

Pantheon Report

Generated at 2018-02-17 07:30:13 (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.

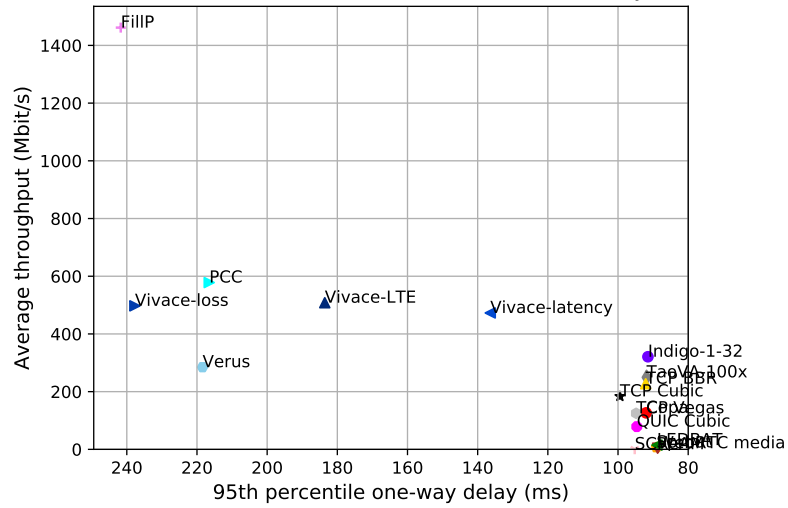
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

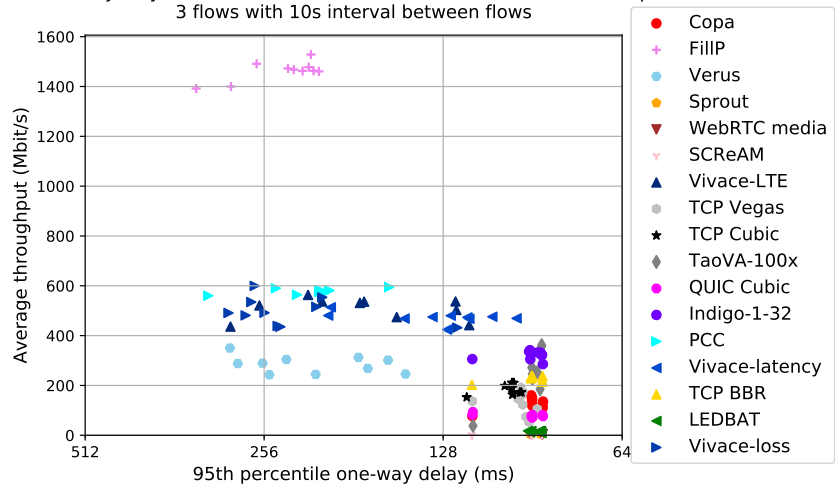
Git summary:

```
branch: master @ cccb2d77344969a7bac1df6edf6c0cfb6c77a6f8
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 8400b8926887fc4cf8c795a1d7ce2c8ac041ec72
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 @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/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



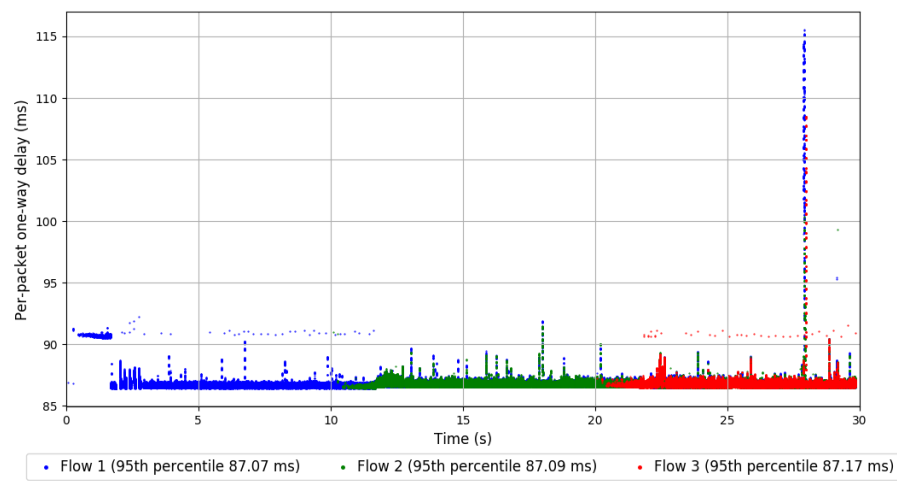
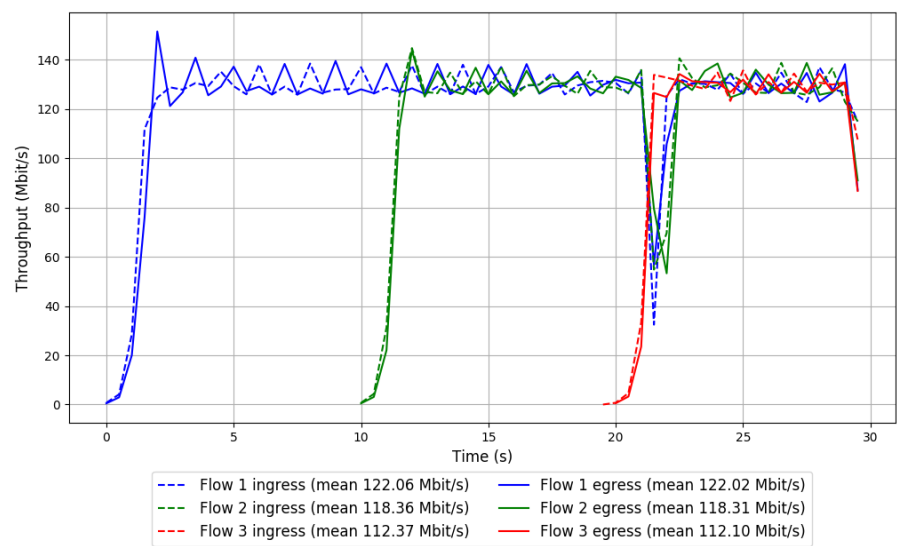
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	115.53	115.77	107.55	91.78	92.14	92.11	0.65	1.01	2.16
TCP Cubic	10	93.22	106.98	59.72	98.98	97.38	97.06	0.68	0.90	3.54
LEDBAT	10	9.77	5.89	3.28	89.00	88.52	88.31	1.33	1.75	3.84
PCC	10	530.07	59.01	27.48	218.81	191.59	187.12	3.06	1.98	2.95
QUIC Cubic	10	47.25	37.38	19.61	89.56	92.28	87.58	0.70	1.42	2.17
SCReAM	10	0.22	0.22	0.21	89.81	88.61	93.23	0.59	0.91	1.61
WebRTC media	10	2.06	1.34	0.54	87.87	88.21	88.21	0.86	1.02	2.83
Sprout	10	3.66	3.24	2.23	91.69	88.91	91.10	0.81	1.29	2.83
TaoVA-100x	10	150.47	122.88	97.69	88.55	93.33	90.83	0.38	0.83	2.33
TCP Vegas	10	63.50	62.00	62.78	93.75	91.95	93.72	0.62	0.98	2.06
Verus	10	158.34	153.03	77.76	179.96	227.67	202.84	1.37	4.15	4.07
Copa	10	68.51	62.74	51.61	91.56	91.65	90.91	0.29	1.21	2.02
FillP	10	772.12	723.90	639.65	232.21	250.40	247.29	9.59	10.98	15.34
Indigo-1-32	10	177.80	156.98	122.01	91.38	91.86	91.24	0.56	0.93	2.20
Vivace-latency	10	298.01	198.73	132.59	149.25	109.38	112.98	1.03	0.90	2.82
Vivace-loss	10	293.34	227.75	163.79	243.59	205.36	165.82	3.53	3.48	3.23
Vivace-LTE	10	315.80	216.65	150.22	194.99	119.08	174.74	1.39	1.22	3.87

```
Run 1: Statistics of TCP BBR

Start at: 2018-02-16 23:01:37
End at: 2018-02-16 23:02:07

# Below is generated by plot.py at 2018-02-17 05:24:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.30 Mbit/s
95th percentile per-packet one-way delay: 87.088 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 122.02 Mbit/s
95th percentile per-packet one-way delay: 87.067 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 118.31 Mbit/s
95th percentile per-packet one-way delay: 87.089 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 112.10 Mbit/s
95th percentile per-packet one-way delay: 87.172 ms
Loss rate: 1.99%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-02-16 23:20:29

End at: 2018-02-16 23:20:59

Below is generated by plot.py at 2018-02-17 05:24:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 234.15 Mbit/s

95th percentile per-packet one-way delay: 91.047 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 120.48 Mbit/s

95th percentile per-packet one-way delay: 90.973 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 117.28 Mbit/s

95th percentile per-packet one-way delay: 91.018 ms

Loss rate: 1.14%

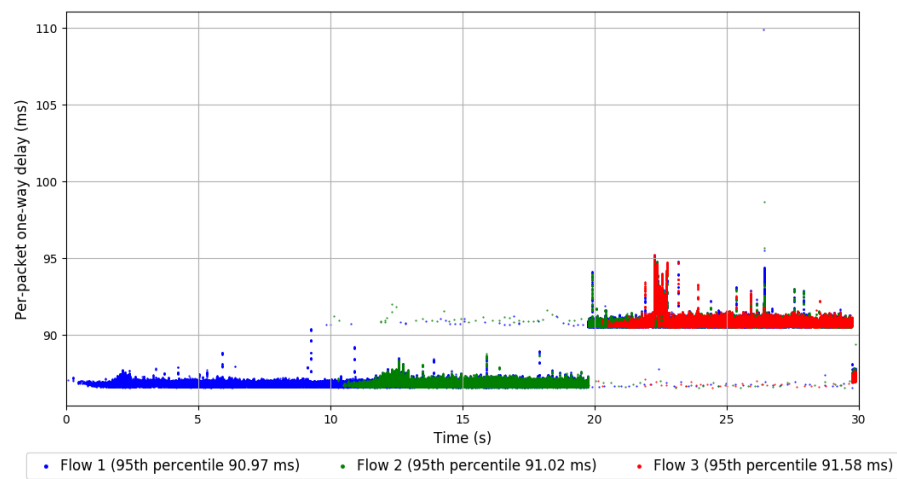
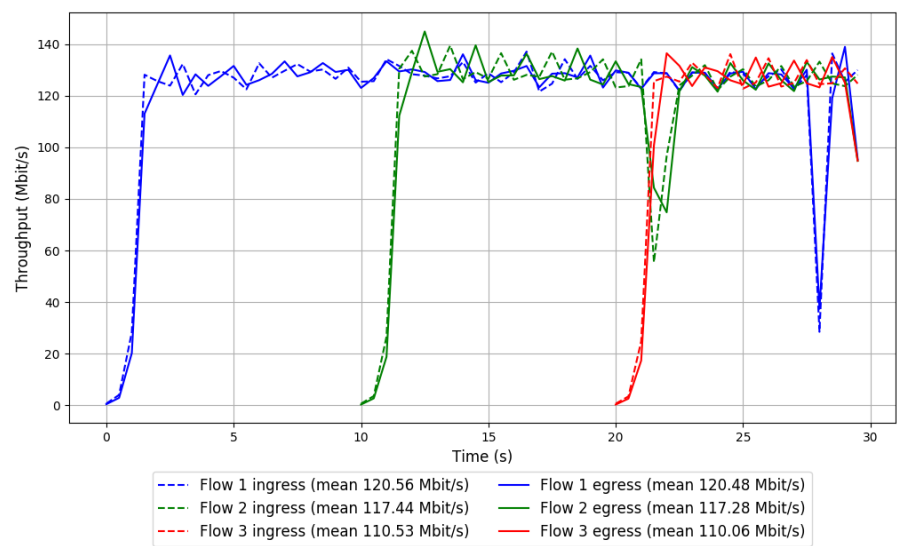
-- Flow 3:

Average throughput: 110.06 Mbit/s

95th percentile per-packet one-way delay: 91.575 ms

Loss rate: 2.43%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-02-16 23:39:47

End at: 2018-02-16 23:40:17

Below is generated by plot.py at 2018-02-17 05:24:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 233.09 Mbit/s

95th percentile per-packet one-way delay: 90.871 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 119.92 Mbit/s

95th percentile per-packet one-way delay: 90.852 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 117.22 Mbit/s

95th percentile per-packet one-way delay: 90.939 ms

Loss rate: 0.95%

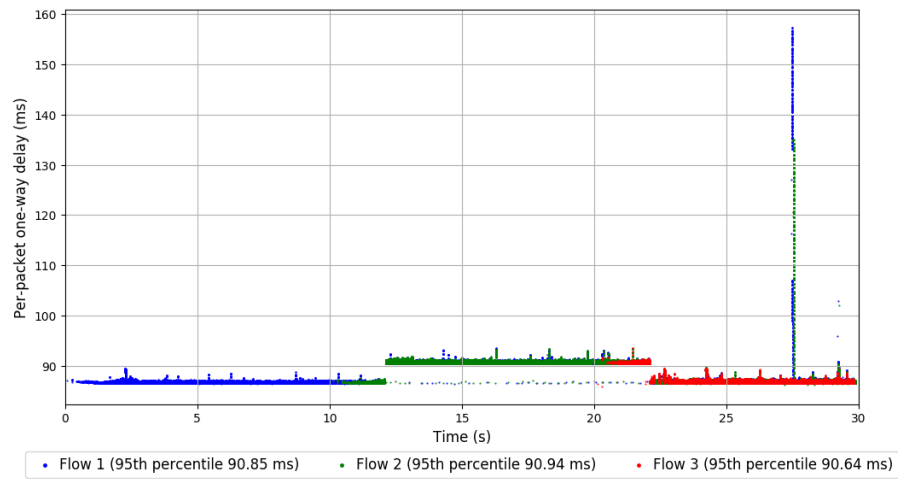
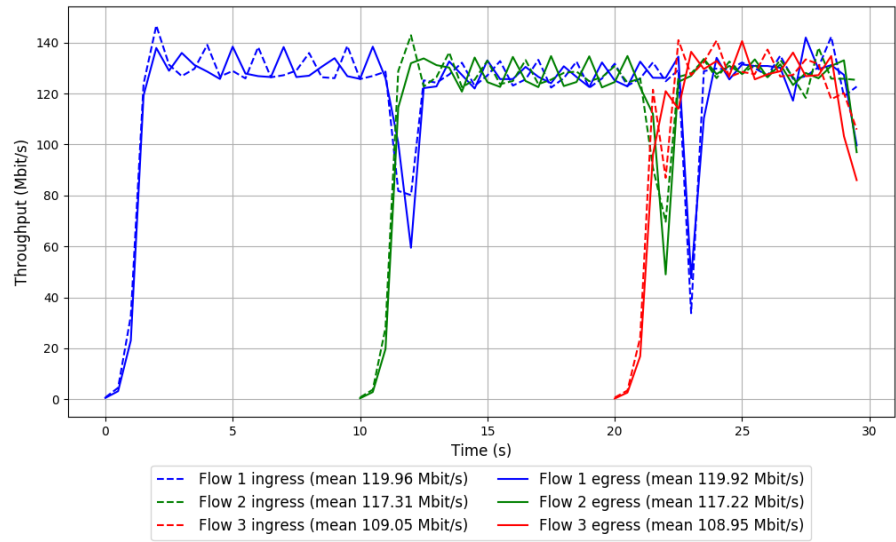
-- Flow 3:

Average throughput: 108.95 Mbit/s

95th percentile per-packet one-way delay: 90.637 ms

Loss rate: 2.21%

Run 3: Report of TCP BBR — Data Link

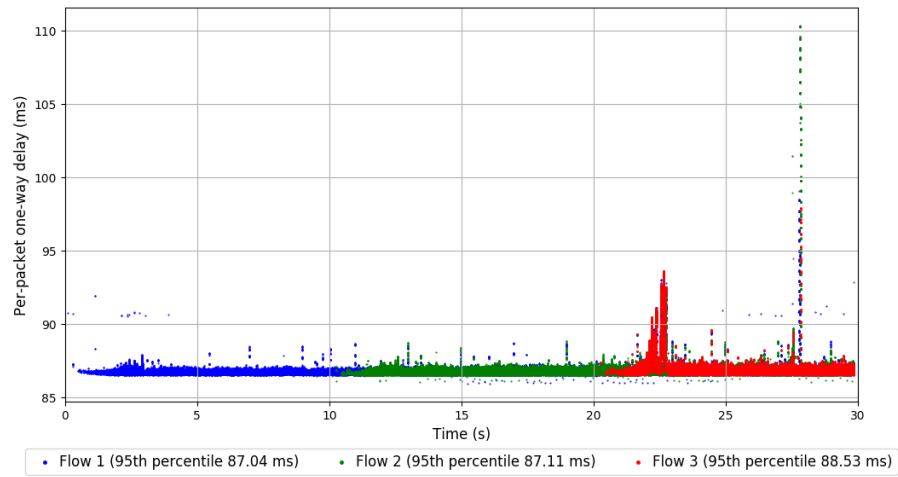
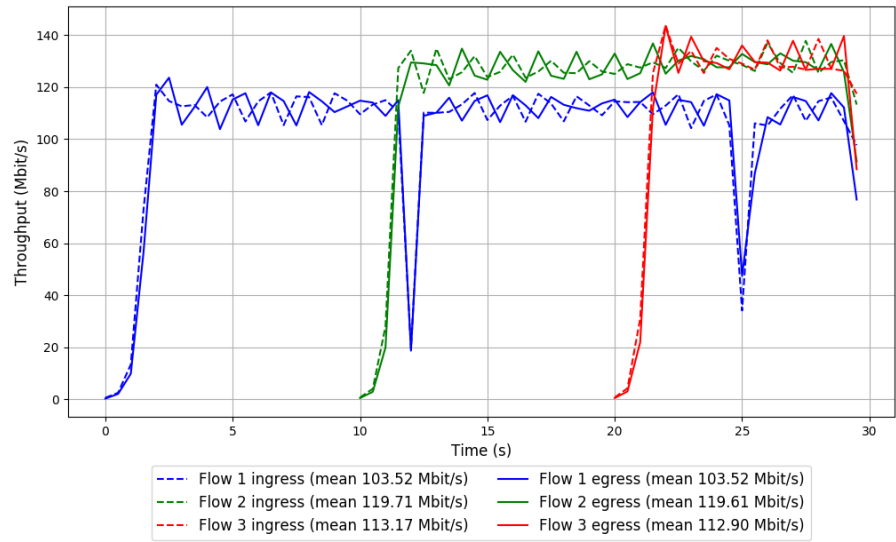


```
Run 4: Statistics of TCP BBR

Start at: 2018-02-16 23:58:54
End at: 2018-02-16 23:59:24

# Below is generated by plot.py at 2018-02-17 05:24:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.87 Mbit/s
95th percentile per-packet one-way delay: 87.146 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 103.52 Mbit/s
95th percentile per-packet one-way delay: 87.041 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 119.61 Mbit/s
95th percentile per-packet one-way delay: 87.114 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 112.90 Mbit/s
95th percentile per-packet one-way delay: 88.533 ms
Loss rate: 1.99%
```

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-02-17 00:18:01

End at: 2018-02-17 00:18:31

Below is generated by plot.py at 2018-02-17 05:24:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 215.34 Mbit/s

95th percentile per-packet one-way delay: 87.334 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 110.40 Mbit/s

95th percentile per-packet one-way delay: 87.233 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 102.75 Mbit/s

95th percentile per-packet one-way delay: 87.272 ms

Loss rate: 1.08%

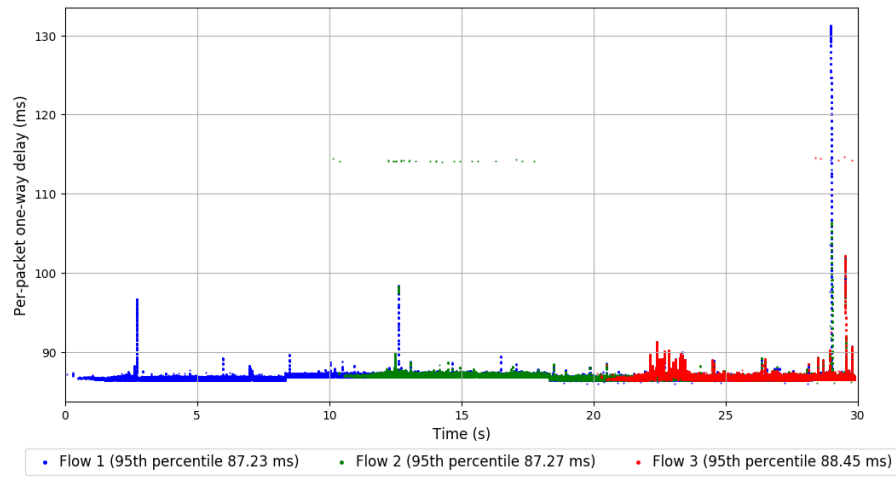
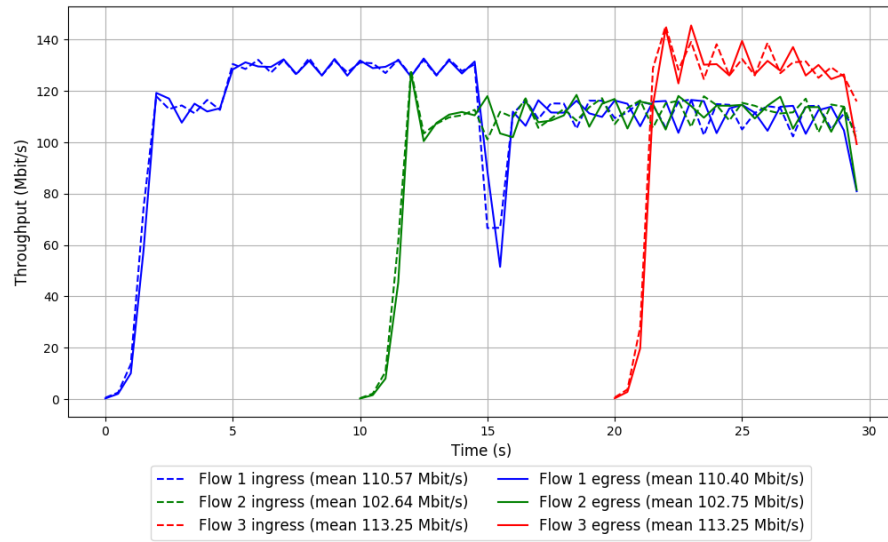
-- Flow 3:

Average throughput: 113.25 Mbit/s

95th percentile per-packet one-way delay: 88.454 ms

Loss rate: 1.76%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-02-17 00:37:30

End at: 2018-02-17 00:38:00

Below is generated by plot.py at 2018-02-17 05:24:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 202.43 Mbit/s

95th percentile per-packet one-way delay: 114.509 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 100.17 Mbit/s

95th percentile per-packet one-way delay: 114.415 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 110.62 Mbit/s

95th percentile per-packet one-way delay: 114.480 ms

Loss rate: 1.20%

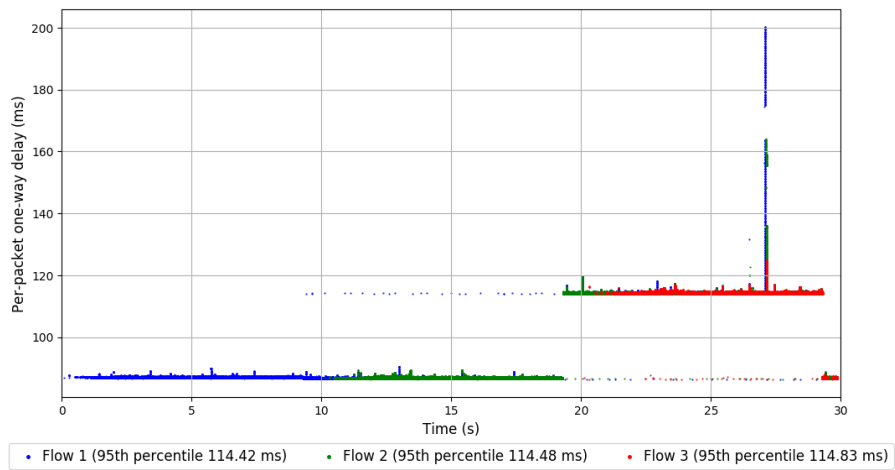
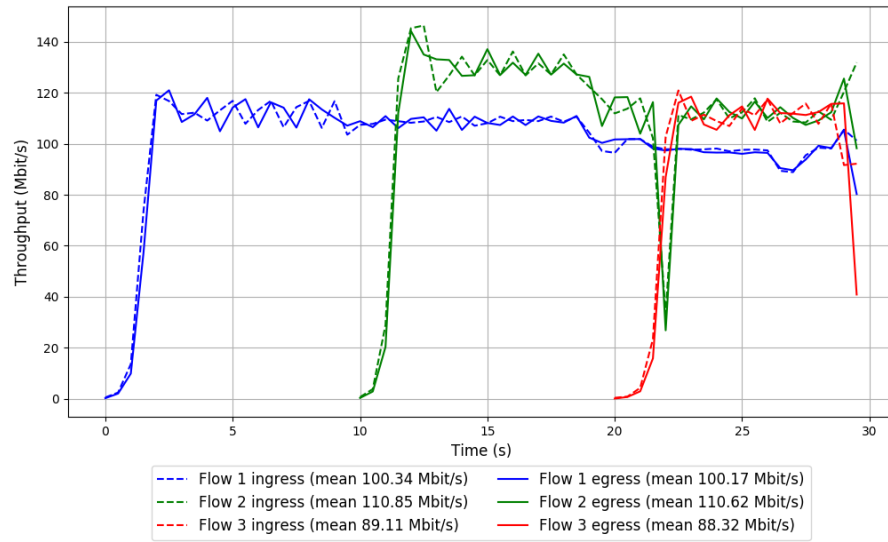
-- Flow 3:

Average throughput: 88.32 Mbit/s

95th percentile per-packet one-way delay: 114.830 ms

Loss rate: 2.90%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-02-17 00:56:30

End at: 2018-02-17 00:57:00

Below is generated by plot.py at 2018-02-17 05:24:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 234.59 Mbit/s

95th percentile per-packet one-way delay: 90.444 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 121.03 Mbit/s

95th percentile per-packet one-way delay: 87.530 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 117.29 Mbit/s

95th percentile per-packet one-way delay: 90.746 ms

Loss rate: 1.00%

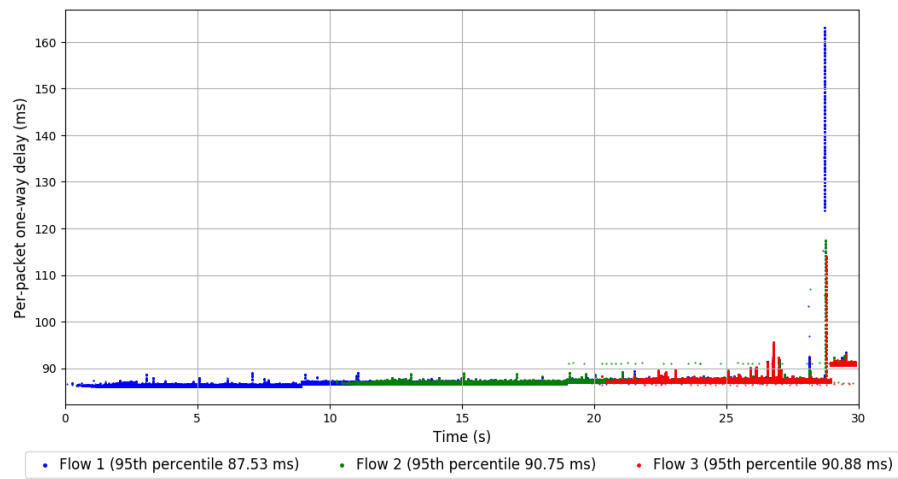
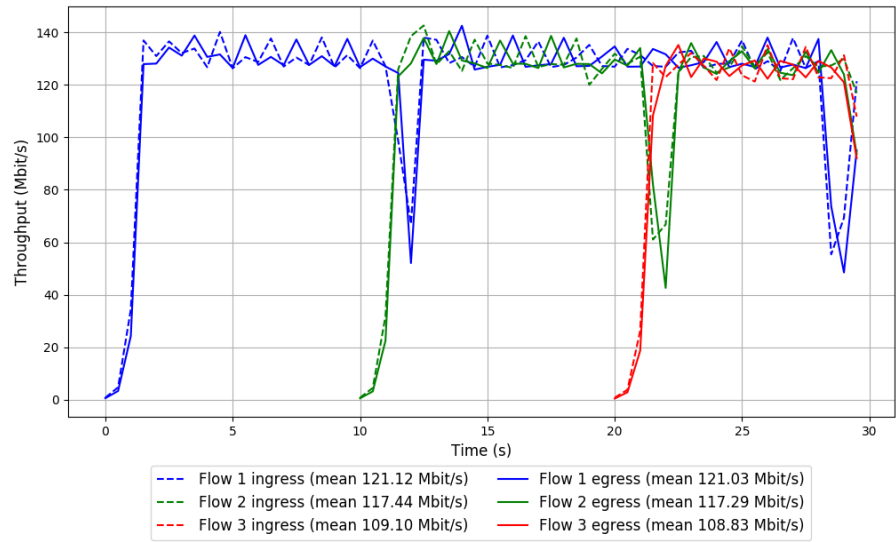
-- Flow 3:

Average throughput: 108.83 Mbit/s

95th percentile per-packet one-way delay: 90.883 ms

Loss rate: 1.99%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-02-17 01:15:25

End at: 2018-02-17 01:15:55

Below is generated by plot.py at 2018-02-17 05:24:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 231.01 Mbit/s

95th percentile per-packet one-way delay: 90.855 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 119.06 Mbit/s

95th percentile per-packet one-way delay: 90.868 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 119.13 Mbit/s

95th percentile per-packet one-way delay: 90.839 ms

Loss rate: 0.94%

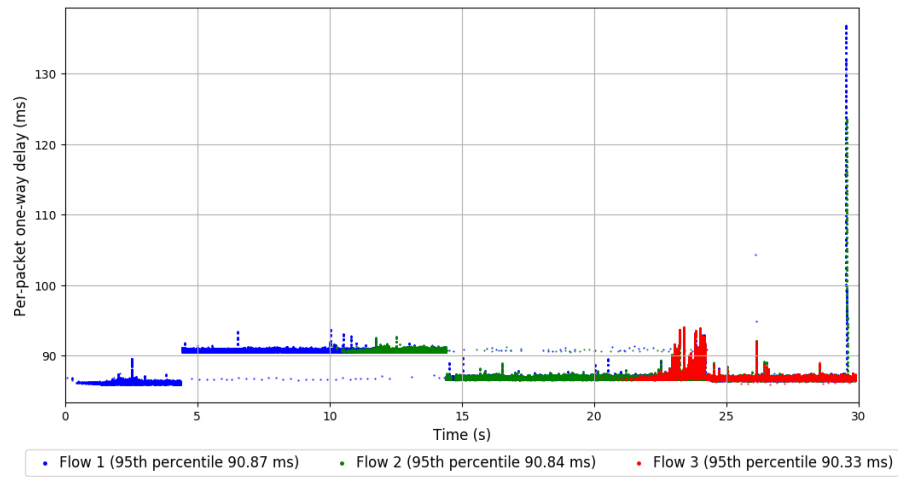
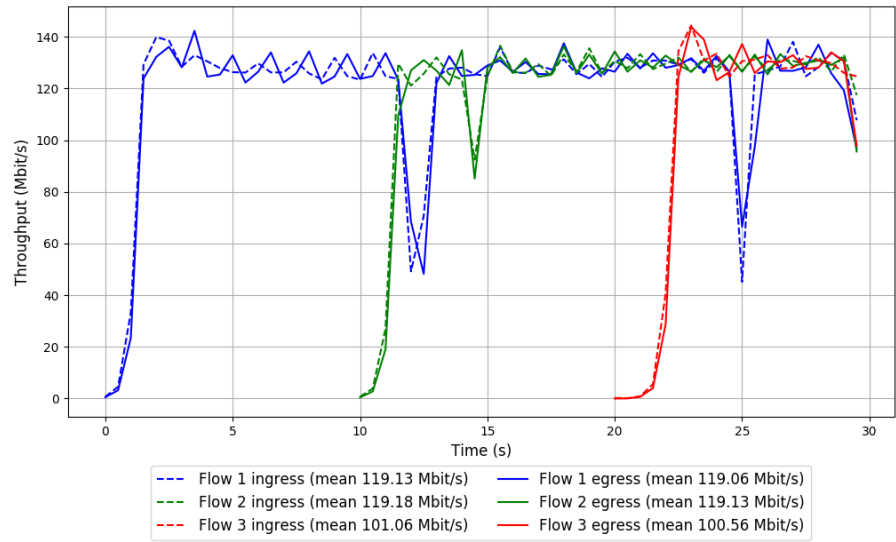
-- Flow 3:

Average throughput: 100.56 Mbit/s

95th percentile per-packet one-way delay: 90.331 ms

Loss rate: 2.23%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-02-17 01:34:10

End at: 2018-02-17 01:34:40

Below is generated by plot.py at 2018-02-17 05:27:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.48 Mbit/s

95th percentile per-packet one-way delay: 90.798 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 121.39 Mbit/s

95th percentile per-packet one-way delay: 90.809 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 120.25 Mbit/s

95th percentile per-packet one-way delay: 90.826 ms

Loss rate: 0.93%

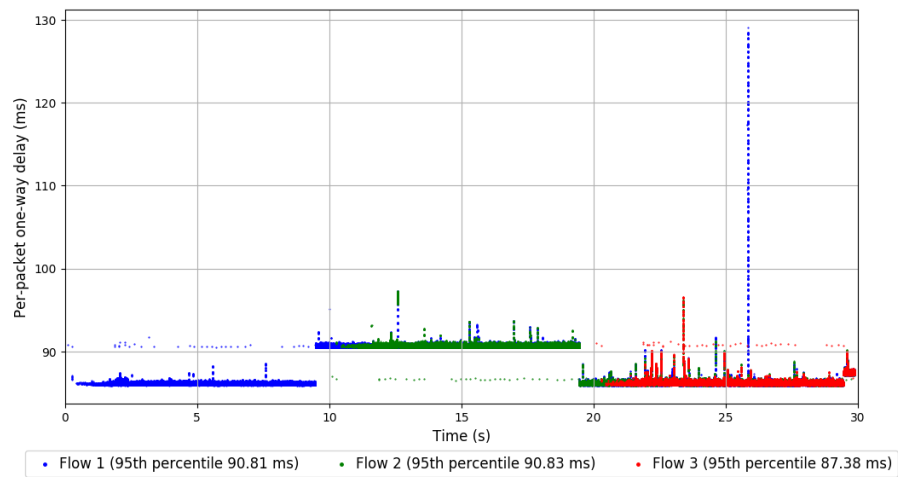
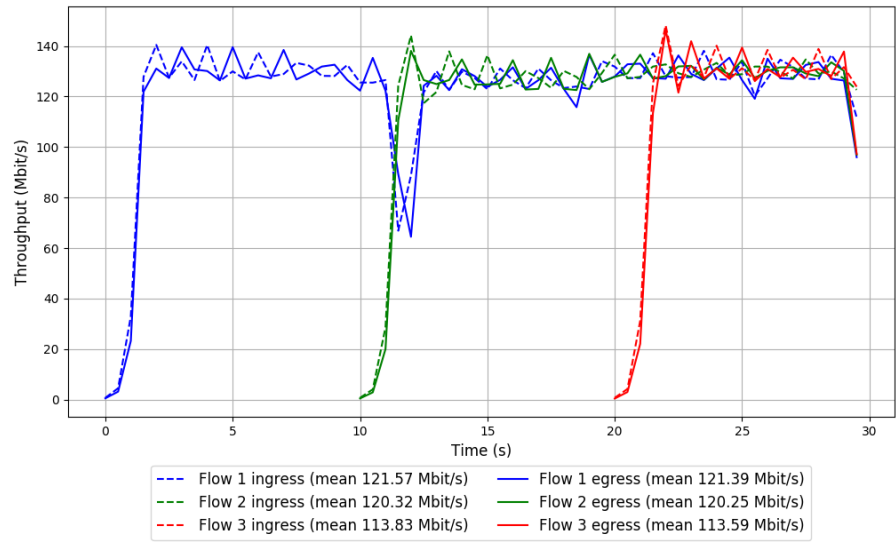
-- Flow 3:

Average throughput: 113.59 Mbit/s

95th percentile per-packet one-way delay: 87.376 ms

Loss rate: 2.01%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-02-17 01:52:57

End at: 2018-02-17 01:53:27

Below is generated by plot.py at 2018-02-17 05:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 228.75 Mbit/s

95th percentile per-packet one-way delay: 91.067 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 117.30 Mbit/s

95th percentile per-packet one-way delay: 91.030 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 115.19 Mbit/s

95th percentile per-packet one-way delay: 91.052 ms

Loss rate: 0.97%

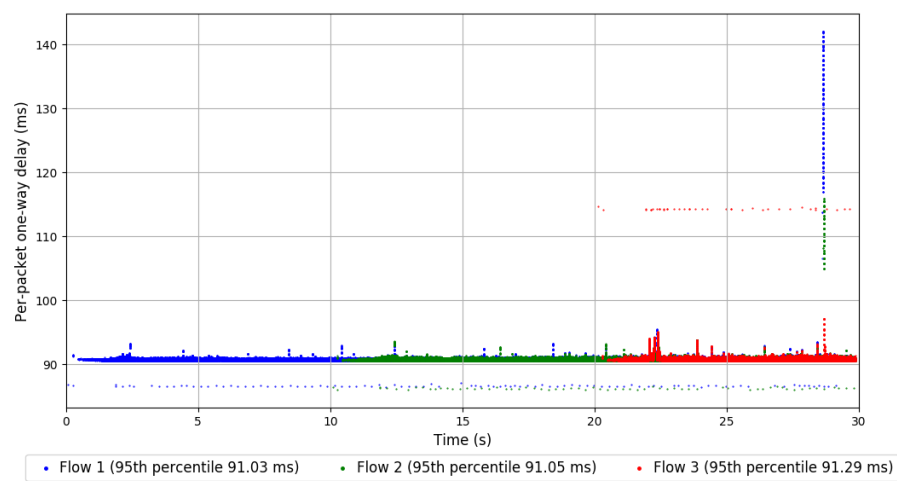
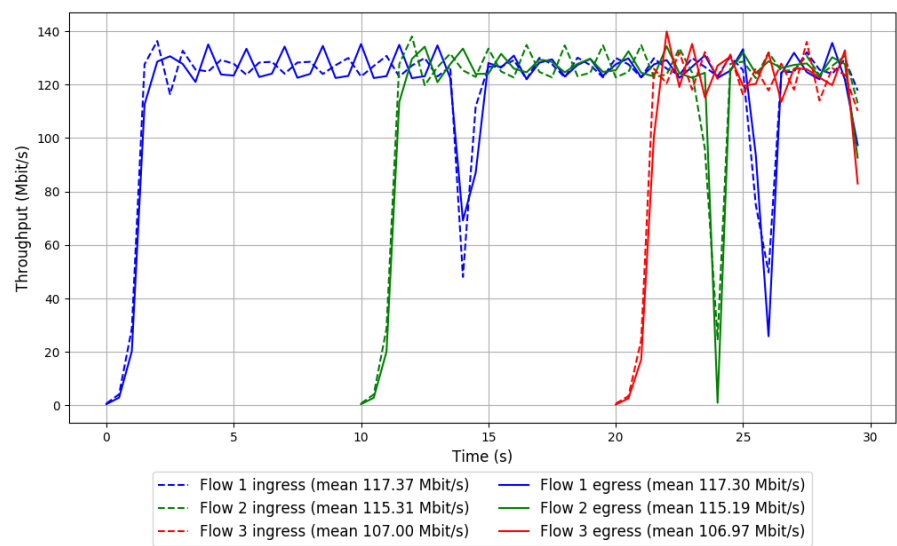
-- Flow 3:

Average throughput: 106.97 Mbit/s

95th percentile per-packet one-way delay: 91.286 ms

Loss rate: 2.05%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-02-16 23:06:35

End at: 2018-02-16 23:07:05

Below is generated by plot.py at 2018-02-17 05:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 196.96 Mbit/s

95th percentile per-packet one-way delay: 98.255 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 108.12 Mbit/s

95th percentile per-packet one-way delay: 95.946 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 95.51 Mbit/s

95th percentile per-packet one-way delay: 98.622 ms

Loss rate: 0.81%

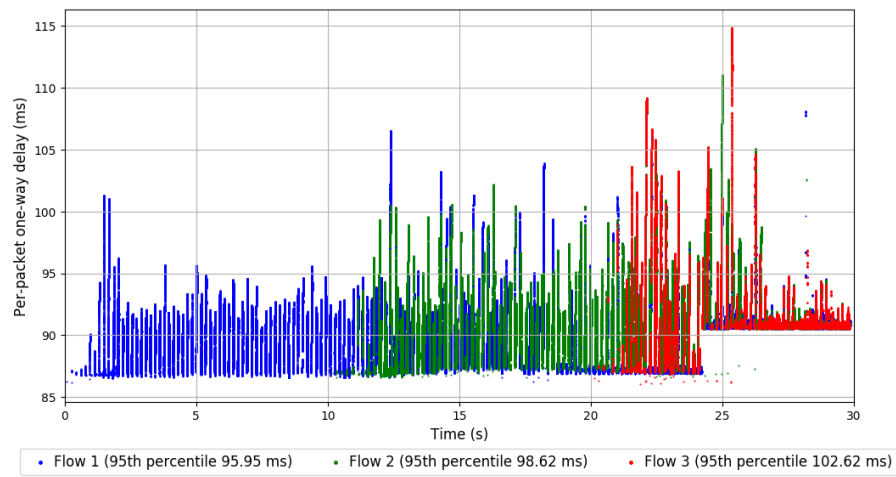
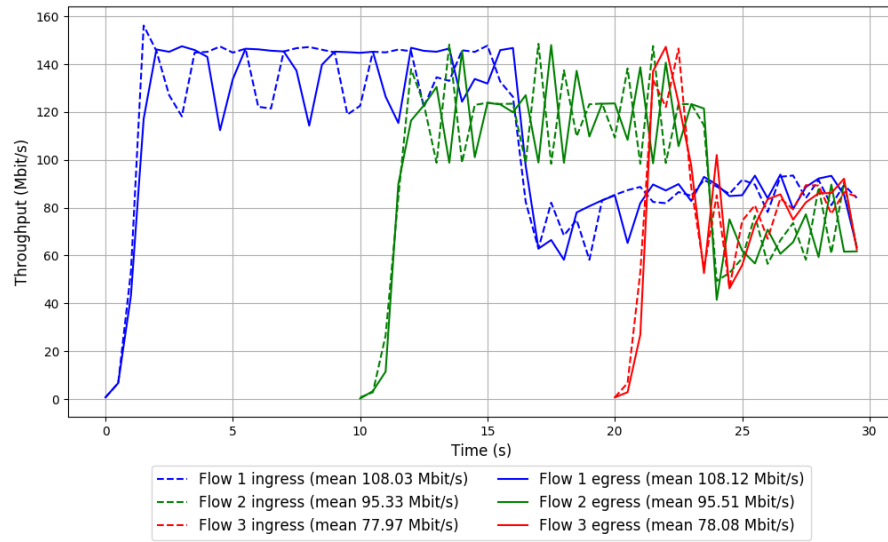
-- Flow 3:

Average throughput: 78.08 Mbit/s

95th percentile per-packet one-way delay: 102.617 ms

Loss rate: 2.01%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-02-16 23:25:43

End at: 2018-02-16 23:26:13

Below is generated by plot.py at 2018-02-17 05:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 172.38 Mbit/s

95th percentile per-packet one-way delay: 95.122 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 76.35 Mbit/s

95th percentile per-packet one-way delay: 93.898 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 85.71 Mbit/s

95th percentile per-packet one-way delay: 95.986 ms

Loss rate: 1.01%

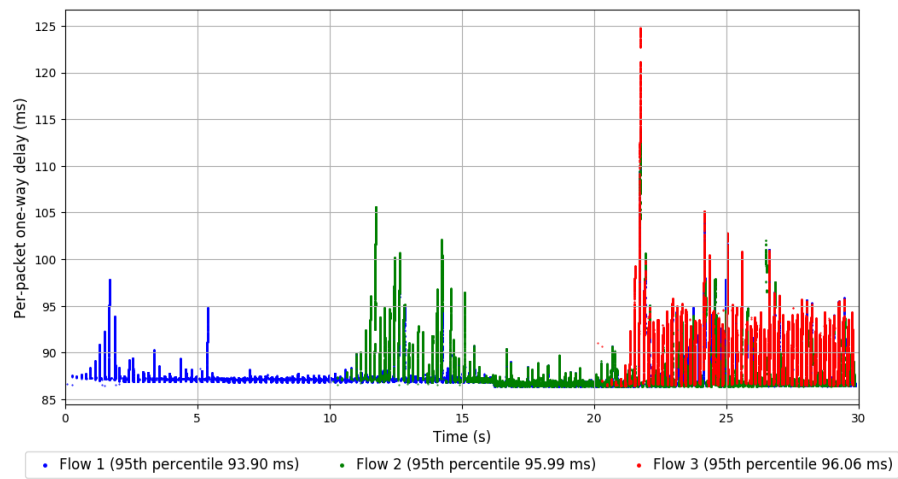
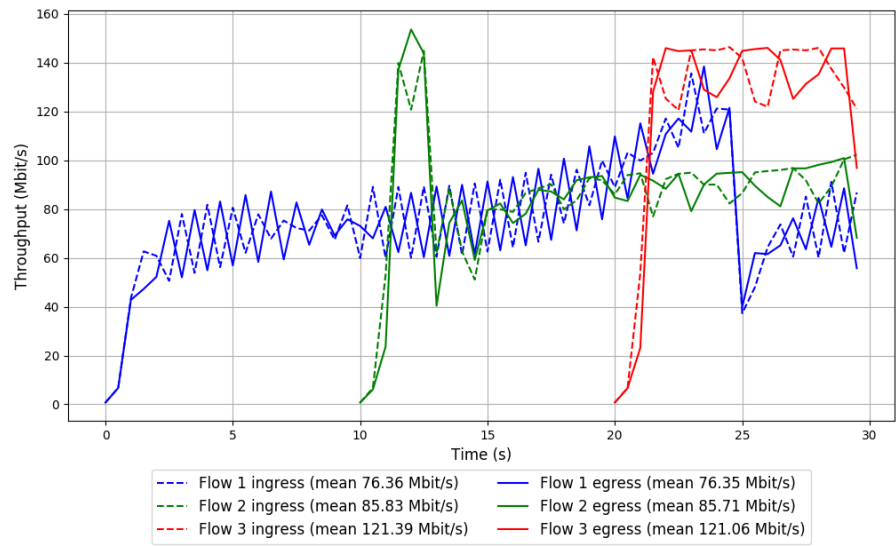
-- Flow 3:

Average throughput: 121.06 Mbit/s

95th percentile per-packet one-way delay: 96.058 ms

Loss rate: 2.04%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-02-16 23:44:48

End at: 2018-02-16 23:45:18

Below is generated by plot.py at 2018-02-17 05:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.40 Mbit/s

95th percentile per-packet one-way delay: 98.103 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 89.88 Mbit/s

95th percentile per-packet one-way delay: 97.901 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 123.41 Mbit/s

95th percentile per-packet one-way delay: 98.085 ms

Loss rate: 0.52%

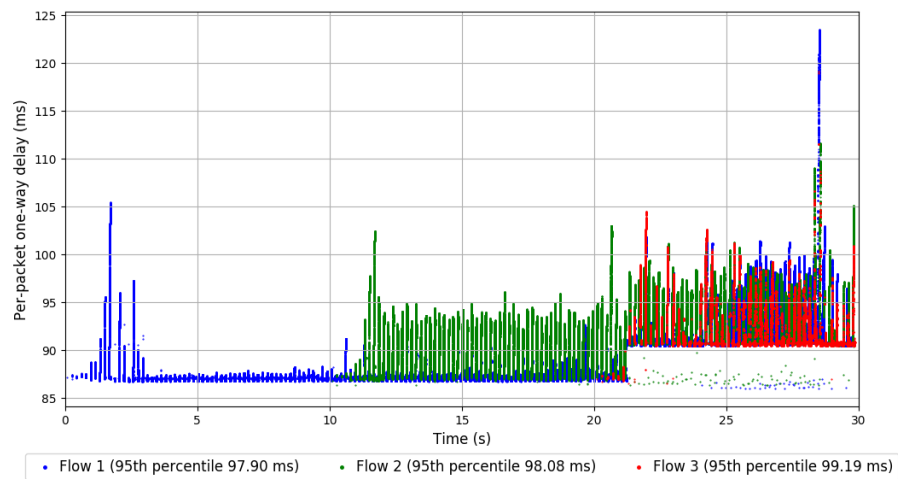
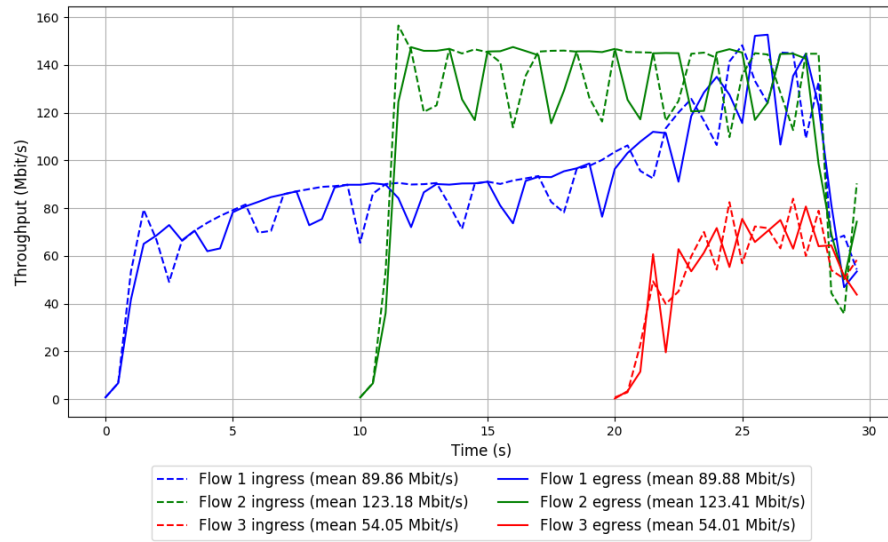
-- Flow 3:

Average throughput: 54.01 Mbit/s

95th percentile per-packet one-way delay: 99.185 ms

Loss rate: 2.10%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-02-17 00:03:54

End at: 2018-02-17 00:04:24

Below is generated by plot.py at 2018-02-17 05:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 172.43 Mbit/s

95th percentile per-packet one-way delay: 94.531 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 94.48 Mbit/s

95th percentile per-packet one-way delay: 94.639 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 74.13 Mbit/s

95th percentile per-packet one-way delay: 94.922 ms

Loss rate: 1.11%

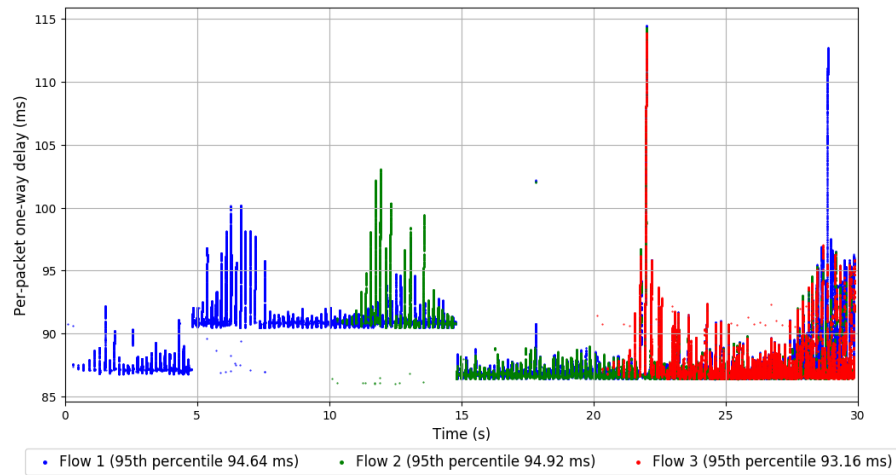
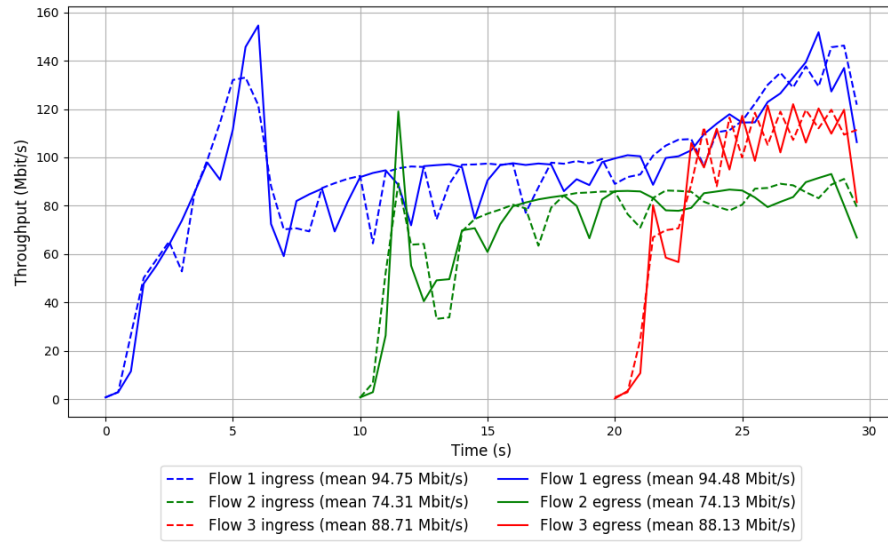
-- Flow 3:

Average throughput: 88.13 Mbit/s

95th percentile per-packet one-way delay: 93.157 ms

Loss rate: 2.63%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-02-17 00:23:16

End at: 2018-02-17 00:23:46

Below is generated by plot.py at 2018-02-17 05:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 198.03 Mbit/s

95th percentile per-packet one-way delay: 100.837 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 94.20 Mbit/s

95th percentile per-packet one-way delay: 98.624 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 117.43 Mbit/s

95th percentile per-packet one-way delay: 101.800 ms

Loss rate: 0.98%

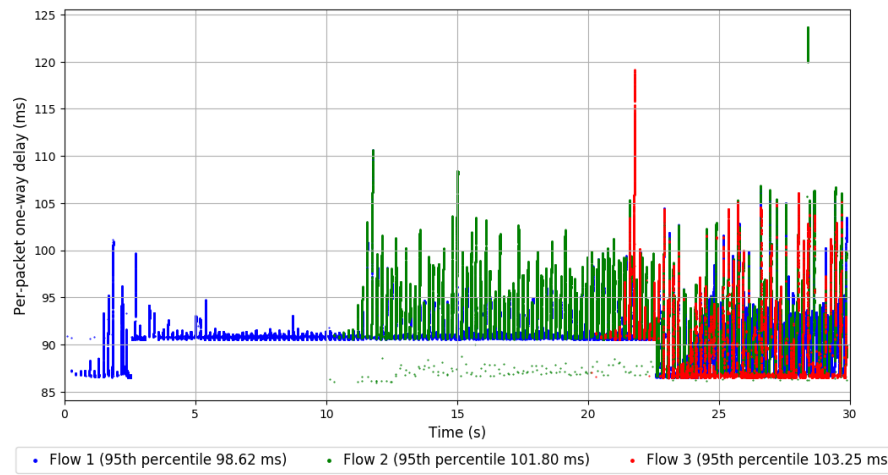
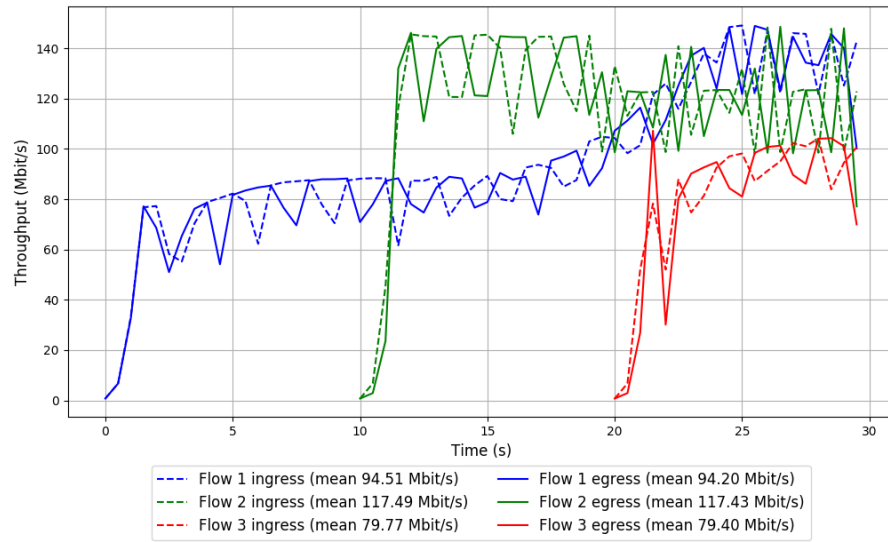
-- Flow 3:

Average throughput: 79.40 Mbit/s

95th percentile per-packet one-way delay: 103.250 ms

Loss rate: 2.21%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-02-17 00:42:39

End at: 2018-02-17 00:43:09

Below is generated by plot.py at 2018-02-17 05:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.74 Mbit/s

95th percentile per-packet one-way delay: 116.828 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 69.10 Mbit/s

95th percentile per-packet one-way delay: 119.240 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 100.47 Mbit/s

95th percentile per-packet one-way delay: 95.694 ms

Loss rate: 0.79%

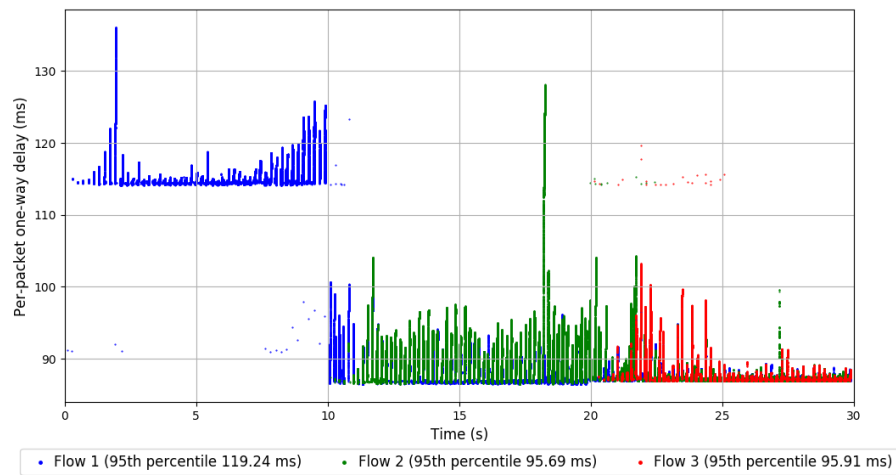
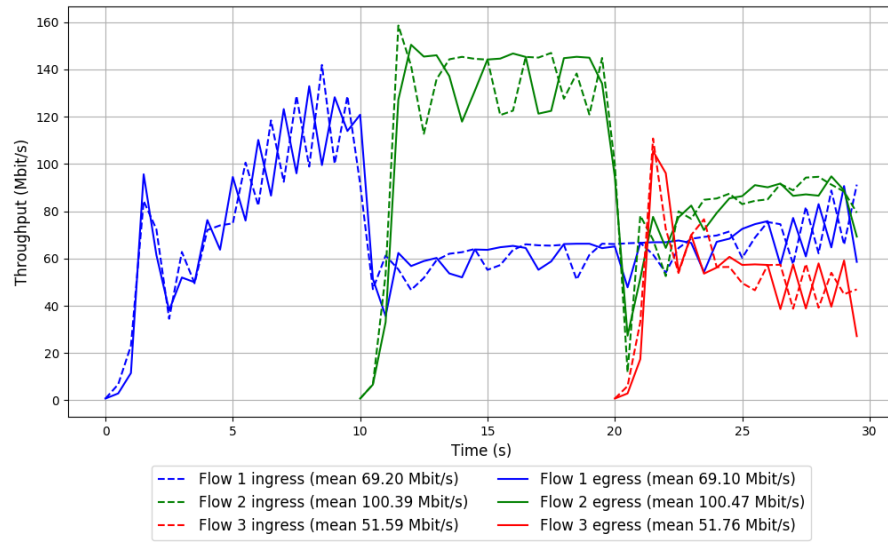
-- Flow 3:

Average throughput: 51.76 Mbit/s

95th percentile per-packet one-way delay: 95.913 ms

Loss rate: 1.97%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-02-17 01:01:32

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

Below is generated by plot.py at 2018-02-17 05:30:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 210.52 Mbit/s

95th percentile per-packet one-way delay: 97.349 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 124.81 Mbit/s

95th percentile per-packet one-way delay: 97.539 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 128.66 Mbit/s

95th percentile per-packet one-way delay: 97.043 ms

Loss rate: 0.95%

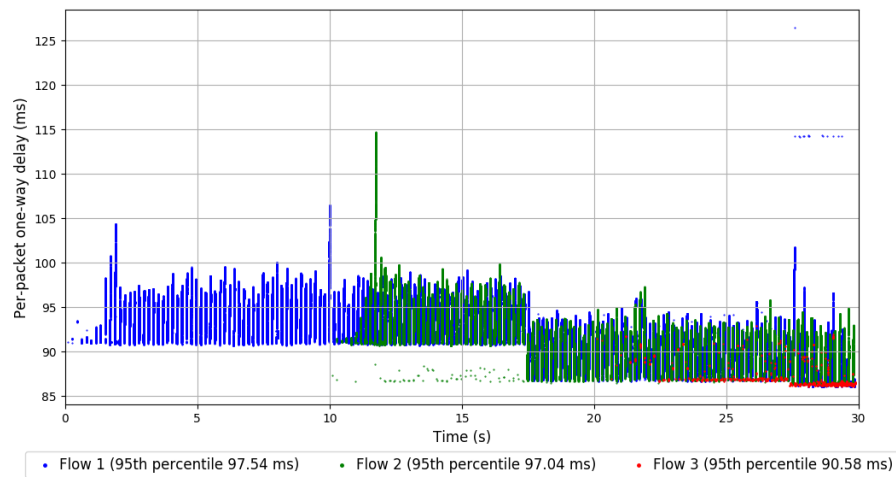
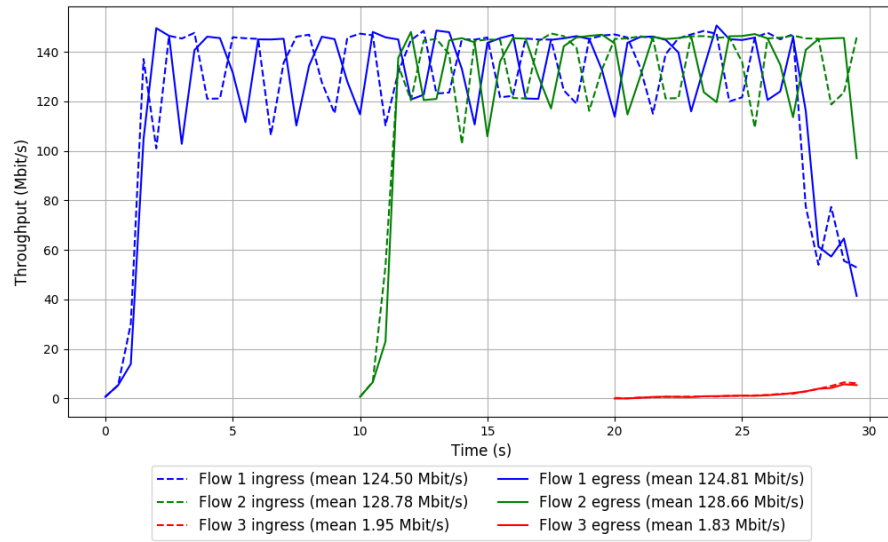
-- Flow 3:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 90.578 ms

Loss rate: 7.22%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-02-17 01:20:23

End at: 2018-02-17 01:20:53

Below is generated by plot.py at 2018-02-17 05:30:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 170.02 Mbit/s

95th percentile per-packet one-way delay: 97.620 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 84.96 Mbit/s

95th percentile per-packet one-way delay: 96.381 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 126.97 Mbit/s

95th percentile per-packet one-way delay: 98.046 ms

Loss rate: 0.95%

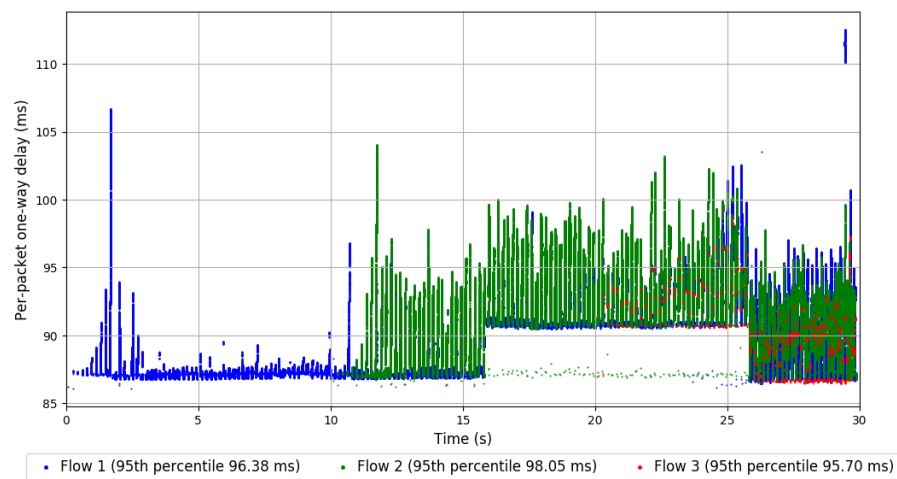
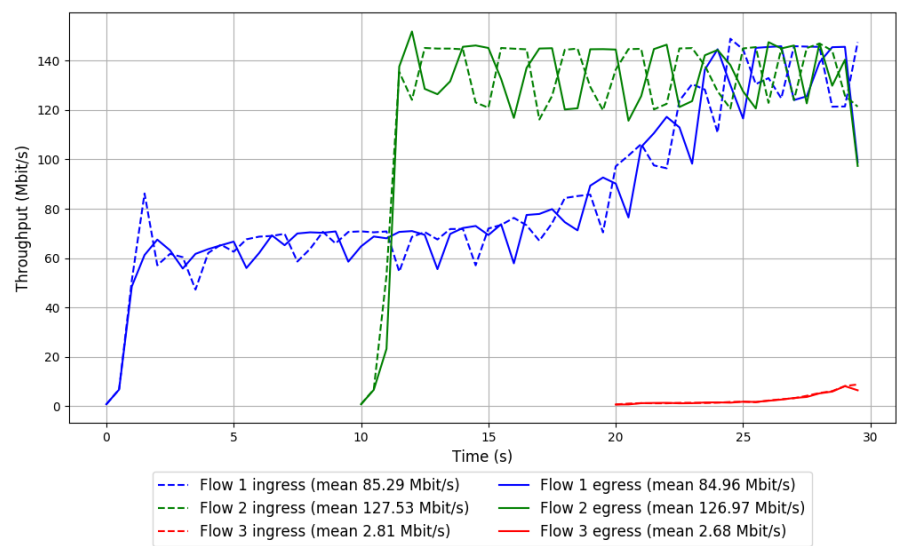
-- Flow 3:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 95.700 ms

Loss rate: 6.43%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-02-17 01:39:10

End at: 2018-02-17 01:39:40

Below is generated by plot.py at 2018-02-17 05:30:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.05 Mbit/s

95th percentile per-packet one-way delay: 97.869 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 102.83 Mbit/s

95th percentile per-packet one-way delay: 98.750 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 89.55 Mbit/s

95th percentile per-packet one-way delay: 96.707 ms

Loss rate: 0.91%

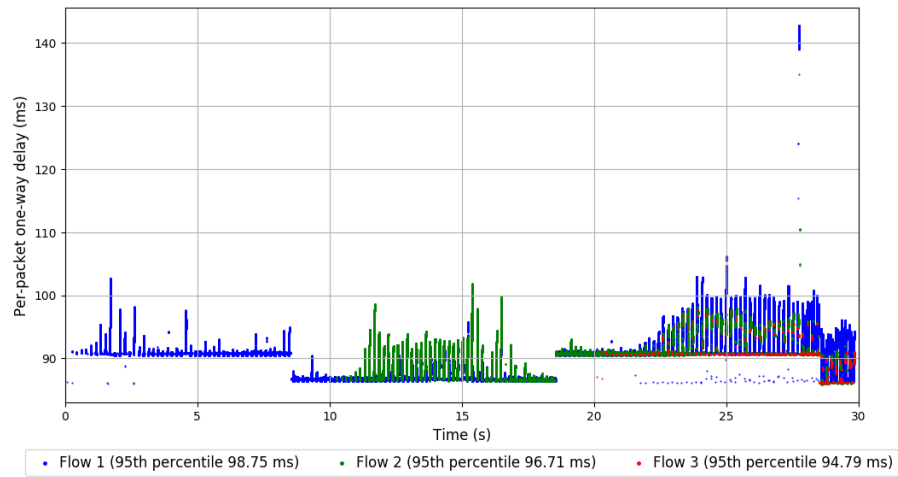
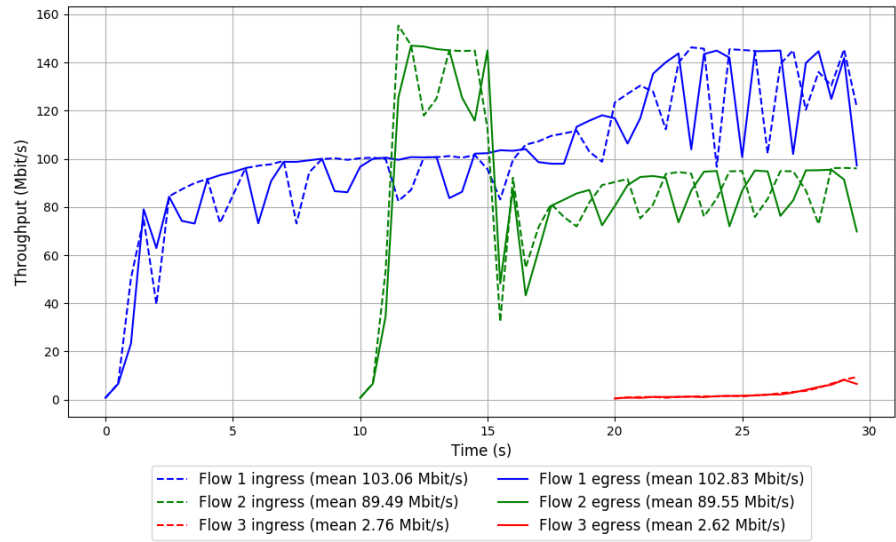
-- Flow 3:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 94.790 ms

Loss rate: 6.76%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-02-17 01:57:35

End at: 2018-02-17 01:58:05

Below is generated by plot.py at 2018-02-17 05:31:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 210.69 Mbit/s

95th percentile per-packet one-way delay: 98.073 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 87.51 Mbit/s

95th percentile per-packet one-way delay: 96.858 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 128.00 Mbit/s

95th percentile per-packet one-way delay: 96.930 ms

Loss rate: 0.95%

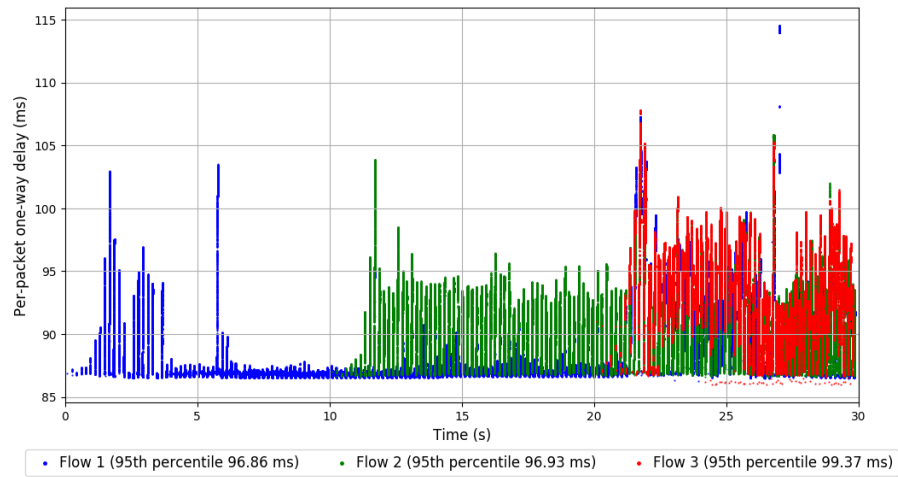
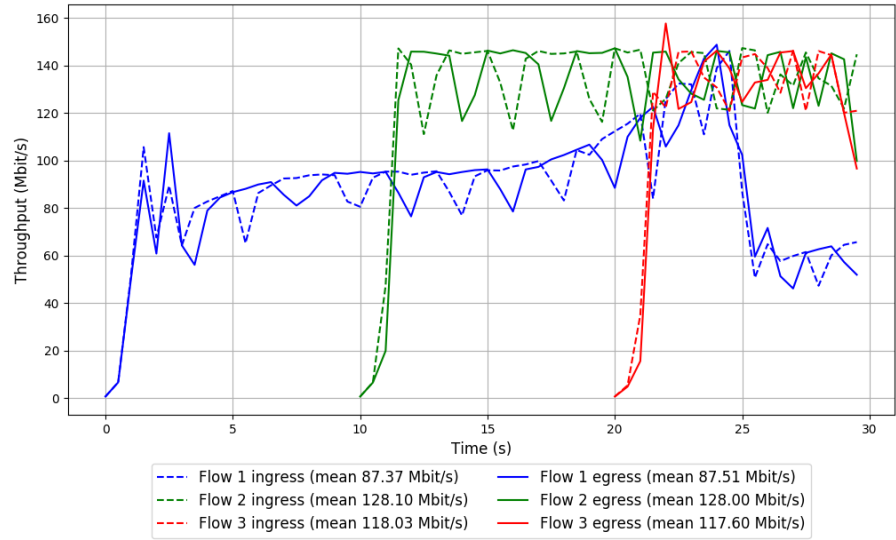
-- Flow 3:

Average throughput: 117.60 Mbit/s

95th percentile per-packet one-way delay: 99.368 ms

Loss rate: 2.08%

Run 10: Report of TCP Cubic — Data Link

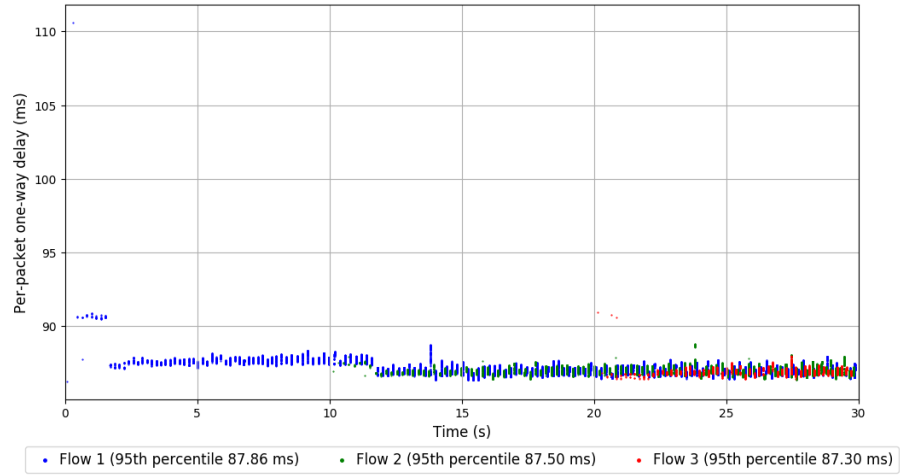
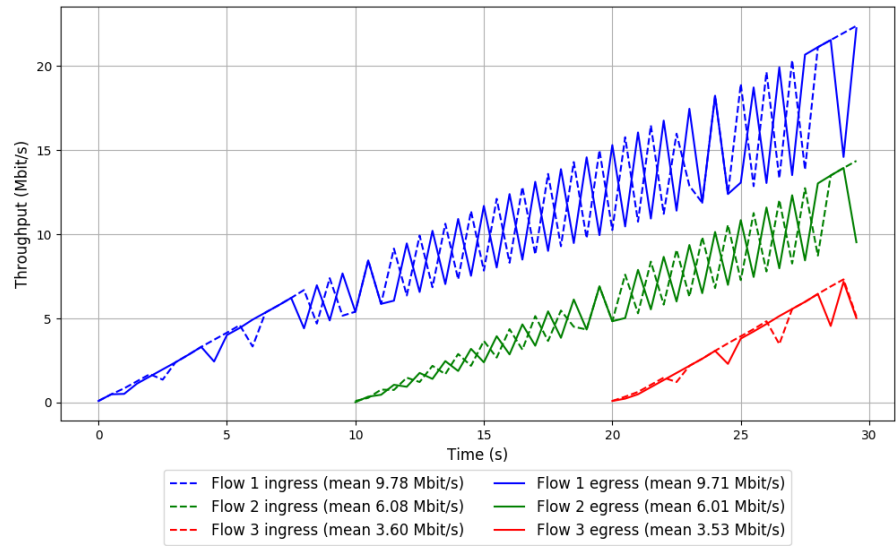


```
Run 1: Statistics of LEDBAT

Start at: 2018-02-16 22:49:47
End at: 2018-02-16 22:50:17

# Below is generated by plot.py at 2018-02-17 05:31:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.83 Mbit/s
95th percentile per-packet one-way delay: 87.788 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 9.71 Mbit/s
95th percentile per-packet one-way delay: 87.865 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 6.01 Mbit/s
95th percentile per-packet one-way delay: 87.496 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 3.53 Mbit/s
95th percentile per-packet one-way delay: 87.302 ms
Loss rate: 3.68%
```


Run 1: Report of LEDBAT — Data Link

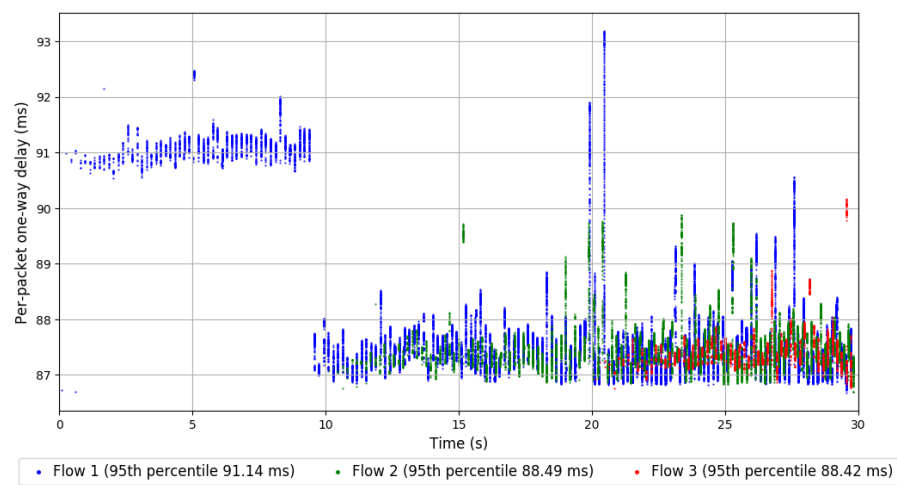
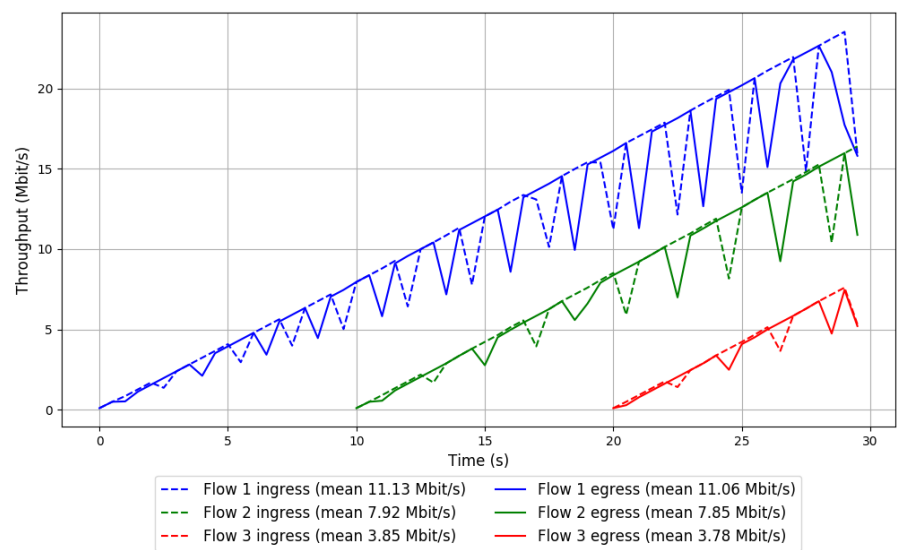


```
Run 2: Statistics of LEDBAT

Start at: 2018-02-16 23:08:49
End at: 2018-02-16 23:09:19

# Below is generated by plot.py at 2018-02-17 05:31:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.45 Mbit/s
95th percentile per-packet one-way delay: 90.963 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 91.138 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 88.489 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 88.418 ms
Loss rate: 3.59%
```

Run 2: Report of LEDBAT — Data Link

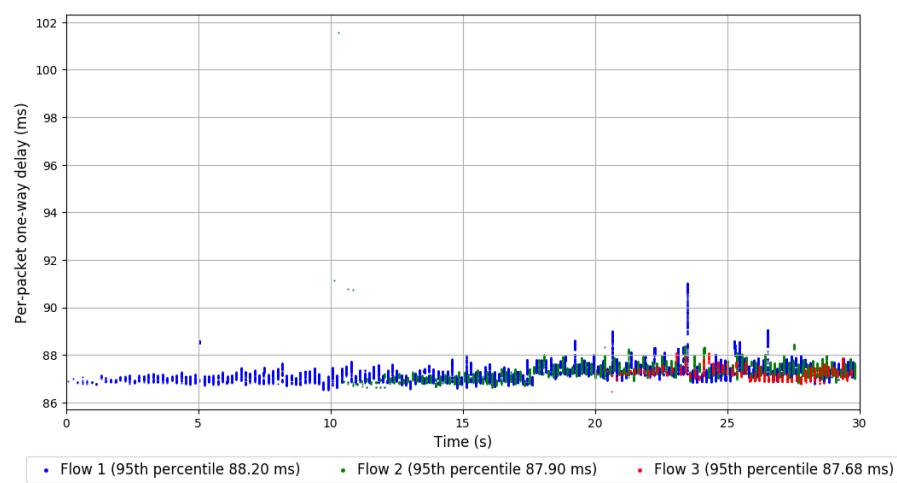
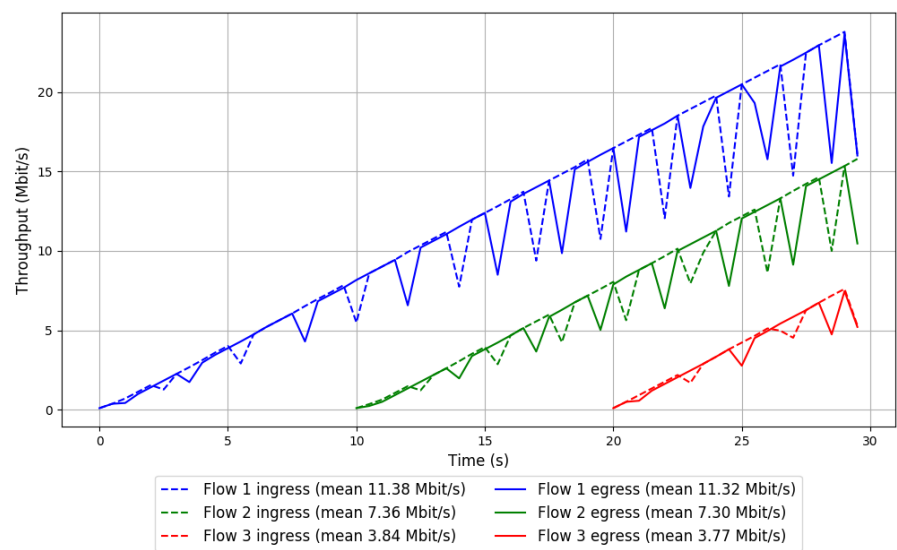


```
Run 3: Statistics of LEDBAT

Start at: 2018-02-16 23:28:01
End at: 2018-02-16 23:28:31

# Below is generated by plot.py at 2018-02-17 05:31:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.33 Mbit/s
95th percentile per-packet one-way delay: 88.023 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 88.204 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 7.30 Mbit/s
95th percentile per-packet one-way delay: 87.904 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 87.677 ms
Loss rate: 3.56%
```

Run 3: Report of LEDBAT — Data Link

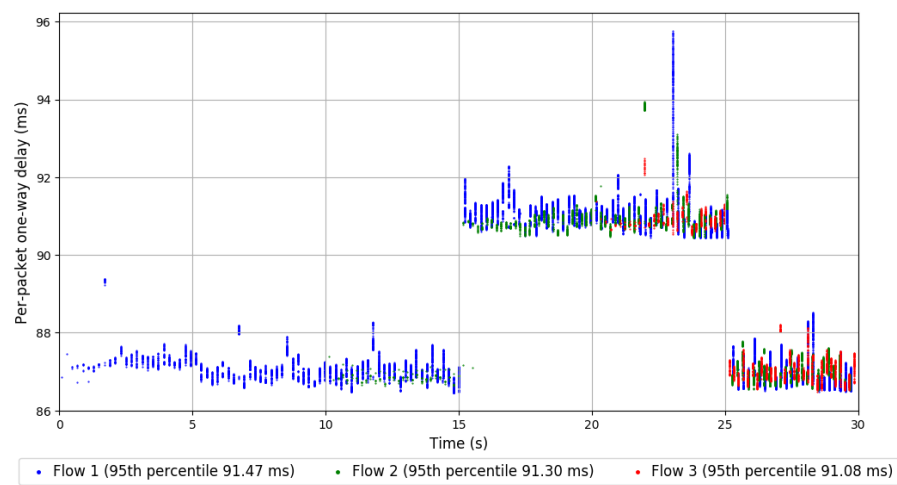
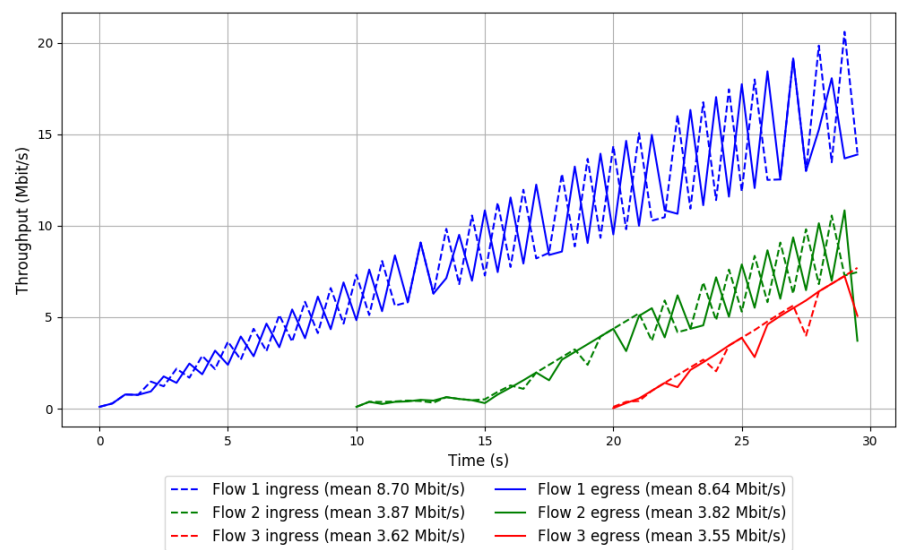


```
Run 4: Statistics of LEDBAT

Start at: 2018-02-16 23:47:04
End at: 2018-02-16 23:47:34

# Below is generated by plot.py at 2018-02-17 05:31:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.27 Mbit/s
95th percentile per-packet one-way delay: 91.423 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 91.467 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 91.295 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 91.082 ms
Loss rate: 3.68%
```

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-02-17 00:06:11

End at: 2018-02-17 00:06:41

Below is generated by plot.py at 2018-02-17 05:31:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.35 Mbit/s

95th percentile per-packet one-way delay: 87.619 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 11.20 Mbit/s

95th percentile per-packet one-way delay: 87.648 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 87.123 ms

Loss rate: 0.00%

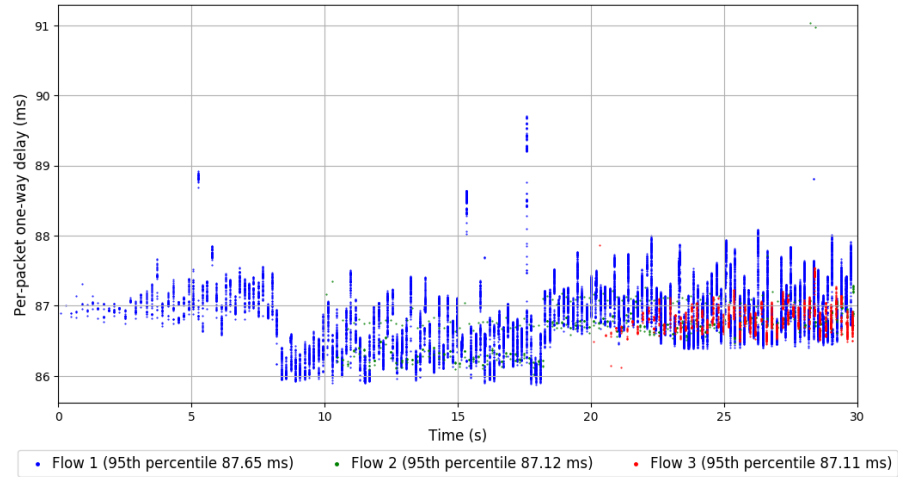
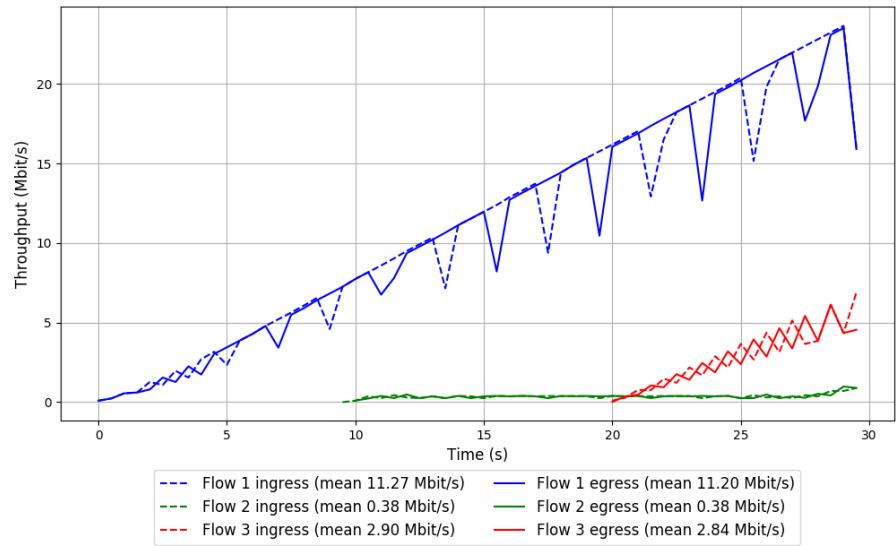
-- Flow 3:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 87.107 ms

Loss rate: 4.09%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-02-17 00:25:37

End at: 2018-02-17 00:26:07

Below is generated by plot.py at 2018-02-17 05:31:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.23 Mbit/s

95th percentile per-packet one-way delay: 87.650 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 11.89 Mbit/s

95th percentile per-packet one-way delay: 87.740 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 5.36 Mbit/s

95th percentile per-packet one-way delay: 87.310 ms

Loss rate: 2.11%

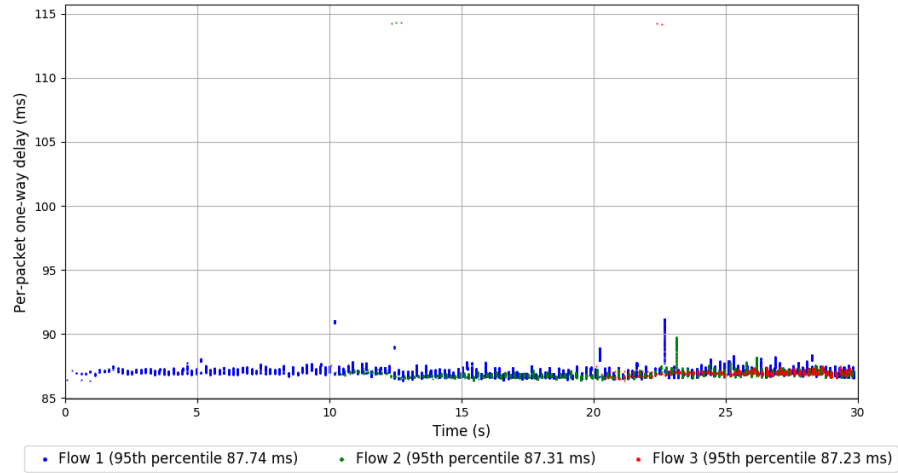
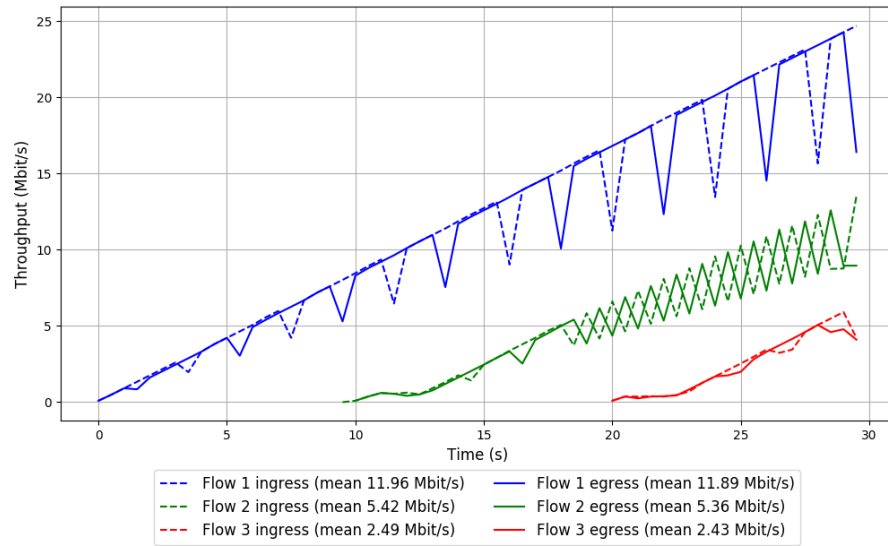
-- Flow 3:

Average throughput: 2.43 Mbit/s

95th percentile per-packet one-way delay: 87.233 ms

Loss rate: 4.38%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-02-17 00:44:54

End at: 2018-02-17 00:45:24

Below is generated by plot.py at 2018-02-17 05:31:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.30 Mbit/s

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

Loss rate: 1.71%

-- Flow 1:

Average throughput: 8.02 Mbit/s

95th percentile per-packet one-way delay: 88.651 ms

Loss rate: 1.41%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 88.563 ms

Loss rate: 1.76%

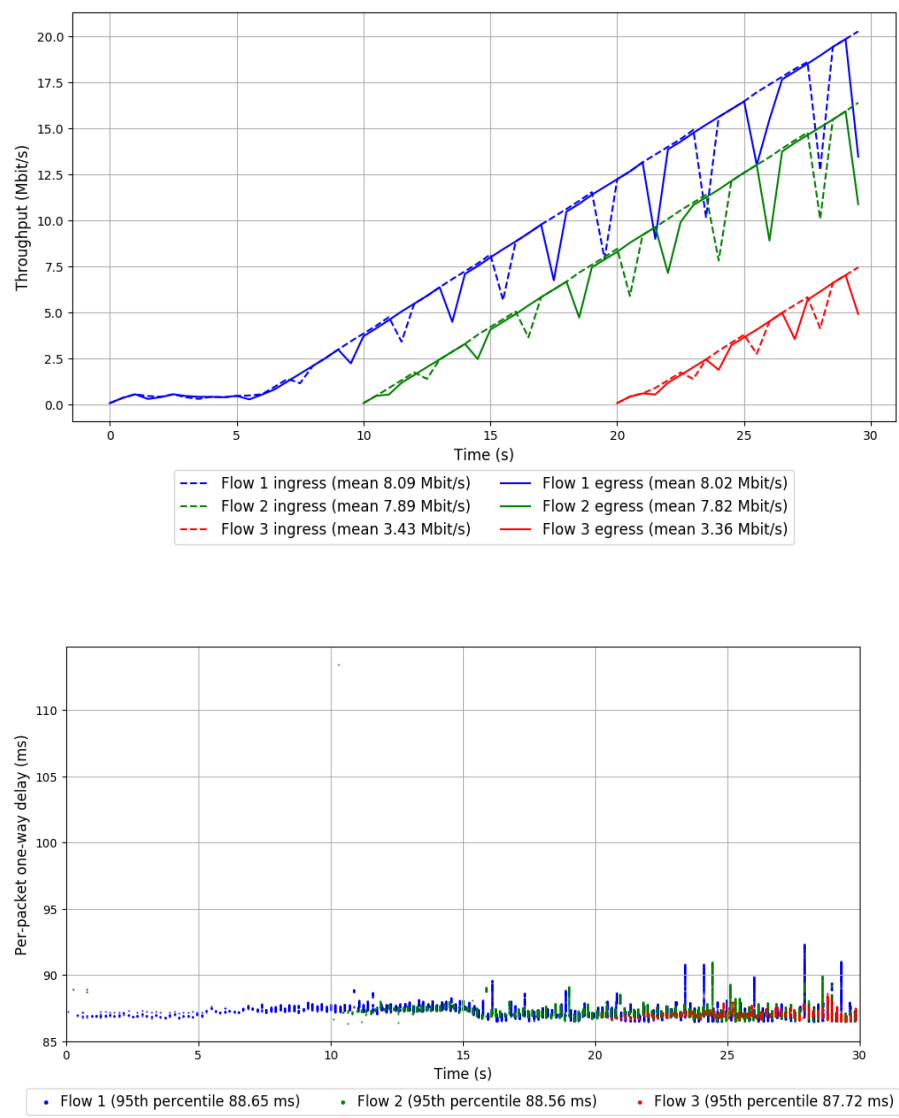
-- Flow 3:

Average throughput: 3.36 Mbit/s

95th percentile per-packet one-way delay: 87.717 ms

Loss rate: 3.73%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-02-17 01:03:48

End at: 2018-02-17 01:04:18

Below is generated by plot.py at 2018-02-17 05:31:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.67 Mbit/s

95th percentile per-packet one-way delay: 92.135 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 11.51 Mbit/s

95th percentile per-packet one-way delay: 92.147 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 92.094 ms

Loss rate: 1.75%

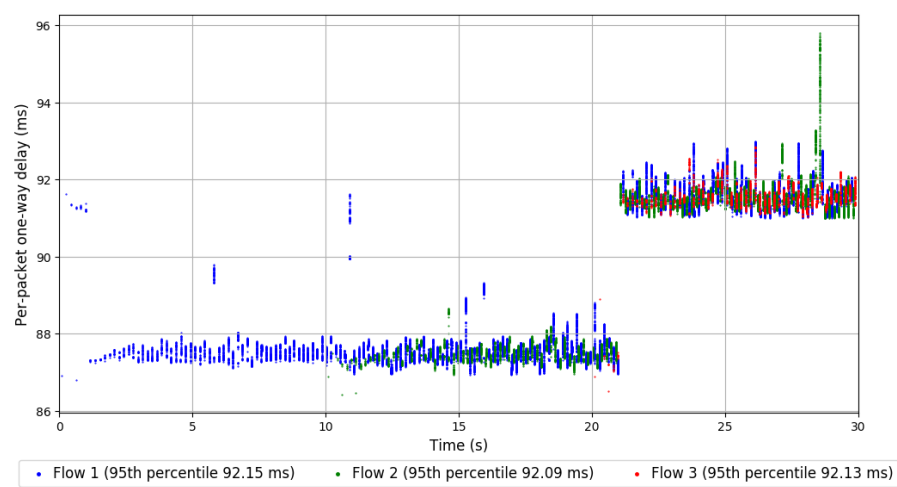
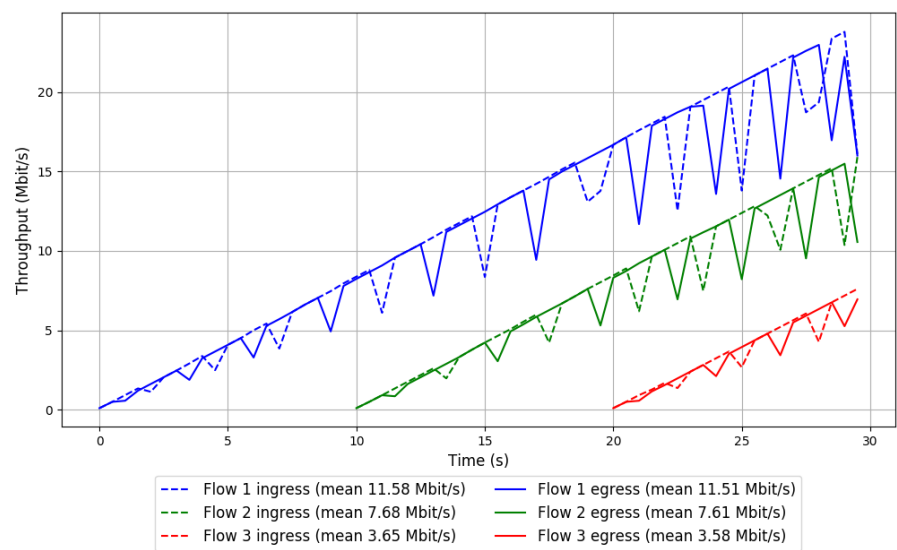
-- Flow 3:

Average throughput: 3.58 Mbit/s

95th percentile per-packet one-way delay: 92.130 ms

Loss rate: 3.56%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-02-17 01:22:37

End at: 2018-02-17 01:23:07

Below is generated by plot.py at 2018-02-17 05:31:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.90 Mbit/s

95th percentile per-packet one-way delay: 87.595 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 11.02 Mbit/s

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

Loss rate: 1.20%

-- Flow 2:

Average throughput: 5.48 Mbit/s

95th percentile per-packet one-way delay: 87.465 ms

Loss rate: 2.08%

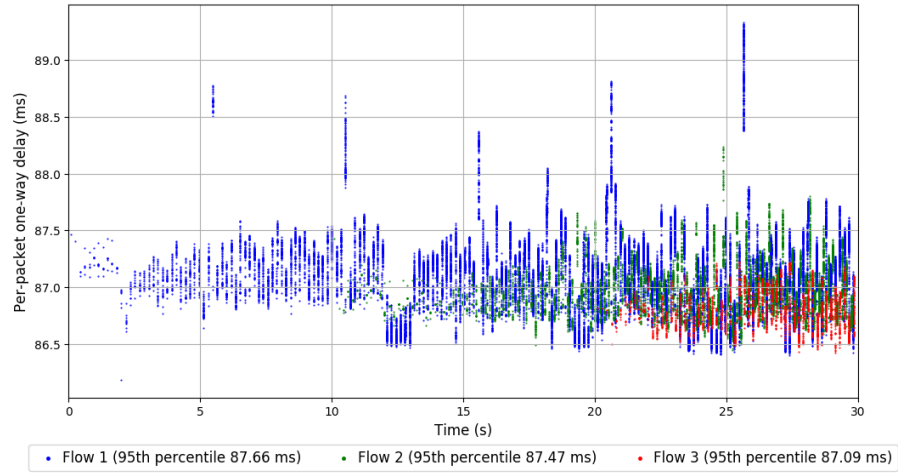
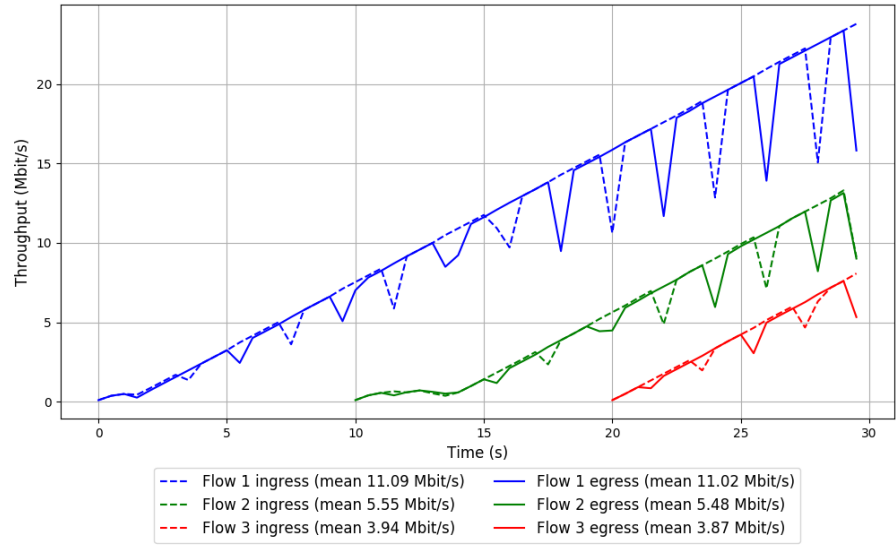
-- Flow 3:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 87.088 ms

Loss rate: 3.52%

Run 9: Report of LEDBAT — Data Link

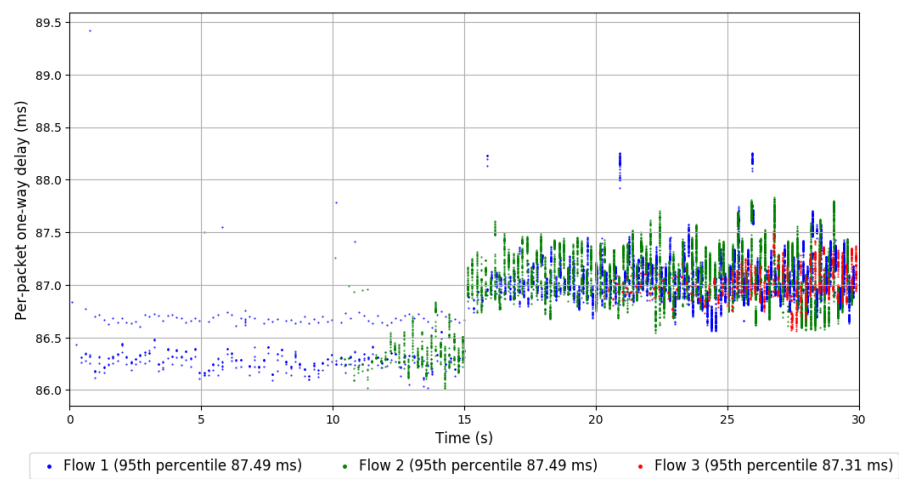
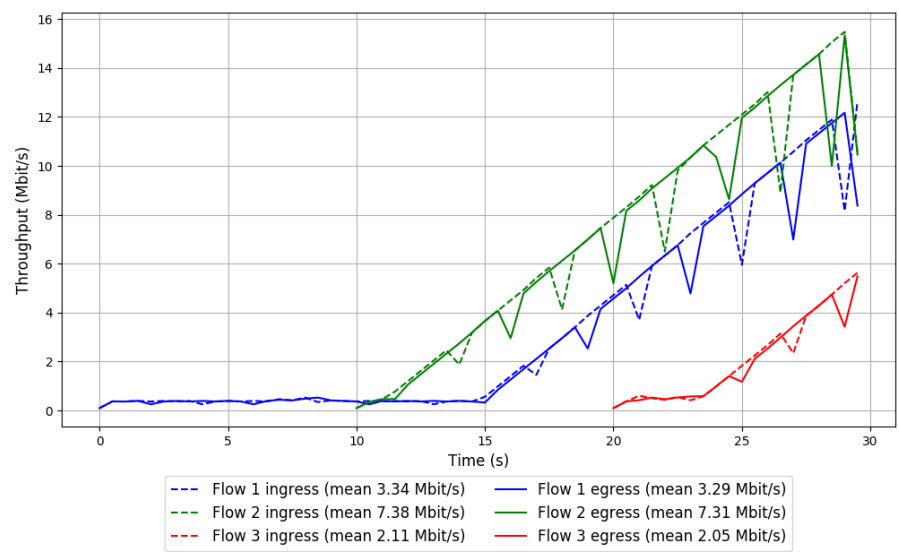


```
Run 10: Statistics of LEDBAT

Start at: 2018-02-17 01:41:24
End at: 2018-02-17 01:41:54

# Below is generated by plot.py at 2018-02-17 05:31:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 87.476 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 3.29 Mbit/s
95th percentile per-packet one-way delay: 87.493 ms
Loss rate: 2.14%
-- Flow 2:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 87.486 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 87.315 ms
Loss rate: 4.59%
```

Run 10: Report of LEDBAT — Data Link

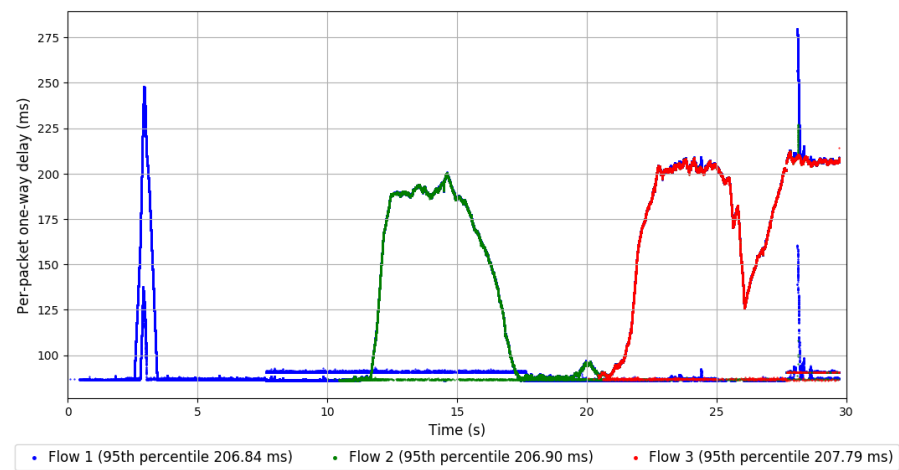
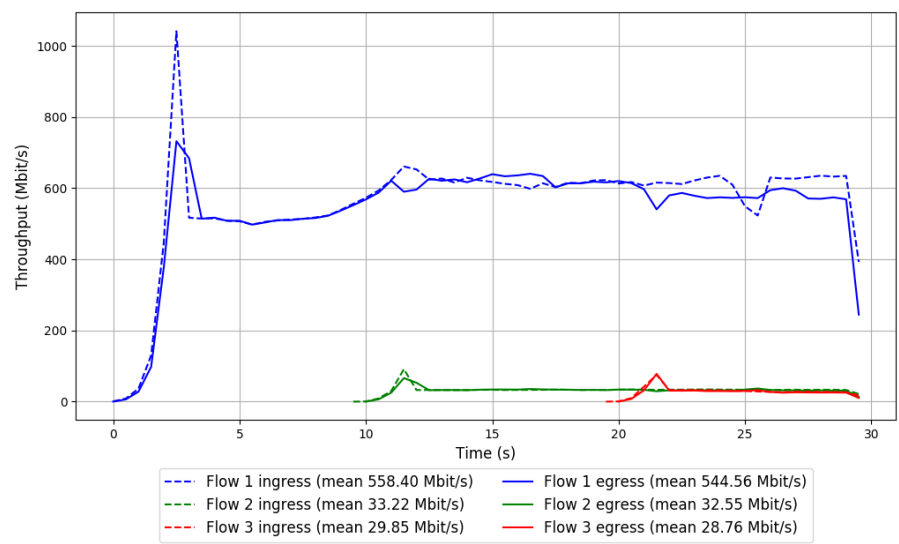


```
Run 1: Statistics of PCC

Start at: 2018-02-16 22:58:41
End at: 2018-02-16 22:59:11

# Below is generated by plot.py at 2018-02-17 05:39:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 575.42 Mbit/s
95th percentile per-packet one-way delay: 206.881 ms
Loss rate: 3.17%
-- Flow 1:
Average throughput: 544.56 Mbit/s
95th percentile per-packet one-way delay: 206.845 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 32.55 Mbit/s
95th percentile per-packet one-way delay: 206.897 ms
Loss rate: 3.01%
-- Flow 3:
Average throughput: 28.76 Mbit/s
95th percentile per-packet one-way delay: 207.786 ms
Loss rate: 5.59%
```

Run 1: Report of PCC — Data Link

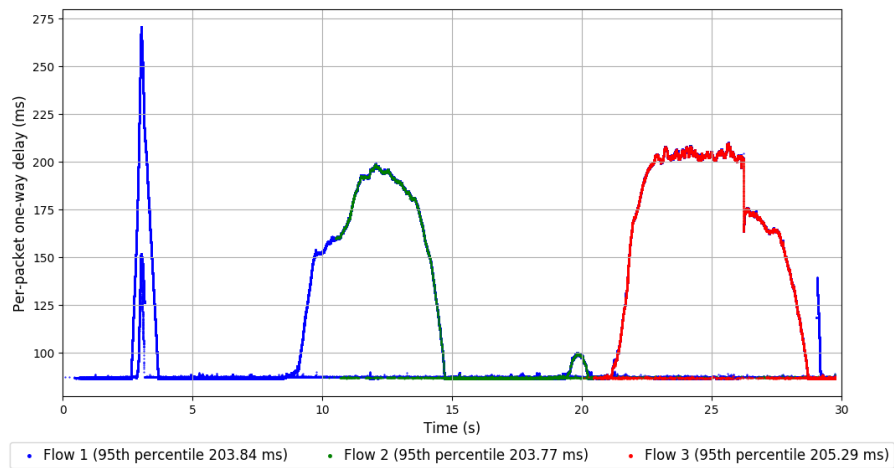
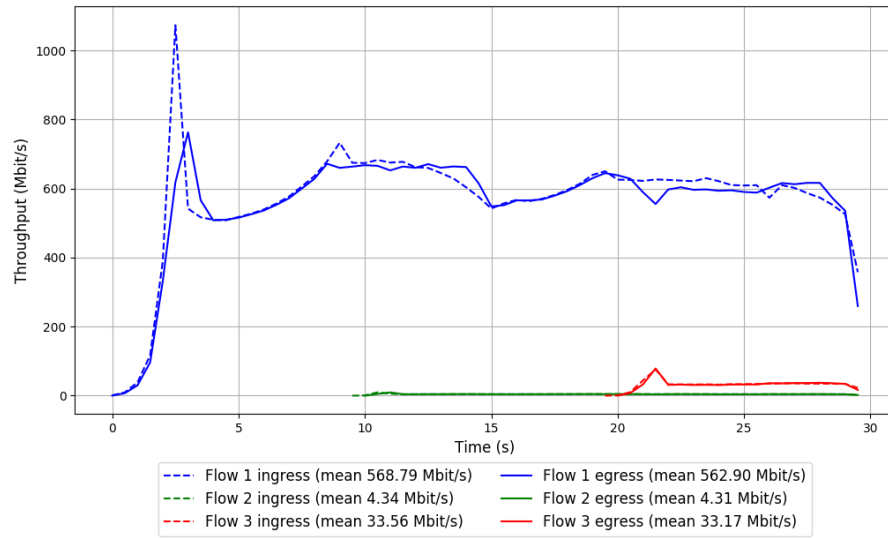


```
Run 2: Statistics of PCC

Start at: 2018-02-16 23:17:30
End at: 2018-02-16 23:18:00

# Below is generated by plot.py at 2018-02-17 05:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.56 Mbit/s
95th percentile per-packet one-way delay: 203.902 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 562.90 Mbit/s
95th percentile per-packet one-way delay: 203.840 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 203.767 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 33.17 Mbit/s
95th percentile per-packet one-way delay: 205.292 ms
Loss rate: 2.93%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-02-16 23:36:50

End at: 2018-02-16 23:37:20

Below is generated by plot.py at 2018-02-17 05:39:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 563.89 Mbit/s

95th percentile per-packet one-way delay: 225.379 ms

Loss rate: 4.01%

-- Flow 1:

Average throughput: 501.10 Mbit/s

95th percentile per-packet one-way delay: 233.192 ms

Loss rate: 4.33%

-- Flow 2:

Average throughput: 78.89 Mbit/s

95th percentile per-packet one-way delay: 181.181 ms

Loss rate: 1.28%

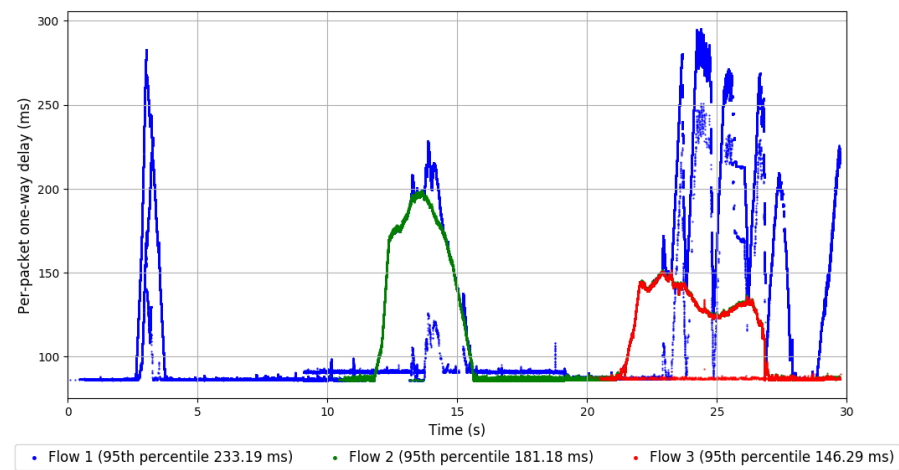
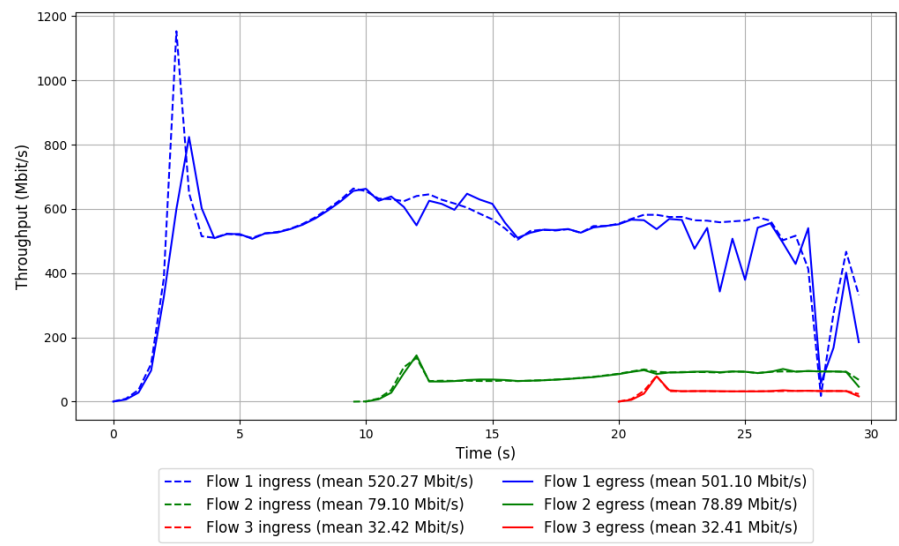
-- Flow 3:

Average throughput: 32.41 Mbit/s

95th percentile per-packet one-way delay: 146.287 ms

Loss rate: 2.05%

Run 3: Report of PCC — Data Link

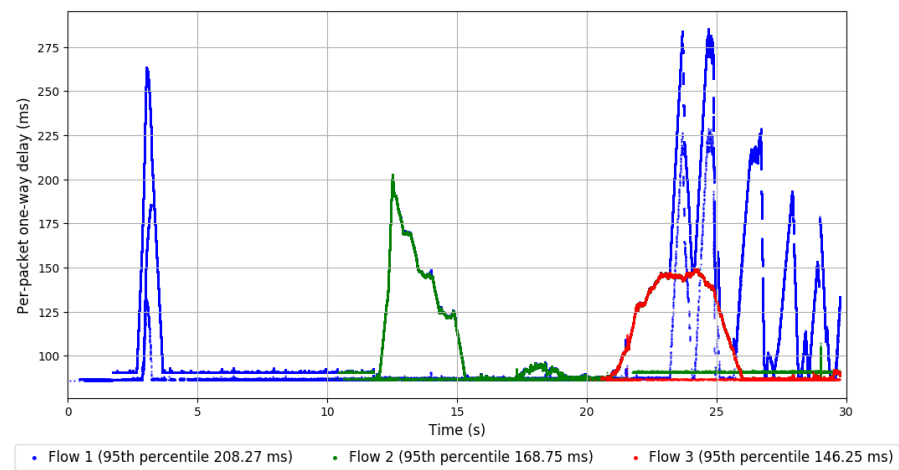
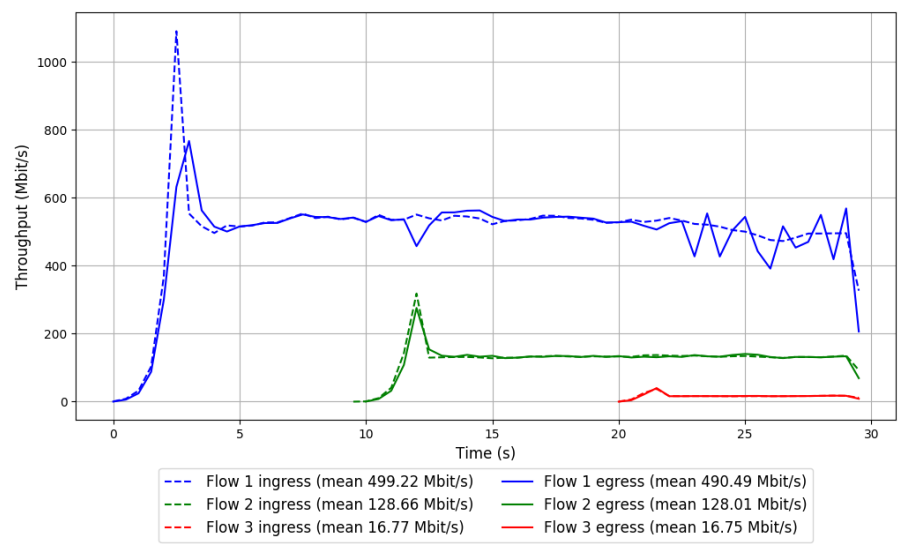


```
Run 4: Statistics of PCC

Start at: 2018-02-16 23:55:57
End at: 2018-02-16 23:56:27

# Below is generated by plot.py at 2018-02-17 05:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 580.80 Mbit/s
95th percentile per-packet one-way delay: 198.870 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 490.49 Mbit/s
95th percentile per-packet one-way delay: 208.267 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 128.01 Mbit/s
95th percentile per-packet one-way delay: 168.751 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 16.75 Mbit/s
95th percentile per-packet one-way delay: 146.251 ms
Loss rate: 1.82%
```

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-02-17 00:14:59

End at: 2018-02-17 00:15:29

Below is generated by plot.py at 2018-02-17 05:40:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 560.13 Mbit/s

95th percentile per-packet one-way delay: 317.797 ms

Loss rate: 5.25%

-- Flow 1:

Average throughput: 471.26 Mbit/s

95th percentile per-packet one-way delay: 321.438 ms

Loss rate: 5.71%

-- Flow 2:

Average throughput: 118.61 Mbit/s

95th percentile per-packet one-way delay: 199.544 ms

Loss rate: 2.66%

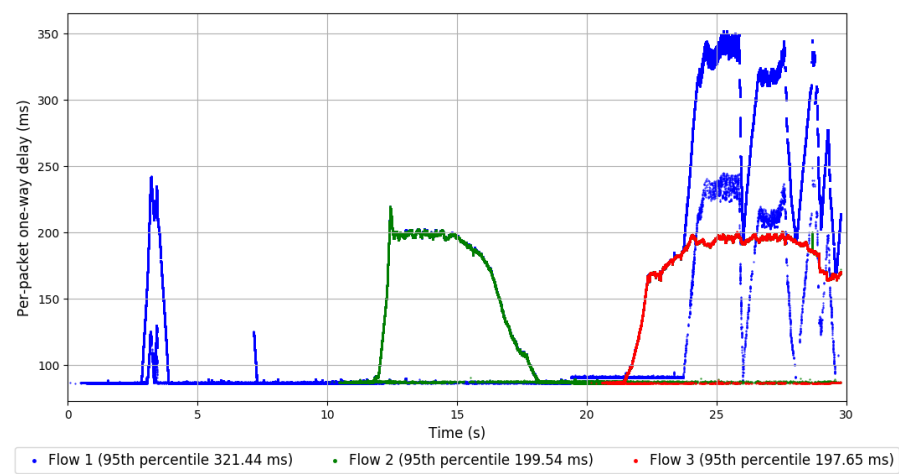
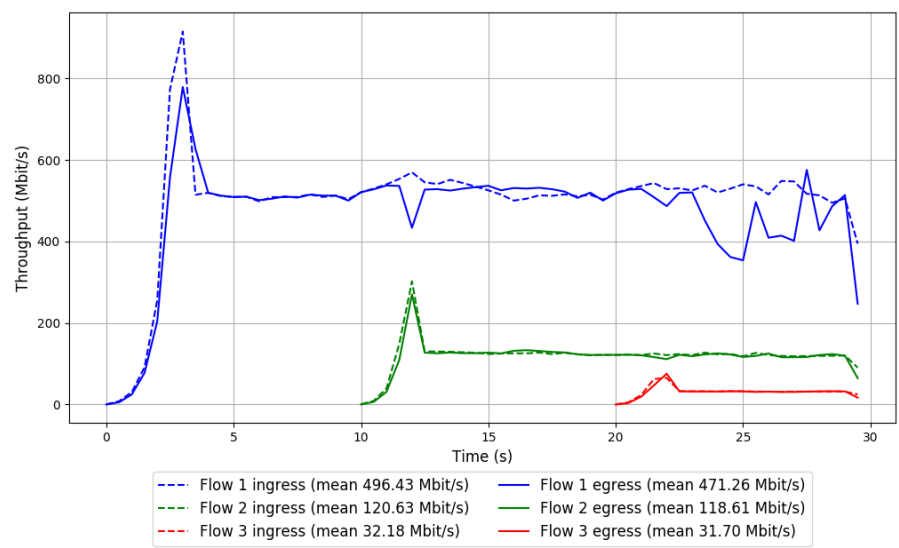
-- Flow 3:

Average throughput: 31.70 Mbit/s

95th percentile per-packet one-way delay: 197.652 ms

Loss rate: 3.51%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-02-17 00:34:27

End at: 2018-02-17 00:34:57

Below is generated by plot.py at 2018-02-17 05:40:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 589.84 Mbit/s

95th percentile per-packet one-way delay: 244.562 ms

Loss rate: 5.17%

-- Flow 1:

Average throughput: 507.87 Mbit/s

95th percentile per-packet one-way delay: 246.971 ms

Loss rate: 5.57%

-- Flow 2:

Average throughput: 122.41 Mbit/s

95th percentile per-packet one-way delay: 194.929 ms

Loss rate: 2.56%

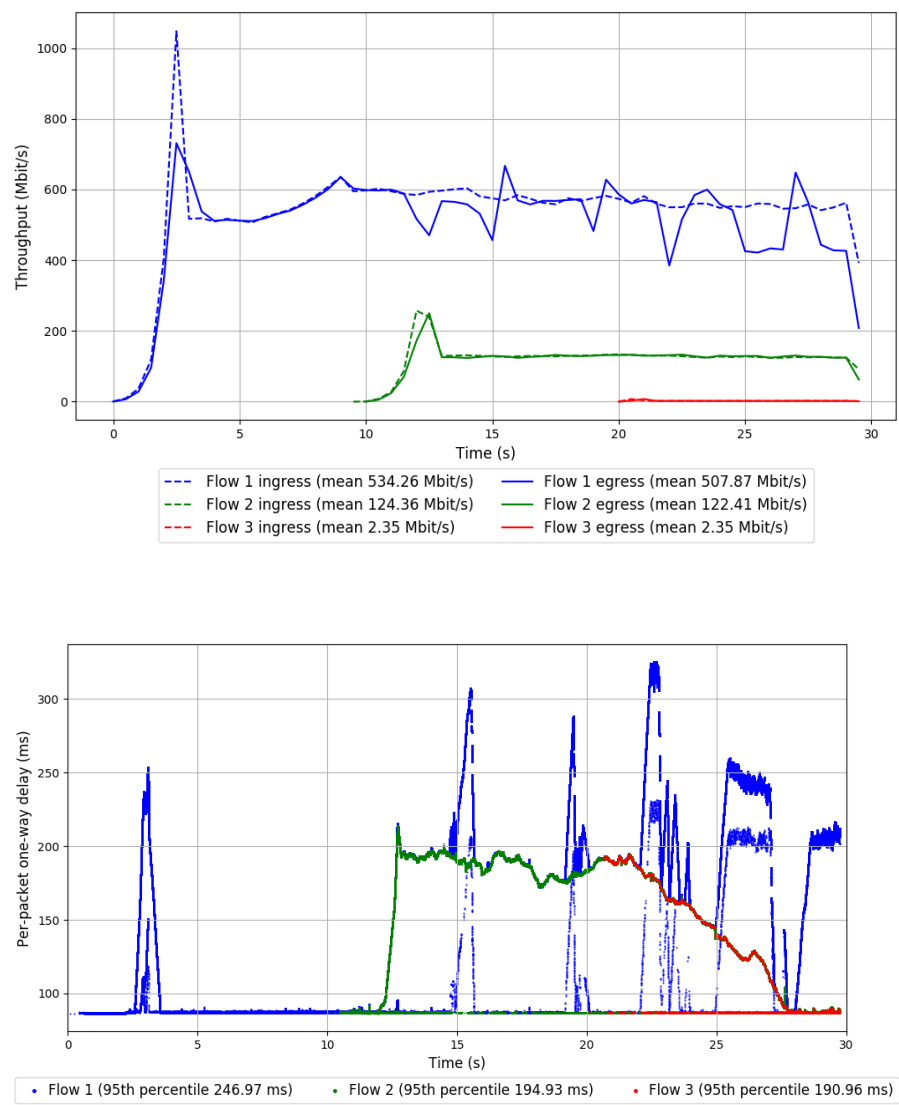
-- Flow 3:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 190.962 ms

Loss rate: 2.08%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-02-17 00:53:32

End at: 2018-02-17 00:54:02

Below is generated by plot.py at 2018-02-17 05:41:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 581.69 Mbit/s

95th percentile per-packet one-way delay: 199.195 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 558.23 Mbit/s

95th percentile per-packet one-way delay: 199.027 ms

Loss rate: 1.95%

-- Flow 2:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 197.768 ms

Loss rate: 1.75%

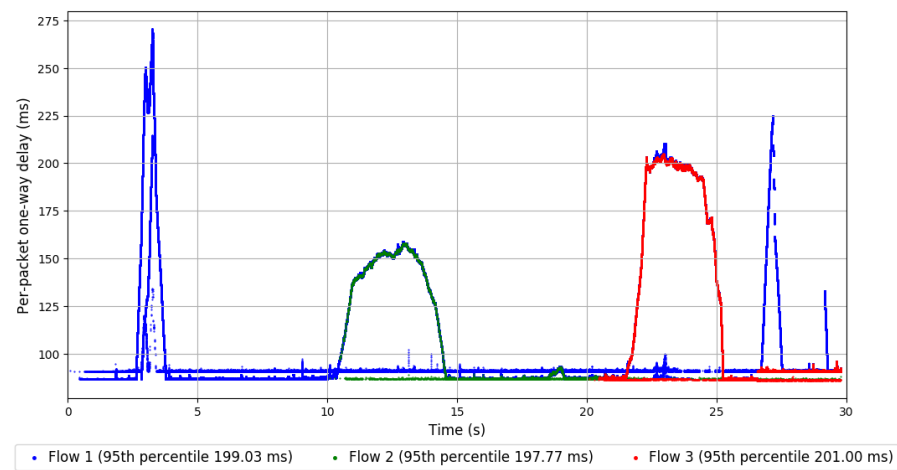
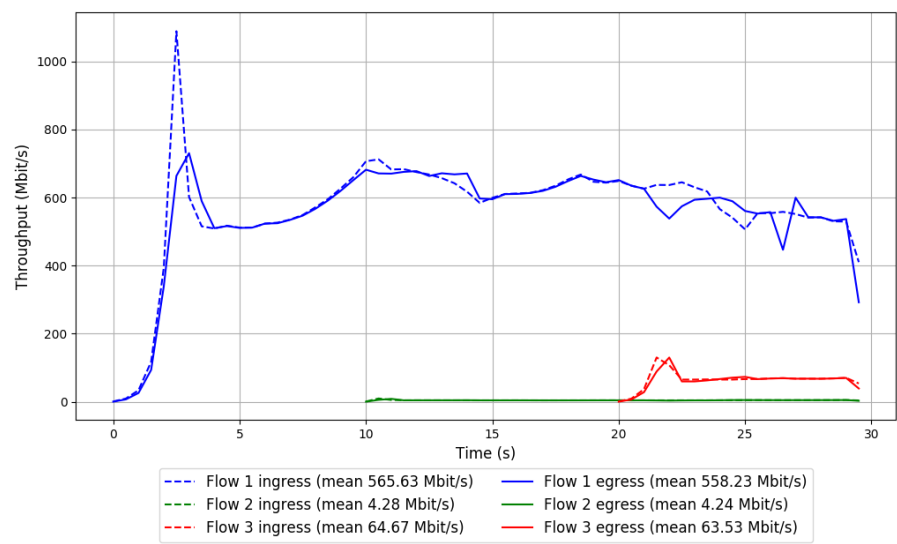
-- Flow 3:

Average throughput: 63.53 Mbit/s

95th percentile per-packet one-way delay: 200.997 ms

Loss rate: 3.65%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-02-17 01:12:31

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

Below is generated by plot.py at 2018-02-17 05:42:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 574.58 Mbit/s

95th percentile per-packet one-way delay: 203.916 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 553.15 Mbit/s

95th percentile per-packet one-way delay: 203.963 ms

Loss rate: 1.85%

-- Flow 2:

Average throughput: 31.22 Mbit/s

95th percentile per-packet one-way delay: 203.040 ms

Loss rate: 1.53%

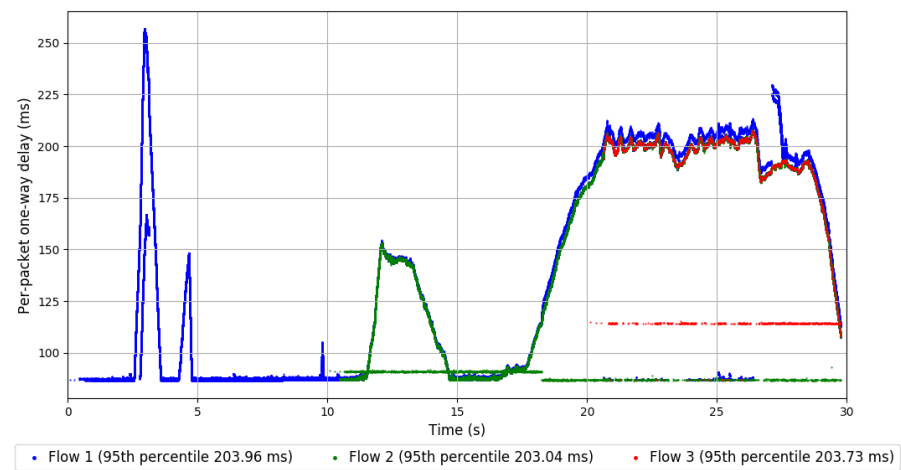
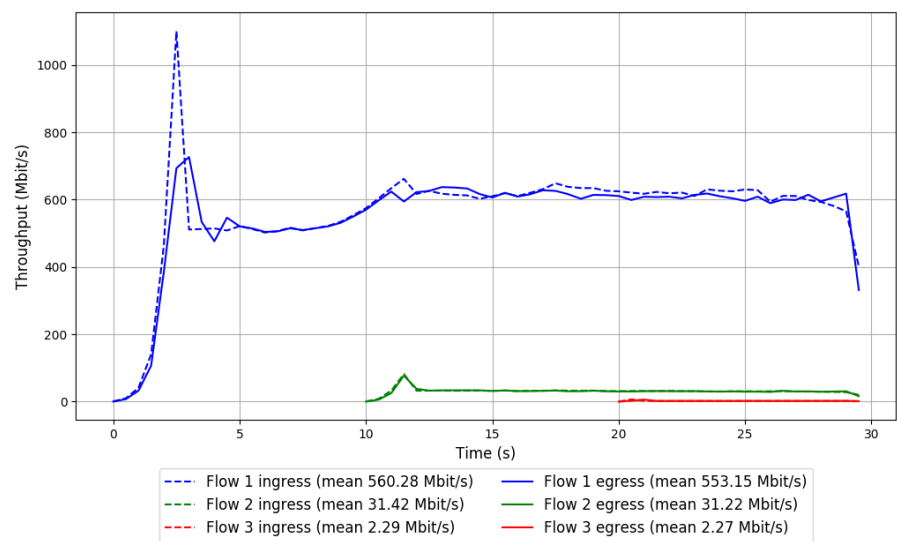
-- Flow 3:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 203.733 ms

Loss rate: 2.95%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-02-17 01:31:08

End at: 2018-02-17 01:31:38

Below is generated by plot.py at 2018-02-17 05:49:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 583.29 Mbit/s

95th percentile per-packet one-way delay: 206.787 ms

Loss rate: 2.92%

-- Flow 1:

Average throughput: 529.65 Mbit/s

95th percentile per-packet one-way delay: 206.860 ms

Loss rate: 2.88%

-- Flow 2:

Average throughput: 65.45 Mbit/s

95th percentile per-packet one-way delay: 206.070 ms

Loss rate: 3.30%

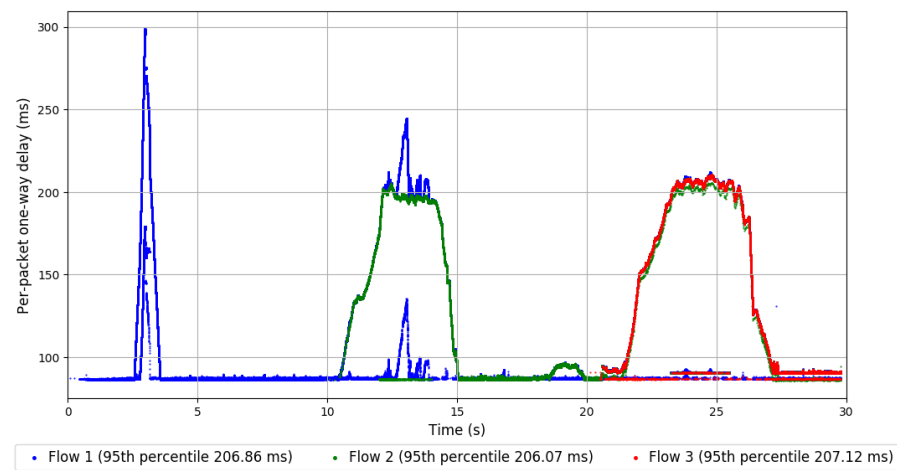
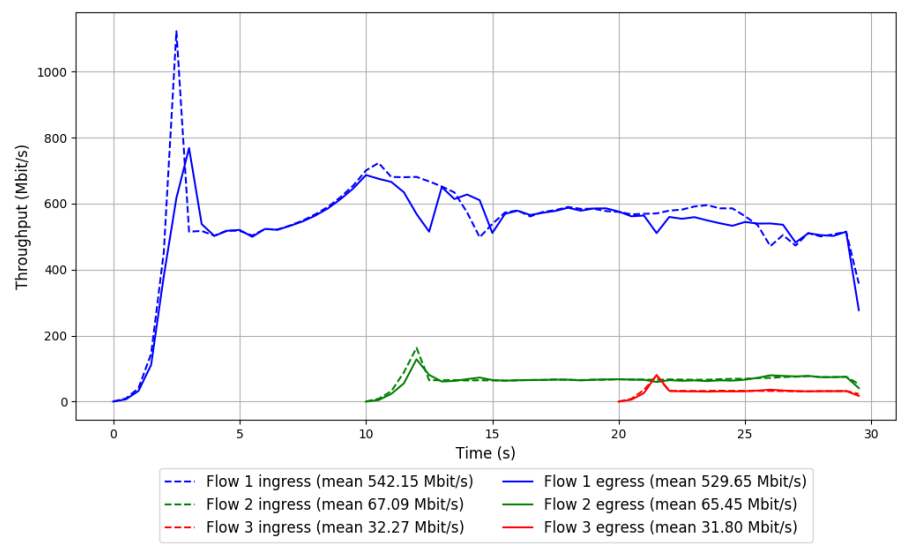
-- Flow 3:

Average throughput: 31.80 Mbit/s

95th percentile per-packet one-way delay: 207.117 ms

Loss rate: 3.24%

Run 9: Report of PCC — Data Link

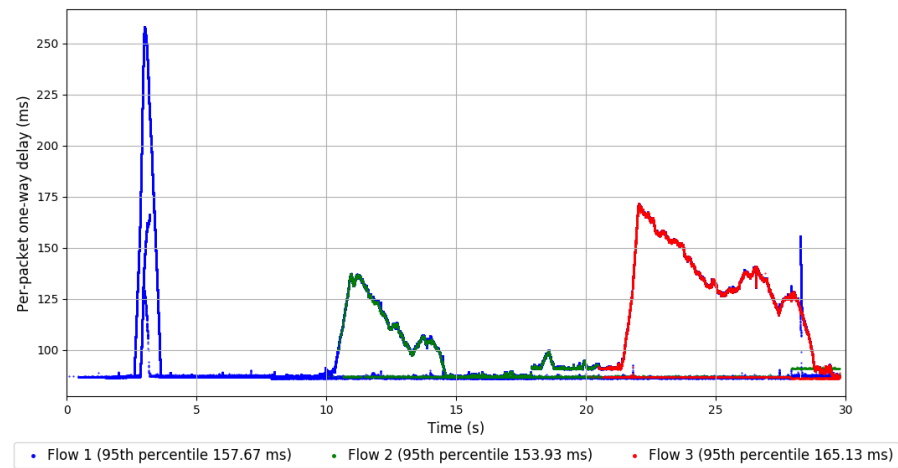
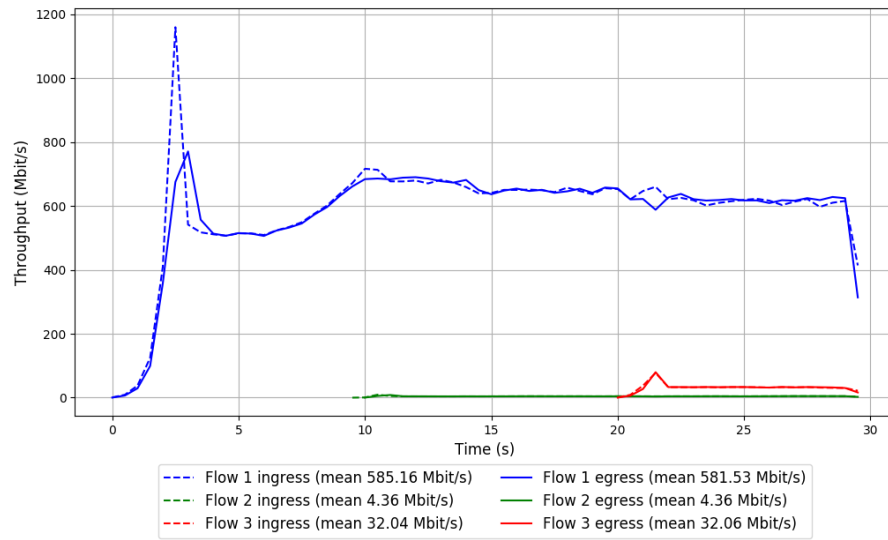


```
Run 10: Statistics of PCC

Start at: 2018-02-17 01:50:01
End at: 2018-02-17 01:50:31

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 594.81 Mbit/s
95th percentile per-packet one-way delay: 157.731 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 581.53 Mbit/s
95th percentile per-packet one-way delay: 157.667 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 153.925 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 32.06 Mbit/s
95th percentile per-packet one-way delay: 165.128 ms
Loss rate: 1.71%
```

Run 10: Report of PCC — Data Link

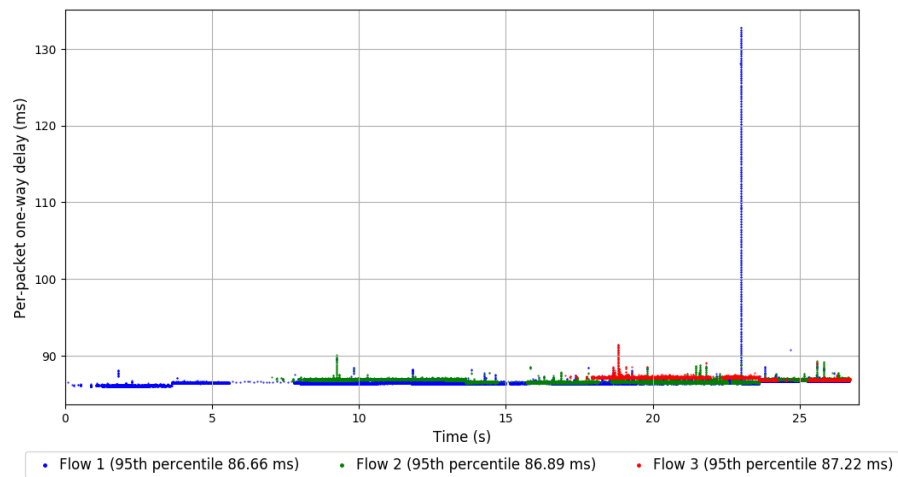
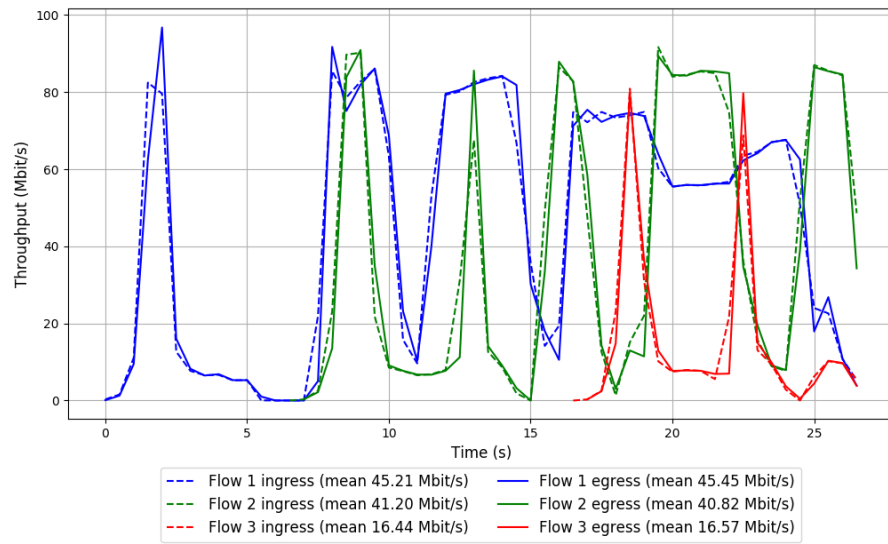


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-16 22:50:32
End at: 2018-02-16 22:51:02

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.64 Mbit/s
95th percentile per-packet one-way delay: 87.088 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 45.45 Mbit/s
95th percentile per-packet one-way delay: 86.661 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.82 Mbit/s
95th percentile per-packet one-way delay: 86.893 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 16.57 Mbit/s
95th percentile per-packet one-way delay: 87.224 ms
Loss rate: 1.02%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-02-16 23:09:36

End at: 2018-02-16 23:10:06

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.36 Mbit/s

95th percentile per-packet one-way delay: 90.729 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 42.01 Mbit/s

95th percentile per-packet one-way delay: 90.779 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 37.02 Mbit/s

95th percentile per-packet one-way delay: 86.781 ms

Loss rate: 1.99%

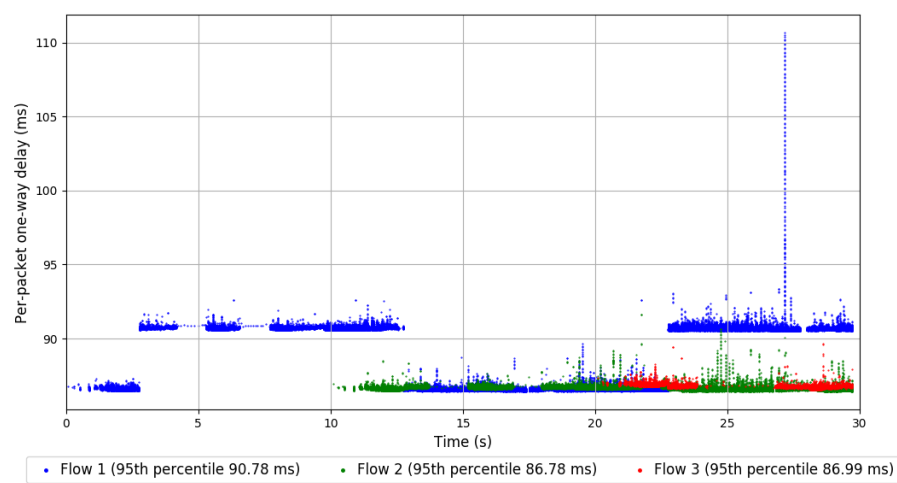
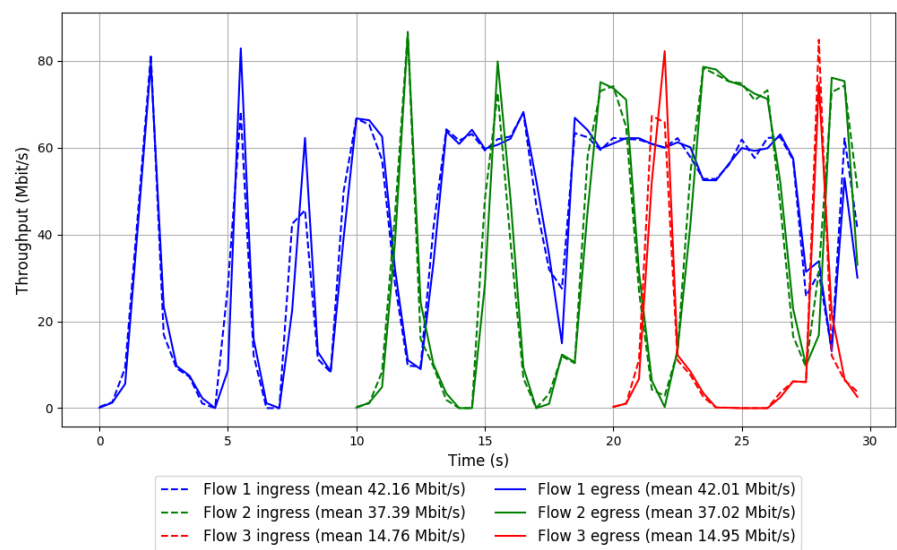
-- Flow 3:

Average throughput: 14.95 Mbit/s

95th percentile per-packet one-way delay: 86.987 ms

Loss rate: 0.77%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-02-16 23:28:47

End at: 2018-02-16 23:29:17

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.19 Mbit/s

95th percentile per-packet one-way delay: 90.602 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 54.49 Mbit/s

95th percentile per-packet one-way delay: 90.623 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 32.01 Mbit/s

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

Loss rate: 1.27%

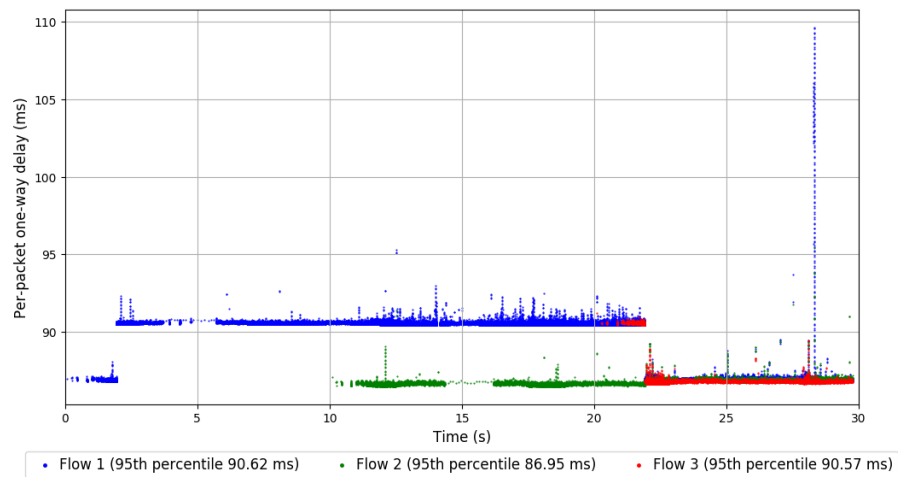
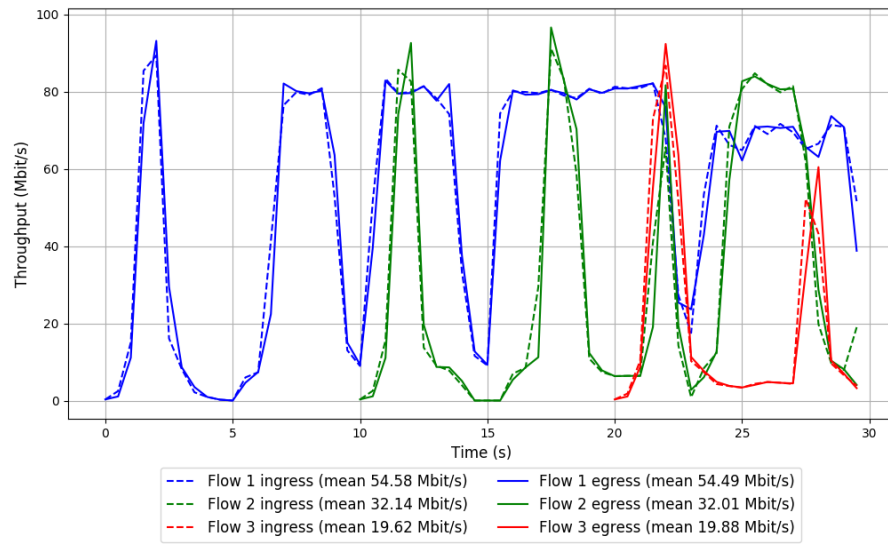
-- Flow 3:

Average throughput: 19.88 Mbit/s

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

Loss rate: 0.45%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-02-16 23:47:48

End at: 2018-02-16 23:48:18

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.17 Mbit/s

95th percentile per-packet one-way delay: 90.623 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 48.96 Mbit/s

95th percentile per-packet one-way delay: 90.627 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 31.49 Mbit/s

95th percentile per-packet one-way delay: 86.669 ms

Loss rate: 0.27%

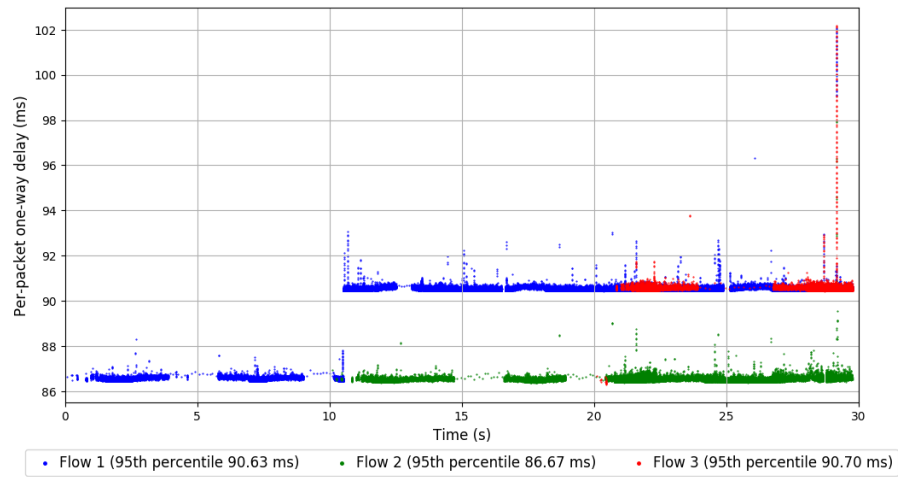
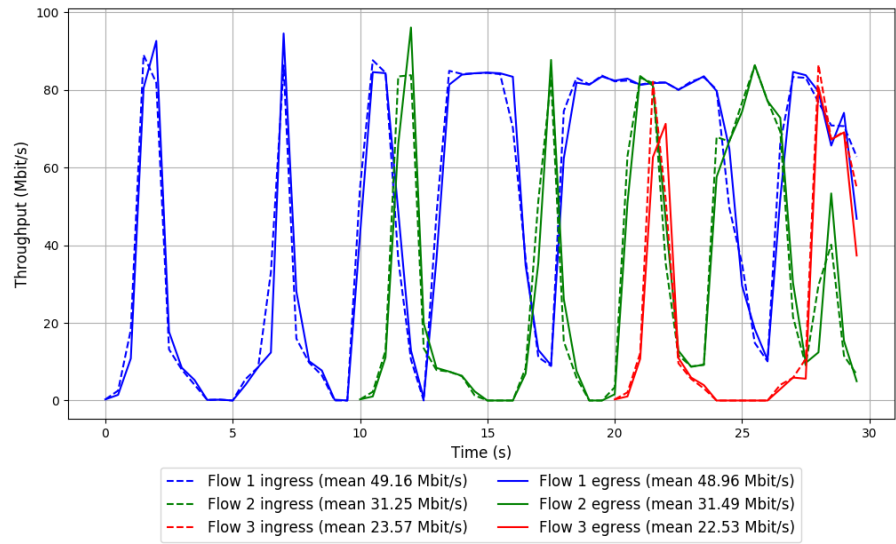
-- Flow 3:

Average throughput: 22.53 Mbit/s

95th percentile per-packet one-way delay: 90.701 ms

Loss rate: 6.37%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-02-17 00:06:57

End at: 2018-02-17 00:07:27

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.62 Mbit/s

95th percentile per-packet one-way delay: 90.621 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 39.48 Mbit/s

95th percentile per-packet one-way delay: 90.660 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 41.75 Mbit/s

95th percentile per-packet one-way delay: 87.052 ms

Loss rate: 1.61%

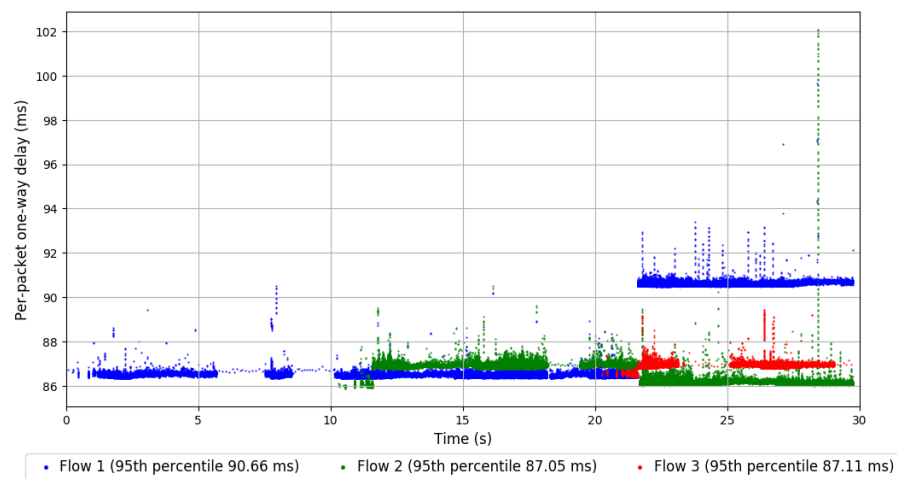
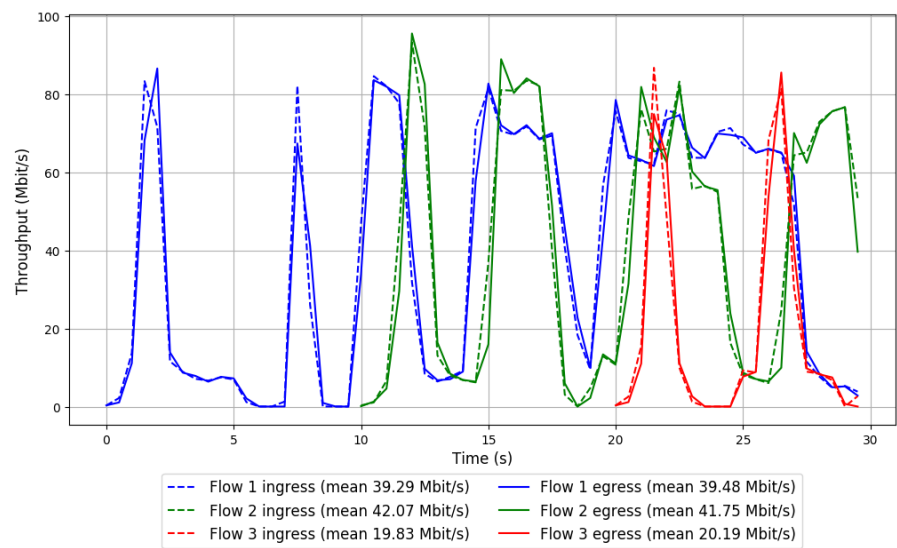
-- Flow 3:

Average throughput: 20.19 Mbit/s

95th percentile per-packet one-way delay: 87.105 ms

Loss rate: 0.68%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-02-17 00:26:23

End at: 2018-02-17 00:26:53

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.70 Mbit/s

95th percentile per-packet one-way delay: 114.076 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 55.78 Mbit/s

95th percentile per-packet one-way delay: 90.584 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 49.50 Mbit/s

95th percentile per-packet one-way delay: 114.153 ms

Loss rate: 1.58%

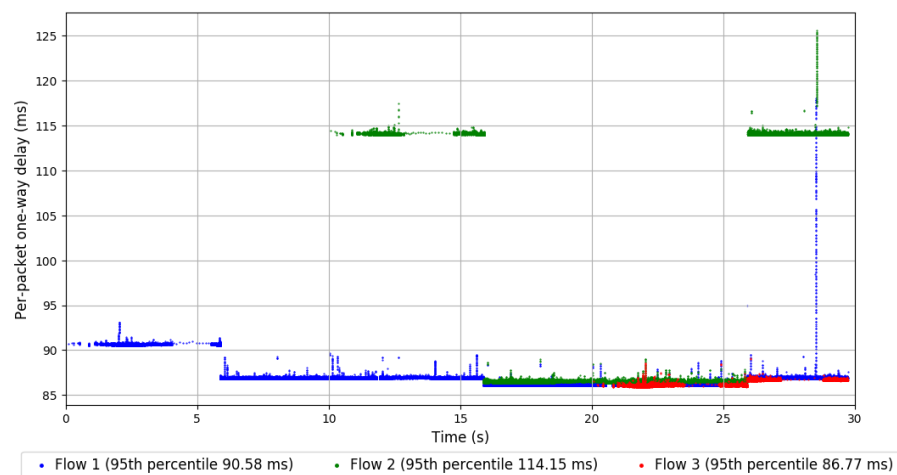
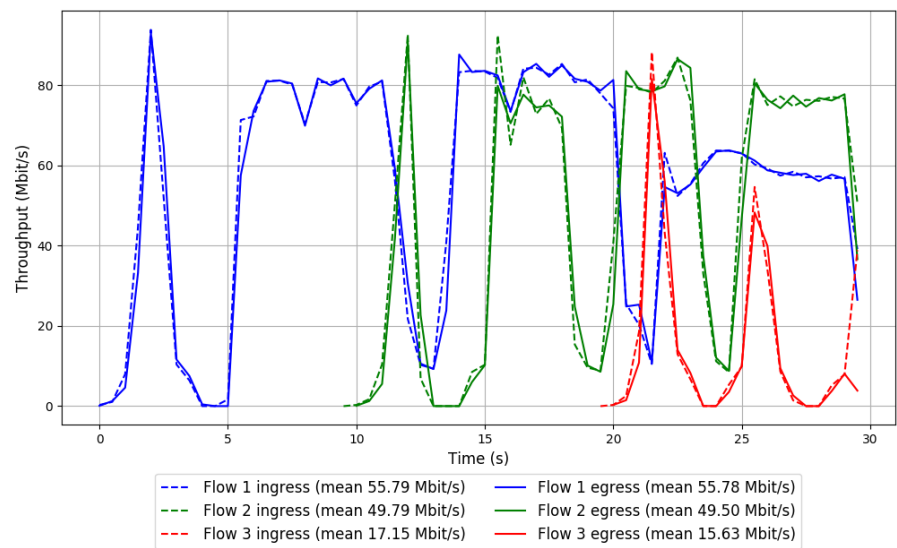
-- Flow 3:

Average throughput: 15.63 Mbit/s

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

Loss rate: 10.71%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-02-17 00:45:39

End at: 2018-02-17 00:46:09

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.45 Mbit/s

95th percentile per-packet one-way delay: 114.290 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 46.41 Mbit/s

95th percentile per-packet one-way delay: 87.061 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 37.65 Mbit/s

95th percentile per-packet one-way delay: 114.367 ms

Loss rate: 1.90%

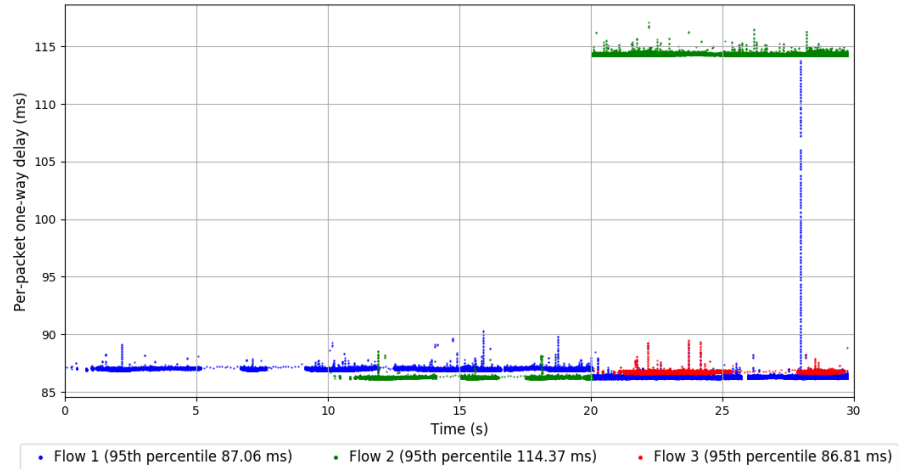
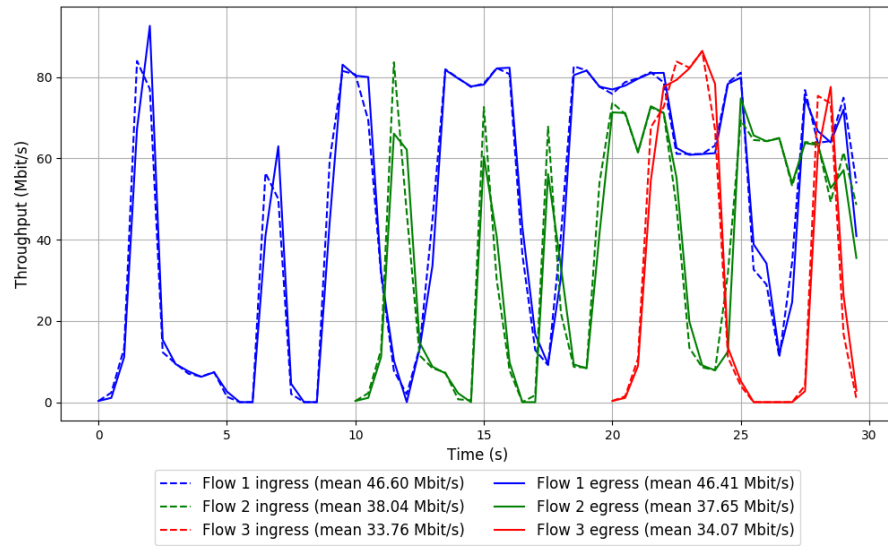
-- Flow 3:

Average throughput: 34.07 Mbit/s

95th percentile per-packet one-way delay: 86.807 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-02-17 01:04:33

End at: 2018-02-17 01:05:03

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.21 Mbit/s

95th percentile per-packet one-way delay: 90.931 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 50.25 Mbit/s

95th percentile per-packet one-way delay: 90.966 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 34.75 Mbit/s

95th percentile per-packet one-way delay: 86.729 ms

Loss rate: 1.45%

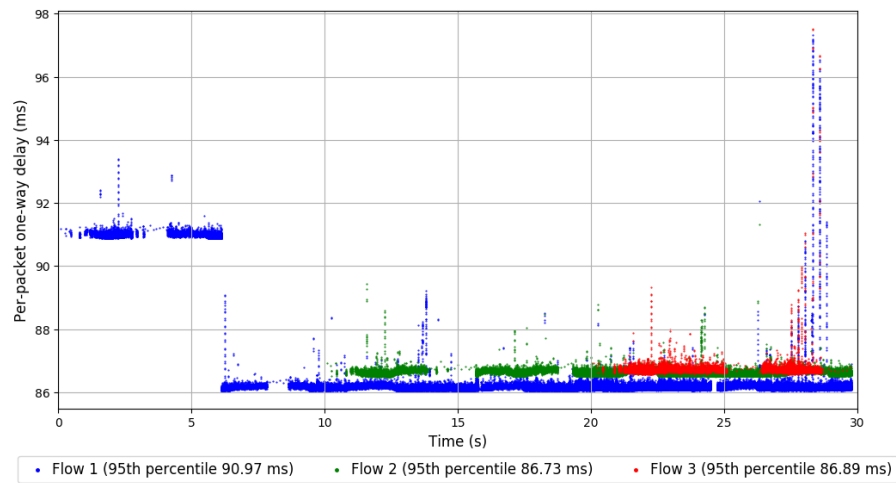
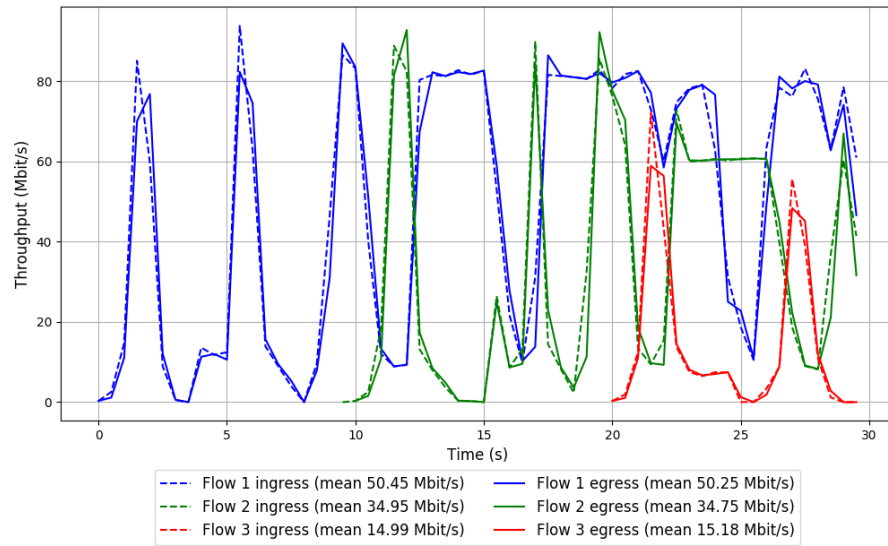
-- Flow 3:

Average throughput: 15.18 Mbit/s

95th percentile per-packet one-way delay: 86.889 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-02-17 01:23:22

End at: 2018-02-17 01:23:52

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.06 Mbit/s

95th percentile per-packet one-way delay: 86.950 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 49.68 Mbit/s

95th percentile per-packet one-way delay: 86.943 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 31.68 Mbit/s

95th percentile per-packet one-way delay: 86.972 ms

Loss rate: 0.48%

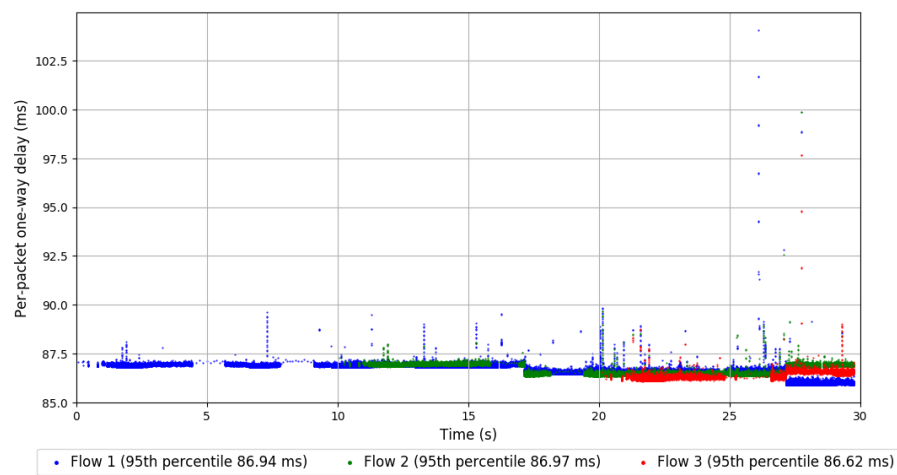
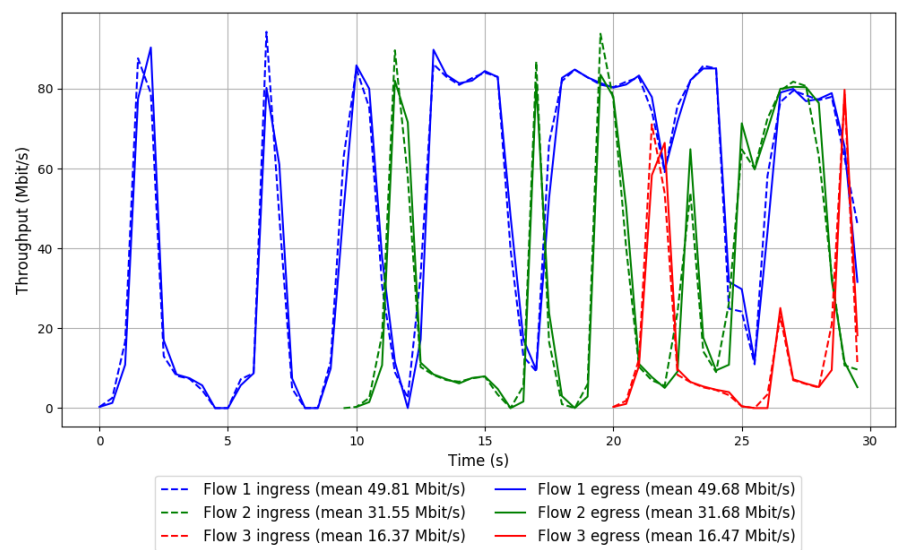
-- Flow 3:

Average throughput: 16.47 Mbit/s

95th percentile per-packet one-way delay: 86.620 ms

Loss rate: 1.14%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-02-17 01:42:08

End at: 2018-02-17 01:42:38

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.28 Mbit/s

95th percentile per-packet one-way delay: 90.634 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 39.96 Mbit/s

95th percentile per-packet one-way delay: 90.668 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 37.15 Mbit/s

95th percentile per-packet one-way delay: 86.213 ms

Loss rate: 1.83%

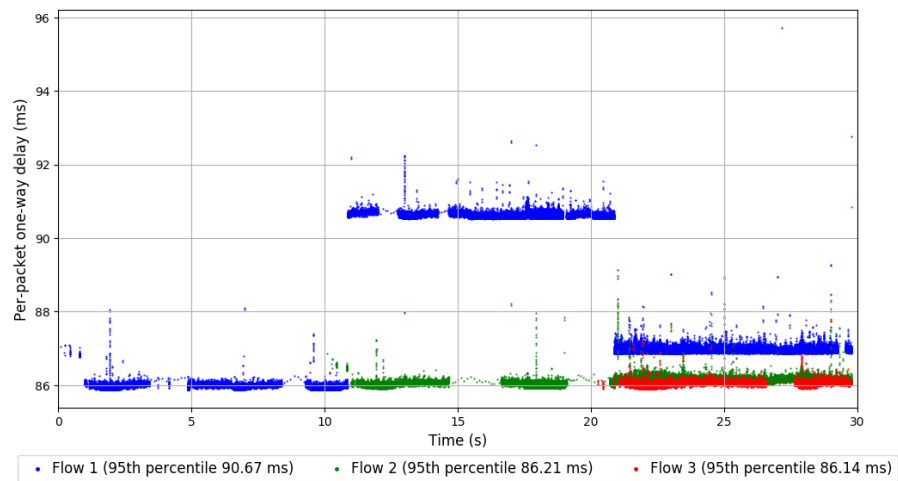
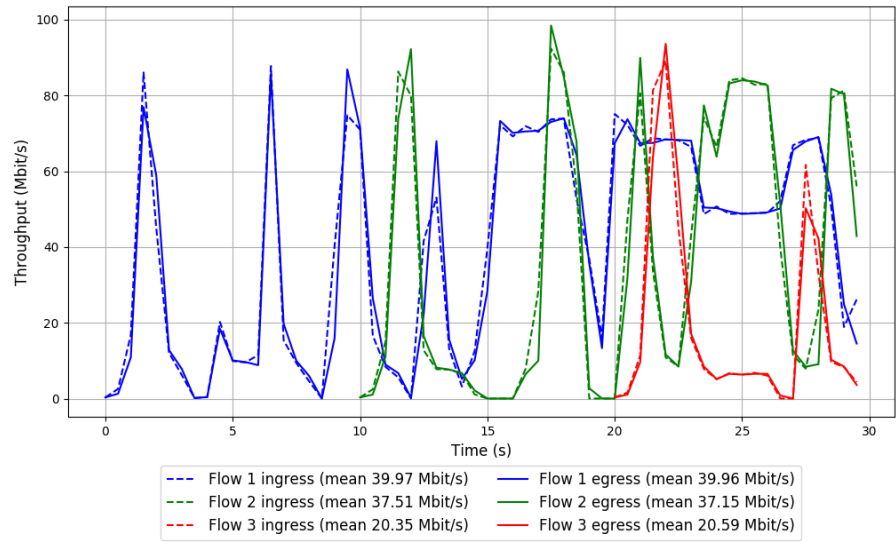
-- Flow 3:

Average throughput: 20.59 Mbit/s

95th percentile per-packet one-way delay: 86.140 ms

Loss rate: 0.51%

Run 10: Report of QUIC Cubic — Data Link

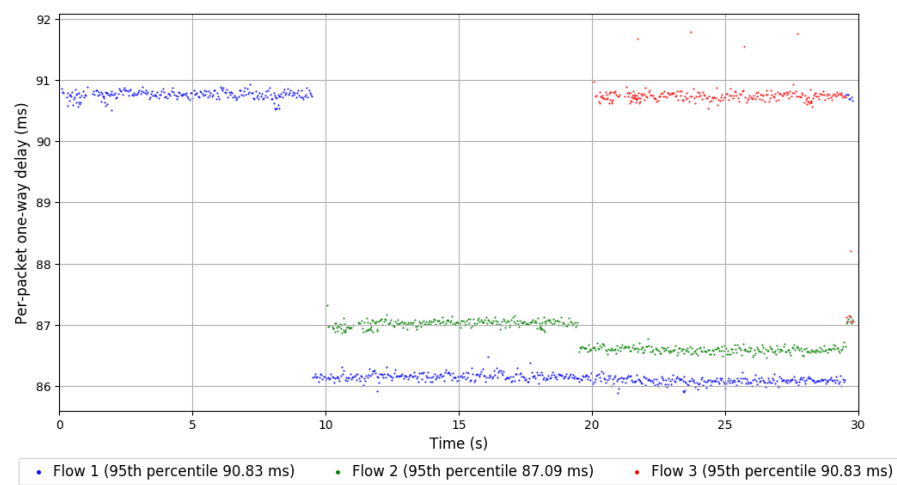
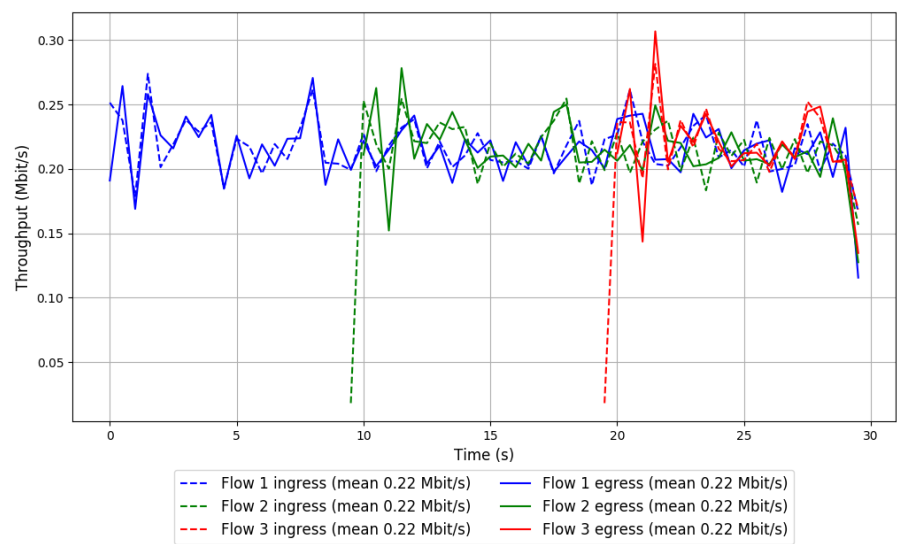


```
Run 1: Statistics of SReAM

Start at: 2018-02-16 22:53:39
End at: 2018-02-16 22:54:09

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 90.812 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.825 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.091 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.829 ms
Loss rate: 1.50%
```

Run 1: Report of SReAM — Data Link

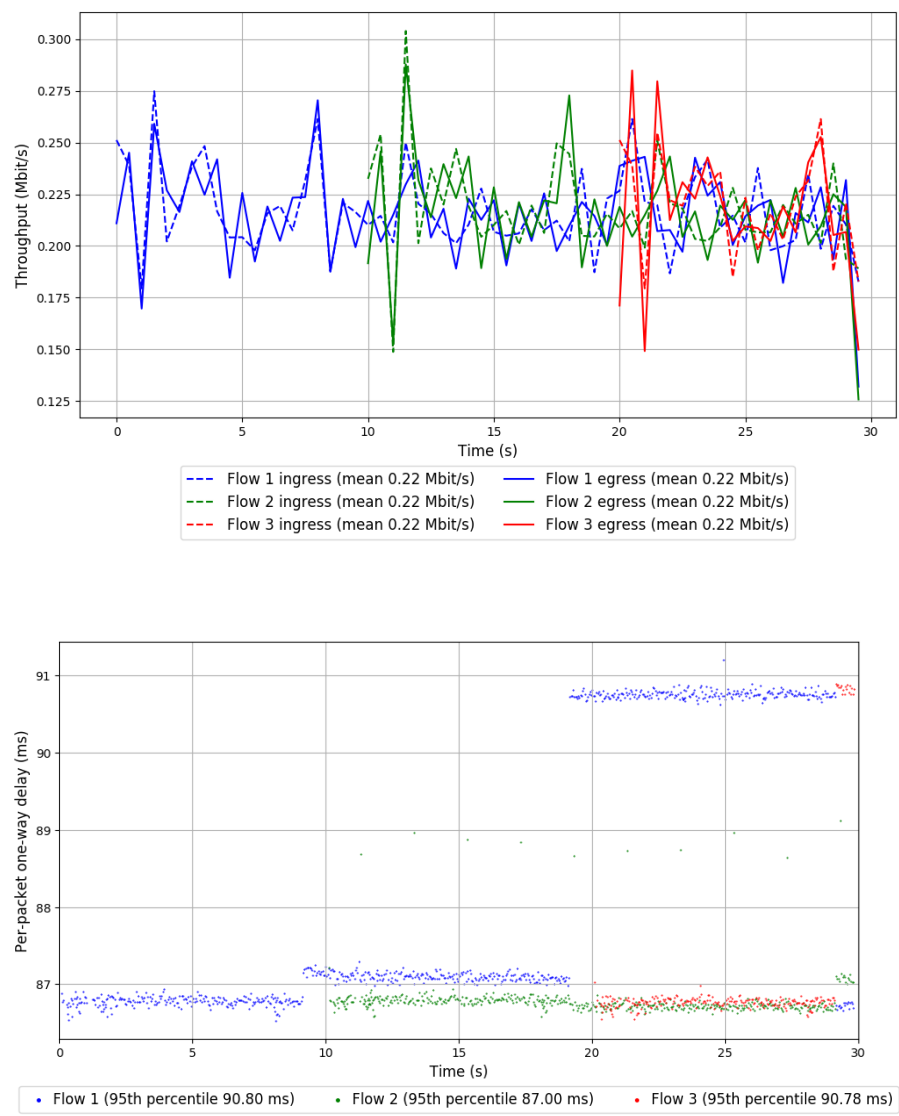


```
Run 2: Statistics of SReAM

Start at: 2018-02-16 23:12:30
End at: 2018-02-16 23:13:00

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 90.783 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.804 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.004 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.783 ms
Loss rate: 1.84%
```

Run 2: Report of SReAM — Data Link

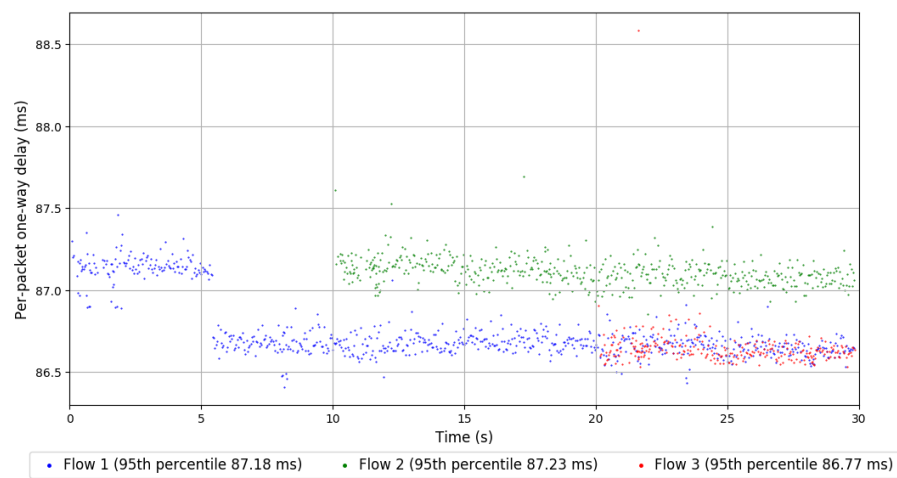
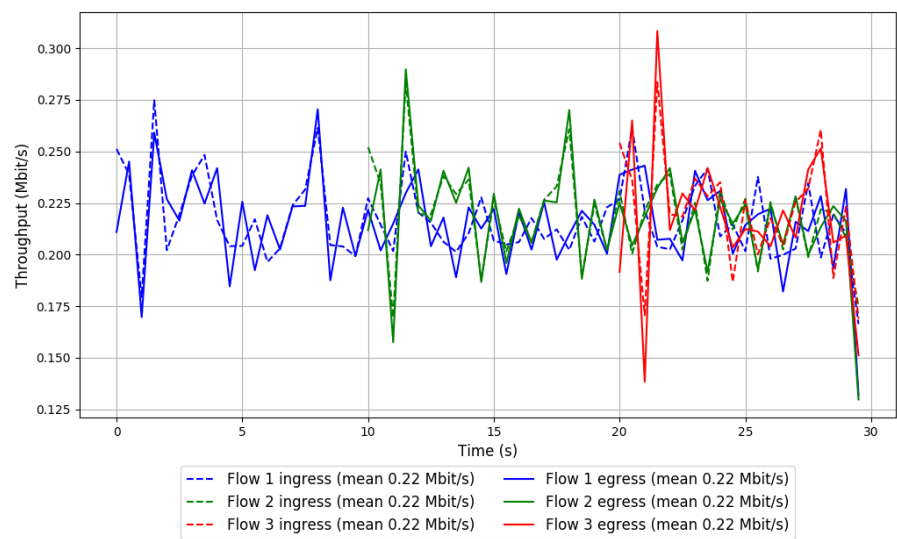


```
Run 3: Statistics of SCReAM

Start at: 2018-02-16 23:31:43
End at: 2018-02-16 23:32:13

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.203 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.177 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.235 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.767 ms
Loss rate: 1.50%
```


Run 3: Report of SReAM — Data Link

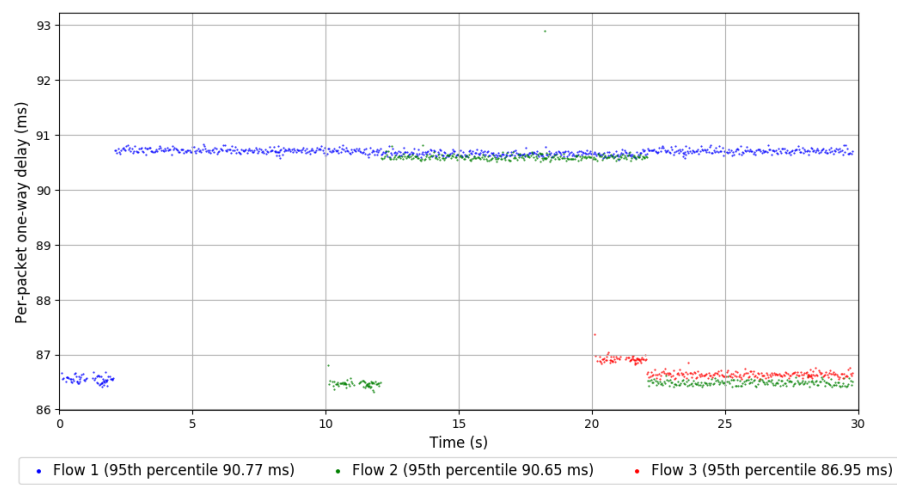
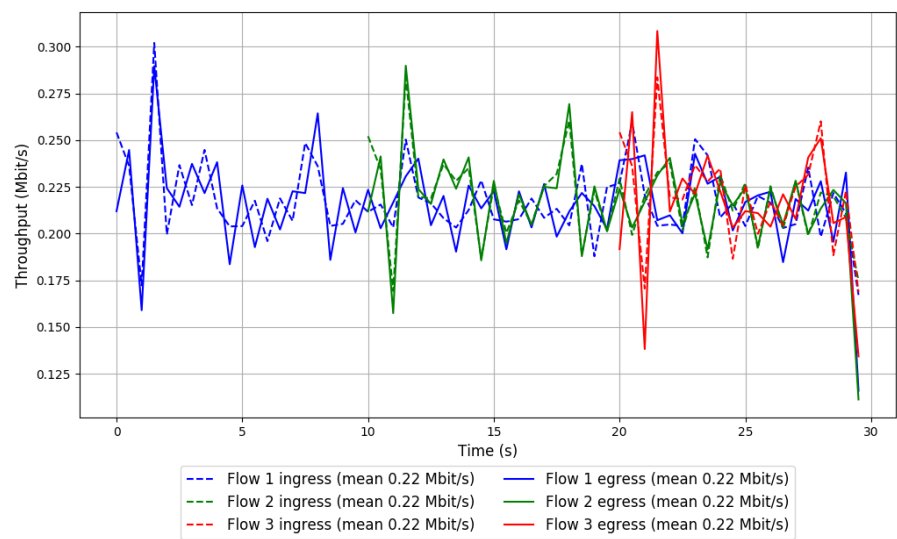


```
Run 4: Statistics of SReAM

Start at: 2018-02-16 23:50:47
End at: 2018-02-16 23:51:17

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 90.753 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.768 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.646 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.949 ms
Loss rate: 1.87%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-02-17 00:09:57

End at: 2018-02-17 00:10:28

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 114.449 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.489 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.223 ms

Loss rate: 1.04%

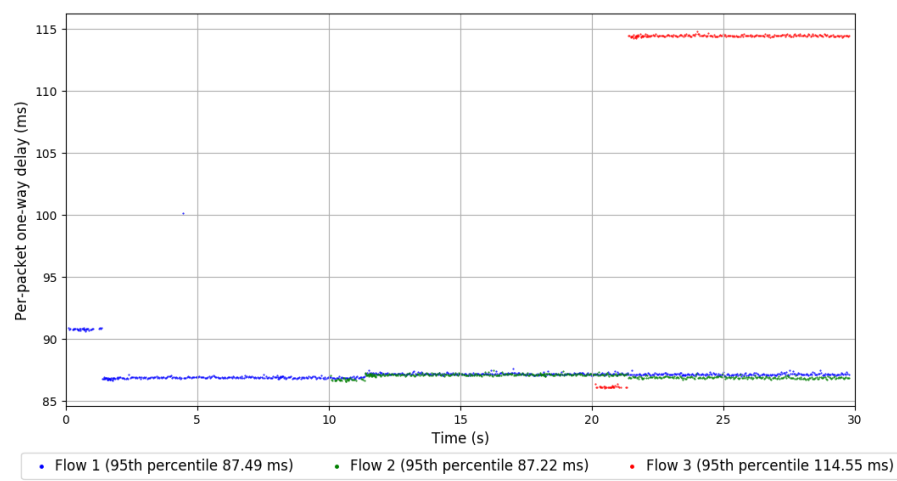
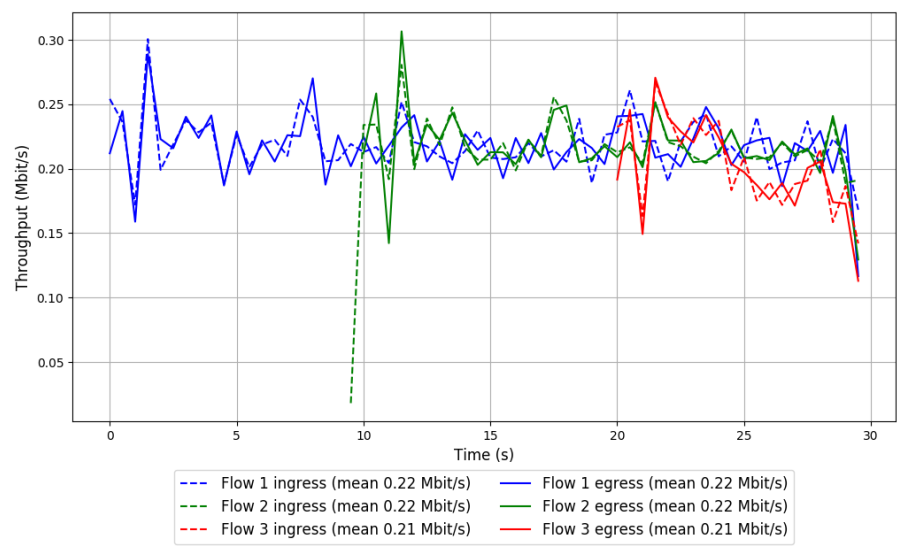
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.548 ms

Loss rate: 1.74%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-02-17 00:29:22

End at: 2018-02-17 00:29:52

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 90.860 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.078 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 90.904 ms

Loss rate: 0.86%

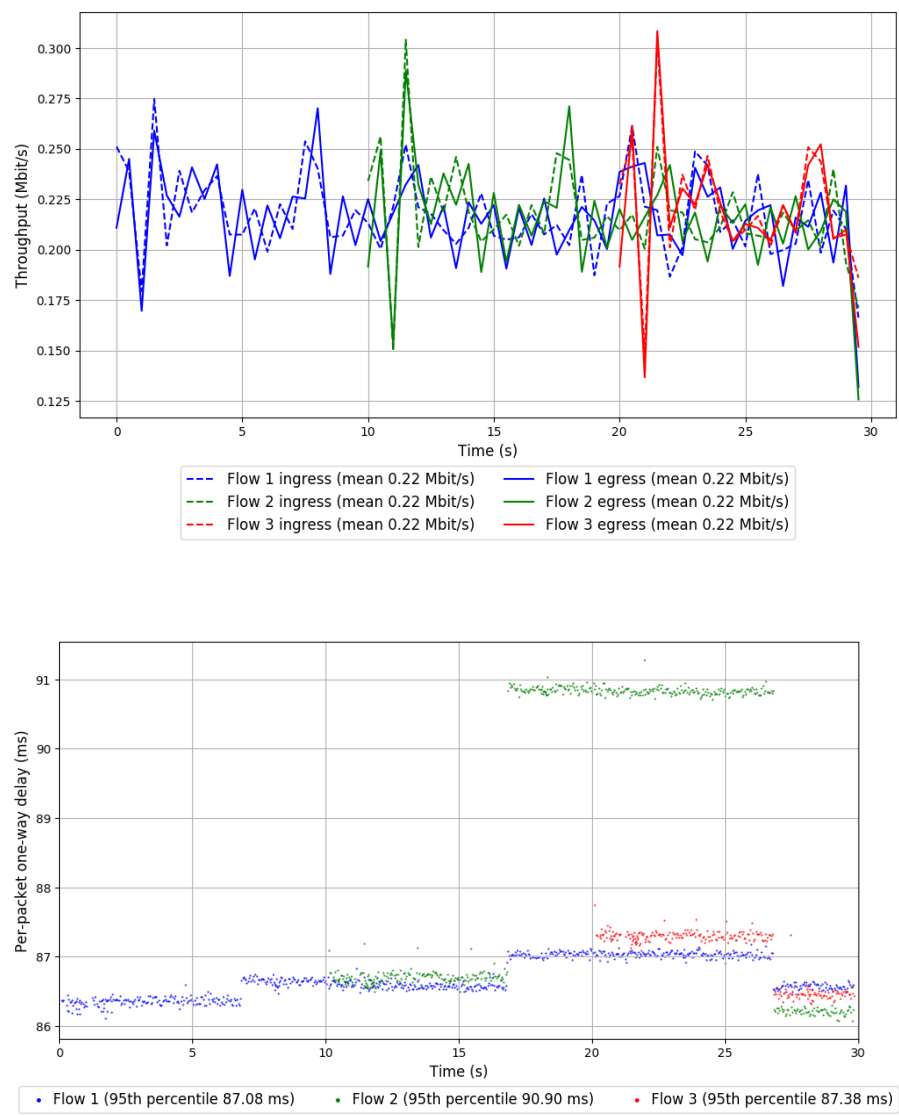
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.381 ms

Loss rate: 1.50%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2018-02-17 00:48:39

End at: 2018-02-17 00:49:09

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

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

Loss rate: 0.77%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 91.198 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.298 ms

Loss rate: 0.84%

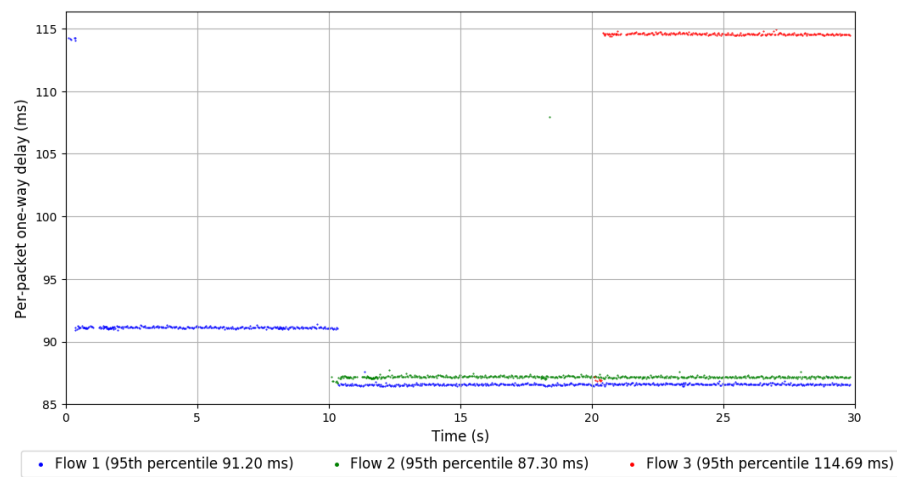
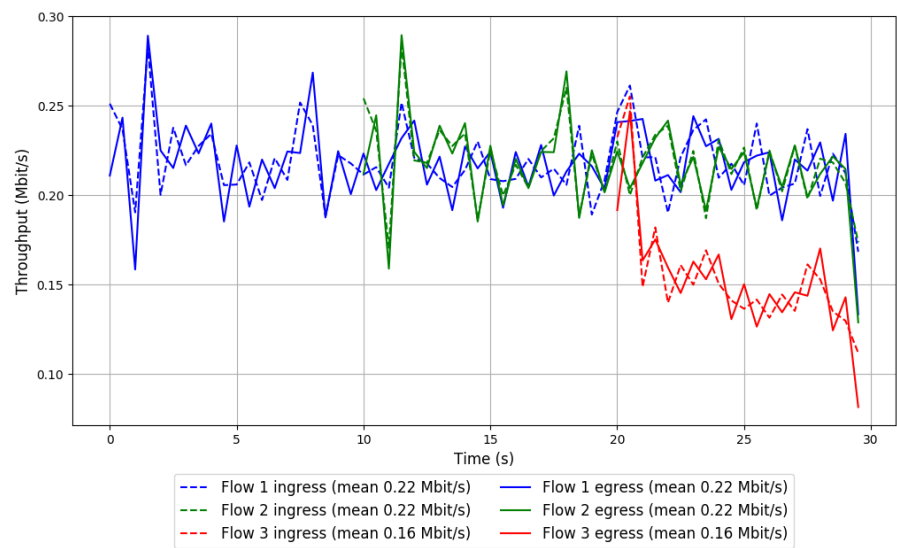
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.687 ms

Loss rate: 1.61%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-02-17 01:07:27

End at: 2018-02-17 01:07:57

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 91.104 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 90.892 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 91.148 ms

Loss rate: 0.84%

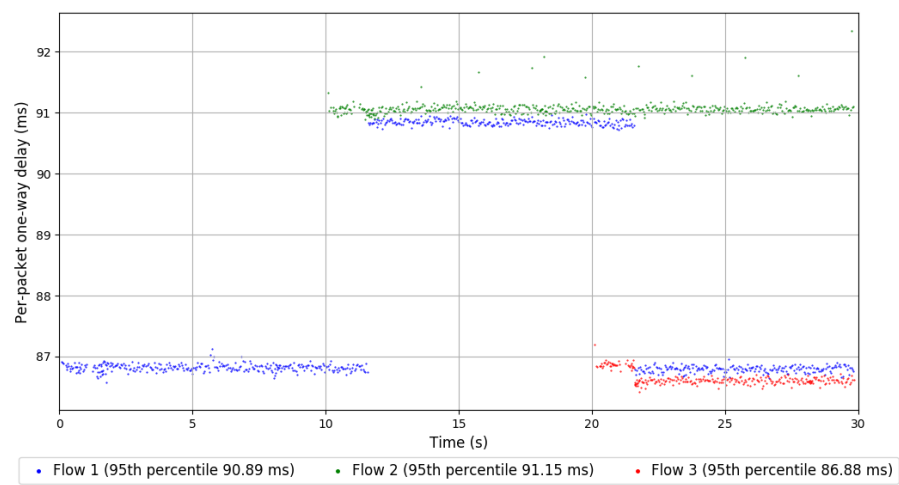
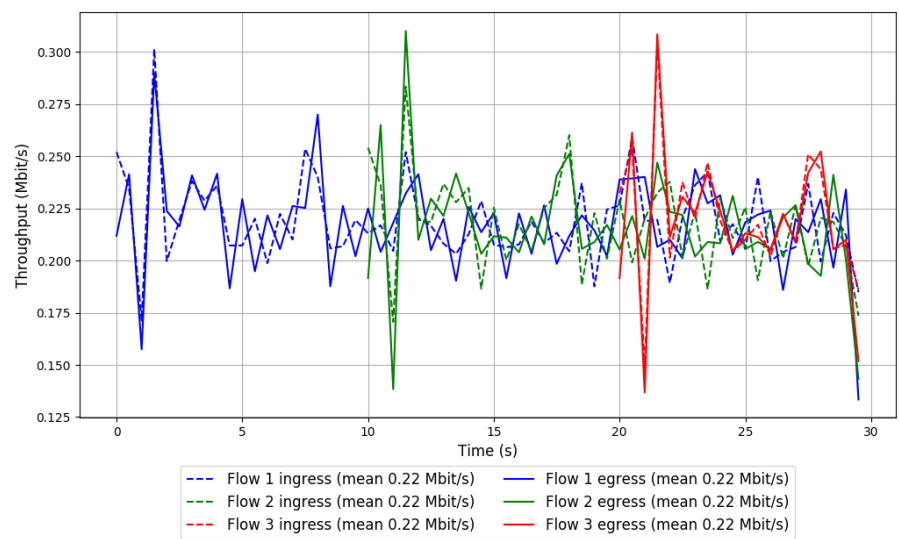
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.883 ms

Loss rate: 1.50%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-02-17 01:26:10

End at: 2018-02-17 01:26:40

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 90.771 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 90.795 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.85%

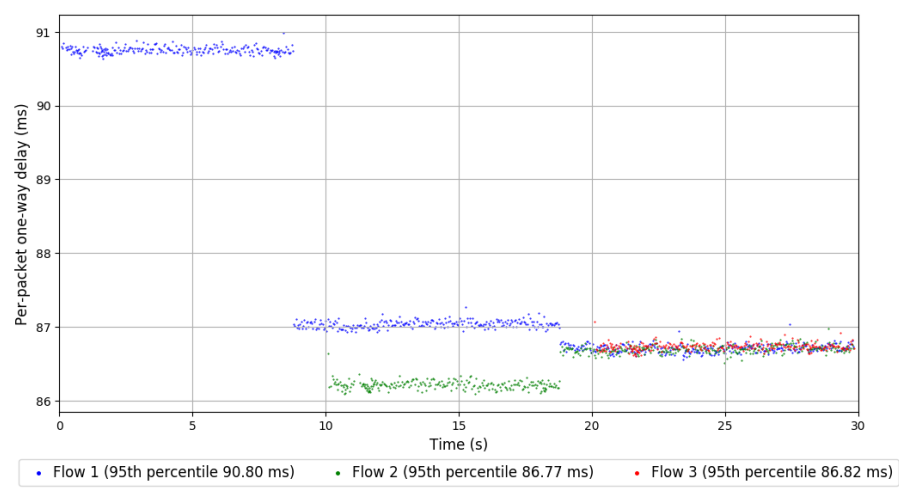
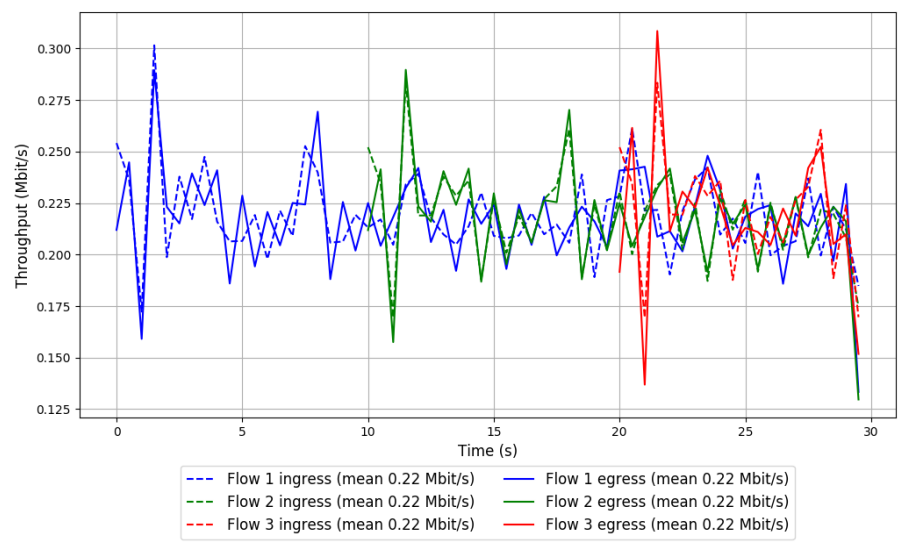
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.824 ms

Loss rate: 1.50%

Run 9: Report of SReAM — Data Link

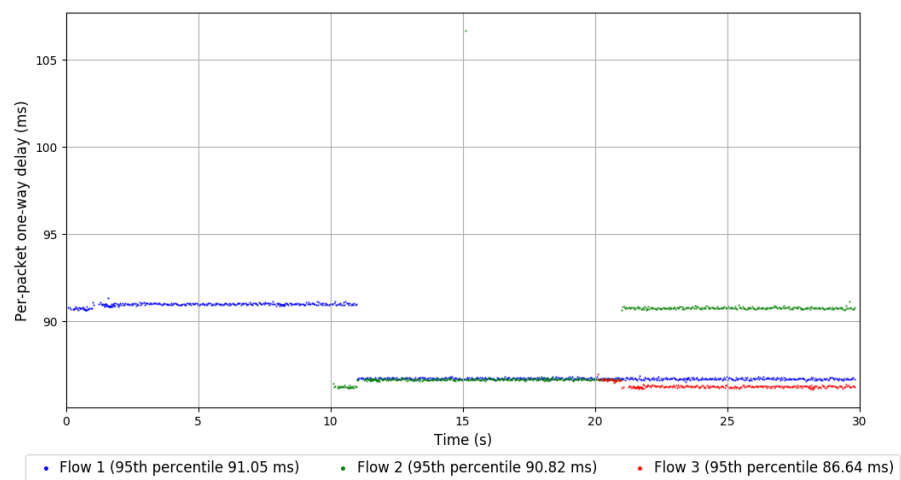
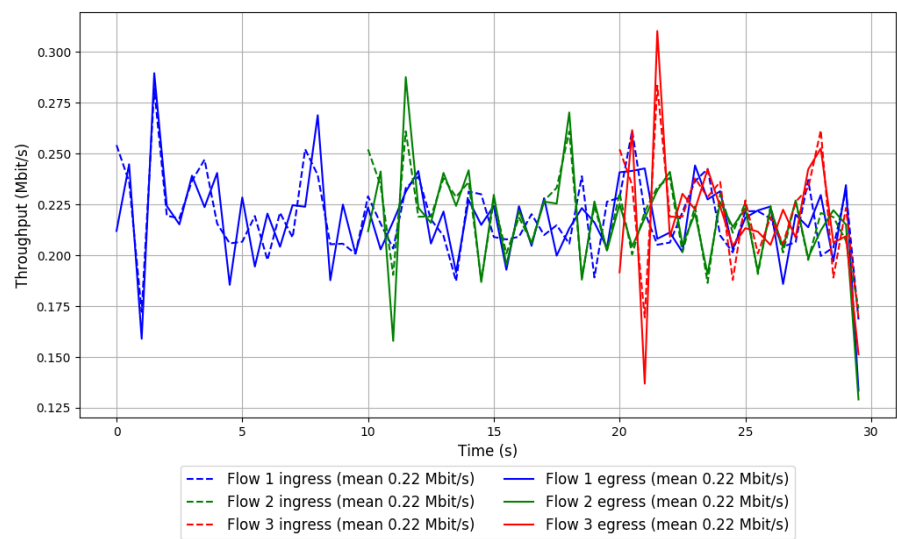


```
Run 10: Statistics of SReAM

Start at: 2018-02-17 01:44:58
End at: 2018-02-17 01:45:28

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 91.024 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 91.048 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.823 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.645 ms
Loss rate: 1.50%
```

Run 10: Report of SReAM — Data Link

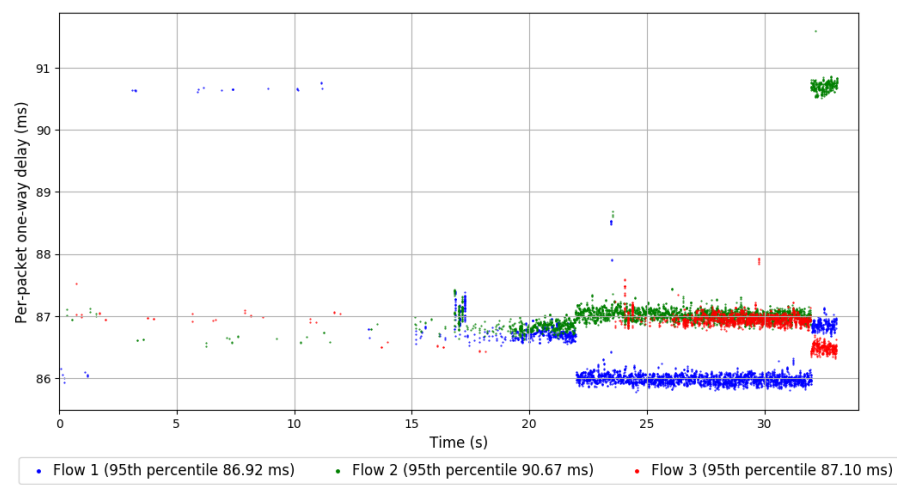
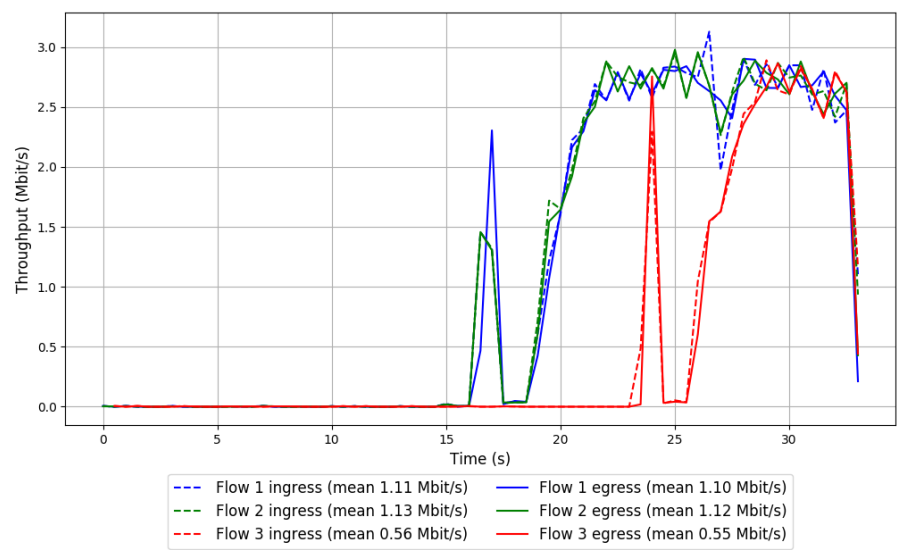


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-16 22:51:20
End at: 2018-02-16 22:51:50

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 87.187 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 86.917 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 90.675 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 87.098 ms
Loss rate: 3.17%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-02-16 23:10:25

End at: 2018-02-16 23:10:55

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.06 Mbit/s

95th percentile per-packet one-way delay: 87.112 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 87.128 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 86.920 ms

Loss rate: 1.20%

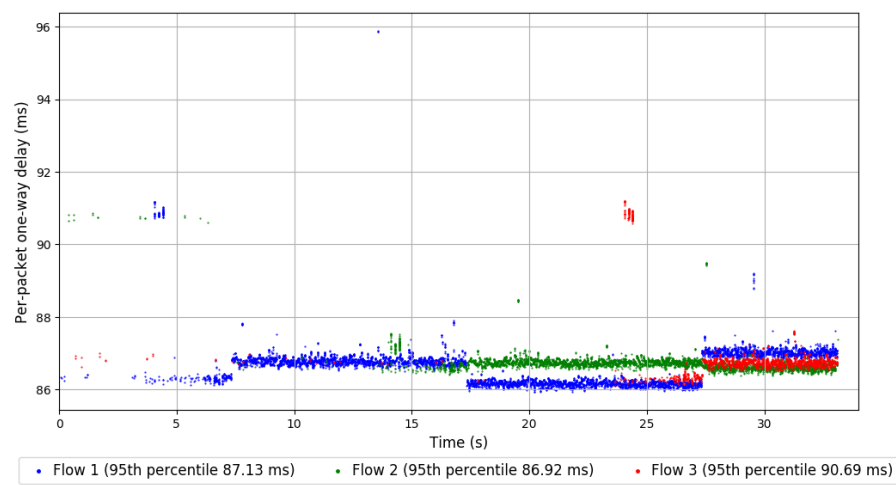
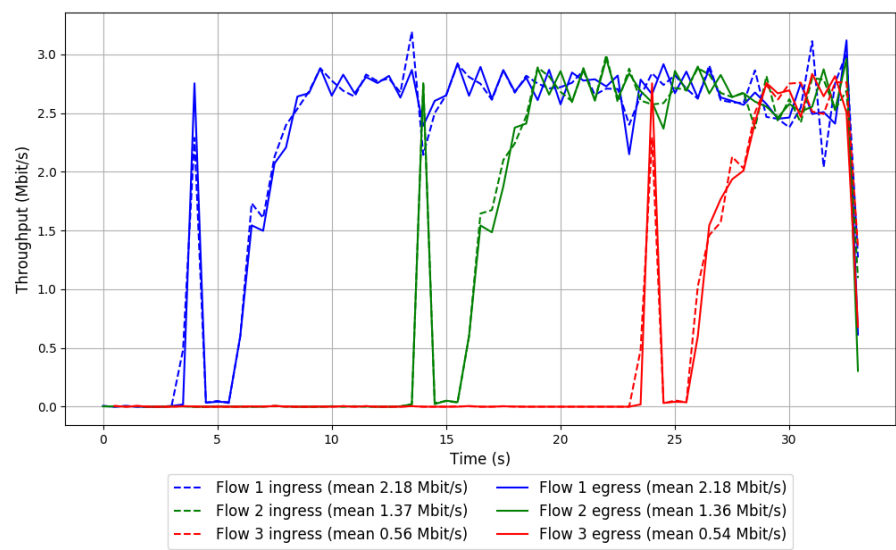
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 90.689 ms

Loss rate: 3.13%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-02-16 23:29:36

End at: 2018-02-16 23:30:06

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 87.253 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 2.14 Mbit/s

95th percentile per-packet one-way delay: 87.147 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 87.311 ms

Loss rate: 1.07%

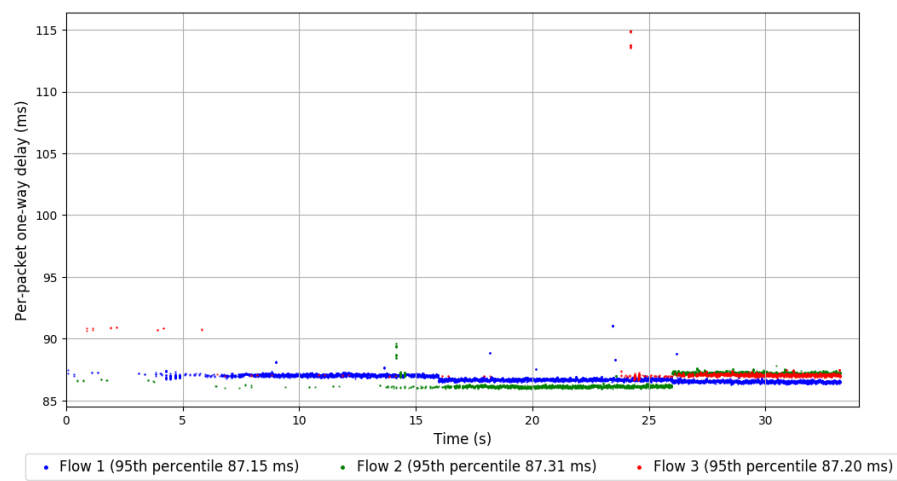
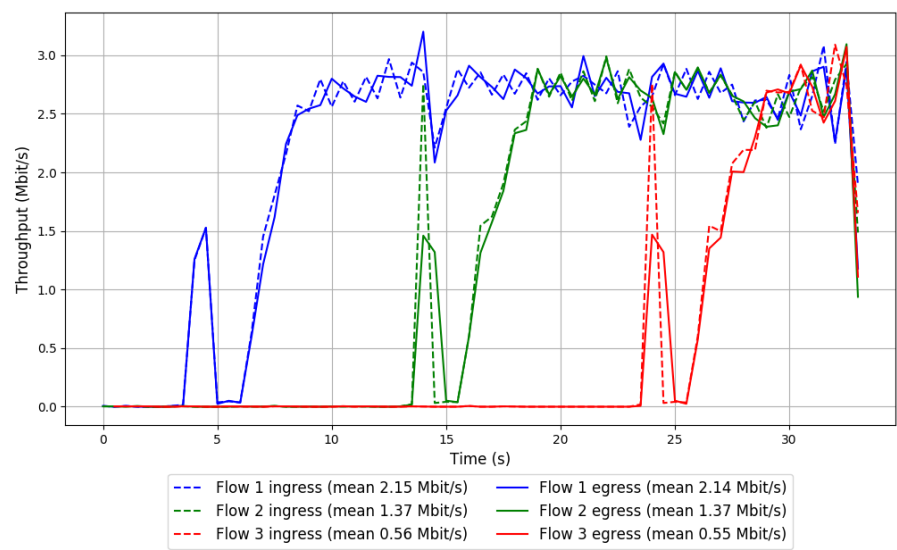
-- Flow 3:

Average throughput: 0.55 Mbit/s

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

Loss rate: 2.69%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-02-16 23:48:37

End at: 2018-02-16 23:49:07

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 90.774 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 2.18 Mbit/s

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

Loss rate: 0.80%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 90.819 ms

Loss rate: 1.29%

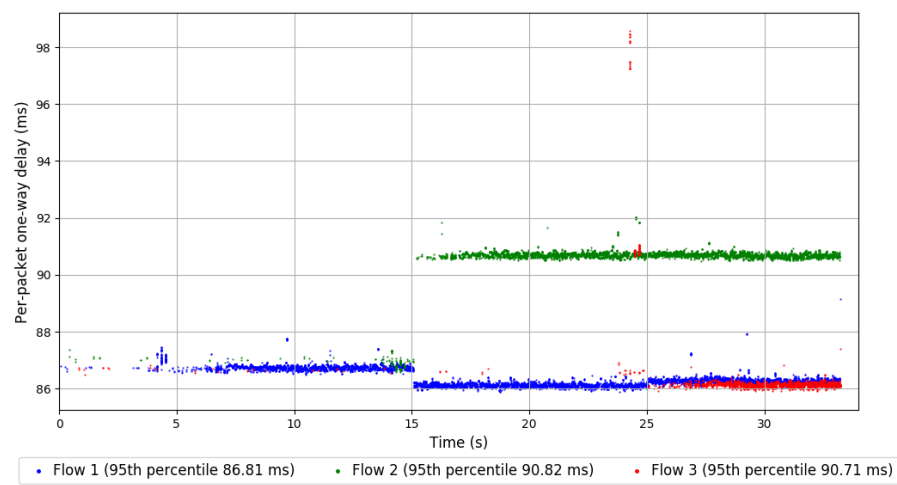
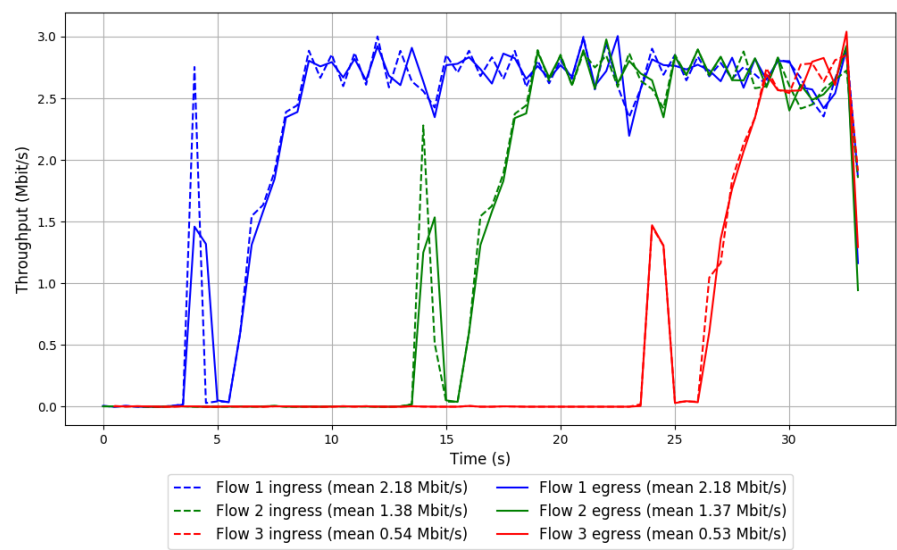
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 90.714 ms

Loss rate: 3.03%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-02-17 00:07:45

End at: 2018-02-17 00:08:15

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.96 Mbit/s

95th percentile per-packet one-way delay: 87.279 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 87.095 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 87.358 ms

Loss rate: 1.24%

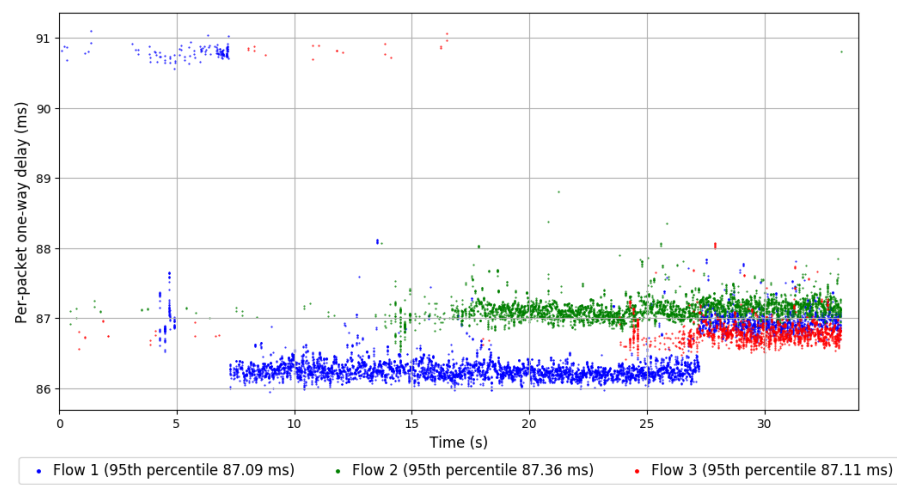
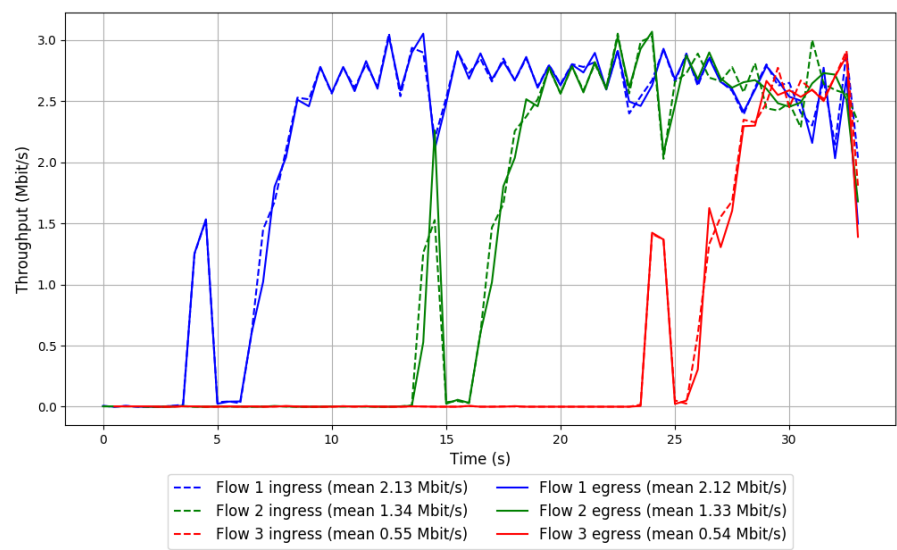
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 87.113 ms

Loss rate: 2.58%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-02-17 00:27:13

End at: 2018-02-17 00:27:43

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 90.958 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 90.997 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 86.823 ms

Loss rate: 0.82%

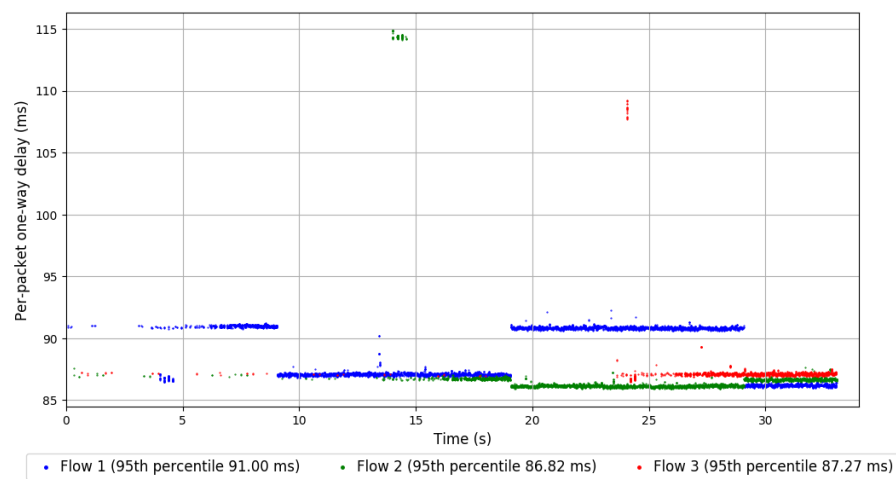
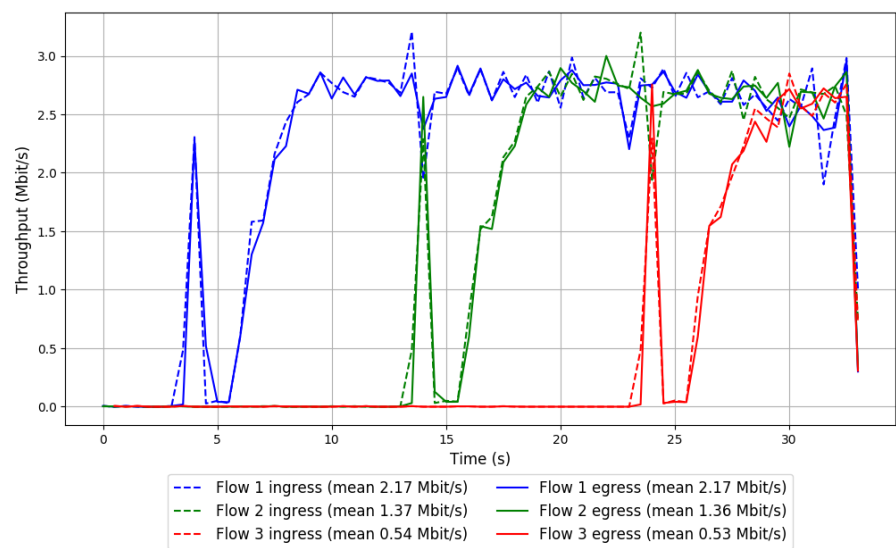
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 87.272 ms

Loss rate: 2.66%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-02-17 00:46:29

End at: 2018-02-17 00:46:59

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.05 Mbit/s

95th percentile per-packet one-way delay: 87.226 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 87.240 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 86.954 ms

Loss rate: 0.79%

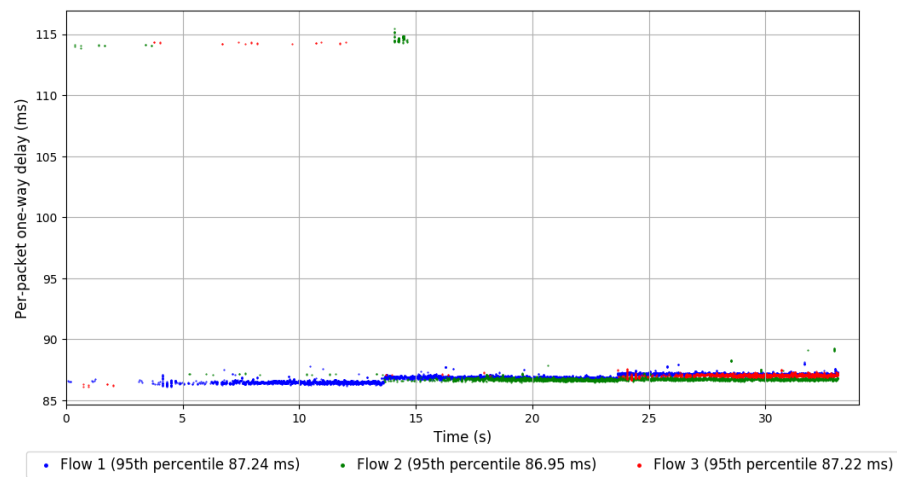
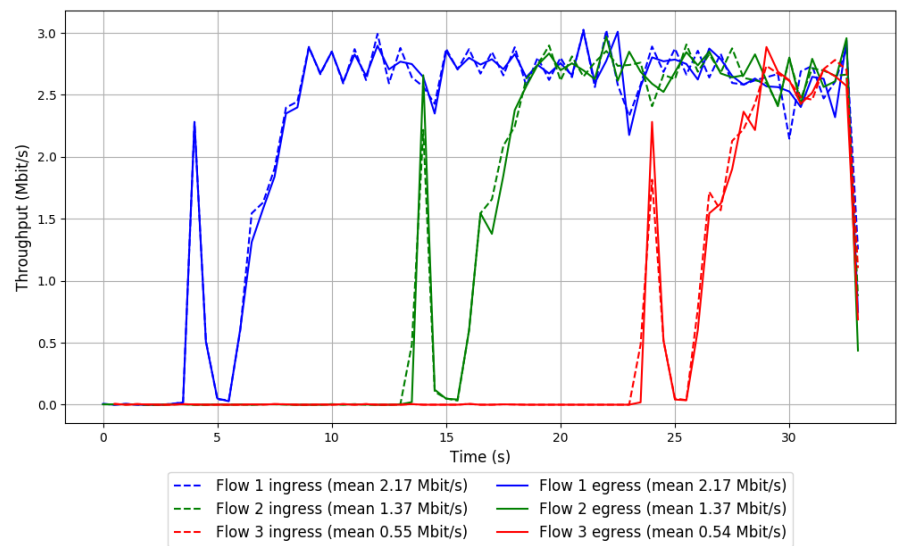
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 87.218 ms

Loss rate: 3.06%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-02-17 01:05:21

End at: 2018-02-17 01:05:51

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 91.202 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 87.209 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 91.254 ms

Loss rate: 0.80%

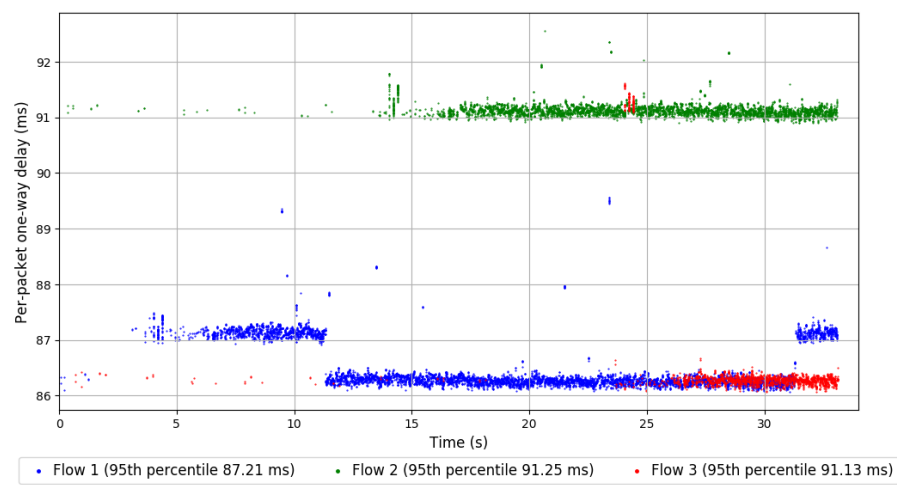
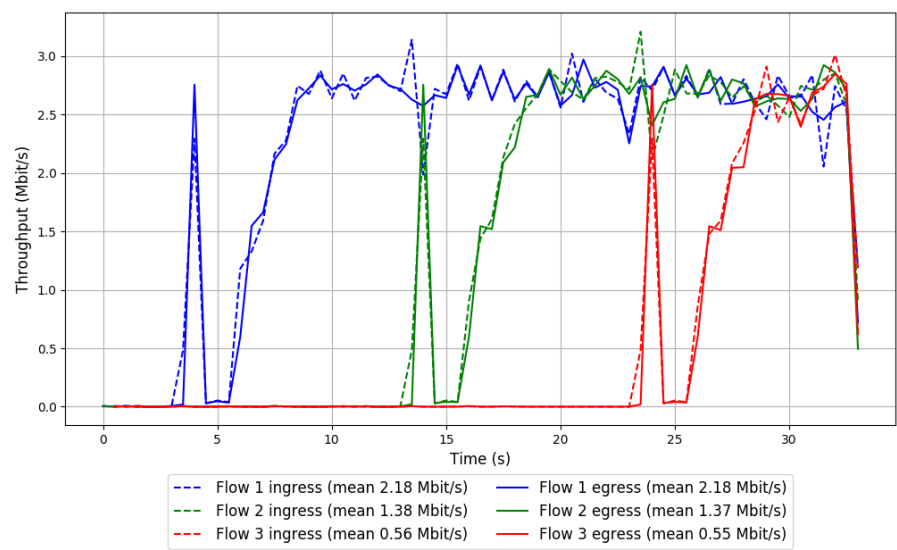
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 91.128 ms

Loss rate: 2.76%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-02-17 01:24:10

End at: 2018-02-17 01:24:40

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 90.987 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 91.028 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 87.103 ms

Loss rate: 1.03%

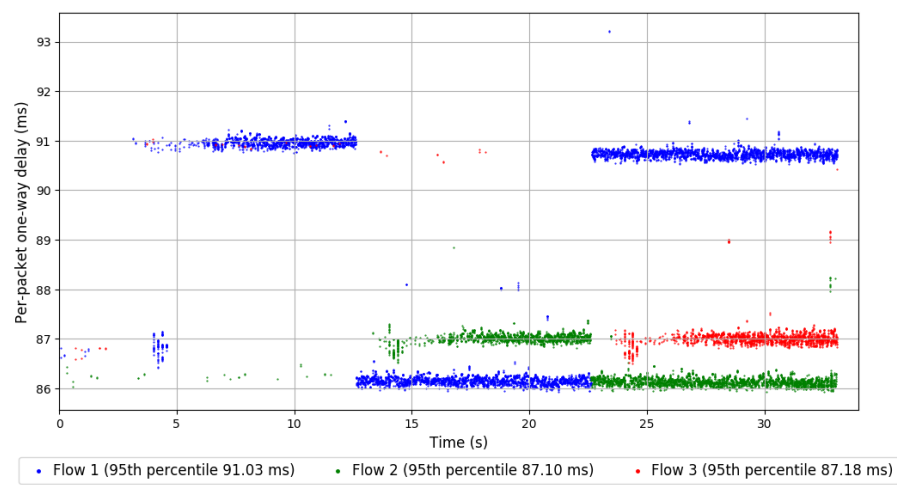
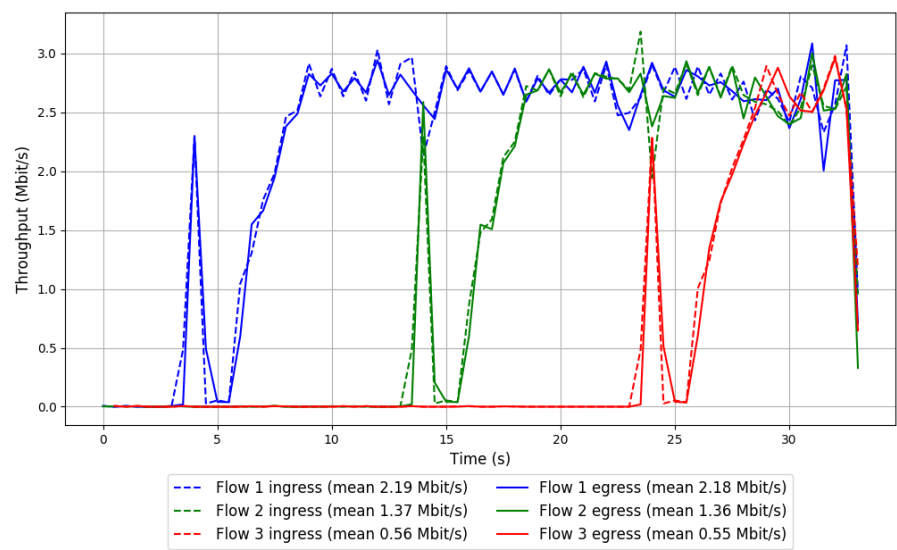
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 87.184 ms

Loss rate: 2.72%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-02-17 01:42:56

End at: 2018-02-17 01:43:26

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.06 Mbit/s

95th percentile per-packet one-way delay: 87.106 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 87.153 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 1.36 Mbit/s

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

Loss rate: 0.67%

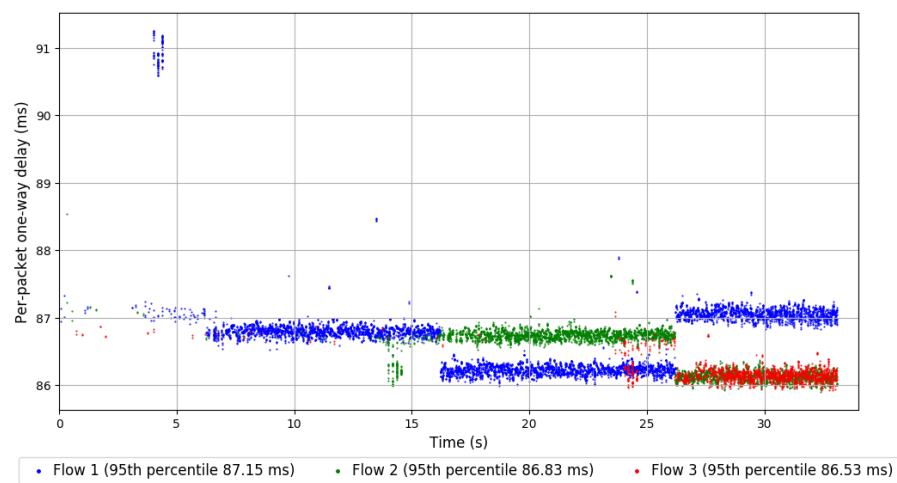
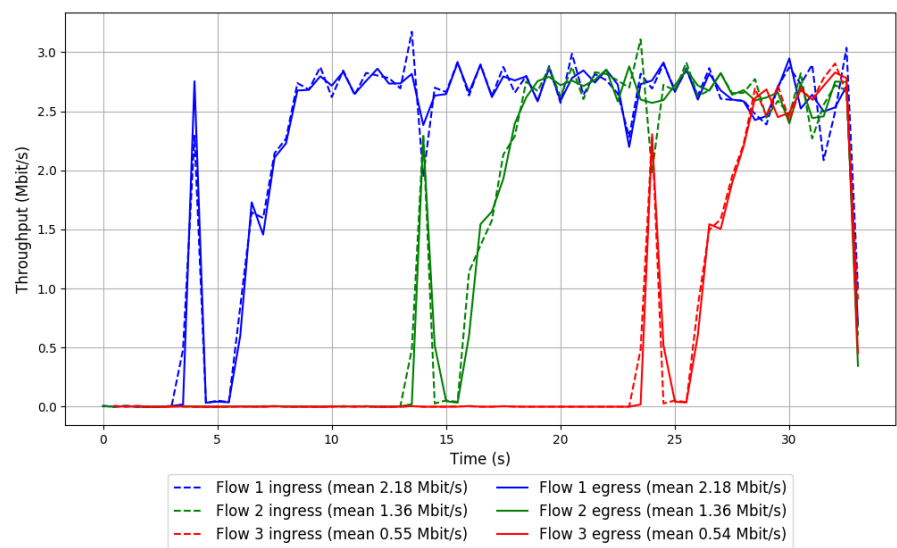
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 86.531 ms

Loss rate: 2.53%

Run 10: Report of WebRTC media — Data Link

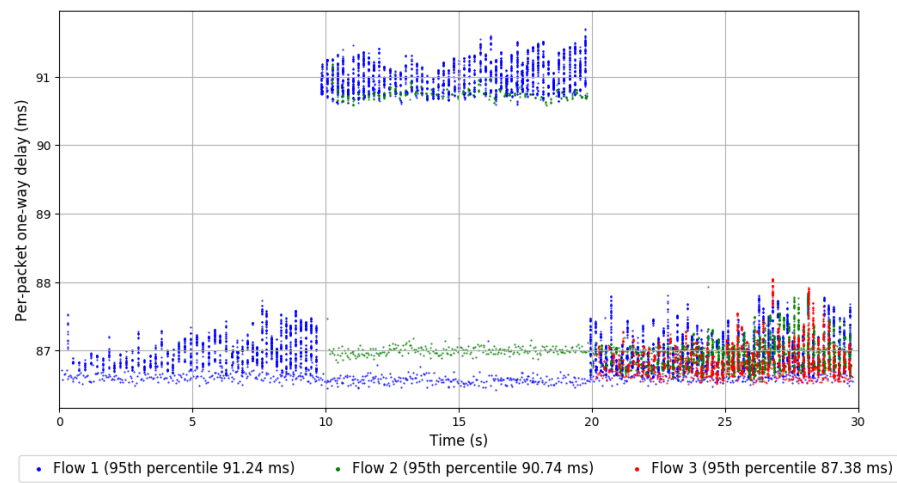
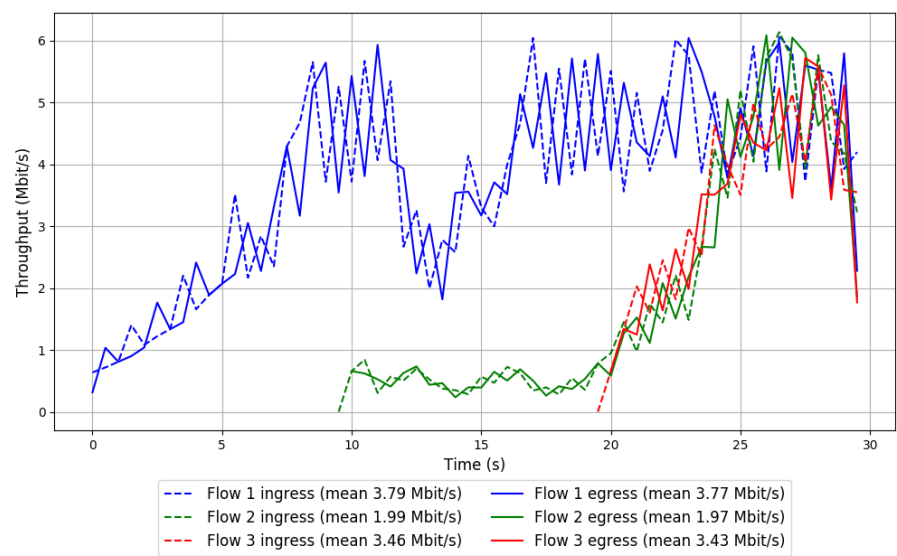


```
Run 1: Statistics of Sprout

Start at: 2018-02-16 22:59:49
End at: 2018-02-16 23:00:19

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.20 Mbit/s
95th percentile per-packet one-way delay: 91.158 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 91.239 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 90.738 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 87.379 ms
Loss rate: 2.61%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-02-16 23:18:37

End at: 2018-02-16 23:19:07

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.56 Mbit/s

95th percentile per-packet one-way delay: 87.842 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 87.817 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 3.49 Mbit/s

95th percentile per-packet one-way delay: 87.897 ms

Loss rate: 1.13%

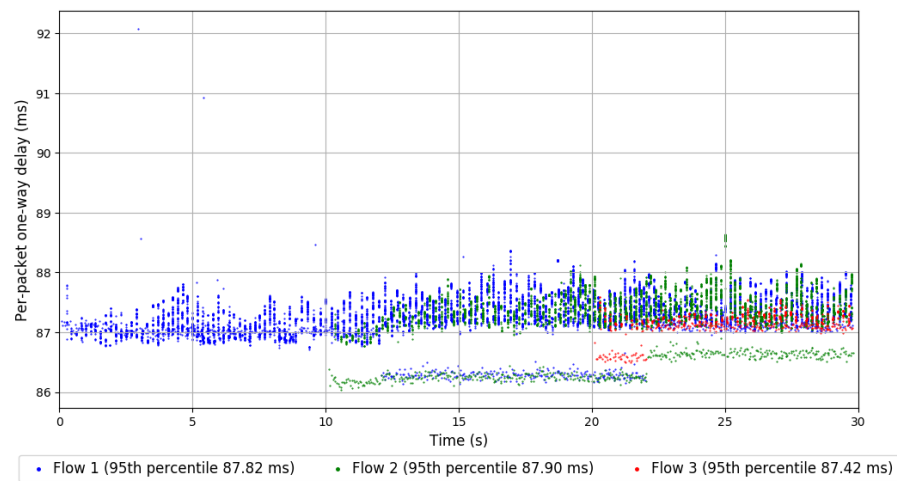
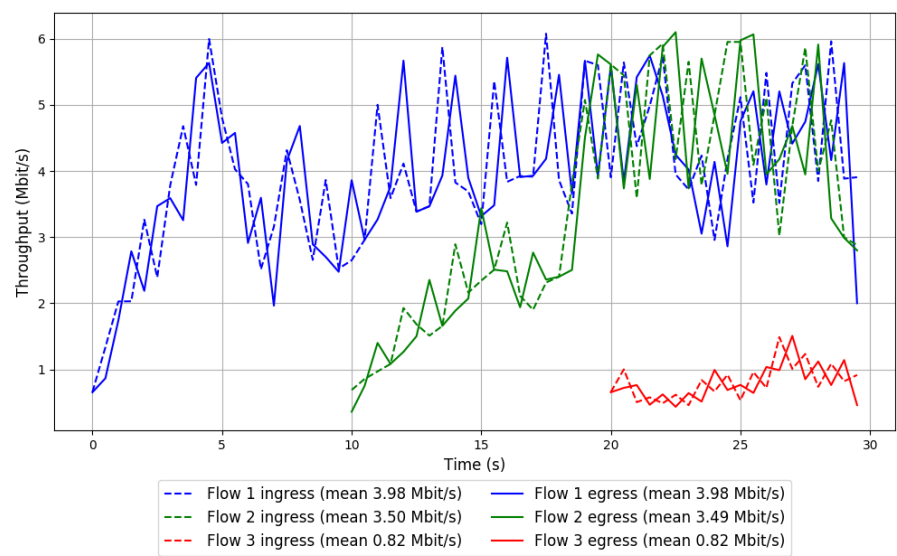
-- Flow 3:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 87.419 ms

Loss rate: 2.82%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-02-16 23:37:58

End at: 2018-02-16 23:38:28

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.04 Mbit/s

95th percentile per-packet one-way delay: 87.579 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 4.31 Mbit/s

95th percentile per-packet one-way delay: 87.868 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 87.393 ms

Loss rate: 1.04%

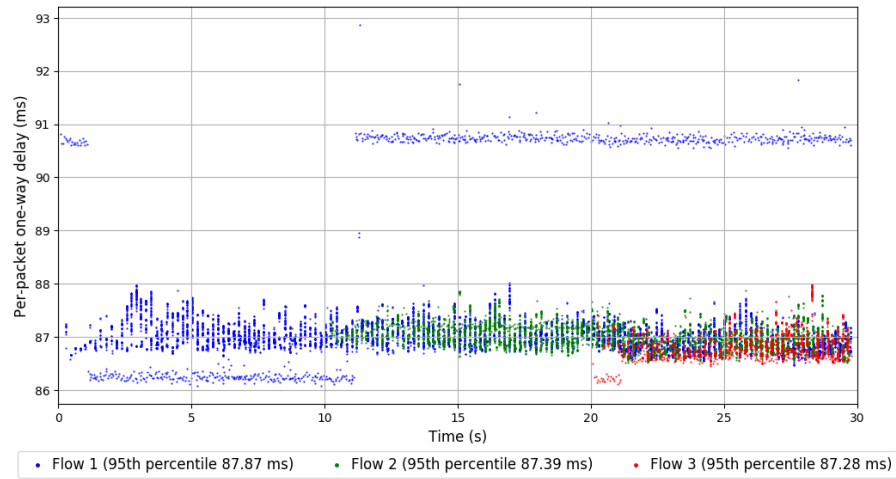
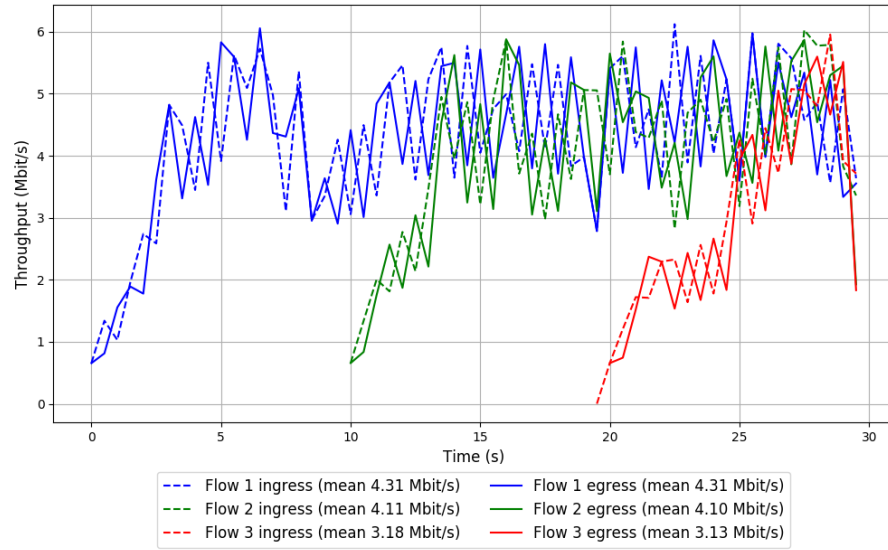
-- Flow 3:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 87.282 ms

Loss rate: 3.01%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-02-16 23:57:04

End at: 2018-02-16 23:57:34

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.14 Mbit/s

95th percentile per-packet one-way delay: 91.248 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 3.48 Mbit/s

95th percentile per-packet one-way delay: 91.300 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 3.32 Mbit/s

95th percentile per-packet one-way delay: 91.201 ms

Loss rate: 1.26%

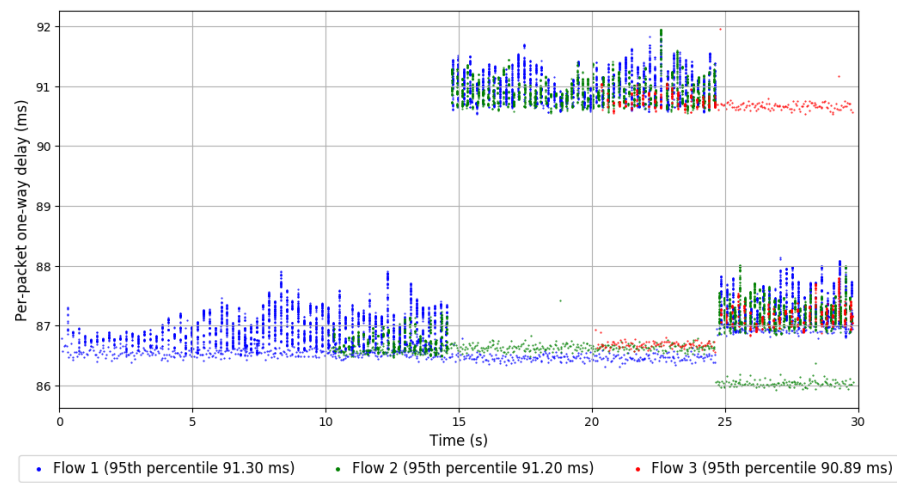
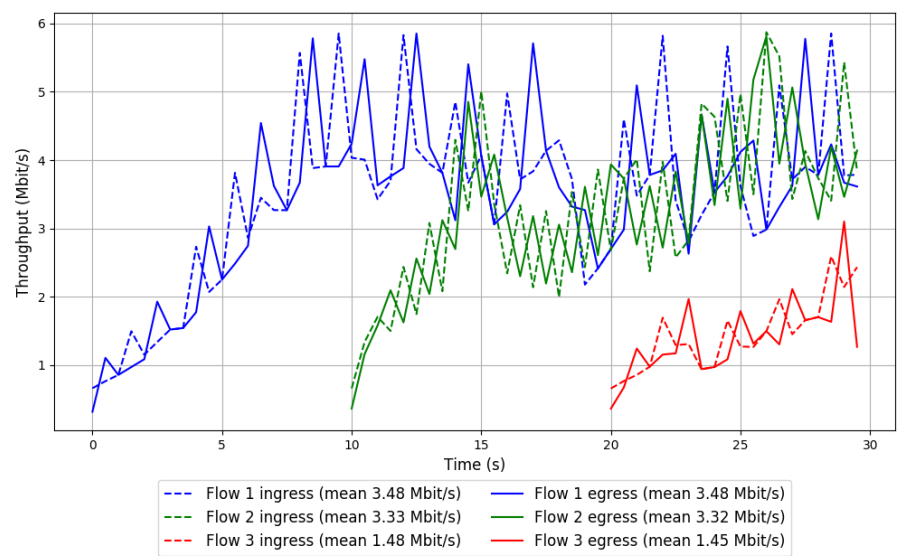
-- Flow 3:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 90.885 ms

Loss rate: 4.03%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-02-17 00:16:08

End at: 2018-02-17 00:16:38

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.30 Mbit/s

95th percentile per-packet one-way delay: 87.704 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 2.87 Mbit/s

95th percentile per-packet one-way delay: 90.626 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 3.07 Mbit/s

95th percentile per-packet one-way delay: 87.453 ms

Loss rate: 1.63%

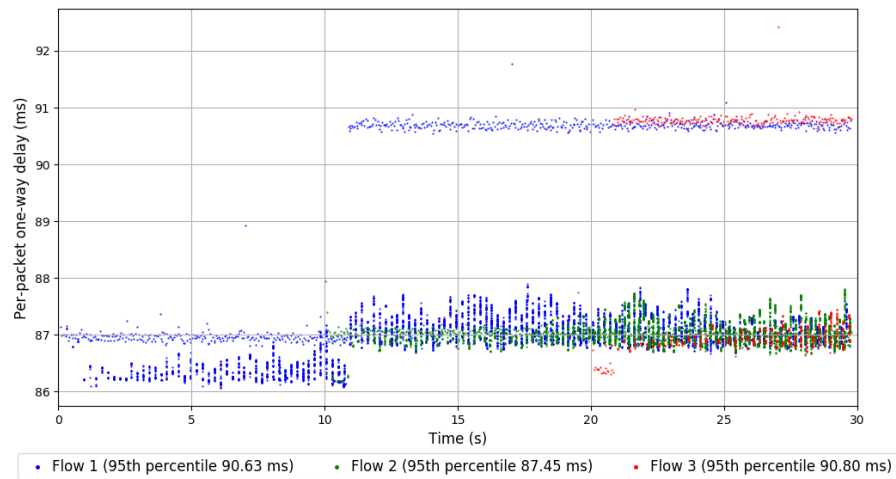
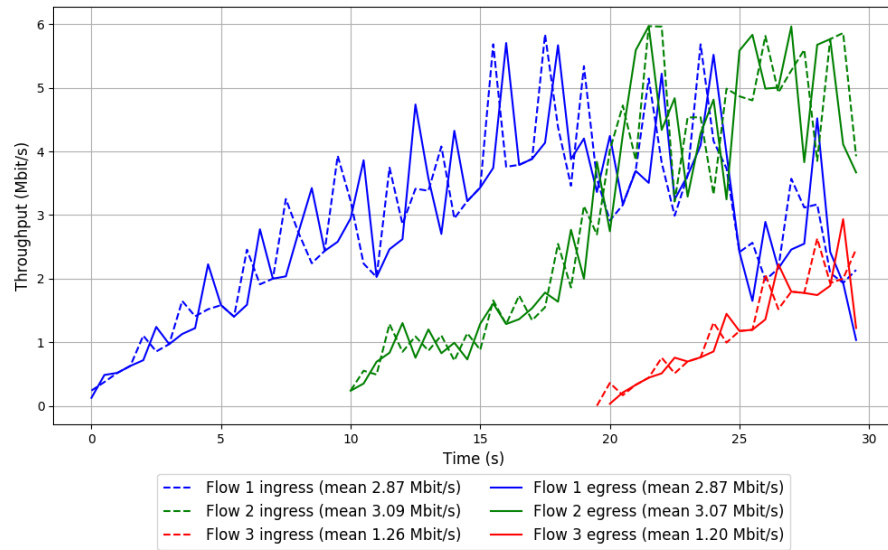
-- Flow 3:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 90.800 ms

Loss rate: 6.13%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-02-17 00:35:36

End at: 2018-02-17 00:36:06

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.84 Mbit/s

95th percentile per-packet one-way delay: 91.268 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 3.02 Mbit/s

95th percentile per-packet one-way delay: 114.377 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 4.00 Mbit/s

95th percentile per-packet one-way delay: 87.675 ms

Loss rate: 1.11%

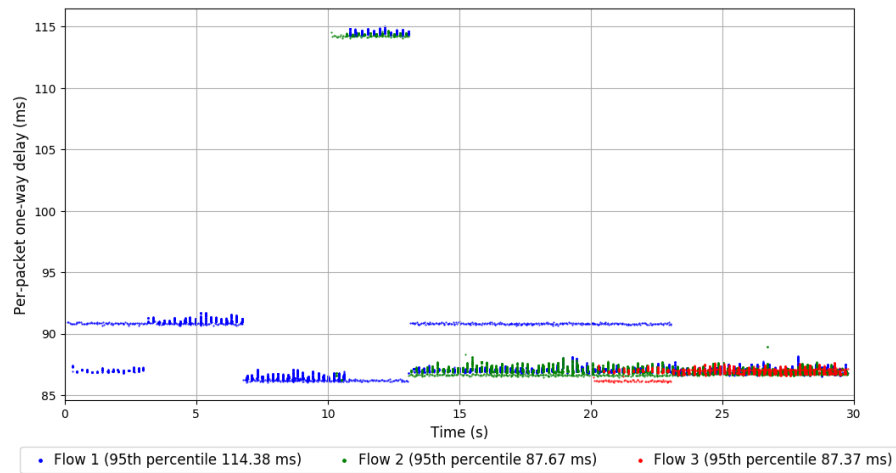
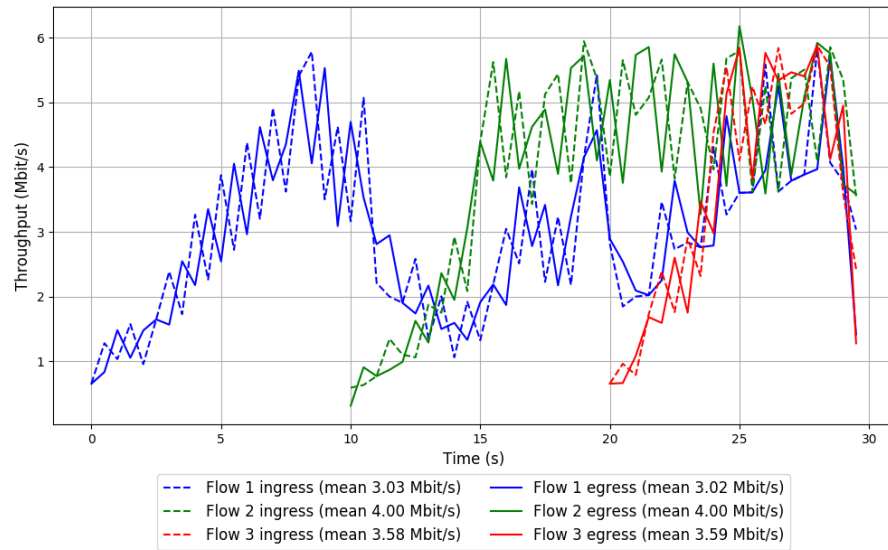
-- Flow 3:

Average throughput: 3.59 Mbit/s

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

Loss rate: 1.73%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-02-17 00:54:39

End at: 2018-02-17 00:55:09

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.62 Mbit/s

95th percentile per-packet one-way delay: 91.359 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 4.01 Mbit/s

95th percentile per-packet one-way delay: 91.357 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 90.981 ms

Loss rate: 2.08%

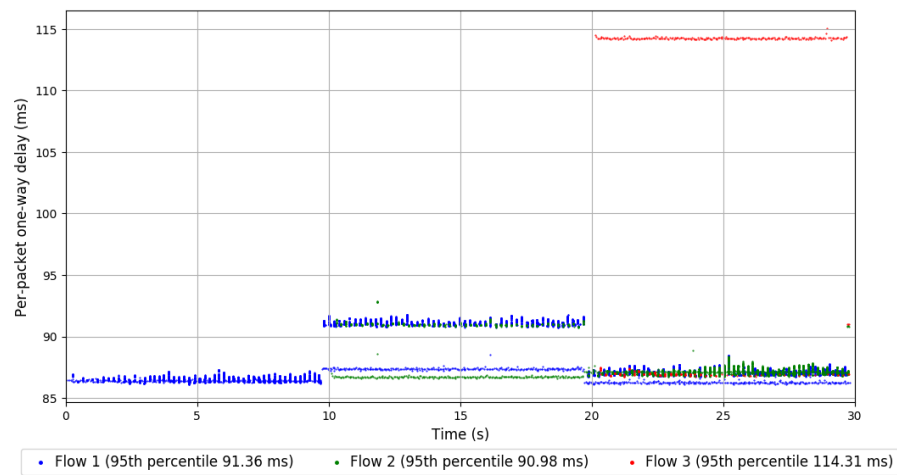
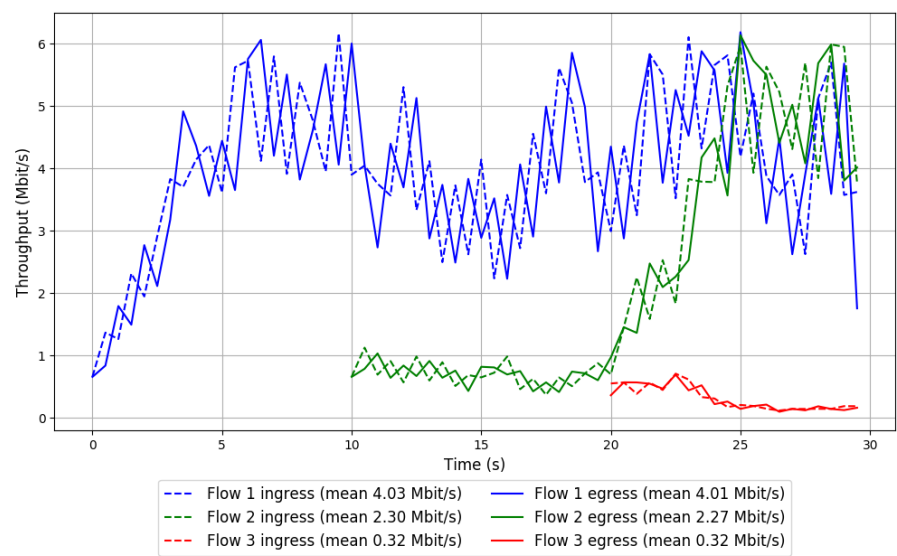
-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 114.313 ms

Loss rate: 1.48%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-02-17 01:13:38

End at: 2018-02-17 01:14:08

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 87.484 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 87.451 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 91.030 ms

Loss rate: 0.87%

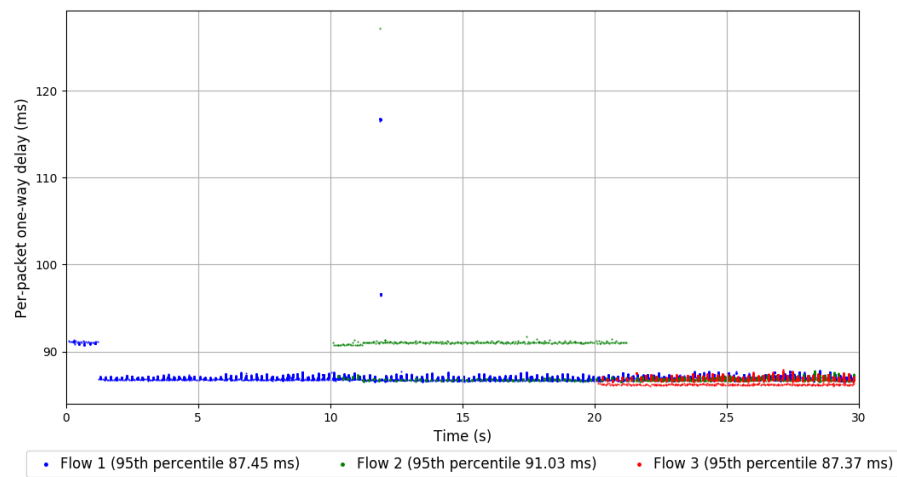
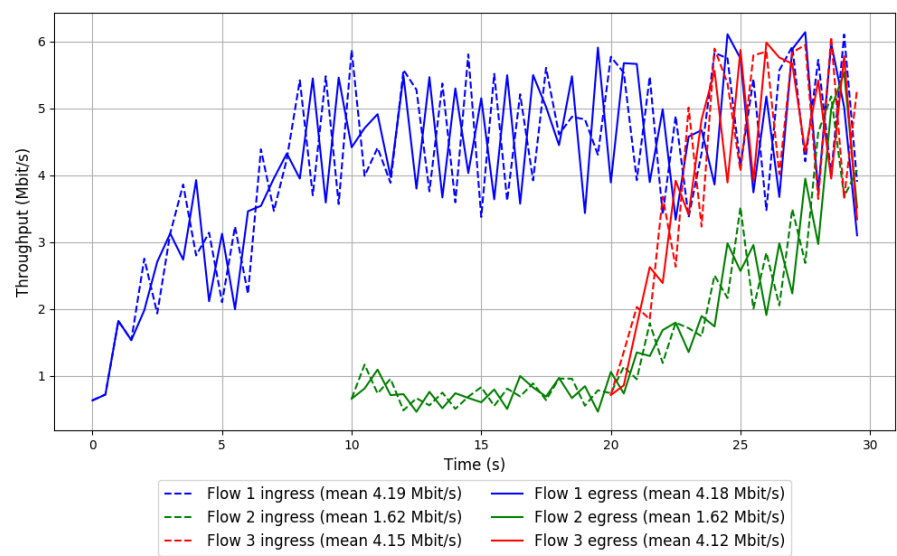
-- Flow 3:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 87.374 ms

Loss rate: 2.38%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-02-17 01:32:16

End at: 2018-02-17 01:32:46

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.60 Mbit/s

95th percentile per-packet one-way delay: 87.285 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 87.237 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 4.27 Mbit/s

95th percentile per-packet one-way delay: 87.236 ms

Loss rate: 1.10%

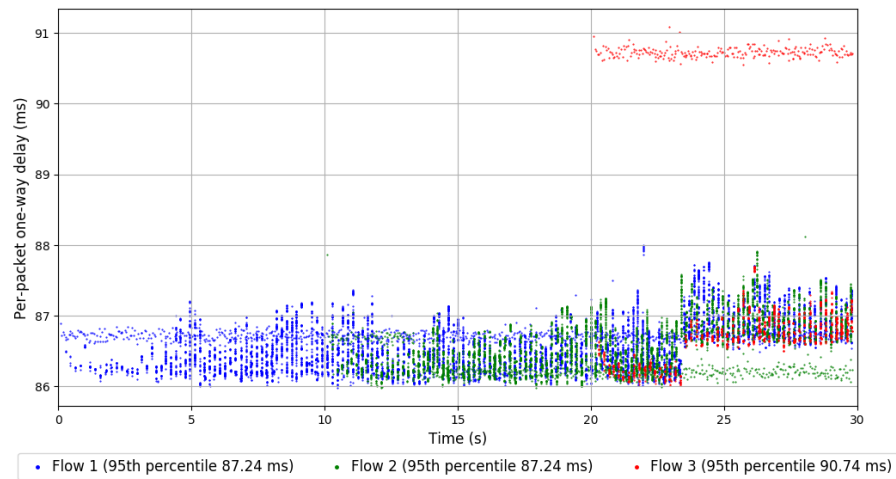
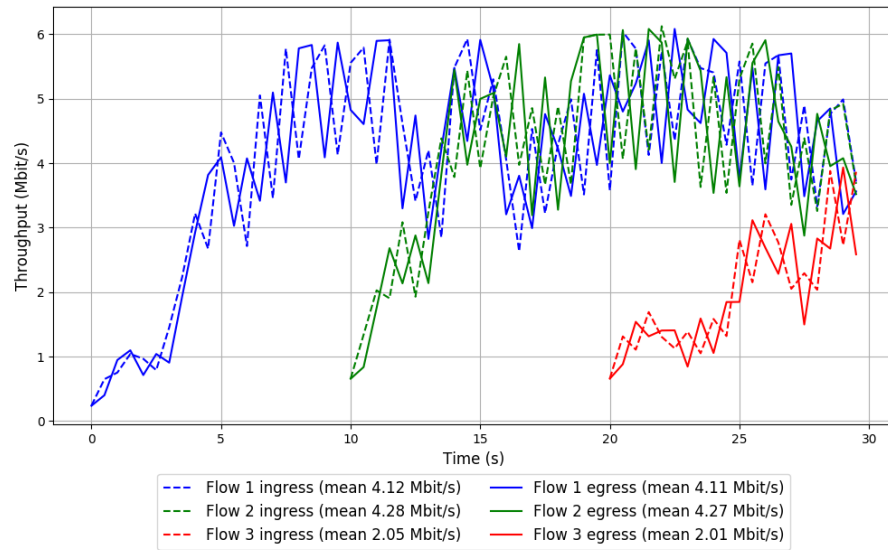
-- Flow 3:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 90.741 ms

Loss rate: 3.18%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-02-17 01:51:07

End at: 2018-02-17 01:51:37

Below is generated by plot.py at 2018-02-17 05:49:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.48 Mbit/s

95th percentile per-packet one-way delay: 87.528 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 87.648 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 4.32 Mbit/s

95th percentile per-packet one-way delay: 87.477 ms

Loss rate: 0.80%

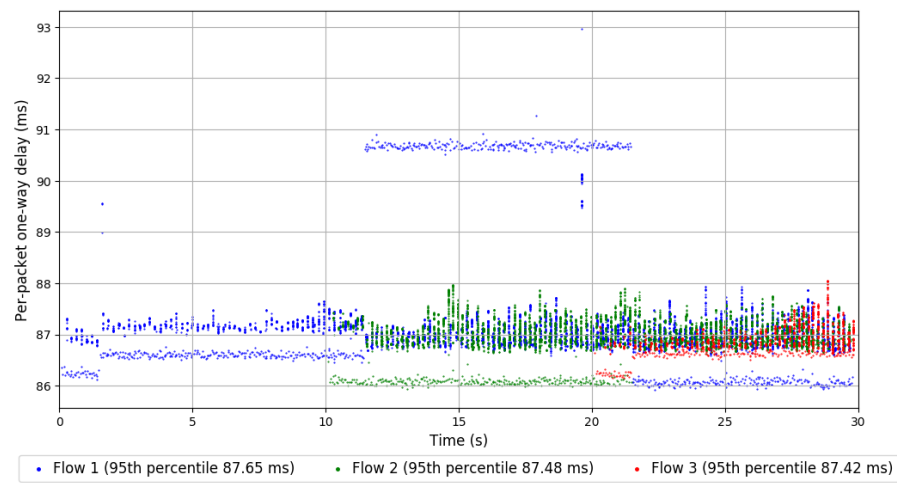
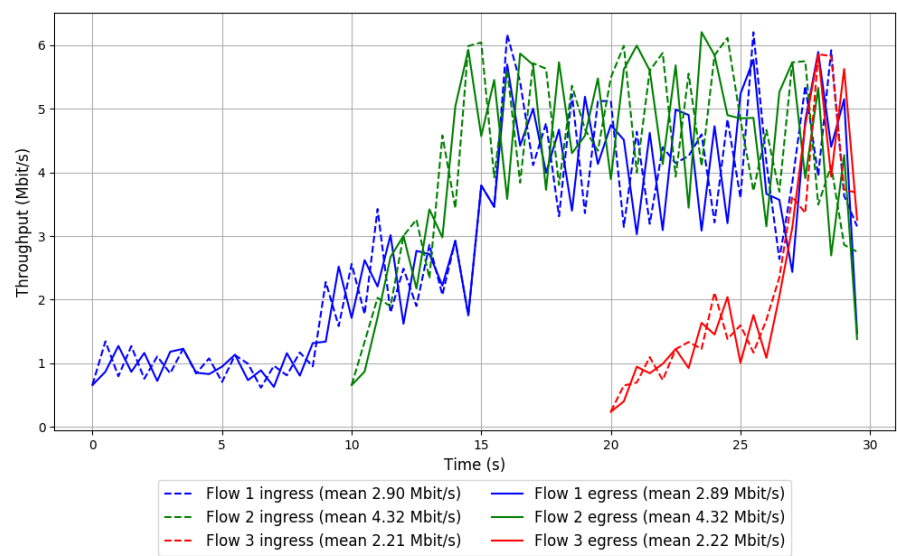
-- Flow 3:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 87.425 ms

Loss rate: 0.98%

Run 10: Report of Sprout — Data Link

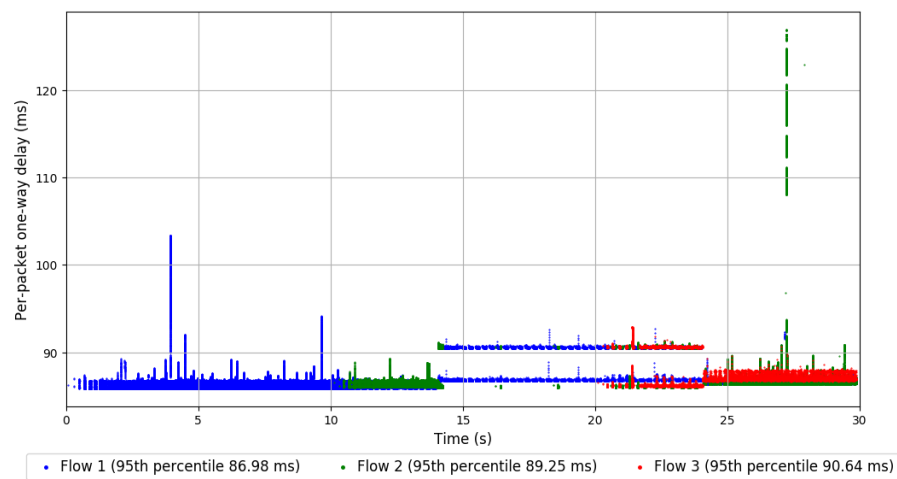
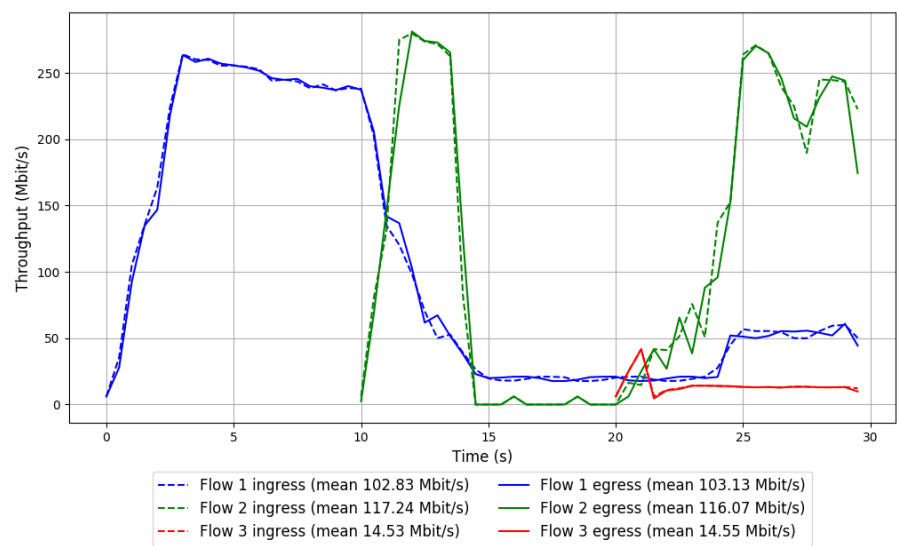


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-16 23:02:35
End at: 2018-02-16 23:03:05

# Below is generated by plot.py at 2018-02-17 05:49:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.75 Mbit/s
95th percentile per-packet one-way delay: 87.939 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 103.13 Mbit/s
95th percentile per-packet one-way delay: 86.977 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 116.07 Mbit/s
95th percentile per-packet one-way delay: 89.245 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 14.55 Mbit/s
95th percentile per-packet one-way delay: 90.645 ms
Loss rate: 1.64%
```


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

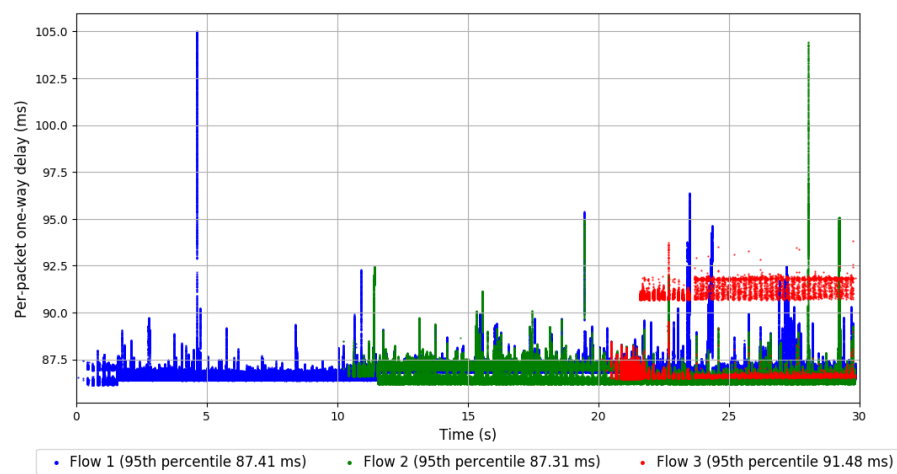
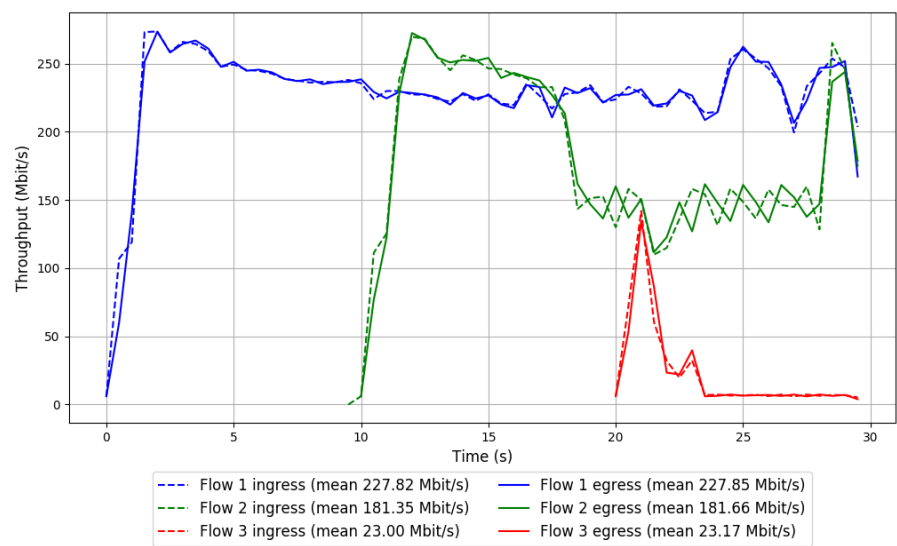


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-16 23:21:27
End at: 2018-02-16 23:21:57

# Below is generated by plot.py at 2018-02-17 05:55:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 356.10 Mbit/s
95th percentile per-packet one-way delay: 87.428 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 227.85 Mbit/s
95th percentile per-packet one-way delay: 87.410 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 181.66 Mbit/s
95th percentile per-packet one-way delay: 87.311 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 23.17 Mbit/s
95th percentile per-packet one-way delay: 91.482 ms
Loss rate: 0.59%
```

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

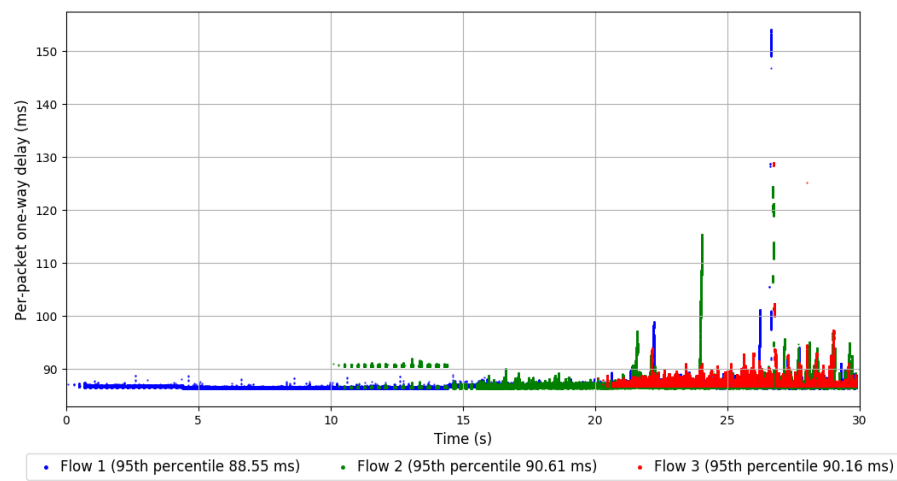
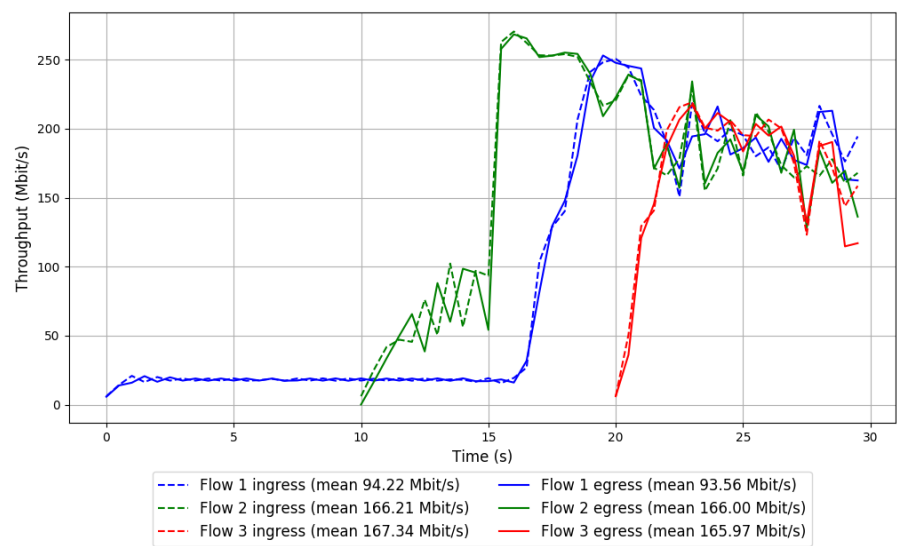


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-16 23:40:44
End at: 2018-02-16 23:41:15

# Below is generated by plot.py at 2018-02-17 05:55:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.12 Mbit/s
95th percentile per-packet one-way delay: 90.005 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 88.548 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 166.00 Mbit/s
95th percentile per-packet one-way delay: 90.609 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 165.97 Mbit/s
95th percentile per-packet one-way delay: 90.162 ms
Loss rate: 2.57%
```

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

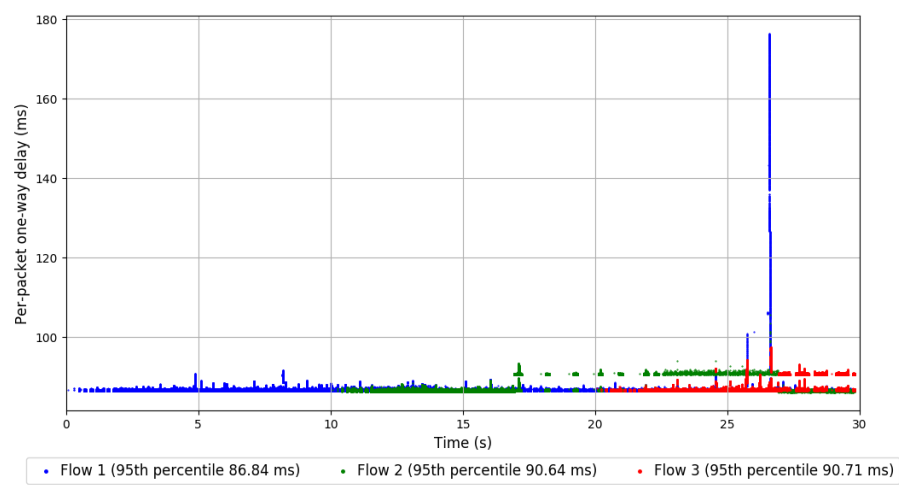
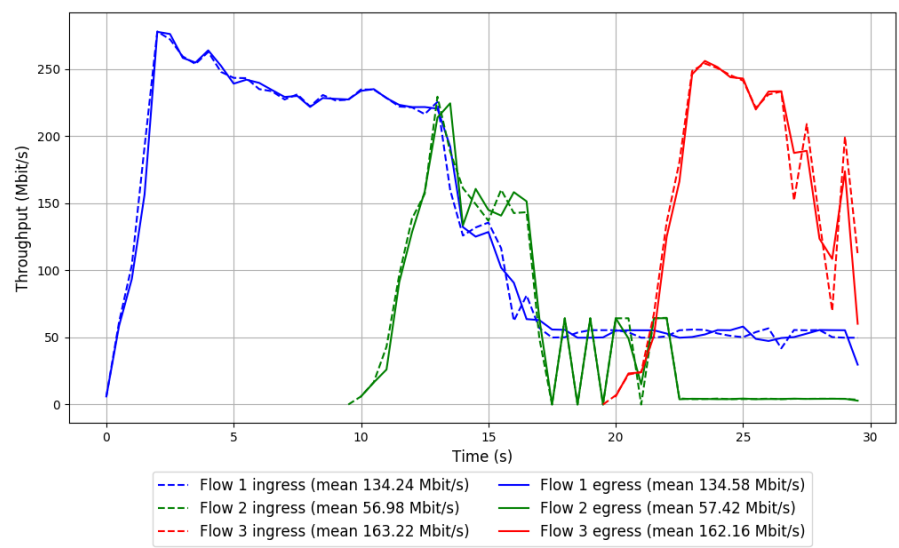


```
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-16 23:59:52
End at: 2018-02-17 00:00:22

# Below is generated by plot.py at 2018-02-17 05:55:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.94 Mbit/s
95th percentile per-packet one-way delay: 90.563 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 134.58 Mbit/s
95th percentile per-packet one-way delay: 86.838 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 57.42 Mbit/s
95th percentile per-packet one-way delay: 90.641 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 162.16 Mbit/s
95th percentile per-packet one-way delay: 90.708 ms
Loss rate: 2.39%
```

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-02-17 00:18:58

End at: 2018-02-17 00:19:28

Below is generated by plot.py at 2018-02-17 05:55:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 361.70 Mbit/s

95th percentile per-packet one-way delay: 87.381 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 217.61 Mbit/s

95th percentile per-packet one-way delay: 87.285 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 210.96 Mbit/s

95th percentile per-packet one-way delay: 87.540 ms

Loss rate: 1.11%

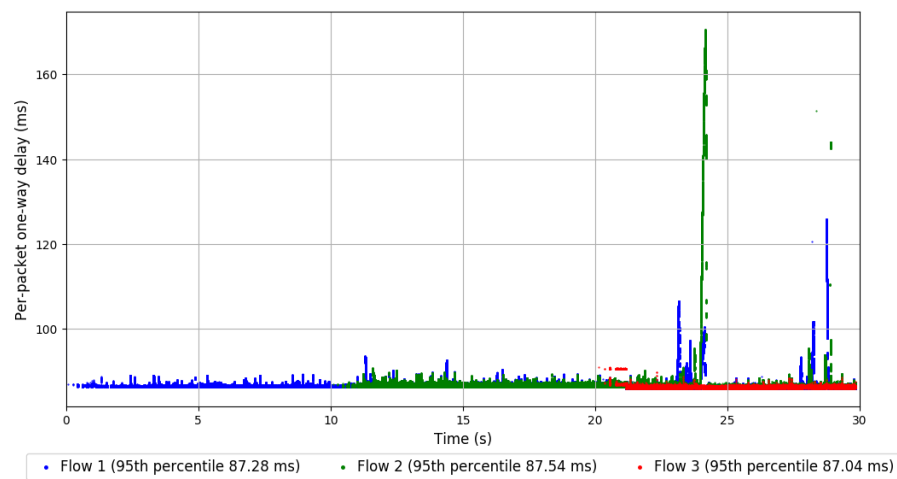
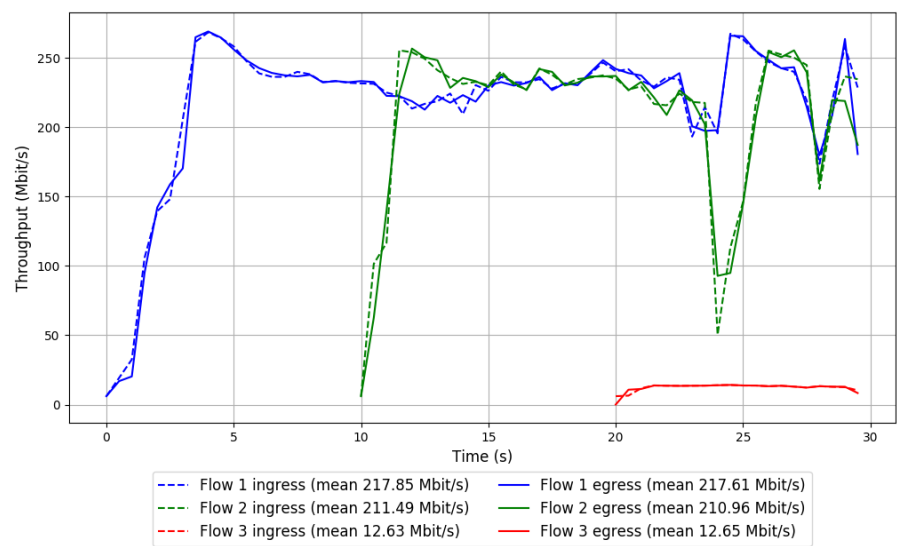
-- Flow 3:

Average throughput: 12.65 Mbit/s

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

Loss rate: 1.60%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-02-17 00:38:28

End at: 2018-02-17 00:38:58

Below is generated by plot.py at 2018-02-17 05:55:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 300.46 Mbit/s

95th percentile per-packet one-way delay: 91.061 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 206.80 Mbit/s

95th percentile per-packet one-way delay: 89.064 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 62.59 Mbit/s

95th percentile per-packet one-way delay: 104.346 ms

Loss rate: 2.24%

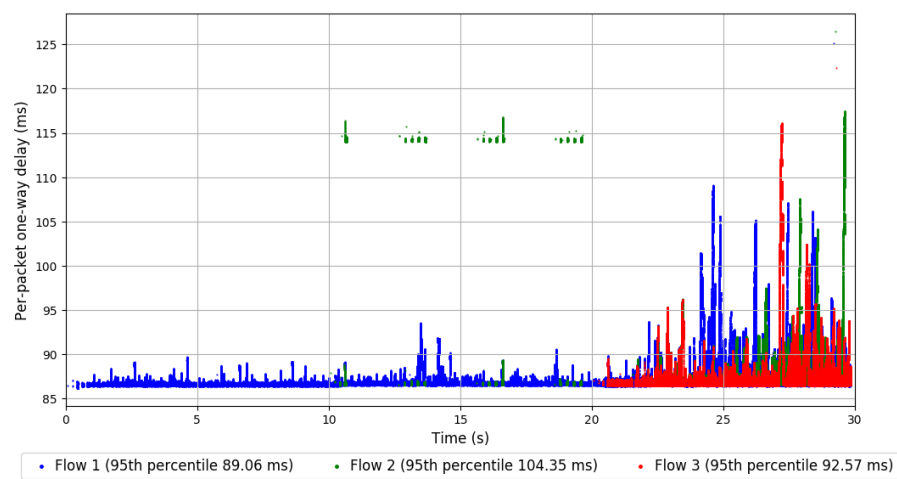
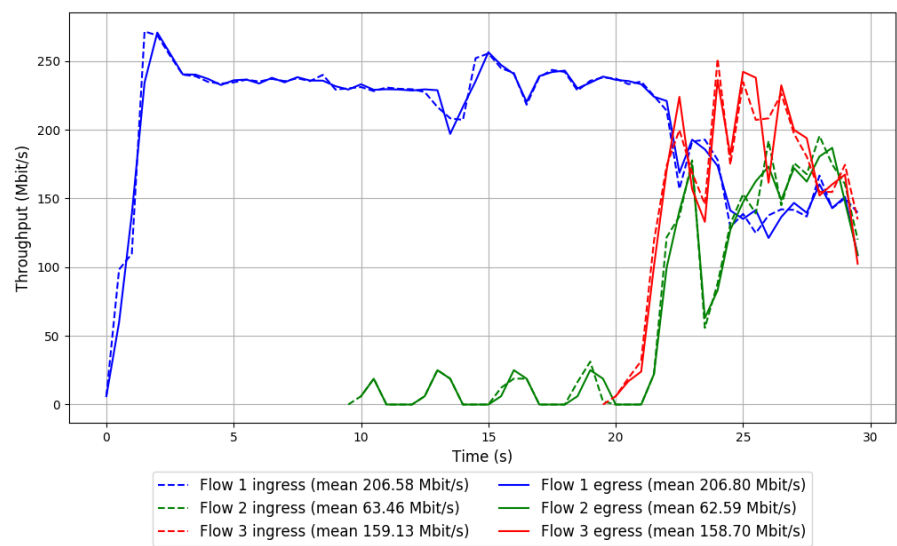
-- Flow 3:

Average throughput: 158.70 Mbit/s

95th percentile per-packet one-way delay: 92.569 ms

Loss rate: 2.02%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-02-17 00:57:27

End at: 2018-02-17 00:57:57

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 271.55 Mbit/s

95th percentile per-packet one-way delay: 90.821 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 175.41 Mbit/s

95th percentile per-packet one-way delay: 90.747 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.66 Mbit/s

95th percentile per-packet one-way delay: 90.869 ms

Loss rate: 1.31%

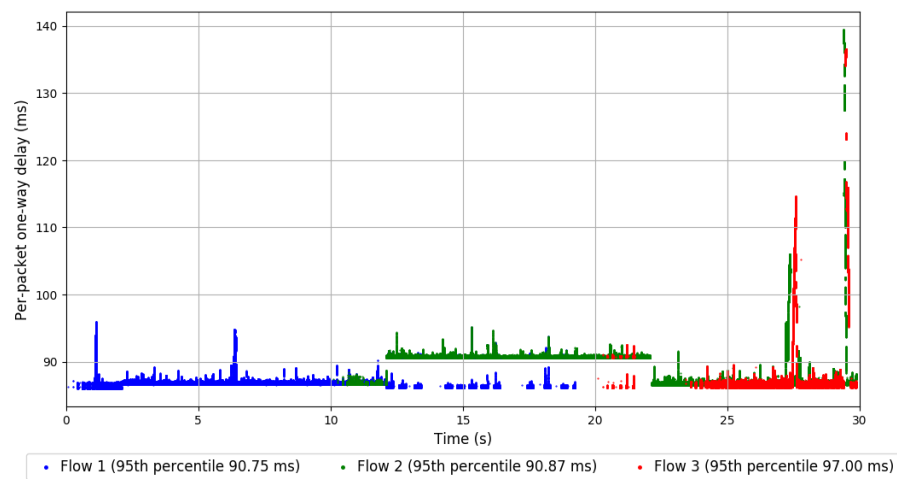
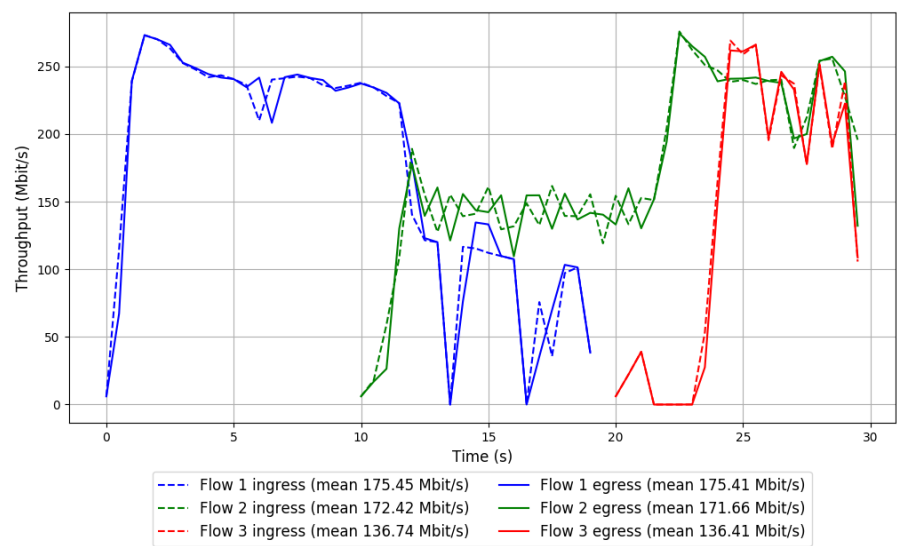
-- Flow 3:

Average throughput: 136.41 Mbit/s

95th percentile per-packet one-way delay: 97.002 ms

Loss rate: 1.99%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-02-17 01:16:21

End at: 2018-02-17 01:16:51

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.38 Mbit/s

95th percentile per-packet one-way delay: 90.638 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 112.40 Mbit/s

95th percentile per-packet one-way delay: 90.704 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 93.59 Mbit/s

95th percentile per-packet one-way delay: 90.621 ms

Loss rate: 0.06%

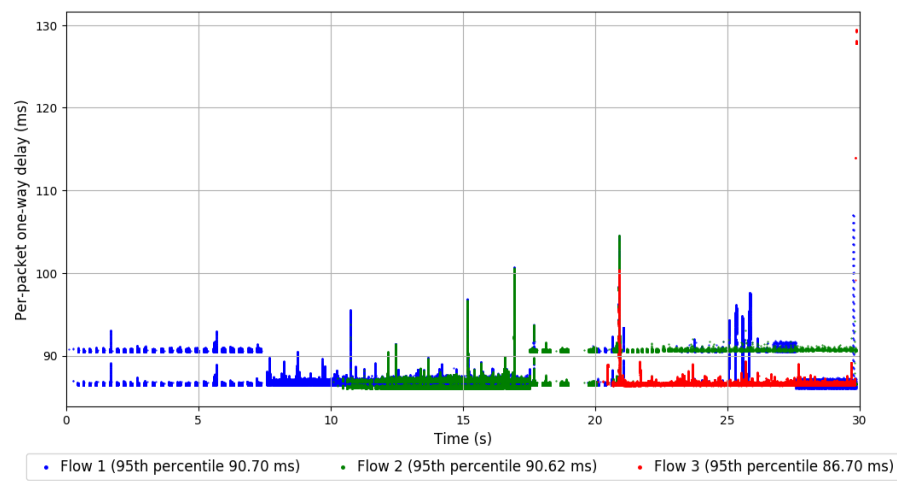
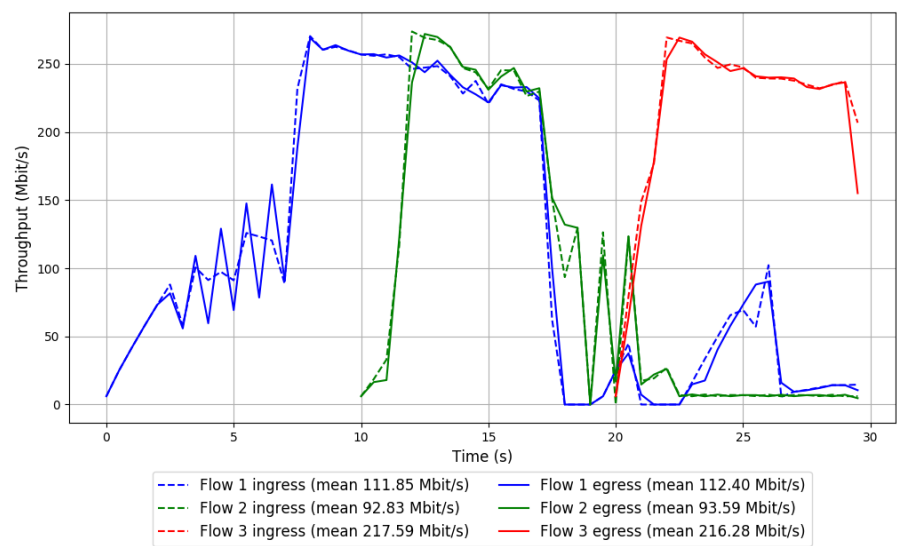
-- Flow 3:

Average throughput: 216.28 Mbit/s

95th percentile per-packet one-way delay: 86.702 ms

Loss rate: 2.16%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-02-17 01:35:07

End at: 2018-02-17 01:35:37

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 252.97 Mbit/s

95th percentile per-packet one-way delay: 88.848 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 149.11 Mbit/s

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

Loss rate: 0.06%

-- Flow 2:

Average throughput: 159.94 Mbit/s

95th percentile per-packet one-way delay: 87.977 ms

Loss rate: 0.00%

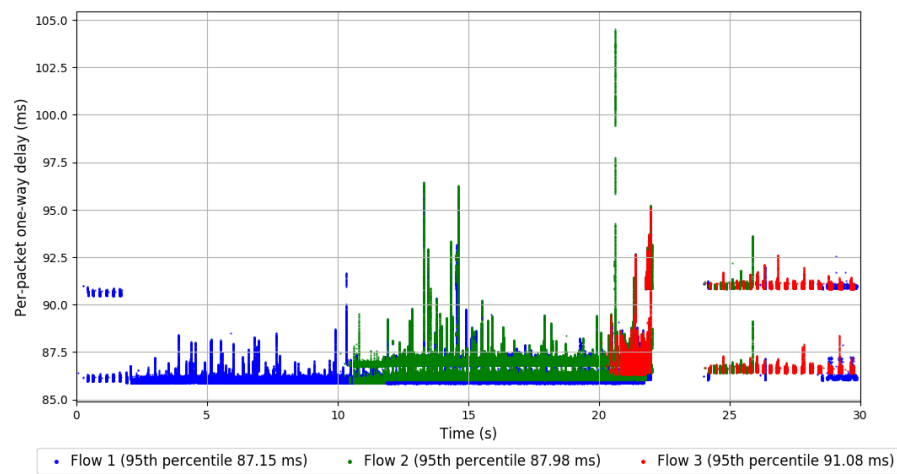
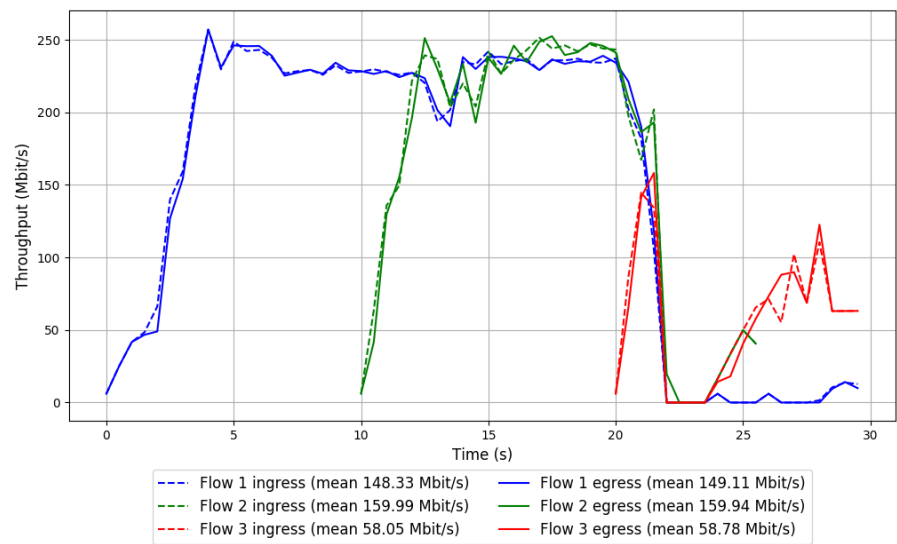
-- Flow 3:

Average throughput: 58.78 Mbit/s

95th percentile per-packet one-way delay: 91.076 ms

Loss rate: 0.00%

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

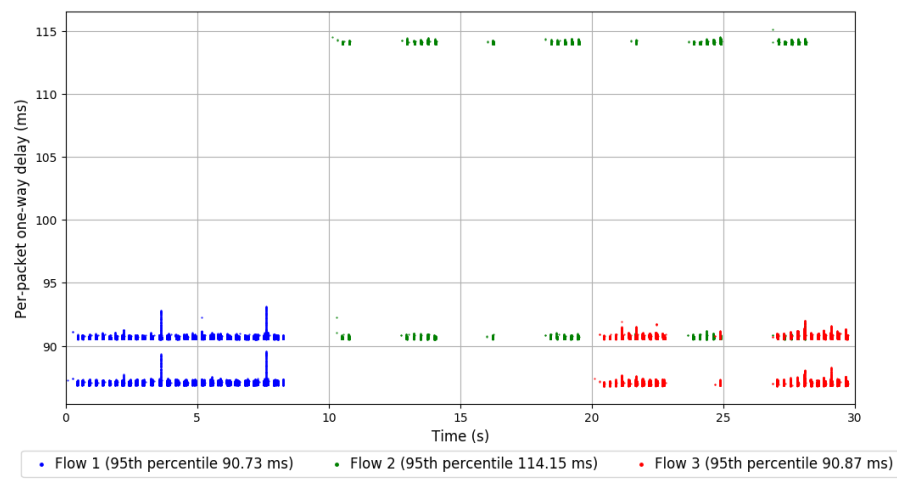
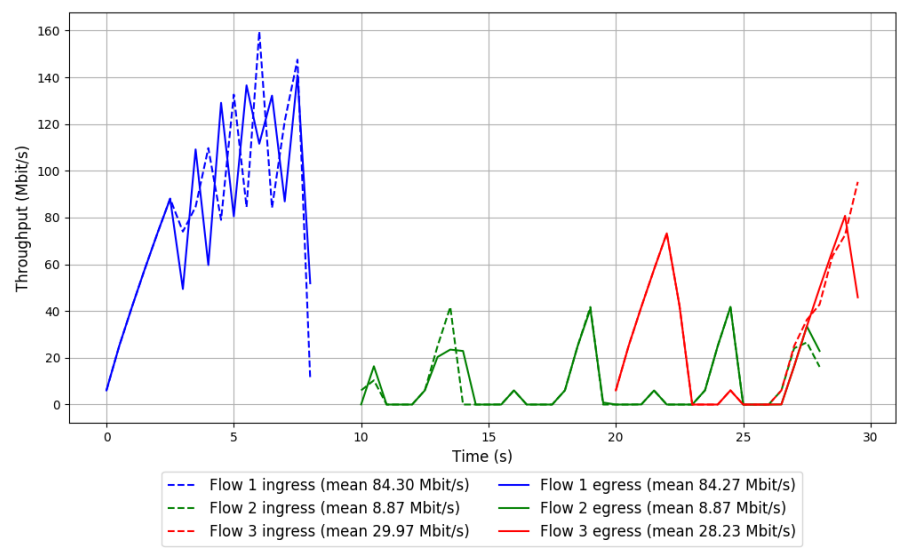


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-17 01:53:53
End at: 2018-02-17 01:54:23

# Below is generated by plot.py at 2018-02-17 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.82 Mbit/s
95th percentile per-packet one-way delay: 114.013 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 84.27 Mbit/s
95th percentile per-packet one-way delay: 90.727 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.87 Mbit/s
95th percentile per-packet one-way delay: 114.150 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.23 Mbit/s
95th percentile per-packet one-way delay: 90.867 ms
Loss rate: 8.32%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-02-16 22:56:29

End at: 2018-02-16 22:56:59

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.93 Mbit/s

95th percentile per-packet one-way delay: 87.671 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 40.57 Mbit/s

95th percentile per-packet one-way delay: 87.307 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 42.41 Mbit/s

95th percentile per-packet one-way delay: 87.820 ms

Loss rate: 0.92%

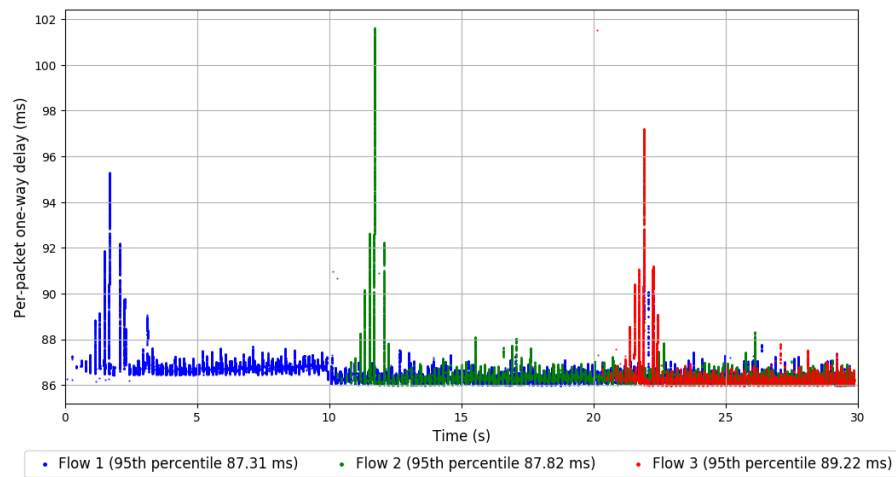
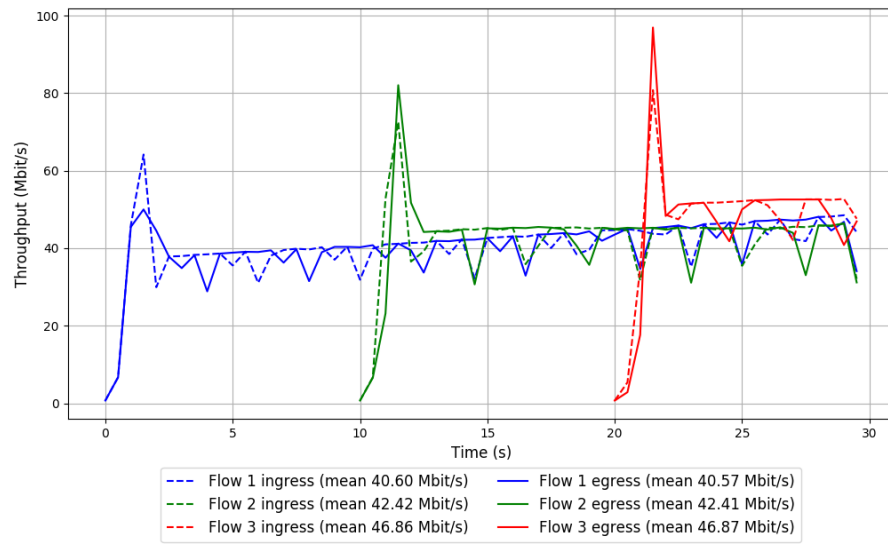
-- Flow 3:

Average throughput: 46.87 Mbit/s

95th percentile per-packet one-way delay: 89.221 ms

Loss rate: 1.89%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-02-16 23:15:20

End at: 2018-02-16 23:15:50

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.57 Mbit/s

95th percentile per-packet one-way delay: 88.927 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 53.48 Mbit/s

95th percentile per-packet one-way delay: 88.226 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 50.45 Mbit/s

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

Loss rate: 0.86%

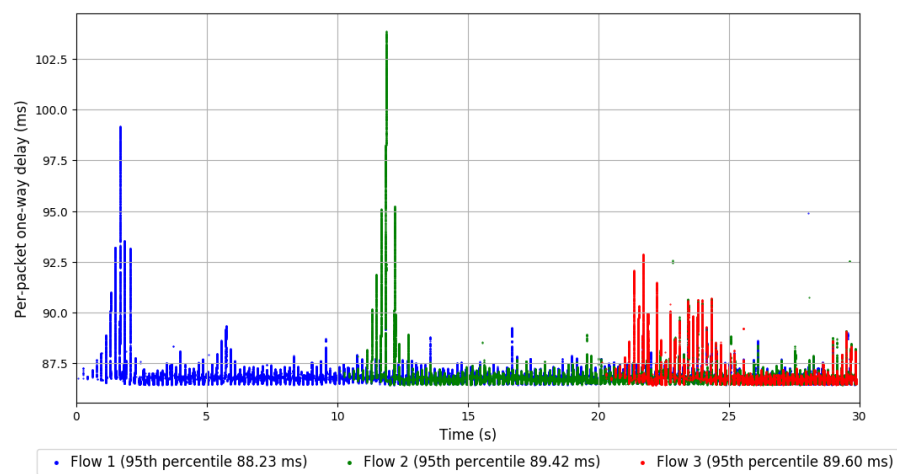
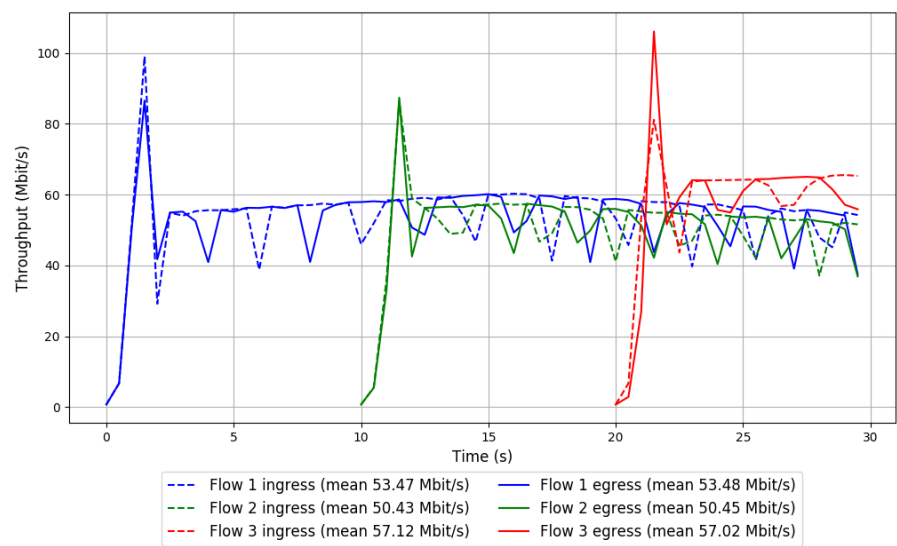
-- Flow 3:

Average throughput: 57.02 Mbit/s

95th percentile per-packet one-way delay: 89.597 ms

Loss rate: 1.94%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-02-16 23:34:26

End at: 2018-02-16 23:34:56

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.75 Mbit/s

95th percentile per-packet one-way delay: 94.046 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 36.79 Mbit/s

95th percentile per-packet one-way delay: 91.608 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 129.23 Mbit/s

95th percentile per-packet one-way delay: 94.473 ms

Loss rate: 0.97%

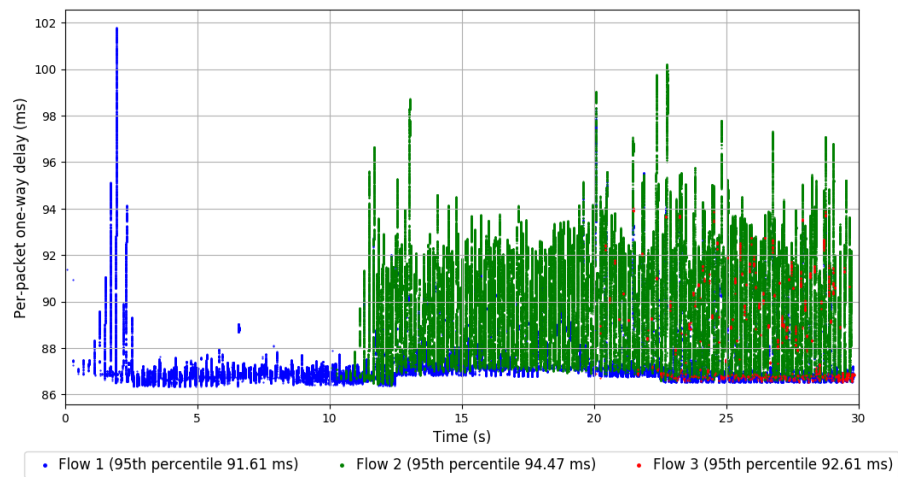
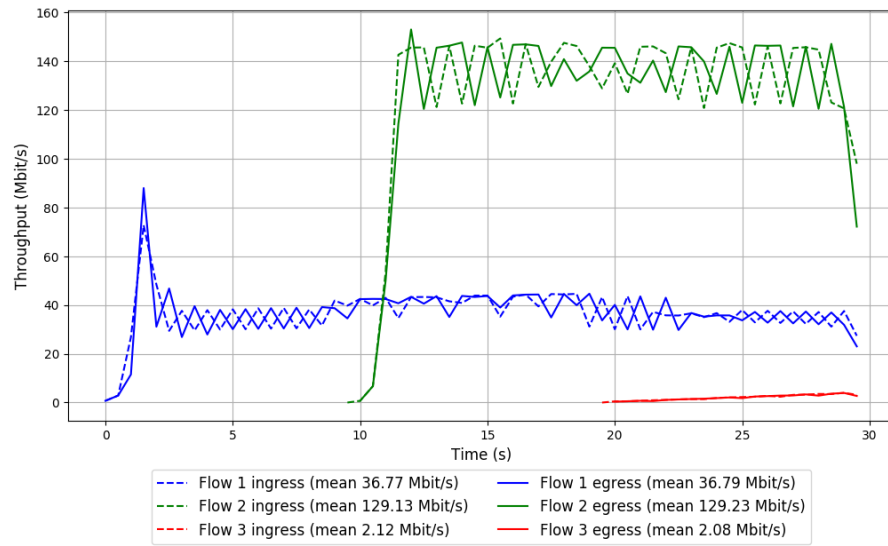
-- Flow 3:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 92.614 ms

Loss rate: 3.65%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-02-16 23:53:40

End at: 2018-02-16 23:54:10

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 191.39 Mbit/s

95th percentile per-packet one-way delay: 94.729 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 108.11 Mbit/s

95th percentile per-packet one-way delay: 92.100 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 76.30 Mbit/s

95th percentile per-packet one-way delay: 91.381 ms

Loss rate: 0.91%

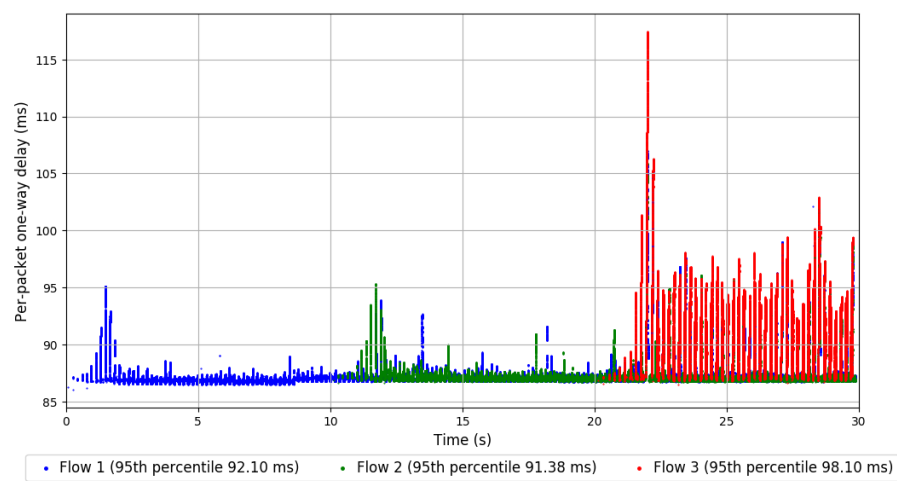
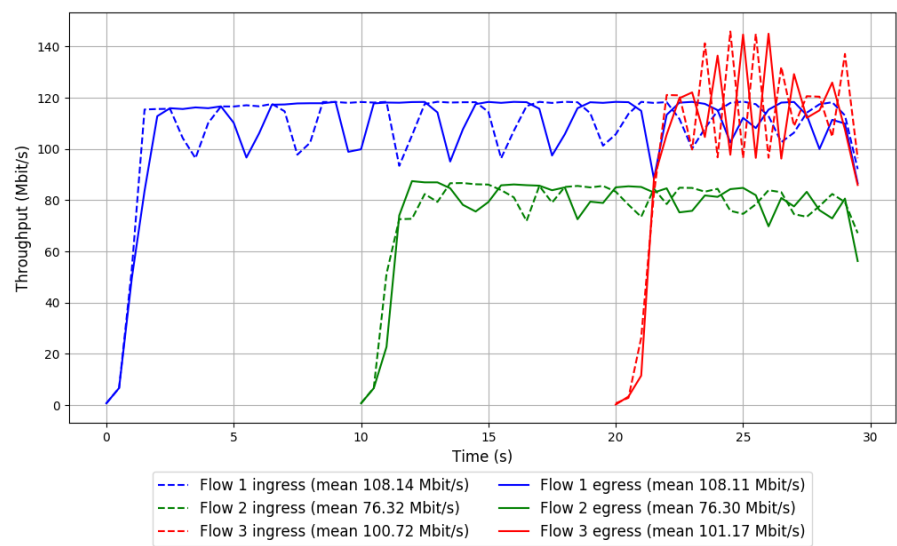
-- Flow 3:

Average throughput: 101.17 Mbit/s

95th percentile per-packet one-way delay: 98.099 ms

Loss rate: 2.41%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-02-17 00:12:49

End at: 2018-02-17 00:13:19

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.69 Mbit/s

95th percentile per-packet one-way delay: 114.294 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 54.99 Mbit/s

95th percentile per-packet one-way delay: 114.767 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 63.50 Mbit/s

95th percentile per-packet one-way delay: 92.968 ms

Loss rate: 1.01%

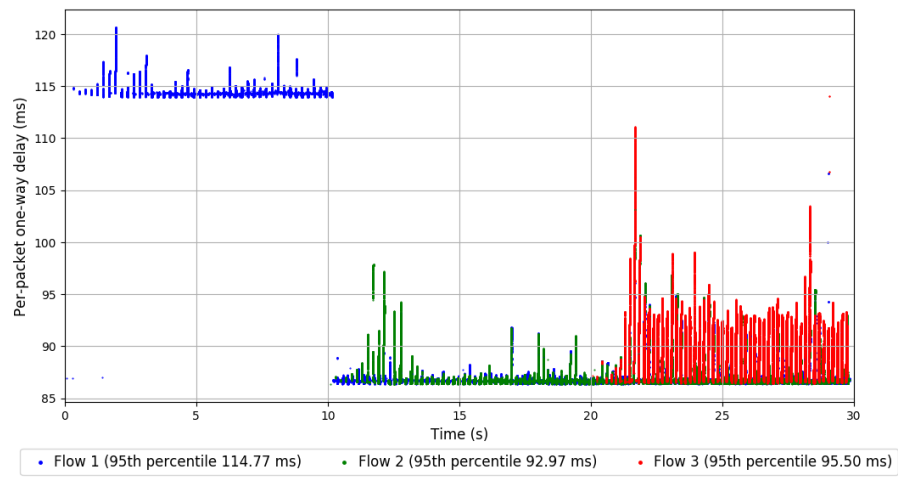
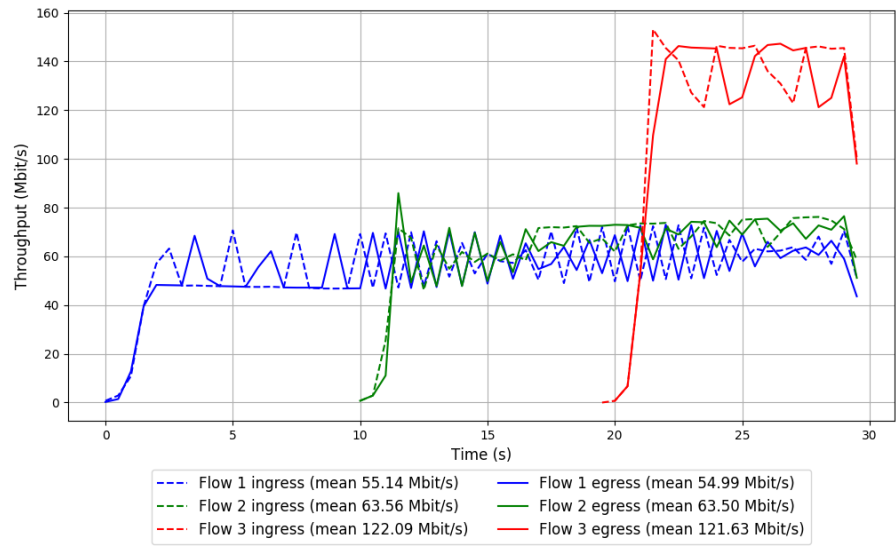
-- Flow 3:

Average throughput: 121.63 Mbit/s

95th percentile per-packet one-way delay: 95.498 ms

Loss rate: 2.11%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-02-17 00:32:08

End at: 2018-02-17 00:32:38

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 145.90 Mbit/s

95th percentile per-packet one-way delay: 95.692 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 48.87 Mbit/s

95th percentile per-packet one-way delay: 92.401 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 130.40 Mbit/s

95th percentile per-packet one-way delay: 96.489 ms

Loss rate: 1.02%

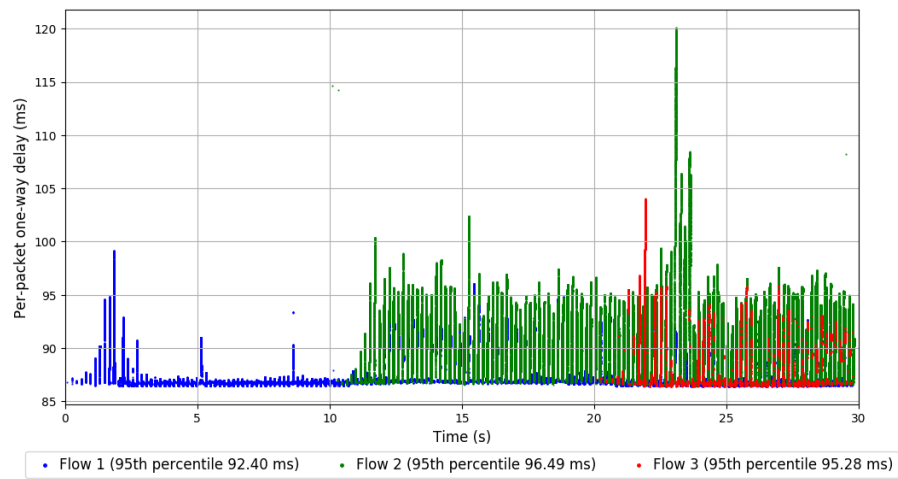
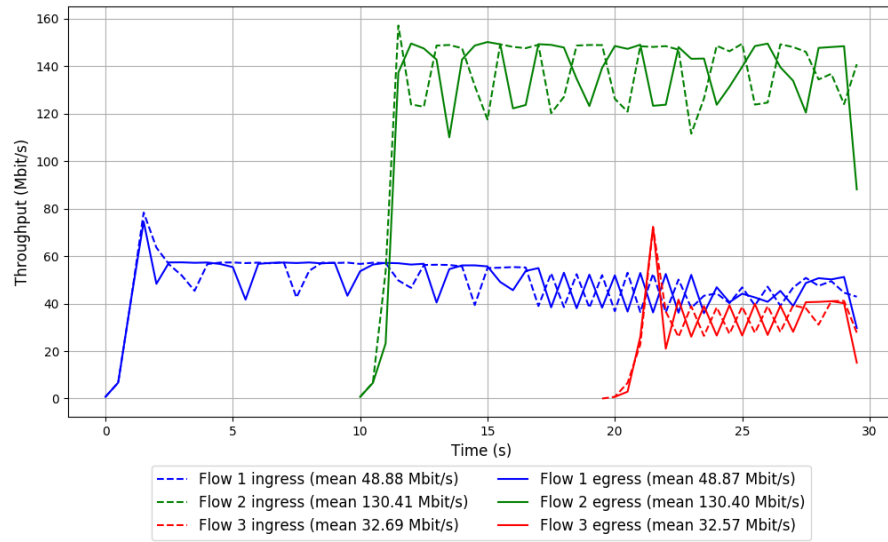
-- Flow 3:

Average throughput: 32.57 Mbit/s

95th percentile per-packet one-way delay: 95.284 ms

Loss rate: 2.14%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-02-17 00:51:22

End at: 2018-02-17 00:51:52

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 161.18 Mbit/s

95th percentile per-packet one-way delay: 94.332 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 123.82 Mbit/s

95th percentile per-packet one-way delay: 94.436 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 32.97 Mbit/s

95th percentile per-packet one-way delay: 92.044 ms

Loss rate: 0.54%

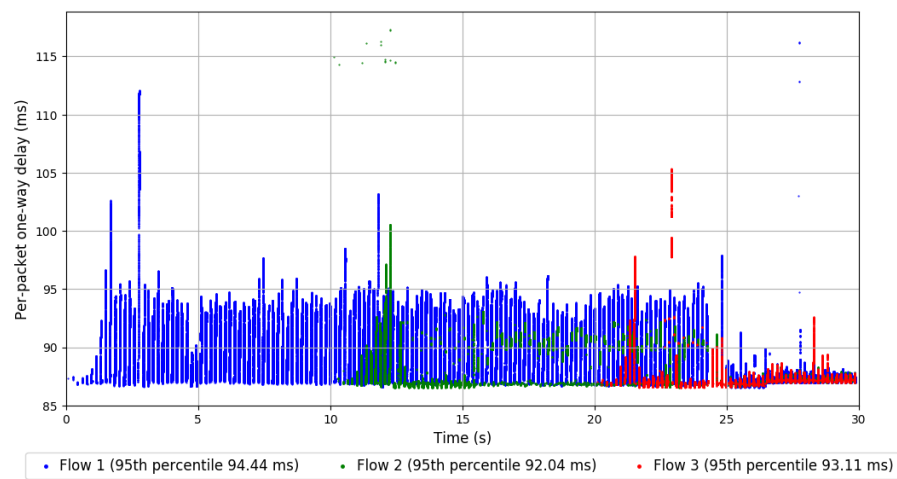
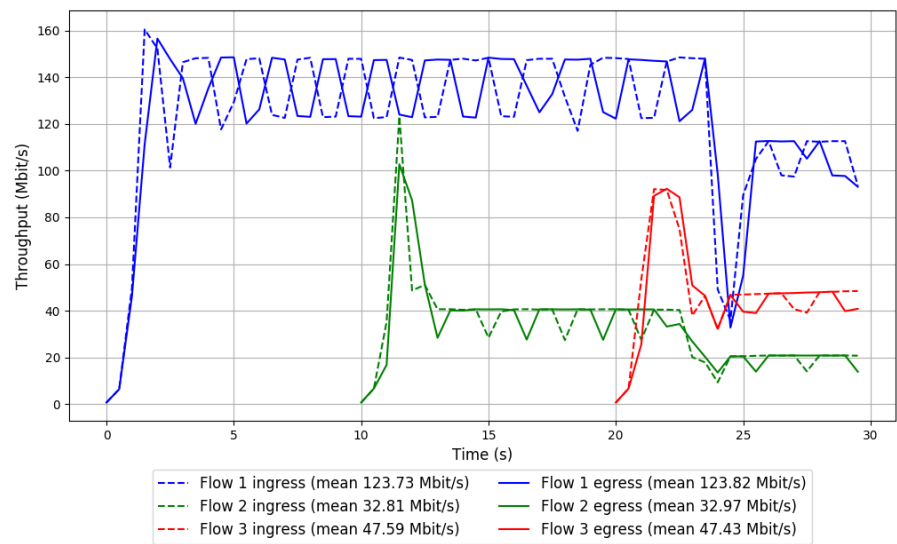
-- Flow 3:

Average throughput: 47.43 Mbit/s

95th percentile per-packet one-way delay: 93.109 ms

Loss rate: 2.08%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-02-17 01:10:18

End at: 2018-02-17 01:10:48

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.85 Mbit/s

95th percentile per-packet one-way delay: 92.867 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 15.59 Mbit/s

95th percentile per-packet one-way delay: 91.291 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 57.87 Mbit/s

95th percentile per-packet one-way delay: 92.612 ms

Loss rate: 0.93%

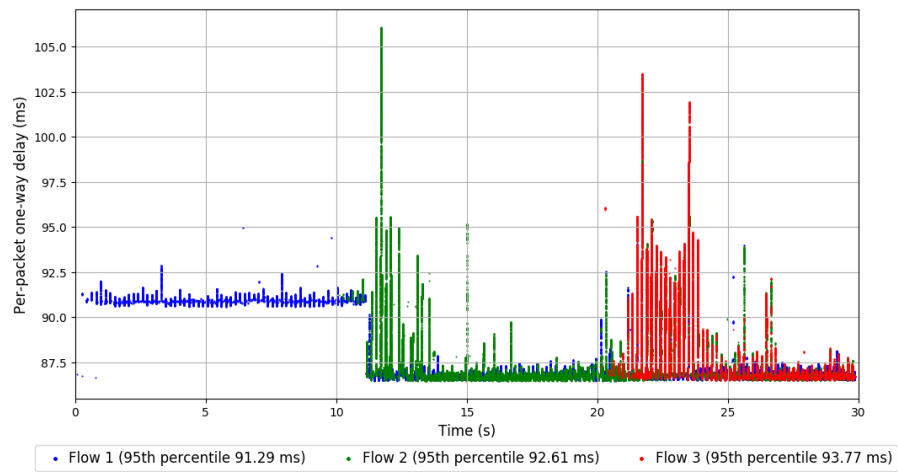
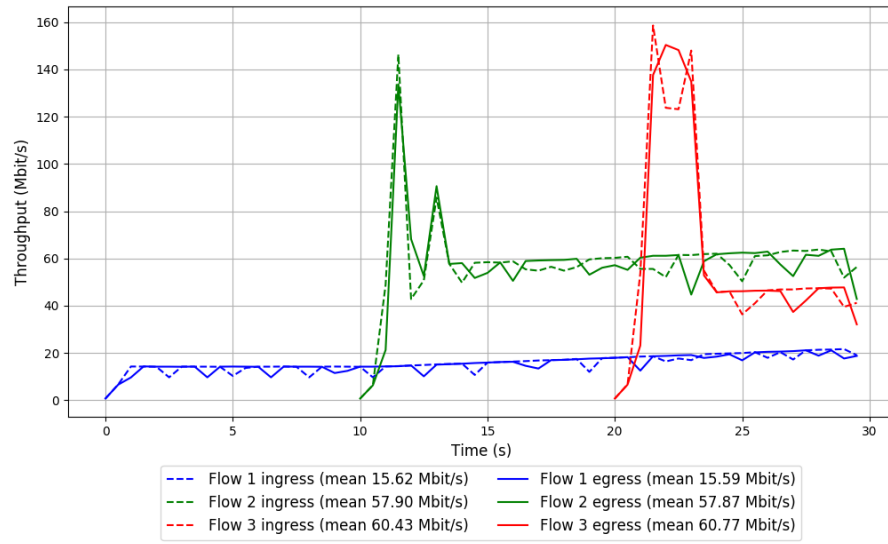
-- Flow 3:

Average throughput: 60.77 Mbit/s

95th percentile per-packet one-way delay: 93.773 ms

Loss rate: 1.33%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-02-17 01:29:00

End at: 2018-02-17 01:29:30

Below is generated by plot.py at 2018-02-17 05:58:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.64 Mbit/s

95th percentile per-packet one-way delay: 91.806 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 19.89 Mbit/s

95th percentile per-packet one-way delay: 91.396 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 32.79 Mbit/s

95th percentile per-packet one-way delay: 91.374 ms

Loss rate: 0.88%

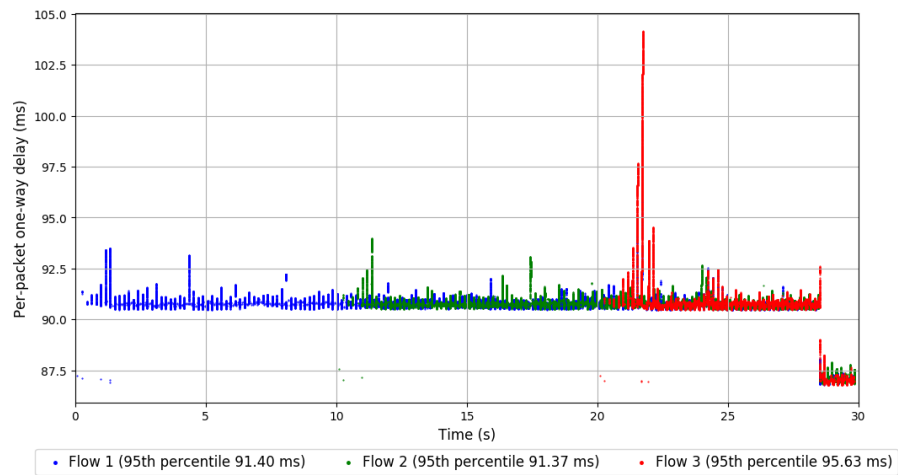
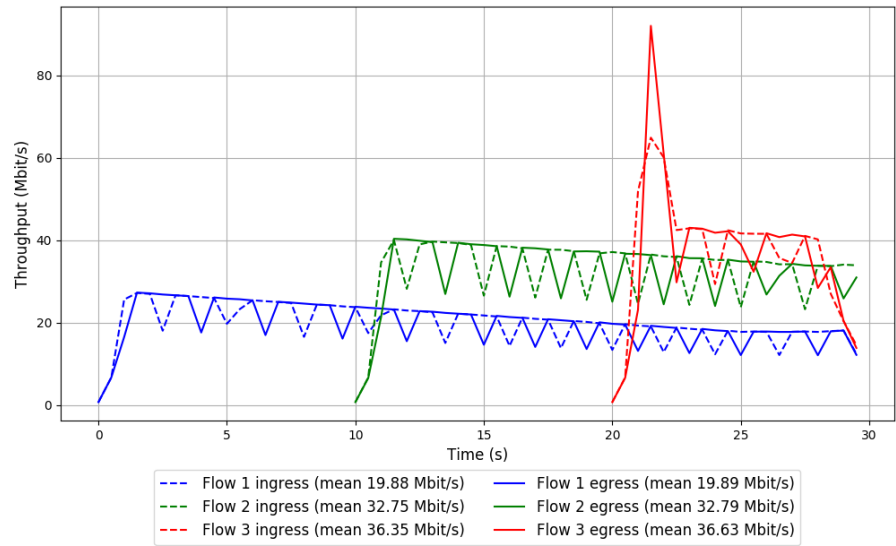
-- Flow 3:

Average throughput: 36.63 Mbit/s

95th percentile per-packet one-way delay: 95.626 ms

Loss rate: 0.97%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-02-17 01:47:48

End at: 2018-02-17 01:48:18

Below is generated by plot.py at 2018-02-17 06:00:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.13 Mbit/s

95th percentile per-packet one-way delay: 94.032 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 132.89 Mbit/s

95th percentile per-packet one-way delay: 93.933 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 4.09 Mbit/s

95th percentile per-packet one-way delay: 90.948 ms

Loss rate: 1.78%

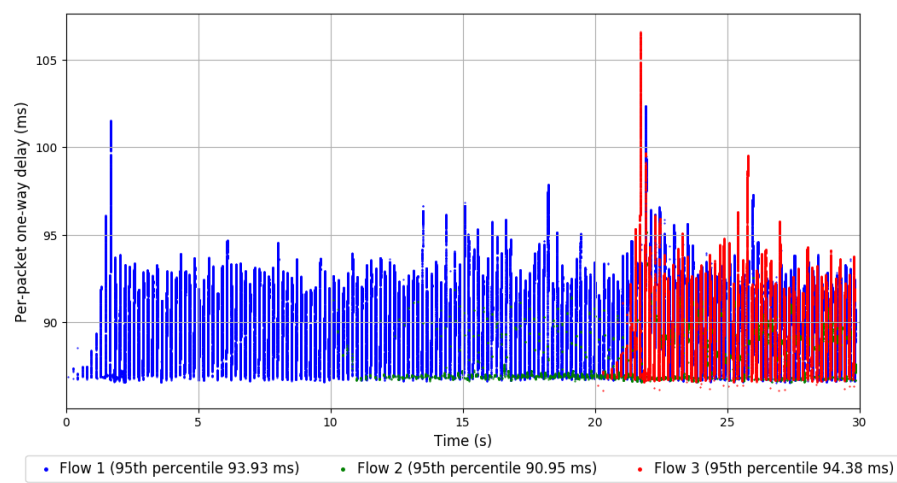
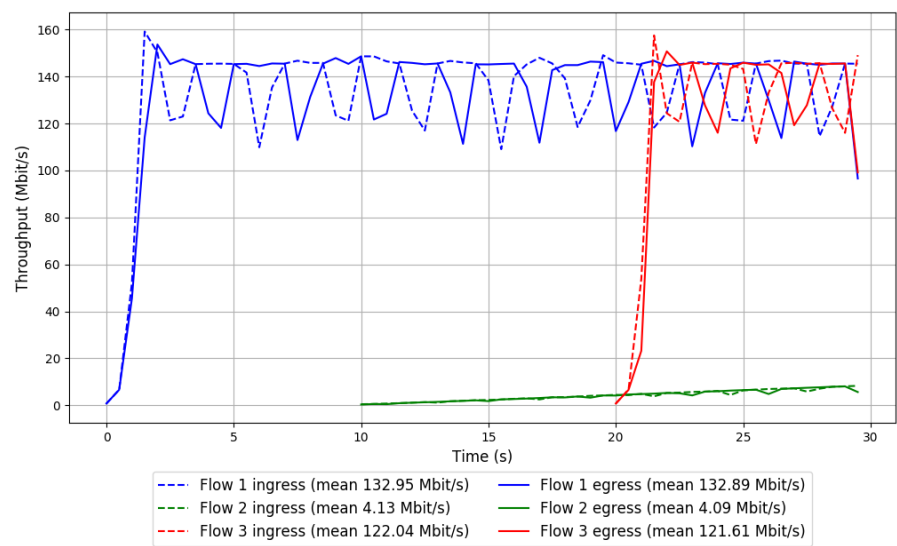
-- Flow 3:

Average throughput: 121.61 Mbit/s

95th percentile per-packet one-way delay: 94.378 ms

Loss rate: 2.08%

Run 10: Report of TCP Vegas — Data Link

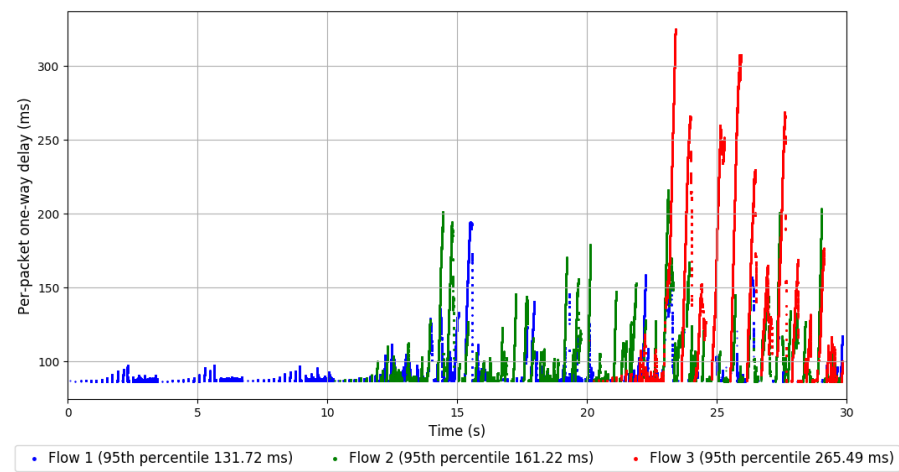
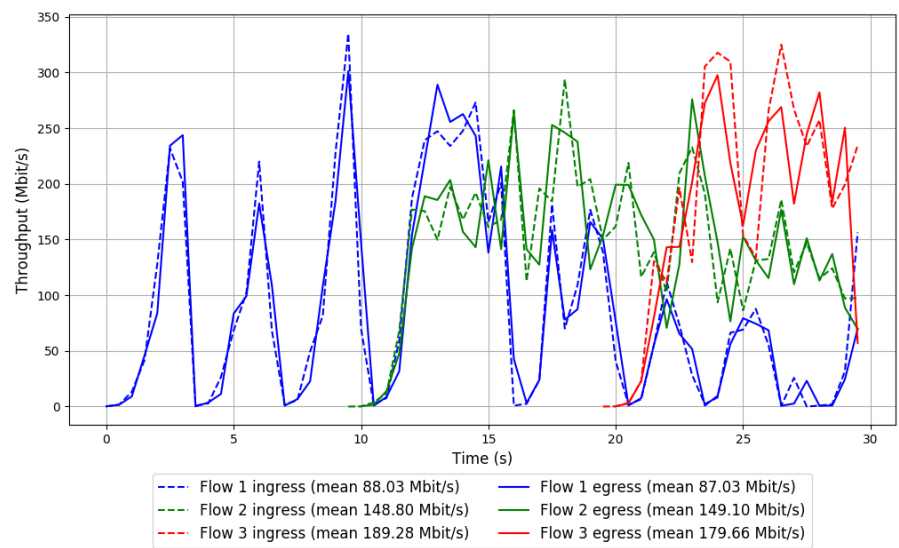


```
Run 1: Statistics of Verus

Start at: 2018-02-16 23:00:34
End at: 2018-02-16 23:01:04

# Below is generated by plot.py at 2018-02-17 06:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.48 Mbit/s
95th percentile per-packet one-way delay: 209.678 ms
Loss rate: 2.85%
-- Flow 1:
Average throughput: 87.03 Mbit/s
95th percentile per-packet one-way delay: 131.715 ms
Loss rate: 1.80%
-- Flow 2:
Average throughput: 149.10 Mbit/s
95th percentile per-packet one-way delay: 161.215 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 179.66 Mbit/s
95th percentile per-packet one-way delay: 265.492 ms
Loss rate: 7.26%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-02-16 23:19:22

End at: 2018-02-16 23:19:52

Below is generated by plot.py at 2018-02-17 06:03:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 304.33 Mbit/s

95th percentile per-packet one-way delay: 234.855 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 158.12 Mbit/s

95th percentile per-packet one-way delay: 208.249 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 189.79 Mbit/s

95th percentile per-packet one-way delay: 278.059 ms

Loss rate: 0.34%

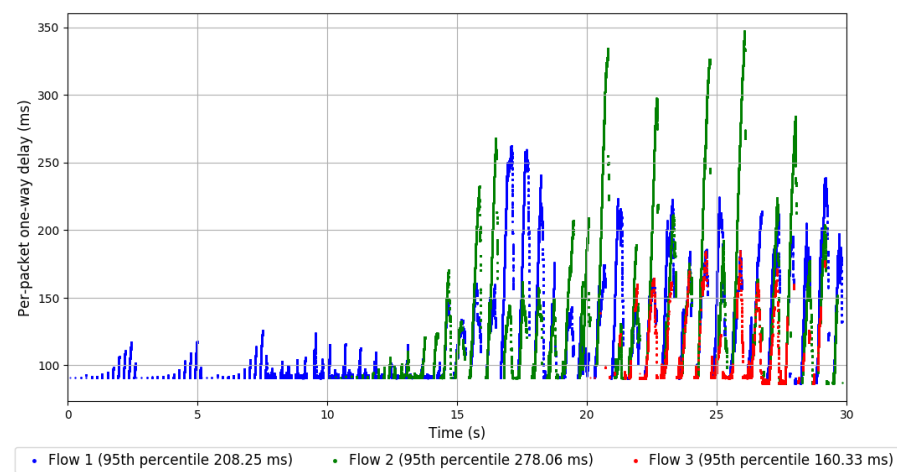
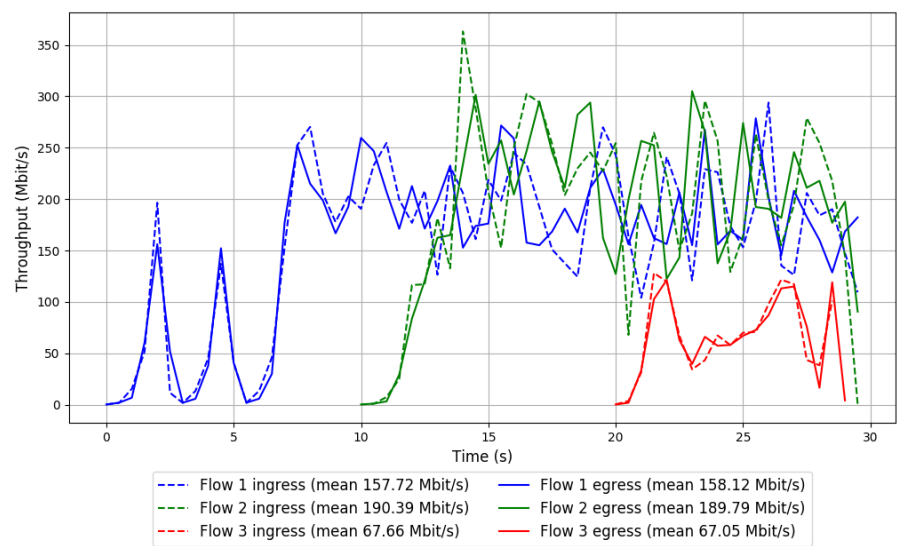
-- Flow 3:

Average throughput: 67.05 Mbit/s

95th percentile per-packet one-way delay: 160.333 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-02-16 23:38:42

End at: 2018-02-16 23:39:12

Below is generated by plot.py at 2018-02-17 06:03:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.30 Mbit/s

95th percentile per-packet one-way delay: 171.356 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 186.05 Mbit/s

95th percentile per-packet one-way delay: 186.590 ms

Loss rate: 1.29%

-- Flow 2:

Average throughput: 75.88 Mbit/s

95th percentile per-packet one-way delay: 132.362 ms

Loss rate: 2.72%

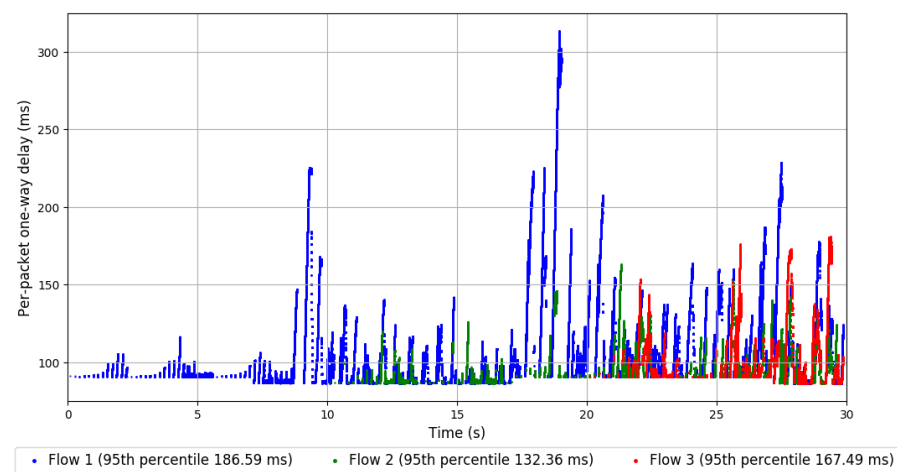
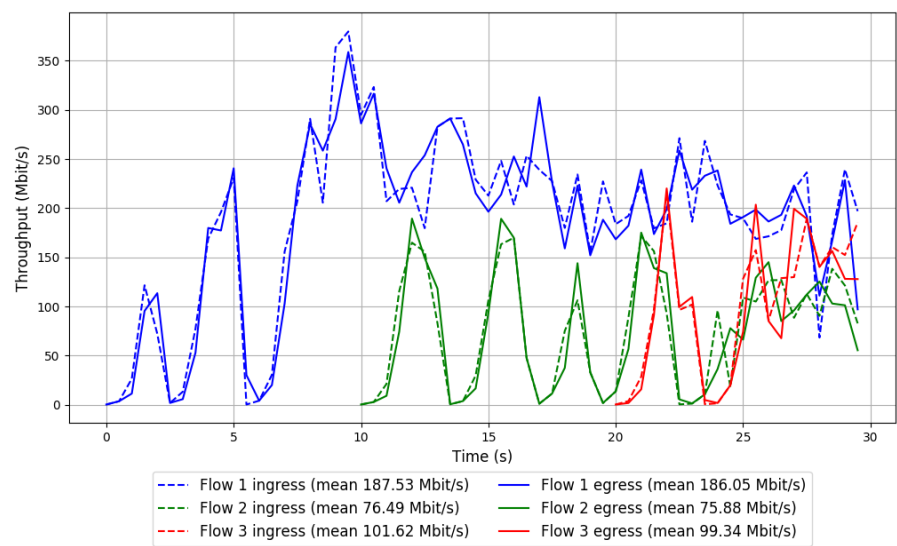
-- Flow 3:

Average throughput: 99.34 Mbit/s

95th percentile per-packet one-way delay: 167.492 ms

Loss rate: 4.25%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-02-16 23:57:50

End at: 2018-02-16 23:58:20

Below is generated by plot.py at 2018-02-17 06:03:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.89 Mbit/s

95th percentile per-packet one-way delay: 148.057 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 147.62 Mbit/s

95th percentile per-packet one-way delay: 142.741 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 113.52 Mbit/s

95th percentile per-packet one-way delay: 139.724 ms

Loss rate: 1.15%

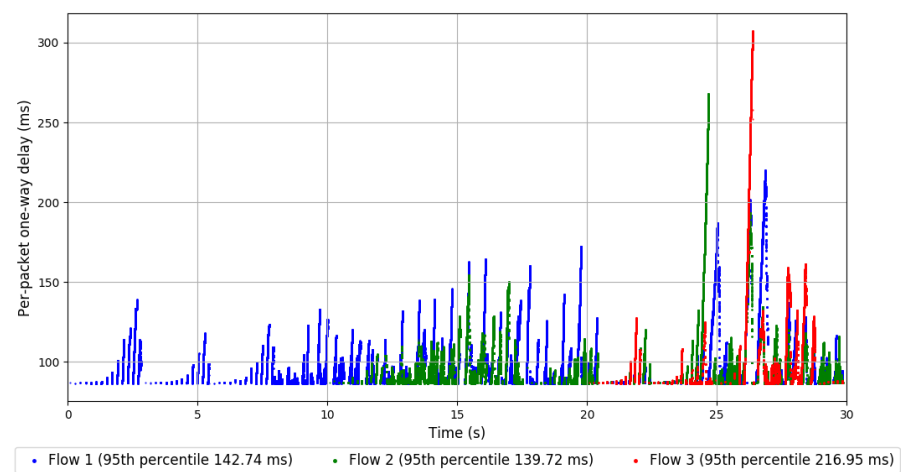
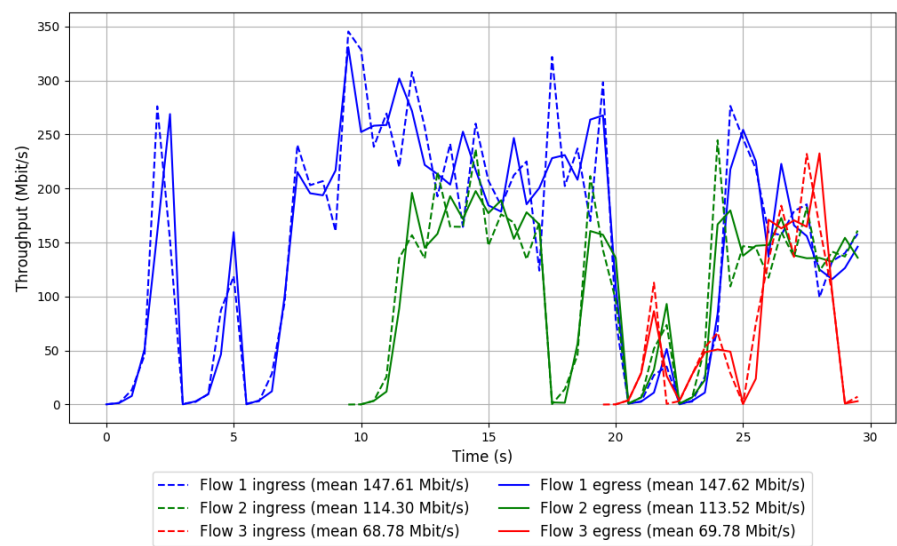
-- Flow 3:

Average throughput: 69.78 Mbit/s

95th percentile per-packet one-way delay: 216.952 ms

Loss rate: 0.33%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-02-17 00:16:53

End at: 2018-02-17 00:17:23

Below is generated by plot.py at 2018-02-17 06:03:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 289.29 Mbit/s

95th percentile per-packet one-way delay: 257.561 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 157.70 Mbit/s

95th percentile per-packet one-way delay: 185.682 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 174.00 Mbit/s

95th percentile per-packet one-way delay: 277.433 ms

Loss rate: 2.14%

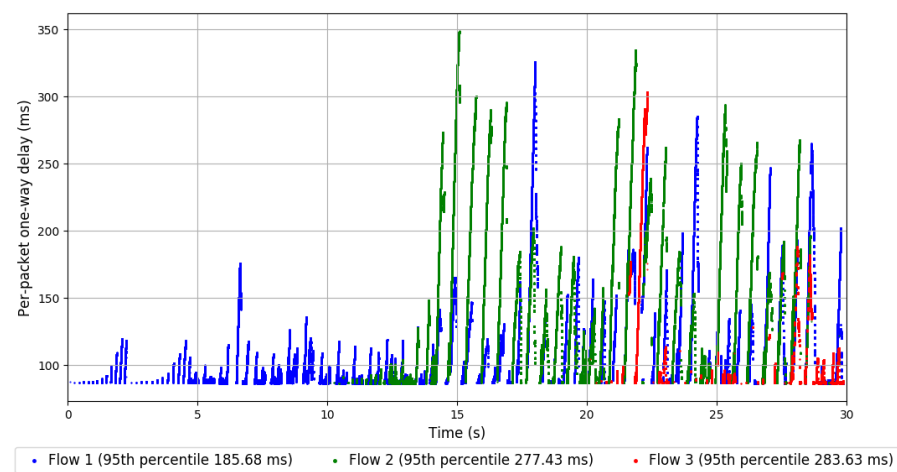
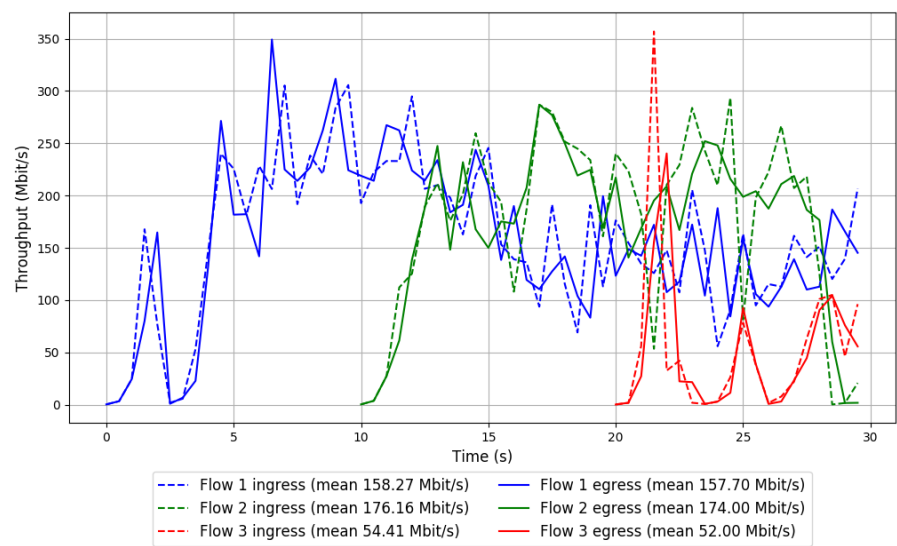
-- Flow 3:

Average throughput: 52.00 Mbit/s

95th percentile per-packet one-way delay: 283.626 ms

Loss rate: 6.26%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-02-17 00:36:21

End at: 2018-02-17 00:36:51

Below is generated by plot.py at 2018-02-17 06:04:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 301.47 Mbit/s

95th percentile per-packet one-way delay: 158.413 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 179.51 Mbit/s

95th percentile per-packet one-way delay: 161.002 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 161.10 Mbit/s

95th percentile per-packet one-way delay: 158.893 ms

Loss rate: 1.32%

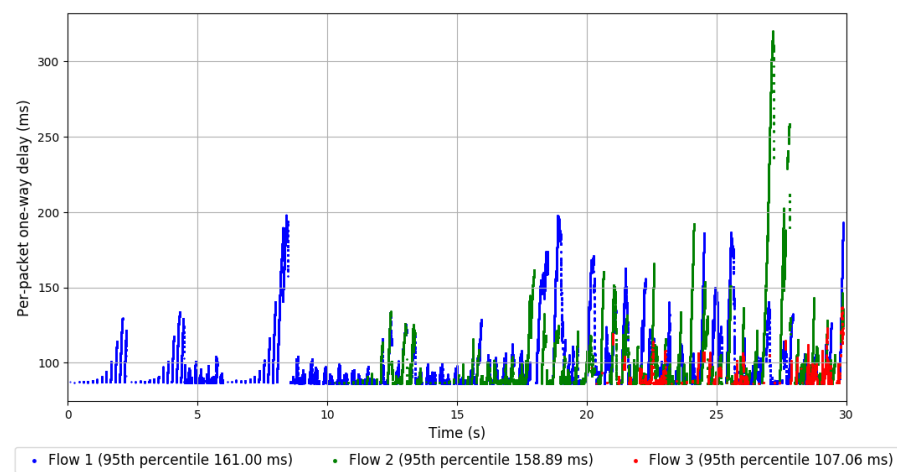
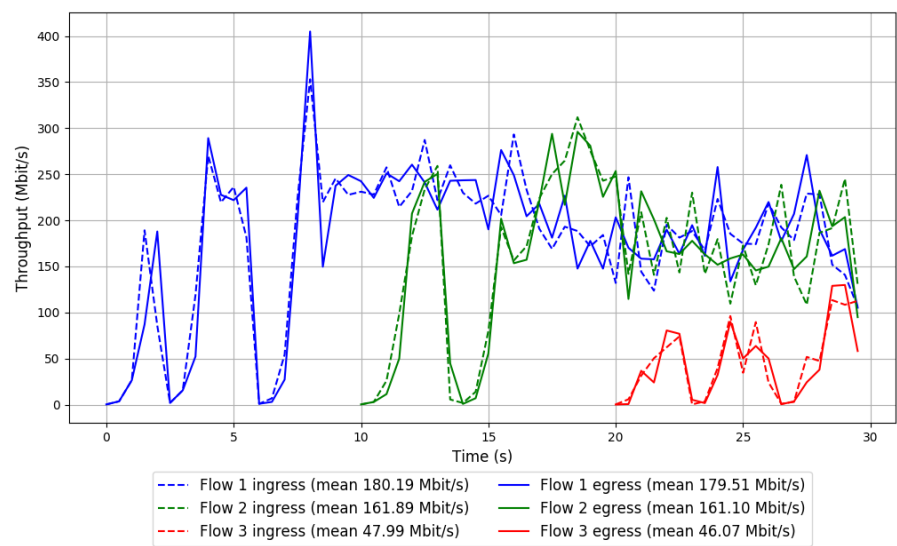
-- Flow 3:

Average throughput: 46.07 Mbit/s

95th percentile per-packet one-way delay: 107.056 ms

Loss rate: 5.74%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-02-17 00:55:23

End at: 2018-02-17 00:55:53

Below is generated by plot.py at 2018-02-17 06:04:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.54 Mbit/s

95th percentile per-packet one-way delay: 177.692 ms

Loss rate: 1.71%

-- Flow 1:

Average throughput: 209.30 Mbit/s

95th percentile per-packet one-way delay: 147.745 ms

Loss rate: 1.29%

-- Flow 2:

Average throughput: 96.38 Mbit/s

95th percentile per-packet one-way delay: 220.269 ms

Loss rate: 4.08%

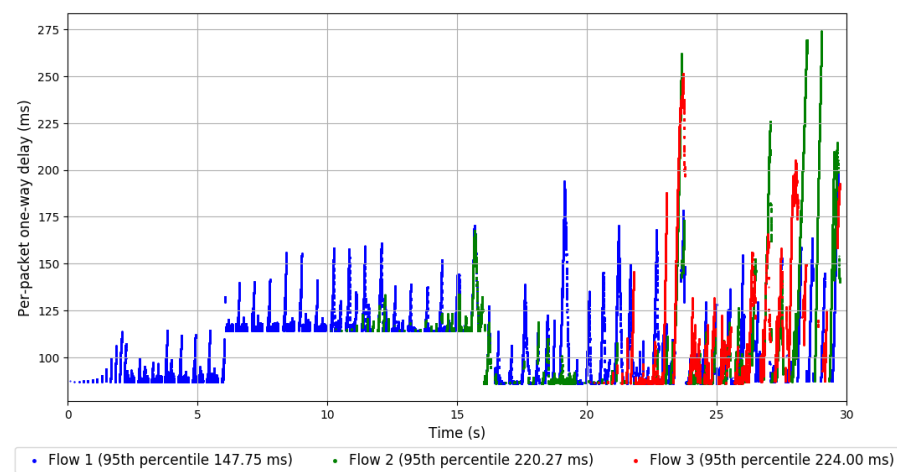
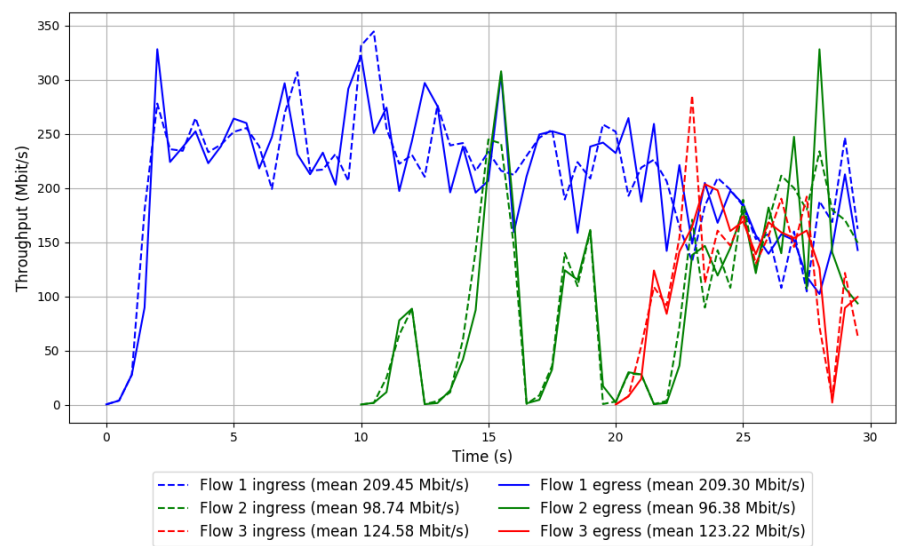
-- Flow 3:

Average throughput: 123.22 Mbit/s

95th percentile per-packet one-way delay: 224.001 ms

Loss rate: 0.00%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-02-17 01:14:22

End at: 2018-02-17 01:14:52

Below is generated by plot.py at 2018-02-17 06:05:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 242.93 Mbit/s

95th percentile per-packet one-way delay: 250.829 ms

Loss rate: 4.67%

-- Flow 1:

Average throughput: 114.99 Mbit/s

95th percentile per-packet one-way delay: 275.040 ms

Loss rate: 5.44%

-- Flow 2:

Average throughput: 164.08 Mbit/s

95th percentile per-packet one-way delay: 244.352 ms

Loss rate: 4.36%

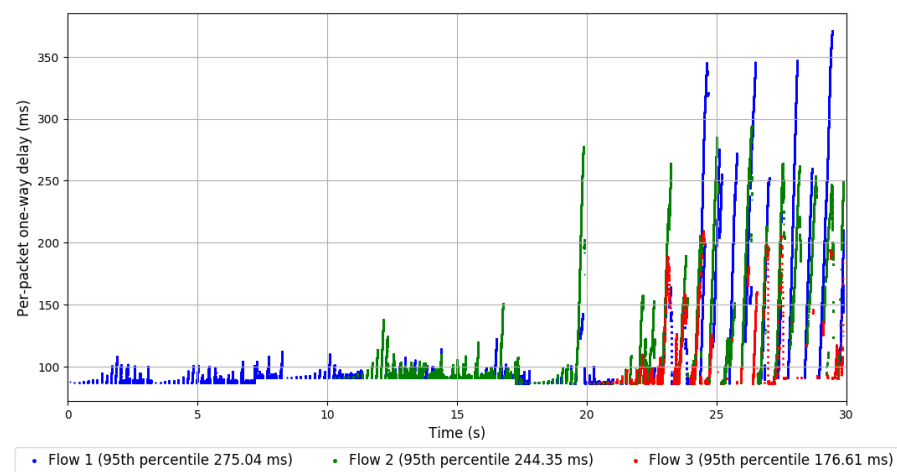
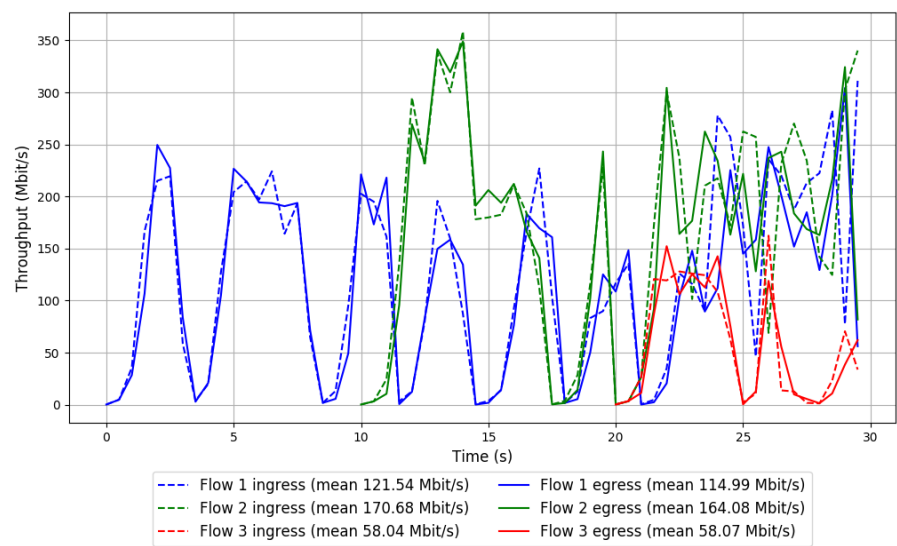
-- Flow 3:

Average throughput: 58.07 Mbit/s

95th percentile per-packet one-way delay: 176.608 ms

Loss rate: 1.71%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-02-17 01:32:59

End at: 2018-02-17 01:33:29

Below is generated by plot.py at 2018-02-17 06:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 350.06 Mbit/s

95th percentile per-packet one-way delay: 292.267 ms

Loss rate: 7.09%

-- Flow 1:

Average throughput: 198.52 Mbit/s

95th percentile per-packet one-way delay: 202.549 ms

Loss rate: 1.78%

-- Flow 2:

Average throughput: 214.92 Mbit/s

95th percentile per-packet one-way delay: 334.897 ms

Loss rate: 13.37%

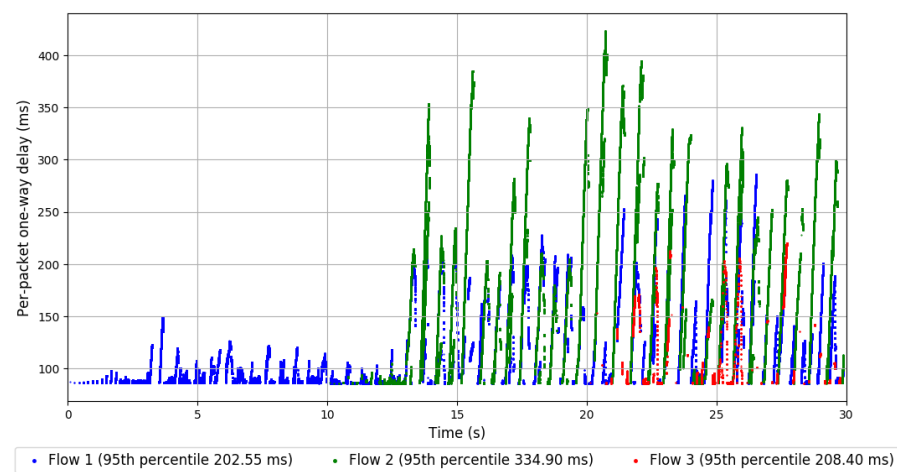
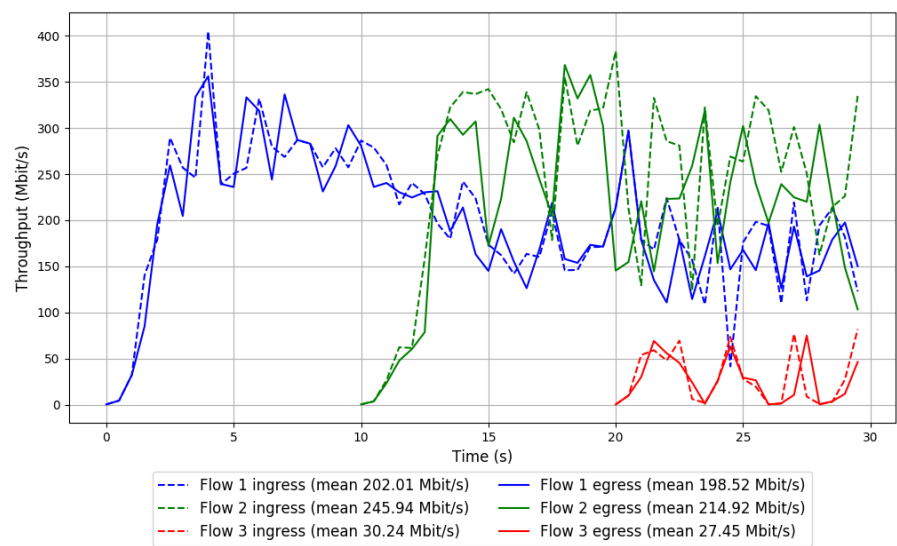
-- Flow 3:

Average throughput: 27.45 Mbit/s

95th percentile per-packet one-way delay: 208.399 ms

Loss rate: 11.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-02-17 01:51:51

End at: 2018-02-17 01:52:21

Below is generated by plot.py at 2018-02-17 06:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.06 Mbit/s

95th percentile per-packet one-way delay: 283.445 ms

Loss rate: 5.56%

-- Flow 1:

Average throughput: 144.59 Mbit/s

95th percentile per-packet one-way delay: 158.297 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 191.52 Mbit/s

95th percentile per-packet one-way delay: 329.474 ms

Loss rate: 11.08%

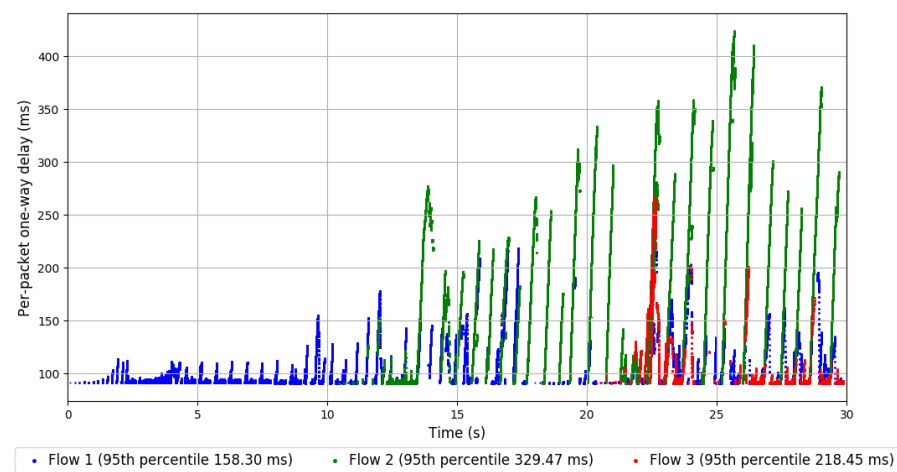
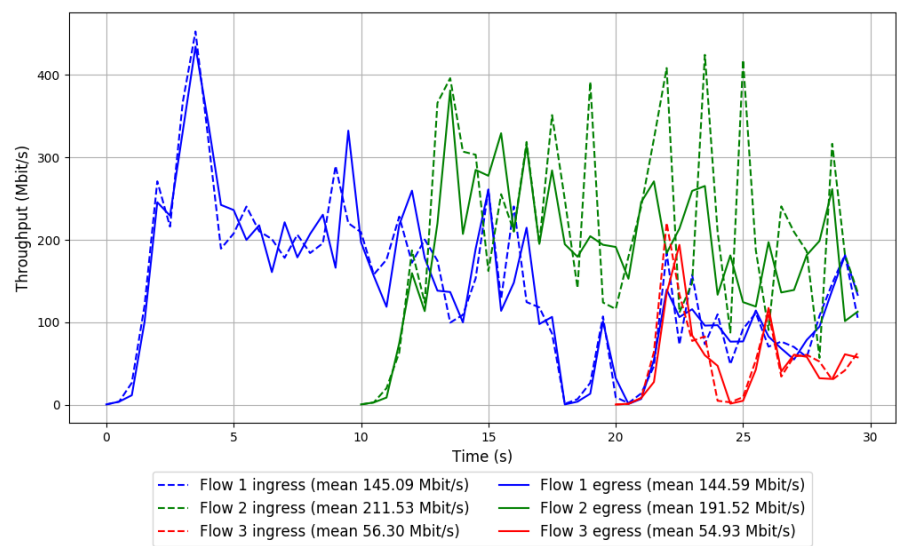
-- Flow 3:

Average throughput: 54.93 Mbit/s

95th percentile per-packet one-way delay: 218.447 ms

Loss rate: 4.14%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-02-16 22:54:23

End at: 2018-02-16 22:54:53

Below is generated by plot.py at 2018-02-17 06:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.72 Mbit/s

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

Loss rate: 0.76%

-- Flow 1:

Average throughput: 48.71 Mbit/s

95th percentile per-packet one-way delay: 86.930 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 77.16 Mbit/s

95th percentile per-packet one-way delay: 87.002 ms

Loss rate: 0.33%

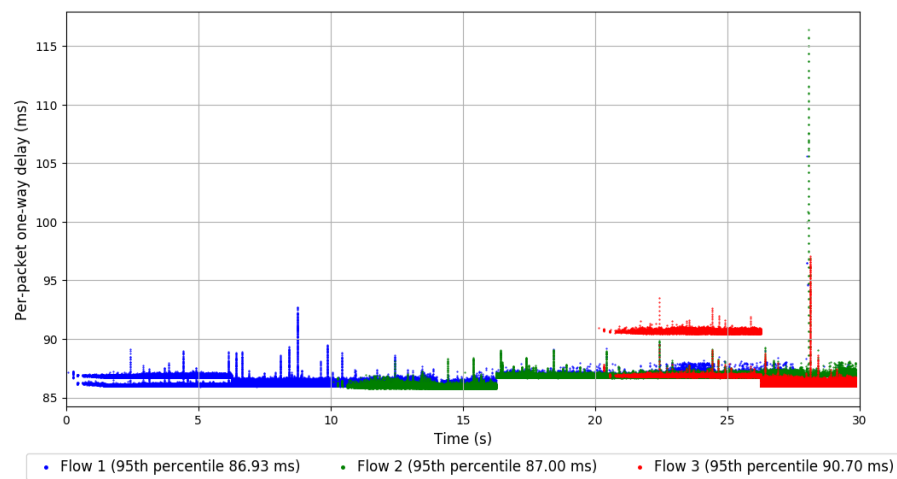
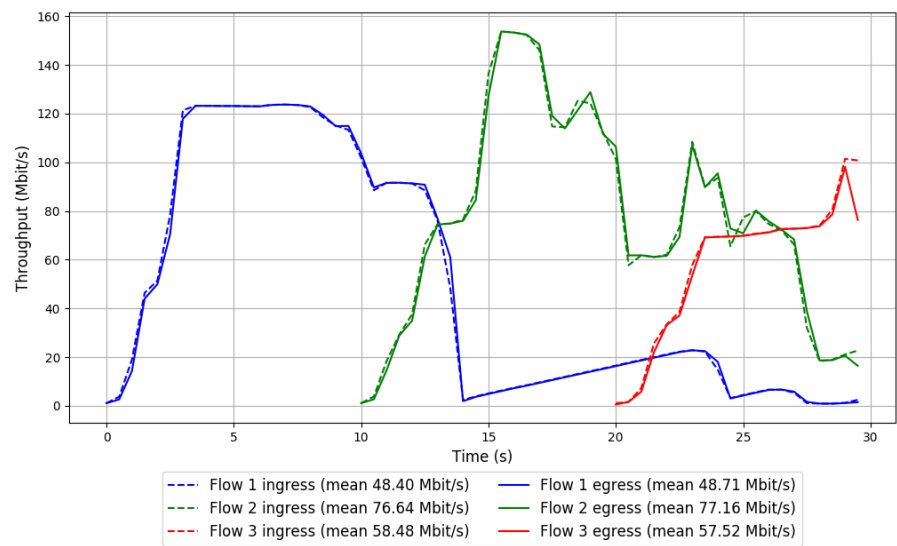
-- Flow 3:

Average throughput: 57.52 Mbit/s

95th percentile per-packet one-way delay: 90.696 ms

Loss rate: 3.68%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-02-16 23:13:14

End at: 2018-02-16 23:13:45

Below is generated by plot.py at 2018-02-17 06:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.17 Mbit/s

95th percentile per-packet one-way delay: 90.676 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 69.84 Mbit/s

95th percentile per-packet one-way delay: 90.699 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 63.97 Mbit/s

95th percentile per-packet one-way delay: 87.170 ms

Loss rate: 0.93%

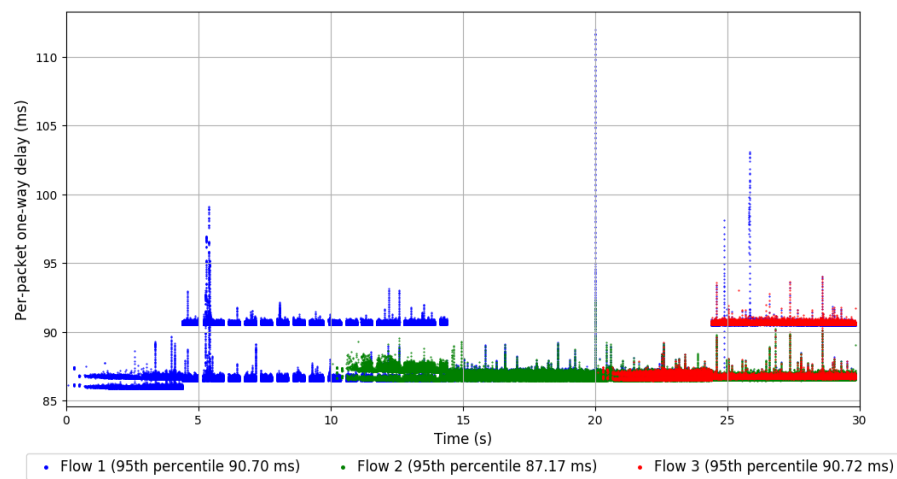
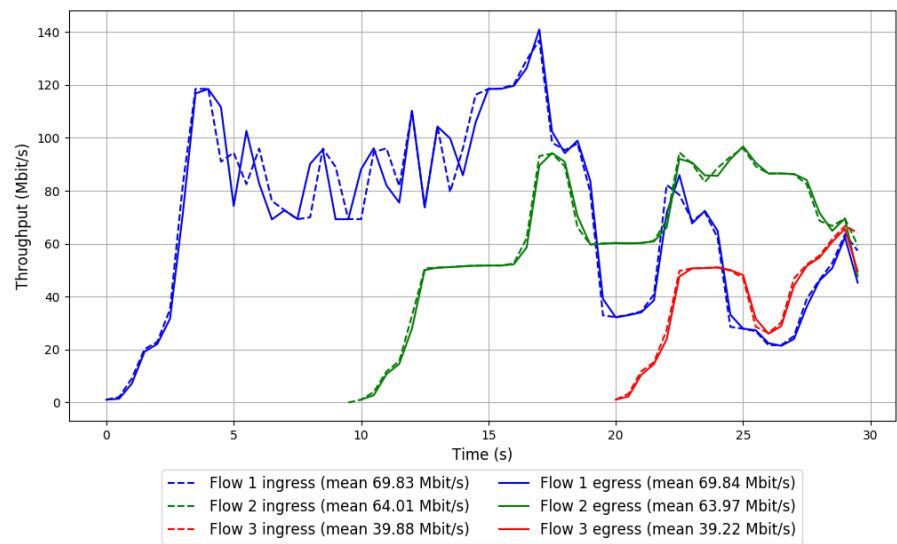
-- Flow 3:

Average throughput: 39.22 Mbit/s

95th percentile per-packet one-way delay: 90.715 ms

Loss rate: 3.37%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-02-16 23:32:27

End at: 2018-02-16 23:32:57

Below is generated by plot.py at 2018-02-17 06:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.29 Mbit/s

95th percentile per-packet one-way delay: 90.712 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 65.51 Mbit/s

95th percentile per-packet one-way delay: 90.767 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 65.29 Mbit/s

95th percentile per-packet one-way delay: 87.170 ms

Loss rate: 1.21%

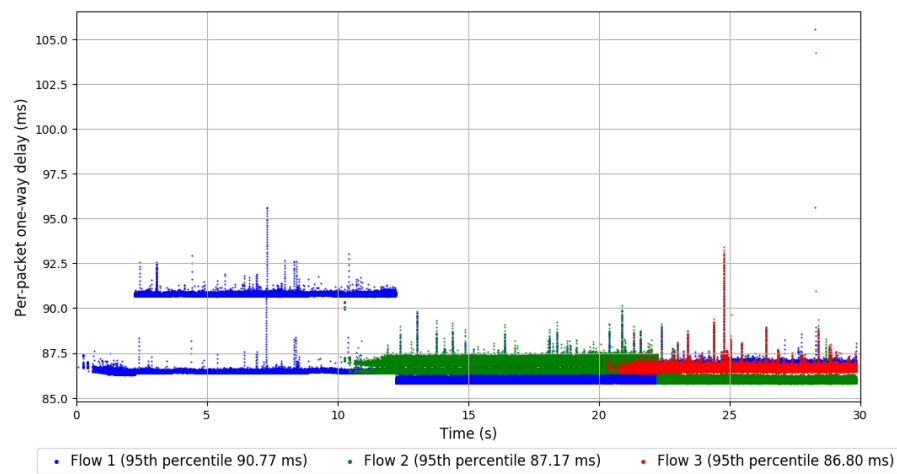
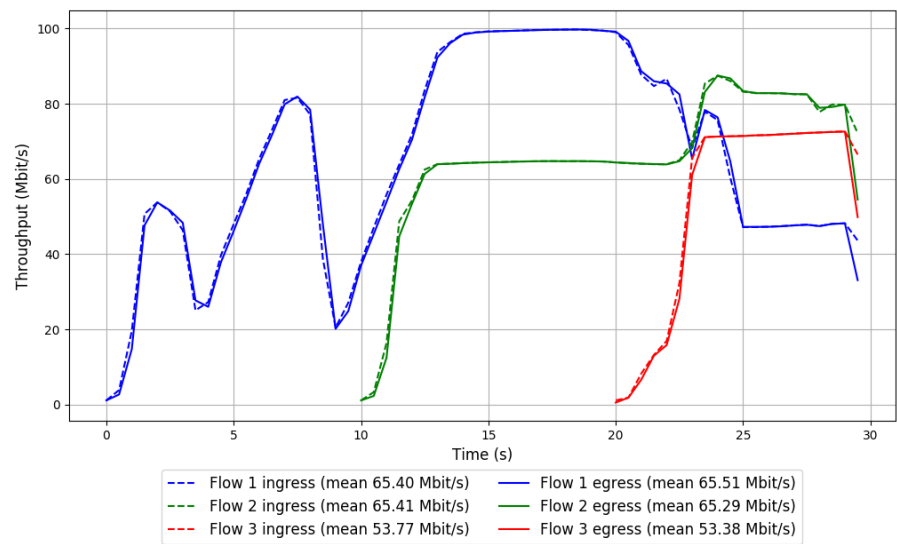
-- Flow 3:

Average throughput: 53.38 Mbit/s

95th percentile per-packet one-way delay: 86.803 ms

Loss rate: 2.74%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-02-16 23:51:31

End at: 2018-02-16 23:52:01

Below is generated by plot.py at 2018-02-17 06:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.39 Mbit/s

95th percentile per-packet one-way delay: 86.954 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 72.24 Mbit/s

95th percentile per-packet one-way delay: 86.737 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 64.99 Mbit/s

95th percentile per-packet one-way delay: 87.081 ms

Loss rate: 0.77%

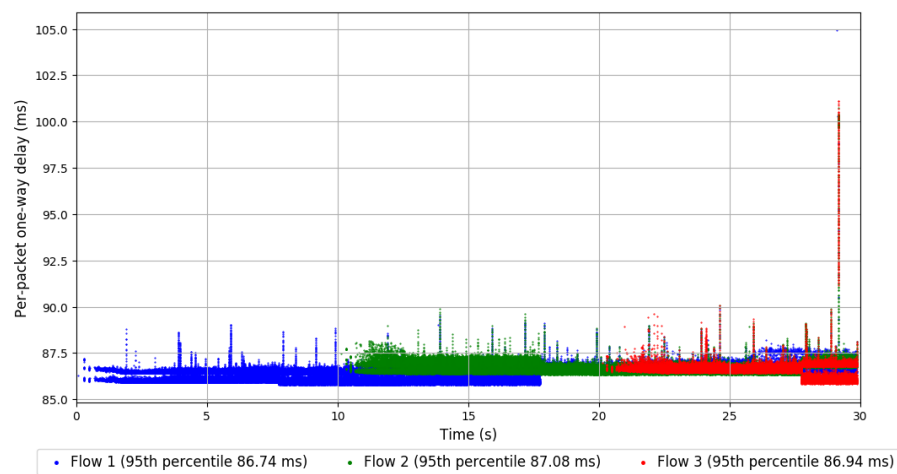
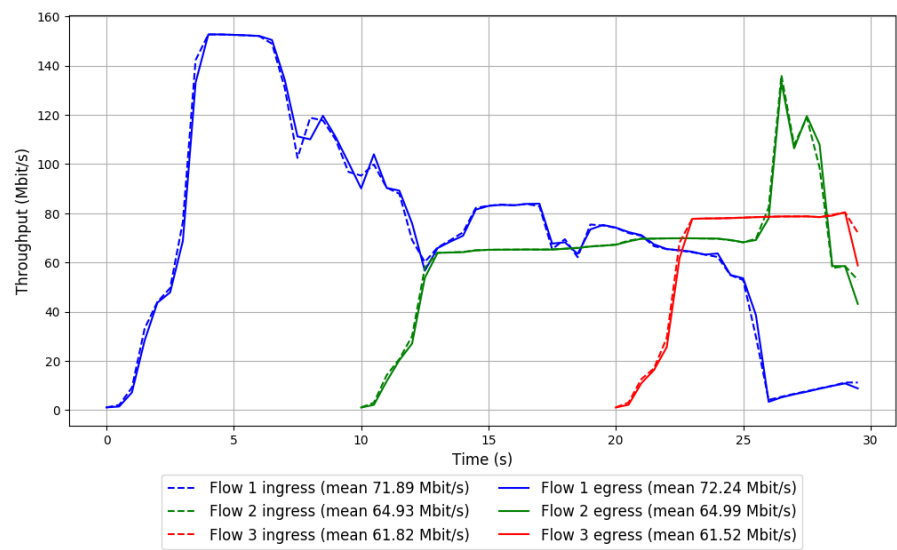
-- Flow 3:

Average throughput: 61.52 Mbit/s

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

Loss rate: 2.22%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-02-17 00:10:42

End at: 2018-02-17 00:11:12

Below is generated by plot.py at 2018-02-17 06:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.12 Mbit/s

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

Loss rate: 0.29%

-- Flow 1:

Average throughput: 56.69 Mbit/s

95th percentile per-packet one-way delay: 86.968 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 65.80 Mbit/s

95th percentile per-packet one-way delay: 90.531 ms

Loss rate: 0.44%

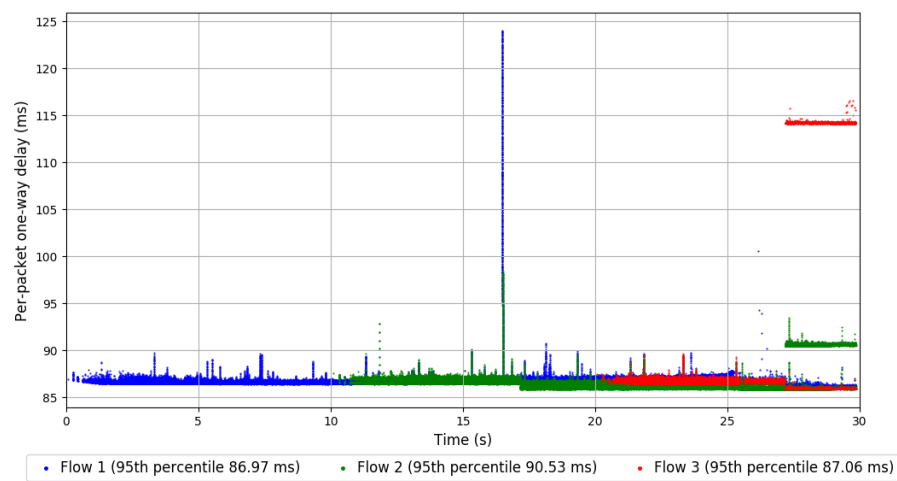
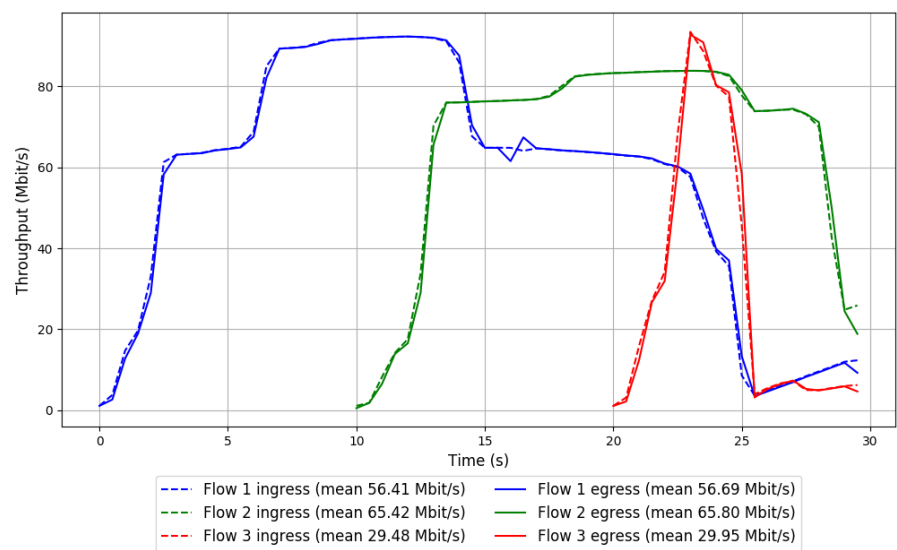
-- Flow 3:

Average throughput: 29.95 Mbit/s

95th percentile per-packet one-way delay: 87.062 ms

Loss rate: 0.46%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-02-17 00:30:06

End at: 2018-02-17 00:30:36

Below is generated by plot.py at 2018-02-17 06:09:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.73 Mbit/s

95th percentile per-packet one-way delay: 90.650 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 57.33 Mbit/s

95th percentile per-packet one-way delay: 90.667 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 64.56 Mbit/s

95th percentile per-packet one-way delay: 90.653 ms

Loss rate: 1.31%

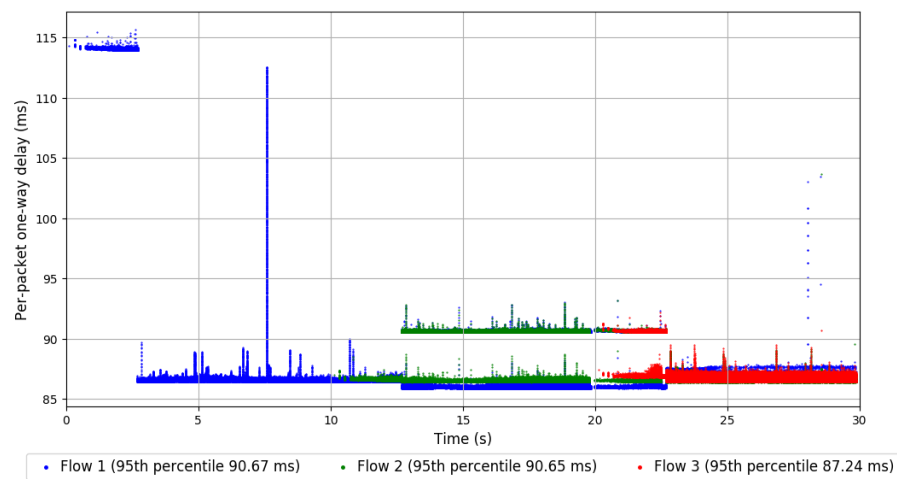
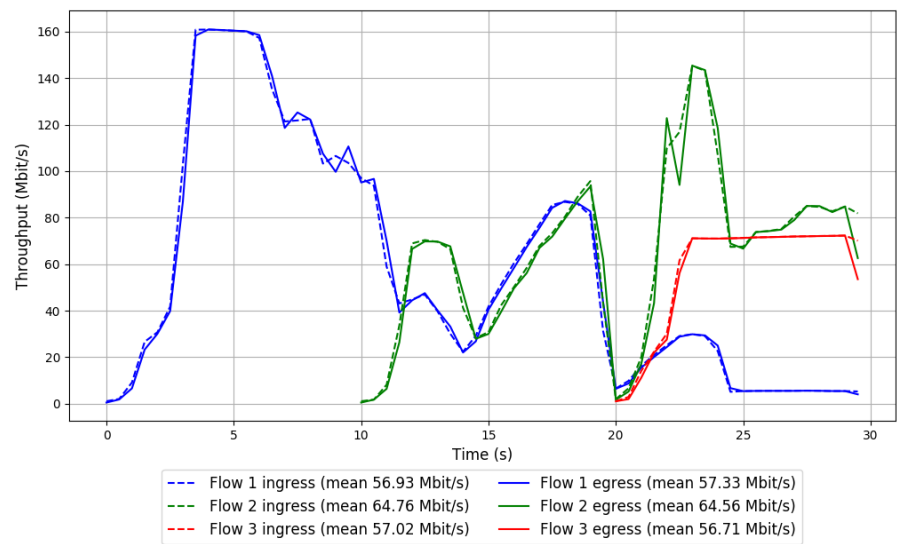
-- Flow 3:

Average throughput: 56.71 Mbit/s

95th percentile per-packet one-way delay: 87.241 ms

Loss rate: 2.57%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-02-17 00:49:22

End at: 2018-02-17 00:49:52

Below is generated by plot.py at 2018-02-17 06:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.86 Mbit/s

95th percentile per-packet one-way delay: 114.308 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 64.30 Mbit/s

95th percentile per-packet one-way delay: 114.197 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.01 Mbit/s

95th percentile per-packet one-way delay: 114.515 ms

Loss rate: 4.86%

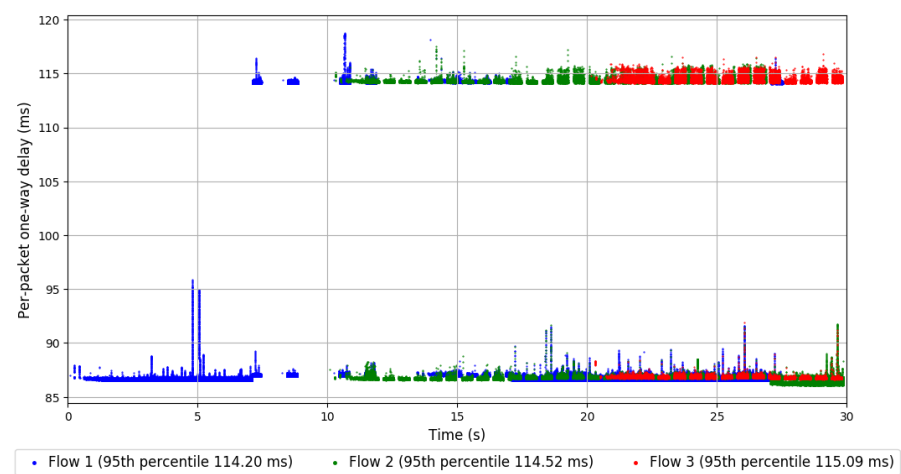
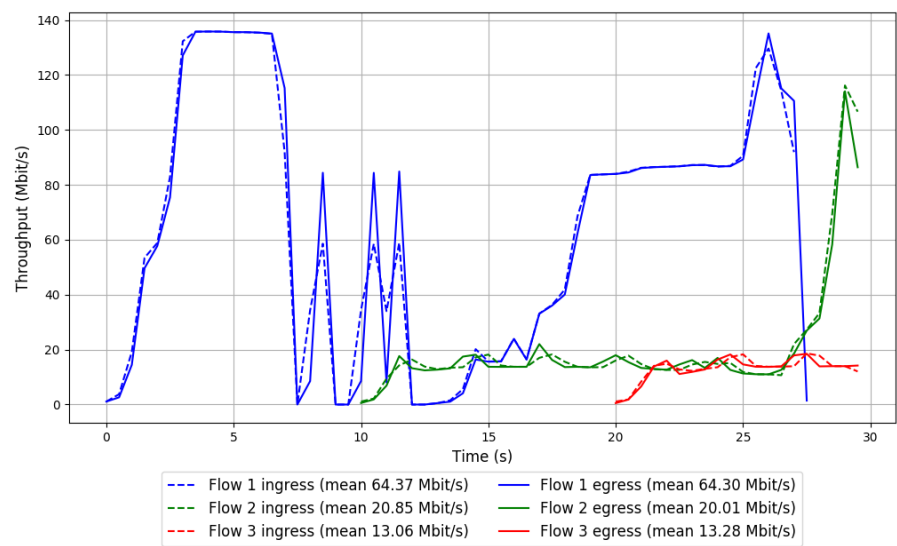
-- Flow 3:

Average throughput: 13.28 Mbit/s

95th percentile per-packet one-way delay: 115.093 ms

Loss rate: 0.73%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-02-17 01:08:10

End at: 2018-02-17 01:08:40

Below is generated by plot.py at 2018-02-17 06:12:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.18 Mbit/s

95th percentile per-packet one-way delay: 91.004 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 87.56 Mbit/s

95th percentile per-packet one-way delay: 91.054 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 79.09 Mbit/s

95th percentile per-packet one-way delay: 90.769 ms

Loss rate: 1.30%

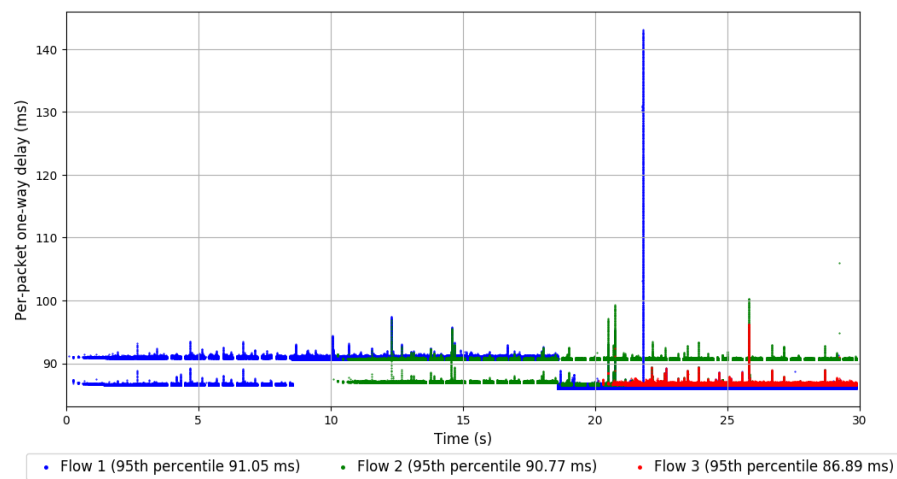
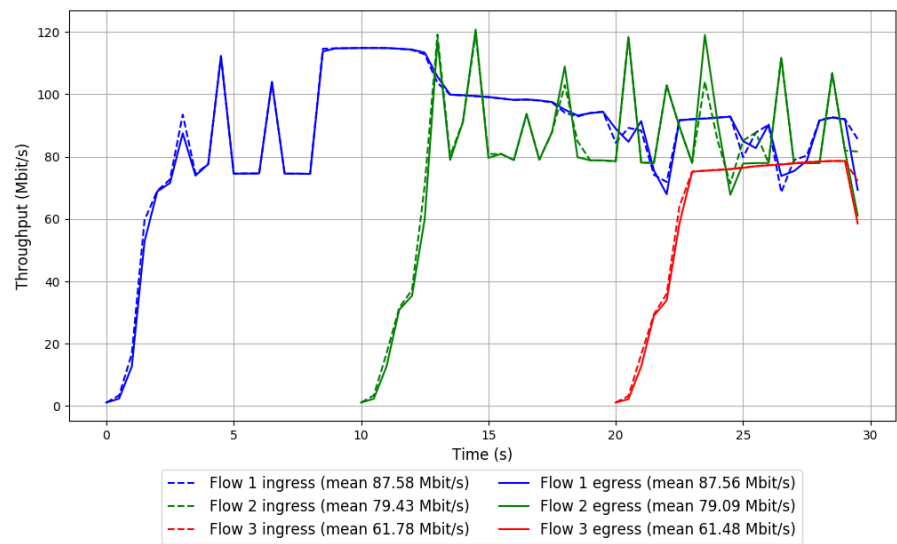
-- Flow 3:

Average throughput: 61.48 Mbit/s

95th percentile per-packet one-way delay: 86.887 ms

Loss rate: 2.23%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-02-17 01:26:53

End at: 2018-02-17 01:27:23

Below is generated by plot.py at 2018-02-17 06:12:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.00 Mbit/s

95th percentile per-packet one-way delay: 90.705 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 73.08 Mbit/s

95th percentile per-packet one-way delay: 86.907 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 66.58 Mbit/s

95th percentile per-packet one-way delay: 90.856 ms

Loss rate: 0.89%

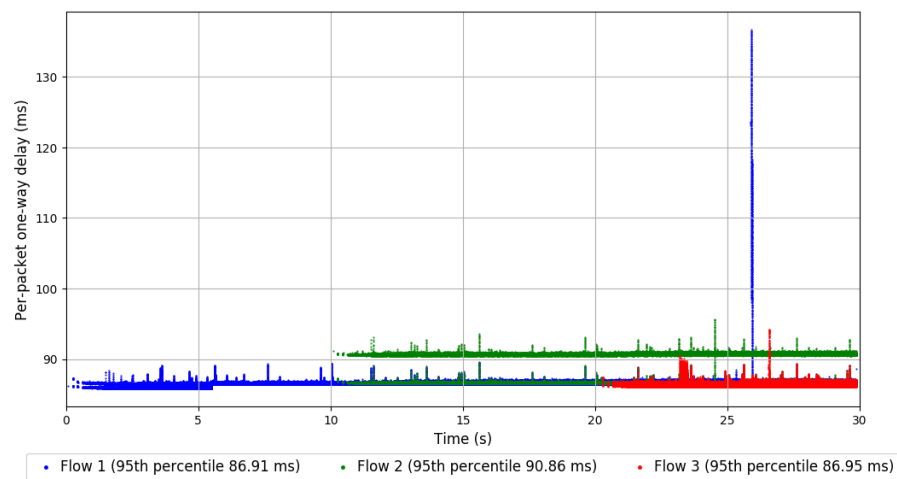
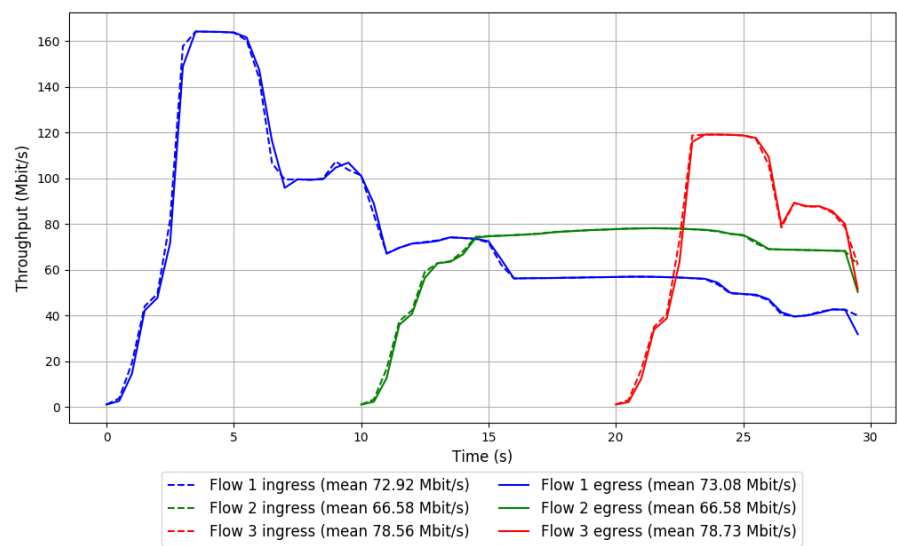
-- Flow 3:

Average throughput: 78.73 Mbit/s

95th percentile per-packet one-way delay: 86.955 ms

Loss rate: 1.54%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-02-17 01:45:41

End at: 2018-02-17 01:46:11

Below is generated by plot.py at 2018-02-17 06:13:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.72 Mbit/s

95th percentile per-packet one-way delay: 90.706 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 89.82 Mbit/s

95th percentile per-packet one-way delay: 90.646 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 59.97 Mbit/s

95th percentile per-packet one-way delay: 90.798 ms

Loss rate: 0.06%

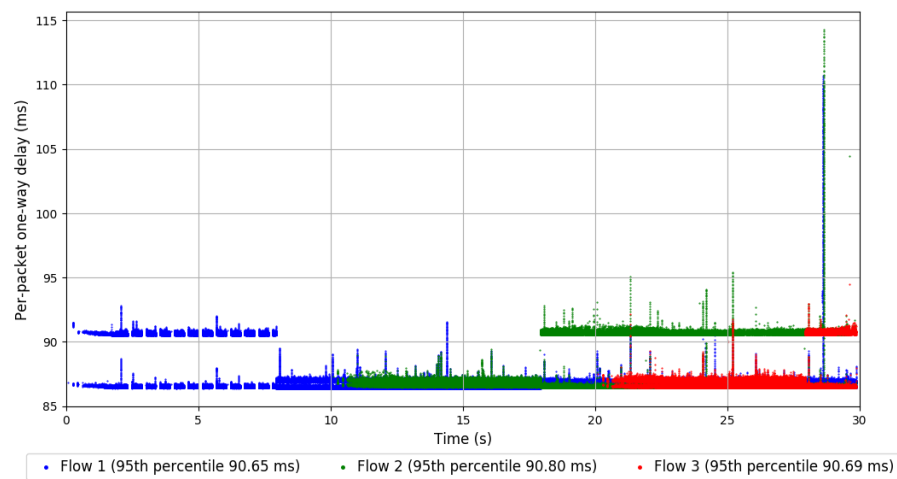
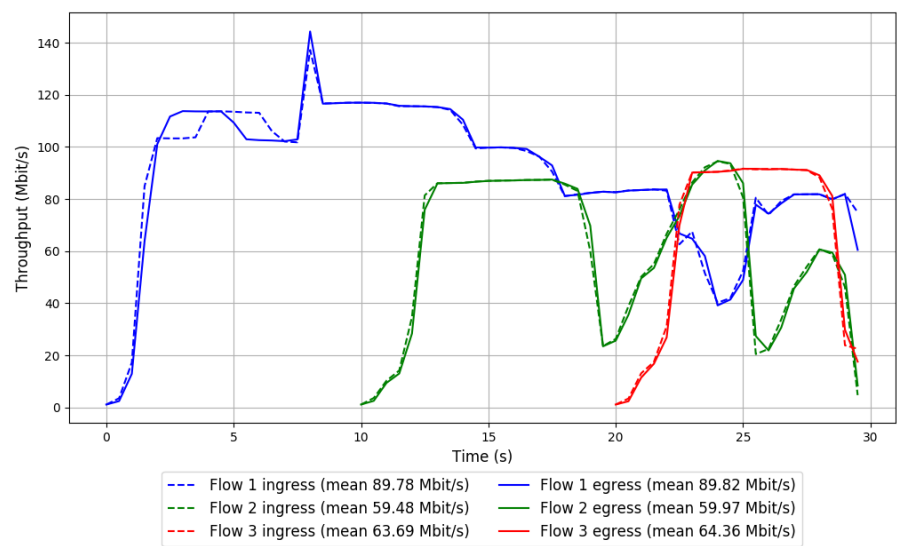
-- Flow 3:

Average throughput: 64.36 Mbit/s

95th percentile per-packet one-way delay: 90.687 ms

Loss rate: 0.71%

Run 10: Report of Copa — Data Link

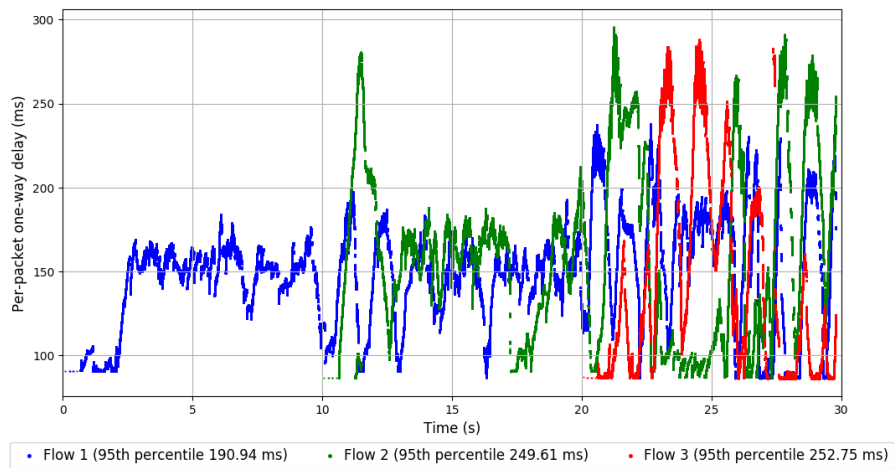
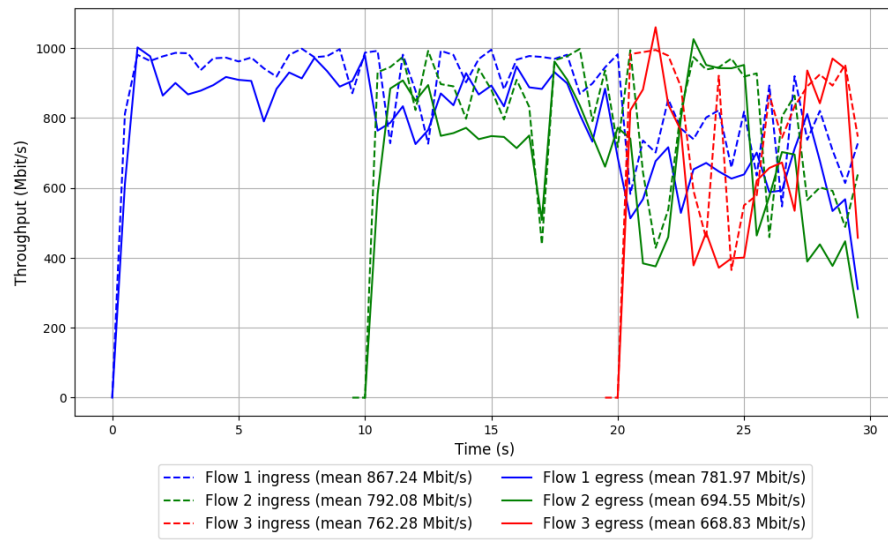


```
Run 1: Statistics of FillP

Start at: 2018-02-16 23:04:45
End at: 2018-02-16 23:05:15

# Below is generated by plot.py at 2018-02-17 06:37:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1462.52 Mbit/s
95th percentile per-packet one-way delay: 220.606 ms
Loss rate: 11.88%
-- Flow 1:
Average throughput: 781.97 Mbit/s
95th percentile per-packet one-way delay: 190.941 ms
Loss rate: 10.45%
-- Flow 2:
Average throughput: 694.55 Mbit/s
95th percentile per-packet one-way delay: 249.610 ms
Loss rate: 13.20%
-- Flow 3:
Average throughput: 668.83 Mbit/s
95th percentile per-packet one-way delay: 252.748 ms
Loss rate: 14.04%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-02-16 23:23:56

End at: 2018-02-16 23:24:26

Below is generated by plot.py at 2018-02-17 06:37:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 1460.70 Mbit/s

95th percentile per-packet one-way delay: 207.067 ms

Loss rate: 12.02%

-- Flow 1:

Average throughput: 828.88 Mbit/s

95th percentile per-packet one-way delay: 191.981 ms

Loss rate: 6.96%

-- Flow 2:

Average throughput: 675.57 Mbit/s

95th percentile per-packet one-way delay: 204.310 ms

Loss rate: 16.19%

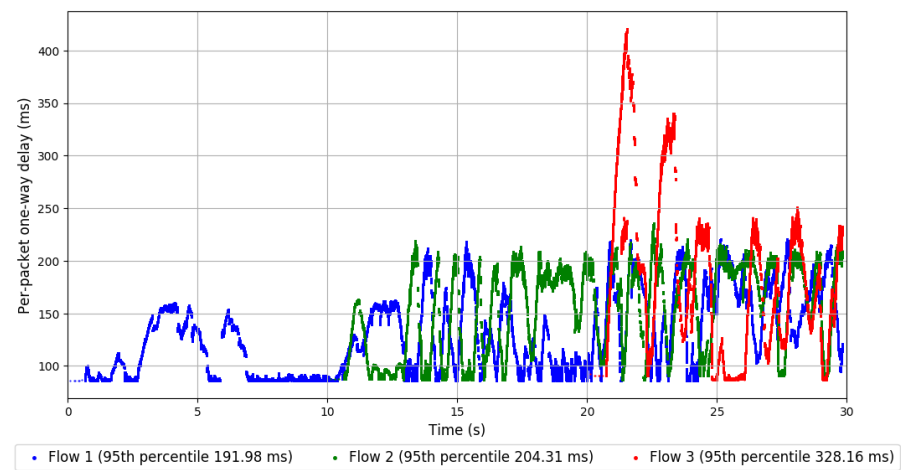
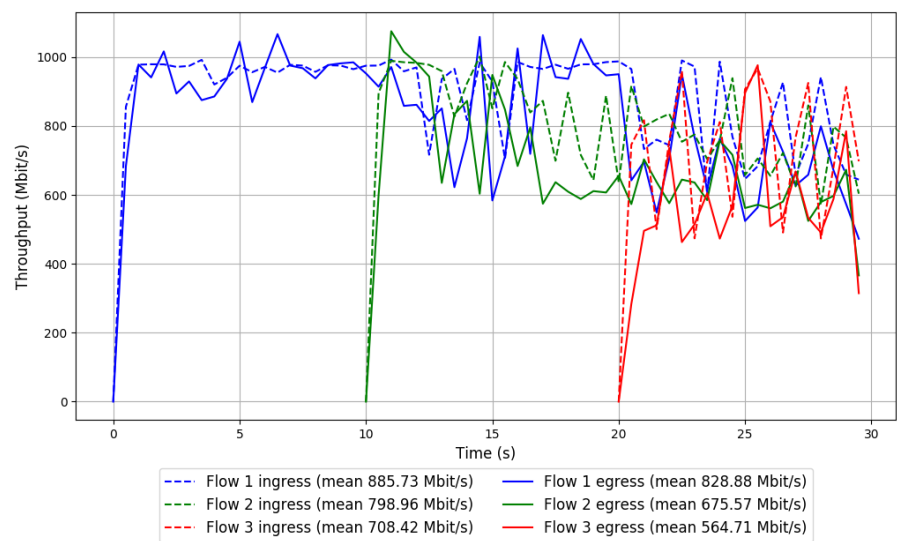
-- Flow 3:

Average throughput: 564.71 Mbit/s

95th percentile per-packet one-way delay: 328.164 ms

Loss rate: 21.74%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-02-16 23:43:00

End at: 2018-02-16 23:43:30

Below is generated by plot.py at 2018-02-17 06:37:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 1399.95 Mbit/s

95th percentile per-packet one-way delay: 291.033 ms

Loss rate: 9.73%

-- Flow 1:

Average throughput: 703.78 Mbit/s

95th percentile per-packet one-way delay: 308.211 ms

Loss rate: 11.87%

-- Flow 2:

Average throughput: 750.75 Mbit/s

95th percentile per-packet one-way delay: 264.042 ms

Loss rate: 3.86%

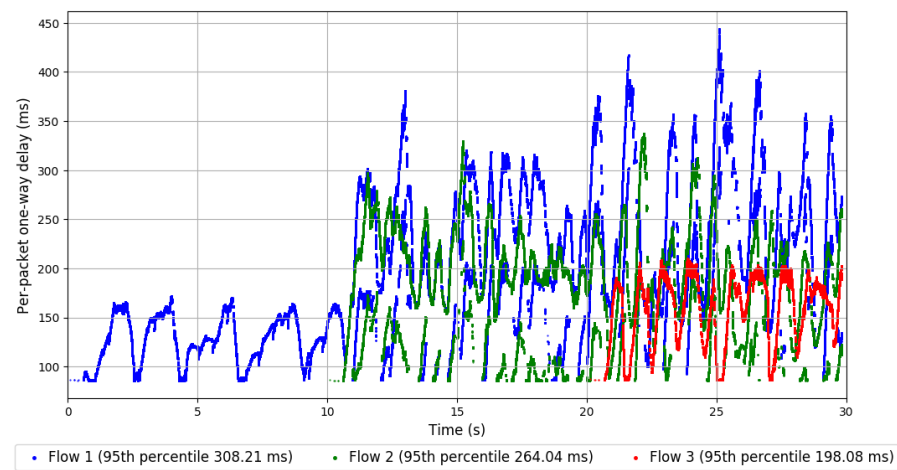
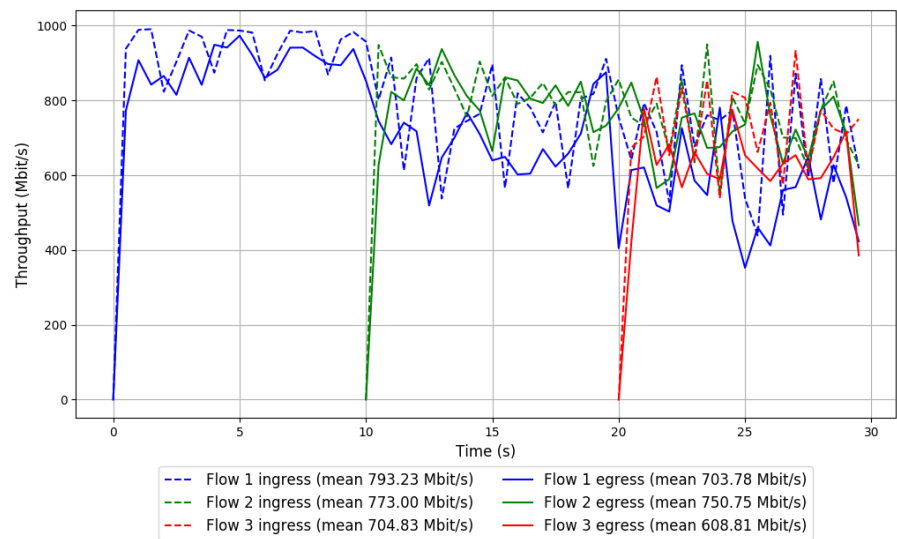
-- Flow 3:

Average throughput: 608.81 Mbit/s

95th percentile per-packet one-way delay: 198.076 ms

Loss rate: 15.39%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-02-17 00:02:07

End at: 2018-02-17 00:02:37

Below is generated by plot.py at 2018-02-17 06:39:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 1463.20 Mbit/s

95th percentile per-packet one-way delay: 211.396 ms

Loss rate: 11.61%

-- Flow 1:

Average throughput: 763.73 Mbit/s

95th percentile per-packet one-way delay: 201.261 ms

Loss rate: 10.37%

-- Flow 2:

Average throughput: 714.85 Mbit/s

95th percentile per-packet one-way delay: 225.465 ms

Loss rate: 12.25%

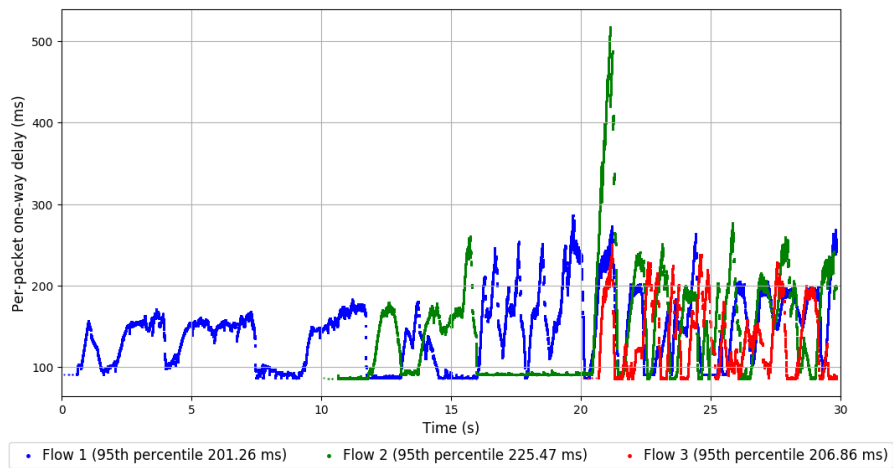
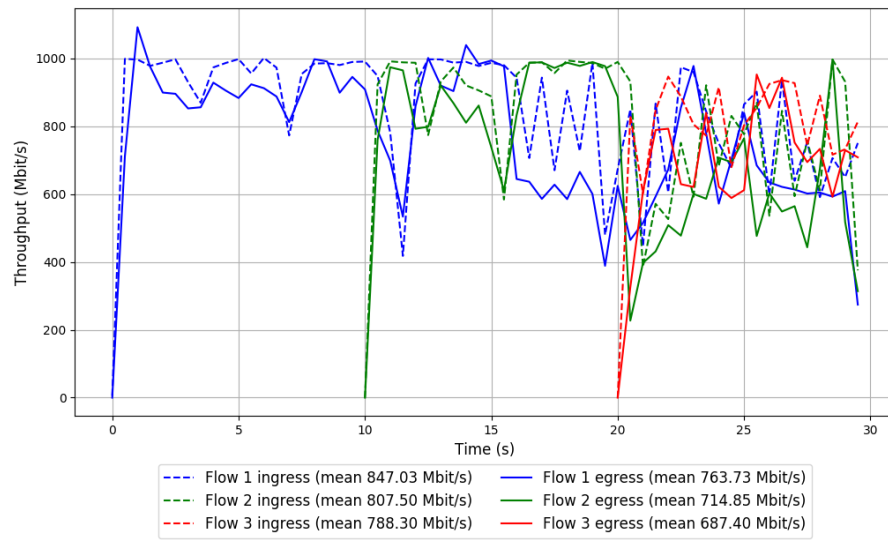
-- Flow 3:

Average throughput: 687.40 Mbit/s

95th percentile per-packet one-way delay: 206.860 ms

Loss rate: 14.33%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-02-17 00:21:27

End at: 2018-02-17 00:21:57

Below is generated by plot.py at 2018-02-17 06:40:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 1528.40 Mbit/s

95th percentile per-packet one-way delay: 213.583 ms

Loss rate: 9.33%

-- Flow 1:

Average throughput: 799.68 Mbit/s

95th percentile per-packet one-way delay: 192.976 ms

Loss rate: 9.01%

-- Flow 2:

Average throughput: 749.27 Mbit/s

95th percentile per-packet one-way delay: 232.826 ms

Loss rate: 8.84%

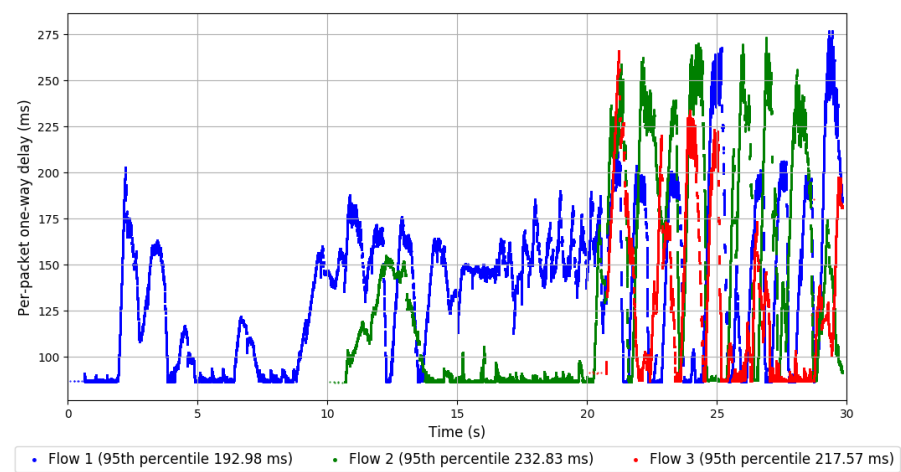
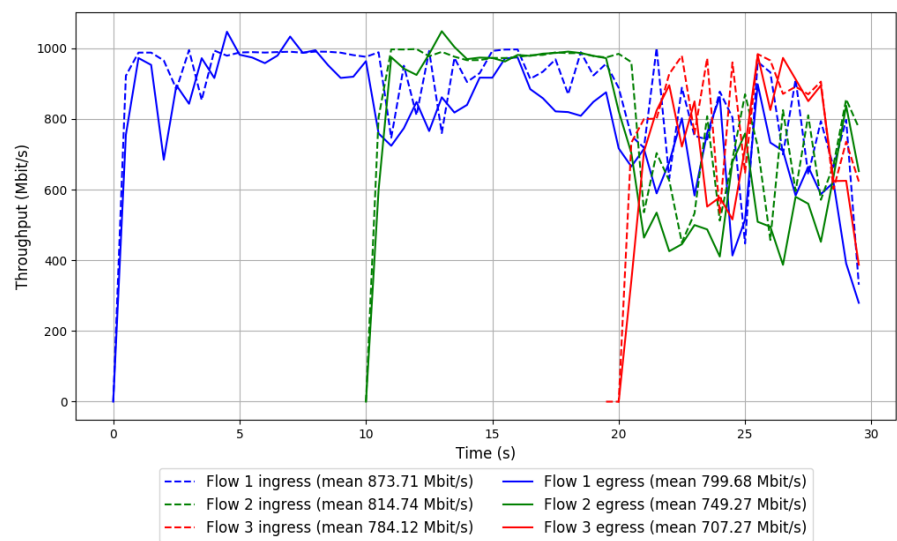
-- Flow 3:

Average throughput: 707.27 Mbit/s

95th percentile per-packet one-way delay: 217.567 ms

Loss rate: 11.43%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-02-17 00:40:51

End at: 2018-02-17 00:41:21

Below is generated by plot.py at 2018-02-17 06:42:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1472.56 Mbit/s

95th percentile per-packet one-way delay: 233.411 ms

Loss rate: 11.20%

-- Flow 1:

Average throughput: 746.09 Mbit/s

95th percentile per-packet one-way delay: 200.577 ms

Loss rate: 11.55%

-- Flow 2:

Average throughput: 773.41 Mbit/s

95th percentile per-packet one-way delay: 271.421 ms

Loss rate: 9.34%

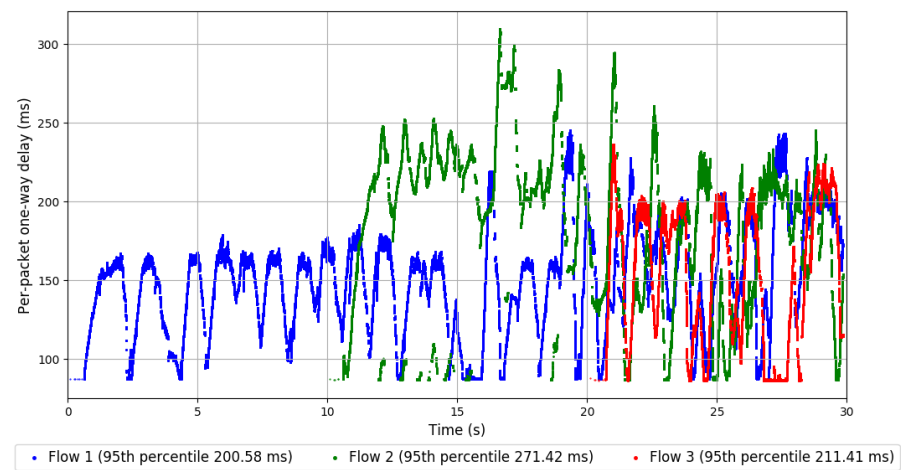
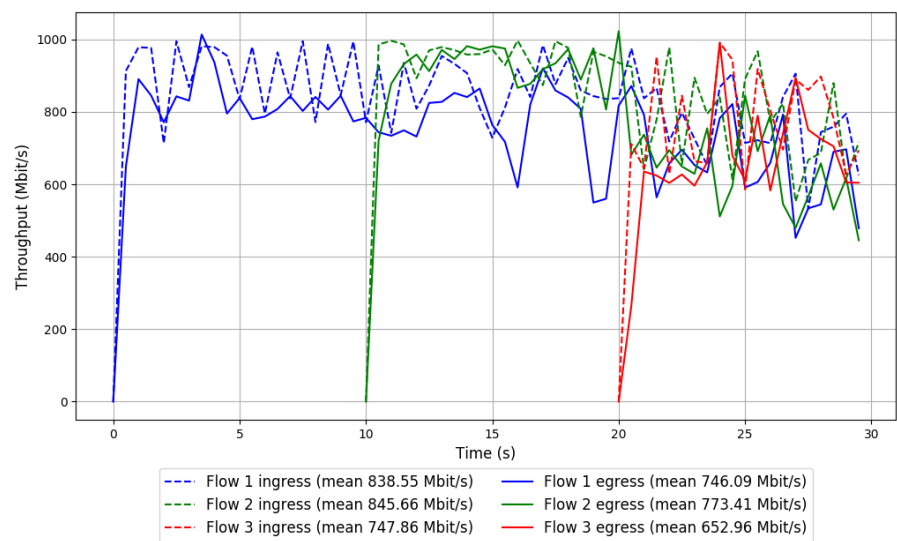
-- Flow 3:

Average throughput: 652.96 Mbit/s

95th percentile per-packet one-way delay: 211.410 ms

Loss rate: 14.23%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-02-17 00:59:46

End at: 2018-02-17 01:00:16

Below is generated by plot.py at 2018-02-17 06:42:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1477.83 Mbit/s

95th percentile per-packet one-way delay: 215.349 ms

Loss rate: 10.82%

-- Flow 1:

Average throughput: 821.27 Mbit/s

95th percentile per-packet one-way delay: 199.870 ms

Loss rate: 7.14%

-- Flow 2:

Average throughput: 683.27 Mbit/s

95th percentile per-packet one-way delay: 278.445 ms

Loss rate: 14.25%

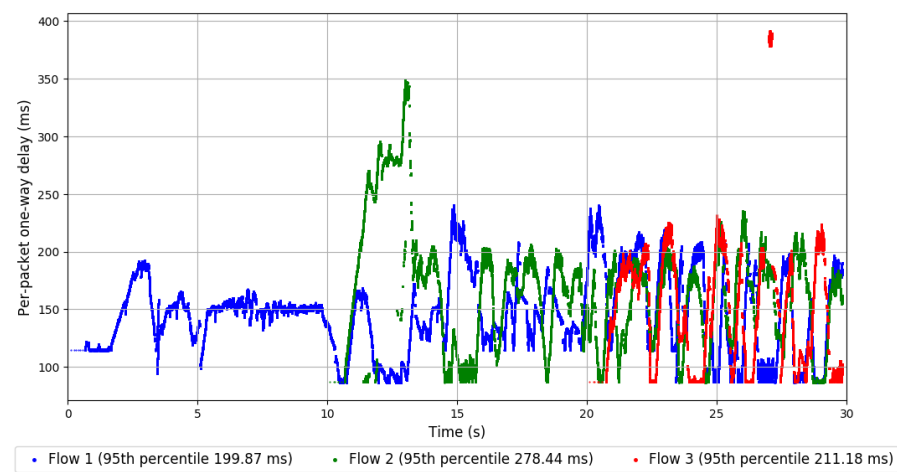
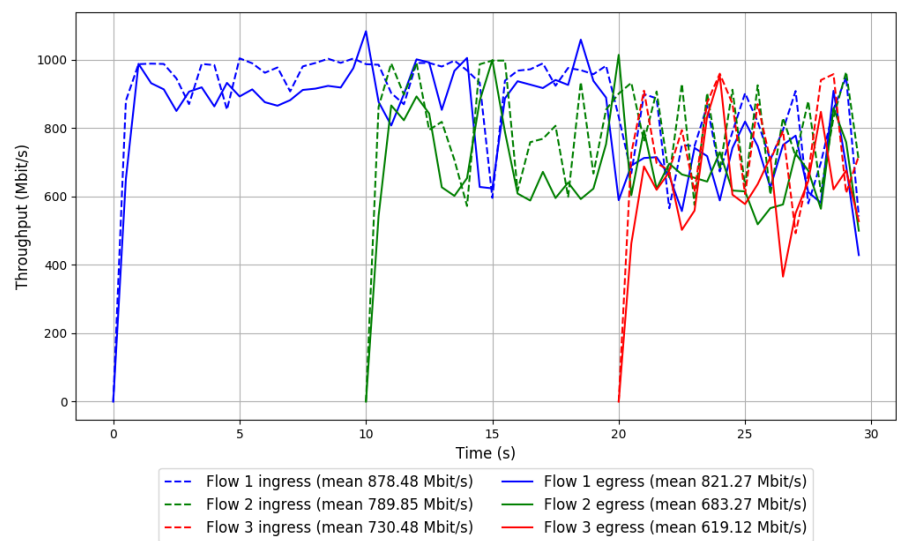
-- Flow 3:

Average throughput: 619.12 Mbit/s

95th percentile per-packet one-way delay: 211.175 ms

Loss rate: 16.74%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-02-17 01:18:36

End at: 2018-02-17 01:19:06

Below is generated by plot.py at 2018-02-17 06:43:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 1467.93 Mbit/s

95th percentile per-packet one-way delay: 228.202 ms

Loss rate: 12.23%

-- Flow 1:

Average throughput: 757.52 Mbit/s

95th percentile per-packet one-way delay: 200.435 ms

Loss rate: 10.90%

-- Flow 2:

Average throughput: 781.74 Mbit/s

95th percentile per-packet one-way delay: 225.552 ms

Loss rate: 10.15%

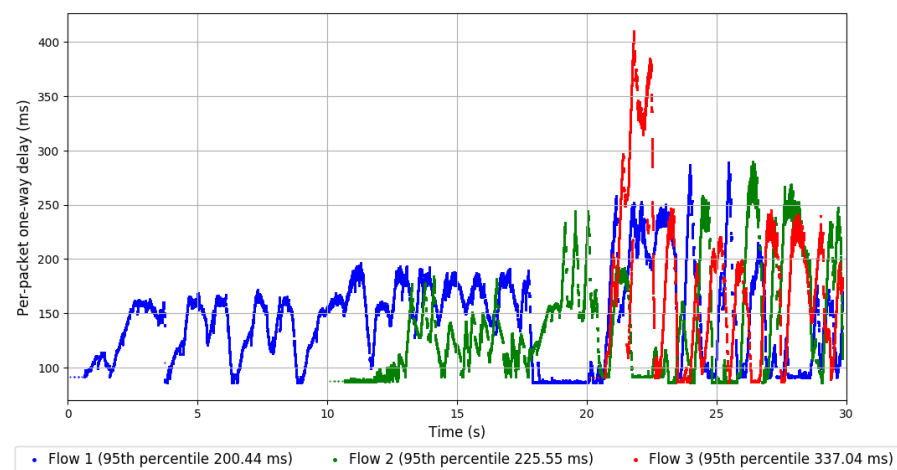
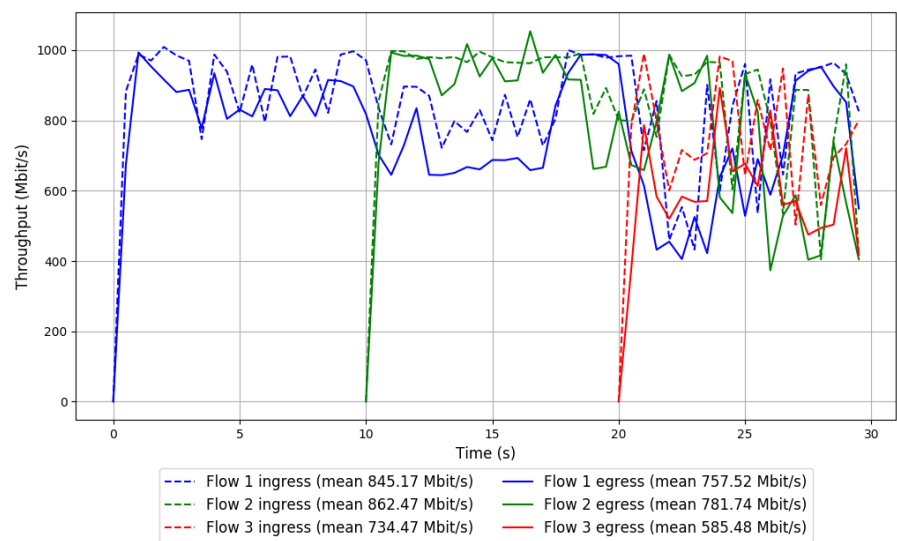
-- Flow 3:

Average throughput: 585.48 Mbit/s

95th percentile per-packet one-way delay: 337.043 ms

Loss rate: 21.72%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-02-17 01:37:24

End at: 2018-02-17 01:37:54

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 1491.18 Mbit/s

95th percentile per-packet one-way delay: 263.547 ms

Loss rate: 10.28%

-- Flow 1:

Average throughput: 774.77 Mbit/s

95th percentile per-packet one-way delay: 293.218 ms

Loss rate: 10.43%

-- Flow 2:

Average throughput: 765.54 Mbit/s

95th percentile per-packet one-way delay: 209.810 ms

Loss rate: 9.03%

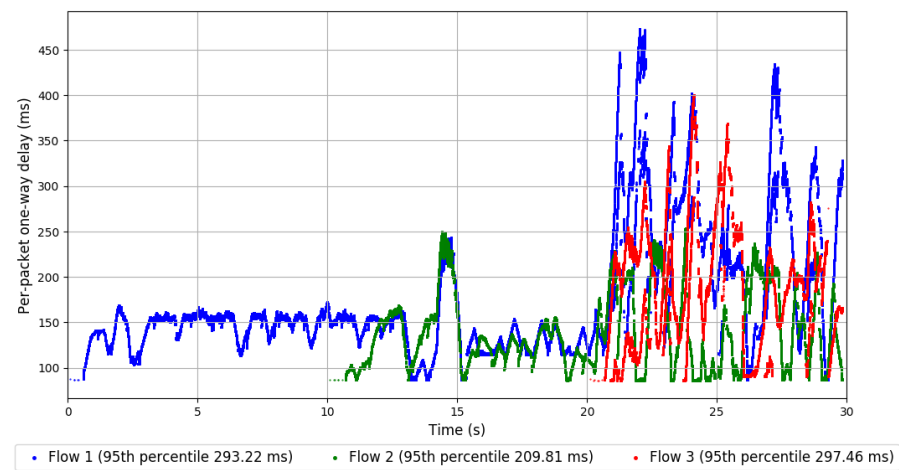
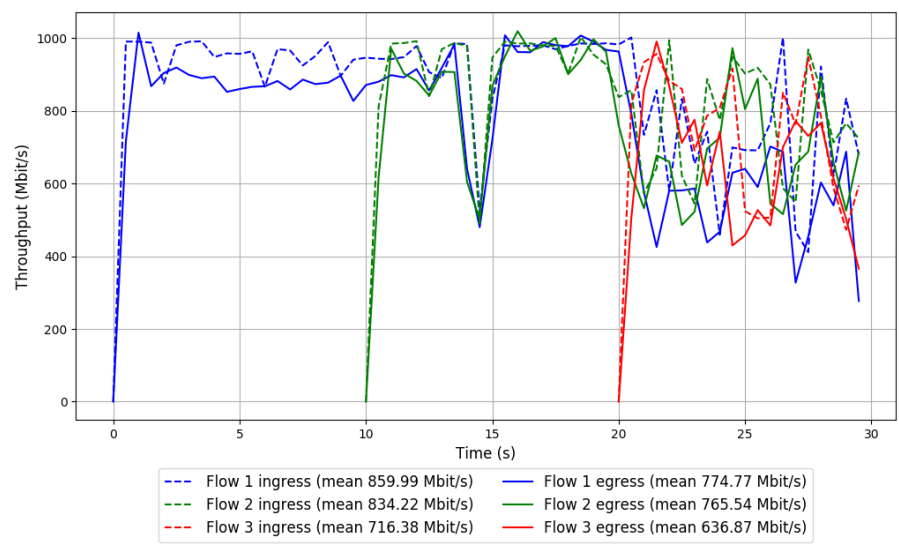
-- Flow 3:

Average throughput: 636.87 Mbit/s

95th percentile per-packet one-way delay: 297.458 ms

Loss rate: 12.67%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-02-17 01:55:48

End at: 2018-02-17 01:56:18

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 1392.09 Mbit/s

95th percentile per-packet one-way delay: 333.045 ms

Loss rate: 9.57%

-- Flow 1:

Average throughput: 743.50 Mbit/s

95th percentile per-packet one-way delay: 342.650 ms

Loss rate: 7.18%

-- Flow 2:

Average throughput: 650.06 Mbit/s

95th percentile per-packet one-way delay: 342.525 ms

Loss rate: 12.69%

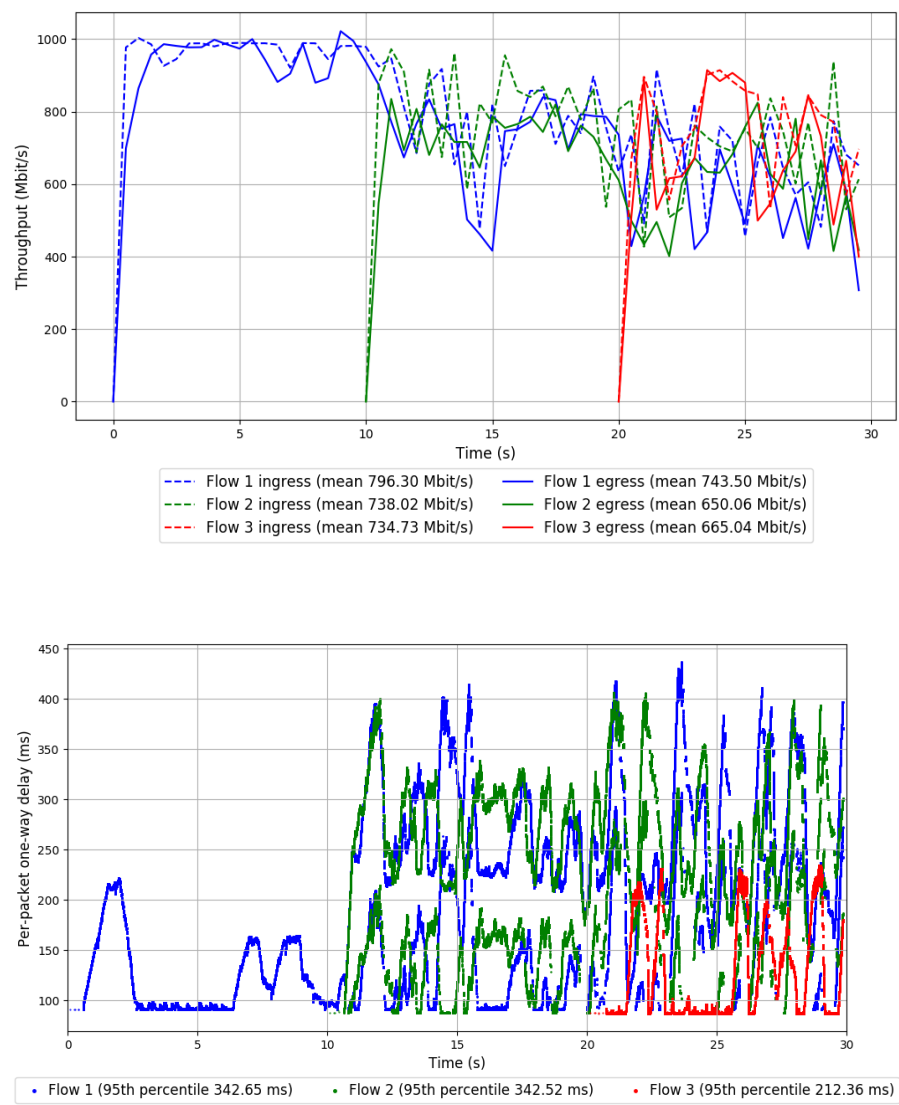
-- Flow 3:

Average throughput: 665.04 Mbit/s

95th percentile per-packet one-way delay: 212.357 ms

Loss rate: 11.08%

Run 10: Report of FillP — Data Link

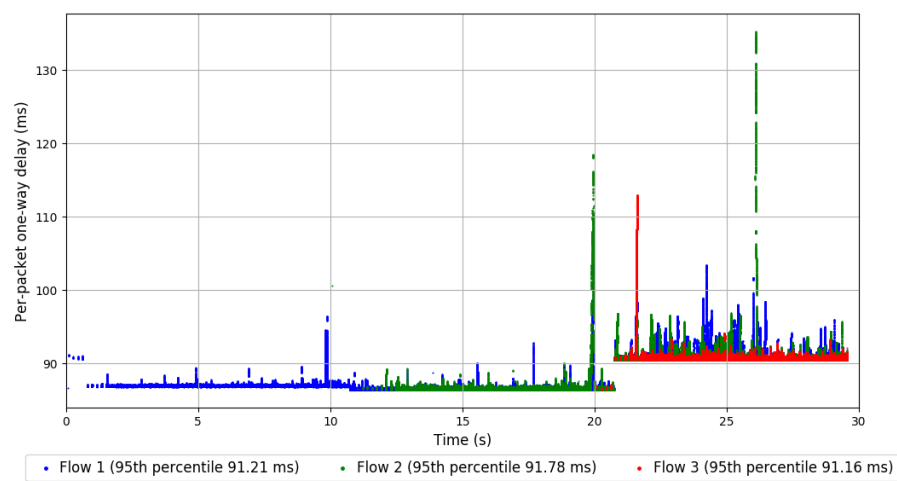
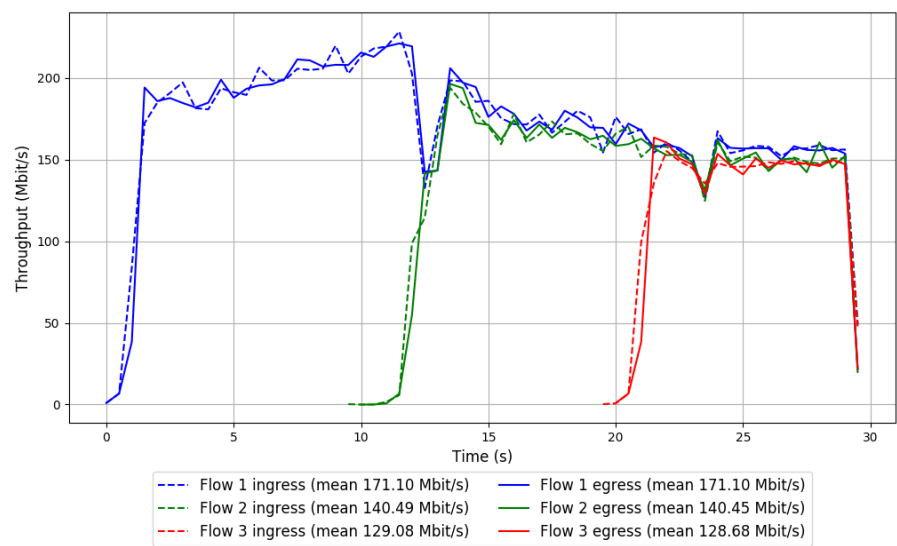


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-16 23:03:38
End at: 2018-02-16 23:04:08

# Below is generated by plot.py at 2018-02-17 07:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.46 Mbit/s
95th percentile per-packet one-way delay: 91.351 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 171.10 Mbit/s
95th percentile per-packet one-way delay: 91.208 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 140.45 Mbit/s
95th percentile per-packet one-way delay: 91.785 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 128.68 Mbit/s
95th percentile per-packet one-way delay: 91.157 ms
Loss rate: 2.14%
```

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

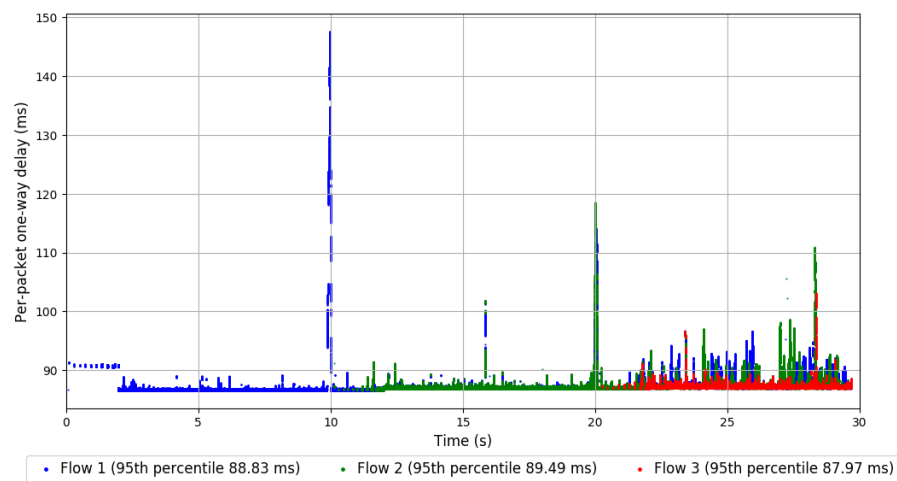
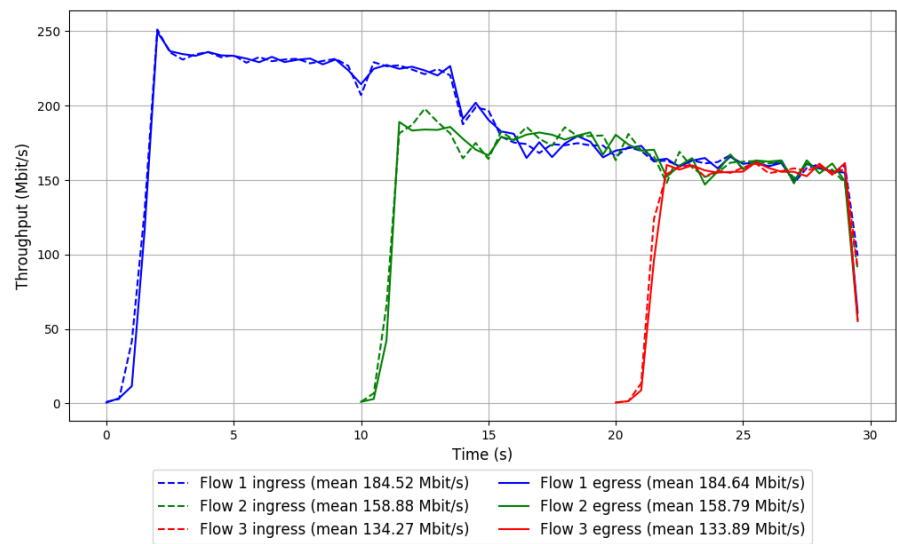


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-16 23:22:47
End at: 2018-02-16 23:23:17

# Below is generated by plot.py at 2018-02-17 07:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.17 Mbit/s
95th percentile per-packet one-way delay: 88.816 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 184.64 Mbit/s
95th percentile per-packet one-way delay: 88.828 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 158.79 Mbit/s
95th percentile per-packet one-way delay: 89.489 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 133.89 Mbit/s
95th percentile per-packet one-way delay: 87.966 ms
Loss rate: 2.37%
```

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

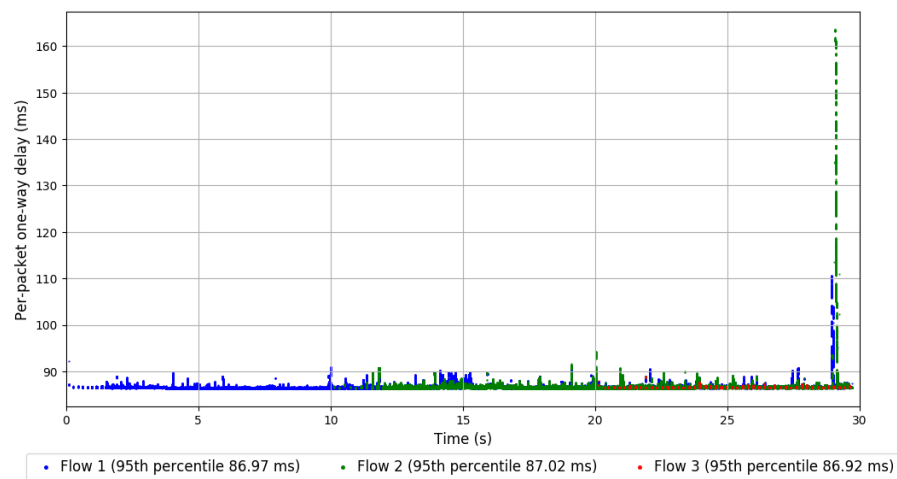
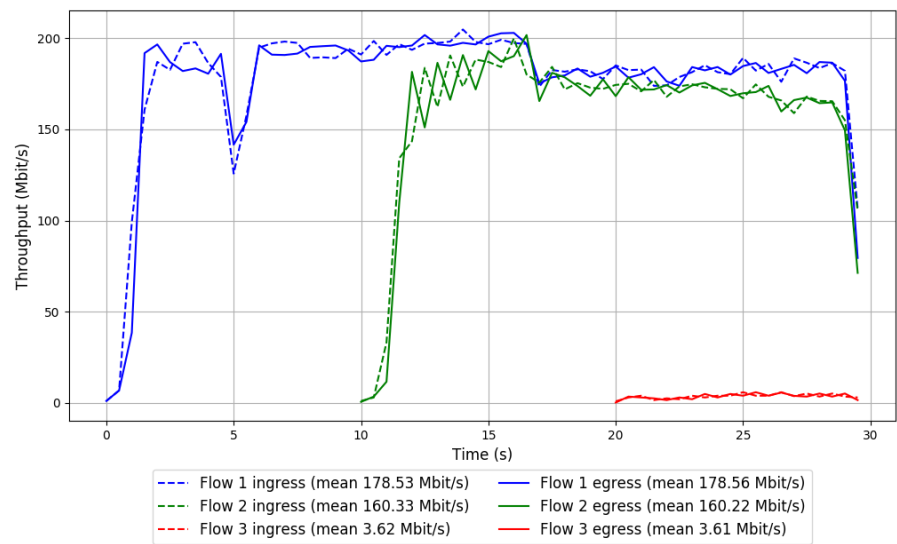


```
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-16 23:41:55
End at: 2018-02-16 23:42:25

# Below is generated by plot.py at 2018-02-17 07:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.63 Mbit/s
95th percentile per-packet one-way delay: 86.991 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 178.56 Mbit/s
95th percentile per-packet one-way delay: 86.972 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 160.22 Mbit/s
95th percentile per-packet one-way delay: 87.022 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 86.923 ms
Loss rate: 2.32%
```


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



Run 4: Statistics of Indigo-1-32

Start at: 2018-02-17 00:00:58

End at: 2018-02-17 00:01:28

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.76 Mbit/s

95th percentile per-packet one-way delay: 87.401 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 173.62 Mbit/s

95th percentile per-packet one-way delay: 87.046 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 160.18 Mbit/s

95th percentile per-packet one-way delay: 88.246 ms

Loss rate: 0.84%

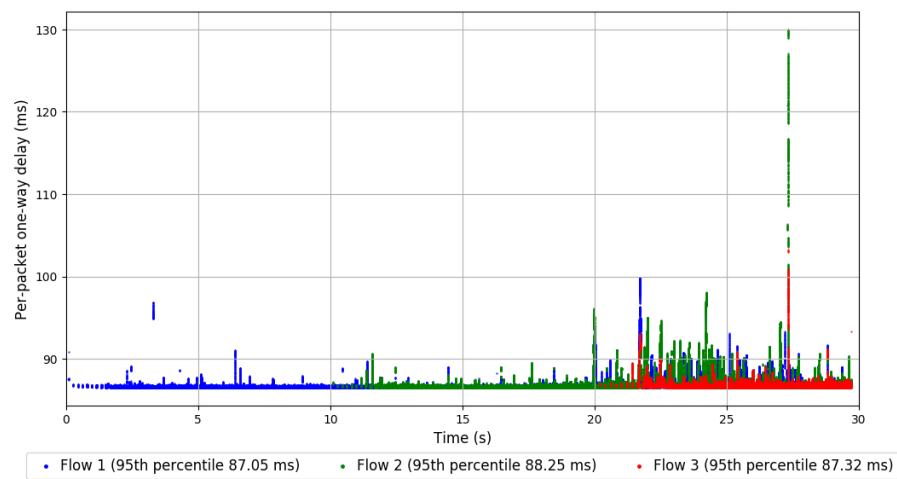
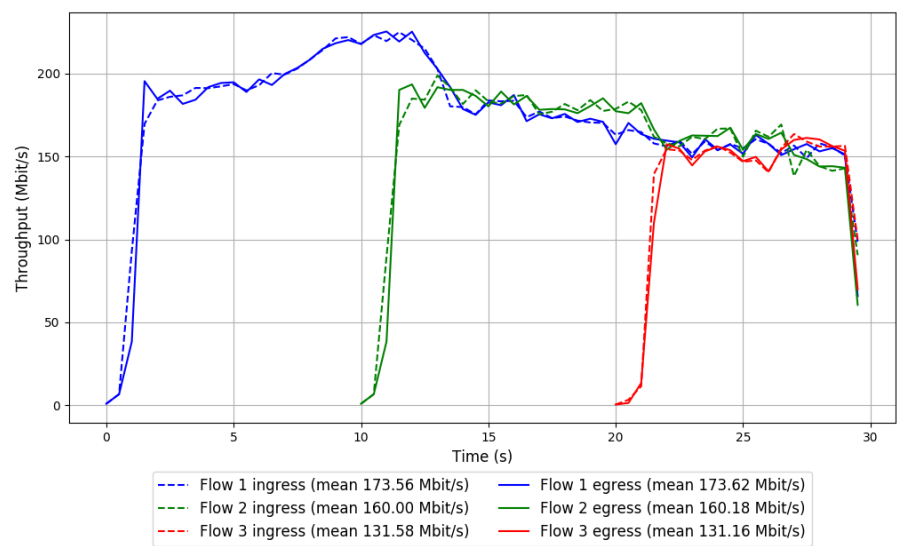
-- Flow 3:

Average throughput: 131.16 Mbit/s

95th percentile per-packet one-way delay: 87.323 ms

Loss rate: 2.17%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-02-17 00:20:17

End at: 2018-02-17 00:20:47

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 327.20 Mbit/s

95th percentile per-packet one-way delay: 87.594 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 176.61 Mbit/s

95th percentile per-packet one-way delay: 87.358 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 160.21 Mbit/s

95th percentile per-packet one-way delay: 88.176 ms

Loss rate: 0.99%

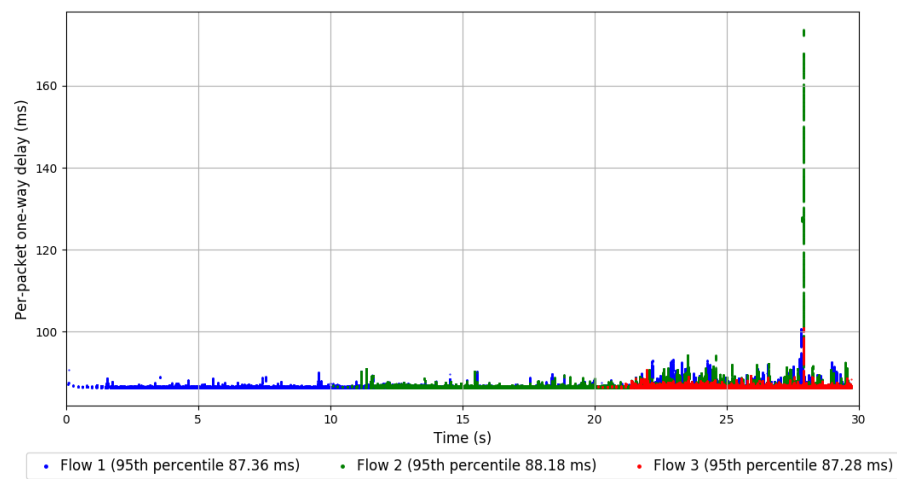
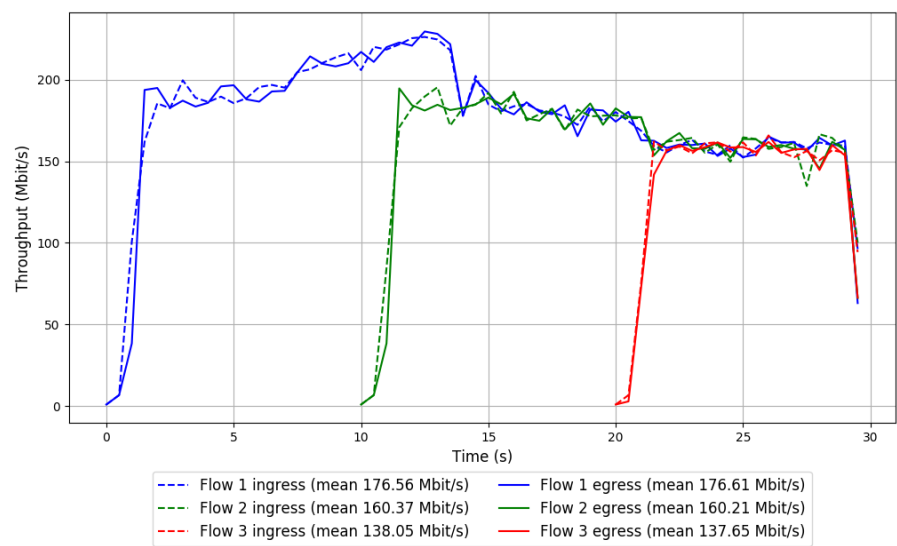
-- Flow 3:

Average throughput: 137.65 Mbit/s

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

Loss rate: 2.08%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-02-17 00:39:42

End at: 2018-02-17 00:40:12

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 305.80 Mbit/s

95th percentile per-packet one-way delay: 114.330 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 170.54 Mbit/s

95th percentile per-packet one-way delay: 114.265 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 139.20 Mbit/s

95th percentile per-packet one-way delay: 114.360 ms

Loss rate: 0.95%

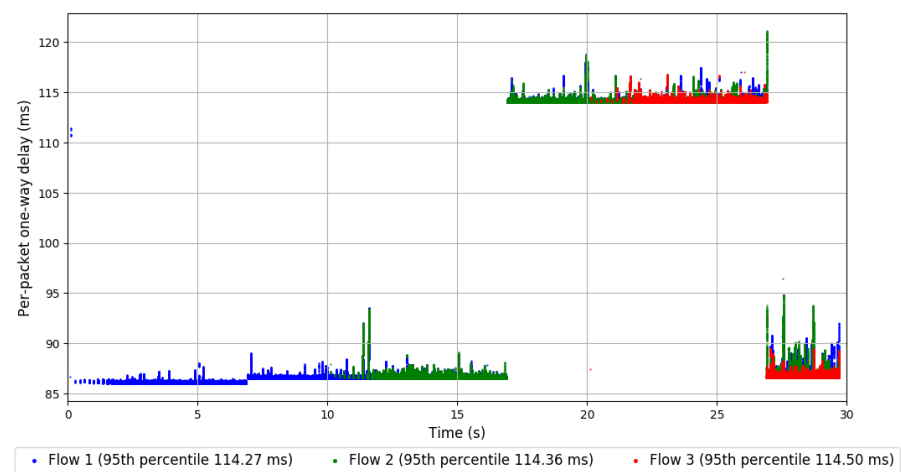
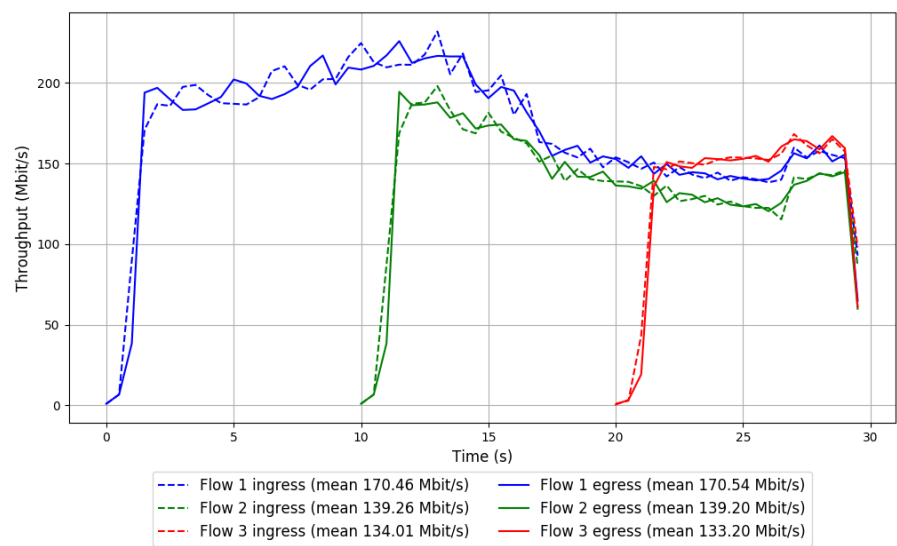
-- Flow 3:

Average throughput: 133.20 Mbit/s

95th percentile per-packet one-way delay: 114.501 ms

Loss rate: 2.38%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-02-17 00:58:37

End at: 2018-02-17 00:59:07

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 341.55 Mbit/s

95th percentile per-packet one-way delay: 91.451 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 185.88 Mbit/s

95th percentile per-packet one-way delay: 91.258 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 166.55 Mbit/s

95th percentile per-packet one-way delay: 91.897 ms

Loss rate: 0.90%

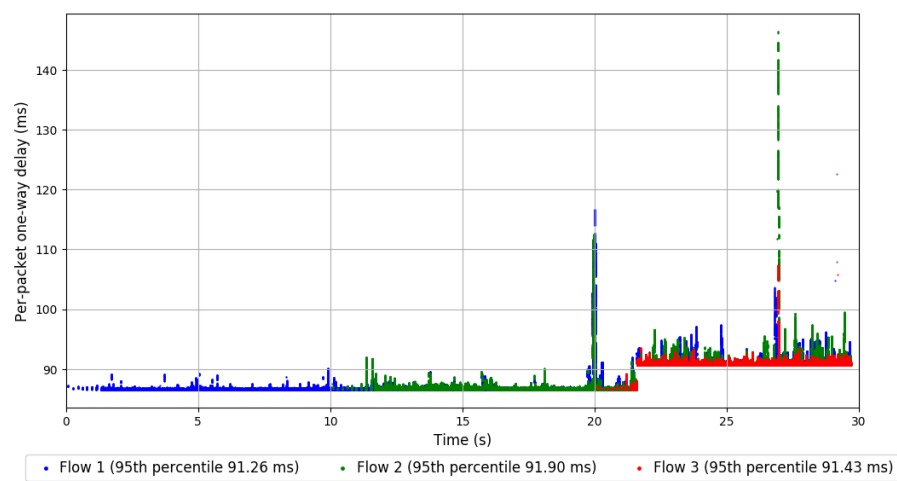
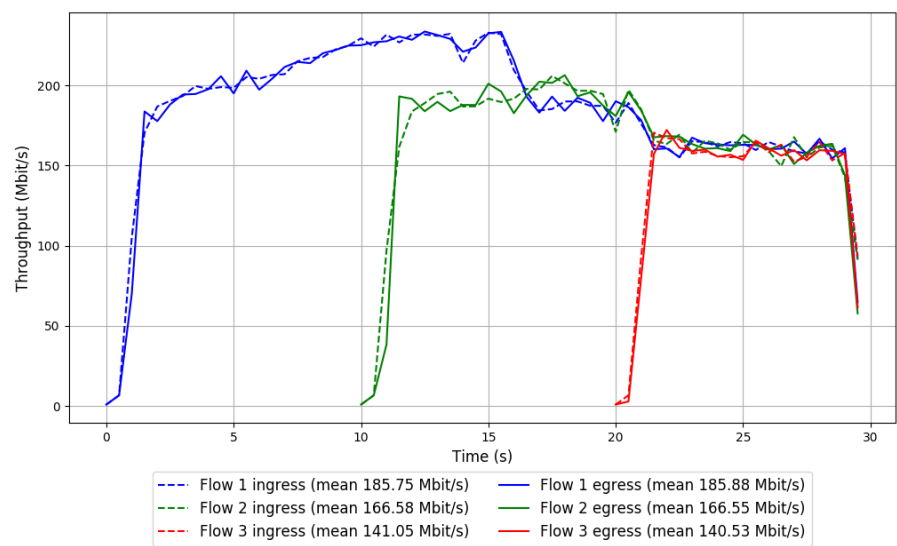
-- Flow 3:

Average throughput: 140.53 Mbit/s

95th percentile per-packet one-way delay: 91.430 ms

Loss rate: 2.14%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-02-17 01:17:28

End at: 2018-02-17 01:17:58

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.63 Mbit/s

95th percentile per-packet one-way delay: 87.804 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 181.48 Mbit/s

95th percentile per-packet one-way delay: 88.124 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 161.05 Mbit/s

95th percentile per-packet one-way delay: 87.761 ms

Loss rate: 0.84%

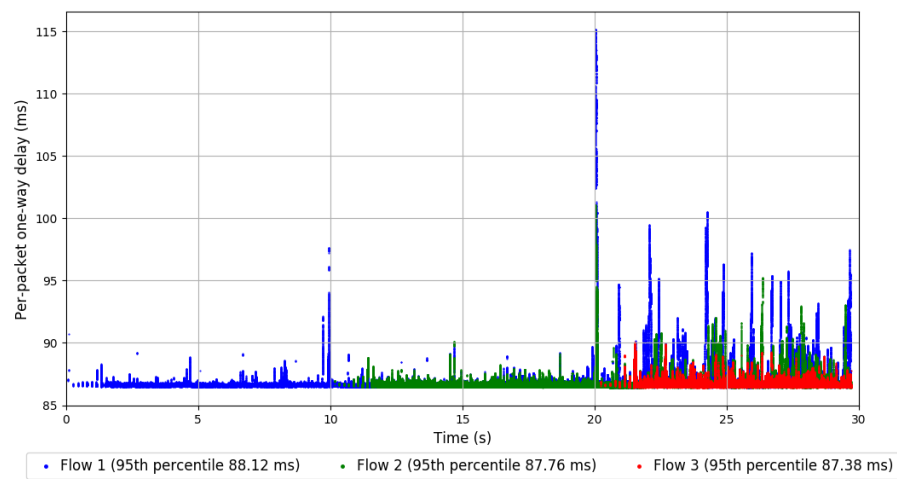
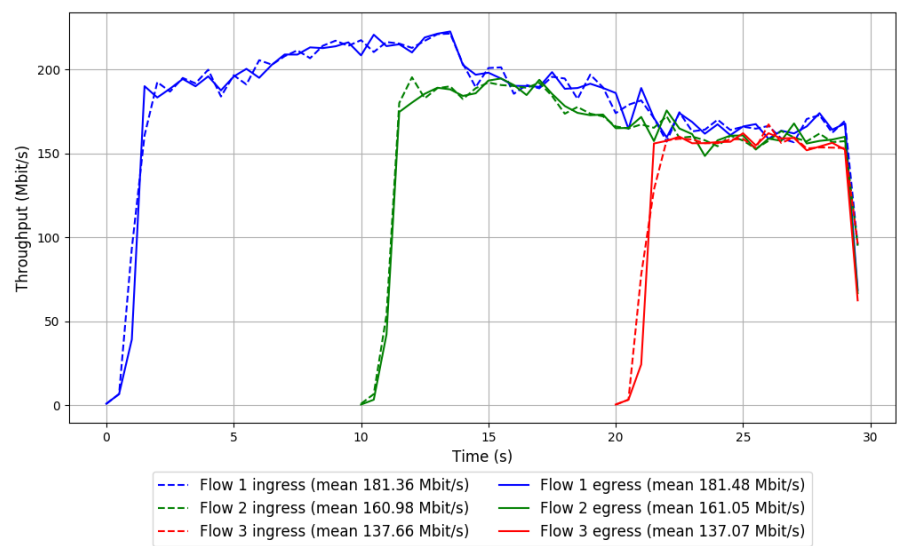
-- Flow 3:

Average throughput: 137.07 Mbit/s

95th percentile per-packet one-way delay: 87.375 ms

Loss rate: 2.20%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-02-17 01:36:16

End at: 2018-02-17 01:36:46

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 322.38 Mbit/s

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

Loss rate: 0.86%

-- Flow 1:

Average throughput: 173.11 Mbit/s

95th percentile per-packet one-way delay: 86.990 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 159.14 Mbit/s

95th percentile per-packet one-way delay: 87.731 ms

Loss rate: 0.90%

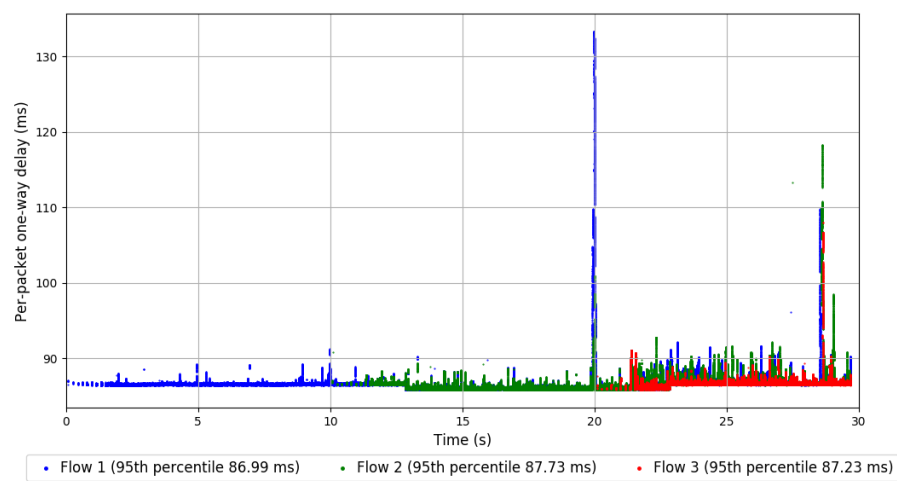
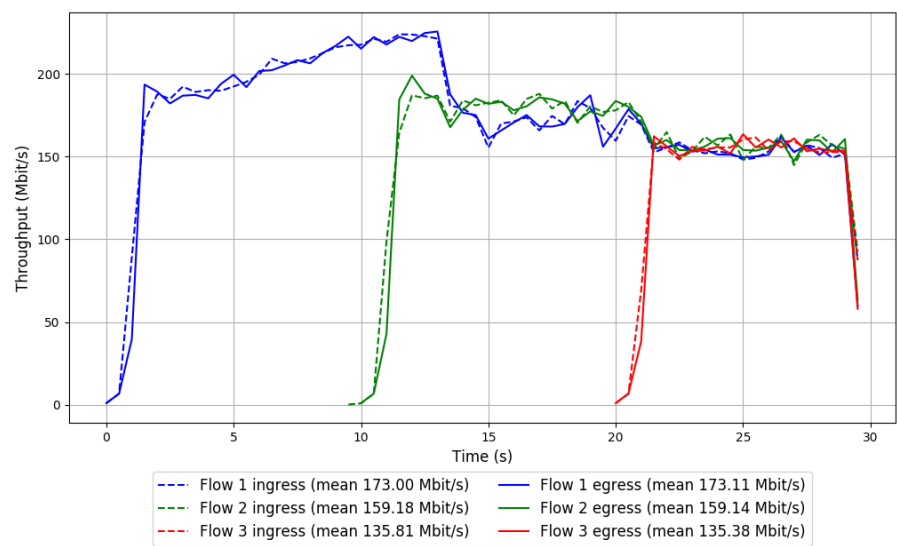
-- Flow 3:

Average throughput: 135.38 Mbit/s

95th percentile per-packet one-way delay: 87.232 ms

Loss rate: 2.07%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-02-17 01:54:40

End at: 2018-02-17 01:55:10

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 335.87 Mbit/s

95th percentile per-packet one-way delay: 91.751 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 182.41 Mbit/s

95th percentile per-packet one-way delay: 91.763 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 164.00 Mbit/s

95th percentile per-packet one-way delay: 92.105 ms

Loss rate: 0.87%

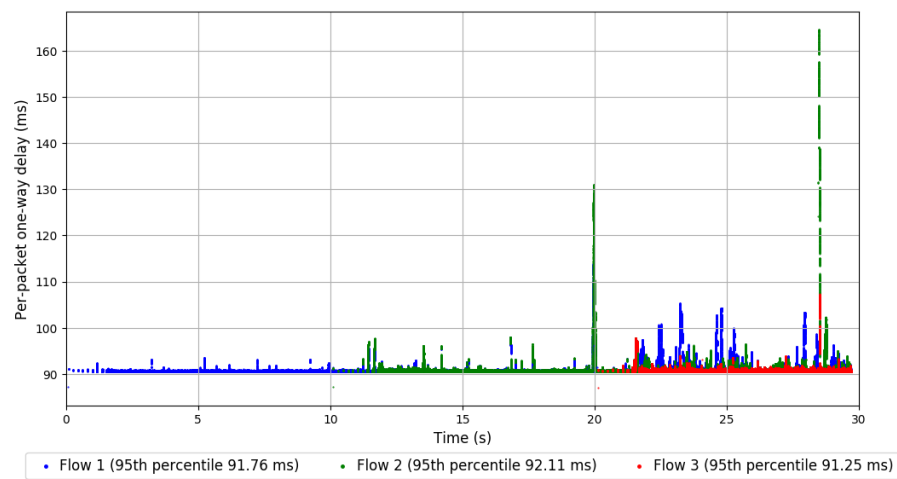
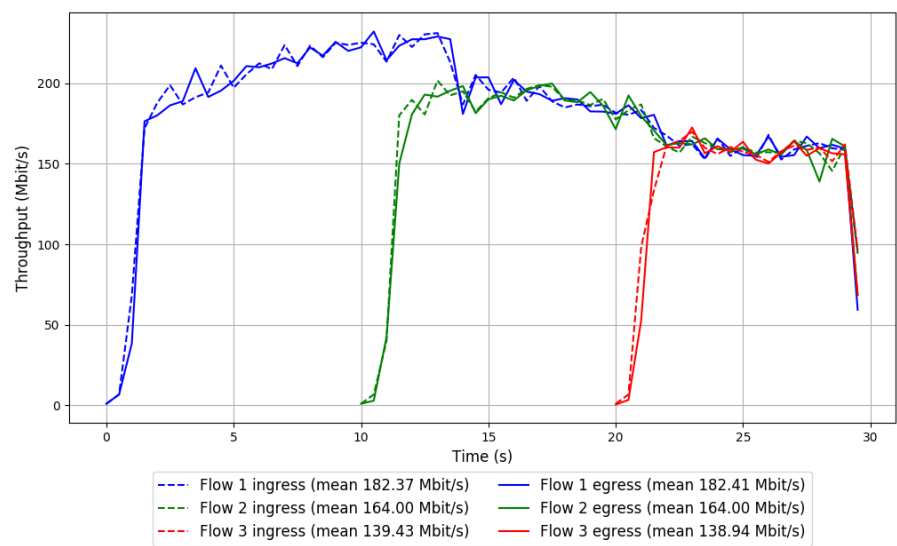
-- Flow 3:

Average throughput: 138.94 Mbit/s

95th percentile per-packet one-way delay: 91.245 ms

Loss rate: 2.15%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-02-16 23:07:31

End at: 2018-02-16 23:08:01

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 424.13 Mbit/s

95th percentile per-packet one-way delay: 126.084 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 256.42 Mbit/s

95th percentile per-packet one-way delay: 140.703 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 183.67 Mbit/s

95th percentile per-packet one-way delay: 90.993 ms

Loss rate: 0.54%

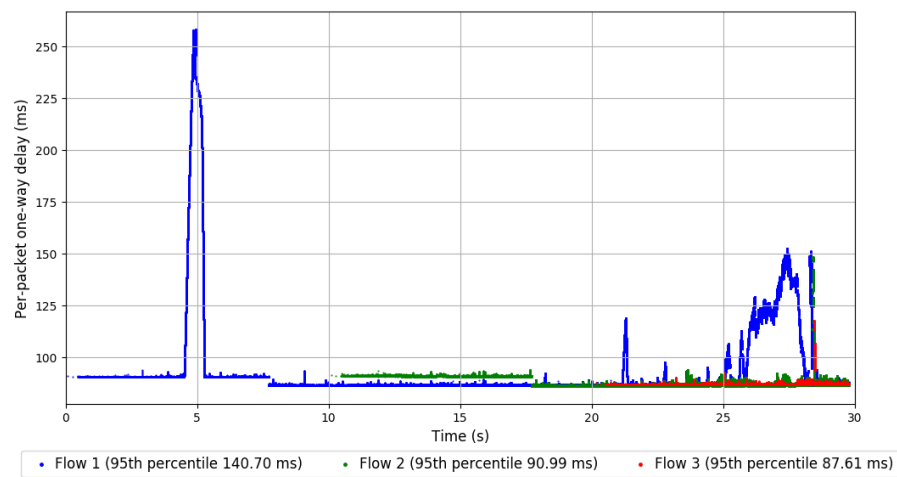
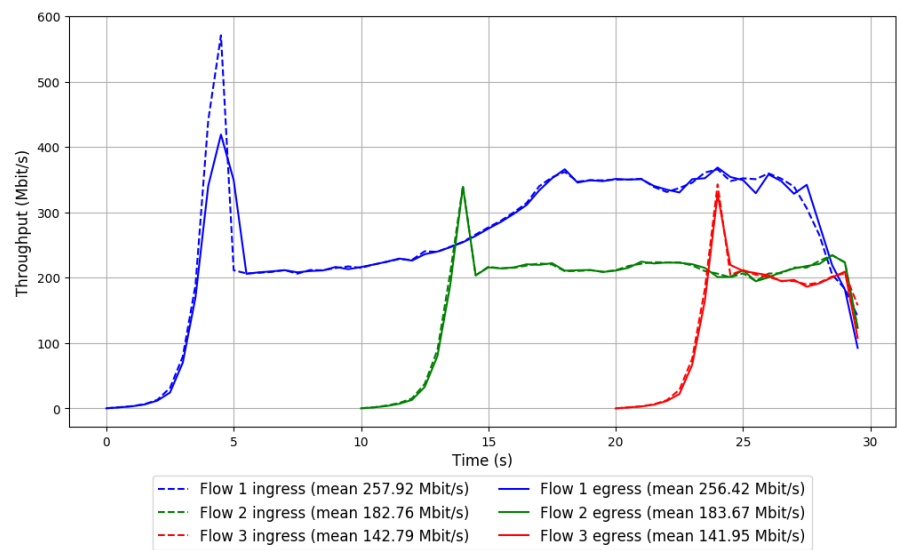
-- Flow 3:

Average throughput: 141.95 Mbit/s

95th percentile per-packet one-way delay: 87.613 ms

Loss rate: 3.00%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-02-16 23:26:37

End at: 2018-02-16 23:27:07

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 513.74 Mbit/s

95th percentile per-packet one-way delay: 197.769 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 273.97 Mbit/s

95th percentile per-packet one-way delay: 178.424 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 287.83 Mbit/s

95th percentile per-packet one-way delay: 246.851 ms

Loss rate: 1.73%

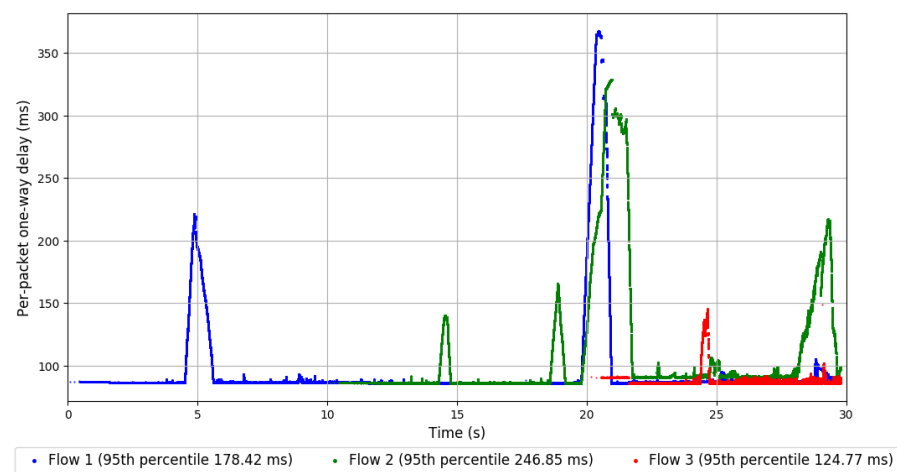
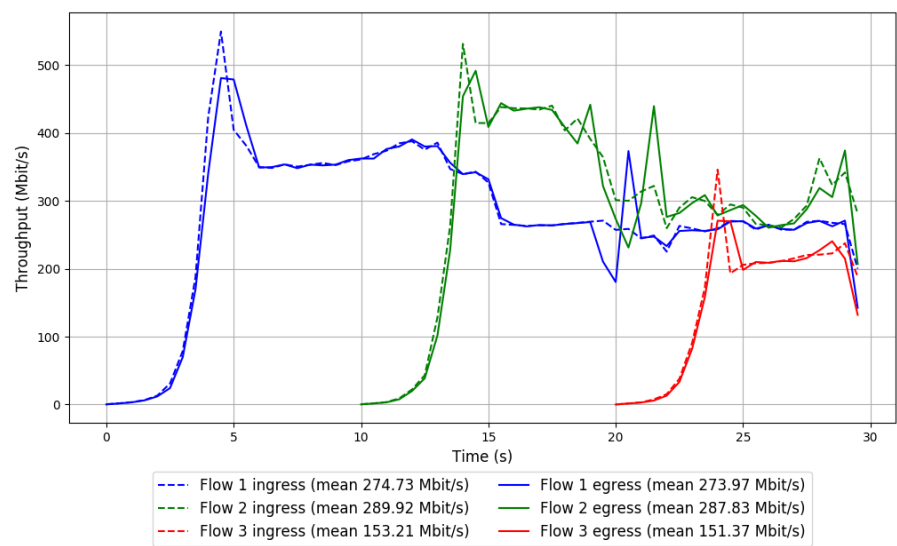
-- Flow 3:

Average throughput: 151.37 Mbit/s

95th percentile per-packet one-way delay: 124.768 ms

Loss rate: 3.28%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-02-16 23:45:44

End at: 2018-02-16 23:46:14

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 467.34 Mbit/s

95th percentile per-packet one-way delay: 115.640 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 322.80 Mbit/s

95th percentile per-packet one-way delay: 156.792 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 177.79 Mbit/s

95th percentile per-packet one-way delay: 88.330 ms

Loss rate: 0.95%

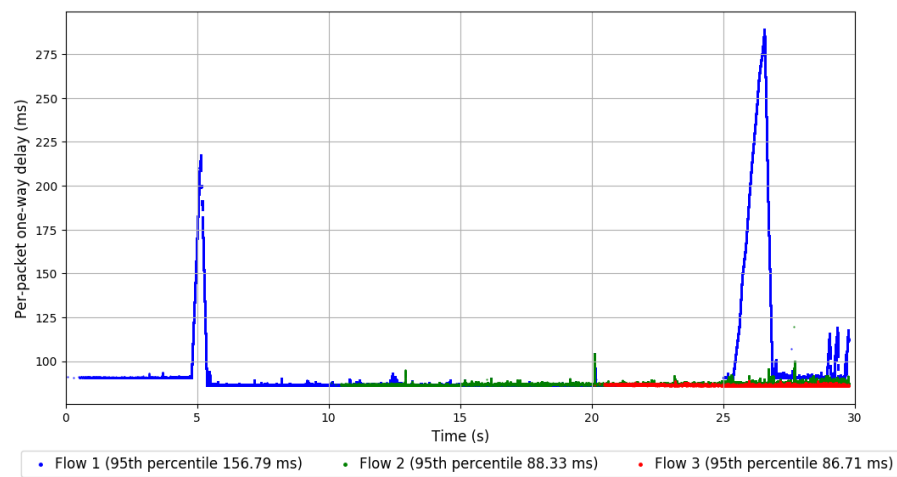
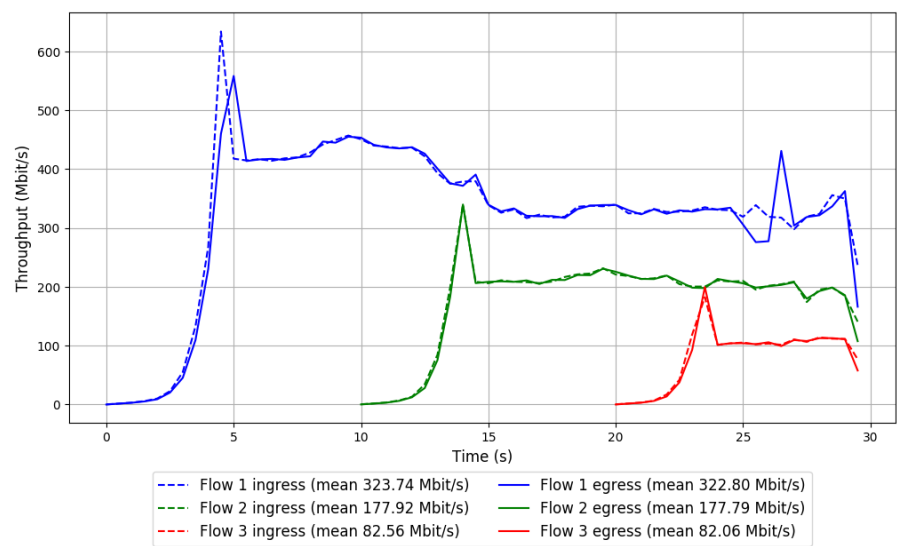
-- Flow 3:

Average throughput: 82.06 Mbit/s

95th percentile per-packet one-way delay: 86.706 ms

Loss rate: 2.36%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-02-17 00:04:49

End at: 2018-02-17 00:05:19

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 475.81 Mbit/s

95th percentile per-packet one-way delay: 105.801 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 304.14 Mbit/s

95th percentile per-packet one-way delay: 118.434 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 186.70 Mbit/s

95th percentile per-packet one-way delay: 87.405 ms

Loss rate: 0.52%

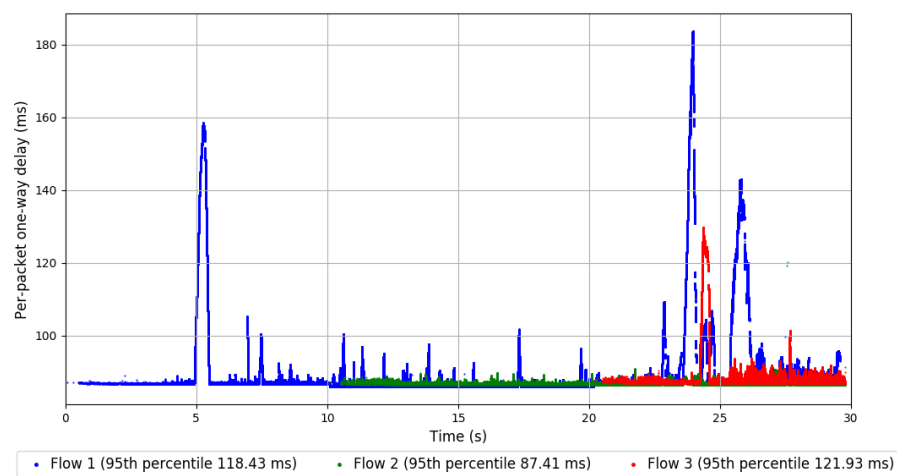
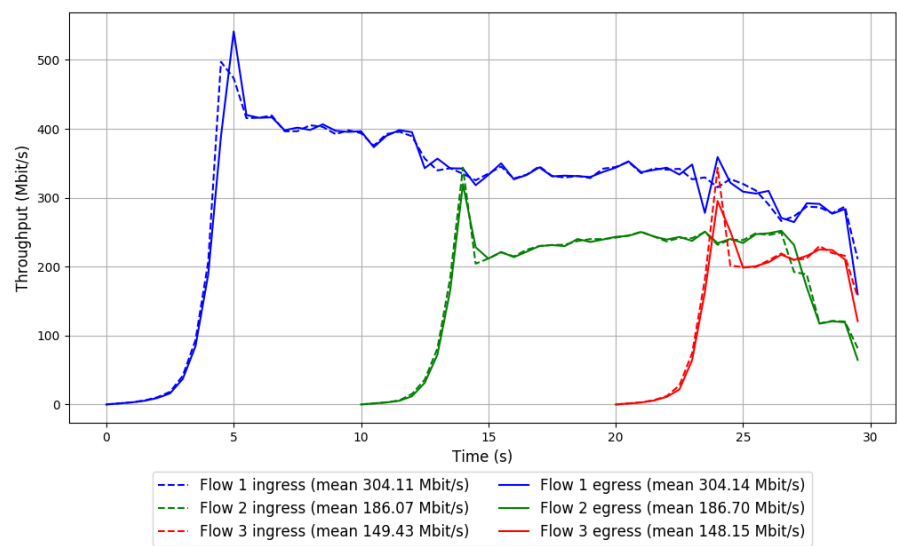
-- Flow 3:

Average throughput: 148.15 Mbit/s

95th percentile per-packet one-way delay: 121.930 ms

Loss rate: 2.60%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-02-17 00:24:14

End at: 2018-02-17 00:24:44

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 480.53 Mbit/s

95th percentile per-packet one-way delay: 199.749 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 310.42 Mbit/s

95th percentile per-packet one-way delay: 219.811 ms

Loss rate: 1.81%

-- Flow 2:

Average throughput: 184.01 Mbit/s

95th percentile per-packet one-way delay: 91.733 ms

Loss rate: 1.19%

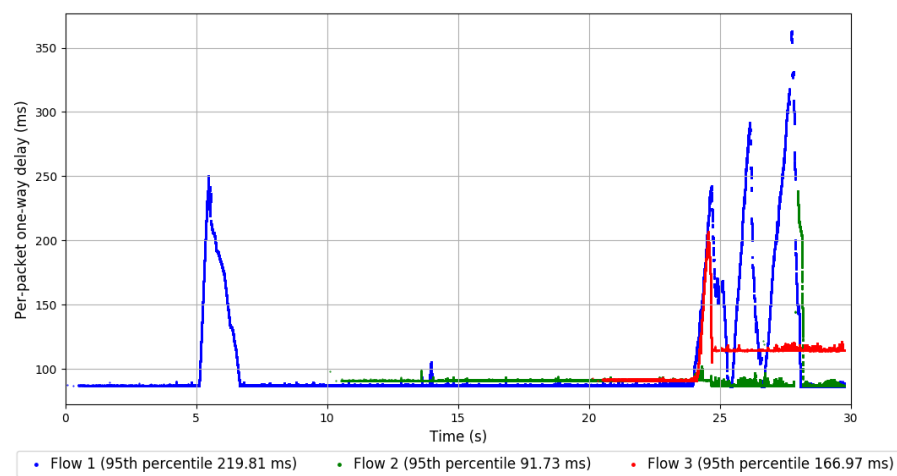
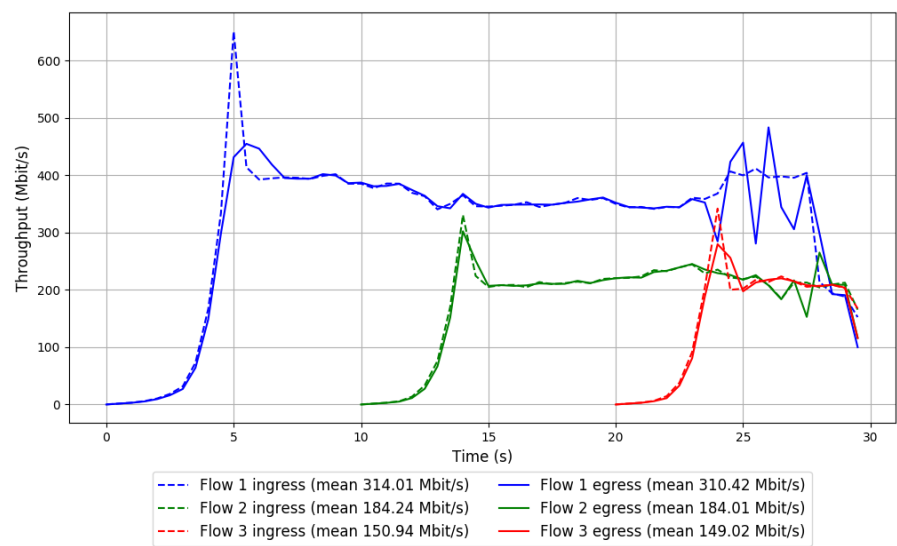
-- Flow 3:

Average throughput: 149.02 Mbit/s

95th percentile per-packet one-way delay: 166.965 ms

Loss rate: 3.35%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-02-17 00:43:33

End at: 2018-02-17 00:44:03

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 473.14 Mbit/s

95th percentile per-packet one-way delay: 116.529 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 303.05 Mbit/s

95th percentile per-packet one-way delay: 118.758 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 190.74 Mbit/s

95th percentile per-packet one-way delay: 114.856 ms

Loss rate: 0.67%

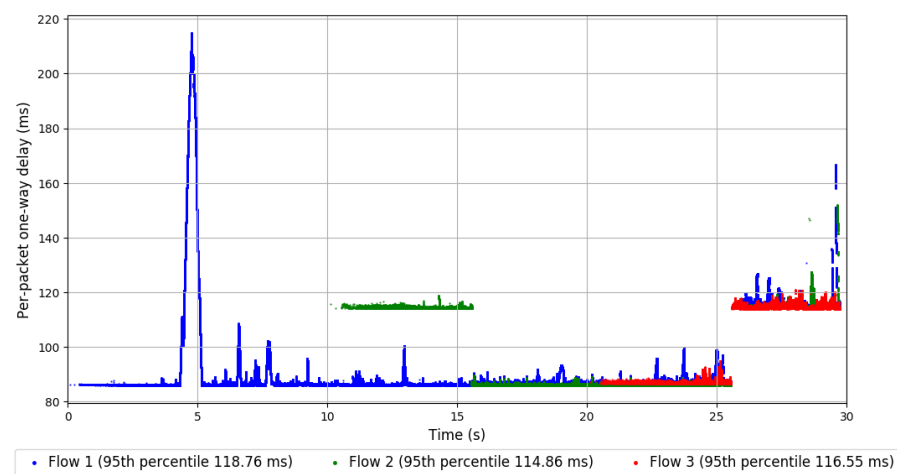
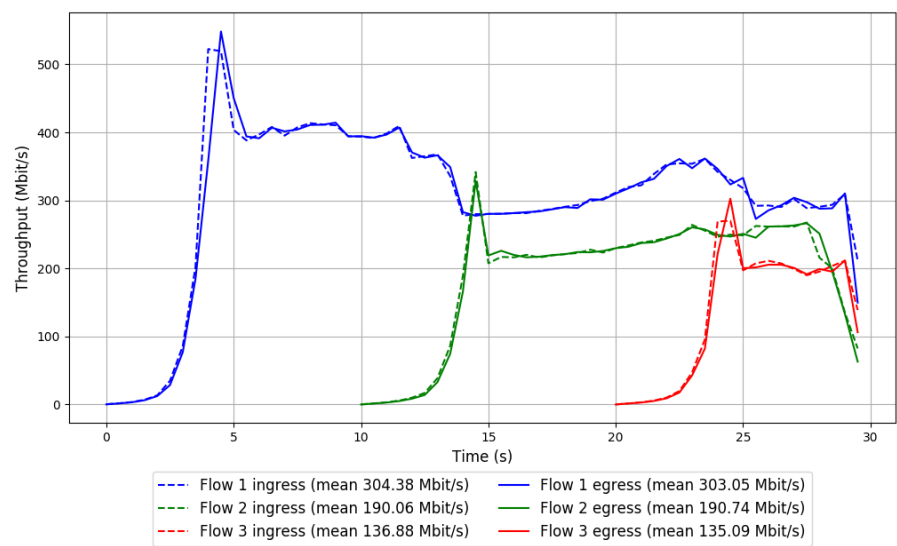
-- Flow 3:

Average throughput: 135.09 Mbit/s

95th percentile per-packet one-way delay: 116.549 ms

Loss rate: 3.05%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-02-17 01:02:27

End at: 2018-02-17 01:02:57

Below is generated by plot.py at 2018-02-17 07:07:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 474.73 Mbit/s

95th percentile per-packet one-way delay: 133.381 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 297.05 Mbit/s

95th percentile per-packet one-way delay: 150.513 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 192.54 Mbit/s

95th percentile per-packet one-way delay: 91.379 ms

Loss rate: 0.59%

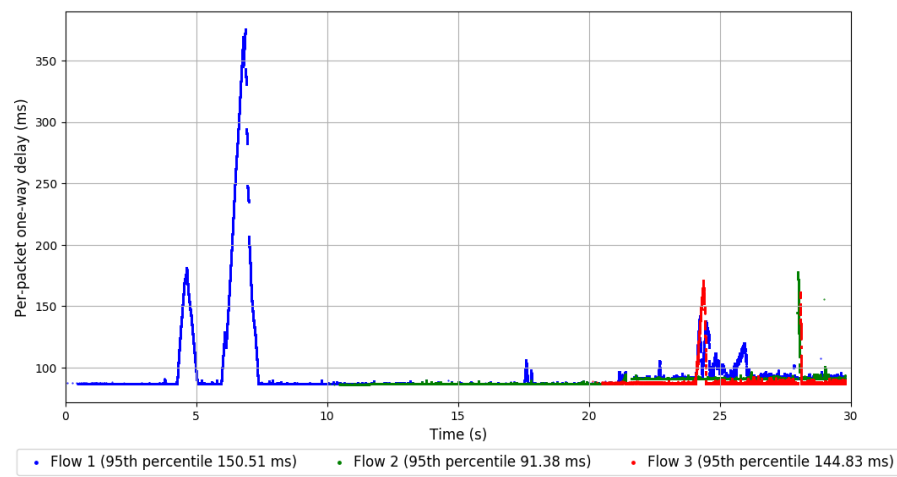
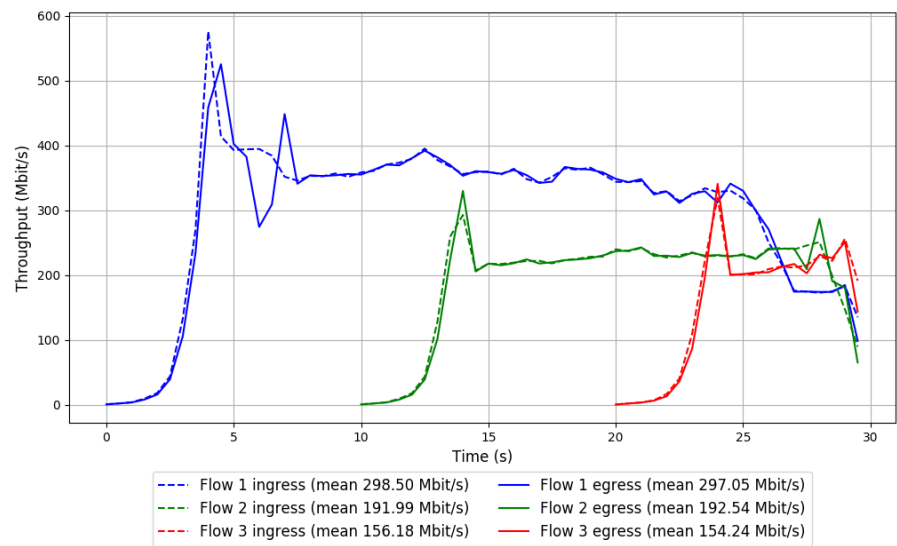
-- Flow 3:

Average throughput: 154.24 Mbit/s

95th percentile per-packet one-way delay: 144.831 ms

Loss rate: 2.97%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-02-17 01:21:17

End at: 2018-02-17 01:21:47

Below is generated by plot.py at 2018-02-17 07:08:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 480.09 Mbit/s

95th percentile per-packet one-way delay: 124.294 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 291.87 Mbit/s

95th percentile per-packet one-way delay: 135.787 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 210.16 Mbit/s

95th percentile per-packet one-way delay: 97.927 ms

Loss rate: 1.17%

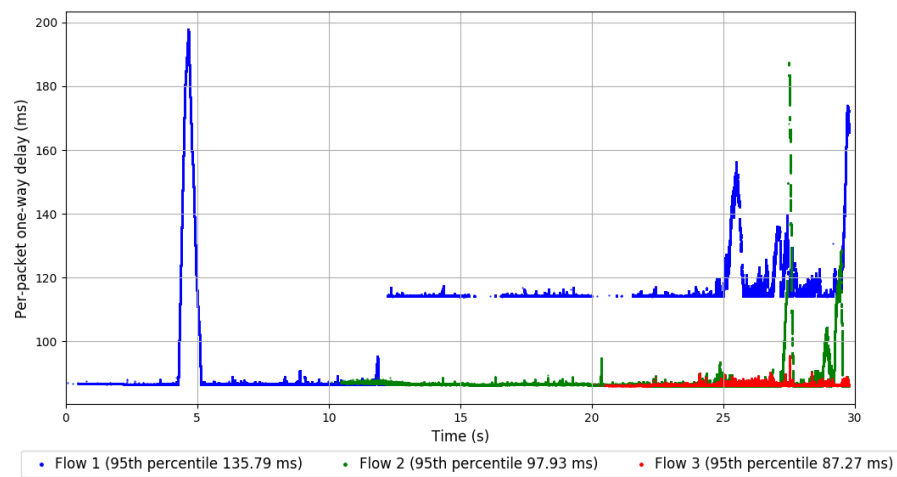
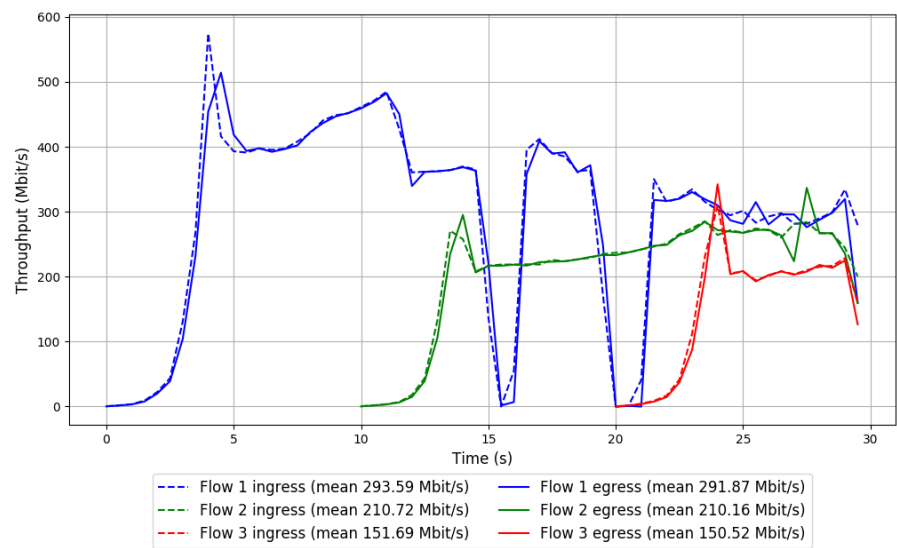
-- Flow 3:

Average throughput: 150.52 Mbit/s

95th percentile per-packet one-way delay: 87.274 ms

Loss rate: 2.53%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-02-17 01:40:03

End at: 2018-02-17 01:40:33

Below is generated by plot.py at 2018-02-17 07:08:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 469.22 Mbit/s

95th percentile per-packet one-way delay: 96.325 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 285.22 Mbit/s

95th percentile per-packet one-way delay: 99.748 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 194.59 Mbit/s

95th percentile per-packet one-way delay: 93.225 ms

Loss rate: 0.58%

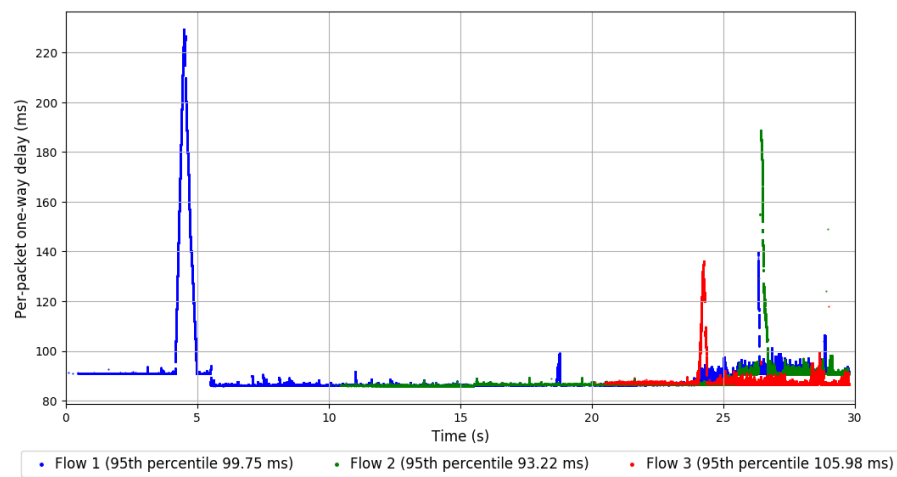
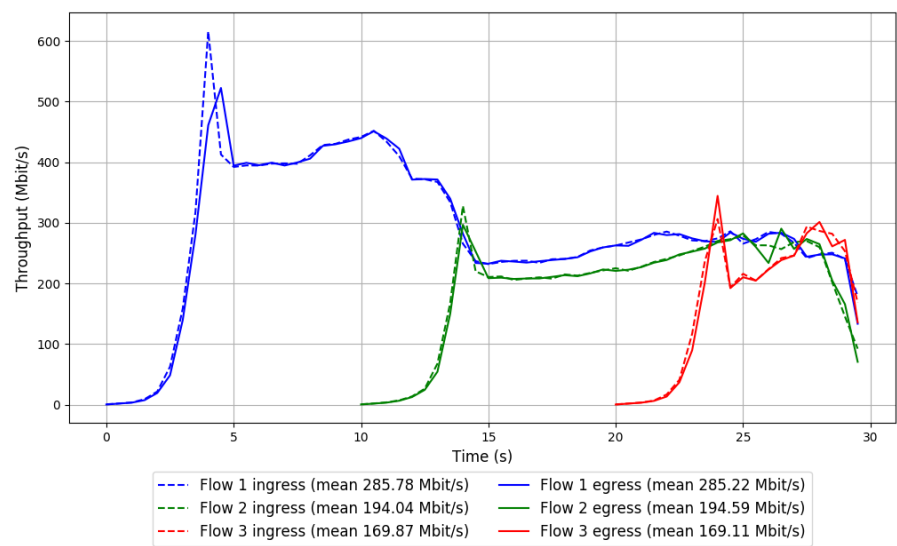
-- Flow 3:

Average throughput: 169.11 Mbit/s

95th percentile per-packet one-way delay: 105.978 ms

Loss rate: 2.22%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-02-17 01:58:31

End at: 2018-02-17 01:59:01

Below is generated by plot.py at 2018-02-17 07:09:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 468.44 Mbit/s

95th percentile per-packet one-way delay: 148.631 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 335.14 Mbit/s

95th percentile per-packet one-way delay: 173.554 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 179.27 Mbit/s

95th percentile per-packet one-way delay: 91.099 ms

Loss rate: 1.09%

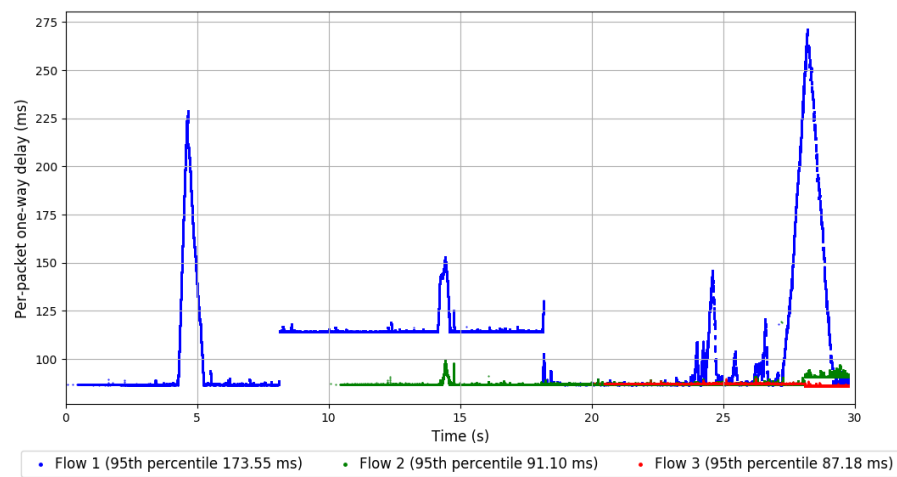
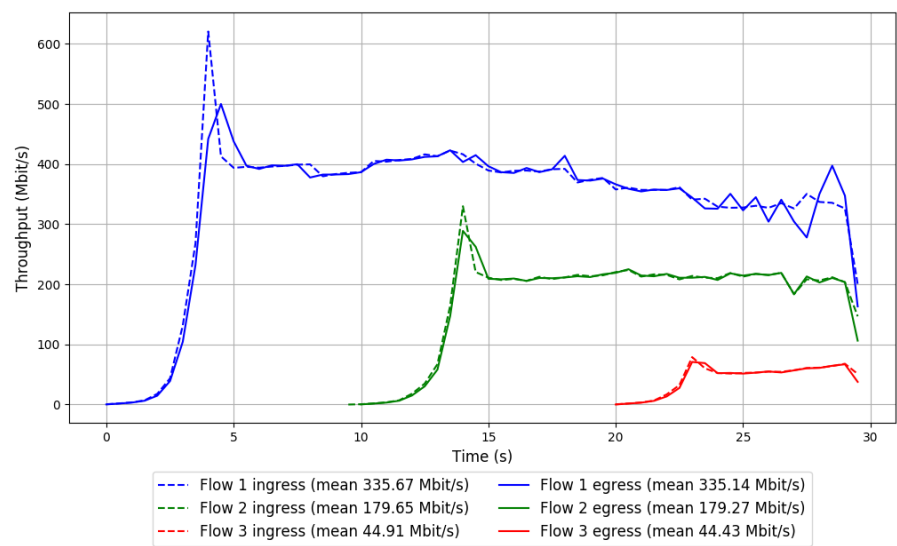
-- Flow 3:

Average throughput: 44.43 Mbit/s

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

Loss rate: 2.83%

Run 10: Report of Vivace-latency — Data Link

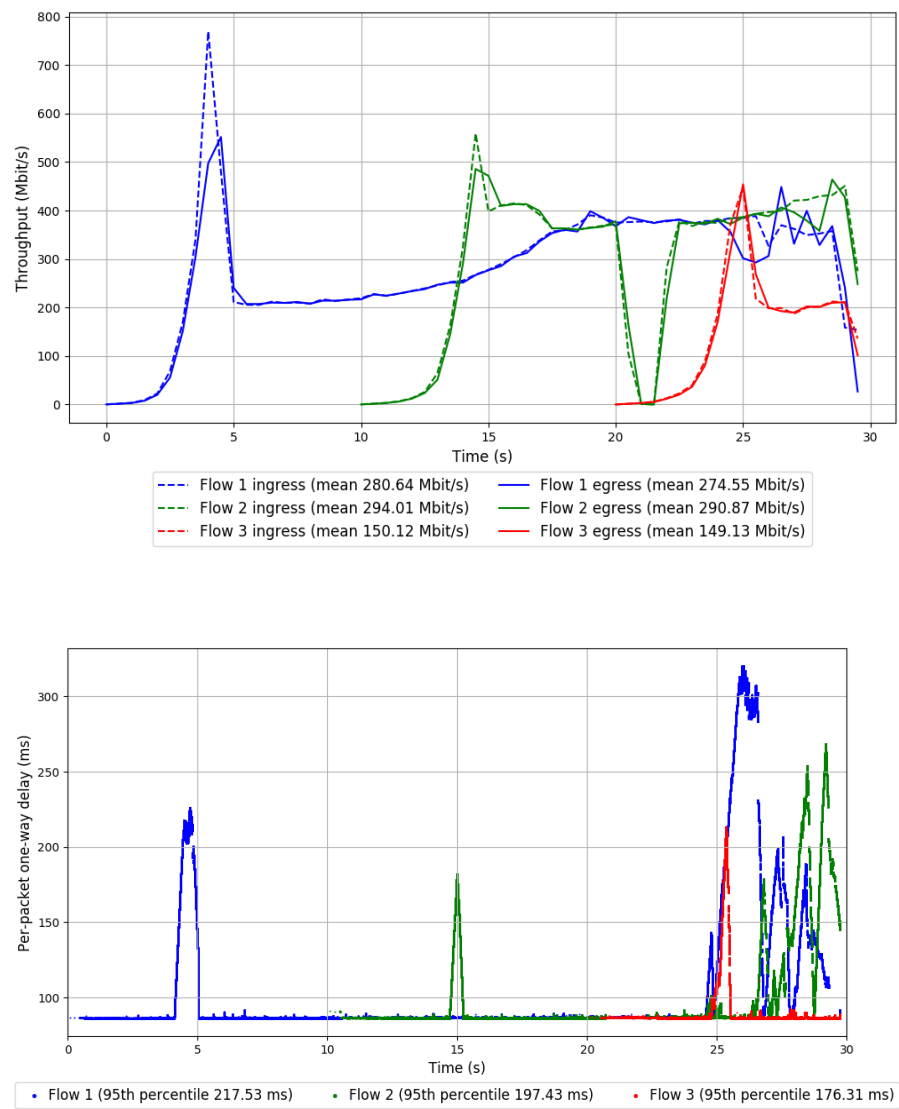


```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-16 22:57:18
End at: 2018-02-16 22:57:48

# Below is generated by plot.py at 2018-02-17 07:10:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 515.70 Mbit/s
95th percentile per-packet one-way delay: 209.124 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 274.55 Mbit/s
95th percentile per-packet one-way delay: 217.529 ms
Loss rate: 2.74%
-- Flow 2:
Average throughput: 290.87 Mbit/s
95th percentile per-packet one-way delay: 197.434 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 149.13 Mbit/s
95th percentile per-packet one-way delay: 176.308 ms
Loss rate: 2.42%
```

Run 1: Report of Vivace-loss — Data Link

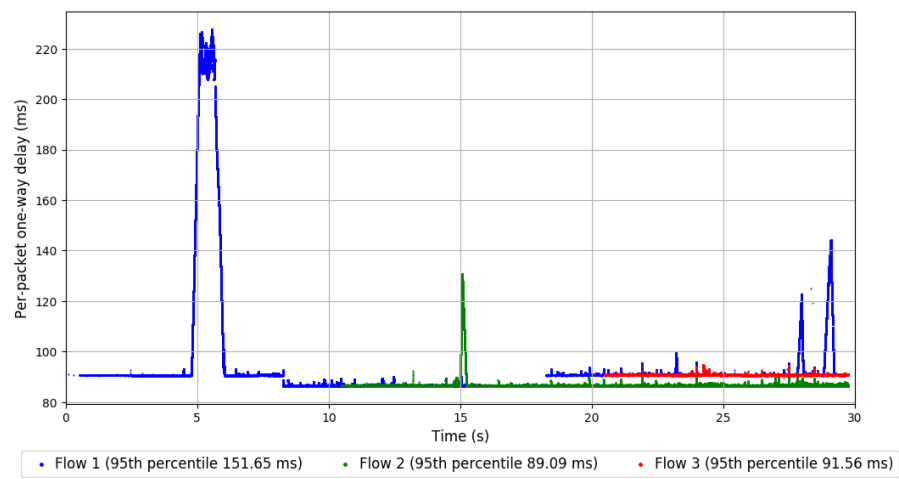
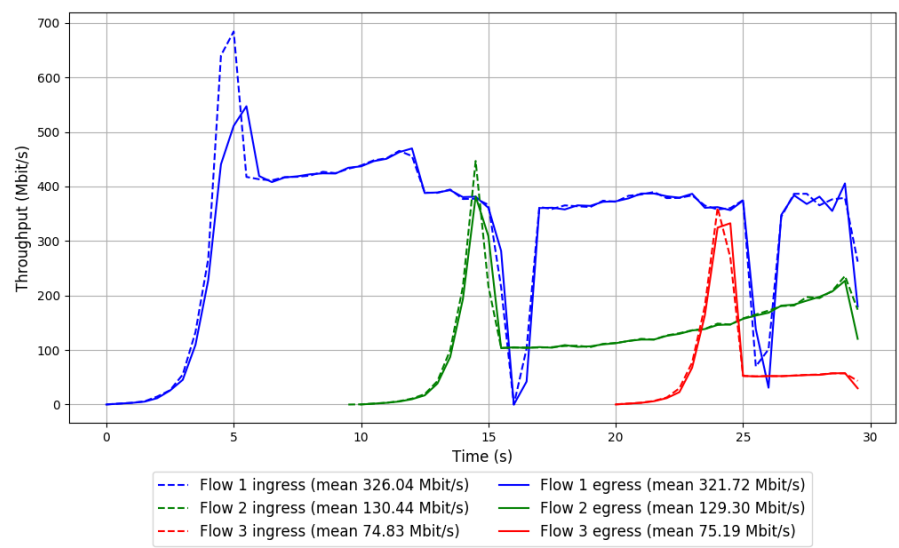


```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-16 23:16:11
End at: 2018-02-16 23:16:41

# Below is generated by plot.py at 2018-02-17 07:11:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.93 Mbit/s
95th percentile per-packet one-way delay: 121.130 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 321.72 Mbit/s
95th percentile per-packet one-way delay: 151.651 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 129.30 Mbit/s
95th percentile per-packet one-way delay: 89.089 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 75.19 Mbit/s
95th percentile per-packet one-way delay: 91.560 ms
Loss rate: 1.61%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-02-16 23:35:18

End at: 2018-02-16 23:35:48

Below is generated by plot.py at 2018-02-17 07:17:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 599.70 Mbit/s

95th percentile per-packet one-way delay: 265.484 ms

Loss rate: 3.79%

-- Flow 1:

Average throughput: 363.89 Mbit/s

95th percentile per-packet one-way delay: 251.173 ms

Loss rate: 3.21%

-- Flow 2:

Average throughput: 277.68 Mbit/s

95th percentile per-packet one-way delay: 282.168 ms

Loss rate: 5.23%

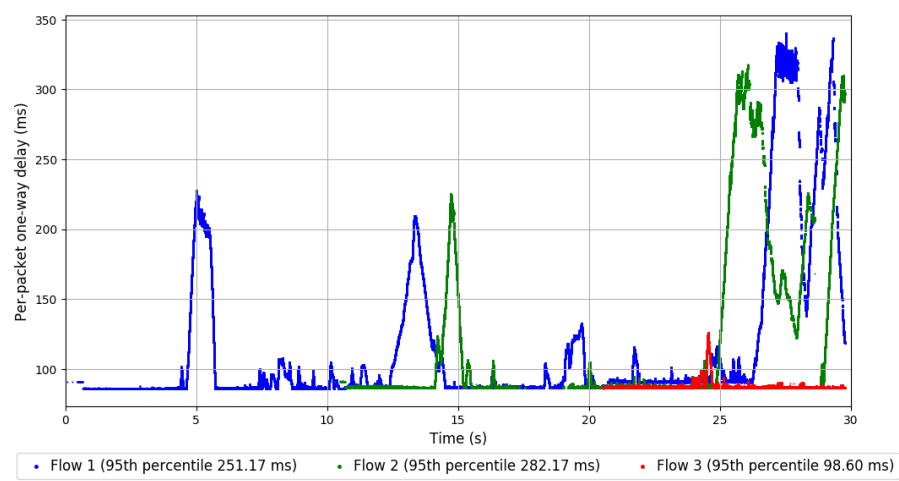
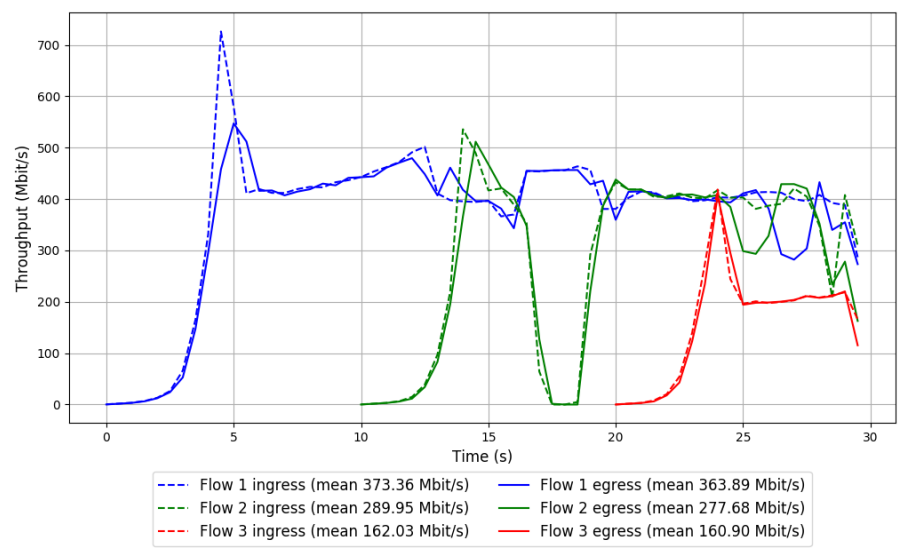
-- Flow 3:

Average throughput: 160.90 Mbit/s

95th percentile per-packet one-way delay: 98.603 ms

Loss rate: 2.74%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-02-16 23:54:35

End at: 2018-02-16 23:55:05

Below is generated by plot.py at 2018-02-17 07:17:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 491.83 Mbit/s

95th percentile per-packet one-way delay: 255.592 ms

Loss rate: 3.01%

-- Flow 1:

Average throughput: 251.09 Mbit/s

95th percentile per-packet one-way delay: 240.225 ms

Loss rate: 3.51%

-- Flow 2:

Average throughput: 287.86 Mbit/s

95th percentile per-packet one-way delay: 294.682 ms

Loss rate: 2.44%

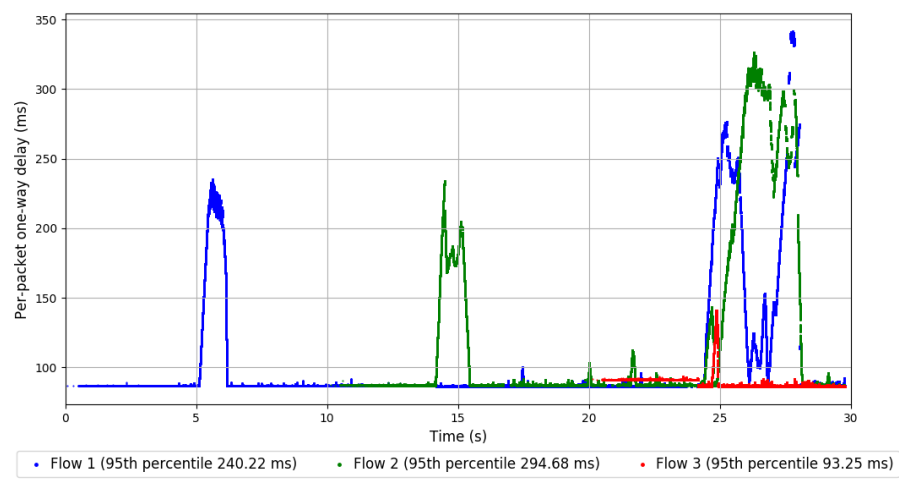
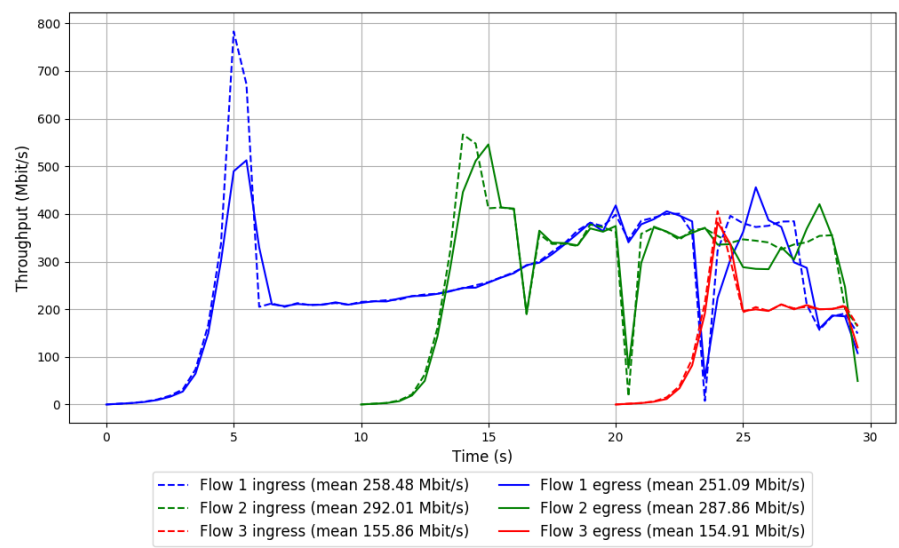
-- Flow 3:

Average throughput: 154.91 Mbit/s

95th percentile per-packet one-way delay: 93.245 ms

Loss rate: 2.68%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-02-17 00:13:40

End at: 2018-02-17 00:14:10

Below is generated by plot.py at 2018-02-17 07:17:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 438.54 Mbit/s

95th percentile per-packet one-way delay: 242.919 ms

Loss rate: 4.09%

-- Flow 1:

Average throughput: 273.95 Mbit/s

95th percentile per-packet one-way delay: 287.606 ms

Loss rate: 5.35%

-- Flow 2:

Average throughput: 148.42 Mbit/s

95th percentile per-packet one-way delay: 95.884 ms

Loss rate: 1.84%

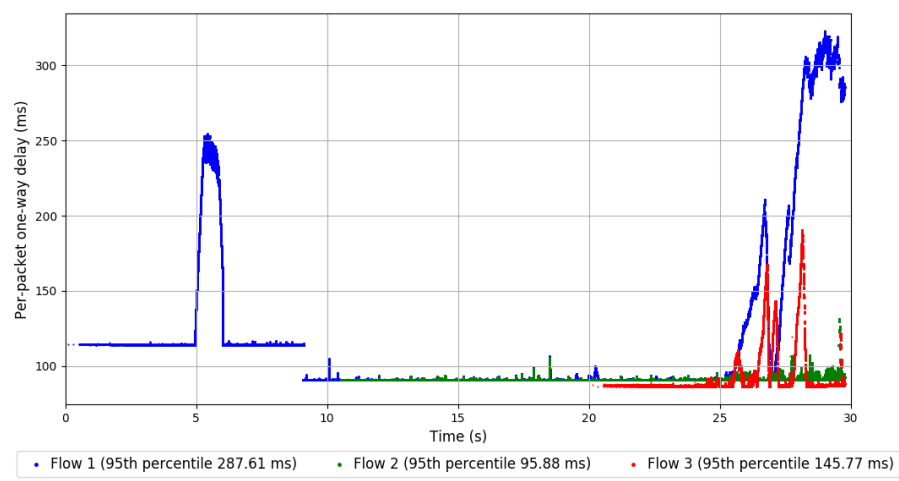
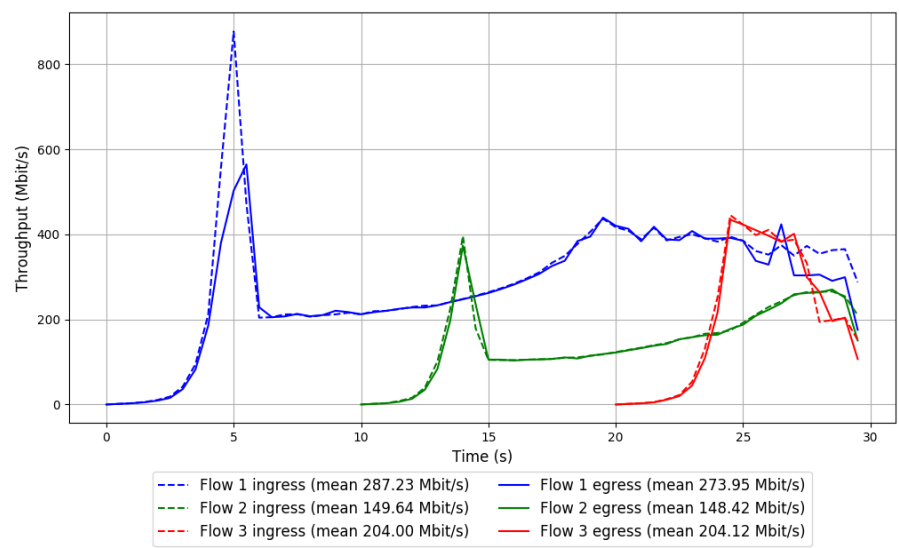
-- Flow 3:

Average throughput: 204.12 Mbit/s

95th percentile per-packet one-way delay: 145.773 ms

Loss rate: 2.00%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-02-17 00:33:02

End at: 2018-02-17 00:33:32

Below is generated by plot.py at 2018-02-17 07:18:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 534.79 Mbit/s

95th percentile per-packet one-way delay: 269.021 ms

Loss rate: 4.64%

-- Flow 1:

Average throughput: 320.78 Mbit/s

95th percentile per-packet one-way delay: 258.190 ms

Loss rate: 4.96%

-- Flow 2:

Average throughput: 273.46 Mbit/s

95th percentile per-packet one-way delay: 286.953 ms

Loss rate: 4.50%

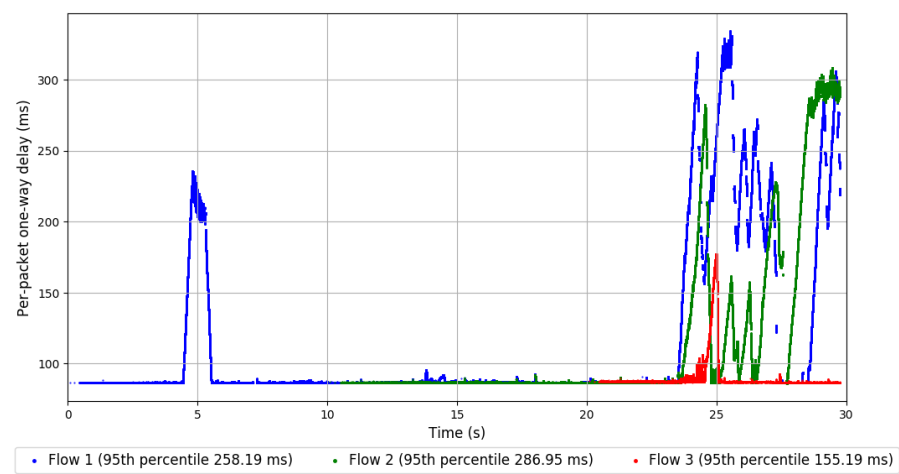
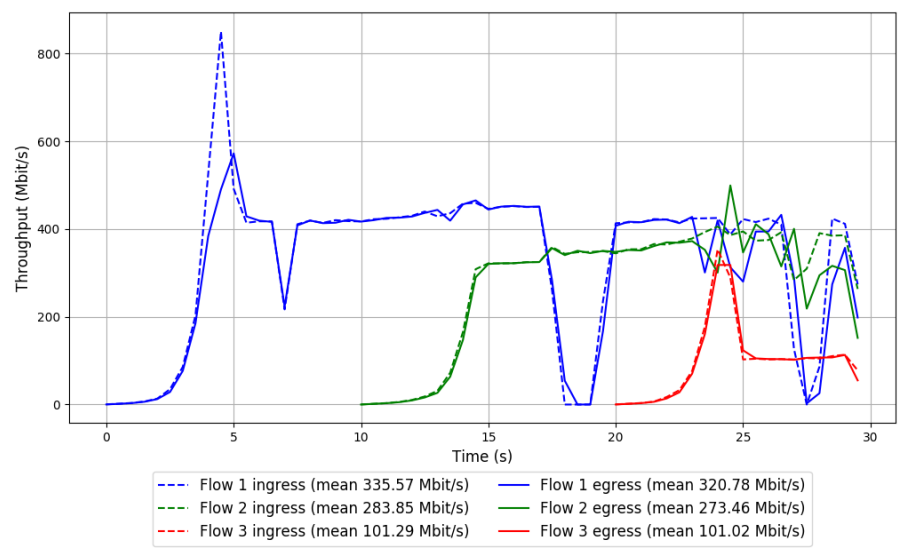
-- Flow 3:

Average throughput: 101.02 Mbit/s

95th percentile per-packet one-way delay: 155.191 ms

Loss rate: 2.09%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-02-17 00:52:15

End at: 2018-02-17 00:52:45

Below is generated by plot.py at 2018-02-17 07:18:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 435.44 Mbit/s

95th percentile per-packet one-way delay: 240.361 ms

Loss rate: 3.65%

-- Flow 1:

Average throughput: 236.91 Mbit/s

95th percentile per-packet one-way delay: 252.192 ms

Loss rate: 4.85%

-- Flow 2:

Average throughput: 221.94 Mbit/s

95th percentile per-packet one-way delay: 107.608 ms

Loss rate: 2.08%

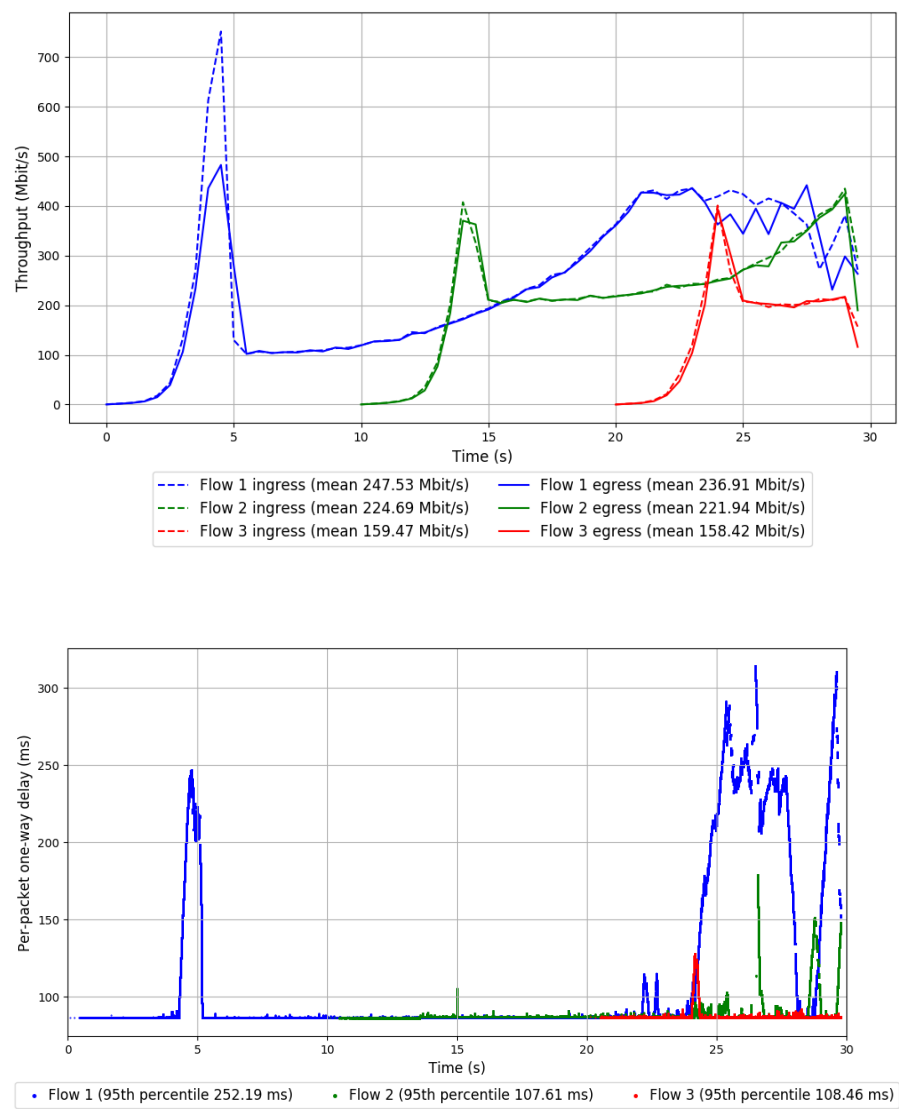
-- Flow 3:

Average throughput: 158.42 Mbit/s

95th percentile per-packet one-way delay: 108.458 ms

Loss rate: 2.42%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-02-17 01:11:06

End at: 2018-02-17 01:11:36

Below is generated by plot.py at 2018-02-17 07:20:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 553.64 Mbit/s

95th percentile per-packet one-way delay: 204.398 ms

Loss rate: 2.14%

-- Flow 1:

Average throughput: 357.22 Mbit/s

95th percentile per-packet one-way delay: 210.765 ms

Loss rate: 1.36%

-- Flow 2:

Average throughput: 222.39 Mbit/s

95th percentile per-packet one-way delay: 128.198 ms

Loss rate: 2.66%

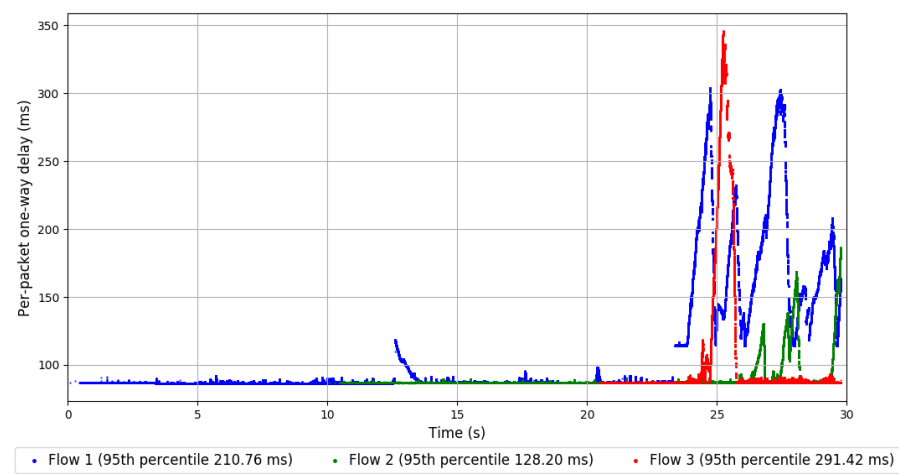
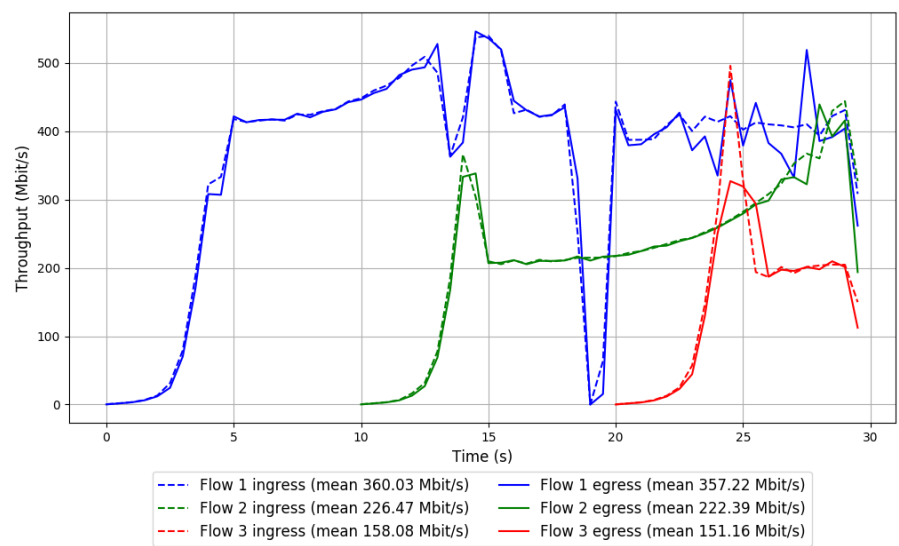
-- Flow 3:

Average throughput: 151.16 Mbit/s

95th percentile per-packet one-way delay: 291.420 ms

Loss rate: 6.07%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-02-17 01:29:47

End at: 2018-02-17 01:30:17

Below is generated by plot.py at 2018-02-17 07:20:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 491.03 Mbit/s

95th percentile per-packet one-way delay: 293.845 ms

Loss rate: 5.24%

-- Flow 1:

Average throughput: 265.91 Mbit/s

95th percentile per-packet one-way delay: 305.455 ms

Loss rate: 4.89%

-- Flow 2:

Average throughput: 221.72 Mbit/s

95th percentile per-packet one-way delay: 215.296 ms

Loss rate: 5.56%

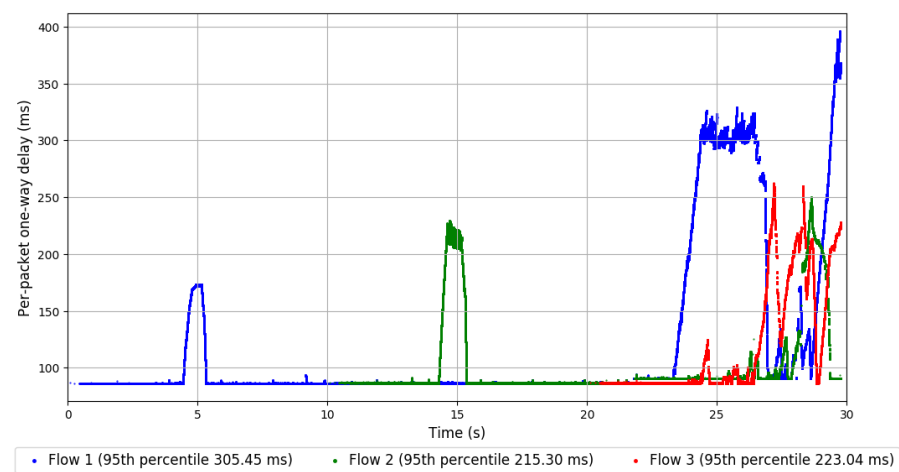
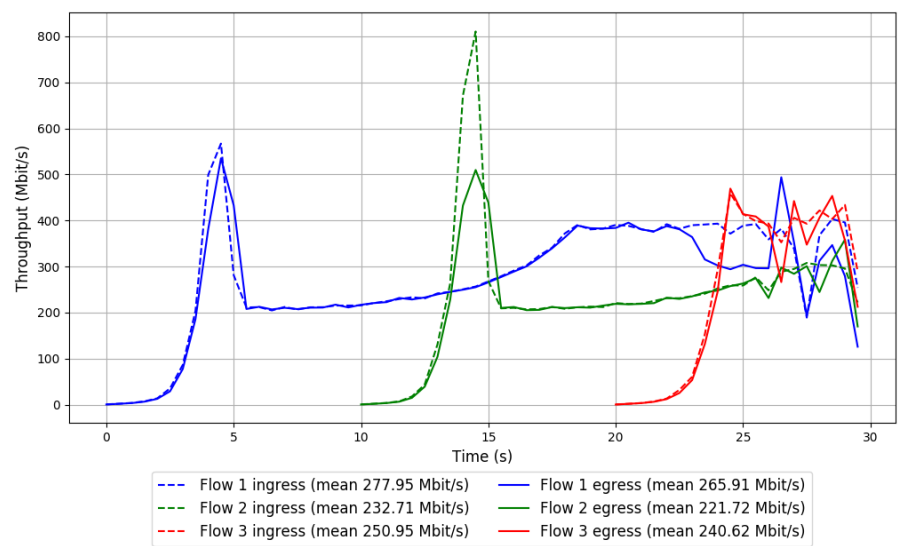
-- Flow 3:

Average throughput: 240.62 Mbit/s

95th percentile per-packet one-way delay: 223.045 ms

Loss rate: 5.82%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-02-17 01:48:41

End at: 2018-02-17 01:49:11

Below is generated by plot.py at 2018-02-17 07:21:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 481.20 Mbit/s

95th percentile per-packet one-way delay: 274.995 ms

Loss rate: 3.98%

-- Flow 1:

Average throughput: 267.34 Mbit/s

95th percentile per-packet one-way delay: 261.117 ms

Loss rate: 2.47%

-- Flow 2:

Average throughput: 203.83 Mbit/s

95th percentile per-packet one-way delay: 356.332 ms

Loss rate: 6.61%

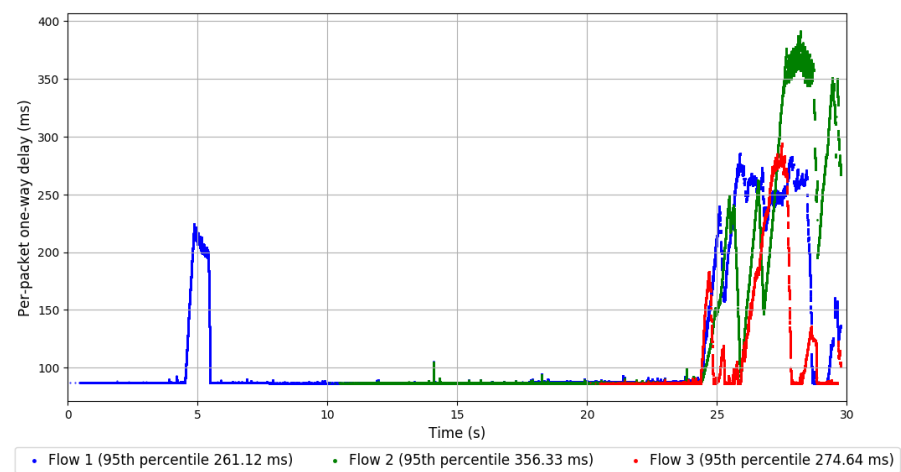
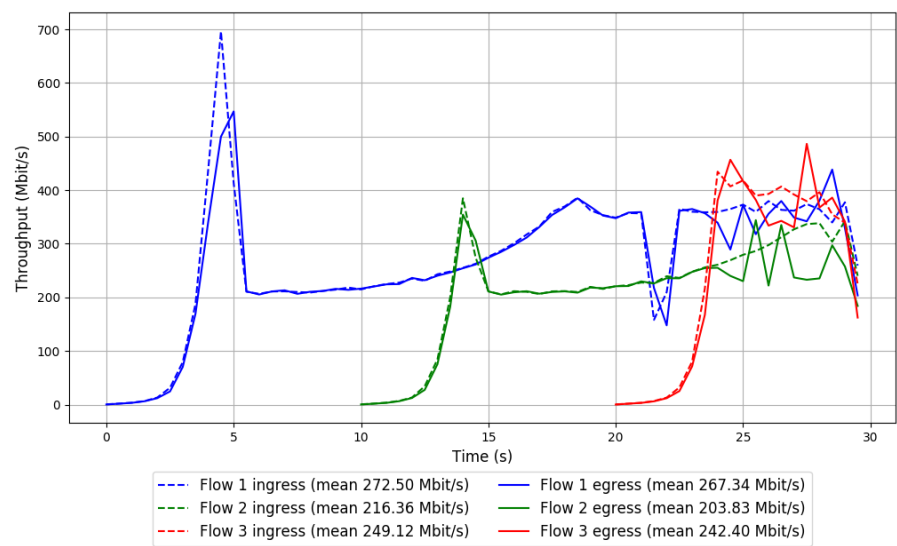
-- Flow 3:

Average throughput: 242.40 Mbit/s

95th percentile per-packet one-way delay: 274.644 ms

Loss rate: 4.42%

Run 10: Report of Vivace-loss — Data Link

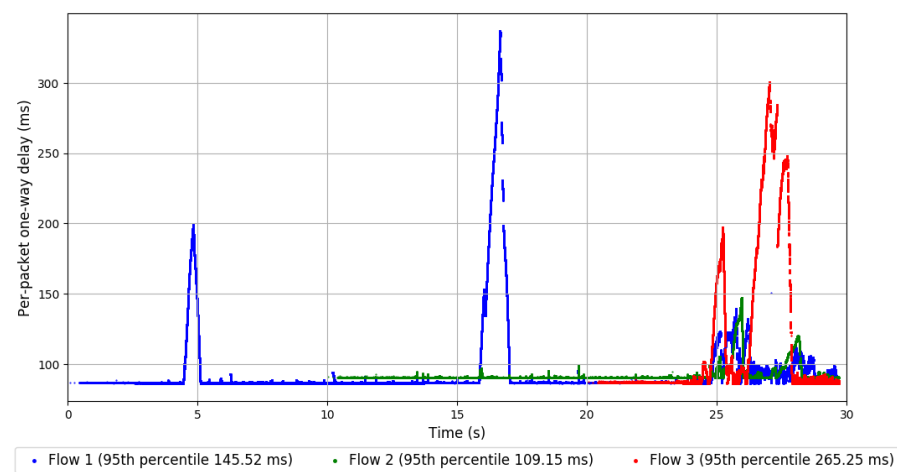
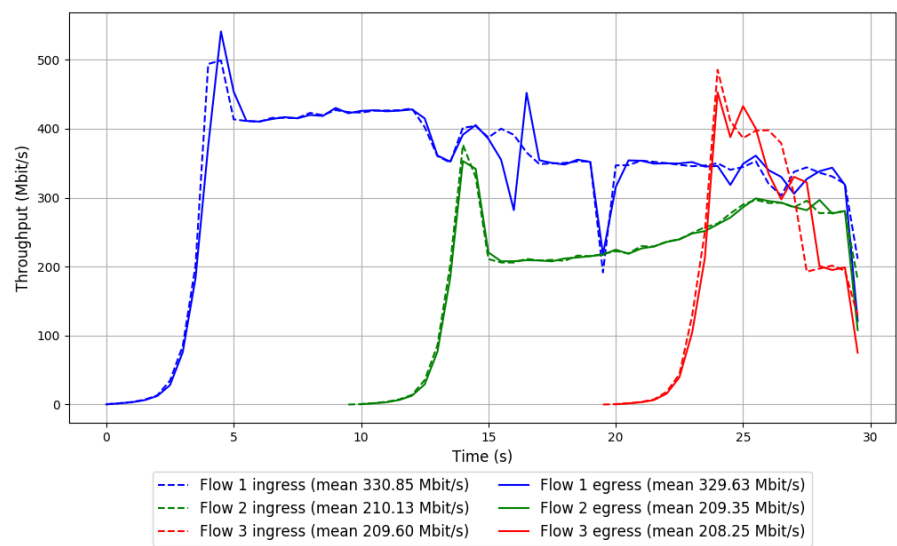


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-16 22:52:05
End at: 2018-02-16 22:52:35

# Below is generated by plot.py at 2018-02-17 07:25:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.39 Mbit/s
95th percentile per-packet one-way delay: 173.791 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 329.63 Mbit/s
95th percentile per-packet one-way delay: 145.521 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 209.35 Mbit/s
95th percentile per-packet one-way delay: 109.148 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 208.25 Mbit/s
95th percentile per-packet one-way delay: 265.246 ms
Loss rate: 2.85%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-02-16 23:11:09

End at: 2018-02-16 23:11:39

Below is generated by plot.py at 2018-02-17 07:25:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 474.31 Mbit/s

95th percentile per-packet one-way delay: 153.198 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 311.86 Mbit/s

95th percentile per-packet one-way delay: 152.400 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 203.10 Mbit/s

95th percentile per-packet one-way delay: 89.513 ms

Loss rate: 1.18%

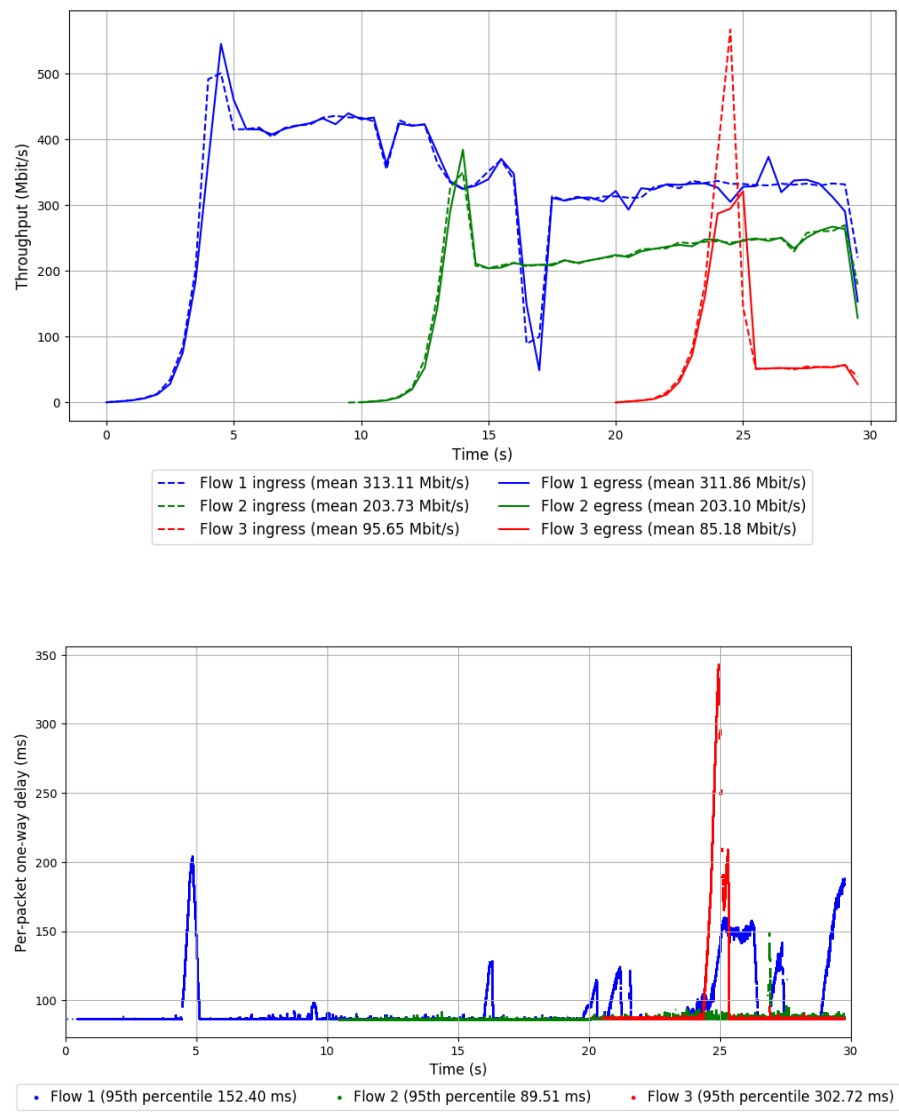
-- Flow 3:

Average throughput: 85.18 Mbit/s

95th percentile per-packet one-way delay: 302.716 ms

Loss rate: 12.52%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-02-16 23:30:20

End at: 2018-02-16 23:30:50

Below is generated by plot.py at 2018-02-17 07:26:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 503.24 Mbit/s

95th percentile per-packet one-way delay: 121.627 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 326.98 Mbit/s

95th percentile per-packet one-way delay: 117.402 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 192.75 Mbit/s

95th percentile per-packet one-way delay: 90.323 ms

Loss rate: 1.03%

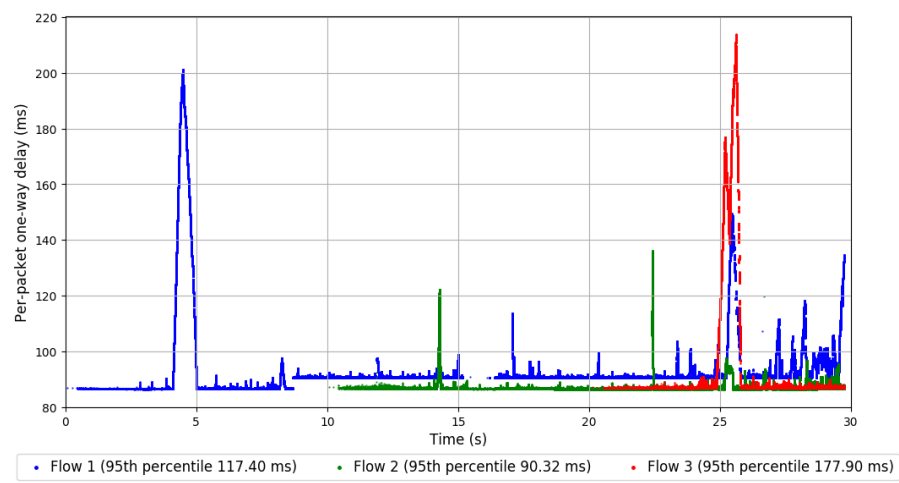
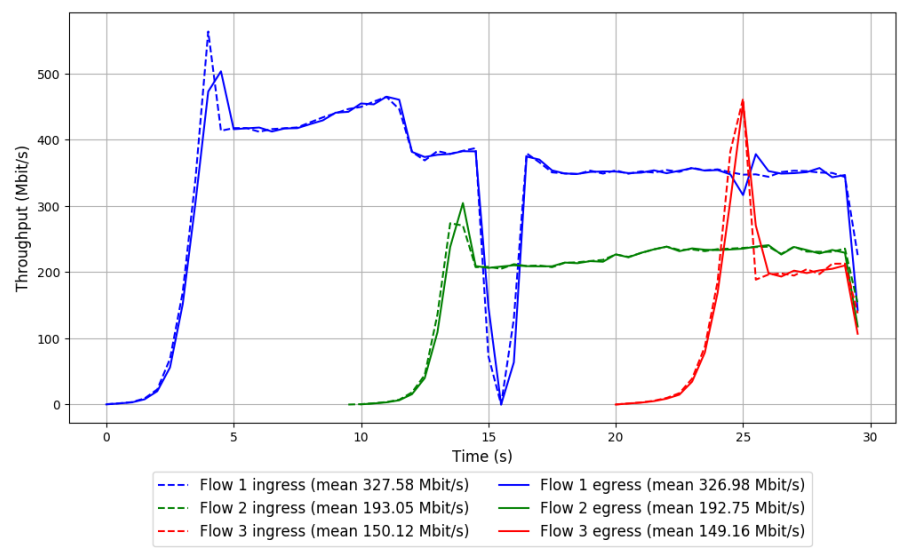
-- Flow 3:

Average throughput: 149.16 Mbit/s

95th percentile per-packet one-way delay: 177.897 ms

Loss rate: 2.41%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-02-16 23:49:22

End at: 2018-02-16 23:49:52

Below is generated by plot.py at 2018-02-17 07:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 536.93 Mbit/s

95th percentile per-packet one-way delay: 204.442 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 356.69 Mbit/s

95th percentile per-packet one-way delay: 227.569 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 196.96 Mbit/s

95th percentile per-packet one-way delay: 99.005 ms

Loss rate: 1.11%

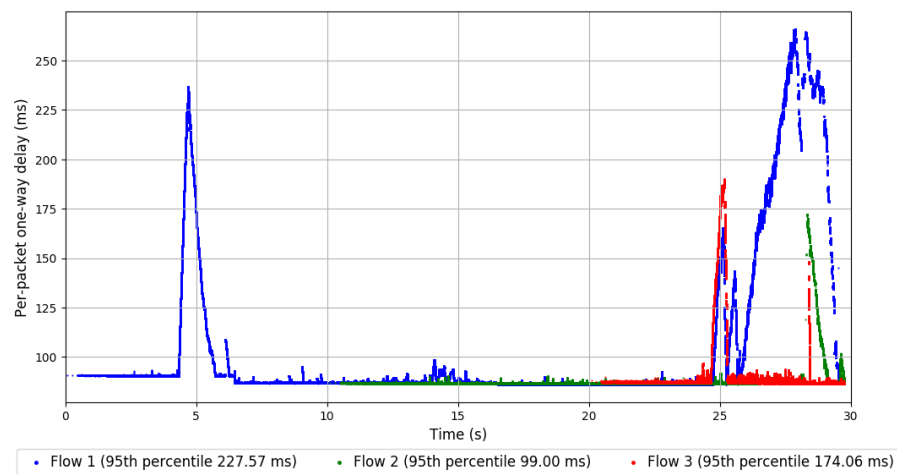
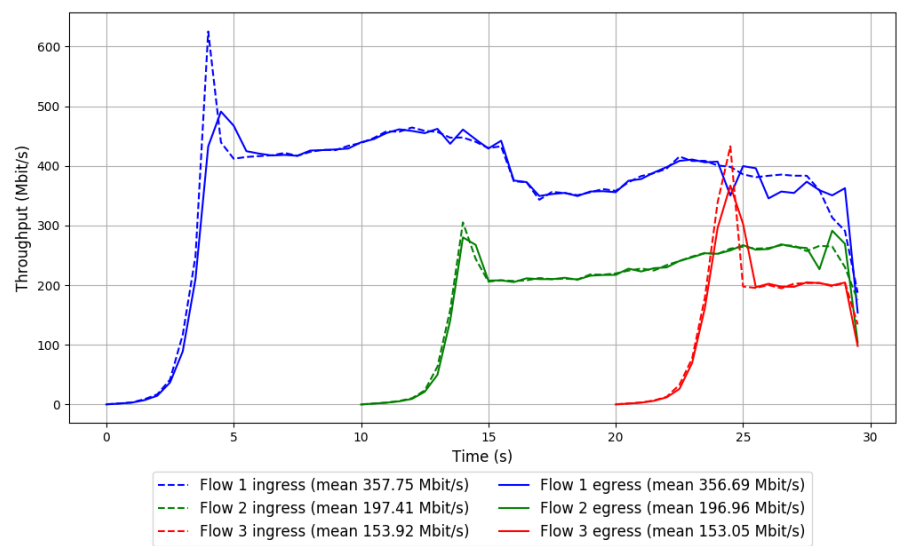
-- Flow 3:

Average throughput: 153.05 Mbit/s

95th percentile per-packet one-way delay: 174.065 ms

Loss rate: 2.33%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-02-17 00:08:31

End at: 2018-02-17 00:09:01

Below is generated by plot.py at 2018-02-17 07:27:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 531.40 Mbit/s

95th percentile per-packet one-way delay: 176.682 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 335.24 Mbit/s

95th percentile per-packet one-way delay: 196.741 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 218.61 Mbit/s

95th percentile per-packet one-way delay: 157.014 ms

Loss rate: 1.27%

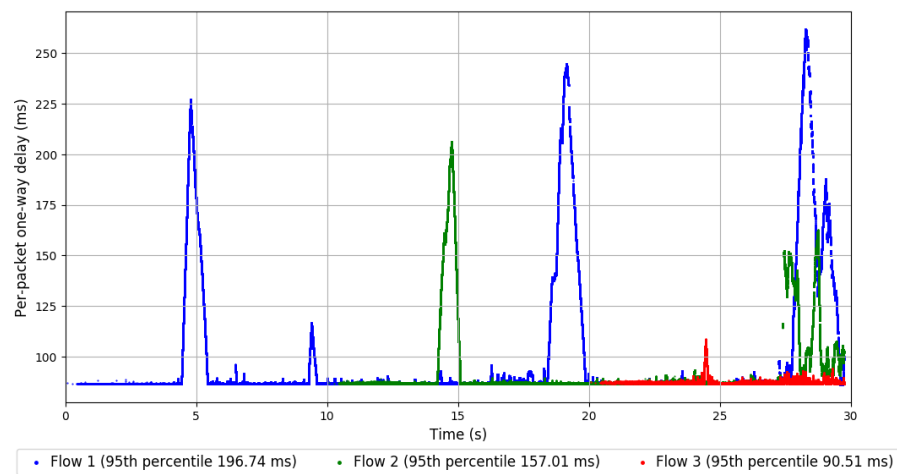
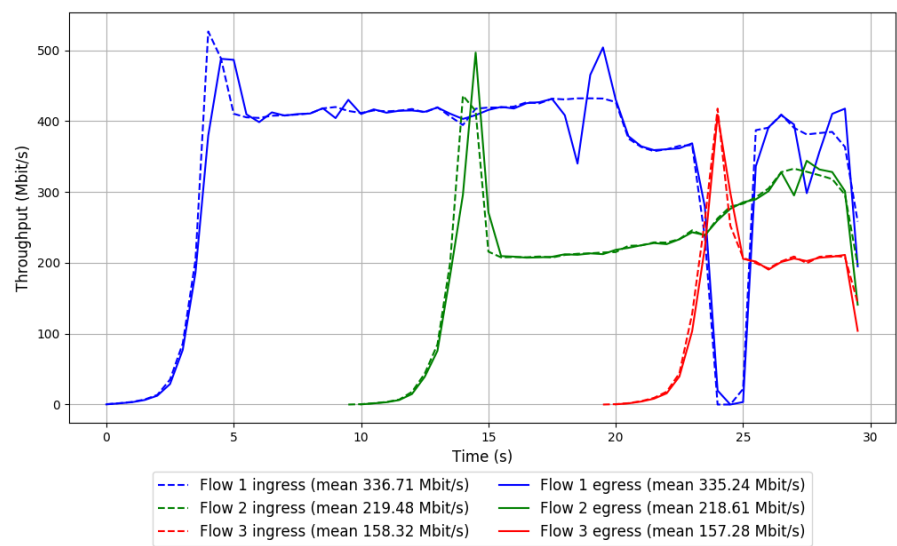
-- Flow 3:

Average throughput: 157.28 Mbit/s

95th percentile per-packet one-way delay: 90.512 ms

Loss rate: 2.42%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-02-17 00:27:58

End at: 2018-02-17 00:28:28

Below is generated by plot.py at 2018-02-17 07:29:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 537.34 Mbit/s

95th percentile per-packet one-way delay: 122.003 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 352.99 Mbit/s

95th percentile per-packet one-way delay: 128.507 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 200.56 Mbit/s

95th percentile per-packet one-way delay: 117.323 ms

Loss rate: 1.47%

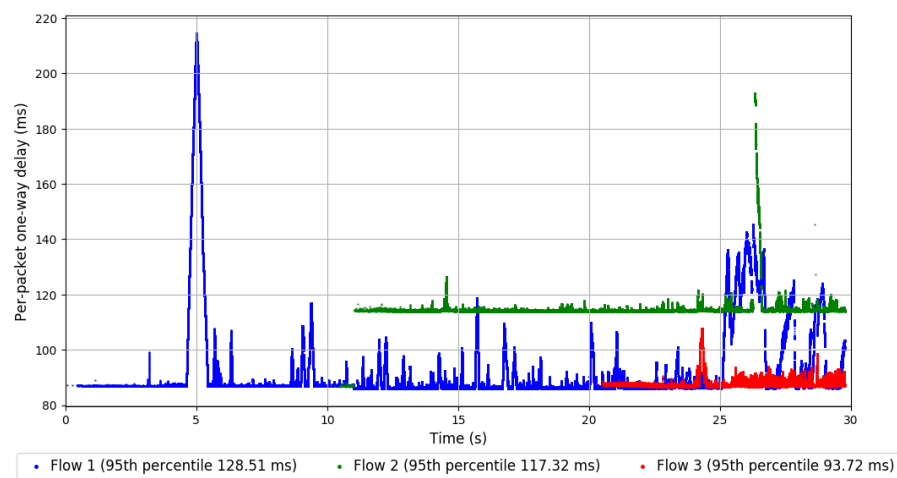
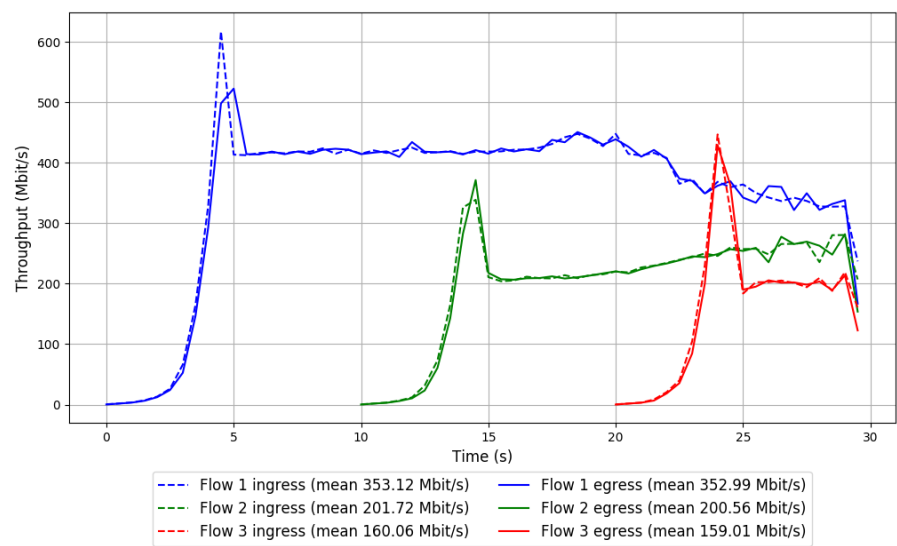
-- Flow 3:

Average throughput: 159.01 Mbit/s

95th percentile per-packet one-way delay: 93.717 ms

Loss rate: 2.50%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-02-17 00:47:12

End at: 2018-02-17 00:47:42

Below is generated by plot.py at 2018-02-17 07:29:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 563.46 Mbit/s

95th percentile per-packet one-way delay: 215.950 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 298.40 Mbit/s

95th percentile per-packet one-way delay: 237.426 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 298.60 Mbit/s

95th percentile per-packet one-way delay: 166.871 ms

Loss rate: 0.76%

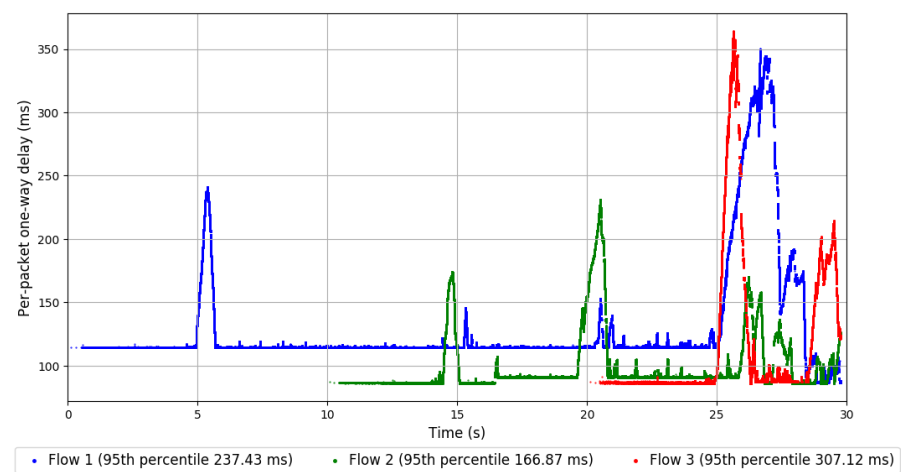
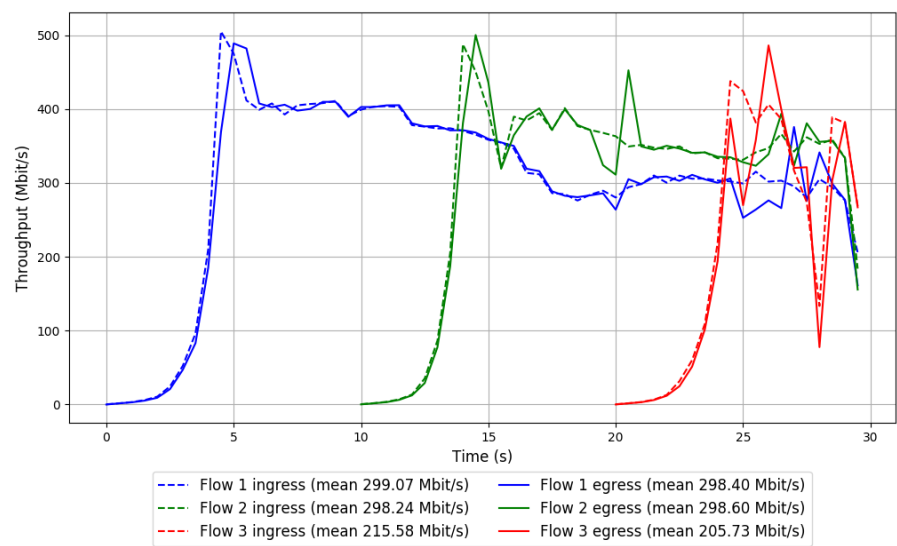
-- Flow 3:

Average throughput: 205.73 Mbit/s

95th percentile per-packet one-way delay: 307.122 ms

Loss rate: 6.51%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-02-17 01:06:04

End at: 2018-02-17 01:06:34

Below is generated by plot.py at 2018-02-17 07:29:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 521.09 Mbit/s

95th percentile per-packet one-way delay: 260.726 ms

Loss rate: 2.57%

-- Flow 1:

Average throughput: 270.20 Mbit/s

95th percentile per-packet one-way delay: 308.304 ms

Loss rate: 3.35%

-- Flow 2:

Average throughput: 309.03 Mbit/s

95th percentile per-packet one-way delay: 175.463 ms

Loss rate: 1.54%

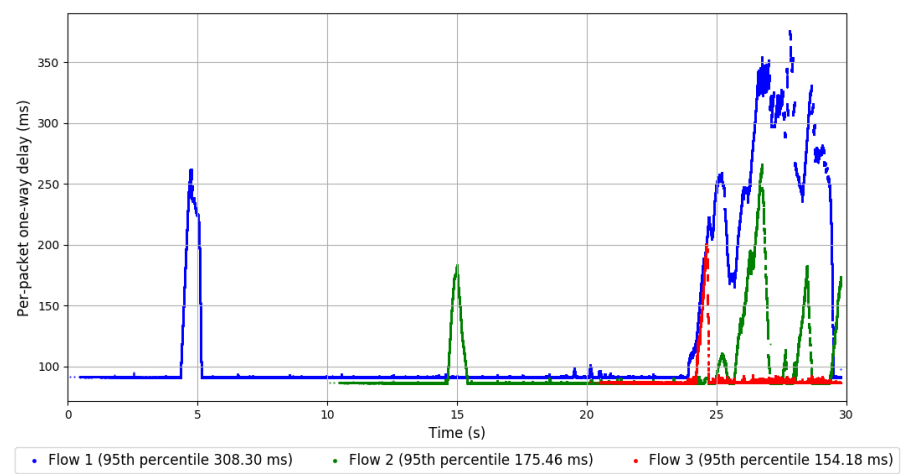
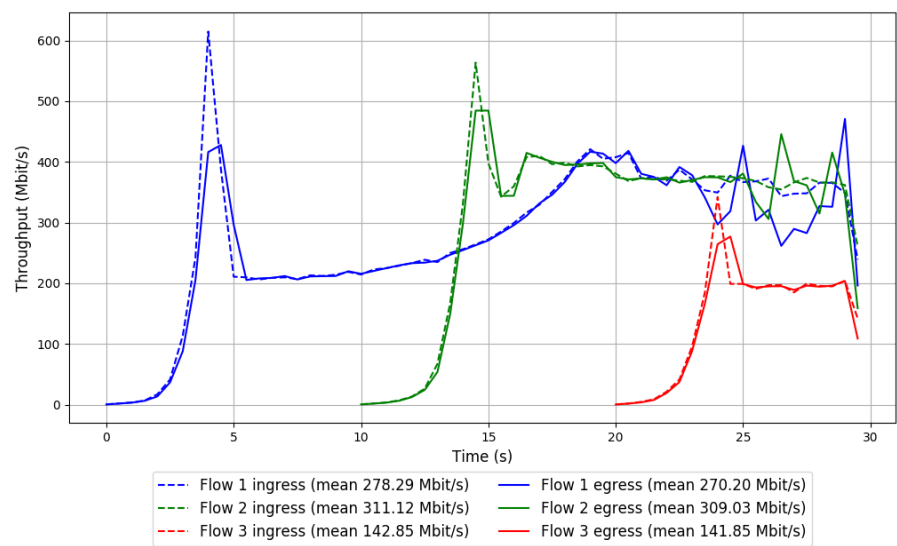
-- Flow 3:

Average throughput: 141.85 Mbit/s

95th percentile per-packet one-way delay: 154.182 ms

Loss rate: 2.46%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-02-17 01:24:53

End at: 2018-02-17 01:25:23

Below is generated by plot.py at 2018-02-17 07:30:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.39 Mbit/s

95th percentile per-packet one-way delay: 291.628 ms

Loss rate: 2.44%

-- Flow 1:

Average throughput: 315.98 Mbit/s

95th percentile per-packet one-way delay: 300.438 ms

Loss rate: 2.85%

-- Flow 2:

Average throughput: 130.27 Mbit/s

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

Loss rate: 1.10%

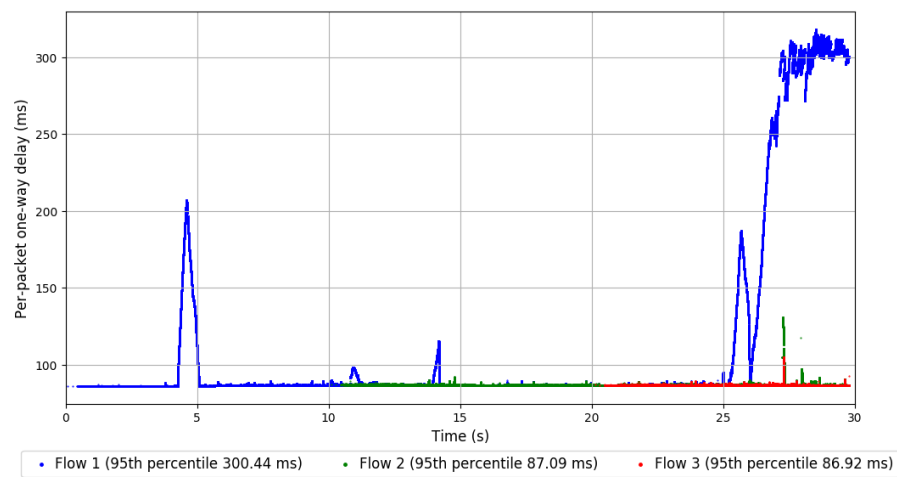
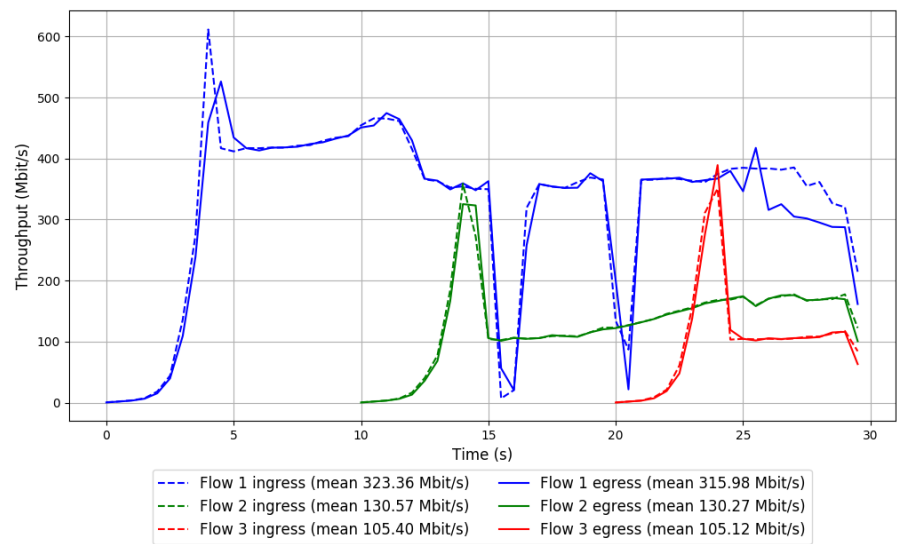
-- Flow 3:

Average throughput: 105.12 Mbit/s

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

Loss rate: 1.97%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-02-17 01:43:40

End at: 2018-02-17 01:44:10

Below is generated by plot.py at 2018-02-17 07:30:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 442.12 Mbit/s

95th percentile per-packet one-way delay: 115.685 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 260.07 Mbit/s

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

Loss rate: 1.36%

-- Flow 2:

Average throughput: 207.26 Mbit/s

95th percentile per-packet one-way delay: 99.071 ms

Loss rate: 1.31%

-- Flow 3:

Average throughput: 137.56 Mbit/s

95th percentile per-packet one-way delay: 95.062 ms

Loss rate: 2.77%

Run 10: Report of Vivace-LTE — Data Link

