

Pantheon Report

Generated at 2018-01-18 10:01:57 (UTC).

Data path: GCE London 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.

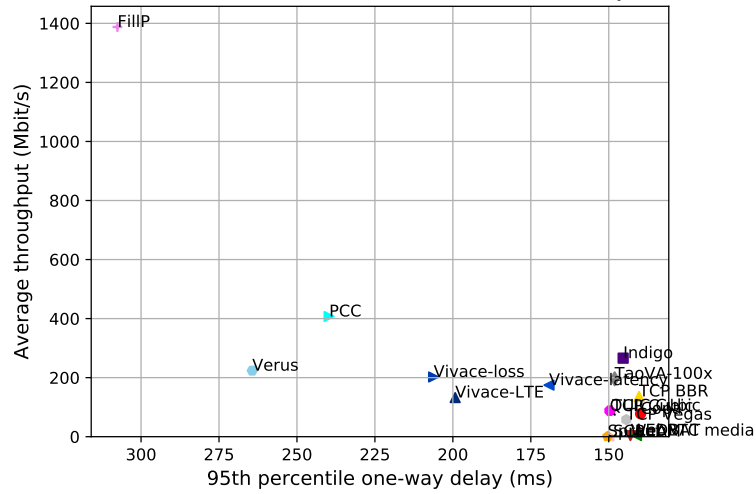
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

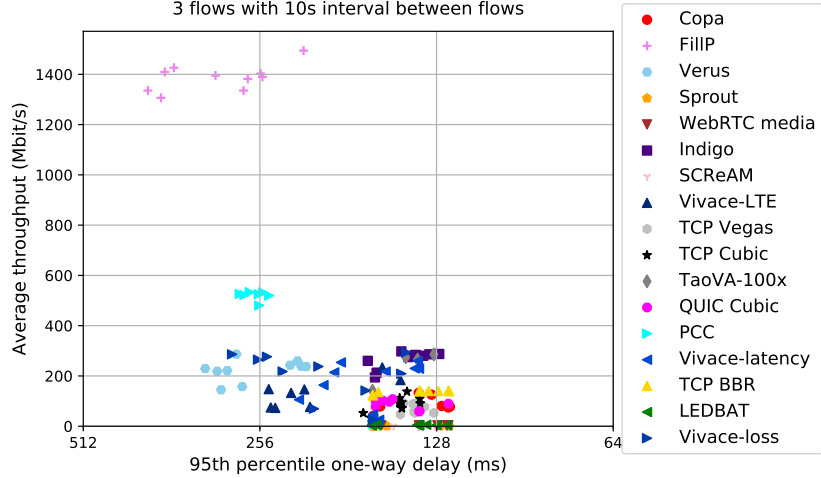
Git summary:

```
branch: master @ 54510ce29f849c716ac5c8199ca1604b6abdfbc3
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
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 @ f1a14bffe749737437f61b1eaaeb30b267cde681
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 @ 423cbca3e8ea1d599e7b5cf725835e8a2b6bfac6
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



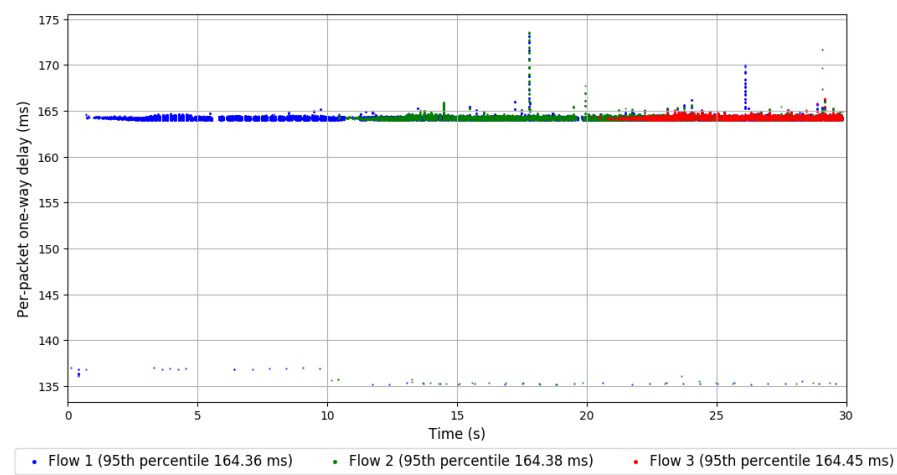
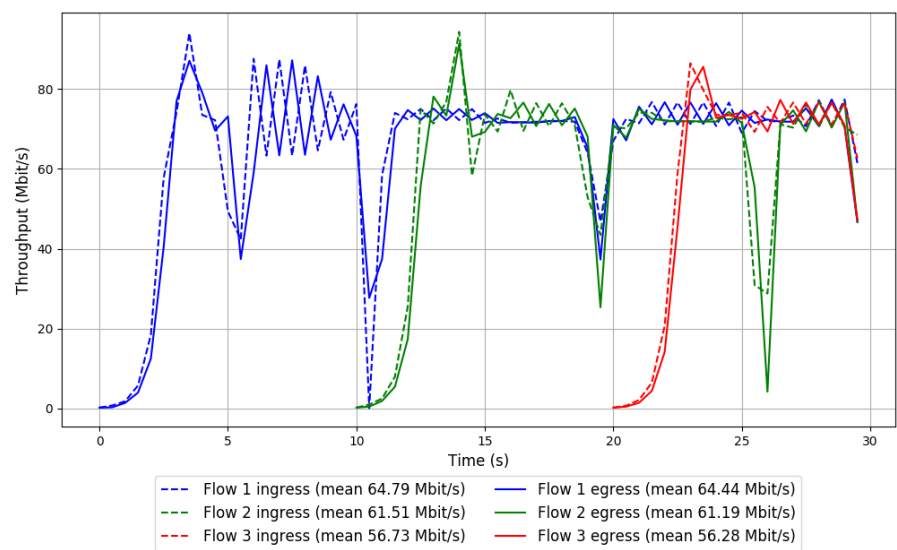
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	70.92	68.51	61.69	140.28	140.28	137.89	1.08	1.66	3.62
TCP Cubic	10	51.02	33.45	42.13	147.43	148.29	149.96	1.28	2.68	5.07
LEDBAT	10	2.47	1.70	1.07	141.22	140.98	140.78	1.64	2.58	4.42
PCC	9	352.34	64.13	39.07	242.07	233.74	234.51	3.82	3.60	5.90
QUIC Cubic	9	41.29	50.77	38.15	143.35	141.09	138.22	1.00	1.49	3.15
SCReAM	10	0.22	0.21	0.22	140.40	140.76	138.14	0.88	1.37	2.58
WebRTC media	10	1.98	1.22	0.41	134.87	140.02	143.10	1.06	1.76	5.44
Sprout	10	0.38	0.38	0.46	140.14	145.39	140.30	0.89	1.18	2.35
TaoVA-100x	5	137.48	70.61	44.31	147.74	151.34	148.43	0.81	1.18	2.34
TCP Vegas	10	19.87	38.95	37.21	141.87	143.22	148.87	1.26	1.38	3.38
Verus	10	153.90	82.18	48.33	256.44	277.74	225.92	2.85	6.65	6.20
Copa	10	55.31	28.34	15.58	142.88	137.39	137.21	1.33	1.31	3.52
FillP	10	733.16	699.12	588.67	284.86	300.37	311.80	12.40	14.42	21.17
Indigo	10	139.30	133.04	120.15	143.62	147.44	148.89	1.03	1.60	3.75
Vivace-latency	10	107.86	71.82	59.58	165.80	154.42	172.37	0.87	1.97	3.69
Vivace-loss	10	132.67	64.54	83.14	202.49	166.51	174.04	1.54	1.96	4.27
Vivace-LTE	10	65.90	71.47	61.09	183.95	212.73	175.53	1.14	2.00	2.04

```
Run 1: Statistics of TCP BBR

Start at: 2018-01-18 01:57:15
End at: 2018-01-18 01:57:45

# Below is generated by plot.py at 2018-01-18 08:30:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.28 Mbit/s
95th percentile per-packet one-way delay: 164.383 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 64.44 Mbit/s
95th percentile per-packet one-way delay: 164.360 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 61.19 Mbit/s
95th percentile per-packet one-way delay: 164.382 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 56.28 Mbit/s
95th percentile per-packet one-way delay: 164.449 ms
Loss rate: 3.78%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-18 02:15:18

End at: 2018-01-18 02:15:48

Below is generated by plot.py at 2018-01-18 08:30:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.25 Mbit/s

95th percentile per-packet one-way delay: 164.365 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 64.67 Mbit/s

95th percentile per-packet one-way delay: 164.368 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 61.22 Mbit/s

95th percentile per-packet one-way delay: 164.354 ms

Loss rate: 1.88%

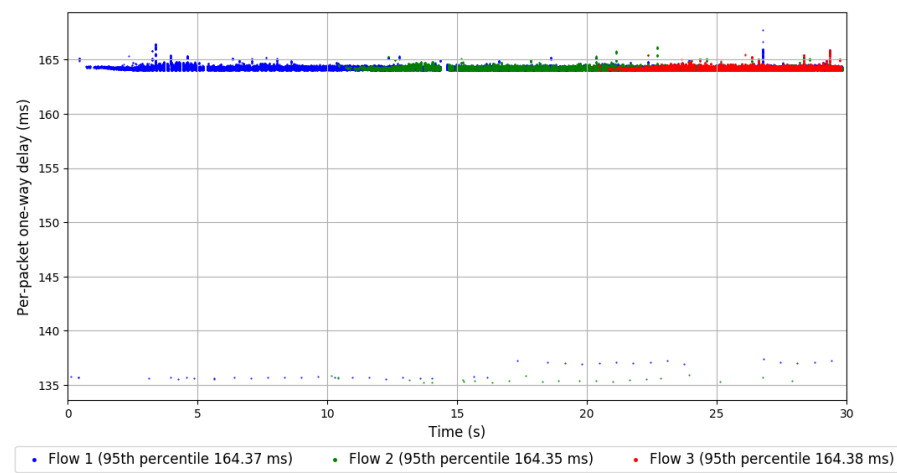
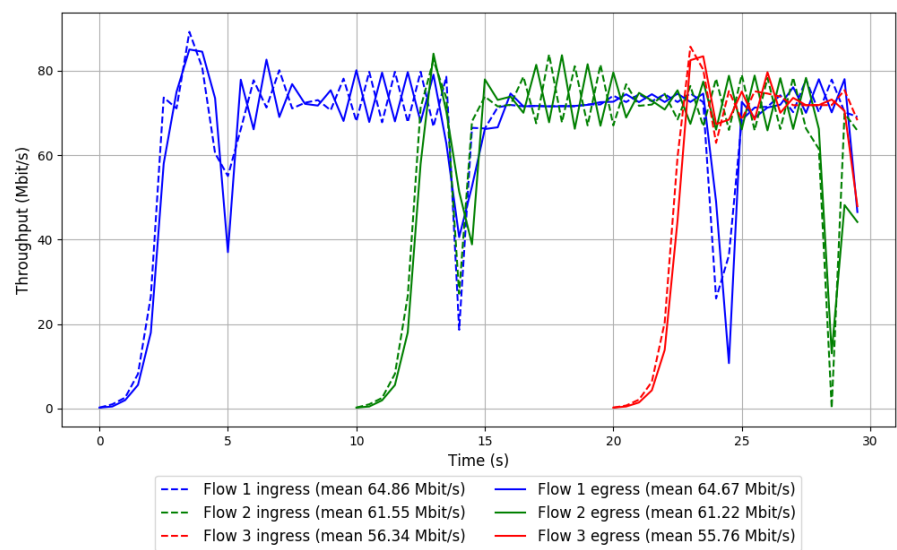
-- Flow 3:

Average throughput: 55.76 Mbit/s

95th percentile per-packet one-way delay: 164.375 ms

Loss rate: 4.29%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-18 02:33:49

End at: 2018-01-18 02:34:19

Below is generated by plot.py at 2018-01-18 08:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.68 Mbit/s

95th percentile per-packet one-way delay: 136.589 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 72.76 Mbit/s

95th percentile per-packet one-way delay: 136.568 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 70.64 Mbit/s

95th percentile per-packet one-way delay: 136.609 ms

Loss rate: 1.70%

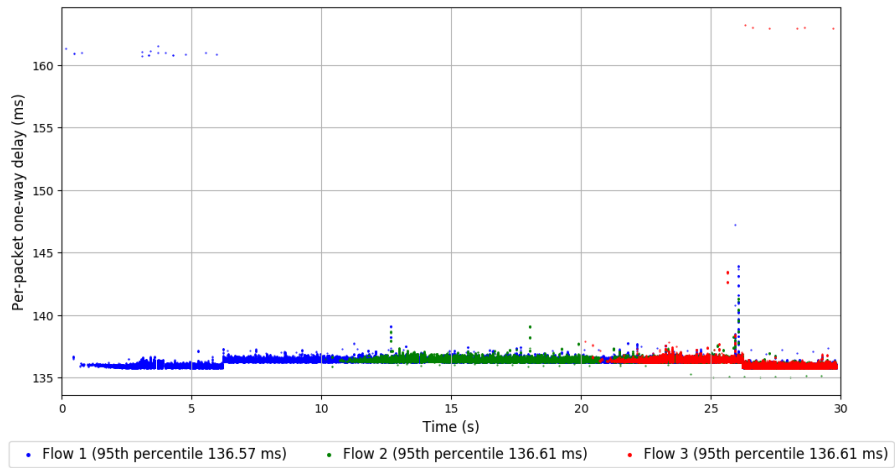
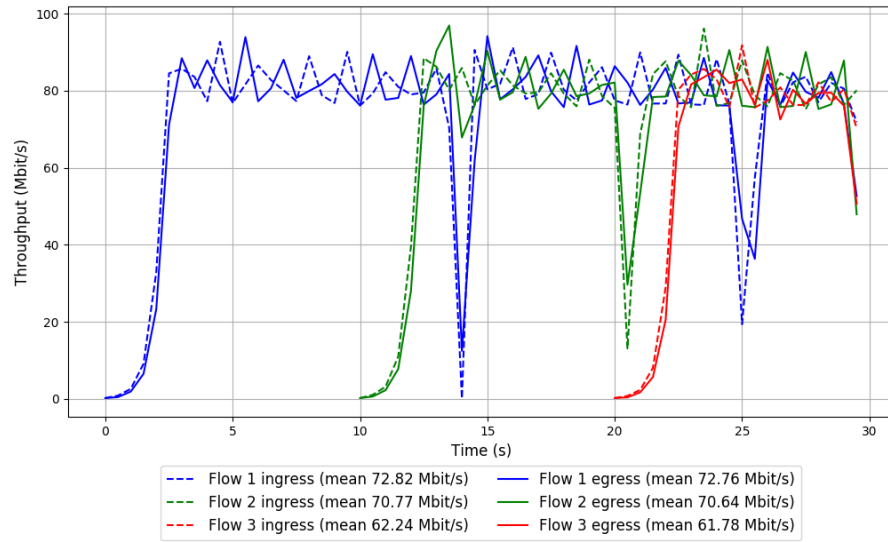
-- Flow 3:

Average throughput: 61.78 Mbit/s

95th percentile per-packet one-way delay: 136.608 ms

Loss rate: 3.50%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-01-18 02:54:10

End at: 2018-01-18 02:54:40

Below is generated by plot.py at 2018-01-18 08:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.89 Mbit/s

95th percentile per-packet one-way delay: 160.831 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 69.78 Mbit/s

95th percentile per-packet one-way delay: 160.851 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 68.43 Mbit/s

95th percentile per-packet one-way delay: 160.814 ms

Loss rate: 1.57%

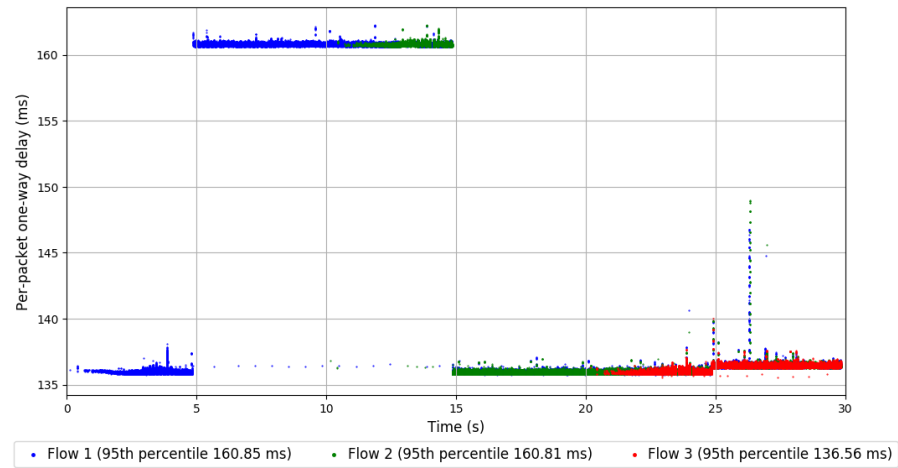
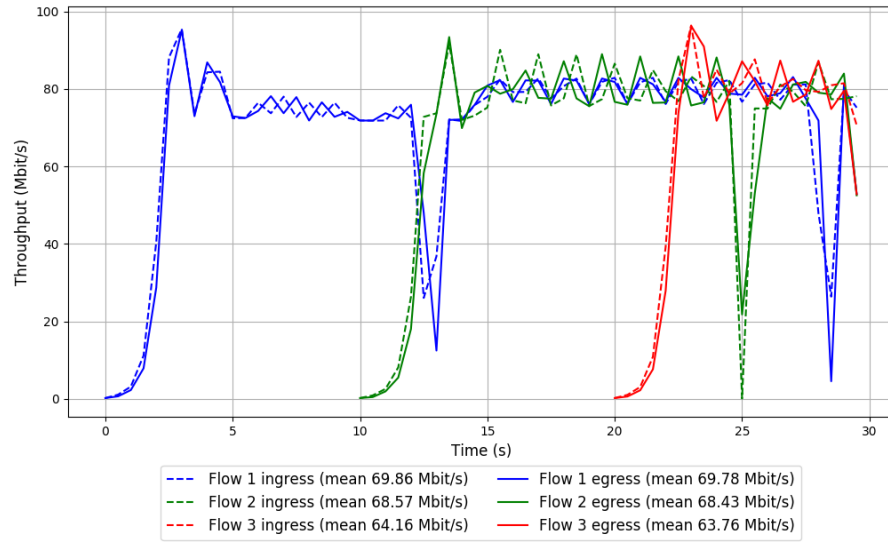
-- Flow 3:

Average throughput: 63.76 Mbit/s

95th percentile per-packet one-way delay: 136.564 ms

Loss rate: 3.36%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-18 03:13:36

End at: 2018-01-18 03:14:06

Below is generated by plot.py at 2018-01-18 08:30:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.79 Mbit/s

95th percentile per-packet one-way delay: 136.968 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 71.74 Mbit/s

95th percentile per-packet one-way delay: 136.950 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 70.18 Mbit/s

95th percentile per-packet one-way delay: 136.977 ms

Loss rate: 1.53%

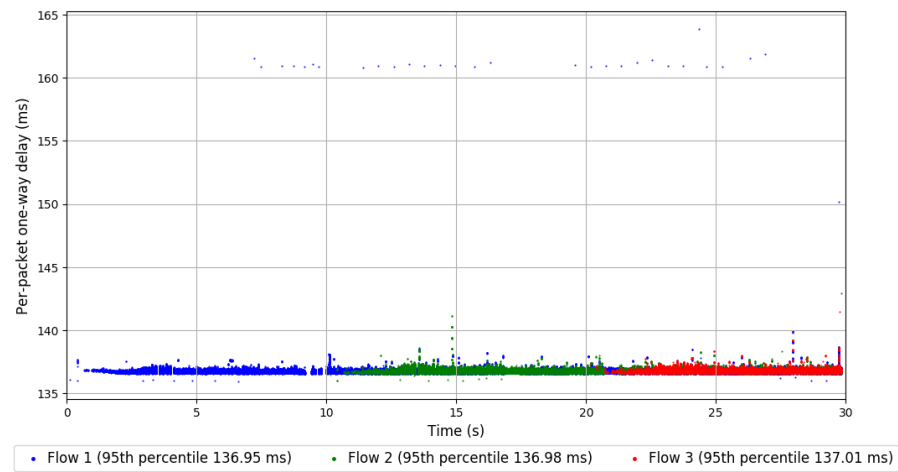
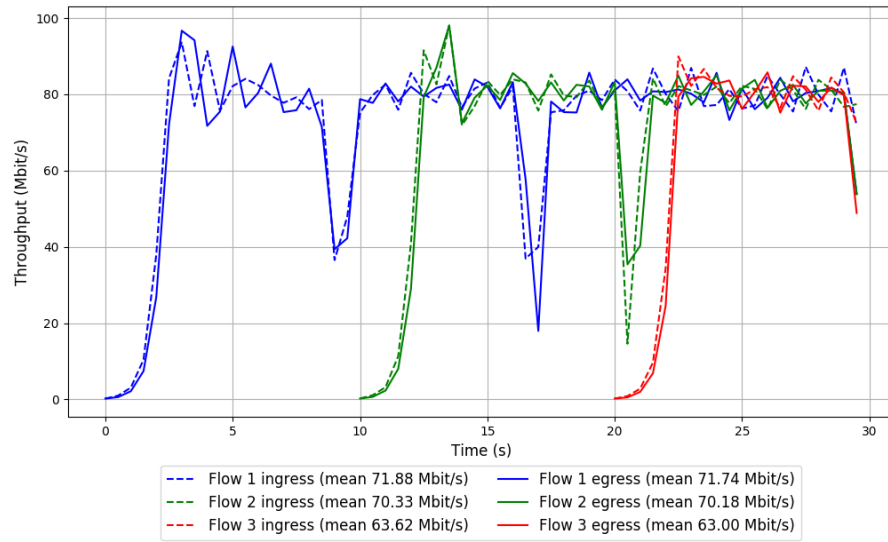
-- Flow 3:

Average throughput: 63.00 Mbit/s

95th percentile per-packet one-way delay: 137.008 ms

Loss rate: 3.71%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-01-18 03:33:22

End at: 2018-01-18 03:33:52

Below is generated by plot.py at 2018-01-18 08:30:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.34 Mbit/s

95th percentile per-packet one-way delay: 136.604 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 73.57 Mbit/s

95th percentile per-packet one-way delay: 136.581 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 72.01 Mbit/s

95th percentile per-packet one-way delay: 136.613 ms

Loss rate: 1.49%

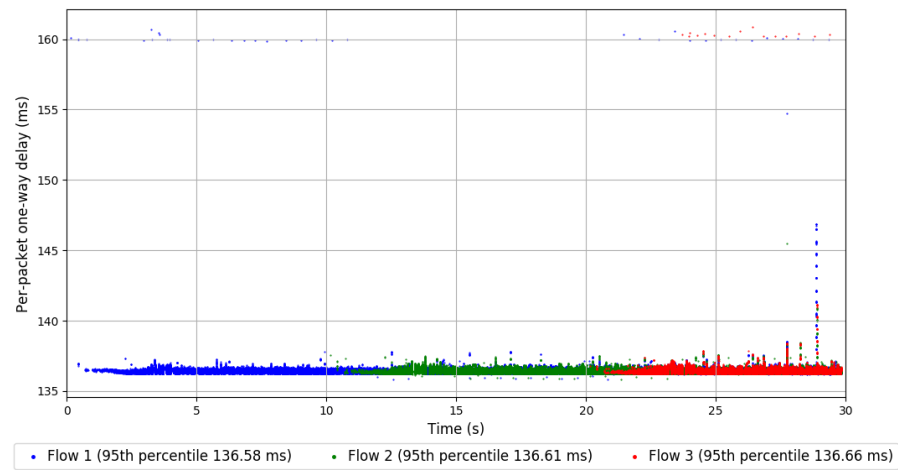
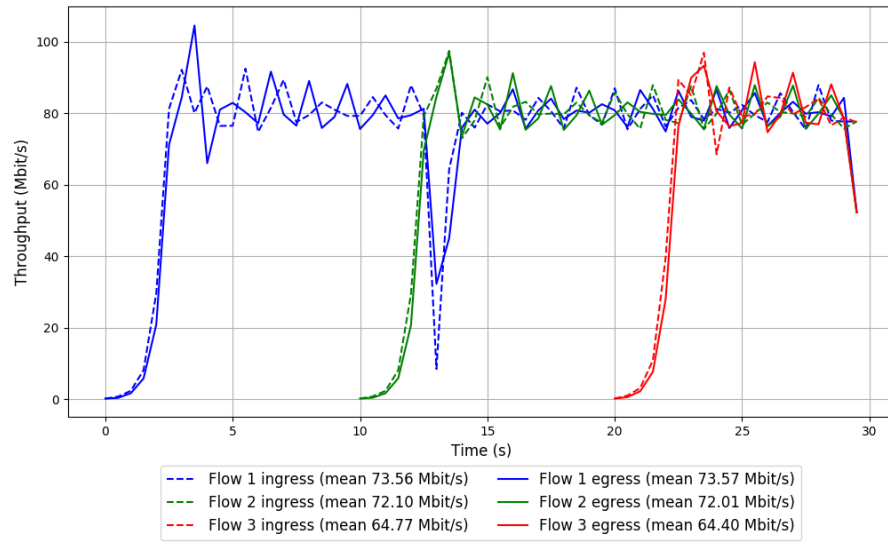
-- Flow 3:

Average throughput: 64.40 Mbit/s

95th percentile per-packet one-way delay: 136.664 ms

Loss rate: 3.31%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-18 03:52:30

End at: 2018-01-18 03:53:00

Below is generated by plot.py at 2018-01-18 08:30:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.86 Mbit/s

95th percentile per-packet one-way delay: 132.072 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 73.89 Mbit/s

95th percentile per-packet one-way delay: 132.084 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 69.49 Mbit/s

95th percentile per-packet one-way delay: 132.062 ms

Loss rate: 1.73%

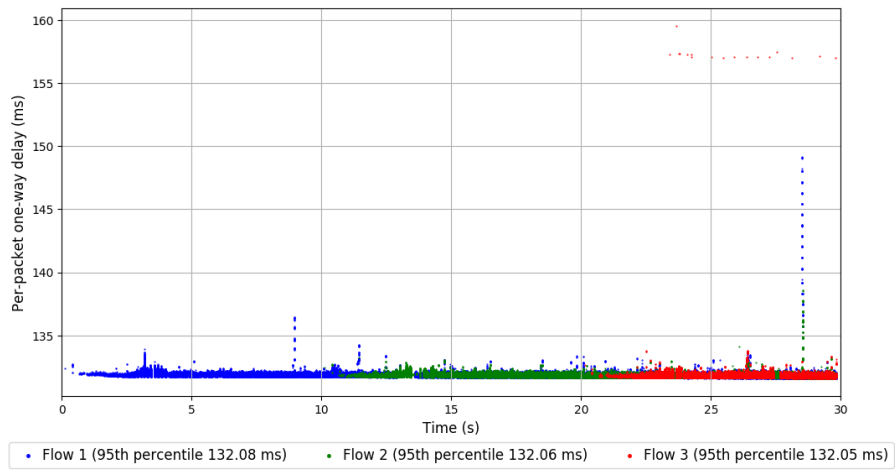
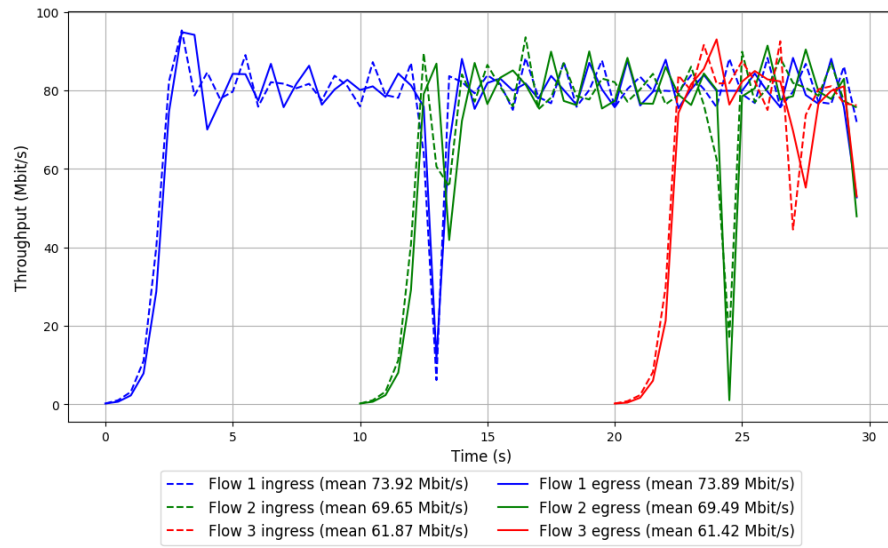
-- Flow 3:

Average throughput: 61.42 Mbit/s

95th percentile per-packet one-way delay: 132.052 ms

Loss rate: 3.43%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-01-18 04:12:40

End at: 2018-01-18 04:13:10

Below is generated by plot.py at 2018-01-18 08:30:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.69 Mbit/s

95th percentile per-packet one-way delay: 127.078 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 72.48 Mbit/s

95th percentile per-packet one-way delay: 127.108 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 70.01 Mbit/s

95th percentile per-packet one-way delay: 127.027 ms

Loss rate: 1.70%

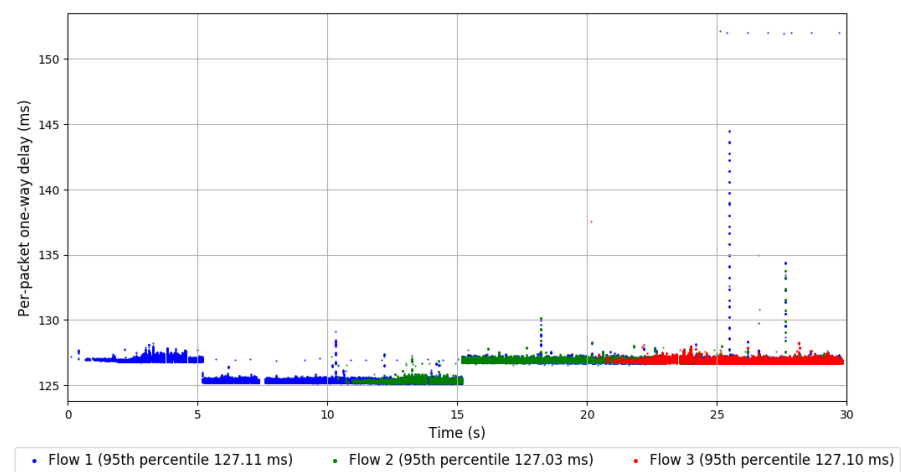
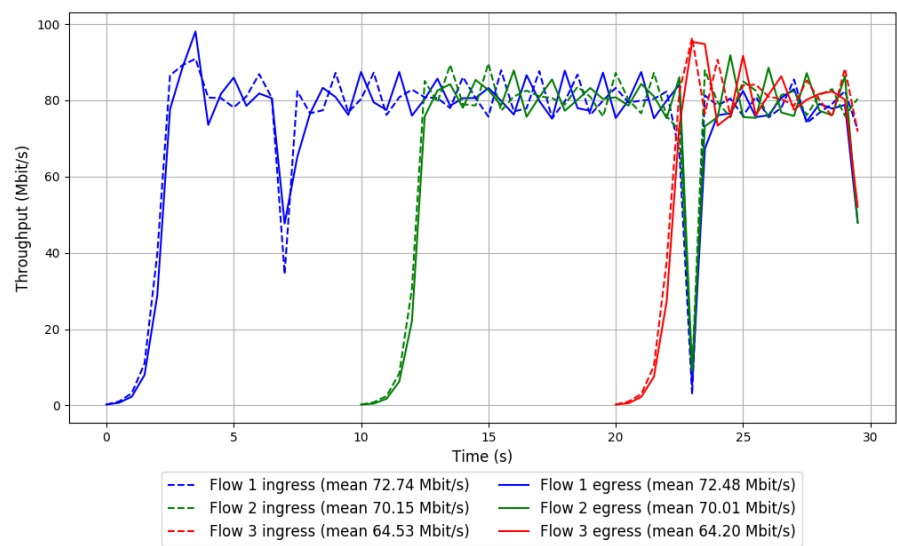
-- Flow 3:

Average throughput: 64.20 Mbit/s

95th percentile per-packet one-way delay: 127.102 ms

Loss rate: 3.36%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-18 04:32:56

End at: 2018-01-18 04:33:26

Below is generated by plot.py at 2018-01-18 08:33:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.92 Mbit/s

95th percentile per-packet one-way delay: 122.163 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 73.85 Mbit/s

95th percentile per-packet one-way delay: 122.168 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 71.80 Mbit/s

95th percentile per-packet one-way delay: 122.152 ms

Loss rate: 1.54%

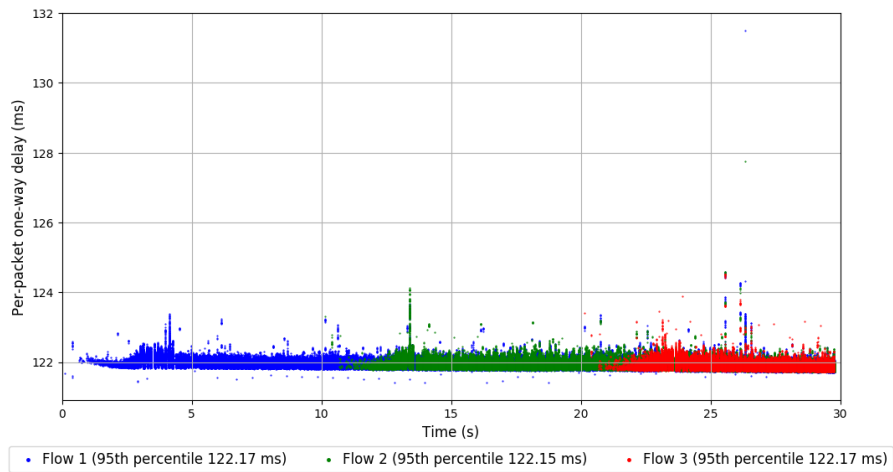
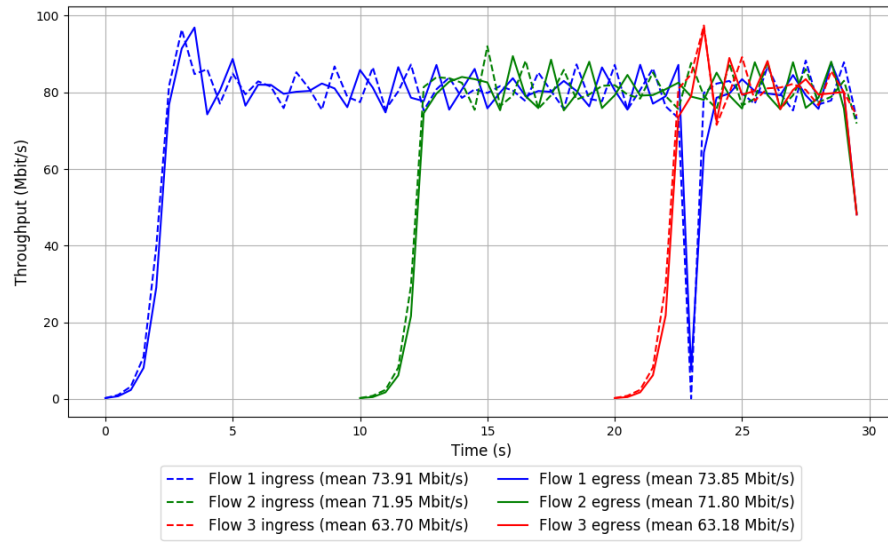
-- Flow 3:

Average throughput: 63.18 Mbit/s

95th percentile per-packet one-way delay: 122.167 ms

Loss rate: 3.77%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-18 04:52:41

End at: 2018-01-18 04:53:11

Below is generated by plot.py at 2018-01-18 08:33:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.99 Mbit/s

95th percentile per-packet one-way delay: 121.823 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 71.98 Mbit/s

95th percentile per-packet one-way delay: 121.796 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 70.08 Mbit/s

95th percentile per-packet one-way delay: 121.806 ms

Loss rate: 1.54%

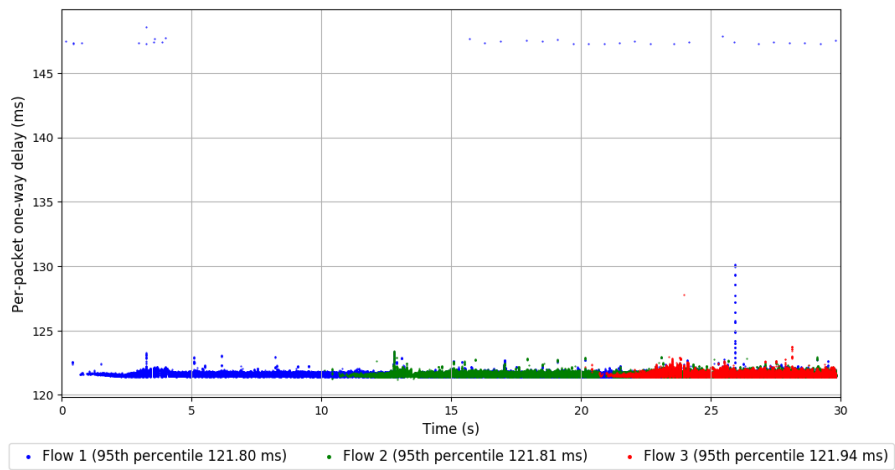
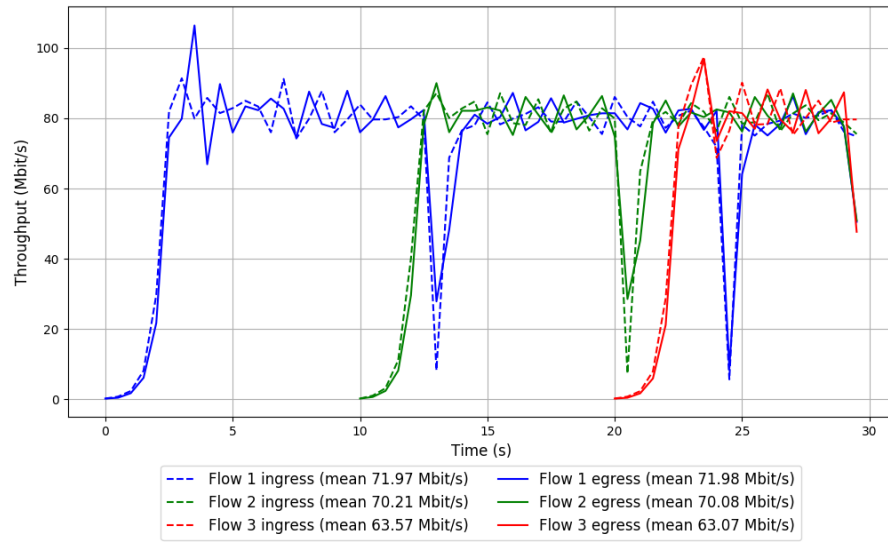
-- Flow 3:

Average throughput: 63.07 Mbit/s

95th percentile per-packet one-way delay: 121.939 ms

Loss rate: 3.68%

Run 10: Report of TCP BBR — Data Link

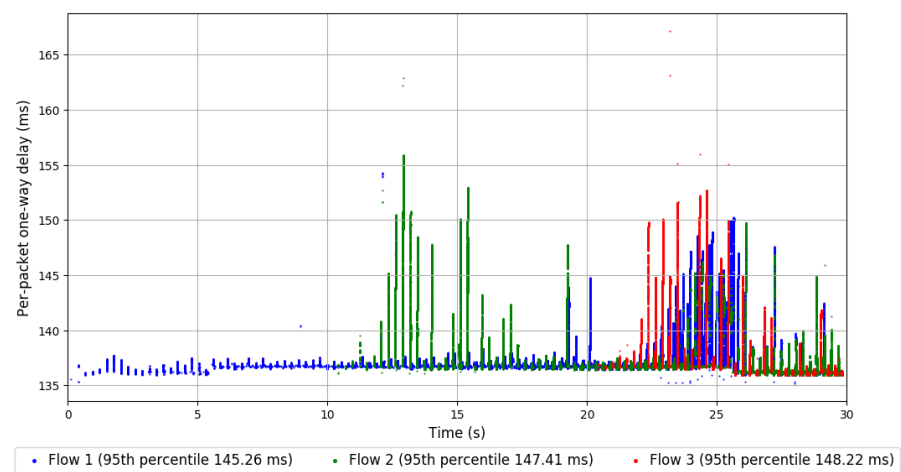
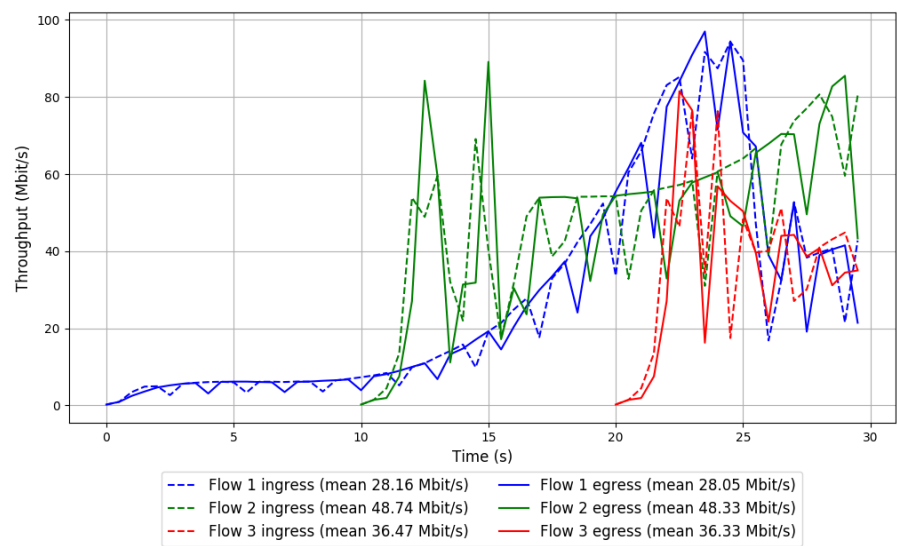


```
Run 1: Statistics of TCP Cubic

Start at: 2018-01-18 01:44:50
End at: 2018-01-18 01:45:20

# Below is generated by plot.py at 2018-01-18 08:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.87 Mbit/s
95th percentile per-packet one-way delay: 146.734 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 28.05 Mbit/s
95th percentile per-packet one-way delay: 145.264 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 48.33 Mbit/s
95th percentile per-packet one-way delay: 147.413 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 36.33 Mbit/s
95th percentile per-packet one-way delay: 148.224 ms
Loss rate: 3.12%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-18 02:04:51

End at: 2018-01-18 02:05:21

Below is generated by plot.py at 2018-01-18 08:33:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.55 Mbit/s

95th percentile per-packet one-way delay: 165.730 ms

Loss rate: 2.22%

-- Flow 1:

Average throughput: 22.20 Mbit/s

95th percentile per-packet one-way delay: 165.662 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 15.23 Mbit/s

95th percentile per-packet one-way delay: 166.073 ms

Loss rate: 3.30%

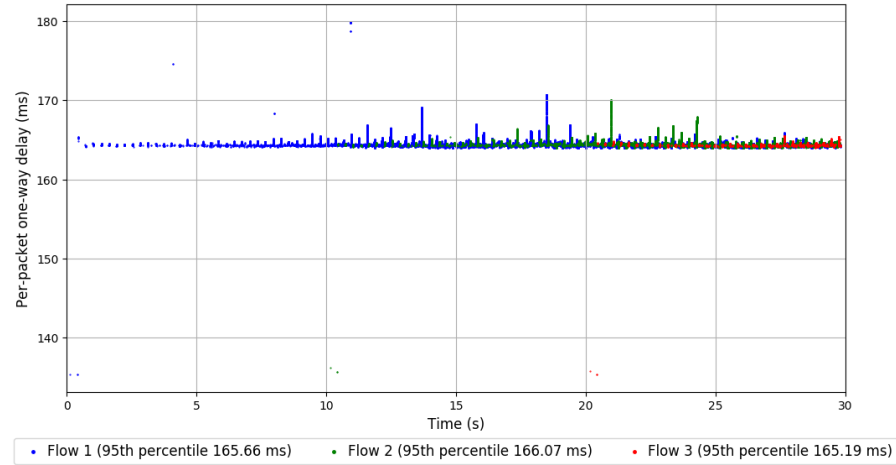
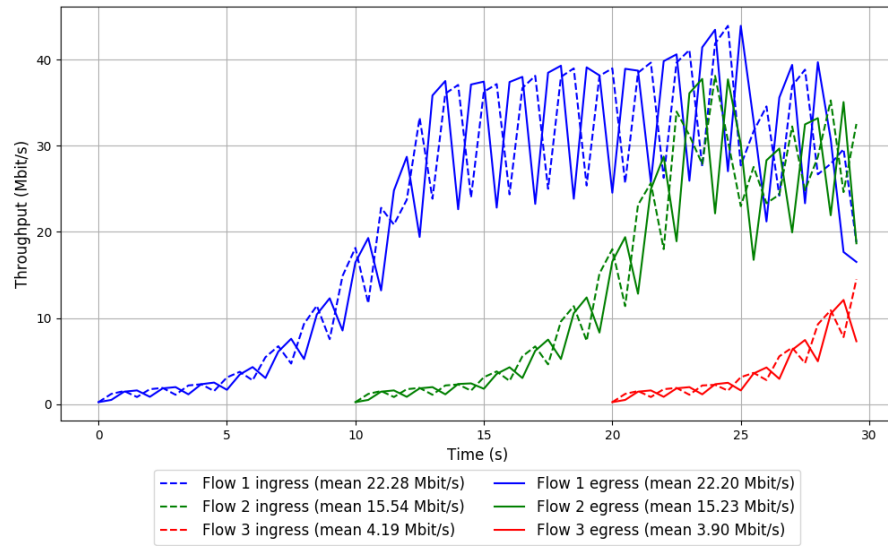
-- Flow 3:

Average throughput: 3.90 Mbit/s

95th percentile per-packet one-way delay: 165.195 ms

Loss rate: 9.64%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-18 02:22:35

End at: 2018-01-18 02:23:05

Below is generated by plot.py at 2018-01-18 08:33:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 52.40 Mbit/s

95th percentile per-packet one-way delay: 170.627 ms

Loss rate: 2.66%

-- Flow 1:

Average throughput: 37.50 Mbit/s

95th percentile per-packet one-way delay: 170.623 ms

Loss rate: 2.10%

-- Flow 2:

Average throughput: 20.70 Mbit/s

95th percentile per-packet one-way delay: 170.958 ms

Loss rate: 3.51%

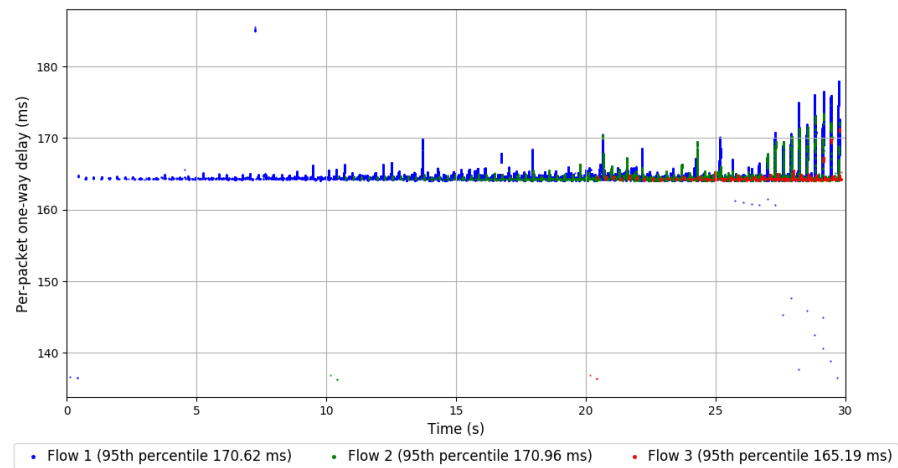
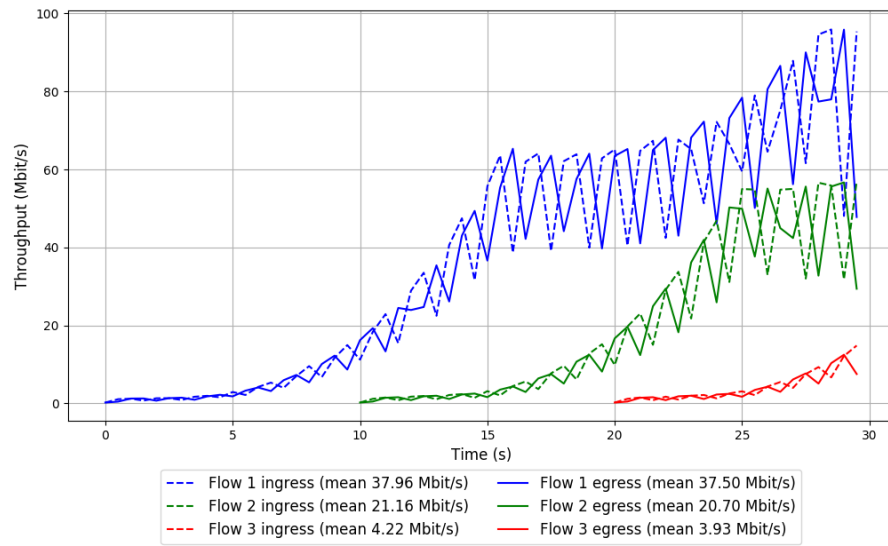
-- Flow 3:

Average throughput: 3.93 Mbit/s

95th percentile per-packet one-way delay: 165.188 ms

Loss rate: 9.56%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-01-18 02:41:47

End at: 2018-01-18 02:42:17

Below is generated by plot.py at 2018-01-18 08:33:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.28 Mbit/s

95th percentile per-packet one-way delay: 146.567 ms

Loss rate: 2.00%

-- Flow 1:

Average throughput: 31.79 Mbit/s

95th percentile per-packet one-way delay: 140.396 ms

Loss rate: 2.31%

-- Flow 2:

Average throughput: 42.35 Mbit/s

95th percentile per-packet one-way delay: 147.366 ms

Loss rate: 1.09%

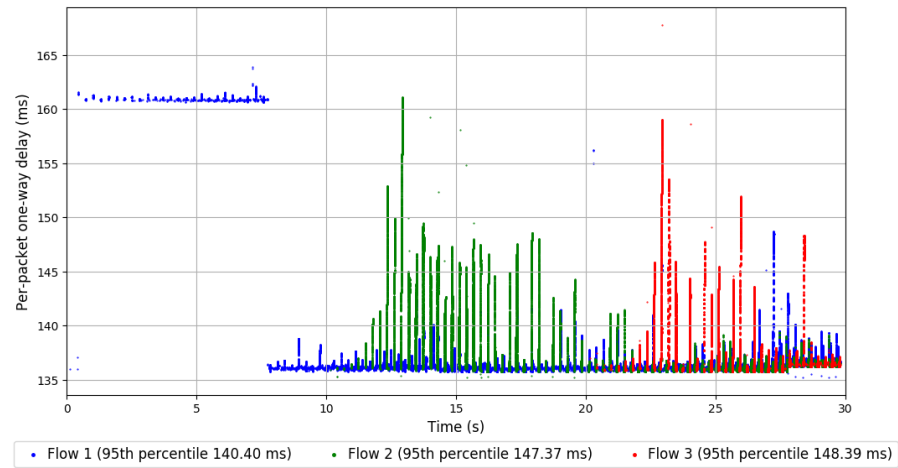
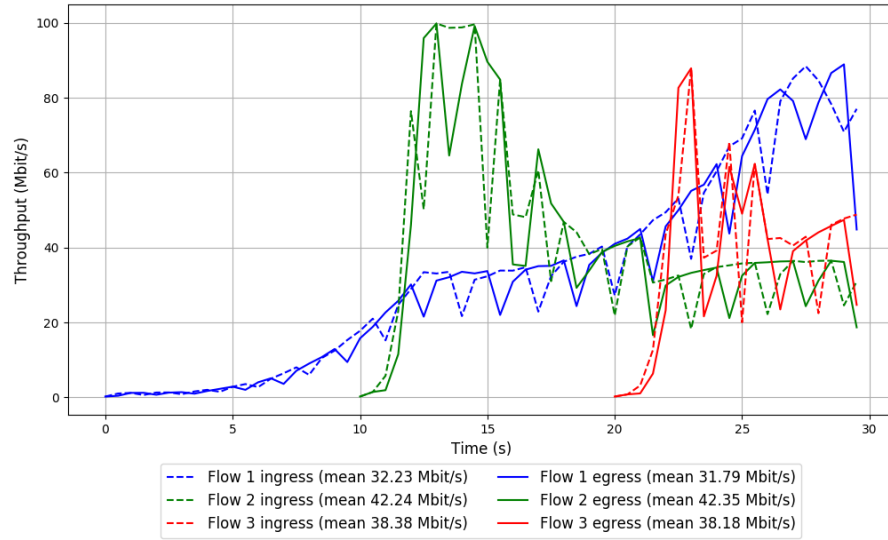
-- Flow 3:

Average throughput: 38.18 Mbit/s

95th percentile per-packet one-way delay: 148.388 ms

Loss rate: 3.25%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-18 03:02:01

End at: 2018-01-18 03:02:31

Below is generated by plot.py at 2018-01-18 08:33:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.29 Mbit/s

95th percentile per-packet one-way delay: 148.259 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 41.73 Mbit/s

95th percentile per-packet one-way delay: 146.798 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 48.36 Mbit/s

95th percentile per-packet one-way delay: 146.322 ms

Loss rate: 1.68%

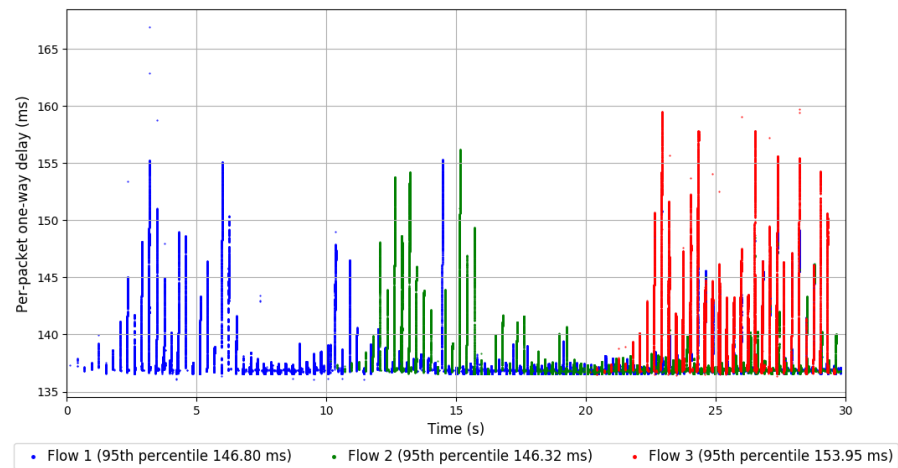
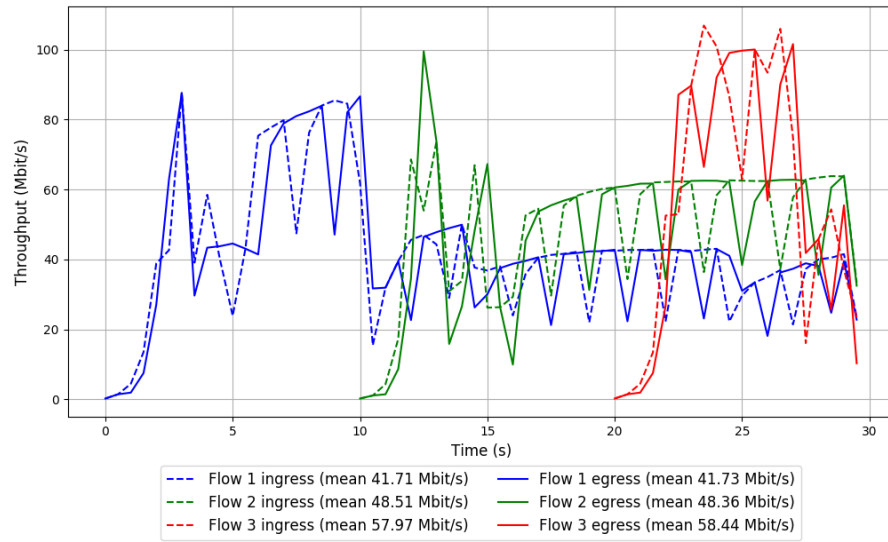
-- Flow 3:

Average throughput: 58.44 Mbit/s

95th percentile per-packet one-way delay: 153.948 ms

Loss rate: 2.08%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-18 03:21:28

End at: 2018-01-18 03:21:58

Below is generated by plot.py at 2018-01-18 08:33:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.00 Mbit/s

95th percentile per-packet one-way delay: 146.662 ms

Loss rate: 2.07%

-- Flow 1:

Average throughput: 44.87 Mbit/s

95th percentile per-packet one-way delay: 143.568 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 40.91 Mbit/s

95th percentile per-packet one-way delay: 146.451 ms

Loss rate: 1.21%

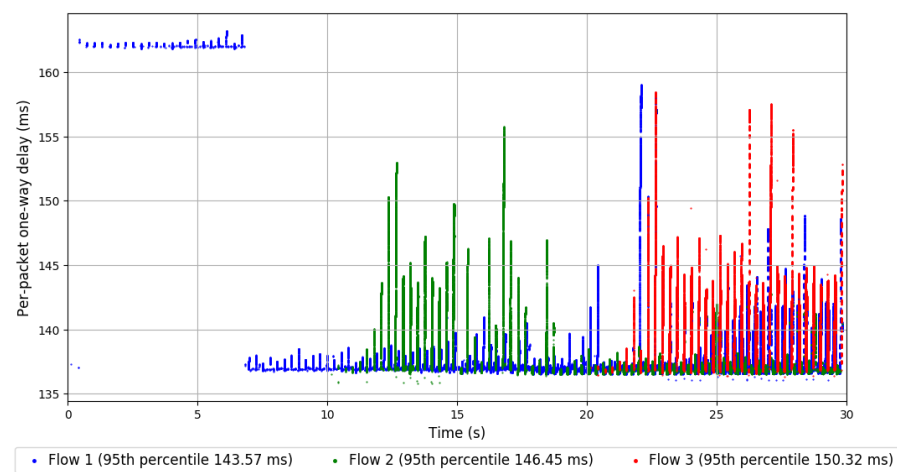
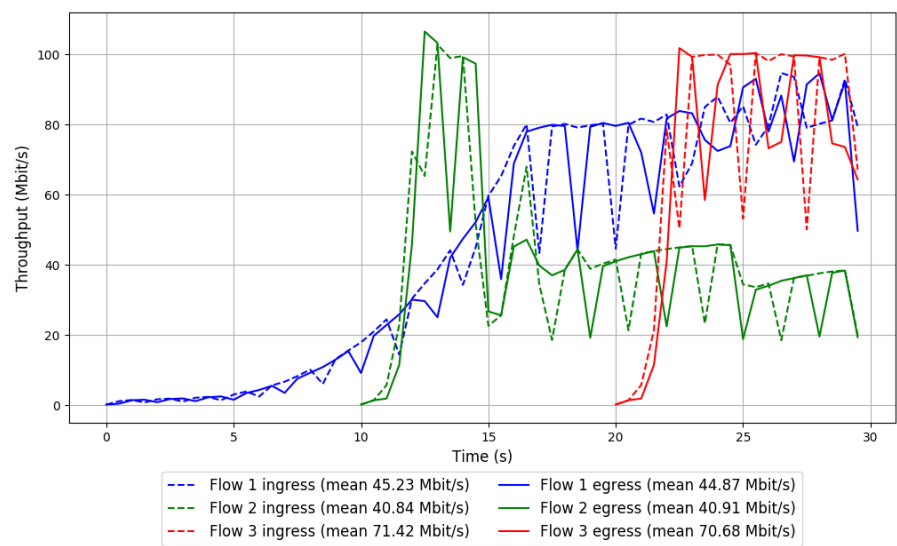
-- Flow 3:

Average throughput: 70.68 Mbit/s

95th percentile per-packet one-way delay: 150.317 ms

Loss rate: 3.74%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-01-18 03:41:11

End at: 2018-01-18 03:41:41

Below is generated by plot.py at 2018-01-18 08:33:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.95 Mbit/s

95th percentile per-packet one-way delay: 147.942 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 82.61 Mbit/s

95th percentile per-packet one-way delay: 147.079 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 44.24 Mbit/s

95th percentile per-packet one-way delay: 152.172 ms

Loss rate: 1.34%

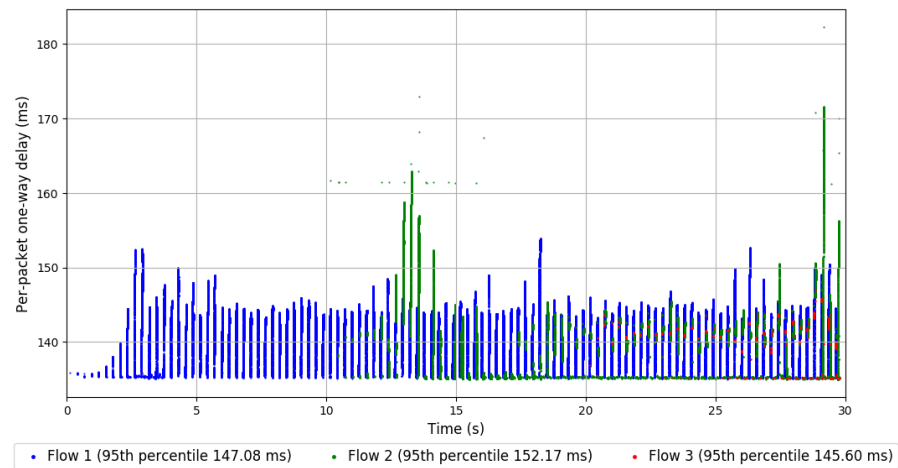
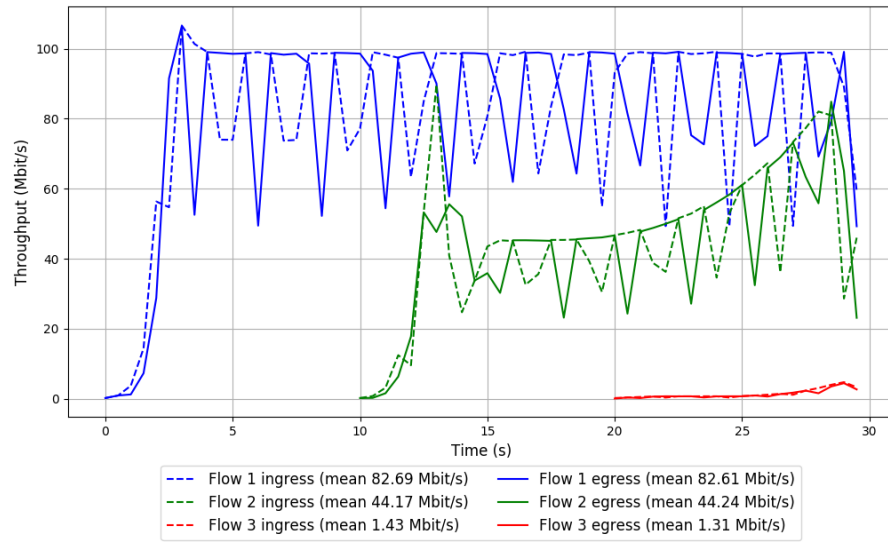
-- Flow 3:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 145.596 ms

Loss rate: 11.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-01-18 04:00:28

End at: 2018-01-18 04:00:58

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.83 Mbit/s

95th percentile per-packet one-way delay: 143.733 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 83.25 Mbit/s

95th percentile per-packet one-way delay: 143.679 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 48.76 Mbit/s

95th percentile per-packet one-way delay: 142.390 ms

Loss rate: 1.67%

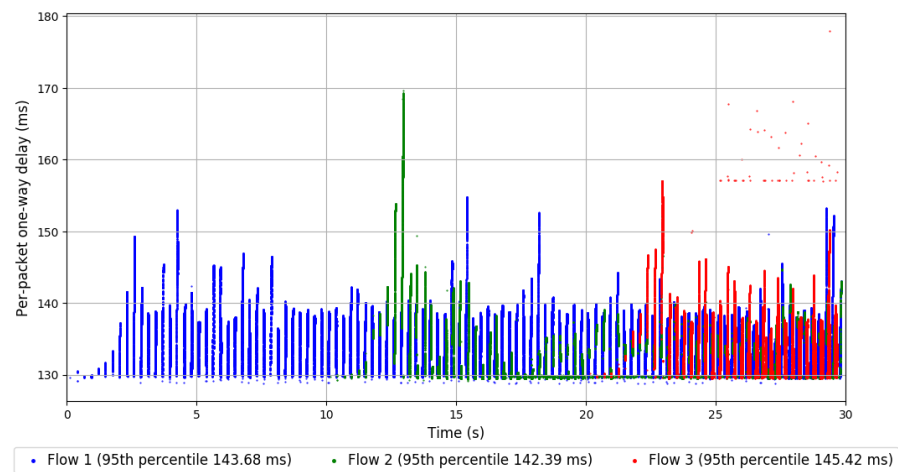
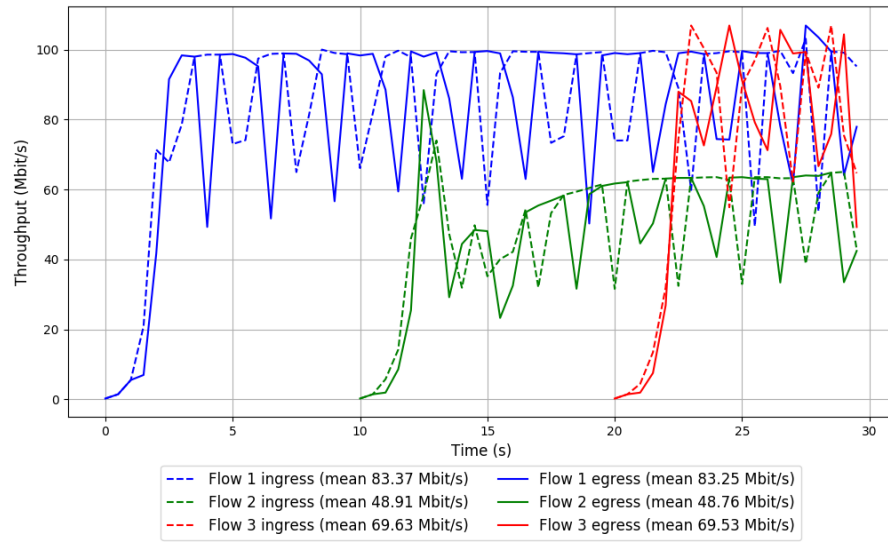
-- Flow 3:

Average throughput: 69.53 Mbit/s

95th percentile per-packet one-way delay: 145.420 ms

Loss rate: 2.93%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-18 04:20:45

End at: 2018-01-18 04:21:15

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.56 Mbit/s

95th percentile per-packet one-way delay: 136.693 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 75.58 Mbit/s

95th percentile per-packet one-way delay: 136.911 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 16.79 Mbit/s

95th percentile per-packet one-way delay: 133.664 ms

Loss rate: 6.24%

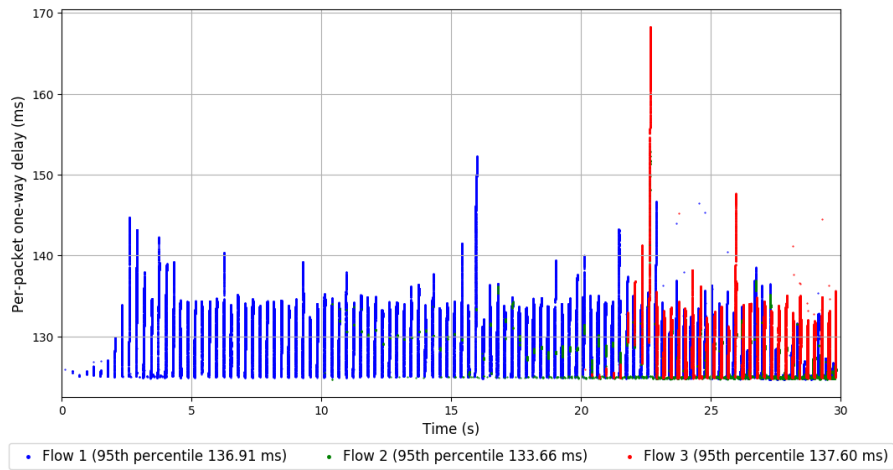
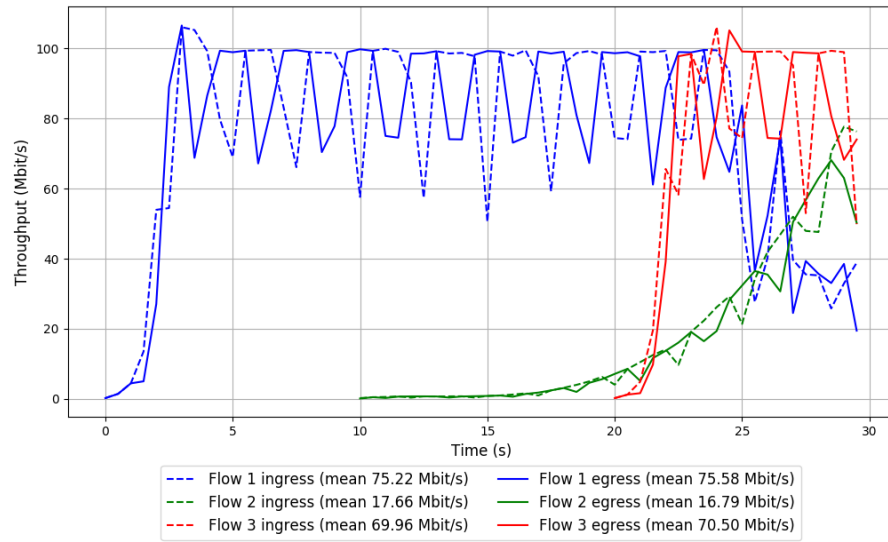
-- Flow 3:

Average throughput: 70.50 Mbit/s

95th percentile per-packet one-way delay: 137.602 ms

Loss rate: 1.81%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-18 04:40:34

End at: 2018-01-18 04:41:04

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.72 Mbit/s

95th percentile per-packet one-way delay: 136.512 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 62.62 Mbit/s

95th percentile per-packet one-way delay: 134.356 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 8.86 Mbit/s

95th percentile per-packet one-way delay: 130.077 ms

Loss rate: 4.51%

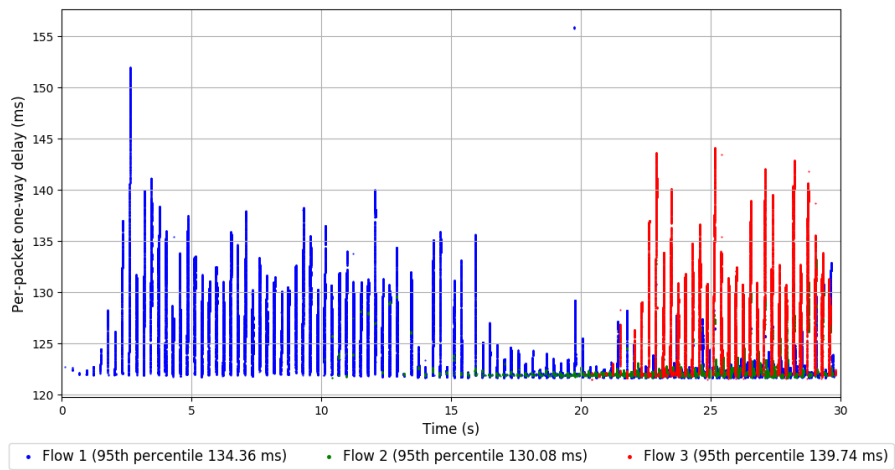
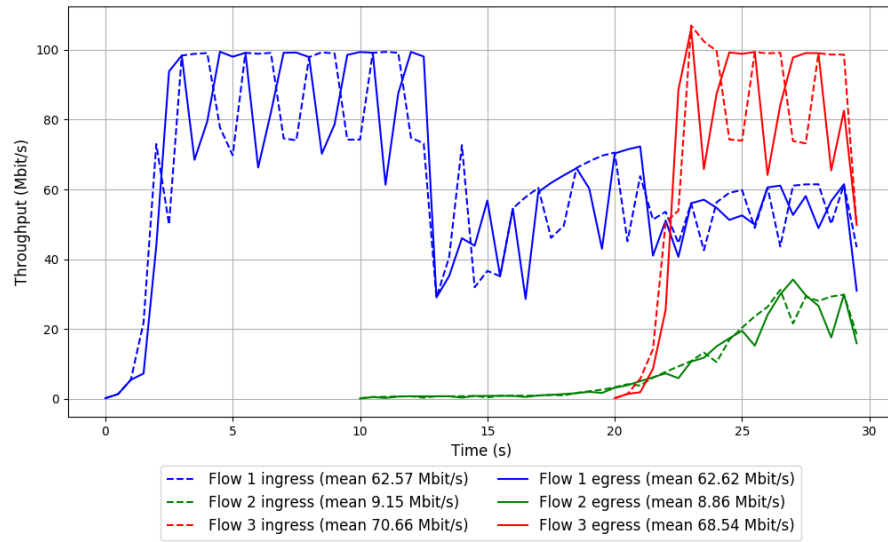
-- Flow 3:

Average throughput: 68.54 Mbit/s

95th percentile per-packet one-way delay: 139.740 ms

Loss rate: 3.56%

Run 10: Report of TCP Cubic — Data Link

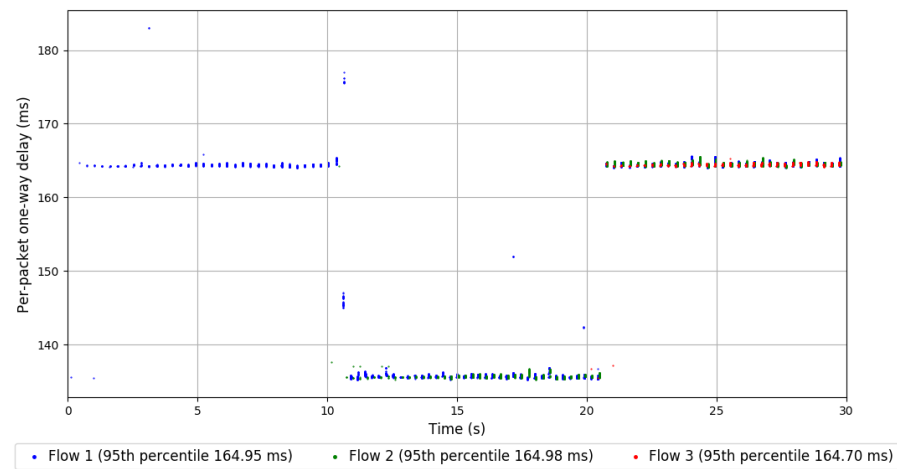
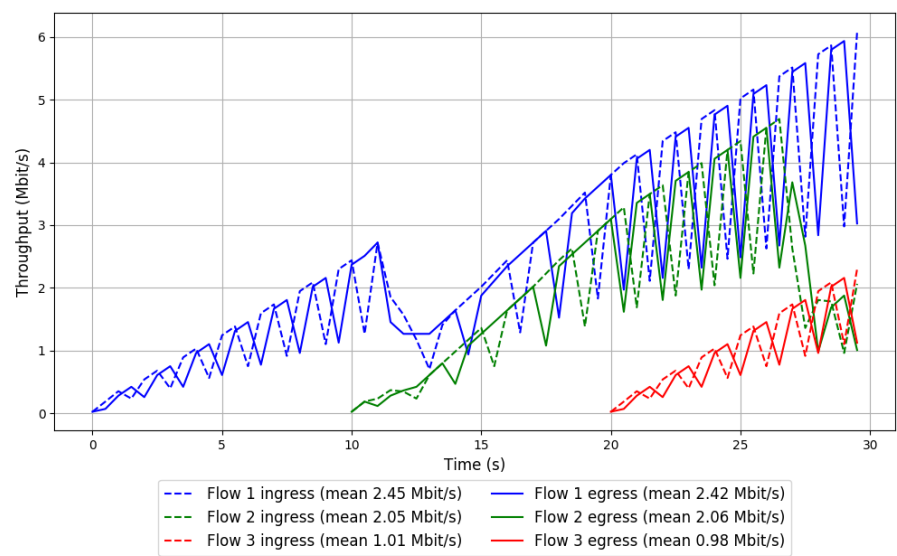


```
Run 1: Statistics of LEDBAT

Start at: 2018-01-18 01:56:25
End at: 2018-01-18 01:56:55

# Below is generated by plot.py at 2018-01-18 08:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.09 Mbit/s
95th percentile per-packet one-way delay: 164.948 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 164.946 ms
Loss rate: 2.09%
-- Flow 2:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 164.983 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 164.704 ms
Loss rate: 5.88%
```


Run 1: Report of LEDBAT — Data Link

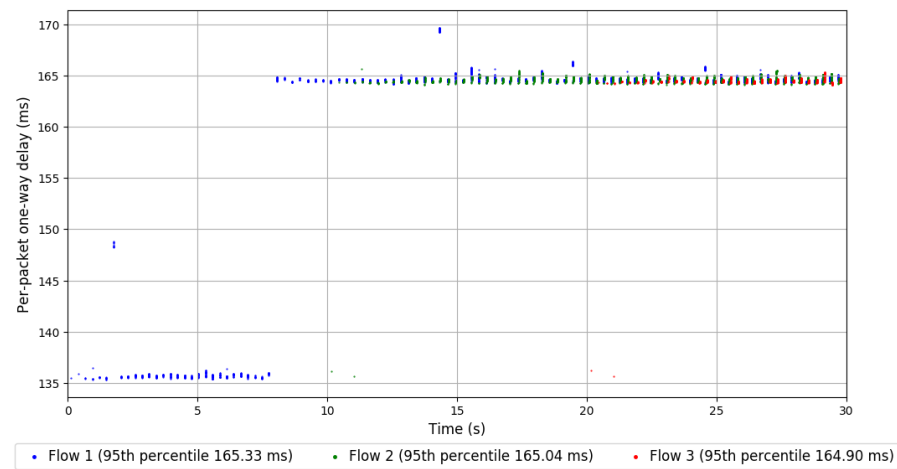
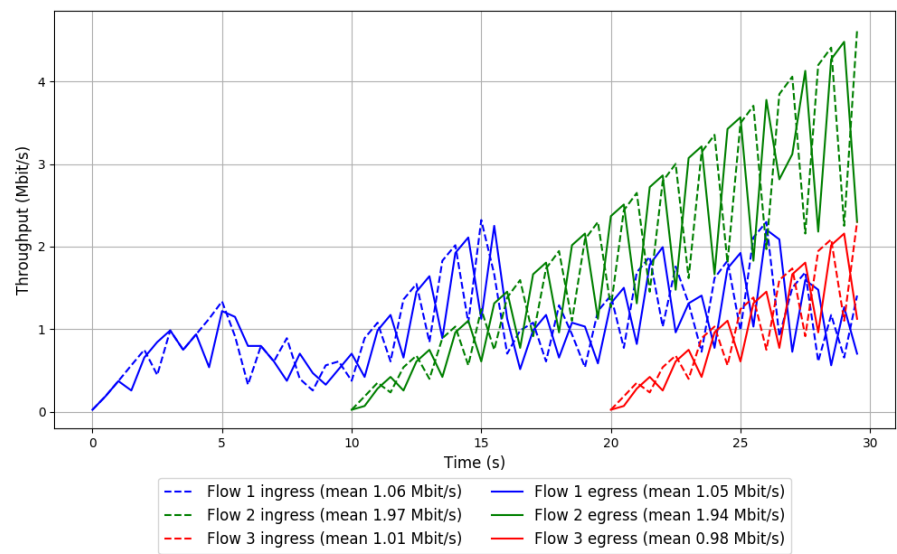


```
Run 2: Statistics of LEDBAT

Start at: 2018-01-18 02:14:27
End at: 2018-01-18 02:14:57

# Below is generated by plot.py at 2018-01-18 08:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 165.084 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 165.331 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 165.041 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 164.896 ms
Loss rate: 5.88%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-18 02:32:59

End at: 2018-01-18 02:33:29

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.91 Mbit/s

95th percentile per-packet one-way delay: 136.943 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 136.959 ms

Loss rate: 1.30%

-- Flow 2:

Average throughput: 1.15 Mbit/s

95th percentile per-packet one-way delay: 136.938 ms

Loss rate: 3.41%

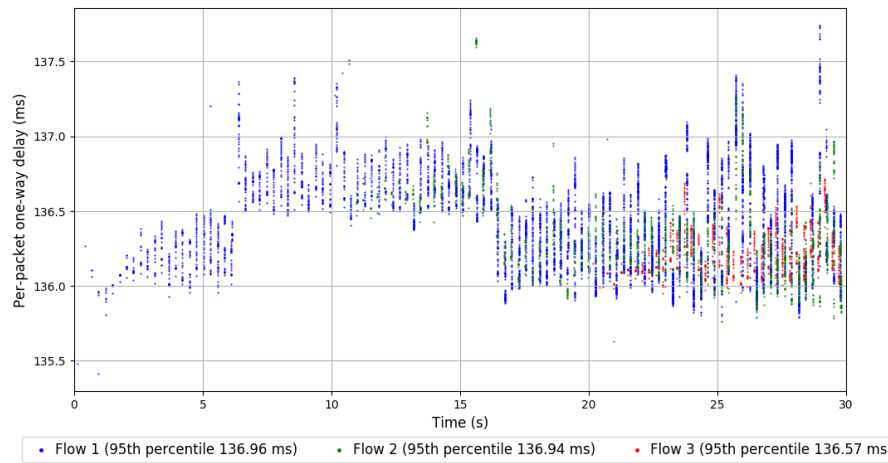
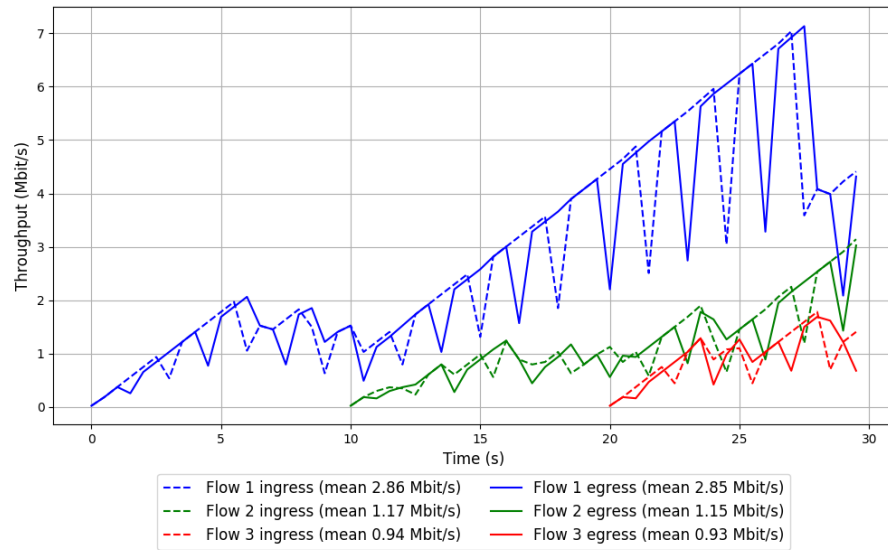
-- Flow 3:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 136.568 ms

Loss rate: 3.92%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-18 02:53:20

End at: 2018-01-18 02:53:50

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 161.772 ms

Loss rate: 2.87%

-- Flow 1:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 161.974 ms

Loss rate: 2.21%

-- Flow 2:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 161.576 ms

Loss rate: 3.21%

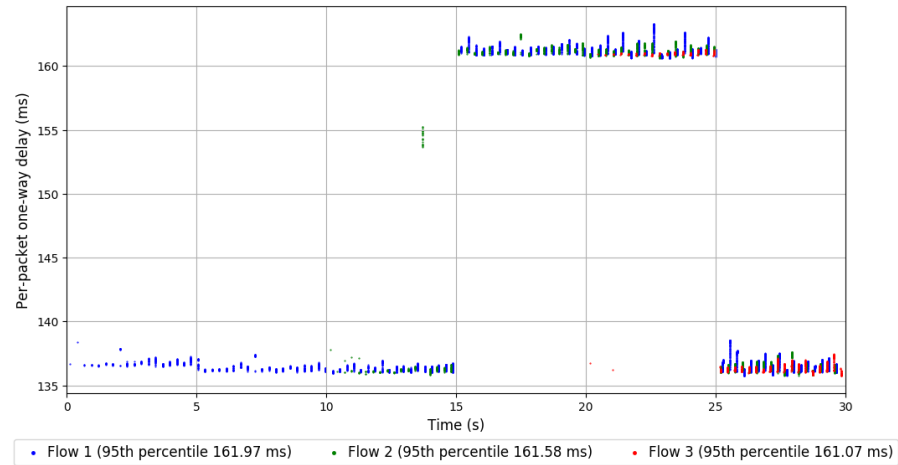
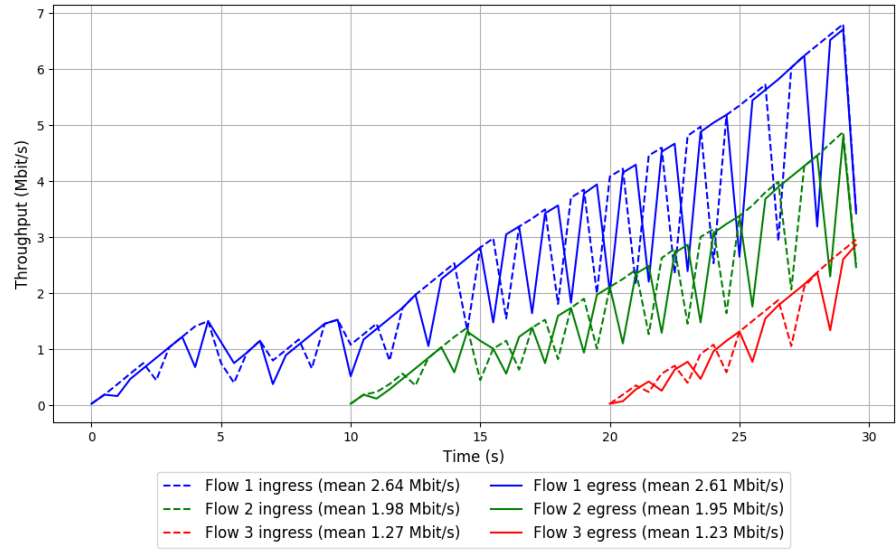
-- Flow 3:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 161.067 ms

Loss rate: 5.94%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-01-18 03:12:45

End at: 2018-01-18 03:13:15

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.30 Mbit/s

95th percentile per-packet one-way delay: 138.089 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 138.131 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 138.027 ms

Loss rate: 2.39%

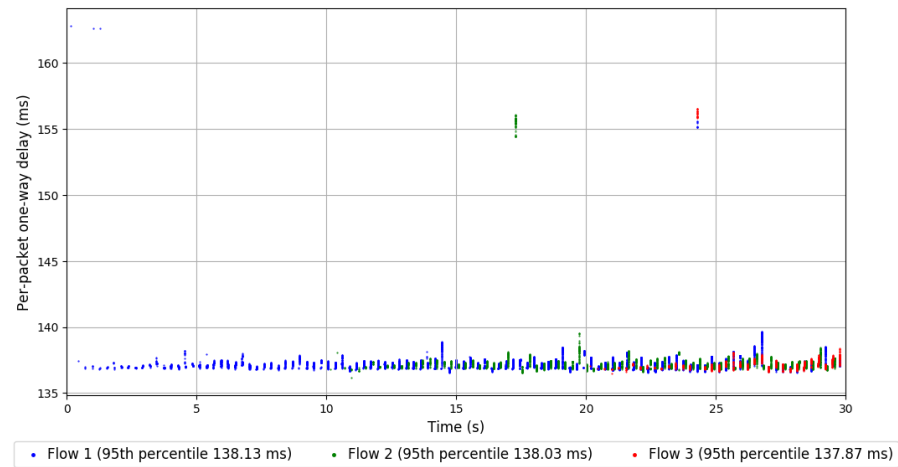
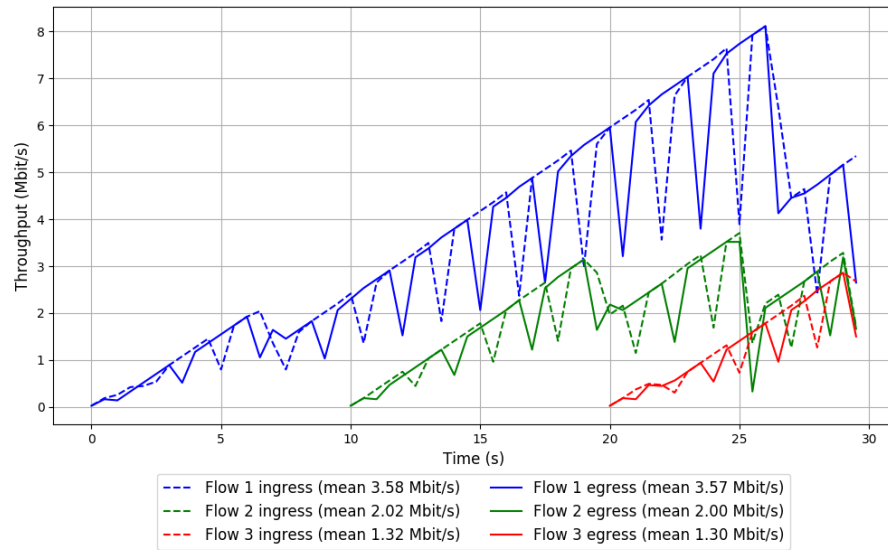
-- Flow 3:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 137.872 ms

Loss rate: 4.50%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-18 03:32:31

End at: 2018-01-18 03:33:01

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 137.446 ms

Loss rate: 2.63%

-- Flow 1:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 137.490 ms

Loss rate: 1.46%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 137.326 ms

Loss rate: 2.43%

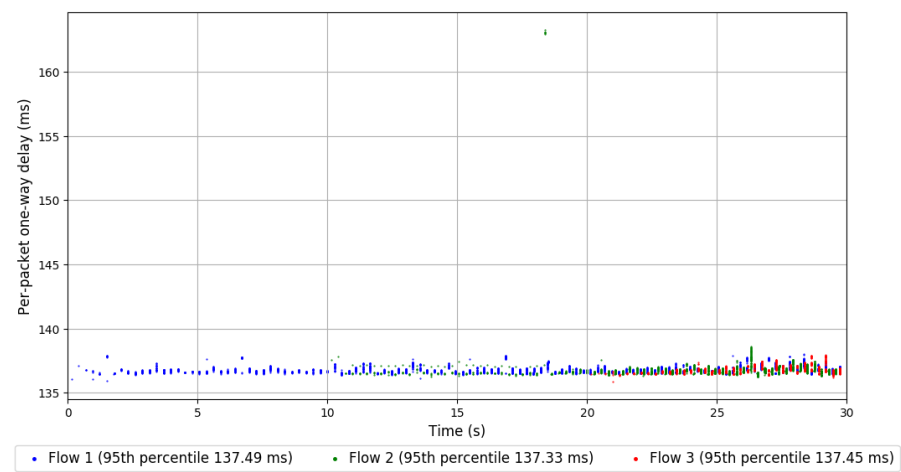
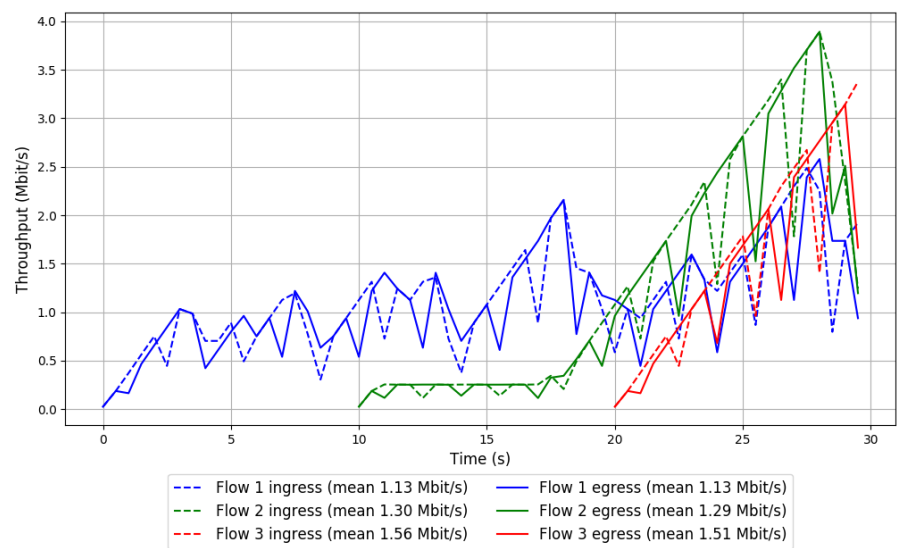
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 137.448 ms

Loss rate: 5.57%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-18 03:51:39

End at: 2018-01-18 03:52:09

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.61 Mbit/s

95th percentile per-packet one-way delay: 133.287 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 4.80 Mbit/s

95th percentile per-packet one-way delay: 133.330 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 132.845 ms

Loss rate: 1.66%

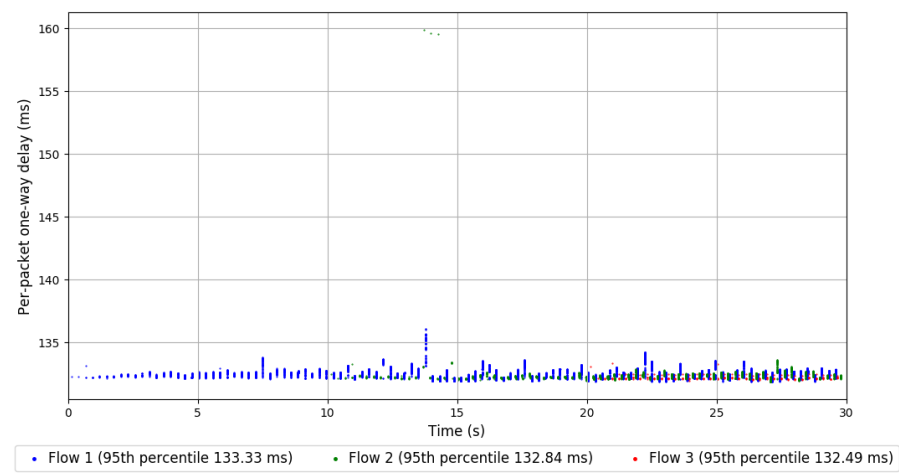
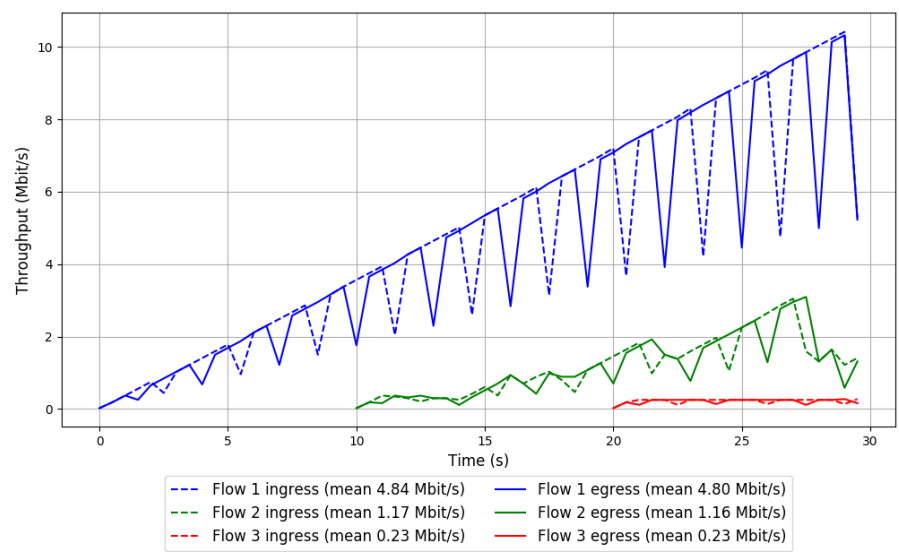
-- Flow 3:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 132.485 ms

Loss rate: 2.58%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-18 04:11:50

End at: 2018-01-18 04:12:20

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 128.003 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 128.158 ms

Loss rate: 1.42%

-- Flow 2:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 127.793 ms

Loss rate: 3.15%

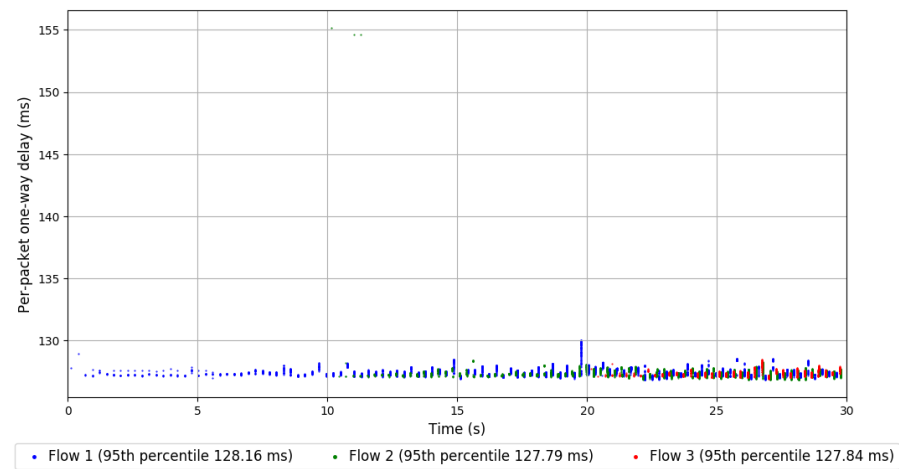
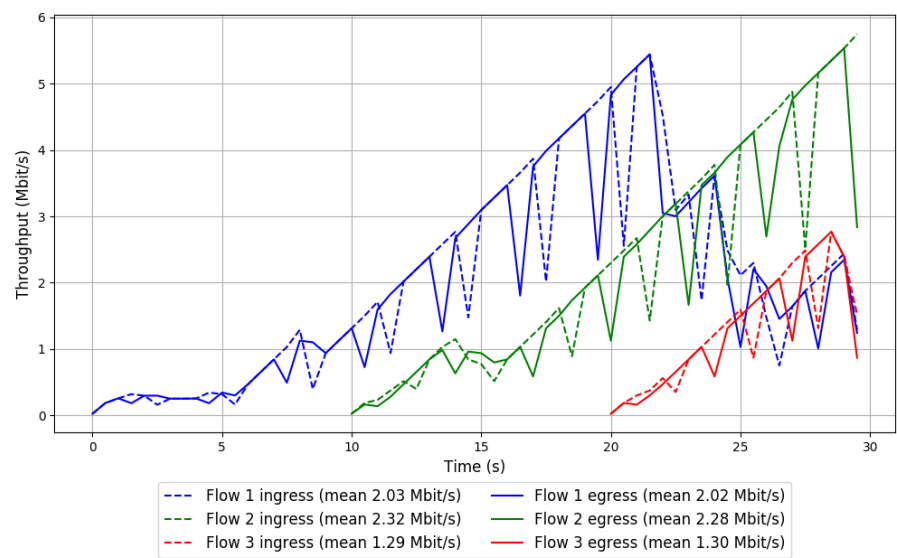
-- Flow 3:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 127.836 ms

Loss rate: 2.58%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-18 04:32:06

End at: 2018-01-18 04:32:36

Below is generated by plot.py at 2018-01-18 08:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 122.874 ms

Loss rate: 2.15%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 122.924 ms

Loss rate: 2.20%

-- Flow 2:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 122.850 ms

Loss rate: 1.69%

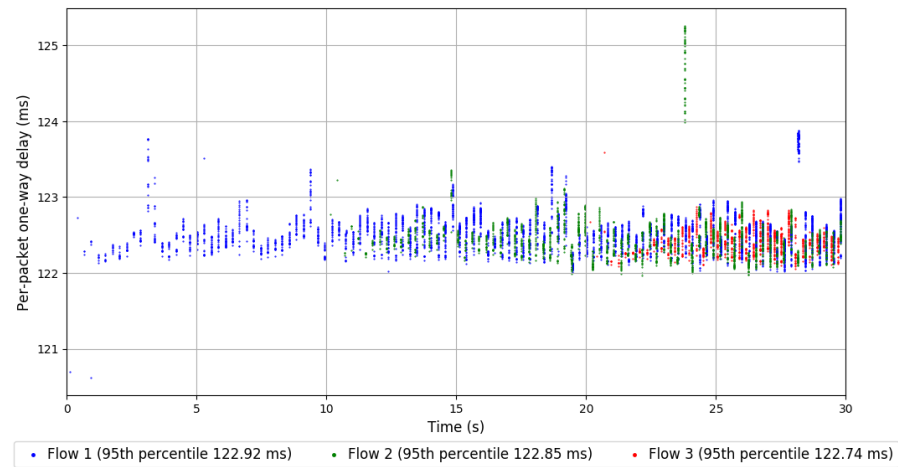
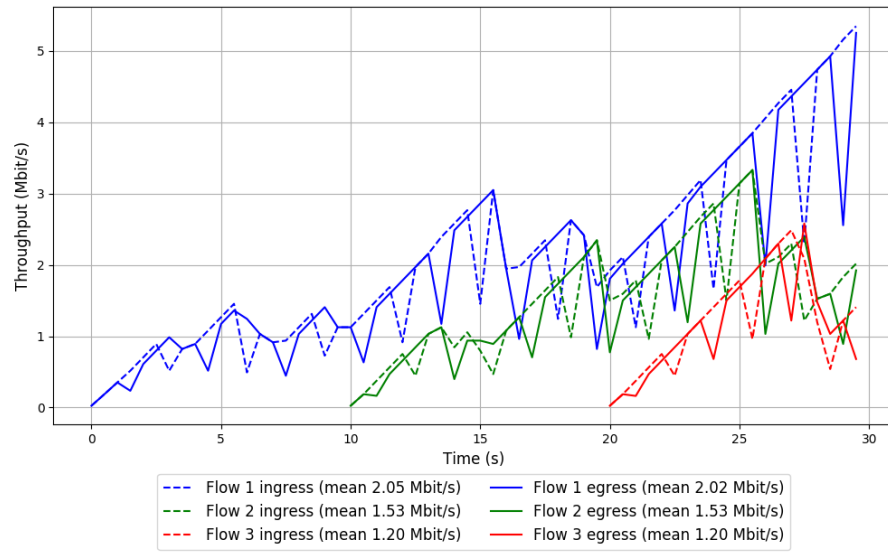
-- Flow 3:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 122.740 ms

Loss rate: 3.07%

Run 9: Report of LEDBAT — Data Link

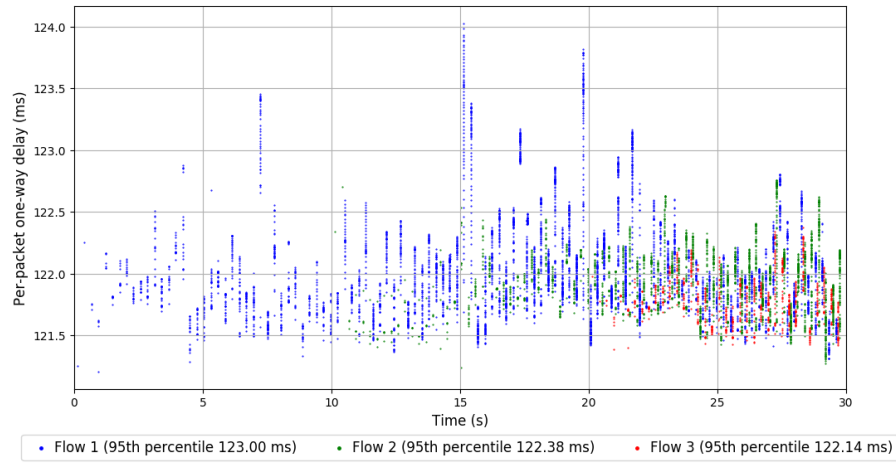
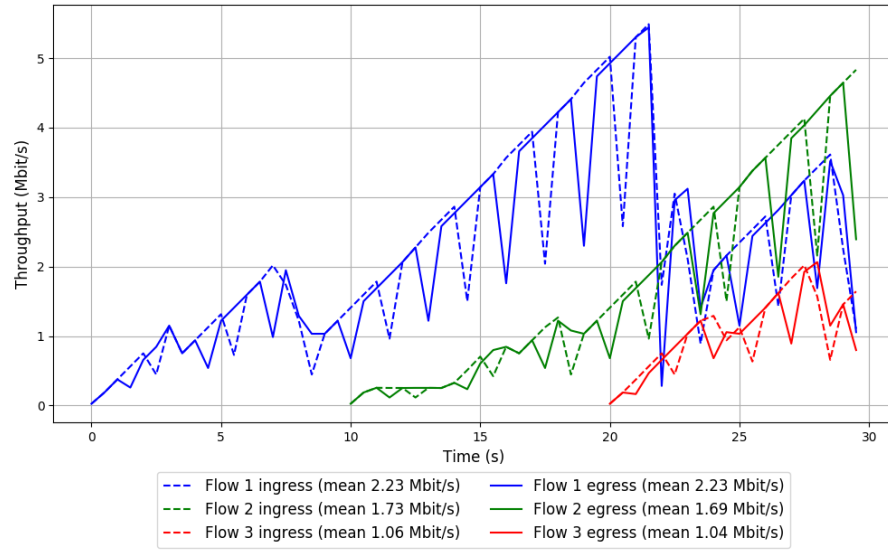


```
Run 10: Statistics of LEDBAT

Start at: 2018-01-18 04:51:51
End at: 2018-01-18 04:52:21

# Below is generated by plot.py at 2018-01-18 08:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 122.757 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 123.002 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 122.378 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 122.139 ms
Loss rate: 4.29%
```

Run 10: Report of LEDBAT — Data Link

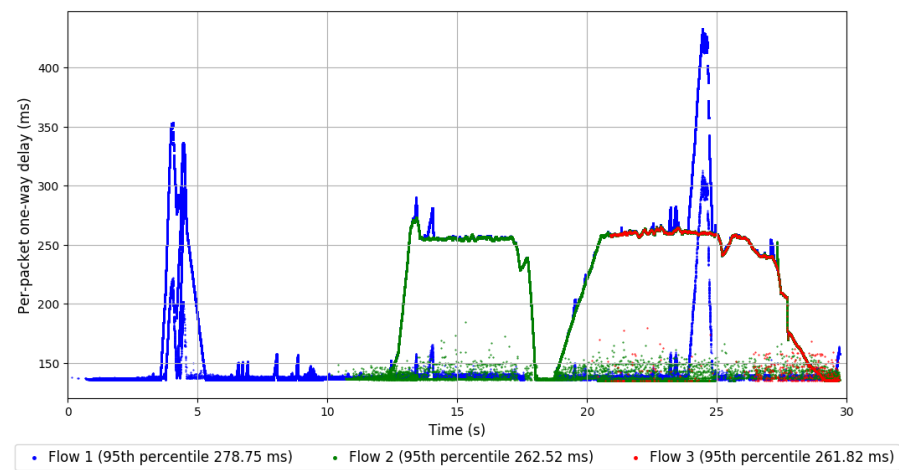
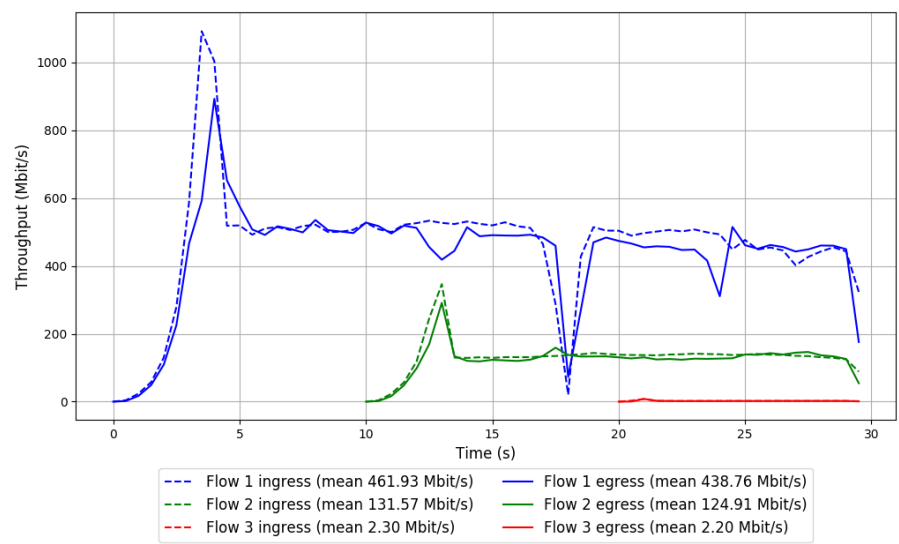


```
Run 1: Statistics of PCC

Start at: 2018-01-18 01:46:55
End at: 2018-01-18 01:47:25

# Below is generated by plot.py at 2018-01-18 08:42:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 522.10 Mbit/s
95th percentile per-packet one-way delay: 271.933 ms
Loss rate: 5.97%
-- Flow 1:
Average throughput: 438.76 Mbit/s
95th percentile per-packet one-way delay: 278.751 ms
Loss rate: 5.89%
-- Flow 2:
Average throughput: 124.91 Mbit/s
95th percentile per-packet one-way delay: 262.519 ms
Loss rate: 6.38%
-- Flow 3:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 261.823 ms
Loss rate: 7.15%
```

Run 1: Report of PCC — Data Link

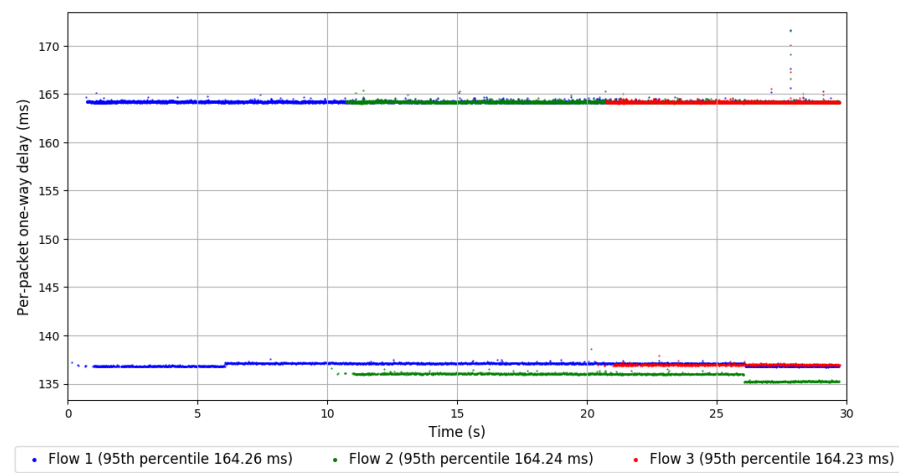
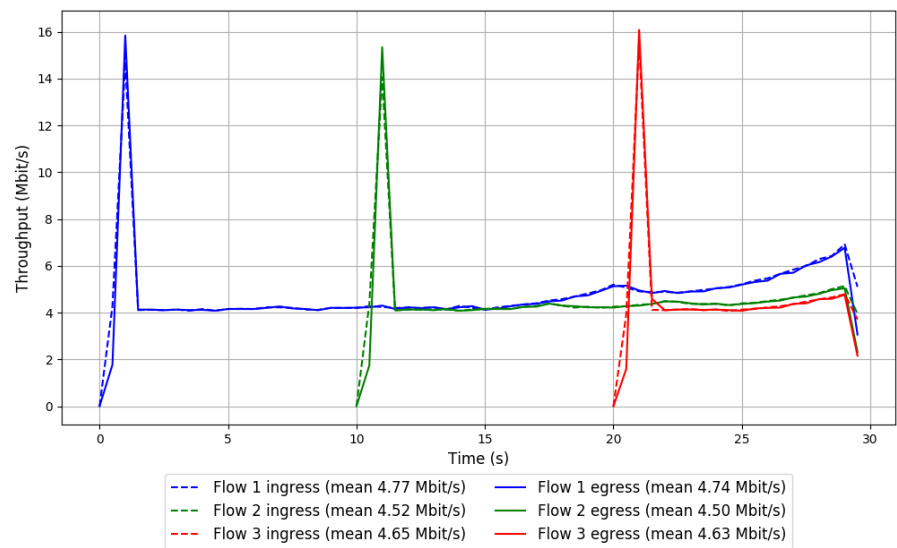


```
Run 2: Statistics of PCC

Start at: 2018-01-18 02:06:49
End at: 2018-01-18 02:07:19

# Below is generated by plot.py at 2018-01-18 08:42:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.22 Mbit/s
95th percentile per-packet one-way delay: 164.248 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 164.256 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 164.242 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 164.229 ms
Loss rate: 3.40%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-18 02:24:46

End at: 2018-01-18 02:25:16

Below is generated by plot.py at 2018-01-18 08:42:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.92 Mbit/s

95th percentile per-packet one-way delay: 164.209 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 10.68 Mbit/s

95th percentile per-packet one-way delay: 164.213 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 5.33 Mbit/s

95th percentile per-packet one-way delay: 164.208 ms

Loss rate: 1.92%

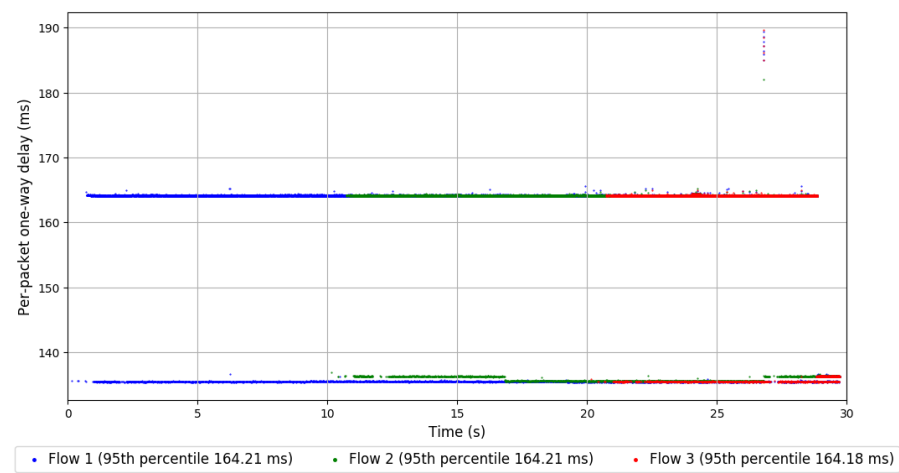
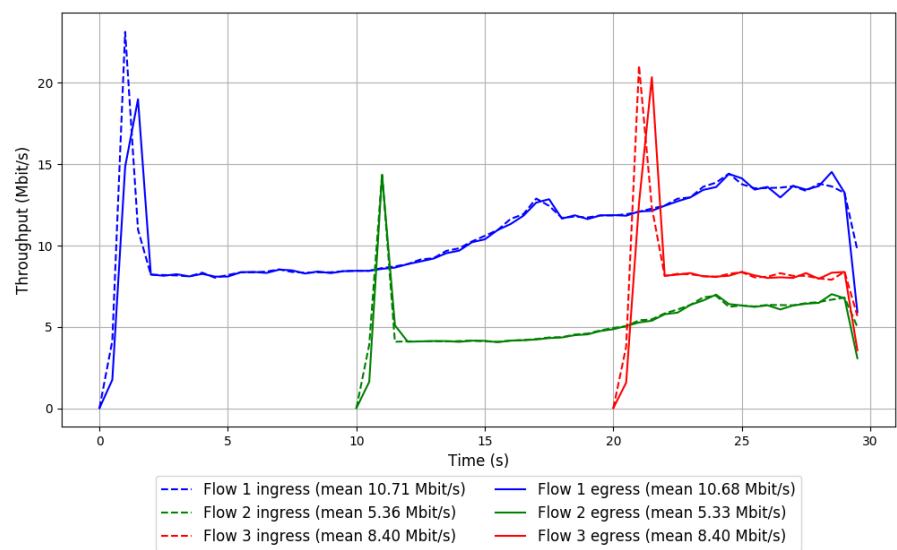
-- Flow 3:

Average throughput: 8.40 Mbit/s

95th percentile per-packet one-way delay: 164.184 ms

Loss rate: 2.79%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-01-18 02:43:52

End at: 2018-01-18 02:44:22

Below is generated by plot.py at 2018-01-18 08:42:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 525.11 Mbit/s

95th percentile per-packet one-way delay: 257.075 ms

Loss rate: 4.16%

-- Flow 1:

Average throughput: 425.39 Mbit/s

95th percentile per-packet one-way delay: 257.290 ms

Loss rate: 4.13%

-- Flow 2:

Average throughput: 120.19 Mbit/s

95th percentile per-packet one-way delay: 256.279 ms

Loss rate: 3.75%

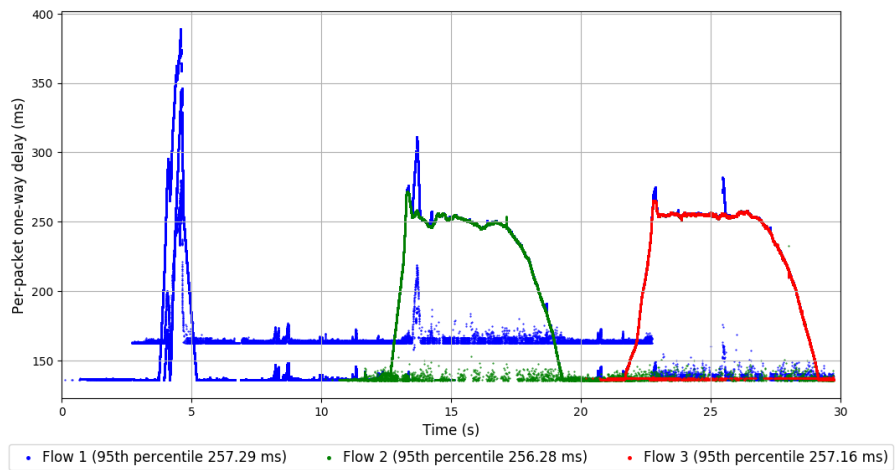
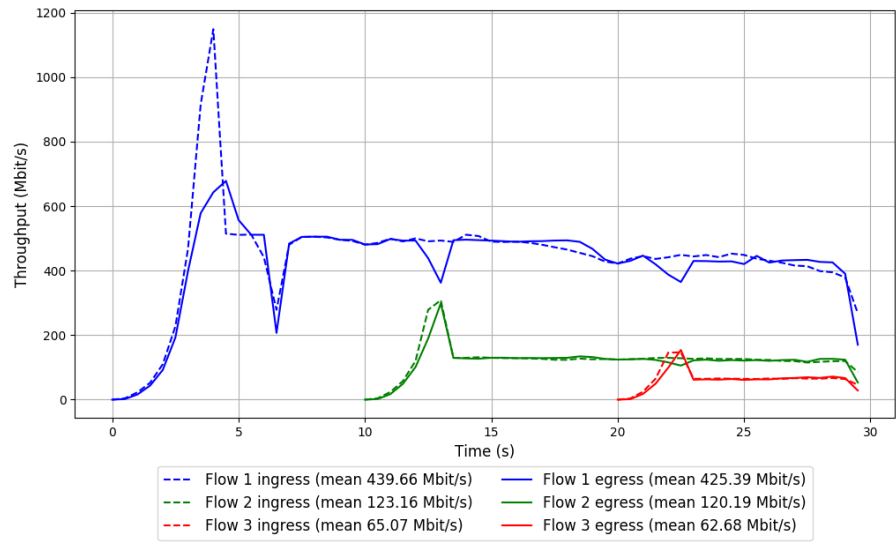
-- Flow 3:

Average throughput: 62.68 Mbit/s

95th percentile per-packet one-way delay: 257.161 ms

Loss rate: 6.34%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-01-18 03:04:07

End at: 2018-01-18 03:04:37

Below is generated by plot.py at 2018-01-18 08:42:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 533.27 Mbit/s

95th percentile per-packet one-way delay: 266.327 ms

Loss rate: 5.14%

-- Flow 1:

Average throughput: 455.02 Mbit/s

95th percentile per-packet one-way delay: 266.974 ms

Loss rate: 4.76%

-- Flow 2:

Average throughput: 62.26 Mbit/s

95th percentile per-packet one-way delay: 263.238 ms

Loss rate: 5.13%

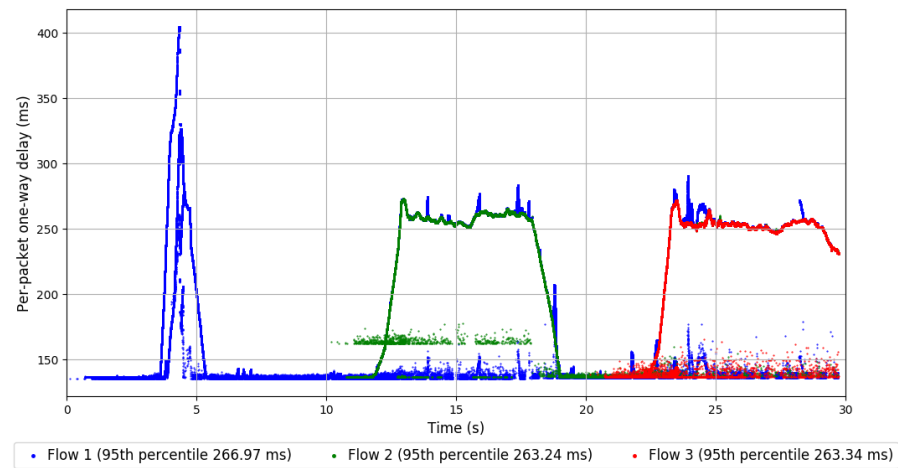
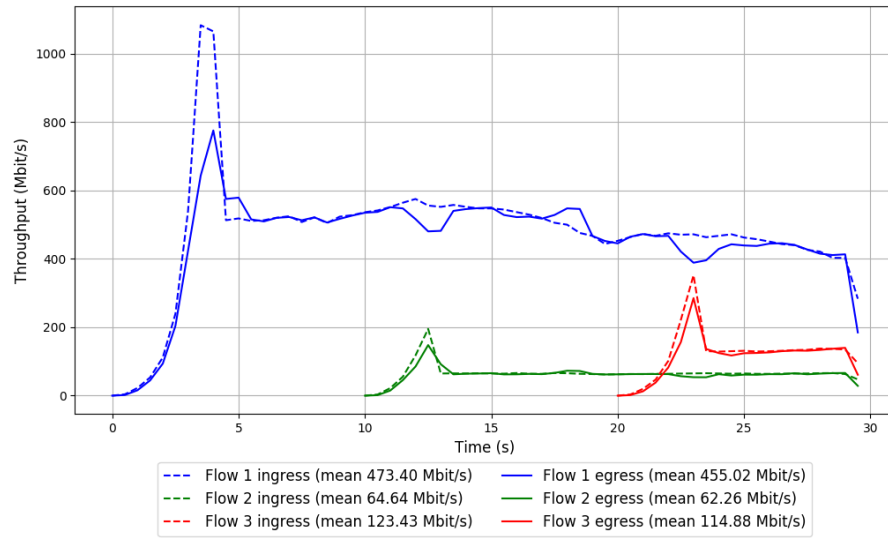
-- Flow 3:

Average throughput: 114.88 Mbit/s

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

Loss rate: 9.54%

Run 5: Report of PCC — Data Link

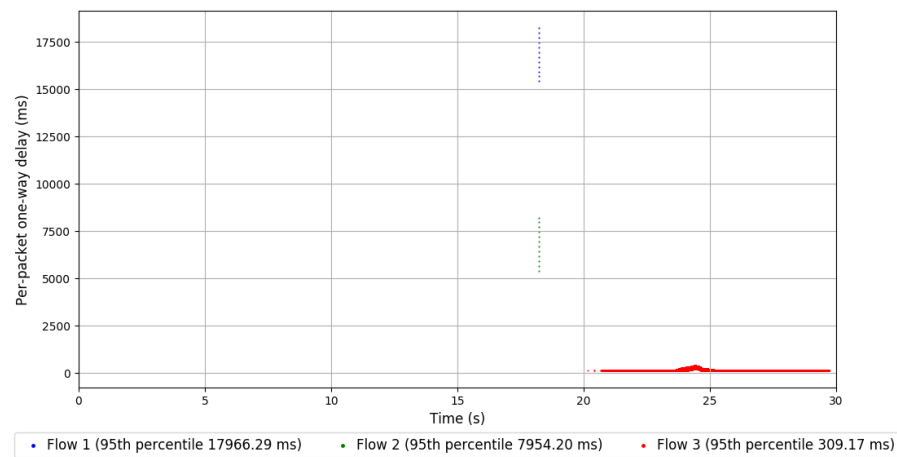
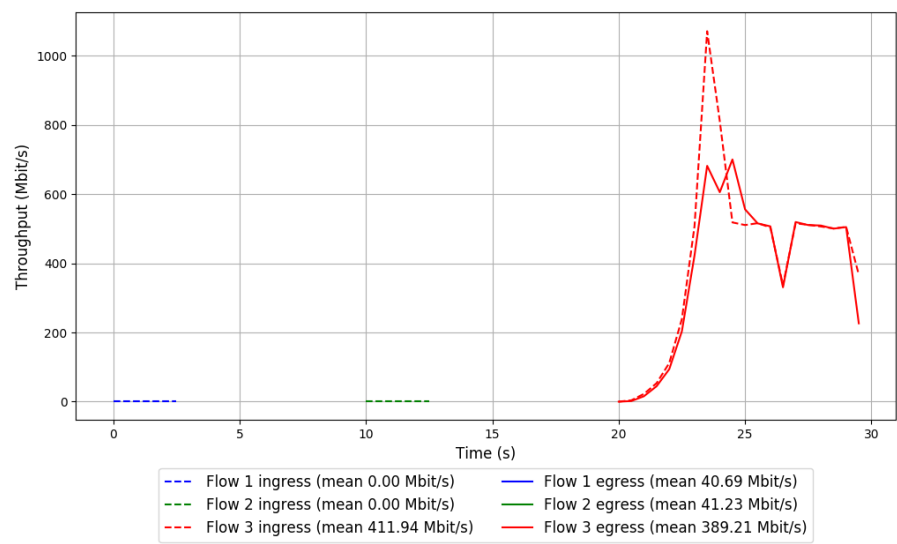


Run 6: Statistics of PCC

Start at: 2018-01-18 03:23:39

End at: 2018-01-18 03:24:09

Run 6: Report of PCC — Data Link

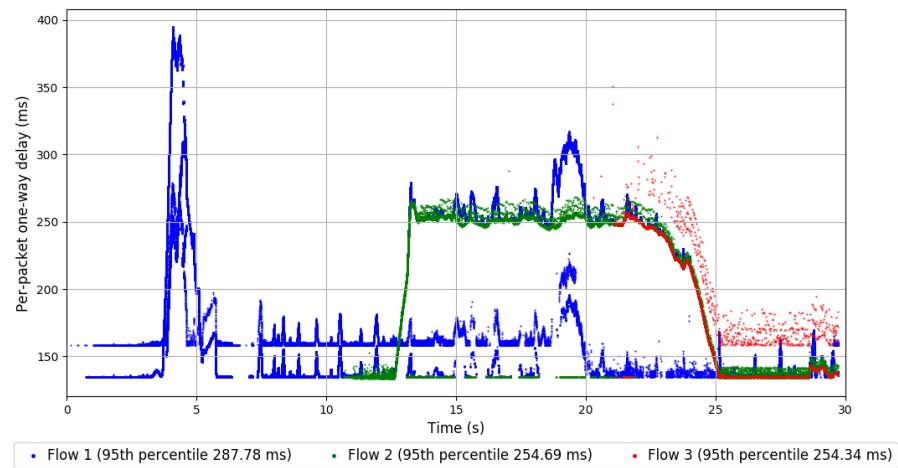
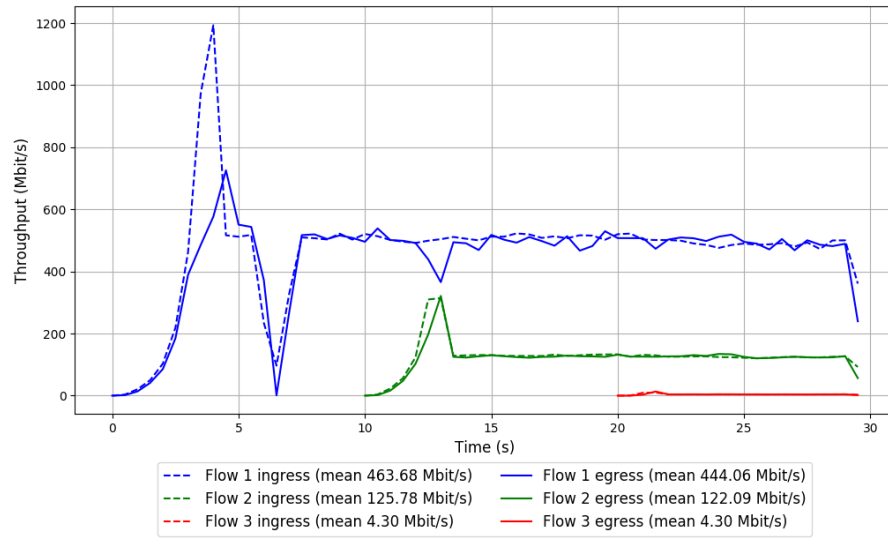


```
Run 7: Statistics of PCC

Start at: 2018-01-18 03:43:13
End at: 2018-01-18 03:43:43

# Below is generated by plot.py at 2018-01-18 08:42:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 526.27 Mbit/s
95th percentile per-packet one-way delay: 277.053 ms
Loss rate: 5.05%
-- Flow 1:
Average throughput: 444.06 Mbit/s
95th percentile per-packet one-way delay: 287.779 ms
Loss rate: 5.19%
-- Flow 2:
Average throughput: 122.09 Mbit/s
95th percentile per-packet one-way delay: 254.689 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 254.336 ms
Loss rate: 4.19%
```


Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-18 04:02:40

End at: 2018-01-18 04:03:10

Below is generated by plot.py at 2018-01-18 08:43:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 532.15 Mbit/s

95th percentile per-packet one-way delay: 252.832 ms

Loss rate: 3.96%

-- Flow 1:

Average throughput: 470.23 Mbit/s

95th percentile per-packet one-way delay: 252.812 ms

Loss rate: 3.82%

-- Flow 2:

Average throughput: 64.73 Mbit/s

95th percentile per-packet one-way delay: 252.302 ms

Loss rate: 3.31%

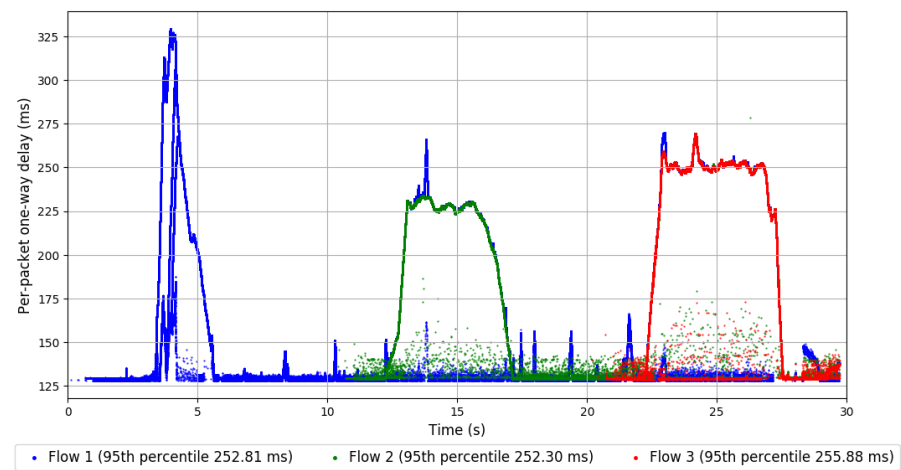
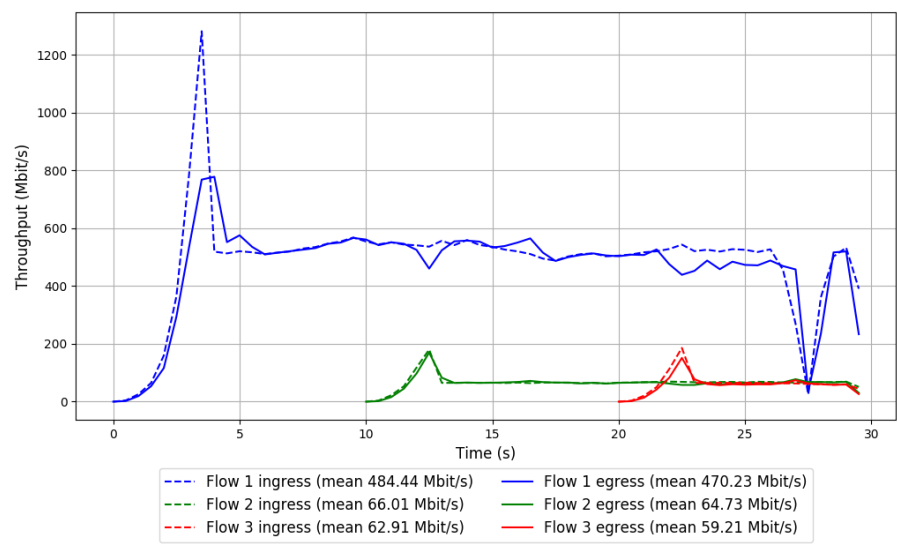
-- Flow 3:

Average throughput: 59.21 Mbit/s

95th percentile per-packet one-way delay: 255.883 ms

Loss rate: 8.59%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-18 04:22:54

End at: 2018-01-18 04:23:24

Below is generated by plot.py at 2018-01-18 08:43:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 480.41 Mbit/s

95th percentile per-packet one-way delay: 256.624 ms

Loss rate: 4.63%

-- Flow 1:

Average throughput: 427.57 Mbit/s

95th percentile per-packet one-way delay: 259.129 ms

Loss rate: 4.72%

-- Flow 2:

Average throughput: 64.09 Mbit/s

95th percentile per-packet one-way delay: 247.416 ms

Loss rate: 3.28%

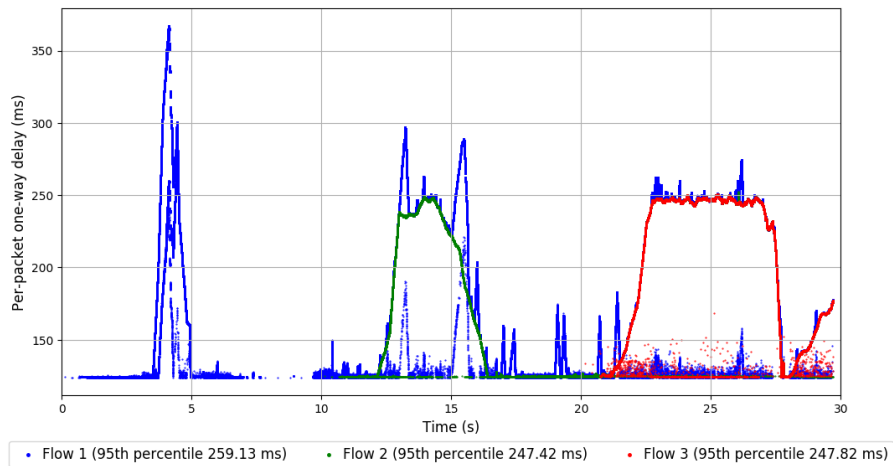
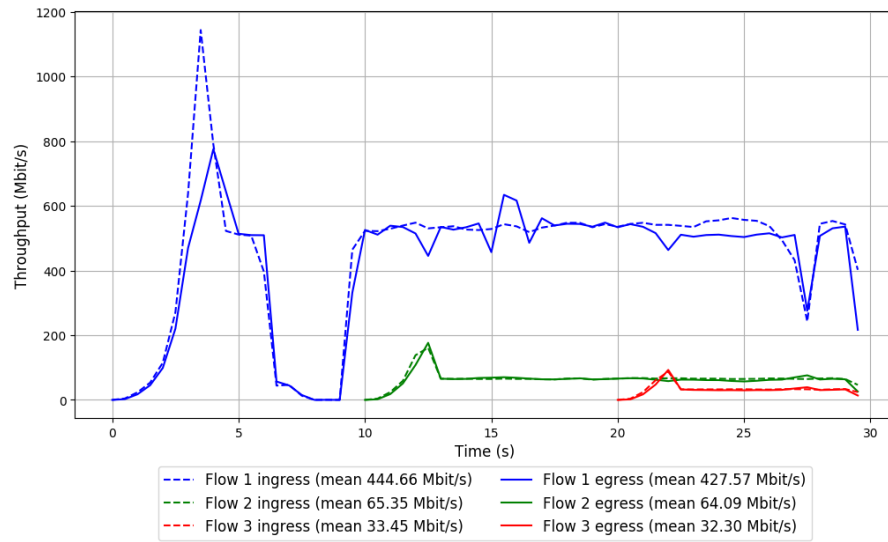
-- Flow 3:

Average throughput: 32.30 Mbit/s

95th percentile per-packet one-way delay: 247.821 ms

Loss rate: 6.21%

Run 9: Report of PCC — Data Link

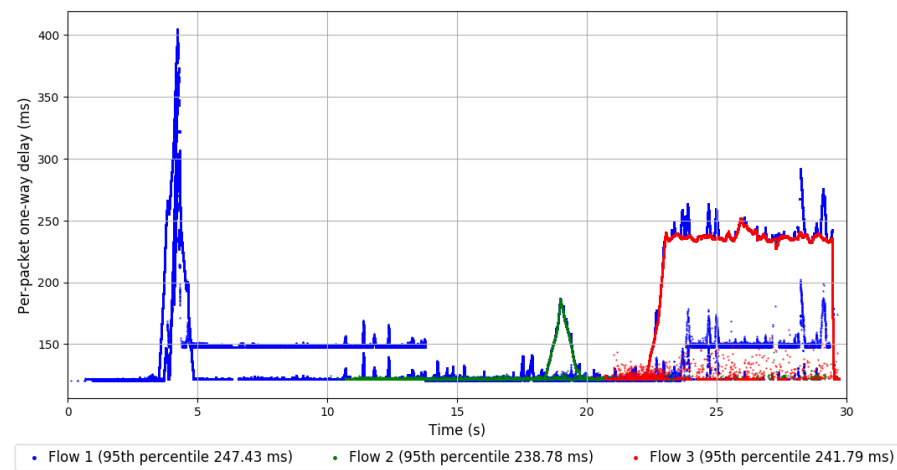
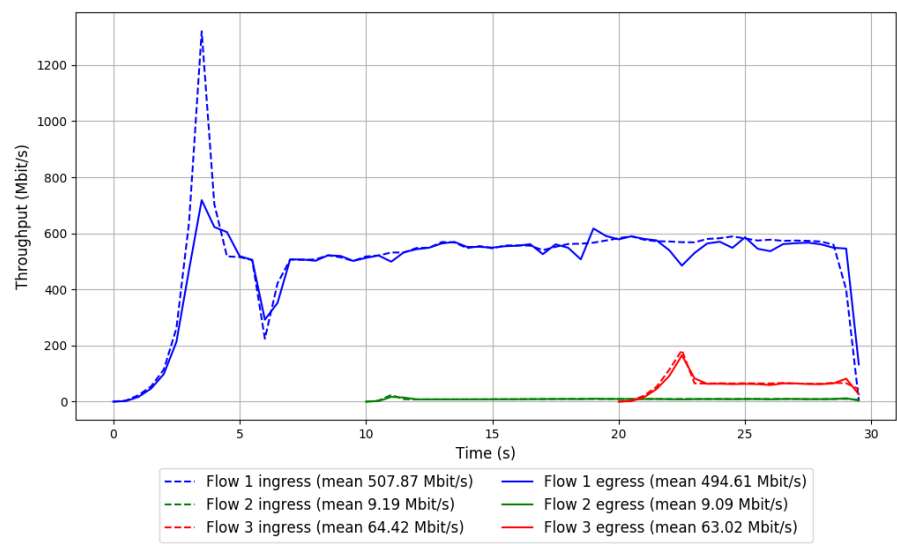


```
Run 10: Statistics of PCC

Start at: 2018-01-18 04:42:41
End at: 2018-01-18 04:43:11

# Below is generated by plot.py at 2018-01-18 08:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 519.60 Mbit/s
95th percentile per-packet one-way delay: 246.832 ms
Loss rate: 3.21%
-- Flow 1:
Average throughput: 494.61 Mbit/s
95th percentile per-packet one-way delay: 247.426 ms
Loss rate: 3.15%
-- Flow 2:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 238.775 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 241.793 ms
Loss rate: 4.88%
```

Run 10: Report of PCC — Data Link

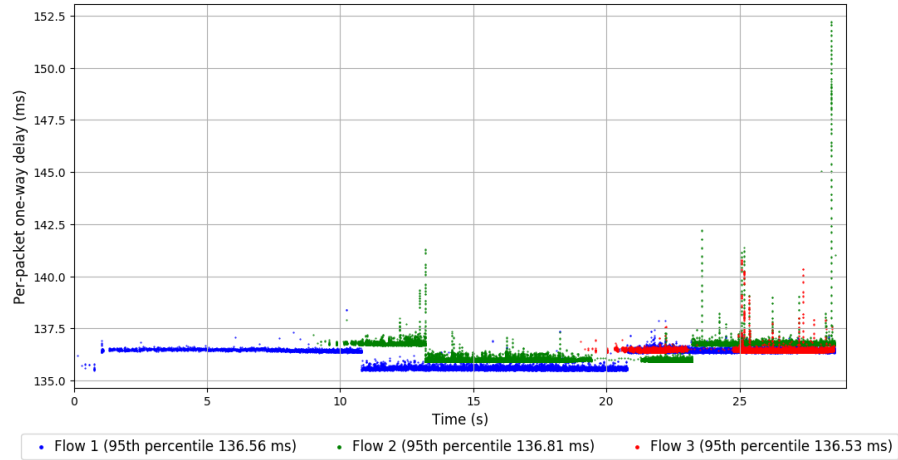
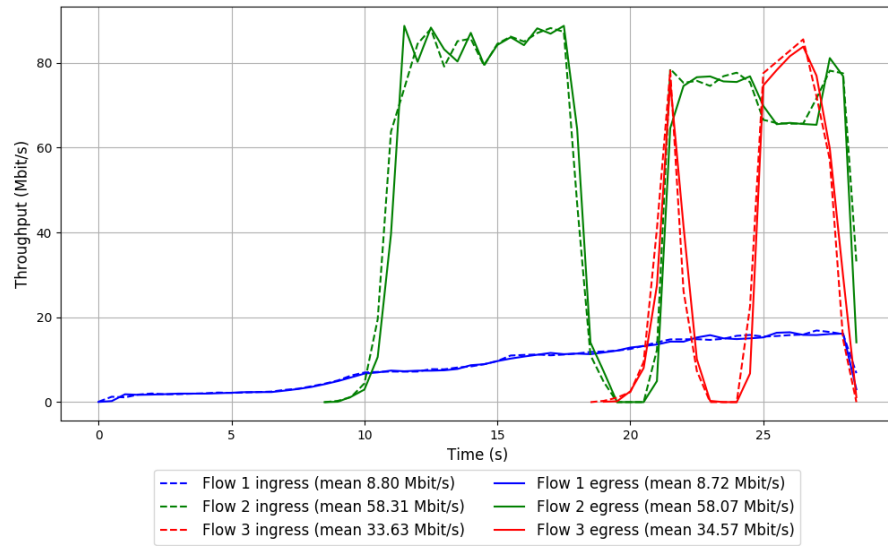


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-18 01:48:11
End at: 2018-01-18 01:48:41

# Below is generated by plot.py at 2018-01-18 08:43:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.28 Mbit/s
95th percentile per-packet one-way delay: 136.795 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 136.557 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 58.07 Mbit/s
95th percentile per-packet one-way delay: 136.809 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 34.57 Mbit/s
95th percentile per-packet one-way delay: 136.527 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link

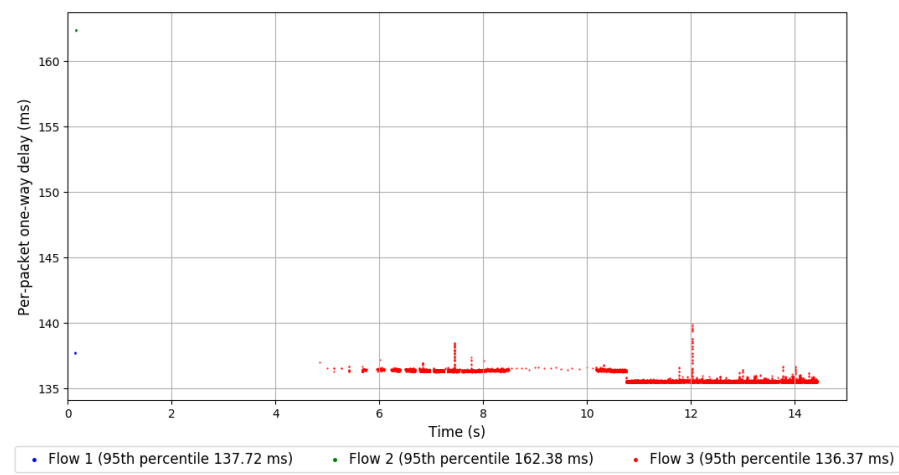
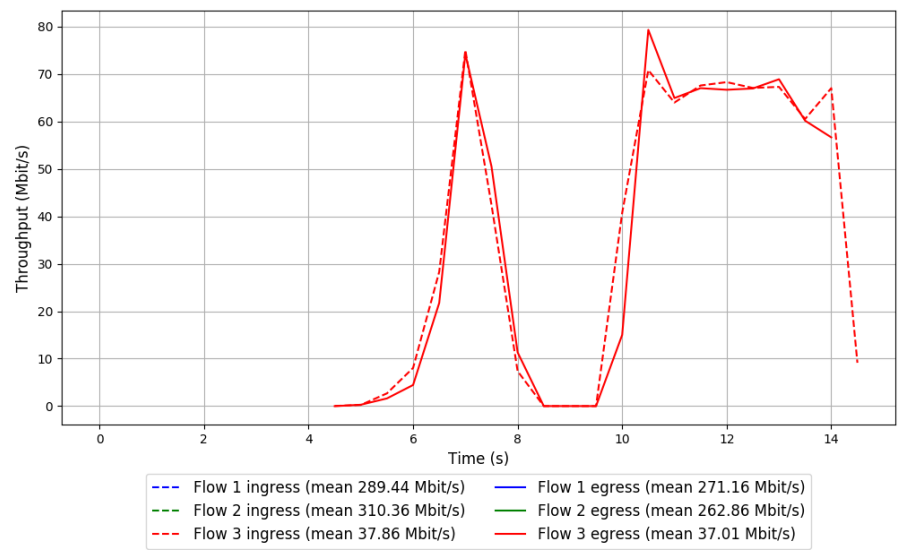


Run 2: Statistics of QUIC Cubic

Start at: 2018-01-18 02:07:39

End at: 2018-01-18 02:08:09

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-18 02:25:36

End at: 2018-01-18 02:26:06

Below is generated by plot.py at 2018-01-18 08:43:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.37 Mbit/s

95th percentile per-packet one-way delay: 137.070 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 136.089 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.39 Mbit/s

95th percentile per-packet one-way delay: 136.308 ms

Loss rate: 0.00%

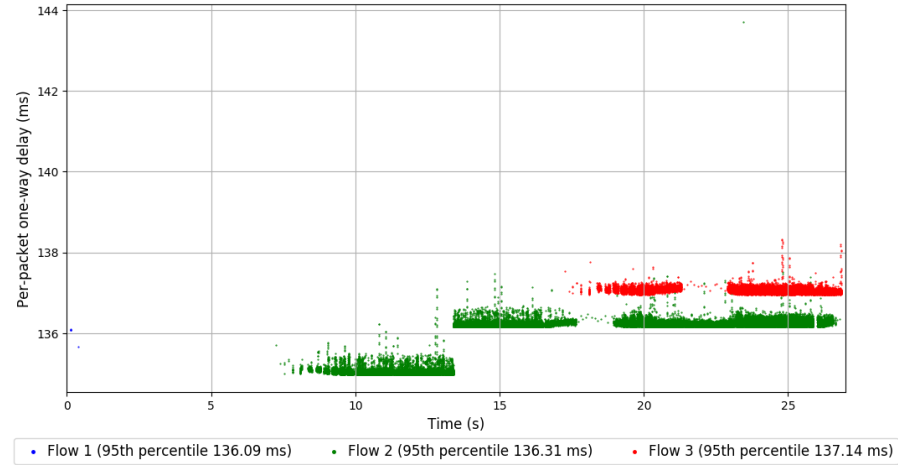
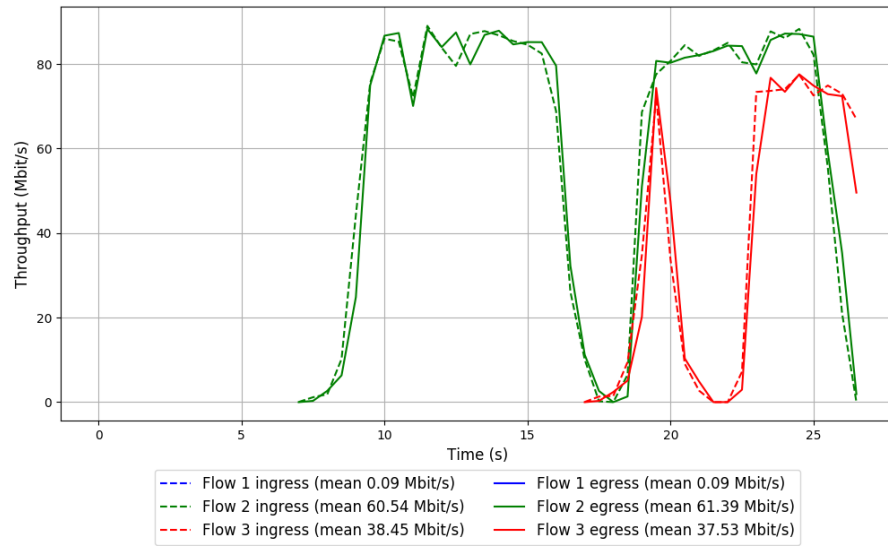
-- Flow 3:

Average throughput: 37.53 Mbit/s

95th percentile per-packet one-way delay: 137.140 ms

Loss rate: 5.11%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-18 02:45:08

End at: 2018-01-18 02:45:38

Below is generated by plot.py at 2018-01-18 08:43:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.84 Mbit/s

95th percentile per-packet one-way delay: 162.567 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 59.68 Mbit/s

95th percentile per-packet one-way delay: 162.499 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 49.21 Mbit/s

95th percentile per-packet one-way delay: 135.298 ms

Loss rate: 2.16%

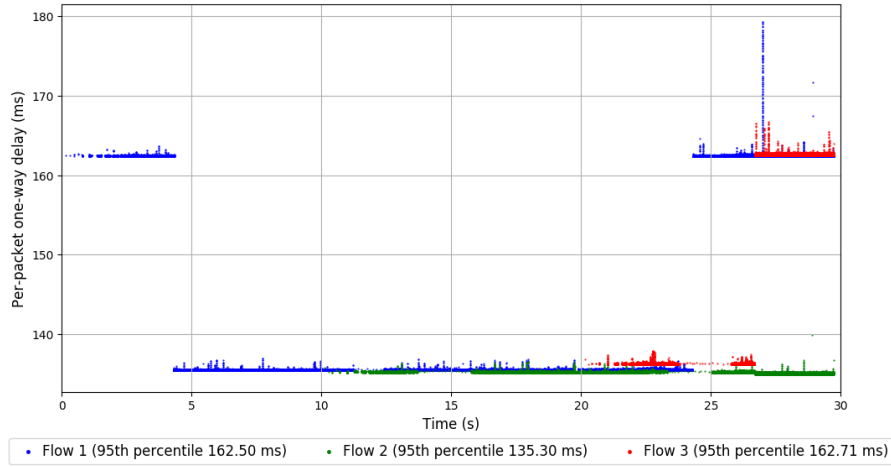
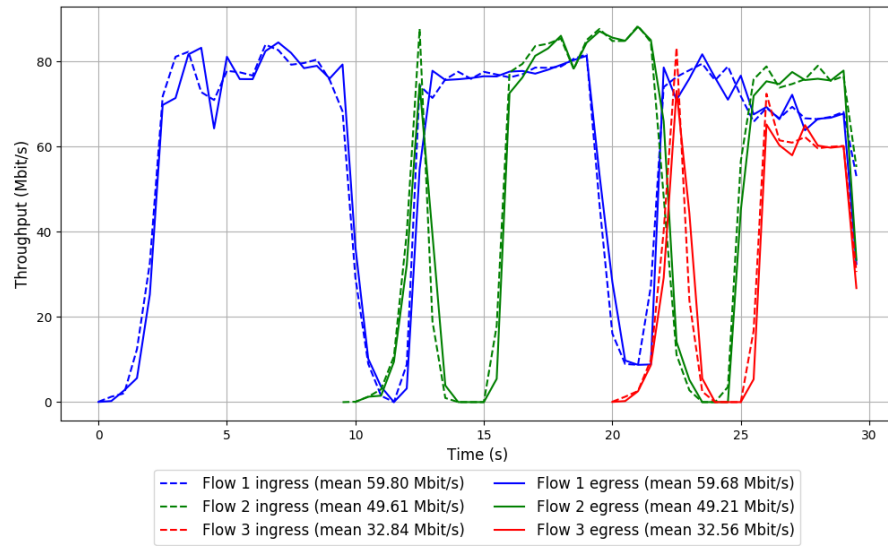
-- Flow 3:

Average throughput: 32.56 Mbit/s

95th percentile per-packet one-way delay: 162.705 ms

Loss rate: 3.60%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-18 03:05:23

End at: 2018-01-18 03:05:53

Below is generated by plot.py at 2018-01-18 08:43:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.22 Mbit/s

95th percentile per-packet one-way delay: 162.535 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 17.24 Mbit/s

95th percentile per-packet one-way delay: 160.901 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 62.04 Mbit/s

95th percentile per-packet one-way delay: 162.578 ms

Loss rate: 0.12%

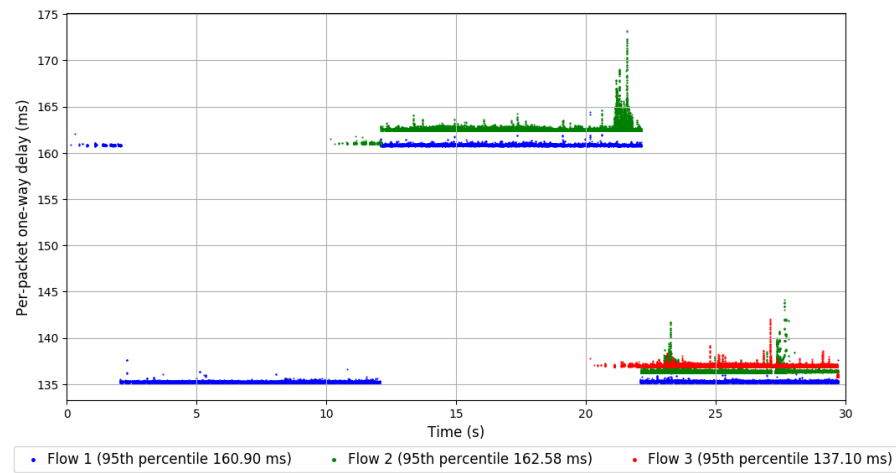
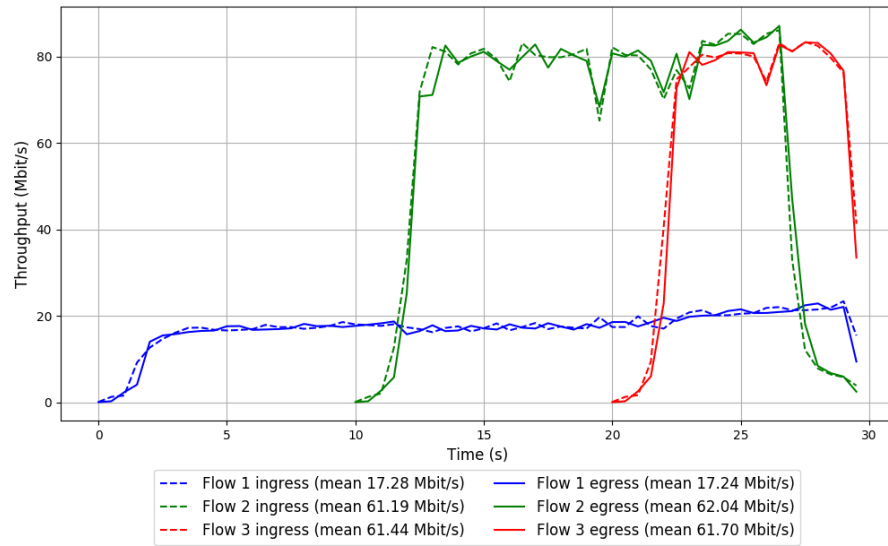
-- Flow 3:

Average throughput: 61.70 Mbit/s

95th percentile per-packet one-way delay: 137.103 ms

Loss rate: 2.37%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-18 03:24:35

End at: 2018-01-18 03:25:05

Below is generated by plot.py at 2018-01-18 08:44:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.81 Mbit/s

95th percentile per-packet one-way delay: 162.083 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 62.46 Mbit/s

95th percentile per-packet one-way delay: 162.103 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 33.62 Mbit/s

95th percentile per-packet one-way delay: 136.414 ms

Loss rate: 2.41%

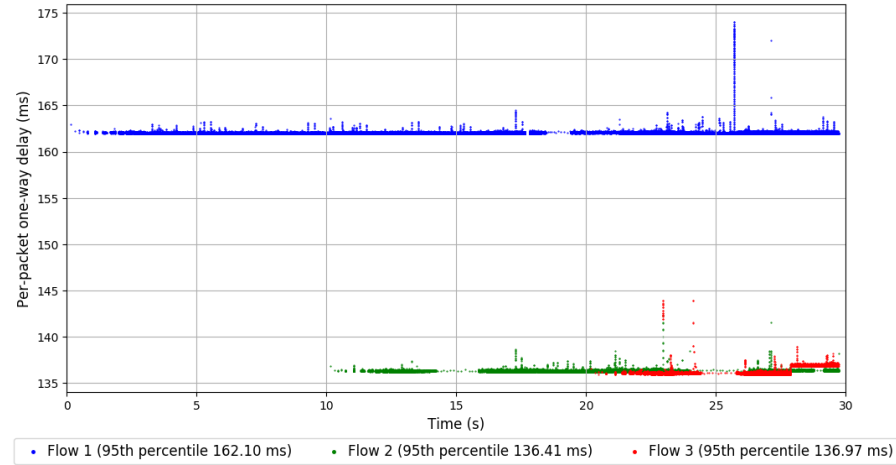
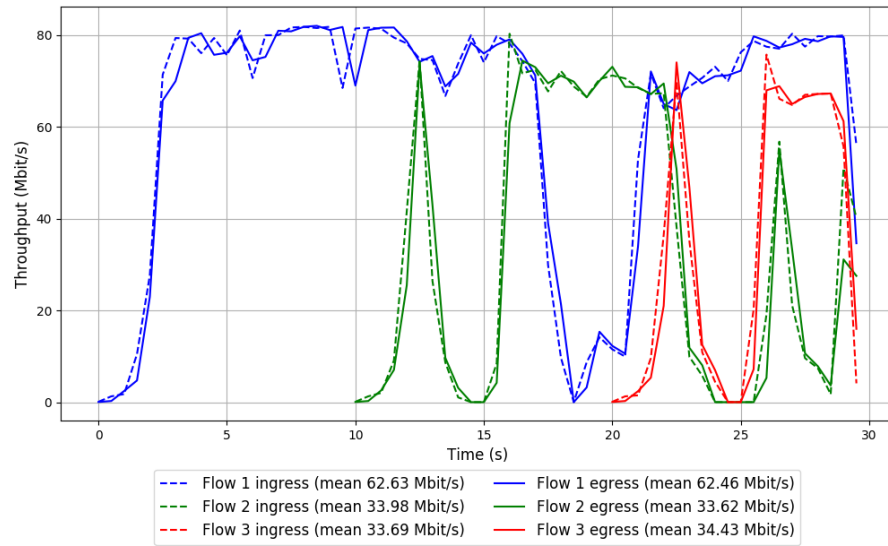
-- Flow 3:

Average throughput: 34.43 Mbit/s

95th percentile per-packet one-way delay: 136.971 ms

Loss rate: 0.15%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-18 03:44:29

End at: 2018-01-18 03:44:59

Below is generated by plot.py at 2018-01-18 08:44:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.12 Mbit/s

95th percentile per-packet one-way delay: 158.112 ms

Loss rate: 2.13%

-- Flow 1:

Average throughput: 65.98 Mbit/s

95th percentile per-packet one-way delay: 158.085 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 36.50 Mbit/s

95th percentile per-packet one-way delay: 158.785 ms

Loss rate: 2.54%

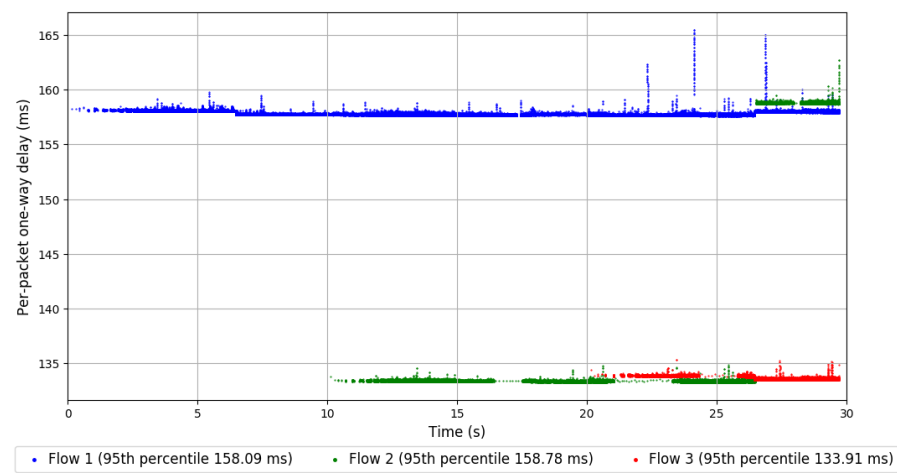
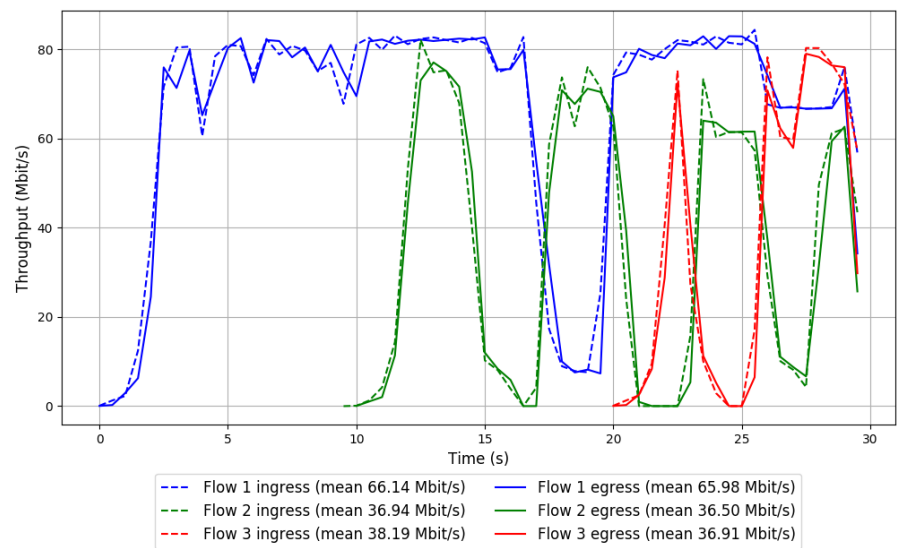
-- Flow 3:

Average throughput: 36.91 Mbit/s

95th percentile per-packet one-way delay: 133.907 ms

Loss rate: 6.03%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-18 04:03:55

End at: 2018-01-18 04:04:25

Below is generated by plot.py at 2018-01-18 08:44:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.03 Mbit/s

95th percentile per-packet one-way delay: 154.056 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 47.45 Mbit/s

95th percentile per-packet one-way delay: 129.088 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 58.09 Mbit/s

95th percentile per-packet one-way delay: 129.346 ms

Loss rate: 1.79%

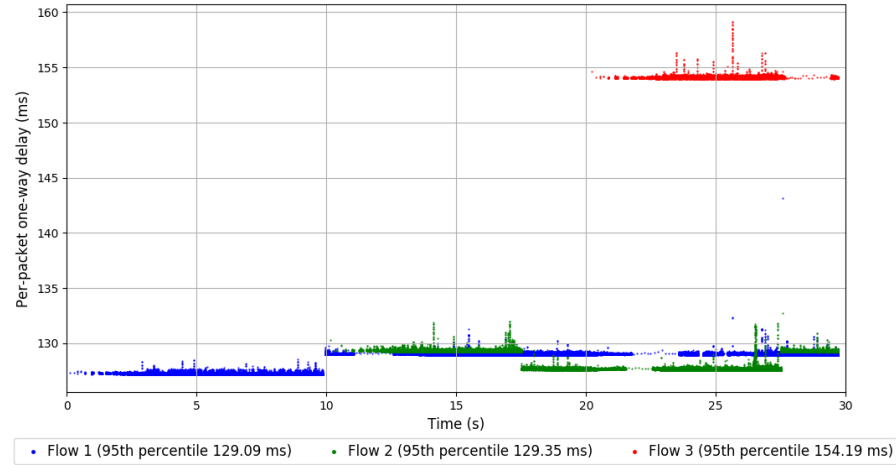
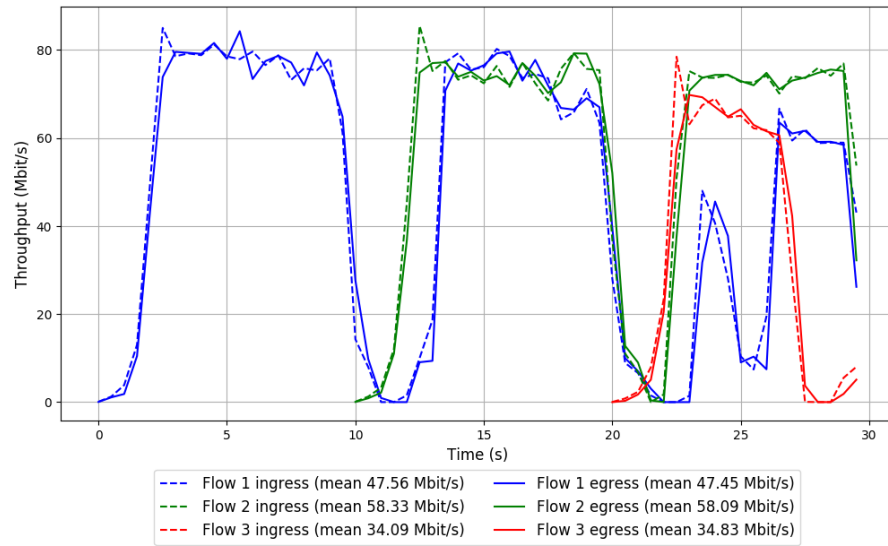
-- Flow 3:

Average throughput: 34.83 Mbit/s

95th percentile per-packet one-way delay: 154.195 ms

Loss rate: 0.99%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-18 04:24:08

End at: 2018-01-18 04:24:38

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.98 Mbit/s

95th percentile per-packet one-way delay: 152.023 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 57.23 Mbit/s

95th percentile per-packet one-way delay: 124.669 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 61.43 Mbit/s

95th percentile per-packet one-way delay: 152.079 ms

Loss rate: 0.33%

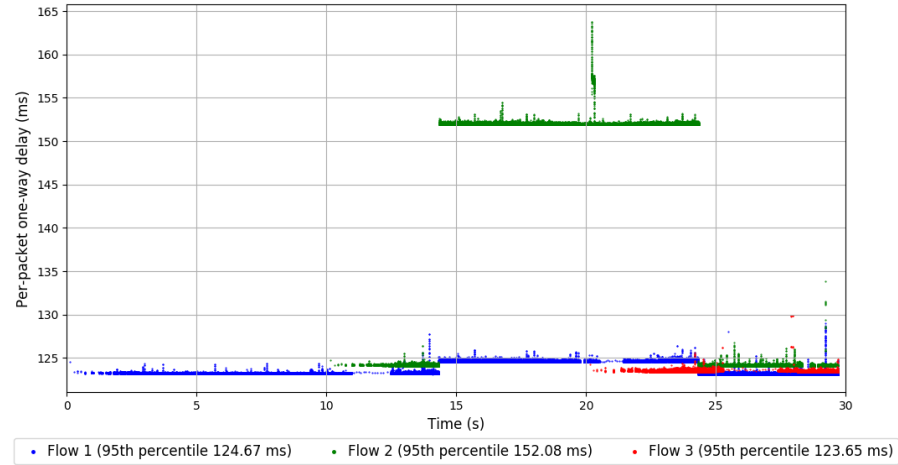
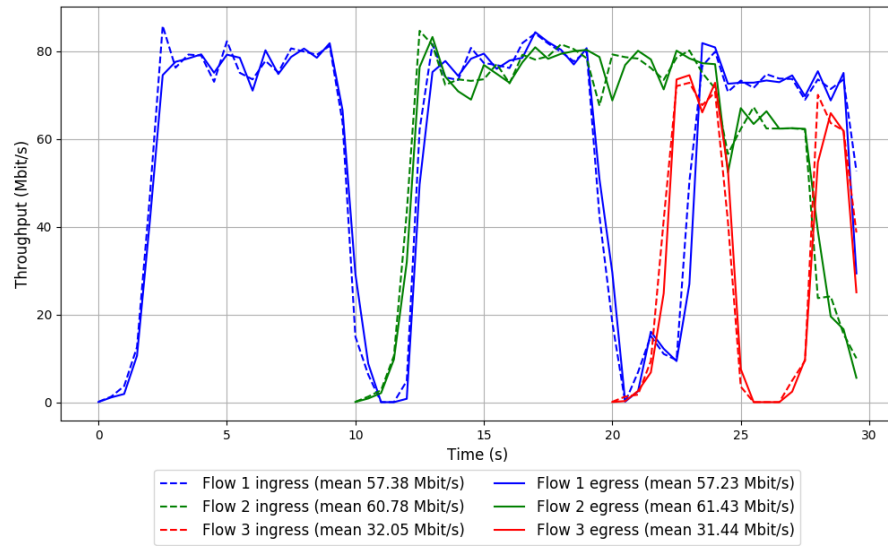
-- Flow 3:

Average throughput: 31.44 Mbit/s

95th percentile per-packet one-way delay: 123.647 ms

Loss rate: 4.63%

Run 9: Report of QUIC Cubic — Data Link

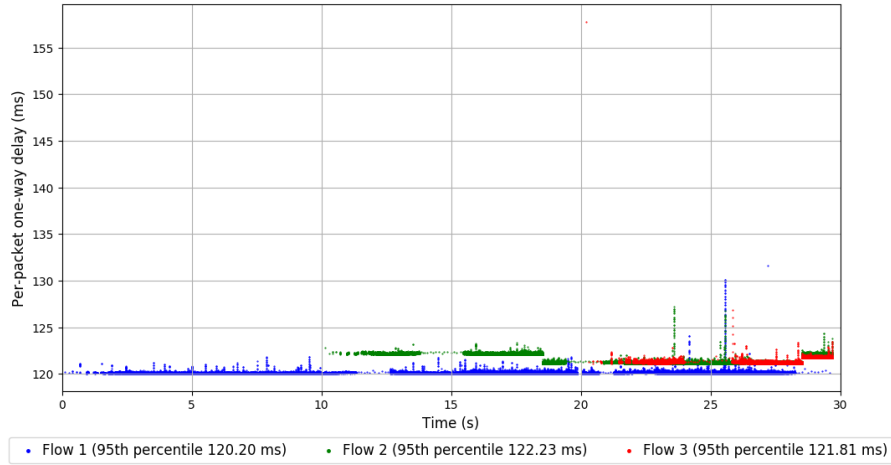
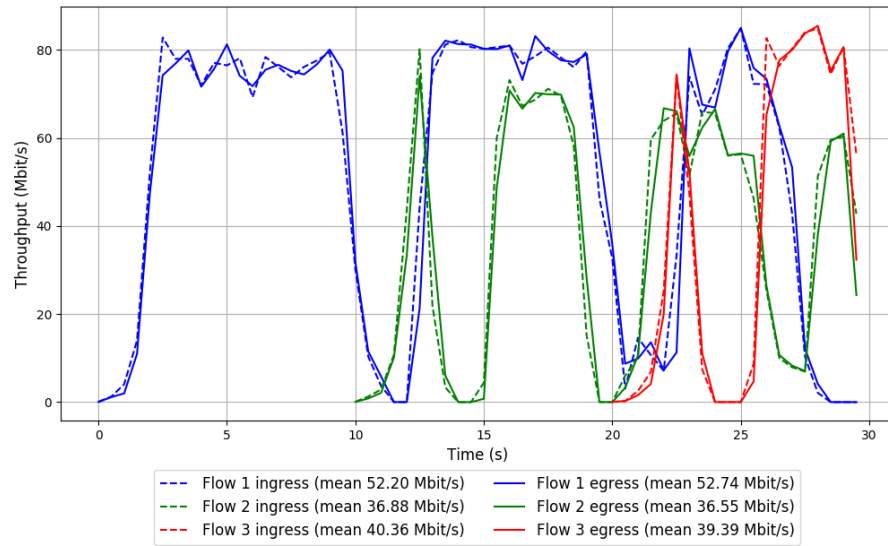


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-01-18 04:43:57
End at: 2018-01-18 04:44:27

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.38 Mbit/s
95th percentile per-packet one-way delay: 122.155 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 52.74 Mbit/s
95th percentile per-packet one-way delay: 120.200 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 122.229 ms
Loss rate: 2.26%
-- Flow 3:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 121.812 ms
Loss rate: 5.46%
```

Run 10: Report of QUIC Cubic — Data Link

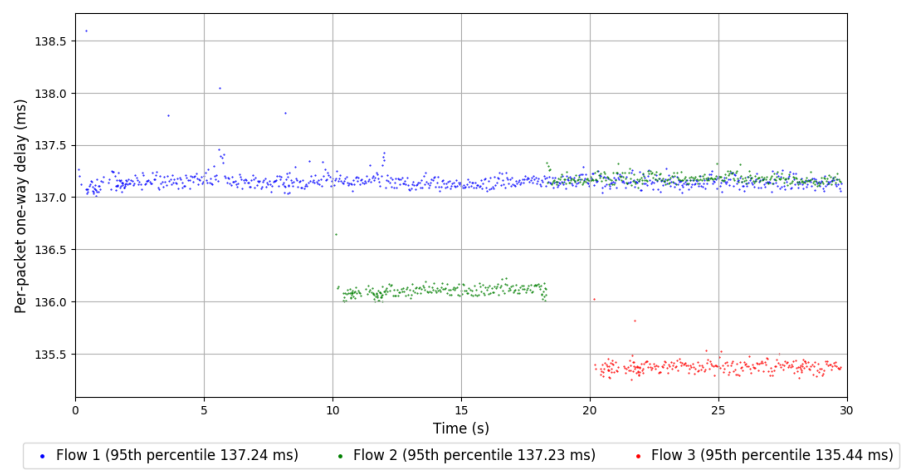
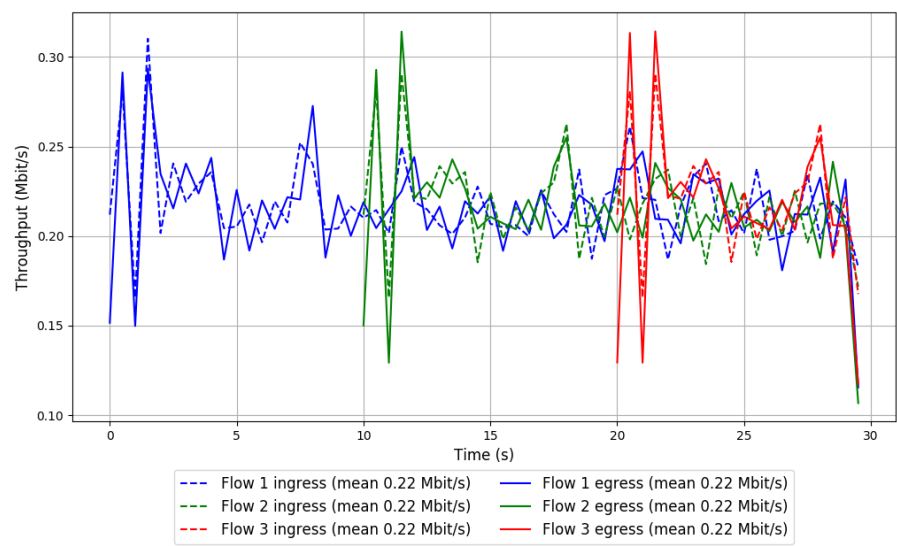


```
Run 1: Statistics of SCReAM

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

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 137.231 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.236 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.233 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.440 ms
Loss rate: 2.63%
```

Run 1: Report of SReAM — Data Link

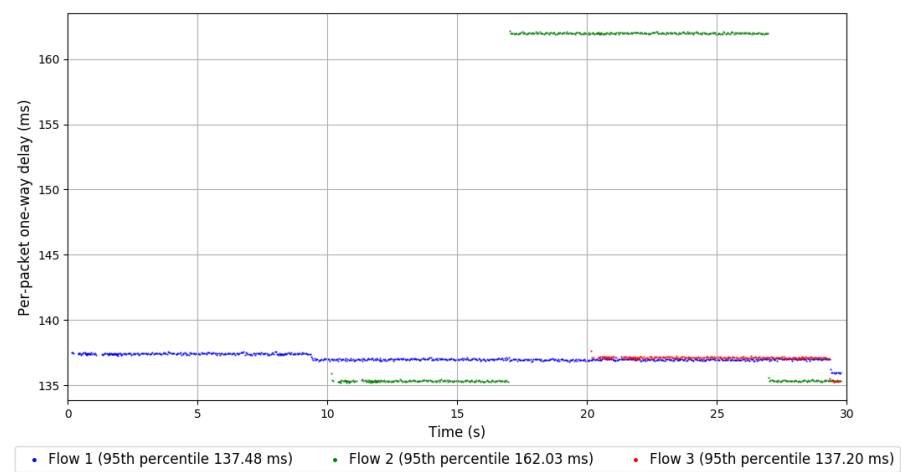
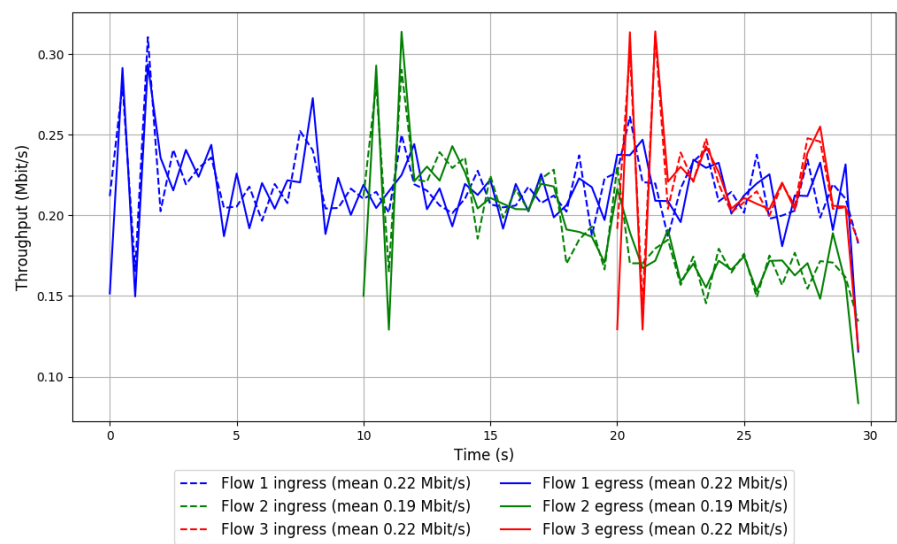


```
Run 2: Statistics of SReAM

Start at: 2018-01-18 02:09:26
End at: 2018-01-18 02:09:56

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 162.002 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.479 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 162.032 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.198 ms
Loss rate: 2.63%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-01-18 02:27:47

End at: 2018-01-18 02:28:17

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 162.595 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 160.862 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 162.626 ms

Loss rate: 1.27%

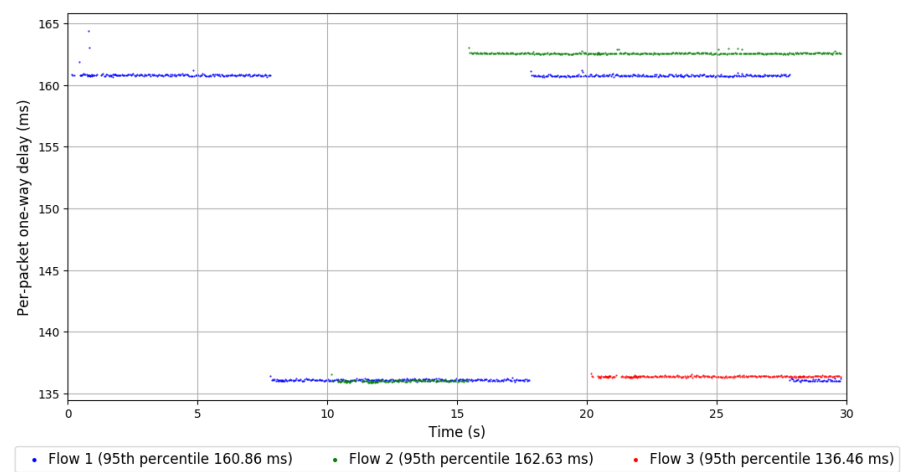
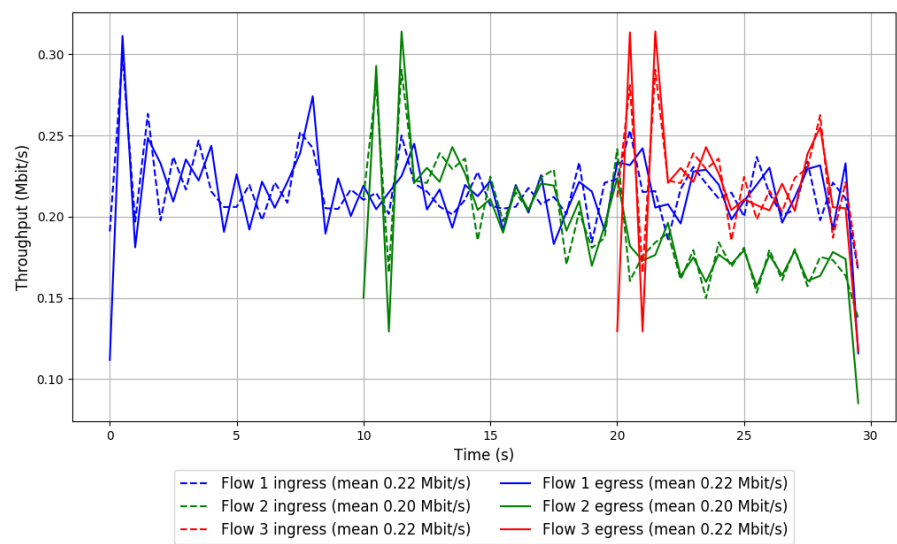
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.456 ms

Loss rate: 2.63%

Run 3: Report of SReAM — Data Link

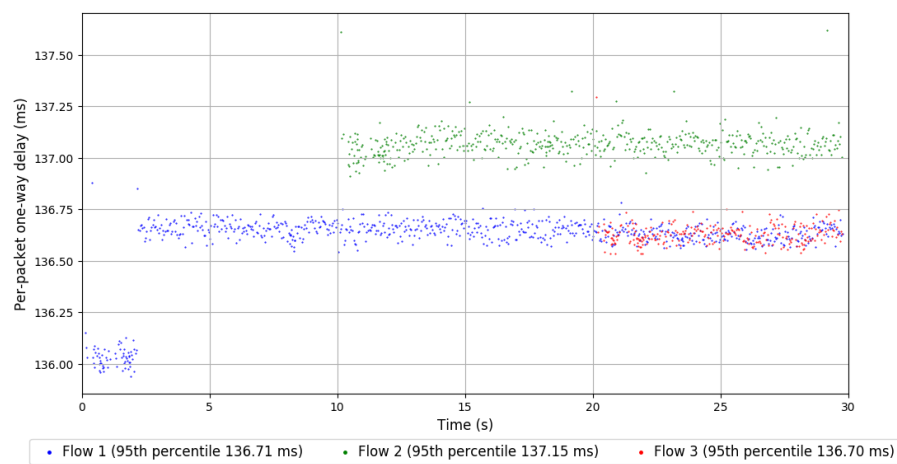
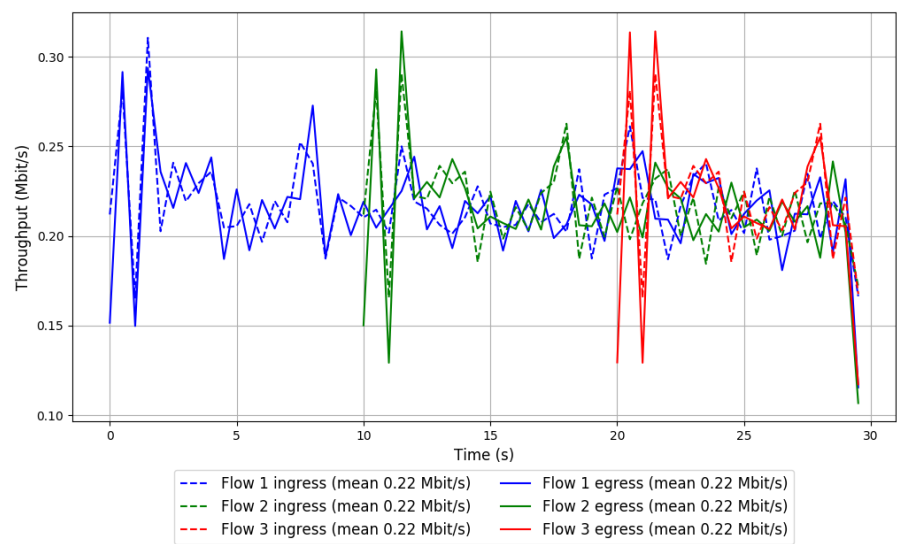


```
Run 4: Statistics of SReAM

Start at: 2018-01-18 02:47:23
End at: 2018-01-18 02:47:53

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 137.116 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.714 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.150 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.699 ms
Loss rate: 2.63%
```

Run 4: Report of SReAM — Data Link

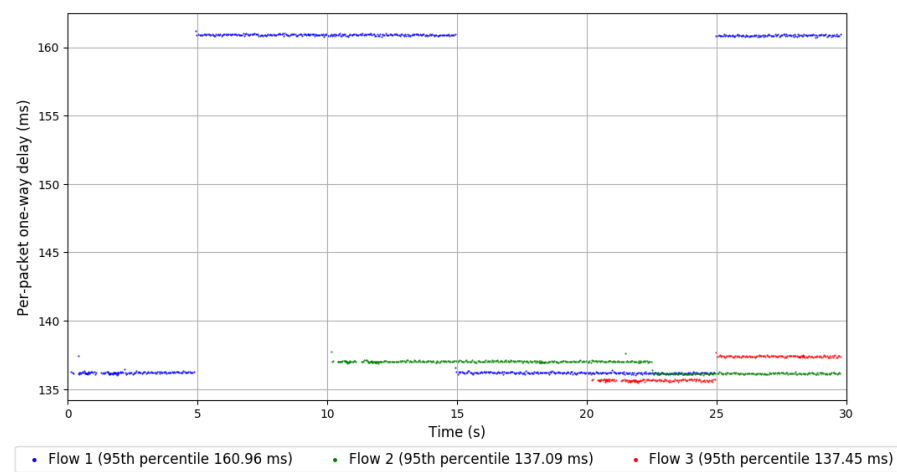
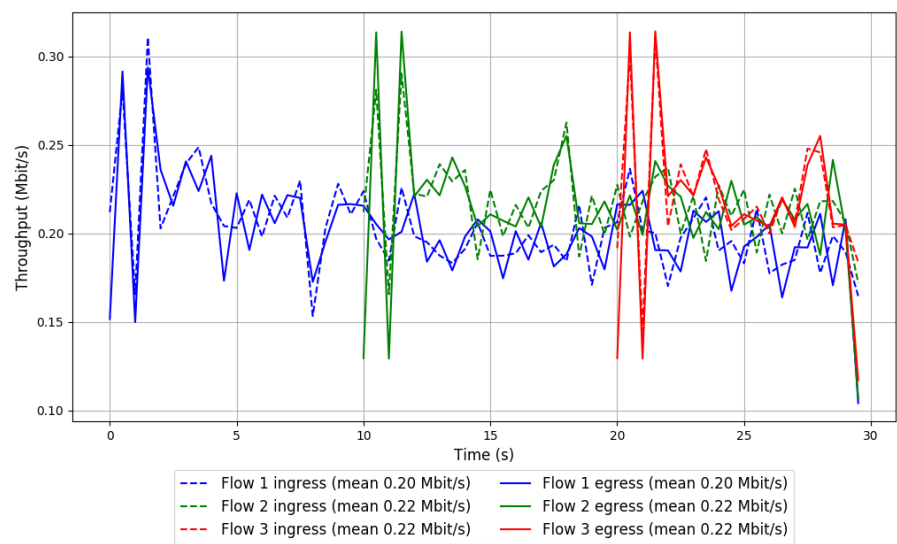


```
Run 5: Statistics of SReAM

Start at: 2018-01-18 03:07:20
End at: 2018-01-18 03:07:50

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 160.941 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 160.959 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.088 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.450 ms
Loss rate: 2.63%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-01-18 03:26:41

End at: 2018-01-18 03:27:11

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 162.612 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.706 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 162.653 ms

Loss rate: 1.44%

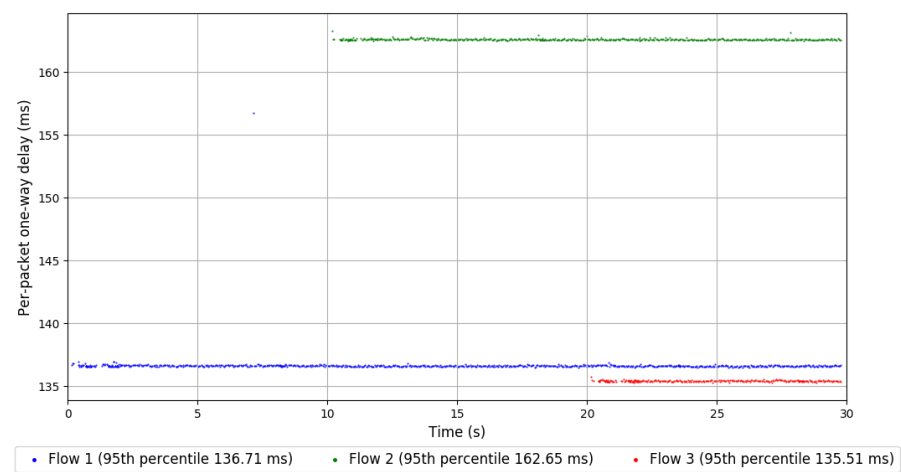
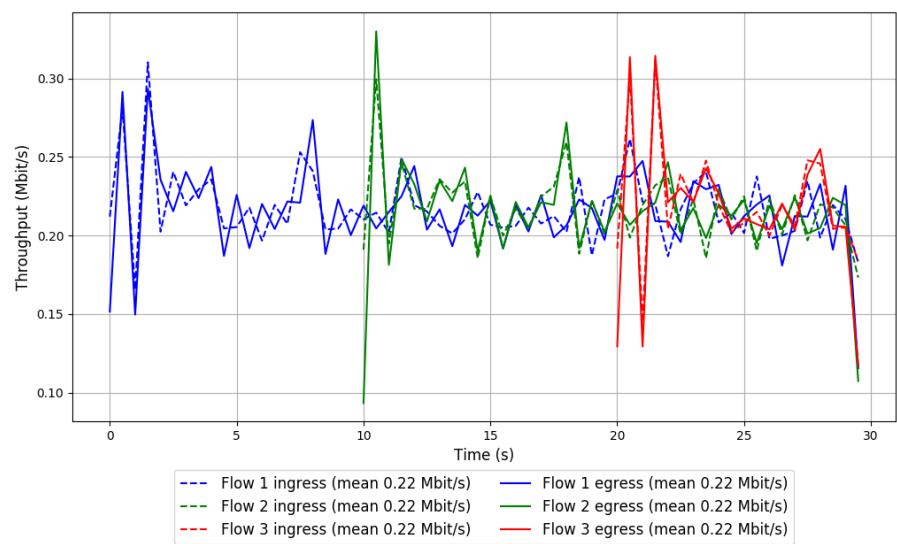
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.508 ms

Loss rate: 2.63%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2018-01-18 03:46:18

End at: 2018-01-18 03:46:48

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 161.016 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 158.992 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 133.774 ms

Loss rate: 1.42%

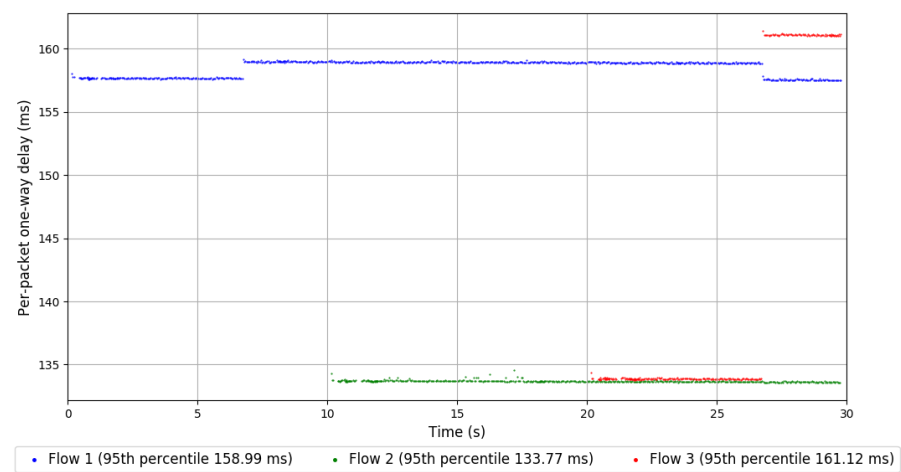
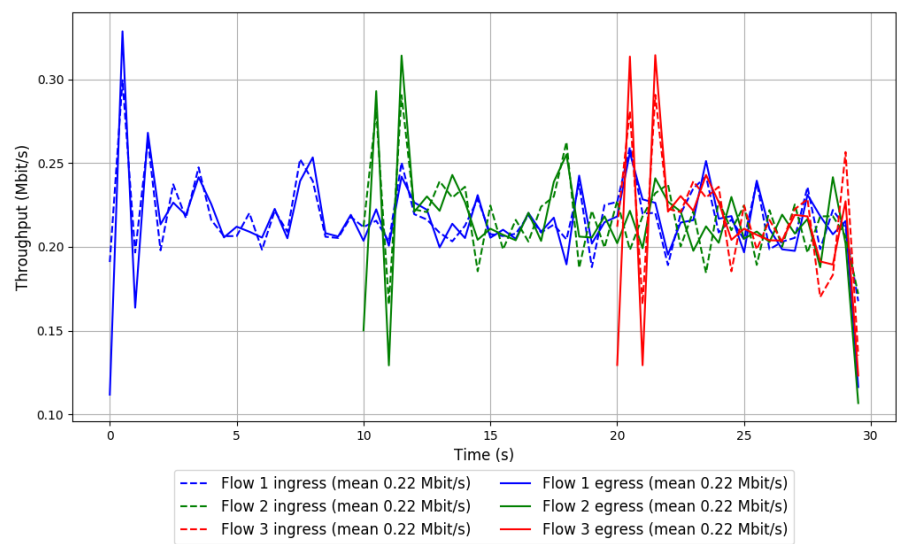
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 161.118 ms

Loss rate: 2.17%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2018-01-18 04:06:07

End at: 2018-01-18 04:06:37

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 129.028 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 129.046 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 128.662 ms

Loss rate: 1.42%

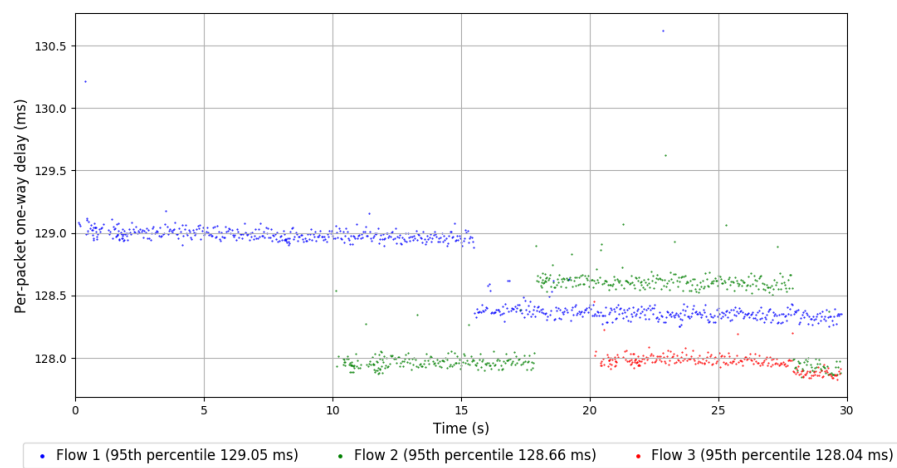
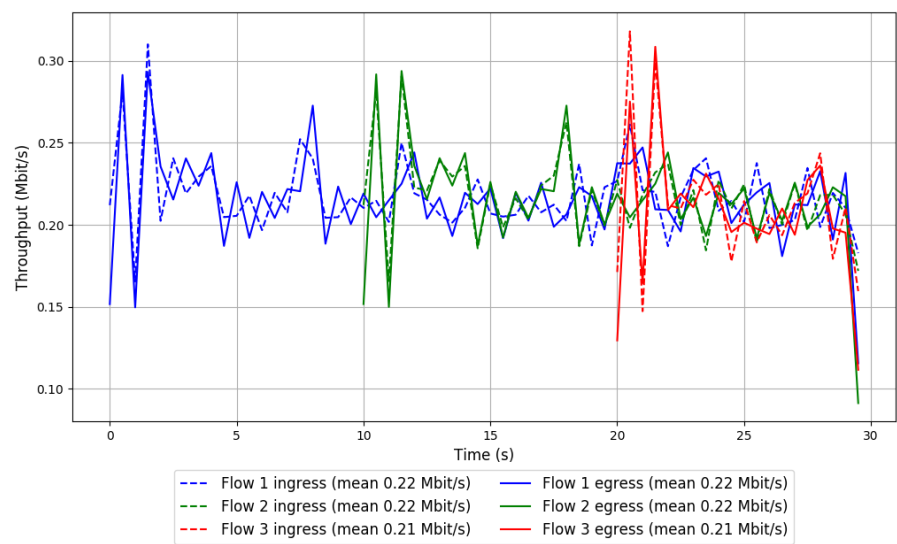
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 128.042 ms

Loss rate: 2.61%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-01-18 04:26:27

End at: 2018-01-18 04:26:57

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 151.486 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 124.167 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 124.561 ms

Loss rate: 1.24%

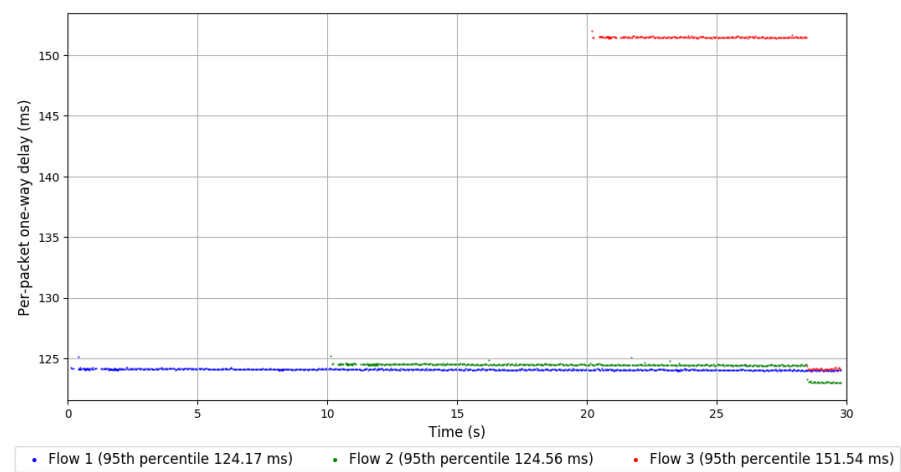
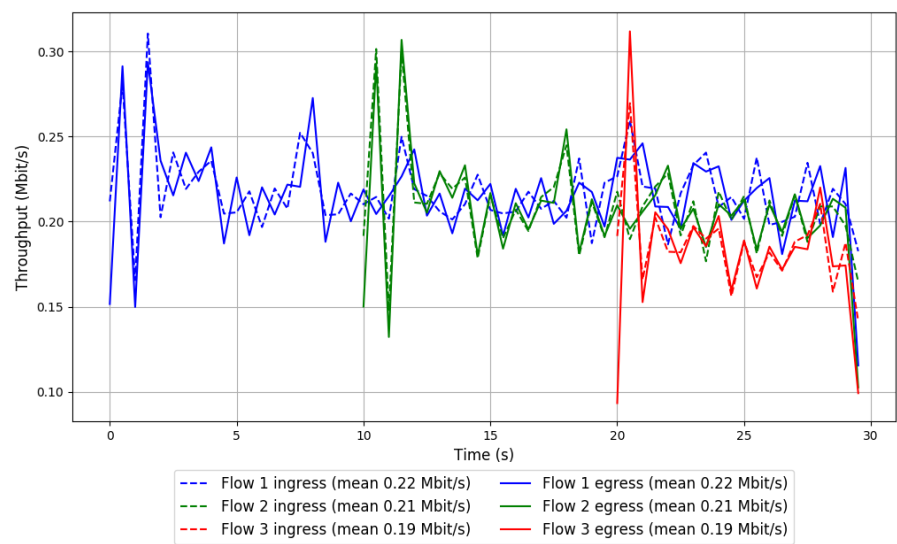
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 151.540 ms

Loss rate: 2.64%

Run 9: Report of SCReAM — Data Link

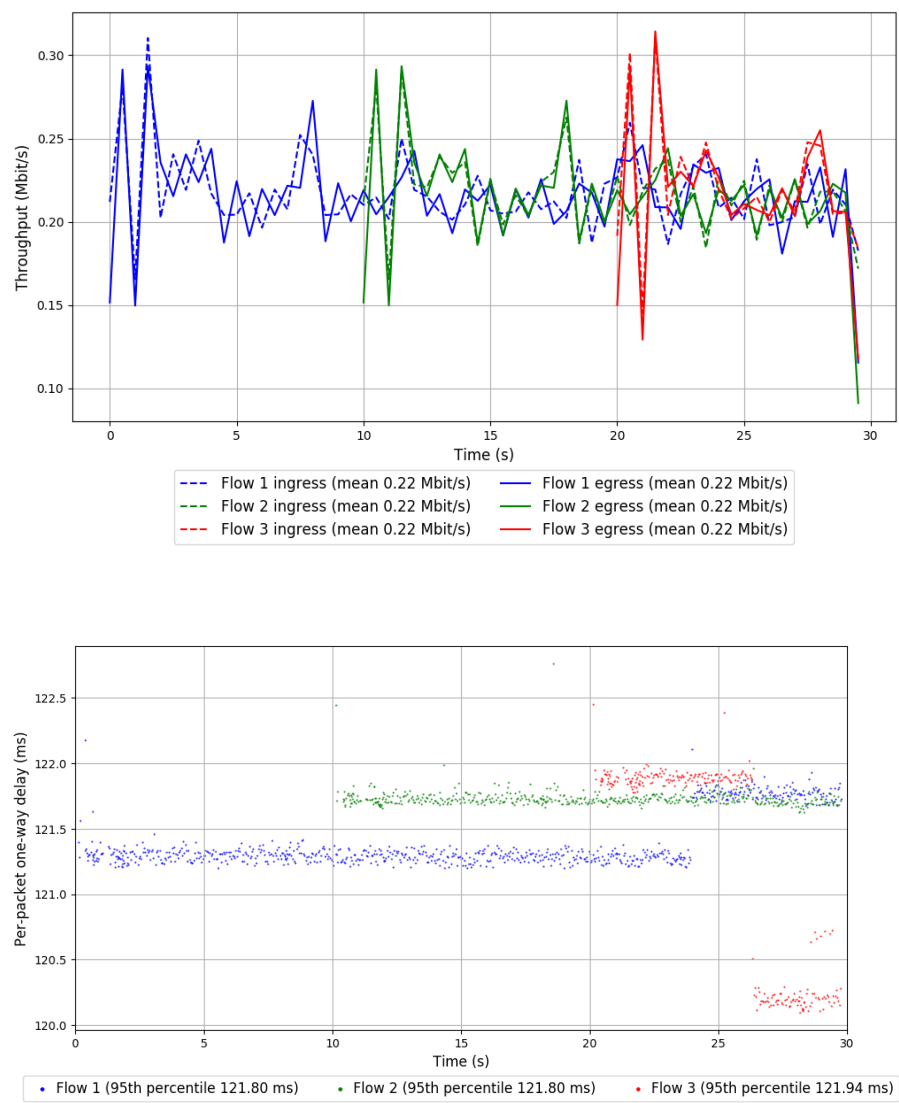


```
Run 10: Statistics of SReAM

Start at: 2018-01-18 04:46:09
End at: 2018-01-18 04:46:39

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 121.899 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 121.797 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 121.802 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 121.944 ms
Loss rate: 2.63%
```

Run 10: Report of SCRaM — Data Link

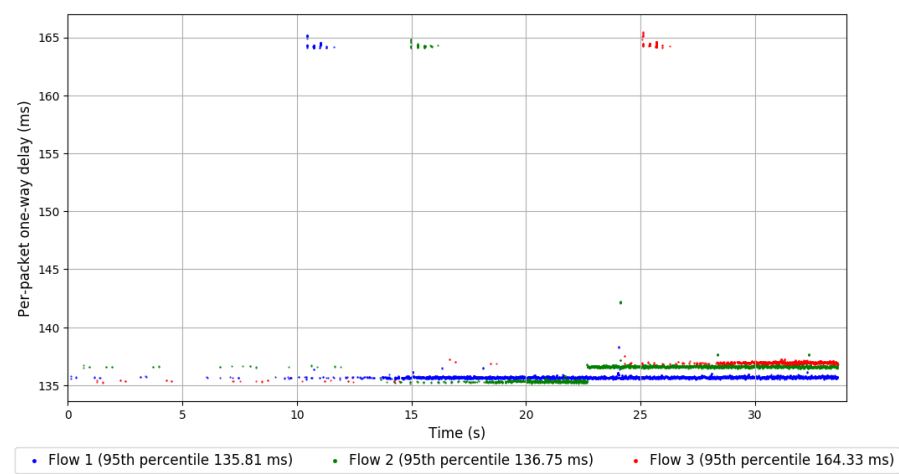
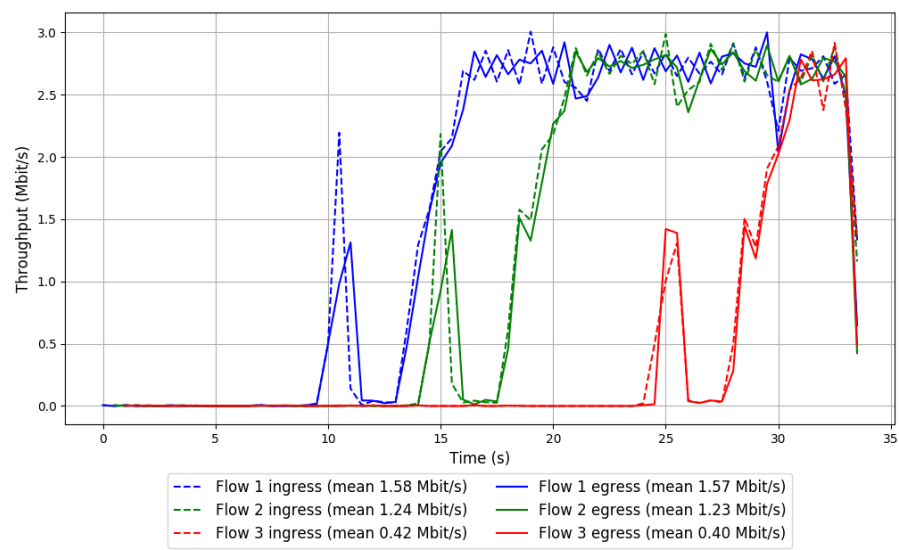


```
Run 1: Statistics of WebRTC media

Start at: 2018-01-18 01:58:14
End at: 2018-01-18 01:58:44

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 137.023 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 135.814 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 136.754 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 164.329 ms
Loss rate: 4.93%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-01-18 02:16:17

End at: 2018-01-18 02:16:47

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 136.956 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 136.496 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 137.010 ms

Loss rate: 1.88%

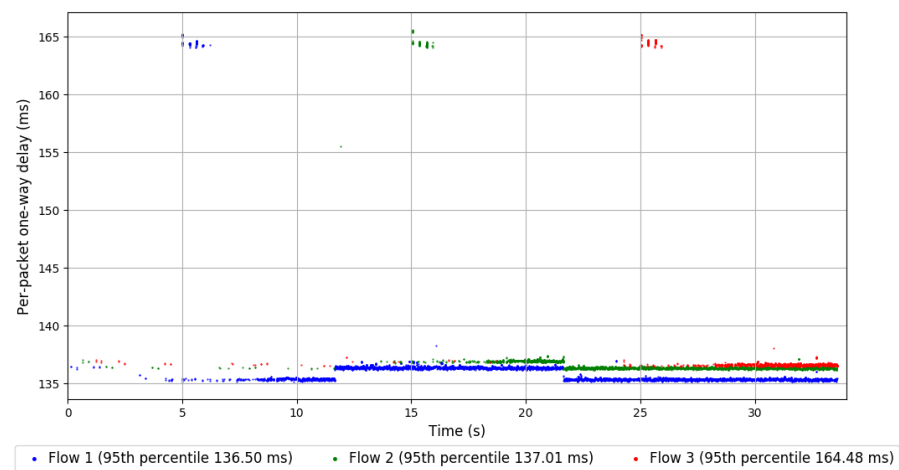
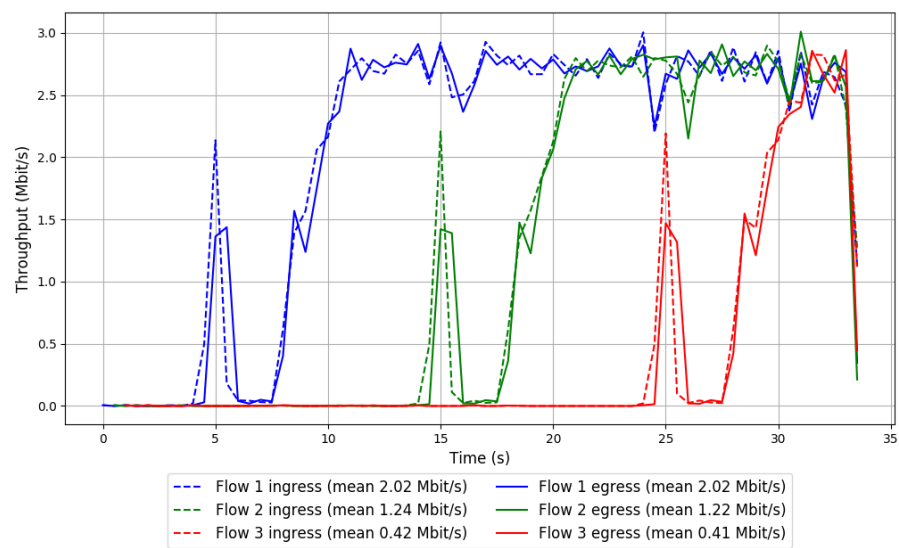
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 164.480 ms

Loss rate: 5.05%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-18 02:34:48

End at: 2018-01-18 02:35:18

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 162.774 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 162.899 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 136.140 ms

Loss rate: 1.84%

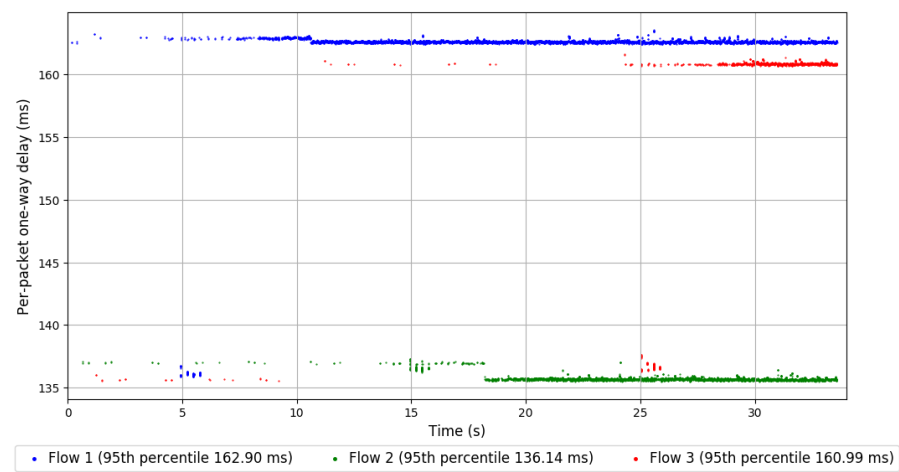
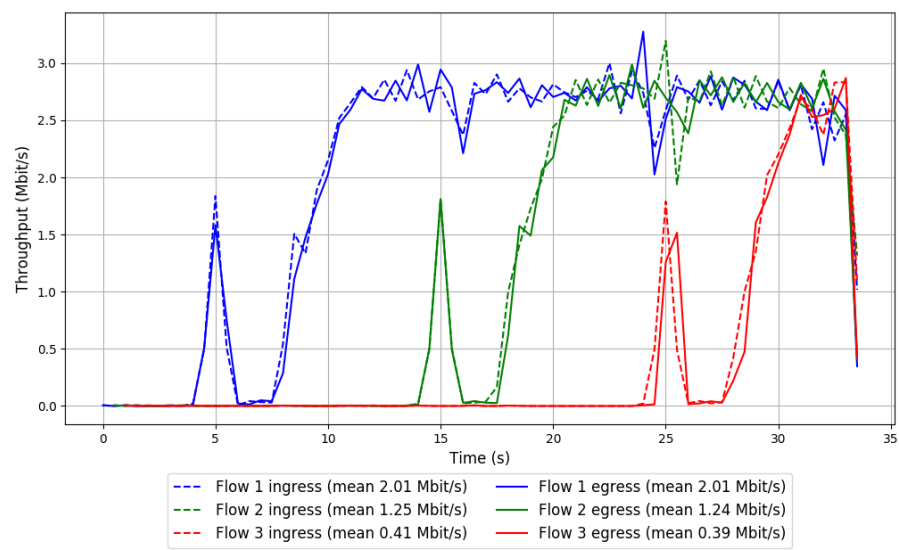
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 160.985 ms

Loss rate: 5.72%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-18 02:55:09

End at: 2018-01-18 02:55:39

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.64 Mbit/s

95th percentile per-packet one-way delay: 137.095 ms

Loss rate: 1.73%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 137.119 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 136.993 ms

Loss rate: 2.00%

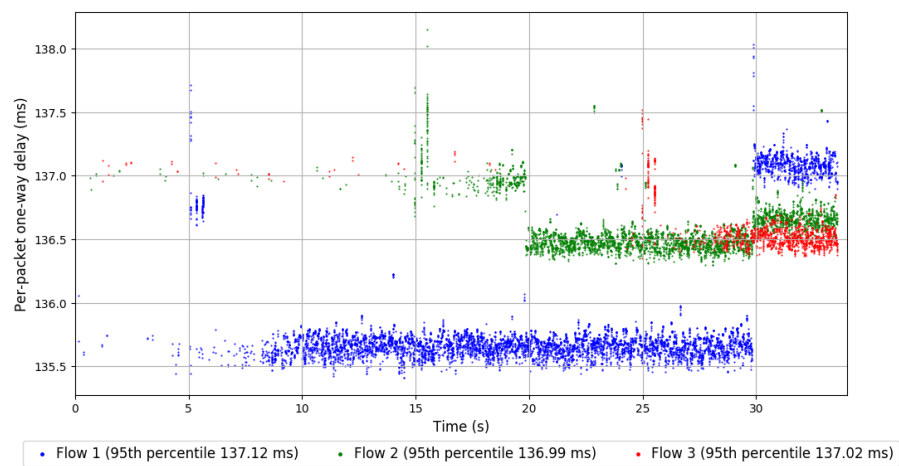
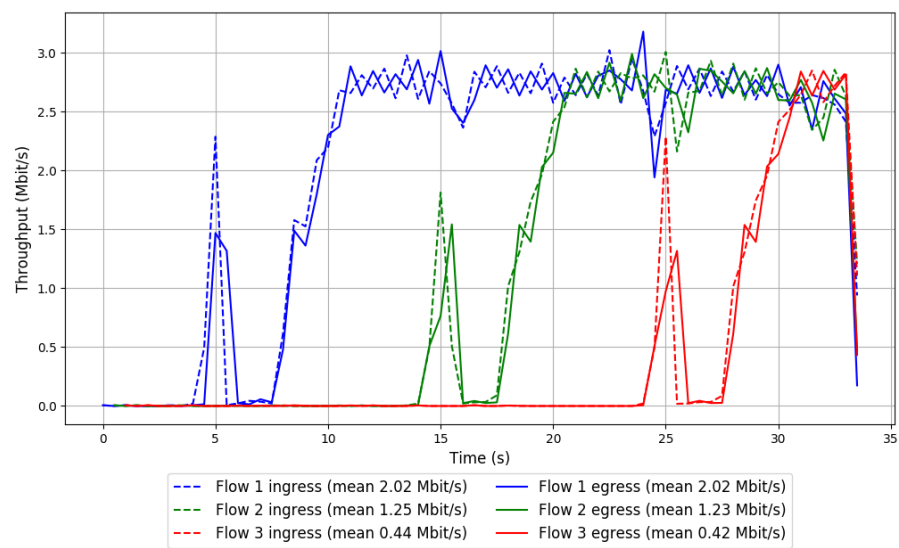
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 137.018 ms

Loss rate: 4.60%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-18 03:14:35

End at: 2018-01-18 03:15:05

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.62 Mbit/s

95th percentile per-packet one-way delay: 161.292 ms

Loss rate: 1.78%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 137.175 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 161.361 ms

Loss rate: 1.97%

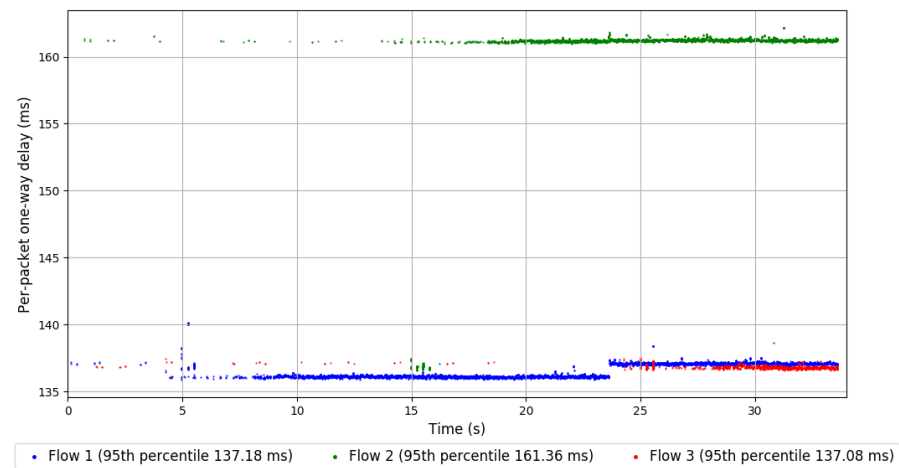
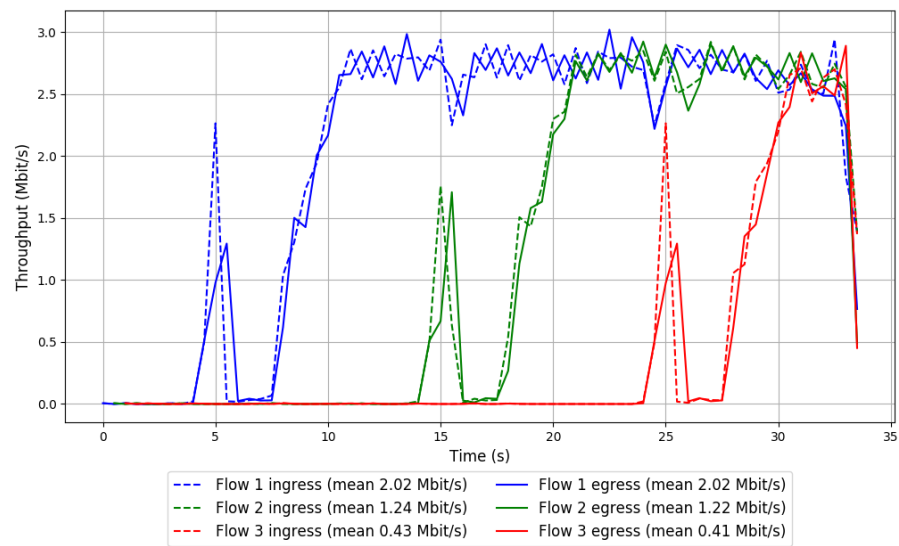
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.077 ms

Loss rate: 4.89%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-18 03:34:22

End at: 2018-01-18 03:34:52

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 163.855 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 136.050 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 161.900 ms

Loss rate: 1.81%

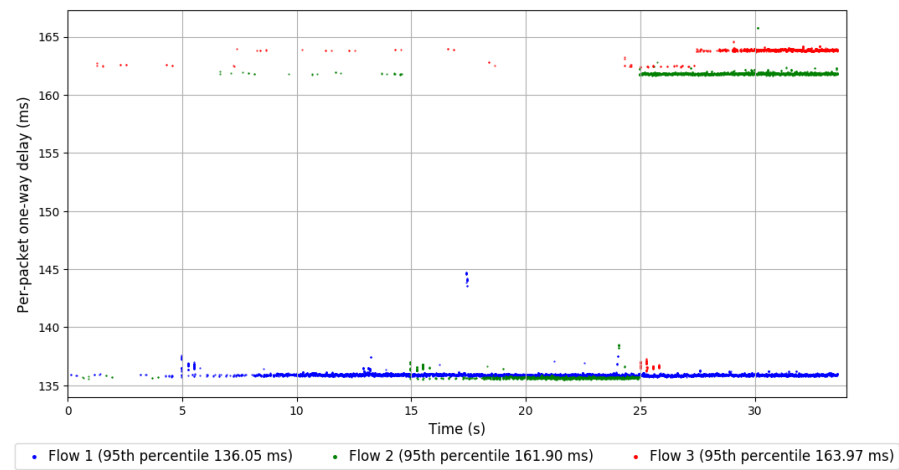
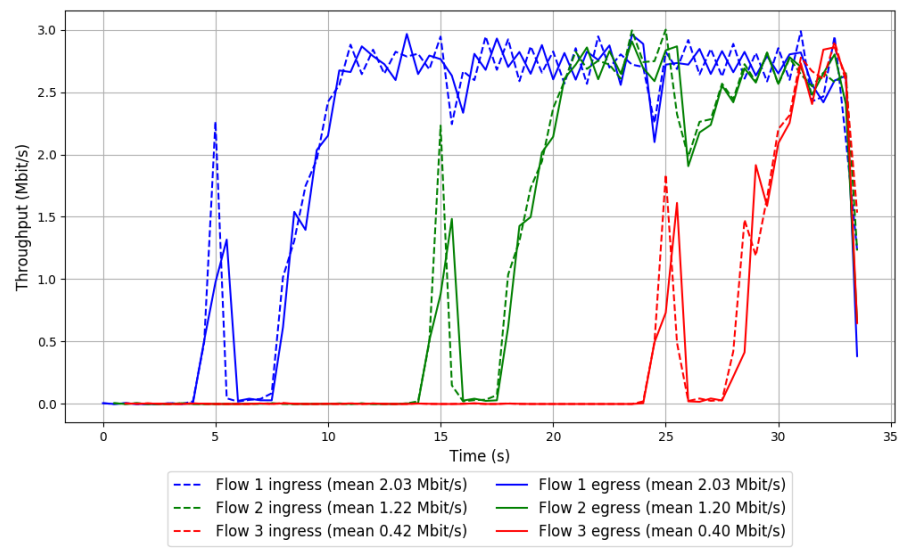
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 163.966 ms

Loss rate: 6.41%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-18 03:53:29

End at: 2018-01-18 03:53:59

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 158.968 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 131.028 ms

Loss rate: 1.18%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 159.089 ms

Loss rate: 1.41%

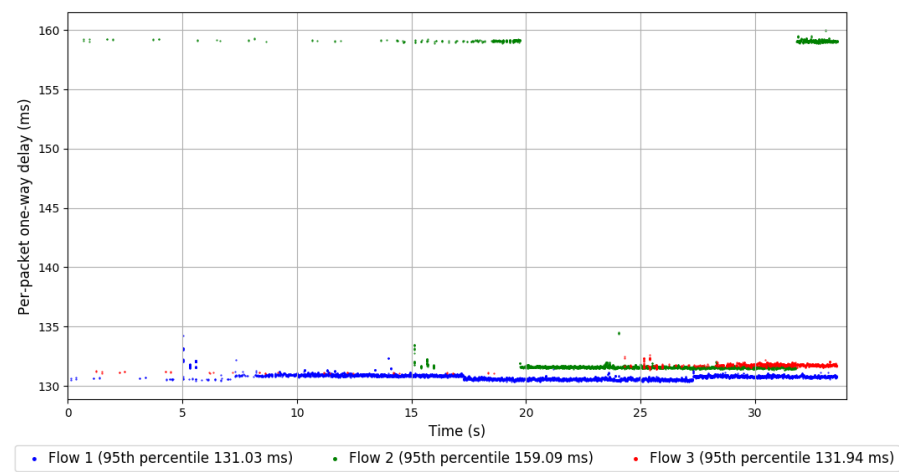
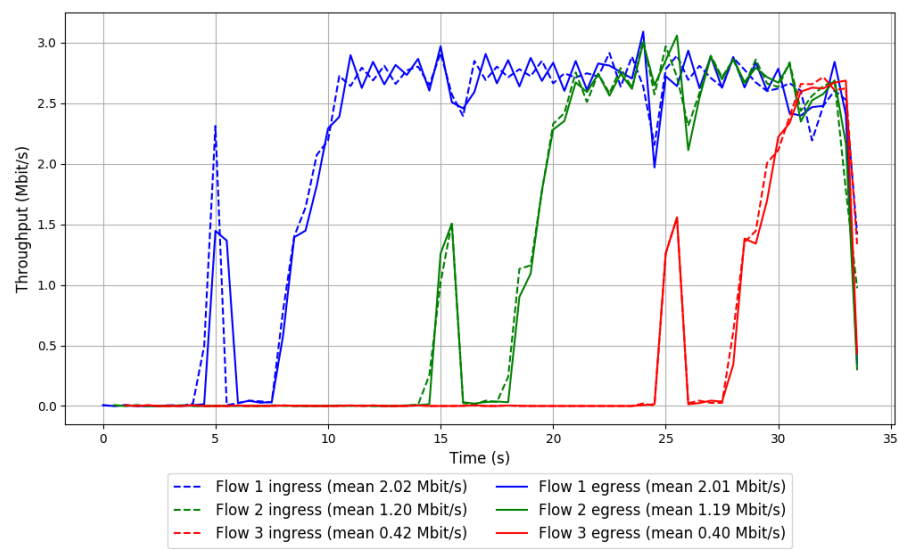
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 131.943 ms

Loss rate: 5.69%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-18 04:13:40

End at: 2018-01-18 04:14:10

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.63 Mbit/s

95th percentile per-packet one-way delay: 127.566 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 127.593 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 126.837 ms

Loss rate: 1.68%

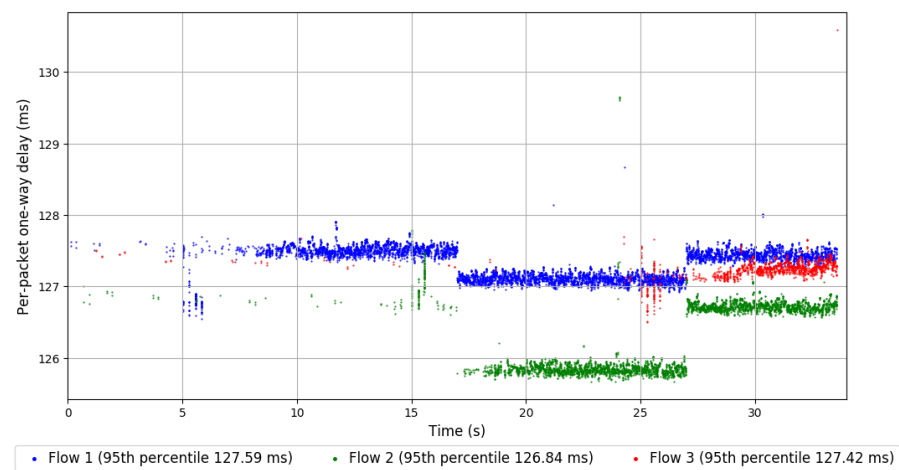
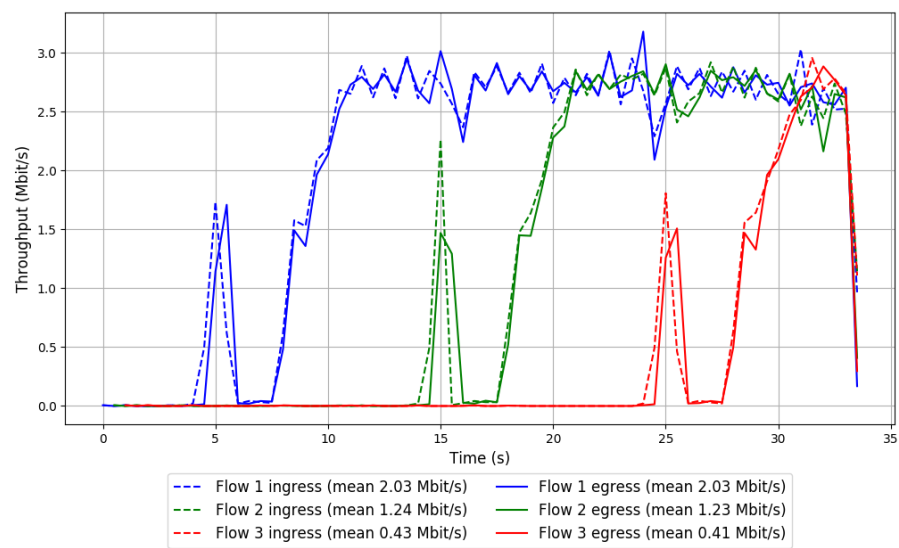
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 127.417 ms

Loss rate: 5.46%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-18 04:33:55

End at: 2018-01-18 04:34:25

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.64 Mbit/s

95th percentile per-packet one-way delay: 122.799 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 122.821 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 121.903 ms

Loss rate: 1.70%

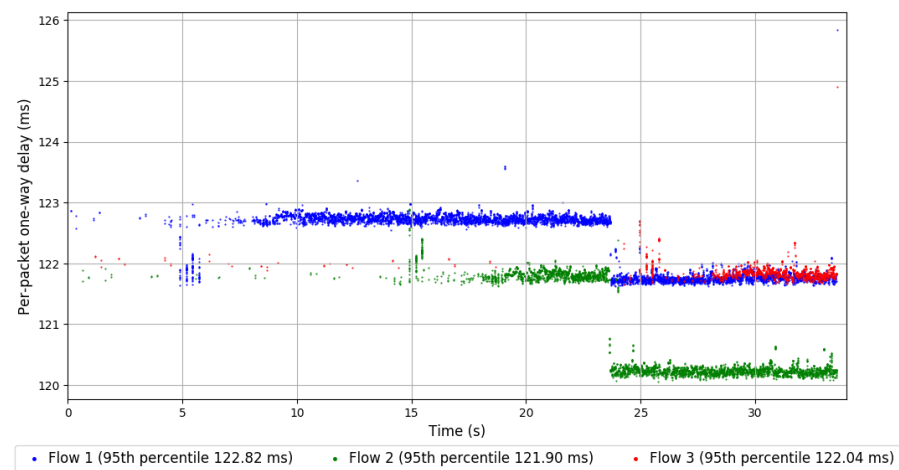
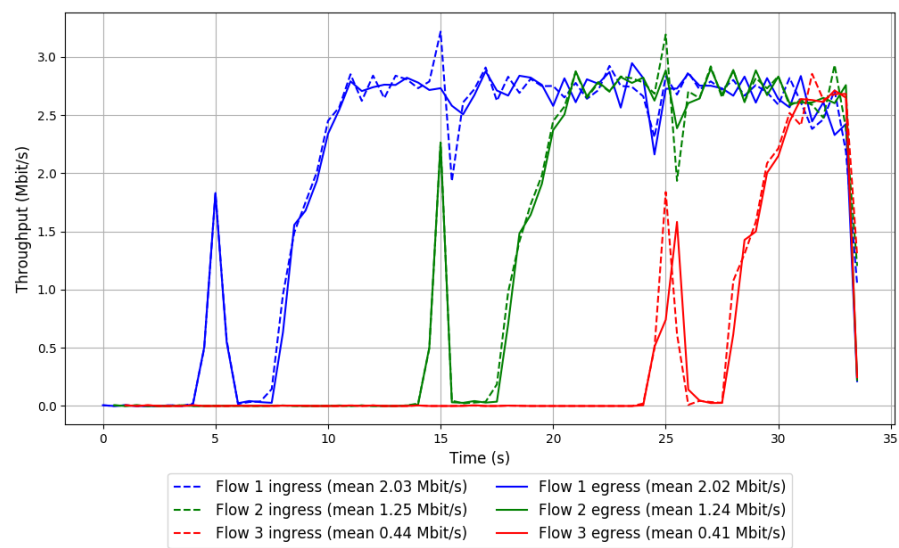
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 122.038 ms

Loss rate: 6.03%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-18 04:53:41

End at: 2018-01-18 04:54:11

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.62 Mbit/s

95th percentile per-packet one-way delay: 122.189 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 121.726 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 122.232 ms

Loss rate: 1.65%

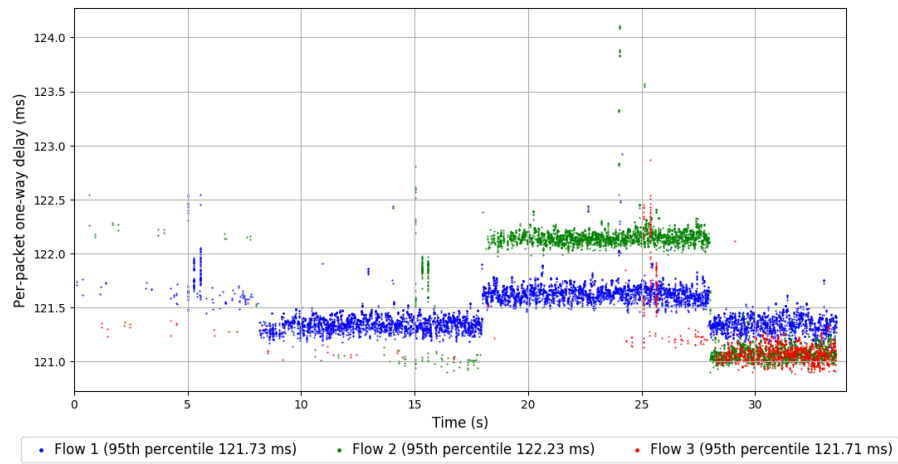
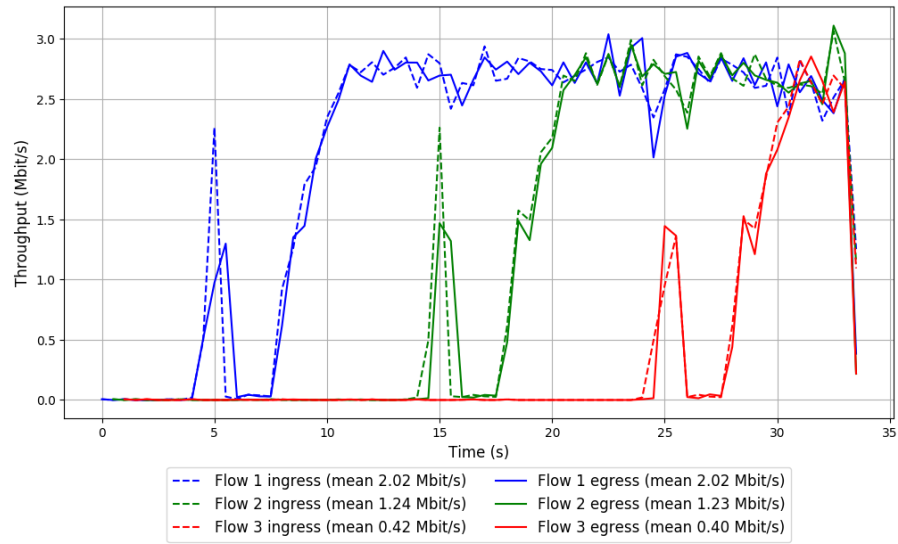
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 121.710 ms

Loss rate: 5.58%

Run 10: Report of WebRTC media — Data Link

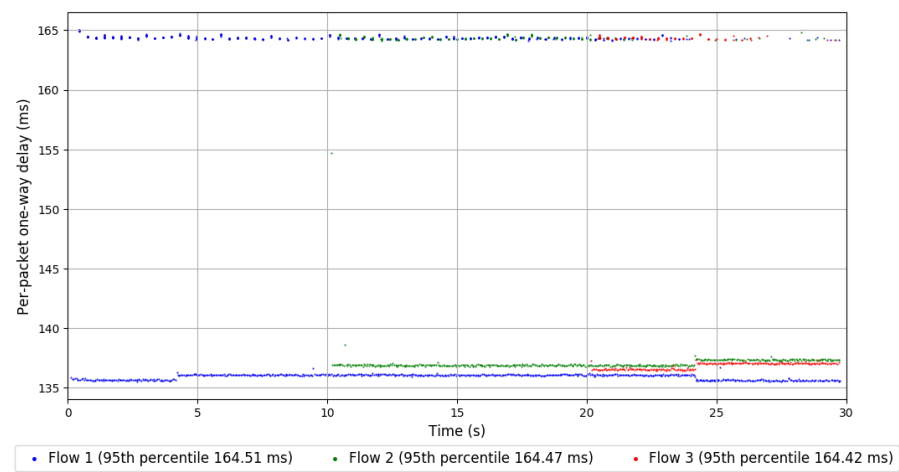
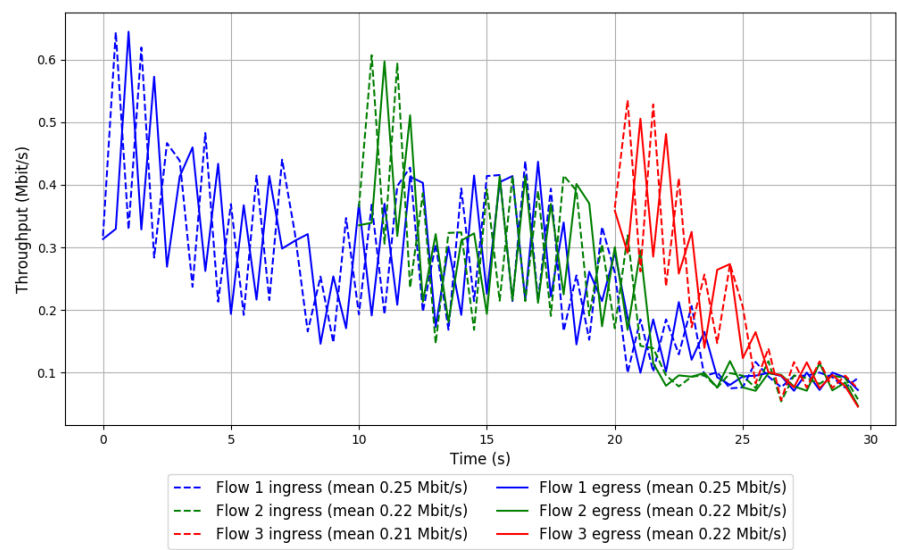


```
Run 1: Statistics of Sprout

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

# Below is generated by plot.py at 2018-01-18 08:44:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 164.483 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 164.510 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 164.475 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 164.421 ms
Loss rate: 1.68%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-18 02:20:02

End at: 2018-01-18 02:20:32

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 164.428 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 164.376 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 164.408 ms

Loss rate: 0.91%

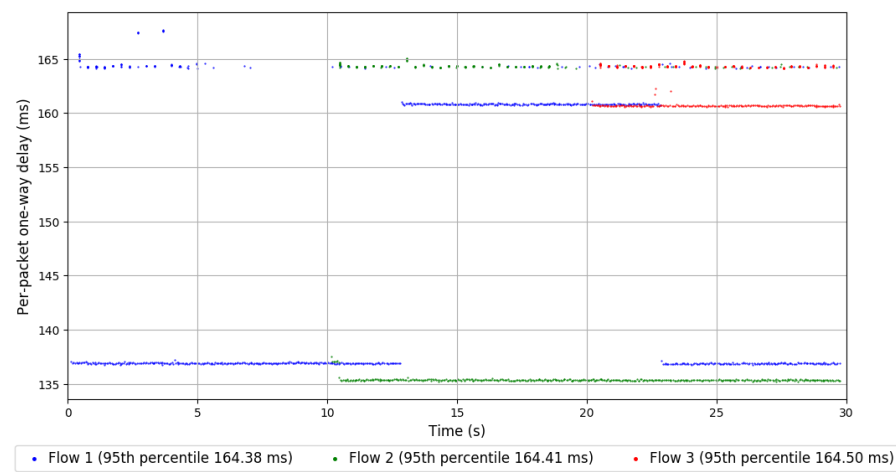
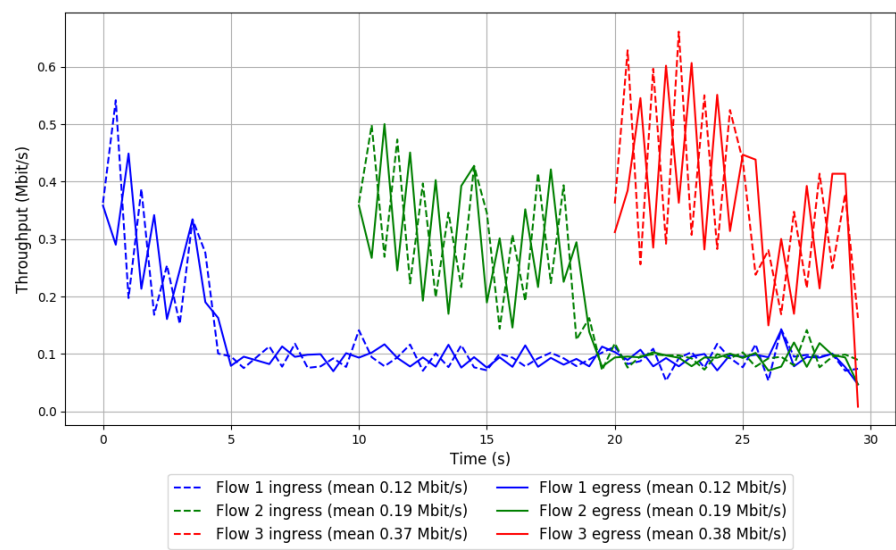
-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 164.503 ms

Loss rate: 2.17%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-18 02:38:44

End at: 2018-01-18 02:39:14

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 162.652 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.964 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.603 ms

Loss rate: 1.38%

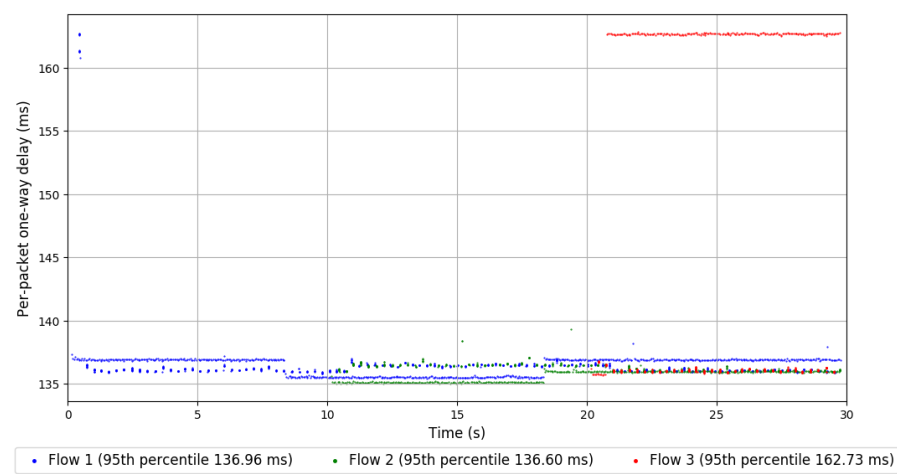
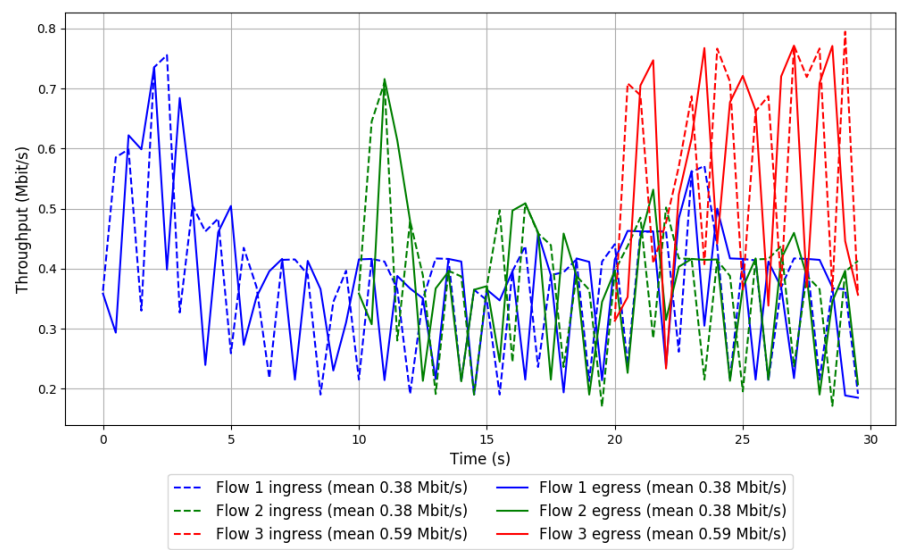
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 162.732 ms

Loss rate: 3.05%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-18 02:58:57

End at: 2018-01-18 02:59:28

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 160.961 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 160.995 ms

Loss rate: 1.64%

-- Flow 2:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 137.101 ms

Loss rate: 0.87%

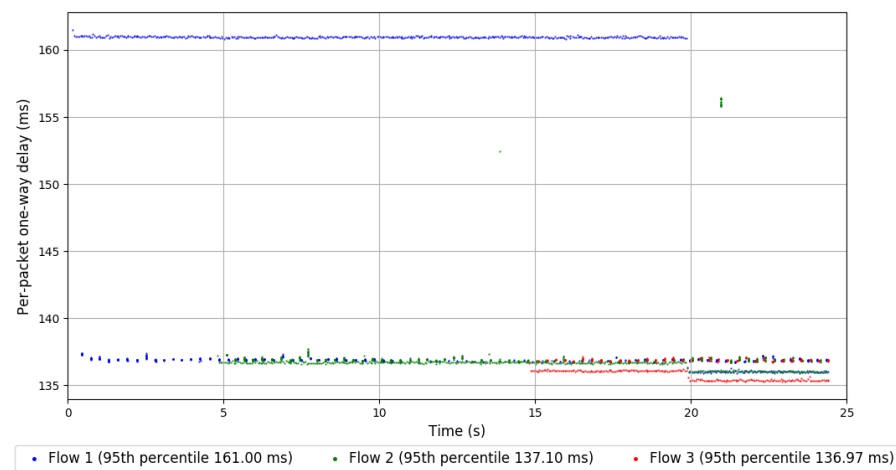
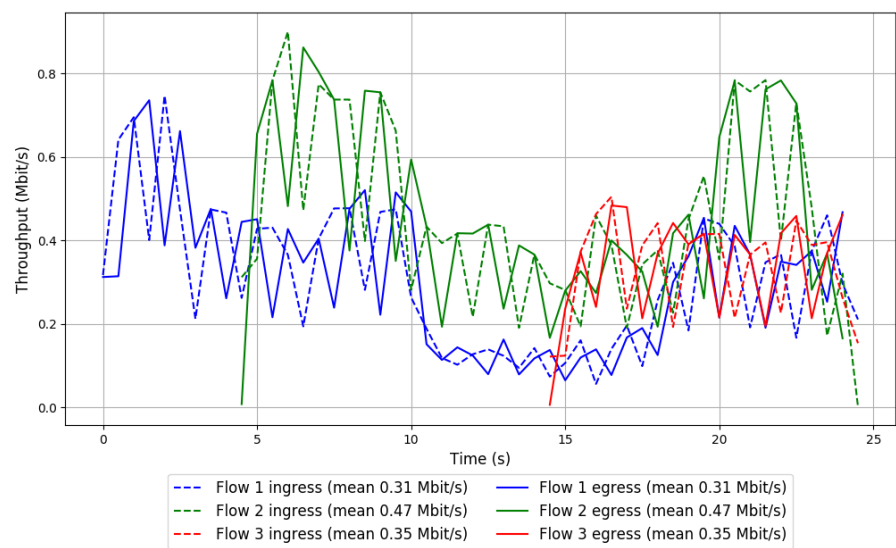
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 136.971 ms

Loss rate: 2.32%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-18 03:18:20

End at: 2018-01-18 03:18:50

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 162.127 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 137.106 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 162.159 ms

Loss rate: 1.40%

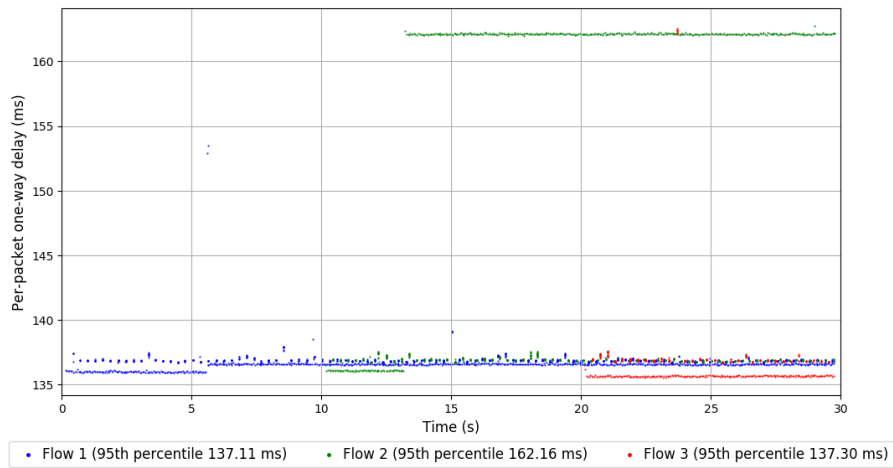
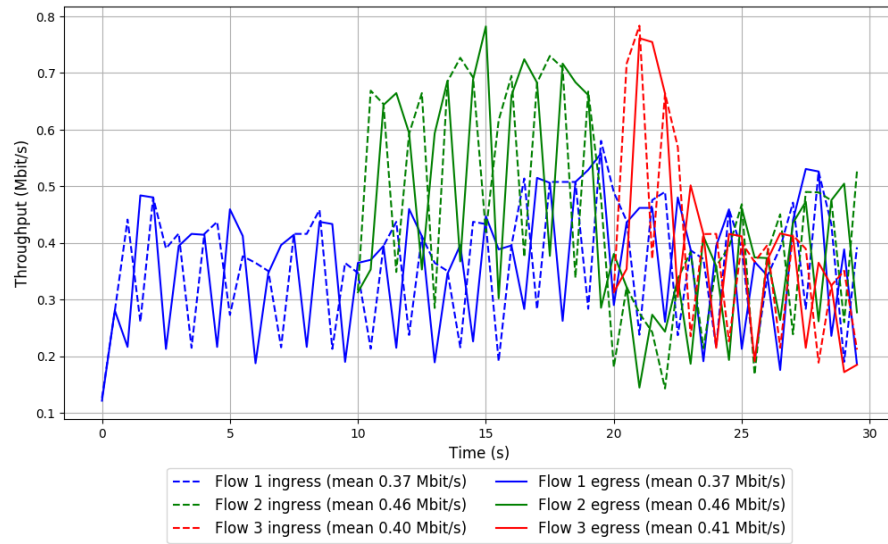
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.296 ms

Loss rate: 2.62%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-18 03:38:06

End at: 2018-01-18 03:38:36

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 163.543 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.591 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 163.630 ms

Loss rate: 1.94%

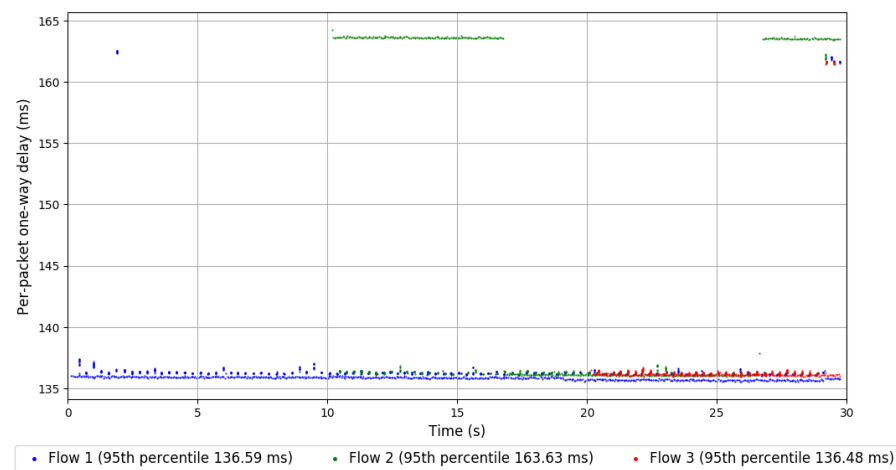
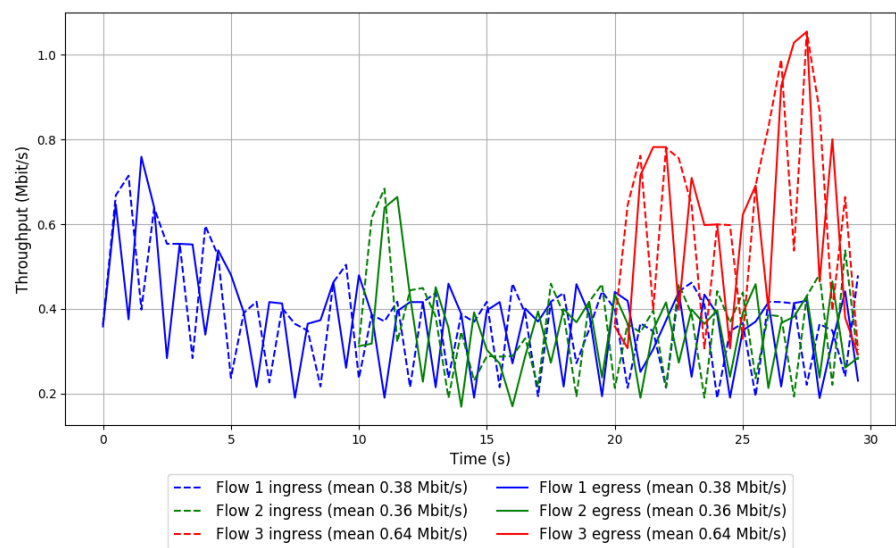
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 136.483 ms

Loss rate: 2.38%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-18 03:57:18

End at: 2018-01-18 03:57:48

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 155.548 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 131.022 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 155.625 ms

Loss rate: 0.99%

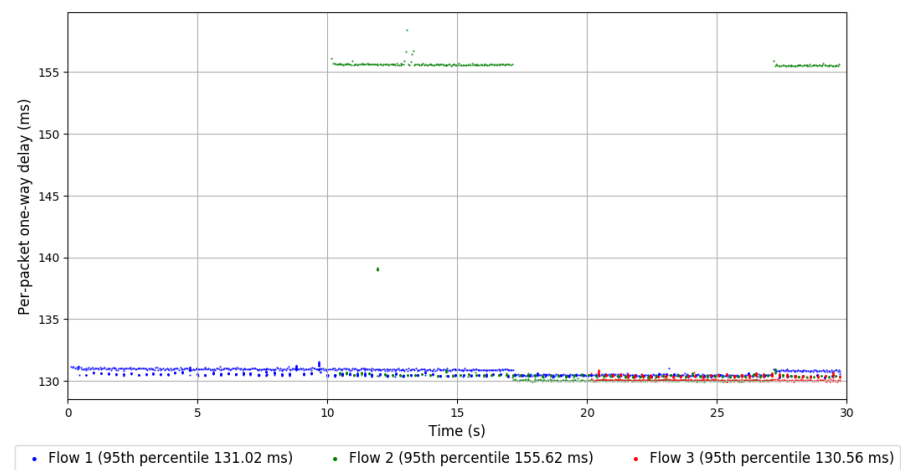
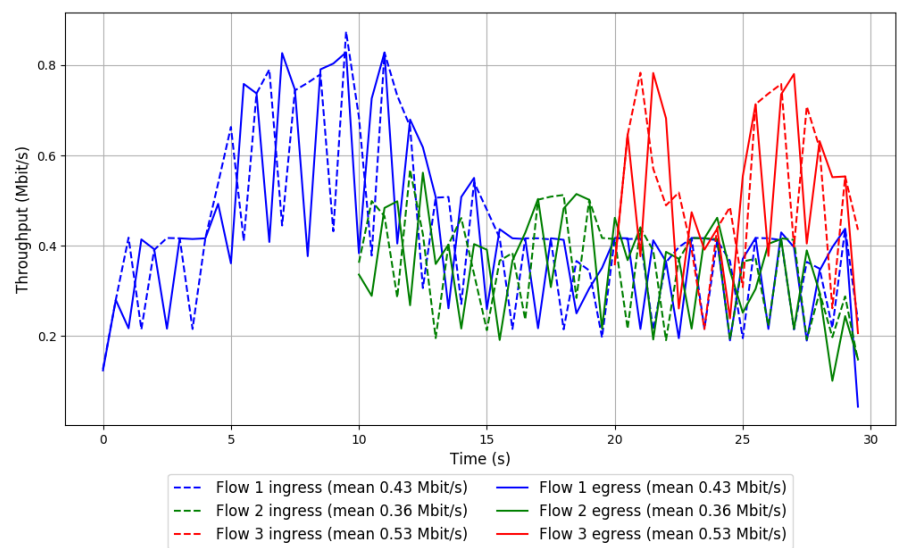
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 130.565 ms

Loss rate: 2.24%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-18 04:17:34

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

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 126.039 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 125.965 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 126.016 ms

Loss rate: 1.35%

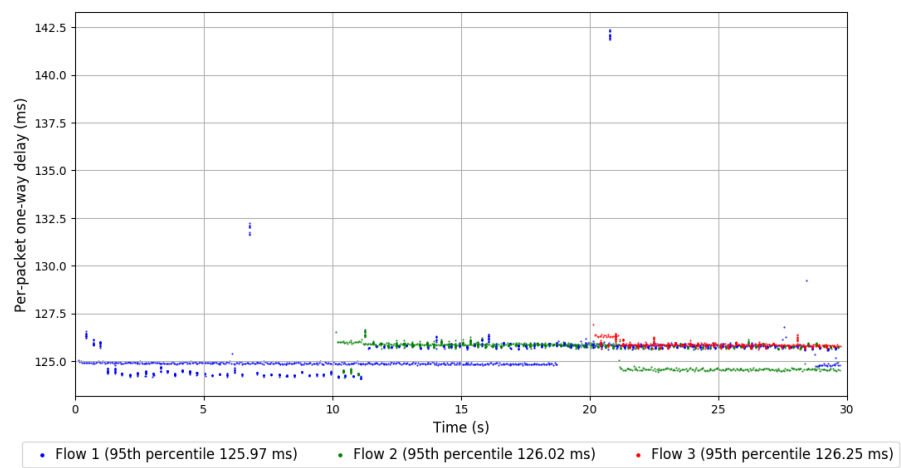
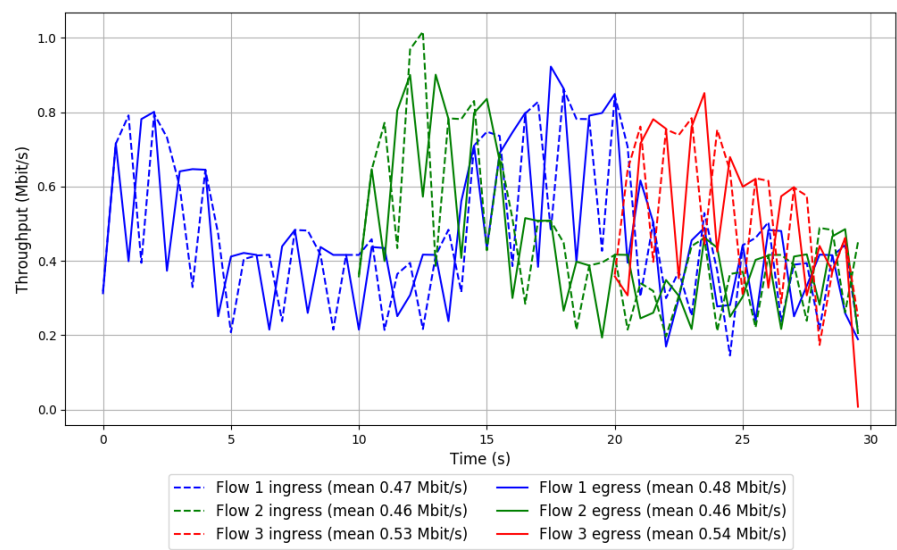
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 126.250 ms

Loss rate: 2.33%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-18 04:37:45

End at: 2018-01-18 04:38:15

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 122.182 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 122.165 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 122.208 ms

Loss rate: 1.14%

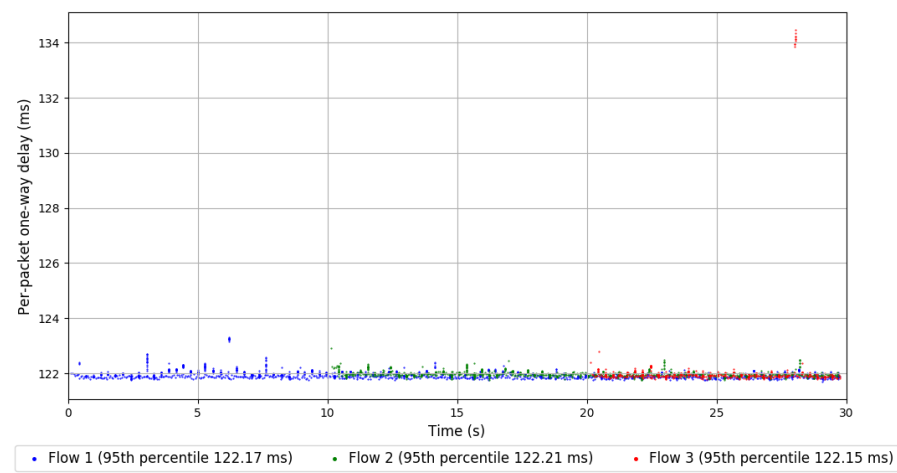
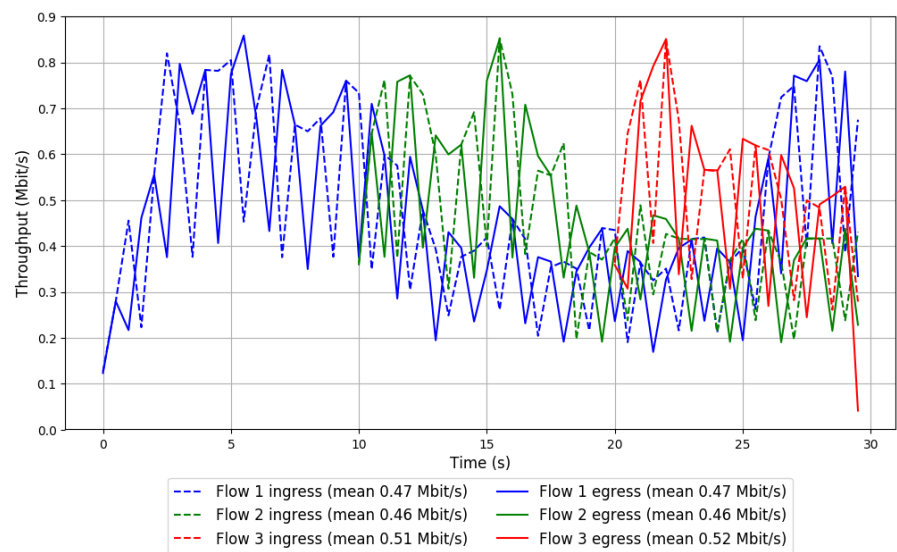
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 122.151 ms

Loss rate: 2.38%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-18 04:57:34

End at: 2018-01-18 04:58:04

Below is generated by plot.py at 2018-01-18 08:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 121.707 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 121.740 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 121.653 ms

Loss rate: 1.26%

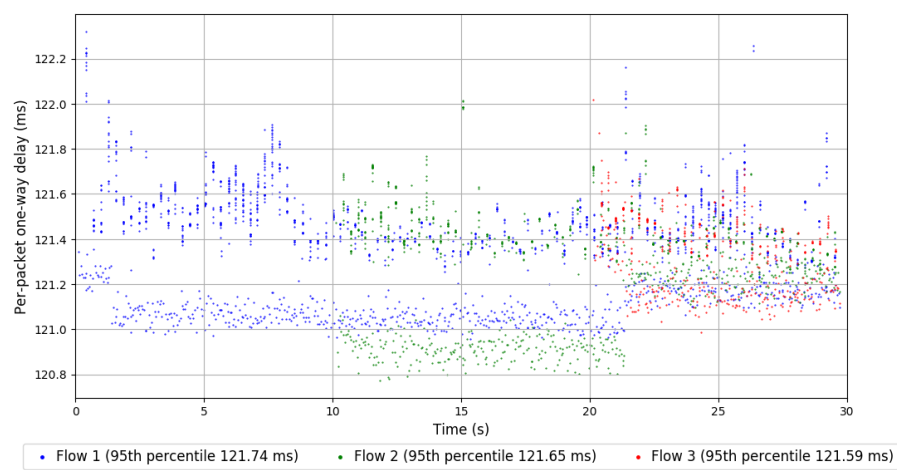
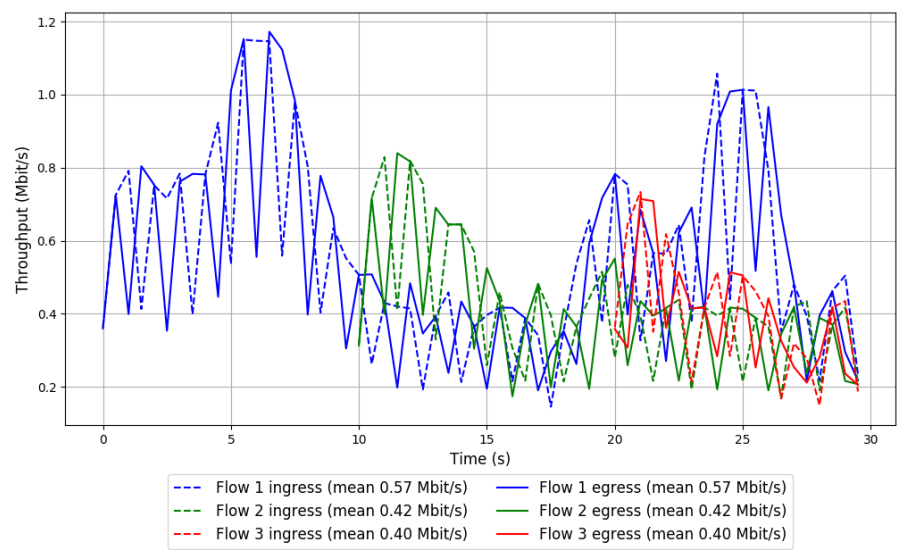
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 121.593 ms

Loss rate: 2.33%

Run 10: Report of Sprout — Data Link

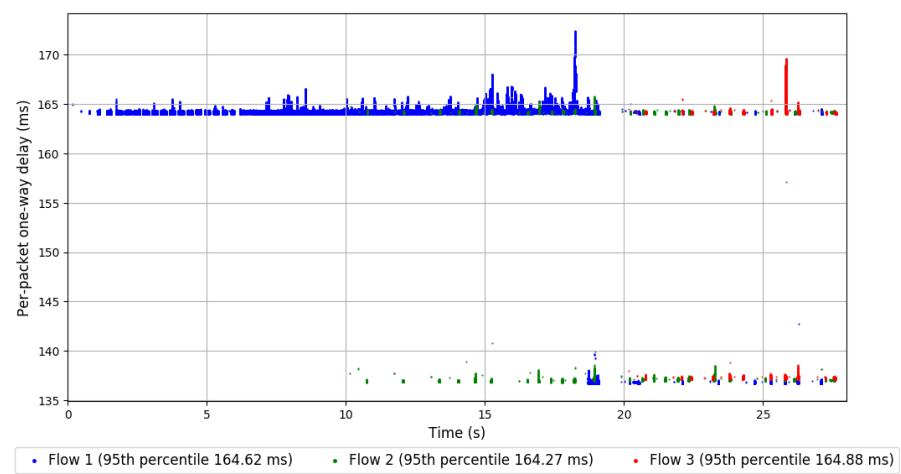
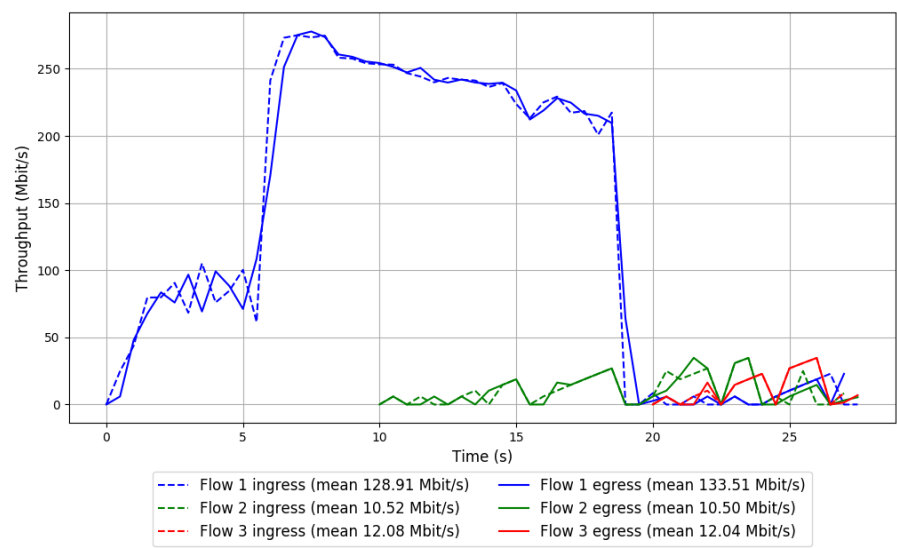


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-18 02:03:44
End at: 2018-01-18 02:04:14

# Below is generated by plot.py at 2018-01-18 08:47:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.04 Mbit/s
95th percentile per-packet one-way delay: 164.603 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 133.51 Mbit/s
95th percentile per-packet one-way delay: 164.618 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.50 Mbit/s
95th percentile per-packet one-way delay: 164.273 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.04 Mbit/s
95th percentile per-packet one-way delay: 164.883 ms
Loss rate: 0.00%
```


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

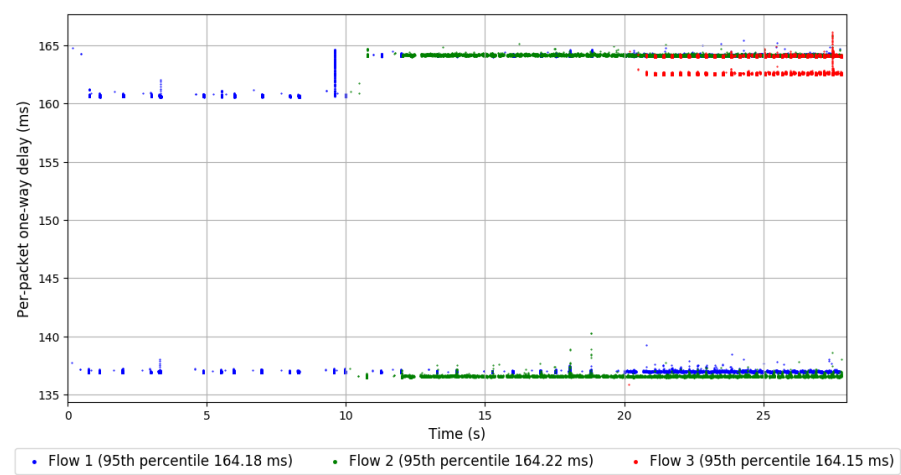
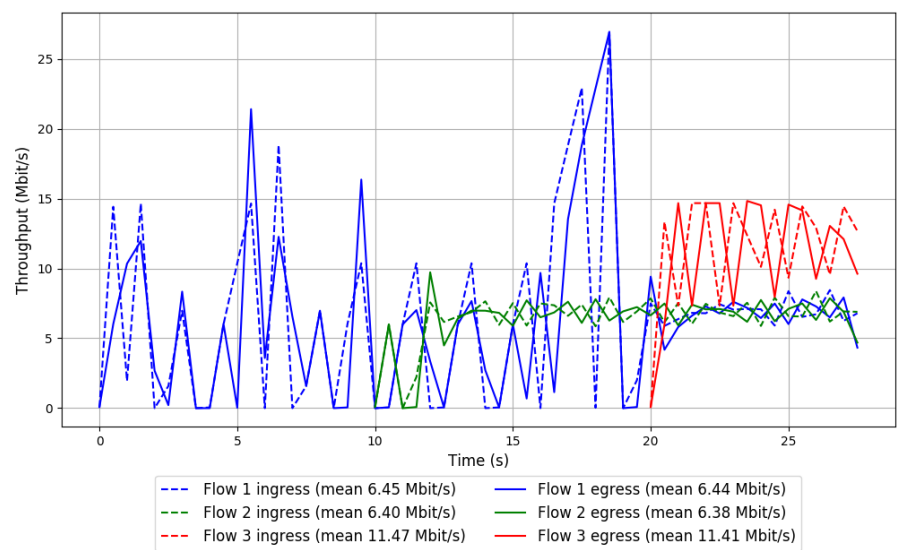


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-18 02:21:43
End at: 2018-01-18 02:22:13

# Below is generated by plot.py at 2018-01-18 08:47:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.65 Mbit/s
95th percentile per-packet one-way delay: 164.198 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 164.184 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 6.38 Mbit/s
95th percentile per-packet one-way delay: 164.223 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 164.145 ms
Loss rate: 4.03%
```

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

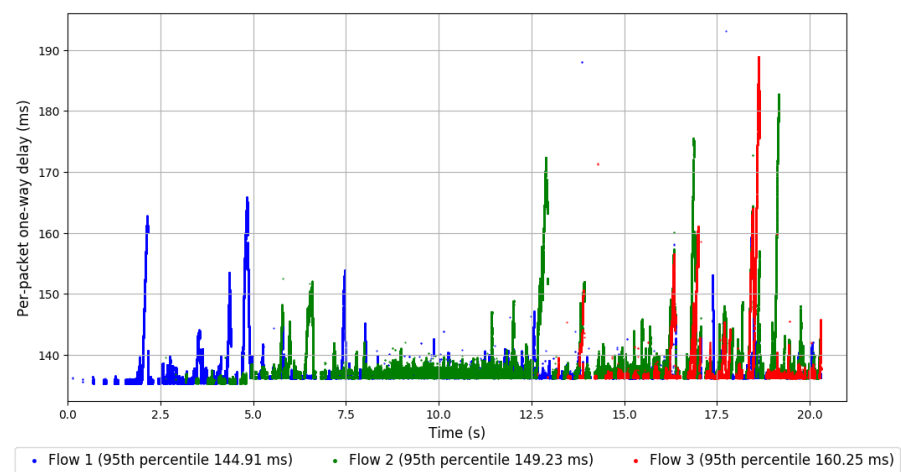
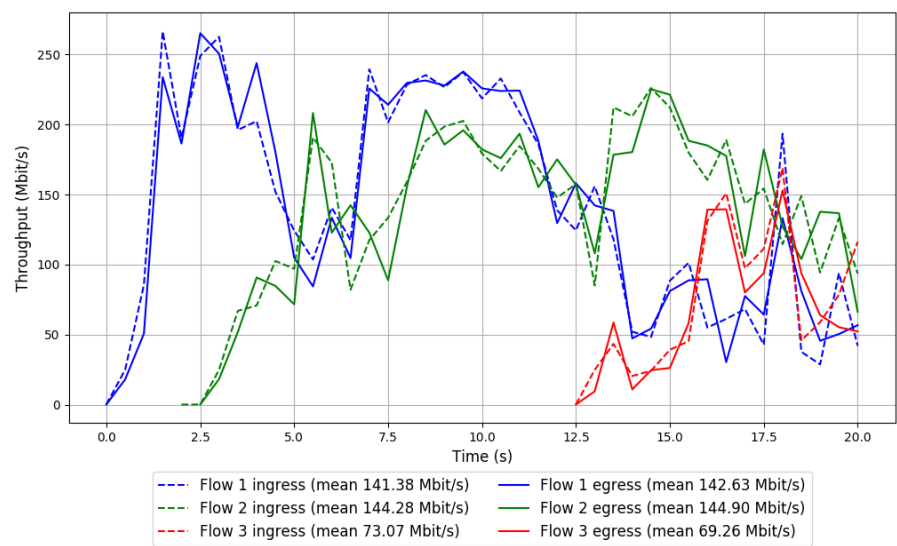


Run 3: Statistics of TaoVA-100x

Start at: 2018-01-18 02:40:31

End at: 2018-01-18 02:41:01

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

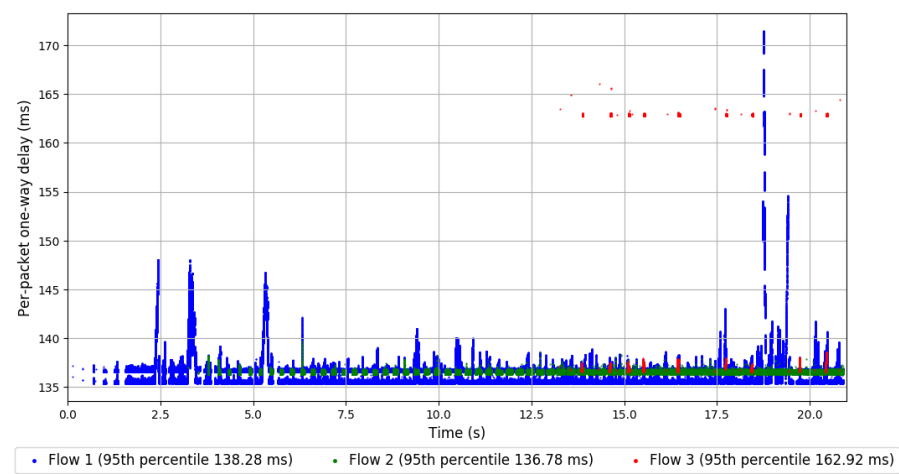
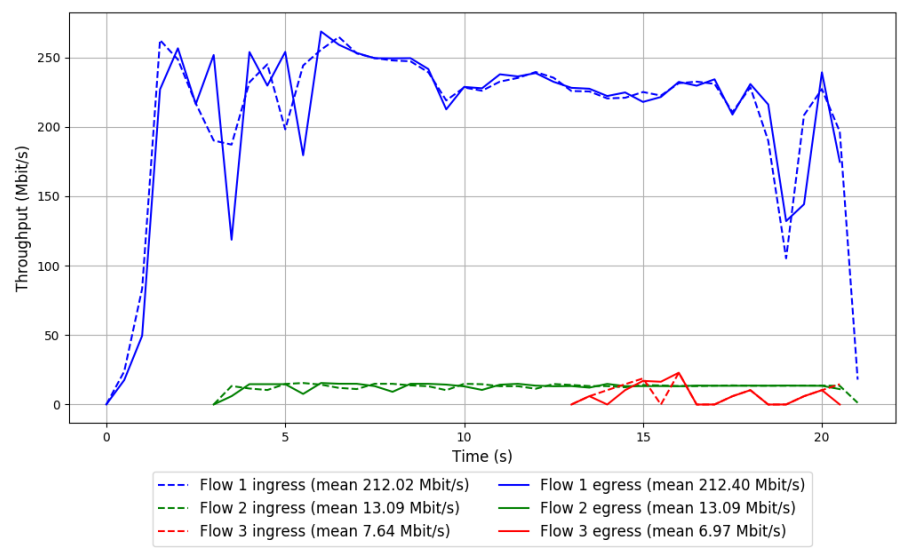


Run 4: Statistics of TaoVA-100x

Start at: 2018-01-18 03:00:52

End at: 2018-01-18 03:01:22

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-18 03:20:08

End at: 2018-01-18 03:20:38

Below is generated by plot.py at 2018-01-18 08:52:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 265.15 Mbit/s

95th percentile per-packet one-way delay: 137.945 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 176.19 Mbit/s

95th percentile per-packet one-way delay: 138.584 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 139.17 Mbit/s

95th percentile per-packet one-way delay: 136.876 ms

Loss rate: 1.64%

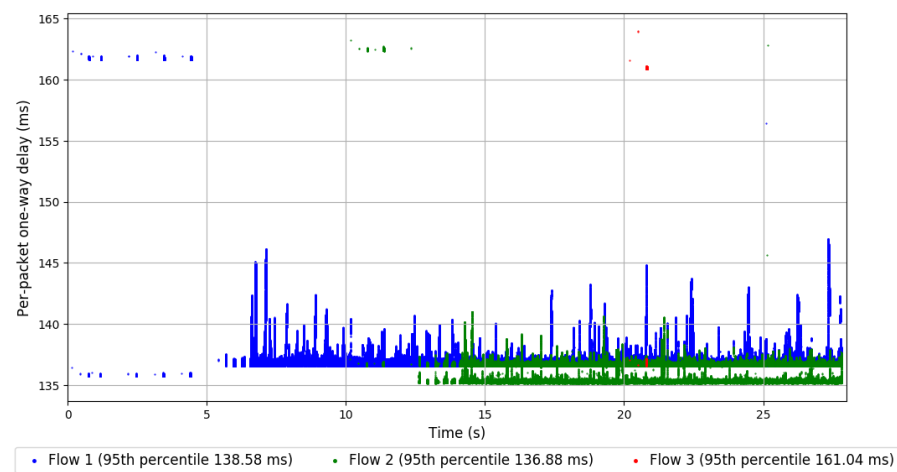
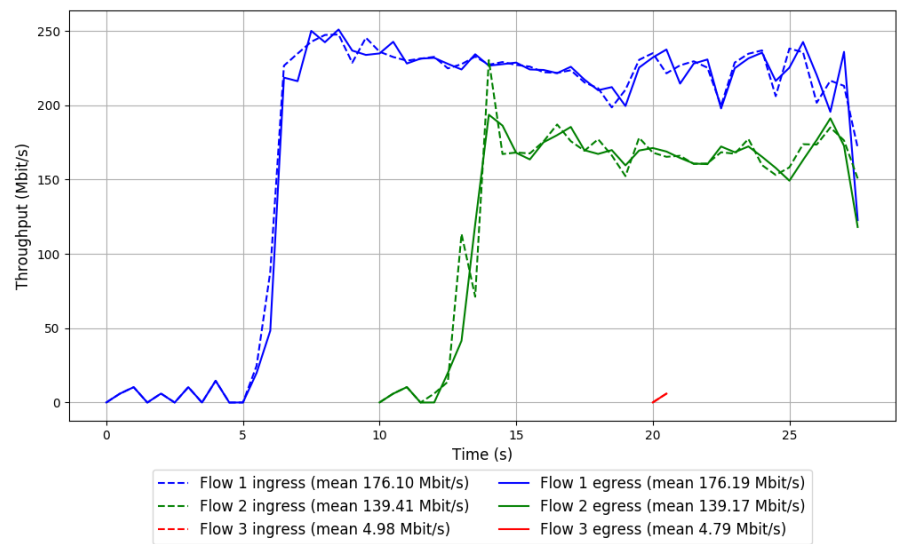
-- Flow 3:

Average throughput: 4.79 Mbit/s

95th percentile per-packet one-way delay: 161.041 ms

Loss rate: 0.00%

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

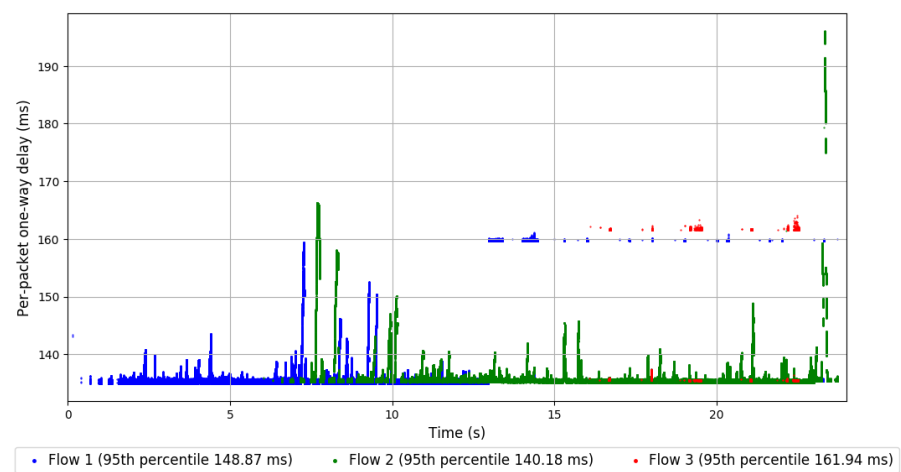
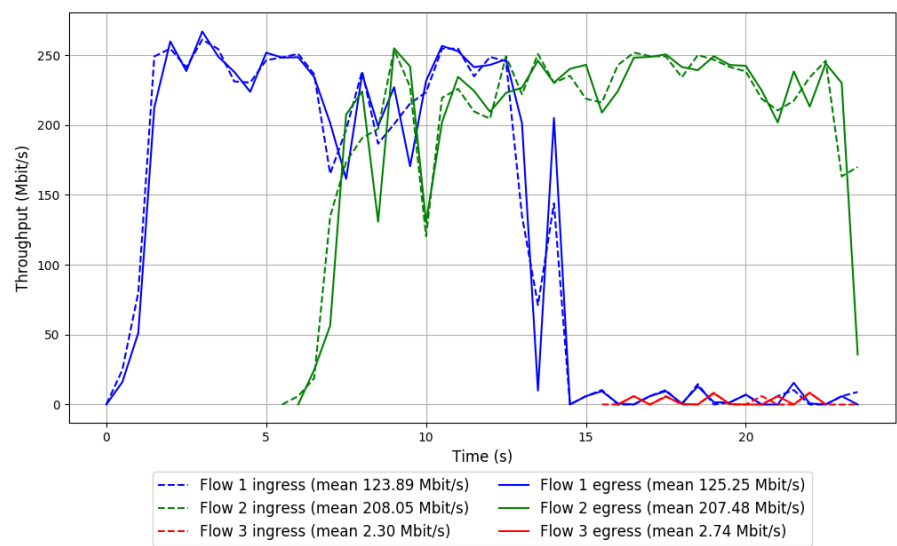


Run 6: Statistics of TaoVA-100x

Start at: 2018-01-18 03:39:54

End at: 2018-01-18 03:40:24

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

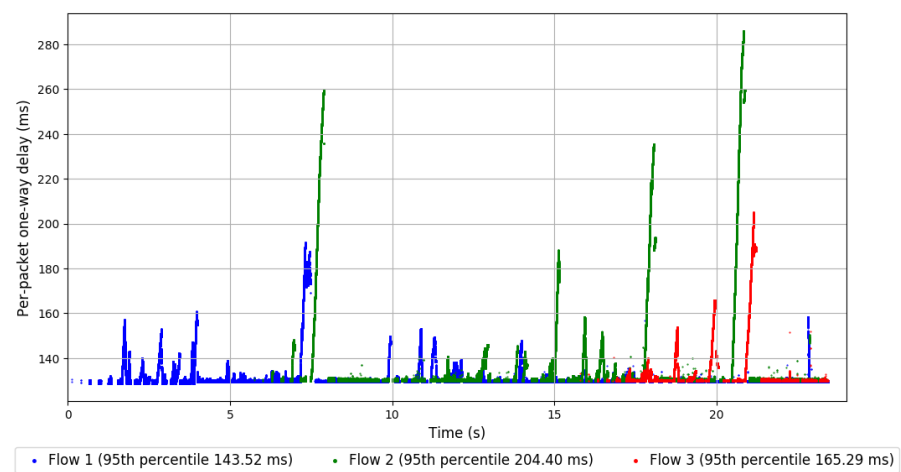
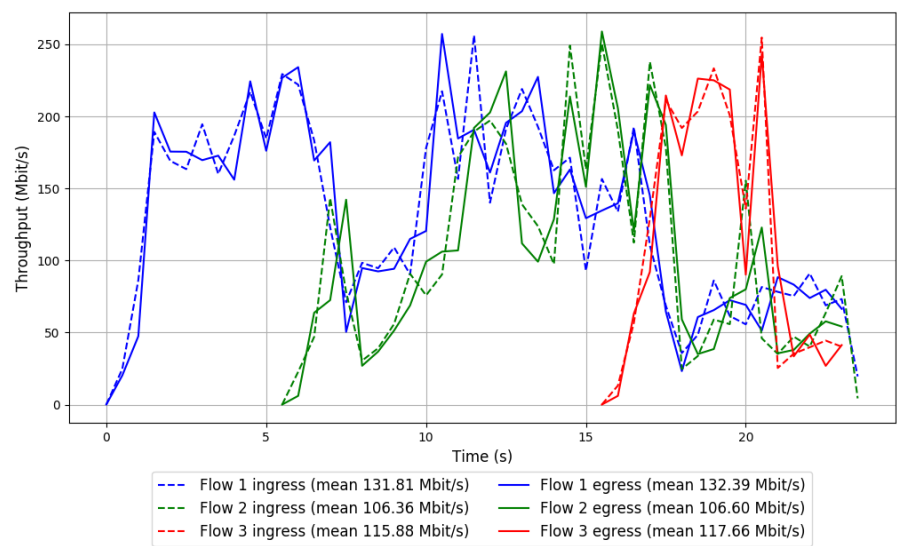


Run 7: Statistics of TaoVA-100x

Start at: 2018-01-18 03:59:12

End at: 2018-01-18 03:59:42

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-18 04:19:21

End at: 2018-01-18 04:19:51

Below is generated by plot.py at 2018-01-18 08:53:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 285.82 Mbit/s

95th percentile per-packet one-way delay: 129.366 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 182.00 Mbit/s

95th percentile per-packet one-way delay: 131.149 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 82.87 Mbit/s

95th percentile per-packet one-way delay: 125.961 ms

Loss rate: 0.25%

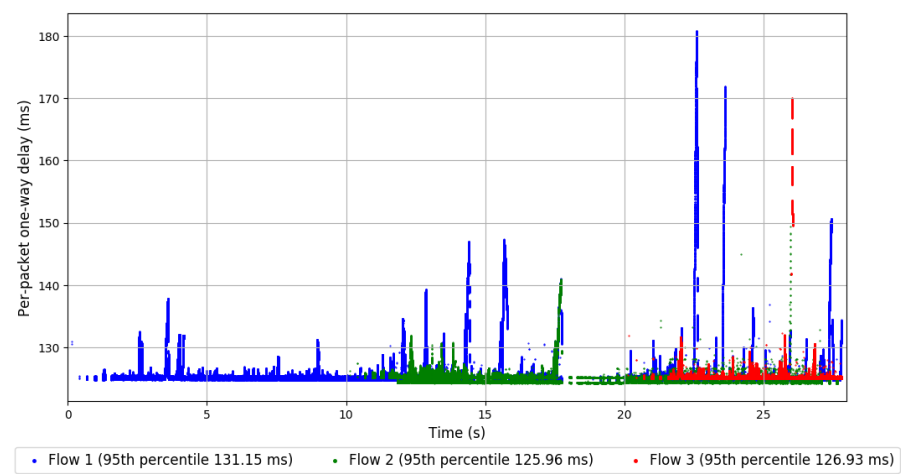
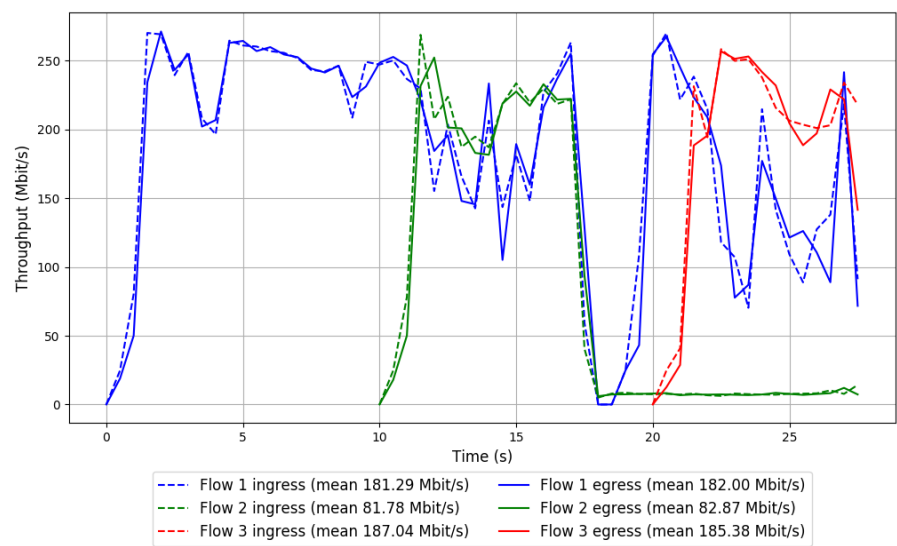
-- Flow 3:

Average throughput: 185.38 Mbit/s

95th percentile per-packet one-way delay: 126.926 ms

Loss rate: 4.28%

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

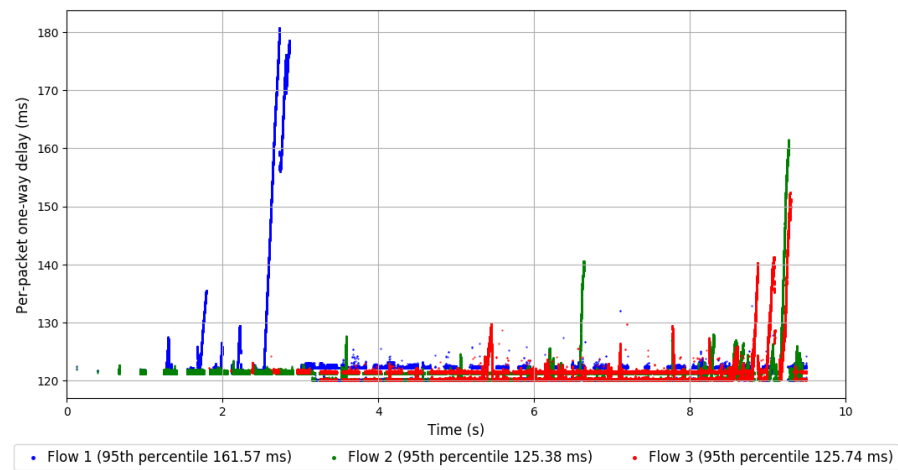
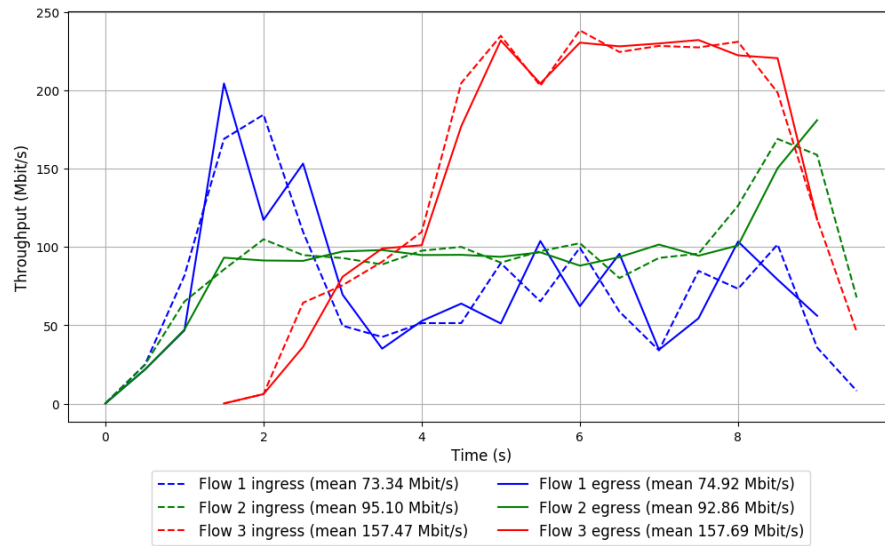


Run 9: Statistics of TaoVA-100x

Start at: 2018-01-18 04:39:32

End at: 2018-01-18 04:40:02

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

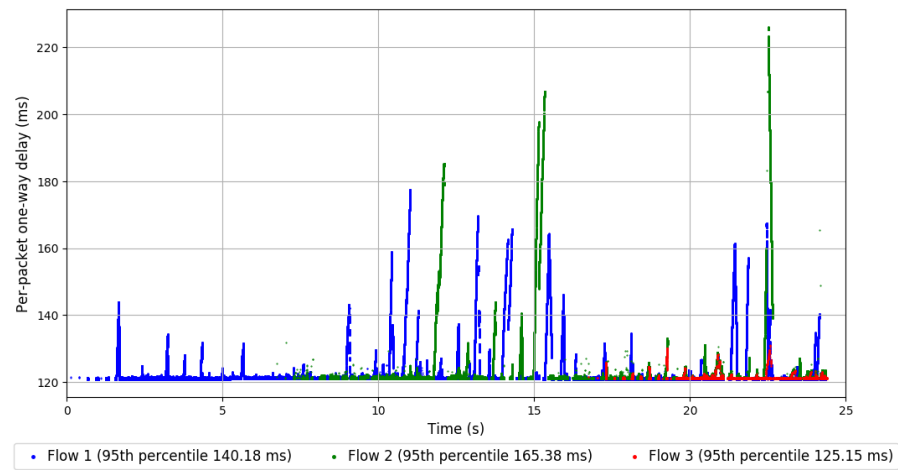
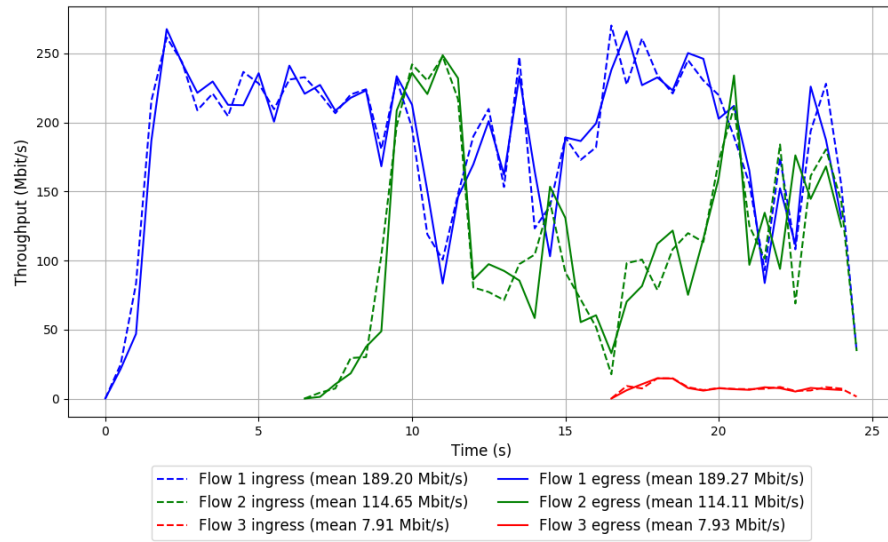


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-18 04:59:22
End at: 2018-01-18 04:59:52

# Below is generated by plot.py at 2018-01-18 08:55:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.36 Mbit/s
95th percentile per-packet one-way delay: 144.474 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 189.27 Mbit/s
95th percentile per-packet one-way delay: 140.180 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 114.11 Mbit/s
95th percentile per-packet one-way delay: 165.376 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 125.153 ms
Loss rate: 3.39%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-18 02:01:11

End at: 2018-01-18 02:01:41

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.22 Mbit/s

95th percentile per-packet one-way delay: 164.695 ms

Loss rate: 2.58%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 164.645 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 164.522 ms

Loss rate: 1.83%

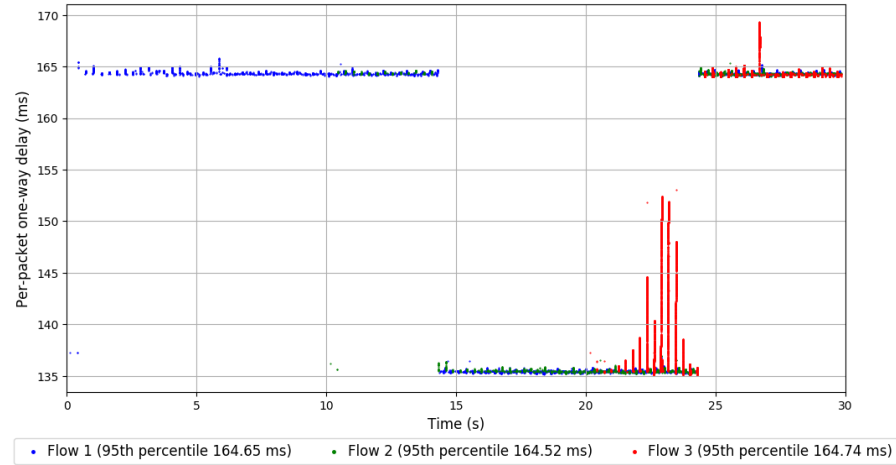
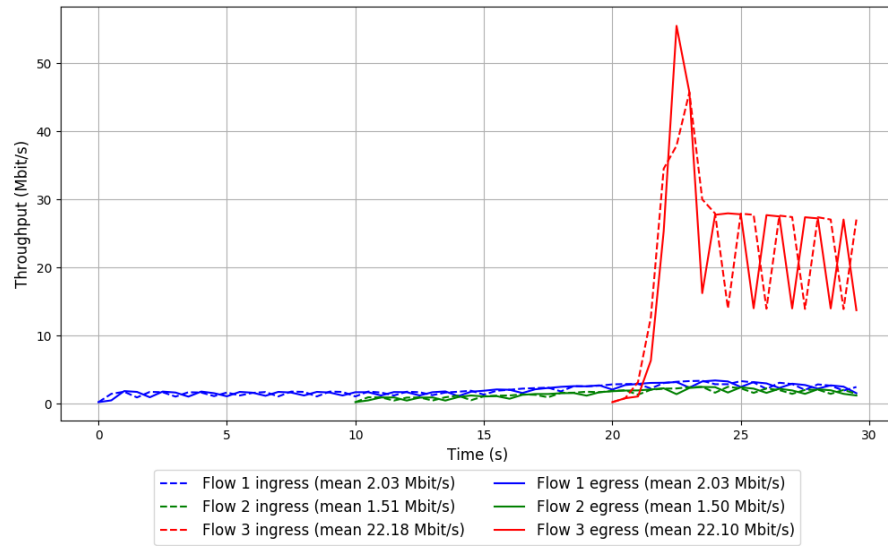
-- Flow 3:

Average throughput: 22.10 Mbit/s

95th percentile per-packet one-way delay: 164.738 ms

Loss rate: 3.08%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-18 02:19:12

End at: 2018-01-18 02:19:42

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 164.975 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 164.612 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 164.519 ms

Loss rate: 1.53%

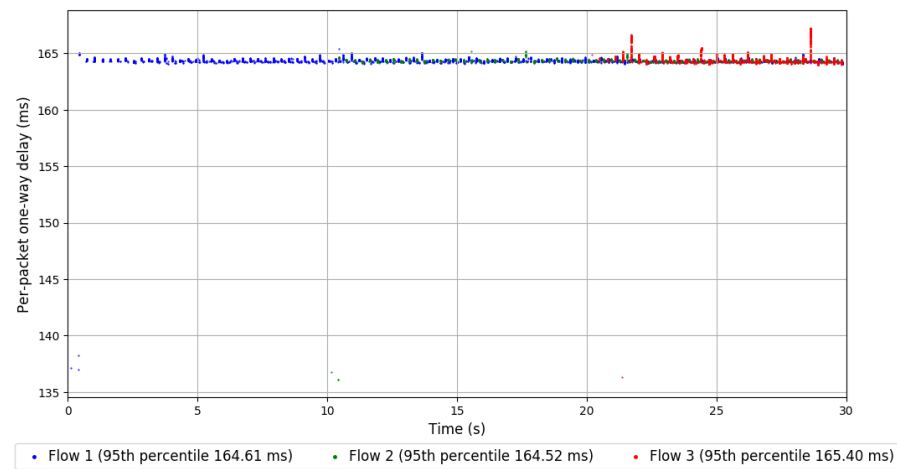
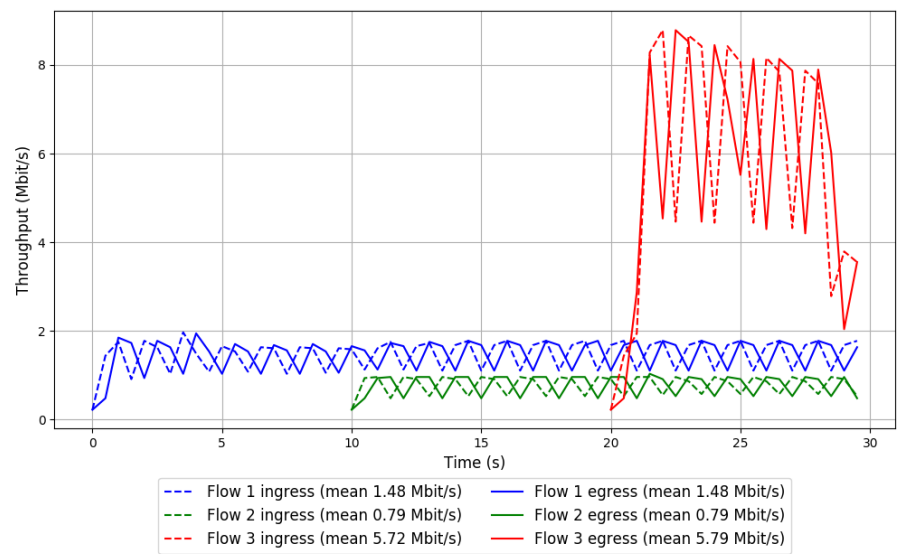
-- Flow 3:

Average throughput: 5.79 Mbit/s

95th percentile per-packet one-way delay: 165.396 ms

Loss rate: 1.82%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-18 02:37:48

End at: 2018-01-18 02:38:18

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.73 Mbit/s

95th percentile per-packet one-way delay: 140.351 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 38.22 Mbit/s

95th percentile per-packet one-way delay: 139.290 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 52.54 Mbit/s

95th percentile per-packet one-way delay: 139.271 ms

Loss rate: 1.53%

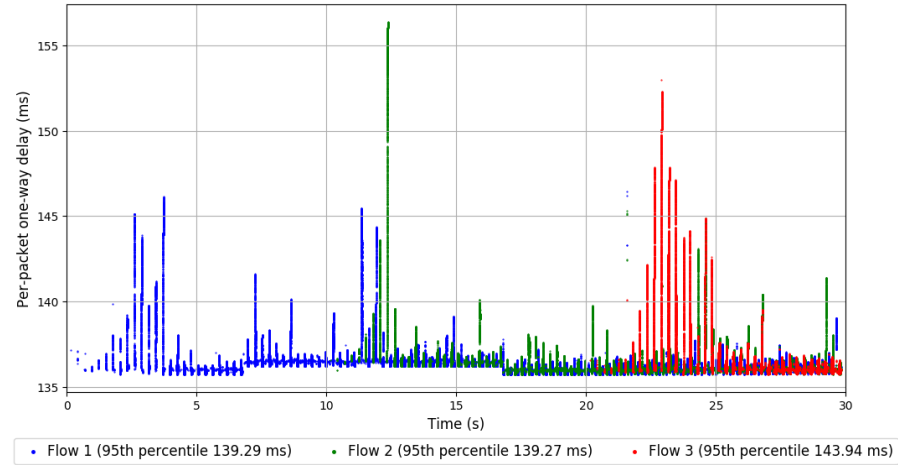
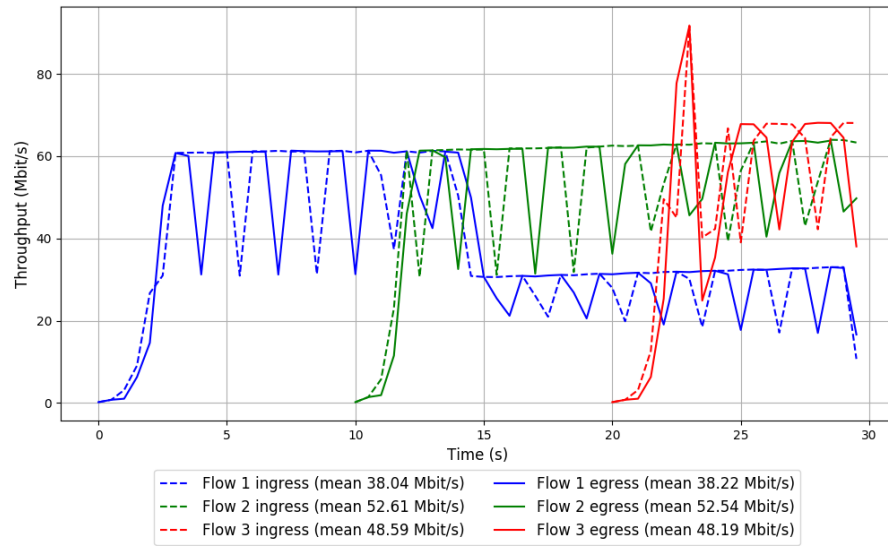
-- Flow 3:

Average throughput: 48.19 Mbit/s

95th percentile per-packet one-way delay: 143.942 ms

Loss rate: 3.54%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-01-18 02:58:02

End at: 2018-01-18 02:58:32

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.69 Mbit/s

95th percentile per-packet one-way delay: 145.763 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 37.72 Mbit/s

95th percentile per-packet one-way delay: 141.741 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 51.78 Mbit/s

95th percentile per-packet one-way delay: 140.536 ms

Loss rate: 1.55%

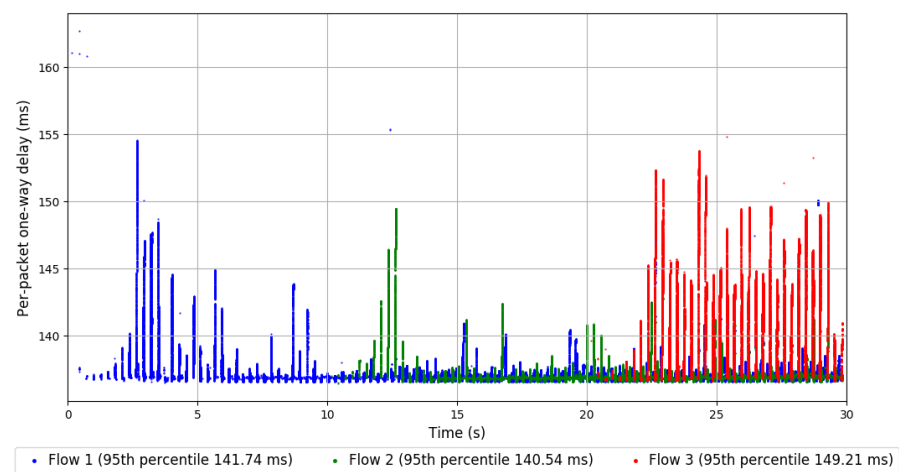
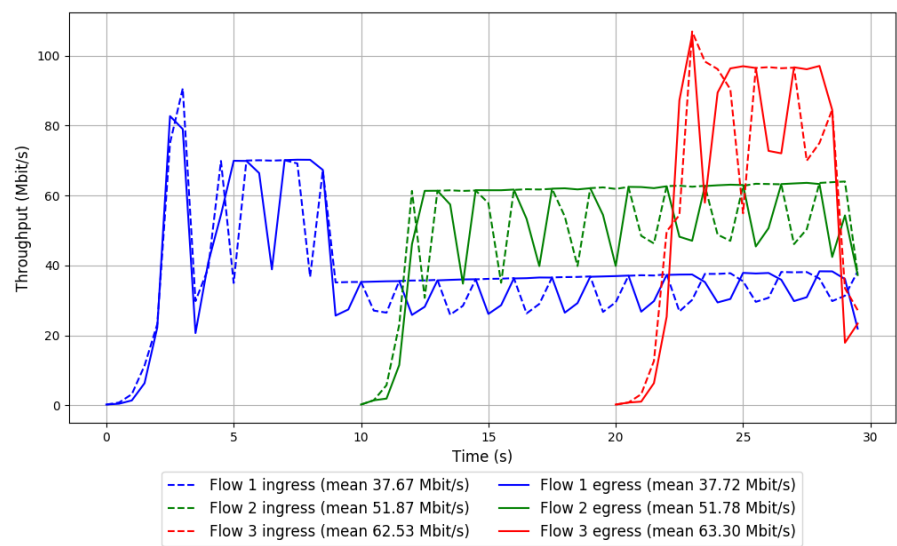
-- Flow 3:

Average throughput: 63.30 Mbit/s

95th percentile per-packet one-way delay: 149.206 ms

Loss rate: 1.57%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-18 03:17:26

End at: 2018-01-18 03:17:56

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 46.96 Mbit/s

95th percentile per-packet one-way delay: 147.554 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 20.92 Mbit/s

95th percentile per-packet one-way delay: 143.458 ms

Loss rate: 2.72%

-- Flow 2:

Average throughput: 38.04 Mbit/s

95th percentile per-packet one-way delay: 148.178 ms

Loss rate: 0.63%

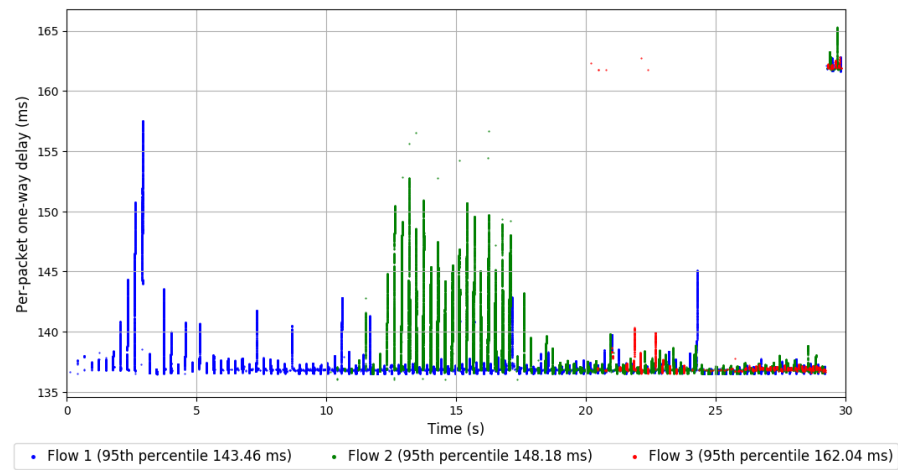
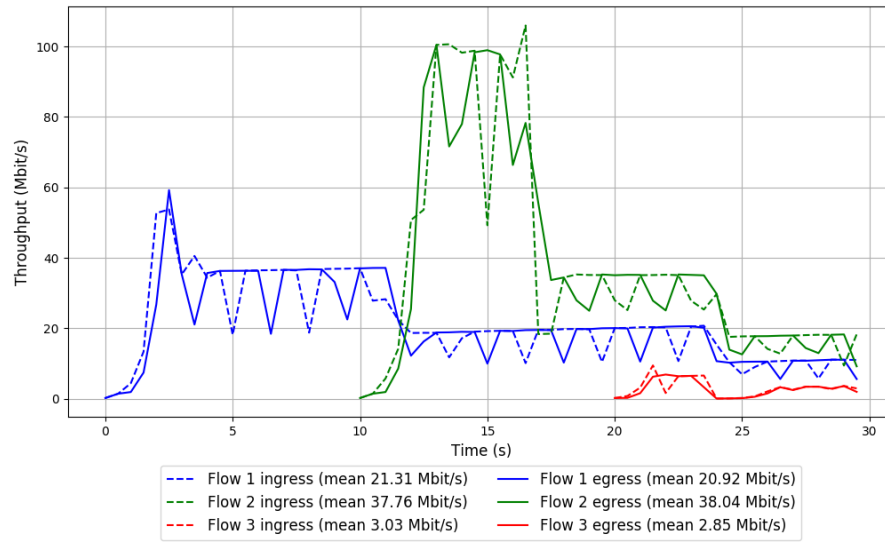
-- Flow 3:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 162.043 ms

Loss rate: 8.62%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-18 03:37:13

End at: 2018-01-18 03:37:43

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.75 Mbit/s

95th percentile per-packet one-way delay: 139.291 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 21.31 Mbit/s

95th percentile per-packet one-way delay: 138.064 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 31.58 Mbit/s

95th percentile per-packet one-way delay: 139.816 ms

Loss rate: 1.56%

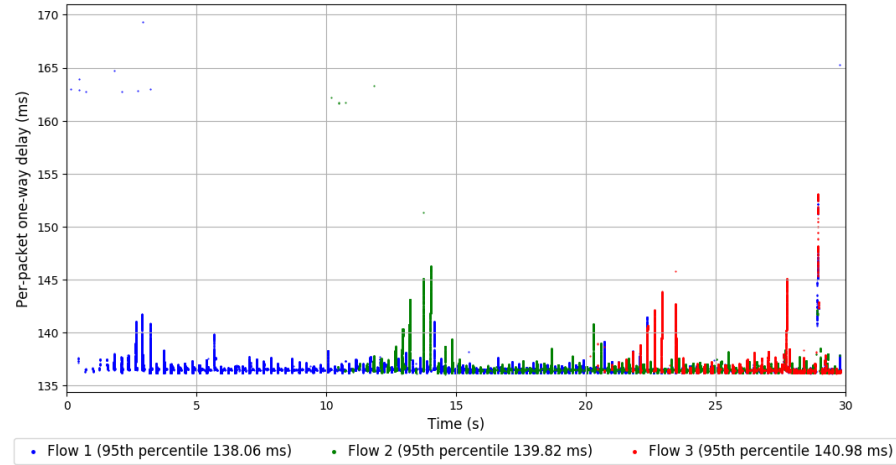
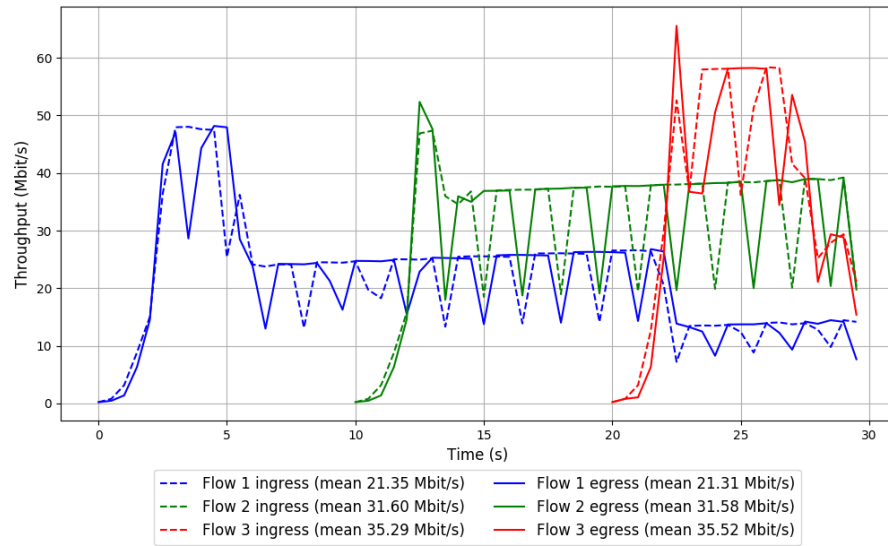
-- Flow 3:

Average throughput: 35.52 Mbit/s

95th percentile per-packet one-way delay: 140.982 ms

Loss rate: 2.12%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-18 03:56:24

End at: 2018-01-18 03:56:54

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.11 Mbit/s

95th percentile per-packet one-way delay: 139.867 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 29.80 Mbit/s

95th percentile per-packet one-way delay: 138.950 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 27.30 Mbit/s

95th percentile per-packet one-way delay: 133.794 ms

Loss rate: 1.54%

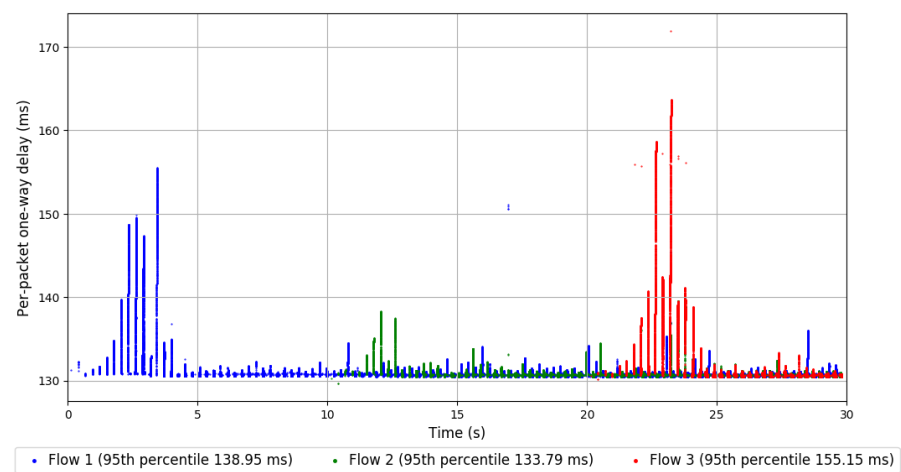
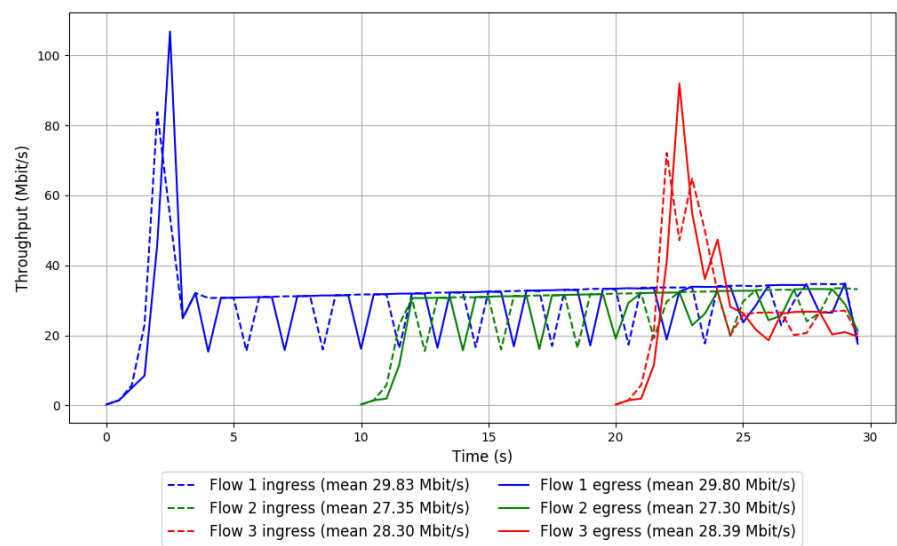
-- Flow 3:

Average throughput: 28.39 Mbit/s

95th percentile per-packet one-way delay: 155.150 ms

Loss rate: 2.42%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-18 04:16:41

End at: 2018-01-18 04:17:11

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.14 Mbit/s

95th percentile per-packet one-way delay: 129.396 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 14.97 Mbit/s

95th percentile per-packet one-way delay: 126.978 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 31.91 Mbit/s

95th percentile per-packet one-way delay: 128.702 ms

Loss rate: 1.55%

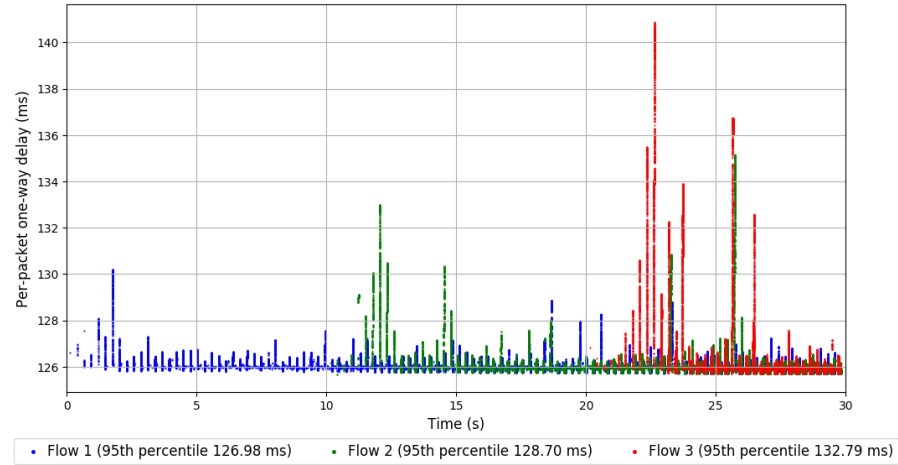
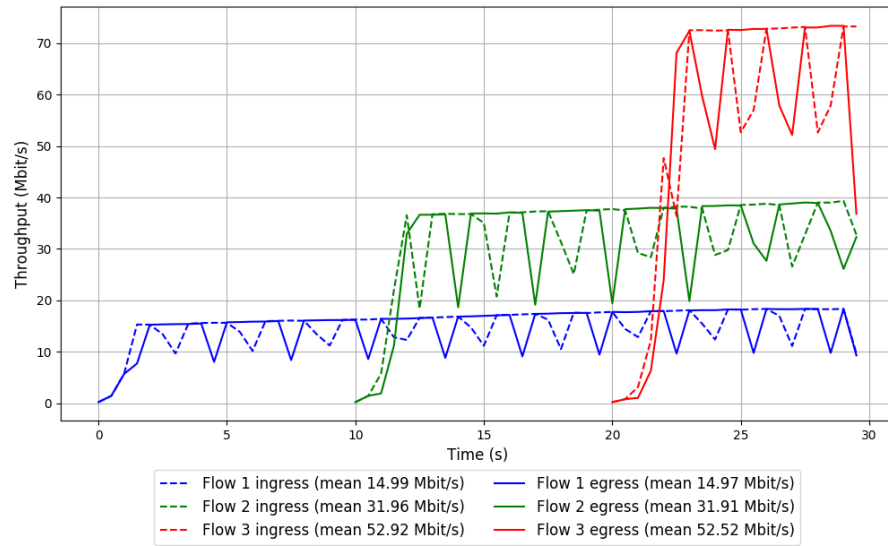
-- Flow 3:

Average throughput: 52.52 Mbit/s

95th percentile per-packet one-way delay: 132.788 ms

Loss rate: 3.50%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-18 04:36:49

End at: 2018-01-18 04:37:19

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.77 Mbit/s

95th percentile per-packet one-way delay: 137.792 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 29.26 Mbit/s

95th percentile per-packet one-way delay: 133.622 ms

Loss rate: 1.48%

-- Flow 2:

Average throughput: 75.37 Mbit/s

95th percentile per-packet one-way delay: 139.453 ms

Loss rate: 0.52%

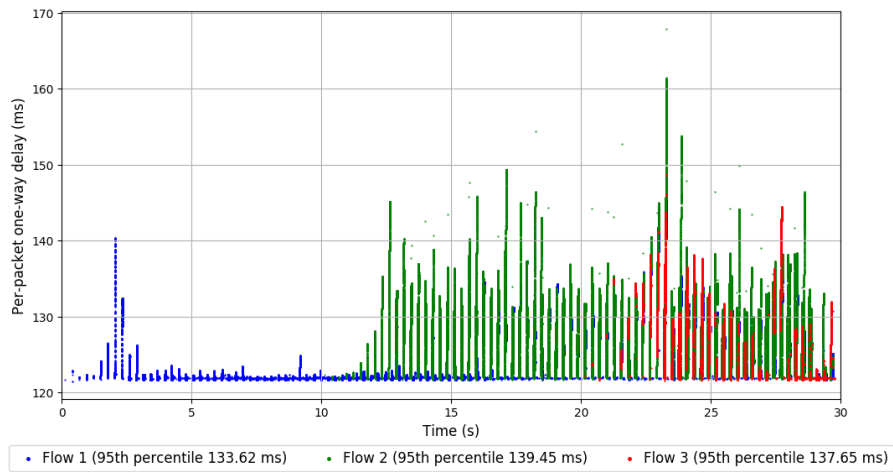
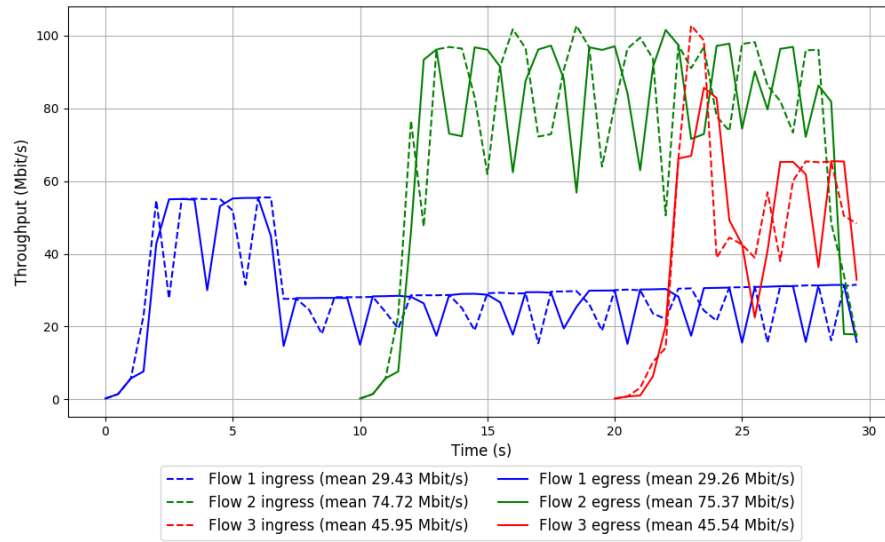
-- Flow 3:

Average throughput: 45.54 Mbit/s

95th percentile per-packet one-way delay: 137.645 ms

Loss rate: 3.63%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-01-18 04:56:39

End at: 2018-01-18 04:57:09

Below is generated by plot.py at 2018-01-18 08:55:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.22 Mbit/s

95th percentile per-packet one-way delay: 134.131 ms

Loss rate: 2.12%

-- Flow 1:

Average throughput: 3.02 Mbit/s

95th percentile per-packet one-way delay: 127.351 ms

Loss rate: 1.70%

-- Flow 2:

Average throughput: 78.69 Mbit/s

95th percentile per-packet one-way delay: 133.405 ms

Loss rate: 1.53%

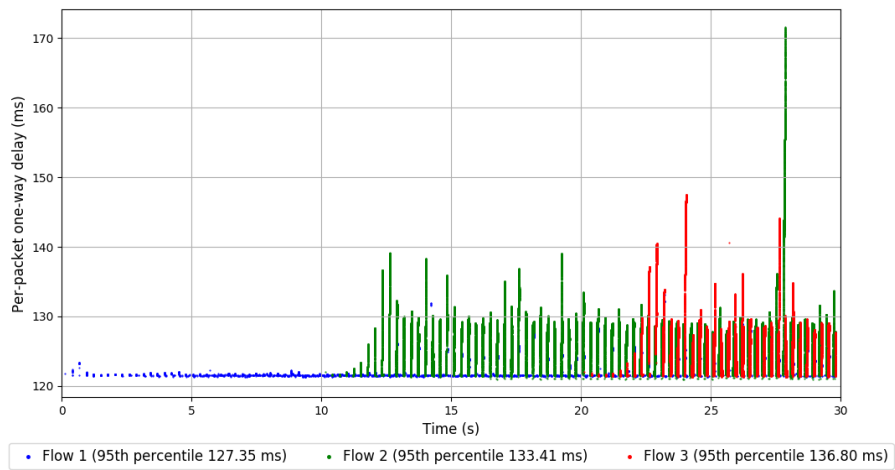
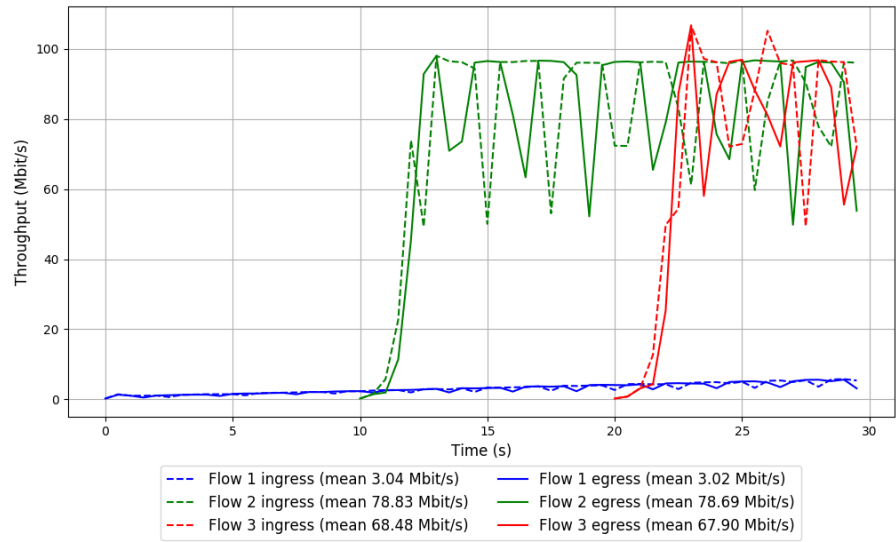
-- Flow 3:

Average throughput: 67.90 Mbit/s

95th percentile per-packet one-way delay: 136.802 ms

Loss rate: 3.54%

Run 10: Report of TCP Vegas — Data Link

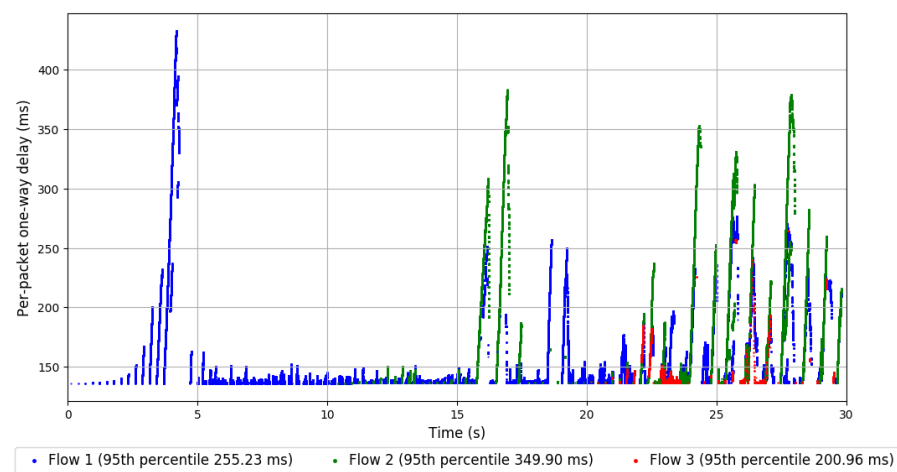
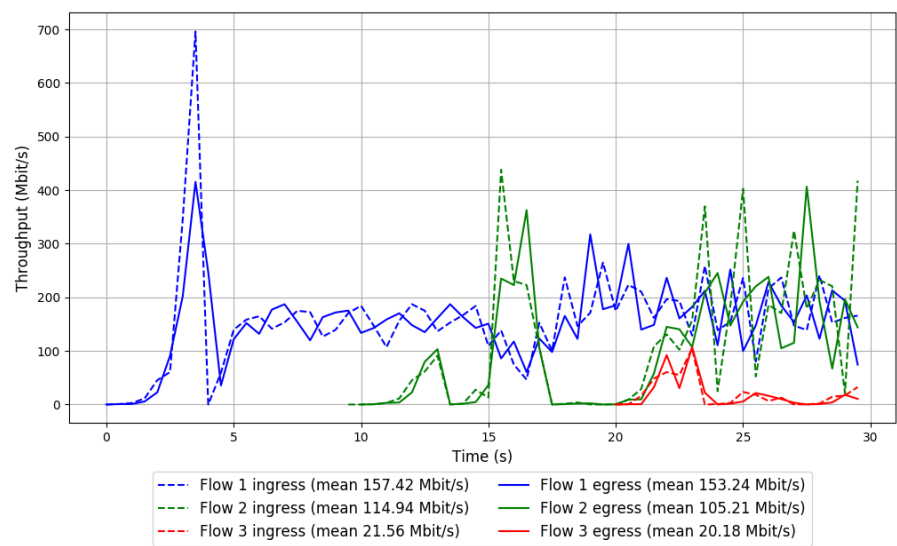


```
Run 1: Statistics of Verus

Start at: 2018-01-18 01:45:44
End at: 2018-01-18 01:46:14

# Below is generated by plot.py at 2018-01-18 08:55:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 229.37 Mbit/s
95th percentile per-packet one-way delay: 317.218 ms
Loss rate: 5.67%
-- Flow 1:
Average throughput: 153.24 Mbit/s
95th percentile per-packet one-way delay: 255.232 ms
Loss rate: 3.55%
-- Flow 2:
Average throughput: 105.21 Mbit/s
95th percentile per-packet one-way delay: 349.901 ms
Loss rate: 9.71%
-- Flow 3:
Average throughput: 20.18 Mbit/s
95th percentile per-packet one-way delay: 200.961 ms
Loss rate: 9.27%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-18 02:05:44

End at: 2018-01-18 02:06:14

Below is generated by plot.py at 2018-01-18 08:55:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 157.56 Mbit/s

95th percentile per-packet one-way delay: 274.348 ms

Loss rate: 2.53%

-- Flow 1:

Average throughput: 111.56 Mbit/s

95th percentile per-packet one-way delay: 283.232 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 36.35 Mbit/s

95th percentile per-packet one-way delay: 185.185 ms

Loss rate: 2.78%

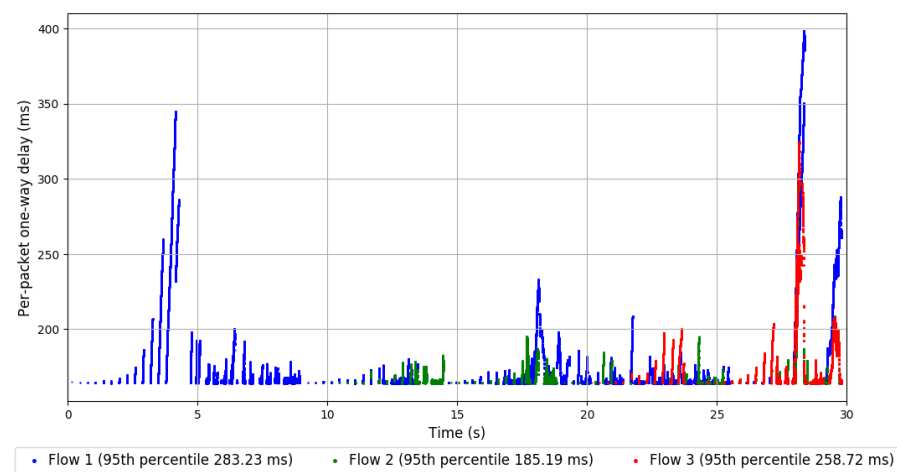
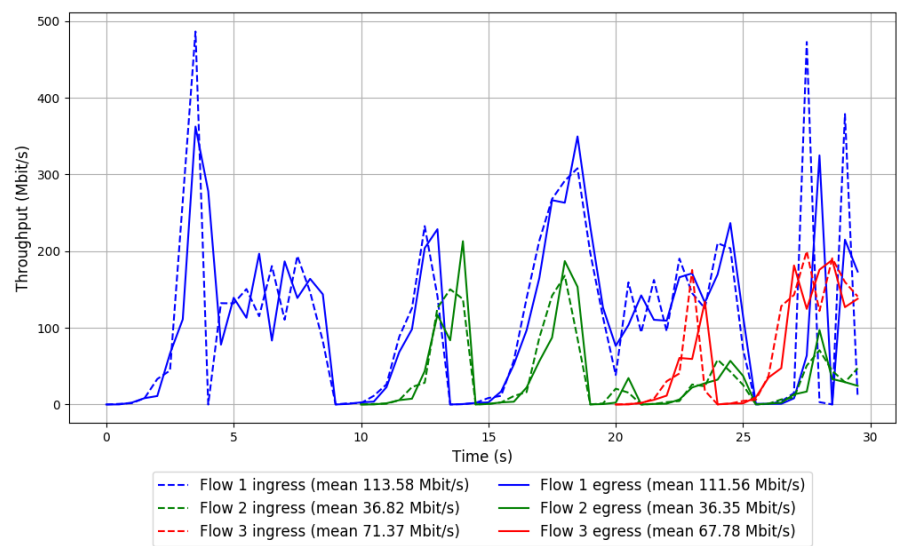
-- Flow 3:

Average throughput: 67.78 Mbit/s

95th percentile per-packet one-way delay: 258.723 ms

Loss rate: 7.38%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-18 02:23:29

End at: 2018-01-18 02:23:59

Below is generated by plot.py at 2018-01-18 08:56:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 286.43 Mbit/s

95th percentile per-packet one-way delay: 280.722 ms

Loss rate: 2.38%

-- Flow 1:

Average throughput: 237.43 Mbit/s

95th percentile per-packet one-way delay: 264.019 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 59.29 Mbit/s

95th percentile per-packet one-way delay: 377.122 ms

Loss rate: 9.80%

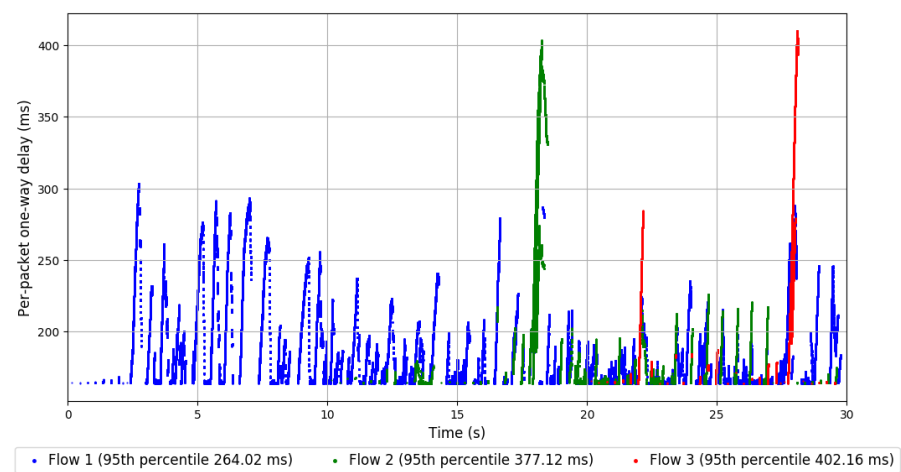
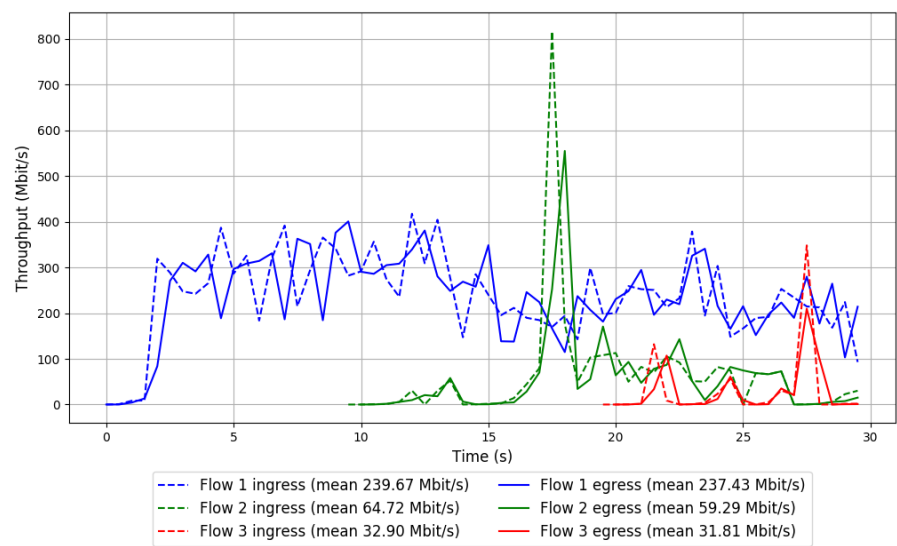
-- Flow 3:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 402.158 ms

Loss rate: 6.33%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-18 02:42:42

End at: 2018-01-18 02:43:12

Below is generated by plot.py at 2018-01-18 08:56:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.87 Mbit/s

95th percentile per-packet one-way delay: 302.712 ms

Loss rate: 3.75%

-- Flow 1:

Average throughput: 116.92 Mbit/s

95th percentile per-packet one-way delay: 252.212 ms

Loss rate: 3.13%

-- Flow 2:

Average throughput: 128.52 Mbit/s

95th percentile per-packet one-way delay: 336.088 ms

Loss rate: 5.24%

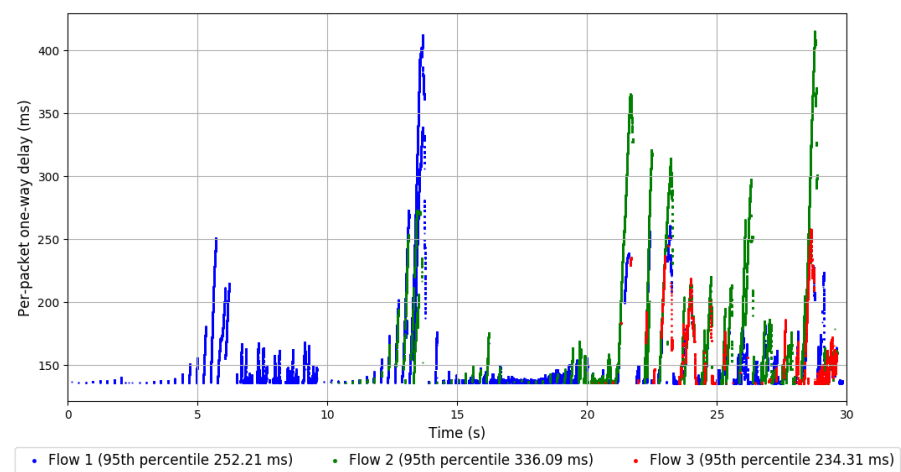
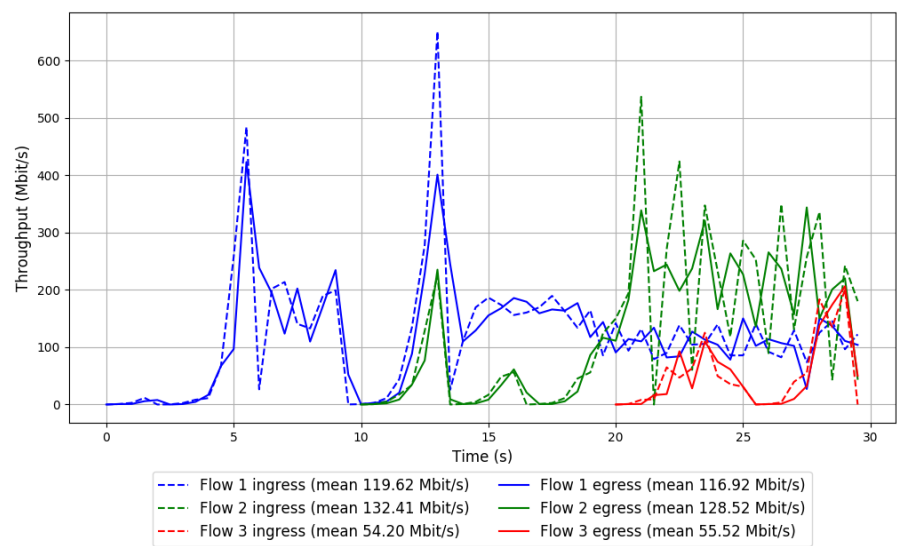
-- Flow 3:

Average throughput: 55.52 Mbit/s

95th percentile per-packet one-way delay: 234.313 ms

Loss rate: 0.45%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-18 03:02:57

End at: 2018-01-18 03:03:27

Below is generated by plot.py at 2018-01-18 08:56:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 221.36 Mbit/s

95th percentile per-packet one-way delay: 290.970 ms

Loss rate: 4.73%

-- Flow 1:

Average throughput: 160.30 Mbit/s

95th percentile per-packet one-way delay: 284.510 ms

Loss rate: 3.48%

-- Flow 2:

Average throughput: 48.34 Mbit/s

95th percentile per-packet one-way delay: 361.526 ms

Loss rate: 9.77%

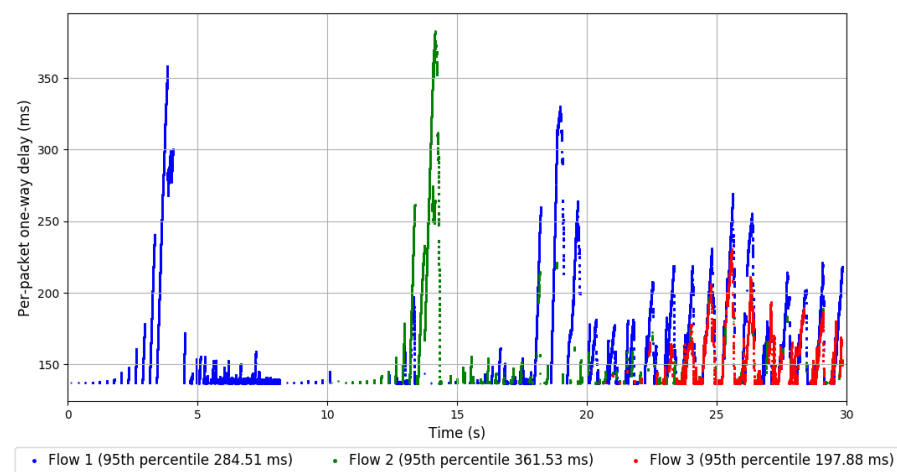
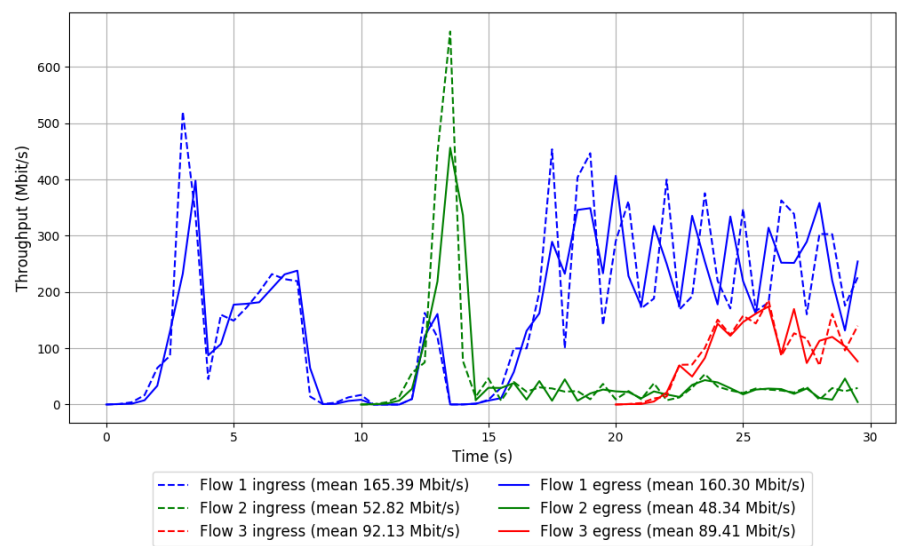
-- Flow 3:

Average throughput: 89.41 Mbit/s

95th percentile per-packet one-way delay: 197.882 ms

Loss rate: 5.70%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-18 03:22:25

End at: 2018-01-18 03:22:55

Below is generated by plot.py at 2018-01-18 08:57:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 259.75 Mbit/s

95th percentile per-packet one-way delay: 220.855 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 166.77 Mbit/s

95th percentile per-packet one-way delay: 231.936 ms

Loss rate: 1.59%

-- Flow 2:

Average throughput: 116.77 Mbit/s

95th percentile per-packet one-way delay: 214.371 ms

Loss rate: 2.29%

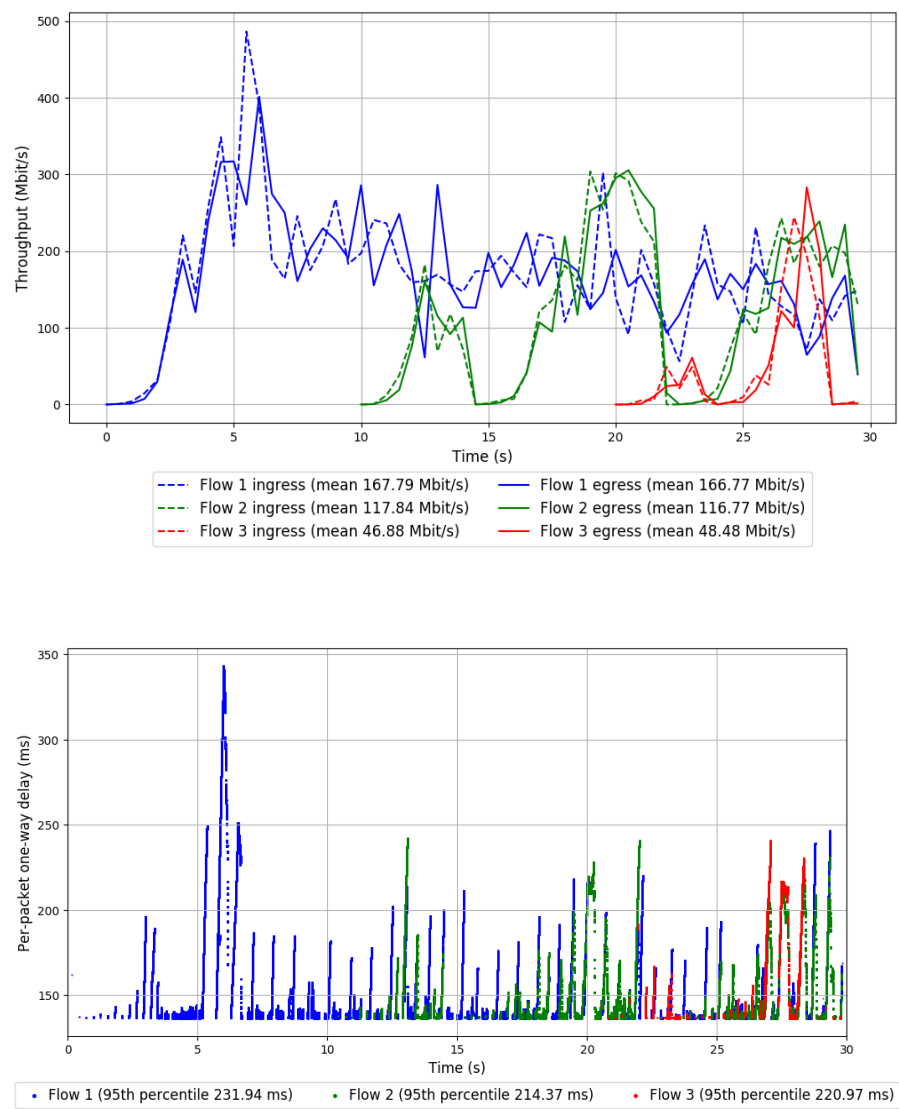
-- Flow 3:

Average throughput: 48.48 Mbit/s

95th percentile per-packet one-way delay: 220.974 ms

Loss rate: 0.32%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-18 03:42:09

End at: 2018-01-18 03:42:39

Below is generated by plot.py at 2018-01-18 08:57:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 144.96 Mbit/s

95th percentile per-packet one-way delay: 298.117 ms

Loss rate: 8.14%

-- Flow 1:

Average throughput: 95.26 Mbit/s

95th percentile per-packet one-way delay: 243.009 ms

Loss rate: 2.32%

-- Flow 2:

Average throughput: 55.65 Mbit/s

95th percentile per-packet one-way delay: 375.375 ms

Loss rate: 22.41%

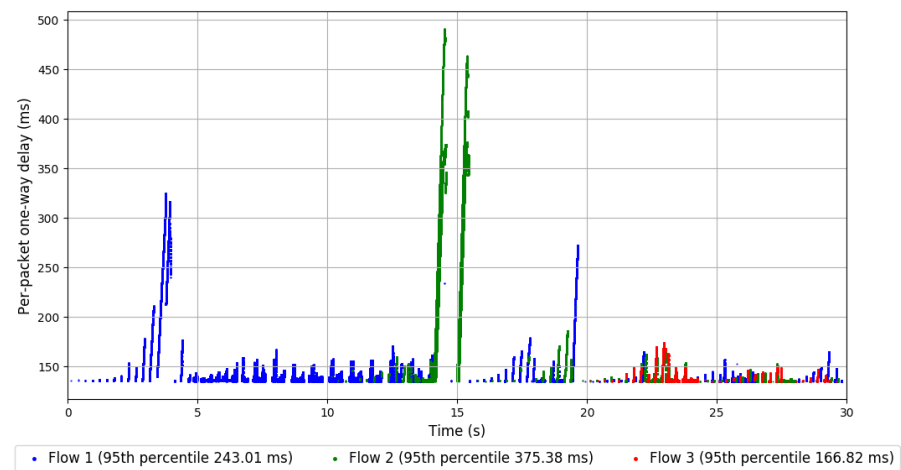
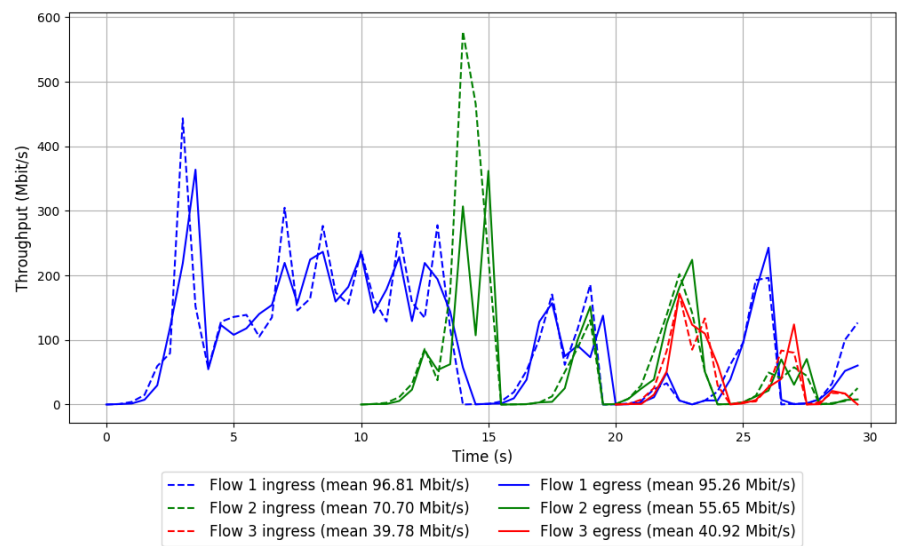
-- Flow 3:

Average throughput: 40.92 Mbit/s

95th percentile per-packet one-way delay: 166.825 ms

Loss rate: 0.02%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-18 04:01:28

End at: 2018-01-18 04:01:58

Below is generated by plot.py at 2018-01-18 08:59:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 242.63 Mbit/s

95th percentile per-packet one-way delay: 227.447 ms

Loss rate: 4.29%

-- Flow 1:

Average throughput: 186.12 Mbit/s

95th percentile per-packet one-way delay: 247.440 ms

Loss rate: 4.29%

-- Flow 2:

Average throughput: 72.88 Mbit/s

95th percentile per-packet one-way delay: 199.351 ms

Loss rate: 0.11%

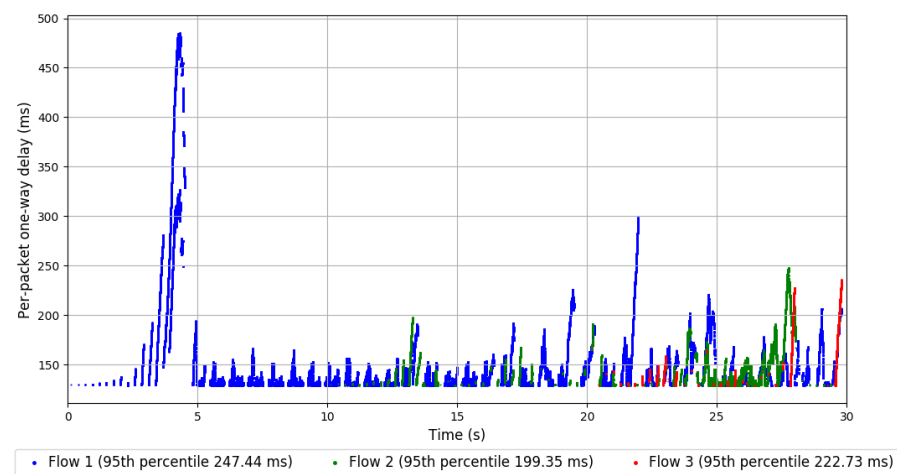
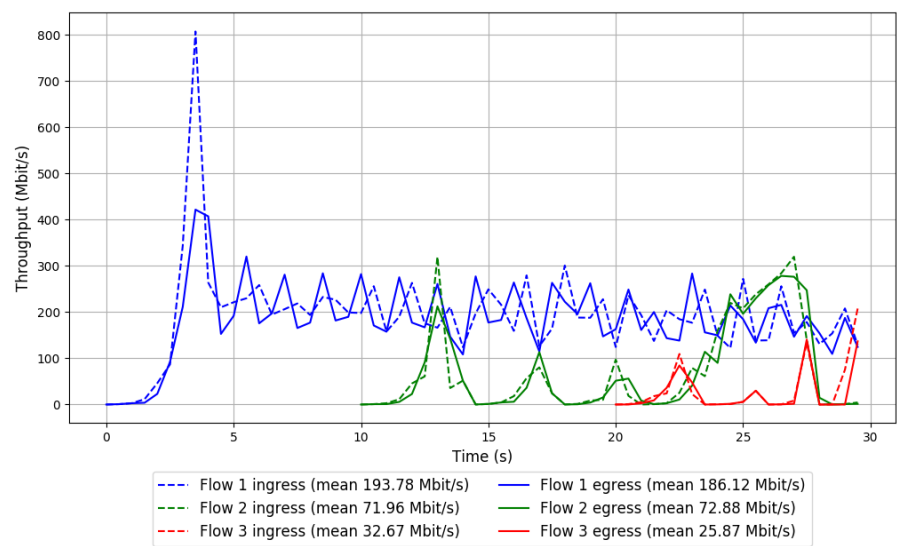
-- Flow 3:

Average throughput: 25.87 Mbit/s

95th percentile per-packet one-way delay: 222.733 ms

Loss rate: 22.72%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-18 04:21:42

End at: 2018-01-18 04:22:12

Below is generated by plot.py at 2018-01-18 08:59:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.46 Mbit/s

95th percentile per-packet one-way delay: 213.449 ms

Loss rate: 4.25%

-- Flow 1:

Average throughput: 151.88 Mbit/s

95th percentile per-packet one-way delay: 261.104 ms

Loss rate: 3.74%

-- Flow 2:

Average throughput: 111.07 Mbit/s

95th percentile per-packet one-way delay: 208.076 ms

Loss rate: 4.34%

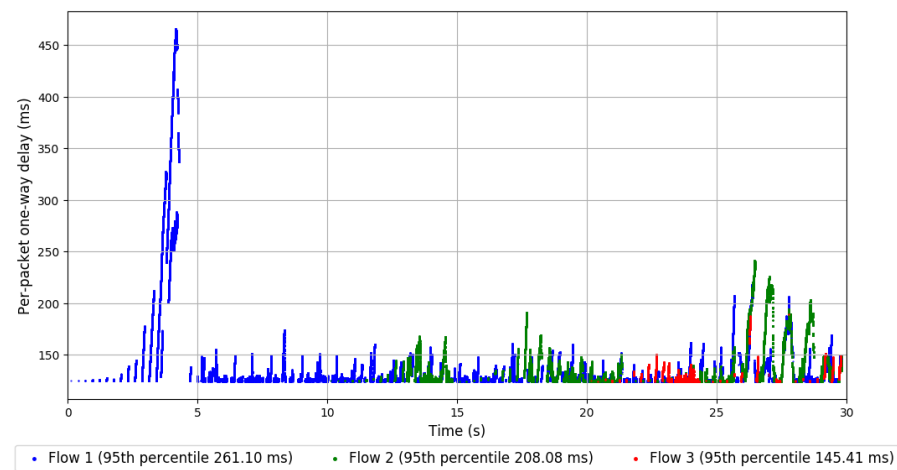
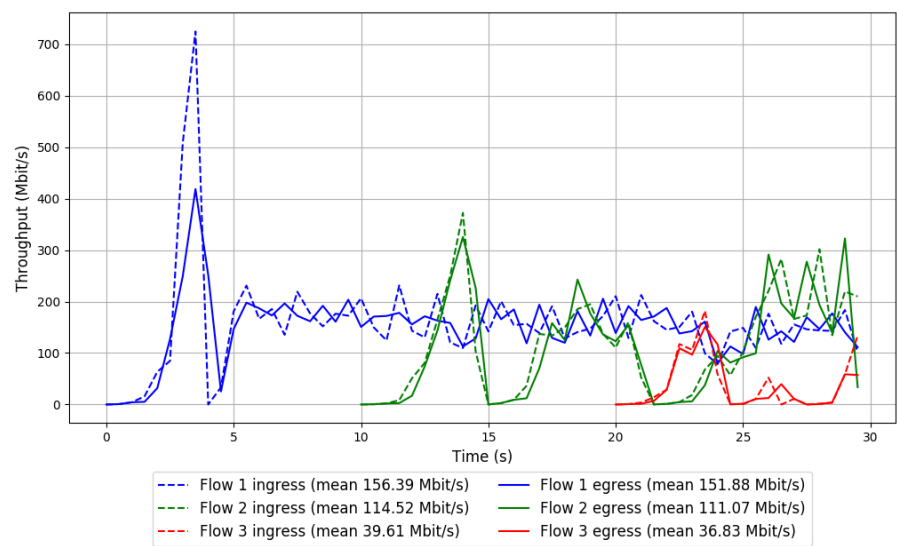
-- Flow 3:

Average throughput: 36.83 Mbit/s

95th percentile per-packet one-way delay: 145.414 ms

Loss rate: 9.77%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-18 04:41:30

End at: 2018-01-18 04:42:00

Below is generated by plot.py at 2018-01-18 09:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.24 Mbit/s

95th percentile per-packet one-way delay: 217.682 ms

Loss rate: 2.79%

-- Flow 1:

Average throughput: 159.51 Mbit/s

95th percentile per-packet one-way delay: 241.673 ms

Loss rate: 4.11%

-- Flow 2:

Average throughput: 87.68 Mbit/s

95th percentile per-packet one-way delay: 170.454 ms

Loss rate: 0.04%

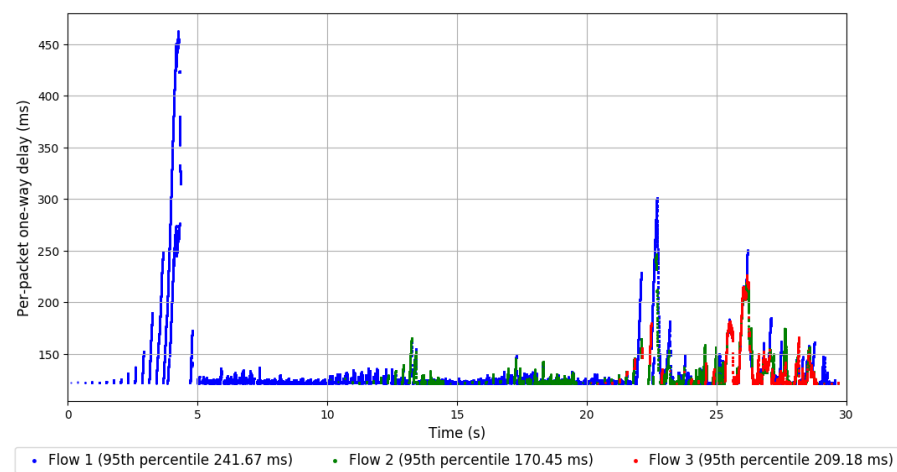
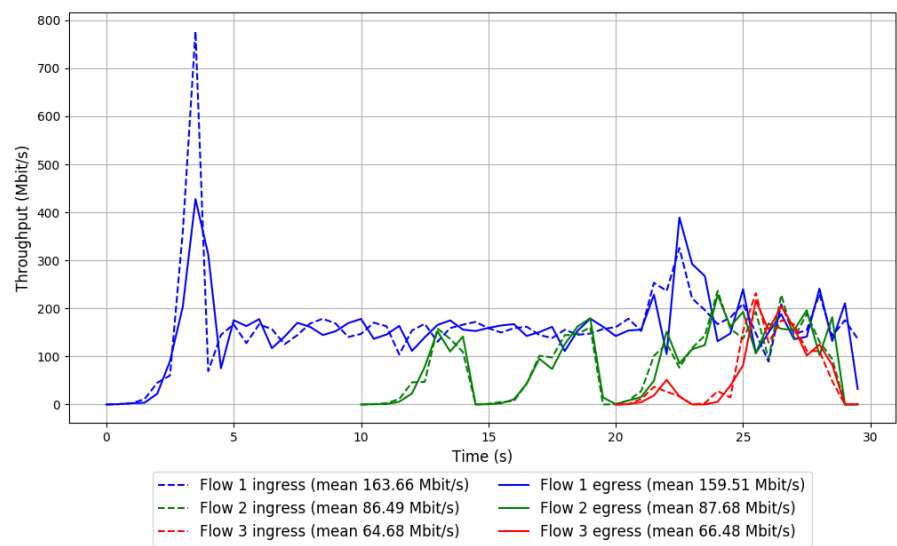
-- Flow 3:

Average throughput: 66.48 Mbit/s

95th percentile per-packet one-way delay: 209.184 ms

Loss rate: 0.08%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-18 02:02:51

End at: 2018-01-18 02:03:21

Below is generated by plot.py at 2018-01-18 09:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.28 Mbit/s

95th percentile per-packet one-way delay: 164.101 ms

Loss rate: 4.42%

-- Flow 1:

Average throughput: 24.93 Mbit/s

95th percentile per-packet one-way delay: 164.110 ms

Loss rate: 3.53%

-- Flow 2:

Average throughput: 14.67 Mbit/s

95th percentile per-packet one-way delay: 164.108 ms

Loss rate: 4.47%

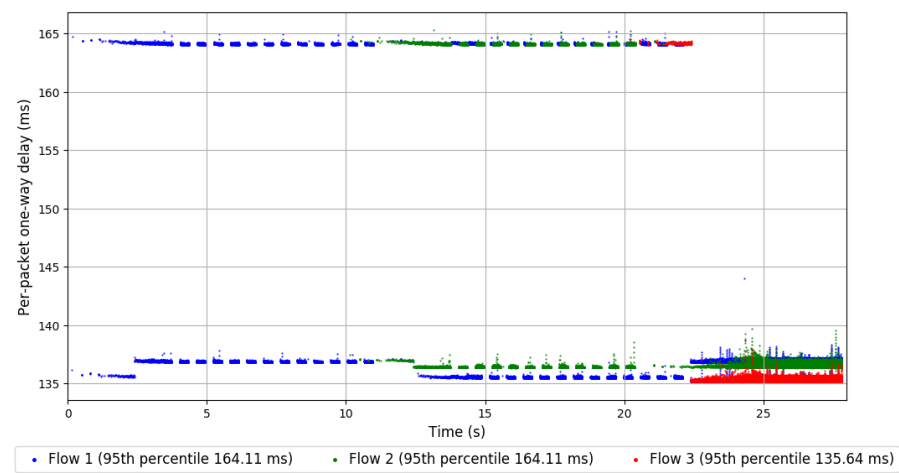
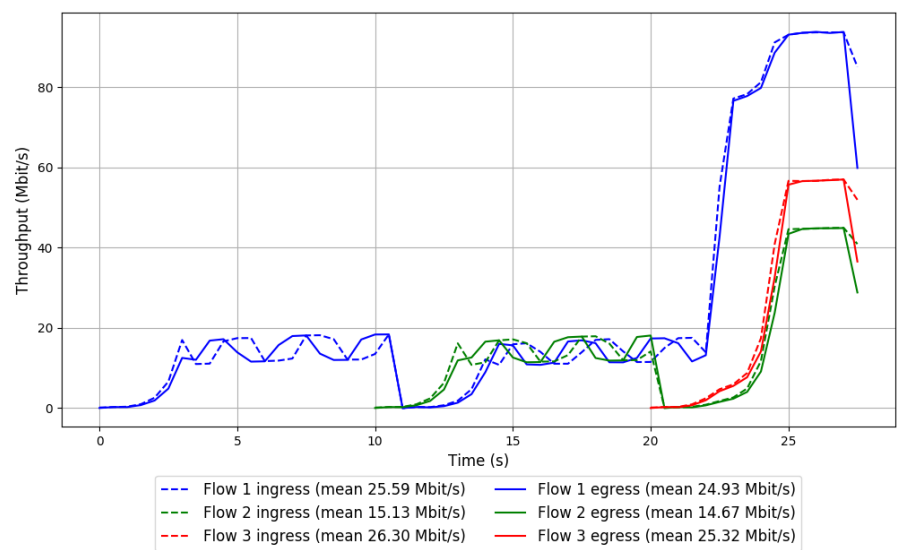
-- Flow 3:

Average throughput: 25.32 Mbit/s

95th percentile per-packet one-way delay: 135.638 ms

Loss rate: 7.39%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-18 02:20:52

End at: 2018-01-18 02:21:22

Below is generated by plot.py at 2018-01-18 09:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.35 Mbit/s

95th percentile per-packet one-way delay: 164.174 ms

Loss rate: 4.31%

-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 164.377 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.99 Mbit/s

95th percentile per-packet one-way delay: 164.174 ms

Loss rate: 4.32%

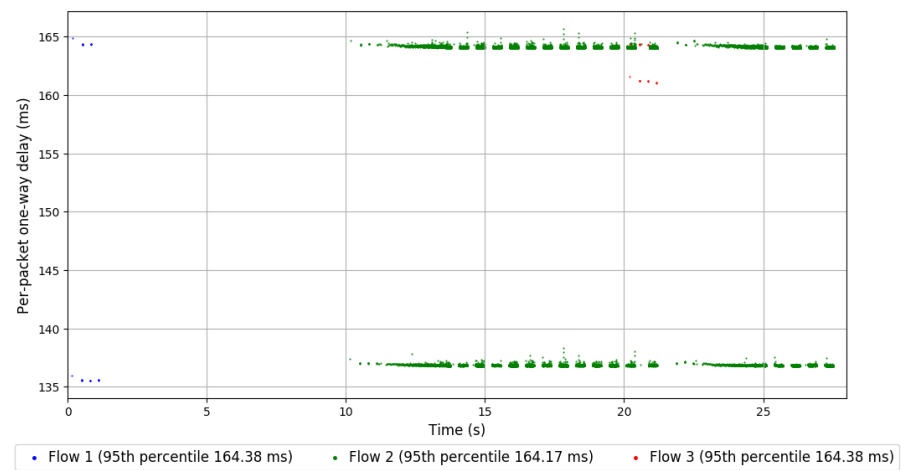
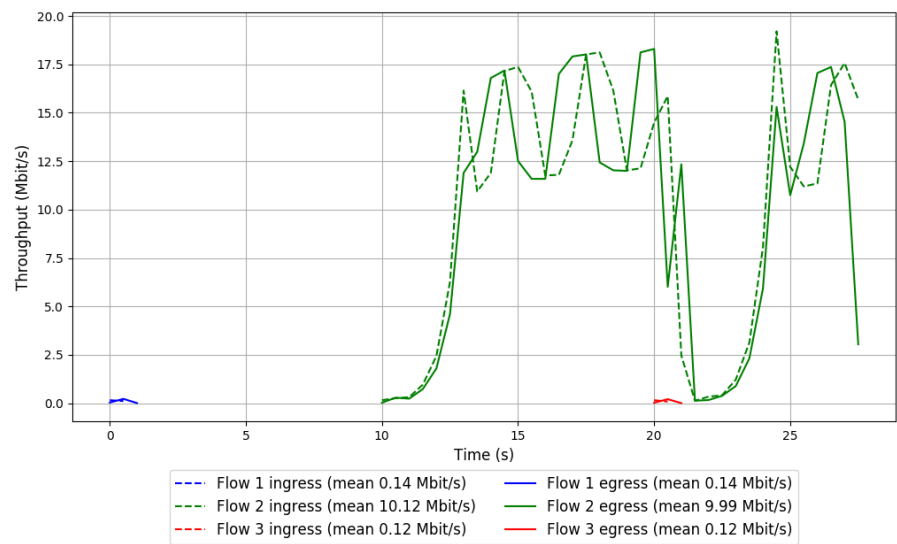
-- Flow 3:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 164.379 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-18 02:39:33

End at: 2018-01-18 02:40:03

Below is generated by plot.py at 2018-01-18 09:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.84 Mbit/s

95th percentile per-packet one-way delay: 136.324 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 75.83 Mbit/s

95th percentile per-packet one-way delay: 136.324 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 135.903 ms

Loss rate: 0.00%

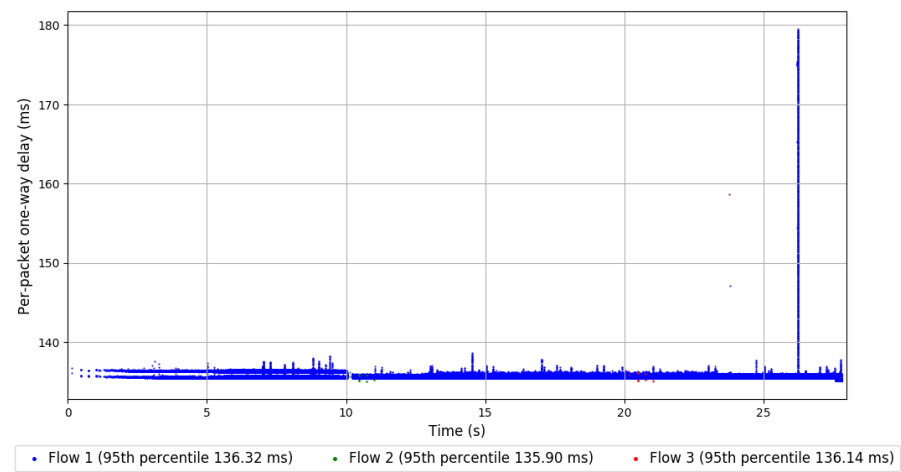
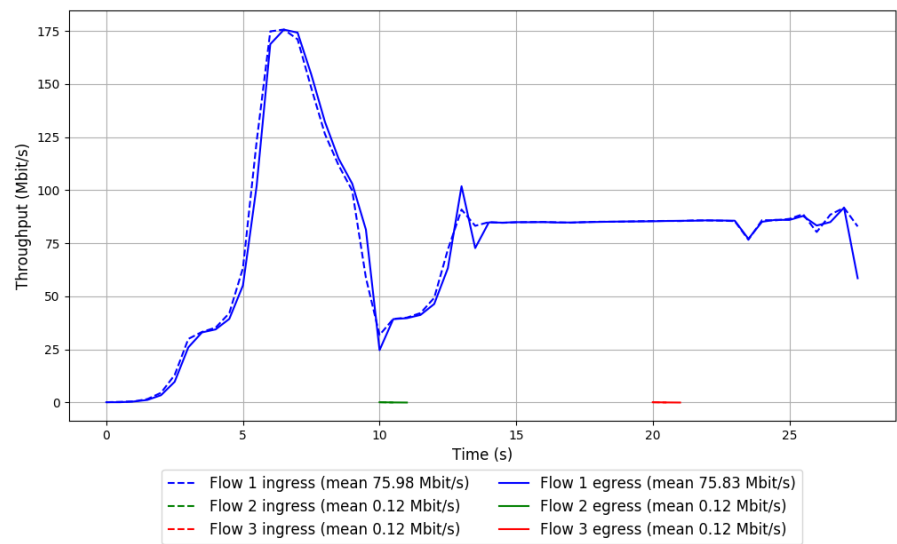
-- Flow 3:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 136.137 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-18 02:59:46

End at: 2018-01-18 03:00:16

Below is generated by plot.py at 2018-01-18 09:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.77 Mbit/s

95th percentile per-packet one-way delay: 137.256 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 76.58 Mbit/s

95th percentile per-packet one-way delay: 137.327 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 66.02 Mbit/s

95th percentile per-packet one-way delay: 136.756 ms

Loss rate: 1.34%

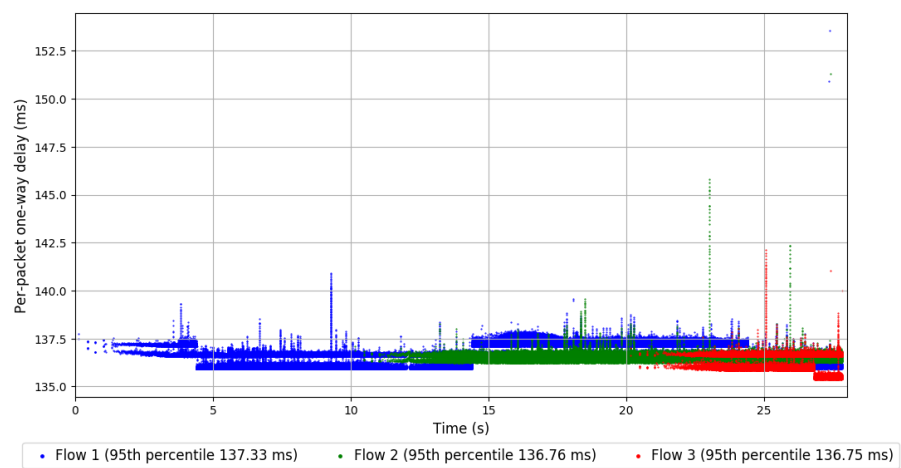
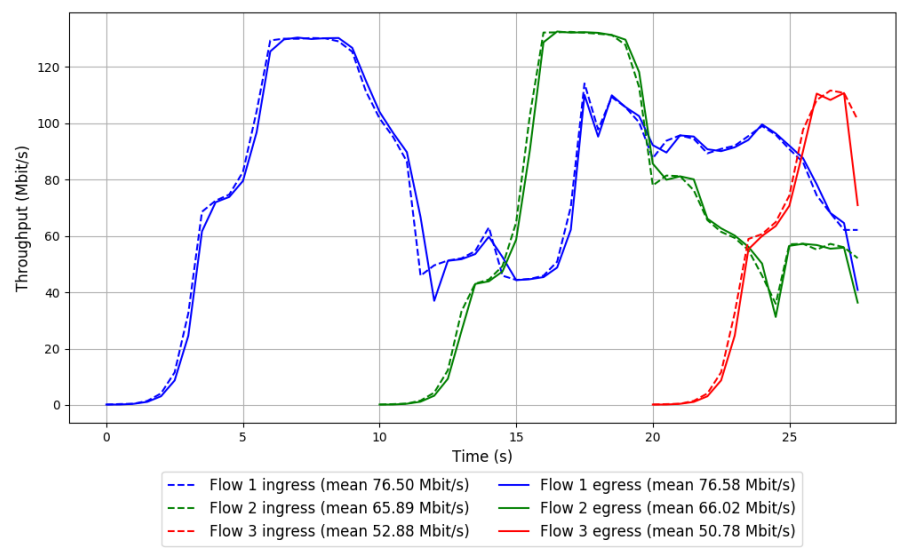
-- Flow 3:

Average throughput: 50.78 Mbit/s

95th percentile per-packet one-way delay: 136.750 ms

Loss rate: 7.25%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-18 03:19:08

End at: 2018-01-18 03:19:38

Below is generated by plot.py at 2018-01-18 09:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.68 Mbit/s

95th percentile per-packet one-way delay: 136.712 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 80.96 Mbit/s

95th percentile per-packet one-way delay: 136.689 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 136.834 ms

Loss rate: 0.00%

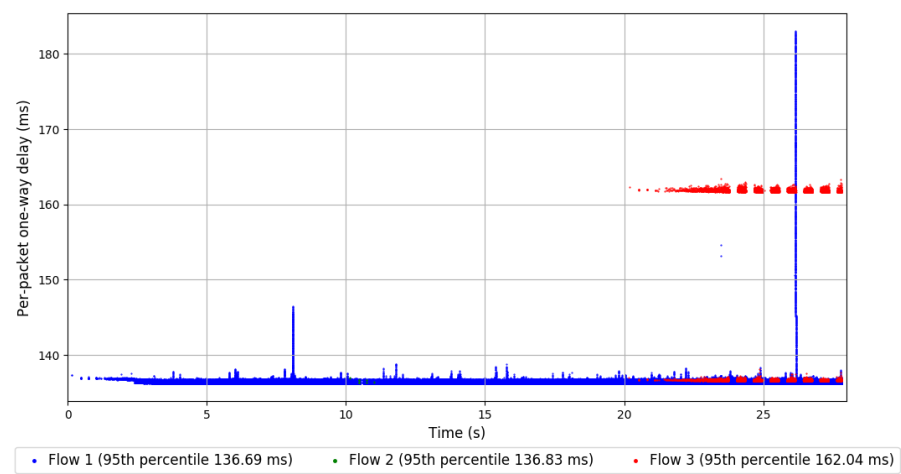
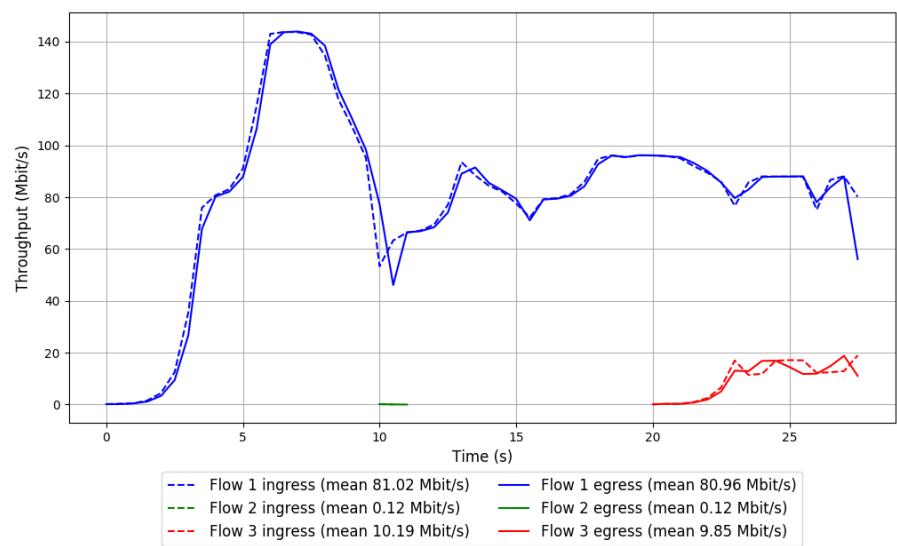
-- Flow 3:

Average throughput: 9.85 Mbit/s

95th percentile per-packet one-way delay: 162.036 ms

Loss rate: 4.94%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-18 03:38:56

End at: 2018-01-18 03:39:26

Below is generated by plot.py at 2018-01-18 09:00:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.42 Mbit/s

95th percentile per-packet one-way delay: 159.659 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 40.93 Mbit/s

95th percentile per-packet one-way delay: 163.213 ms

Loss rate: 1.95%

-- Flow 2:

Average throughput: 58.72 Mbit/s

95th percentile per-packet one-way delay: 136.020 ms

Loss rate: 0.00%

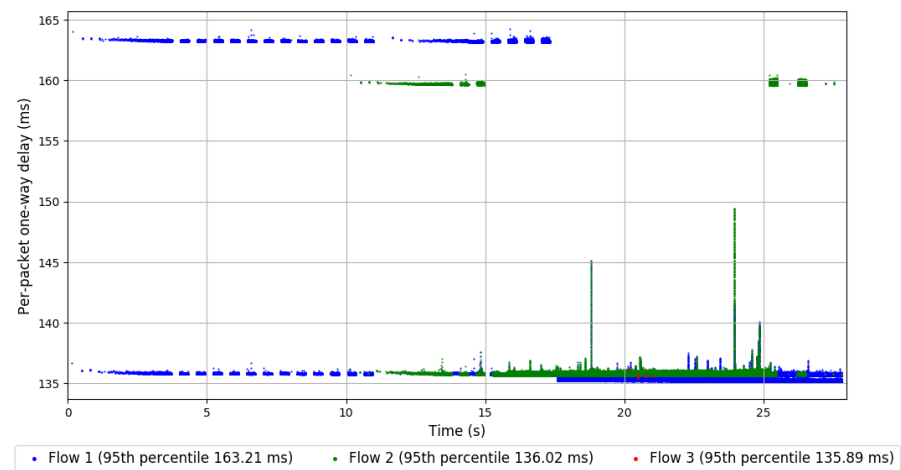
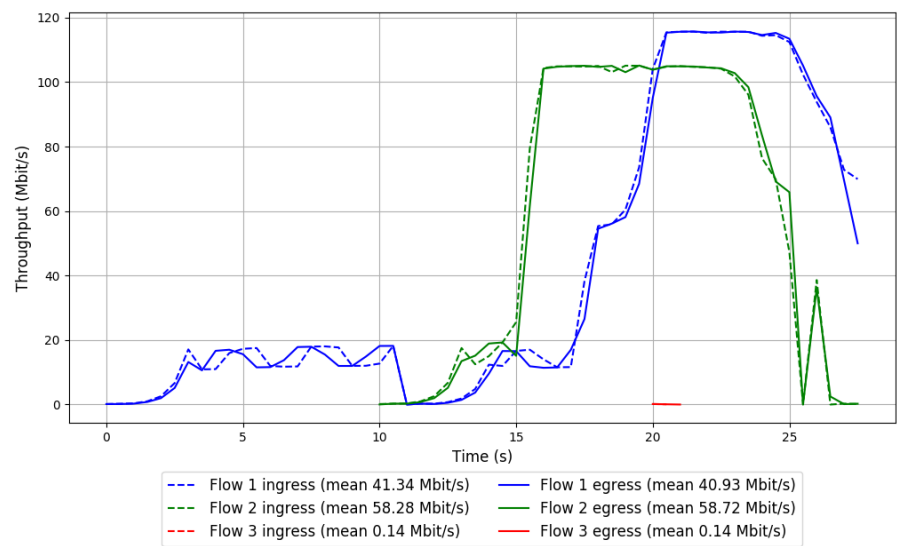
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 135.894 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-18 03:58:07

End at: 2018-01-18 03:58:37

Below is generated by plot.py at 2018-01-18 09:01:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.42 Mbit/s

95th percentile per-packet one-way delay: 130.508 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 70.48 Mbit/s

95th percentile per-packet one-way delay: 130.428 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 73.50 Mbit/s

95th percentile per-packet one-way delay: 130.137 ms

Loss rate: 1.76%

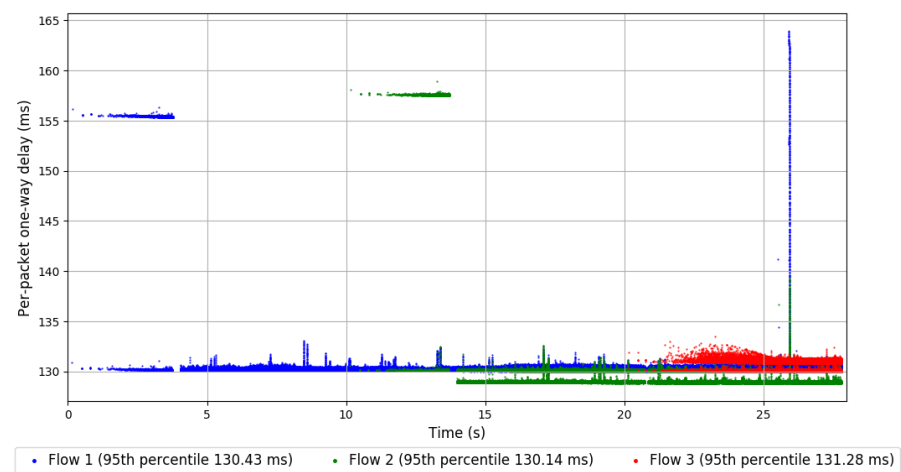
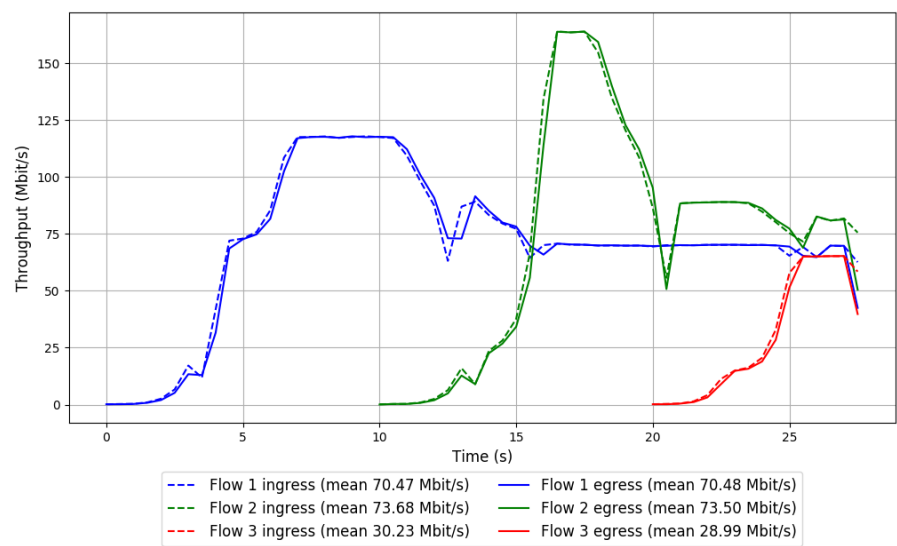
-- Flow 3:

Average throughput: 28.99 Mbit/s

95th percentile per-packet one-way delay: 131.275 ms

Loss rate: 7.41%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-18 04:18:23

End at: 2018-01-18 04:18:53

Below is generated by plot.py at 2018-01-18 09:01:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.57 Mbit/s

95th percentile per-packet one-way delay: 125.472 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 80.56 Mbit/s

95th percentile per-packet one-way delay: 125.472 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 126.661 ms

Loss rate: 0.00%

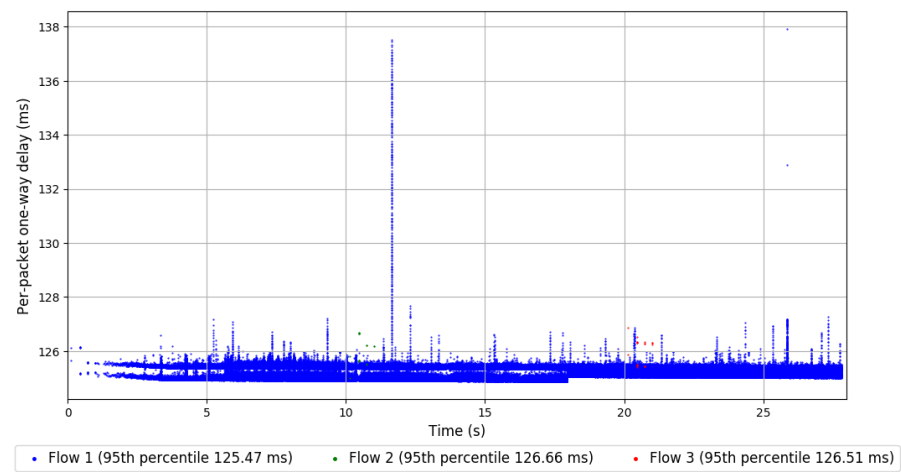
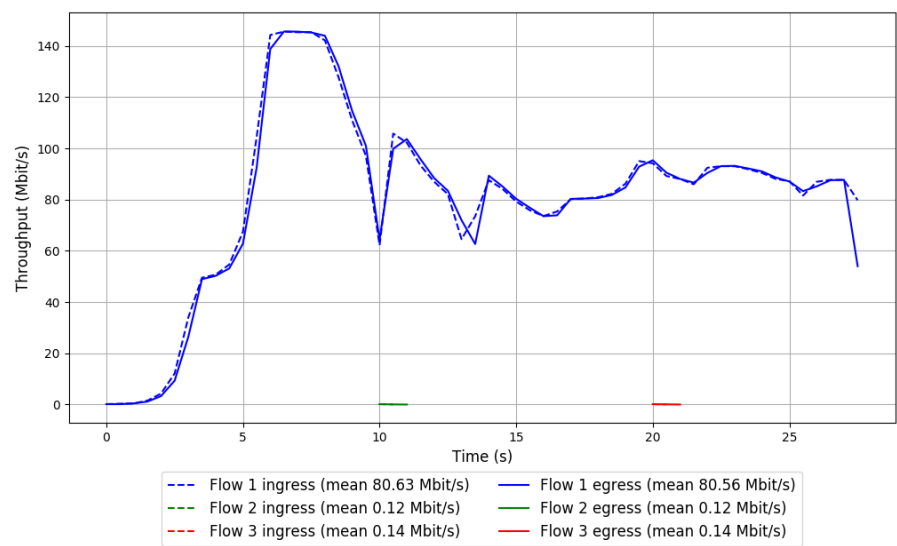
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 126.514 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-18 04:38:33

End at: 2018-01-18 04:39:04

Below is generated by plot.py at 2018-01-18 09:01:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.57 Mbit/s

95th percentile per-packet one-way delay: 122.256 ms

Loss rate: 1.71%

-- Flow 1:

Average throughput: 36.28 Mbit/s

95th percentile per-packet one-way delay: 149.525 ms

Loss rate: 2.19%

-- Flow 2:

Average throughput: 59.96 Mbit/s

95th percentile per-packet one-way delay: 121.837 ms

Loss rate: 1.25%

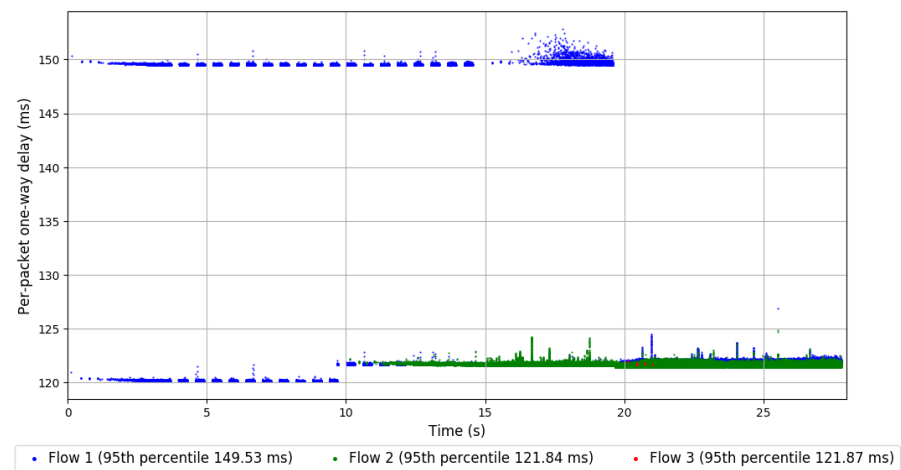
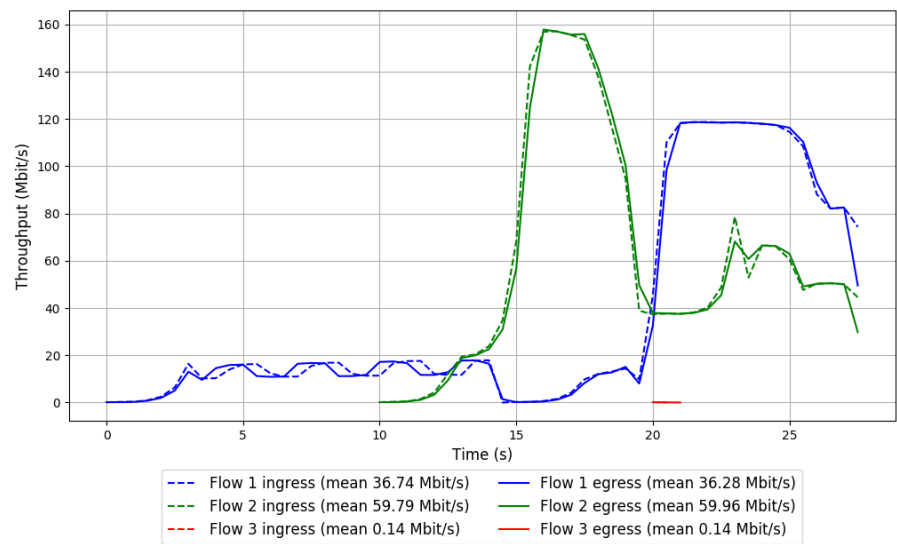
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 121.873 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-18 04:58:23

End at: 2018-01-18 04:58:53

Below is generated by plot.py at 2018-01-18 09:01:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.54 Mbit/s

95th percentile per-packet one-way delay: 121.432 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 66.42 Mbit/s

95th percentile per-packet one-way delay: 121.372 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 121.474 ms

Loss rate: 0.00%

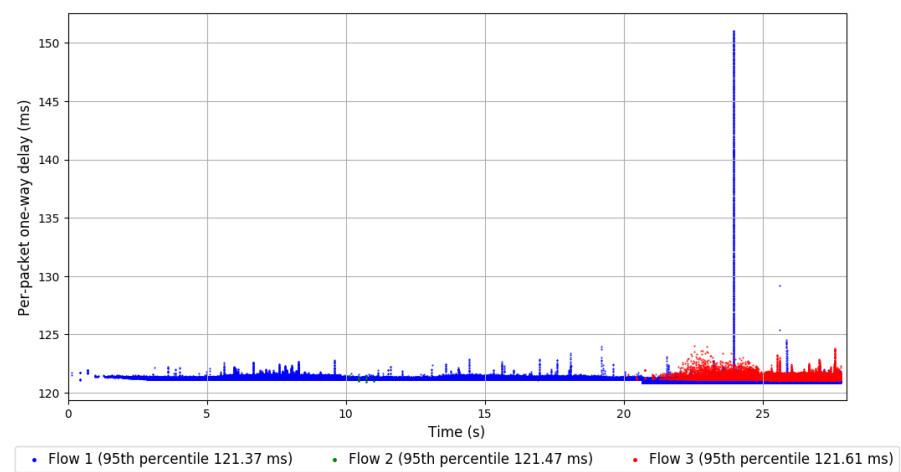
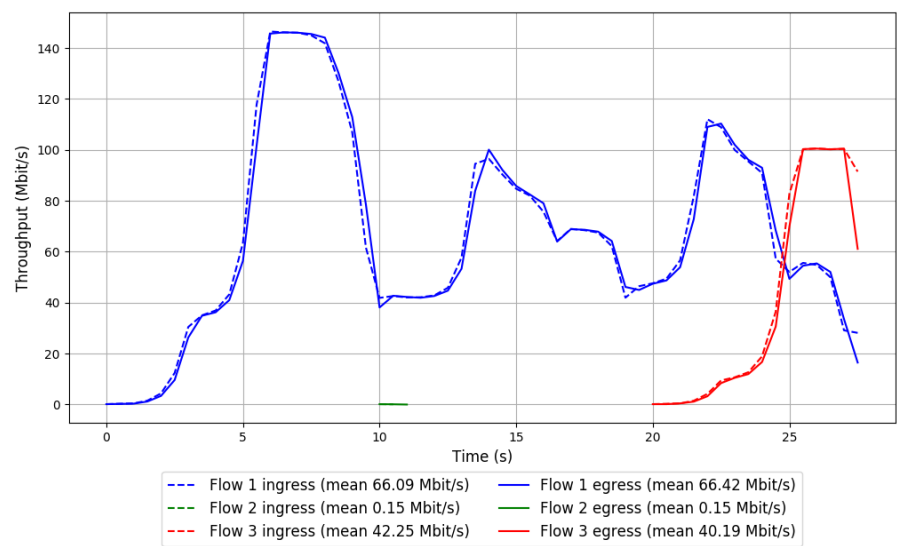
-- Flow 3:

Average throughput: 40.19 Mbit/s

95th percentile per-packet one-way delay: 121.609 ms

Loss rate: 8.16%

Run 10: Report of Copa — Data Link

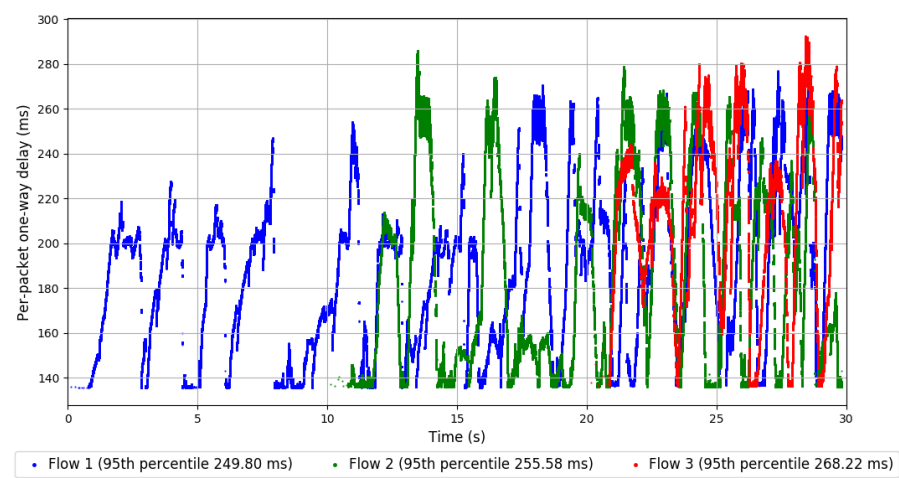
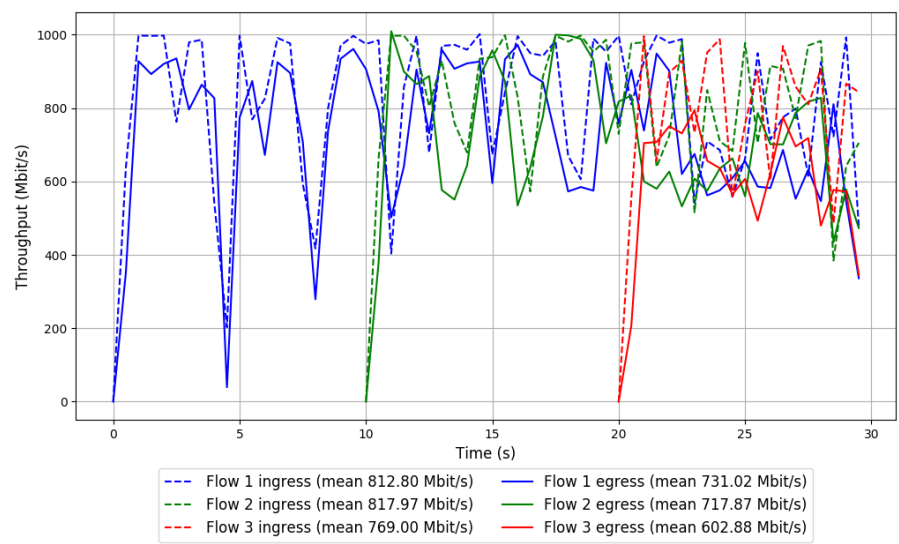


```
Run 1: Statistics of FillP

Start at: 2018-01-18 01:59:04
End at: 2018-01-18 01:59:34

# Below is generated by plot.py at 2018-01-18 09:26:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1402.82 Mbit/s
95th percentile per-packet one-way delay: 255.229 ms
Loss rate: 13.77%
-- Flow 1:
Average throughput: 731.02 Mbit/s
95th percentile per-packet one-way delay: 249.798 ms
Loss rate: 10.88%
-- Flow 2:
Average throughput: 717.87 Mbit/s
95th percentile per-packet one-way delay: 255.577 ms
Loss rate: 13.42%
-- Flow 3:
Average throughput: 602.88 Mbit/s
95th percentile per-packet one-way delay: 268.224 ms
Loss rate: 23.76%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-18 02:17:08

End at: 2018-01-18 02:17:38

Below is generated by plot.py at 2018-01-18 09:26:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1306.43 Mbit/s

95th percentile per-packet one-way delay: 377.384 ms

Loss rate: 15.47%

-- Flow 1:

Average throughput: 658.59 Mbit/s

95th percentile per-packet one-way delay: 273.401 ms

Loss rate: 14.98%

-- Flow 2:

Average throughput: 726.92 Mbit/s

95th percentile per-packet one-way delay: 370.026 ms

Loss rate: 11.70%

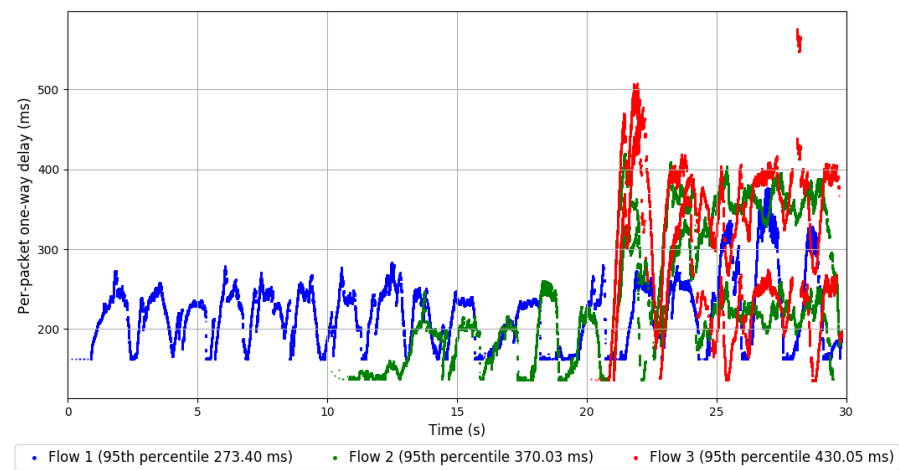
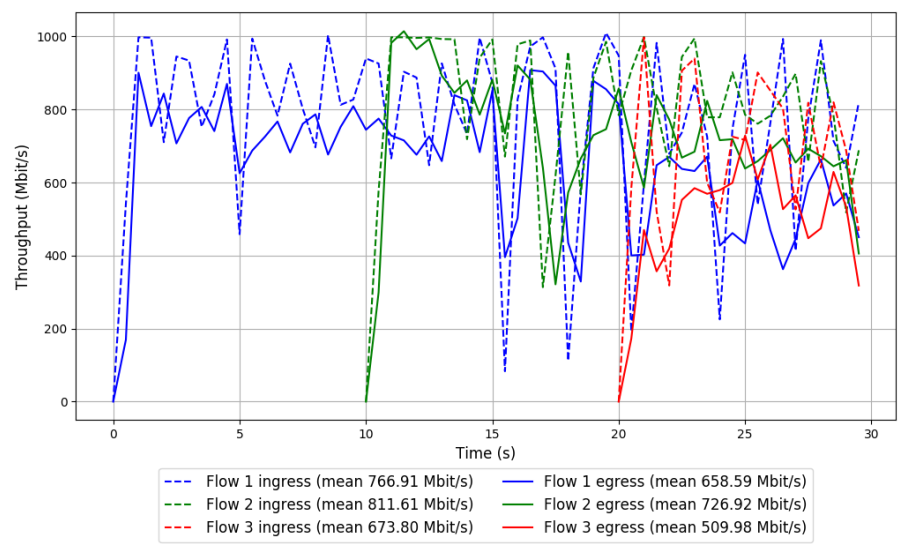
-- Flow 3:

Average throughput: 509.98 Mbit/s

95th percentile per-packet one-way delay: 430.046 ms

Loss rate: 26.27%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-18 02:35:38

End at: 2018-01-18 02:36:08

Below is generated by plot.py at 2018-01-18 09:27:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1409.39 Mbit/s

95th percentile per-packet one-way delay: 371.809 ms

Loss rate: 15.30%

-- Flow 1:

Average throughput: 759.46 Mbit/s

95th percentile per-packet one-way delay: 373.247 ms

Loss rate: 12.85%

-- Flow 2:

Average throughput: 658.30 Mbit/s

95th percentile per-packet one-way delay: 381.699 ms

Loss rate: 18.73%

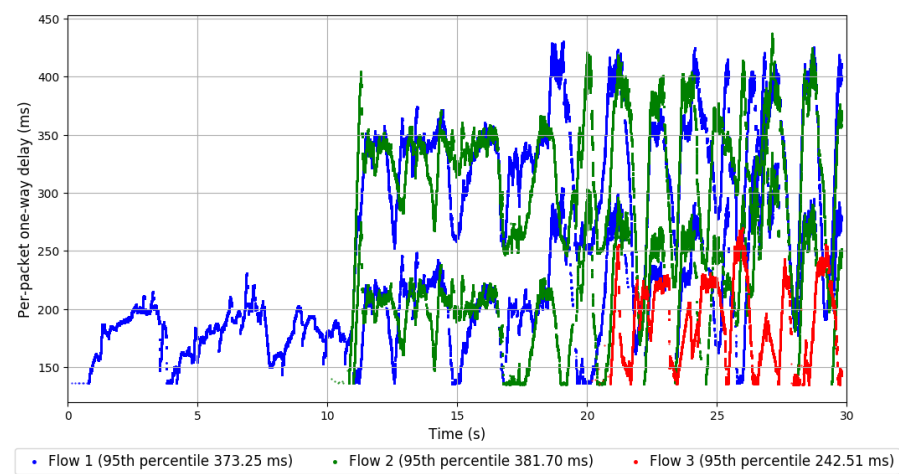
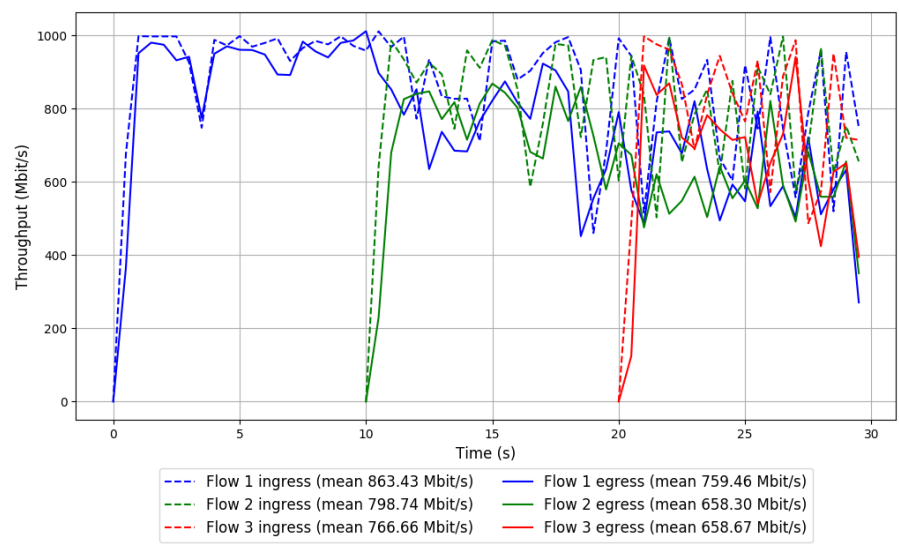
-- Flow 3:

Average throughput: 658.67 Mbit/s

95th percentile per-packet one-way delay: 242.512 ms

Loss rate: 16.46%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-18 02:55:59

End at: 2018-01-18 02:56:29

Below is generated by plot.py at 2018-01-18 09:27:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1335.43 Mbit/s

95th percentile per-packet one-way delay: 397.270 ms

Loss rate: 15.82%

-- Flow 1:

Average throughput: 718.52 Mbit/s

95th percentile per-packet one-way delay: 249.327 ms

Loss rate: 13.35%

-- Flow 2:

Average throughput: 697.77 Mbit/s

95th percentile per-packet one-way delay: 415.666 ms

Loss rate: 15.76%

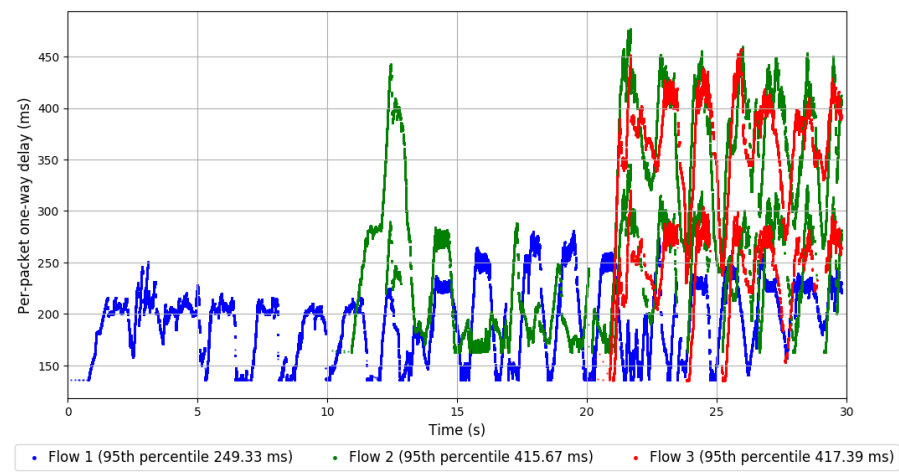
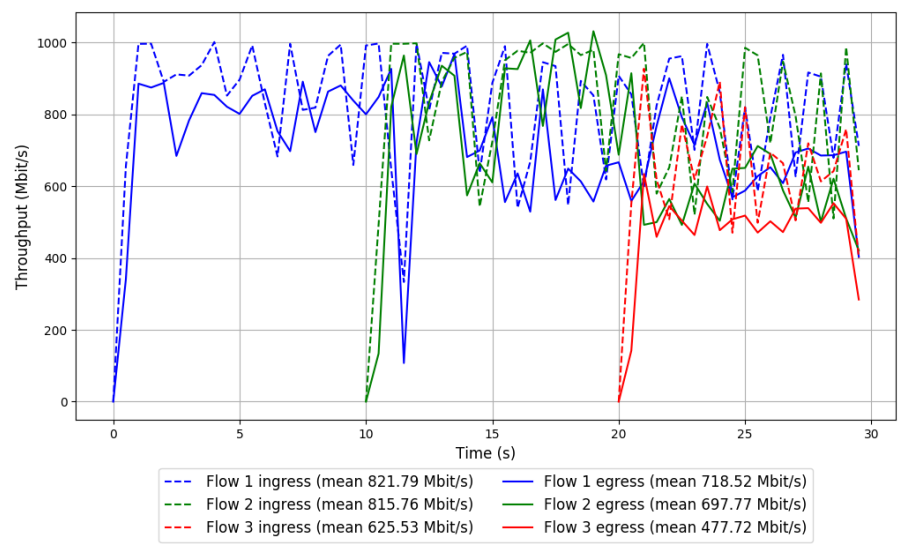
-- Flow 3:

Average throughput: 477.72 Mbit/s

95th percentile per-packet one-way delay: 417.395 ms

Loss rate: 25.74%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-18 03:15:25

End at: 2018-01-18 03:15:55

Below is generated by plot.py at 2018-01-18 09:27:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1335.40 Mbit/s

95th percentile per-packet one-way delay: 272.960 ms

Loss rate: 15.11%

-- Flow 1:

Average throughput: 741.93 Mbit/s

95th percentile per-packet one-way delay: 258.277 ms

Loss rate: 12.05%

-- Flow 2:

Average throughput: 649.81 Mbit/s

95th percentile per-packet one-way delay: 260.930 ms

Loss rate: 17.00%

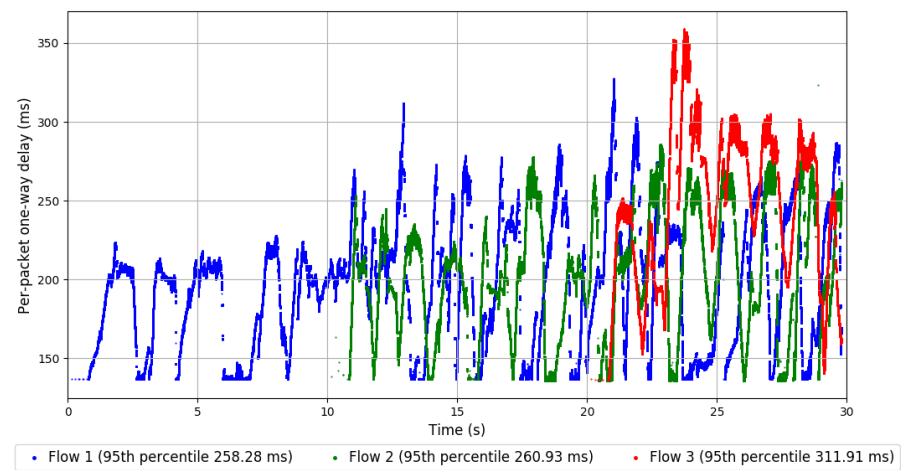
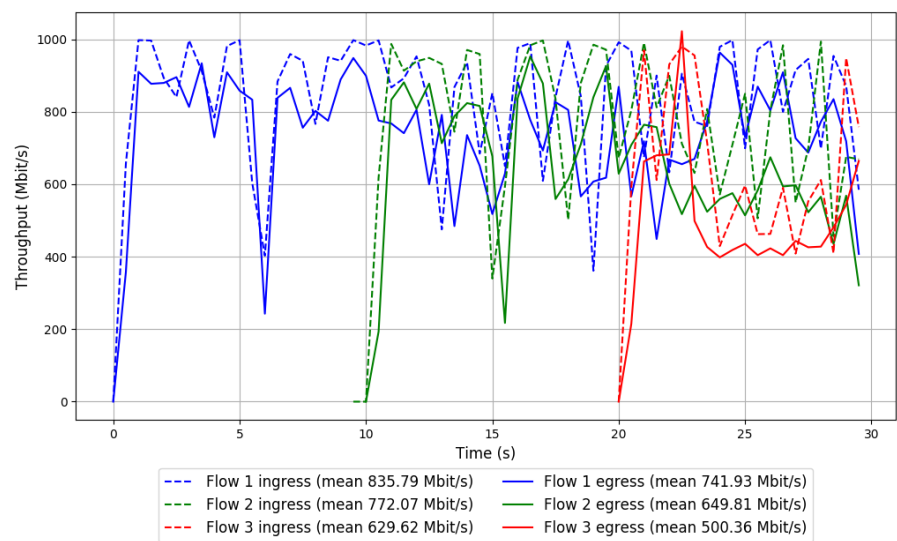
-- Flow 3:

Average throughput: 500.36 Mbit/s

95th percentile per-packet one-way delay: 311.913 ms

Loss rate: 22.74%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-18 03:35:11

End at: 2018-01-18 03:35:41

Below is generated by plot.py at 2018-01-18 09:28:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 1381.92 Mbit/s

95th percentile per-packet one-way delay: 268.426 ms

Loss rate: 13.88%

-- Flow 1:

Average throughput: 738.00 Mbit/s

95th percentile per-packet one-way delay: 273.907 ms

Loss rate: 11.14%

-- Flow 2:

Average throughput: 677.06 Mbit/s

95th percentile per-packet one-way delay: 251.187 ms

Loss rate: 15.96%

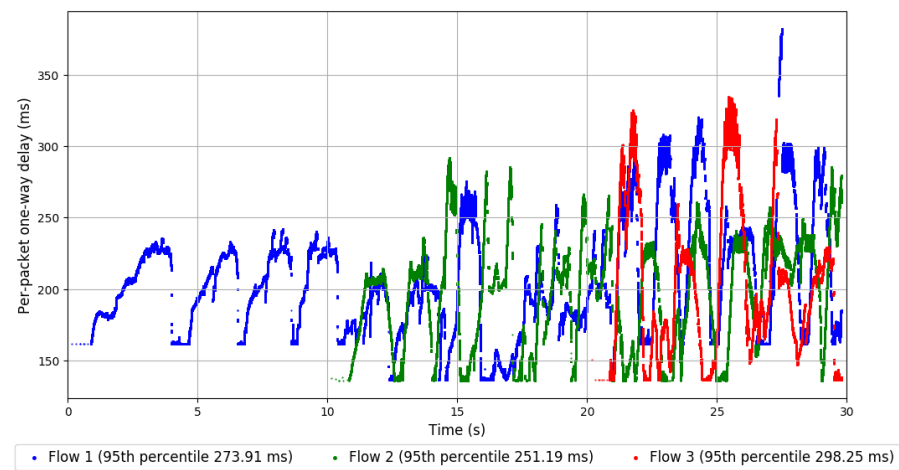
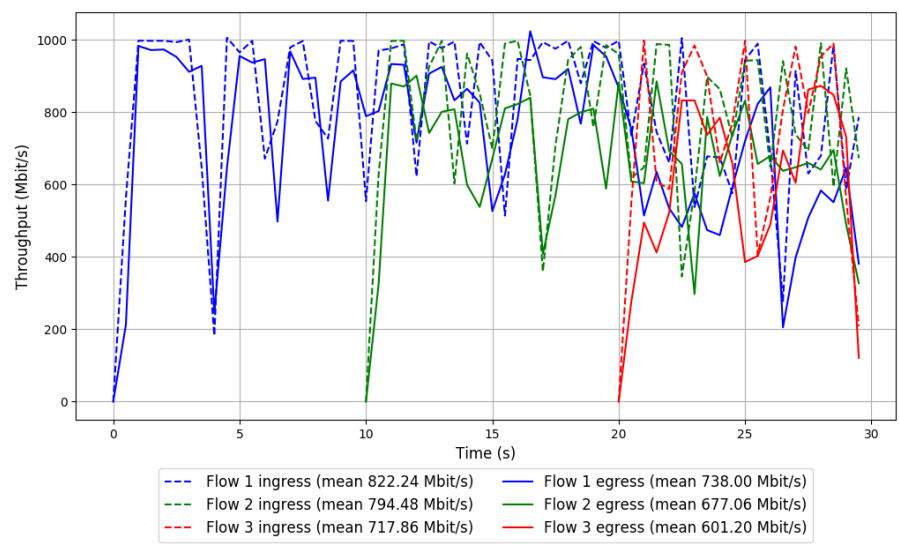
-- Flow 3:

Average throughput: 601.20 Mbit/s

95th percentile per-packet one-way delay: 298.246 ms

Loss rate: 18.76%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-18 03:54:19

End at: 2018-01-18 03:54:49

Below is generated by plot.py at 2018-01-18 09:28:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 1390.11 Mbit/s

95th percentile per-packet one-way delay: 253.476 ms

Loss rate: 14.80%

-- Flow 1:

Average throughput: 738.63 Mbit/s

95th percentile per-packet one-way delay: 250.643 ms

Loss rate: 12.68%

-- Flow 2:

Average throughput: 681.02 Mbit/s

95th percentile per-packet one-way delay: 255.464 ms

Loss rate: 15.63%

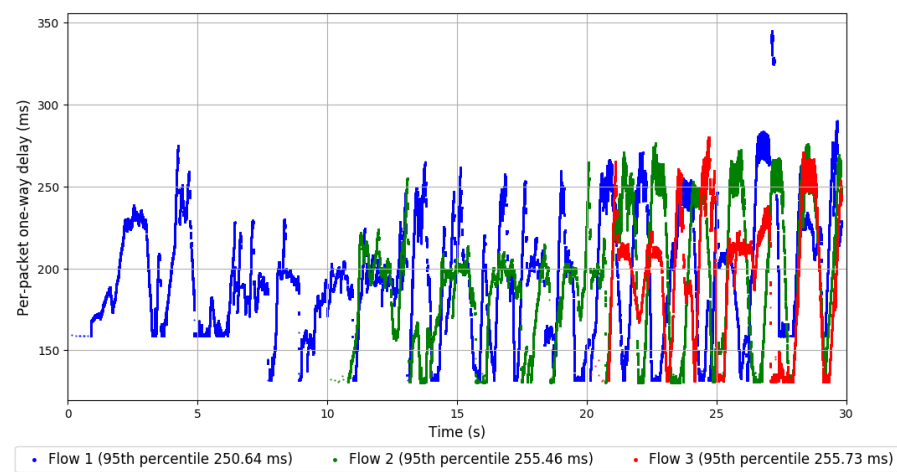
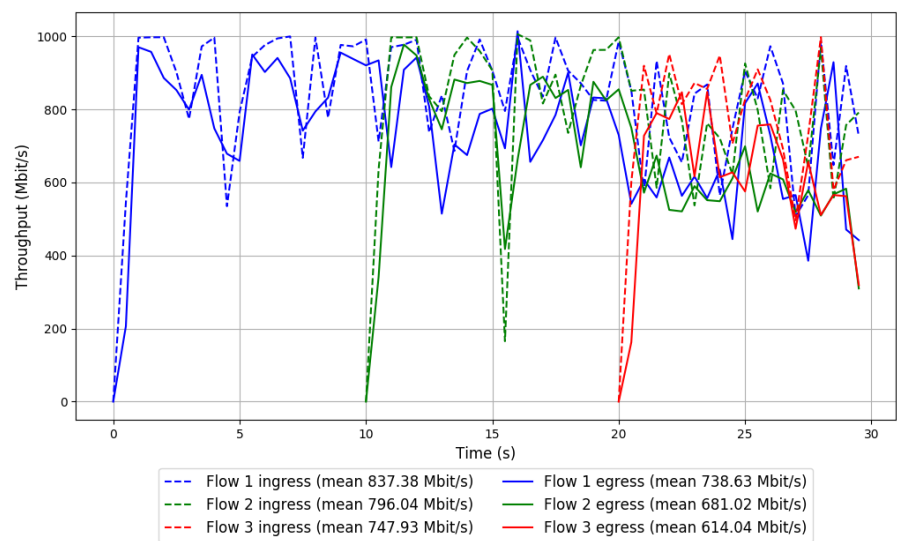
-- Flow 3:

Average throughput: 614.04 Mbit/s

95th percentile per-packet one-way delay: 255.734 ms

Loss rate: 20.20%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-18 04:14:29

End at: 2018-01-18 04:14:59

Below is generated by plot.py at 2018-01-18 09:29:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 1426.31 Mbit/s

95th percentile per-packet one-way delay: 358.773 ms

Loss rate: 12.31%

-- Flow 1:

Average throughput: 781.73 Mbit/s

95th percentile per-packet one-way delay: 363.865 ms

Loss rate: 9.15%

-- Flow 2:

Average throughput: 676.39 Mbit/s

95th percentile per-packet one-way delay: 351.237 ms

Loss rate: 13.20%

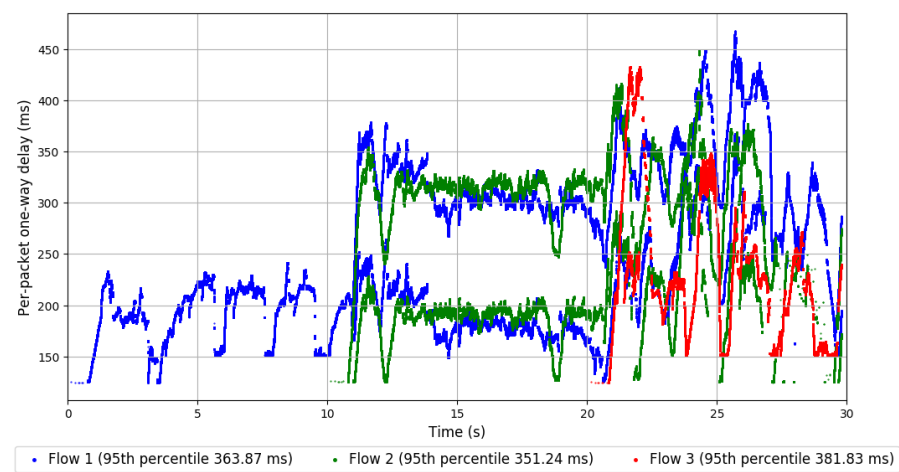
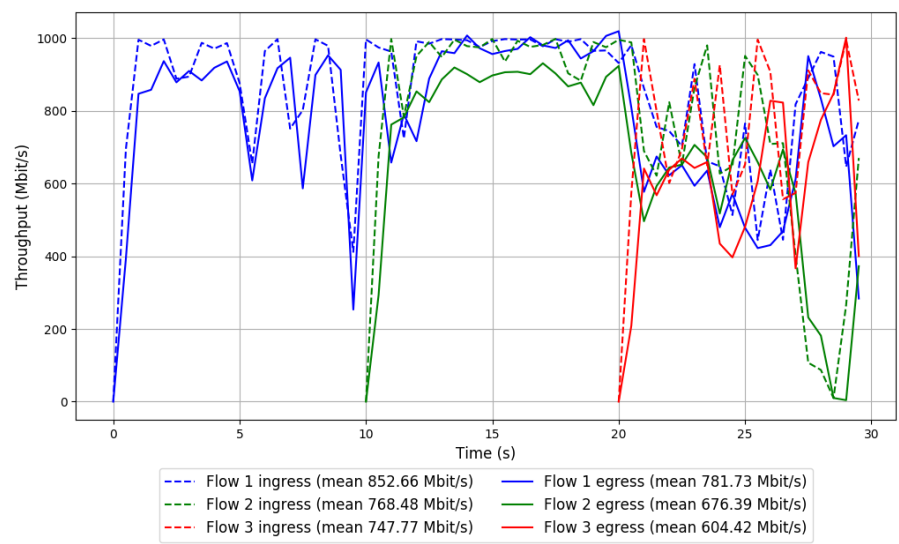
-- Flow 3:

Average throughput: 604.42 Mbit/s

95th percentile per-packet one-way delay: 381.830 ms

Loss rate: 21.38%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-18 04:34:45

End at: 2018-01-18 04:35:15

Below is generated by plot.py at 2018-01-18 09:53:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 1395.50 Mbit/s

95th percentile per-packet one-way delay: 304.711 ms

Loss rate: 14.56%

-- Flow 1:

Average throughput: 702.67 Mbit/s

95th percentile per-packet one-way delay: 338.866 ms

Loss rate: 14.88%

-- Flow 2:

Average throughput: 740.14 Mbit/s

95th percentile per-packet one-way delay: 244.708 ms

Loss rate: 11.04%

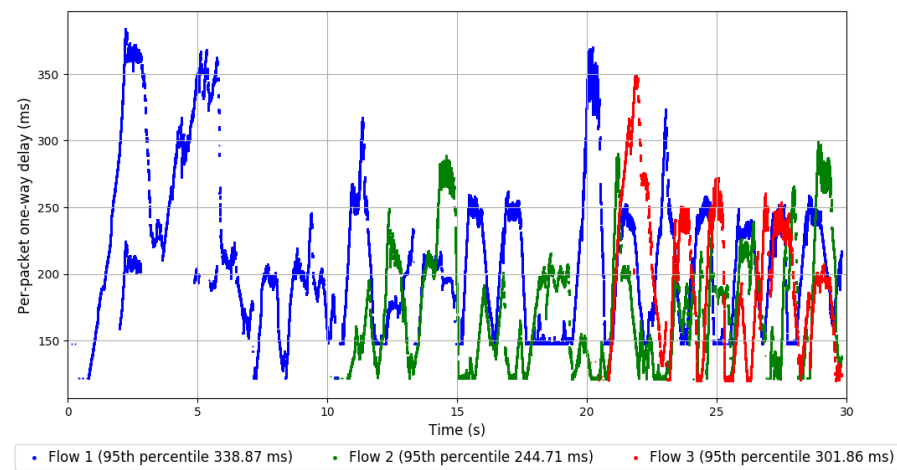
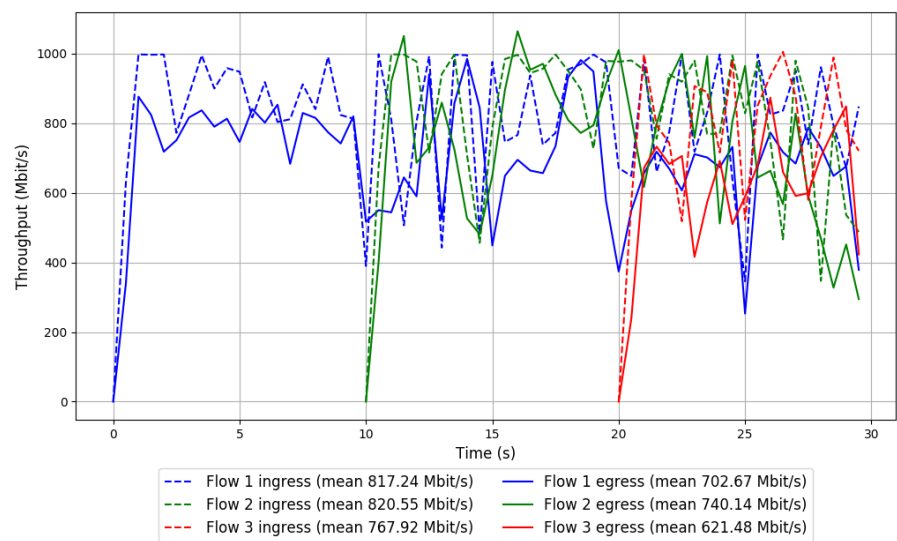
-- Flow 3:

Average throughput: 621.48 Mbit/s

95th percentile per-packet one-way delay: 301.863 ms

Loss rate: 21.11%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-01-18 04:54:31

End at: 2018-01-18 04:55:01

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1494.59 Mbit/s

95th percentile per-packet one-way delay: 215.659 ms

Loss rate: 12.46%

-- Flow 1:

Average throughput: 761.04 Mbit/s

95th percentile per-packet one-way delay: 217.316 ms

Loss rate: 12.08%

-- Flow 2:

Average throughput: 765.92 Mbit/s

95th percentile per-packet one-way delay: 217.165 ms

Loss rate: 11.73%

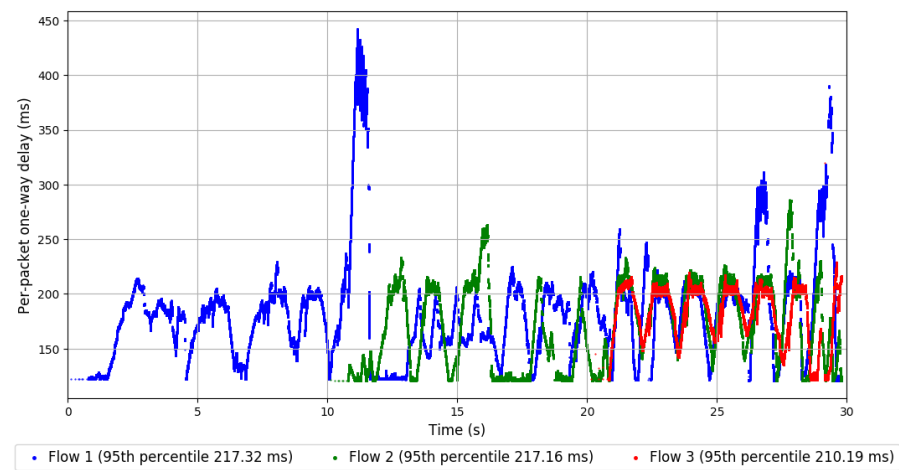
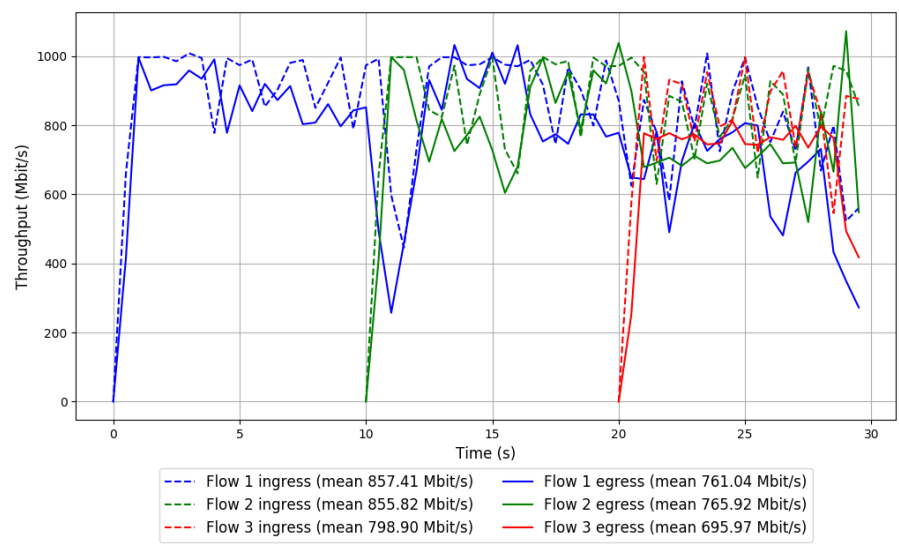
-- Flow 3:

Average throughput: 695.97 Mbit/s

95th percentile per-packet one-way delay: 210.192 ms

Loss rate: 15.29%

Run 10: Report of FillP — Data Link

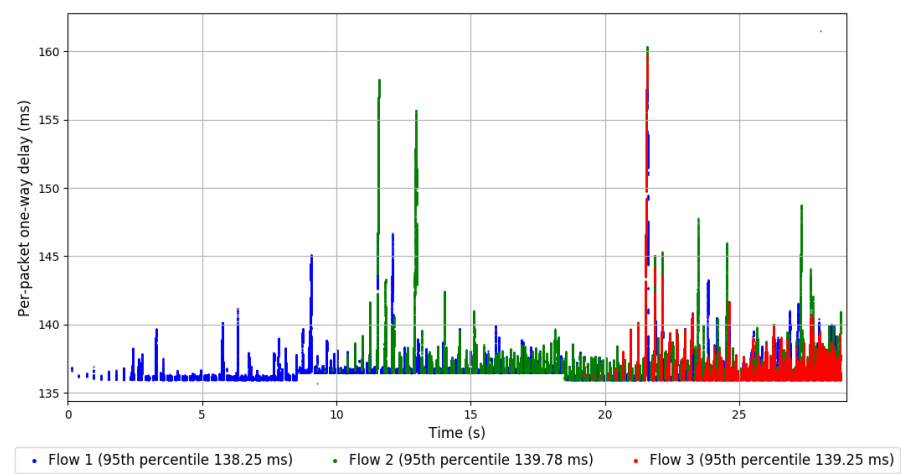
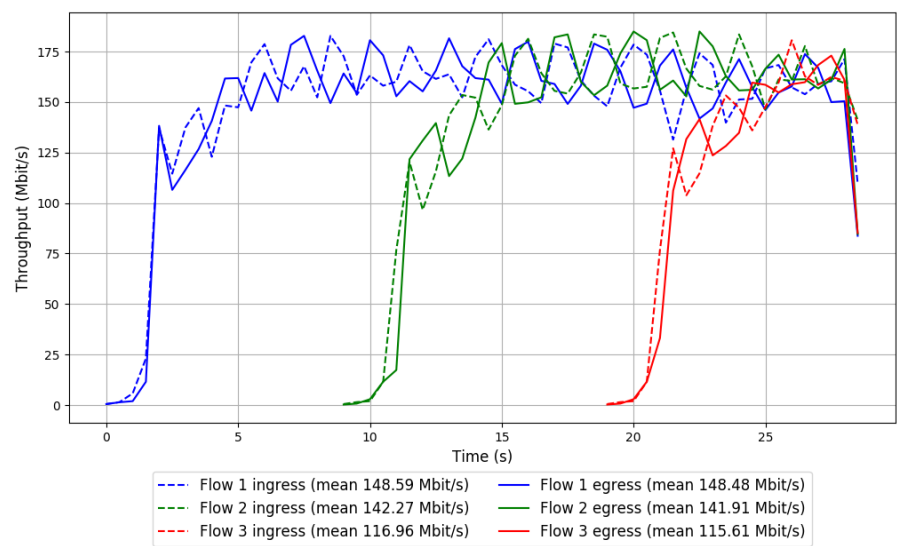


```
Run 1: Statistics of Indigo

Start at: 2018-01-18 01:51:16
End at: 2018-01-18 01:51:46

# Below is generated by plot.py at 2018-01-18 09:56:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.20 Mbit/s
95th percentile per-packet one-way delay: 138.803 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 148.48 Mbit/s
95th percentile per-packet one-way delay: 138.255 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 141.91 Mbit/s
95th percentile per-packet one-way delay: 139.775 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 115.61 Mbit/s
95th percentile per-packet one-way delay: 139.247 ms
Loss rate: 3.93%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-01-18 02:10:15

End at: 2018-01-18 02:10:45

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 260.11 Mbit/s

95th percentile per-packet one-way delay: 167.635 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 139.34 Mbit/s

95th percentile per-packet one-way delay: 166.820 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 131.94 Mbit/s

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

Loss rate: 1.79%

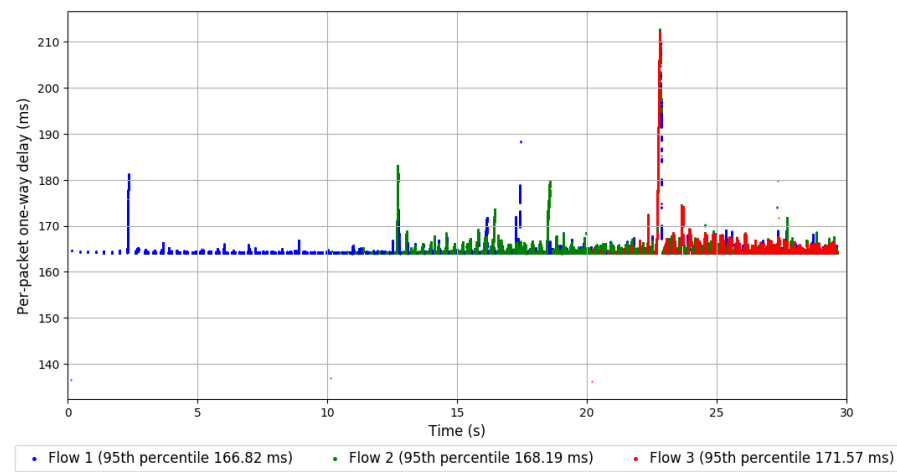
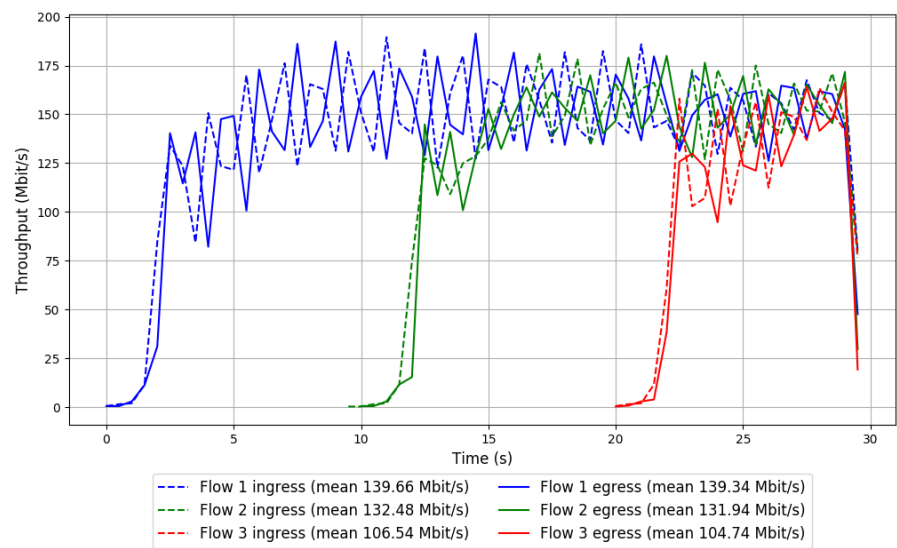
-- Flow 3:

Average throughput: 104.74 Mbit/s

95th percentile per-packet one-way delay: 171.567 ms

Loss rate: 4.45%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-01-18 02:28:36

End at: 2018-01-18 02:29:06

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 194.27 Mbit/s

95th percentile per-packet one-way delay: 162.971 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 91.37 Mbit/s

95th percentile per-packet one-way delay: 162.782 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 104.40 Mbit/s

95th percentile per-packet one-way delay: 162.440 ms

Loss rate: 1.04%

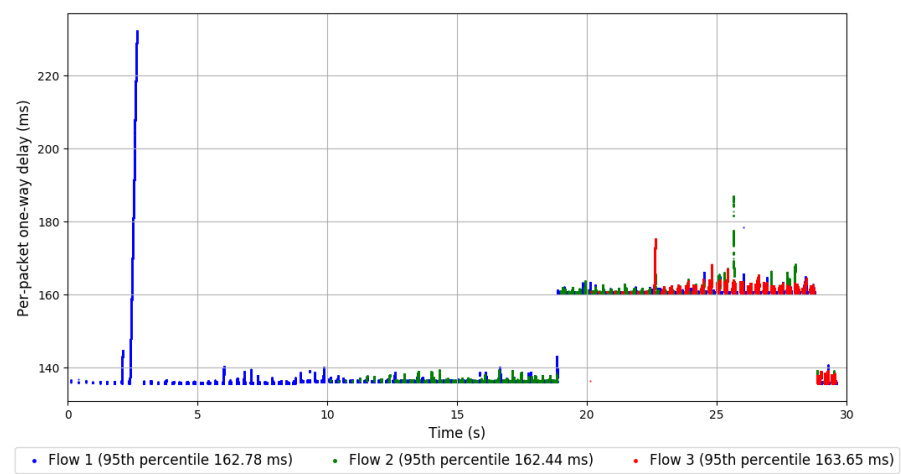
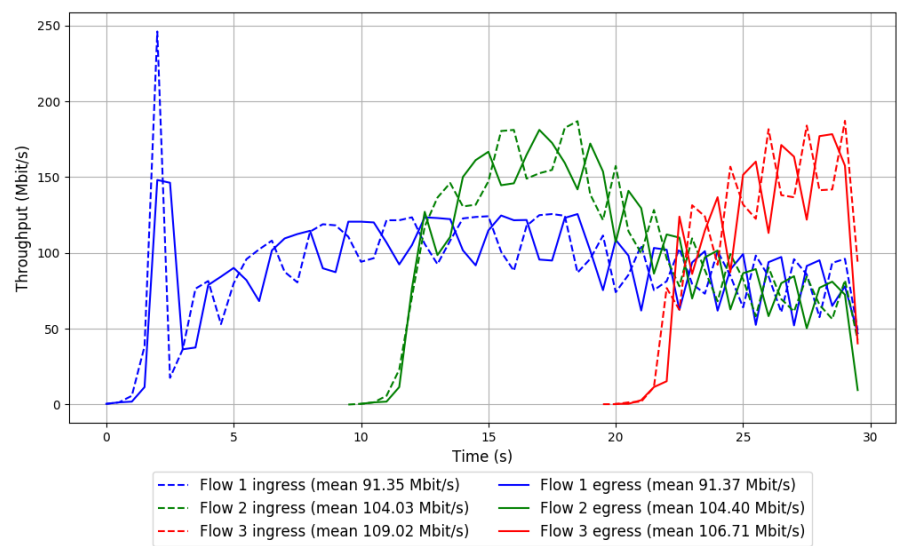
-- Flow 3:

Average throughput: 106.71 Mbit/s

95th percentile per-packet one-way delay: 163.654 ms

Loss rate: 4.89%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-01-18 02:48:12

End at: 2018-01-18 02:48:42

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.97 Mbit/s

95th percentile per-packet one-way delay: 142.999 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 143.03 Mbit/s

95th percentile per-packet one-way delay: 141.261 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 141.70 Mbit/s

95th percentile per-packet one-way delay: 141.493 ms

Loss rate: 1.59%

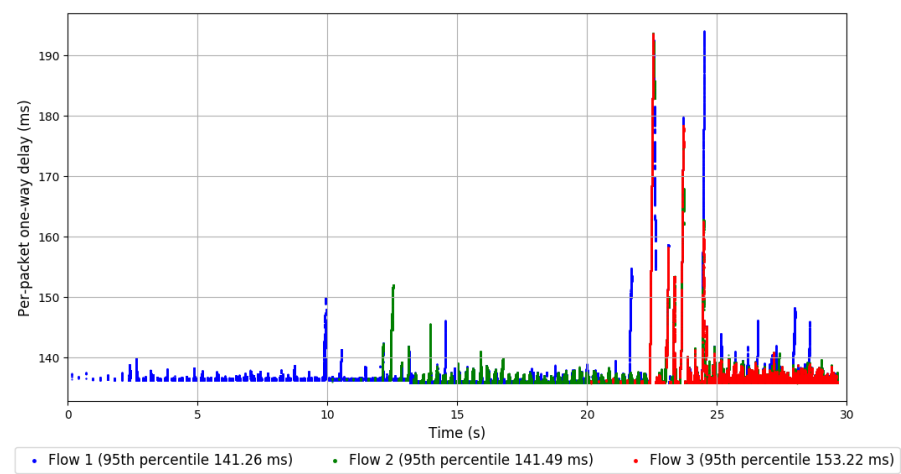
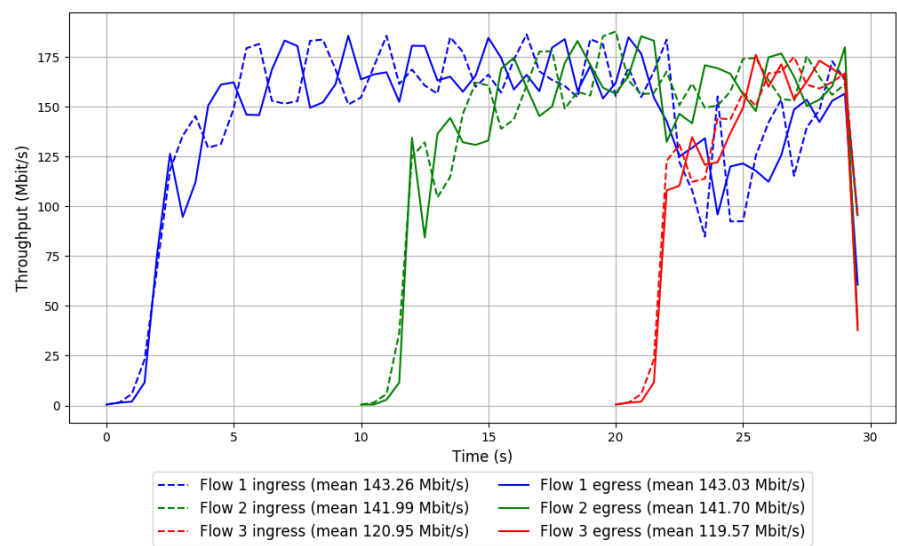
-- Flow 3:

Average throughput: 119.57 Mbit/s

95th percentile per-packet one-way delay: 153.223 ms

Loss rate: 3.94%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-01-18 03:08:09

End at: 2018-01-18 03:08:39

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 212.97 Mbit/s

95th percentile per-packet one-way delay: 161.934 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 115.39 Mbit/s

95th percentile per-packet one-way delay: 160.932 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 92.25 Mbit/s

95th percentile per-packet one-way delay: 168.411 ms

Loss rate: 1.51%

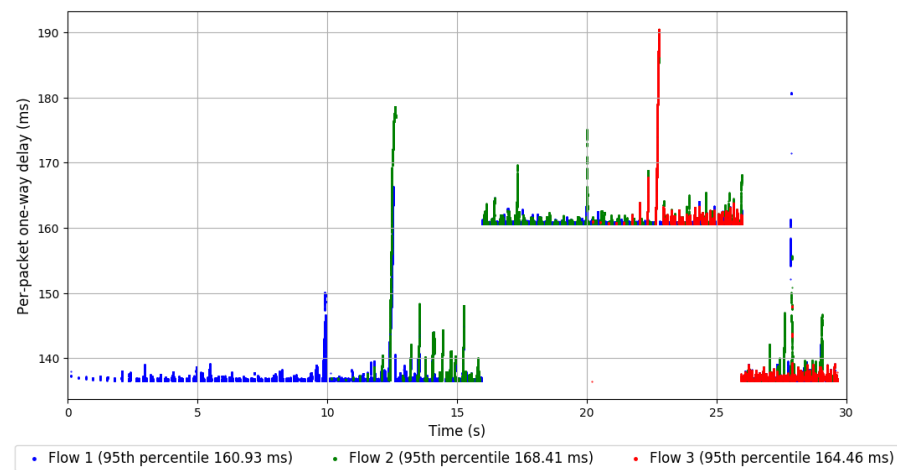
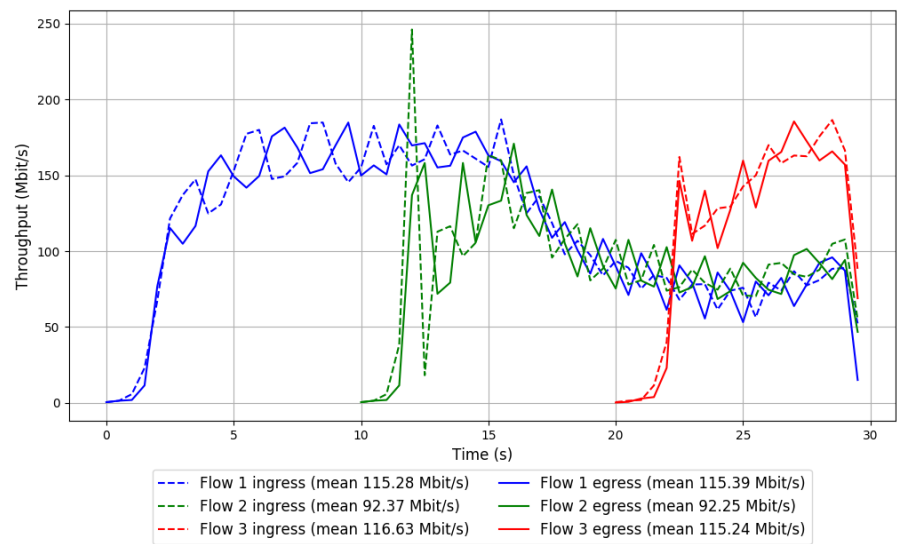
-- Flow 3:

Average throughput: 115.24 Mbit/s

95th percentile per-packet one-way delay: 164.456 ms

Loss rate: 3.96%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-01-18 03:27:30

End at: 2018-01-18 03:28:00

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 283.13 Mbit/s

95th percentile per-packet one-way delay: 139.365 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 149.28 Mbit/s

95th percentile per-packet one-way delay: 138.263 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 144.70 Mbit/s

95th percentile per-packet one-way delay: 140.582 ms

Loss rate: 1.59%

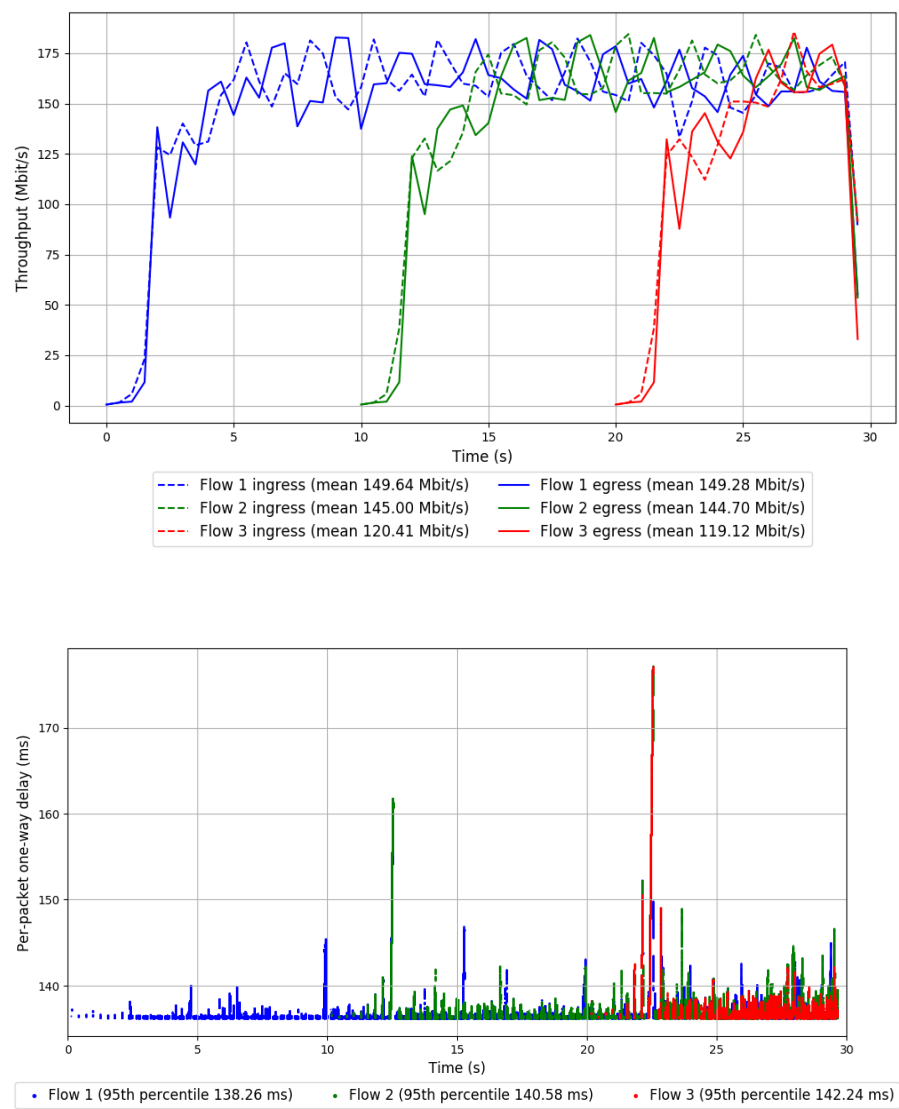
-- Flow 3:

Average throughput: 119.12 Mbit/s

95th percentile per-packet one-way delay: 142.236 ms

Loss rate: 3.87%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2018-01-18 03:47:07

End at: 2018-01-18 03:47:37

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 297.69 Mbit/s

95th percentile per-packet one-way delay: 146.957 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 156.30 Mbit/s

95th percentile per-packet one-way delay: 140.653 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 149.15 Mbit/s

95th percentile per-packet one-way delay: 151.449 ms

Loss rate: 1.78%

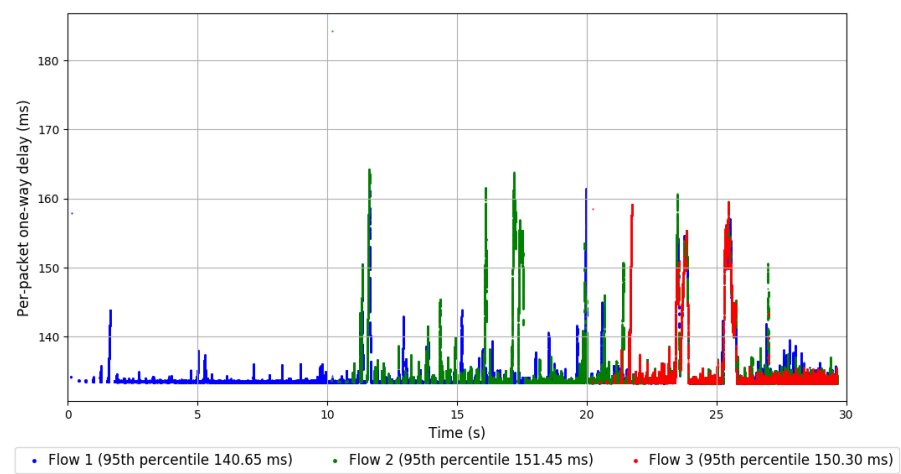
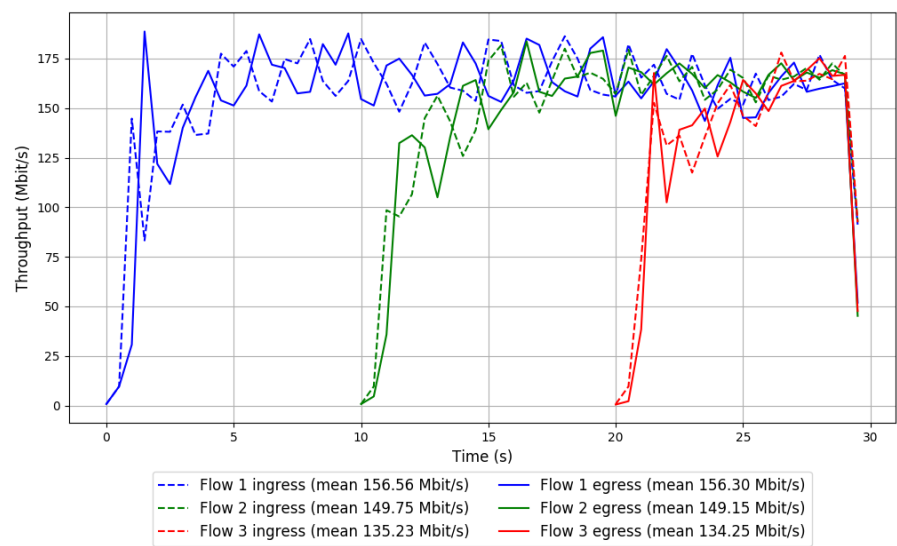
-- Flow 3:

Average throughput: 134.25 Mbit/s

95th percentile per-packet one-way delay: 150.304 ms

Loss rate: 3.52%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2018-01-18 04:06:56

End at: 2018-01-18 04:07:26

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 280.29 Mbit/s

95th percentile per-packet one-way delay: 134.877 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 149.03 Mbit/s

95th percentile per-packet one-way delay: 133.345 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 139.84 Mbit/s

95th percentile per-packet one-way delay: 137.574 ms

Loss rate: 1.59%

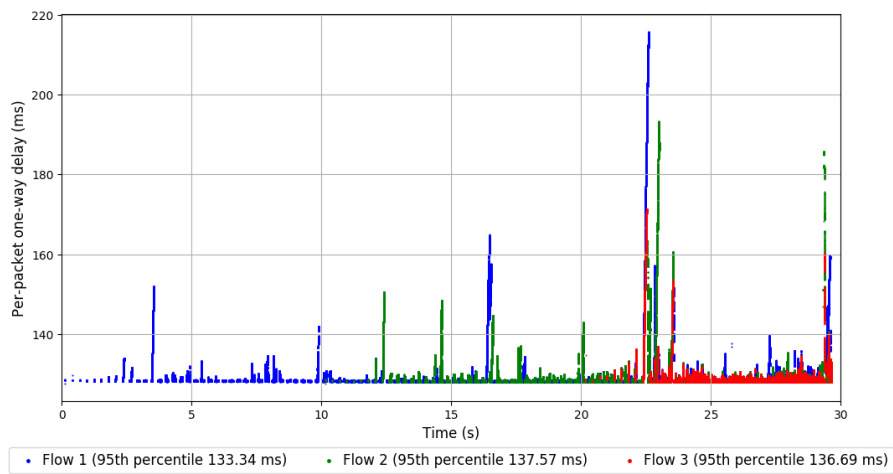
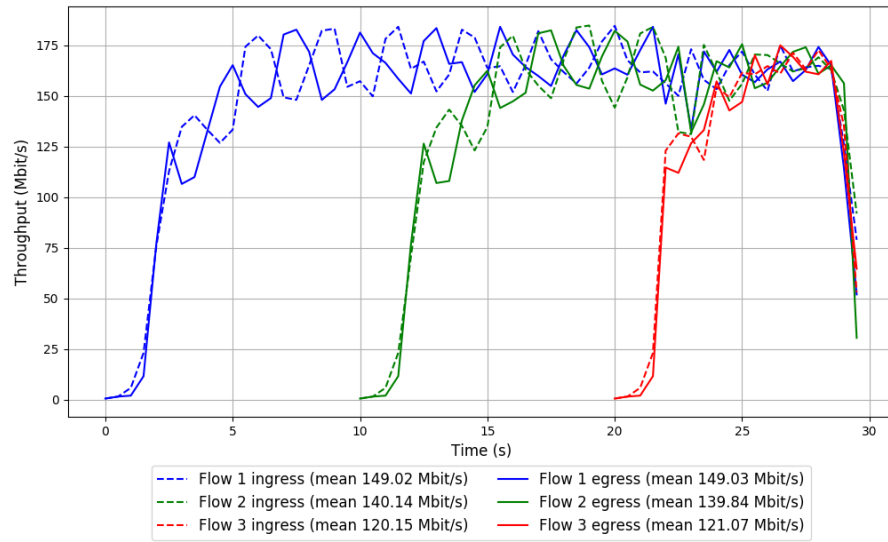
-- Flow 3:

Average throughput: 121.07 Mbit/s

95th percentile per-packet one-way delay: 136.687 ms

Loss rate: 2.07%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2018-01-18 04:27:15

End at: 2018-01-18 04:27:45

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 287.46 Mbit/s

95th percentile per-packet one-way delay: 126.660 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 151.31 Mbit/s

95th percentile per-packet one-way delay: 126.035 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 141.45 Mbit/s

95th percentile per-packet one-way delay: 126.641 ms

Loss rate: 1.62%

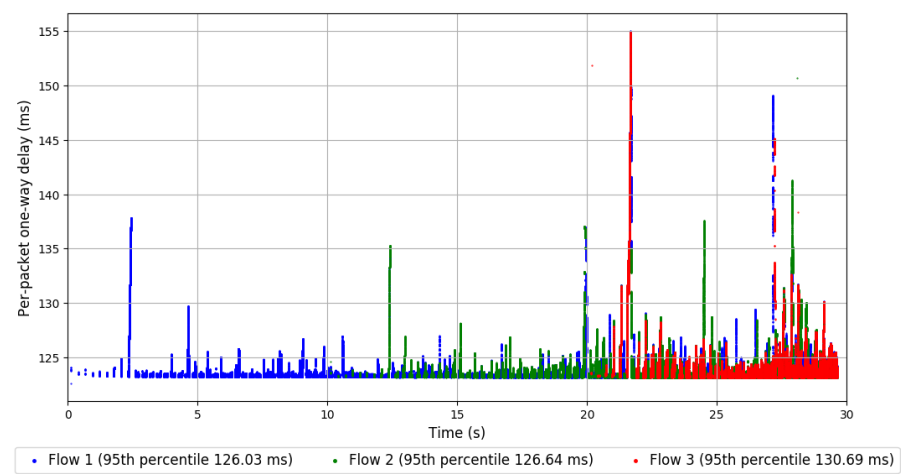
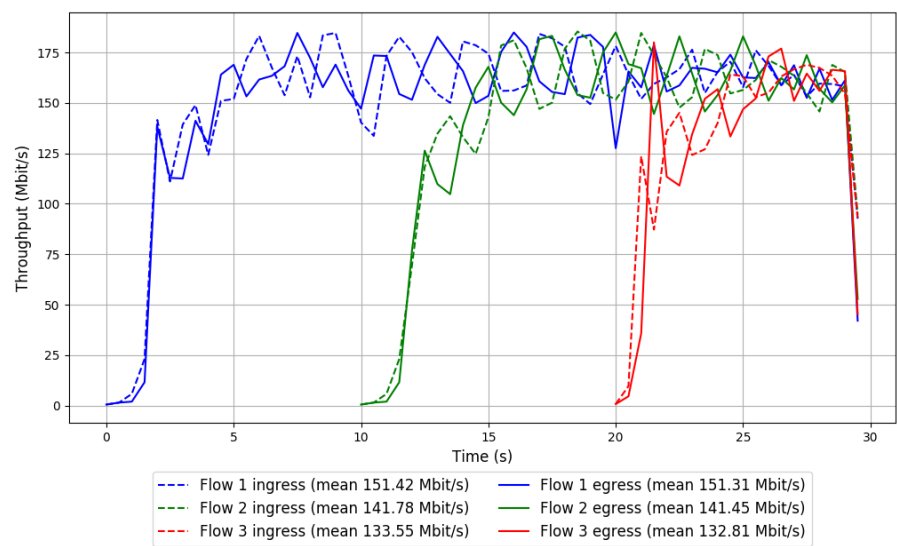
-- Flow 3:

Average throughput: 132.81 Mbit/s

95th percentile per-packet one-way delay: 130.687 ms

Loss rate: 3.35%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-01-18 04:46:58

End at: 2018-01-18 04:47:28

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 286.08 Mbit/s

95th percentile per-packet one-way delay: 131.631 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 149.43 Mbit/s

95th percentile per-packet one-way delay: 127.820 ms

Loss rate: 1.29%

-- Flow 2:

Average throughput: 143.03 Mbit/s

95th percentile per-packet one-way delay: 137.863 ms

Loss rate: 1.91%

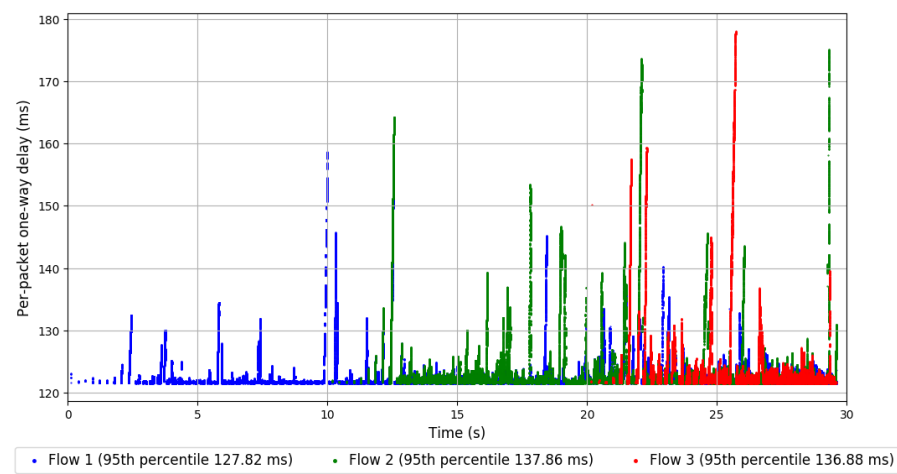
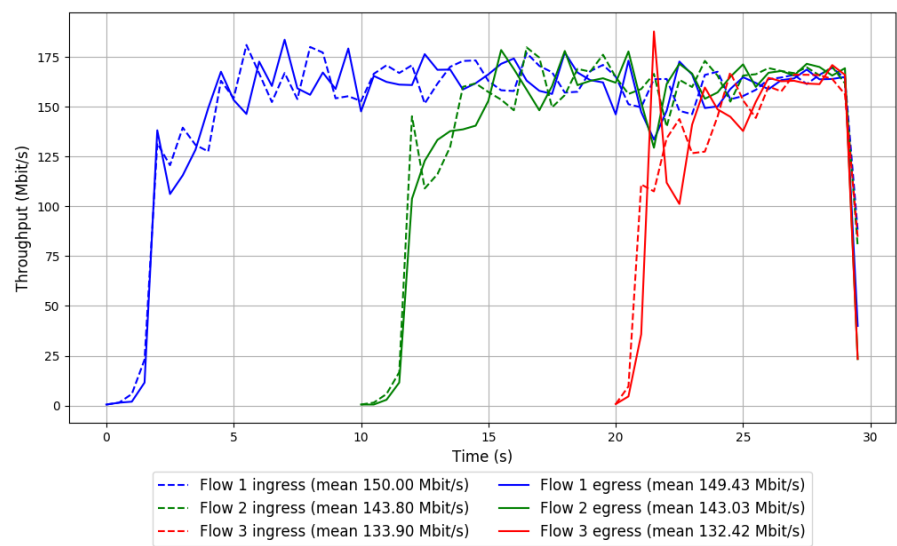
-- Flow 3:

Average throughput: 132.42 Mbit/s

95th percentile per-packet one-way delay: 136.875 ms

Loss rate: 3.53%

Run 10: Report of Indigo — Data Link

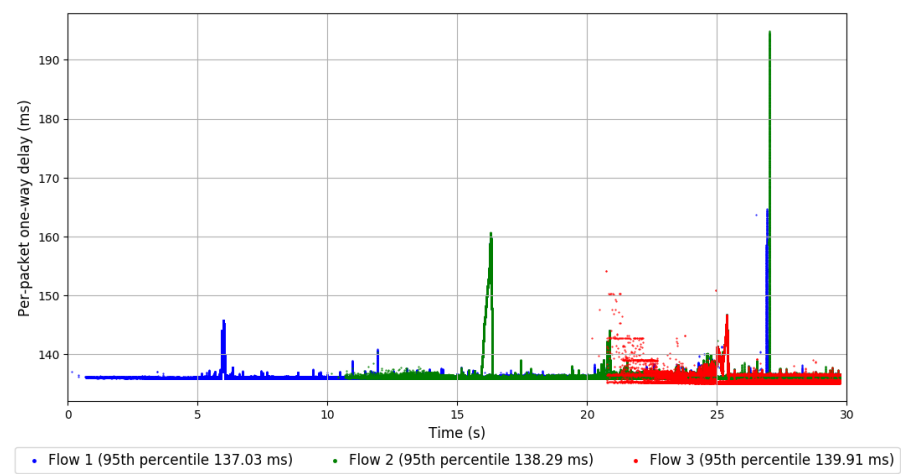
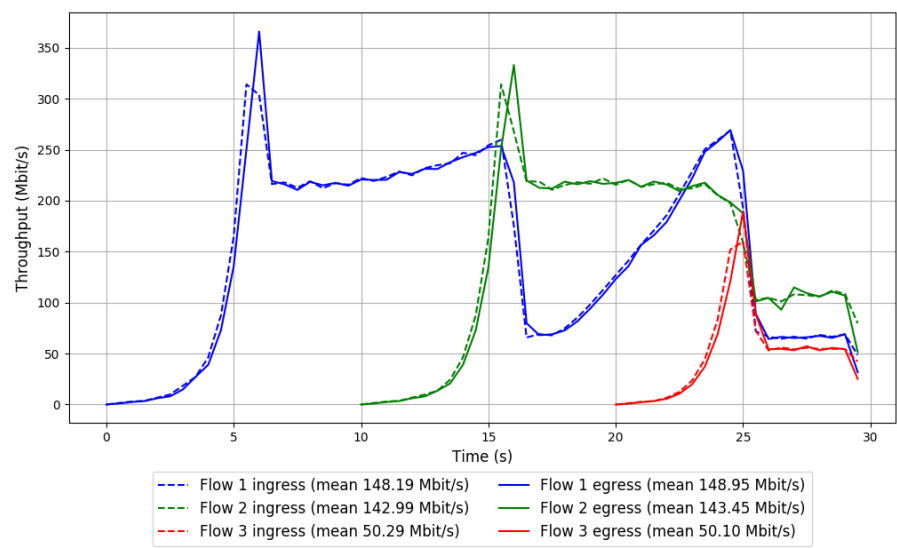


```
Run 1: Statistics of Vivace-latency

Start at: 2018-01-18 01:49:05
End at: 2018-01-18 01:49:35

# Below is generated by plot.py at 2018-01-18 09:56:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.03 Mbit/s
95th percentile per-packet one-way delay: 137.698 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 148.95 Mbit/s
95th percentile per-packet one-way delay: 137.033 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 143.45 Mbit/s
95th percentile per-packet one-way delay: 138.288 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 50.10 Mbit/s
95th percentile per-packet one-way delay: 139.905 ms
Loss rate: 3.21%
```


Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-01-18 02:08:30

End at: 2018-01-18 02:09:00

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.29 Mbit/s

95th percentile per-packet one-way delay: 164.180 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 10.90 Mbit/s

95th percentile per-packet one-way delay: 164.175 ms

Loss rate: 1.30%

-- Flow 2:

Average throughput: 43.19 Mbit/s

95th percentile per-packet one-way delay: 164.152 ms

Loss rate: 0.14%

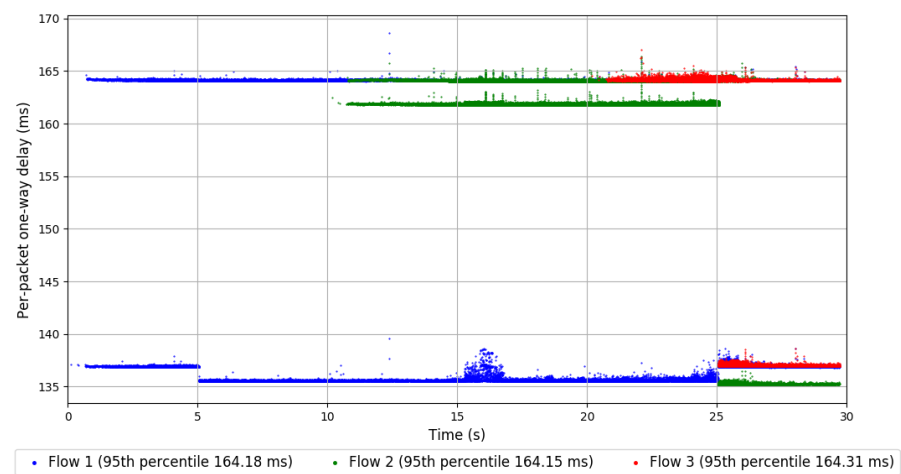
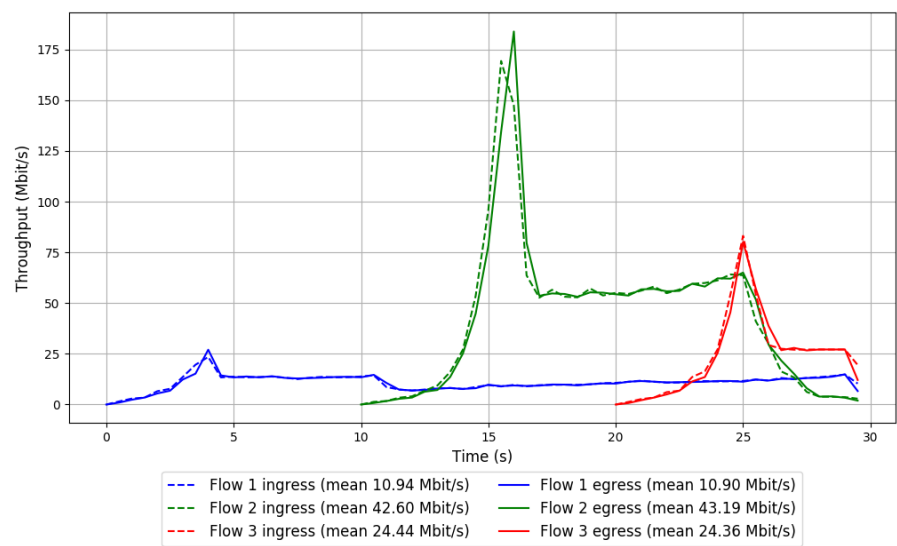
-- Flow 3:

Average throughput: 24.36 Mbit/s

95th percentile per-packet one-way delay: 164.312 ms

Loss rate: 3.36%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-18 02:26:30

End at: 2018-01-18 02:27:00

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 228.74 Mbit/s

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

Loss rate: 1.58%

-- Flow 1:

Average throughput: 211.55 Mbit/s

95th percentile per-packet one-way delay: 137.089 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 20.16 Mbit/s

95th percentile per-packet one-way delay: 160.876 ms

Loss rate: 7.39%

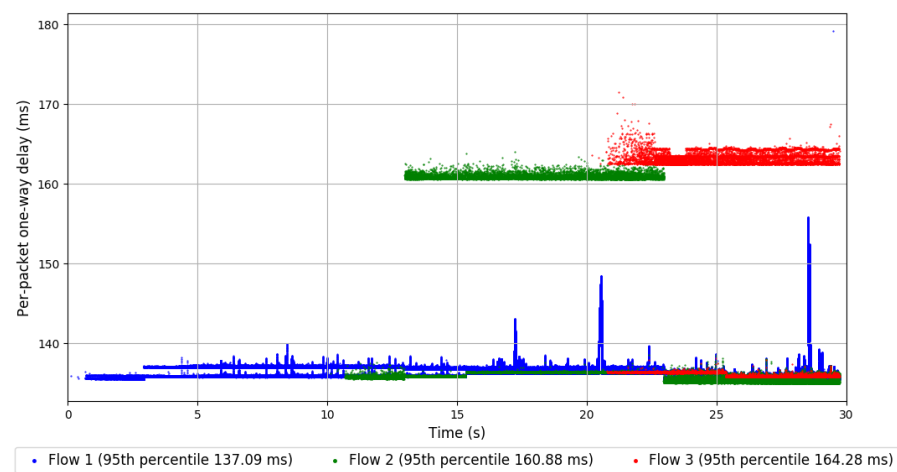
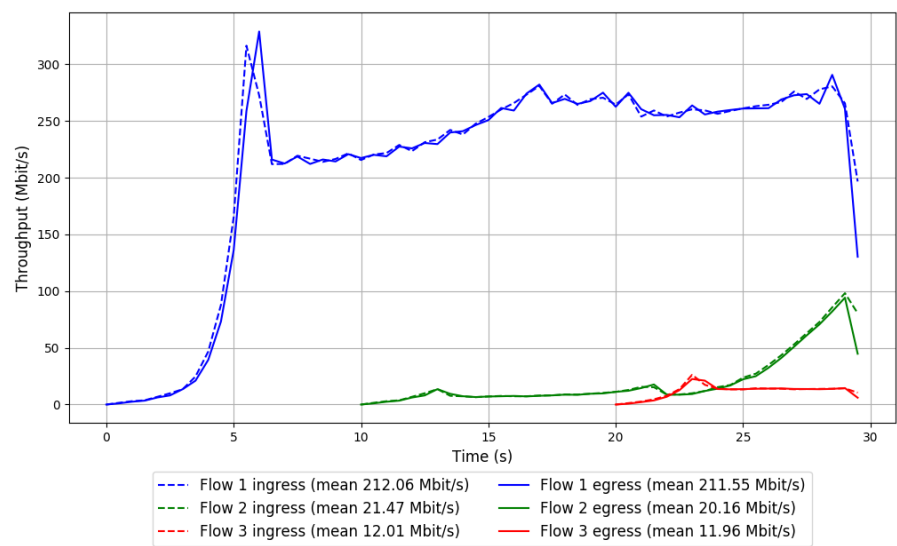
-- Flow 3:

Average throughput: 11.96 Mbit/s

95th percentile per-packet one-way delay: 164.279 ms

Loss rate: 3.45%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-01-18 02:46:05

End at: 2018-01-18 02:46:35

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 229.78 Mbit/s

95th percentile per-packet one-way delay: 139.456 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 142.69 Mbit/s

95th percentile per-packet one-way delay: 137.153 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 90.06 Mbit/s

95th percentile per-packet one-way delay: 143.564 ms

Loss rate: 0.52%

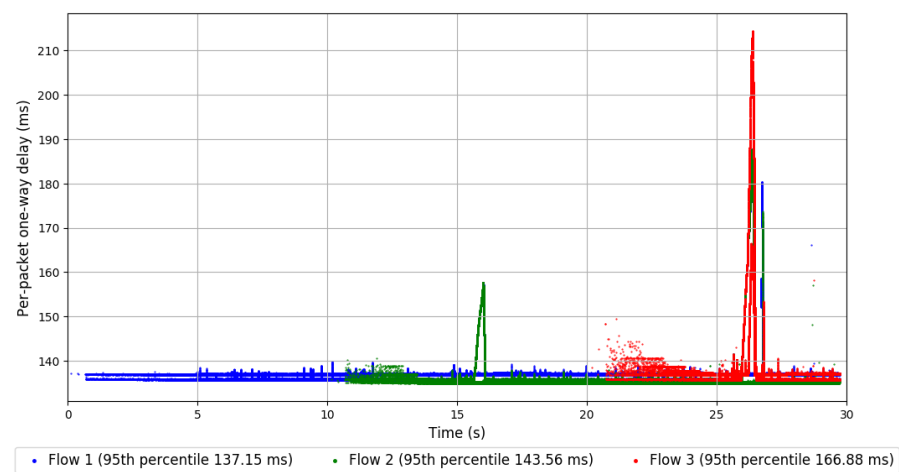
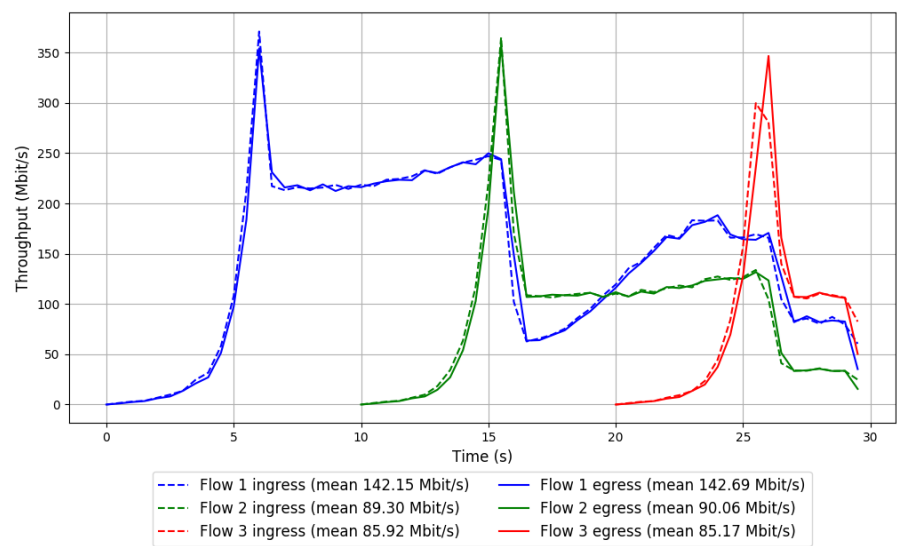
-- Flow 3:

Average throughput: 85.17 Mbit/s

95th percentile per-packet one-way delay: 166.878 ms

Loss rate: 3.67%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-01-18 03:06:18

End at: 2018-01-18 03:06:48

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.67 Mbit/s

95th percentile per-packet one-way delay: 219.646 ms

Loss rate: 2.77%

-- Flow 1:

Average throughput: 55.89 Mbit/s

95th percentile per-packet one-way delay: 160.712 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 17.38 Mbit/s

95th percentile per-packet one-way delay: 160.678 ms

Loss rate: 3.56%

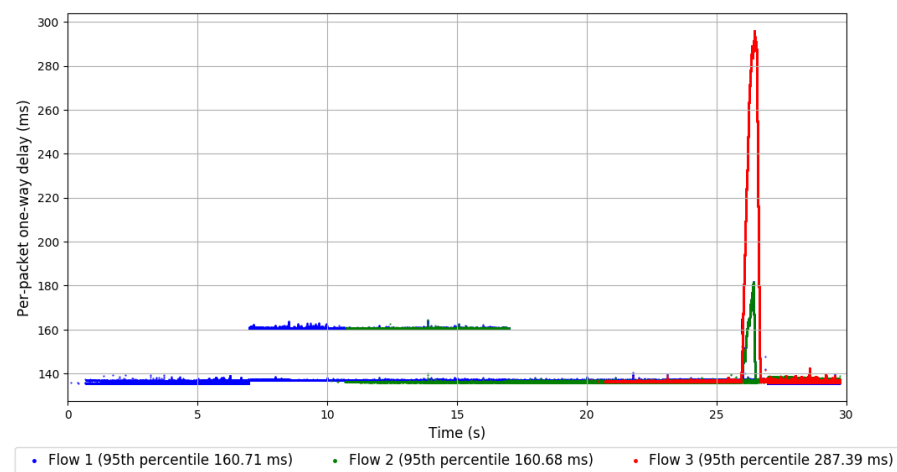
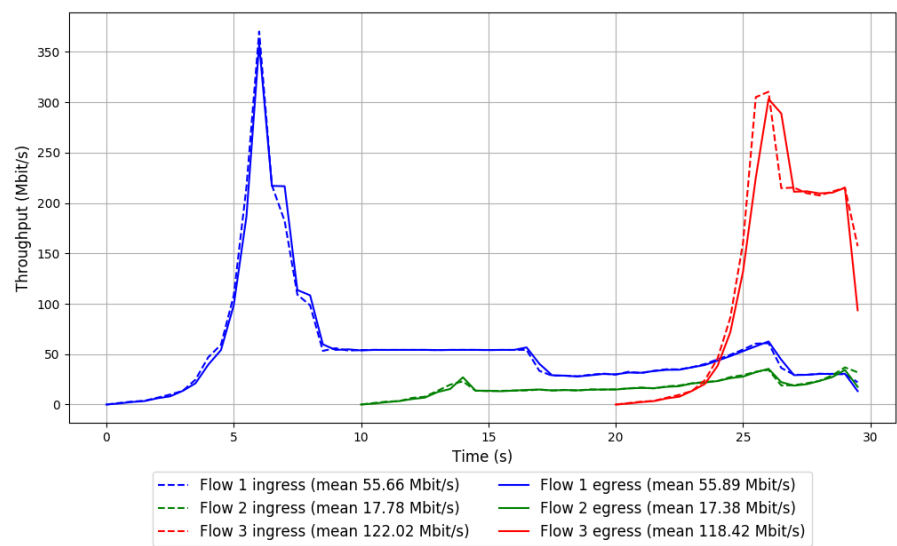
-- Flow 3:

Average throughput: 118.42 Mbit/s

95th percentile per-packet one-way delay: 287.395 ms

Loss rate: 5.66%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-01-18 03:25:32

End at: 2018-01-18 03:26:02

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.61 Mbit/s

95th percentile per-packet one-way delay: 199.465 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 118.74 Mbit/s

95th percentile per-packet one-way delay: 181.648 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 8.54 Mbit/s

95th percentile per-packet one-way delay: 138.456 ms

Loss rate: 2.52%

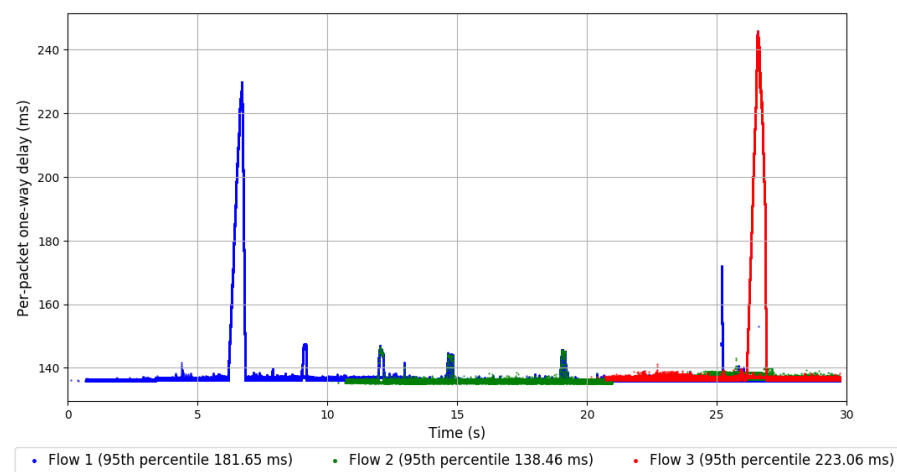
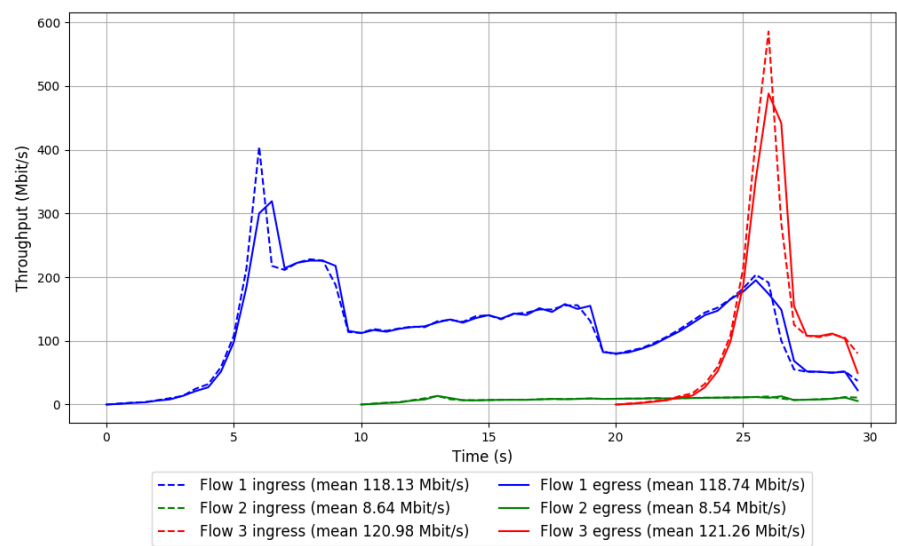
-- Flow 3:

Average throughput: 121.26 Mbit/s

95th percentile per-packet one-way delay: 223.062 ms

Loss rate: 2.54%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-01-18 03:45:26

End at: 2018-01-18 03:45:56

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.61 Mbit/s

95th percentile per-packet one-way delay: 160.308 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 13.20 Mbit/s

95th percentile per-packet one-way delay: 159.664 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 13.09 Mbit/s

95th percentile per-packet one-way delay: 160.363 ms

Loss rate: 1.53%

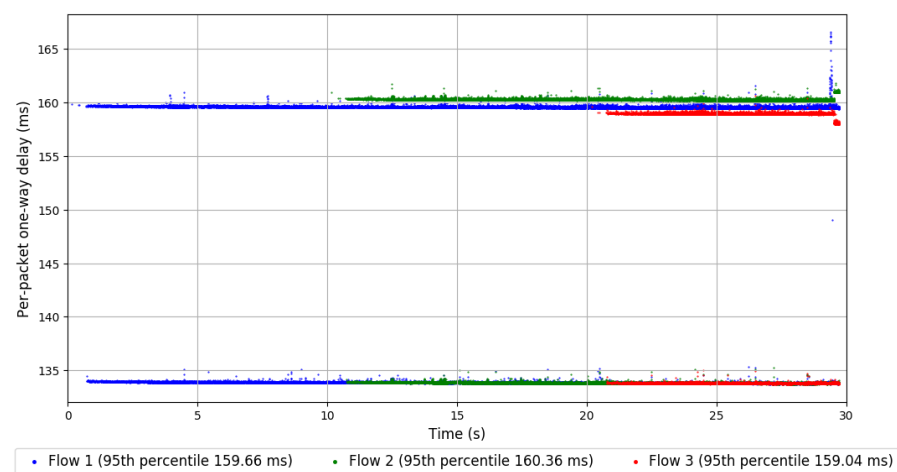
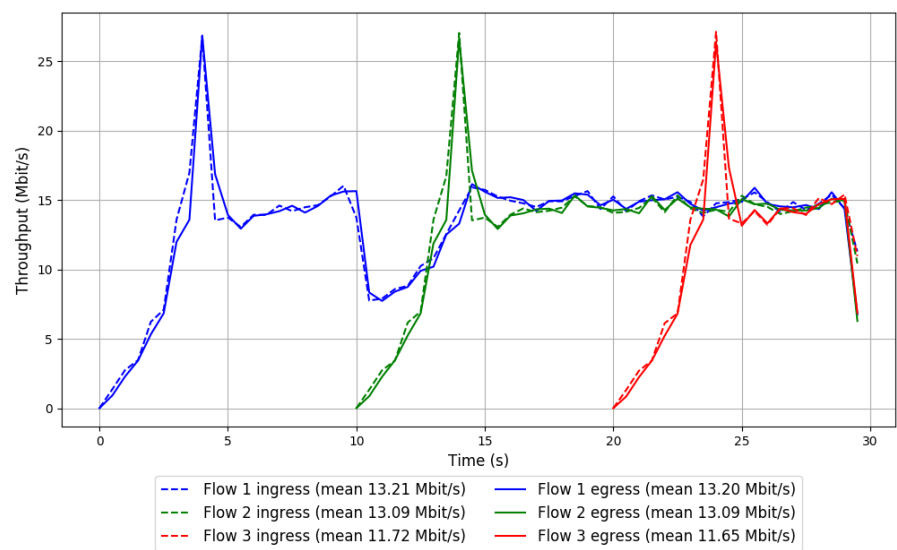
-- Flow 3:

Average throughput: 11.65 Mbit/s

95th percentile per-packet one-way delay: 159.040 ms

Loss rate: 3.61%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-01-18 04:04:52

End at: 2018-01-18 04:05:22

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 217.49 Mbit/s

95th percentile per-packet one-way delay: 156.292 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 76.65 Mbit/s

95th percentile per-packet one-way delay: 156.185 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 167.42 Mbit/s

95th percentile per-packet one-way delay: 165.620 ms

Loss rate: 0.94%

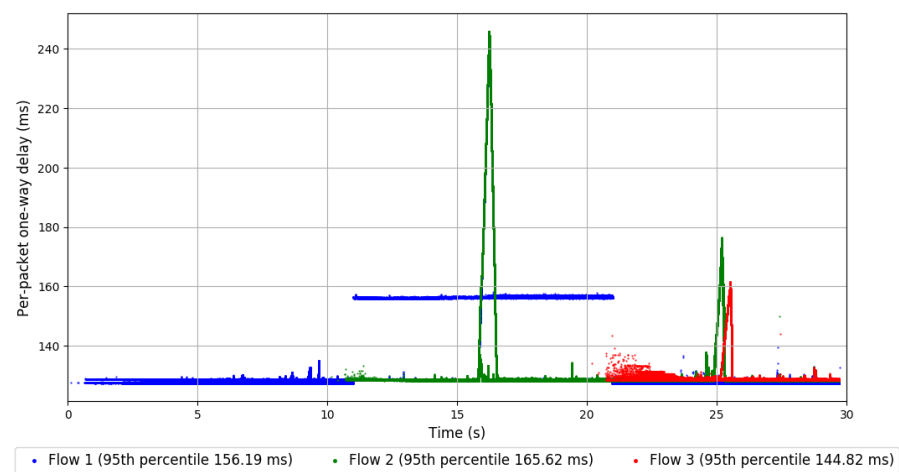
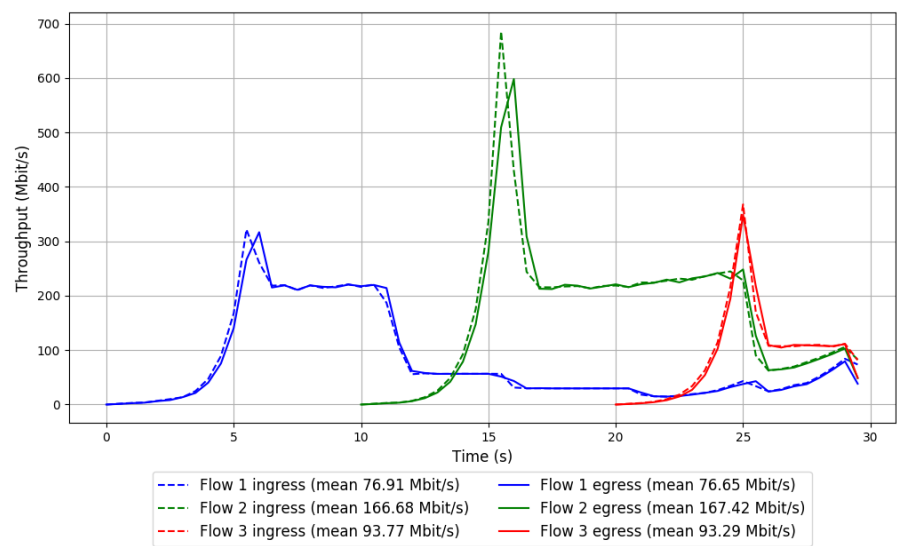
-- Flow 3:

Average throughput: 93.29 Mbit/s

95th percentile per-packet one-way delay: 144.825 ms

Loss rate: 3.31%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-01-18 04:25:06

End at: 2018-01-18 04:25:36

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 253.82 Mbit/s

95th percentile per-packet one-way delay: 186.309 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 149.92 Mbit/s

95th percentile per-packet one-way delay: 215.337 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 123.85 Mbit/s

95th percentile per-packet one-way delay: 162.295 ms

Loss rate: 1.56%

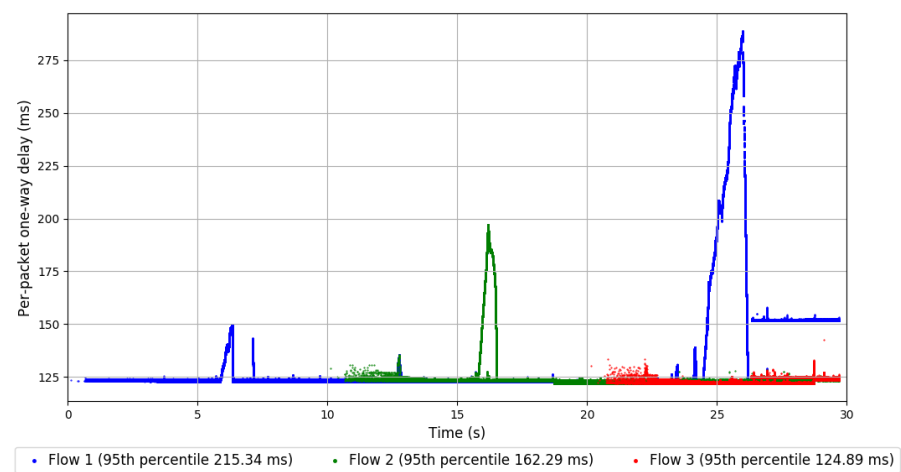
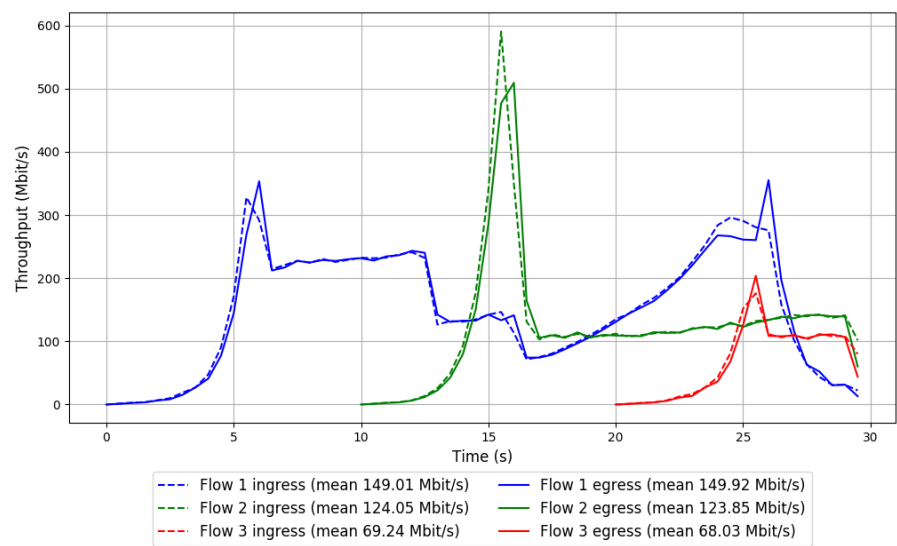
-- Flow 3:

Average throughput: 68.03 Mbit/s

95th percentile per-packet one-way delay: 124.895 ms

Loss rate: 4.52%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-01-18 04:44:53

End at: 2018-01-18 04:45:23

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 214.13 Mbit/s

95th percentile per-packet one-way delay: 191.247 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 150.15 Mbit/s

95th percentile per-packet one-way delay: 208.981 ms

Loss rate: 1.73%

-- Flow 2:

Average throughput: 91.08 Mbit/s

95th percentile per-packet one-way delay: 149.872 ms

Loss rate: 0.46%

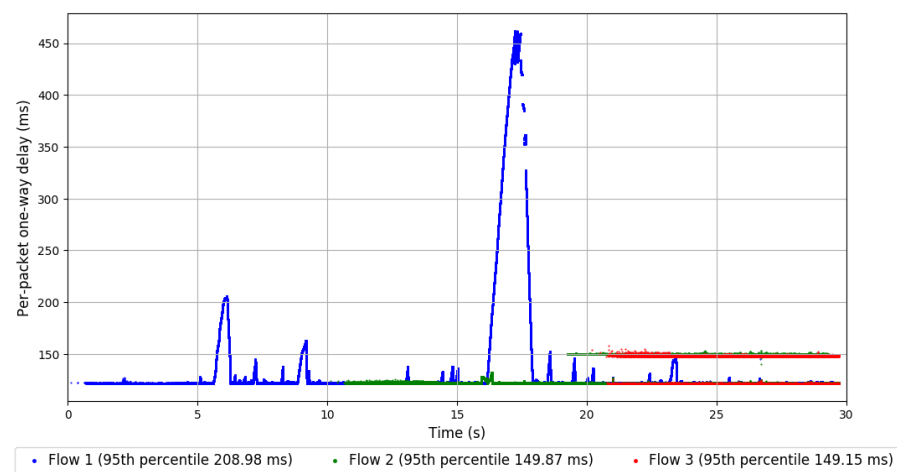
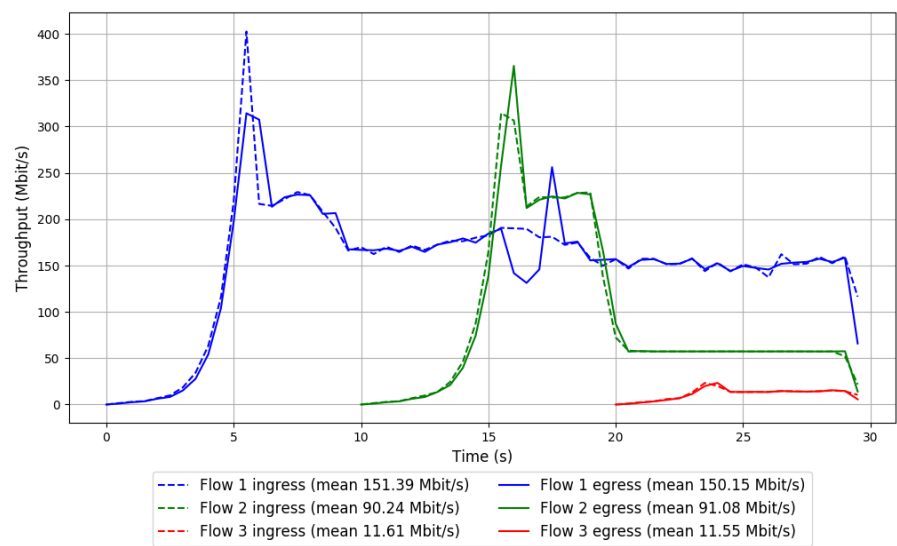
-- Flow 3:

Average throughput: 11.55 Mbit/s

95th percentile per-packet one-way delay: 149.145 ms

Loss rate: 3.57%

Run 10: Report of Vivace-latency — Data Link

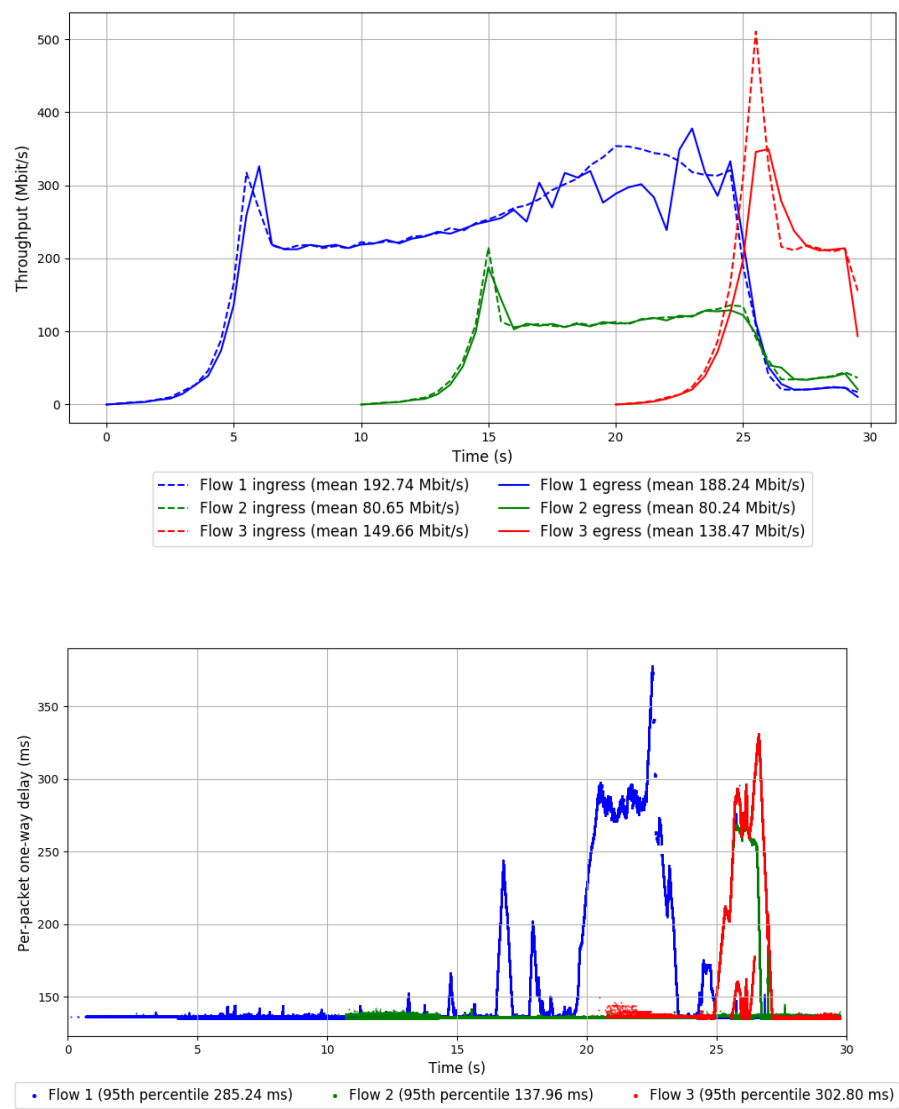


```
Run 1: Statistics of Vivace-loss

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

# Below is generated by plot.py at 2018-01-18 09:56:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.97 Mbit/s
95th percentile per-packet one-way delay: 285.542 ms
Loss rate: 4.11%
-- Flow 1:
Average throughput: 188.24 Mbit/s
95th percentile per-packet one-way delay: 285.244 ms
Loss rate: 3.23%
-- Flow 2:
Average throughput: 80.24 Mbit/s
95th percentile per-packet one-way delay: 137.957 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 138.47 Mbit/s
95th percentile per-packet one-way delay: 302.801 ms
Loss rate: 10.05%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-01-18 02:11:29

End at: 2018-01-18 02:11:59

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.38 Mbit/s

95th percentile per-packet one-way delay: 164.201 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 10.76 Mbit/s

95th percentile per-packet one-way delay: 164.204 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 9.16 Mbit/s

95th percentile per-packet one-way delay: 164.201 ms

Loss rate: 2.10%

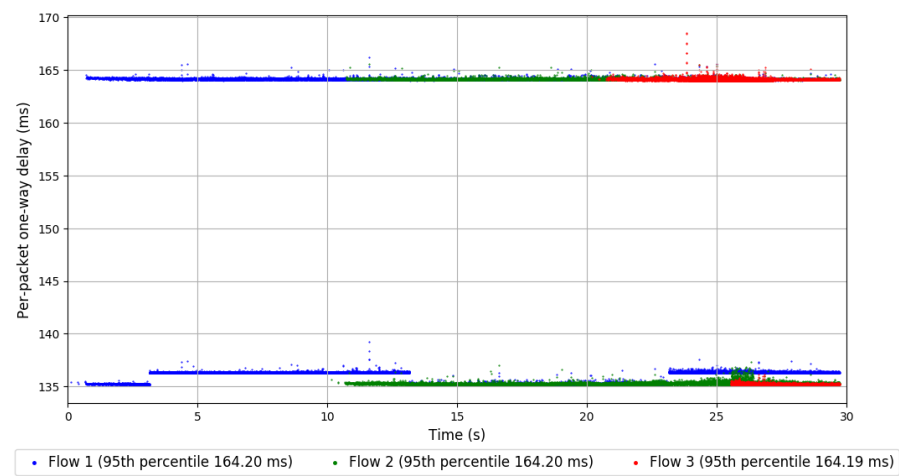
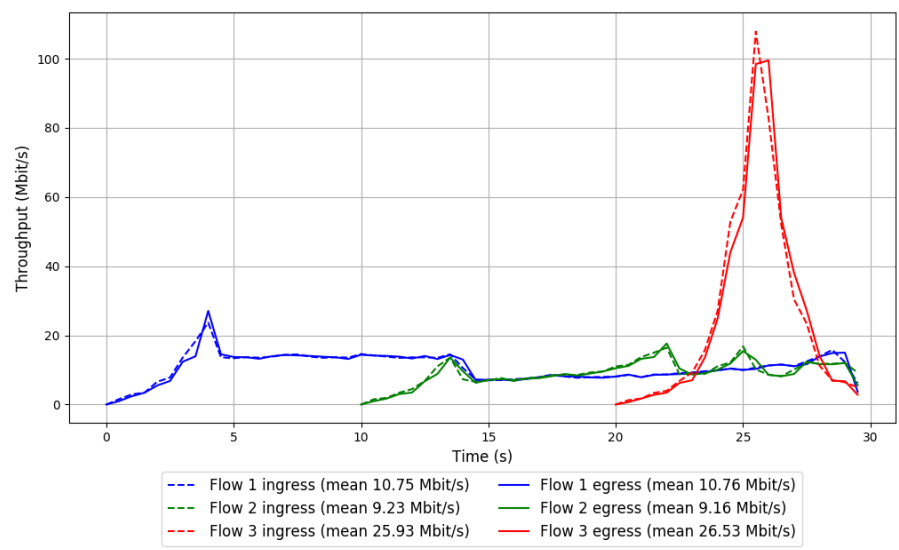
-- Flow 3:

Average throughput: 26.53 Mbit/s

95th percentile per-packet one-way delay: 164.194 ms

Loss rate: 0.82%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-18 02:29:44

End at: 2018-01-18 02:30:14

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.87 Mbit/s

95th percentile per-packet one-way delay: 169.142 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 86.02 Mbit/s

95th percentile per-packet one-way delay: 162.058 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 13.51 Mbit/s

95th percentile per-packet one-way delay: 160.676 ms

Loss rate: 1.35%

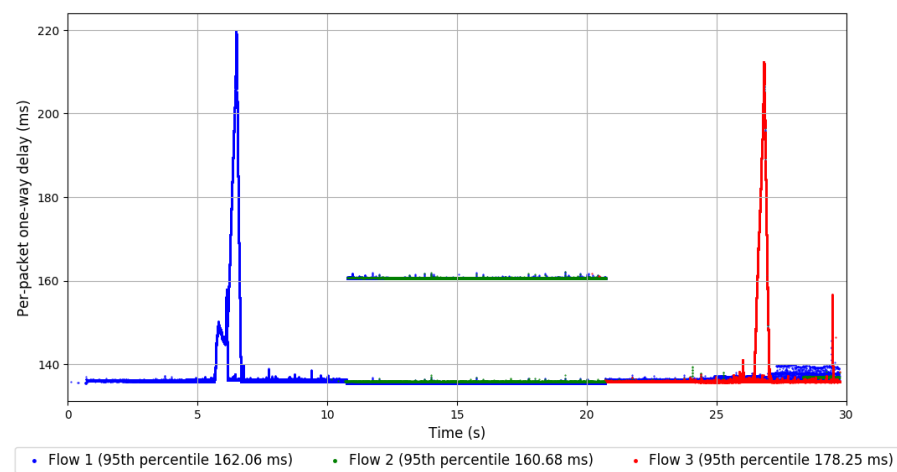
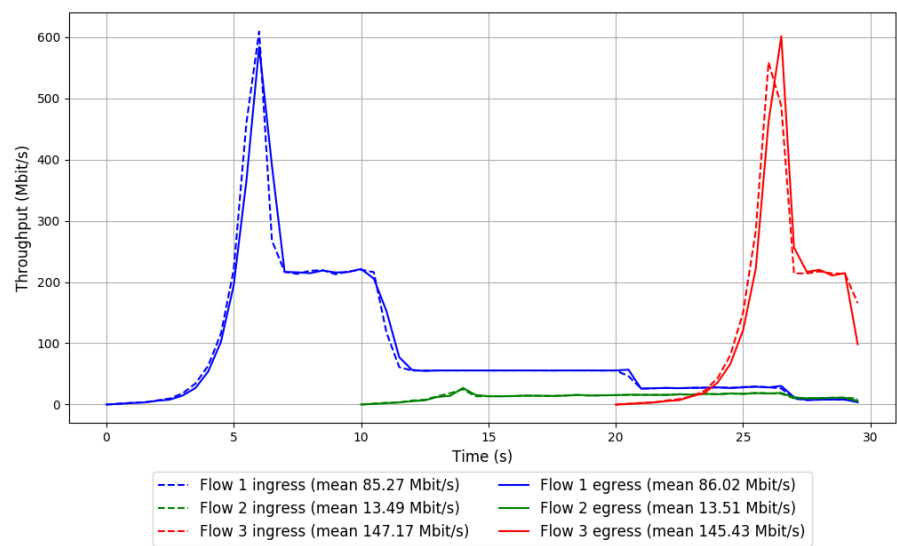
-- Flow 3:

Average throughput: 145.43 Mbit/s

95th percentile per-packet one-way delay: 178.249 ms

Loss rate: 4.34%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-01-18 02:49:26

End at: 2018-01-18 02:49:56

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.87 Mbit/s

95th percentile per-packet one-way delay: 257.907 ms

Loss rate: 1.94%

-- Flow 1:

Average throughput: 218.53 Mbit/s

95th percentile per-packet one-way delay: 266.559 ms

Loss rate: 1.94%

-- Flow 2:

Average throughput: 46.59 Mbit/s

95th percentile per-packet one-way delay: 151.673 ms

Loss rate: 1.23%

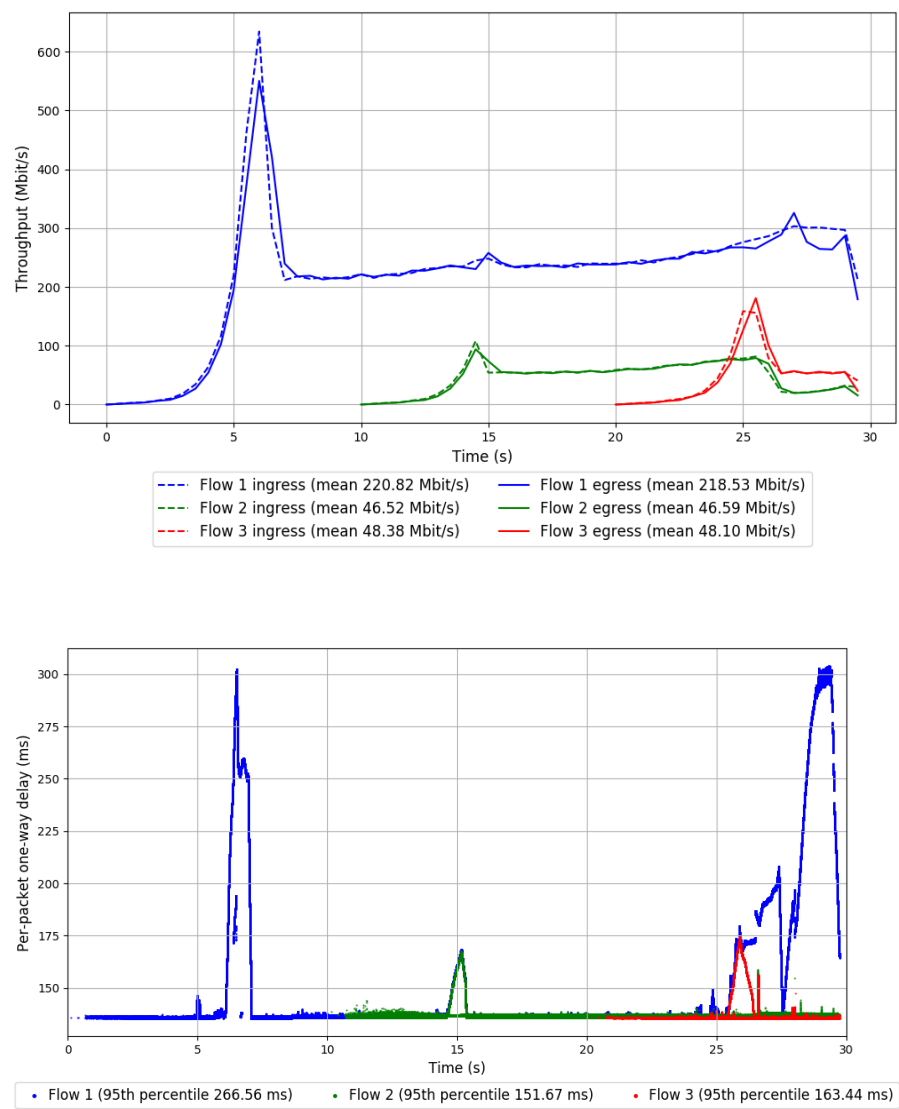
-- Flow 3:

Average throughput: 48.10 Mbit/s

95th percentile per-packet one-way delay: 163.439 ms

Loss rate: 3.31%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-01-18 03:09:18

End at: 2018-01-18 03:09:48

Below is generated by plot.py at 2018-01-18 09:56:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 208.86 Mbit/s

95th percentile per-packet one-way delay: 147.010 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 134.89 Mbit/s

95th percentile per-packet one-way delay: 147.447 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 106.51 Mbit/s

95th percentile per-packet one-way delay: 137.186 ms

Loss rate: 2.06%

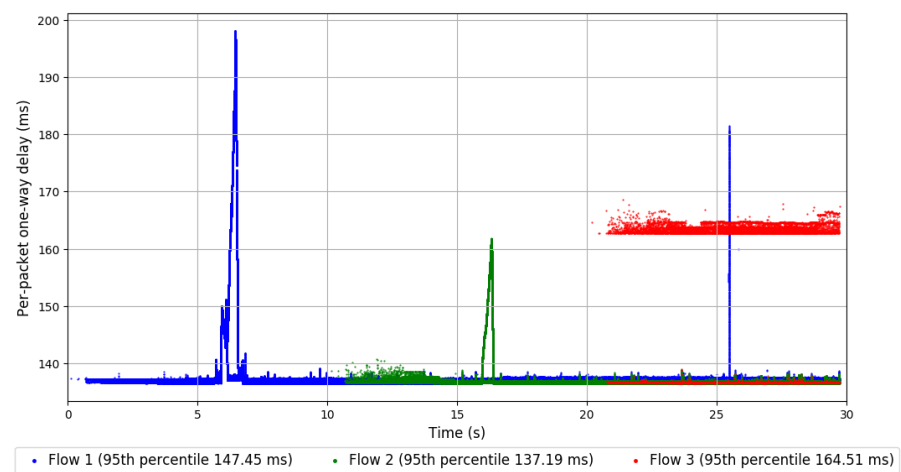
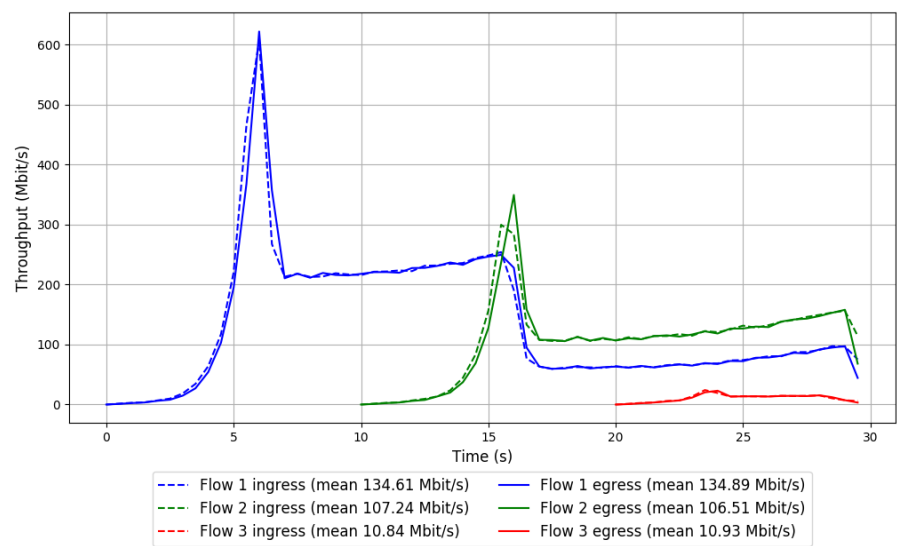
-- Flow 3:

Average throughput: 10.93 Mbit/s

95th percentile per-packet one-way delay: 164.513 ms

Loss rate: 2.18%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-01-18 03:28:46

End at: 2018-01-18 03:29:16

Below is generated by plot.py at 2018-01-18 09:57:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 276.44 Mbit/s

95th percentile per-packet one-way delay: 248.993 ms

Loss rate: 2.59%

-- Flow 1:

Average throughput: 265.15 Mbit/s

95th percentile per-packet one-way delay: 249.277 ms

Loss rate: 2.62%

-- Flow 2:

Average throughput: 11.54 Mbit/s

95th percentile per-packet one-way delay: 163.614 ms

Loss rate: 1.09%

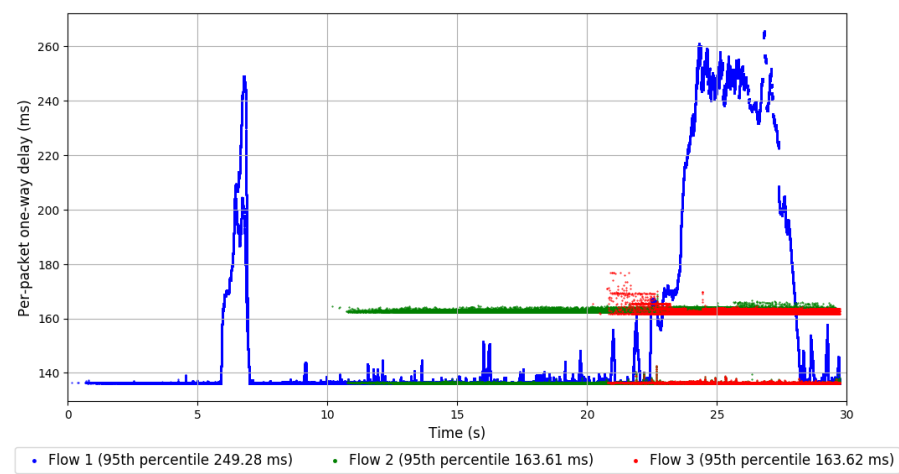
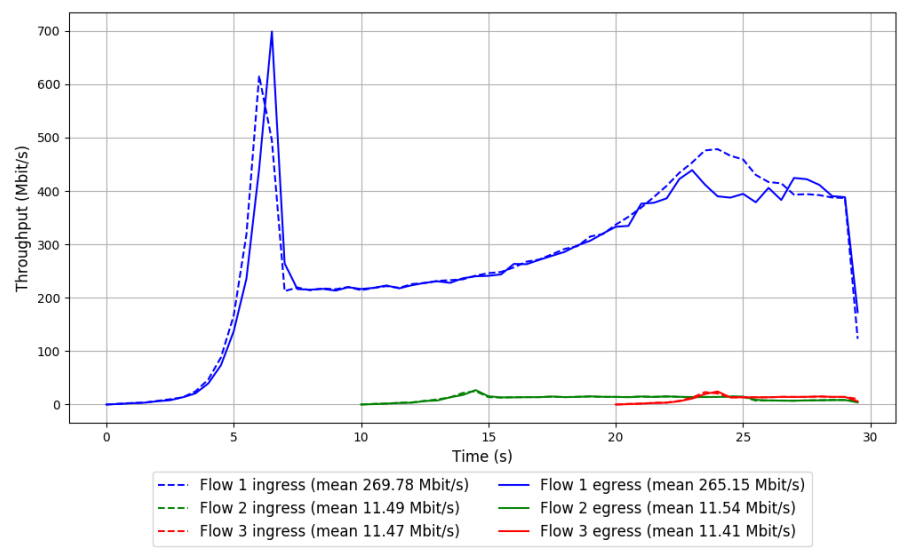
-- Flow 3:

Average throughput: 11.41 Mbit/s

95th percentile per-packet one-way delay: 163.618 ms

Loss rate: 3.64%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-01-18 03:48:24

End at: 2018-01-18 03:48:54

Below is generated by plot.py at 2018-01-18 09:57:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.62 Mbit/s

95th percentile per-packet one-way delay: 207.106 ms

Loss rate: 3.14%

-- Flow 1:

Average throughput: 13.01 Mbit/s

95th percentile per-packet one-way delay: 158.353 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 161.311 ms

Loss rate: 0.88%

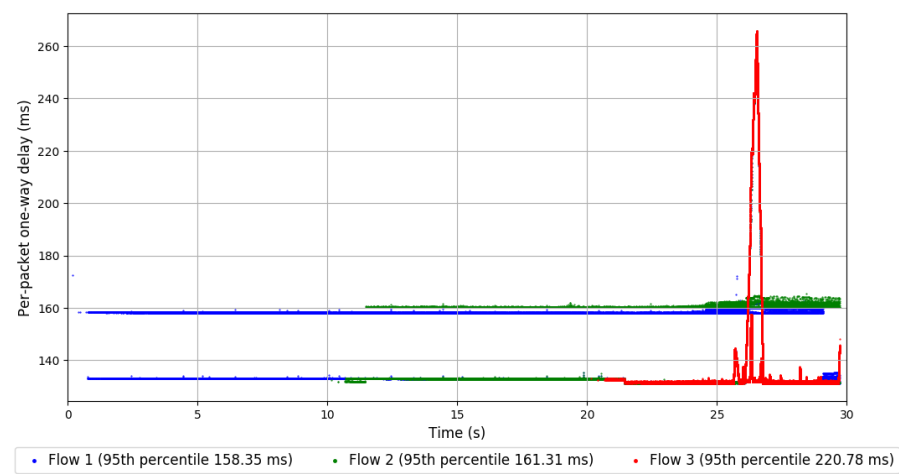
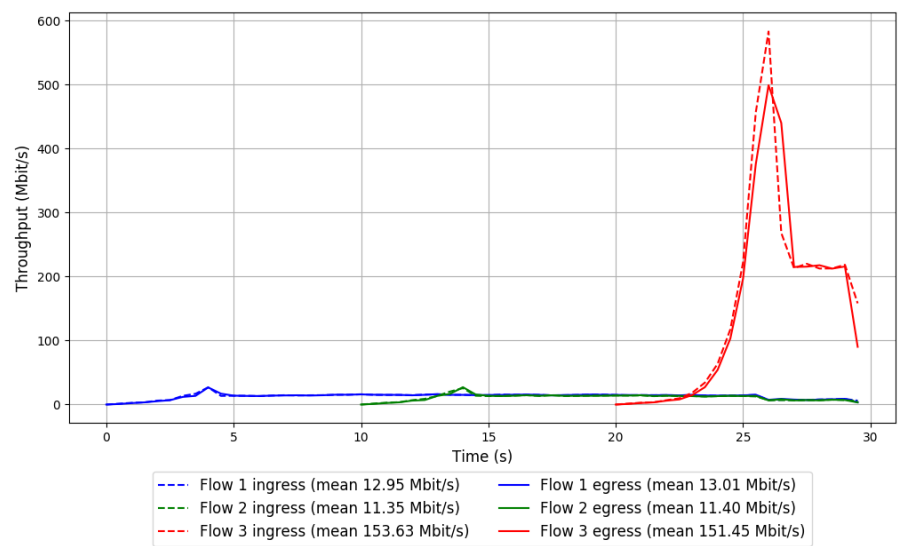
-- Flow 3:

Average throughput: 151.45 Mbit/s

95th percentile per-packet one-way delay: 220.779 ms

Loss rate: 4.13%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-01-18 04:08:11

End at: 2018-01-18 04:08:41

Below is generated by plot.py at 2018-01-18 09:57:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.65 Mbit/s

95th percentile per-packet one-way delay: 203.506 ms

Loss rate: 1.91%

-- Flow 1:

Average throughput: 123.37 Mbit/s

95th percentile per-packet one-way delay: 201.552 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 115.14 Mbit/s

95th percentile per-packet one-way delay: 215.424 ms

Loss rate: 2.28%

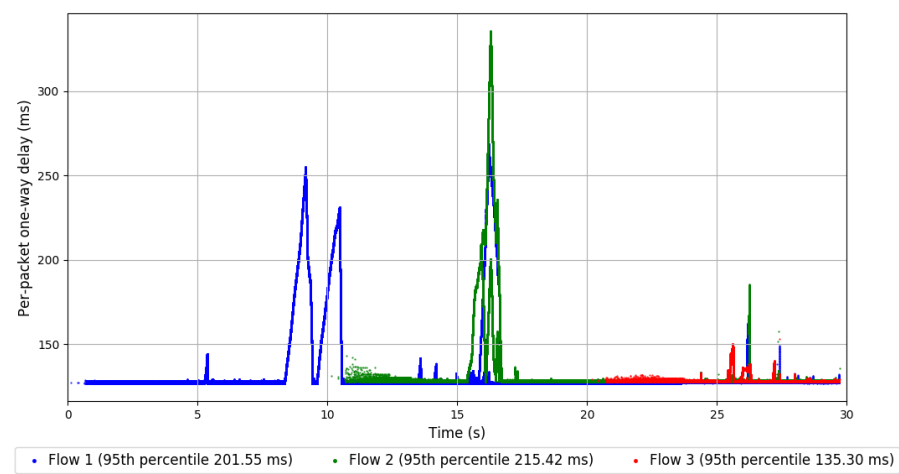
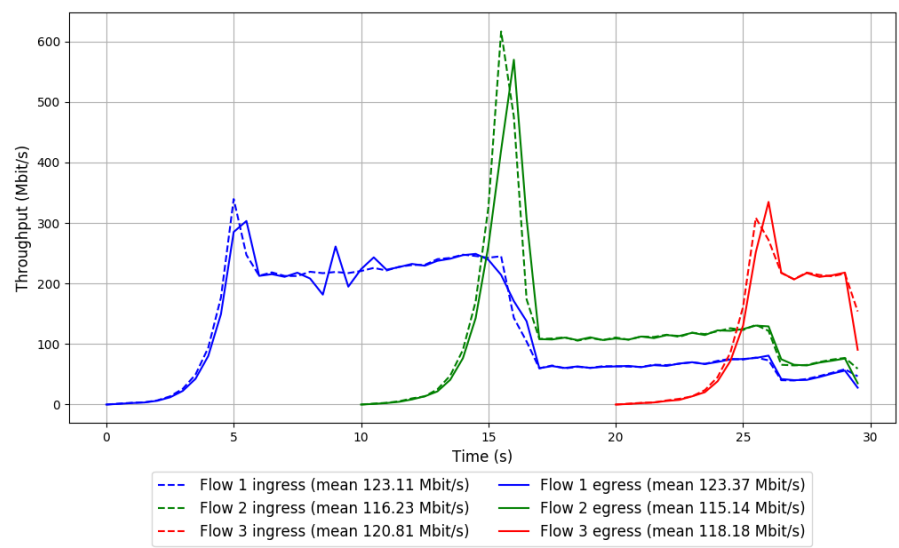
-- Flow 3:

Average throughput: 118.18 Mbit/s

95th percentile per-packet one-way delay: 135.303 ms

Loss rate: 4.90%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-01-18 04:28:31

End at: 2018-01-18 04:29:01

Below is generated by plot.py at 2018-01-18 10:00:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 293.80 Mbit/s

95th percentile per-packet one-way delay: 144.167 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 184.68 Mbit/s

95th percentile per-packet one-way delay: 147.582 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 133.68 Mbit/s

95th percentile per-packet one-way delay: 137.904 ms

Loss rate: 0.62%

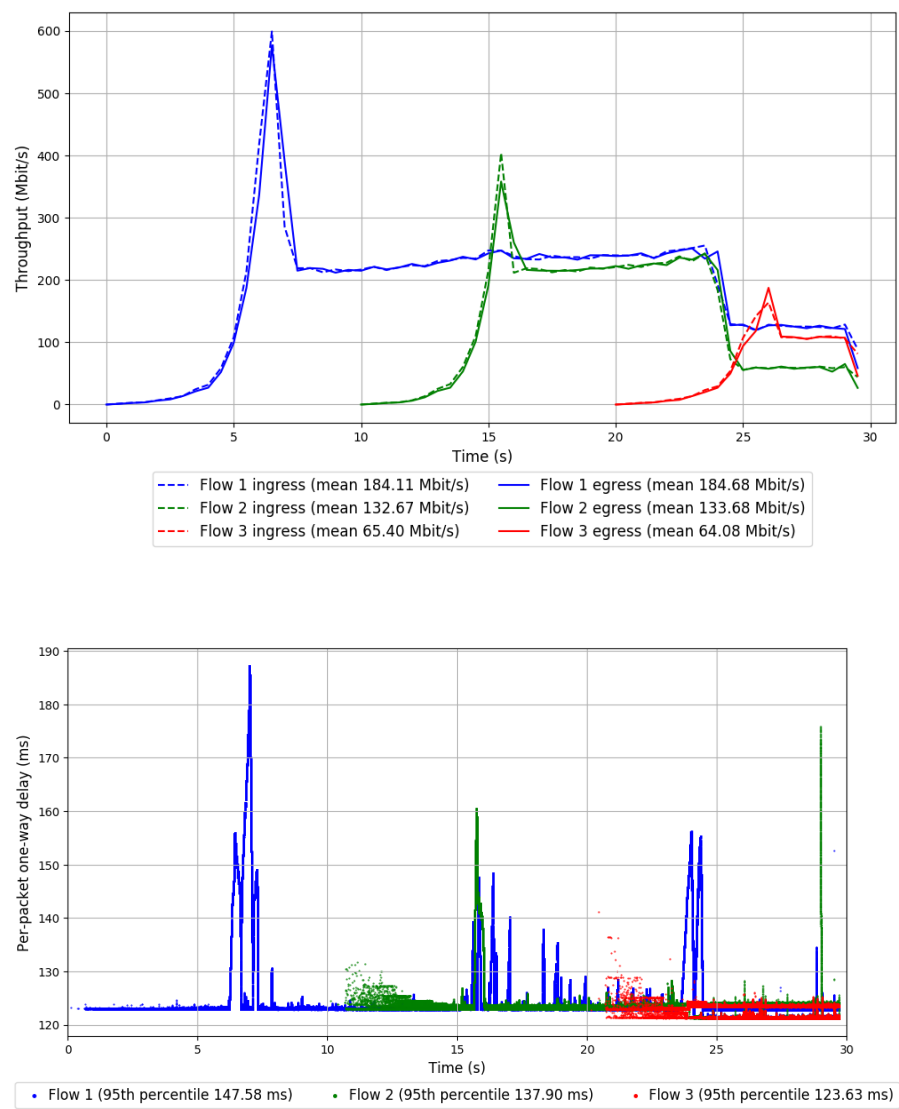
-- Flow 3:

Average throughput: 64.08 Mbit/s

95th percentile per-packet one-way delay: 123.630 ms

Loss rate: 4.75%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-01-18 04:48:14

End at: 2018-01-18 04:48:44

Below is generated by plot.py at 2018-01-18 10:00:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 217.72 Mbit/s

95th percentile per-packet one-way delay: 234.139 ms

Loss rate: 4.89%

-- Flow 1:

Average throughput: 102.08 Mbit/s

95th percentile per-packet one-way delay: 242.669 ms

Loss rate: 4.04%

-- Flow 2:

Average throughput: 117.64 Mbit/s

95th percentile per-packet one-way delay: 235.182 ms

Loss rate: 6.12%

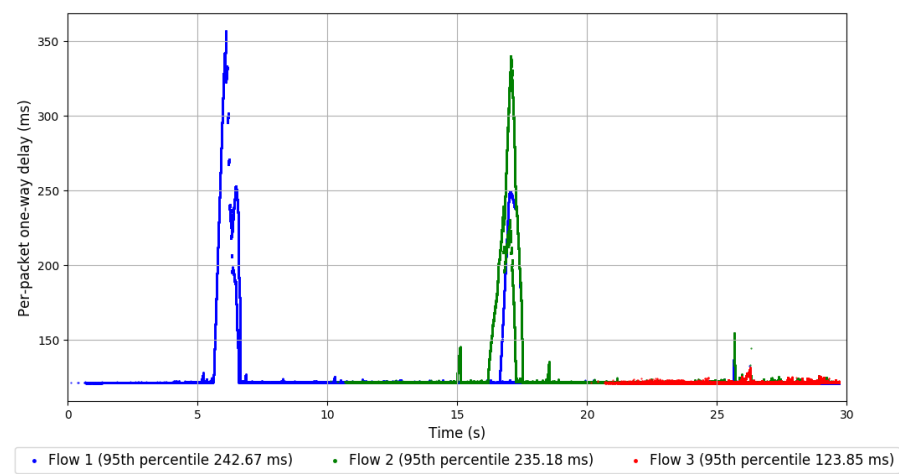
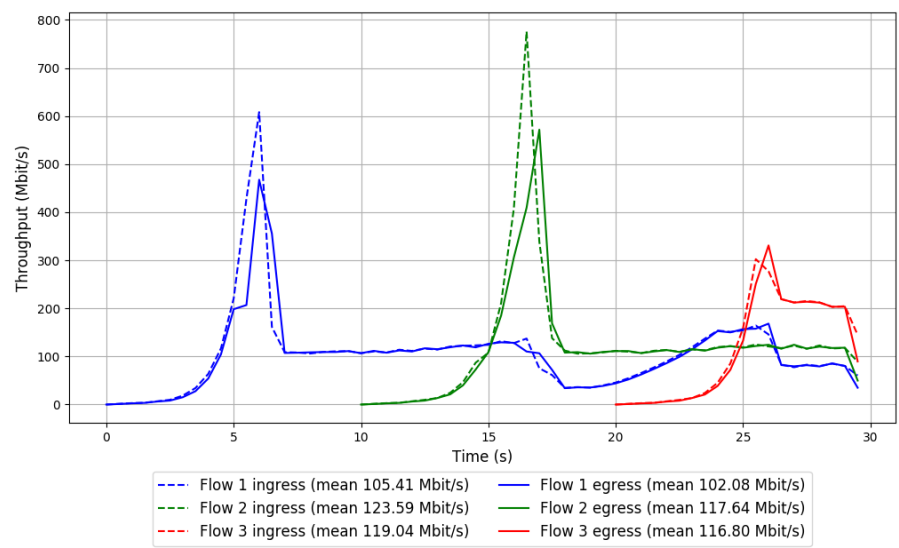
-- Flow 3:

Average throughput: 116.80 Mbit/s

95th percentile per-packet one-way delay: 123.847 ms

Loss rate: 4.59%

Run 10: Report of Vivace-loss — Data Link

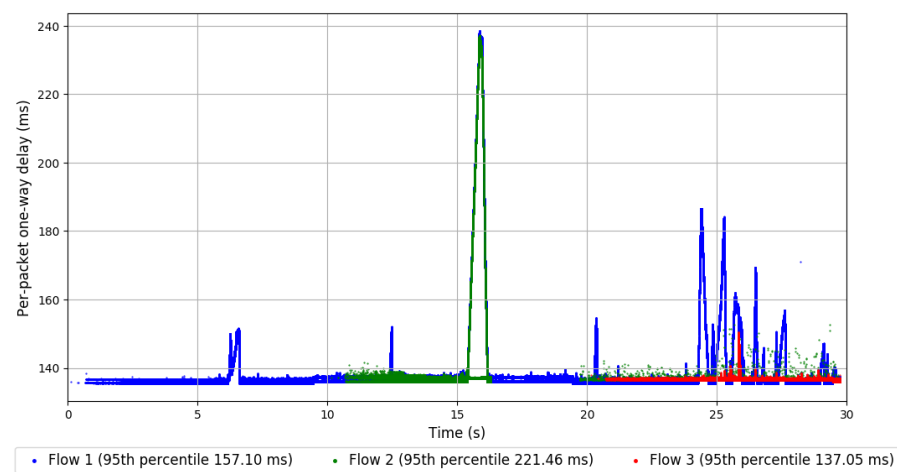
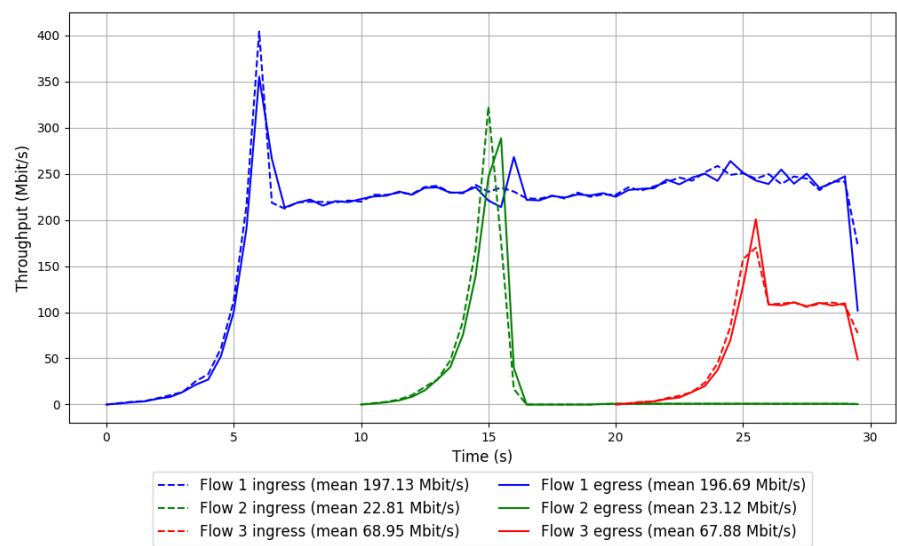


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-18 01:53:56
End at: 2018-01-18 01:54:26

# Below is generated by plot.py at 2018-01-18 10:00:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 233.91 Mbit/s
95th percentile per-packet one-way delay: 158.384 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 196.69 Mbit/s
95th percentile per-packet one-way delay: 157.100 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 23.12 Mbit/s
95th percentile per-packet one-way delay: 221.464 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 67.88 Mbit/s
95th percentile per-packet one-way delay: 137.048 ms
Loss rate: 4.30%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-01-18 02:12:23

End at: 2018-01-18 02:12:53

Below is generated by plot.py at 2018-01-18 10:00:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 164.198 ms

Loss rate: 2.93%

-- Flow 1:

Average throughput: 4.87 Mbit/s

95th percentile per-packet one-way delay: 164.203 ms

Loss rate: 3.69%

-- Flow 2:

Average throughput: 9.75 Mbit/s

95th percentile per-packet one-way delay: 164.201 ms

Loss rate: 1.93%

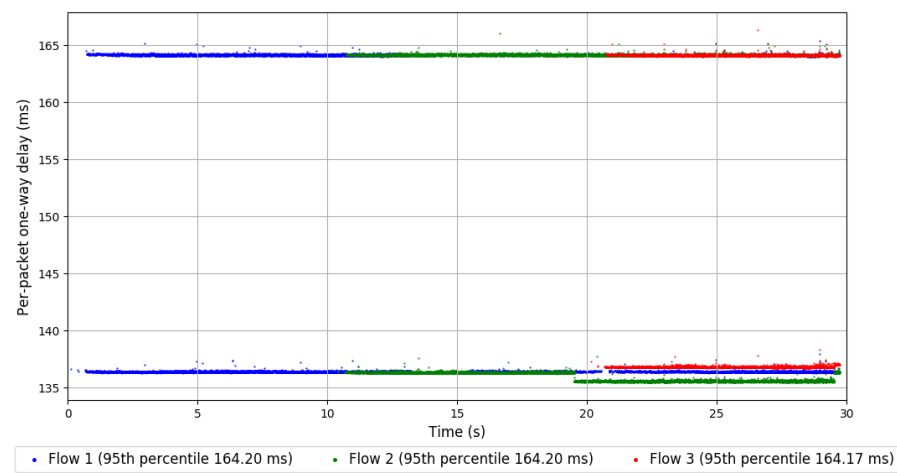
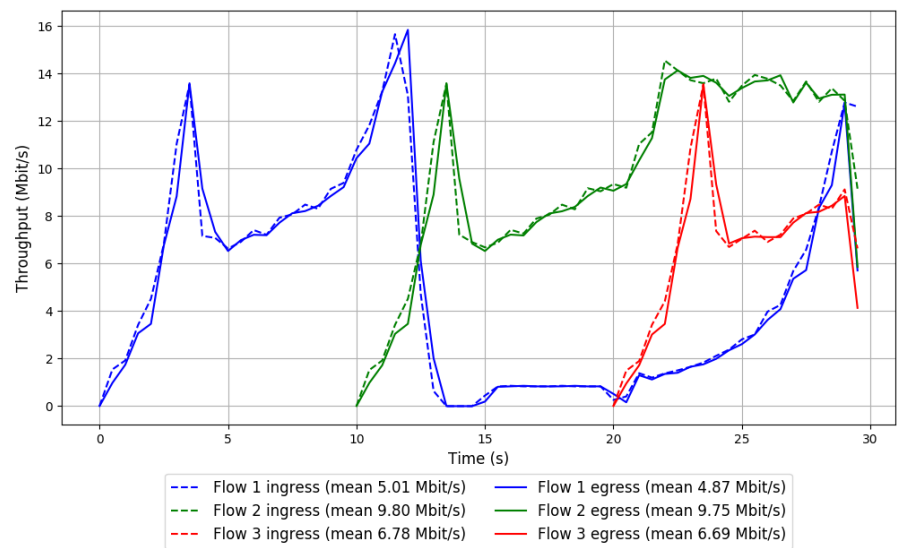
-- Flow 3:

Average throughput: 6.69 Mbit/s

95th percentile per-packet one-way delay: 164.168 ms

Loss rate: 4.11%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-18 02:30:50

End at: 2018-01-18 02:31:20

Below is generated by plot.py at 2018-01-18 10:00:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.38 Mbit/s

95th percentile per-packet one-way delay: 245.326 ms

Loss rate: 3.13%

-- Flow 1:

Average throughput: 25.07 Mbit/s

95th percentile per-packet one-way delay: 172.773 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 38.45 Mbit/s

95th percentile per-packet one-way delay: 309.830 ms

Loss rate: 8.39%

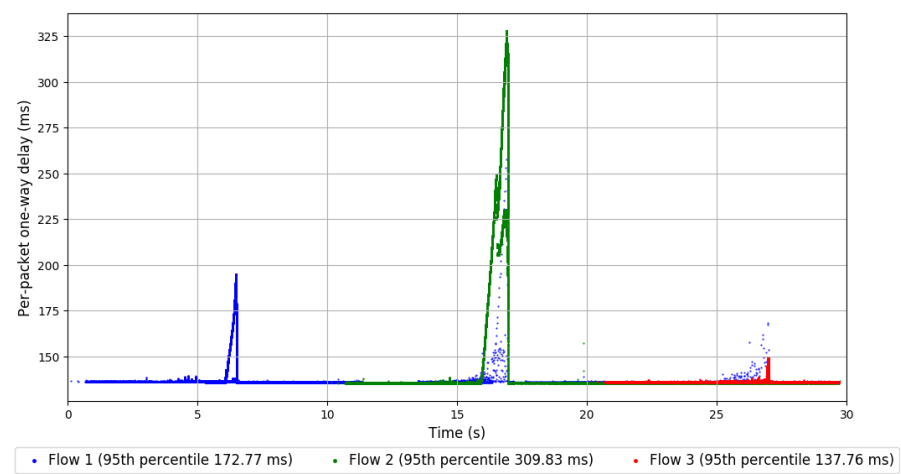
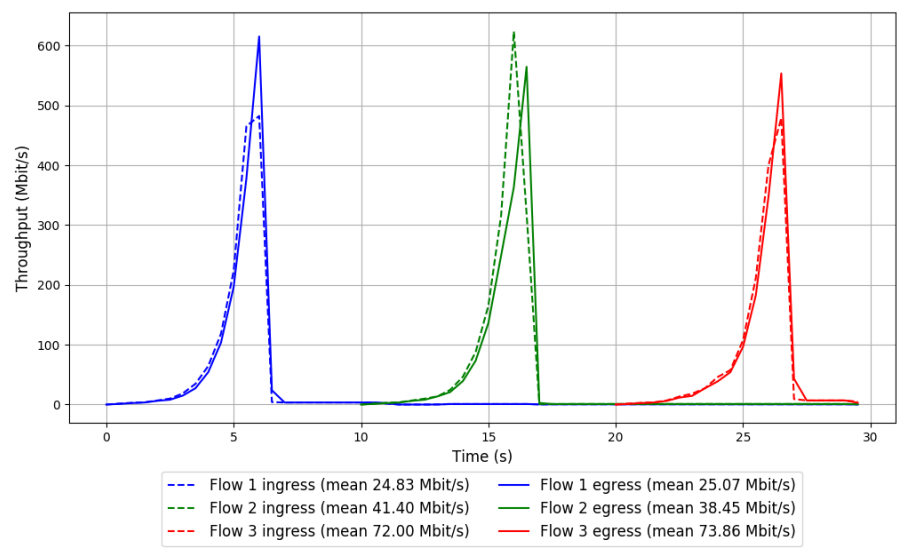
-- Flow 3:

Average throughput: 73.86 Mbit/s

95th percentile per-packet one-way delay: 137.763 ms

Loss rate: 0.27%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-18 02:50:48

End at: 2018-01-18 02:51:18

Below is generated by plot.py at 2018-01-18 10:01:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 244.36 Mbit/s

95th percentile per-packet one-way delay: 137.163 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 151.76 Mbit/s

95th percentile per-packet one-way delay: 137.353 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 106.74 Mbit/s

95th percentile per-packet one-way delay: 137.540 ms

Loss rate: 1.93%

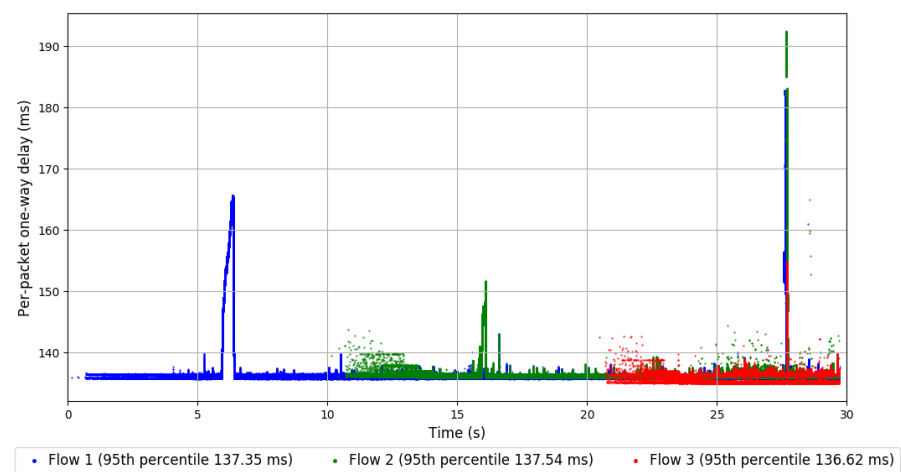
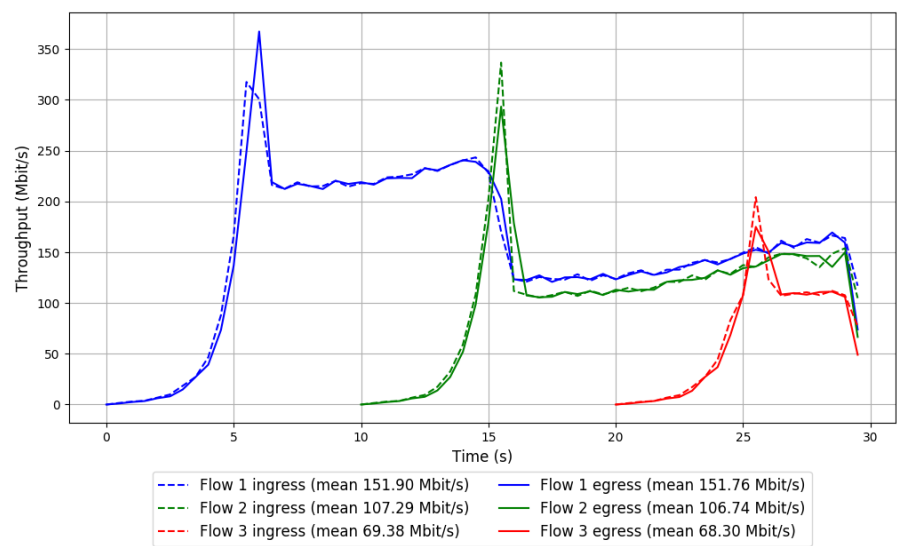
-- Flow 3:

Average throughput: 68.30 Mbit/s

95th percentile per-packet one-way delay: 136.623 ms

Loss rate: 4.34%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-01-18 03:10:34

End at: 2018-01-18 03:11:04

Below is generated by plot.py at 2018-01-18 10:01:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.90 Mbit/s

95th percentile per-packet one-way delay: 241.015 ms

Loss rate: 4.70%

-- Flow 1:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 160.711 ms

Loss rate: 3.00%

-- Flow 2:

Average throughput: 39.08 Mbit/s

95th percentile per-packet one-way delay: 272.773 ms

Loss rate: 5.12%

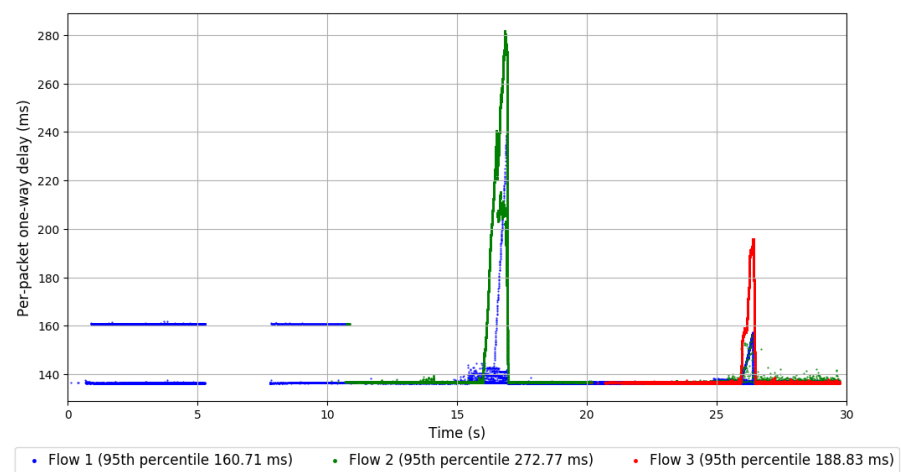
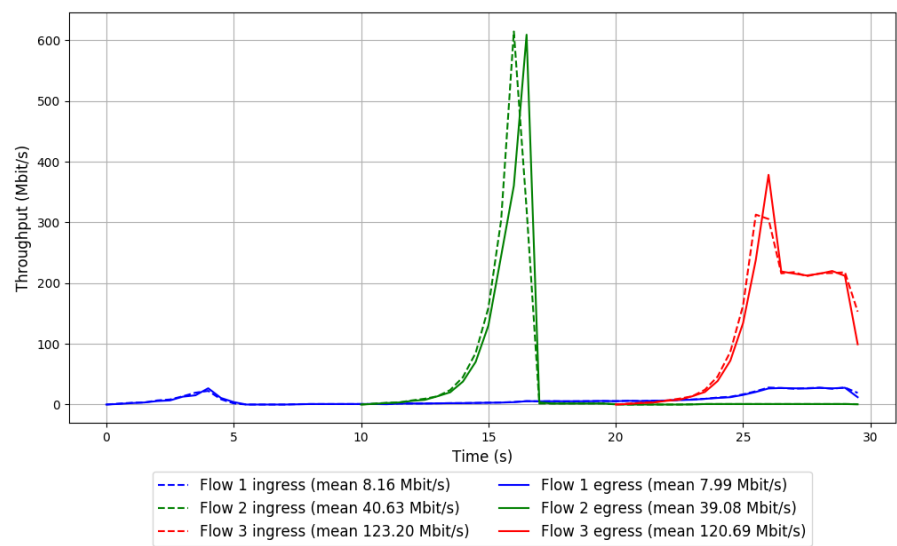
-- Flow 3:

Average throughput: 120.69 Mbit/s

95th percentile per-packet one-way delay: 188.832 ms

Loss rate: 4.76%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-01-18 03:30:07

End at: 2018-01-18 03:30:37

Below is generated by plot.py at 2018-01-18 10:01:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.60 Mbit/s

95th percentile per-packet one-way delay: 147.453 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 166.00 Mbit/s

95th percentile per-packet one-way delay: 147.107 ms

Loss rate: 1.65%

-- Flow 2:

Average throughput: 24.25 Mbit/s

95th percentile per-packet one-way delay: 142.280 ms

Loss rate: 0.05%

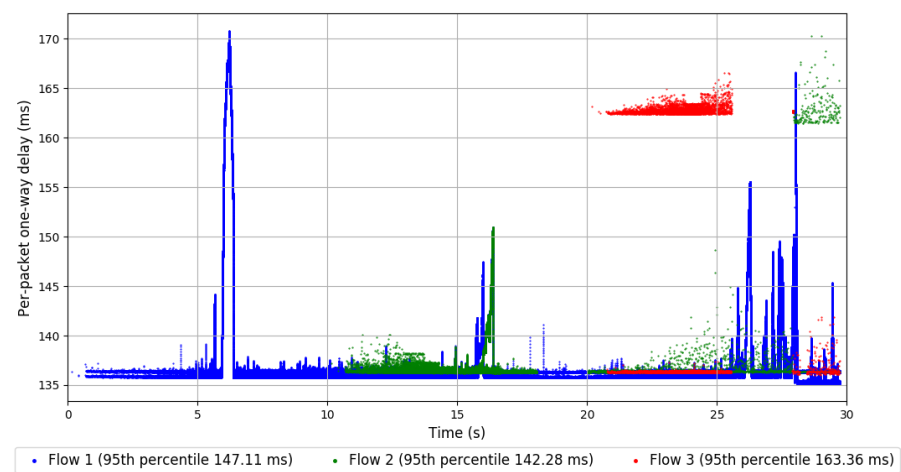
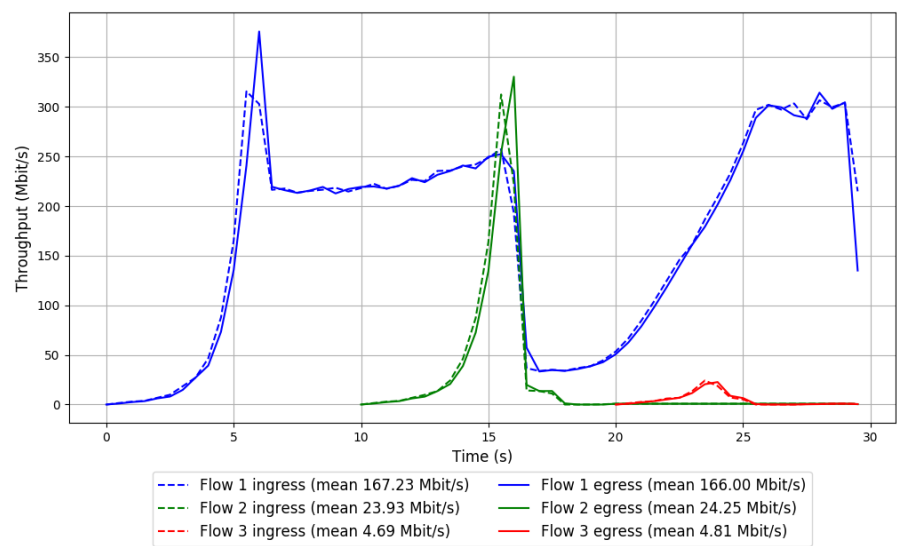
-- Flow 3:

Average throughput: 4.81 Mbit/s

95th percentile per-packet one-way delay: 163.357 ms

Loss rate: 0.52%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-01-18 03:49:21

End at: 2018-01-18 03:49:51

Below is generated by plot.py at 2018-01-18 10:01:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.52 Mbit/s

95th percentile per-packet one-way delay: 226.480 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 27.13 Mbit/s

95th percentile per-packet one-way delay: 276.391 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 129.62 Mbit/s

95th percentile per-packet one-way delay: 189.558 ms

Loss rate: 0.01%

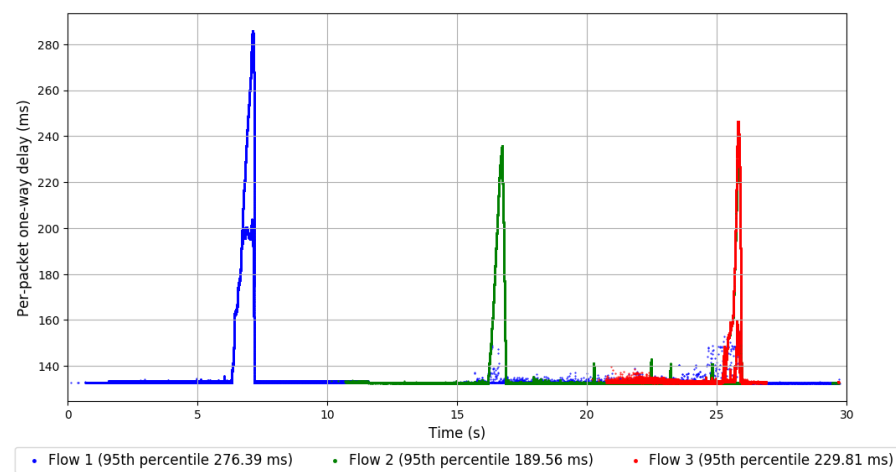
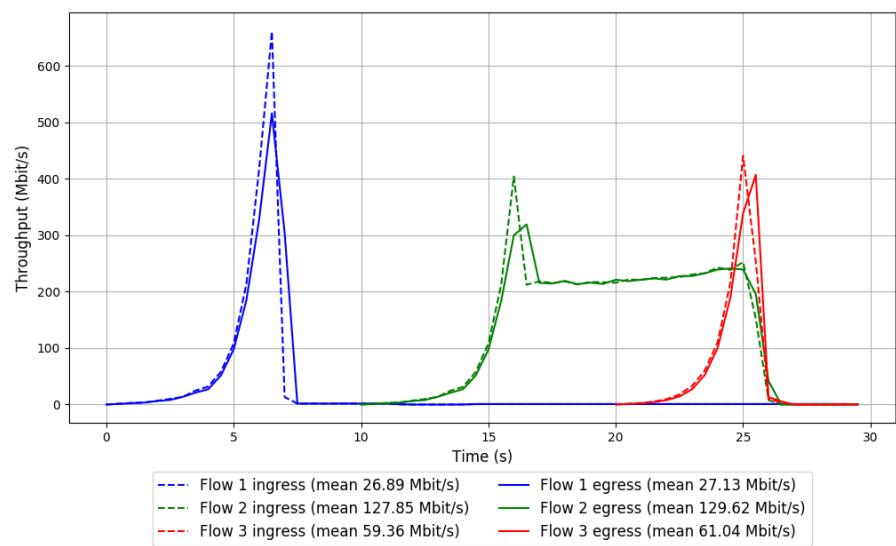
-- Flow 3:

Average throughput: 61.04 Mbit/s

95th percentile per-packet one-way delay: 229.805 ms

Loss rate: 0.04%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-01-18 04:09:31

End at: 2018-01-18 04:10:01

Below is generated by plot.py at 2018-01-18 10:01:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.60 Mbit/s

95th percentile per-packet one-way delay: 215.009 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 27.24 Mbit/s

95th percentile per-packet one-way delay: 218.383 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 144.02 Mbit/s

95th percentile per-packet one-way delay: 192.228 ms

Loss rate: 0.72%

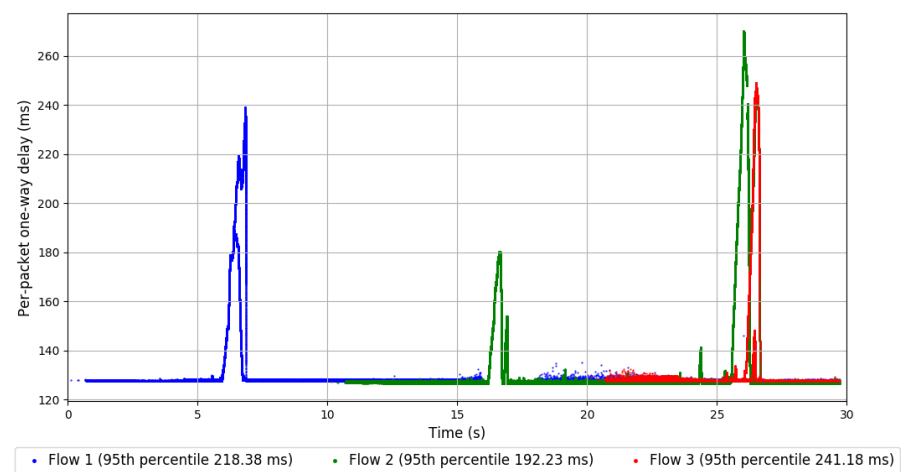
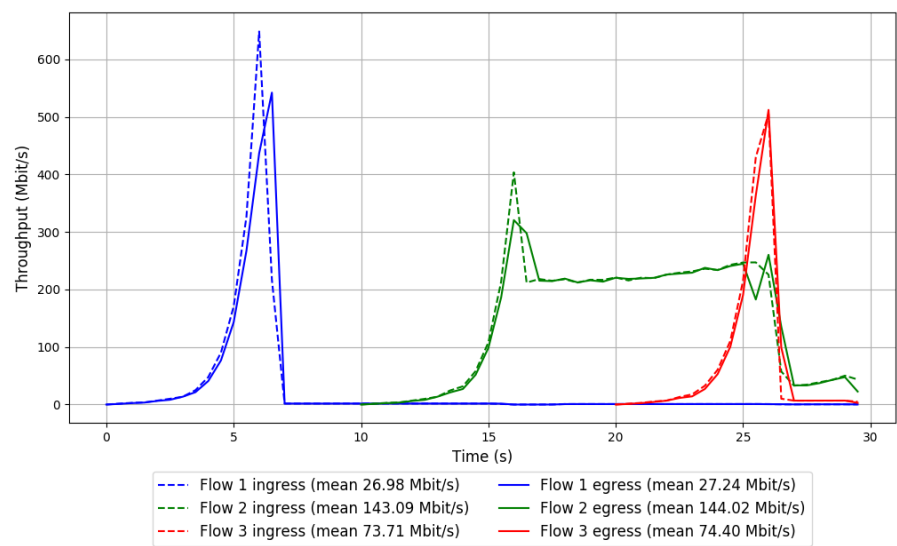
-- Flow 3:

Average throughput: 74.40 Mbit/s

95th percentile per-packet one-way delay: 241.183 ms

Loss rate: 1.89%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-01-18 04:29:57

End at: 2018-01-18 04:30:27

Below is generated by plot.py at 2018-01-18 10:01:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.57 Mbit/s

95th percentile per-packet one-way delay: 210.272 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 26.04 Mbit/s

95th percentile per-packet one-way delay: 195.707 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 39.63 Mbit/s

95th percentile per-packet one-way delay: 231.312 ms

Loss rate: 0.03%

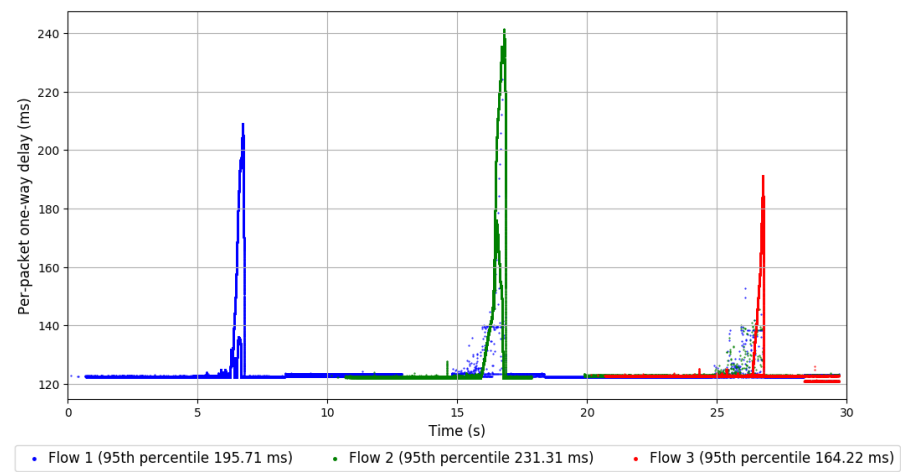
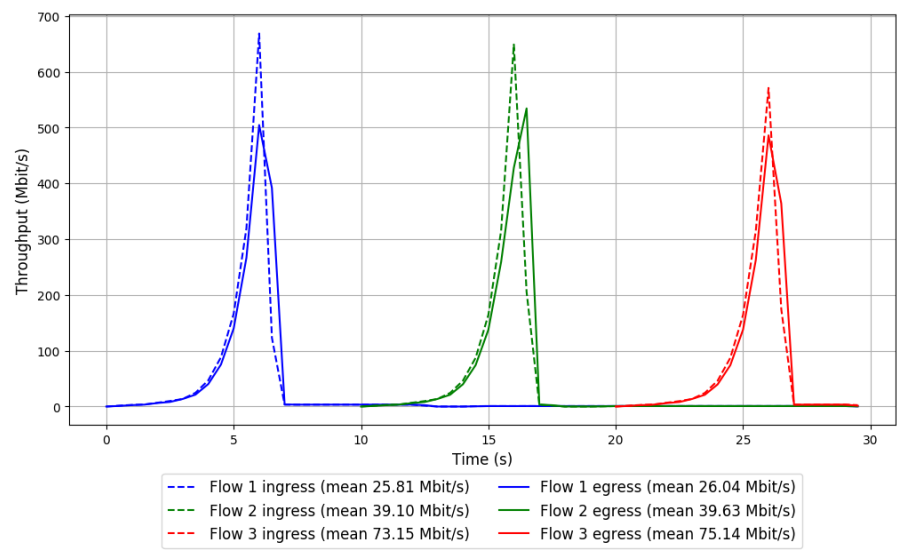
-- Flow 3:

Average throughput: 75.14 Mbit/s

95th percentile per-packet one-way delay: 164.216 ms

Loss rate: 0.13%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-01-18 04:49:31
End at: 2018-01-18 04:50:01

# Below is generated by plot.py at 2018-01-18 10:01:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.54 Mbit/s
95th percentile per-packet one-way delay: 247.273 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 26.18 Mbit/s
95th percentile per-packet one-way delay: 209.819 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 160.09 Mbit/s
95th percentile per-packet one-way delay: 266.071 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 58.14 Mbit/s
95th percentile per-packet one-way delay: 192.279 ms
Loss rate: 0.01%
```

Run 10: Report of Vivace-LTE — Data Link

