Pantheon Report

Generated at 2018-08-03 17:54:01 (UTC).

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

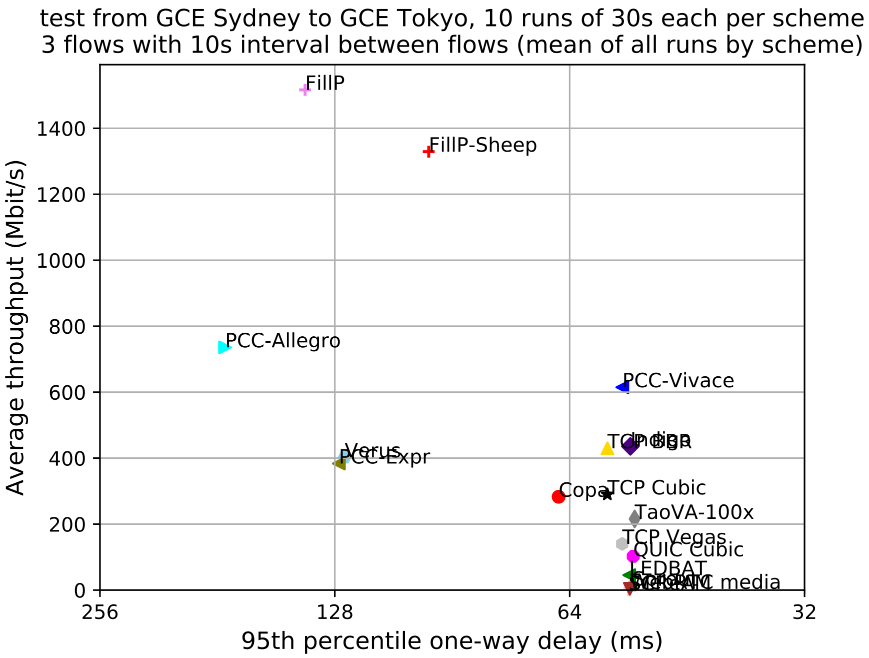
Repeated the test of 17 congestion control schemes 10 times.

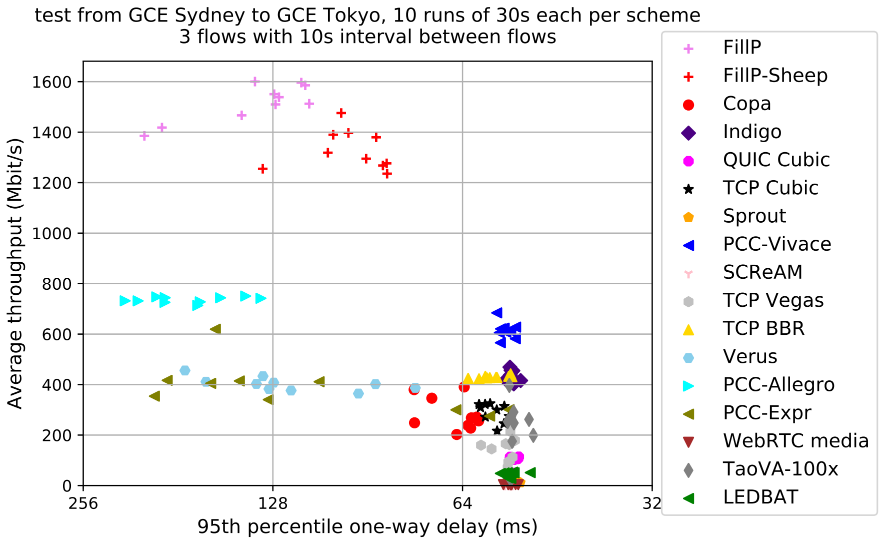
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

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

```
Git summary:
branch: master @ 640164b5b17c7c6561fff57729b3b5935d8596ce
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```


test from GCE Sydney to GCE Tokyo, 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
1000
1200
1400
256
128
64
32
FillP
FillP-Sheep
PCC-Allegro
PCC-Vivace
TCP BBR
Indigo
Verus
PCC-Expr
Copa
TCP Cubic
TaoVA-100x
TCP Vegas
QUIC Cubic
LEDBAT
Sprout
SCReAM
WebRTC media


test from GCE Sydney to GCE Tokyo, 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
1000
1200
1400
1600
256
128
64
32
FillP
FillP-Sheep
Copa
Indigo
QUIC Cubic
TCP Cubic
Sprout
PCC-Vivace
SCReAM
TCP Vegas
TCP BBR
Verus
PCC-Allegro
PCC-Expr
WebRTC media
TaoVA-100x
LEDBAT

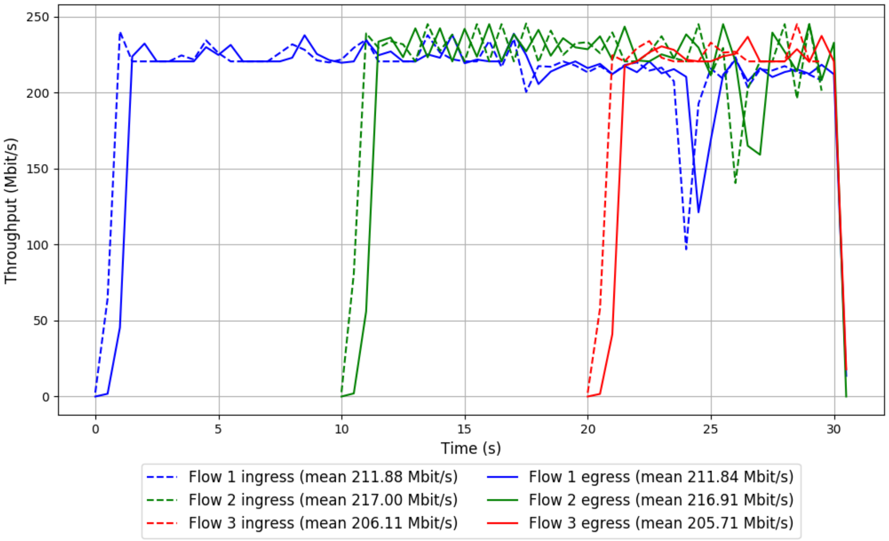
scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	216.85	215.95	208.05	56.15	57.28	58.20	0.01	0.01	0.04
Copa	10	163.88	154.51	79.87	61.58	67.12	58.89	0.00	0.00	0.05
TCP Cubic	10	160.58	139.07	110.85	57.47	56.15	56.22	0.02	0.01	0.02
FillP	10	796.61	744.06	676.68	136.86	135.86	125.32	1.38	1.90	1.35
FillP-Sheep	10	735.84	638.72	508.00	98.73	98.73	67.80	0.11	0.13	0.16
Indigo	10	216.98	232.61	198.04	53.38	53.07	53.57	0.00	0.00	0.00
LEDBAT	10	28.03	21.14	9.87	53.74	53.48	53.31	0.00	0.03	0.00
PCC-Allegro	10	627.96	121.68	81.97	181.32	131.90	129.04	2.56	1.30	1.29
PCC-Expr	10	222.42	171.11	143.74	116.82	85.74	71.11	1.95	0.37	0.09
QUIC Cubic	10	62.25	48.86	23.59	51.74	52.05	52.50	0.00	0.00	0.00
SCReAM	10	0.21	0.21	0.22	53.11	52.82	52.69	0.01	0.00	0.00
Sprout	10	6.91	6.30	6.35	53.21	53.19	52.81	0.00	0.00	0.00
TaoVA-100x	10	78.41	150.05	112.45	53.29	52.60	52.90	0.01	0.00	0.01
TCP Vegas	10	72.69	63.36	75.89	53.93	54.04	54.94	0.01	0.00	0.00
Verus	10	243.80	173.50	135.99	120.64	116.59	131.74	0.66	0.32	1.25
PCC-Vivace	10	370.17	307.95	120.63	54.74	58.44	56.10	0.00	0.00	0.02
WebRTC media	10	2.00	1.27	0.49	52.57	52.64	53.09	0.00	0.00	0.03

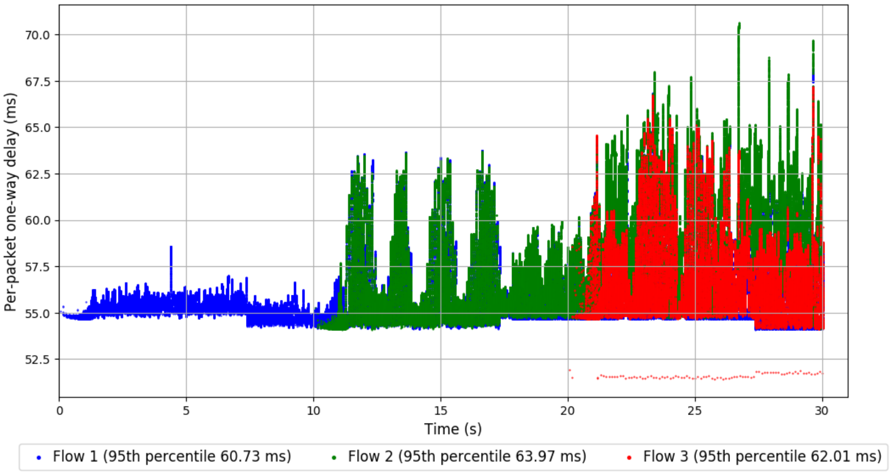
```
Run 1: Statistics of TCP BBR

Start at: 2018-08-03 10:44:46
End at: 2018-08-03 10:45:16
Local clock offset: 0.114 ms
Remote clock offset: 1.139 ms

# Below is generated by plot.py at 2018-08-03 15:17:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 424.77 Mbit/s
95th percentile per-packet one-way delay: 62.704 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 211.84 Mbit/s
95th percentile per-packet one-way delay: 60.728 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 216.91 Mbit/s
95th percentile per-packet one-way delay: 63.965 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 205.71 Mbit/s
95th percentile per-packet one-way delay: 62.014 ms
Loss rate: 0.16%
```

Run 1: Report of TCP BBR — Data Link



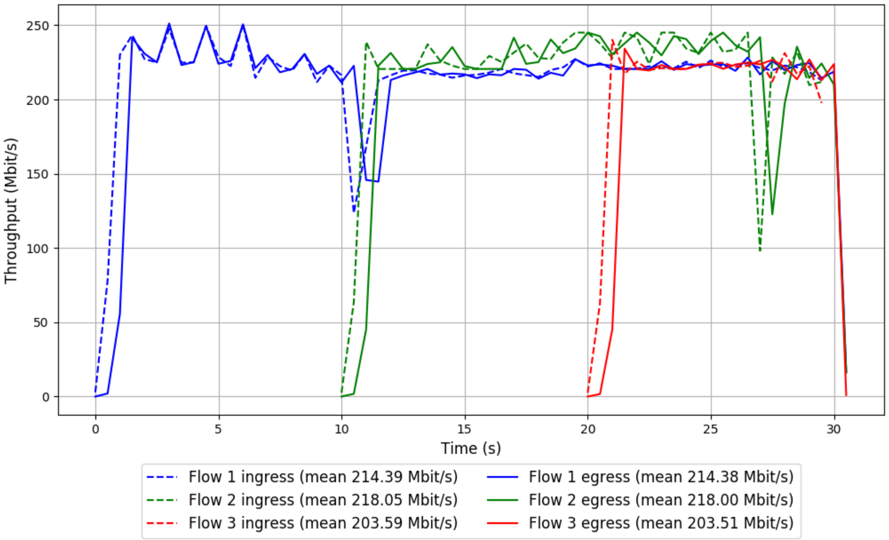


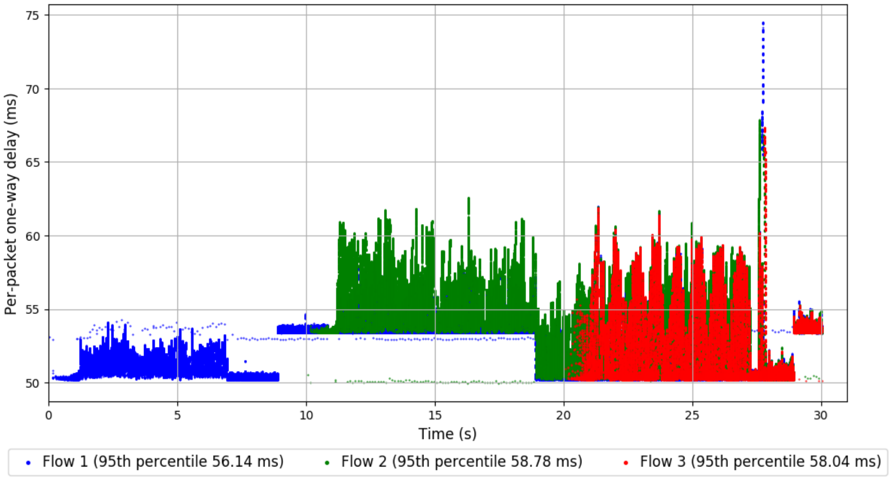
```
Run 2: Statistics of TCP BBR

Start at: 2018-08-03 11:10:14
End at: 2018-08-03 11:10:44
Local clock offset: -0.039 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2018-08-03 15:17:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.20 Mbit/s
95th percentile per-packet one-way delay: 57.935 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 214.38 Mbit/s
95th percentile per-packet one-way delay: 56.137 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 218.00 Mbit/s
95th percentile per-packet one-way delay: 58.785 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 203.51 Mbit/s
95th percentile per-packet one-way delay: 58.042 ms
Loss rate: 0.04%
```

Run 2: Report of TCP BBR — Data Link



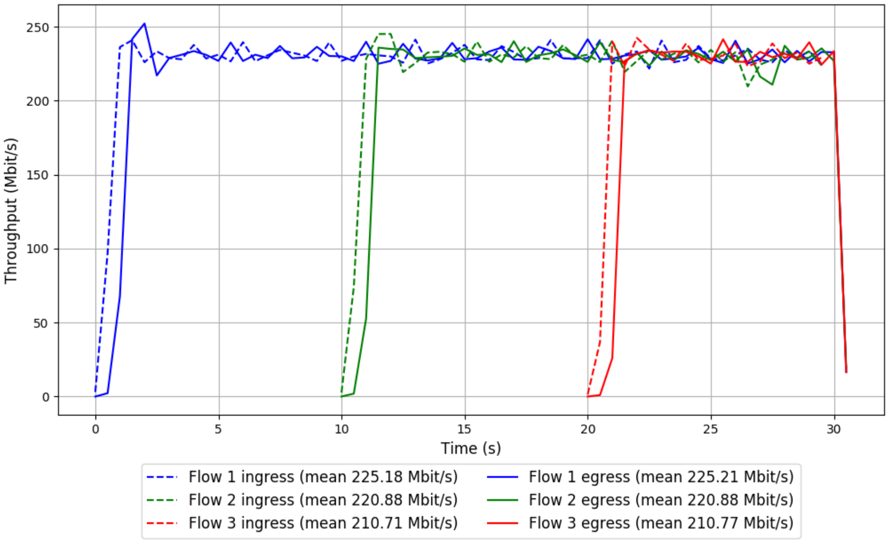


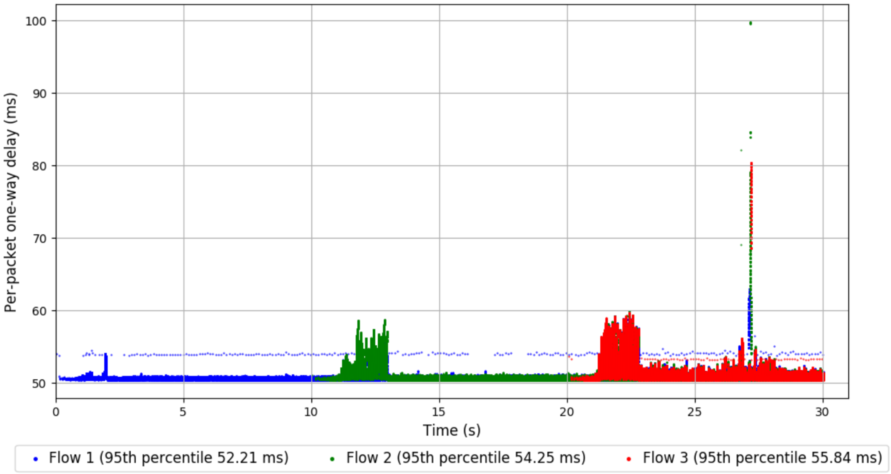
```
Run 3: Statistics of TCP BBR

Start at: 2018-08-03 11:35:38
End at: 2018-08-03 11:36:08
Local clock offset: -0.027 ms
Remote clock offset: 0.091 ms

# Below is generated by plot.py at 2018-08-03 15:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 442.42 Mbit/s
95th percentile per-packet one-way delay: 53.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.21 Mbit/s
95th percentile per-packet one-way delay: 52.213 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 220.88 Mbit/s
95th percentile per-packet one-way delay: 54.254 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 210.77 Mbit/s
95th percentile per-packet one-way delay: 55.844 ms
Loss rate: 0.00%
```

Run 3: Report of TCP BBR — Data Link



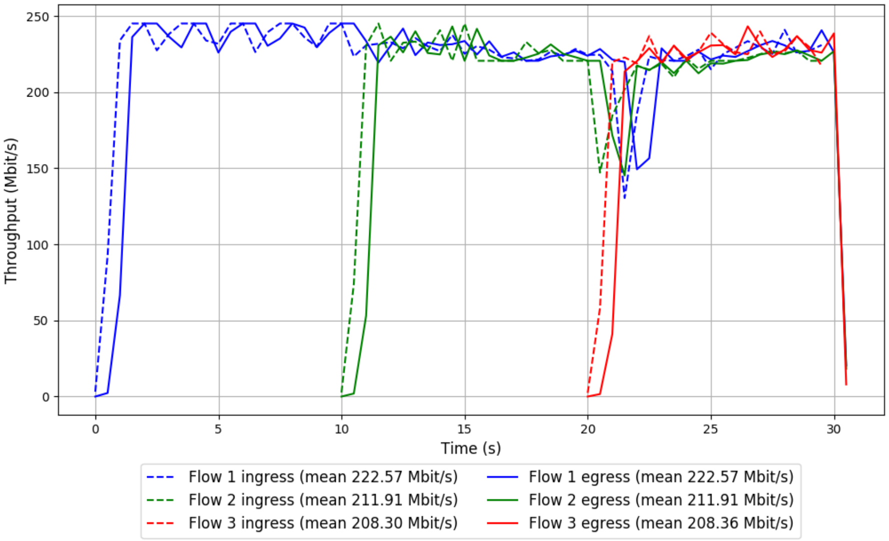


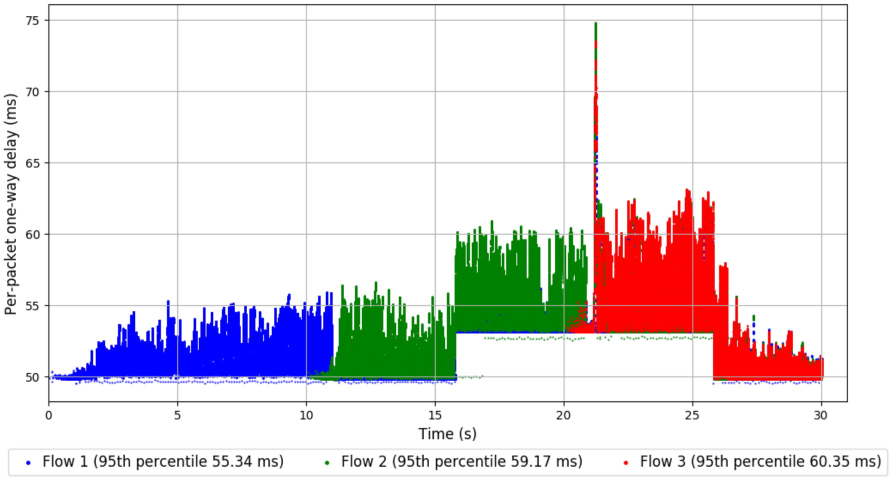
```
Run 4: Statistics of TCP BBR

Start at: 2018-08-03 12:00:57
End at: 2018-08-03 12:01:27
Local clock offset: 0.049 ms
Remote clock offset: -0.424 ms

# Below is generated by plot.py at 2018-08-03 15:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.93 Mbit/s
95th percentile per-packet one-way delay: 58.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.57 Mbit/s
95th percentile per-packet one-way delay: 55.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 211.91 Mbit/s
95th percentile per-packet one-way delay: 59.166 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 208.36 Mbit/s
95th percentile per-packet one-way delay: 60.352 ms
Loss rate: 0.00%
```

Run 4: Report of TCP BBR — Data Link



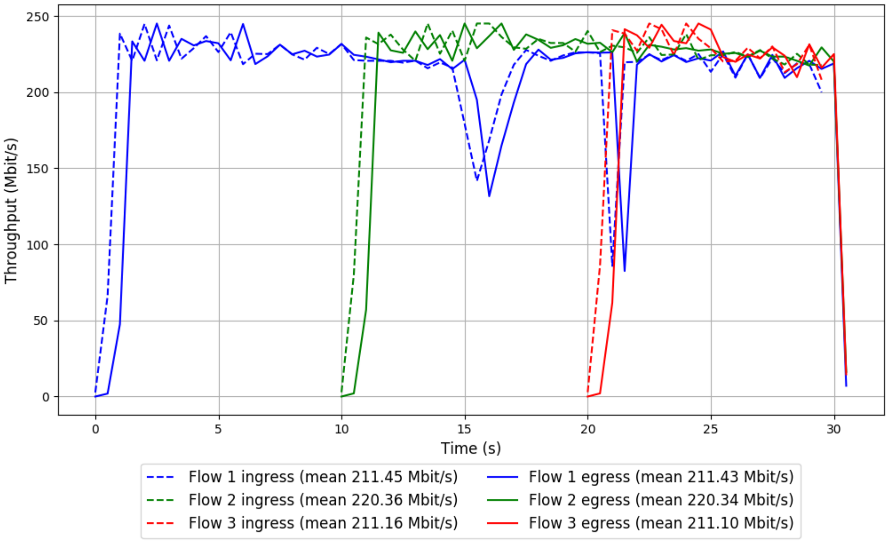


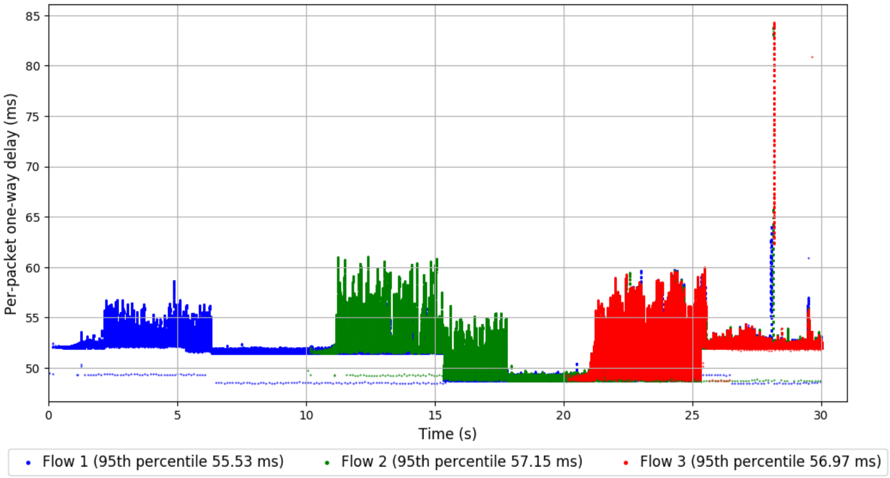
```
Run 5: Statistics of TCP BBR

Start at: 2018-08-03 12:26:18
End at: 2018-08-03 12:26:48
Local clock offset: 0.029 ms
Remote clock offset: -1.572 ms

# Below is generated by plot.py at 2018-08-03 15:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 428.22 Mbit/s
95th percentile per-packet one-way delay: 56.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 211.43 Mbit/s
95th percentile per-packet one-way delay: 55.533 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 220.34 Mbit/s
95th percentile per-packet one-way delay: 57.151 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 211.10 Mbit/s
95th percentile per-packet one-way delay: 56.973 ms
Loss rate: 0.00%
```

Run 5: Report of TCP BBR — Data Link



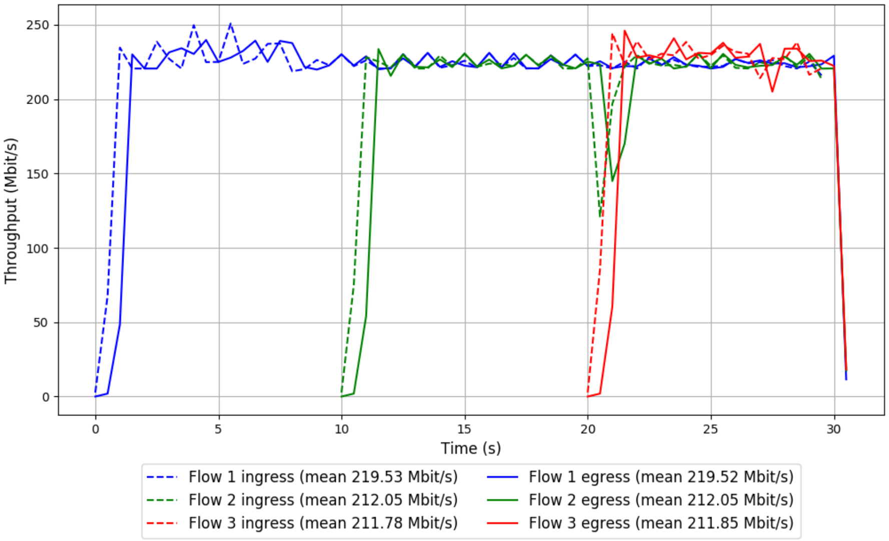


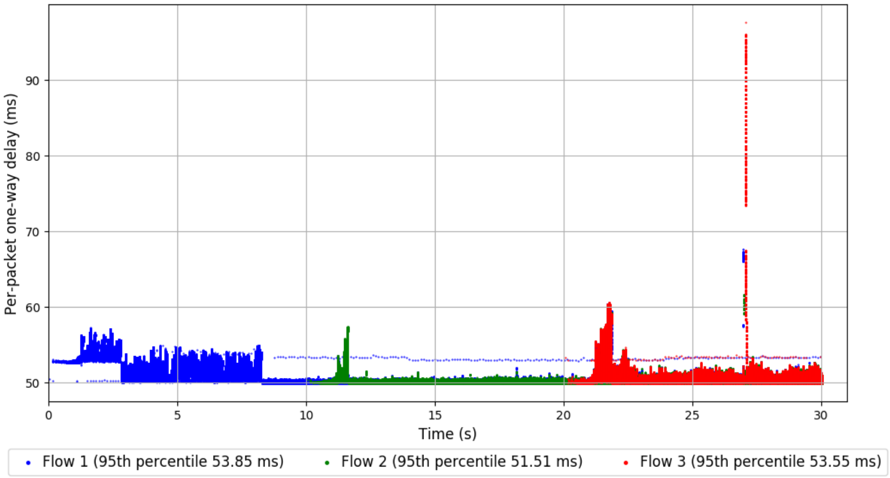
```
Run 6: Statistics of TCP BBR

Start at: 2018-08-03 12:51:20
End at: 2018-08-03 12:51:50
Local clock offset: 0.055 ms
Remote clock offset: -0.435 ms

# Below is generated by plot.py at 2018-08-03 15:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.00 Mbit/s
95th percentile per-packet one-way delay: 53.438 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 219.52 Mbit/s
95th percentile per-packet one-way delay: 53.848 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 212.05 Mbit/s
95th percentile per-packet one-way delay: 51.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 211.85 Mbit/s
95th percentile per-packet one-way delay: 53.555 ms
Loss rate: 0.00%
```

Run 6: Report of TCP BBR — Data Link



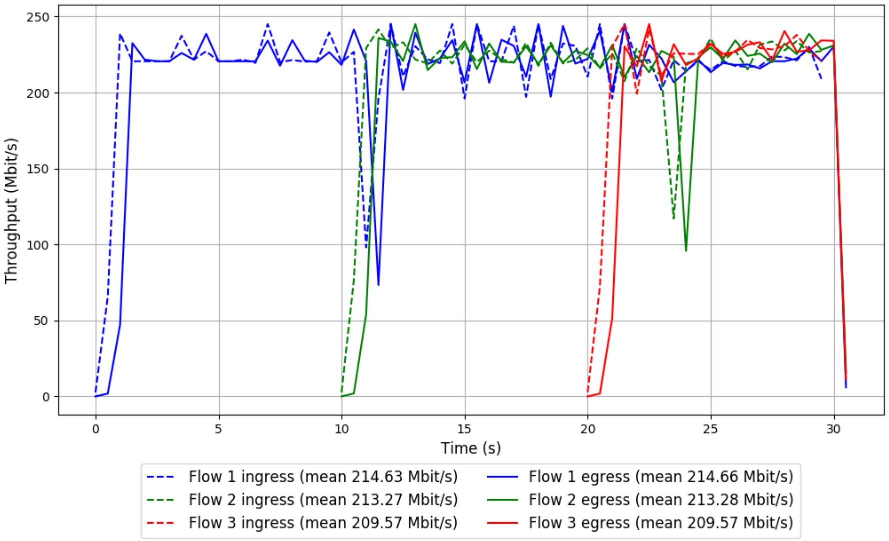


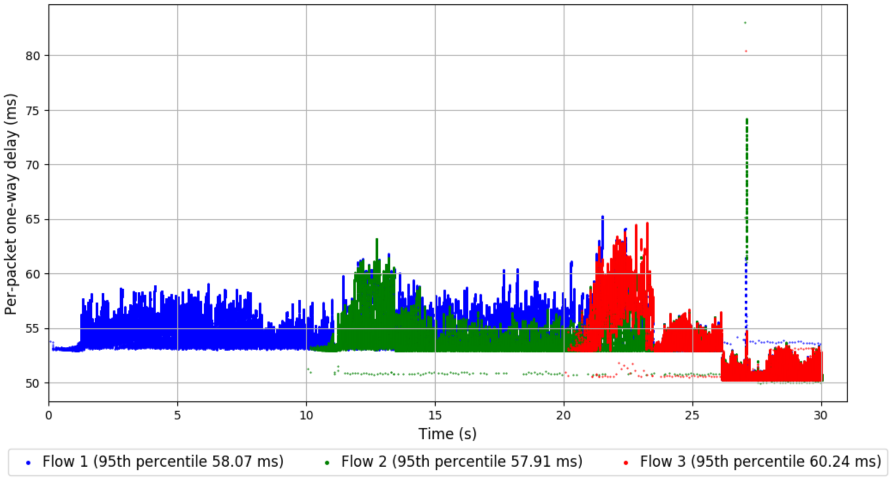
```
Run 7: Statistics of TCP BBR

Start at: 2018-08-03 13:16:47
End at: 2018-08-03 13:17:17
Local clock offset: 0.028 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-08-03 15:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.28 Mbit/s
95th percentile per-packet one-way delay: 58.514 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.66 Mbit/s
95th percentile per-packet one-way delay: 58.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 57.912 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 209.57 Mbit/s
95th percentile per-packet one-way delay: 60.243 ms
Loss rate: 0.00%
```

Run 7: Report of TCP BBR — Data Link



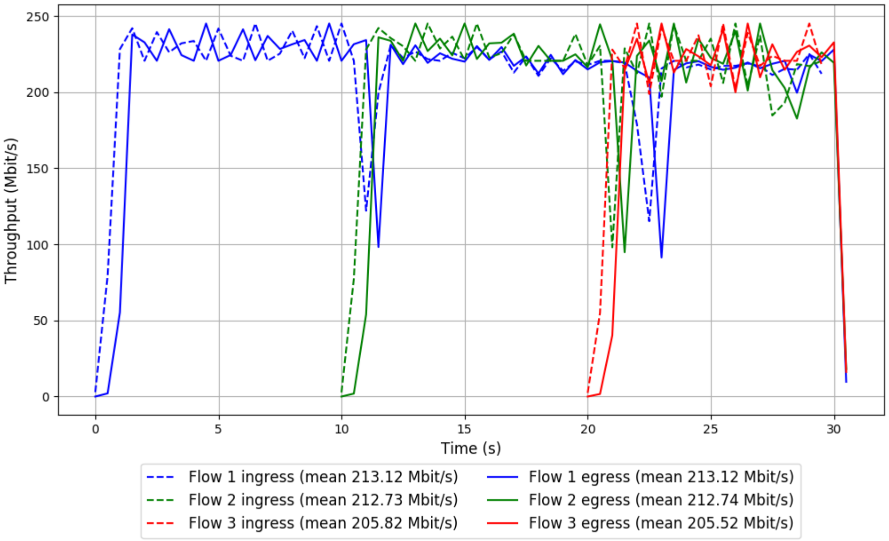


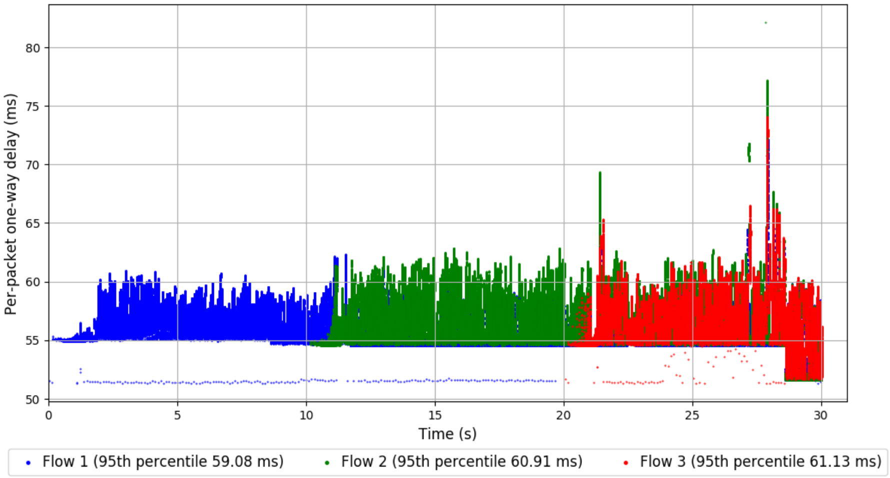
```
Run 8: Statistics of TCP BBR

Start at: 2018-08-03 13:42:05
End at: 2018-08-03 13:42:35
Local clock offset: -0.056 ms
Remote clock offset: 1.138 ms

# Below is generated by plot.py at 2018-08-03 15:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.95 Mbit/s
95th percentile per-packet one-way delay: 60.263 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 213.12 Mbit/s
95th percentile per-packet one-way delay: 59.077 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 212.74 Mbit/s
95th percentile per-packet one-way delay: 60.911 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 205.52 Mbit/s
95th percentile per-packet one-way delay: 61.128 ms
Loss rate: 0.14%
```

Run 8: Report of TCP BBR — Data Link



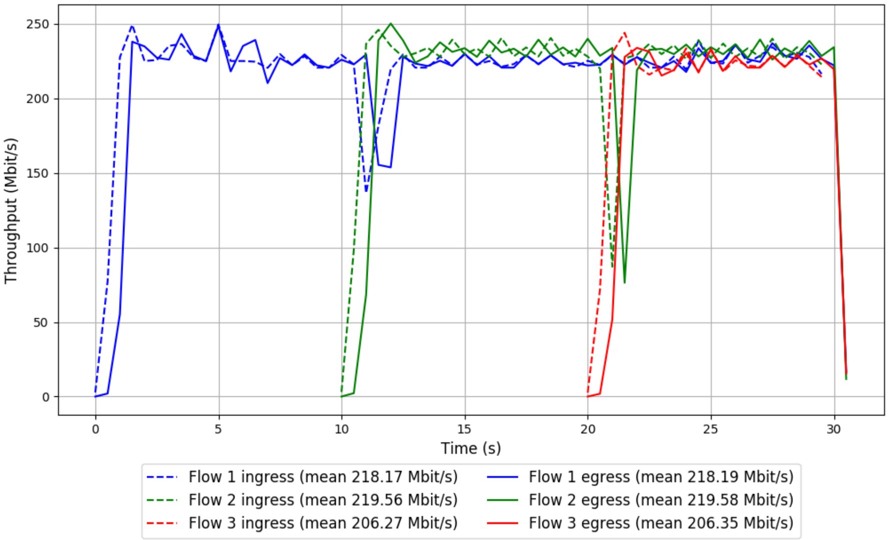


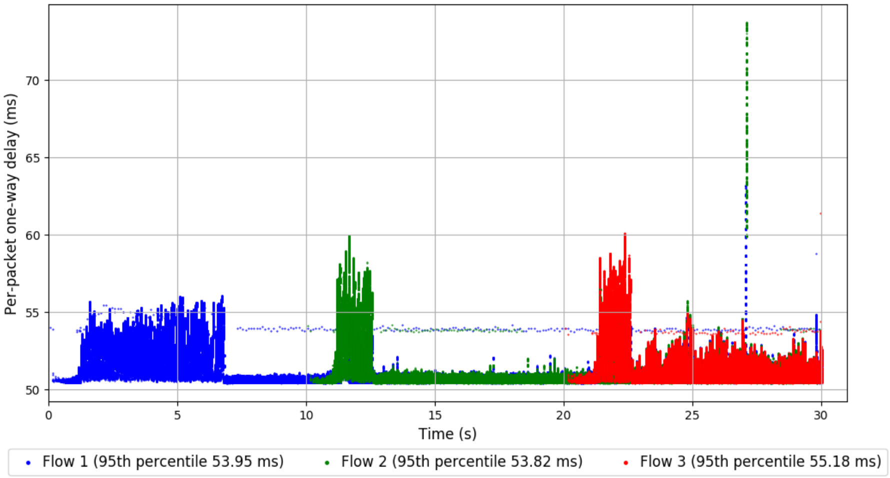
```
Run 9: Statistics of TCP BBR

Start at: 2018-08-03 14:06:55
End at: 2018-08-03 14:07:25
Local clock offset: -0.165 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2018-08-03 15:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.01 Mbit/s
95th percentile per-packet one-way delay: 54.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.19 Mbit/s
95th percentile per-packet one-way delay: 53.951 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 219.58 Mbit/s
95th percentile per-packet one-way delay: 53.817 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 206.35 Mbit/s
95th percentile per-packet one-way delay: 55.177 ms
Loss rate: 0.00%
```

Run 9: Report of TCP BBR — Data Link



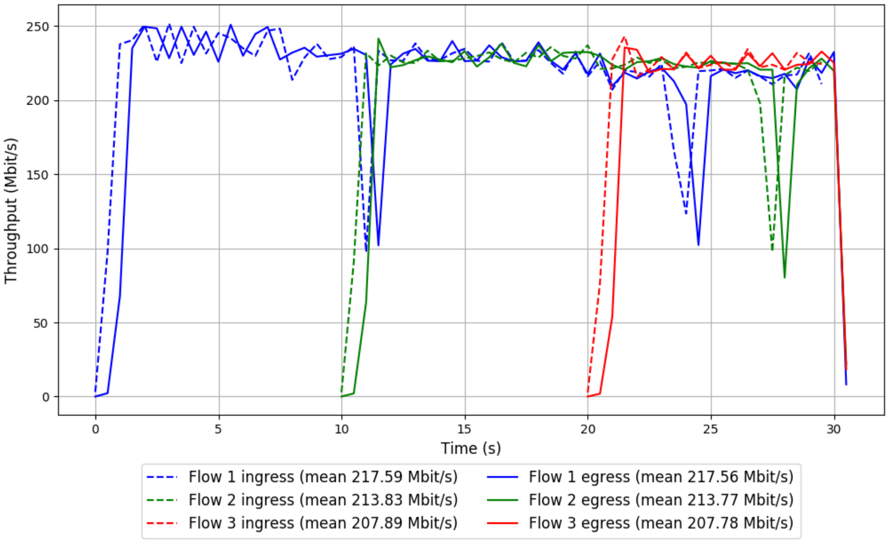


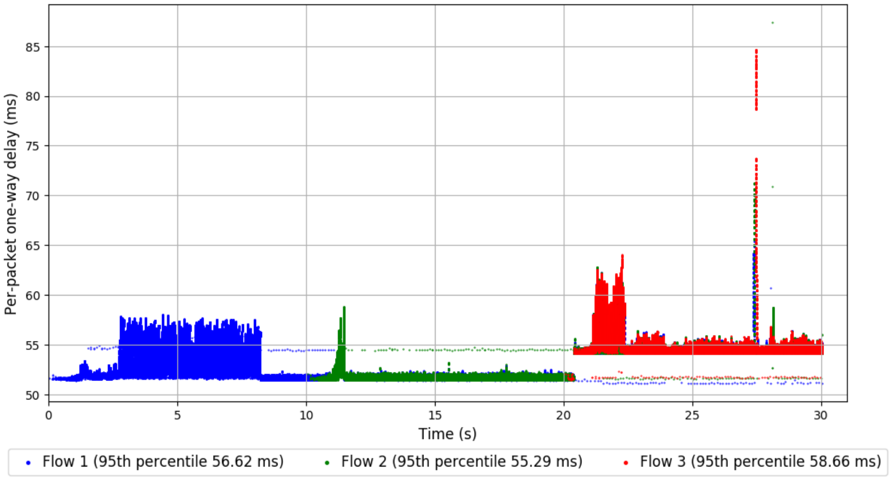
```
Run 10: Statistics of TCP BBR

Start at: 2018-08-03 14:32:23
End at: 2018-08-03 14:32:53
Local clock offset: 0.051 ms
Remote clock offset: 1.098 ms

# Below is generated by plot.py at 2018-08-03 15:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.01 Mbit/s
95th percentile per-packet one-way delay: 56.612 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 217.56 Mbit/s
95th percentile per-packet one-way delay: 56.625 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 213.77 Mbit/s
95th percentile per-packet one-way delay: 55.289 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 207.78 Mbit/s
95th percentile per-packet one-way delay: 58.662 ms
Loss rate: 0.05%
```

Run 10: Report of TCP BBR — Data Link



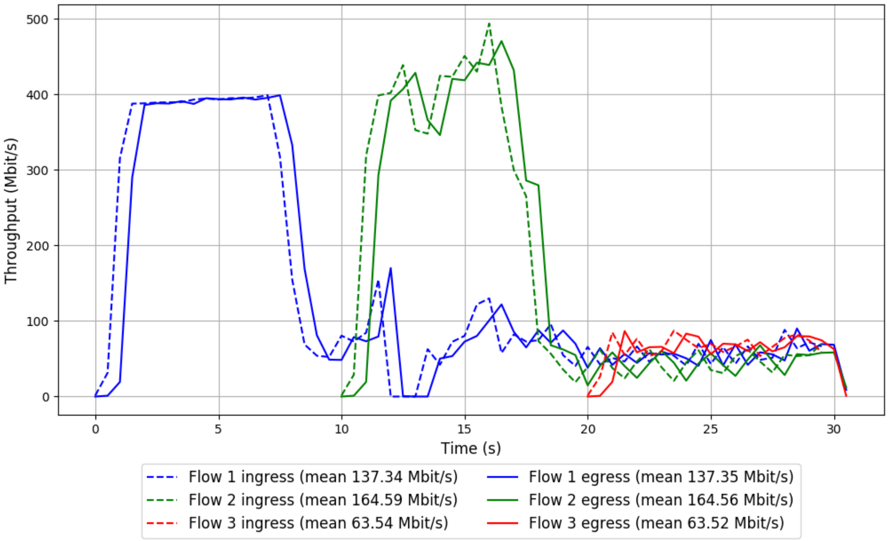


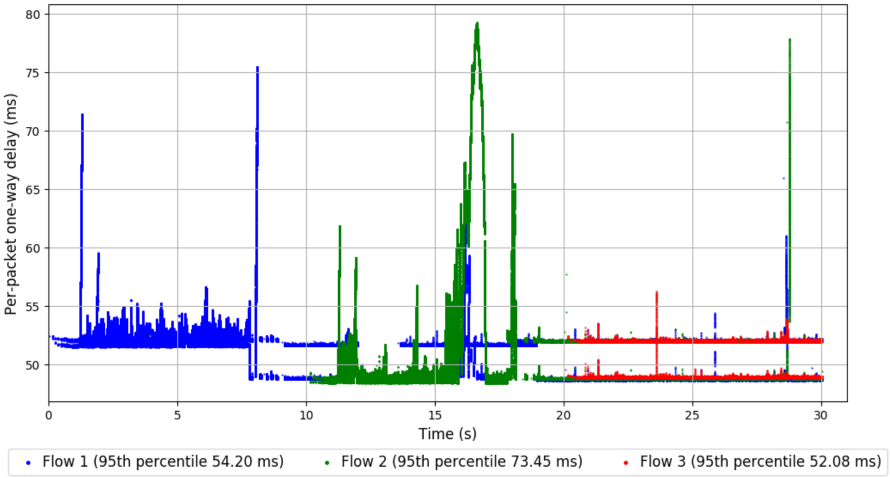
```
Run 1: Statistics of Copa

Start at: 2018-08-03 10:59:55
End at: 2018-08-03 11:00:25
Local clock offset: 0.149 ms
Remote clock offset: -1.395 ms

# Below is generated by plot.py at 2018-08-03 15:24:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.11 Mbit/s
95th percentile per-packet one-way delay: 61.968 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.35 Mbit/s
95th percentile per-packet one-way delay: 54.204 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 164.56 Mbit/s
95th percentile per-packet one-way delay: 73.447 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.52 Mbit/s
95th percentile per-packet one-way delay: 52.077 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link



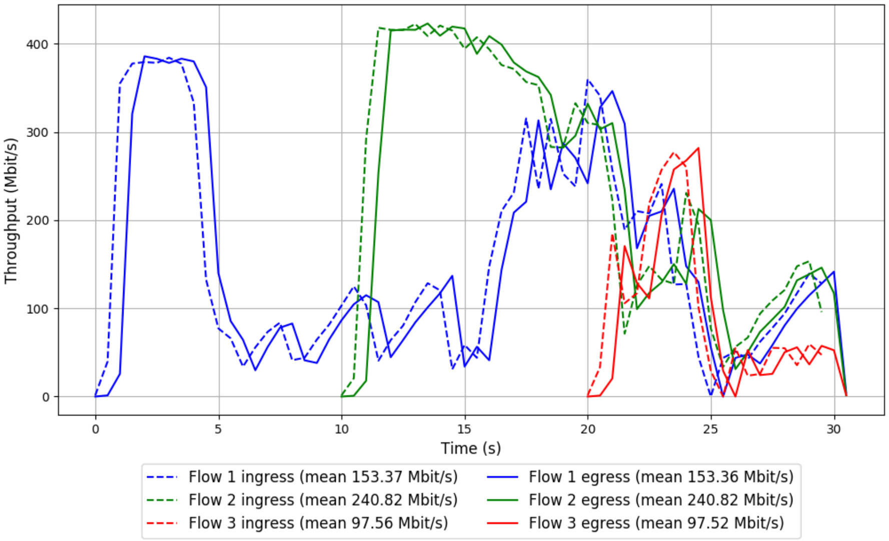


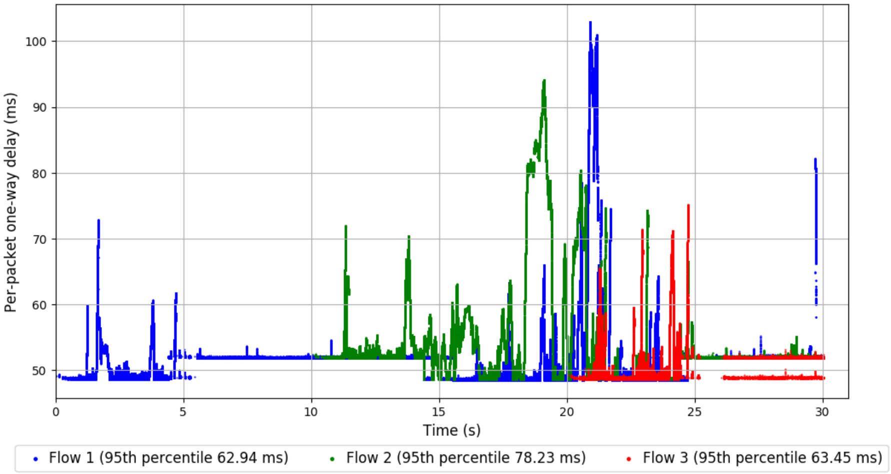
```
Run 2: Statistics of Copa

Start at: 2018-08-03 11:25:19
End at: 2018-08-03 11:25:49
Local clock offset: 0.241 ms
Remote clock offset: -1.483 ms

# Below is generated by plot.py at 2018-08-03 15:26:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 346.03 Mbit/s
95th percentile per-packet one-way delay: 71.604 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 153.36 Mbit/s
95th percentile per-packet one-way delay: 62.944 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 240.82 Mbit/s
95th percentile per-packet one-way delay: 78.234 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 97.52 Mbit/s
95th percentile per-packet one-way delay: 63.453 ms
Loss rate: 0.00%
```

Run 2: Report of Copa — Data Link



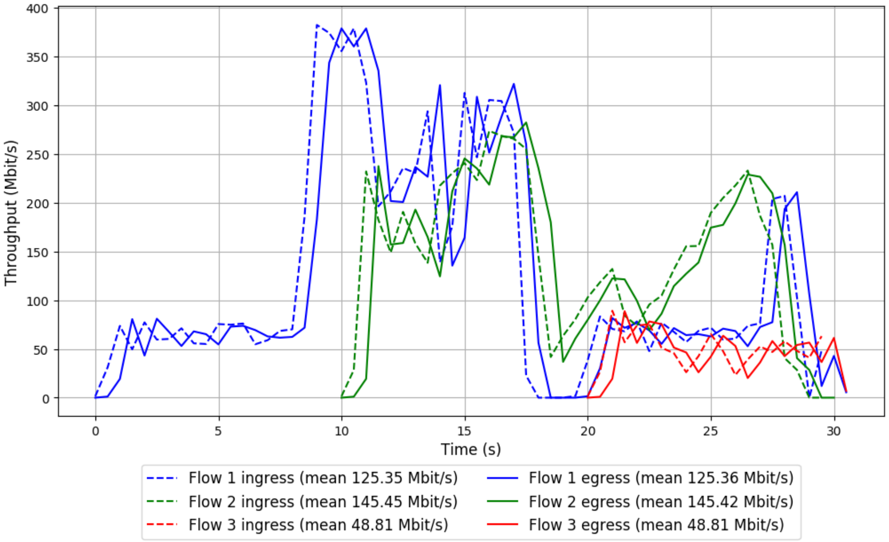


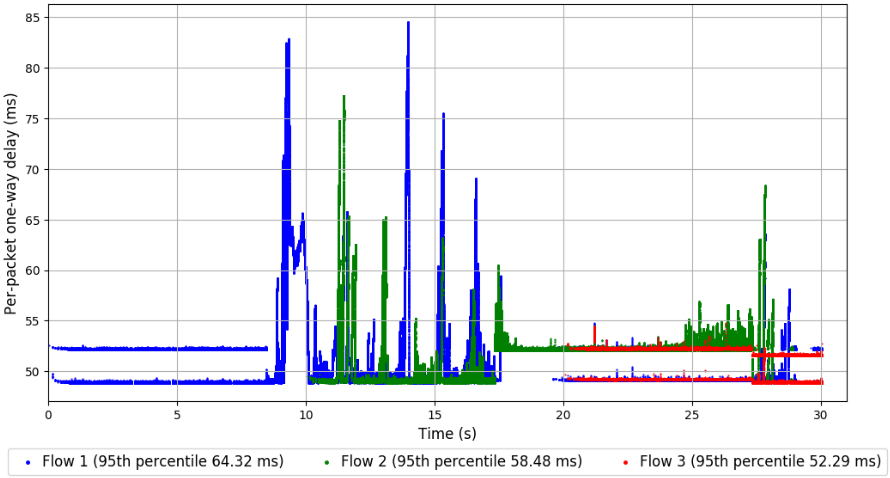
```
Run 3: Statistics of Copa

Start at: 2018-08-03 11:50:46
End at: 2018-08-03 11:51:16
Local clock offset: -0.078 ms
Remote clock offset: -1.49 ms

# Below is generated by plot.py at 2018-08-03 15:26:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.21 Mbit/s
95th percentile per-packet one-way delay: 62.751 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 125.36 Mbit/s
95th percentile per-packet one-way delay: 64.321 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 145.42 Mbit/s
95th percentile per-packet one-way delay: 58.481 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.81 Mbit/s
95th percentile per-packet one-way delay: 52.288 ms
Loss rate: 0.00%
```

Run 3: Report of Copa — Data Link



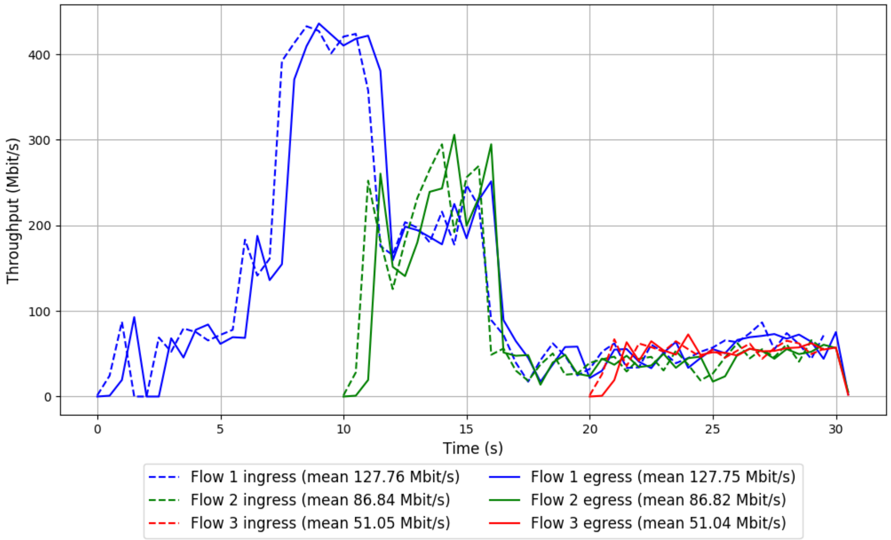


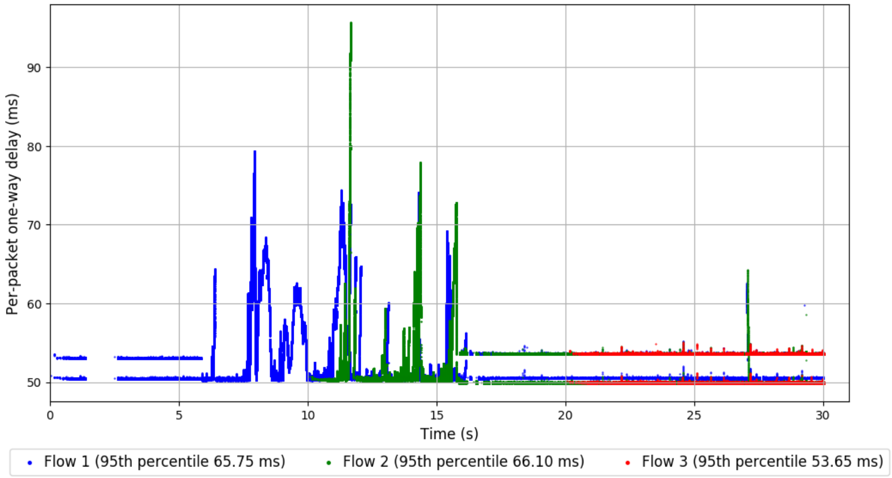
```
Run 4: Statistics of Copa

Start at: 2018-08-03 12:16:07
End at: 2018-08-03 12:16:37
Local clock offset: -0.075 ms
Remote clock offset: -0.171 ms

# Below is generated by plot.py at 2018-08-03 15:26:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 202.39 Mbit/s
95th percentile per-packet one-way delay: 65.376 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 127.75 Mbit/s
95th percentile per-packet one-way delay: 65.753 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 66.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.04 Mbit/s
95th percentile per-packet one-way delay: 53.646 ms
Loss rate: 0.00%
```

Run 4: Report of Copa — Data Link



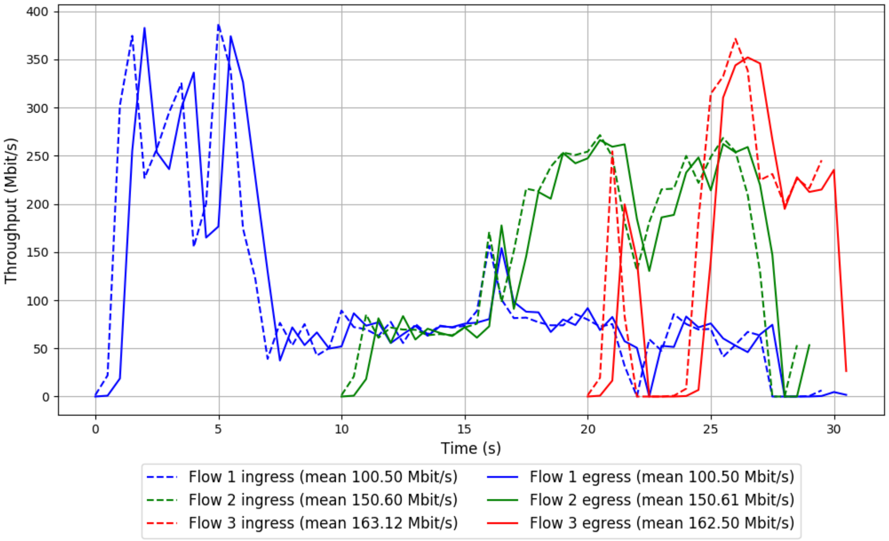


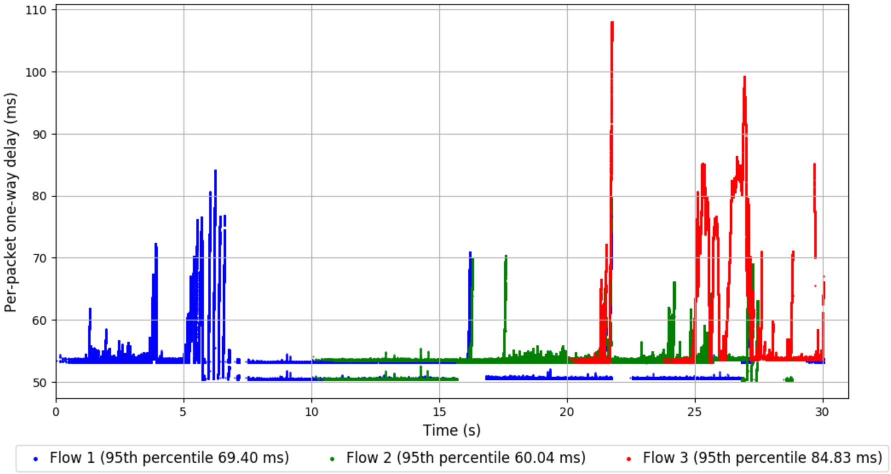
```
Run 5: Statistics of Copa

Start at: 2018-08-03 12:41:08
End at: 2018-08-03 12:41:38
Local clock offset: -0.037 ms
Remote clock offset: 0.04 ms

# Below is generated by plot.py at 2018-08-03 15:26:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.64 Mbit/s
95th percentile per-packet one-way delay: 76.273 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 100.50 Mbit/s
95th percentile per-packet one-way delay: 69.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 150.61 Mbit/s
95th percentile per-packet one-way delay: 60.042 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 162.50 Mbit/s
95th percentile per-packet one-way delay: 84.829 ms
Loss rate: 0.37%
```

Run 5: Report of Copa — Data Link



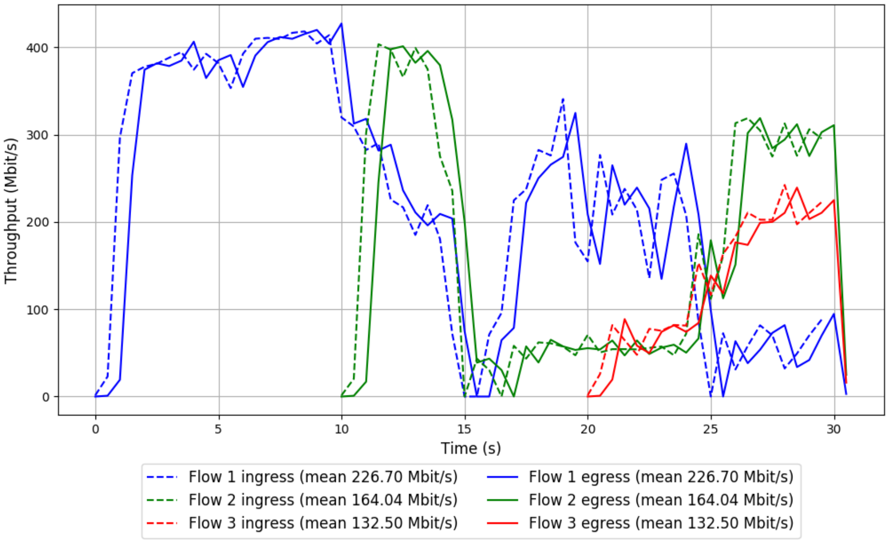


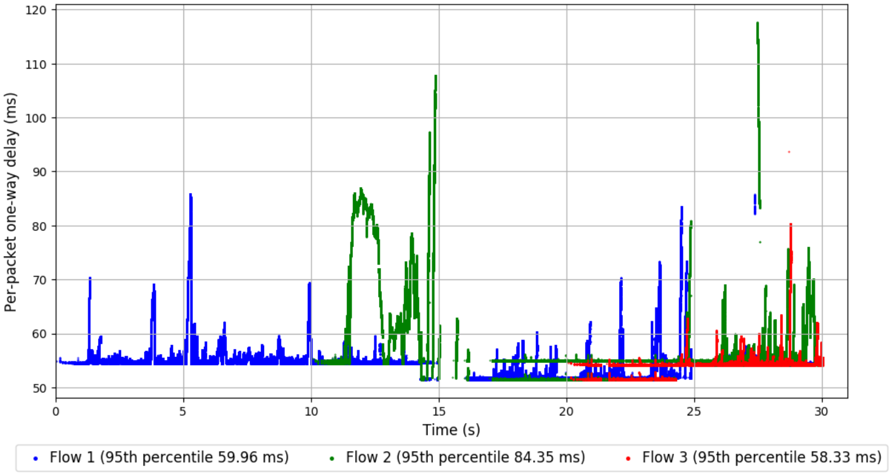
```
Run 6: Statistics of Copa

Start at: 2018-08-03 13:06:19
End at: 2018-08-03 13:06:49
Local clock offset: -0.059 ms
Remote clock offset: 1.018 ms

# Below is generated by plot.py at 2018-08-03 15:28:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.95 Mbit/s
95th percentile per-packet one-way delay: 76.385 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.70 Mbit/s
95th percentile per-packet one-way delay: 59.957 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 164.04 Mbit/s
95th percentile per-packet one-way delay: 84.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.50 Mbit/s
95th percentile per-packet one-way delay: 58.332 ms
Loss rate: 0.00%
```

Run 6: Report of Copa — Data Link



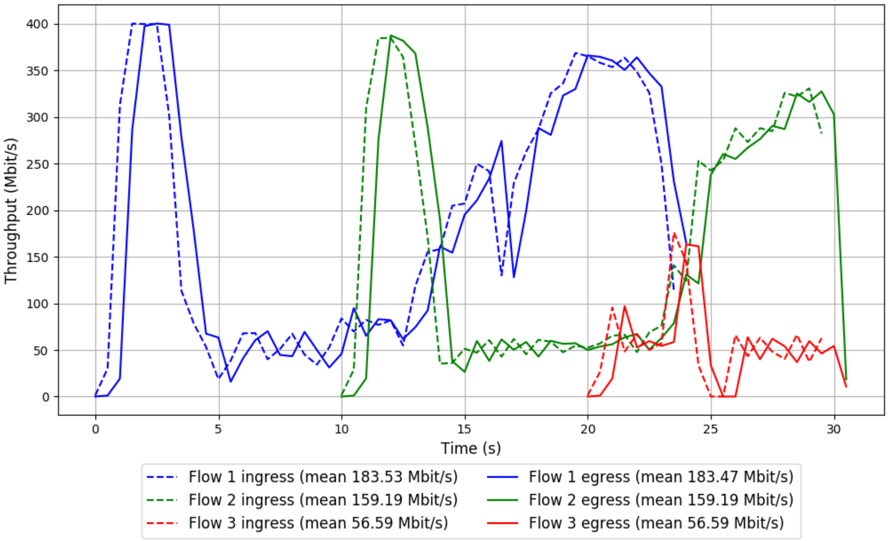


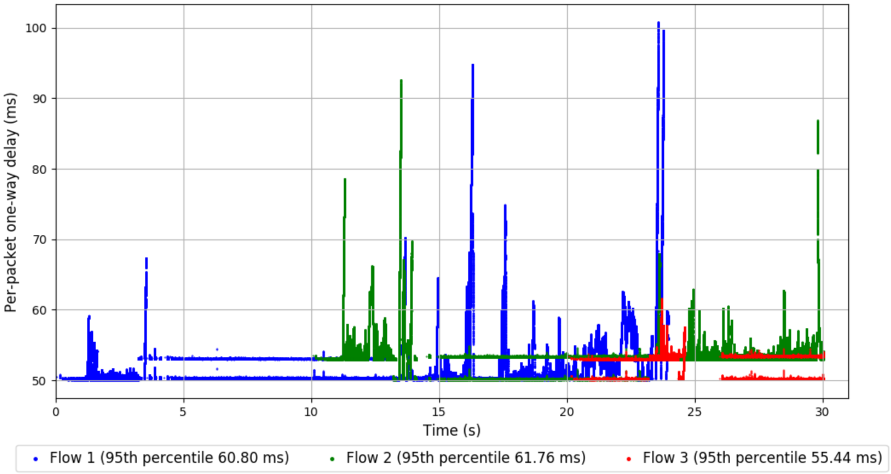
```
Run 7: Statistics of Copa

Start at: 2018-08-03 13:31:40
End at: 2018-08-03 13:32:10
Local clock offset: 0.044 ms
Remote clock offset: -0.302 ms

# Below is generated by plot.py at 2018-08-03 15:30:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 271.16 Mbit/s
95th percentile per-packet one-way delay: 60.785 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 183.47 Mbit/s
95th percentile per-packet one-way delay: 60.802 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 159.19 Mbit/s
95th percentile per-packet one-way delay: 61.758 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 56.59 Mbit/s
95th percentile per-packet one-way delay: 55.440 ms
Loss rate: 0.00%
```

Run 7: Report of Copa — Data Link



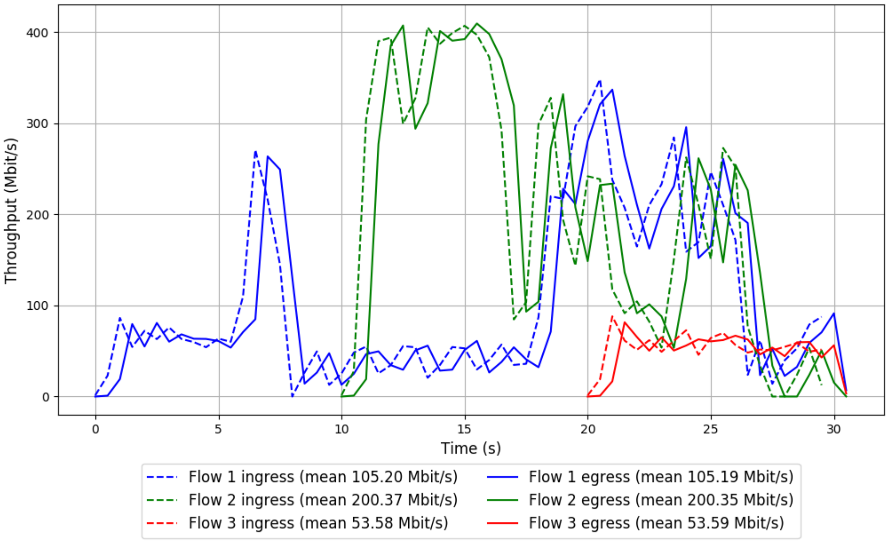


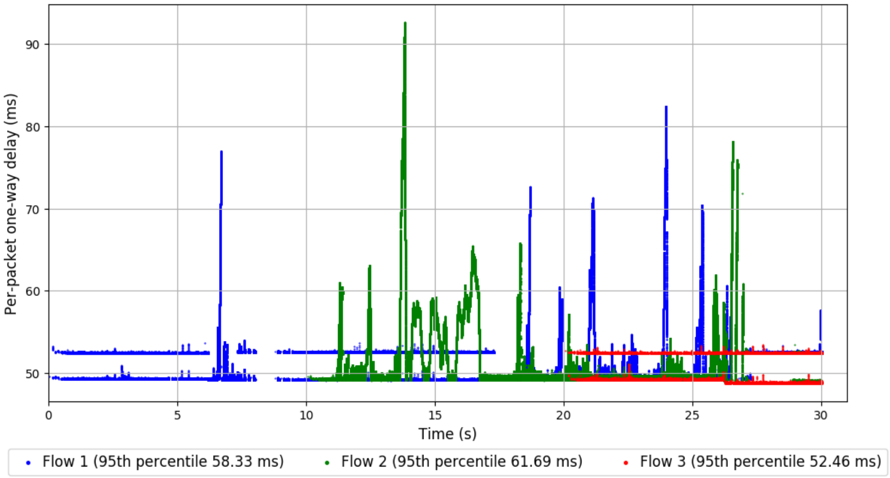
```
Run 8: Statistics of Copa

Start at: 2018-08-03 13:56:47
End at: 2018-08-03 13:57:17
Local clock offset: -0.177 ms
Remote clock offset: -1.479 ms

# Below is generated by plot.py at 2018-08-03 15:30:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.24 Mbit/s
95th percentile per-packet one-way delay: 60.351 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 105.19 Mbit/s
95th percentile per-packet one-way delay: 58.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 200.35 Mbit/s
95th percentile per-packet one-way delay: 61.692 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.59 Mbit/s
95th percentile per-packet one-way delay: 52.457 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link



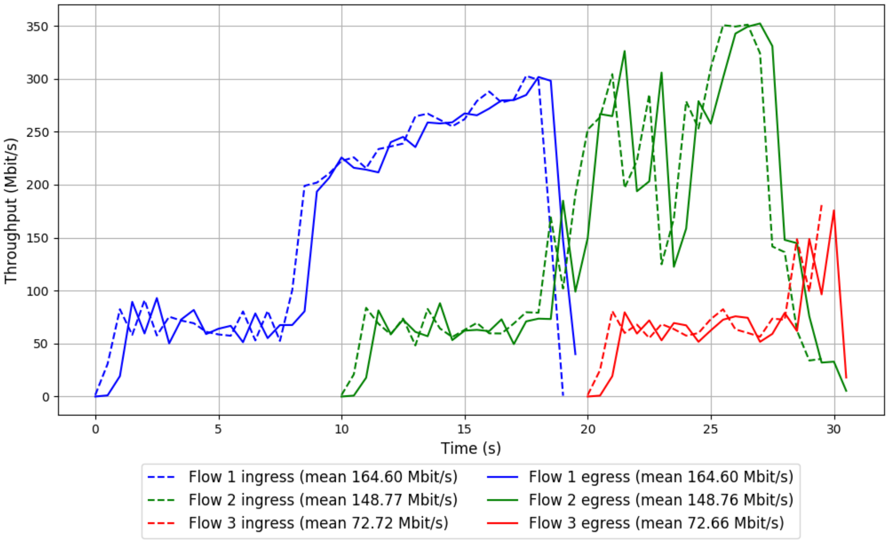


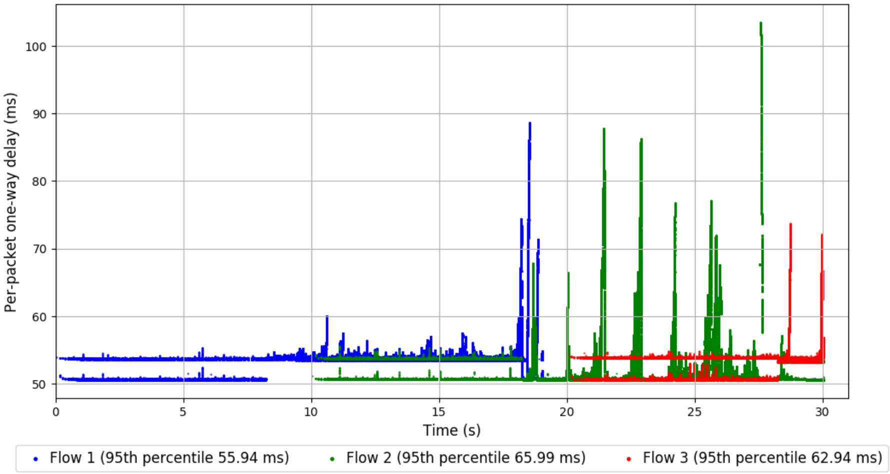
```
Run 9: Statistics of Copa

Start at: 2018-08-03 14:22:15
End at: 2018-08-03 14:22:45
Local clock offset: -0.067 ms
Remote clock offset: 0.047 ms

# Below is generated by plot.py at 2018-08-03 15:30:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 227.56 Mbit/s
95th percentile per-packet one-way delay: 62.131 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 164.60 Mbit/s
95th percentile per-packet one-way delay: 55.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 148.76 Mbit/s
95th percentile per-packet one-way delay: 65.993 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 72.66 Mbit/s
95th percentile per-packet one-way delay: 62.940 ms
Loss rate: 0.11%
```

Run 9: Report of Copa — Data Link



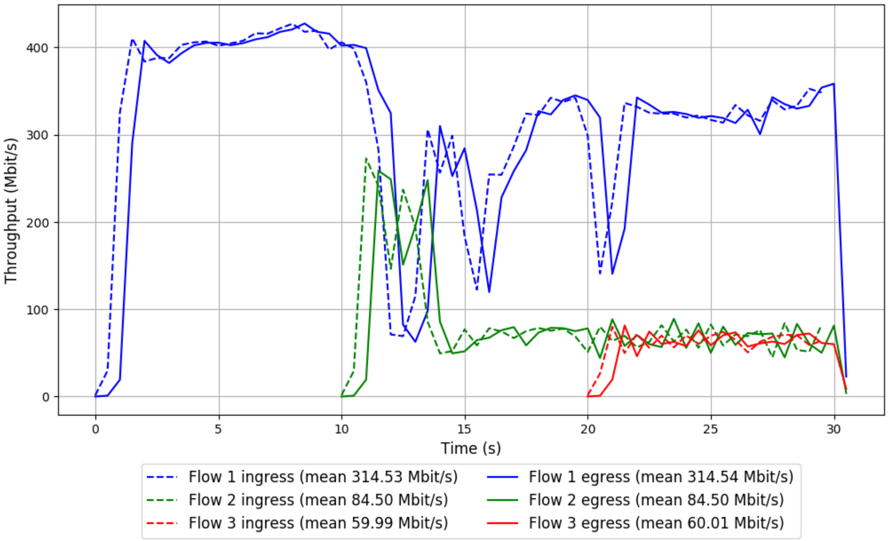


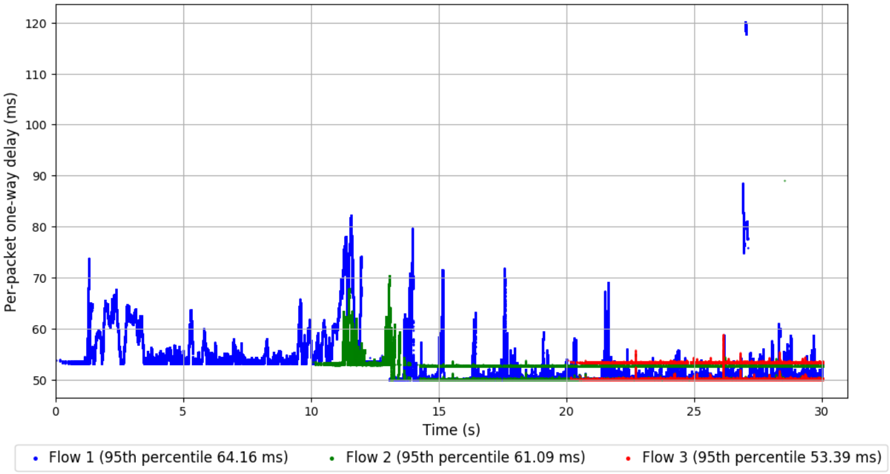
```
Run 10: Statistics of Copa

Start at: 2018-08-03 14:47:20
End at: 2018-08-03 14:47:50
Local clock offset: 0.072 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 390.76 Mbit/s
95th percentile per-packet one-way delay: 63.609 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 314.54 Mbit/s
95th percentile per-packet one-way delay: 64.164 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 84.50 Mbit/s
95th percentile per-packet one-way delay: 61.091 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 53.389 ms
Loss rate: 0.01%
```

Run 10: Report of Copa — Data Link



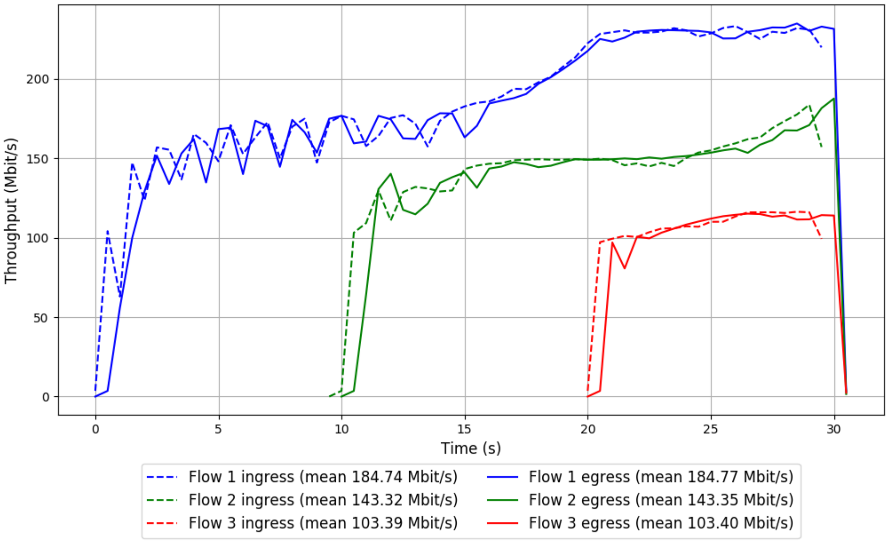


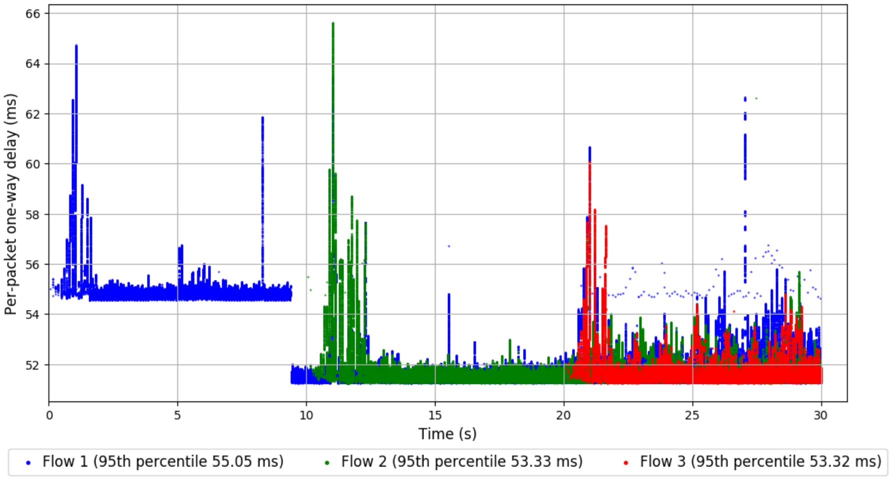
```
Run 1: Statistics of TCP Cubic

Start at: 2018-08-03 10:37:34
End at: 2018-08-03 10:38:04
Local clock offset: 0.145 ms
Remote clock offset: 1.083 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.61 Mbit/s
95th percentile per-packet one-way delay: 54.937 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 184.77 Mbit/s
95th percentile per-packet one-way delay: 55.052 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 143.35 Mbit/s
95th percentile per-packet one-way delay: 53.331 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 103.40 Mbit/s
95th percentile per-packet one-way delay: 53.316 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Cubic — Data Link



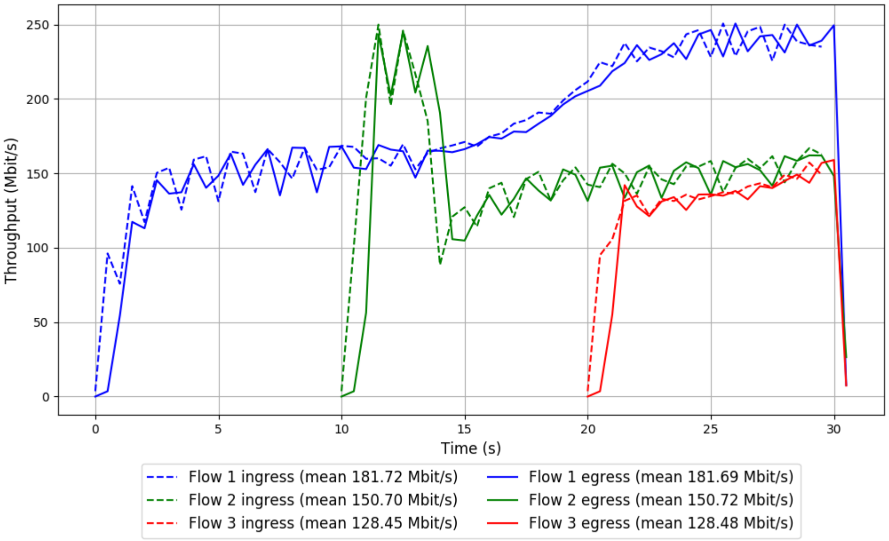


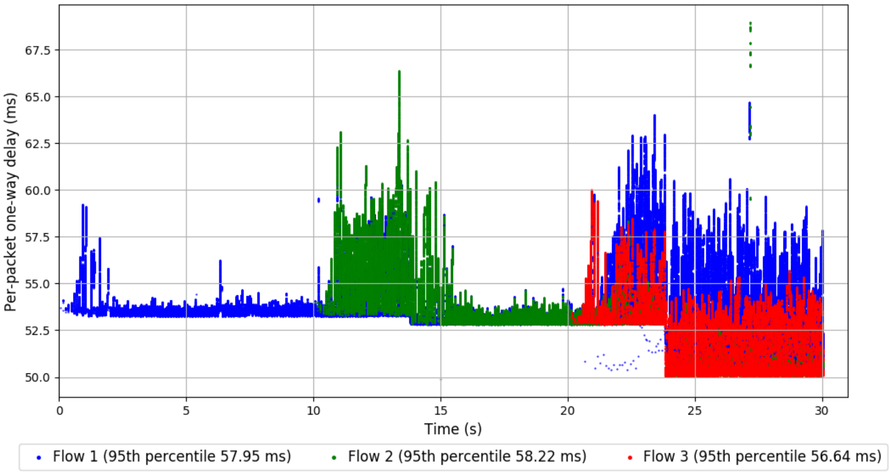
```
Run 2: Statistics of TCP Cubic

Start at: 2018-08-03 11:02:59
End at: 2018-08-03 11:03:29
Local clock offset: 0.065 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 324.72 Mbit/s
95th percentile per-packet one-way delay: 57.864 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 181.69 Mbit/s
95th percentile per-packet one-way delay: 57.951 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 150.72 Mbit/s
95th percentile per-packet one-way delay: 58.219 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.48 Mbit/s
95th percentile per-packet one-way delay: 56.638 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Cubic — Data Link



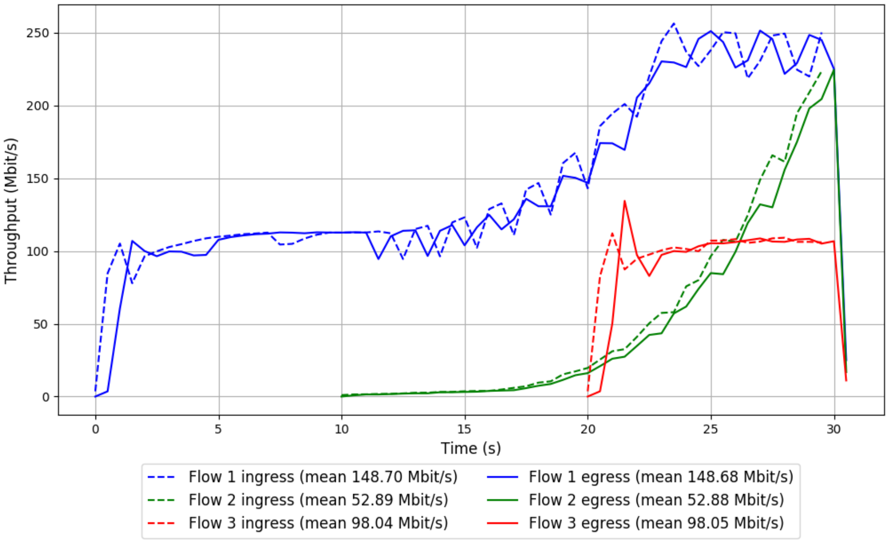


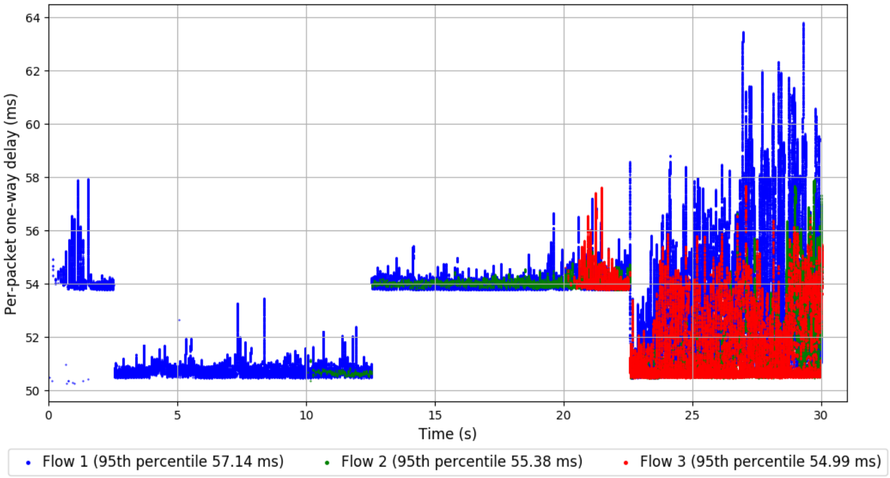
```
Run 3: Statistics of TCP Cubic

Start at: 2018-08-03 11:28:31
End at: 2018-08-03 11:29:01
Local clock offset: -0.161 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.41 Mbit/s
95th percentile per-packet one-way delay: 56.401 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 148.68 Mbit/s
95th percentile per-packet one-way delay: 57.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.88 Mbit/s
95th percentile per-packet one-way delay: 55.383 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.05 Mbit/s
95th percentile per-packet one-way delay: 54.992 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Cubic — Data Link



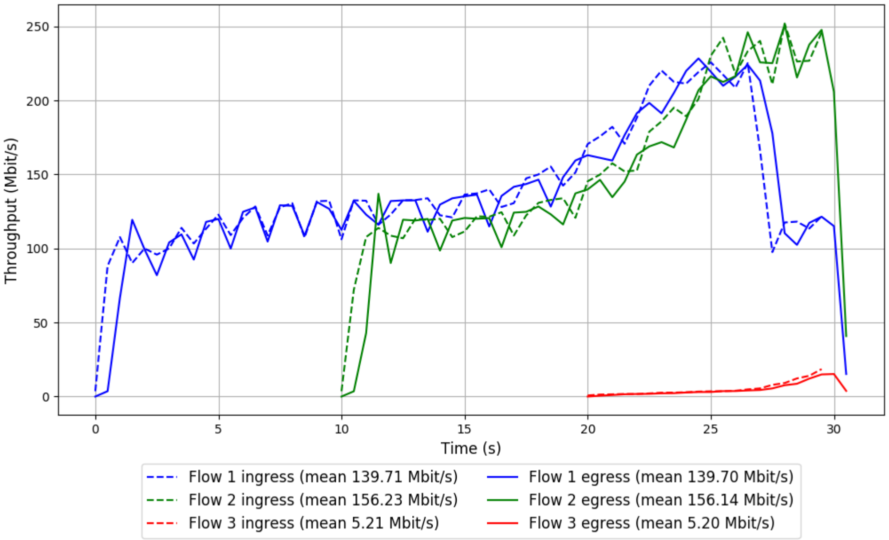


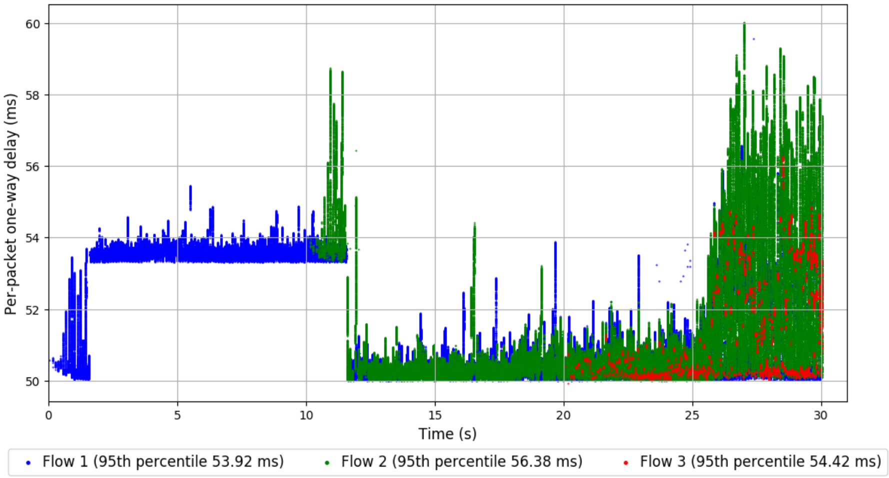
```
Run 4: Statistics of TCP Cubic

Start at: 2018-08-03 11:53:52
End at: 2018-08-03 11:54:22
Local clock offset: 0.211 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.42 Mbit/s
95th percentile per-packet one-way delay: 54.996 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 139.70 Mbit/s
95th percentile per-packet one-way delay: 53.919 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 156.14 Mbit/s
95th percentile per-packet one-way delay: 56.381 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 5.20 Mbit/s
95th percentile per-packet one-way delay: 54.421 ms
Loss rate: 0.16%
```

Run 4: Report of TCP Cubic — Data Link



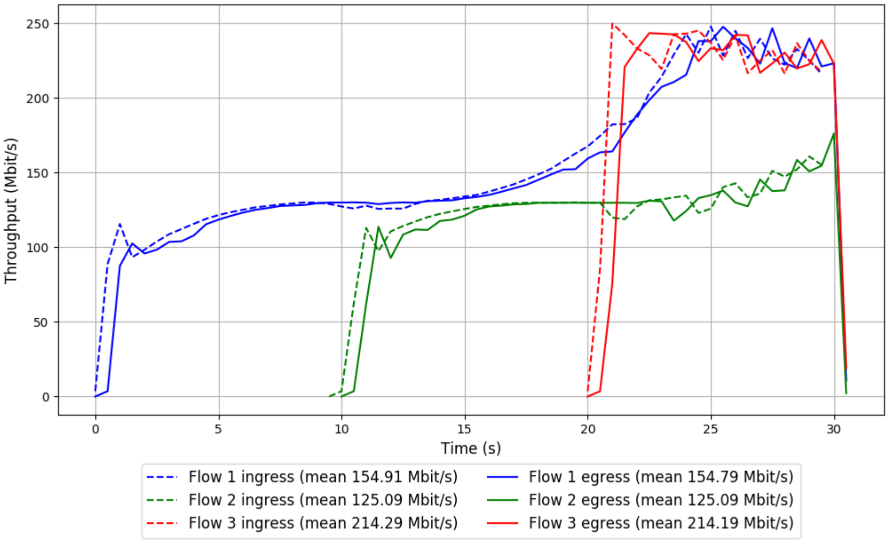


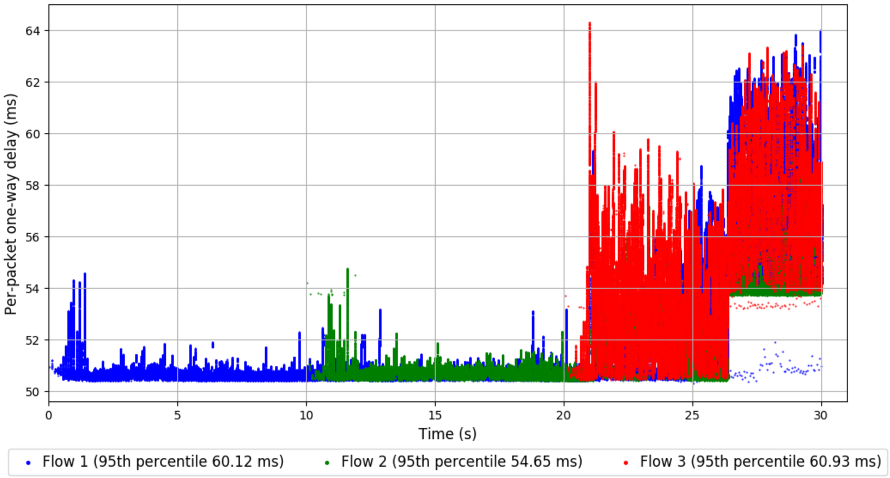
```
Run 5: Statistics of TCP Cubic

Start at: 2018-08-03 12:19:07
End at: 2018-08-03 12:19:37
Local clock offset: -0.129 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 309.22 Mbit/s
95th percentile per-packet one-way delay: 59.938 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 154.79 Mbit/s
95th percentile per-packet one-way delay: 60.124 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 125.09 Mbit/s
95th percentile per-packet one-way delay: 54.646 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 214.19 Mbit/s
95th percentile per-packet one-way delay: 60.929 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Cubic — Data Link



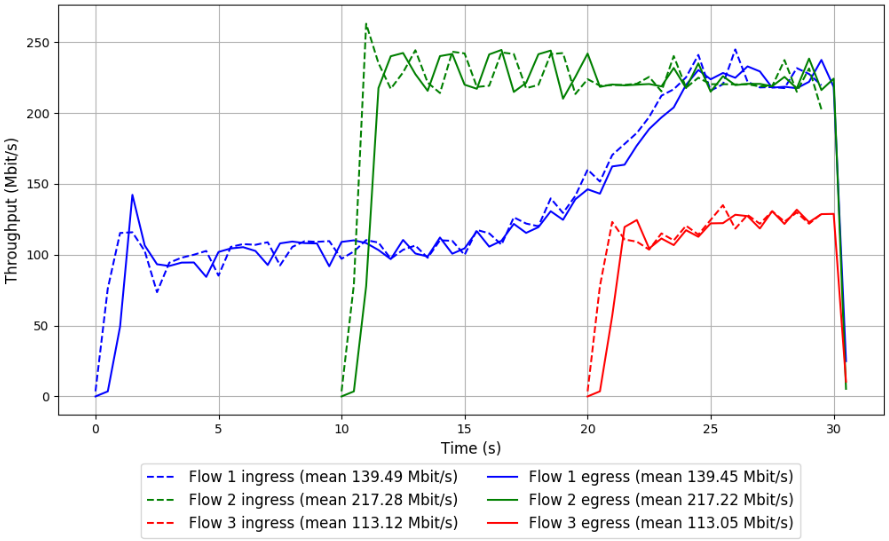


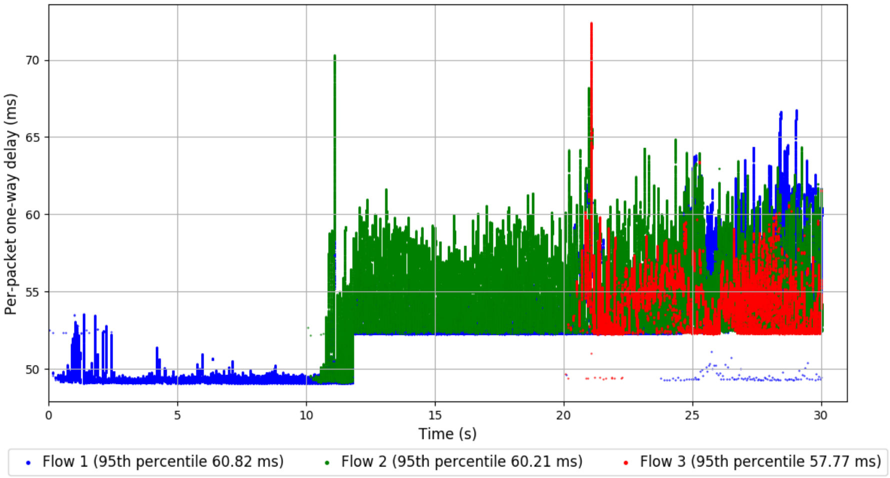
```
Run 6: Statistics of TCP Cubic

Start at: 2018-08-03 12:44:11
End at: 2018-08-03 12:44:41
Local clock offset: -0.167 ms
Remote clock offset: -1.447 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 321.62 Mbit/s
95th percentile per-packet one-way delay: 60.248 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 139.45 Mbit/s
95th percentile per-packet one-way delay: 60.818 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 217.22 Mbit/s
95th percentile per-packet one-way delay: 60.209 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 113.05 Mbit/s
95th percentile per-packet one-way delay: 57.767 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Cubic — Data Link



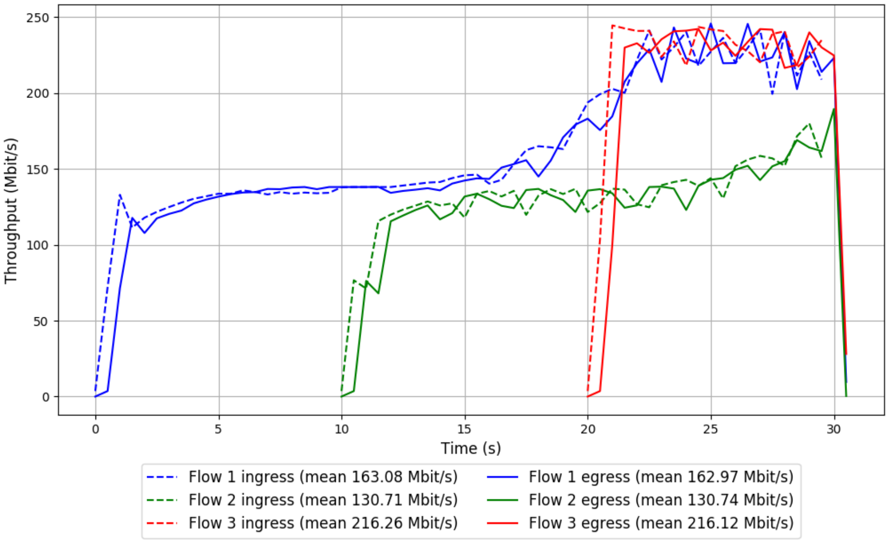


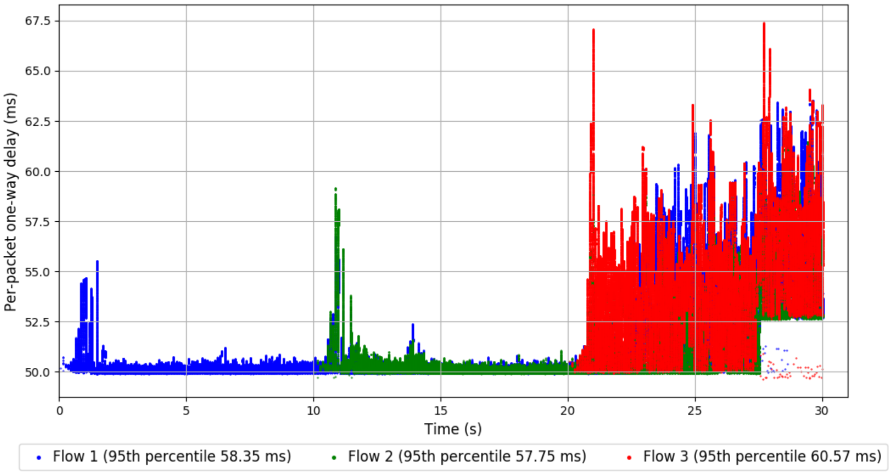
```
Run 7: Statistics of TCP Cubic

Start at: 2018-08-03 13:09:36
End at: 2018-08-03 13:10:06
Local clock offset: 0.033 ms
Remote clock offset: -0.455 ms

# Below is generated by plot.py at 2018-08-03 15:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 321.96 Mbit/s
95th percentile per-packet one-way delay: 58.930 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 162.97 Mbit/s
95th percentile per-packet one-way delay: 58.347 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 130.74 Mbit/s
95th percentile per-packet one-way delay: 57.747 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 216.12 Mbit/s
95th percentile per-packet one-way delay: 60.568 ms
Loss rate: 0.00%
```

Run 7: Report of TCP Cubic — Data Link



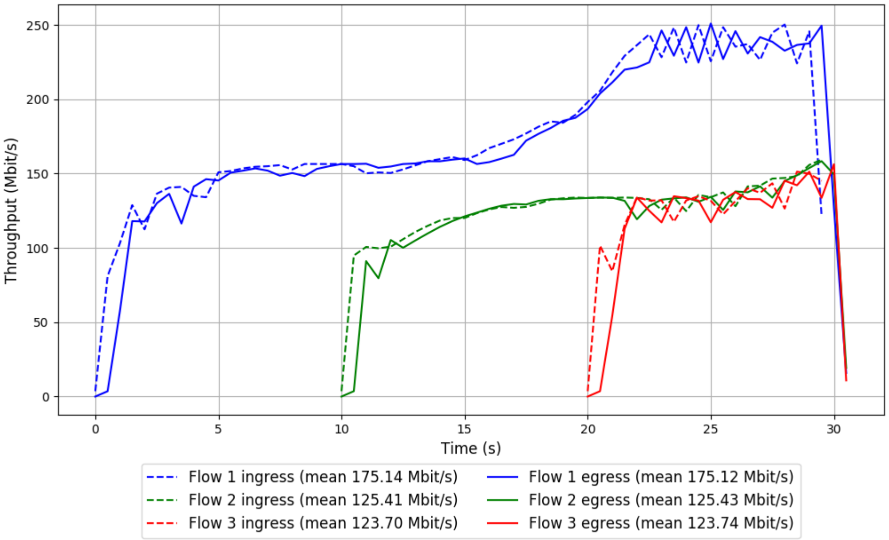


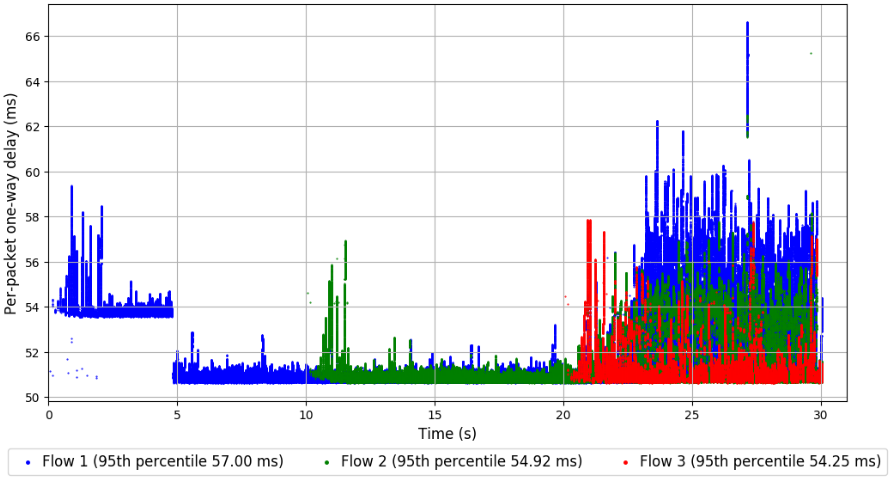
```
Run 8: Statistics of TCP Cubic

Start at: 2018-08-03 13:34:48
End at: 2018-08-03 13:35:18
Local clock offset: -0.142 ms
Remote clock offset: 0.112 ms

# Below is generated by plot.py at 2018-08-03 15:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 299.71 Mbit/s
95th percentile per-packet one-way delay: 56.476 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 175.12 Mbit/s
95th percentile per-packet one-way delay: 57.002 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 125.43 Mbit/s
95th percentile per-packet one-way delay: 54.921 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 123.74 Mbit/s
95th percentile per-packet one-way delay: 54.249 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Cubic — Data Link



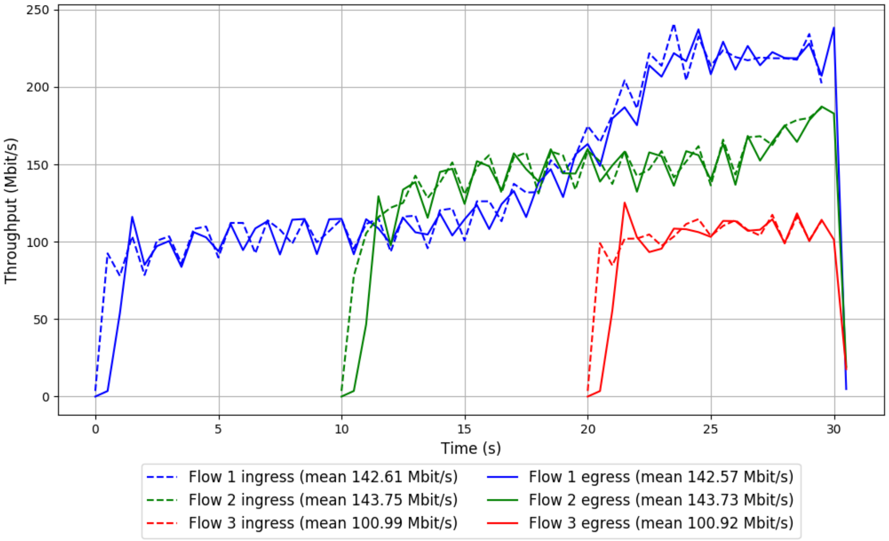


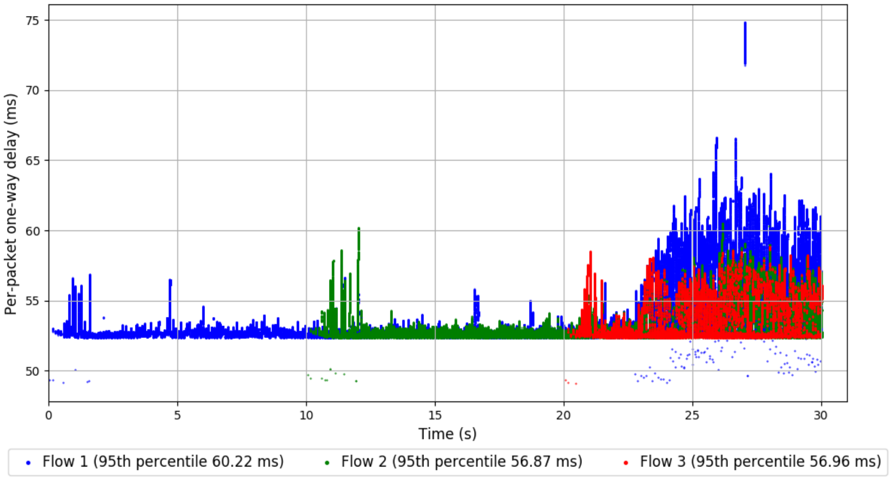
```
Run 9: Statistics of TCP Cubic

Start at: 2018-08-03 13:59:53
End at: 2018-08-03 14:00:23
Local clock offset: 0.109 ms
Remote clock offset: -1.265 ms

# Below is generated by plot.py at 2018-08-03 15:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 271.69 Mbit/s
95th percentile per-packet one-way delay: 58.880 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 142.57 Mbit/s
95th percentile per-packet one-way delay: 60.218 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 143.73 Mbit/s
95th percentile per-packet one-way delay: 56.873 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 100.92 Mbit/s
95th percentile per-packet one-way delay: 56.956 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Cubic — Data Link



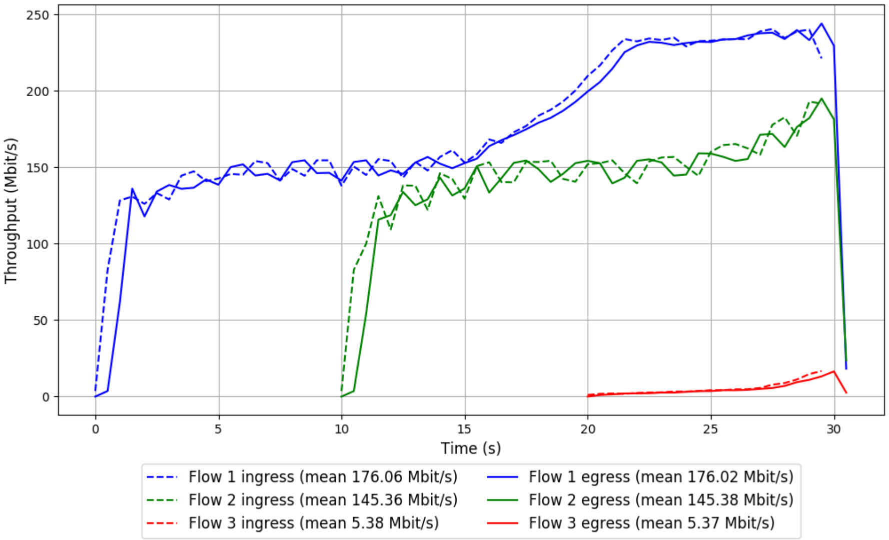


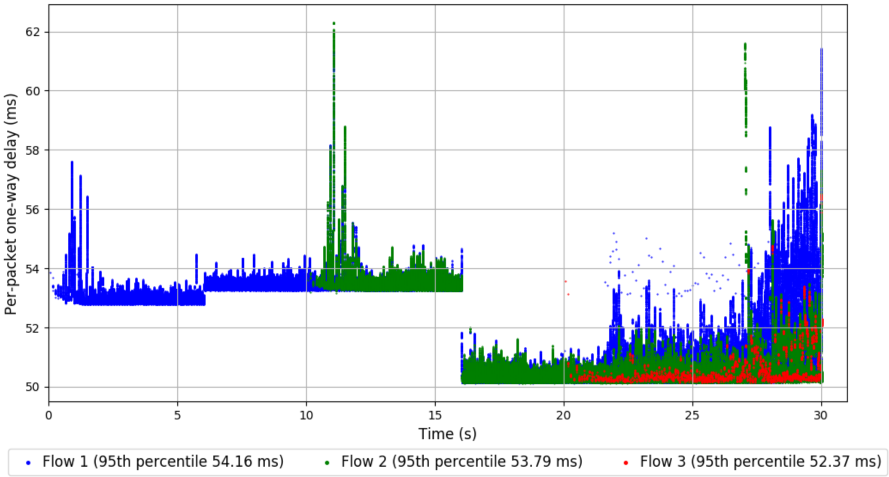
```
Run 10: Statistics of TCP Cubic

Start at: 2018-08-03 14:25:17
End at: 2018-08-03 14:25:47
Local clock offset: -0.015 ms
Remote clock offset: -0.325 ms

# Below is generated by plot.py at 2018-08-03 15:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.56 Mbit/s
95th percentile per-packet one-way delay: 53.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 176.02 Mbit/s
95th percentile per-packet one-way delay: 54.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 145.38 Mbit/s
95th percentile per-packet one-way delay: 53.789 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 52.369 ms
Loss rate: 0.04%
```

Run 10: Report of TCP Cubic — Data Link



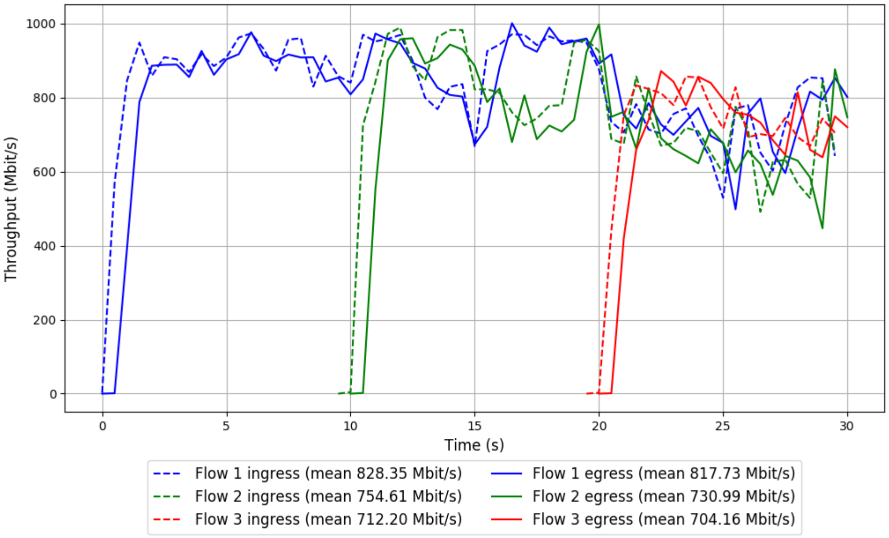


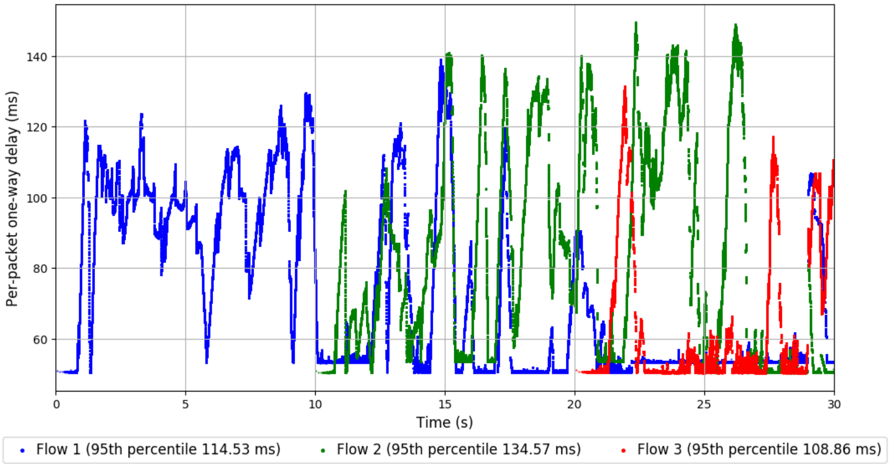
```
Run 1: Statistics of FillP

Start at: 2018-08-03 10:52:11
End at: 2018-08-03 10:52:41
Local clock offset: 0.041 ms
Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2018-08-03 16:00:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1538.55 Mbit/s
95th percentile per-packet one-way delay: 125.188 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 817.73 Mbit/s
95th percentile per-packet one-way delay: 114.526 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 730.99 Mbit/s
95th percentile per-packet one-way delay: 134.570 ms
Loss rate: 3.13%
-- Flow 3:
Average throughput: 704.16 Mbit/s
95th percentile per-packet one-way delay: 108.855 ms
Loss rate: 1.12%
```

Run 1: Report of FillP — Data Link



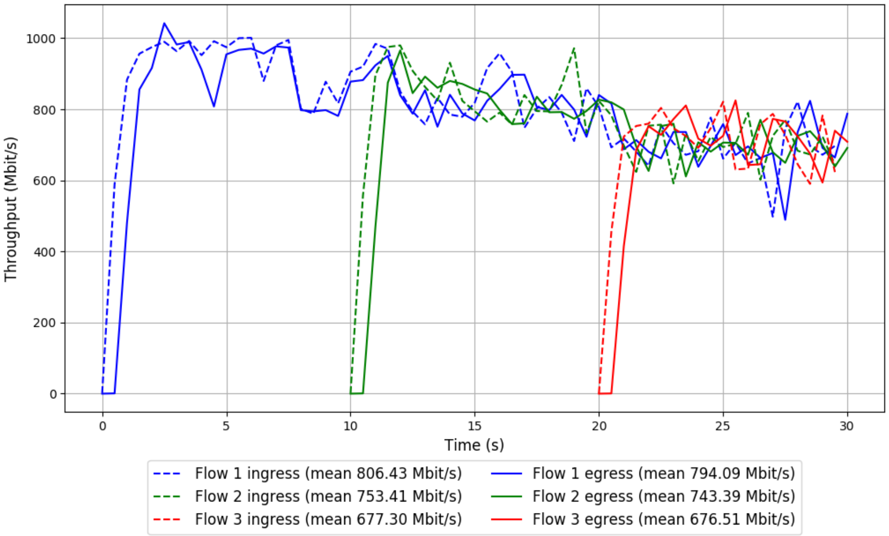


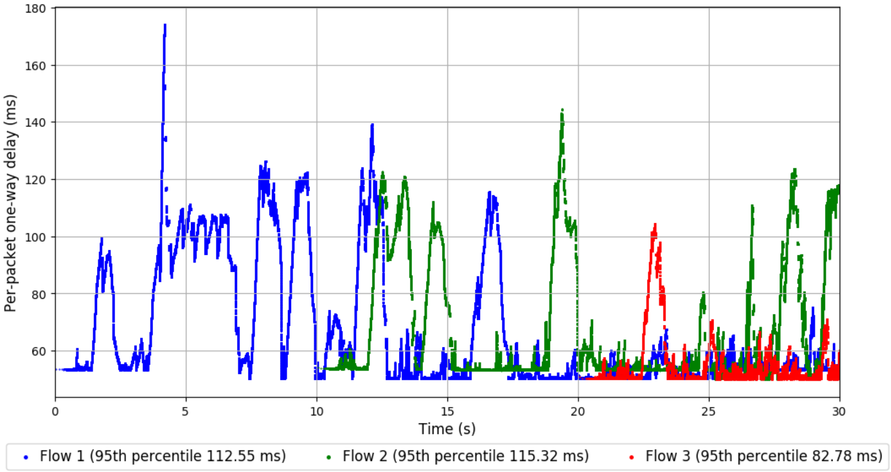
```
Run 2: Statistics of FillP

Start at: 2018-08-03 11:17:39
End at: 2018-08-03 11:18:09
Local clock offset: 0.049 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2018-08-03 16:01:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1512.65 Mbit/s
95th percentile per-packet one-way delay: 112.074 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 794.09 Mbit/s
95th percentile per-packet one-way delay: 112.549 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 743.39 Mbit/s
95th percentile per-packet one-way delay: 115.321 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 676.51 Mbit/s
95th percentile per-packet one-way delay: 82.779 ms
Loss rate: 0.07%
```

Run 2: Report of FillP — Data Link



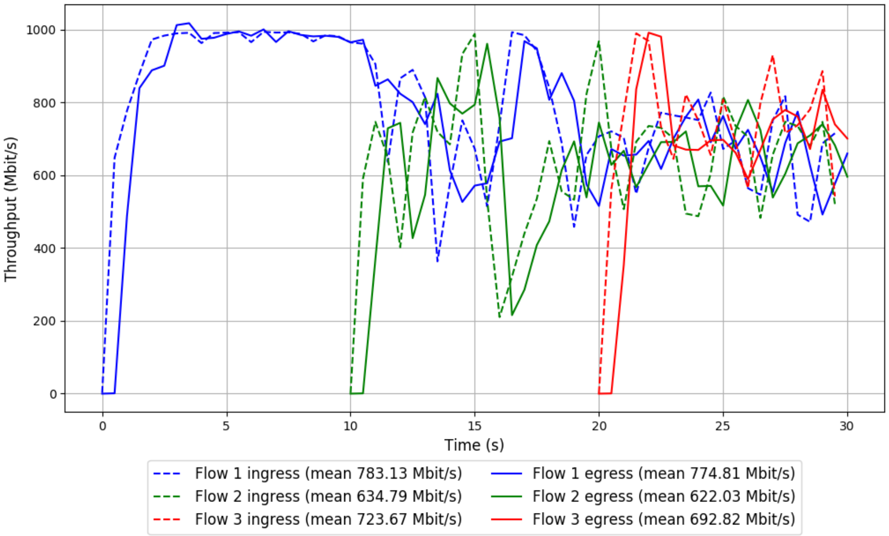


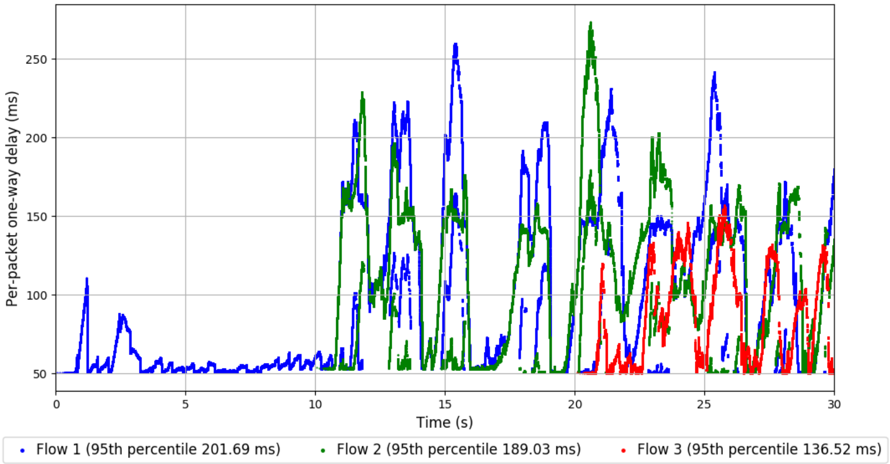
```
Run 3: Statistics of FillP

Start at: 2018-08-03 11:43:16
End at: 2018-08-03 11:43:46
Local clock offset: -0.249 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-08-03 16:01:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1418.20 Mbit/s
95th percentile per-packet one-way delay: 191.979 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 774.81 Mbit/s
95th percentile per-packet one-way delay: 201.693 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 622.03 Mbit/s
95th percentile per-packet one-way delay: 189.035 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 692.82 Mbit/s
95th percentile per-packet one-way delay: 136.518 ms
Loss rate: 4.27%
```

Run 3: Report of FillP — Data Link



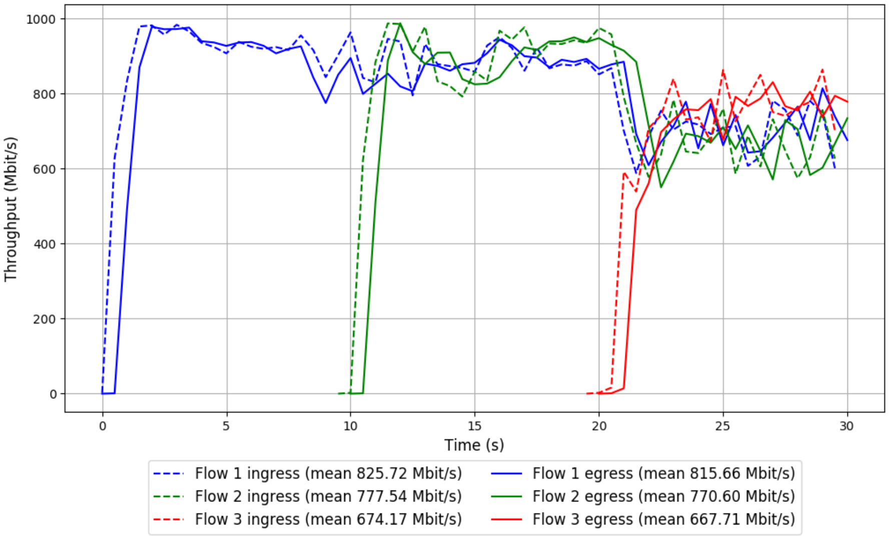


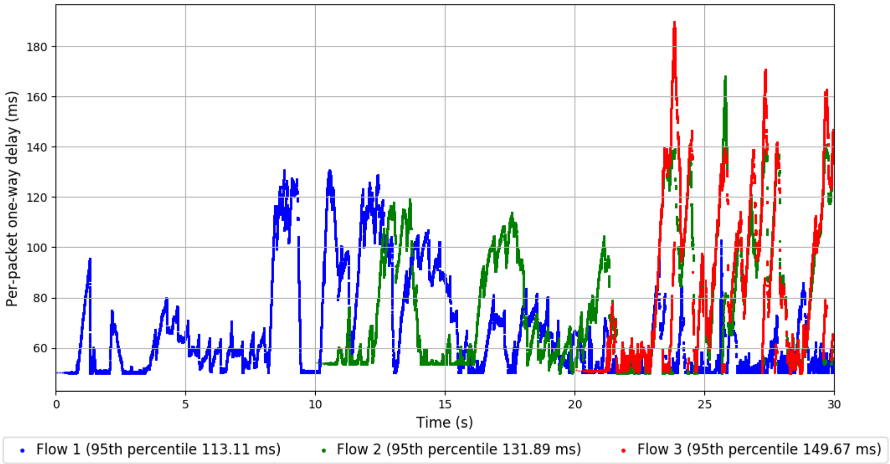
```
Run 4: Statistics of FillP

Start at: 2018-08-03 12:08:27
End at: 2018-08-03 12:08:57
Local clock offset: -0.012 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2018-08-03 16:03:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1550.51 Mbit/s
95th percentile per-packet one-way delay: 127.383 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 815.66 Mbit/s
95th percentile per-packet one-way delay: 113.112 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 770.60 Mbit/s
95th percentile per-packet one-way delay: 131.886 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 667.71 Mbit/s
95th percentile per-packet one-way delay: 149.669 ms
Loss rate: 0.91%
```

Run 4: Report of FillP — Data Link



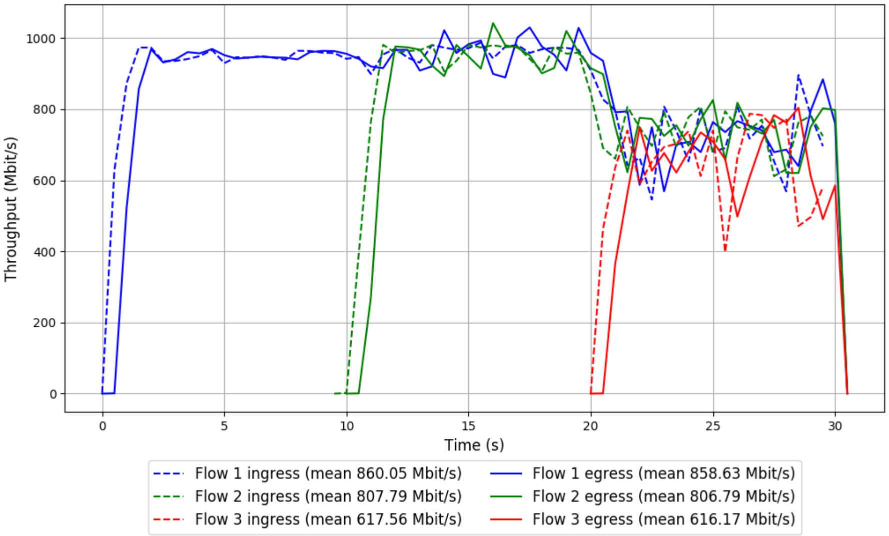


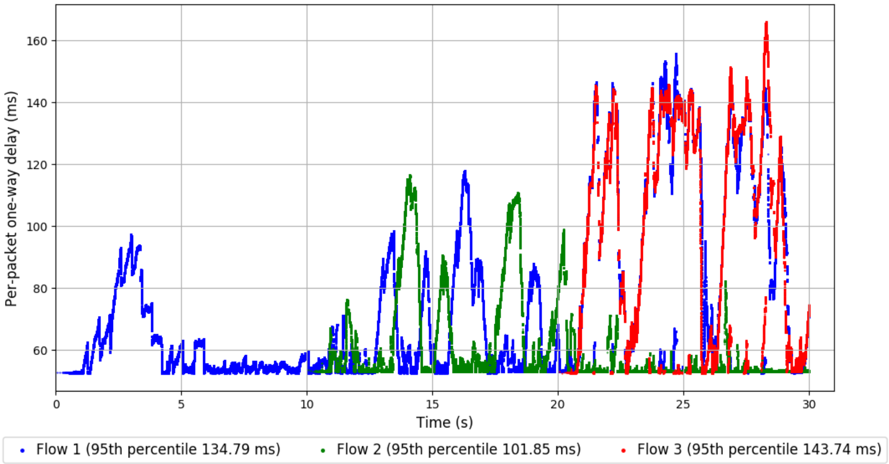
```
Run 5: Statistics of FillP

Start at: 2018-08-03 12:33:46
End at: 2018-08-03 12:34:16
Local clock offset: 0.117 ms
Remote clock offset: -0.353 ms

# Below is generated by plot.py at 2018-08-03 16:04:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1600.42 Mbit/s
95th percentile per-packet one-way delay: 136.664 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 858.63 Mbit/s
95th percentile per-packet one-way delay: 134.786 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 806.79 Mbit/s
95th percentile per-packet one-way delay: 101.851 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 616.17 Mbit/s
95th percentile per-packet one-way delay: 143.742 ms
Loss rate: 0.24%
```

Run 5: Report of FillP — Data Link



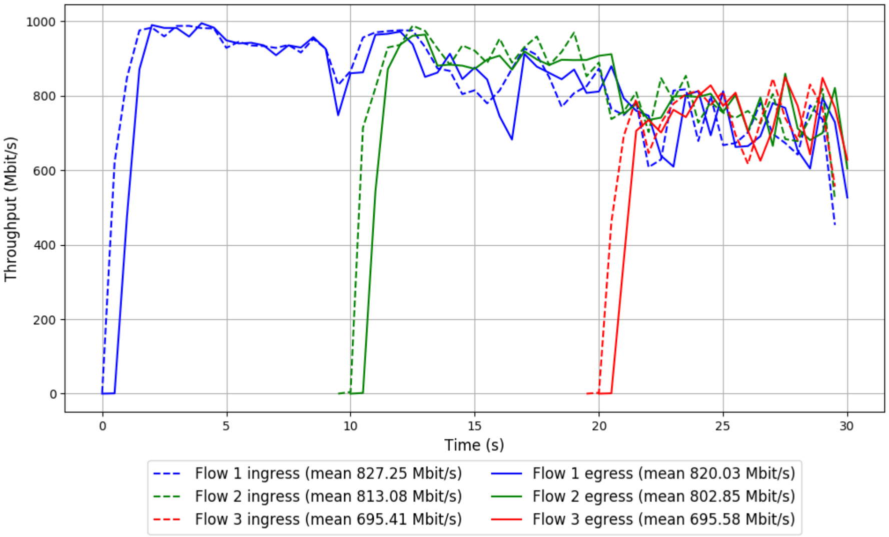


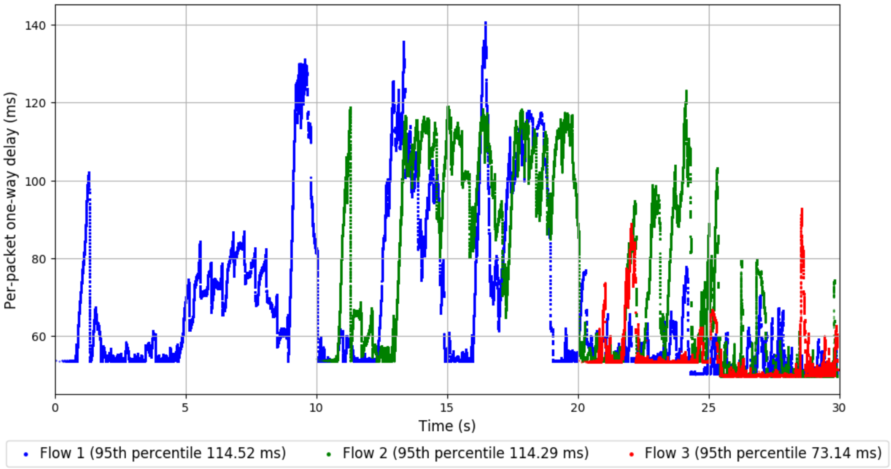
```
Run 6: Statistics of FillP

Start at: 2018-08-03 12:58:49
End at: 2018-08-03 12:59:19
Local clock offset: 0.004 ms
Remote clock offset: -0.334 ms

# Below is generated by plot.py at 2018-08-03 16:04:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1585.61 Mbit/s
95th percentile per-packet one-way delay: 113.715 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 820.03 Mbit/s
95th percentile per-packet one-way delay: 114.519 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 802.85 Mbit/s
95th percentile per-packet one-way delay: 114.293 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 695.58 Mbit/s
95th percentile per-packet one-way delay: 73.142 ms
Loss rate: 0.00%
```

Run 6: Report of FillP — Data Link



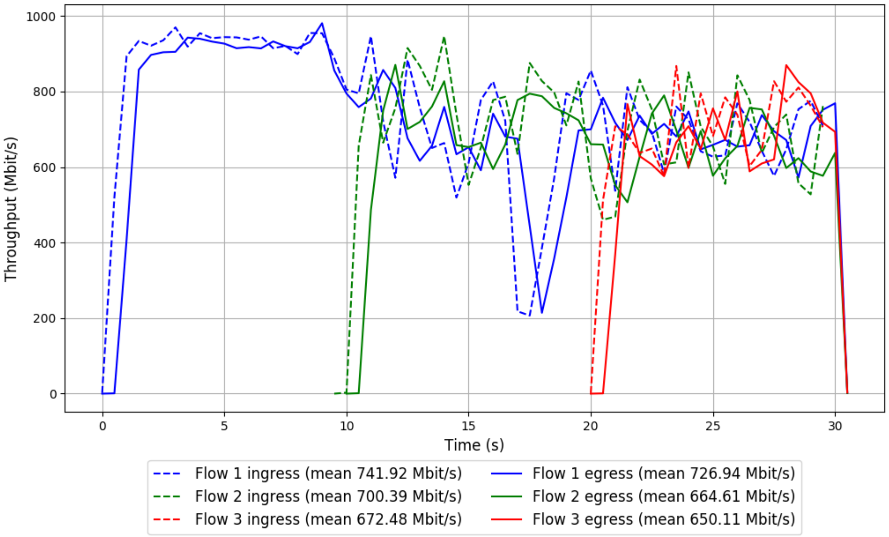


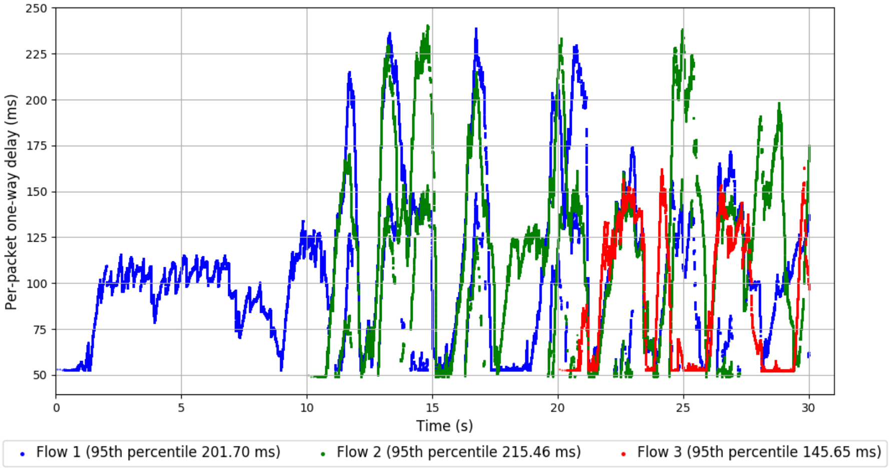
```
Run 7: Statistics of FillP

Start at: 2018-08-03 13:24:16
End at: 2018-08-03 13:24:46
Local clock offset: 0.021 ms
Remote clock offset: -1.2 ms

# Below is generated by plot.py at 2018-08-03 16:04:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1385.43 Mbit/s
95th percentile per-packet one-way delay: 204.720 ms
Loss rate: 3.23%
-- Flow 1:
Average throughput: 726.94 Mbit/s
95th percentile per-packet one-way delay: 201.696 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 664.61 Mbit/s
95th percentile per-packet one-way delay: 215.455 ms
Loss rate: 5.09%
-- Flow 3:
Average throughput: 650.11 Mbit/s
95th percentile per-packet one-way delay: 145.645 ms
Loss rate: 3.33%
```

Run 7: Report of FillP — Data Link



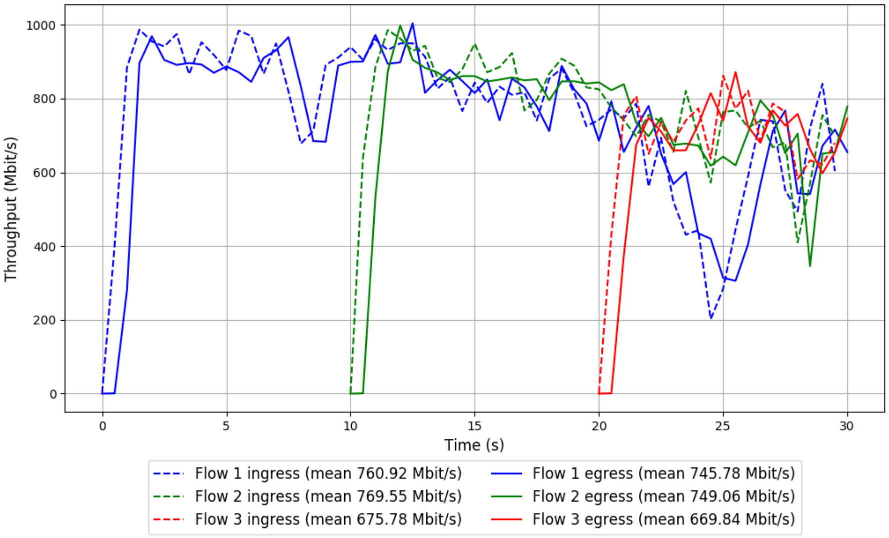


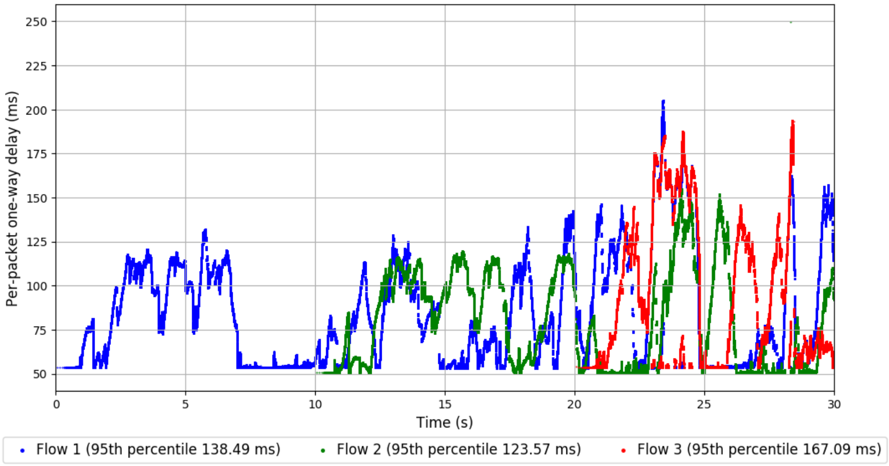
```
Run 8: Statistics of FillP

Start at: 2018-08-03 13:49:41
End at: 2018-08-03 13:50:11
Local clock offset: -0.218 ms
Remote clock offset: -0.405 ms

# Below is generated by plot.py at 2018-08-03 16:04:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1466.65 Mbit/s
95th percentile per-packet one-way delay: 143.469 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 745.78 Mbit/s
95th percentile per-packet one-way delay: 138.491 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 749.06 Mbit/s
95th percentile per-packet one-way delay: 123.571 ms
Loss rate: 2.64%
-- Flow 3:
Average throughput: 669.84 Mbit/s
95th percentile per-packet one-way delay: 167.093 ms
Loss rate: 0.87%
```

Run 8: Report of FillP — Data Link



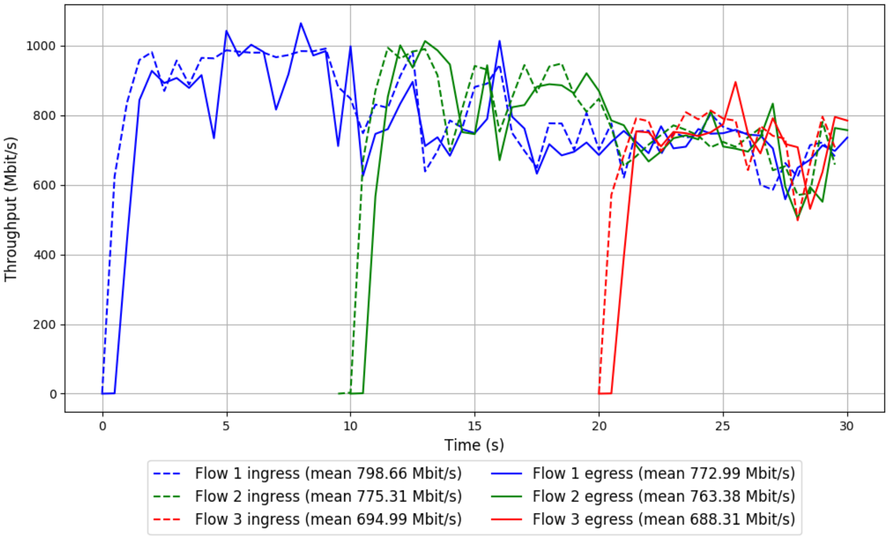


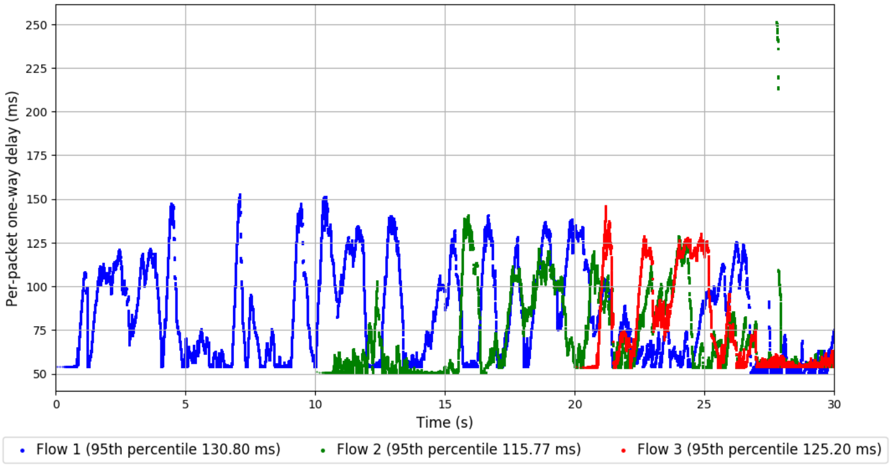
```
Run 9: Statistics of FillP

Start at: 2018-08-03 14:14:28
End at: 2018-08-03 14:14:58
Local clock offset: -0.009 ms
Remote clock offset: 0.124 ms

# Below is generated by plot.py at 2018-08-03 16:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1509.88 Mbit/s
95th percentile per-packet one-way delay: 126.769 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 772.99 Mbit/s
95th percentile per-packet one-way delay: 130.802 ms
Loss rate: 3.21%
-- Flow 2:
Average throughput: 763.38 Mbit/s
95th percentile per-packet one-way delay: 115.773 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 688.31 Mbit/s
95th percentile per-packet one-way delay: 125.198 ms
Loss rate: 0.96%
```

Run 9: Report of FillP — Data Link



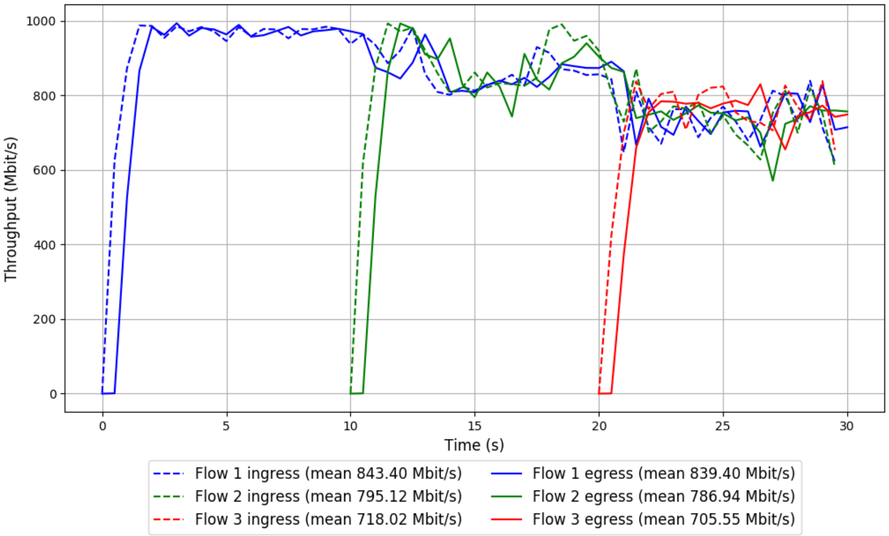


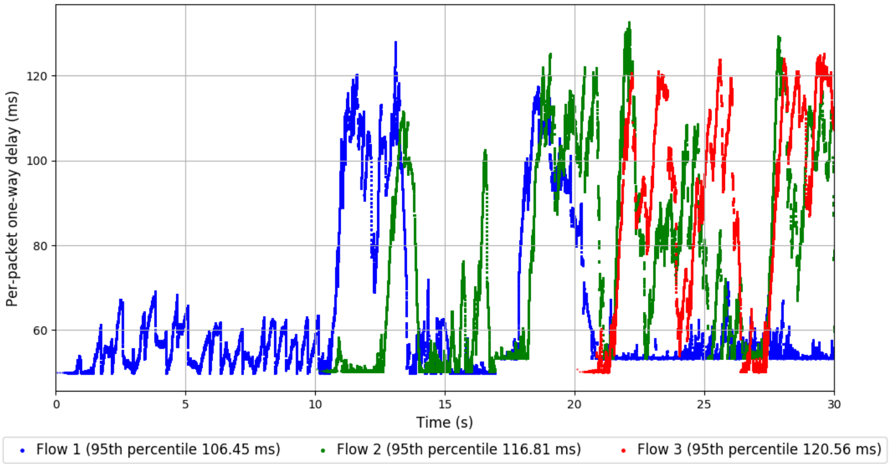
```
Run 10: Statistics of FillP

Start at: 2018-08-03 14:39:57
End at: 2018-08-03 14:40:27
Local clock offset: 0.188 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2018-08-03 16:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1596.36 Mbit/s
95th percentile per-packet one-way delay: 115.378 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 839.40 Mbit/s
95th percentile per-packet one-way delay: 106.451 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 786.94 Mbit/s
95th percentile per-packet one-way delay: 116.807 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 705.55 Mbit/s
95th percentile per-packet one-way delay: 120.556 ms
Loss rate: 1.71%
```

Run 10: Report of FillP — Data Link



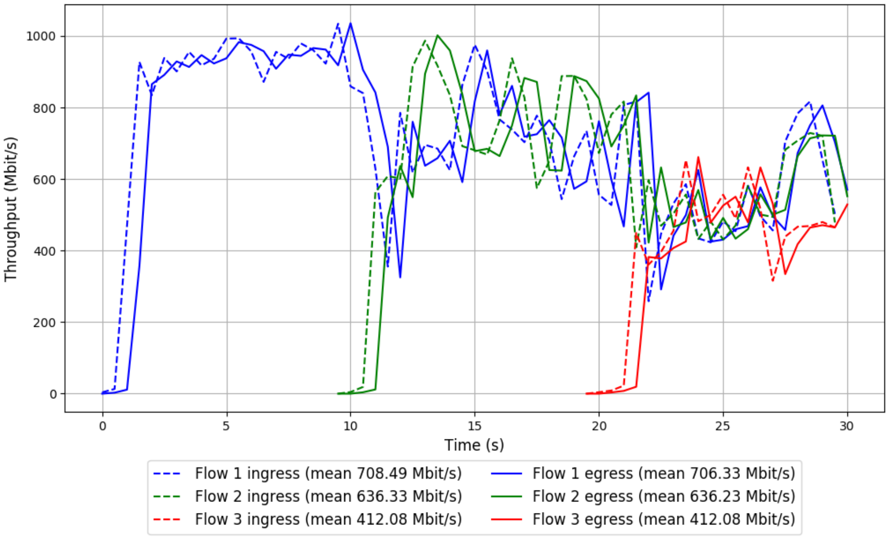


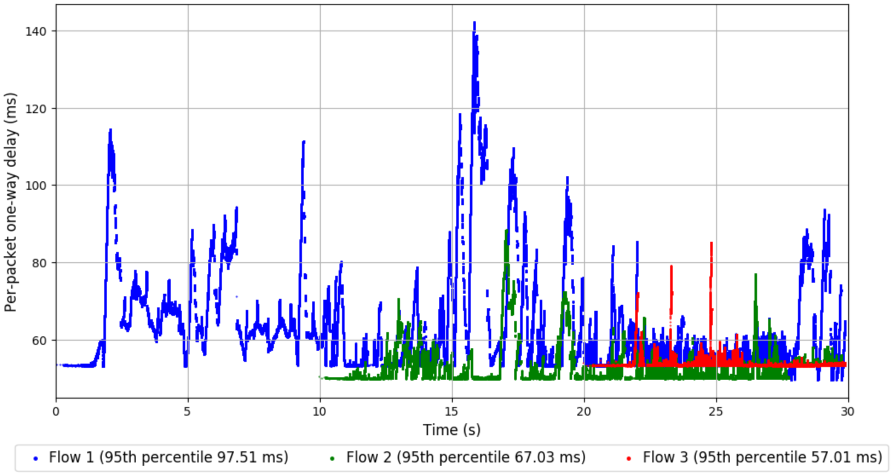
```
Run 1: Statistics of FillP-Sheep

Start at: 2018-08-03 10:46:15
End at: 2018-08-03 10:46:45
Local clock offset: 0.18 ms
Remote clock offset: -0.247 ms

# Below is generated by plot.py at 2018-08-03 16:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1267.95 Mbit/s
95th percentile per-packet one-way delay: 85.618 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 706.33 Mbit/s
95th percentile per-packet one-way delay: 97.510 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 636.23 Mbit/s
95th percentile per-packet one-way delay: 67.030 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 412.08 Mbit/s
95th percentile per-packet one-way delay: 57.009 ms
Loss rate: 0.00%
```

Run 1: Report of FillP-Sheep — Data Link



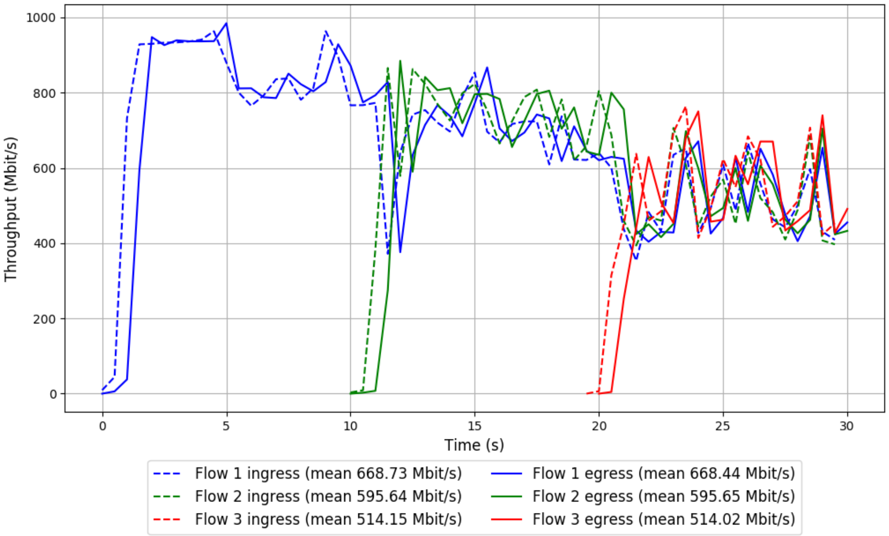


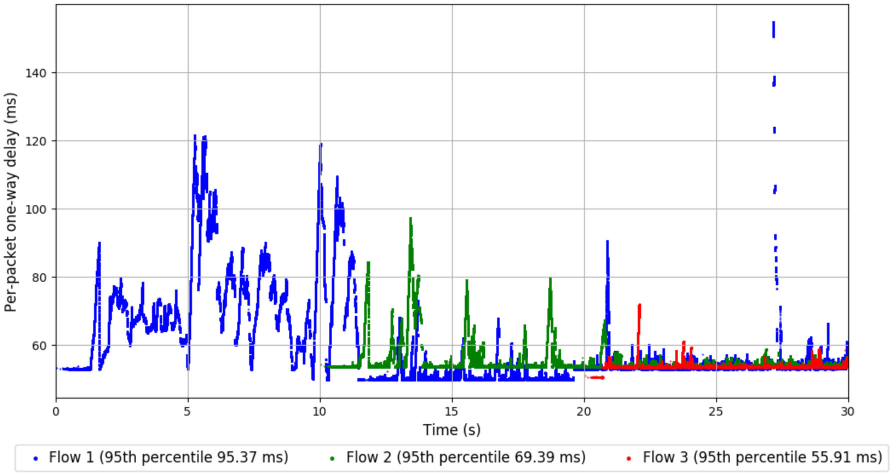
```
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-03 11:11:44
End at: 2018-08-03 11:12:14
Local clock offset: -0.018 ms
Remote clock offset: -0.211 ms

# Below is generated by plot.py at 2018-08-03 16:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1235.56 Mbit/s
95th percentile per-packet one-way delay: 84.312 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 668.44 Mbit/s
95th percentile per-packet one-way delay: 95.370 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 595.65 Mbit/s
95th percentile per-packet one-way delay: 69.385 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 514.02 Mbit/s
95th percentile per-packet one-way delay: 55.912 ms
Loss rate: 0.00%
```

Run 2: Report of FillP-Sheep — Data Link



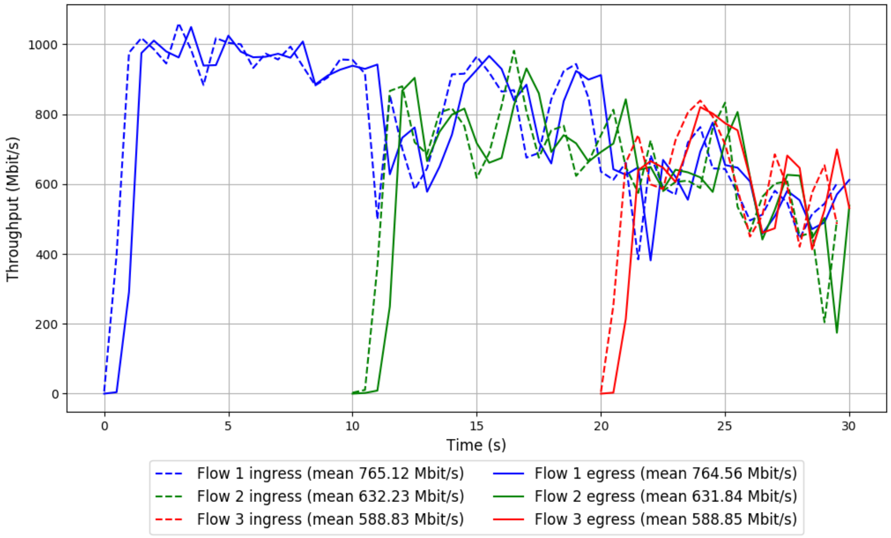


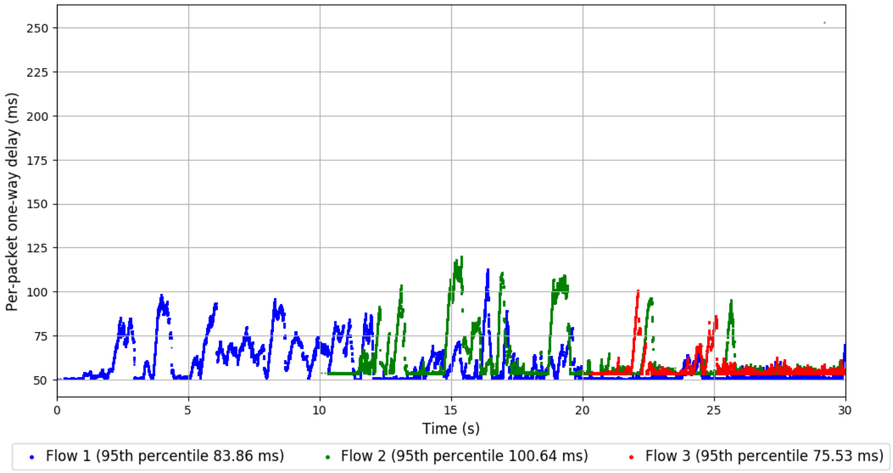
```
Run 3: Statistics of FillP-Sheep

Start at: 2018-08-03 11:37:09
End at: 2018-08-03 11:37:39
Local clock offset: 0.09 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-08-03 16:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1379.62 Mbit/s
95th percentile per-packet one-way delay: 87.750 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 764.56 Mbit/s
95th percentile per-packet one-way delay: 83.865 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 631.84 Mbit/s
95th percentile per-packet one-way delay: 100.642 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 588.85 Mbit/s
95th percentile per-packet one-way delay: 75.534 ms
Loss rate: 0.00%
```

Run 3: Report of FillP-Sheep — Data Link



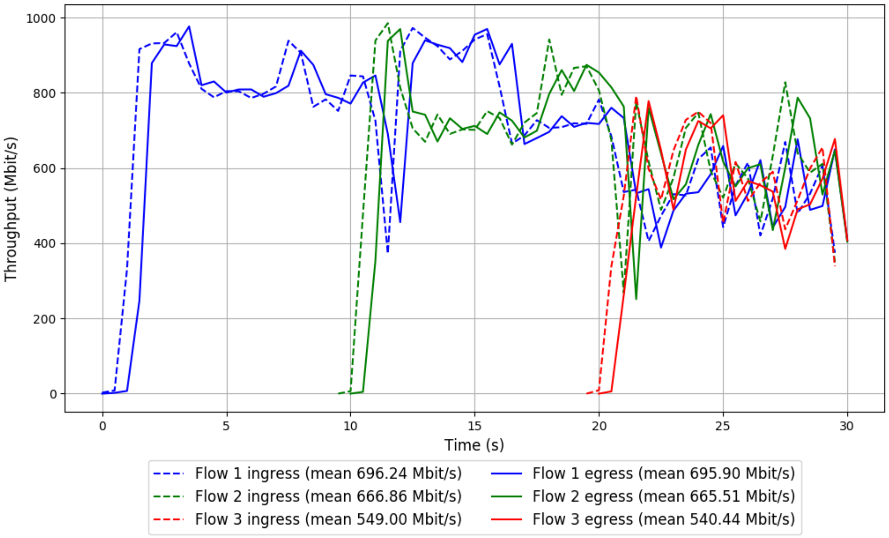


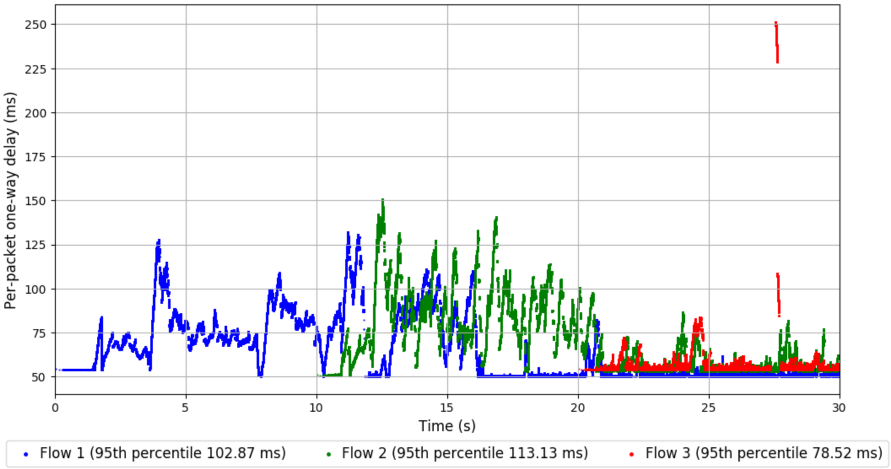
```
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-03 12:02:27
End at: 2018-08-03 12:02:57
Local clock offset: -0.054 ms
Remote clock offset: 0.066 ms

# Below is generated by plot.py at 2018-08-03 16:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1318.59 Mbit/s
95th percentile per-packet one-way delay: 104.699 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 695.90 Mbit/s
95th percentile per-packet one-way delay: 102.872 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 665.51 Mbit/s
95th percentile per-packet one-way delay: 113.133 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 540.44 Mbit/s
95th percentile per-packet one-way delay: 78.515 ms
Loss rate: 1.53%
```

Run 4: Report of FillP-Sheep — Data Link



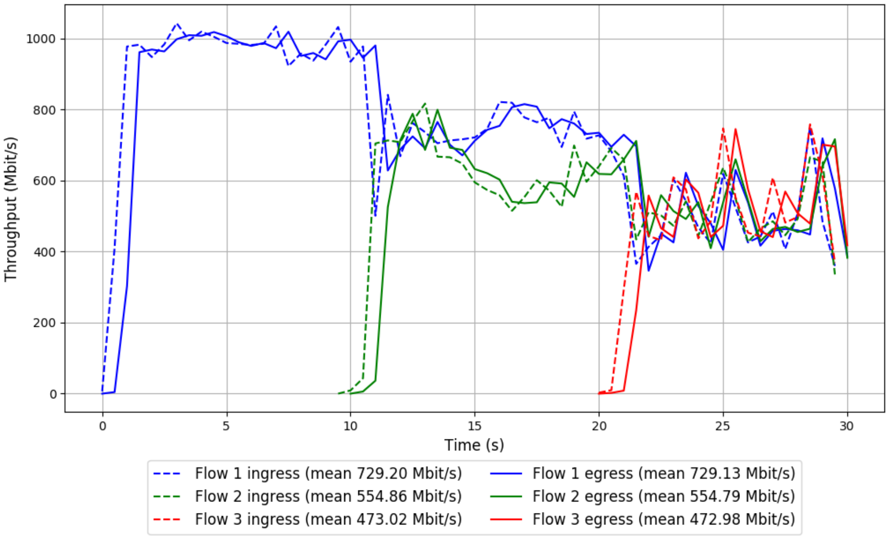


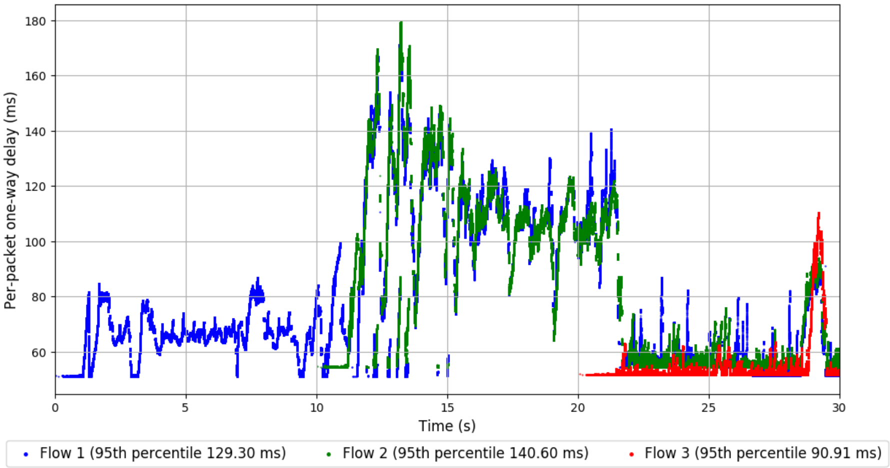
```
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-03 12:27:47
End at: 2018-08-03 12:28:17
Local clock offset: -0.107 ms
Remote clock offset: 0.996 ms

# Below is generated by plot.py at 2018-08-03 16:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1254.97 Mbit/s
95th percentile per-packet one-way delay: 132.832 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 729.13 Mbit/s
95th percentile per-packet one-way delay: 129.303 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 554.79 Mbit/s
95th percentile per-packet one-way delay: 140.601 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 472.98 Mbit/s
95th percentile per-packet one-way delay: 90.905 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link



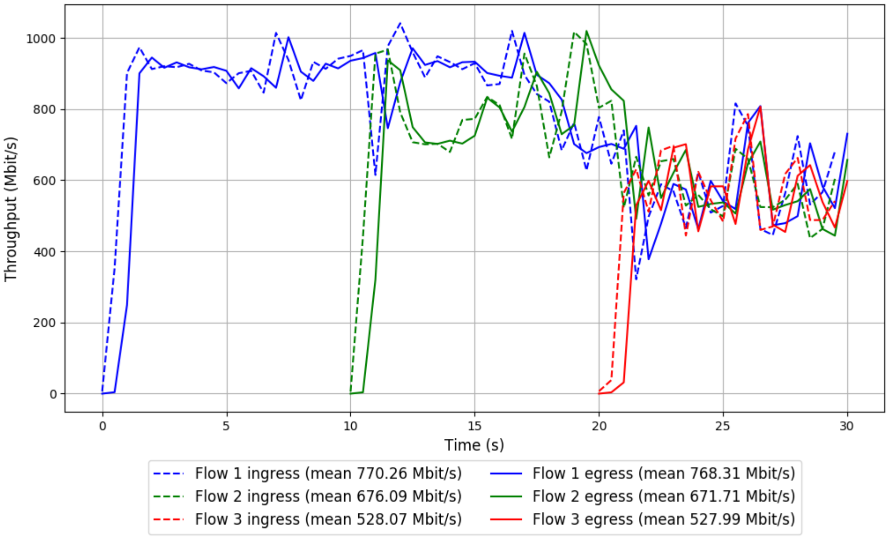


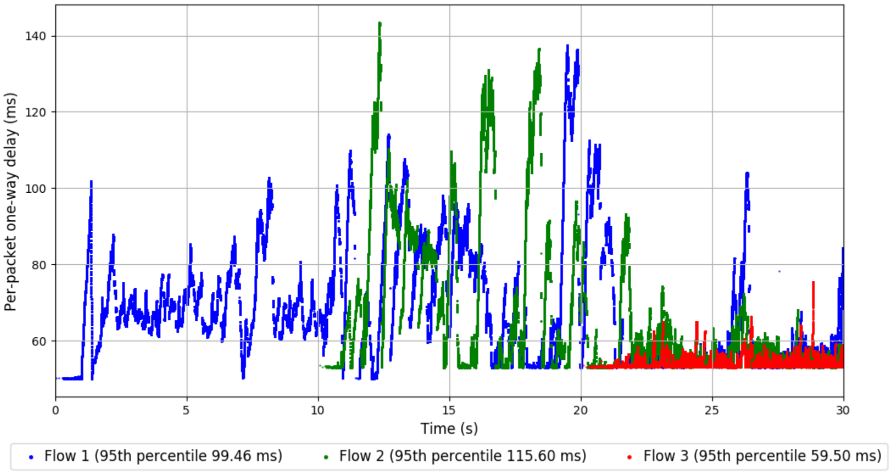
```
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-03 12:52:51
End at: 2018-08-03 12:53:21
Local clock offset: 0.193 ms
Remote clock offset: -0.206 ms

# Below is generated by plot.py at 2018-08-03 16:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1389.71 Mbit/s
95th percentile per-packet one-way delay: 102.674 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 768.31 Mbit/s
95th percentile per-packet one-way delay: 99.456 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 671.71 Mbit/s
95th percentile per-packet one-way delay: 115.600 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 527.99 Mbit/s
95th percentile per-packet one-way delay: 59.502 ms
Loss rate: 0.06%
```

Run 6: Report of FillP-Sheep — Data Link



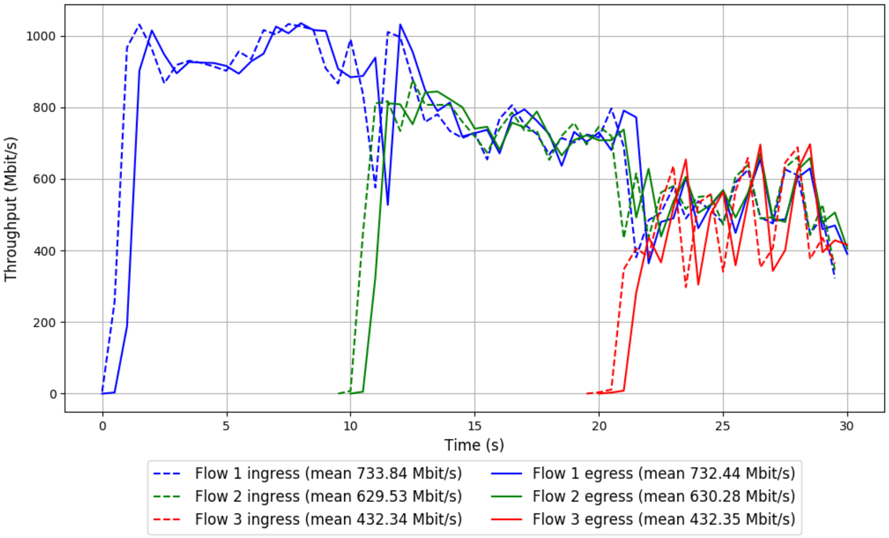


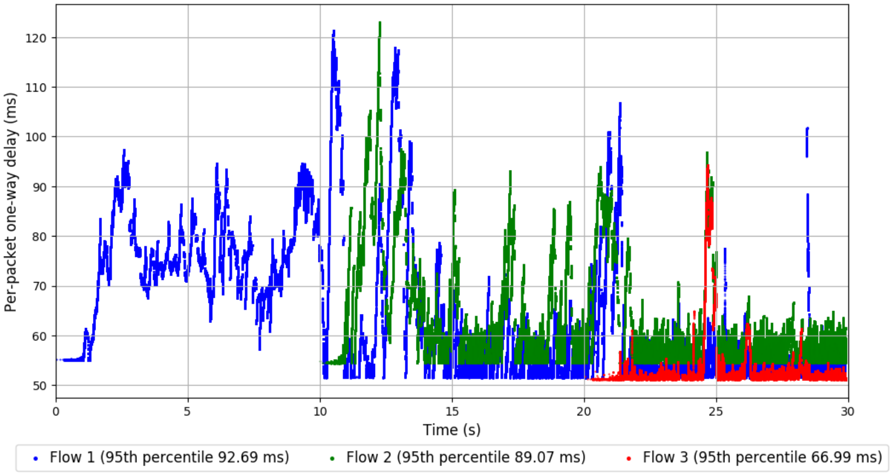
```
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-03 13:18:17
End at: 2018-08-03 13:18:47
Local clock offset: 0.036 ms
Remote clock offset: 1.141 ms

# Below is generated by plot.py at 2018-08-03 16:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1294.92 Mbit/s
95th percentile per-packet one-way delay: 91.020 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 732.44 Mbit/s
95th percentile per-packet one-way delay: 92.695 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 630.28 Mbit/s
95th percentile per-packet one-way delay: 89.070 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 432.35 Mbit/s
95th percentile per-packet one-way delay: 66.986 ms
Loss rate: 0.00%
```

Run 7: Report of FillP-Sheep — Data Link



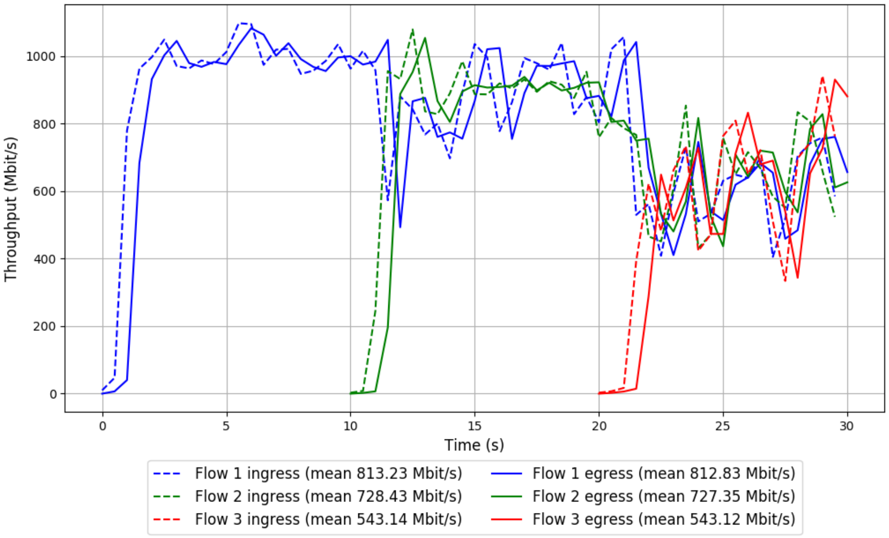


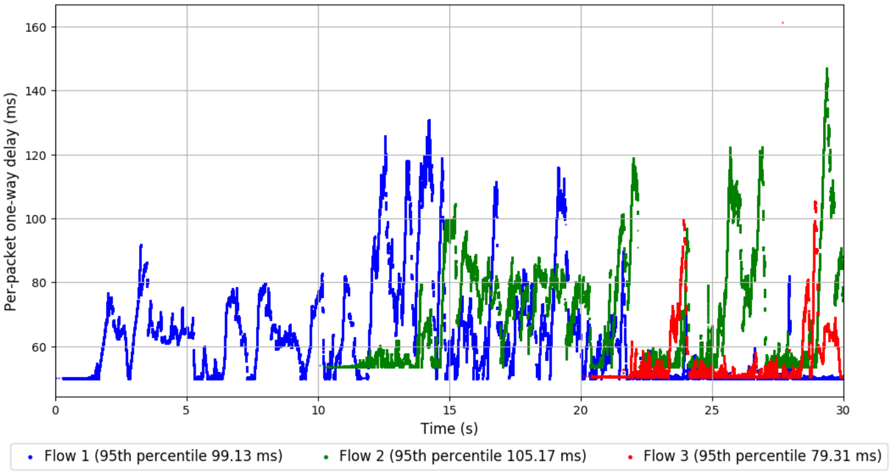
```
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-03 13:43:33
End at: 2018-08-03 13:44:03
Local clock offset: 0.041 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2018-08-03 16:53:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1475.81 Mbit/s
95th percentile per-packet one-way delay: 99.714 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 812.83 Mbit/s
95th percentile per-packet one-way delay: 99.129 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 727.35 Mbit/s
95th percentile per-packet one-way delay: 105.165 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 543.12 Mbit/s
95th percentile per-packet one-way delay: 79.308 ms
Loss rate: 0.02%
```

Run 8: Report of FillP-Sheep — Data Link



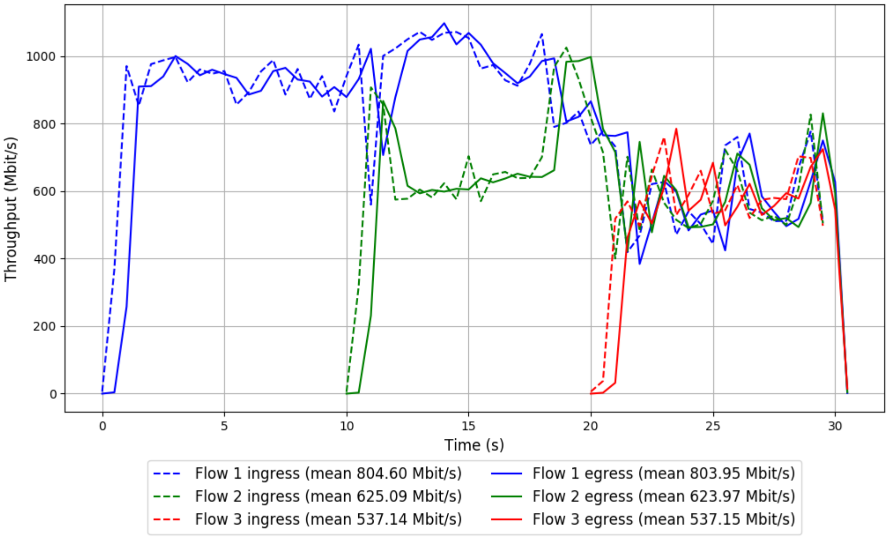


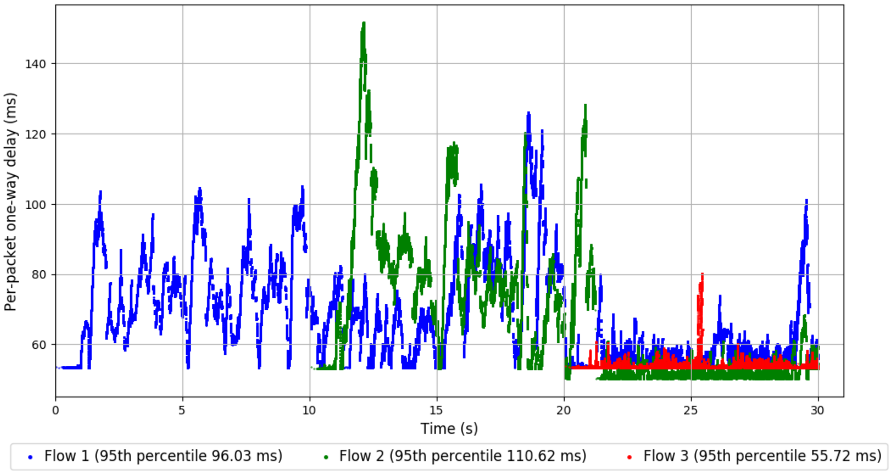
```
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-03 14:08:25
End at: 2018-08-03 14:08:55
Local clock offset: -0.168 ms
Remote clock offset: -0.551 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1396.94 Mbit/s
95th percentile per-packet one-way delay: 97.130 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 803.95 Mbit/s
95th percentile per-packet one-way delay: 96.027 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 623.97 Mbit/s
95th percentile per-packet one-way delay: 110.621 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 537.15 Mbit/s
95th percentile per-packet one-way delay: 55.716 ms
Loss rate: 0.00%
```

Run 9: Report of FillP-Sheep — Data Link



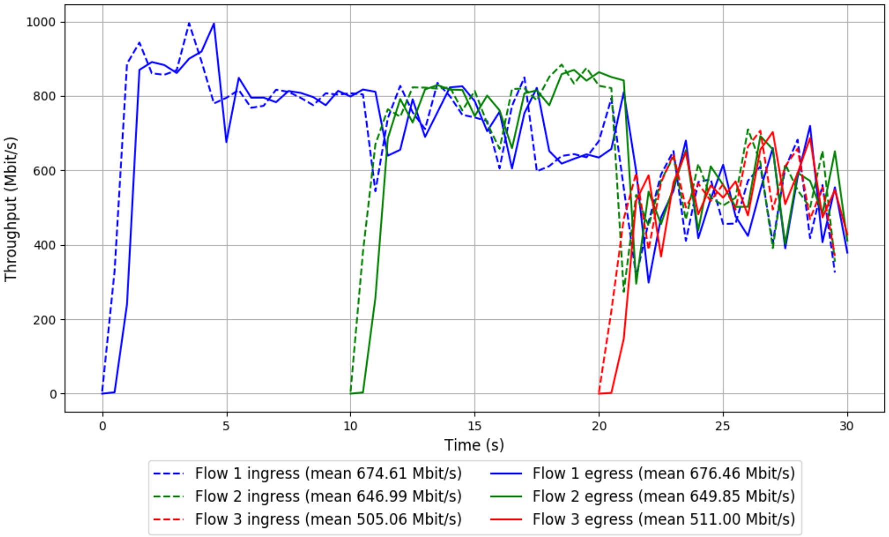


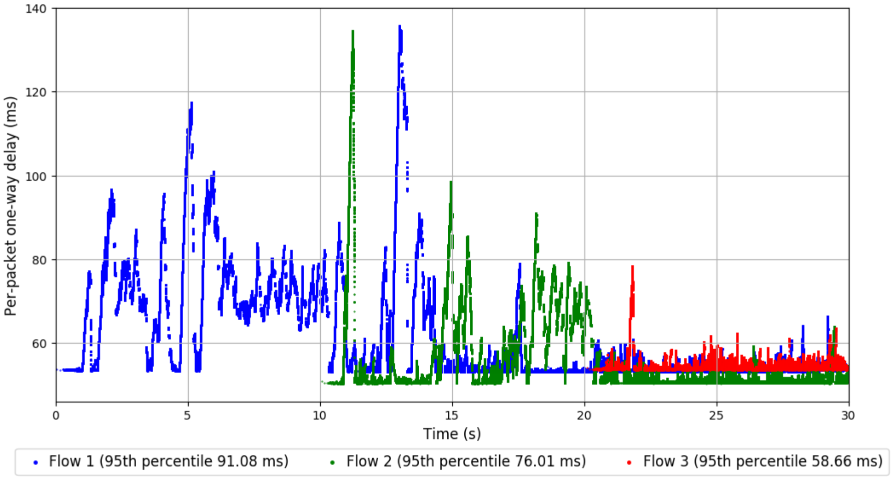
```
Run 10: Statistics of FillP-Sheep

Start at: 2018-08-03 14:33:54
End at: 2018-08-03 14:34:24
Local clock offset: 0.072 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1276.43 Mbit/s
95th percentile per-packet one-way delay: 84.457 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 676.46 Mbit/s
95th percentile per-packet one-way delay: 91.081 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 649.85 Mbit/s
95th percentile per-packet one-way delay: 76.009 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 511.00 Mbit/s
95th percentile per-packet one-way delay: 58.656 ms
Loss rate: 0.00%
```

Run 10: Report of FillP-Sheep — Data Link



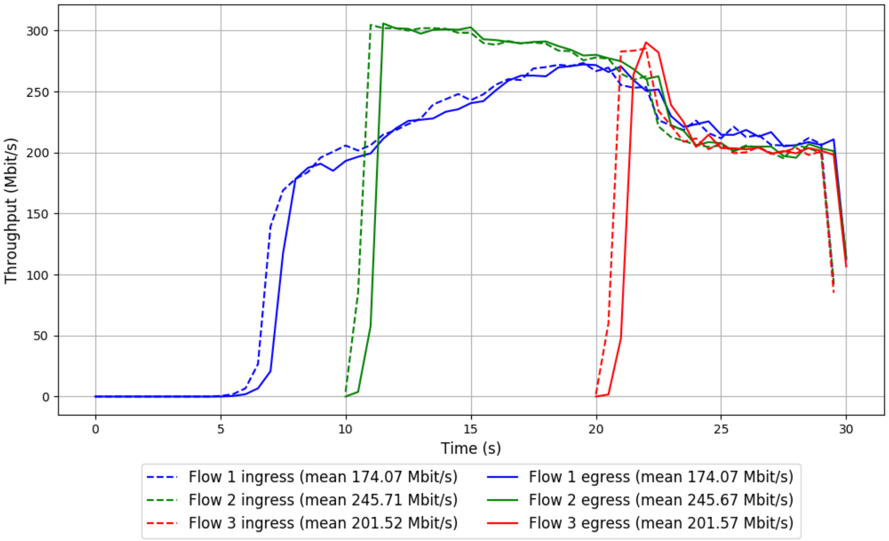


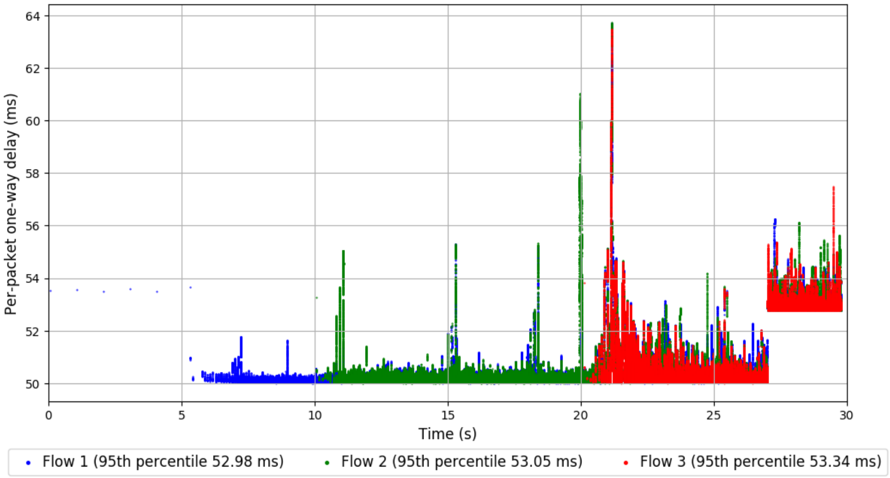
```
Run 1: Statistics of Indigo

Start at: 2018-08-03 11:01:26
End at: 2018-08-03 11:01:56
Local clock offset: 0.239 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.54 Mbit/s
95th percentile per-packet one-way delay: 53.074 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.07 Mbit/s
95th percentile per-packet one-way delay: 52.981 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 245.67 Mbit/s
95th percentile per-packet one-way delay: 53.046 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 201.57 Mbit/s
95th percentile per-packet one-way delay: 53.336 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



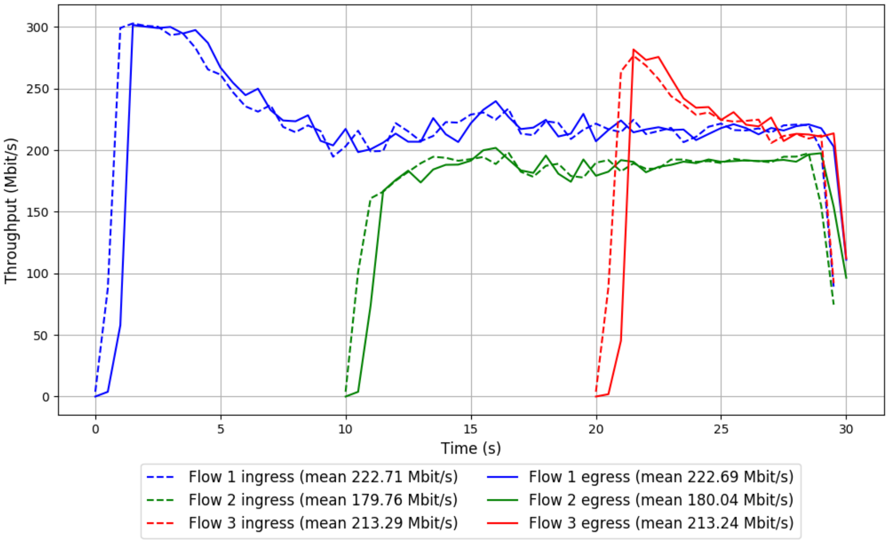


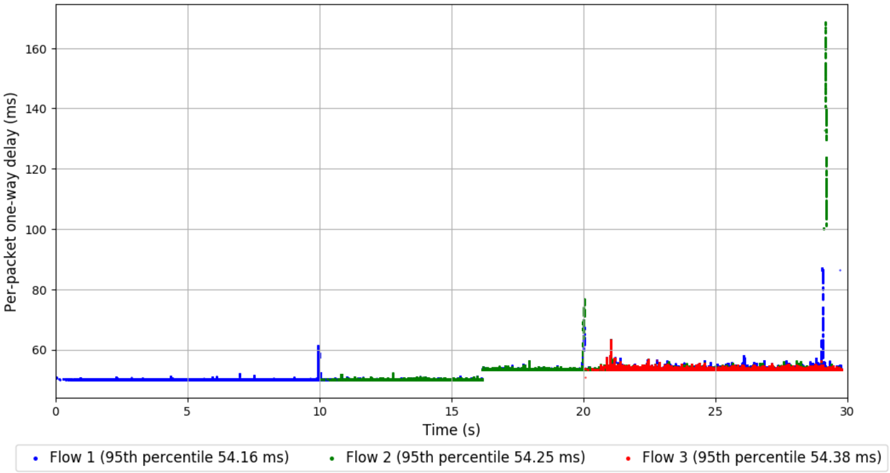
```
Run 2: Statistics of Indigo

Start at: 2018-08-03 11:26:57
End at: 2018-08-03 11:27:27
Local clock offset: 0.226 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.59 Mbit/s
95th percentile per-packet one-way delay: 54.240 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.69 Mbit/s
95th percentile per-packet one-way delay: 54.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.04 Mbit/s
95th percentile per-packet one-way delay: 54.246 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 213.24 Mbit/s
95th percentile per-packet one-way delay: 54.376 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link



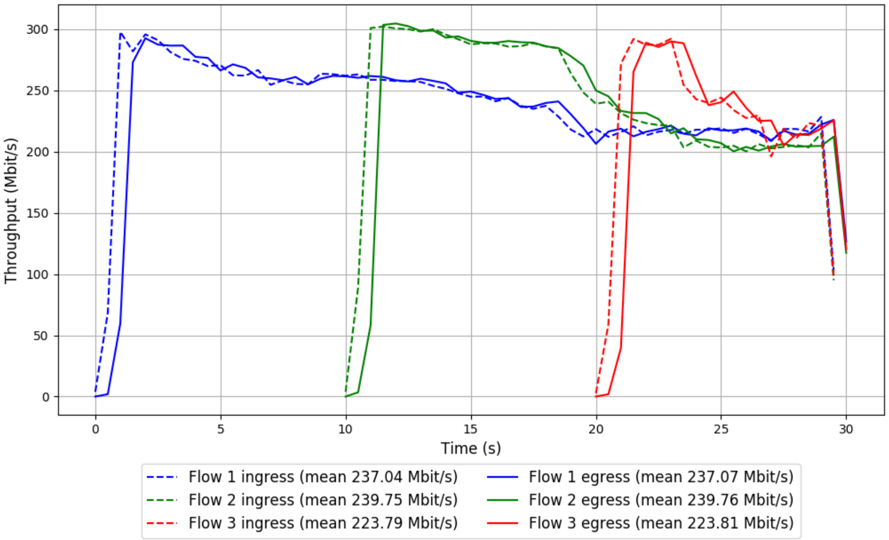


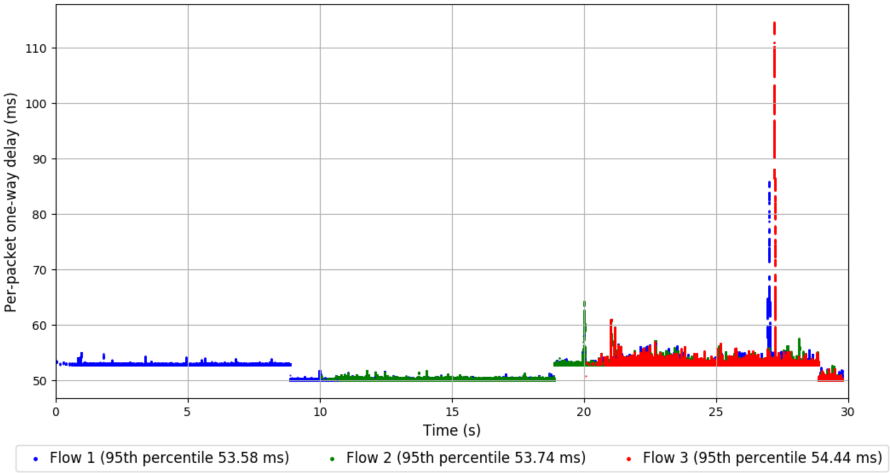
```
Run 3: Statistics of Indigo

Start at: 2018-08-03 11:52:14
End at: 2018-08-03 11:52:44
Local clock offset: 0.028 ms
Remote clock offset: -0.272 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.01 Mbit/s
95th percentile per-packet one-way delay: 53.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 237.07 Mbit/s
95th percentile per-packet one-way delay: 53.579 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 239.76 Mbit/s
95th percentile per-packet one-way delay: 53.743 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.81 Mbit/s
95th percentile per-packet one-way delay: 54.440 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link



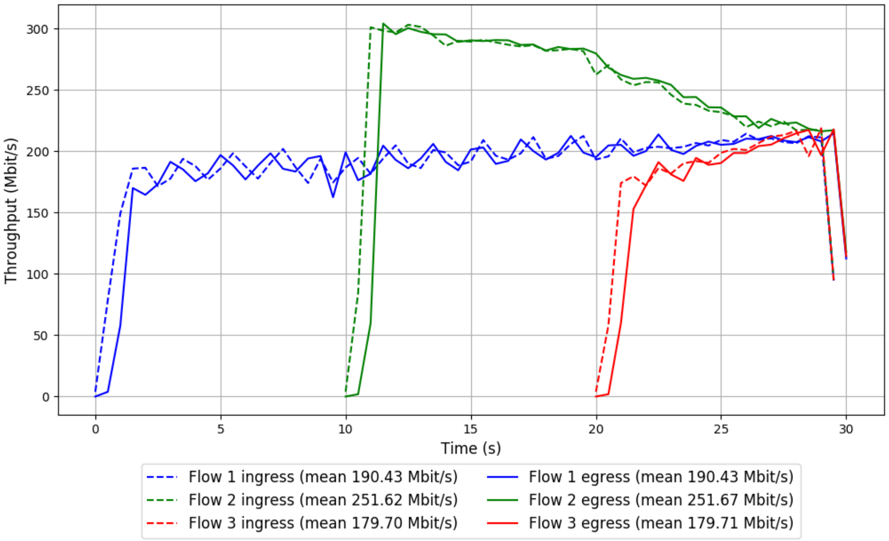


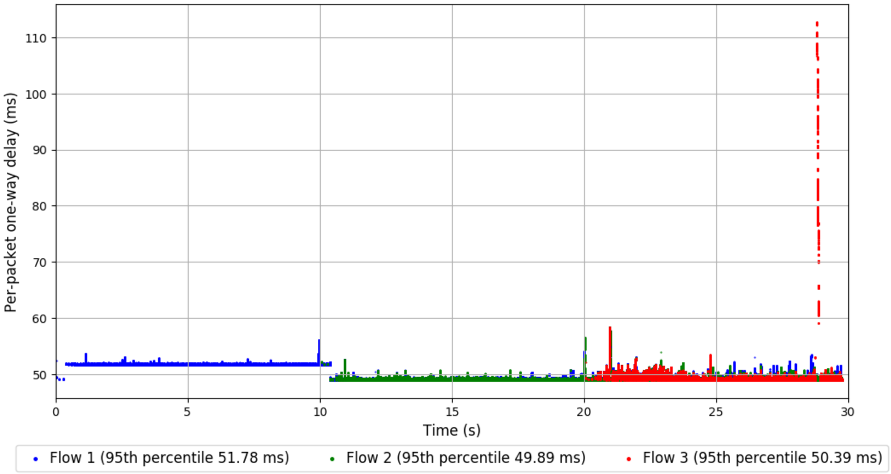
```
Run 4: Statistics of Indigo

Start at: 2018-08-03 12:17:33
End at: 2018-08-03 12:18:03
Local clock offset: -0.094 ms
Remote clock offset: -1.519 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 416.01 Mbit/s
95th percentile per-packet one-way delay: 51.755 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 190.43 Mbit/s
95th percentile per-packet one-way delay: 51.779 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 251.67 Mbit/s
95th percentile per-packet one-way delay: 49.892 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 179.71 Mbit/s
95th percentile per-packet one-way delay: 50.390 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link



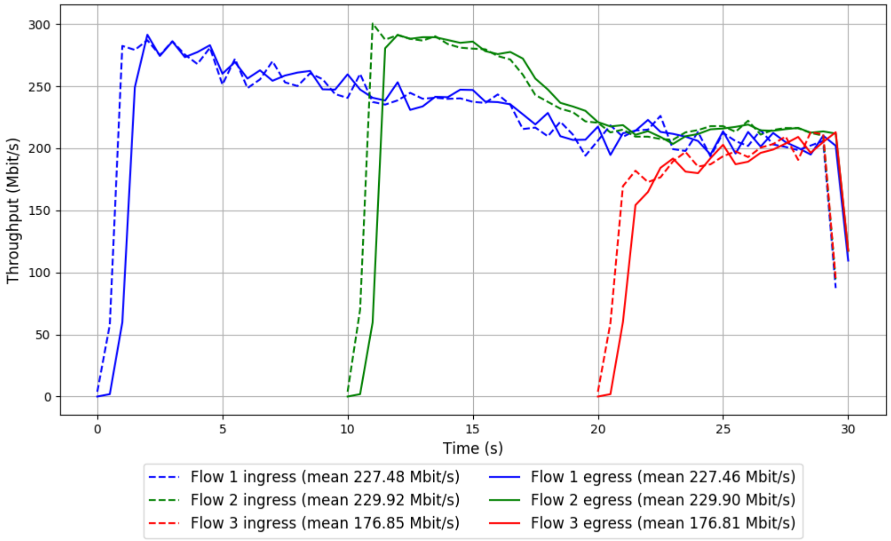


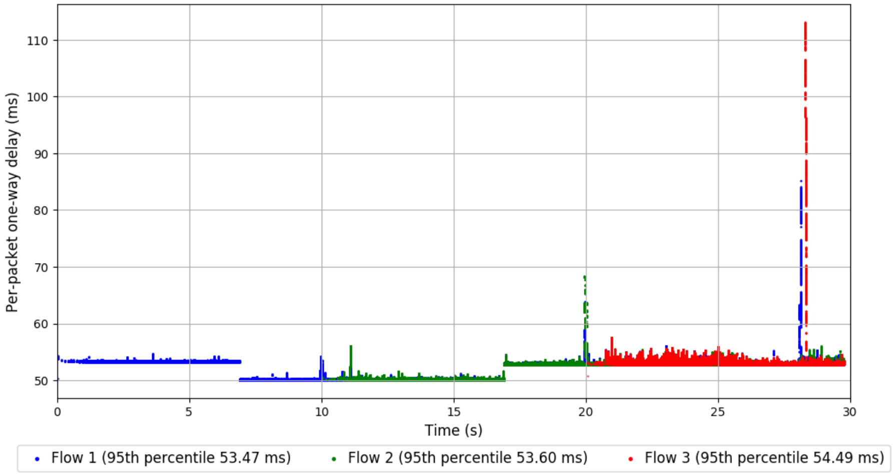
```
Run 5: Statistics of Indigo

Start at: 2018-08-03 12:42:36
End at: 2018-08-03 12:43:06
Local clock offset: 0.076 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 437.69 Mbit/s
95th percentile per-packet one-way delay: 53.748 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.46 Mbit/s
95th percentile per-packet one-way delay: 53.473 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 229.90 Mbit/s
95th percentile per-packet one-way delay: 53.601 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.81 Mbit/s
95th percentile per-packet one-way delay: 54.489 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link



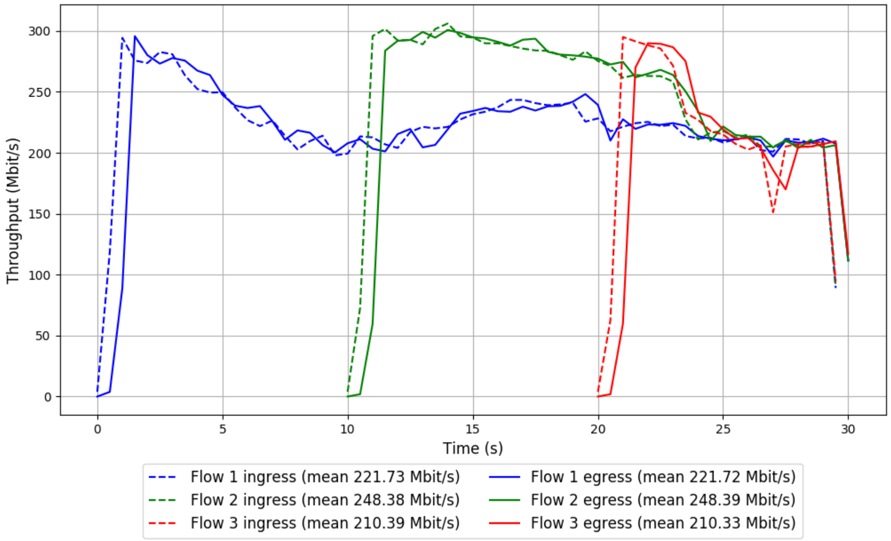


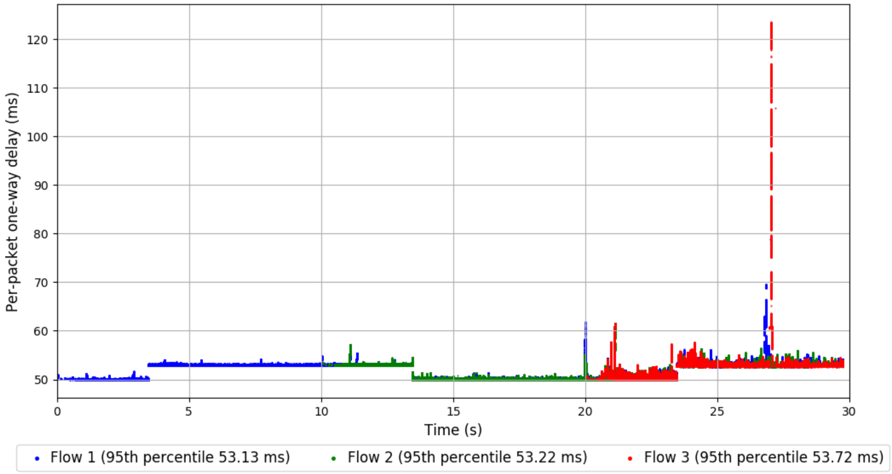
```
Run 6: Statistics of Indigo

Start at: 2018-08-03 13:08:00
End at: 2018-08-03 13:08:30
Local clock offset: 0.089 ms
Remote clock offset: -0.362 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.12 Mbit/s
95th percentile per-packet one-way delay: 53.244 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 221.72 Mbit/s
95th percentile per-packet one-way delay: 53.133 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 248.39 Mbit/s
95th percentile per-packet one-way delay: 53.221 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 210.33 Mbit/s
95th percentile per-packet one-way delay: 53.718 ms
Loss rate: 0.01%
```

Run 6: Report of Indigo — Data Link



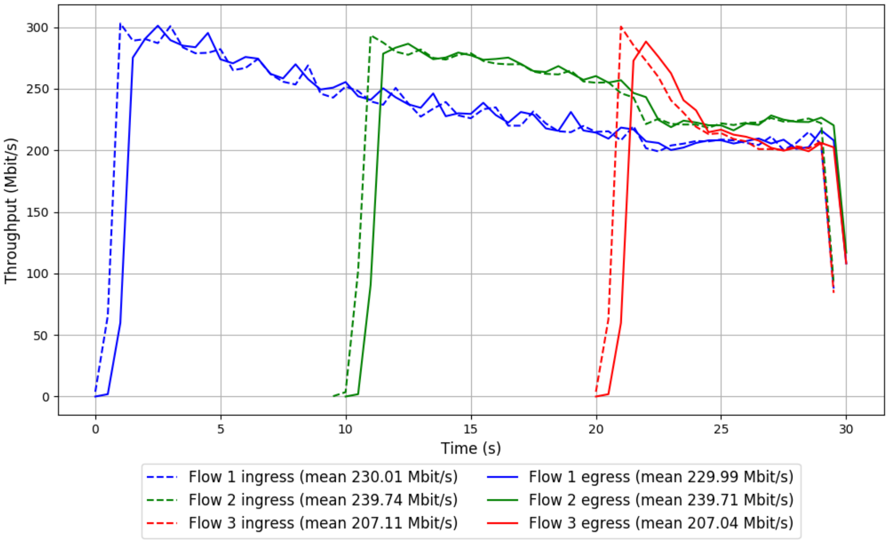


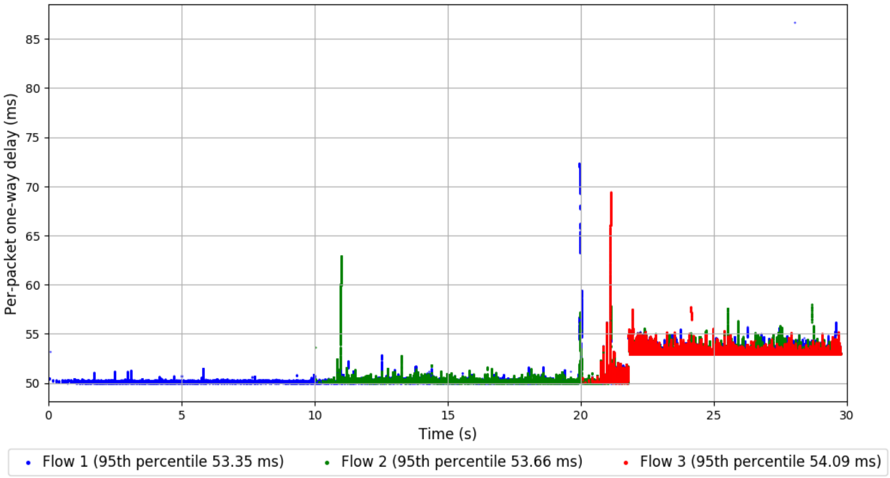
```
Run 7: Statistics of Indigo

Start at: 2018-08-03 13:33:11
End at: 2018-08-03 13:33:41
Local clock offset: 0.128 ms
Remote clock offset: -0.269 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 456.66 Mbit/s
95th percentile per-packet one-way delay: 53.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 229.99 Mbit/s
95th percentile per-packet one-way delay: 53.351 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 239.71 Mbit/s
95th percentile per-packet one-way delay: 53.655 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 207.04 Mbit/s
95th percentile per-packet one-way delay: 54.095 ms
Loss rate: 0.00%
```

Run 7: Report of Indigo — Data Link



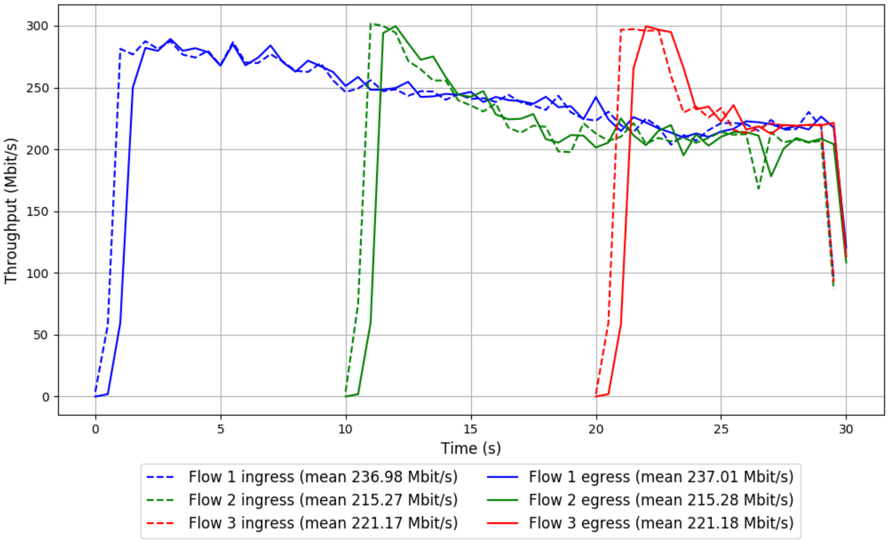


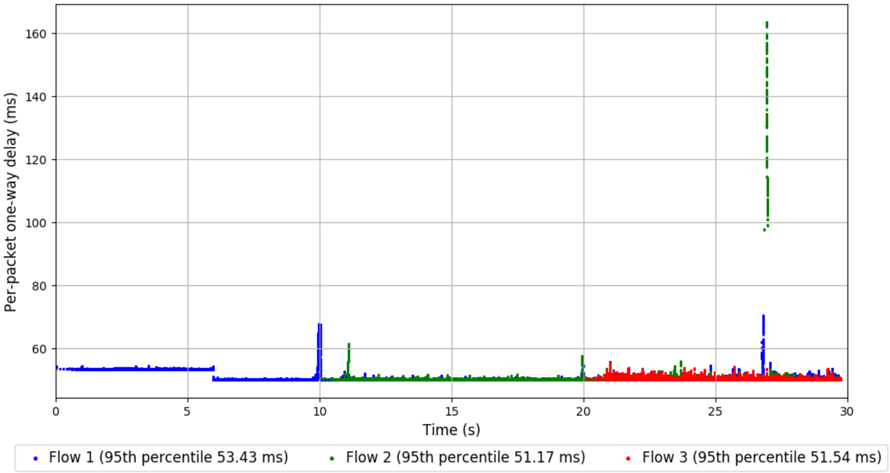
```
Run 8: Statistics of Indigo

Start at: 2018-08-03 13:58:17
End at: 2018-08-03 13:58:47
Local clock offset: 0.188 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.50 Mbit/s
95th percentile per-packet one-way delay: 53.400 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 237.01 Mbit/s
95th percentile per-packet one-way delay: 53.426 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 215.28 Mbit/s
95th percentile per-packet one-way delay: 51.173 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.18 Mbit/s
95th percentile per-packet one-way delay: 51.540 ms
Loss rate: 0.00%
```

Run 8: Report of Indigo — Data Link



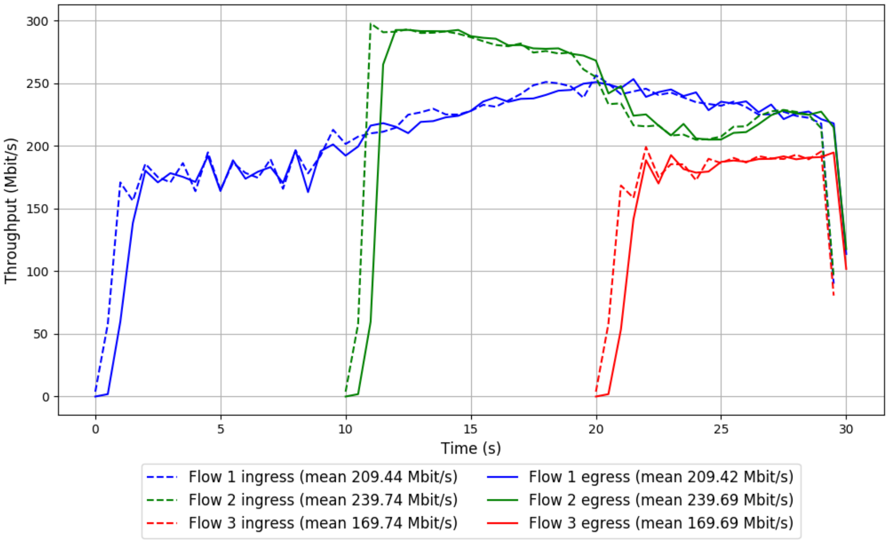


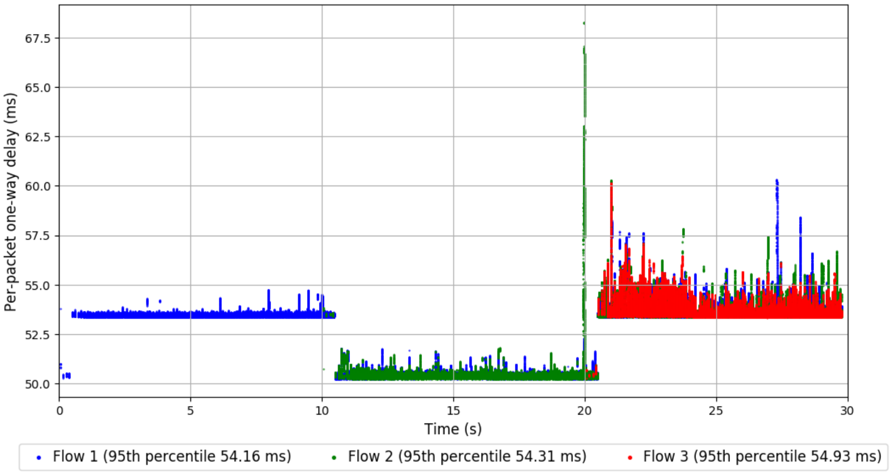
```
Run 9: Statistics of Indigo

Start at: 2018-08-03 14:23:43
End at: 2018-08-03 14:24:13
Local clock offset: -0.009 ms
Remote clock offset: -0.213 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.73 Mbit/s
95th percentile per-packet one-way delay: 54.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 209.42 Mbit/s
95th percentile per-packet one-way delay: 54.162 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 239.69 Mbit/s
95th percentile per-packet one-way delay: 54.312 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 169.69 Mbit/s
95th percentile per-packet one-way delay: 54.927 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo — Data Link



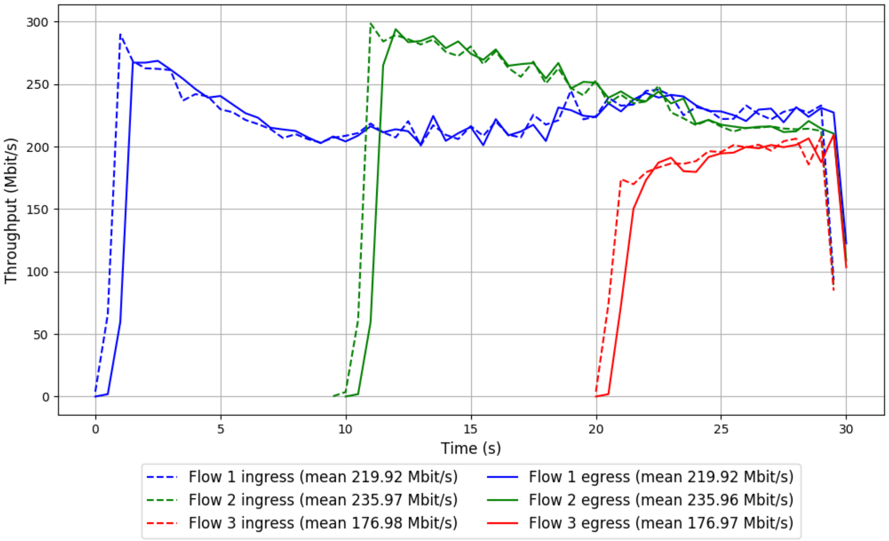


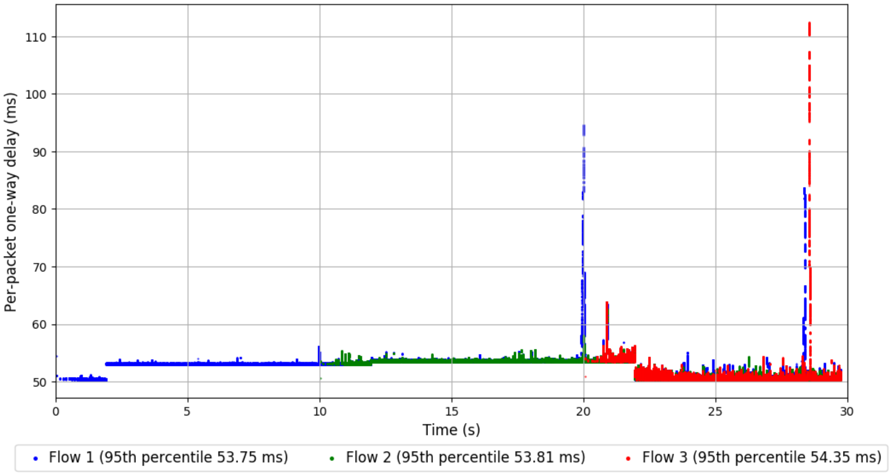
```
Run 10: Statistics of Indigo

Start at: 2018-08-03 14:49:01
End at: 2018-08-03 14:49:31
Local clock offset: 0.089 ms
Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 434.21 Mbit/s
95th percentile per-packet one-way delay: 53.810 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 219.92 Mbit/s
95th percentile per-packet one-way delay: 53.751 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 235.96 Mbit/s
95th percentile per-packet one-way delay: 53.809 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.97 Mbit/s
95th percentile per-packet one-way delay: 54.347 ms
Loss rate: 0.00%
```

Run 10: Report of Indigo — Data Link



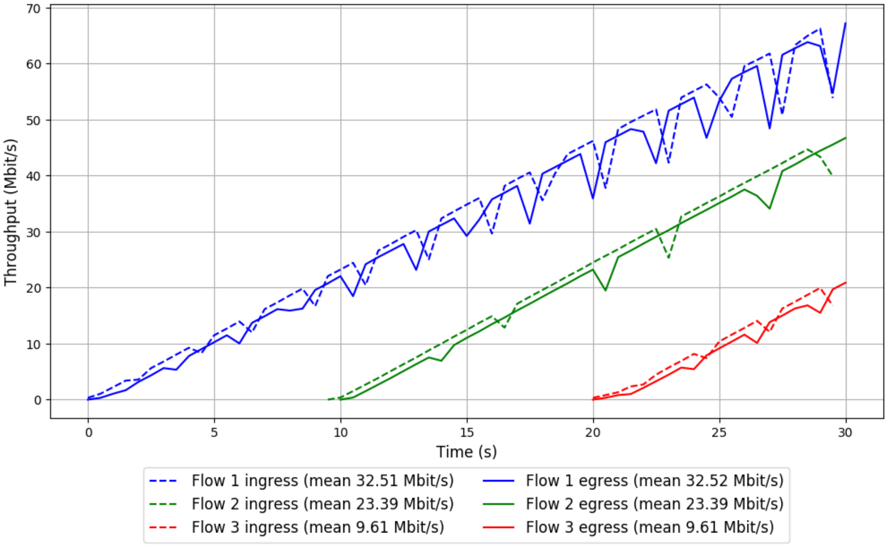


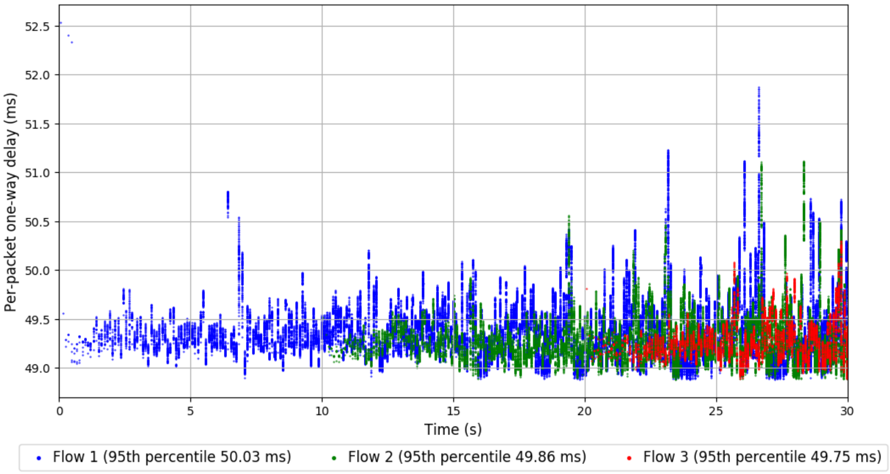
```
Run 1: Statistics of LEDBAT

Start at: 2018-08-03 10:49:49
End at: 2018-08-03 10:50:19
Local clock offset: -0.063 ms
Remote clock offset: -1.495 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.25 Mbit/s
95th percentile per-packet one-way delay: 49.974 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.52 Mbit/s
95th percentile per-packet one-way delay: 50.030 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.39 Mbit/s
95th percentile per-packet one-way delay: 49.857 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.61 Mbit/s
95th percentile per-packet one-way delay: 49.748 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link



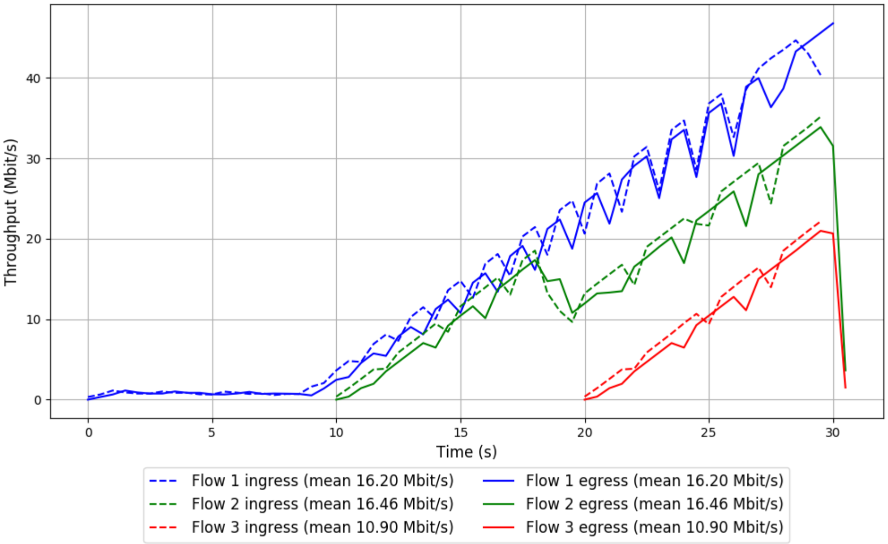


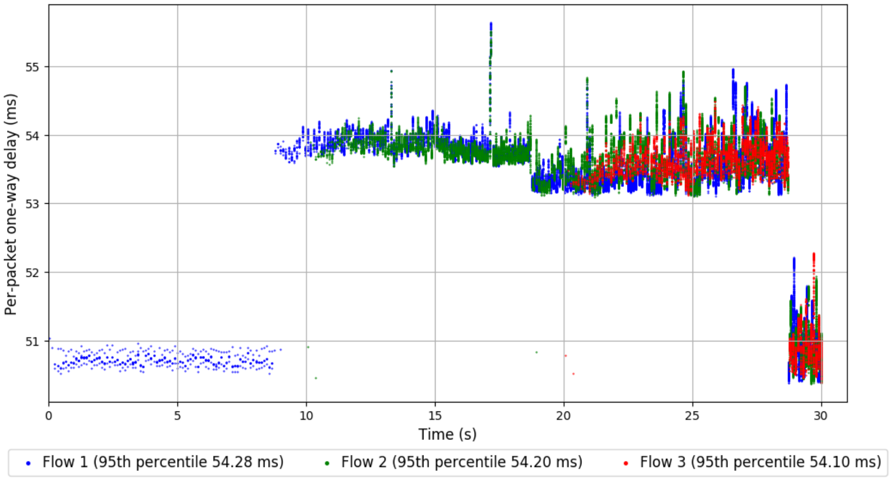
```
Run 2: Statistics of LEDBAT

Start at: 2018-08-03 11:15:14
End at: 2018-08-03 11:15:44
Local clock offset: -0.017 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.75 Mbit/s
95th percentile per-packet one-way delay: 54.218 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 16.20 Mbit/s
95th percentile per-packet one-way delay: 54.280 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 16.46 Mbit/s
95th percentile per-packet one-way delay: 54.202 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 54.099 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



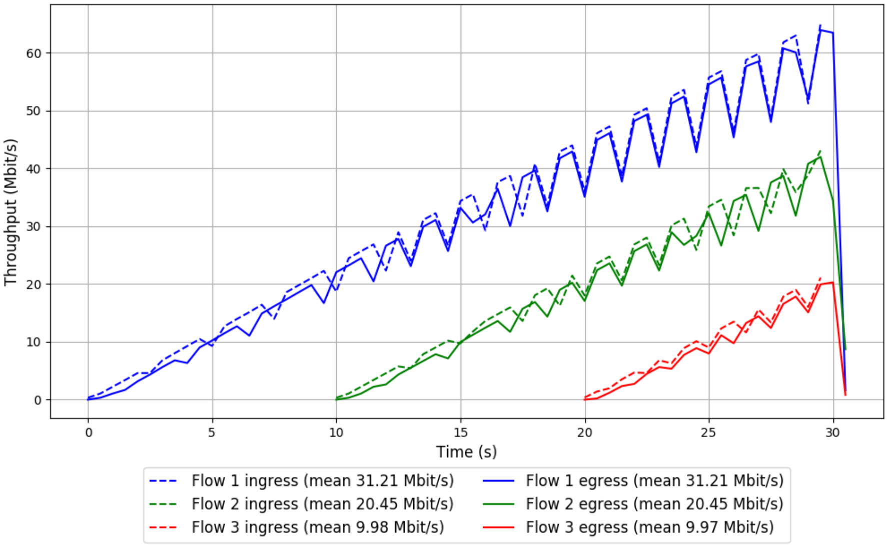


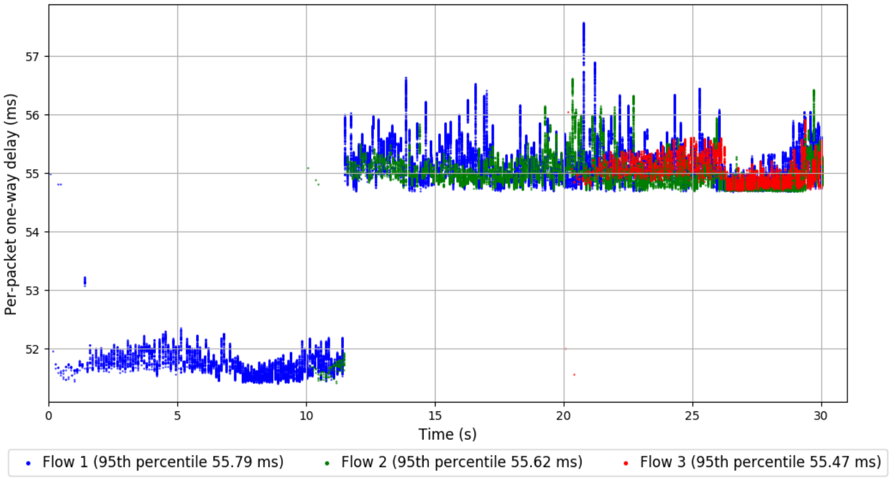
```
Run 3: Statistics of LEDBAT

Start at: 2018-08-03 11:40:52
End at: 2018-08-03 11:41:22
Local clock offset: -0.018 ms
Remote clock offset: 1.073 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.10 Mbit/s
95th percentile per-packet one-way delay: 55.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 55.793 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.45 Mbit/s
95th percentile per-packet one-way delay: 55.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 55.472 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link



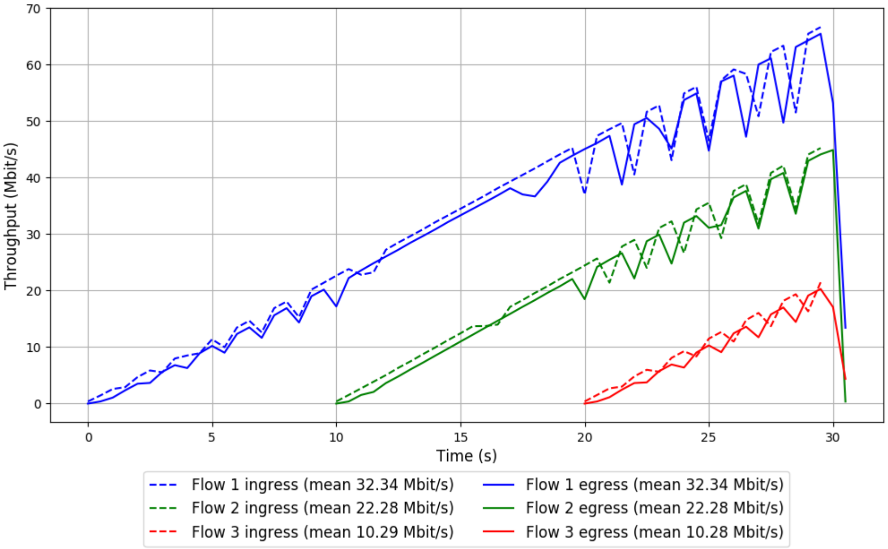


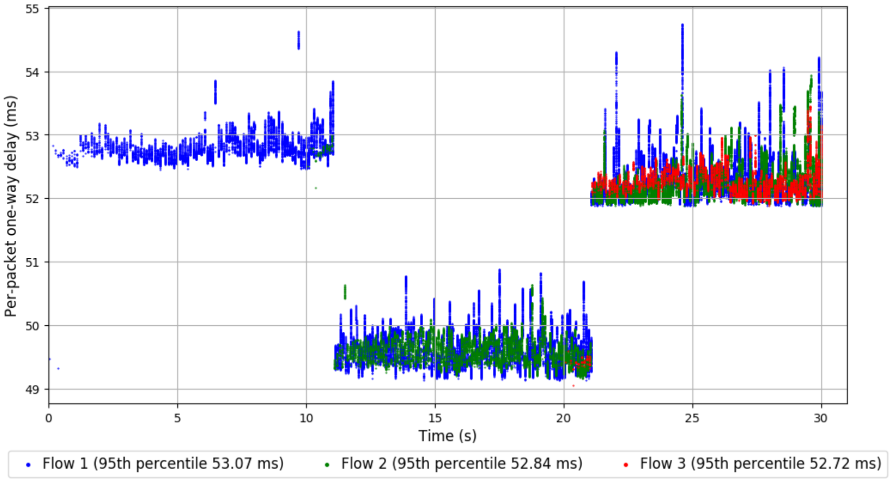
```
Run 4: Statistics of LEDBAT

Start at: 2018-08-03 12:06:02
End at: 2018-08-03 12:06:32
Local clock offset: -0.202 ms
Remote clock offset: -1.373 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.58 Mbit/s
95th percentile per-packet one-way delay: 53.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.34 Mbit/s
95th percentile per-packet one-way delay: 53.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.28 Mbit/s
95th percentile per-packet one-way delay: 52.841 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.28 Mbit/s
95th percentile per-packet one-way delay: 52.720 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link



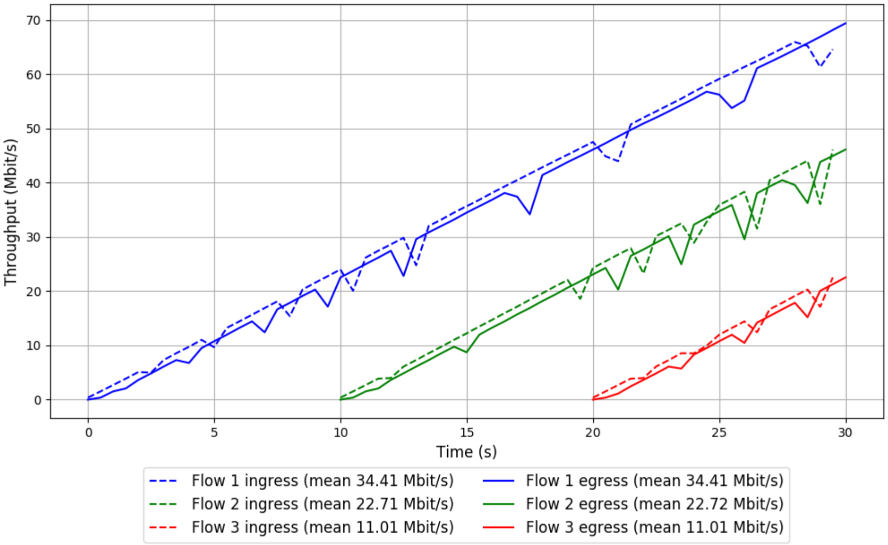


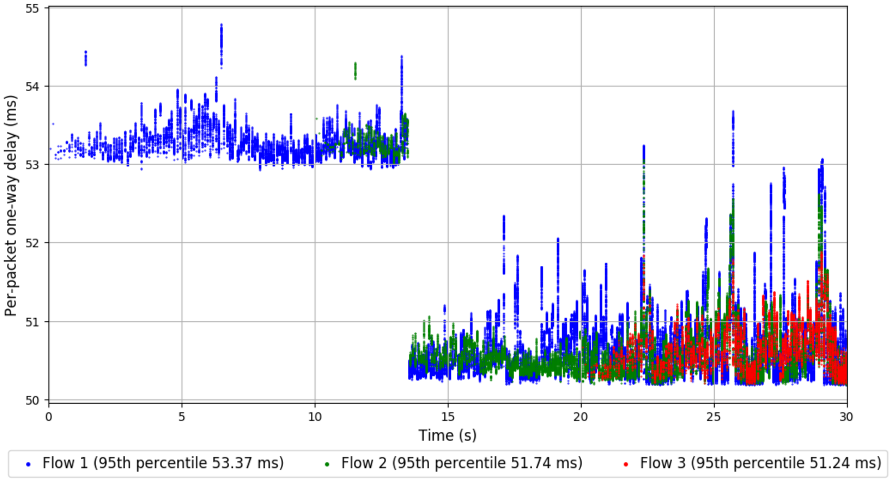
```
Run 5: Statistics of LEDBAT

Start at: 2018-08-03 12:31:20
End at: 2018-08-03 12:31:50
Local clock offset: 0.062 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.16 Mbit/s
95th percentile per-packet one-way delay: 53.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.41 Mbit/s
95th percentile per-packet one-way delay: 53.368 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.72 Mbit/s
95th percentile per-packet one-way delay: 51.738 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.01 Mbit/s
95th percentile per-packet one-way delay: 51.245 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link



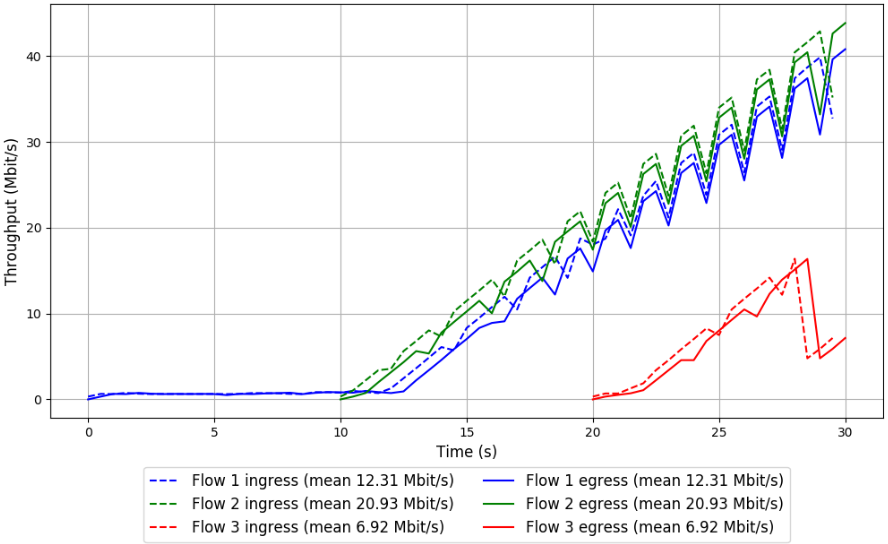


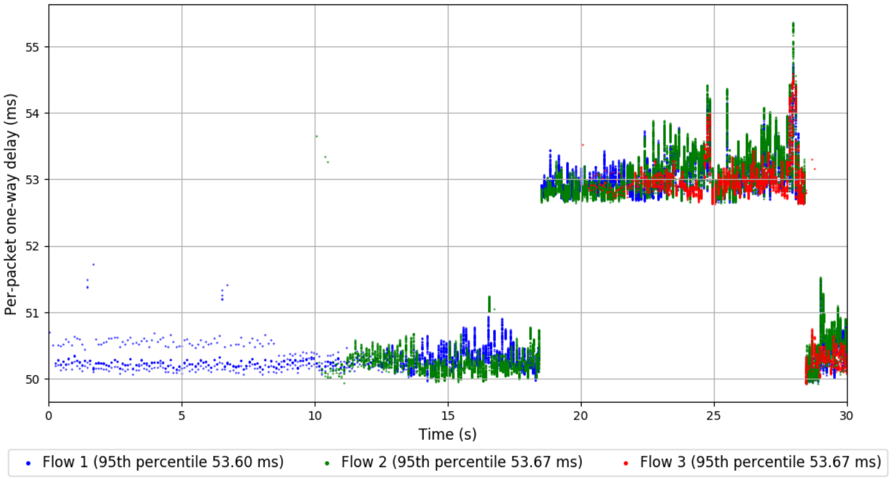
```
Run 6: Statistics of LEDBAT

Start at: 2018-08-03 12:56:25
End at: 2018-08-03 12:56:55
Local clock offset: -0.078 ms
Remote clock offset: -0.522 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.49 Mbit/s
95th percentile per-packet one-way delay: 53.641 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 53.596 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.93 Mbit/s
95th percentile per-packet one-way delay: 53.674 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.92 Mbit/s
95th percentile per-packet one-way delay: 53.671 ms
Loss rate: 0.02%
```

Run 6: Report of LEDBAT — Data Link



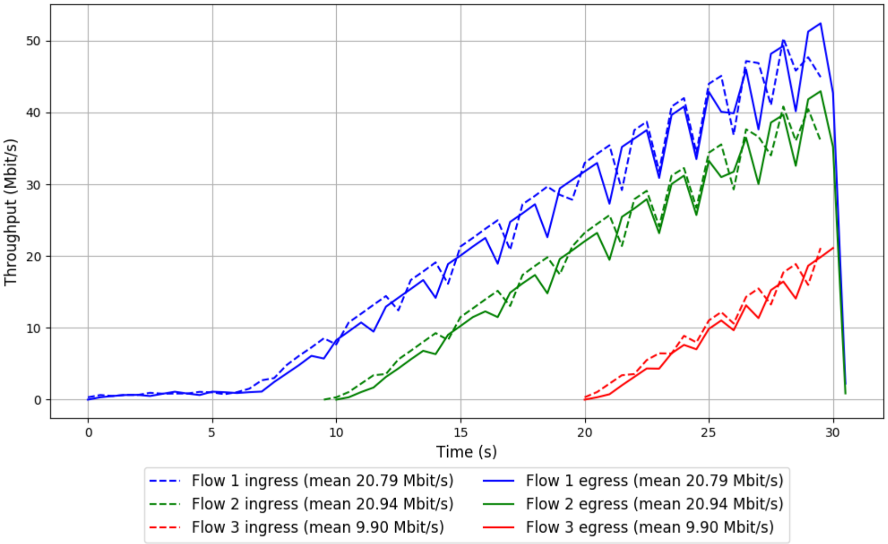


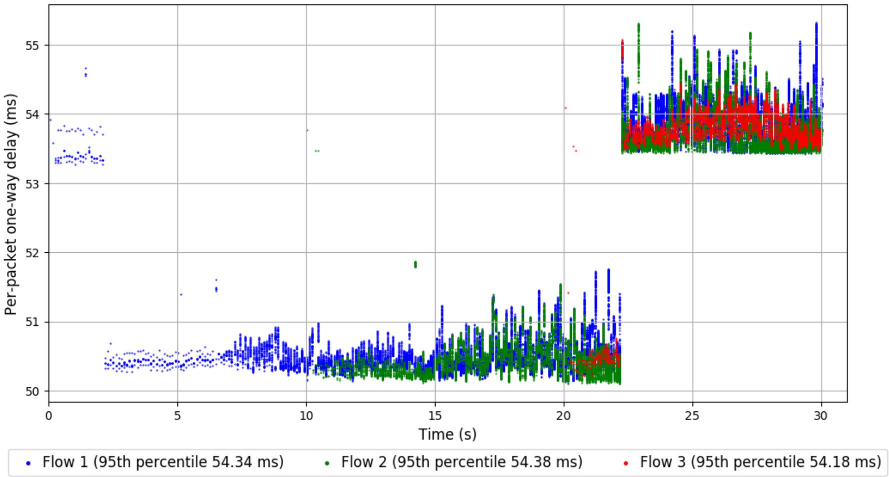
```
Run 7: Statistics of LEDBAT

Start at: 2018-08-03 13:21:51
End at: 2018-08-03 13:22:21
Local clock offset: 0.023 ms
Remote clock offset: -0.215 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.02 Mbit/s
95th percentile per-packet one-way delay: 54.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 20.79 Mbit/s
95th percentile per-packet one-way delay: 54.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.94 Mbit/s
95th percentile per-packet one-way delay: 54.377 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.90 Mbit/s
95th percentile per-packet one-way delay: 54.178 ms
Loss rate: 0.00%
```

Run 7: Report of LEDBAT — Data Link



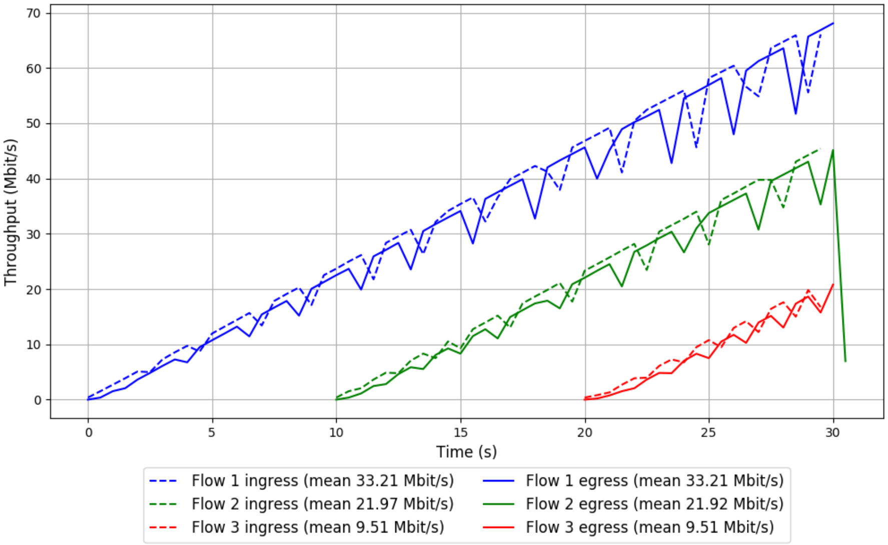


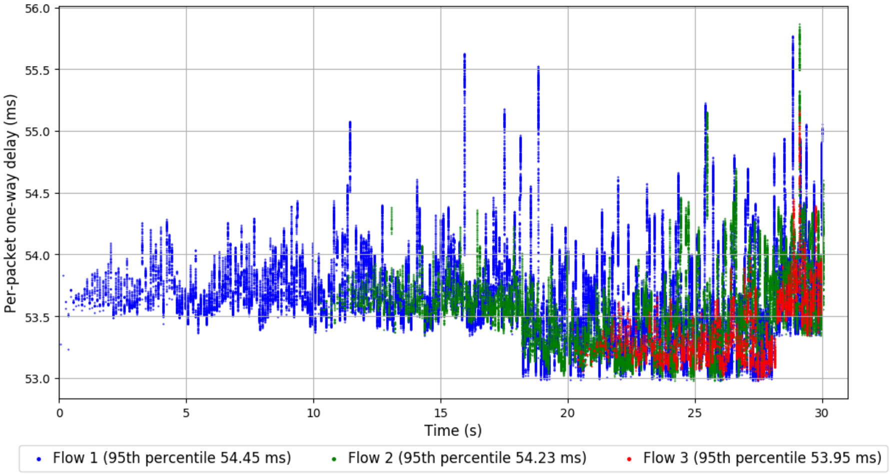
```
Run 8: Statistics of LEDBAT

Start at: 2018-08-03 13:47:15
End at: 2018-08-03 13:47:45
Local clock offset: 0.227 ms
Remote clock offset: -0.121 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.89 Mbit/s
95th percentile per-packet one-way delay: 54.339 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 54.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.92 Mbit/s
95th percentile per-packet one-way delay: 54.234 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 53.952 ms
Loss rate: 0.00%
```

Run 8: Report of LEDBAT — Data Link



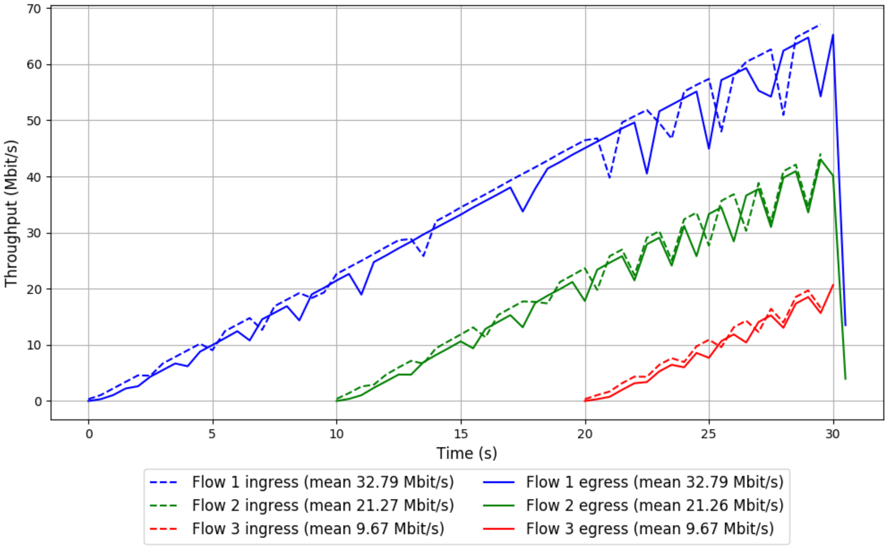


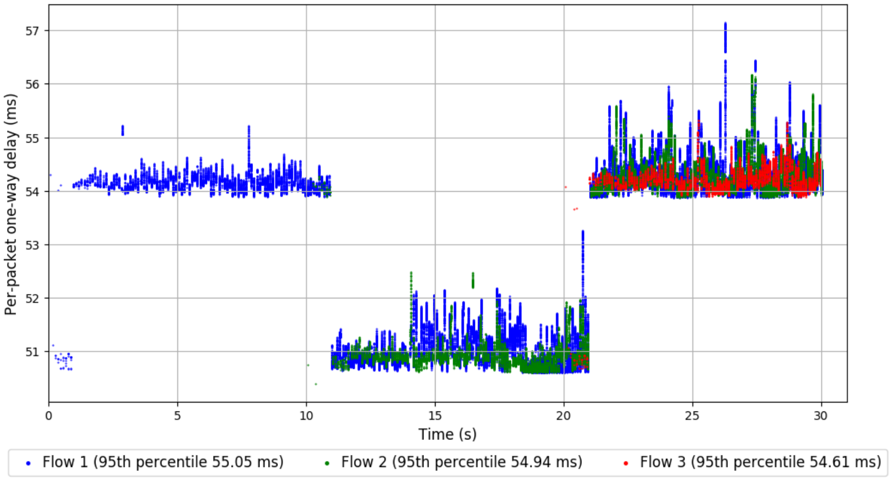
```
Run 9: Statistics of LEDBAT

Start at: 2018-08-03 14:12:02
End at: 2018-08-03 14:12:32
Local clock offset: -0.174 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.12 Mbit/s
95th percentile per-packet one-way delay: 54.984 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 55.054 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.26 Mbit/s
95th percentile per-packet one-way delay: 54.936 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 54.608 ms
Loss rate: 0.00%
```

Run 9: Report of LEDBAT — Data Link



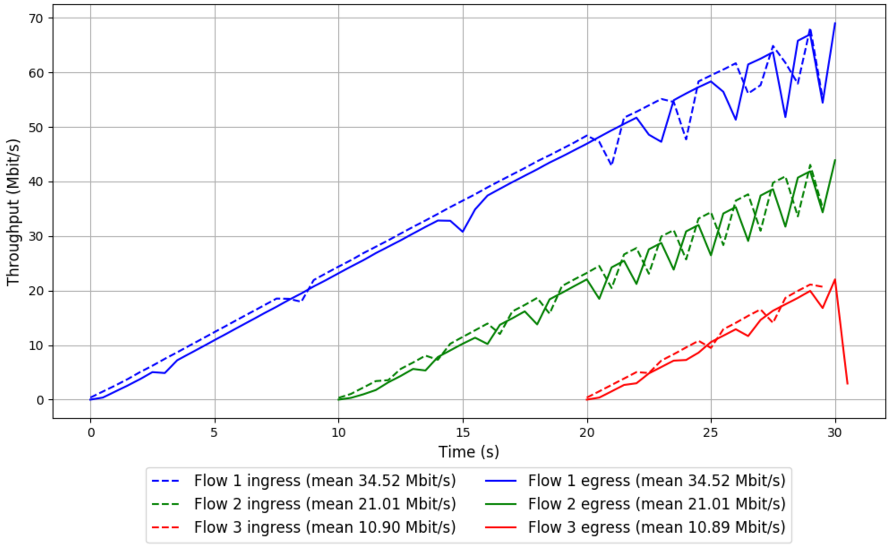


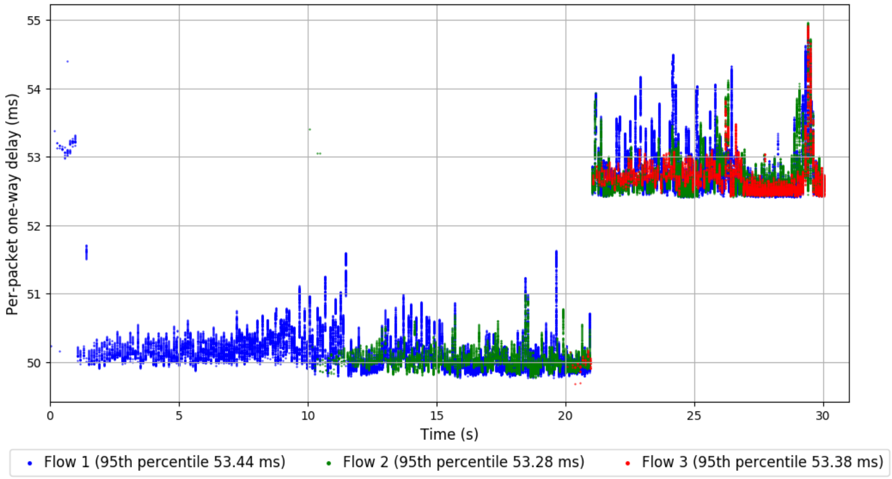
```
Run 10: Statistics of LEDBAT

Start at: 2018-08-03 14:37:32
End at: 2018-08-03 14:38:02
Local clock offset: 0.212 ms
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2018-08-03 16:54:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.98 Mbit/s
95th percentile per-packet one-way delay: 53.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 53.442 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.01 Mbit/s
95th percentile per-packet one-way delay: 53.283 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.89 Mbit/s
95th percentile per-packet one-way delay: 53.385 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link



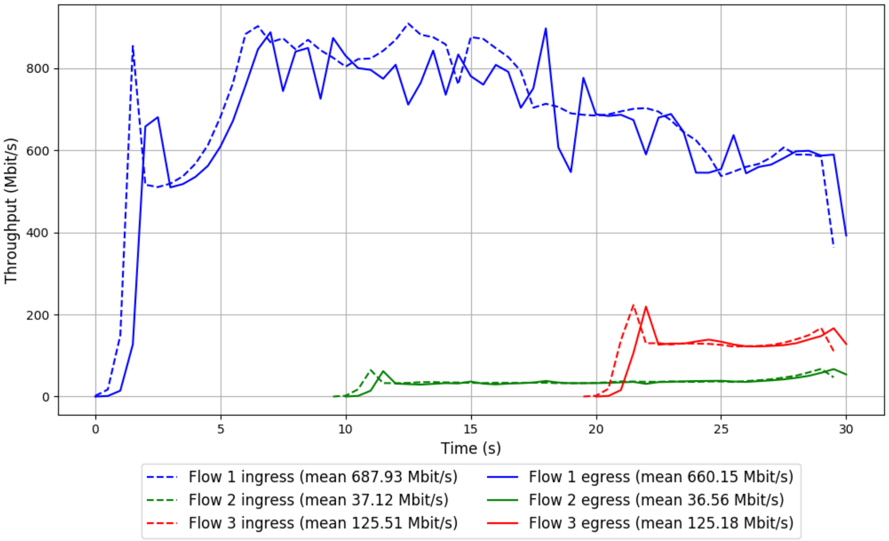


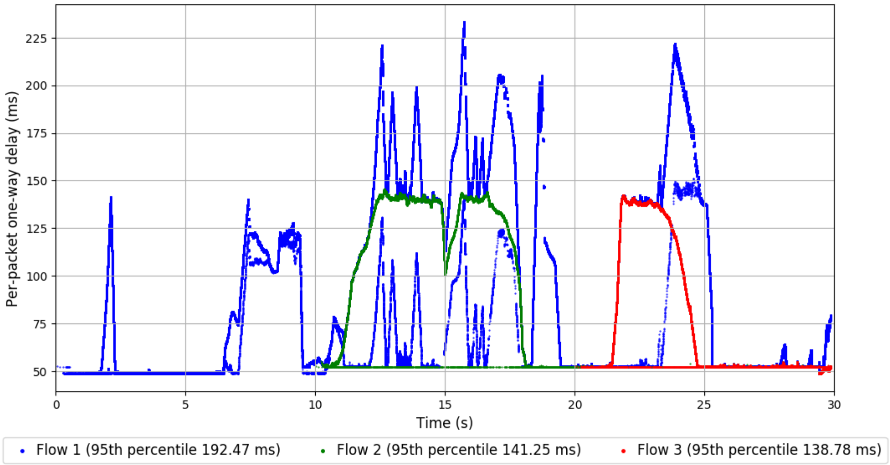
```
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-03 10:41:24
End at: 2018-08-03 10:41:54
Local clock offset: 0.024 ms
Remote clock offset: -1.543 ms

# Below is generated by plot.py at 2018-08-03 16:59:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 725.82 Mbit/s
95th percentile per-packet one-way delay: 189.869 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 660.15 Mbit/s
95th percentile per-packet one-way delay: 192.467 ms
Loss rate: 4.04%
-- Flow 2:
Average throughput: 36.56 Mbit/s
95th percentile per-packet one-way delay: 141.253 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 125.18 Mbit/s
95th percentile per-packet one-way delay: 138.782 ms
Loss rate: 0.28%
```

Run 1: Report of PCC-Allegro — Data Link



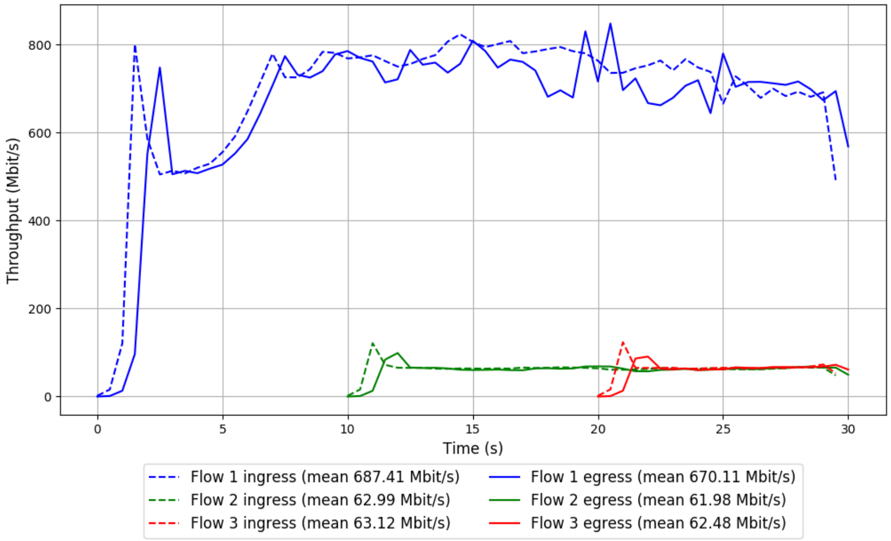


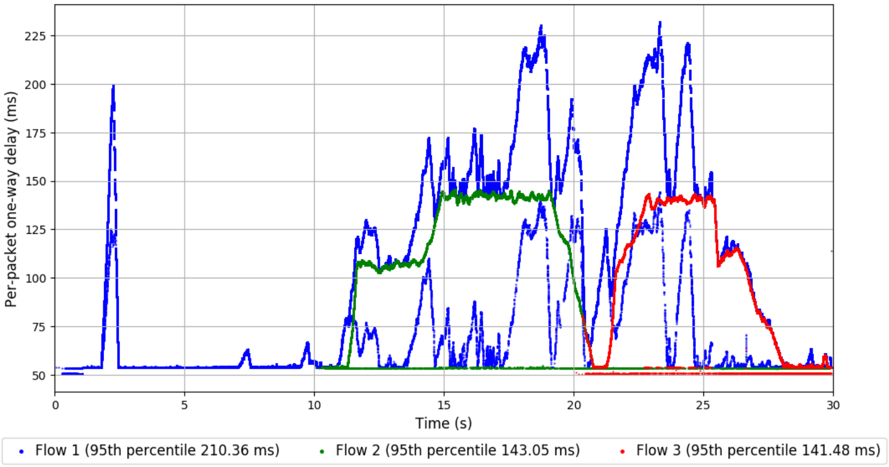
```
Run 2: Statistics of PCC-Allegro

Start at: 2018-08-03 11:06:52
End at: 2018-08-03 11:07:22
Local clock offset: -0.235 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2018-08-03 17:00:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 731.60 Mbit/s
95th percentile per-packet one-way delay: 209.455 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 670.11 Mbit/s
95th percentile per-packet one-way delay: 210.359 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 61.98 Mbit/s
95th percentile per-packet one-way delay: 143.047 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 62.48 Mbit/s
95th percentile per-packet one-way delay: 141.478 ms
Loss rate: 0.99%
```

Run 2: Report of PCC-Allegro — Data Link



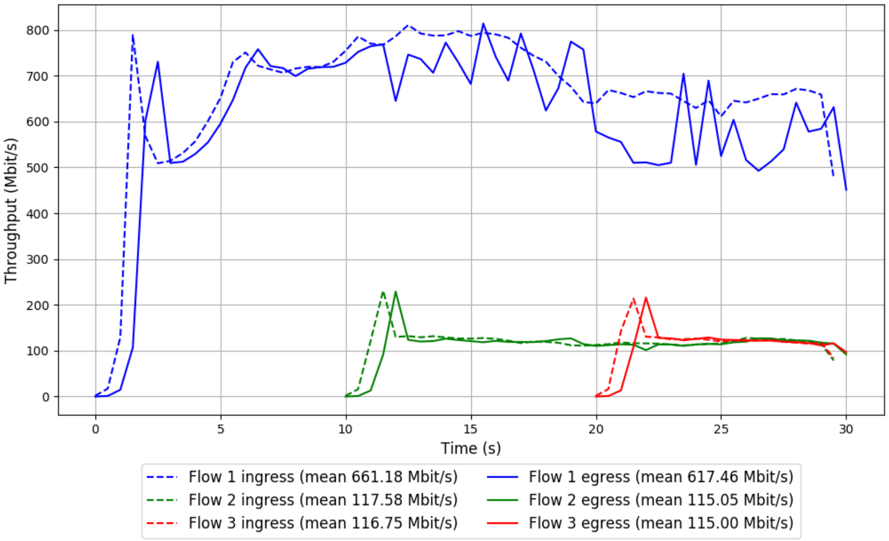


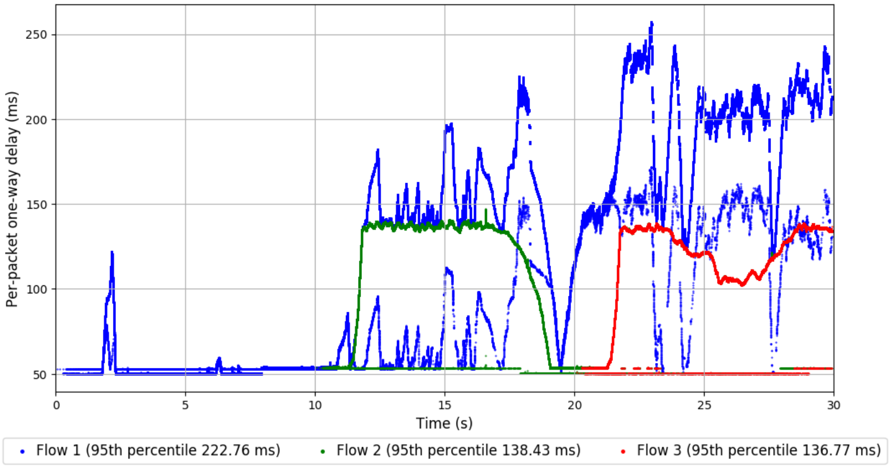
```
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-03 11:32:15
End at: 2018-08-03 11:32:45
Local clock offset: 0.142 ms
Remote clock offset: -0.236 ms

# Below is generated by plot.py at 2018-08-03 17:00:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 731.81 Mbit/s
95th percentile per-packet one-way delay: 219.577 ms
Loss rate: 5.91%
-- Flow 1:
Average throughput: 617.46 Mbit/s
95th percentile per-packet one-way delay: 222.756 ms
Loss rate: 6.61%
-- Flow 2:
Average throughput: 115.05 Mbit/s
95th percentile per-packet one-way delay: 138.429 ms
Loss rate: 2.15%
-- Flow 3:
Average throughput: 115.00 Mbit/s
95th percentile per-packet one-way delay: 136.774 ms
Loss rate: 1.45%
```

Run 3: Report of PCC-Allegro — Data Link



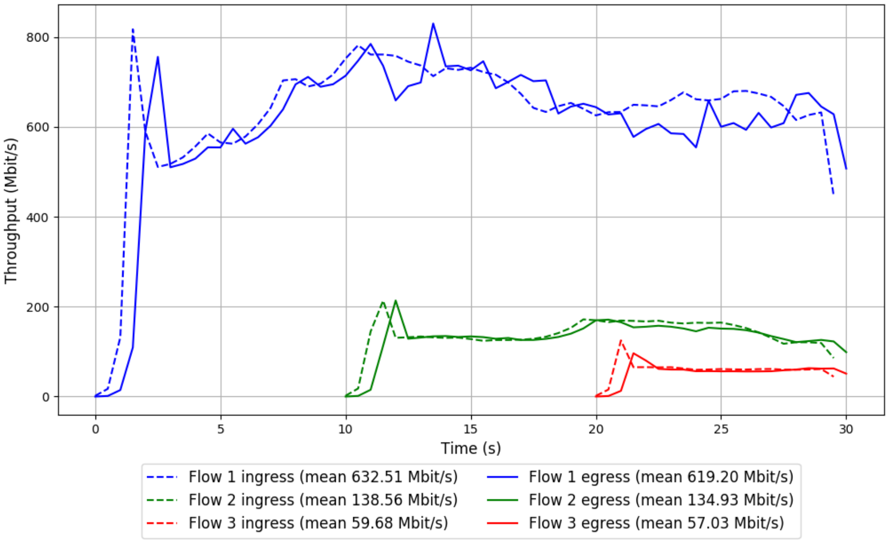


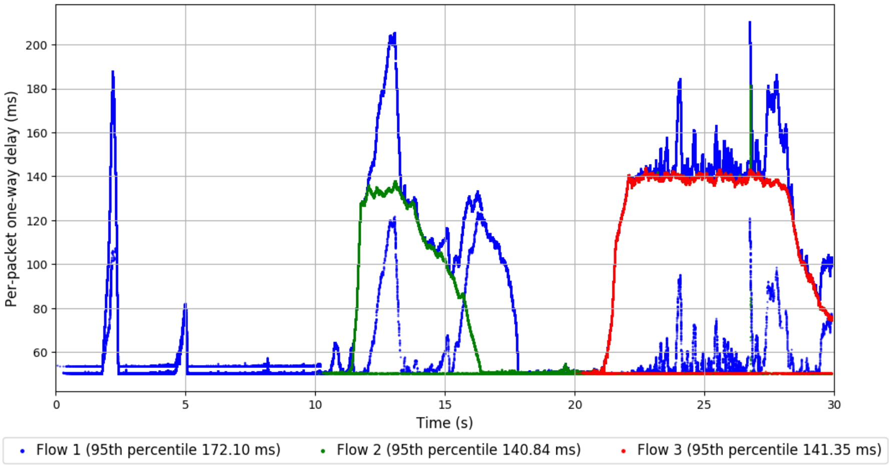
```
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-03 11:57:34
End at: 2018-08-03 11:58:04
Local clock offset: -0.16 ms
Remote clock offset: -0.219 ms

# Below is generated by plot.py at 2018-08-03 17:01:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 727.70 Mbit/s
95th percentile per-packet one-way delay: 166.898 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 619.20 Mbit/s
95th percentile per-packet one-way delay: 172.097 ms
Loss rate: 2.11%
-- Flow 2:
Average throughput: 134.93 Mbit/s
95th percentile per-packet one-way delay: 140.836 ms
Loss rate: 2.62%
-- Flow 3:
Average throughput: 57.03 Mbit/s
95th percentile per-packet one-way delay: 141.354 ms
Loss rate: 4.45%
```

Run 4: Report of PCC-Allegro — Data Link



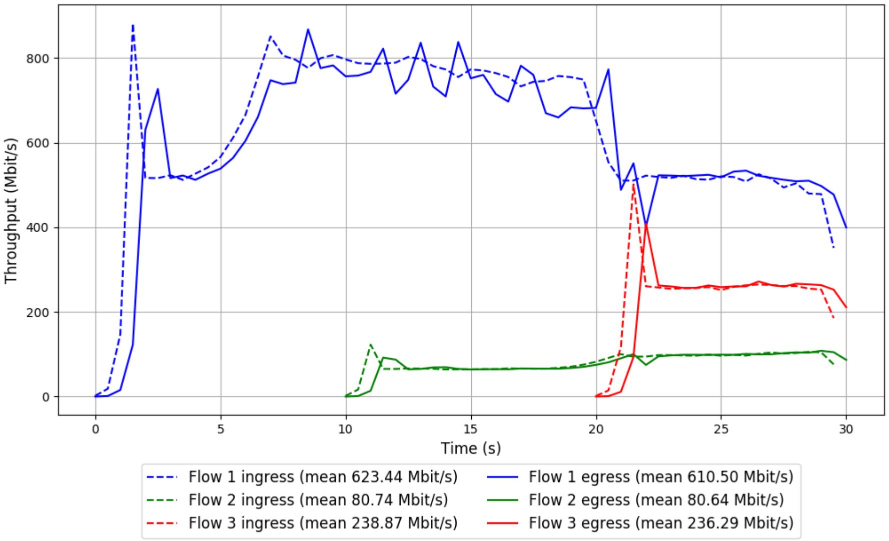


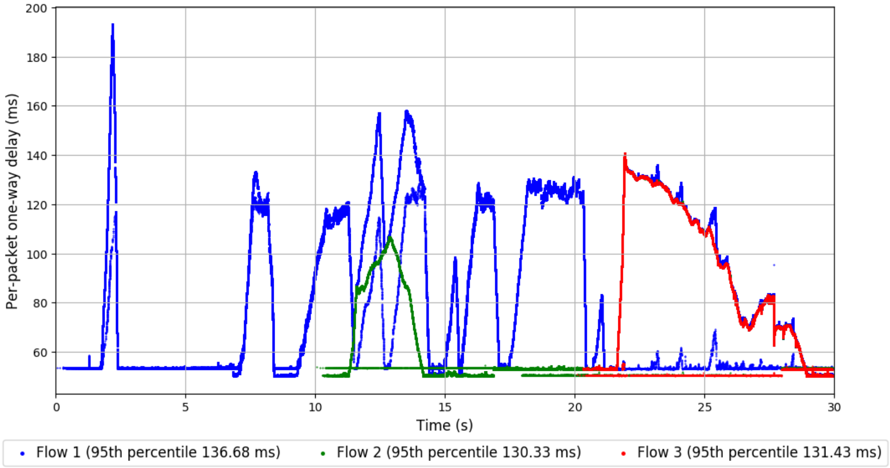
```
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-03 12:22:56
End at: 2018-08-03 12:23:26
Local clock offset: 0.091 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-08-03 17:01:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 741.86 Mbit/s
95th percentile per-packet one-way delay: 133.695 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 610.50 Mbit/s
95th percentile per-packet one-way delay: 136.677 ms
Loss rate: 2.08%
-- Flow 2:
Average throughput: 80.64 Mbit/s
95th percentile per-packet one-way delay: 130.328 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 236.29 Mbit/s
95th percentile per-packet one-way delay: 131.429 ms
Loss rate: 1.06%
```

Run 5: Report of PCC-Allegro — Data Link



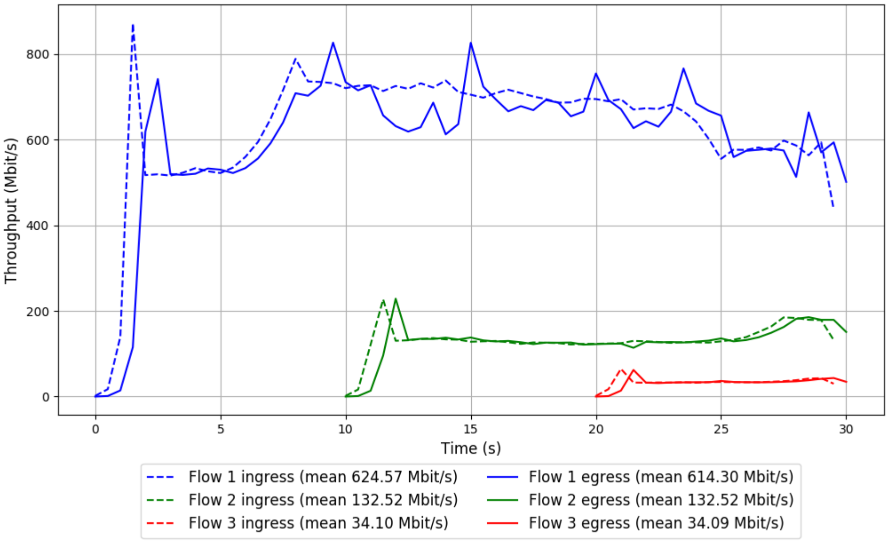


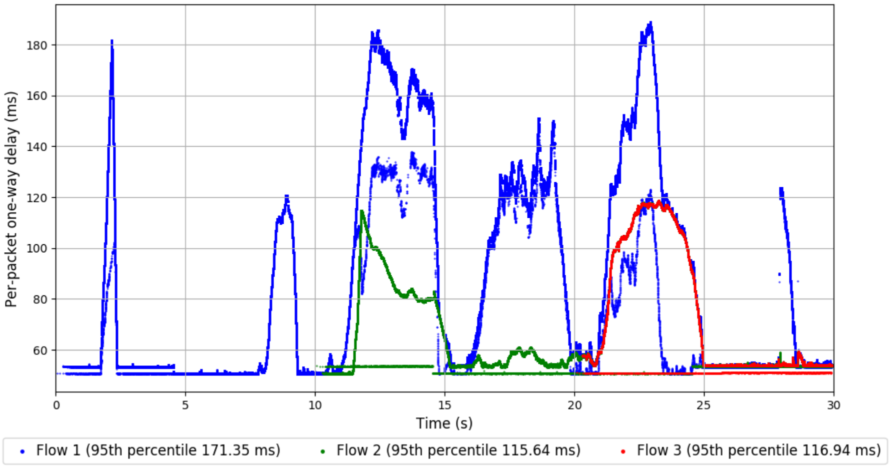
```
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-03 12:47:59
End at: 2018-08-03 12:48:29
Local clock offset: -0.013 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2018-08-03 17:04:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 713.58 Mbit/s
95th percentile per-packet one-way delay: 168.429 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 614.30 Mbit/s
95th percentile per-packet one-way delay: 171.347 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 132.52 Mbit/s
95th percentile per-packet one-way delay: 115.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.09 Mbit/s
95th percentile per-packet one-way delay: 116.943 ms
Loss rate: 0.00%
```

Run 6: Report of PCC-Allegro — Data Link



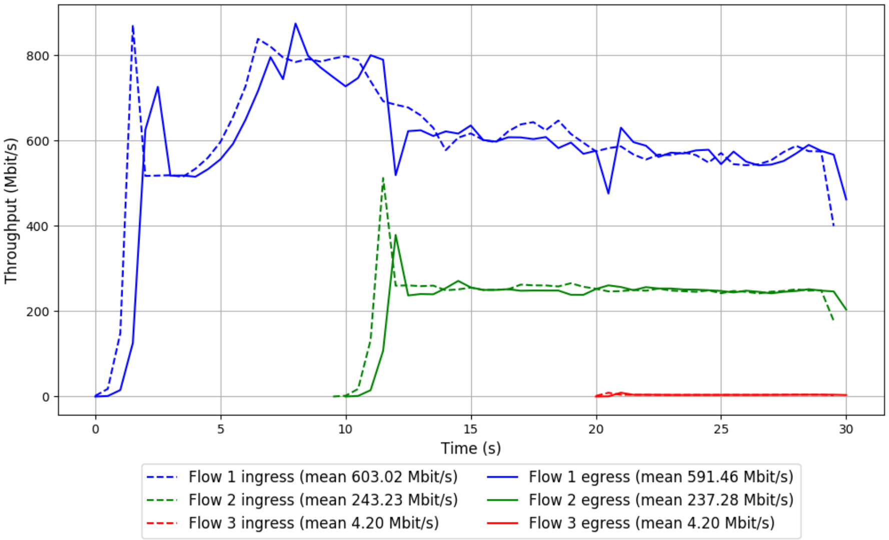


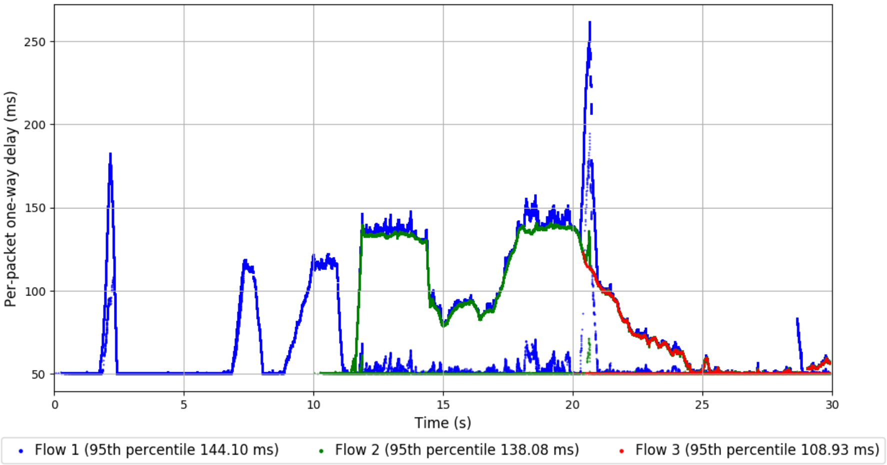
```
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-03 13:13:24
End at: 2018-08-03 13:13:54
Local clock offset: 0.073 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-08-03 17:05:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 750.68 Mbit/s
95th percentile per-packet one-way delay: 141.368 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 591.46 Mbit/s
95th percentile per-packet one-way delay: 144.103 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 237.28 Mbit/s
95th percentile per-packet one-way delay: 138.084 ms
Loss rate: 2.42%
-- Flow 3:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 108.932 ms
Loss rate: 0.03%
```

Run 7: Report of PCC-Allegro — Data Link



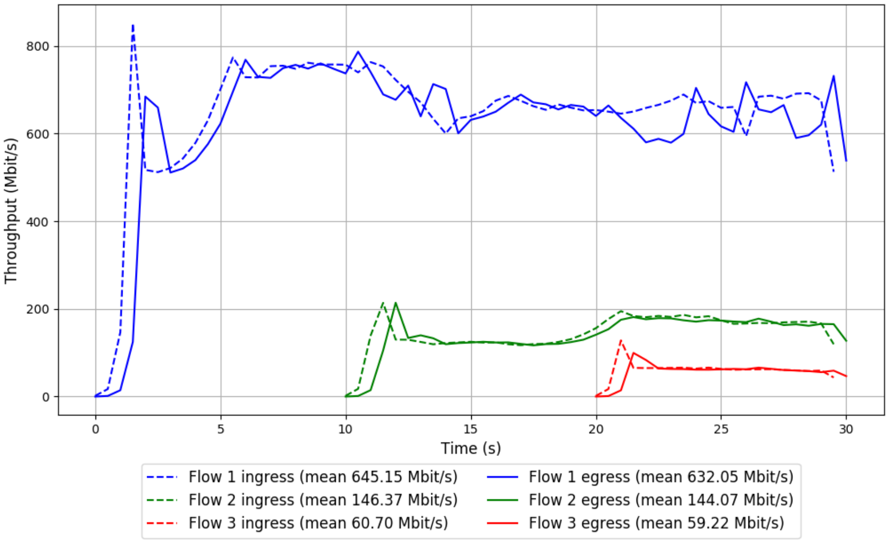


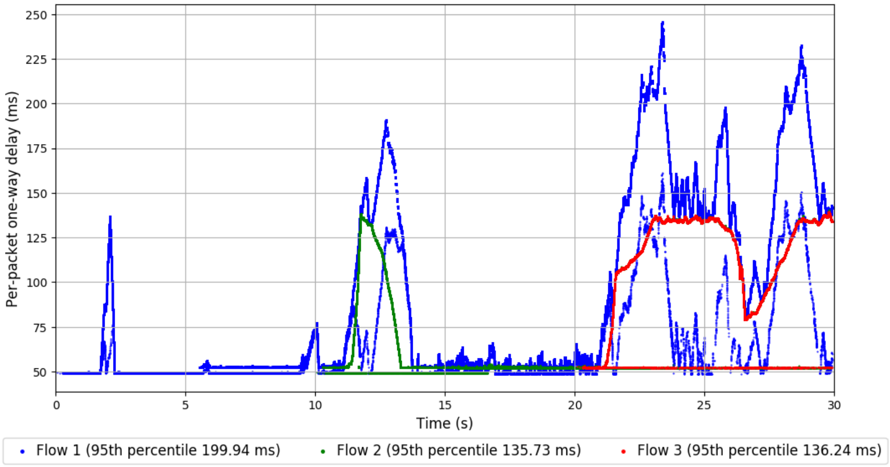
```
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-03 13:38:38
End at: 2018-08-03 13:39:08
Local clock offset: 0.04 ms
Remote clock offset: -1.466 ms

# Below is generated by plot.py at 2018-08-03 17:06:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 747.33 Mbit/s
95th percentile per-packet one-way delay: 195.678 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 632.05 Mbit/s
95th percentile per-packet one-way delay: 199.938 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 144.07 Mbit/s
95th percentile per-packet one-way delay: 135.732 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 59.22 Mbit/s
95th percentile per-packet one-way delay: 136.244 ms
Loss rate: 2.47%
```

Run 8: Report of PCC-Allegro — Data Link



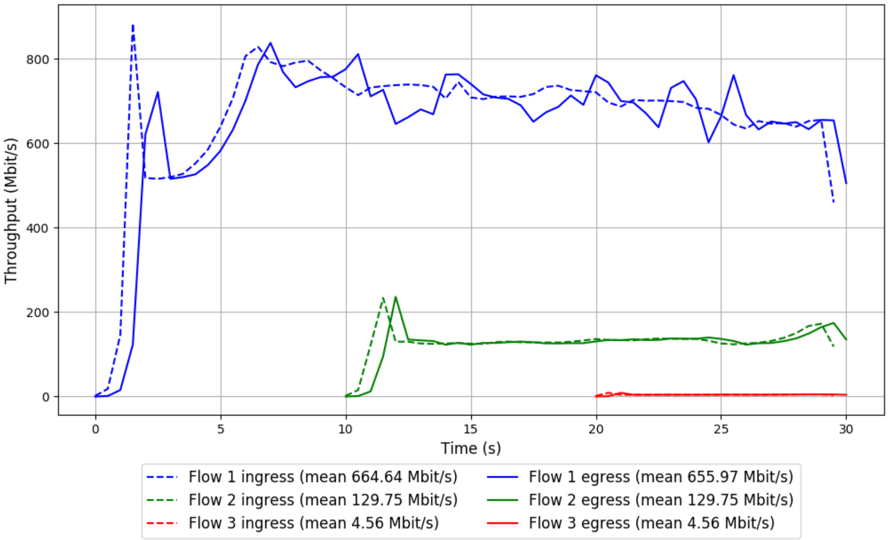


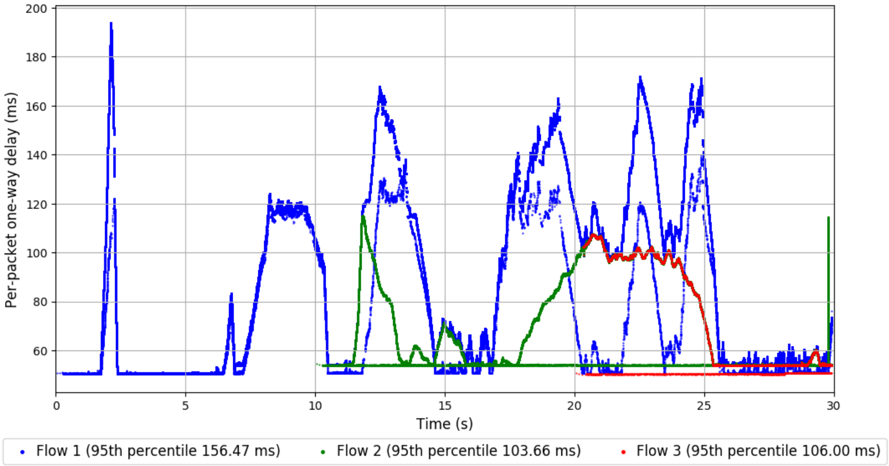
```
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-03 14:03:36
End at: 2018-08-03 14:04:06
Local clock offset: -0.057 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-08-03 17:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 743.72 Mbit/s
95th percentile per-packet one-way delay: 154.947 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 655.97 Mbit/s
95th percentile per-packet one-way delay: 156.466 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 129.75 Mbit/s
95th percentile per-packet one-way delay: 103.662 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 106.001 ms
Loss rate: 0.03%
```

Run 9: Report of PCC-Allegro — Data Link



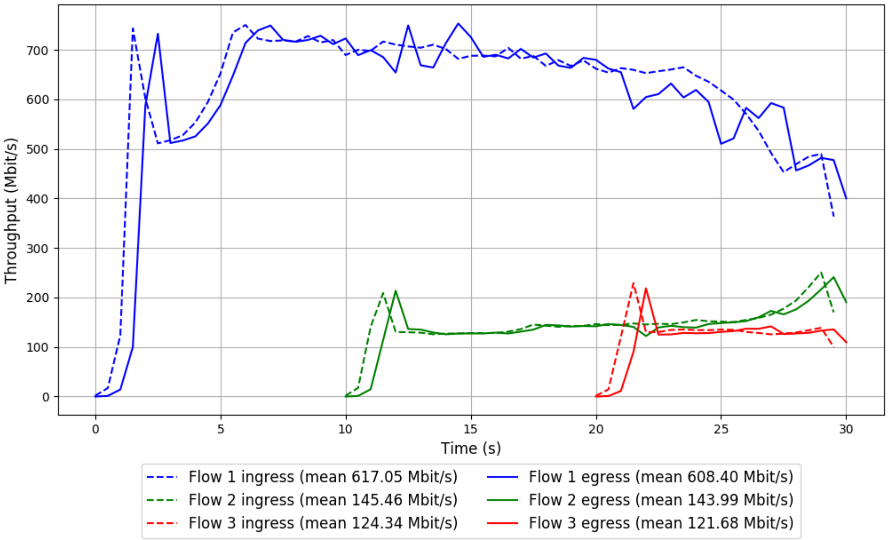


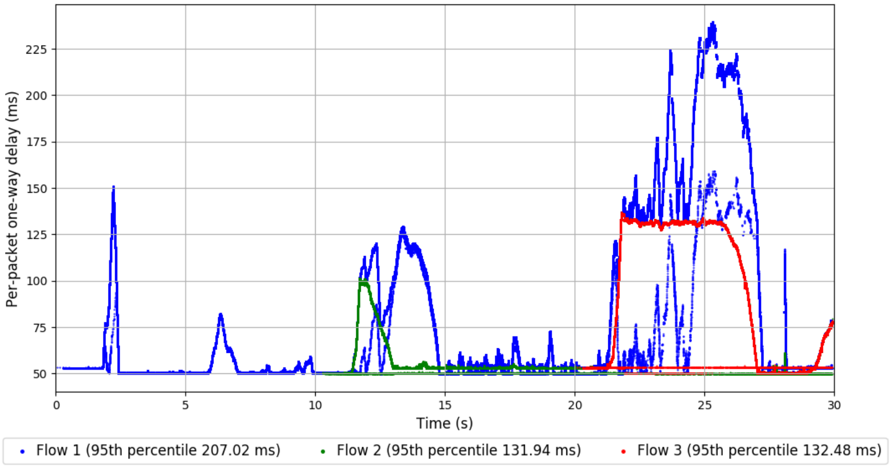
```
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-03 14:29:01
End at: 2018-08-03 14:29:31
Local clock offset: 0.063 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2018-08-03 17:11:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 744.19 Mbit/s
95th percentile per-packet one-way delay: 189.710 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 608.40 Mbit/s
95th percentile per-packet one-way delay: 207.024 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 143.99 Mbit/s
95th percentile per-packet one-way delay: 131.941 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 121.68 Mbit/s
95th percentile per-packet one-way delay: 132.476 ms
Loss rate: 2.16%
```

Run 10: Report of PCC-Allegro — Data Link



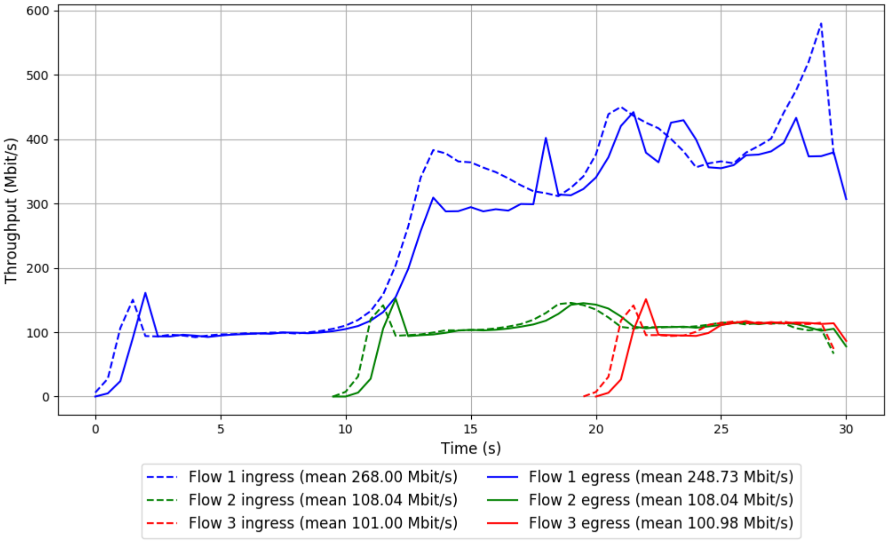


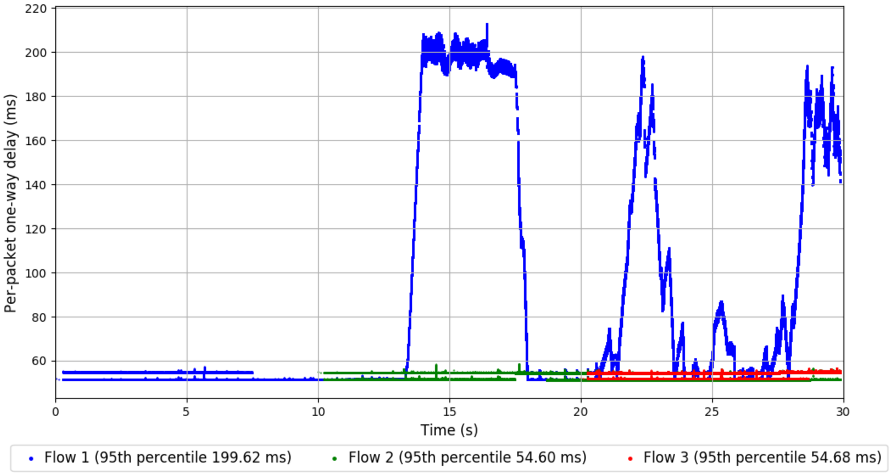
```
Run 1: Statistics of PCC-Expr

Start at: 2018-08-03 10:56:36
End at: 2018-08-03 10:57:06
Local clock offset: 0.029 ms
Remote clock offset: 1.057 ms

# Below is generated by plot.py at 2018-08-03 17:11:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.15 Mbit/s
95th percentile per-packet one-way delay: 197.393 ms
Loss rate: 5.15%
-- Flow 1:
Average throughput: 248.73 Mbit/s
95th percentile per-packet one-way delay: 199.623 ms
Loss rate: 7.18%
-- Flow 2:
Average throughput: 108.04 Mbit/s
95th percentile per-packet one-way delay: 54.596 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 100.98 Mbit/s
95th percentile per-packet one-way delay: 54.676 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link



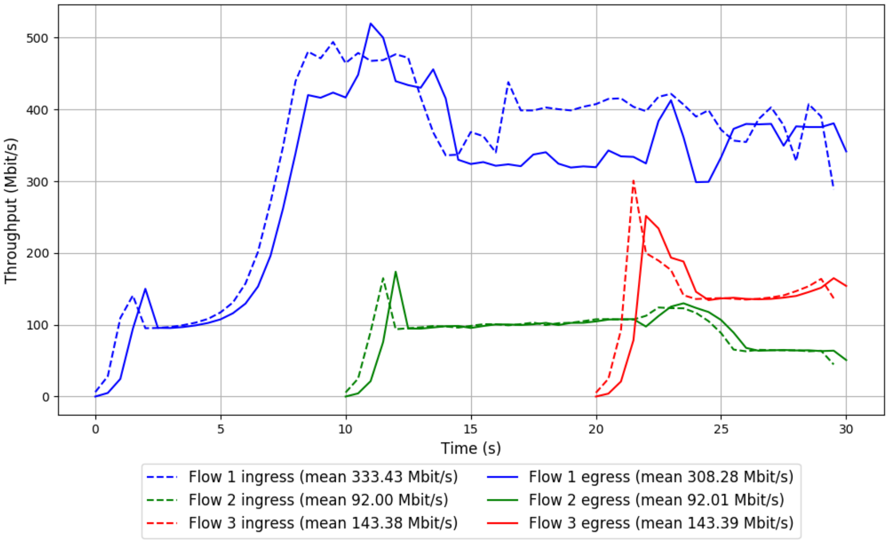


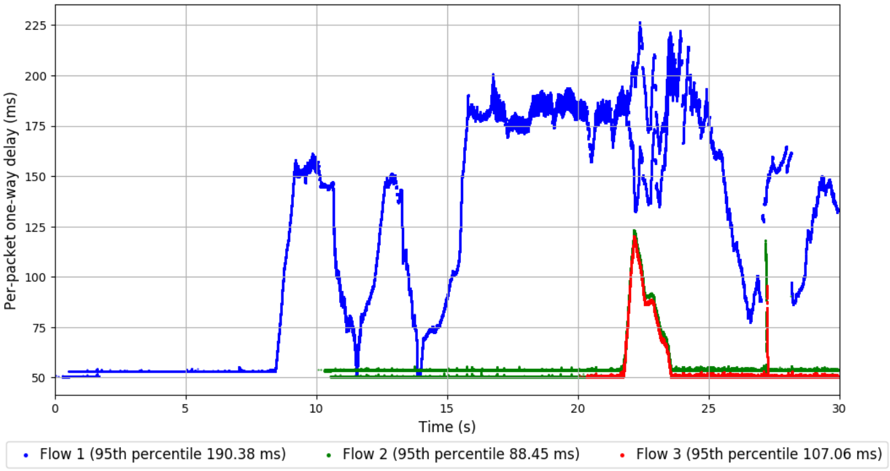
```
Run 2: Statistics of PCC-Expr

Start at: 2018-08-03 11:22:03
End at: 2018-08-03 11:22:33
Local clock offset: -0.099 ms
Remote clock offset: -0.117 ms

# Below is generated by plot.py at 2018-08-03 17:13:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 416.75 Mbit/s
95th percentile per-packet one-way delay: 188.379 ms
Loss rate: 5.68%
-- Flow 1:
Average throughput: 308.28 Mbit/s
95th percentile per-packet one-way delay: 190.384 ms
Loss rate: 7.53%
-- Flow 2:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 88.449 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 143.39 Mbit/s
95th percentile per-packet one-way delay: 107.065 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Expr — Data Link



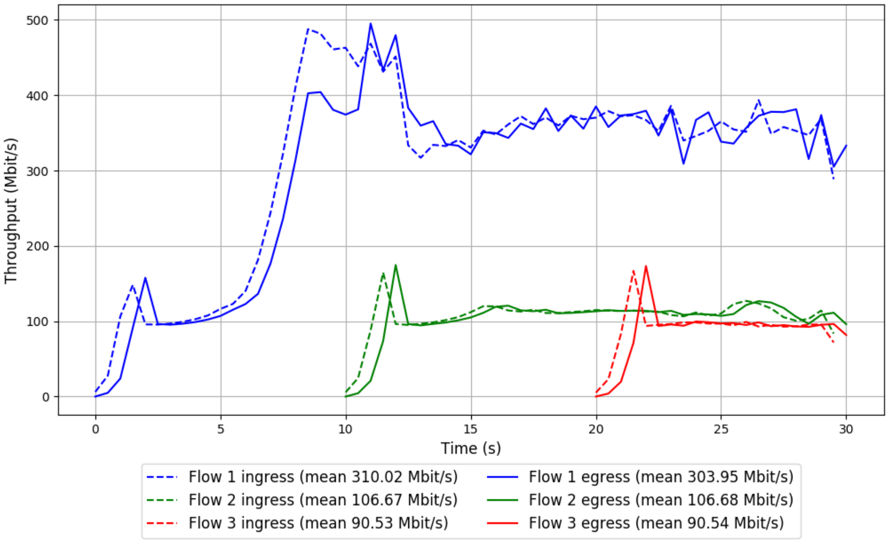


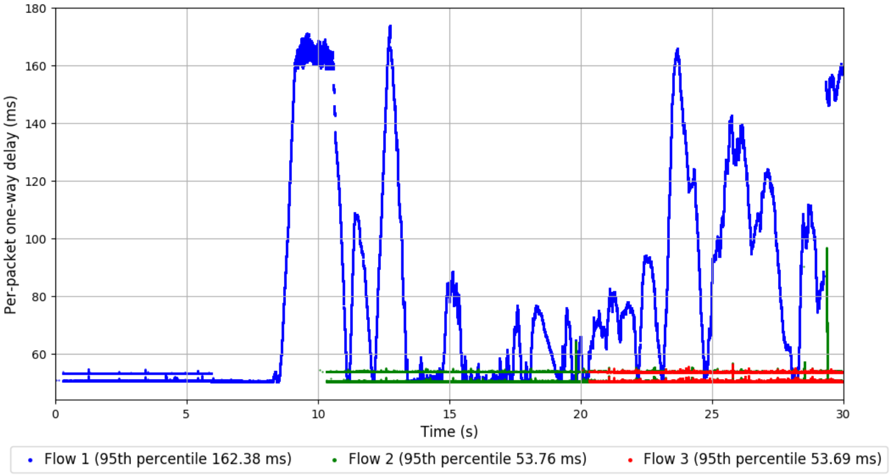
```
Run 3: Statistics of PCC-Expr

Start at: 2018-08-03 11:47:37
End at: 2018-08-03 11:48:07
Local clock offset: 0.027 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-08-03 17:13:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.75 Mbit/s
95th percentile per-packet one-way delay: 160.672 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 303.95 Mbit/s
95th percentile per-packet one-way delay: 162.377 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 106.68 Mbit/s
95th percentile per-packet one-way delay: 53.759 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 90.54 Mbit/s
95th percentile per-packet one-way delay: 53.686 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Expr — Data Link



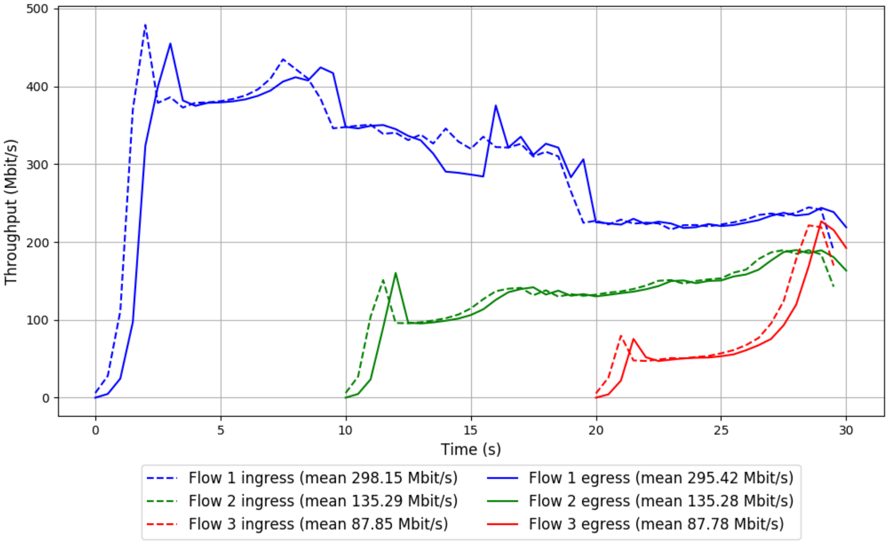


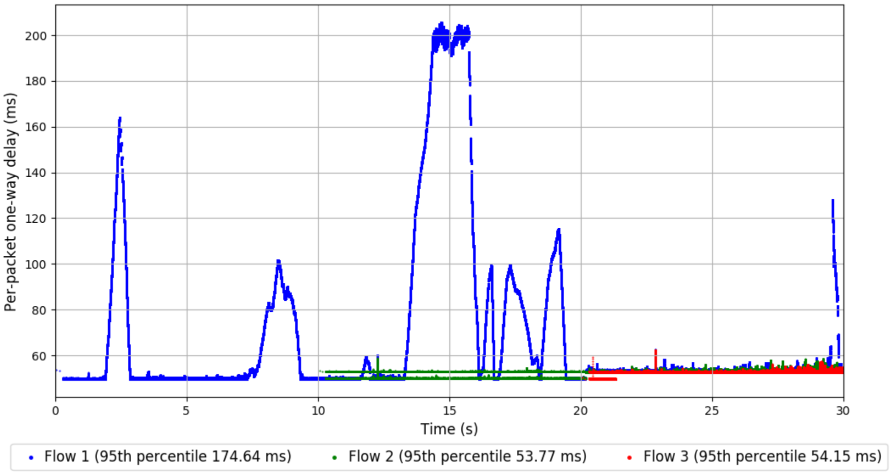
```
Run 4: Statistics of PCC-Expr

Start at: 2018-08-03 12:12:53
End at: 2018-08-03 12:13:23
Local clock offset: 0.027 ms
Remote clock offset: -0.188 ms

# Below is generated by plot.py at 2018-08-03 17:16:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.36 Mbit/s
95th percentile per-packet one-way delay: 144.705 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 295.42 Mbit/s
95th percentile per-packet one-way delay: 174.638 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 135.28 Mbit/s
95th percentile per-packet one-way delay: 53.775 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 54.153 ms
Loss rate: 0.06%
```

Run 4: Report of PCC-Expr — Data Link



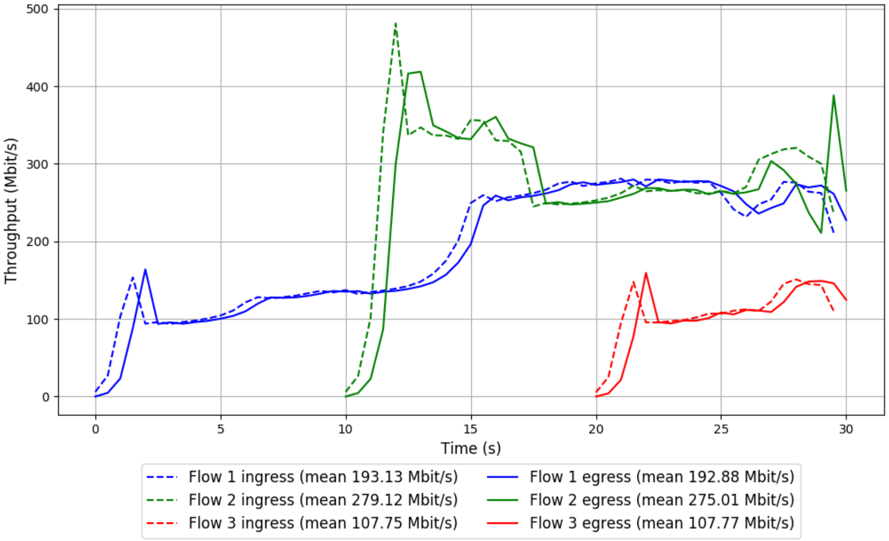


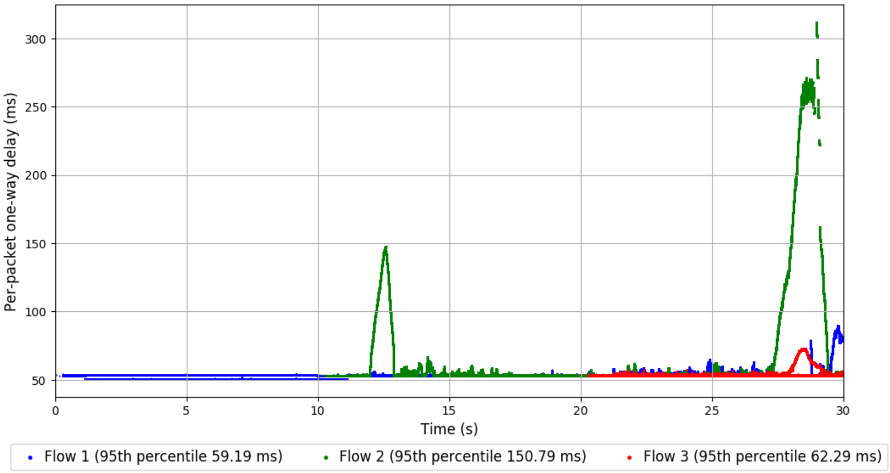
```
Run 5: Statistics of PCC-Expr

Start at: 2018-08-03 12:38:13
End at: 2018-08-03 12:38:43
Local clock offset: 0.058 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-08-03 17:18:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.32 Mbit/s
95th percentile per-packet one-way delay: 108.111 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 192.88 Mbit/s
95th percentile per-packet one-way delay: 59.186 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 275.01 Mbit/s
95th percentile per-packet one-way delay: 150.795 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 107.77 Mbit/s
95th percentile per-packet one-way delay: 62.287 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Expr — Data Link



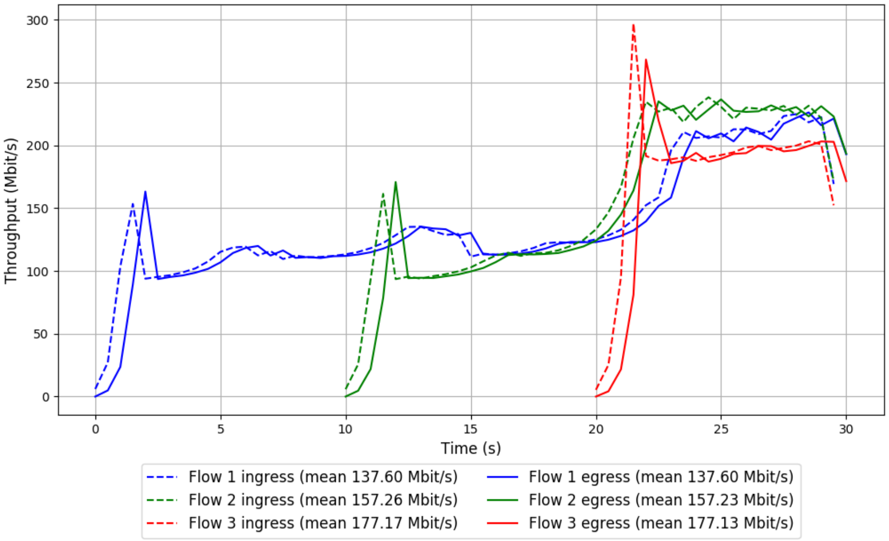


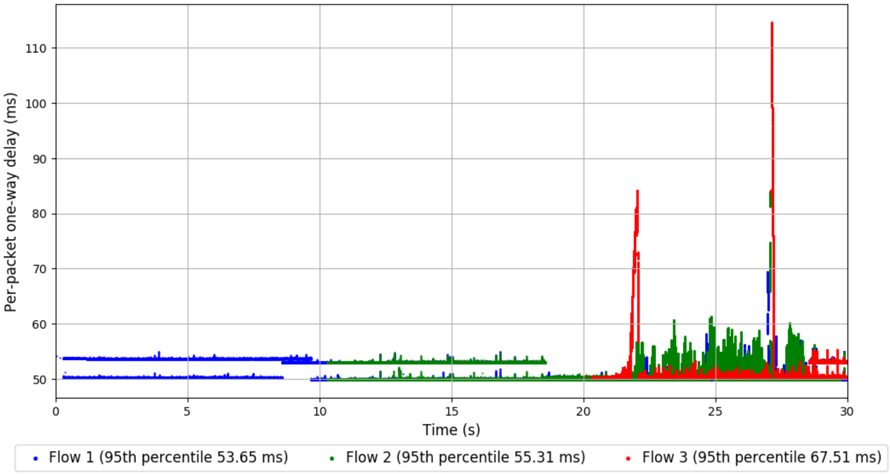
```
Run 6: Statistics of PCC-Expr

Start at: 2018-08-03 13:03:15
End at: 2018-08-03 13:03:45
Local clock offset: -0.001 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2018-08-03 17:18:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.65 Mbit/s
95th percentile per-packet one-way delay: 53.991 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 137.60 Mbit/s
95th percentile per-packet one-way delay: 53.650 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 157.23 Mbit/s
95th percentile per-packet one-way delay: 55.310 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 177.13 Mbit/s
95th percentile per-packet one-way delay: 67.507 ms
Loss rate: 0.02%
```

Run 6: Report of PCC-Expr — Data Link



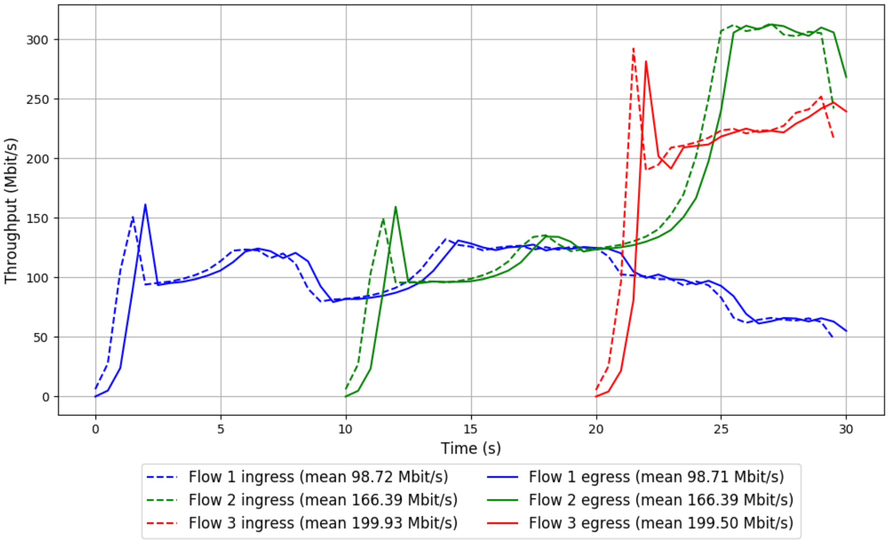


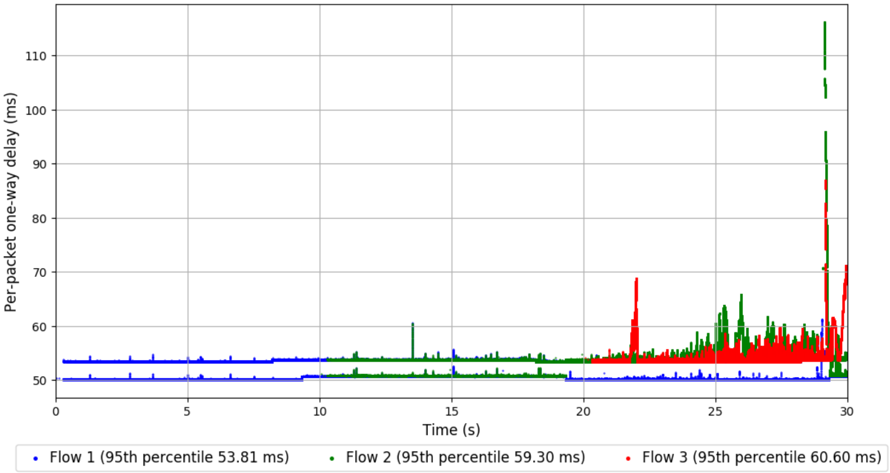
```
Run 7: Statistics of PCC-Expr

Start at: 2018-08-03 13:28:35
End at: 2018-08-03 13:29:05
Local clock offset: 0.018 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2018-08-03 17:19:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 275.20 Mbit/s
95th percentile per-packet one-way delay: 57.967 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 98.71 Mbit/s
95th percentile per-packet one-way delay: 53.811 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 166.39 Mbit/s
95th percentile per-packet one-way delay: 59.305 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 199.50 Mbit/s
95th percentile per-packet one-way delay: 60.603 ms
Loss rate: 0.23%
```

Run 7: Report of PCC-Expr — Data Link



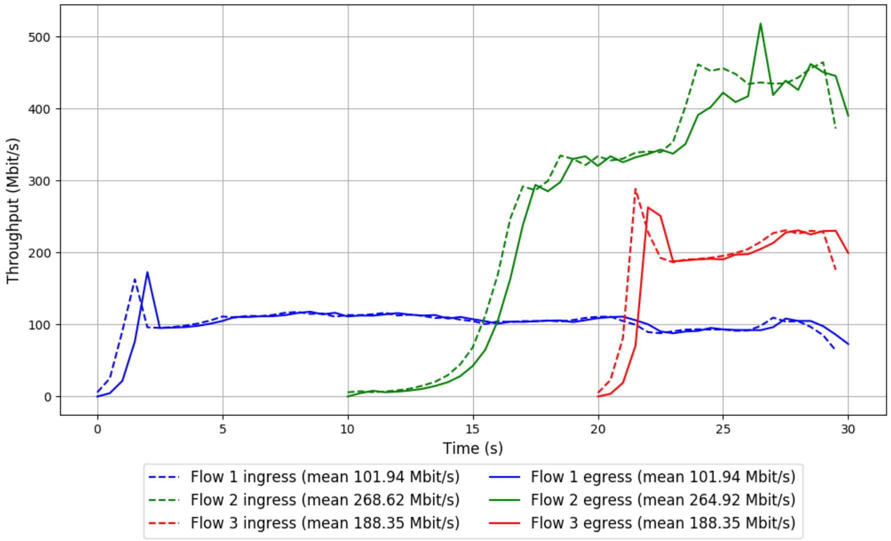


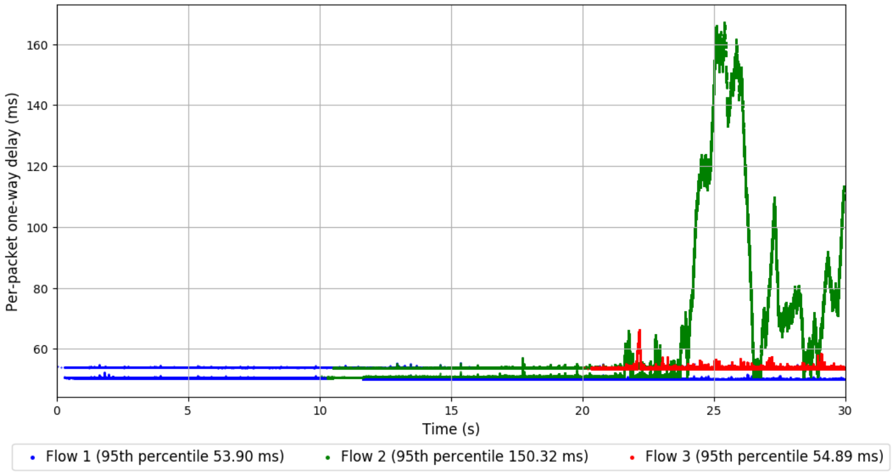
```
Run 8: Statistics of PCC-Expr

Start at: 2018-08-03 13:54:03
End at: 2018-08-03 13:54:33
Local clock offset: 0.002 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-08-03 17:22:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.27 Mbit/s
95th percentile per-packet one-way delay: 130.182 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 101.94 Mbit/s
95th percentile per-packet one-way delay: 53.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.92 Mbit/s
95th percentile per-packet one-way delay: 150.316 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 188.35 Mbit/s
95th percentile per-packet one-way delay: 54.888 ms
Loss rate: 0.00%
```

Run 8: Report of PCC-Expr — Data Link



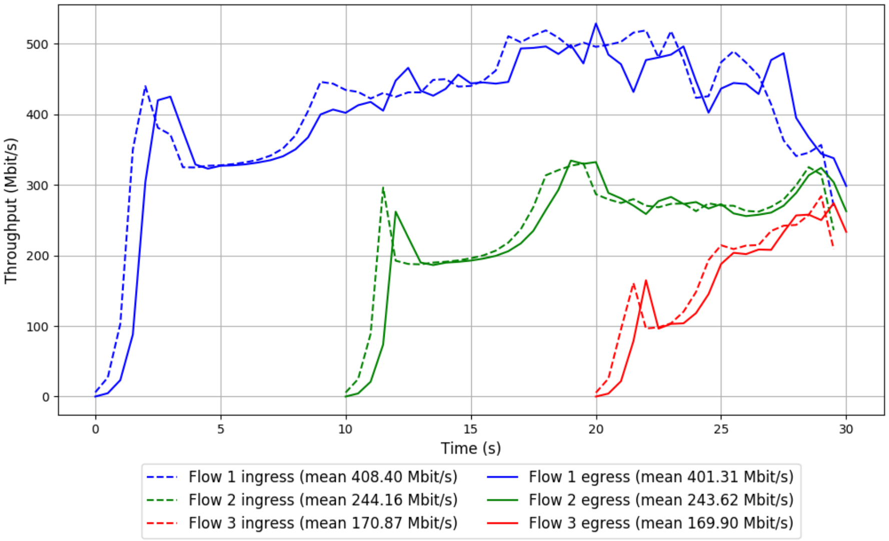


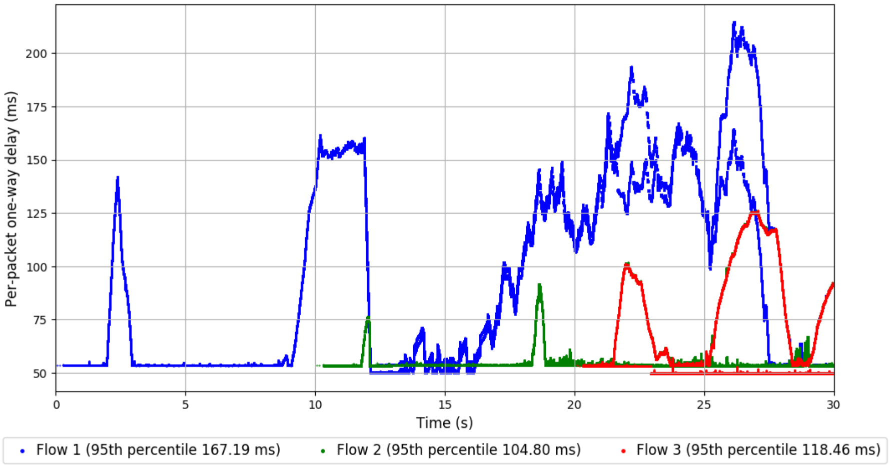
```
Run 9: Statistics of PCC-Expr

Start at: 2018-08-03 14:18:51
End at: 2018-08-03 14:19:21
Local clock offset: 0.255 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-08-03 17:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 619.35 Mbit/s
95th percentile per-packet one-way delay: 157.963 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 401.31 Mbit/s
95th percentile per-packet one-way delay: 167.189 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 243.62 Mbit/s
95th percentile per-packet one-way delay: 104.800 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 169.90 Mbit/s
95th percentile per-packet one-way delay: 118.460 ms
Loss rate: 0.56%
```

Run 9: Report of PCC-Expr — Data Link



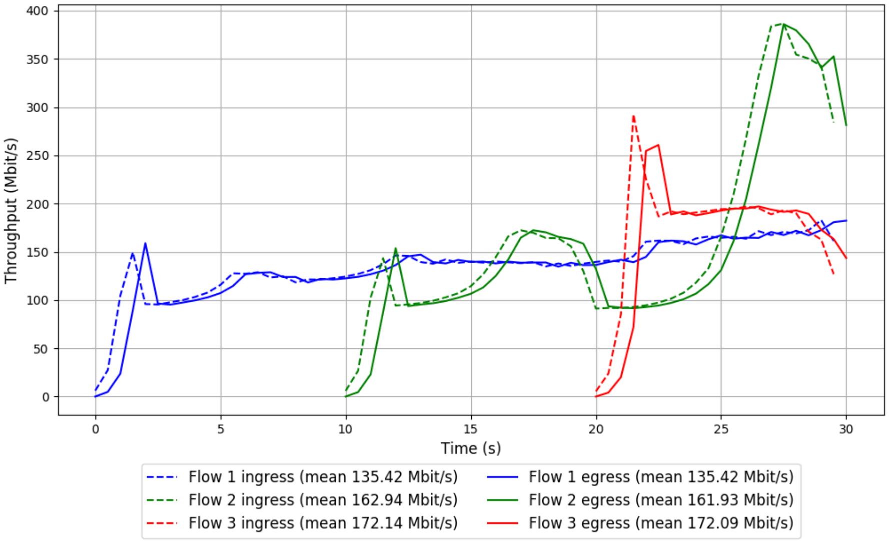


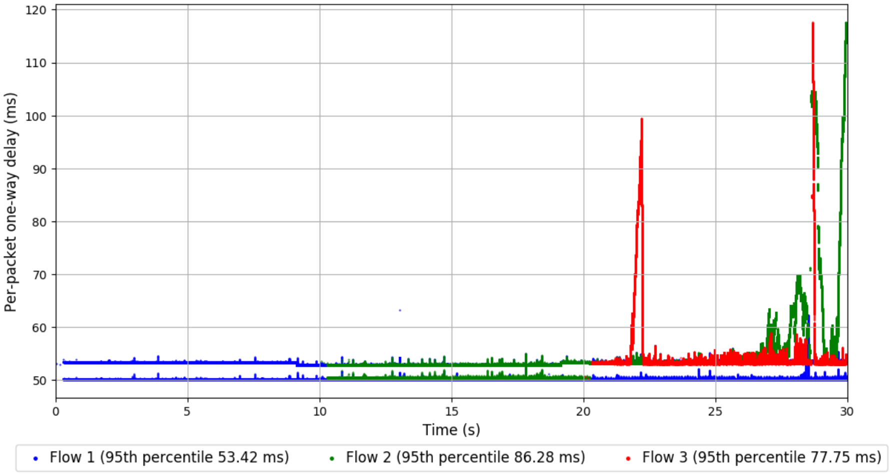
```
Run 10: Statistics of PCC-Expr

Start at: 2018-08-03 14:44:24
End at: 2018-08-03 14:44:54
Local clock offset: 0.086 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-08-03 17:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 299.93 Mbit/s
95th percentile per-packet one-way delay: 65.579 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 135.42 Mbit/s
95th percentile per-packet one-way delay: 53.425 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 161.93 Mbit/s
95th percentile per-packet one-way delay: 86.280 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 172.09 Mbit/s
95th percentile per-packet one-way delay: 77.747 ms
Loss rate: 0.00%
```

Run 10: Report of PCC-Expr — Data Link



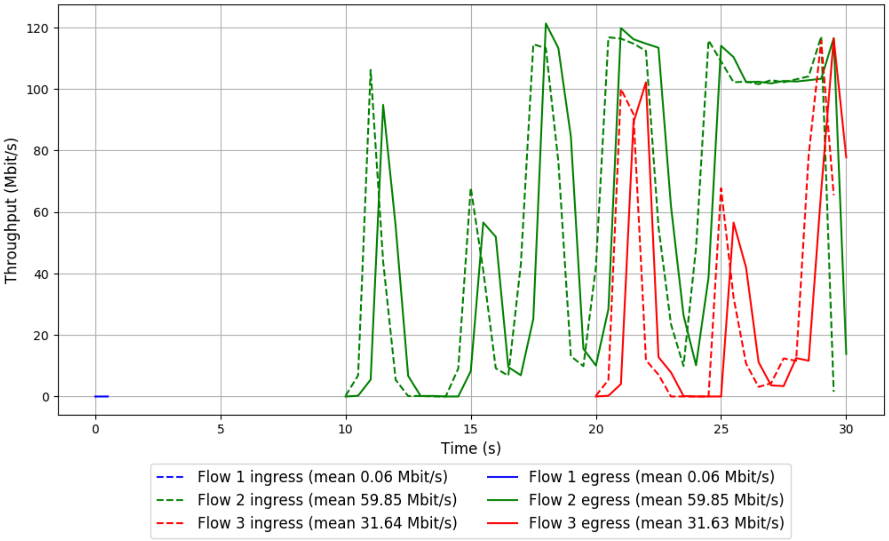


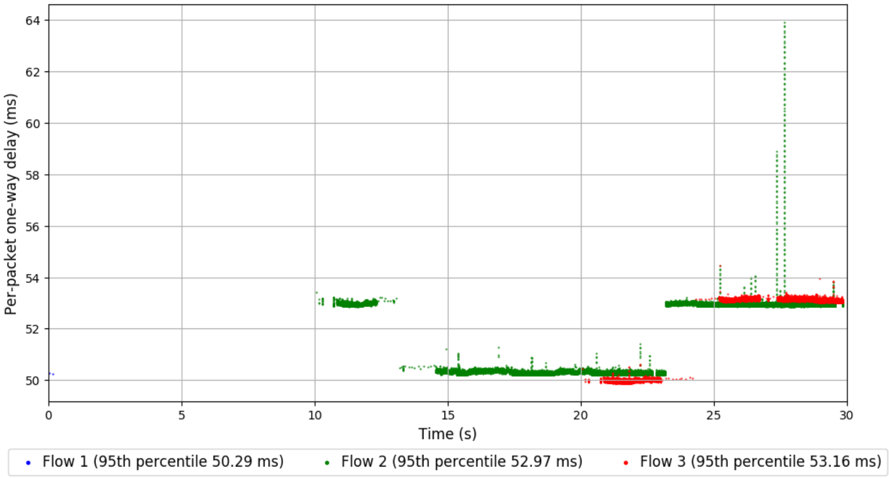
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-08-03 10:51:00
End at: 2018-08-03 10:51:30
Local clock offset: 0.199 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2018-08-03 17:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.13 Mbit/s
95th percentile per-packet one-way delay: 53.105 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.293 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.85 Mbit/s
95th percentile per-packet one-way delay: 52.972 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 53.165 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



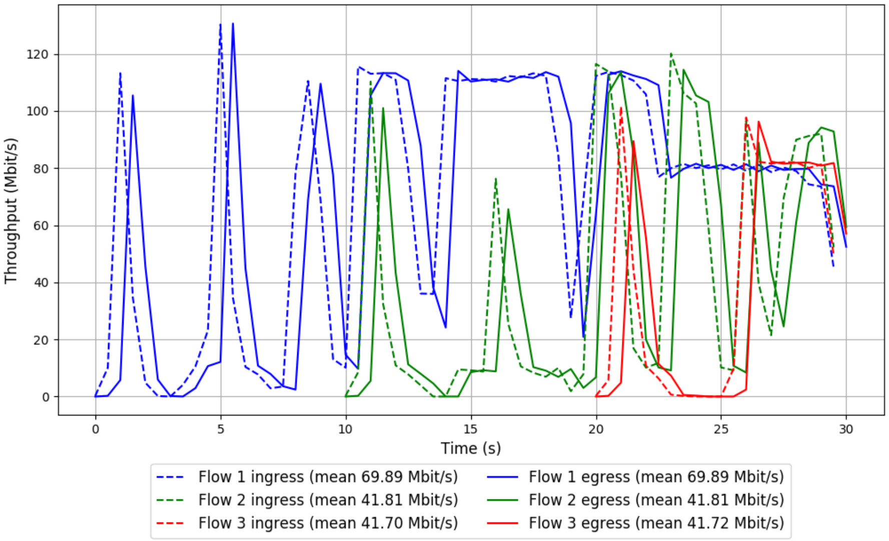


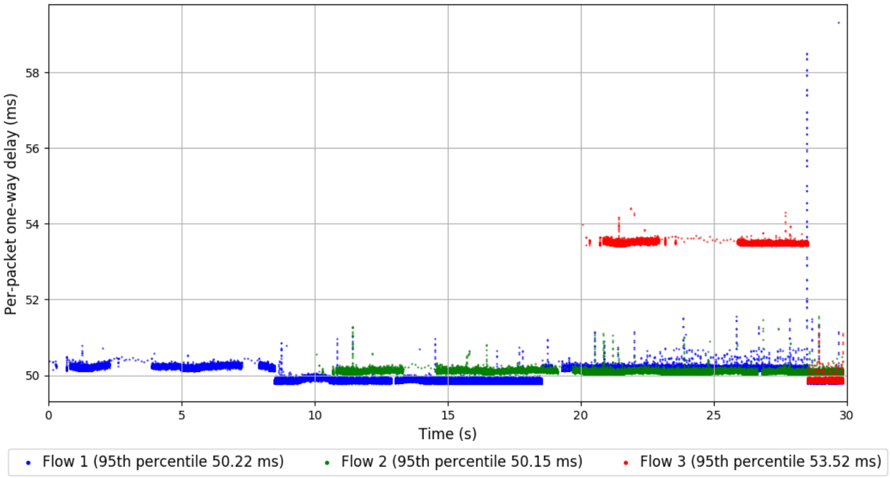
```
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-03 11:16:25
End at: 2018-08-03 11:16:55
Local clock offset: 0.204 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2018-08-03 17:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.33 Mbit/s
95th percentile per-packet one-way delay: 53.462 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.89 Mbit/s
95th percentile per-packet one-way delay: 50.217 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.81 Mbit/s
95th percentile per-packet one-way delay: 50.147 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 53.523 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



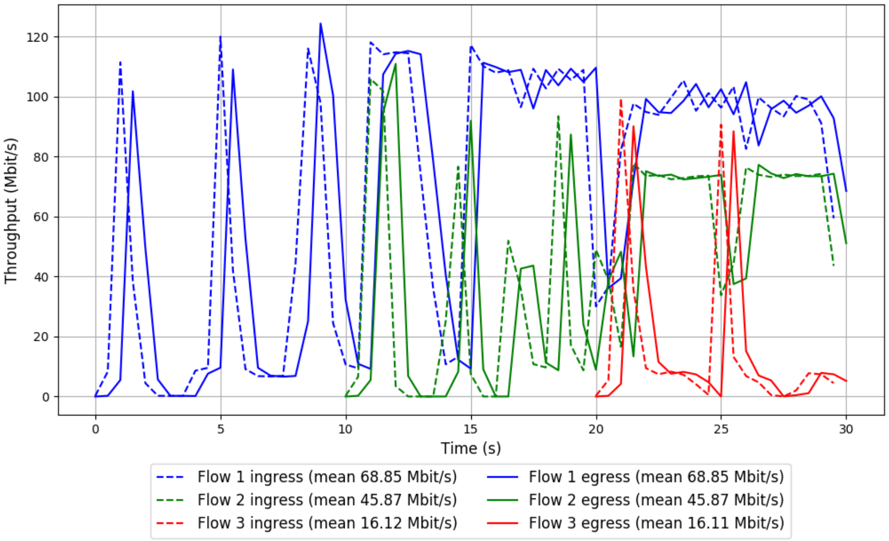


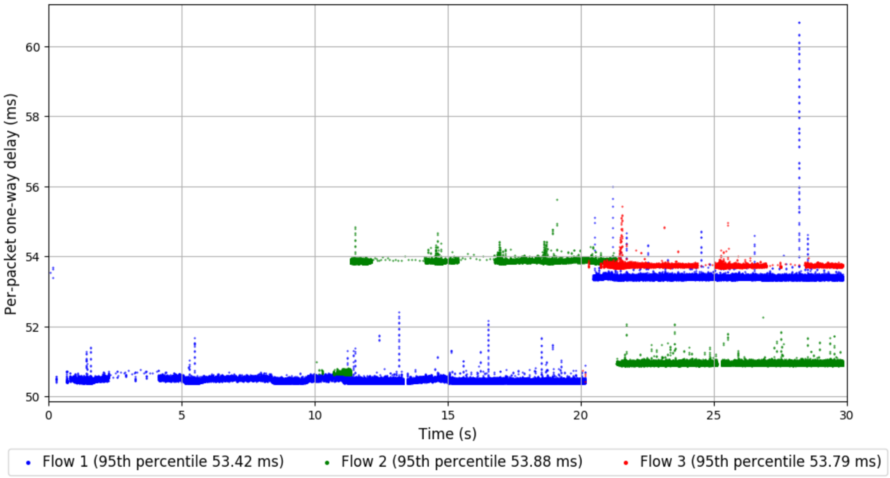
```
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-03 11:42:03
End at: 2018-08-03 11:42:33
Local clock offset: -0.034 ms
Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2018-08-03 17:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.62 Mbit/s
95th percentile per-packet one-way delay: 53.842 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 68.85 Mbit/s
95th percentile per-packet one-way delay: 53.418 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 45.87 Mbit/s
95th percentile per-packet one-way delay: 53.883 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.11 Mbit/s
95th percentile per-packet one-way delay: 53.789 ms
Loss rate: 0.01%
```

Run 3: Report of QUIC Cubic — Data Link



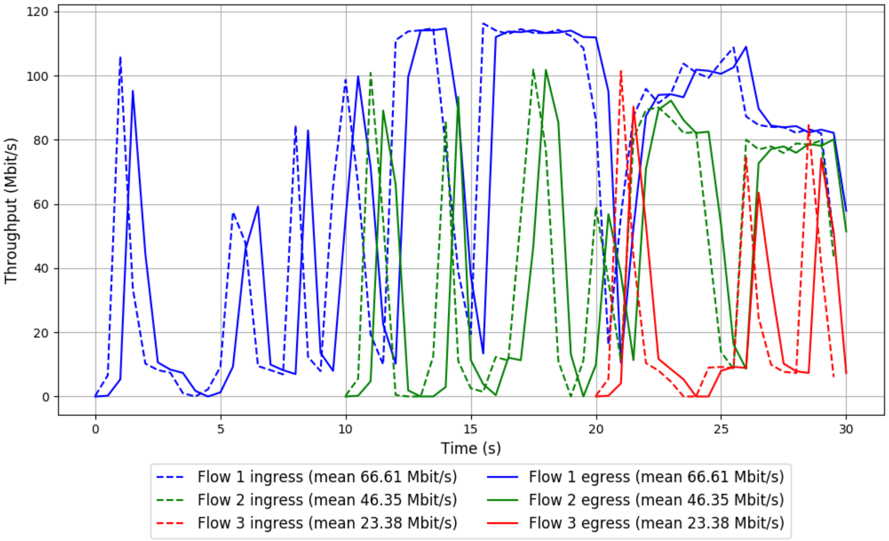


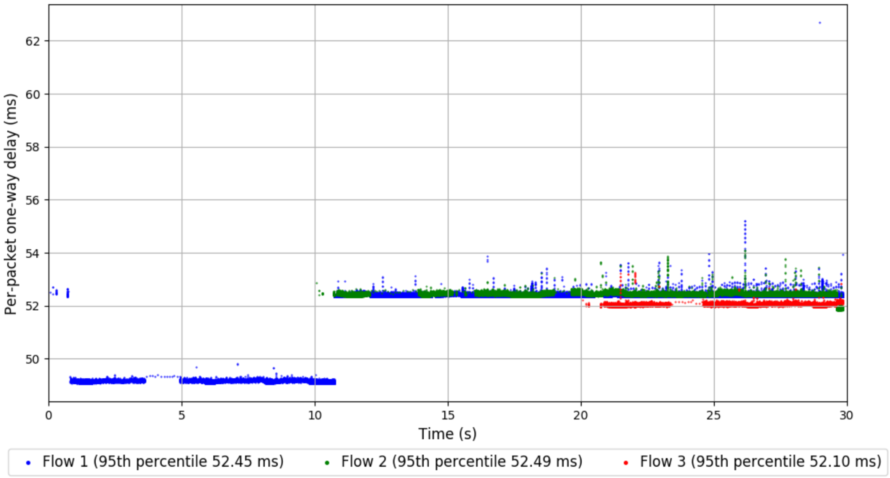
```
Run 4: Statistics of QUIC Cubic

Start at: 2018-08-03 12:07:13
End at: 2018-08-03 12:07:43
Local clock offset: -0.052 ms
Remote clock offset: -1.278 ms

# Below is generated by plot.py at 2018-08-03 17:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.06 Mbit/s
95th percentile per-packet one-way delay: 52.463 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 66.61 Mbit/s
95th percentile per-packet one-way delay: 52.445 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.35 Mbit/s
95th percentile per-packet one-way delay: 52.494 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 52.104 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link



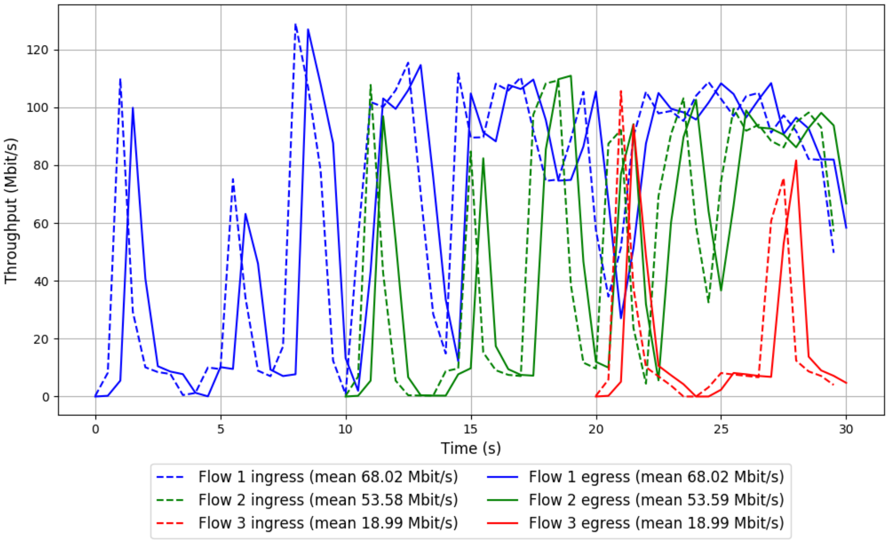


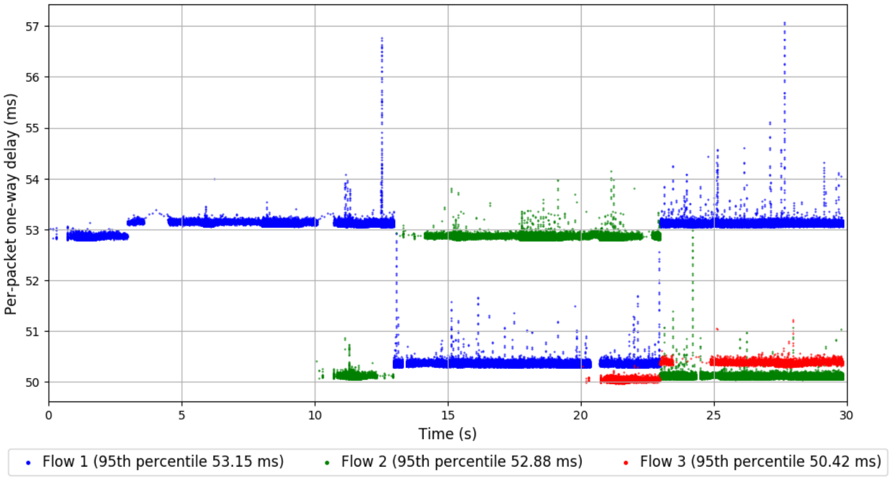
```
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-03 12:32:31
End at: 2018-08-03 12:33:01
Local clock offset: 0.078 ms
Remote clock offset: -0.2 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.84 Mbit/s
95th percentile per-packet one-way delay: 53.140 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.02 Mbit/s
95th percentile per-packet one-way delay: 53.151 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.59 Mbit/s
95th percentile per-packet one-way delay: 52.885 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.99 Mbit/s
95th percentile per-packet one-way delay: 50.421 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link



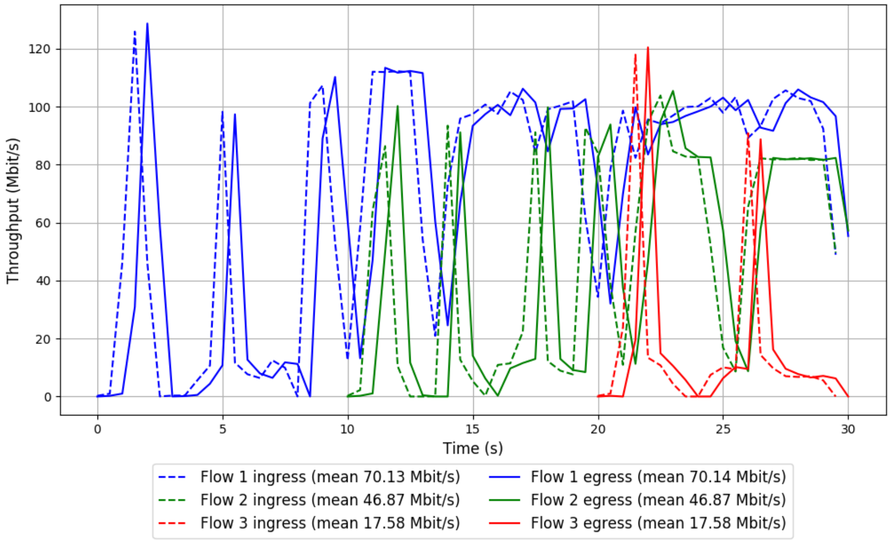


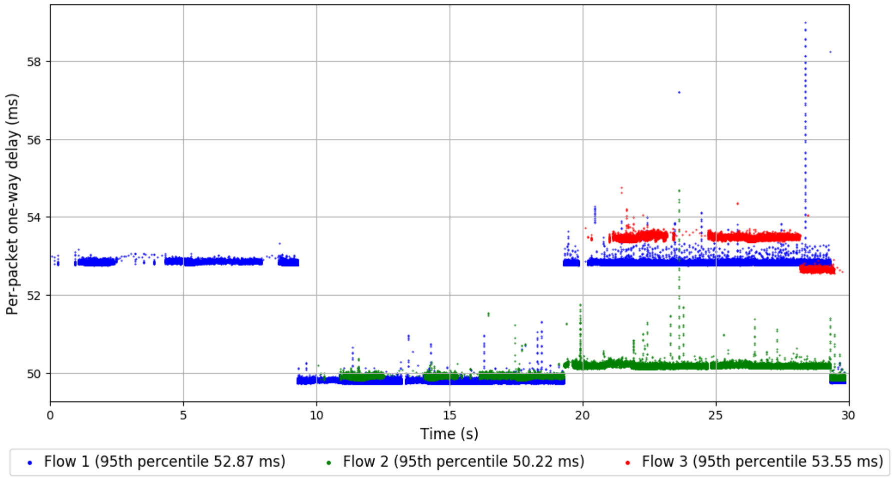
```
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-03 12:57:35
End at: 2018-08-03 12:58:05
Local clock offset: 0.212 ms
Remote clock offset: -0.318 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.97 Mbit/s
95th percentile per-packet one-way delay: 53.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.14 Mbit/s
95th percentile per-packet one-way delay: 52.866 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 50.223 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.58 Mbit/s
95th percentile per-packet one-way delay: 53.554 ms
Loss rate: 0.00%
```

Run 6: Report of QUIC Cubic — Data Link



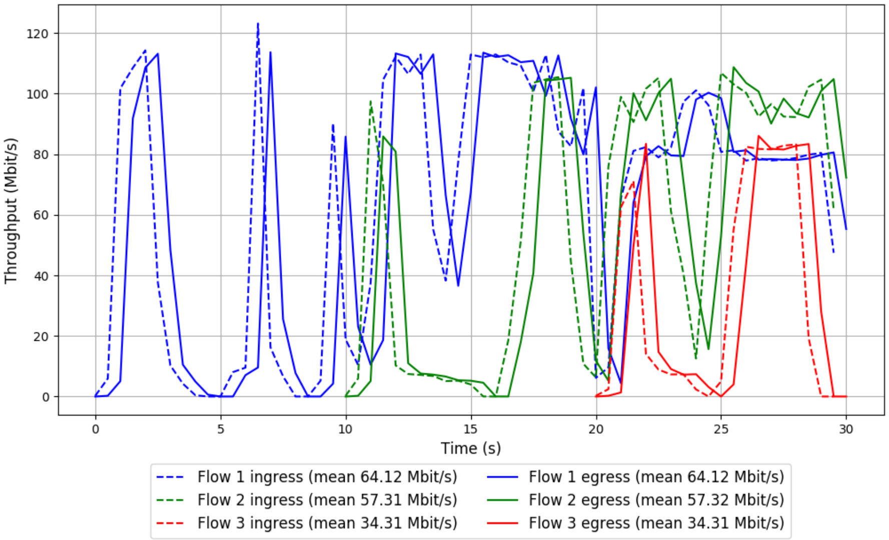


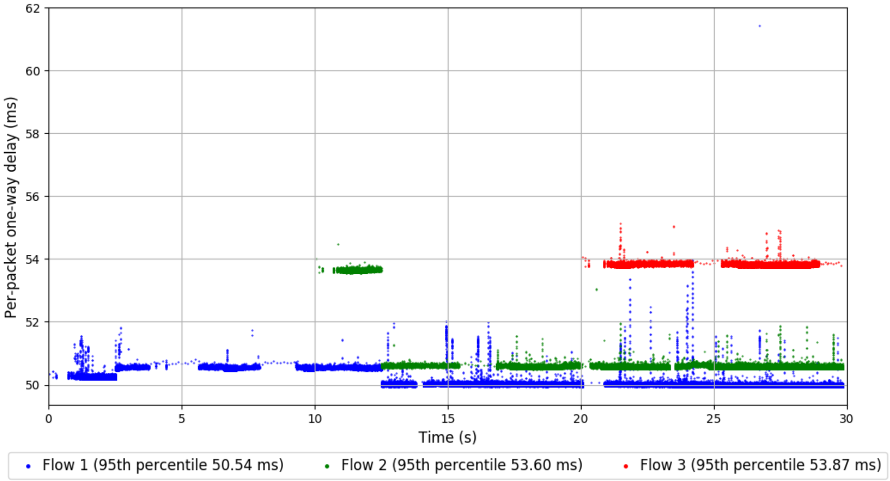
```
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-03 13:23:02
End at: 2018-08-03 13:23:32
Local clock offset: 0.048 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.39 Mbit/s
95th percentile per-packet one-way delay: 53.796 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.12 Mbit/s
95th percentile per-packet one-way delay: 50.536 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.32 Mbit/s
95th percentile per-packet one-way delay: 53.604 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.31 Mbit/s
95th percentile per-packet one-way delay: 53.874 ms
Loss rate: 0.00%
```

Run 7: Report of QUIC Cubic — Data Link



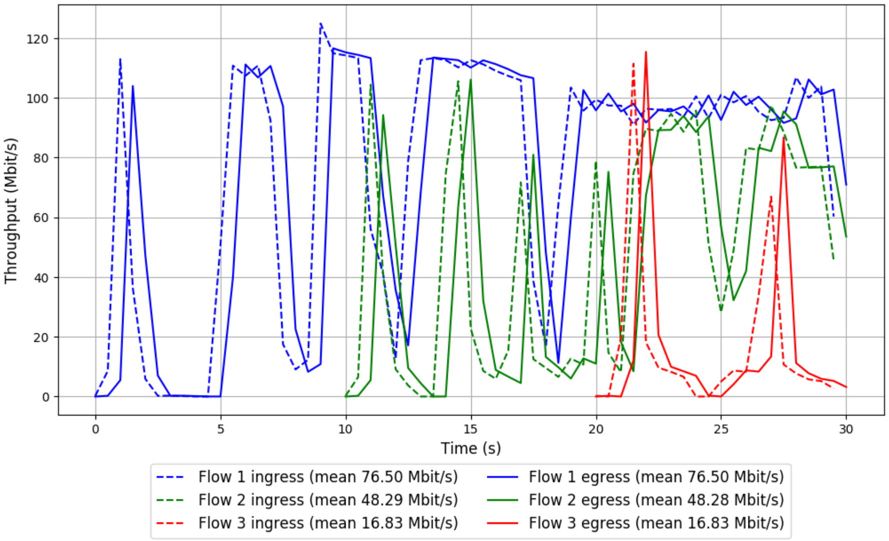


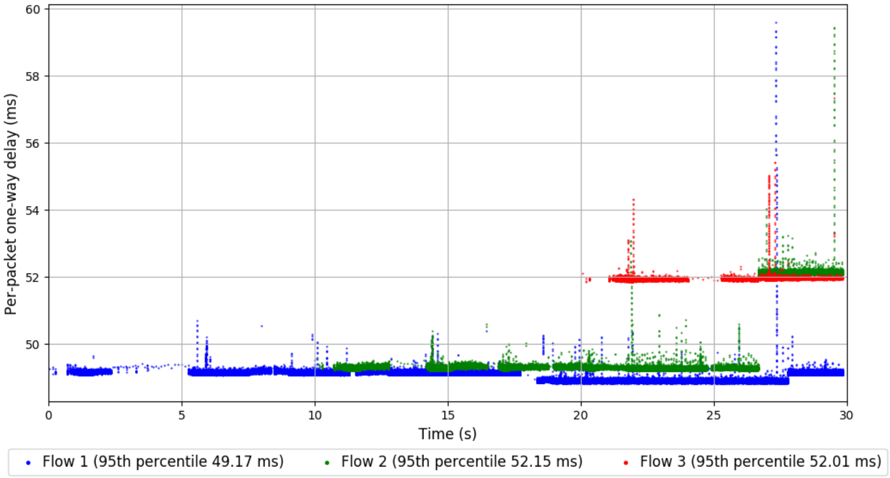
```
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-03 13:48:26
End at: 2018-08-03 13:48:56
Local clock offset: 0.044 ms
Remote clock offset: -1.387 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.09 Mbit/s
95th percentile per-packet one-way delay: 52.104 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.50 Mbit/s
95th percentile per-packet one-way delay: 49.175 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.28 Mbit/s
95th percentile per-packet one-way delay: 52.149 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.83 Mbit/s
95th percentile per-packet one-way delay: 52.013 ms
Loss rate: 0.00%
```

Run 8: Report of QUIC Cubic — Data Link



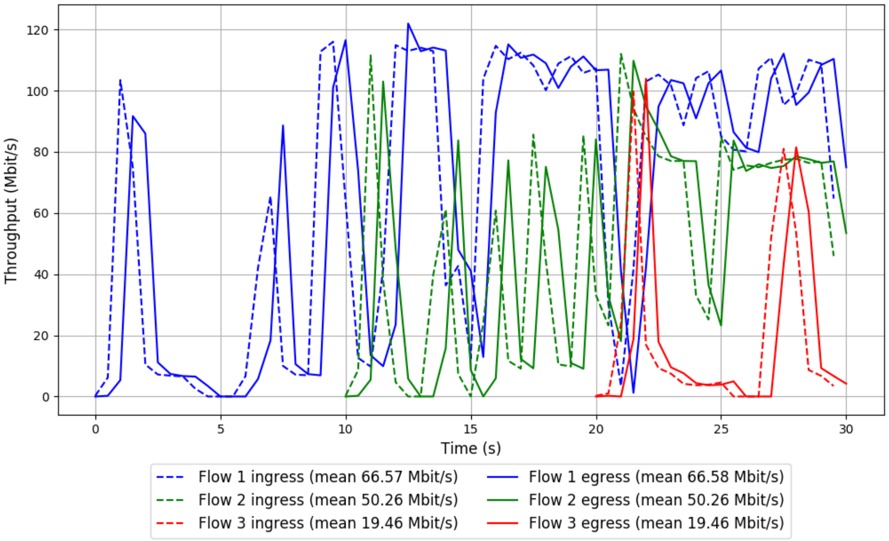


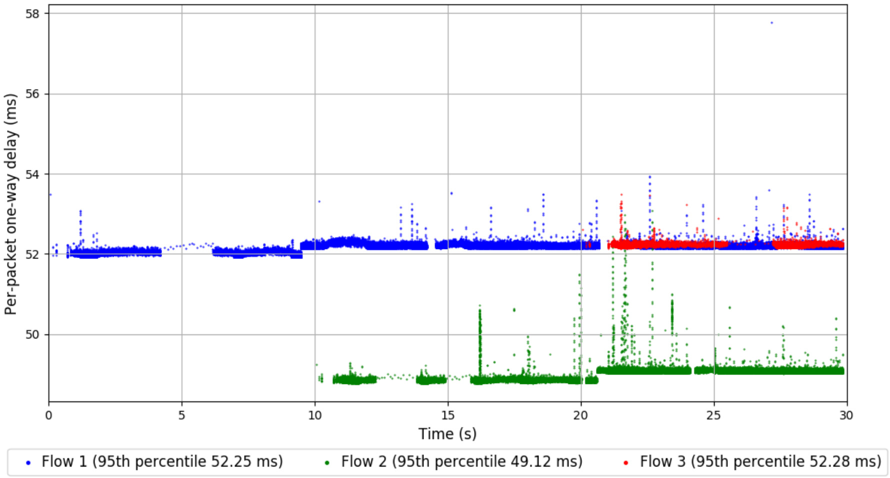
```
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-03 14:13:14
End at: 2018-08-03 14:13:44
Local clock offset: -0.009 ms
Remote clock offset: -1.614 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.35 Mbit/s
95th percentile per-packet one-way delay: 52.240 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.58 Mbit/s
95th percentile per-packet one-way delay: 52.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 49.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.46 Mbit/s
95th percentile per-packet one-way delay: 52.278 ms
Loss rate: 0.00%
```

Run 9: Report of QUIC Cubic — Data Link



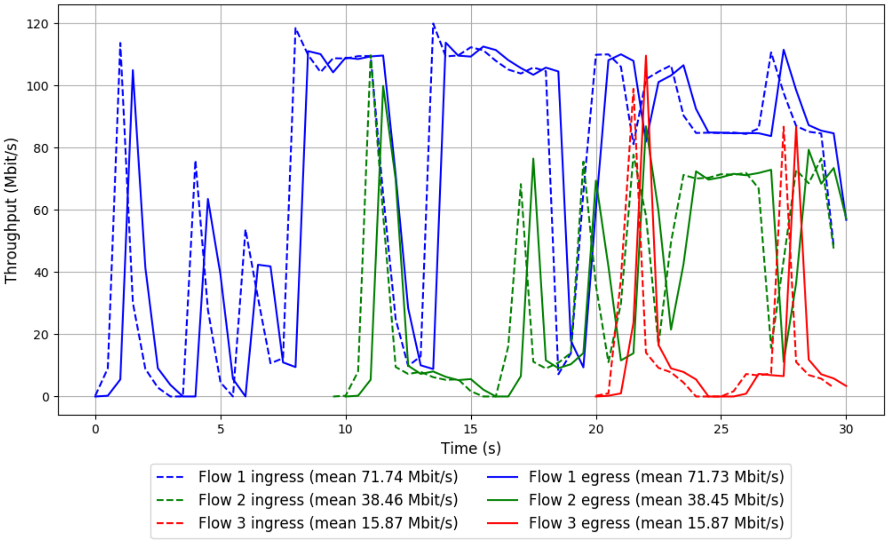


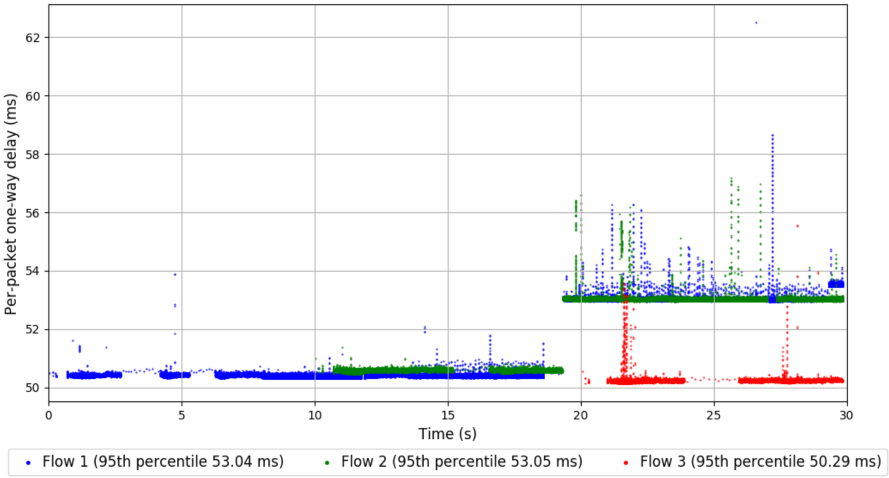
```
Run 10: Statistics of QUIC Cubic

Start at: 2018-08-03 14:38:44
End at: 2018-08-03 14:39:14
Local clock offset: -0.019 ms
Remote clock offset: -0.15 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.49 Mbit/s
95th percentile per-packet one-way delay: 53.046 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 71.73 Mbit/s
95th percentile per-packet one-way delay: 53.043 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 53.053 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 15.87 Mbit/s
95th percentile per-packet one-way delay: 50.287 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link



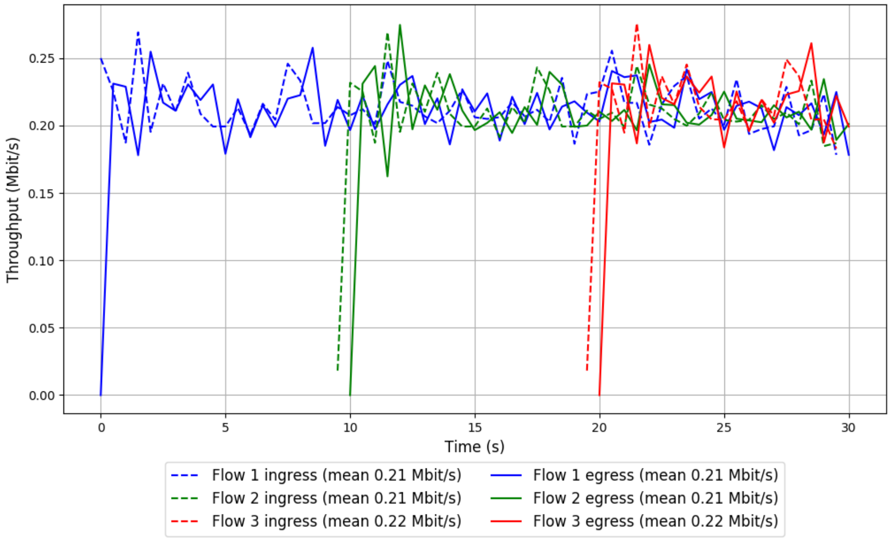


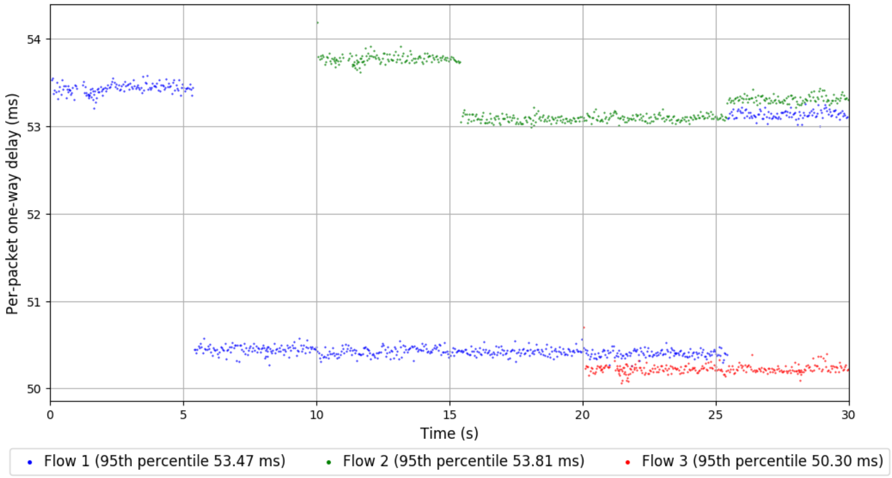
```
Run 1: Statistics of SCReAM

Start at: 2018-08-03 10:54:19
End at: 2018-08-03 10:54:49
Local clock offset: 0.037 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.767 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.466 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.811 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.301 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



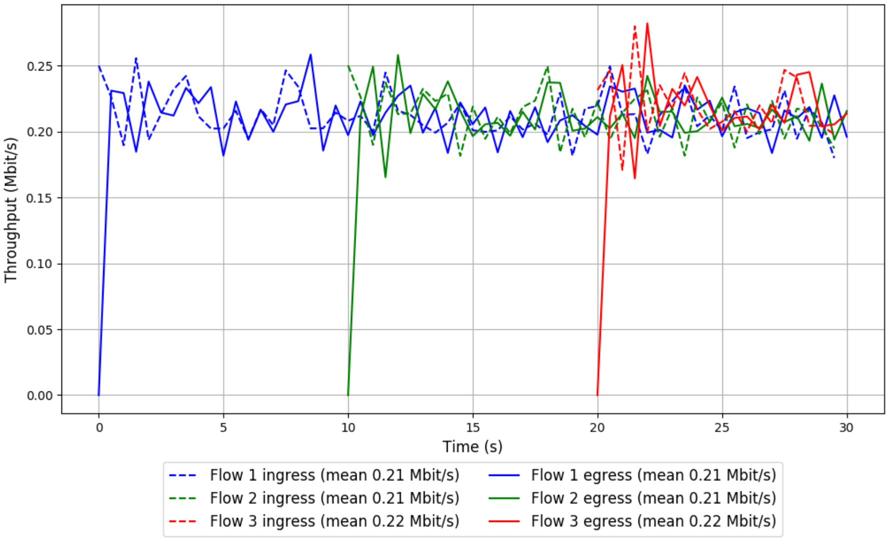


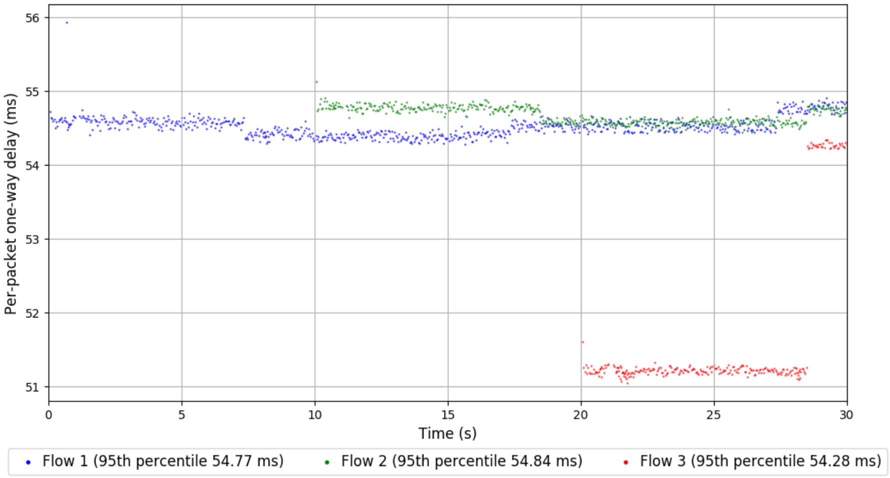
```
Run 2: Statistics of SCReAM

Start at: 2018-08-03 11:19:46
End at: 2018-08-03 11:20:16
Local clock offset: 0.171 ms
Remote clock offset: 1.224 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.811 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.767 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.839 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.284 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



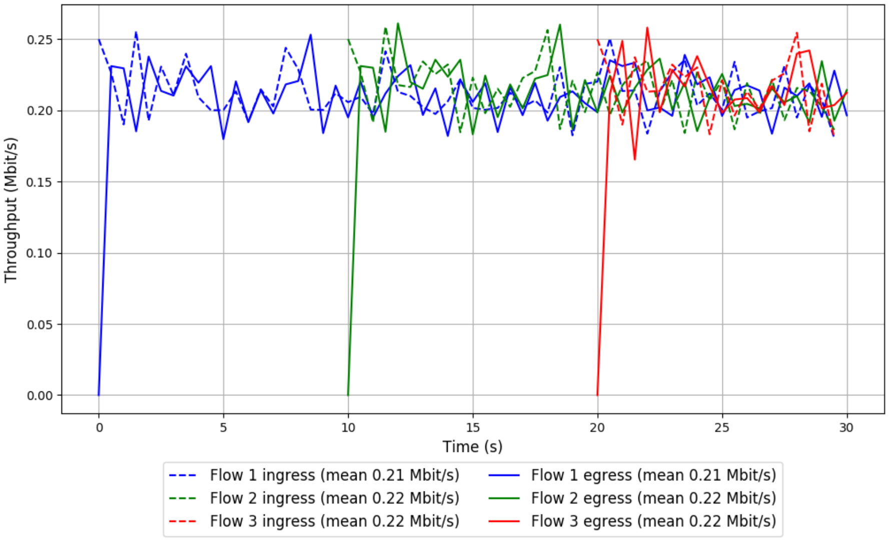


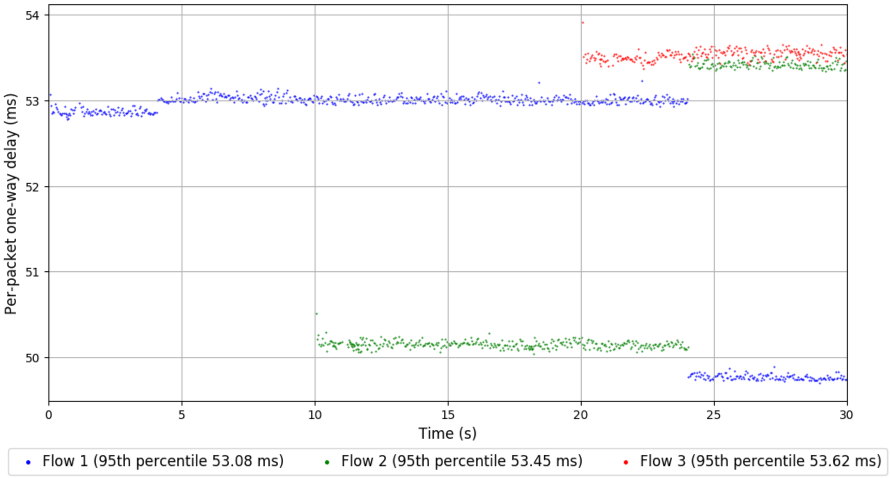
```
Run 3: Statistics of SCReAM

Start at: 2018-08-03 11:45:20
End at: 2018-08-03 11:45:50
Local clock offset: -0.119 ms
Remote clock offset: -0.456 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.565 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.075 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.455 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.624 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



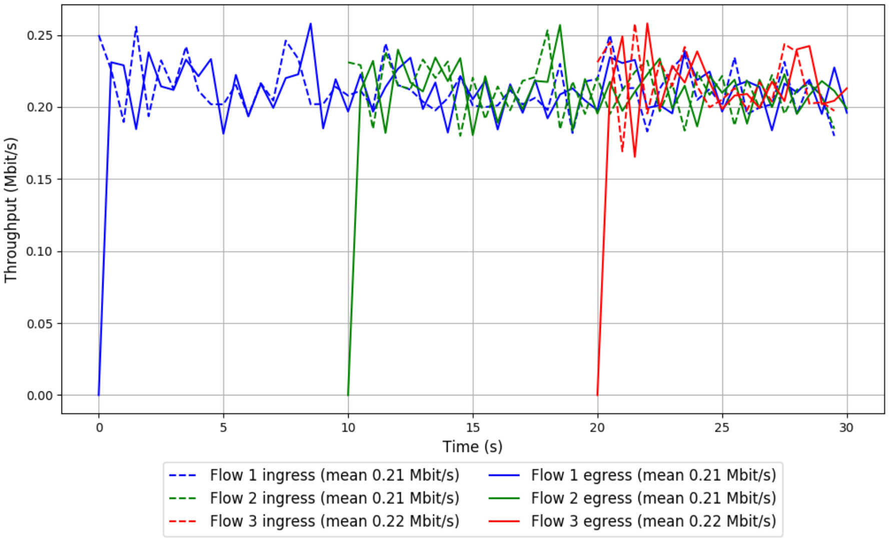


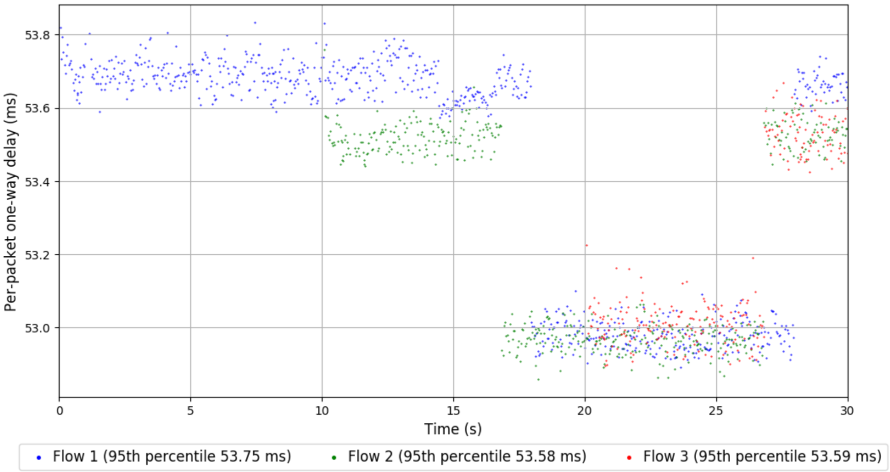
```
Run 4: Statistics of SCReAM

Start at: 2018-08-03 12:10:36
End at: 2018-08-03 12:11:06
Local clock offset: -0.03 ms
Remote clock offset: -0.309 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.728 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.746 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.575 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.586 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



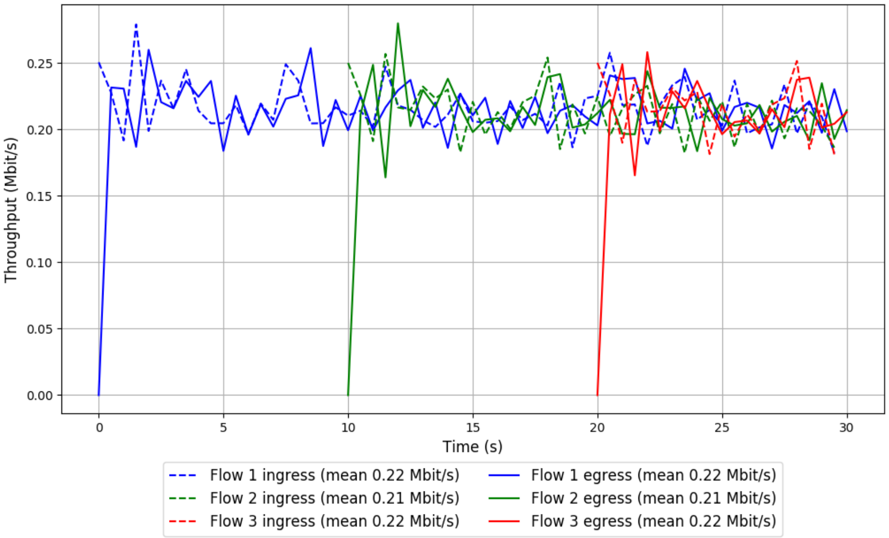


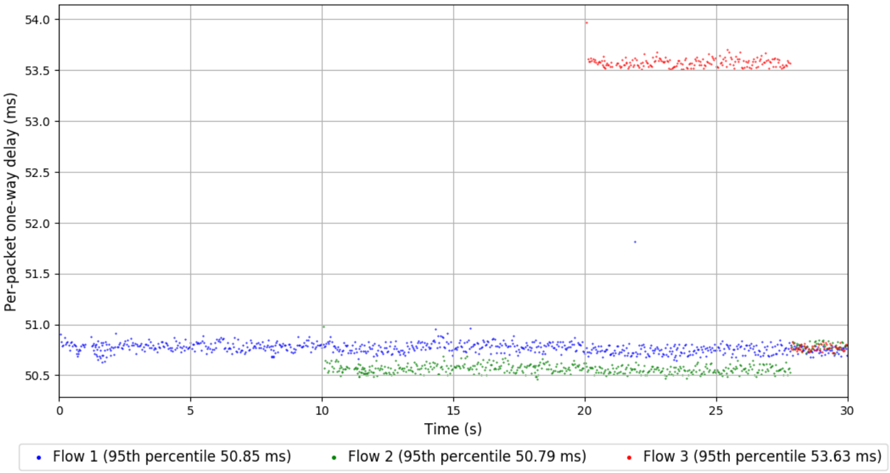
```
Run 5: Statistics of SCReAM

Start at: 2018-08-03 12:35:57
End at: 2018-08-03 12:36:27
Local clock offset: -0.004 ms
Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.581 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.847 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.794 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.631 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



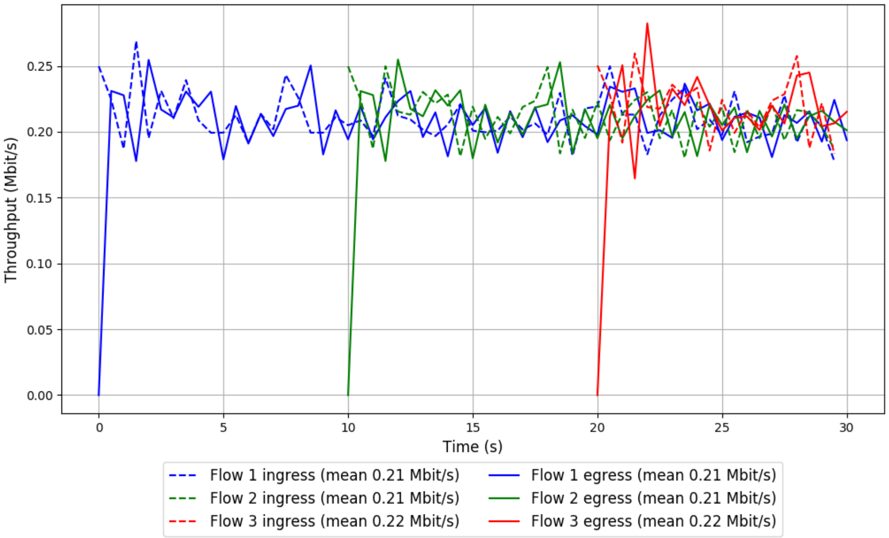


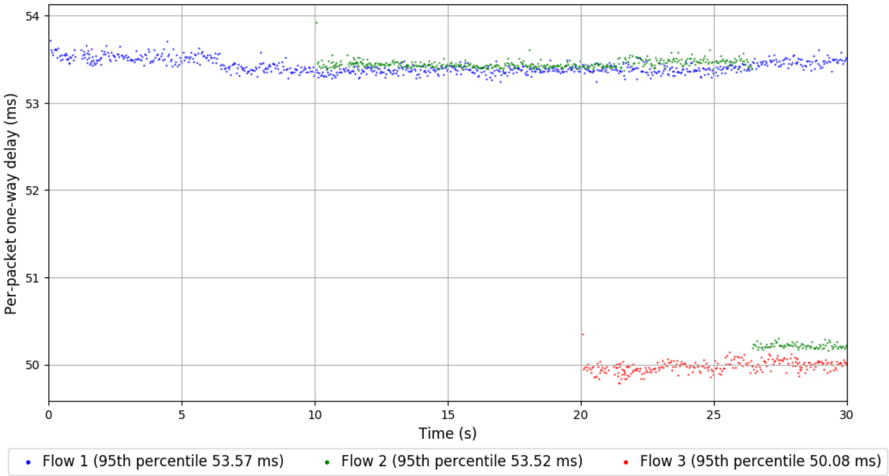
```
Run 6: Statistics of SCReAM

Start at: 2018-08-03 13:00:58
End at: 2018-08-03 13:01:28
Local clock offset: 0.178 ms
Remote clock offset: -0.371 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.545 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.567 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.515 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.082 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



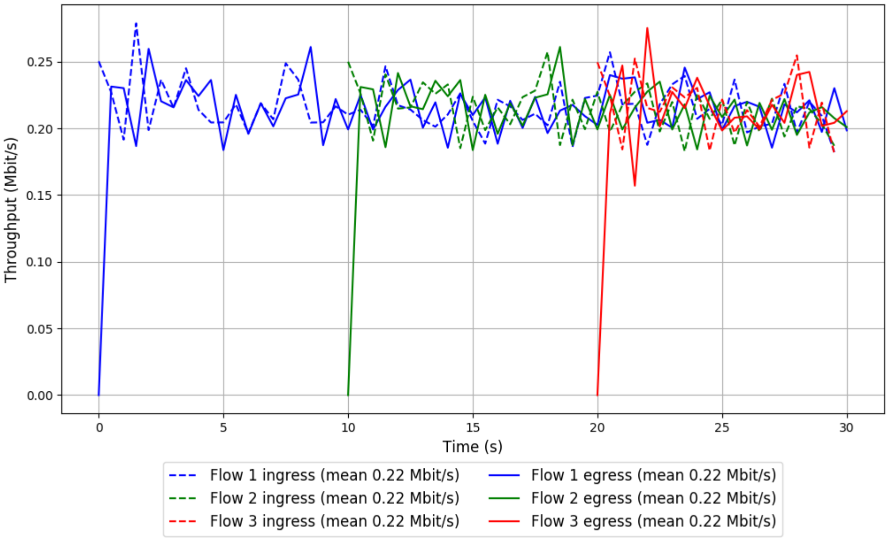


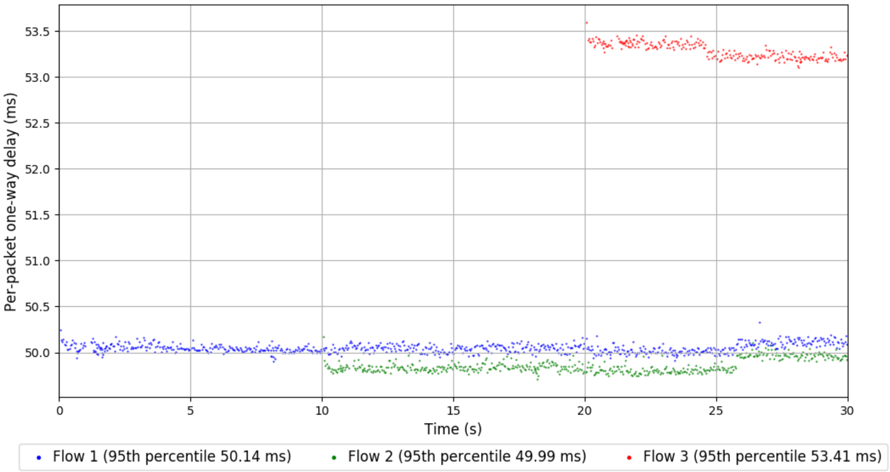
```
Run 7: Statistics of SCReAM

Start at: 2018-08-03 13:26:19
End at: 2018-08-03 13:26:49
Local clock offset: 0.105 ms
Remote clock offset: -0.501 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.348 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.137 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.987 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.414 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link



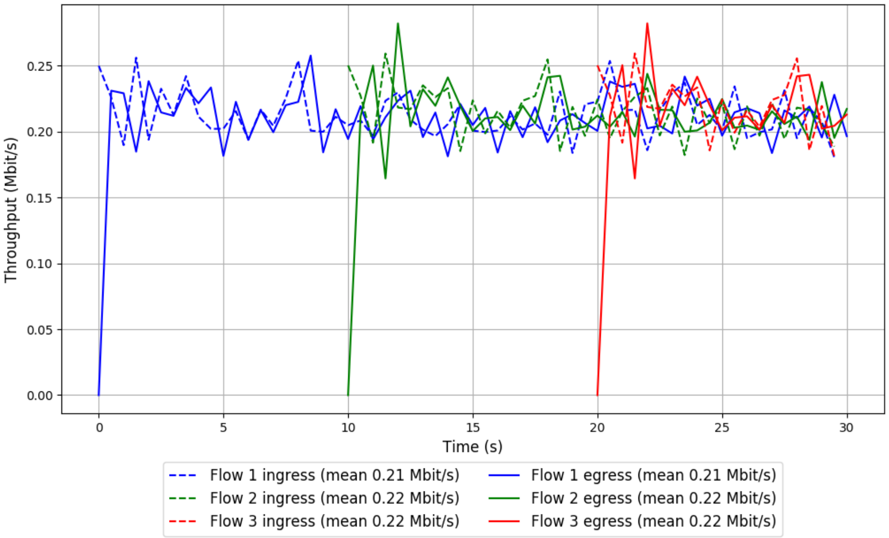


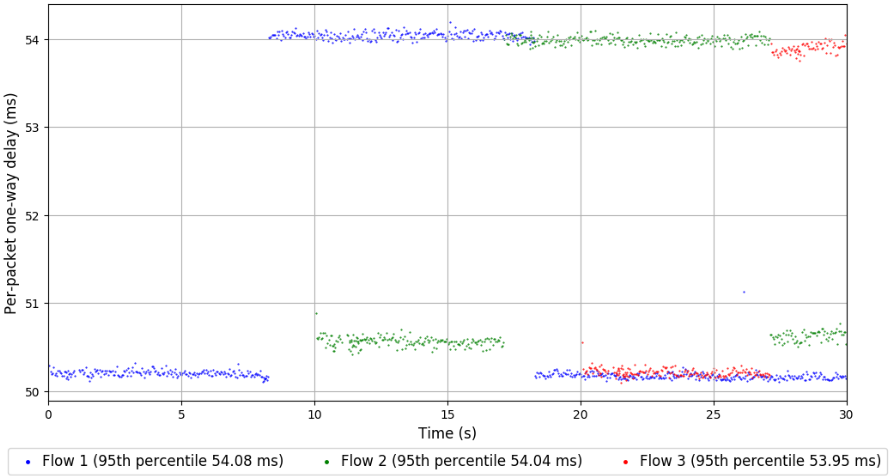
```
Run 8: Statistics of SCReAM

Start at: 2018-08-03 13:51:46
End at: 2018-08-03 13:52:16
Local clock offset: -0.006 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.067 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.078 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.044 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.949 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



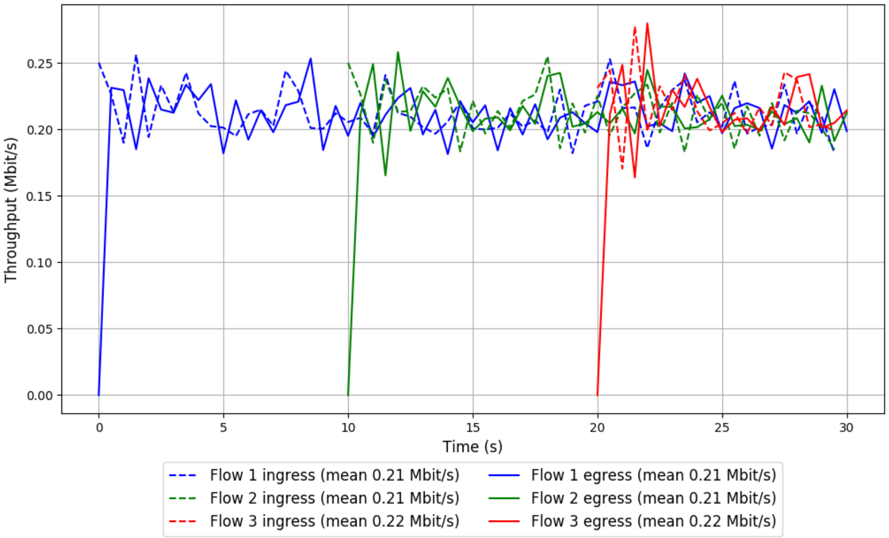


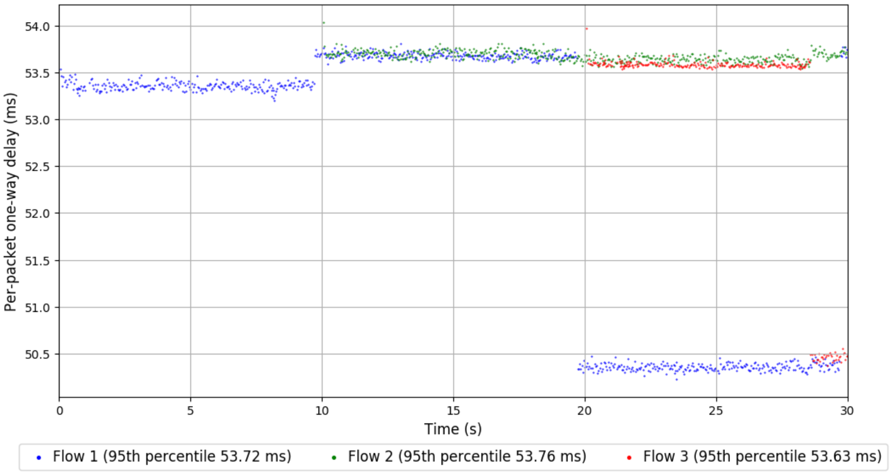
```
Run 9: Statistics of SCReAM

Start at: 2018-08-03 14:16:35
End at: 2018-08-03 14:17:05
Local clock offset: -0.0 ms
Remote clock offset: -0.219 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.740 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.715 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.759 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.631 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link



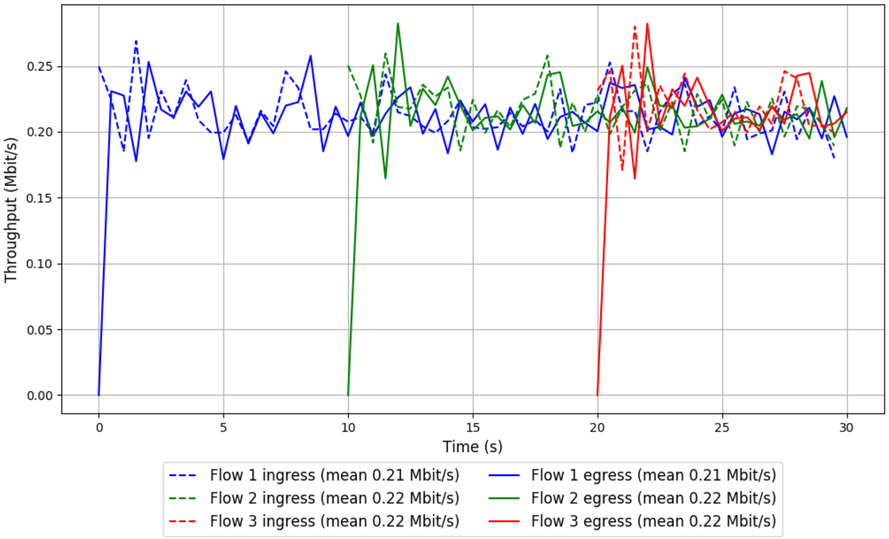


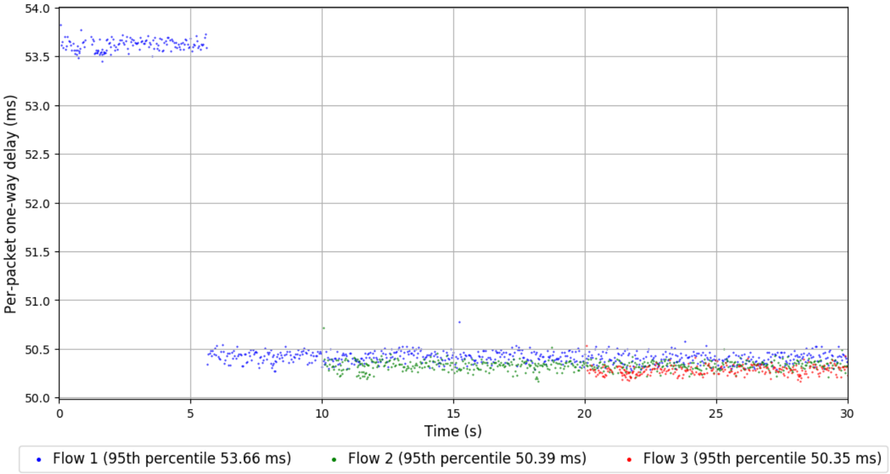
```
Run 10: Statistics of SCReAM

Start at: 2018-08-03 14:42:08
End at: 2018-08-03 14:42:38
Local clock offset: 0.137 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.620 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.661 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.394 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.355 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link



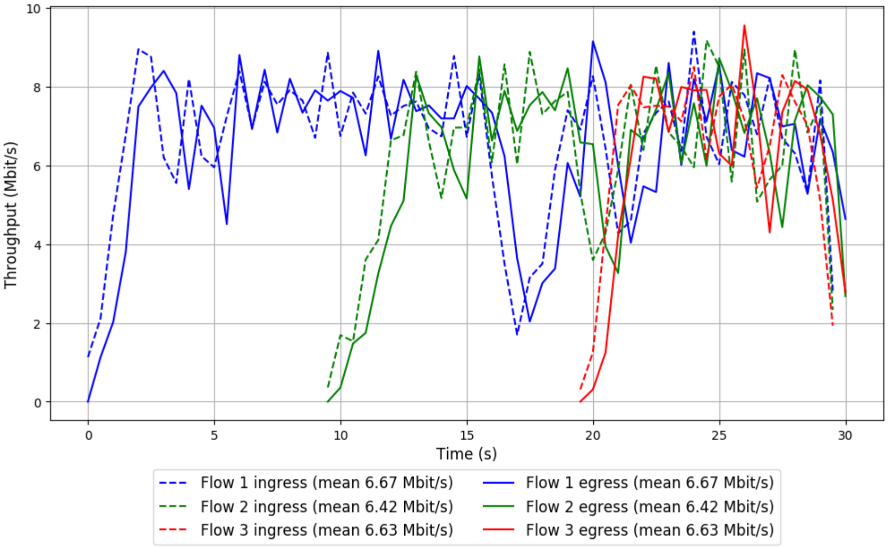


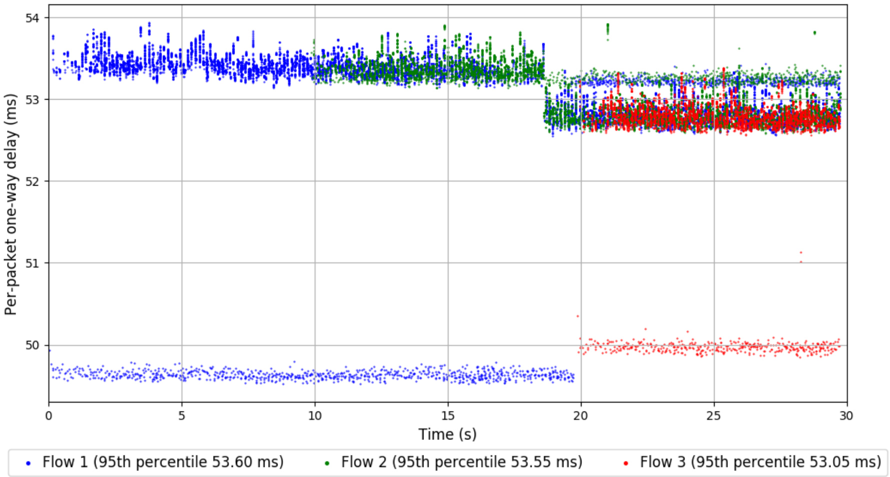
```
Run 1: Statistics of Sprout

Start at: 2018-08-03 10:40:14
End at: 2018-08-03 10:40:44
Local clock offset: 0.105 ms
Remote clock offset: -0.433 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 53.562 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.67 Mbit/s
95th percentile per-packet one-way delay: 53.597 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 53.052 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



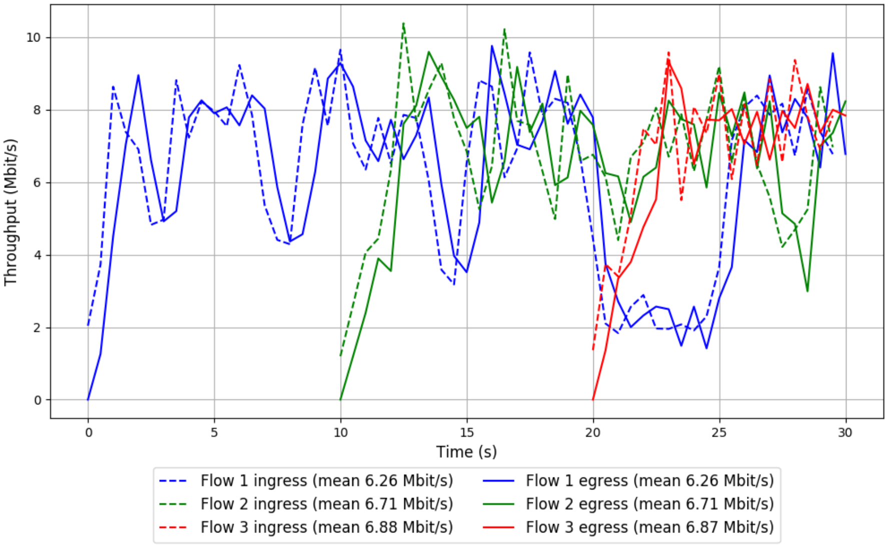


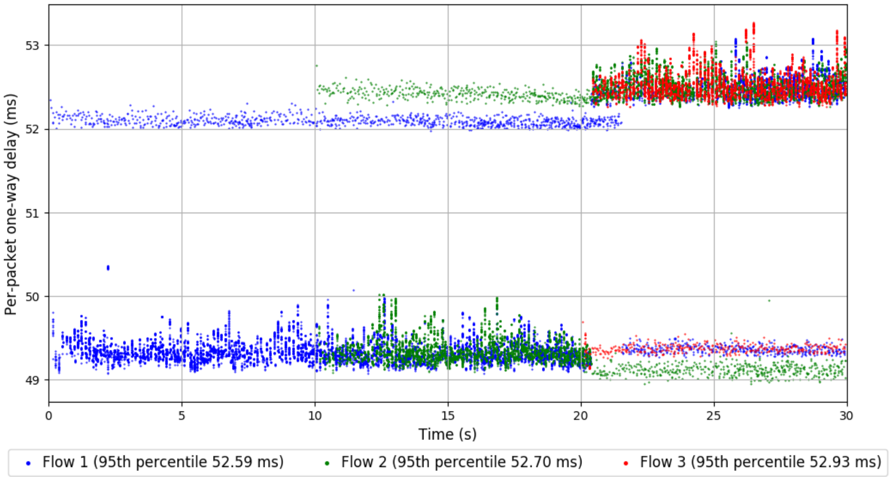
```
Run 2: Statistics of Sprout

Start at: 2018-08-03 11:05:43
End at: 2018-08-03 11:06:13
Local clock offset: -0.184 ms
Remote clock offset: -1.464 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.99 Mbit/s
95th percentile per-packet one-way delay: 52.711 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.26 Mbit/s
95th percentile per-packet one-way delay: 52.594 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 52.703 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 52.929 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link



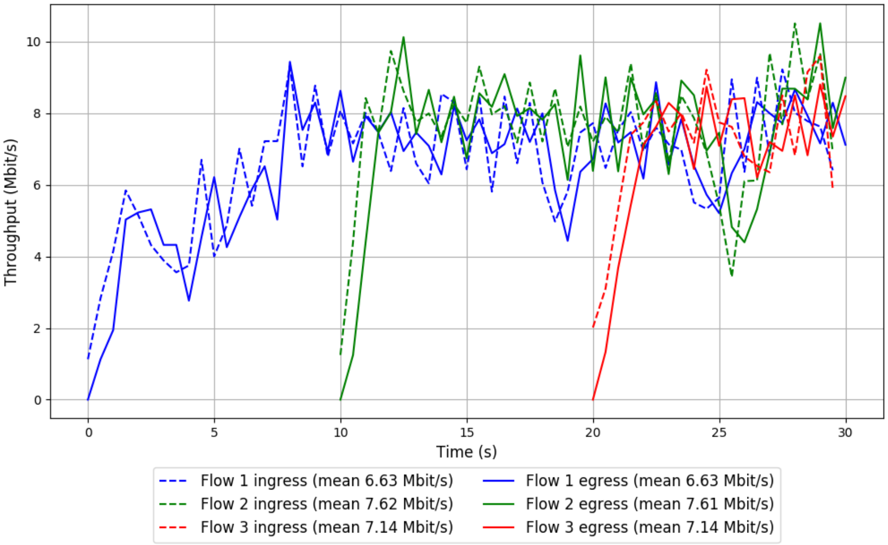


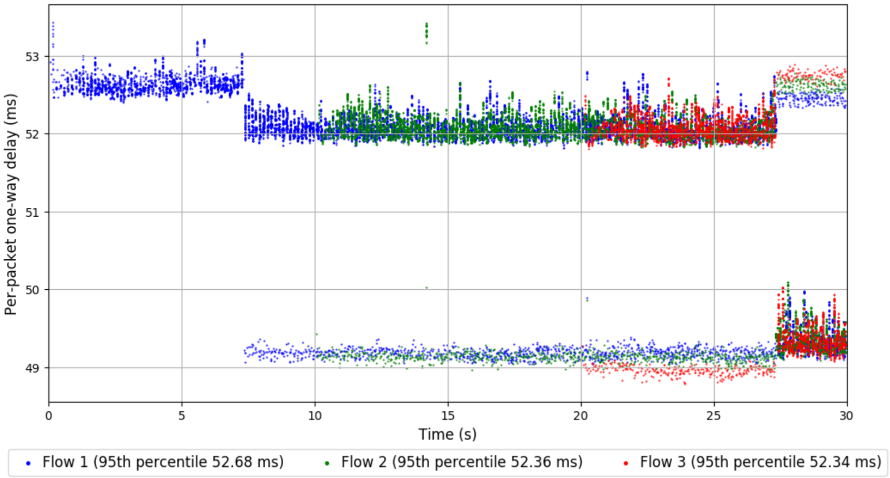
```
Run 3: Statistics of Sprout

Start at: 2018-08-03 11:31:06
End at: 2018-08-03 11:31:36
Local clock offset: 0.001 ms
Remote clock offset: -1.266 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.05 Mbit/s
95th percentile per-packet one-way delay: 52.612 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 52.681 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 52.360 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.14 Mbit/s
95th percentile per-packet one-way delay: 52.345 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link



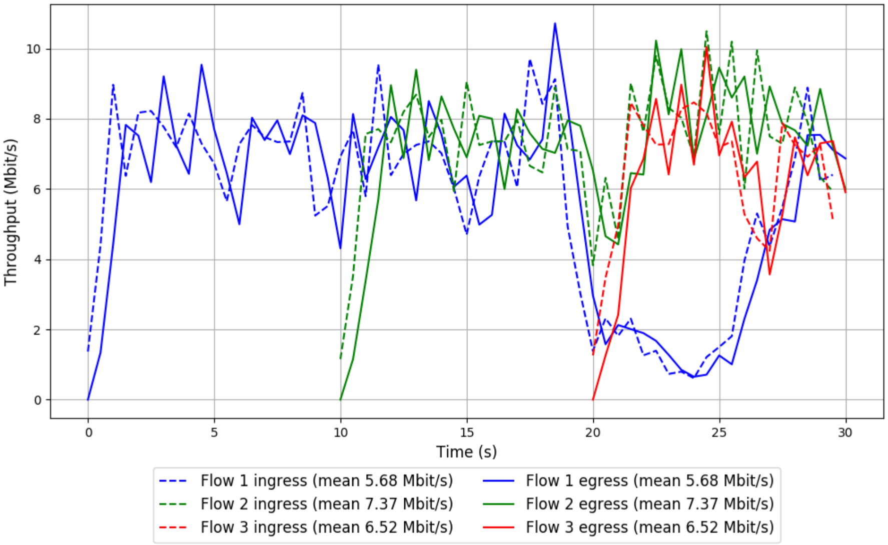


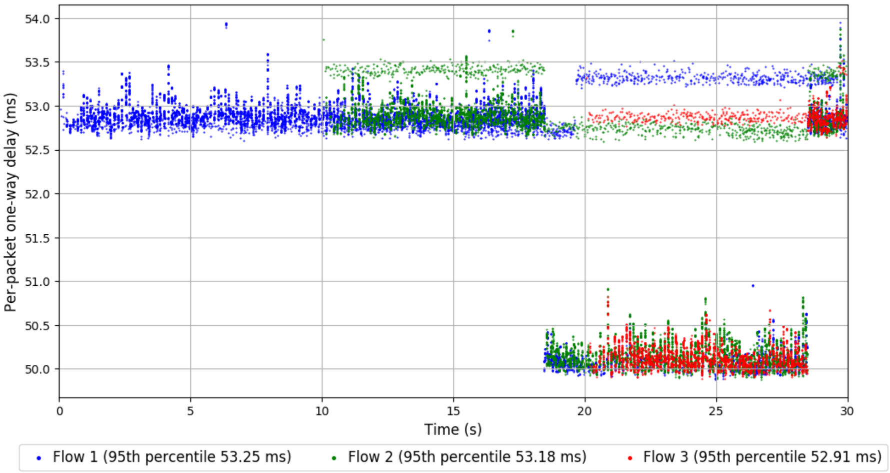
```
Run 4: Statistics of Sprout

Start at: 2018-08-03 11:56:25
End at: 2018-08-03 11:56:55
Local clock offset: 0.001 ms
Remote clock offset: -0.441 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 53.179 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 53.248 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.37 Mbit/s
95th percentile per-packet one-way delay: 53.178 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 6.52 Mbit/s
95th percentile per-packet one-way delay: 52.914 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link



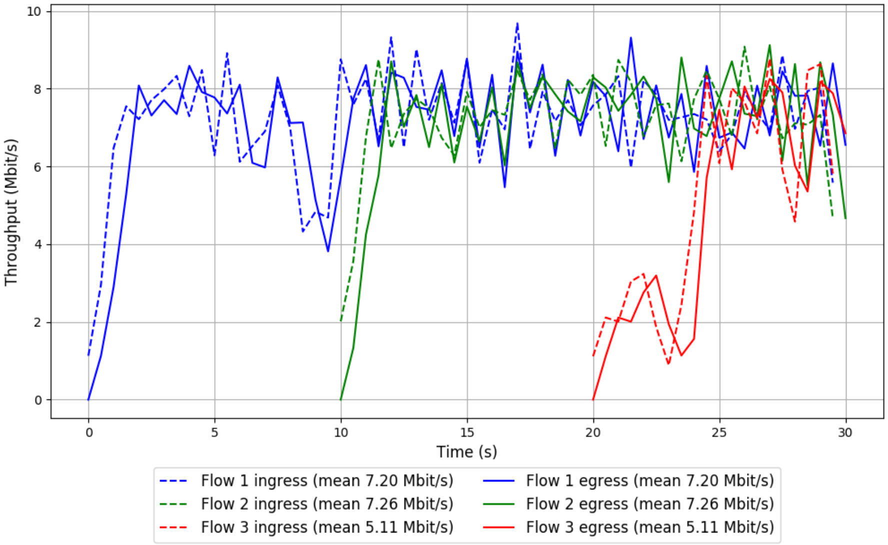


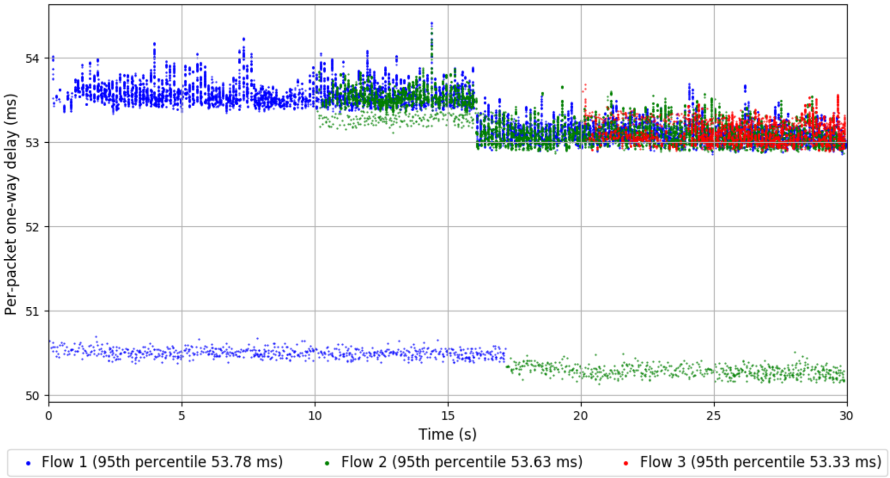
```
Run 5: Statistics of Sprout

Start at: 2018-08-03 12:21:47
End at: 2018-08-03 12:22:17
Local clock offset: 0.012 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.70 Mbit/s
95th percentile per-packet one-way delay: 53.715 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.20 Mbit/s
95th percentile per-packet one-way delay: 53.780 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.26 Mbit/s
95th percentile per-packet one-way delay: 53.635 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 53.332 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



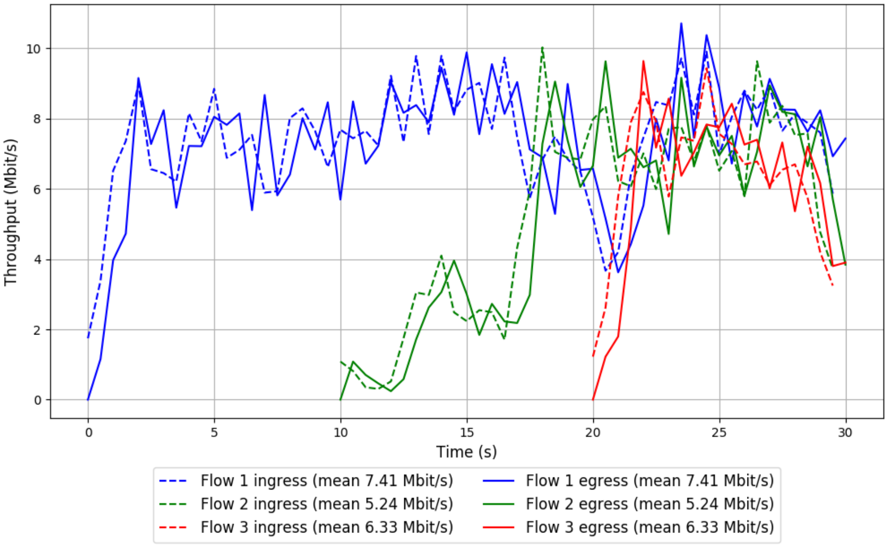


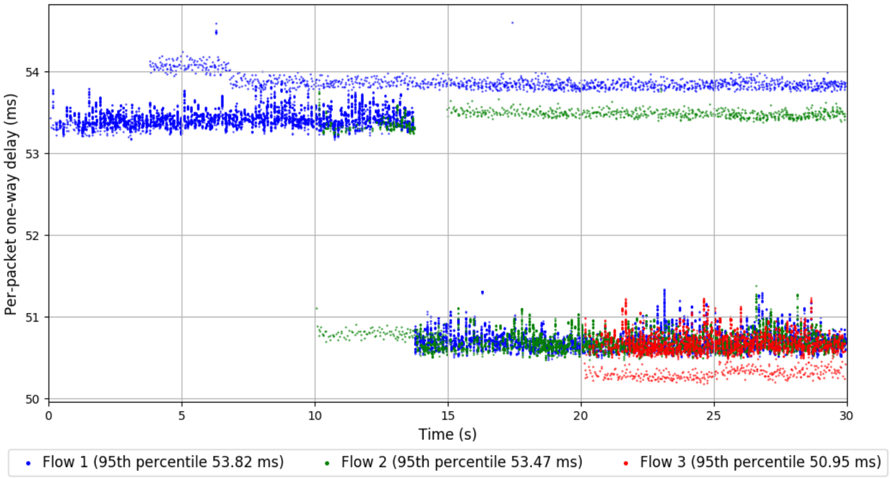
```
Run 6: Statistics of Sprout

Start at: 2018-08-03 12:46:49
End at: 2018-08-03 12:47:19
Local clock offset: -0.098 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.98 Mbit/s
95th percentile per-packet one-way delay: 53.637 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 53.821 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 53.472 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 50.947 ms
Loss rate: 0.00%
```

Run 6: Report of Sprout — Data Link



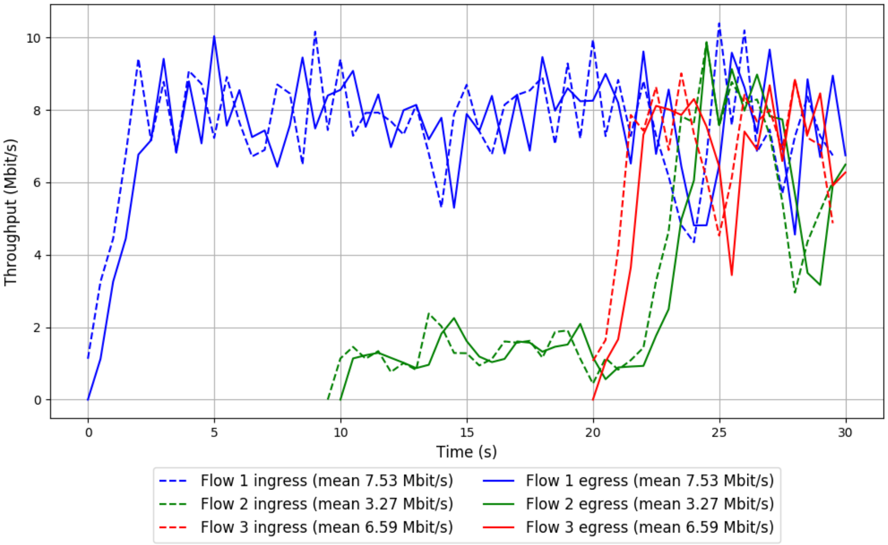


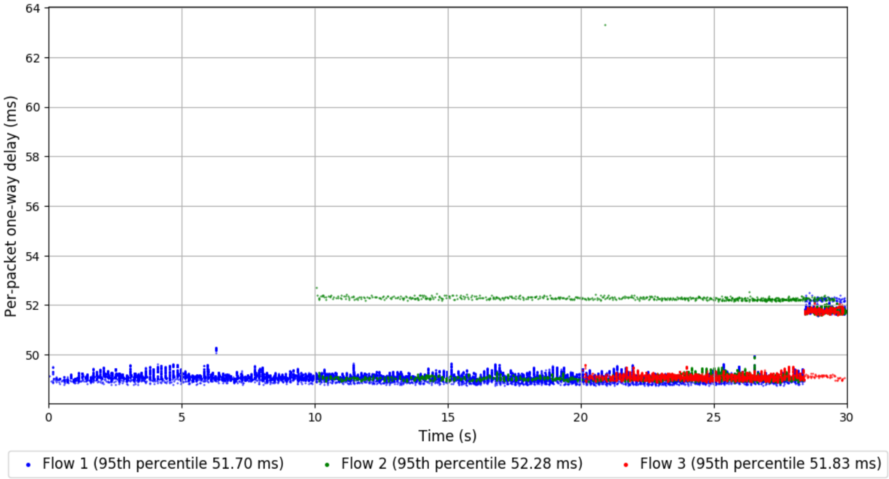
```
Run 7: Statistics of Sprout

Start at: 2018-08-03 13:12:15
End at: 2018-08-03 13:12:45
Local clock offset: 0.041 ms
Remote clock offset: -1.49 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 51.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 51.701 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 52.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 51.825 ms
Loss rate: 0.00%
```

Run 7: Report of Sprout — Data Link



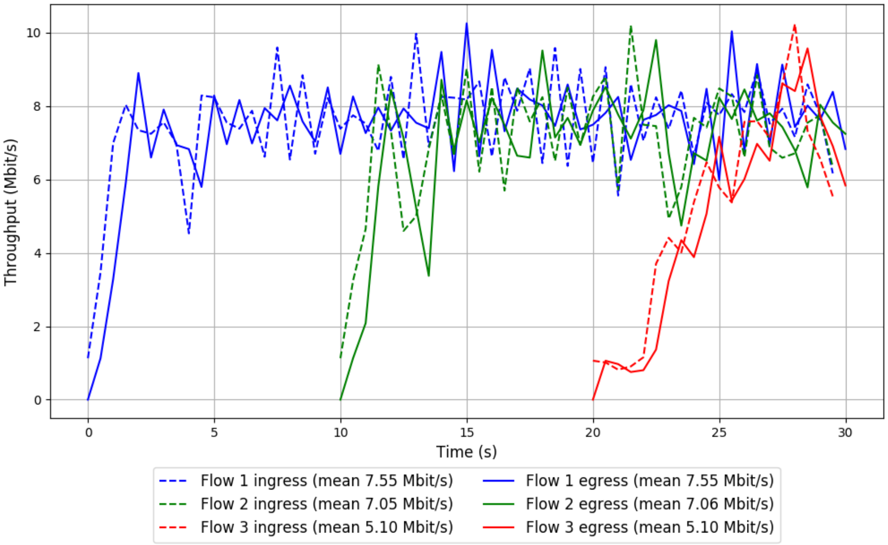


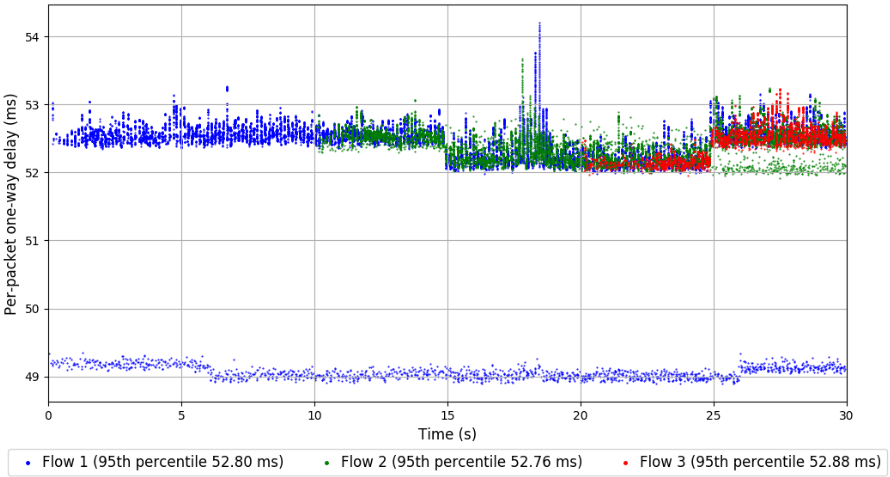
```
Run 8: Statistics of Sprout

Start at: 2018-08-03 13:37:28
End at: 2018-08-03 13:37:58
Local clock offset: -0.007 ms
Remote clock offset: -1.38 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.92 Mbit/s
95th percentile per-packet one-way delay: 52.798 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.55 Mbit/s
95th percentile per-packet one-way delay: 52.801 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.06 Mbit/s
95th percentile per-packet one-way delay: 52.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.10 Mbit/s
95th percentile per-packet one-way delay: 52.877 ms
Loss rate: 0.00%
```

Run 8: Report of Sprout — Data Link



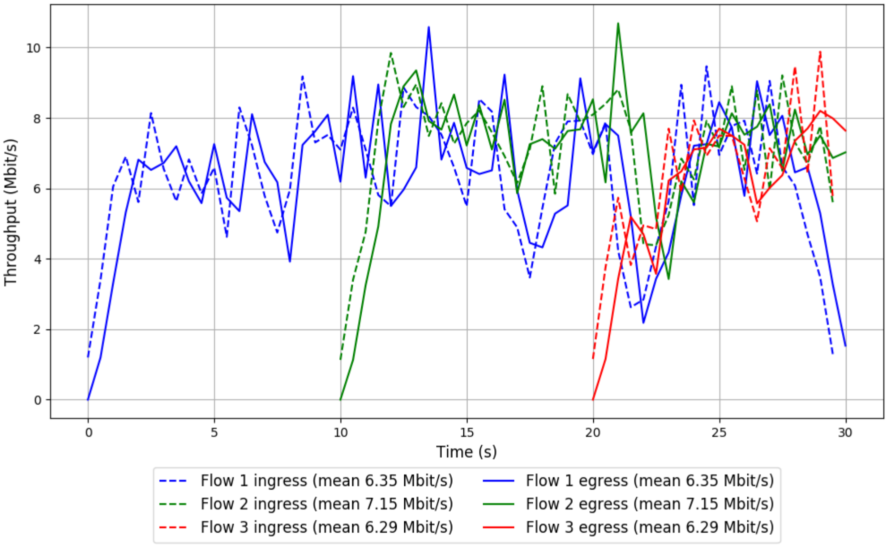


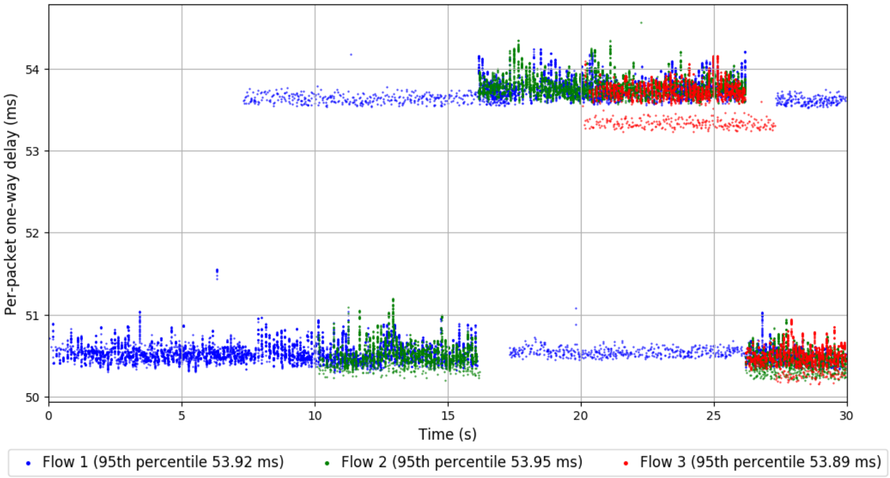
```
Run 9: Statistics of Sprout

Start at: 2018-08-03 14:02:27
End at: 2018-08-03 14:02:57
Local clock offset: 0.03 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 53.925 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 53.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.15 Mbit/s
95th percentile per-packet one-way delay: 53.947 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.29 Mbit/s
95th percentile per-packet one-way delay: 53.894 ms
Loss rate: 0.00%
```

Run 9: Report of Sprout — Data Link



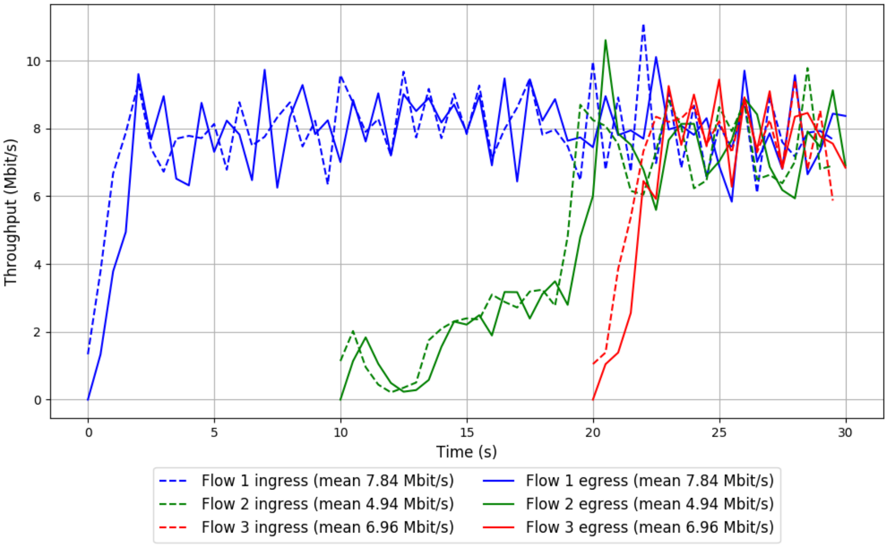


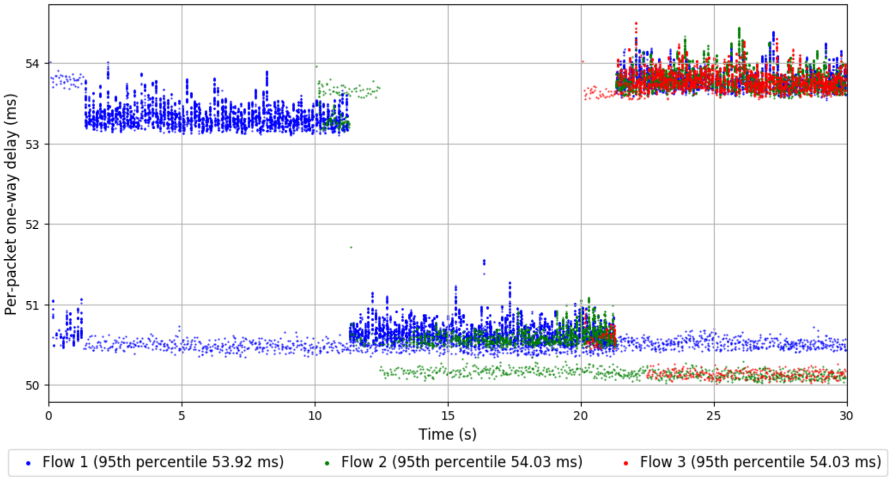
```
Run 10: Statistics of Sprout

Start at: 2018-08-03 14:27:52
End at: 2018-08-03 14:28:22
Local clock offset: 0.075 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2018-08-03 17:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 53.987 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 53.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 54.026 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 54.031 ms
Loss rate: 0.00%
```

Run 10: Report of Sprout — Data Link



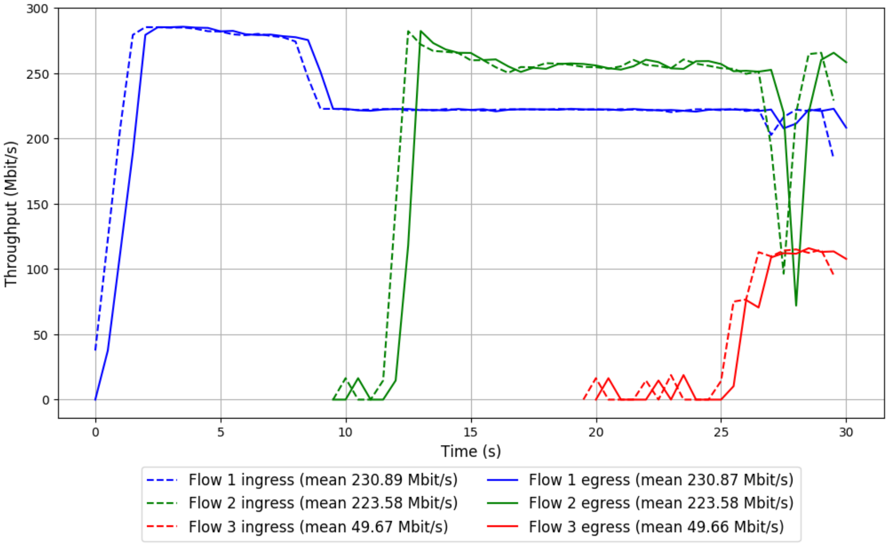


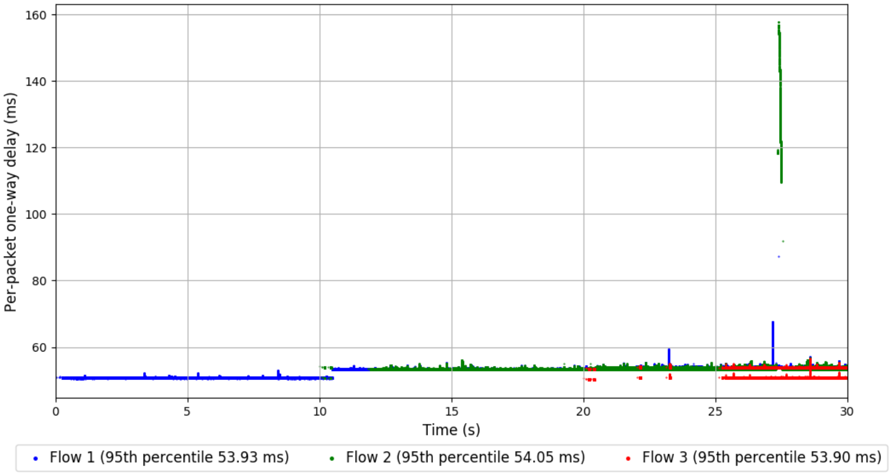
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-08-03 10:58:13
End at: 2018-08-03 10:58:43
Local clock offset: -0.117 ms
Remote clock offset: 0.148 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 396.67 Mbit/s
95th percentile per-packet one-way delay: 53.941 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.87 Mbit/s
95th percentile per-packet one-way delay: 53.928 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 223.58 Mbit/s
95th percentile per-packet one-way delay: 54.052 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.66 Mbit/s
95th percentile per-packet one-way delay: 53.901 ms
Loss rate: 0.00%
```

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



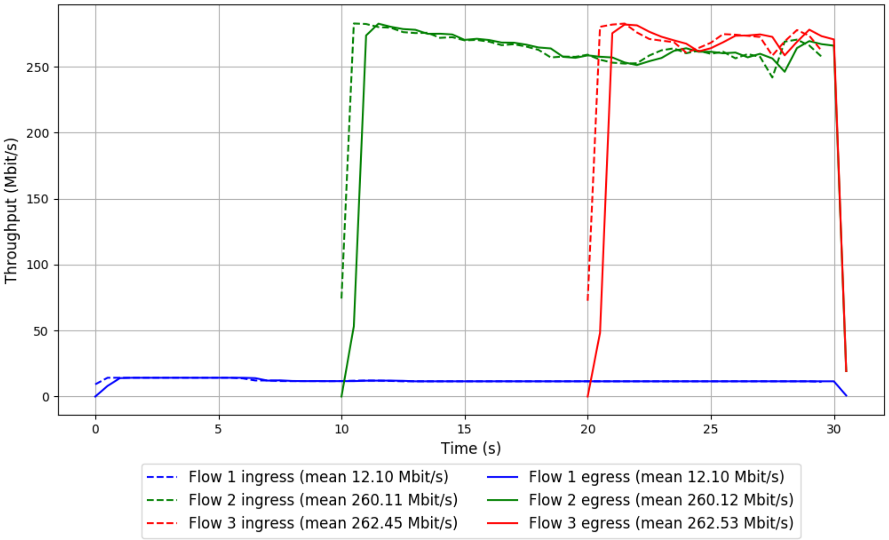


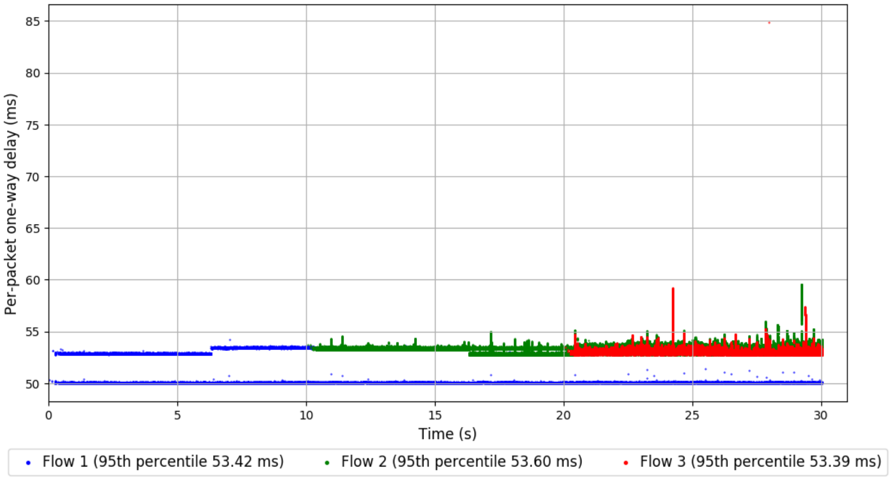
```
Run 2: Statistics of TaoVA-100x

Start at: 2018-08-03 11:23:47
End at: 2018-08-03 11:24:17
Local clock offset: 0.119 ms
Remote clock offset: -0.193 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 272.53 Mbit/s
95th percentile per-packet one-way delay: 53.546 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.10 Mbit/s
95th percentile per-packet one-way delay: 53.424 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 260.12 Mbit/s
95th percentile per-packet one-way delay: 53.602 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 262.53 Mbit/s
95th percentile per-packet one-way delay: 53.393 ms
Loss rate: 0.02%
```

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



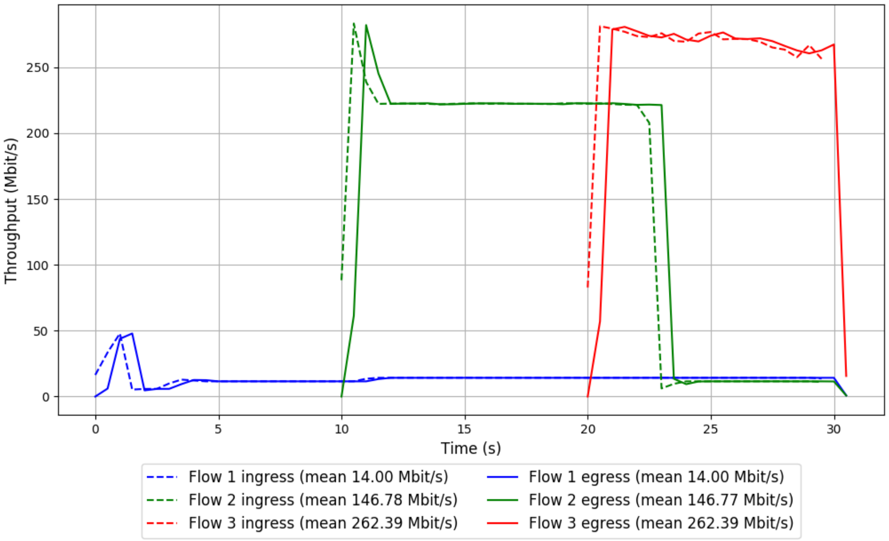


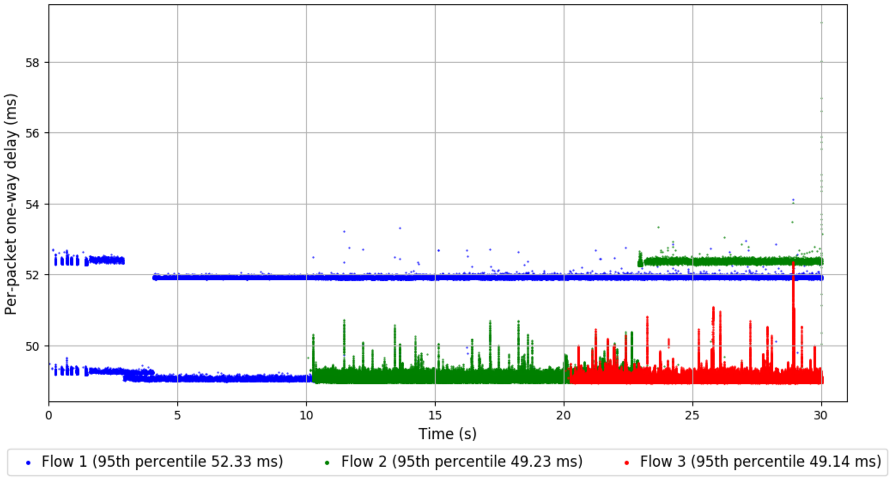
```
Run 3: Statistics of TaoVA-100x

Start at: 2018-08-03 11:49:20
End at: 2018-08-03 11:49:50
Local clock offset: -0.147 ms
Remote clock offset: -1.459 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 198.93 Mbit/s
95th percentile per-packet one-way delay: 49.410 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.00 Mbit/s
95th percentile per-packet one-way delay: 52.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 146.77 Mbit/s
95th percentile per-packet one-way delay: 49.233 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 262.39 Mbit/s
95th percentile per-packet one-way delay: 49.141 ms
Loss rate: 0.00%
```

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



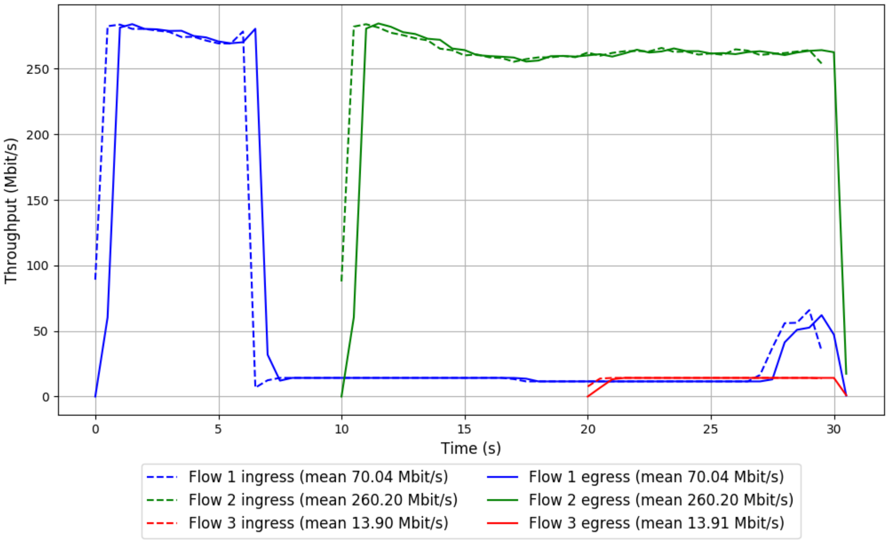


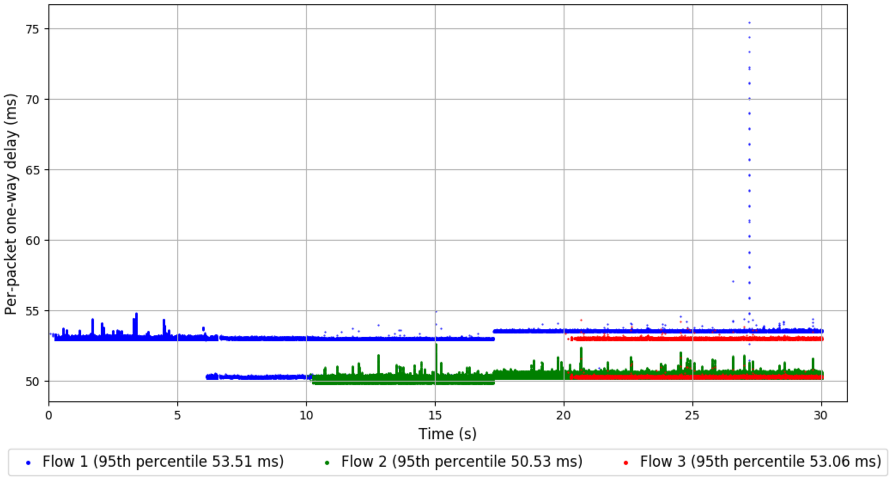
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-08-03 12:14:37
End at: 2018-08-03 12:15:07
Local clock offset: 0.072 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.00 Mbit/s
95th percentile per-packet one-way delay: 53.042 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.04 Mbit/s
95th percentile per-packet one-way delay: 53.512 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 260.20 Mbit/s
95th percentile per-packet one-way delay: 50.533 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.91 Mbit/s
95th percentile per-packet one-way delay: 53.058 ms
Loss rate: 0.00%
```

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



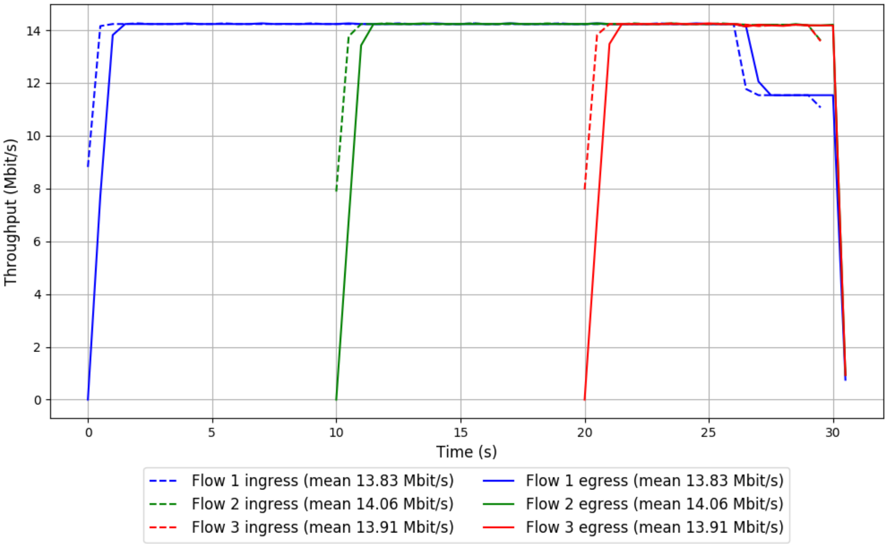


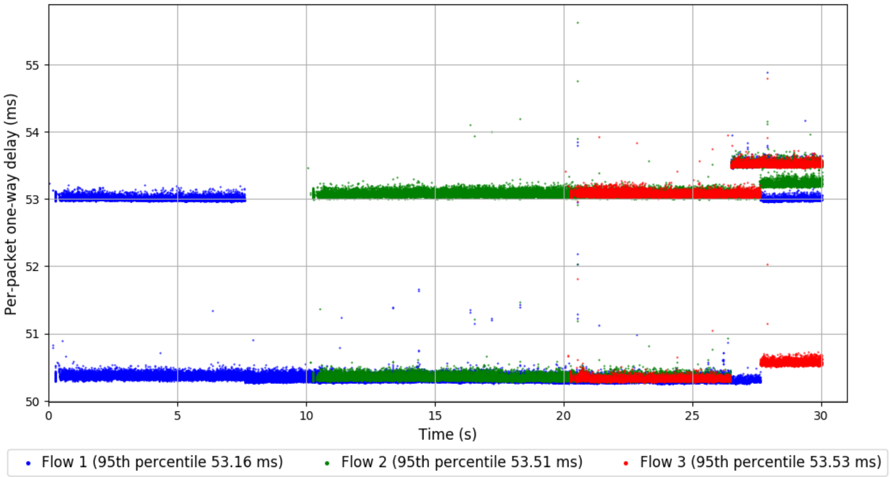
```
Run 5: Statistics of TaoVA-100x

Start at: 2018-08-03 12:39:57
End at: 2018-08-03 12:40:27
Local clock offset: -0.039 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.82 Mbit/s
95th percentile per-packet one-way delay: 53.505 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.83 Mbit/s
95th percentile per-packet one-way delay: 53.163 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.06 Mbit/s
95th percentile per-packet one-way delay: 53.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.91 Mbit/s
95th percentile per-packet one-way delay: 53.527 ms
Loss rate: 0.00%
```

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



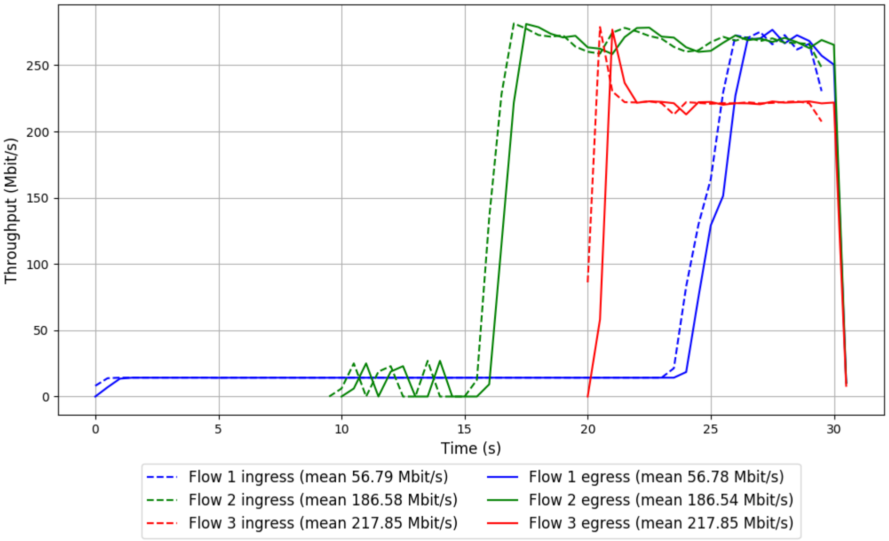


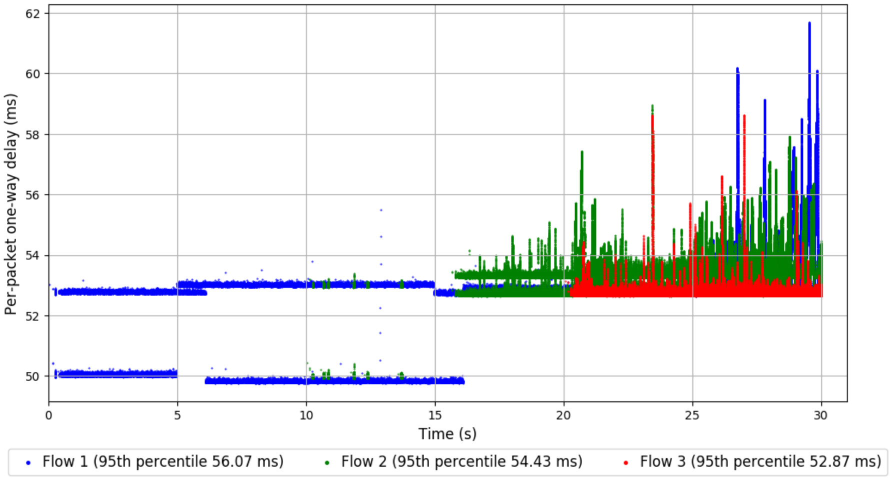
```
Run 6: Statistics of TaoVA-100x

Start at: 2018-08-03 13:04:48
End at: 2018-08-03 13:05:18
Local clock offset: 0.195 ms
Remote clock offset: -0.241 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.52 Mbit/s
95th percentile per-packet one-way delay: 54.274 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 56.074 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 186.54 Mbit/s
95th percentile per-packet one-way delay: 54.429 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 217.85 Mbit/s
95th percentile per-packet one-way delay: 52.869 ms
Loss rate: 0.03%
```

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



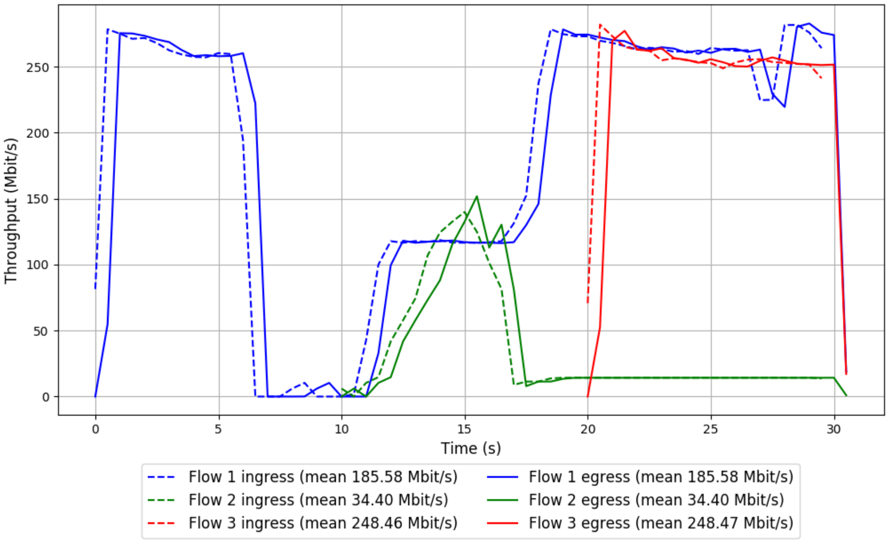


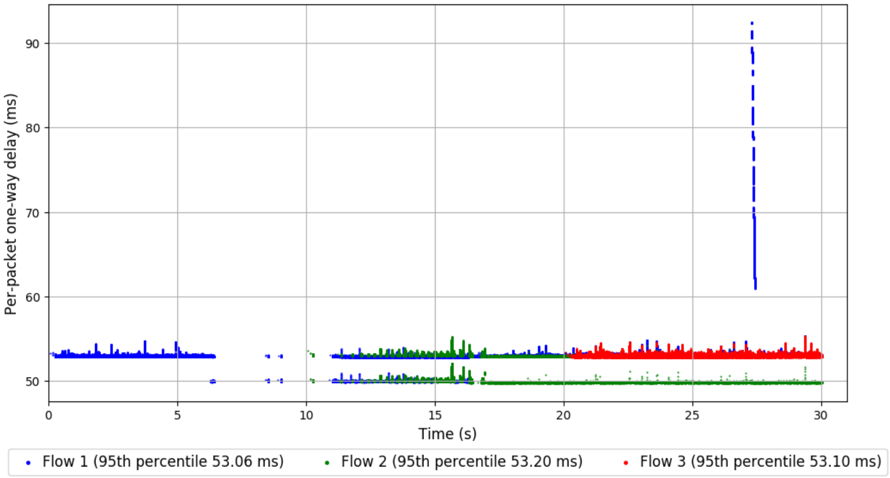
```
Run 7: Statistics of TaoVA-100x

Start at: 2018-08-03 13:30:07
End at: 2018-08-03 13:30:37
Local clock offset: 0.067 ms
Remote clock offset: -0.378 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.06 Mbit/s
95th percentile per-packet one-way delay: 53.099 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 185.58 Mbit/s
95th percentile per-packet one-way delay: 53.060 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 53.201 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 248.47 Mbit/s
95th percentile per-packet one-way delay: 53.103 ms
Loss rate: 0.00%
```

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



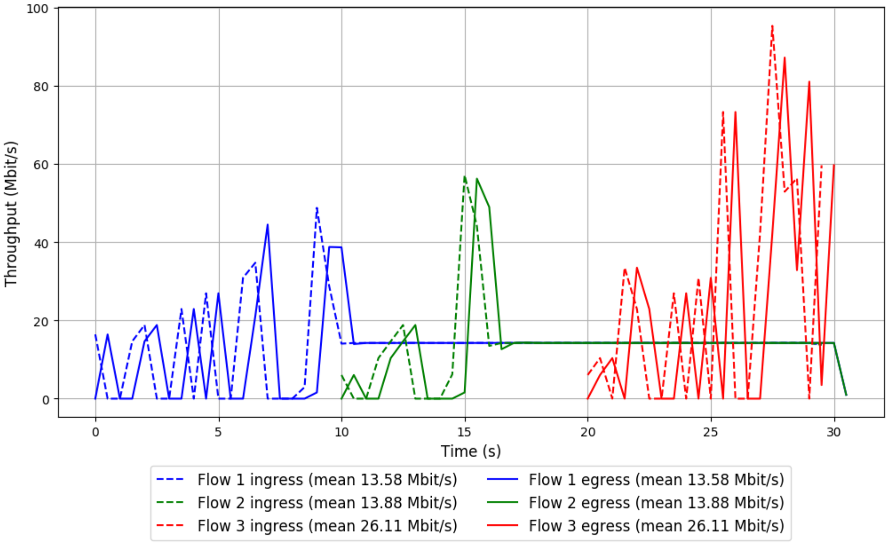


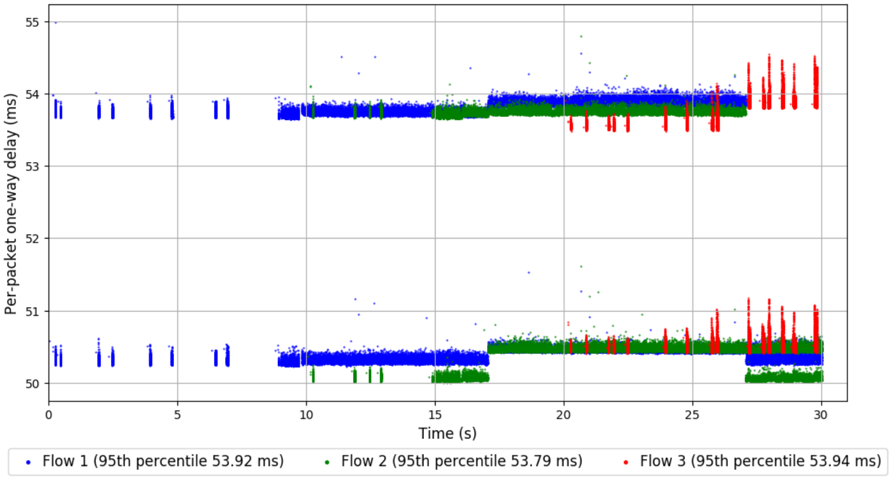
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-08-03 13:55:36
End at: 2018-08-03 13:56:06
Local clock offset: -0.136 ms
Remote clock offset: -0.162 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 53.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.58 Mbit/s
95th percentile per-packet one-way delay: 53.920 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.88 Mbit/s
95th percentile per-packet one-way delay: 53.790 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.11 Mbit/s
95th percentile per-packet one-way delay: 53.938 ms
Loss rate: 0.00%
```

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



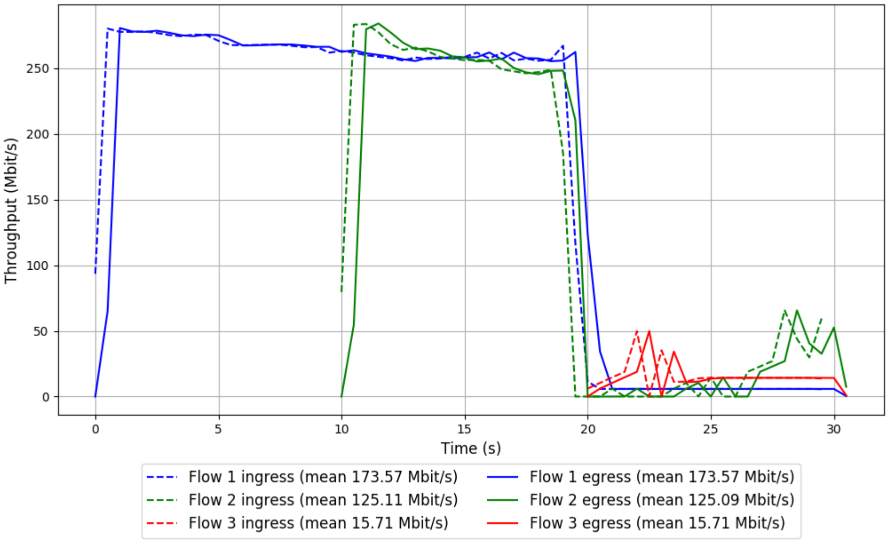


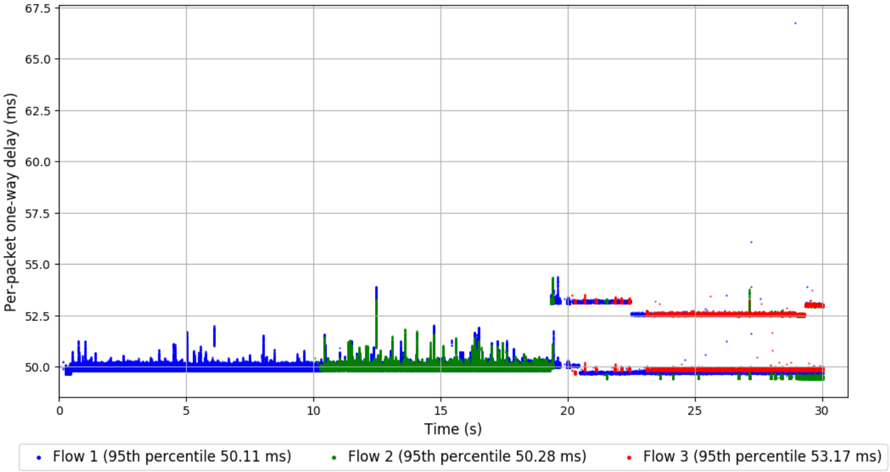
```
Run 9: Statistics of TaoVA-100x

Start at: 2018-08-03 14:20:44
End at: 2018-08-03 14:21:14
Local clock offset: 0.143 ms
Remote clock offset: -0.491 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.08 Mbit/s
95th percentile per-packet one-way delay: 50.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 173.57 Mbit/s
95th percentile per-packet one-way delay: 50.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 125.09 Mbit/s
95th percentile per-packet one-way delay: 50.282 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.71 Mbit/s
95th percentile per-packet one-way delay: 53.174 ms
Loss rate: 0.02%
```

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



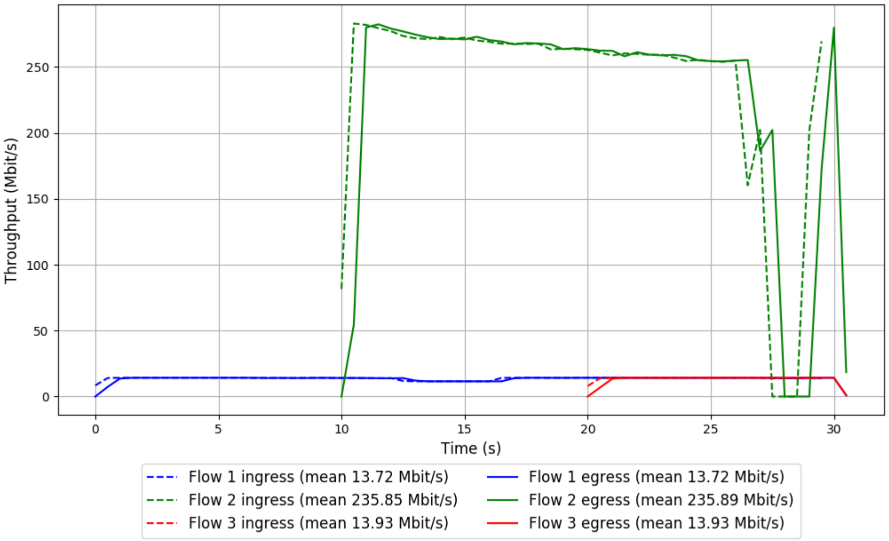


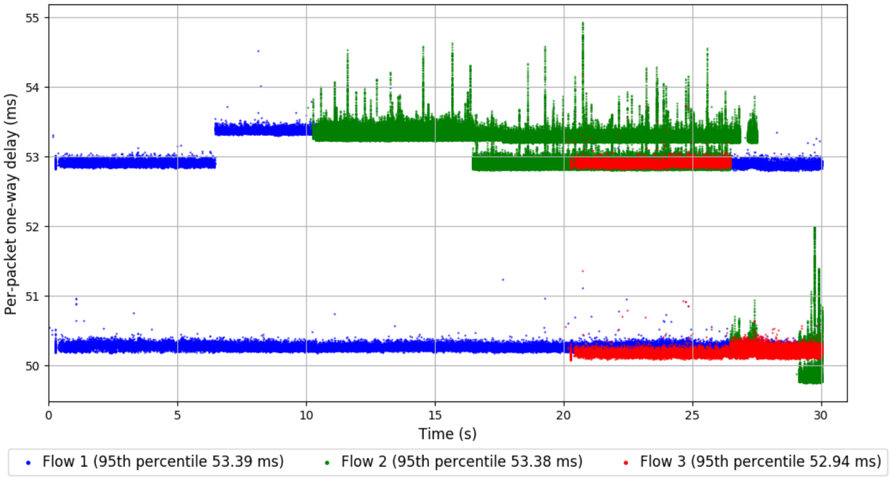
```
Run 10: Statistics of TaoVA-100x

Start at: 2018-08-03 14:45:57
End at: 2018-08-03 14:46:27
Local clock offset: 0.023 ms
Remote clock offset: -0.228 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.45 Mbit/s
95th percentile per-packet one-way delay: 53.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.72 Mbit/s
95th percentile per-packet one-way delay: 53.388 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 235.89 Mbit/s
95th percentile per-packet one-way delay: 53.384 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.93 Mbit/s
95th percentile per-packet one-way delay: 52.942 ms
Loss rate: 0.00%
```

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



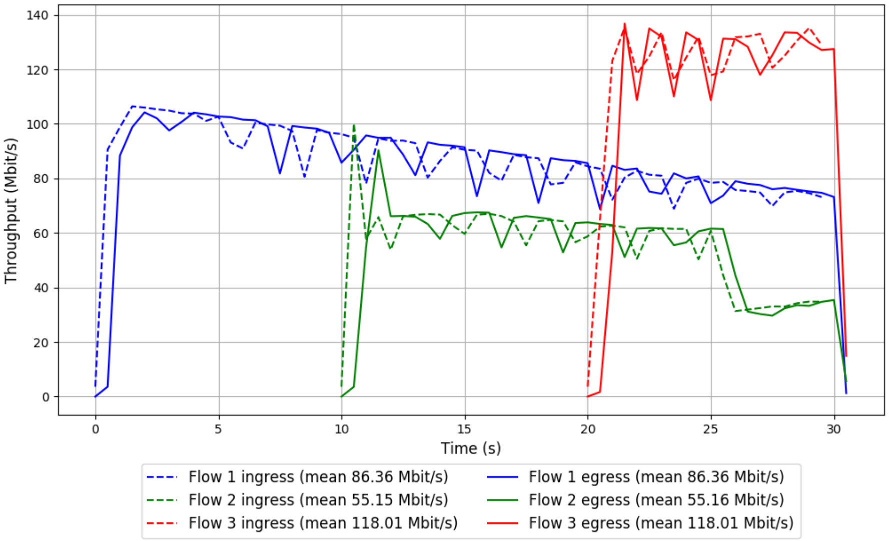


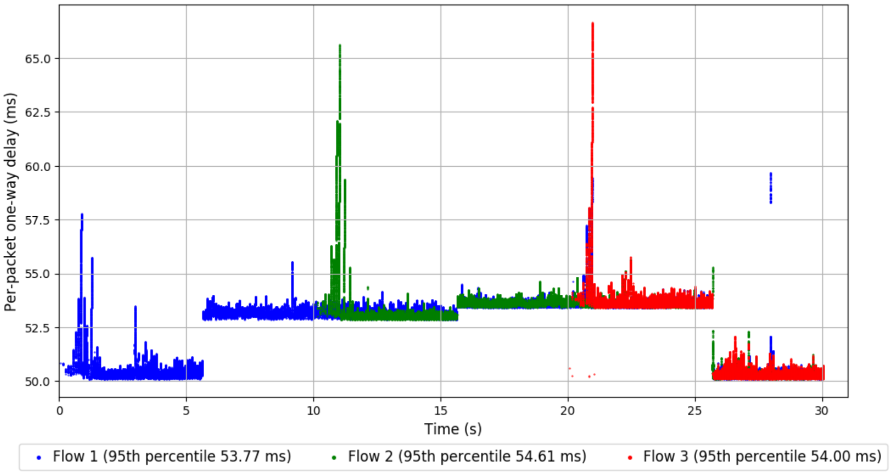
```
Run 1: Statistics of TCP Vegas

Start at: 2018-08-03 10:38:58
End at: 2018-08-03 10:39:28
Local clock offset: -0.128 ms
Remote clock offset: -0.338 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 162.30 Mbit/s
95th percentile per-packet one-way delay: 53.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 86.36 Mbit/s
95th percentile per-packet one-way delay: 53.773 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.16 Mbit/s
95th percentile per-packet one-way delay: 54.609 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 118.01 Mbit/s
95th percentile per-packet one-way delay: 53.998 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link



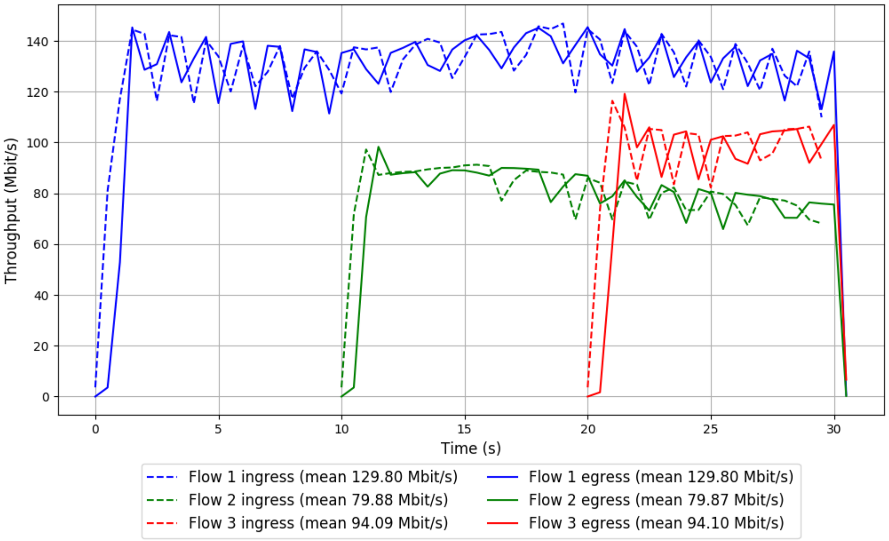


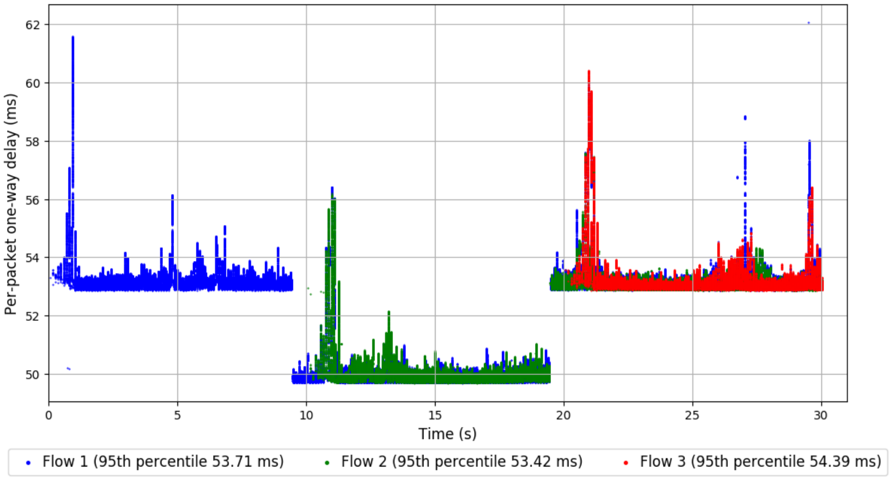
```
Run 2: Statistics of TCP Vegas

Start at: 2018-08-03 11:04:24
End at: 2018-08-03 11:04:54
Local clock offset: 0.166 ms
Remote clock offset: -0.45 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 214.08 Mbit/s
95th percentile per-packet one-way delay: 53.736 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 129.80 Mbit/s
95th percentile per-packet one-way delay: 53.713 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 79.87 Mbit/s
95th percentile per-packet one-way delay: 53.423 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.10 Mbit/s
95th percentile per-packet one-way delay: 54.392 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link



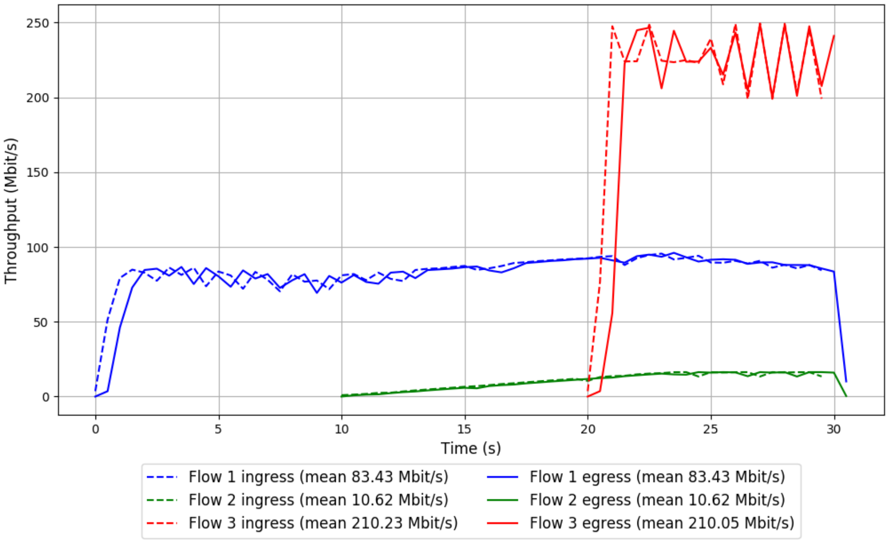


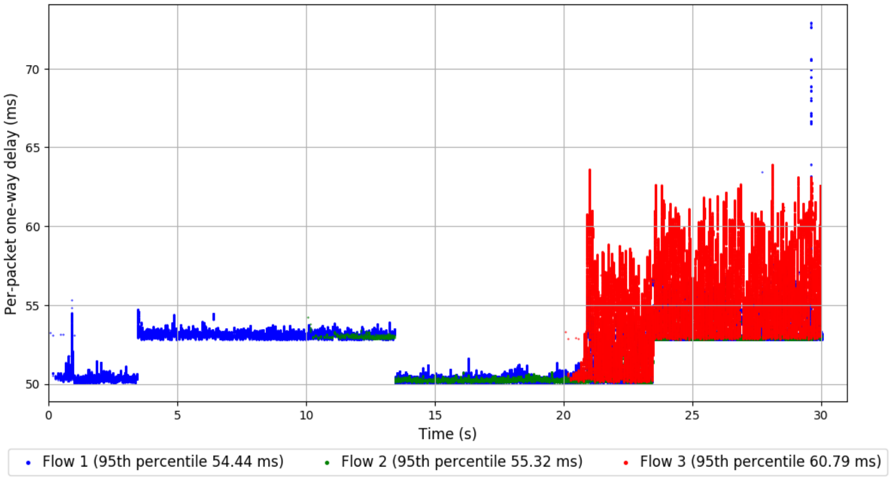
```
Run 3: Statistics of TCP Vegas

Start at: 2018-08-03 11:29:50
End at: 2018-08-03 11:30:20
Local clock offset: 0.049 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 159.89 Mbit/s
95th percentile per-packet one-way delay: 59.822 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.43 Mbit/s
95th percentile per-packet one-way delay: 54.438 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.62 Mbit/s
95th percentile per-packet one-way delay: 55.321 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 210.05 Mbit/s
95th percentile per-packet one-way delay: 60.790 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Vegas — Data Link



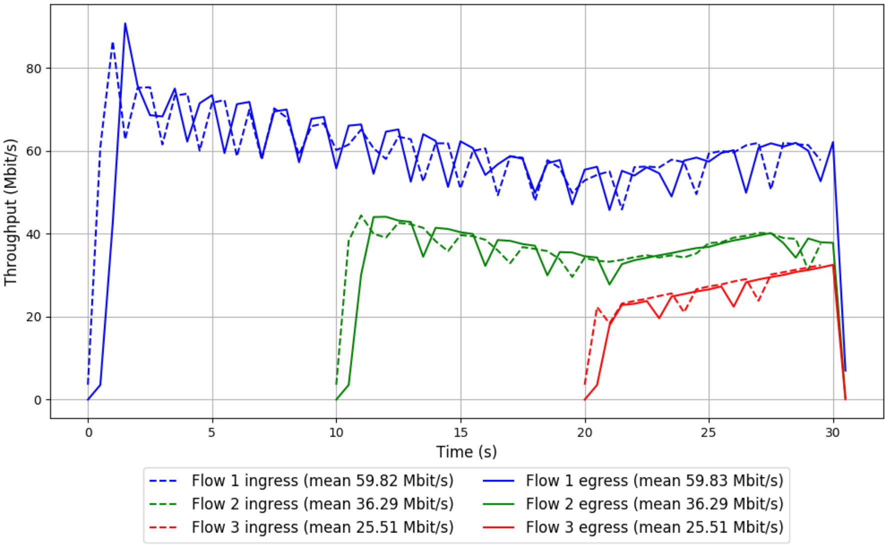


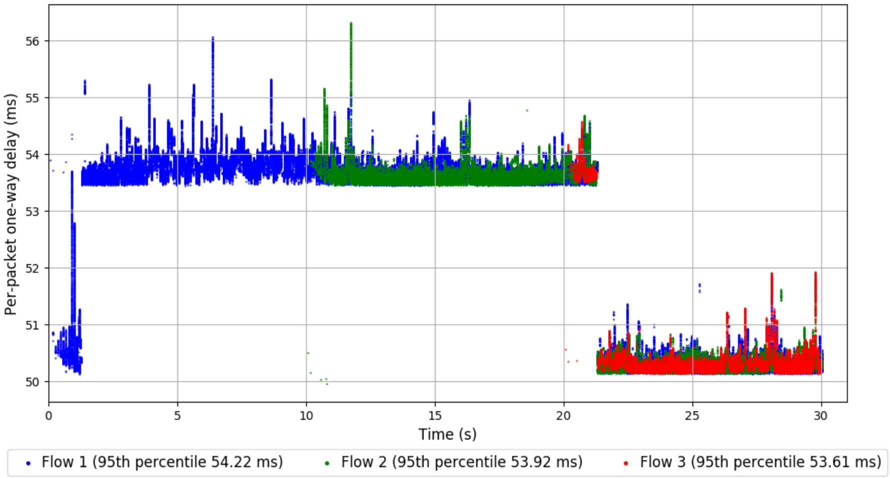
```
Run 4: Statistics of TCP Vegas

Start at: 2018-08-03 11:55:12
End at: 2018-08-03 11:55:42
Local clock offset: -0.13 ms
Remote clock offset: -0.267 ms

# Below is generated by plot.py at 2018-08-03 17:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 54.140 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.83 Mbit/s
95th percentile per-packet one-way delay: 54.219 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.29 Mbit/s
95th percentile per-packet one-way delay: 53.916 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.51 Mbit/s
95th percentile per-packet one-way delay: 53.608 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link



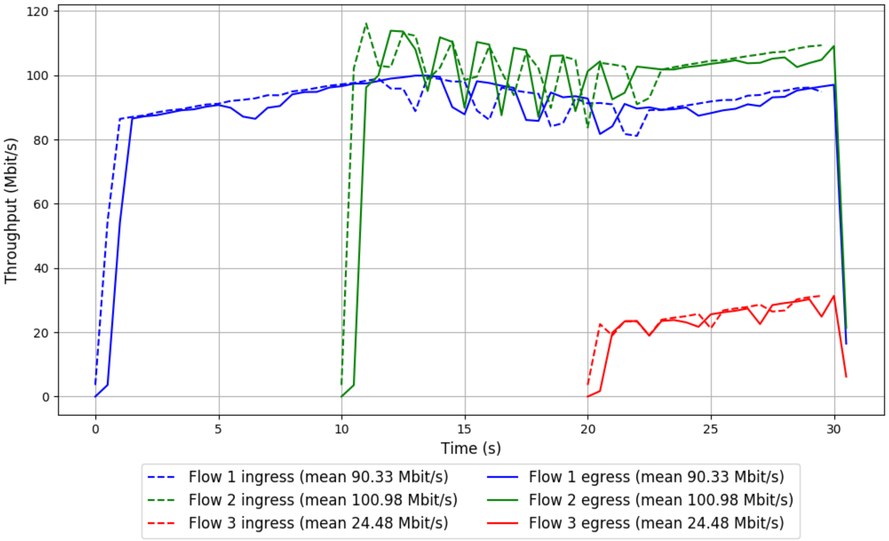


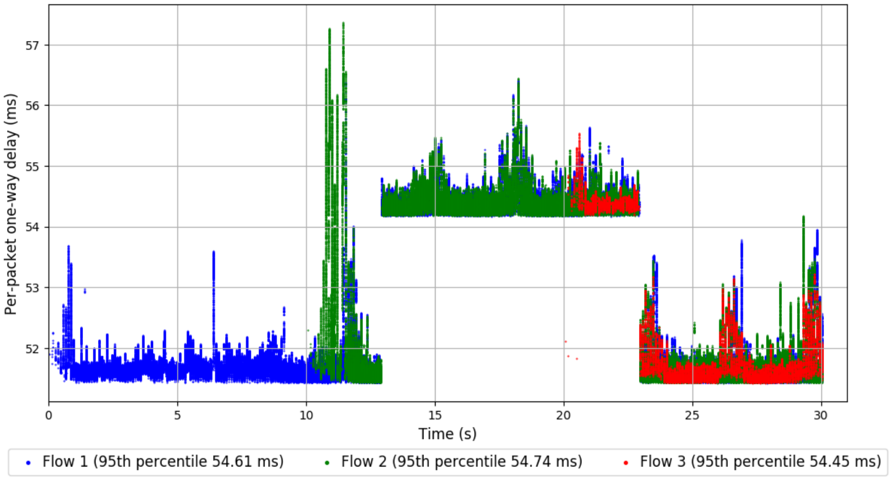
```
Run 5: Statistics of TCP Vegas

Start at: 2018-08-03 12:20:30
End at: 2018-08-03 12:21:00
Local clock offset: 0.017 ms
Remote clock offset: 1.116 ms

# Below is generated by plot.py at 2018-08-03 17:34:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.69 Mbit/s
95th percentile per-packet one-way delay: 54.659 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 90.33 Mbit/s
95th percentile per-packet one-way delay: 54.612 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.98 Mbit/s
95th percentile per-packet one-way delay: 54.736 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.48 Mbit/s
95th percentile per-packet one-way delay: 54.447 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link



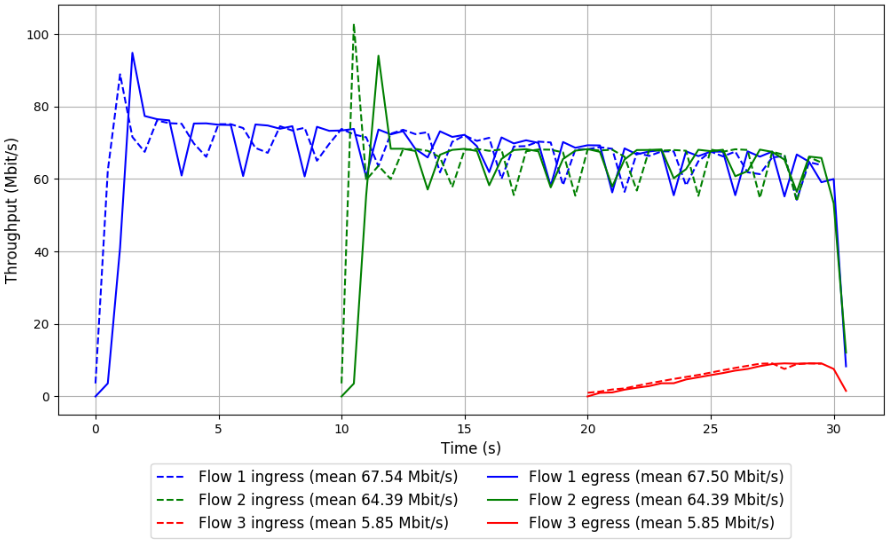


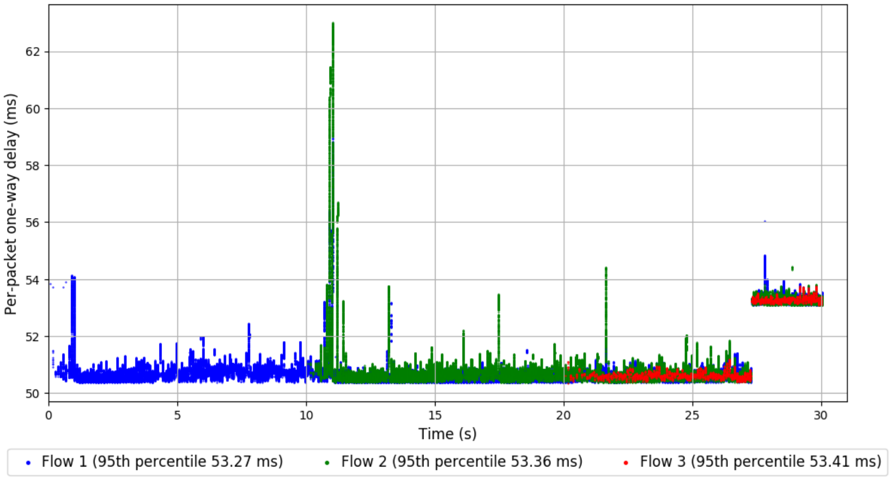
```
Run 6: Statistics of TCP Vegas

Start at: 2018-08-03 12:45:36
End at: 2018-08-03 12:46:06
Local clock offset: -0.114 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-08-03 17:34:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.33 Mbit/s
95th percentile per-packet one-way delay: 53.308 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 67.50 Mbit/s
95th percentile per-packet one-way delay: 53.267 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 64.39 Mbit/s
95th percentile per-packet one-way delay: 53.358 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 53.413 ms
Loss rate: 0.02%
```

Run 6: Report of TCP Vegas — Data Link



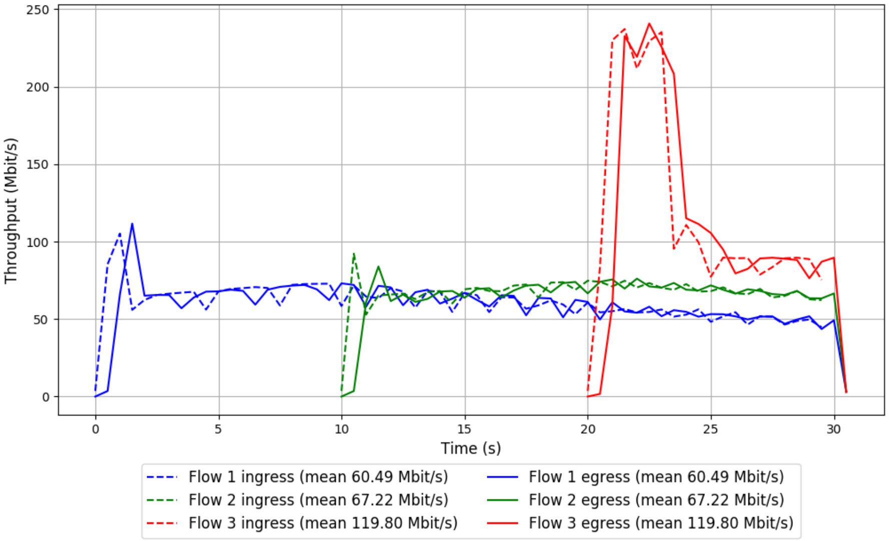


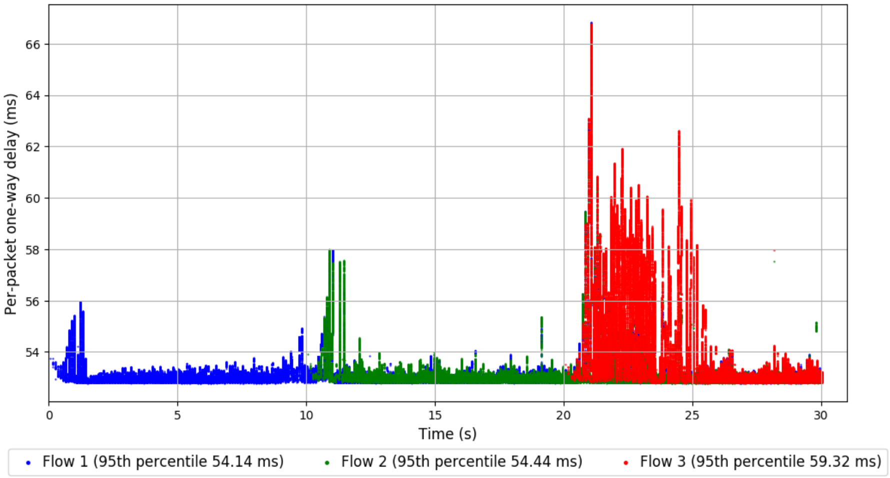
```
Run 7: Statistics of TCP Vegas

Start at: 2018-08-03 13:11:00
End at: 2018-08-03 13:11:30
Local clock offset: 0.025 ms
Remote clock offset: -0.249 ms

# Below is generated by plot.py at 2018-08-03 17:34:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 145.08 Mbit/s
95th percentile per-packet one-way delay: 57.557 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.49 Mbit/s
95th percentile per-packet one-way delay: 54.136 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.22 Mbit/s
95th percentile per-packet one-way delay: 54.440 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 119.80 Mbit/s
95th percentile per-packet one-way delay: 59.323 ms
Loss rate: 0.00%
```

Run 7: Report of TCP Vegas — Data Link



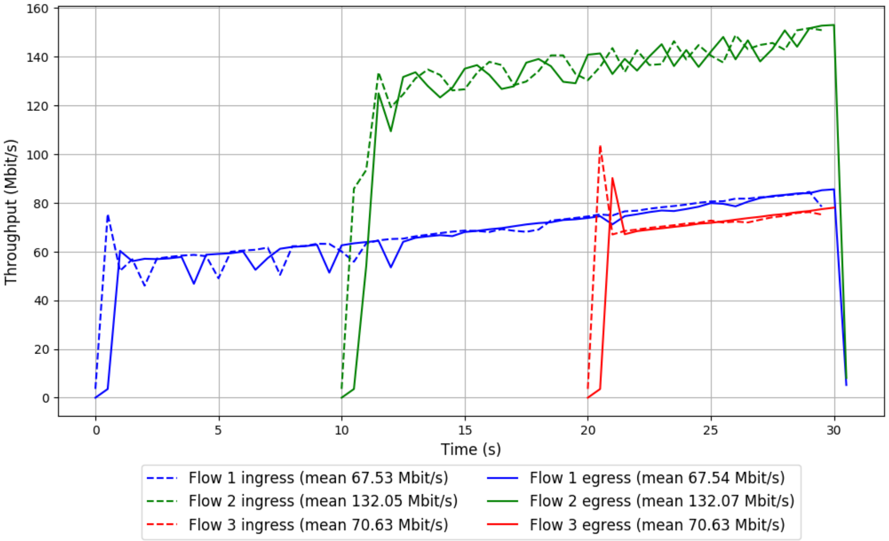


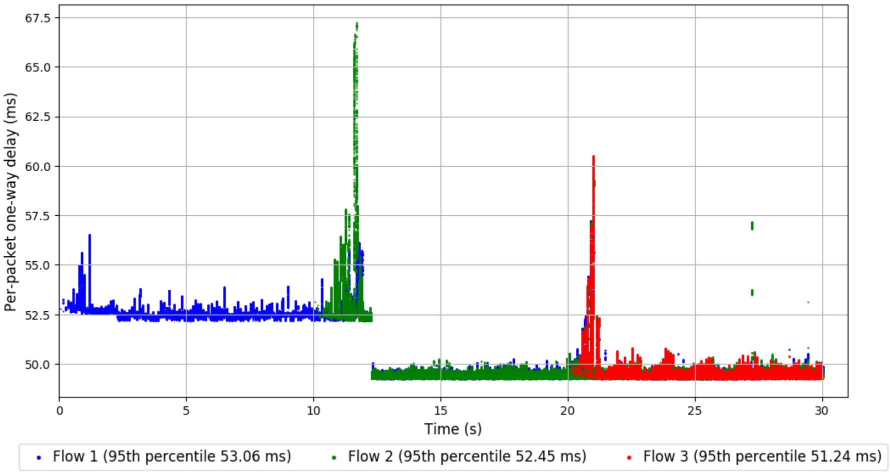
```
Run 8: Statistics of TCP Vegas

Start at: 2018-08-03 13:36:11
End at: 2018-08-03 13:36:41
Local clock offset: -0.187 ms
Remote clock offset: -1.327 ms

# Below is generated by plot.py at 2018-08-03 17:35:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 178.85 Mbit/s
95th percentile per-packet one-way delay: 52.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.54 Mbit/s
95th percentile per-packet one-way delay: 53.057 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 132.07 Mbit/s
95th percentile per-packet one-way delay: 52.446 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.63 Mbit/s
95th percentile per-packet one-way delay: 51.236 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Vegas — Data Link



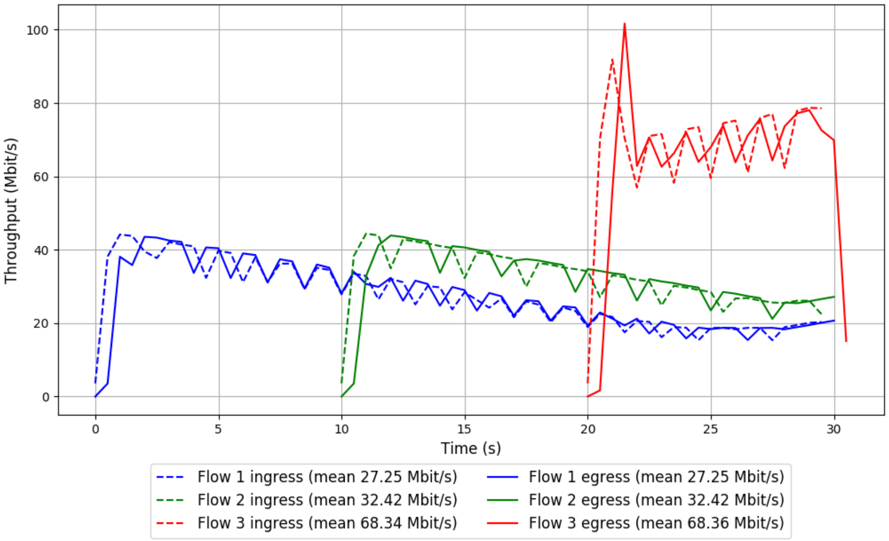


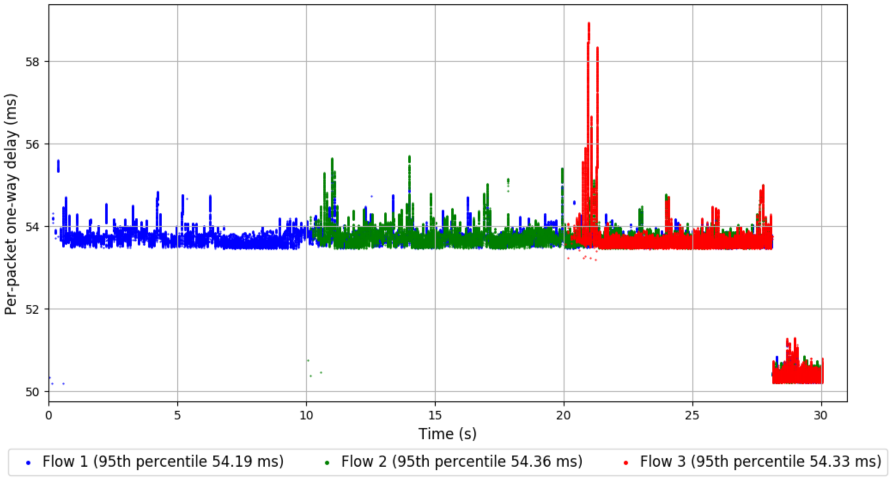
```
Run 9: Statistics of TCP Vegas

Start at: 2018-08-03 14:01:15
End at: 2018-08-03 14:01:45
Local clock offset: -0.092 ms
Remote clock offset: -0.309 ms

# Below is generated by plot.py at 2018-08-03 17:35:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.47 Mbit/s
95th percentile per-packet one-way delay: 54.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.25 Mbit/s
95th percentile per-packet one-way delay: 54.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.42 Mbit/s
95th percentile per-packet one-way delay: 54.358 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 68.36 Mbit/s
95th percentile per-packet one-way delay: 54.331 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Vegas — Data Link



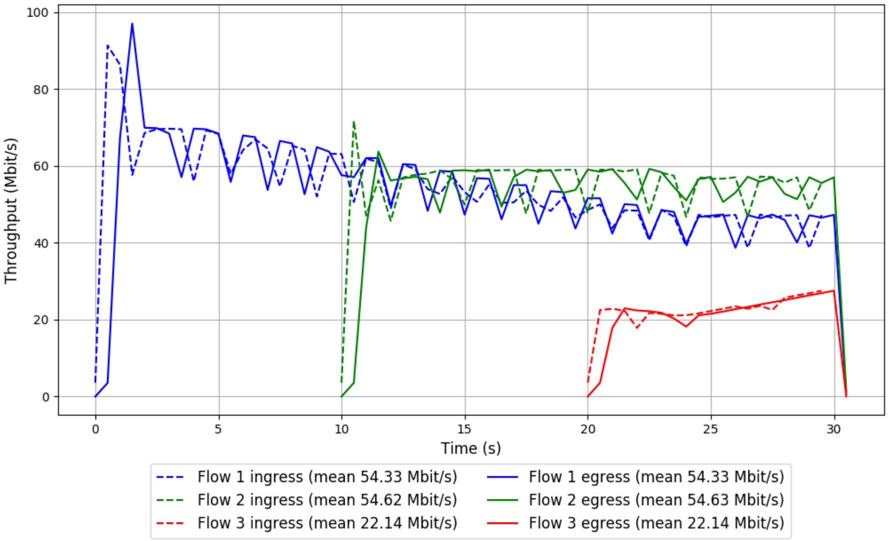


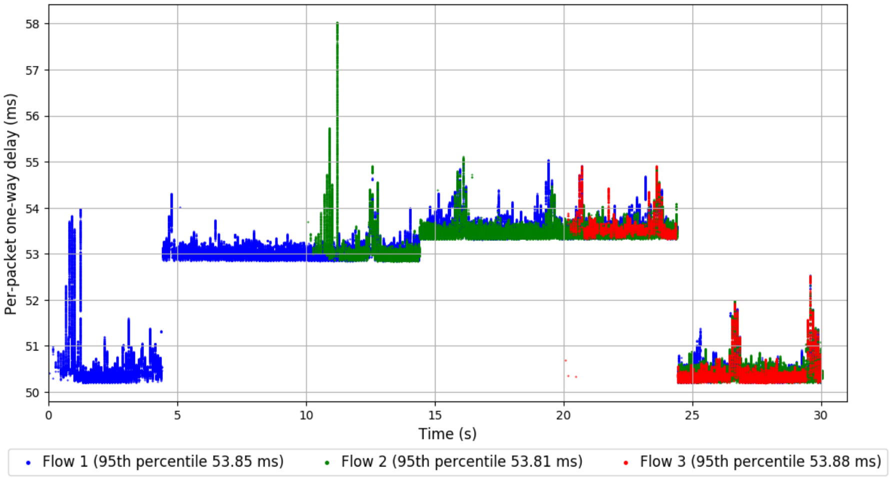
```
Run 10: Statistics of TCP Vegas

Start at: 2018-08-03 14:26:39
End at: 2018-08-03 14:27:09
Local clock offset: 0.047 ms
Remote clock offset: -0.177 ms

# Below is generated by plot.py at 2018-08-03 17:35:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.05 Mbit/s
95th percentile per-packet one-way delay: 53.841 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 53.849 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.63 Mbit/s
95th percentile per-packet one-way delay: 53.812 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.14 Mbit/s
95th percentile per-packet one-way delay: 53.882 ms
Loss rate: 0.00%
```

Run 10: Report of TCP Vegas — Data Link



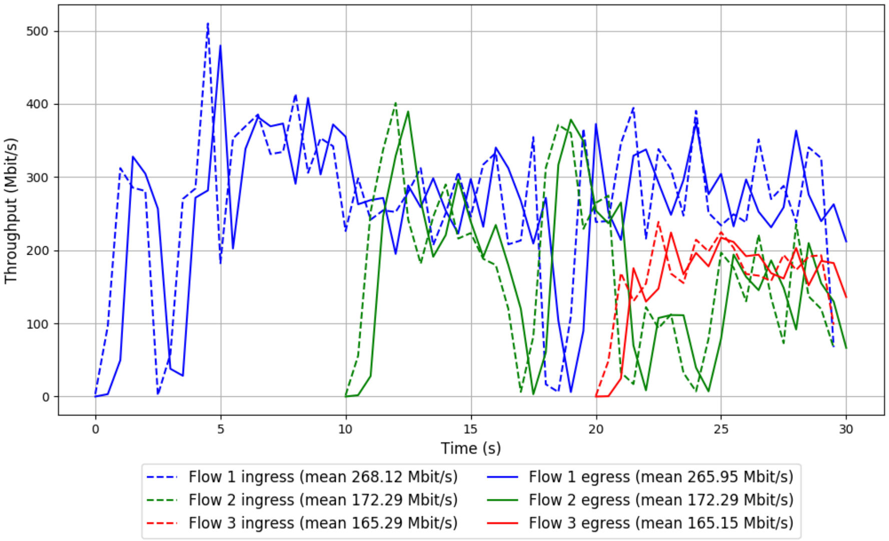


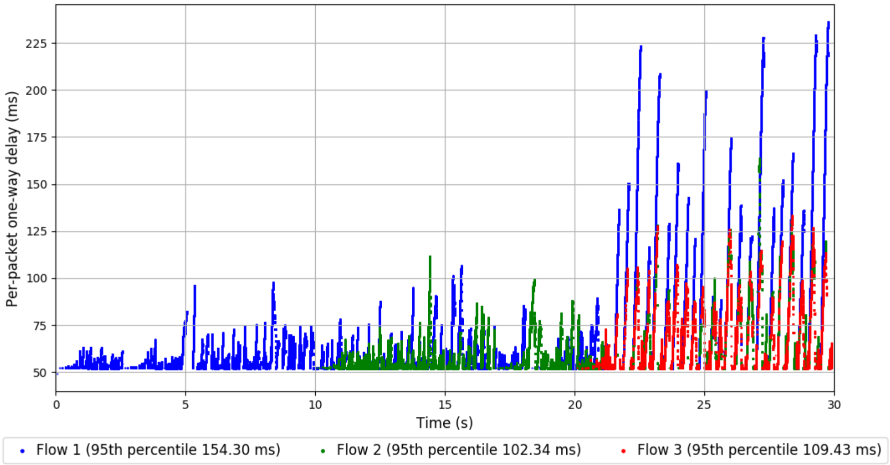
```
Run 1: Statistics of Verus

Start at: 2018-08-03 10:48:13
End at: 2018-08-03 10:48:43
Local clock offset: 0.282 ms
Remote clock offset: -1.598 ms

# Below is generated by plot.py at 2018-08-03 17:39:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.27 Mbit/s
95th percentile per-packet one-way delay: 132.711 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 265.95 Mbit/s
95th percentile per-packet one-way delay: 154.303 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 172.29 Mbit/s
95th percentile per-packet one-way delay: 102.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 165.15 Mbit/s
95th percentile per-packet one-way delay: 109.433 ms
Loss rate: 0.00%
```

Run 1: Report of Verus — Data Link



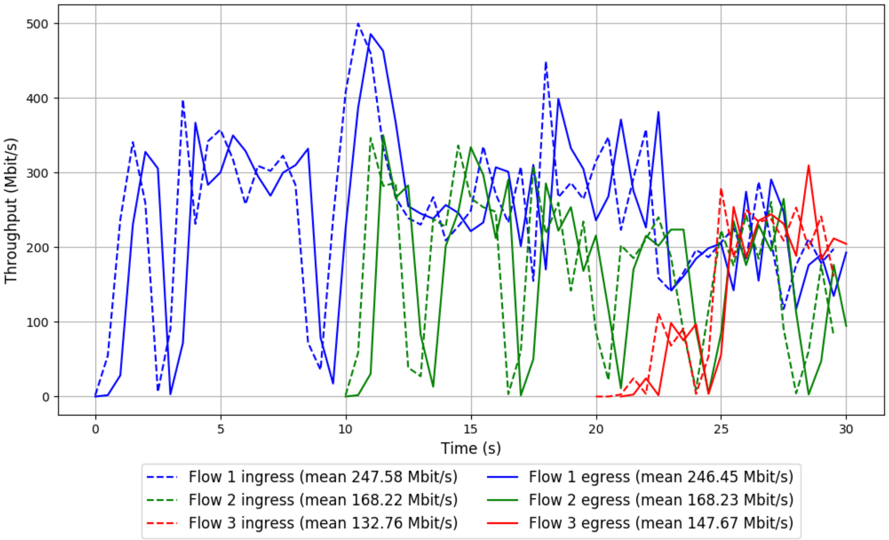


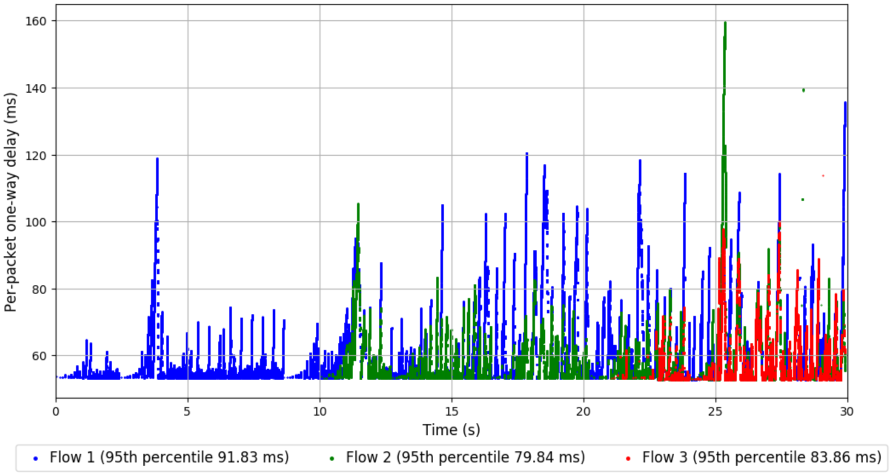
```
Run 2: Statistics of Verus

Start at: 2018-08-03 11:13:40
End at: 2018-08-03 11:14:10
Local clock offset: 0.095 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-08-03 17:39:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.97 Mbit/s
95th percentile per-packet one-way delay: 87.959 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 246.45 Mbit/s
95th percentile per-packet one-way delay: 91.825 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 168.23 Mbit/s
95th percentile per-packet one-way delay: 79.845 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 147.67 Mbit/s
95th percentile per-packet one-way delay: 83.863 ms
Loss rate: 0.00%
```

Run 2: Report of Verus — Data Link



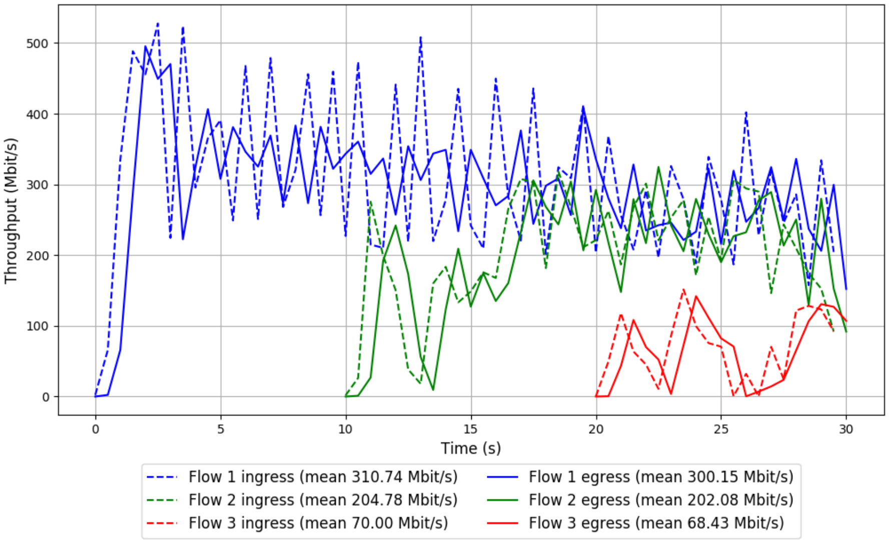


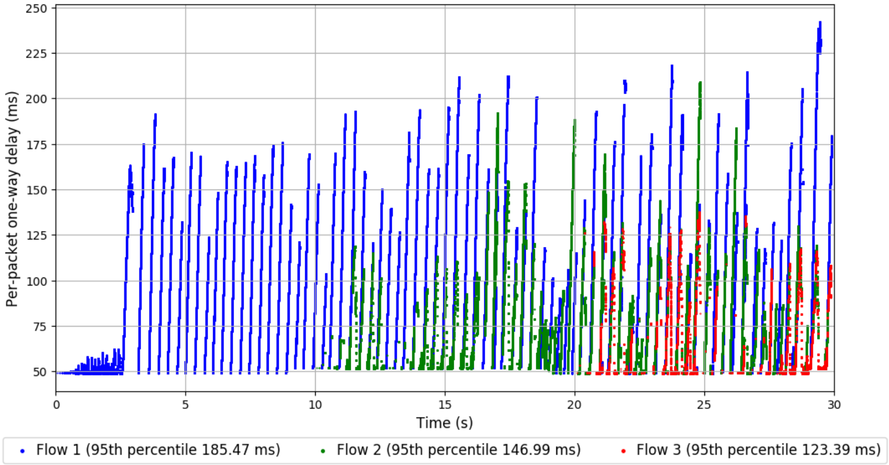
```
Run 3: Statistics of Verus

Start at: 2018-08-03 11:39:14
End at: 2018-08-03 11:39:44
Local clock offset: -0.022 ms
Remote clock offset: -1.454 ms

# Below is generated by plot.py at 2018-08-03 17:40:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.83 Mbit/s
95th percentile per-packet one-way delay: 176.519 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 300.15 Mbit/s
95th percentile per-packet one-way delay: 185.468 ms
Loss rate: 3.07%
-- Flow 2:
Average throughput: 202.08 Mbit/s
95th percentile per-packet one-way delay: 146.992 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 68.43 Mbit/s
95th percentile per-packet one-way delay: 123.392 ms
Loss rate: 1.82%
```

Run 3: Report of Verus — Data Link



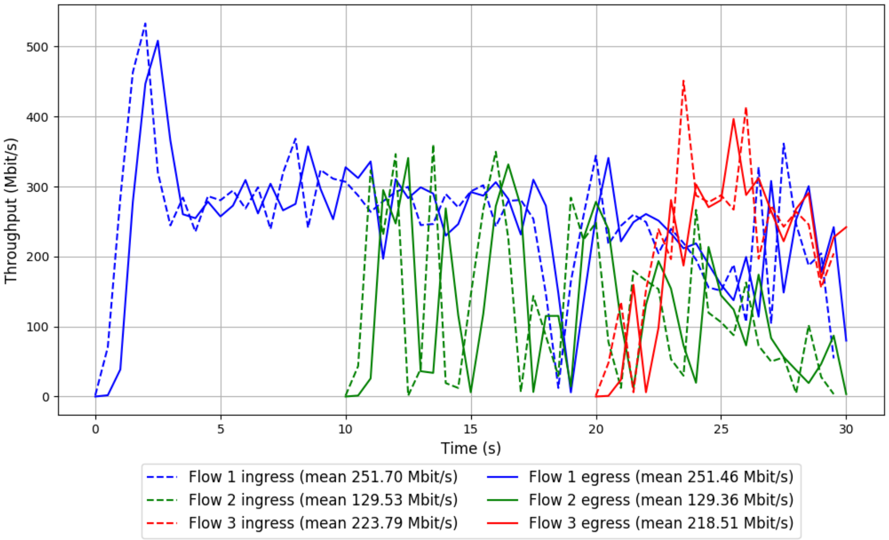


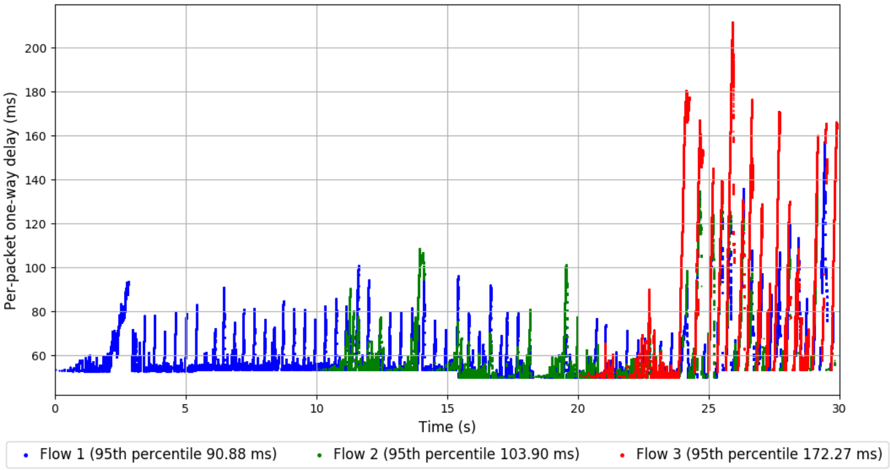
```
Run 4: Statistics of Verus

Start at: 2018-08-03 12:04:28
End at: 2018-08-03 12:04:58
Local clock offset: -0.037 ms
Remote clock offset: -0.288 ms

# Below is generated by plot.py at 2018-08-03 17:40:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.76 Mbit/s
95th percentile per-packet one-way delay: 127.616 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 251.46 Mbit/s
95th percentile per-packet one-way delay: 90.883 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 129.36 Mbit/s
95th percentile per-packet one-way delay: 103.903 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 218.51 Mbit/s
95th percentile per-packet one-way delay: 172.268 ms
Loss rate: 1.23%
```

Run 4: Report of Verus — Data Link



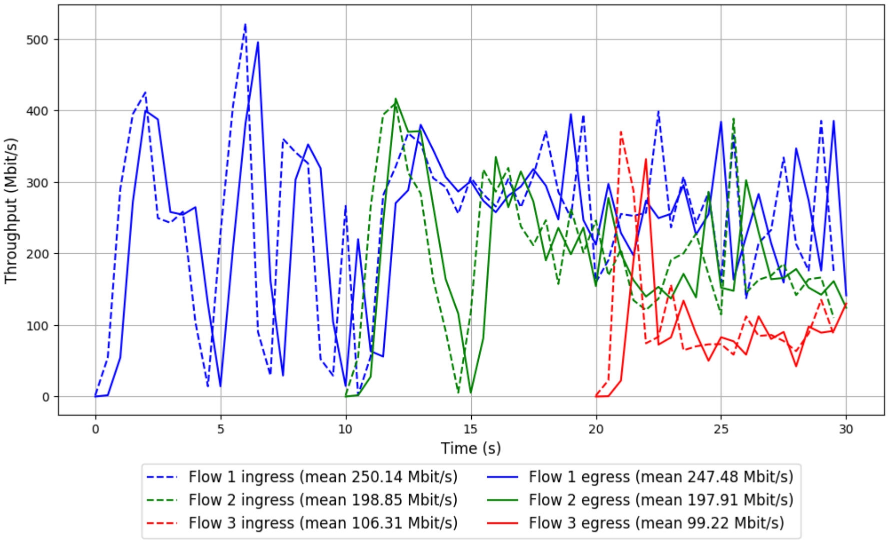


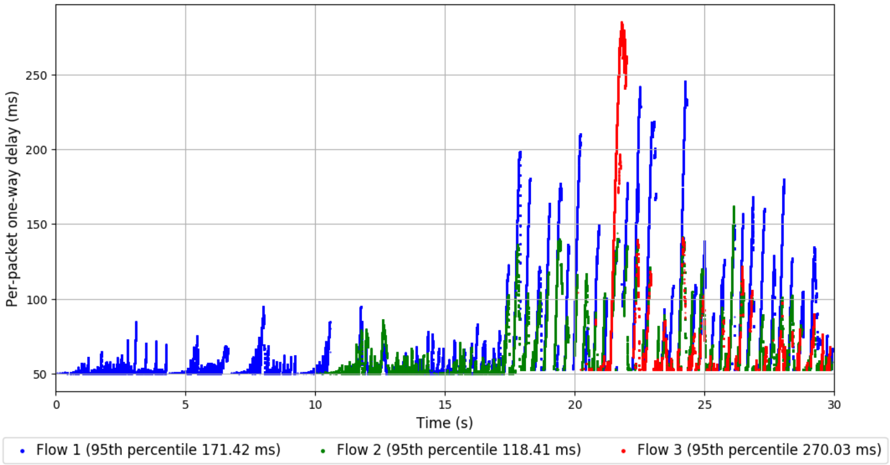
```
Run 5: Statistics of Verus

Start at: 2018-08-03 12:29:45
End at: 2018-08-03 12:30:15
Local clock offset: -0.061 ms
Remote clock offset: -0.196 ms

# Below is generated by plot.py at 2018-08-03 17:40:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.26 Mbit/s
95th percentile per-packet one-way delay: 163.437 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 247.48 Mbit/s
95th percentile per-packet one-way delay: 171.421 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 197.91 Mbit/s
95th percentile per-packet one-way delay: 118.406 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 99.22 Mbit/s
95th percentile per-packet one-way delay: 270.028 ms
Loss rate: 7.01%
```

Run 5: Report of Verus — Data Link



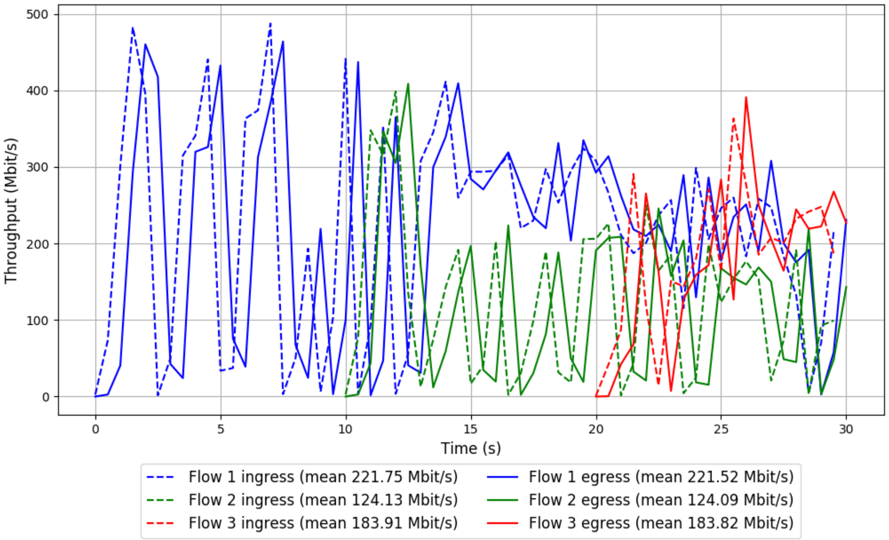


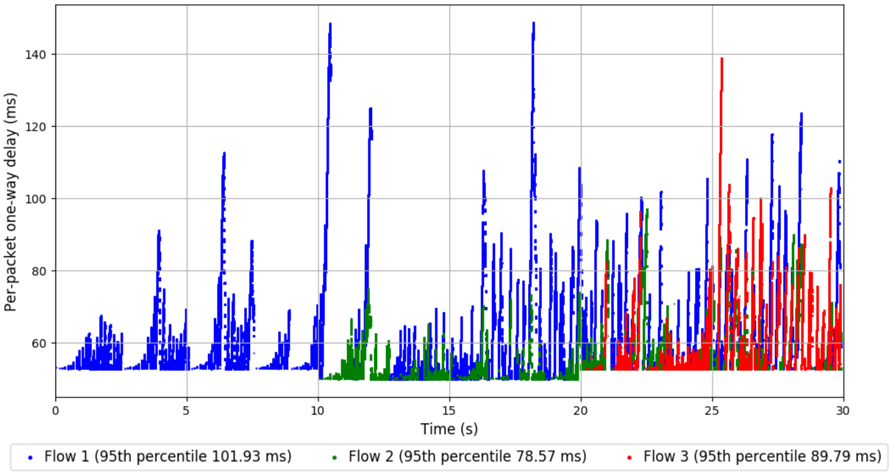
```
Run 6: Statistics of Verus

Start at: 2018-08-03 12:54:53
End at: 2018-08-03 12:55:23
Local clock offset: 0.171 ms
Remote clock offset: -0.196 ms

# Below is generated by plot.py at 2018-08-03 17:40:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 364.40 Mbit/s
95th percentile per-packet one-way delay: 93.622 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 221.52 Mbit/s
95th percentile per-packet one-way delay: 101.930 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 124.09 Mbit/s
95th percentile per-packet one-way delay: 78.567 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 183.82 Mbit/s
95th percentile per-packet one-way delay: 89.788 ms
Loss rate: 0.00%
```

Run 6: Report of Verus — Data Link



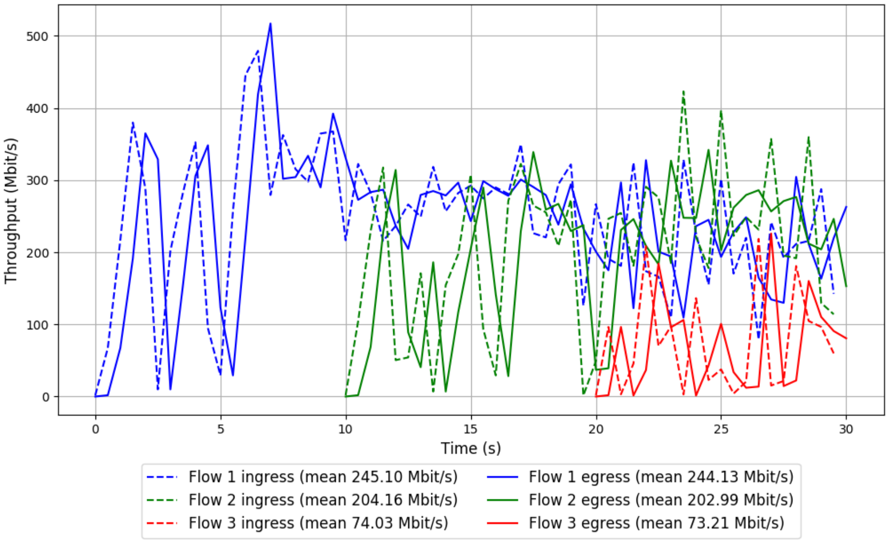


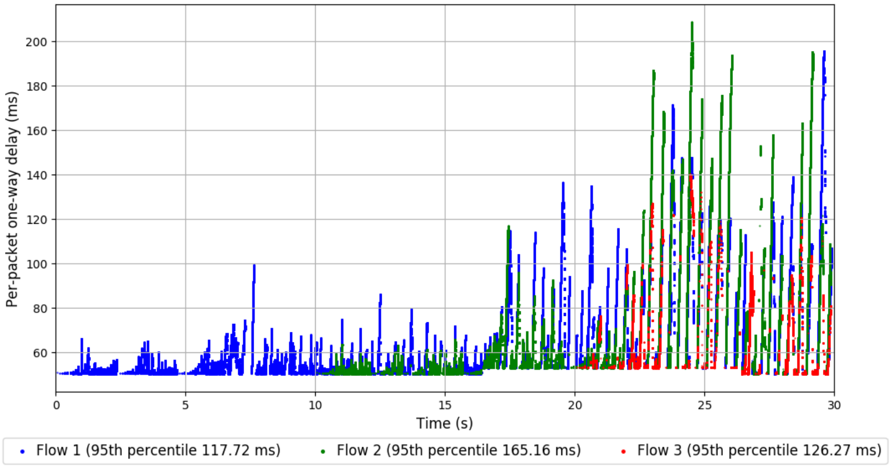
```
Run 7: Statistics of Verus

Start at: 2018-08-03 13:20:17
End at: 2018-08-03 13:20:47
Local clock offset: -0.041 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2018-08-03 17:40:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.78 Mbit/s
95th percentile per-packet one-way delay: 135.949 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 244.13 Mbit/s
95th percentile per-packet one-way delay: 117.722 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 202.99 Mbit/s
95th percentile per-packet one-way delay: 165.159 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 73.21 Mbit/s
95th percentile per-packet one-way delay: 126.269 ms
Loss rate: 0.85%
```

Run 7: Report of Verus — Data Link



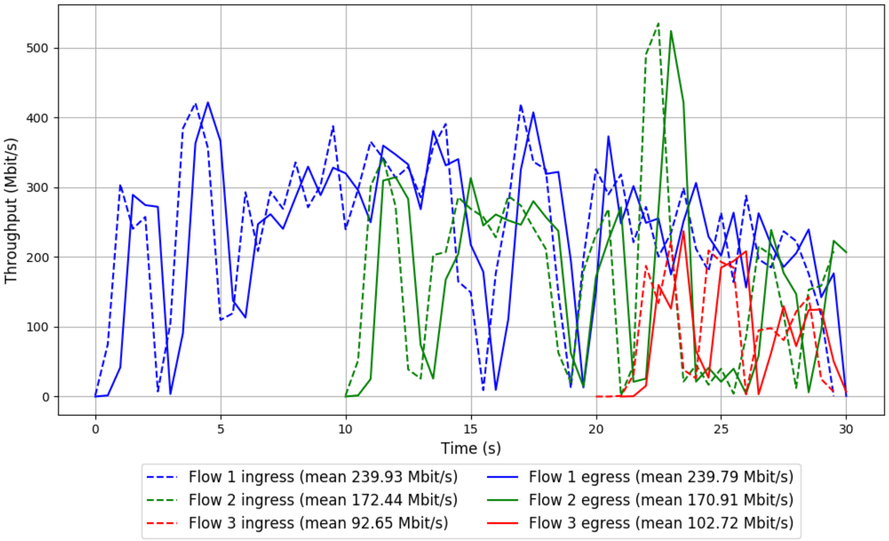


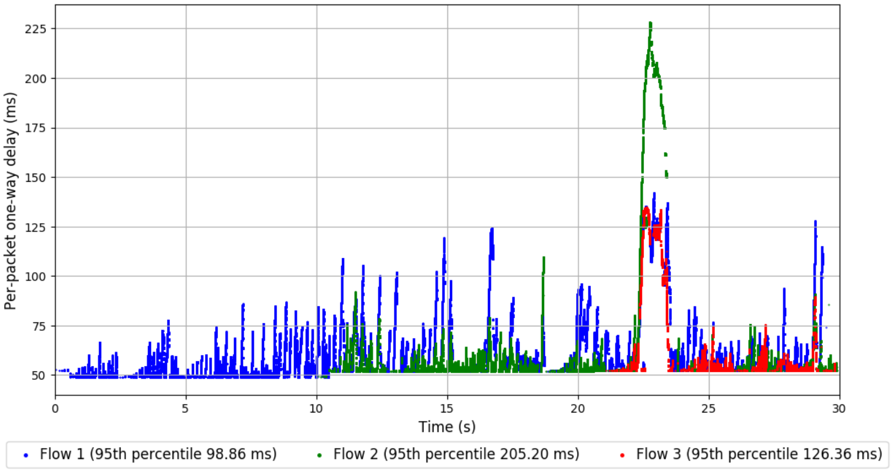
```
Run 8: Statistics of Verus

Start at: 2018-08-03 13:45:43
End at: 2018-08-03 13:46:13
Local clock offset: 0.124 ms
Remote clock offset: -1.418 ms

# Below is generated by plot.py at 2018-08-03 17:41:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.70 Mbit/s
95th percentile per-packet one-way delay: 129.828 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 239.79 Mbit/s
95th percentile per-packet one-way delay: 98.861 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 170.91 Mbit/s
95th percentile per-packet one-way delay: 205.203 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 102.72 Mbit/s
95th percentile per-packet one-way delay: 126.356 ms
Loss rate: 0.46%
```

Run 8: Report of Verus — Data Link



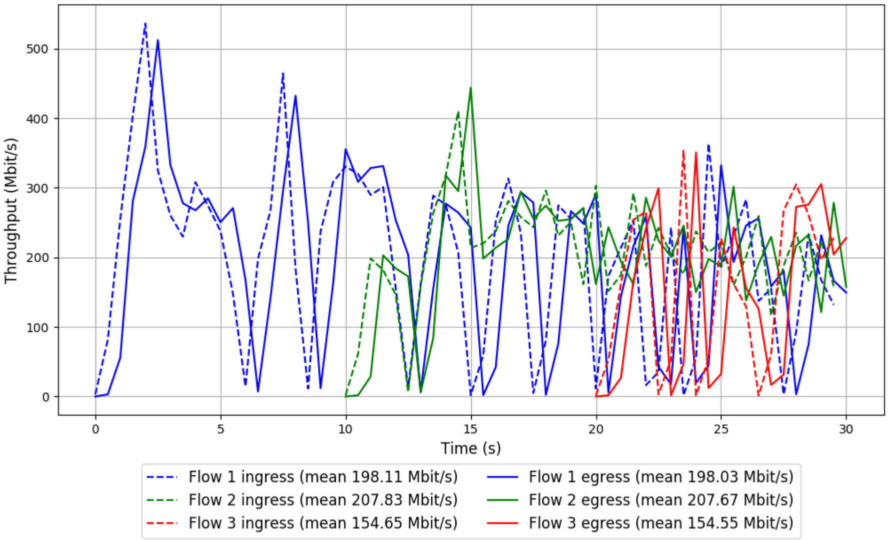


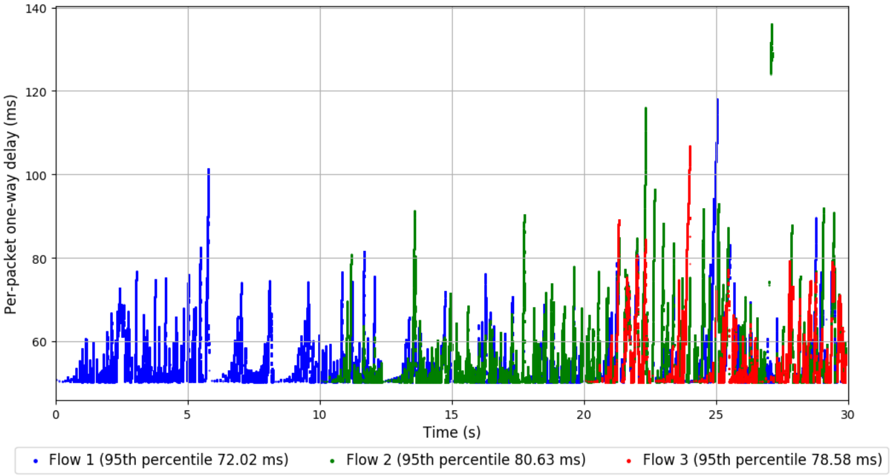
```
Run 9: Statistics of Verus

Start at: 2018-08-03 14:10:29
End at: 2018-08-03 14:10:59
Local clock offset: 0.027 ms
Remote clock offset: -0.212 ms

# Below is generated by plot.py at 2018-08-03 17:44:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.99 Mbit/s
95th percentile per-packet one-way delay: 76.066 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 198.03 Mbit/s
95th percentile per-packet one-way delay: 72.022 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 207.67 Mbit/s
95th percentile per-packet one-way delay: 80.631 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 154.55 Mbit/s
95th percentile per-packet one-way delay: 78.583 ms
Loss rate: 0.00%
```

Run 9: Report of Verus — Data Link



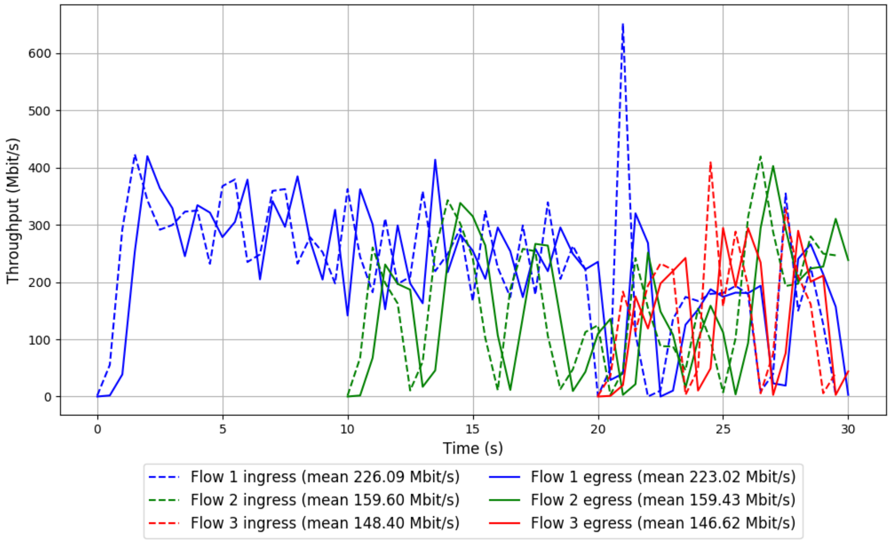


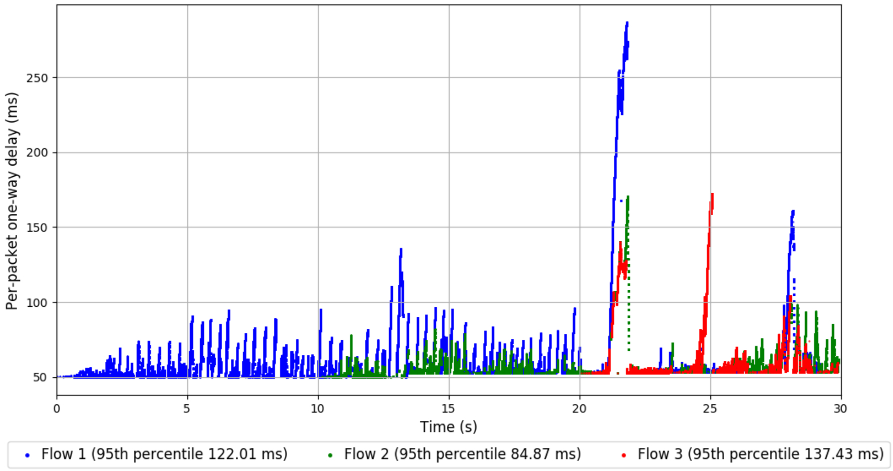
```
Run 10: Statistics of Verus

Start at: 2018-08-03 14:36:00
End at: 2018-08-03 14:36:30
Local clock offset: 0.274 ms
Remote clock offset: -0.303 ms

# Below is generated by plot.py at 2018-08-03 17:44:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.49 Mbit/s
95th percentile per-packet one-way delay: 119.756 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 223.02 Mbit/s
95th percentile per-packet one-way delay: 122.014 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 159.43 Mbit/s
95th percentile per-packet one-way delay: 84.869 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 146.62 Mbit/s
95th percentile per-packet one-way delay: 137.429 ms
Loss rate: 1.13%
```

Run 10: Report of Verus — Data Link



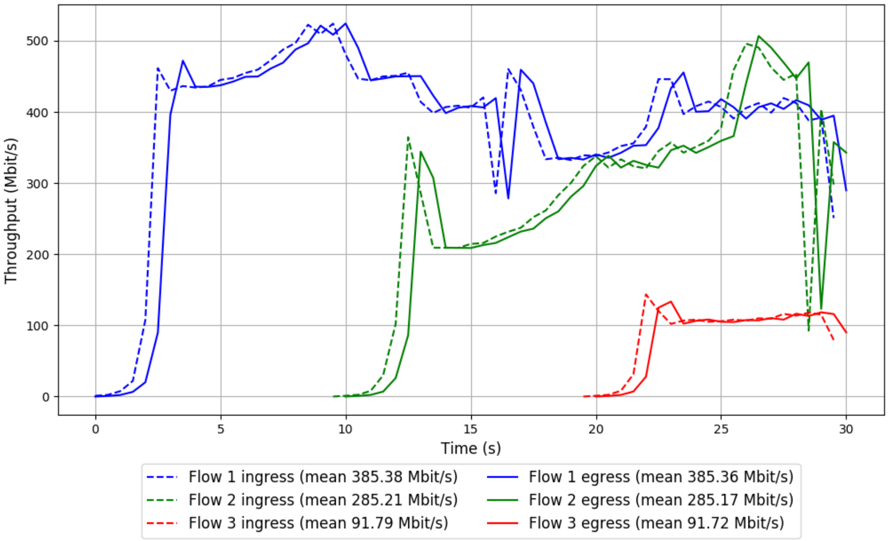


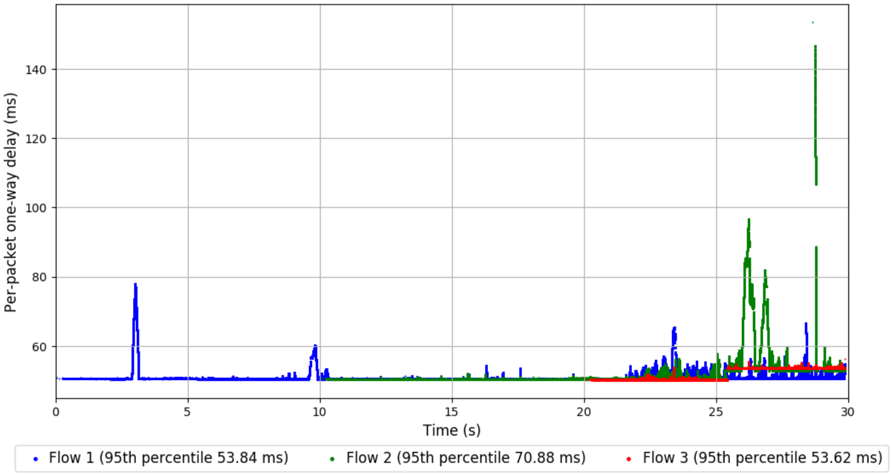
```
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-03 10:42:58
End at: 2018-08-03 10:43:28
Local clock offset: -0.043 ms
Remote clock offset: -0.317 ms

# Below is generated by plot.py at 2018-08-03 17:49:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 605.60 Mbit/s
95th percentile per-packet one-way delay: 55.962 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 385.36 Mbit/s
95th percentile per-packet one-way delay: 53.838 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 285.17 Mbit/s
95th percentile per-packet one-way delay: 70.876 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 91.72 Mbit/s
95th percentile per-packet one-way delay: 53.620 ms
Loss rate: 0.04%
```

Run 1: Report of PCC-Vivace — Data Link



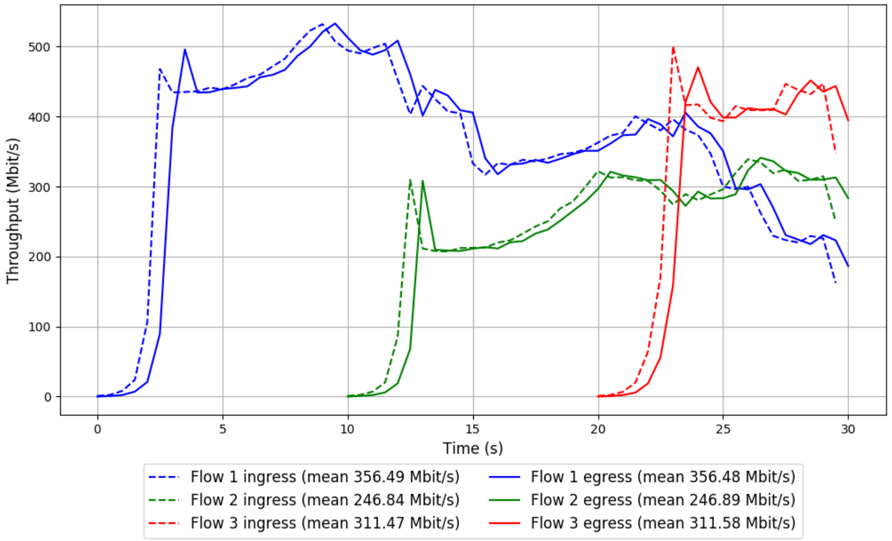


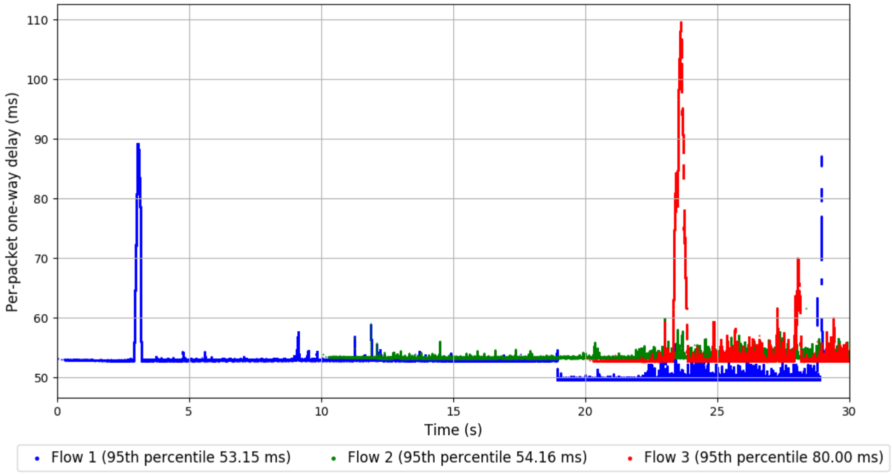
```
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-03 11:08:25
End at: 2018-08-03 11:08:55
Local clock offset: 0.141 ms
Remote clock offset: -0.323 ms

# Below is generated by plot.py at 2018-08-03 17:50:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 623.45 Mbit/s
95th percentile per-packet one-way delay: 54.968 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 356.48 Mbit/s
95th percentile per-packet one-way delay: 53.147 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 246.89 Mbit/s
95th percentile per-packet one-way delay: 54.158 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 311.58 Mbit/s
95th percentile per-packet one-way delay: 80.004 ms
Loss rate: 0.02%
```

Run 2: Report of PCC-Vivace — Data Link



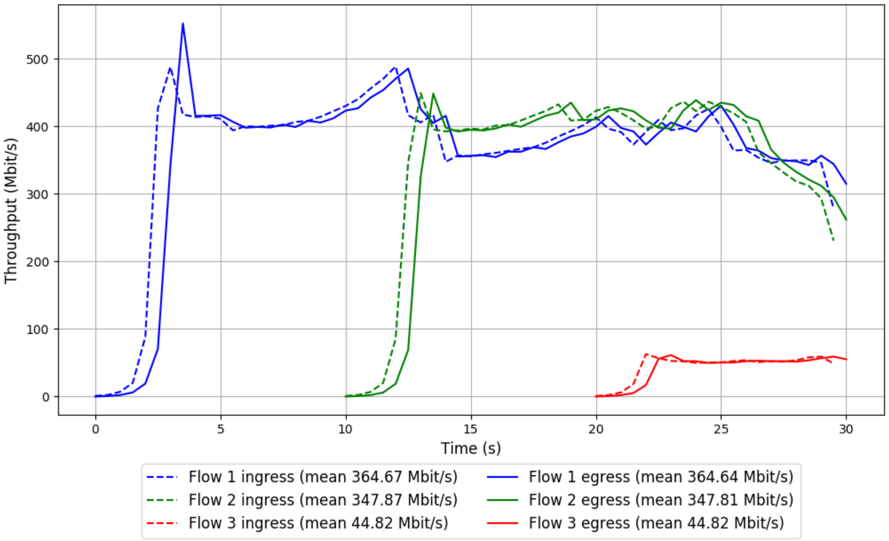


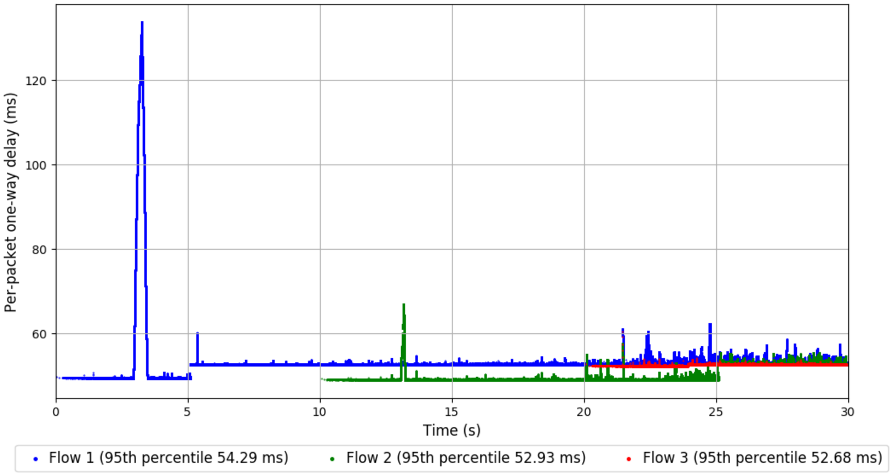
```
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-03 11:33:49
End at: 2018-08-03 11:34:19
Local clock offset: -0.267 ms
Remote clock offset: -1.363 ms

# Below is generated by plot.py at 2018-08-03 17:50:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 610.73 Mbit/s
95th percentile per-packet one-way delay: 53.672 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 364.64 Mbit/s
95th percentile per-packet one-way delay: 54.291 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 347.81 Mbit/s
95th percentile per-packet one-way delay: 52.933 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.82 Mbit/s
95th percentile per-packet one-way delay: 52.679 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link



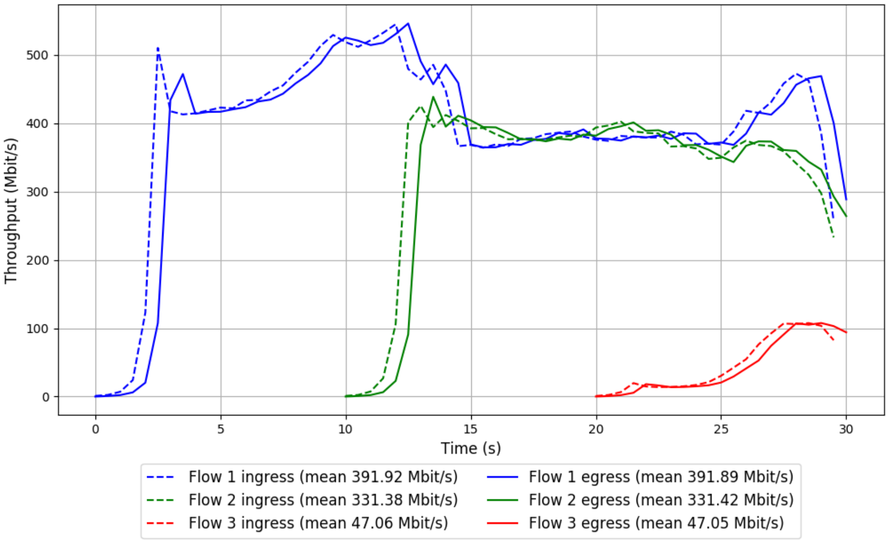


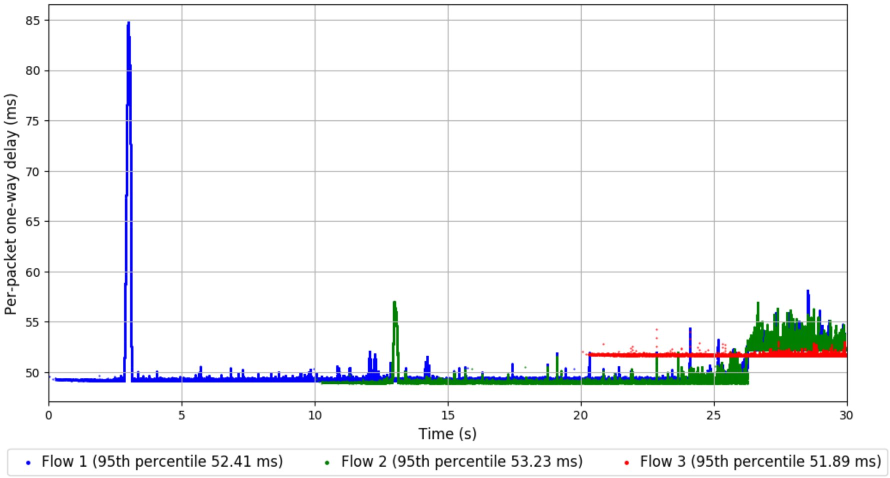
```
Run 4: Statistics of PCC-Vivace

Start at: 2018-08-03 11:59:08
End at: 2018-08-03 11:59:38
Local clock offset: -0.044 ms
Remote clock offset: -1.418 ms

# Below is generated by plot.py at 2018-08-03 17:50:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 627.73 Mbit/s
95th percentile per-packet one-way delay: 52.717 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 391.89 Mbit/s
95th percentile per-packet one-way delay: 52.412 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 331.42 Mbit/s
95th percentile per-packet one-way delay: 53.228 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.05 Mbit/s
95th percentile per-packet one-way delay: 51.886 ms
Loss rate: 0.03%
```

Run 4: Report of PCC-Vivace — Data Link



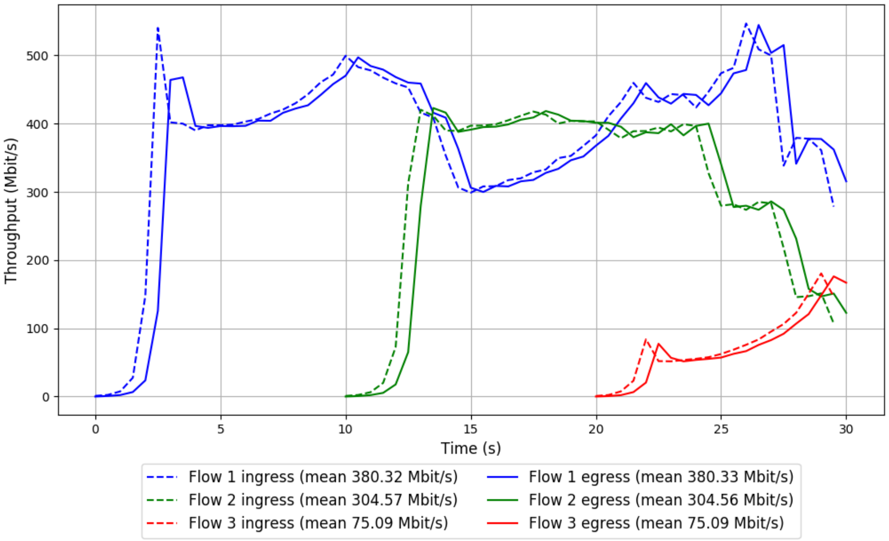


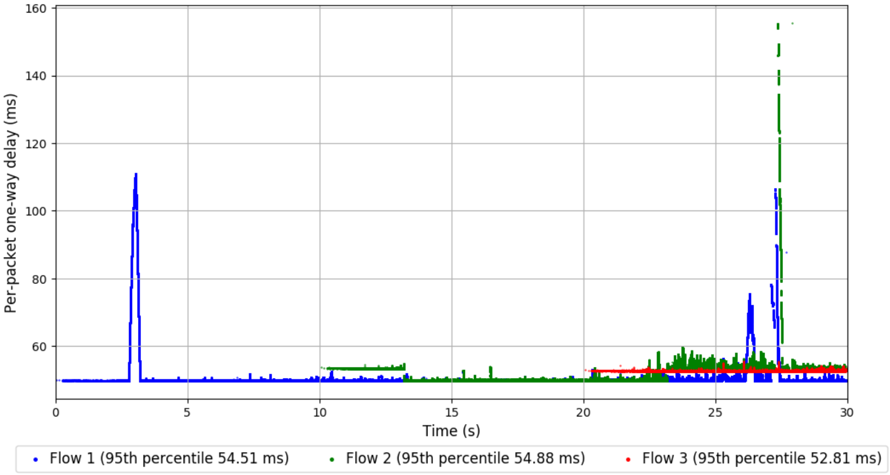
```
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-03 12:24:30
End at: 2018-08-03 12:25:00
Local clock offset: 0.035 ms
Remote clock offset: -0.52 ms

# Below is generated by plot.py at 2018-08-03 17:50:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 607.56 Mbit/s
95th percentile per-packet one-way delay: 54.634 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 380.33 Mbit/s
95th percentile per-packet one-way delay: 54.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 304.56 Mbit/s
95th percentile per-packet one-way delay: 54.885 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 75.09 Mbit/s
95th percentile per-packet one-way delay: 52.810 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link



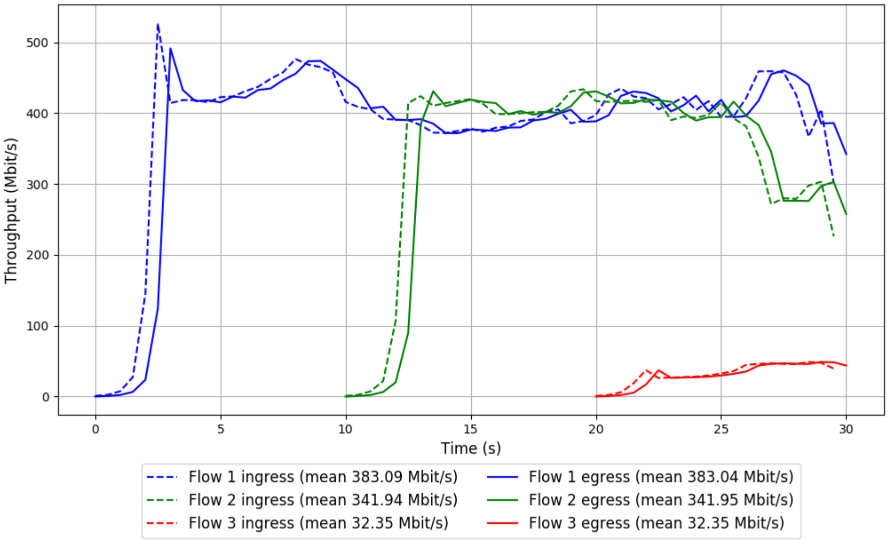


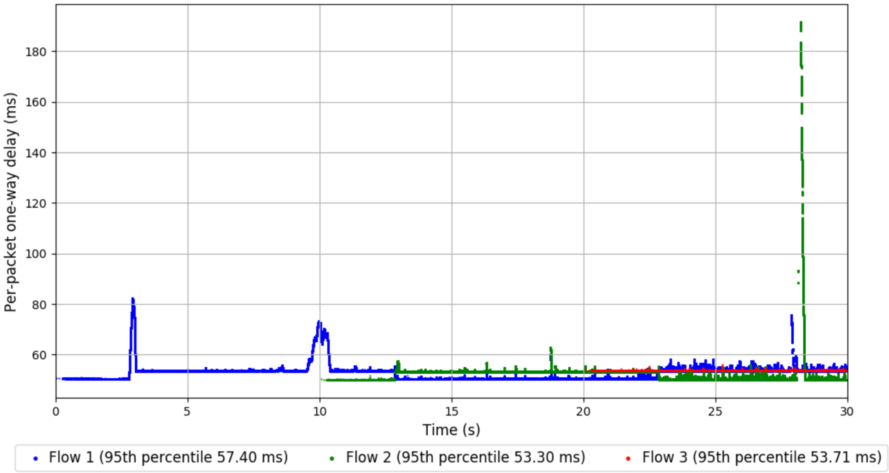
```
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-03 12:49:31
End at: 2018-08-03 12:50:01
Local clock offset: 0.18 ms
Remote clock offset: 0.073 ms

# Below is generated by plot.py at 2018-08-03 17:51:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 621.10 Mbit/s
95th percentile per-packet one-way delay: 55.296 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 383.04 Mbit/s
95th percentile per-packet one-way delay: 57.396 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 341.95 Mbit/s
95th percentile per-packet one-way delay: 53.296 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.35 Mbit/s
95th percentile per-packet one-way delay: 53.709 ms
Loss rate: 0.01%
```

Run 6: Report of PCC-Vivace — Data Link



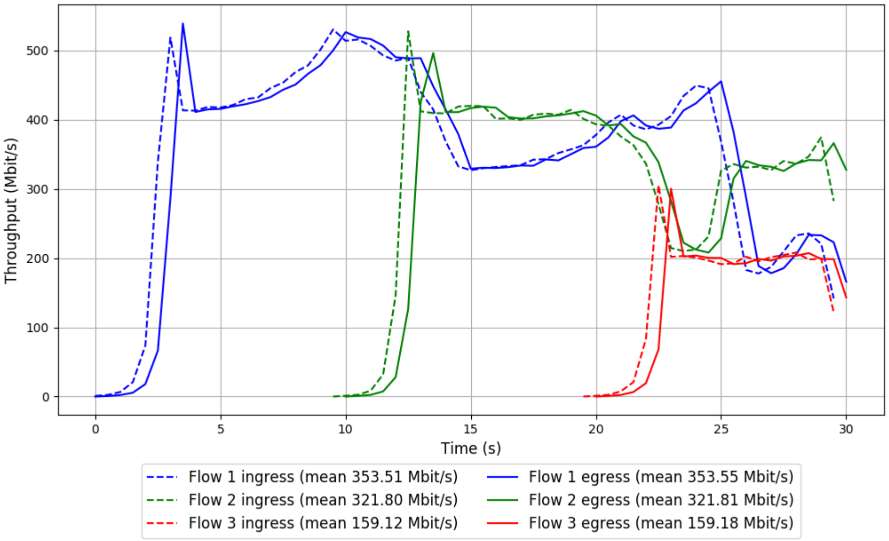


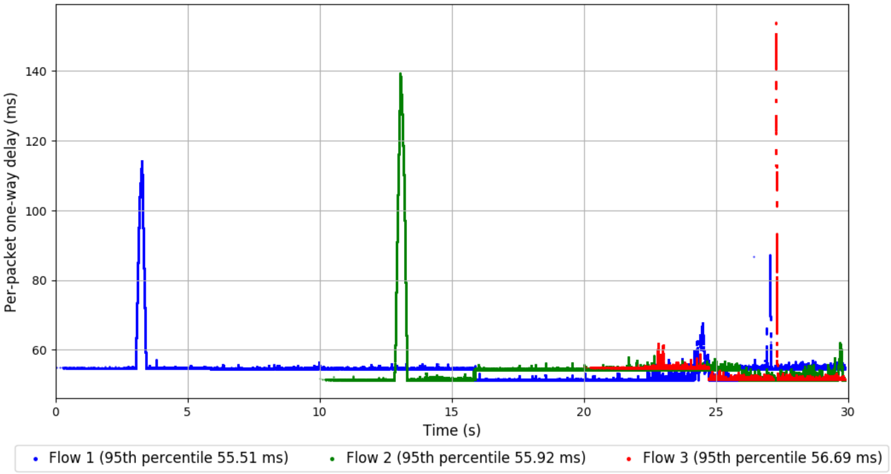
```
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-03 13:14:58
End at: 2018-08-03 13:15:28
Local clock offset: 0.099 ms
Remote clock offset: 1.035 ms

# Below is generated by plot.py at 2018-08-03 17:52:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 620.61 Mbit/s
95th percentile per-packet one-way delay: 55.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 353.55 Mbit/s
95th percentile per-packet one-way delay: 55.513 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 321.81 Mbit/s
95th percentile per-packet one-way delay: 55.924 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 159.18 Mbit/s
95th percentile per-packet one-way delay: 56.689 ms
Loss rate: 0.00%
```

Run 7: Report of PCC-Vivace — Data Link



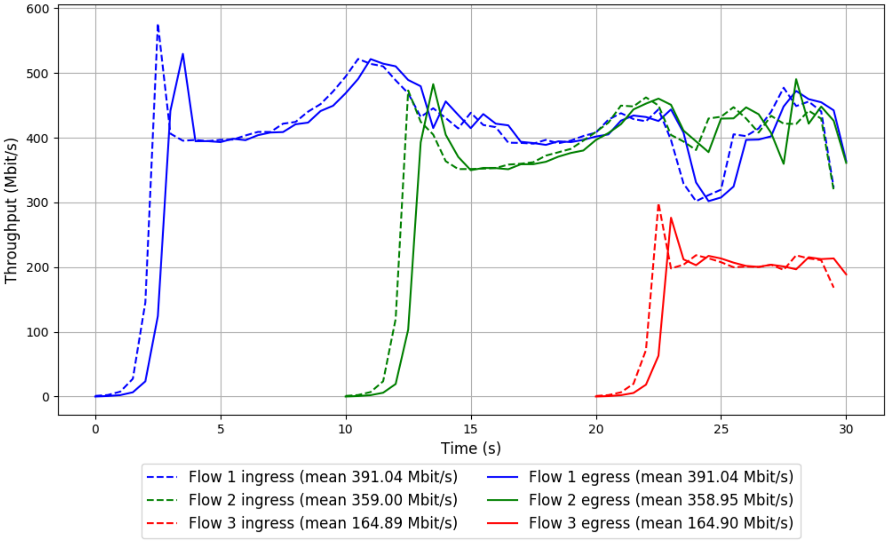


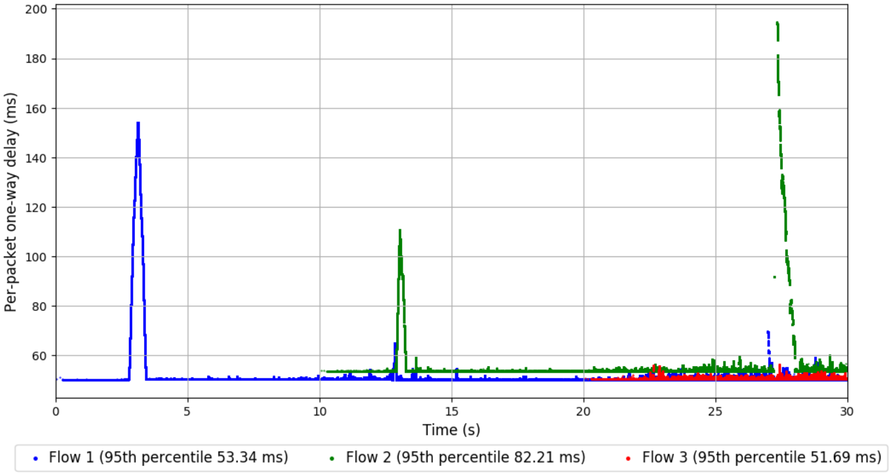
```
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-03 13:40:12
End at: 2018-08-03 13:40:42
Local clock offset: -0.064 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2018-08-03 17:53:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 684.10 Mbit/s
95th percentile per-packet one-way delay: 56.490 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 391.04 Mbit/s
95th percentile per-packet one-way delay: 53.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 358.95 Mbit/s
95th percentile per-packet one-way delay: 82.207 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 164.90 Mbit/s
95th percentile per-packet one-way delay: 51.689 ms
Loss rate: 0.00%
```

Run 8: Report of PCC-Vivace — Data Link



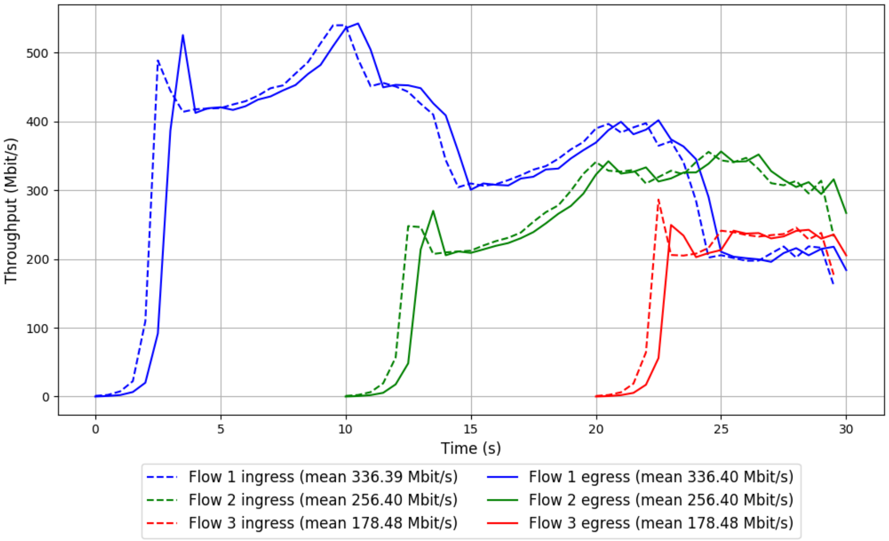


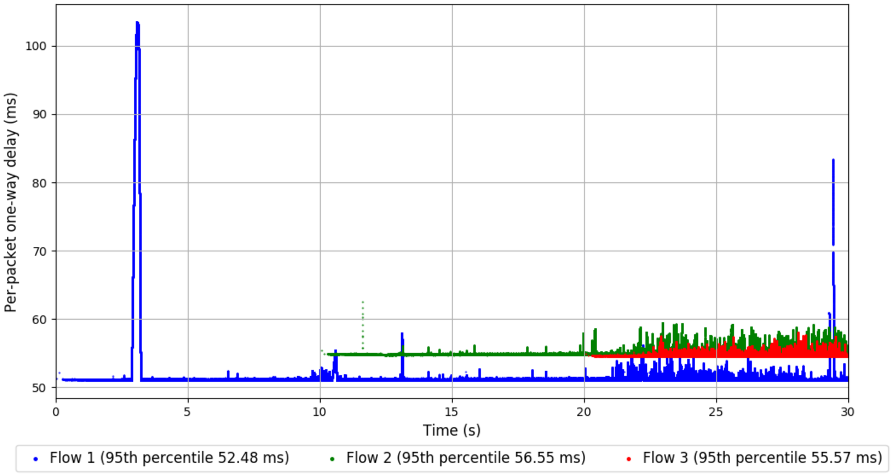
```
Run 9: Statistics of PCC-Vivace

Start at: 2018-08-03 14:05:09
End at: 2018-08-03 14:05:39
Local clock offset: 0.22 ms
Remote clock offset: 1.147 ms

# Below is generated by plot.py at 2018-08-03 17:53:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.74 Mbit/s
95th percentile per-packet one-way delay: 55.740 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 336.40 Mbit/s
95th percentile per-packet one-way delay: 52.483 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 256.40 Mbit/s
95th percentile per-packet one-way delay: 56.545 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 178.48 Mbit/s
95th percentile per-packet one-way delay: 55.568 ms
Loss rate: 0.00%
```

Run 9: Report of PCC-Vivace — Data Link



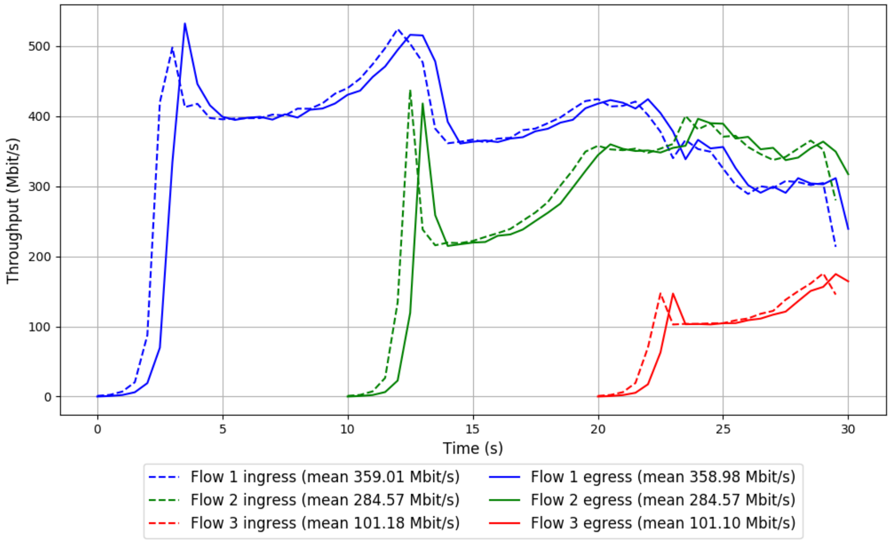


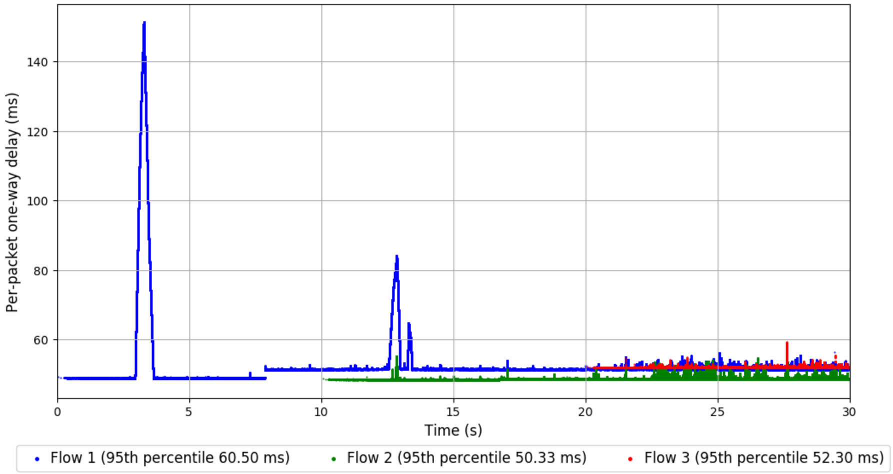
```
Run 10: Statistics of PCC-Vivace

Start at: 2018-08-03 14:30:36
End at: 2018-08-03 14:31:06
Local clock offset: 0.015 ms
Remote clock offset: -1.686 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 581.58 Mbit/s
95th percentile per-packet one-way delay: 52.770 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 358.98 Mbit/s
95th percentile per-packet one-way delay: 60.497 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 284.57 Mbit/s
95th percentile per-packet one-way delay: 50.328 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 101.10 Mbit/s
95th percentile per-packet one-way delay: 52.296 ms
Loss rate: 0.10%
```

Run 10: Report of PCC-Vivace — Data Link



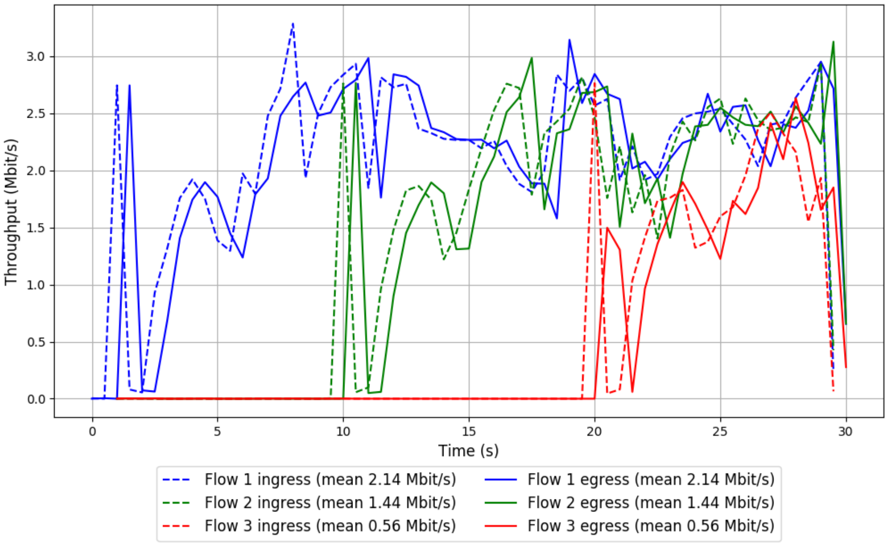


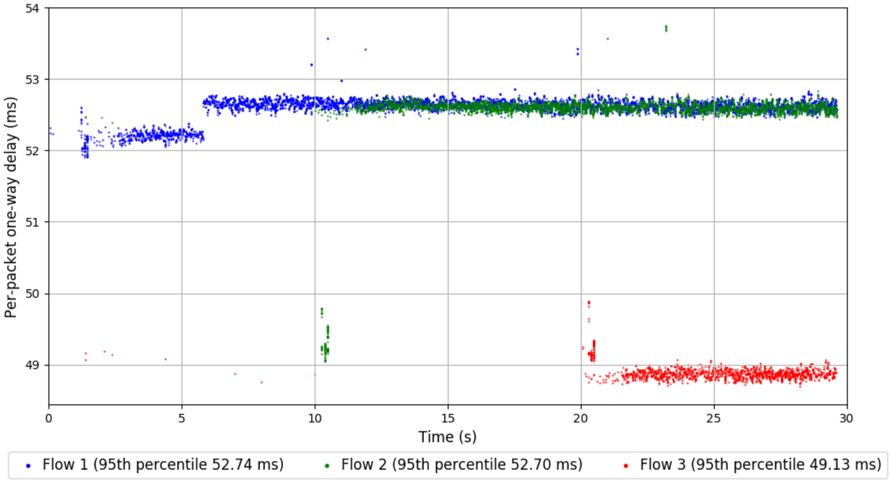
```
Run 1: Statistics of WebRTC media

Start at: 2018-08-03 10:55:27
End at: 2018-08-03 10:55:57
Local clock offset: -0.064 ms
Remote clock offset: -1.385 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 52.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 52.736 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 52.701 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 49.133 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



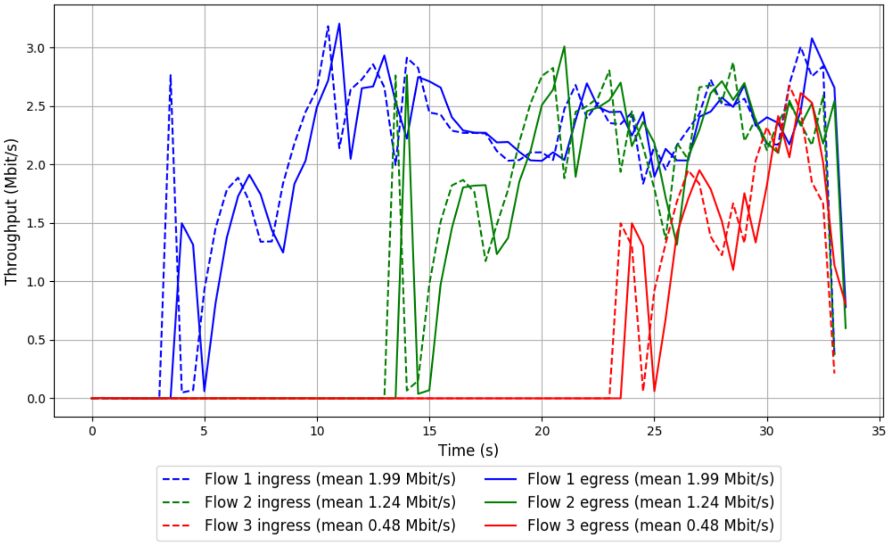


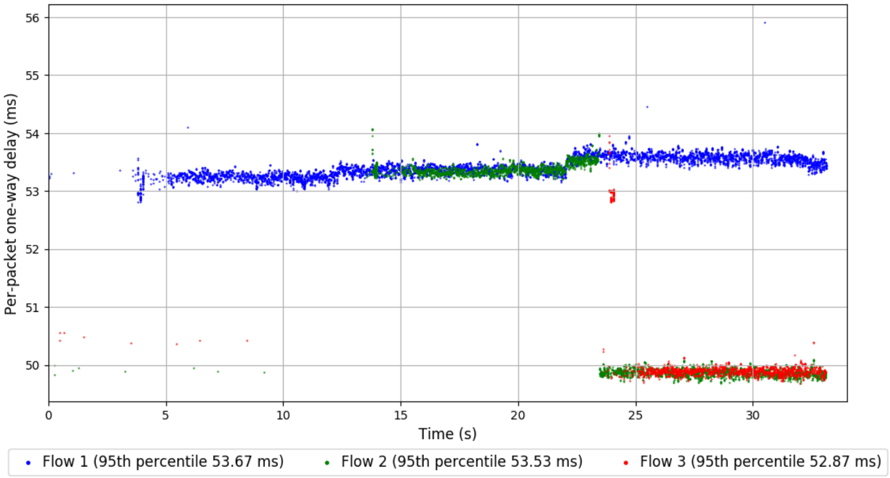
```
Run 2: Statistics of WebRTC media

Start at: 2018-08-03 11:20:54
End at: 2018-08-03 11:21:24
Local clock offset: 0.184 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 53.640 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 53.668 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 53.527 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 52.873 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



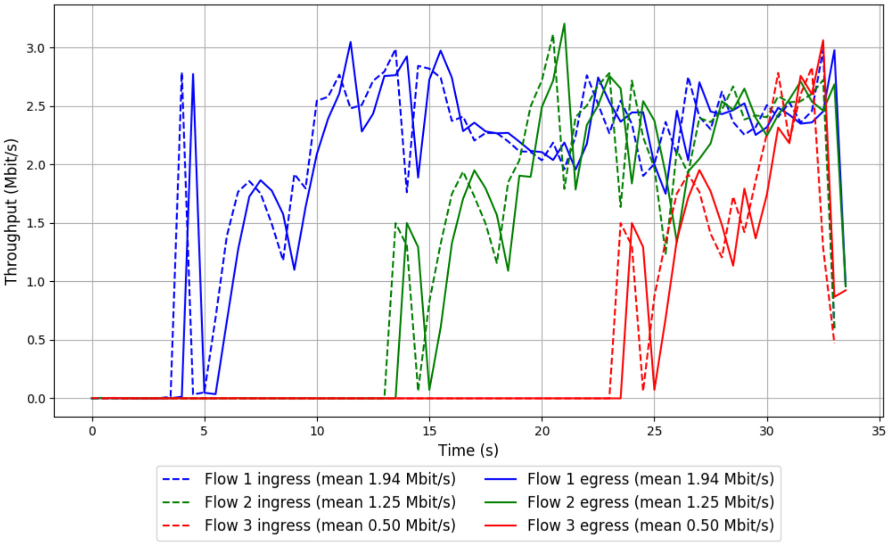


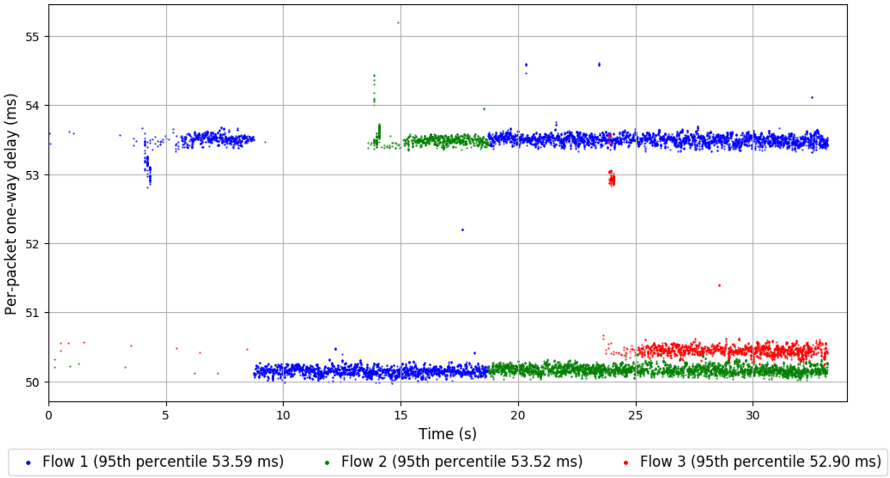
```
Run 3: Statistics of WebRTC media

Start at: 2018-08-03 11:46:29
End at: 2018-08-03 11:46:59
Local clock offset: 0.132 ms
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 53.571 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 53.590 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 53.525 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 52.902 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link



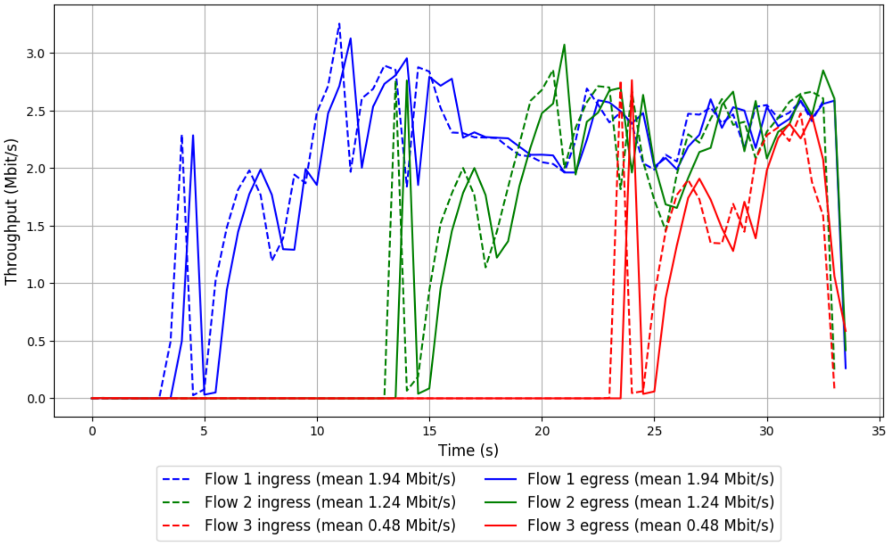


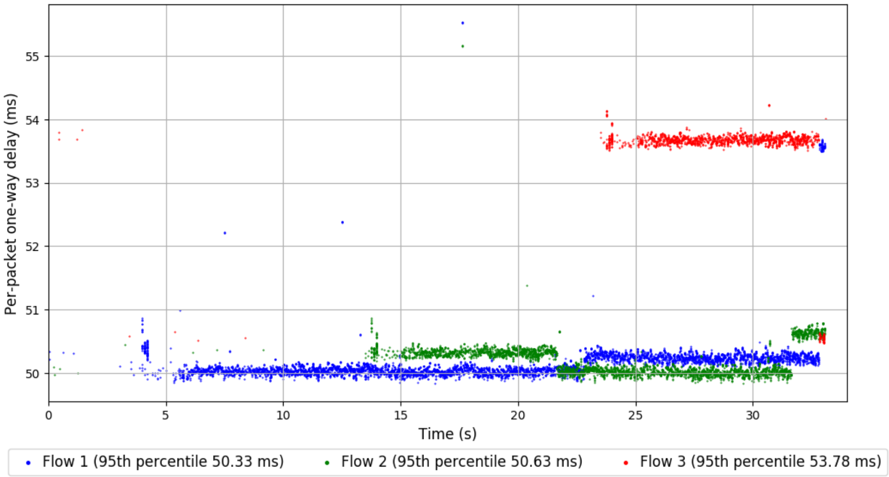
```
Run 4: Statistics of WebRTC media

Start at: 2018-08-03 12:11:45
End at: 2018-08-03 12:12:15
Local clock offset: -0.035 ms
Remote clock offset: -0.19 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 53.692 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 50.631 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 53.776 ms
Loss rate: 0.19%
```

Run 4: Report of WebRTC media — Data Link



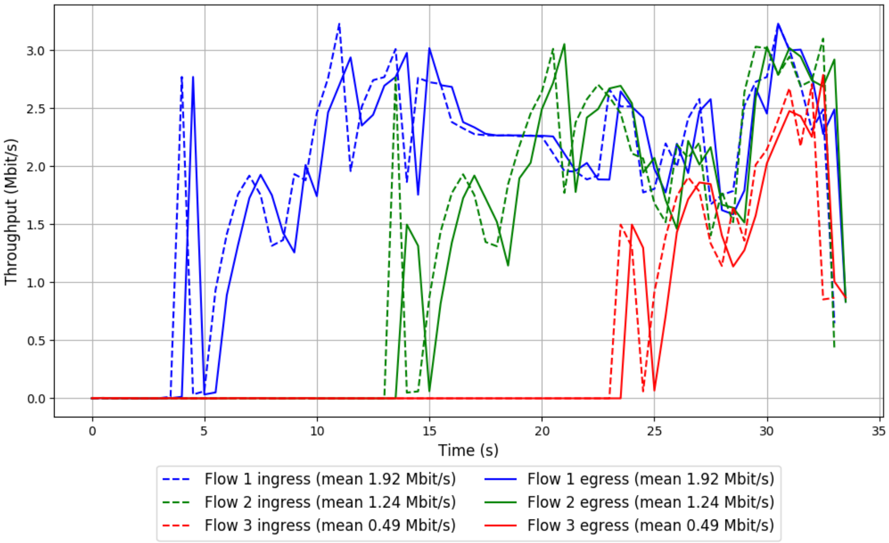


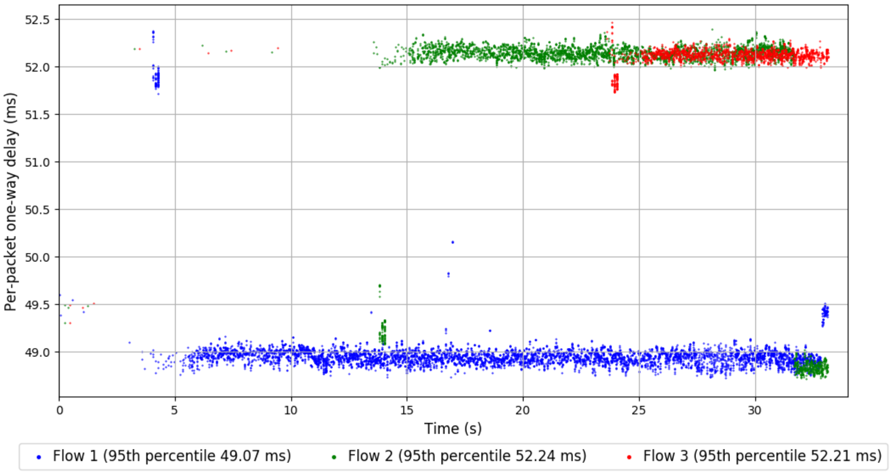
```
Run 5: Statistics of WebRTC media

Start at: 2018-08-03 12:37:05
End at: 2018-08-03 12:37:35
Local clock offset: -0.017 ms
Remote clock offset: -1.388 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 52.209 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 49.074 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 52.242 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 52.207 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



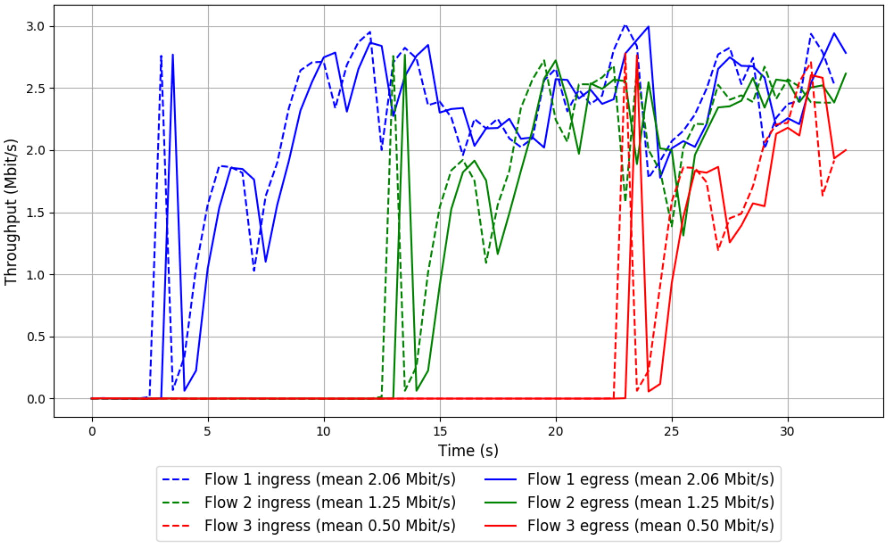


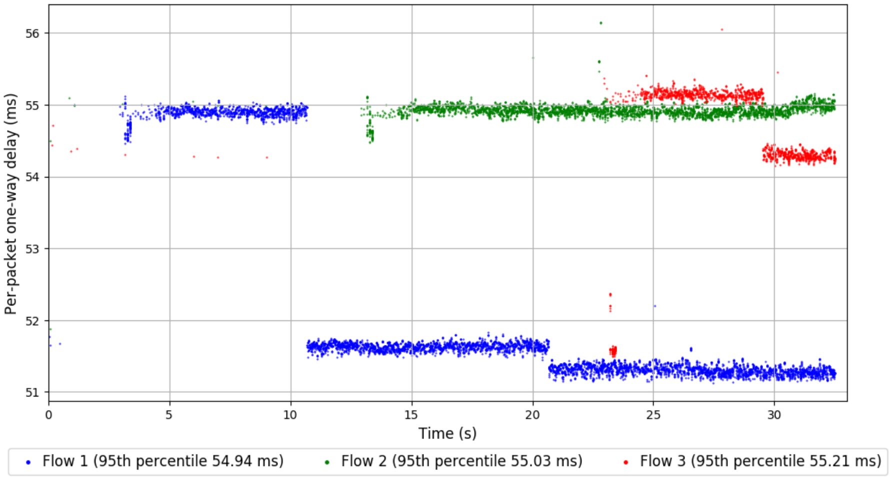
```
Run 6: Statistics of WebRTC media

Start at: 2018-08-03 13:02:06
End at: 2018-08-03 13:02:36
Local clock offset: 0.123 ms
Remote clock offset: 1.188 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 55.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 54.939 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 55.031 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 55.212 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link



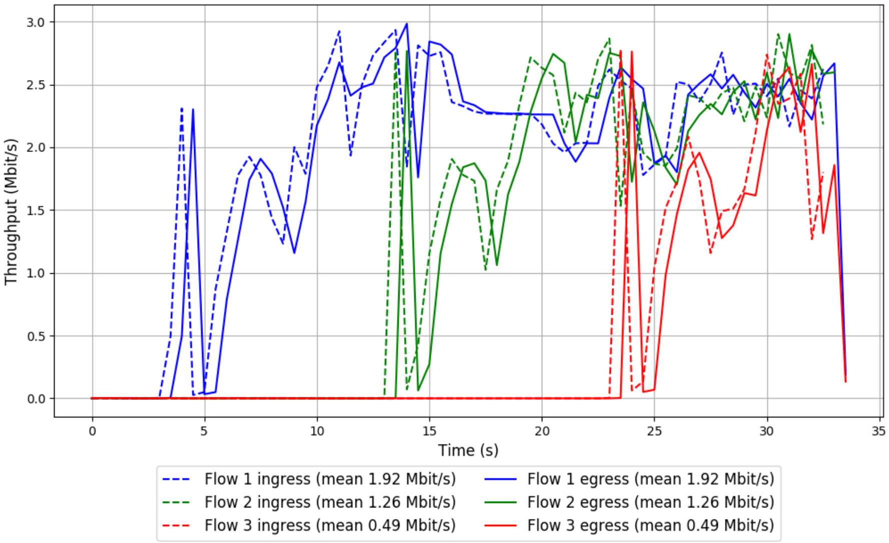


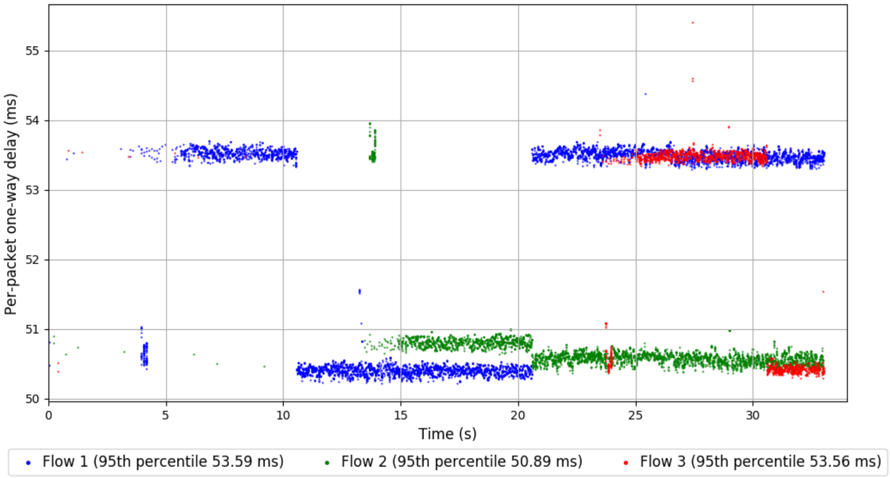
```
Run 7: Statistics of WebRTC media

Start at: 2018-08-03 13:27:27
End at: 2018-08-03 13:27:57
Local clock offset: -0.153 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 53.574 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 53.594 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 50.888 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 53.561 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link



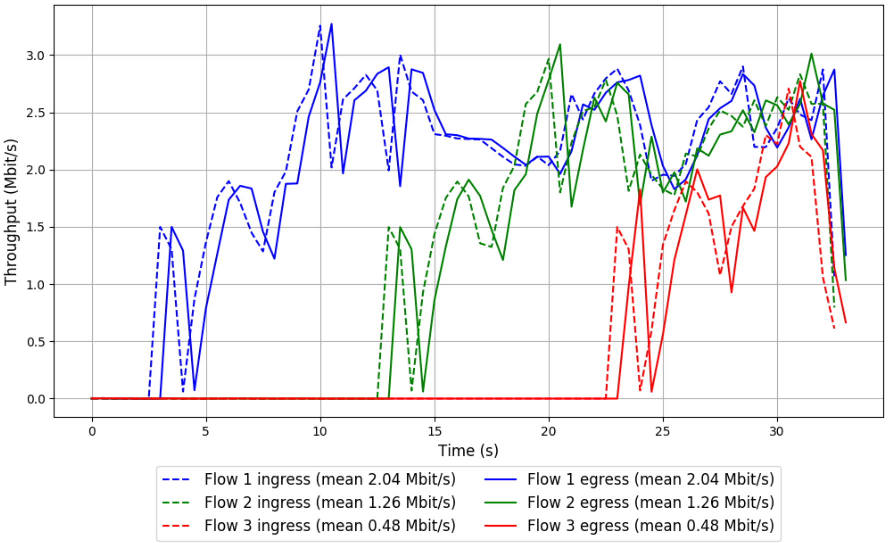


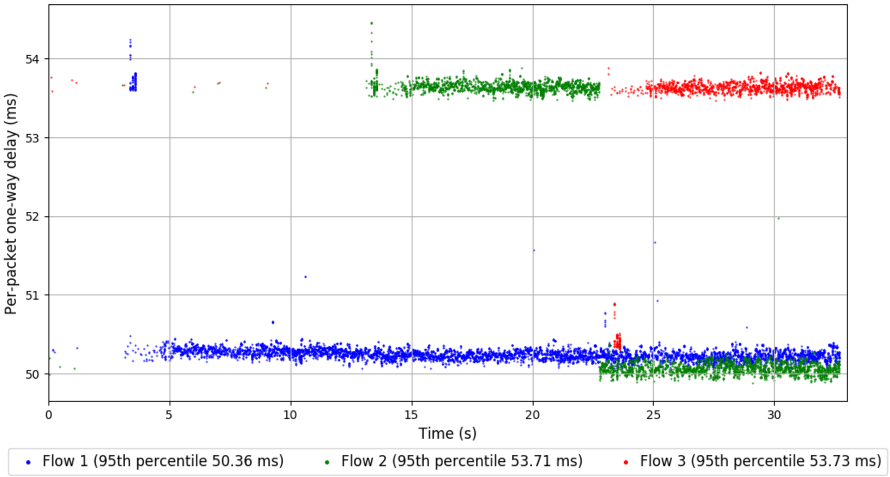
```
Run 8: Statistics of WebRTC media

Start at: 2018-08-03 13:52:54
End at: 2018-08-03 13:53:24
Local clock offset: 0.032 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 53.694 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 50.359 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 53.712 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 53.732 ms
Loss rate: 0.06%
```

Run 8: Report of WebRTC media — Data Link



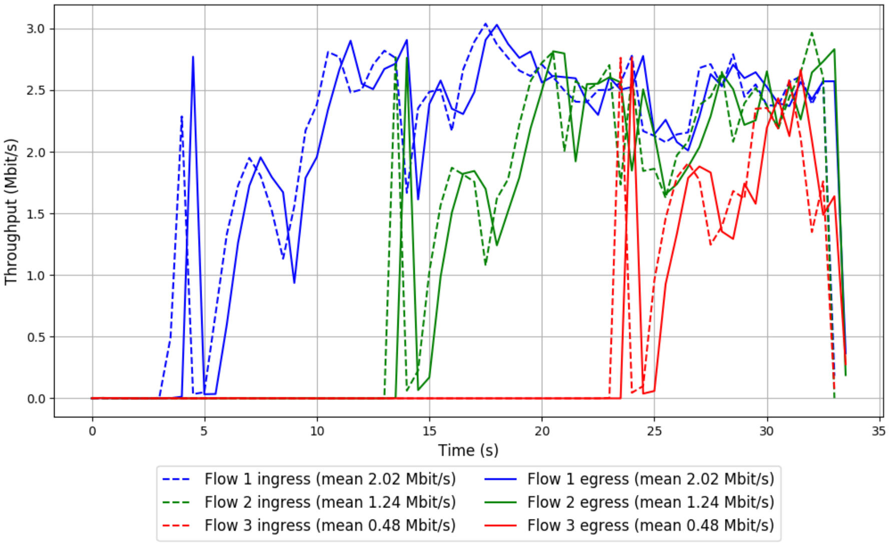


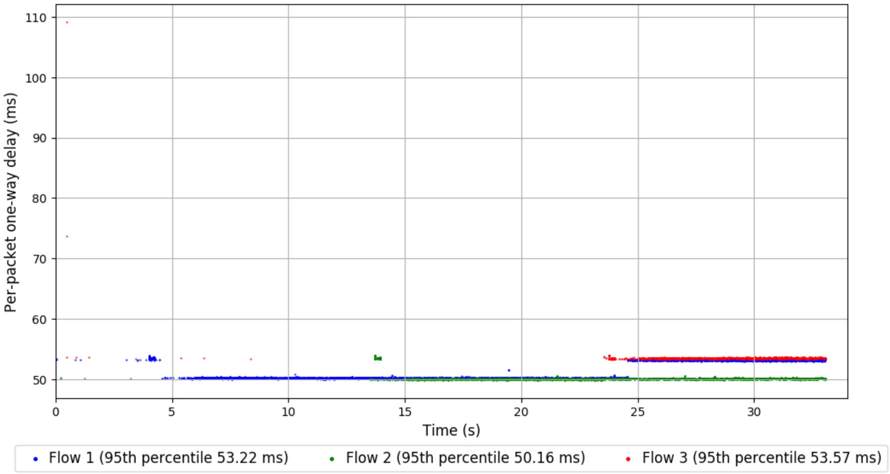
```
Run 9: Statistics of WebRTC media

Start at: 2018-08-03 14:17:43
End at: 2018-08-03 14:18:13
Local clock offset: 0.114 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 53.485 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 53.216 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 50.163 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 53.569 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link



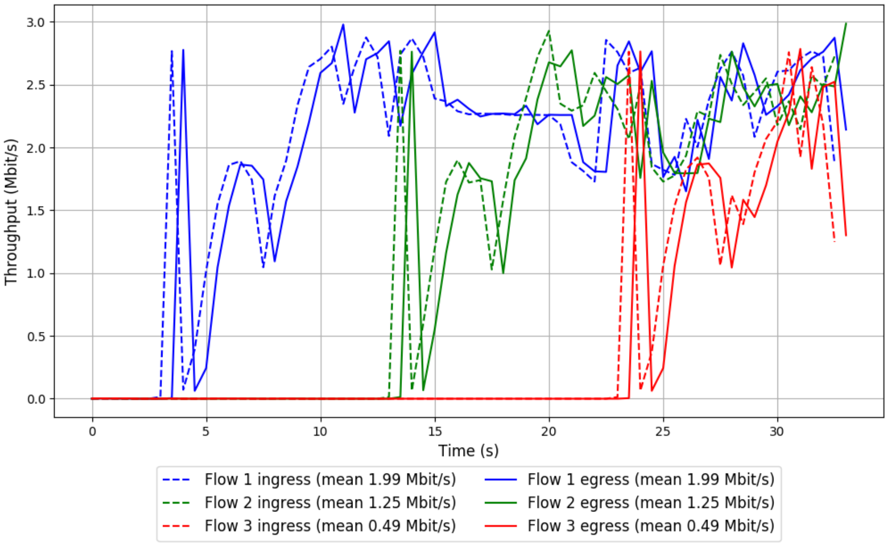


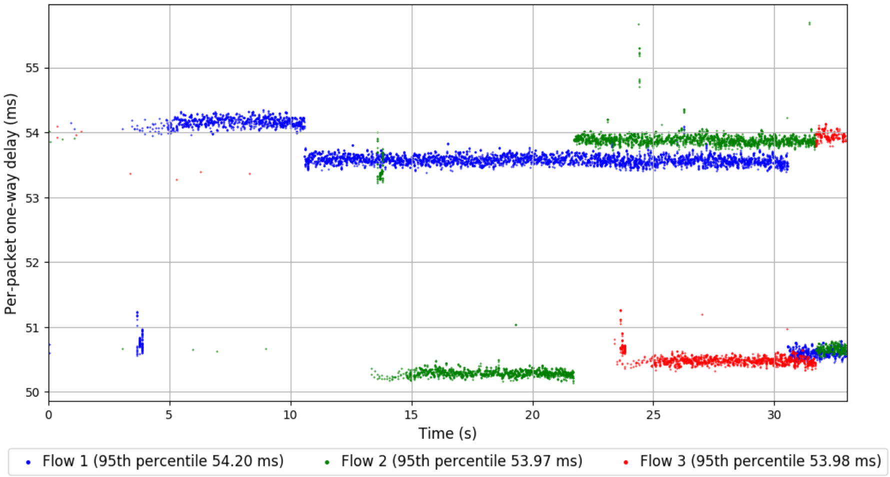
```
Run 10: Statistics of WebRTC media

Start at: 2018-08-03 14:43:16
End at: 2018-08-03 14:43:46
Local clock offset: -0.008 ms
Remote clock offset: 0.072 ms

# Below is generated by plot.py at 2018-08-03 17:53:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 54.161 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 54.205 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 53.968 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 53.982 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link


Throughput (Mbit/s)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 1.99 Mbit/s)
Flow 2 ingress (mean 1.25 Mbit/s)
Flow 3 ingress (mean 0.49 Mbit/s)
Flow 1 egress (mean 1.99 Mbit/s)
Flow 2 egress (mean 1.25 Mbit/s)
Flow 3 egress (mean 0.49 Mbit/s)


Per-packet one-way delay (ms)
55
54
53
52
51
50
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 54.20 ms)
Flow 2 (95th percentile 53.97 ms)
Flow 3 (95th percentile 53.98 ms)