Pantheon Report

Generated at 2018-02-17 00:41:01 (UTC).

Data path: AWS California 1 Ethernet (*local*) →Stanford Ethernet (*remote*).

Repeated the test of 17 congestion control schemes 10 times.

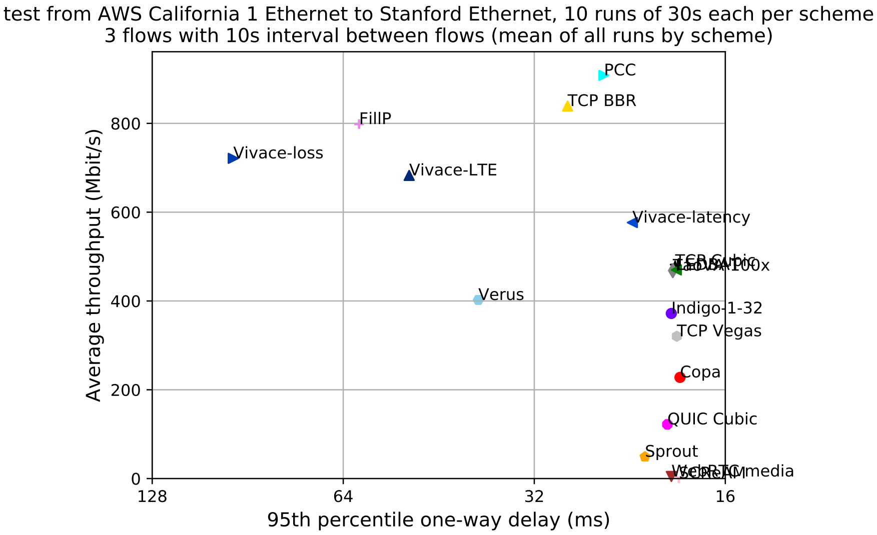
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

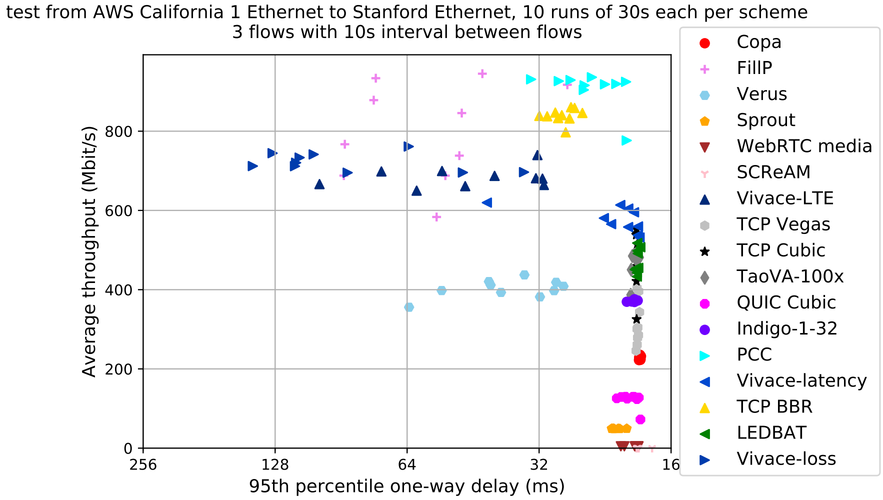
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ cccb2d77344969a7bac1df6edf6c0cfb6c77a6f8
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 8400b8926887fc4cf8c795a1d7ce2c8ac041ec72
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```


test from AWS California 1 Ethernet to Stanford Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
128
64
32
16
PCC
TCP BBR
FillP
Vivace-loss
Vivace-LTE
Vivace-latency
TCP Cubic
LEDBAT
TaoVA-100x
Verus
Indigo-1-32
TCP Vegas
Copa
QUIC Cubic
Sprout
WebRTC media
SCReAM


test from AWS California 1 Ethernet to Stanford Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
200
400
600
800
256
128
64
32
16
Copa
FillP
Verus
Sprout
WebRTC media
SCReAM
Vivace-LTE
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Indigo-1-32
PCC
Vivace-latency
TCP BBR
LEDBAT
Vivace-loss

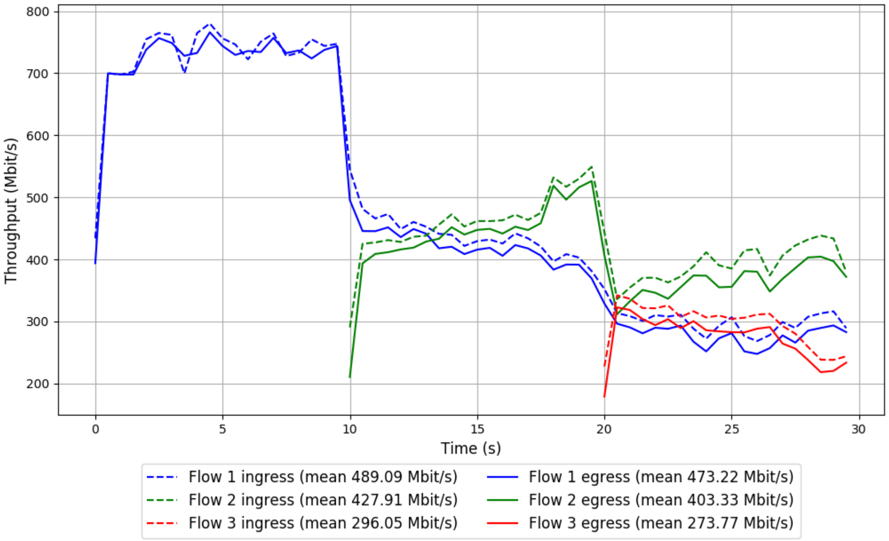
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean avg tput (Mbit/s) flow 2	mean avg tput (Mbit/s) flow 3	mean 95th-%ile delay (ms) flow 1	mean 95th-%ile delay (ms) flow 2	mean 95th-%ile delay (ms) flow 3	mean loss rate (%) flow 1	mean loss rate (%) flow 2	mean loss rate (%) flow 3
TCP BBR	10	491.60	375.62	293.16	31.44	20.39	20.12	2.97	5.28	6.78
TCP Cubic	10	288.42	191.78	188.77	19.23	19.14	18.70	0.07	0.10	0.13
LEDBAT	10	269.75	221.44	158.96	19.02	18.46	18.98	0.02	0.03	0.04
PCC	10	764.09	177.68	78.74	26.66	19.90	19.61	0.55	0.39	0.48
QUIC Cubic	10	62.53	63.61	52.92	19.40	19.96	20.18	0.01	0.00	0.01
SCReAM	10	0.22	0.22	0.22	18.24	18.67	18.83	0.00	0.00	0.00
WebRTC media	10	2.41	1.58	0.73	19.04	19.58	20.01	0.00	0.00	0.00
Sprout	10	24.67	24.63	24.37	21.11	21.52	21.12	0.03	0.02	0.04
TaoVA-100x	10	245.62	231.72	206.36	19.10	19.24	19.46	0.01	0.01	0.02
TCP Vegas	10	181.35	111.94	194.43	18.52	18.99	18.63	0.03	0.10	0.10
Verus	10	217.07	197.05	168.76	42.16	43.78	24.83	18.77	19.14	15.70
Copa	10	111.63	110.13	129.32	18.72	18.58	18.76	0.00	0.00	0.01
FillP	10	484.05	318.25	311.16	63.85	57.22	34.12	7.62	12.42	14.95
Indigo-1-32	10	193.28	185.32	174.61	19.19	19.10	19.86	0.02	0.03	0.06
Vivace-latency	10	351.16	284.98	109.27	24.96	19.36	18.95	0.14	0.19	0.16
Vivace-loss	10	428.09	356.35	170.95	106.89	46.96	20.27	1.70	1.52	2.40
Vivace-LTE	10	413.96	338.38	133.34	63.92	25.90	19.62	0.39	0.62	0.74

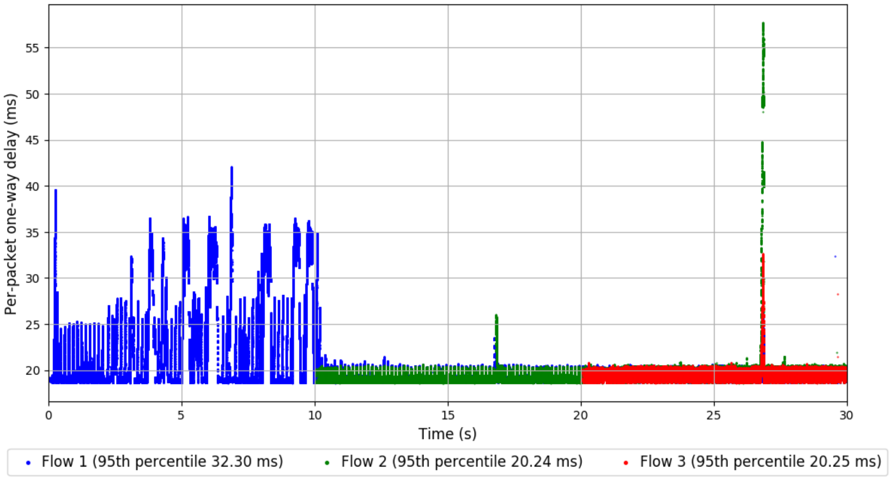
```
Run 1: Statistics of TCP BBR

Start at: 2018-02-16 15:21:39
End at: 2018-02-16 15:22:09
Local clock offset: -0.062 ms
Remote clock offset: -4.94 ms

# Below is generated by plot.py at 2018-02-16 22:28:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 833.00 Mbit/s
95th percentile per-packet one-way delay: 28.952 ms
Loss rate: 4.54%
-- Flow 1:
Average throughput: 473.22 Mbit/s
95th percentile per-packet one-way delay: 32.299 ms
Loss rate: 3.24%
-- Flow 2:
Average throughput: 403.33 Mbit/s
95th percentile per-packet one-way delay: 20.241 ms
Loss rate: 5.74%
-- Flow 3:
Average throughput: 273.77 Mbit/s
95th percentile per-packet one-way delay: 20.249 ms
Loss rate: 7.52%
```

Run 1: Report of TCP BBR — Data Link



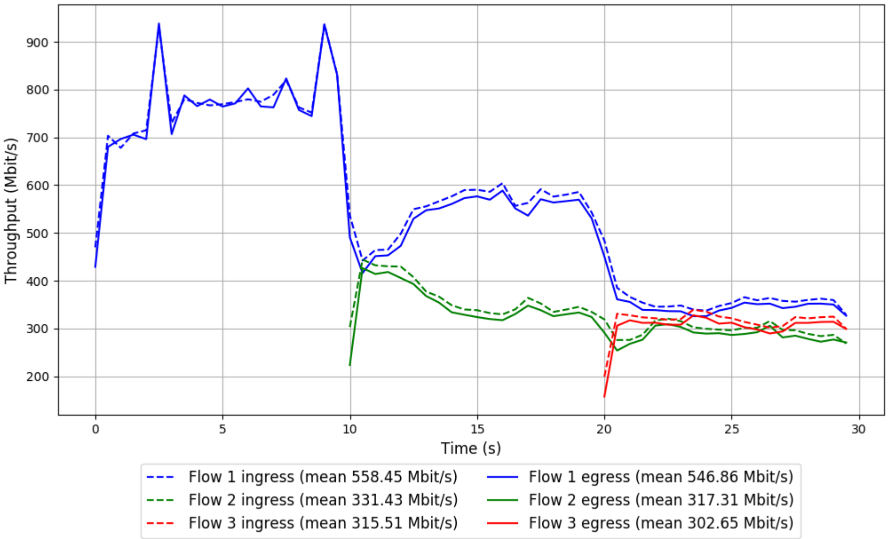


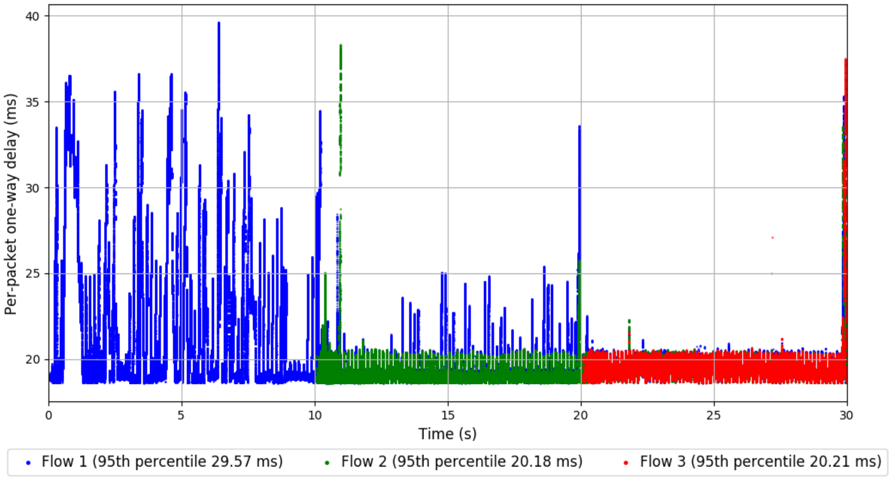
```
Run 2: Statistics of TCP BBR

Start at: 2018-02-16 15:48:45
End at: 2018-02-16 15:49:15
Local clock offset: -0.091 ms
Remote clock offset: -5.312 ms

# Below is generated by plot.py at 2018-02-16 22:28:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 858.62 Mbit/s
95th percentile per-packet one-way delay: 26.554 ms
Loss rate: 2.86%
-- Flow 1:
Average throughput: 546.86 Mbit/s
95th percentile per-packet one-way delay: 29.575 ms
Loss rate: 2.07%
-- Flow 2:
Average throughput: 317.31 Mbit/s
95th percentile per-packet one-way delay: 20.176 ms
Loss rate: 4.26%
-- Flow 3:
Average throughput: 302.65 Mbit/s
95th percentile per-packet one-way delay: 20.206 ms
Loss rate: 4.08%
```

Run 2: Report of TCP BBR — Data Link



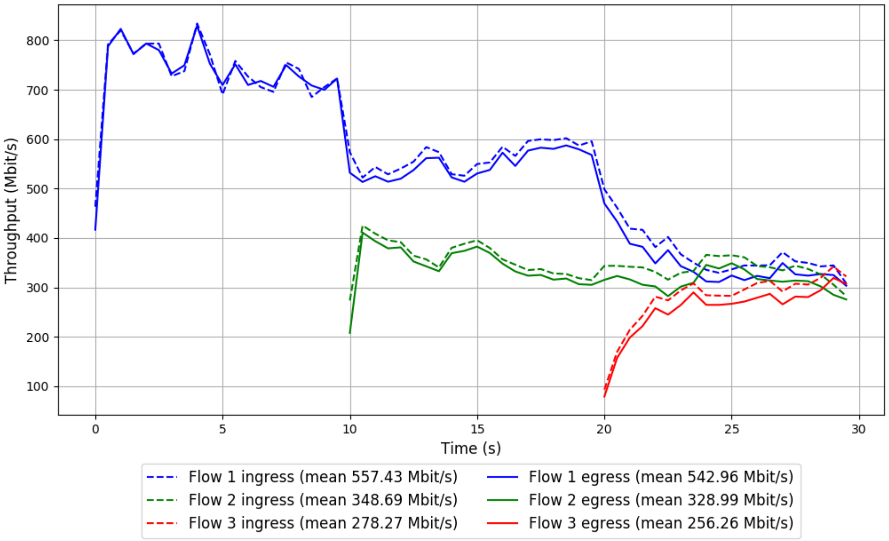


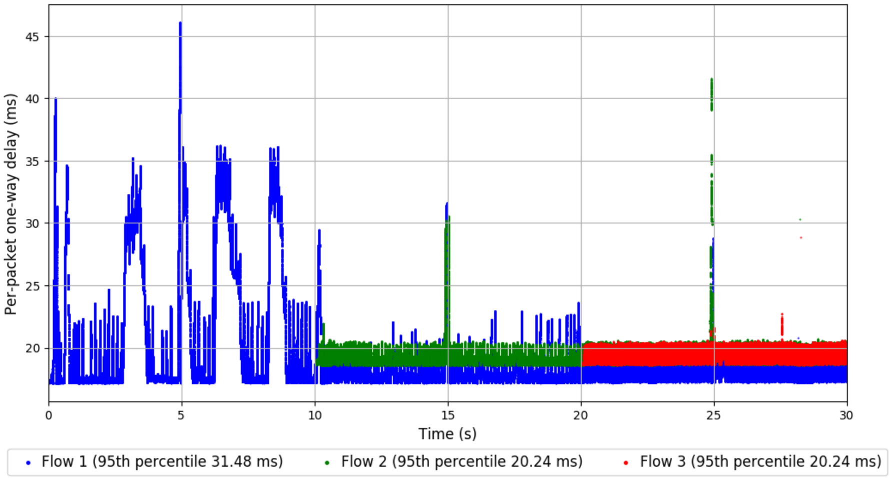
```
Run 3: Statistics of TCP BBR

Start at: 2018-02-16 16:16:10
End at: 2018-02-16 16:16:40
Local clock offset: 0.125 ms
Remote clock offset: -6.01 ms

# Below is generated by plot.py at 2018-02-16 22:28:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 846.97 Mbit/s
95th percentile per-packet one-way delay: 29.383 ms
Loss rate: 3.96%
-- Flow 1:
Average throughput: 542.96 Mbit/s
95th percentile per-packet one-way delay: 31.475 ms
Loss rate: 2.59%
-- Flow 2:
Average throughput: 328.99 Mbit/s
95th percentile per-packet one-way delay: 20.242 ms
Loss rate: 5.65%
-- Flow 3:
Average throughput: 256.26 Mbit/s
95th percentile per-packet one-way delay: 20.241 ms
Loss rate: 7.92%
```

Run 3: Report of TCP BBR — Data Link



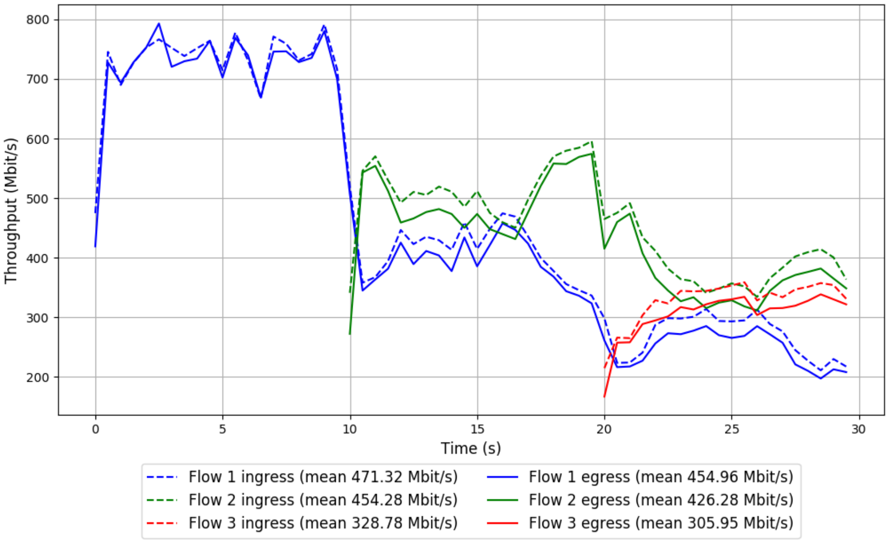


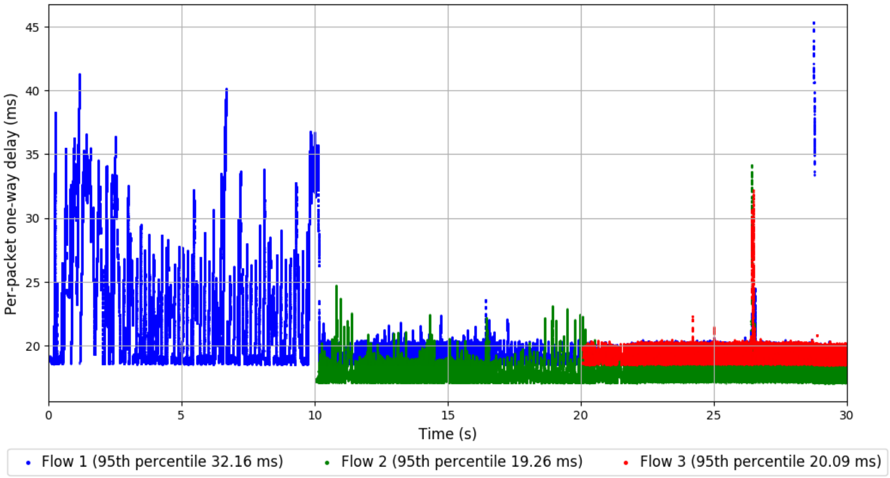
```
Run 4: Statistics of TCP BBR

Start at: 2018-02-16 16:43:28
End at: 2018-02-16 16:43:58
Local clock offset: 0.165 ms
Remote clock offset: -6.621 ms

# Below is generated by plot.py at 2018-02-16 22:28:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 840.37 Mbit/s
95th percentile per-packet one-way delay: 28.398 ms
Loss rate: 4.82%
-- Flow 1:
Average throughput: 454.96 Mbit/s
95th percentile per-packet one-way delay: 32.162 ms
Loss rate: 3.47%
-- Flow 2:
Average throughput: 426.28 Mbit/s
95th percentile per-packet one-way delay: 19.260 ms
Loss rate: 6.16%
-- Flow 3:
Average throughput: 305.95 Mbit/s
95th percentile per-packet one-way delay: 20.095 ms
Loss rate: 6.94%
```

Run 4: Report of TCP BBR — Data Link



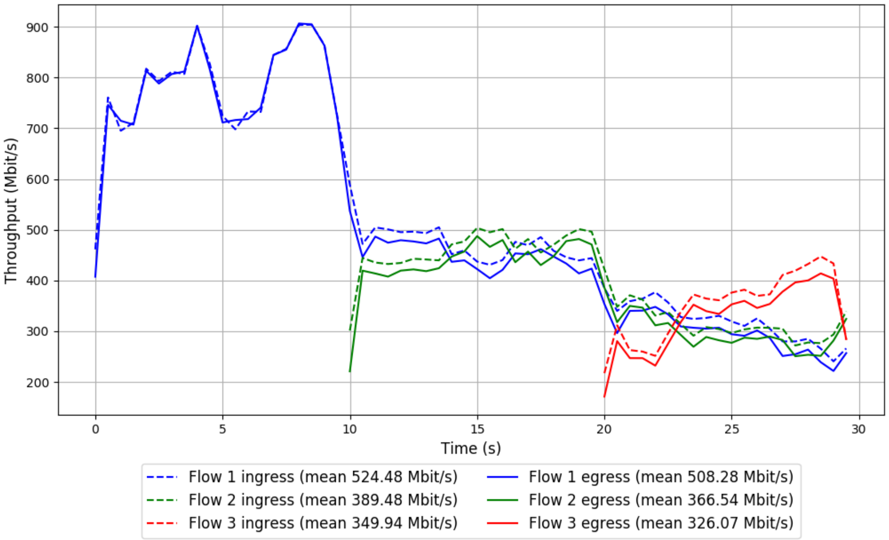


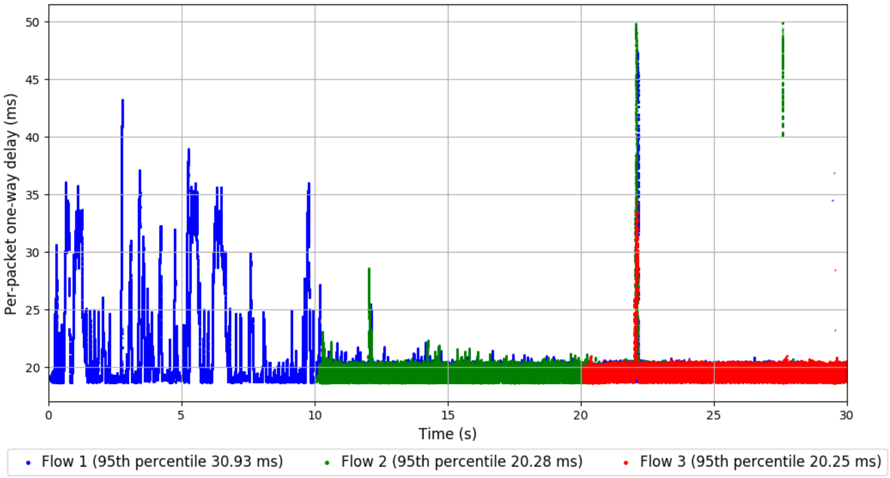
```
Run 5: Statistics of TCP BBR

Start at: 2018-02-16 17:10:42
End at: 2018-02-16 17:11:12
Local clock offset: 0.155 ms
Remote clock offset: -4.702 ms

# Below is generated by plot.py at 2018-02-16 22:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 860.54 Mbit/s
95th percentile per-packet one-way delay: 27.060 ms
Loss rate: 4.38%
-- Flow 1:
Average throughput: 508.28 Mbit/s
95th percentile per-packet one-way delay: 30.931 ms
Loss rate: 3.09%
-- Flow 2:
Average throughput: 366.54 Mbit/s
95th percentile per-packet one-way delay: 20.284 ms
Loss rate: 5.89%
-- Flow 3:
Average throughput: 326.07 Mbit/s
95th percentile per-packet one-way delay: 20.249 ms
Loss rate: 6.83%
```

Run 5: Report of TCP BBR — Data Link



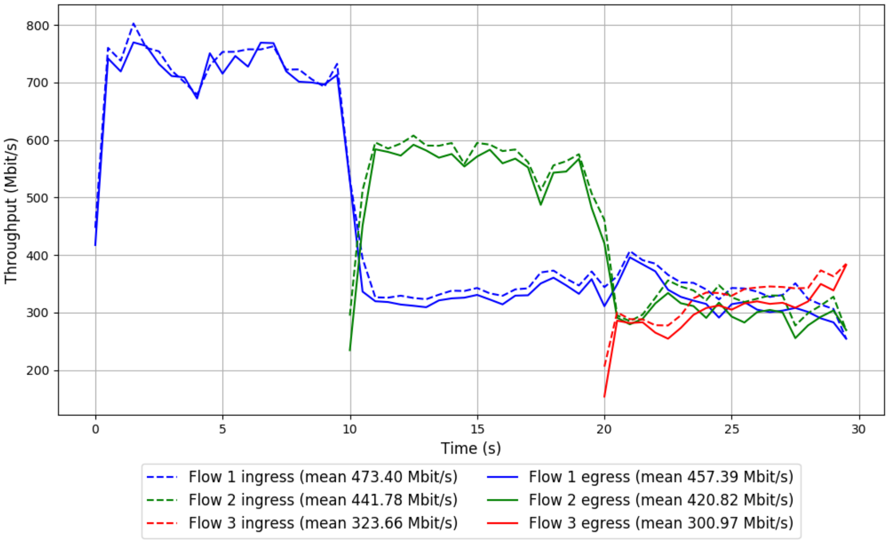


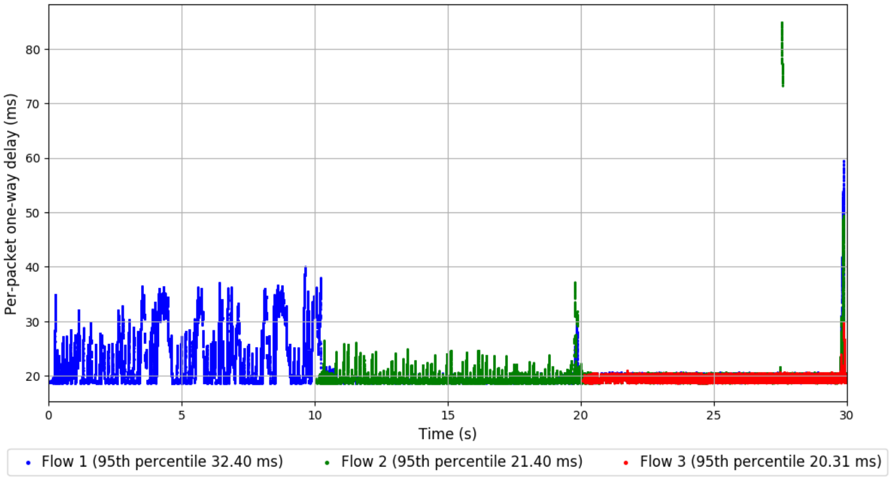
```
Run 6: Statistics of TCP BBR

Start at: 2018-02-16 17:38:03
End at: 2018-02-16 17:38:33
Local clock offset: 0.162 ms
Remote clock offset: -5.818 ms

# Below is generated by plot.py at 2018-02-16 22:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 837.52 Mbit/s
95th percentile per-packet one-way delay: 30.669 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 457.39 Mbit/s
95th percentile per-packet one-way delay: 32.399 ms
Loss rate: 3.38%
-- Flow 2:
Average throughput: 420.82 Mbit/s
95th percentile per-packet one-way delay: 21.403 ms
Loss rate: 4.74%
-- Flow 3:
Average throughput: 300.97 Mbit/s
95th percentile per-packet one-way delay: 20.306 ms
Loss rate: 7.00%
```

Run 6: Report of TCP BBR — Data Link



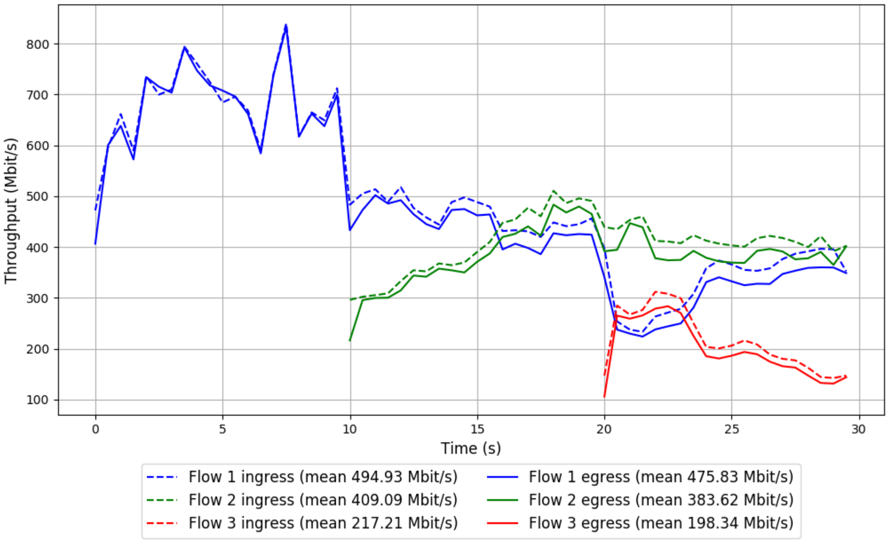


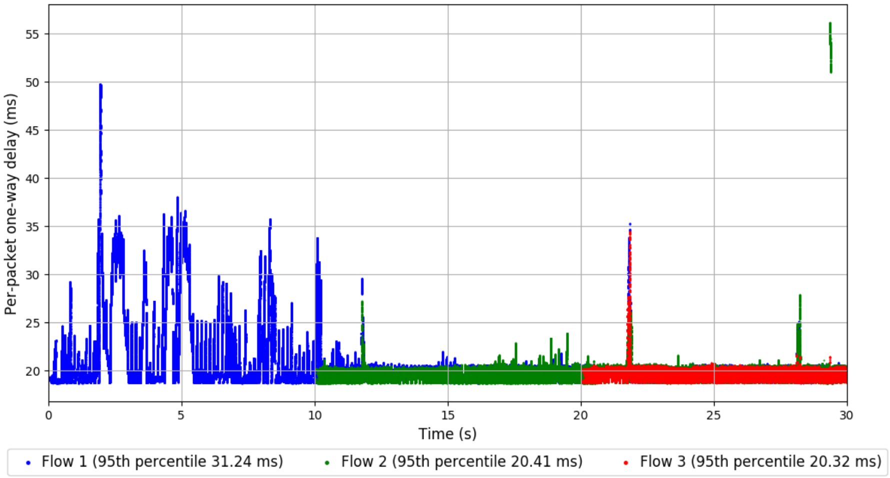
```
Run 7: Statistics of TCP BBR

Start at: 2018-02-16 18:05:51
End at: 2018-02-16 18:06:21
Local clock offset: 0.284 ms
Remote clock offset: -5.839 ms

# Below is generated by plot.py at 2018-02-16 22:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 797.15 Mbit/s
95th percentile per-packet one-way delay: 27.824 ms
Loss rate: 5.04%
-- Flow 1:
Average throughput: 475.83 Mbit/s
95th percentile per-packet one-way delay: 31.242 ms
Loss rate: 3.86%
-- Flow 2:
Average throughput: 383.62 Mbit/s
95th percentile per-packet one-way delay: 20.406 ms
Loss rate: 6.22%
-- Flow 3:
Average throughput: 198.34 Mbit/s
95th percentile per-packet one-way delay: 20.325 ms
Loss rate: 8.68%
```

Run 7: Report of TCP BBR — Data Link



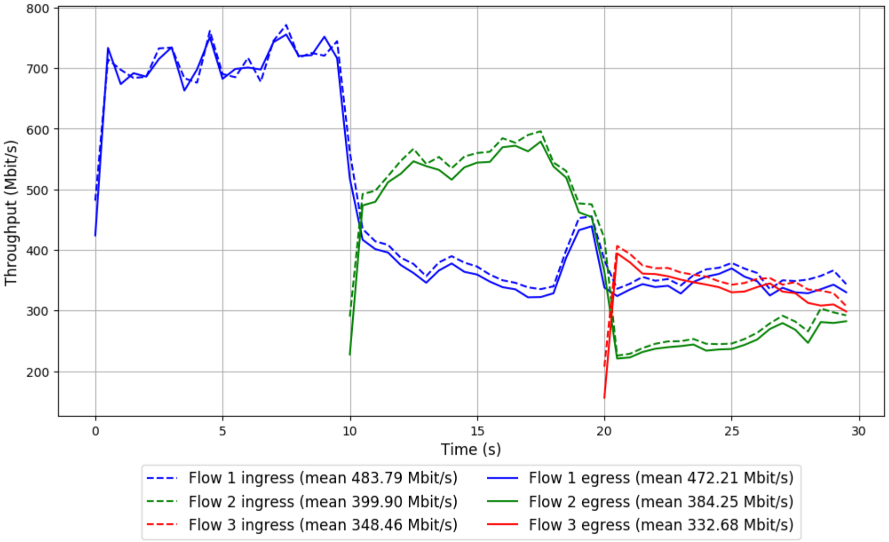


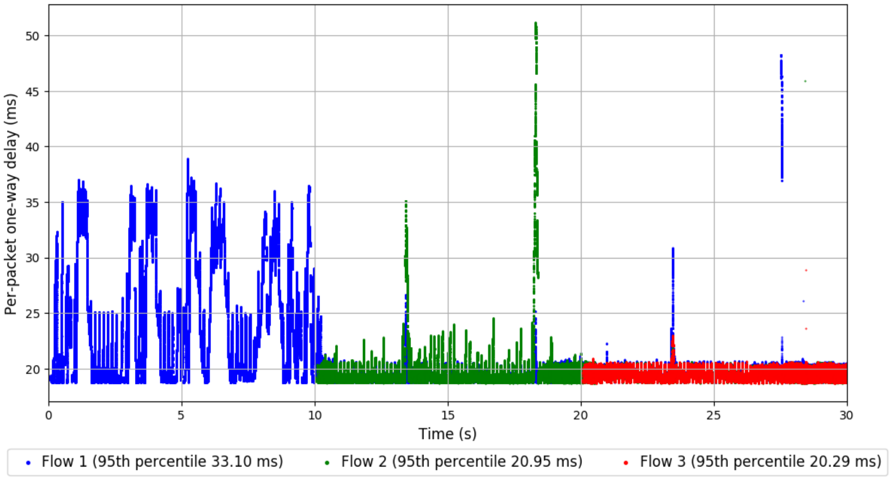
```
Run 8: Statistics of TCP BBR

Start at: 2018-02-16 18:33:19
End at: 2018-02-16 18:33:49
Local clock offset: -0.069 ms
Remote clock offset: -5.063 ms

# Below is generated by plot.py at 2018-02-16 22:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 838.58 Mbit/s
95th percentile per-packet one-way delay: 31.957 ms
Loss rate: 3.14%
-- Flow 1:
Average throughput: 472.21 Mbit/s
95th percentile per-packet one-way delay: 33.099 ms
Loss rate: 2.39%
-- Flow 2:
Average throughput: 384.25 Mbit/s
95th percentile per-packet one-way delay: 20.954 ms
Loss rate: 3.91%
-- Flow 3:
Average throughput: 332.68 Mbit/s
95th percentile per-packet one-way delay: 20.288 ms
Loss rate: 4.53%
```

Run 8: Report of TCP BBR — Data Link



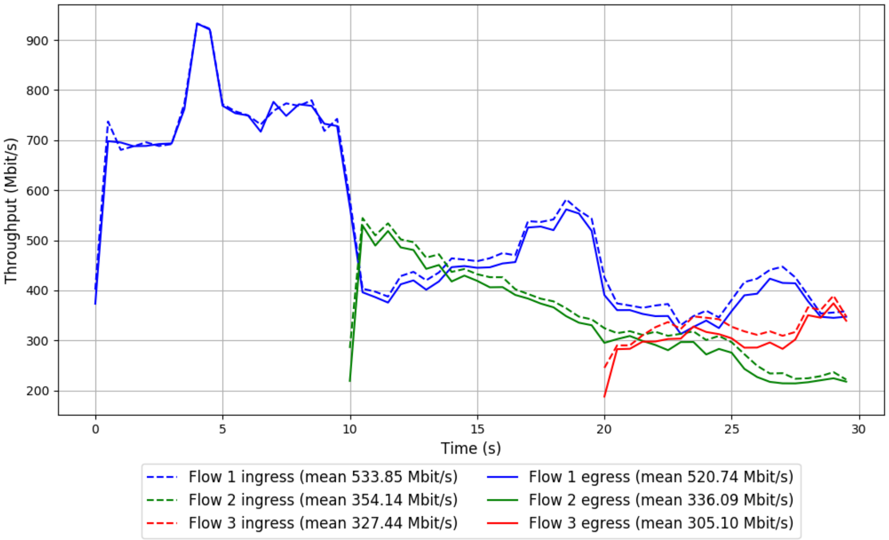


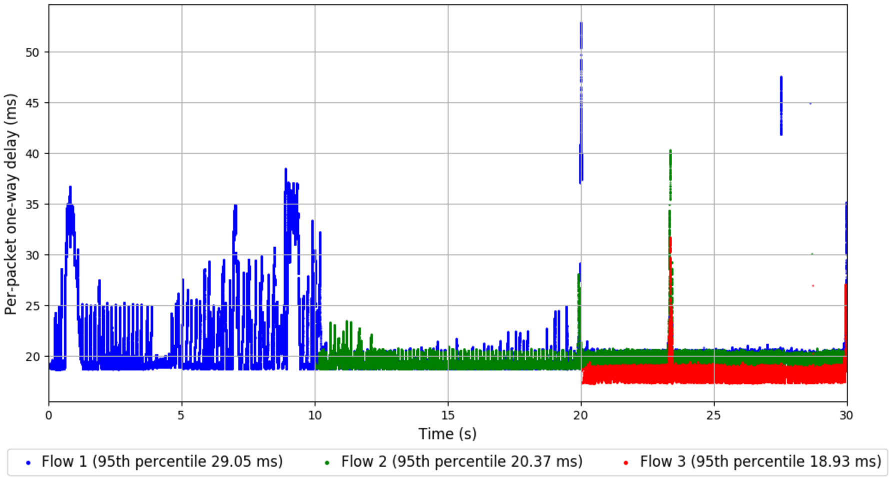
```
Run 9: Statistics of TCP BBR

Start at: 2018-02-16 19:00:32
End at: 2018-02-16 19:01:02
Local clock offset: 0.533 ms
Remote clock offset: -4.421 ms

# Below is generated by plot.py at 2018-02-16 22:38:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 845.95 Mbit/s
95th percentile per-packet one-way delay: 25.491 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 520.74 Mbit/s
95th percentile per-packet one-way delay: 29.049 ms
Loss rate: 2.45%
-- Flow 2:
Average throughput: 336.09 Mbit/s
95th percentile per-packet one-way delay: 20.368 ms
Loss rate: 5.10%
-- Flow 3:
Average throughput: 305.10 Mbit/s
95th percentile per-packet one-way delay: 18.934 ms
Loss rate: 6.81%
```

Run 9: Report of TCP BBR — Data Link



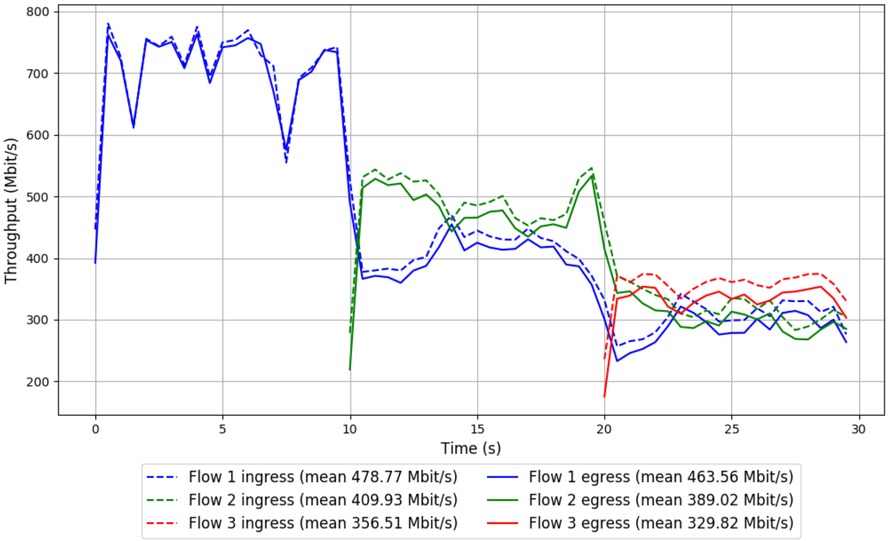


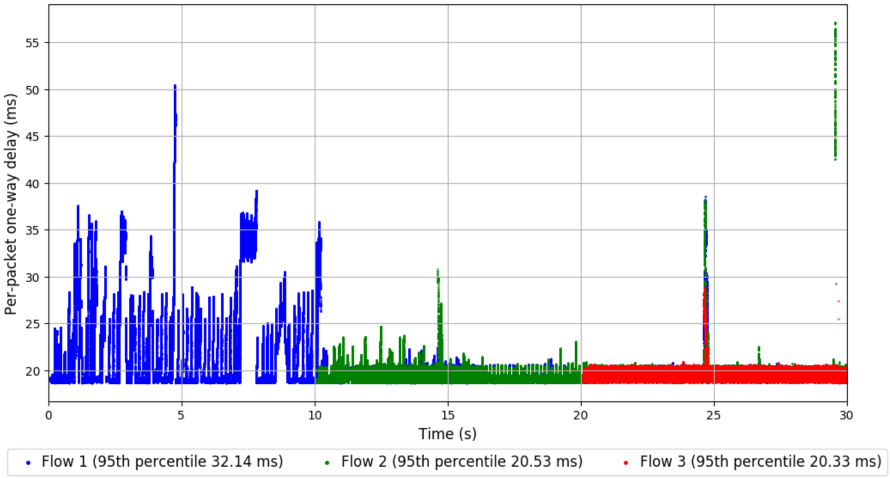
```
Run 10: Statistics of TCP BBR

Start at: 2018-02-16 19:28:17
End at: 2018-02-16 19:28:47
Local clock offset: 0.92 ms
Remote clock offset: -6.001 ms

# Below is generated by plot.py at 2018-02-16 22:39:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 832.05 Mbit/s
95th percentile per-packet one-way delay: 27.269 ms
Loss rate: 4.36%
-- Flow 1:
Average throughput: 463.56 Mbit/s
95th percentile per-packet one-way delay: 32.140 ms
Loss rate: 3.17%
-- Flow 2:
Average throughput: 389.02 Mbit/s
95th percentile per-packet one-way delay: 20.533 ms
Loss rate: 5.10%
-- Flow 3:
Average throughput: 329.82 Mbit/s
95th percentile per-packet one-way delay: 20.334 ms
Loss rate: 7.47%
```

Run 10: Report of TCP BBR — Data Link



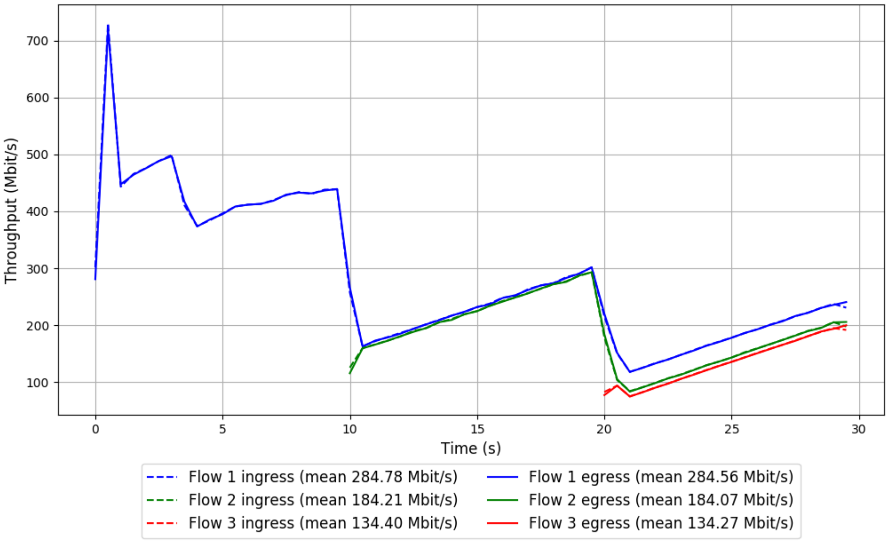


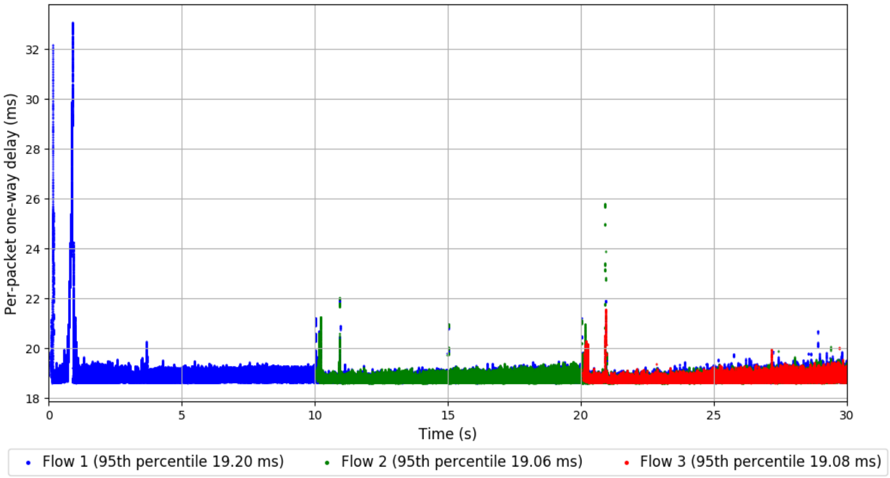
```
Run 1: Statistics of TCP Cubic

Start at: 2018-02-16 15:24:55
End at: 2018-02-16 15:25:25
Local clock offset: -0.029 ms
Remote clock offset: -4.914 ms

# Below is generated by plot.py at 2018-02-16 22:39:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.72 Mbit/s
95th percentile per-packet one-way delay: 19.159 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 284.56 Mbit/s
95th percentile per-packet one-way delay: 19.200 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 184.07 Mbit/s
95th percentile per-packet one-way delay: 19.063 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 134.27 Mbit/s
95th percentile per-packet one-way delay: 19.082 ms
Loss rate: 0.10%
```

Run 1: Report of TCP Cubic — Data Link



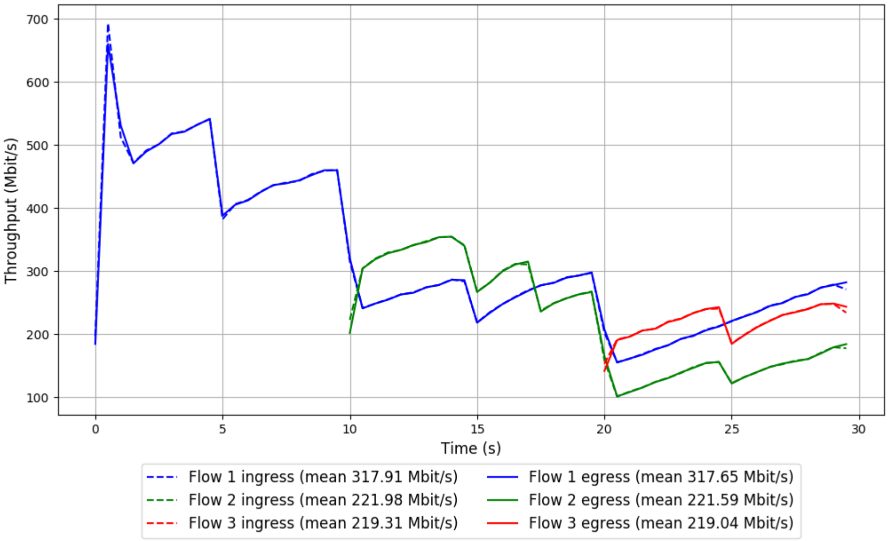


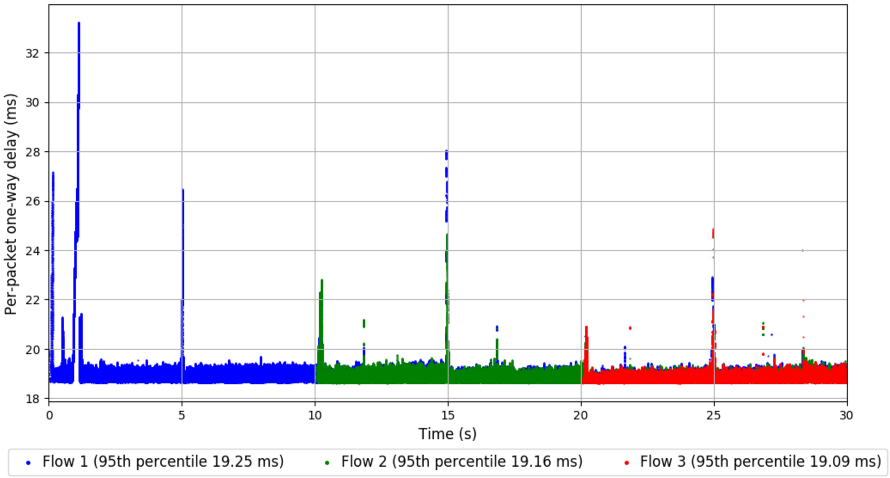
```
Run 2: Statistics of TCP Cubic

Start at: 2018-02-16 15:52:00
End at: 2018-02-16 15:52:30
Local clock offset: -0.118 ms
Remote clock offset: -5.349 ms

# Below is generated by plot.py at 2018-02-16 22:39:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.92 Mbit/s
95th percentile per-packet one-way delay: 19.213 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 317.65 Mbit/s
95th percentile per-packet one-way delay: 19.253 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 221.59 Mbit/s
95th percentile per-packet one-way delay: 19.162 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 219.04 Mbit/s
95th percentile per-packet one-way delay: 19.091 ms
Loss rate: 0.12%
```

Run 2: Report of TCP Cubic — Data Link



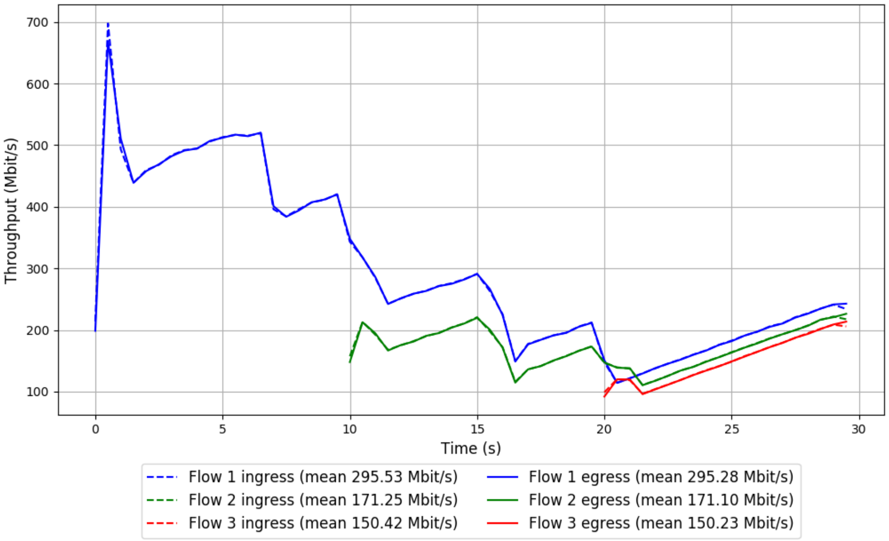


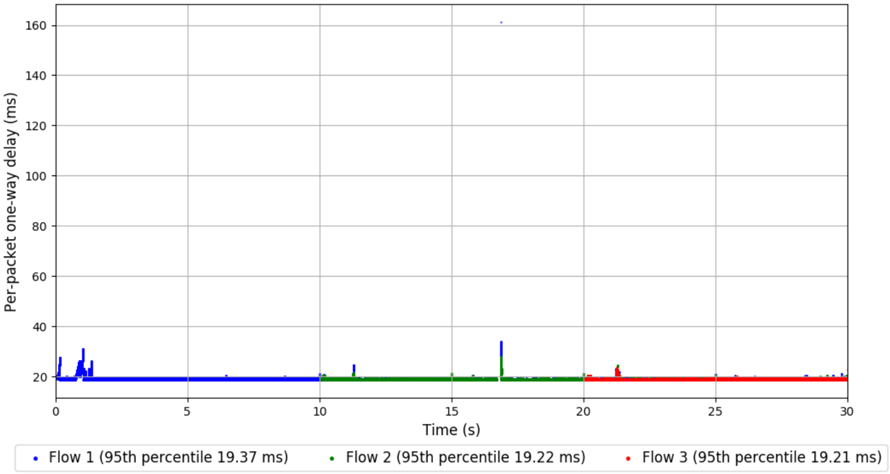
```
Run 3: Statistics of TCP Cubic

Start at: 2018-02-16 16:19:23
End at: 2018-02-16 16:19:53
Local clock offset: 0.011 ms
Remote clock offset: -6.172 ms

# Below is generated by plot.py at 2018-02-16 22:39:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.07 Mbit/s
95th percentile per-packet one-way delay: 19.302 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 295.28 Mbit/s
95th percentile per-packet one-way delay: 19.369 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 171.10 Mbit/s
95th percentile per-packet one-way delay: 19.221 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 150.23 Mbit/s
95th percentile per-packet one-way delay: 19.210 ms
Loss rate: 0.09%
```

Run 3: Report of TCP Cubic — Data Link



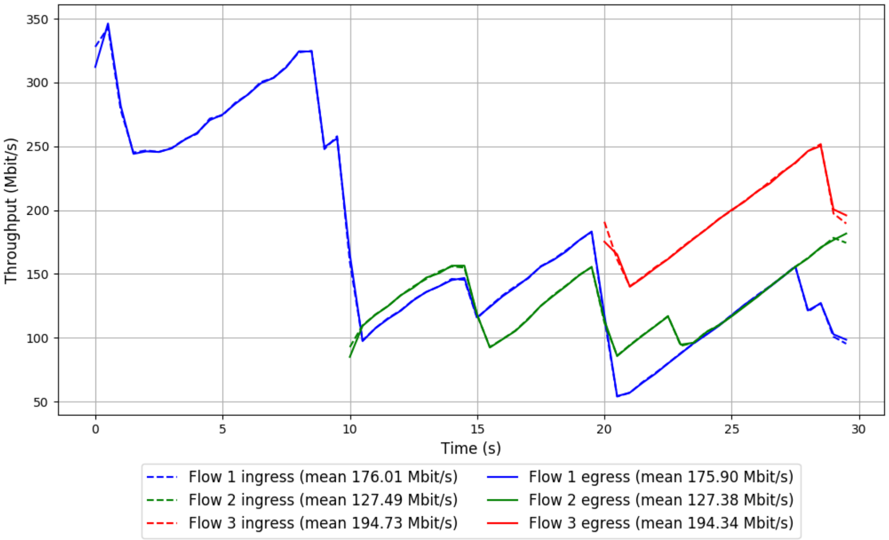


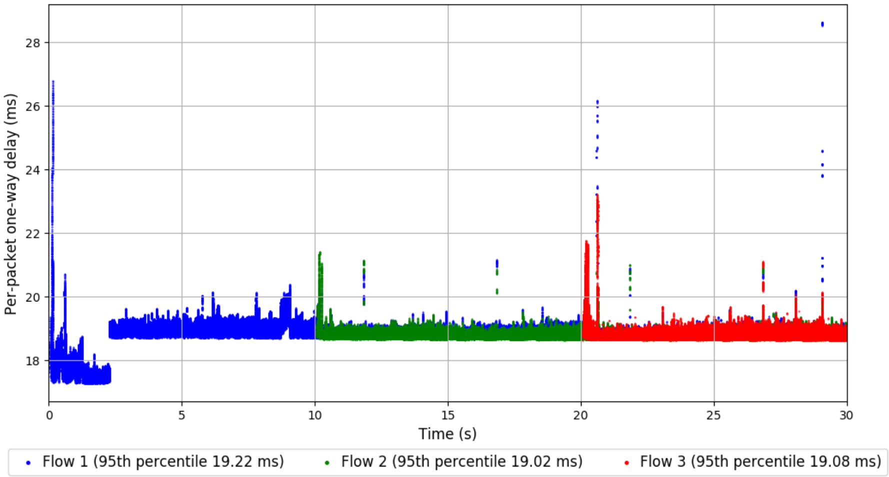
```
Run 4: Statistics of TCP Cubic

Start at: 2018-02-16 16:46:44
End at: 2018-02-16 16:47:14
Local clock offset: 0.146 ms
Remote clock offset: -6.032 ms

# Below is generated by plot.py at 2018-02-16 22:39:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 325.30 Mbit/s
95th percentile per-packet one-way delay: 19.171 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 175.90 Mbit/s
95th percentile per-packet one-way delay: 19.222 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 127.38 Mbit/s
95th percentile per-packet one-way delay: 19.021 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 194.34 Mbit/s
95th percentile per-packet one-way delay: 19.081 ms
Loss rate: 0.20%
```

Run 4: Report of TCP Cubic — Data Link



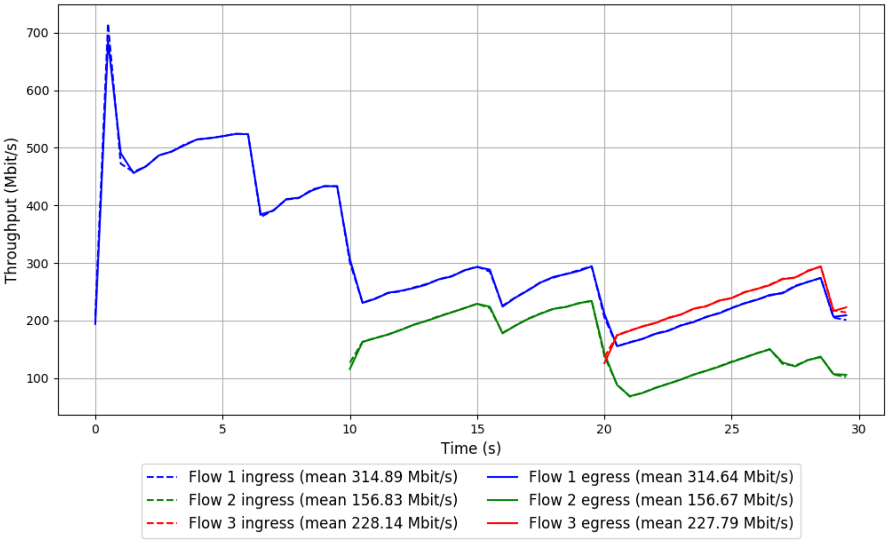


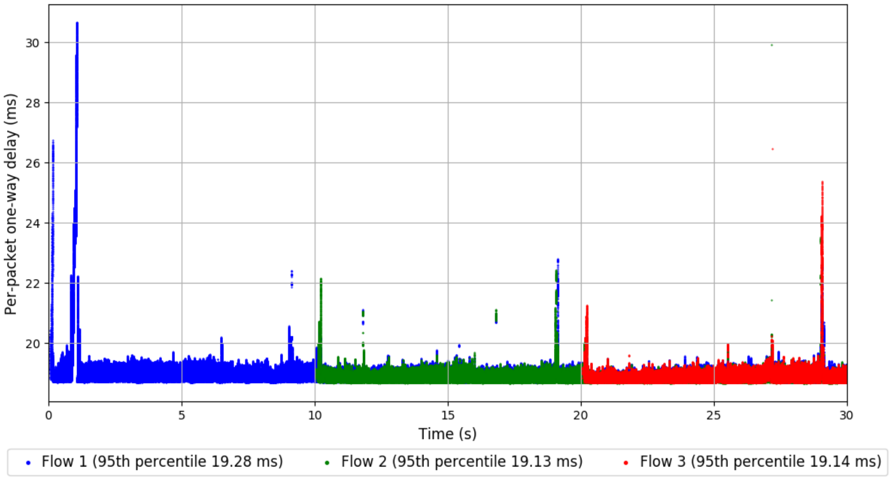
```
Run 5: Statistics of TCP Cubic

Start at: 2018-02-16 17:14:05
End at: 2018-02-16 17:14:35
Local clock offset: 0.103 ms
Remote clock offset: -4.584 ms

# Below is generated by plot.py at 2018-02-16 22:39:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 494.59 Mbit/s
95th percentile per-packet one-way delay: 19.238 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 314.64 Mbit/s
95th percentile per-packet one-way delay: 19.277 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 156.67 Mbit/s
95th percentile per-packet one-way delay: 19.129 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 227.79 Mbit/s
95th percentile per-packet one-way delay: 19.143 ms
Loss rate: 0.15%
```

Run 5: Report of TCP Cubic — Data Link



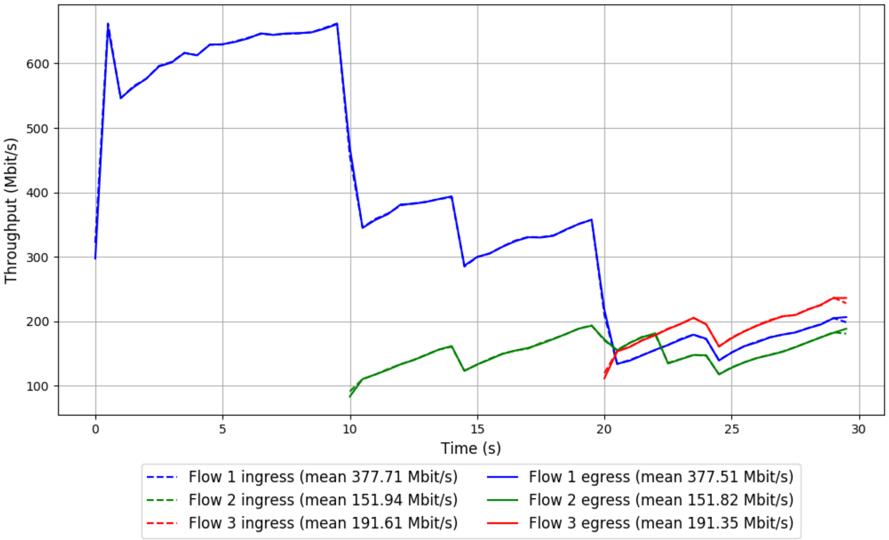


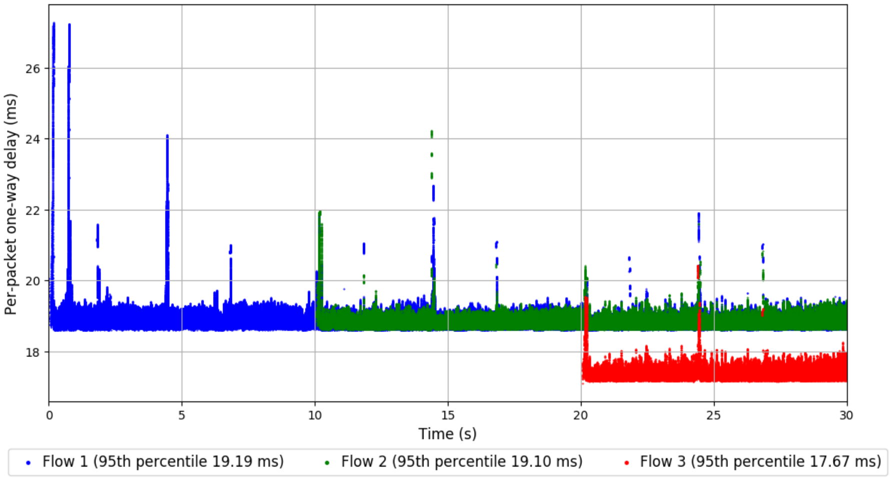
```
Run 6: Statistics of TCP Cubic

Start at: 2018-02-16 17:41:19
End at: 2018-02-16 17:41:49
Local clock offset: 0.24 ms
Remote clock offset: -5.849 ms

# Below is generated by plot.py at 2018-02-16 22:39:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 542.16 Mbit/s
95th percentile per-packet one-way delay: 19.163 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 377.51 Mbit/s
95th percentile per-packet one-way delay: 19.186 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 151.82 Mbit/s
95th percentile per-packet one-way delay: 19.096 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 191.35 Mbit/s
95th percentile per-packet one-way delay: 17.668 ms
Loss rate: 0.14%
```

Run 6: Report of TCP Cubic — Data Link



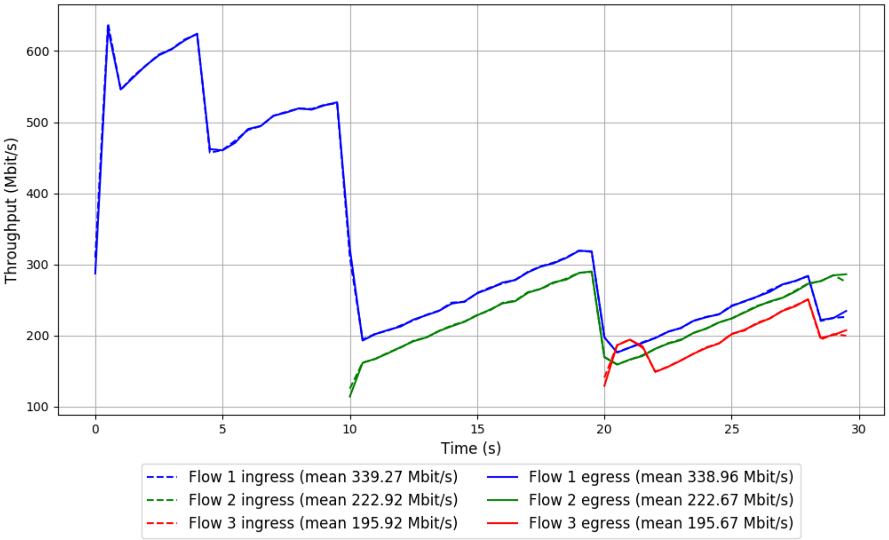


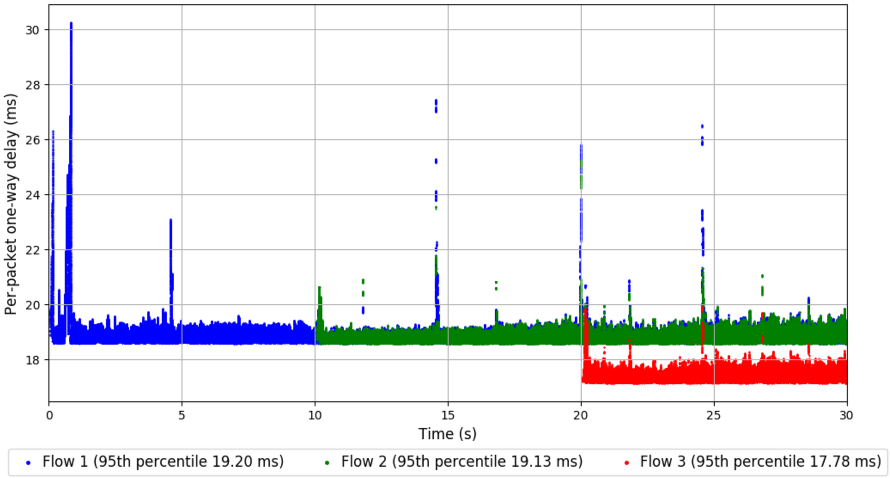
```
Run 7: Statistics of TCP Cubic

Start at: 2018-02-16 18:09:08
End at: 2018-02-16 18:09:38
Local clock offset: 0.345 ms
Remote clock offset: -5.89 ms

# Below is generated by plot.py at 2018-02-16 22:40:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 552.22 Mbit/s
95th percentile per-packet one-way delay: 19.166 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 338.96 Mbit/s
95th percentile per-packet one-way delay: 19.205 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 222.67 Mbit/s
95th percentile per-packet one-way delay: 19.134 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 195.67 Mbit/s
95th percentile per-packet one-way delay: 17.780 ms
Loss rate: 0.12%
```

Run 7: Report of TCP Cubic — Data Link



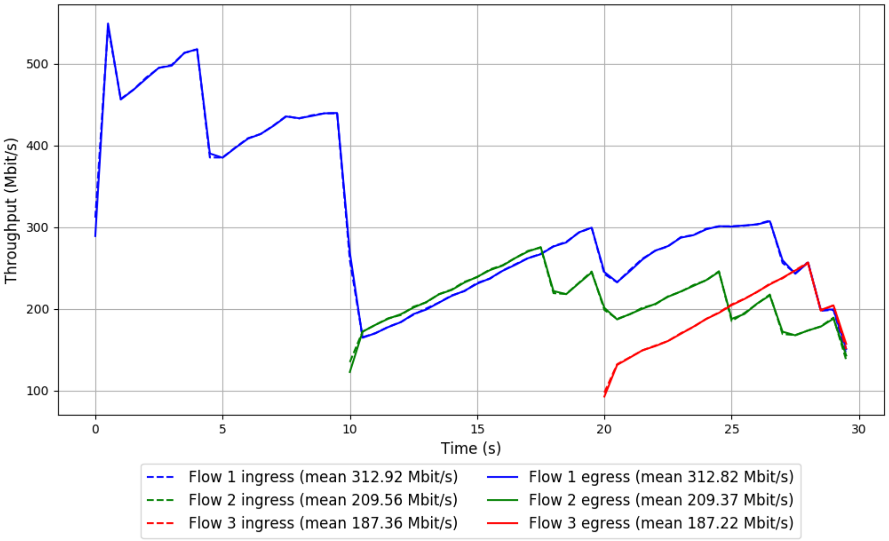


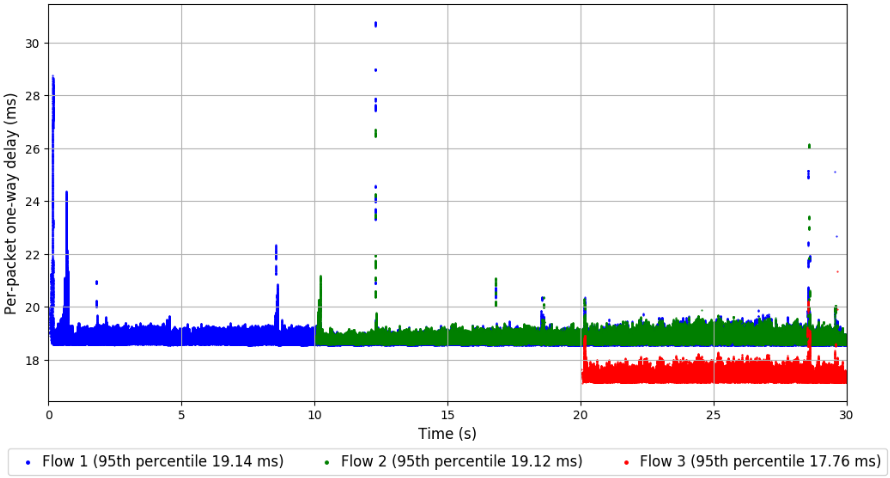
```
Run 8: Statistics of TCP Cubic

Start at: 2018-02-16 18:36:34
End at: 2018-02-16 18:37:04
Local clock offset: -0.01 ms
Remote clock offset: -4.937 ms

# Below is generated by plot.py at 2018-02-16 22:41:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 514.40 Mbit/s
95th percentile per-packet one-way delay: 19.118 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 312.82 Mbit/s
95th percentile per-packet one-way delay: 19.137 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 209.37 Mbit/s
95th percentile per-packet one-way delay: 19.120 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 187.22 Mbit/s
95th percentile per-packet one-way delay: 17.763 ms
Loss rate: 0.08%
```

Run 8: Report of TCP Cubic — Data Link



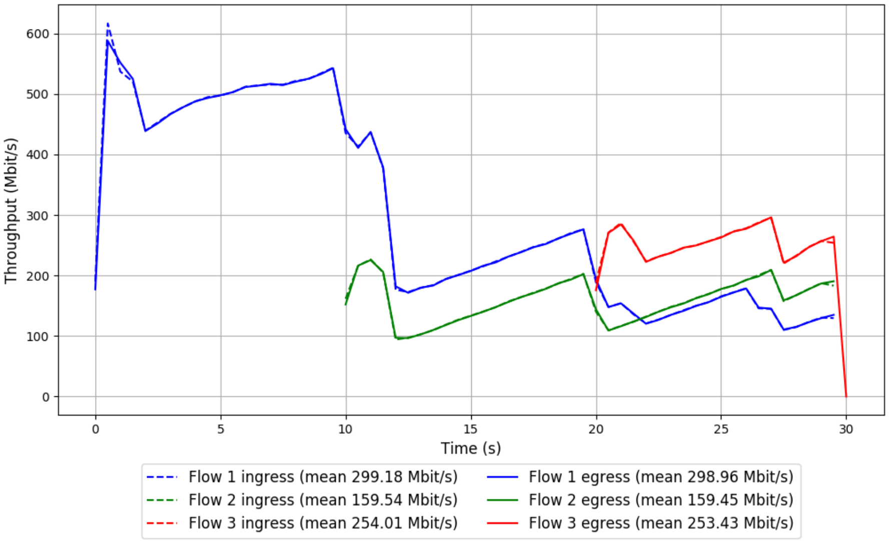


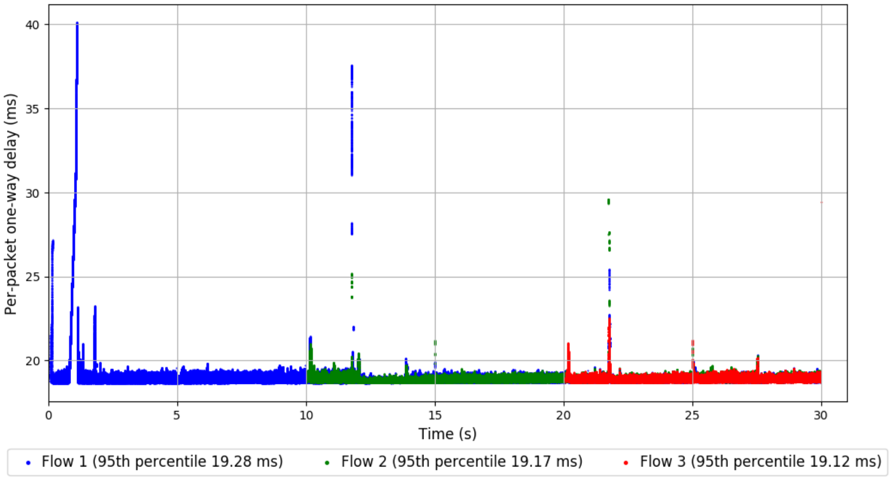
```
Run 9: Statistics of TCP Cubic

Start at: 2018-02-16 19:03:50
End at: 2018-02-16 19:04:20
Local clock offset: 0.601 ms
Remote clock offset: -4.901 ms

# Below is generated by plot.py at 2018-02-16 22:41:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.21 Mbit/s
95th percentile per-packet one-way delay: 19.229 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 298.96 Mbit/s
95th percentile per-packet one-way delay: 19.277 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 159.45 Mbit/s
95th percentile per-packet one-way delay: 19.174 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 253.43 Mbit/s
95th percentile per-packet one-way delay: 19.123 ms
Loss rate: 0.12%
```

Run 9: Report of TCP Cubic — Data Link



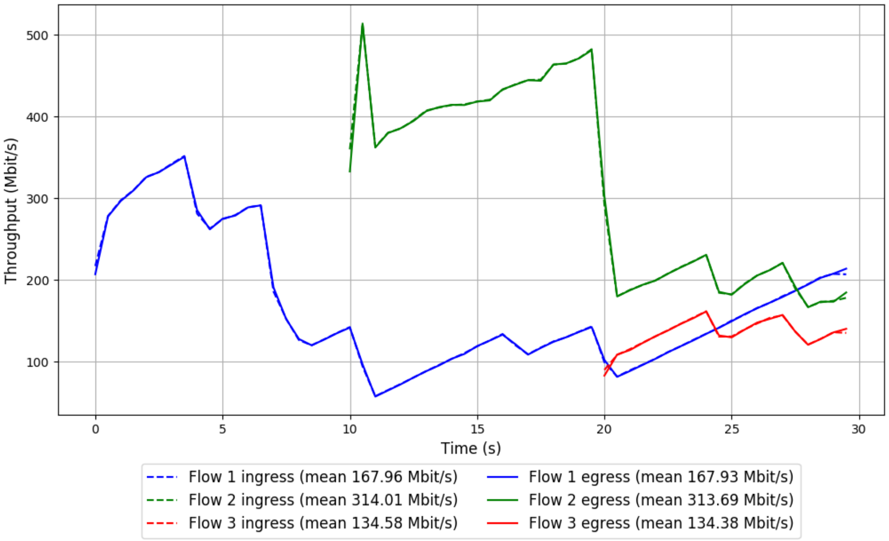


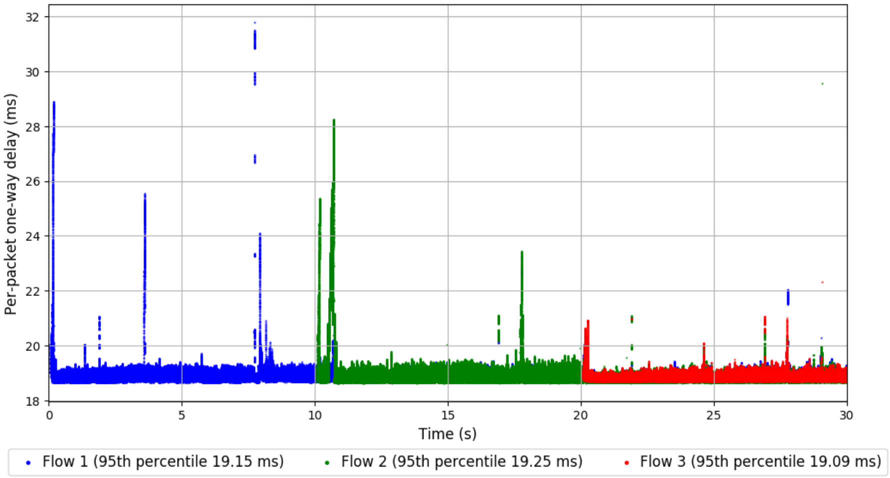
```
Run 10: Statistics of TCP Cubic

Start at: 2018-02-16 19:31:34
End at: 2018-02-16 19:32:04
Local clock offset: 0.905 ms
Remote clock offset: -6.117 ms

# Below is generated by plot.py at 2018-02-16 22:41:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 421.43 Mbit/s
95th percentile per-packet one-way delay: 19.185 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 167.93 Mbit/s
95th percentile per-packet one-way delay: 19.151 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 313.69 Mbit/s
95th percentile per-packet one-way delay: 19.250 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 134.38 Mbit/s
95th percentile per-packet one-way delay: 19.092 ms
Loss rate: 0.16%
```

Run 10: Report of TCP Cubic — Data Link



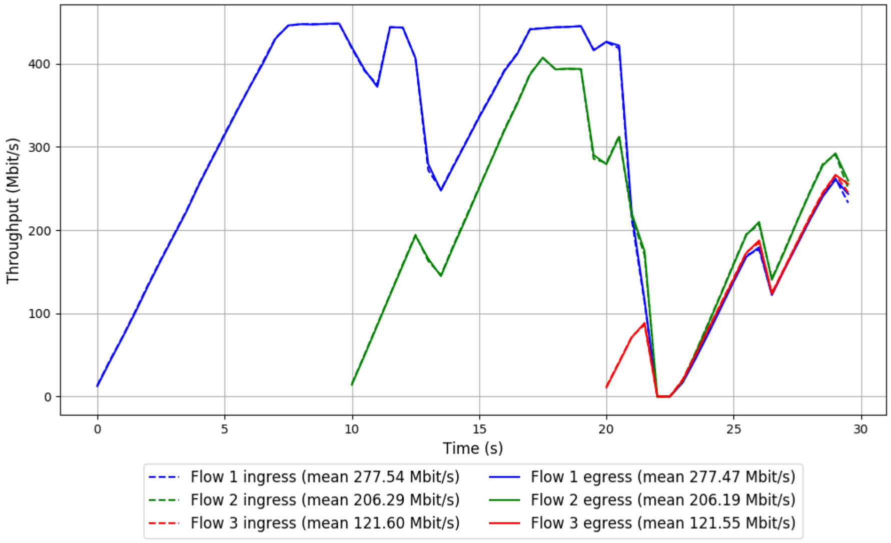


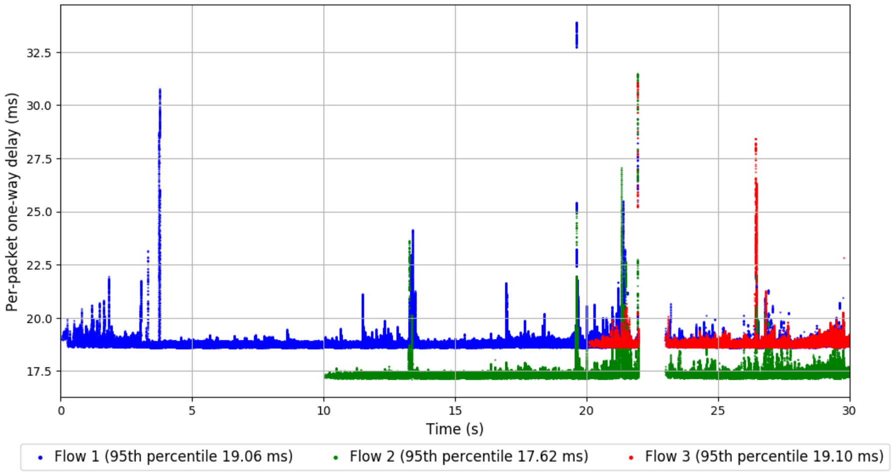
```
Run 1: Statistics of LEDBAT

Start at: 2018-02-16 15:26:22
End at: 2018-02-16 15:26:52
Local clock offset: -0.041 ms
Remote clock offset: -4.905 ms

# Below is generated by plot.py at 2018-02-16 22:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.09 Mbit/s
95th percentile per-packet one-way delay: 19.008 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 277.47 Mbit/s
95th percentile per-packet one-way delay: 19.061 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 206.19 Mbit/s
95th percentile per-packet one-way delay: 17.620 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 121.55 Mbit/s
95th percentile per-packet one-way delay: 19.103 ms
Loss rate: 0.04%
```

Run 1: Report of LEDBAT — Data Link



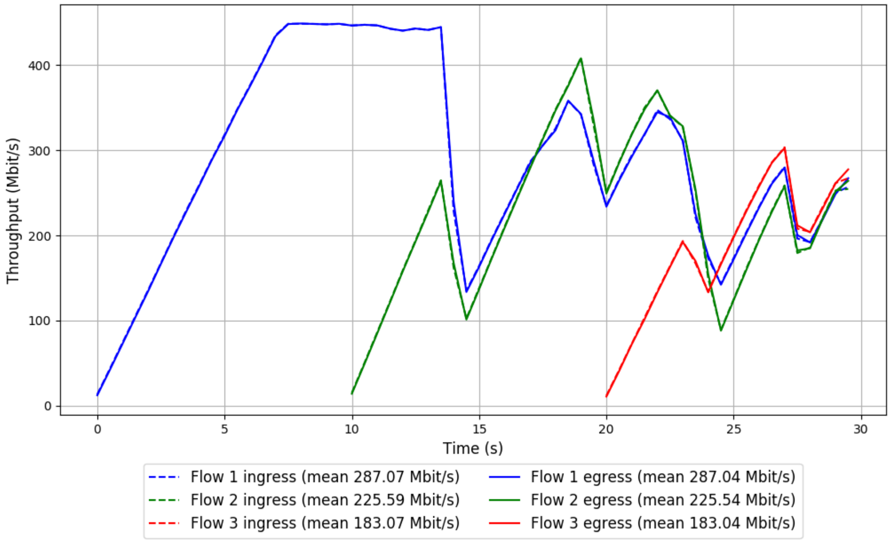


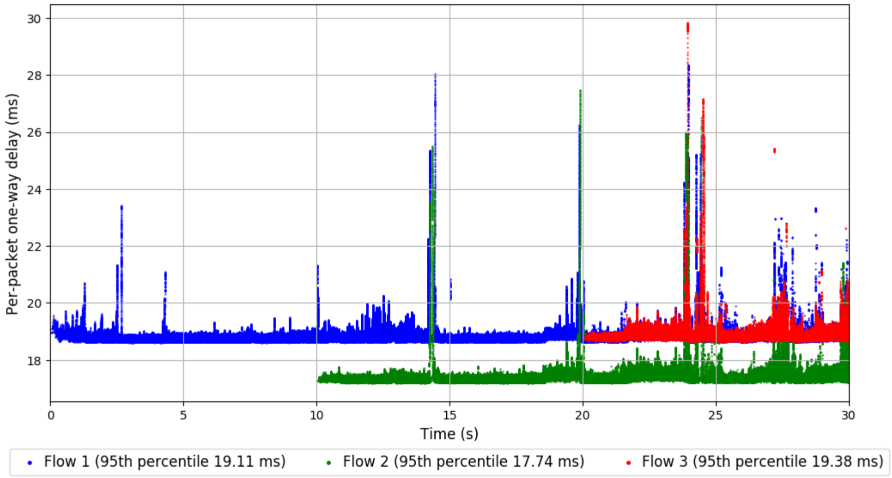
```
Run 2: Statistics of LEDBAT

Start at: 2018-02-16 15:53:31
End at: 2018-02-16 15:54:01
Local clock offset: -0.088 ms
Remote clock offset: -5.372 ms

# Below is generated by plot.py at 2018-02-16 22:42:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.95 Mbit/s
95th percentile per-packet one-way delay: 19.096 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 287.04 Mbit/s
95th percentile per-packet one-way delay: 19.113 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 225.54 Mbit/s
95th percentile per-packet one-way delay: 17.740 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 183.04 Mbit/s
95th percentile per-packet one-way delay: 19.383 ms
Loss rate: 0.02%
```

Run 2: Report of LEDBAT — Data Link



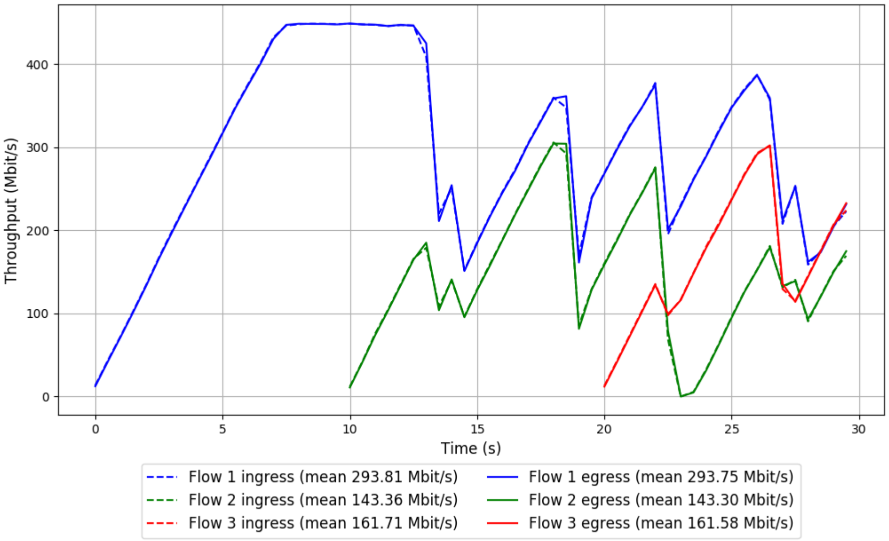


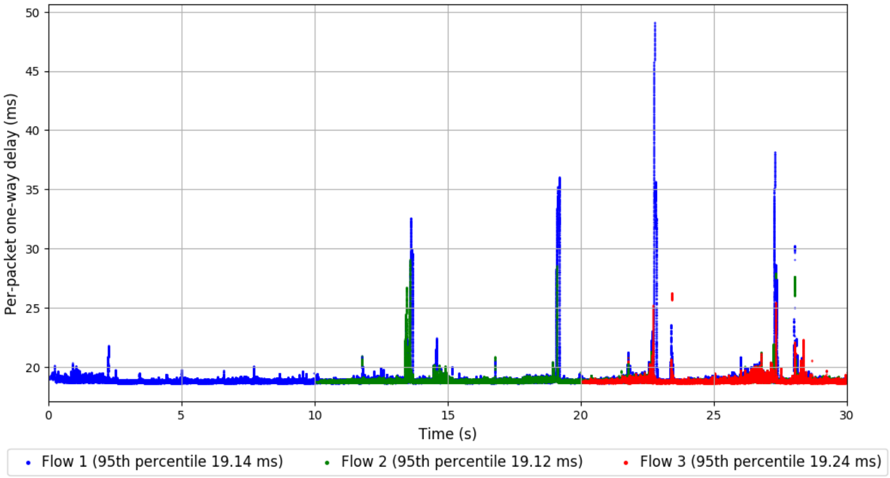
```
Run 3: Statistics of LEDBAT

Start at: 2018-02-16 16:20:51
End at: 2018-02-16 16:21:21
Local clock offset: 0.094 ms
Remote clock offset: -6.19 ms

# Below is generated by plot.py at 2018-02-16 22:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 442.75 Mbit/s
95th percentile per-packet one-way delay: 19.146 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 293.75 Mbit/s
95th percentile per-packet one-way delay: 19.142 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 143.30 Mbit/s
95th percentile per-packet one-way delay: 19.117 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 161.58 Mbit/s
95th percentile per-packet one-way delay: 19.239 ms
Loss rate: 0.07%
```

Run 3: Report of LEDBAT — Data Link



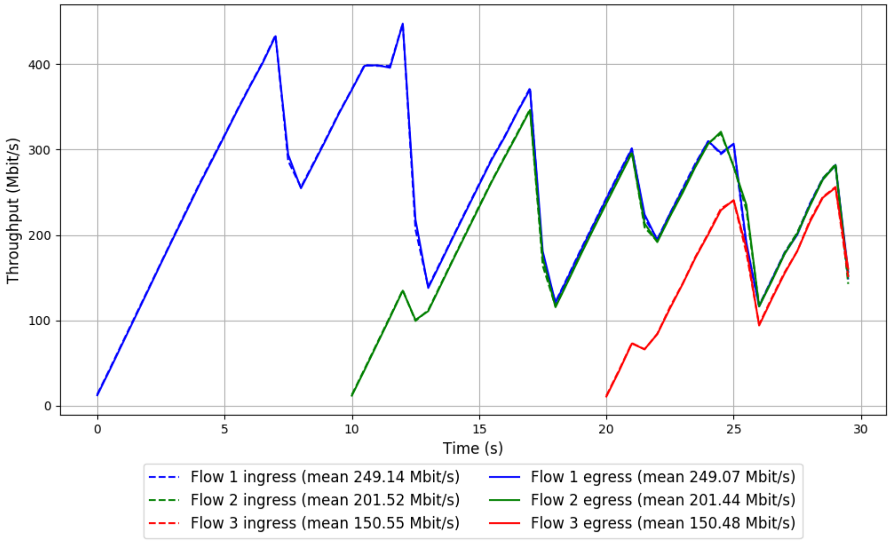


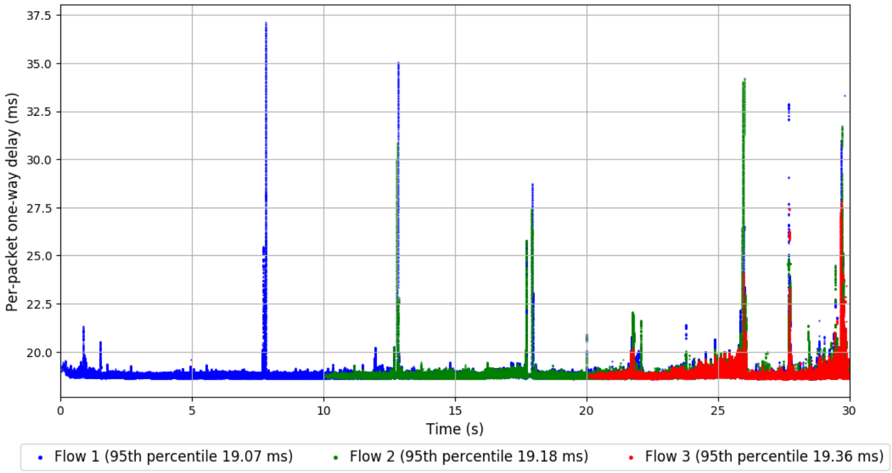
```
Run 4: Statistics of LEDBAT

Start at: 2018-02-16 16:48:06
End at: 2018-02-16 16:48:36
Local clock offset: 0.172 ms
Remote clock offset: -5.909 ms

# Below is generated by plot.py at 2018-02-16 22:45:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.06 Mbit/s
95th percentile per-packet one-way delay: 19.149 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 249.07 Mbit/s
95th percentile per-packet one-way delay: 19.070 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 201.44 Mbit/s
95th percentile per-packet one-way delay: 19.178 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 150.48 Mbit/s
95th percentile per-packet one-way delay: 19.361 ms
Loss rate: 0.04%
```

Run 4: Report of LEDBAT — Data Link



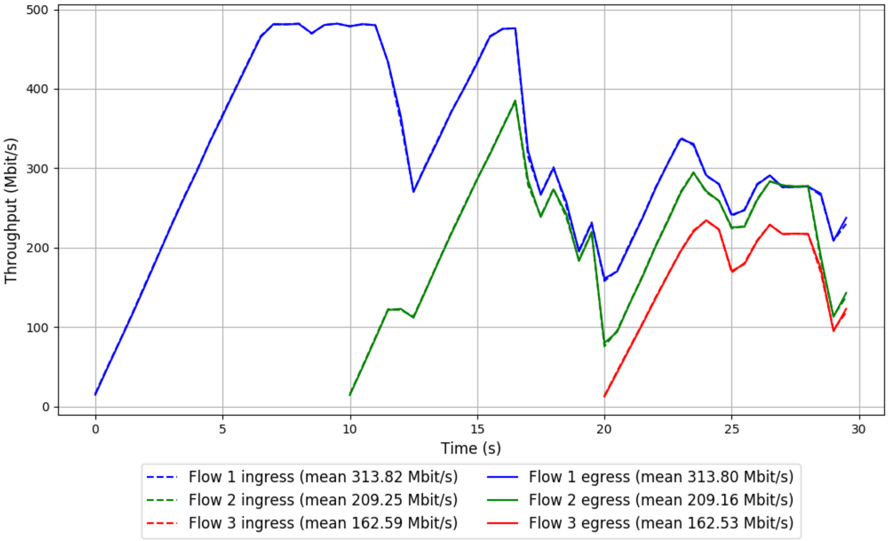


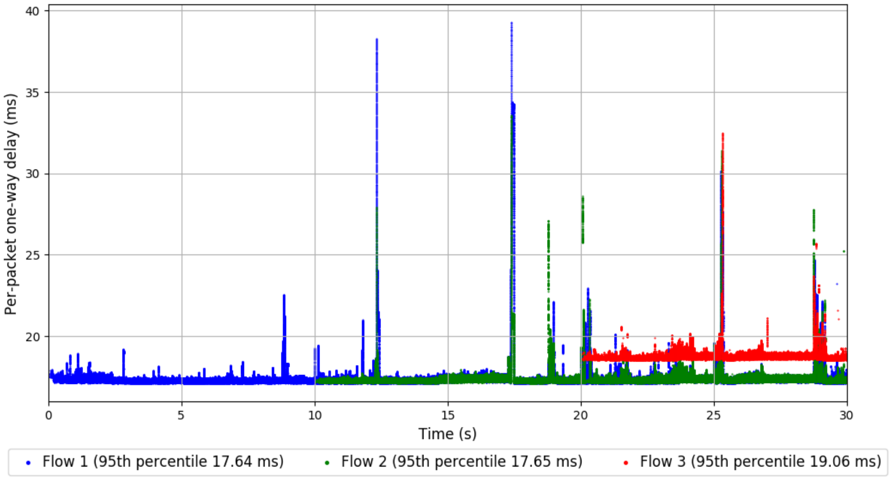
```
Run 5: Statistics of LEDBAT

Start at: 2018-02-16 17:15:35
End at: 2018-02-16 17:16:05
Local clock offset: 0.154 ms
Remote clock offset: -4.61 ms

# Below is generated by plot.py at 2018-02-16 22:47:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 507.05 Mbit/s
95th percentile per-packet one-way delay: 18.804 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 313.80 Mbit/s
95th percentile per-packet one-way delay: 17.643 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 209.16 Mbit/s
95th percentile per-packet one-way delay: 17.649 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 162.53 Mbit/s
95th percentile per-packet one-way delay: 19.062 ms
Loss rate: 0.04%
```

Run 5: Report of LEDBAT — Data Link



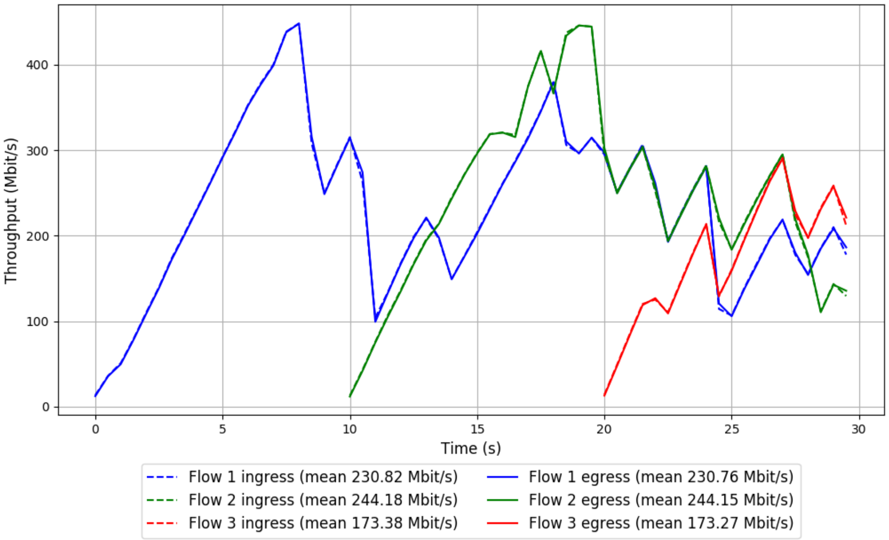


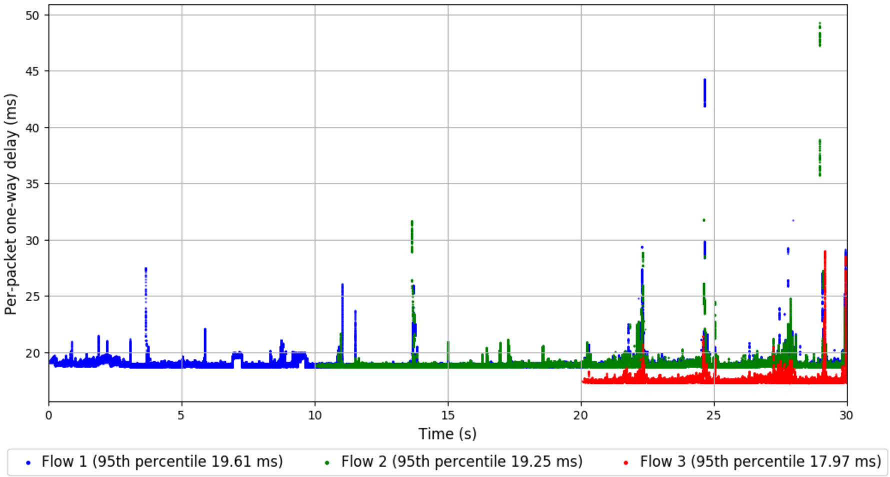
```
Run 6: Statistics of LEDBAT

Start at: 2018-02-16 17:42:50
End at: 2018-02-16 17:43:20
Local clock offset: 0.162 ms
Remote clock offset: -5.854 ms

# Below is generated by plot.py at 2018-02-16 22:47:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.81 Mbit/s
95th percentile per-packet one-way delay: 19.369 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 230.76 Mbit/s
95th percentile per-packet one-way delay: 19.614 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 244.15 Mbit/s
95th percentile per-packet one-way delay: 19.246 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 173.27 Mbit/s
95th percentile per-packet one-way delay: 17.971 ms
Loss rate: 0.06%
```

Run 6: Report of LEDBAT — Data Link



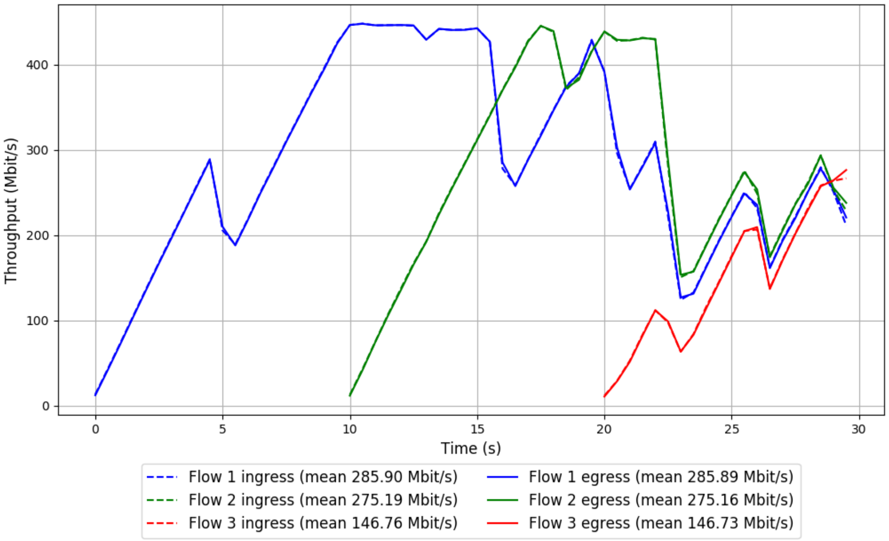


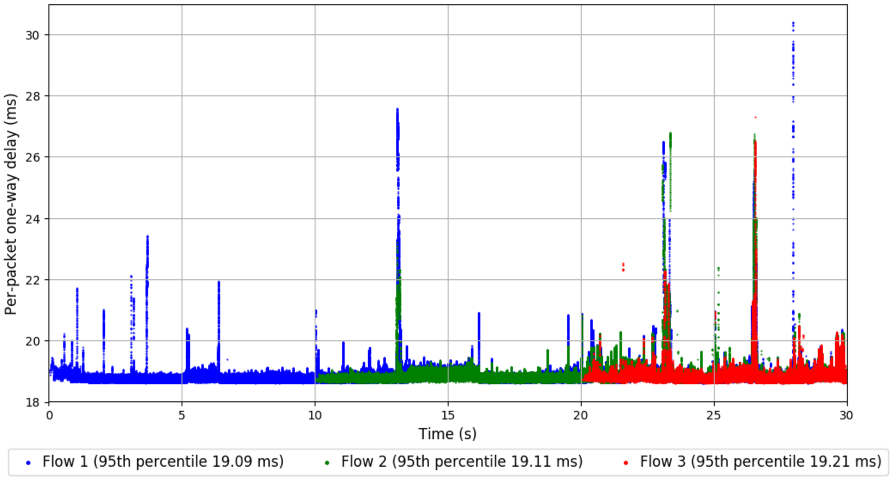
```
Run 7: Statistics of LEDBAT

Start at: 2018-02-16 18:10:40
End at: 2018-02-16 18:11:10
Local clock offset: 0.285 ms
Remote clock offset: -5.871 ms

# Below is generated by plot.py at 2018-02-16 22:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 517.71 Mbit/s
95th percentile per-packet one-way delay: 19.106 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 285.89 Mbit/s
95th percentile per-packet one-way delay: 19.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 275.16 Mbit/s
95th percentile per-packet one-way delay: 19.105 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 146.73 Mbit/s
95th percentile per-packet one-way delay: 19.211 ms
Loss rate: 0.02%
```

Run 7: Report of LEDBAT — Data Link



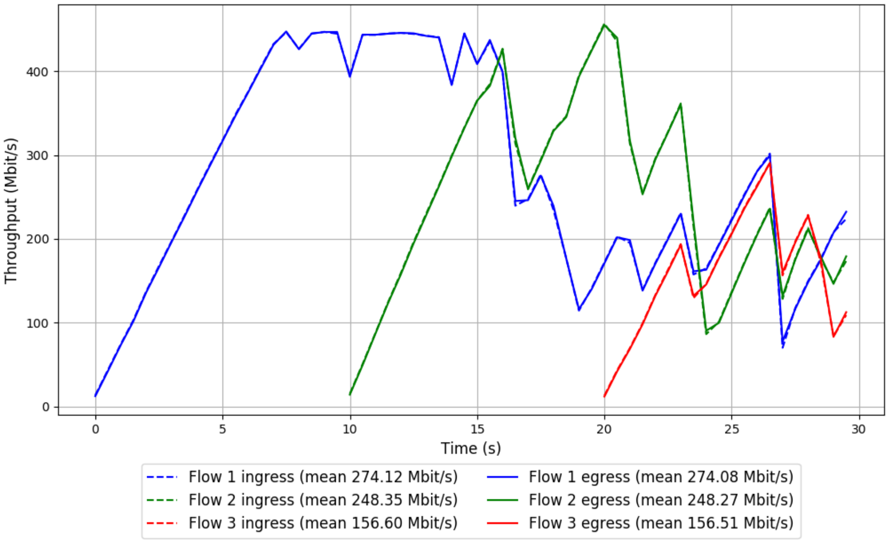


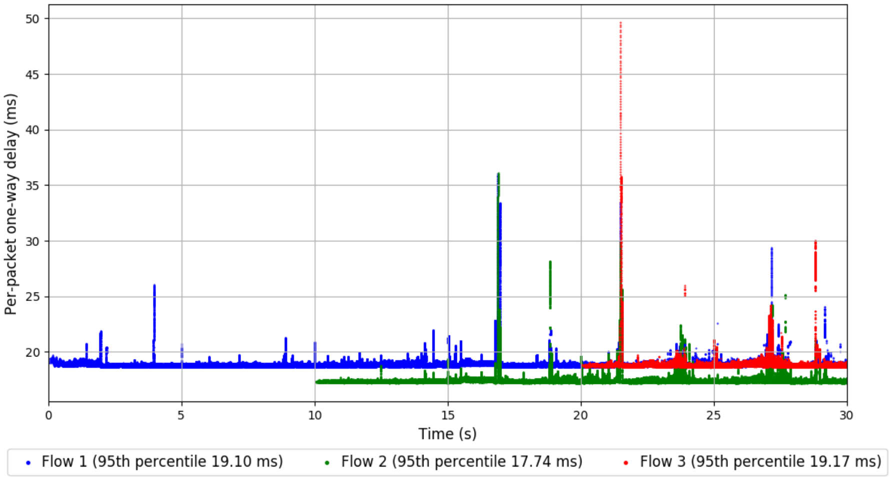
```
Run 8: Statistics of LEDBAT

Start at: 2018-02-16 18:38:03
End at: 2018-02-16 18:38:33
Local clock offset: -0.099 ms
Remote clock offset: -4.873 ms

# Below is generated by plot.py at 2018-02-16 22:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 491.35 Mbit/s
95th percentile per-packet one-way delay: 19.063 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 274.08 Mbit/s
95th percentile per-packet one-way delay: 19.096 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 248.27 Mbit/s
95th percentile per-packet one-way delay: 17.738 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 156.51 Mbit/s
95th percentile per-packet one-way delay: 19.172 ms
Loss rate: 0.05%
```

Run 8: Report of LEDBAT — Data Link



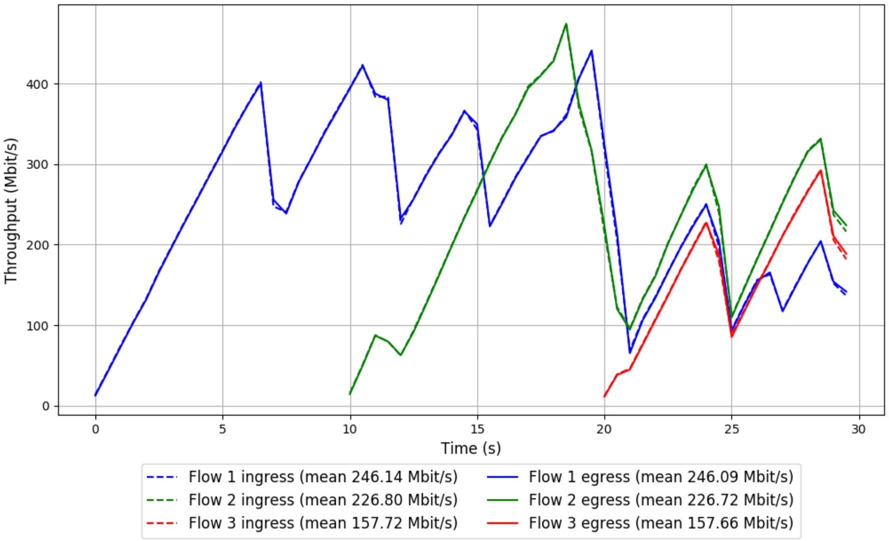


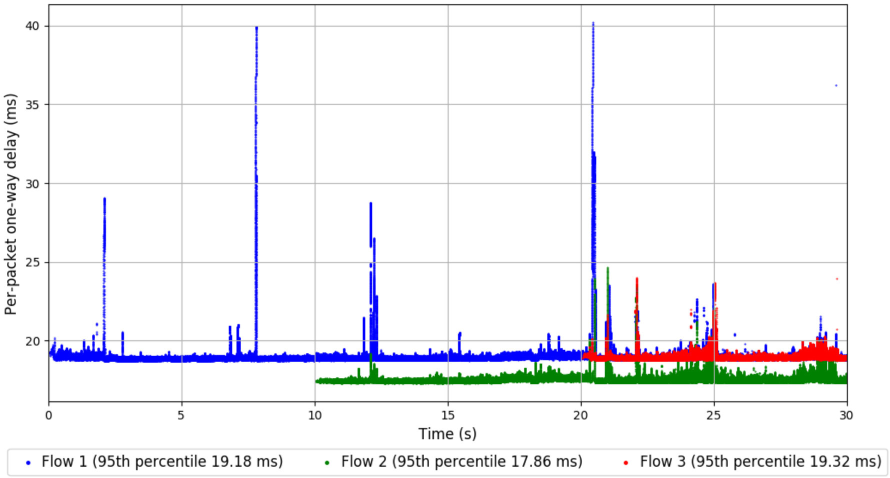
```
Run 9: Statistics of LEDBAT

Start at: 2018-02-16 19:05:20
End at: 2018-02-16 19:05:50
Local clock offset: 0.544 ms
Remote clock offset: -5.078 ms

# Below is generated by plot.py at 2018-02-16 22:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.34 Mbit/s
95th percentile per-packet one-way delay: 19.155 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 246.09 Mbit/s
95th percentile per-packet one-way delay: 19.185 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 226.72 Mbit/s
95th percentile per-packet one-way delay: 17.865 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 157.66 Mbit/s
95th percentile per-packet one-way delay: 19.320 ms
Loss rate: 0.03%
```

Run 9: Report of LEDBAT — Data Link



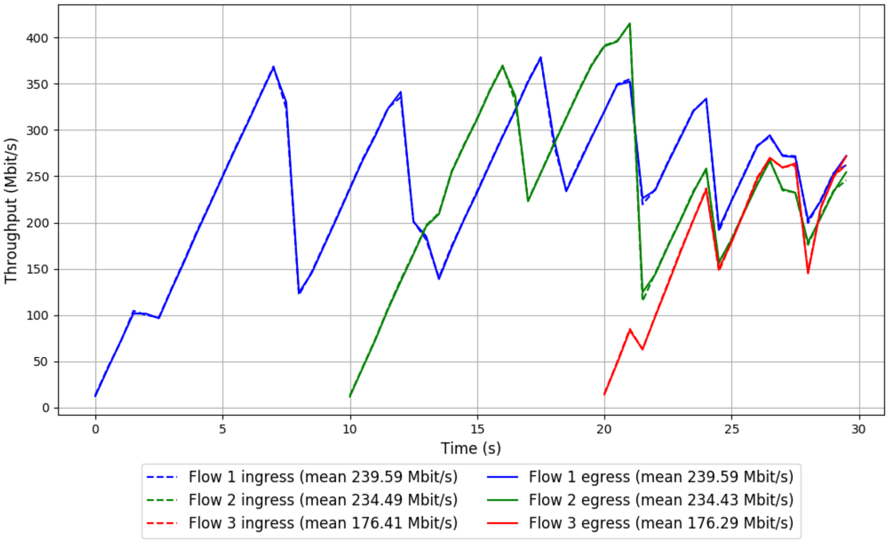


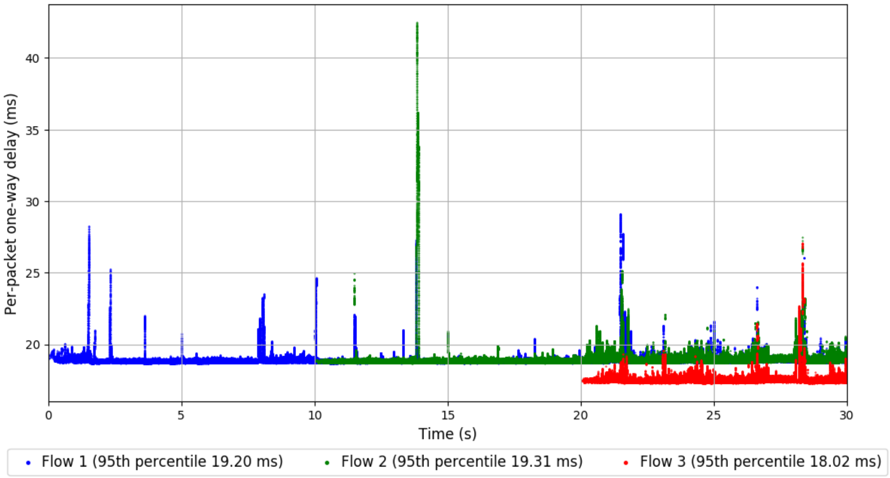
```
Run 10: Statistics of LEDBAT

Start at: 2018-02-16 19:33:00
End at: 2018-02-16 19:33:30
Local clock offset: 0.948 ms
Remote clock offset: -6.062 ms

# Below is generated by plot.py at 2018-02-16 22:49:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.27 Mbit/s
95th percentile per-packet one-way delay: 19.215 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 239.59 Mbit/s
95th percentile per-packet one-way delay: 19.204 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 234.43 Mbit/s
95th percentile per-packet one-way delay: 19.313 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 176.29 Mbit/s
95th percentile per-packet one-way delay: 18.018 ms
Loss rate: 0.07%
```

Run 10: Report of LEDBAT — Data Link



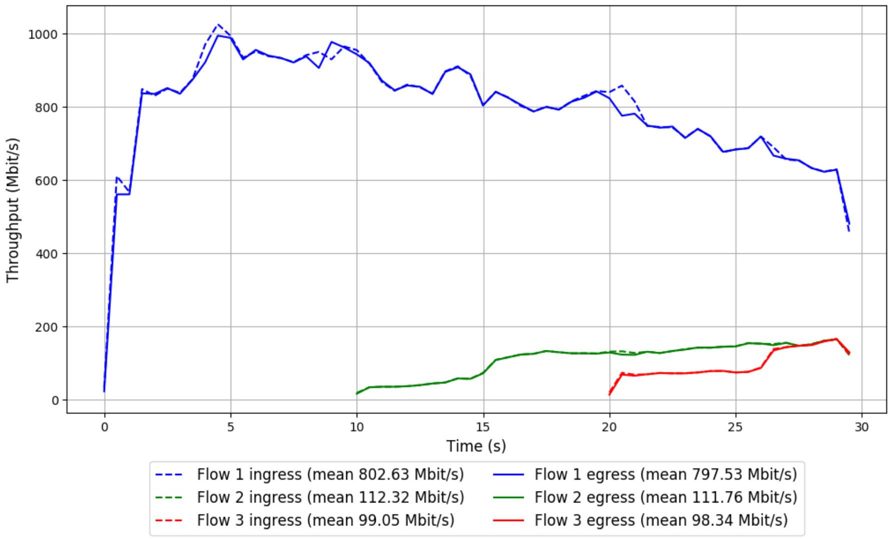


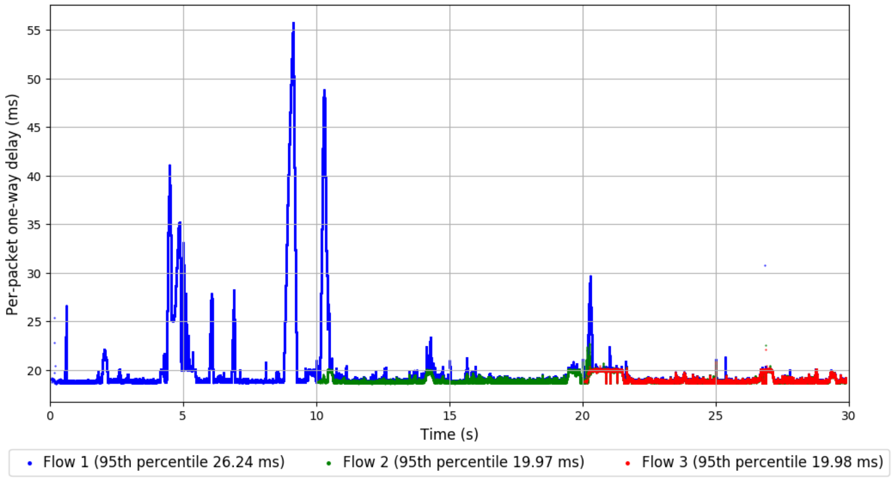
```
Run 1: Statistics of PCC

Start at: 2018-02-16 15:04:36
End at: 2018-02-16 15:05:06
Local clock offset: 0.019 ms
Remote clock offset: -5.044 ms

# Below is generated by plot.py at 2018-02-16 22:57:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 904.20 Mbit/s
95th percentile per-packet one-way delay: 25.297 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 797.53 Mbit/s
95th percentile per-packet one-way delay: 26.238 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 111.76 Mbit/s
95th percentile per-packet one-way delay: 19.968 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 98.34 Mbit/s
95th percentile per-packet one-way delay: 19.985 ms
Loss rate: 0.71%
```

Run 1: Report of PCC — Data Link



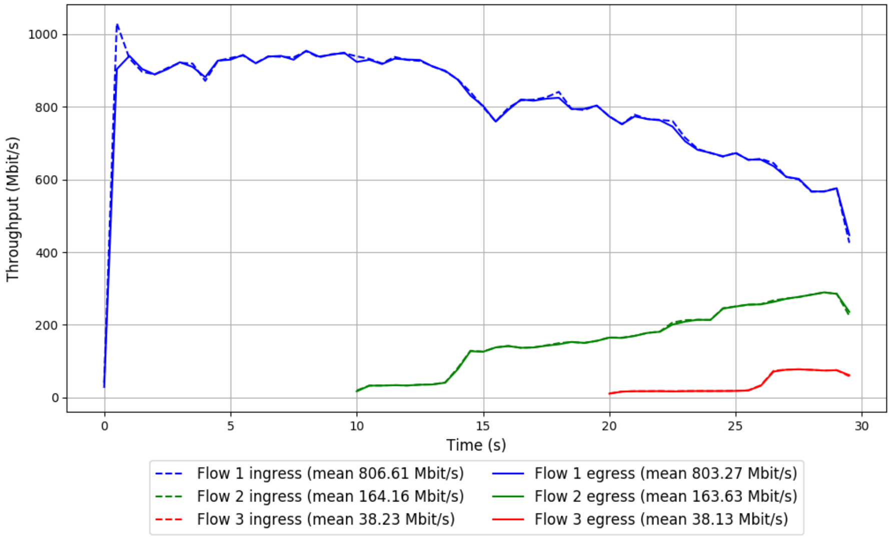


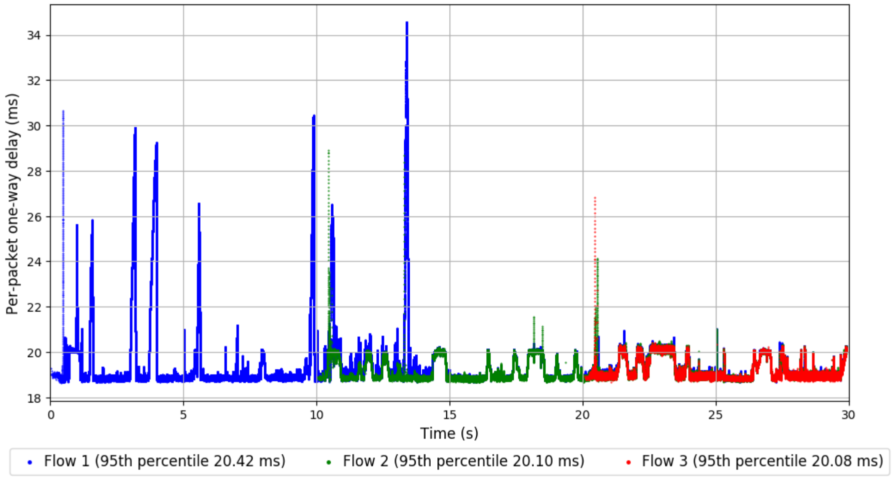
```
Run 2: Statistics of PCC

Start at: 2018-02-16 15:31:45
End at: 2018-02-16 15:32:15
Local clock offset: -0.058 ms
Remote clock offset: -4.824 ms

# Below is generated by plot.py at 2018-02-16 22:58:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 924.61 Mbit/s
95th percentile per-packet one-way delay: 20.262 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 803.27 Mbit/s
95th percentile per-packet one-way delay: 20.416 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 163.63 Mbit/s
95th percentile per-packet one-way delay: 20.103 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 38.13 Mbit/s
95th percentile per-packet one-way delay: 20.078 ms
Loss rate: 0.31%
```

Run 2: Report of PCC — Data Link



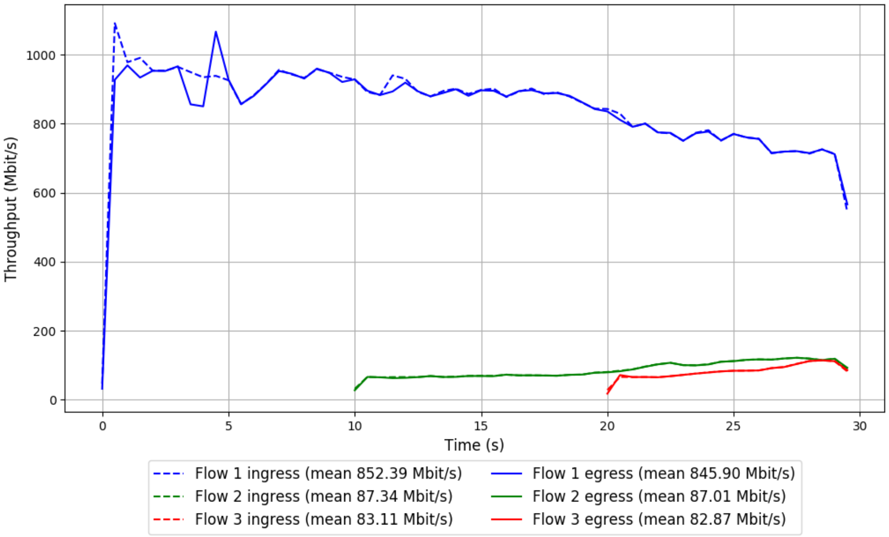


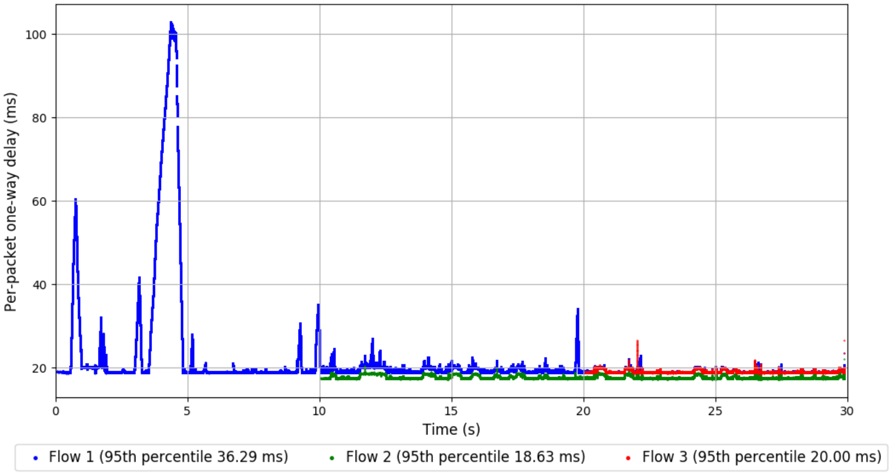
```
Run 3: Statistics of PCC

Start at: 2018-02-16 15:58:55
End at: 2018-02-16 15:59:25
Local clock offset: -0.063 ms
Remote clock offset: -5.421 ms

# Below is generated by plot.py at 2018-02-16 23:00:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 930.86 Mbit/s
95th percentile per-packet one-way delay: 33.363 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 845.90 Mbit/s
95th percentile per-packet one-way delay: 36.294 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 87.01 Mbit/s
95th percentile per-packet one-way delay: 18.627 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 82.87 Mbit/s
95th percentile per-packet one-way delay: 19.995 ms
Loss rate: 0.22%
```

Run 3: Report of PCC — Data Link



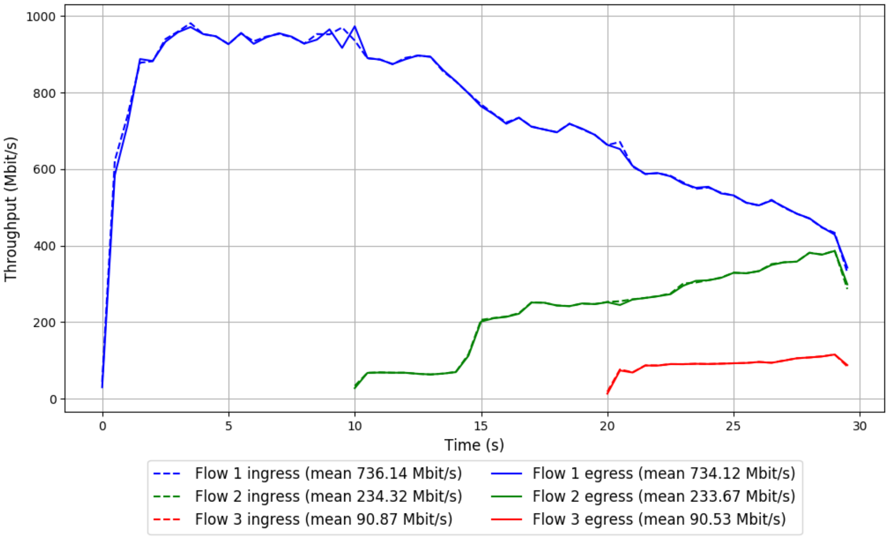


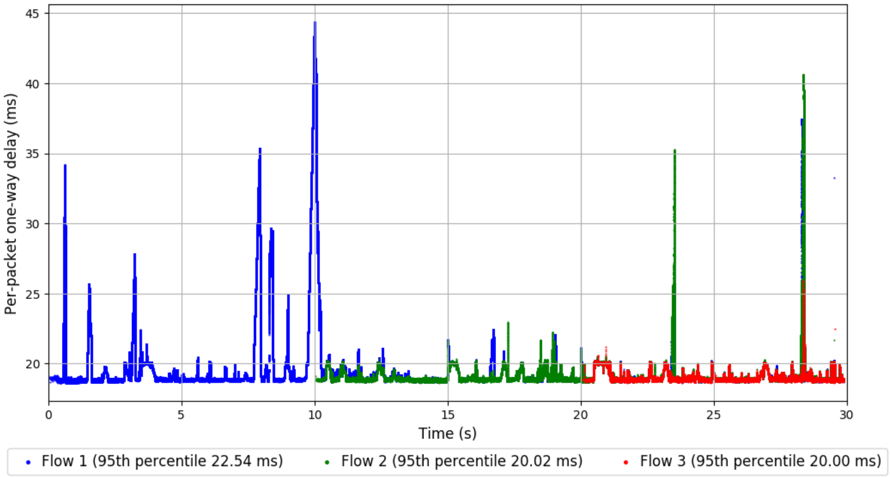
```
Run 4: Statistics of PCC

Start at: 2018-02-16 16:26:16
End at: 2018-02-16 16:26:46
Local clock offset: 0.109 ms
Remote clock offset: -6.413 ms

# Below is generated by plot.py at 2018-02-16 23:00:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 919.26 Mbit/s
95th percentile per-packet one-way delay: 21.330 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 734.12 Mbit/s
95th percentile per-packet one-way delay: 22.535 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 233.67 Mbit/s
95th percentile per-packet one-way delay: 20.015 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 19.995 ms
Loss rate: 0.38%
```

Run 4: Report of PCC — Data Link



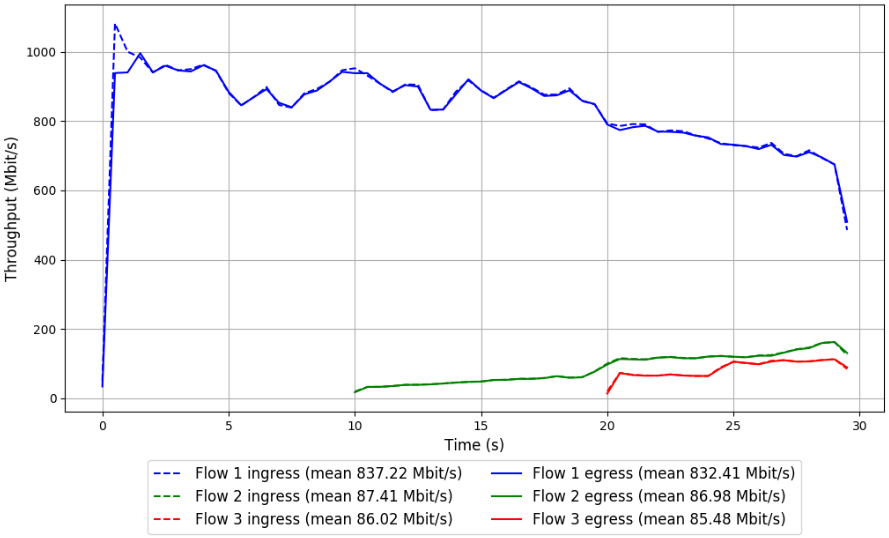


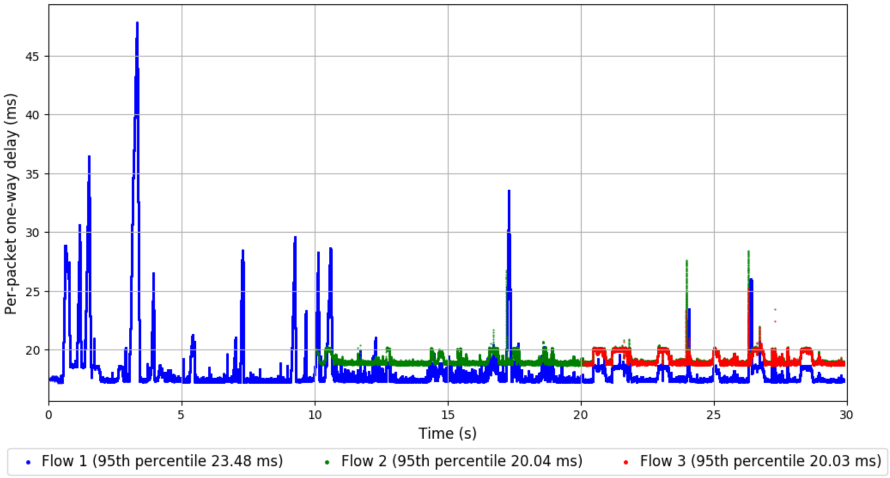
```
Run 5: Statistics of PCC

Start at: 2018-02-16 16:53:27
End at: 2018-02-16 16:53:57
Local clock offset: 0.061 ms
Remote clock offset: -5.536 ms

# Below is generated by plot.py at 2018-02-16 23:01:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 918.32 Mbit/s
95th percentile per-packet one-way delay: 22.636 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 832.41 Mbit/s
95th percentile per-packet one-way delay: 23.483 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 86.98 Mbit/s
95th percentile per-packet one-way delay: 20.042 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 85.48 Mbit/s
95th percentile per-packet one-way delay: 20.030 ms
Loss rate: 0.63%
```

Run 5: Report of PCC — Data Link



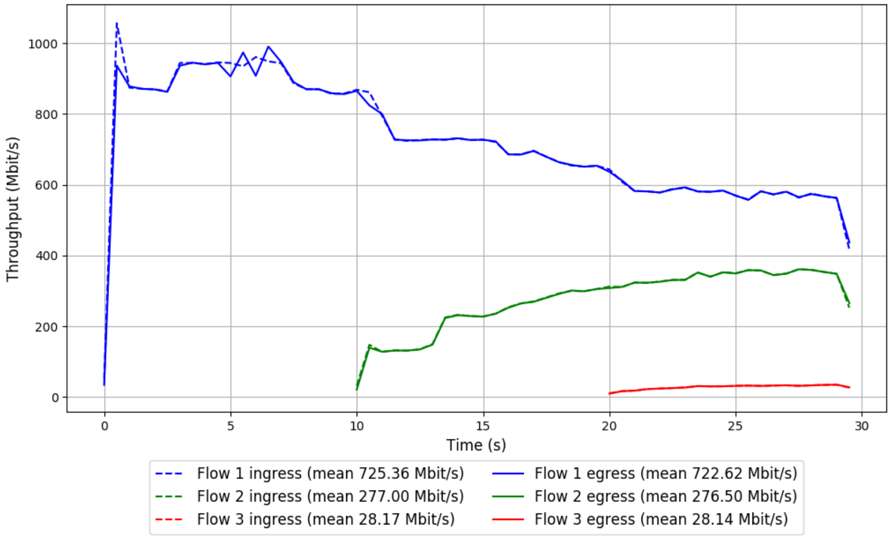


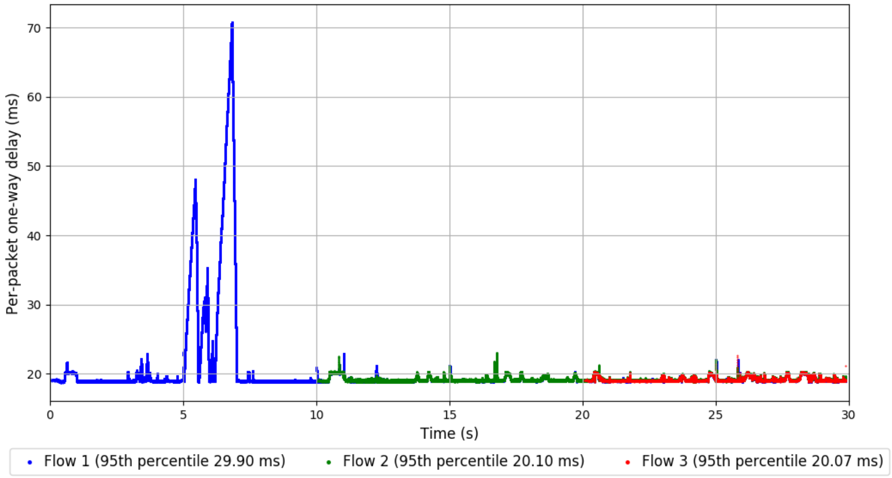
```
Run 6: Statistics of PCC

Start at: 2018-02-16 17:20:58
End at: 2018-02-16 17:21:28
Local clock offset: 0.028 ms
Remote clock offset: -5.017 ms

# Below is generated by plot.py at 2018-02-16 23:01:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 915.67 Mbit/s
95th percentile per-packet one-way delay: 25.190 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 722.62 Mbit/s
95th percentile per-packet one-way delay: 29.904 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 276.50 Mbit/s
95th percentile per-packet one-way delay: 20.099 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 28.14 Mbit/s
95th percentile per-packet one-way delay: 20.072 ms
Loss rate: 0.11%
```

Run 6: Report of PCC — Data Link



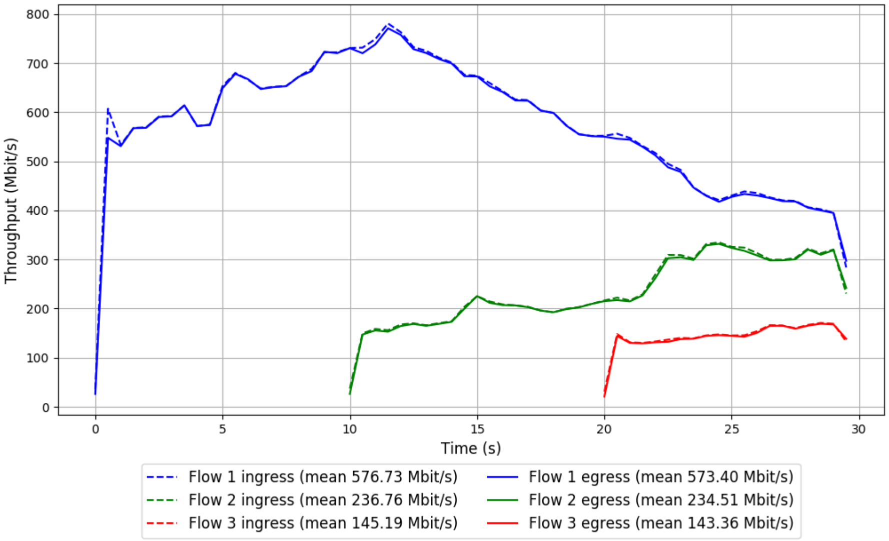


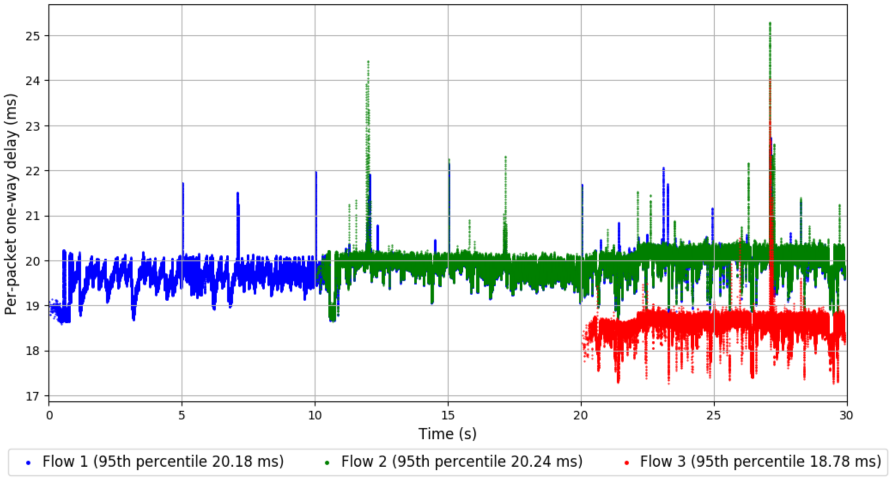
```
Run 7: Statistics of PCC

Start at: 2018-02-16 17:48:16
End at: 2018-02-16 17:48:46
Local clock offset: 0.31 ms
Remote clock offset: -5.83 ms

# Below is generated by plot.py at 2018-02-16 23:01:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 776.57 Mbit/s
95th percentile per-packet one-way delay: 20.193 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 573.40 Mbit/s
95th percentile per-packet one-way delay: 20.176 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 234.51 Mbit/s
95th percentile per-packet one-way delay: 20.236 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 143.36 Mbit/s
95th percentile per-packet one-way delay: 18.777 ms
Loss rate: 1.25%
```

Run 7: Report of PCC — Data Link



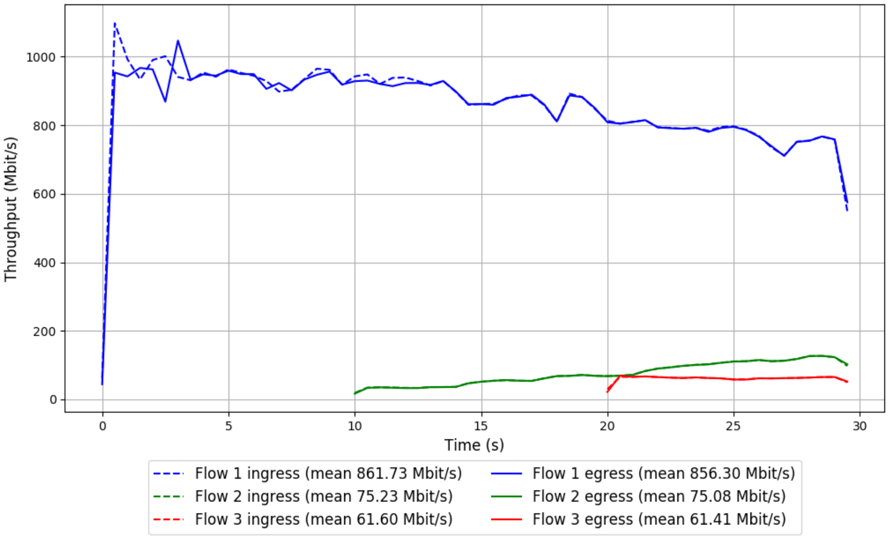


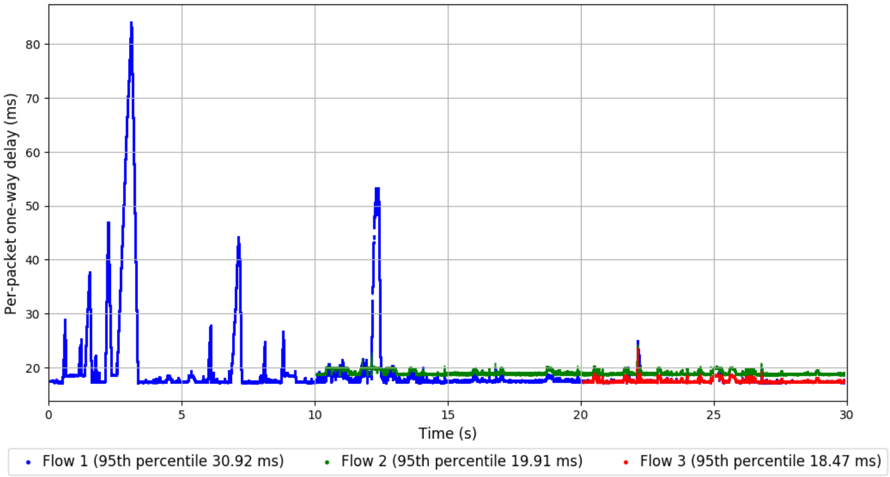
```
Run 8: Statistics of PCC

Start at: 2018-02-16 18:16:10
End at: 2018-02-16 18:16:40
Local clock offset: 0.174 ms
Remote clock offset: -5.946 ms

# Below is generated by plot.py at 2018-02-16 23:02:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 926.43 Mbit/s
95th percentile per-packet one-way delay: 28.852 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 856.30 Mbit/s
95th percentile per-packet one-way delay: 30.923 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 75.08 Mbit/s
95th percentile per-packet one-way delay: 19.913 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 61.41 Mbit/s
95th percentile per-packet one-way delay: 18.473 ms
Loss rate: 0.30%
```

Run 8: Report of PCC — Data Link



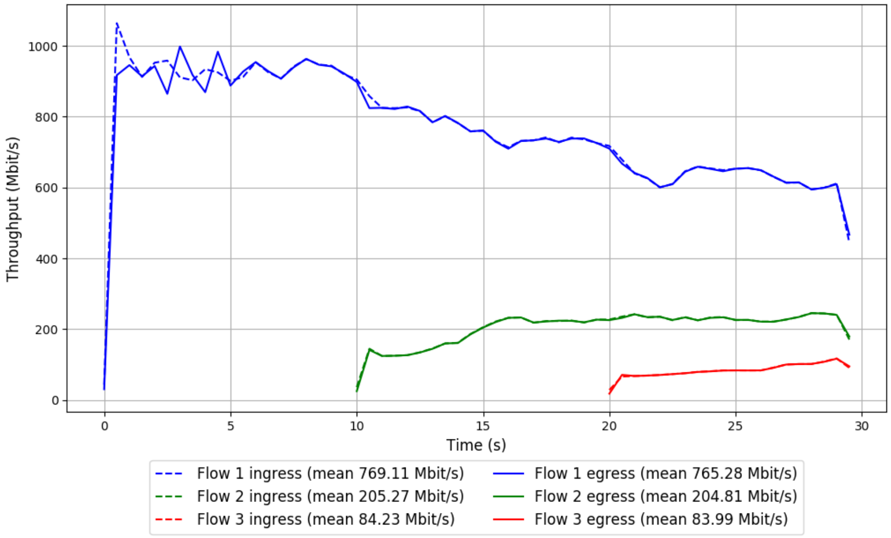


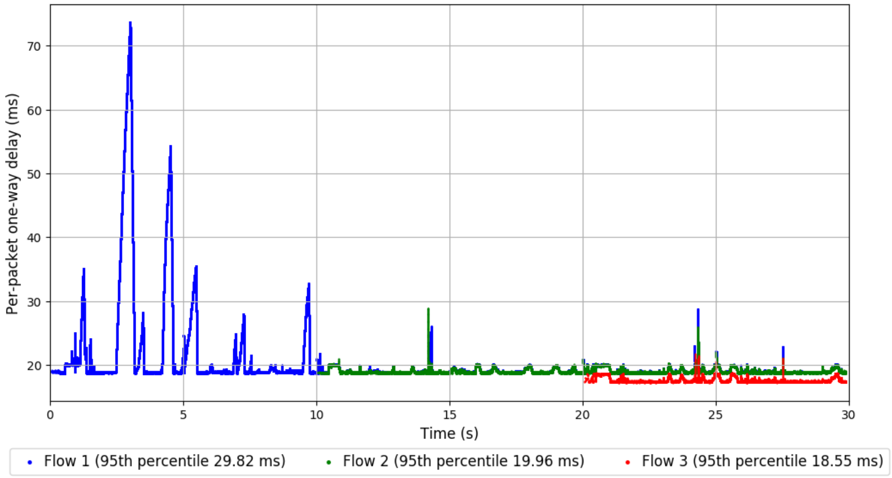
```
Run 9: Statistics of PCC

Start at: 2018-02-16 18:43:28
End at: 2018-02-16 18:43:58
Local clock offset: 0.023 ms
Remote clock offset: -4.671 ms

# Below is generated by plot.py at 2018-02-16 23:10:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 929.05 Mbit/s
95th percentile per-packet one-way delay: 27.119 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 765.28 Mbit/s
95th percentile per-packet one-way delay: 29.820 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 204.81 Mbit/s
95th percentile per-packet one-way delay: 19.958 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 83.99 Mbit/s
95th percentile per-packet one-way delay: 18.555 ms
Loss rate: 0.28%
```

Run 9: Report of PCC — Data Link



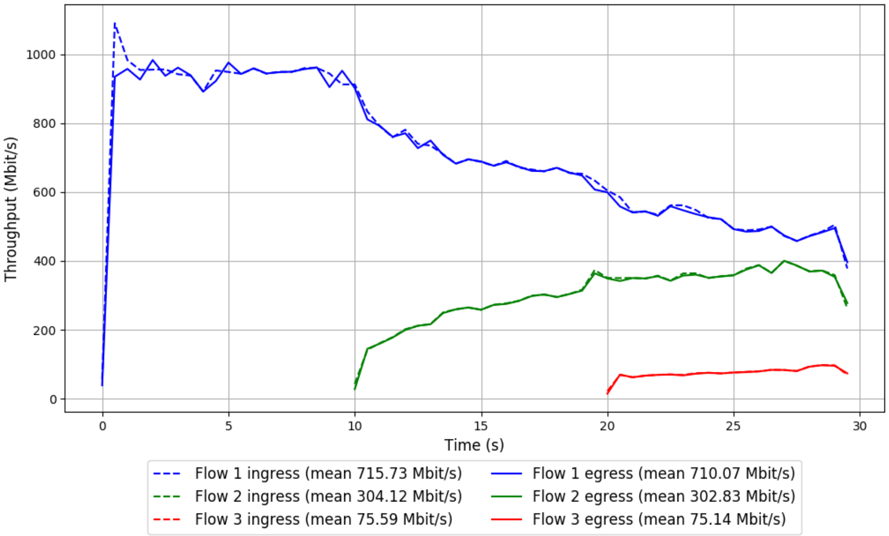


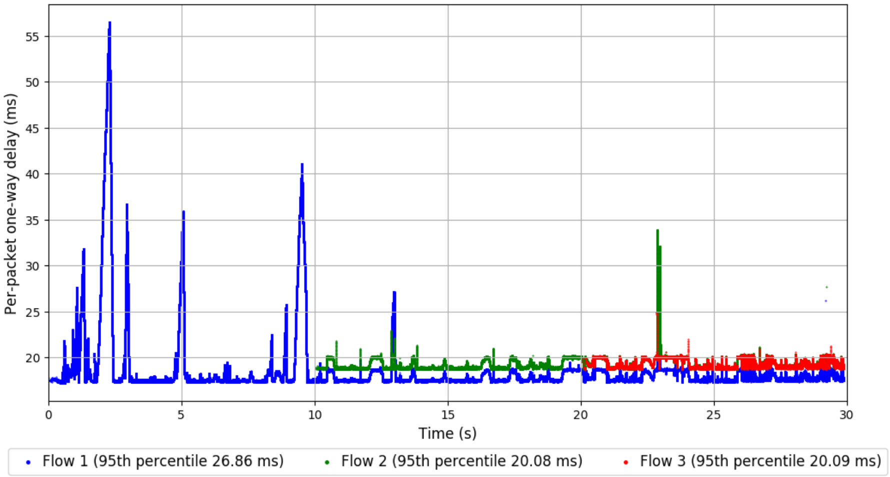
```
Run 10: Statistics of PCC

Start at: 2018-02-16 19:10:49
End at: 2018-02-16 19:11:19
Local clock offset: 0.695 ms
Remote clock offset: -5.483 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 936.10 Mbit/s
95th percentile per-packet one-way delay: 24.244 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 710.07 Mbit/s
95th percentile per-packet one-way delay: 26.861 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 302.83 Mbit/s
95th percentile per-packet one-way delay: 20.082 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 75.14 Mbit/s
95th percentile per-packet one-way delay: 20.094 ms
Loss rate: 0.60%
```

Run 10: Report of PCC — Data Link



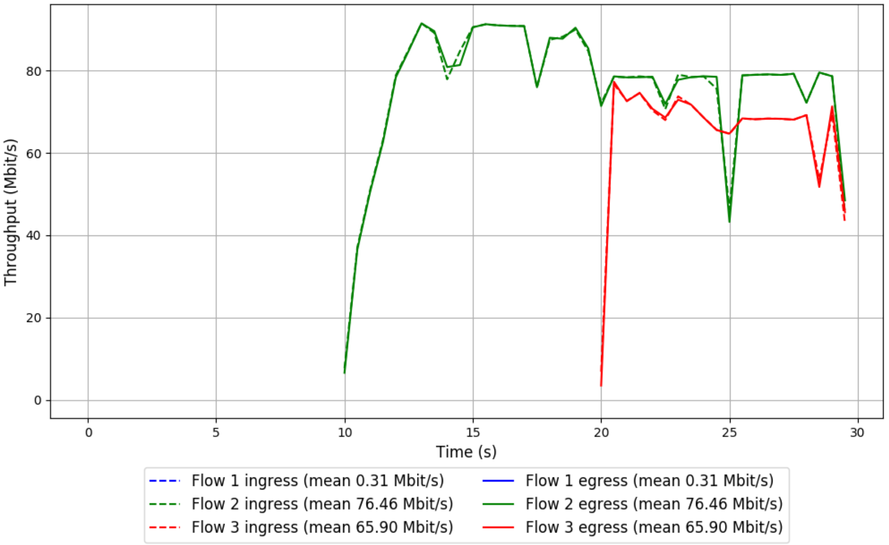


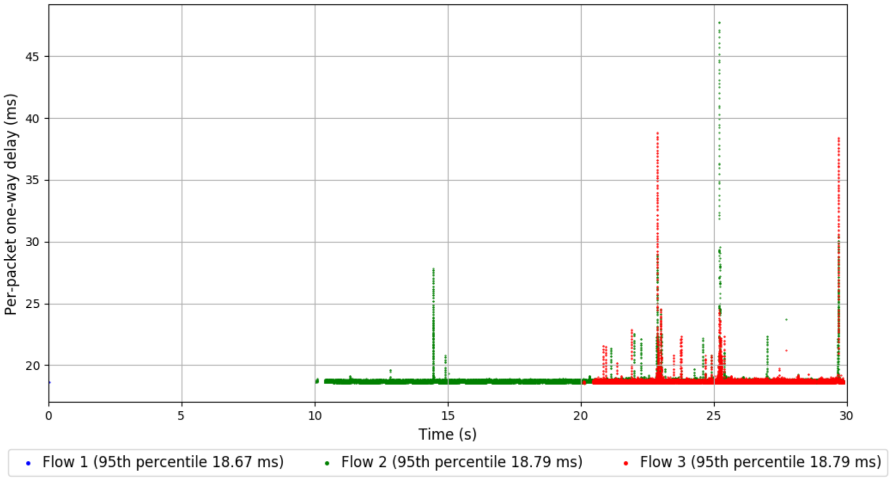
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-16 15:30:31
End at: 2018-02-16 15:31:01
Local clock offset: -0.057 ms
Remote clock offset: -4.899 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.43 Mbit/s
95th percentile per-packet one-way delay: 18.793 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 18.667 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.46 Mbit/s
95th percentile per-packet one-way delay: 18.793 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.90 Mbit/s
95th percentile per-packet one-way delay: 18.793 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



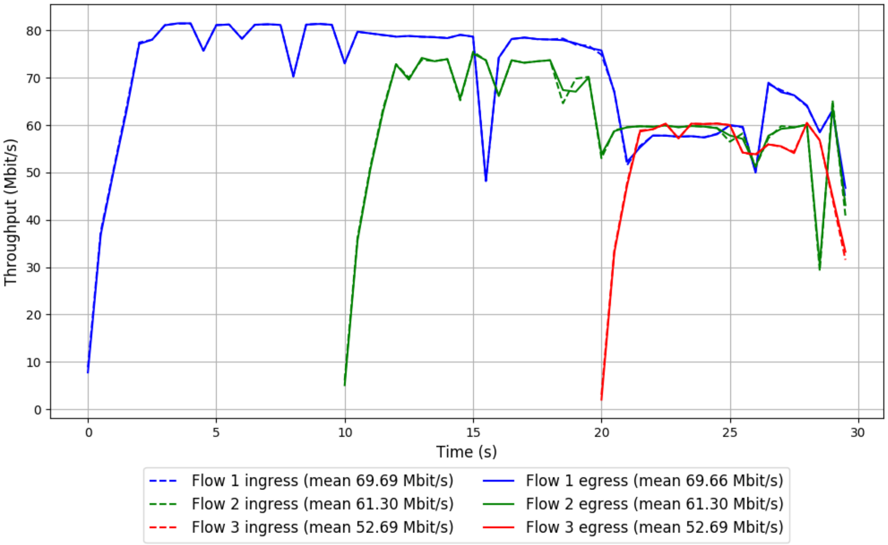


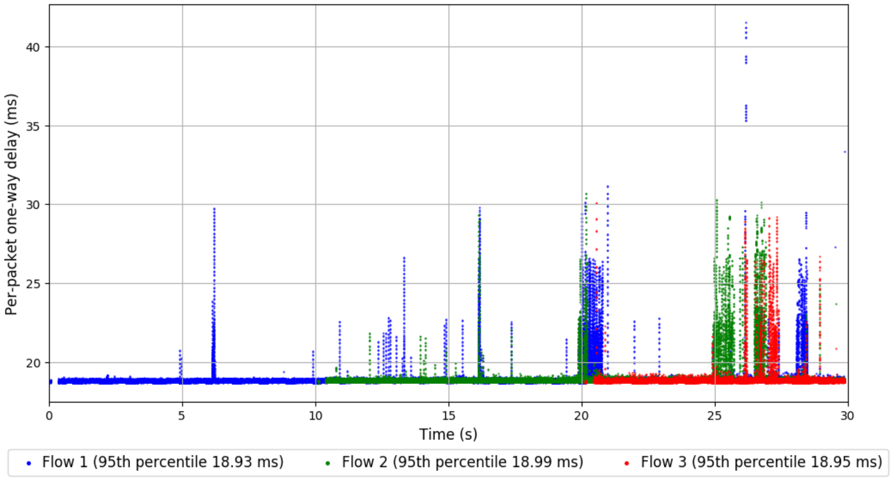
```
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-16 15:57:39
End at: 2018-02-16 15:58:09
Local clock offset: 0.023 ms
Remote clock offset: -5.314 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.50 Mbit/s
95th percentile per-packet one-way delay: 18.952 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.66 Mbit/s
95th percentile per-packet one-way delay: 18.932 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.30 Mbit/s
95th percentile per-packet one-way delay: 18.988 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.69 Mbit/s
95th percentile per-packet one-way delay: 18.953 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



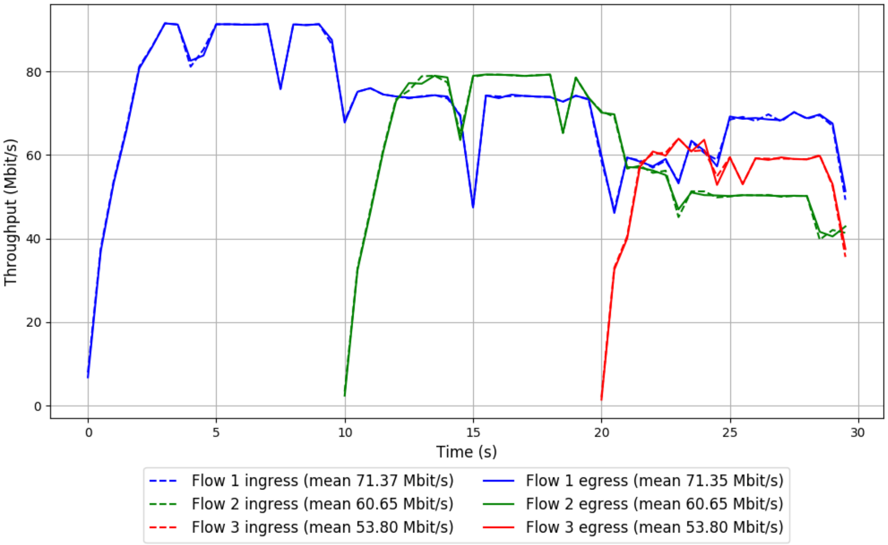


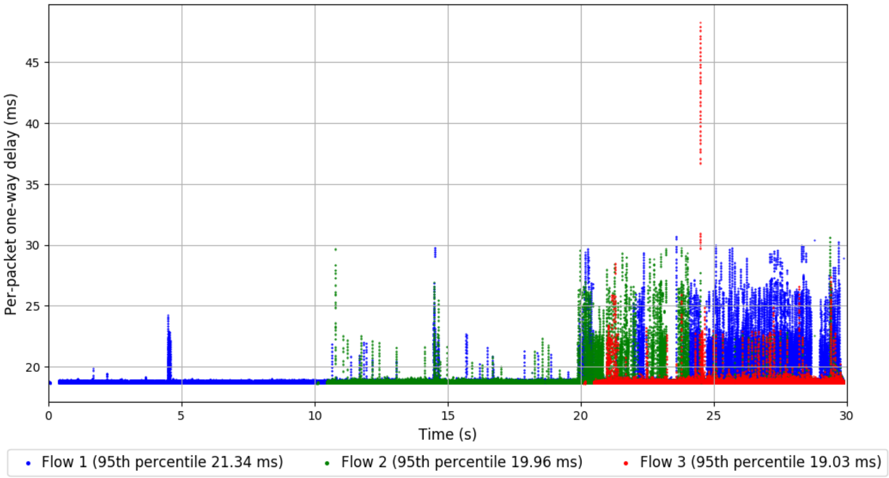
```
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-16 16:25:00
End at: 2018-02-16 16:25:30
Local clock offset: 0.107 ms
Remote clock offset: -6.336 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.16 Mbit/s
95th percentile per-packet one-way delay: 20.801 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.35 Mbit/s
95th percentile per-packet one-way delay: 21.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.65 Mbit/s
95th percentile per-packet one-way delay: 19.956 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.80 Mbit/s
95th percentile per-packet one-way delay: 19.030 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link



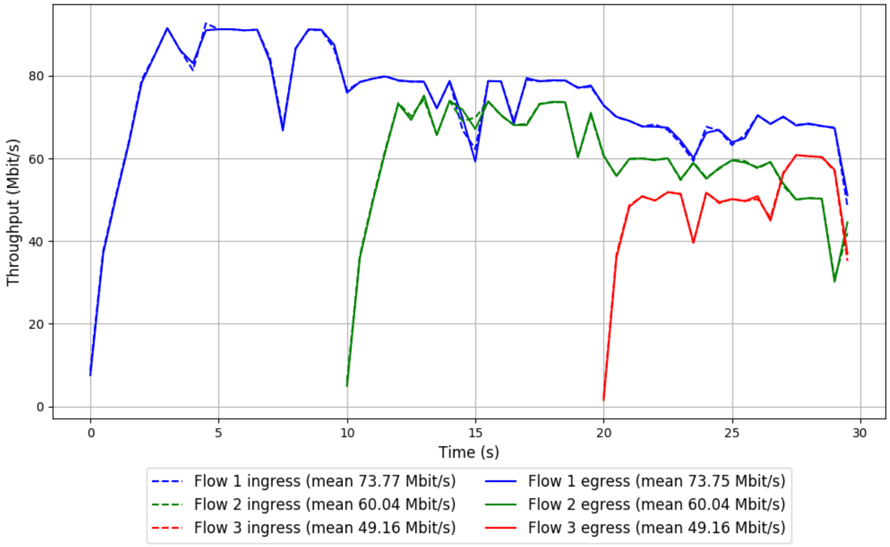


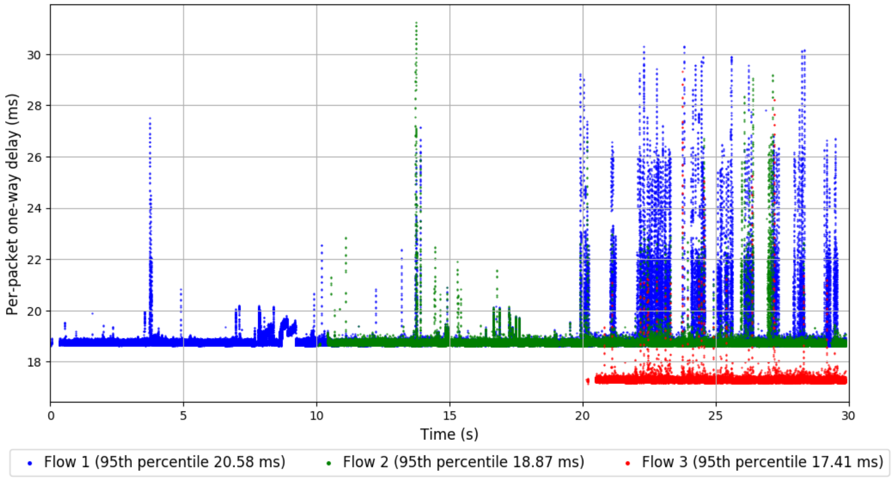
```
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-16 16:52:10
End at: 2018-02-16 16:52:40
Local clock offset: 0.083 ms
Remote clock offset: -5.643 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.62 Mbit/s
95th percentile per-packet one-way delay: 19.551 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 73.75 Mbit/s
95th percentile per-packet one-way delay: 20.580 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 60.04 Mbit/s
95th percentile per-packet one-way delay: 18.870 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 49.16 Mbit/s
95th percentile per-packet one-way delay: 17.412 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link



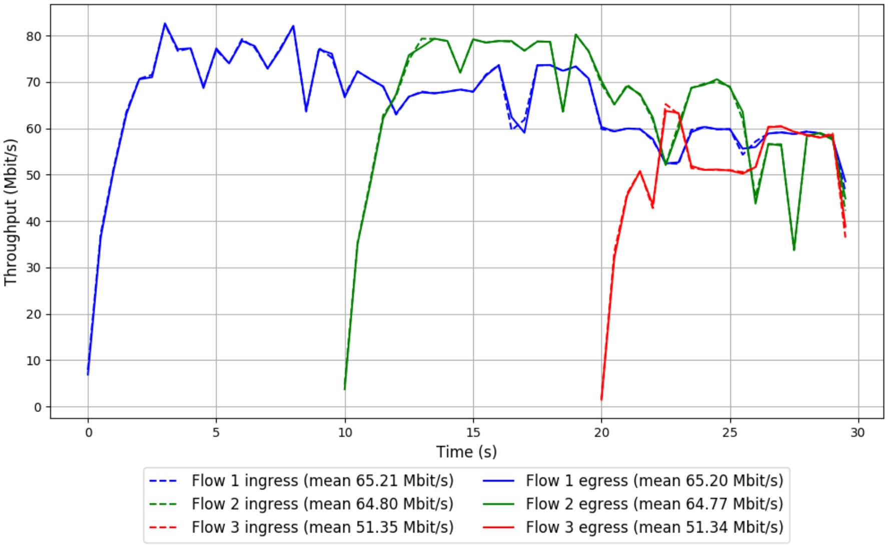


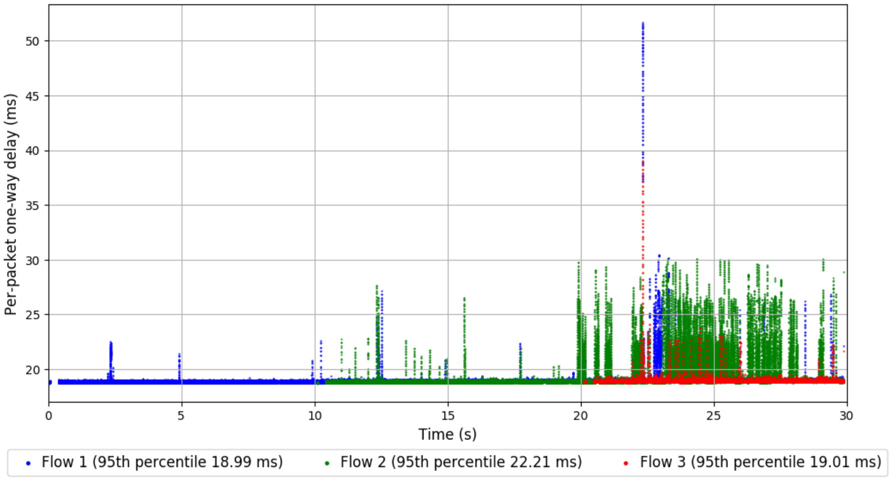
```
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-16 17:19:41
End at: 2018-02-16 17:20:11
Local clock offset: 0.035 ms
Remote clock offset: -4.892 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.92 Mbit/s
95th percentile per-packet one-way delay: 20.154 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 65.20 Mbit/s
95th percentile per-packet one-way delay: 18.986 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.77 Mbit/s
95th percentile per-packet one-way delay: 22.213 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 51.34 Mbit/s
95th percentile per-packet one-way delay: 19.012 ms
Loss rate: 0.01%
```

Run 5: Report of QUIC Cubic — Data Link



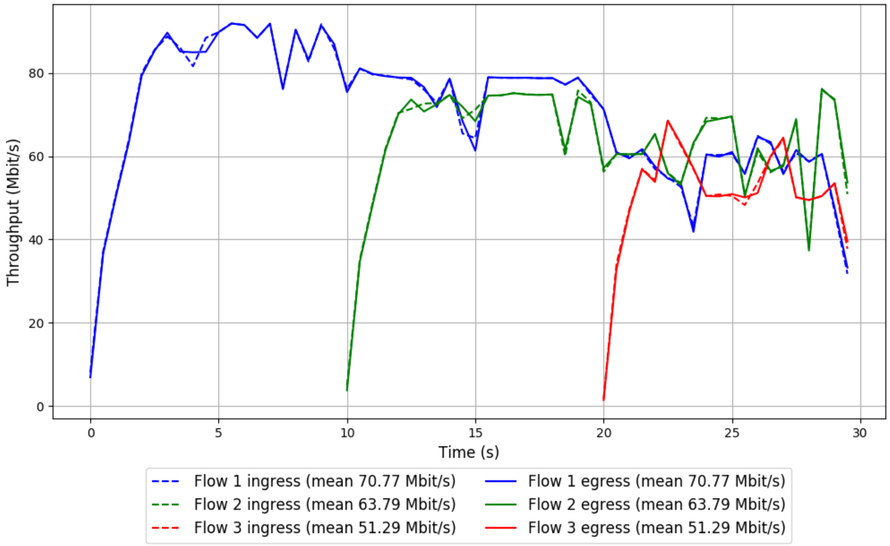


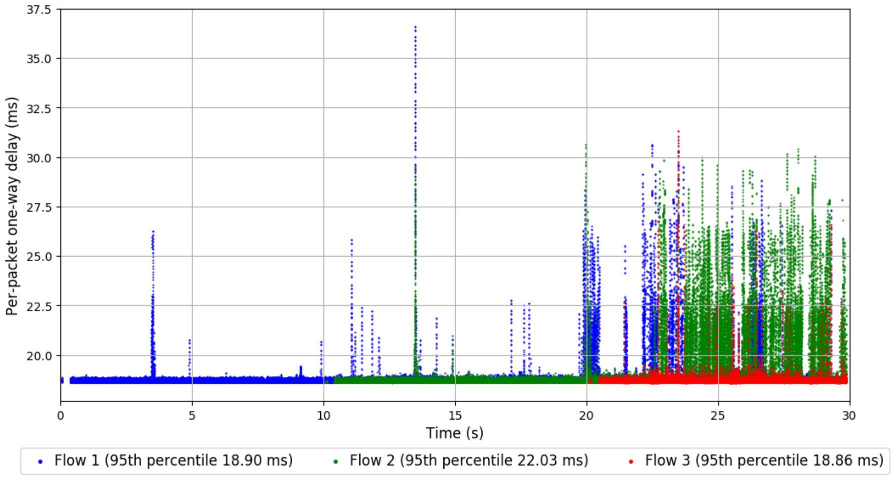
```
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-16 17:46:59
End at: 2018-02-16 17:47:30
Local clock offset: 0.297 ms
Remote clock offset: -5.878 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.84 Mbit/s
95th percentile per-packet one-way delay: 20.317 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.77 Mbit/s
95th percentile per-packet one-way delay: 18.897 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.79 Mbit/s
95th percentile per-packet one-way delay: 22.032 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 51.29 Mbit/s
95th percentile per-packet one-way delay: 18.855 ms
Loss rate: 0.00%
```

Run 6: Report of QUIC Cubic — Data Link



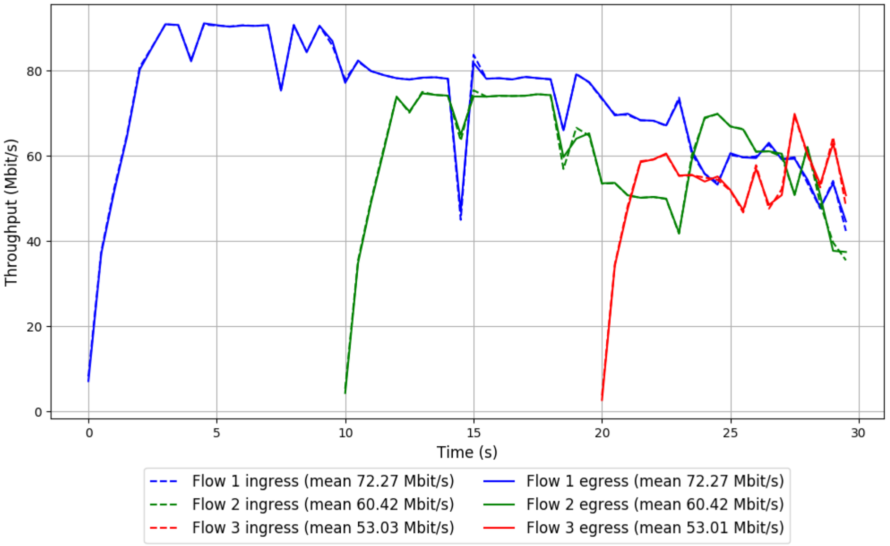


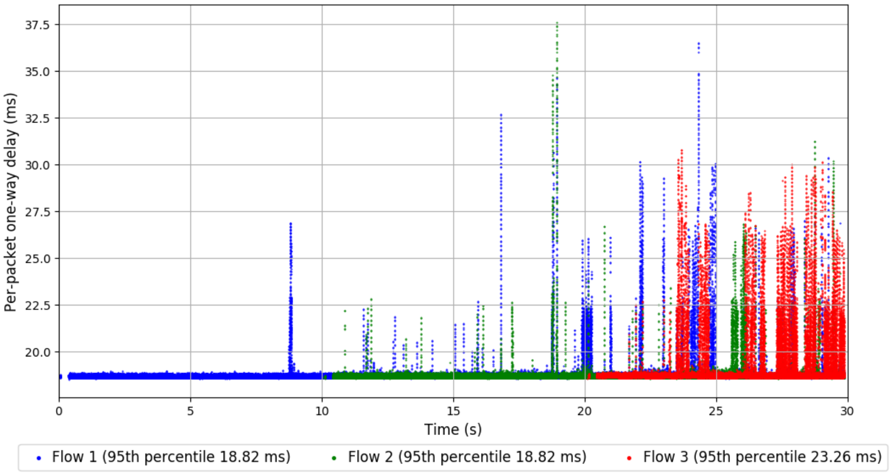
```
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-16 18:14:54
End at: 2018-02-16 18:15:24
Local clock offset: 0.207 ms
Remote clock offset: -5.923 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.68 Mbit/s
95th percentile per-packet one-way delay: 19.446 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.27 Mbit/s
95th percentile per-packet one-way delay: 18.817 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.42 Mbit/s
95th percentile per-packet one-way delay: 18.822 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.01 Mbit/s
95th percentile per-packet one-way delay: 23.263 ms
Loss rate: 0.02%
```

Run 7: Report of QUIC Cubic — Data Link



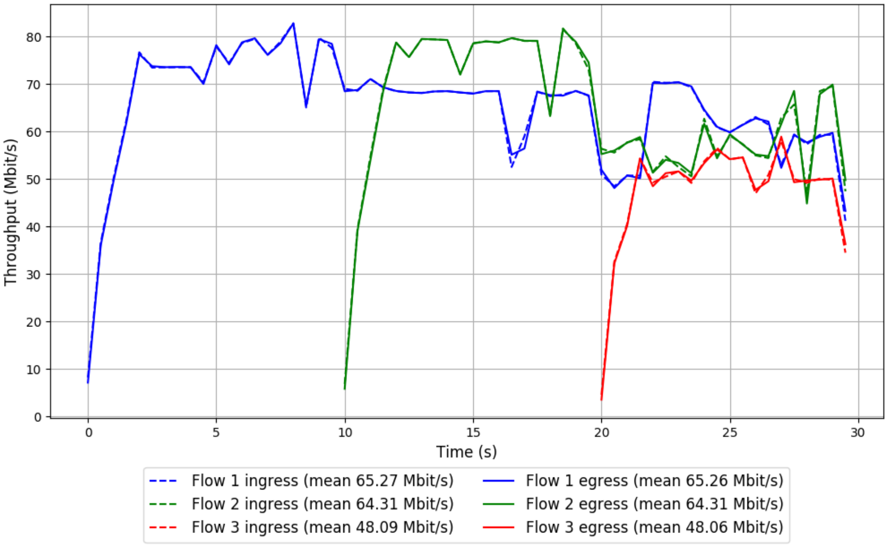


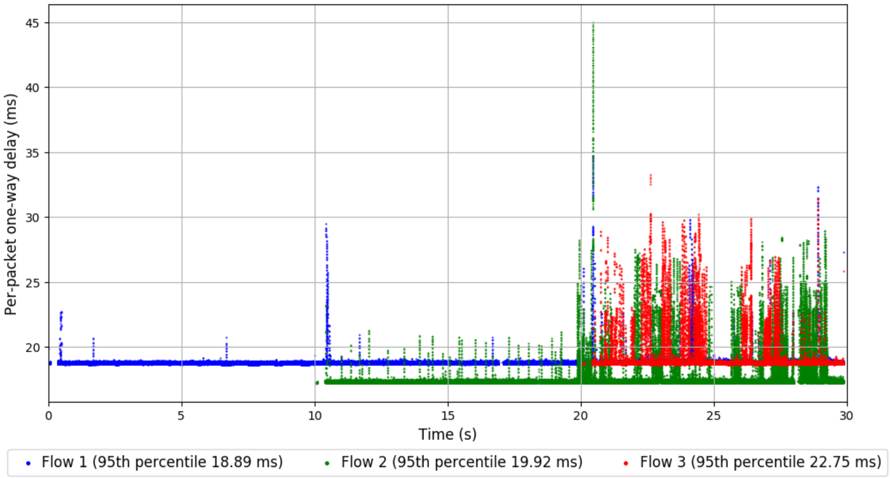
```
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-16 18:42:12
End at: 2018-02-16 18:42:42
Local clock offset: -0.103 ms
Remote clock offset: -4.707 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.69 Mbit/s
95th percentile per-packet one-way delay: 19.140 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.26 Mbit/s
95th percentile per-packet one-way delay: 18.892 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 64.31 Mbit/s
95th percentile per-packet one-way delay: 19.924 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.06 Mbit/s
95th percentile per-packet one-way delay: 22.748 ms
Loss rate: 0.01%
```

Run 8: Report of QUIC Cubic — Data Link



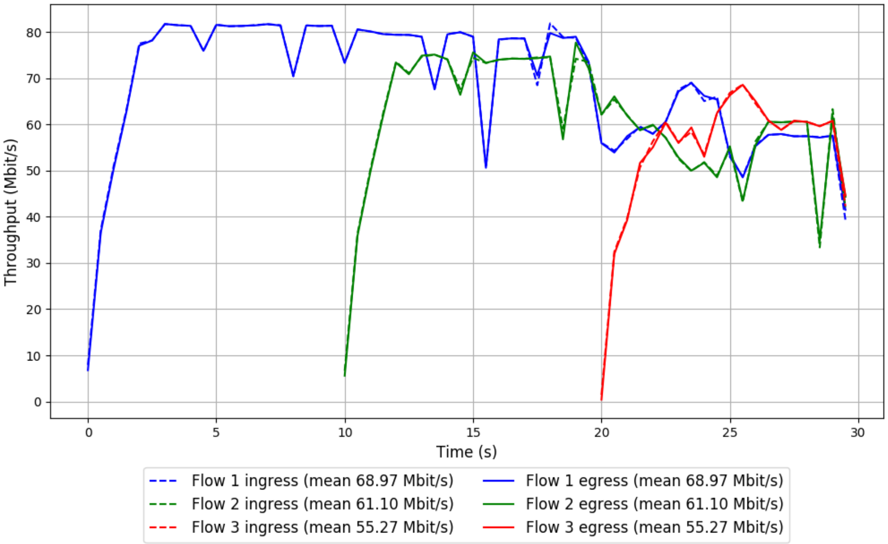


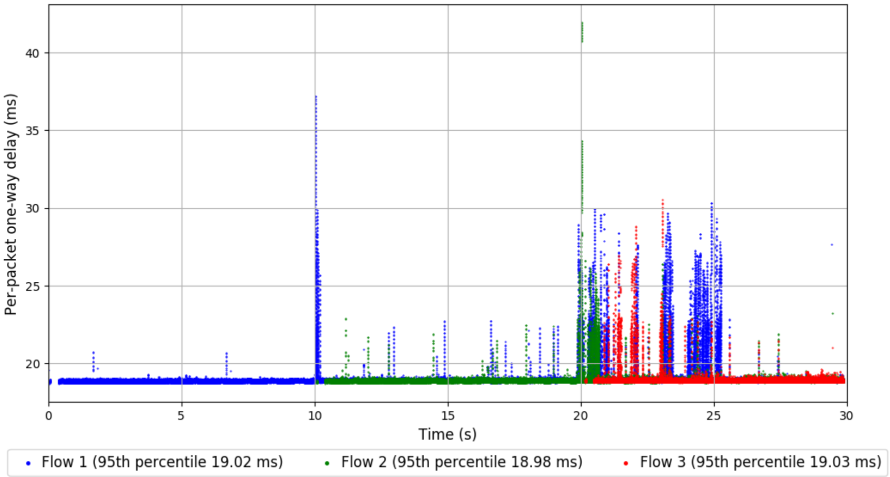
```
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-16 19:09:32
End at: 2018-02-16 19:10:02
Local clock offset: 0.679 ms
Remote clock offset: -5.356 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.55 Mbit/s
95th percentile per-packet one-way delay: 19.007 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.97 Mbit/s
95th percentile per-packet one-way delay: 19.024 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.10 Mbit/s
95th percentile per-packet one-way delay: 18.984 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.27 Mbit/s
95th percentile per-packet one-way delay: 19.033 ms
Loss rate: 0.00%
```

Run 9: Report of QUIC Cubic — Data Link



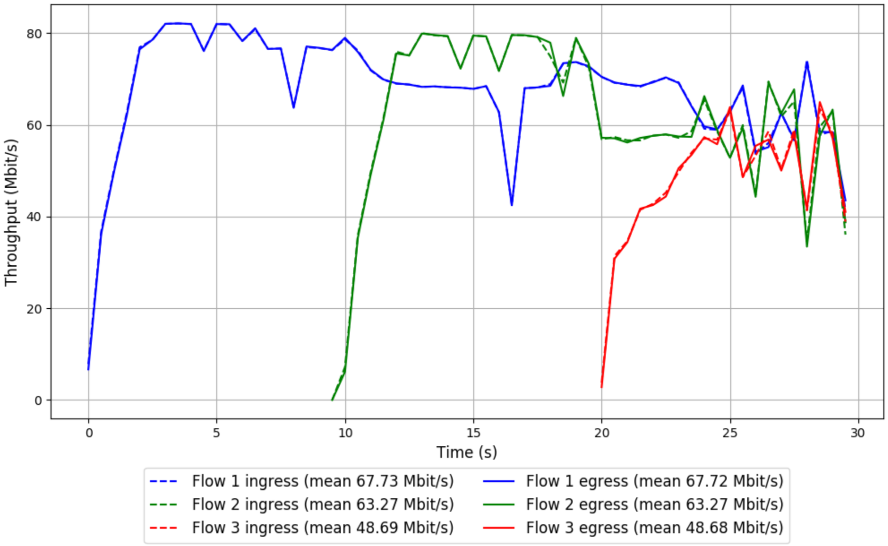


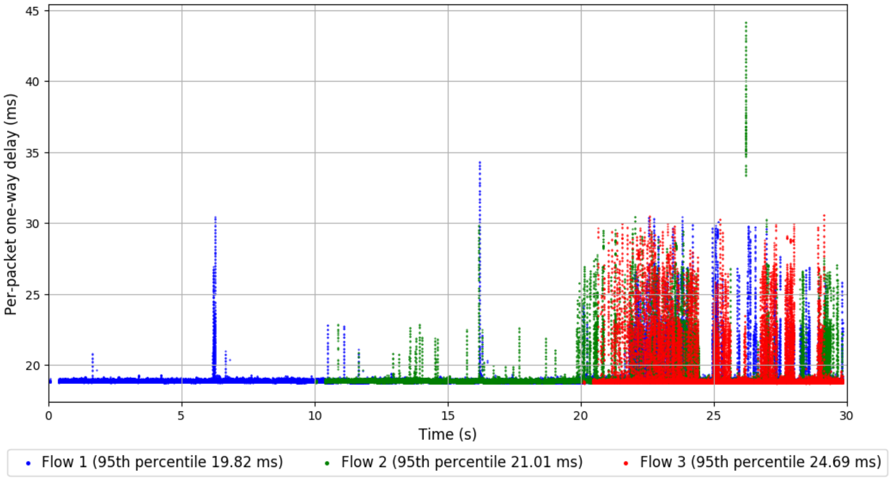
```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-16 19:37:05
End at: 2018-02-16 19:37:35
Local clock offset: 0.907 ms
Remote clock offset: -5.763 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.76 Mbit/s
95th percentile per-packet one-way delay: 21.279 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 67.72 Mbit/s
95th percentile per-packet one-way delay: 19.820 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 63.27 Mbit/s
95th percentile per-packet one-way delay: 21.012 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.68 Mbit/s
95th percentile per-packet one-way delay: 24.689 ms
Loss rate: 0.02%
```

Run 10: Report of QUIC Cubic — Data Link



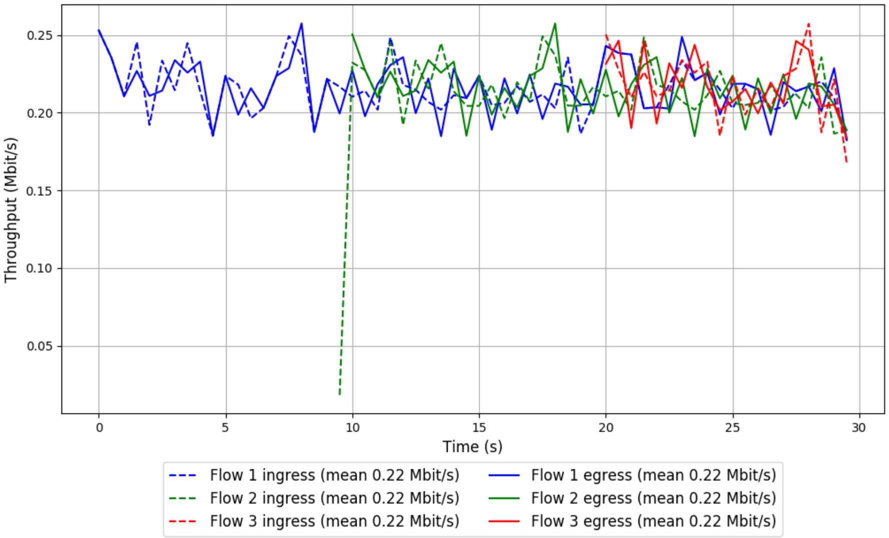


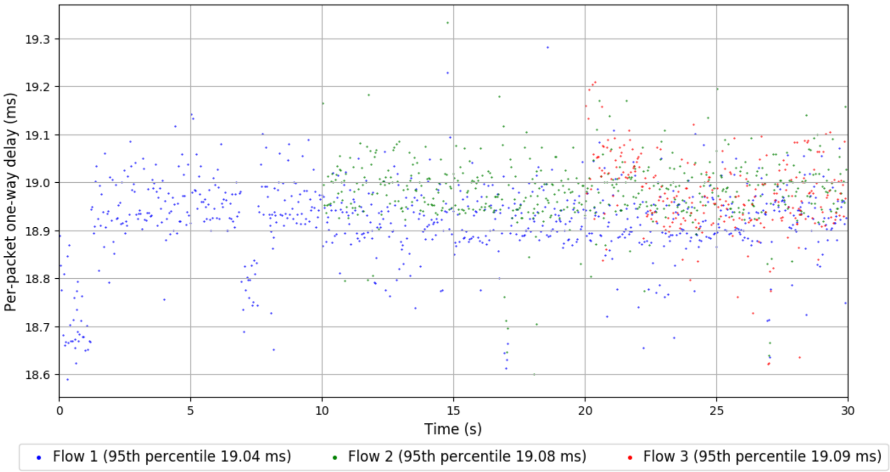
```
Run 1: Statistics of SCReAM

Start at: 2018-02-16 15:18:49
End at: 2018-02-16 15:19:19
Local clock offset: -0.03 ms
Remote clock offset: -4.909 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.073 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.038 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.078 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.090 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



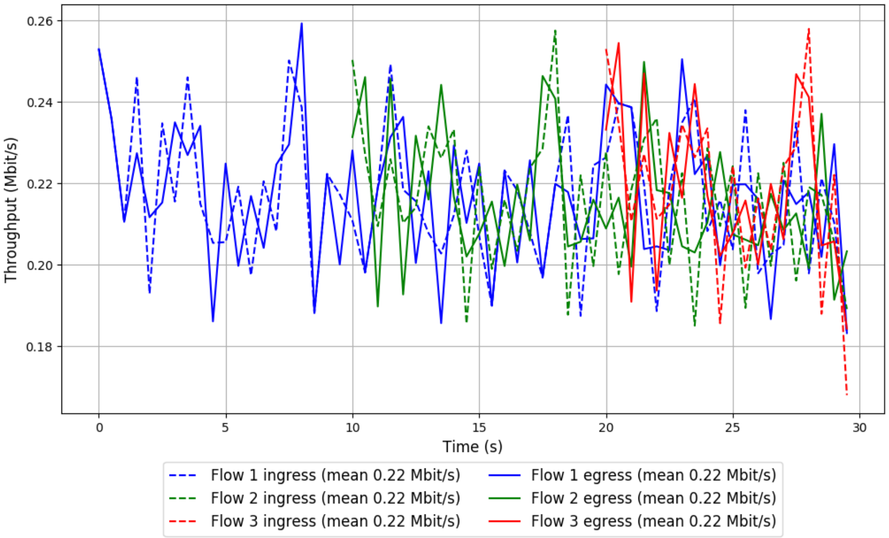


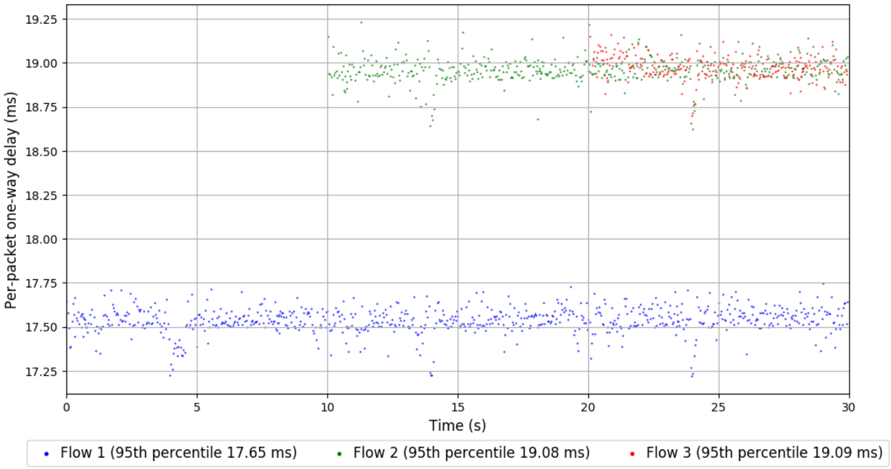
```
Run 2: Statistics of SCReAM

Start at: 2018-02-16 15:45:51
End at: 2018-02-16 15:46:21
Local clock offset: -0.108 ms
Remote clock offset: -5.261 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.046 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.654 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.076 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.087 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



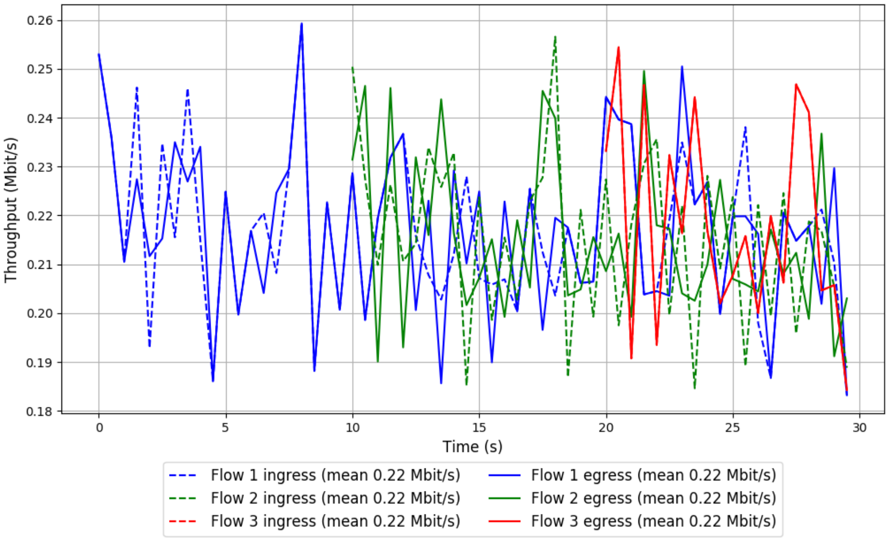


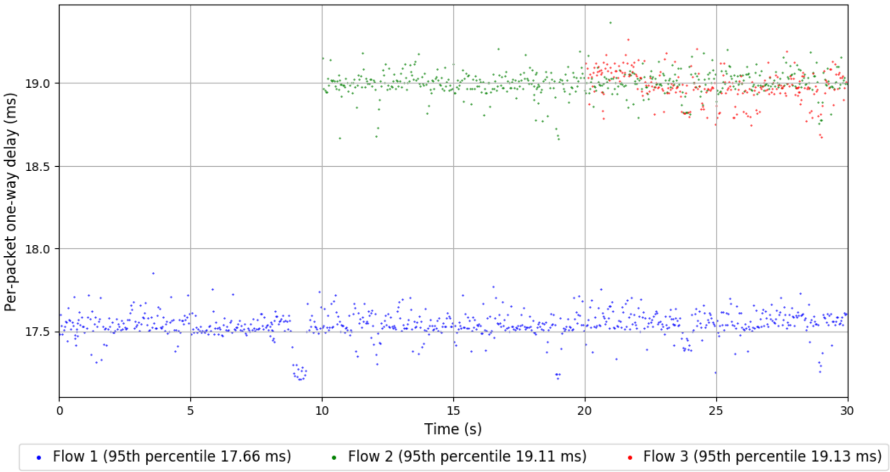
```
Run 3: Statistics of SCReAM

Start at: 2018-02-16 16:13:16
End at: 2018-02-16 16:13:46
Local clock offset: 0.117 ms
Remote clock offset: -5.781 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.091 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.665 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.126 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



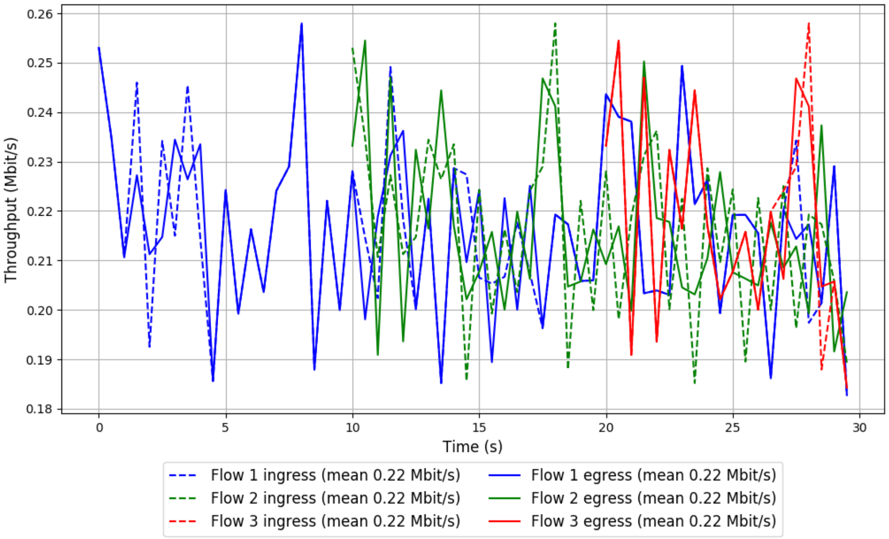


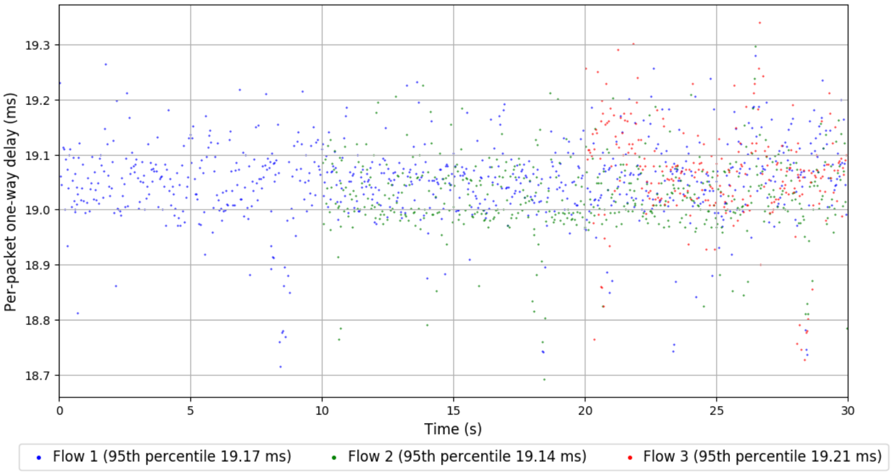
```
Run 4: Statistics of SCReAM

Start at: 2018-02-16 16:40:36
End at: 2018-02-16 16:41:06
Local clock offset: 0.159 ms
Remote clock offset: -6.498 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.170 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.168 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.136 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.212 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



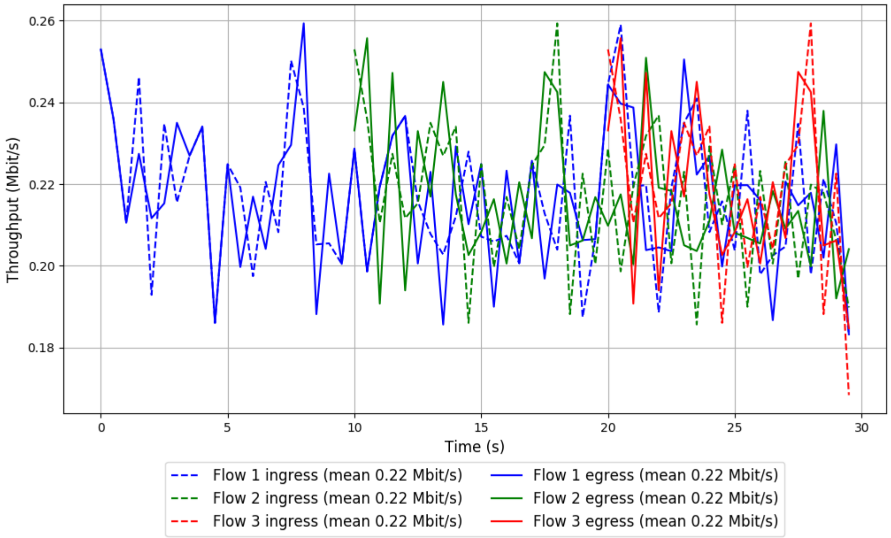


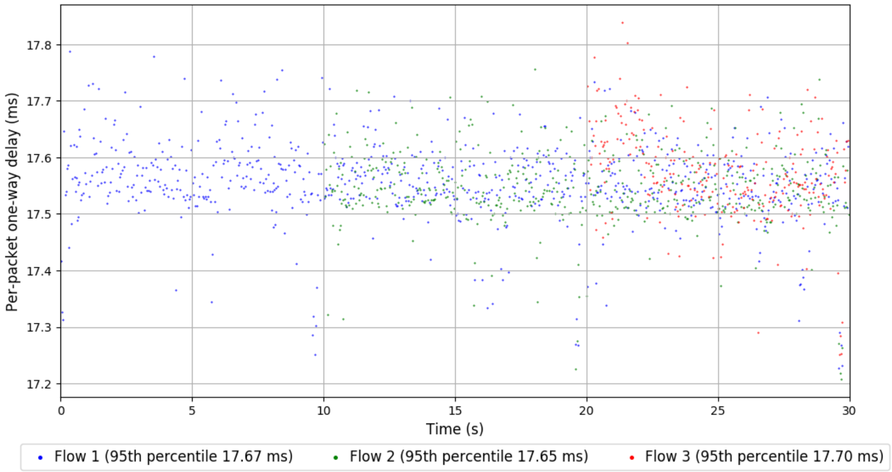
```
Run 5: Statistics of SCReAM

Start at: 2018-02-16 17:07:44
End at: 2018-02-16 17:08:14
Local clock offset: 0.043 ms
Remote clock offset: -4.854 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 17.674 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.668 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.654 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.705 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



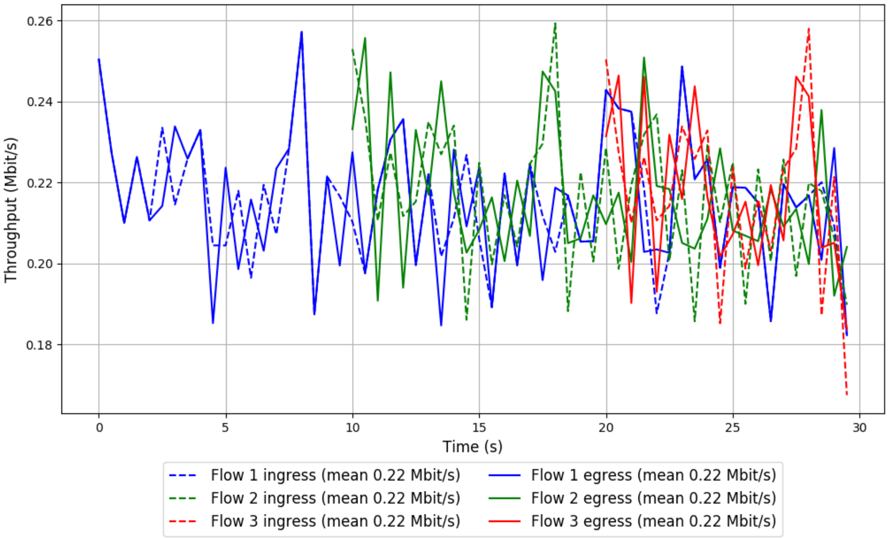


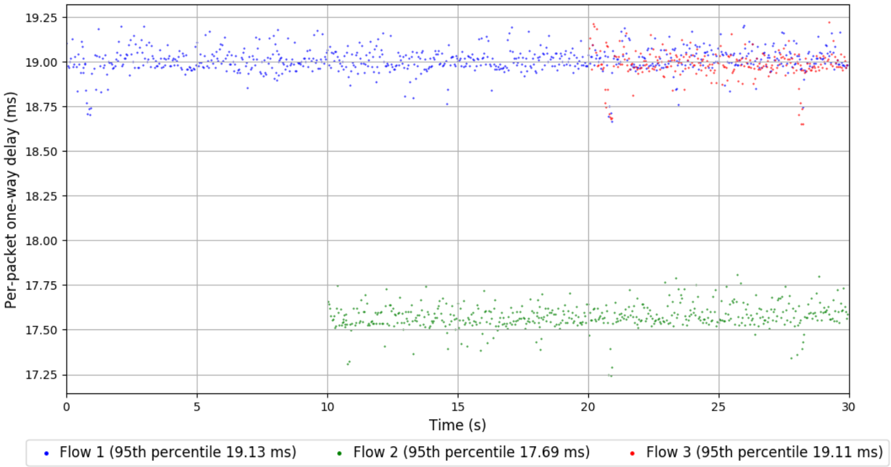
```
Run 6: Statistics of SCReAM

Start at: 2018-02-16 17:35:12
End at: 2018-02-16 17:35:42
Local clock offset: 0.073 ms
Remote clock offset: -5.8 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.100 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.128 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.690 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.106 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



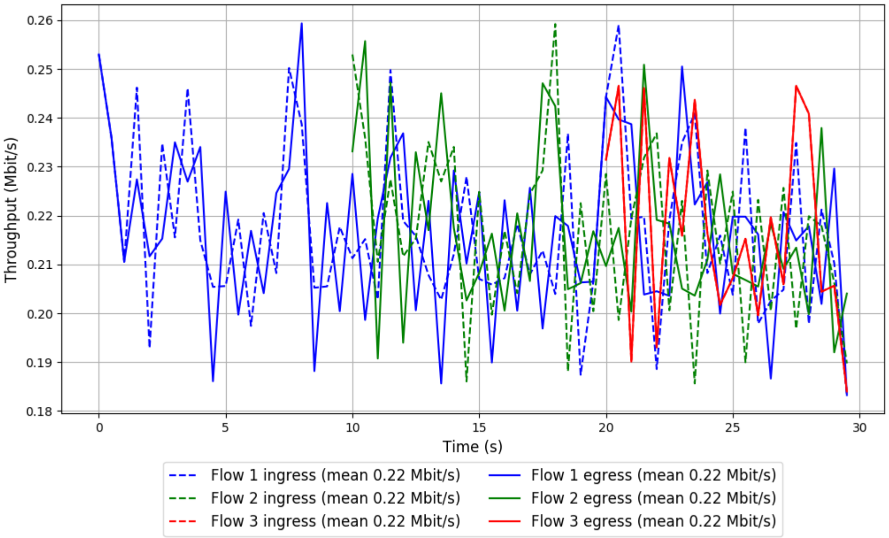


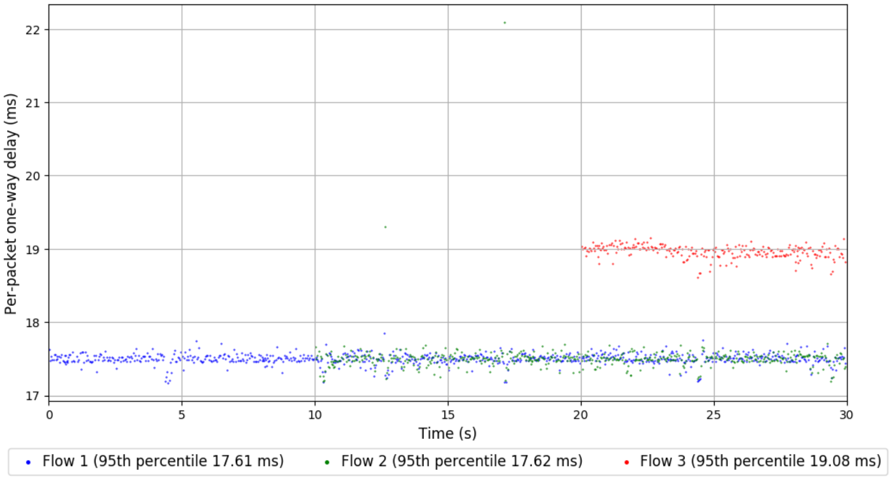
```
Run 7: Statistics of SCReAM

Start at: 2018-02-16 18:02:58
End at: 2018-02-16 18:03:28
Local clock offset: 0.358 ms
Remote clock offset: -5.884 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.011 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.607 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.083 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link



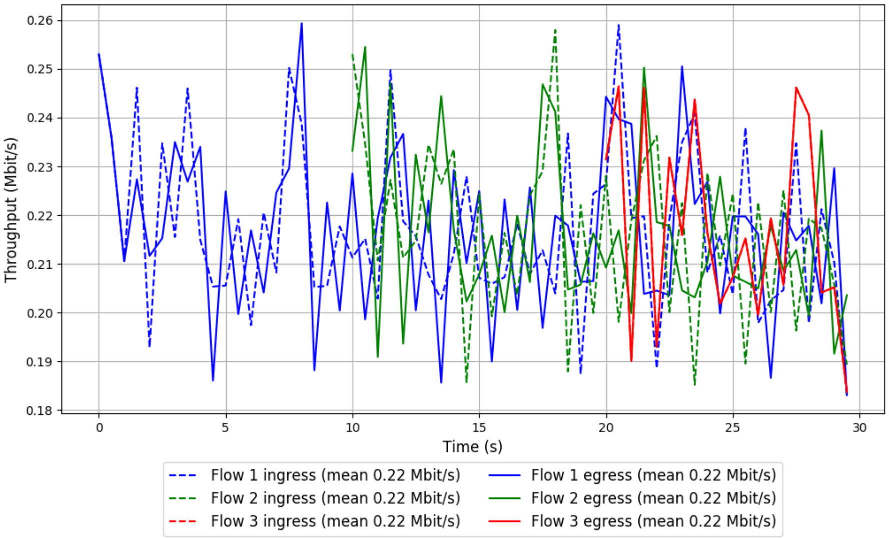


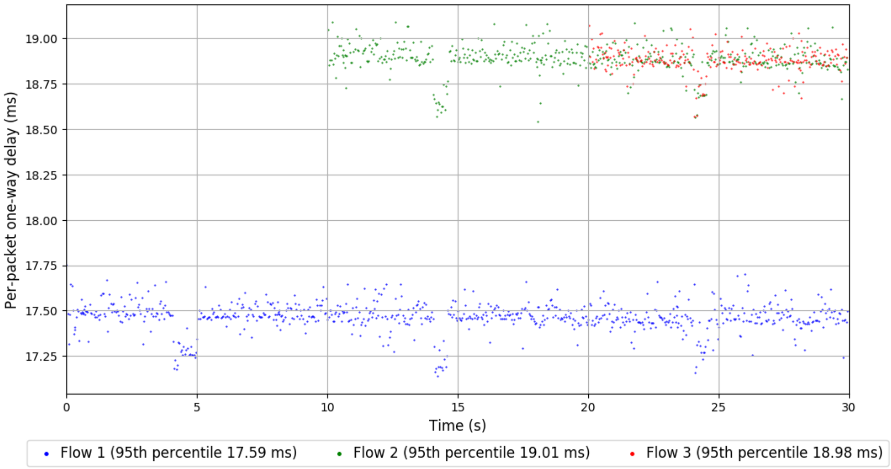
```
Run 8: Statistics of SCReAM

Start at: 2018-02-16 18:30:28
End at: 2018-02-16 18:30:58
Local clock offset: 0.001 ms
Remote clock offset: -5.373 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 18.969 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.591 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.013 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 18.984 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



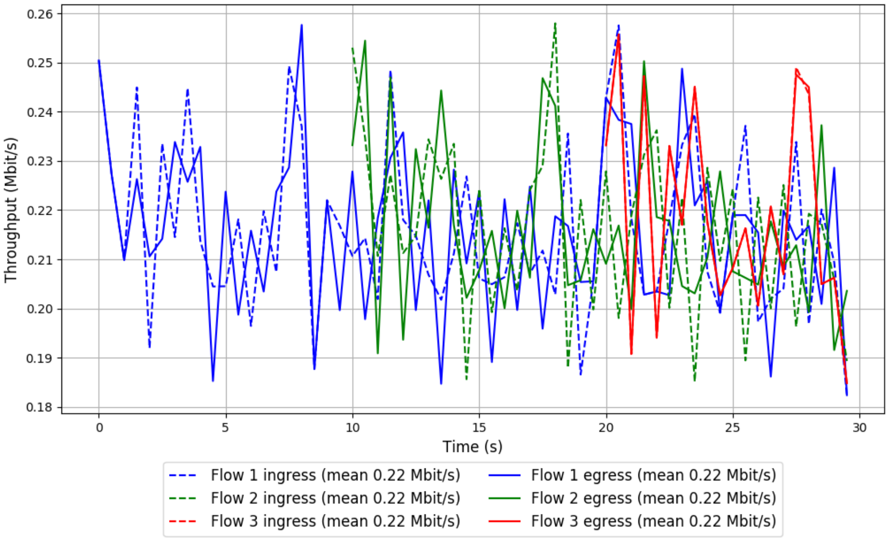


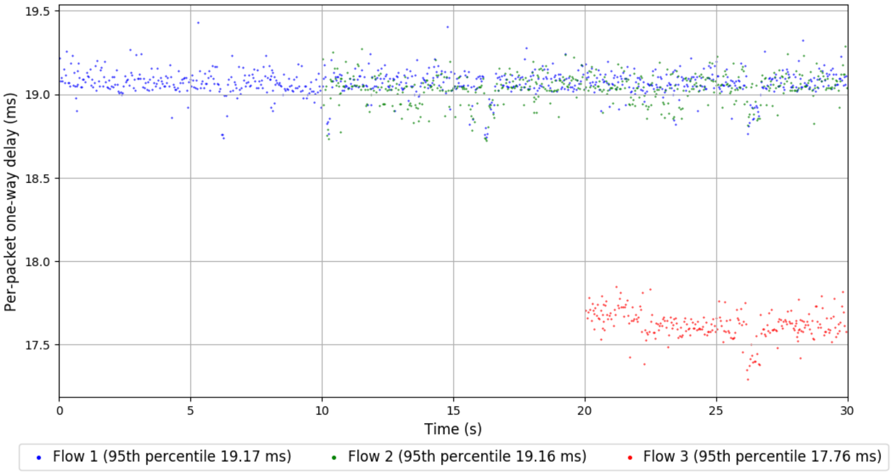
```
Run 9: Statistics of SCReAM

Start at: 2018-02-16 18:57:36
End at: 2018-02-16 18:58:06
Local clock offset: 0.471 ms
Remote clock offset: -4.249 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.166 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.172 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.165 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.761 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link



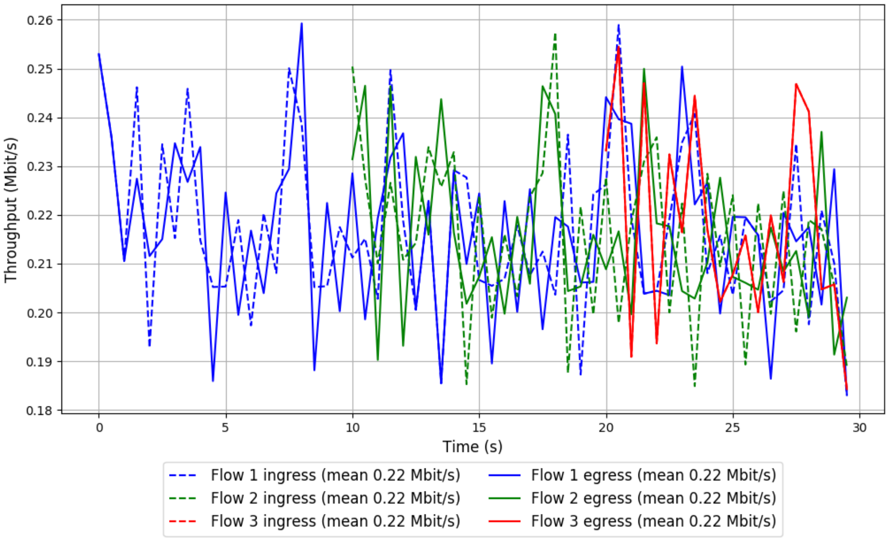


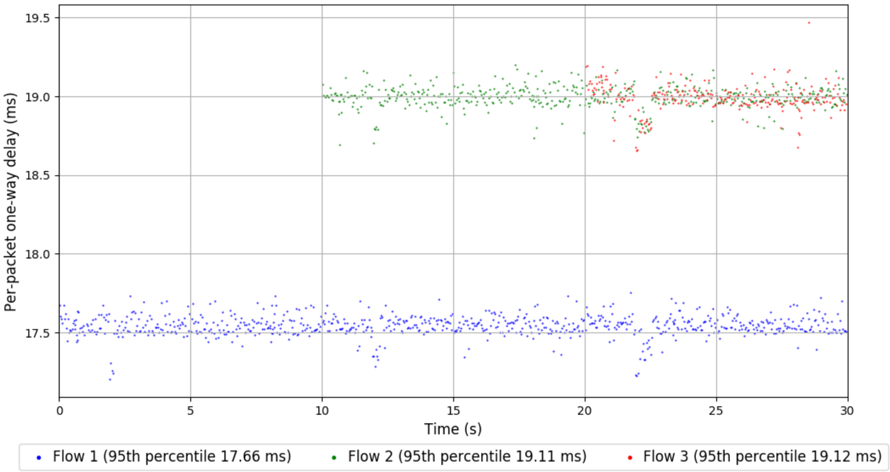
```
Run 10: Statistics of SCReAM

Start at: 2018-02-16 19:25:19
End at: 2018-02-16 19:25:50
Local clock offset: 0.856 ms
Remote clock offset: -6.005 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 19.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 17.660 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 19.125 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link



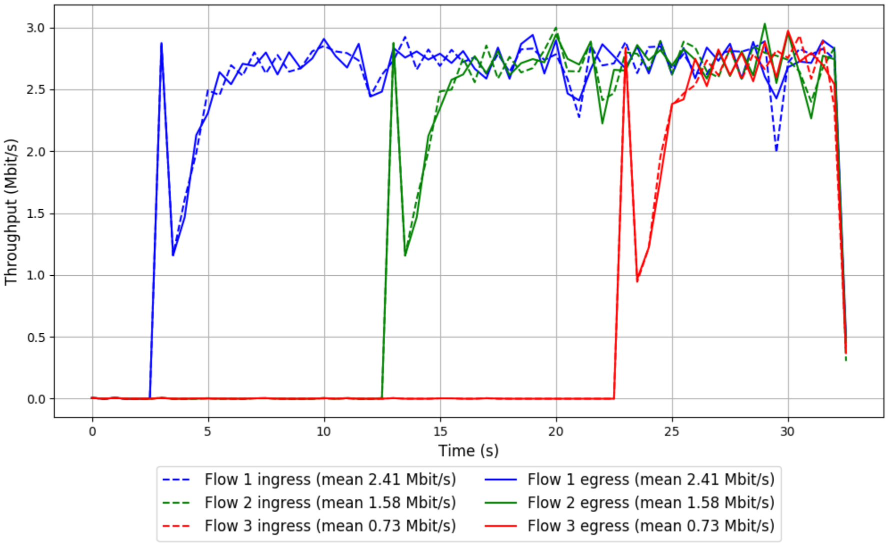


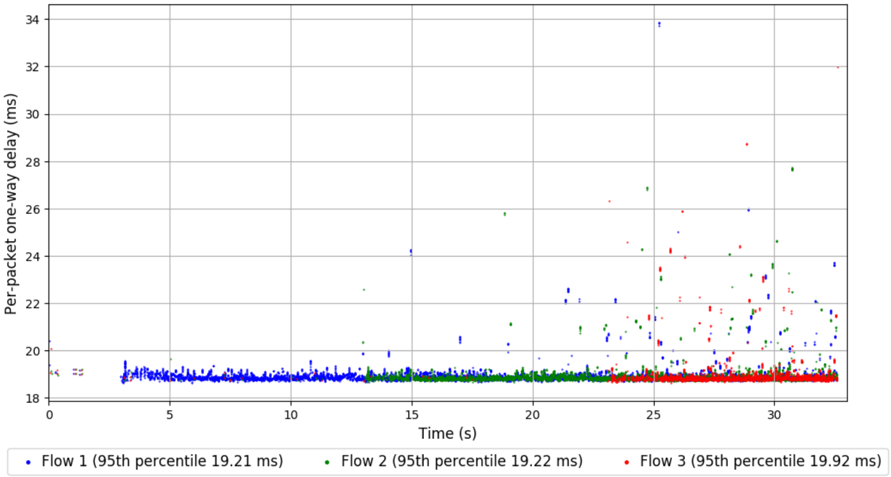
```
Run 1: Statistics of WebRTC media

Start at: 2018-02-16 15:07:49
End at: 2018-02-16 15:08:20
Local clock offset: 0.022 ms
Remote clock offset: -4.946 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.71 Mbit/s
95th percentile per-packet one-way delay: 19.250 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 19.215 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 19.218 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 19.918 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



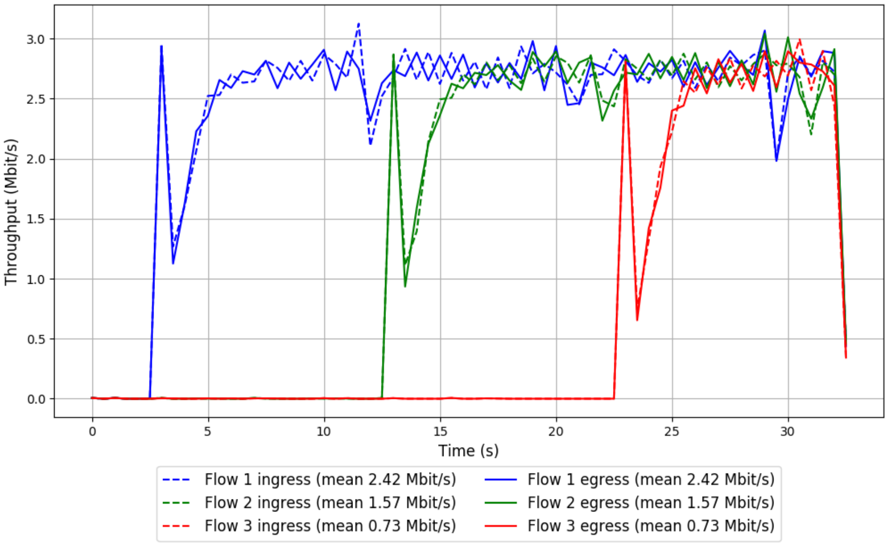


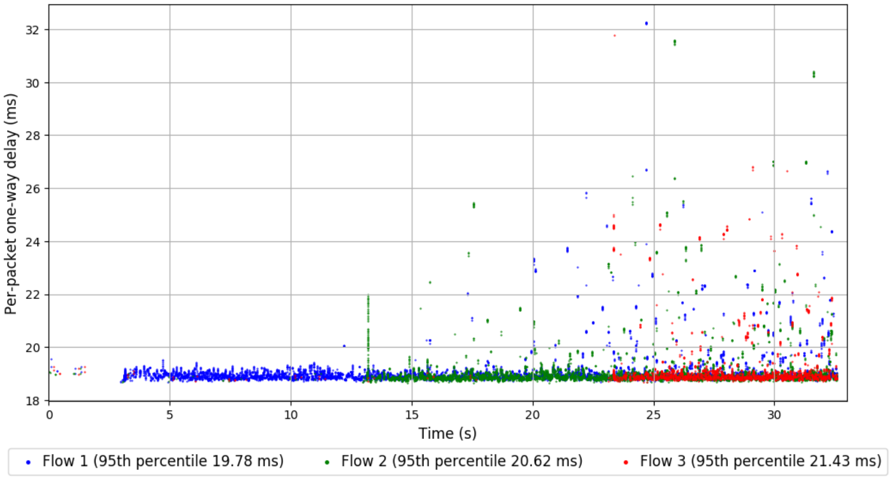
```
Run 2: Statistics of WebRTC media

Start at: 2018-02-16 15:35:06
End at: 2018-02-16 15:35:36
Local clock offset: -0.17 ms
Remote clock offset: -4.875 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 20.448 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 19.778 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 20.619 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 21.432 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



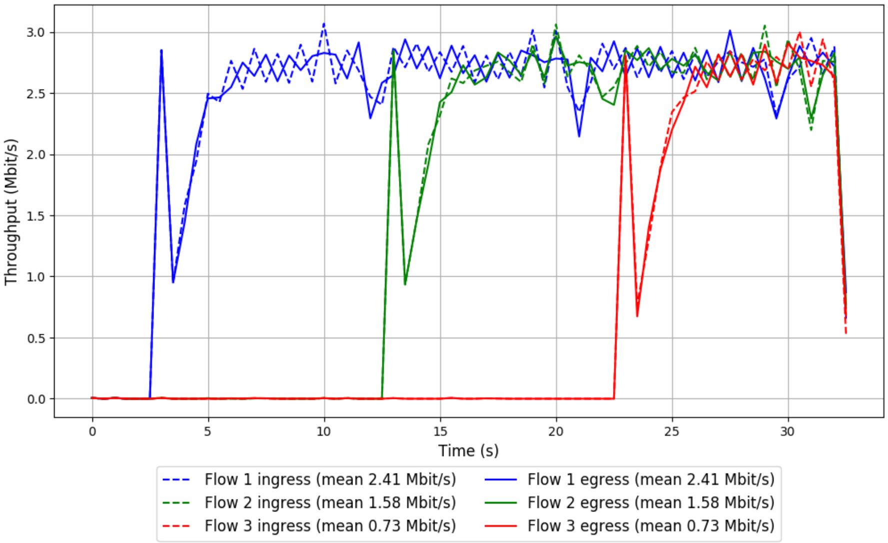


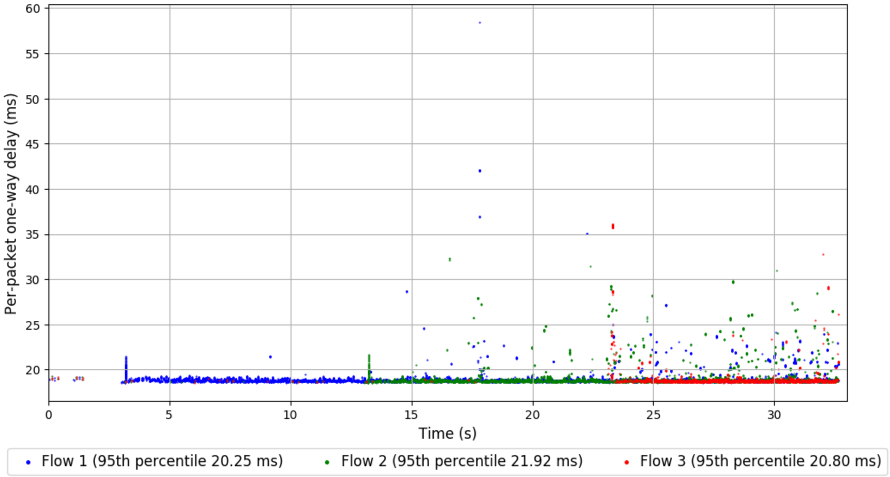
```
Run 3: Statistics of WebRTC media

Start at: 2018-02-16 16:02:15
End at: 2018-02-16 16:02:45
Local clock offset: 0.04 ms
Remote clock offset: -5.429 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.70 Mbit/s
95th percentile per-packet one-way delay: 20.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 20.247 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 21.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 20.798 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link



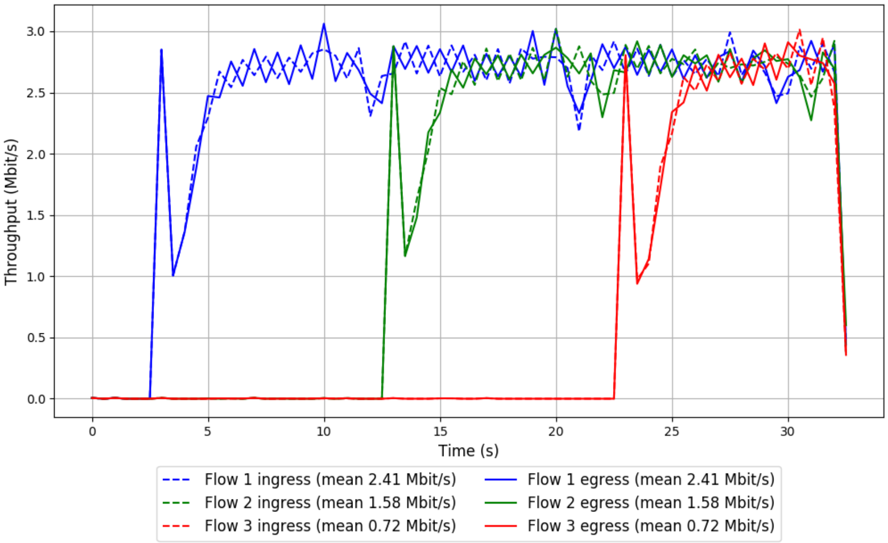


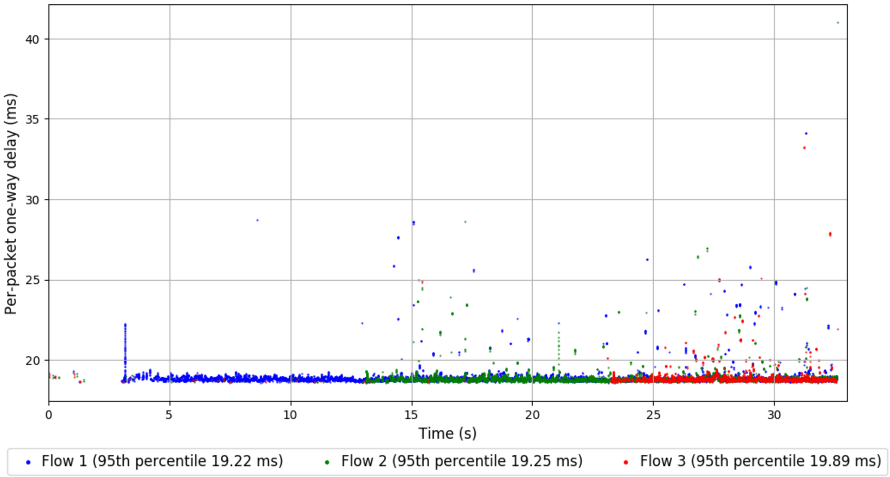
```
Run 4: Statistics of WebRTC media

Start at: 2018-02-16 16:29:36
End at: 2018-02-16 16:30:06
Local clock offset: 0.139 ms
Remote clock offset: -6.484 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.70 Mbit/s
95th percentile per-packet one-way delay: 19.283 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 19.221 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 19.249 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 19.885 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



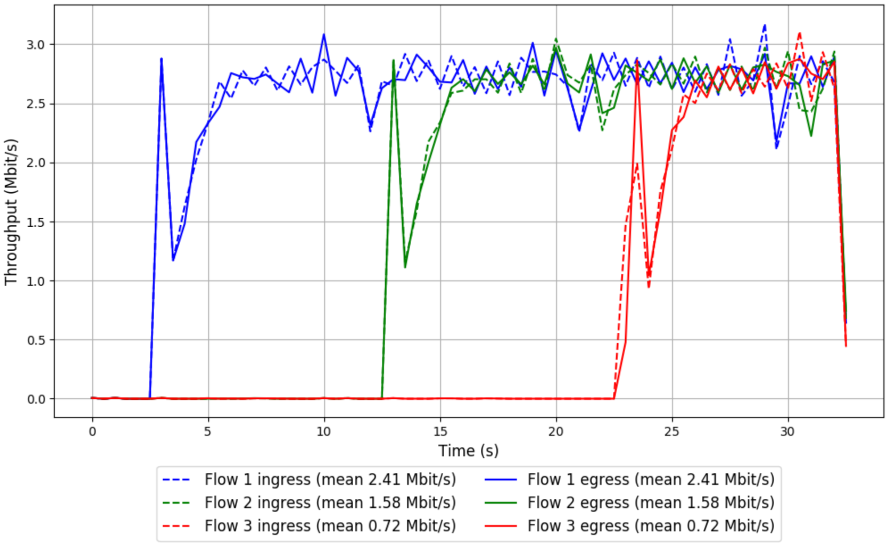


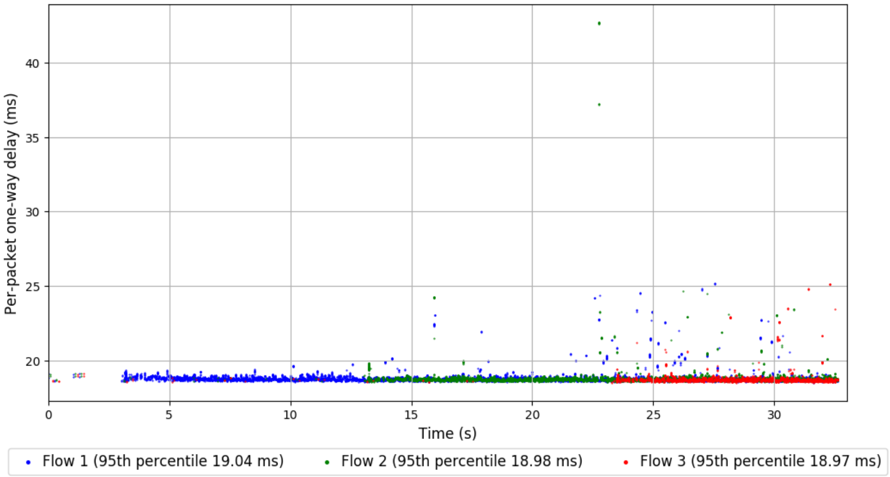
```
Run 5: Statistics of WebRTC media

Start at: 2018-02-16 16:56:46
End at: 2018-02-16 16:57:16
Local clock offset: 0.127 ms
Remote clock offset: -5.327 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.71 Mbit/s
95th percentile per-packet one-way delay: 19.011 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 19.041 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 18.982 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 18.968 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



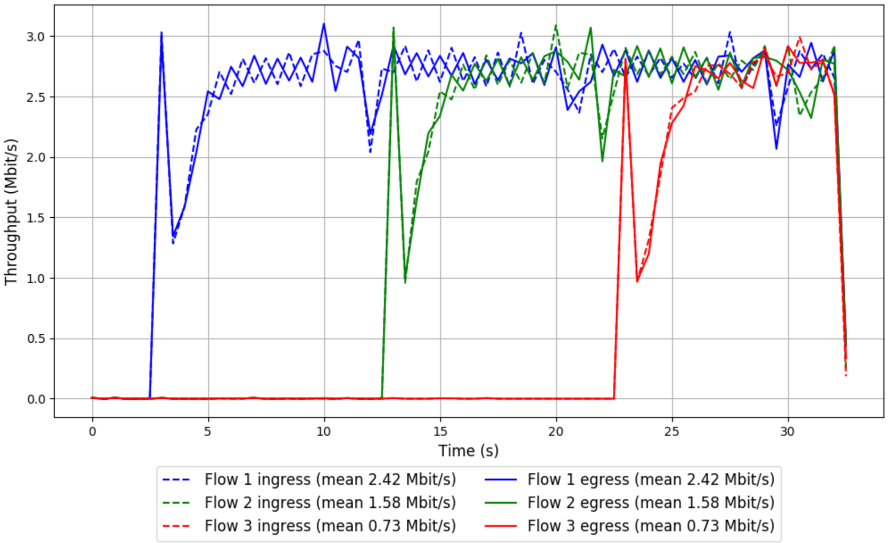


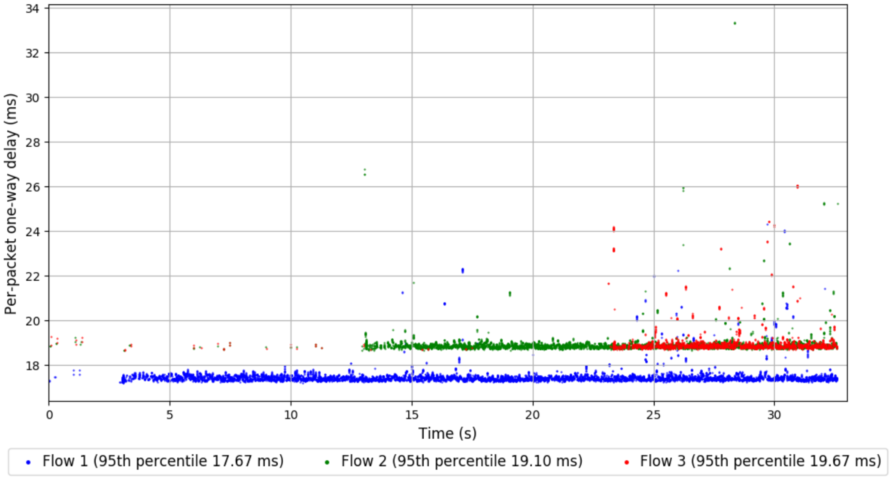
```
Run 6: Statistics of WebRTC media

Start at: 2018-02-16 17:24:22
End at: 2018-02-16 17:24:52
Local clock offset: 0.087 ms
Remote clock offset: -5.341 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 19.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 17.668 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 19.098 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 19.669 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link



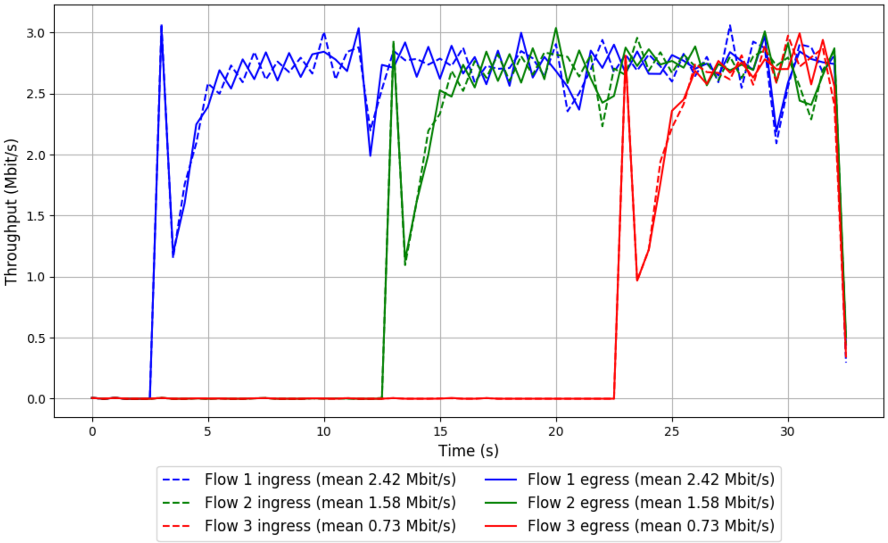


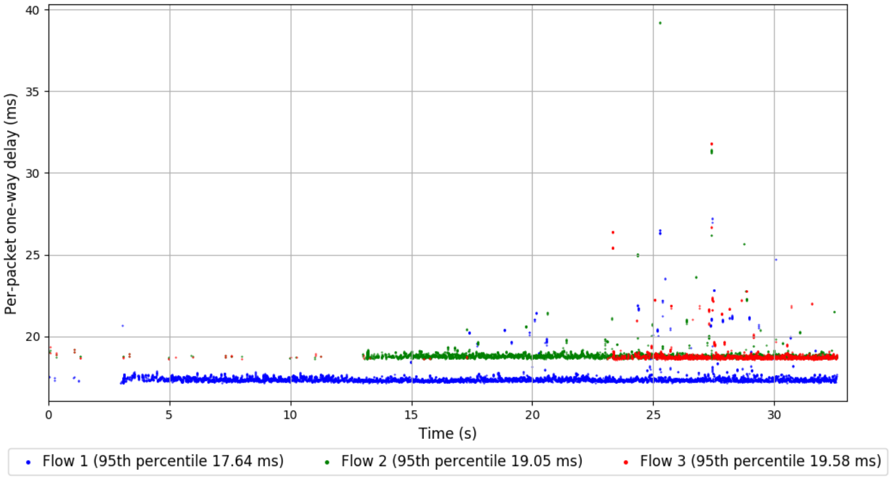
```
Run 7: Statistics of WebRTC media

Start at: 2018-02-16 17:51:38
End at: 2018-02-16 17:52:08
Local clock offset: 0.304 ms
Remote clock offset: -5.885 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 18.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 17.642 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 19.053 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 19.581 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link



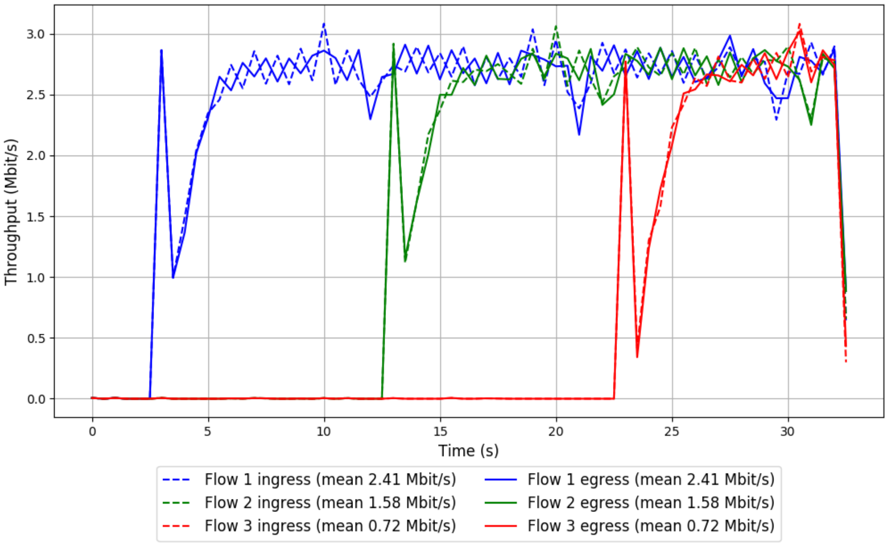


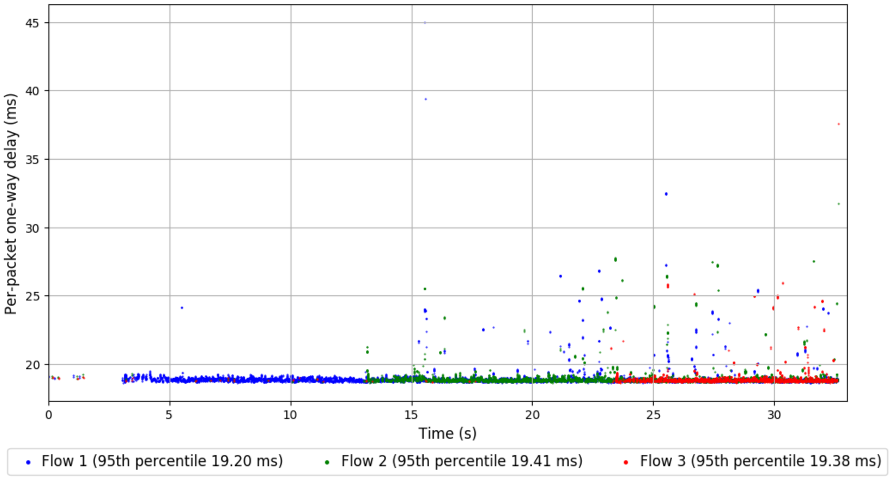
```
Run 8: Statistics of WebRTC media

Start at: 2018-02-16 18:19:30
End at: 2018-02-16 18:20:00
Local clock offset: 0.024 ms
Remote clock offset: -5.94 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.70 Mbit/s
95th percentile per-packet one-way delay: 19.279 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 19.198 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 19.406 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 19.383 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link



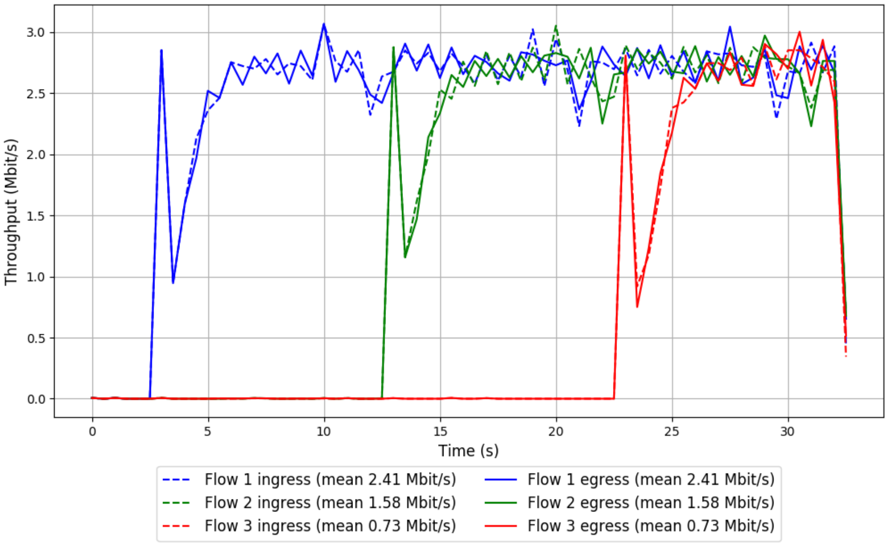


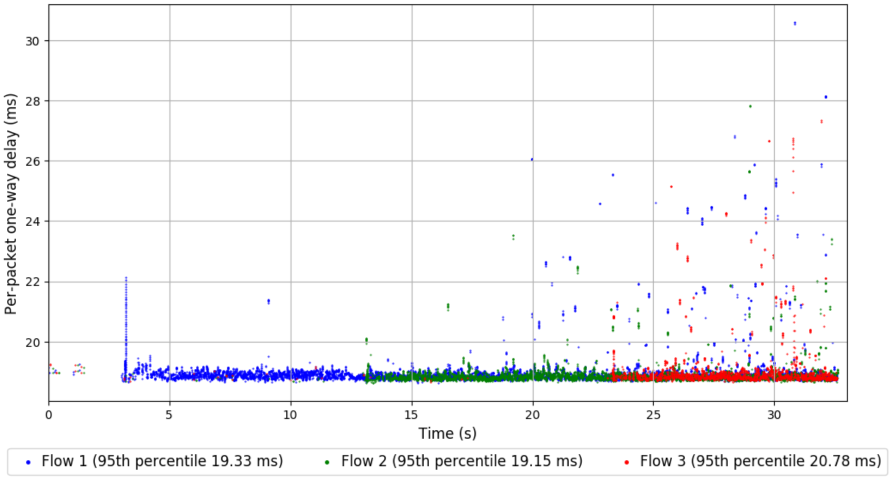
```
Run 9: Statistics of WebRTC media

Start at: 2018-02-16 18:46:46
End at: 2018-02-16 18:47:16
Local clock offset: 0.187 ms
Remote clock offset: -4.495 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.71 Mbit/s
95th percentile per-packet one-way delay: 19.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 19.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 19.149 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 20.784 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link



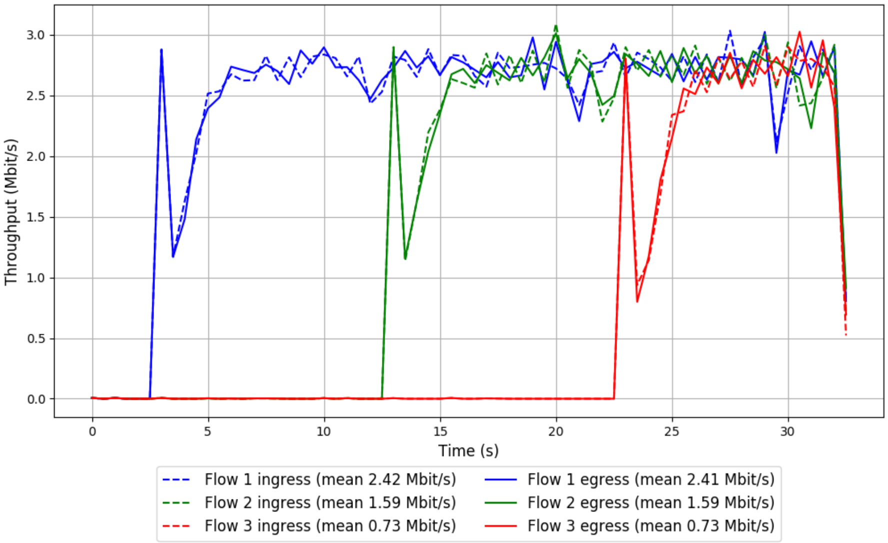


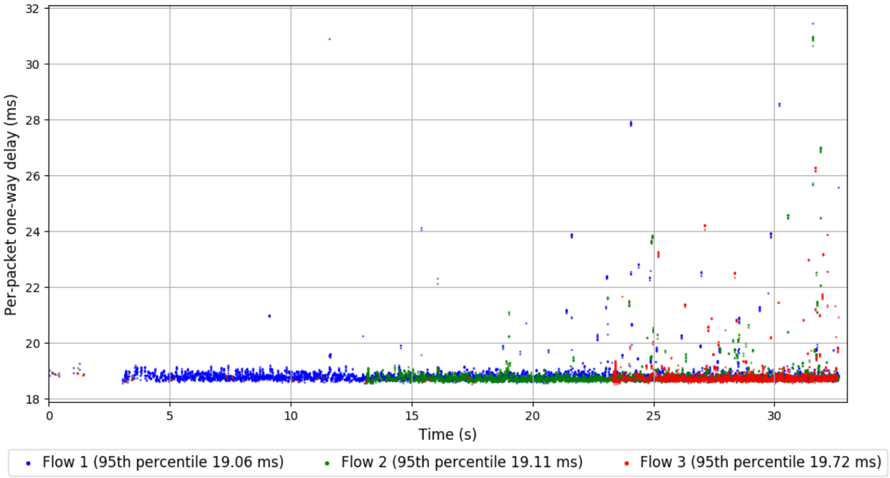
```
Run 10: Statistics of WebRTC media

Start at: 2018-02-16 19:14:13
End at: 2018-02-16 19:14:43
Local clock offset: 0.765 ms
Remote clock offset: -5.704 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 19.106 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 19.057 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 19.112 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 19.719 ms
Loss rate: 0.04%
```

Run 10: Report of WebRTC media — Data Link



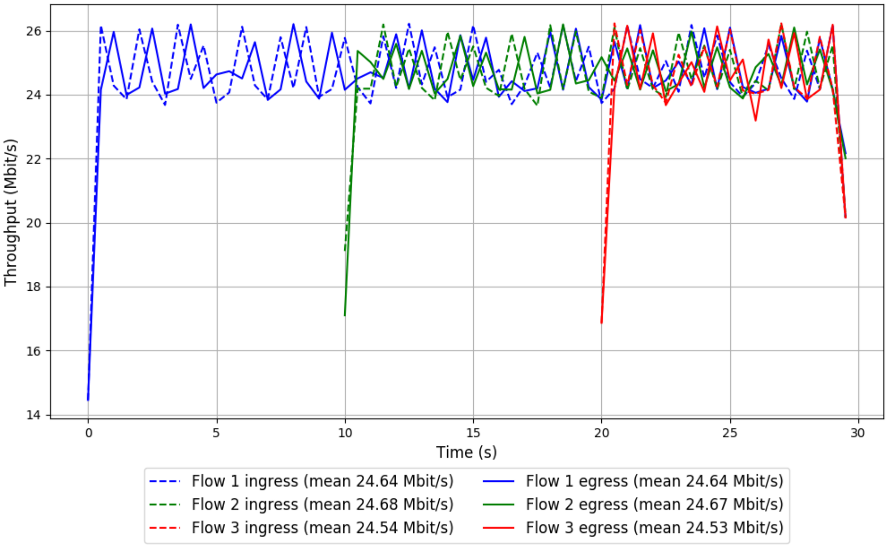


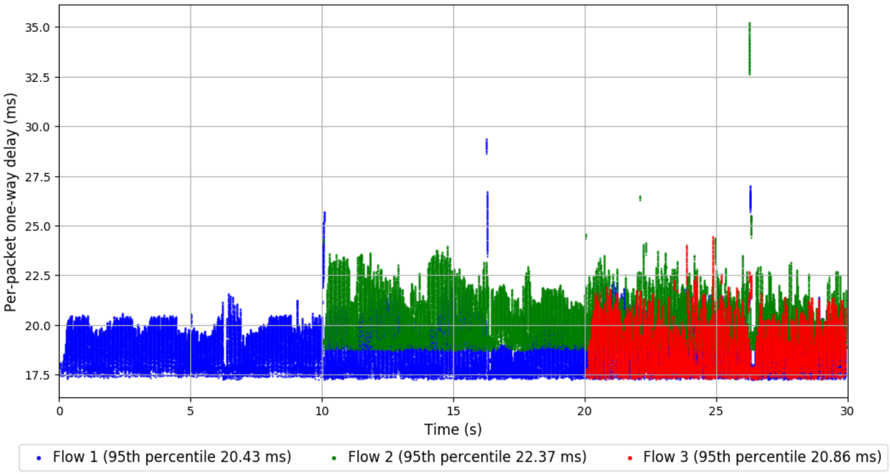
```
Run 1: Statistics of Sprout

Start at: 2018-02-16 15:29:19
End at: 2018-02-16 15:29:49
Local clock offset: -0.057 ms
Remote clock offset: -4.852 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.13 Mbit/s
95th percentile per-packet one-way delay: 21.649 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.64 Mbit/s
95th percentile per-packet one-way delay: 20.428 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 22.372 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 20.864 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



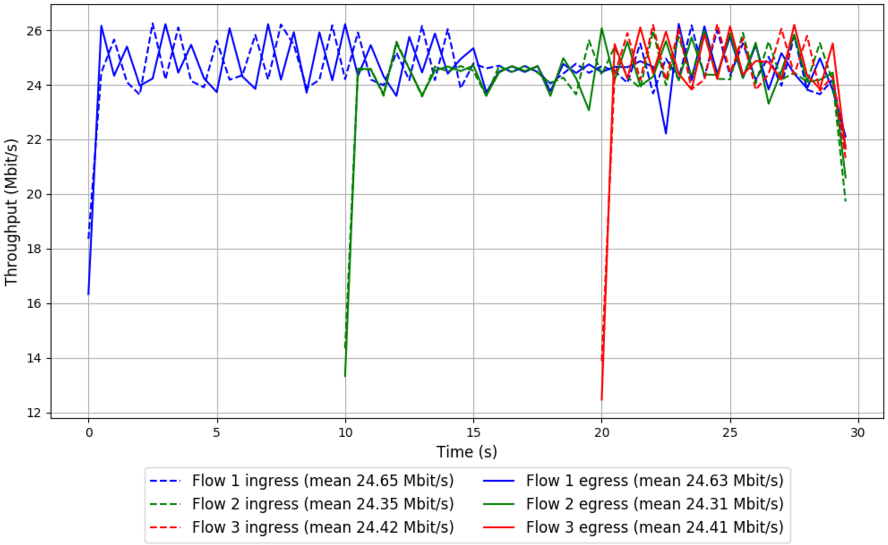


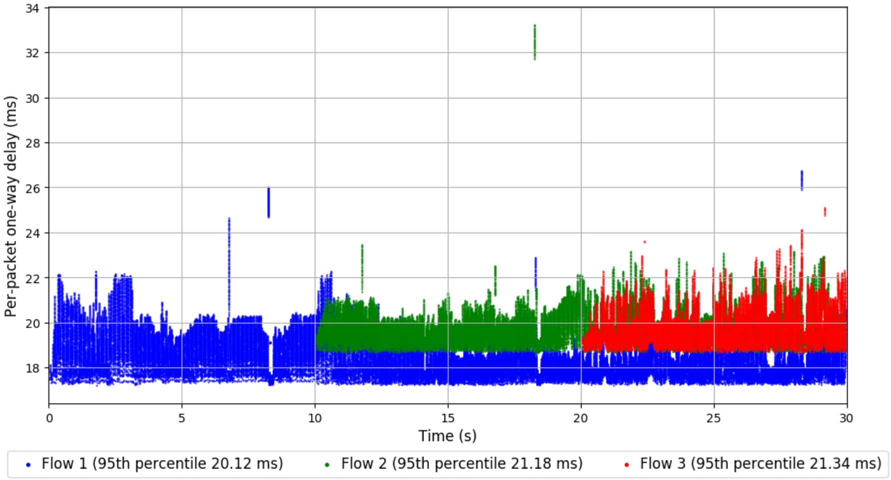
```
Run 2: Statistics of Sprout

Start at: 2018-02-16 15:56:27
End at: 2018-02-16 15:56:57
Local clock offset: -0.014 ms
Remote clock offset: -5.382 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.86 Mbit/s
95th percentile per-packet one-way delay: 20.947 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 20.116 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 24.31 Mbit/s
95th percentile per-packet one-way delay: 21.181 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 24.41 Mbit/s
95th percentile per-packet one-way delay: 21.337 ms
Loss rate: 0.01%
```

Run 2: Report of Sprout — Data Link



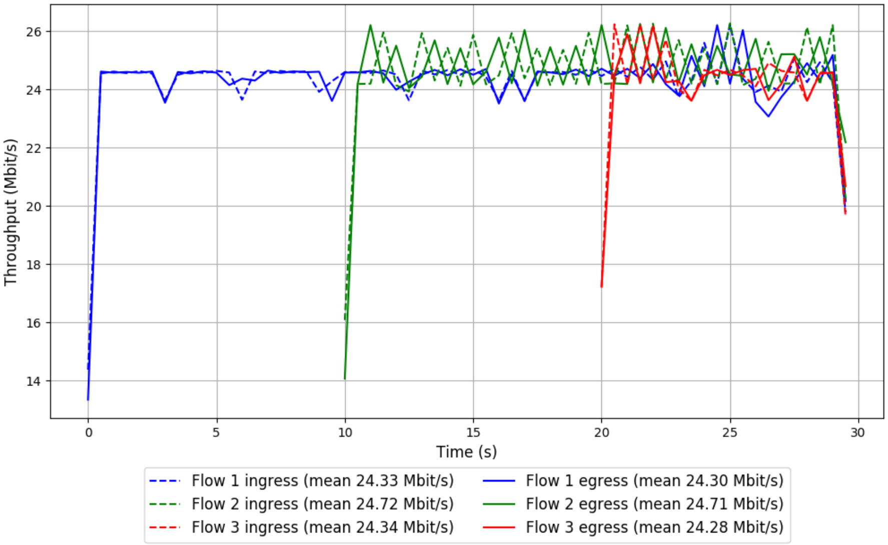


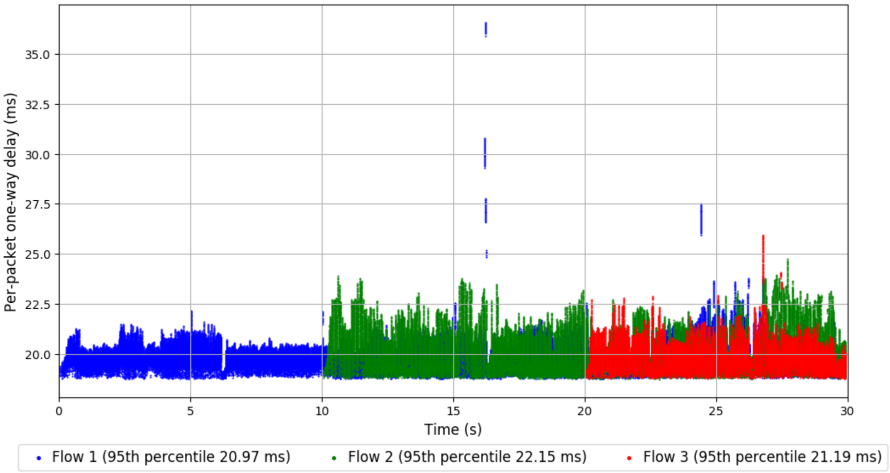
```
Run 3: Statistics of Sprout

Start at: 2018-02-16 16:23:48
End at: 2018-02-16 16:24:18
Local clock offset: 0.109 ms
Remote clock offset: -6.242 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 21.566 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 24.30 Mbit/s
95th percentile per-packet one-way delay: 20.968 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 24.71 Mbit/s
95th percentile per-packet one-way delay: 22.150 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.28 Mbit/s
95th percentile per-packet one-way delay: 21.188 ms
Loss rate: 0.20%
```

Run 3: Report of Sprout — Data Link



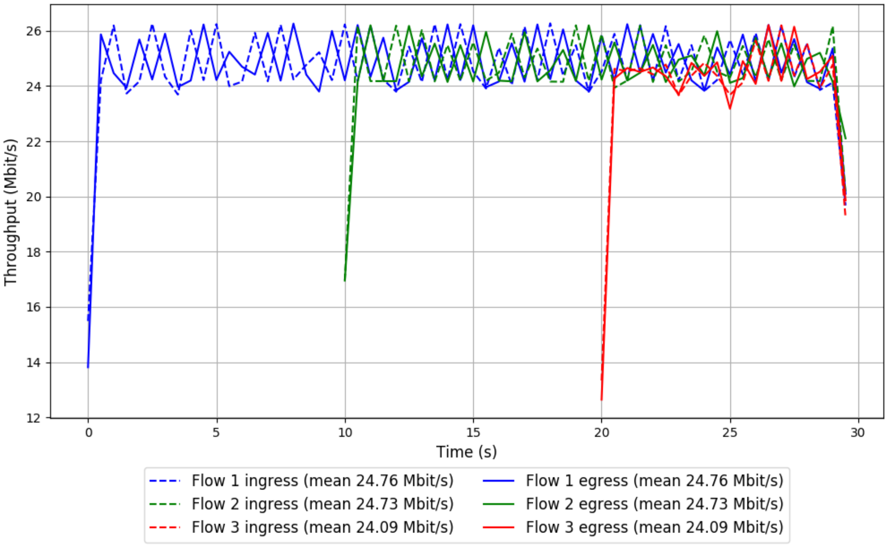


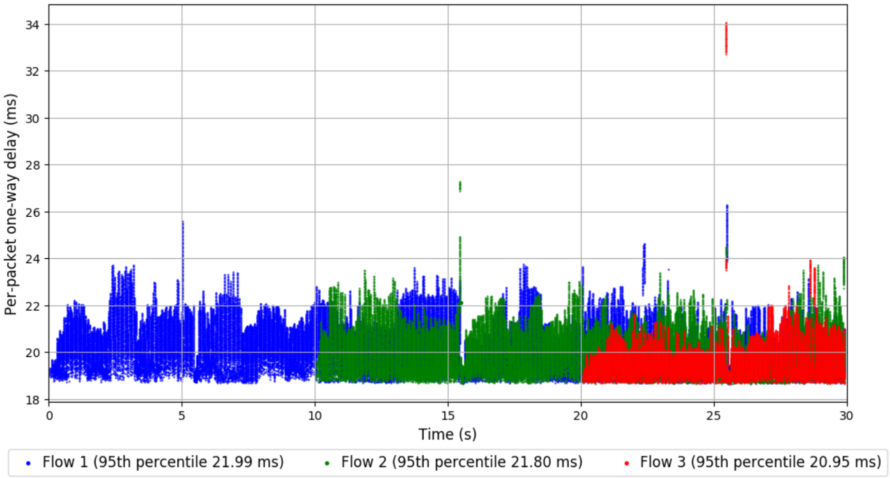
```
Run 4: Statistics of Sprout

Start at: 2018-02-16 16:50:59
End at: 2018-02-16 16:51:29
Local clock offset: 0.068 ms
Remote clock offset: -5.714 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.14 Mbit/s
95th percentile per-packet one-way delay: 21.847 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 21.991 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.73 Mbit/s
95th percentile per-packet one-way delay: 21.796 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.09 Mbit/s
95th percentile per-packet one-way delay: 20.946 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link



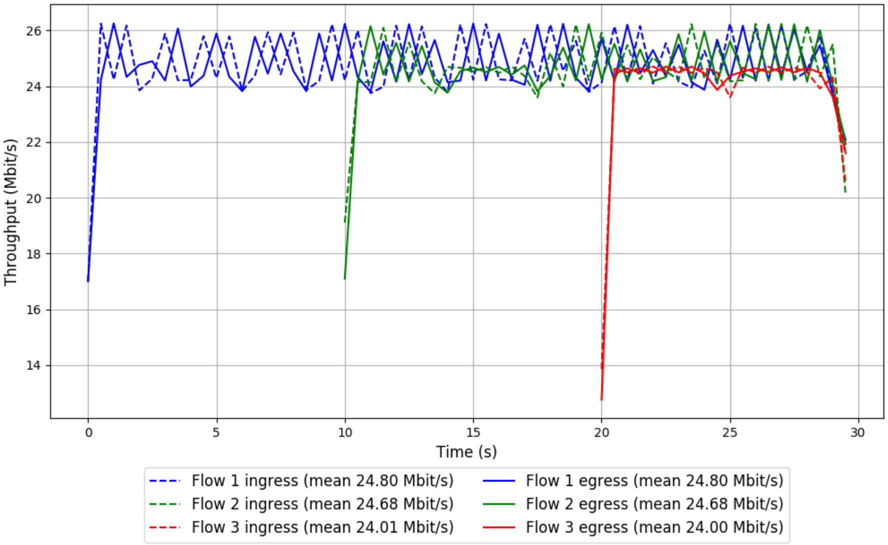


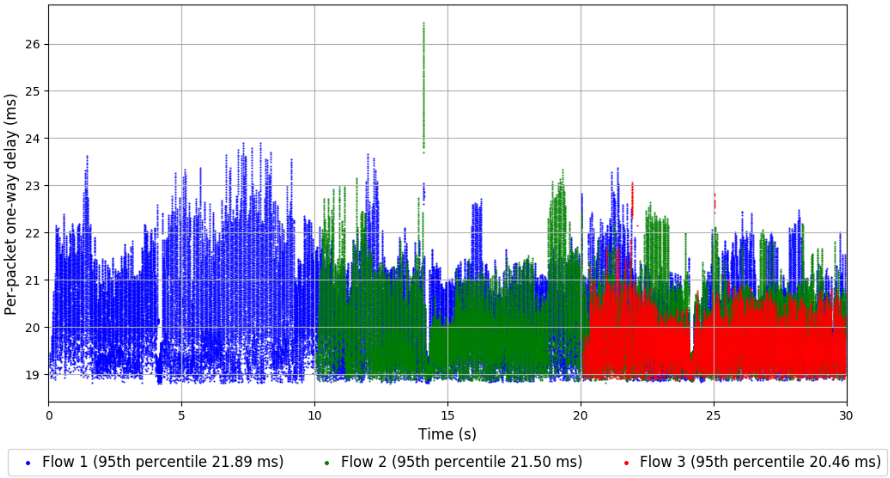
```
Run 5: Statistics of Sprout

Start at: 2018-02-16 17:18:29
End at: 2018-02-16 17:18:59
Local clock offset: 0.036 ms
Remote clock offset: -4.671 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.14 Mbit/s
95th percentile per-packet one-way delay: 21.676 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 21.890 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 21.502 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.00 Mbit/s
95th percentile per-packet one-way delay: 20.459 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



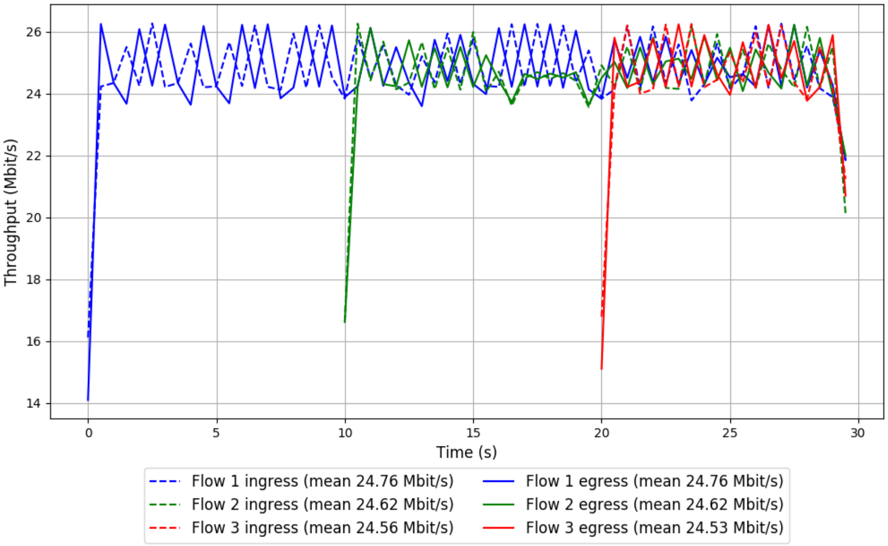


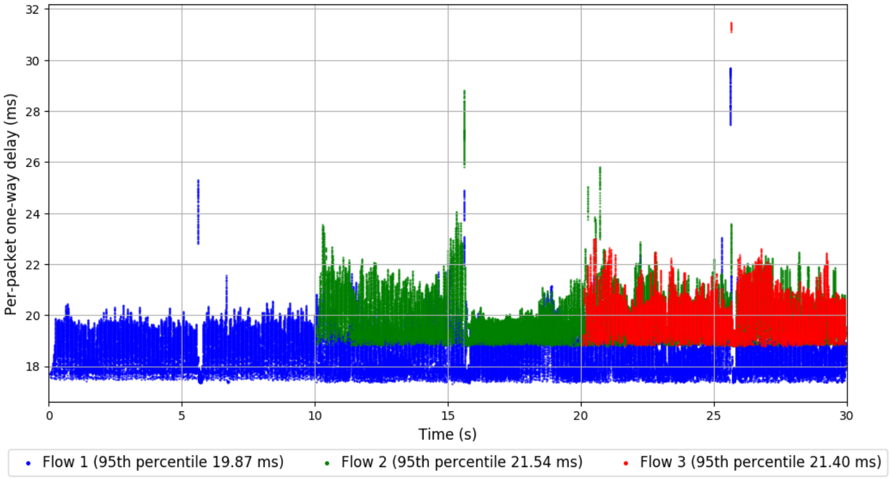
```
Run 6: Statistics of Sprout

Start at: 2018-02-16 17:45:47
End at: 2018-02-16 17:46:17
Local clock offset: 0.209 ms
Remote clock offset: -5.794 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.23 Mbit/s
95th percentile per-packet one-way delay: 21.117 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 19.867 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 21.542 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 21.398 ms
Loss rate: 0.11%
```

Run 6: Report of Sprout — Data Link



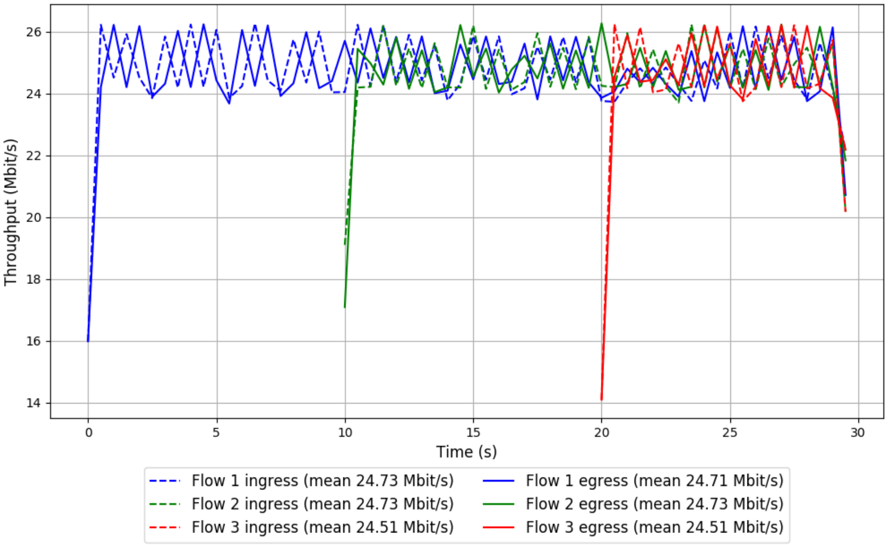


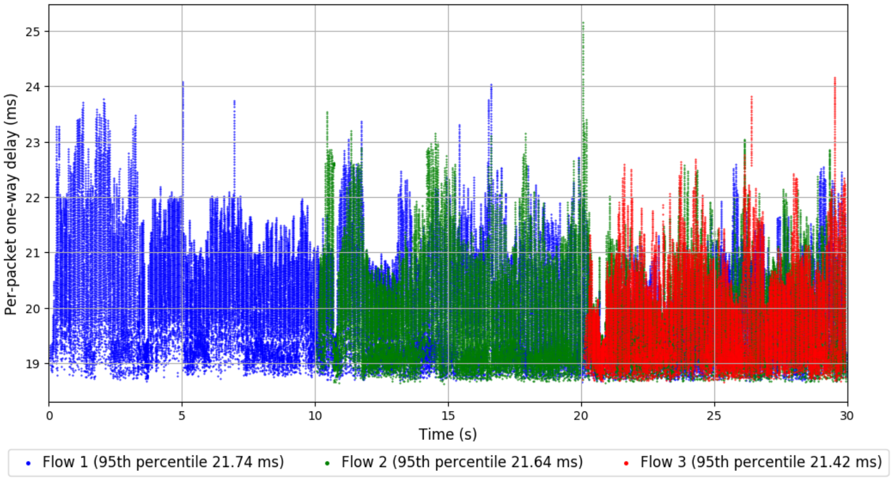
```
Run 7: Statistics of Sprout

Start at: 2018-02-16 18:13:42
End at: 2018-02-16 18:14:12
Local clock offset: 0.224 ms
Remote clock offset: -5.86 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.25 Mbit/s
95th percentile per-packet one-way delay: 21.665 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 24.71 Mbit/s
95th percentile per-packet one-way delay: 21.744 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 24.73 Mbit/s
95th percentile per-packet one-way delay: 21.640 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 21.417 ms
Loss rate: 0.00%
```

Run 7: Report of Sprout — Data Link



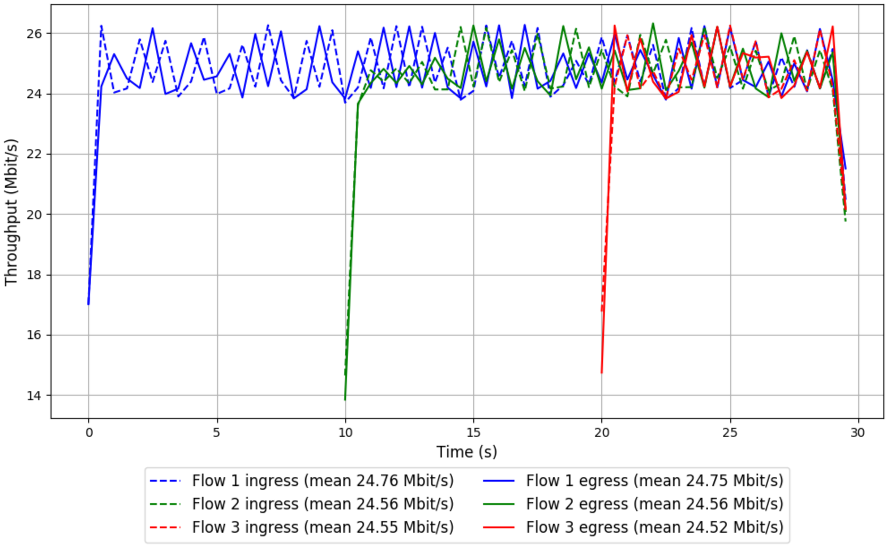


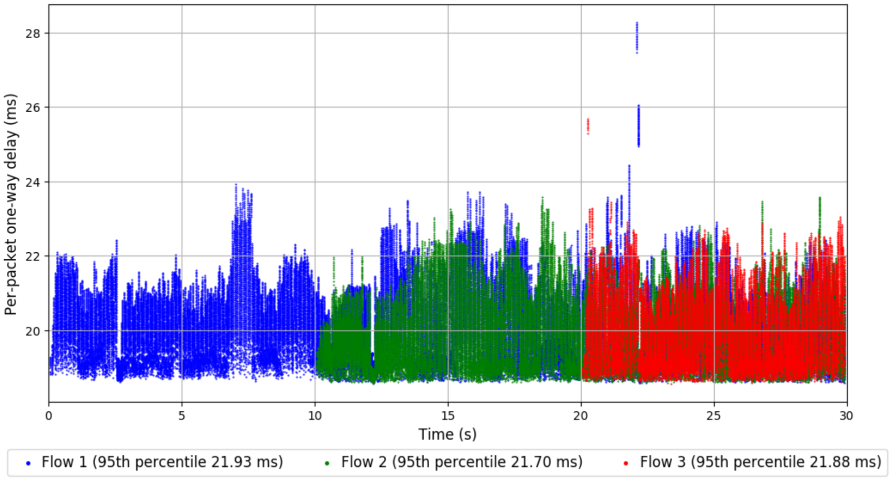
```
Run 8: Statistics of Sprout

Start at: 2018-02-16 18:41:00
End at: 2018-02-16 18:41:30
Local clock offset: -0.019 ms
Remote clock offset: -4.746 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.16 Mbit/s
95th percentile per-packet one-way delay: 21.848 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 21.929 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 24.56 Mbit/s
95th percentile per-packet one-way delay: 21.698 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 21.881 ms
Loss rate: 0.07%
```

Run 8: Report of Sprout — Data Link



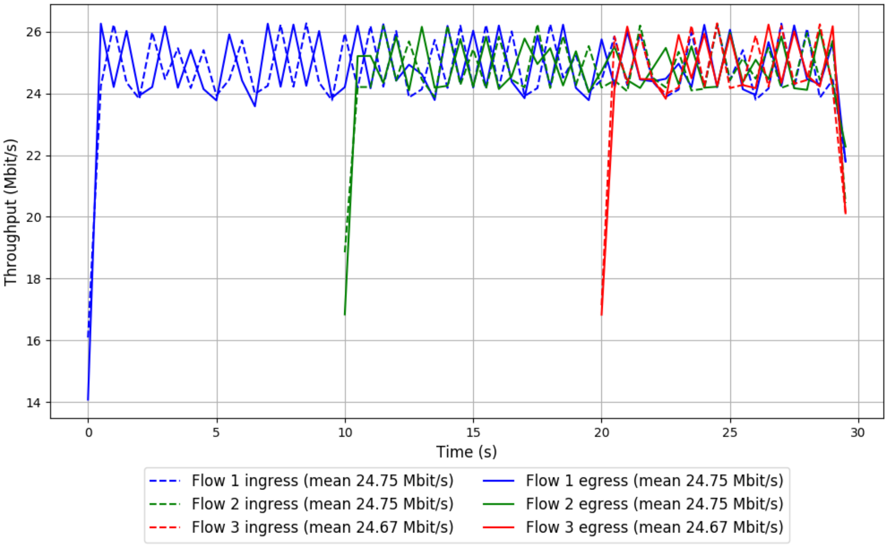


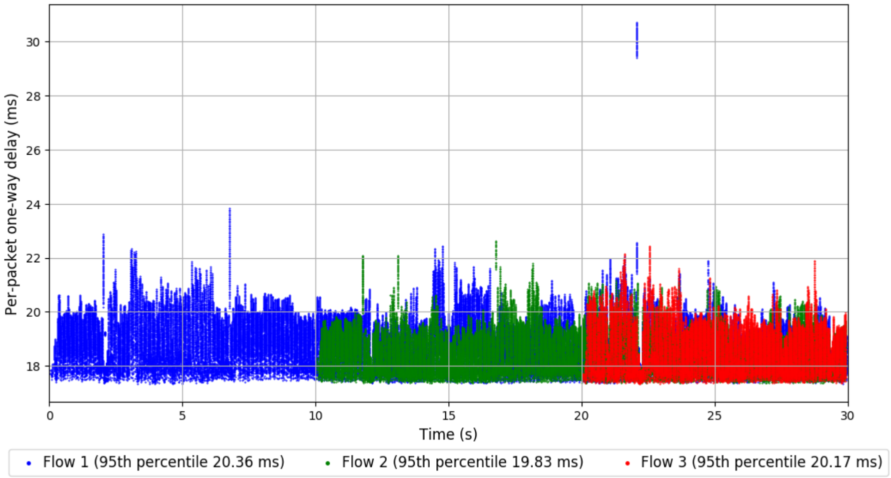
```
Run 9: Statistics of Sprout

Start at: 2018-02-16 19:08:20
End at: 2018-02-16 19:08:50
Local clock offset: 0.568 ms
Remote clock offset: -5.356 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 20.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 20.355 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 19.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 20.174 ms
Loss rate: 0.00%
```

Run 9: Report of Sprout — Data Link



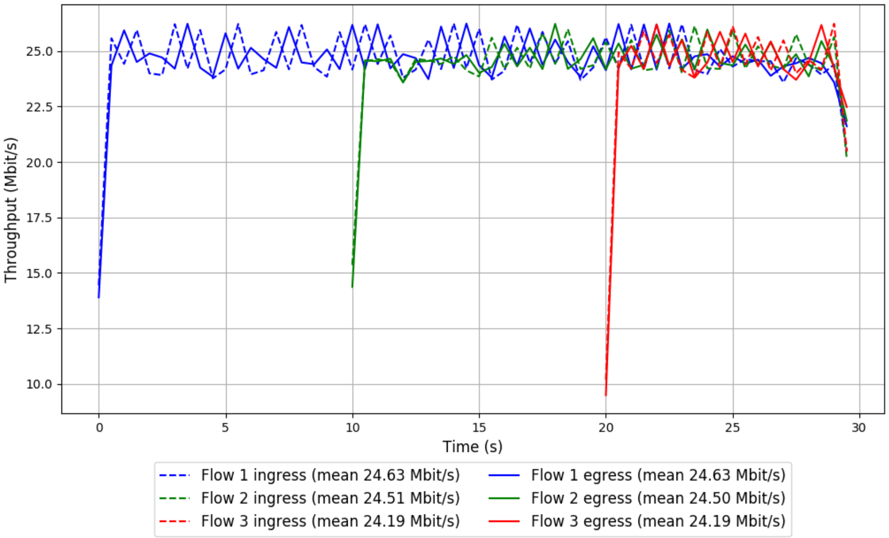


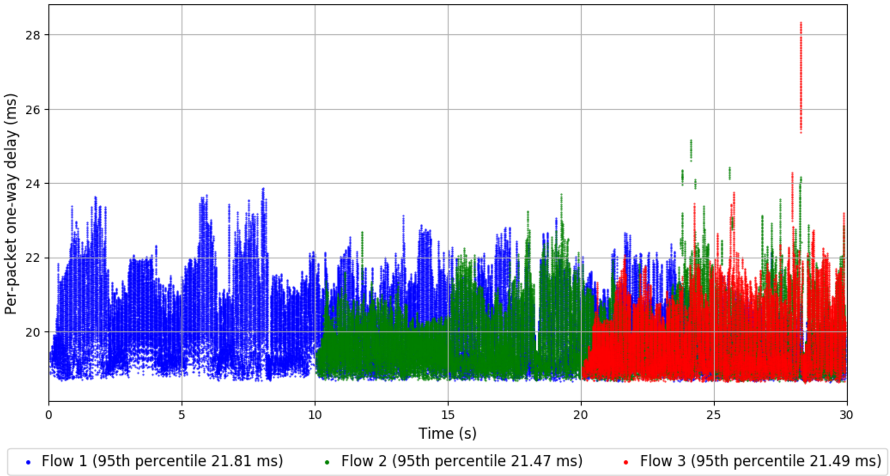
```
Run 10: Statistics of Sprout

Start at: 2018-02-16 19:35:53
End at: 2018-02-16 19:36:23
Local clock offset: 0.898 ms
Remote clock offset: -5.984 ms

# Below is generated by plot.py at 2018-02-16 23:11:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.92 Mbit/s
95th percentile per-packet one-way delay: 21.668 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 21.814 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 21.468 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 21.493 ms
Loss rate: 0.00%
```

Run 10: Report of Sprout — Data Link



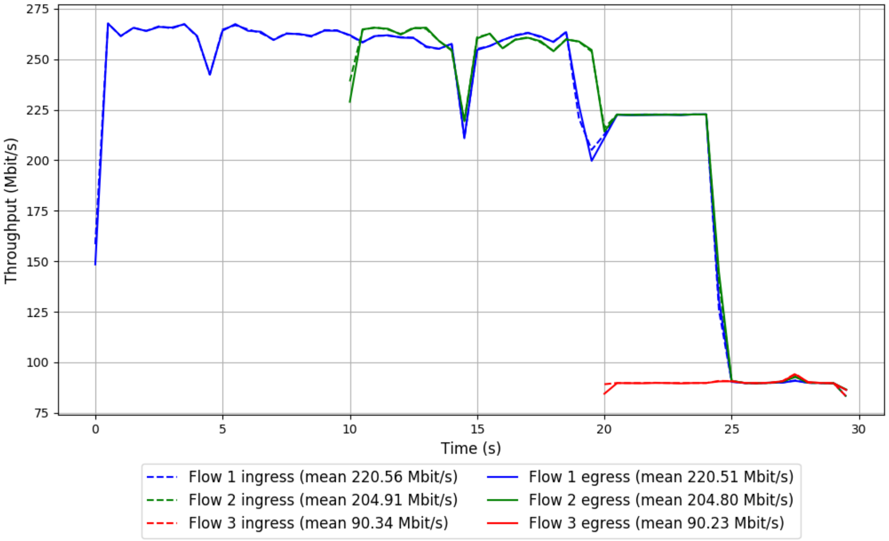


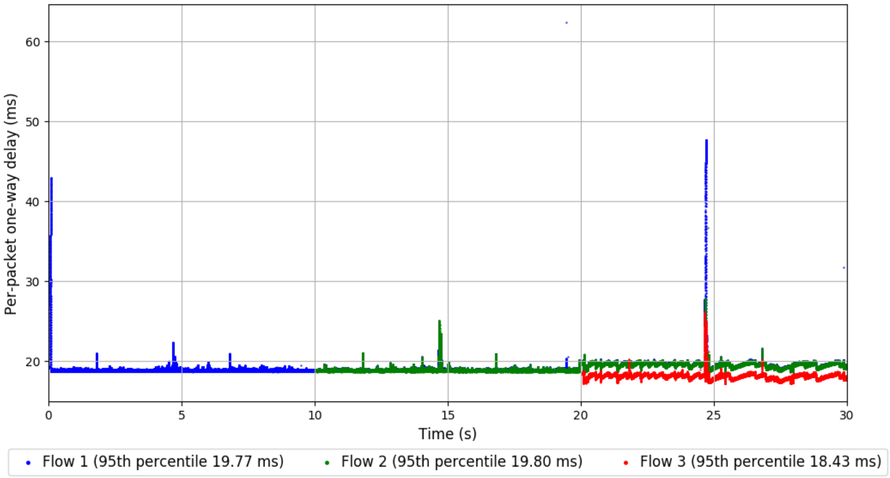
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-16 15:06:11
End at: 2018-02-16 15:06:41
Local clock offset: 0.014 ms
Remote clock offset: -5.001 ms

# Below is generated by plot.py at 2018-02-16 23:14:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.84 Mbit/s
95th percentile per-packet one-way delay: 19.776 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 220.51 Mbit/s
95th percentile per-packet one-way delay: 19.773 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 204.80 Mbit/s
95th percentile per-packet one-way delay: 19.799 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 90.23 Mbit/s
95th percentile per-packet one-way delay: 18.425 ms
Loss rate: 0.13%
```

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



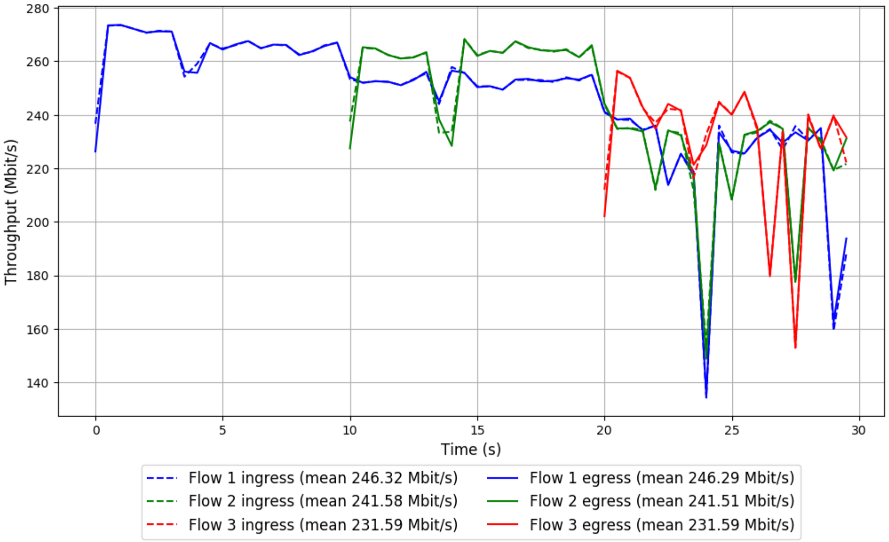


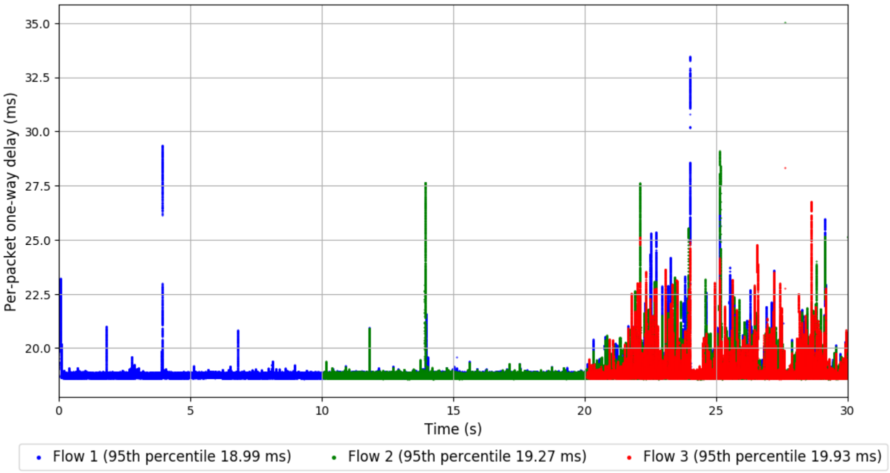
```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-16 15:33:21
End at: 2018-02-16 15:33:51
Local clock offset: -0.074 ms
Remote clock offset: -4.878 ms

# Below is generated by plot.py at 2018-02-16 23:17:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.85 Mbit/s
95th percentile per-packet one-way delay: 19.241 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 246.29 Mbit/s
95th percentile per-packet one-way delay: 18.991 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 241.51 Mbit/s
95th percentile per-packet one-way delay: 19.271 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 231.59 Mbit/s
95th percentile per-packet one-way delay: 19.931 ms
Loss rate: 0.00%
```

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



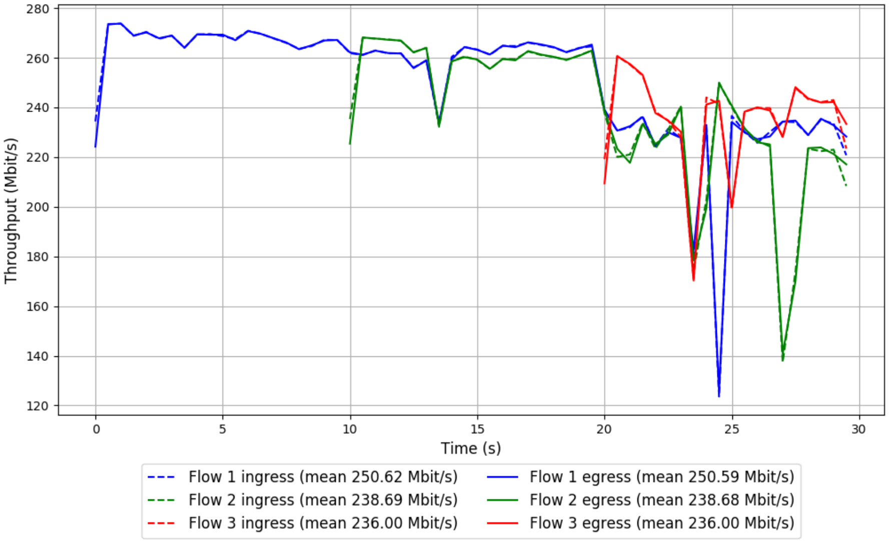


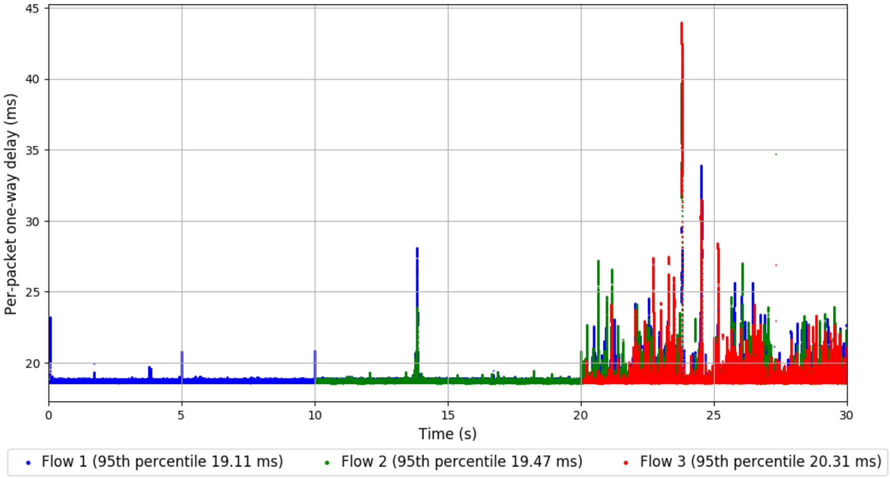
```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-16 16:00:31
End at: 2018-02-16 16:01:01
Local clock offset: 0.061 ms
Remote clock offset: -5.413 ms

# Below is generated by plot.py at 2018-02-16 23:17:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.82 Mbit/s
95th percentile per-packet one-way delay: 19.444 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 250.59 Mbit/s
95th percentile per-packet one-way delay: 19.110 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 238.68 Mbit/s
95th percentile per-packet one-way delay: 19.472 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 236.00 Mbit/s
95th percentile per-packet one-way delay: 20.312 ms
Loss rate: 0.00%
```

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



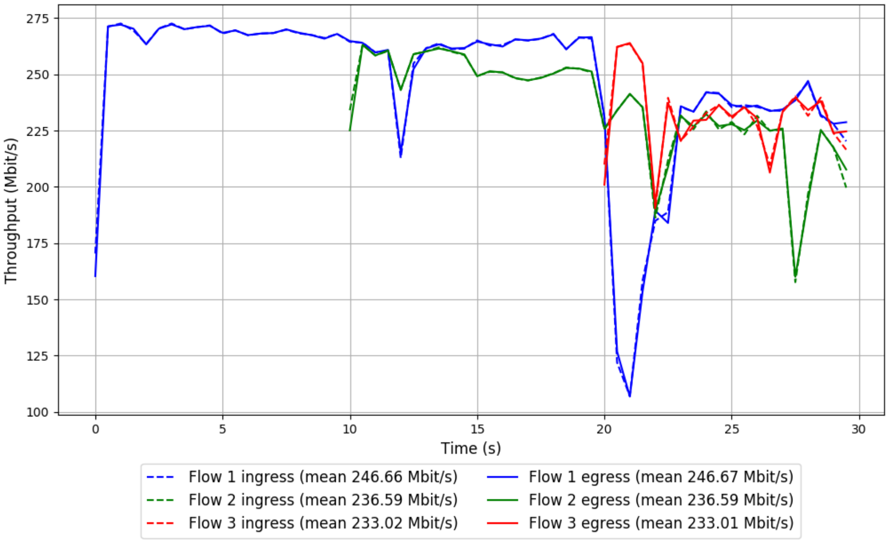


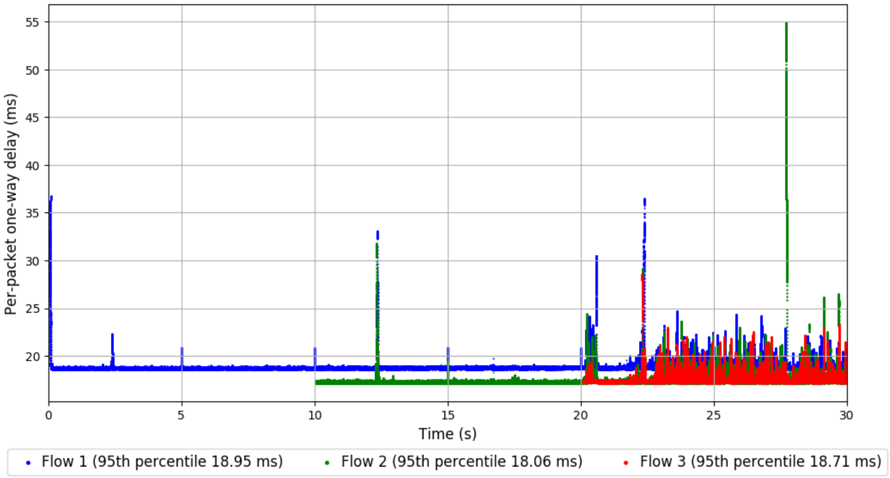
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-16 16:27:52
End at: 2018-02-16 16:28:22
Local clock offset: 0.126 ms
Remote clock offset: -6.466 ms

# Below is generated by plot.py at 2018-02-16 23:17:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 481.42 Mbit/s
95th percentile per-packet one-way delay: 18.877 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 246.67 Mbit/s
95th percentile per-packet one-way delay: 18.949 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 236.59 Mbit/s
95th percentile per-packet one-way delay: 18.063 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 233.01 Mbit/s
95th percentile per-packet one-way delay: 18.712 ms
Loss rate: 0.00%
```

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



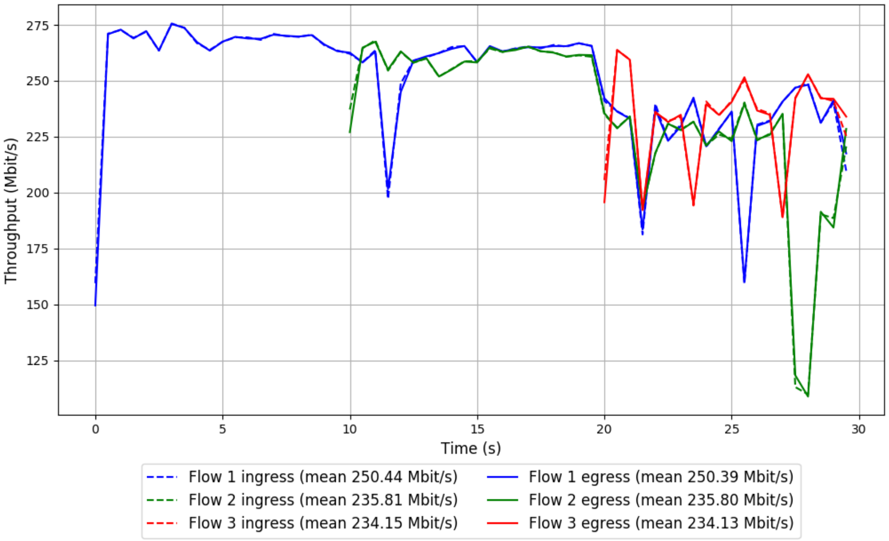


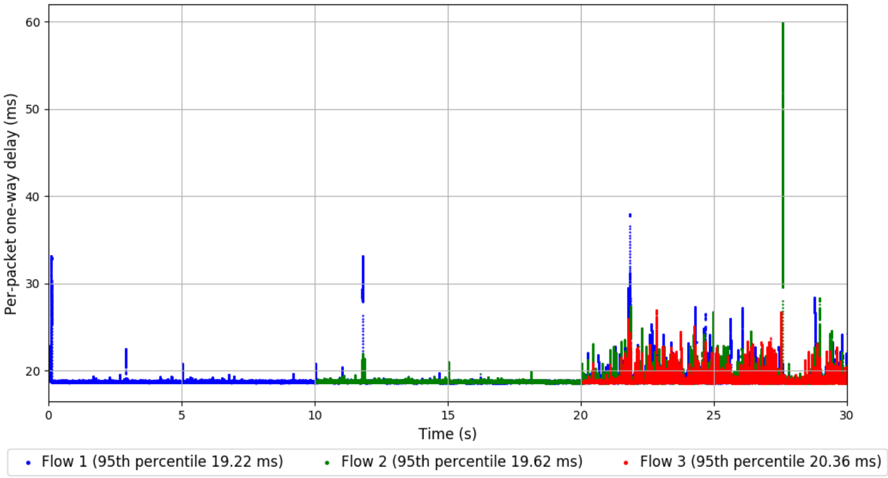
```
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-16 16:55:02
End at: 2018-02-16 16:55:32
Local clock offset: 0.146 ms
Remote clock offset: -5.423 ms

# Below is generated by plot.py at 2018-02-16 23:18:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.95 Mbit/s
95th percentile per-packet one-way delay: 19.606 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 250.39 Mbit/s
95th percentile per-packet one-way delay: 19.218 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 235.80 Mbit/s
95th percentile per-packet one-way delay: 19.623 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 234.13 Mbit/s
95th percentile per-packet one-way delay: 20.357 ms
Loss rate: 0.01%
```

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



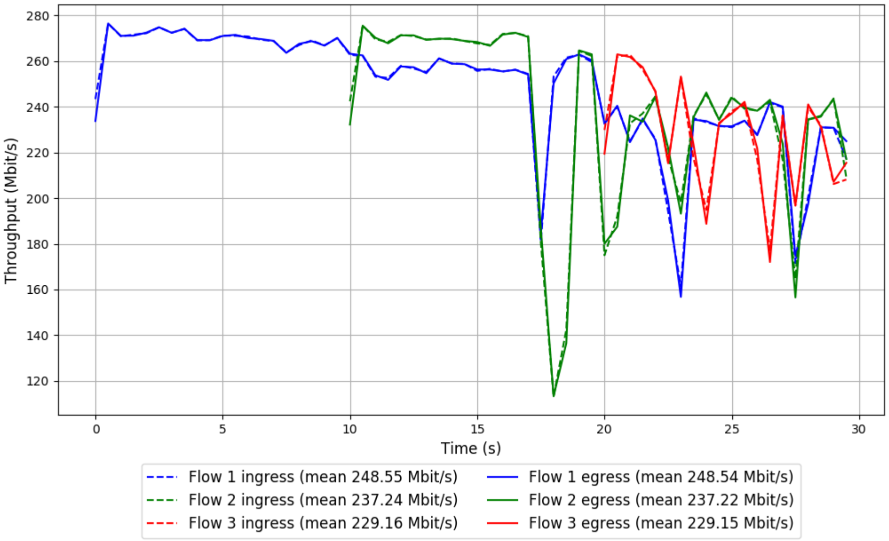


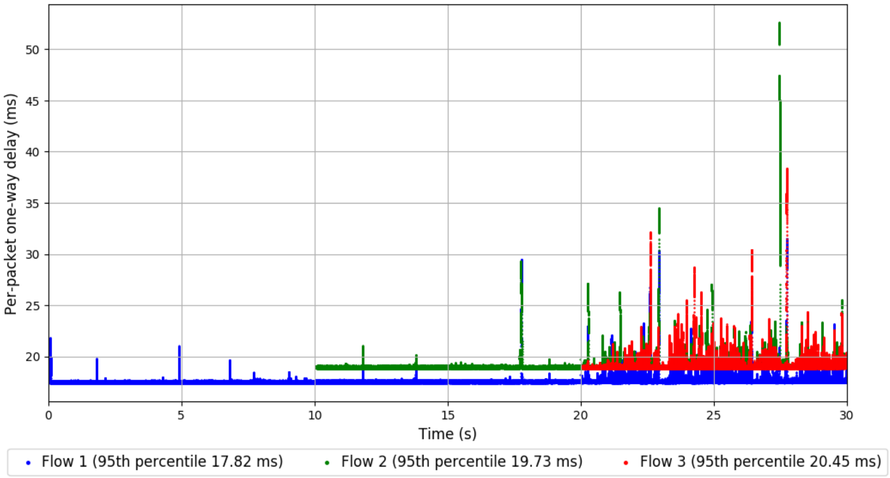
```
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-16 17:22:36
End at: 2018-02-16 17:23:06
Local clock offset: 0.024 ms
Remote clock offset: -5.151 ms

# Below is generated by plot.py at 2018-02-16 23:18:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 482.64 Mbit/s
95th percentile per-packet one-way delay: 19.385 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 248.54 Mbit/s
95th percentile per-packet one-way delay: 17.822 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 237.22 Mbit/s
95th percentile per-packet one-way delay: 19.735 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 229.15 Mbit/s
95th percentile per-packet one-way delay: 20.454 ms
Loss rate: 0.02%
```

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



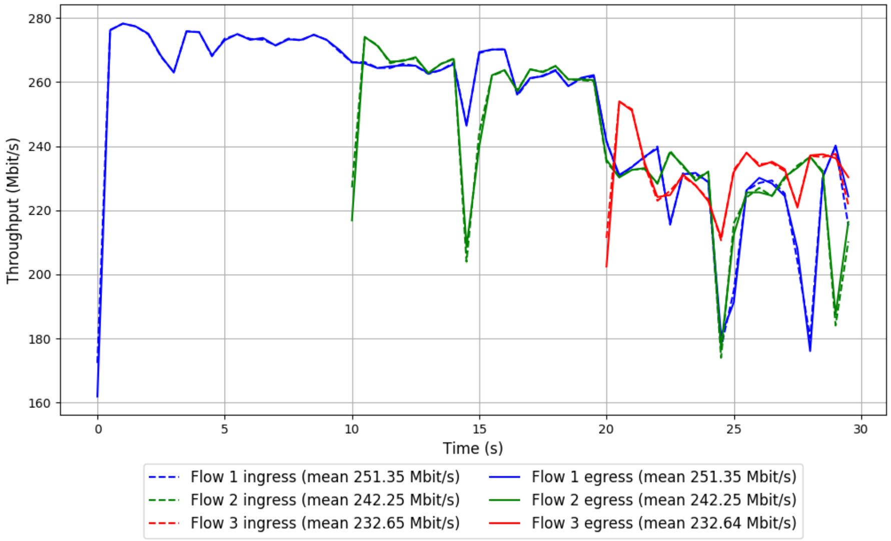


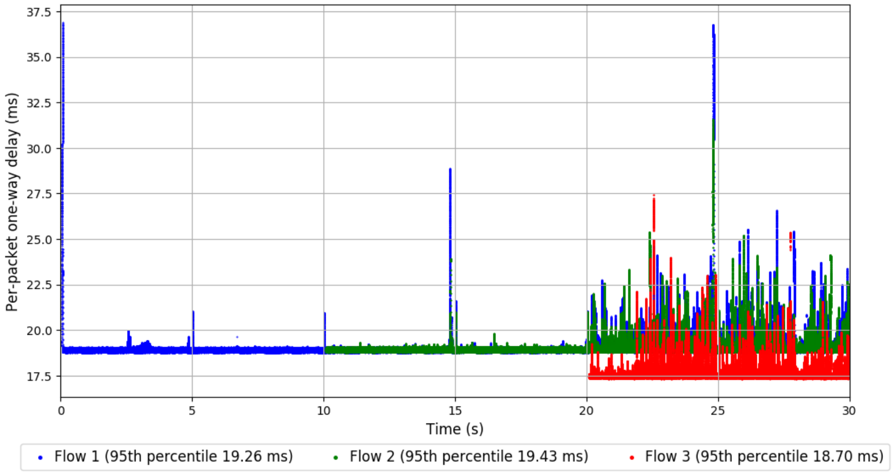
```
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-16 17:49:48
End at: 2018-02-16 17:50:18
Local clock offset: 0.225 ms
Remote clock offset: -5.8 ms

# Below is generated by plot.py at 2018-02-16 23:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.55 Mbit/s
95th percentile per-packet one-way delay: 19.279 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.35 Mbit/s
95th percentile per-packet one-way delay: 19.264 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 242.25 Mbit/s
95th percentile per-packet one-way delay: 19.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 232.64 Mbit/s
95th percentile per-packet one-way delay: 18.696 ms
Loss rate: 0.00%
```

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



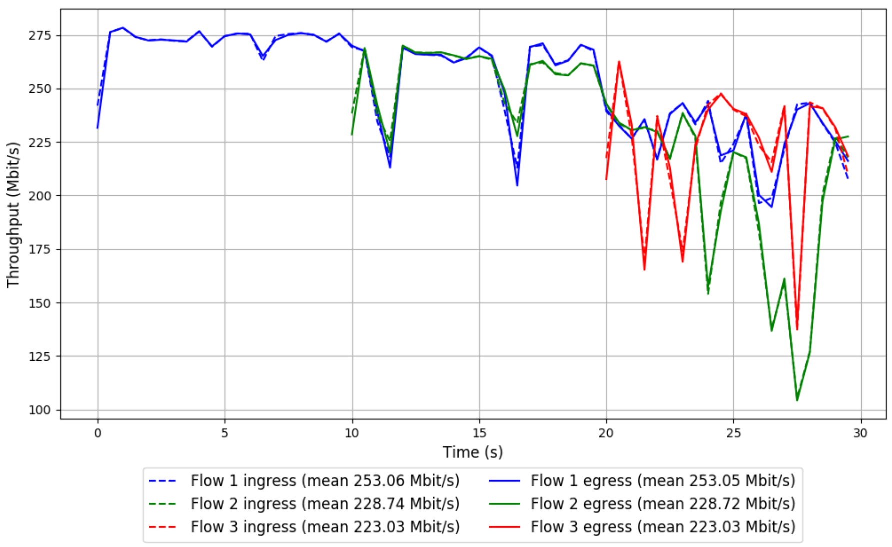


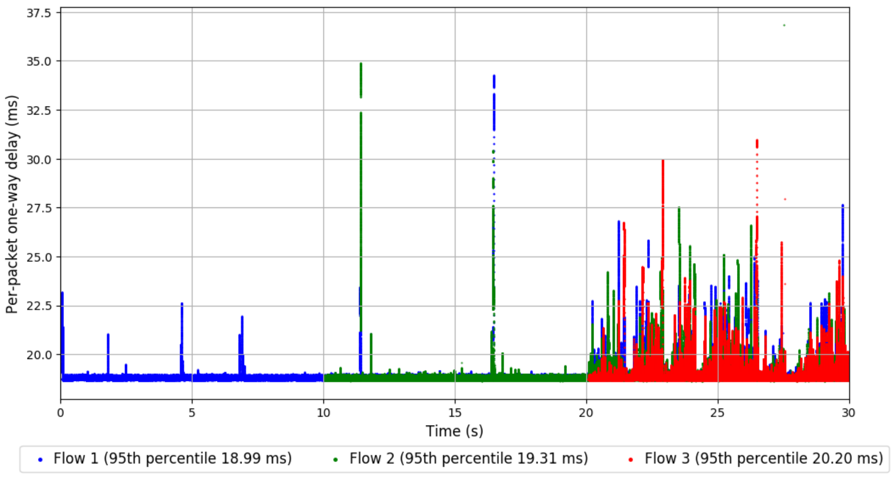
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-16 18:17:46
End at: 2018-02-16 18:18:16
Local clock offset: 0.176 ms
Remote clock offset: -5.83 ms

# Below is generated by plot.py at 2018-02-16 23:24:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 479.25 Mbit/s
95th percentile per-packet one-way delay: 19.303 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 253.05 Mbit/s
95th percentile per-packet one-way delay: 18.992 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 228.72 Mbit/s
95th percentile per-packet one-way delay: 19.312 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 223.03 Mbit/s
95th percentile per-packet one-way delay: 20.197 ms
Loss rate: 0.00%
```

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



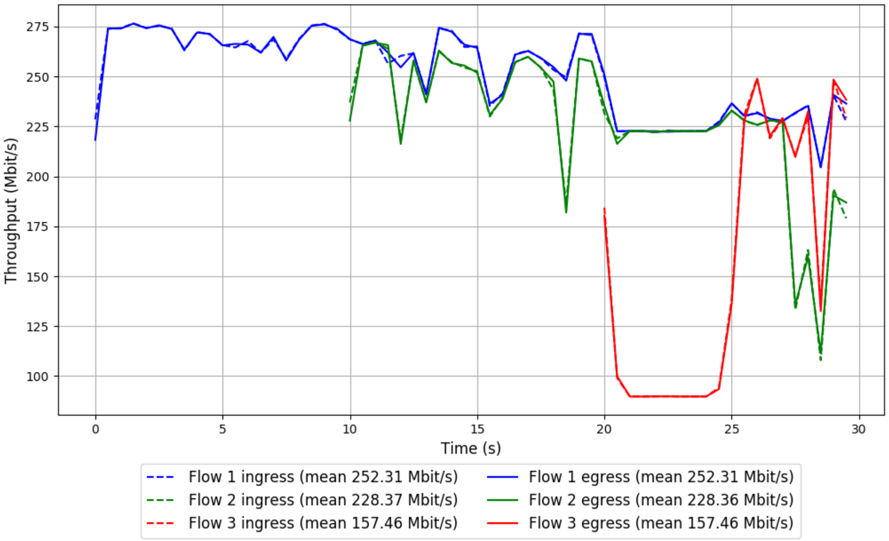


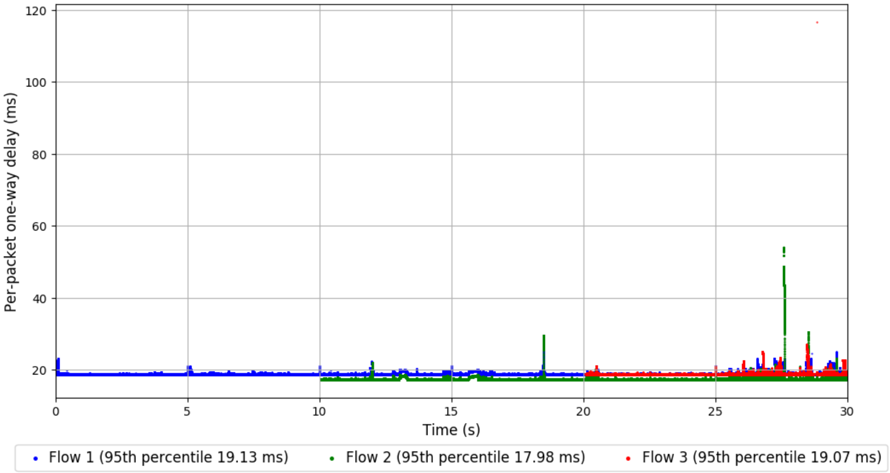
```
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-16 18:45:04
End at: 2018-02-16 18:45:34
Local clock offset: 0.11 ms
Remote clock offset: -4.618 ms

# Below is generated by plot.py at 2018-02-16 23:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 456.51 Mbit/s
95th percentile per-packet one-way delay: 18.959 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 252.31 Mbit/s
95th percentile per-packet one-way delay: 19.131 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 228.36 Mbit/s
95th percentile per-packet one-way delay: 17.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 157.46 Mbit/s
95th percentile per-packet one-way delay: 19.071 ms
Loss rate: 0.00%
```

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



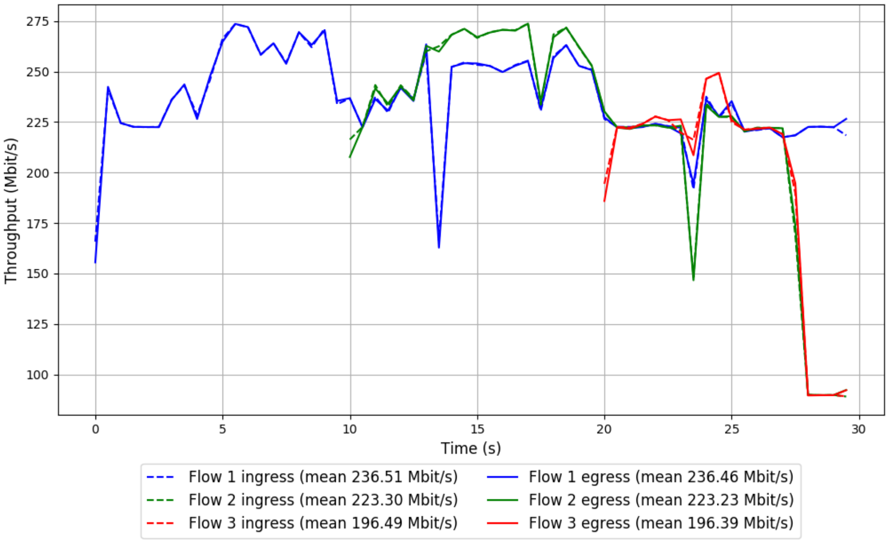


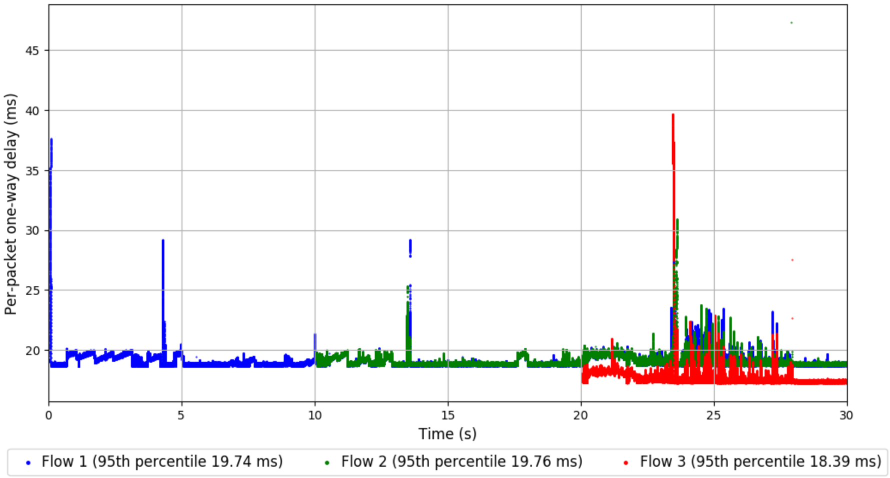
```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-16 19:12:28
End at: 2018-02-16 19:12:58
Local clock offset: 0.71 ms
Remote clock offset: -5.603 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.27 Mbit/s
95th percentile per-packet one-way delay: 19.725 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 236.46 Mbit/s
95th percentile per-packet one-way delay: 19.739 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 223.23 Mbit/s
95th percentile per-packet one-way delay: 19.758 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 196.39 Mbit/s
95th percentile per-packet one-way delay: 18.395 ms
Loss rate: 0.05%
```

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



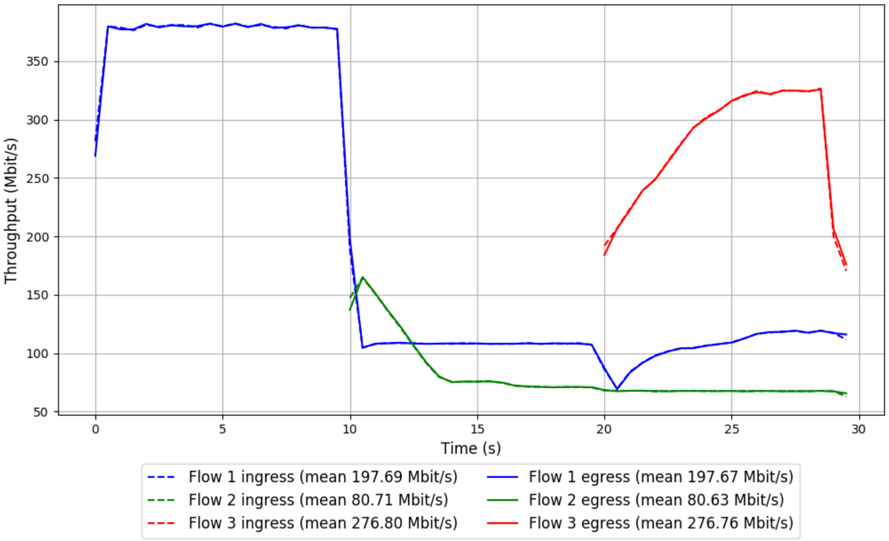


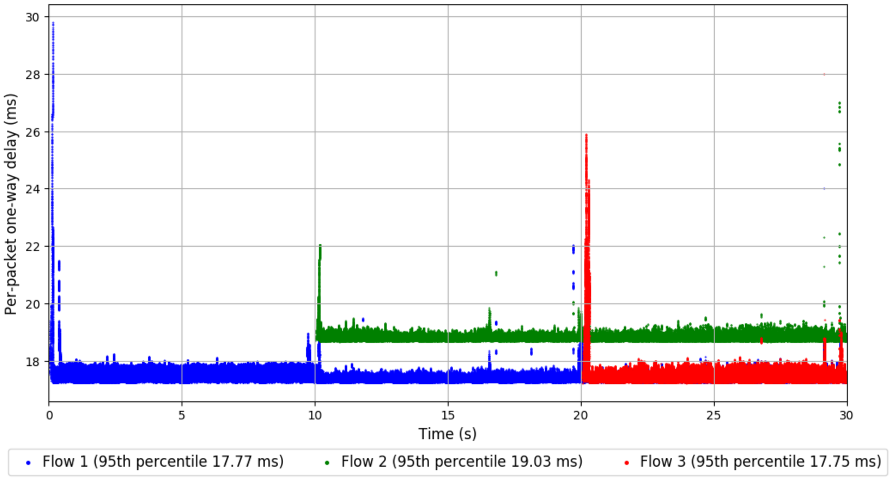
```
Run 1: Statistics of TCP Vegas

Start at: 2018-02-16 15:27:56
End at: 2018-02-16 15:28:26
Local clock offset: -0.042 ms
Remote clock offset: -4.839 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 343.26 Mbit/s
95th percentile per-packet one-way delay: 18.877 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 197.67 Mbit/s
95th percentile per-packet one-way delay: 17.769 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 80.63 Mbit/s
95th percentile per-packet one-way delay: 19.031 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 276.76 Mbit/s
95th percentile per-packet one-way delay: 17.752 ms
Loss rate: 0.01%
```

Run 1: Report of TCP Vegas — Data Link



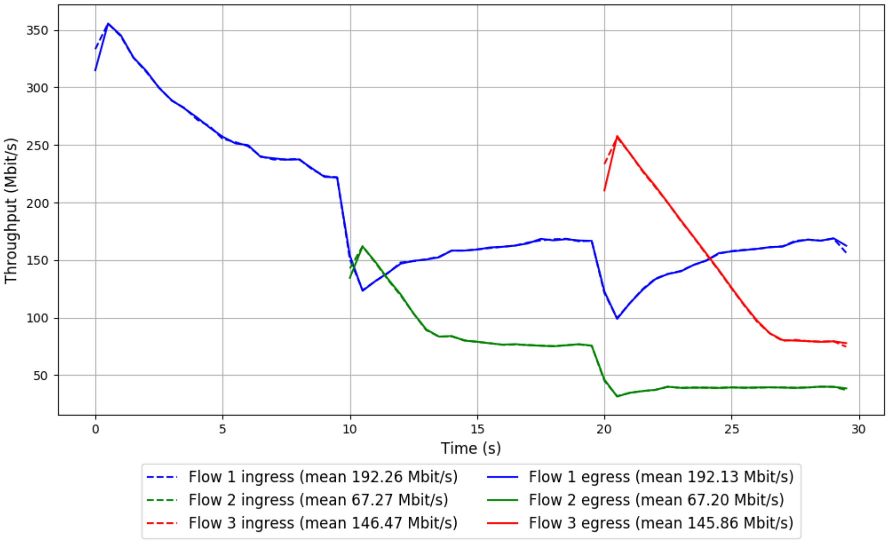


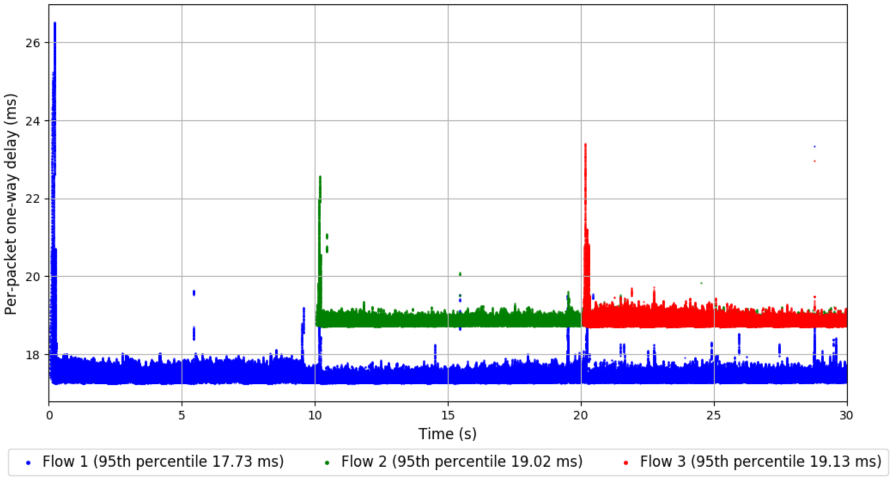
```
Run 2: Statistics of TCP Vegas

Start at: 2018-02-16 15:55:05
End at: 2018-02-16 15:55:35
Local clock offset: -0.119 ms
Remote clock offset: -5.372 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.24 Mbit/s
95th percentile per-packet one-way delay: 18.984 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 192.13 Mbit/s
95th percentile per-packet one-way delay: 17.727 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 67.20 Mbit/s
95th percentile per-packet one-way delay: 19.021 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 145.86 Mbit/s
95th percentile per-packet one-way delay: 19.128 ms
Loss rate: 0.41%
```

Run 2: Report of TCP Vegas — Data Link



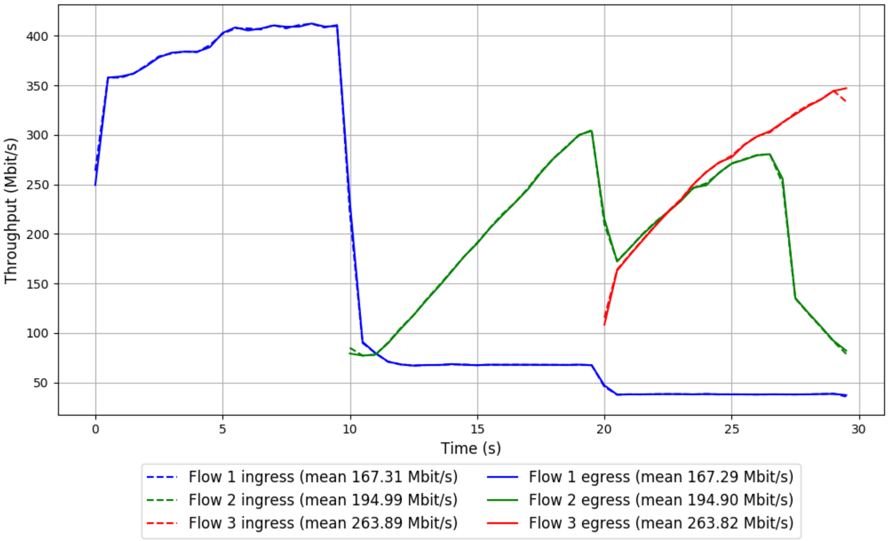


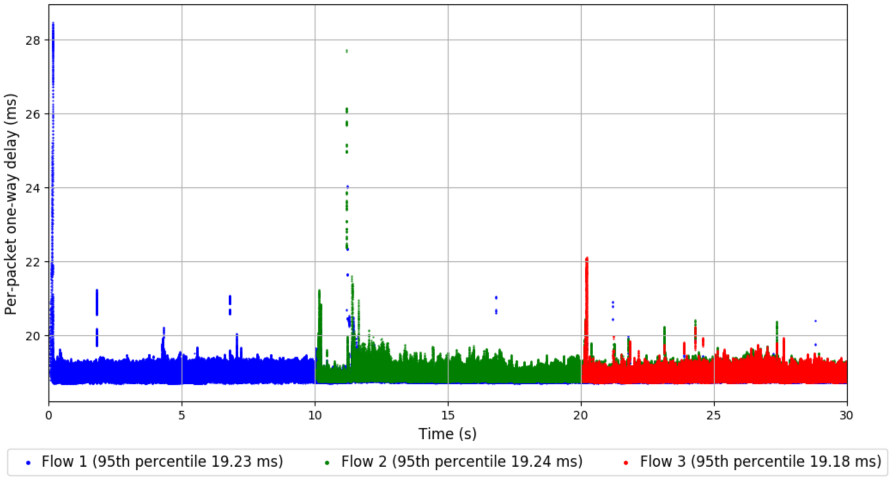
```
Run 3: Statistics of TCP Vegas

Start at: 2018-02-16 16:22:23
End at: 2018-02-16 16:22:53
Local clock offset: 0.1 ms
Remote clock offset: -6.205 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.67 Mbit/s
95th percentile per-packet one-way delay: 19.223 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 167.29 Mbit/s
95th percentile per-packet one-way delay: 19.225 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 194.90 Mbit/s
95th percentile per-packet one-way delay: 19.241 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 263.82 Mbit/s
95th percentile per-packet one-way delay: 19.179 ms
Loss rate: 0.02%
```

Run 3: Report of TCP Vegas — Data Link



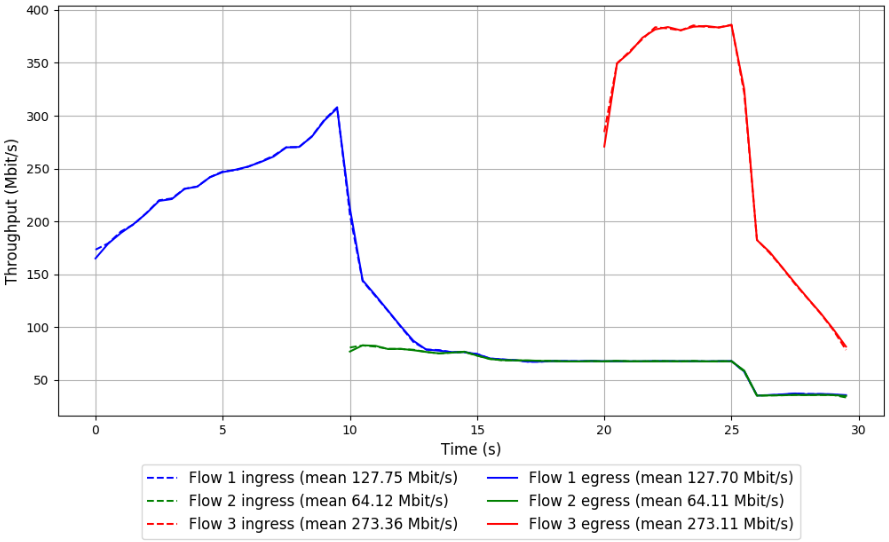


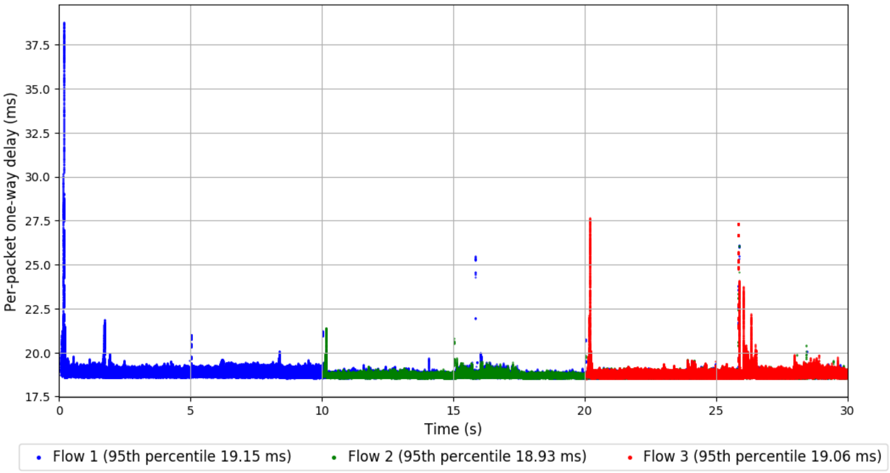
```
Run 4: Statistics of TCP Vegas

Start at: 2018-02-16 16:49:38
End at: 2018-02-16 16:50:08
Local clock offset: 0.165 ms
Remote clock offset: -5.835 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.06 Mbit/s
95th percentile per-packet one-way delay: 19.117 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 127.70 Mbit/s
95th percentile per-packet one-way delay: 19.153 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 64.11 Mbit/s
95th percentile per-packet one-way delay: 18.930 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 273.11 Mbit/s
95th percentile per-packet one-way delay: 19.060 ms
Loss rate: 0.09%
```

Run 4: Report of TCP Vegas — Data Link



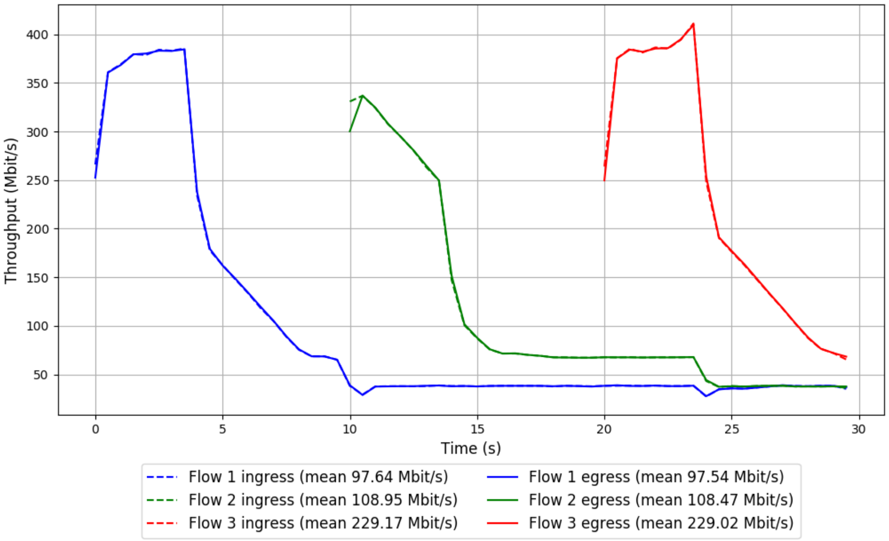


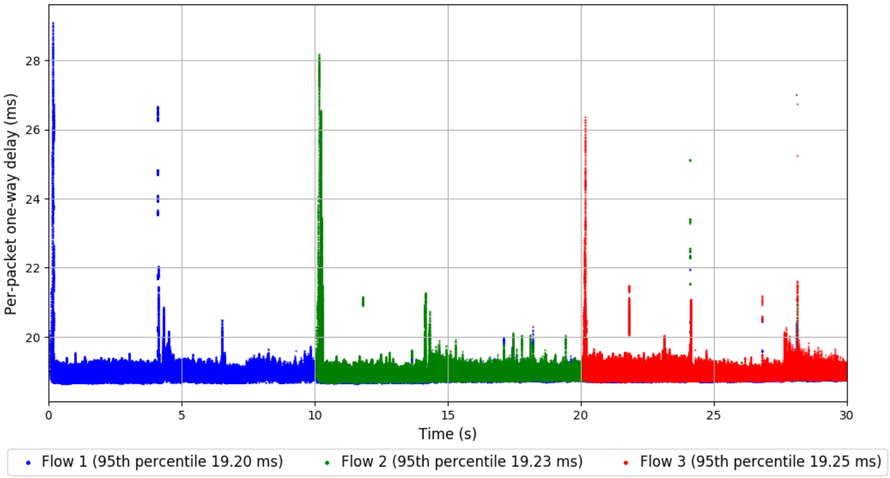
```
Run 5: Statistics of TCP Vegas

Start at: 2018-02-16 17:17:09
End at: 2018-02-16 17:17:39
Local clock offset: 0.109 ms
Remote clock offset: -4.507 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.86 Mbit/s
95th percentile per-packet one-way delay: 19.224 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 97.54 Mbit/s
95th percentile per-packet one-way delay: 19.198 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 108.47 Mbit/s
95th percentile per-packet one-way delay: 19.233 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 229.02 Mbit/s
95th percentile per-packet one-way delay: 19.247 ms
Loss rate: 0.06%
```

Run 5: Report of TCP Vegas — Data Link



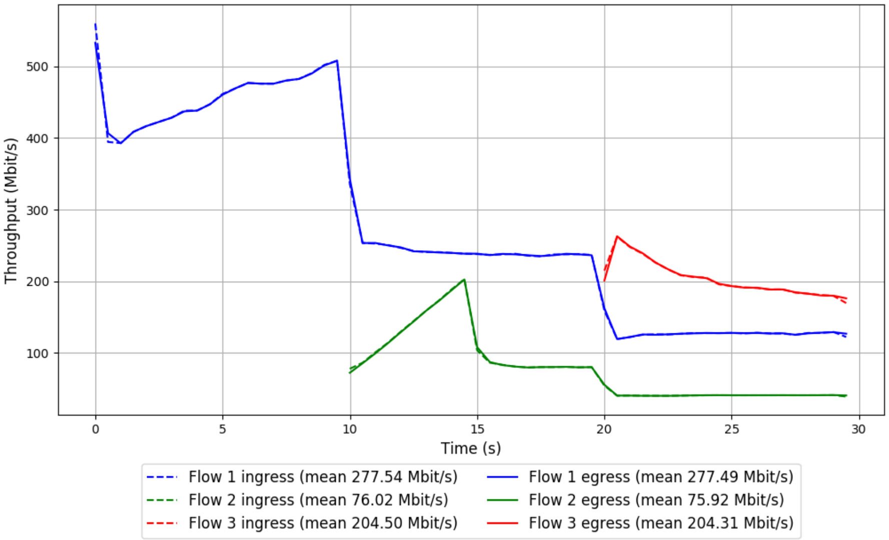


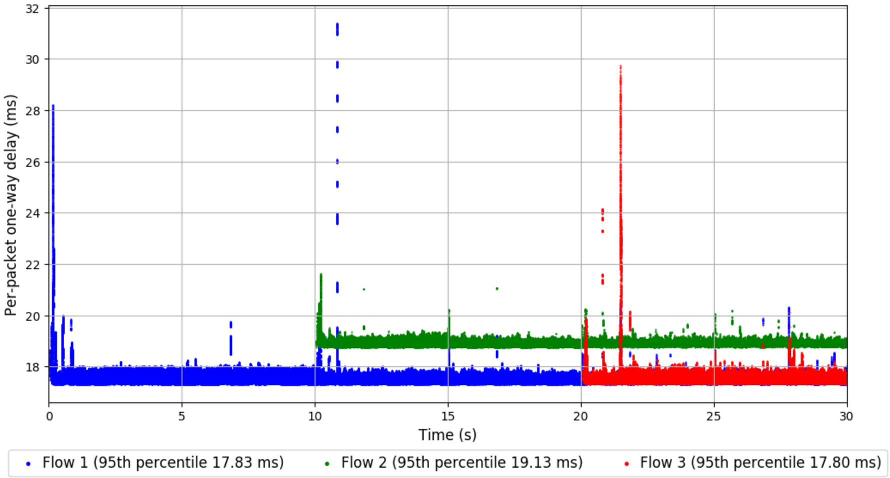
```
Run 6: Statistics of TCP Vegas

Start at: 2018-02-16 17:44:22
End at: 2018-02-16 17:44:52
Local clock offset: 0.184 ms
Remote clock offset: -5.814 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.84 Mbit/s
95th percentile per-packet one-way delay: 18.960 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 277.49 Mbit/s
95th percentile per-packet one-way delay: 17.826 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 75.92 Mbit/s
95th percentile per-packet one-way delay: 19.128 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 204.31 Mbit/s
95th percentile per-packet one-way delay: 17.805 ms
Loss rate: 0.09%
```

Run 6: Report of TCP Vegas — Data Link



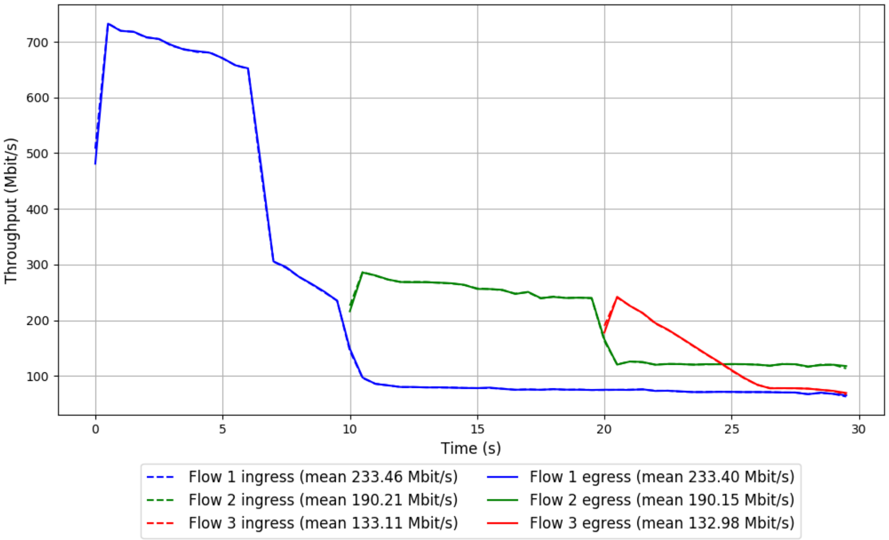


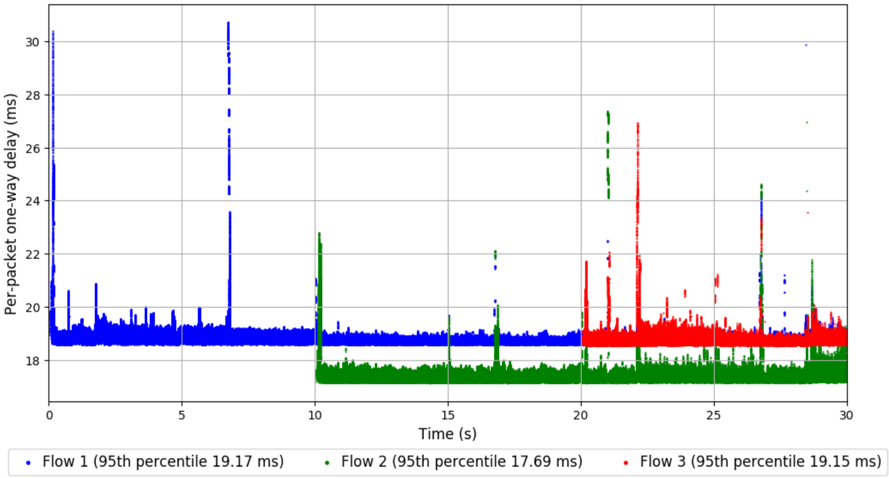
```
Run 7: Statistics of TCP Vegas

Start at: 2018-02-16 18:12:16
End at: 2018-02-16 18:12:46
Local clock offset: 0.26 ms
Remote clock offset: -5.921 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.21 Mbit/s
95th percentile per-packet one-way delay: 19.130 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 233.40 Mbit/s
95th percentile per-packet one-way delay: 19.167 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 190.15 Mbit/s
95th percentile per-packet one-way delay: 17.687 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 132.98 Mbit/s
95th percentile per-packet one-way delay: 19.147 ms
Loss rate: 0.09%
```

Run 7: Report of TCP Vegas — Data Link



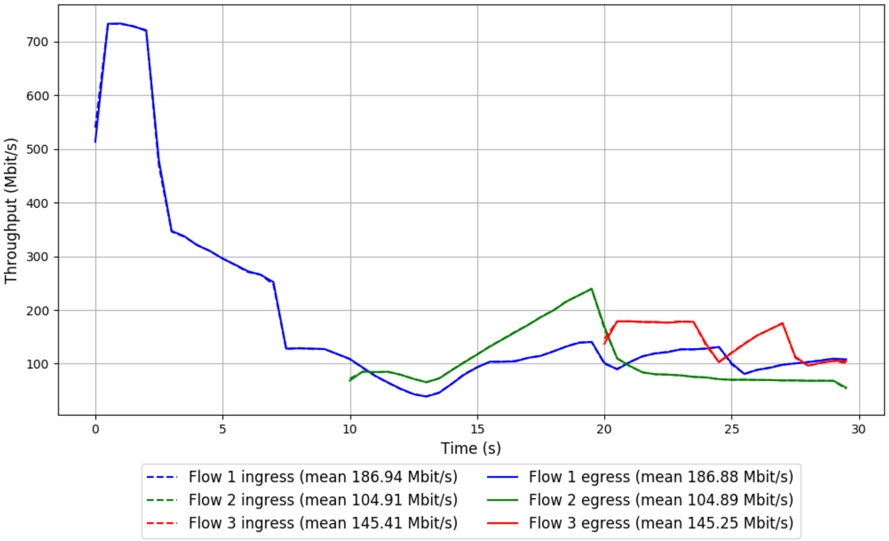


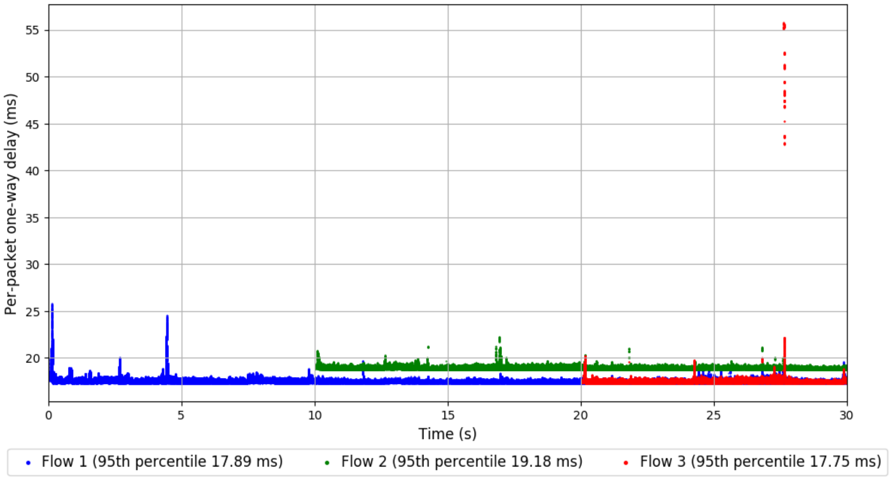
```
Run 8: Statistics of TCP Vegas

Start at: 2018-02-16 18:39:38
End at: 2018-02-16 18:40:08
Local clock offset: -0.122 ms
Remote clock offset: -4.737 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 304.94 Mbit/s
95th percentile per-packet one-way delay: 19.049 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 186.88 Mbit/s
95th percentile per-packet one-way delay: 17.894 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 104.89 Mbit/s
95th percentile per-packet one-way delay: 19.179 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 145.25 Mbit/s
95th percentile per-packet one-way delay: 17.755 ms
Loss rate: 0.11%
```

Run 8: Report of TCP Vegas — Data Link



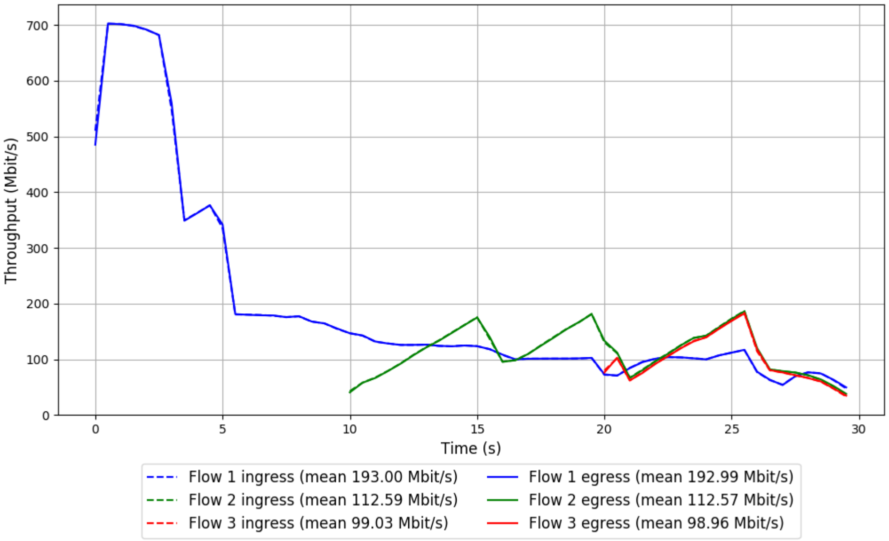


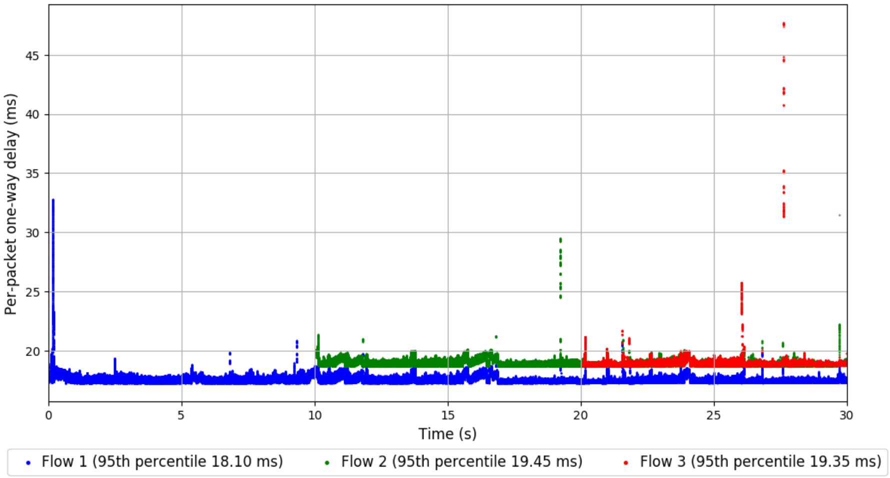
```
Run 9: Statistics of TCP Vegas

Start at: 2018-02-16 19:06:53
End at: 2018-02-16 19:07:23
Local clock offset: 0.662 ms
Remote clock offset: -5.226 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.79 Mbit/s
95th percentile per-packet one-way delay: 19.130 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 192.99 Mbit/s
95th percentile per-packet one-way delay: 18.098 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 112.57 Mbit/s
95th percentile per-packet one-way delay: 19.446 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 98.96 Mbit/s
95th percentile per-packet one-way delay: 19.353 ms
Loss rate: 0.07%
```

Run 9: Report of TCP Vegas — Data Link



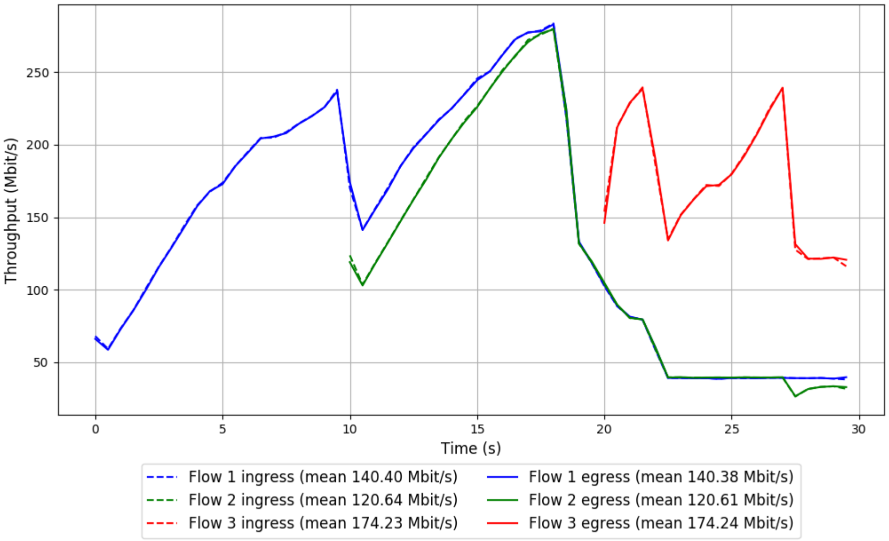


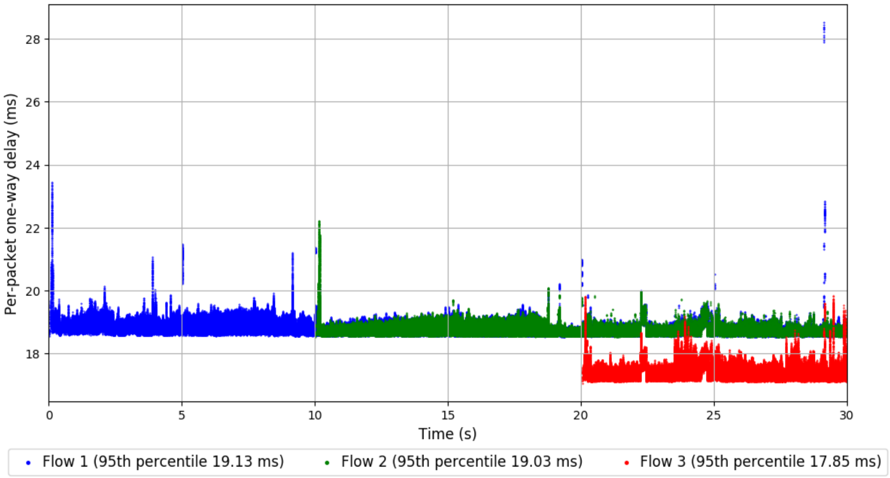
```
Run 10: Statistics of TCP Vegas

Start at: 2018-02-16 19:34:32
End at: 2018-02-16 19:35:02
Local clock offset: 0.965 ms
Remote clock offset: -6.134 ms

# Below is generated by plot.py at 2018-02-16 23:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.57 Mbit/s
95th percentile per-packet one-way delay: 19.078 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 140.38 Mbit/s
95th percentile per-packet one-way delay: 19.131 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 120.61 Mbit/s
95th percentile per-packet one-way delay: 19.026 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 174.24 Mbit/s
95th percentile per-packet one-way delay: 17.849 ms
Loss rate: 0.02%
```

Run 10: Report of TCP Vegas — Data Link



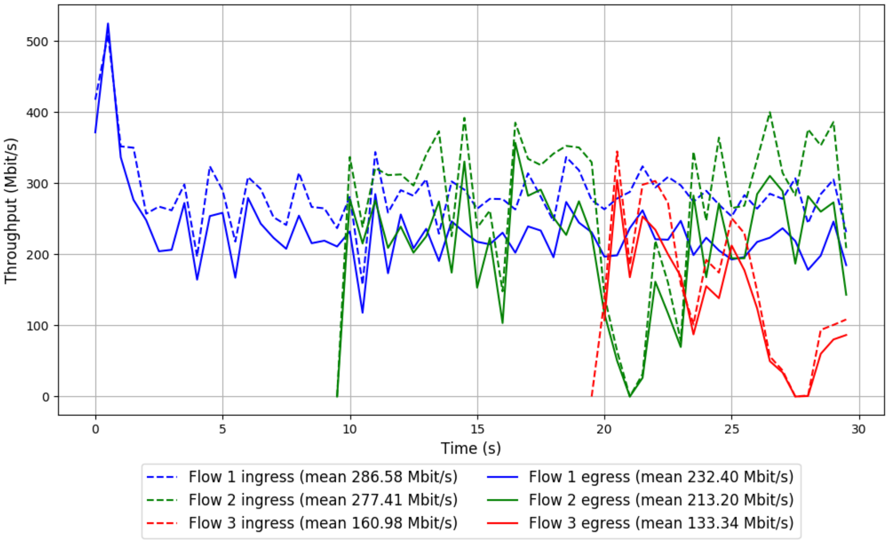


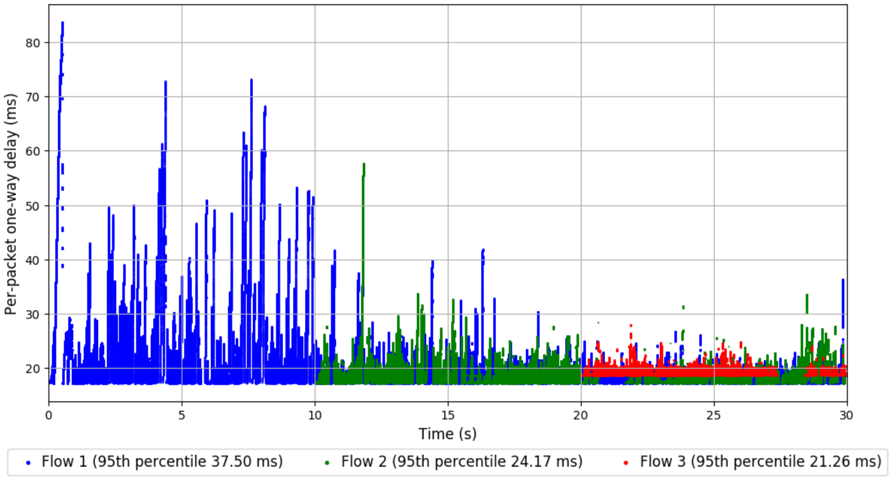
```
Run 1: Statistics of Verus

Start at: 2018-02-16 15:17:15
End at: 2018-02-16 15:17:45
Local clock offset: -0.049 ms
Remote clock offset: -4.913 ms

# Below is generated by plot.py at 2018-02-16 23:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.62 Mbit/s
95th percentile per-packet one-way delay: 29.259 ms
Loss rate: 20.22%
-- Flow 1:
Average throughput: 232.40 Mbit/s
95th percentile per-packet one-way delay: 37.500 ms
Loss rate: 18.90%
-- Flow 2:
Average throughput: 213.20 Mbit/s
95th percentile per-packet one-way delay: 24.166 ms
Loss rate: 23.14%
-- Flow 3:
Average throughput: 133.34 Mbit/s
95th percentile per-packet one-way delay: 21.260 ms
Loss rate: 17.16%
```

Run 1: Report of Verus — Data Link



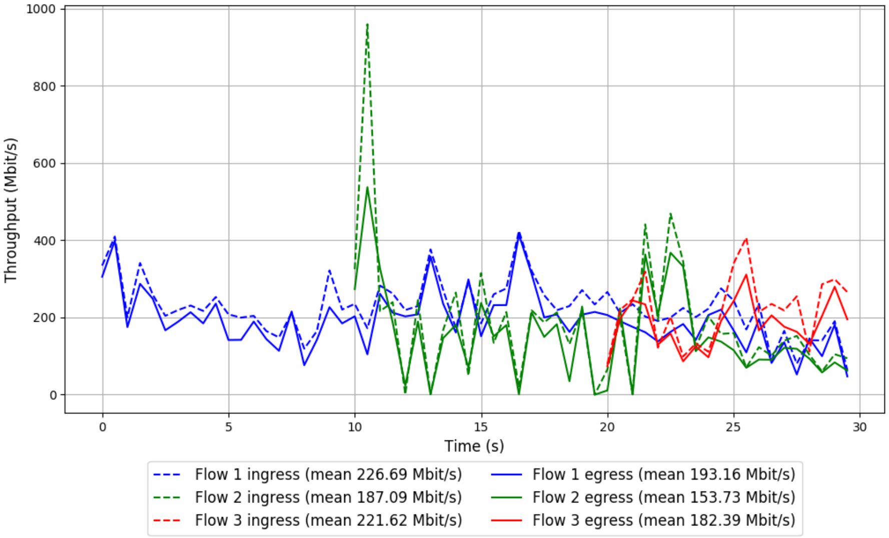


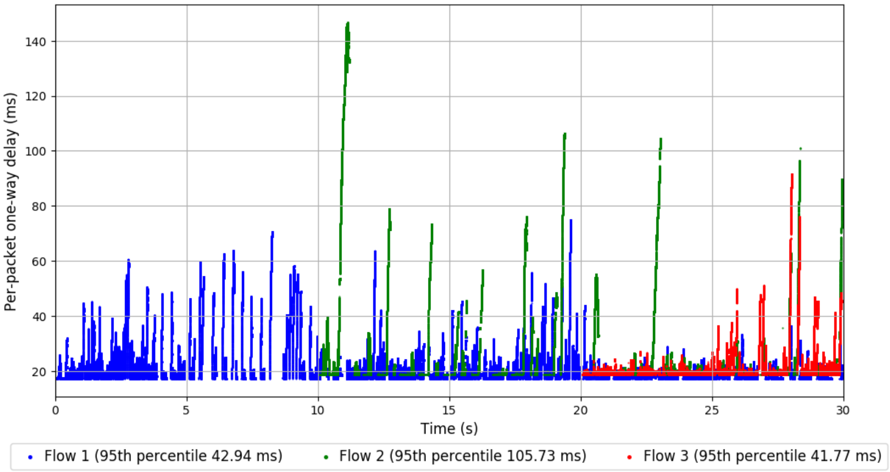
```
Run 2: Statistics of Verus

Start at: 2018-02-16 15:44:22
End at: 2018-02-16 15:44:52
Local clock offset: -0.084 ms
Remote clock offset: -5.229 ms

# Below is generated by plot.py at 2018-02-16 23:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 355.69 Mbit/s
95th percentile per-packet one-way delay: 63.335 ms
Loss rate: 16.06%
-- Flow 1:
Average throughput: 193.16 Mbit/s
95th percentile per-packet one-way delay: 42.937 ms
Loss rate: 14.79%
-- Flow 2:
Average throughput: 153.73 Mbit/s
95th percentile per-packet one-way delay: 105.732 ms
Loss rate: 17.55%
-- Flow 3:
Average throughput: 182.39 Mbit/s
95th percentile per-packet one-way delay: 41.770 ms
Loss rate: 17.48%
```

Run 2: Report of Verus — Data Link



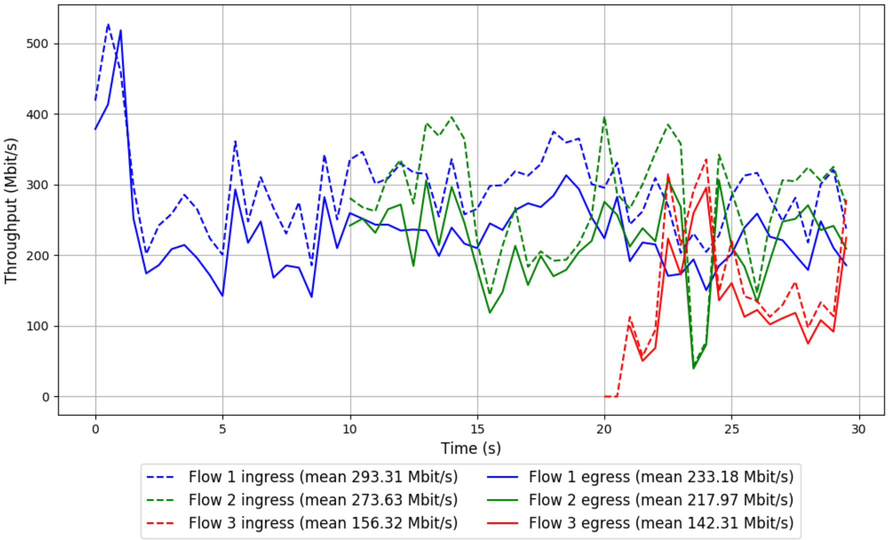


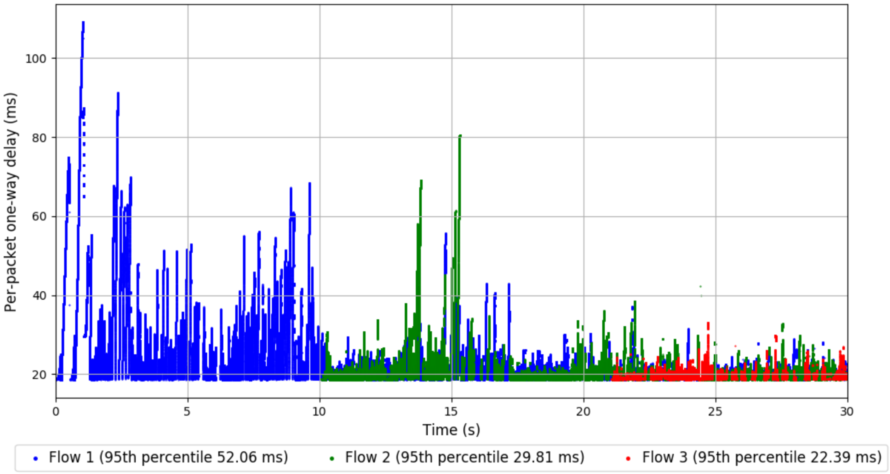
```
Run 3: Statistics of Verus

Start at: 2018-02-16 16:11:43
End at: 2018-02-16 16:12:13
Local clock offset: 0.099 ms
Remote clock offset: -5.664 ms

# Below is generated by plot.py at 2018-02-16 23:33:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.42 Mbit/s
95th percentile per-packet one-way delay: 41.651 ms
Loss rate: 20.21%
-- Flow 1:
Average throughput: 233.18 Mbit/s
95th percentile per-packet one-way delay: 52.057 ms
Loss rate: 20.50%
-- Flow 2:
Average throughput: 217.97 Mbit/s
95th percentile per-packet one-way delay: 29.813 ms
Loss rate: 20.34%
-- Flow 3:
Average throughput: 142.31 Mbit/s
95th percentile per-packet one-way delay: 22.394 ms
Loss rate: 18.15%
```

Run 3: Report of Verus — Data Link



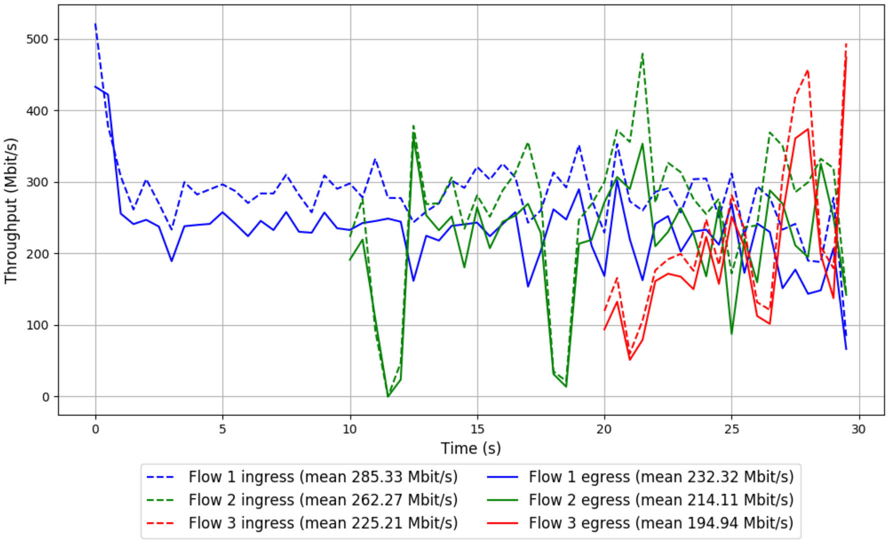


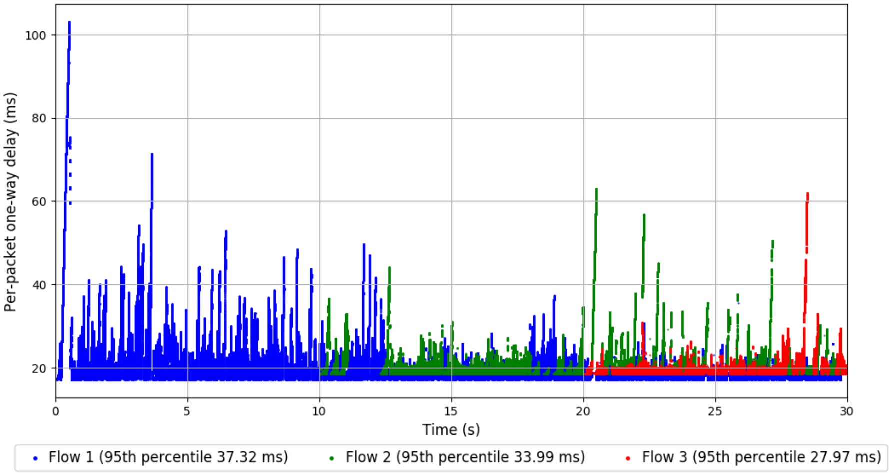
```
Run 4: Statistics of Verus

Start at: 2018-02-16 16:39:02
End at: 2018-02-16 16:39:32
Local clock offset: 0.163 ms
Remote clock offset: -6.582 ms

# Below is generated by plot.py at 2018-02-16 23:34:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 437.28 Mbit/s
95th percentile per-packet one-way delay: 34.555 ms
Loss rate: 17.78%
-- Flow 1:
Average throughput: 232.32 Mbit/s
95th percentile per-packet one-way delay: 37.324 ms
Loss rate: 18.57%
-- Flow 2:
Average throughput: 214.11 Mbit/s
95th percentile per-packet one-way delay: 33.992 ms
Loss rate: 18.36%
-- Flow 3:
Average throughput: 194.94 Mbit/s
95th percentile per-packet one-way delay: 27.966 ms
Loss rate: 13.43%
```

Run 4: Report of Verus — Data Link



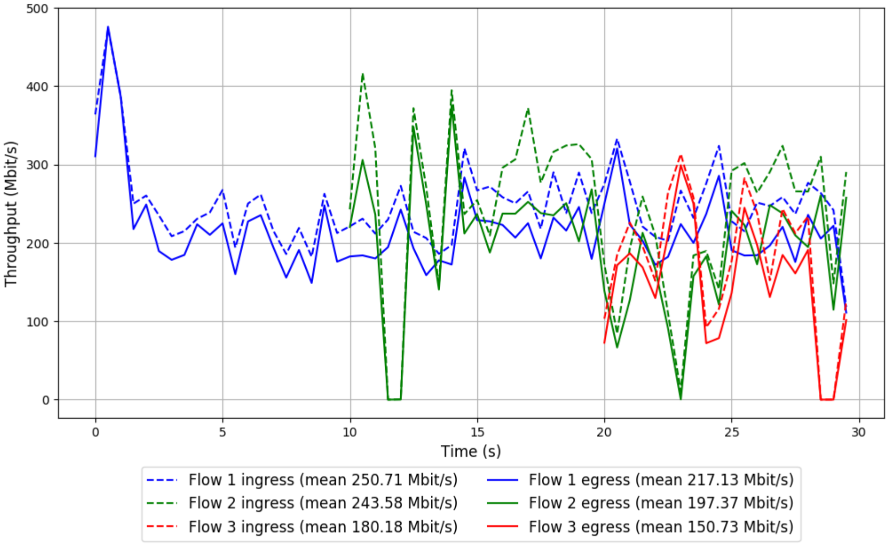


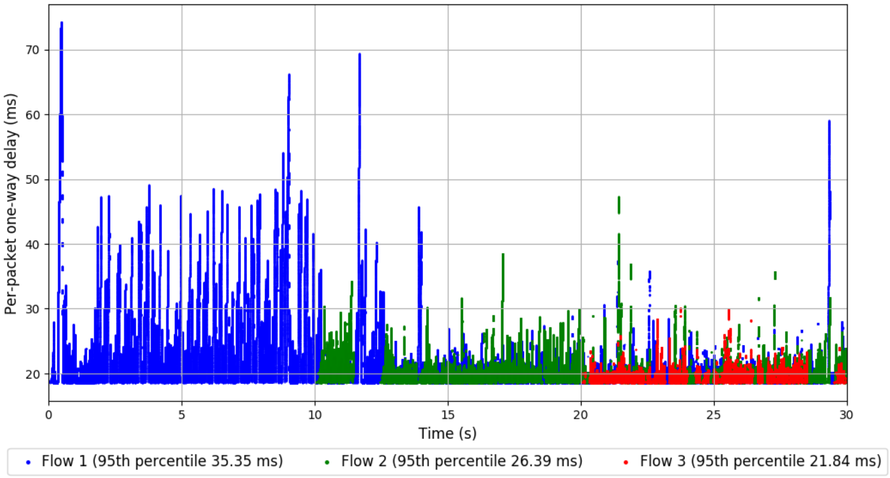
```
Run 5: Statistics of Verus

Start at: 2018-02-16 17:06:12
End at: 2018-02-16 17:06:42
Local clock offset: 0.136 ms
Remote clock offset: -4.913 ms

# Below is generated by plot.py at 2018-02-16 23:34:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.52 Mbit/s
95th percentile per-packet one-way delay: 29.571 ms
Loss rate: 15.68%
-- Flow 1:
Average throughput: 217.13 Mbit/s
95th percentile per-packet one-way delay: 35.349 ms
Loss rate: 13.38%
-- Flow 2:
Average throughput: 197.37 Mbit/s
95th percentile per-packet one-way delay: 26.395 ms
Loss rate: 18.97%
-- Flow 3:
Average throughput: 150.73 Mbit/s
95th percentile per-packet one-way delay: 21.842 ms
Loss rate: 16.34%
```

Run 5: Report of Verus — Data Link



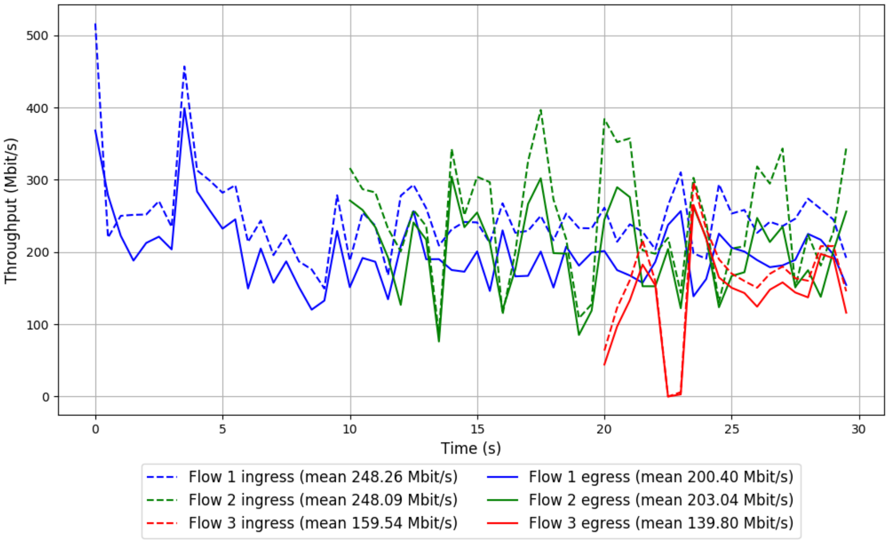


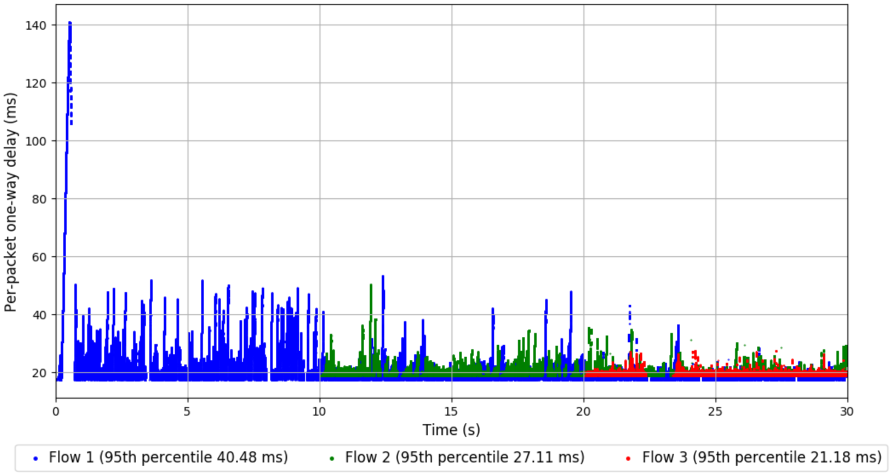
```
Run 6: Statistics of Verus

Start at: 2018-02-16 17:33:42
End at: 2018-02-16 17:34:12
Local clock offset: -0.019 ms
Remote clock offset: -5.679 ms

# Below is generated by plot.py at 2018-02-16 23:34:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.80 Mbit/s
95th percentile per-packet one-way delay: 31.850 ms
Loss rate: 18.09%
-- Flow 1:
Average throughput: 200.40 Mbit/s
95th percentile per-packet one-way delay: 40.483 ms
Loss rate: 19.27%
-- Flow 2:
Average throughput: 203.04 Mbit/s
95th percentile per-packet one-way delay: 27.111 ms
Loss rate: 18.13%
-- Flow 3:
Average throughput: 139.80 Mbit/s
95th percentile per-packet one-way delay: 21.179 ms
Loss rate: 12.37%
```

Run 6: Report of Verus — Data Link



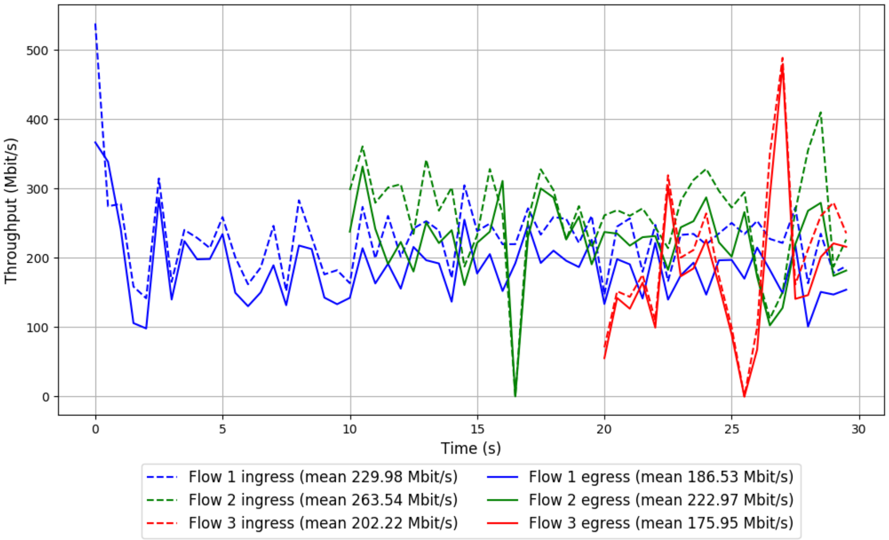


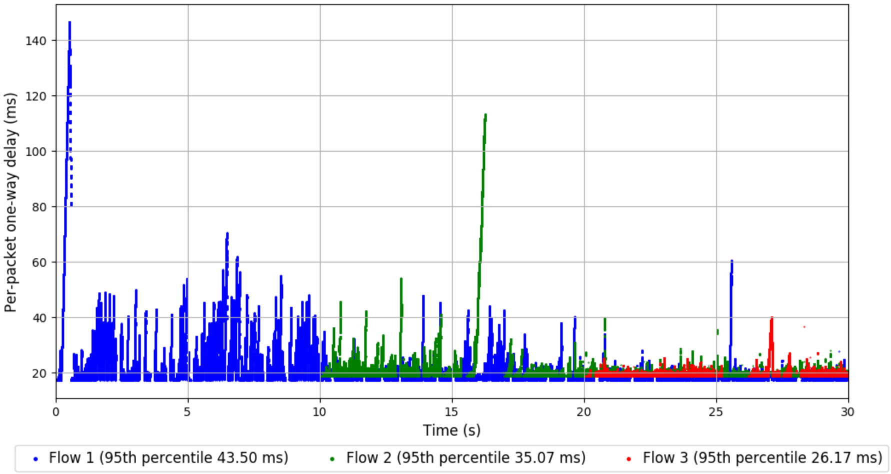
```
Run 7: Statistics of Verus

Start at: 2018-02-16 18:01:22
End at: 2018-02-16 18:01:52
Local clock offset: 0.36 ms
Remote clock offset: -5.875 ms

# Below is generated by plot.py at 2018-02-16 23:34:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 393.07 Mbit/s
95th percentile per-packet one-way delay: 39.080 ms
Loss rate: 16.76%
-- Flow 1:
Average throughput: 186.53 Mbit/s
95th percentile per-packet one-way delay: 43.500 ms
Loss rate: 18.89%
-- Flow 2:
Average throughput: 222.97 Mbit/s
95th percentile per-packet one-way delay: 35.069 ms
Loss rate: 15.39%
-- Flow 3:
Average throughput: 175.95 Mbit/s
95th percentile per-packet one-way delay: 26.169 ms
Loss rate: 12.99%
```

Run 7: Report of Verus — Data Link



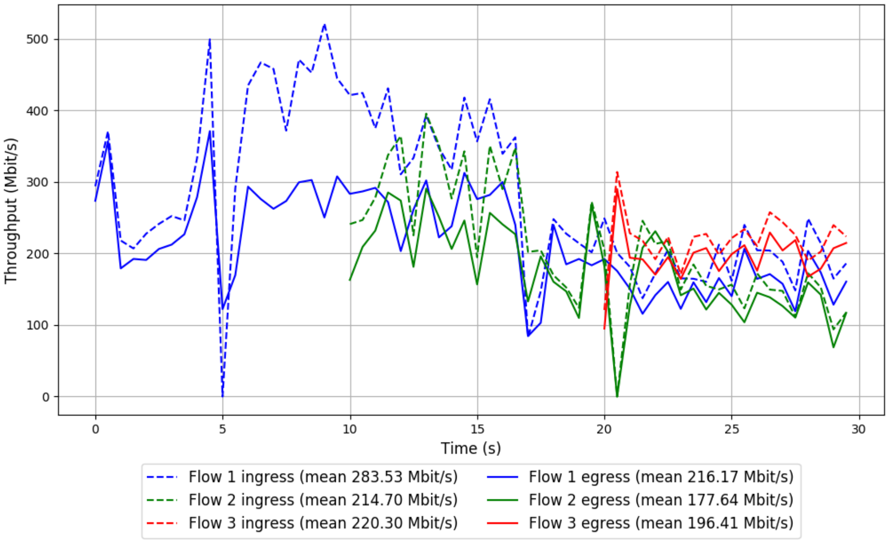


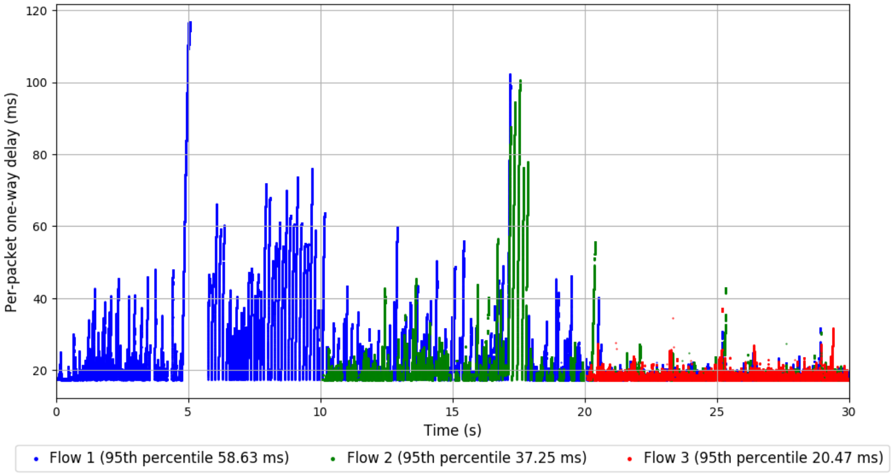
```
Run 8: Statistics of Verus

Start at: 2018-02-16 18:28:56
End at: 2018-02-16 18:29:26
Local clock offset: -0.02 ms
Remote clock offset: -5.43 ms

# Below is generated by plot.py at 2018-02-16 23:35:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.77 Mbit/s
95th percentile per-packet one-way delay: 53.369 ms
Loss rate: 20.02%
-- Flow 1:
Average throughput: 216.17 Mbit/s
95th percentile per-packet one-way delay: 58.628 ms
Loss rate: 23.75%
-- Flow 2:
Average throughput: 177.64 Mbit/s
95th percentile per-packet one-way delay: 37.251 ms
Loss rate: 17.26%
-- Flow 3:
Average throughput: 196.41 Mbit/s
95th percentile per-packet one-way delay: 20.472 ms
Loss rate: 10.85%
```

Run 8: Report of Verus — Data Link



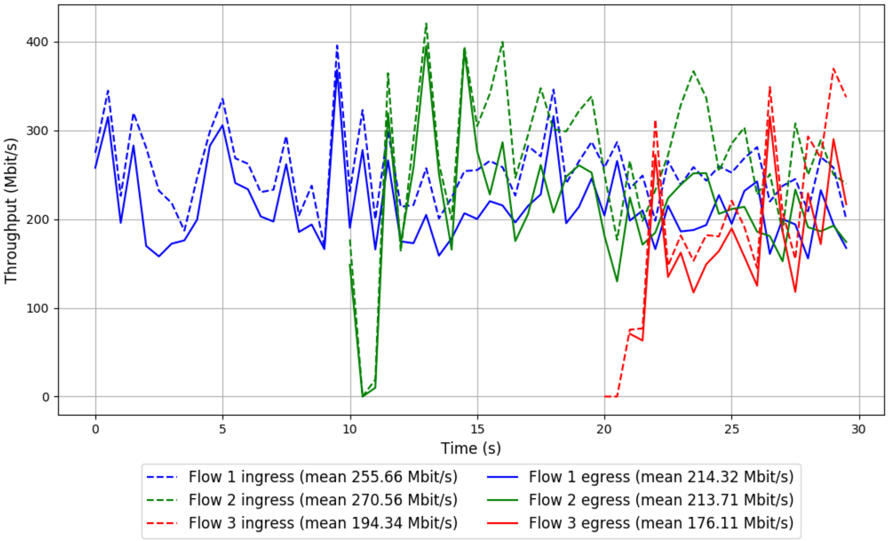


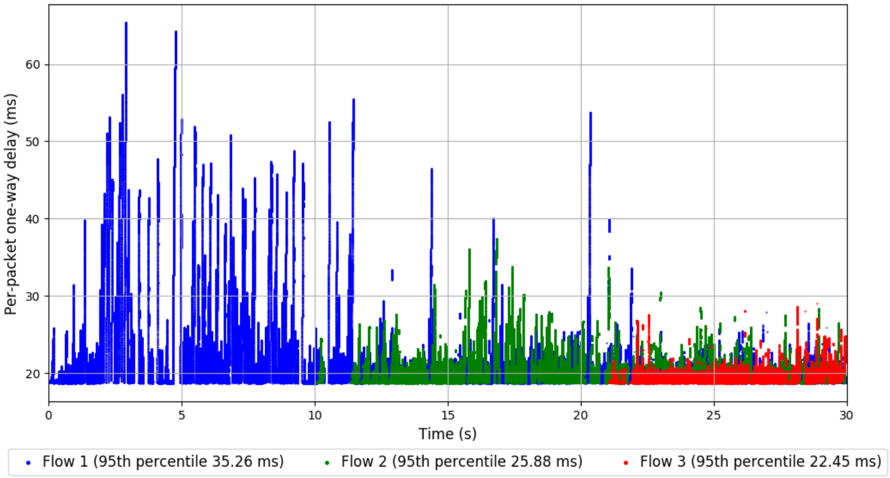
```
Run 9: Statistics of Verus

Start at: 2018-02-16 18:56:01
End at: 2018-02-16 18:56:31
Local clock offset: 0.371 ms
Remote clock offset: -4.385 ms

# Below is generated by plot.py at 2018-02-16 23:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 408.56 Mbit/s
95th percentile per-packet one-way delay: 28.147 ms
Loss rate: 18.21%
-- Flow 1:
Average throughput: 214.32 Mbit/s
95th percentile per-packet one-way delay: 35.264 ms
Loss rate: 16.17%
-- Flow 2:
Average throughput: 213.71 Mbit/s
95th percentile per-packet one-way delay: 25.877 ms
Loss rate: 21.01%
-- Flow 3:
Average throughput: 176.11 Mbit/s
95th percentile per-packet one-way delay: 22.455 ms
Loss rate: 18.52%
```

Run 9: Report of Verus — Data Link



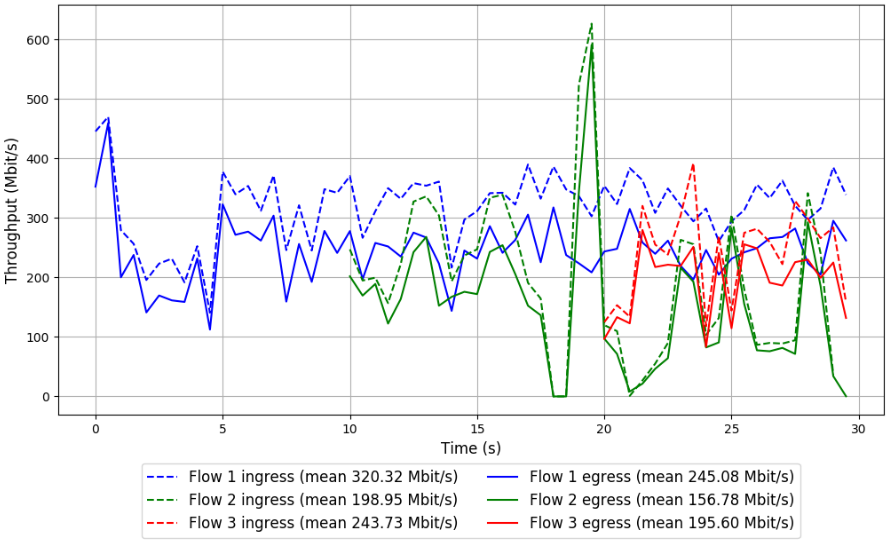


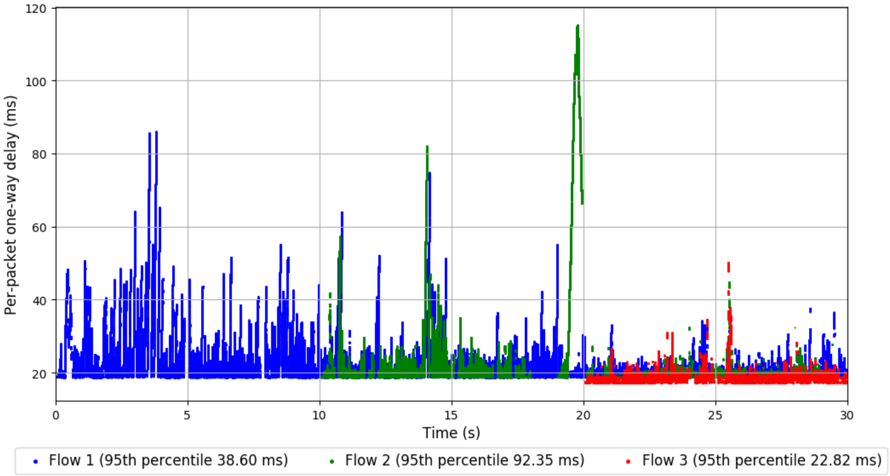
```
Run 10: Statistics of Verus

Start at: 2018-02-16 19:23:41
End at: 2018-02-16 19:24:11
Local clock offset: 0.767 ms
Remote clock offset: -5.96 ms

# Below is generated by plot.py at 2018-02-16 23:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.73 Mbit/s
95th percentile per-packet one-way delay: 41.273 ms
Loss rate: 22.37%
-- Flow 1:
Average throughput: 245.08 Mbit/s
95th percentile per-packet one-way delay: 38.602 ms
Loss rate: 23.49%
-- Flow 2:
Average throughput: 156.78 Mbit/s
95th percentile per-packet one-way delay: 92.347 ms
Loss rate: 21.22%
-- Flow 3:
Average throughput: 195.60 Mbit/s
95th percentile per-packet one-way delay: 22.821 ms
Loss rate: 19.75%
```

Run 10: Report of Verus — Data Link



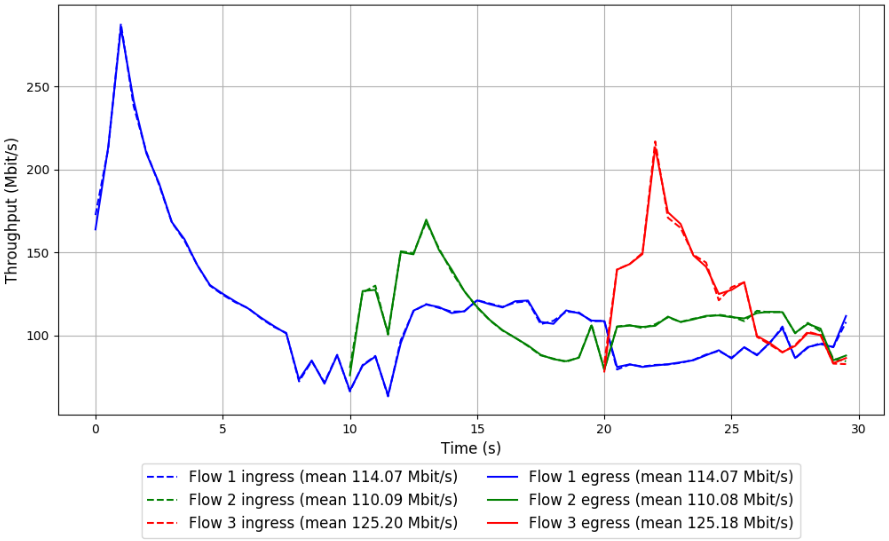


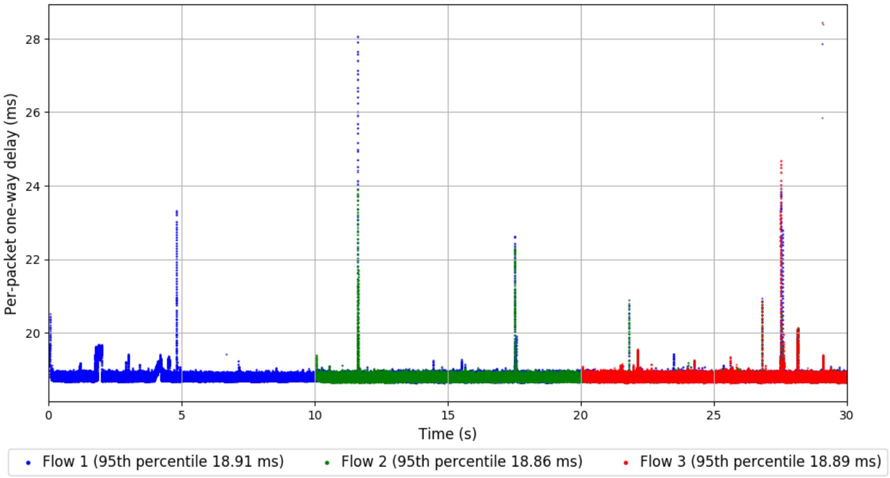
```
Run 1: Statistics of Copa

Start at: 2018-02-16 15:23:28
End at: 2018-02-16 15:23:58
Local clock offset: -0.035 ms
Remote clock offset: -4.83 ms

# Below is generated by plot.py at 2018-02-16 23:39:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.88 Mbit/s
95th percentile per-packet one-way delay: 18.890 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 114.07 Mbit/s
95th percentile per-packet one-way delay: 18.912 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 110.08 Mbit/s
95th percentile per-packet one-way delay: 18.864 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 125.18 Mbit/s
95th percentile per-packet one-way delay: 18.888 ms
Loss rate: 0.02%
```

Run 1: Report of Copa — Data Link



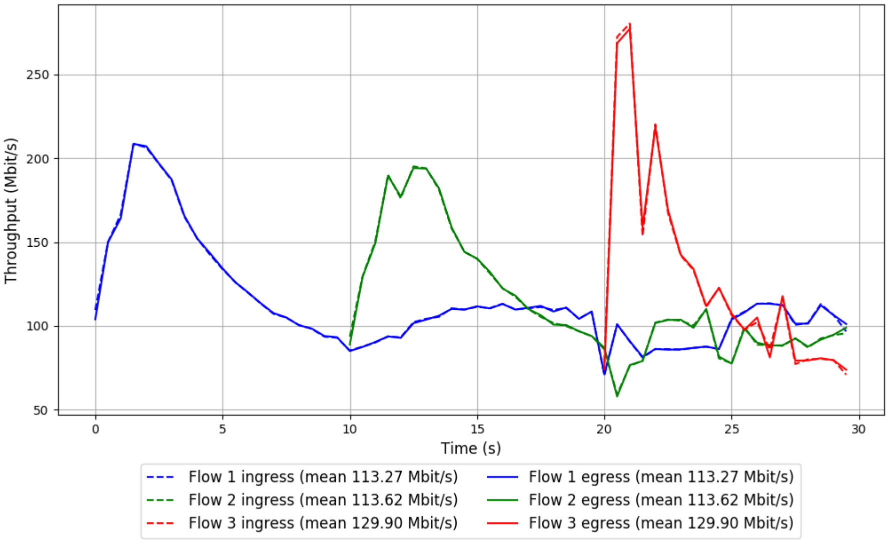


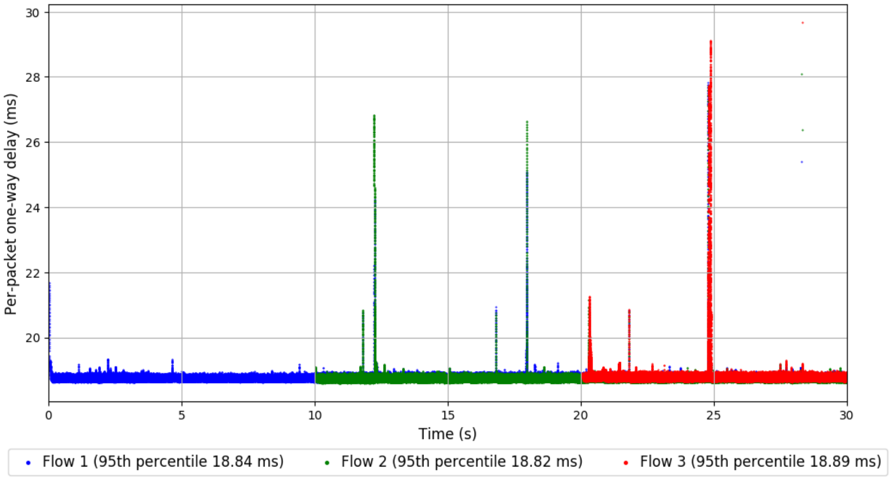
```
Run 2: Statistics of Copa

Start at: 2018-02-16 15:50:33
End at: 2018-02-16 15:51:03
Local clock offset: -0.124 ms
Remote clock offset: -5.3 ms

# Below is generated by plot.py at 2018-02-16 23:40:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 231.99 Mbit/s
95th percentile per-packet one-way delay: 18.846 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 113.27 Mbit/s
95th percentile per-packet one-way delay: 18.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 113.62 Mbit/s
95th percentile per-packet one-way delay: 18.824 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 129.90 Mbit/s
95th percentile per-packet one-way delay: 18.895 ms
Loss rate: 0.00%
```

Run 2: Report of Copa — Data Link



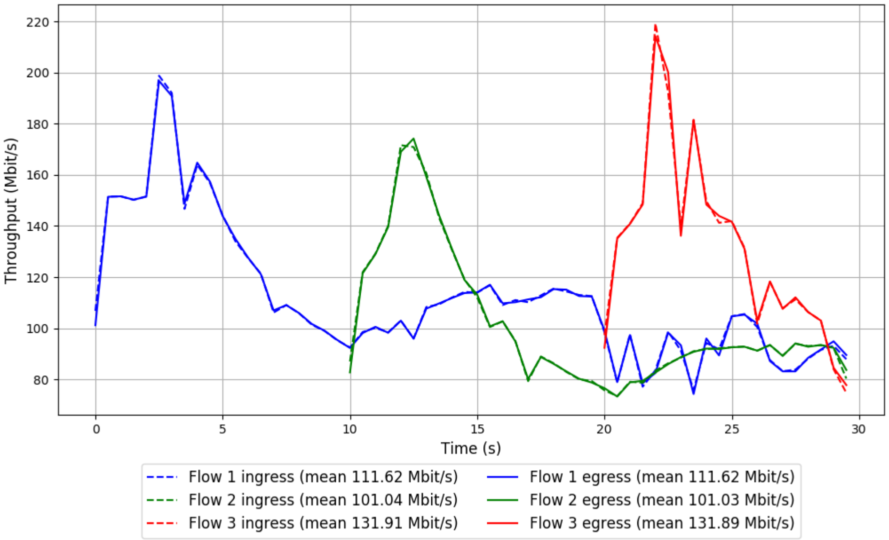


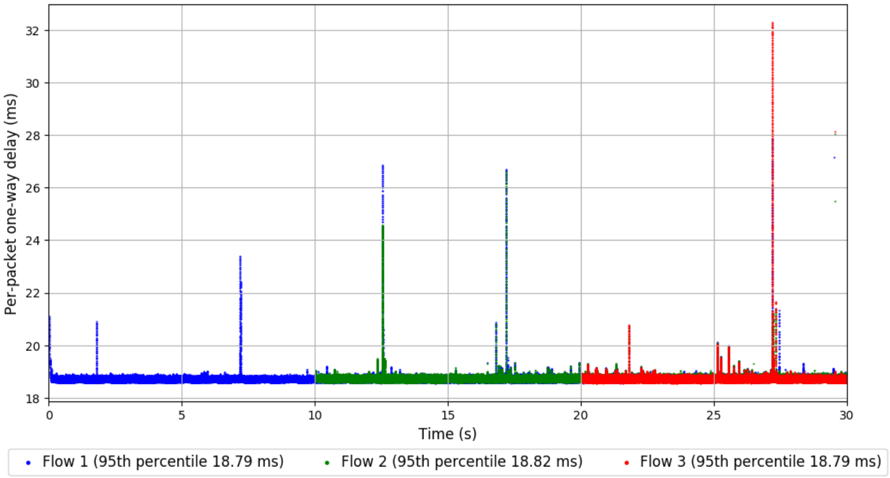
```
Run 3: Statistics of Copa

Start at: 2018-02-16 16:17:57
End at: 2018-02-16 16:18:27
Local clock offset: 0.125 ms
Remote clock offset: -6.102 ms

# Below is generated by plot.py at 2018-02-16 23:40:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 222.76 Mbit/s
95th percentile per-packet one-way delay: 18.800 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 111.62 Mbit/s
95th percentile per-packet one-way delay: 18.792 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 101.03 Mbit/s
95th percentile per-packet one-way delay: 18.816 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 131.89 Mbit/s
95th percentile per-packet one-way delay: 18.794 ms
Loss rate: 0.01%
```

Run 3: Report of Copa — Data Link



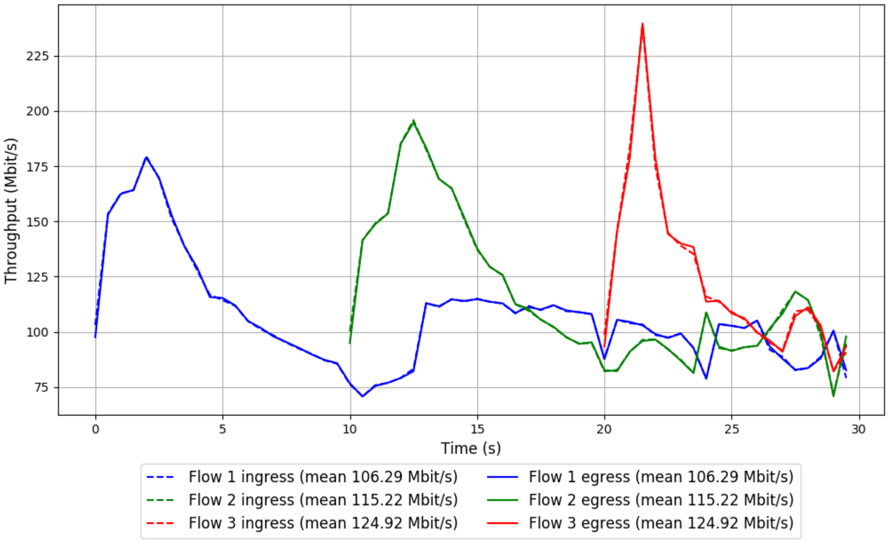


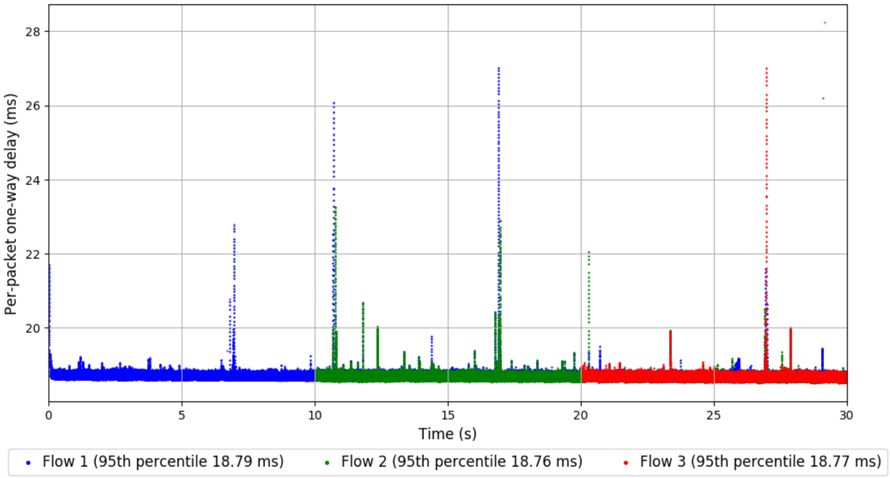
```
Run 4: Statistics of Copa

Start at: 2018-02-16 16:45:17
End at: 2018-02-16 16:45:47
Local clock offset: 0.166 ms
Remote clock offset: -6.279 ms

# Below is generated by plot.py at 2018-02-16 23:40:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.52 Mbit/s
95th percentile per-packet one-way delay: 18.777 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 106.29 Mbit/s
95th percentile per-packet one-way delay: 18.788 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 115.22 Mbit/s
95th percentile per-packet one-way delay: 18.764 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 124.92 Mbit/s
95th percentile per-packet one-way delay: 18.767 ms
Loss rate: 0.02%
```

Run 4: Report of Copa — Data Link



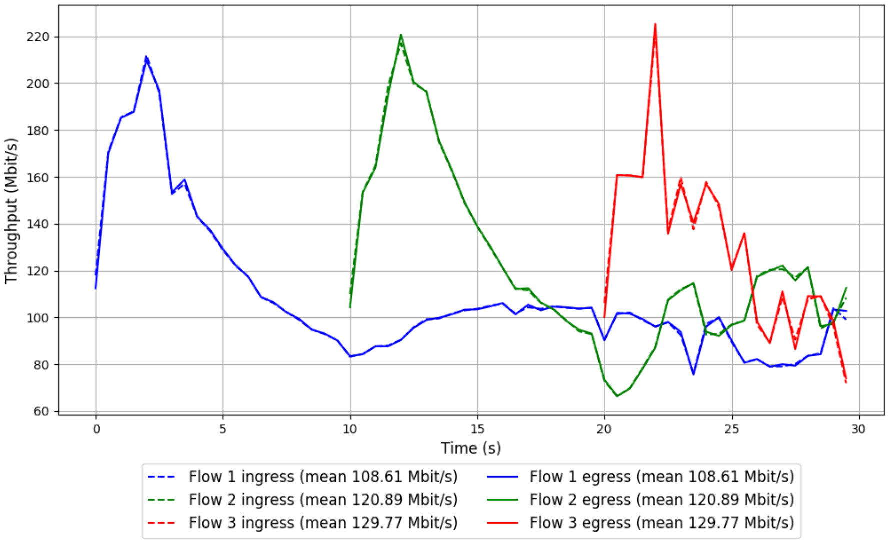


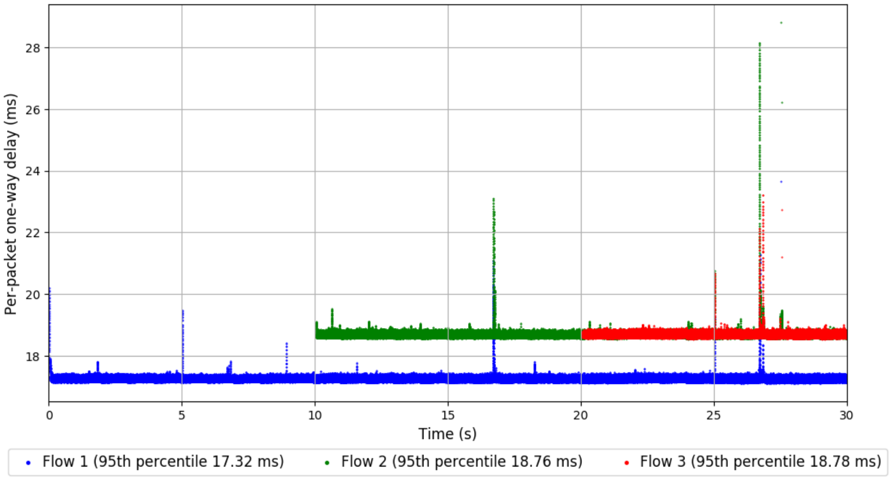
```
Run 5: Statistics of Copa

Start at: 2018-02-16 17:12:37
End at: 2018-02-16 17:13:07
Local clock offset: 0.146 ms
Remote clock offset: -4.68 ms

# Below is generated by plot.py at 2018-02-16 23:40:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.09 Mbit/s
95th percentile per-packet one-way delay: 18.738 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 108.61 Mbit/s
95th percentile per-packet one-way delay: 17.325 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 120.89 Mbit/s
95th percentile per-packet one-way delay: 18.764 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 129.77 Mbit/s
95th percentile per-packet one-way delay: 18.779 ms
Loss rate: 0.00%
```

Run 5: Report of Copa — Data Link



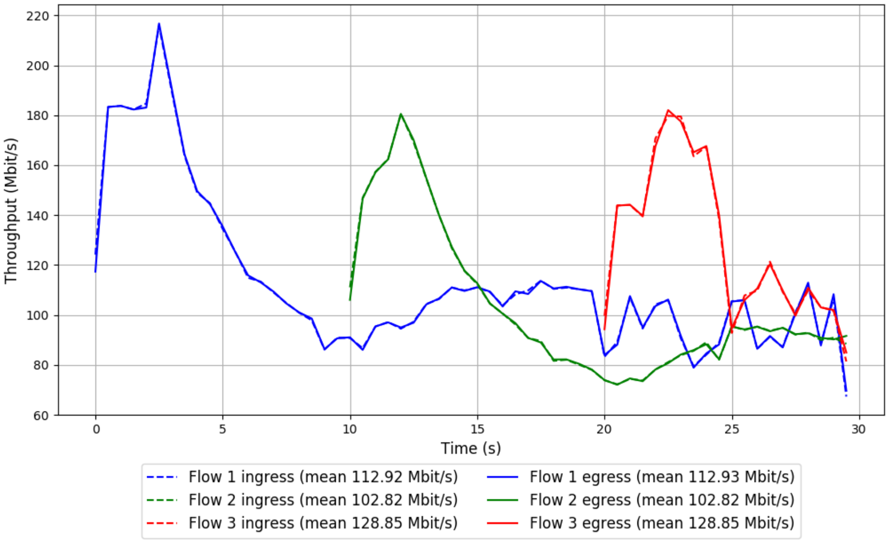


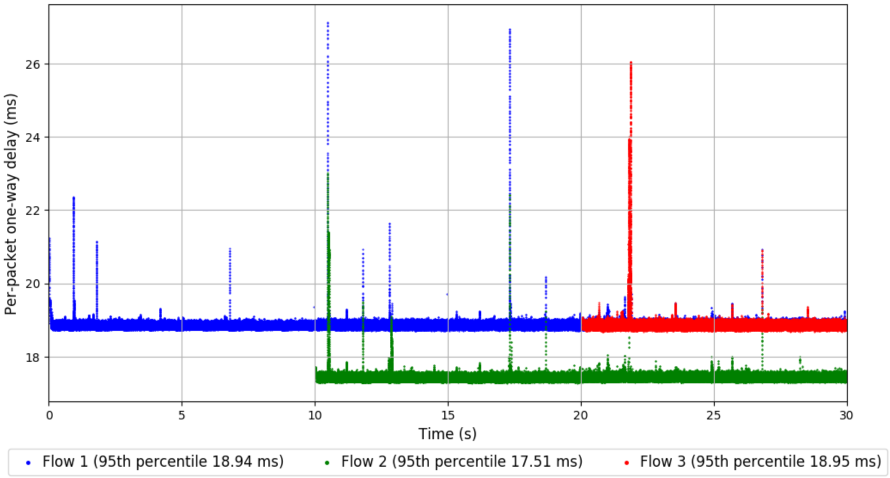
```
Run 6: Statistics of Copa

Start at: 2018-02-16 17:39:52
End at: 2018-02-16 17:40:22
Local clock offset: 0.146 ms
Remote clock offset: -5.778 ms

# Below is generated by plot.py at 2018-02-16 23:41:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.18 Mbit/s
95th percentile per-packet one-way delay: 18.922 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 112.93 Mbit/s
95th percentile per-packet one-way delay: 18.936 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 102.82 Mbit/s
95th percentile per-packet one-way delay: 17.512 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.85 Mbit/s
95th percentile per-packet one-way delay: 18.945 ms
Loss rate: 0.00%
```

Run 6: Report of Copa — Data Link



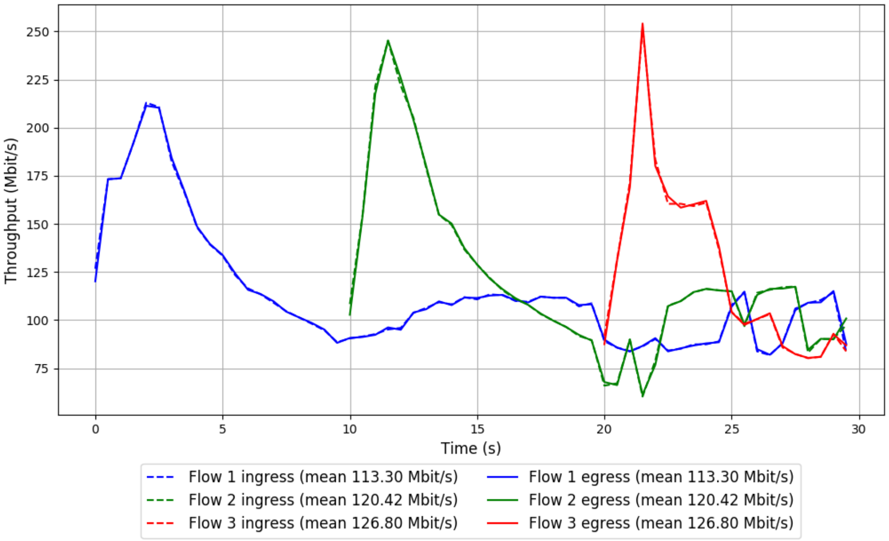


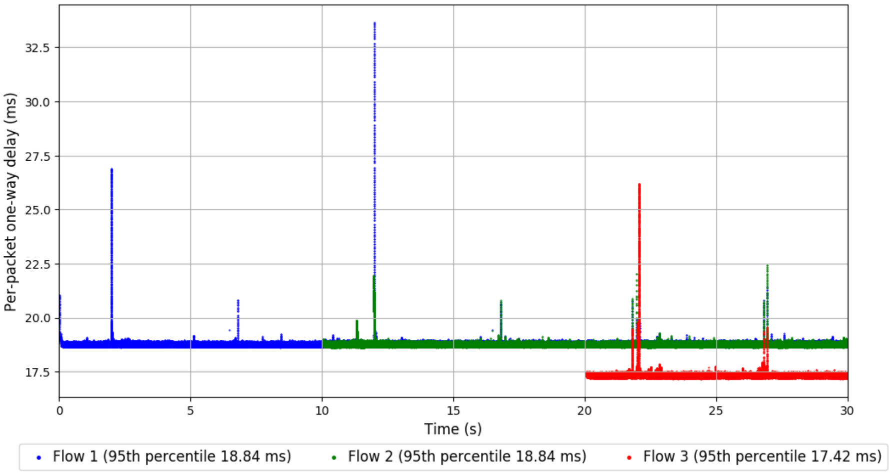
```
Run 7: Statistics of Copa

Start at: 2018-02-16 18:07:41
End at: 2018-02-16 18:08:11
Local clock offset: 0.331 ms
Remote clock offset: -5.887 ms

# Below is generated by plot.py at 2018-02-16 23:43:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 235.55 Mbit/s
95th percentile per-packet one-way delay: 18.836 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 113.30 Mbit/s
95th percentile per-packet one-way delay: 18.845 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 120.42 Mbit/s
95th percentile per-packet one-way delay: 18.842 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 126.80 Mbit/s
95th percentile per-packet one-way delay: 17.423 ms
Loss rate: 0.00%
```

Run 7: Report of Copa — Data Link



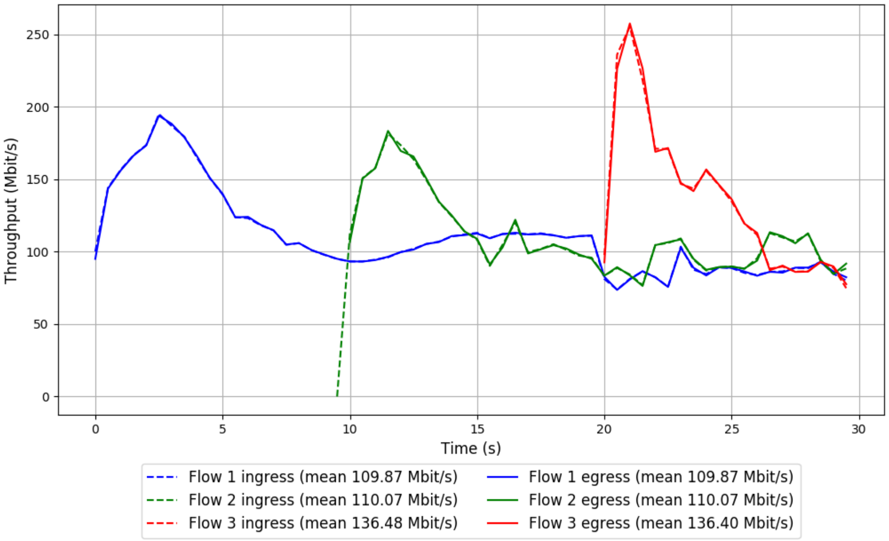


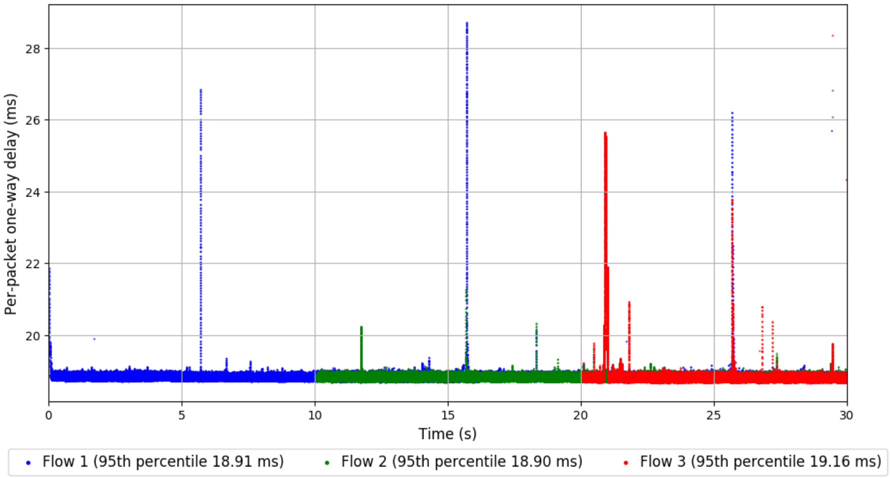
```
Run 8: Statistics of Copa

Start at: 2018-02-16 18:35:07
End at: 2018-02-16 18:35:37
Local clock offset: -0.085 ms
Remote clock offset: -4.962 ms

# Below is generated by plot.py at 2018-02-16 23:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.49 Mbit/s
95th percentile per-packet one-way delay: 18.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 109.87 Mbit/s
95th percentile per-packet one-way delay: 18.905 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 110.07 Mbit/s
95th percentile per-packet one-way delay: 18.900 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 136.40 Mbit/s
95th percentile per-packet one-way delay: 19.161 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link



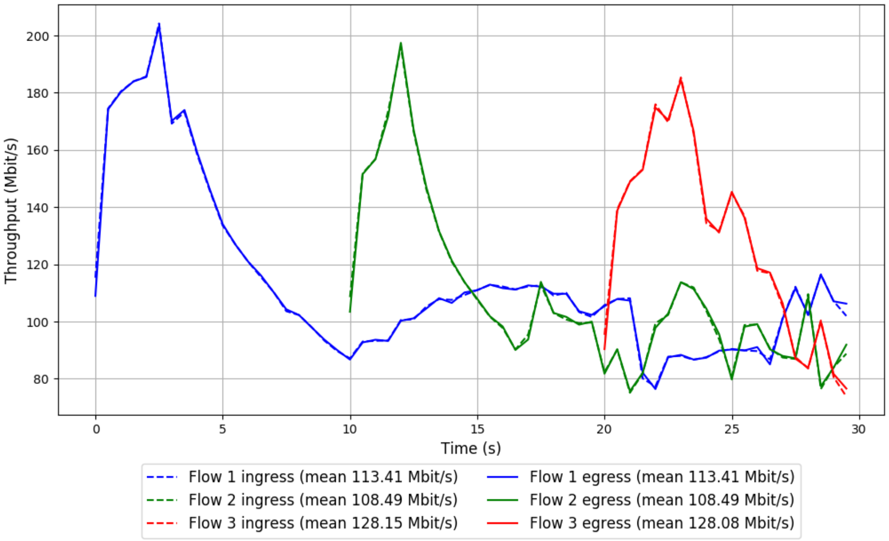


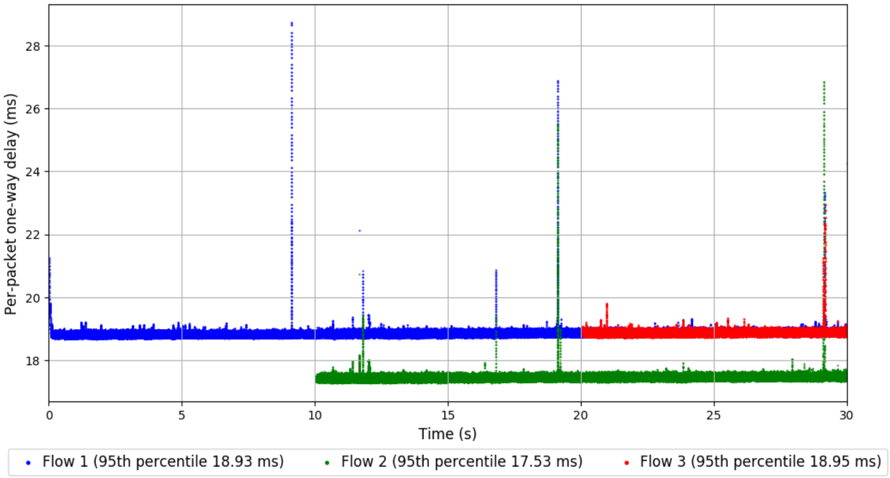
```
Run 9: Statistics of Copa

Start at: 2018-02-16 19:02:23
End at: 2018-02-16 19:02:53
Local clock offset: 0.557 ms
Remote clock offset: -4.681 ms

# Below is generated by plot.py at 2018-02-16 23:45:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.15 Mbit/s
95th percentile per-packet one-way delay: 18.916 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 113.41 Mbit/s
95th percentile per-packet one-way delay: 18.925 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 108.49 Mbit/s
95th percentile per-packet one-way delay: 17.530 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.08 Mbit/s
95th percentile per-packet one-way delay: 18.946 ms
Loss rate: 0.00%
```

Run 9: Report of Copa — Data Link



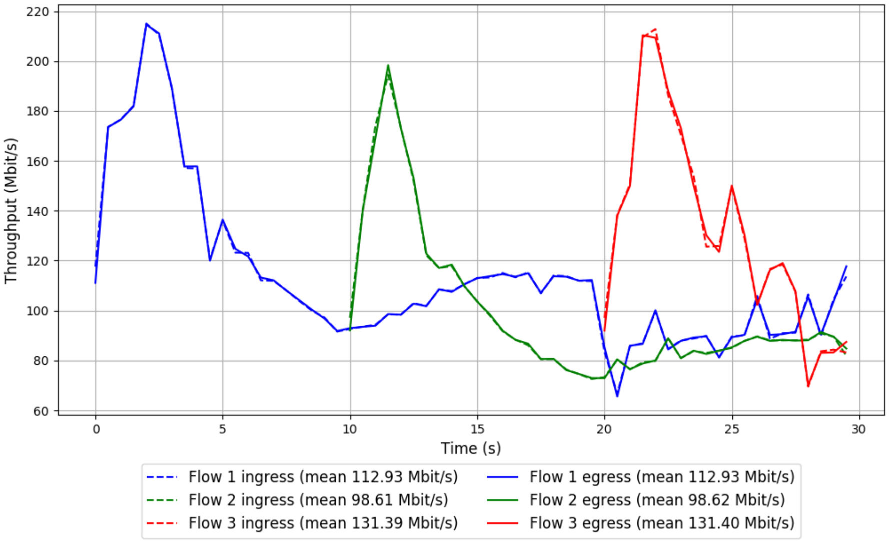


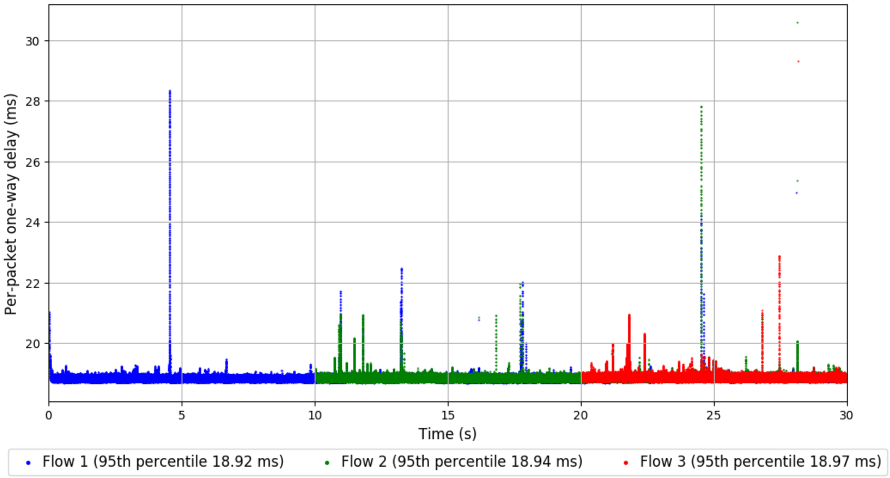
```
Run 10: Statistics of Copa

Start at: 2018-02-16 19:30:07
End at: 2018-02-16 19:30:37
Local clock offset: 0.814 ms
Remote clock offset: -6.093 ms

# Below is generated by plot.py at 2018-02-16 23:45:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 222.22 Mbit/s
95th percentile per-packet one-way delay: 18.936 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 112.93 Mbit/s
95th percentile per-packet one-way delay: 18.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.62 Mbit/s
95th percentile per-packet one-way delay: 18.937 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 131.40 Mbit/s
95th percentile per-packet one-way delay: 18.973 ms
Loss rate: 0.01%
```

Run 10: Report of Copa — Data Link



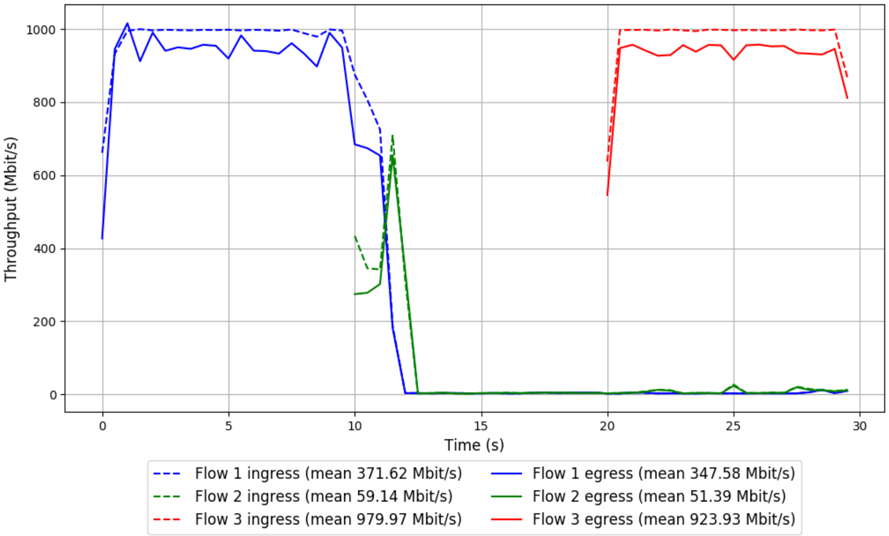


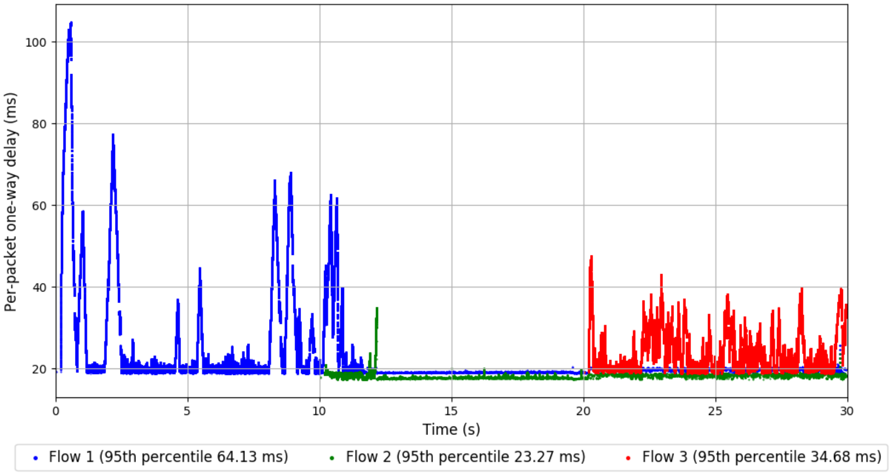
```
Run 1: Statistics of FillP

Start at: 2018-02-16 15:12:26
End at: 2018-02-16 15:12:56
Local clock offset: -0.109 ms
Remote clock offset: -4.983 ms

# Below is generated by plot.py at 2018-02-16 23:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.77 Mbit/s
95th percentile per-packet one-way delay: 52.354 ms
Loss rate: 6.49%
-- Flow 1:
Average throughput: 347.58 Mbit/s
95th percentile per-packet one-way delay: 64.129 ms
Loss rate: 6.47%
-- Flow 2:
Average throughput: 51.39 Mbit/s
95th percentile per-packet one-way delay: 23.275 ms
Loss rate: 13.11%
-- Flow 3:
Average throughput: 923.93 Mbit/s
95th percentile per-packet one-way delay: 34.683 ms
Loss rate: 5.72%
```

Run 1: Report of FillP — Data Link



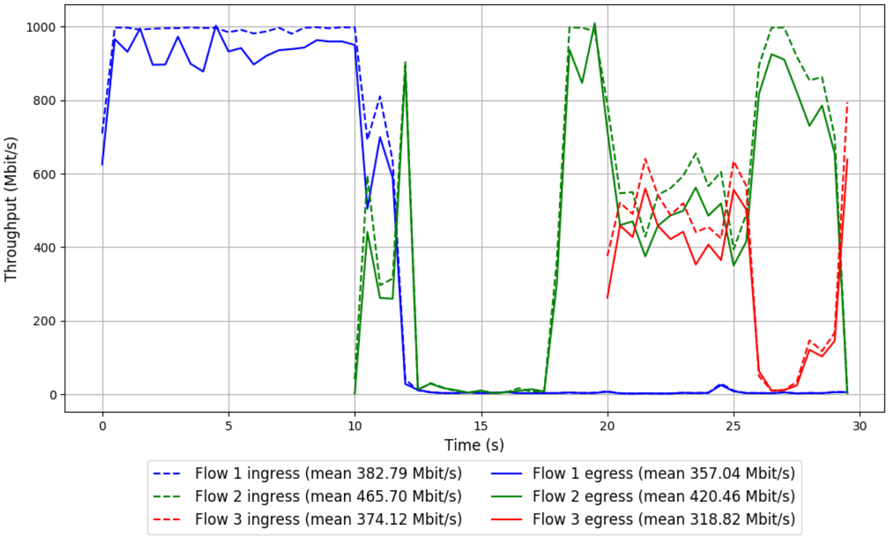


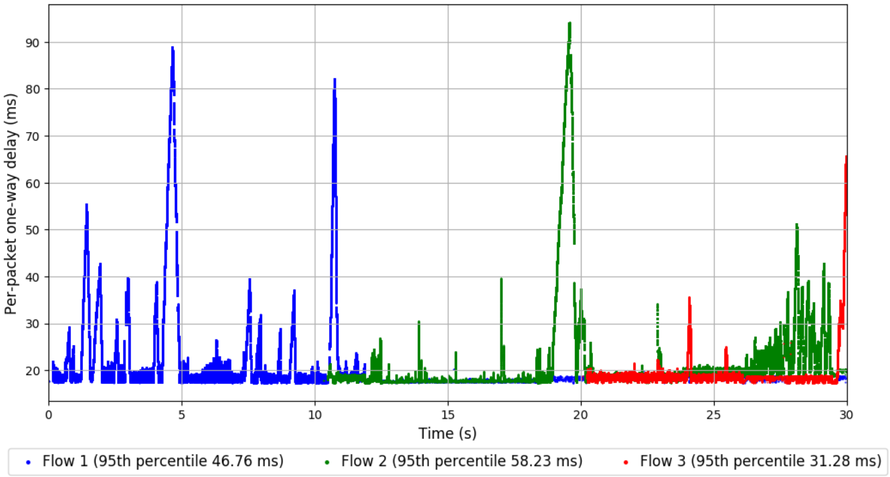
```
Run 2: Statistics of FillP

Start at: 2018-02-16 15:39:32
End at: 2018-02-16 15:40:02
Local clock offset: -0.156 ms
Remote clock offset: -4.996 ms

# Below is generated by plot.py at 2018-02-16 23:50:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 738.29 Mbit/s
95th percentile per-packet one-way delay: 48.644 ms
Loss rate: 9.60%
-- Flow 1:
Average throughput: 357.04 Mbit/s
95th percentile per-packet one-way delay: 46.761 ms
Loss rate: 6.73%
-- Flow 2:
Average throughput: 420.46 Mbit/s
95th percentile per-packet one-way delay: 58.230 ms
Loss rate: 11.08%
-- Flow 3:
Average throughput: 318.82 Mbit/s
95th percentile per-packet one-way delay: 31.281 ms
Loss rate: 14.77%
```

Run 2: Report of FillP — Data Link



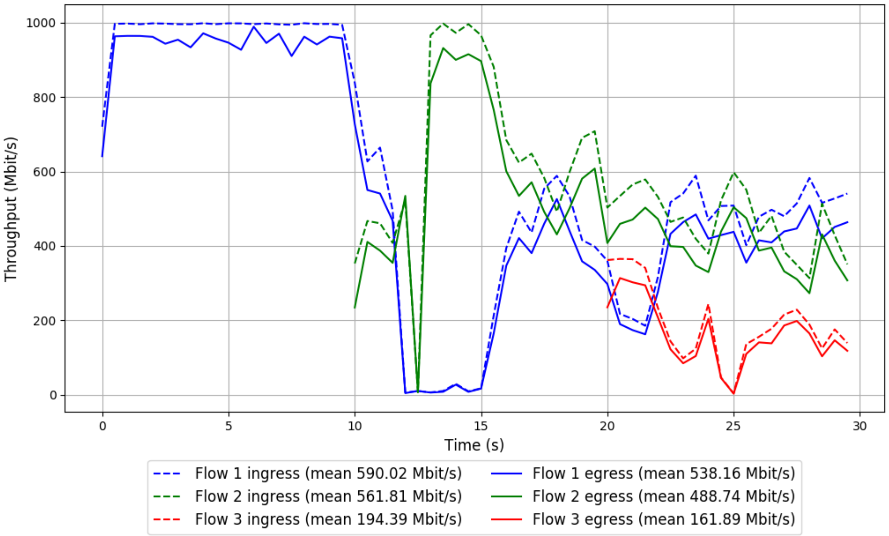


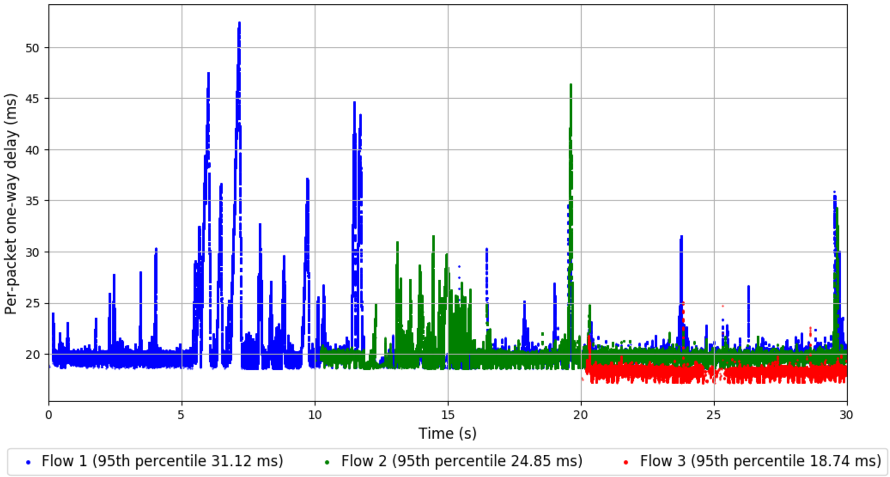
```
Run 3: Statistics of FillP

Start at: 2018-02-16 16:06:45
End at: 2018-02-16 16:07:15
Local clock offset: 0.067 ms
Remote clock offset: -5.432 ms

# Below is generated by plot.py at 2018-02-16 23:53:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 917.15 Mbit/s
95th percentile per-packet one-way delay: 27.586 ms
Loss rate: 10.82%
-- Flow 1:
Average throughput: 538.16 Mbit/s
95th percentile per-packet one-way delay: 31.118 ms
Loss rate: 8.79%
-- Flow 2:
Average throughput: 488.74 Mbit/s
95th percentile per-packet one-way delay: 24.851 ms
Loss rate: 13.00%
-- Flow 3:
Average throughput: 161.89 Mbit/s
95th percentile per-packet one-way delay: 18.744 ms
Loss rate: 16.71%
```

Run 3: Report of FillP — Data Link



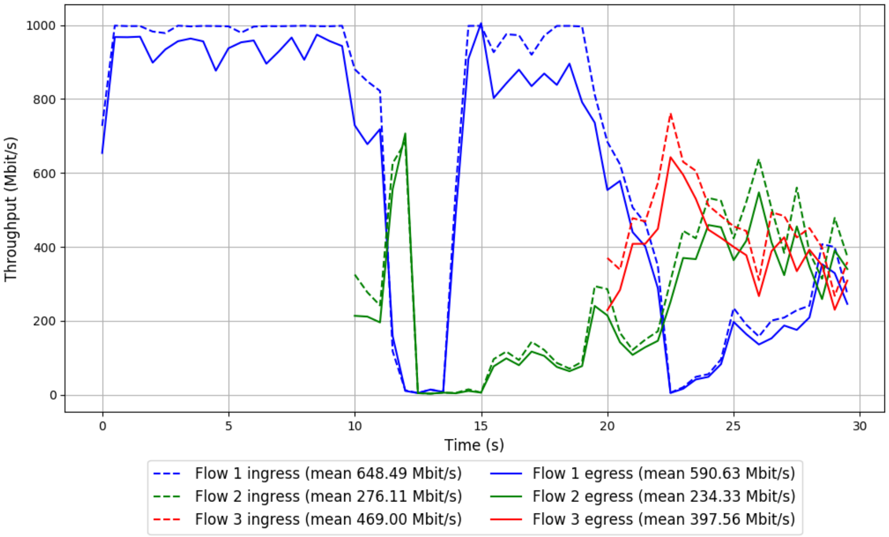


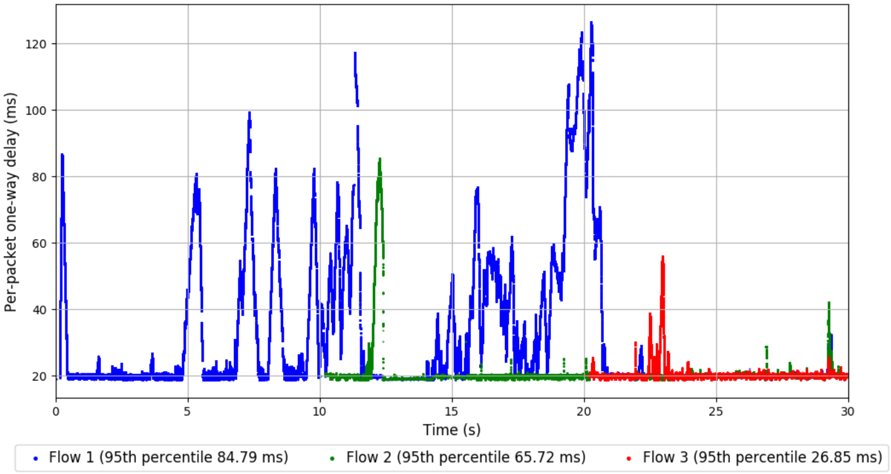
```
Run 4: Statistics of FillP

Start at: 2018-02-16 16:34:05
End at: 2018-02-16 16:34:35
Local clock offset: 0.035 ms
Remote clock offset: -6.481 ms

# Below is generated by plot.py at 2018-02-16 23:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 878.36 Mbit/s
95th percentile per-packet one-way delay: 76.260 ms
Loss rate: 11.07%
-- Flow 1:
Average throughput: 590.63 Mbit/s
95th percentile per-packet one-way delay: 84.790 ms
Loss rate: 8.92%
-- Flow 2:
Average throughput: 234.33 Mbit/s
95th percentile per-packet one-way delay: 65.719 ms
Loss rate: 15.13%
-- Flow 3:
Average throughput: 397.56 Mbit/s
95th percentile per-packet one-way delay: 26.849 ms
Loss rate: 15.23%
```

Run 4: Report of FillP — Data Link



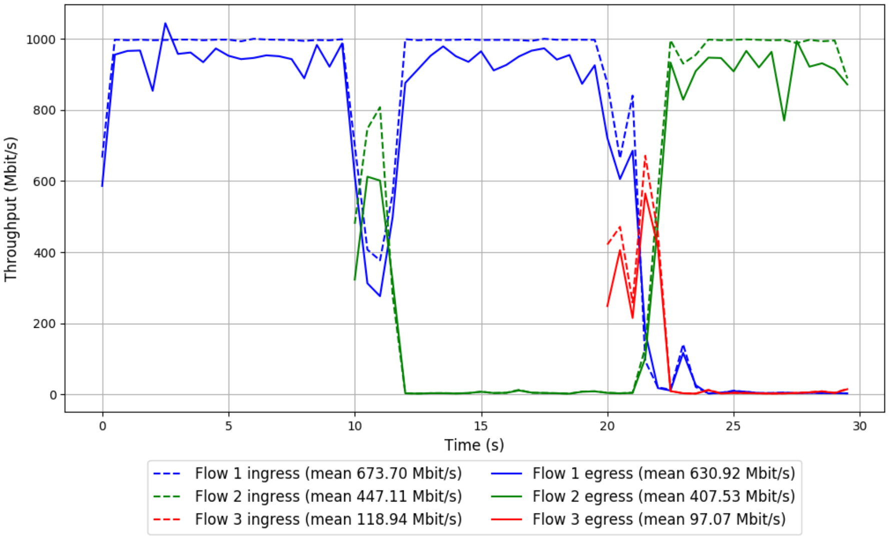


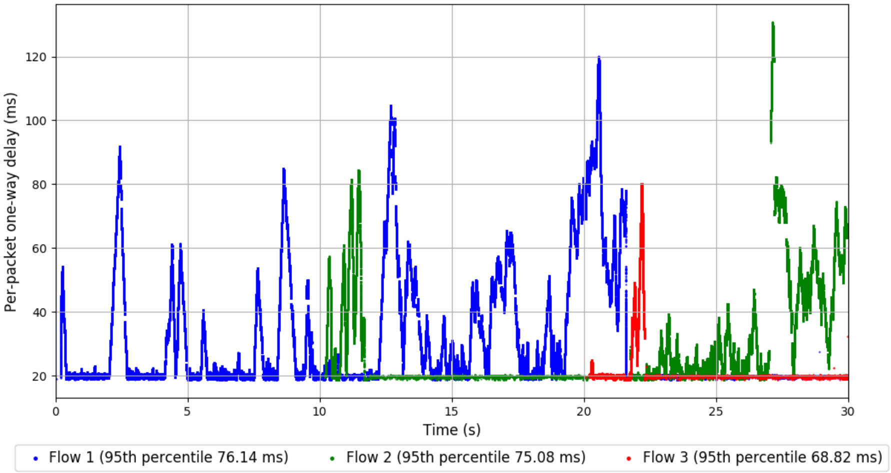
```
Run 5: Statistics of FillP

Start at: 2018-02-16 17:01:14
End at: 2018-02-16 17:01:44
Local clock offset: 0.14 ms
Remote clock offset: -5.001 ms

# Below is generated by plot.py at 2018-02-16 23:57:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 933.75 Mbit/s
95th percentile per-packet one-way delay: 75.434 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 630.92 Mbit/s
95th percentile per-packet one-way delay: 76.142 ms
Loss rate: 6.35%
-- Flow 2:
Average throughput: 407.53 Mbit/s
95th percentile per-packet one-way delay: 75.082 ms
Loss rate: 8.86%
-- Flow 3:
Average throughput: 97.07 Mbit/s
95th percentile per-packet one-way delay: 68.821 ms
Loss rate: 18.29%
```

Run 5: Report of FillP — Data Link



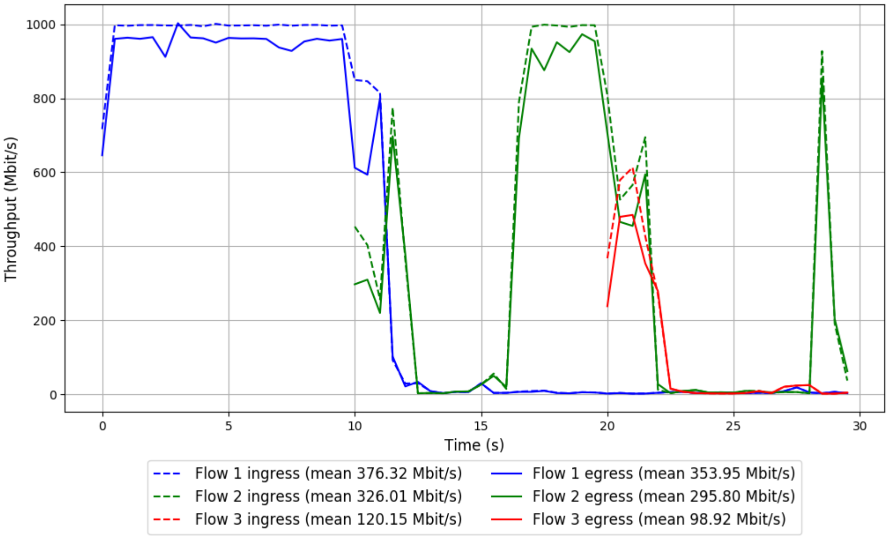


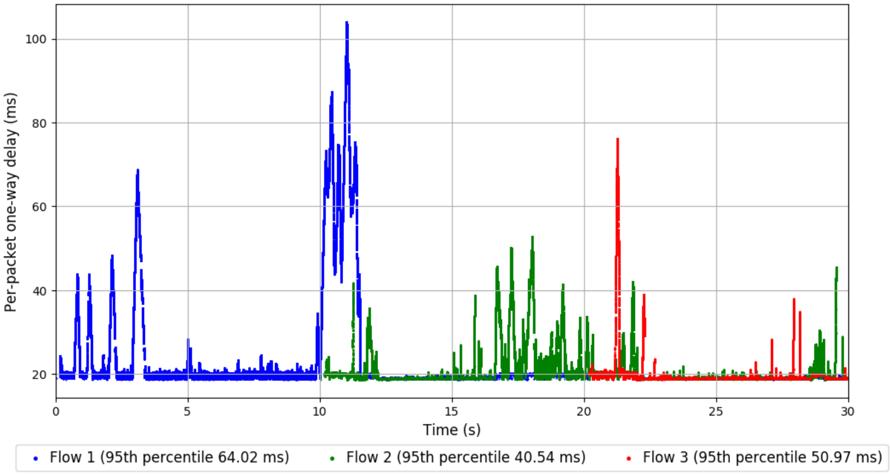
```
Run 6: Statistics of FillP

Start at: 2018-02-16 17:28:52
End at: 2018-02-16 17:29:22
Local clock offset: 0.073 ms
Remote clock offset: -5.566 ms

# Below is generated by plot.py at 2018-02-16 23:57:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 583.44 Mbit/s
95th percentile per-packet one-way delay: 54.813 ms
Loss rate: 7.82%
-- Flow 1:
Average throughput: 353.95 Mbit/s
95th percentile per-packet one-way delay: 64.020 ms
Loss rate: 5.94%
-- Flow 2:
Average throughput: 295.80 Mbit/s
95th percentile per-packet one-way delay: 40.542 ms
Loss rate: 9.27%
-- Flow 3:
Average throughput: 98.92 Mbit/s
95th percentile per-packet one-way delay: 50.971 ms
Loss rate: 17.68%
```

Run 6: Report of FillP — Data Link



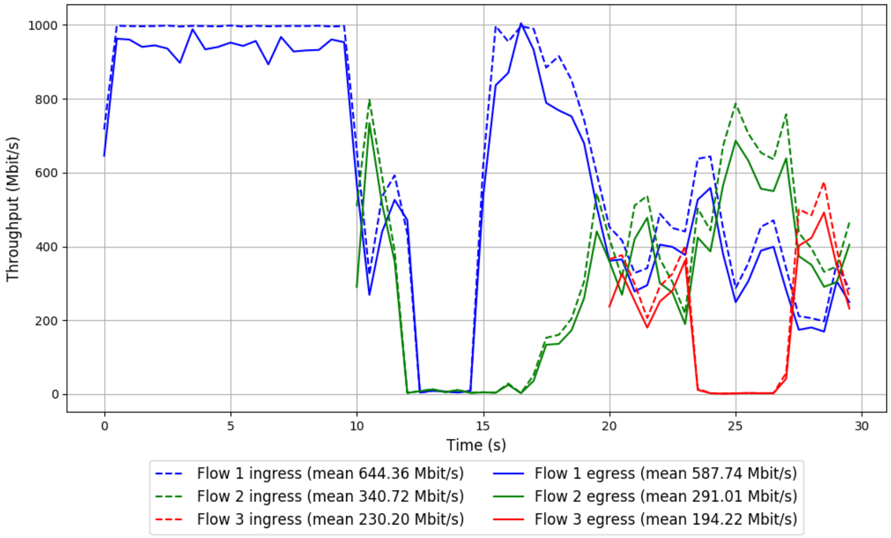


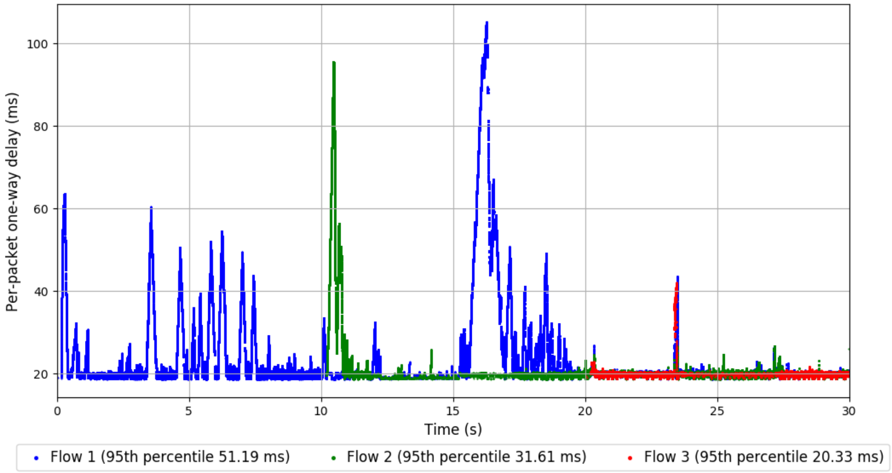
```
Run 7: Statistics of FillP

Start at: 2018-02-16 17:56:20
End at: 2018-02-16 17:56:50
Local clock offset: 0.264 ms
Remote clock offset: -5.881 ms

# Below is generated by plot.py at 2018-02-16 23:58:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 845.75 Mbit/s
95th percentile per-packet one-way delay: 48.031 ms
Loss rate: 10.72%
-- Flow 1:
Average throughput: 587.74 Mbit/s
95th percentile per-packet one-way delay: 51.188 ms
Loss rate: 8.78%
-- Flow 2:
Average throughput: 291.01 Mbit/s
95th percentile per-packet one-way delay: 31.606 ms
Loss rate: 14.56%
-- Flow 3:
Average throughput: 194.22 Mbit/s
95th percentile per-packet one-way delay: 20.330 ms
Loss rate: 15.62%
```

Run 7: Report of FillP — Data Link



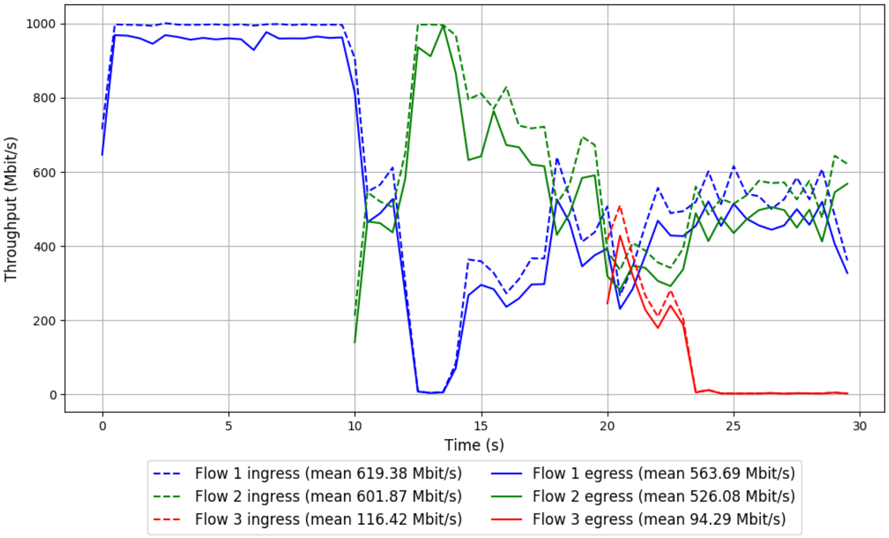


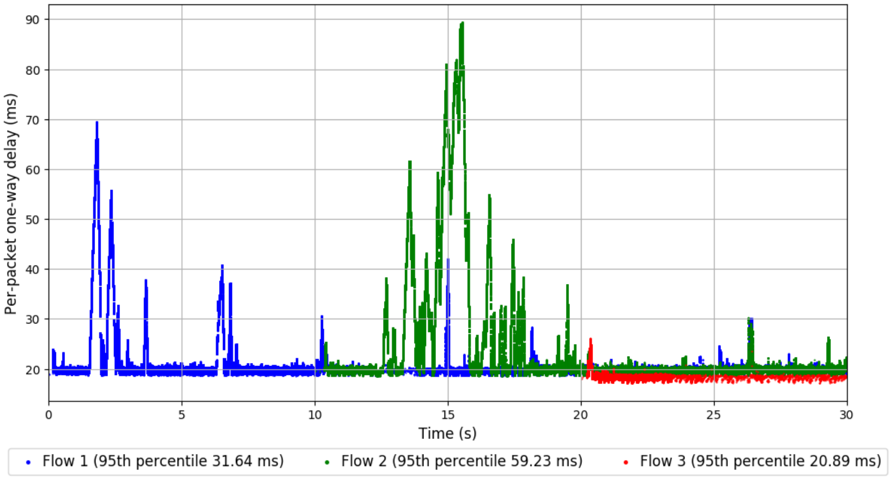
```
Run 8: Statistics of FillP

Start at: 2018-02-16 18:23:56
End at: 2018-02-16 18:24:26
Local clock offset: 0.057 ms
Remote clock offset: -5.88 ms

# Below is generated by plot.py at 2018-02-17 00:00:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 945.12 Mbit/s
95th percentile per-packet one-way delay: 43.104 ms
Loss rate: 10.72%
-- Flow 1:
Average throughput: 563.69 Mbit/s
95th percentile per-packet one-way delay: 31.642 ms
Loss rate: 8.99%
-- Flow 2:
Average throughput: 526.08 Mbit/s
95th percentile per-packet one-way delay: 59.231 ms
Loss rate: 12.59%
-- Flow 3:
Average throughput: 94.29 Mbit/s
95th percentile per-packet one-way delay: 20.894 ms
Loss rate: 19.00%
```

Run 8: Report of FillP — Data Link



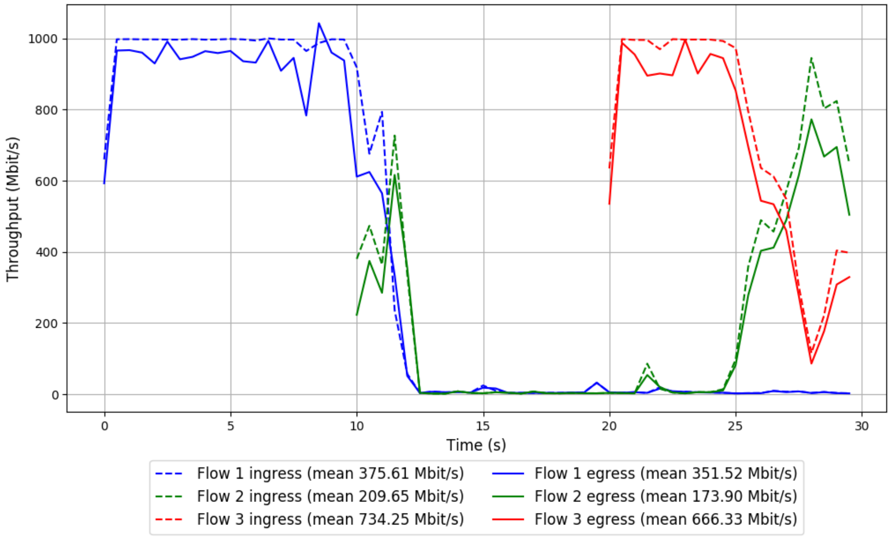


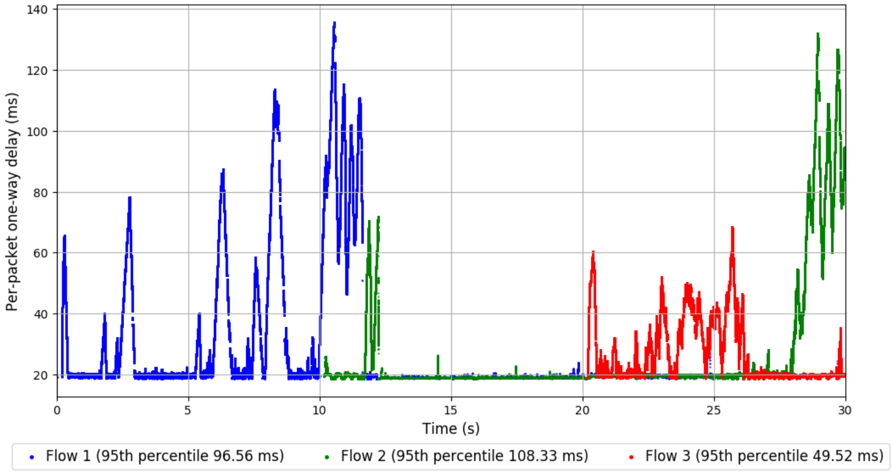
```
Run 9: Statistics of FillP

Start at: 2018-02-16 18:51:12
End at: 2018-02-16 18:51:42
Local clock offset: 0.267 ms
Remote clock offset: -4.485 ms

# Below is generated by plot.py at 2018-02-17 00:01:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.86 Mbit/s
95th percentile per-packet one-way delay: 89.226 ms
Loss rate: 9.28%
-- Flow 1:
Average throughput: 351.52 Mbit/s
95th percentile per-packet one-way delay: 96.561 ms
Loss rate: 6.42%
-- Flow 2:
Average throughput: 173.90 Mbit/s
95th percentile per-packet one-way delay: 108.326 ms
Loss rate: 17.05%
-- Flow 3:
Average throughput: 666.33 Mbit/s
95th percentile per-packet one-way delay: 49.521 ms
Loss rate: 9.25%
```

Run 9: Report of FillP — Data Link



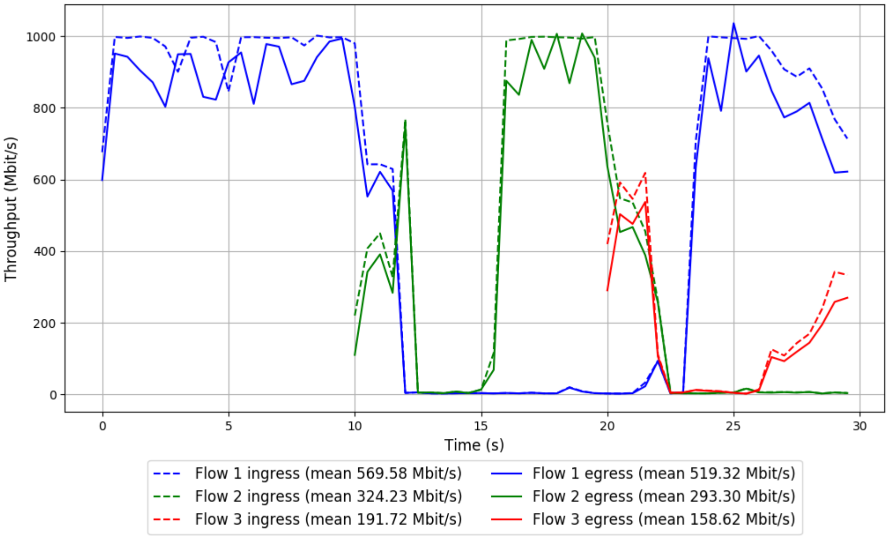


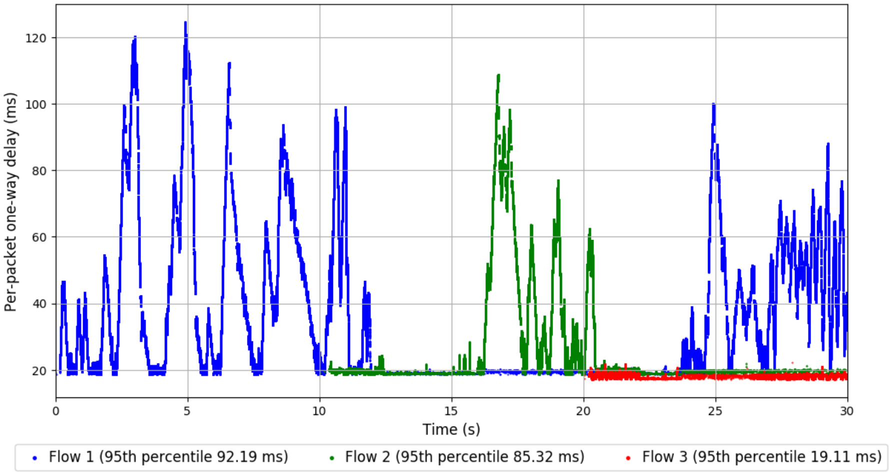
```
Run 10: Statistics of FillP

Start at: 2018-02-16 19:18:47
End at: 2018-02-16 19:19:17
Local clock offset: 0.803 ms
Remote clock offset: -5.862 ms

# Below is generated by plot.py at 2018-02-17 00:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 767.07 Mbit/s
95th percentile per-packet one-way delay: 88.762 ms
Loss rate: 9.64%
-- Flow 1:
Average throughput: 519.32 Mbit/s
95th percentile per-packet one-way delay: 92.195 ms
Loss rate: 8.83%
-- Flow 2:
Average throughput: 293.30 Mbit/s
95th percentile per-packet one-way delay: 85.316 ms
Loss rate: 9.54%
-- Flow 3:
Average throughput: 158.62 Mbit/s
95th percentile per-packet one-way delay: 19.115 ms
Loss rate: 17.27%
```

Run 10: Report of FillP — Data Link



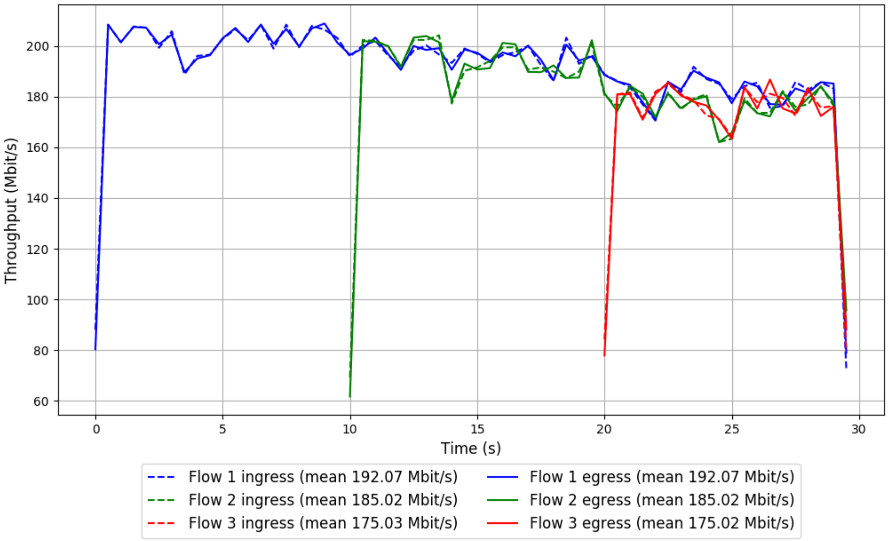


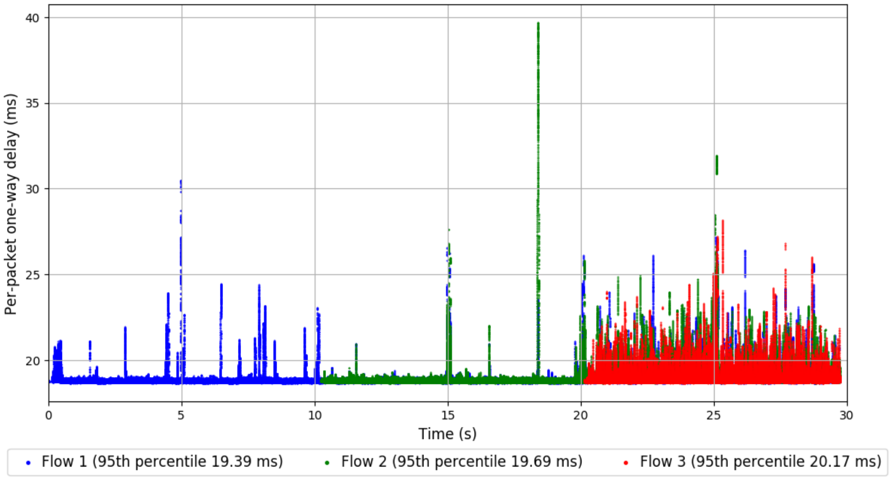
```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-16 15:09:01
End at: 2018-02-16 15:09:31
Local clock offset: 0.005 ms
Remote clock offset: -4.961 ms

# Below is generated by plot.py at 2018-02-17 00:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.06 Mbit/s
95th percentile per-packet one-way delay: 19.661 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 192.07 Mbit/s
95th percentile per-packet one-way delay: 19.393 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 185.02 Mbit/s
95th percentile per-packet one-way delay: 19.693 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 175.02 Mbit/s
95th percentile per-packet one-way delay: 20.167 ms
Loss rate: 0.00%
```

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



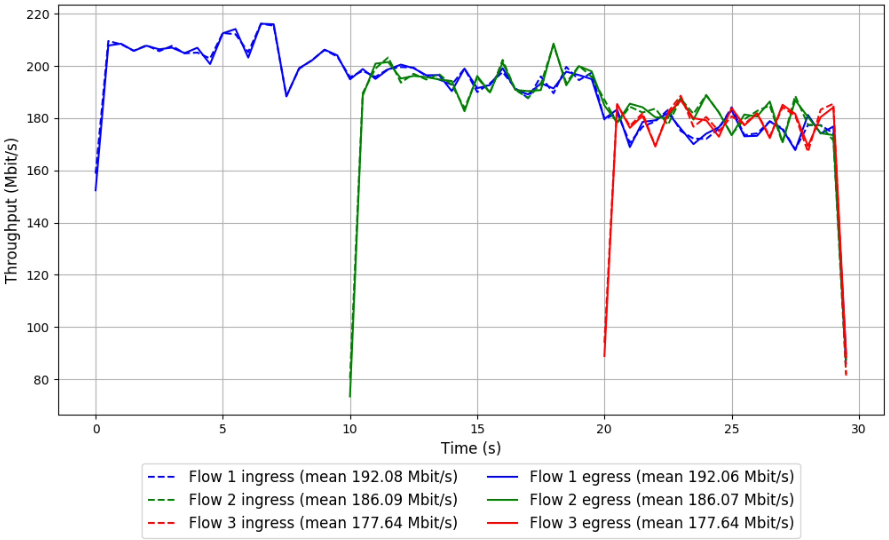


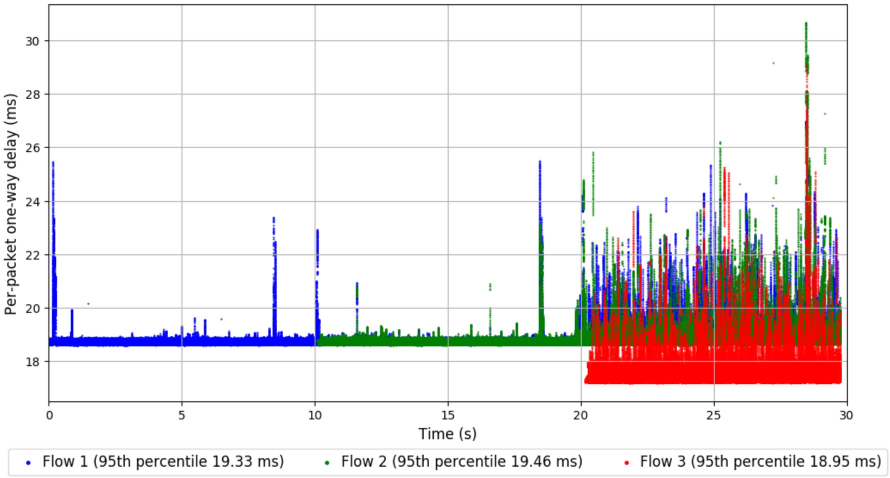
```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-16 15:36:17
End at: 2018-02-16 15:36:47
Local clock offset: -0.078 ms
Remote clock offset: -4.942 ms

# Below is generated by plot.py at 2018-02-17 00:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.27 Mbit/s
95th percentile per-packet one-way delay: 19.343 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 192.06 Mbit/s
95th percentile per-packet one-way delay: 19.334 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 186.07 Mbit/s
95th percentile per-packet one-way delay: 19.456 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 177.64 Mbit/s
95th percentile per-packet one-way delay: 18.947 ms
Loss rate: 0.00%
```

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



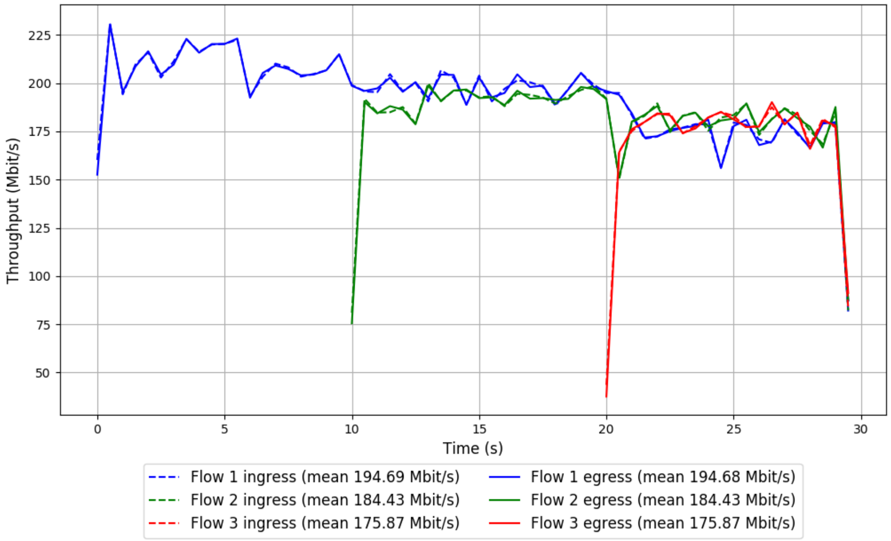


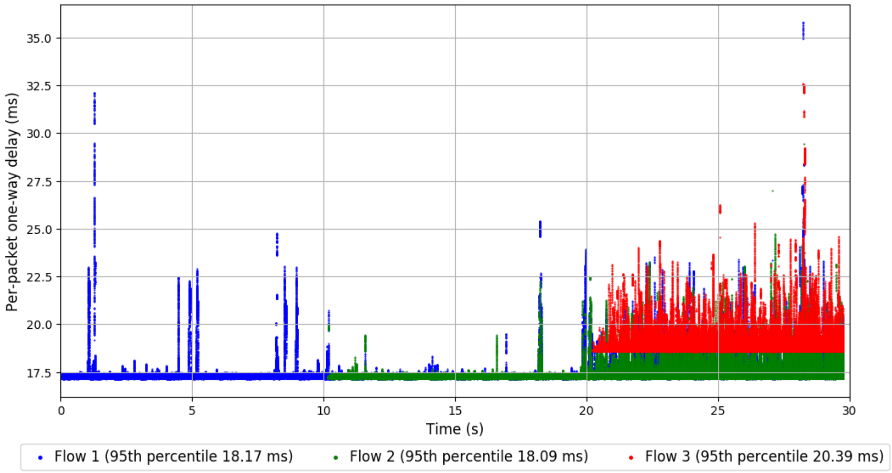
```
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-16 16:03:26
End at: 2018-02-16 16:03:56
Local clock offset: 0.061 ms
Remote clock offset: -5.429 ms

# Below is generated by plot.py at 2018-02-17 00:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.55 Mbit/s
95th percentile per-packet one-way delay: 19.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.68 Mbit/s
95th percentile per-packet one-way delay: 18.169 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 184.43 Mbit/s
95th percentile per-packet one-way delay: 18.086 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 175.87 Mbit/s
95th percentile per-packet one-way delay: 20.388 ms
Loss rate: 0.00%
```

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



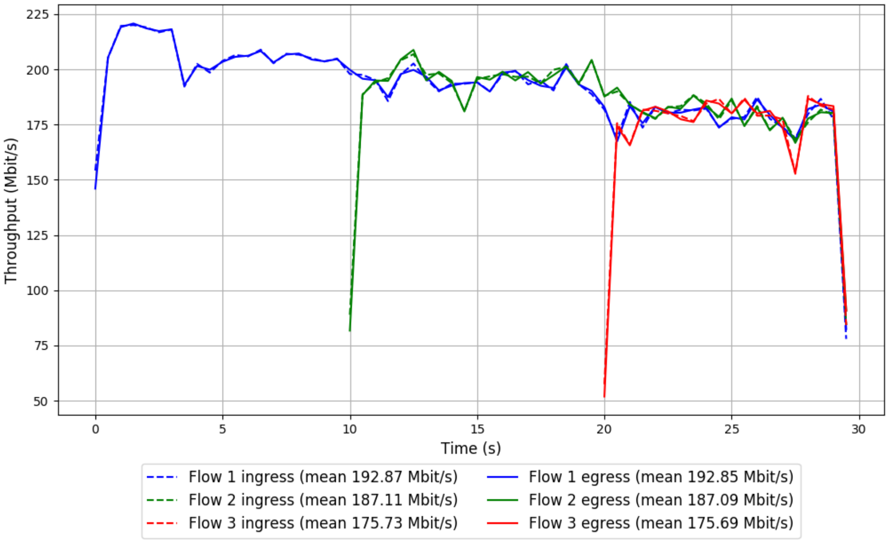


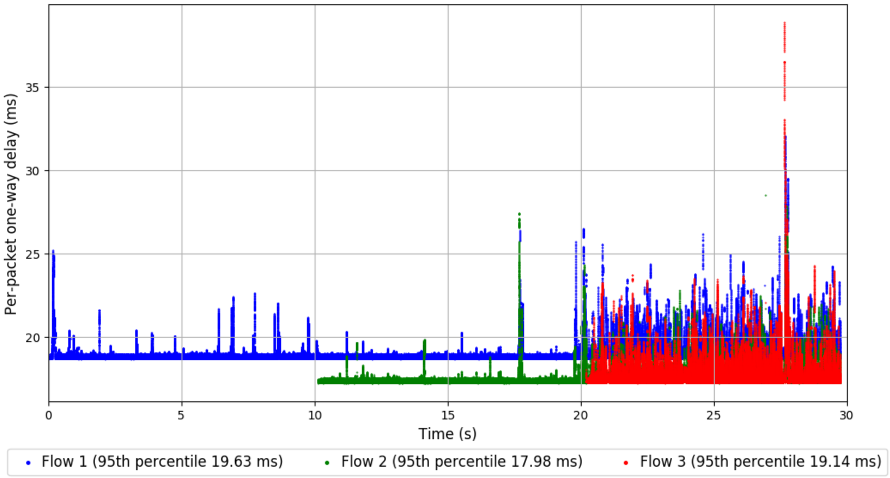
```
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-16 16:30:46
End at: 2018-02-16 16:31:16
Local clock offset: 0.044 ms
Remote clock offset: -6.504 ms

# Below is generated by plot.py at 2018-02-17 00:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.84 Mbit/s
95th percentile per-packet one-way delay: 19.264 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 192.85 Mbit/s
95th percentile per-packet one-way delay: 19.631 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 187.09 Mbit/s
95th percentile per-packet one-way delay: 17.980 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 175.69 Mbit/s
95th percentile per-packet one-way delay: 19.138 ms
Loss rate: 0.02%
```

Run 4: Report of Indigo-1-32 — Data Link



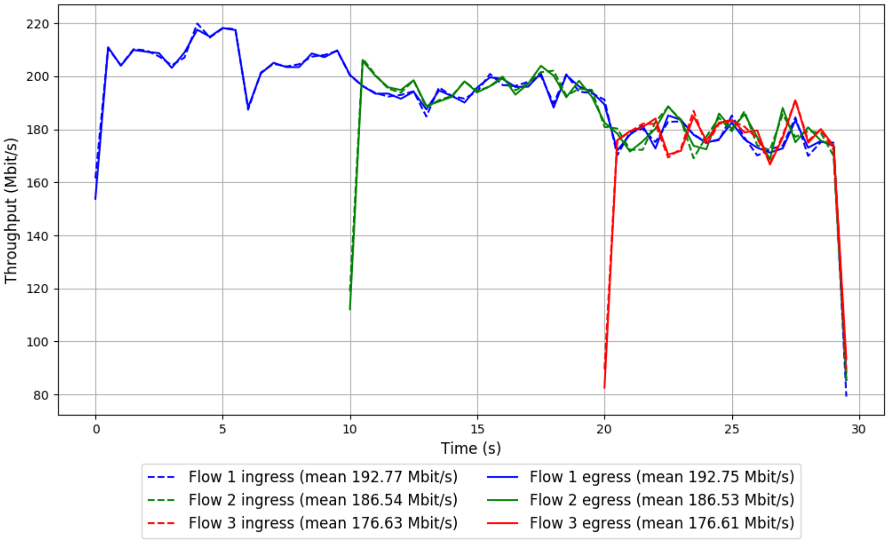


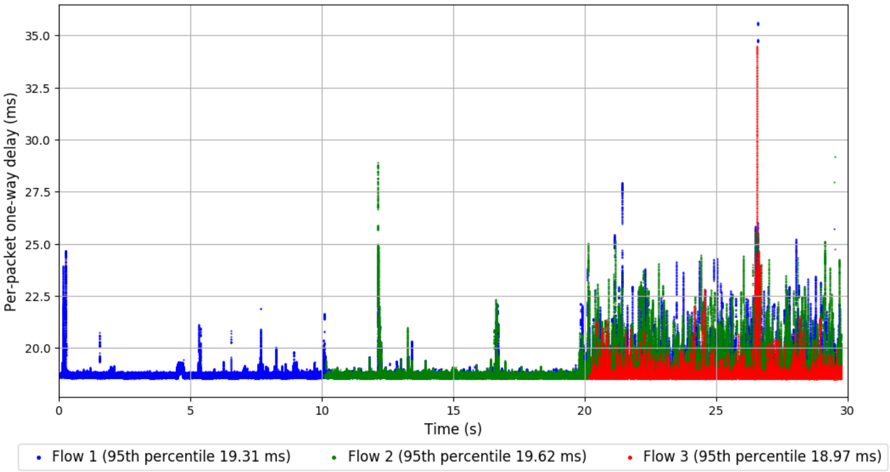
```
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-16 16:57:57
End at: 2018-02-16 16:58:27
Local clock offset: 0.148 ms
Remote clock offset: -5.26 ms

# Below is generated by plot.py at 2018-02-17 00:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.95 Mbit/s
95th percentile per-packet one-way delay: 19.343 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 192.75 Mbit/s
95th percentile per-packet one-way delay: 19.307 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 186.53 Mbit/s
95th percentile per-packet one-way delay: 19.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.61 Mbit/s
95th percentile per-packet one-way delay: 18.967 ms
Loss rate: 0.01%
```

Run 5: Report of Indigo-1-32 — Data Link



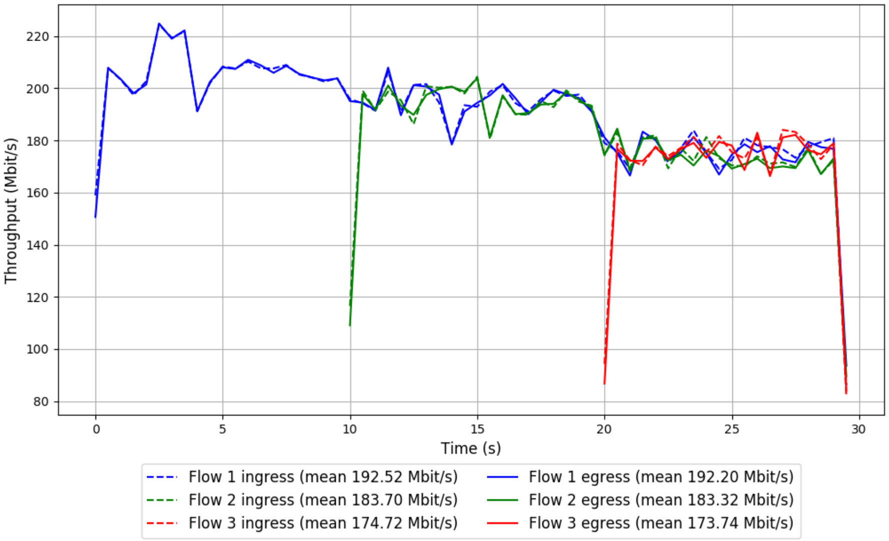


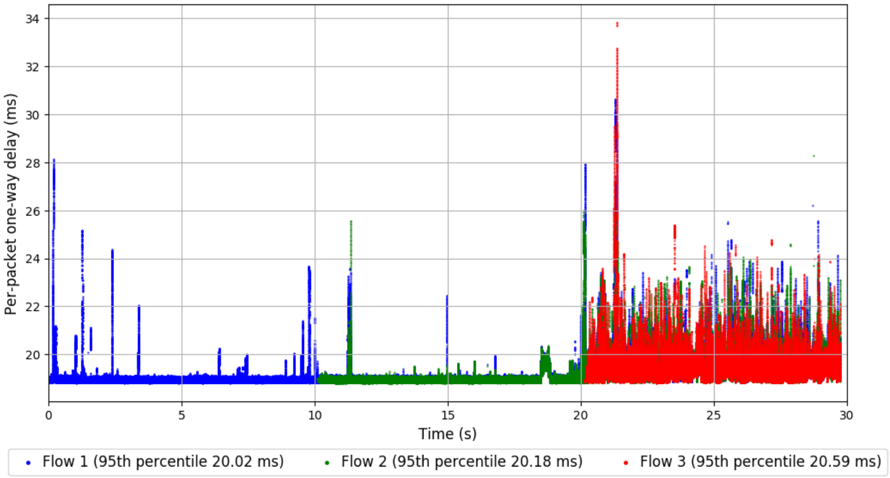
```
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-16 17:25:32
End at: 2018-02-16 17:26:02
Local clock offset: -0.005 ms
Remote clock offset: -5.369 ms

# Below is generated by plot.py at 2018-02-17 00:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 369.43 Mbit/s
95th percentile per-packet one-way delay: 20.188 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 192.20 Mbit/s
95th percentile per-packet one-way delay: 20.021 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 183.32 Mbit/s
95th percentile per-packet one-way delay: 20.177 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 173.74 Mbit/s
95th percentile per-packet one-way delay: 20.595 ms
Loss rate: 0.57%
```

Run 6: Report of Indigo-1-32 — Data Link



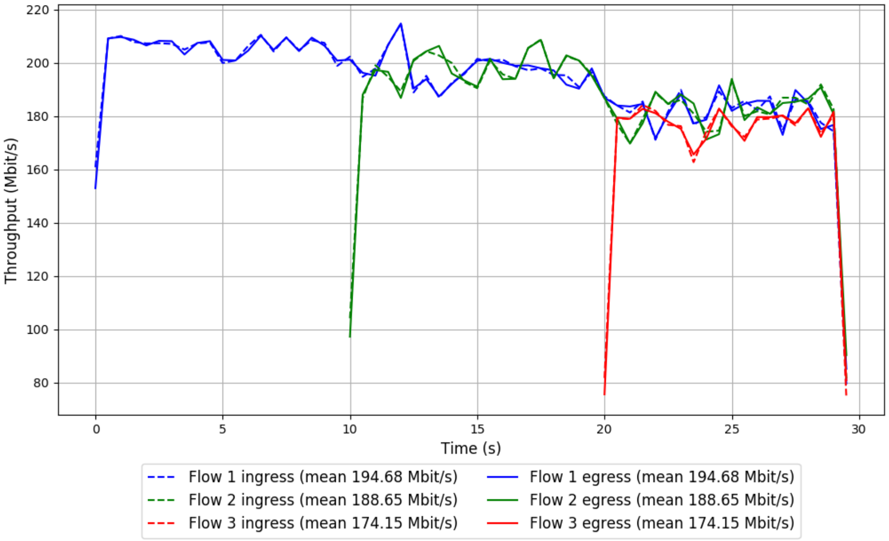


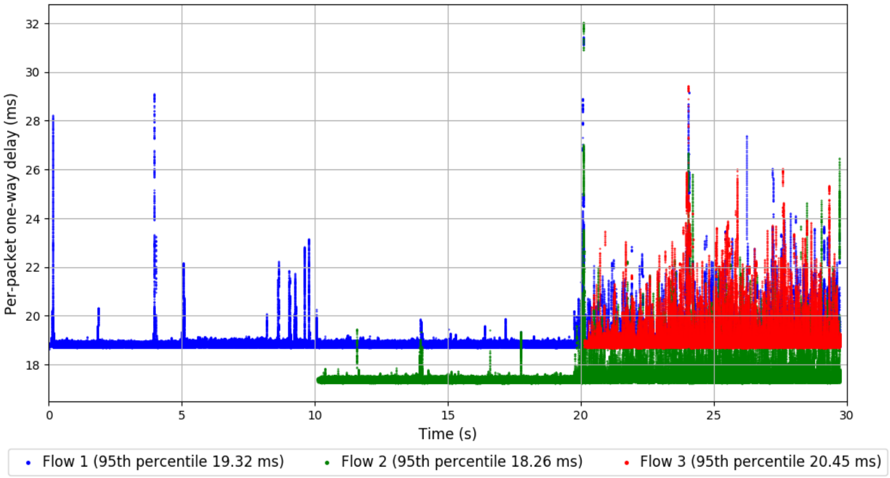
```
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-16 17:52:49
End at: 2018-02-16 17:53:19
Local clock offset: 0.307 ms
Remote clock offset: -5.825 ms

# Below is generated by plot.py at 2018-02-17 00:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.78 Mbit/s
95th percentile per-packet one-way delay: 19.393 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.68 Mbit/s
95th percentile per-packet one-way delay: 19.321 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 188.65 Mbit/s
95th percentile per-packet one-way delay: 18.257 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 174.15 Mbit/s
95th percentile per-packet one-way delay: 20.449 ms
Loss rate: 0.00%
```

Run 7: Report of Indigo-1-32 — Data Link



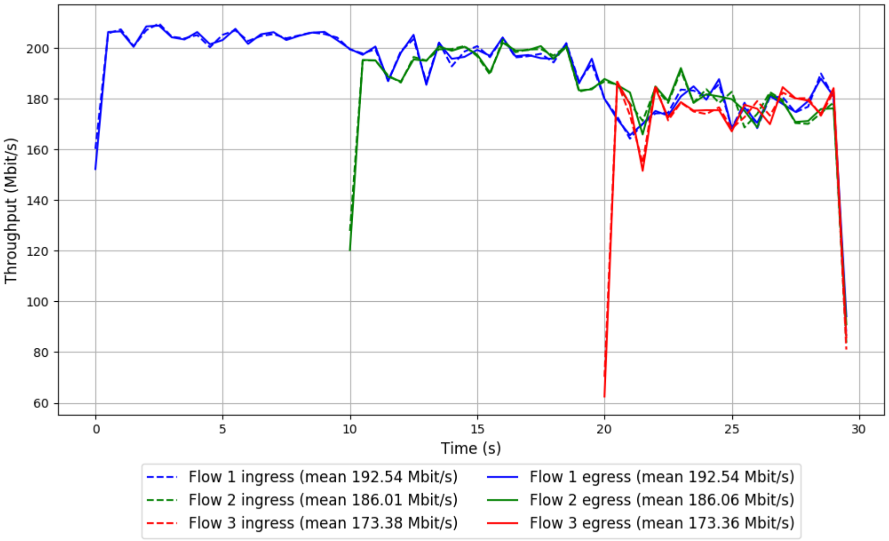


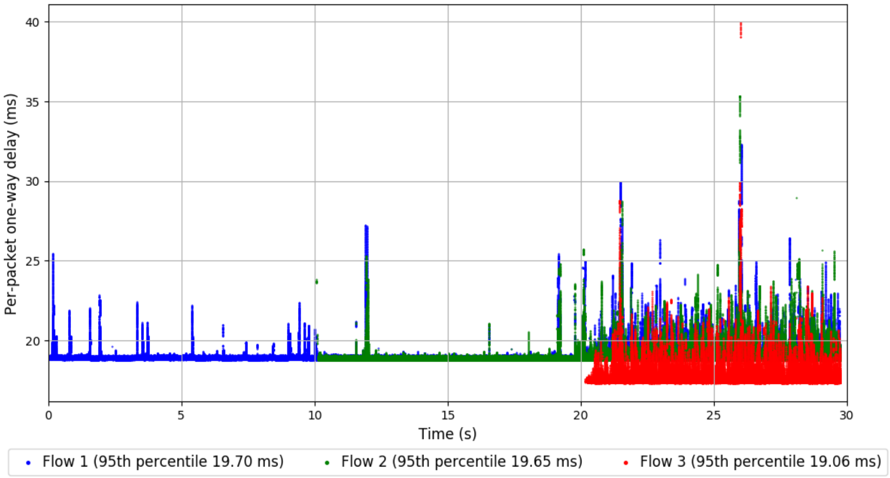
```
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-16 18:20:40
End at: 2018-02-16 18:21:10
Local clock offset: 0.007 ms
Remote clock offset: -5.861 ms

# Below is generated by plot.py at 2018-02-17 00:05:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.47 Mbit/s
95th percentile per-packet one-way delay: 19.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 192.54 Mbit/s
95th percentile per-packet one-way delay: 19.696 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.06 Mbit/s
95th percentile per-packet one-way delay: 19.653 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 173.36 Mbit/s
95th percentile per-packet one-way delay: 19.058 ms
Loss rate: 0.01%
```

Run 8: Report of Indigo-1-32 — Data Link



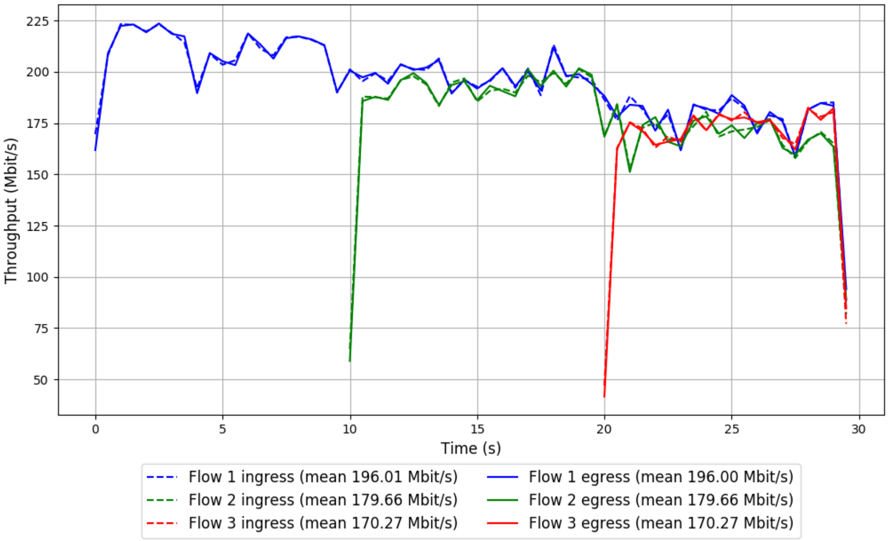


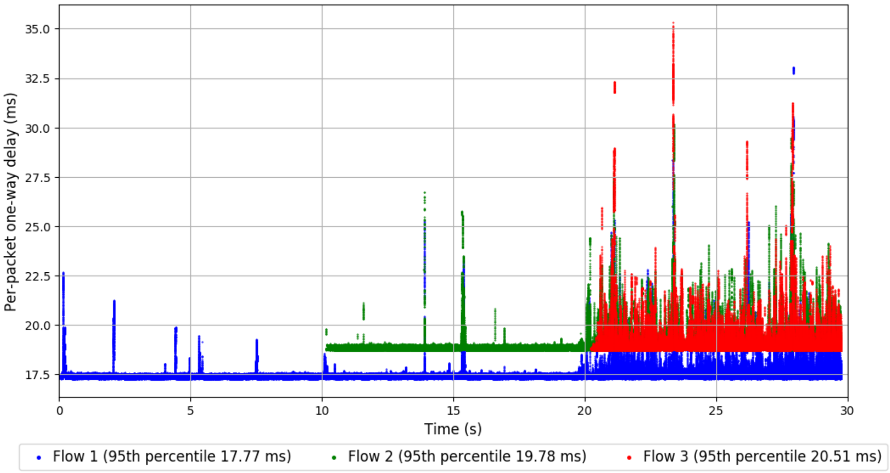
```
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-16 18:47:57
End at: 2018-02-16 18:48:27
Local clock offset: 0.156 ms
Remote clock offset: -4.537 ms

# Below is generated by plot.py at 2018-02-17 00:05:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.92 Mbit/s
95th percentile per-packet one-way delay: 19.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 196.00 Mbit/s
95th percentile per-packet one-way delay: 17.768 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 179.66 Mbit/s
95th percentile per-packet one-way delay: 19.779 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 170.27 Mbit/s
95th percentile per-packet one-way delay: 20.506 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo-1-32 — Data Link



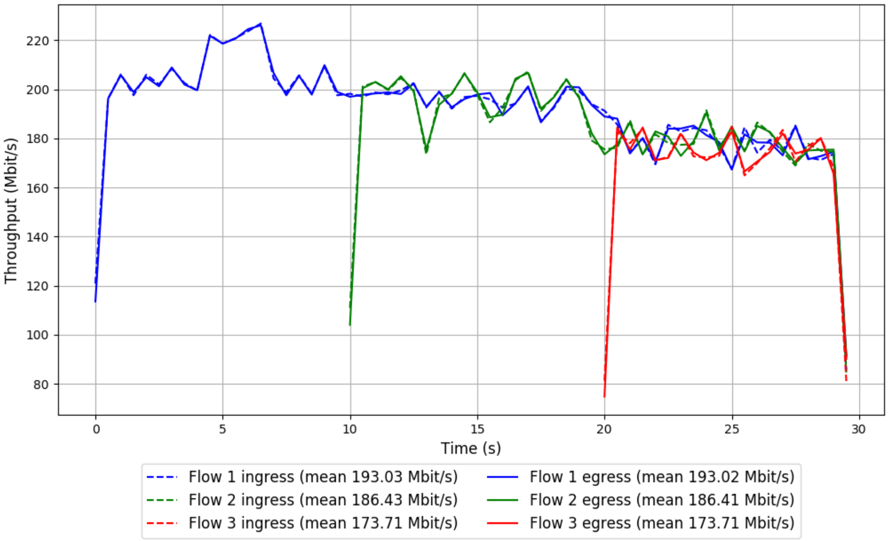


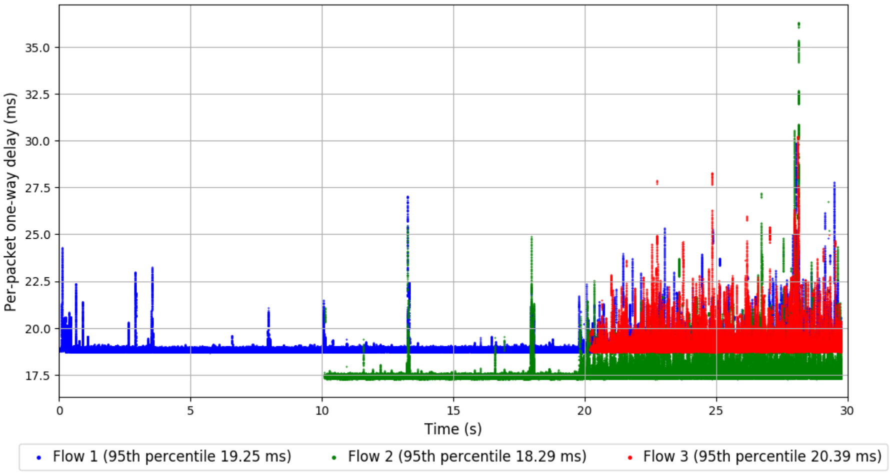
```
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-16 19:15:23
End at: 2018-02-16 19:15:53
Local clock offset: 0.677 ms
Remote clock offset: -5.744 ms

# Below is generated by plot.py at 2018-02-17 00:06:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.19 Mbit/s
95th percentile per-packet one-way delay: 19.373 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.02 Mbit/s
95th percentile per-packet one-way delay: 19.247 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.41 Mbit/s
95th percentile per-packet one-way delay: 18.291 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 173.71 Mbit/s
95th percentile per-packet one-way delay: 20.388 ms
Loss rate: 0.00%
```

Run 10: Report of Indigo-1-32 — Data Link



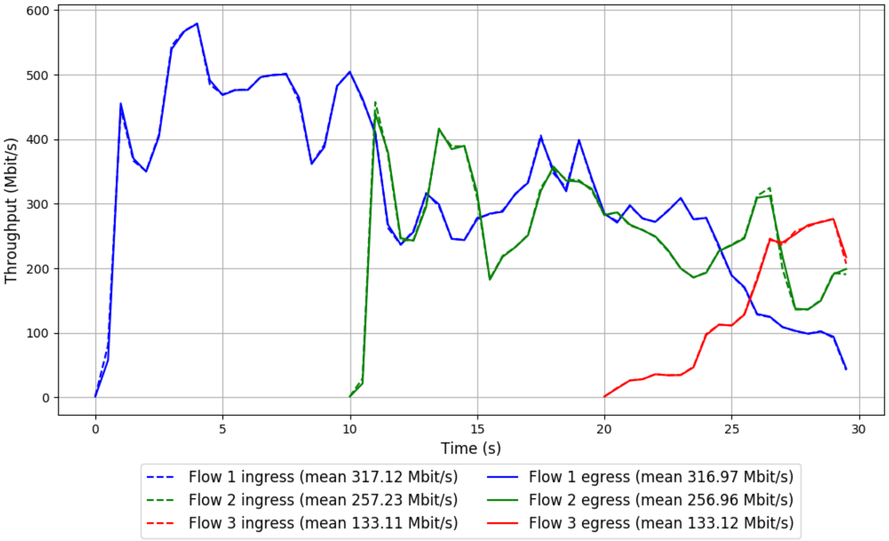


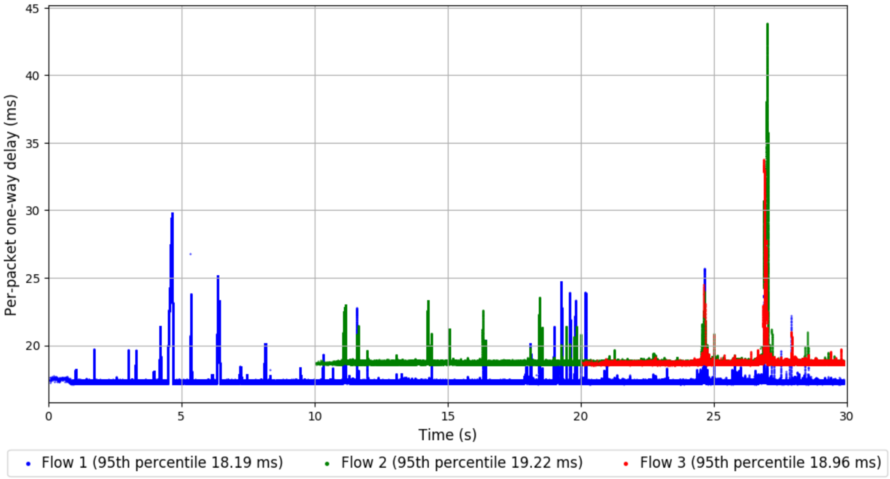
```
Run 1: Statistics of Vivace-latency

Start at: 2018-02-16 15:19:59
End at: 2018-02-16 15:20:29
Local clock offset: -0.04 ms
Remote clock offset: -4.969 ms

# Below is generated by plot.py at 2018-02-17 00:10:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 531.66 Mbit/s
95th percentile per-packet one-way delay: 18.881 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 316.97 Mbit/s
95th percentile per-packet one-way delay: 18.186 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 256.96 Mbit/s
95th percentile per-packet one-way delay: 19.223 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 133.12 Mbit/s
95th percentile per-packet one-way delay: 18.957 ms
Loss rate: 0.00%
```

Run 1: Report of Vivace-latency — Data Link



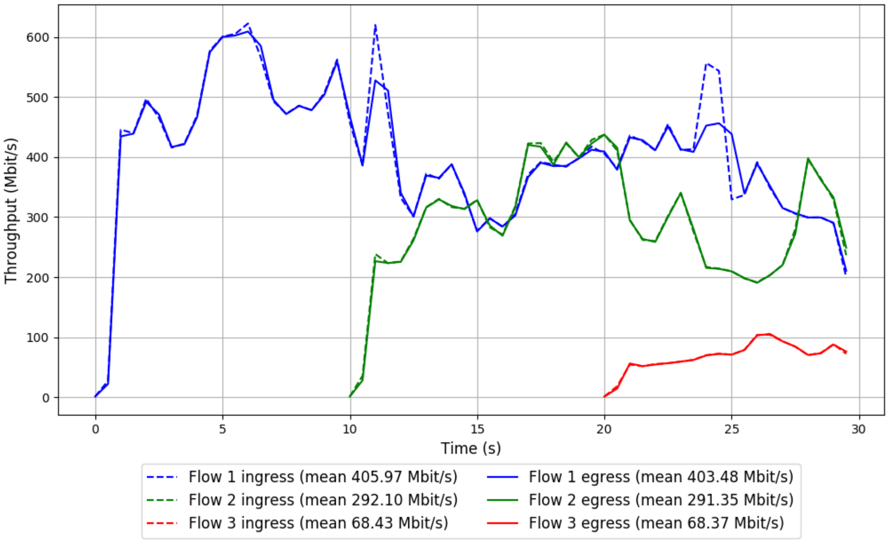


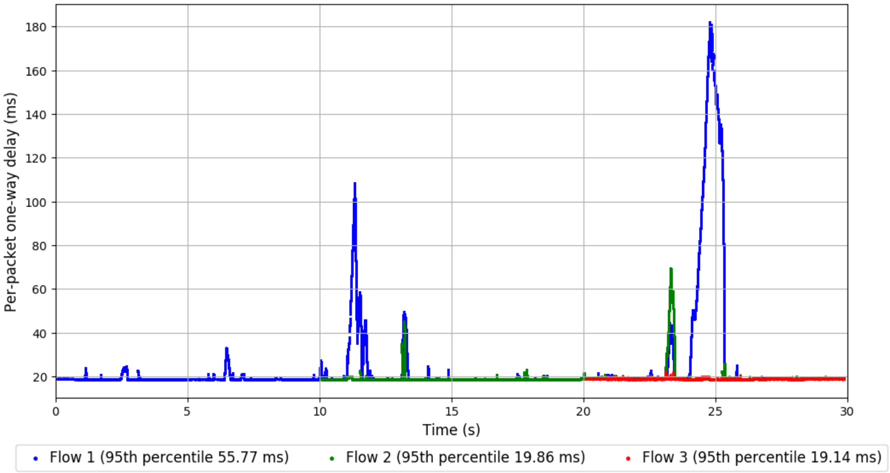
```
Run 2: Statistics of Vivace-latency

Start at: 2018-02-16 15:47:02
End at: 2018-02-16 15:47:32
Local clock offset: -0.112 ms
Remote clock offset: -5.275 ms

# Below is generated by plot.py at 2018-02-17 00:12:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 619.66 Mbit/s
95th percentile per-packet one-way delay: 42.103 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 403.48 Mbit/s
95th percentile per-packet one-way delay: 55.769 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 291.35 Mbit/s
95th percentile per-packet one-way delay: 19.863 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 68.37 Mbit/s
95th percentile per-packet one-way delay: 19.137 ms
Loss rate: 0.08%
```

Run 2: Report of Vivace-latency — Data Link



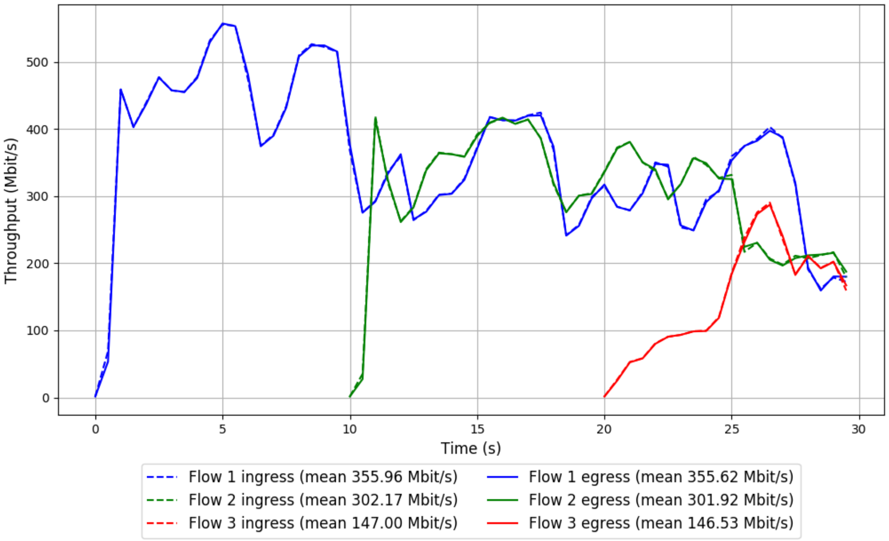


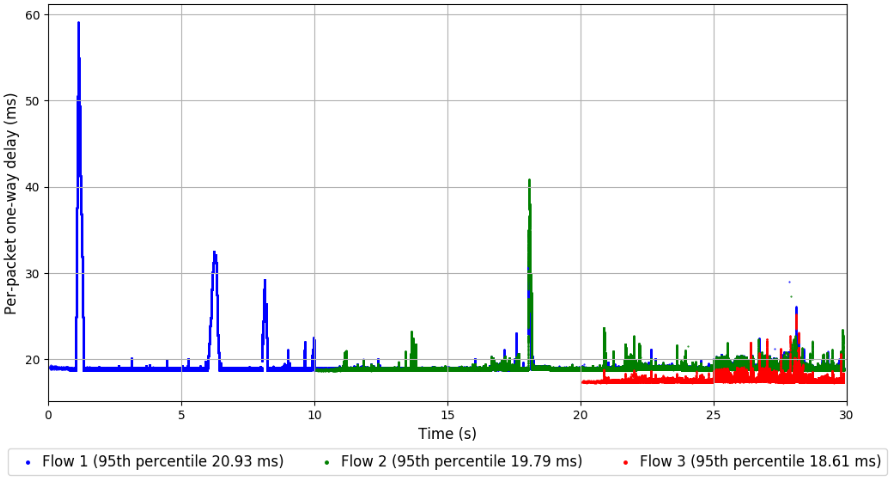
```
Run 3: Statistics of Vivace-latency

Start at: 2018-02-16 16:14:27
End at: 2018-02-16 16:14:57
Local clock offset: 0.105 ms
Remote clock offset: -5.797 ms

# Below is generated by plot.py at 2018-02-17 00:12:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 604.69 Mbit/s
95th percentile per-packet one-way delay: 20.032 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 355.62 Mbit/s
95th percentile per-packet one-way delay: 20.929 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 301.92 Mbit/s
95th percentile per-packet one-way delay: 19.786 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 146.53 Mbit/s
95th percentile per-packet one-way delay: 18.610 ms
Loss rate: 0.32%
```

Run 3: Report of Vivace-latency — Data Link



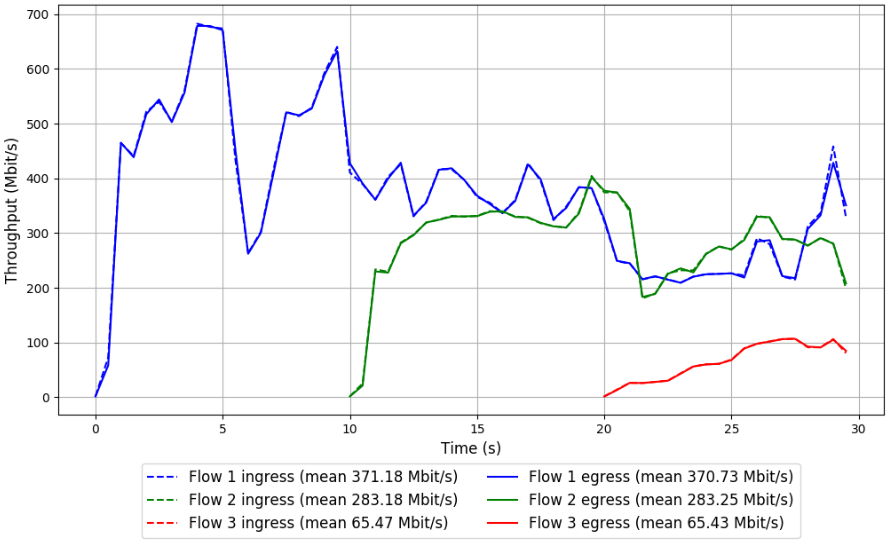


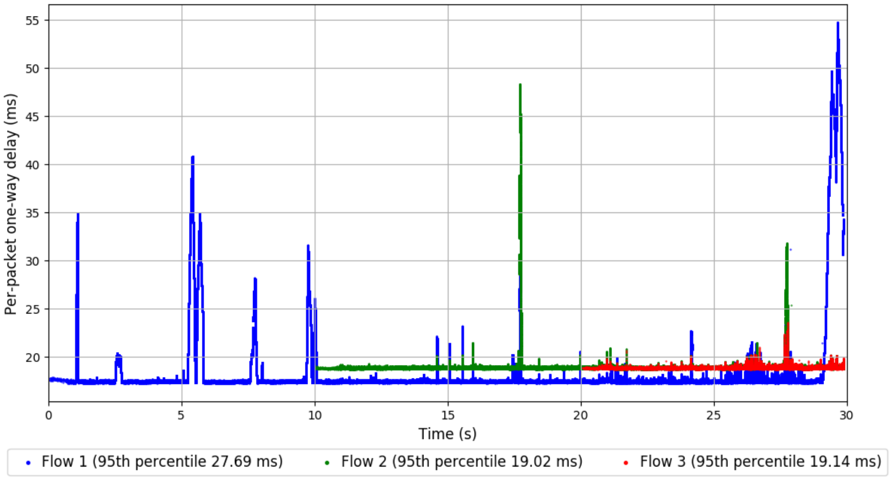
```
Run 4: Statistics of Vivace-latency

Start at: 2018-02-16 16:41:46
End at: 2018-02-16 16:42:16
Local clock offset: 0.075 ms
Remote clock offset: -6.601 ms

# Below is generated by plot.py at 2018-02-17 00:12:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 580.56 Mbit/s
95th percentile per-packet one-way delay: 22.773 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 370.73 Mbit/s
95th percentile per-packet one-way delay: 27.692 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 283.25 Mbit/s
95th percentile per-packet one-way delay: 19.018 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 65.43 Mbit/s
95th percentile per-packet one-way delay: 19.136 ms
Loss rate: 0.05%
```

Run 4: Report of Vivace-latency — Data Link



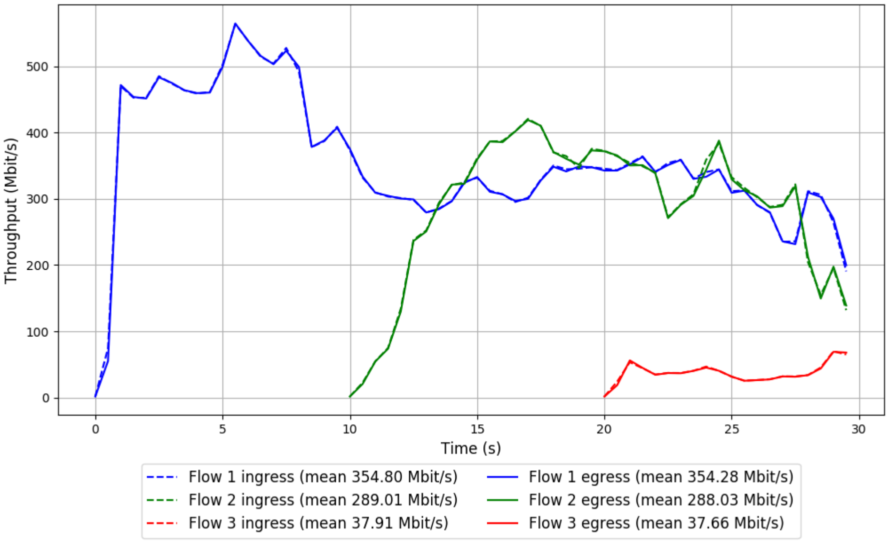


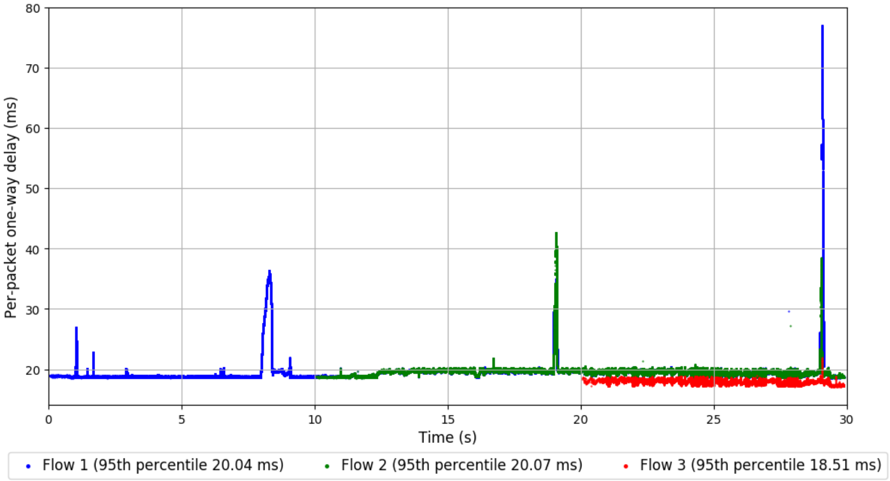
```
Run 5: Statistics of Vivace-latency

Start at: 2018-02-16 17:08:55
End at: 2018-02-16 17:09:25
Local clock offset: 0.158 ms
Remote clock offset: -4.755 ms

# Below is generated by plot.py at 2018-02-17 00:13:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 558.13 Mbit/s
95th percentile per-packet one-way delay: 20.049 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 354.28 Mbit/s
95th percentile per-packet one-way delay: 20.036 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 288.03 Mbit/s
95th percentile per-packet one-way delay: 20.065 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 37.66 Mbit/s
95th percentile per-packet one-way delay: 18.509 ms
Loss rate: 0.67%
```

Run 5: Report of Vivace-latency — Data Link



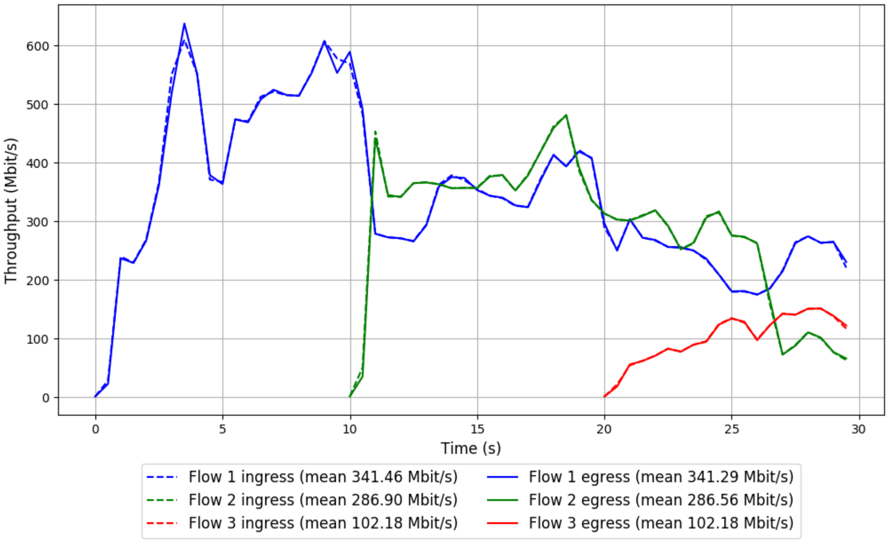


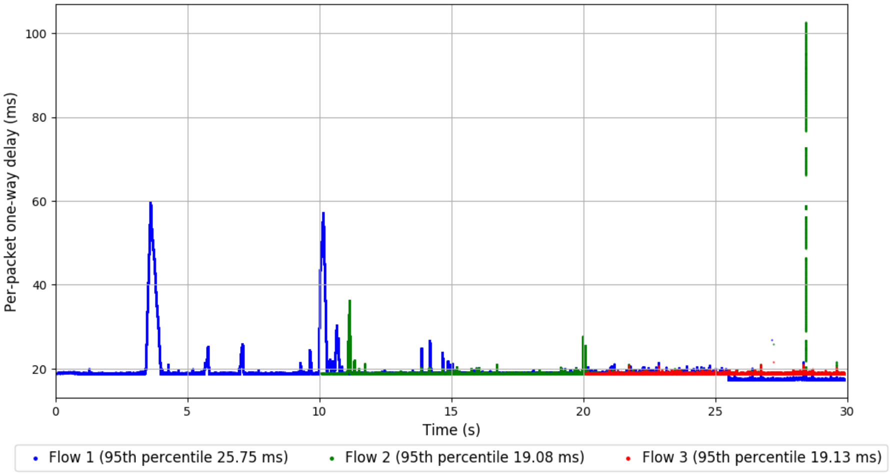
```
Run 6: Statistics of Vivace-latency

Start at: 2018-02-16 17:36:23
End at: 2018-02-16 17:36:53
Local clock offset: 0.035 ms
Remote clock offset: -5.743 ms

# Below is generated by plot.py at 2018-02-17 00:13:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.43 Mbit/s
95th percentile per-packet one-way delay: 21.921 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 341.29 Mbit/s
95th percentile per-packet one-way delay: 25.750 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 286.56 Mbit/s
95th percentile per-packet one-way delay: 19.079 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 102.18 Mbit/s
95th percentile per-packet one-way delay: 19.126 ms
Loss rate: 0.00%
```

Run 6: Report of Vivace-latency — Data Link



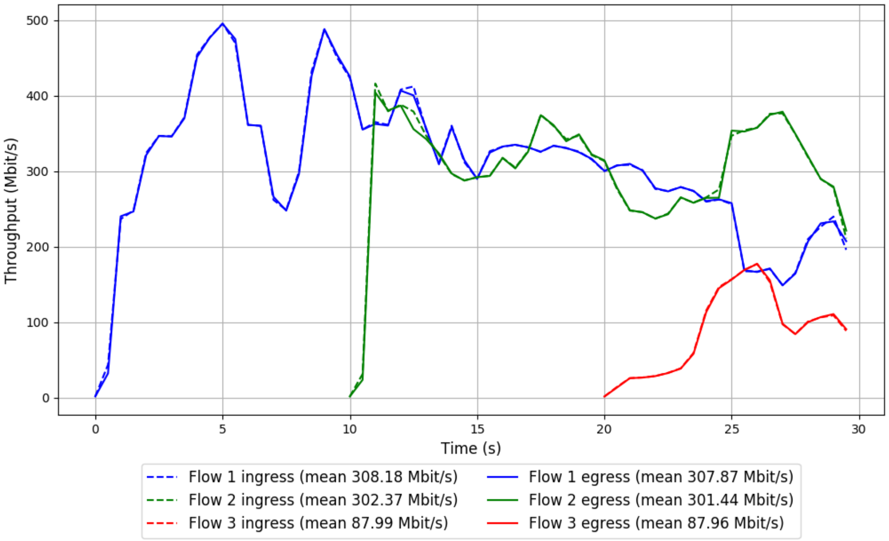


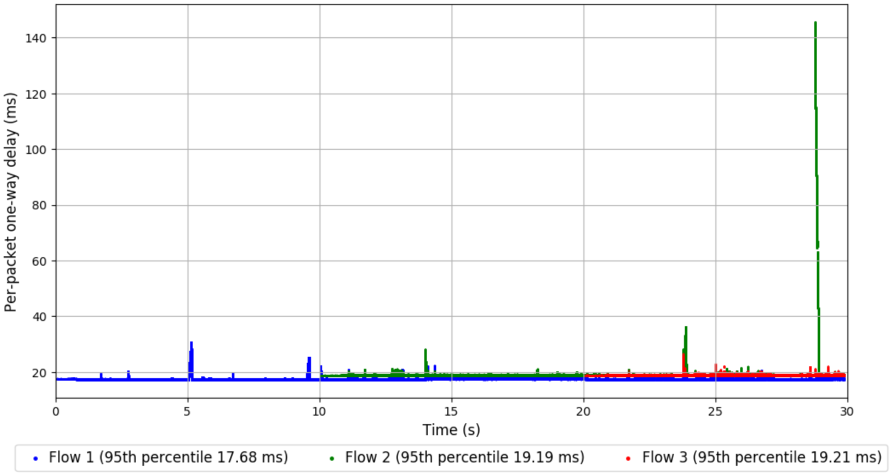
```
Run 7: Statistics of Vivace-latency

Start at: 2018-02-16 18:04:09
End at: 2018-02-16 18:04:39
Local clock offset: 0.361 ms
Remote clock offset: -5.801 ms

# Below is generated by plot.py at 2018-02-17 00:13:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.22 Mbit/s
95th percentile per-packet one-way delay: 19.052 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 307.87 Mbit/s
95th percentile per-packet one-way delay: 17.685 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 301.44 Mbit/s
95th percentile per-packet one-way delay: 19.188 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 87.96 Mbit/s
95th percentile per-packet one-way delay: 19.210 ms
Loss rate: 0.03%
```

Run 7: Report of Vivace-latency — Data Link



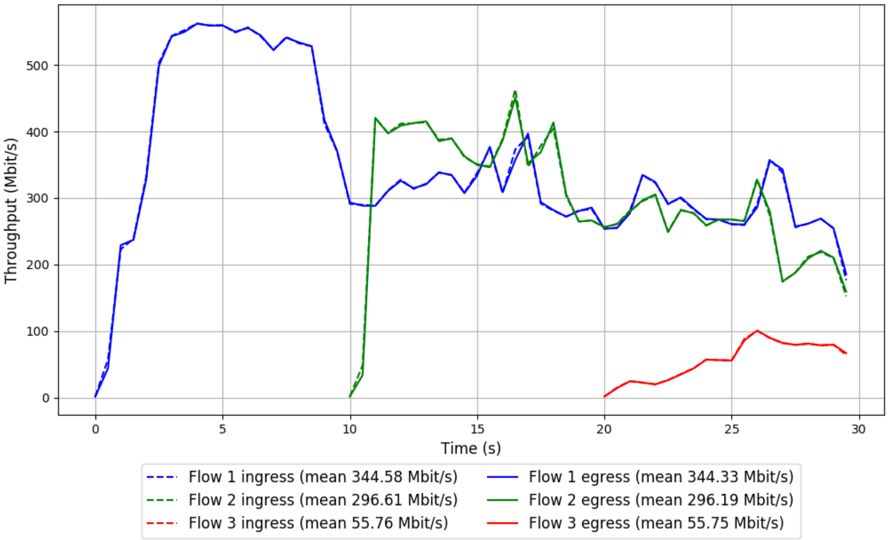


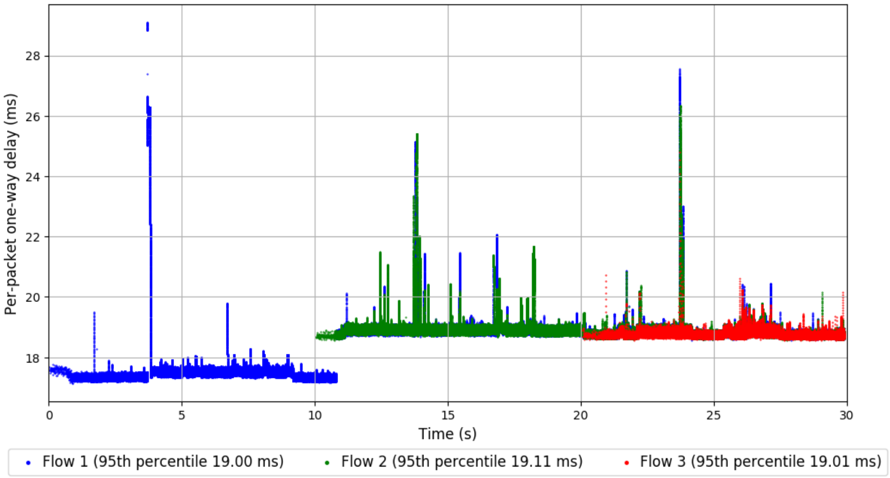
```
Run 8: Statistics of Vivace-latency

Start at: 2018-02-16 18:31:39
End at: 2018-02-16 18:32:09
Local clock offset: 0.003 ms
Remote clock offset: -5.218 ms

# Below is generated by plot.py at 2018-02-17 00:14:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.59 Mbit/s
95th percentile per-packet one-way delay: 19.034 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 344.33 Mbit/s
95th percentile per-packet one-way delay: 19.000 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 296.19 Mbit/s
95th percentile per-packet one-way delay: 19.113 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 55.75 Mbit/s
95th percentile per-packet one-way delay: 19.006 ms
Loss rate: 0.01%
```

Run 8: Report of Vivace-latency — Data Link



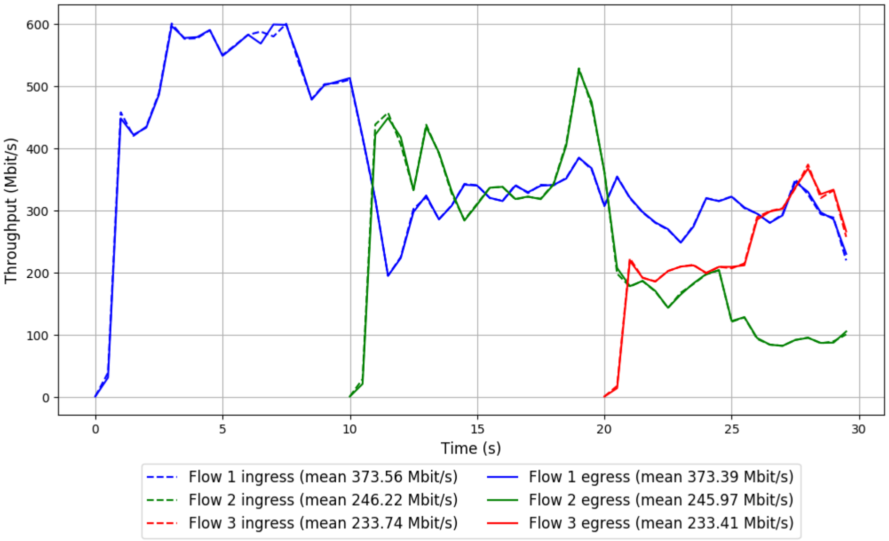


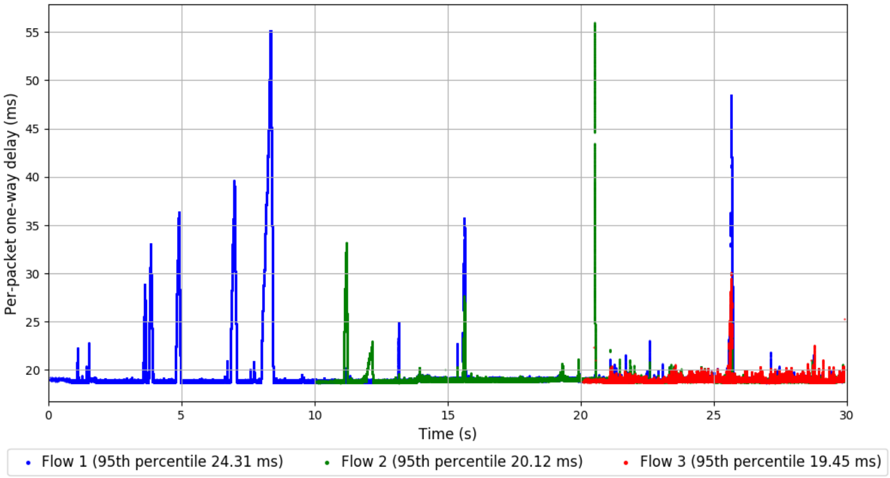
```
Run 9: Statistics of Vivace-latency

Start at: 2018-02-16 18:58:46
End at: 2018-02-16 18:59:16
Local clock offset: 0.515 ms
Remote clock offset: -4.276 ms

# Below is generated by plot.py at 2018-02-17 00:19:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 613.67 Mbit/s
95th percentile per-packet one-way delay: 20.892 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 373.39 Mbit/s
95th percentile per-packet one-way delay: 24.310 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 245.97 Mbit/s
95th percentile per-packet one-way delay: 20.119 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 233.41 Mbit/s
95th percentile per-packet one-way delay: 19.454 ms
Loss rate: 0.08%
```

Run 9: Report of Vivace-latency — Data Link



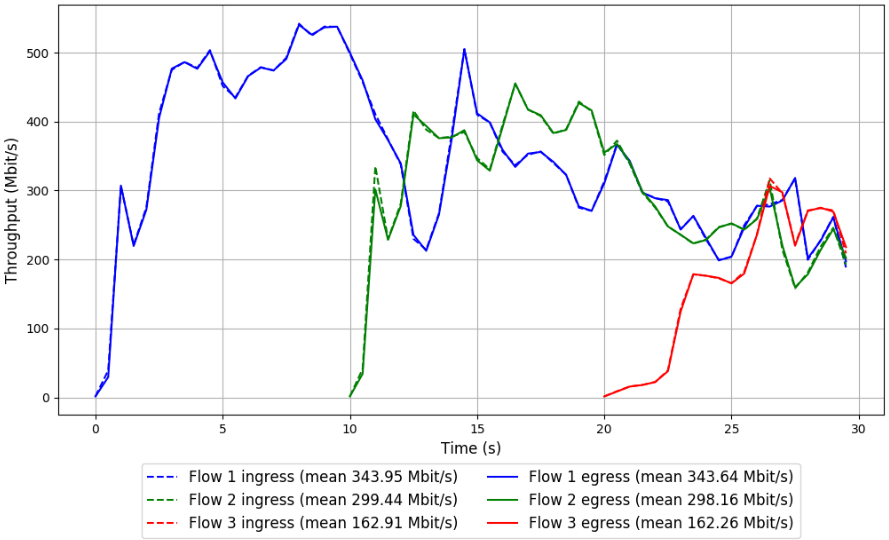


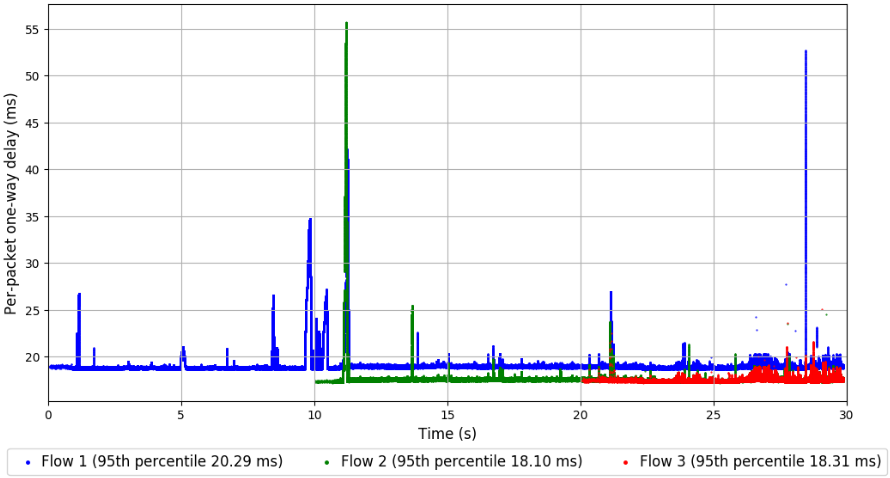
```
Run 10: Statistics of Vivace-latency

Start at: 2018-02-16 19:26:30
End at: 2018-02-16 19:27:00
Local clock offset: 0.876 ms
Remote clock offset: -5.968 ms

# Below is generated by plot.py at 2018-02-17 00:20:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 595.33 Mbit/s
95th percentile per-packet one-way delay: 19.437 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 343.64 Mbit/s
95th percentile per-packet one-way delay: 20.292 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 298.16 Mbit/s
95th percentile per-packet one-way delay: 18.096 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 162.26 Mbit/s
95th percentile per-packet one-way delay: 18.313 ms
Loss rate: 0.40%
```

Run 10: Report of Vivace-latency — Data Link



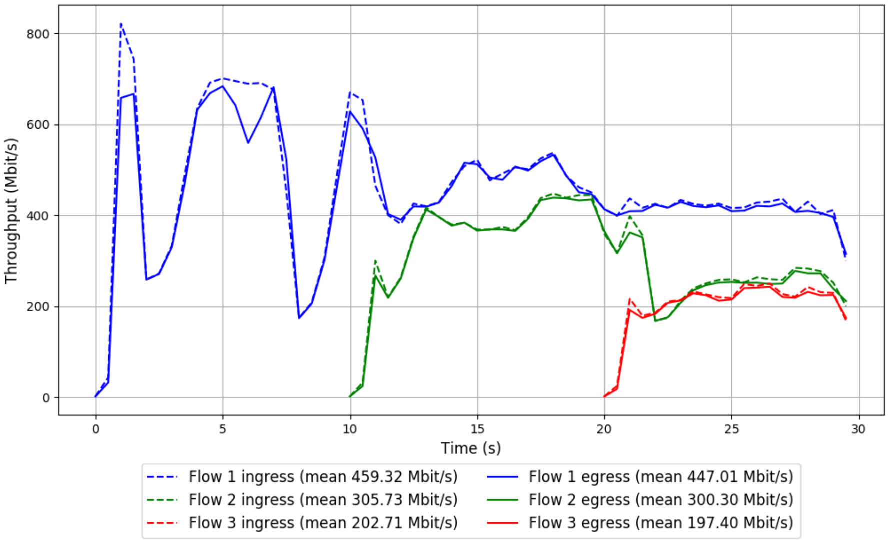


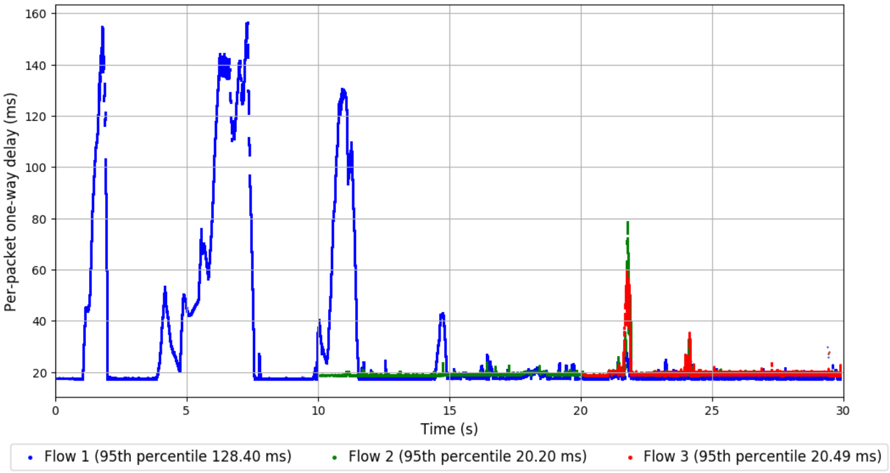
```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-16 15:10:34
End at: 2018-02-16 15:11:04
Local clock offset: -0.089 ms
Remote clock offset: -5.042 ms

# Below is generated by plot.py at 2018-02-17 00:23:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.66 Mbit/s
95th percentile per-packet one-way delay: 115.301 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 447.01 Mbit/s
95th percentile per-packet one-way delay: 128.398 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 300.30 Mbit/s
95th percentile per-packet one-way delay: 20.196 ms
Loss rate: 1.78%
-- Flow 3:
Average throughput: 197.40 Mbit/s
95th percentile per-packet one-way delay: 20.488 ms
Loss rate: 2.63%
```

Run 1: Report of Vivace-loss — Data Link



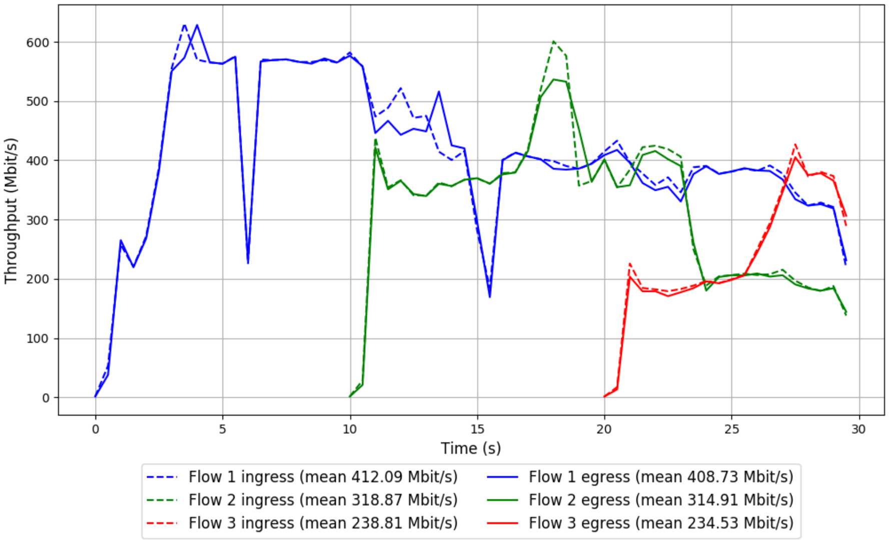


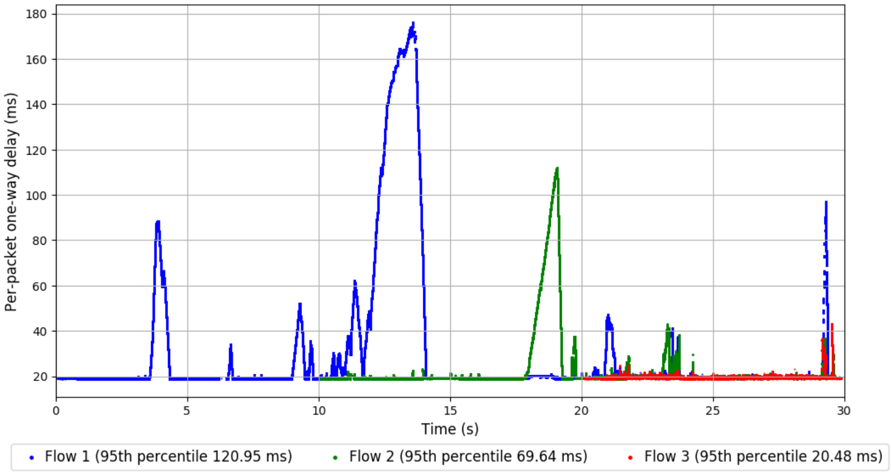
```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-16 15:37:46
End at: 2018-02-16 15:38:16
Local clock offset: -0.161 ms
Remote clock offset: -4.914 ms

# Below is generated by plot.py at 2018-02-17 00:23:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 695.26 Mbit/s
95th percentile per-packet one-way delay: 87.444 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 408.73 Mbit/s
95th percentile per-packet one-way delay: 120.946 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 314.91 Mbit/s
95th percentile per-packet one-way delay: 69.636 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 234.53 Mbit/s
95th percentile per-packet one-way delay: 20.477 ms
Loss rate: 1.79%
```

Run 2: Report of Vivace-loss — Data Link



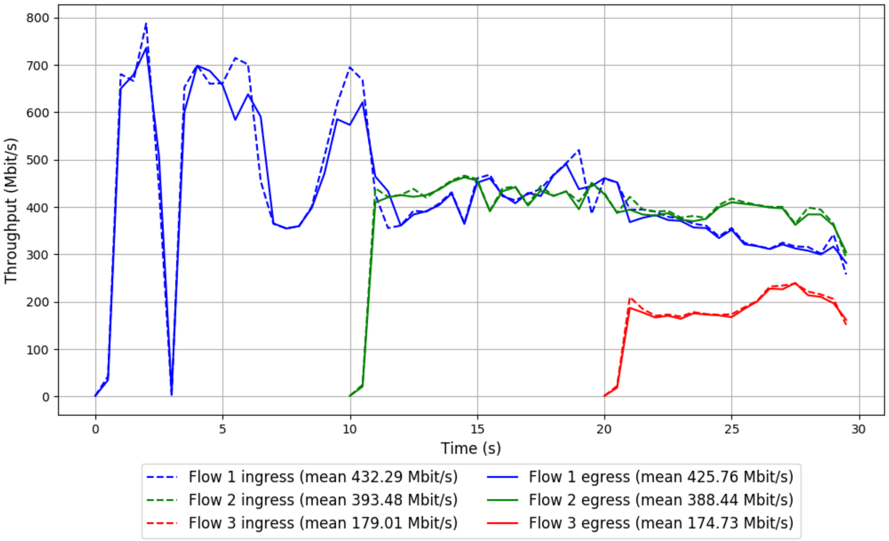


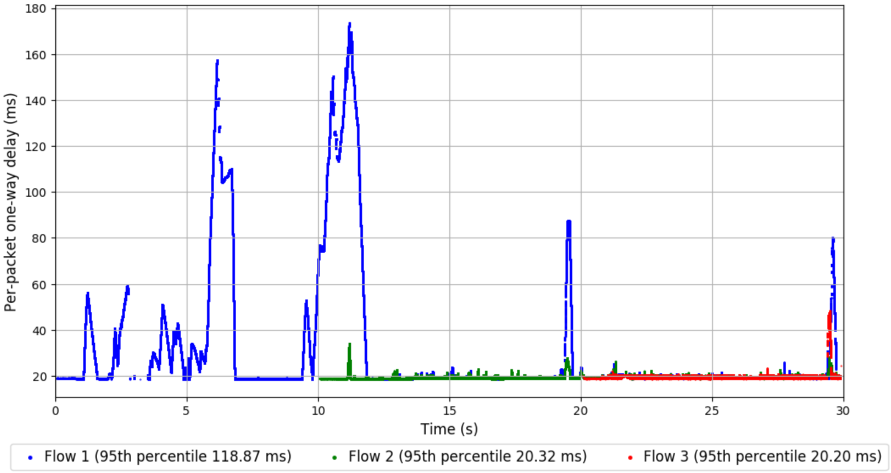
```
Run 3: Statistics of Vivace-loss

Start at: 2018-02-16 16:04:55
End at: 2018-02-16 16:05:25
Local clock offset: 0.069 ms
Remote clock offset: -5.358 ms

# Below is generated by plot.py at 2018-02-17 00:24:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 741.41 Mbit/s
95th percentile per-packet one-way delay: 104.524 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 425.76 Mbit/s
95th percentile per-packet one-way delay: 118.866 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 388.44 Mbit/s
95th percentile per-packet one-way delay: 20.318 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 174.73 Mbit/s
95th percentile per-packet one-way delay: 20.199 ms
Loss rate: 2.35%
```

Run 3: Report of Vivace-loss — Data Link



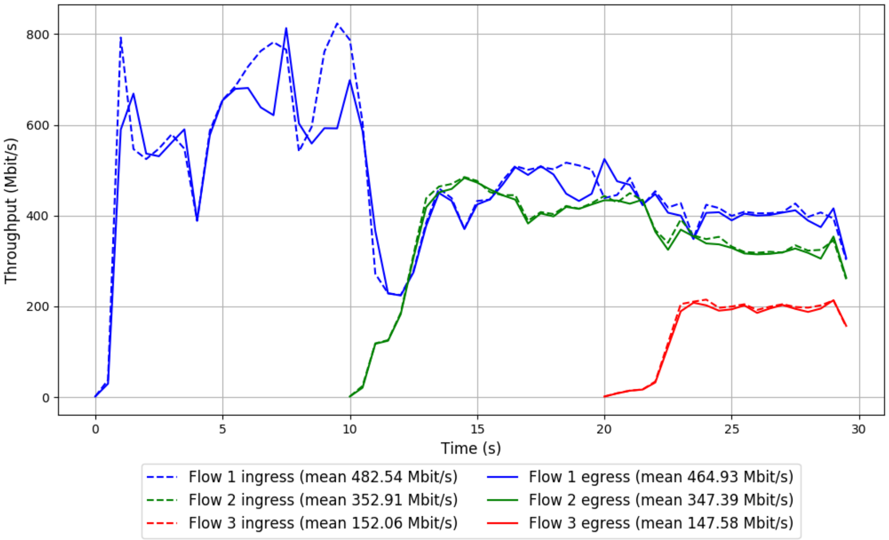


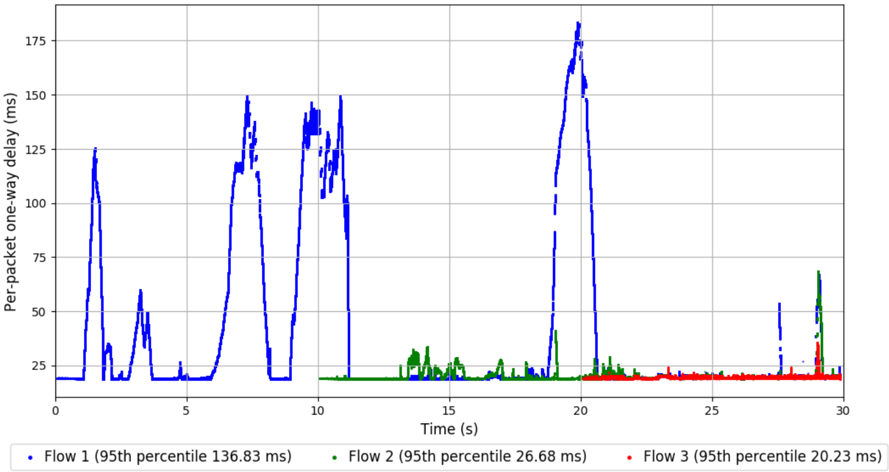
```
Run 4: Statistics of Vivace-loss

Start at: 2018-02-16 16:32:15
End at: 2018-02-16 16:32:45
Local clock offset: 0.04 ms
Remote clock offset: -6.545 ms

# Below is generated by plot.py at 2018-02-17 00:24:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 744.48 Mbit/s
95th percentile per-packet one-way delay: 129.694 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 464.93 Mbit/s
95th percentile per-packet one-way delay: 136.829 ms
Loss rate: 3.65%
-- Flow 2:
Average throughput: 347.39 Mbit/s
95th percentile per-packet one-way delay: 26.681 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 147.58 Mbit/s
95th percentile per-packet one-way delay: 20.232 ms
Loss rate: 2.94%
```

Run 4: Report of Vivace-loss — Data Link



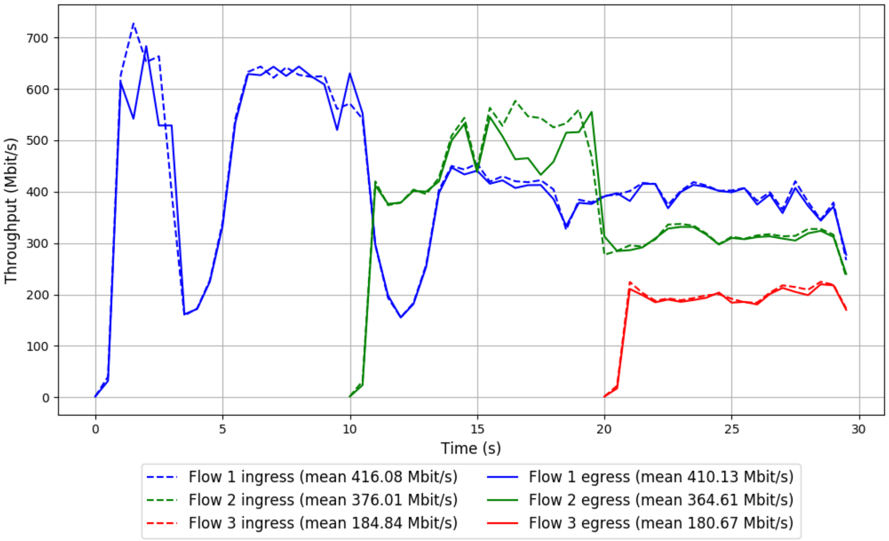


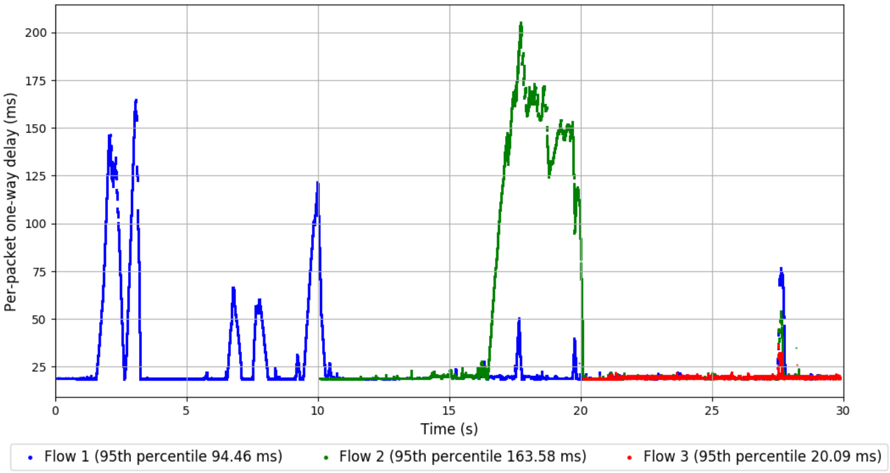
```
Run 5: Statistics of Vivace-loss

Start at: 2018-02-16 16:59:26
End at: 2018-02-16 16:59:56
Local clock offset: 0.141 ms
Remote clock offset: -5.191 ms

# Below is generated by plot.py at 2018-02-17 00:24:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.95 Mbit/s
95th percentile per-packet one-way delay: 143.875 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 410.13 Mbit/s
95th percentile per-packet one-way delay: 94.462 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 364.61 Mbit/s
95th percentile per-packet one-way delay: 163.579 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 180.67 Mbit/s
95th percentile per-packet one-way delay: 20.087 ms
Loss rate: 2.28%
```

Run 5: Report of Vivace-loss — Data Link



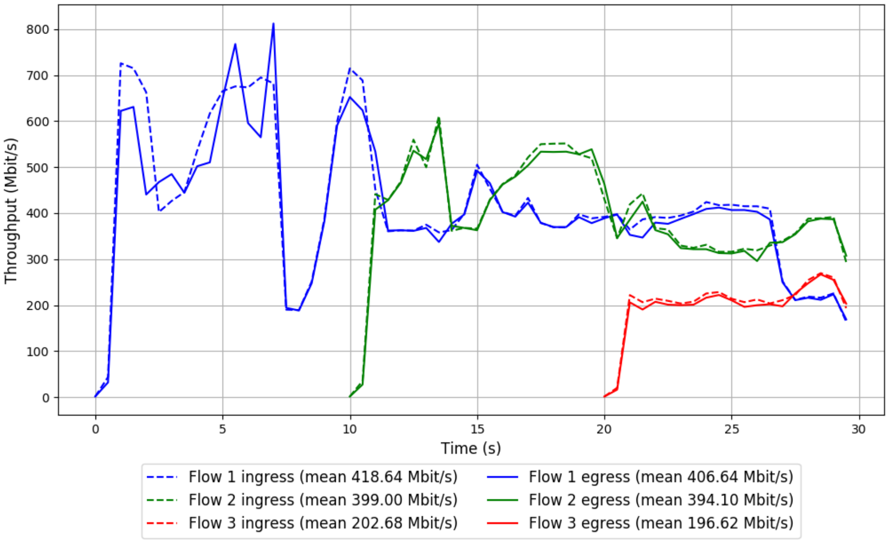


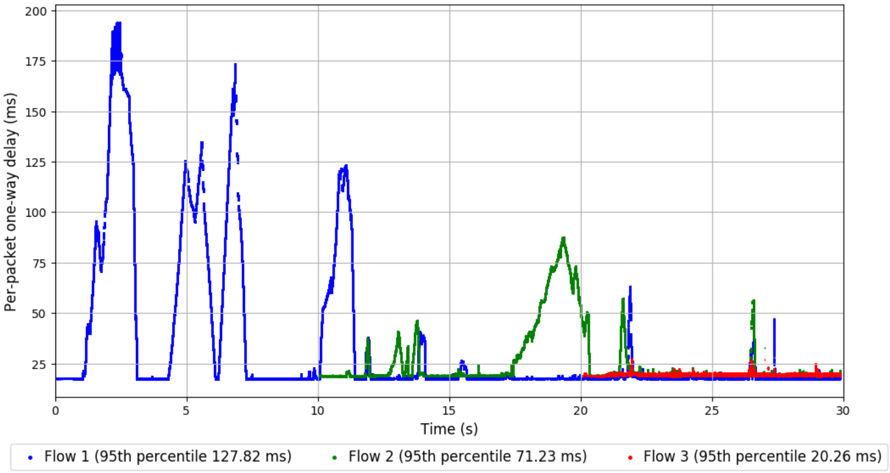
```
Run 6: Statistics of Vivace-loss

Start at: 2018-02-16 17:27:02
End at: 2018-02-16 17:27:32
Local clock offset: -0.003 ms
Remote clock offset: -5.553 ms

# Below is generated by plot.py at 2018-02-17 00:25:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 733.34 Mbit/s
95th percentile per-packet one-way delay: 112.525 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 406.64 Mbit/s
95th percentile per-packet one-way delay: 127.822 ms
Loss rate: 2.87%
-- Flow 2:
Average throughput: 394.10 Mbit/s
95th percentile per-packet one-way delay: 71.228 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 196.62 Mbit/s
95th percentile per-packet one-way delay: 20.256 ms
Loss rate: 3.00%
```

Run 6: Report of Vivace-loss — Data Link



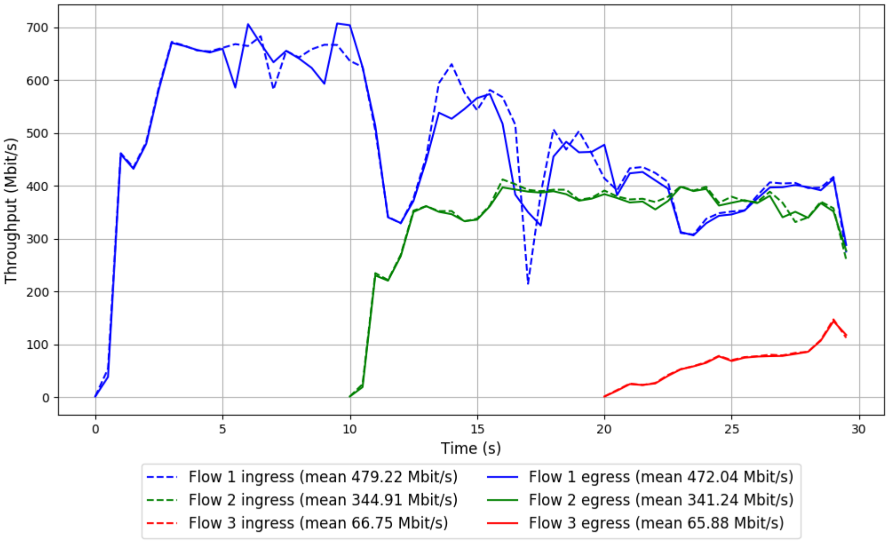


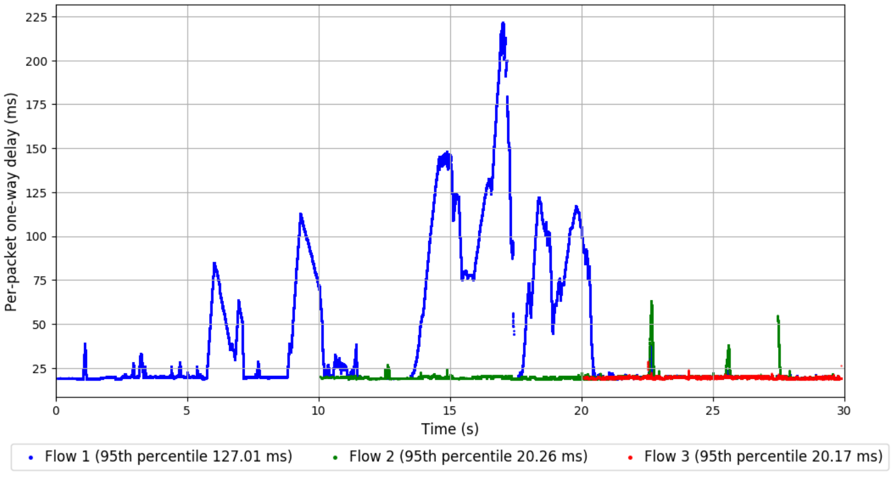
```
Run 7: Statistics of Vivace-loss

Start at: 2018-02-16 17:54:20
End at: 2018-02-16 17:54:50
Local clock offset: 0.221 ms
Remote clock offset: -5.871 ms

# Below is generated by plot.py at 2018-02-17 00:29:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.41 Mbit/s
95th percentile per-packet one-way delay: 114.629 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 472.04 Mbit/s
95th percentile per-packet one-way delay: 127.011 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 341.24 Mbit/s
95th percentile per-packet one-way delay: 20.260 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 65.88 Mbit/s
95th percentile per-packet one-way delay: 20.172 ms
Loss rate: 1.25%
```

Run 7: Report of Vivace-loss — Data Link



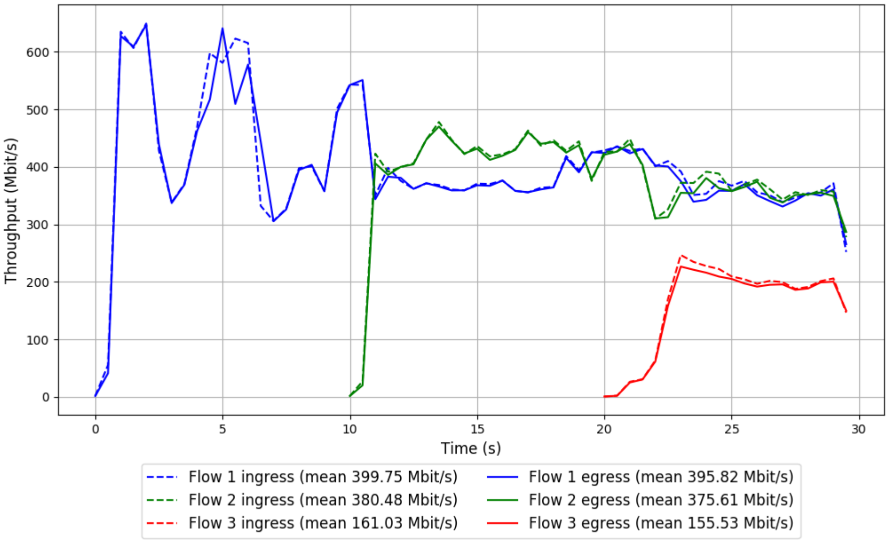


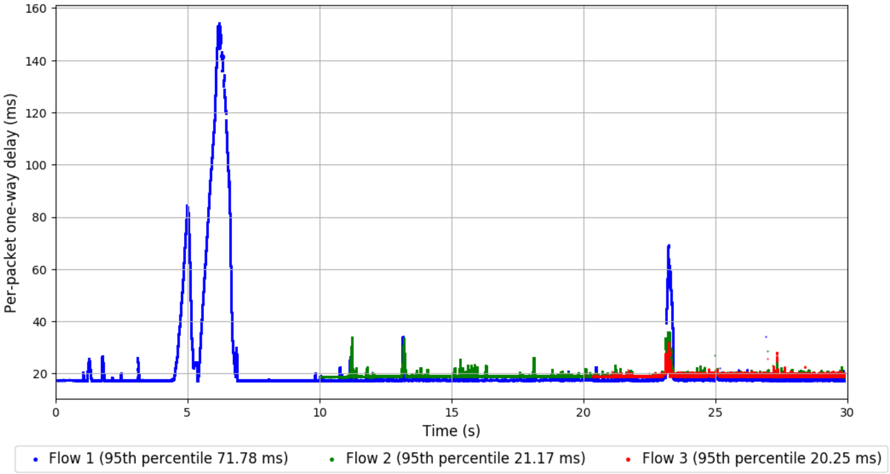
```
Run 8: Statistics of Vivace-loss

Start at: 2018-02-16 18:22:09
End at: 2018-02-16 18:22:39
Local clock offset: -0.023 ms
Remote clock offset: -5.966 ms

# Below is generated by plot.py at 2018-02-17 00:30:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 696.62 Mbit/s
95th percentile per-packet one-way delay: 34.630 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 395.82 Mbit/s
95th percentile per-packet one-way delay: 71.782 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 375.61 Mbit/s
95th percentile per-packet one-way delay: 21.172 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 155.53 Mbit/s
95th percentile per-packet one-way delay: 20.246 ms
Loss rate: 3.49%
```

Run 8: Report of Vivace-loss — Data Link



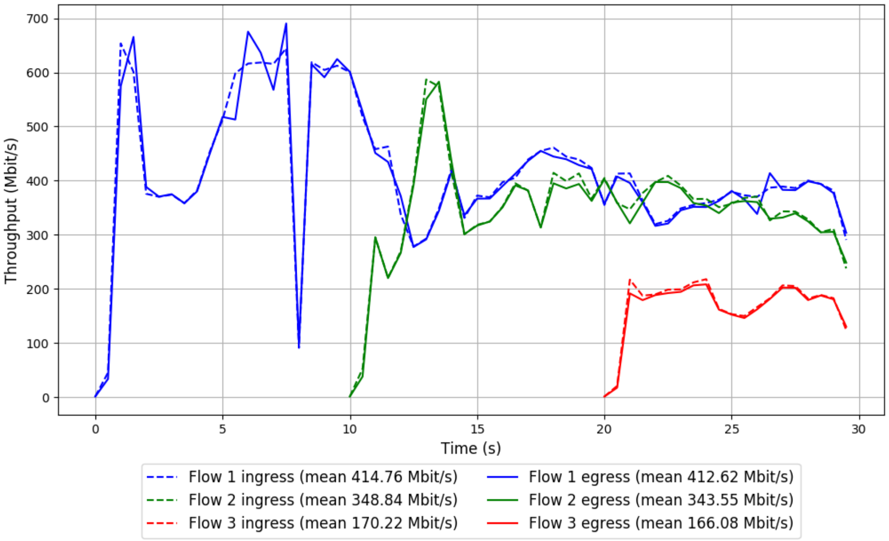


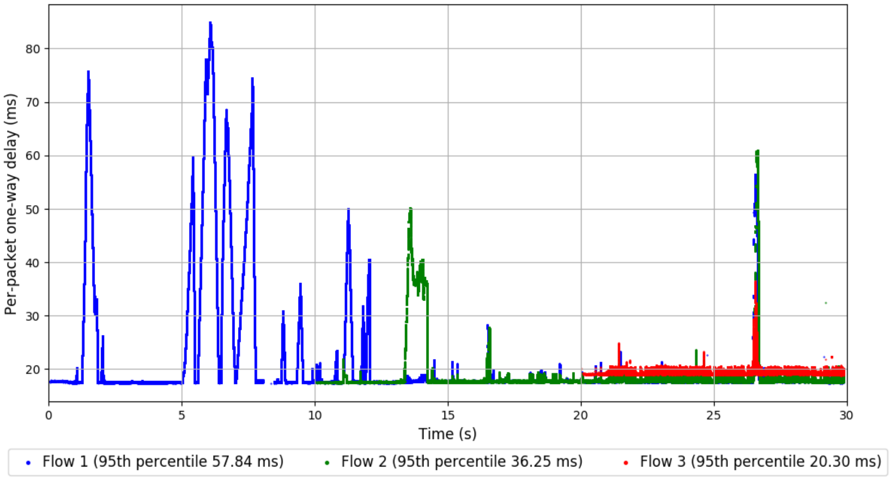
```
Run 9: Statistics of Vivace-loss

Start at: 2018-02-16 18:49:25
End at: 2018-02-16 18:49:55
Local clock offset: 0.197 ms
Remote clock offset: -4.435 ms

# Below is generated by plot.py at 2018-02-17 00:32:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 695.73 Mbit/s
95th percentile per-packet one-way delay: 47.740 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 412.62 Mbit/s
95th percentile per-packet one-way delay: 57.840 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 343.55 Mbit/s
95th percentile per-packet one-way delay: 36.253 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 166.08 Mbit/s
95th percentile per-packet one-way delay: 20.305 ms
Loss rate: 2.44%
```

Run 9: Report of Vivace-loss — Data Link



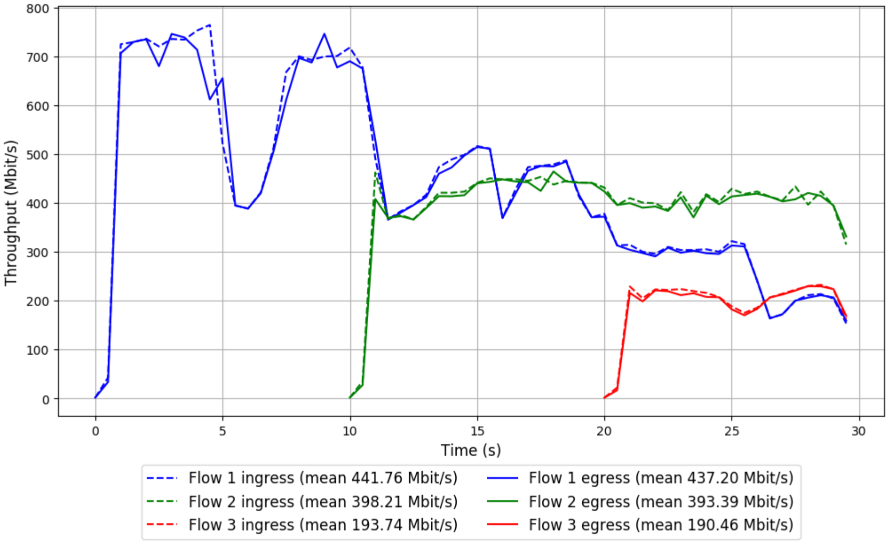


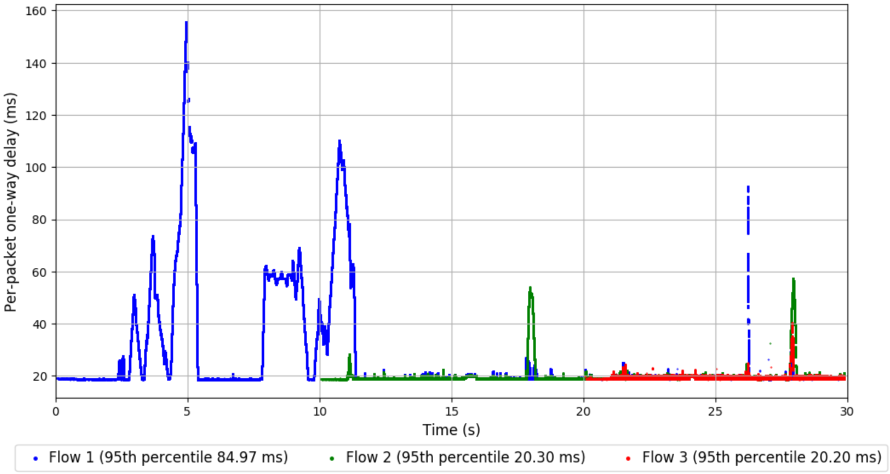
```
Run 10: Statistics of Vivace-loss

Start at: 2018-02-16 19:16:54
End at: 2018-02-16 19:17:24
Local clock offset: 0.794 ms
Remote clock offset: -5.75 ms

# Below is generated by plot.py at 2018-02-17 00:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 761.29 Mbit/s
95th percentile per-packet one-way delay: 63.439 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 437.20 Mbit/s
95th percentile per-packet one-way delay: 84.975 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 393.39 Mbit/s
95th percentile per-packet one-way delay: 20.305 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 190.46 Mbit/s
95th percentile per-packet one-way delay: 20.204 ms
Loss rate: 1.78%
```

Run 10: Report of Vivace-loss — Data Link



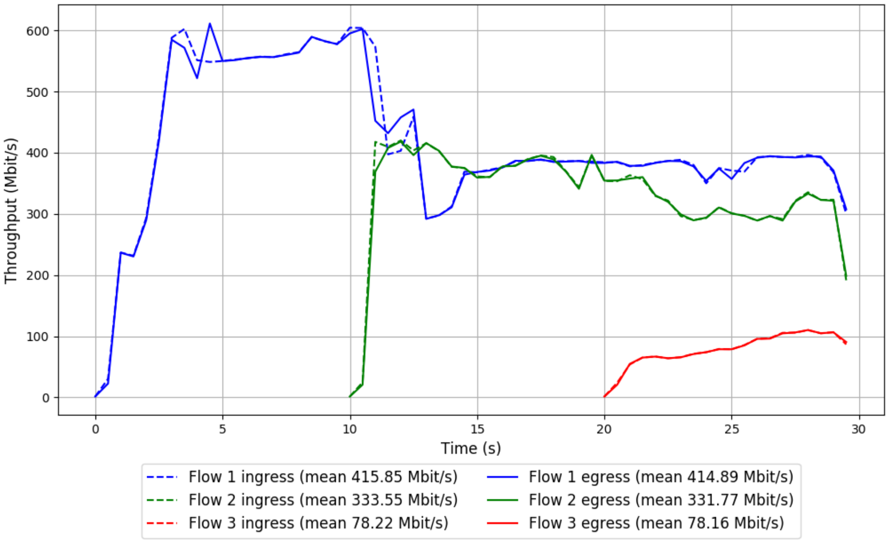


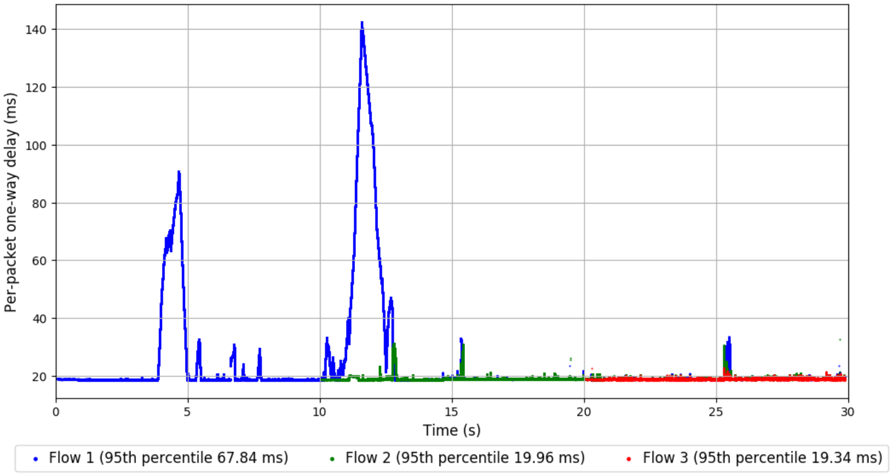
```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-16 15:14:00
End at: 2018-02-16 15:14:30
Local clock offset: -0.014 ms
Remote clock offset: -4.965 ms

# Below is generated by plot.py at 2018-02-17 00:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 661.24 Mbit/s
95th percentile per-packet one-way delay: 47.166 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 414.89 Mbit/s
95th percentile per-packet one-way delay: 67.836 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 331.77 Mbit/s
95th percentile per-packet one-way delay: 19.960 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 78.16 Mbit/s
95th percentile per-packet one-way delay: 19.341 ms
Loss rate: 0.08%
```

Run 1: Report of Vivace-LTE — Data Link



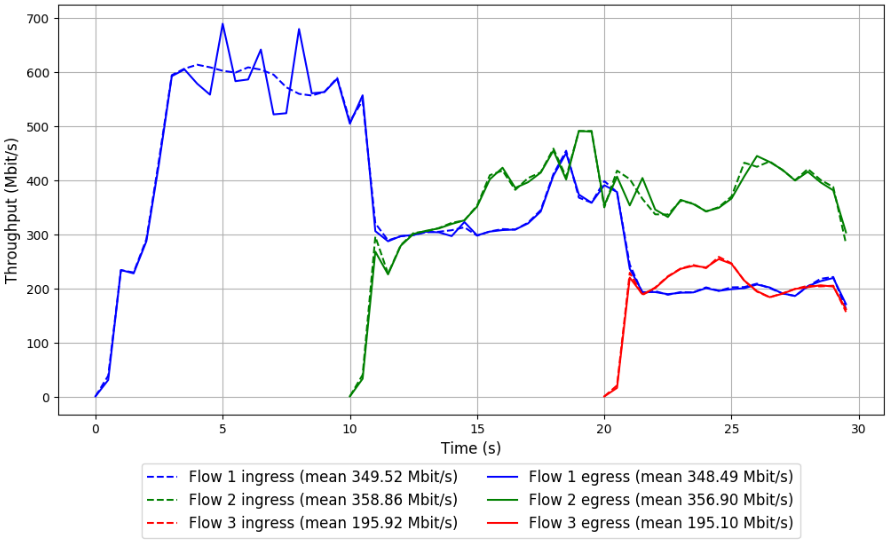


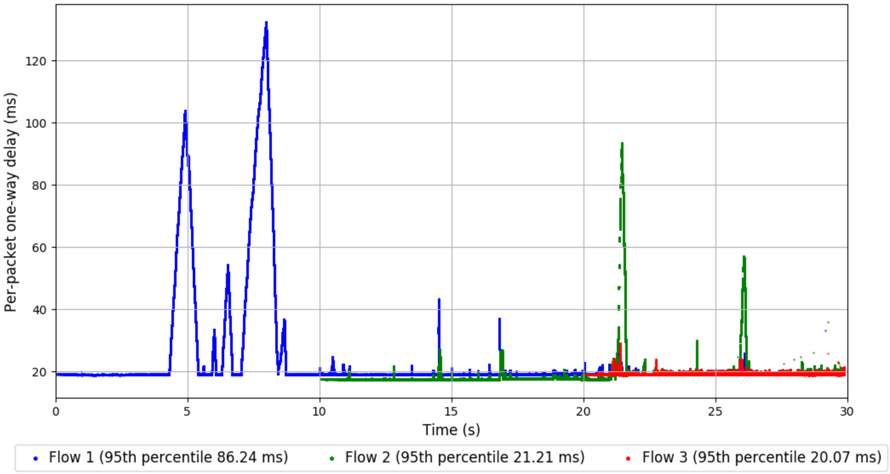
```
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-16 15:41:09
End at: 2018-02-16 15:41:39
Local clock offset: -0.163 ms
Remote clock offset: -5.082 ms

# Below is generated by plot.py at 2018-02-17 00:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 649.93 Mbit/s
95th percentile per-packet one-way delay: 60.872 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 348.49 Mbit/s
95th percentile per-packet one-way delay: 86.236 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 356.90 Mbit/s
95th percentile per-packet one-way delay: 21.215 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 195.10 Mbit/s
95th percentile per-packet one-way delay: 20.070 ms
Loss rate: 0.42%
```

Run 2: Report of Vivace-LTE — Data Link



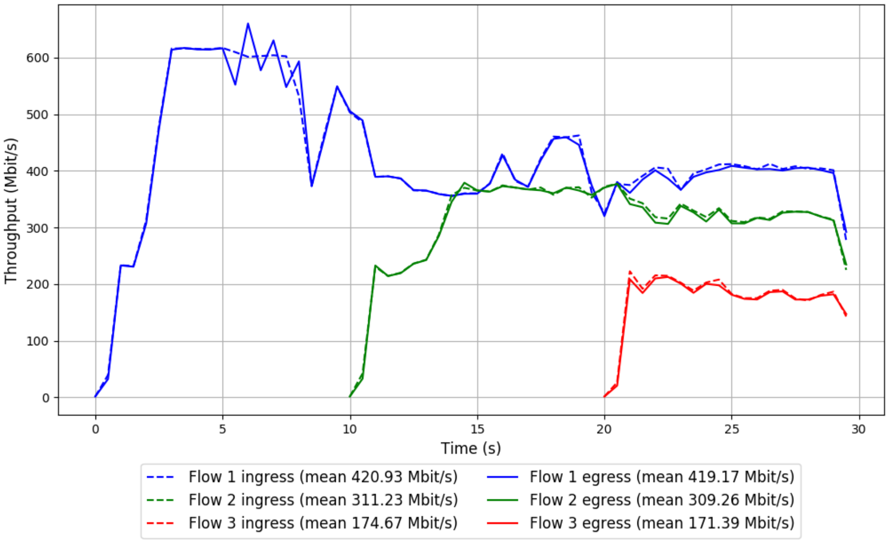


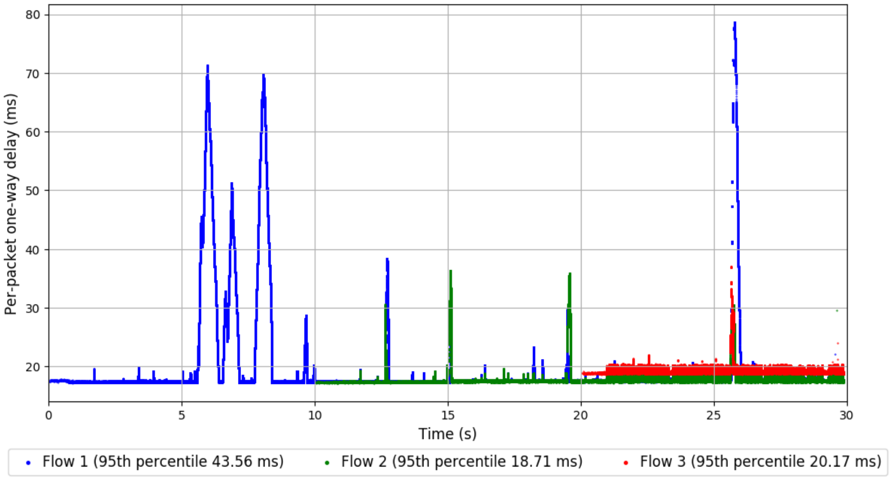
```
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-16 16:08:29
End at: 2018-02-16 16:08:59
Local clock offset: 0.073 ms
Remote clock offset: -5.36 ms

# Below is generated by plot.py at 2018-02-17 00:34:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 681.25 Mbit/s
95th percentile per-packet one-way delay: 32.537 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 419.17 Mbit/s
95th percentile per-packet one-way delay: 43.565 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 309.26 Mbit/s
95th percentile per-packet one-way delay: 18.710 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 171.39 Mbit/s
95th percentile per-packet one-way delay: 20.166 ms
Loss rate: 1.88%
```

Run 3: Report of Vivace-LTE — Data Link



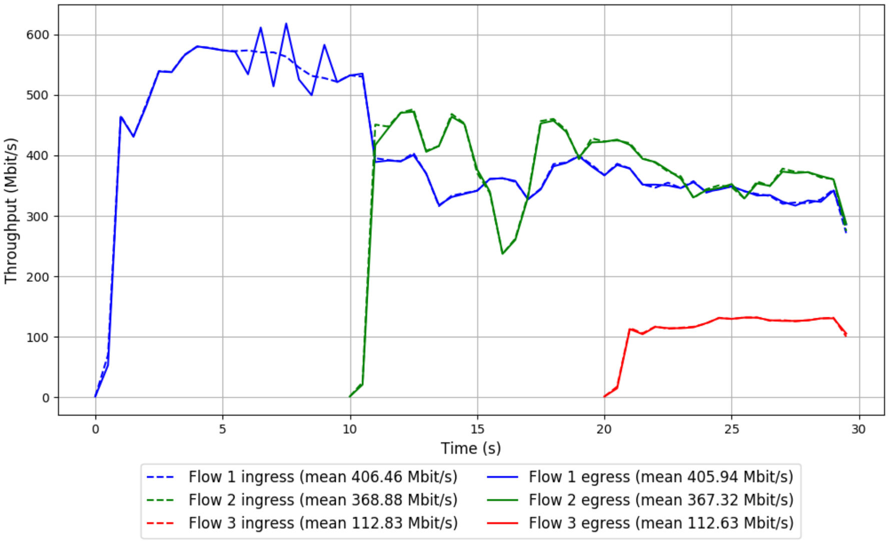


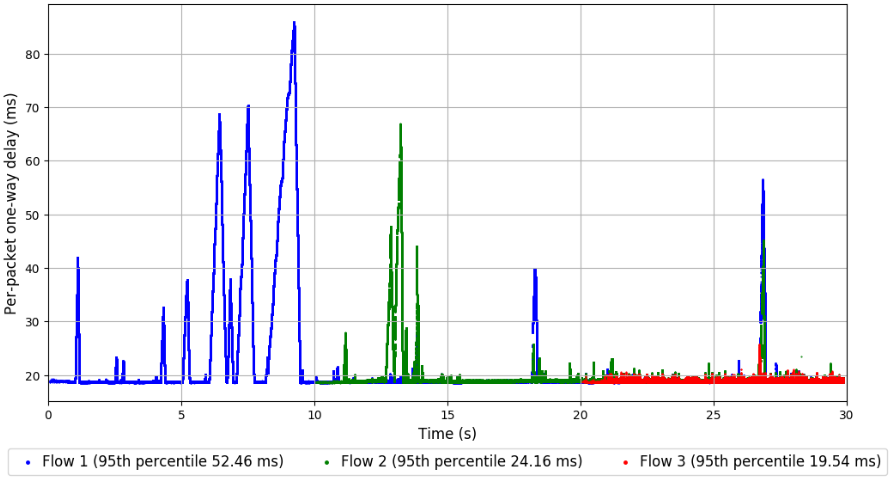
```
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-16 16:35:47
End at: 2018-02-16 16:36:17
Local clock offset: 0.134 ms
Remote clock offset: -6.576 ms

# Below is generated by plot.py at 2018-02-17 00:35:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.22 Mbit/s
95th percentile per-packet one-way delay: 40.423 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 405.94 Mbit/s
95th percentile per-packet one-way delay: 52.460 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 367.32 Mbit/s
95th percentile per-packet one-way delay: 24.165 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 112.63 Mbit/s
95th percentile per-packet one-way delay: 19.544 ms
Loss rate: 0.17%
```

Run 4: Report of Vivace-LTE — Data Link



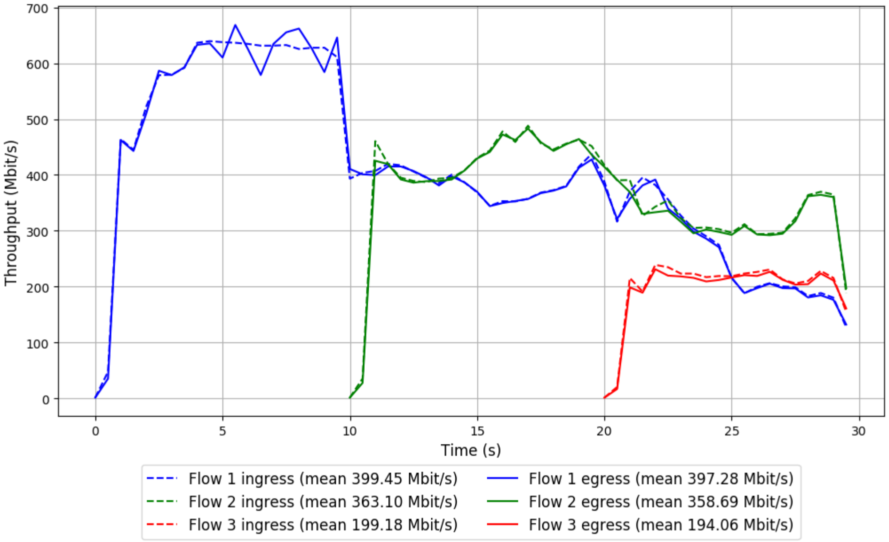


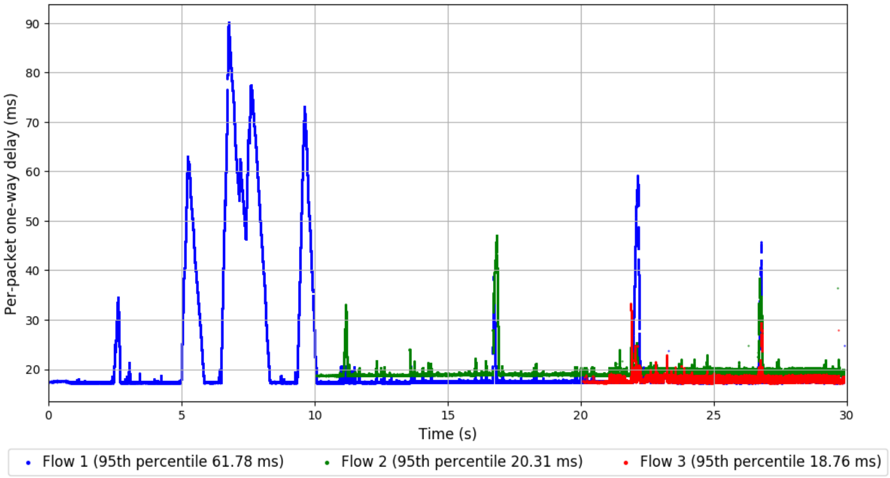
```
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-16 17:02:57
End at: 2018-02-16 17:03:27
Local clock offset: 0.076 ms
Remote clock offset: -5.032 ms

# Below is generated by plot.py at 2018-02-17 00:38:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 699.51 Mbit/s
95th percentile per-packet one-way delay: 53.274 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 397.28 Mbit/s
95th percentile per-packet one-way delay: 61.779 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 358.69 Mbit/s
95th percentile per-packet one-way delay: 20.309 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 194.06 Mbit/s
95th percentile per-packet one-way delay: 18.761 ms
Loss rate: 2.57%
```

Run 5: Report of Vivace-LTE — Data Link



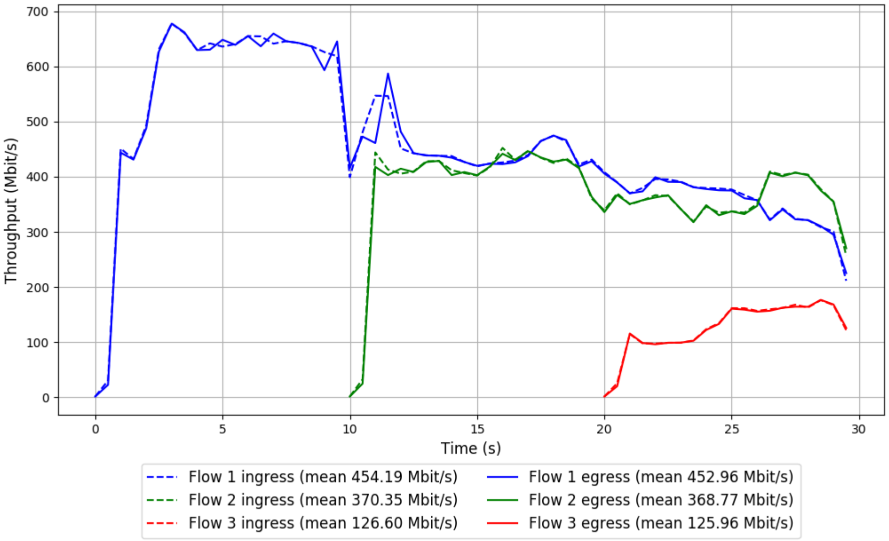


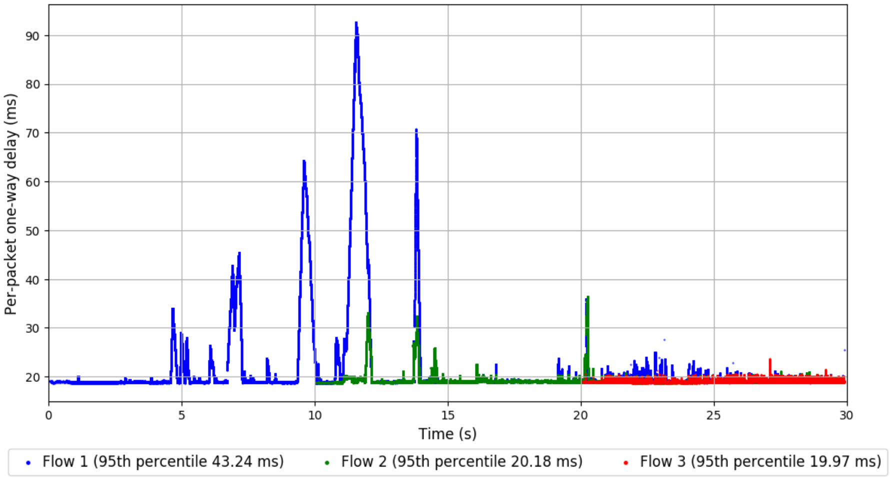
```
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-16 17:30:23
End at: 2018-02-16 17:30:53
Local clock offset: 0.059 ms
Remote clock offset: -5.631 ms

# Below is generated by plot.py at 2018-02-17 00:40:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 739.70 Mbit/s
95th percentile per-packet one-way delay: 32.278 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 452.96 Mbit/s
95th percentile per-packet one-way delay: 43.238 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 368.77 Mbit/s
95th percentile per-packet one-way delay: 20.177 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 125.96 Mbit/s
95th percentile per-packet one-way delay: 19.971 ms
Loss rate: 0.50%
```

Run 6: Report of Vivace-LTE — Data Link



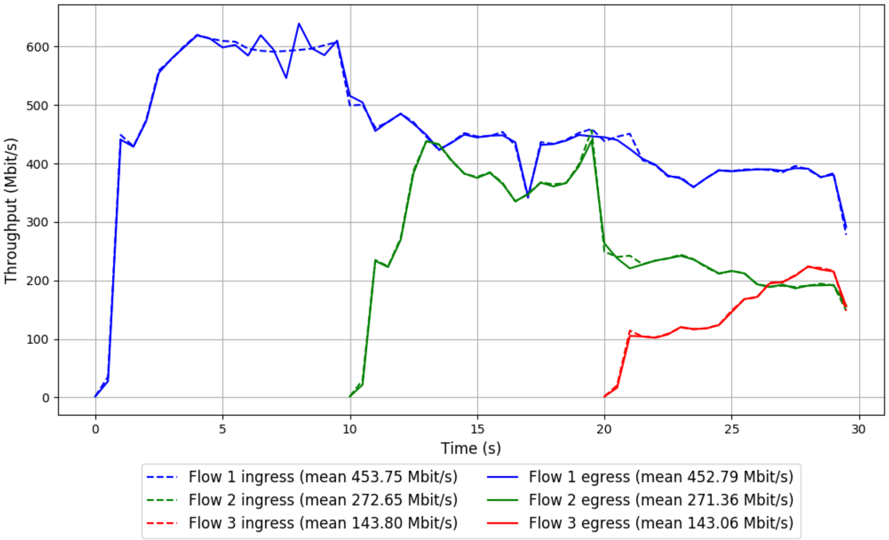


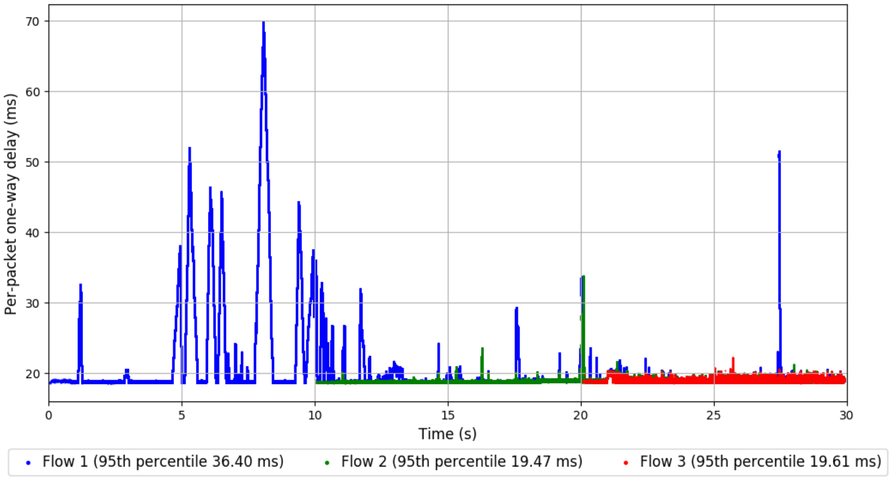
```
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-16 17:58:03
End at: 2018-02-16 17:58:33
Local clock offset: 0.354 ms
Remote clock offset: -5.871 ms

# Below is generated by plot.py at 2018-02-17 00:40:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.30 Mbit/s
95th percentile per-packet one-way delay: 31.436 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 452.79 Mbit/s
95th percentile per-packet one-way delay: 36.395 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 271.36 Mbit/s
95th percentile per-packet one-way delay: 19.468 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 143.06 Mbit/s
95th percentile per-packet one-way delay: 19.608 ms
Loss rate: 0.51%
```

Run 7: Report of Vivace-LTE — Data Link



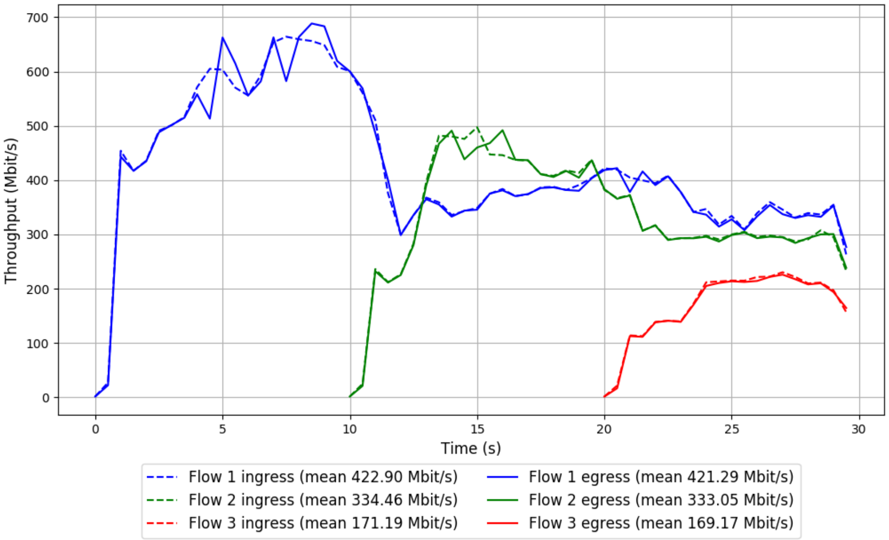


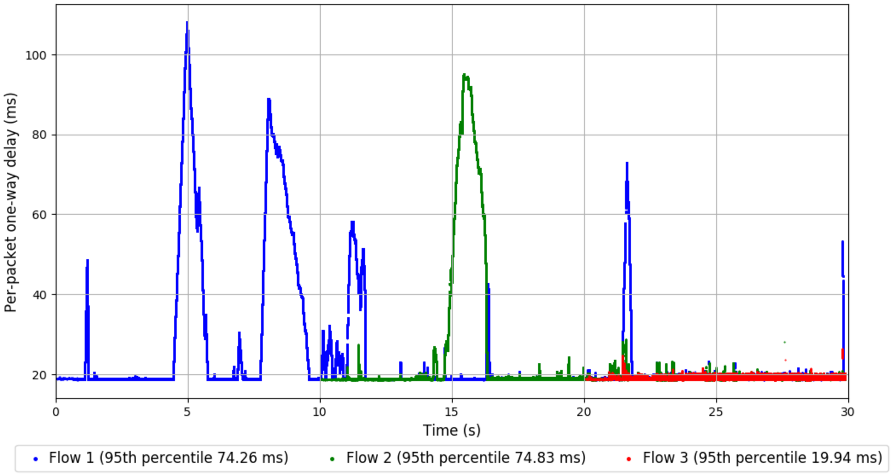
```
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-16 18:25:41
End at: 2018-02-16 18:26:11
Local clock offset: 0.05 ms
Remote clock offset: -5.89 ms

# Below is generated by plot.py at 2018-02-17 00:40:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 698.42 Mbit/s
95th percentile per-packet one-way delay: 73.247 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 421.29 Mbit/s
95th percentile per-packet one-way delay: 74.261 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 333.05 Mbit/s
95th percentile per-packet one-way delay: 74.827 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 169.17 Mbit/s
95th percentile per-packet one-way delay: 19.936 ms
Loss rate: 1.18%
```

Run 8: Report of Vivace-LTE — Data Link



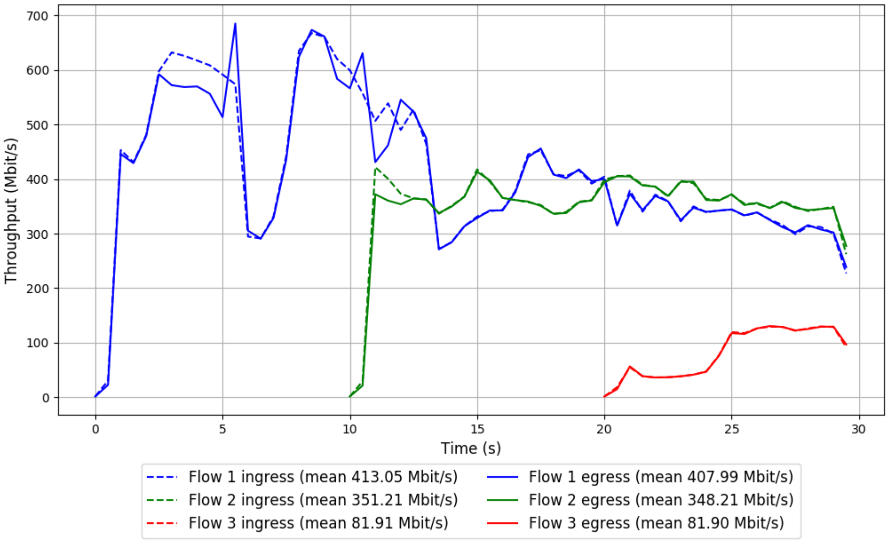


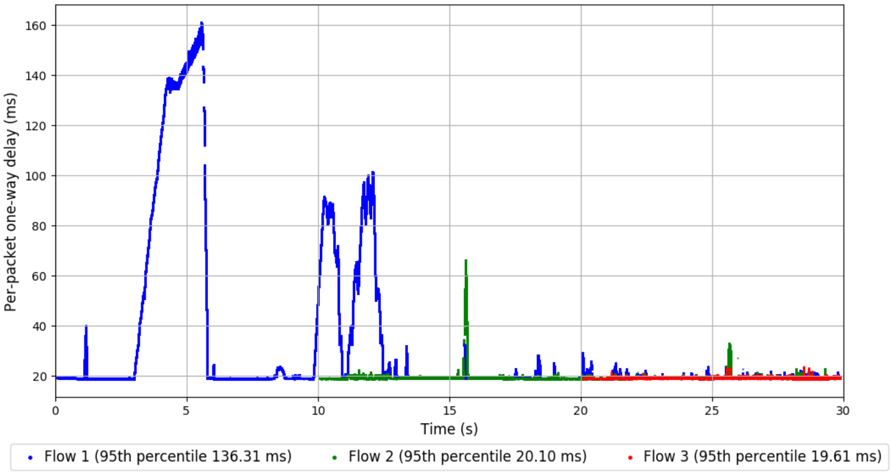
```
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-16 18:52:46
End at: 2018-02-16 18:53:16
Local clock offset: 0.295 ms
Remote clock offset: -4.38 ms

# Below is generated by plot.py at 2018-02-17 00:40:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 666.45 Mbit/s
95th percentile per-packet one-way delay: 101.389 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 407.99 Mbit/s
95th percentile per-packet one-way delay: 136.310 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 348.21 Mbit/s
95th percentile per-packet one-way delay: 20.101 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 81.90 Mbit/s
95th percentile per-packet one-way delay: 19.606 ms
Loss rate: 0.07%
```

Run 9: Report of Vivace-LTE — Data Link



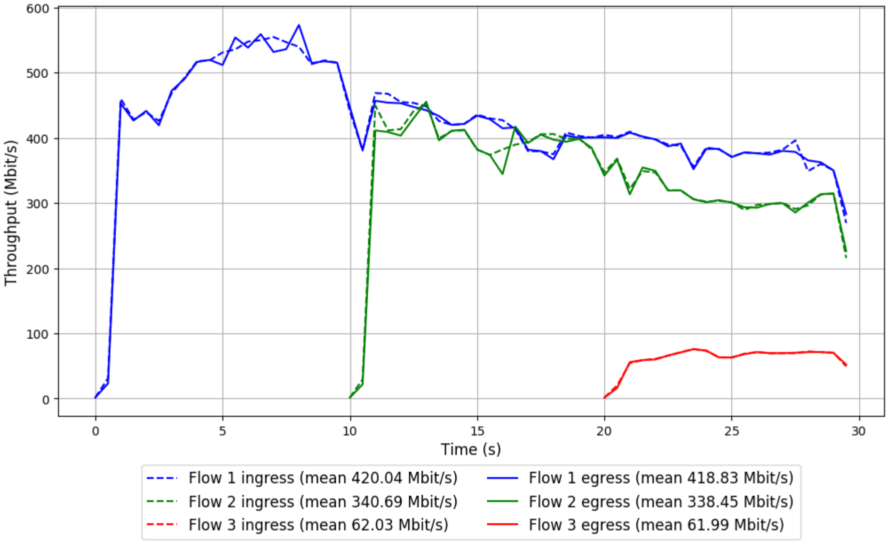


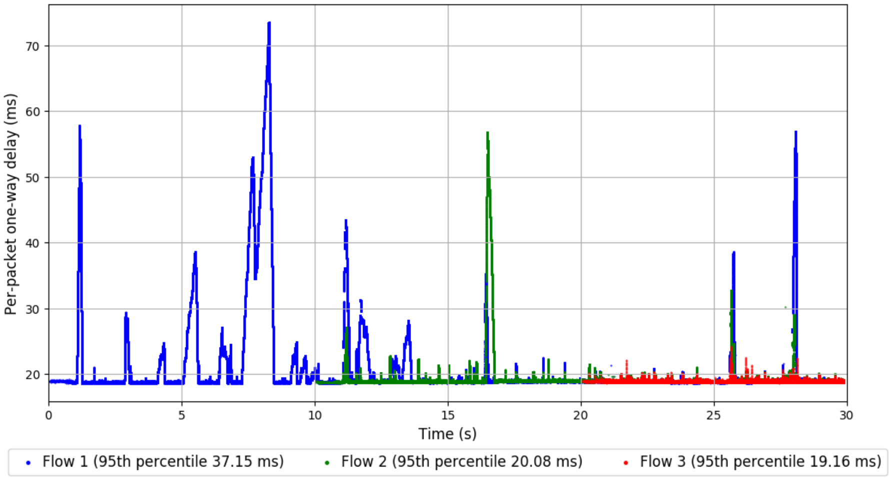
```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-16 19:20:25
End at: 2018-02-16 19:20:55
Local clock offset: 0.805 ms
Remote clock offset: -5.893 ms

# Below is generated by plot.py at 2018-02-17 00:40:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 664.25 Mbit/s
95th percentile per-packet one-way delay: 31.208 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 418.83 Mbit/s
95th percentile per-packet one-way delay: 37.148 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 338.45 Mbit/s
95th percentile per-packet one-way delay: 20.079 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 19.162 ms
Loss rate: 0.07%
```

Run 10: Report of Vivace-LTE — Data Link


600
500
400
300
200
100
0
Throughput (Mbit/s)
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 420.04 Mbit/s)
Flow 2 ingress (mean 340.69 Mbit/s)
Flow 3 ingress (mean 62.03 Mbit/s)
Flow 1 egress (mean 418.83 Mbit/s)
Flow 2 egress (mean 338.45 Mbit/s)
Flow 3 egress (mean 61.99 Mbit/s)


70
60
50
40
30
20
Per-packet one-way delay (ms)
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 37.15 ms)
Flow 2 (95th percentile 20.08 ms)
Flow 3 (95th percentile 19.16 ms)