

Pantheon Report

Generated at 2018-01-31 23:31:12 (UTC).

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

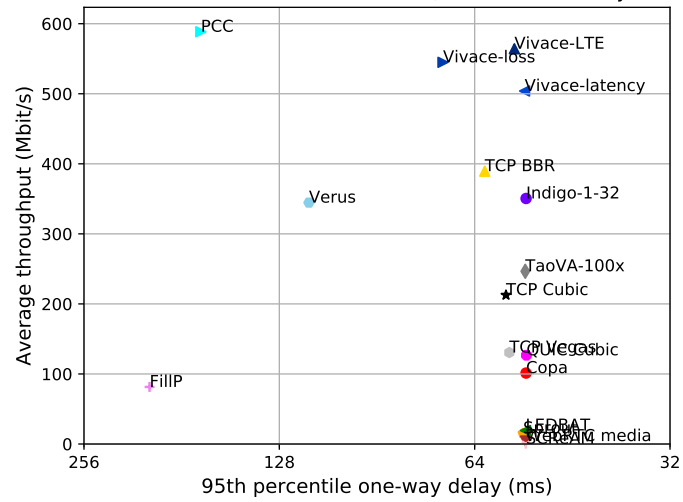
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

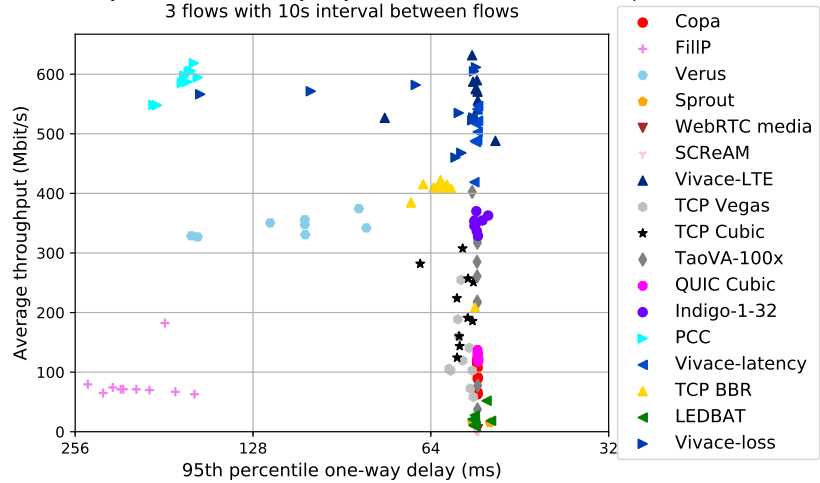
Git summary:

```
branch: master @ 70217998b3c9a7166a95460a70c0854d1326e100
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ fb9c9ab842e5614ad52911a76fb9bd1c1b0dca86
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



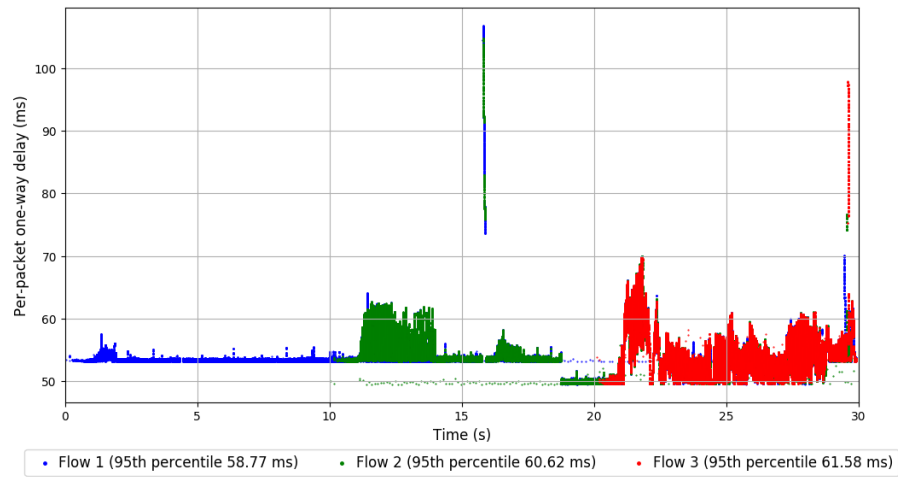
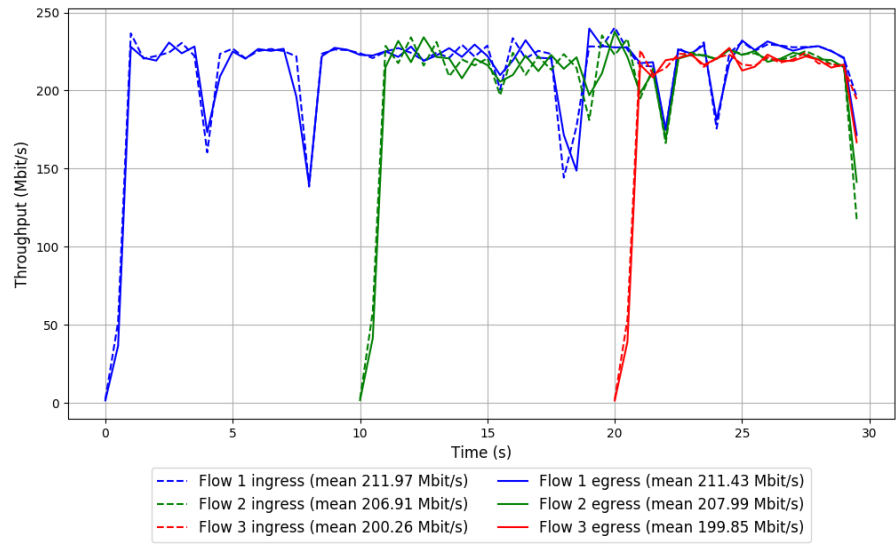
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	187.82	206.51	194.13	136.63	61.87	63.17	0.46	0.54	1.22
TCP Cubic	10	104.25	112.59	98.95	98.65	56.04	56.81	0.53	0.87	1.30
LEDBAT	10	11.23	8.78	6.55	53.47	52.86	52.52	1.26	2.20	2.91
PCC	10	542.10	48.15	44.31	169.39	168.20	140.96	1.76	1.59	2.54
QUIC Cubic	10	68.59	59.55	56.96	51.93	52.66	52.17	0.40	0.36	1.06
SCReAM	10	0.21	0.21	0.22	53.35	52.40	51.36	0.34	0.46	1.00
WebRTC media	10	2.23	1.41	0.57	52.69	52.00	52.42	0.45	0.72	1.79
Sprout	10	7.73	7.59	7.42	53.94	53.67	53.66	0.86	0.82	1.40
TaoVA-100x	10	137.57	102.58	133.13	53.48	53.45	53.58	0.58	0.57	1.60
TCP Vegas	10	64.55	67.65	64.05	56.02	56.16	55.36	0.85	0.59	1.16
Verus	8	189.75	177.96	111.42	101.11	117.20	112.50	0.58	0.77	1.52
Copa	10	53.46	52.08	40.10	53.31	53.33	52.39	0.16	0.33	1.08
FillP	10	25.29	51.56	66.65	208.66	186.09	220.32	5.95	5.35	6.68
Indigo-1-32	10	189.07	171.55	147.39	53.23	53.31	53.40	0.35	0.43	1.19
Vivace-latency	10	295.07	247.46	136.88	56.41	53.79	52.74	0.30	0.62	1.54
Vivace-loss	10	284.11	288.53	212.42	80.39	70.52	52.92	0.52	0.95	1.46
Vivace-LTE	10	314.85	279.79	195.57	56.34	53.55	52.06	0.35	0.64	1.44

```
Run 1: Statistics of TCP BBR

Start at: 2018-01-31 16:15:04
End at: 2018-01-31 16:15:34

# Below is generated by plot.py at 2018-01-31 22:03:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.86 Mbit/s
95th percentile per-packet one-way delay: 60.124 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 211.43 Mbit/s
95th percentile per-packet one-way delay: 58.767 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 207.99 Mbit/s
95th percentile per-packet one-way delay: 60.616 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 199.85 Mbit/s
95th percentile per-packet one-way delay: 61.579 ms
Loss rate: 1.26%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-31 16:31:35

End at: 2018-01-31 16:32:05

Below is generated by plot.py at 2018-01-31 22:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 422.26 Mbit/s

95th percentile per-packet one-way delay: 61.622 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 210.27 Mbit/s

95th percentile per-packet one-way delay: 60.458 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 215.80 Mbit/s

95th percentile per-packet one-way delay: 61.658 ms

Loss rate: 0.55%

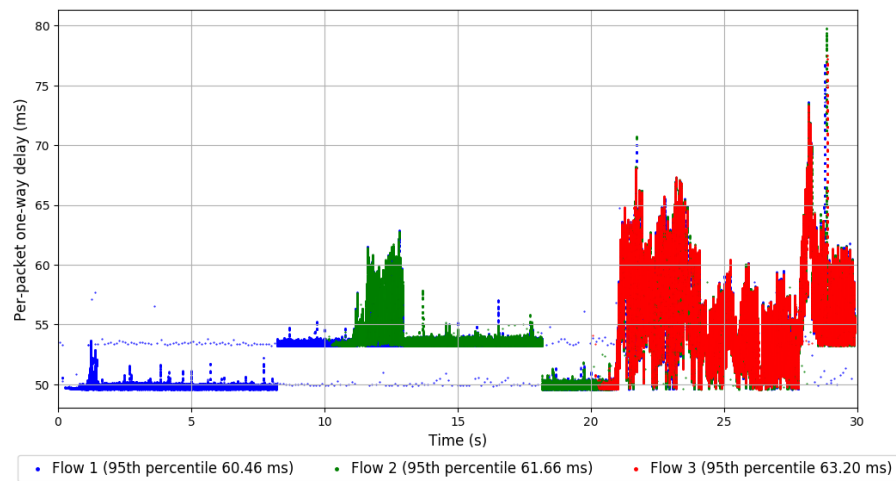
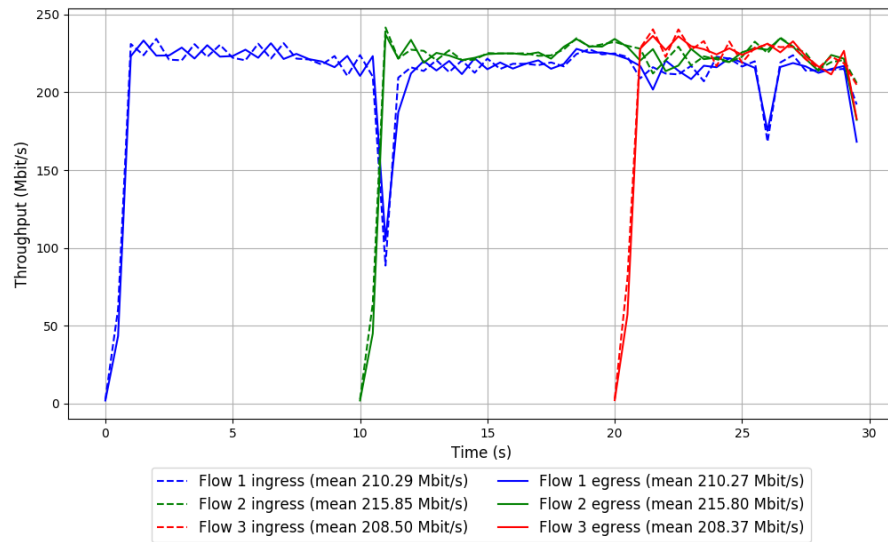
-- Flow 3:

Average throughput: 208.37 Mbit/s

95th percentile per-packet one-way delay: 63.204 ms

Loss rate: 1.12%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-31 16:47:39

End at: 2018-01-31 16:48:09

Below is generated by plot.py at 2018-01-31 22:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 414.07 Mbit/s

95th percentile per-packet one-way delay: 61.322 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 217.65 Mbit/s

95th percentile per-packet one-way delay: 59.767 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 207.21 Mbit/s

95th percentile per-packet one-way delay: 61.644 ms

Loss rate: 0.54%

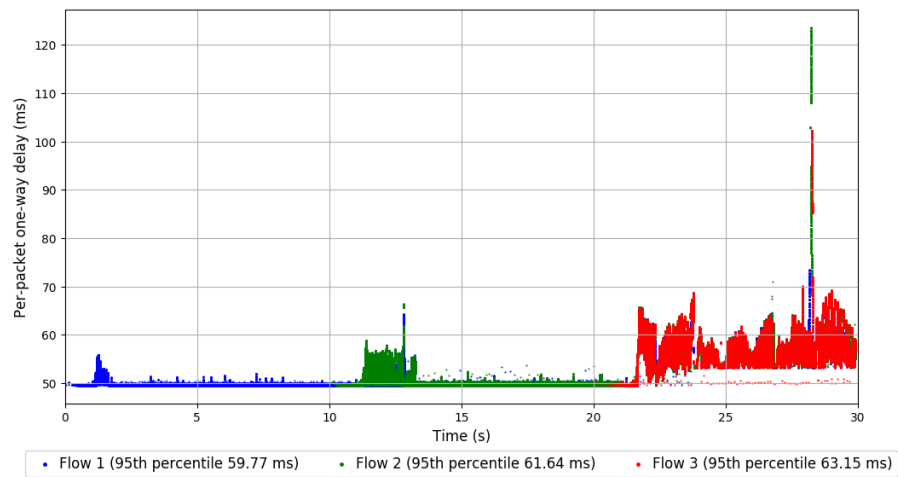
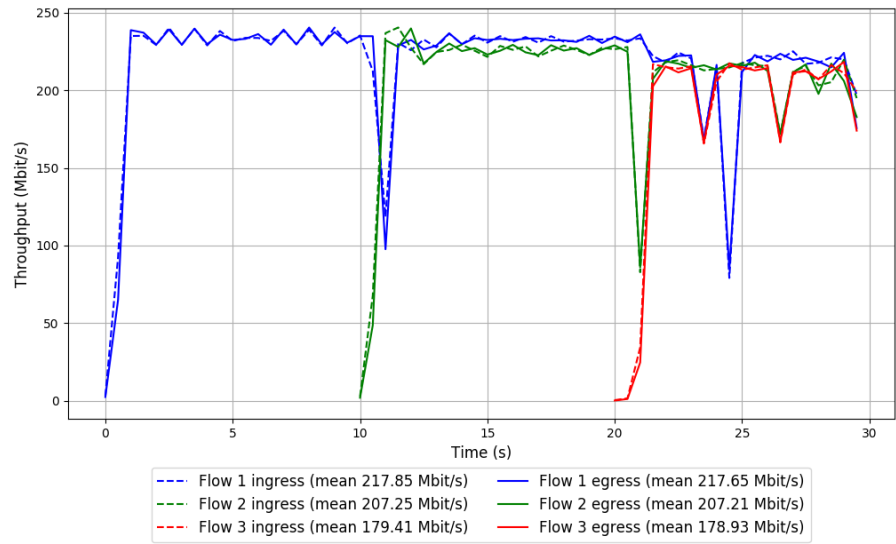
-- Flow 3:

Average throughput: 178.93 Mbit/s

95th percentile per-packet one-way delay: 63.154 ms

Loss rate: 1.35%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-01-31 17:04:16

End at: 2018-01-31 17:04:46

Below is generated by plot.py at 2018-01-31 22:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 415.48 Mbit/s

95th percentile per-packet one-way delay: 65.912 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 214.12 Mbit/s

95th percentile per-packet one-way delay: 63.778 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 209.03 Mbit/s

95th percentile per-packet one-way delay: 65.620 ms

Loss rate: 0.57%

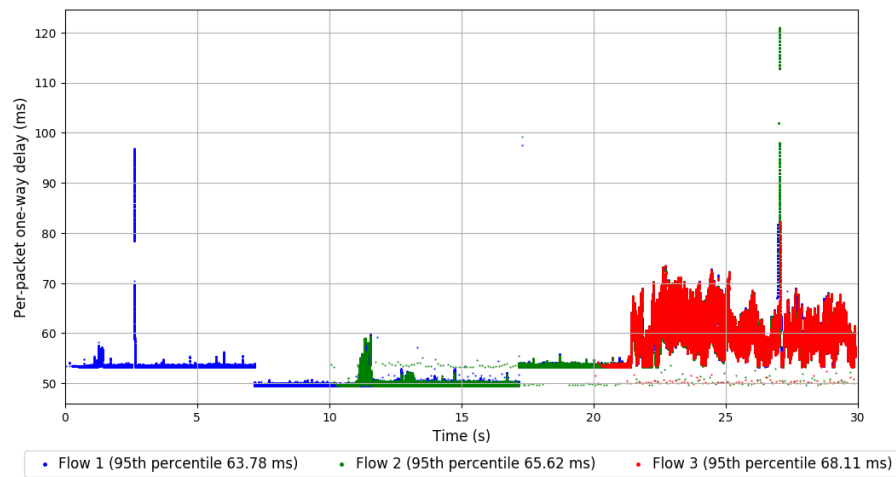
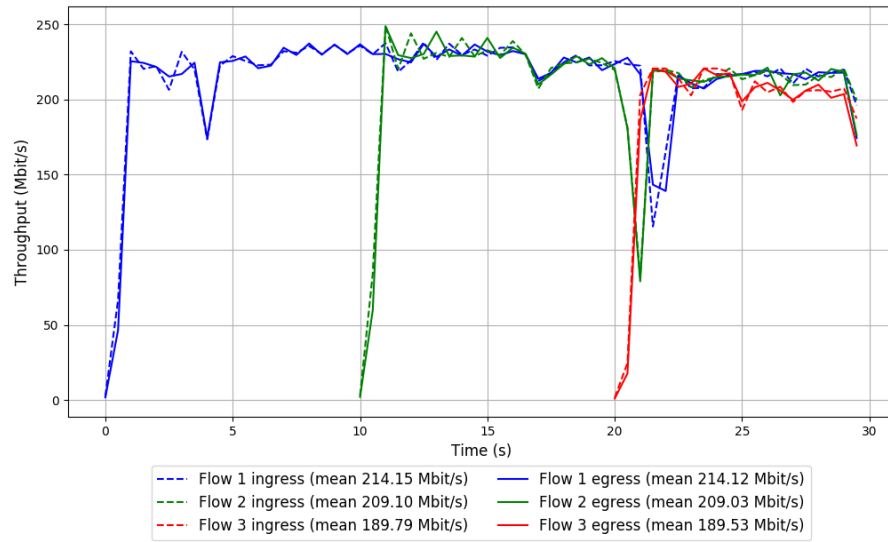
-- Flow 3:

Average throughput: 189.53 Mbit/s

95th percentile per-packet one-way delay: 68.109 ms

Loss rate: 1.19%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-31 17:21:10

End at: 2018-01-31 17:21:40

Below is generated by plot.py at 2018-01-31 22:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 408.15 Mbit/s

95th percentile per-packet one-way delay: 60.730 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 208.38 Mbit/s

95th percentile per-packet one-way delay: 60.000 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 207.48 Mbit/s

95th percentile per-packet one-way delay: 60.371 ms

Loss rate: 0.58%

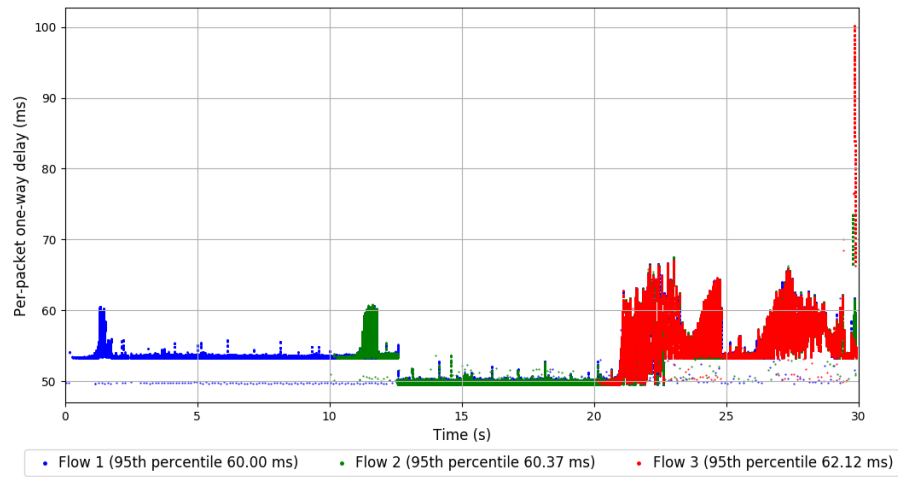
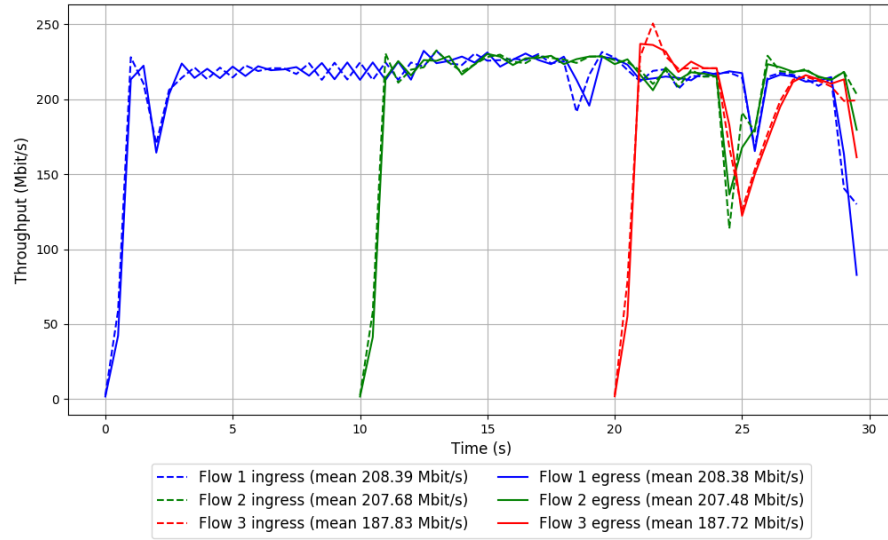
-- Flow 3:

Average throughput: 187.72 Mbit/s

95th percentile per-packet one-way delay: 62.116 ms

Loss rate: 1.24%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-01-31 17:37:46

End at: 2018-01-31 17:38:16

Below is generated by plot.py at 2018-01-31 22:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 409.90 Mbit/s

95th percentile per-packet one-way delay: 63.346 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 210.15 Mbit/s

95th percentile per-packet one-way delay: 62.157 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 200.73 Mbit/s

95th percentile per-packet one-way delay: 63.244 ms

Loss rate: 0.58%

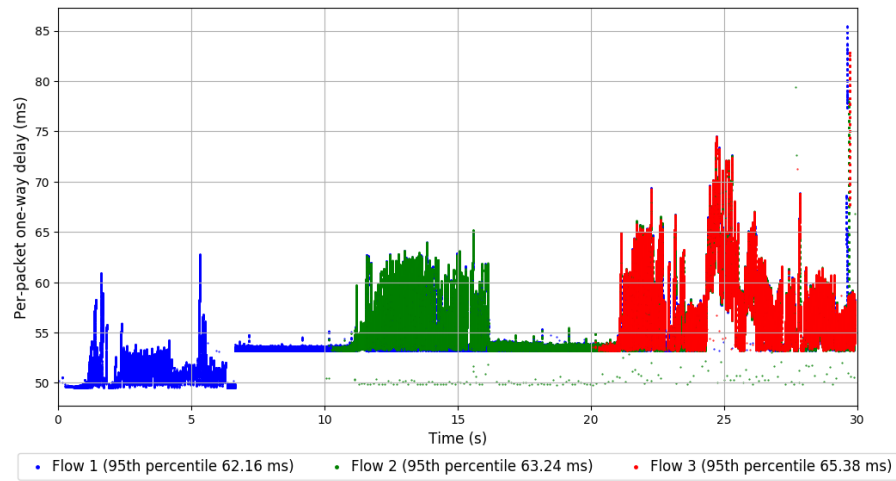
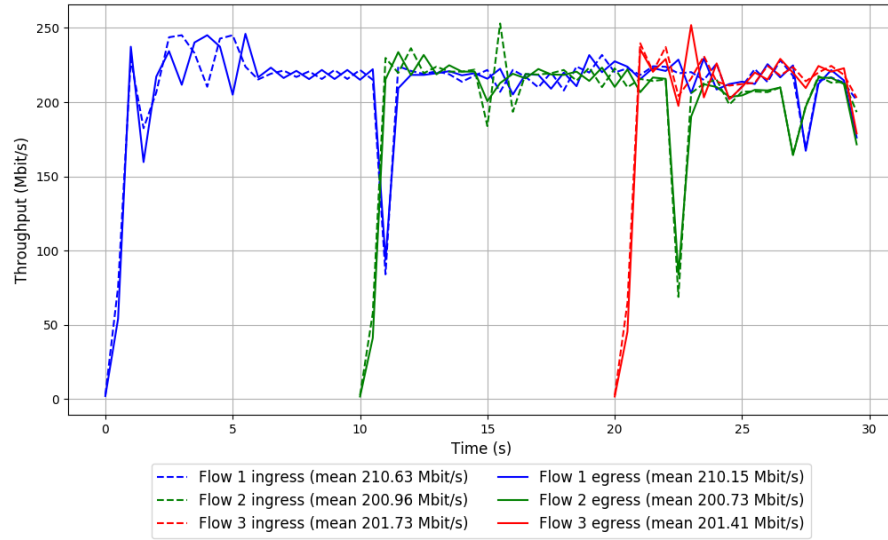
-- Flow 3:

Average throughput: 201.41 Mbit/s

95th percentile per-packet one-way delay: 65.375 ms

Loss rate: 1.21%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-31 17:54:25

End at: 2018-01-31 17:54:55

Below is generated by plot.py at 2018-01-31 22:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 384.62 Mbit/s

95th percentile per-packet one-way delay: 69.140 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 187.47 Mbit/s

95th percentile per-packet one-way delay: 67.597 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 200.21 Mbit/s

95th percentile per-packet one-way delay: 69.215 ms

Loss rate: 0.58%

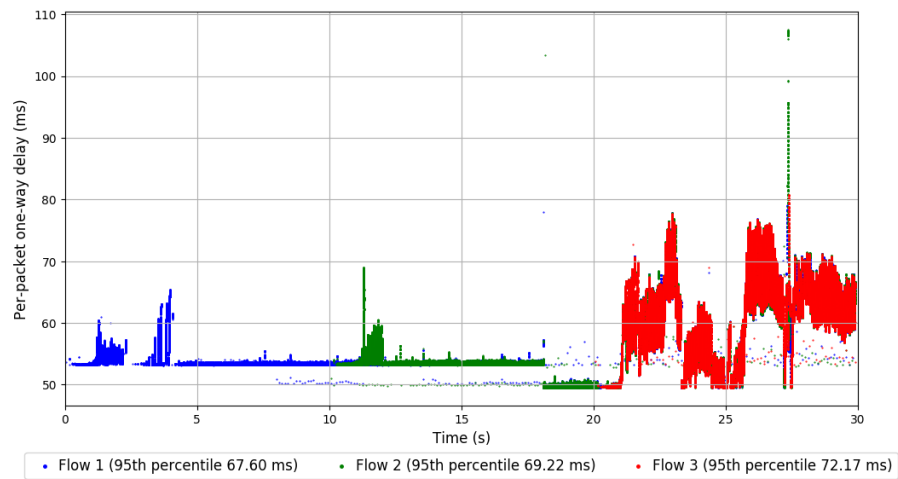
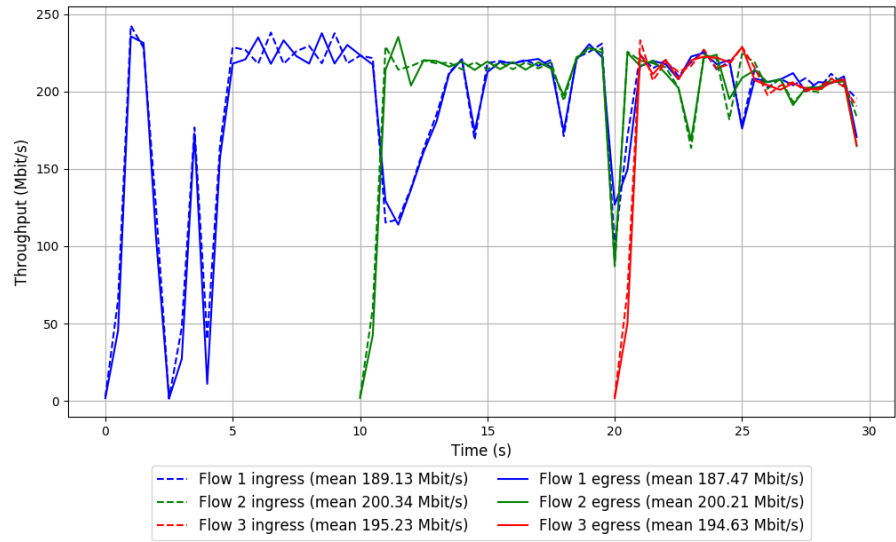
-- Flow 3:

Average throughput: 194.63 Mbit/s

95th percentile per-packet one-way delay: 72.167 ms

Loss rate: 1.28%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-01-31 18:10:32

End at: 2018-01-31 18:11:02

Below is generated by plot.py at 2018-01-31 22:04:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 208.22 Mbit/s

95th percentile per-packet one-way delay: 53.881 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 816.606 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 206.49 Mbit/s

95th percentile per-packet one-way delay: 53.813 ms

Loss rate: 0.89%

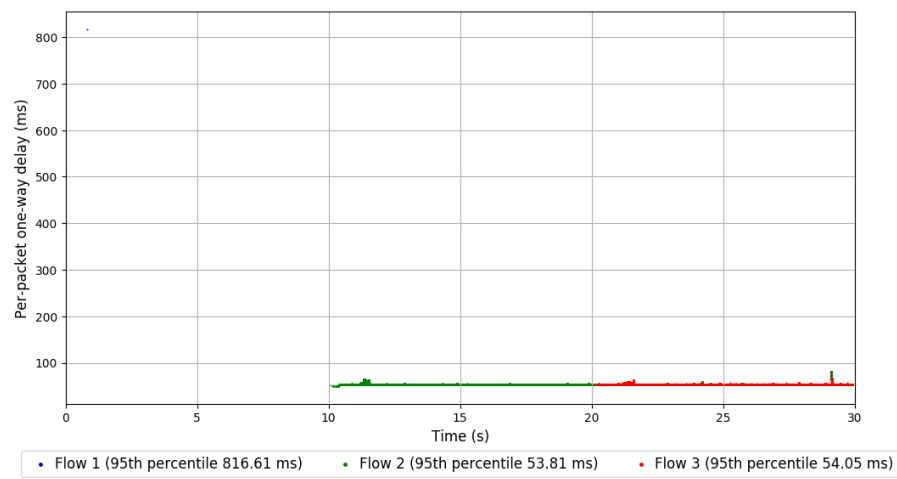
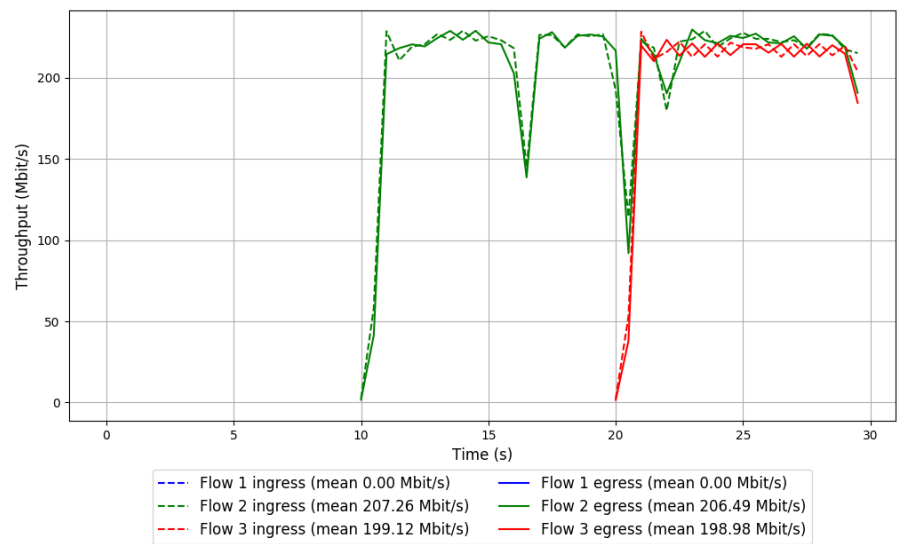
-- Flow 3:

Average throughput: 198.98 Mbit/s

95th percentile per-packet one-way delay: 54.051 ms

Loss rate: 1.13%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-31 18:27:02

End at: 2018-01-31 18:27:32

Below is generated by plot.py at 2018-01-31 22:08:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 409.57 Mbit/s

95th percentile per-packet one-way delay: 62.399 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 208.70 Mbit/s

95th percentile per-packet one-way delay: 59.418 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 210.17 Mbit/s

95th percentile per-packet one-way delay: 62.554 ms

Loss rate: 0.56%

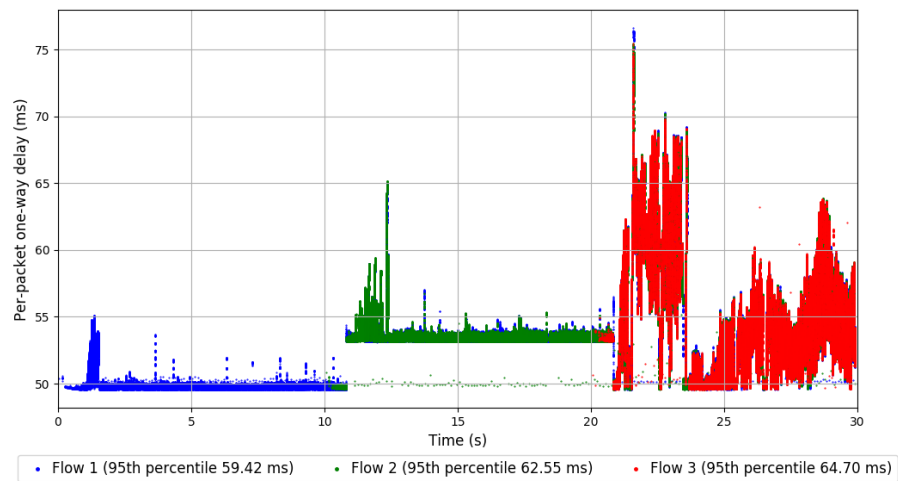
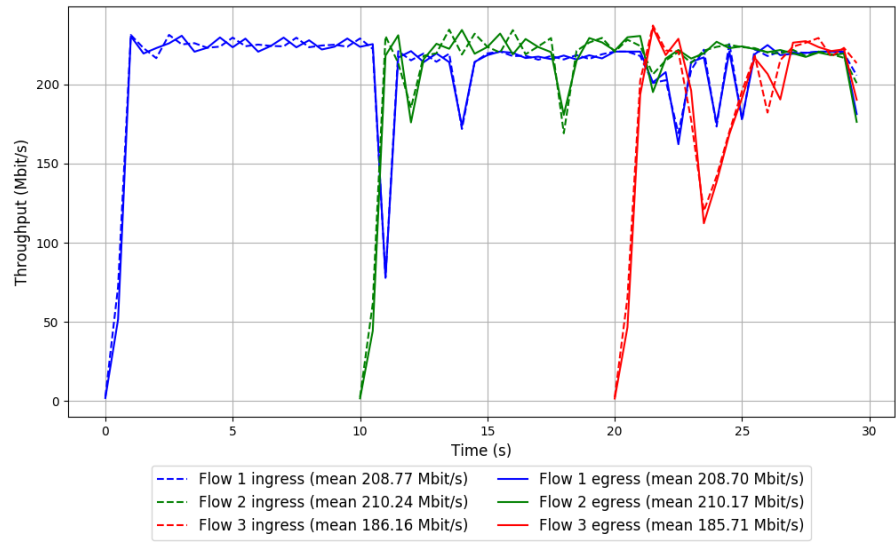
-- Flow 3:

Average throughput: 185.71 Mbit/s

95th percentile per-packet one-way delay: 64.704 ms

Loss rate: 1.29%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-31 18:43:31

End at: 2018-01-31 18:44:01

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 407.59 Mbit/s

95th percentile per-packet one-way delay: 59.061 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 210.03 Mbit/s

95th percentile per-packet one-way delay: 57.715 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 199.98 Mbit/s

95th percentile per-packet one-way delay: 59.963 ms

Loss rate: 0.58%

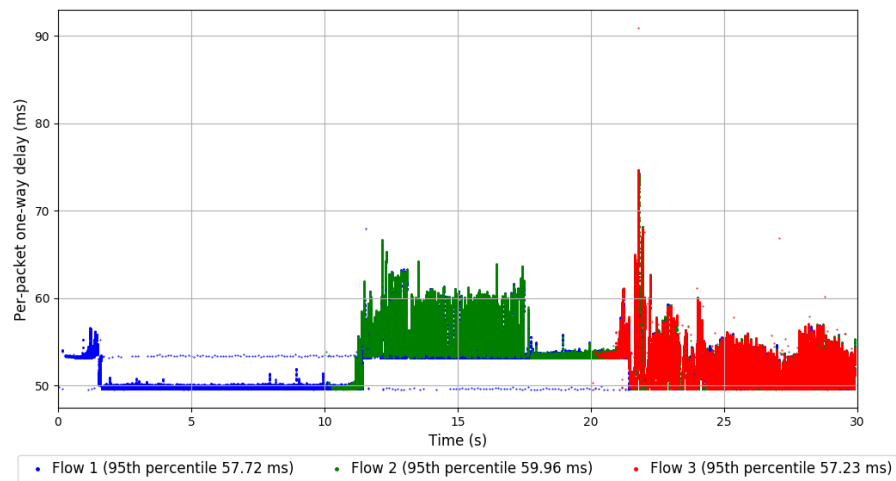
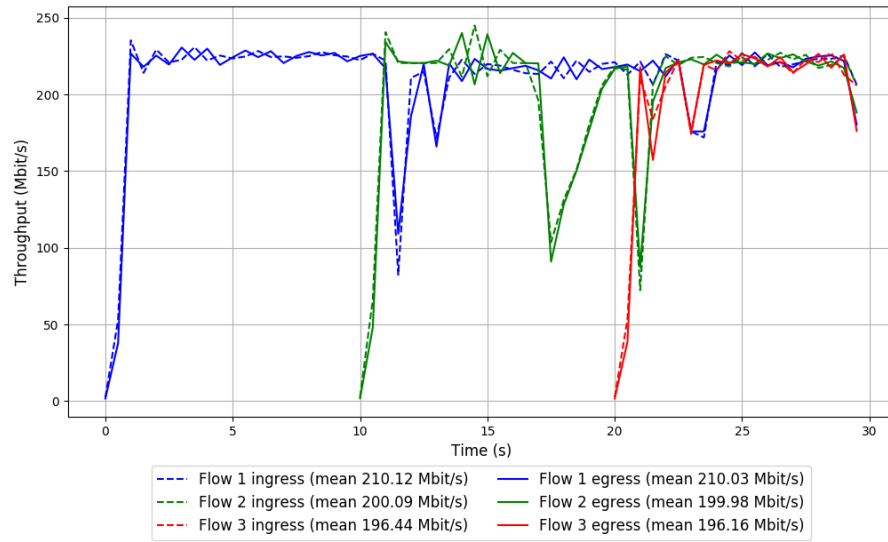
-- Flow 3:

Average throughput: 196.16 Mbit/s

95th percentile per-packet one-way delay: 57.233 ms

Loss rate: 1.17%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-31 16:18:35

End at: 2018-01-31 16:19:05

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.04 Mbit/s

95th percentile per-packet one-way delay: 57.812 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 115.11 Mbit/s

95th percentile per-packet one-way delay: 58.683 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 161.43 Mbit/s

95th percentile per-packet one-way delay: 57.010 ms

Loss rate: 0.64%

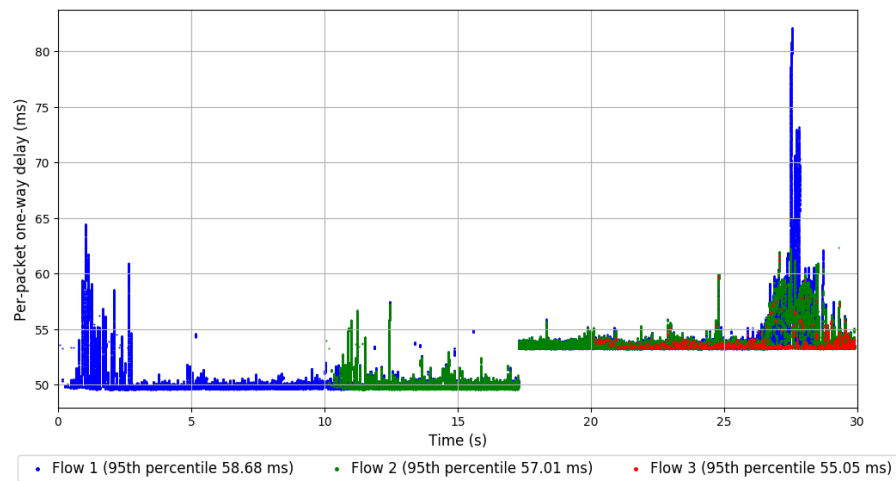
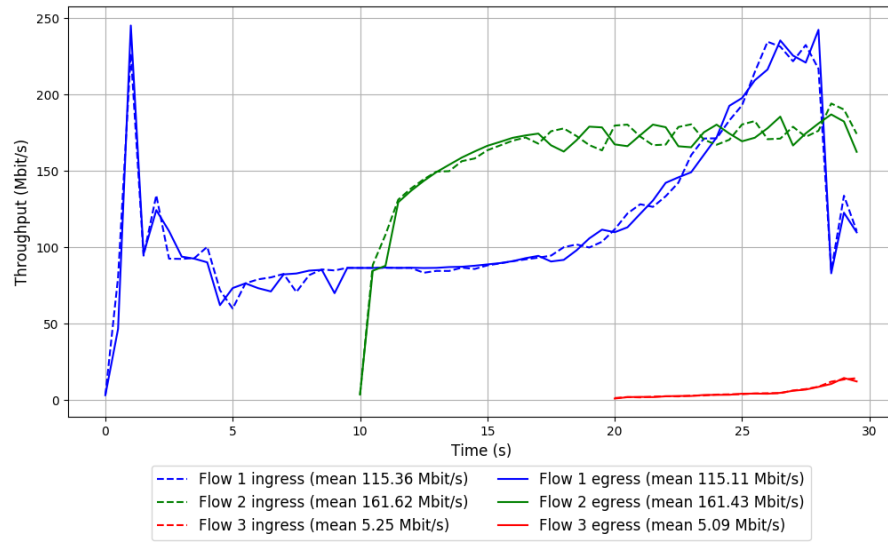
-- Flow 3:

Average throughput: 5.09 Mbit/s

95th percentile per-packet one-way delay: 55.049 ms

Loss rate: 3.65%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-31 16:35:09

End at: 2018-01-31 16:35:39

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.97 Mbit/s

95th percentile per-packet one-way delay: 54.200 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 134.16 Mbit/s

95th percentile per-packet one-way delay: 53.508 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 134.21 Mbit/s

95th percentile per-packet one-way delay: 54.105 ms

Loss rate: 0.70%

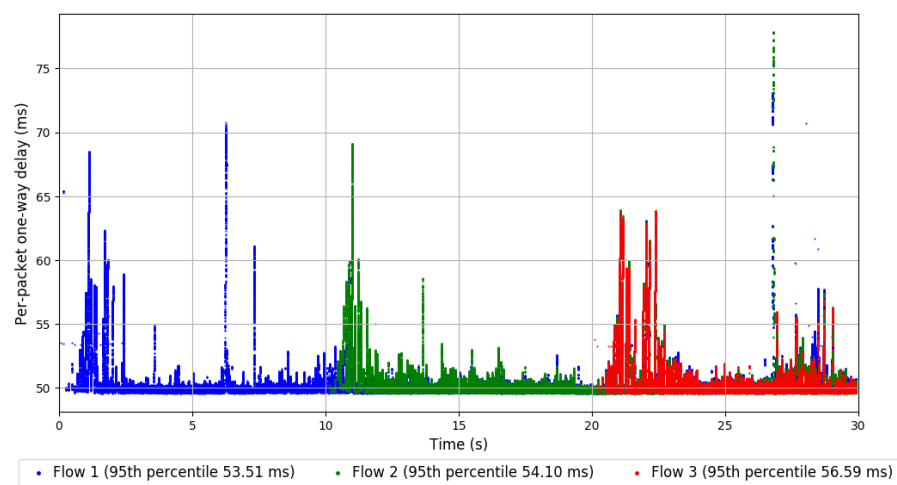
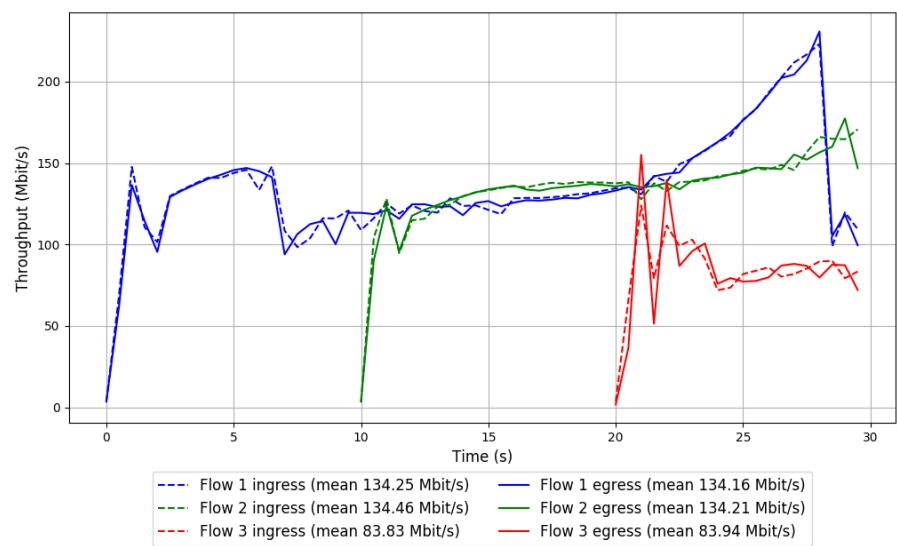
-- Flow 3:

Average throughput: 83.94 Mbit/s

95th percentile per-packet one-way delay: 56.587 ms

Loss rate: 1.10%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-31 16:51:13

End at: 2018-01-31 16:51:43

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 191.06 Mbit/s

95th percentile per-packet one-way delay: 55.424 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 92.76 Mbit/s

95th percentile per-packet one-way delay: 55.579 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 98.56 Mbit/s

95th percentile per-packet one-way delay: 55.056 ms

Loss rate: 0.77%

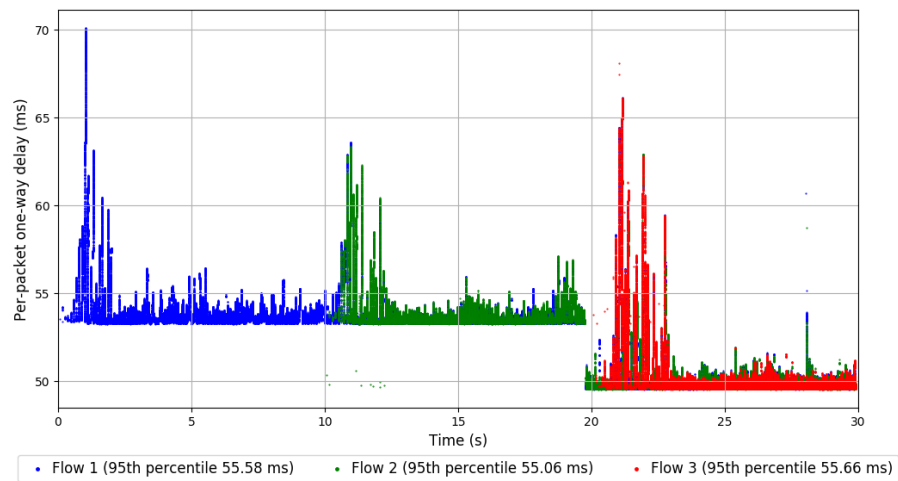
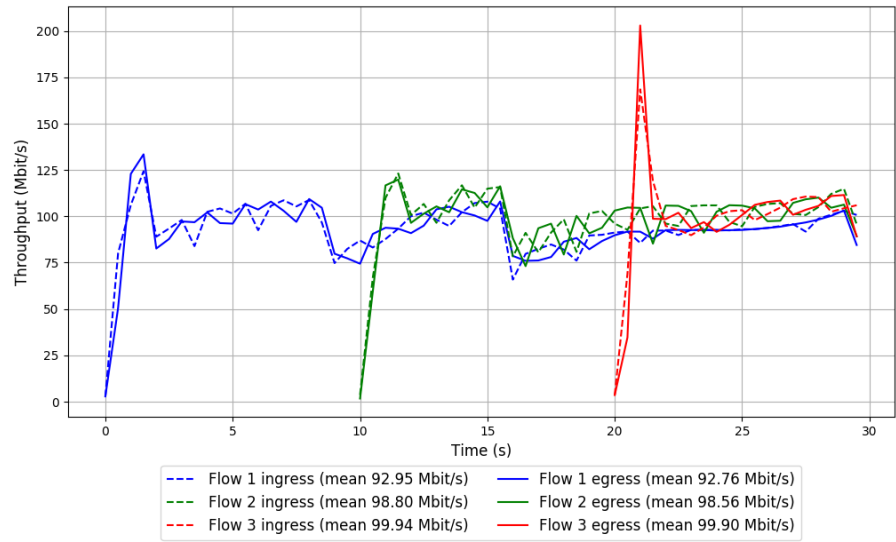
-- Flow 3:

Average throughput: 99.90 Mbit/s

95th percentile per-packet one-way delay: 55.660 ms

Loss rate: 1.13%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-01-31 17:07:57

End at: 2018-01-31 17:08:27

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 307.49 Mbit/s

95th percentile per-packet one-way delay: 56.536 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 171.84 Mbit/s

95th percentile per-packet one-way delay: 57.117 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 152.09 Mbit/s

95th percentile per-packet one-way delay: 54.878 ms

Loss rate: 0.65%

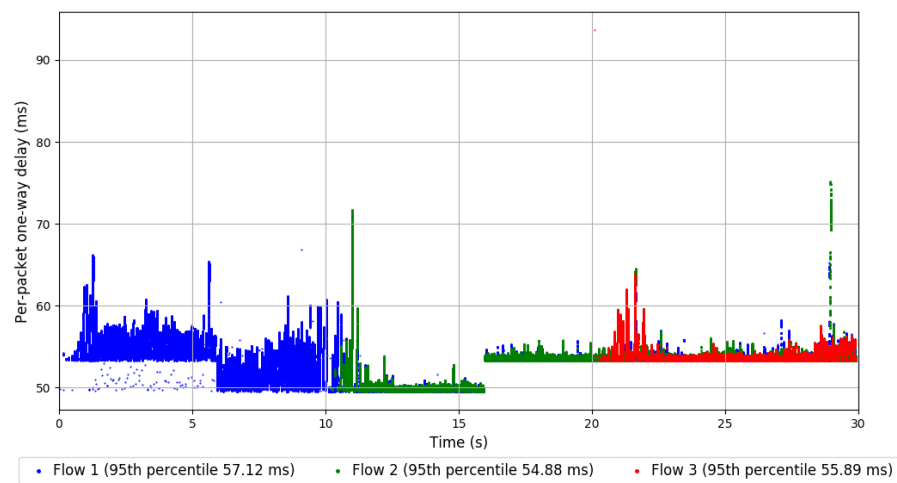
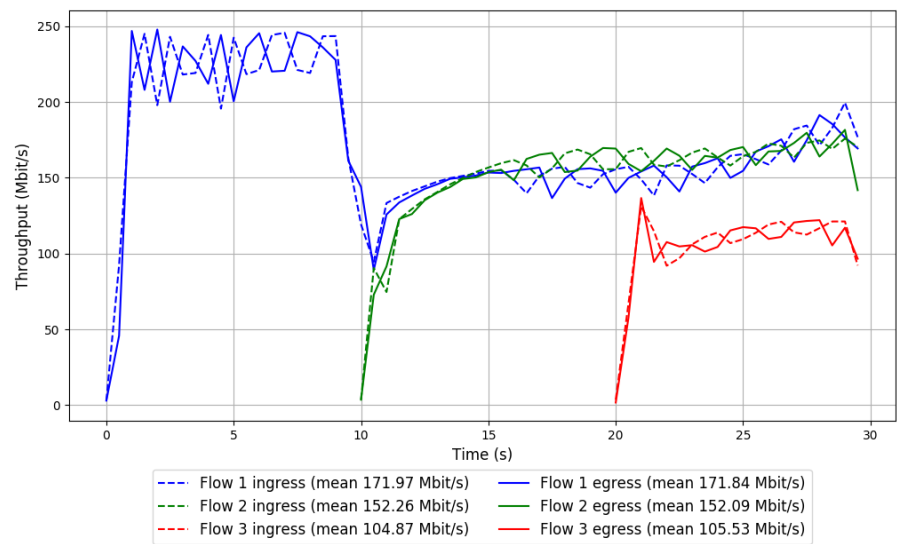
-- Flow 3:

Average throughput: 105.53 Mbit/s

95th percentile per-packet one-way delay: 55.890 ms

Loss rate: 0.83%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-31 17:24:46

End at: 2018-01-31 17:25:16

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 256.98 Mbit/s

95th percentile per-packet one-way delay: 55.343 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 120.22 Mbit/s

95th percentile per-packet one-way delay: 55.505 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 152.80 Mbit/s

95th percentile per-packet one-way delay: 54.895 ms

Loss rate: 0.62%

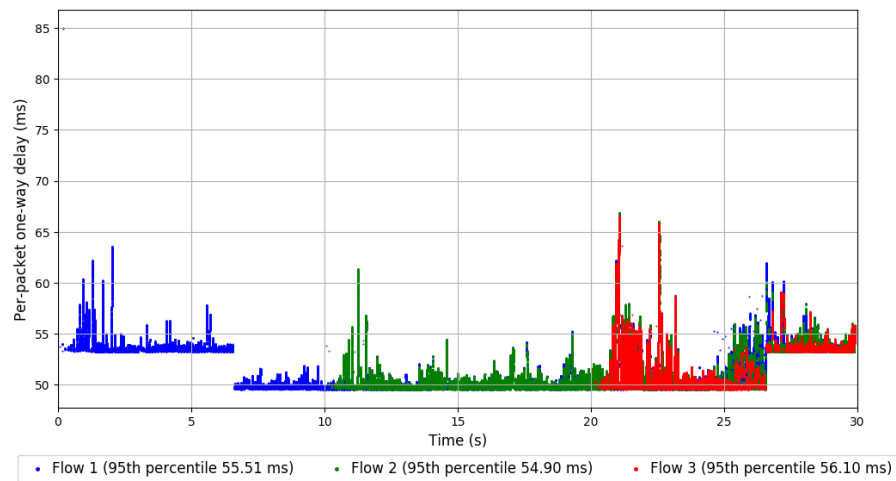
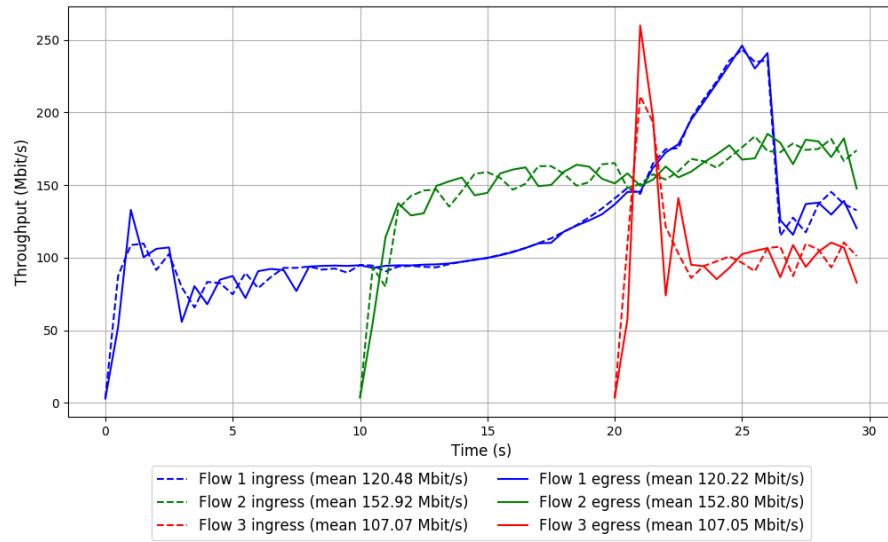
-- Flow 3:

Average throughput: 107.05 Mbit/s

95th percentile per-packet one-way delay: 56.099 ms

Loss rate: 1.04%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-31 17:41:26

End at: 2018-01-31 17:41:56

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 281.90 Mbit/s

95th percentile per-packet one-way delay: 66.701 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 129.02 Mbit/s

95th percentile per-packet one-way delay: 66.067 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 149.73 Mbit/s

95th percentile per-packet one-way delay: 67.058 ms

Loss rate: 0.84%

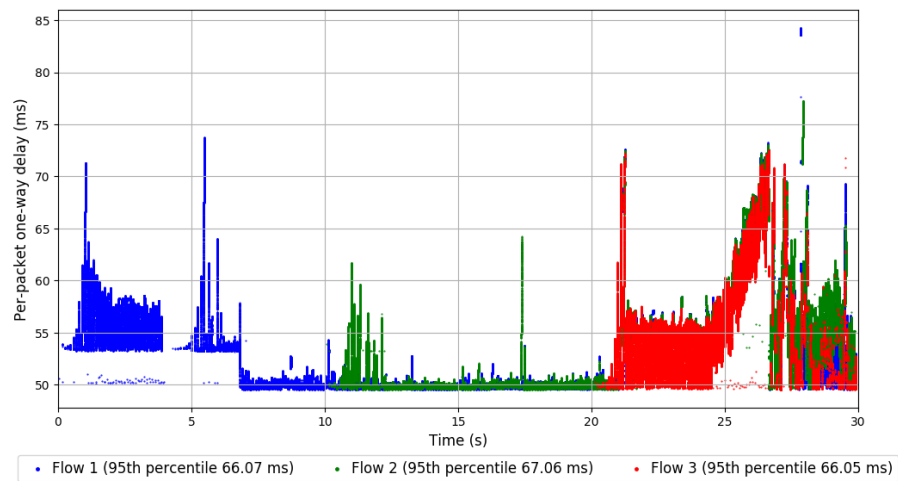
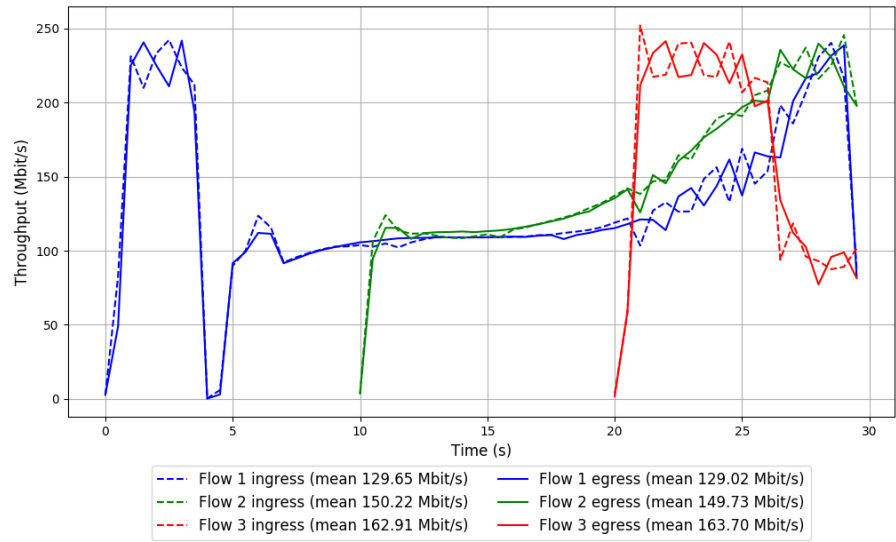
-- Flow 3:

Average throughput: 163.70 Mbit/s

95th percentile per-packet one-way delay: 66.054 ms

Loss rate: 0.64%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-01-31 17:58:02

End at: 2018-01-31 17:58:32

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 185.82 Mbit/s

95th percentile per-packet one-way delay: 54.404 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 87.79 Mbit/s

95th percentile per-packet one-way delay: 54.033 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 95.74 Mbit/s

95th percentile per-packet one-way delay: 55.769 ms

Loss rate: 0.47%

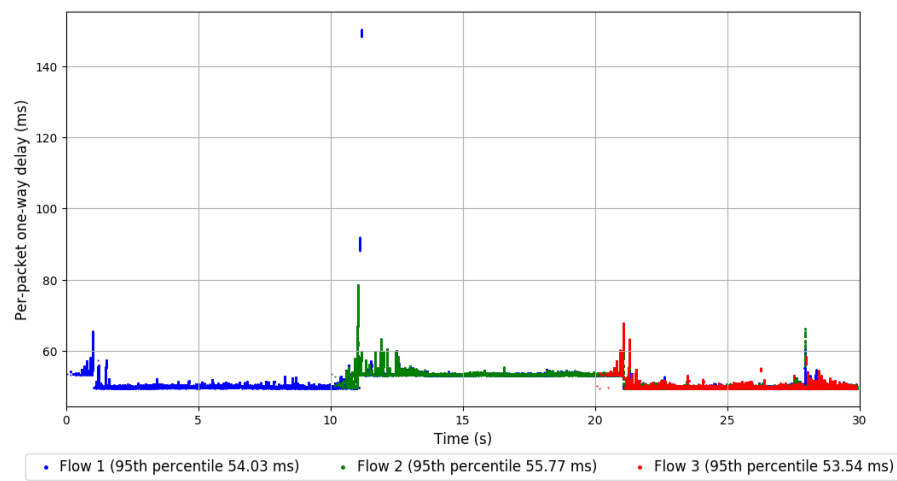
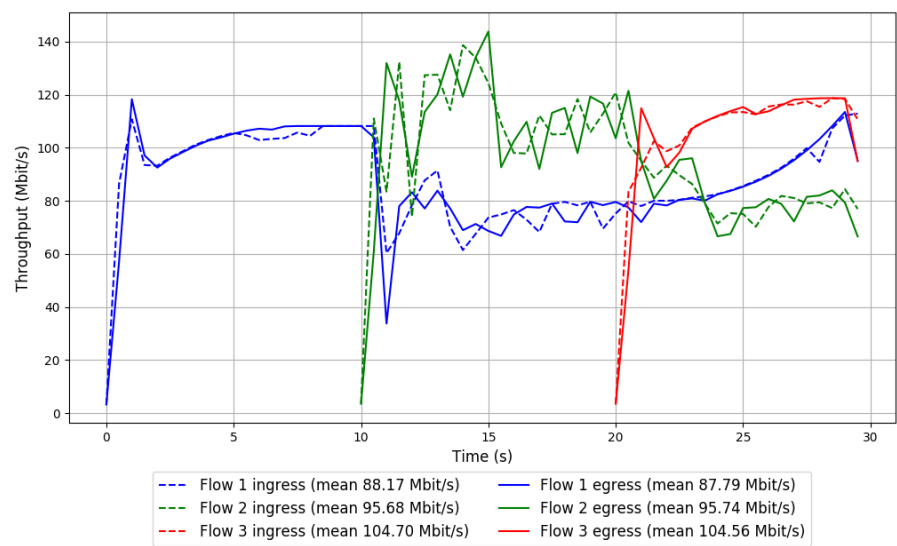
-- Flow 3:

Average throughput: 104.56 Mbit/s

95th percentile per-packet one-way delay: 53.537 ms

Loss rate: 1.14%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-01-31 18:13:55

End at: 2018-01-31 18:14:25

Below is generated by plot.py at 2018-01-31 22:10:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.37 Mbit/s

95th percentile per-packet one-way delay: 57.768 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 469.760 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 122.66 Mbit/s

95th percentile per-packet one-way delay: 57.245 ms

Loss rate: 0.43%

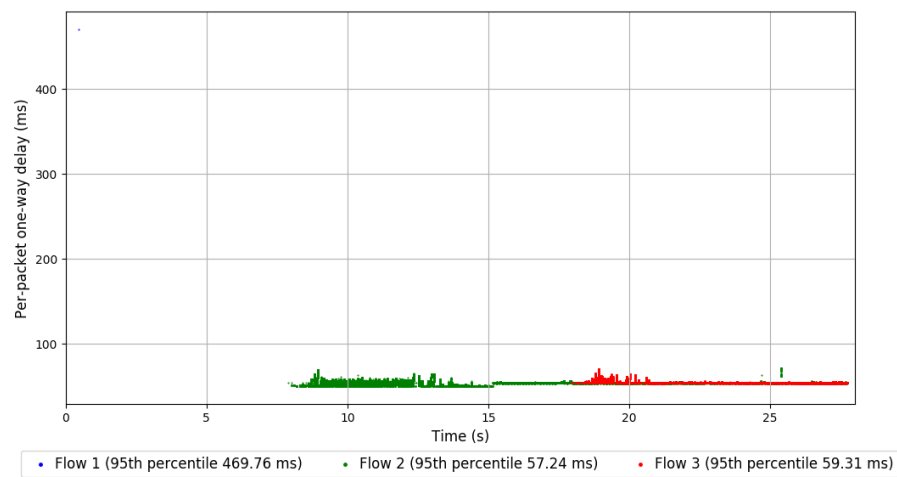
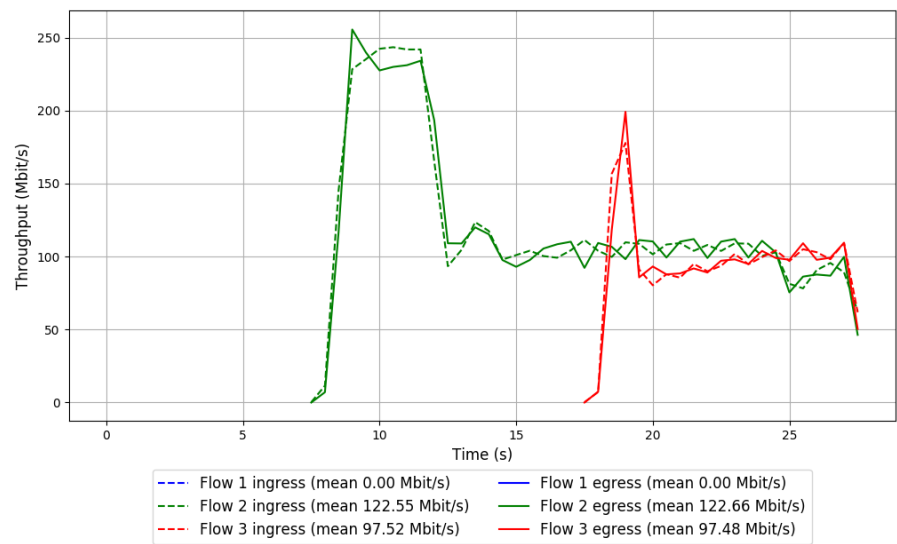
-- Flow 3:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 59.308 ms

Loss rate: 1.14%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-31 18:30:34

End at: 2018-01-31 18:31:04

Below is generated by plot.py at 2018-01-31 22:10:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.74 Mbit/s

95th percentile per-packet one-way delay: 57.191 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 96.14 Mbit/s

95th percentile per-packet one-way delay: 58.130 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 18.57 Mbit/s

95th percentile per-packet one-way delay: 50.753 ms

Loss rate: 2.16%

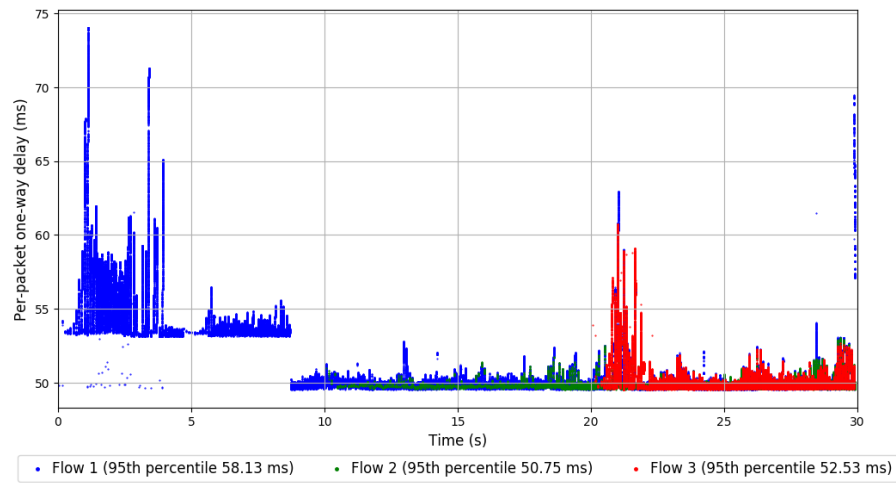
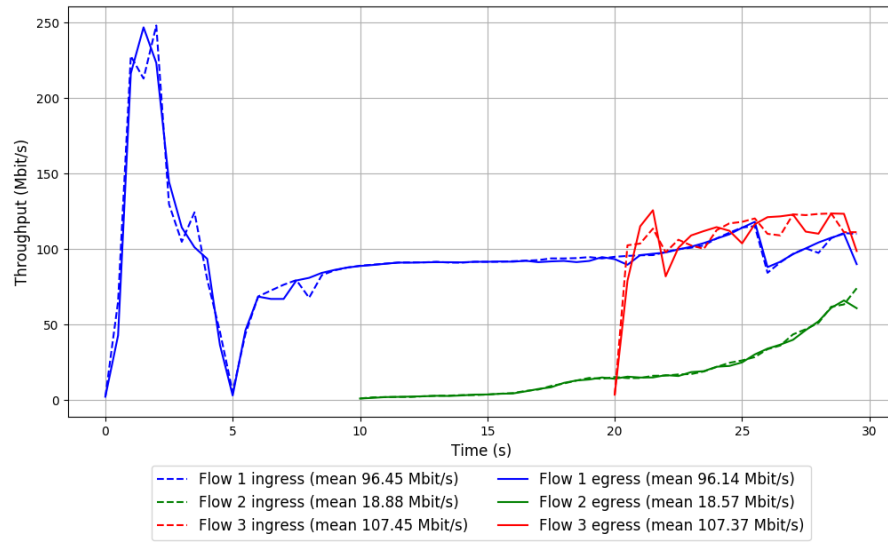
-- Flow 3:

Average throughput: 107.37 Mbit/s

95th percentile per-packet one-way delay: 52.528 ms

Loss rate: 1.15%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-31 18:47:02

End at: 2018-01-31 18:47:32

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 159.98 Mbit/s

95th percentile per-packet one-way delay: 57.317 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 95.50 Mbit/s

95th percentile per-packet one-way delay: 58.107 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 40.12 Mbit/s

95th percentile per-packet one-way delay: 53.622 ms

Loss rate: 1.40%

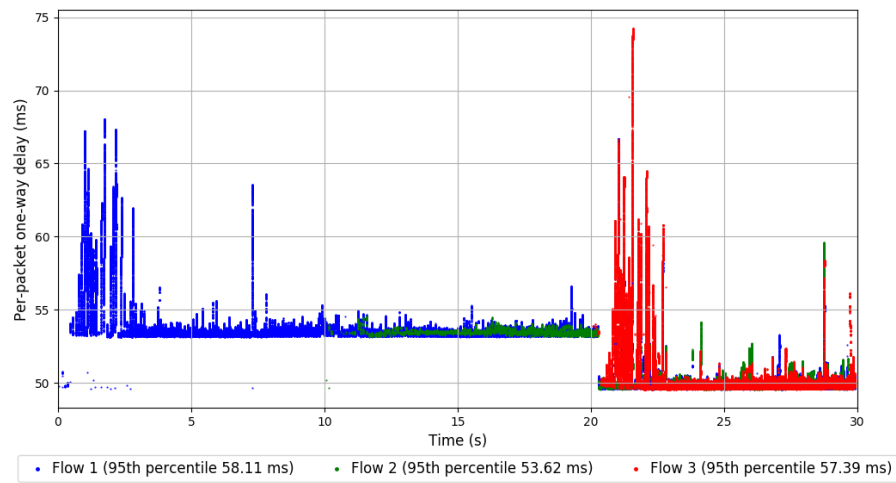
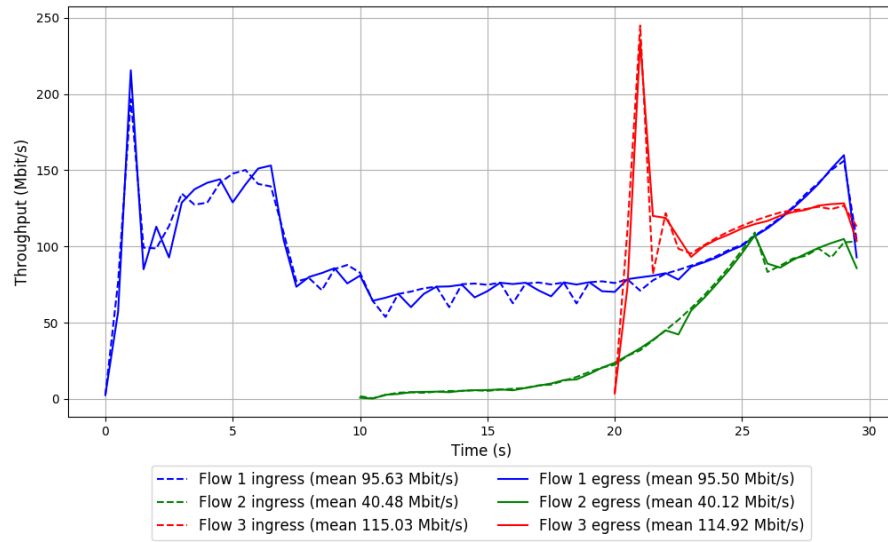
-- Flow 3:

Average throughput: 114.92 Mbit/s

95th percentile per-packet one-way delay: 57.393 ms

Loss rate: 1.14%

Run 10: Report of TCP Cubic — Data Link

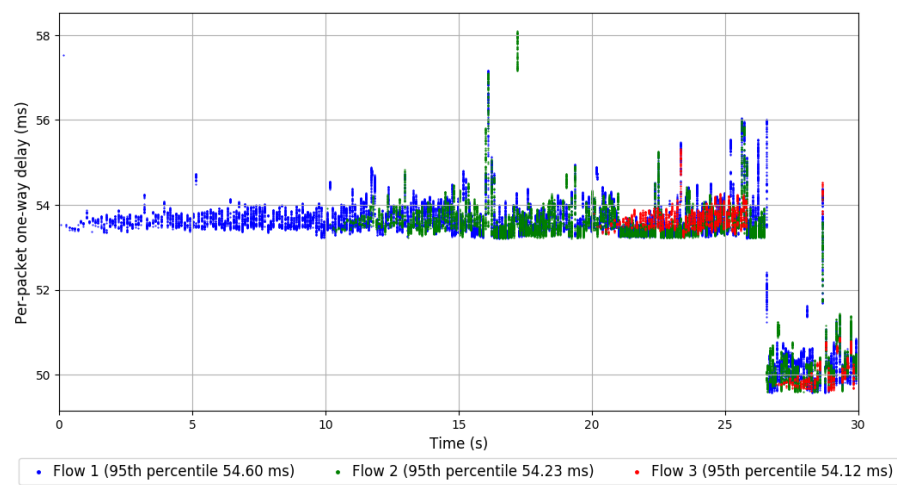
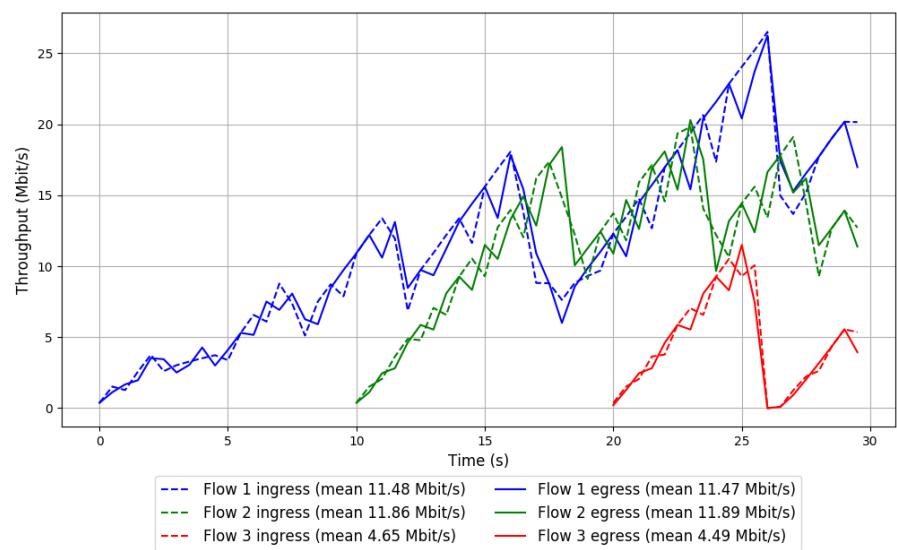


```
Run 1: Statistics of LEDBAT

Start at: 2018-01-31 16:19:26
End at: 2018-01-31 16:19:56

# Below is generated by plot.py at 2018-01-31 22:11:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.84 Mbit/s
95th percentile per-packet one-way delay: 54.436 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 11.47 Mbit/s
95th percentile per-packet one-way delay: 54.597 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 54.226 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 54.115 ms
Loss rate: 4.39%
```


Run 1: Report of LEDBAT — Data Link

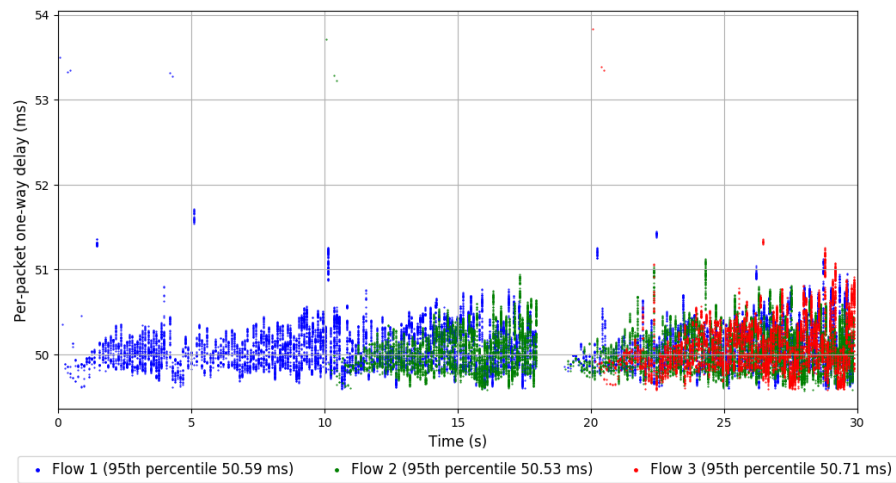
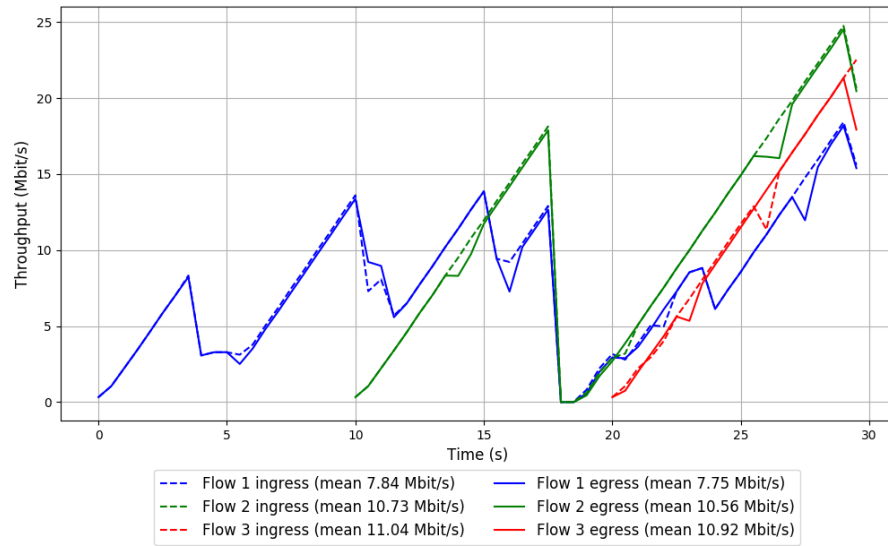


```
Run 2: Statistics of LEDBAT

Start at: 2018-01-31 16:36:01
End at: 2018-01-31 16:36:31

# Below is generated by plot.py at 2018-01-31 22:11:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.33 Mbit/s
95th percentile per-packet one-way delay: 50.609 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 50.592 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 10.56 Mbit/s
95th percentile per-packet one-way delay: 50.532 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 50.712 ms
Loss rate: 2.10%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-31 16:52:02

End at: 2018-01-31 16:52:32

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 52.01 Mbit/s

95th percentile per-packet one-way delay: 51.504 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 33.51 Mbit/s

95th percentile per-packet one-way delay: 51.402 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 22.31 Mbit/s

95th percentile per-packet one-way delay: 51.490 ms

Loss rate: 1.03%

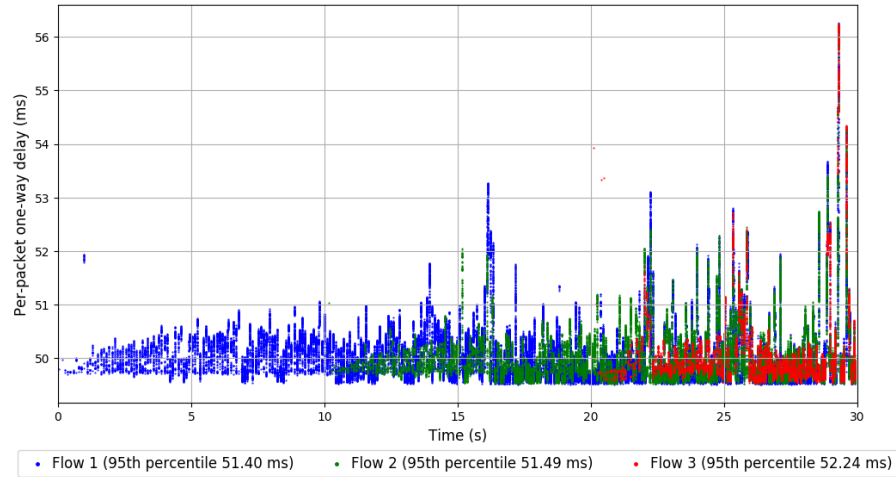
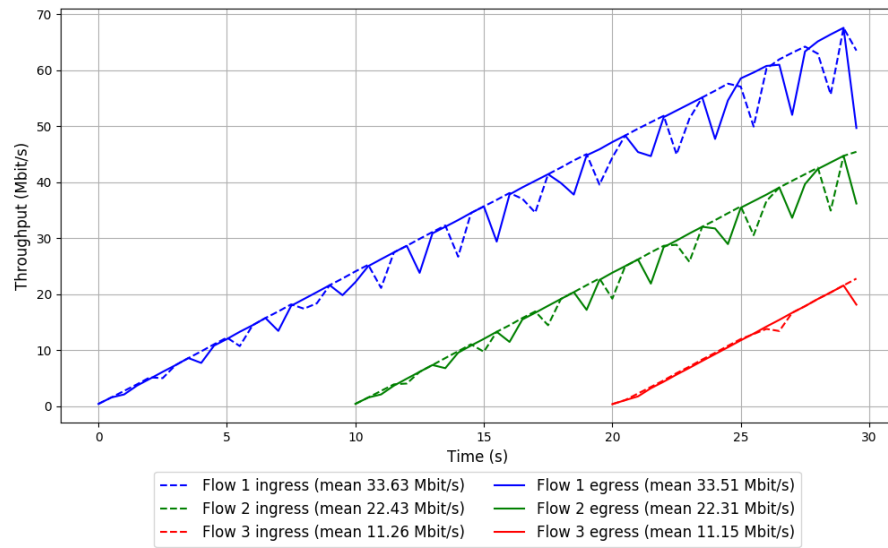
-- Flow 3:

Average throughput: 11.15 Mbit/s

95th percentile per-packet one-way delay: 52.244 ms

Loss rate: 2.08%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-31 17:08:52

End at: 2018-01-31 17:09:22

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.52 Mbit/s

95th percentile per-packet one-way delay: 53.935 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 17.71 Mbit/s

95th percentile per-packet one-way delay: 54.075 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 11.37 Mbit/s

95th percentile per-packet one-way delay: 51.206 ms

Loss rate: 0.94%

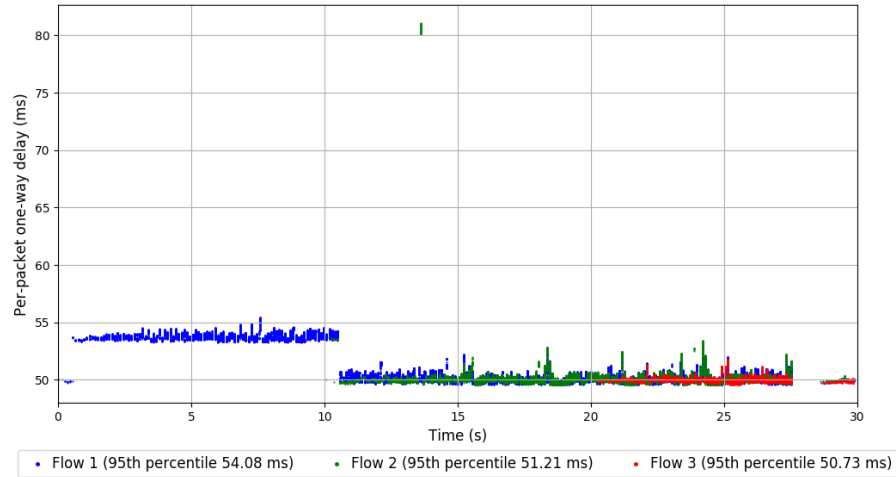
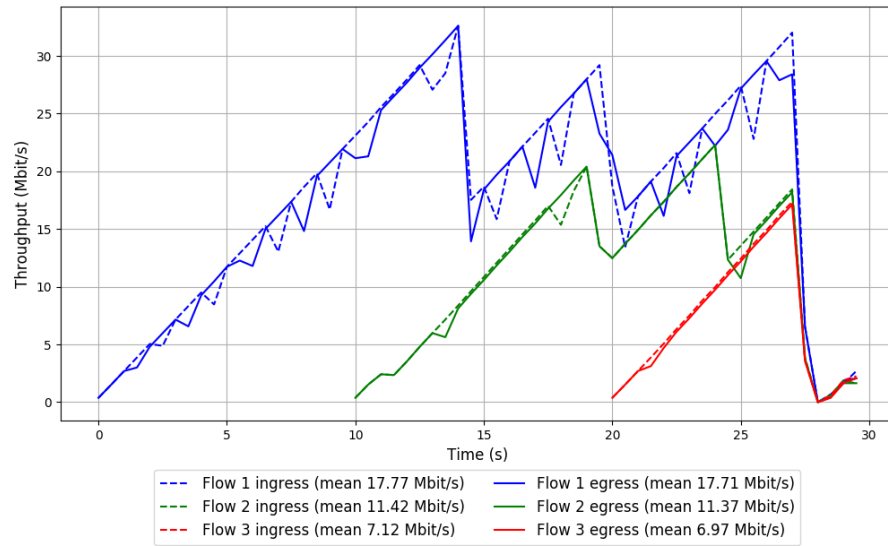
-- Flow 3:

Average throughput: 6.97 Mbit/s

95th percentile per-packet one-way delay: 50.733 ms

Loss rate: 3.03%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-01-31 17:25:39

End at: 2018-01-31 17:26:09

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.76 Mbit/s

95th percentile per-packet one-way delay: 54.125 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 5.57 Mbit/s

95th percentile per-packet one-way delay: 54.102 ms

Loss rate: 2.39%

-- Flow 2:

Average throughput: 4.71 Mbit/s

95th percentile per-packet one-way delay: 54.053 ms

Loss rate: 3.10%

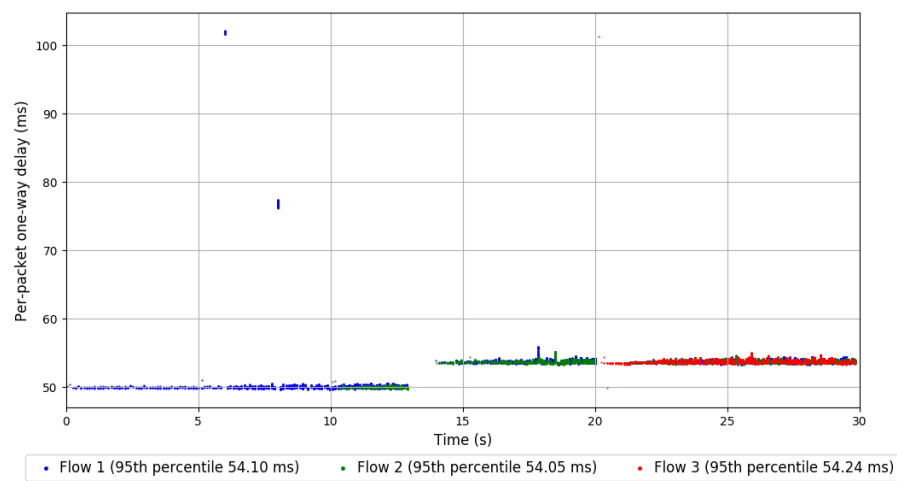
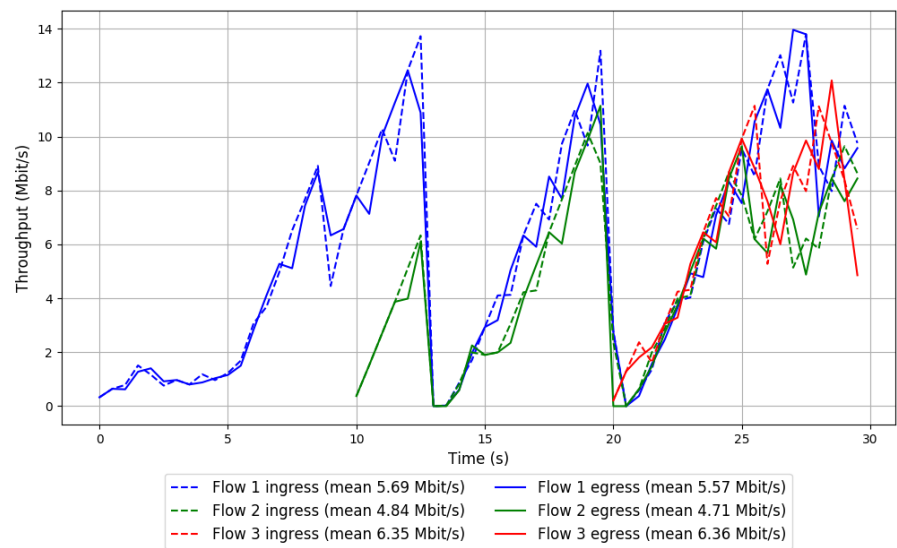
-- Flow 3:

Average throughput: 6.36 Mbit/s

95th percentile per-packet one-way delay: 54.243 ms

Loss rate: 1.37%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-31 17:42:20

End at: 2018-01-31 17:42:50

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.05 Mbit/s

95th percentile per-packet one-way delay: 53.744 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 4.69 Mbit/s

95th percentile per-packet one-way delay: 53.837 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 4.76 Mbit/s

95th percentile per-packet one-way delay: 53.431 ms

Loss rate: 2.95%

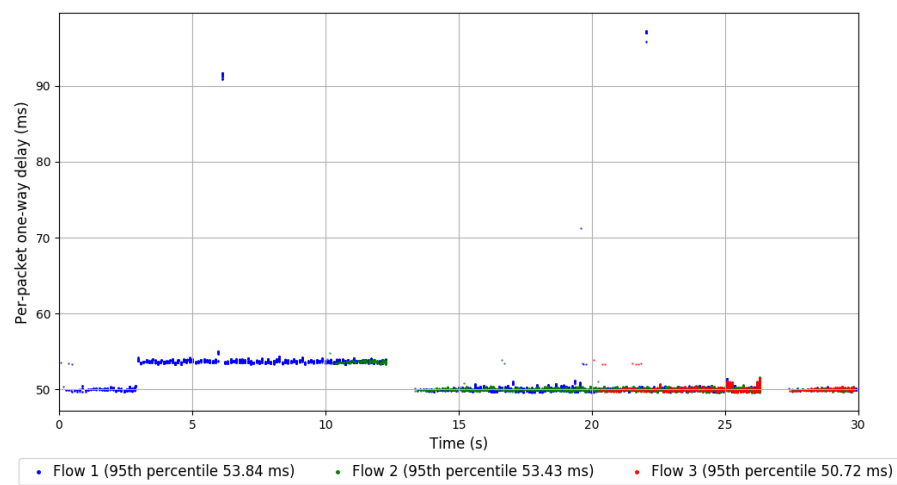
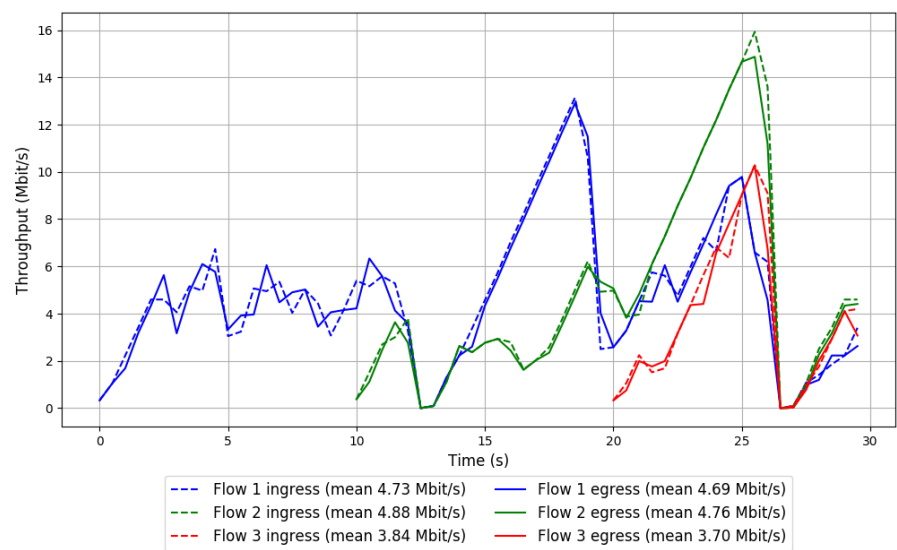
-- Flow 3:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 50.715 ms

Loss rate: 4.59%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-31 17:58:51

End at: 2018-01-31 17:59:21

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.81 Mbit/s

95th percentile per-packet one-way delay: 54.163 ms

Loss rate: 2.30%

-- Flow 1:

Average throughput: 6.92 Mbit/s

95th percentile per-packet one-way delay: 54.203 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 54.115 ms

Loss rate: 3.61%

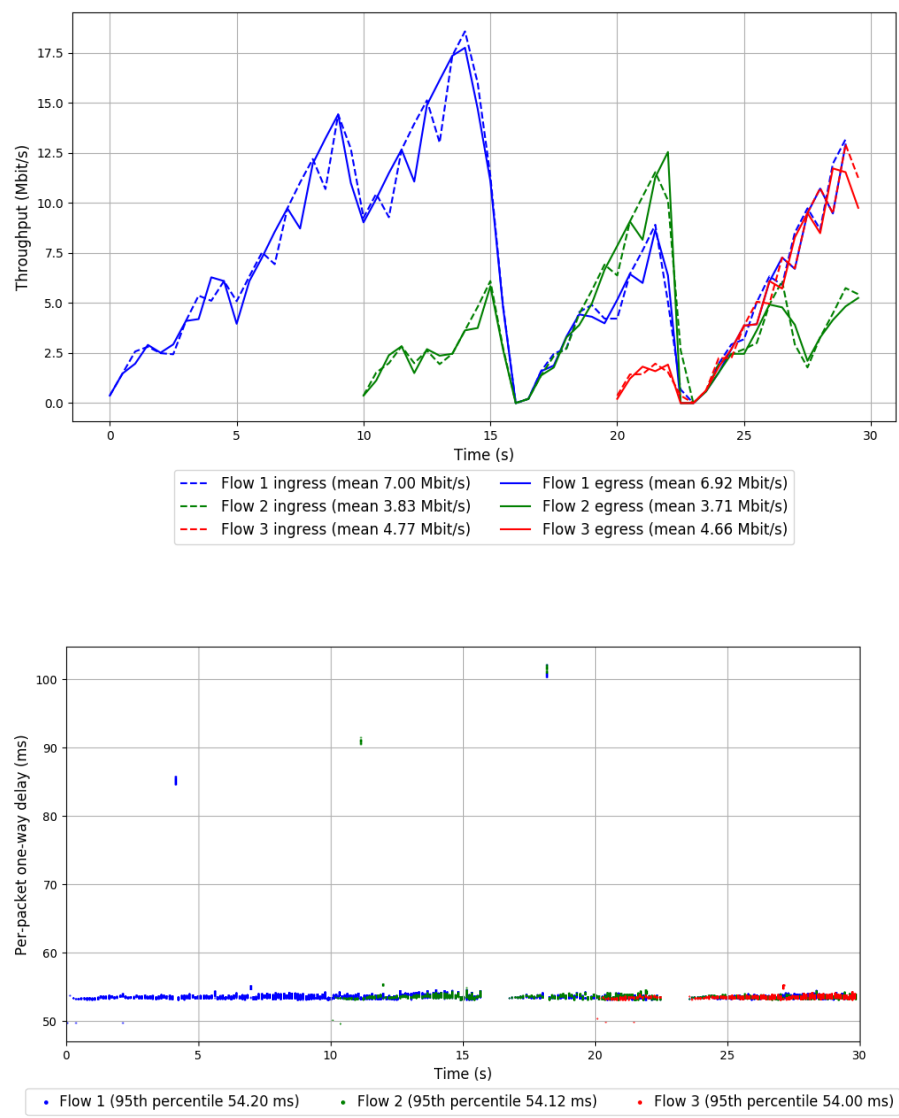
-- Flow 3:

Average throughput: 4.66 Mbit/s

95th percentile per-packet one-way delay: 53.997 ms

Loss rate: 3.46%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-31 18:14:41

End at: 2018-01-31 18:15:11

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.95 Mbit/s

95th percentile per-packet one-way delay: 53.995 ms

Loss rate: 2.00%

-- Flow 1:

Average throughput: 6.97 Mbit/s

95th percentile per-packet one-way delay: 53.986 ms

Loss rate: 1.33%

-- Flow 2:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 53.989 ms

Loss rate: 3.28%

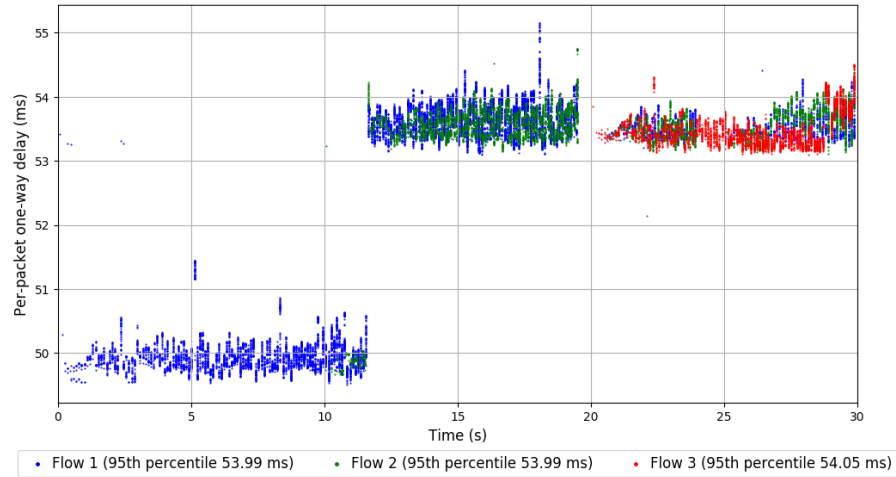
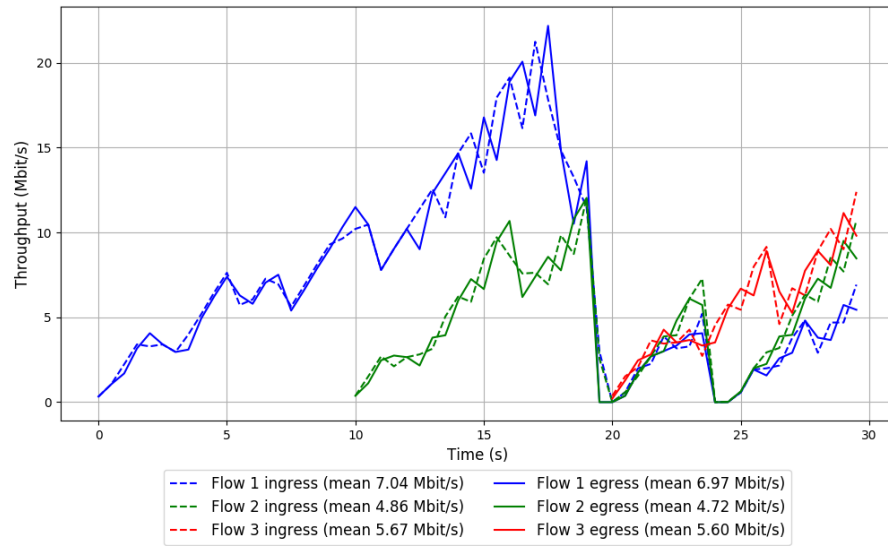
-- Flow 3:

Average throughput: 5.60 Mbit/s

95th percentile per-packet one-way delay: 54.052 ms

Loss rate: 2.29%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-31 18:31:21

End at: 2018-01-31 18:31:51

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.19 Mbit/s

95th percentile per-packet one-way delay: 53.939 ms

Loss rate: 2.76%

-- Flow 1:

Average throughput: 6.06 Mbit/s

95th percentile per-packet one-way delay: 53.945 ms

Loss rate: 2.34%

-- Flow 2:

Average throughput: 3.41 Mbit/s

95th percentile per-packet one-way delay: 54.014 ms

Loss rate: 3.61%

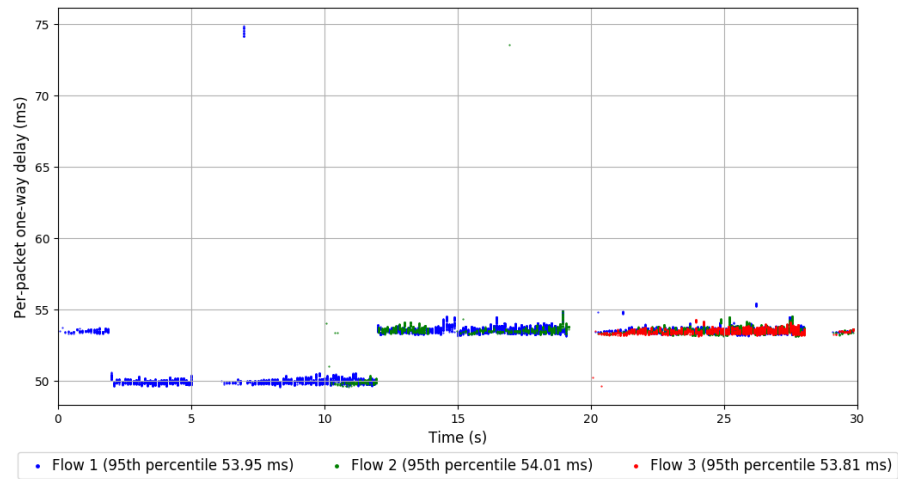
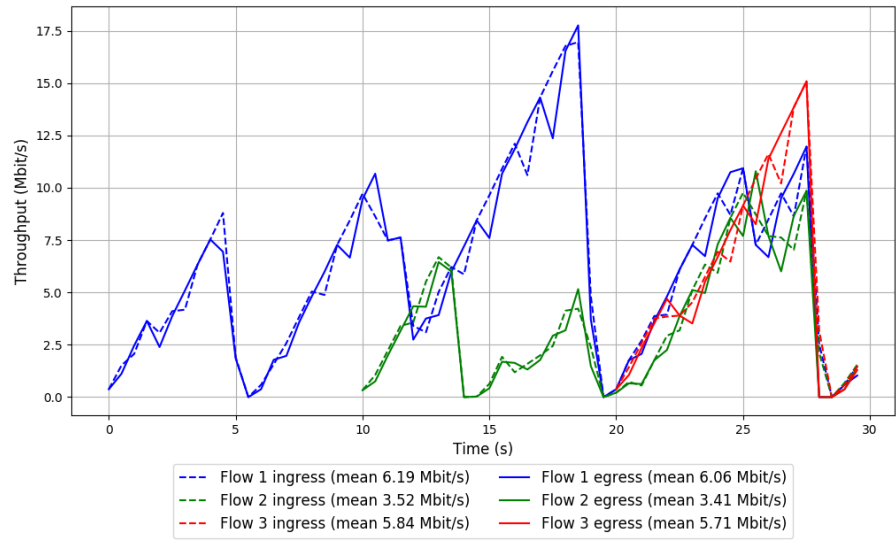
-- Flow 3:

Average throughput: 5.71 Mbit/s

95th percentile per-packet one-way delay: 53.815 ms

Loss rate: 3.10%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-01-31 18:47:50

End at: 2018-01-31 18:48:20

Below is generated by plot.py at 2018-01-31 22:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.50 Mbit/s

95th percentile per-packet one-way delay: 53.887 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 11.69 Mbit/s

95th percentile per-packet one-way delay: 54.008 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 10.35 Mbit/s

95th percentile per-packet one-way delay: 51.494 ms

Loss rate: 1.06%

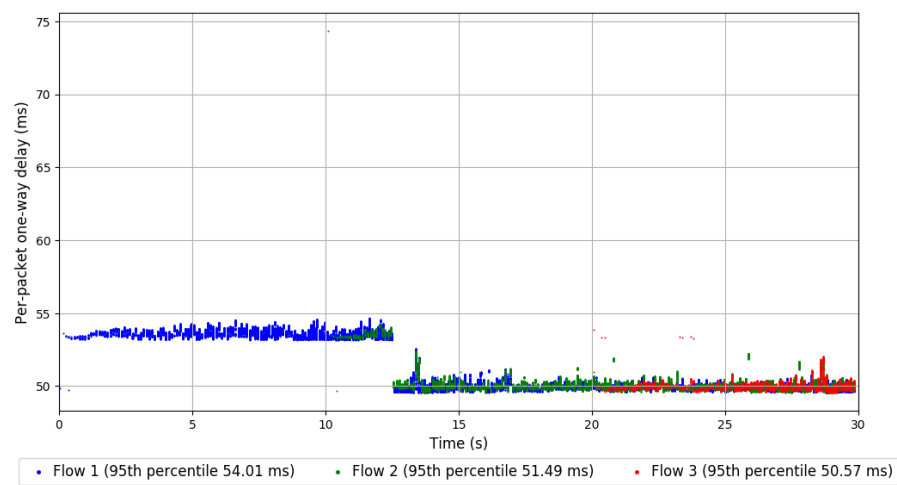
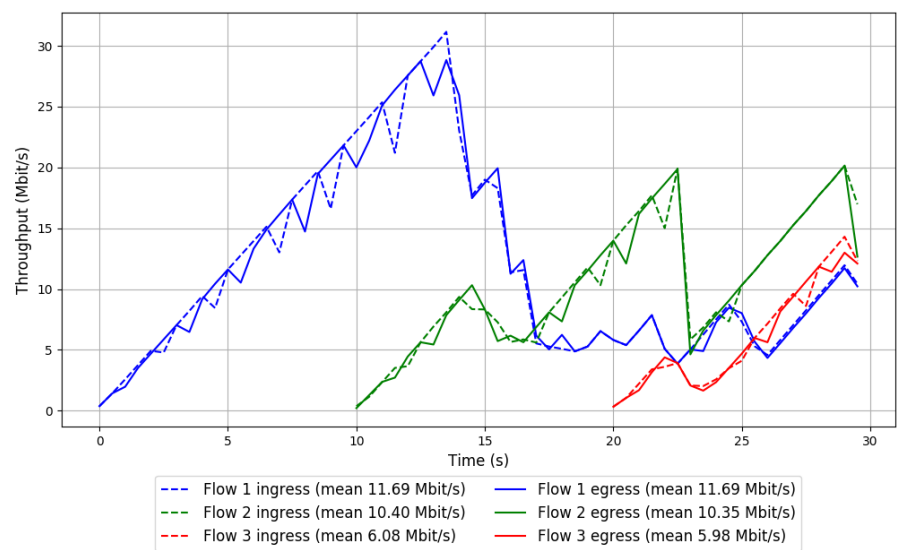
-- Flow 3:

Average throughput: 5.98 Mbit/s

95th percentile per-packet one-way delay: 50.573 ms

Loss rate: 2.64%

Run 10: Report of LEDBAT — Data Link

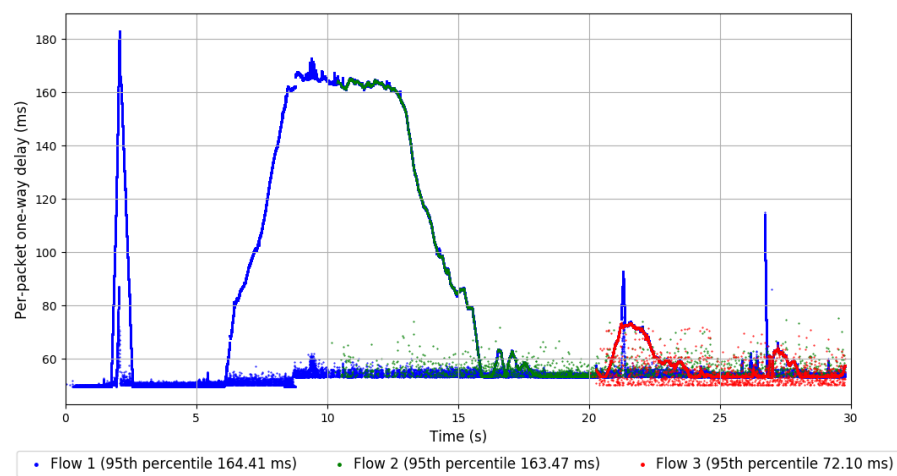
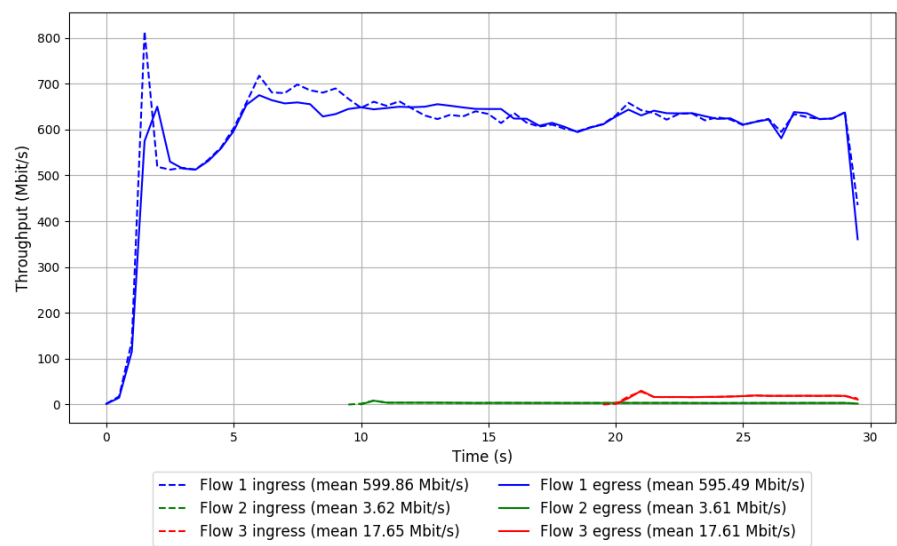


```
Run 1: Statistics of PCC

Start at: 2018-01-31 16:16:04
End at: 2018-01-31 16:16:34

# Below is generated by plot.py at 2018-01-31 22:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 603.61 Mbit/s
95th percentile per-packet one-way delay: 164.382 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 595.49 Mbit/s
95th percentile per-packet one-way delay: 164.413 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 163.472 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 17.61 Mbit/s
95th percentile per-packet one-way delay: 72.101 ms
Loss rate: 1.24%
```

Run 1: Report of PCC — Data Link

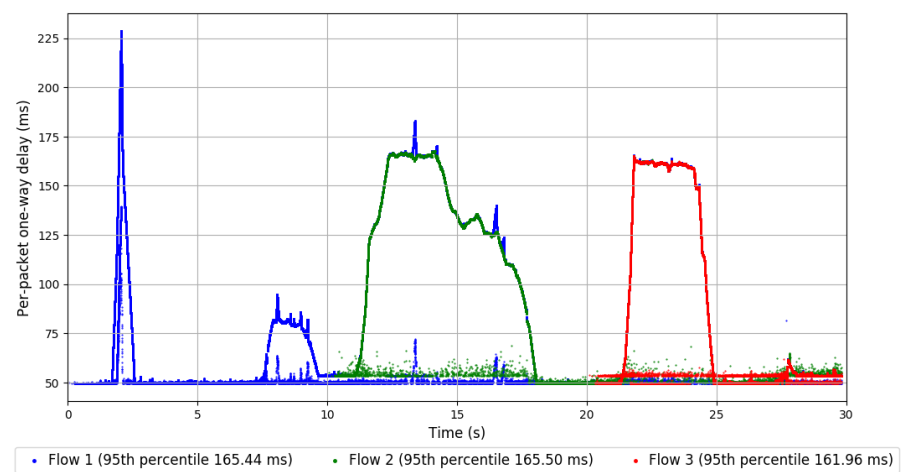
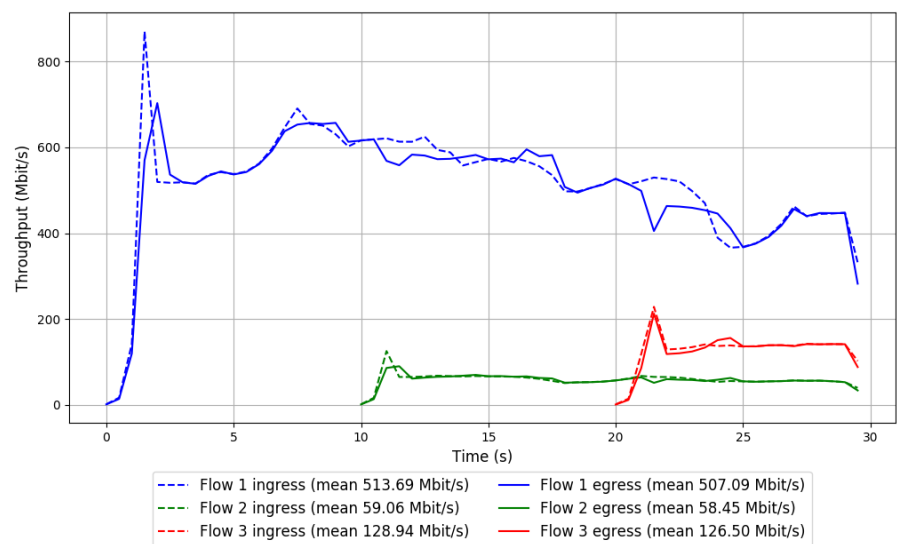


```
Run 2: Statistics of PCC

Start at: 2018-01-31 16:32:35
End at: 2018-01-31 16:33:05

# Below is generated by plot.py at 2018-01-31 22:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 587.13 Mbit/s
95th percentile per-packet one-way delay: 165.361 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 507.09 Mbit/s
95th percentile per-packet one-way delay: 165.440 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 58.45 Mbit/s
95th percentile per-packet one-way delay: 165.498 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 126.50 Mbit/s
95th percentile per-packet one-way delay: 161.964 ms
Loss rate: 2.96%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-31 16:48:39

End at: 2018-01-31 16:49:09

Below is generated by plot.py at 2018-01-31 22:19:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 596.44 Mbit/s

95th percentile per-packet one-way delay: 167.158 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 548.87 Mbit/s

95th percentile per-packet one-way delay: 167.131 ms

Loss rate: 1.54%

-- Flow 2:

Average throughput: 63.38 Mbit/s

95th percentile per-packet one-way delay: 167.248 ms

Loss rate: 1.33%

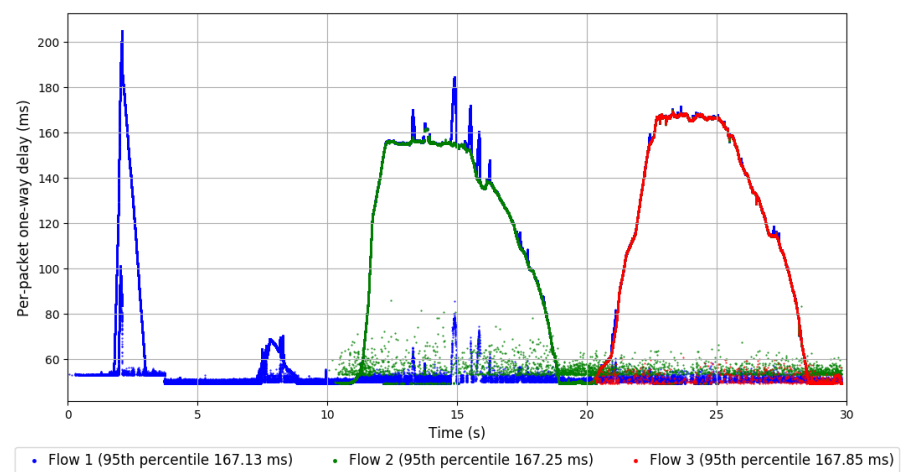
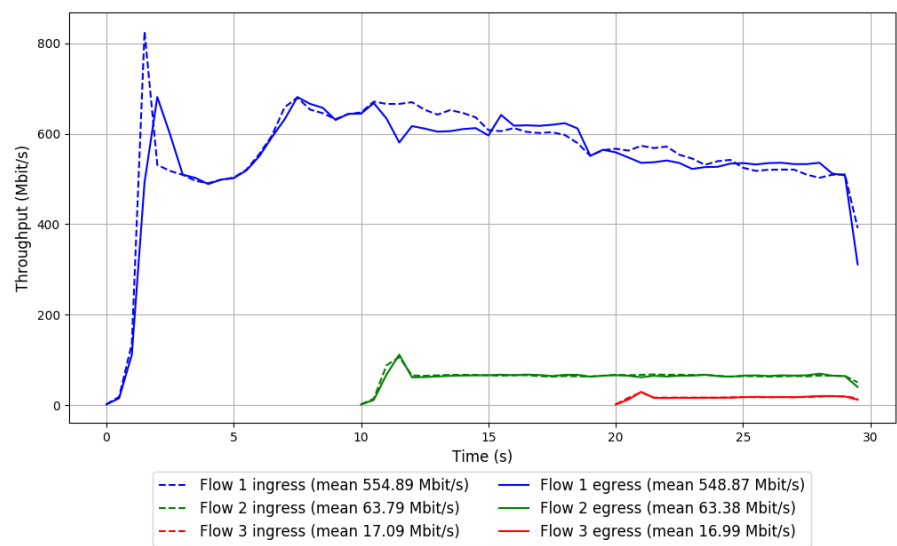
-- Flow 3:

Average throughput: 16.99 Mbit/s

95th percentile per-packet one-way delay: 167.853 ms

Loss rate: 1.92%

Run 3: Report of PCC — Data Link

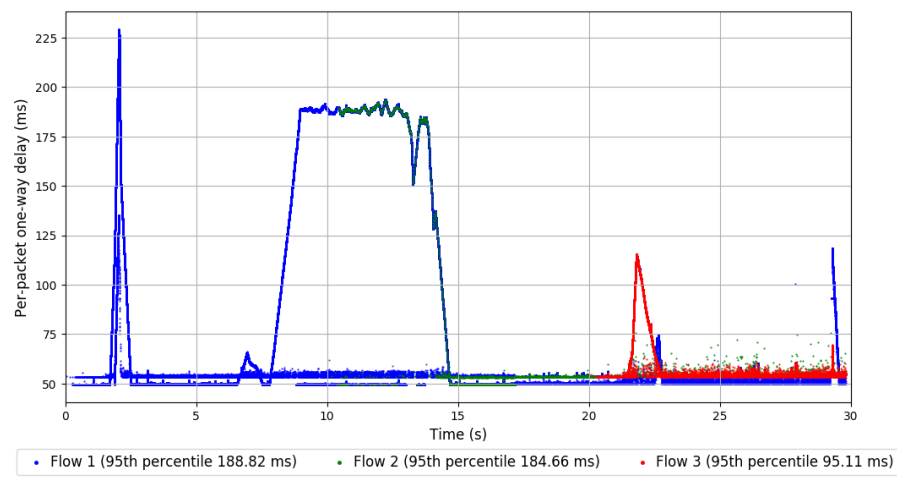
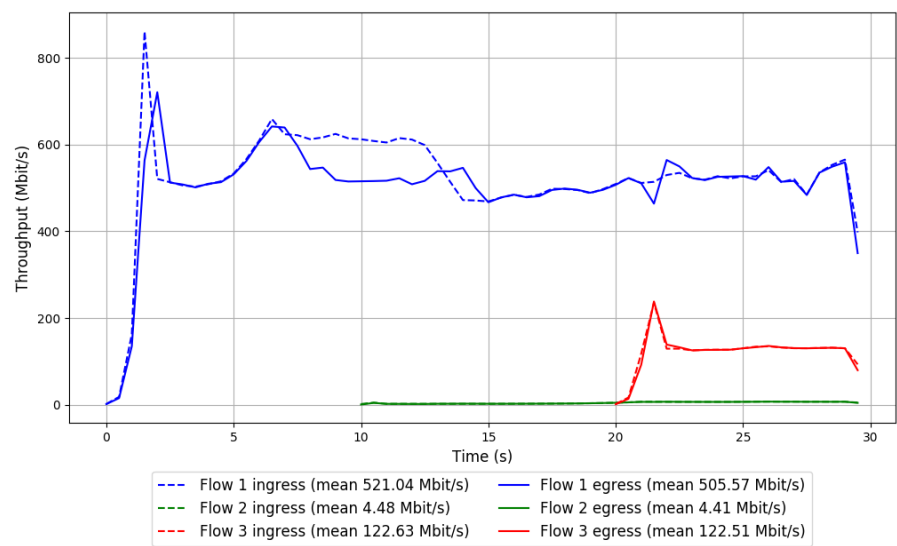


```
Run 4: Statistics of PCC

Start at: 2018-01-31 17:05:15
End at: 2018-01-31 17:05:45

# Below is generated by plot.py at 2018-01-31 22:19:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.53 Mbit/s
95th percentile per-packet one-way delay: 188.722 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 505.57 Mbit/s
95th percentile per-packet one-way delay: 188.825 ms
Loss rate: 3.31%
-- Flow 2:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 184.663 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 122.51 Mbit/s
95th percentile per-packet one-way delay: 95.111 ms
Loss rate: 1.16%
```

Run 4: Report of PCC — Data Link

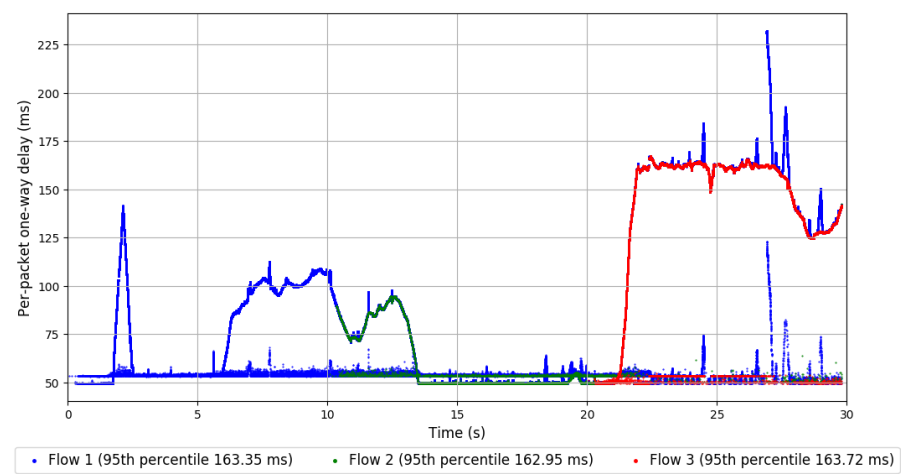
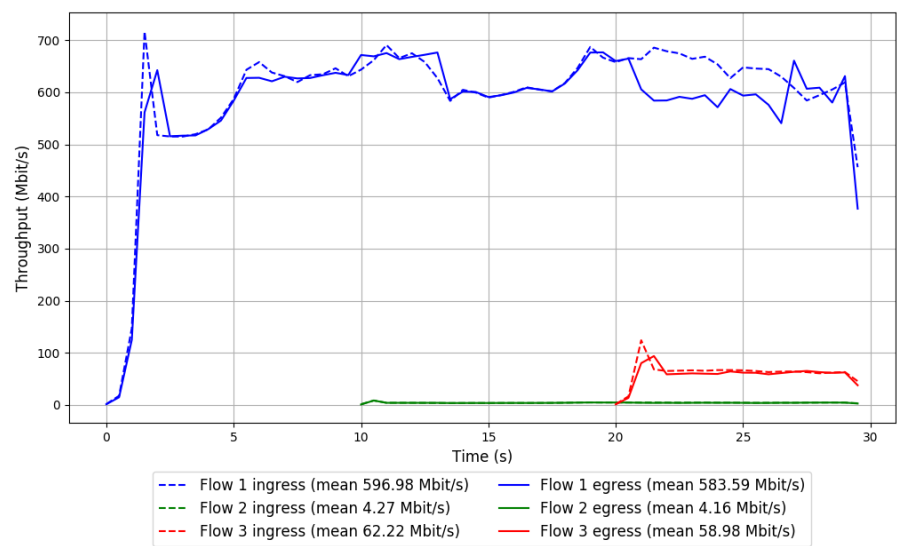


```
Run 5: Statistics of PCC

Start at: 2018-01-31 17:22:10
End at: 2018-01-31 17:22:40

# Below is generated by plot.py at 2018-01-31 22:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 605.60 Mbit/s
95th percentile per-packet one-way delay: 163.376 ms
Loss rate: 2.71%
-- Flow 1:
Average throughput: 583.59 Mbit/s
95th percentile per-packet one-way delay: 163.347 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 162.948 ms
Loss rate: 2.94%
-- Flow 3:
Average throughput: 58.98 Mbit/s
95th percentile per-packet one-way delay: 163.724 ms
Loss rate: 6.20%
```

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-31 17:38:46

End at: 2018-01-31 17:39:16

Below is generated by plot.py at 2018-01-31 22:20:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 594.53 Mbit/s

95th percentile per-packet one-way delay: 158.748 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 551.67 Mbit/s

95th percentile per-packet one-way delay: 158.800 ms

Loss rate: 1.29%

-- Flow 2:

Average throughput: 56.65 Mbit/s

95th percentile per-packet one-way delay: 158.495 ms

Loss rate: 1.05%

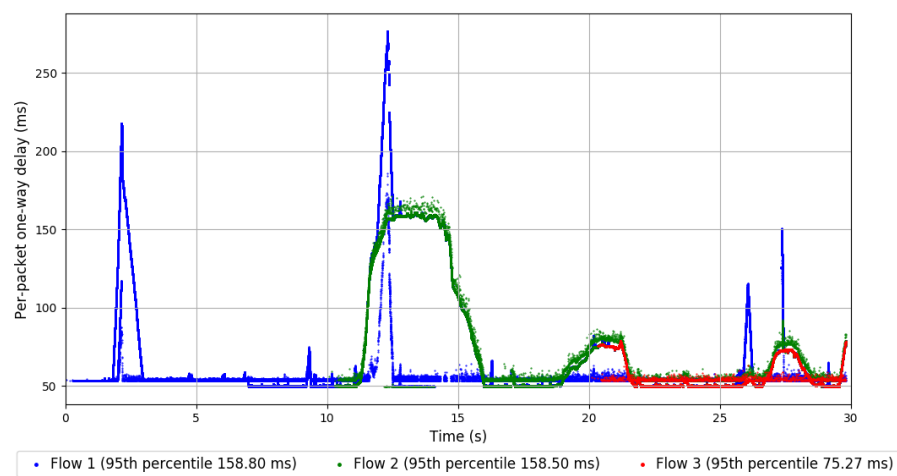
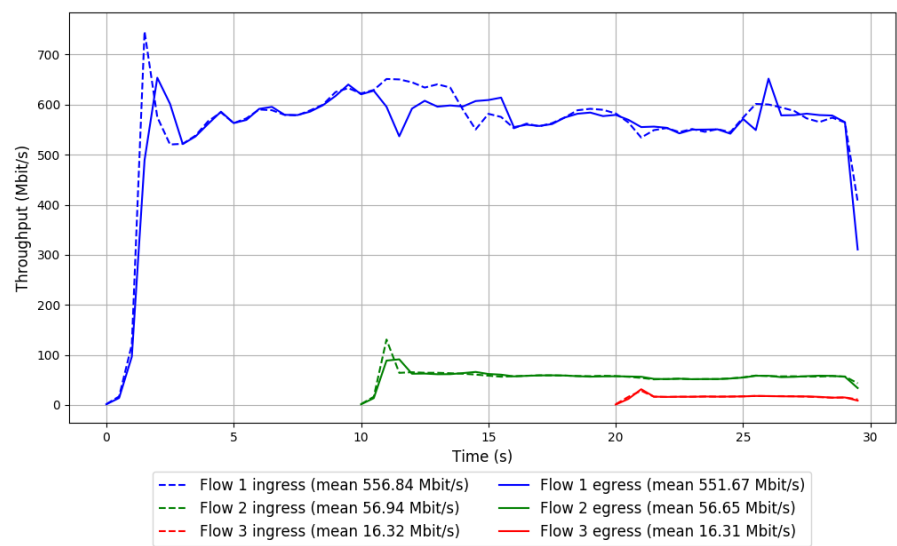
-- Flow 3:

Average throughput: 16.31 Mbit/s

95th percentile per-packet one-way delay: 75.266 ms

Loss rate: 1.21%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-01-31 17:55:23

End at: 2018-01-31 17:55:53

Below is generated by plot.py at 2018-01-31 22:20:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 597.59 Mbit/s

95th percentile per-packet one-way delay: 167.306 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 504.00 Mbit/s

95th percentile per-packet one-way delay: 169.640 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 133.07 Mbit/s

95th percentile per-packet one-way delay: 164.728 ms

Loss rate: 1.50%

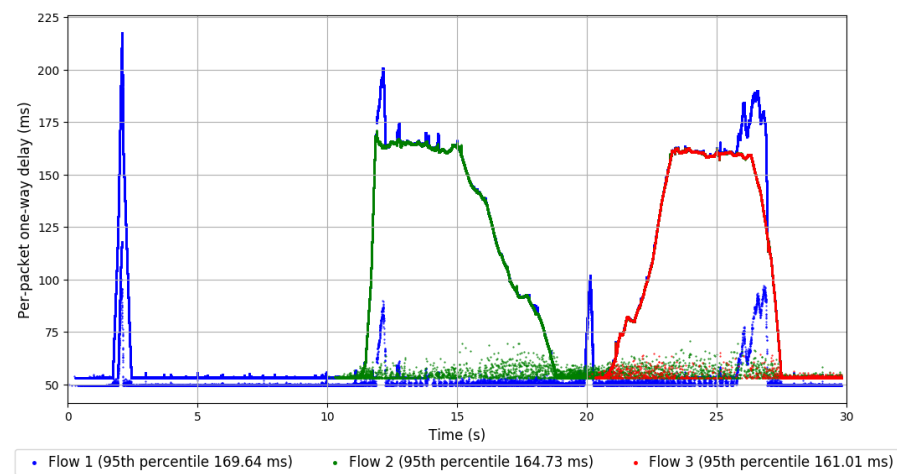
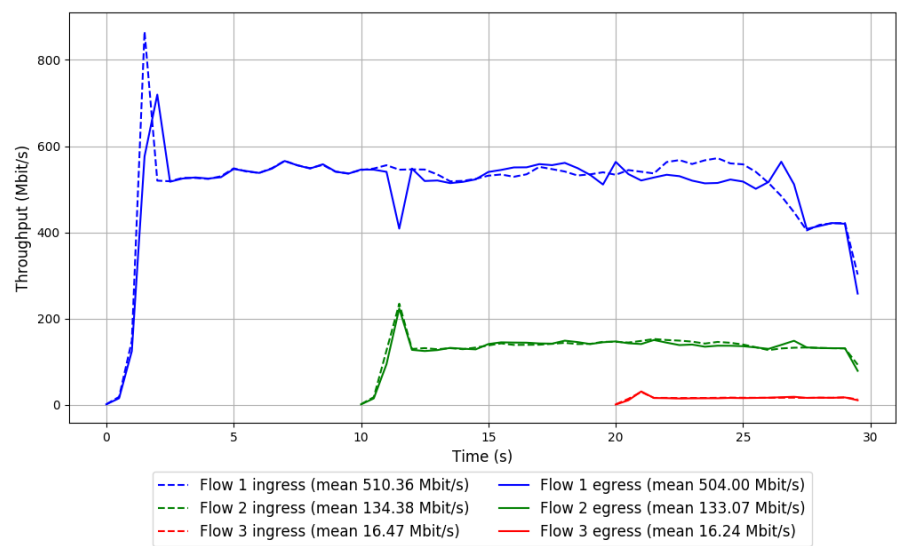
-- Flow 3:

Average throughput: 16.24 Mbit/s

95th percentile per-packet one-way delay: 161.011 ms

Loss rate: 2.42%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-31 18:11:22

End at: 2018-01-31 18:11:52

Below is generated by plot.py at 2018-01-31 22:21:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 618.42 Mbit/s

95th percentile per-packet one-way delay: 161.179 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 578.06 Mbit/s

95th percentile per-packet one-way delay: 161.096 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 30.42 Mbit/s

95th percentile per-packet one-way delay: 161.402 ms

Loss rate: 1.23%

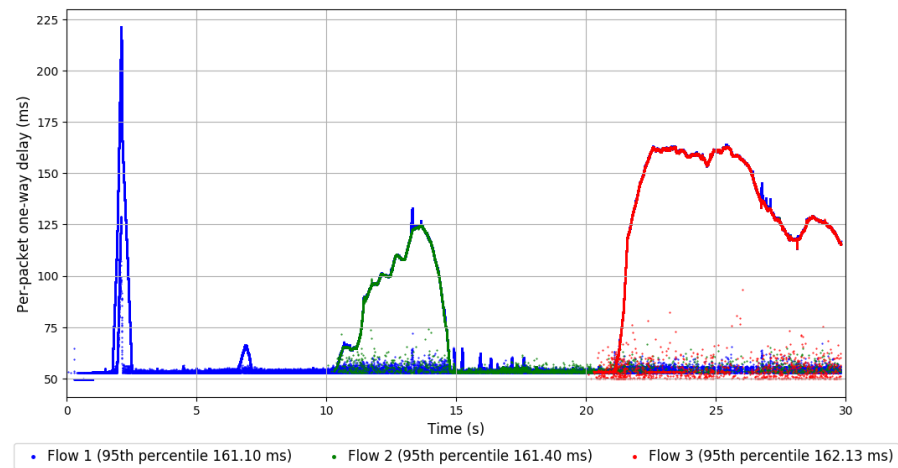
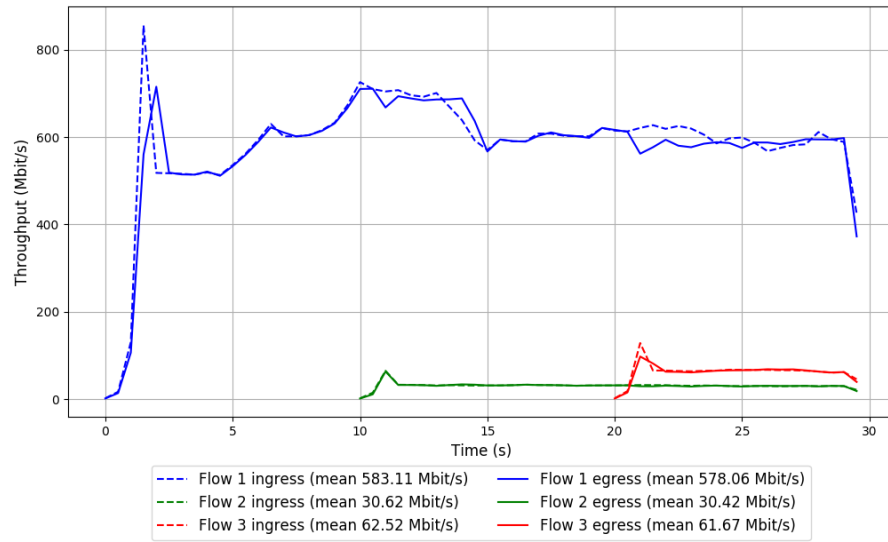
-- Flow 3:

Average throughput: 61.67 Mbit/s

95th percentile per-packet one-way delay: 162.130 ms

Loss rate: 2.43%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-31 18:28:02

End at: 2018-01-31 18:28:32

Below is generated by plot.py at 2018-01-31 22:28:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 547.84 Mbit/s

95th percentile per-packet one-way delay: 186.064 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 505.48 Mbit/s

95th percentile per-packet one-way delay: 186.010 ms

Loss rate: 1.54%

-- Flow 2:

Average throughput: 62.96 Mbit/s

95th percentile per-packet one-way delay: 186.578 ms

Loss rate: 1.63%

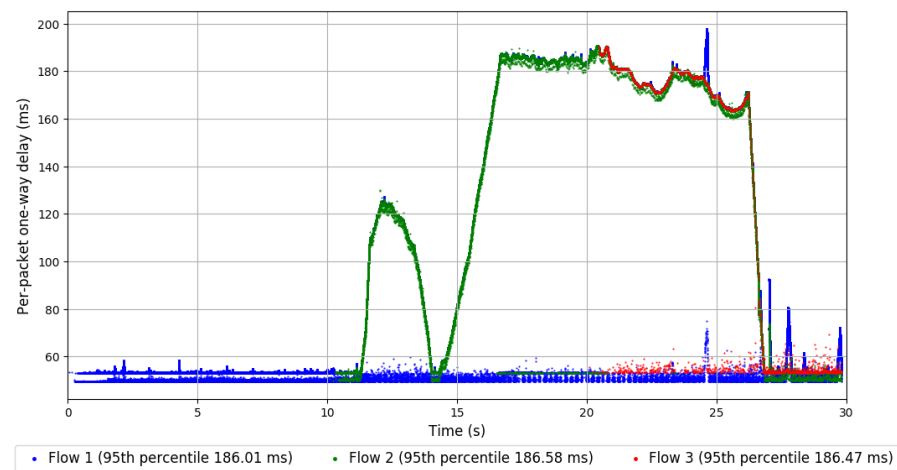
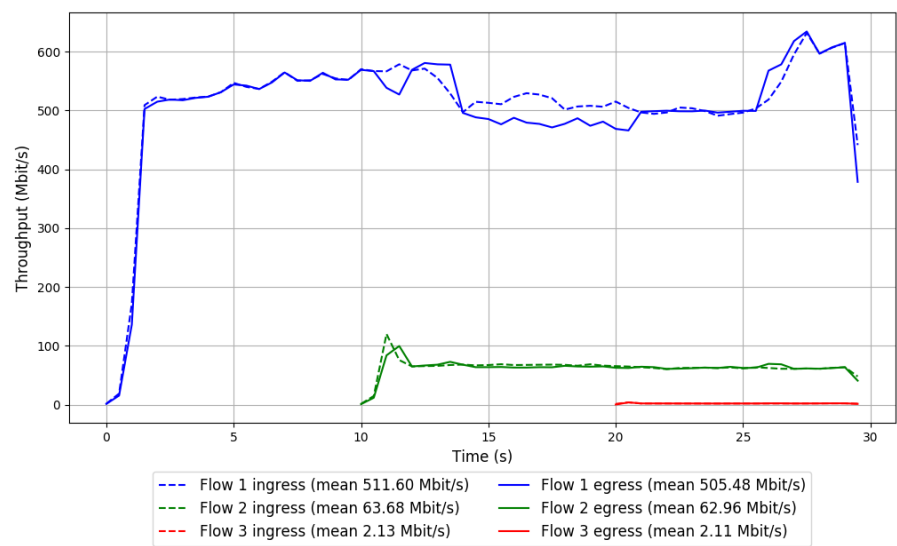
-- Flow 3:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 186.467 ms

Loss rate: 2.09%

Run 9: Report of PCC — Data Link

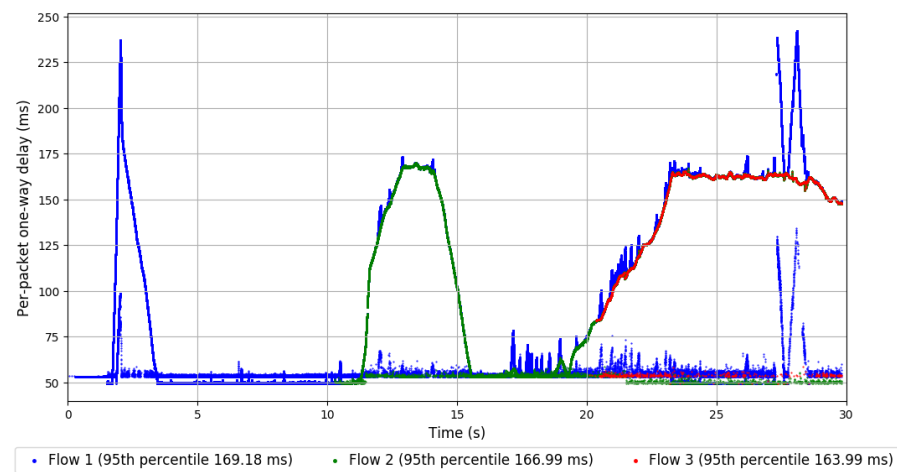
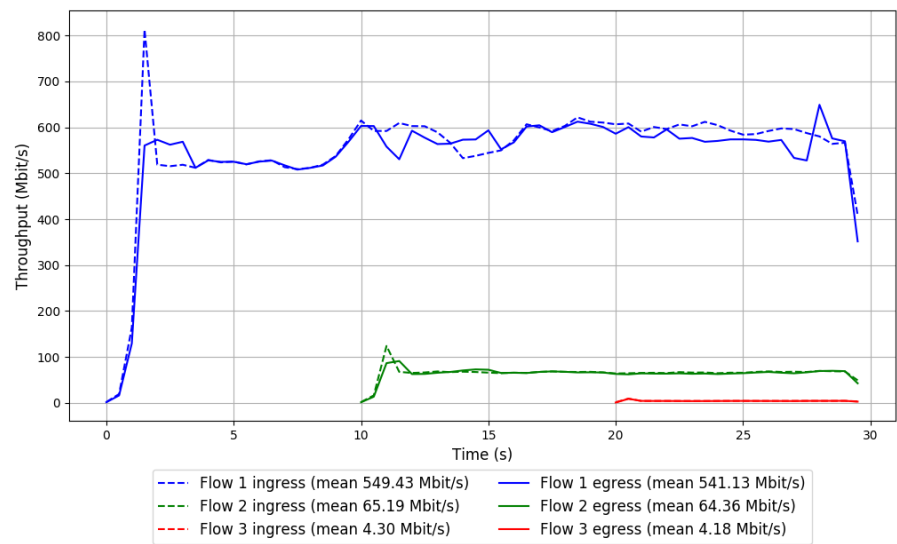


```
Run 10: Statistics of PCC

Start at: 2018-01-31 18:44:31
End at: 2018-01-31 18:45:01

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.21 Mbit/s
95th percentile per-packet one-way delay: 168.839 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 541.13 Mbit/s
95th percentile per-packet one-way delay: 169.175 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 64.36 Mbit/s
95th percentile per-packet one-way delay: 166.991 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 163.992 ms
Loss rate: 3.77%
```

Run 10: Report of PCC — Data Link

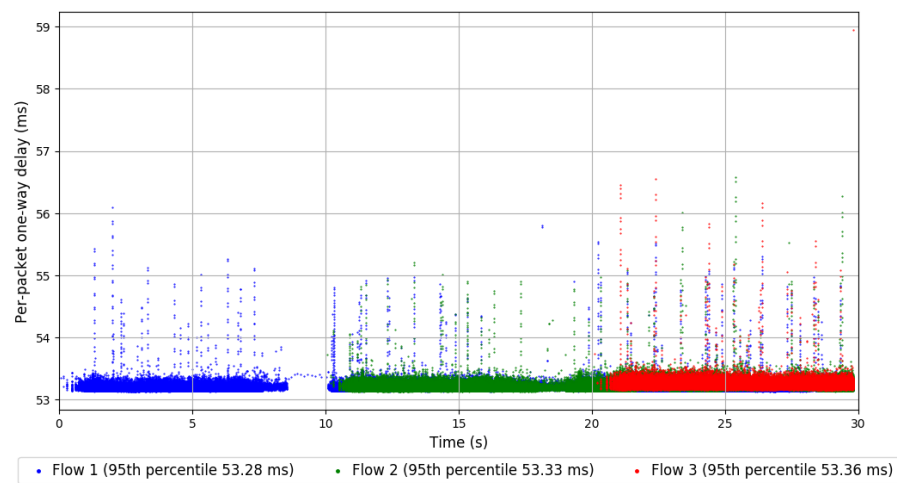
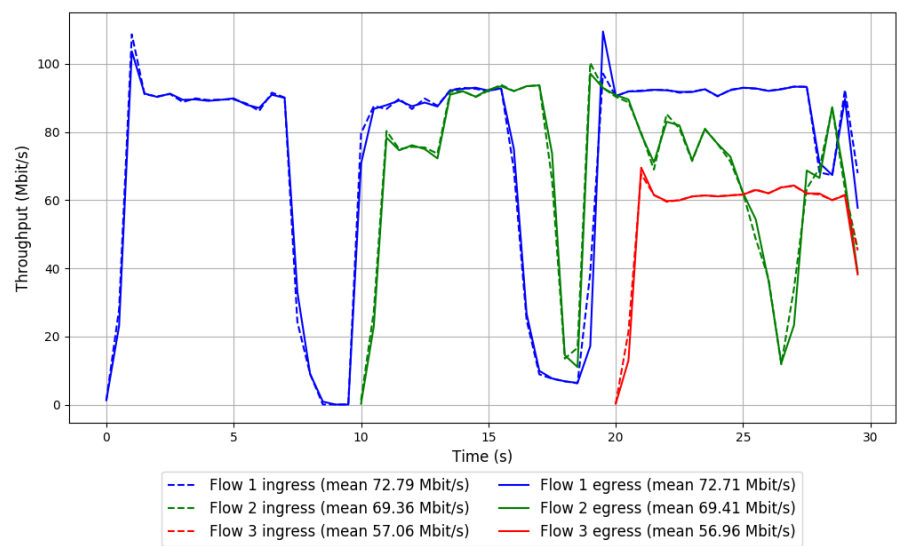


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-31 16:20:07
End at: 2018-01-31 16:20:37

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.32 Mbit/s
95th percentile per-packet one-way delay: 53.318 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 72.71 Mbit/s
95th percentile per-packet one-way delay: 53.281 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 69.41 Mbit/s
95th percentile per-packet one-way delay: 53.333 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 53.358 ms
Loss rate: 1.21%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-31 16:36:41

End at: 2018-01-31 16:37:11

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.66 Mbit/s

95th percentile per-packet one-way delay: 53.329 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 76.05 Mbit/s

95th percentile per-packet one-way delay: 53.334 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 51.42 Mbit/s

95th percentile per-packet one-way delay: 53.339 ms

Loss rate: 0.27%

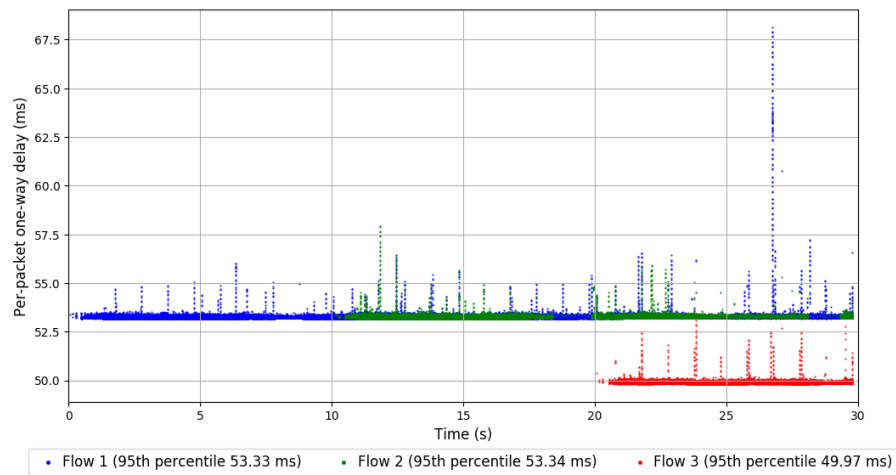
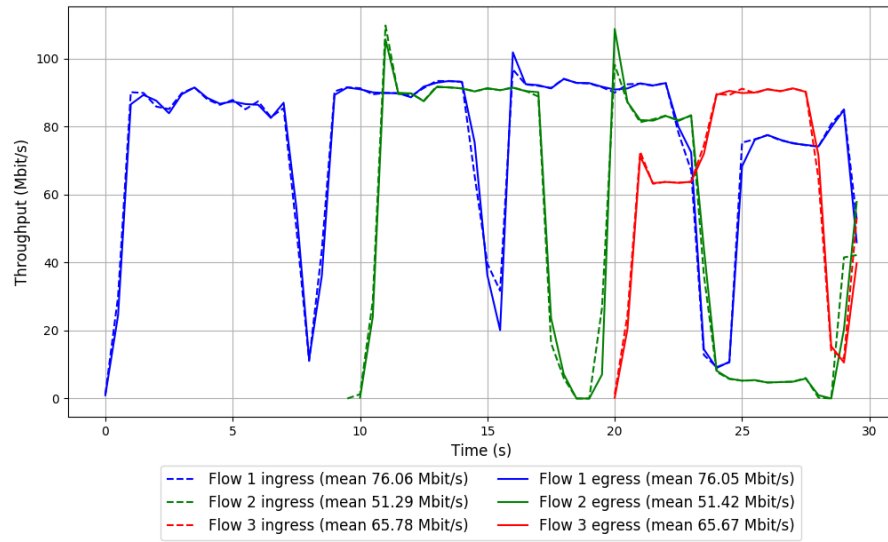
-- Flow 3:

Average throughput: 65.67 Mbit/s

95th percentile per-packet one-way delay: 49.974 ms

Loss rate: 1.19%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-31 16:52:45

End at: 2018-01-31 16:53:15

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.33 Mbit/s

95th percentile per-packet one-way delay: 53.341 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 71.09 Mbit/s

95th percentile per-packet one-way delay: 50.325 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 60.48 Mbit/s

95th percentile per-packet one-way delay: 53.388 ms

Loss rate: 0.80%

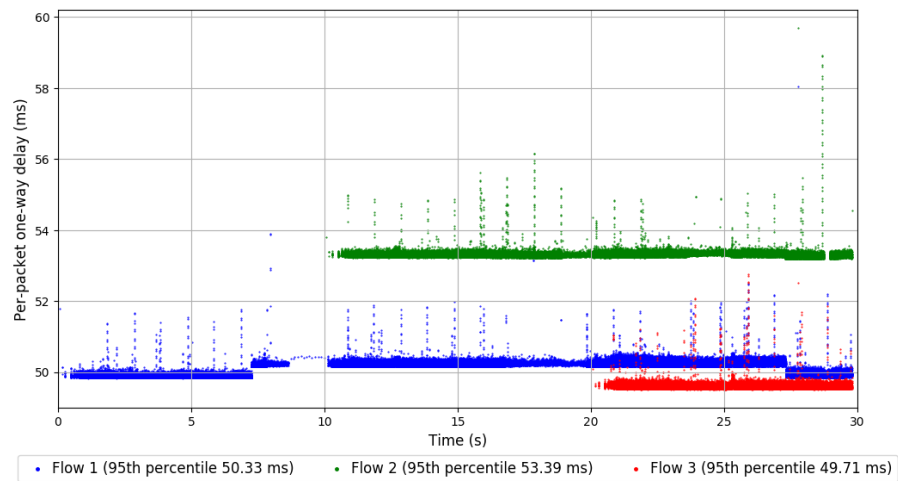
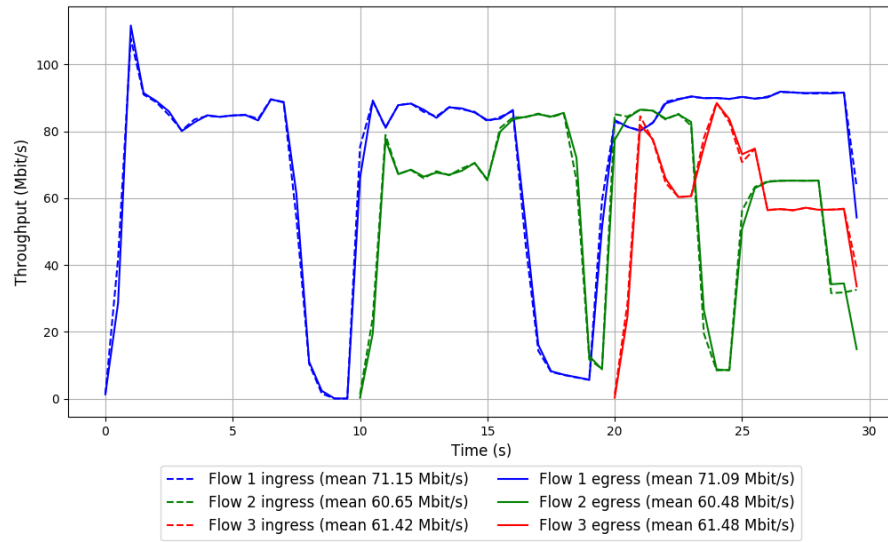
-- Flow 3:

Average throughput: 61.48 Mbit/s

95th percentile per-packet one-way delay: 49.709 ms

Loss rate: 0.93%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-31 17:09:34

End at: 2018-01-31 17:10:04

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.42 Mbit/s

95th percentile per-packet one-way delay: 53.298 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 71.81 Mbit/s

95th percentile per-packet one-way delay: 53.311 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 61.80 Mbit/s

95th percentile per-packet one-way delay: 53.287 ms

Loss rate: 0.05%

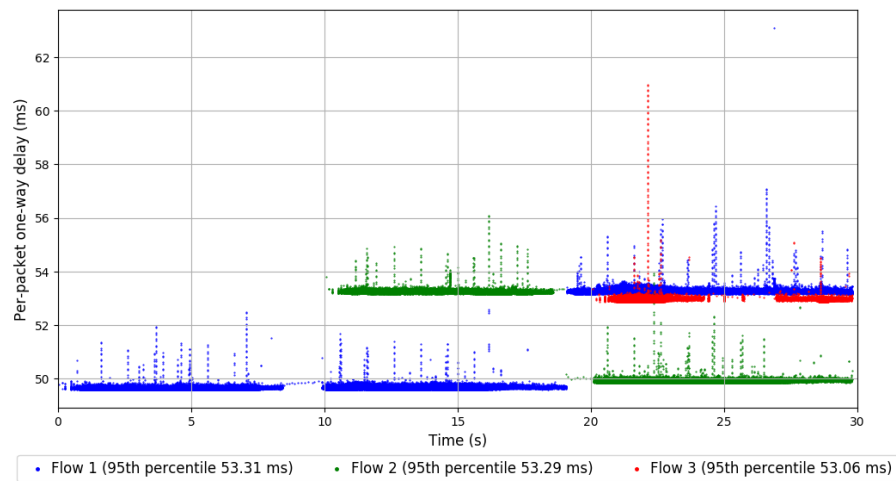
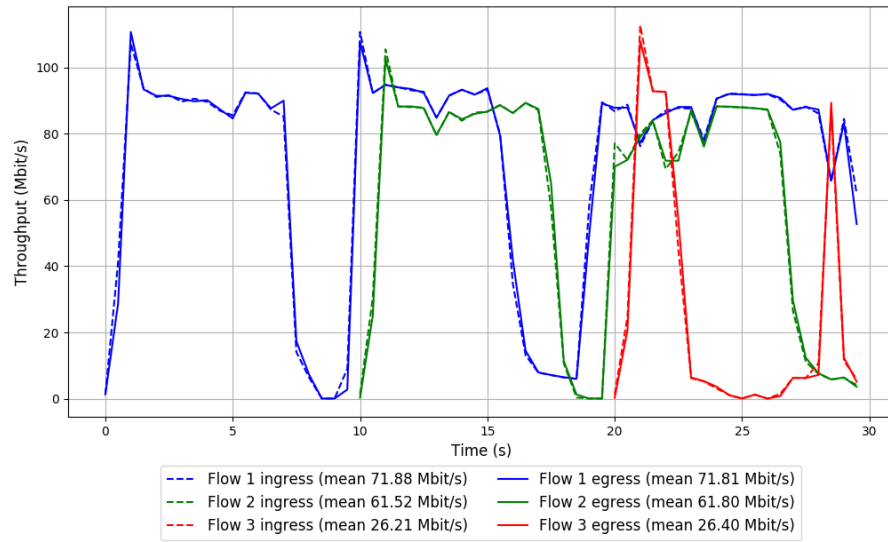
-- Flow 3:

Average throughput: 26.40 Mbit/s

95th percentile per-packet one-way delay: 53.064 ms

Loss rate: 0.34%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-31 17:26:19

End at: 2018-01-31 17:26:49

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.23 Mbit/s

95th percentile per-packet one-way delay: 53.324 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 60.26 Mbit/s

95th percentile per-packet one-way delay: 53.254 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 66.70 Mbit/s

95th percentile per-packet one-way delay: 53.344 ms

Loss rate: 0.48%

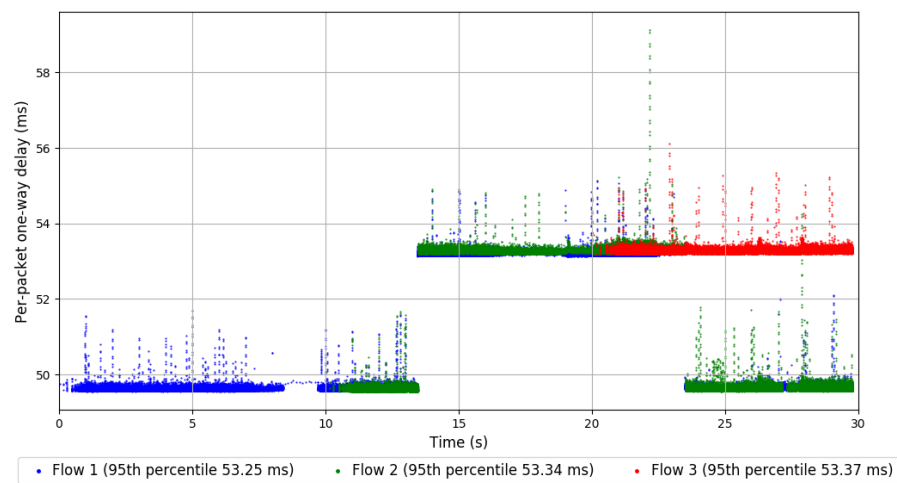
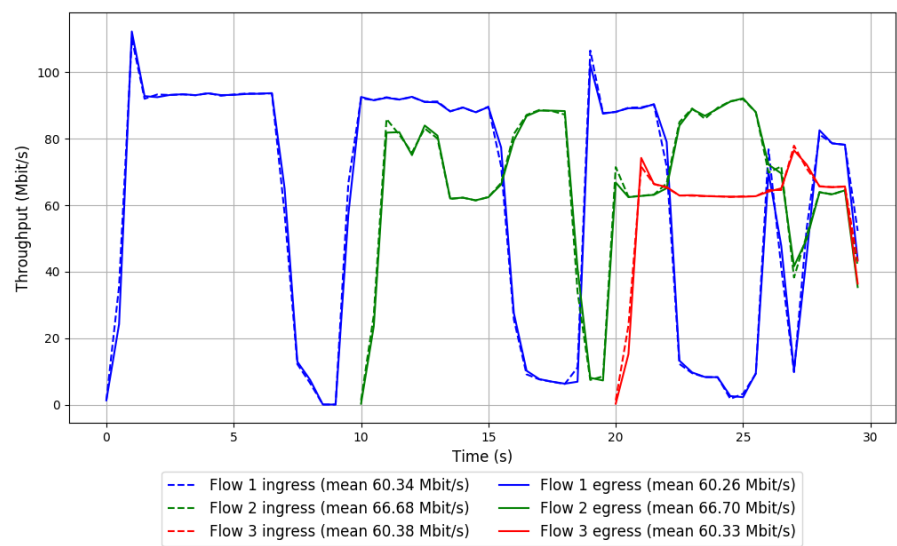
-- Flow 3:

Average throughput: 60.33 Mbit/s

95th percentile per-packet one-way delay: 53.370 ms

Loss rate: 1.14%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-31 17:43:00

End at: 2018-01-31 17:43:30

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.54 Mbit/s

95th percentile per-packet one-way delay: 53.254 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 63.06 Mbit/s

95th percentile per-packet one-way delay: 49.987 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 62.11 Mbit/s

95th percentile per-packet one-way delay: 50.066 ms

Loss rate: 0.07%

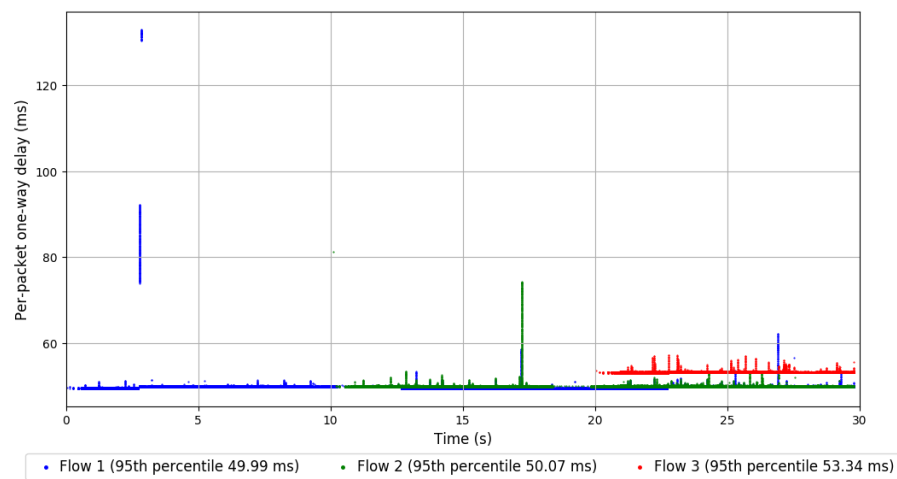
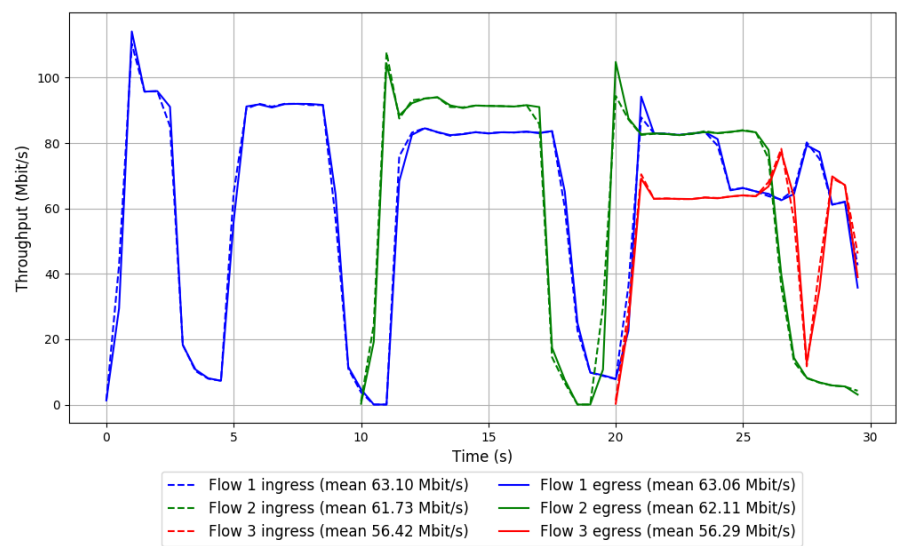
-- Flow 3:

Average throughput: 56.29 Mbit/s

95th percentile per-packet one-way delay: 53.340 ms

Loss rate: 1.30%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-31 17:59:31

End at: 2018-01-31 18:00:01

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.54 Mbit/s

95th percentile per-packet one-way delay: 53.229 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 64.19 Mbit/s

95th percentile per-packet one-way delay: 52.946 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 64.77 Mbit/s

95th percentile per-packet one-way delay: 53.275 ms

Loss rate: 0.57%

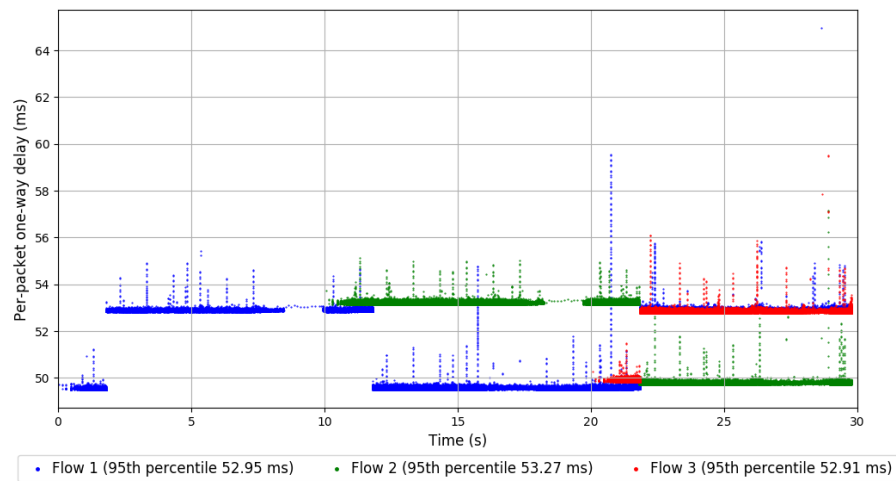
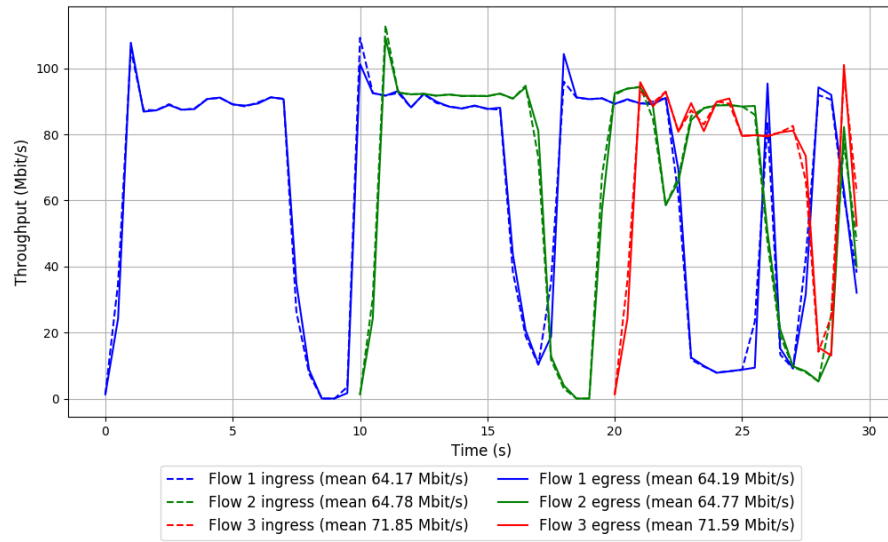
-- Flow 3:

Average throughput: 71.59 Mbit/s

95th percentile per-packet one-way delay: 52.914 ms

Loss rate: 1.42%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-31 18:15:21

End at: 2018-01-31 18:15:51

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.80 Mbit/s

95th percentile per-packet one-way delay: 53.180 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 62.81 Mbit/s

95th percentile per-packet one-way delay: 52.957 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 49.48 Mbit/s

95th percentile per-packet one-way delay: 53.235 ms

Loss rate: 0.10%

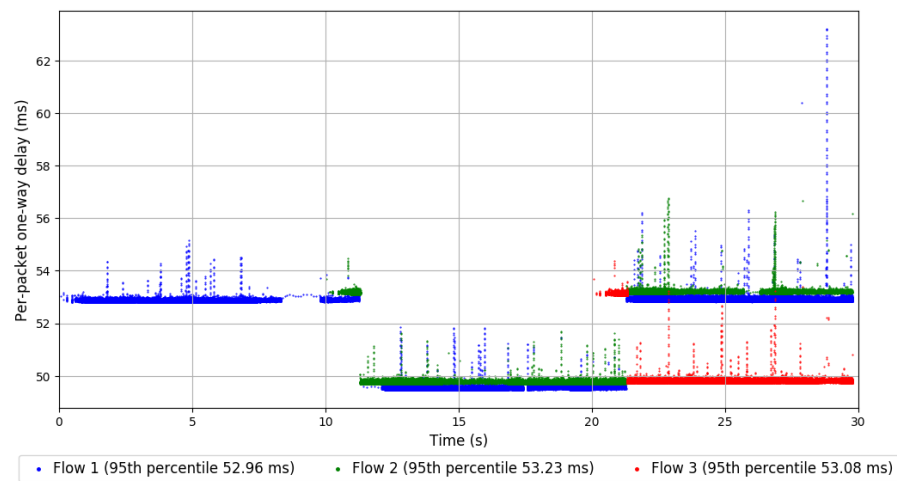
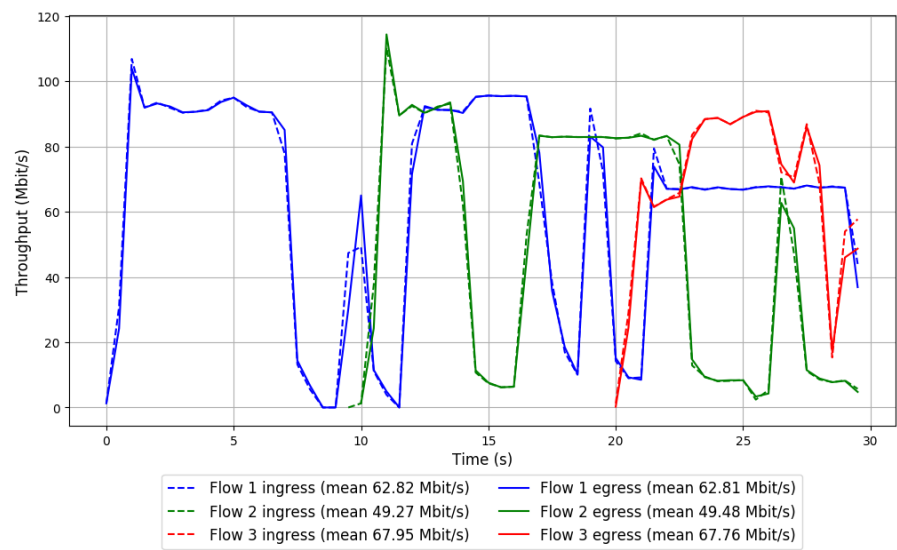
-- Flow 3:

Average throughput: 67.76 Mbit/s

95th percentile per-packet one-way delay: 53.083 ms

Loss rate: 1.36%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-31 18:32:01

End at: 2018-01-31 18:32:31

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.39 Mbit/s

95th percentile per-packet one-way delay: 53.162 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 71.27 Mbit/s

95th percentile per-packet one-way delay: 49.900 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 61.35 Mbit/s

95th percentile per-packet one-way delay: 50.057 ms

Loss rate: 0.04%

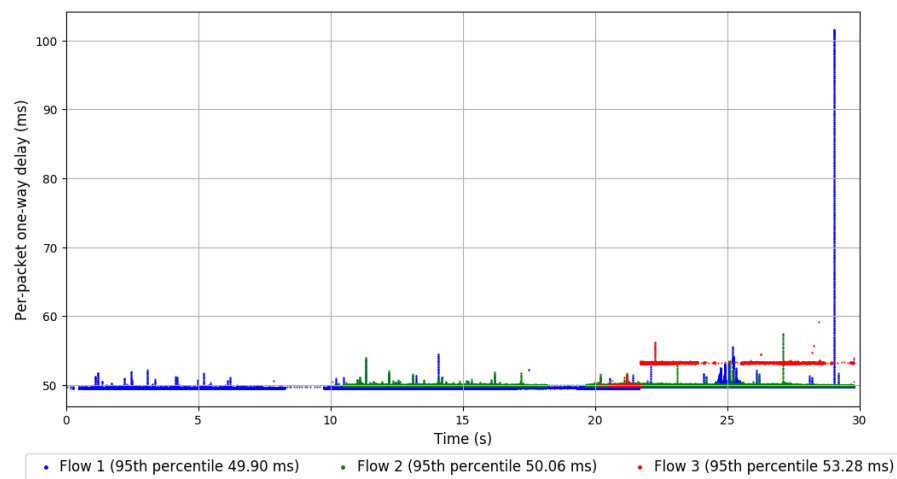
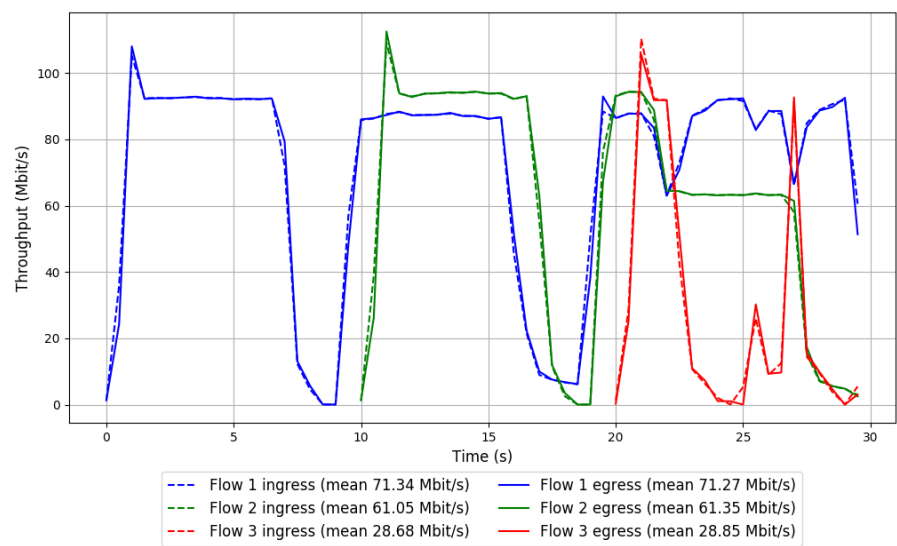
-- Flow 3:

Average throughput: 28.85 Mbit/s

95th percentile per-packet one-way delay: 53.284 ms

Loss rate: 0.43%

Run 9: Report of QUIC Cubic — Data Link

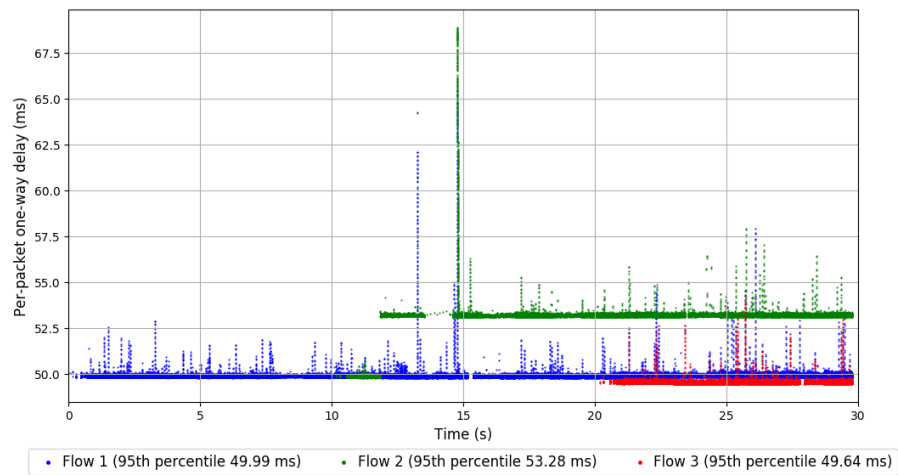
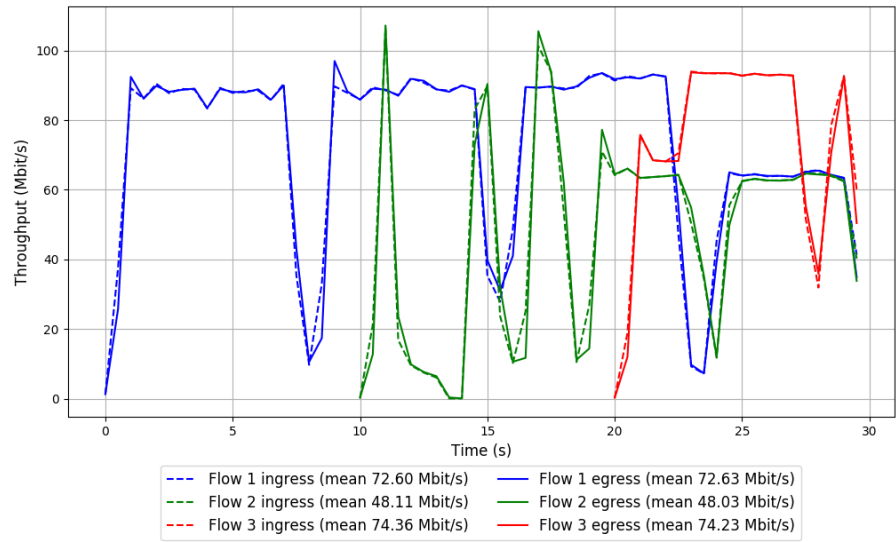


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-01-31 18:48:31
End at: 2018-01-31 18:49:01

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.63 Mbit/s
95th percentile per-packet one-way delay: 53.221 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 72.63 Mbit/s
95th percentile per-packet one-way delay: 49.987 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 53.277 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 74.23 Mbit/s
95th percentile per-packet one-way delay: 49.644 ms
Loss rate: 1.28%
```

Run 10: Report of QUIC Cubic — Data Link

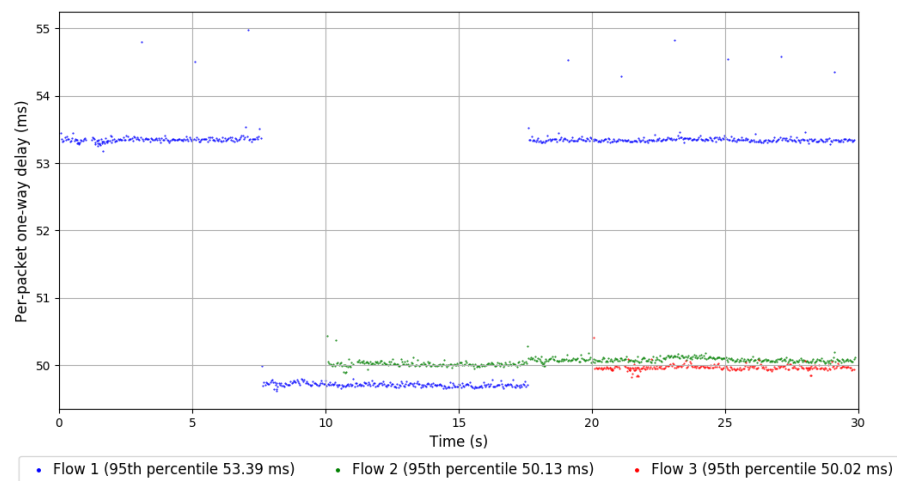
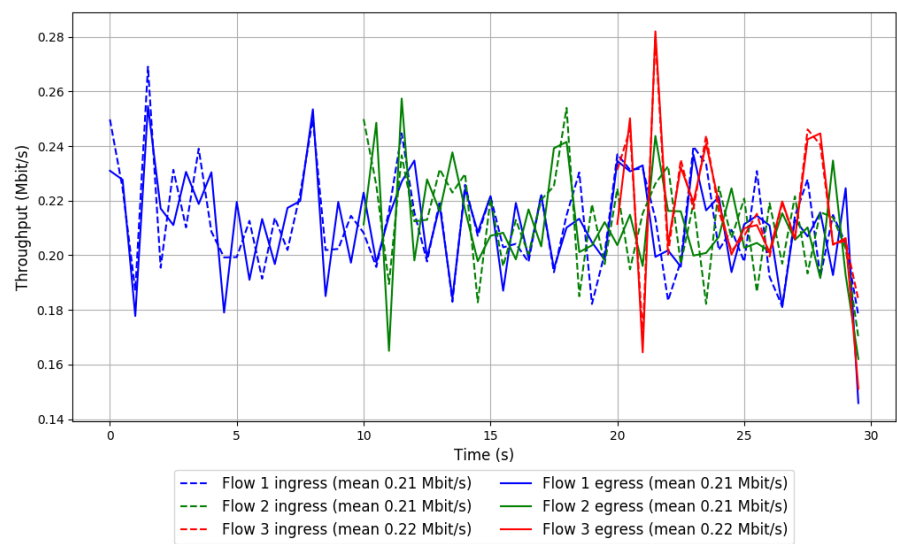


```
Run 1: Statistics of SCReAM

Start at: 2018-01-31 16:26:05
End at: 2018-01-31 16:26:35

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.373 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.390 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.128 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.019 ms
Loss rate: 1.11%
```

Run 1: Report of SReAM — Data Link

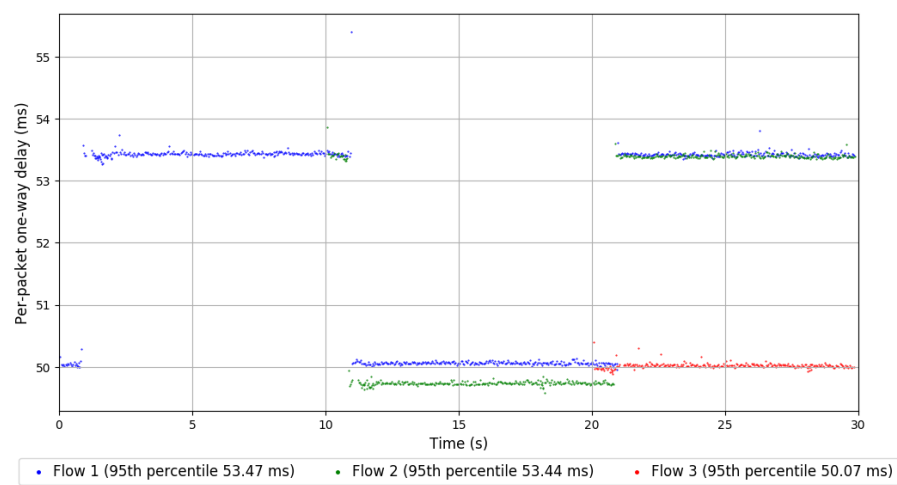
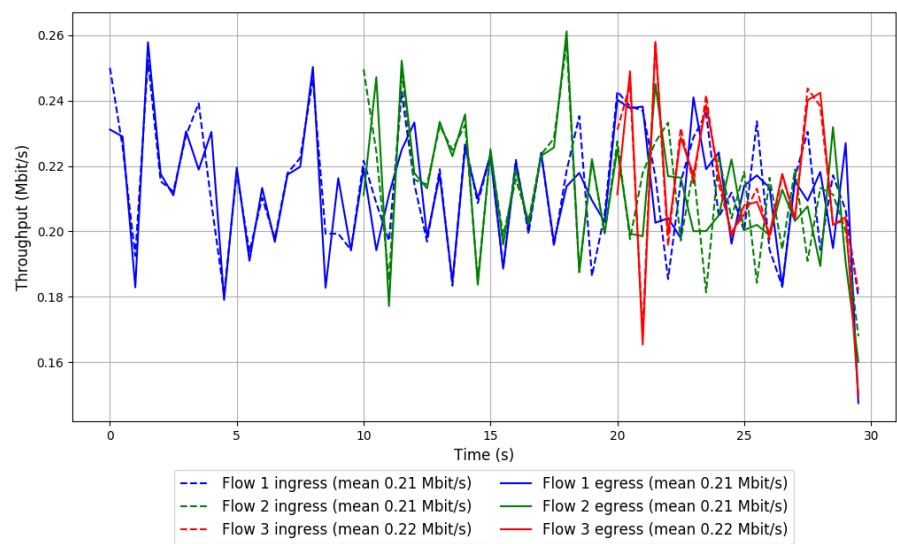


```
Run 2: Statistics of SReAM

Start at: 2018-01-31 16:42:12
End at: 2018-01-31 16:42:42

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.461 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.472 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.436 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.067 ms
Loss rate: 1.11%
```

Run 2: Report of SReAM — Data Link

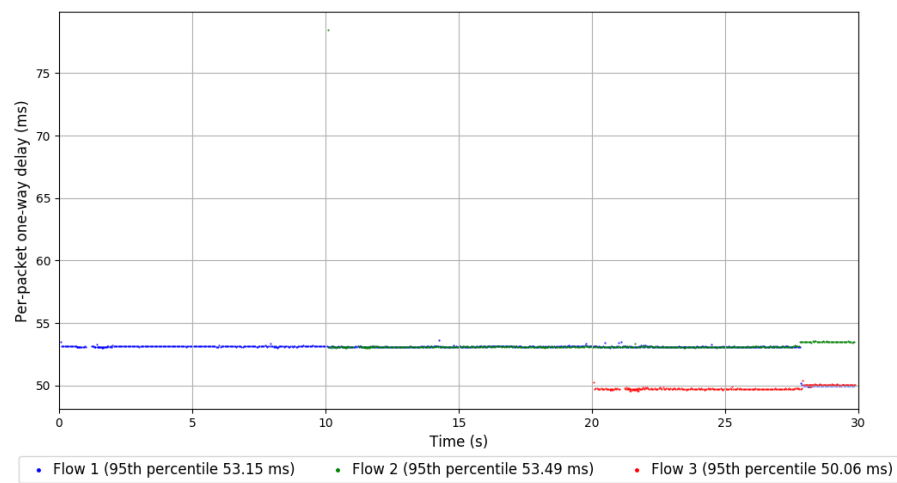
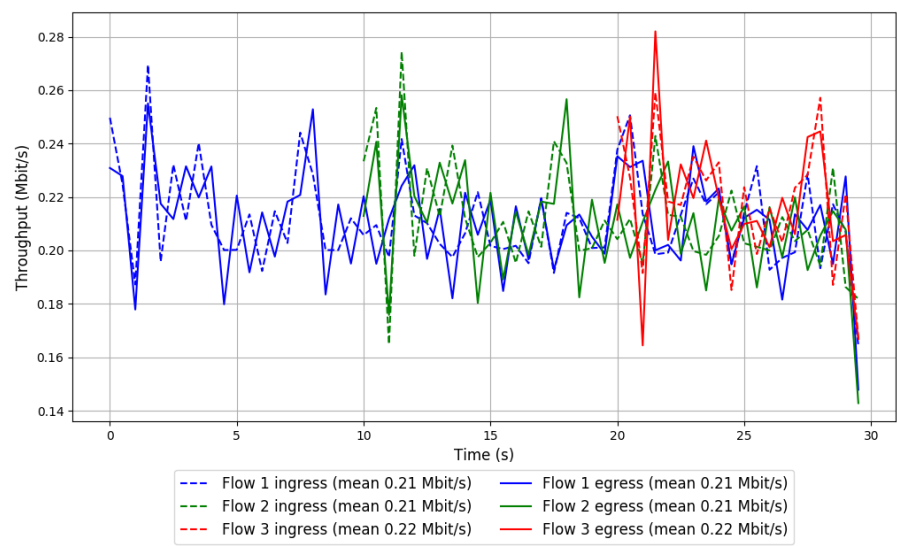


```
Run 3: Statistics of SCReAM

Start at: 2018-01-31 16:58:45
End at: 2018-01-31 16:59:15

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.167 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.153 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.489 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.056 ms
Loss rate: 0.73%
```


Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2018-01-31 17:15:41

End at: 2018-01-31 17:16:11

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.472 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.486 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.308 ms

Loss rate: 0.42%

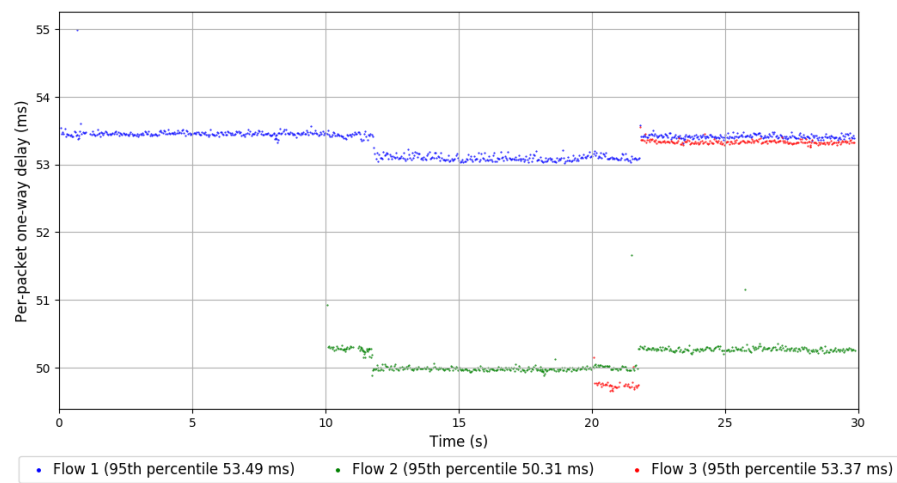
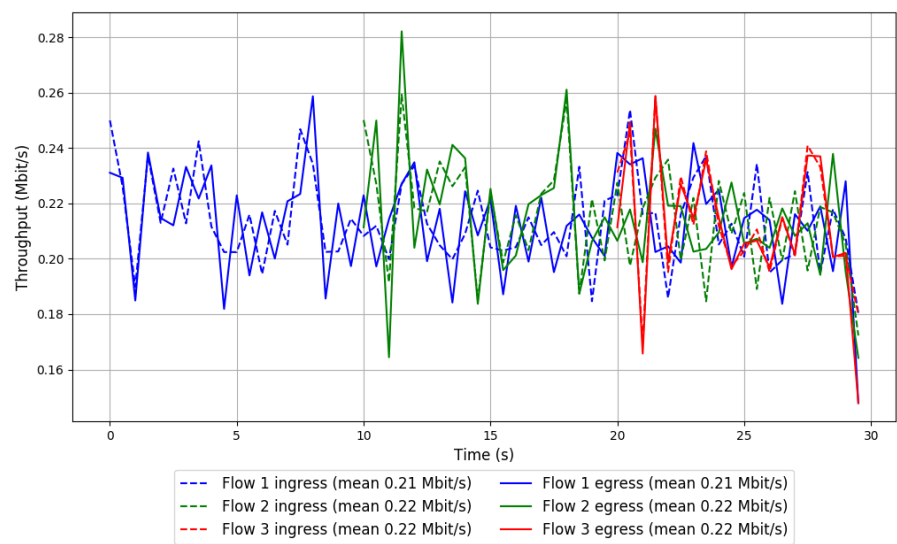
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.371 ms

Loss rate: 1.11%

Run 4: Report of SReAM — Data Link

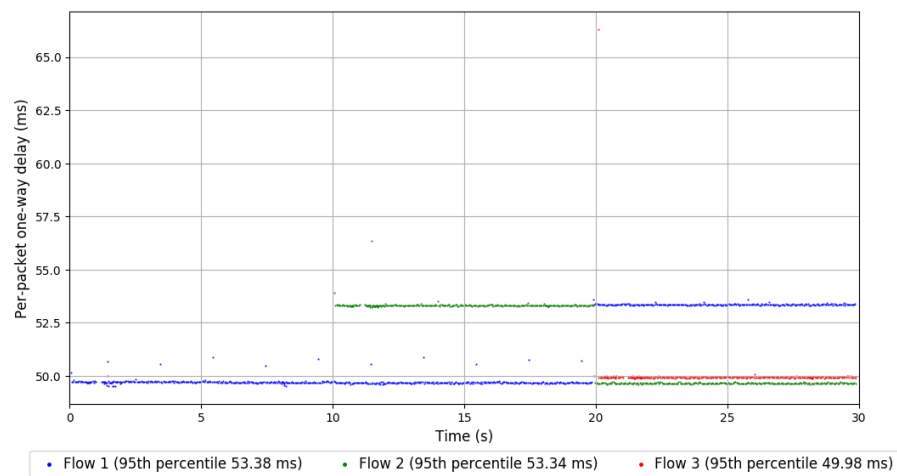
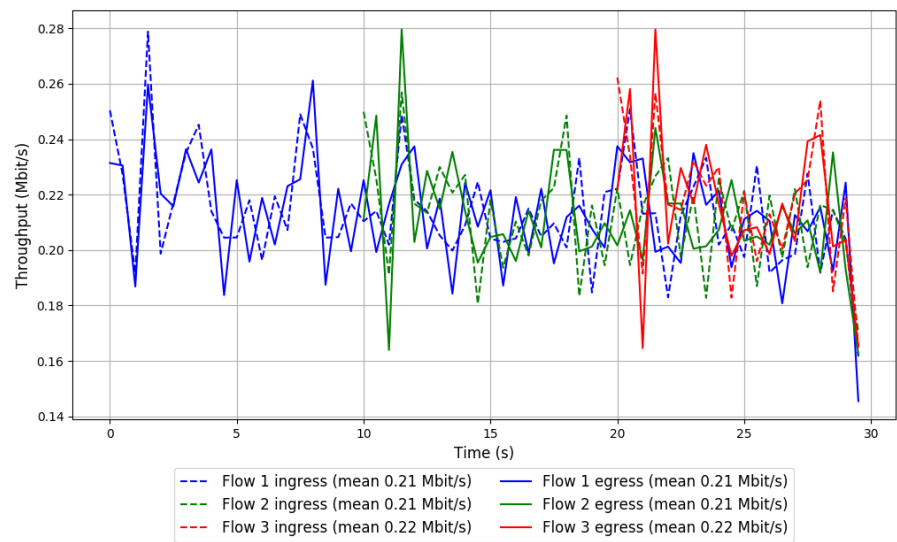


```
Run 5: Statistics of SReAM

Start at: 2018-01-31 17:32:13
End at: 2018-01-31 17:32:43

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.366 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.376 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.342 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.978 ms
Loss rate: 0.73%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-01-31 17:48:55

End at: 2018-01-31 17:49:25

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.439 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.442 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.417 ms

Loss rate: 0.42%

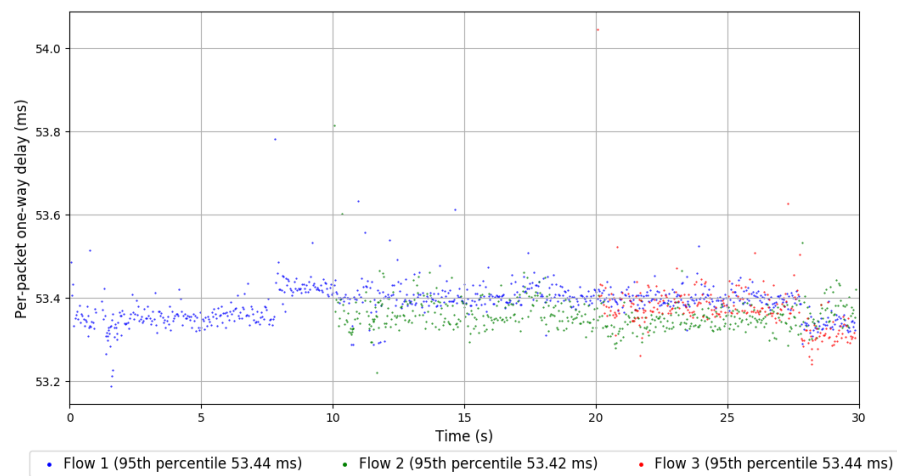
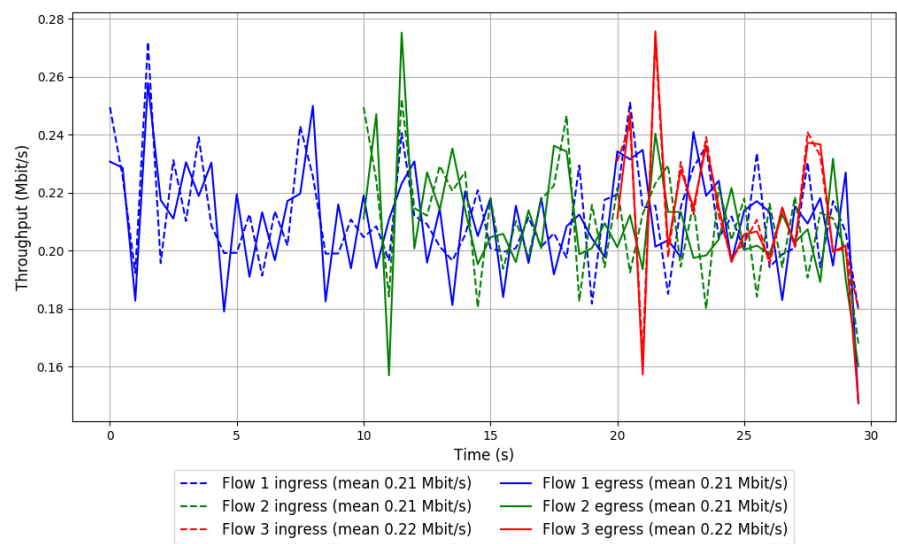
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.439 ms

Loss rate: 1.11%

Run 6: Report of SReAM — Data Link

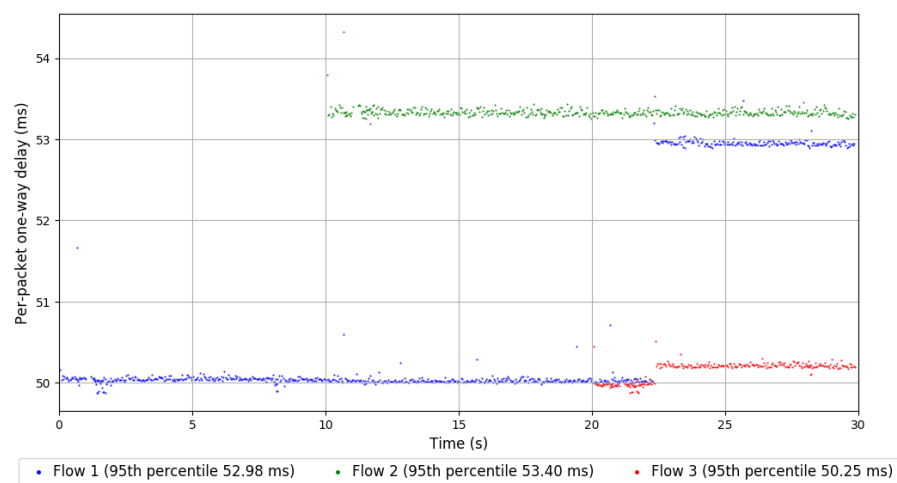
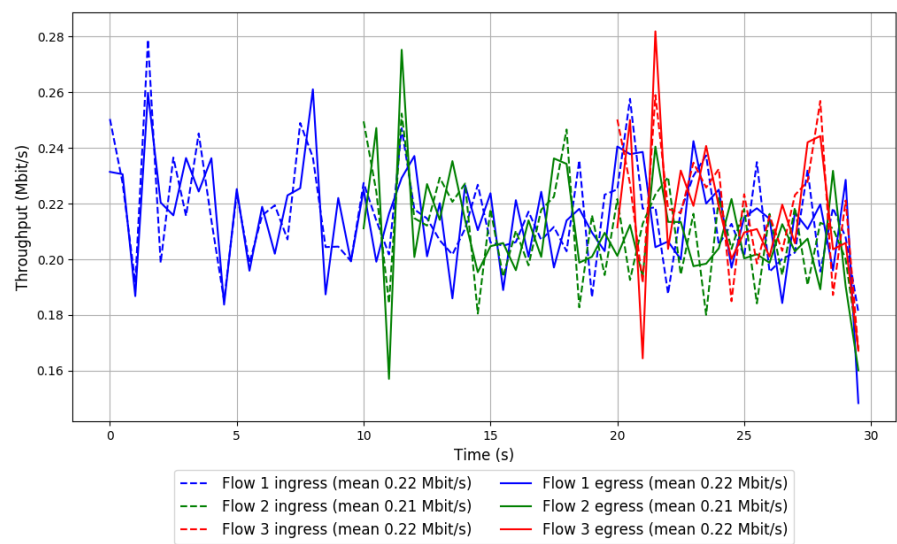


```
Run 7: Statistics of SReAM

Start at: 2018-01-31 18:05:10
End at: 2018-01-31 18:05:40

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.371 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.975 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.402 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.254 ms
Loss rate: 0.74%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-01-31 18:21:29

End at: 2018-01-31 18:21:59

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.337 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.345 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.730 ms

Loss rate: 0.62%

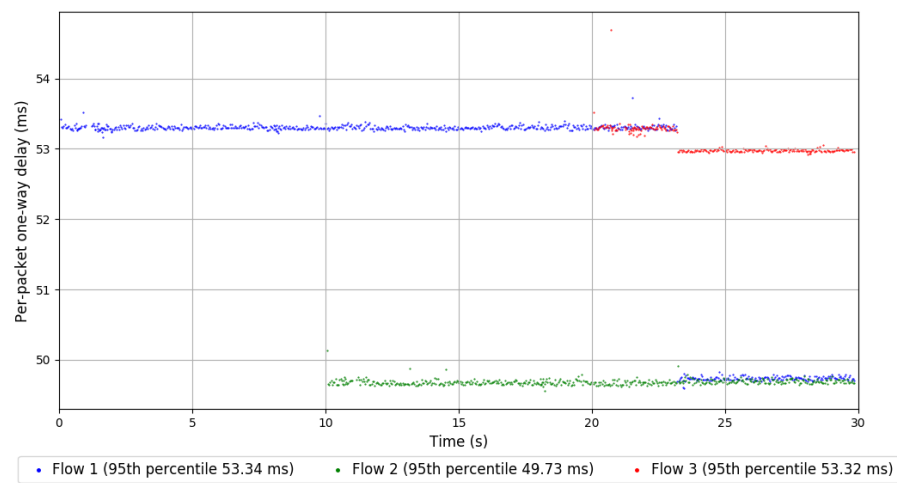
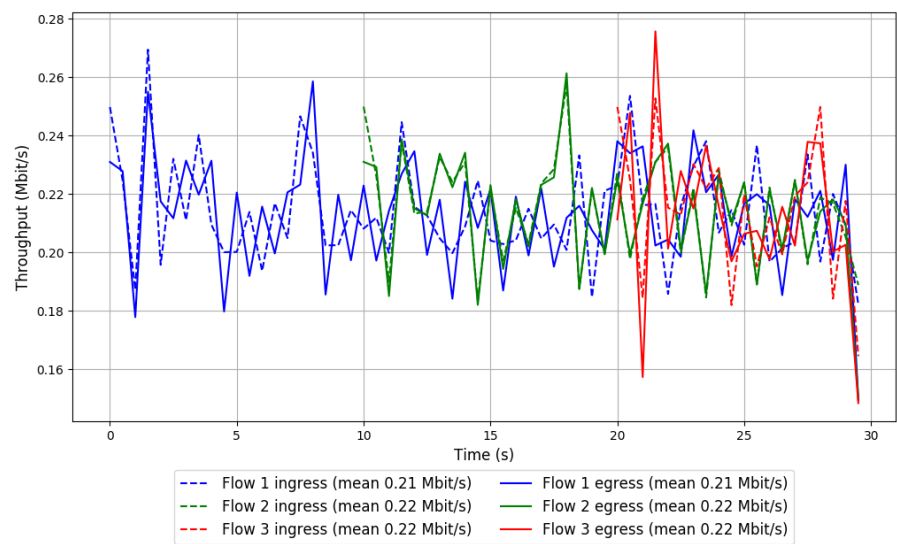
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.322 ms

Loss rate: 1.11%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-01-31 18:38:03

End at: 2018-01-31 18:38:33

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.441 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.453 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.395 ms

Loss rate: 0.42%

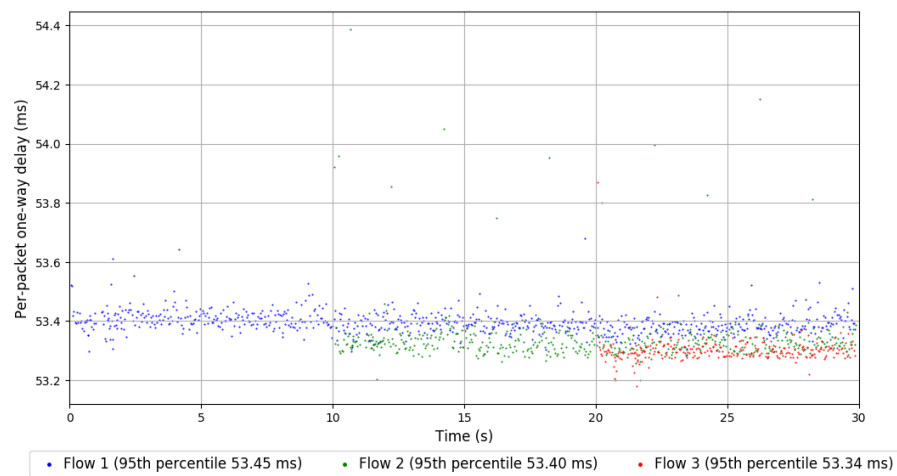
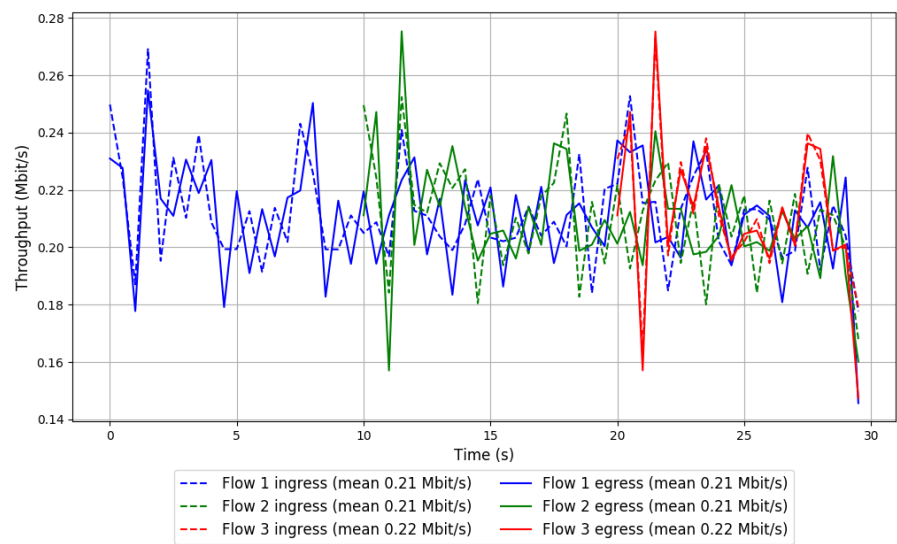
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.344 ms

Loss rate: 1.11%

Run 9: Report of SReAM — Data Link

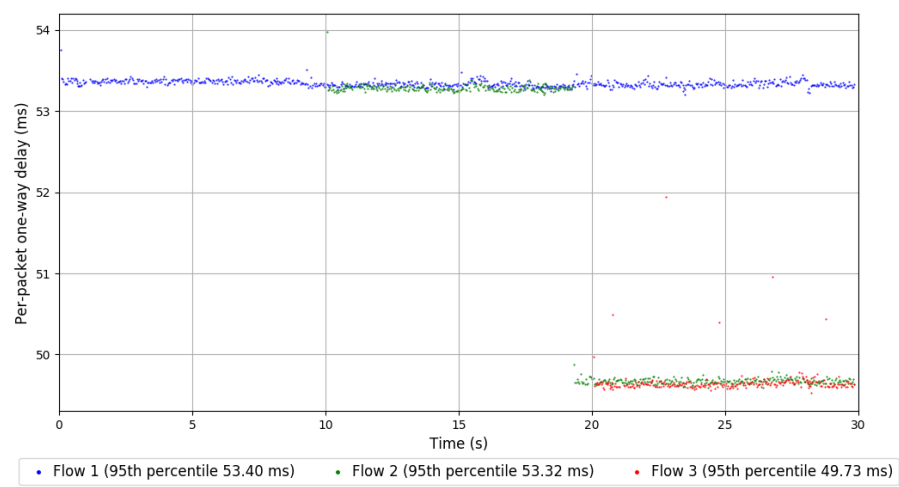
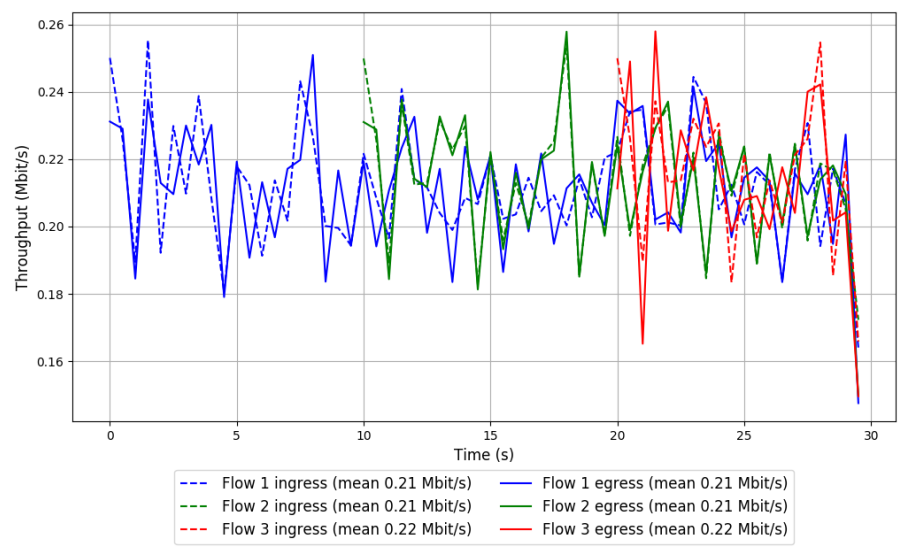


```
Run 10: Statistics of SReAM

Start at: 2018-01-31 18:54:33
End at: 2018-01-31 18:55:03

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.389 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.401 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.324 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.732 ms
Loss rate: 1.11%
```

Run 10: Report of SReAM — Data Link

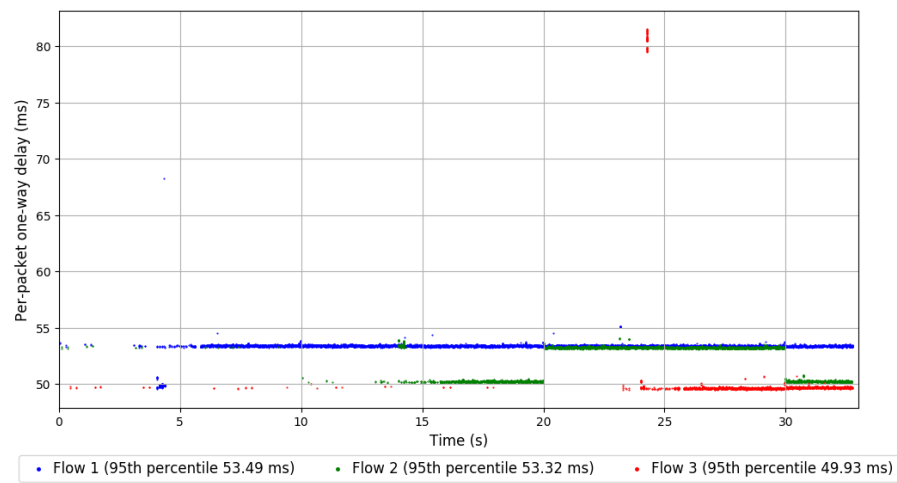
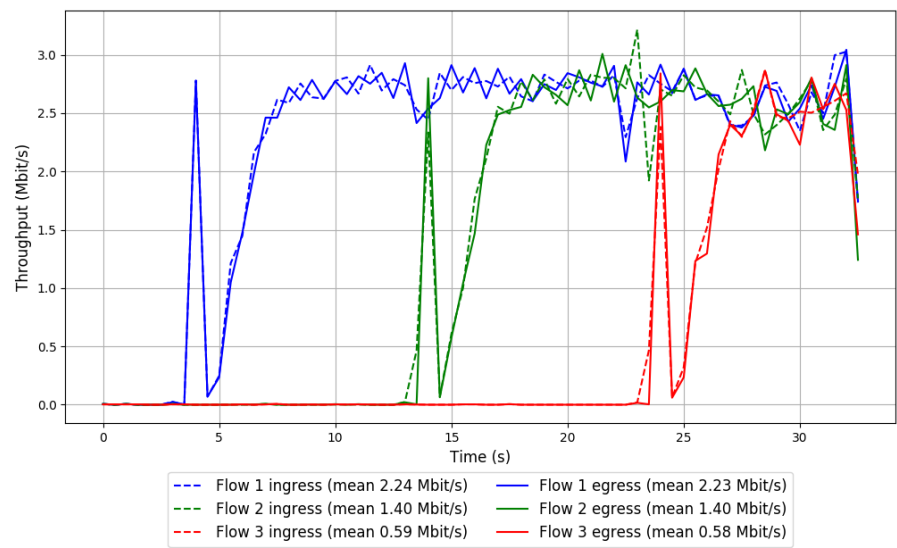


```
Run 1: Statistics of WebRTC media

Start at: 2018-01-31 16:25:26
End at: 2018-01-31 16:25:56

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 53.476 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 53.491 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 53.320 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 49.934 ms
Loss rate: 1.95%
```


Run 1: Report of WebRTC media — Data Link

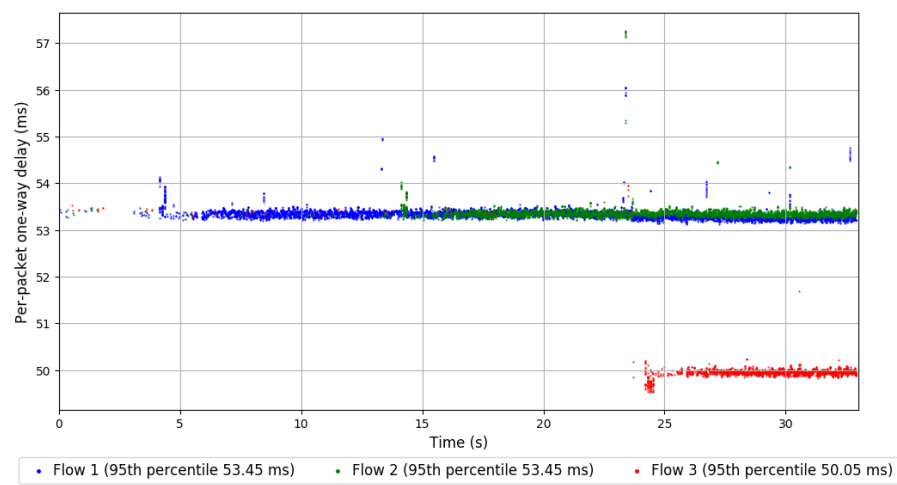
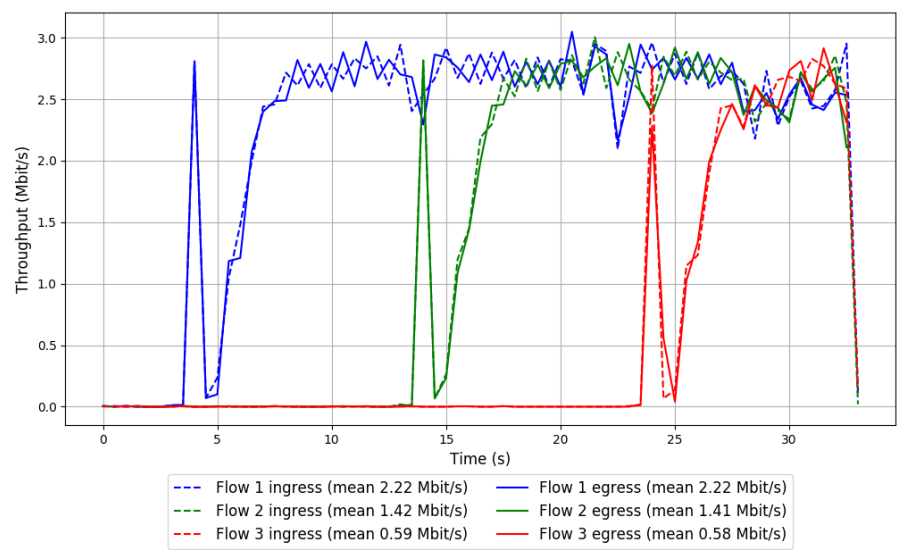


```
Run 2: Statistics of WebRTC media

Start at: 2018-01-31 16:41:32
End at: 2018-01-31 16:42:02

# Below is generated by plot.py at 2018-01-31 22:29:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 53.445 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 53.451 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 53.453 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 50.053 ms
Loss rate: 2.18%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-31 16:58:05

End at: 2018-01-31 16:58:35

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 53.420 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 53.013 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 50.094 ms

Loss rate: 0.75%

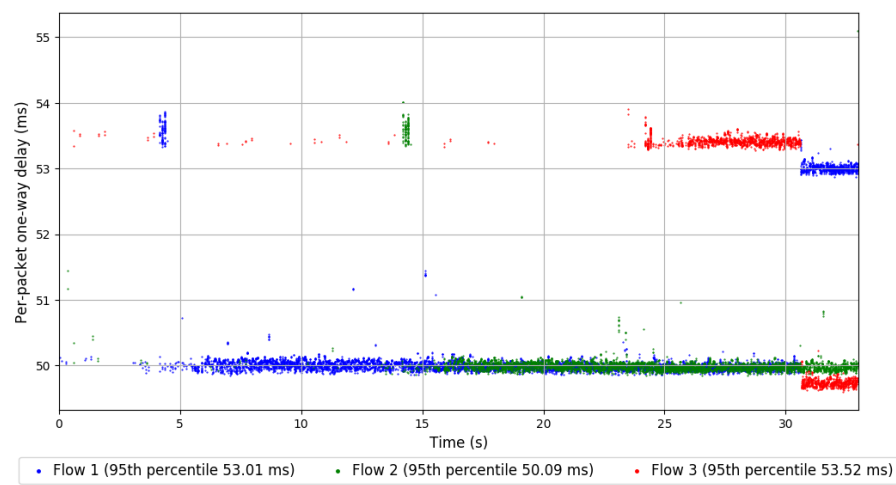
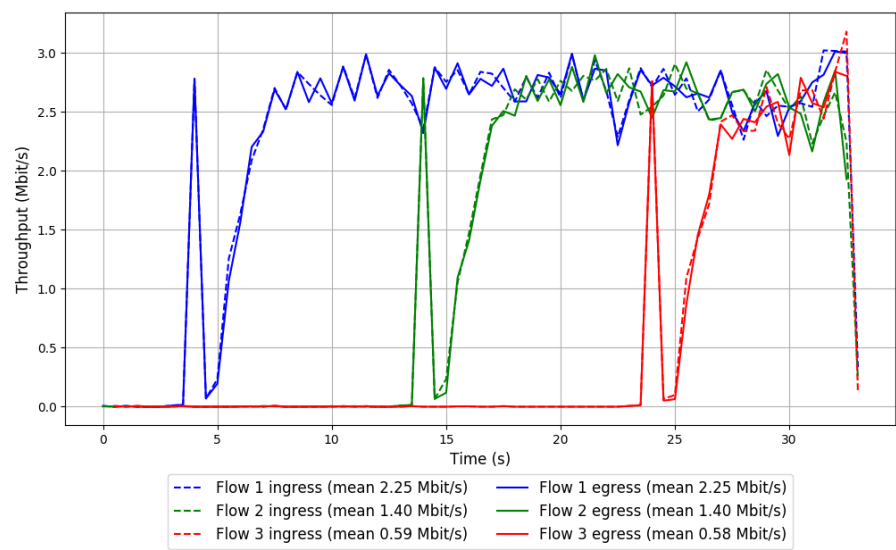
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 53.515 ms

Loss rate: 1.94%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-31 17:15:01

End at: 2018-01-31 17:15:31

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 53.363 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 53.141 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 53.381 ms

Loss rate: 0.71%

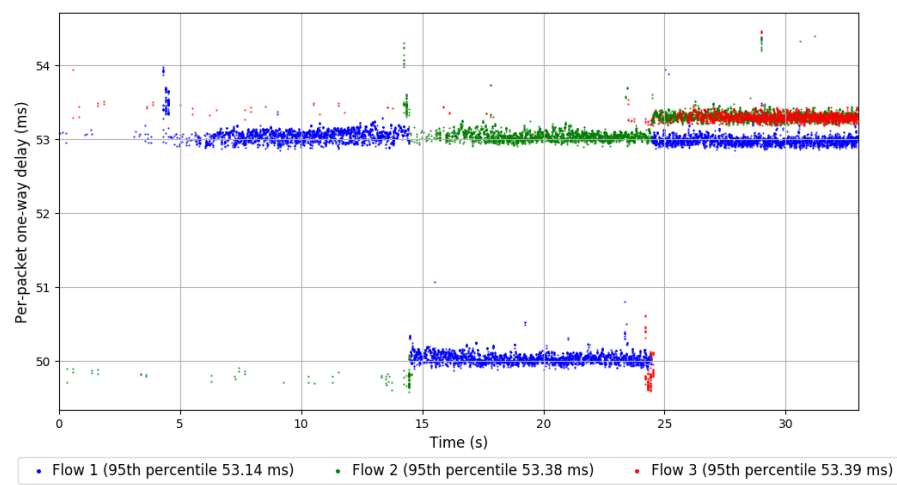
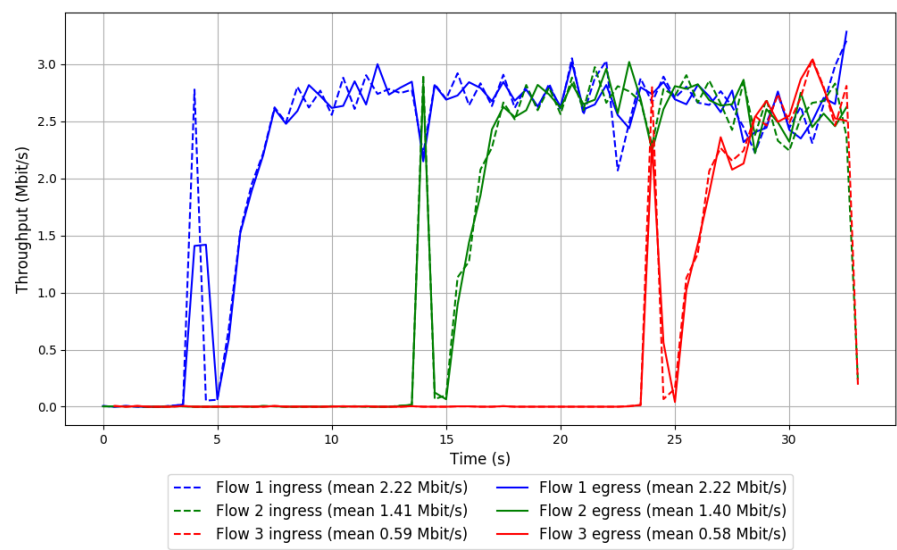
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 53.393 ms

Loss rate: 1.77%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-31 17:31:33

End at: 2018-01-31 17:32:03

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 53.464 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 53.423 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 53.473 ms

Loss rate: 0.93%

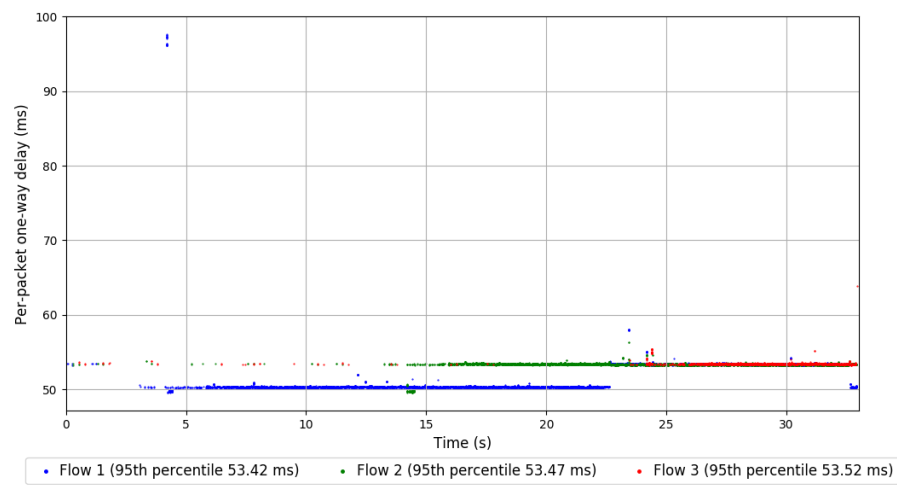
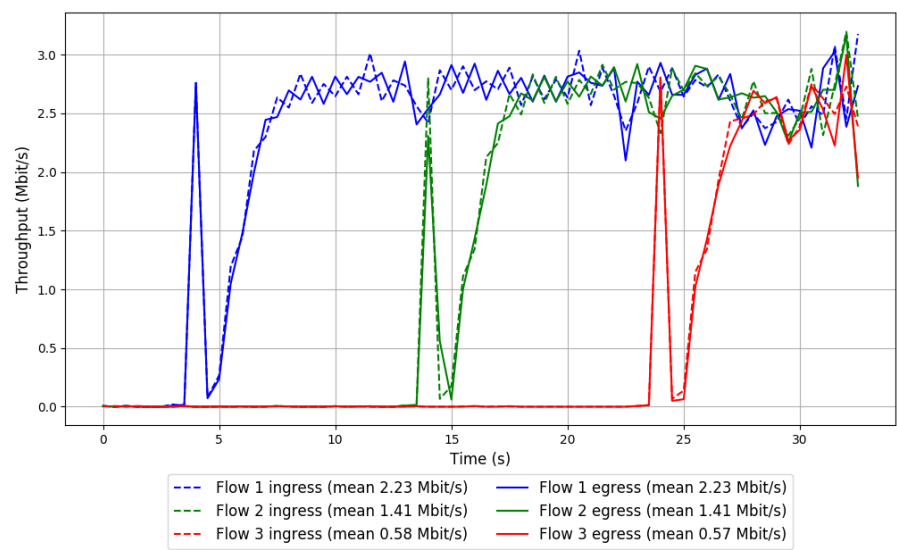
-- Flow 3:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 53.519 ms

Loss rate: 2.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-31 17:48:15

End at: 2018-01-31 17:48:45

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 53.420 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 53.404 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 53.428 ms

Loss rate: 0.52%

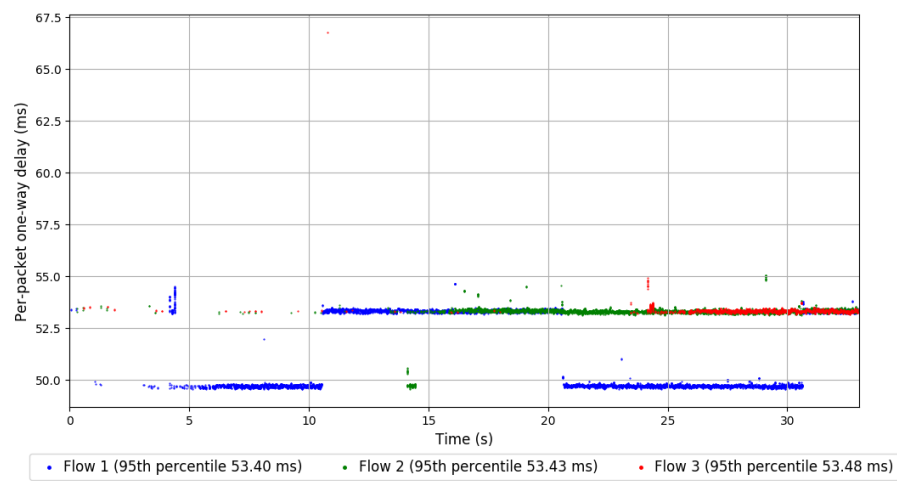
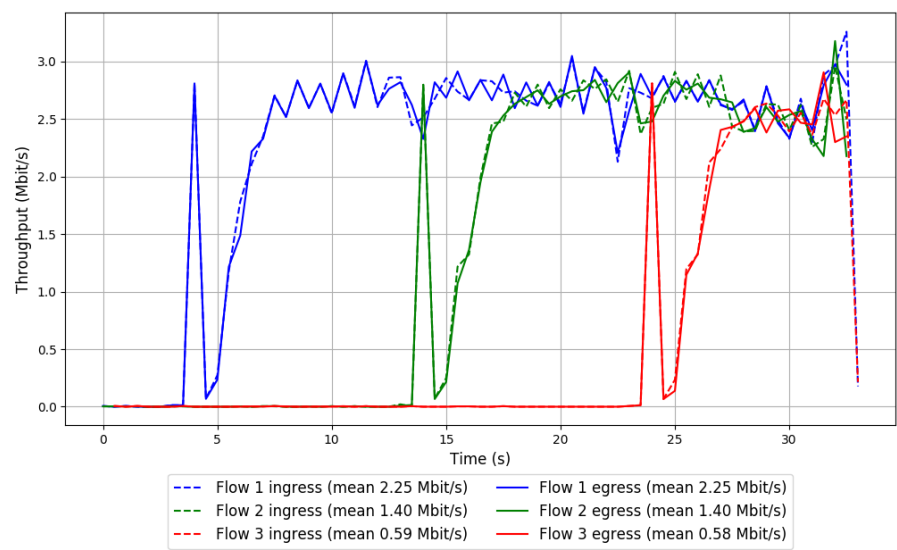
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 53.484 ms

Loss rate: 2.01%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-31 18:04:31

End at: 2018-01-31 18:05:01

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 53.328 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 49.982 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 49.806 ms

Loss rate: 0.62%

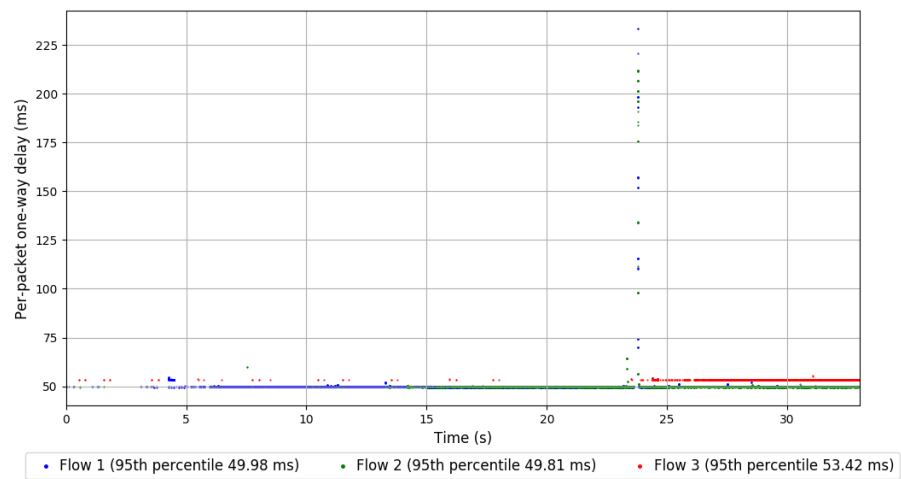
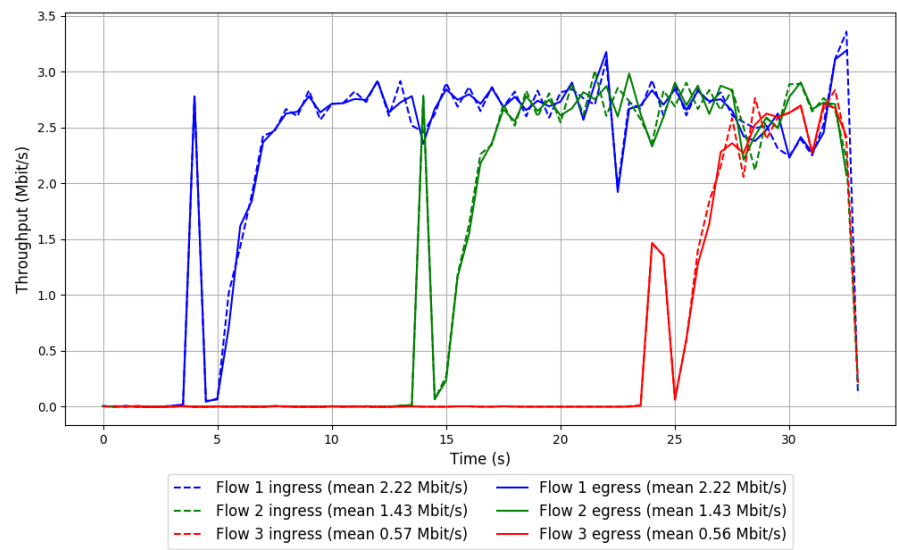
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 53.425 ms

Loss rate: 1.35%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-31 18:20:50

End at: 2018-01-31 18:21:20

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 53.371 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 50.041 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 53.410 ms

Loss rate: 0.75%

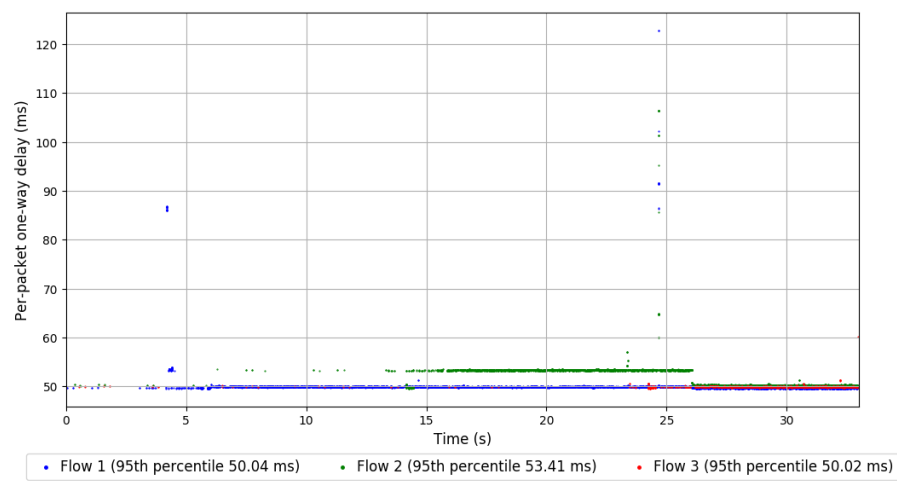
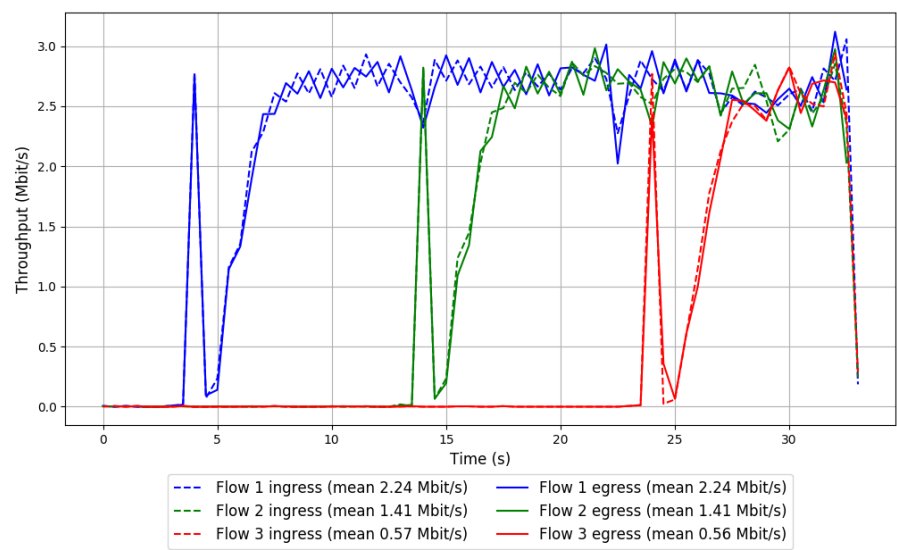
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 50.024 ms

Loss rate: 1.54%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-31 18:37:23

End at: 2018-01-31 18:37:53

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 53.469 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 53.498 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 49.818 ms

Loss rate: 0.70%

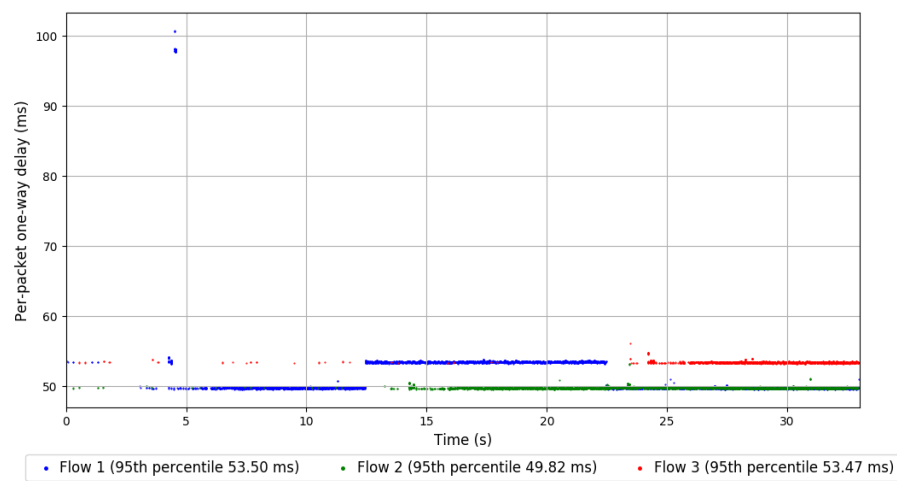
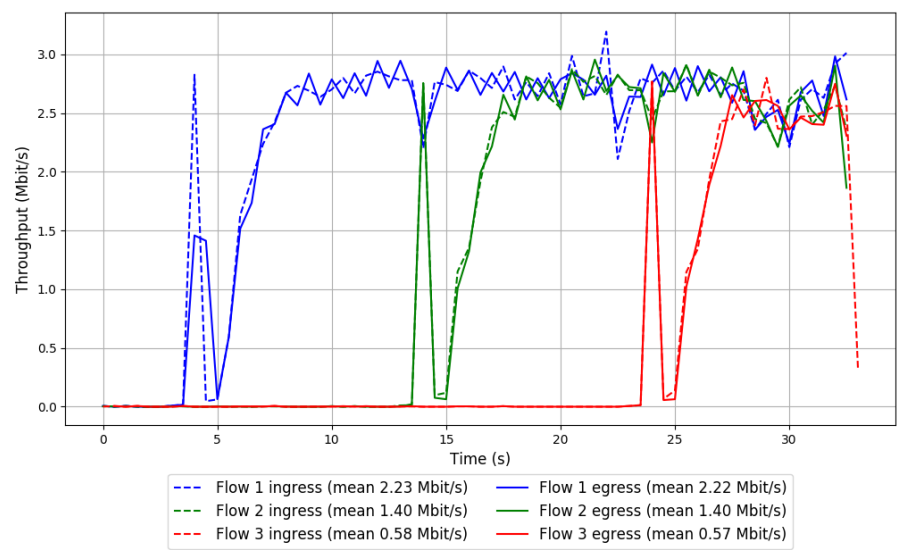
-- Flow 3:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 53.470 ms

Loss rate: 2.09%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-31 18:53:54

End at: 2018-01-31 18:54:24

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 53.402 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 53.414 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 49.789 ms

Loss rate: 0.72%

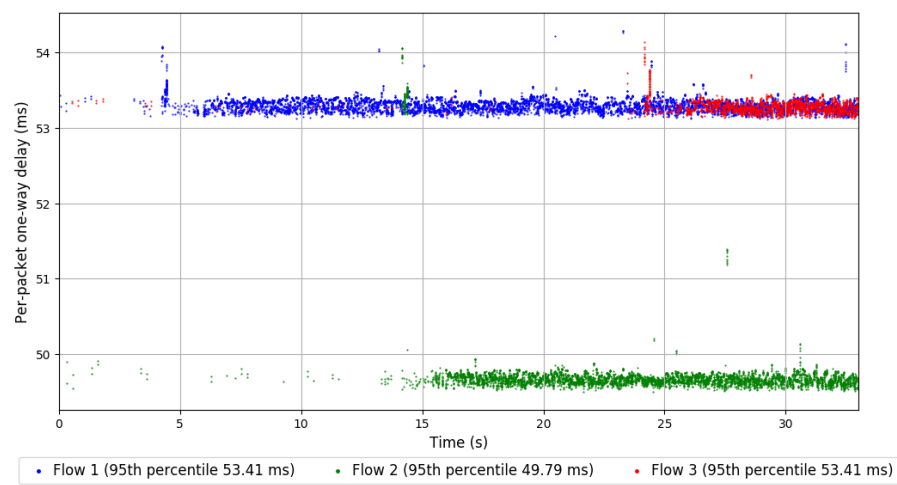
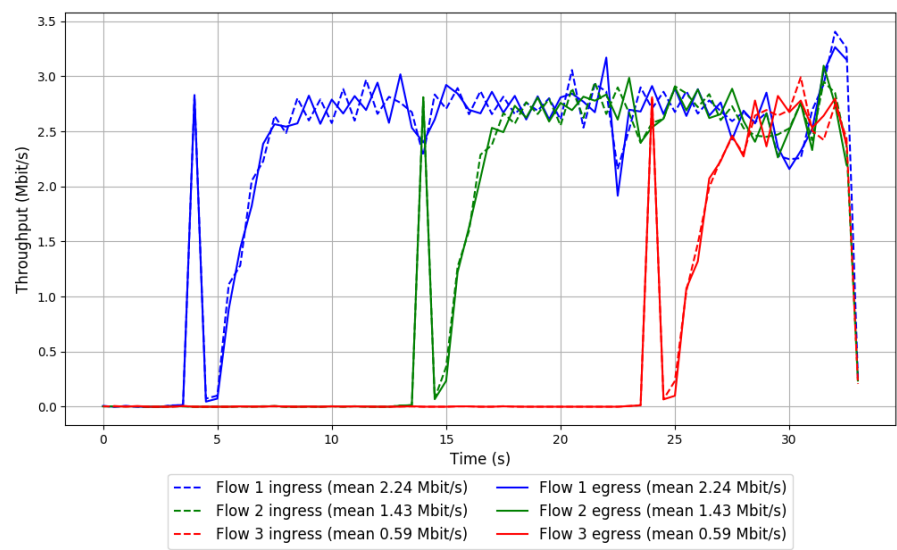
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 53.413 ms

Loss rate: 1.10%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-31 16:20:54

End at: 2018-01-31 16:21:24

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.11 Mbit/s

95th percentile per-packet one-way delay: 54.378 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 54.450 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 7.74 Mbit/s

95th percentile per-packet one-way delay: 54.254 ms

Loss rate: 0.09%

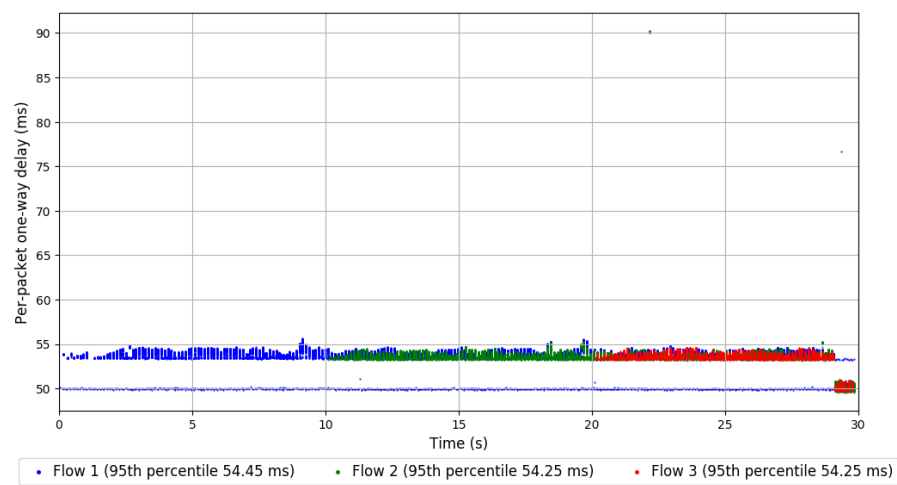
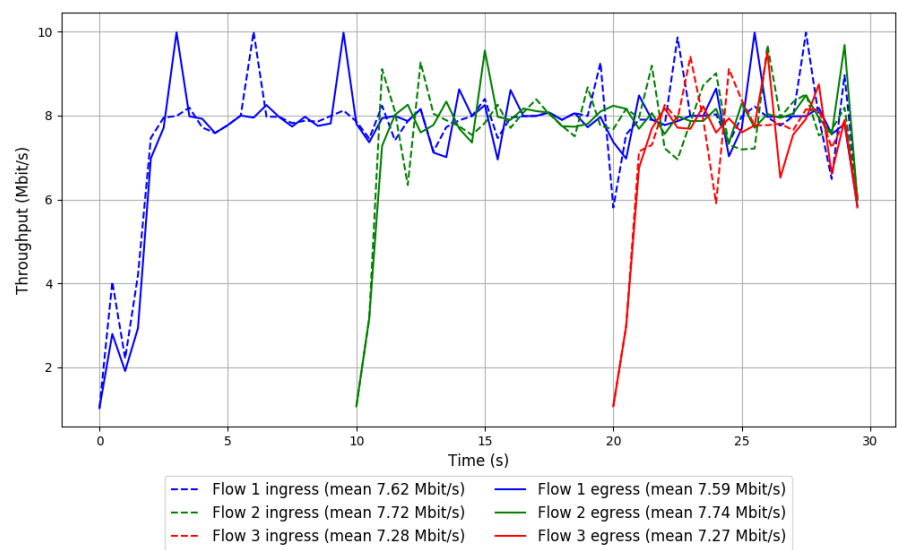
-- Flow 3:

Average throughput: 7.27 Mbit/s

95th percentile per-packet one-way delay: 54.246 ms

Loss rate: 1.39%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-31 16:37:28

End at: 2018-01-31 16:37:58

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.49 Mbit/s

95th percentile per-packet one-way delay: 54.415 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 54.381 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 54.459 ms

Loss rate: 0.63%

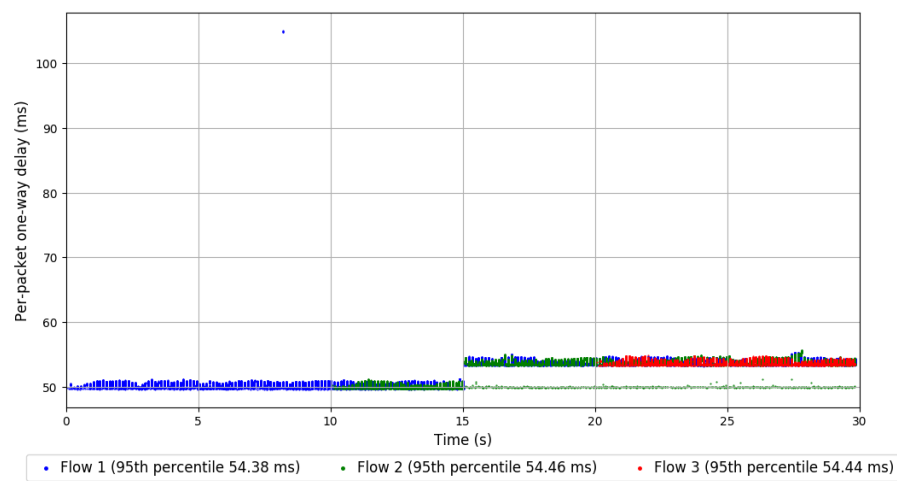
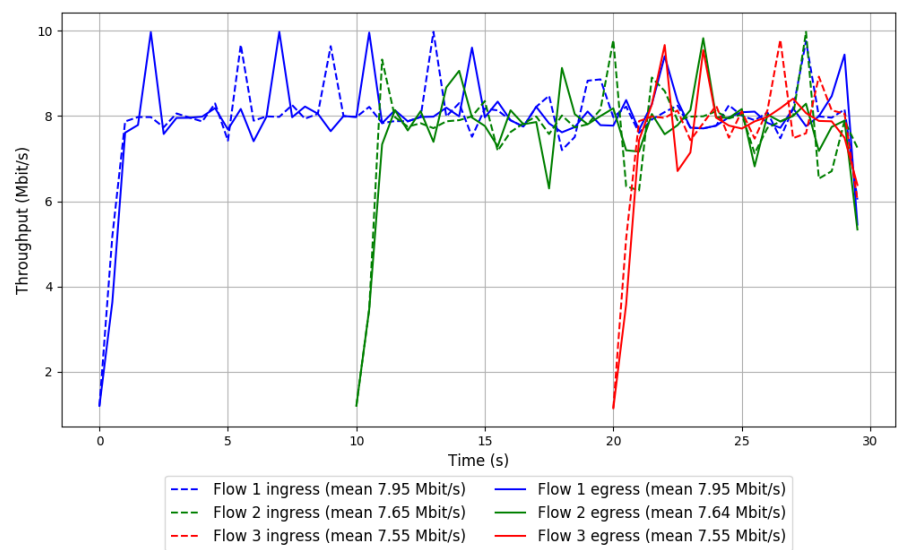
-- Flow 3:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 54.438 ms

Loss rate: 1.26%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-31 16:53:32

End at: 2018-01-31 16:54:02

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.23 Mbit/s

95th percentile per-packet one-way delay: 54.452 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 54.499 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 54.390 ms

Loss rate: 0.24%

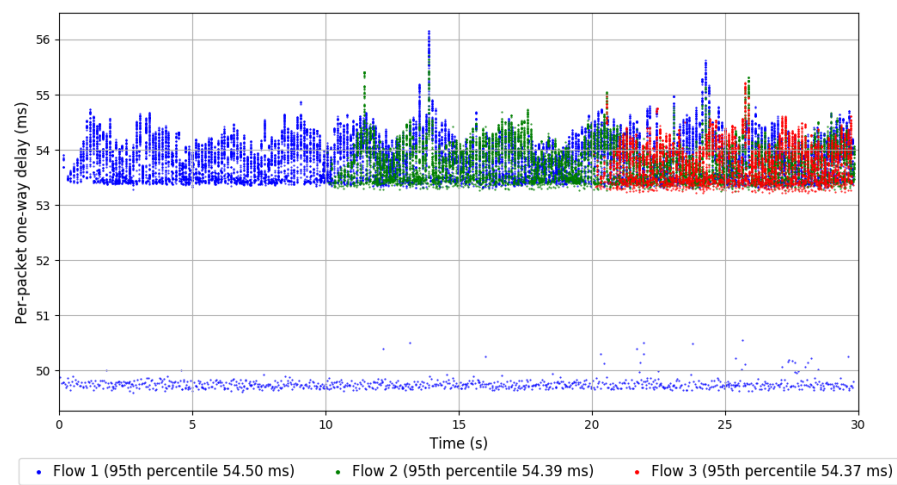
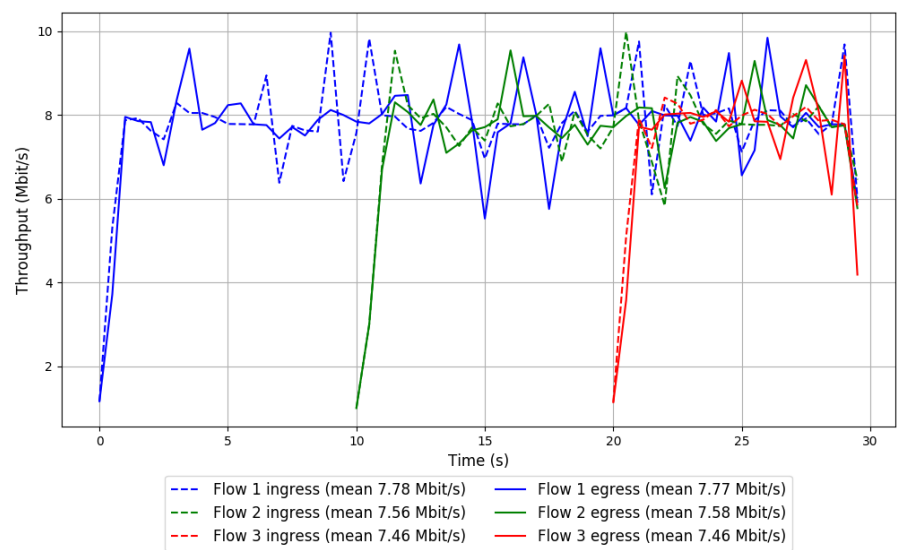
-- Flow 3:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 54.367 ms

Loss rate: 1.32%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-31 17:10:20

End at: 2018-01-31 17:10:50

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.14 Mbit/s

95th percentile per-packet one-way delay: 54.282 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 54.328 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 7.41 Mbit/s

95th percentile per-packet one-way delay: 54.251 ms

Loss rate: 1.77%

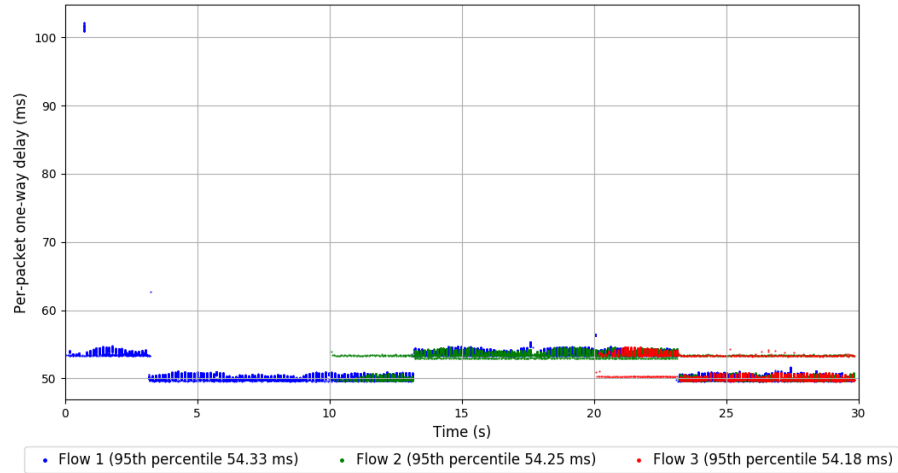
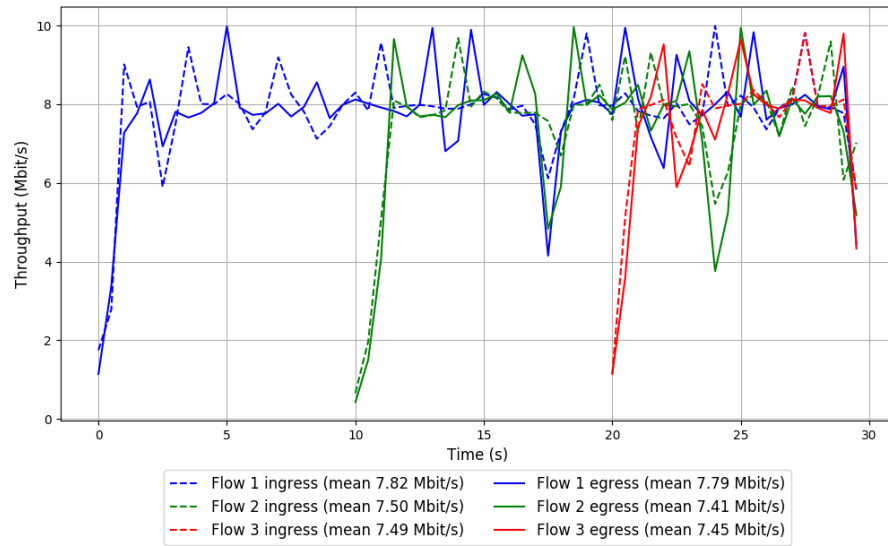
-- Flow 3:

Average throughput: 7.45 Mbit/s

95th percentile per-packet one-way delay: 54.181 ms

Loss rate: 1.67%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-31 17:27:05

End at: 2018-01-31 17:27:35

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.37 Mbit/s

95th percentile per-packet one-way delay: 50.838 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 50.921 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 51.240 ms

Loss rate: 0.69%

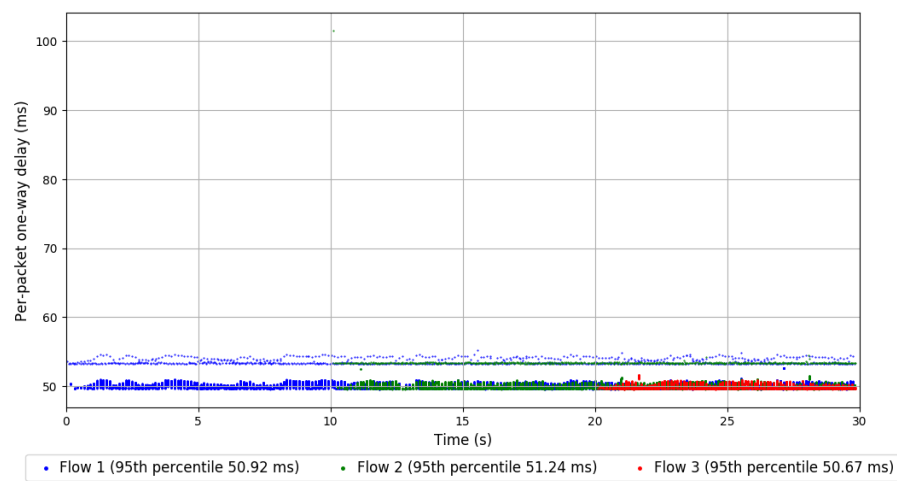
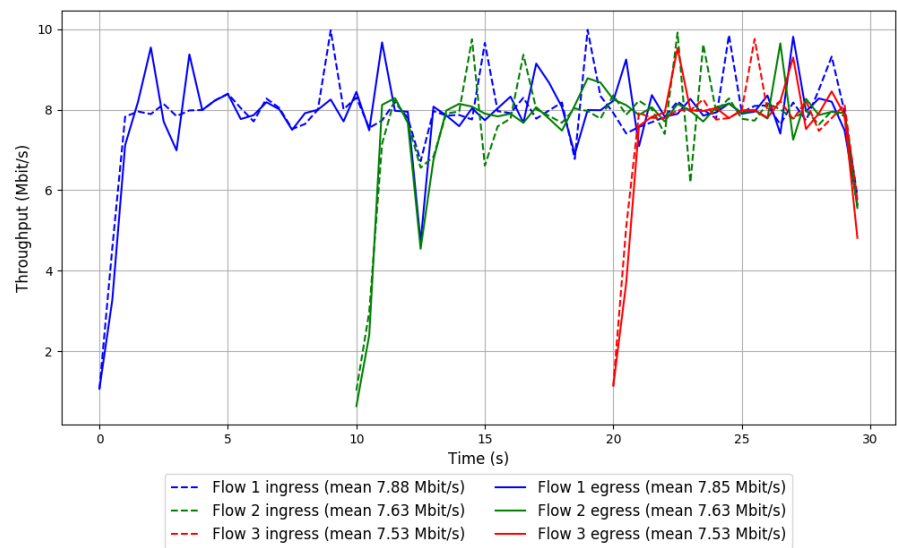
-- Flow 3:

Average throughput: 7.53 Mbit/s

95th percentile per-packet one-way delay: 50.670 ms

Loss rate: 0.81%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-31 17:43:46

End at: 2018-01-31 17:44:16

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.19 Mbit/s

95th percentile per-packet one-way delay: 53.646 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 53.912 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 51.368 ms

Loss rate: 0.63%

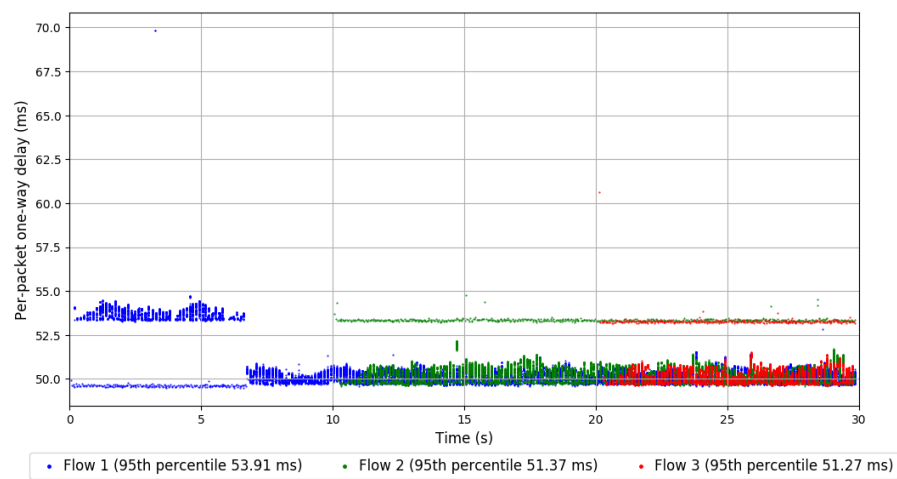
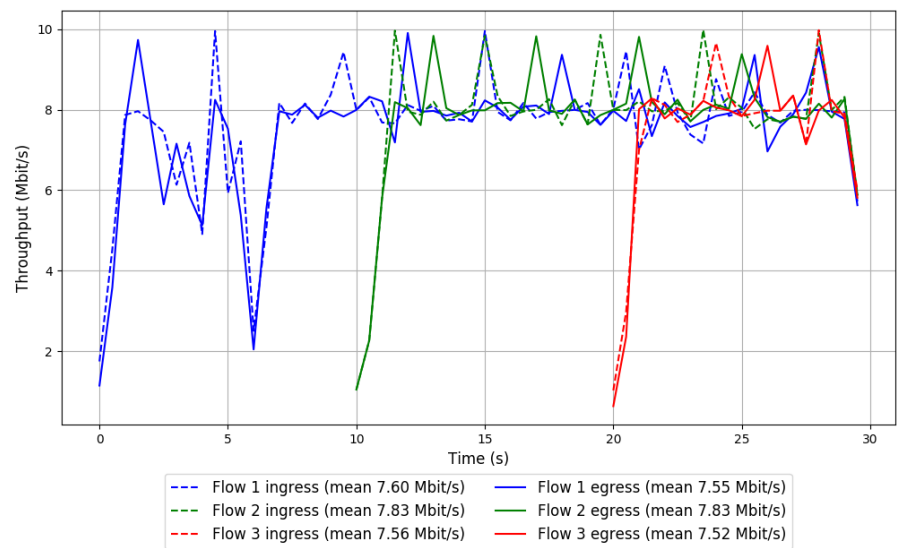
-- Flow 3:

Average throughput: 7.52 Mbit/s

95th percentile per-packet one-way delay: 51.275 ms

Loss rate: 1.35%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-31 18:00:17

End at: 2018-01-31 18:00:47

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.08 Mbit/s

95th percentile per-packet one-way delay: 54.307 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 54.334 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 54.208 ms

Loss rate: 0.57%

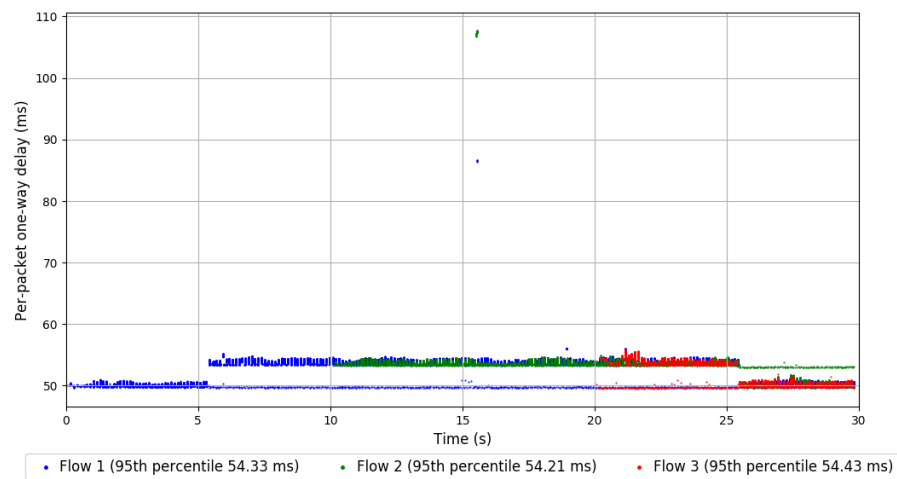
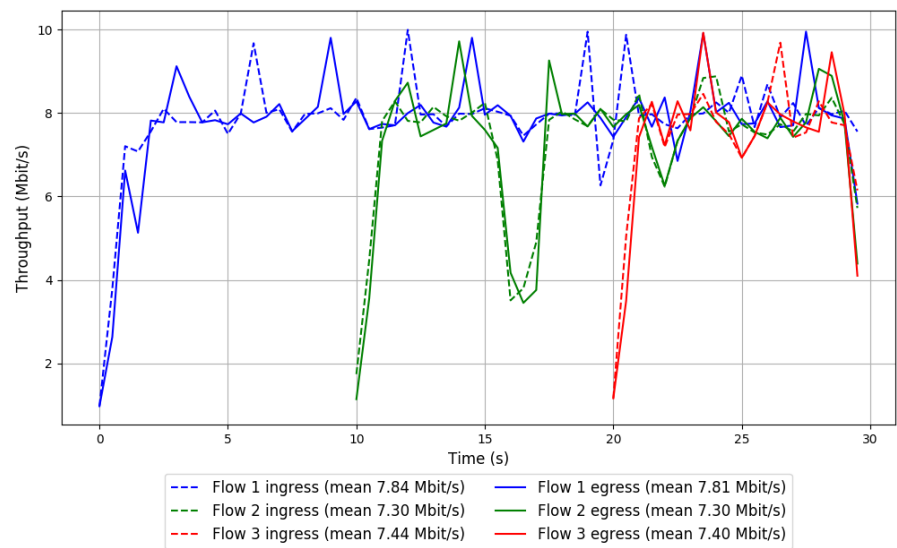
-- Flow 3:

Average throughput: 7.40 Mbit/s

95th percentile per-packet one-way delay: 54.433 ms

Loss rate: 1.40%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-31 18:16:07

End at: 2018-01-31 18:16:37

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.29 Mbit/s

95th percentile per-packet one-way delay: 54.202 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 54.203 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 54.130 ms

Loss rate: 1.63%

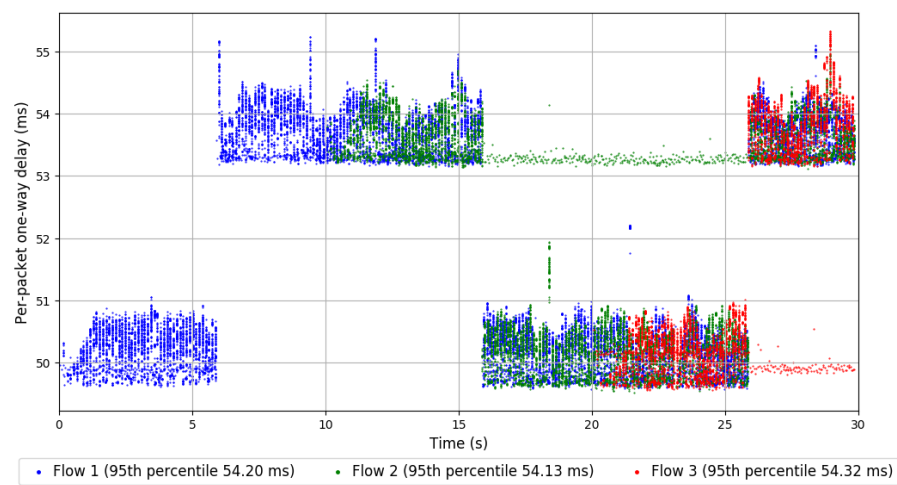
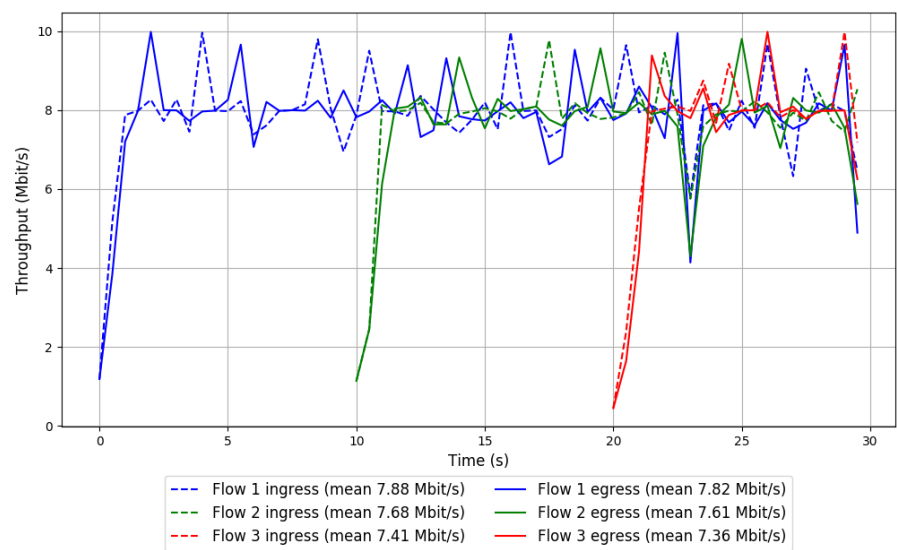
-- Flow 3:

Average throughput: 7.36 Mbit/s

95th percentile per-packet one-way delay: 54.324 ms

Loss rate: 2.09%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-31 18:32:47

End at: 2018-01-31 18:33:17

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.25 Mbit/s

95th percentile per-packet one-way delay: 54.211 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 7.68 Mbit/s

95th percentile per-packet one-way delay: 54.213 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 7.78 Mbit/s

95th percentile per-packet one-way delay: 54.196 ms

Loss rate: 0.61%

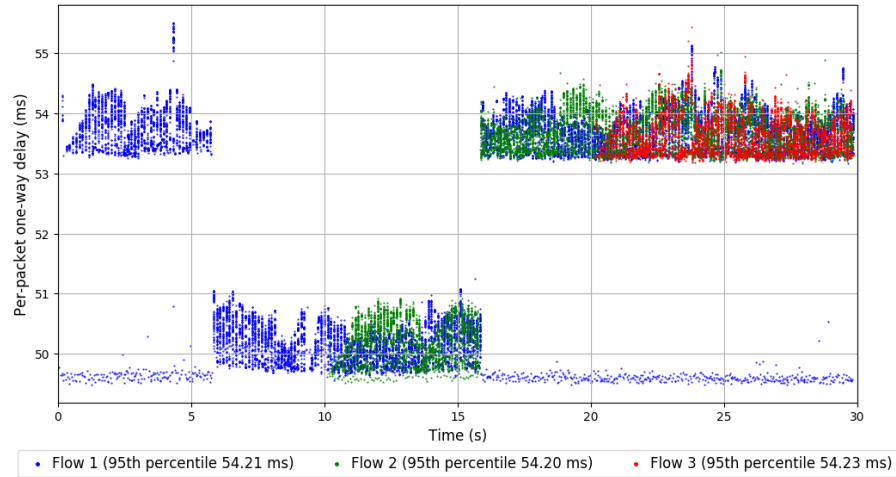
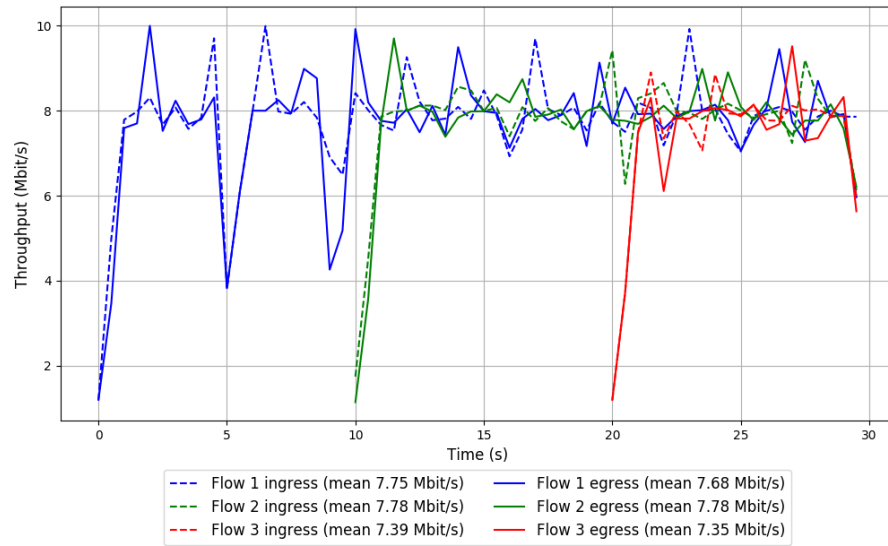
-- Flow 3:

Average throughput: 7.35 Mbit/s

95th percentile per-packet one-way delay: 54.226 ms

Loss rate: 1.28%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-31 18:49:17

End at: 2018-01-31 18:49:47

Below is generated by plot.py at 2018-01-31 22:29:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.71 Mbit/s

95th percentile per-packet one-way delay: 54.223 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 54.192 ms

Loss rate: 1.39%

-- Flow 2:

Average throughput: 7.35 Mbit/s

95th percentile per-packet one-way delay: 54.202 ms

Loss rate: 1.37%

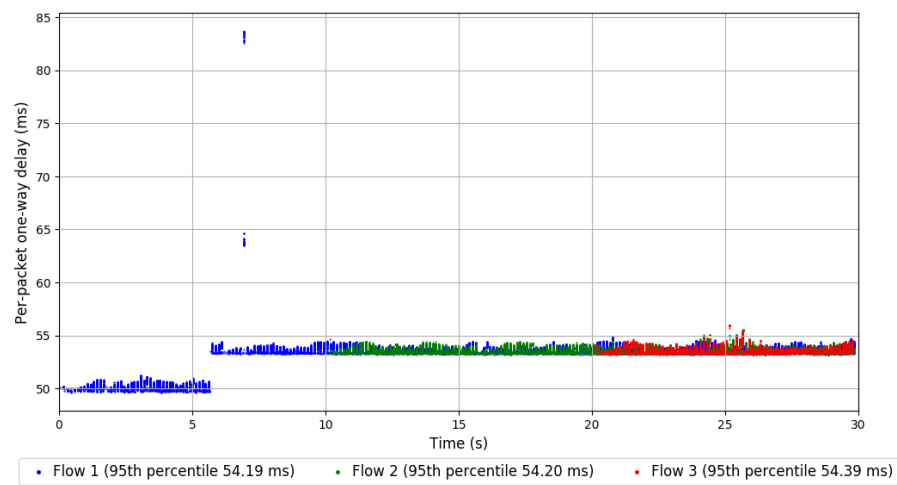
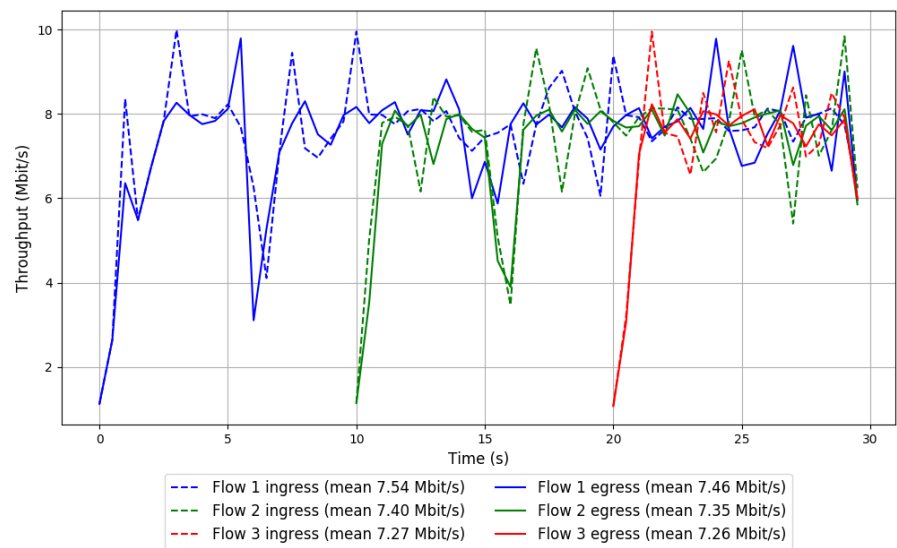
-- Flow 3:

Average throughput: 7.26 Mbit/s

95th percentile per-packet one-way delay: 54.391 ms

Loss rate: 1.39%

Run 10: Report of Sprout — Data Link

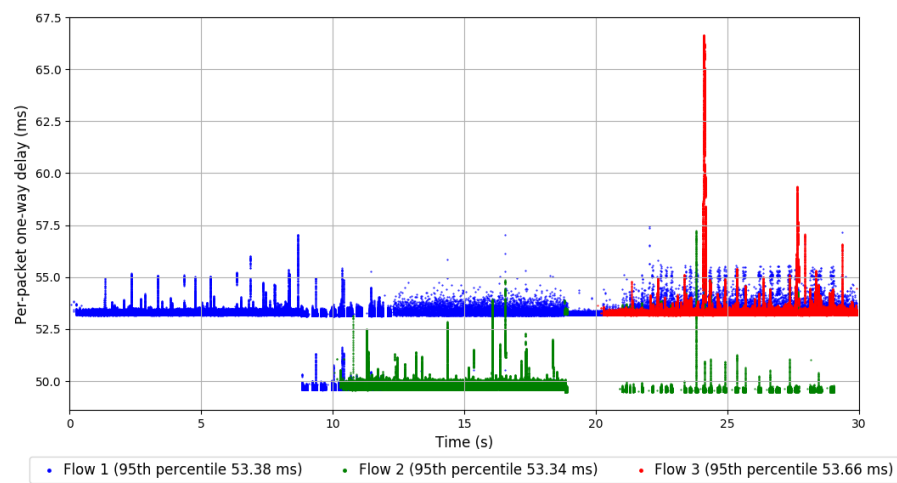
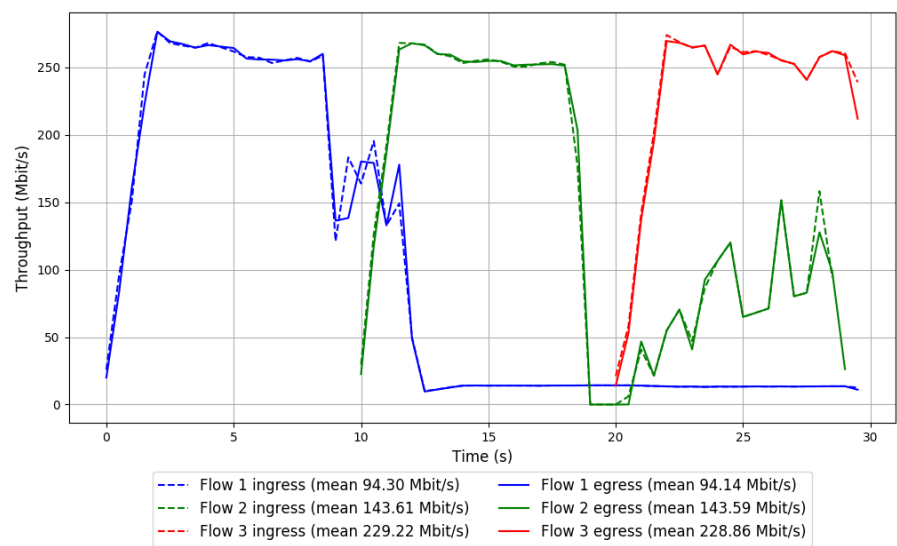


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-31 16:21:34
End at: 2018-01-31 16:22:04

# Below is generated by plot.py at 2018-01-31 22:32:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.84 Mbit/s
95th percentile per-packet one-way delay: 53.421 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 94.14 Mbit/s
95th percentile per-packet one-way delay: 53.382 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 143.59 Mbit/s
95th percentile per-packet one-way delay: 53.344 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 228.86 Mbit/s
95th percentile per-packet one-way delay: 53.662 ms
Loss rate: 1.23%
```


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

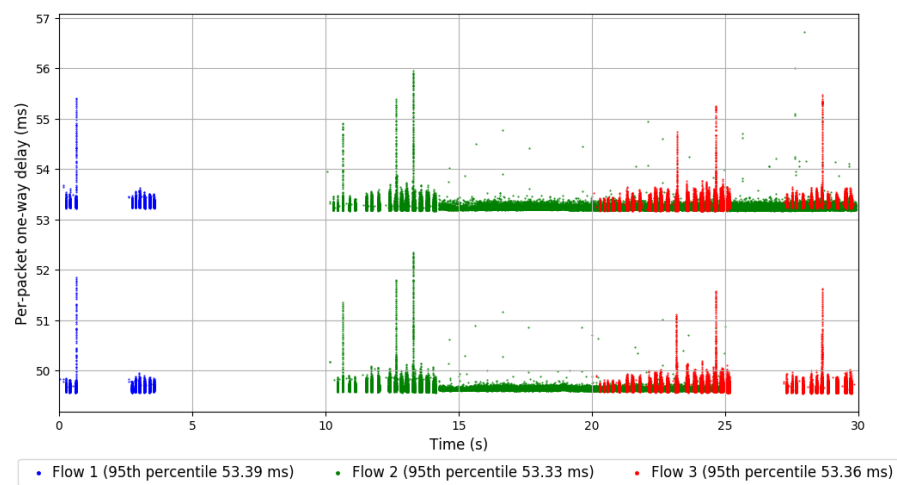
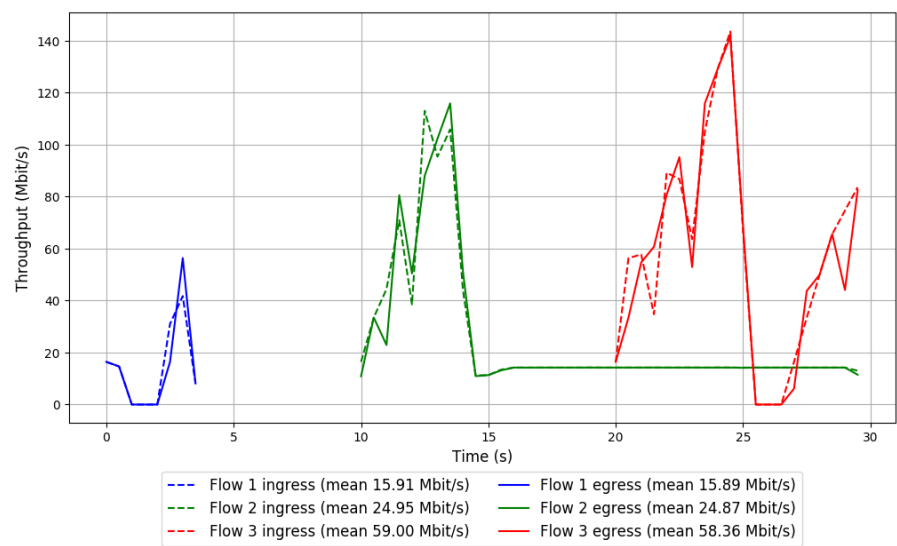


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-31 16:38:08
End at: 2018-01-31 16:38:38

# Below is generated by plot.py at 2018-01-31 22:32:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.52 Mbit/s
95th percentile per-packet one-way delay: 53.353 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 53.390 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 53.325 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 58.36 Mbit/s
95th percentile per-packet one-way delay: 53.364 ms
Loss rate: 2.70%
```

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

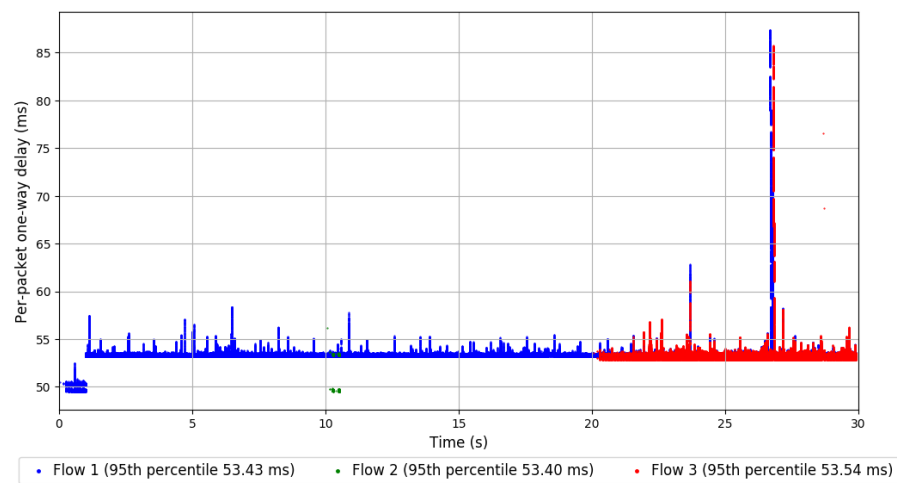
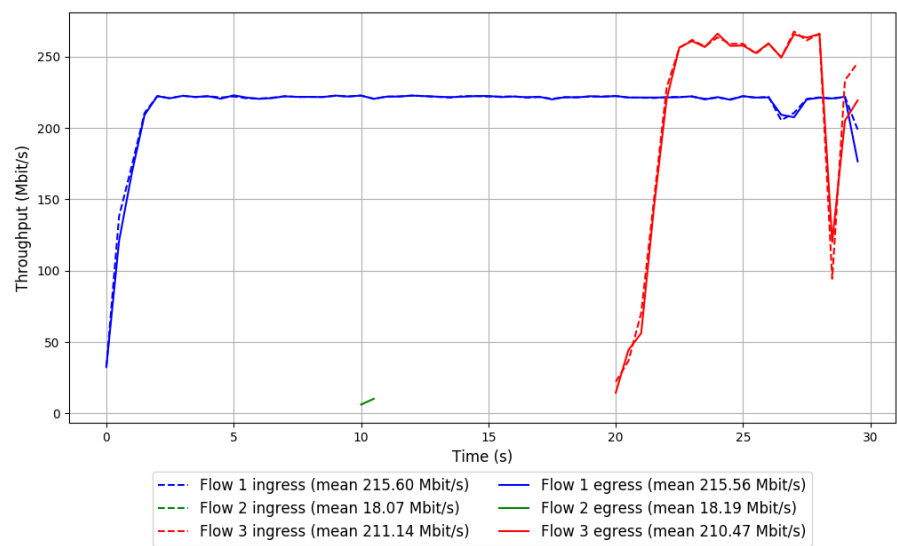


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-01-31 16:54:12
End at: 2018-01-31 16:54:42

# Below is generated by plot.py at 2018-01-31 22:33:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.09 Mbit/s
95th percentile per-packet one-way delay: 53.450 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 215.56 Mbit/s
95th percentile per-packet one-way delay: 53.432 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 18.19 Mbit/s
95th percentile per-packet one-way delay: 53.400 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 210.47 Mbit/s
95th percentile per-packet one-way delay: 53.541 ms
Loss rate: 1.36%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-01-31 17:11:00

End at: 2018-01-31 17:11:30

Below is generated by plot.py at 2018-01-31 22:34:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 322.72 Mbit/s

95th percentile per-packet one-way delay: 53.372 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 246.74 Mbit/s

95th percentile per-packet one-way delay: 53.353 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 64.17 Mbit/s

95th percentile per-packet one-way delay: 53.463 ms

Loss rate: 0.50%

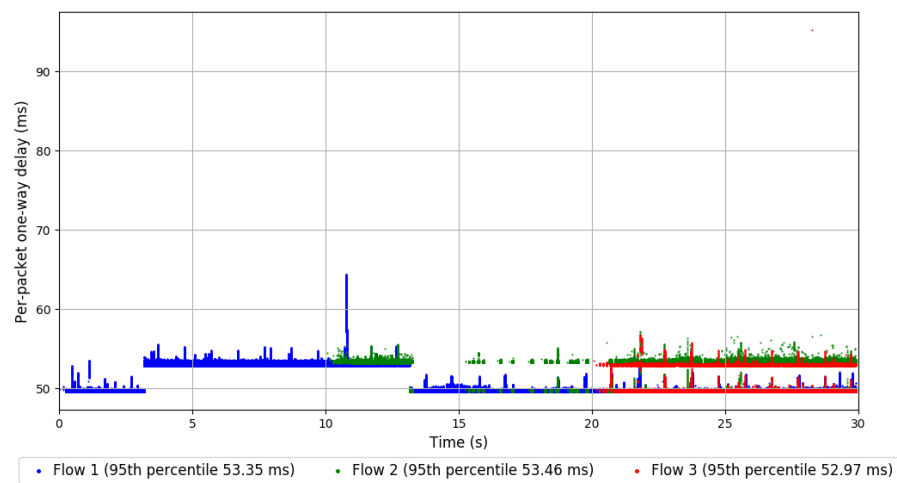
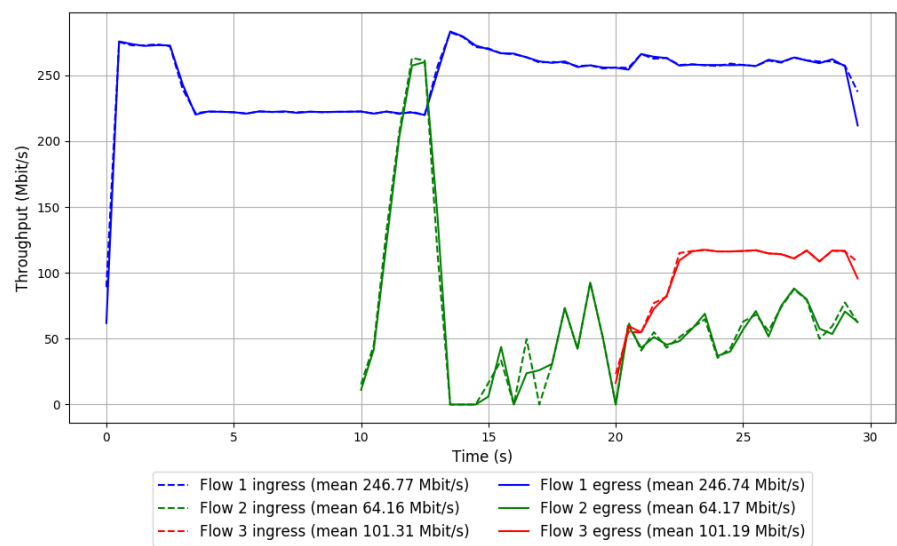
-- Flow 3:

Average throughput: 101.19 Mbit/s

95th percentile per-packet one-way delay: 52.965 ms

Loss rate: 1.17%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-31 17:27:45

End at: 2018-01-31 17:28:15

Below is generated by plot.py at 2018-01-31 22:34:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.35 Mbit/s

95th percentile per-packet one-way delay: 53.394 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 28.22 Mbit/s

95th percentile per-packet one-way delay: 53.361 ms

Loss rate: 2.45%

-- Flow 2:

Average throughput: 249.83 Mbit/s

95th percentile per-packet one-way delay: 53.408 ms

Loss rate: 0.55%

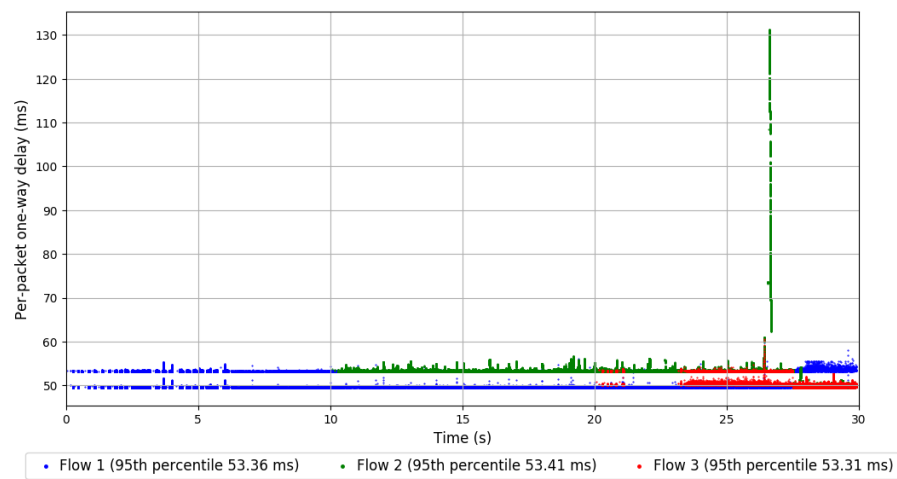
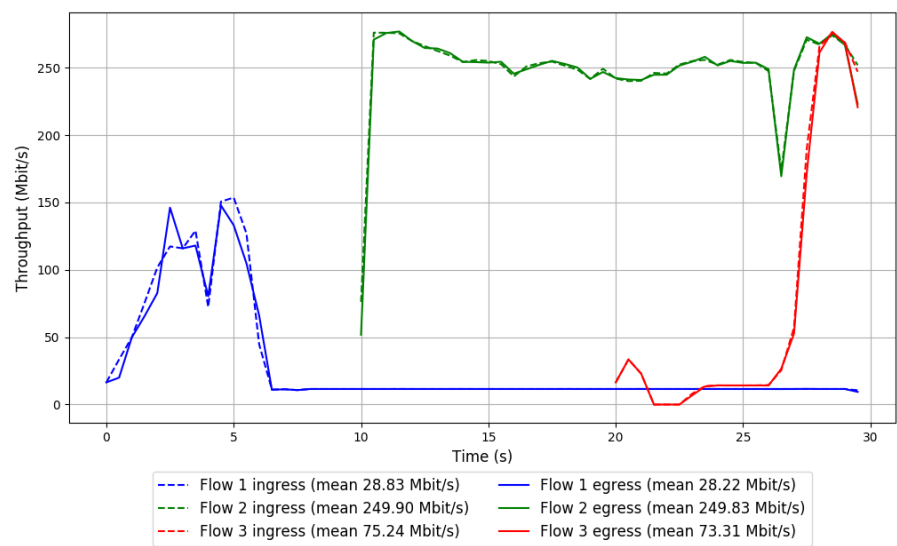
-- Flow 3:

Average throughput: 73.31 Mbit/s

95th percentile per-packet one-way delay: 53.309 ms

Loss rate: 3.58%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-31 17:44:26

End at: 2018-01-31 17:44:56

Below is generated by plot.py at 2018-01-31 22:34:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 216.97 Mbit/s

95th percentile per-packet one-way delay: 53.379 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 28.46 Mbit/s

95th percentile per-packet one-way delay: 53.357 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 246.21 Mbit/s

95th percentile per-packet one-way delay: 53.382 ms

Loss rate: 0.56%

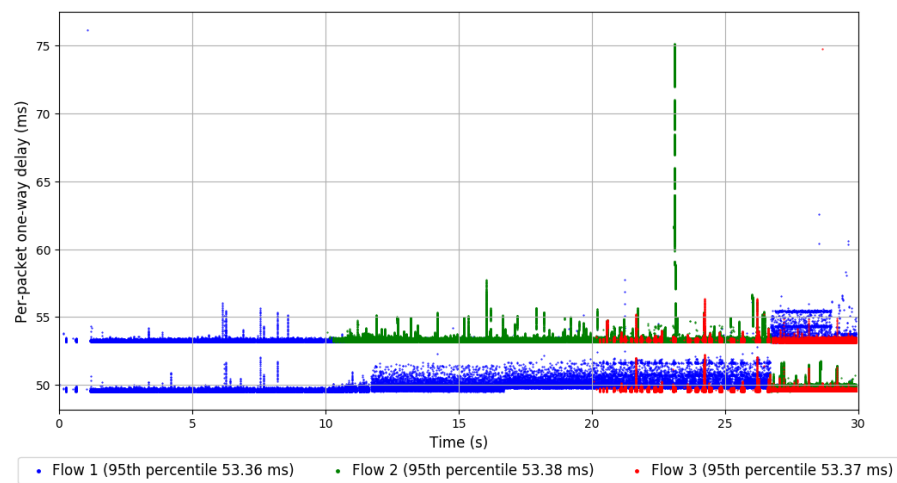
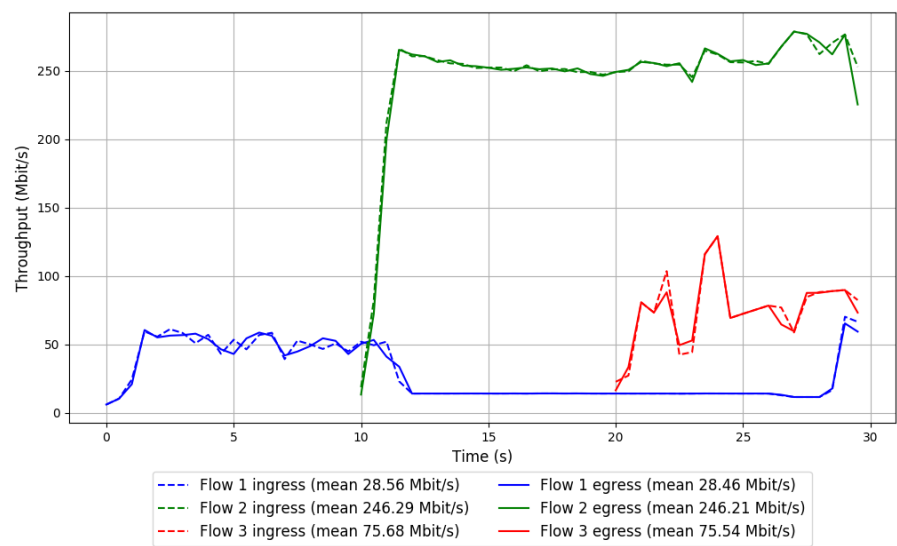
-- Flow 3:

Average throughput: 75.54 Mbit/s

95th percentile per-packet one-way delay: 53.370 ms

Loss rate: 1.20%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-31 18:00:57

End at: 2018-01-31 18:01:27

Below is generated by plot.py at 2018-01-31 22:34:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.40 Mbit/s

95th percentile per-packet one-way delay: 53.297 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 53.34 Mbit/s

95th percentile per-packet one-way delay: 53.283 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 10.62 Mbit/s

95th percentile per-packet one-way delay: 53.293 ms

Loss rate: 0.58%

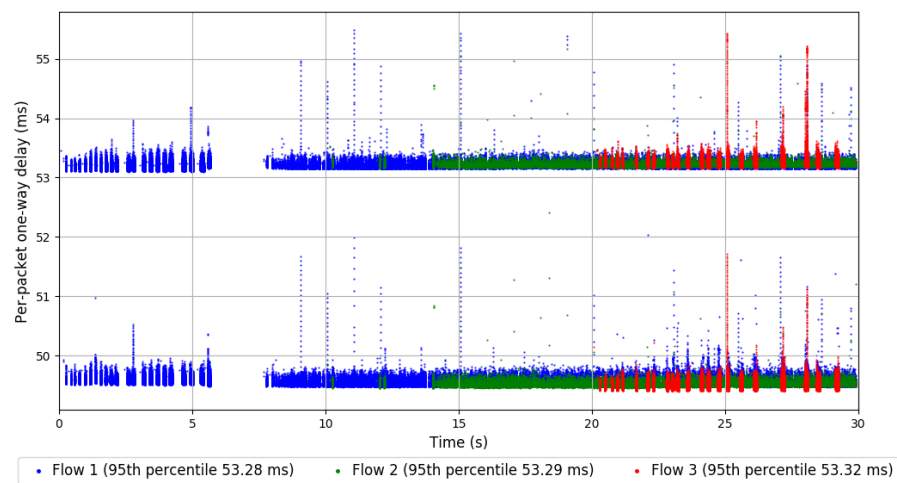
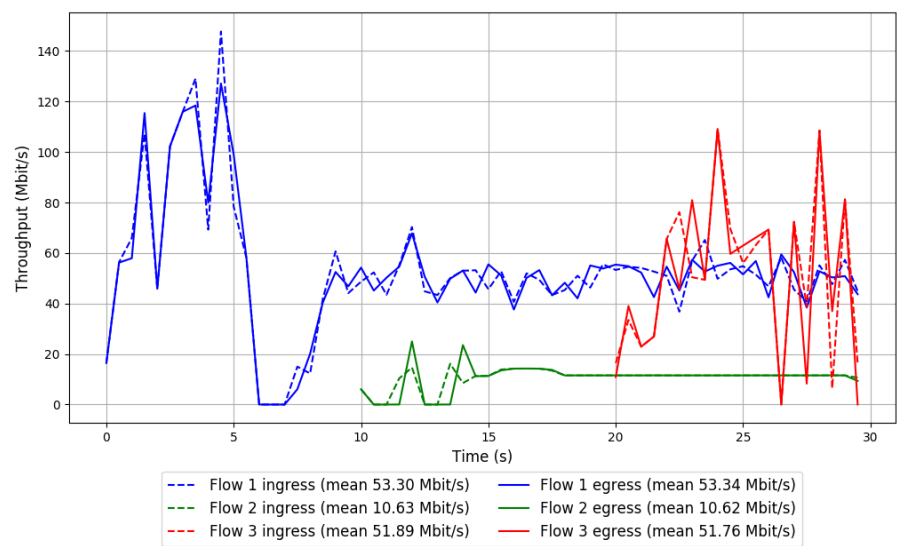
-- Flow 3:

Average throughput: 51.76 Mbit/s

95th percentile per-packet one-way delay: 53.324 ms

Loss rate: 1.58%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-31 18:16:47

End at: 2018-01-31 18:17:17

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 402.51 Mbit/s

95th percentile per-packet one-way delay: 54.472 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 249.00 Mbit/s

95th percentile per-packet one-way delay: 54.535 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 219.63 Mbit/s

95th percentile per-packet one-way delay: 54.244 ms

Loss rate: 0.64%

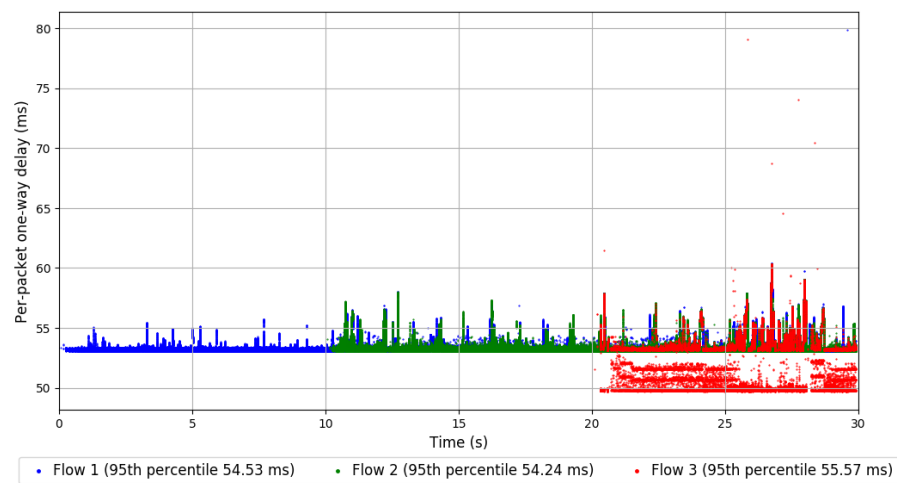
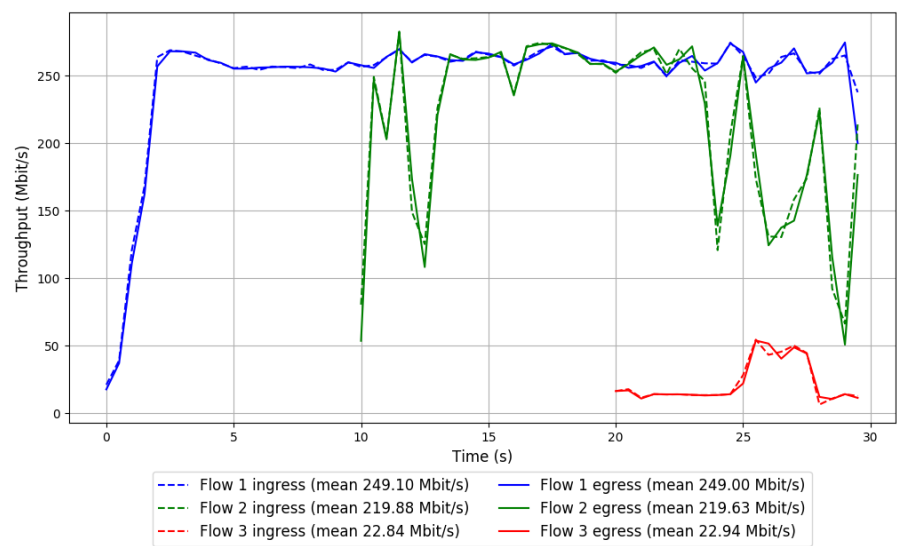
-- Flow 3:

Average throughput: 22.94 Mbit/s

95th percentile per-packet one-way delay: 55.566 ms

Loss rate: 0.63%

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

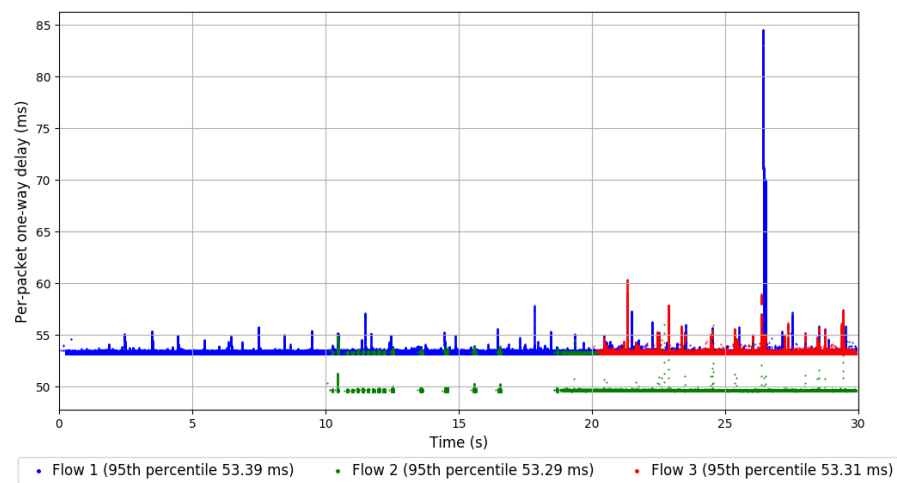
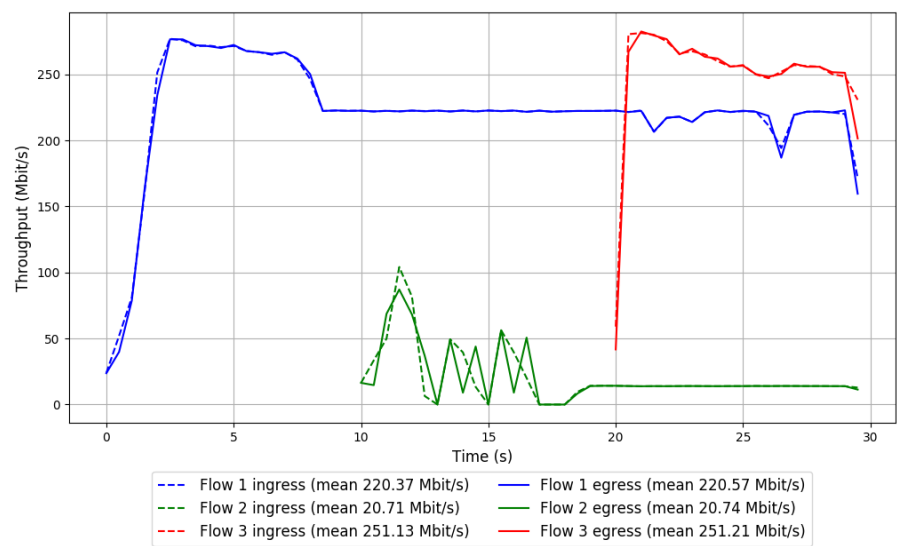


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-01-31 18:33:27
End at: 2018-01-31 18:33:57

# Below is generated by plot.py at 2018-01-31 22:40:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 317.11 Mbit/s
95th percentile per-packet one-way delay: 53.377 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 220.57 Mbit/s
95th percentile per-packet one-way delay: 53.387 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 20.74 Mbit/s
95th percentile per-packet one-way delay: 53.293 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 251.21 Mbit/s
95th percentile per-packet one-way delay: 53.308 ms
Loss rate: 1.05%
```


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

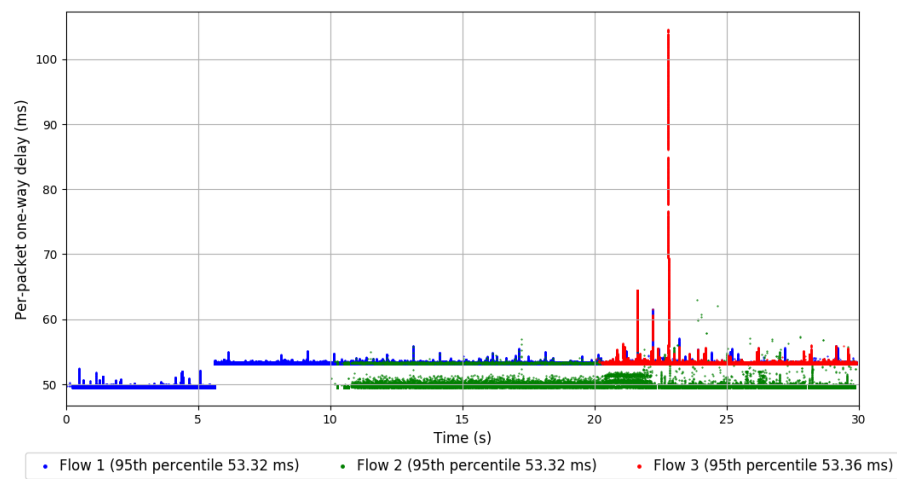
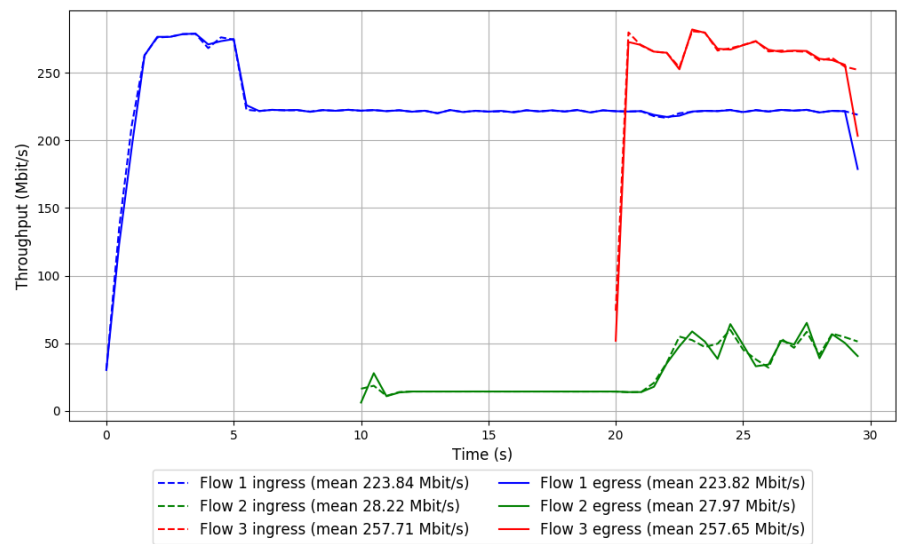


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-31 18:49:57
End at: 2018-01-31 18:50:27

# Below is generated by plot.py at 2018-01-31 22:40:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.20 Mbit/s
95th percentile per-packet one-way delay: 53.332 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 223.82 Mbit/s
95th percentile per-packet one-way delay: 53.322 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 27.97 Mbit/s
95th percentile per-packet one-way delay: 53.321 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 257.65 Mbit/s
95th percentile per-packet one-way delay: 53.361 ms
Loss rate: 1.47%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-31 16:17:05

End at: 2018-01-31 16:17:35

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.46 Mbit/s

95th percentile per-packet one-way delay: 56.537 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 61.44 Mbit/s

95th percentile per-packet one-way delay: 56.276 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 24.69 Mbit/s

95th percentile per-packet one-way delay: 55.103 ms

Loss rate: 1.82%

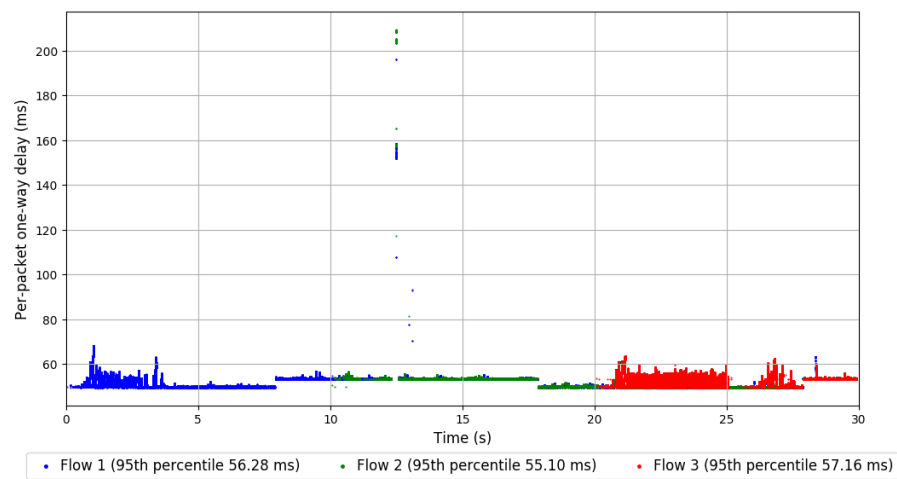
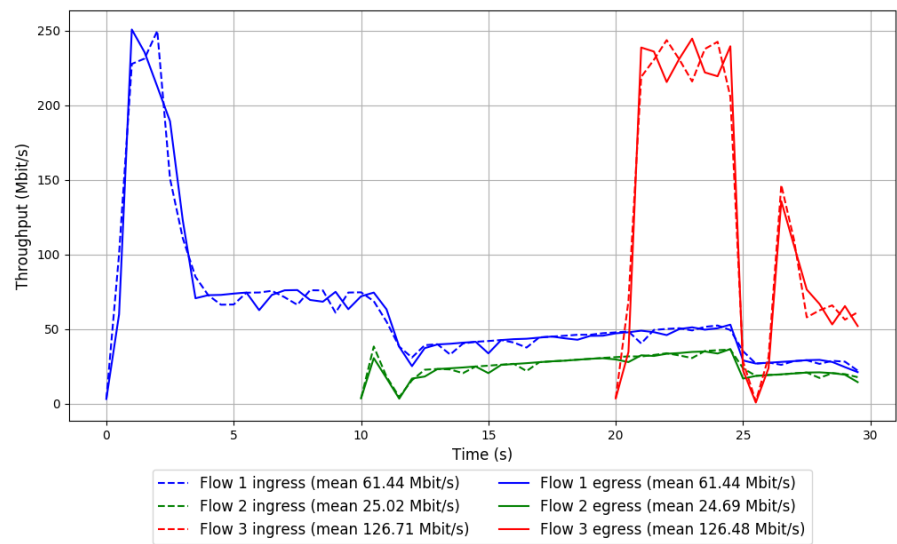
-- Flow 3:

Average throughput: 126.48 Mbit/s

95th percentile per-packet one-way delay: 57.159 ms

Loss rate: 1.26%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-31 16:33:35

End at: 2018-01-31 16:34:05

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.48 Mbit/s

95th percentile per-packet one-way delay: 59.618 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 9.49 Mbit/s

95th percentile per-packet one-way delay: 56.545 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 101.51 Mbit/s

95th percentile per-packet one-way delay: 60.034 ms

Loss rate: 0.21%

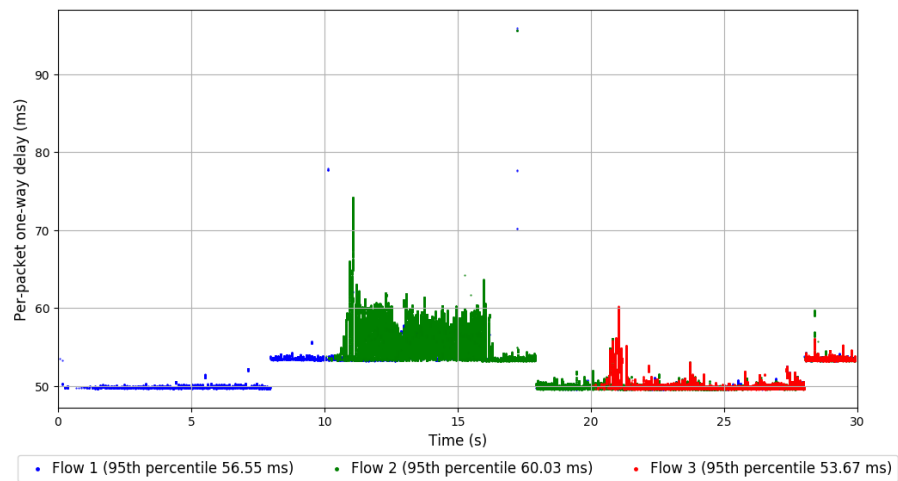
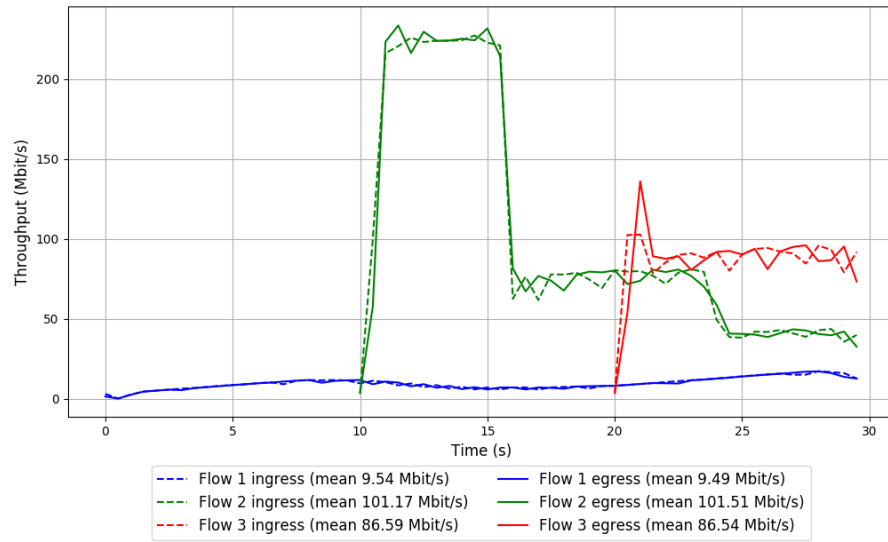
-- Flow 3:

Average throughput: 86.54 Mbit/s

95th percentile per-packet one-way delay: 53.671 ms

Loss rate: 1.10%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-31 16:49:40

End at: 2018-01-31 16:50:10

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.80 Mbit/s

95th percentile per-packet one-way delay: 55.087 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 100.42 Mbit/s

95th percentile per-packet one-way delay: 55.514 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 44.26 Mbit/s

95th percentile per-packet one-way delay: 54.762 ms

Loss rate: 0.65%

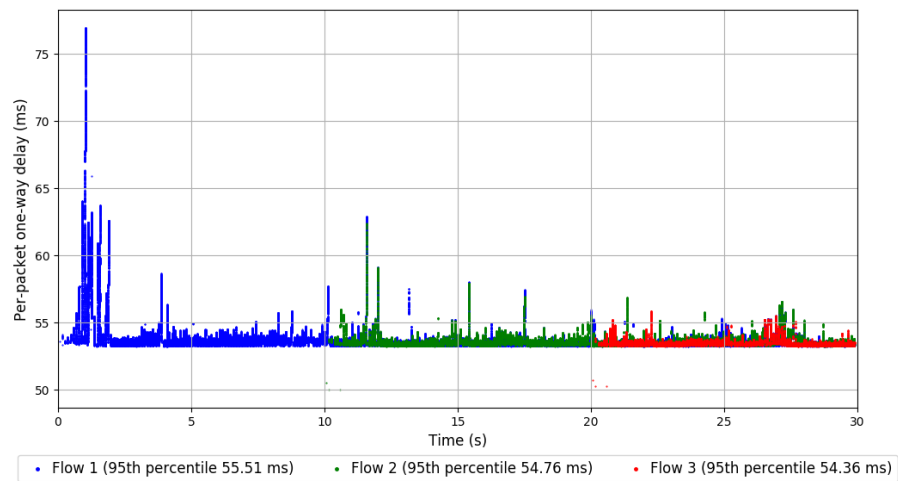
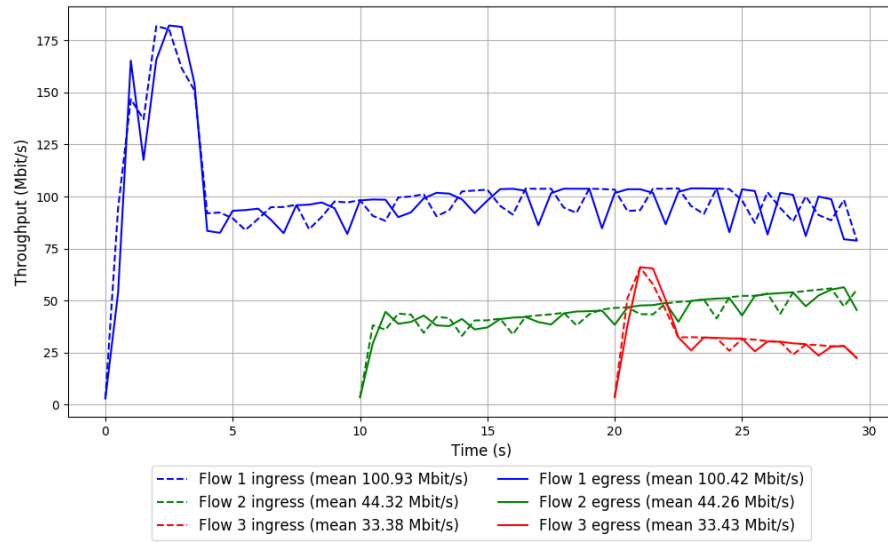
-- Flow 3:

Average throughput: 33.43 Mbit/s

95th percentile per-packet one-way delay: 54.357 ms

Loss rate: 0.86%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-01-31 17:06:14

End at: 2018-01-31 17:06:44

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 254.81 Mbit/s

95th percentile per-packet one-way delay: 56.872 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 109.98 Mbit/s

95th percentile per-packet one-way delay: 56.859 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 215.65 Mbit/s

95th percentile per-packet one-way delay: 56.869 ms

Loss rate: 0.24%

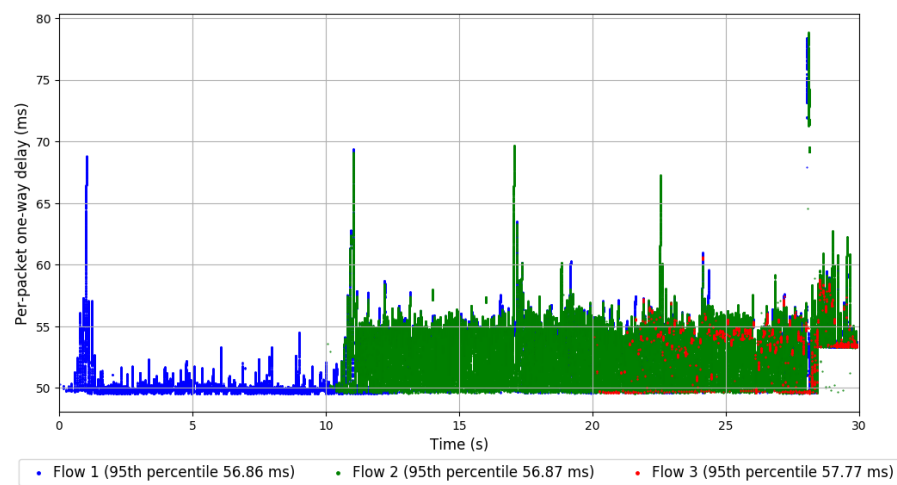
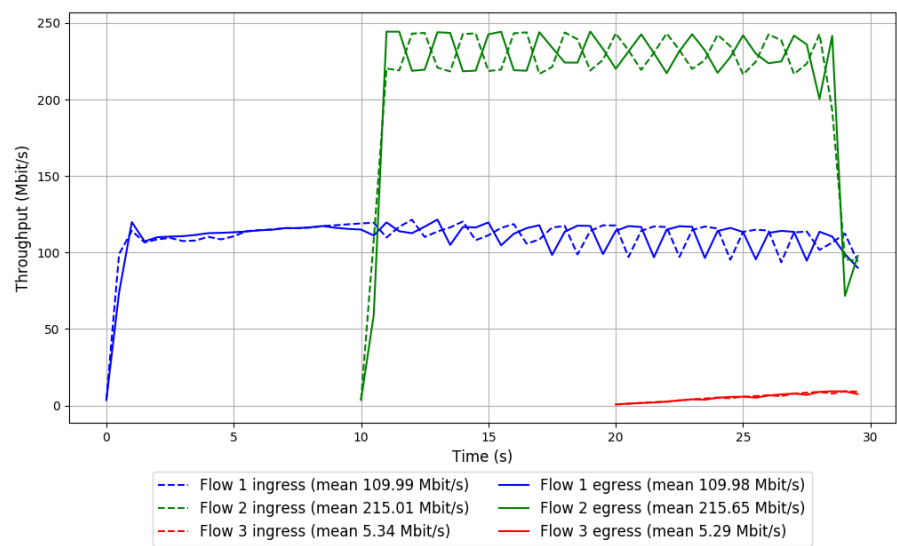
-- Flow 3:

Average throughput: 5.29 Mbit/s

95th percentile per-packet one-way delay: 57.775 ms

Loss rate: 1.90%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-31 17:23:11

End at: 2018-01-31 17:23:41

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.64 Mbit/s

95th percentile per-packet one-way delay: 59.238 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 49.82 Mbit/s

95th percentile per-packet one-way delay: 60.901 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 28.97 Mbit/s

95th percentile per-packet one-way delay: 56.049 ms

Loss rate: 0.44%

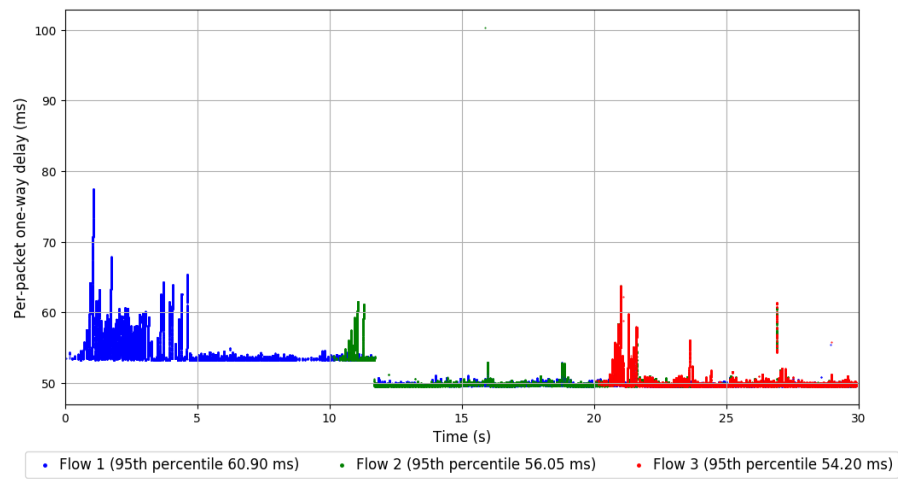
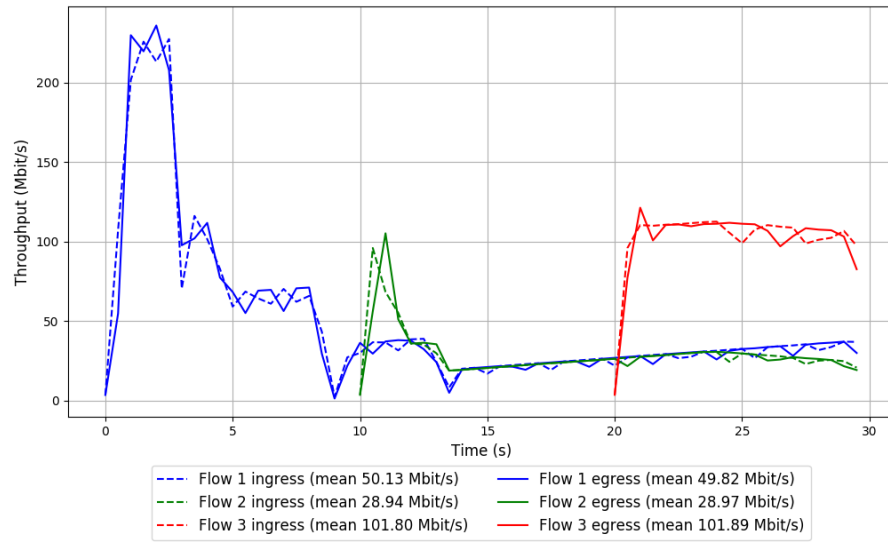
-- Flow 3:

Average throughput: 101.89 Mbit/s

95th percentile per-packet one-way delay: 54.203 ms

Loss rate: 0.93%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-31 17:39:46

End at: 2018-01-31 17:40:16

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 188.65 Mbit/s

95th percentile per-packet one-way delay: 57.610 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 172.32 Mbit/s

95th percentile per-packet one-way delay: 57.885 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 6.58 Mbit/s

95th percentile per-packet one-way delay: 56.348 ms

Loss rate: 0.65%

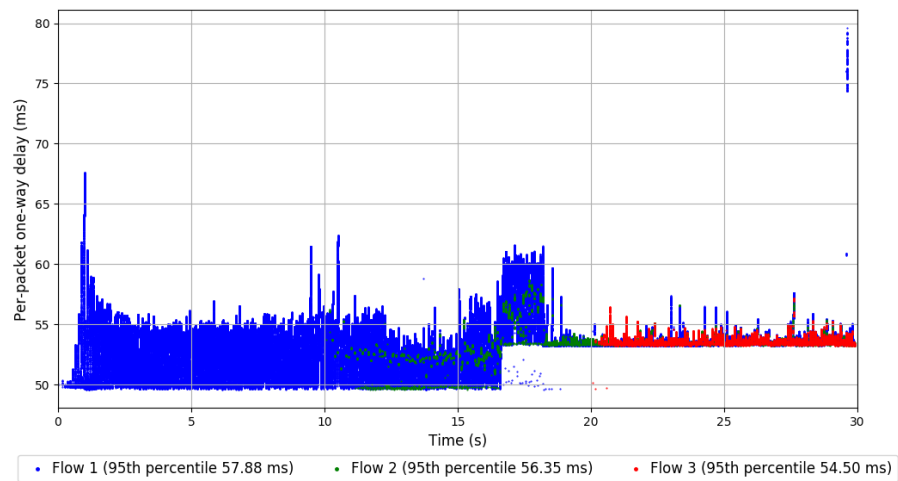
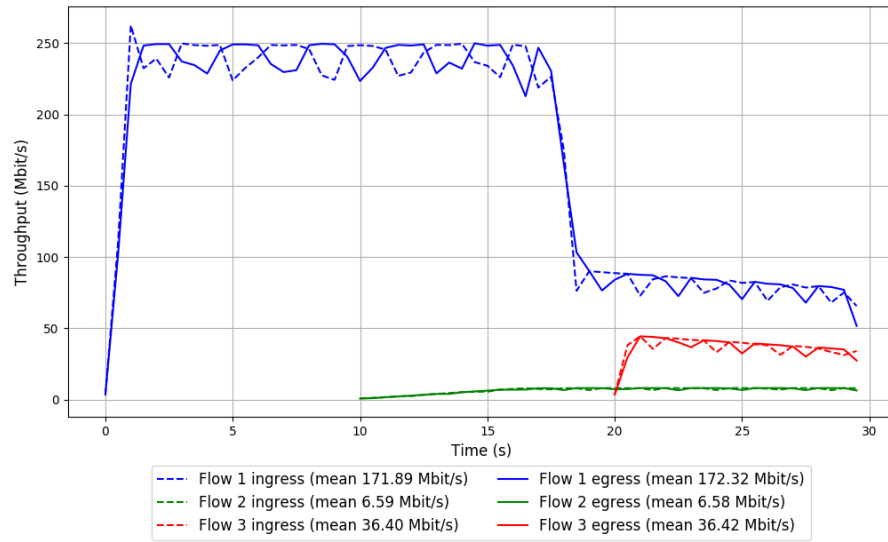
-- Flow 3:

Average throughput: 36.42 Mbit/s

95th percentile per-packet one-way delay: 54.504 ms

Loss rate: 0.96%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-31 17:56:24

End at: 2018-01-31 17:56:54

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.16 Mbit/s

95th percentile per-packet one-way delay: 57.409 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 79.66 Mbit/s

95th percentile per-packet one-way delay: 54.998 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 88.36 Mbit/s

95th percentile per-packet one-way delay: 59.059 ms

Loss rate: 0.45%

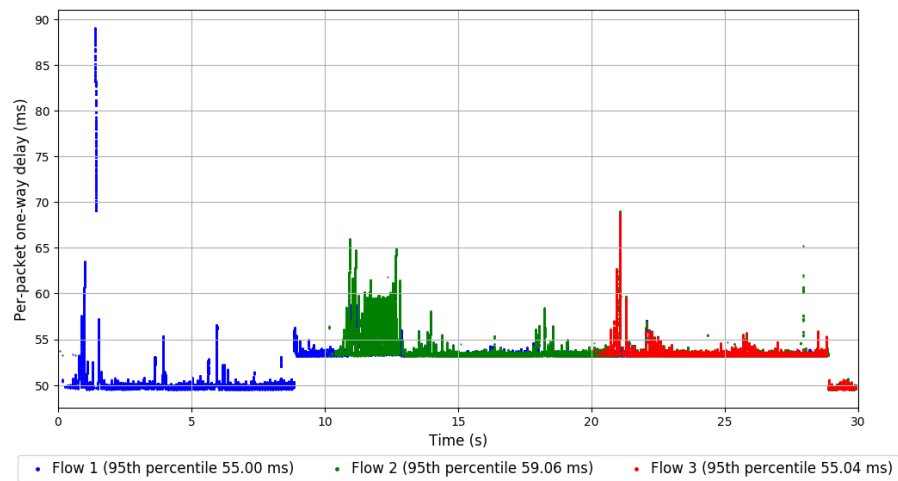
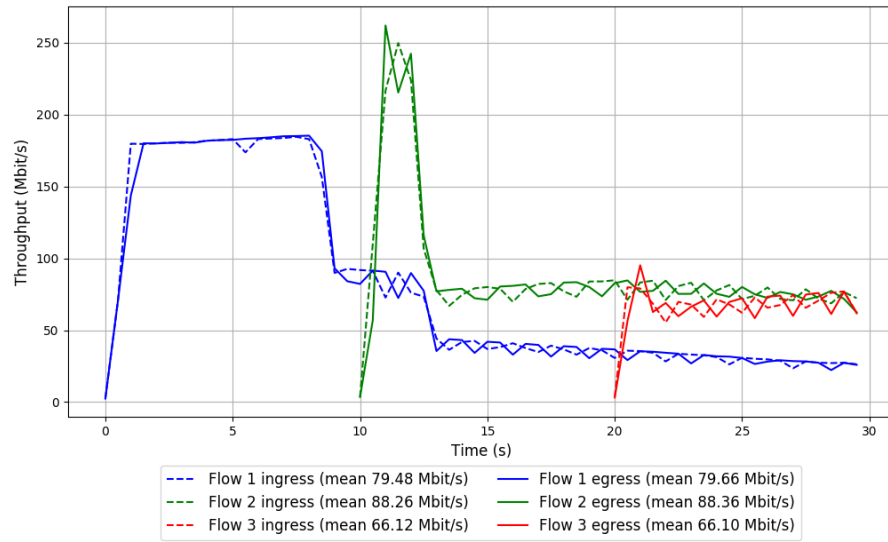
-- Flow 3:

Average throughput: 66.10 Mbit/s

95th percentile per-packet one-way delay: 55.039 ms

Loss rate: 1.18%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-31 18:12:23

End at: 2018-01-31 18:12:53

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.73 Mbit/s

95th percentile per-packet one-way delay: 54.458 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 38.14 Mbit/s

95th percentile per-packet one-way delay: 53.628 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 61.33 Mbit/s

95th percentile per-packet one-way delay: 54.176 ms

Loss rate: 0.50%

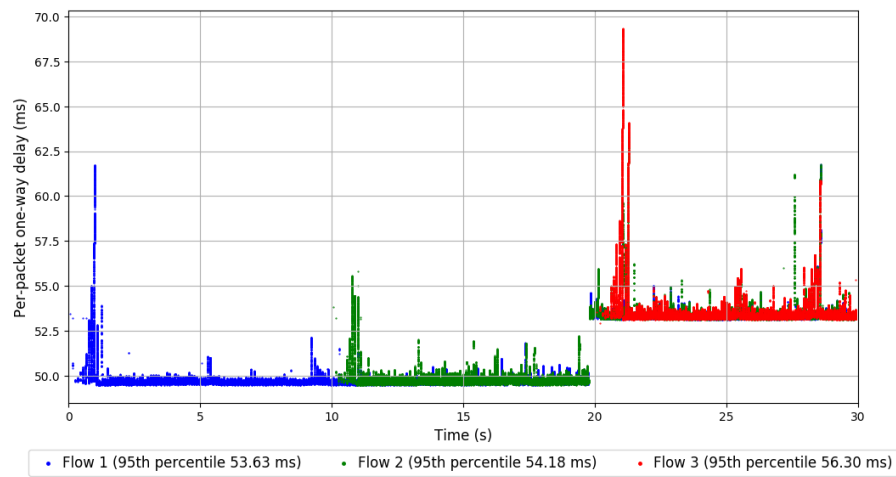
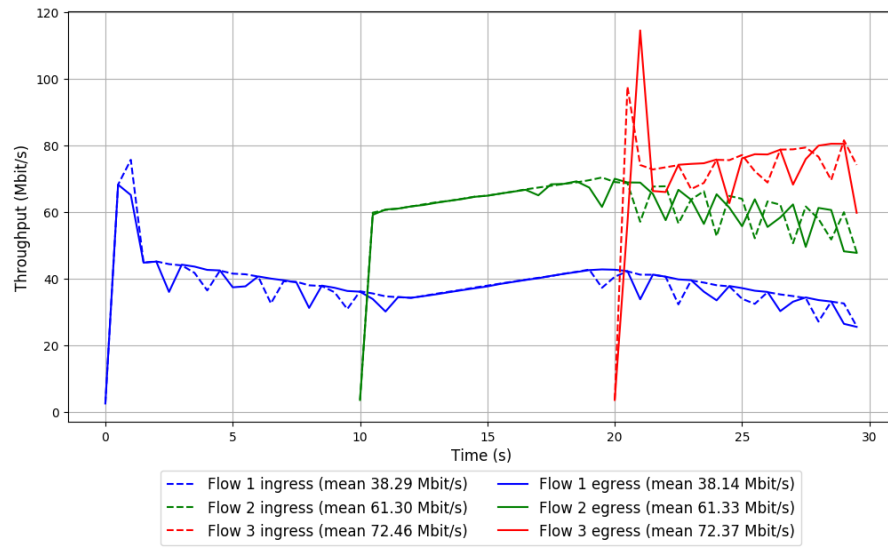
-- Flow 3:

Average throughput: 72.37 Mbit/s

95th percentile per-packet one-way delay: 56.298 ms

Loss rate: 1.14%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-31 18:29:01

End at: 2018-01-31 18:29:31

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.41 Mbit/s

95th percentile per-packet one-way delay: 54.240 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 13.17 Mbit/s

95th percentile per-packet one-way delay: 53.909 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 48.36 Mbit/s

95th percentile per-packet one-way delay: 54.239 ms

Loss rate: 0.48%

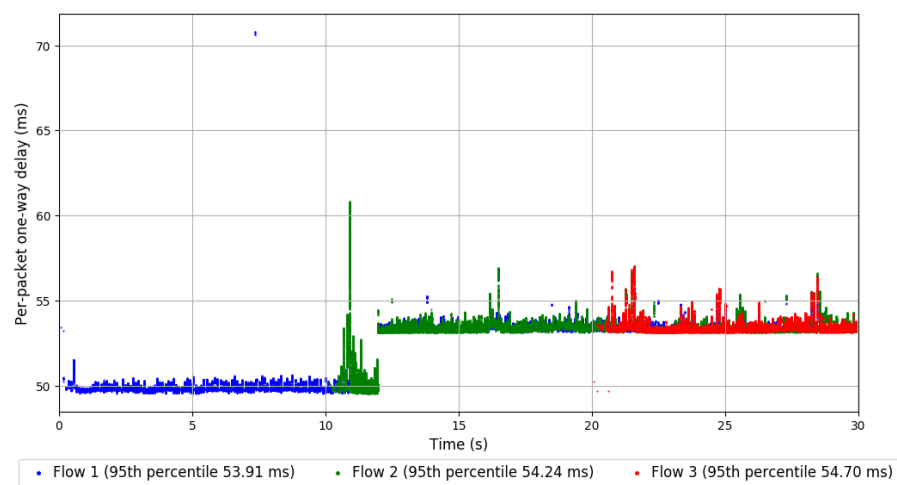
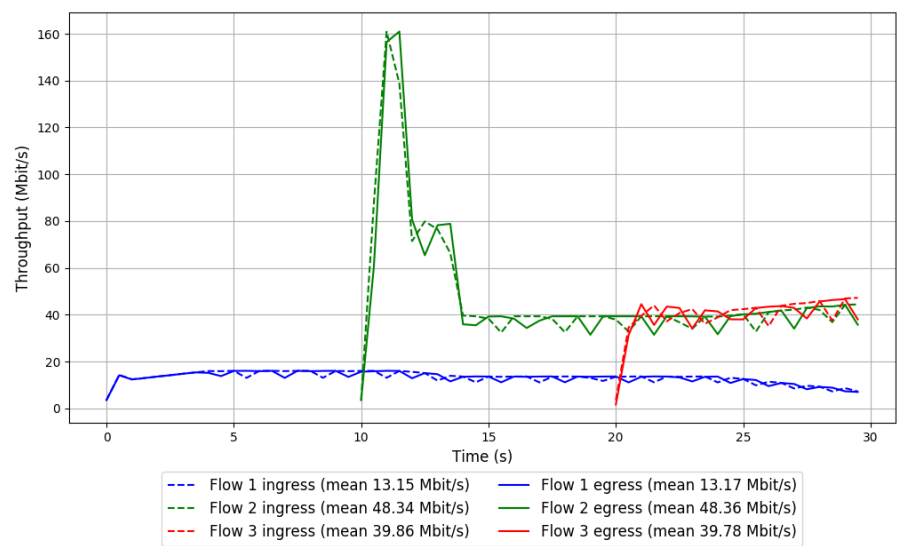
-- Flow 3:

Average throughput: 39.78 Mbit/s

95th percentile per-packet one-way delay: 54.697 ms

Loss rate: 1.21%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-01-31 18:45:31

End at: 2018-01-31 18:46:01

Below is generated by plot.py at 2018-01-31 22:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.57 Mbit/s

95th percentile per-packet one-way delay: 54.875 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 11.04 Mbit/s

95th percentile per-packet one-way delay: 53.649 ms

Loss rate: 3.94%

-- Flow 2:

Average throughput: 56.80 Mbit/s

95th percentile per-packet one-way delay: 54.978 ms

Loss rate: 0.50%

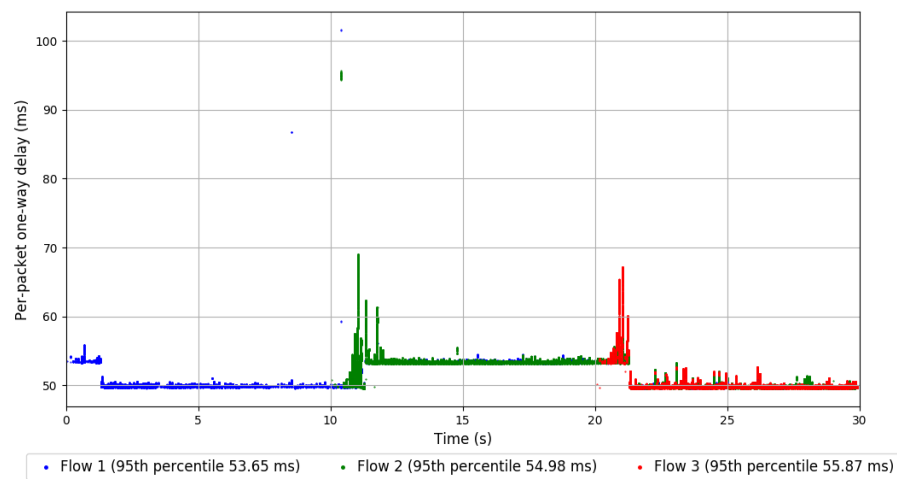
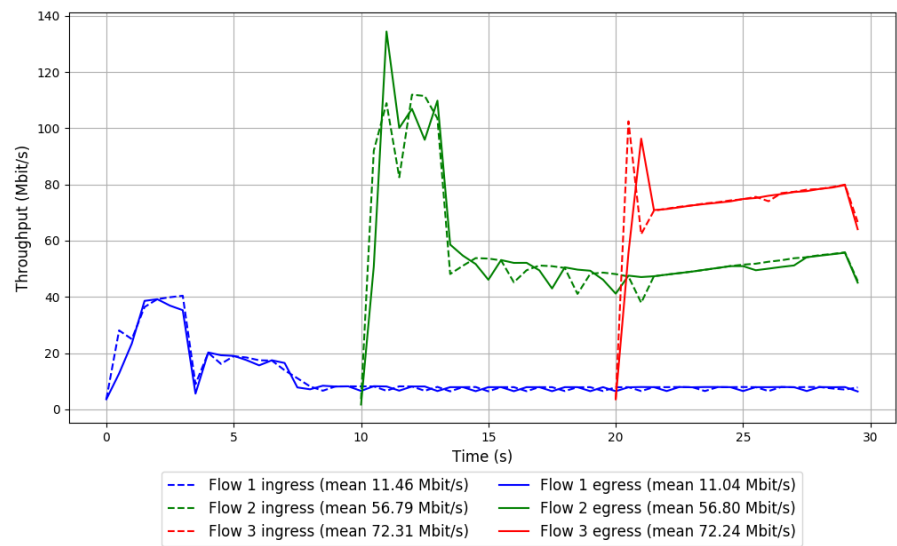
-- Flow 3:

Average throughput: 72.24 Mbit/s

95th percentile per-packet one-way delay: 55.870 ms

Loss rate: 1.11%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-31 16:24:23

End at: 2018-01-31 16:24:53

Below is generated by plot.py at 2018-01-31 22:42:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 347.55 Mbit/s

95th percentile per-packet one-way delay: 104.594 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 195.17 Mbit/s

95th percentile per-packet one-way delay: 112.398 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 187.86 Mbit/s

95th percentile per-packet one-way delay: 95.370 ms

Loss rate: 0.11%

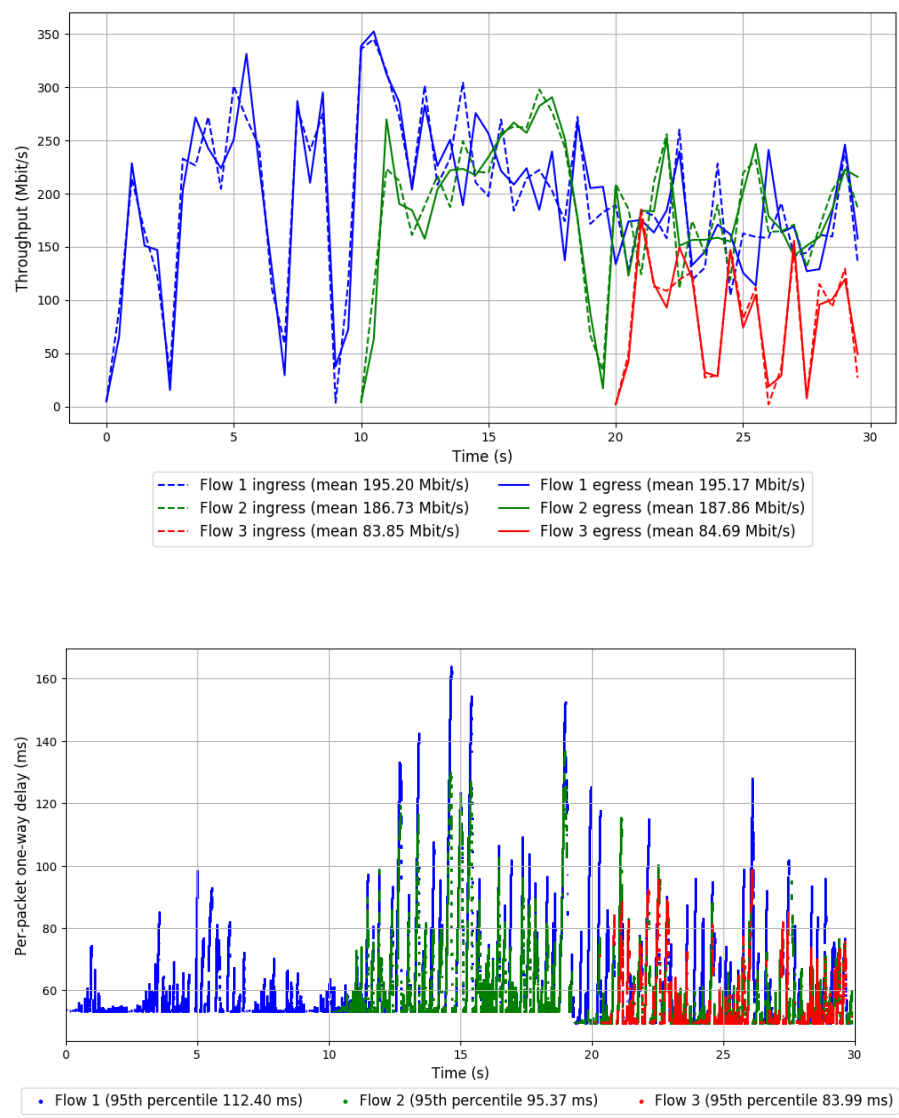
-- Flow 3:

Average throughput: 84.69 Mbit/s

95th percentile per-packet one-way delay: 83.986 ms

Loss rate: 0.02%

Run 1: Report of Verus — Data Link

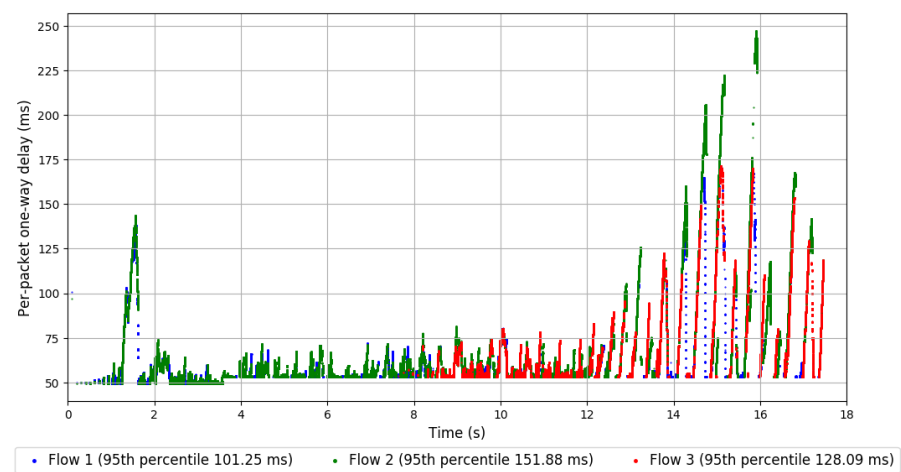
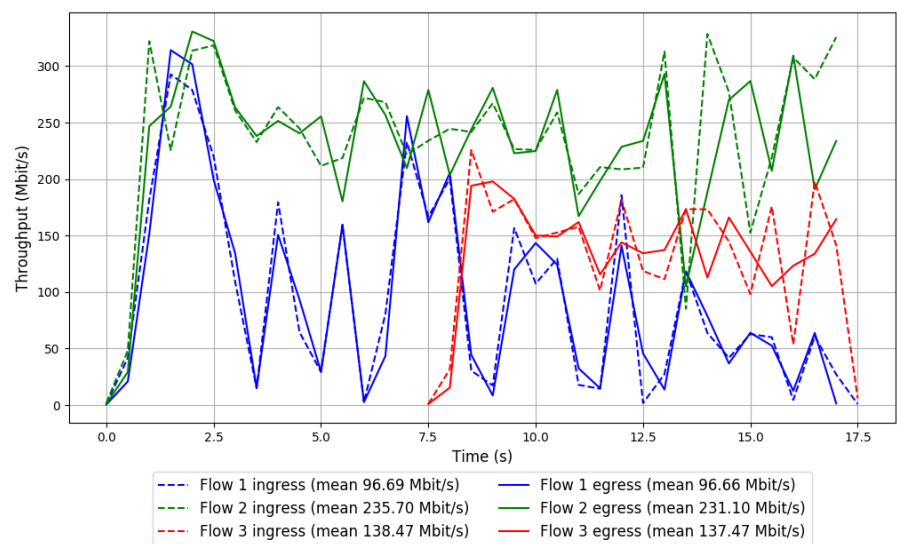


Run 2: Statistics of Verus

Start at: 2018-01-31 16:40:37

End at: 2018-01-31 16:41:07

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-31 16:57:04

End at: 2018-01-31 16:57:34

Below is generated by plot.py at 2018-01-31 22:42:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.91 Mbit/s

95th percentile per-packet one-way delay: 158.816 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 146.60 Mbit/s

95th percentile per-packet one-way delay: 118.691 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 247.10 Mbit/s

95th percentile per-packet one-way delay: 176.387 ms

Loss rate: 0.71%

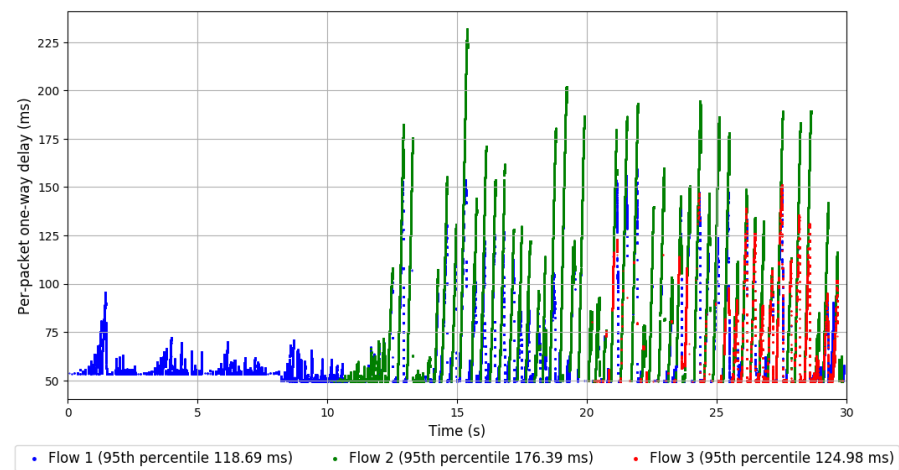
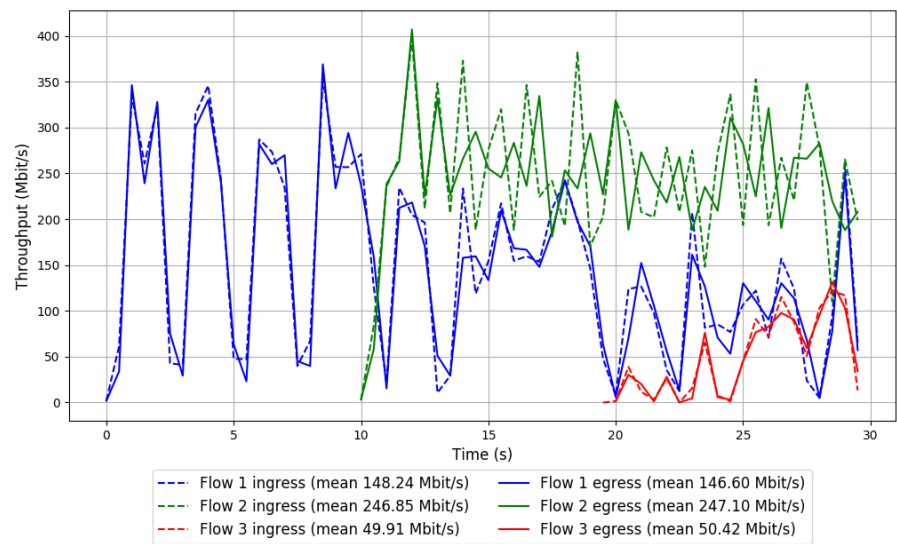
-- Flow 3:

Average throughput: 50.42 Mbit/s

95th percentile per-packet one-way delay: 124.976 ms

Loss rate: 0.05%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-31 17:14:00

End at: 2018-01-31 17:14:30

Below is generated by plot.py at 2018-01-31 22:42:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.78 Mbit/s

95th percentile per-packet one-way delay: 162.768 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 157.72 Mbit/s

95th percentile per-packet one-way delay: 90.629 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 209.12 Mbit/s

95th percentile per-packet one-way delay: 181.820 ms

Loss rate: 1.45%

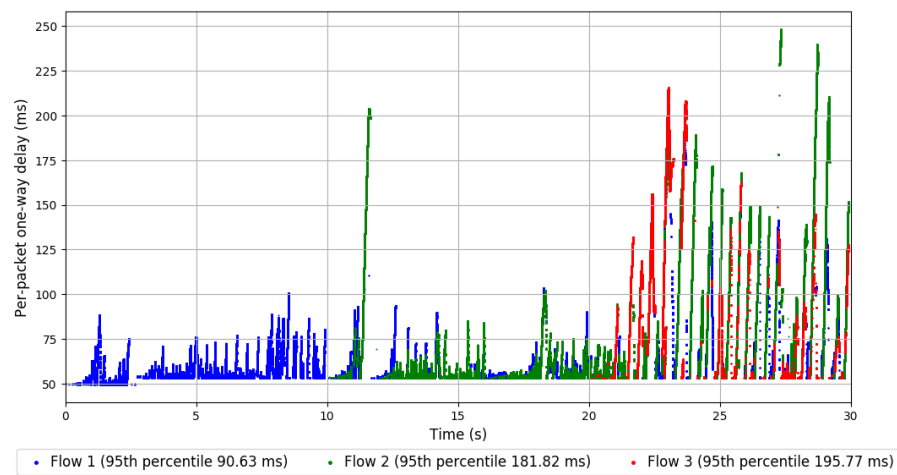
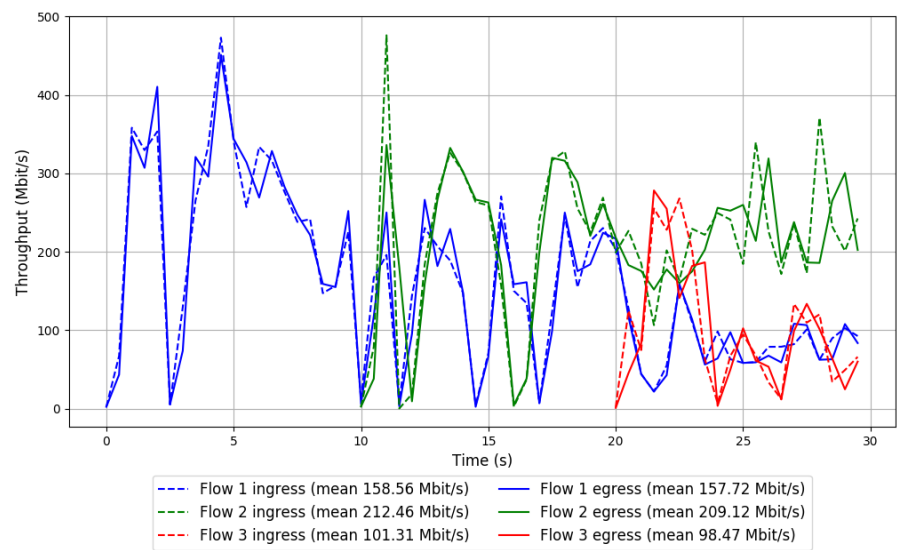
-- Flow 3:

Average throughput: 98.47 Mbit/s

95th percentile per-packet one-way delay: 195.766 ms

Loss rate: 3.79%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-31 17:30:30

End at: 2018-01-31 17:31:00

Below is generated by plot.py at 2018-01-31 22:43:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 355.75 Mbit/s

95th percentile per-packet one-way delay: 104.581 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 213.07 Mbit/s

95th percentile per-packet one-way delay: 100.490 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 160.87 Mbit/s

95th percentile per-packet one-way delay: 107.249 ms

Loss rate: 0.49%

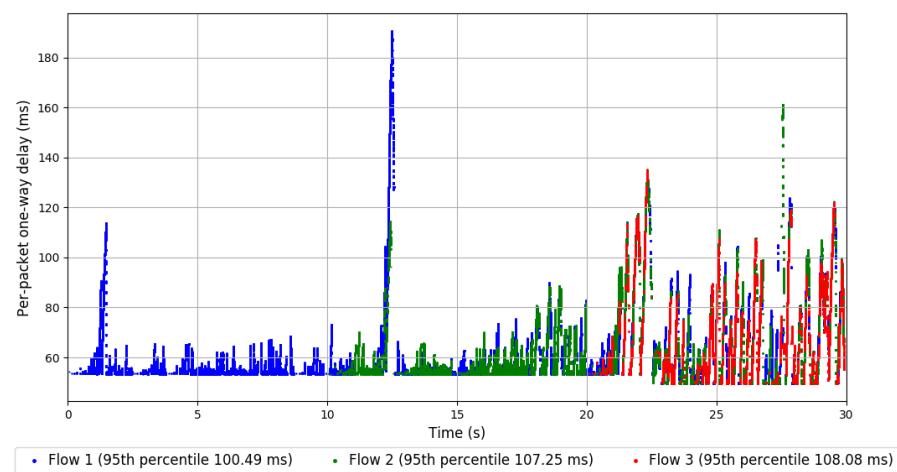
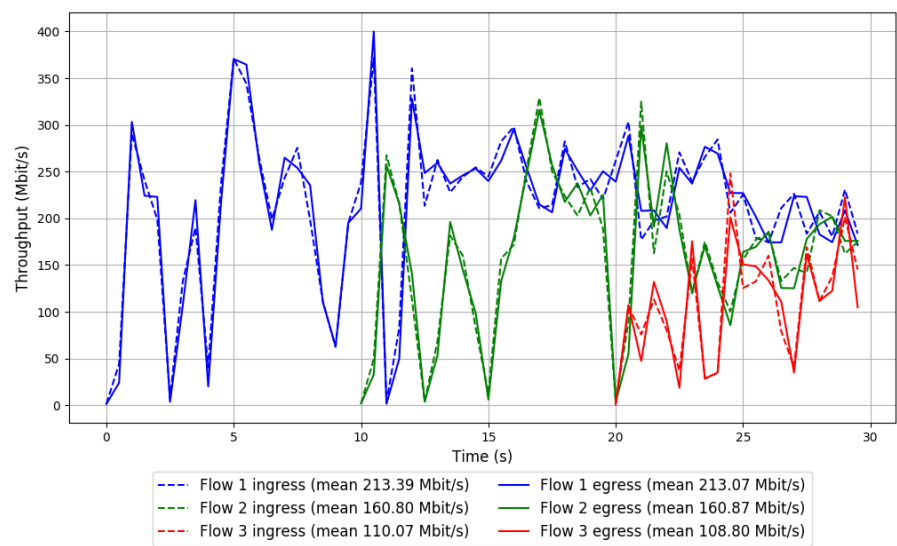
-- Flow 3:

Average throughput: 108.80 Mbit/s

95th percentile per-packet one-way delay: 108.079 ms

Loss rate: 2.19%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-31 17:47:11

End at: 2018-01-31 17:47:41

Below is generated by plot.py at 2018-01-31 22:44:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.39 Mbit/s

95th percentile per-packet one-way delay: 84.721 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 223.88 Mbit/s

95th percentile per-packet one-way delay: 85.599 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 150.96 Mbit/s

95th percentile per-packet one-way delay: 75.945 ms

Loss rate: 1.14%

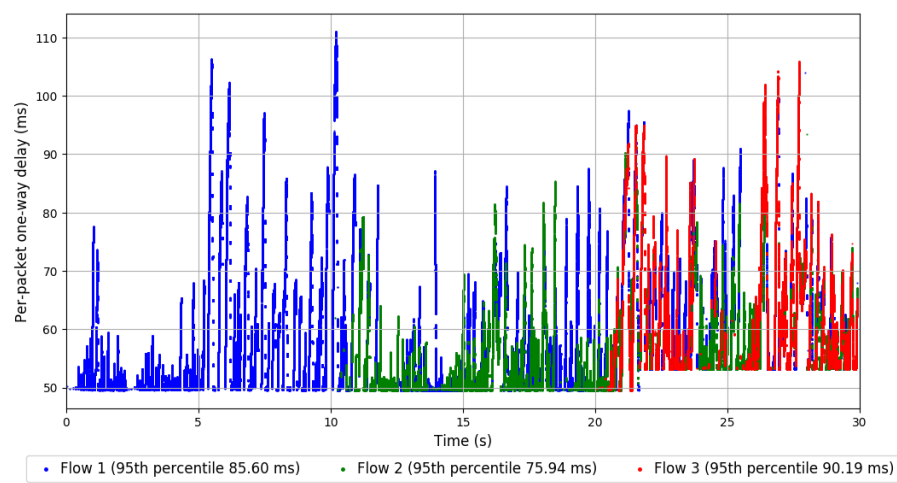
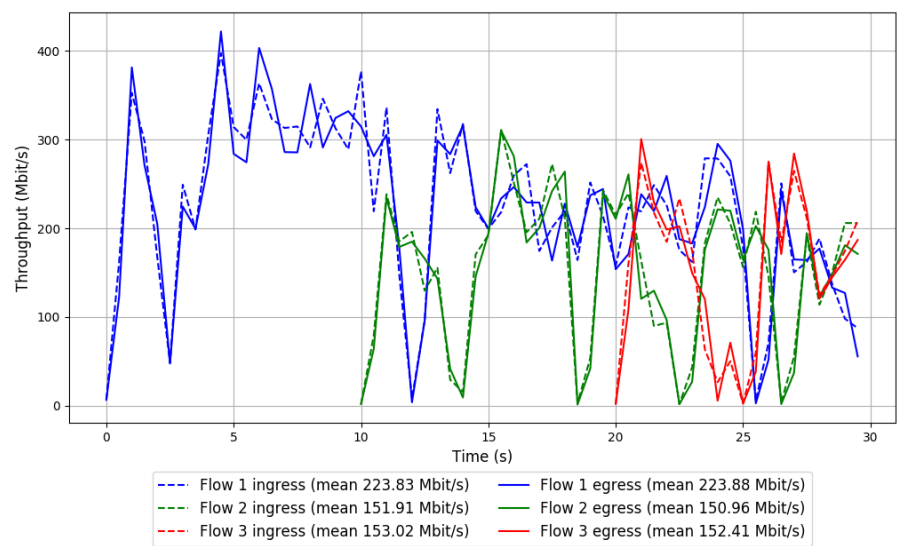
-- Flow 3:

Average throughput: 152.41 Mbit/s

95th percentile per-packet one-way delay: 90.185 ms

Loss rate: 1.47%

Run 6: Report of Verus — Data Link

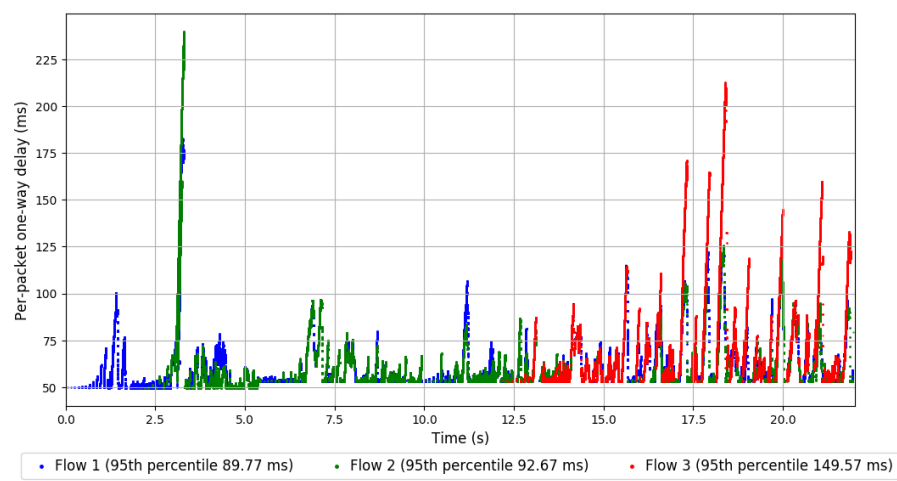
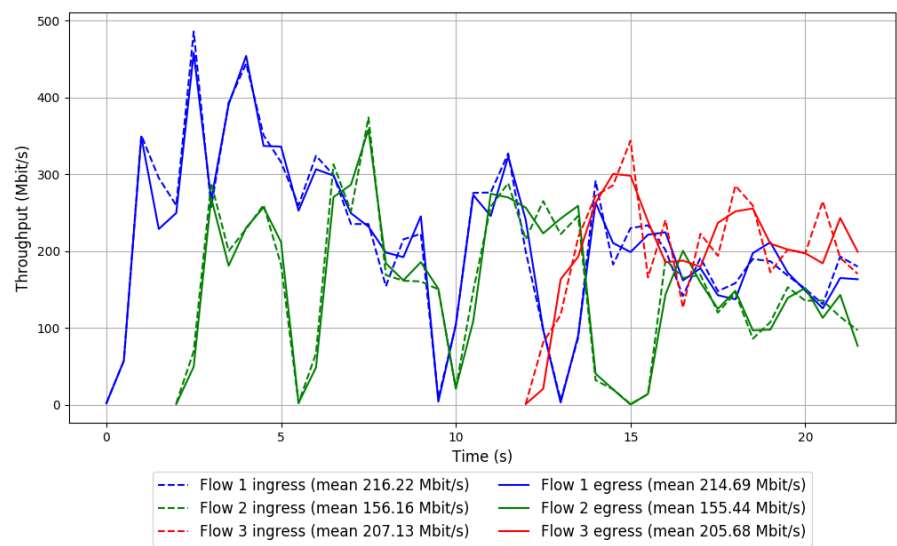


Run 7: Statistics of Verus

Start at: 2018-01-31 18:03:29

End at: 2018-01-31 18:03:59

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-31 18:19:48

End at: 2018-01-31 18:20:18

Below is generated by plot.py at 2018-01-31 22:46:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 342.08 Mbit/s

95th percentile per-packet one-way delay: 82.283 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 204.66 Mbit/s

95th percentile per-packet one-way delay: 82.579 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 143.95 Mbit/s

95th percentile per-packet one-way delay: 81.516 ms

Loss rate: 0.47%

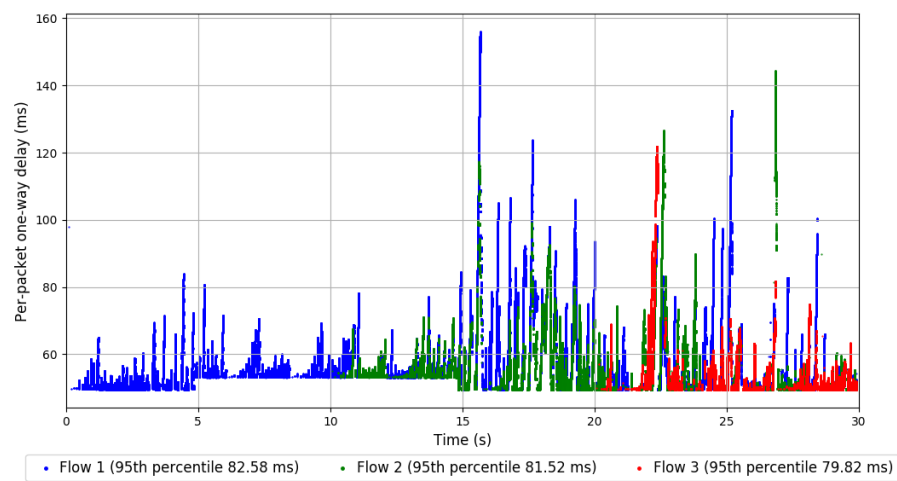
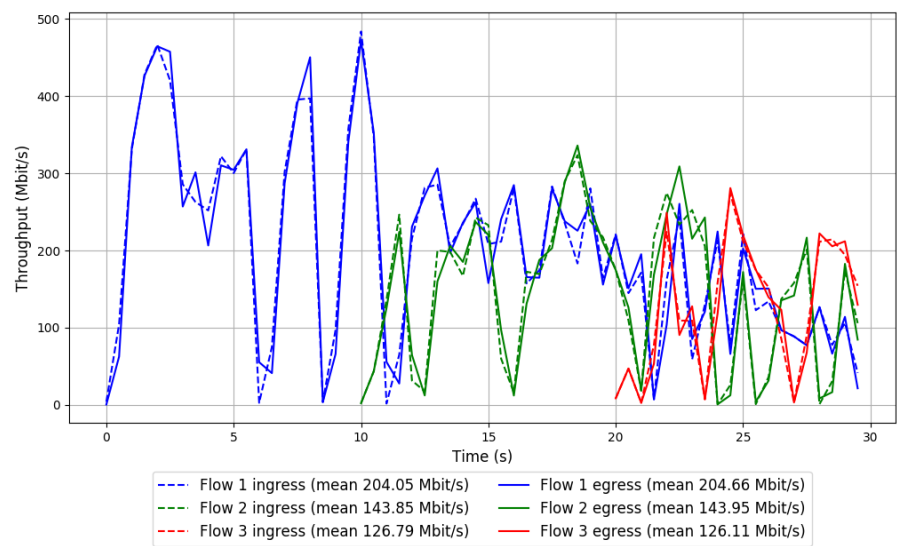
-- Flow 3:

Average throughput: 126.11 Mbit/s

95th percentile per-packet one-way delay: 79.823 ms

Loss rate: 1.11%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-31 18:36:21

End at: 2018-01-31 18:36:51

Below is generated by plot.py at 2018-01-31 22:46:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 350.46 Mbit/s

95th percentile per-packet one-way delay: 119.698 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 219.73 Mbit/s

95th percentile per-packet one-way delay: 124.978 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 148.79 Mbit/s

95th percentile per-packet one-way delay: 107.868 ms

Loss rate: 0.92%

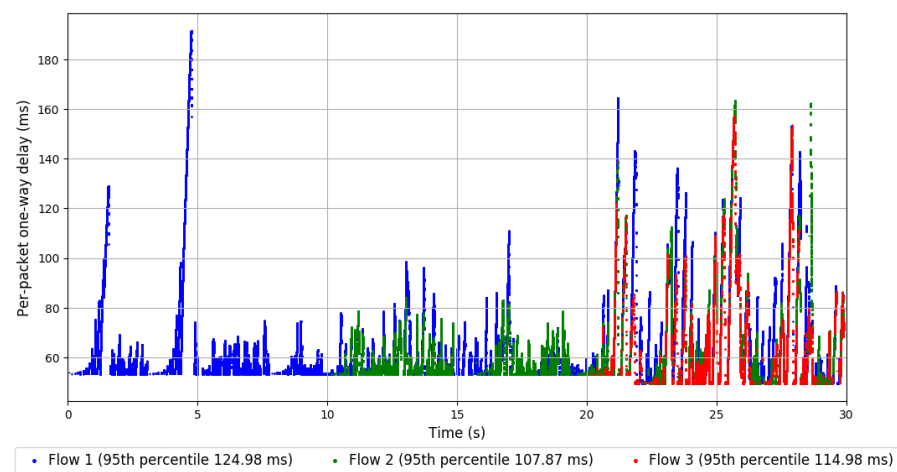
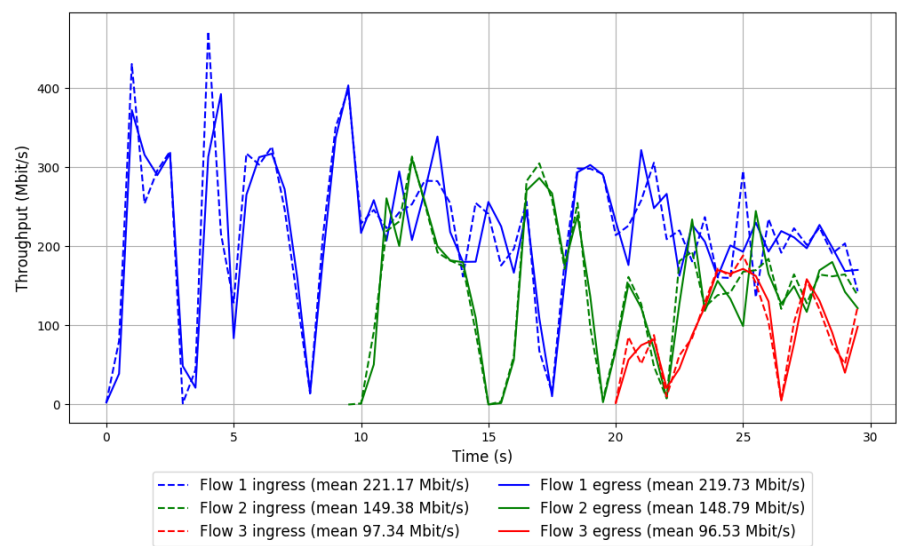
-- Flow 3:

Average throughput: 96.53 Mbit/s

95th percentile per-packet one-way delay: 114.978 ms

Loss rate: 1.89%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-31 18:52:53

End at: 2018-01-31 18:53:23

Below is generated by plot.py at 2018-01-31 22:48:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 330.73 Mbit/s

95th percentile per-packet one-way delay: 104.414 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 157.18 Mbit/s

95th percentile per-packet one-way delay: 93.508 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 175.02 Mbit/s

95th percentile per-packet one-way delay: 111.475 ms

Loss rate: 0.91%

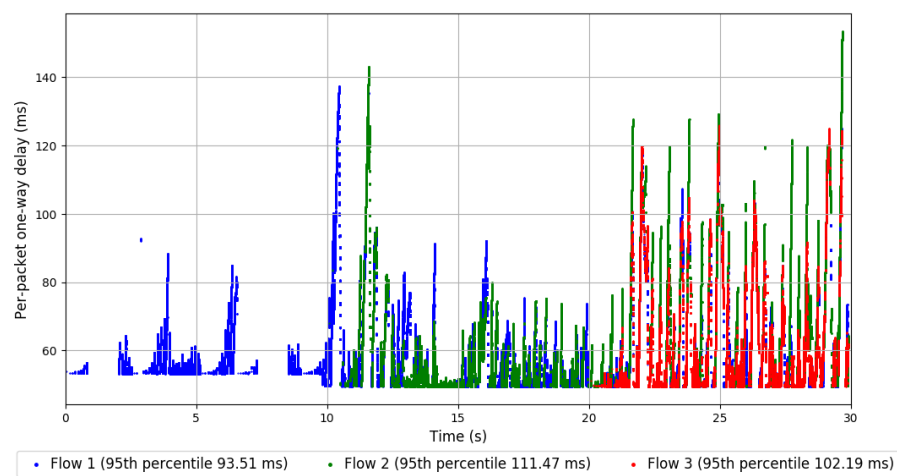
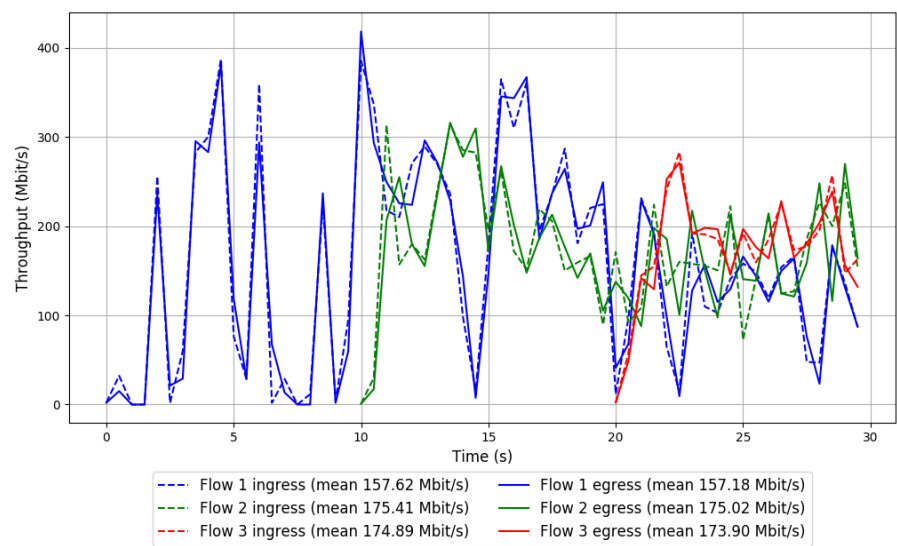
-- Flow 3:

Average throughput: 173.90 Mbit/s

95th percentile per-packet one-way delay: 102.188 ms

Loss rate: 1.63%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-31 16:17:50

End at: 2018-01-31 16:18:20

Below is generated by plot.py at 2018-01-31 22:48:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.91 Mbit/s

95th percentile per-packet one-way delay: 53.318 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 9.04 Mbit/s

95th percentile per-packet one-way delay: 53.360 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 67.92 Mbit/s

95th percentile per-packet one-way delay: 53.274 ms

Loss rate: 0.08%

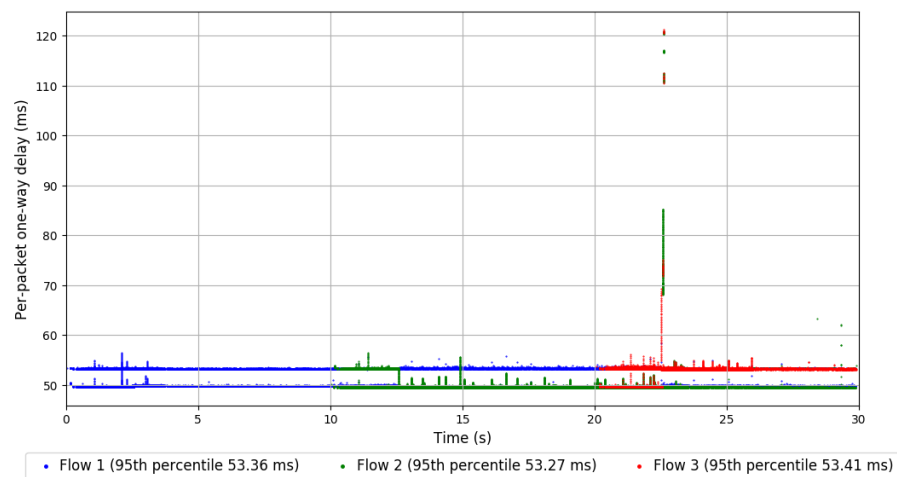
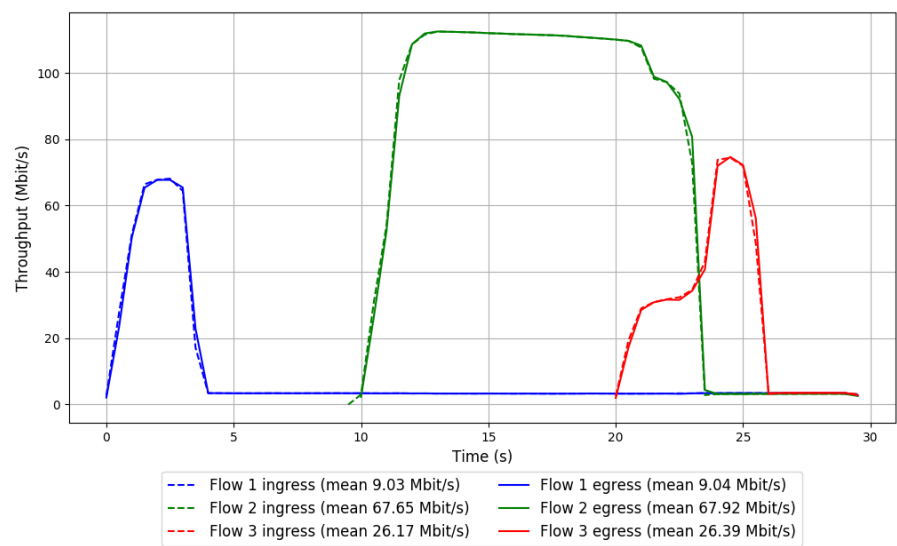
-- Flow 3:

Average throughput: 26.39 Mbit/s

95th percentile per-packet one-way delay: 53.413 ms

Loss rate: 0.24%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-31 16:34:19

End at: 2018-01-31 16:34:49

Below is generated by plot.py at 2018-01-31 22:48:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.45 Mbit/s

95th percentile per-packet one-way delay: 53.334 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 74.15 Mbit/s

95th percentile per-packet one-way delay: 53.232 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 33.23 Mbit/s

95th percentile per-packet one-way delay: 53.469 ms

Loss rate: 0.05%

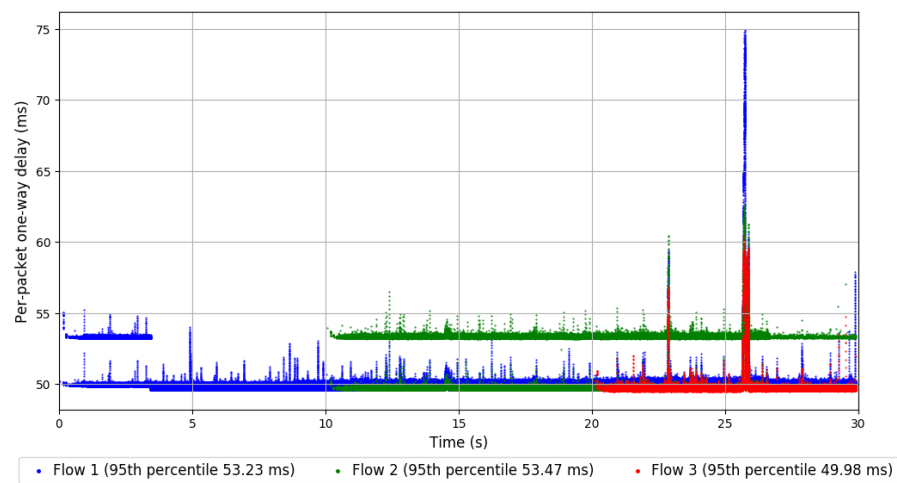
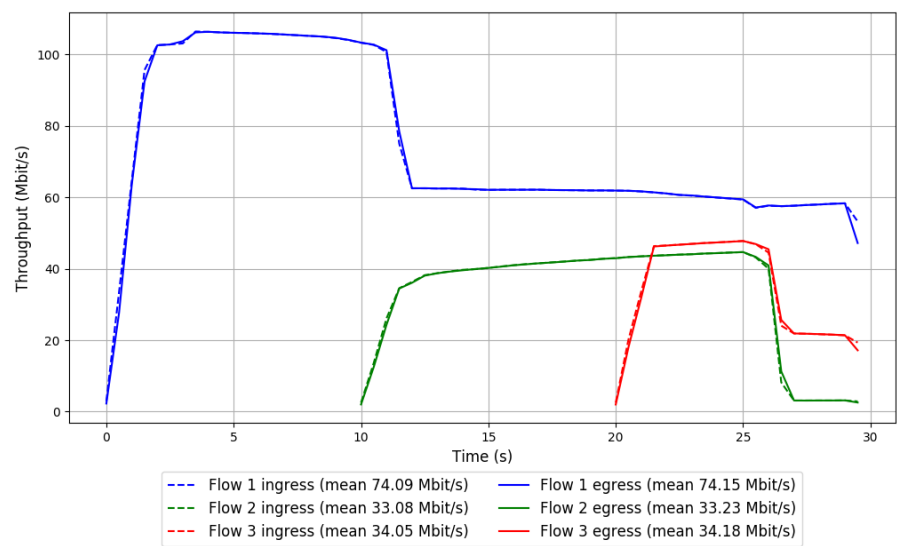
-- Flow 3:

Average throughput: 34.18 Mbit/s

95th percentile per-packet one-way delay: 49.981 ms

Loss rate: 0.63%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-31 16:50:27

End at: 2018-01-31 16:50:57

Below is generated by plot.py at 2018-01-31 22:48:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.33 Mbit/s

95th percentile per-packet one-way delay: 53.330 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 19.07 Mbit/s

95th percentile per-packet one-way delay: 53.358 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 37.34 Mbit/s

95th percentile per-packet one-way delay: 53.348 ms

Loss rate: 0.32%

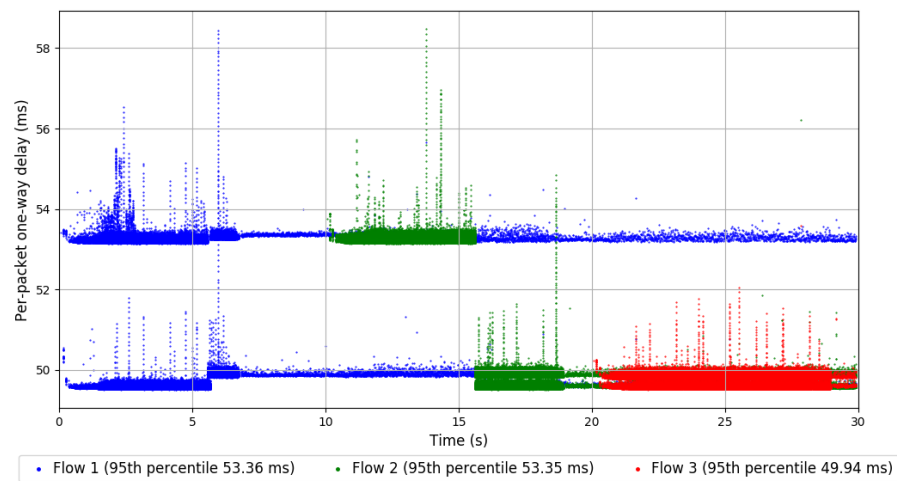
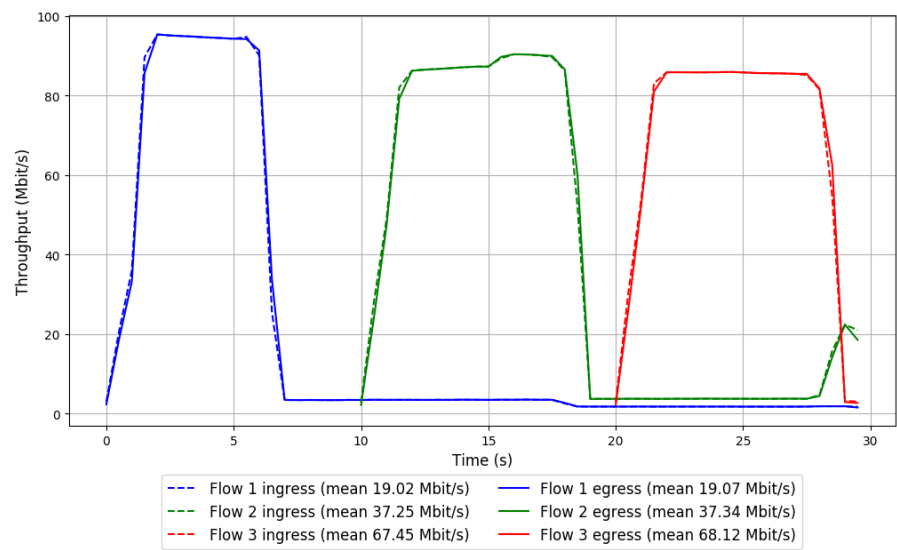
-- Flow 3:

Average throughput: 68.12 Mbit/s

95th percentile per-packet one-way delay: 49.938 ms

Loss rate: 0.05%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-31 17:07:06

End at: 2018-01-31 17:07:36

Below is generated by plot.py at 2018-01-31 22:48:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.66 Mbit/s

95th percentile per-packet one-way delay: 53.452 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 65.12 Mbit/s

95th percentile per-packet one-way delay: 53.454 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 52.95 Mbit/s

95th percentile per-packet one-way delay: 53.468 ms

Loss rate: 0.62%

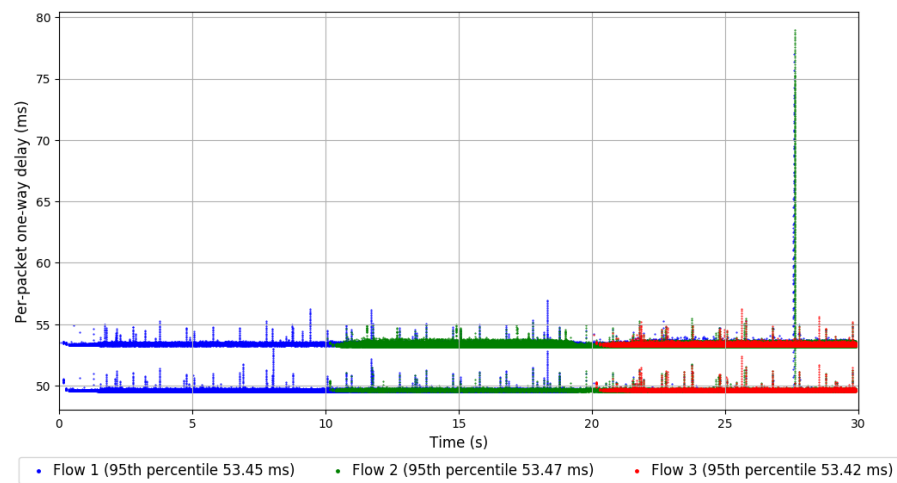
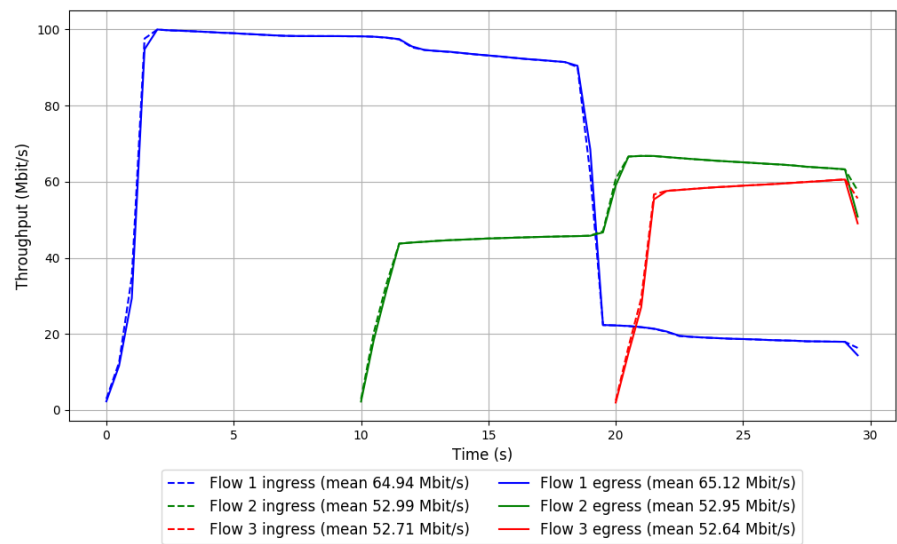
-- Flow 3:

Average throughput: 52.64 Mbit/s

95th percentile per-packet one-way delay: 53.424 ms

Loss rate: 1.21%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-31 17:23:56

End at: 2018-01-31 17:24:26

Below is generated by plot.py at 2018-01-31 22:48:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.43 Mbit/s

95th percentile per-packet one-way delay: 53.332 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 81.00 Mbit/s

95th percentile per-packet one-way delay: 53.304 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 37.73 Mbit/s

95th percentile per-packet one-way delay: 53.221 ms

Loss rate: 0.08%

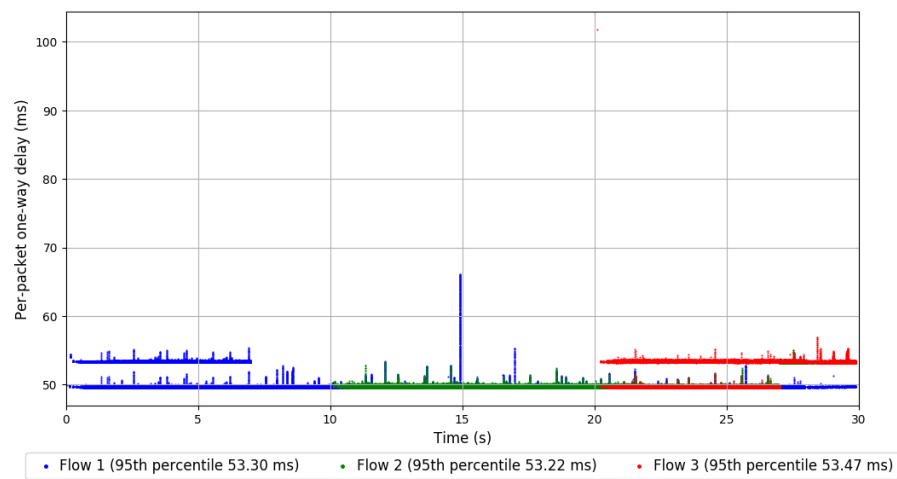
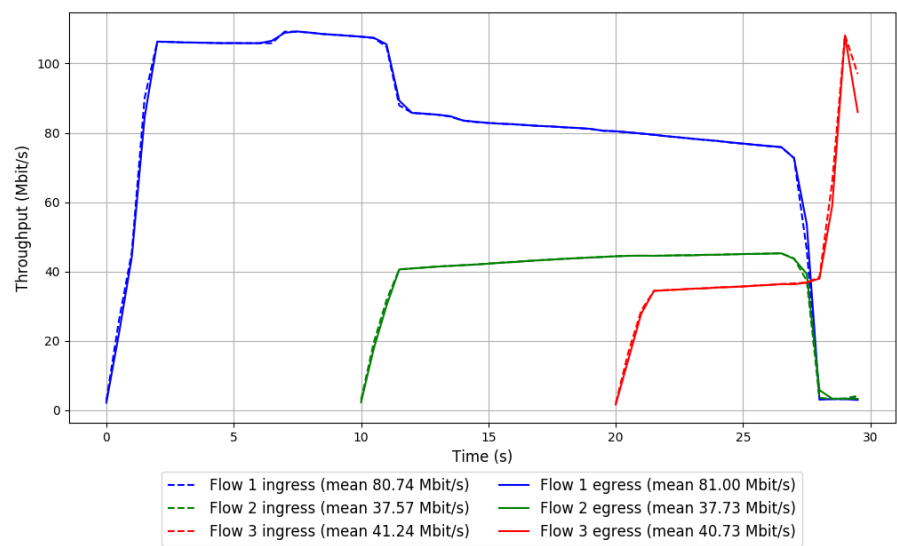
-- Flow 3:

Average throughput: 40.73 Mbit/s

95th percentile per-packet one-way delay: 53.471 ms

Loss rate: 2.75%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-31 17:40:35

End at: 2018-01-31 17:41:05

Below is generated by plot.py at 2018-01-31 22:48:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.75 Mbit/s

95th percentile per-packet one-way delay: 53.351 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 72.93 Mbit/s

95th percentile per-packet one-way delay: 53.398 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 56.09 Mbit/s

95th percentile per-packet one-way delay: 53.277 ms

Loss rate: 0.57%

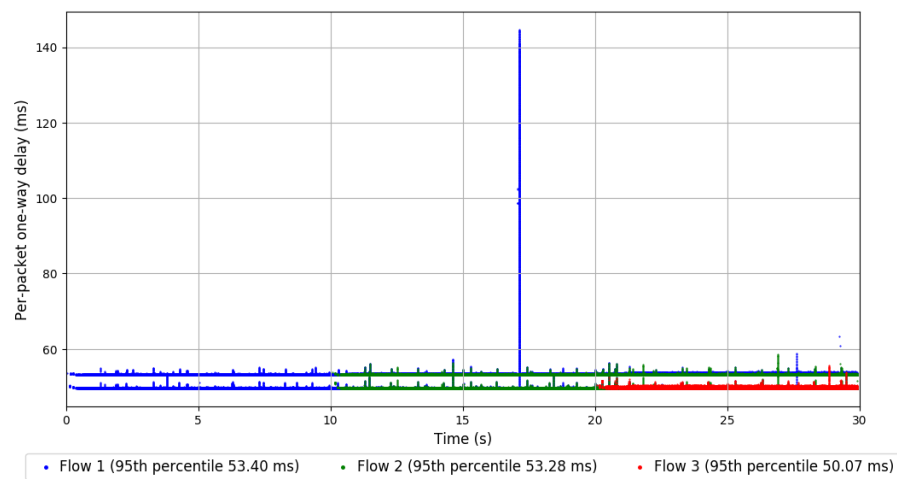
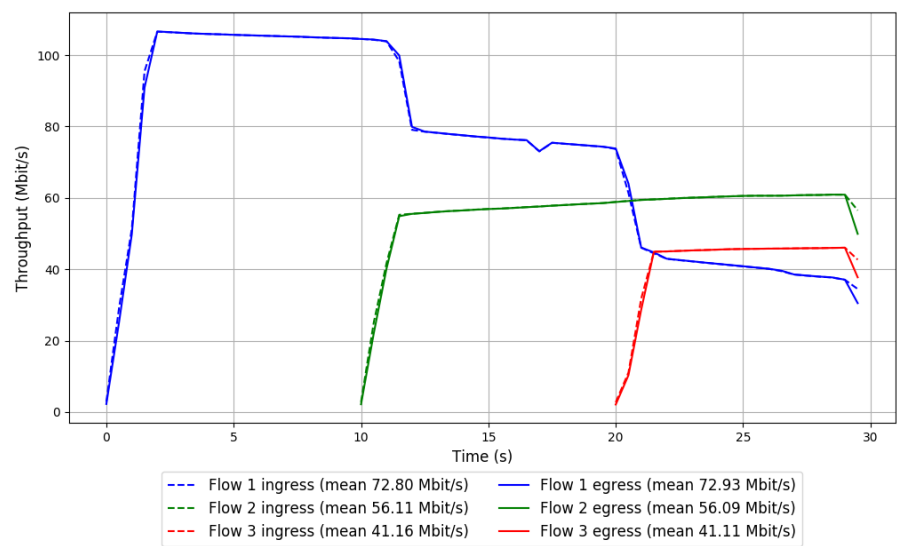
-- Flow 3:

Average throughput: 41.11 Mbit/s

95th percentile per-packet one-way delay: 50.067 ms

Loss rate: 1.16%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-31 17:57:12

End at: 2018-01-31 17:57:42

Below is generated by plot.py at 2018-01-31 22:48:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.30 Mbit/s

95th percentile per-packet one-way delay: 53.428 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 81.05 Mbit/s

95th percentile per-packet one-way delay: 53.430 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 33.59 Mbit/s

95th percentile per-packet one-way delay: 53.436 ms

Loss rate: 0.05%

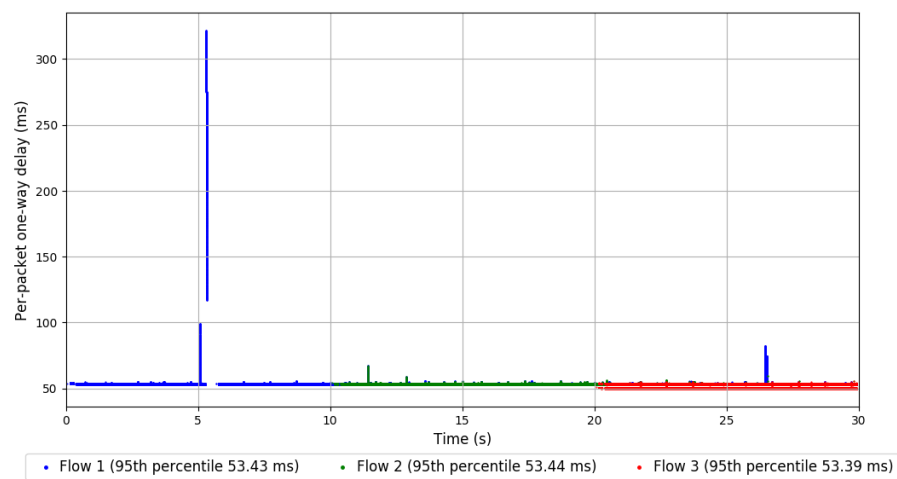
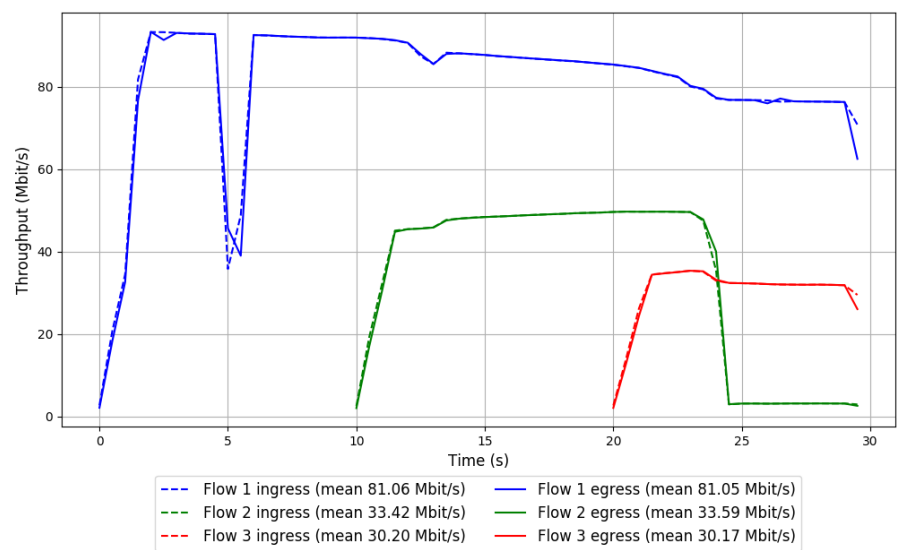
-- Flow 3:

Average throughput: 30.17 Mbit/s

95th percentile per-packet one-way delay: 53.388 ms

Loss rate: 1.13%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-31 18:13:07

End at: 2018-01-31 18:13:37

Below is generated by plot.py at 2018-01-31 22:49:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.15 Mbit/s

95th percentile per-packet one-way delay: 53.275 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 42.99 Mbit/s

95th percentile per-packet one-way delay: 53.134 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 35.86 Mbit/s

95th percentile per-packet one-way delay: 53.241 ms

Loss rate: 0.52%

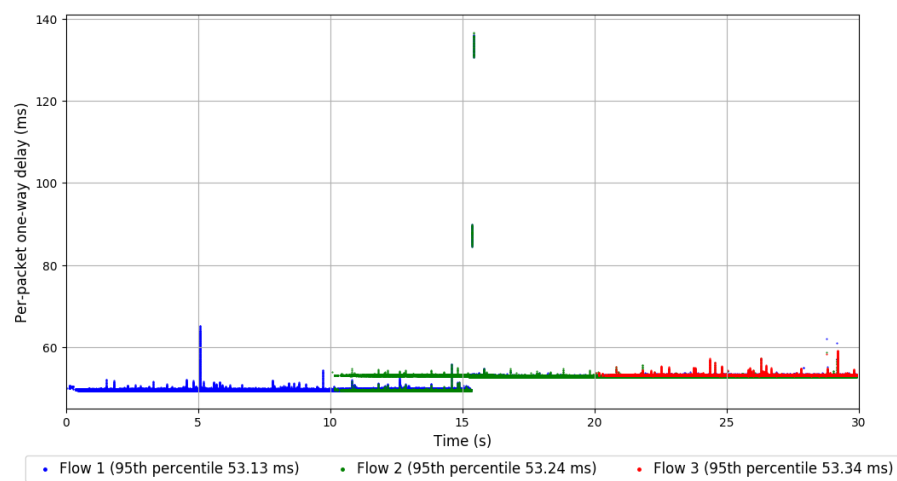
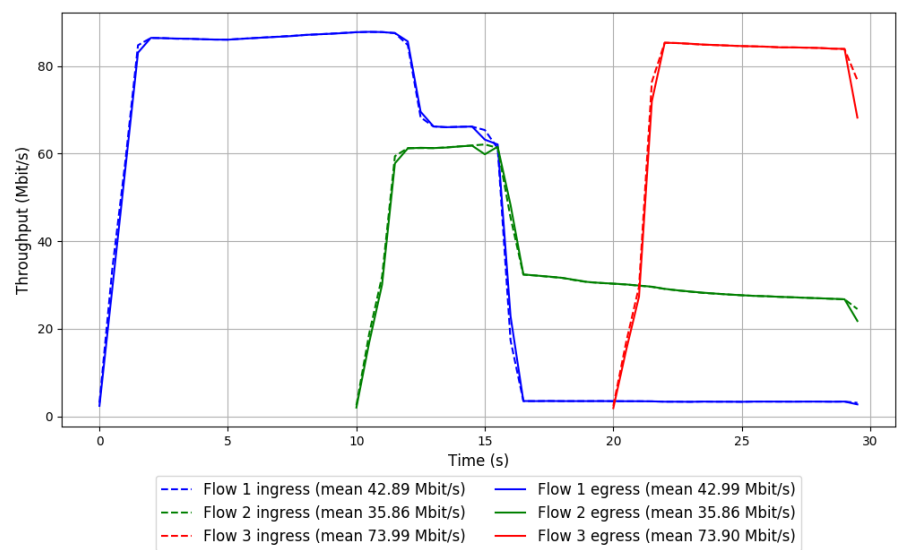
-- Flow 3:

Average throughput: 73.90 Mbit/s

95th percentile per-packet one-way delay: 53.336 ms

Loss rate: 1.19%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-31 18:29:43

End at: 2018-01-31 18:30:13

Below is generated by plot.py at 2018-01-31 22:50:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.96 Mbit/s

95th percentile per-packet one-way delay: 53.242 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 48.46 Mbit/s

95th percentile per-packet one-way delay: 53.143 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 95.90 Mbit/s

95th percentile per-packet one-way delay: 53.224 ms

Loss rate: 0.42%

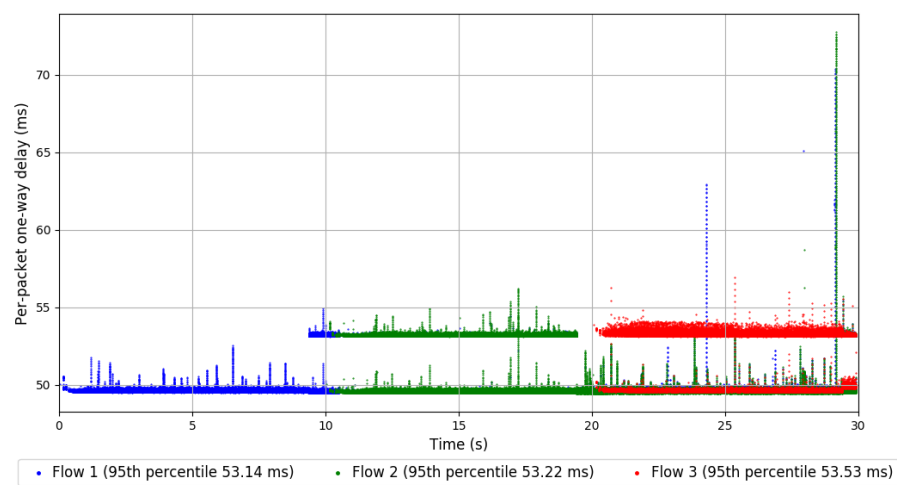
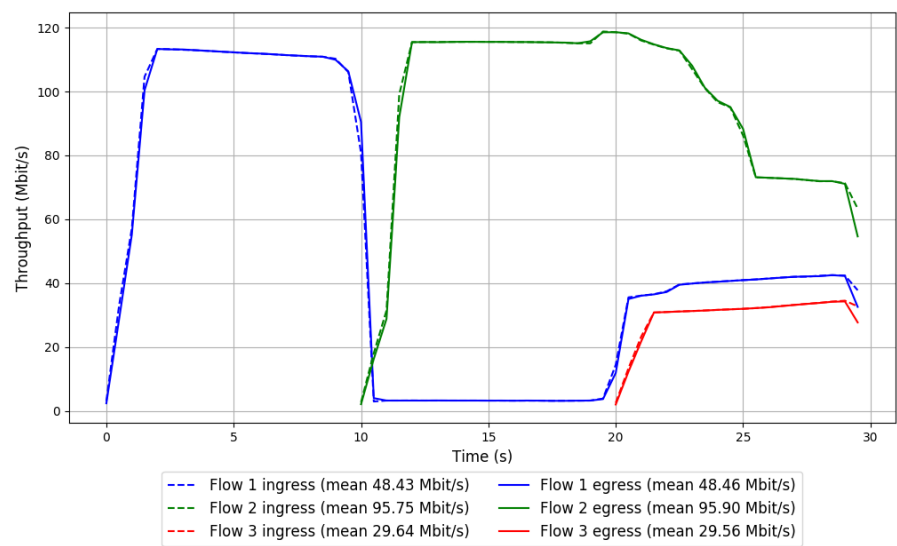
-- Flow 3:

Average throughput: 29.56 Mbit/s

95th percentile per-packet one-way delay: 53.535 ms

Loss rate: 1.48%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-31 18:46:14

End at: 2018-01-31 18:46:44

Below is generated by plot.py at 2018-01-31 22:50:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.87 Mbit/s

95th percentile per-packet one-way delay: 53.305 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 40.82 Mbit/s

95th percentile per-packet one-way delay: 53.306 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 70.21 Mbit/s

95th percentile per-packet one-way delay: 53.304 ms

Loss rate: 0.60%

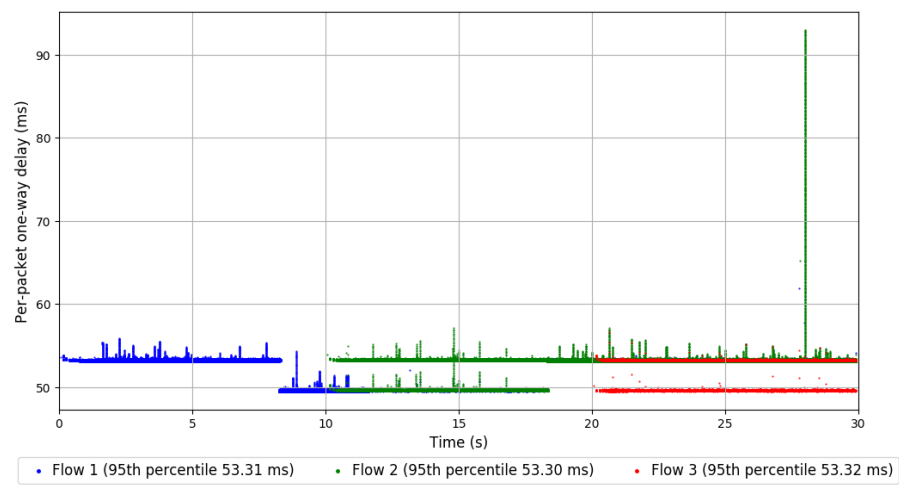
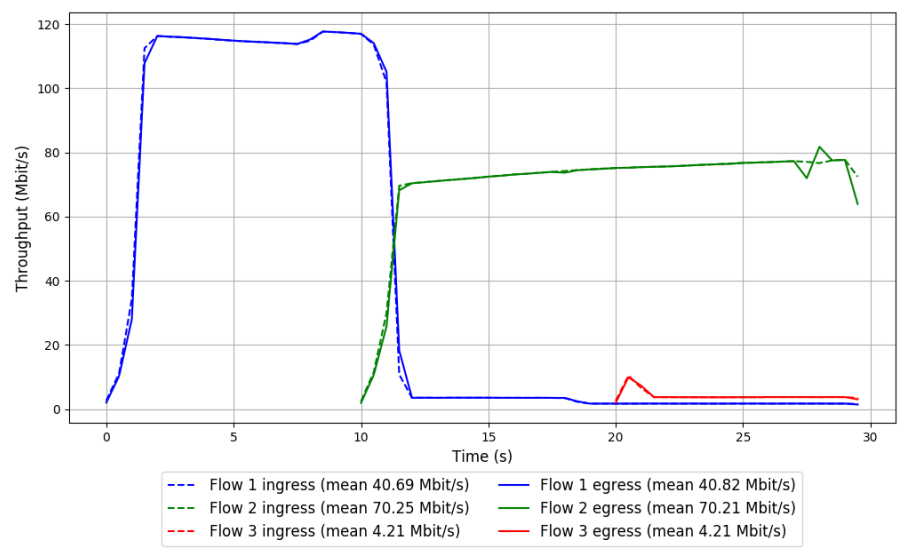
-- Flow 3:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 53.318 ms

Loss rate: 0.96%

Run 10: Report of Copa — Data Link

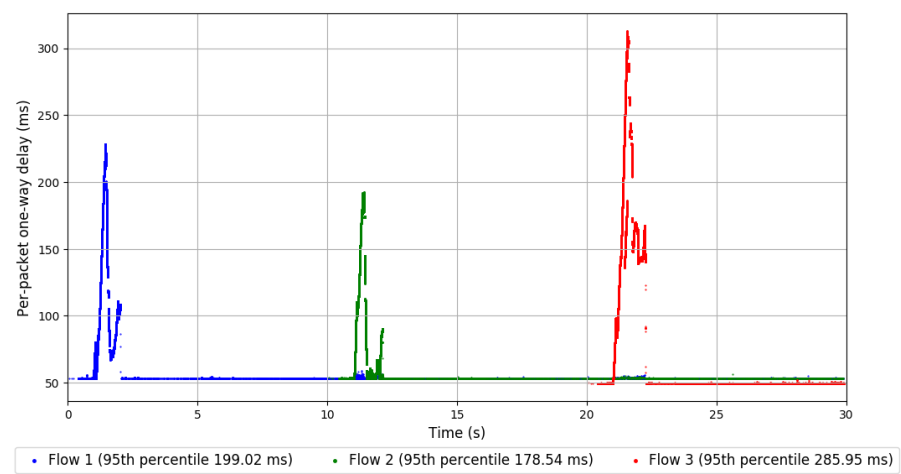
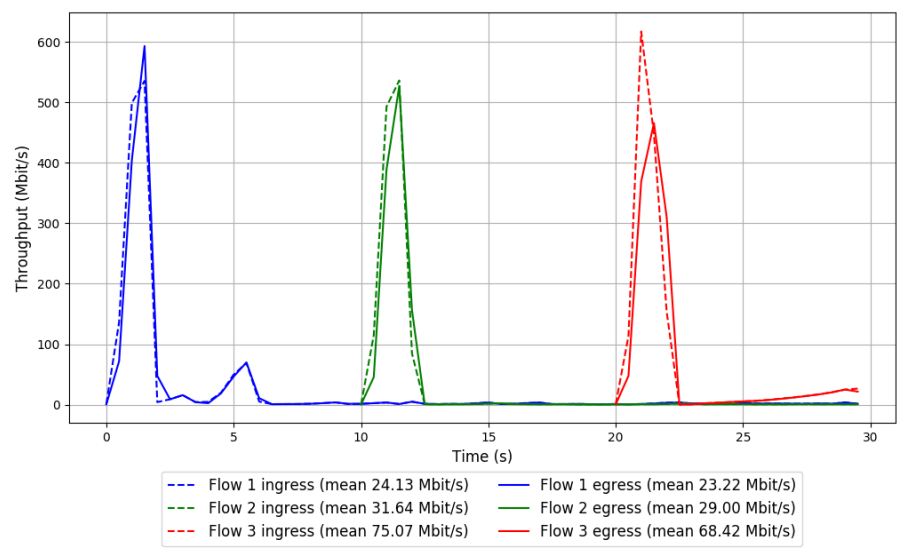


```
Run 1: Statistics of FillP

Start at: 2018-01-31 16:23:39
End at: 2018-01-31 16:24:09

# Below is generated by plot.py at 2018-01-31 22:50:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.00 Mbit/s
95th percentile per-packet one-way delay: 229.580 ms
Loss rate: 7.54%
-- Flow 1:
Average throughput: 23.22 Mbit/s
95th percentile per-packet one-way delay: 199.020 ms
Loss rate: 4.14%
-- Flow 2:
Average throughput: 29.00 Mbit/s
95th percentile per-packet one-way delay: 178.541 ms
Loss rate: 8.82%
-- Flow 3:
Average throughput: 68.42 Mbit/s
95th percentile per-packet one-way delay: 285.948 ms
Loss rate: 9.76%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-31 16:39:52

End at: 2018-01-31 16:40:22

Below is generated by plot.py at 2018-01-31 22:50:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.15 Mbit/s

95th percentile per-packet one-way delay: 201.626 ms

Loss rate: 7.89%

-- Flow 1:

Average throughput: 25.73 Mbit/s

95th percentile per-packet one-way delay: 208.234 ms

Loss rate: 11.15%

-- Flow 2:

Average throughput: 34.94 Mbit/s

95th percentile per-packet one-way delay: 201.202 ms

Loss rate: 4.53%

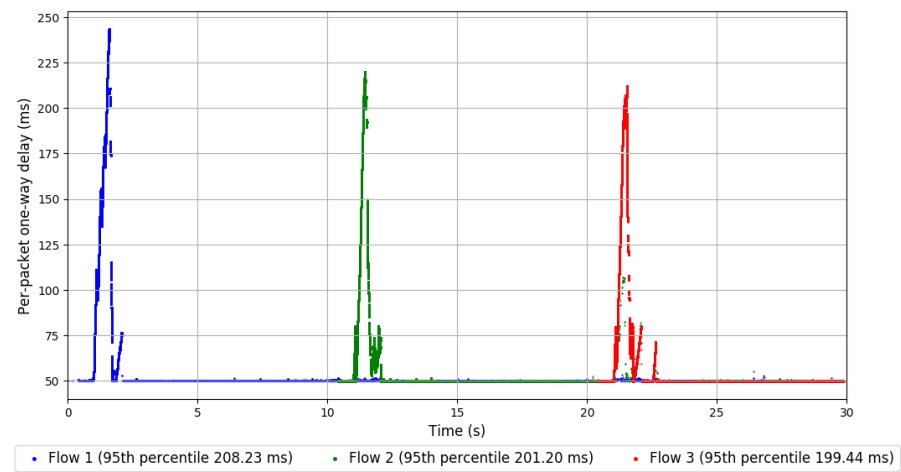
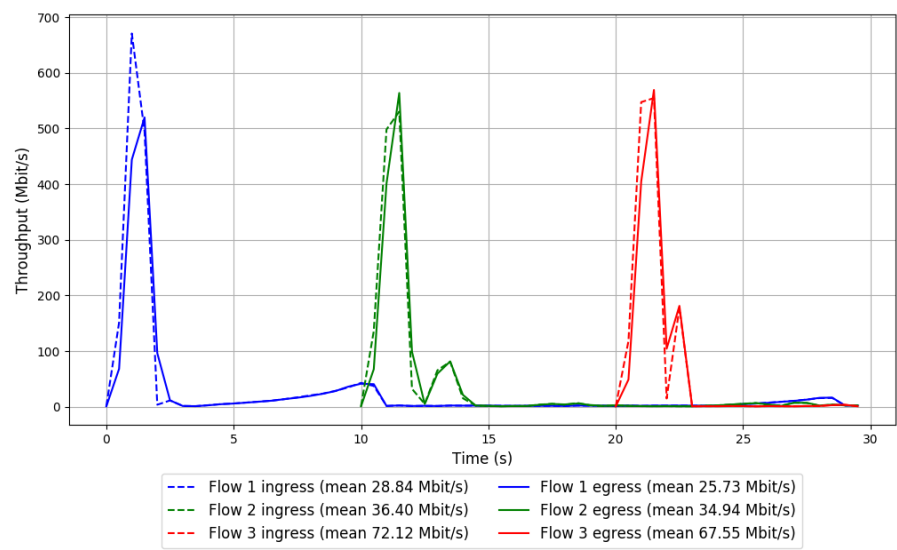
-- Flow 3:

Average throughput: 67.55 Mbit/s

95th percentile per-packet one-way delay: 199.439 ms

Loss rate: 7.36%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-31 16:56:19

End at: 2018-01-31 16:56:49

Below is generated by plot.py at 2018-01-31 22:50:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.03 Mbit/s

95th percentile per-packet one-way delay: 173.258 ms

Loss rate: 4.25%

-- Flow 1:

Average throughput: 24.24 Mbit/s

95th percentile per-packet one-way delay: 246.559 ms

Loss rate: 6.06%

-- Flow 2:

Average throughput: 34.52 Mbit/s

95th percentile per-packet one-way delay: 170.112 ms

Loss rate: 4.15%

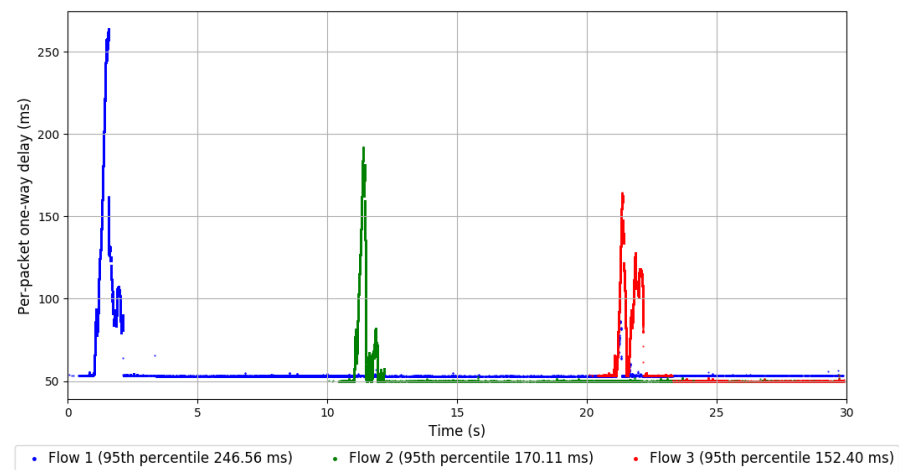
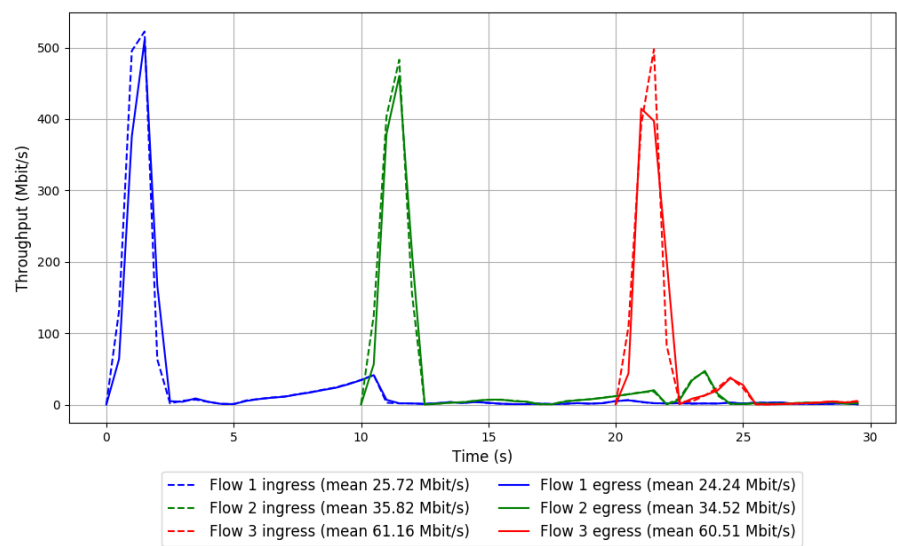
-- Flow 3:

Average throughput: 60.51 Mbit/s

95th percentile per-packet one-way delay: 152.397 ms

Loss rate: 2.07%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-31 17:13:08

End at: 2018-01-31 17:13:38

Below is generated by plot.py at 2018-01-31 22:54:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.36 Mbit/s

95th percentile per-packet one-way delay: 180.430 ms

Loss rate: 2.49%

-- Flow 1:

Average throughput: 24.54 Mbit/s

95th percentile per-packet one-way delay: 218.279 ms

Loss rate: 6.53%

-- Flow 2:

Average throughput: 204.14 Mbit/s

95th percentile per-packet one-way delay: 176.459 ms

Loss rate: 1.70%

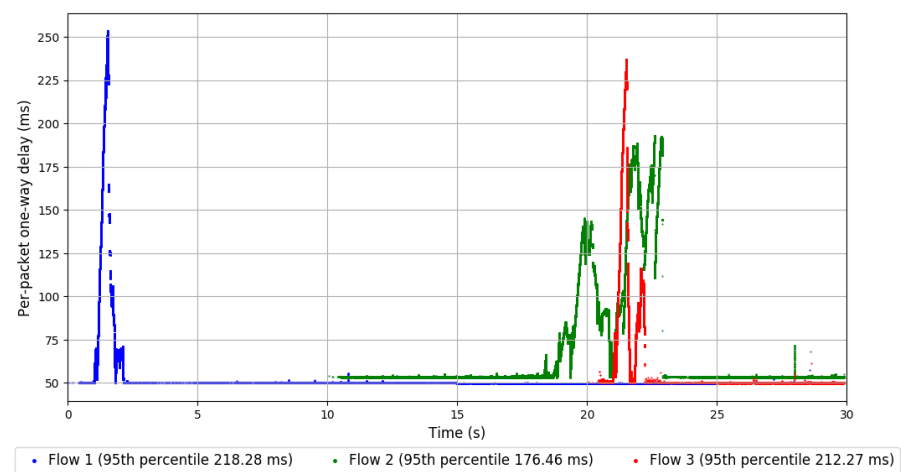
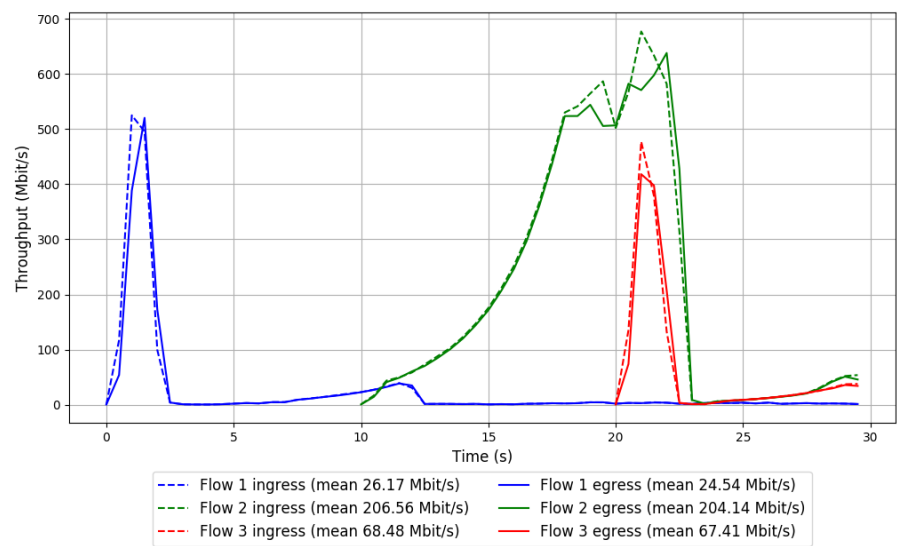
-- Flow 3:

Average throughput: 67.41 Mbit/s

95th percentile per-packet one-way delay: 212.268 ms

Loss rate: 2.60%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-31 17:29:45

End at: 2018-01-31 17:30:15

Below is generated by plot.py at 2018-01-31 22:54:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.27 Mbit/s

95th percentile per-packet one-way delay: 212.209 ms

Loss rate: 5.84%

-- Flow 1:

Average throughput: 24.97 Mbit/s

95th percentile per-packet one-way delay: 230.031 ms

Loss rate: 6.72%

-- Flow 2:

Average throughput: 37.07 Mbit/s

95th percentile per-packet one-way delay: 203.333 ms

Loss rate: 3.89%

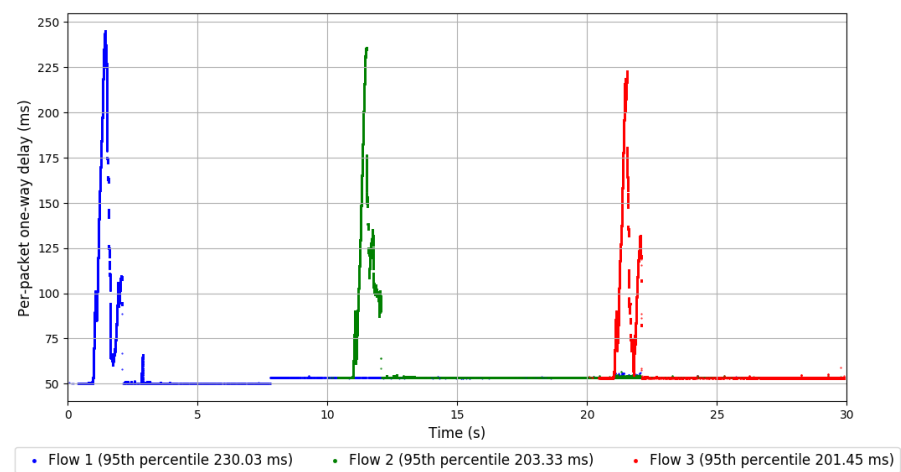
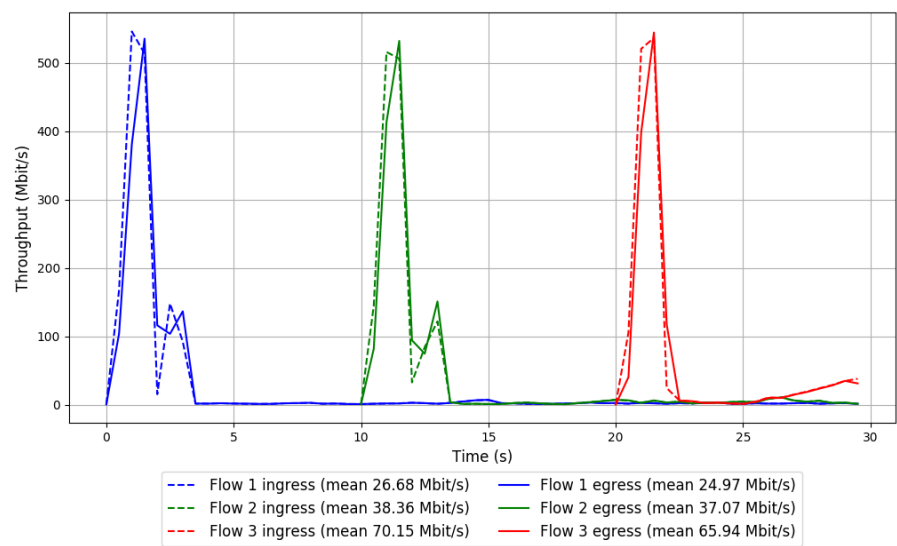
-- Flow 3:

Average throughput: 65.94 Mbit/s

95th percentile per-packet one-way delay: 201.453 ms

Loss rate: 6.98%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-31 17:46:26

End at: 2018-01-31 17:46:56

Below is generated by plot.py at 2018-01-31 22:54:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 70.00 Mbit/s

95th percentile per-packet one-way delay: 191.588 ms

Loss rate: 4.29%

-- Flow 1:

Average throughput: 23.37 Mbit/s

95th percentile per-packet one-way delay: 176.519 ms

Loss rate: 6.87%

-- Flow 2:

Average throughput: 34.61 Mbit/s

95th percentile per-packet one-way delay: 188.175 ms

Loss rate: 2.85%

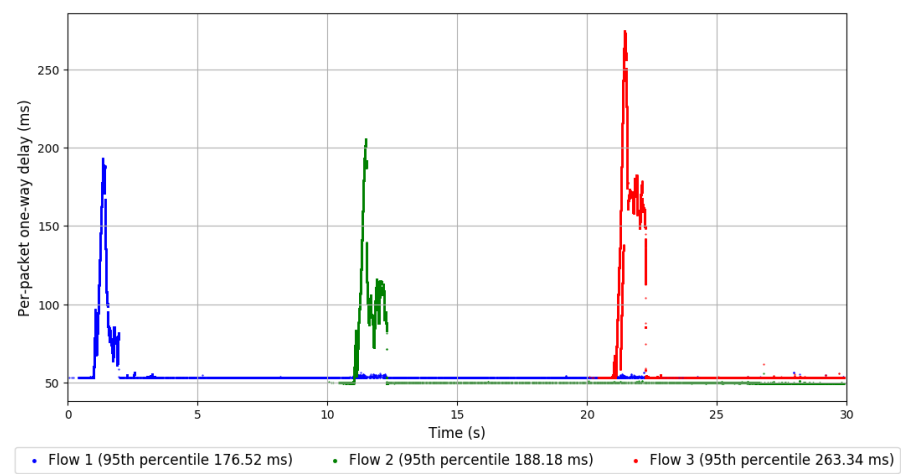
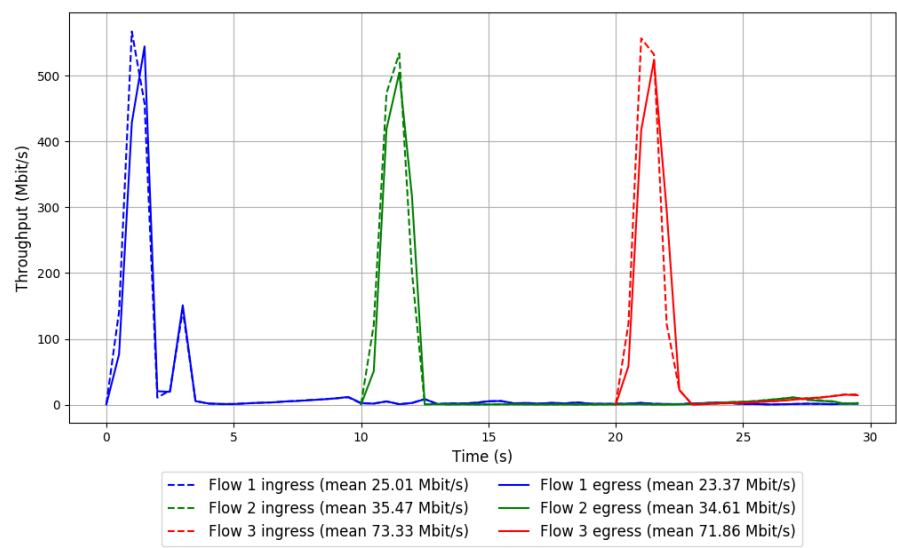
-- Flow 3:

Average throughput: 71.86 Mbit/s

95th percentile per-packet one-way delay: 263.338 ms

Loss rate: 3.03%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-31 18:02:43

End at: 2018-01-31 18:03:13

Below is generated by plot.py at 2018-01-31 22:54:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.50 Mbit/s

95th percentile per-packet one-way delay: 243.664 ms

Loss rate: 4.55%

-- Flow 1:

Average throughput: 36.66 Mbit/s

95th percentile per-packet one-way delay: 258.738 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 34.55 Mbit/s

95th percentile per-packet one-way delay: 174.025 ms

Loss rate: 10.47%

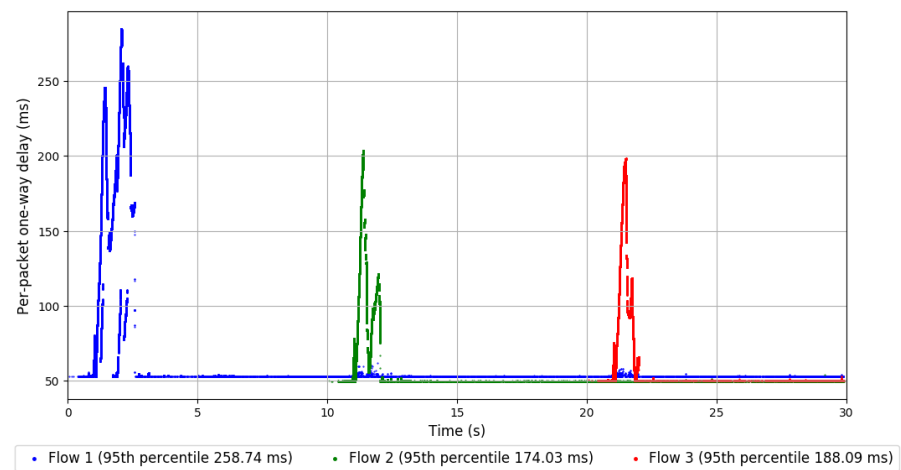
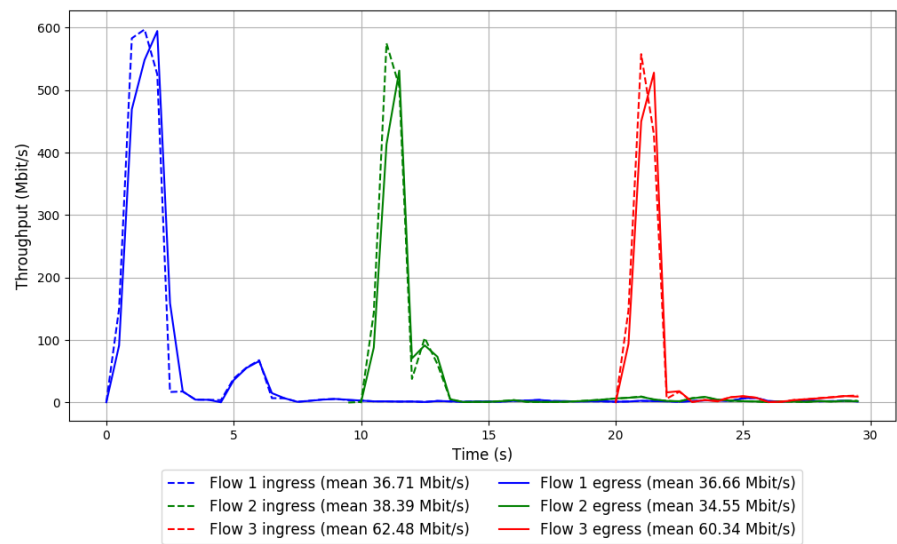
-- Flow 3:

Average throughput: 60.34 Mbit/s

95th percentile per-packet one-way delay: 188.093 ms

Loss rate: 4.45%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-31 18:19:03

End at: 2018-01-31 18:19:33

Below is generated by plot.py at 2018-01-31 22:54:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.17 Mbit/s

95th percentile per-packet one-way delay: 214.323 ms

Loss rate: 10.77%

-- Flow 1:

Average throughput: 24.54 Mbit/s

95th percentile per-packet one-way delay: 191.554 ms

Loss rate: 10.54%

-- Flow 2:

Average throughput: 35.54 Mbit/s

95th percentile per-packet one-way delay: 205.486 ms

Loss rate: 8.59%

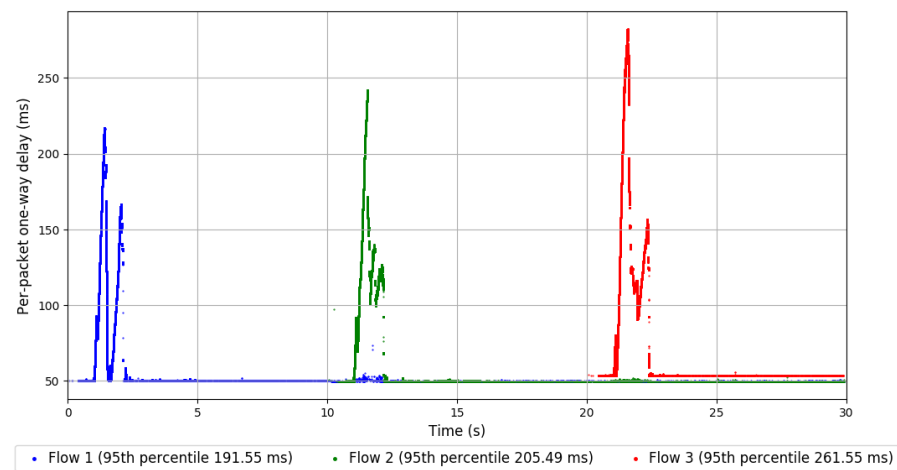
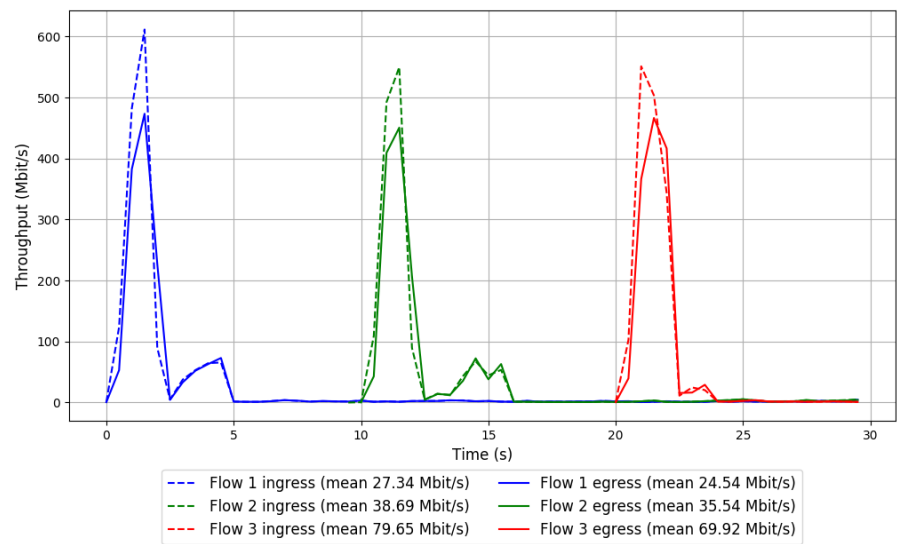
-- Flow 3:

Average throughput: 69.92 Mbit/s

95th percentile per-packet one-way delay: 261.545 ms

Loss rate: 13.14%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-31 18:35:36

End at: 2018-01-31 18:36:06

Below is generated by plot.py at 2018-01-31 22:54:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.98 Mbit/s

95th percentile per-packet one-way delay: 160.766 ms

Loss rate: 5.62%

-- Flow 1:

Average throughput: 21.12 Mbit/s

95th percentile per-packet one-way delay: 141.880 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 34.42 Mbit/s

95th percentile per-packet one-way delay: 187.430 ms

Loss rate: 8.47%

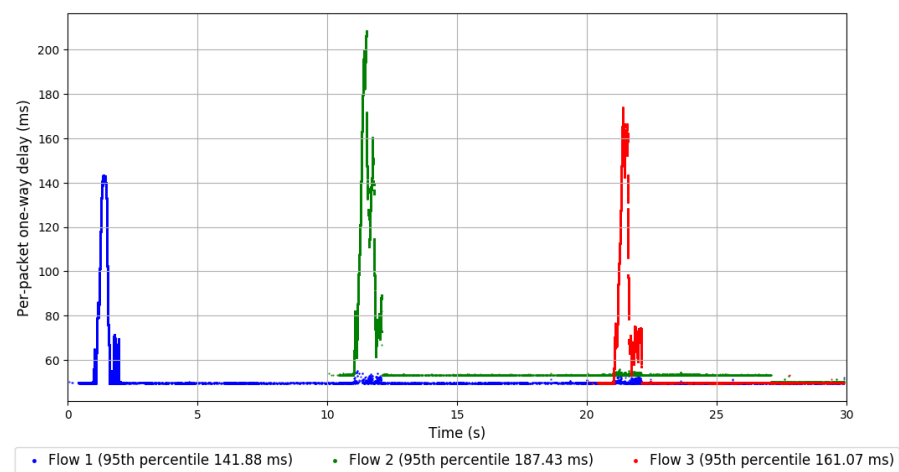
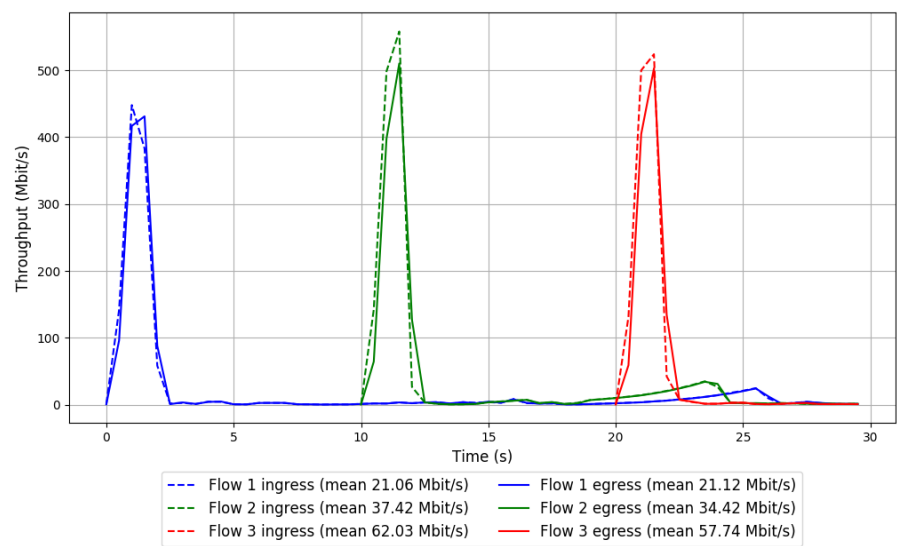
-- Flow 3:

Average throughput: 57.74 Mbit/s

95th percentile per-packet one-way delay: 161.069 ms

Loss rate: 7.90%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-01-31 18:52:07

End at: 2018-01-31 18:52:37

Below is generated by plot.py at 2018-01-31 22:54:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.24 Mbit/s

95th percentile per-packet one-way delay: 221.116 ms

Loss rate: 5.69%

-- Flow 1:

Average throughput: 24.51 Mbit/s

95th percentile per-packet one-way delay: 215.832 ms

Loss rate: 6.94%

-- Flow 2:

Average throughput: 36.86 Mbit/s

95th percentile per-packet one-way delay: 176.111 ms

Loss rate: 0.00%

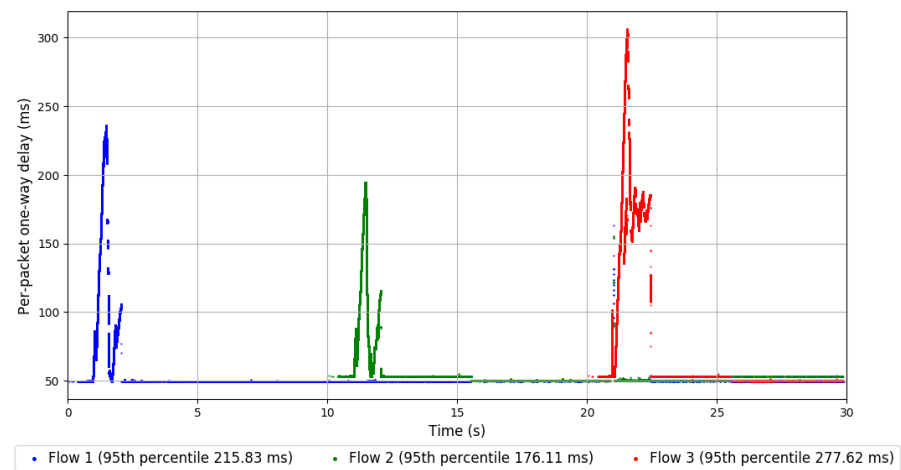
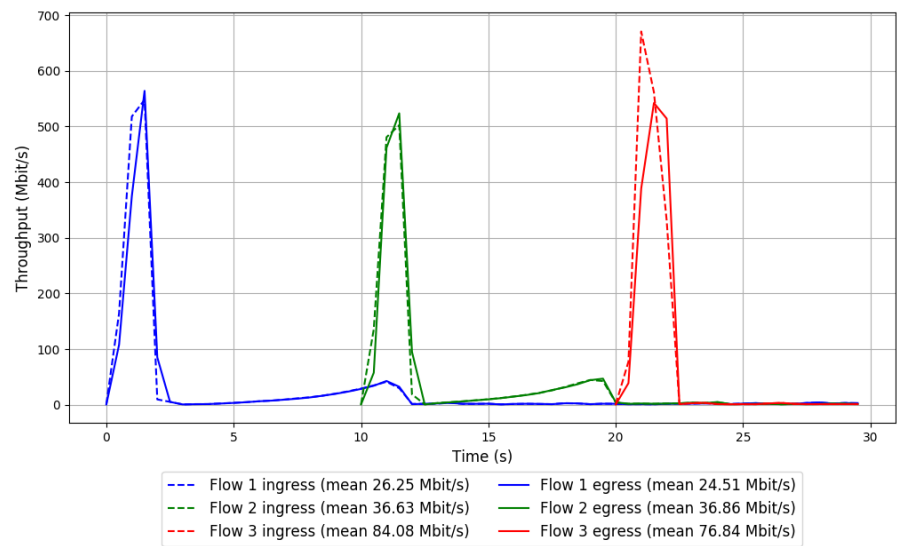
-- Flow 3:

Average throughput: 76.84 Mbit/s

95th percentile per-packet one-way delay: 277.622 ms

Loss rate: 9.48%

Run 10: Report of FillP — Data Link

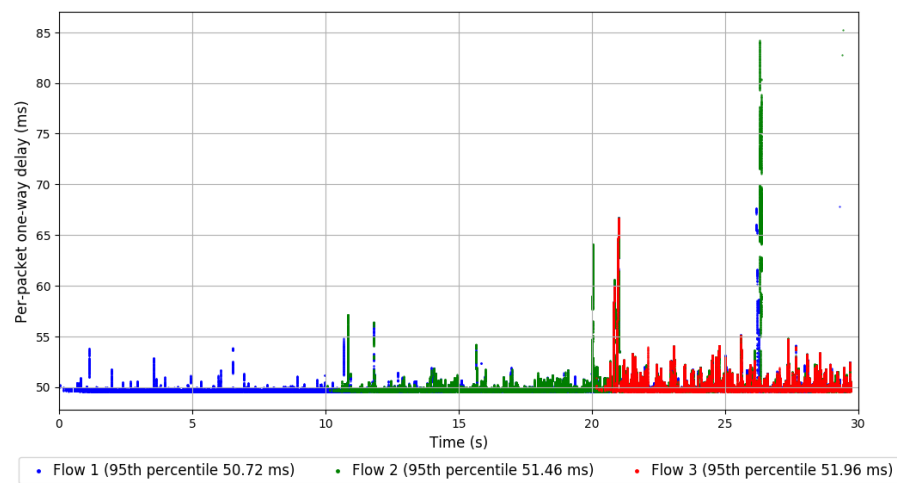
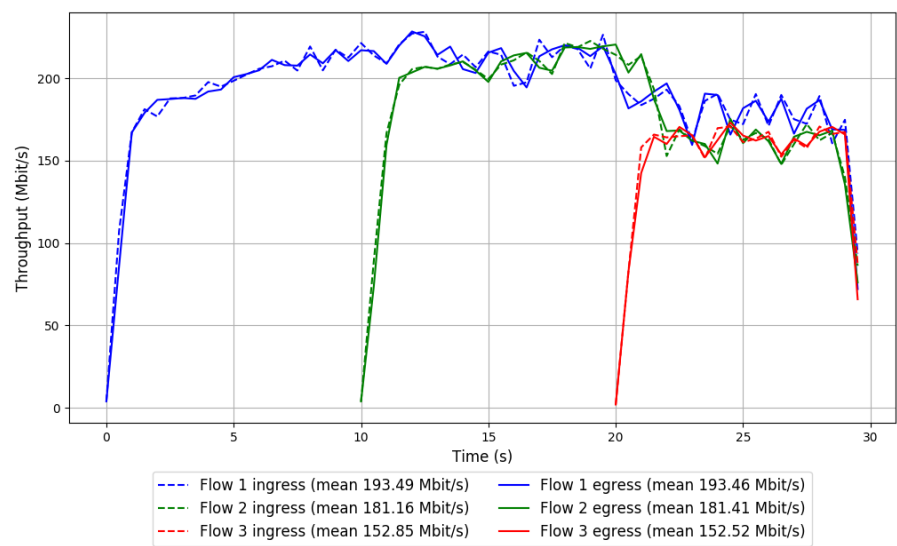


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-01-31 16:22:36
End at: 2018-01-31 16:23:06

# Below is generated by plot.py at 2018-01-31 22:56:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.76 Mbit/s
95th percentile per-packet one-way delay: 51.188 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 193.46 Mbit/s
95th percentile per-packet one-way delay: 50.717 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 181.41 Mbit/s
95th percentile per-packet one-way delay: 51.461 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 152.52 Mbit/s
95th percentile per-packet one-way delay: 51.959 ms
Loss rate: 1.27%
```

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

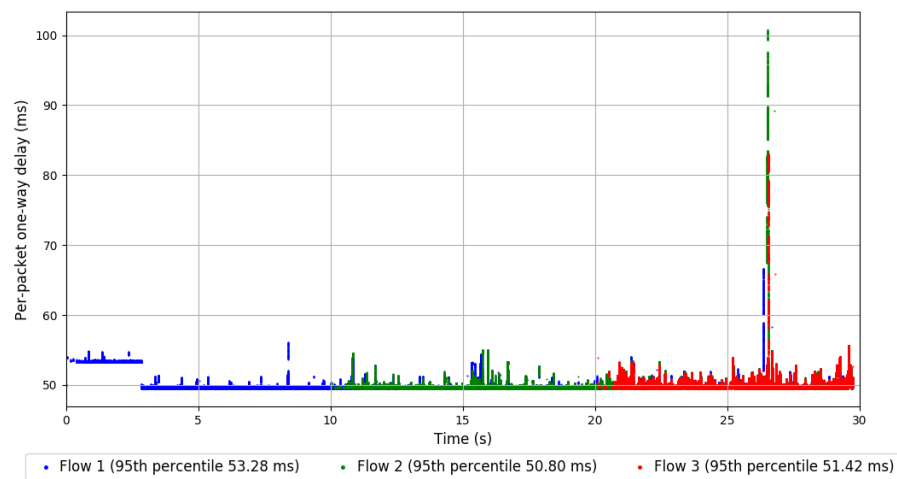
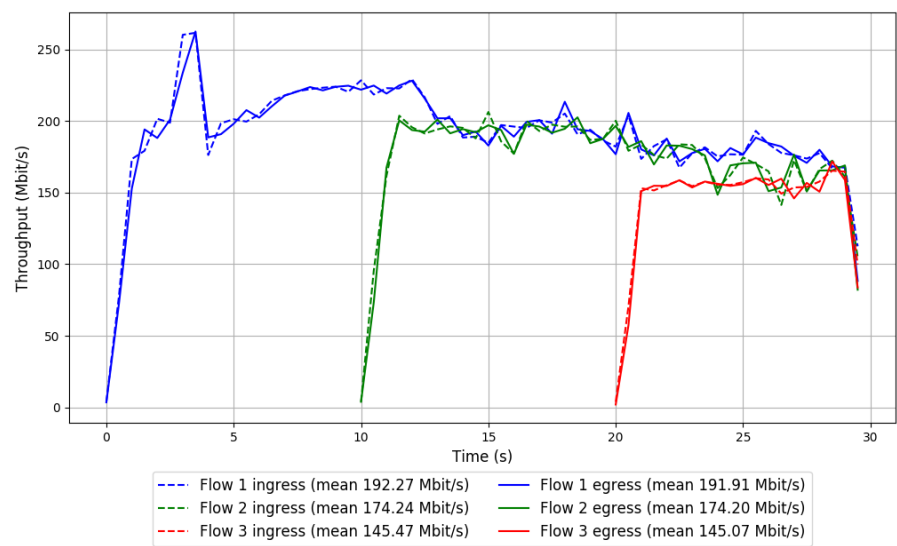


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-01-31 16:38:50
End at: 2018-01-31 16:39:20

# Below is generated by plot.py at 2018-01-31 22:56:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.51 Mbit/s
95th percentile per-packet one-way delay: 52.350 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 191.91 Mbit/s
95th percentile per-packet one-way delay: 53.280 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 174.20 Mbit/s
95th percentile per-packet one-way delay: 50.805 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 145.07 Mbit/s
95th percentile per-packet one-way delay: 51.420 ms
Loss rate: 1.30%
```

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

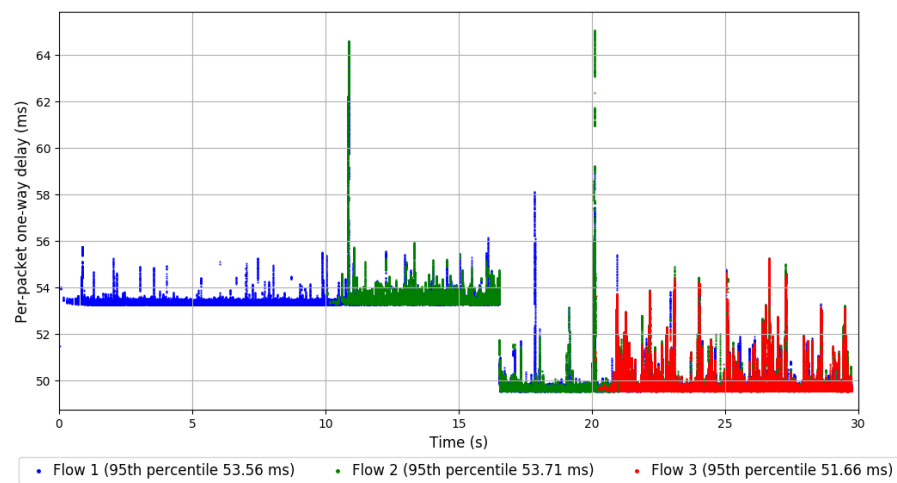
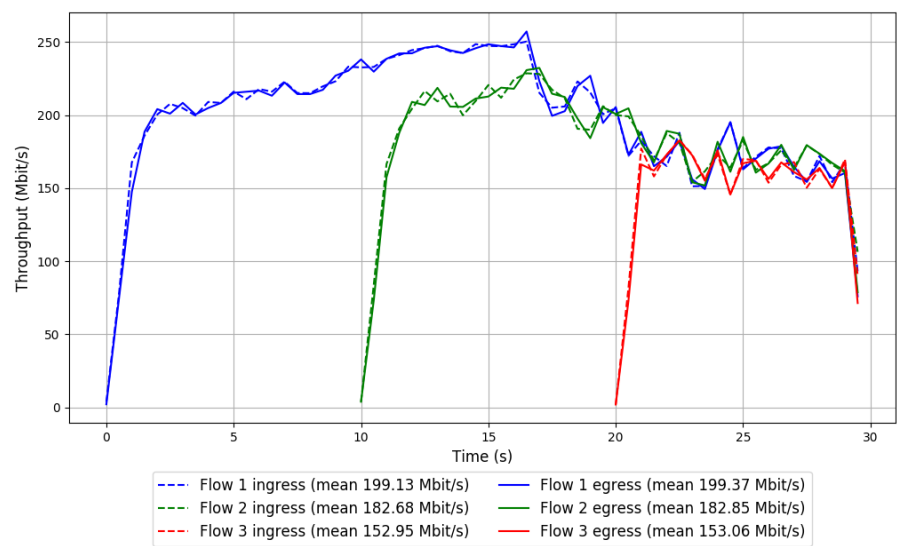


```
Run 3: Statistics of Indigo-1-32

Start at: 2018-01-31 16:55:16
End at: 2018-01-31 16:55:46

# Below is generated by plot.py at 2018-01-31 22:56:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.08 Mbit/s
95th percentile per-packet one-way delay: 53.593 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 199.37 Mbit/s
95th percentile per-packet one-way delay: 53.565 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 182.85 Mbit/s
95th percentile per-packet one-way delay: 53.711 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 153.06 Mbit/s
95th percentile per-packet one-way delay: 51.658 ms
Loss rate: 1.17%
```


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



Run 4: Statistics of Indigo-1-32

Start at: 2018-01-31 17:12:06

End at: 2018-01-31 17:12:36

Below is generated by plot.py at 2018-01-31 22:57:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 345.56 Mbit/s

95th percentile per-packet one-way delay: 53.997 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 193.67 Mbit/s

95th percentile per-packet one-way delay: 53.680 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 161.15 Mbit/s

95th percentile per-packet one-way delay: 54.223 ms

Loss rate: 0.57%

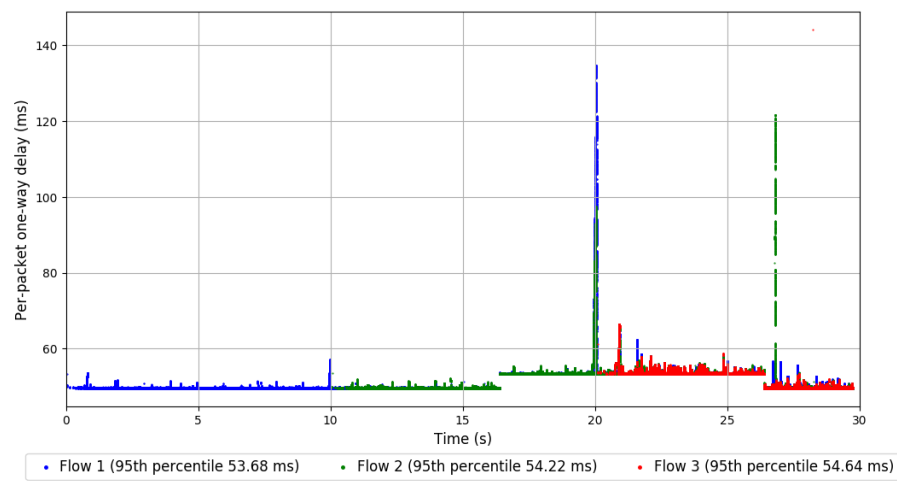
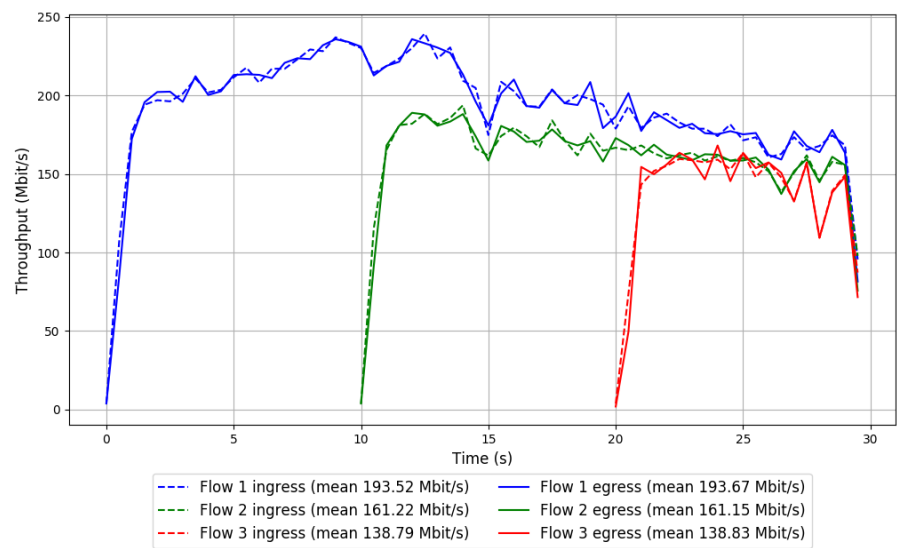
-- Flow 3:

Average throughput: 138.83 Mbit/s

95th percentile per-packet one-way delay: 54.644 ms

Loss rate: 1.13%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-01-31 17:28:43

End at: 2018-01-31 17:29:13

Below is generated by plot.py at 2018-01-31 22:57:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 354.42 Mbit/s

95th percentile per-packet one-way delay: 53.948 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 192.04 Mbit/s

95th percentile per-packet one-way delay: 53.769 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 173.88 Mbit/s

95th percentile per-packet one-way delay: 54.083 ms

Loss rate: 0.09%

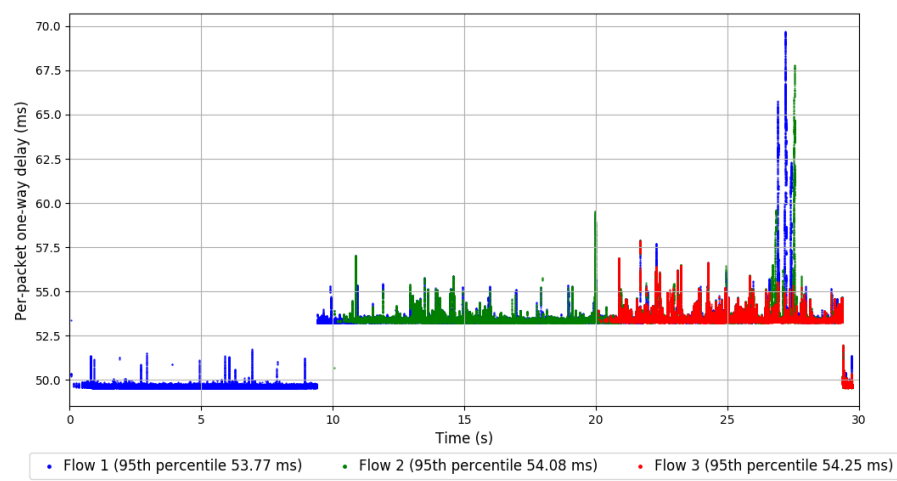
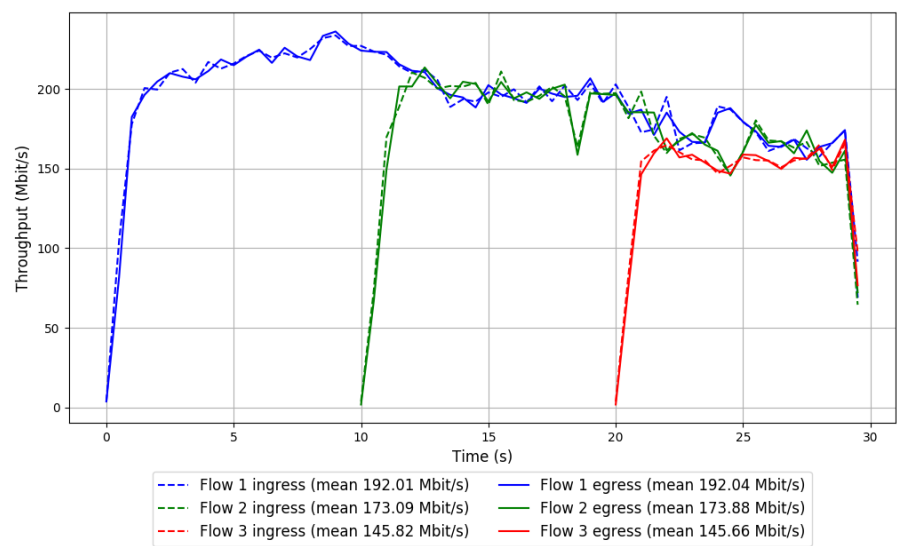
-- Flow 3:

Average throughput: 145.66 Mbit/s

95th percentile per-packet one-way delay: 54.246 ms

Loss rate: 1.22%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-01-31 17:45:24

End at: 2018-01-31 17:45:54

Below is generated by plot.py at 2018-01-31 22:57:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 352.87 Mbit/s

95th percentile per-packet one-way delay: 54.017 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 189.82 Mbit/s

95th percentile per-packet one-way delay: 53.678 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 173.02 Mbit/s

95th percentile per-packet one-way delay: 54.212 ms

Loss rate: 0.49%

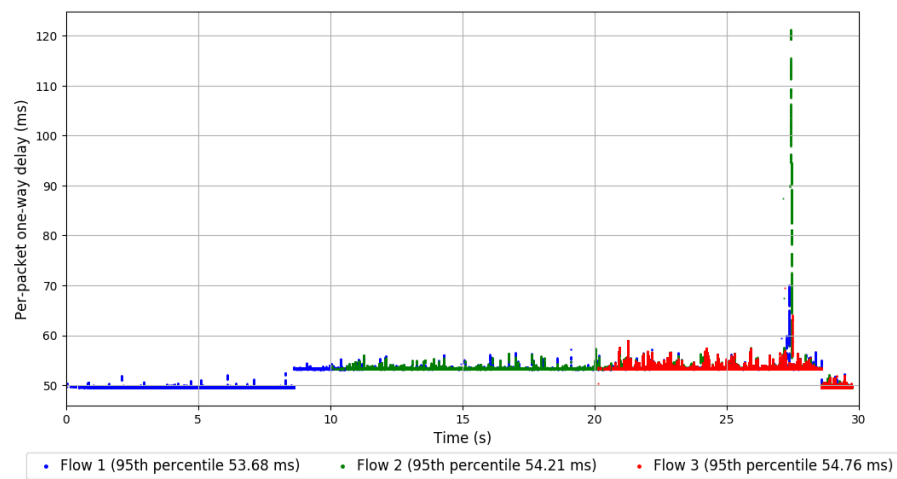
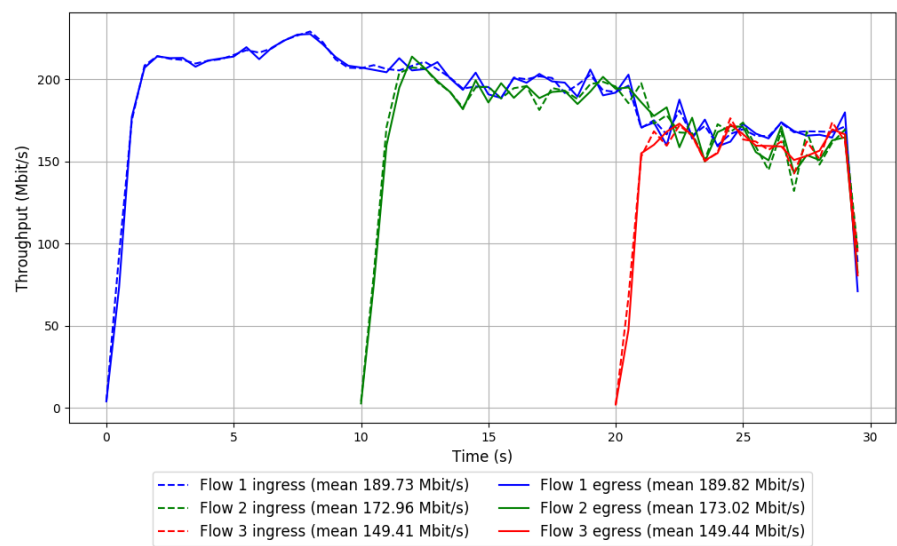
-- Flow 3:

Average throughput: 149.44 Mbit/s

95th percentile per-packet one-way delay: 54.755 ms

Loss rate: 1.02%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-01-31 18:01:42

End at: 2018-01-31 18:02:12

Below is generated by plot.py at 2018-01-31 22:57:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.56 Mbit/s

95th percentile per-packet one-way delay: 53.501 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 179.77 Mbit/s

95th percentile per-packet one-way delay: 53.369 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 167.05 Mbit/s

95th percentile per-packet one-way delay: 53.565 ms

Loss rate: 0.46%

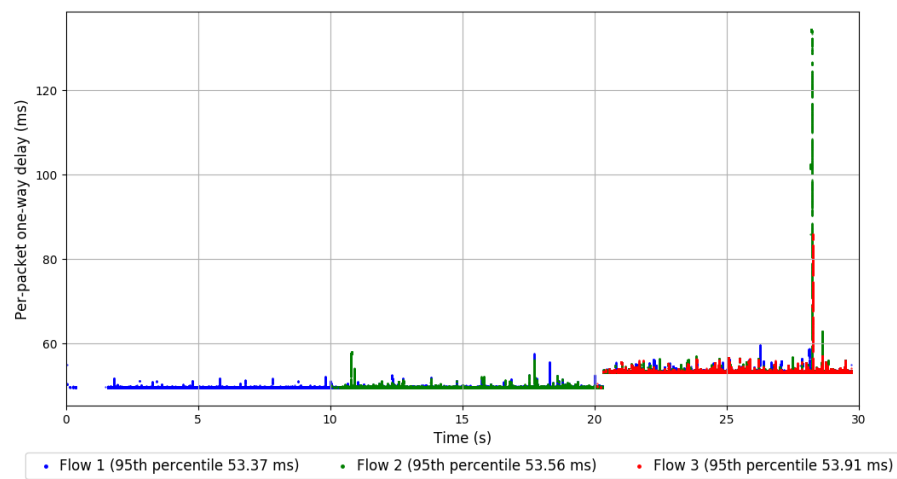
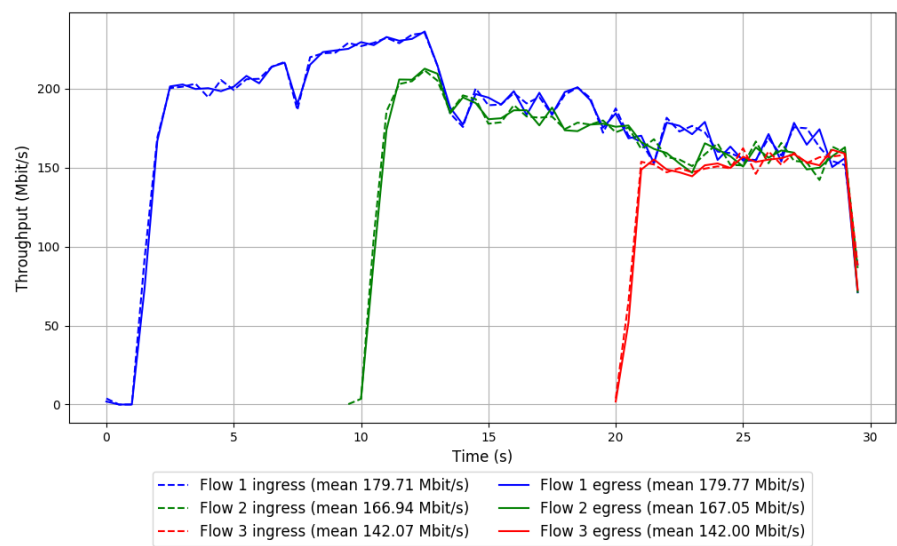
-- Flow 3:

Average throughput: 142.00 Mbit/s

95th percentile per-packet one-way delay: 53.910 ms

Loss rate: 1.11%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-01-31 18:18:01

End at: 2018-01-31 18:18:31

Below is generated by plot.py at 2018-01-31 22:59:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.78 Mbit/s

95th percentile per-packet one-way delay: 53.255 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 174.85 Mbit/s

95th percentile per-packet one-way delay: 53.246 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 159.30 Mbit/s

95th percentile per-packet one-way delay: 53.287 ms

Loss rate: 0.31%

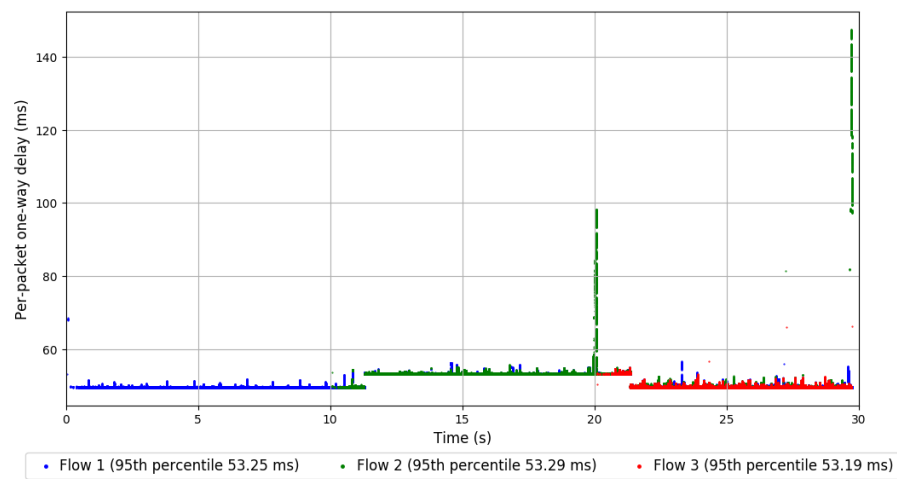
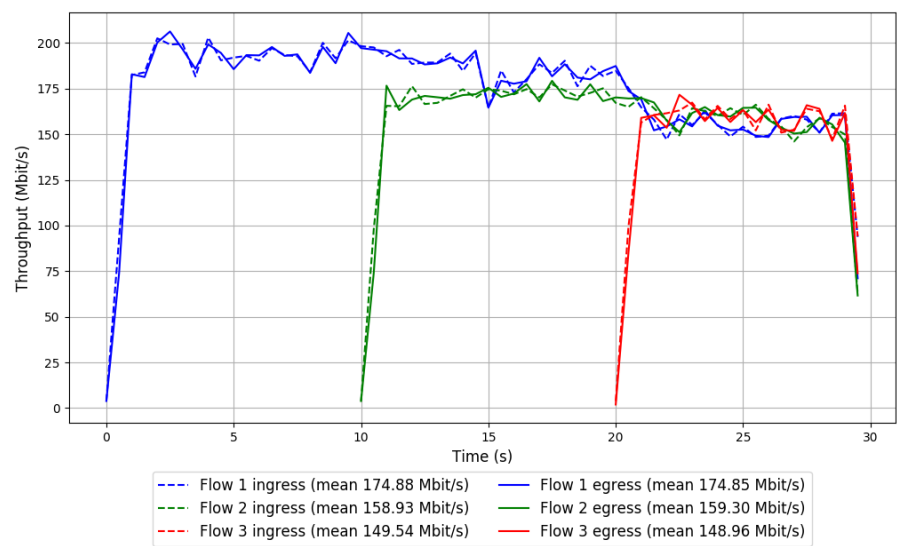
-- Flow 3:

Average throughput: 148.96 Mbit/s

95th percentile per-packet one-way delay: 53.187 ms

Loss rate: 1.30%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-01-31 18:34:34

End at: 2018-01-31 18:35:04

Below is generated by plot.py at 2018-01-31 23:01:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 349.73 Mbit/s

95th percentile per-packet one-way delay: 53.757 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 187.21 Mbit/s

95th percentile per-packet one-way delay: 53.561 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 171.14 Mbit/s

95th percentile per-packet one-way delay: 53.874 ms

Loss rate: 0.46%

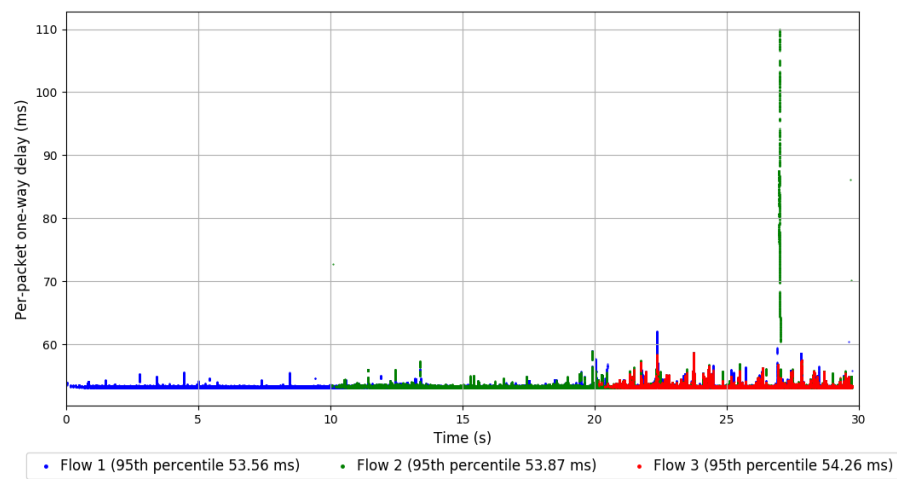
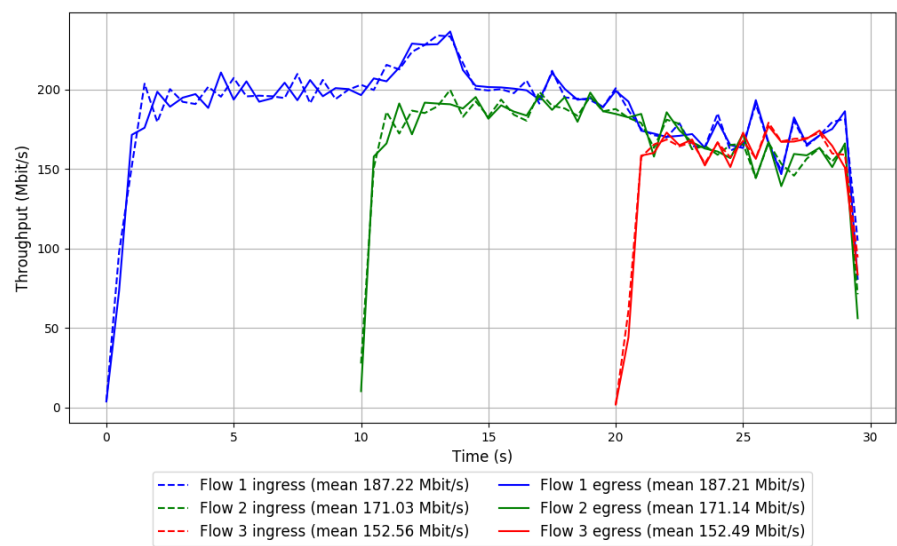
-- Flow 3:

Average throughput: 152.49 Mbit/s

95th percentile per-packet one-way delay: 54.257 ms

Loss rate: 1.15%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-01-31 18:51:05

End at: 2018-01-31 18:51:35

Below is generated by plot.py at 2018-01-31 23:01:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 349.80 Mbit/s

95th percentile per-packet one-way delay: 53.687 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 188.65 Mbit/s

95th percentile per-packet one-way delay: 53.478 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 171.47 Mbit/s

95th percentile per-packet one-way delay: 53.871 ms

Loss rate: 0.39%

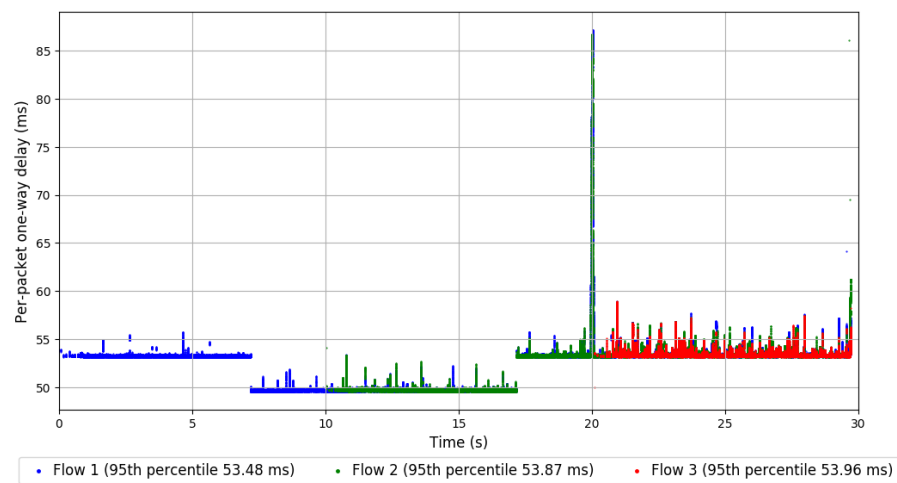
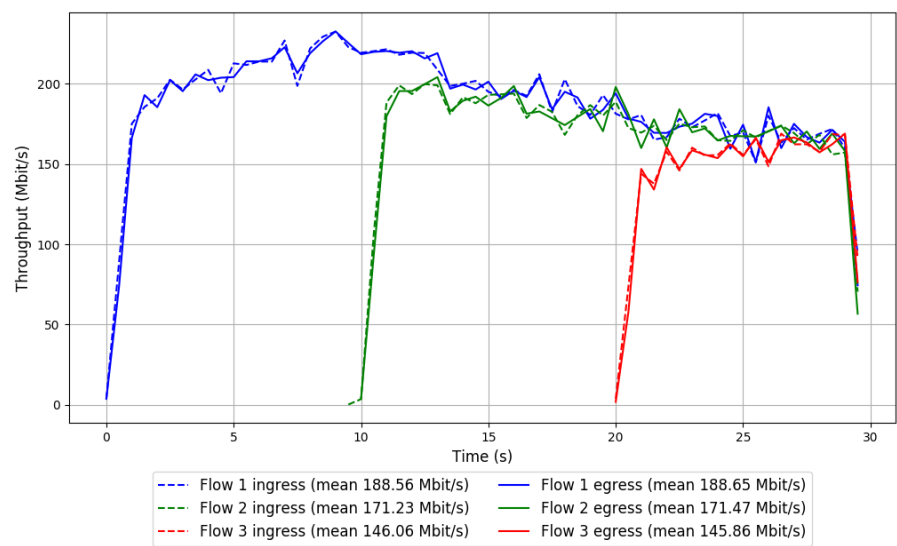
-- Flow 3:

Average throughput: 145.86 Mbit/s

95th percentile per-packet one-way delay: 53.958 ms

Loss rate: 1.22%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-01-31 16:26:44

End at: 2018-01-31 16:27:14

Below is generated by plot.py at 2018-01-31 23:04:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 503.09 Mbit/s

95th percentile per-packet one-way delay: 53.322 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 296.16 Mbit/s

95th percentile per-packet one-way delay: 53.347 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 229.76 Mbit/s

95th percentile per-packet one-way delay: 50.826 ms

Loss rate: 0.59%

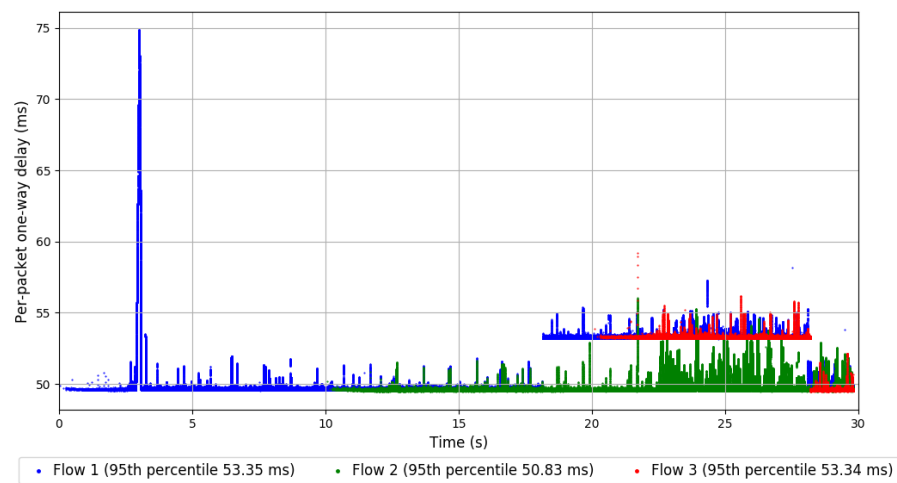
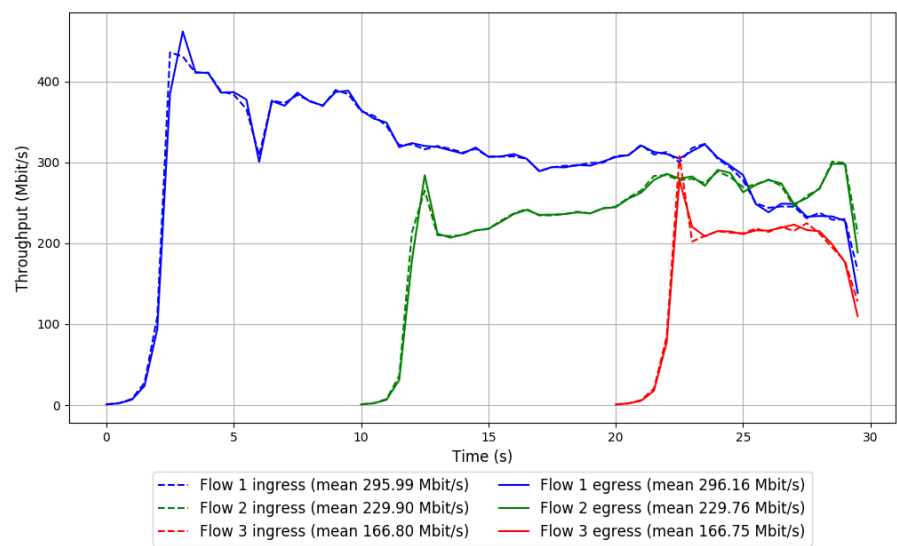
-- Flow 3:

Average throughput: 166.75 Mbit/s

95th percentile per-packet one-way delay: 53.340 ms

Loss rate: 1.12%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-01-31 16:42:51

End at: 2018-01-31 16:43:21

Below is generated by plot.py at 2018-01-31 23:04:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 418.72 Mbit/s

95th percentile per-packet one-way delay: 54.011 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 236.60 Mbit/s

95th percentile per-packet one-way delay: 54.526 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 197.54 Mbit/s

95th percentile per-packet one-way delay: 53.385 ms

Loss rate: 1.07%

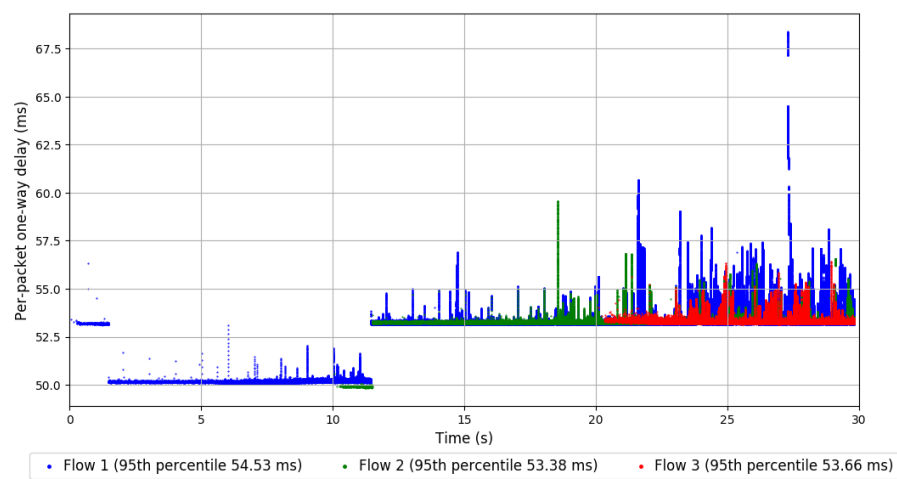
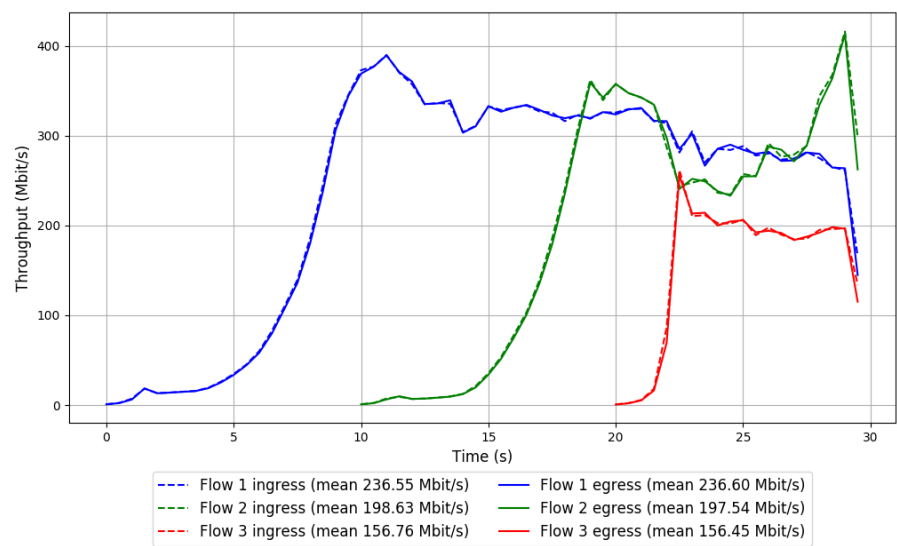
-- Flow 3:

Average throughput: 156.45 Mbit/s

95th percentile per-packet one-way delay: 53.661 ms

Loss rate: 1.28%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-31 16:59:24

End at: 2018-01-31 16:59:54

Below is generated by plot.py at 2018-01-31 23:06:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 546.85 Mbit/s

95th percentile per-packet one-way delay: 53.209 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 295.45 Mbit/s

95th percentile per-packet one-way delay: 53.117 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 292.19 Mbit/s

95th percentile per-packet one-way delay: 54.252 ms

Loss rate: 0.58%

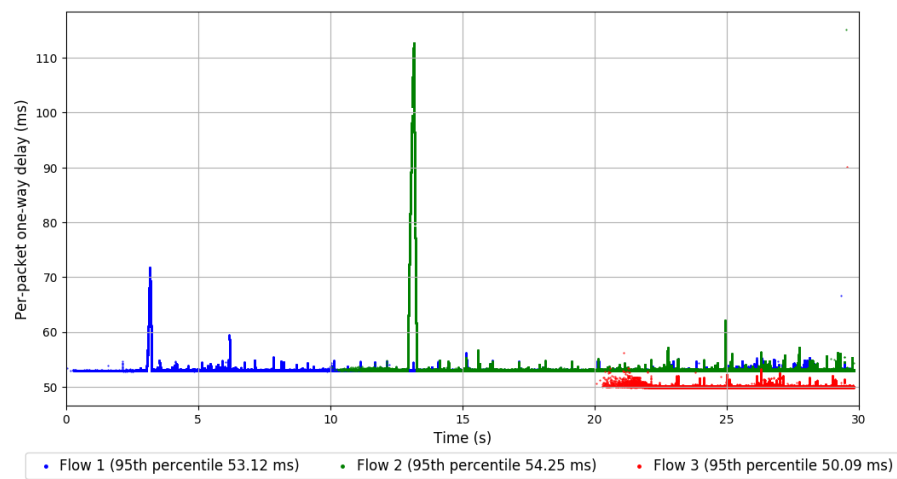
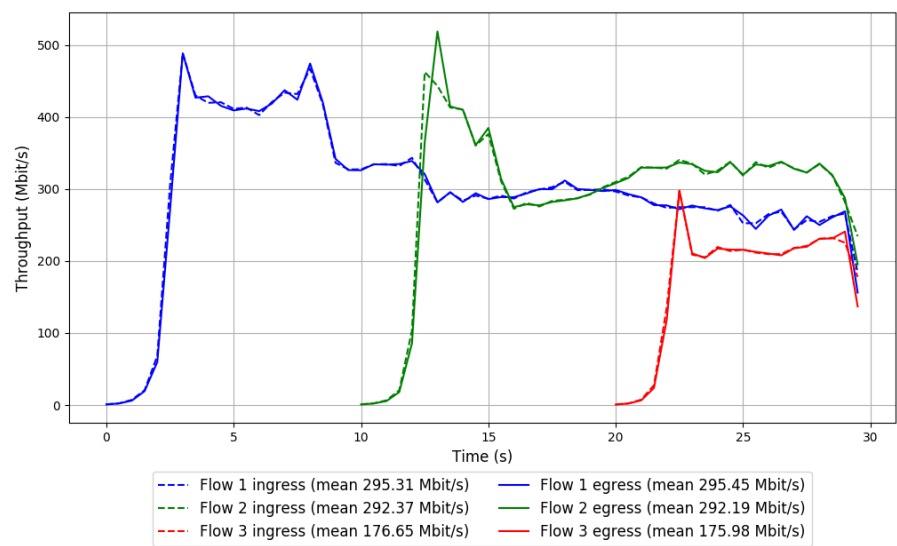
-- Flow 3:

Average throughput: 175.98 Mbit/s

95th percentile per-packet one-way delay: 50.085 ms

Loss rate: 1.41%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-01-31 17:16:20

End at: 2018-01-31 17:16:50

Below is generated by plot.py at 2018-01-31 23:06:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 489.33 Mbit/s

95th percentile per-packet one-way delay: 53.421 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 330.79 Mbit/s

95th percentile per-packet one-way delay: 53.253 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 228.85 Mbit/s

95th percentile per-packet one-way delay: 53.431 ms

Loss rate: 0.57%

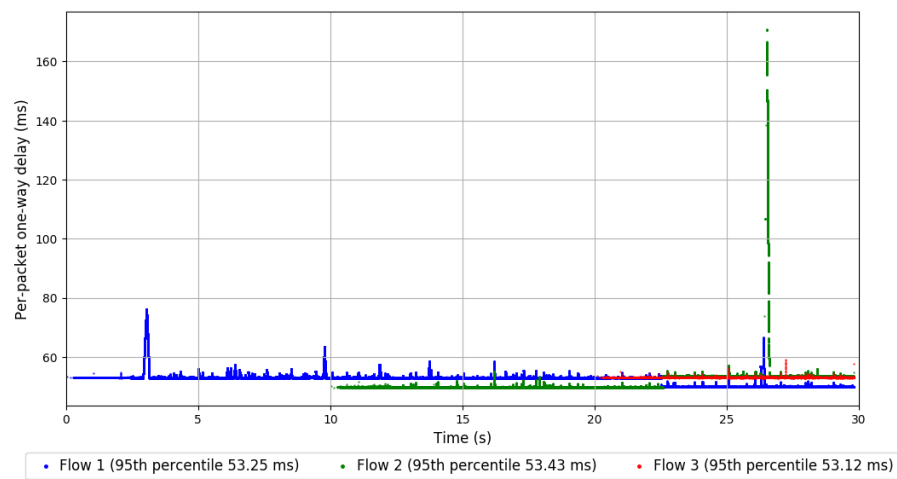
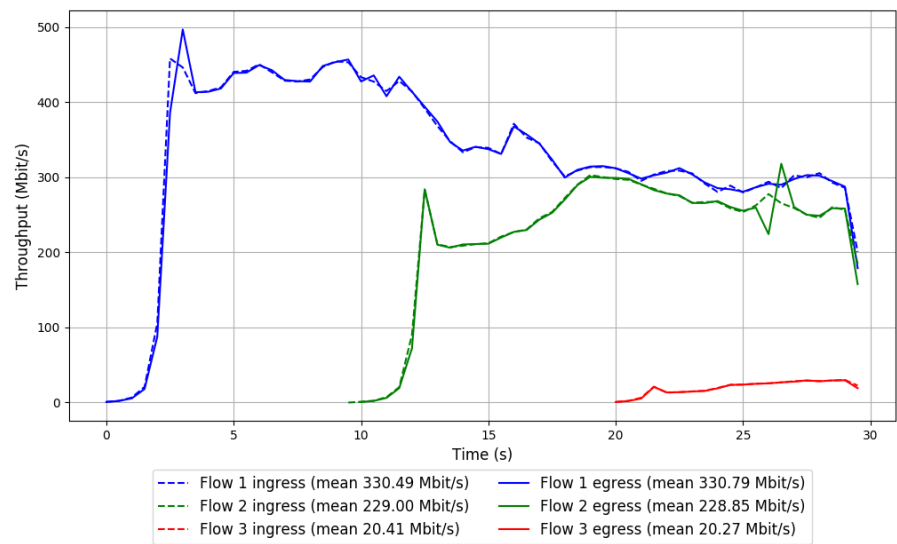
-- Flow 3:

Average throughput: 20.27 Mbit/s

95th percentile per-packet one-way delay: 53.120 ms

Loss rate: 1.72%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-01-31 17:32:52

End at: 2018-01-31 17:33:22

Below is generated by plot.py at 2018-01-31 23:06:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 527.26 Mbit/s

95th percentile per-packet one-way delay: 54.367 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 305.01 Mbit/s

95th percentile per-packet one-way delay: 87.155 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 251.61 Mbit/s

95th percentile per-packet one-way delay: 53.409 ms

Loss rate: 0.56%

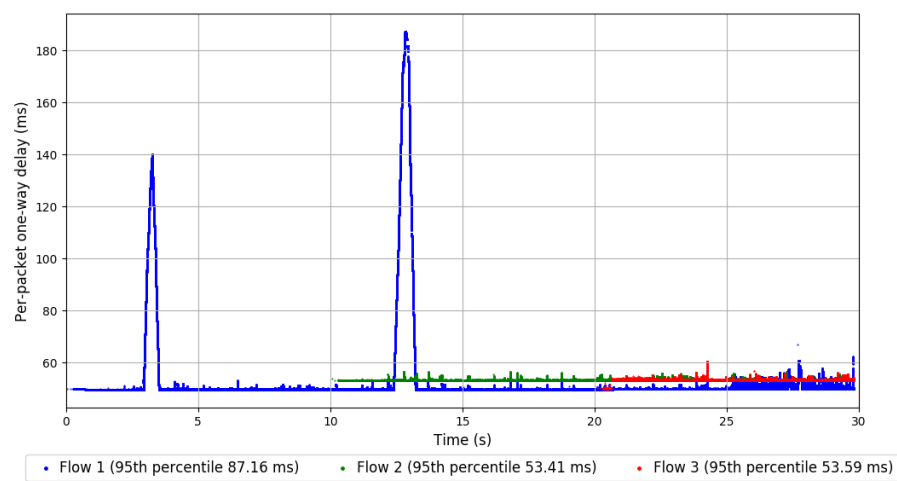
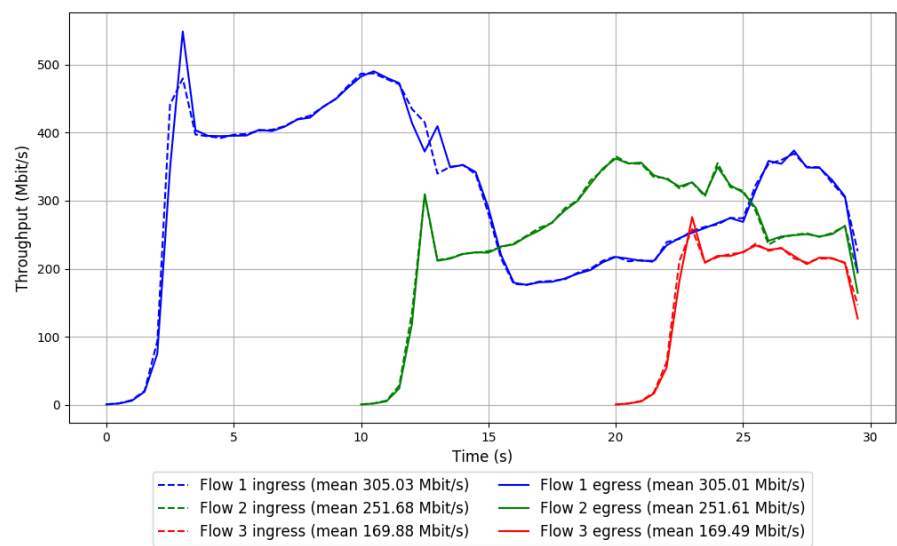
-- Flow 3:

Average throughput: 169.49 Mbit/s

95th percentile per-packet one-way delay: 53.590 ms

Loss rate: 1.28%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-01-31 17:49:34

End at: 2018-01-31 17:50:04

Below is generated by plot.py at 2018-01-31 23:08:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 541.36 Mbit/s

95th percentile per-packet one-way delay: 53.389 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 308.29 Mbit/s

95th percentile per-packet one-way delay: 53.195 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 260.32 Mbit/s

95th percentile per-packet one-way delay: 53.443 ms

Loss rate: 0.62%

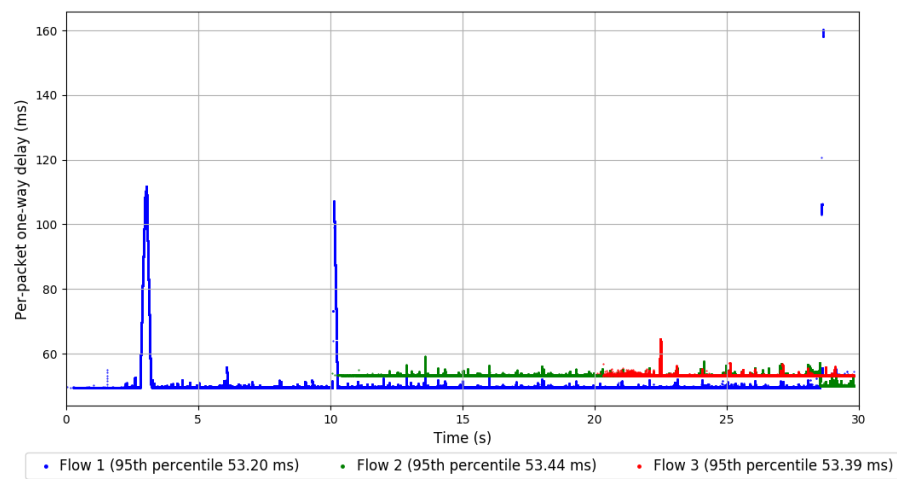
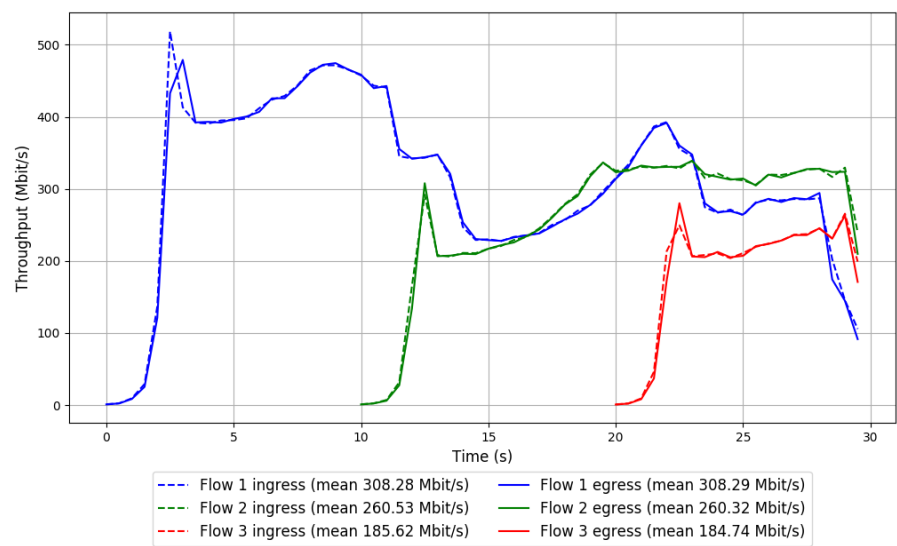
-- Flow 3:

Average throughput: 184.74 Mbit/s

95th percentile per-packet one-way delay: 53.392 ms

Loss rate: 1.57%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-01-31 18:05:49

End at: 2018-01-31 18:06:20

Below is generated by plot.py at 2018-01-31 23:09:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 521.98 Mbit/s

95th percentile per-packet one-way delay: 53.238 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 322.41 Mbit/s

95th percentile per-packet one-way delay: 50.495 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 224.16 Mbit/s

95th percentile per-packet one-way delay: 49.773 ms

Loss rate: 0.36%

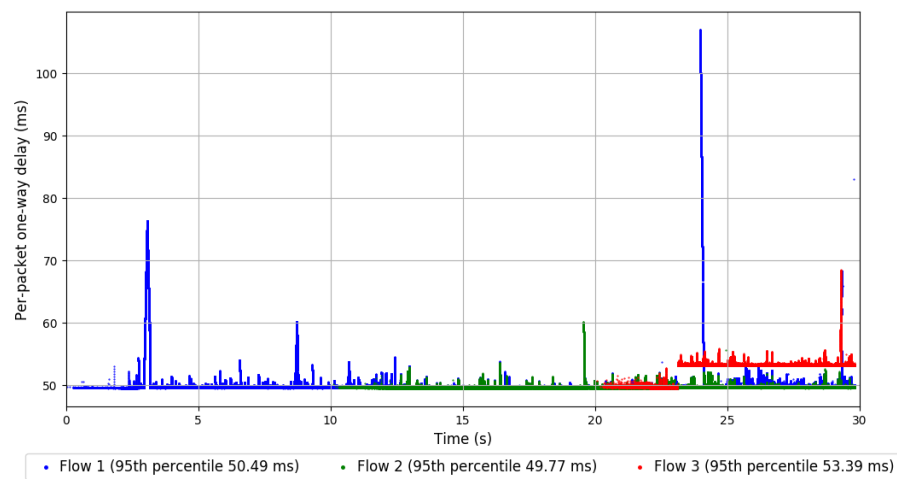
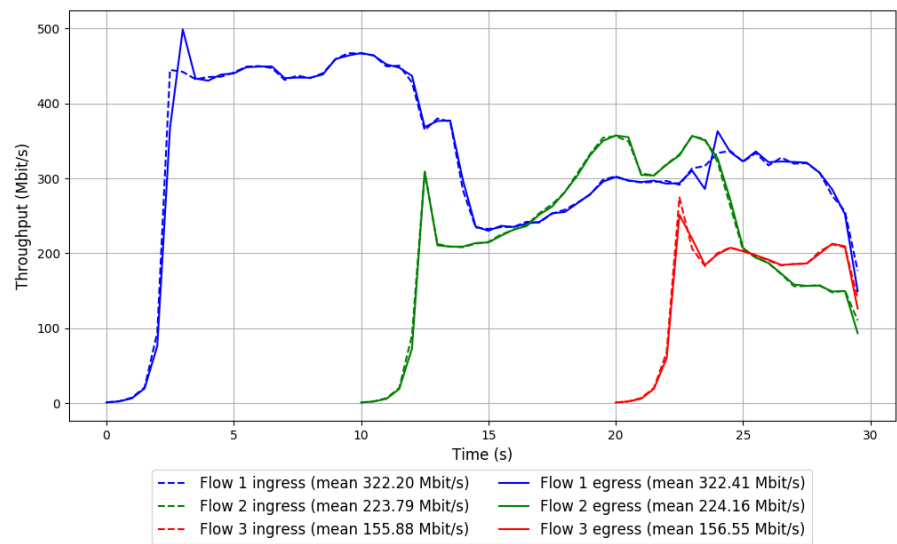
-- Flow 3:

Average throughput: 156.55 Mbit/s

95th percentile per-packet one-way delay: 53.387 ms

Loss rate: 1.09%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-01-31 18:22:09

End at: 2018-01-31 18:22:39

Below is generated by plot.py at 2018-01-31 23:09:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 516.49 Mbit/s

95th percentile per-packet one-way delay: 53.604 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 308.17 Mbit/s

95th percentile per-packet one-way delay: 54.054 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 232.53 Mbit/s

95th percentile per-packet one-way delay: 53.320 ms

Loss rate: 0.73%

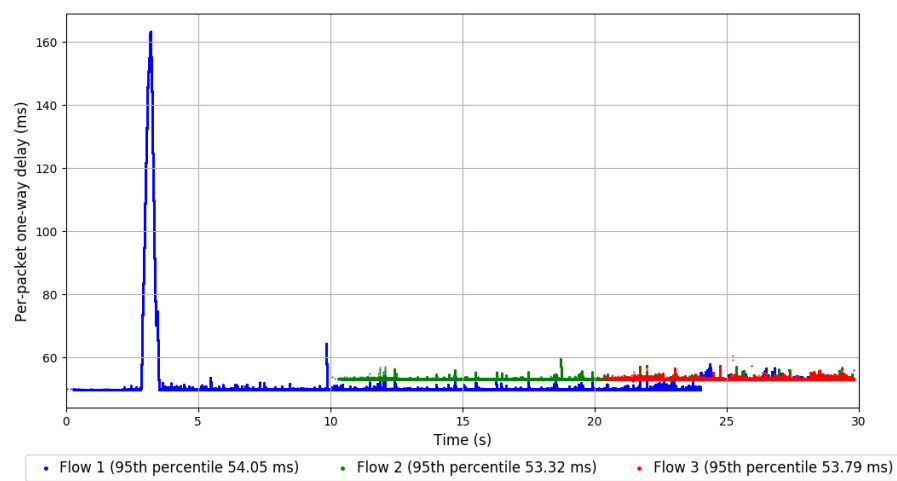
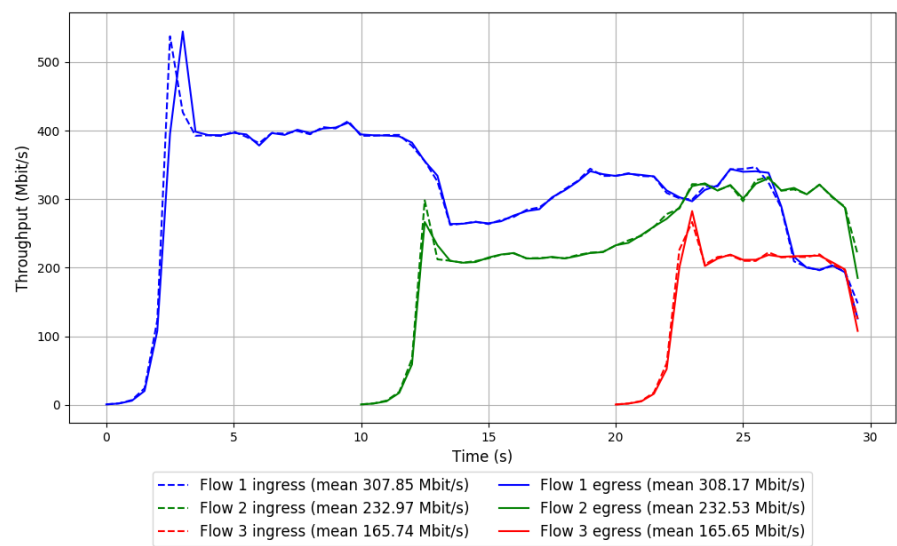
-- Flow 3:

Average throughput: 165.65 Mbit/s

95th percentile per-packet one-way delay: 53.792 ms

Loss rate: 1.16%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-01-31 18:38:42

End at: 2018-01-31 18:39:12

Below is generated by plot.py at 2018-01-31 23:11:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 486.08 Mbit/s

95th percentile per-packet one-way delay: 53.683 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 284.23 Mbit/s

95th percentile per-packet one-way delay: 53.729 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 264.57 Mbit/s

95th percentile per-packet one-way delay: 53.712 ms

Loss rate: 0.63%

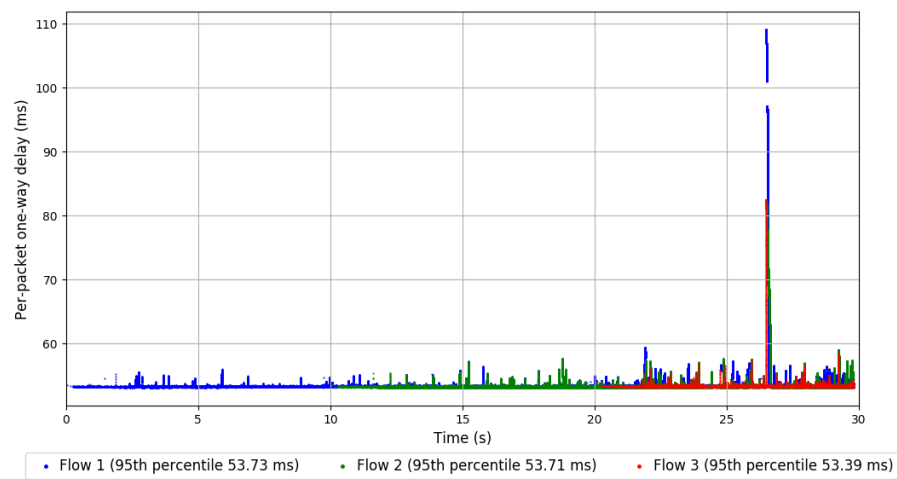
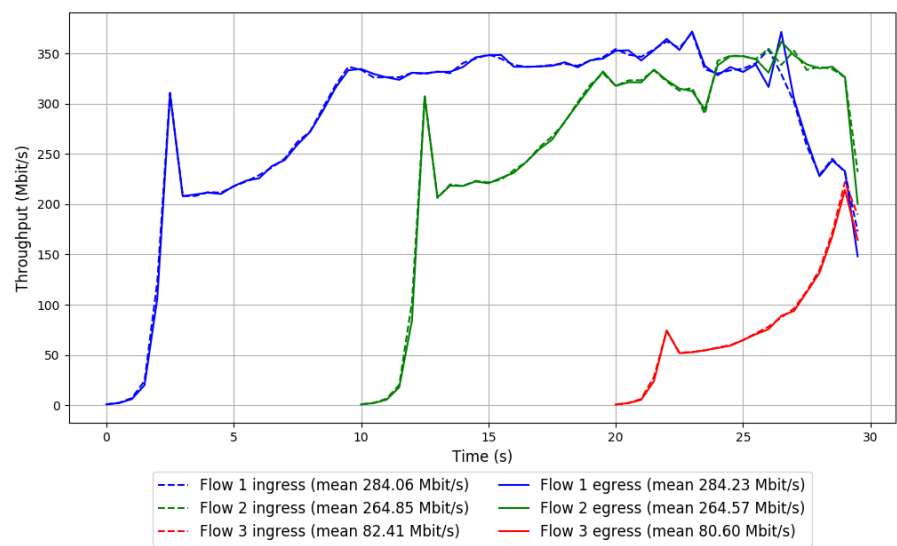
-- Flow 3:

Average throughput: 80.60 Mbit/s

95th percentile per-packet one-way delay: 53.389 ms

Loss rate: 3.23%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-01-31 18:55:13

End at: 2018-01-31 18:55:43

Below is generated by plot.py at 2018-01-31 23:12:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 487.90 Mbit/s

95th percentile per-packet one-way delay: 53.878 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 263.57 Mbit/s

95th percentile per-packet one-way delay: 51.184 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 293.06 Mbit/s

95th percentile per-packet one-way delay: 62.346 ms

Loss rate: 0.52%

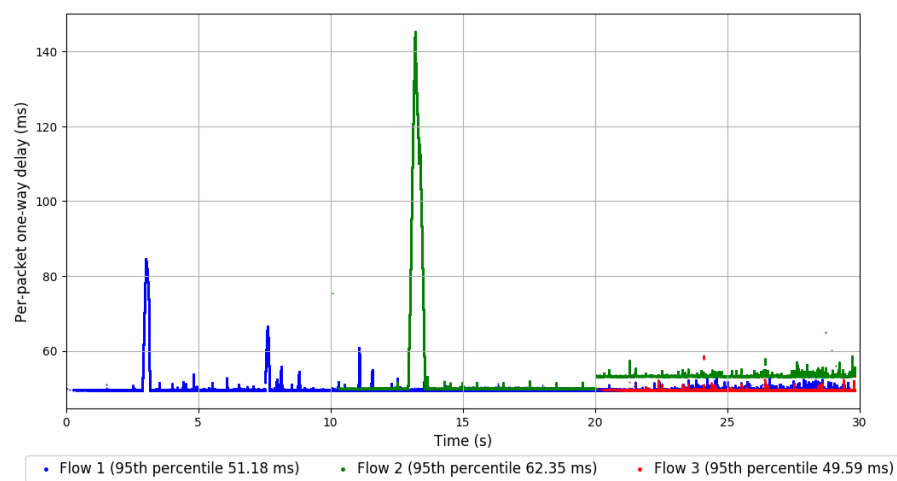
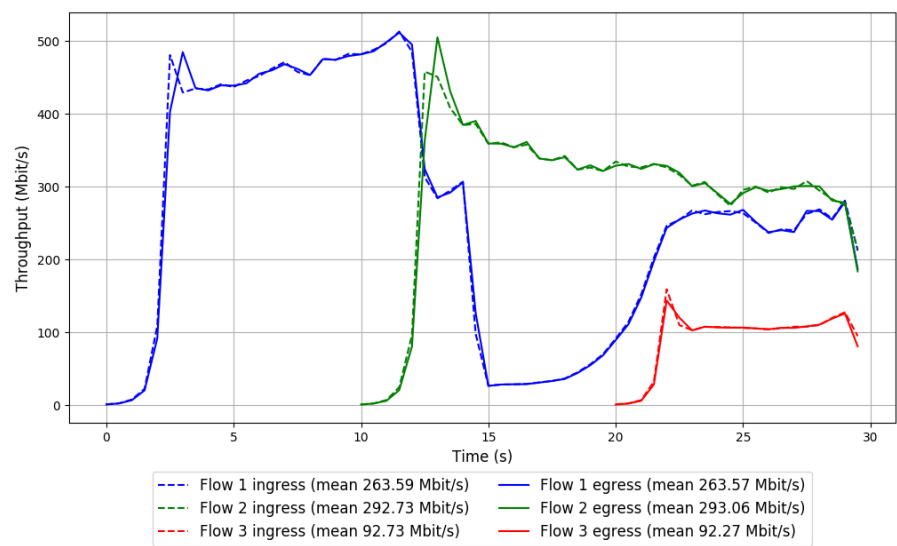
-- Flow 3:

Average throughput: 92.27 Mbit/s

95th percentile per-packet one-way delay: 49.595 ms

Loss rate: 1.50%

Run 10: Report of Vivace-latency — Data Link

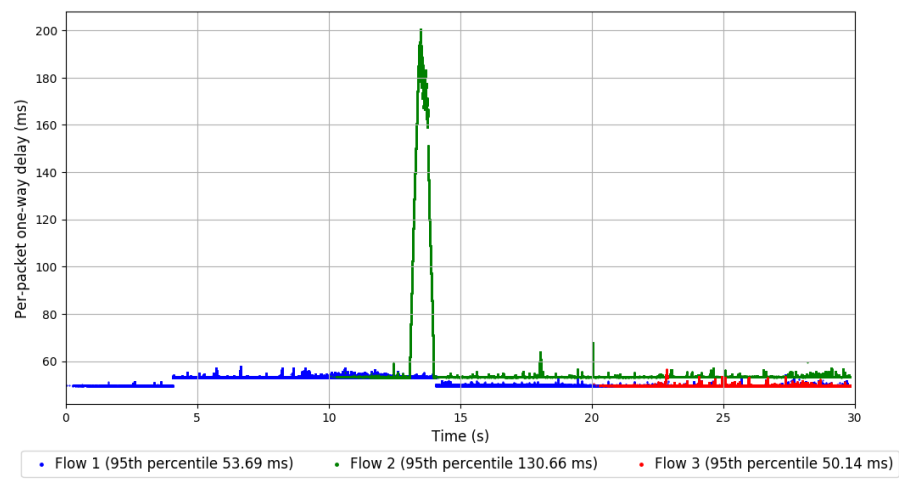
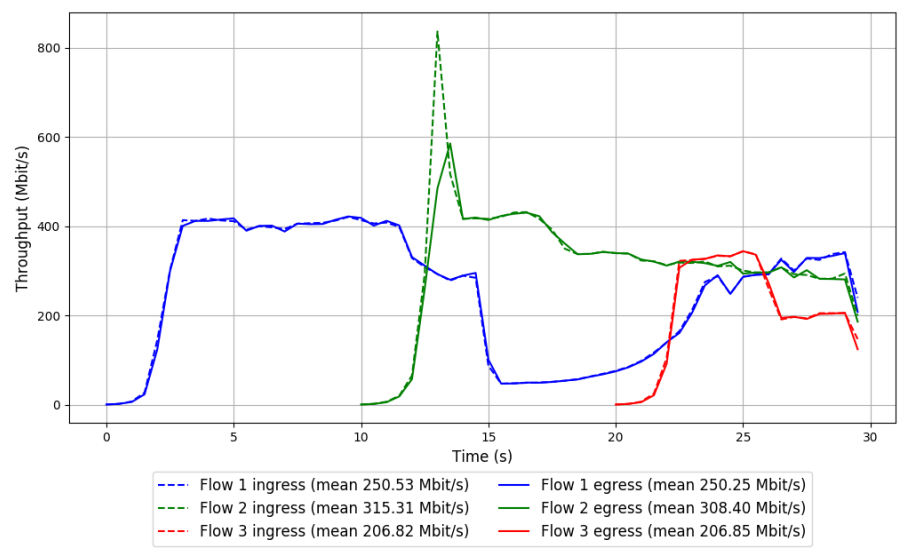


```
Run 1: Statistics of Vivace-loss

Start at: 2018-01-31 16:27:59
End at: 2018-01-31 16:28:29

# Below is generated by plot.py at 2018-01-31 23:13:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 522.57 Mbit/s
95th percentile per-packet one-way delay: 54.451 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 250.25 Mbit/s
95th percentile per-packet one-way delay: 53.686 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 308.40 Mbit/s
95th percentile per-packet one-way delay: 130.665 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 206.85 Mbit/s
95th percentile per-packet one-way delay: 50.139 ms
Loss rate: 1.03%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-01-31 16:43:59

End at: 2018-01-31 16:44:29

Below is generated by plot.py at 2018-01-31 23:15:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 581.94 Mbit/s

95th percentile per-packet one-way delay: 67.868 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 348.61 Mbit/s

95th percentile per-packet one-way delay: 72.443 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 292.13 Mbit/s

95th percentile per-packet one-way delay: 54.490 ms

Loss rate: 0.60%

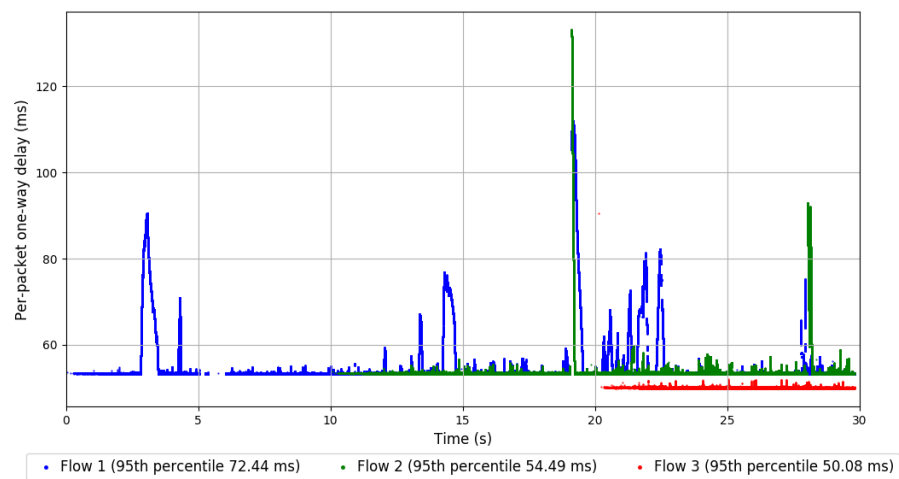
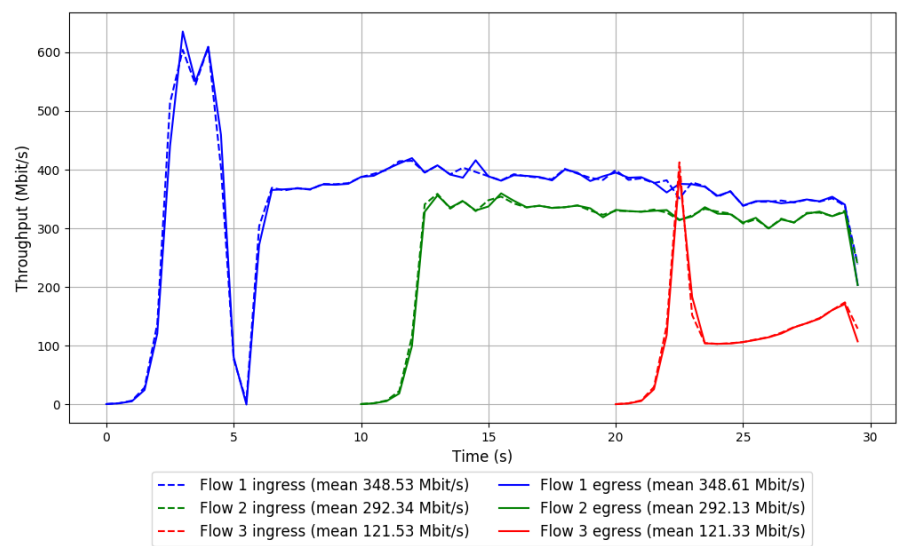
-- Flow 3:

Average throughput: 121.33 Mbit/s

95th percentile per-packet one-way delay: 50.082 ms

Loss rate: 1.64%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-31 17:00:41

End at: 2018-01-31 17:01:11

Below is generated by plot.py at 2018-01-31 23:16:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 611.56 Mbit/s

95th percentile per-packet one-way delay: 53.672 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 342.42 Mbit/s

95th percentile per-packet one-way delay: 54.141 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 316.61 Mbit/s

95th percentile per-packet one-way delay: 53.698 ms

Loss rate: 0.66%

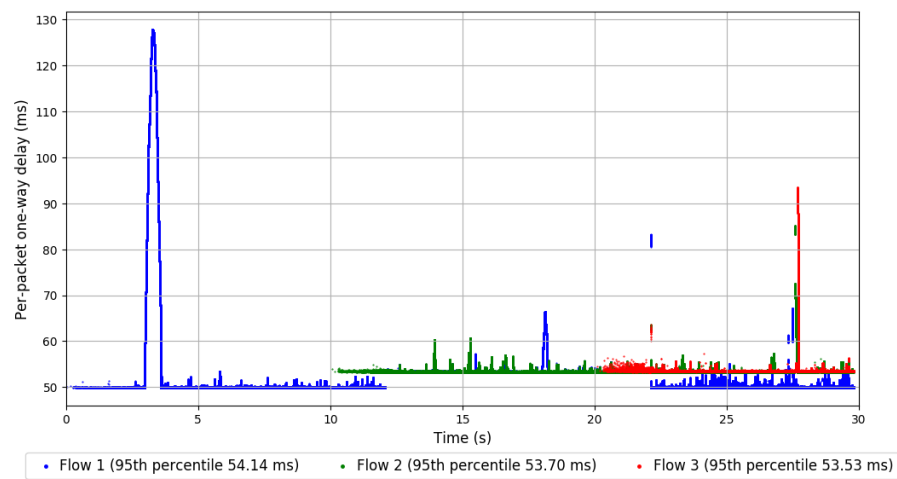
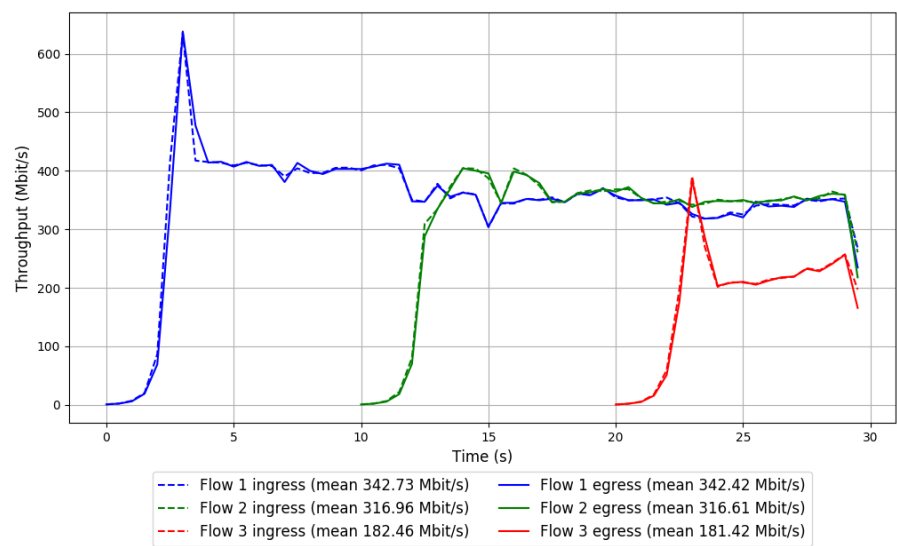
-- Flow 3:

Average throughput: 181.42 Mbit/s

95th percentile per-packet one-way delay: 53.534 ms

Loss rate: 1.67%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-01-31 17:17:33

End at: 2018-01-31 17:18:03

Below is generated by plot.py at 2018-01-31 23:17:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 571.42 Mbit/s

95th percentile per-packet one-way delay: 102.182 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 267.07 Mbit/s

95th percentile per-packet one-way delay: 121.270 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 328.75 Mbit/s

95th percentile per-packet one-way delay: 53.394 ms

Loss rate: 0.49%

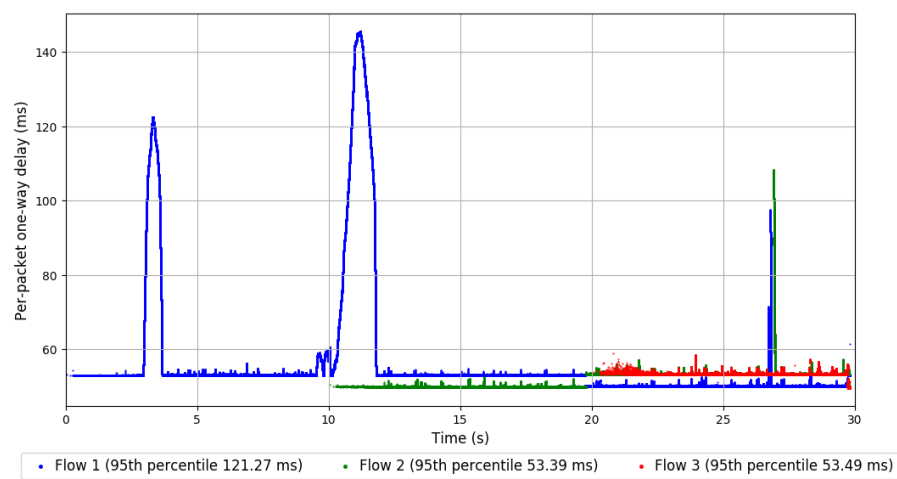
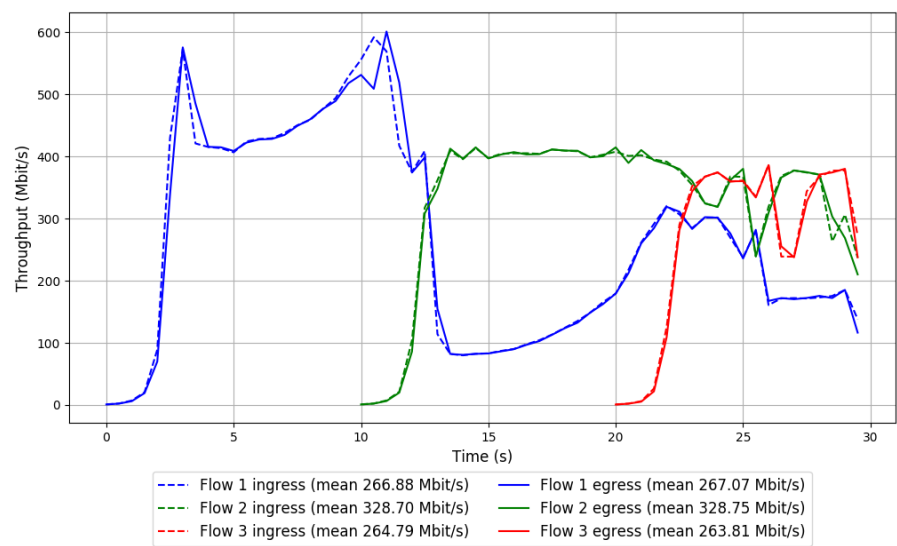
-- Flow 3:

Average throughput: 263.81 Mbit/s

95th percentile per-packet one-way delay: 53.494 ms

Loss rate: 1.41%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-01-31 17:34:07

End at: 2018-01-31 17:34:37

Below is generated by plot.py at 2018-01-31 23:19:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 604.82 Mbit/s

95th percentile per-packet one-way delay: 54.083 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 339.90 Mbit/s

95th percentile per-packet one-way delay: 55.681 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 269.66 Mbit/s

95th percentile per-packet one-way delay: 53.327 ms

Loss rate: 0.66%

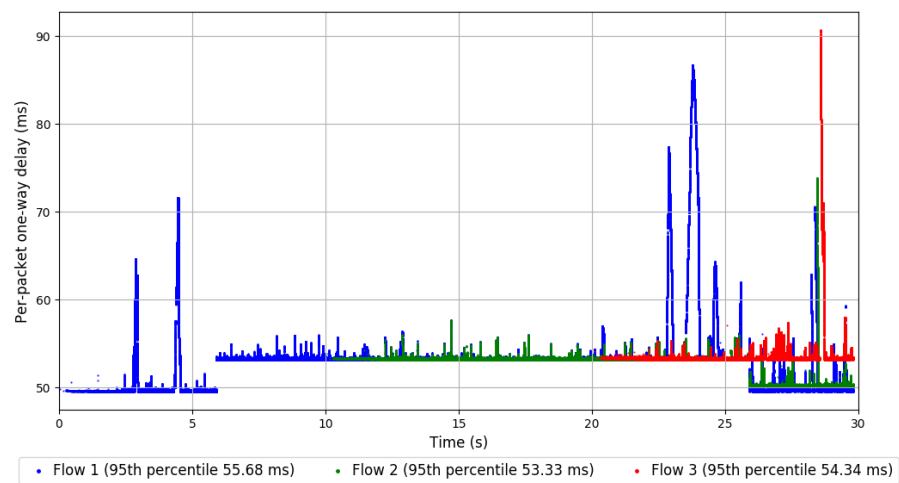
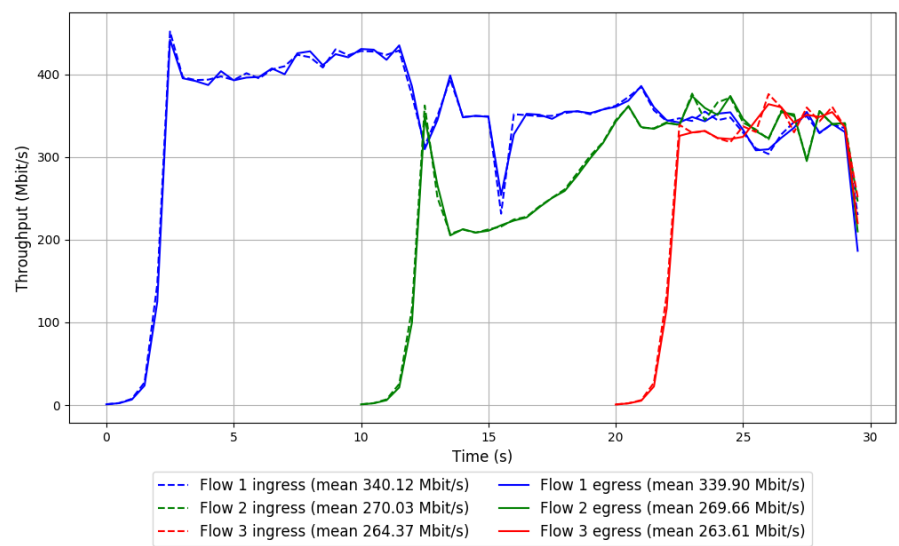
-- Flow 3:

Average throughput: 263.61 Mbit/s

95th percentile per-packet one-way delay: 54.337 ms

Loss rate: 1.36%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

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

End at: 2018-01-31 17:51:20

Below is generated by plot.py at 2018-01-31 23:19:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 527.29 Mbit/s

95th percentile per-packet one-way delay: 54.239 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 272.38 Mbit/s

95th percentile per-packet one-way delay: 55.556 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 296.28 Mbit/s

95th percentile per-packet one-way delay: 53.361 ms

Loss rate: 0.53%

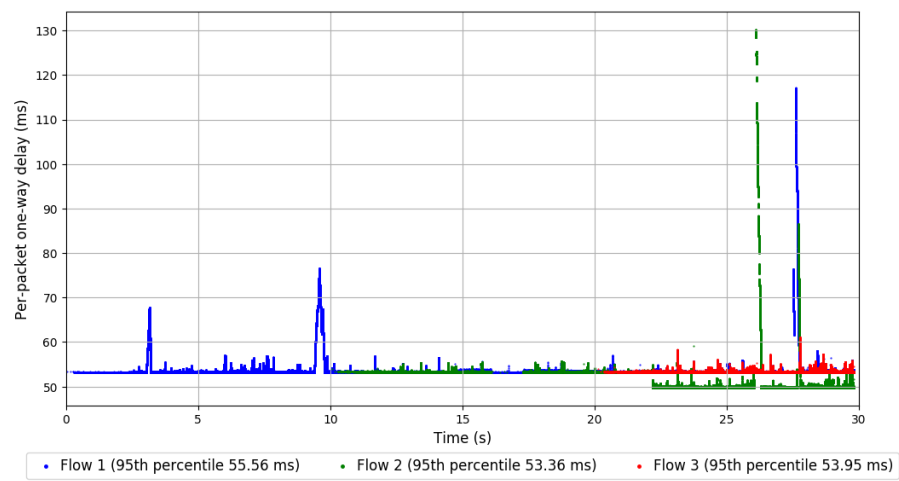
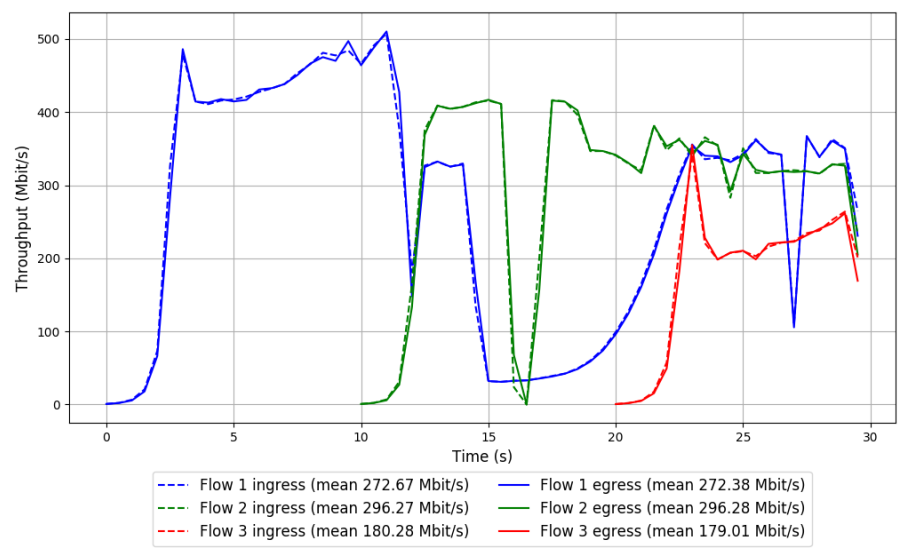
-- Flow 3:

Average throughput: 179.01 Mbit/s

95th percentile per-packet one-way delay: 53.949 ms

Loss rate: 1.79%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-01-31 18:07:04

End at: 2018-01-31 18:07:34

Below is generated by plot.py at 2018-01-31 23:19:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 467.97 Mbit/s

95th percentile per-packet one-way delay: 56.829 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 265.85 Mbit/s

95th percentile per-packet one-way delay: 54.282 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 211.23 Mbit/s

95th percentile per-packet one-way delay: 152.415 ms

Loss rate: 2.12%

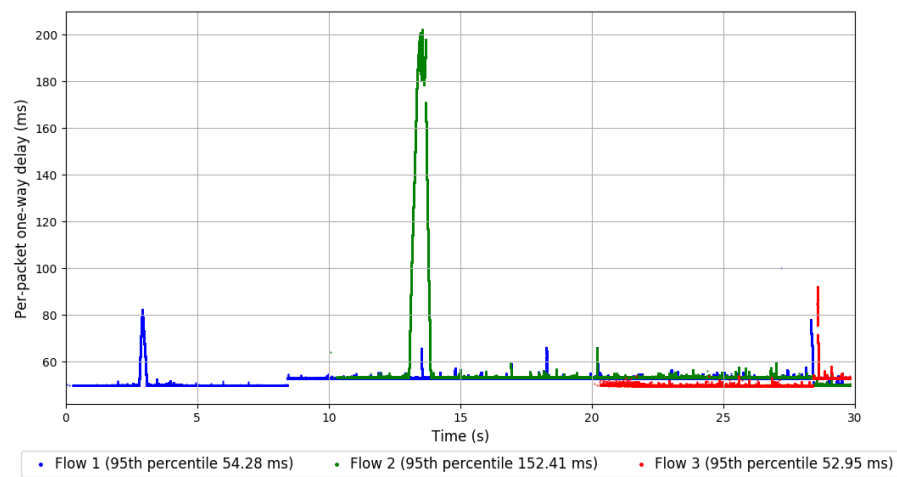
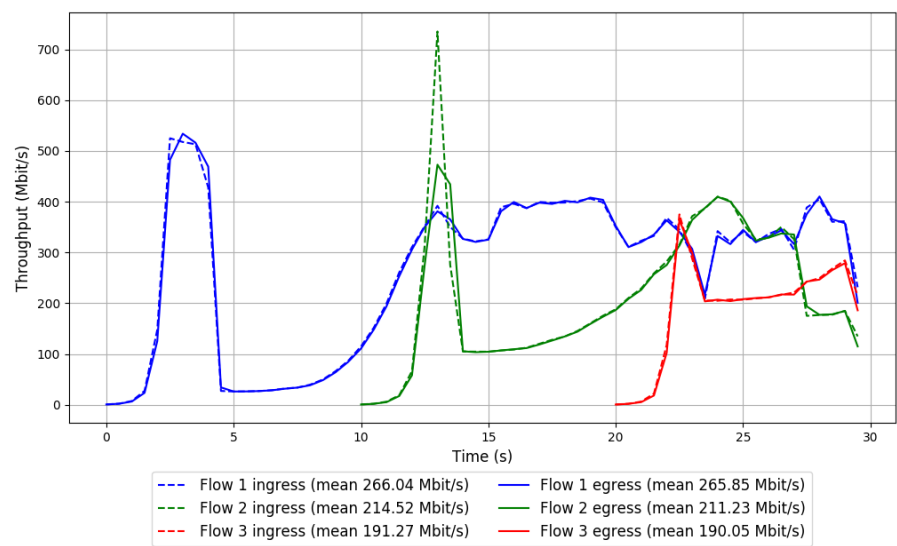
-- Flow 3:

Average throughput: 190.05 Mbit/s

95th percentile per-packet one-way delay: 52.947 ms

Loss rate: 1.69%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-01-31 18:23:23

End at: 2018-01-31 18:23:53

Below is generated by plot.py at 2018-01-31 23:21:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 566.33 Mbit/s

95th percentile per-packet one-way delay: 157.239 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 308.78 Mbit/s

95th percentile per-packet one-way delay: 180.434 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 296.13 Mbit/s

95th percentile per-packet one-way delay: 50.624 ms

Loss rate: 0.53%

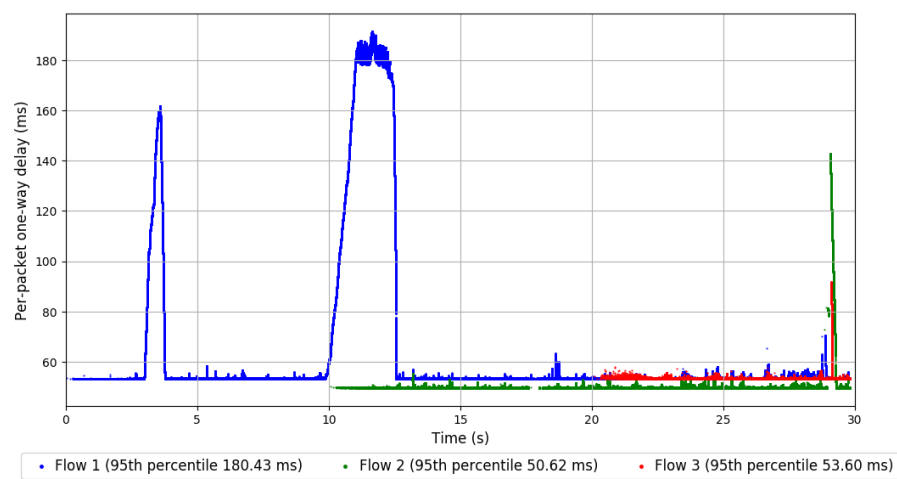
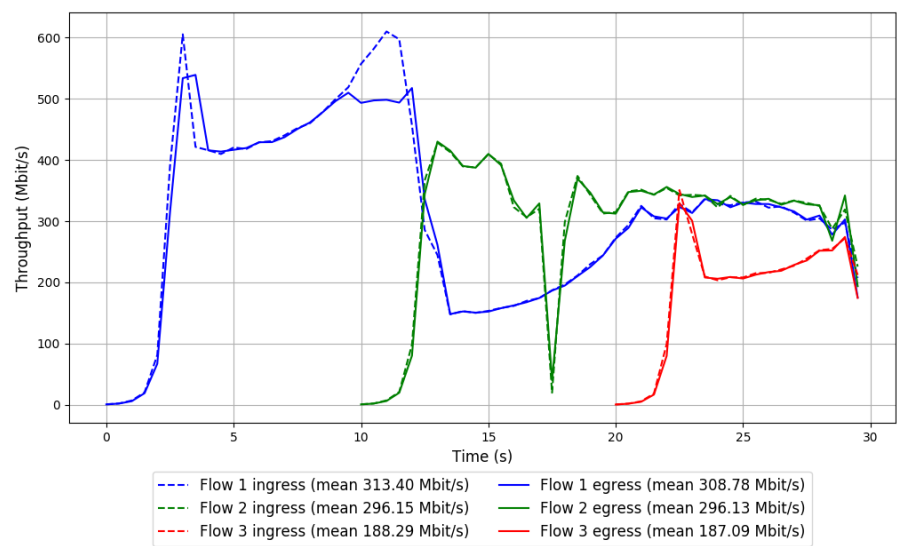
-- Flow 3:

Average throughput: 187.09 Mbit/s

95th percentile per-packet one-way delay: 53.602 ms

Loss rate: 1.78%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-01-31 18:39:55

End at: 2018-01-31 18:40:25

Below is generated by plot.py at 2018-01-31 23:22:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 534.94 Mbit/s

95th percentile per-packet one-way delay: 57.398 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 254.11 Mbit/s

95th percentile per-packet one-way delay: 73.411 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 293.17 Mbit/s

95th percentile per-packet one-way delay: 49.718 ms

Loss rate: 0.58%

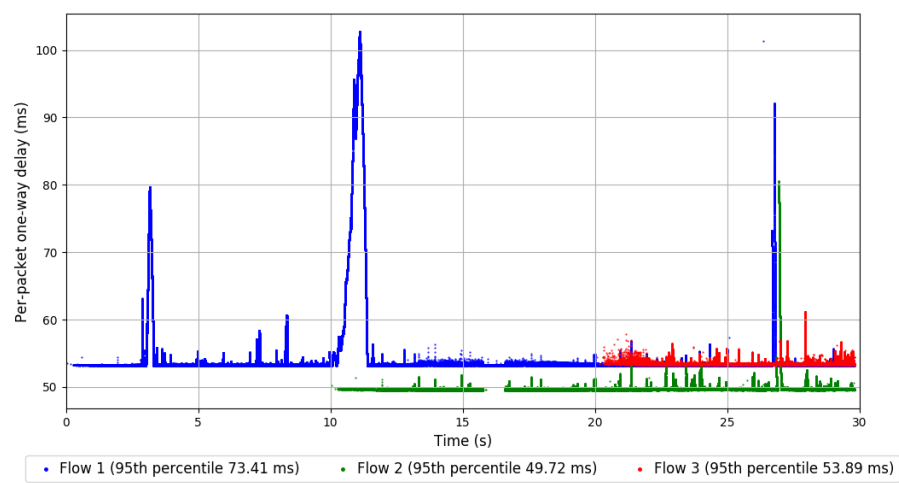
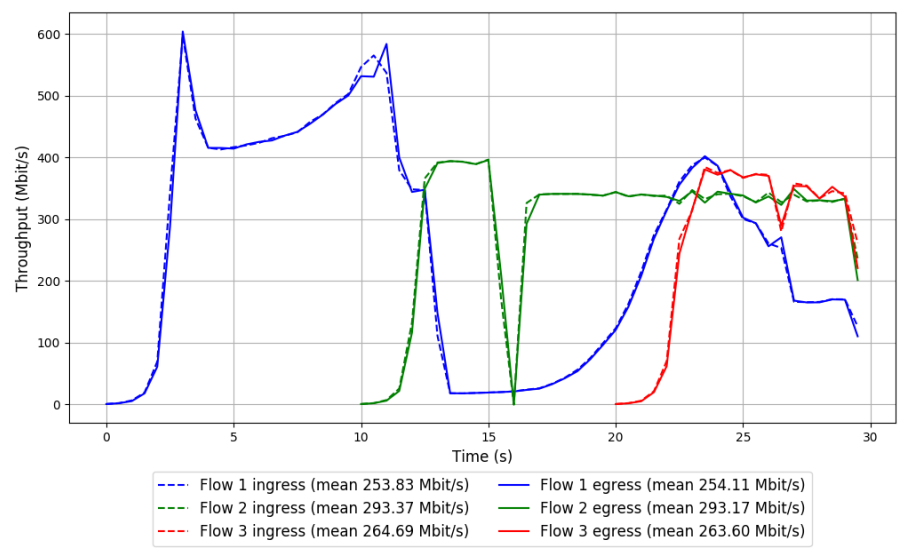
-- Flow 3:

Average throughput: 263.60 Mbit/s

95th percentile per-packet one-way delay: 53.886 ms

Loss rate: 1.47%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-01-31 18:56:25

End at: 2018-01-31 18:56:55

Below is generated by plot.py at 2018-01-31 23:22:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 460.09 Mbit/s

95th percentile per-packet one-way delay: 58.134 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 191.71 Mbit/s

95th percentile per-packet one-way delay: 82.961 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 272.98 Mbit/s

95th percentile per-packet one-way delay: 53.477 ms

Loss rate: 0.63%

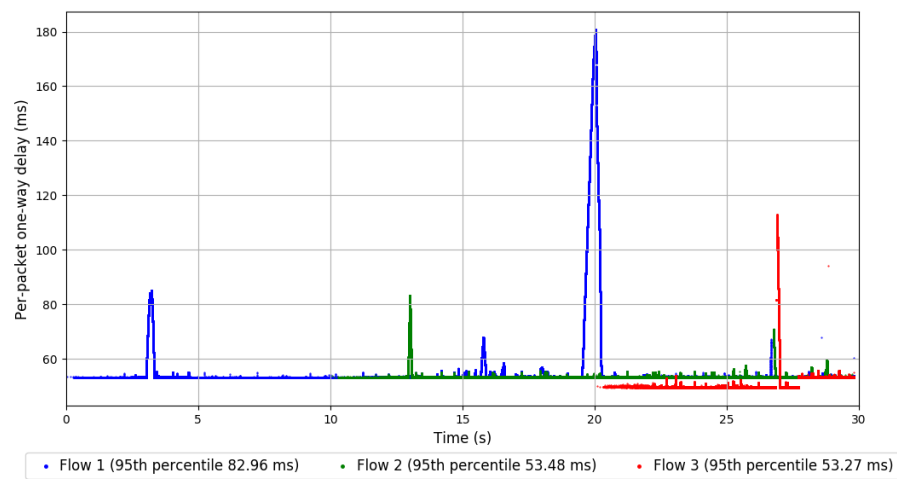
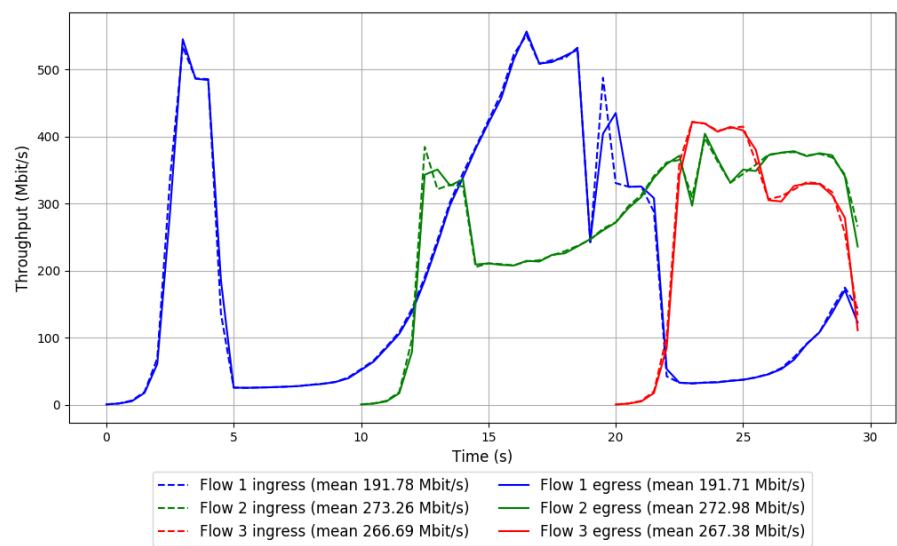
-- Flow 3:

Average throughput: 267.38 Mbit/s

95th percentile per-packet one-way delay: 53.272 ms

Loss rate: 0.76%

Run 10: Report of Vivace-loss — Data Link

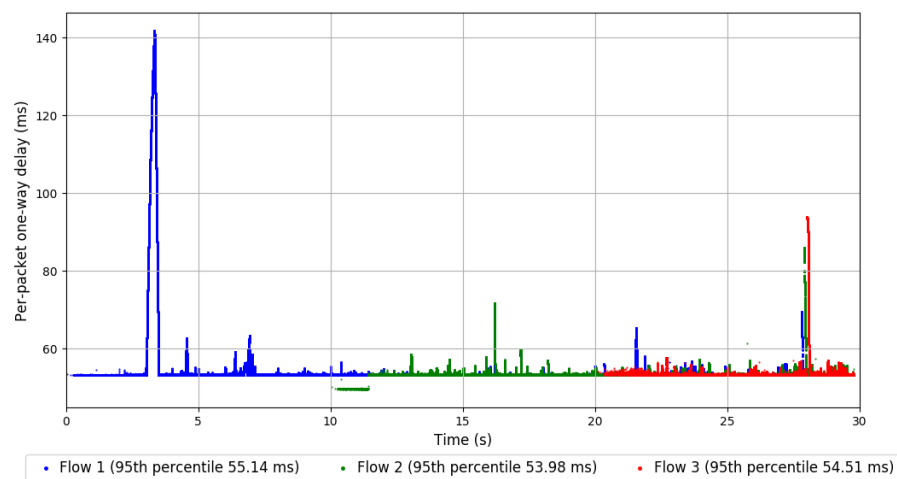
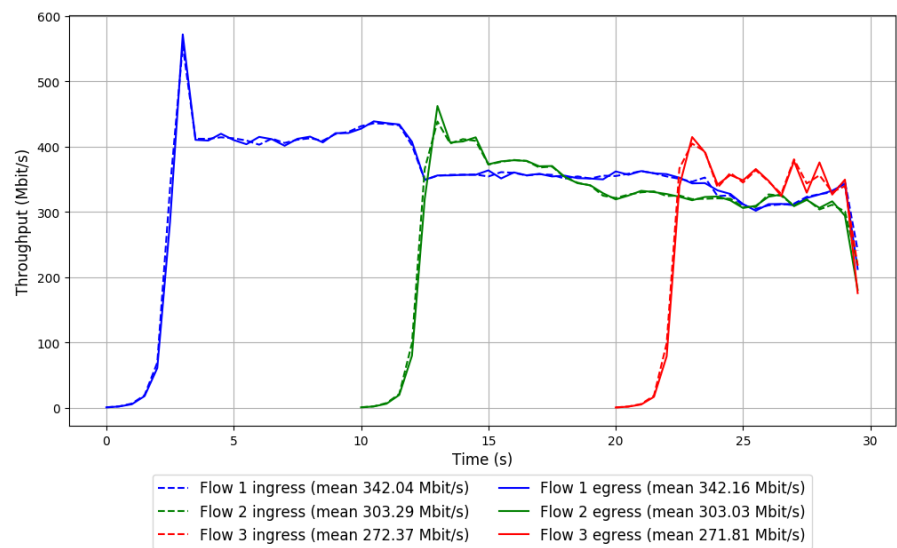


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-31 16:13:41
End at: 2018-01-31 16:14:11

# Below is generated by plot.py at 2018-01-31 23:26:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 631.83 Mbit/s
95th percentile per-packet one-way delay: 54.491 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 342.16 Mbit/s
95th percentile per-packet one-way delay: 55.136 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 303.03 Mbit/s
95th percentile per-packet one-way delay: 53.981 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 271.81 Mbit/s
95th percentile per-packet one-way delay: 54.512 ms
Loss rate: 1.31%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-01-31 16:30:16

End at: 2018-01-31 16:30:46

Below is generated by plot.py at 2018-01-31 23:27:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 575.75 Mbit/s

95th percentile per-packet one-way delay: 53.594 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 342.68 Mbit/s

95th percentile per-packet one-way delay: 54.383 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 259.42 Mbit/s

95th percentile per-packet one-way delay: 53.418 ms

Loss rate: 0.69%

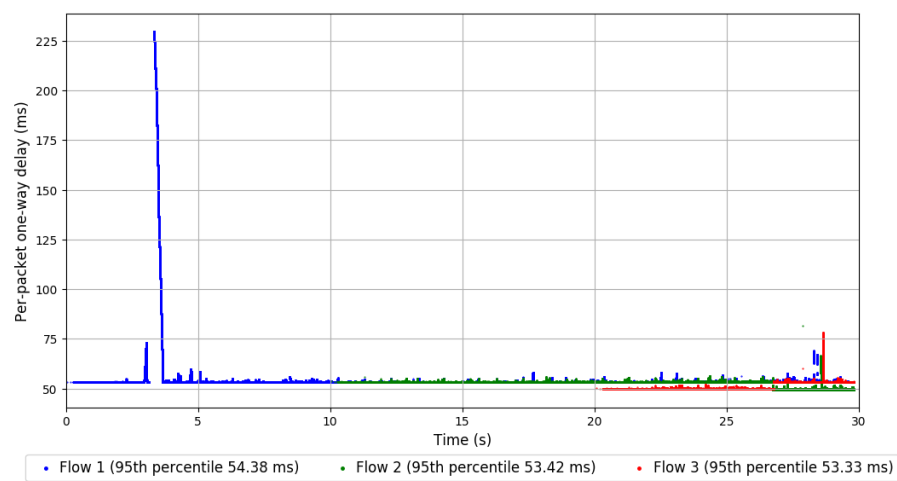
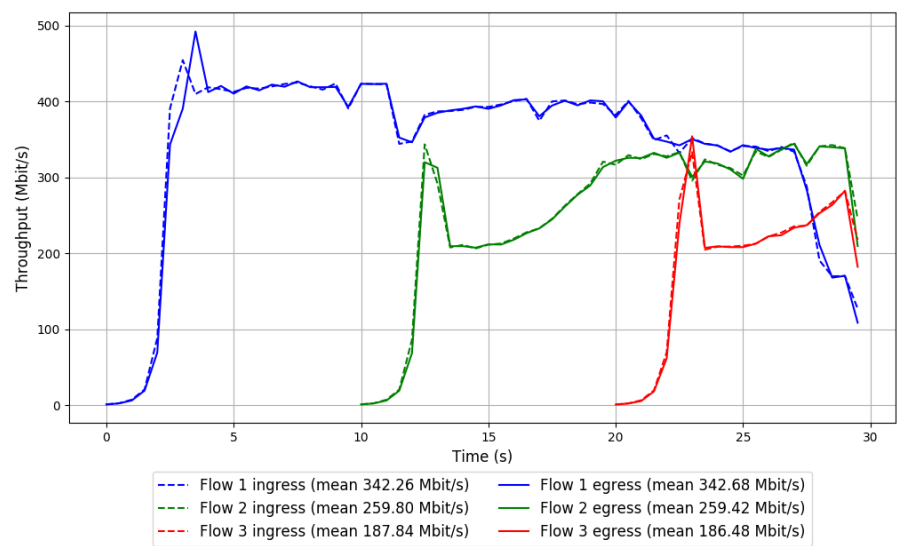
-- Flow 3:

Average throughput: 186.48 Mbit/s

95th percentile per-packet one-way delay: 53.331 ms

Loss rate: 1.79%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-31 16:46:20

End at: 2018-01-31 16:46:50

Below is generated by plot.py at 2018-01-31 23:27:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 589.82 Mbit/s

95th percentile per-packet one-way delay: 53.465 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 357.46 Mbit/s

95th percentile per-packet one-way delay: 53.776 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 258.10 Mbit/s

95th percentile per-packet one-way delay: 50.139 ms

Loss rate: 0.69%

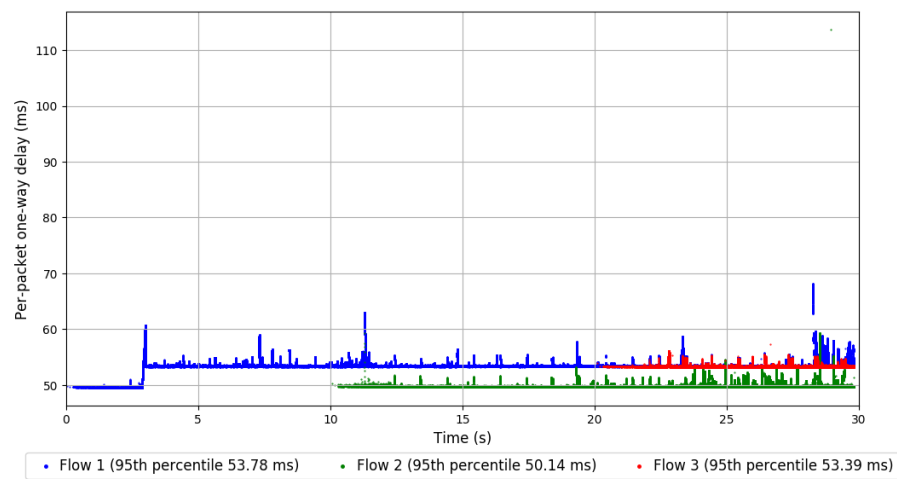
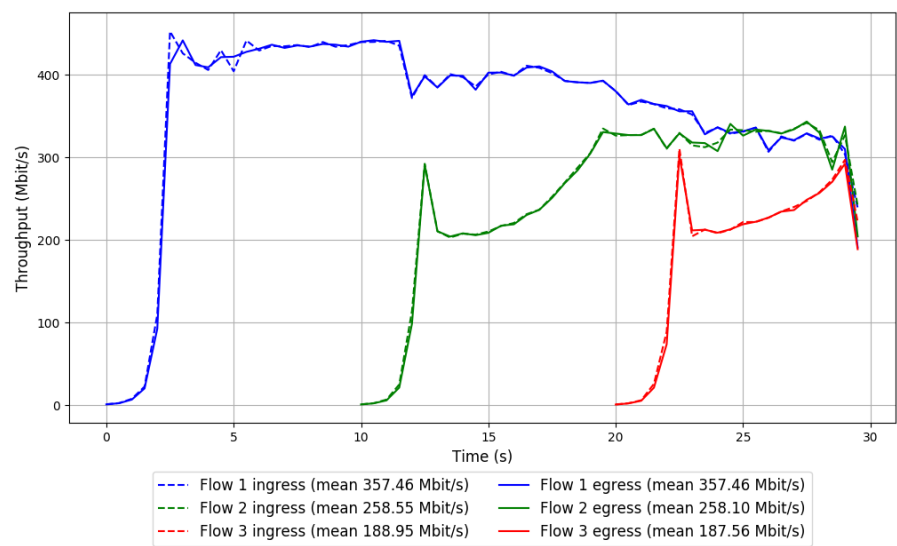
-- Flow 3:

Average throughput: 187.56 Mbit/s

95th percentile per-packet one-way delay: 53.391 ms

Loss rate: 1.82%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-31 17:03:03

End at: 2018-01-31 17:03:33

Below is generated by plot.py at 2018-01-31 23:27:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 488.18 Mbit/s

95th percentile per-packet one-way delay: 49.755 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 245.34 Mbit/s

95th percentile per-packet one-way delay: 49.721 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 282.24 Mbit/s

95th percentile per-packet one-way delay: 49.769 ms

Loss rate: 0.55%

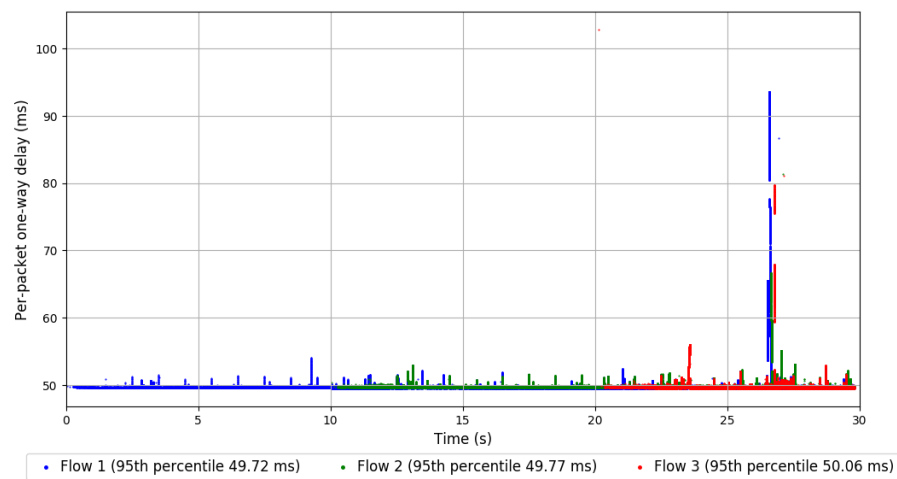
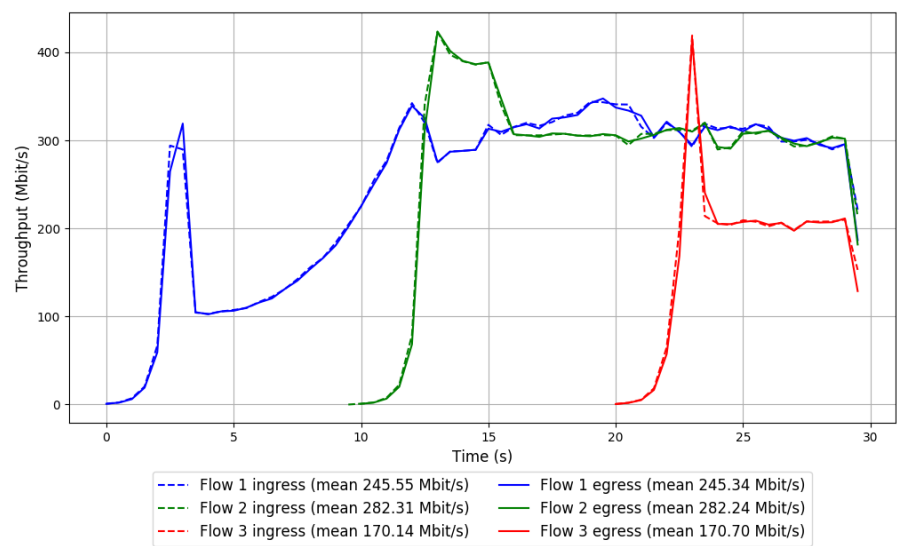
-- Flow 3:

Average throughput: 170.70 Mbit/s

95th percentile per-packet one-way delay: 50.058 ms

Loss rate: 1.33%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-01-31 17:19:52

End at: 2018-01-31 17:20:22

Below is generated by plot.py at 2018-01-31 23:28:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 570.71 Mbit/s

95th percentile per-packet one-way delay: 53.339 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 340.05 Mbit/s

95th percentile per-packet one-way delay: 53.035 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 262.20 Mbit/s

95th percentile per-packet one-way delay: 53.454 ms

Loss rate: 0.68%

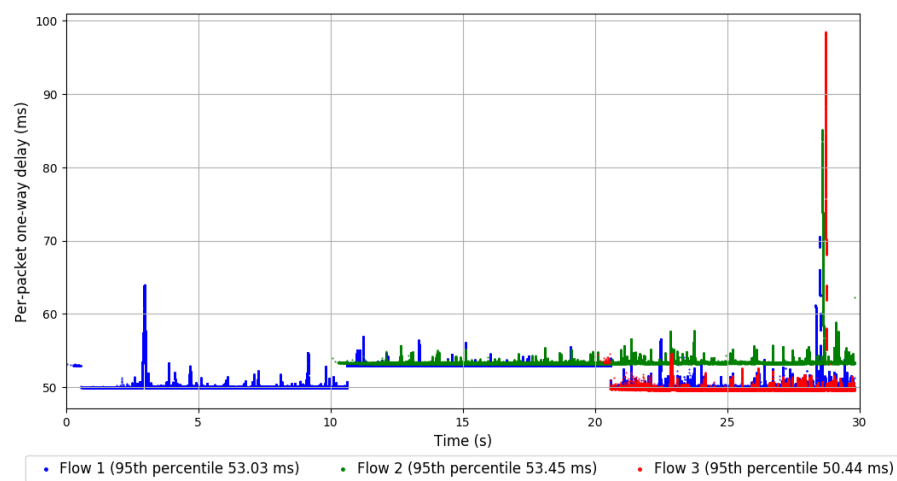
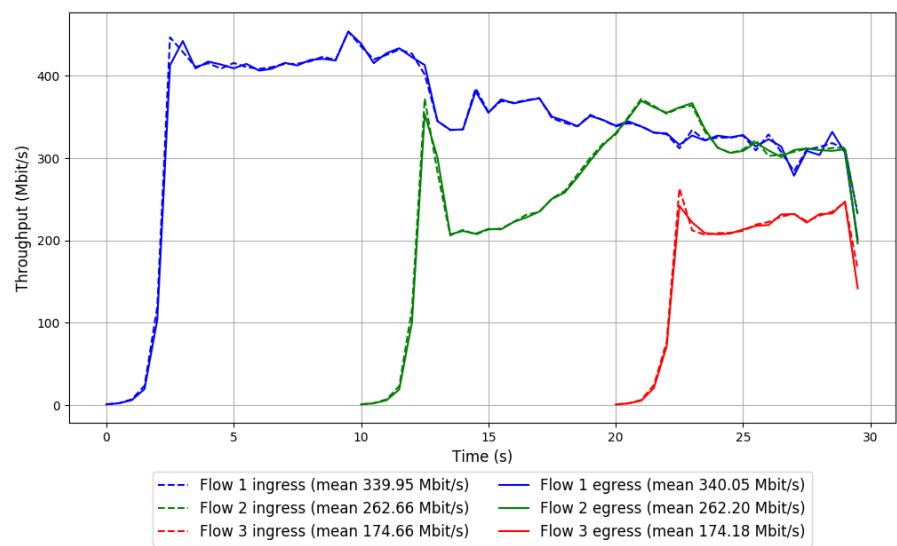
-- Flow 3:

Average throughput: 174.18 Mbit/s

95th percentile per-packet one-way delay: 50.443 ms

Loss rate: 1.38%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-01-31 17:36:29

End at: 2018-01-31 17:36:59

Below is generated by plot.py at 2018-01-31 23:29:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 556.14 Mbit/s

95th percentile per-packet one-way delay: 53.277 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 325.26 Mbit/s

95th percentile per-packet one-way delay: 50.589 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 263.37 Mbit/s

95th percentile per-packet one-way delay: 53.304 ms

Loss rate: 0.64%

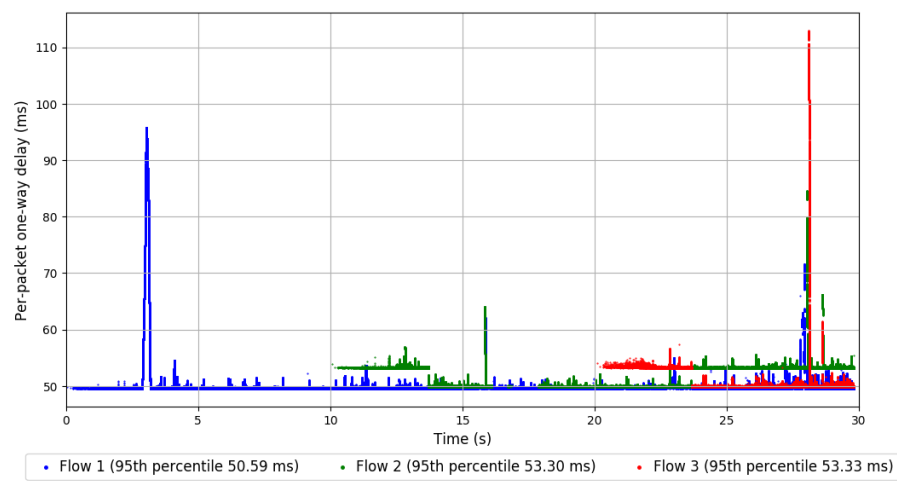
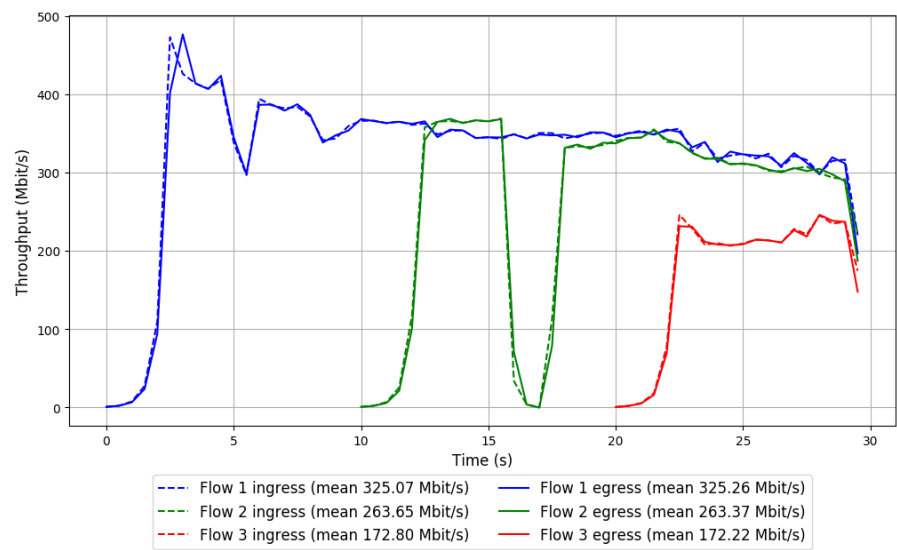
-- Flow 3:

Average throughput: 172.22 Mbit/s

95th percentile per-packet one-way delay: 53.329 ms

Loss rate: 1.43%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-01-31 17:53:08

End at: 2018-01-31 17:53:38

Below is generated by plot.py at 2018-01-31 23:30:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 541.01 Mbit/s

95th percentile per-packet one-way delay: 53.368 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 296.68 Mbit/s

95th percentile per-packet one-way delay: 53.324 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 280.40 Mbit/s

95th percentile per-packet one-way delay: 56.652 ms

Loss rate: 0.63%

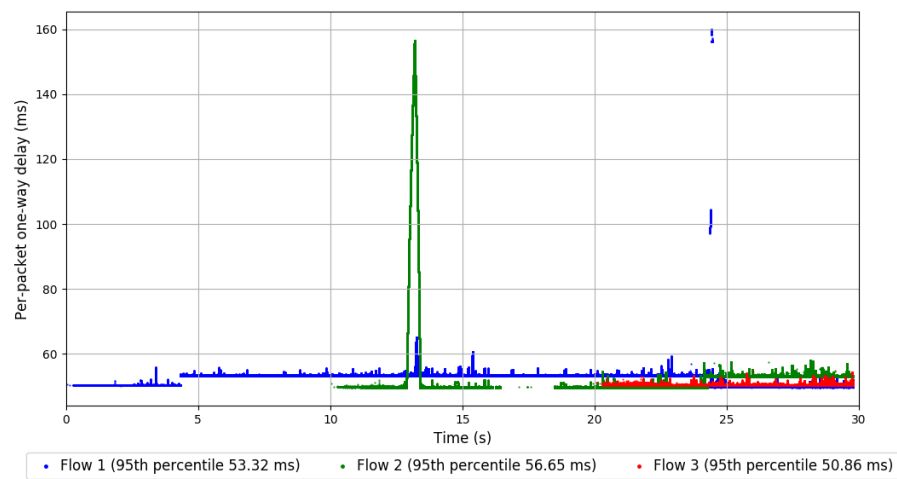
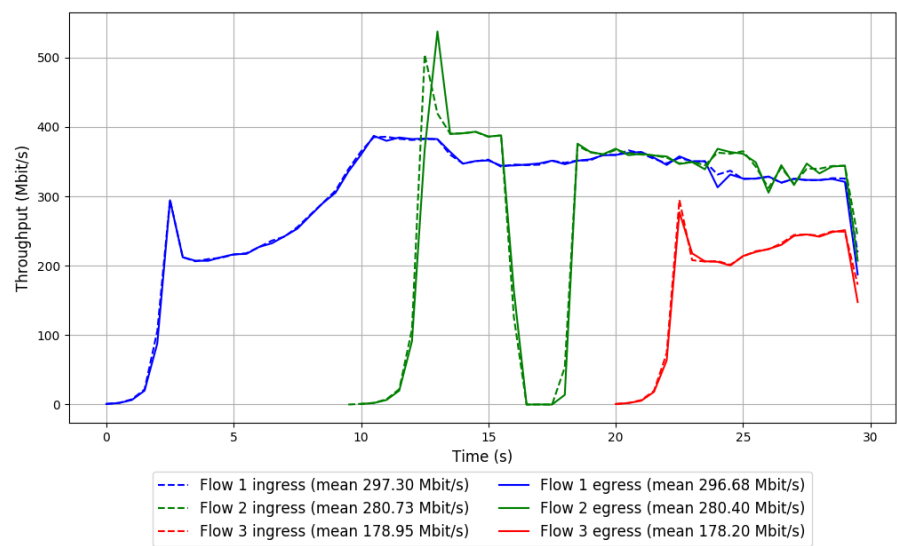
-- Flow 3:

Average throughput: 178.20 Mbit/s

95th percentile per-packet one-way delay: 50.864 ms

Loss rate: 1.46%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-01-31 18:09:17

End at: 2018-01-31 18:09:47

Below is generated by plot.py at 2018-01-31 23:30:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 526.75 Mbit/s

95th percentile per-packet one-way delay: 76.590 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 233.69 Mbit/s

95th percentile per-packet one-way delay: 82.956 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 320.59 Mbit/s

95th percentile per-packet one-way delay: 58.182 ms

Loss rate: 0.51%

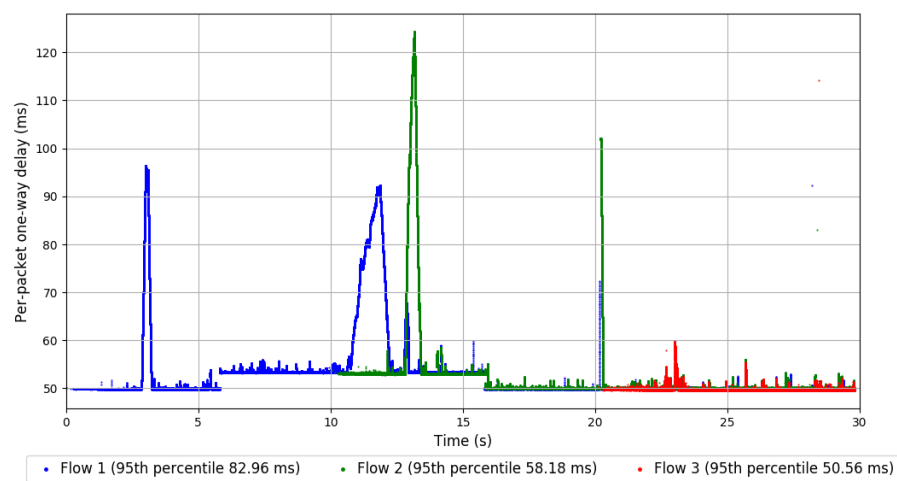
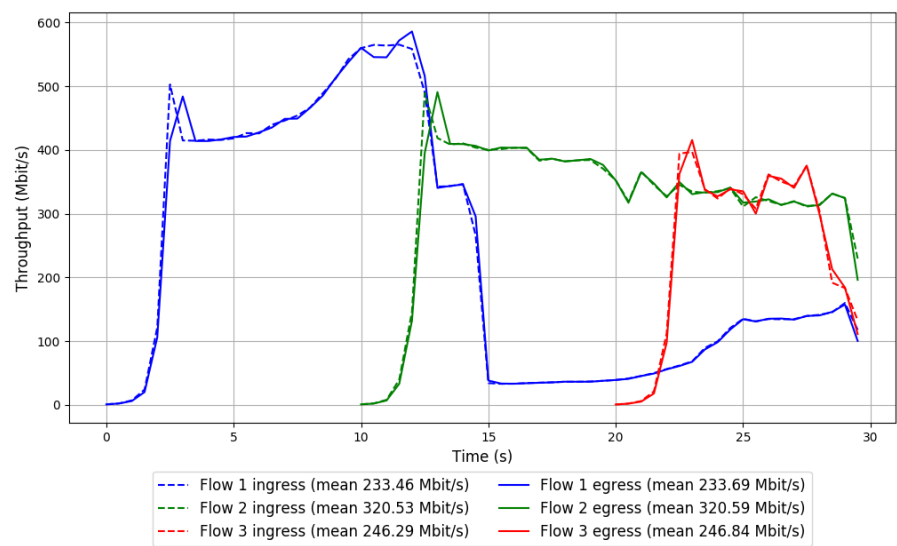
-- Flow 3:

Average throughput: 246.84 Mbit/s

95th percentile per-packet one-way delay: 50.565 ms

Loss rate: 0.82%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-01-31 18:25:44

End at: 2018-01-31 18:26:14

Below is generated by plot.py at 2018-01-31 23:31:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 575.08 Mbit/s

95th percentile per-packet one-way delay: 53.743 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 326.42 Mbit/s

95th percentile per-packet one-way delay: 54.731 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 278.90 Mbit/s

95th percentile per-packet one-way delay: 53.258 ms

Loss rate: 0.69%

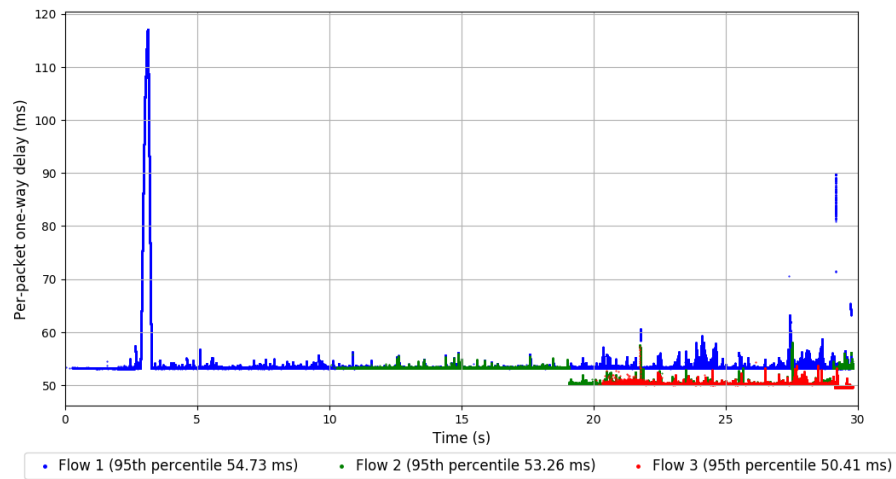
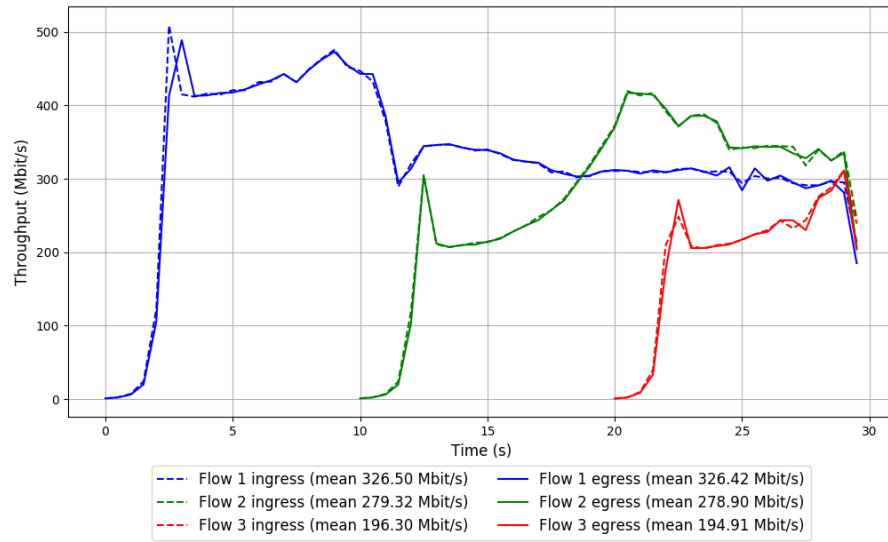
-- Flow 3:

Average throughput: 194.91 Mbit/s

95th percentile per-packet one-way delay: 50.407 ms

Loss rate: 1.78%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-01-31 18:42:12
End at: 2018-01-31 18:42:42

# Below is generated by plot.py at 2018-01-31 23:31:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 587.40 Mbit/s
95th percentile per-packet one-way delay: 54.273 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 338.73 Mbit/s
95th percentile per-packet one-way delay: 55.727 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 289.67 Mbit/s
95th percentile per-packet one-way delay: 53.374 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 172.81 Mbit/s
95th percentile per-packet one-way delay: 53.690 ms
Loss rate: 1.30%
```

Run 10: Report of Vivace-LTE — Data Link

