Pantheon Report

Generated at 2017-09-08 10:51:58 (UTC).

Data path: GCE Iowa Ethernet (*local*) →GCE London Ethernet (*remote*).

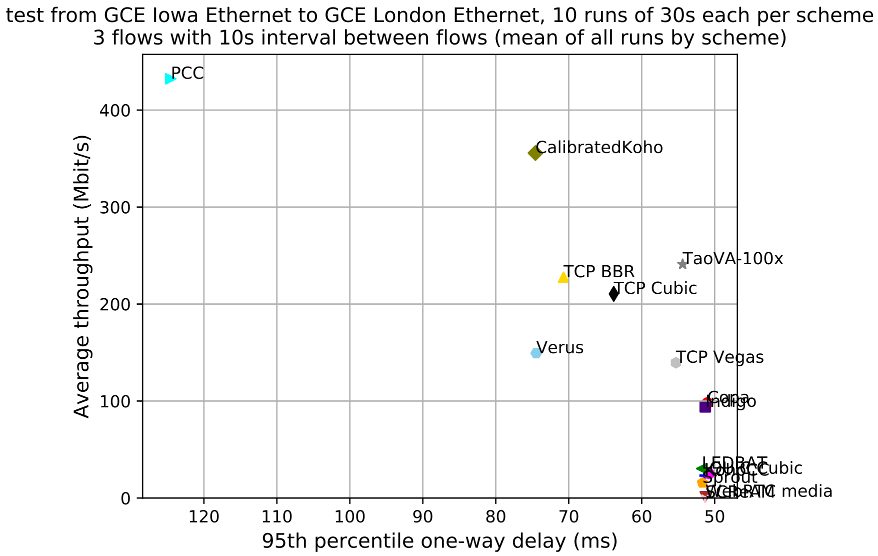
Repeated the test of 15 congestion control schemes 10 times.

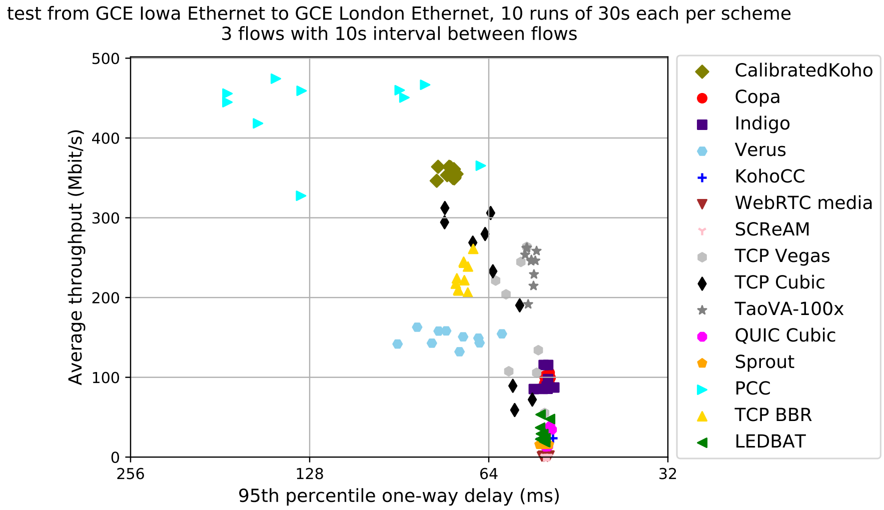
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

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

```
Git summary:
branch: master @ 2a98508c2457474d84cd2966a42b80b0bc62ecaf
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 10192113fb6902d25c86e0e3e4c85d7a05e43d7e
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```


test from GCE Iowa Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
100
200
300
400
120
110
100
90
80
70
60
50
PCC
CalibratedKoho
TaoVA-100x
TCP BBR
TCP Cubic
Verus
TCP Vegas
Copa
Indigo
LEDBAT
QUIC Cubic
KohoCC
Sprout
WebRTC media
SCReAM


test from GCE Iowa Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
100
200
300
400
500
256
128
64
32
CalibratedKoho
Copa
Indigo
Verus
KohoCC
WebRTC media
SCReAM
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Sprout
PCC
TCP BBR
LEDBAT

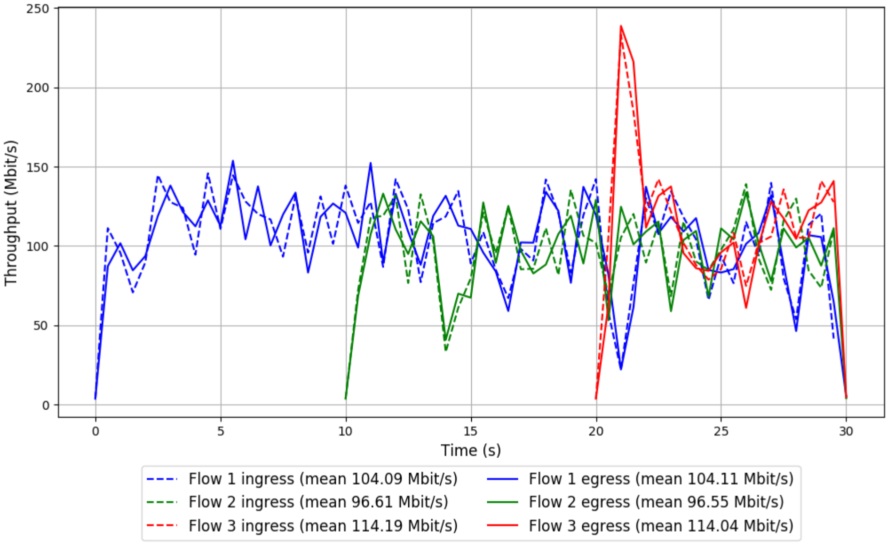
scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	110.13	121.38	111.08	68.10	71.47	75.38	0.02	0.06	0.07
CalibratedKoho	10	222.81	149.54	101.60	74.71	74.71	73.18	0.01	0.02	0.10
Copa	10	53.79	50.74	42.47	50.91	50.92	50.85	0.01	0.01	0.00
TCP Cubic	10	99.91	105.01	122.71	61.07	59.75	68.33	0.01	0.01	0.04
Indigo	10	30.19	76.53	40.25	51.10	51.37	51.22	0.01	0.00	0.00
KohoCC	10	11.69	11.58	11.37	51.44	51.37	51.34	0.01	0.02	0.01
LEDBAT	10	17.37	15.21	8.71	51.76	51.91	51.68	0.07	0.01	0.04
PCC	10	263.04	180.06	155.61	405.86	115.58	64.91	0.55	0.14	0.01
QUIC Cubic	6	0.06	18.15	39.52	50.42	50.99	50.61	0.00	0.00	0.00
SCReAM	10	0.22	0.22	0.22	50.98	50.95	50.56	0.00	0.00	0.00
Sprout	10	7.93	7.83	7.54	51.69	51.72	51.68	0.03	0.03	0.01
TaoVA-100x	10	170.17	140.57	105.82	52.82	55.20	54.67	0.01	0.00	0.00
TCP Vegas	10	57.56	70.98	104.39	52.94	54.01	57.59	0.02	0.01	0.01
Verus	10	92.42	62.49	48.24	77.97	69.84	64.82	0.01	0.01	0.01
WebRTC media	9	0.06	1.11	0.60	51.45	51.23	51.32	0.00	0.00	0.00

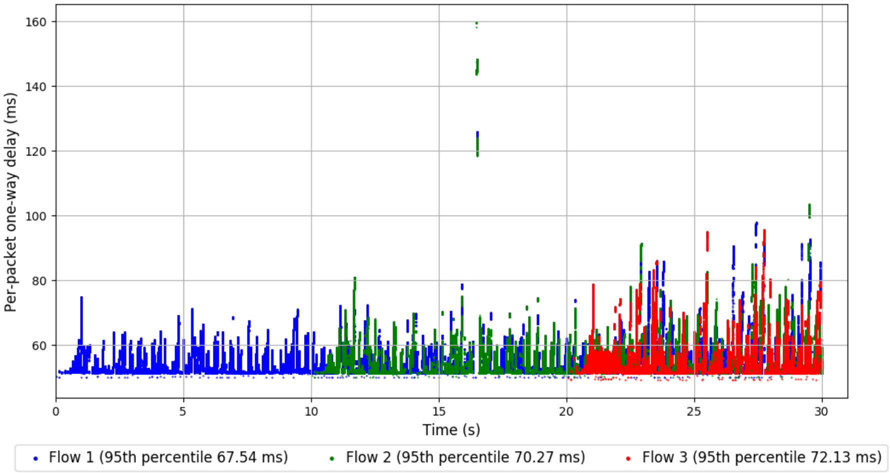
```
Run 1: Statistics of TCP BBR

Start at: 2017-09-08 06:16:12
End at: 2017-09-08 06:16:42

# Below is generated by plot.py at 2017-09-08 10:14:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 206.27 Mbit/s
95th percentile per-packet one-way delay: 69.413 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 104.11 Mbit/s
95th percentile per-packet one-way delay: 67.540 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 70.271 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 114.04 Mbit/s
95th percentile per-packet one-way delay: 72.127 ms
Loss rate: 0.01%
```

Run 1: Report of TCP BBR — Data Link



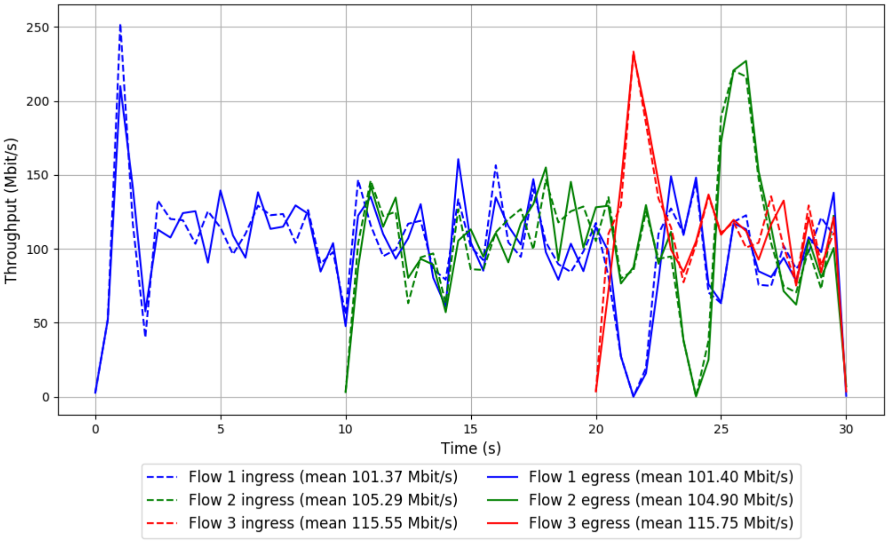


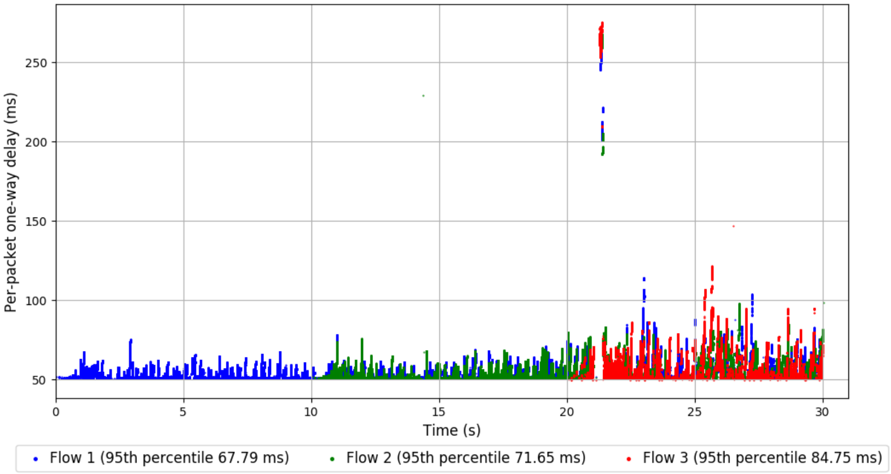
```
Run 2: Statistics of TCP BBR

Start at: 2017-09-08 06:28:07
End at: 2017-09-08 06:28:37

# Below is generated by plot.py at 2017-09-08 10:14:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 209.58 Mbit/s
95th percentile per-packet one-way delay: 72.043 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 101.40 Mbit/s
95th percentile per-packet one-way delay: 67.791 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 104.90 Mbit/s
95th percentile per-packet one-way delay: 71.649 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 115.75 Mbit/s
95th percentile per-packet one-way delay: 84.751 ms
Loss rate: 0.01%
```

Run 2: Report of TCP BBR — Data Link



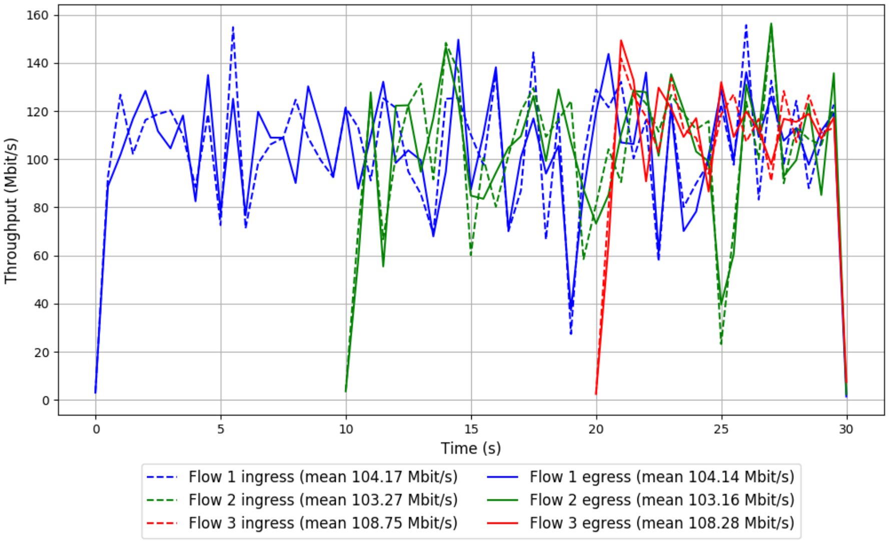


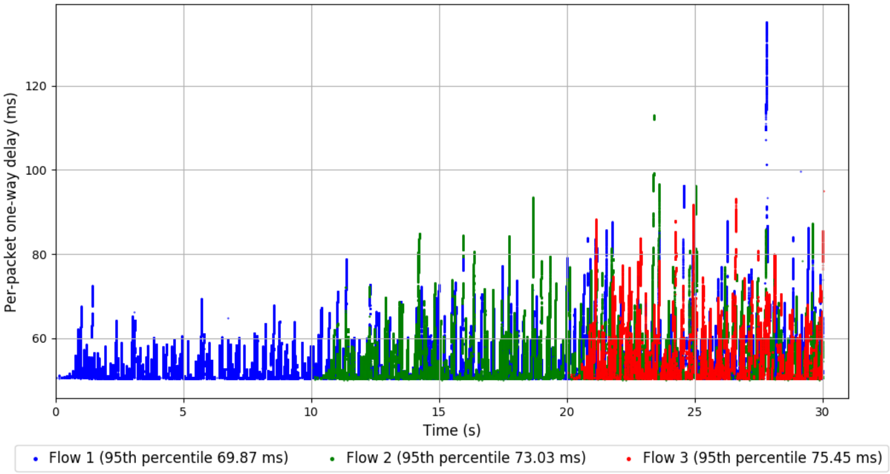
```
Run 3: Statistics of TCP BBR

Start at: 2017-09-08 06:39:49
End at: 2017-09-08 06:40:19

# Below is generated by plot.py at 2017-09-08 10:14:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.81 Mbit/s
95th percentile per-packet one-way delay: 71.940 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 104.14 Mbit/s
95th percentile per-packet one-way delay: 69.870 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 103.16 Mbit/s
95th percentile per-packet one-way delay: 73.028 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 108.28 Mbit/s
95th percentile per-packet one-way delay: 75.446 ms
Loss rate: 0.34%
```

Run 3: Report of TCP BBR — Data Link



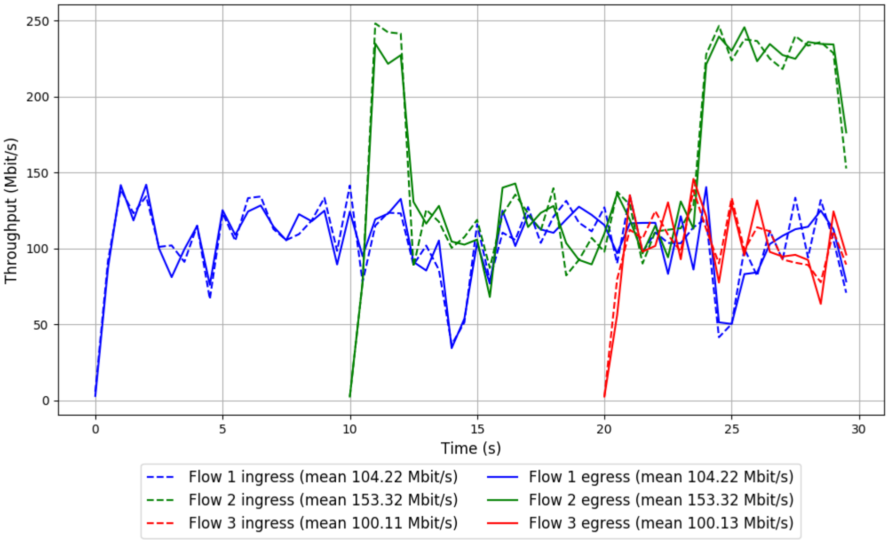


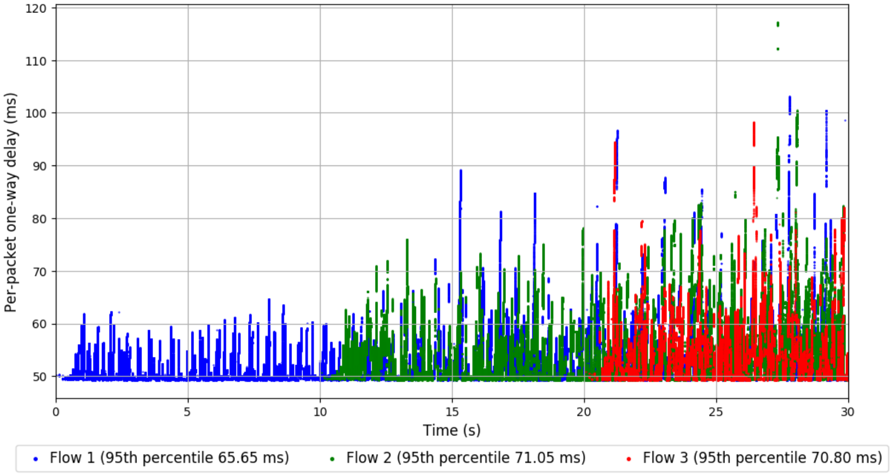
```
Run 4: Statistics of TCP BBR

Start at: 2017-09-08 06:51:48
End at: 2017-09-08 06:52:18

# Below is generated by plot.py at 2017-09-08 10:15:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 238.87 Mbit/s
95th percentile per-packet one-way delay: 69.366 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 104.22 Mbit/s
95th percentile per-packet one-way delay: 65.652 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 153.32 Mbit/s
95th percentile per-packet one-way delay: 71.048 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 100.13 Mbit/s
95th percentile per-packet one-way delay: 70.797 ms
Loss rate: 0.00%
```

Run 4: Report of TCP BBR — Data Link



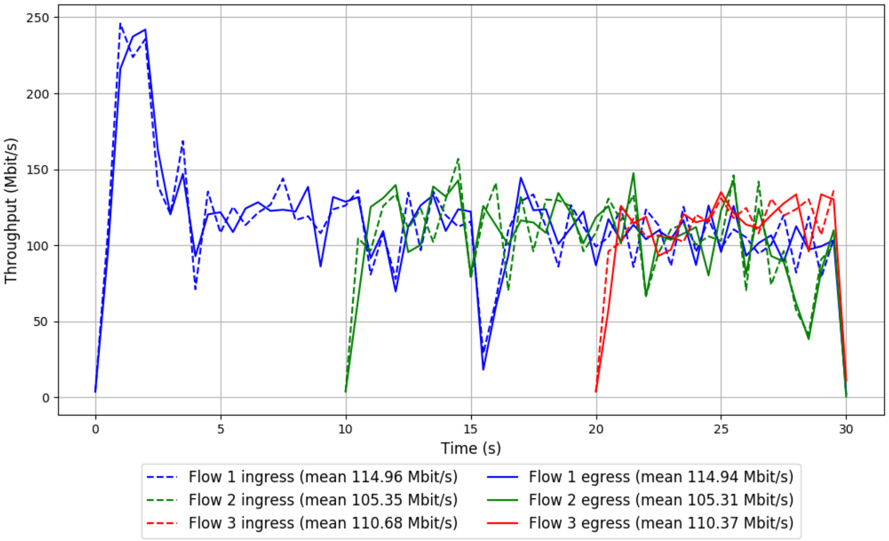


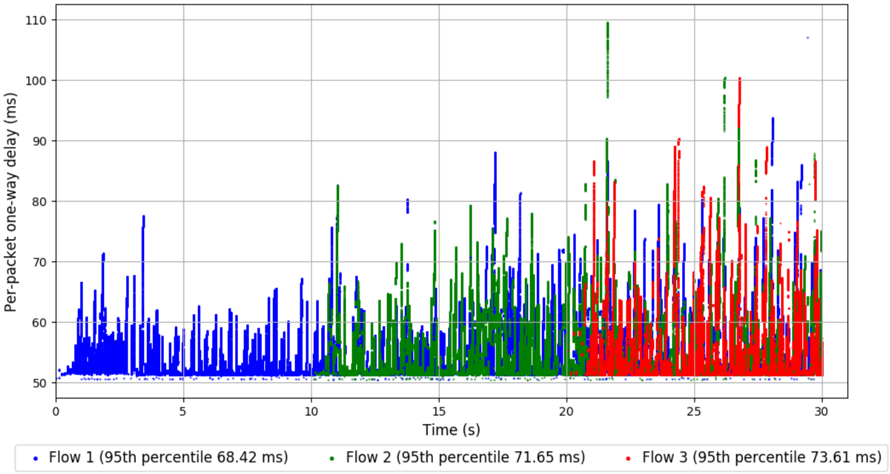
```
Run 5: Statistics of TCP BBR

Start at: 2017-09-08 07:04:09
End at: 2017-09-08 07:04:39

# Below is generated by plot.py at 2017-09-08 10:15:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 221.68 Mbit/s
95th percentile per-packet one-way delay: 70.344 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 114.94 Mbit/s
95th percentile per-packet one-way delay: 68.425 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 105.31 Mbit/s
95th percentile per-packet one-way delay: 71.648 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 110.37 Mbit/s
95th percentile per-packet one-way delay: 73.612 ms
Loss rate: 0.30%
```

Run 5: Report of TCP BBR — Data Link



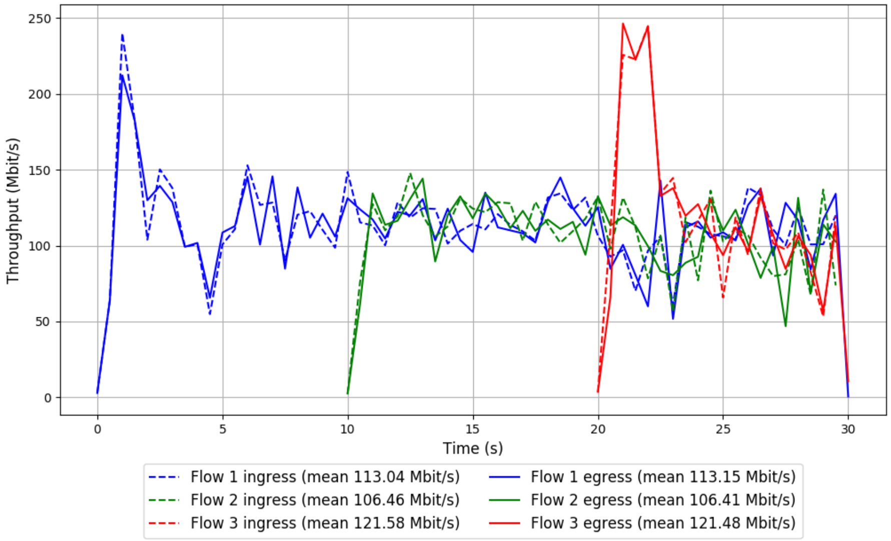


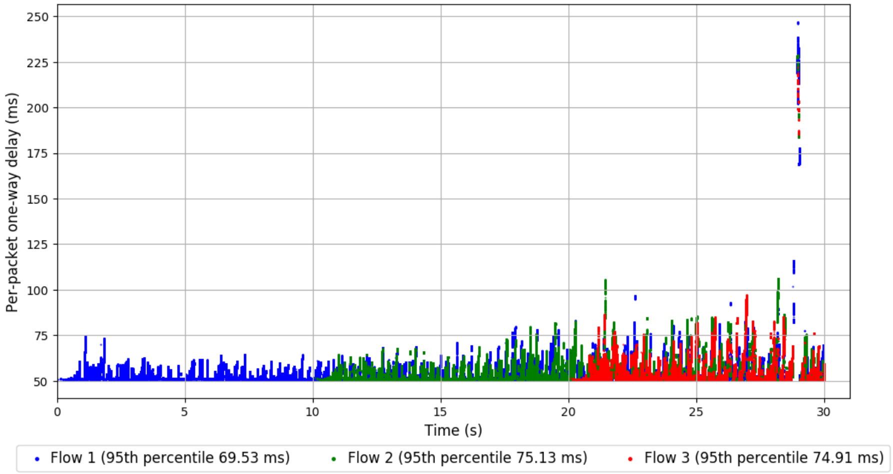
```
Run 6: Statistics of TCP BBR

Start at: 2017-09-08 07:16:30
End at: 2017-09-08 07:17:00

# Below is generated by plot.py at 2017-09-08 10:15:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.06 Mbit/s
95th percentile per-packet one-way delay: 72.409 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 113.15 Mbit/s
95th percentile per-packet one-way delay: 69.532 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 106.41 Mbit/s
95th percentile per-packet one-way delay: 75.127 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.48 Mbit/s
95th percentile per-packet one-way delay: 74.912 ms
Loss rate: 0.00%
```

Run 6: Report of TCP BBR — Data Link



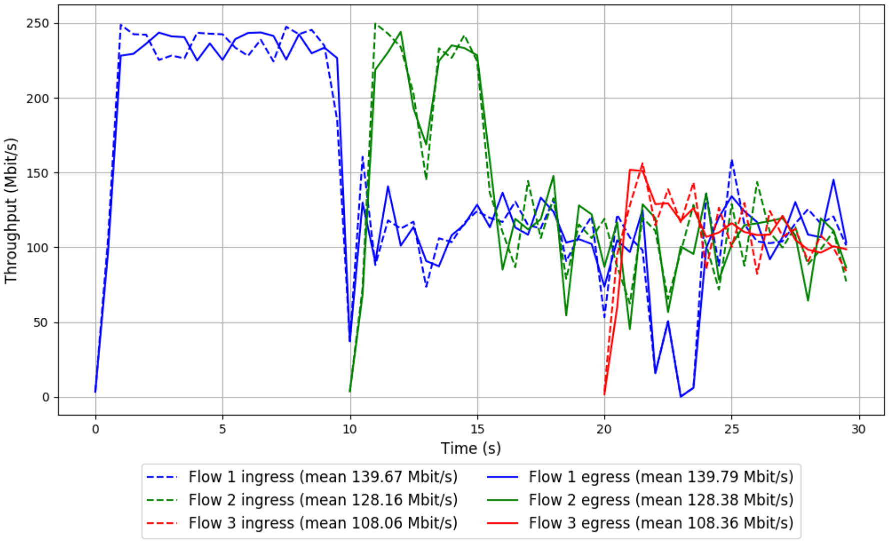


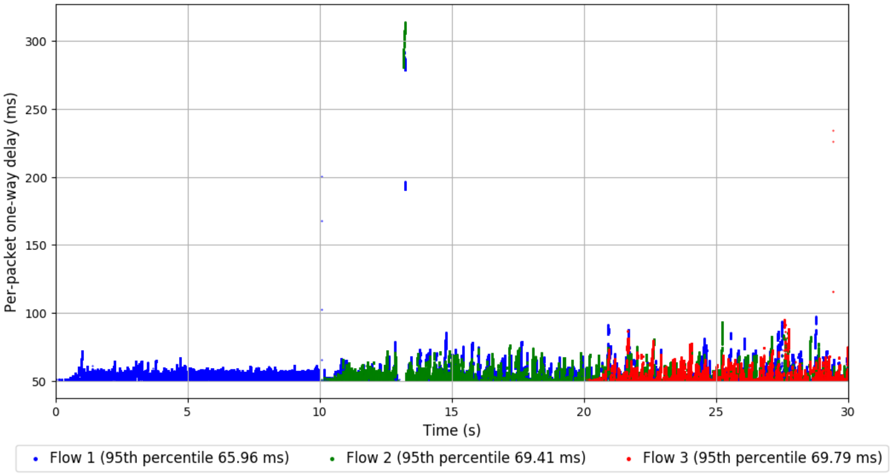
```
Run 7: Statistics of TCP BBR

Start at: 2017-09-08 07:28:45
End at: 2017-09-08 07:29:15

# Below is generated by plot.py at 2017-09-08 10:16:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.01 Mbit/s
95th percentile per-packet one-way delay: 67.967 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 139.79 Mbit/s
95th percentile per-packet one-way delay: 65.960 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 128.38 Mbit/s
95th percentile per-packet one-way delay: 69.414 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 108.36 Mbit/s
95th percentile per-packet one-way delay: 69.787 ms
Loss rate: 0.00%
```

Run 7: Report of TCP BBR — Data Link



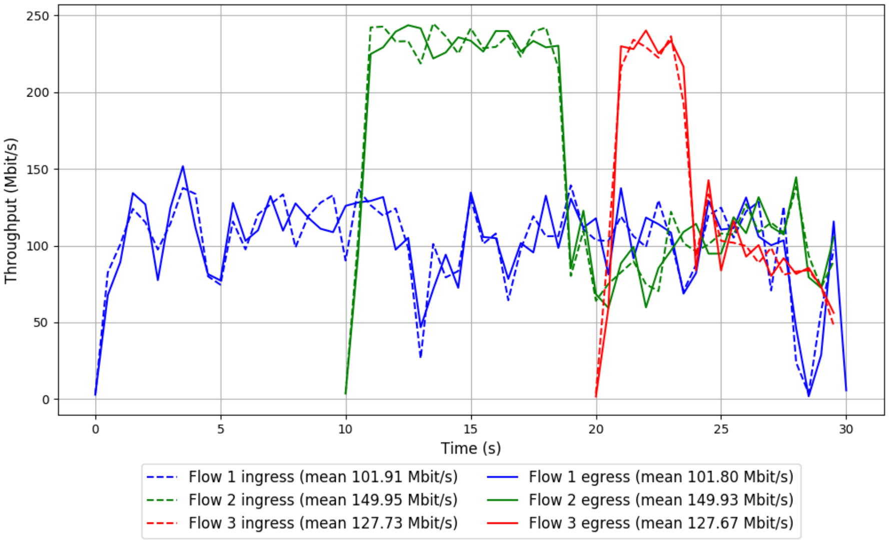


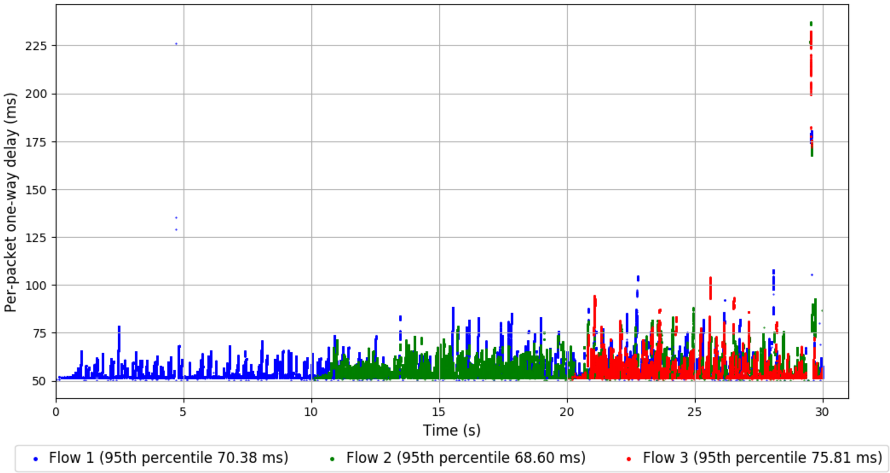
```
Run 8: Statistics of TCP BBR

Start at: 2017-09-08 07:40:59
End at: 2017-09-08 07:41:29

# Below is generated by plot.py at 2017-09-08 10:16:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 243.65 Mbit/s
95th percentile per-packet one-way delay: 70.442 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 101.80 Mbit/s
95th percentile per-packet one-way delay: 70.375 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 149.93 Mbit/s
95th percentile per-packet one-way delay: 68.599 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 127.67 Mbit/s
95th percentile per-packet one-way delay: 75.808 ms
Loss rate: 0.00%
```

Run 8: Report of TCP BBR — Data Link



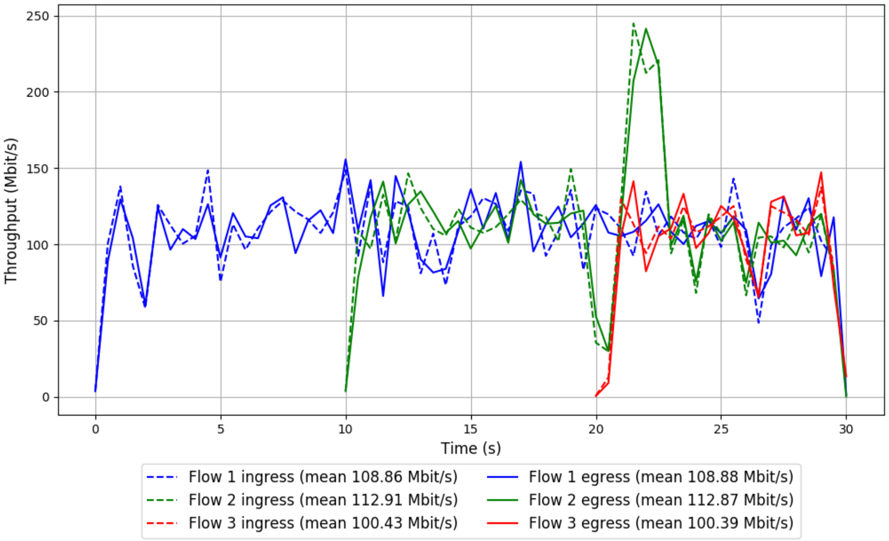


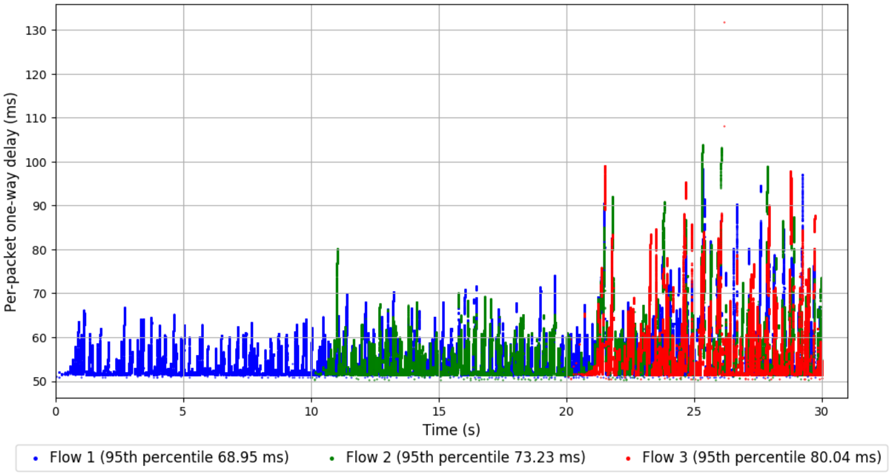
```
Run 9: Statistics of TCP BBR

Start at: 2017-09-08 07:53:09
End at: 2017-09-08 07:53:39

# Below is generated by plot.py at 2017-09-08 10:16:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 217.40 Mbit/s
95th percentile per-packet one-way delay: 72.702 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 108.88 Mbit/s
95th percentile per-packet one-way delay: 68.955 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.87 Mbit/s
95th percentile per-packet one-way delay: 73.229 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 100.39 Mbit/s
95th percentile per-packet one-way delay: 80.043 ms
Loss rate: 0.01%
```

Run 9: Report of TCP BBR — Data Link



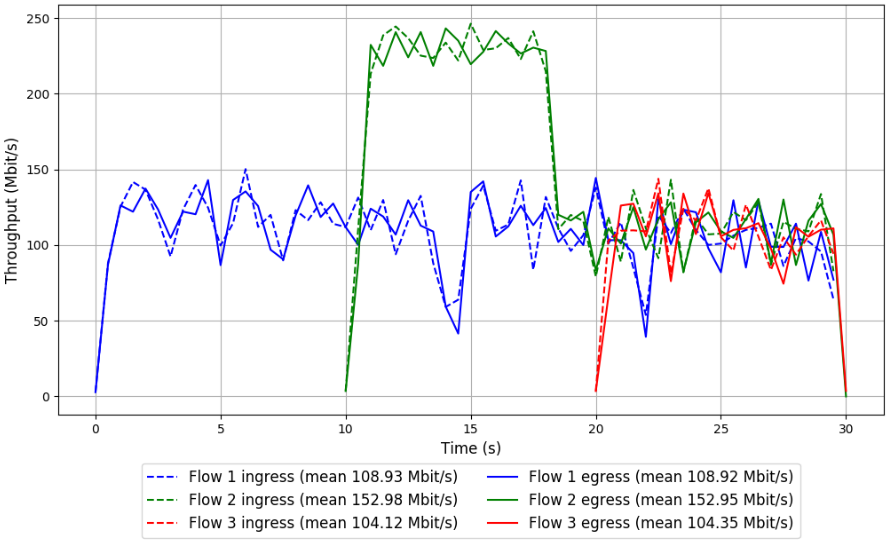


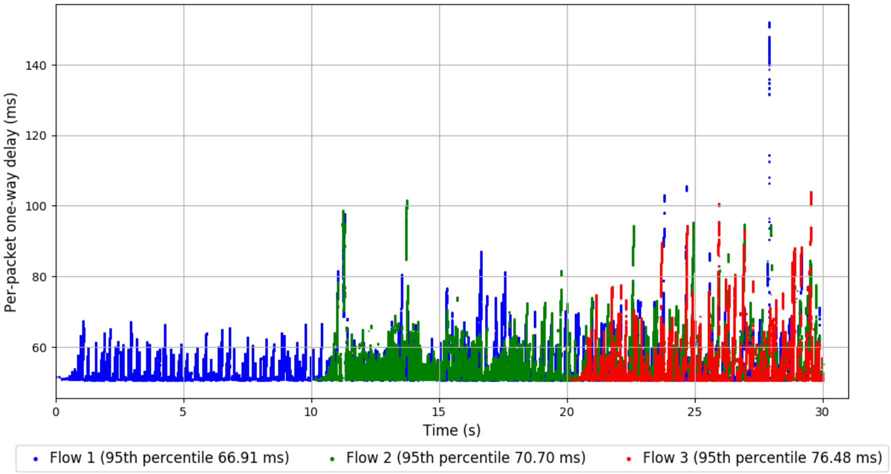
```
Run 10: Statistics of TCP BBR

Start at: 2017-09-08 08:05:17
End at: 2017-09-08 08:05:47

# Below is generated by plot.py at 2017-09-08 10:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.92 Mbit/s
95th percentile per-packet one-way delay: 70.529 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 108.92 Mbit/s
95th percentile per-packet one-way delay: 66.905 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 152.95 Mbit/s
95th percentile per-packet one-way delay: 70.703 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 104.35 Mbit/s
95th percentile per-packet one-way delay: 76.476 ms
Loss rate: 0.00%
```

Run 10: Report of TCP BBR — Data Link



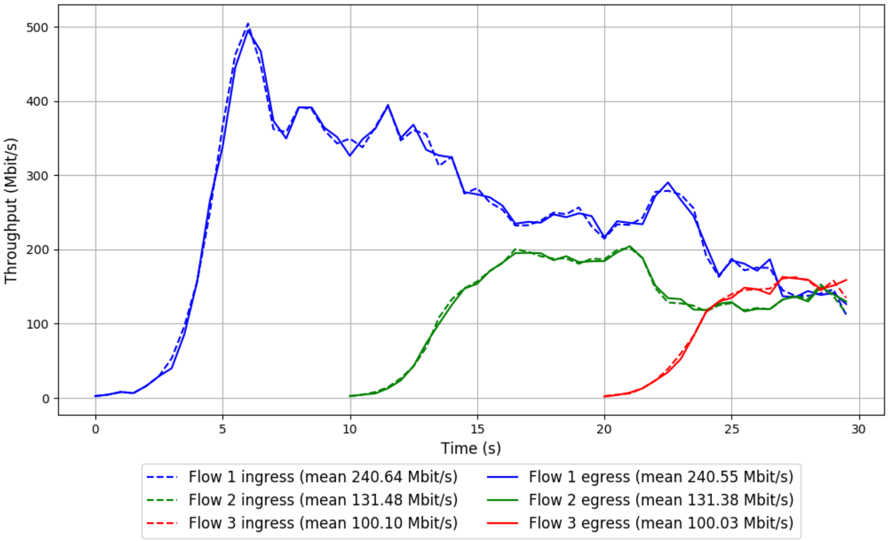


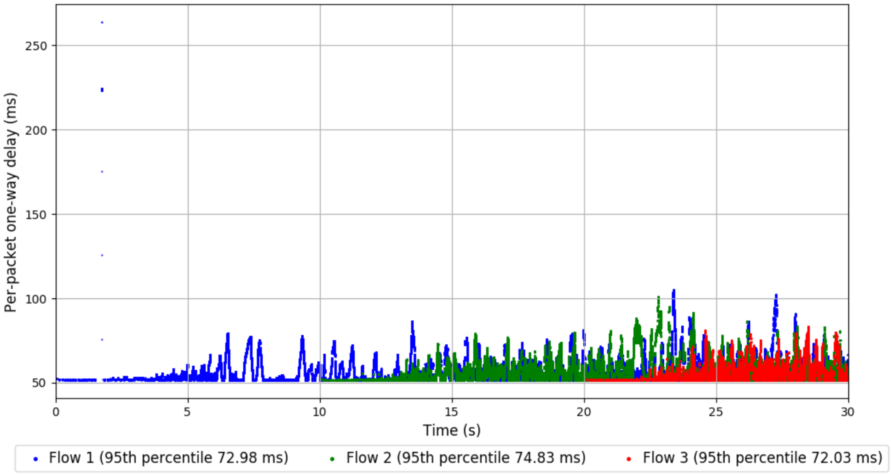
```
Run 1: Statistics of CalibratedKoho

Start at: 2017-09-08 06:14:27
End at: 2017-09-08 06:14:57

# Below is generated by plot.py at 2017-09-08 10:18:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 360.93 Mbit/s
95th percentile per-packet one-way delay: 73.261 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 240.55 Mbit/s
95th percentile per-packet one-way delay: 72.985 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 131.38 Mbit/s
95th percentile per-packet one-way delay: 74.830 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 100.03 Mbit/s
95th percentile per-packet one-way delay: 72.027 ms
Loss rate: 0.05%
```

Run 1: Report of CalibratedKoho — Data Link



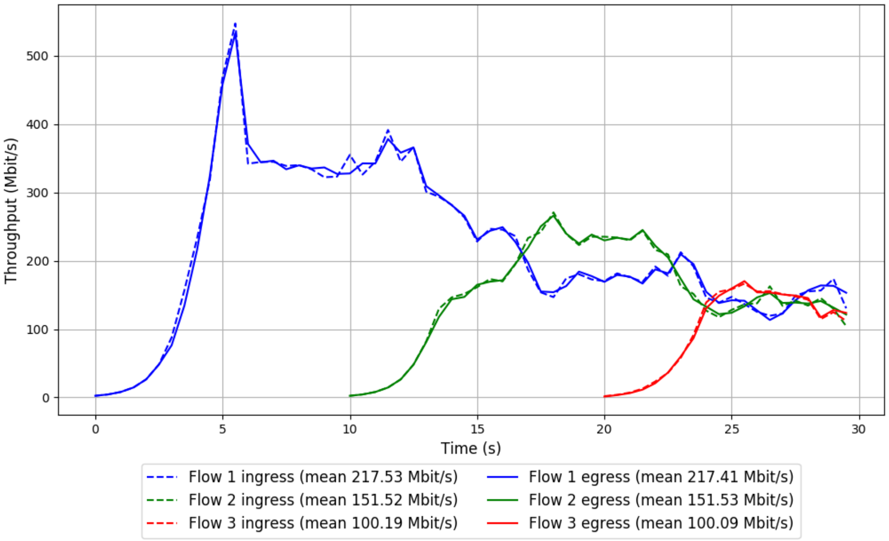


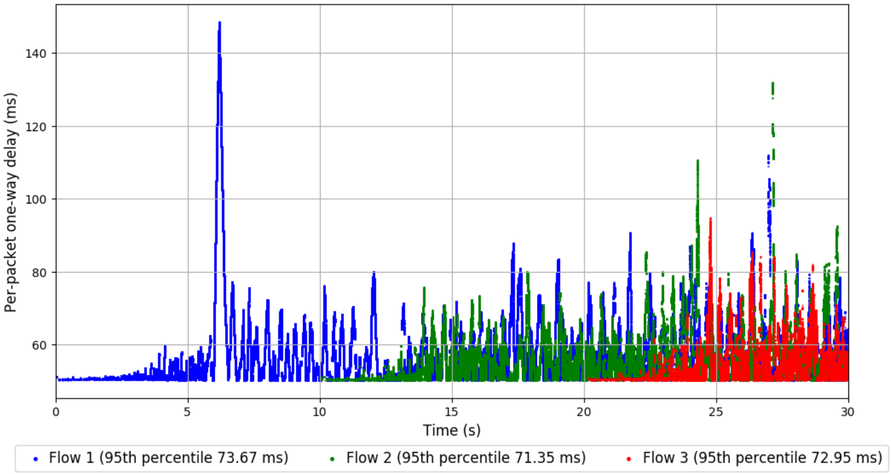
```
Run 2: Statistics of CalibratedKoho

Start at: 2017-09-08 06:26:24
End at: 2017-09-08 06:26:54

# Below is generated by plot.py at 2017-09-08 10:18:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 350.89 Mbit/s
95th percentile per-packet one-way delay: 73.057 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 217.41 Mbit/s
95th percentile per-packet one-way delay: 73.667 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 151.53 Mbit/s
95th percentile per-packet one-way delay: 71.354 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 100.09 Mbit/s
95th percentile per-packet one-way delay: 72.954 ms
Loss rate: 0.01%
```

Run 2: Report of CalibratedKoho — Data Link



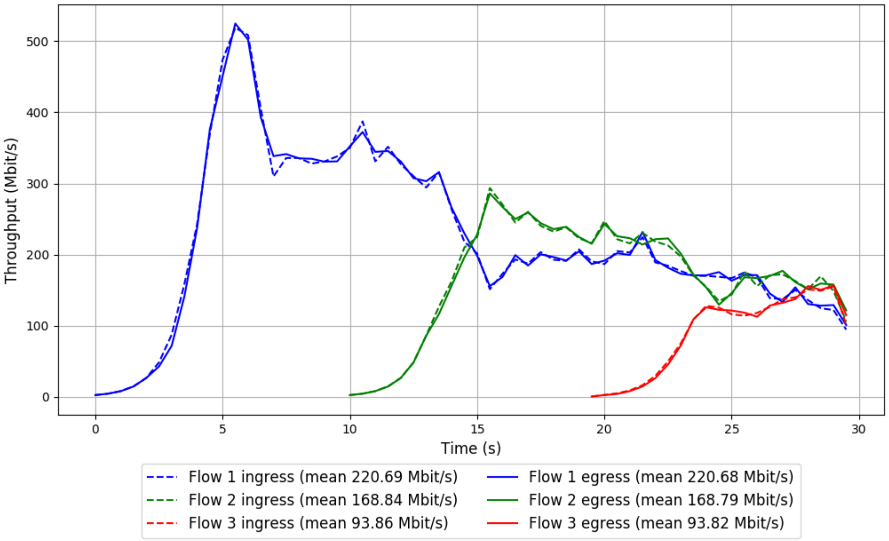


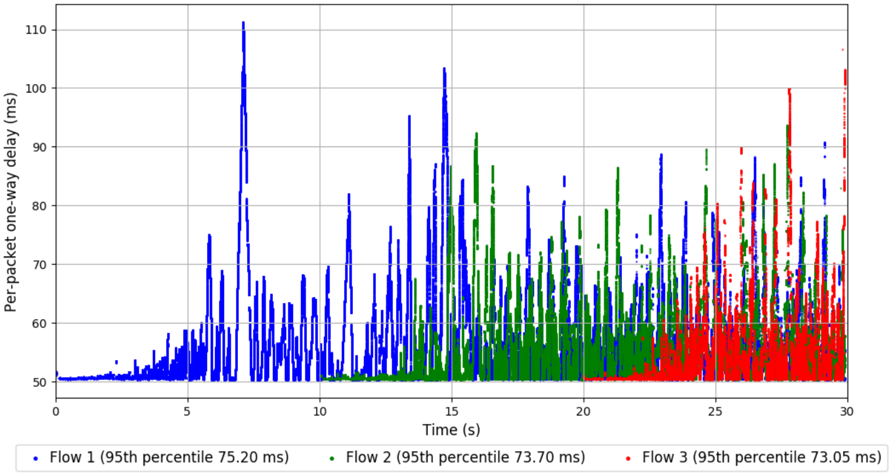
```
Run 3: Statistics of CalibratedKoho

Start at: 2017-09-08 06:38:04
End at: 2017-09-08 06:38:34

# Below is generated by plot.py at 2017-09-08 10:19:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.91 Mbit/s
95th percentile per-packet one-way delay: 74.609 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 220.68 Mbit/s
95th percentile per-packet one-way delay: 75.196 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 168.79 Mbit/s
95th percentile per-packet one-way delay: 73.700 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 93.82 Mbit/s
95th percentile per-packet one-way delay: 73.051 ms
Loss rate: 0.00%
```

Run 3: Report of CalibratedKoho — Data Link



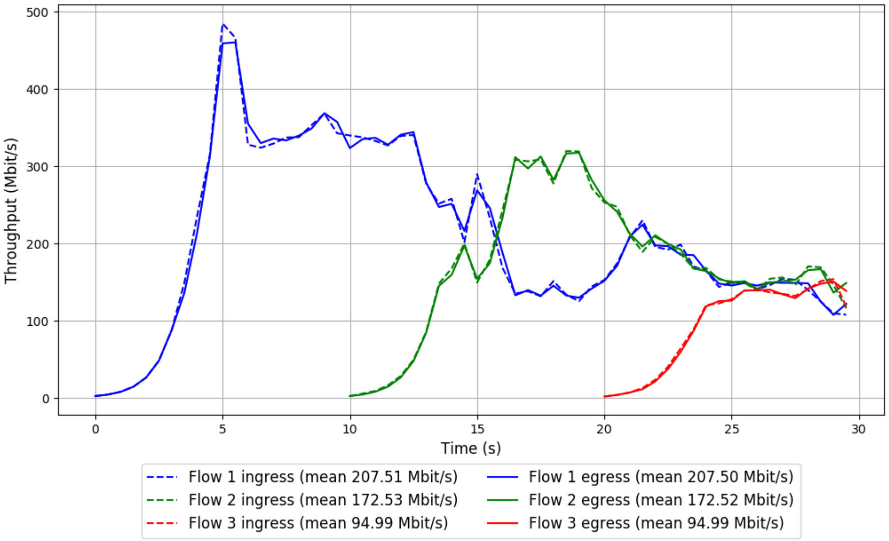


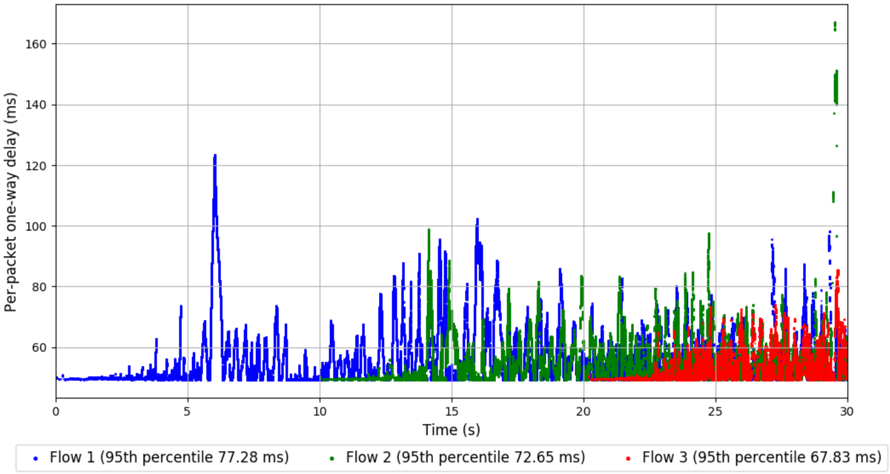
```
Run 4: Statistics of CalibratedKoho

Start at: 2017-09-08 06:50:03
End at: 2017-09-08 06:50:33

# Below is generated by plot.py at 2017-09-08 10:19:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.40 Mbit/s
95th percentile per-packet one-way delay: 75.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 207.50 Mbit/s
95th percentile per-packet one-way delay: 77.281 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 172.52 Mbit/s
95th percentile per-packet one-way delay: 72.648 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.99 Mbit/s
95th percentile per-packet one-way delay: 67.833 ms
Loss rate: 0.00%
```

Run 4: Report of CalibratedKoho — Data Link



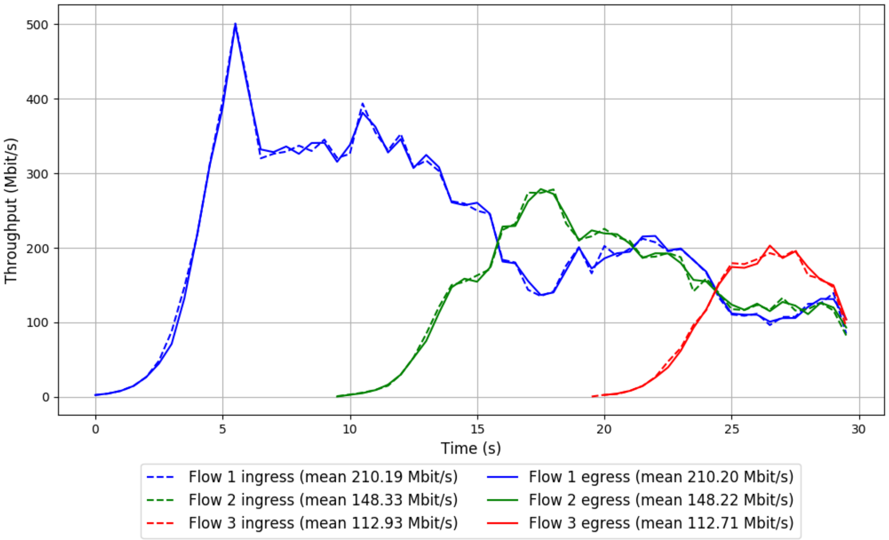


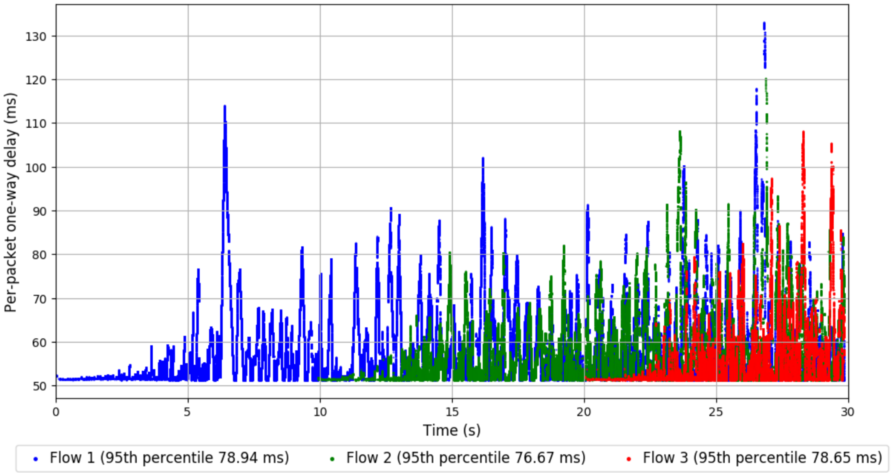
```
Run 5: Statistics of CalibratedKoho

Start at: 2017-09-08 07:02:25
End at: 2017-09-08 07:02:55

# Below is generated by plot.py at 2017-09-08 10:20:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 346.36 Mbit/s
95th percentile per-packet one-way delay: 78.277 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 210.20 Mbit/s
95th percentile per-packet one-way delay: 78.942 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 148.22 Mbit/s
95th percentile per-packet one-way delay: 76.672 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 112.71 Mbit/s
95th percentile per-packet one-way delay: 78.647 ms
Loss rate: 0.20%
```

Run 5: Report of CalibratedKoho — Data Link



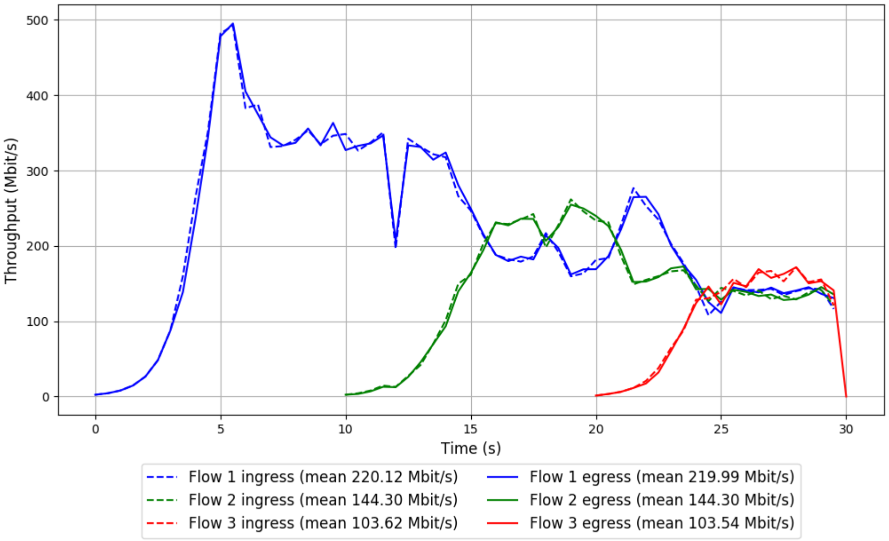


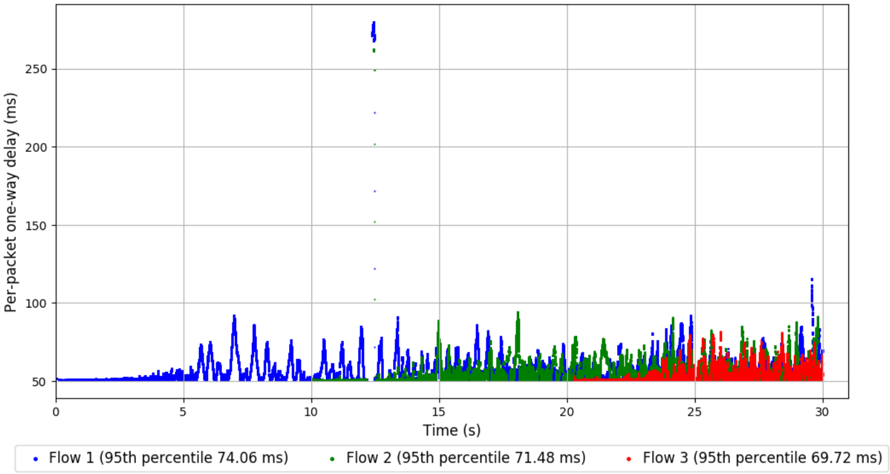
```
Run 6: Statistics of CalibratedKoho

Start at: 2017-09-08 07:14:46
End at: 2017-09-08 07:15:16

# Below is generated by plot.py at 2017-09-08 10:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 349.43 Mbit/s
95th percentile per-packet one-way delay: 73.152 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 219.99 Mbit/s
95th percentile per-packet one-way delay: 74.059 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 144.30 Mbit/s
95th percentile per-packet one-way delay: 71.478 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 103.54 Mbit/s
95th percentile per-packet one-way delay: 69.715 ms
Loss rate: 0.00%
```

Run 6: Report of CalibratedKoho — Data Link



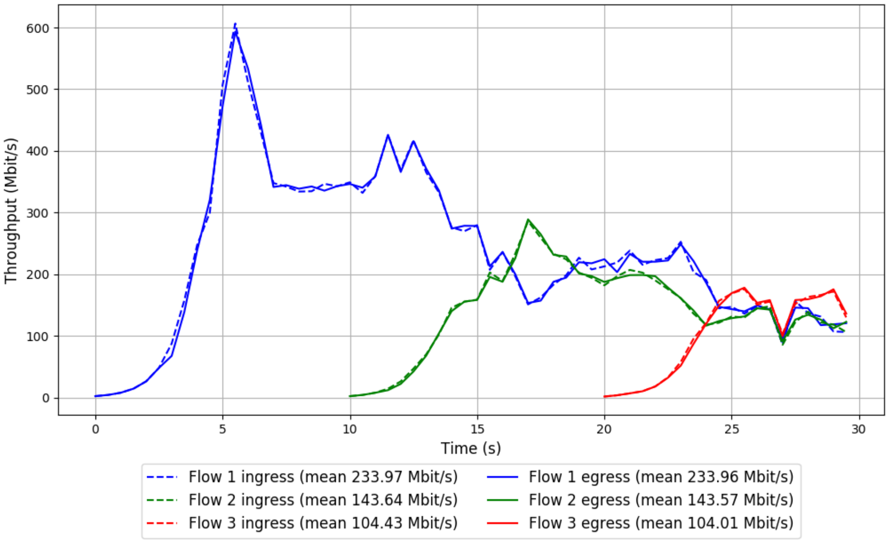


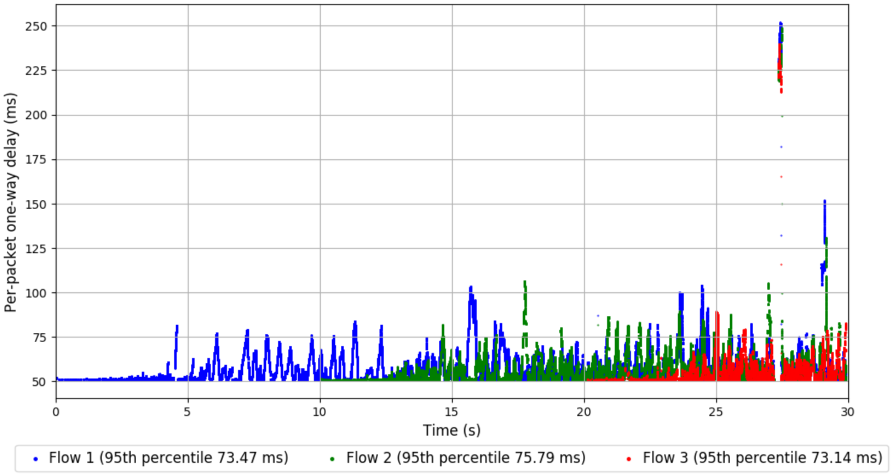
```
Run 7: Statistics of CalibratedKoho

Start at: 2017-09-08 07:27:01
End at: 2017-09-08 07:27:31

# Below is generated by plot.py at 2017-09-08 10:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.37 Mbit/s
95th percentile per-packet one-way delay: 74.232 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 233.96 Mbit/s
95th percentile per-packet one-way delay: 73.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 143.57 Mbit/s
95th percentile per-packet one-way delay: 75.791 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 104.01 Mbit/s
95th percentile per-packet one-way delay: 73.138 ms
Loss rate: 0.49%
```

Run 7: Report of CalibratedKoho — Data Link



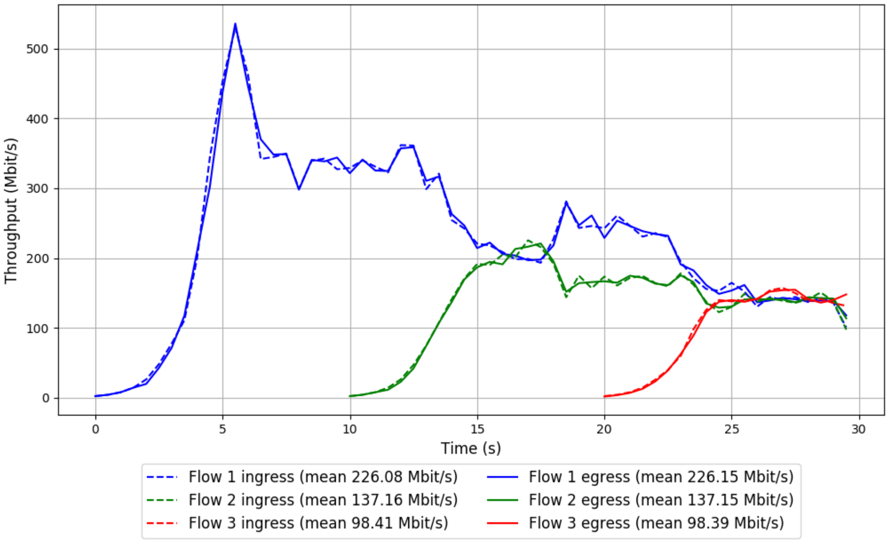


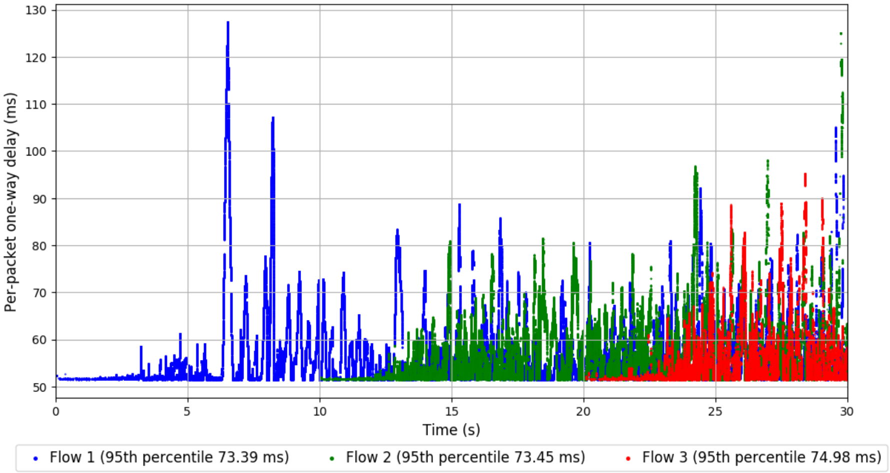
```
Run 8: Statistics of CalibratedKoho

Start at: 2017-09-08 07:39:15
End at: 2017-09-08 07:39:45

# Below is generated by plot.py at 2017-09-08 10:21:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 349.84 Mbit/s
95th percentile per-packet one-way delay: 73.508 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.15 Mbit/s
95th percentile per-packet one-way delay: 73.387 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 137.15 Mbit/s
95th percentile per-packet one-way delay: 73.448 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.39 Mbit/s
95th percentile per-packet one-way delay: 74.976 ms
Loss rate: 0.00%
```

Run 8: Report of CalibratedKoho — Data Link



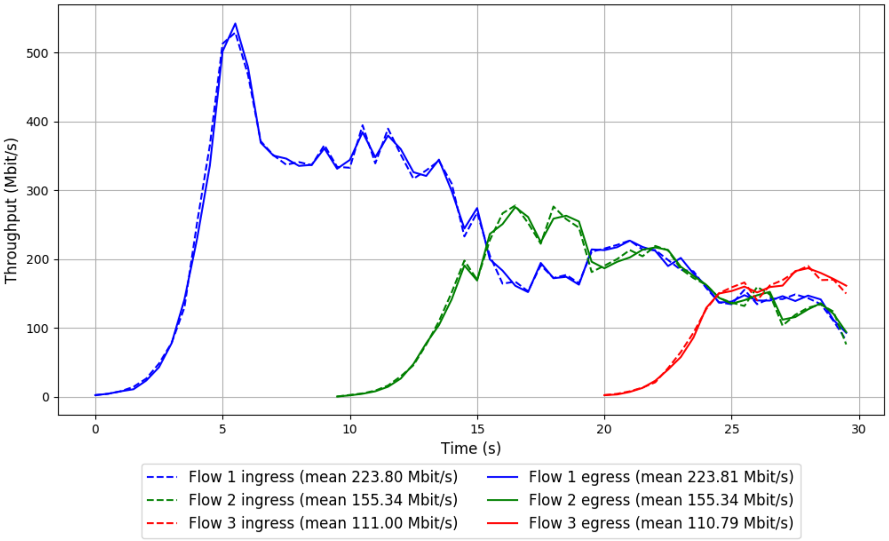


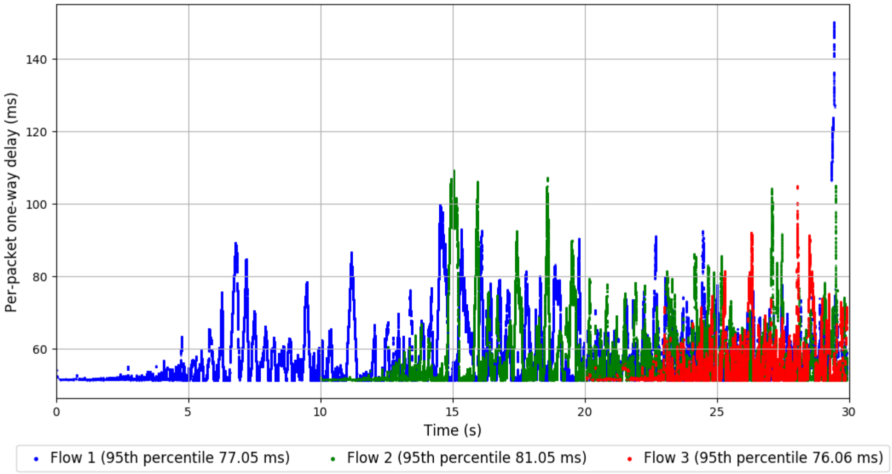
```
Run 9: Statistics of CalibratedKoho

Start at: 2017-09-08 07:51:24
End at: 2017-09-08 07:51:54

# Below is generated by plot.py at 2017-09-08 10:22:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.90 Mbit/s
95th percentile per-packet one-way delay: 77.870 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 223.81 Mbit/s
95th percentile per-packet one-way delay: 77.052 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 155.34 Mbit/s
95th percentile per-packet one-way delay: 81.050 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.79 Mbit/s
95th percentile per-packet one-way delay: 76.060 ms
Loss rate: 0.23%
```

Run 9: Report of CalibratedKoho — Data Link



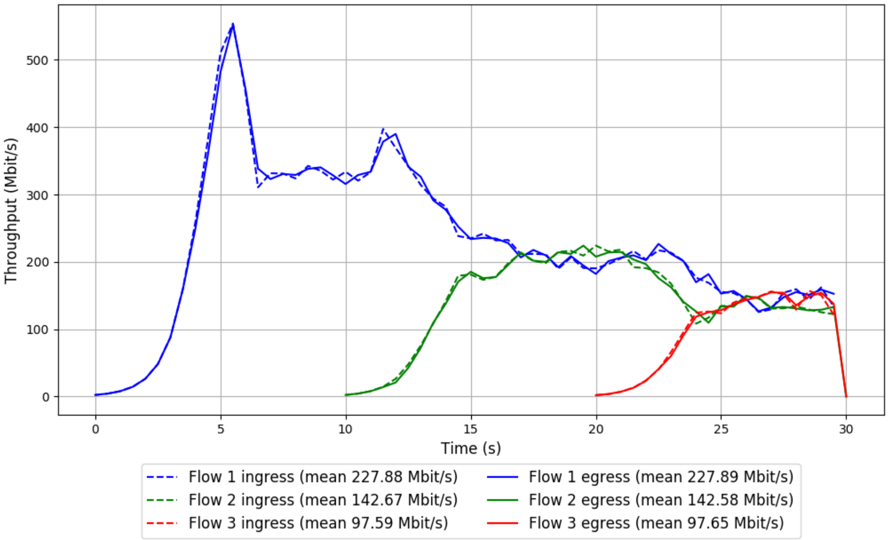


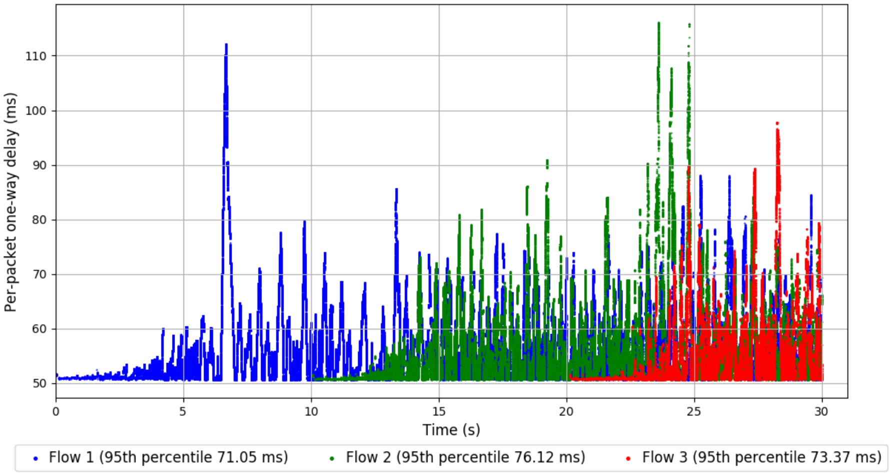
```
Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 08:03:32
End at: 2017-09-08 08:04:02

# Below is generated by plot.py at 2017-09-08 10:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.89 Mbit/s
95th percentile per-packet one-way delay: 72.508 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 227.89 Mbit/s
95th percentile per-packet one-way delay: 71.045 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 142.58 Mbit/s
95th percentile per-packet one-way delay: 76.121 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 97.65 Mbit/s
95th percentile per-packet one-way delay: 73.368 ms
Loss rate: 0.01%
```

Run 10: Report of CalibratedKoho — Data Link



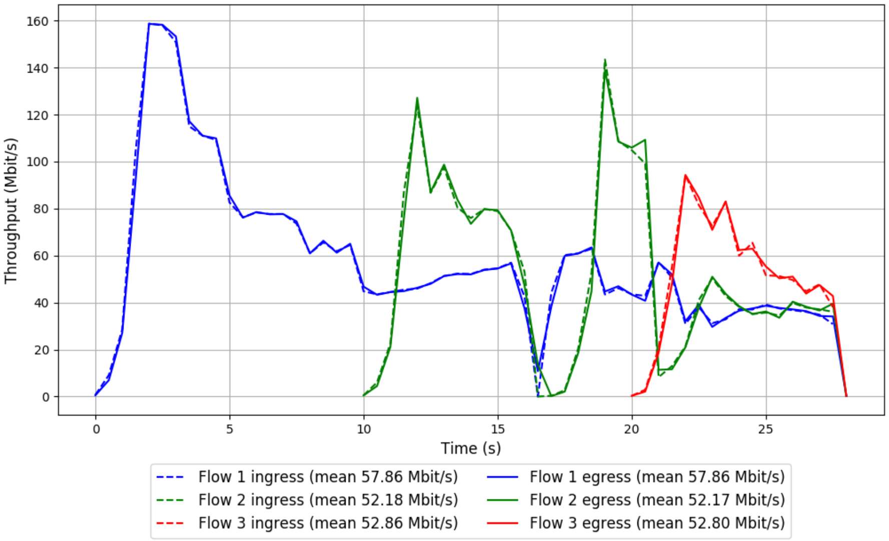


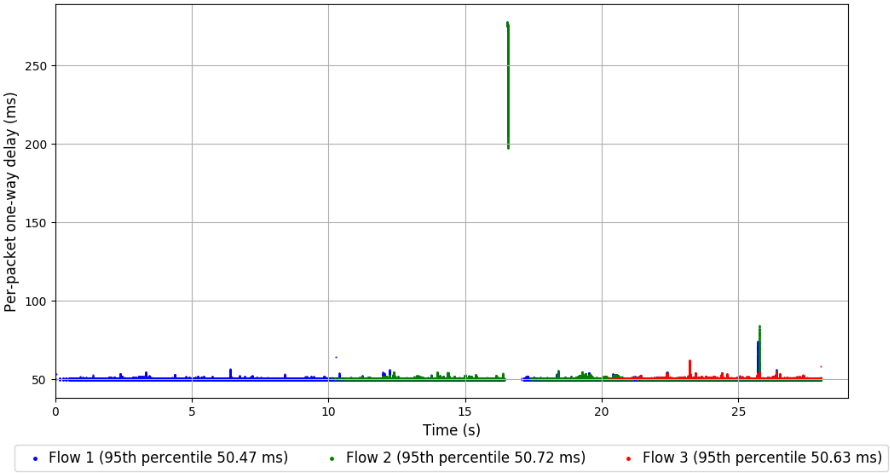
```
Run 1: Statistics of Copa

Start at: 2017-09-08 06:24:10
End at: 2017-09-08 06:24:40

# Below is generated by plot.py at 2017-09-08 10:23:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.84 Mbit/s
95th percentile per-packet one-way delay: 50.570 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 57.86 Mbit/s
95th percentile per-packet one-way delay: 50.474 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 52.17 Mbit/s
95th percentile per-packet one-way delay: 50.722 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 52.80 Mbit/s
95th percentile per-packet one-way delay: 50.632 ms
Loss rate: 0.02%
```

Run 1: Report of Copa — Data Link



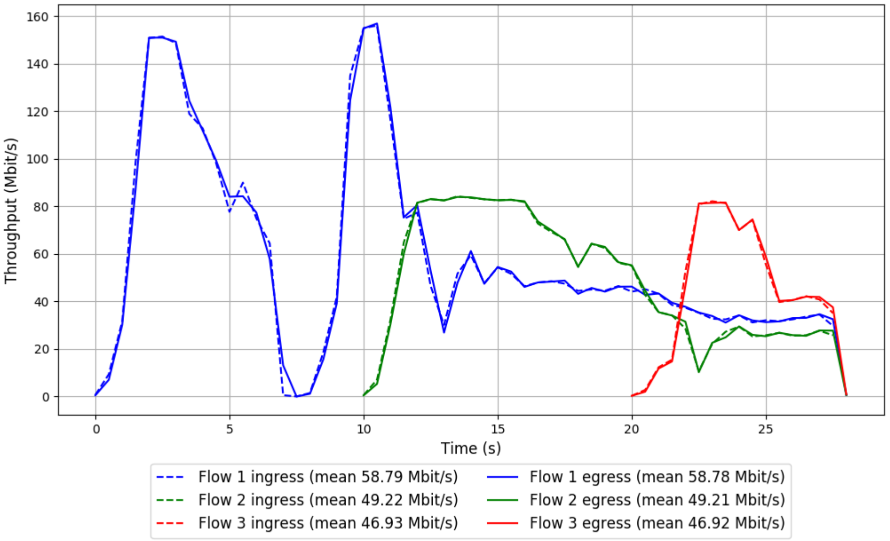


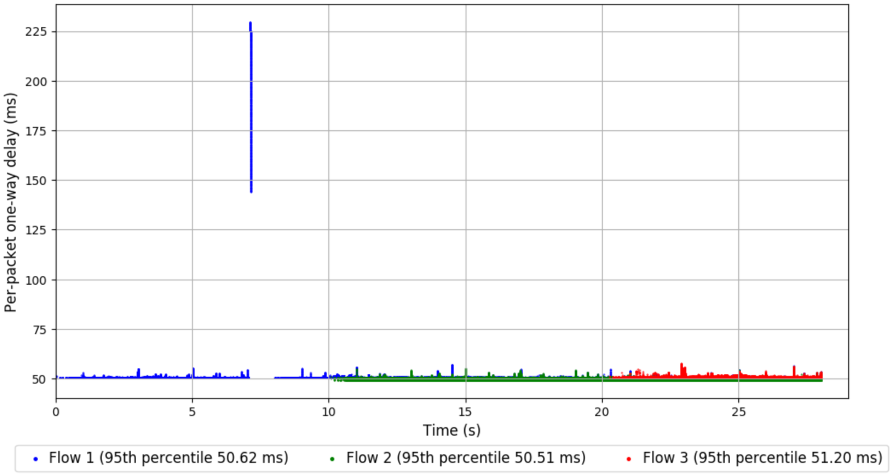
```
Run 2: Statistics of Copa

Start at: 2017-09-08 06:35:49
End at: 2017-09-08 06:36:19

# Below is generated by plot.py at 2017-09-08 10:23:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.31 Mbit/s
95th percentile per-packet one-way delay: 50.899 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 58.78 Mbit/s
95th percentile per-packet one-way delay: 50.621 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 50.506 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 51.202 ms
Loss rate: 0.01%
```

Run 2: Report of Copa — Data Link



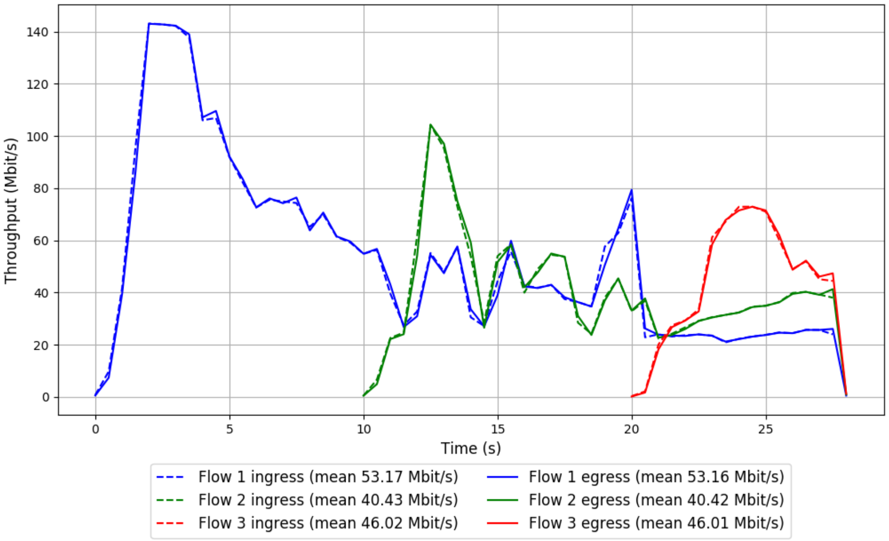


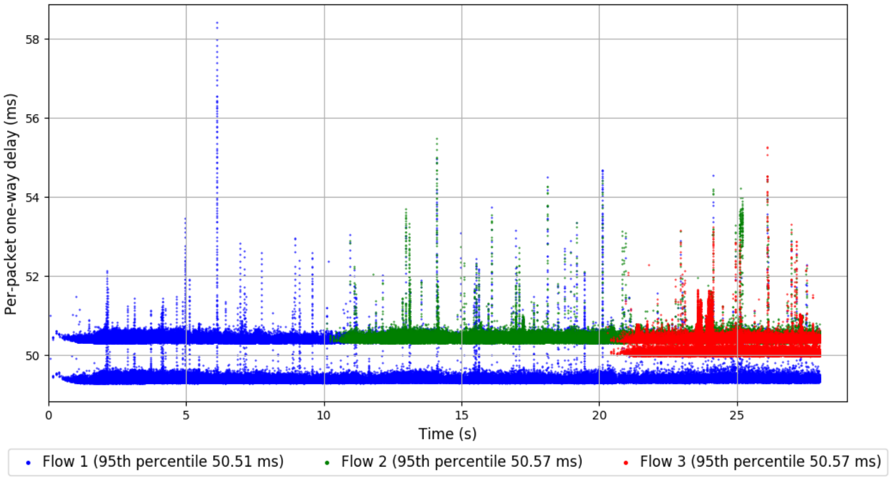
```
Run 3: Statistics of Copa

Start at: 2017-09-08 06:47:38
End at: 2017-09-08 06:48:08

# Below is generated by plot.py at 2017-09-08 10:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.71 Mbit/s
95th percentile per-packet one-way delay: 50.540 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 53.16 Mbit/s
95th percentile per-packet one-way delay: 50.514 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.42 Mbit/s
95th percentile per-packet one-way delay: 50.572 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.01 Mbit/s
95th percentile per-packet one-way delay: 50.573 ms
Loss rate: 0.01%
```

Run 3: Report of Copa — Data Link



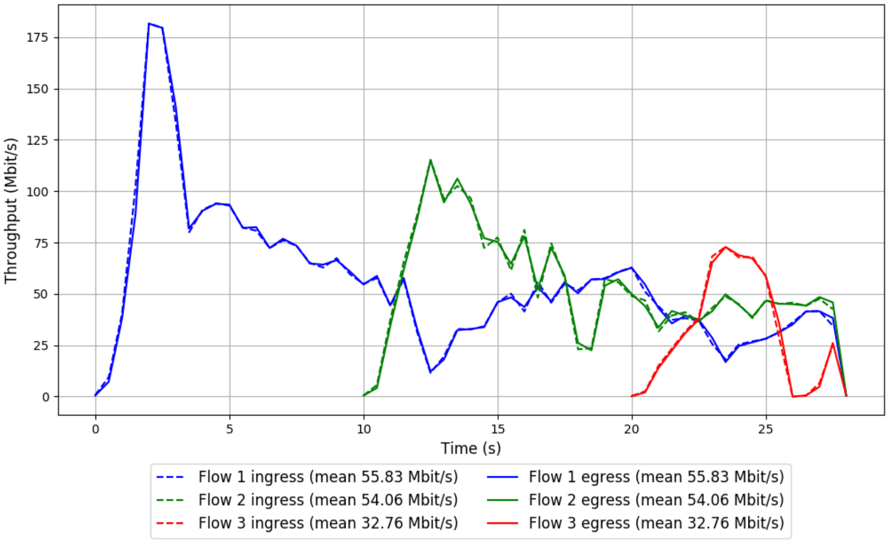


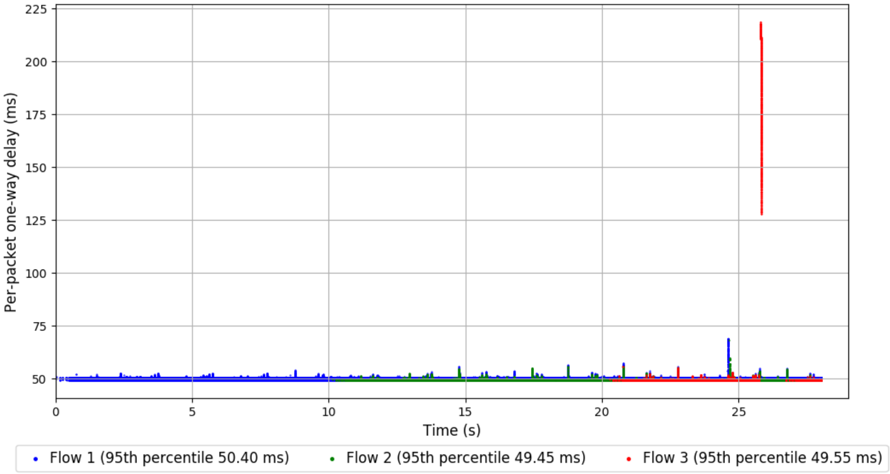
```
Run 4: Statistics of Copa

Start at: 2017-09-08 06:59:46
End at: 2017-09-08 07:00:16

# Below is generated by plot.py at 2017-09-08 10:24:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.44 Mbit/s
95th percentile per-packet one-way delay: 50.378 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 50.400 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.06 Mbit/s
95th percentile per-packet one-way delay: 49.450 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.76 Mbit/s
95th percentile per-packet one-way delay: 49.553 ms
Loss rate: 0.00%
```

Run 4: Report of Copa — Data Link



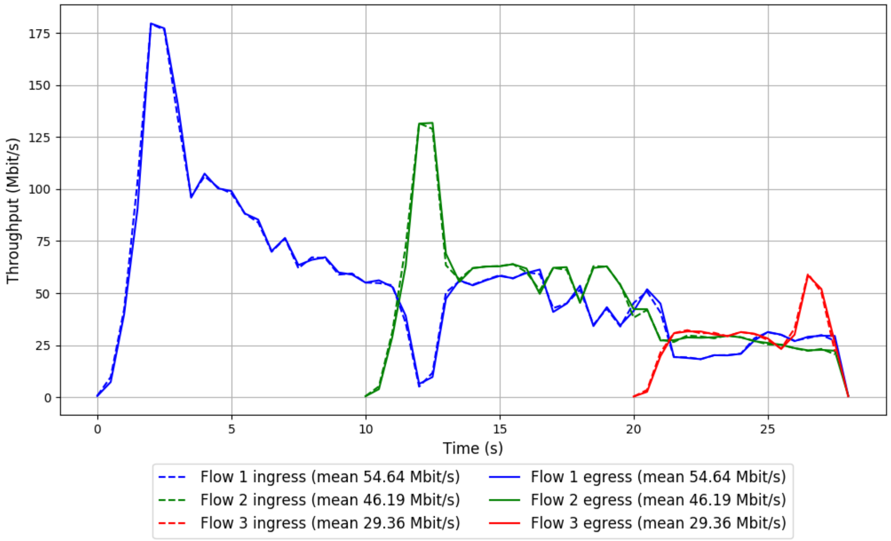


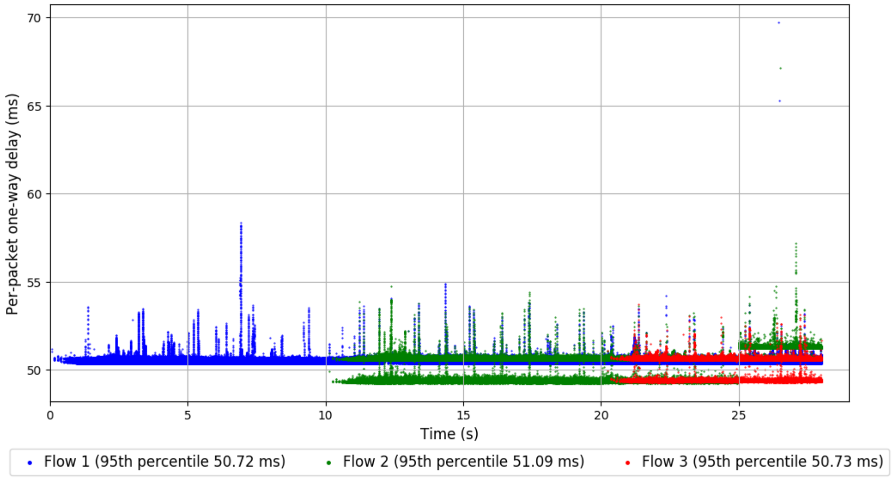
```
Run 5: Statistics of Copa

Start at: 2017-09-08 07:12:07
End at: 2017-09-08 07:12:37

# Below is generated by plot.py at 2017-09-08 10:24:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 50.752 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.64 Mbit/s
95th percentile per-packet one-way delay: 50.715 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.19 Mbit/s
95th percentile per-packet one-way delay: 51.091 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 50.735 ms
Loss rate: 0.00%
```

Run 5: Report of Copa — Data Link



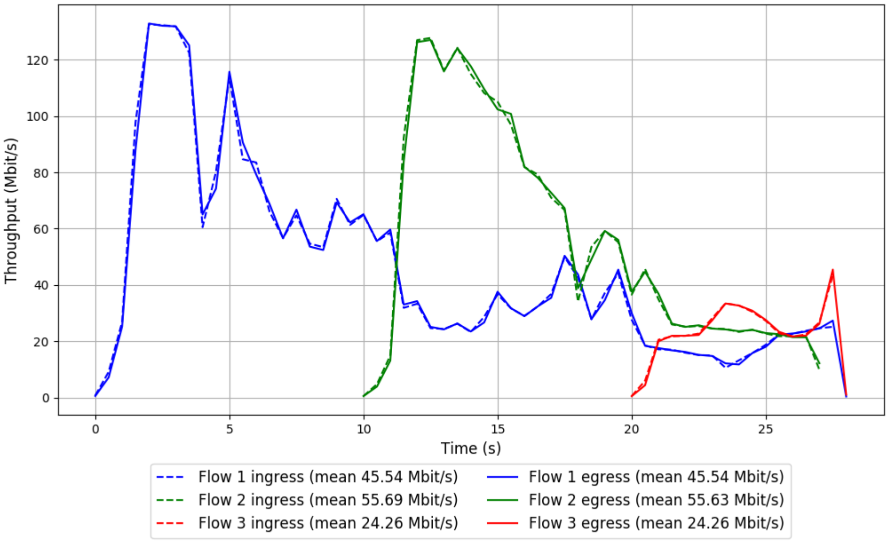


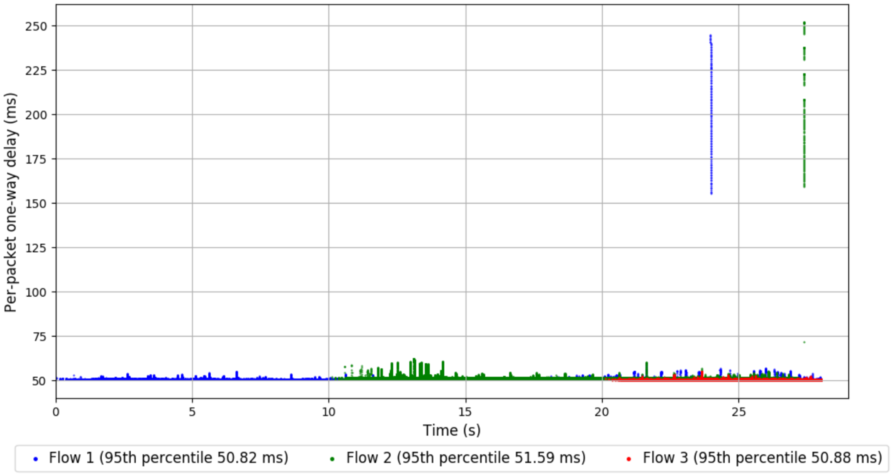
```
Run 6: Statistics of Copa

Start at: 2017-09-08 07:24:26
End at: 2017-09-08 07:24:56

# Below is generated by plot.py at 2017-09-08 10:24:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.74 Mbit/s
95th percentile per-packet one-way delay: 51.516 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.54 Mbit/s
95th percentile per-packet one-way delay: 50.820 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 51.593 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.26 Mbit/s
95th percentile per-packet one-way delay: 50.875 ms
Loss rate: 0.00%
```

Run 6: Report of Copa — Data Link



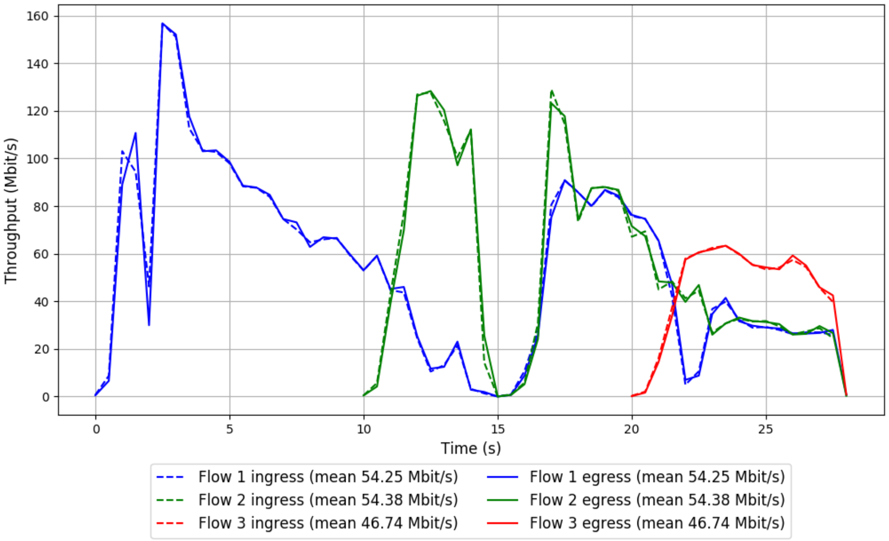


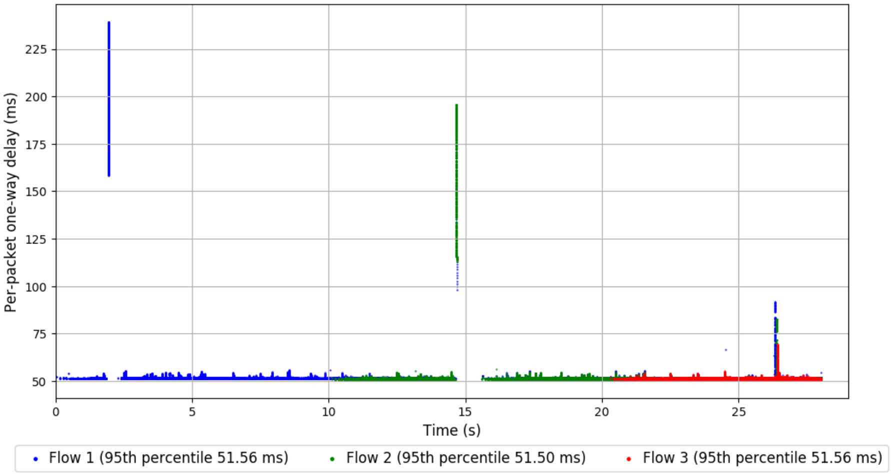
```
Run 7: Statistics of Copa

Start at: 2017-09-08 07:36:42
End at: 2017-09-08 07:37:12

# Below is generated by plot.py at 2017-09-08 10:25:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.88 Mbit/s
95th percentile per-packet one-way delay: 51.542 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.25 Mbit/s
95th percentile per-packet one-way delay: 51.561 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 51.504 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.74 Mbit/s
95th percentile per-packet one-way delay: 51.559 ms
Loss rate: 0.00%
```

Run 7: Report of Copa — Data Link



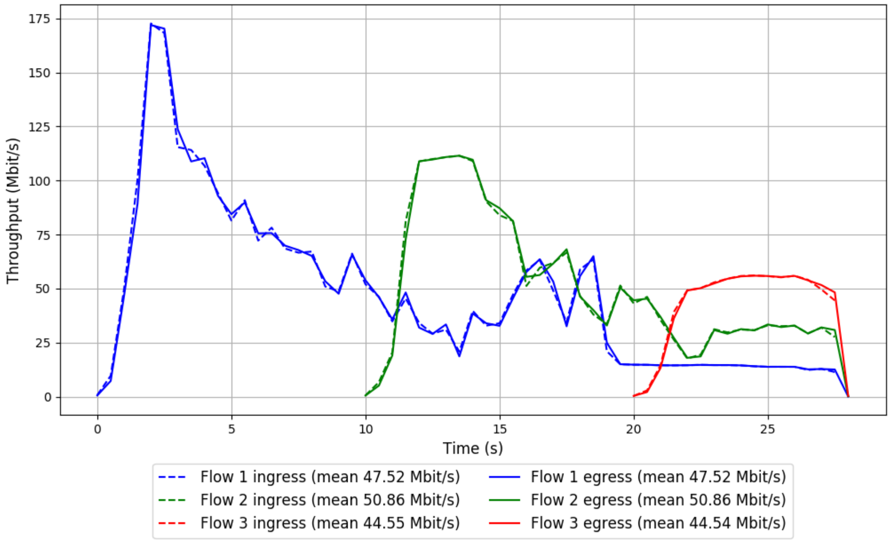


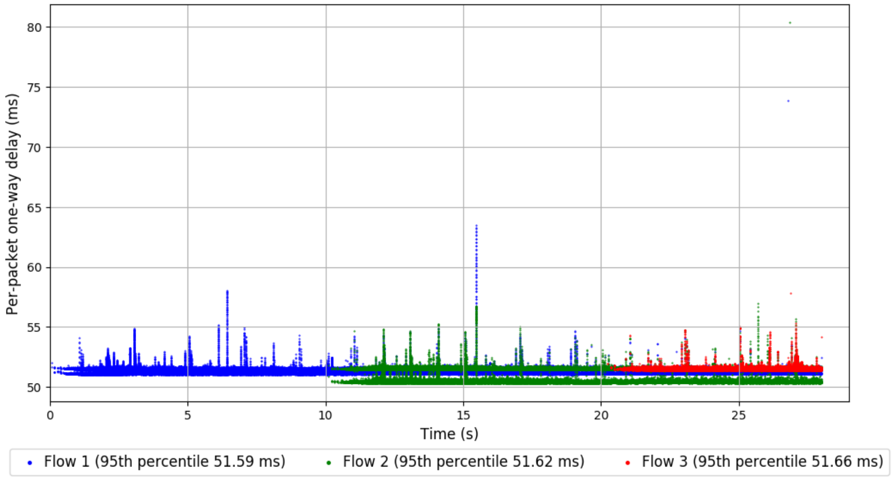
```
Run 8: Statistics of Copa

Start at: 2017-09-08 07:48:51
End at: 2017-09-08 07:49:21

# Below is generated by plot.py at 2017-09-08 10:25:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.45 Mbit/s
95th percentile per-packet one-way delay: 51.614 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.52 Mbit/s
95th percentile per-packet one-way delay: 51.593 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.86 Mbit/s
95th percentile per-packet one-way delay: 51.621 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.54 Mbit/s
95th percentile per-packet one-way delay: 51.663 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link



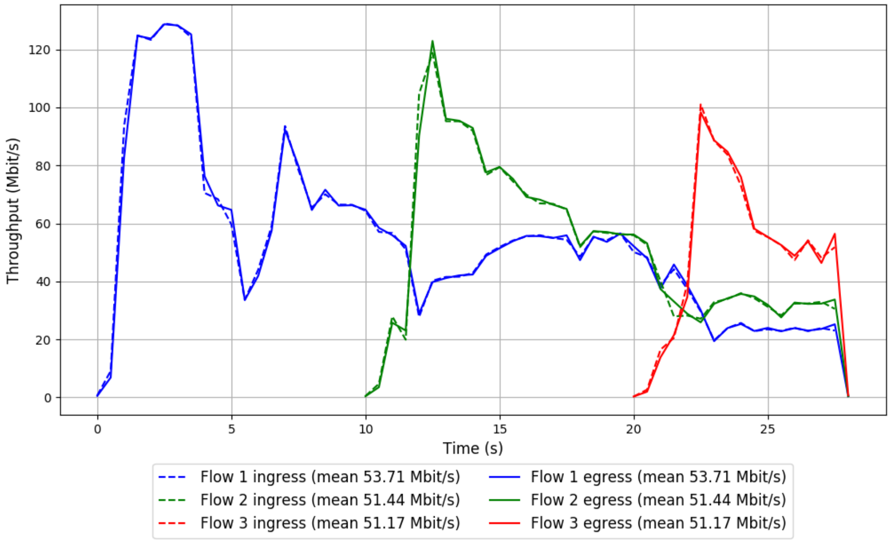


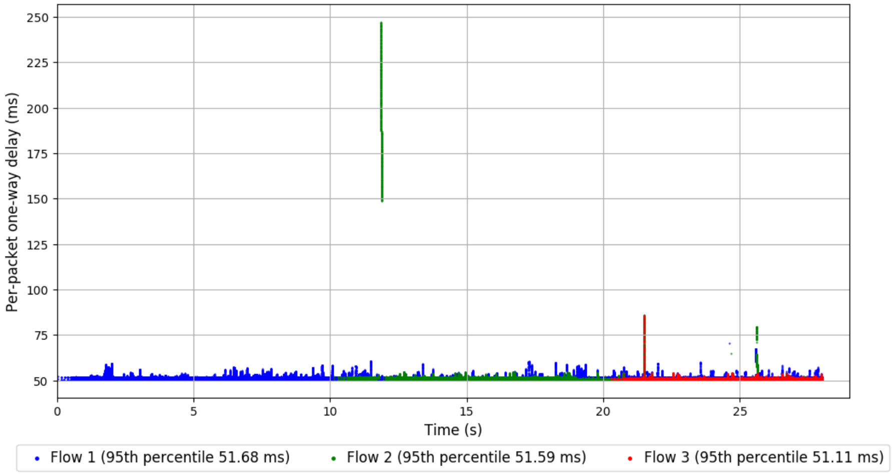
```
Run 9: Statistics of Copa

Start at: 2017-09-08 08:01:06
End at: 2017-09-08 08:01:36

# Below is generated by plot.py at 2017-09-08 10:25:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.72 Mbit/s
95th percentile per-packet one-way delay: 51.609 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.71 Mbit/s
95th percentile per-packet one-way delay: 51.677 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.44 Mbit/s
95th percentile per-packet one-way delay: 51.589 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.17 Mbit/s
95th percentile per-packet one-way delay: 51.107 ms
Loss rate: 0.00%
```

Run 9: Report of Copa — Data Link



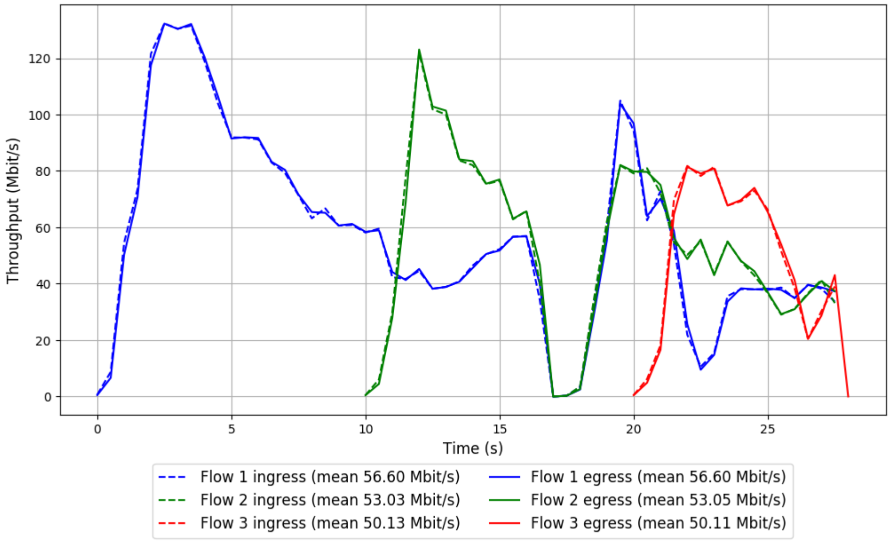


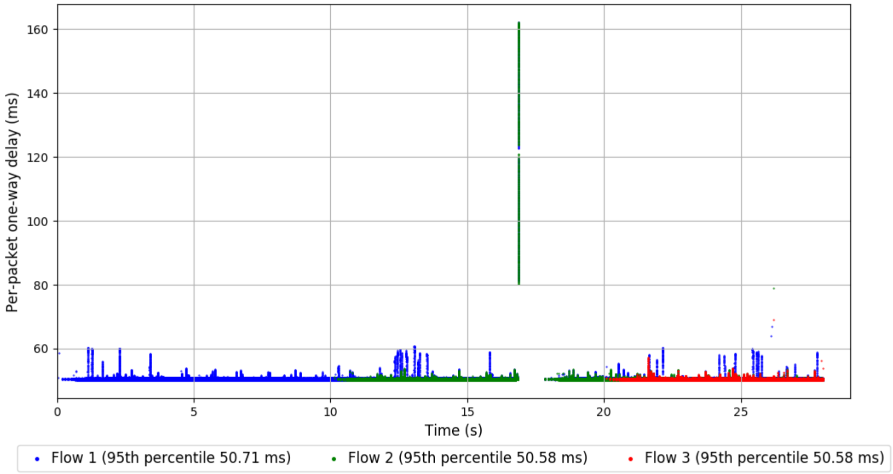
```
Run 10: Statistics of Copa

Start at: 2017-09-08 08:13:10
End at: 2017-09-08 08:13:40

# Below is generated by plot.py at 2017-09-08 10:26:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.66 Mbit/s
95th percentile per-packet one-way delay: 50.678 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.60 Mbit/s
95th percentile per-packet one-way delay: 50.708 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.05 Mbit/s
95th percentile per-packet one-way delay: 50.578 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.11 Mbit/s
95th percentile per-packet one-way delay: 50.582 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link



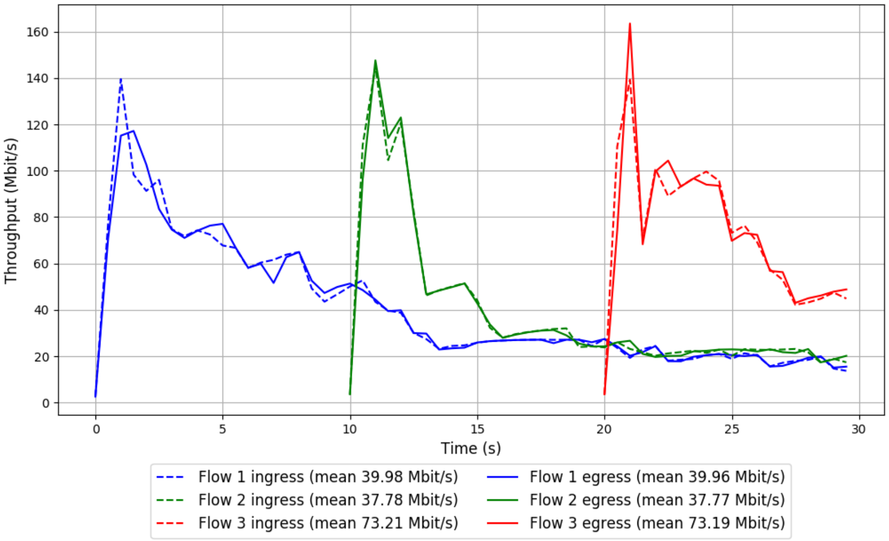


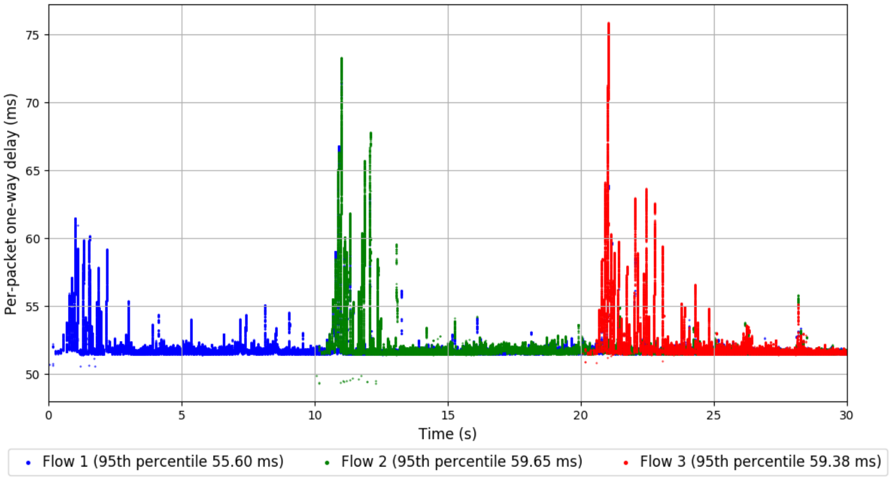
```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-08 06:13:42
End at: 2017-09-08 06:14:12

# Below is generated by plot.py at 2017-09-08 10:26:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.32 Mbit/s
95th percentile per-packet one-way delay: 58.305 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 39.96 Mbit/s
95th percentile per-packet one-way delay: 55.604 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 59.654 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 73.19 Mbit/s
95th percentile per-packet one-way delay: 59.375 ms
Loss rate: 0.03%
```

Run 1: Report of TCP Cubic — Data Link



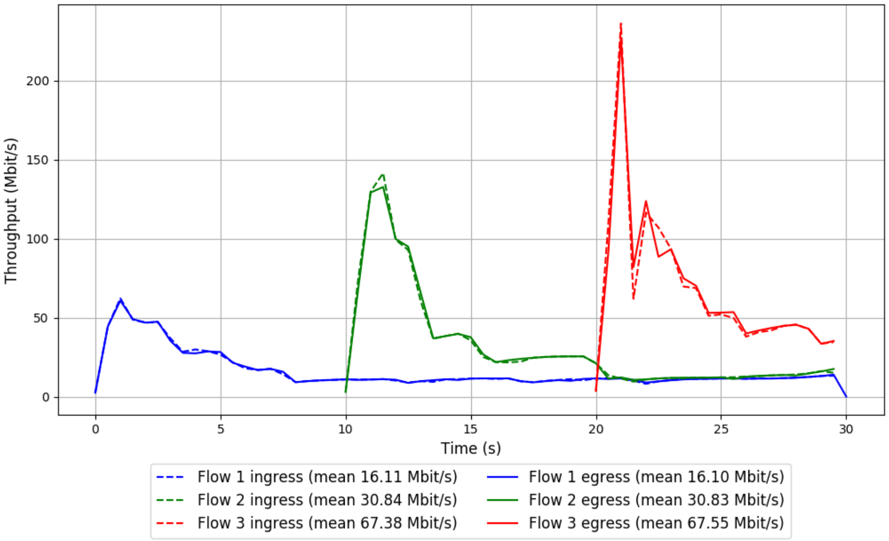


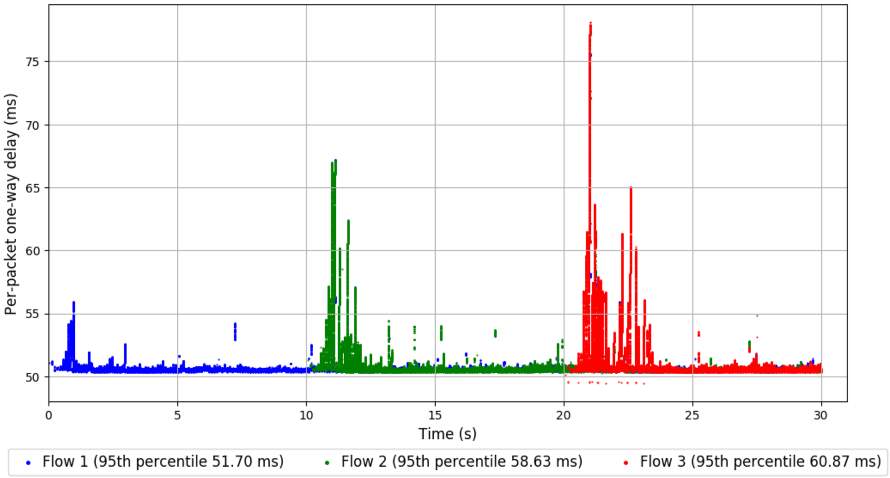
```
Run 2: Statistics of TCP Cubic

Start at: 2017-09-08 06:25:41
End at: 2017-09-08 06:26:11

# Below is generated by plot.py at 2017-09-08 10:26:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.01 Mbit/s
95th percentile per-packet one-way delay: 57.897 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 16.10 Mbit/s
95th percentile per-packet one-way delay: 51.700 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 30.83 Mbit/s
95th percentile per-packet one-way delay: 58.635 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 67.55 Mbit/s
95th percentile per-packet one-way delay: 60.866 ms
Loss rate: 0.01%
```

Run 2: Report of TCP Cubic — Data Link



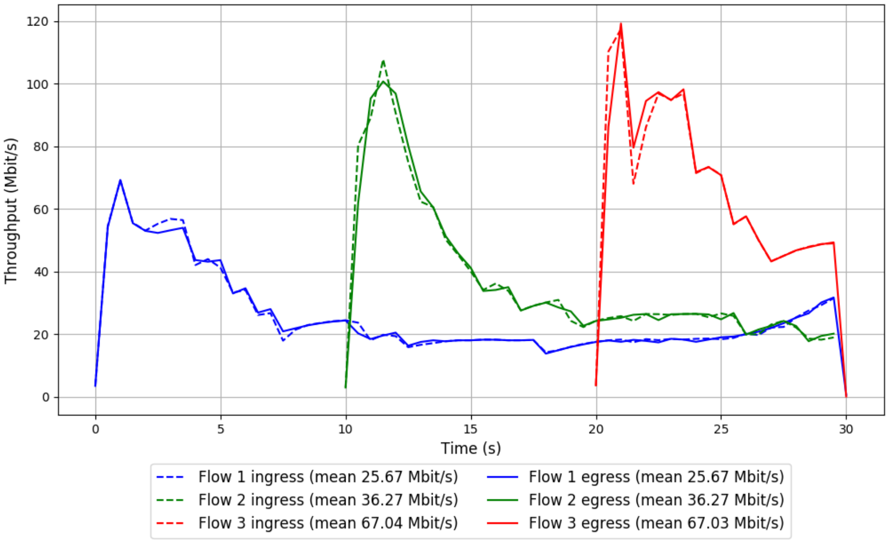


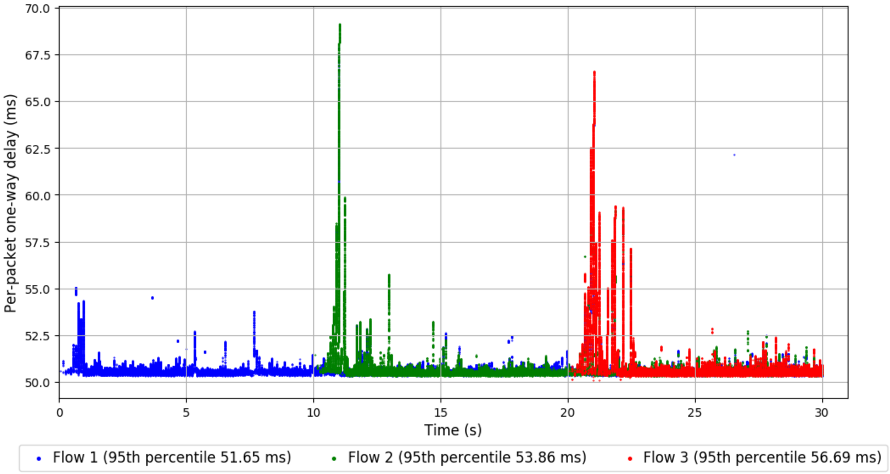
```
Run 3: Statistics of TCP Cubic

Start at: 2017-09-08 06:37:21
End at: 2017-09-08 06:37:51

# Below is generated by plot.py at 2017-09-08 10:26:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.05 Mbit/s
95th percentile per-packet one-way delay: 54.077 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 25.67 Mbit/s
95th percentile per-packet one-way delay: 51.647 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 36.27 Mbit/s
95th percentile per-packet one-way delay: 53.860 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 67.03 Mbit/s
95th percentile per-packet one-way delay: 56.688 ms
Loss rate: 0.01%
```

Run 3: Report of TCP Cubic — Data Link



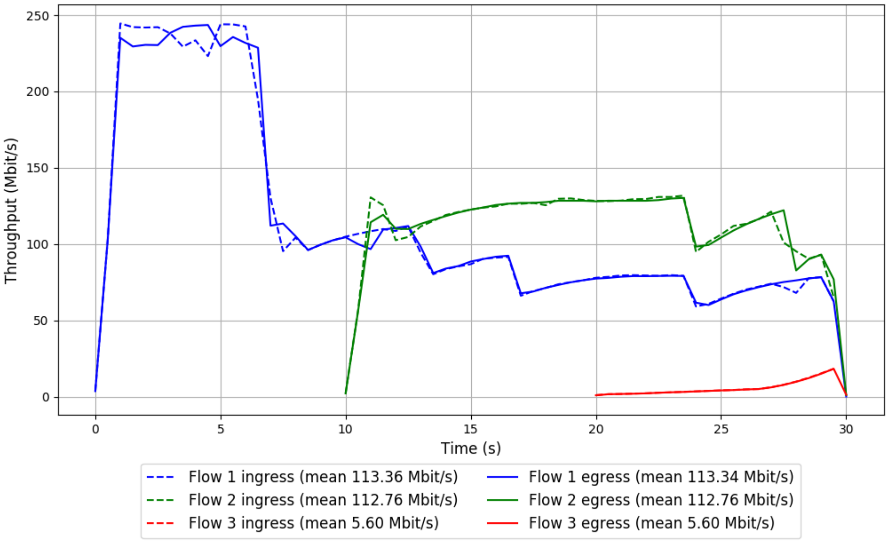


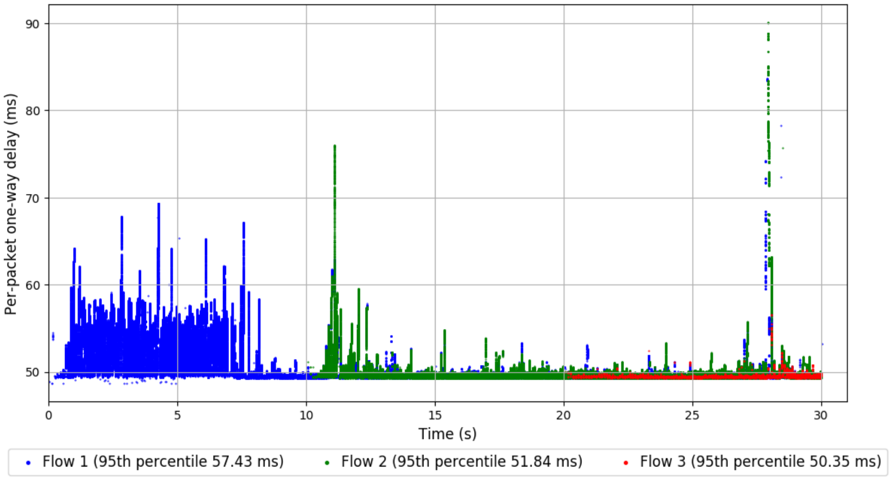
```
Run 4: Statistics of TCP Cubic

Start at: 2017-09-08 06:49:13
End at: 2017-09-08 06:49:43

# Below is generated by plot.py at 2017-09-08 10:26:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 190.23 Mbit/s
95th percentile per-packet one-way delay: 56.778 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 113.34 Mbit/s
95th percentile per-packet one-way delay: 57.430 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 112.76 Mbit/s
95th percentile per-packet one-way delay: 51.842 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.60 Mbit/s
95th percentile per-packet one-way delay: 50.350 ms
Loss rate: 0.11%
```

Run 4: Report of TCP Cubic — Data Link



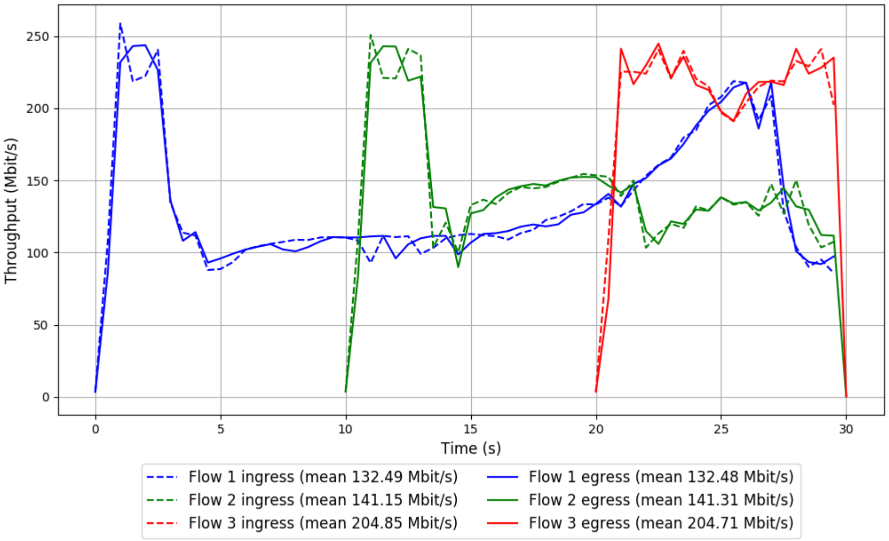


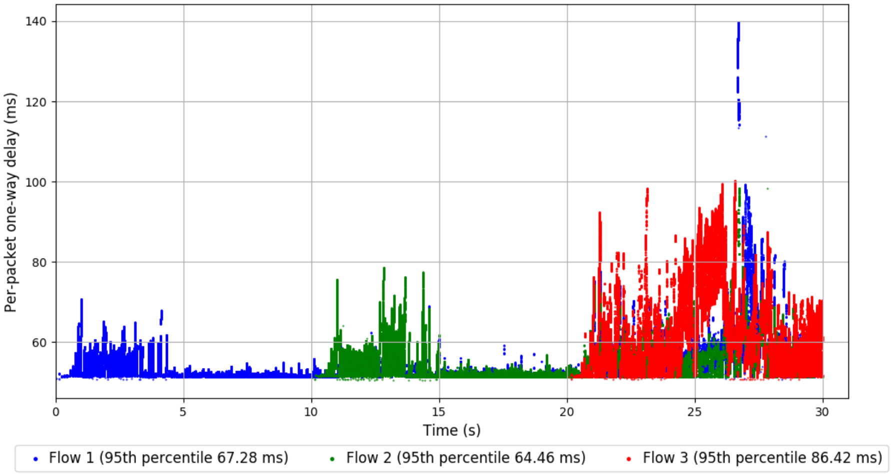
```
Run 5: Statistics of TCP Cubic

Start at: 2017-09-08 07:01:28
End at: 2017-09-08 07:01:58

# Below is generated by plot.py at 2017-09-08 10:27:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.38 Mbit/s
95th percentile per-packet one-way delay: 75.933 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 132.48 Mbit/s
95th percentile per-packet one-way delay: 67.284 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.31 Mbit/s
95th percentile per-packet one-way delay: 64.461 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 204.71 Mbit/s
95th percentile per-packet one-way delay: 86.423 ms
Loss rate: 0.11%
```

Run 5: Report of TCP Cubic — Data Link



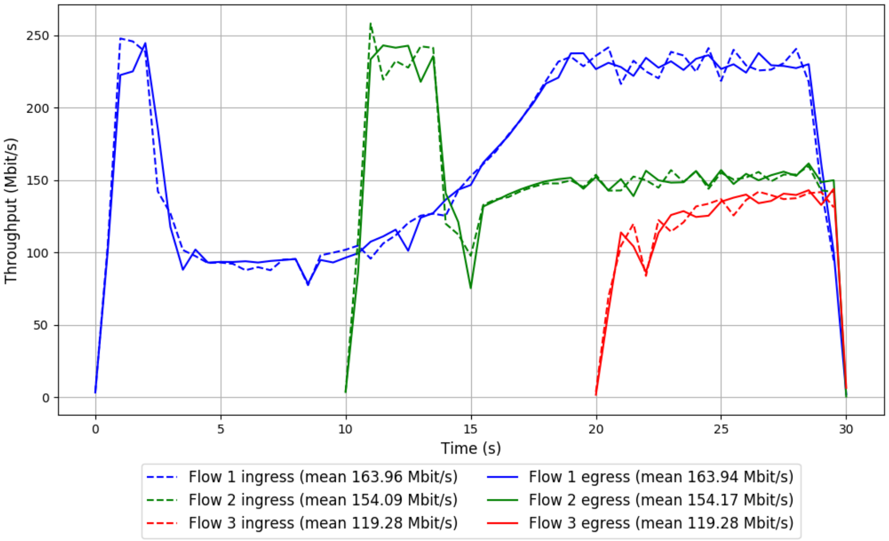


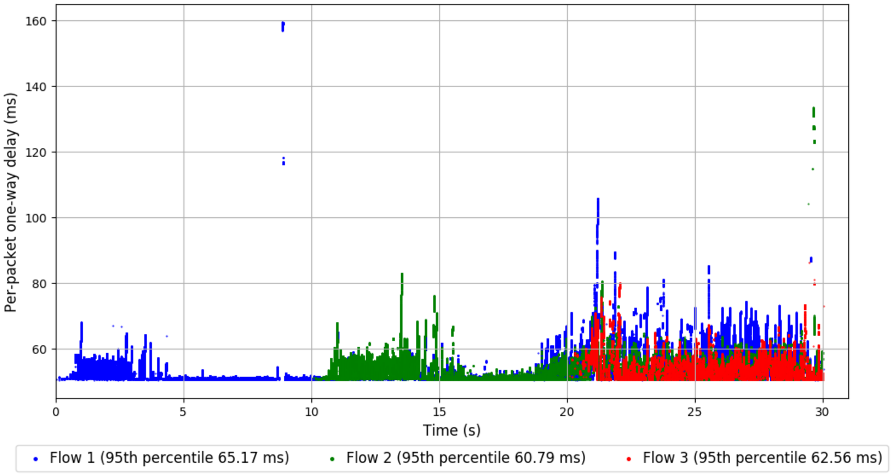
```
Run 6: Statistics of TCP Cubic

Start at: 2017-09-08 07:13:50
End at: 2017-09-08 07:14:20

# Below is generated by plot.py at 2017-09-08 10:27:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.99 Mbit/s
95th percentile per-packet one-way delay: 63.535 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 163.94 Mbit/s
95th percentile per-packet one-way delay: 65.167 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 154.17 Mbit/s
95th percentile per-packet one-way delay: 60.787 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 119.28 Mbit/s
95th percentile per-packet one-way delay: 62.558 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Cubic — Data Link



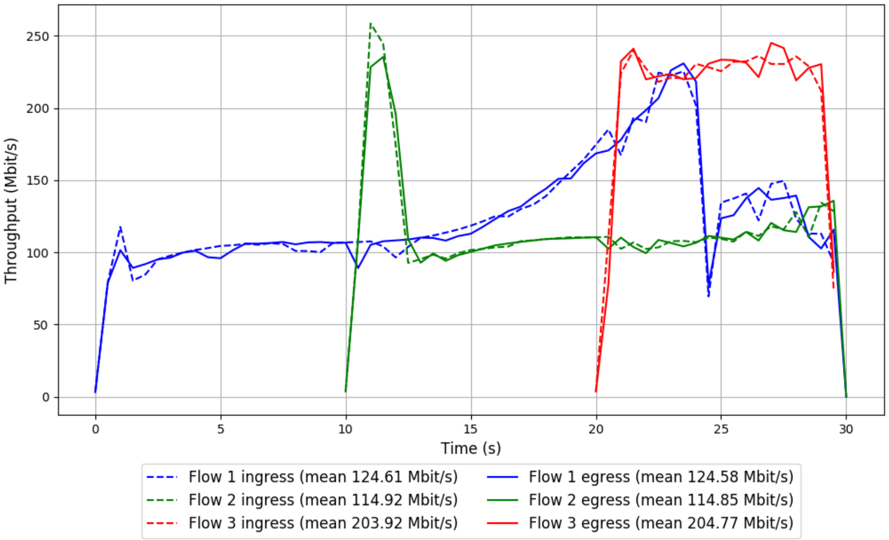


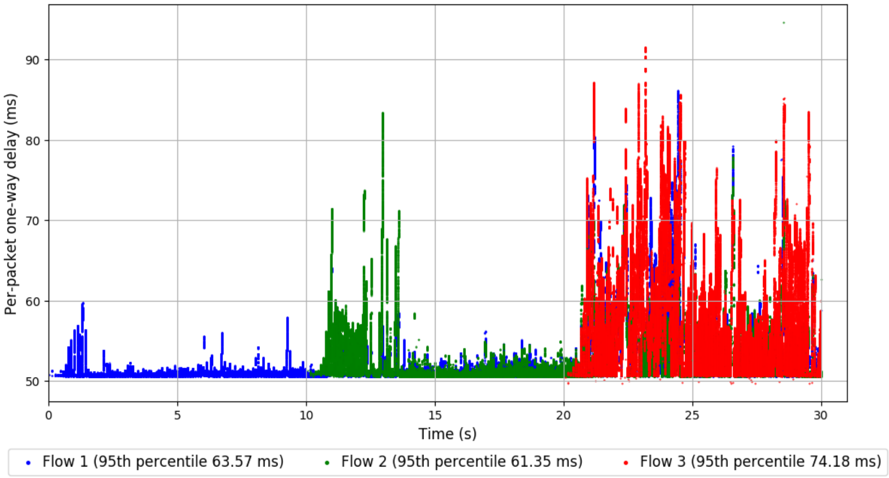
```
Run 7: Statistics of TCP Cubic

Start at: 2017-09-08 07:26:06
End at: 2017-09-08 07:26:36

# Below is generated by plot.py at 2017-09-08 10:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.84 Mbit/s
95th percentile per-packet one-way delay: 68.075 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 124.58 Mbit/s
95th percentile per-packet one-way delay: 63.566 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 114.85 Mbit/s
95th percentile per-packet one-way delay: 61.355 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 204.77 Mbit/s
95th percentile per-packet one-way delay: 74.181 ms
Loss rate: 0.00%
```

Run 7: Report of TCP Cubic — Data Link



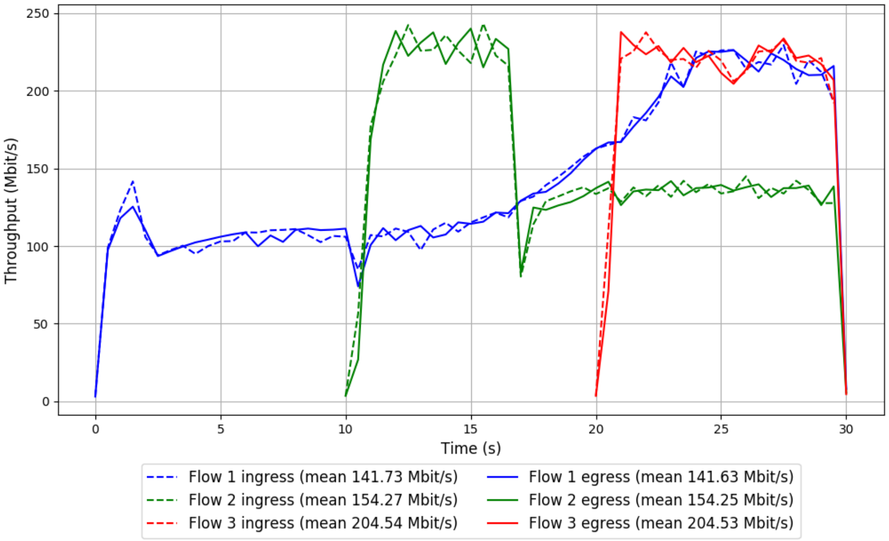


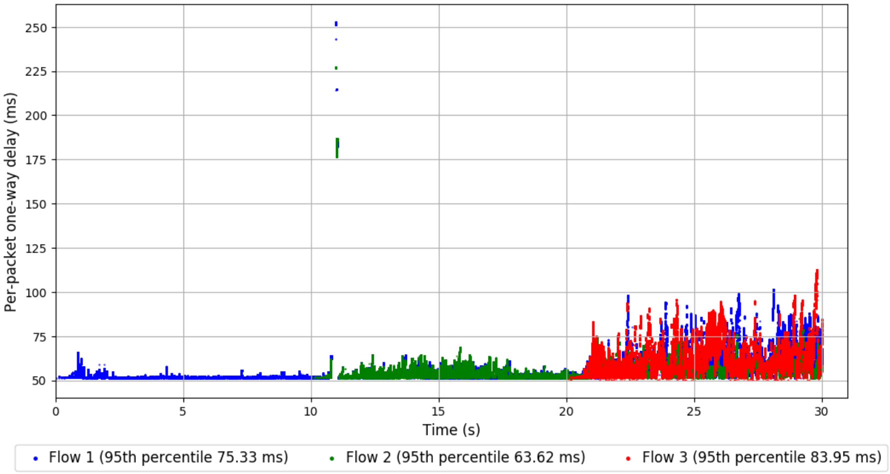
```
Run 8: Statistics of TCP Cubic

Start at: 2017-09-08 07:38:18
End at: 2017-09-08 07:38:48

# Below is generated by plot.py at 2017-09-08 10:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.25 Mbit/s
95th percentile per-packet one-way delay: 75.848 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 141.63 Mbit/s
95th percentile per-packet one-way delay: 75.325 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 154.25 Mbit/s
95th percentile per-packet one-way delay: 63.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 204.53 Mbit/s
95th percentile per-packet one-way delay: 83.949 ms
Loss rate: 0.18%
```

Run 8: Report of TCP Cubic — Data Link



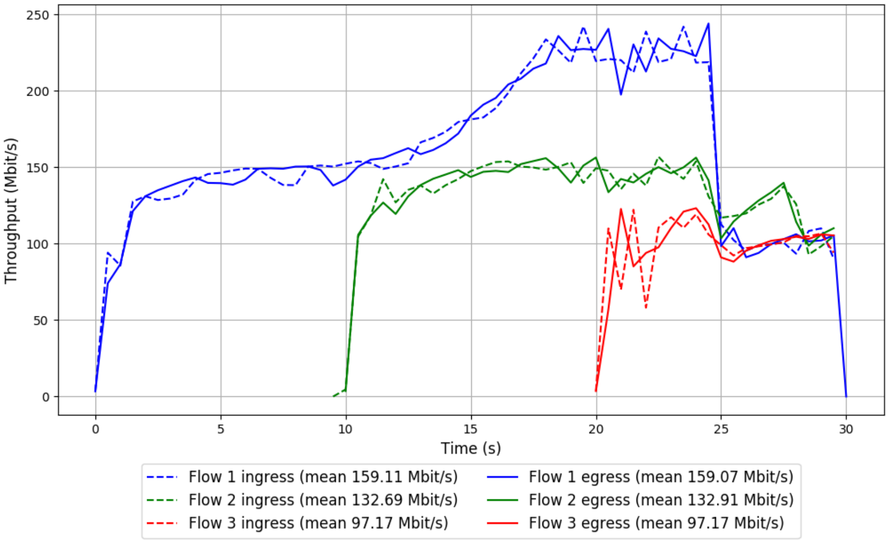


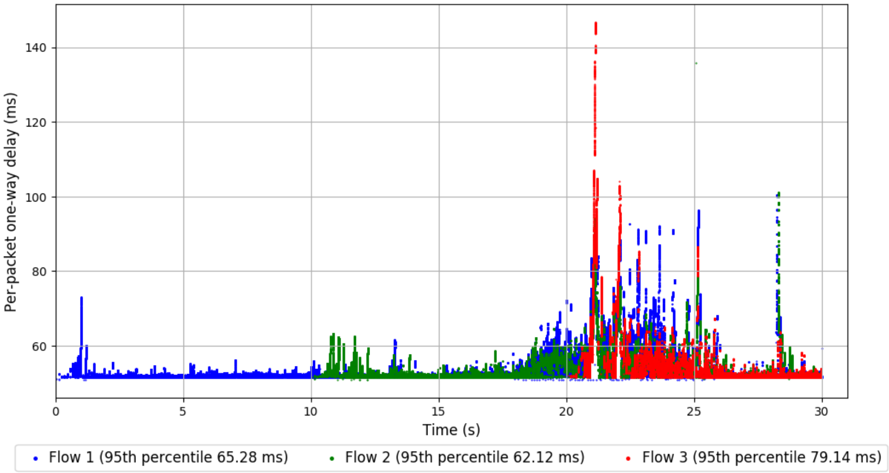
```
Run 9: Statistics of TCP Cubic

Start at: 2017-09-08 07:50:28
End at: 2017-09-08 07:50:58

# Below is generated by plot.py at 2017-09-08 10:29:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.65 Mbit/s
95th percentile per-packet one-way delay: 64.913 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 159.07 Mbit/s
95th percentile per-packet one-way delay: 65.285 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 132.91 Mbit/s
95th percentile per-packet one-way delay: 62.124 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 79.142 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Cubic — Data Link



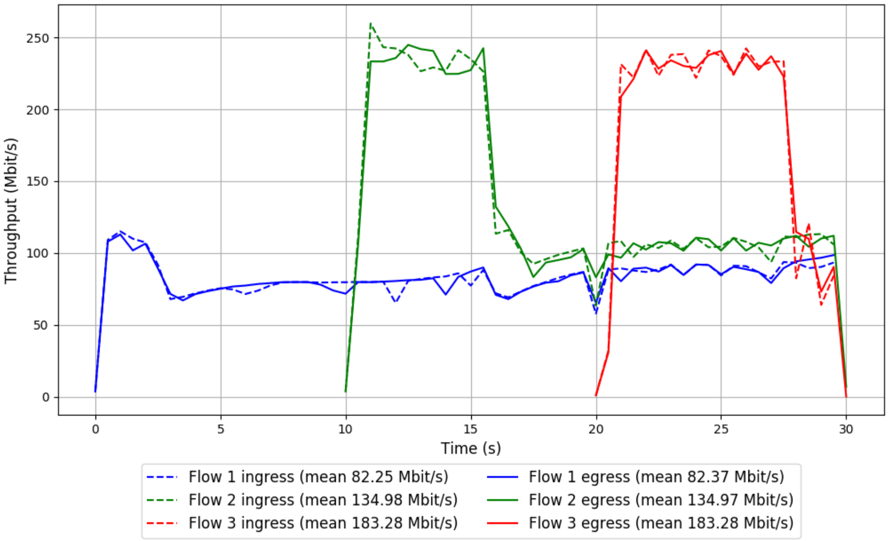


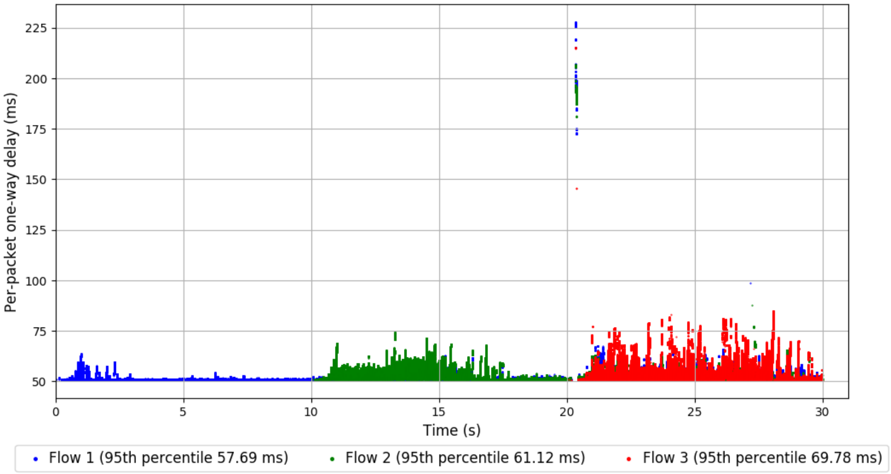
```
Run 10: Statistics of TCP Cubic

Start at: 2017-09-08 08:02:38
End at: 2017-09-08 08:03:08

# Below is generated by plot.py at 2017-09-08 10:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.91 Mbit/s
95th percentile per-packet one-way delay: 62.990 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.37 Mbit/s
95th percentile per-packet one-way delay: 57.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 134.97 Mbit/s
95th percentile per-packet one-way delay: 61.118 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 183.28 Mbit/s
95th percentile per-packet one-way delay: 69.785 ms
Loss rate: 0.00%
```

Run 10: Report of TCP Cubic — Data Link



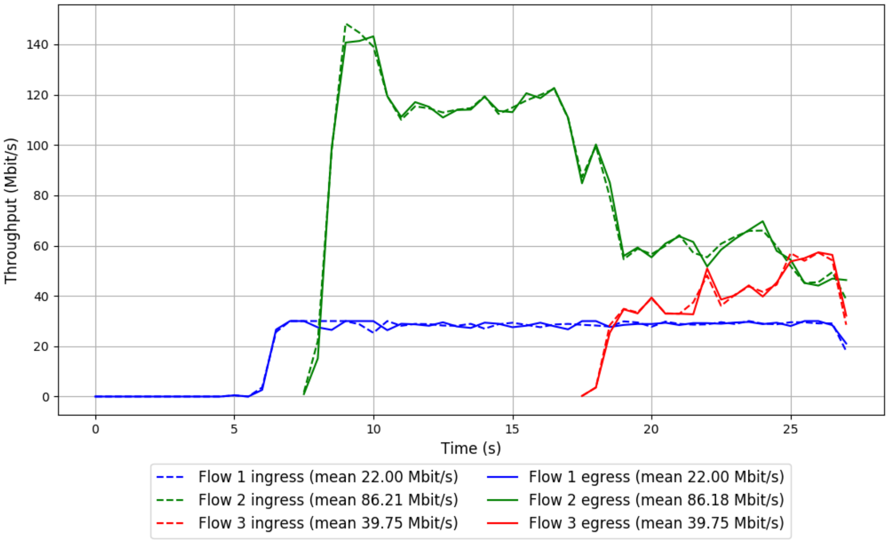


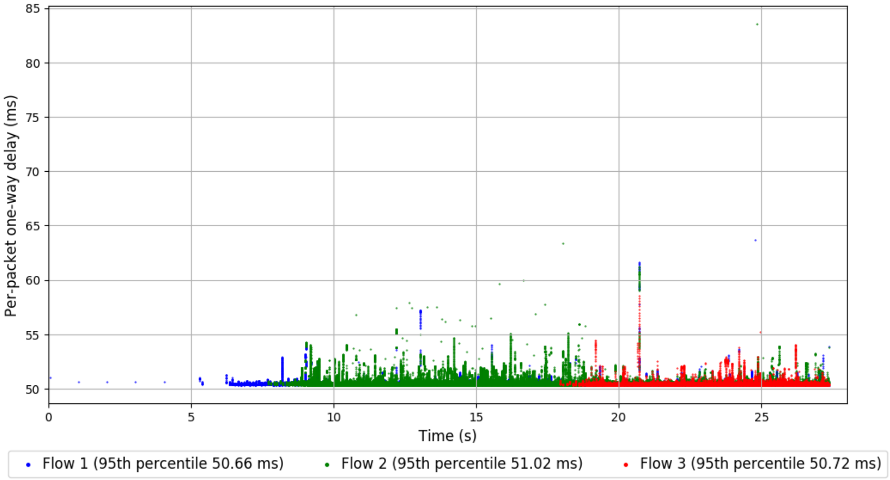
```
Run 1: Statistics of Indigo

Start at: 2017-09-08 06:21:38
End at: 2017-09-08 06:22:08

# Below is generated by plot.py at 2017-09-08 10:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.71 Mbit/s
95th percentile per-packet one-way delay: 50.875 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 22.00 Mbit/s
95th percentile per-packet one-way delay: 50.660 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 86.18 Mbit/s
95th percentile per-packet one-way delay: 51.022 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 50.722 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo — Data Link



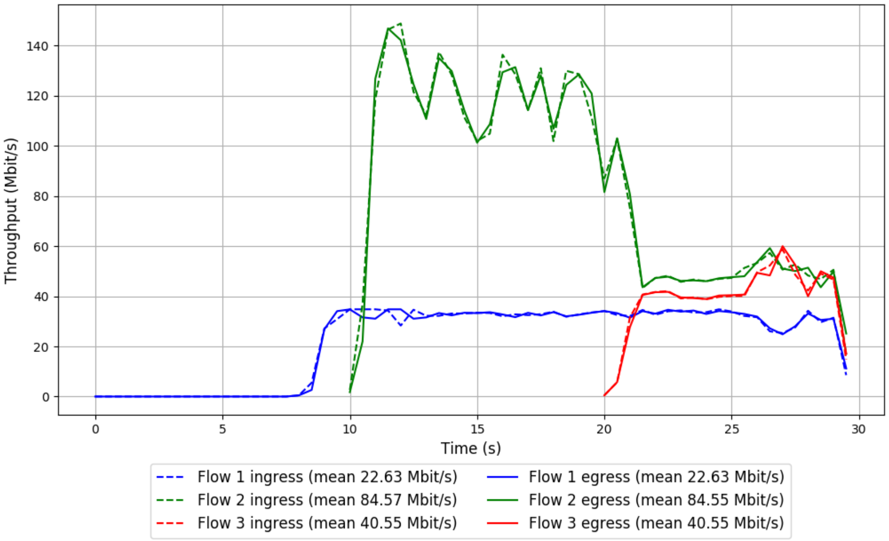


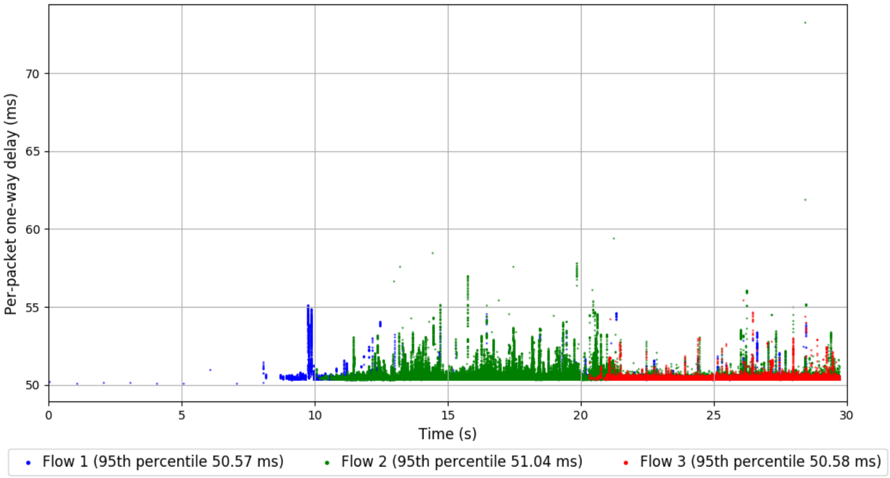
```
Run 2: Statistics of Indigo

Start at: 2017-09-08 06:33:26
End at: 2017-09-08 06:33:56

# Below is generated by plot.py at 2017-09-08 10:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.40 Mbit/s
95th percentile per-packet one-way delay: 50.875 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 22.63 Mbit/s
95th percentile per-packet one-way delay: 50.574 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 51.044 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 40.55 Mbit/s
95th percentile per-packet one-way delay: 50.580 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo — Data Link



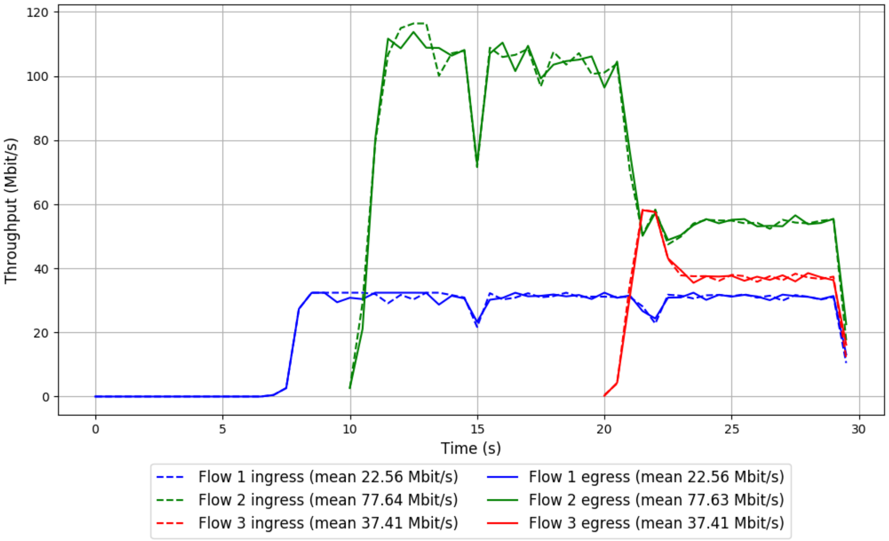


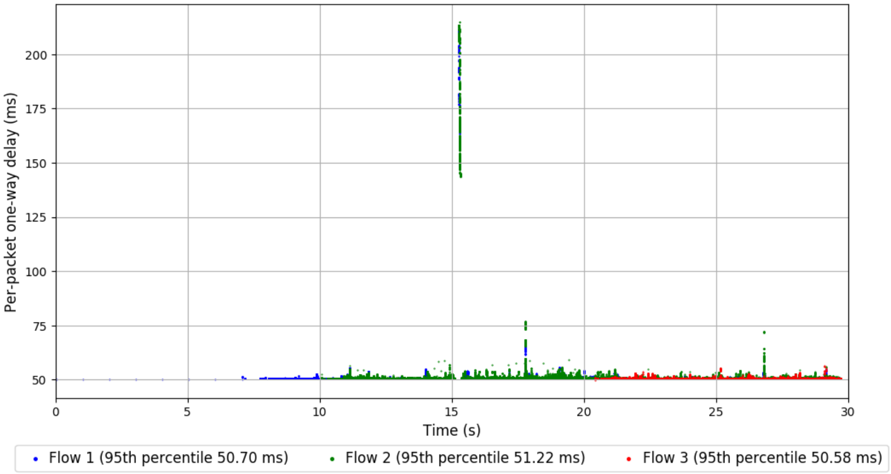
```
Run 3: Statistics of Indigo

Start at: 2017-09-08 06:45:13
End at: 2017-09-08 06:45:43

# Below is generated by plot.py at 2017-09-08 10:30:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.65 Mbit/s
95th percentile per-packet one-way delay: 50.965 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 22.56 Mbit/s
95th percentile per-packet one-way delay: 50.701 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 77.63 Mbit/s
95th percentile per-packet one-way delay: 51.223 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 37.41 Mbit/s
95th percentile per-packet one-way delay: 50.580 ms
Loss rate: 0.01%
```

Run 3: Report of Indigo — Data Link



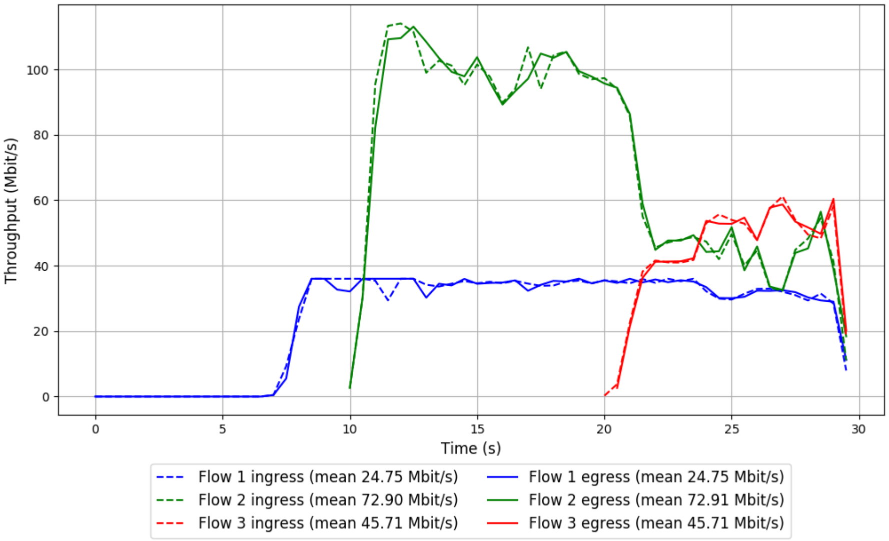


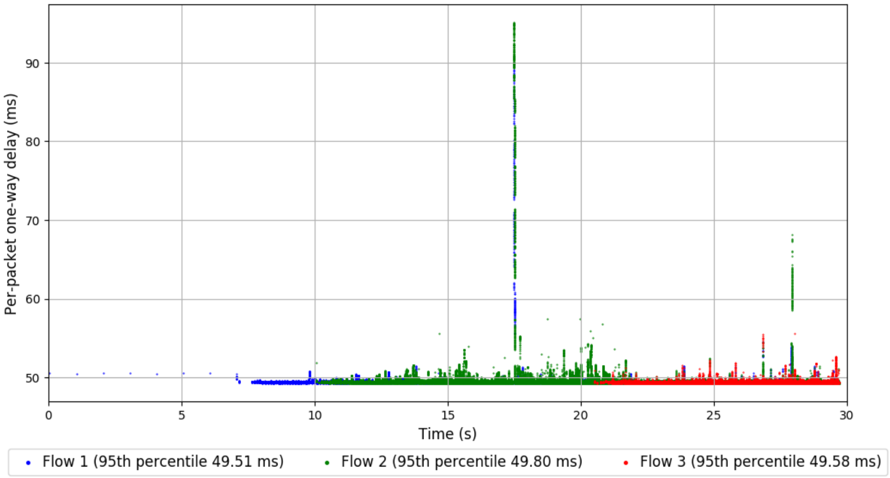
```
Run 4: Statistics of Indigo

Start at: 2017-09-08 06:57:15
End at: 2017-09-08 06:57:45

# Below is generated by plot.py at 2017-09-08 10:30:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.22 Mbit/s
95th percentile per-packet one-way delay: 49.667 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.75 Mbit/s
95th percentile per-packet one-way delay: 49.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.91 Mbit/s
95th percentile per-packet one-way delay: 49.796 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.71 Mbit/s
95th percentile per-packet one-way delay: 49.580 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link



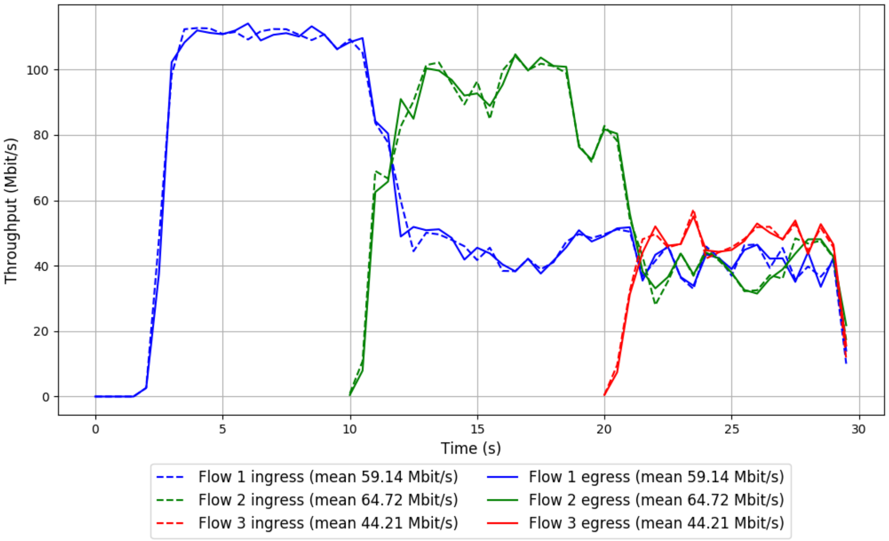


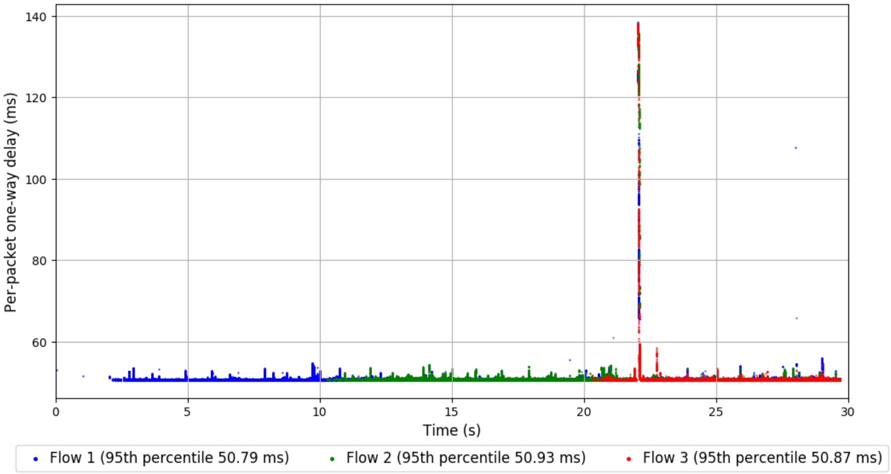
```
Run 5: Statistics of Indigo

Start at: 2017-09-08 07:09:36
End at: 2017-09-08 07:10:06

# Below is generated by plot.py at 2017-09-08 10:30:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.44 Mbit/s
95th percentile per-packet one-way delay: 50.860 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.14 Mbit/s
95th percentile per-packet one-way delay: 50.789 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.72 Mbit/s
95th percentile per-packet one-way delay: 50.927 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.21 Mbit/s
95th percentile per-packet one-way delay: 50.872 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link



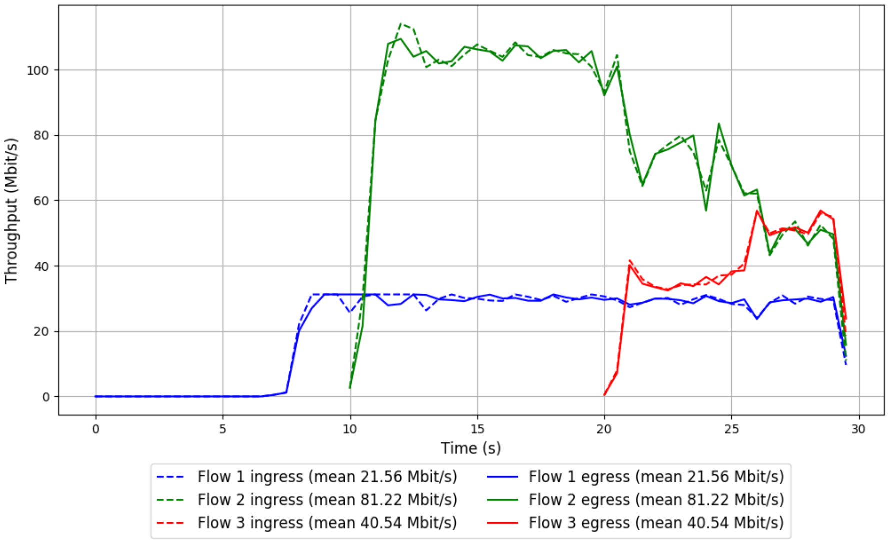


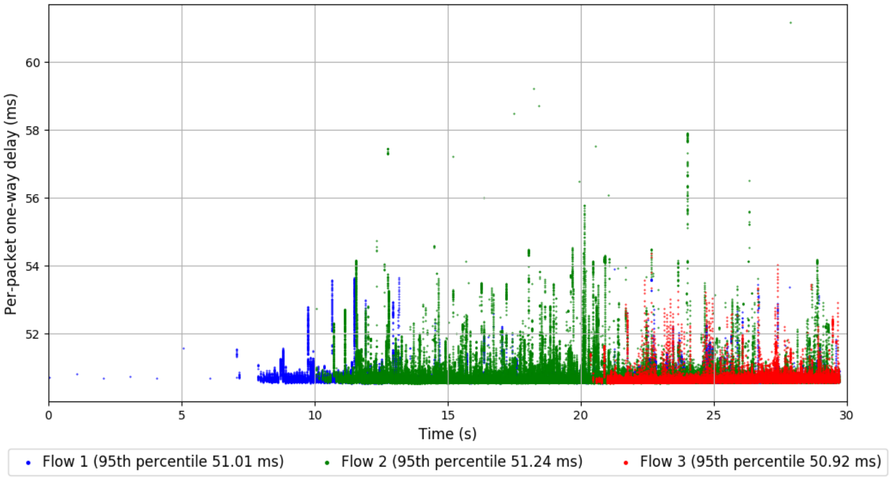
```
Run 6: Statistics of Indigo

Start at: 2017-09-08 07:21:57
End at: 2017-09-08 07:22:27

# Below is generated by plot.py at 2017-09-08 10:30:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.09 Mbit/s
95th percentile per-packet one-way delay: 51.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.56 Mbit/s
95th percentile per-packet one-way delay: 51.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 81.22 Mbit/s
95th percentile per-packet one-way delay: 51.239 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.54 Mbit/s
95th percentile per-packet one-way delay: 50.918 ms
Loss rate: 0.00%
```

Run 6: Report of Indigo — Data Link



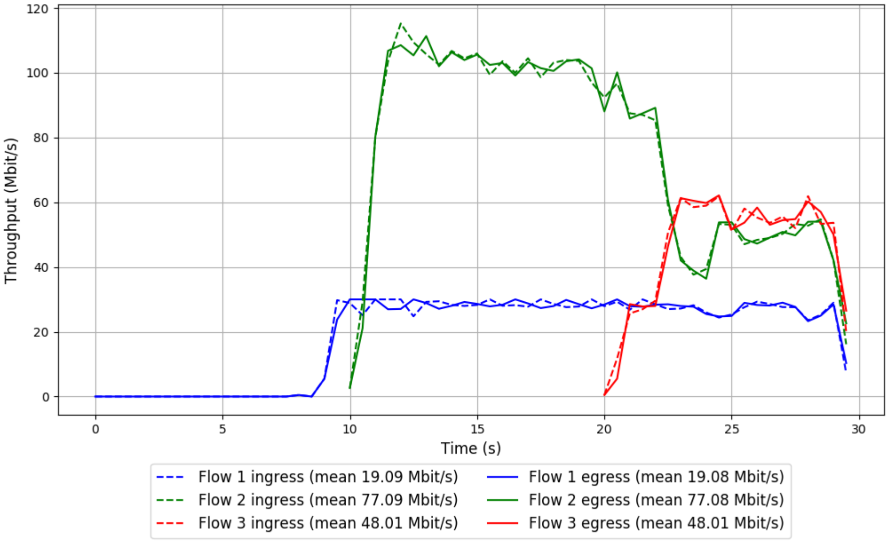


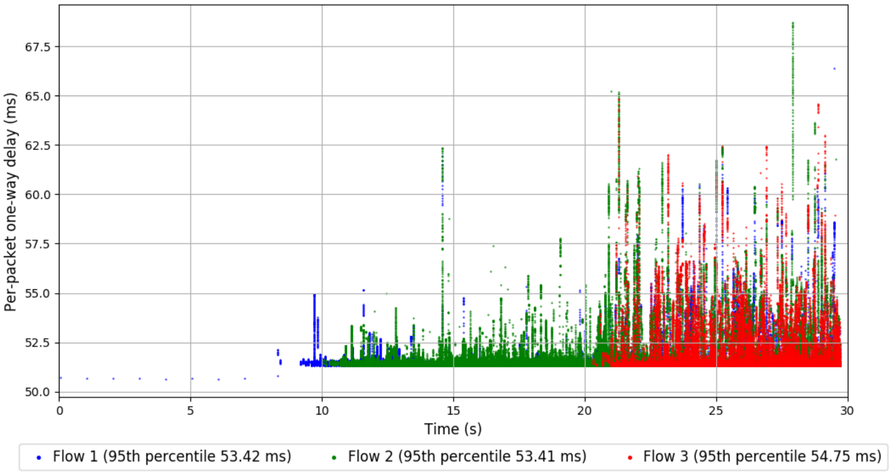
```
Run 7: Statistics of Indigo

Start at: 2017-09-08 07:34:13
End at: 2017-09-08 07:34:43

# Below is generated by plot.py at 2017-09-08 10:30:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.28 Mbit/s
95th percentile per-packet one-way delay: 53.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 19.08 Mbit/s
95th percentile per-packet one-way delay: 53.416 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 77.08 Mbit/s
95th percentile per-packet one-way delay: 53.405 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.01 Mbit/s
95th percentile per-packet one-way delay: 54.752 ms
Loss rate: 0.00%
```

Run 7: Report of Indigo — Data Link



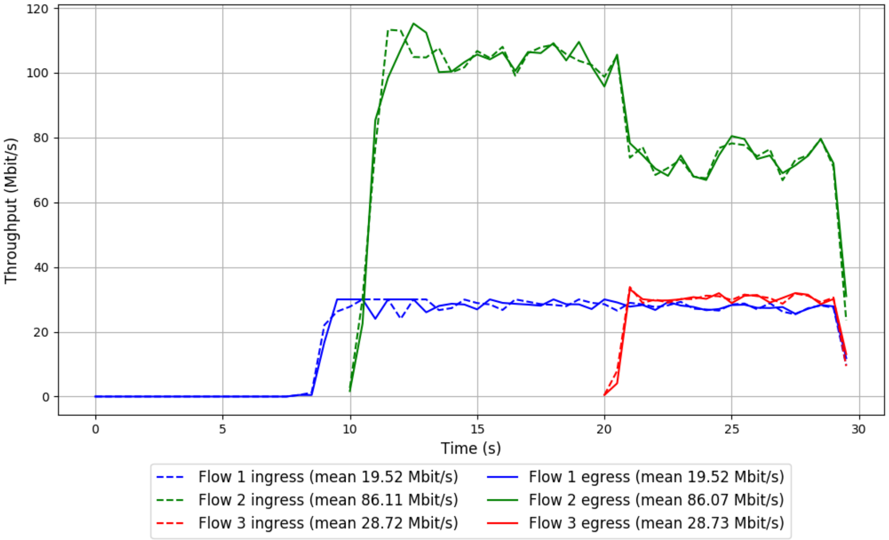


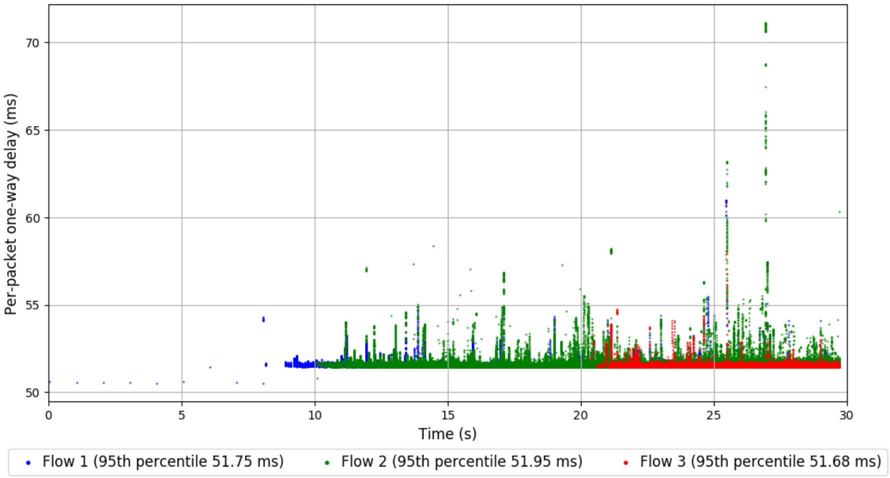
```
Run 8: Statistics of Indigo

Start at: 2017-09-08 07:46:23
End at: 2017-09-08 07:46:53

# Below is generated by plot.py at 2017-09-08 10:30:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.50 Mbit/s
95th percentile per-packet one-way delay: 51.880 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 19.52 Mbit/s
95th percentile per-packet one-way delay: 51.754 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.07 Mbit/s
95th percentile per-packet one-way delay: 51.955 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.73 Mbit/s
95th percentile per-packet one-way delay: 51.679 ms
Loss rate: 0.00%
```

Run 8: Report of Indigo — Data Link



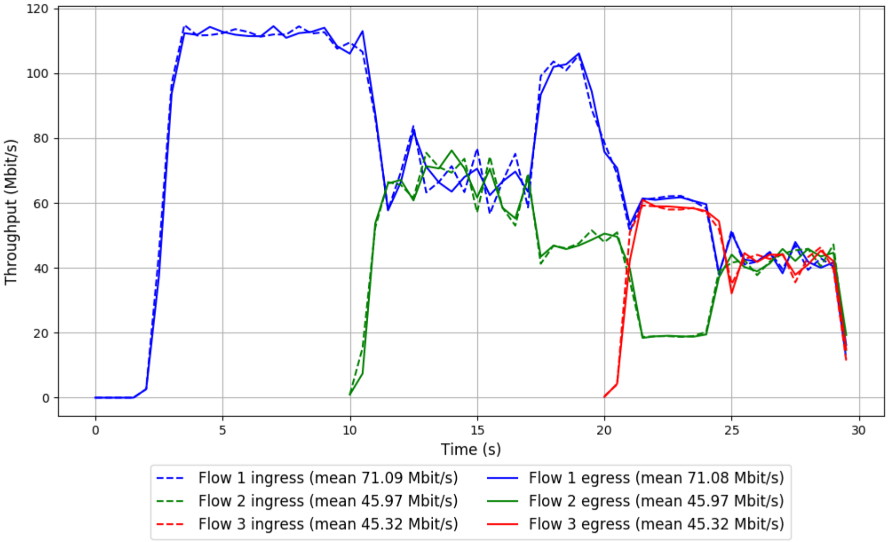


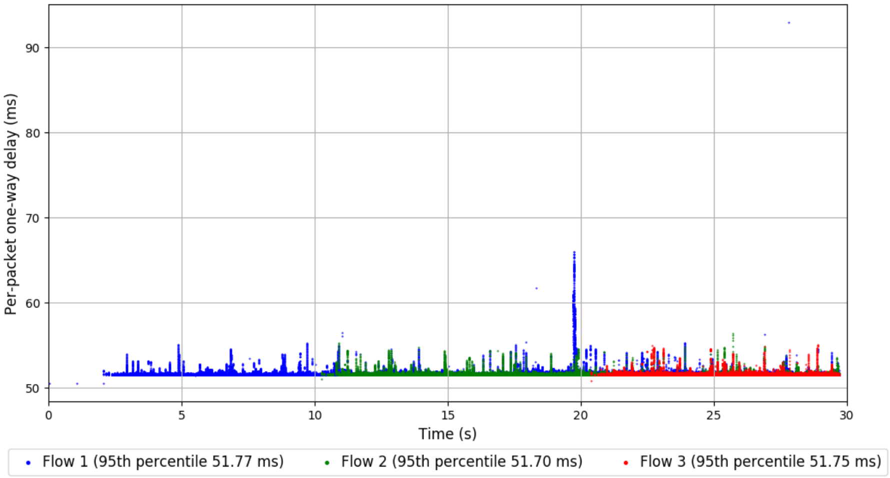
```
Run 9: Statistics of Indigo

Start at: 2017-09-08 07:58:33
End at: 2017-09-08 07:59:03

# Below is generated by plot.py at 2017-09-08 10:31:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.42 Mbit/s
95th percentile per-packet one-way delay: 51.745 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.08 Mbit/s
95th percentile per-packet one-way delay: 51.765 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.97 Mbit/s
95th percentile per-packet one-way delay: 51.700 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.32 Mbit/s
95th percentile per-packet one-way delay: 51.750 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo — Data Link



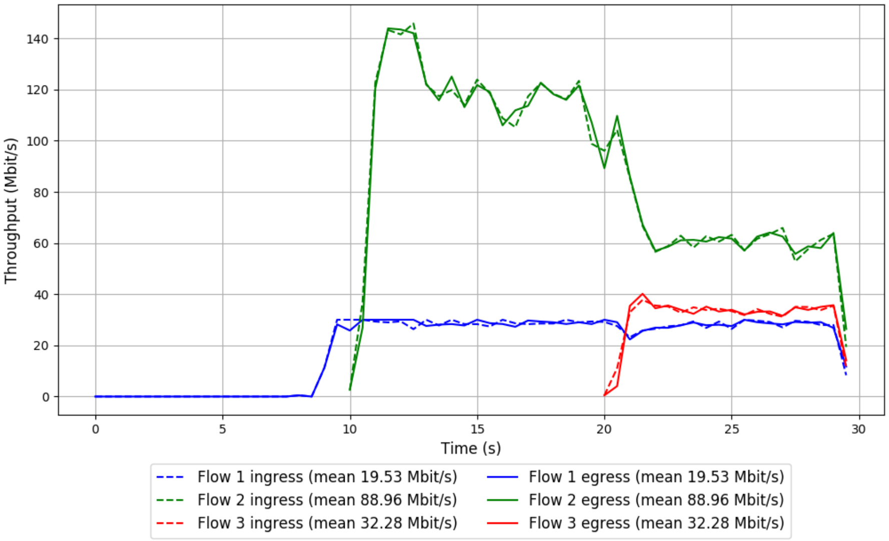


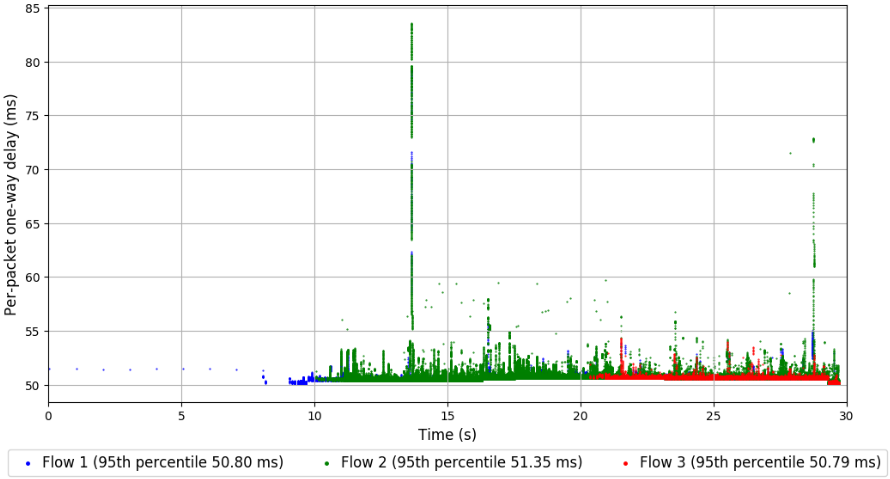
```
Run 10: Statistics of Indigo

Start at: 2017-09-08 08:10:45
End at: 2017-09-08 08:11:15

# Below is generated by plot.py at 2017-09-08 10:31:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.64 Mbit/s
95th percentile per-packet one-way delay: 51.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 19.53 Mbit/s
95th percentile per-packet one-way delay: 50.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 88.96 Mbit/s
95th percentile per-packet one-way delay: 51.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.28 Mbit/s
95th percentile per-packet one-way delay: 50.788 ms
Loss rate: 0.00%
```

Run 10: Report of Indigo — Data Link



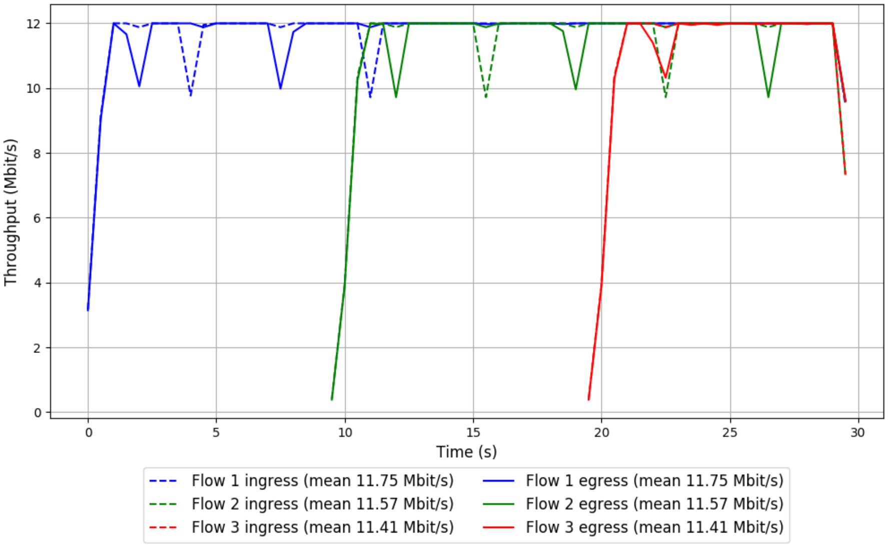


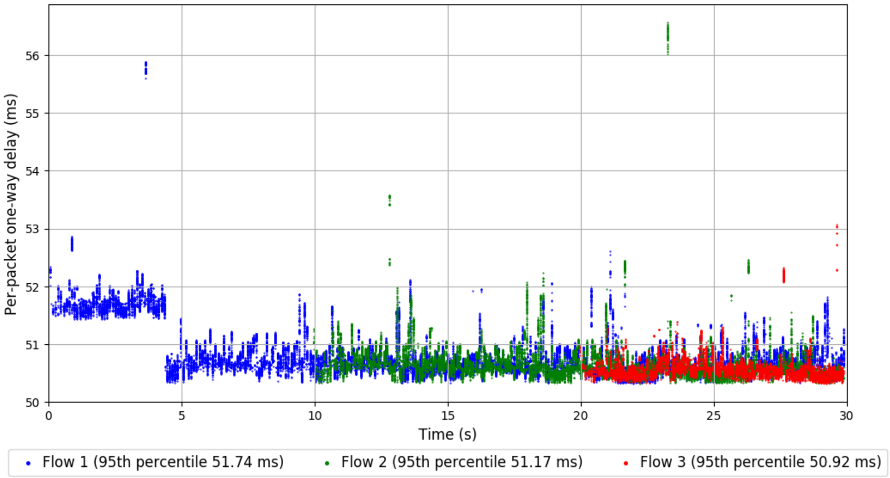
```
Run 1: Statistics of KohoCC

Start at: 2017-09-08 06:20:57
End at: 2017-09-08 06:21:27

# Below is generated by plot.py at 2017-09-08 10:31:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.26 Mbit/s
95th percentile per-packet one-way delay: 51.646 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 51.745 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 51.175 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 50.922 ms
Loss rate: 0.05%
```

Run 1: Report of KohoCC — Data Link



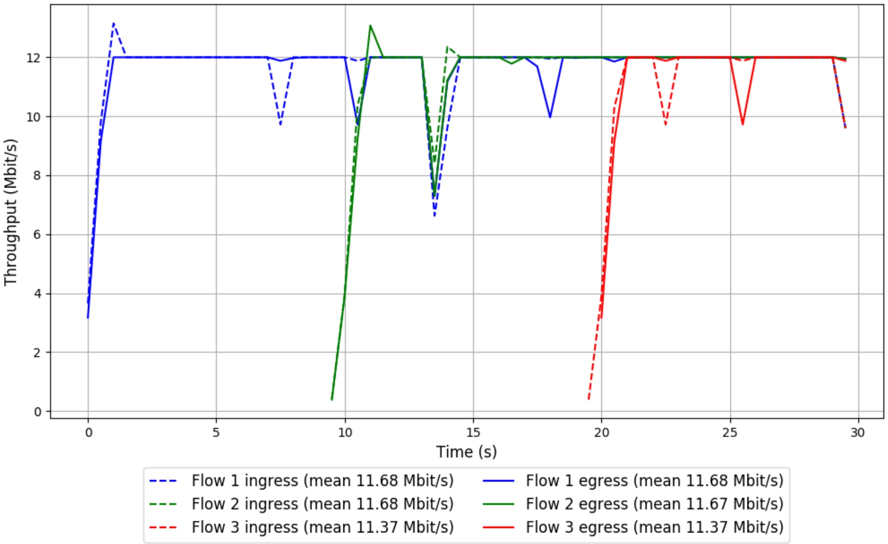


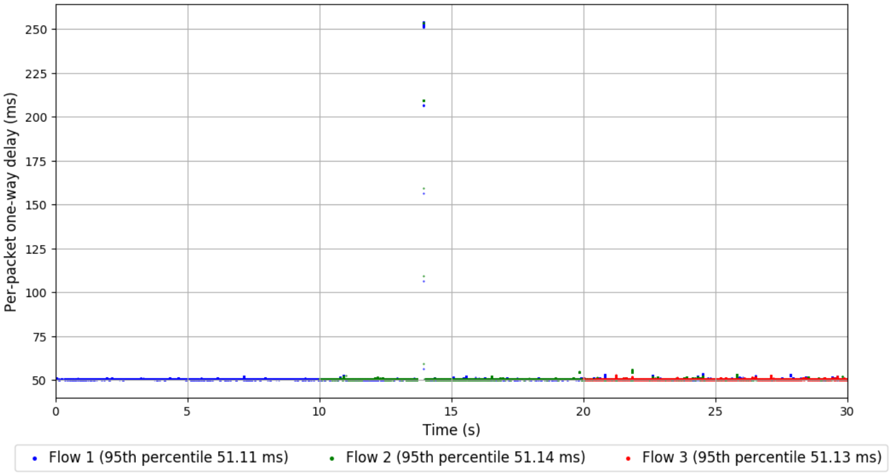
```
Run 2: Statistics of KohoCC

Start at: 2017-09-08 06:32:45
End at: 2017-09-08 06:33:15

# Below is generated by plot.py at 2017-09-08 10:31:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.23 Mbit/s
95th percentile per-packet one-way delay: 51.124 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 51.107 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 51.144 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 11.37 Mbit/s
95th percentile per-packet one-way delay: 51.127 ms
Loss rate: 0.01%
```

Run 2: Report of KohoCC — Data Link



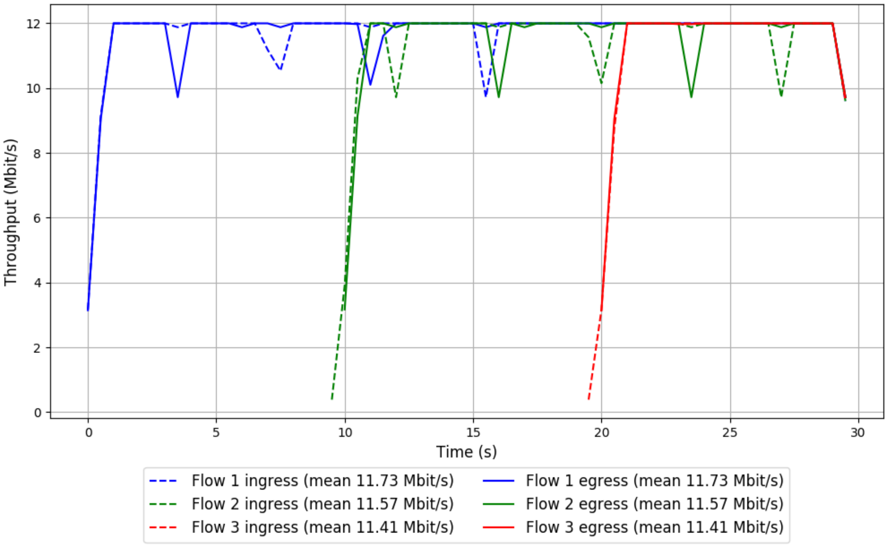


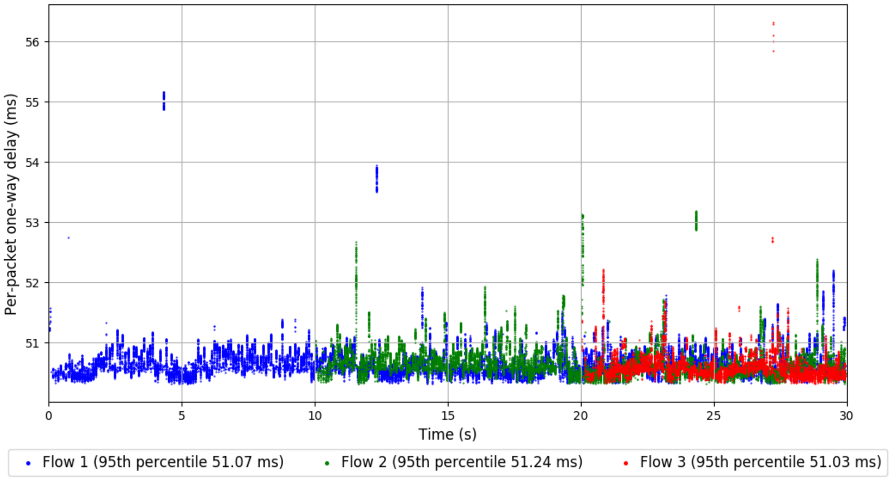
```
Run 3: Statistics of KohoCC

Start at: 2017-09-08 06:44:32
End at: 2017-09-08 06:45:02

# Below is generated by plot.py at 2017-09-08 10:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.21 Mbit/s
95th percentile per-packet one-way delay: 51.101 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 51.066 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 51.240 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 51.032 ms
Loss rate: 0.02%
```

Run 3: Report of KohoCC — Data Link



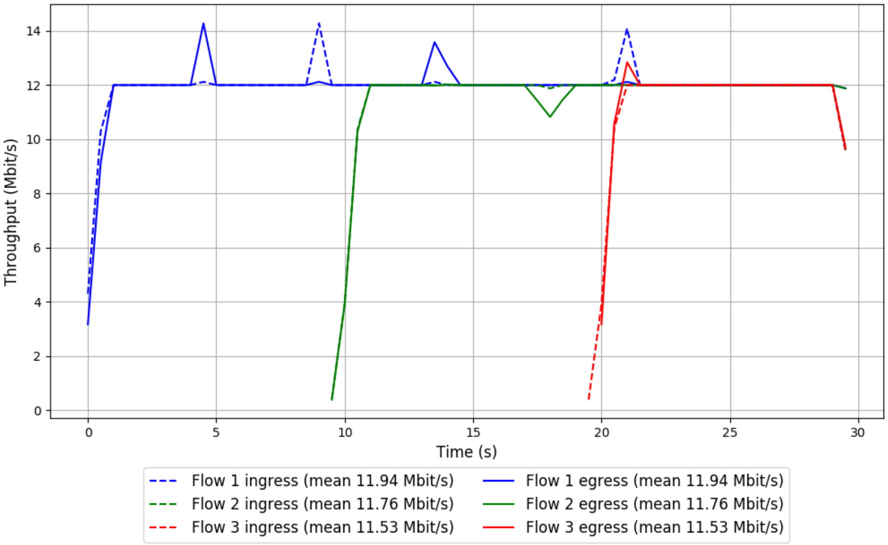


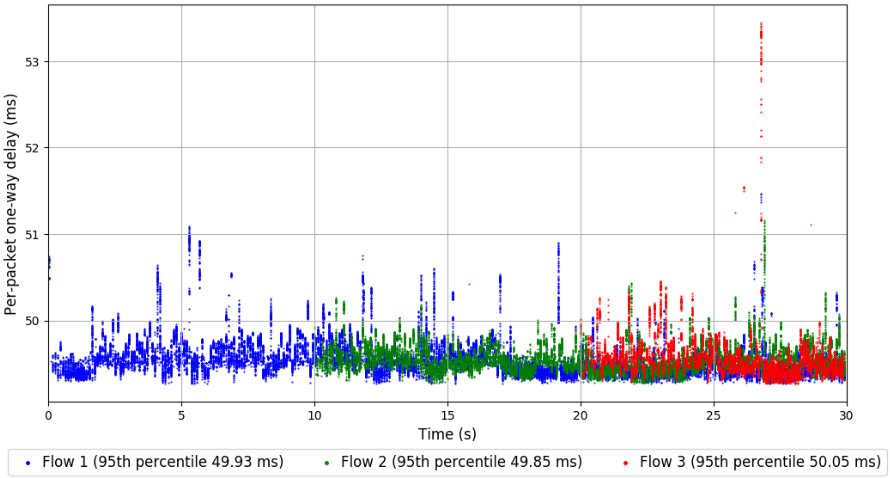
```
Run 4: Statistics of KohoCC

Start at: 2017-09-08 06:56:34
End at: 2017-09-08 06:57:04

# Below is generated by plot.py at 2017-09-08 10:31:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.60 Mbit/s
95th percentile per-packet one-way delay: 49.908 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 49.928 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 49.849 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 50.048 ms
Loss rate: 0.00%
```

Run 4: Report of KohoCC — Data Link



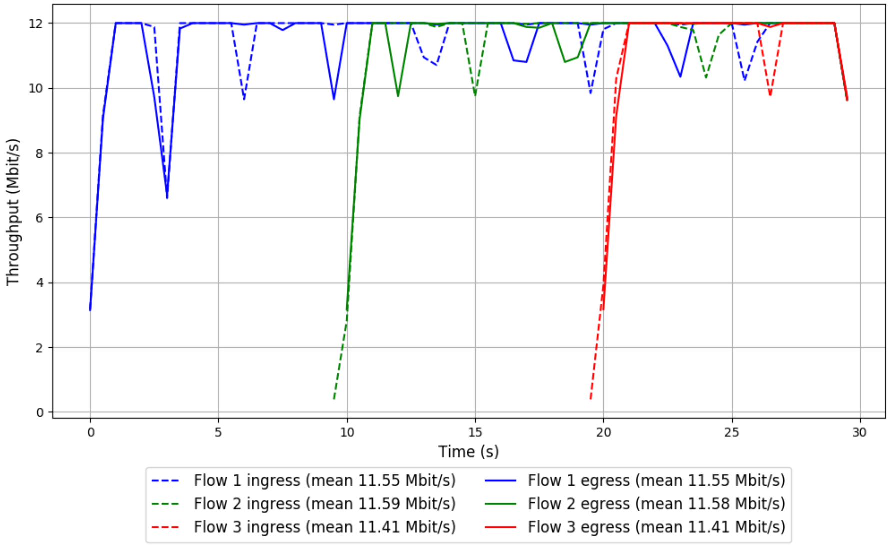


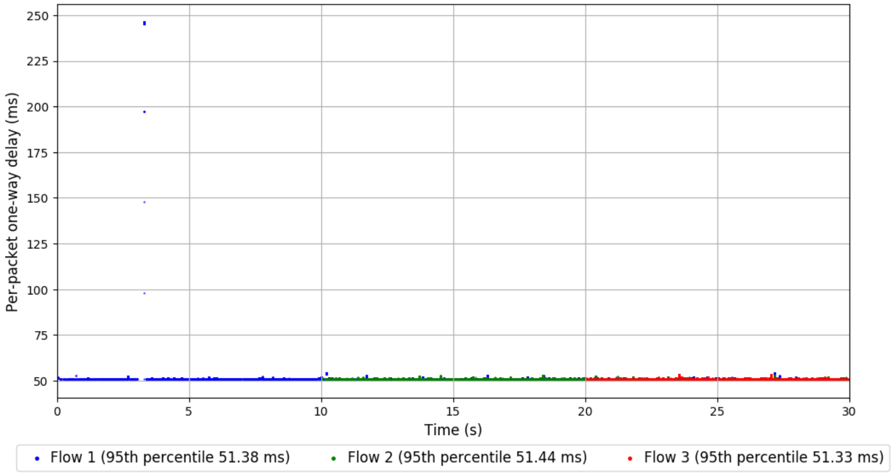
```
Run 5: Statistics of KohoCC

Start at: 2017-09-08 07:08:55
End at: 2017-09-08 07:09:25

# Below is generated by plot.py at 2017-09-08 10:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.03 Mbit/s
95th percentile per-packet one-way delay: 51.387 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 11.55 Mbit/s
95th percentile per-packet one-way delay: 51.376 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 51.435 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 51.328 ms
Loss rate: 0.00%
```

Run 5: Report of KohoCC — Data Link



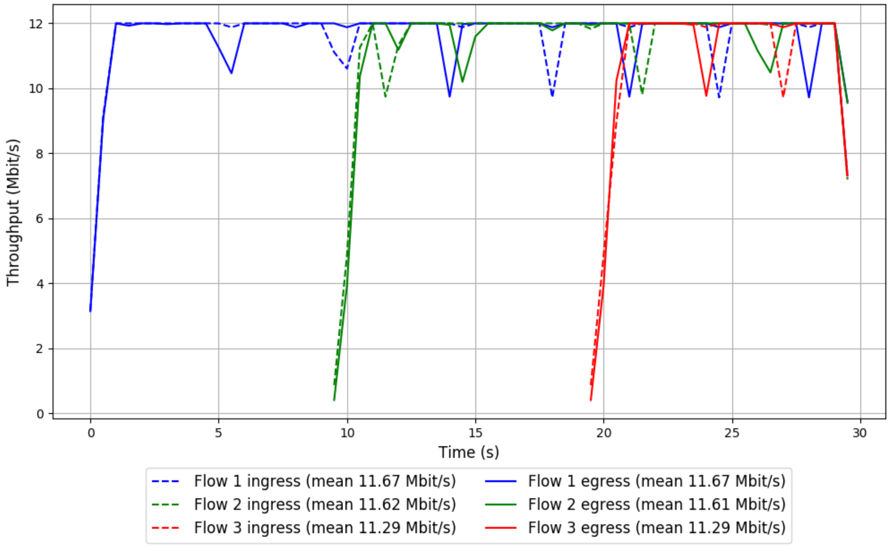


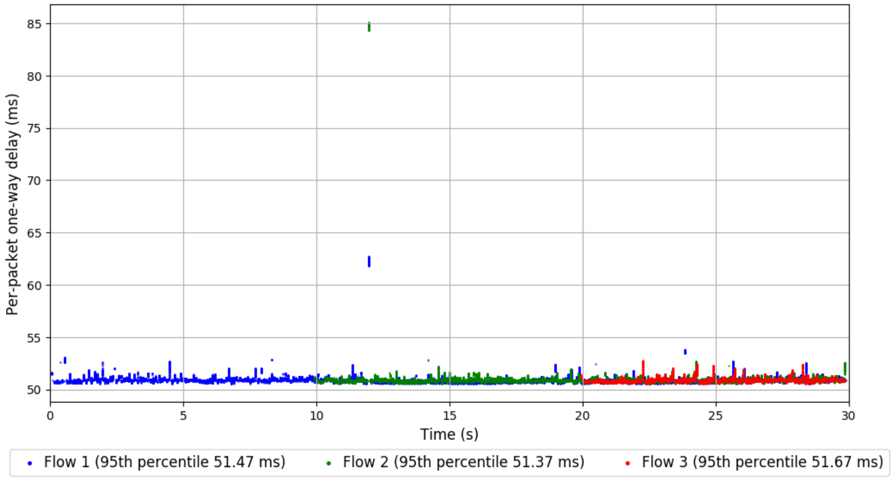
```
Run 6: Statistics of KohoCC

Start at: 2017-09-08 07:21:16
End at: 2017-09-08 07:21:46

# Below is generated by plot.py at 2017-09-08 10:31:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.17 Mbit/s
95th percentile per-packet one-way delay: 51.440 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 51.467 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 51.367 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 51.666 ms
Loss rate: 0.00%
```

Run 6: Report of KohoCC — Data Link



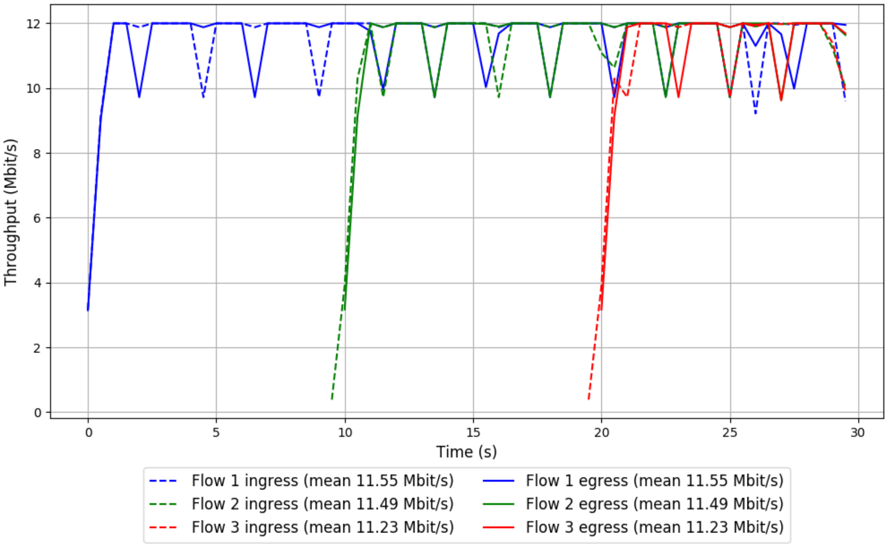


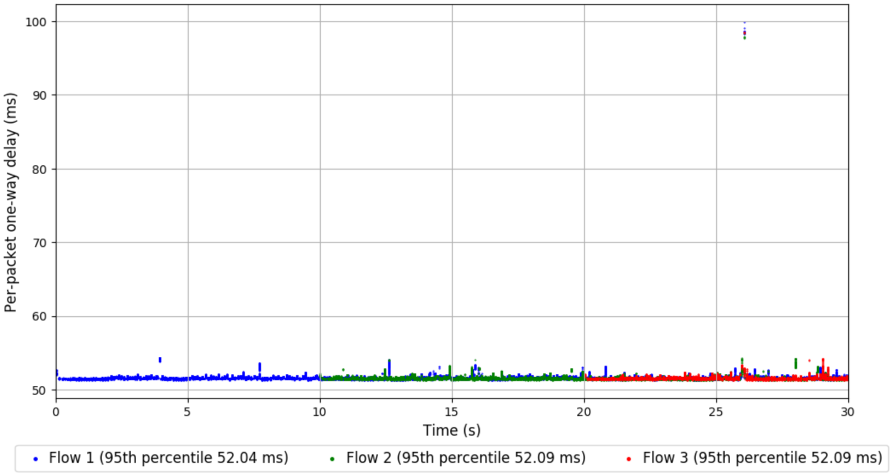
```
Run 7: Statistics of KohoCC

Start at: 2017-09-08 07:33:32
End at: 2017-09-08 07:34:02

# Below is generated by plot.py at 2017-09-08 10:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.94 Mbit/s
95th percentile per-packet one-way delay: 52.074 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.55 Mbit/s
95th percentile per-packet one-way delay: 52.042 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 52.095 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 52.092 ms
Loss rate: 0.02%
```

Run 7: Report of KohoCC — Data Link



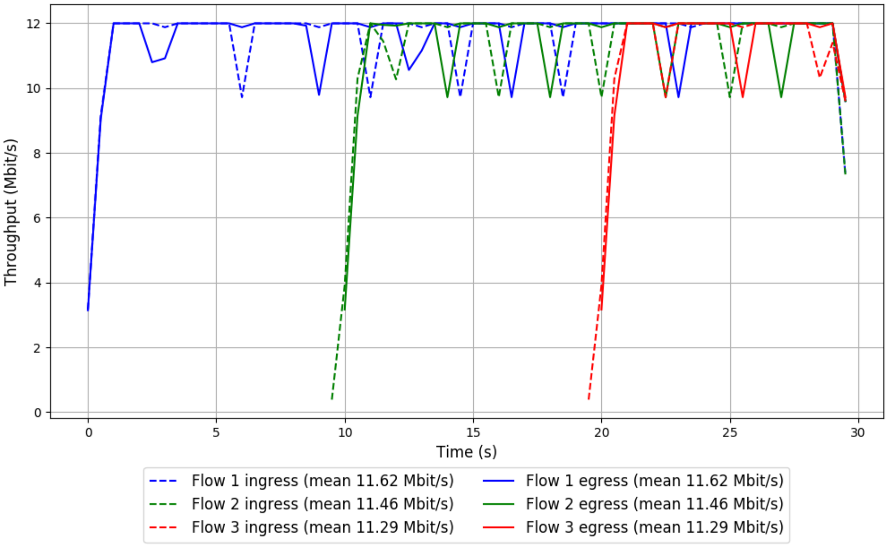


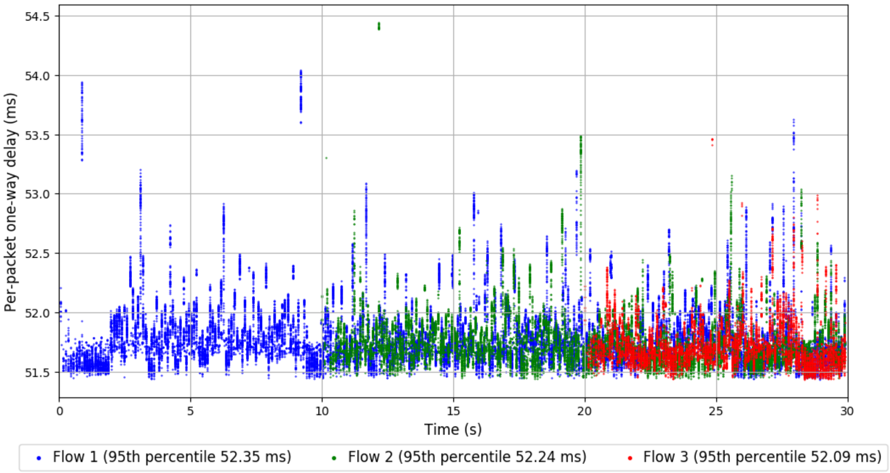
```
Run 8: Statistics of KohoCC

Start at: 2017-09-08 07:45:42
End at: 2017-09-08 07:46:12

# Below is generated by plot.py at 2017-09-08 10:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.00 Mbit/s
95th percentile per-packet one-way delay: 52.286 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 52.353 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.46 Mbit/s
95th percentile per-packet one-way delay: 52.238 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 52.087 ms
Loss rate: 0.00%
```

Run 8: Report of KohoCC — Data Link



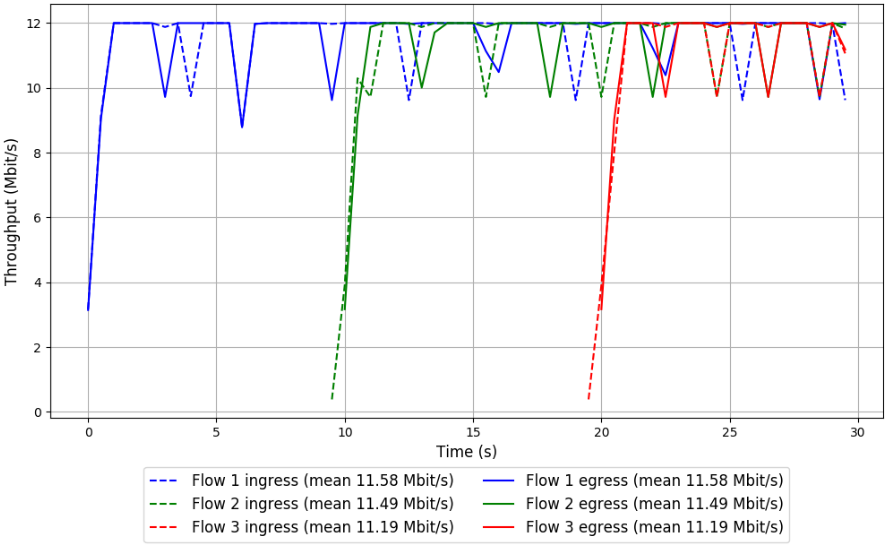


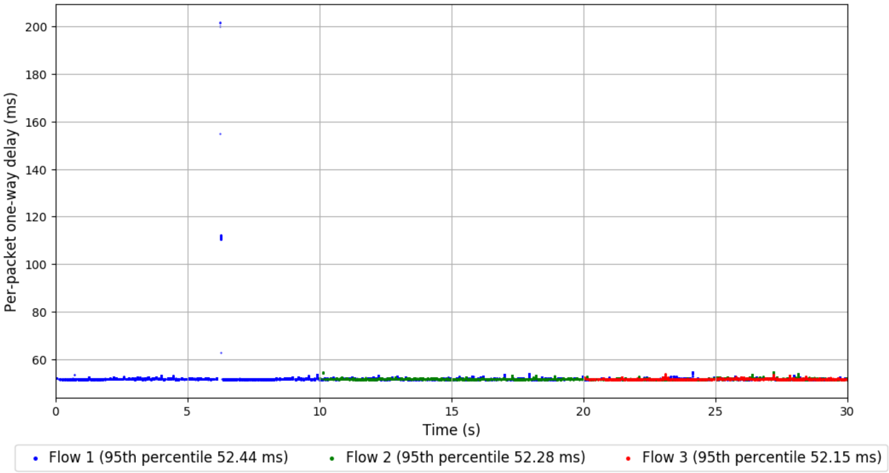
```
Run 9: Statistics of KohoCC

Start at: 2017-09-08 07:57:52
End at: 2017-09-08 07:58:22

# Below is generated by plot.py at 2017-09-08 10:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.96 Mbit/s
95th percentile per-packet one-way delay: 52.346 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 52.439 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 52.278 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 52.150 ms
Loss rate: 0.00%
```

Run 9: Report of KohoCC — Data Link



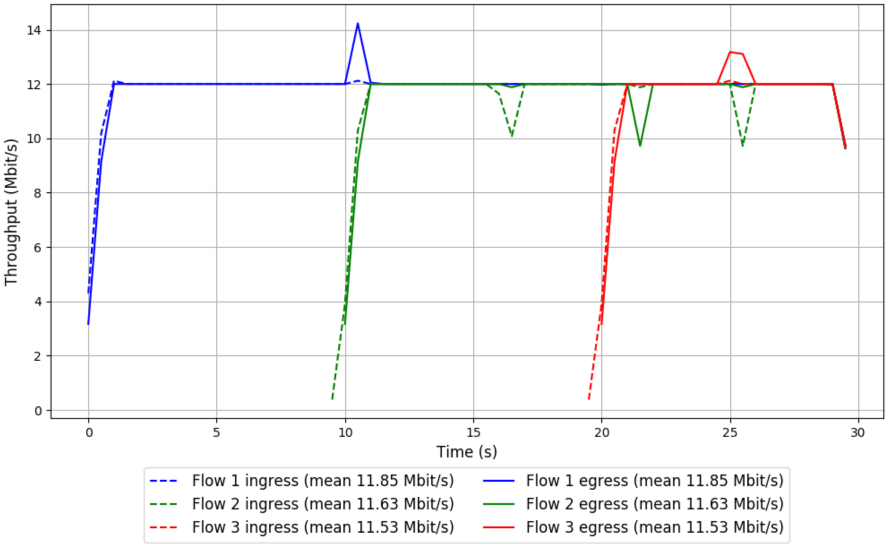


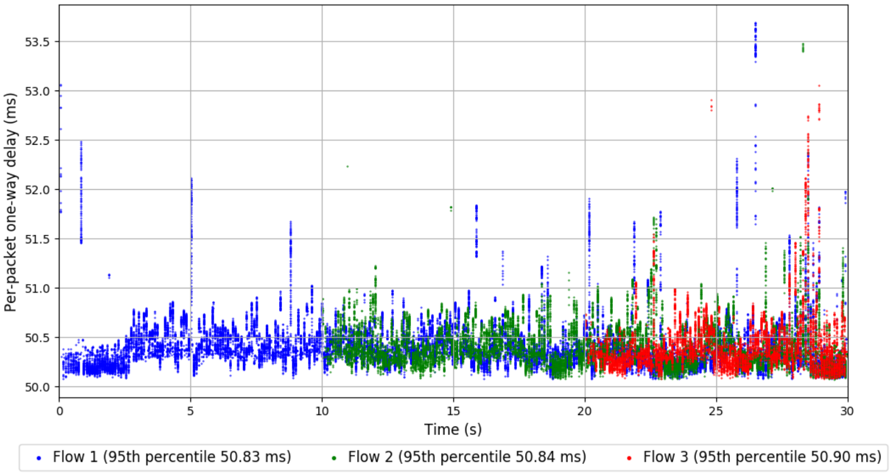
```
Run 10: Statistics of KohoCC

Start at: 2017-09-08 08:10:04
End at: 2017-09-08 08:10:34

# Below is generated by plot.py at 2017-09-08 10:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 50.841 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 50.830 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.63 Mbit/s
95th percentile per-packet one-way delay: 50.839 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 50.904 ms
Loss rate: 0.00%
```

Run 10: Report of KohoCC — Data Link



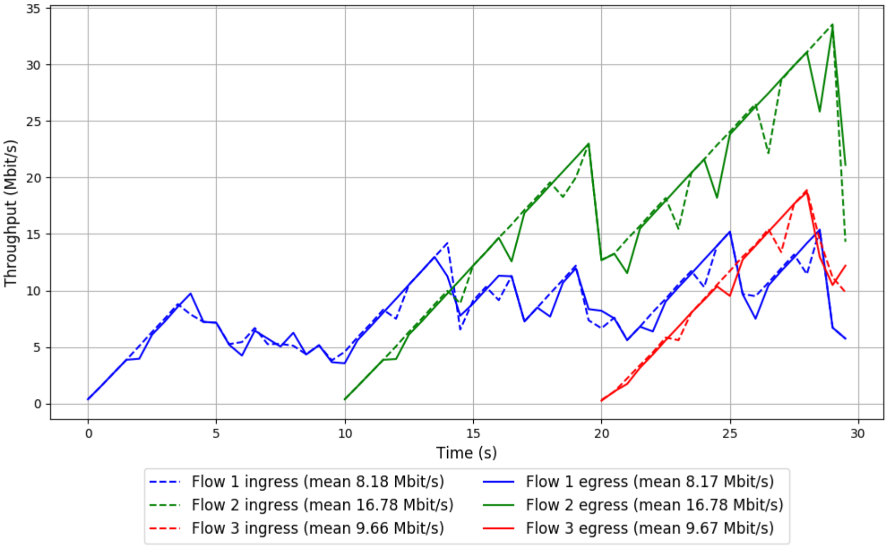


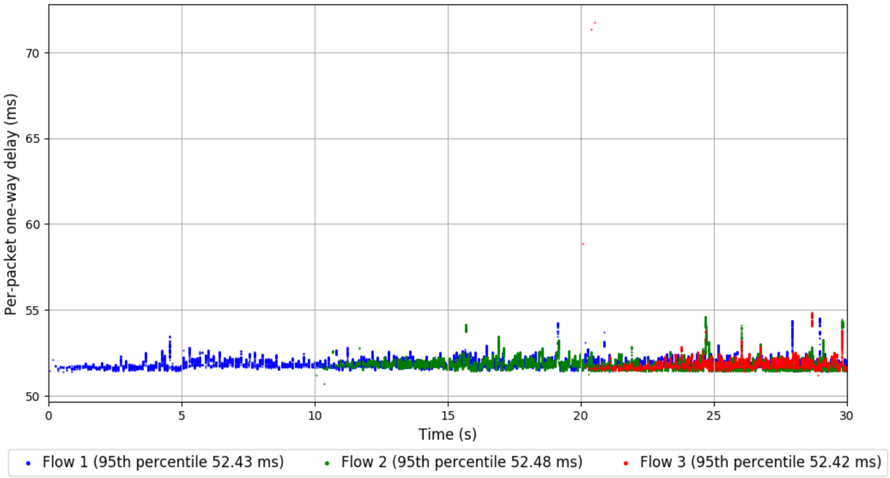
```
Run 1: Statistics of LEDBAT

Start at: 2017-09-08 06:17:56
End at: 2017-09-08 06:18:26

# Below is generated by plot.py at 2017-09-08 10:31:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.49 Mbit/s
95th percentile per-packet one-way delay: 52.451 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 8.17 Mbit/s
95th percentile per-packet one-way delay: 52.433 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 16.78 Mbit/s
95th percentile per-packet one-way delay: 52.482 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 52.422 ms
Loss rate: 0.01%
```

Run 1: Report of LEDBAT — Data Link



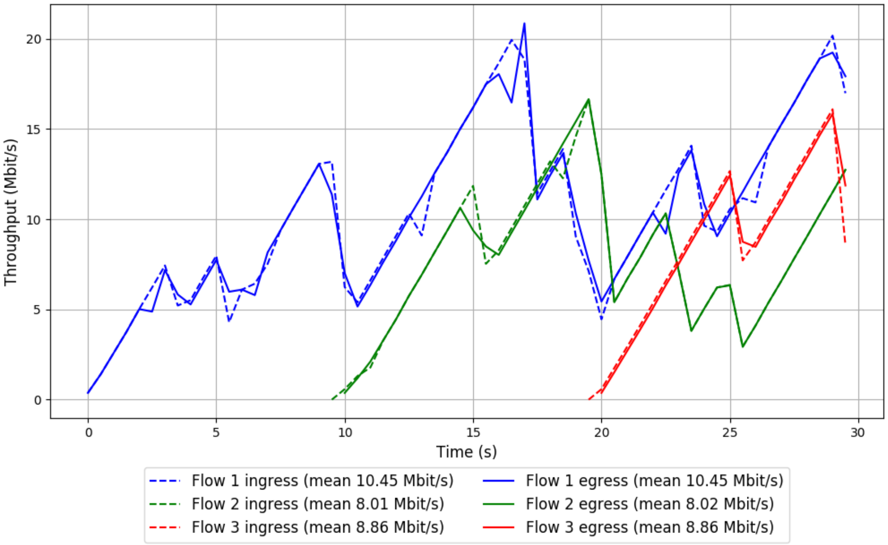


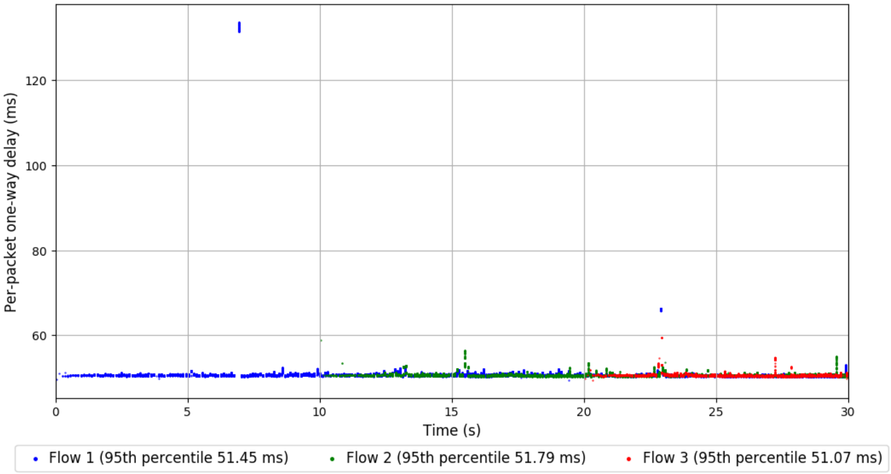
```
Run 2: Statistics of LEDBAT

Start at: 2017-09-08 06:29:52
End at: 2017-09-08 06:30:22

# Below is generated by plot.py at 2017-09-08 10:31:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.70 Mbit/s
95th percentile per-packet one-way delay: 51.430 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 10.45 Mbit/s
95th percentile per-packet one-way delay: 51.446 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 51.787 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 51.074 ms
Loss rate: 0.01%
```

Run 2: Report of LEDBAT — Data Link



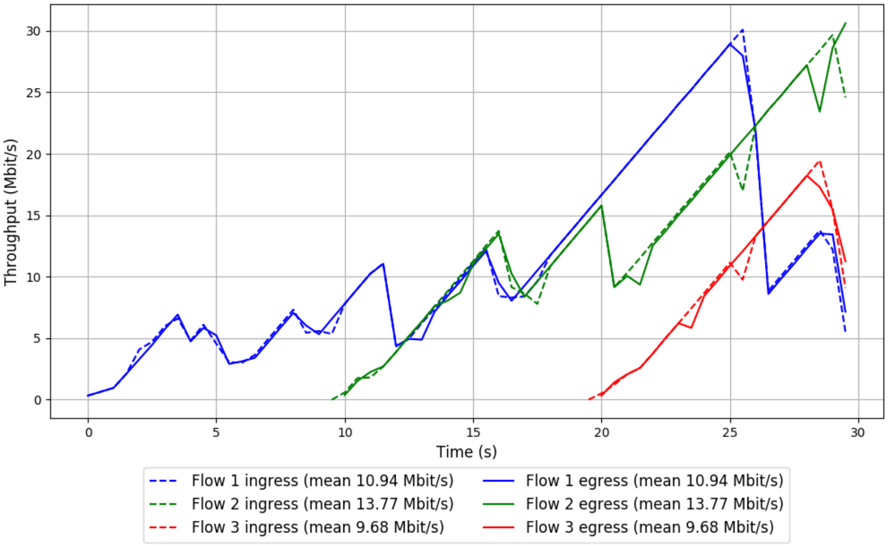


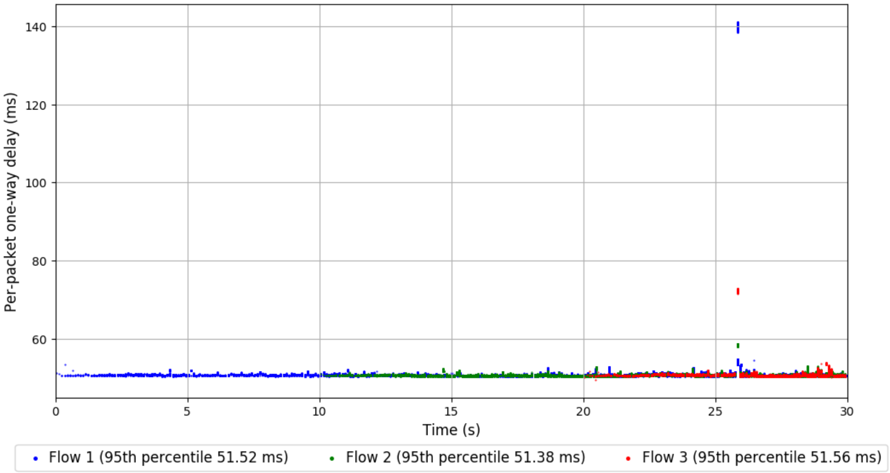
```
Run 3: Statistics of LEDBAT

Start at: 2017-09-08 06:41:33
End at: 2017-09-08 06:42:03

# Below is generated by plot.py at 2017-09-08 10:31:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.29 Mbit/s
95th percentile per-packet one-way delay: 51.461 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 51.516 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 13.77 Mbit/s
95th percentile per-packet one-way delay: 51.384 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 51.563 ms
Loss rate: 0.01%
```

Run 3: Report of LEDBAT — Data Link



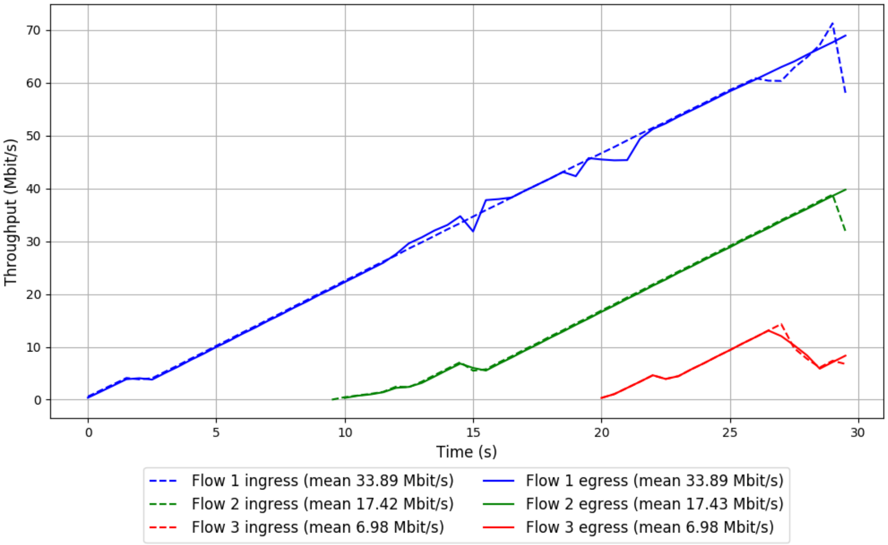


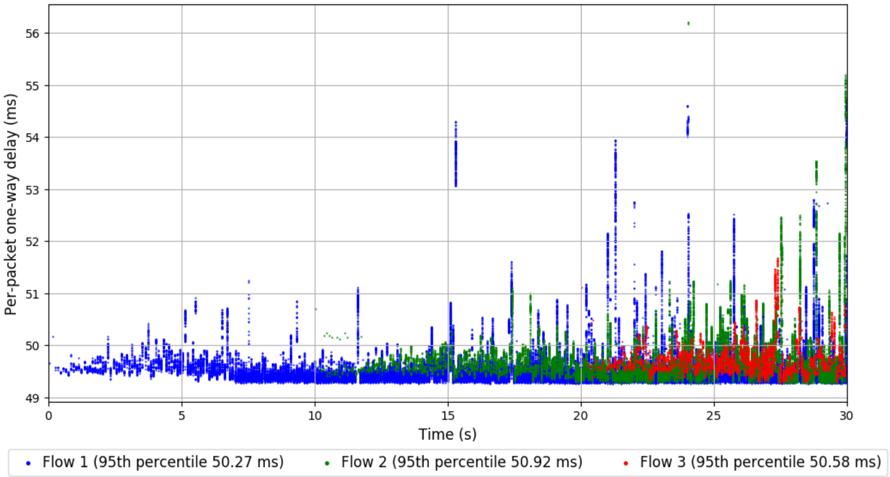
```
Run 4: Statistics of LEDBAT

Start at: 2017-09-08 06:53:33
End at: 2017-09-08 06:54:03

# Below is generated by plot.py at 2017-09-08 10:31:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.77 Mbit/s
95th percentile per-packet one-way delay: 50.492 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.89 Mbit/s
95th percentile per-packet one-way delay: 50.267 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.43 Mbit/s
95th percentile per-packet one-way delay: 50.920 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.98 Mbit/s
95th percentile per-packet one-way delay: 50.577 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link



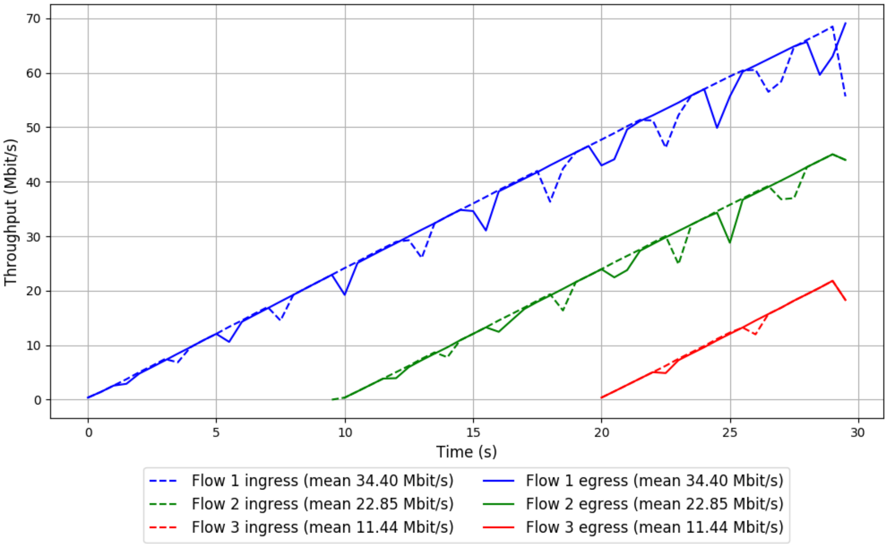


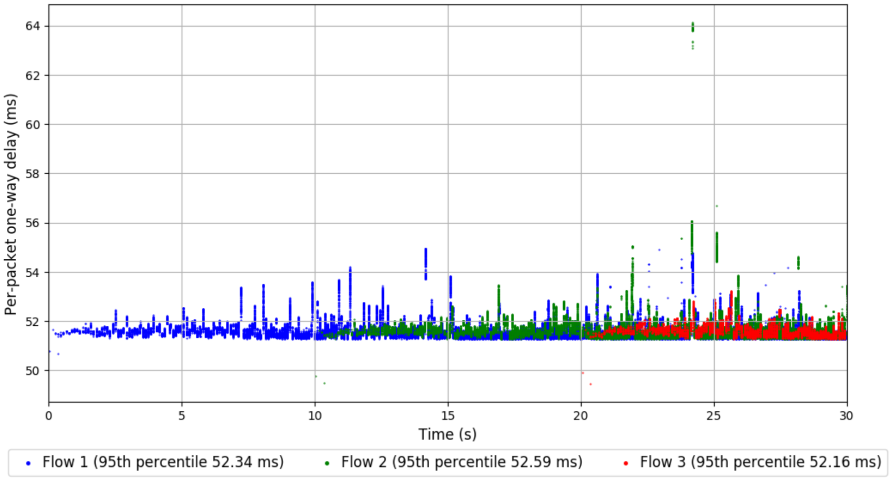
```
Run 5: Statistics of LEDBAT

Start at: 2017-09-08 07:05:54
End at: 2017-09-08 07:06:24

# Below is generated by plot.py at 2017-09-08 10:31:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.31 Mbit/s
95th percentile per-packet one-way delay: 52.372 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 52.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 52.586 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.44 Mbit/s
95th percentile per-packet one-way delay: 52.162 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link



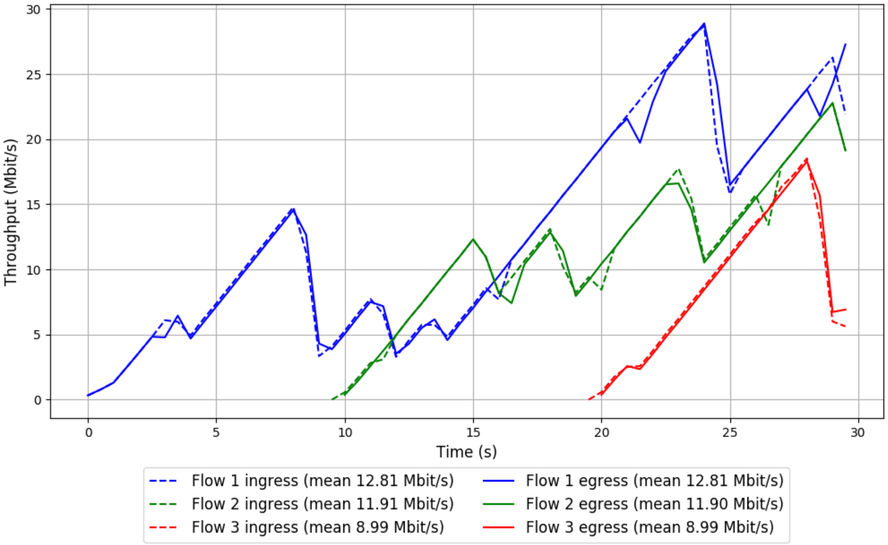


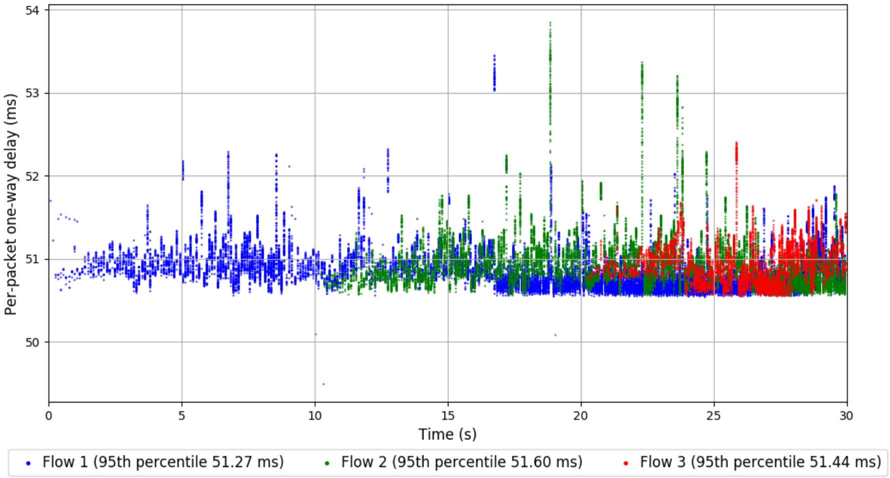
```
Run 6: Statistics of LEDBAT

Start at: 2017-09-08 07:18:16
End at: 2017-09-08 07:18:46

# Below is generated by plot.py at 2017-09-08 10:31:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 51.397 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.81 Mbit/s
95th percentile per-packet one-way delay: 51.274 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 51.602 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.99 Mbit/s
95th percentile per-packet one-way delay: 51.435 ms
Loss rate: 0.01%
```

Run 6: Report of LEDBAT — Data Link



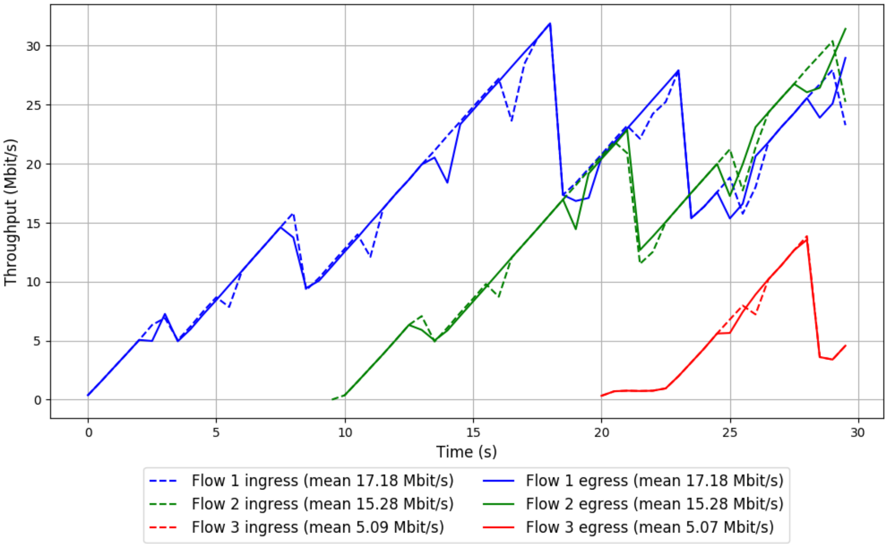


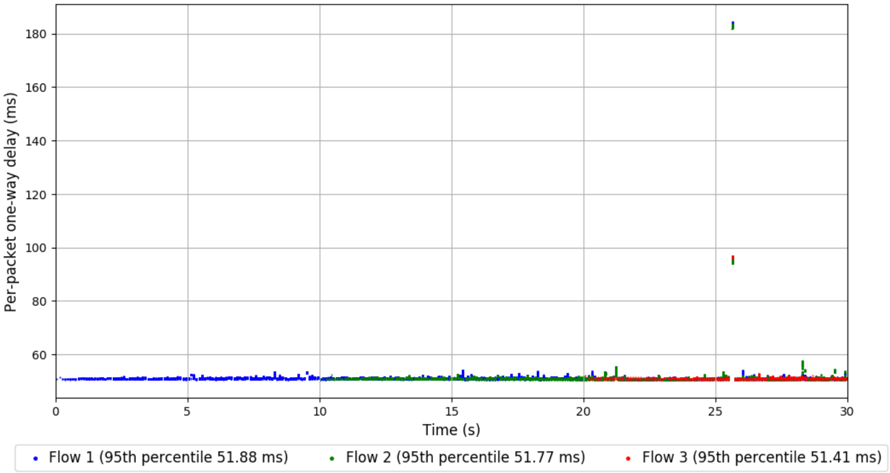
```
Run 7: Statistics of LEDBAT

Start at: 2017-09-08 07:30:33
End at: 2017-09-08 07:31:03

# Below is generated by plot.py at 2017-09-08 10:31:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.97 Mbit/s
95th percentile per-packet one-way delay: 51.818 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 17.18 Mbit/s
95th percentile per-packet one-way delay: 51.885 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.28 Mbit/s
95th percentile per-packet one-way delay: 51.766 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 51.407 ms
Loss rate: 0.30%
```

Run 7: Report of LEDBAT — Data Link



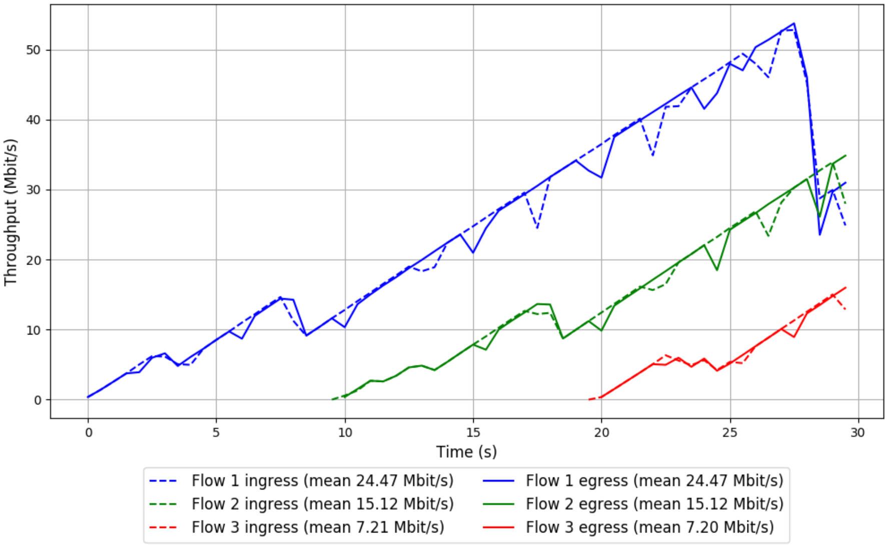


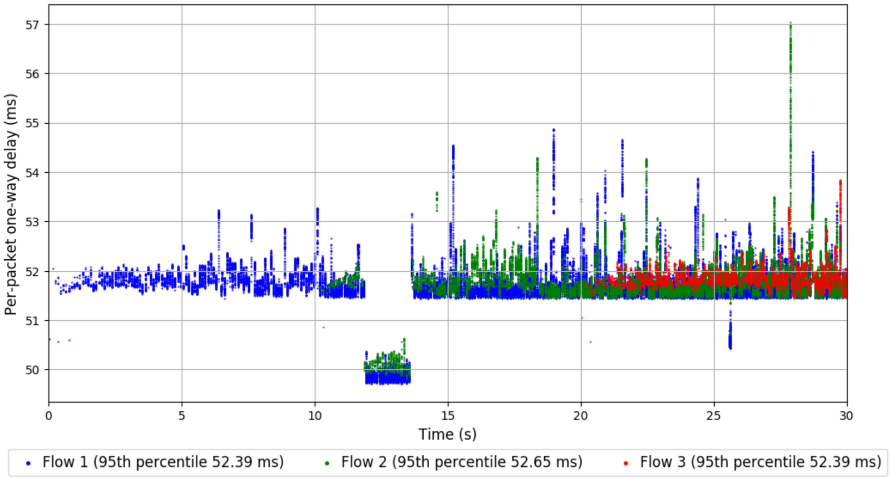
```
Run 8: Statistics of LEDBAT

Start at: 2017-09-08 07:42:45
End at: 2017-09-08 07:43:15

# Below is generated by plot.py at 2017-09-08 10:32:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.91 Mbit/s
95th percentile per-packet one-way delay: 52.465 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 52.386 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.12 Mbit/s
95th percentile per-packet one-way delay: 52.650 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.20 Mbit/s
95th percentile per-packet one-way delay: 52.386 ms
Loss rate: 0.08%
```

Run 8: Report of LEDBAT — Data Link



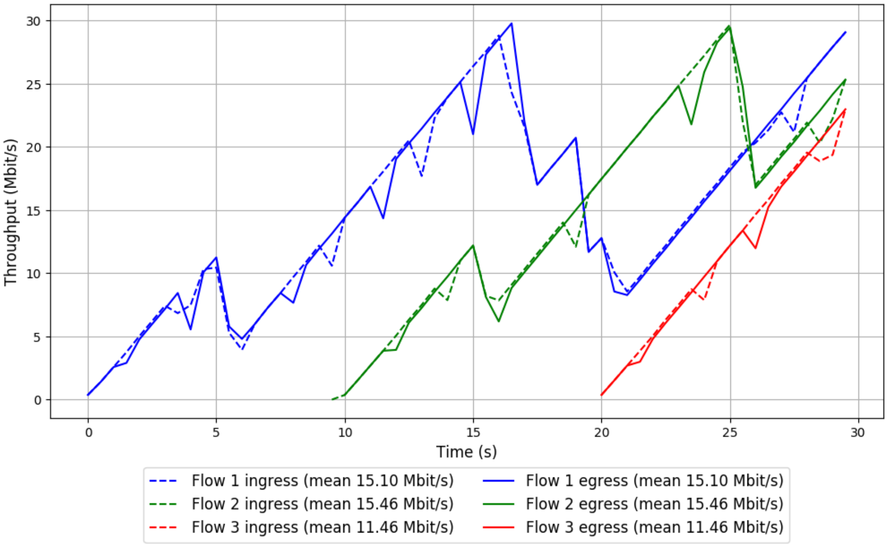


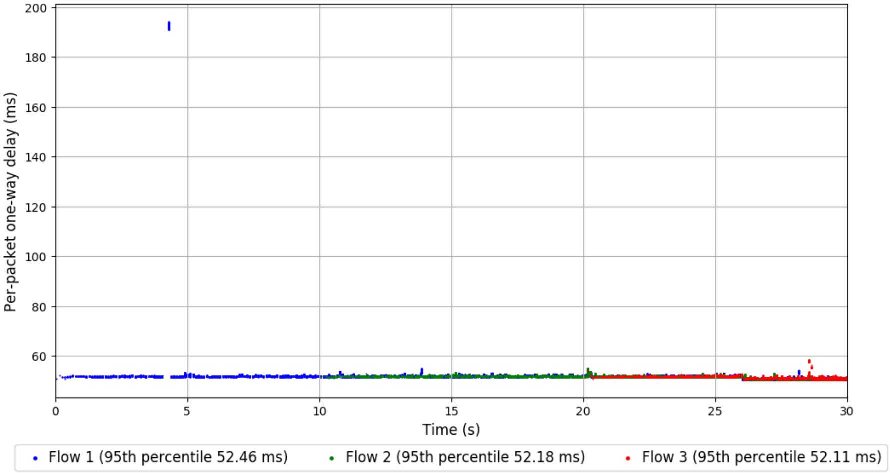
```
Run 9: Statistics of LEDBAT

Start at: 2017-09-08 07:54:54
End at: 2017-09-08 07:55:24

# Below is generated by plot.py at 2017-09-08 10:32:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 52.309 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 15.10 Mbit/s
95th percentile per-packet one-way delay: 52.458 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.46 Mbit/s
95th percentile per-packet one-way delay: 52.182 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 11.46 Mbit/s
95th percentile per-packet one-way delay: 52.106 ms
Loss rate: 0.00%
```

Run 9: Report of LEDBAT — Data Link



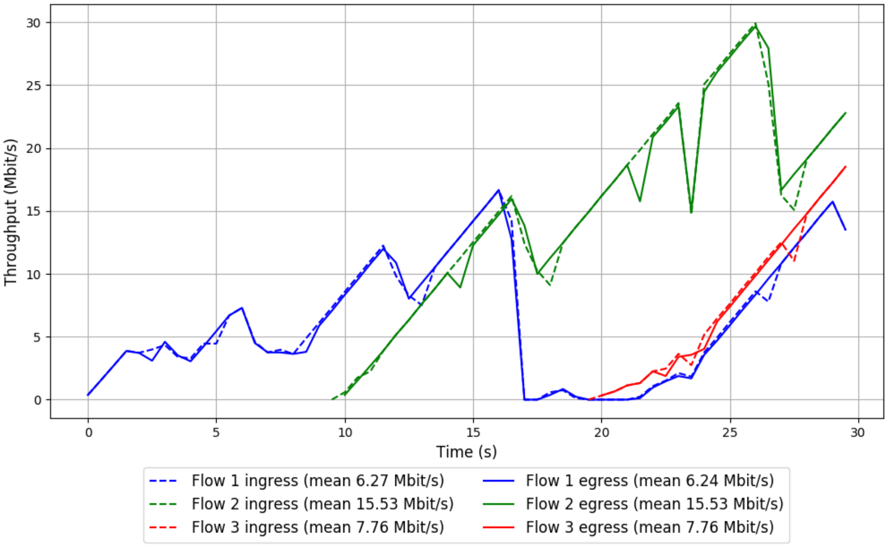


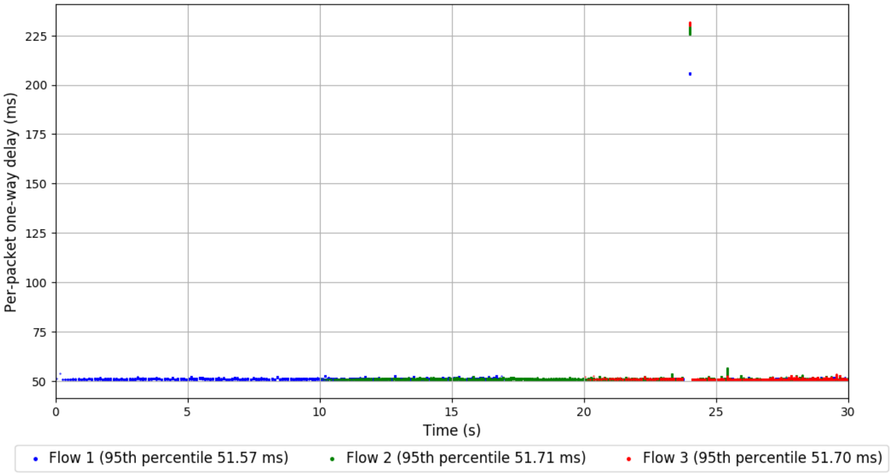
```
Run 10: Statistics of LEDBAT

Start at: 2017-09-08 08:07:05
End at: 2017-09-08 08:07:35

# Below is generated by plot.py at 2017-09-08 10:32:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.14 Mbit/s
95th percentile per-packet one-way delay: 51.634 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 6.24 Mbit/s
95th percentile per-packet one-way delay: 51.567 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 15.53 Mbit/s
95th percentile per-packet one-way delay: 51.706 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 51.696 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link



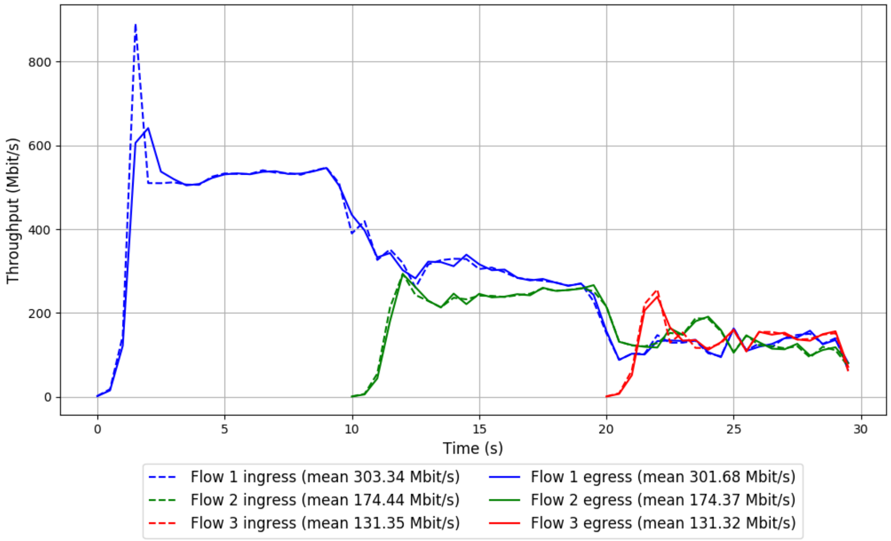


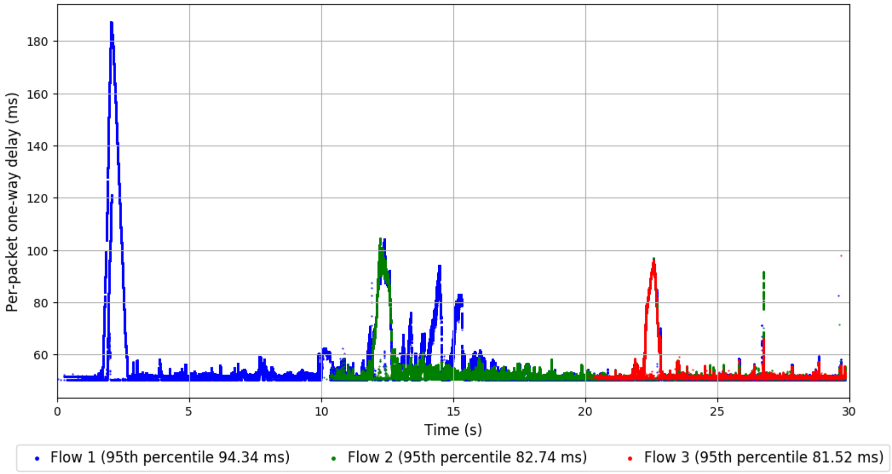
```
Run 1: Statistics of PCC

Start at: 2017-09-08 06:18:36
End at: 2017-09-08 06:19:06

# Below is generated by plot.py at 2017-09-08 10:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.90 Mbit/s
95th percentile per-packet one-way delay: 90.339 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 301.68 Mbit/s
95th percentile per-packet one-way delay: 94.343 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 174.37 Mbit/s
95th percentile per-packet one-way delay: 82.738 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 131.32 Mbit/s
95th percentile per-packet one-way delay: 81.522 ms
Loss rate: 0.02%
```

Run 1: Report of PCC — Data Link



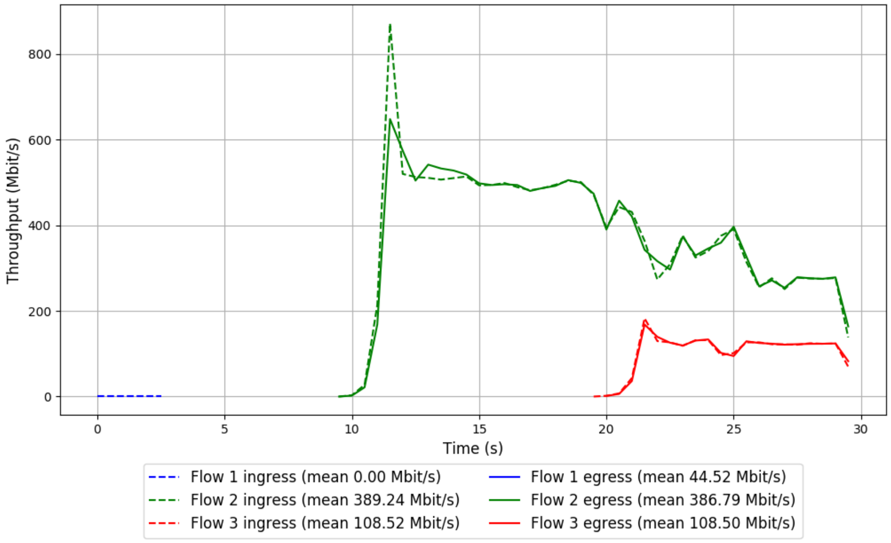


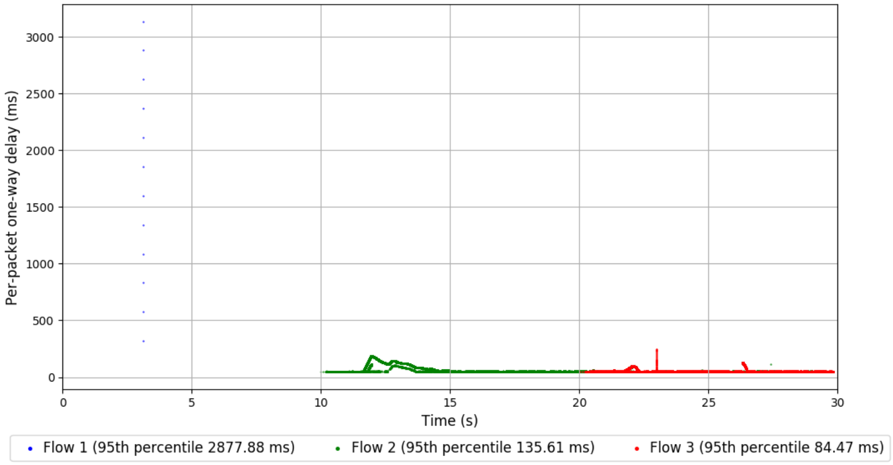
```
Run 2: Statistics of PCC

Start at: 2017-09-08 06:30:32
End at: 2017-09-08 06:31:02

# Below is generated by plot.py at 2017-09-08 10:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.56 Mbit/s
95th percentile per-packet one-way delay: 132.318 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 44.52 Mbit/s
95th percentile per-packet one-way delay: 2877.879 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 386.79 Mbit/s
95th percentile per-packet one-way delay: 135.606 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 108.50 Mbit/s
95th percentile per-packet one-way delay: 84.470 ms
Loss rate: 0.01%
```

Run 2: Report of PCC — Data Link



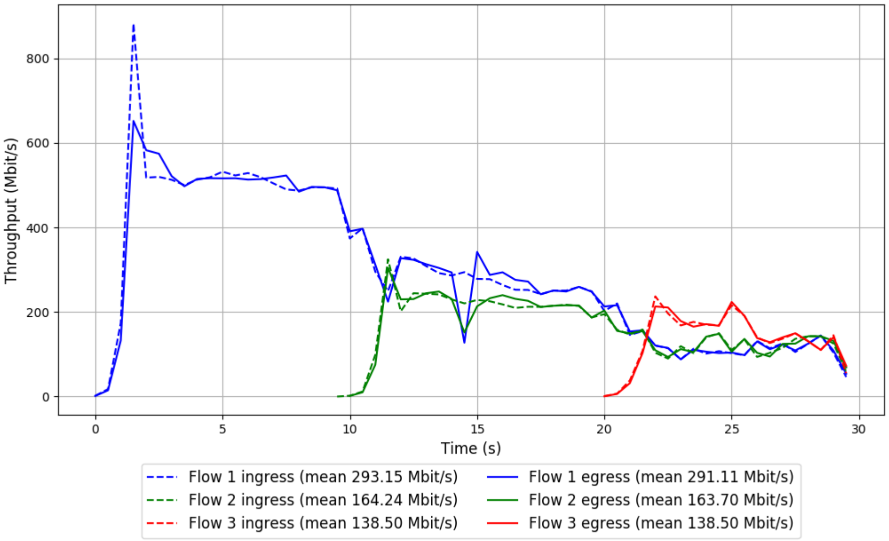


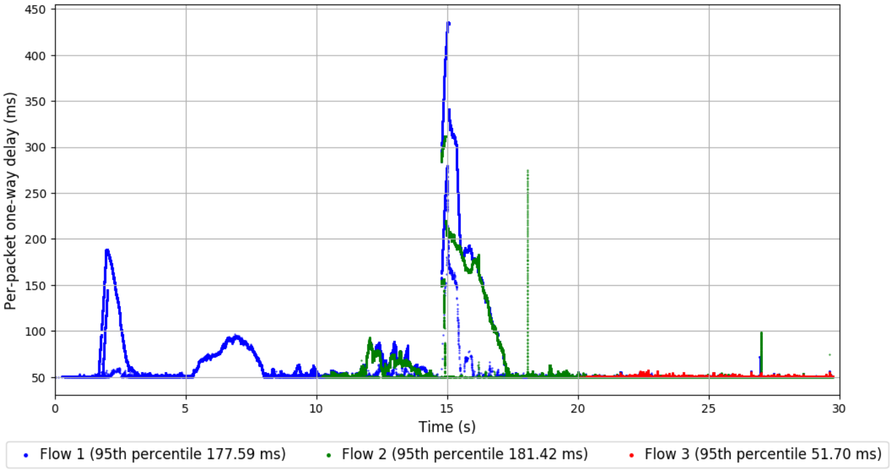
```
Run 3: Statistics of PCC

Start at: 2017-09-08 06:42:14
End at: 2017-09-08 06:42:44

# Below is generated by plot.py at 2017-09-08 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.87 Mbit/s
95th percentile per-packet one-way delay: 175.963 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 291.11 Mbit/s
95th percentile per-packet one-way delay: 177.586 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 163.70 Mbit/s
95th percentile per-packet one-way delay: 181.417 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 138.50 Mbit/s
95th percentile per-packet one-way delay: 51.697 ms
Loss rate: 0.01%
```

Run 3: Report of PCC — Data Link



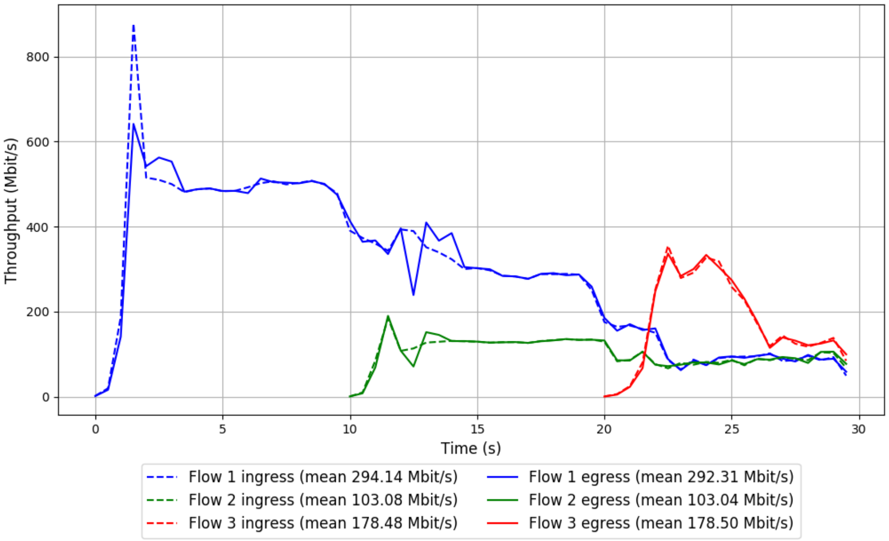


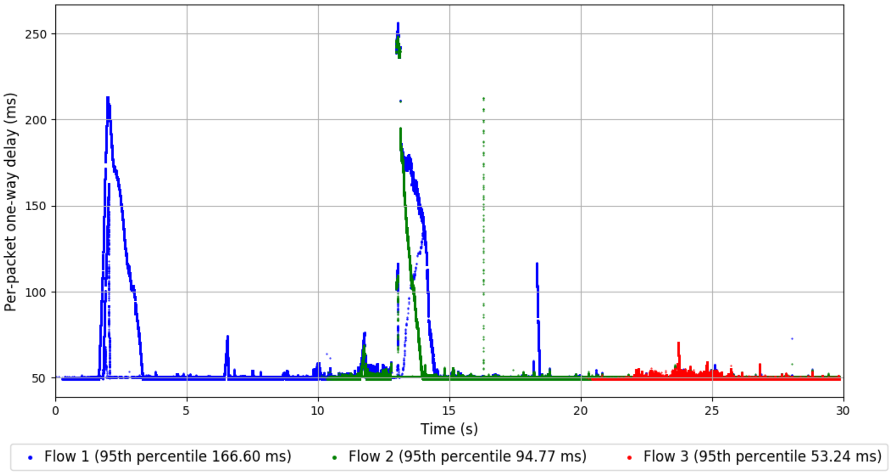
```
Run 4: Statistics of PCC

Start at: 2017-09-08 06:54:15
End at: 2017-09-08 06:54:45

# Below is generated by plot.py at 2017-09-08 10:34:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.30 Mbit/s
95th percentile per-packet one-way delay: 156.314 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 292.31 Mbit/s
95th percentile per-packet one-way delay: 166.600 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 103.04 Mbit/s
95th percentile per-packet one-way delay: 94.766 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 178.50 Mbit/s
95th percentile per-packet one-way delay: 53.245 ms
Loss rate: 0.00%
```

Run 4: Report of PCC — Data Link



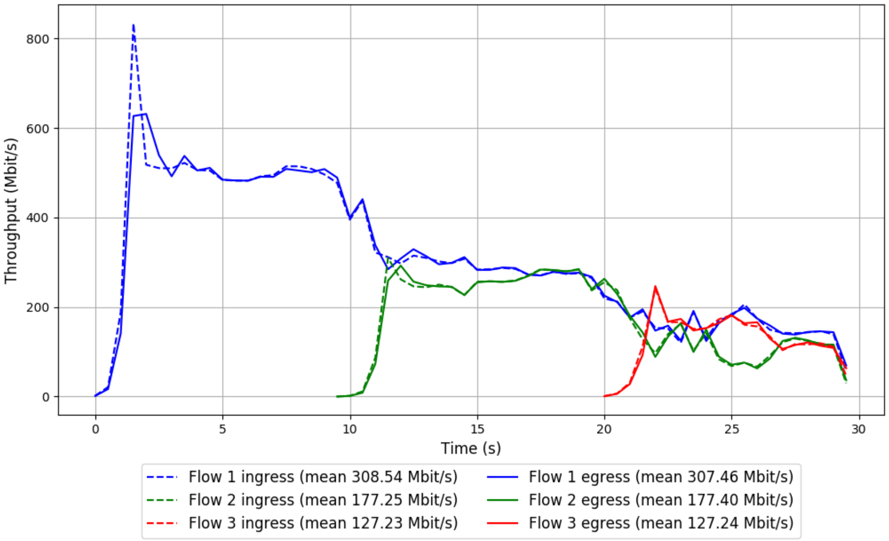


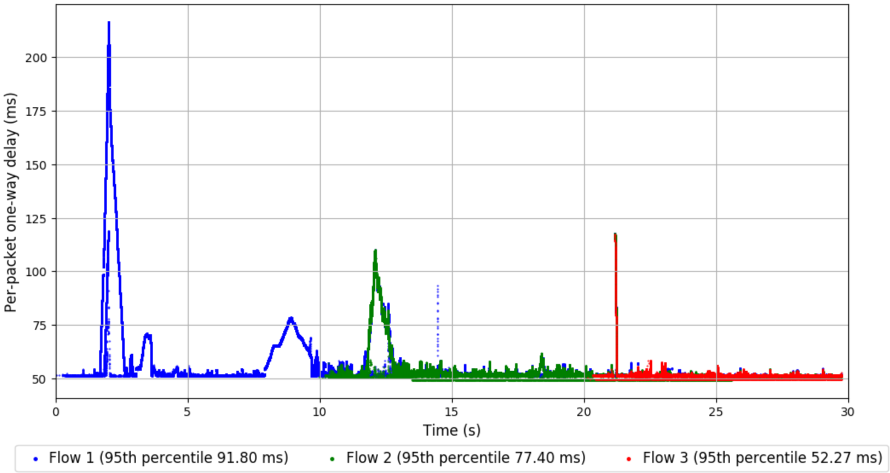
```
Run 5: Statistics of PCC

Start at: 2017-09-08 07:06:37
End at: 2017-09-08 07:07:07

# Below is generated by plot.py at 2017-09-08 10:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.68 Mbit/s
95th percentile per-packet one-way delay: 81.863 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 307.46 Mbit/s
95th percentile per-packet one-way delay: 91.795 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 177.40 Mbit/s
95th percentile per-packet one-way delay: 77.403 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 127.24 Mbit/s
95th percentile per-packet one-way delay: 52.268 ms
Loss rate: 0.00%
```

Run 5: Report of PCC — Data Link



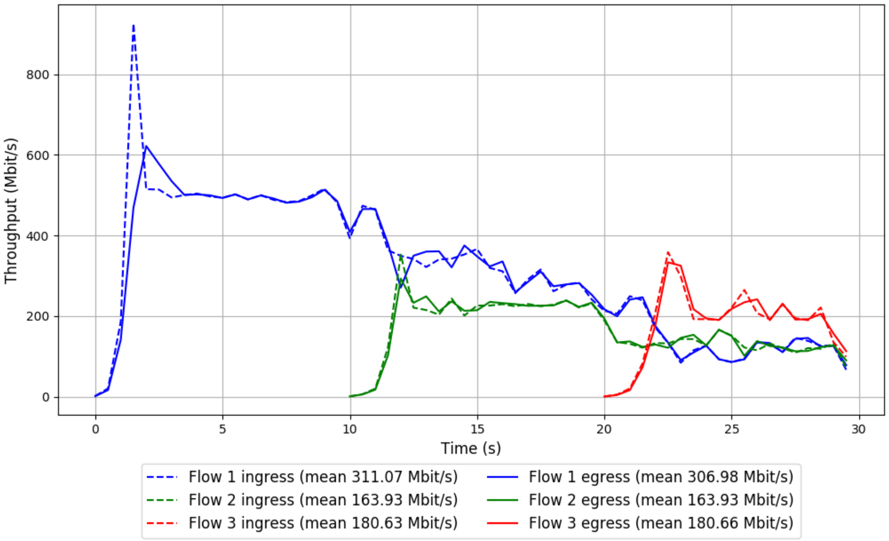


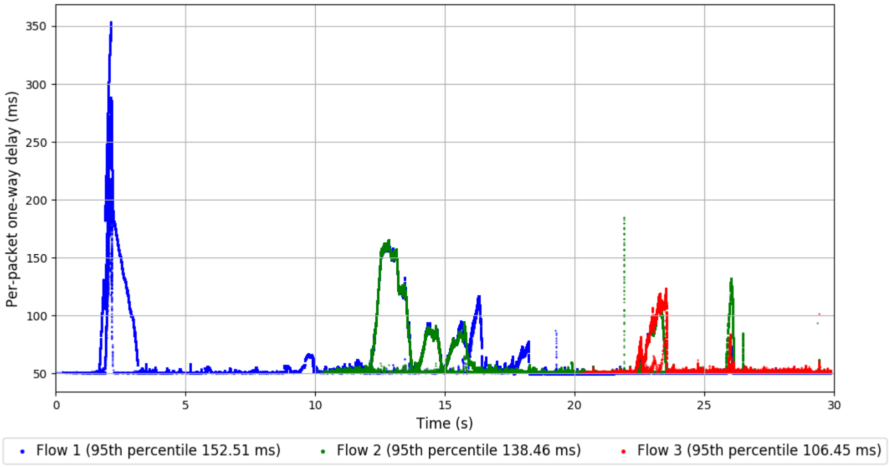
```
Run 6: Statistics of PCC

Start at: 2017-09-08 07:18:57
End at: 2017-09-08 07:19:27

# Below is generated by plot.py at 2017-09-08 10:36:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 474.33 Mbit/s
95th percentile per-packet one-way delay: 145.881 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 306.98 Mbit/s
95th percentile per-packet one-way delay: 152.513 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 163.93 Mbit/s
95th percentile per-packet one-way delay: 138.462 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 180.66 Mbit/s
95th percentile per-packet one-way delay: 106.447 ms
Loss rate: 0.00%
```

Run 6: Report of PCC — Data Link



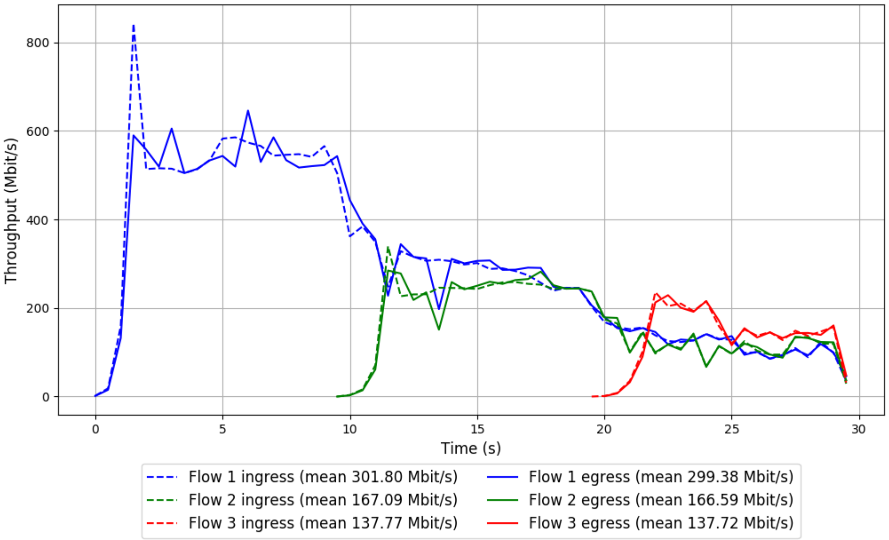


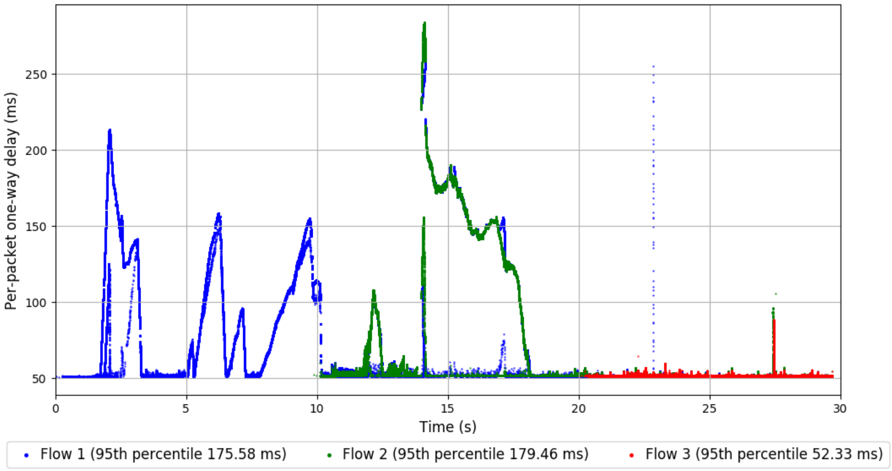
```
Run 7: Statistics of PCC

Start at: 2017-09-08 07:31:14
End at: 2017-09-08 07:31:44

# Below is generated by plot.py at 2017-09-08 10:37:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.66 Mbit/s
95th percentile per-packet one-way delay: 175.928 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 299.38 Mbit/s
95th percentile per-packet one-way delay: 175.580 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 166.59 Mbit/s
95th percentile per-packet one-way delay: 179.458 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 137.72 Mbit/s
95th percentile per-packet one-way delay: 52.331 ms
Loss rate: 0.00%
```

Run 7: Report of PCC — Data Link



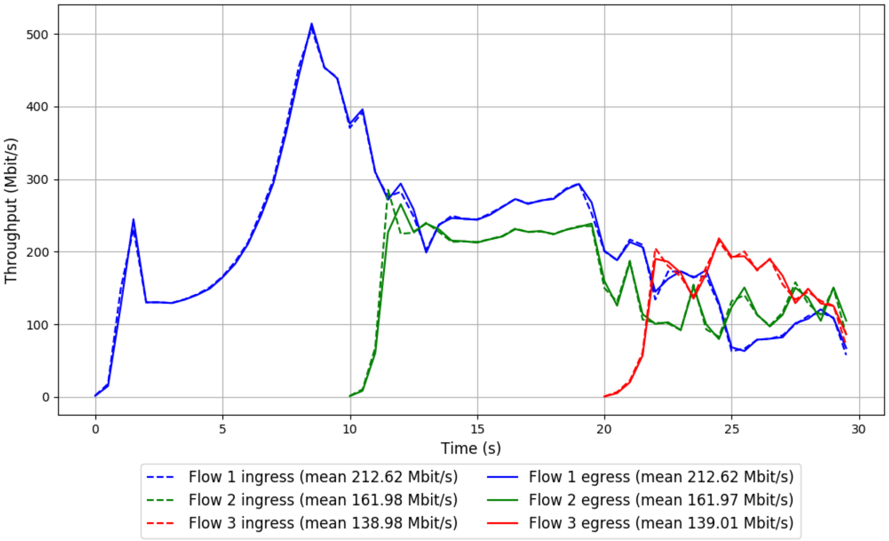


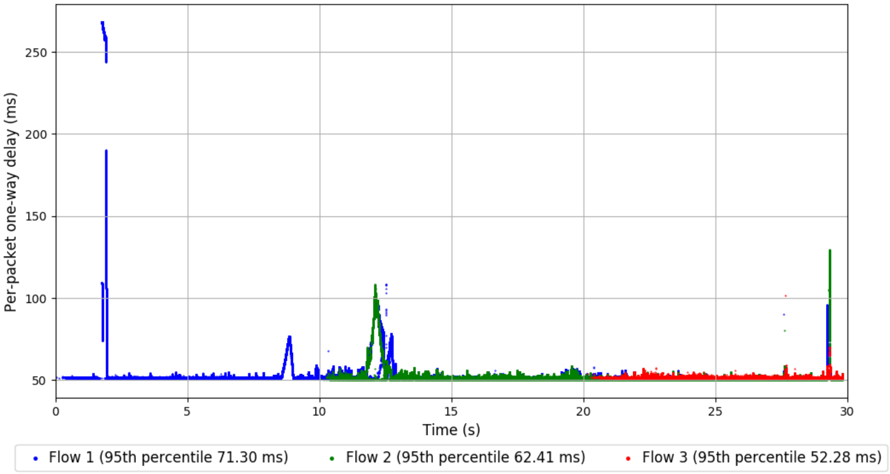
```
Run 8: Statistics of PCC

Start at: 2017-09-08 07:43:27
End at: 2017-09-08 07:43:57

# Below is generated by plot.py at 2017-09-08 10:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.27 Mbit/s
95th percentile per-packet one-way delay: 66.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 212.62 Mbit/s
95th percentile per-packet one-way delay: 71.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 161.97 Mbit/s
95th percentile per-packet one-way delay: 62.408 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 139.01 Mbit/s
95th percentile per-packet one-way delay: 52.280 ms
Loss rate: 0.00%
```

Run 8: Report of PCC — Data Link



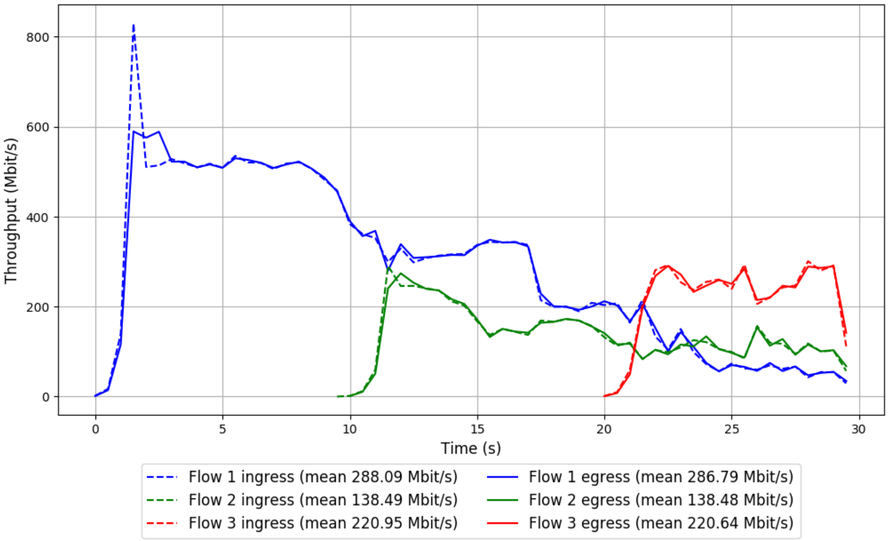


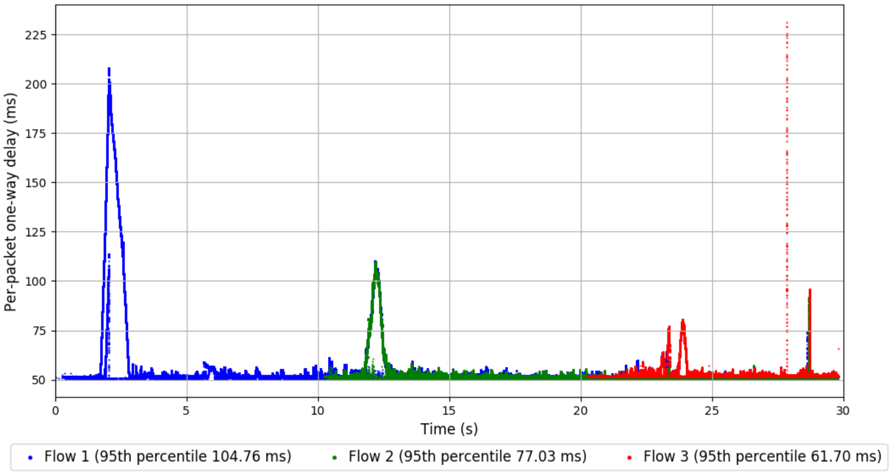
```
Run 9: Statistics of PCC

Start at: 2017-09-08 07:55:36
End at: 2017-09-08 07:56:06

# Below is generated by plot.py at 2017-09-08 10:39:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.69 Mbit/s
95th percentile per-packet one-way delay: 88.709 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 286.79 Mbit/s
95th percentile per-packet one-way delay: 104.760 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 138.48 Mbit/s
95th percentile per-packet one-way delay: 77.034 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 220.64 Mbit/s
95th percentile per-packet one-way delay: 61.702 ms
Loss rate: 0.01%
```

Run 9: Report of PCC — Data Link



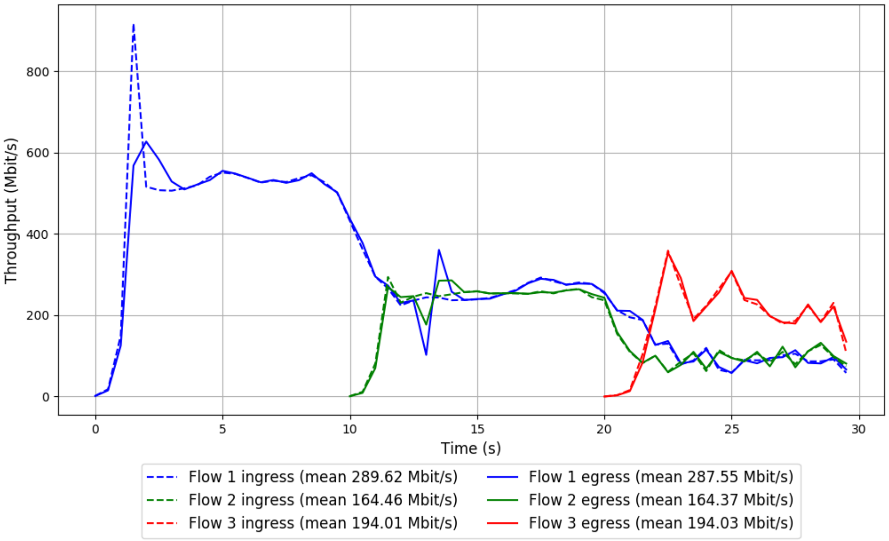


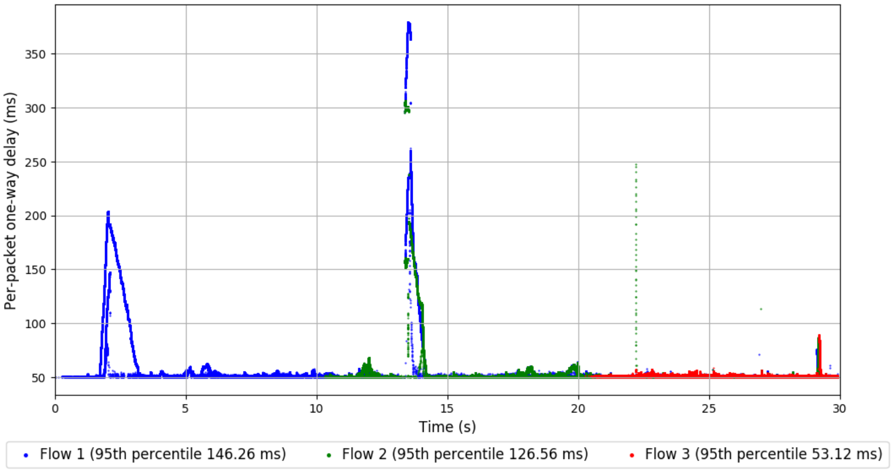
```
Run 10: Statistics of PCC

Start at: 2017-09-08 08:07:45
End at: 2017-09-08 08:08:15

# Below is generated by plot.py at 2017-09-08 10:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.17 Mbit/s
95th percentile per-packet one-way delay: 132.046 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 287.55 Mbit/s
95th percentile per-packet one-way delay: 146.258 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 164.37 Mbit/s
95th percentile per-packet one-way delay: 126.556 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 194.03 Mbit/s
95th percentile per-packet one-way delay: 53.124 ms
Loss rate: 0.00%
```

Run 10: Report of PCC — Data Link



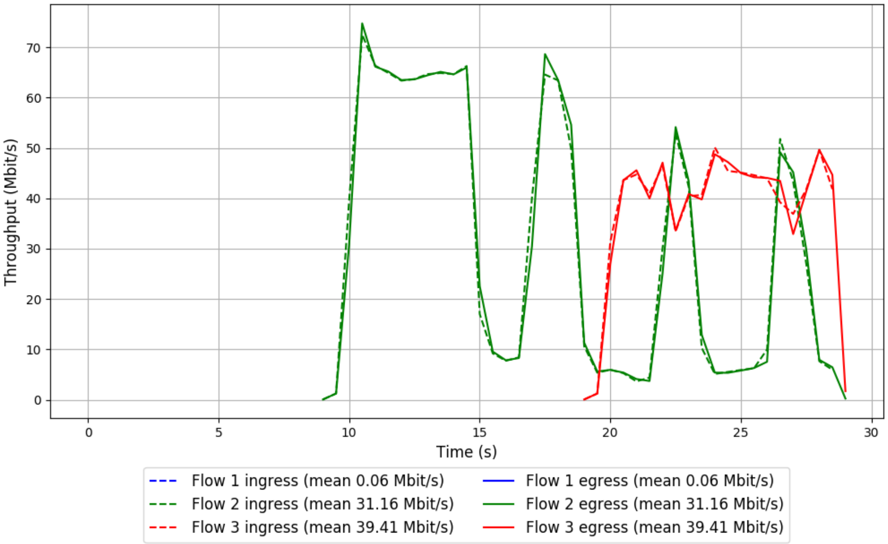


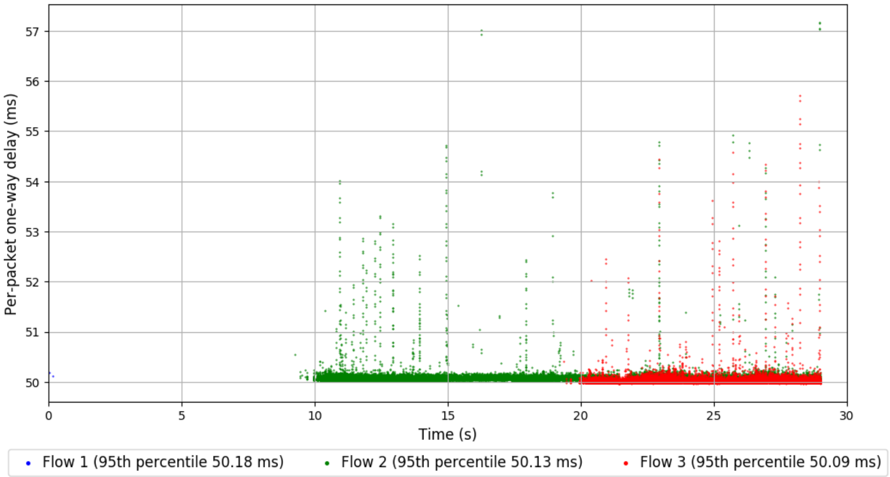
```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-08 06:19:34
End at: 2017-09-08 06:20:04

# Below is generated by plot.py at 2017-09-08 10:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 50.122 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.184 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.16 Mbit/s
95th percentile per-packet one-way delay: 50.131 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 50.092 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



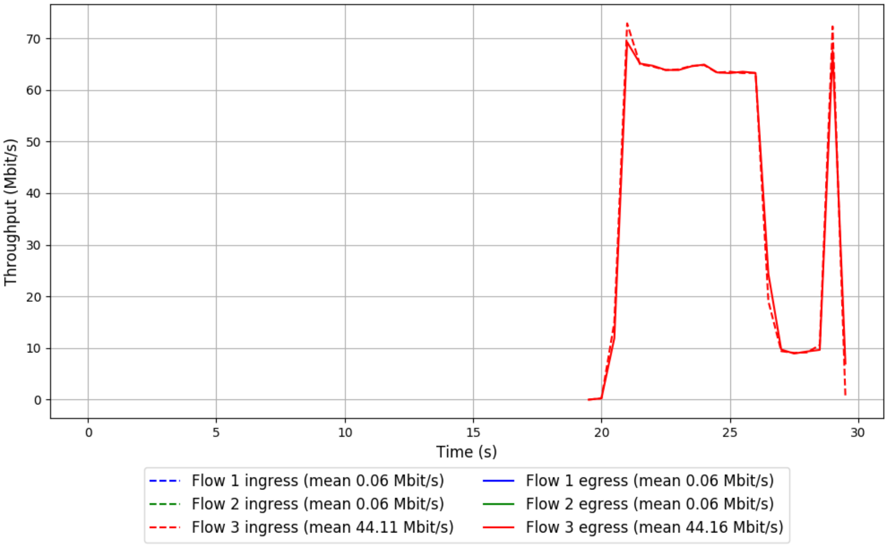


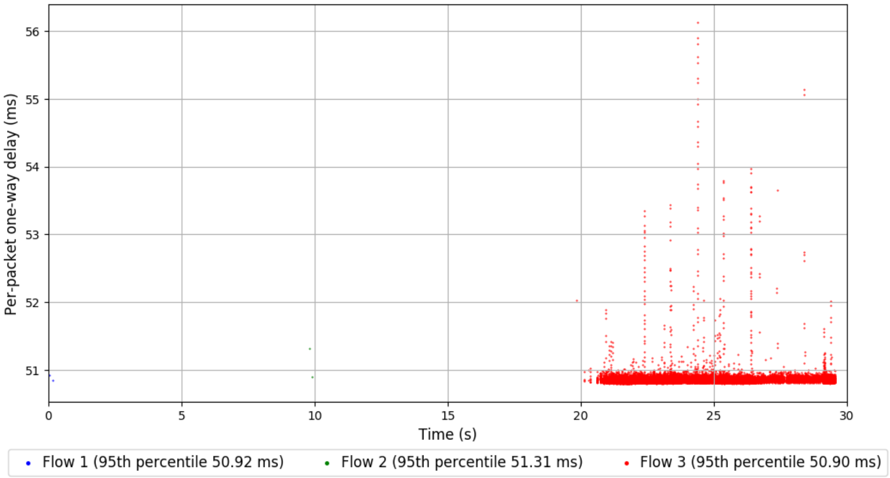
```
Run 2: Statistics of QUIC Cubic

Start at: 2017-09-08 06:31:24
End at: 2017-09-08 06:31:54

# Below is generated by plot.py at 2017-09-08 10:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.54 Mbit/s
95th percentile per-packet one-way delay: 50.899 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.313 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 50.899 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



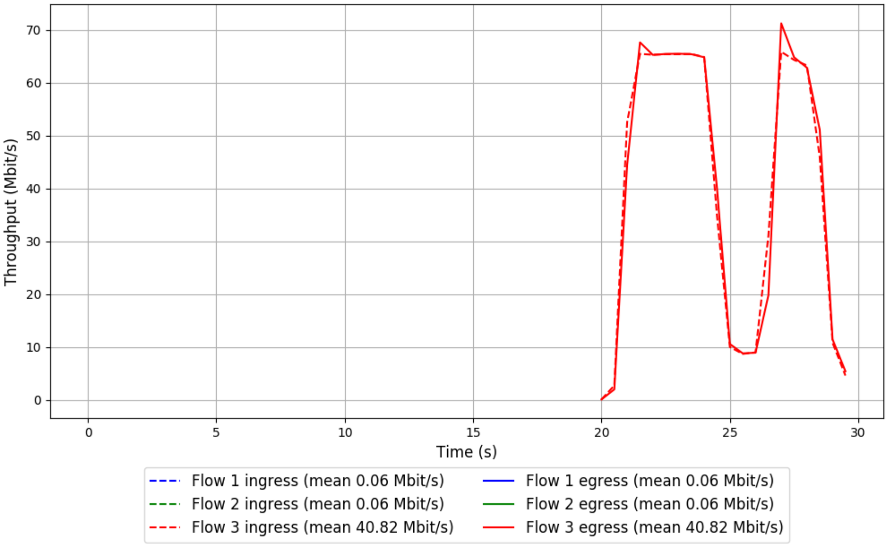


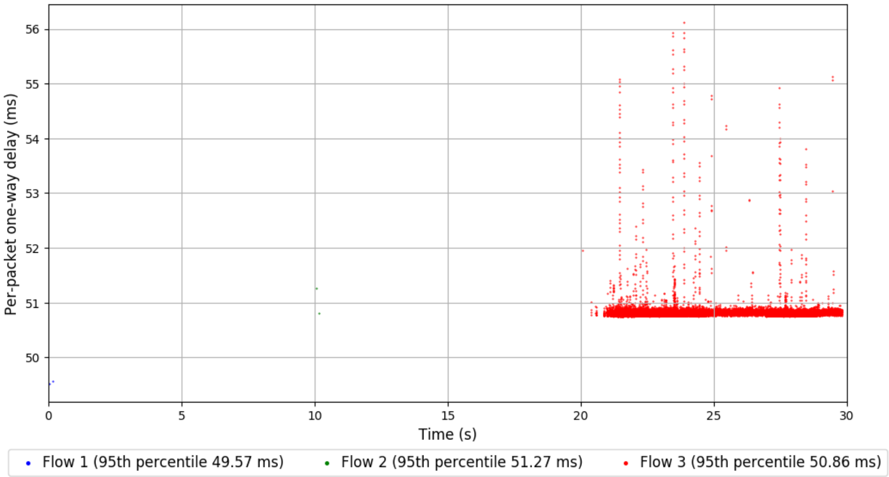
```
Run 3: Statistics of QUIC Cubic

Start at: 2017-09-08 06:43:11
End at: 2017-09-08 06:43:41

# Below is generated by plot.py at 2017-09-08 10:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 50.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 49.566 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.270 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.82 Mbit/s
95th percentile per-packet one-way delay: 50.864 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link



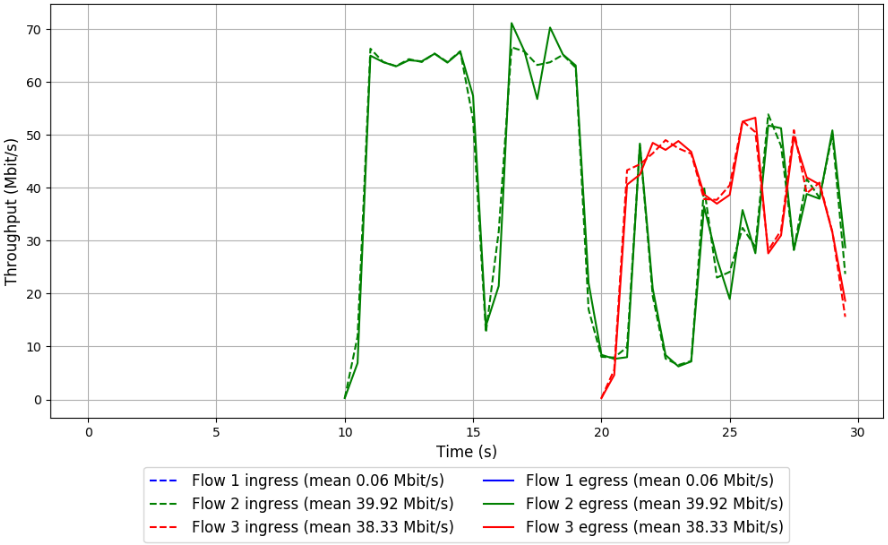


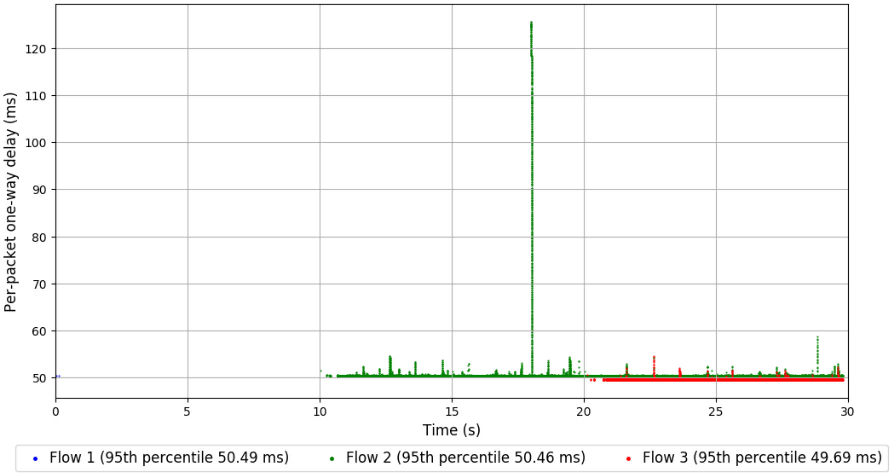
```
Run 4: Statistics of QUIC Cubic

Start at: 2017-09-08 06:55:12
End at: 2017-09-08 06:55:42

# Below is generated by plot.py at 2017-09-08 10:39:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.94 Mbit/s
95th percentile per-packet one-way delay: 50.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.493 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 50.458 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.33 Mbit/s
95th percentile per-packet one-way delay: 49.694 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

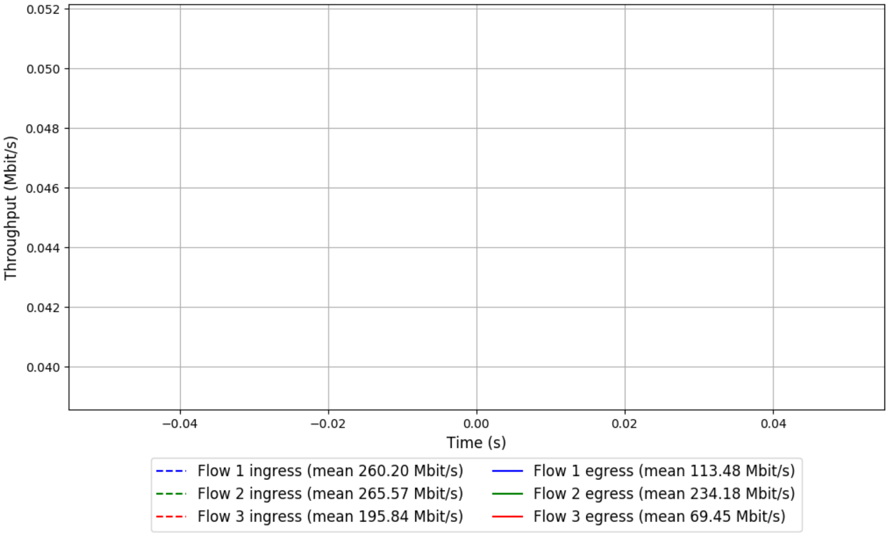


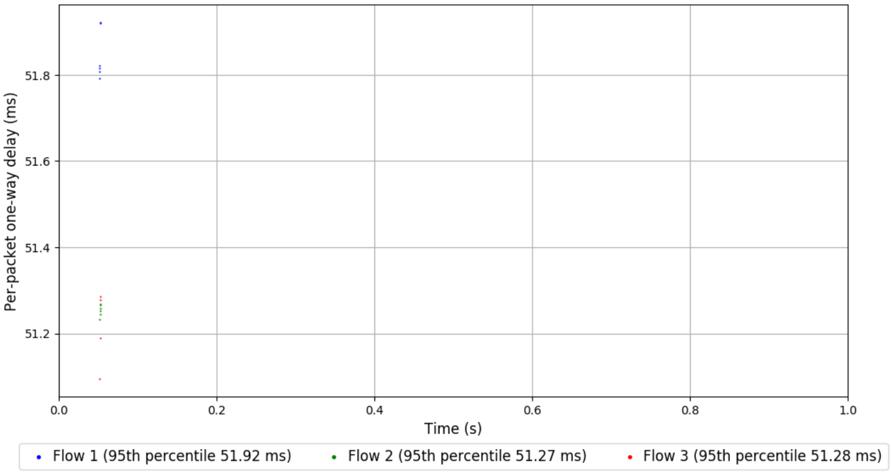


```
Run 5: Statistics of QUIC Cubic

Start at: 2017-09-08 07:07:35
End at: 2017-09-08 07:08:05
```

Run 5: Report of QUIC Cubic — Data Link



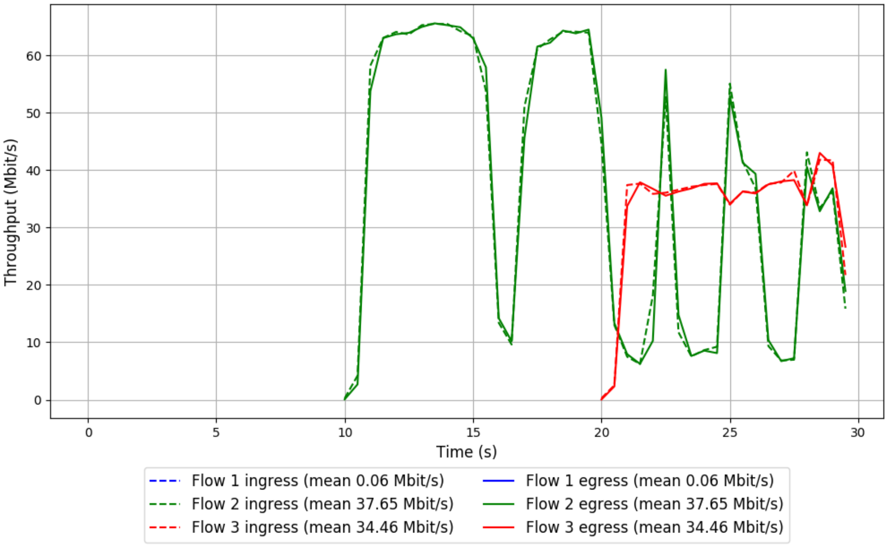


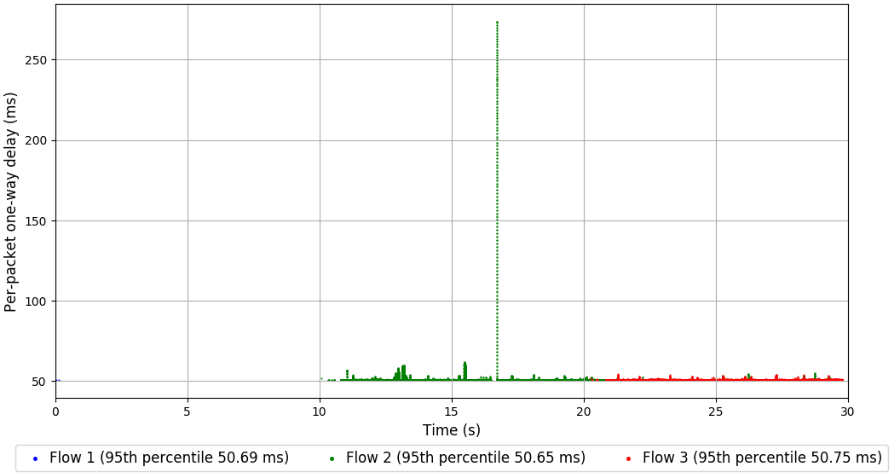
```
Run 6: Statistics of QUIC Cubic

Start at: 2017-09-08 07:19:55
End at: 2017-09-08 07:20:25

# Below is generated by plot.py at 2017-09-08 10:39:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.04 Mbit/s
95th percentile per-packet one-way delay: 50.729 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.65 Mbit/s
95th percentile per-packet one-way delay: 50.650 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.46 Mbit/s
95th percentile per-packet one-way delay: 50.753 ms
Loss rate: 0.00%
```

Run 6: Report of QUIC Cubic — Data Link

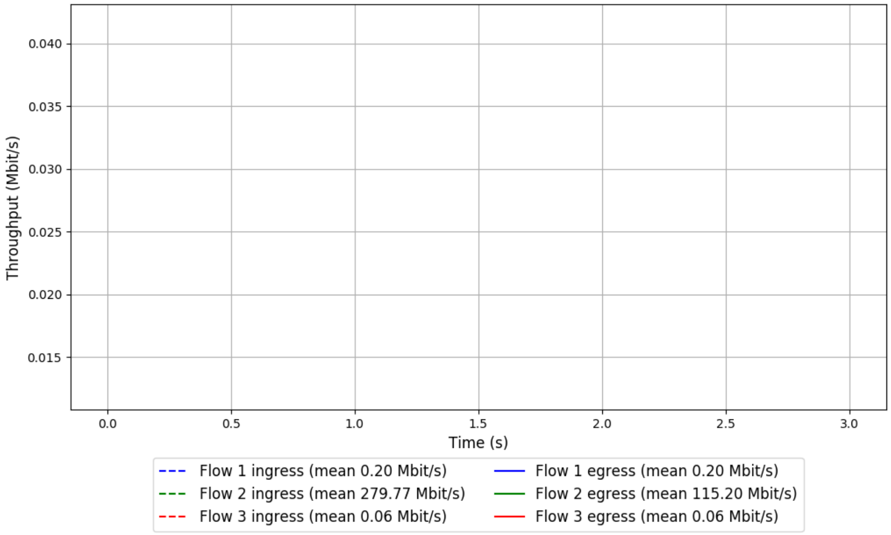


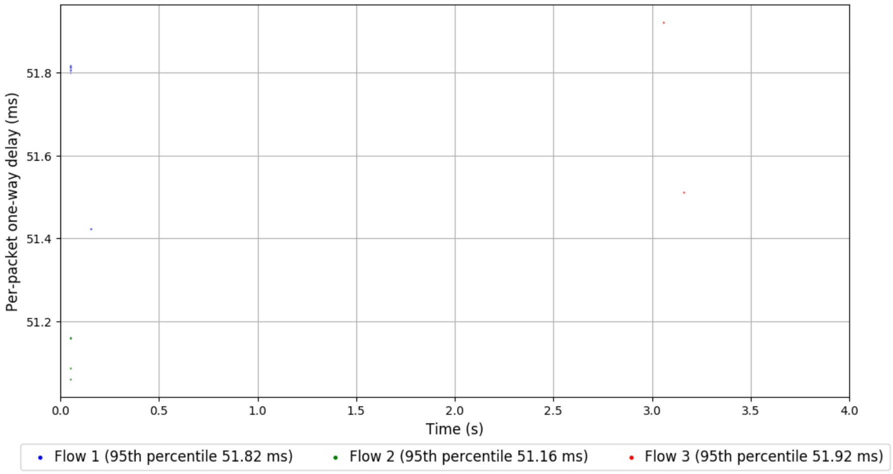


```
Run 7: Statistics of QUIC Cubic

Start at: 2017-09-08 07:32:13
End at: 2017-09-08 07:32:43
```

Run 7: Report of QUIC Cubic — Data Link



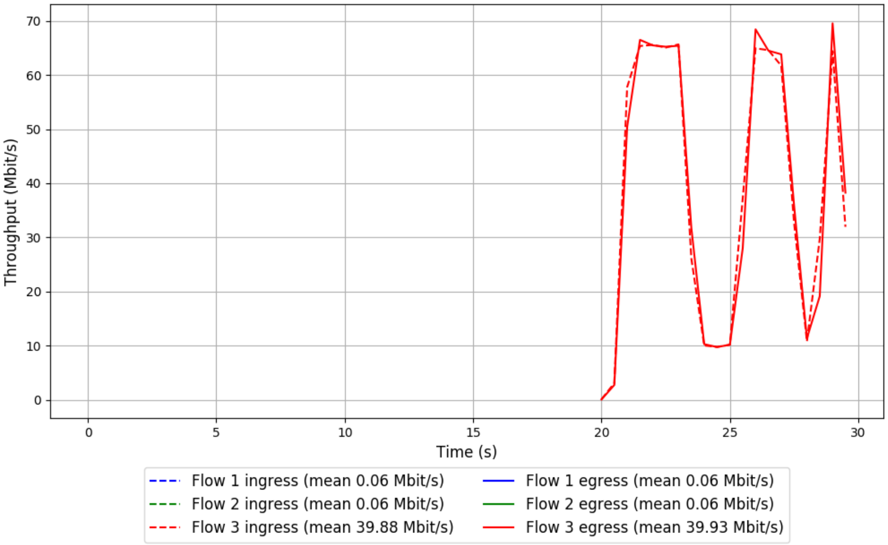


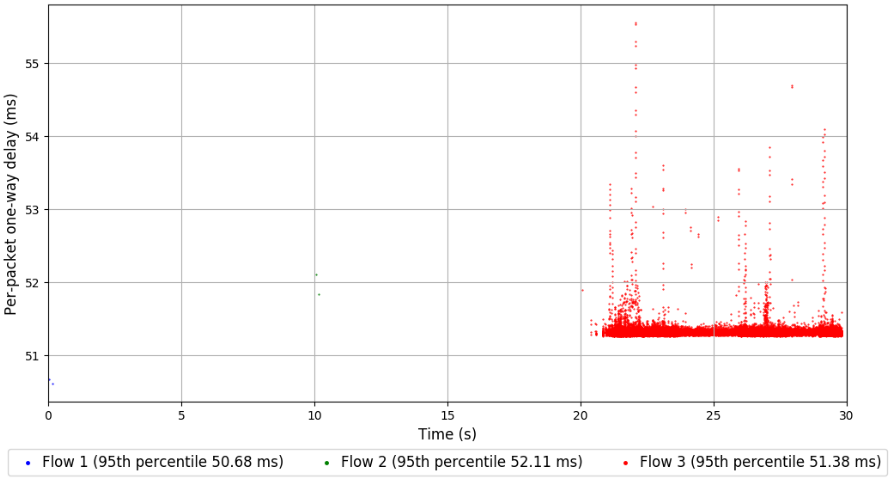
```
Run 8: Statistics of QUIC Cubic

Start at: 2017-09-08 07:44:21
End at: 2017-09-08 07:44:51

# Below is generated by plot.py at 2017-09-08 10:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 51.377 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.676 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 52.107 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.93 Mbit/s
95th percentile per-packet one-way delay: 51.377 ms
Loss rate: 0.01%
```

Run 8: Report of QUIC Cubic — Data Link

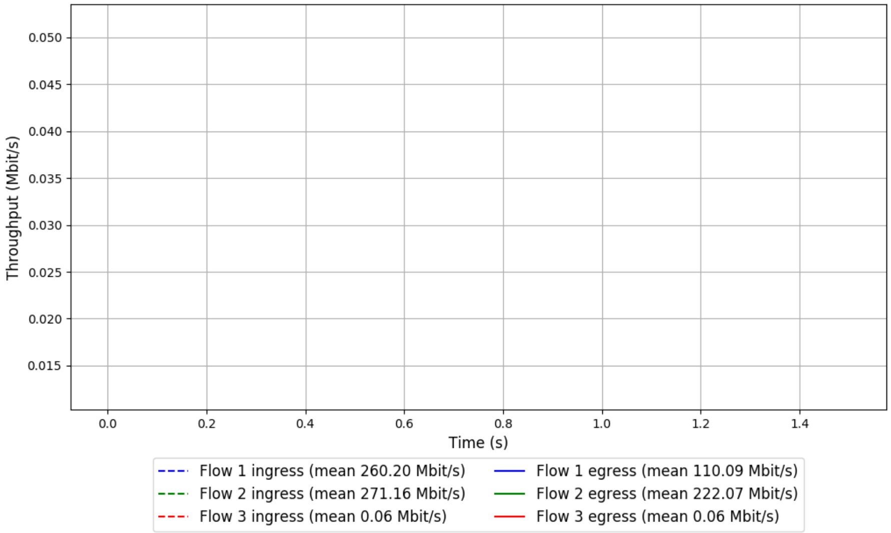


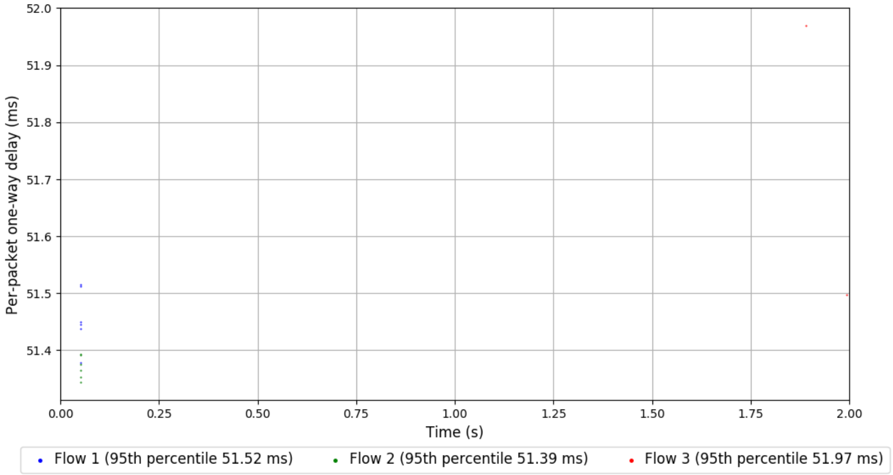


```
Run 9: Statistics of QUIC Cubic

Start at: 2017-09-08 07:56:34
End at: 2017-09-08 07:57:04
```

Run 9: Report of QUIC Cubic — Data Link

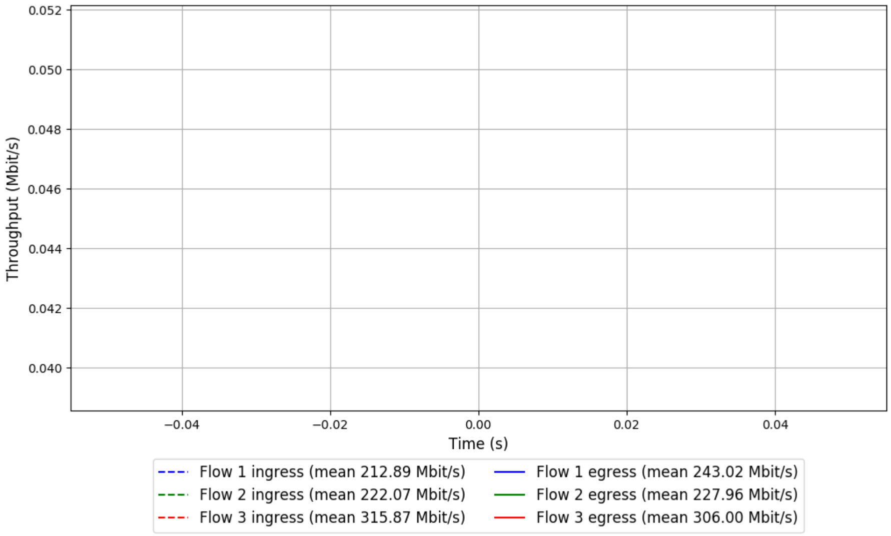


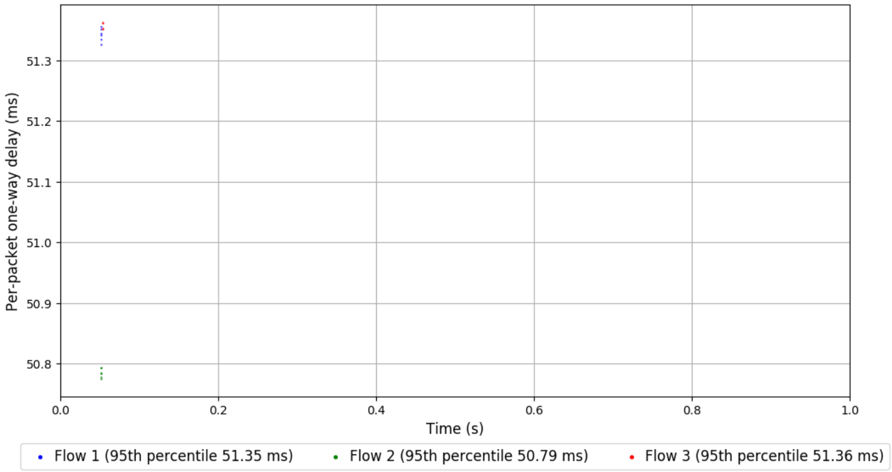


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-08 08:08:43
End at: 2017-09-08 08:09:13
```

Run 10: Report of QUIC Cubic — Data Link



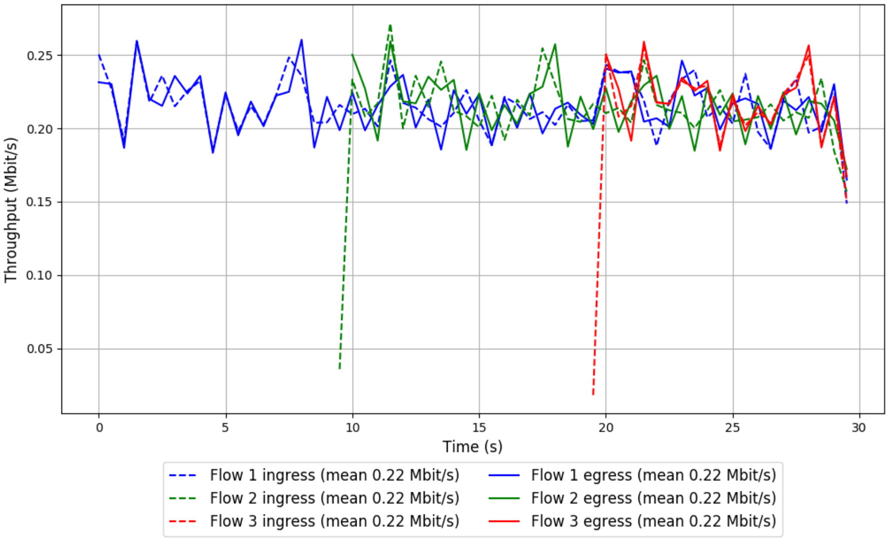


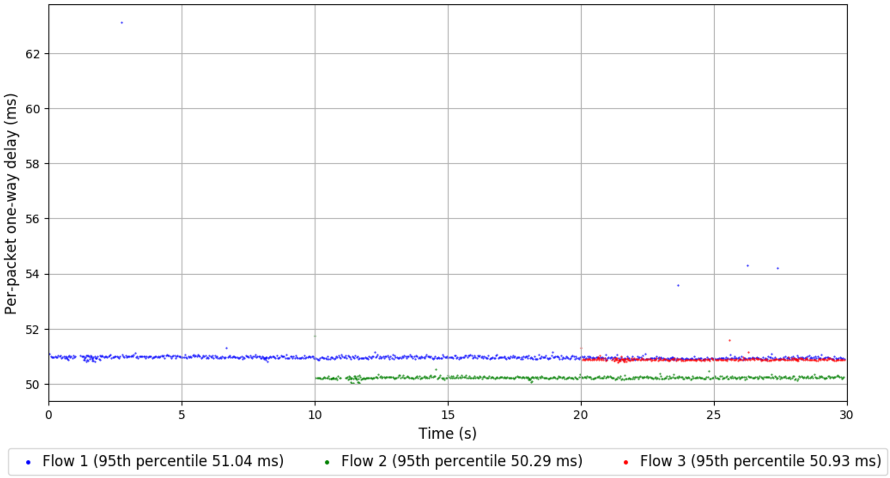
```
Run 1: Statistics of SCReAM

Start at: 2017-09-08 06:15:33
End at: 2017-09-08 06:16:03

# Below is generated by plot.py at 2017-09-08 10:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.022 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.041 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.294 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.934 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



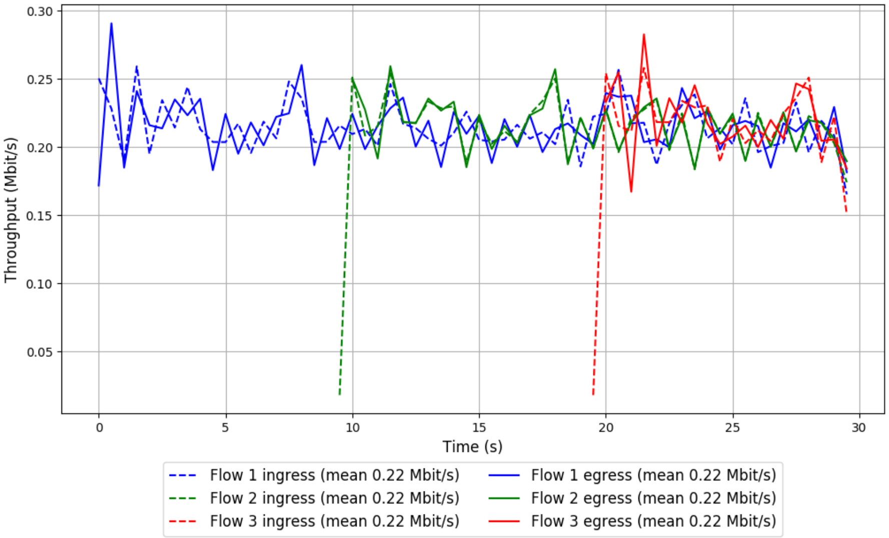


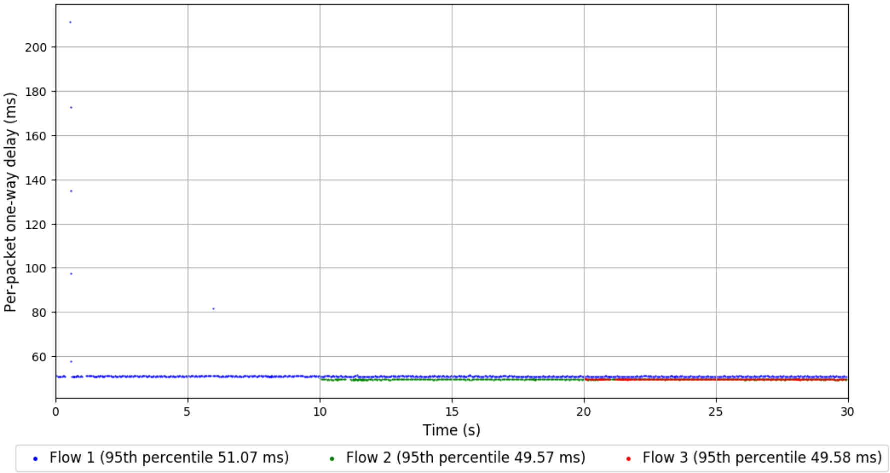
```
Run 2: Statistics of SCReAM

Start at: 2017-09-08 06:27:28
End at: 2017-09-08 06:27:58

# Below is generated by plot.py at 2017-09-08 10:39:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.058 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.073 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.573 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.580 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



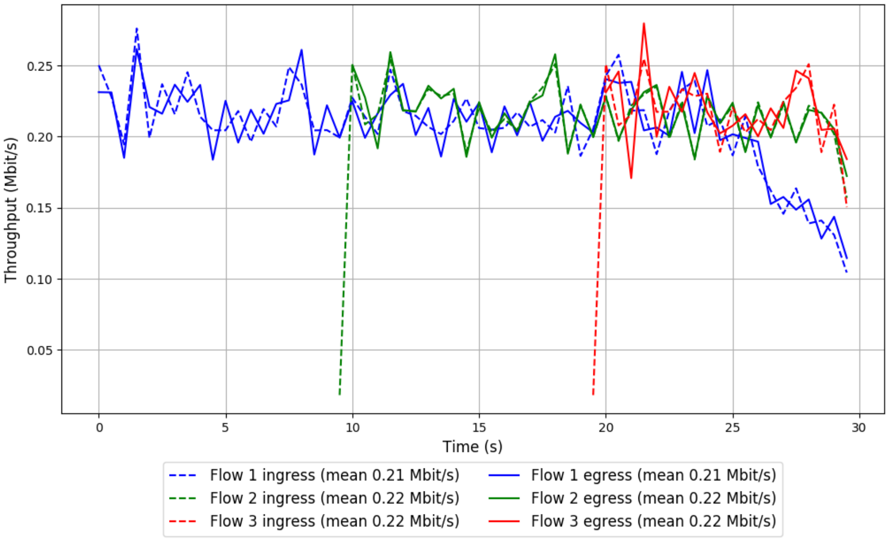


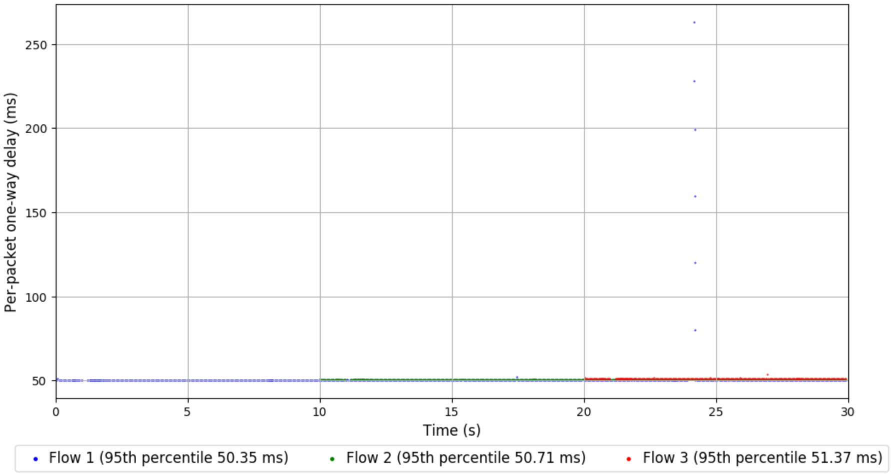
```
Run 3: Statistics of SCReAM

Start at: 2017-09-08 06:39:09
End at: 2017-09-08 06:39:39

# Below is generated by plot.py at 2017-09-08 10:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.355 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.706 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.368 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



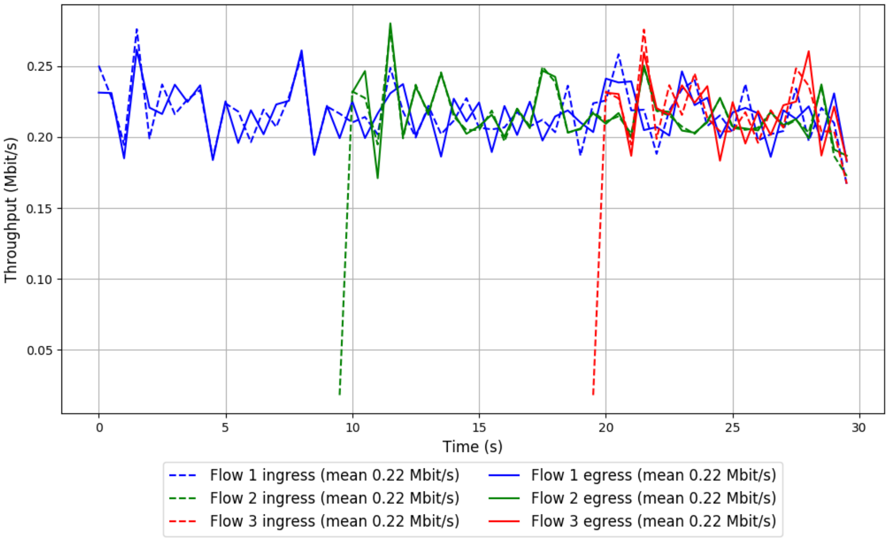


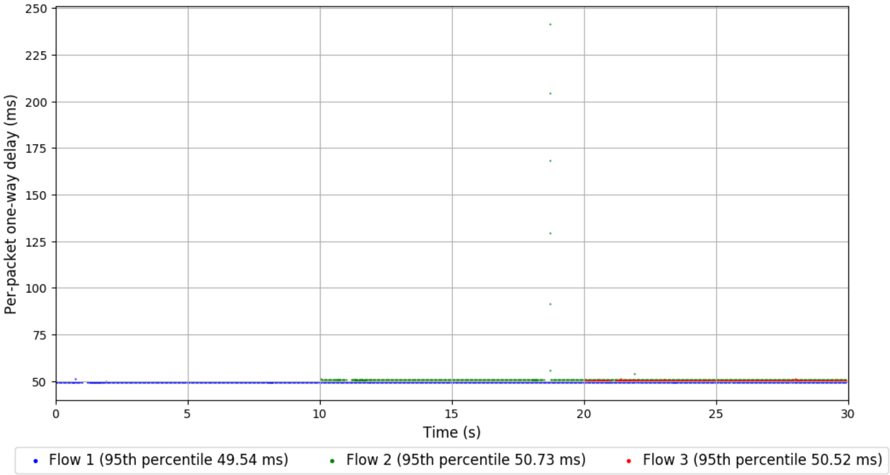
```
Run 4: Statistics of SCReAM

Start at: 2017-09-08 06:51:08
End at: 2017-09-08 06:51:38

# Below is generated by plot.py at 2017-09-08 10:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.708 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.539 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.732 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.523 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



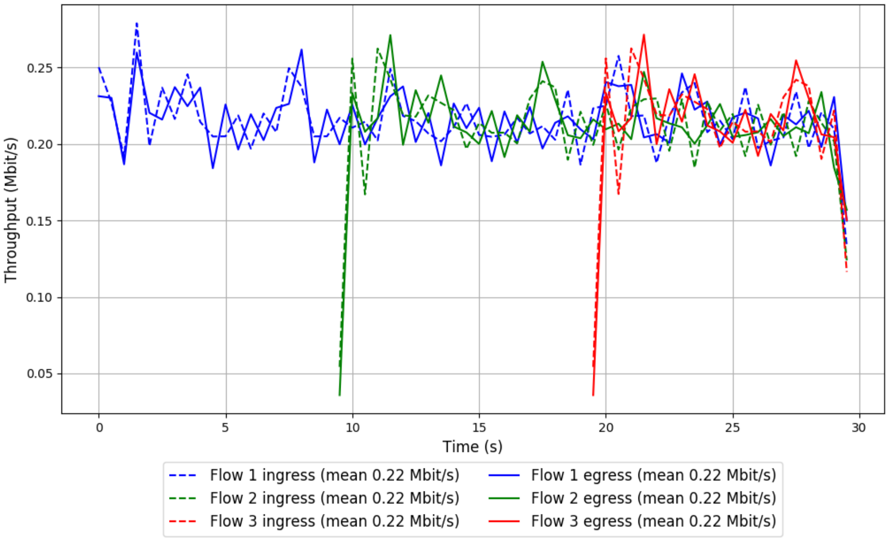


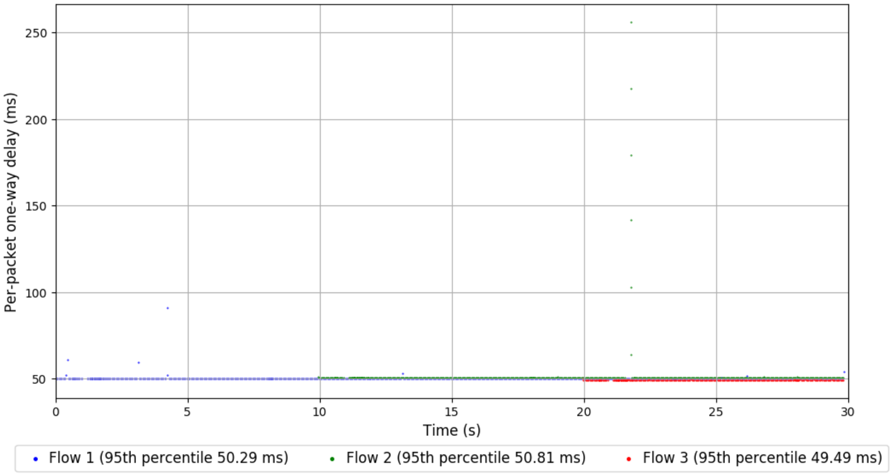
```
Run 5: Statistics of SCReAM

Start at: 2017-09-08 07:03:29
End at: 2017-09-08 07:03:59

# Below is generated by plot.py at 2017-09-08 10:39:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.778 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.288 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.806 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.495 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



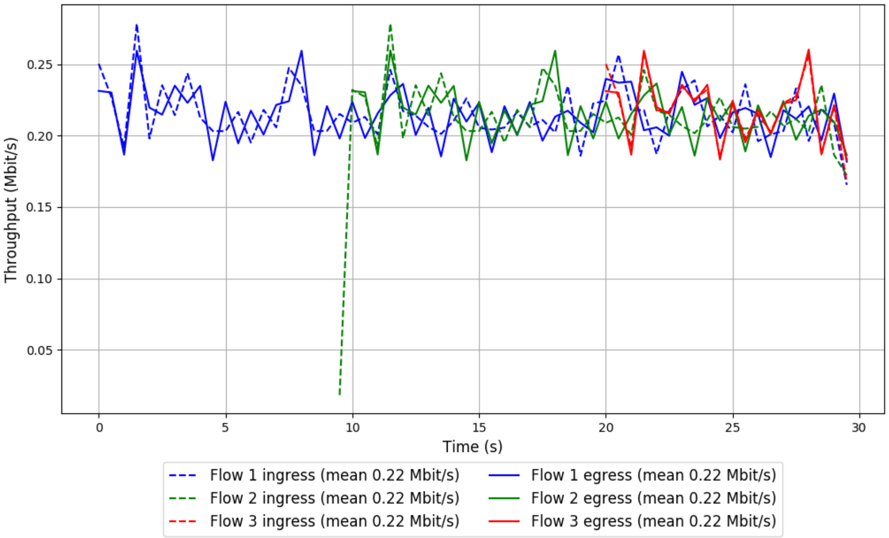


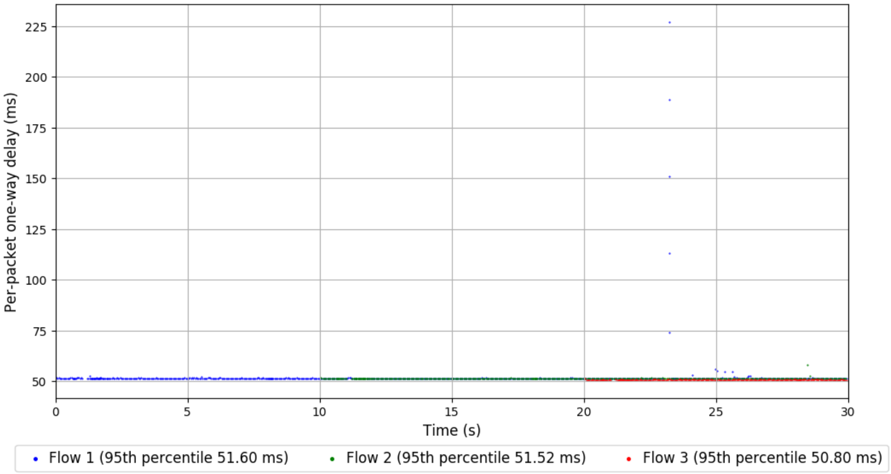
```
Run 6: Statistics of SCReAM

Start at: 2017-09-08 07:15:50
End at: 2017-09-08 07:16:20

# Below is generated by plot.py at 2017-09-08 10:39:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.581 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.605 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.520 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.801 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



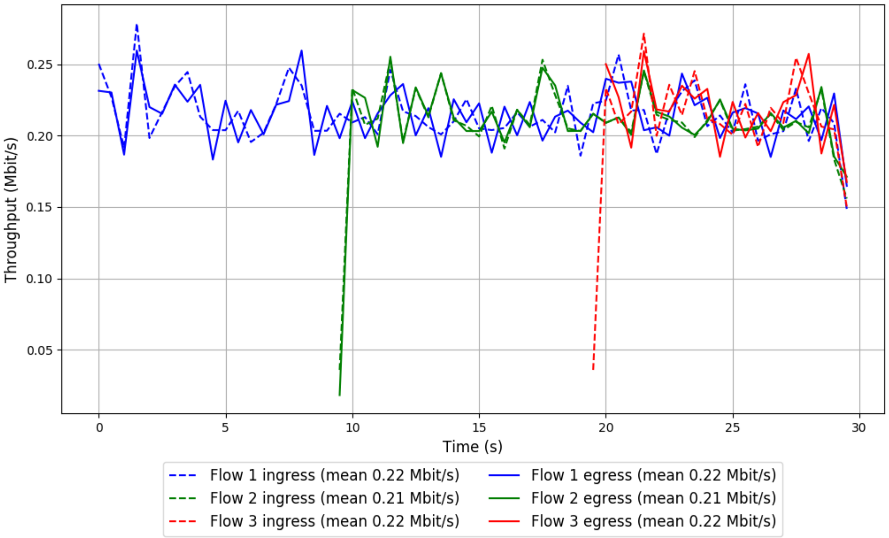


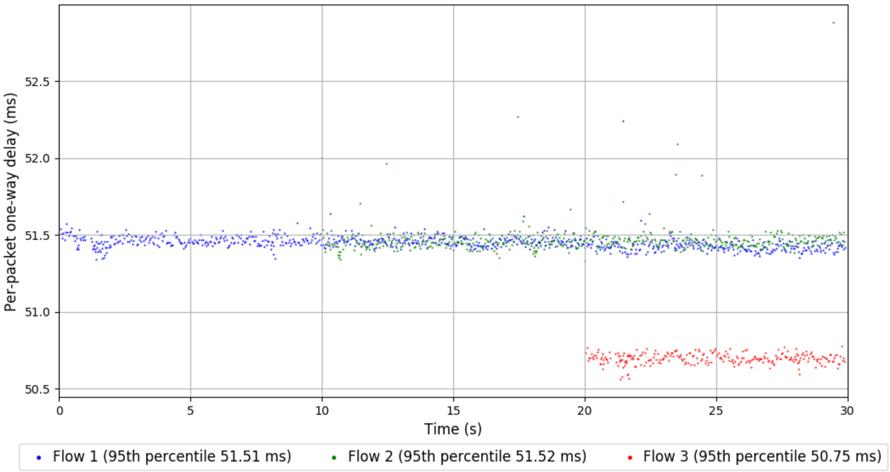
```
Run 7: Statistics of SCReAM

Start at: 2017-09-08 07:28:06
End at: 2017-09-08 07:28:36

# Below is generated by plot.py at 2017-09-08 10:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.516 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.513 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 51.525 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.753 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link



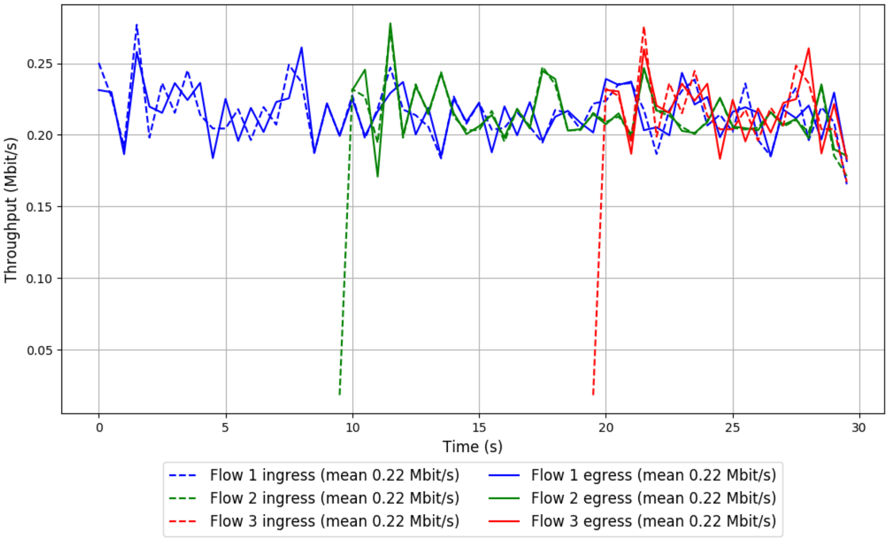


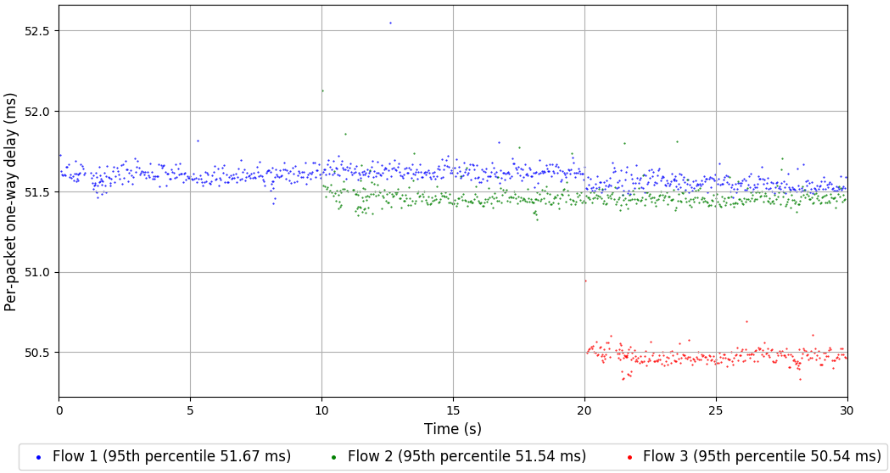
```
Run 8: Statistics of SCReAM

Start at: 2017-09-08 07:40:20
End at: 2017-09-08 07:40:50

# Below is generated by plot.py at 2017-09-08 10:39:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.659 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.670 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.541 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.540 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



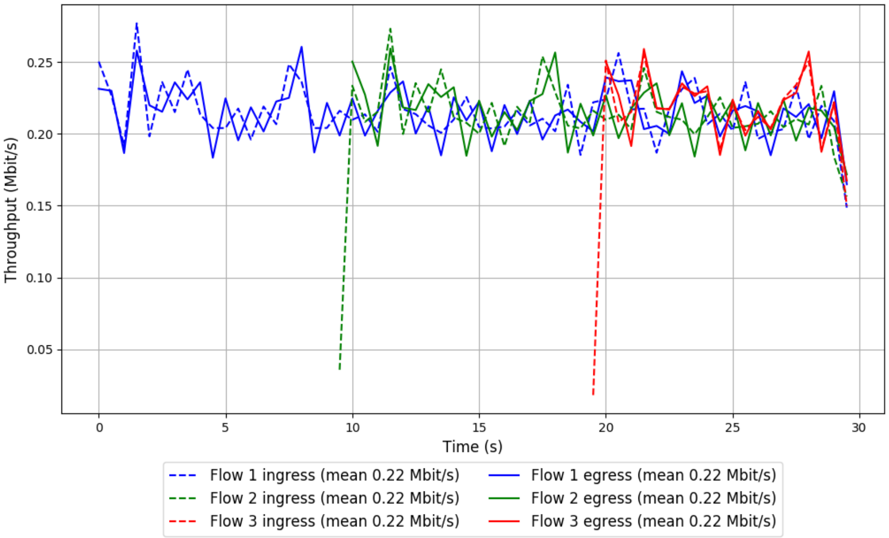


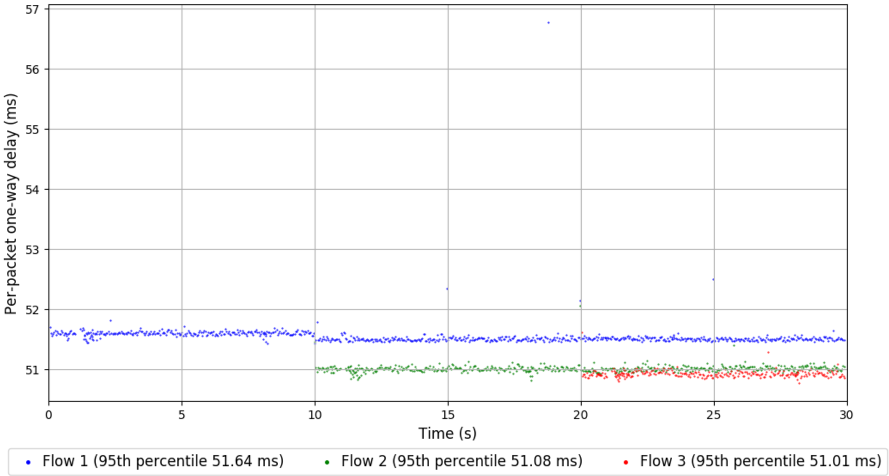
```
Run 9: Statistics of SCReAM

Start at: 2017-09-08 07:52:30
End at: 2017-09-08 07:53:00

# Below is generated by plot.py at 2017-09-08 10:39:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.626 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.644 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.083 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.012 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link



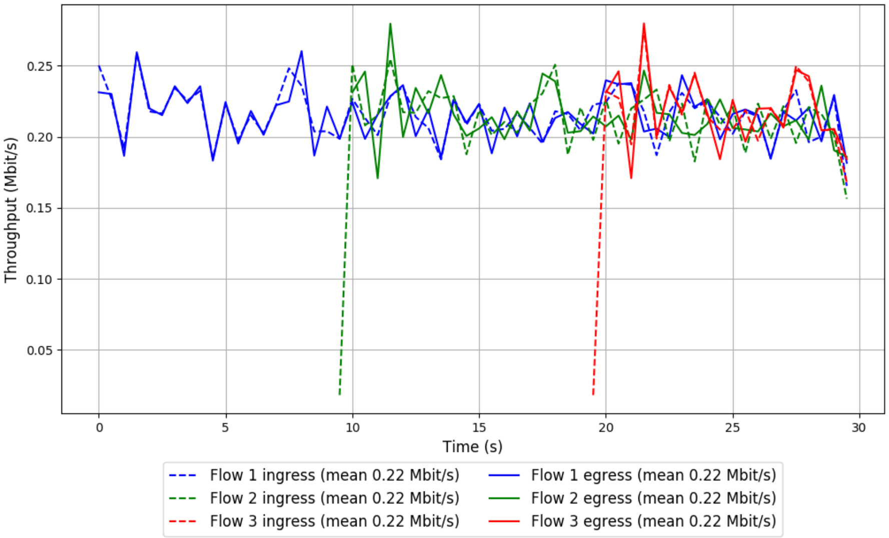


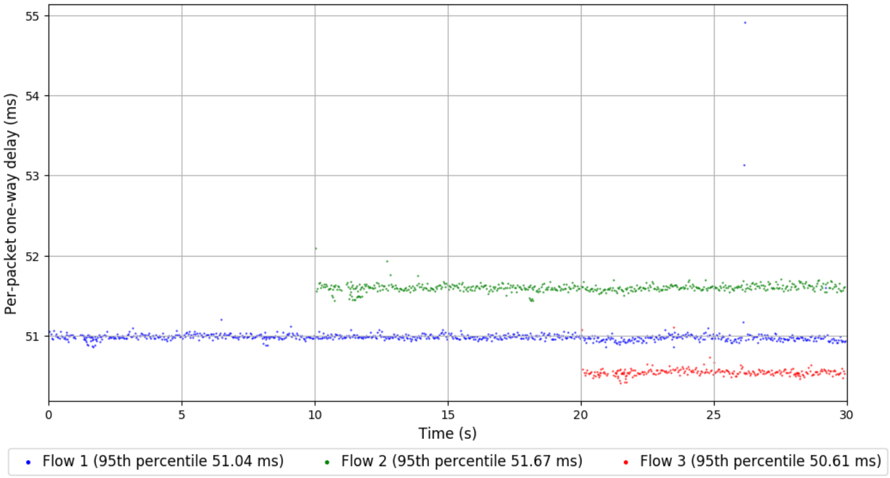
```
Run 10: Statistics of SCReAM

Start at: 2017-09-08 08:04:38
End at: 2017-09-08 08:05:08

# Below is generated by plot.py at 2017-09-08 10:39:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.641 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.671 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.610 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link



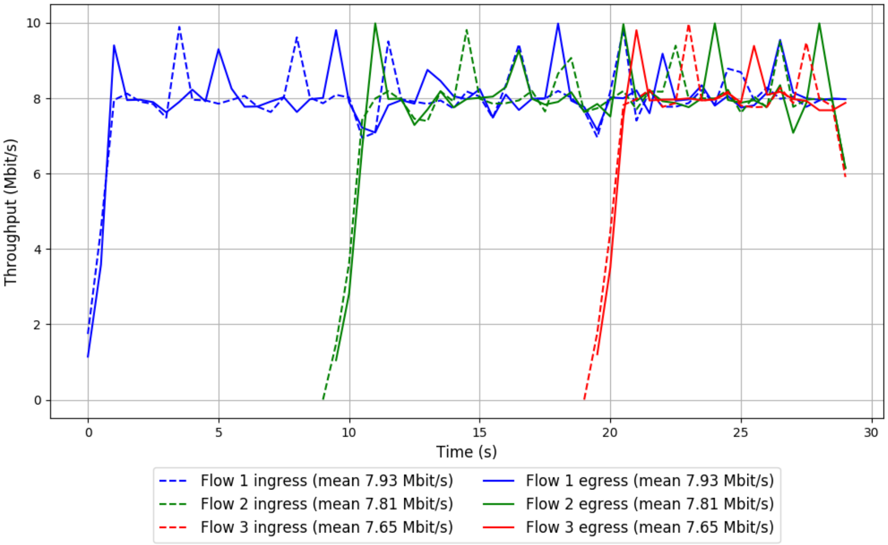


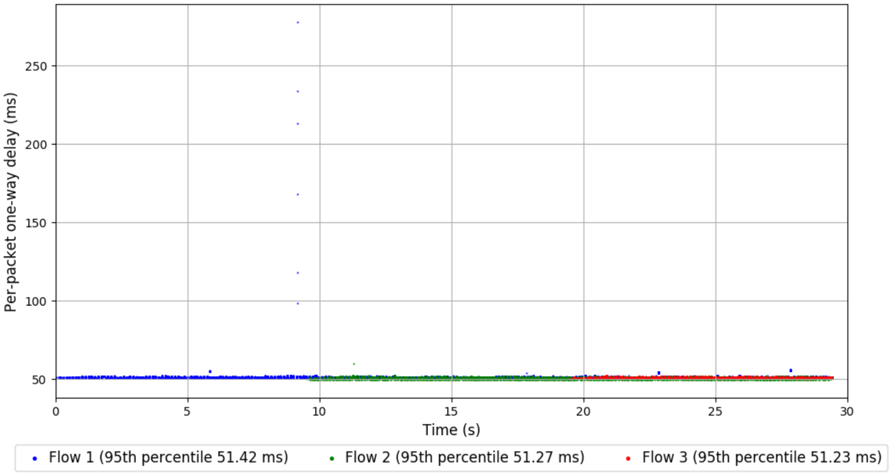
```
Run 1: Statistics of Sprout

Start at: 2017-09-08 06:22:24
End at: 2017-09-08 06:22:54

# Below is generated by plot.py at 2017-09-08 10:39:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.78 Mbit/s
95th percentile per-packet one-way delay: 51.329 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 51.417 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 7.81 Mbit/s
95th percentile per-packet one-way delay: 51.265 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 51.234 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



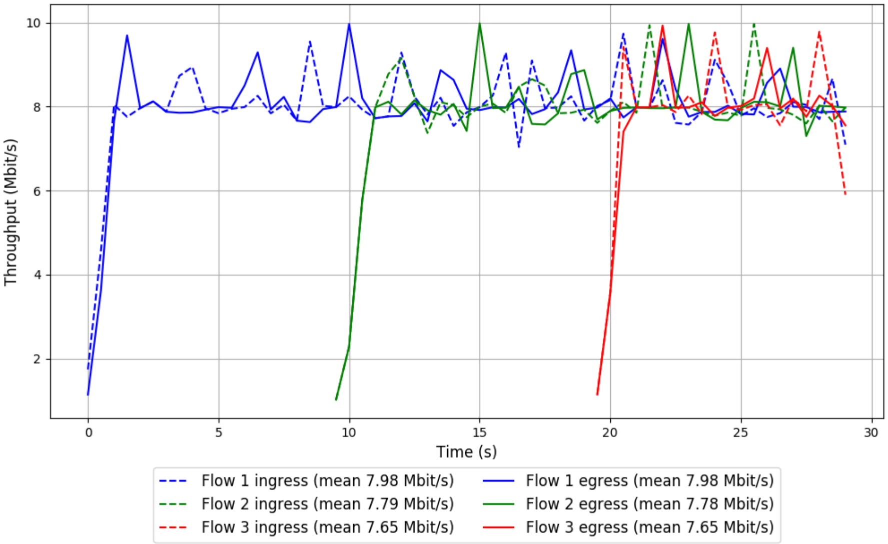


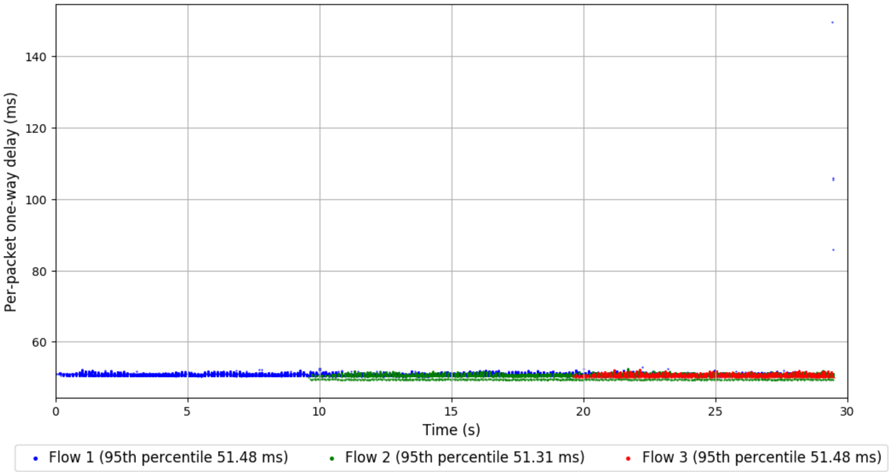
```
Run 2: Statistics of Sprout

Start at: 2017-09-08 06:34:12
End at: 2017-09-08 06:34:42

# Below is generated by plot.py at 2017-09-08 10:39:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.79 Mbit/s
95th percentile per-packet one-way delay: 51.434 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 51.482 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 51.312 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 51.484 ms
Loss rate: 0.02%
```

Run 2: Report of Sprout — Data Link



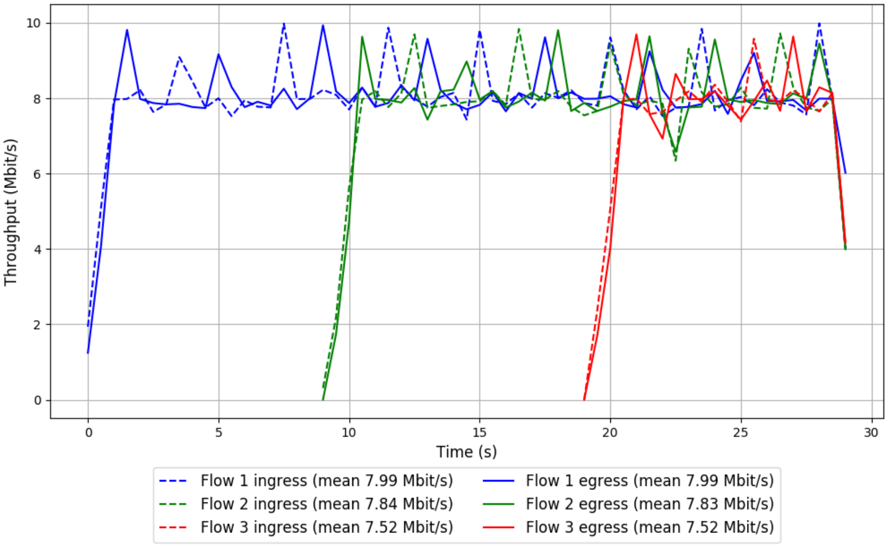


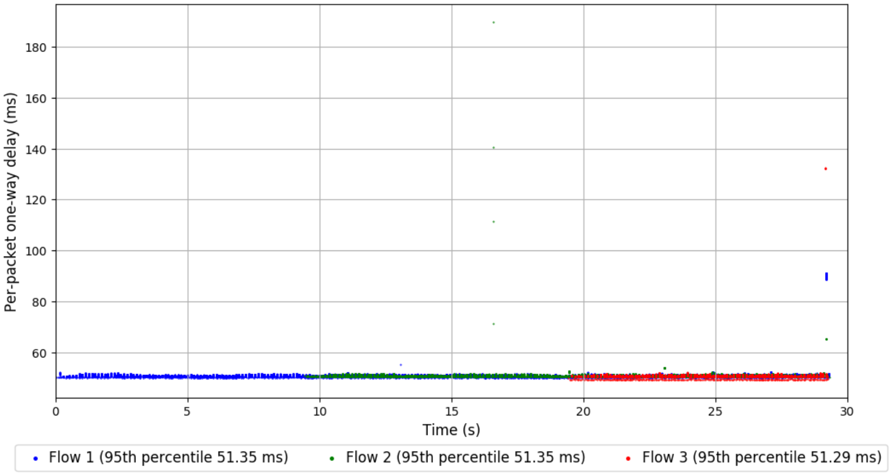
```
Run 3: Statistics of Sprout

Start at: 2017-09-08 06:45:59
End at: 2017-09-08 06:46:29

# Below is generated by plot.py at 2017-09-08 10:39:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.84 Mbit/s
95th percentile per-packet one-way delay: 51.342 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 51.350 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 51.347 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 51.293 ms
Loss rate: 0.02%
```

Run 3: Report of Sprout — Data Link



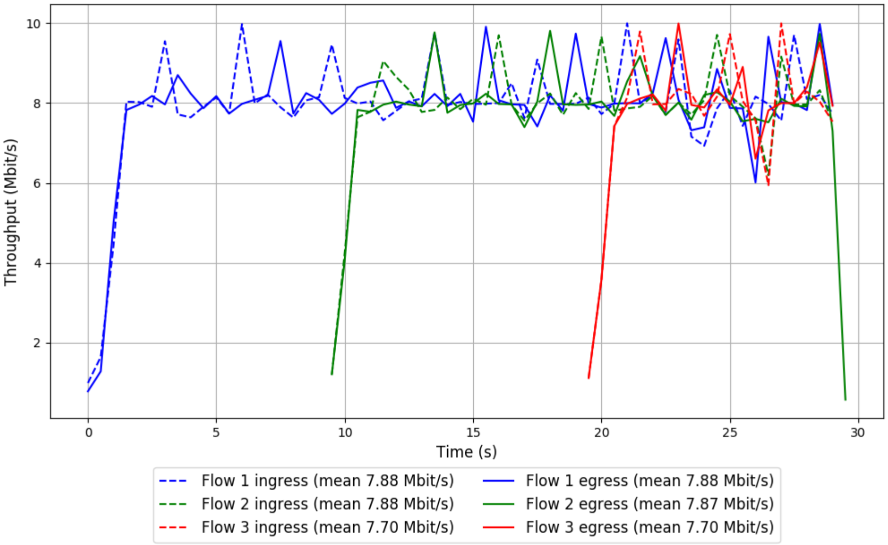


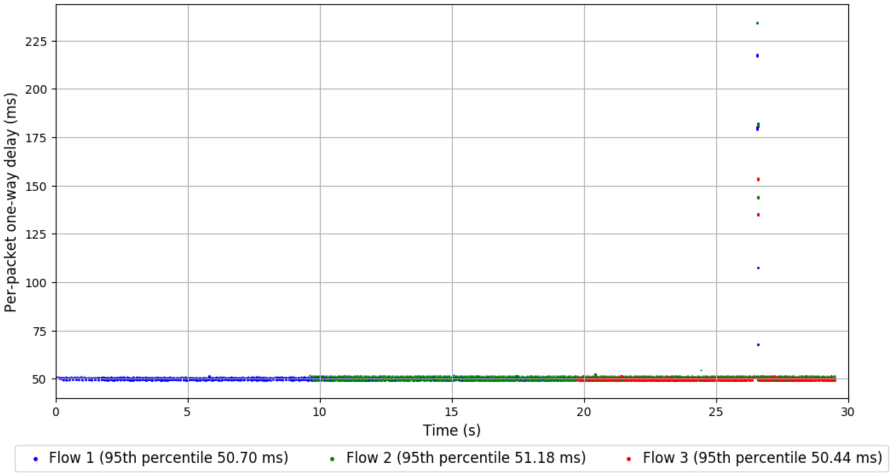
```
Run 4: Statistics of Sprout

Start at: 2017-09-08 06:58:01
End at: 2017-09-08 06:58:31

# Below is generated by plot.py at 2017-09-08 10:39:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.77 Mbit/s
95th percentile per-packet one-way delay: 50.690 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 50.701 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 51.177 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 7.70 Mbit/s
95th percentile per-packet one-way delay: 50.435 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link



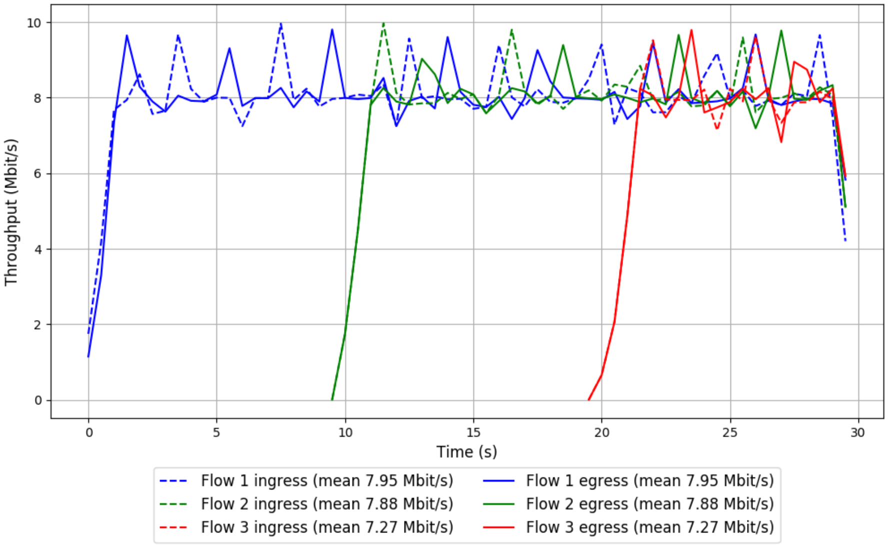


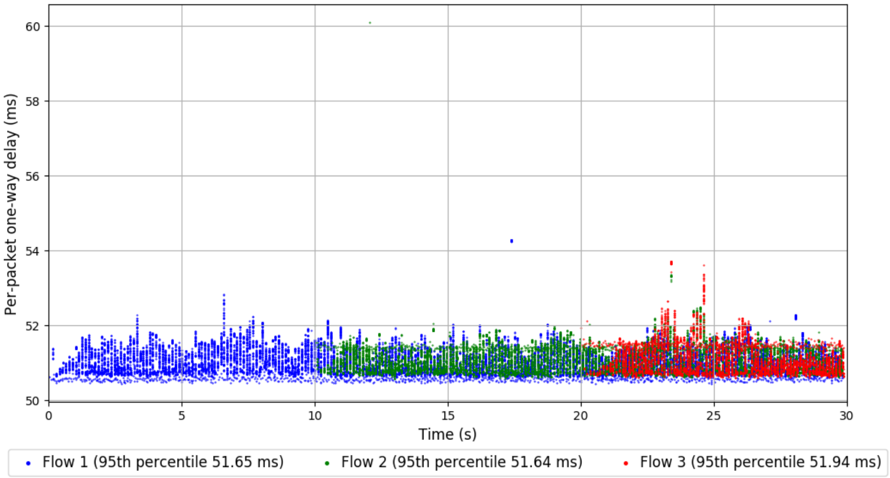
```
Run 5: Statistics of Sprout

Start at: 2017-09-08 07:10:25
End at: 2017-09-08 07:10:55

# Below is generated by plot.py at 2017-09-08 10:39:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.60 Mbit/s
95th percentile per-packet one-way delay: 51.679 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 51.646 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 51.637 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.27 Mbit/s
95th percentile per-packet one-way delay: 51.938 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



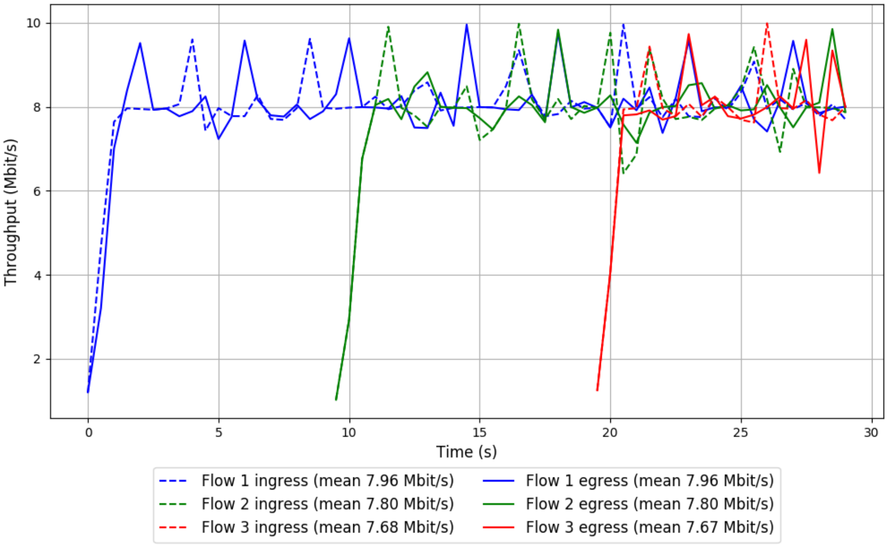


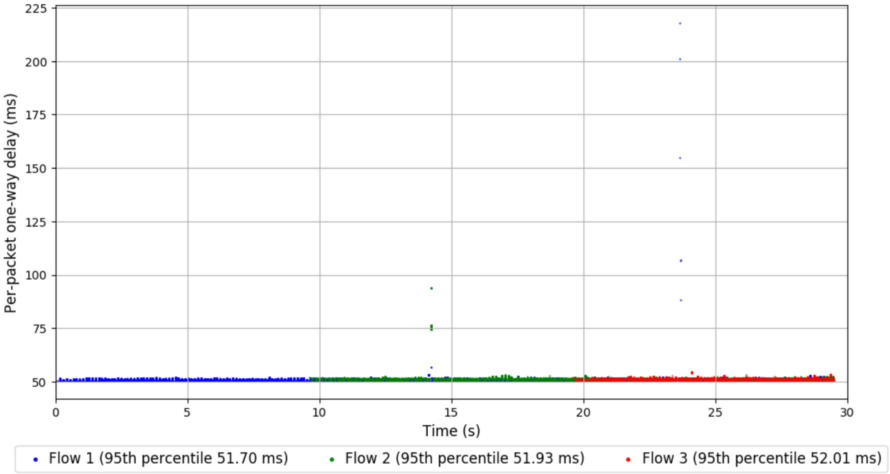
```
Run 6: Statistics of Sprout

Start at: 2017-09-08 07:22:44
End at: 2017-09-08 07:23:14

# Below is generated by plot.py at 2017-09-08 10:39:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.78 Mbit/s
95th percentile per-packet one-way delay: 51.811 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 51.696 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 51.926 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 52.010 ms
Loss rate: 0.09%
```

Run 6: Report of Sprout — Data Link



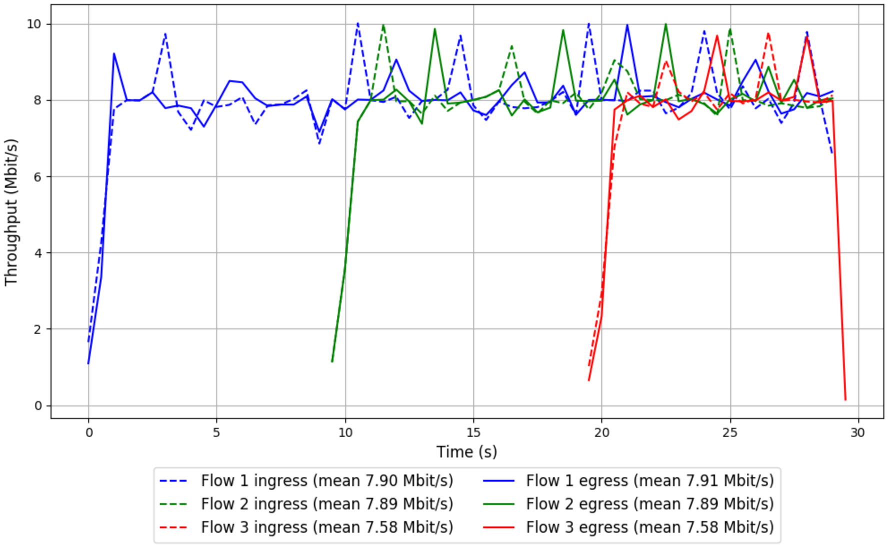


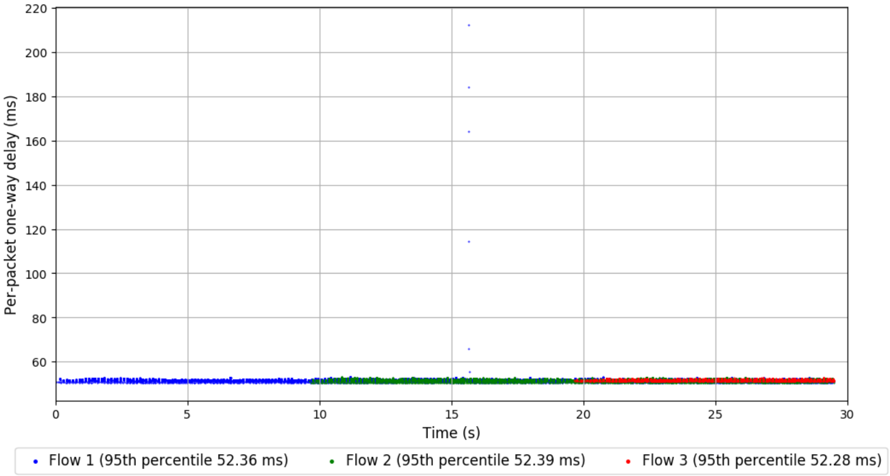
```
Run 7: Statistics of Sprout

Start at: 2017-09-08 07:34:59
End at: 2017-09-08 07:35:29

# Below is generated by plot.py at 2017-09-08 10:40:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.76 Mbit/s
95th percentile per-packet one-way delay: 52.357 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 52.362 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 52.393 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 52.277 ms
Loss rate: 0.00%
```

Run 7: Report of Sprout — Data Link



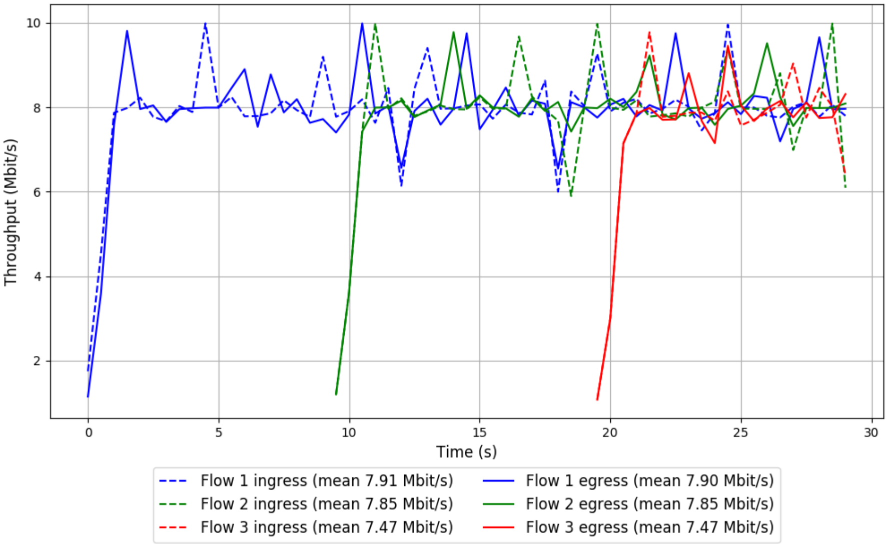


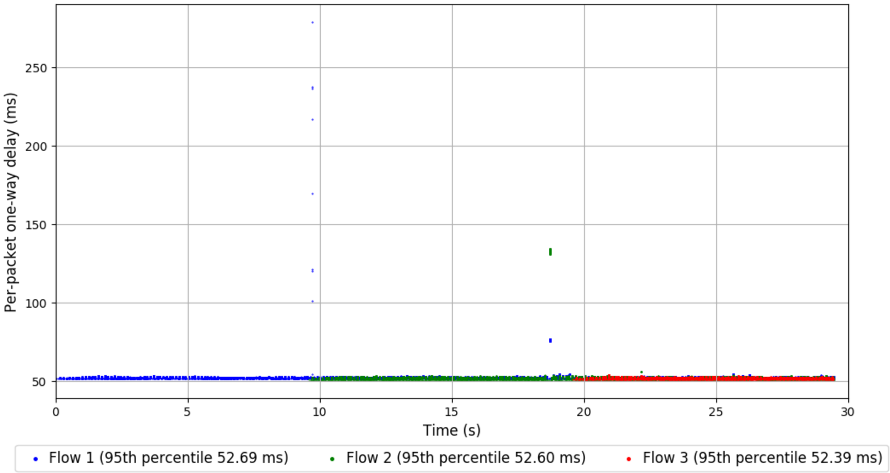
```
Run 8: Statistics of Sprout

Start at: 2017-09-08 07:47:09
End at: 2017-09-08 07:47:39

# Below is generated by plot.py at 2017-09-08 10:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.70 Mbit/s
95th percentile per-packet one-way delay: 52.617 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 52.686 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 52.602 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 52.393 ms
Loss rate: 0.00%
```

Run 8: Report of Sprout — Data Link



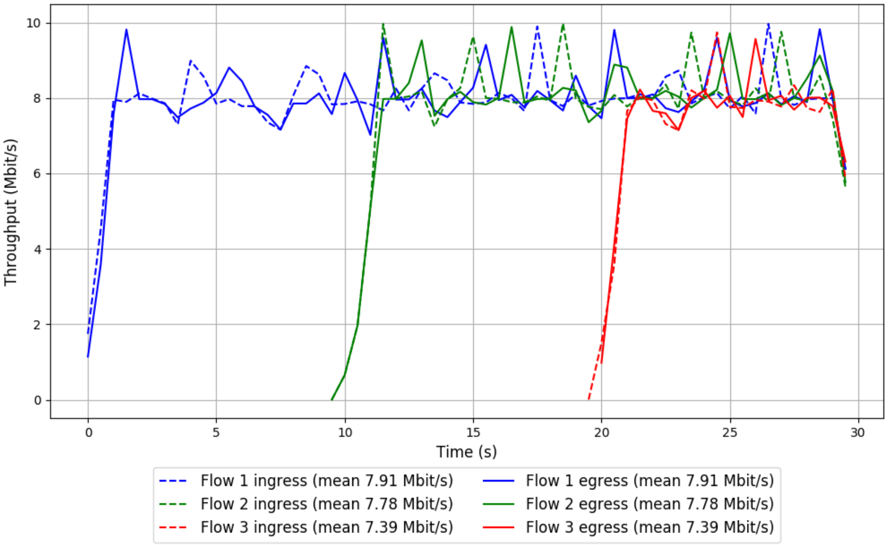


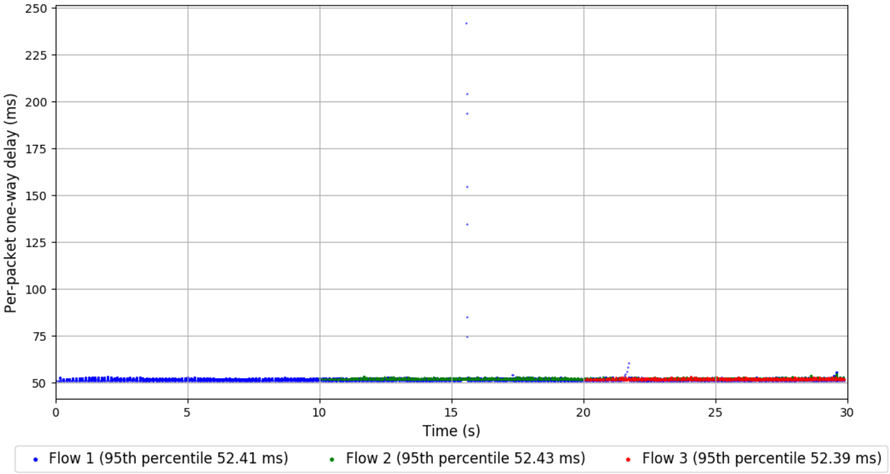
```
Run 9: Statistics of Sprout

Start at: 2017-09-08 07:59:22
End at: 2017-09-08 07:59:52

# Below is generated by plot.py at 2017-09-08 10:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.54 Mbit/s
95th percentile per-packet one-way delay: 52.410 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 52.408 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 52.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 52.394 ms
Loss rate: 0.00%
```

Run 9: Report of Sprout — Data Link



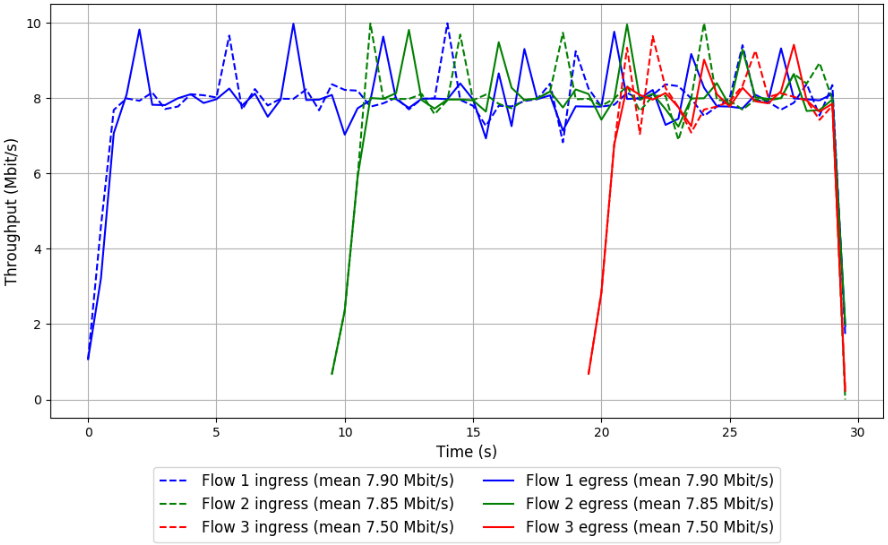


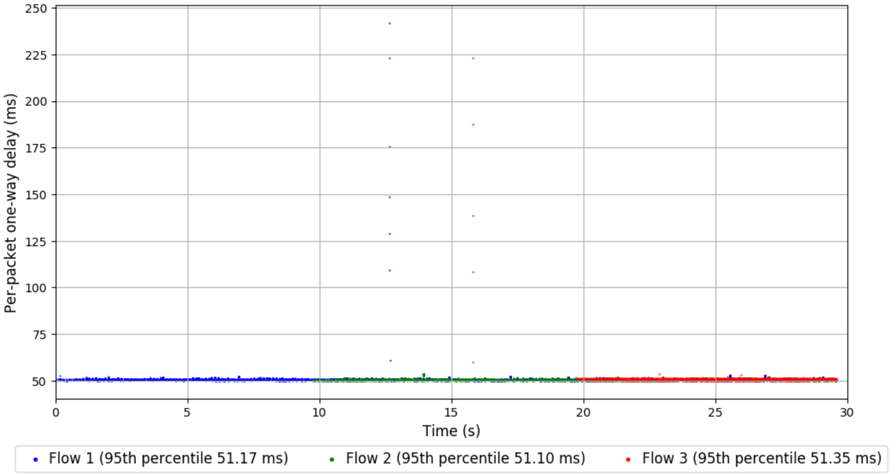
```
Run 10: Statistics of Sprout

Start at: 2017-09-08 08:11:31
End at: 2017-09-08 08:12:01

# Below is generated by plot.py at 2017-09-08 10:40:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 51.159 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 51.175 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 51.099 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 51.346 ms
Loss rate: 0.00%
```

Run 10: Report of Sprout — Data Link



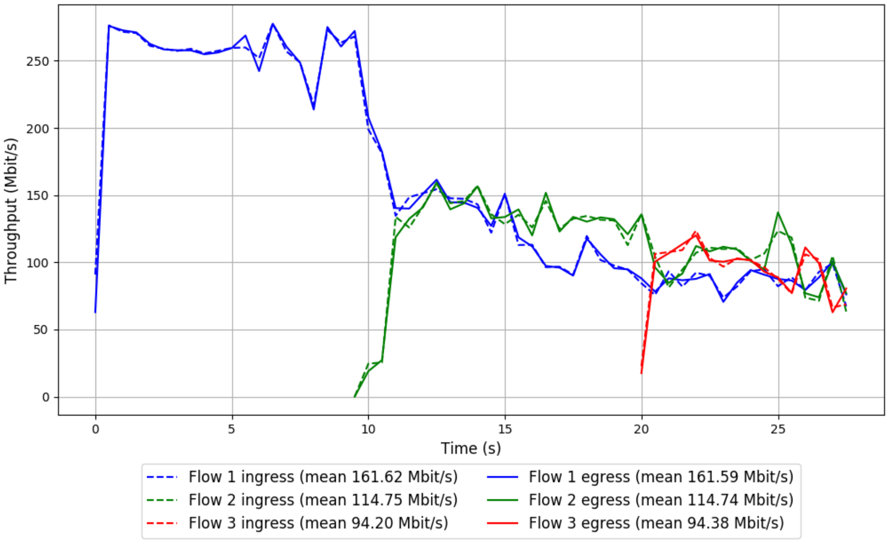


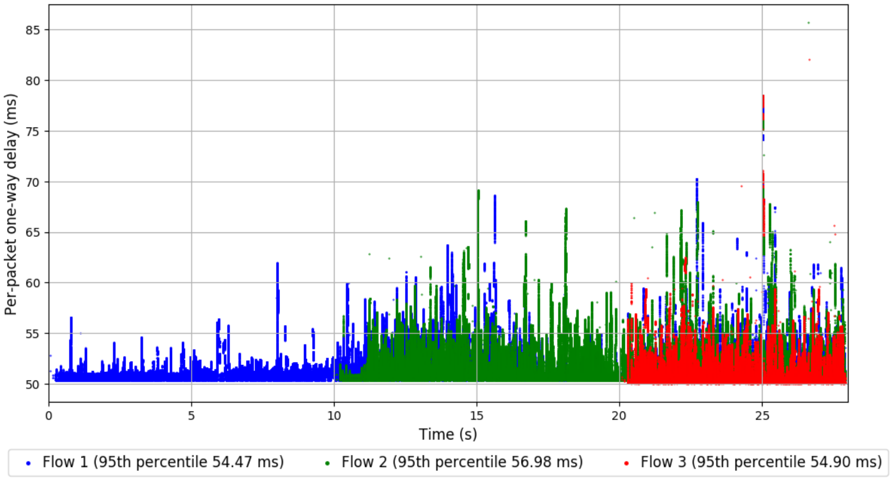
```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-08 06:23:04
End at: 2017-09-08 06:23:34

# Below is generated by plot.py at 2017-09-08 10:41:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.86 Mbit/s
95th percentile per-packet one-way delay: 55.329 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 161.59 Mbit/s
95th percentile per-packet one-way delay: 54.470 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 114.74 Mbit/s
95th percentile per-packet one-way delay: 56.980 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 94.38 Mbit/s
95th percentile per-packet one-way delay: 54.895 ms
Loss rate: 0.01%
```

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



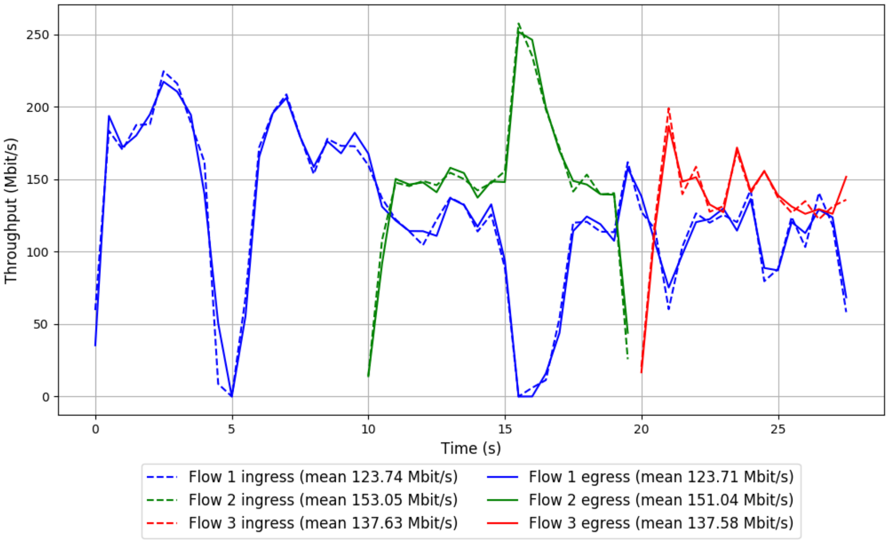


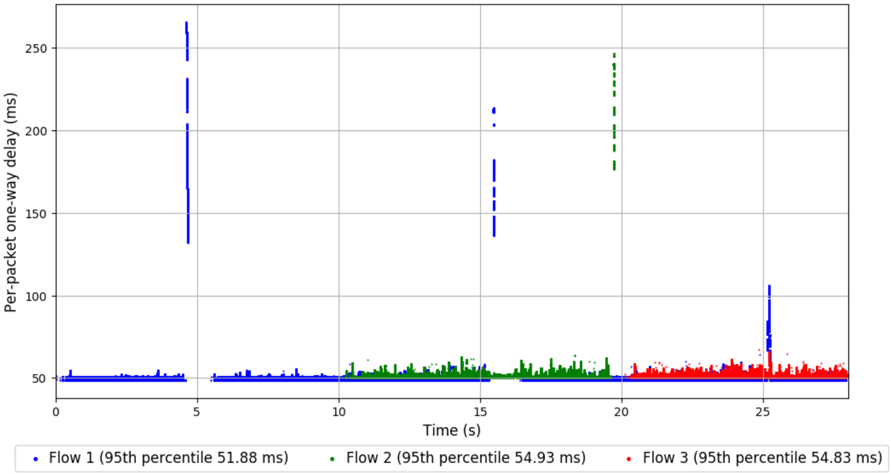
```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-08 06:34:52
End at: 2017-09-08 06:35:22

# Below is generated by plot.py at 2017-09-08 10:41:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 214.61 Mbit/s
95th percentile per-packet one-way delay: 53.829 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 123.71 Mbit/s
95th percentile per-packet one-way delay: 51.876 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 151.04 Mbit/s
95th percentile per-packet one-way delay: 54.930 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 137.58 Mbit/s
95th percentile per-packet one-way delay: 54.831 ms
Loss rate: 0.01%
```

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



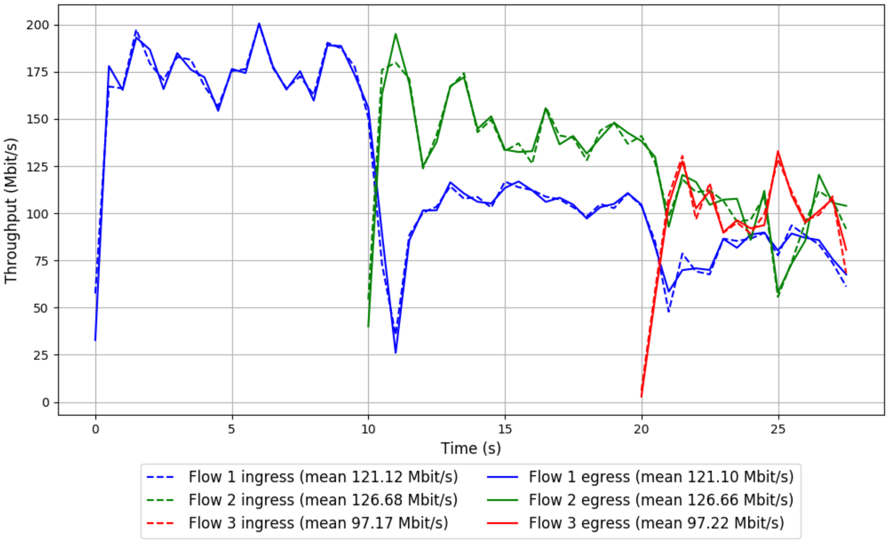


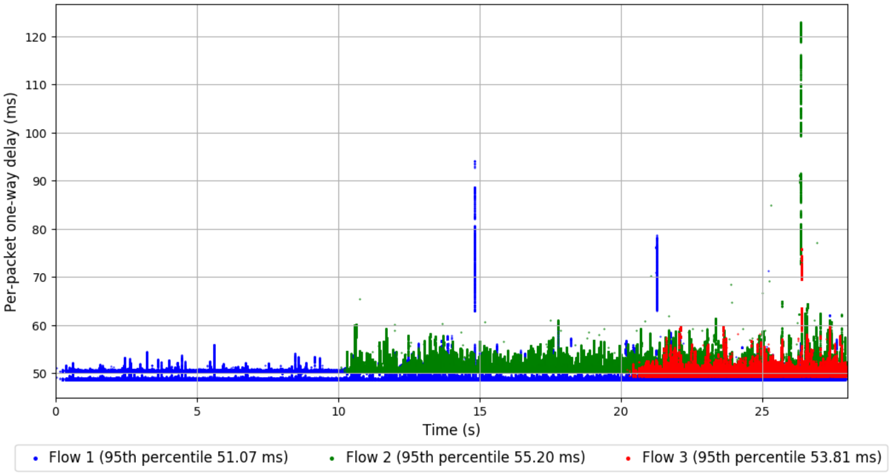
```
Run 3: Statistics of TaoVA-100x

Start at: 2017-09-08 06:46:39
End at: 2017-09-08 06:47:09

# Below is generated by plot.py at 2017-09-08 10:42:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 229.06 Mbit/s
95th percentile per-packet one-way delay: 53.733 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 121.10 Mbit/s
95th percentile per-packet one-way delay: 51.071 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 126.66 Mbit/s
95th percentile per-packet one-way delay: 55.199 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 53.808 ms
Loss rate: 0.01%
```

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



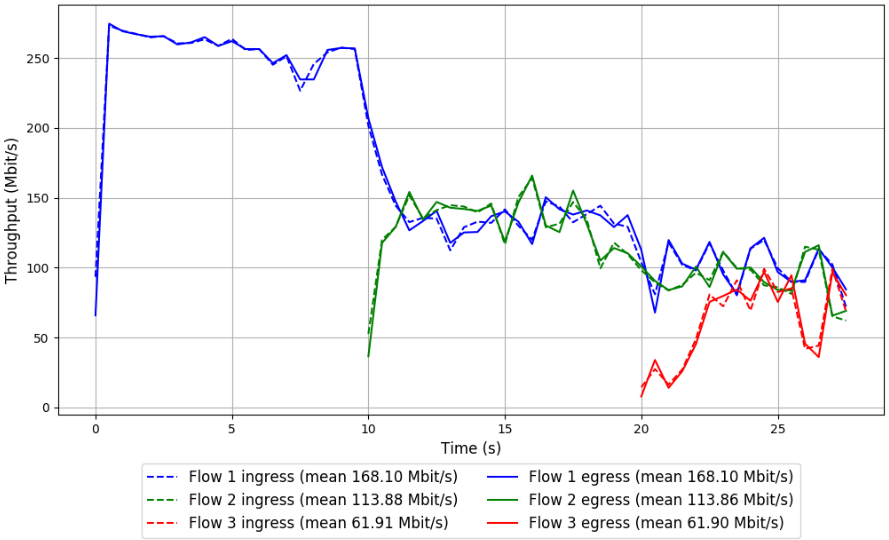


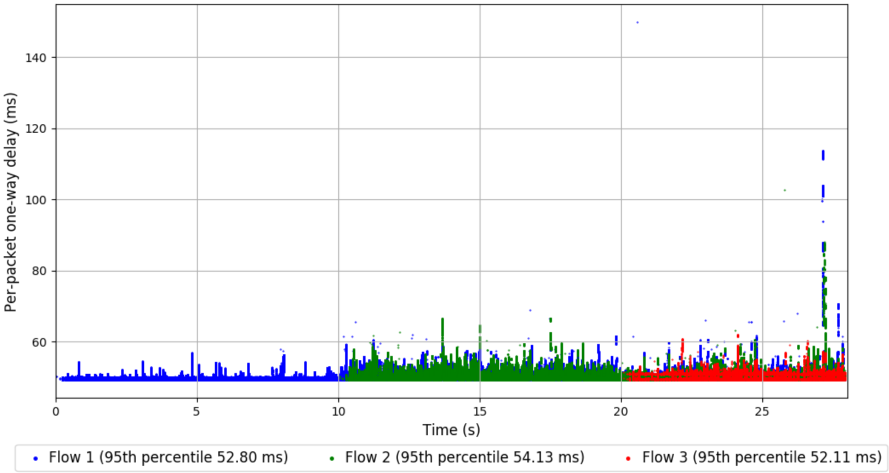
```
Run 4: Statistics of TaoVA-100x

Start at: 2017-09-08 06:58:41
End at: 2017-09-08 06:59:12

# Below is generated by plot.py at 2017-09-08 10:42:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.40 Mbit/s
95th percentile per-packet one-way delay: 53.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 168.10 Mbit/s
95th percentile per-packet one-way delay: 52.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 113.86 Mbit/s
95th percentile per-packet one-way delay: 54.127 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 61.90 Mbit/s
95th percentile per-packet one-way delay: 52.110 ms
Loss rate: 0.01%
```

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



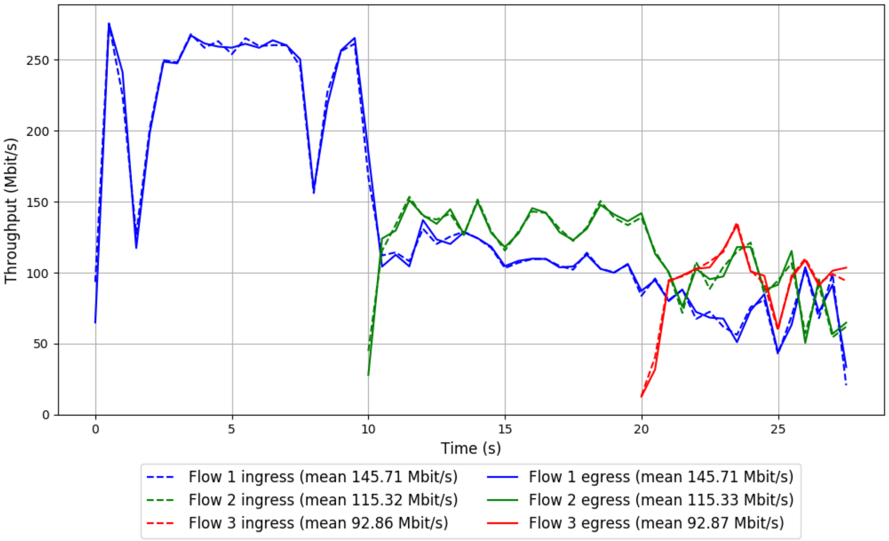


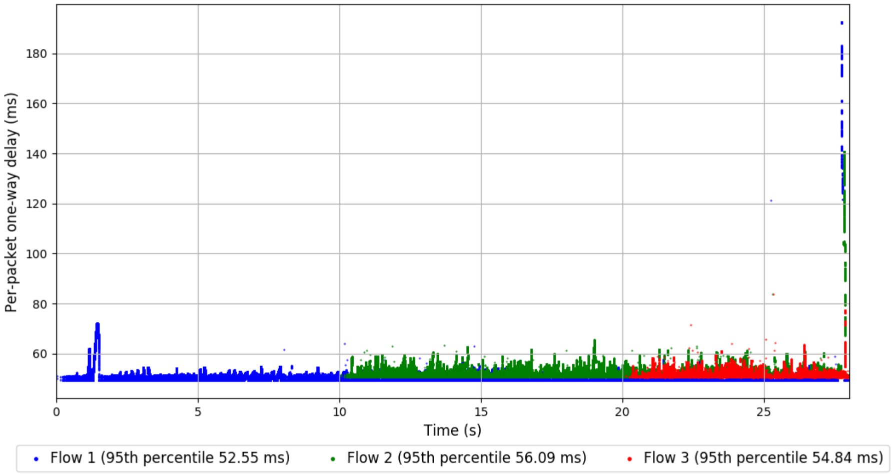
```
Run 5: Statistics of TaoVA-100x

Start at: 2017-09-08 07:11:05
End at: 2017-09-08 07:11:35

# Below is generated by plot.py at 2017-09-08 10:44:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.65 Mbit/s
95th percentile per-packet one-way delay: 54.326 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 145.71 Mbit/s
95th percentile per-packet one-way delay: 52.547 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 115.33 Mbit/s
95th percentile per-packet one-way delay: 56.089 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.87 Mbit/s
95th percentile per-packet one-way delay: 54.842 ms
Loss rate: 0.00%
```

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



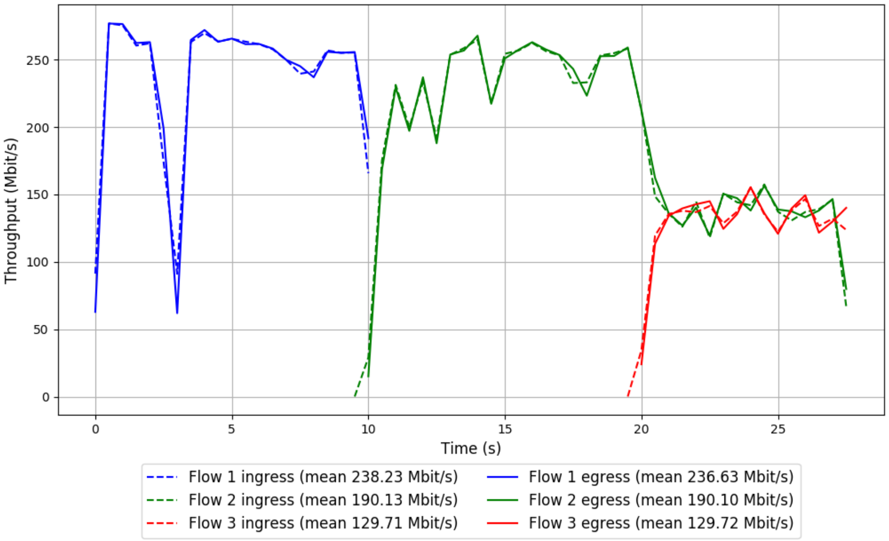


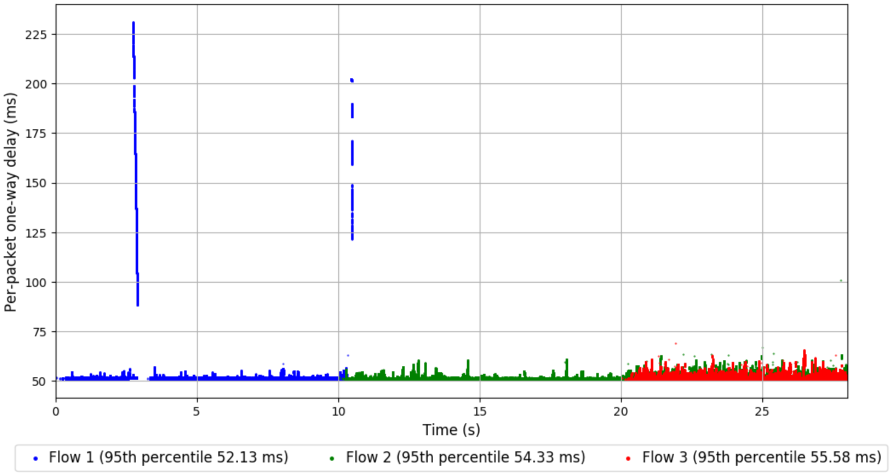
```
Run 6: Statistics of TaoVA-100x

Start at: 2017-09-08 07:23:24
End at: 2017-09-08 07:23:54

# Below is generated by plot.py at 2017-09-08 10:44:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.28 Mbit/s
95th percentile per-packet one-way delay: 54.269 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.63 Mbit/s
95th percentile per-packet one-way delay: 52.134 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 190.10 Mbit/s
95th percentile per-packet one-way delay: 54.329 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 129.72 Mbit/s
95th percentile per-packet one-way delay: 55.576 ms
Loss rate: 0.00%
```

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



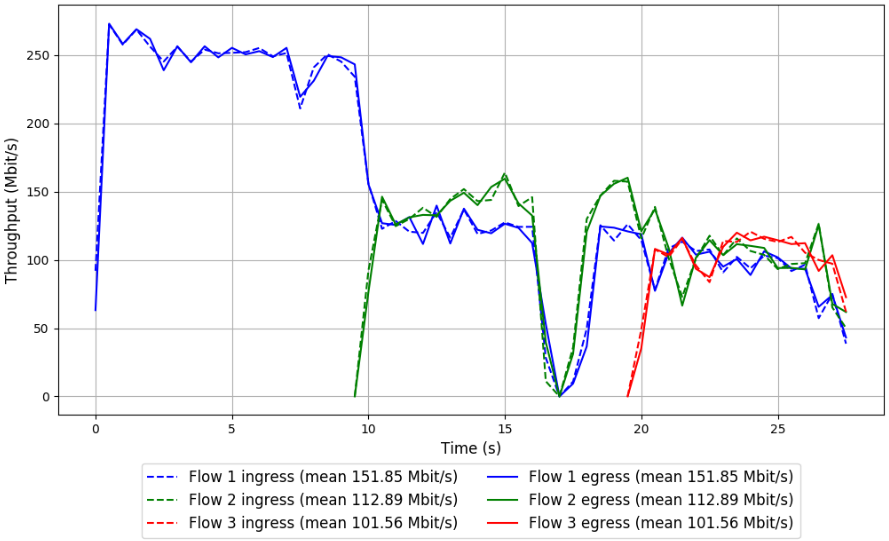


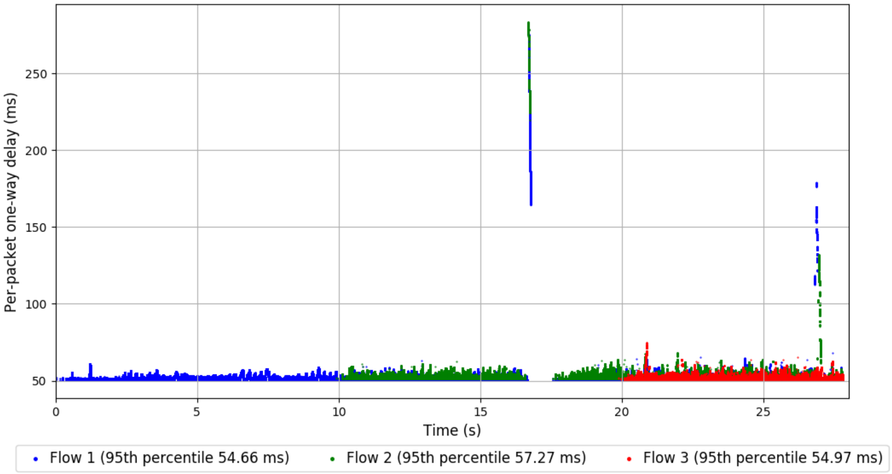
```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-08 07:35:40
End at: 2017-09-08 07:36:10

# Below is generated by plot.py at 2017-09-08 10:45:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.64 Mbit/s
95th percentile per-packet one-way delay: 55.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 151.85 Mbit/s
95th percentile per-packet one-way delay: 54.659 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.89 Mbit/s
95th percentile per-packet one-way delay: 57.265 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 101.56 Mbit/s
95th percentile per-packet one-way delay: 54.968 ms
Loss rate: 0.00%
```

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



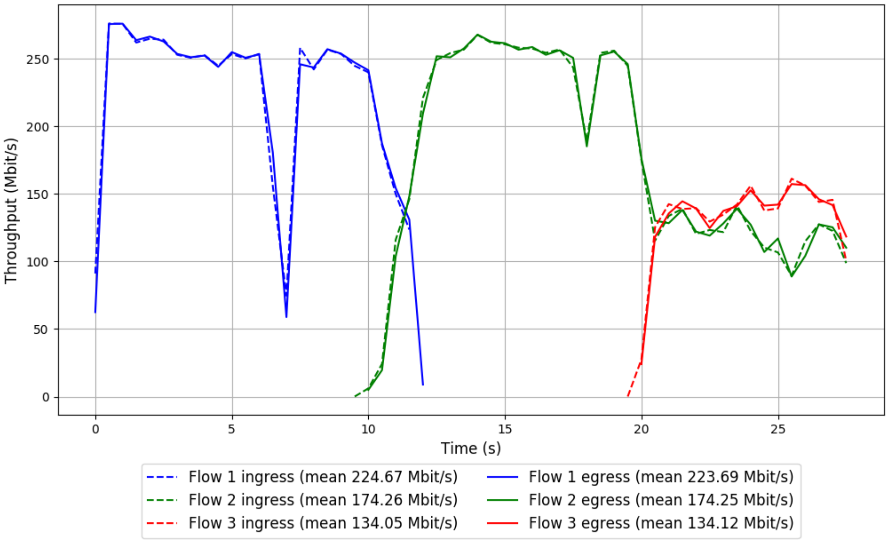


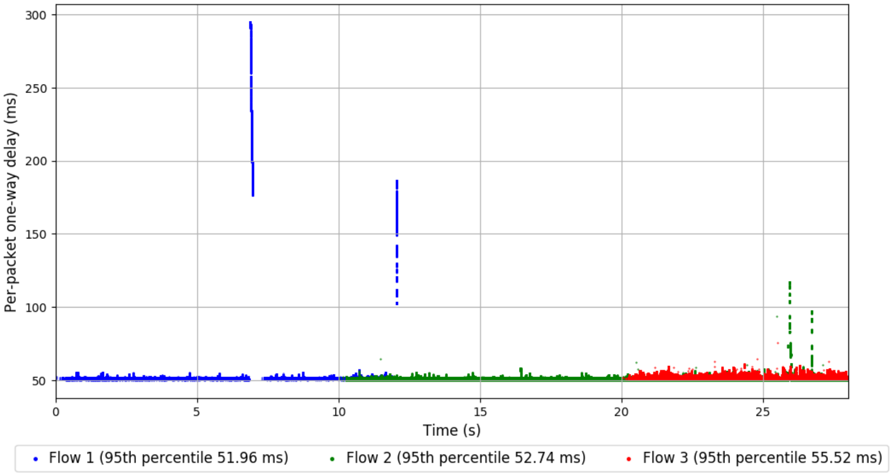
```
Run 8: Statistics of TaoVA-100x

Start at: 2017-09-08 07:47:50
End at: 2017-09-08 07:48:20

# Below is generated by plot.py at 2017-09-08 10:45:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.13 Mbit/s
95th percentile per-packet one-way delay: 53.451 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.69 Mbit/s
95th percentile per-packet one-way delay: 51.962 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 174.25 Mbit/s
95th percentile per-packet one-way delay: 52.736 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 134.12 Mbit/s
95th percentile per-packet one-way delay: 55.519 ms
Loss rate: 0.00%
```

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



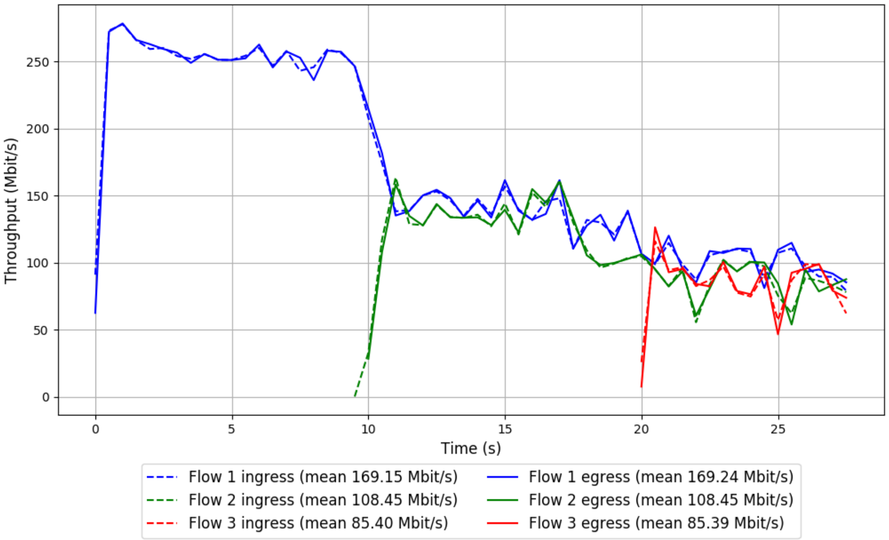


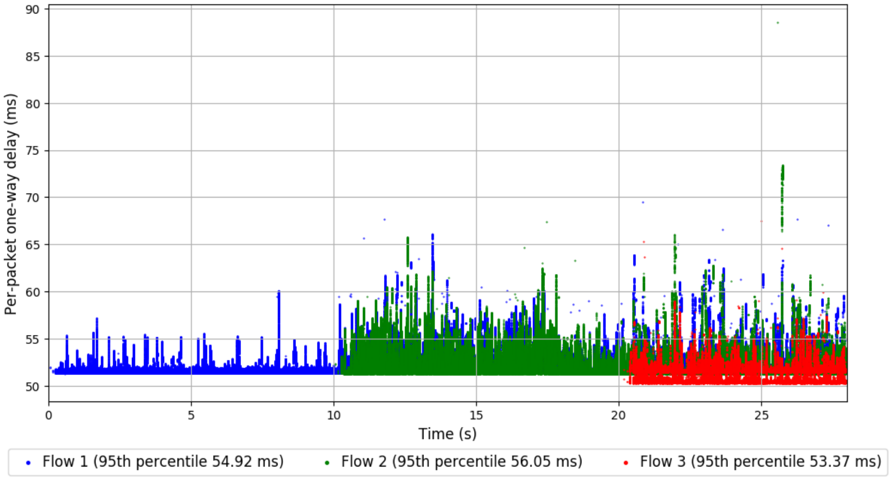
```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-08 08:00:02
End at: 2017-09-08 08:00:32

# Below is generated by plot.py at 2017-09-08 10:46:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.51 Mbit/s
95th percentile per-packet one-way delay: 55.194 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 169.24 Mbit/s
95th percentile per-packet one-way delay: 54.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 108.45 Mbit/s
95th percentile per-packet one-way delay: 56.055 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 85.39 Mbit/s
95th percentile per-packet one-way delay: 53.368 ms
Loss rate: 0.00%
```

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



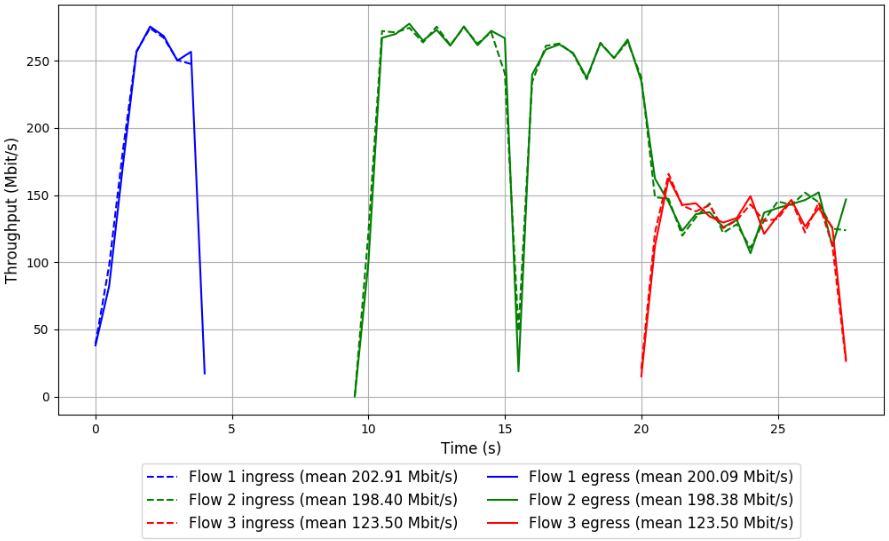


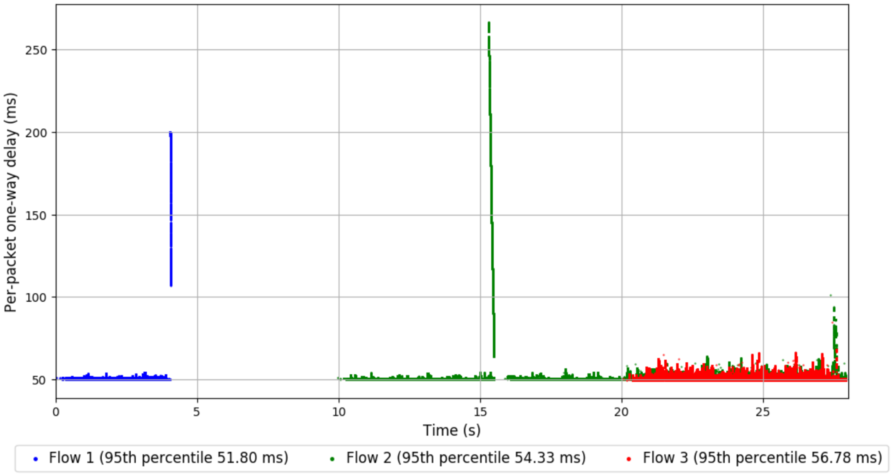
```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-08 08:12:11
End at: 2017-09-08 08:12:41

# Below is generated by plot.py at 2017-09-08 10:46:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 191.56 Mbit/s
95th percentile per-packet one-way delay: 54.954 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 200.09 Mbit/s
95th percentile per-packet one-way delay: 51.796 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 198.38 Mbit/s
95th percentile per-packet one-way delay: 54.331 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 123.50 Mbit/s
95th percentile per-packet one-way delay: 56.777 ms
Loss rate: 0.00%
```

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



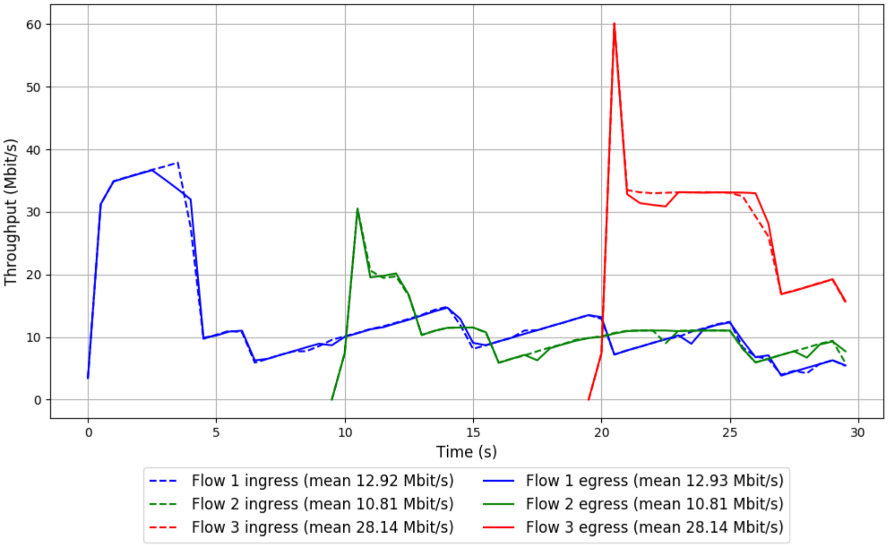


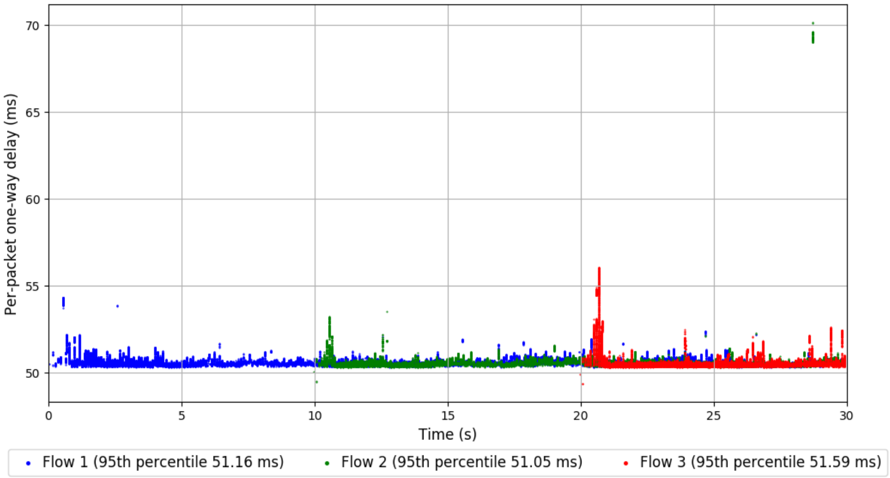
```
Run 1: Statistics of TCP Vegas

Start at: 2017-09-08 06:25:00
End at: 2017-09-08 06:25:30

# Below is generated by plot.py at 2017-09-08 10:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.49 Mbit/s
95th percentile per-packet one-way delay: 51.215 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 51.163 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 51.048 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 28.14 Mbit/s
95th percentile per-packet one-way delay: 51.586 ms
Loss rate: 0.01%
```

Run 1: Report of TCP Vegas — Data Link



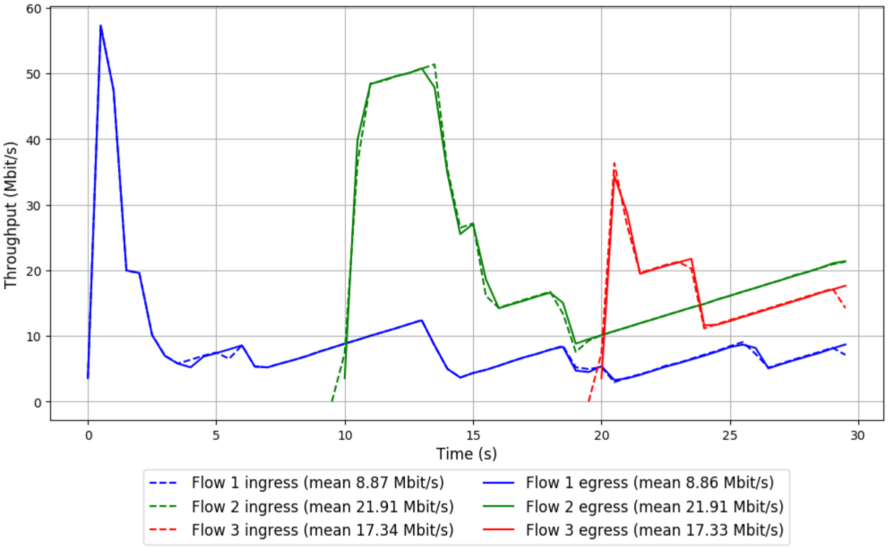


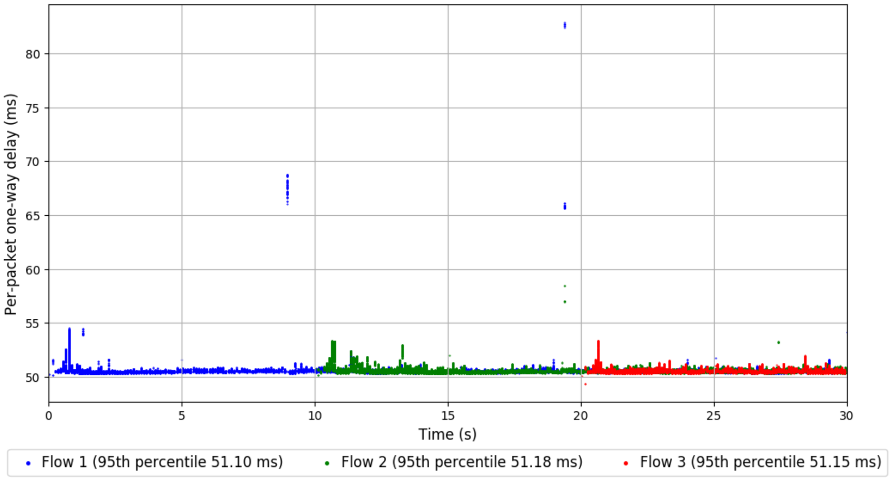
```
Run 2: Statistics of TCP Vegas

Start at: 2017-09-08 06:36:39
End at: 2017-09-08 06:37:09

# Below is generated by plot.py at 2017-09-08 10:47:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.17 Mbit/s
95th percentile per-packet one-way delay: 51.155 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 51.096 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 21.91 Mbit/s
95th percentile per-packet one-way delay: 51.180 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 17.33 Mbit/s
95th percentile per-packet one-way delay: 51.152 ms
Loss rate: 0.01%
```

Run 2: Report of TCP Vegas — Data Link



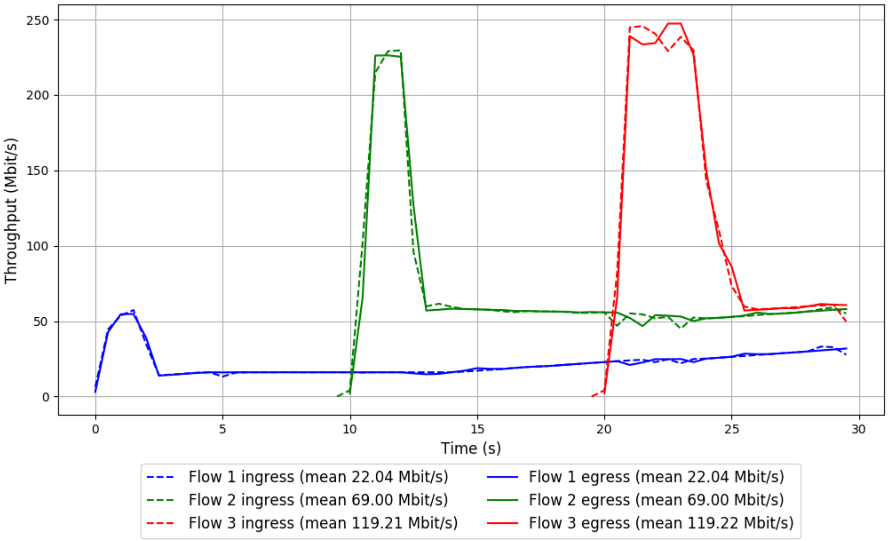


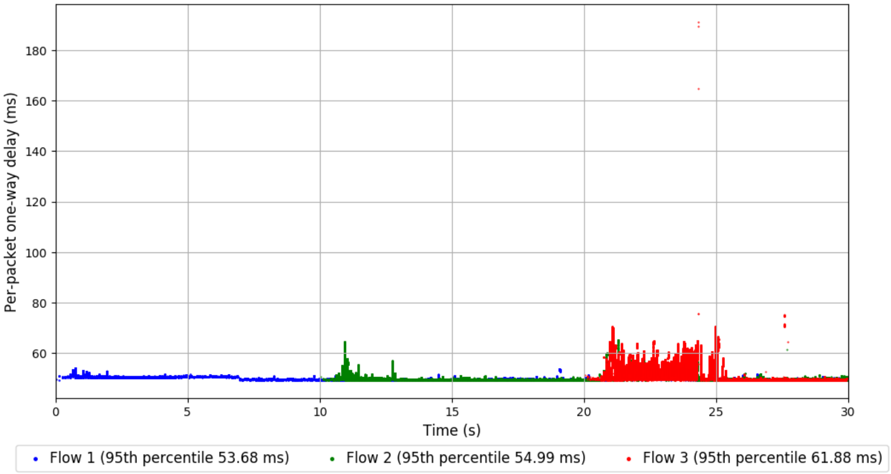
```
Run 3: Statistics of TCP Vegas

Start at: 2017-09-08 06:48:27
End at: 2017-09-08 06:48:57

# Below is generated by plot.py at 2017-09-08 10:47:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.56 Mbit/s
95th percentile per-packet one-way delay: 59.229 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 53.683 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 69.00 Mbit/s
95th percentile per-packet one-way delay: 54.987 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 119.22 Mbit/s
95th percentile per-packet one-way delay: 61.879 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Vegas — Data Link



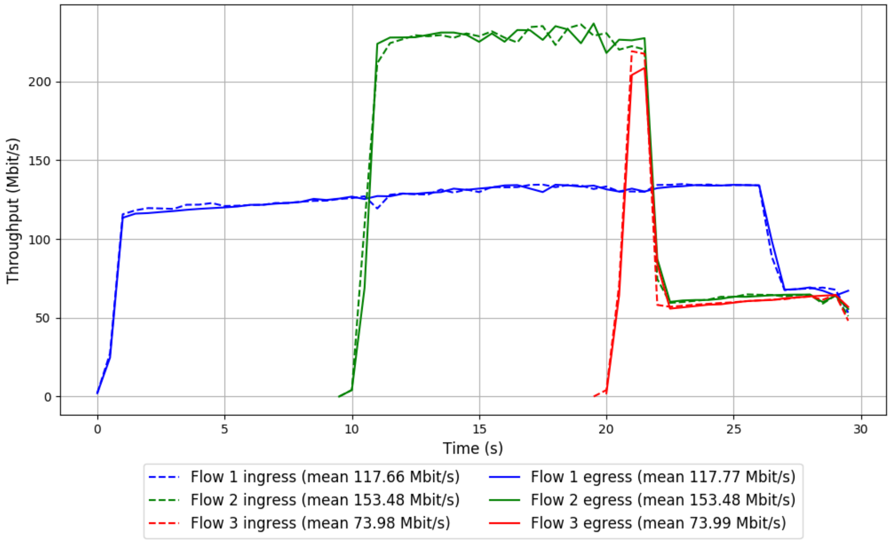


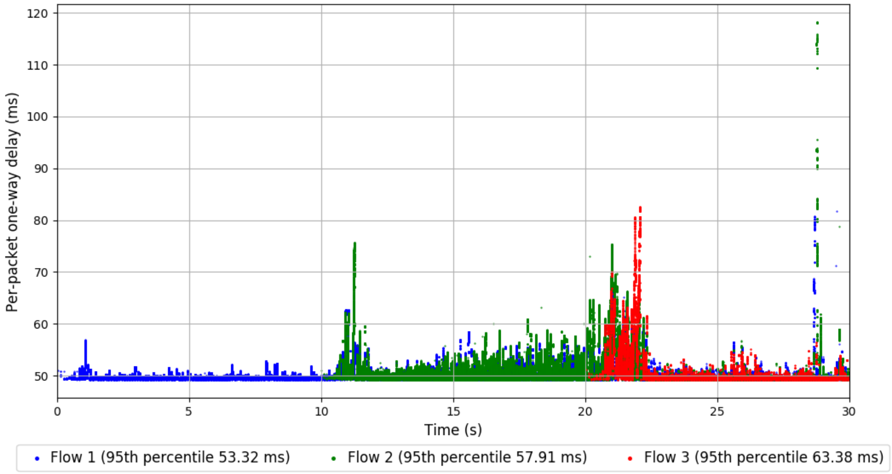
```
Run 4: Statistics of TCP Vegas

Start at: 2017-09-08 07:00:35
End at: 2017-09-08 07:01:05

# Below is generated by plot.py at 2017-09-08 10:47:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.69 Mbit/s
95th percentile per-packet one-way delay: 56.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 117.77 Mbit/s
95th percentile per-packet one-way delay: 53.322 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 153.48 Mbit/s
95th percentile per-packet one-way delay: 57.914 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.99 Mbit/s
95th percentile per-packet one-way delay: 63.385 ms
Loss rate: 0.01%
```

Run 4: Report of TCP Vegas — Data Link



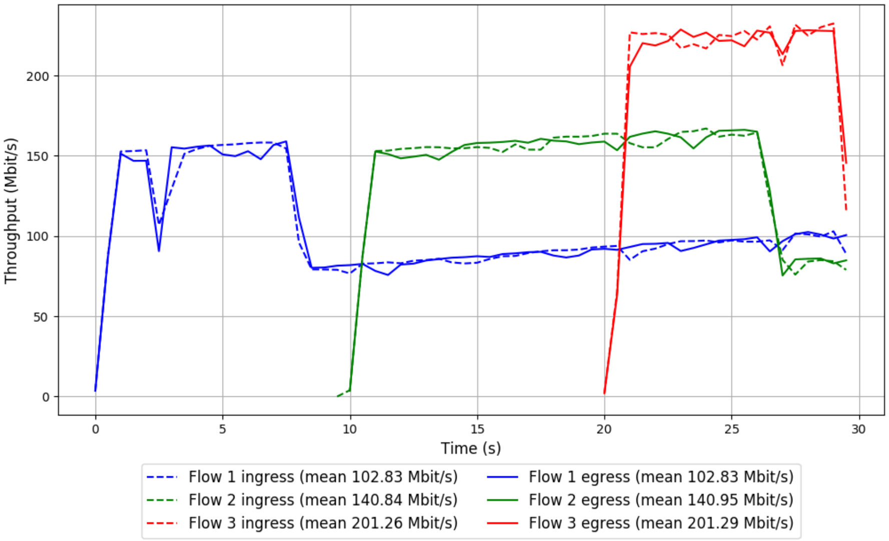


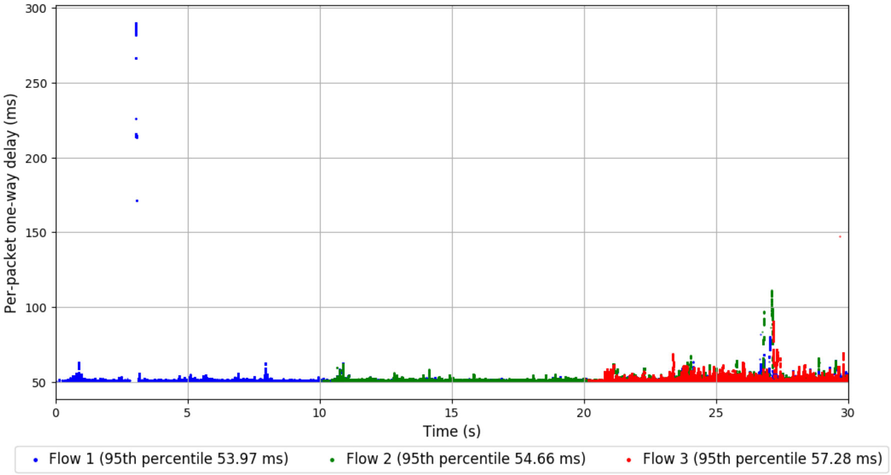
```
Run 5: Statistics of TCP Vegas

Start at: 2017-09-08 07:12:55
End at: 2017-09-08 07:13:25

# Below is generated by plot.py at 2017-09-08 10:48:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.50 Mbit/s
95th percentile per-packet one-way delay: 55.234 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.83 Mbit/s
95th percentile per-packet one-way delay: 53.972 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.95 Mbit/s
95th percentile per-packet one-way delay: 54.664 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 201.29 Mbit/s
95th percentile per-packet one-way delay: 57.282 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link



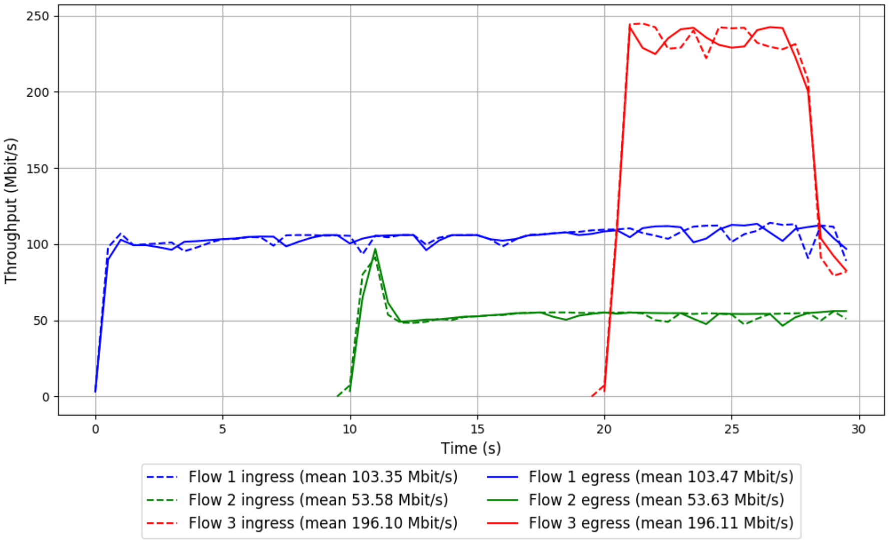


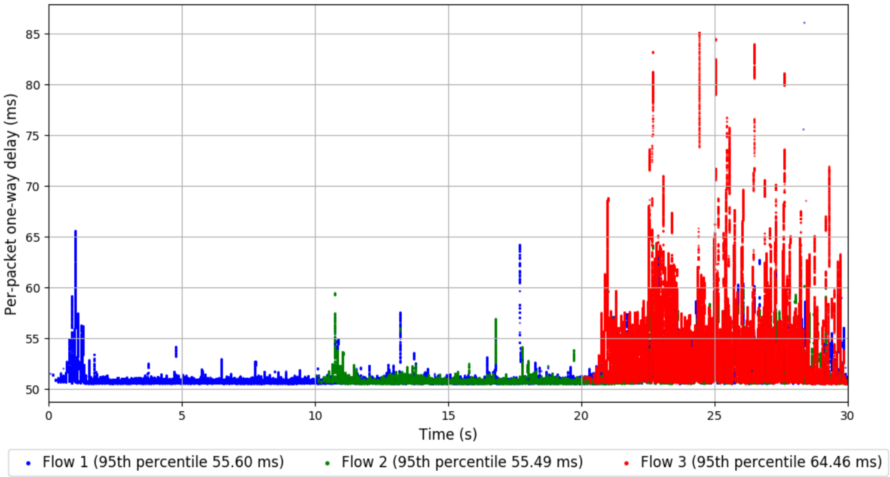
```
Run 6: Statistics of TCP Vegas

Start at: 2017-09-08 07:25:15
End at: 2017-09-08 07:25:45

# Below is generated by plot.py at 2017-09-08 10:48:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 204.01 Mbit/s
95th percentile per-packet one-way delay: 59.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.47 Mbit/s
95th percentile per-packet one-way delay: 55.599 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.63 Mbit/s
95th percentile per-packet one-way delay: 55.495 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 196.11 Mbit/s
95th percentile per-packet one-way delay: 64.457 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Vegas — Data Link



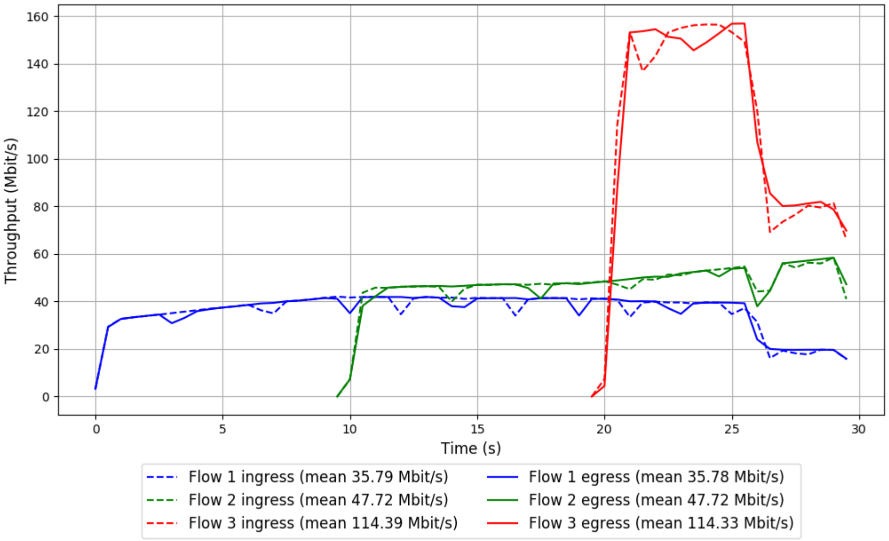


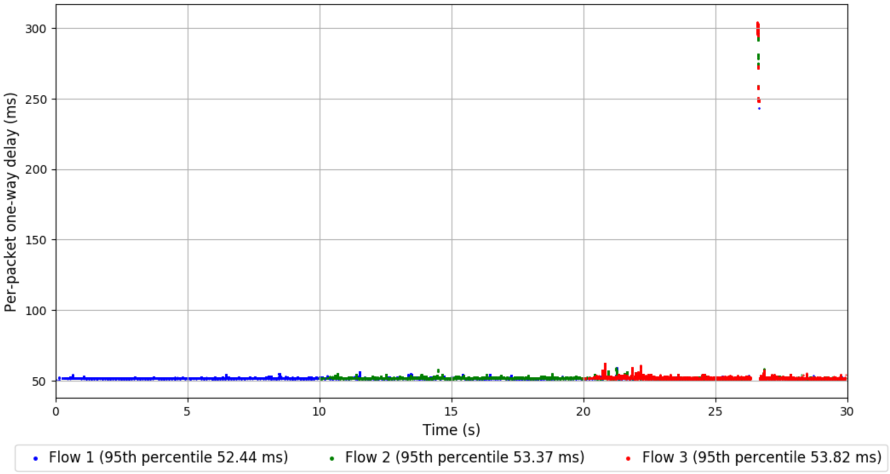
```
Run 7: Statistics of TCP Vegas

Start at: 2017-09-08 07:37:32
End at: 2017-09-08 07:38:02

# Below is generated by plot.py at 2017-09-08 10:48:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.69 Mbit/s
95th percentile per-packet one-way delay: 53.165 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 35.78 Mbit/s
95th percentile per-packet one-way delay: 52.440 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 47.72 Mbit/s
95th percentile per-packet one-way delay: 53.373 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 114.33 Mbit/s
95th percentile per-packet one-way delay: 53.817 ms
Loss rate: 0.03%
```

Run 7: Report of TCP Vegas — Data Link



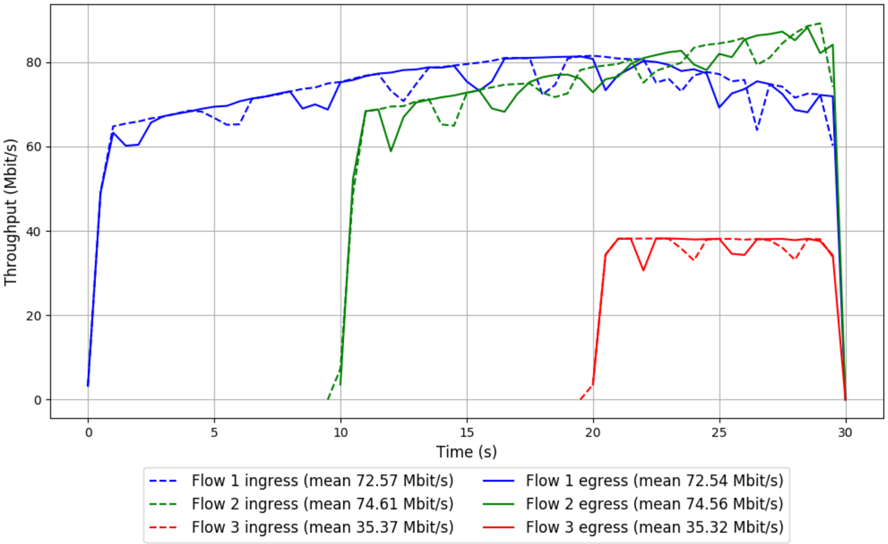


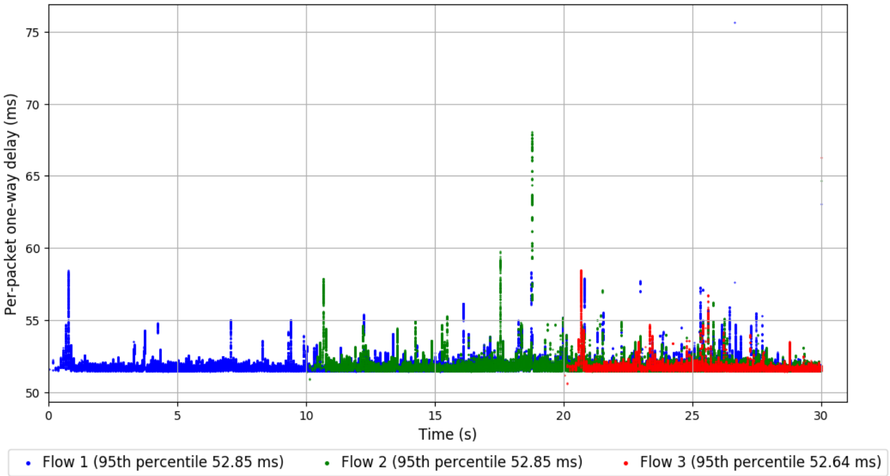
```
Run 8: Statistics of TCP Vegas

Start at: 2017-09-08 07:49:40
End at: 2017-09-08 07:50:10

# Below is generated by plot.py at 2017-09-08 10:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.00 Mbit/s
95th percentile per-packet one-way delay: 52.837 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 72.54 Mbit/s
95th percentile per-packet one-way delay: 52.848 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.56 Mbit/s
95th percentile per-packet one-way delay: 52.851 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 35.32 Mbit/s
95th percentile per-packet one-way delay: 52.642 ms
Loss rate: 0.03%
```

Run 8: Report of TCP Vegas — Data Link



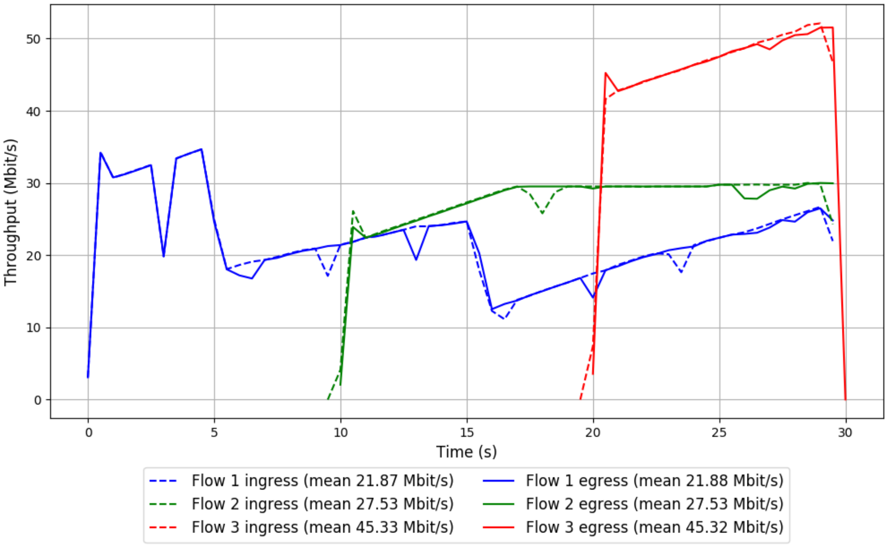


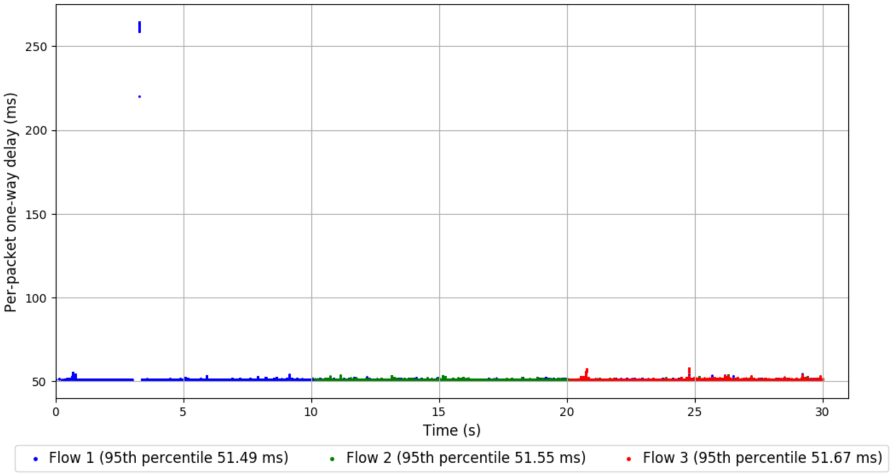
```
Run 9: Statistics of TCP Vegas

Start at: 2017-09-08 08:01:55
End at: 2017-09-08 08:02:25

# Below is generated by plot.py at 2017-09-08 10:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 51.556 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 21.88 Mbit/s
95th percentile per-packet one-way delay: 51.486 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 27.53 Mbit/s
95th percentile per-packet one-way delay: 51.552 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.32 Mbit/s
95th percentile per-packet one-way delay: 51.674 ms
Loss rate: 0.02%
```

Run 9: Report of TCP Vegas — Data Link



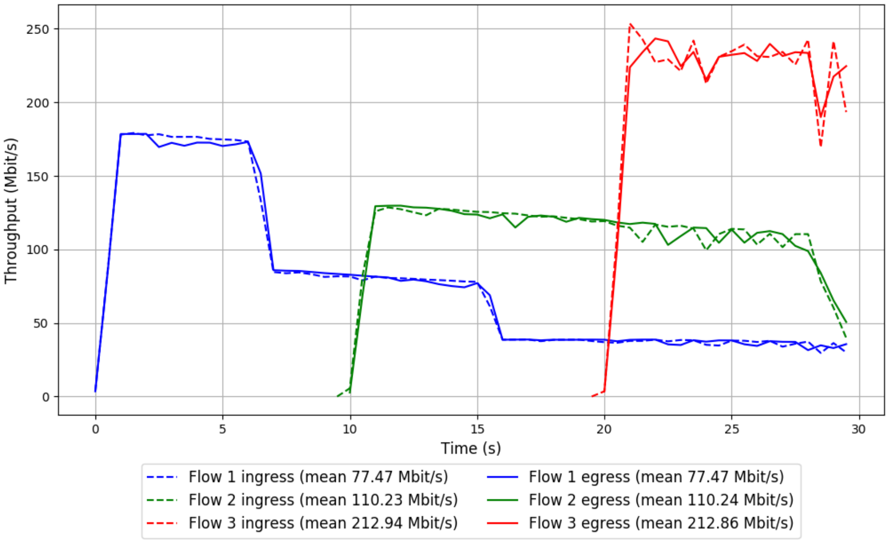


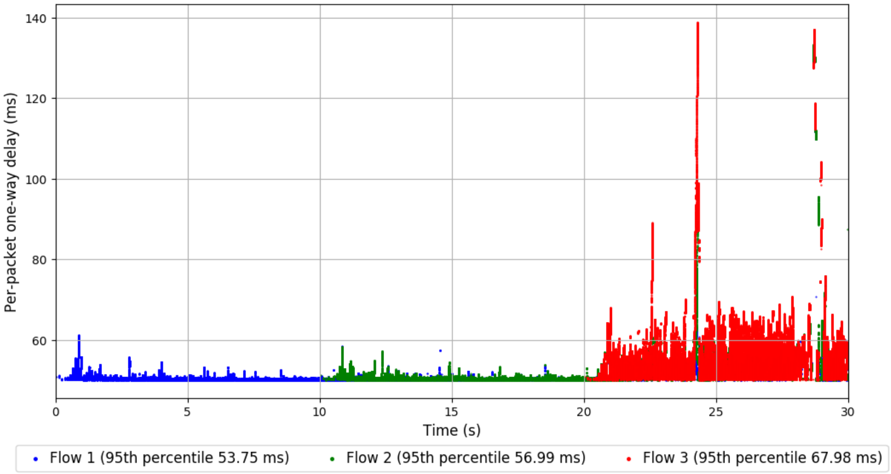
```
Run 10: Statistics of TCP Vegas

Start at: 2017-09-08 08:14:00
End at: 2017-09-08 08:14:30

# Below is generated by plot.py at 2017-09-08 10:49:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 221.26 Mbit/s
95th percentile per-packet one-way delay: 62.321 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.47 Mbit/s
95th percentile per-packet one-way delay: 53.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 110.24 Mbit/s
95th percentile per-packet one-way delay: 56.992 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 212.86 Mbit/s
95th percentile per-packet one-way delay: 67.979 ms
Loss rate: 0.00%
```

Run 10: Report of TCP Vegas — Data Link



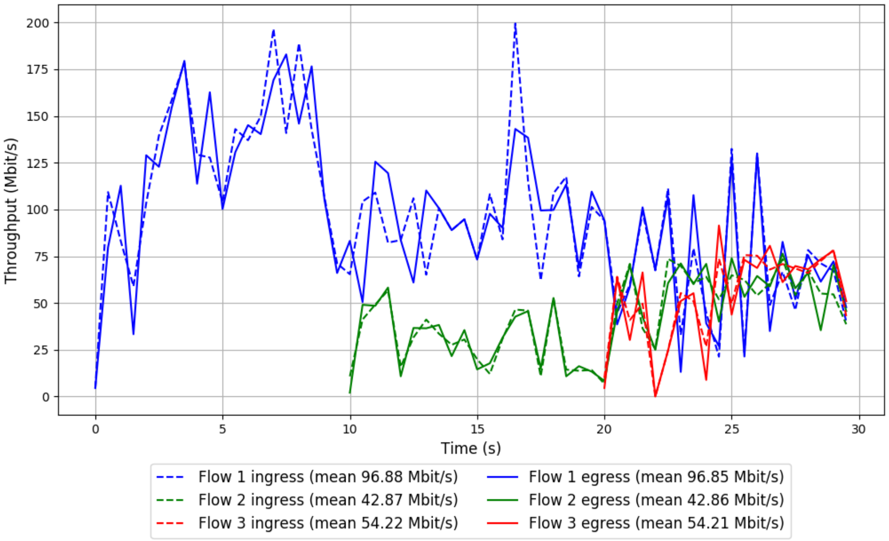


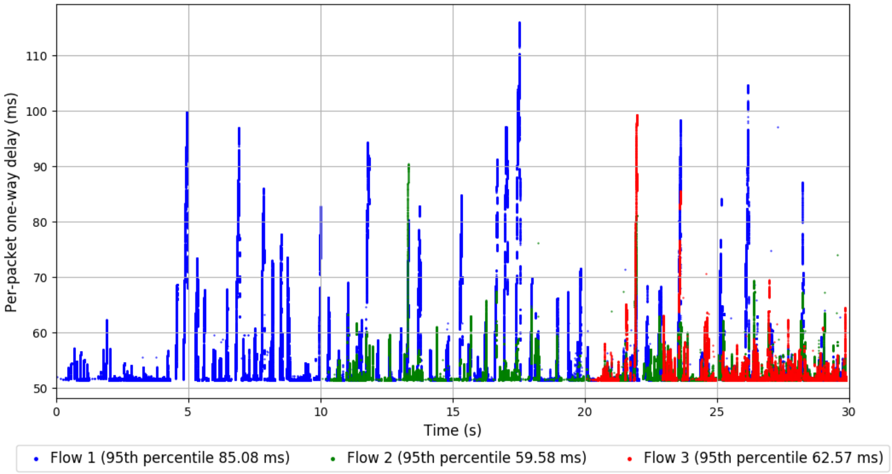
```
Run 1: Statistics of Verus

Start at: 2017-09-08 06:17:05
End at: 2017-09-08 06:17:35

# Below is generated by plot.py at 2017-09-08 10:49:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.80 Mbit/s
95th percentile per-packet one-way delay: 79.763 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 96.85 Mbit/s
95th percentile per-packet one-way delay: 85.080 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 42.86 Mbit/s
95th percentile per-packet one-way delay: 59.583 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 54.21 Mbit/s
95th percentile per-packet one-way delay: 62.566 ms
Loss rate: 0.01%
```

Run 1: Report of Verus — Data Link



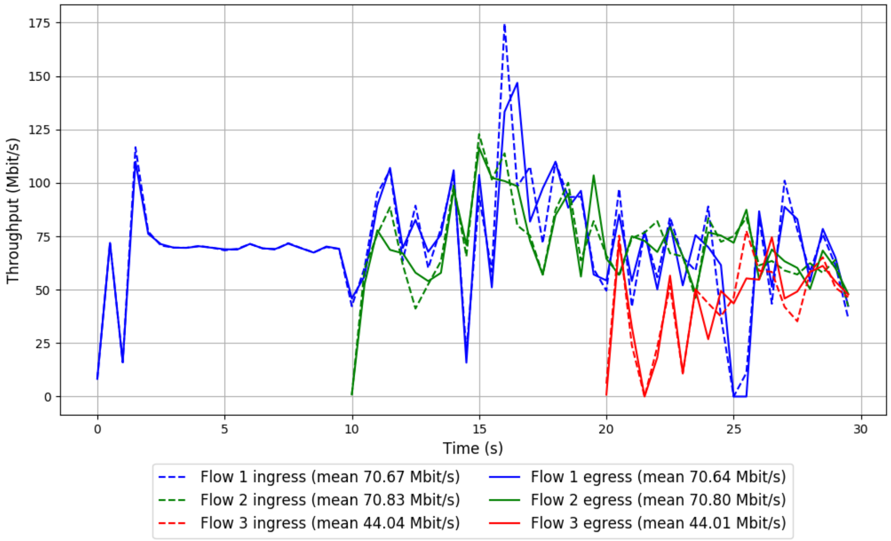


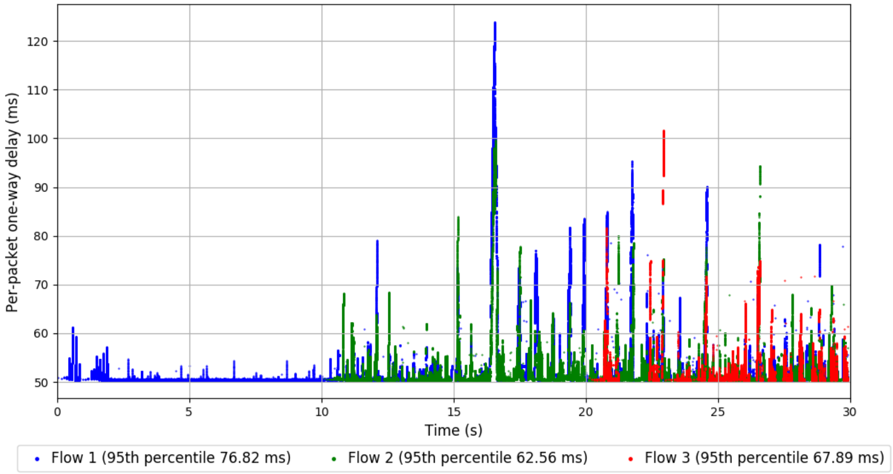
```
Run 2: Statistics of Verus

Start at: 2017-09-08 06:29:02
End at: 2017-09-08 06:29:32

# Below is generated by plot.py at 2017-09-08 10:49:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.06 Mbit/s
95th percentile per-packet one-way delay: 71.670 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 70.64 Mbit/s
95th percentile per-packet one-way delay: 76.823 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 70.80 Mbit/s
95th percentile per-packet one-way delay: 62.559 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 44.01 Mbit/s
95th percentile per-packet one-way delay: 67.894 ms
Loss rate: 0.01%
```

Run 2: Report of Verus — Data Link



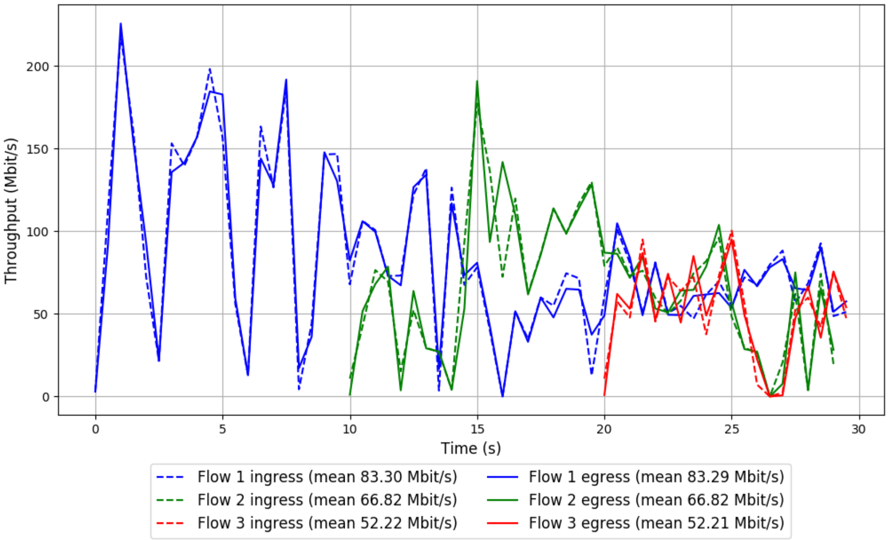


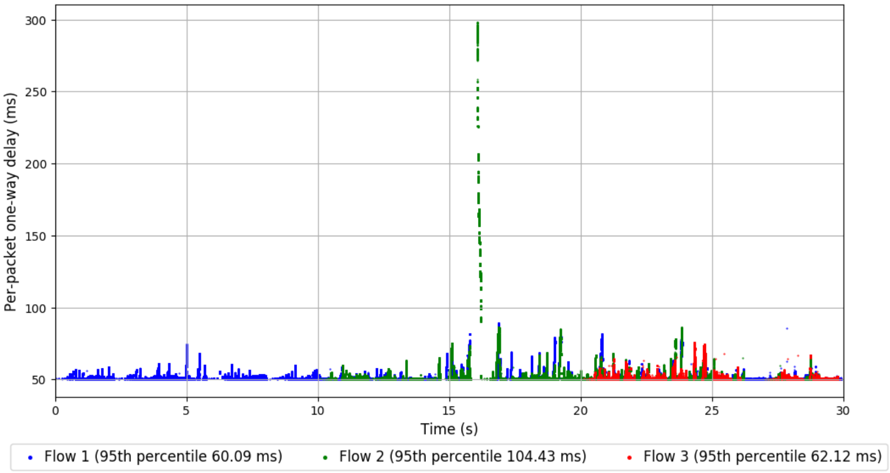
```
Run 3: Statistics of Verus

Start at: 2017-09-08 06:40:42
End at: 2017-09-08 06:41:12

# Below is generated by plot.py at 2017-09-08 10:50:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.15 Mbit/s
95th percentile per-packet one-way delay: 66.323 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 83.29 Mbit/s
95th percentile per-packet one-way delay: 60.087 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 66.82 Mbit/s
95th percentile per-packet one-way delay: 104.433 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 52.21 Mbit/s
95th percentile per-packet one-way delay: 62.121 ms
Loss rate: 0.01%
```

Run 3: Report of Verus — Data Link



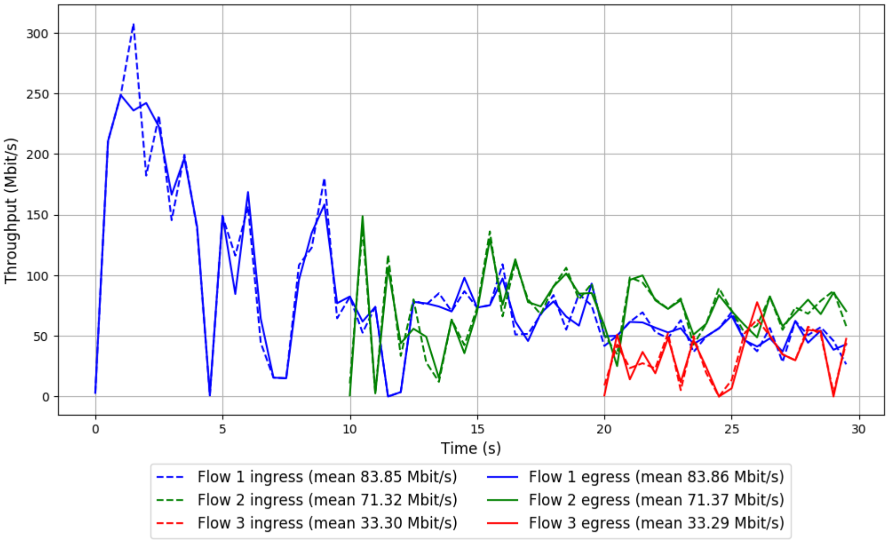


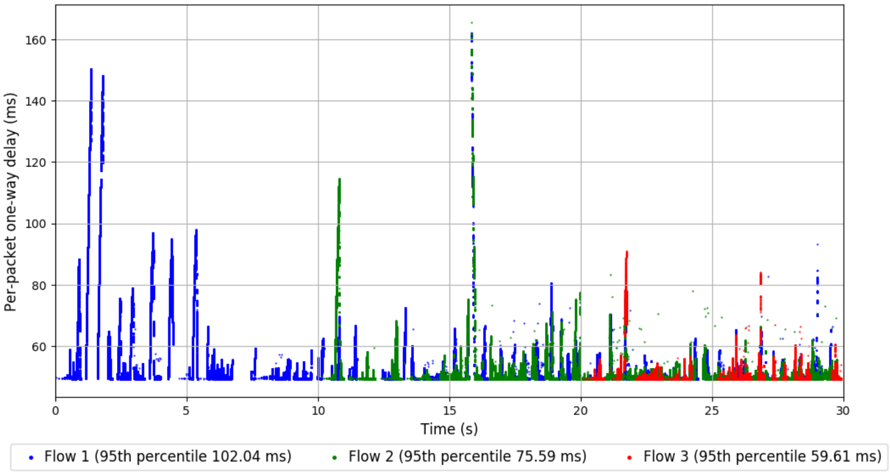
```
Run 4: Statistics of Verus

Start at: 2017-09-08 06:52:43
End at: 2017-09-08 06:53:13

# Below is generated by plot.py at 2017-09-08 10:50:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.72 Mbit/s
95th percentile per-packet one-way delay: 91.088 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.86 Mbit/s
95th percentile per-packet one-way delay: 102.038 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.37 Mbit/s
95th percentile per-packet one-way delay: 75.589 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.29 Mbit/s
95th percentile per-packet one-way delay: 59.607 ms
Loss rate: 0.00%
```

Run 4: Report of Verus — Data Link



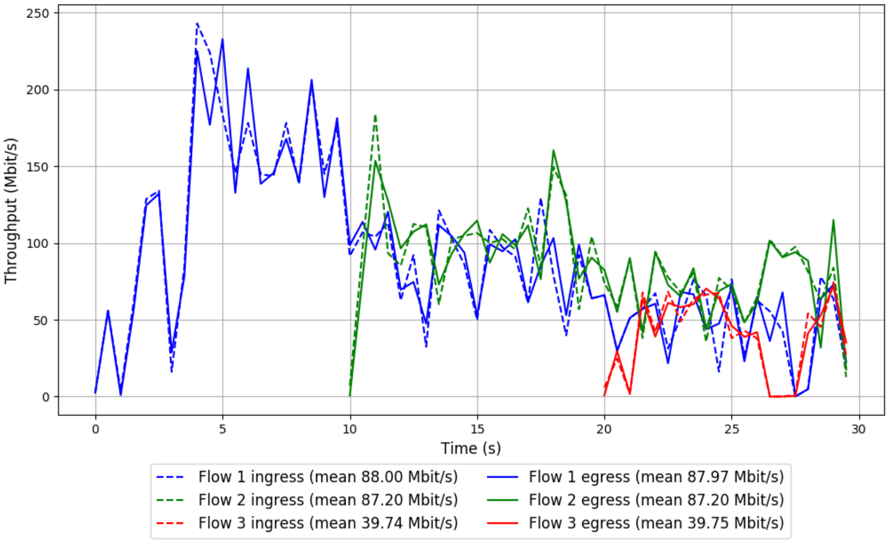


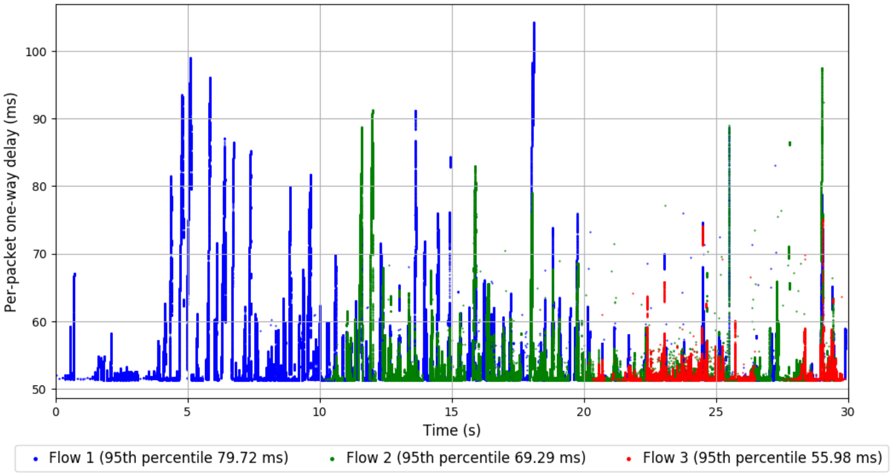
```
Run 5: Statistics of Verus

Start at: 2017-09-08 07:05:03
End at: 2017-09-08 07:05:33

# Below is generated by plot.py at 2017-09-08 10:50:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.19 Mbit/s
95th percentile per-packet one-way delay: 75.469 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 87.97 Mbit/s
95th percentile per-packet one-way delay: 79.715 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 87.20 Mbit/s
95th percentile per-packet one-way delay: 69.288 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 55.978 ms
Loss rate: 0.00%
```

Run 5: Report of Verus — Data Link



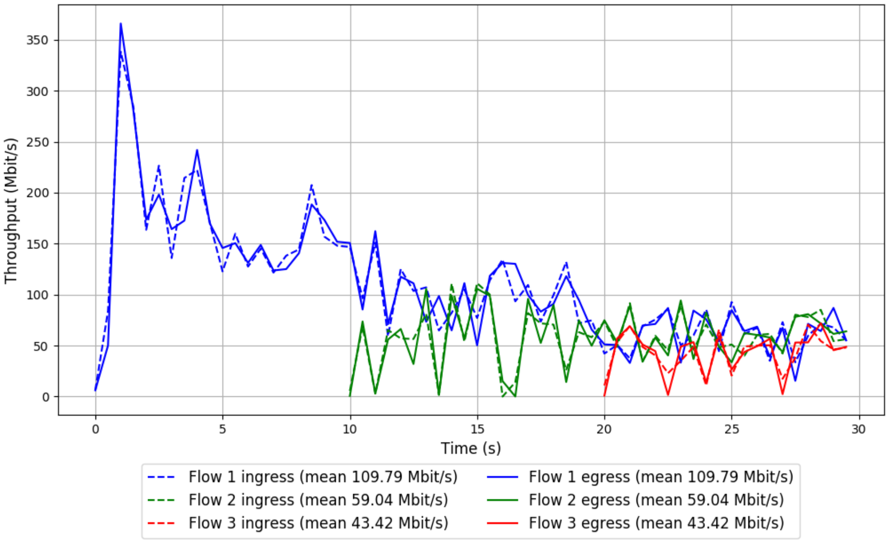


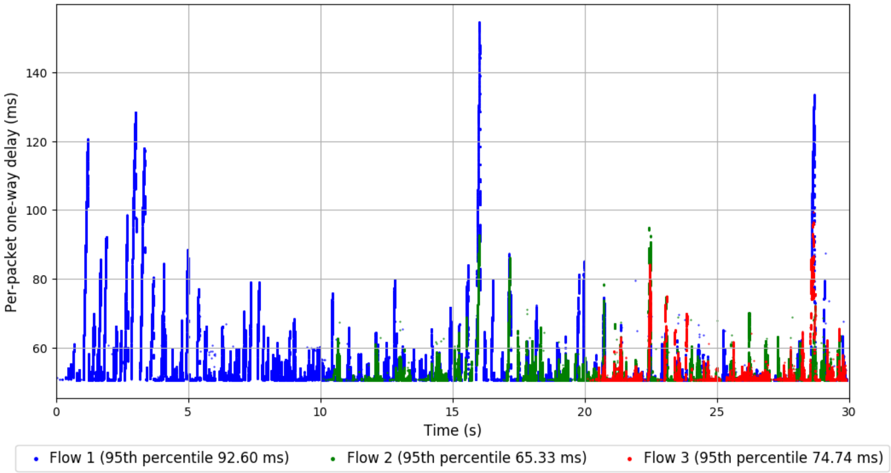
```
Run 6: Statistics of Verus

Start at: 2017-09-08 07:17:24
End at: 2017-09-08 07:17:54

# Below is generated by plot.py at 2017-09-08 10:50:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 162.82 Mbit/s
95th percentile per-packet one-way delay: 84.433 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 109.79 Mbit/s
95th percentile per-packet one-way delay: 92.597 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 65.327 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.42 Mbit/s
95th percentile per-packet one-way delay: 74.738 ms
Loss rate: 0.00%
```

Run 6: Report of Verus — Data Link



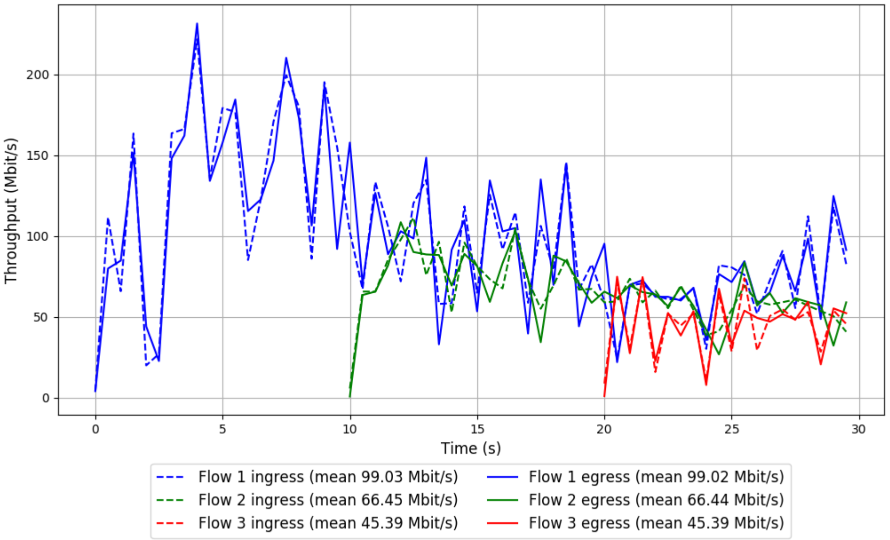


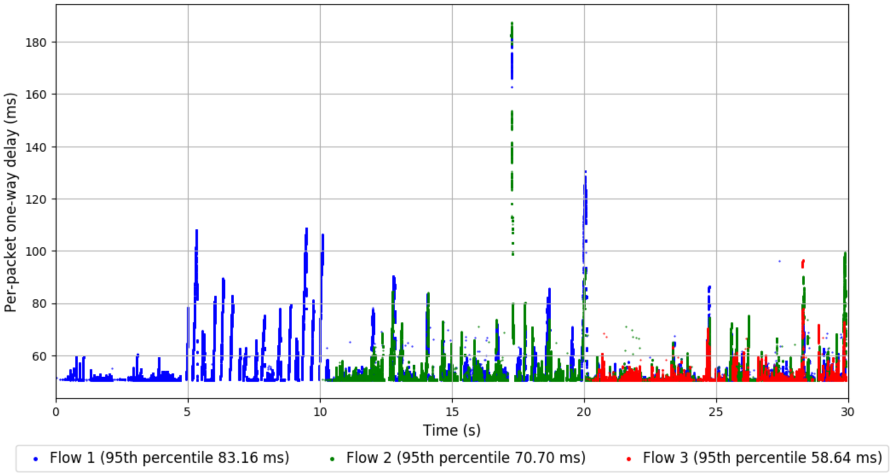
```
Run 7: Statistics of Verus

Start at: 2017-09-08 07:29:41
End at: 2017-09-08 07:30:11

# Below is generated by plot.py at 2017-09-08 10:51:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.94 Mbit/s
95th percentile per-packet one-way delay: 77.713 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 99.02 Mbit/s
95th percentile per-packet one-way delay: 83.159 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 66.44 Mbit/s
95th percentile per-packet one-way delay: 70.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.39 Mbit/s
95th percentile per-packet one-way delay: 58.644 ms
Loss rate: 0.00%
```

Run 7: Report of Verus — Data Link



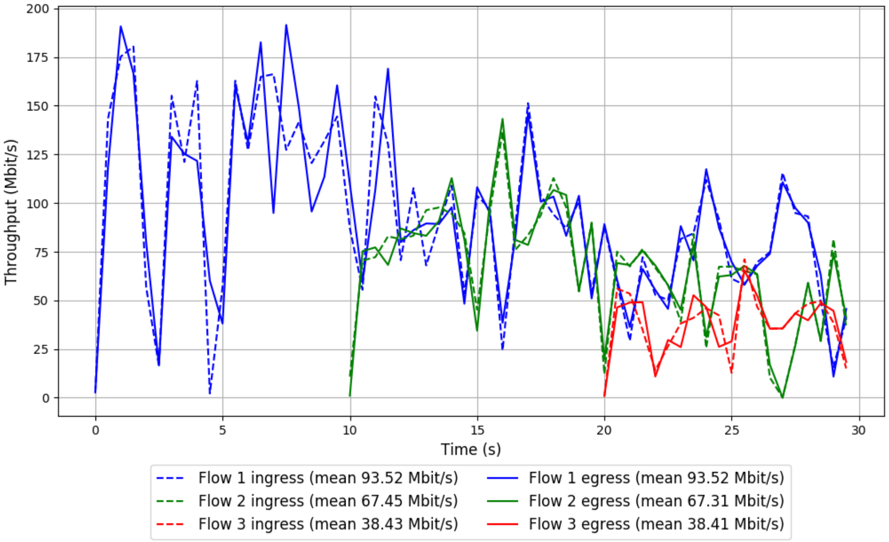


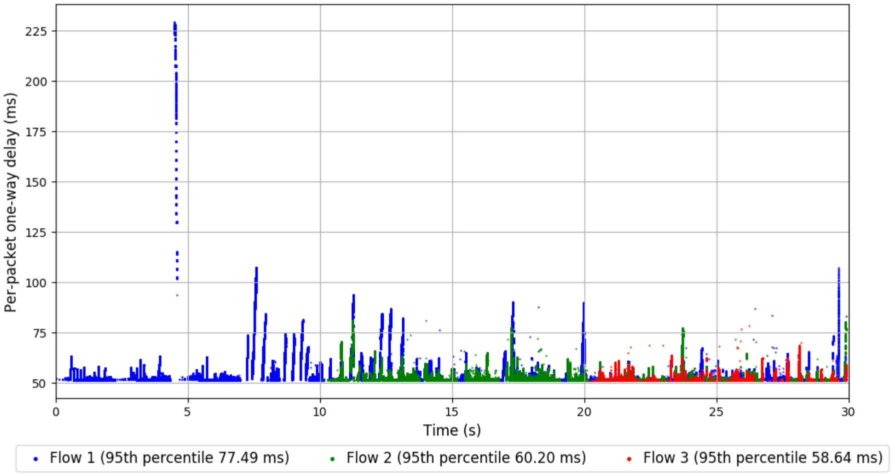
```
Run 8: Statistics of Verus

Start at: 2017-09-08 07:41:54
End at: 2017-09-08 07:42:24

# Below is generated by plot.py at 2017-09-08 10:51:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.75 Mbit/s
95th percentile per-packet one-way delay: 70.680 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 93.52 Mbit/s
95th percentile per-packet one-way delay: 77.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.31 Mbit/s
95th percentile per-packet one-way delay: 60.204 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 38.41 Mbit/s
95th percentile per-packet one-way delay: 58.642 ms
Loss rate: 0.02%
```

Run 8: Report of Verus — Data Link



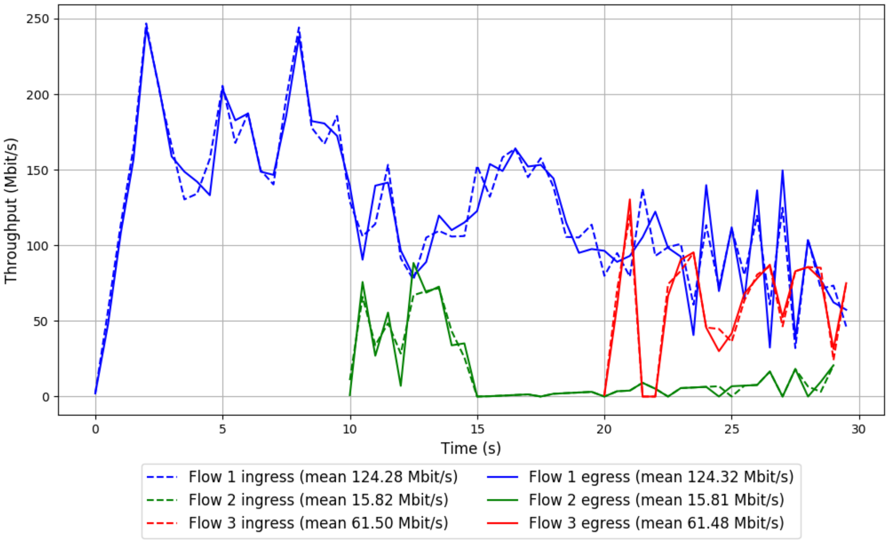


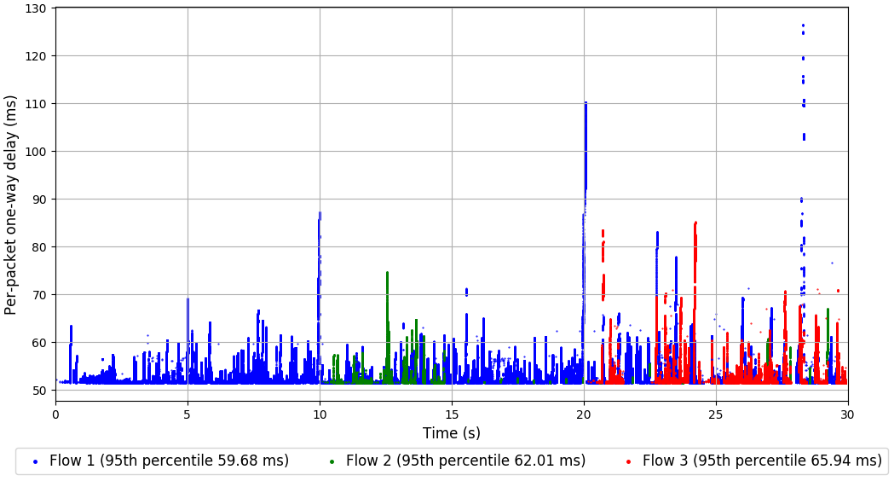
```
Run 9: Statistics of Verus

Start at: 2017-09-08 07:54:04
End at: 2017-09-08 07:54:34

# Below is generated by plot.py at 2017-09-08 10:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.49 Mbit/s
95th percentile per-packet one-way delay: 60.828 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 124.32 Mbit/s
95th percentile per-packet one-way delay: 59.684 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.81 Mbit/s
95th percentile per-packet one-way delay: 62.013 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 61.48 Mbit/s
95th percentile per-packet one-way delay: 65.937 ms
Loss rate: 0.00%
```

Run 9: Report of Verus — Data Link



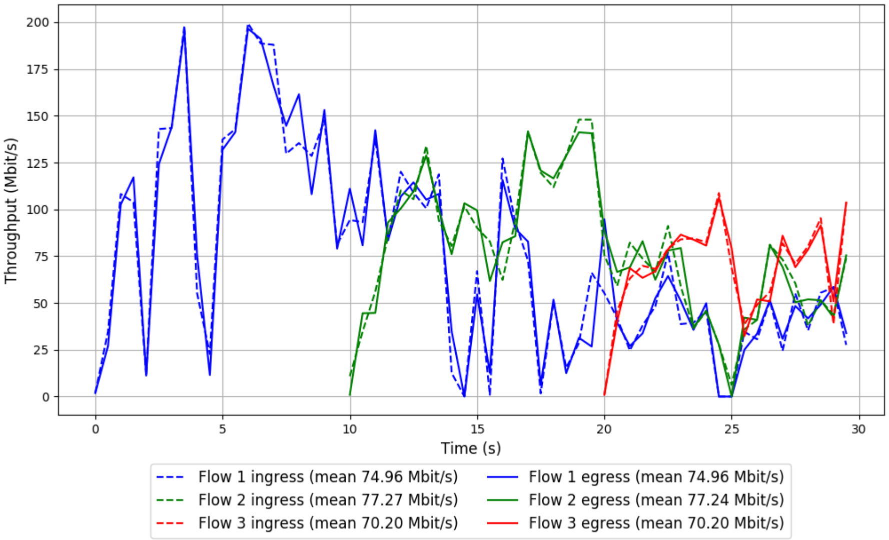


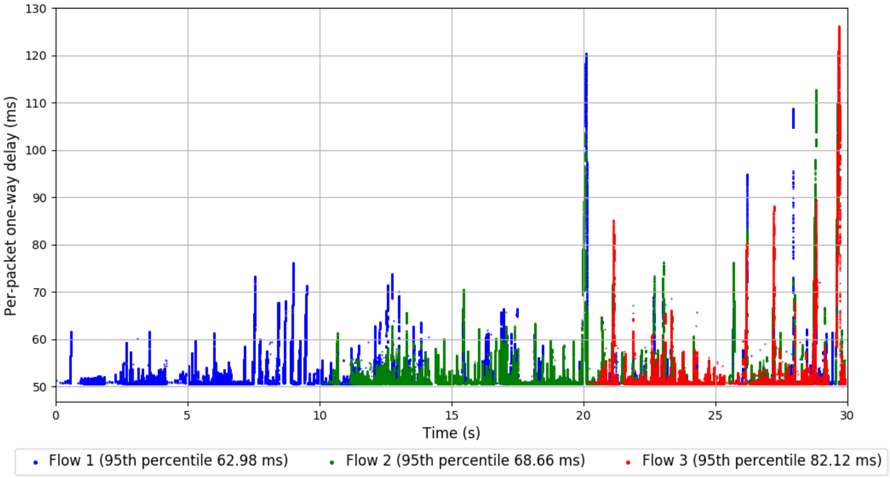
```
Run 10: Statistics of Verus

Start at: 2017-09-08 08:06:14
End at: 2017-09-08 08:06:44

# Below is generated by plot.py at 2017-09-08 10:51:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.12 Mbit/s
95th percentile per-packet one-way delay: 66.617 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.96 Mbit/s
95th percentile per-packet one-way delay: 62.977 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 77.24 Mbit/s
95th percentile per-packet one-way delay: 68.661 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 70.20 Mbit/s
95th percentile per-packet one-way delay: 82.120 ms
Loss rate: 0.00%
```

Run 10: Report of Verus — Data Link

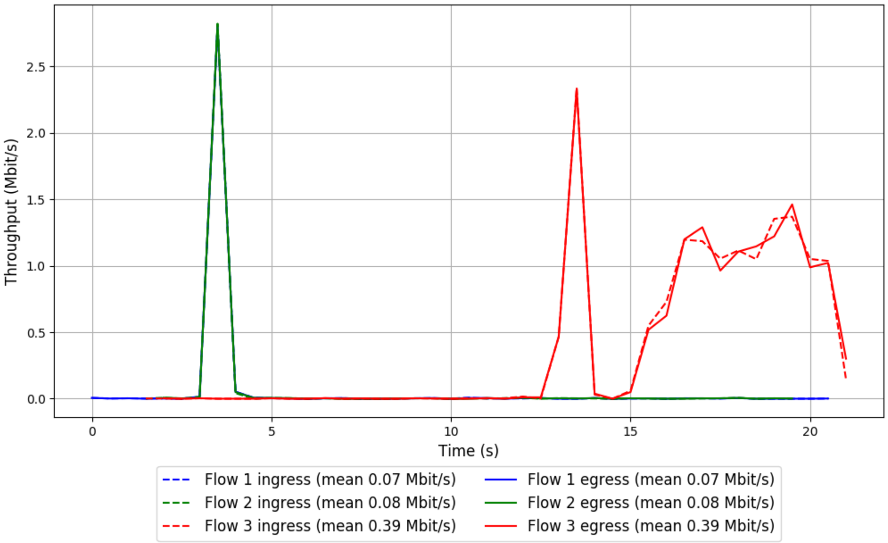


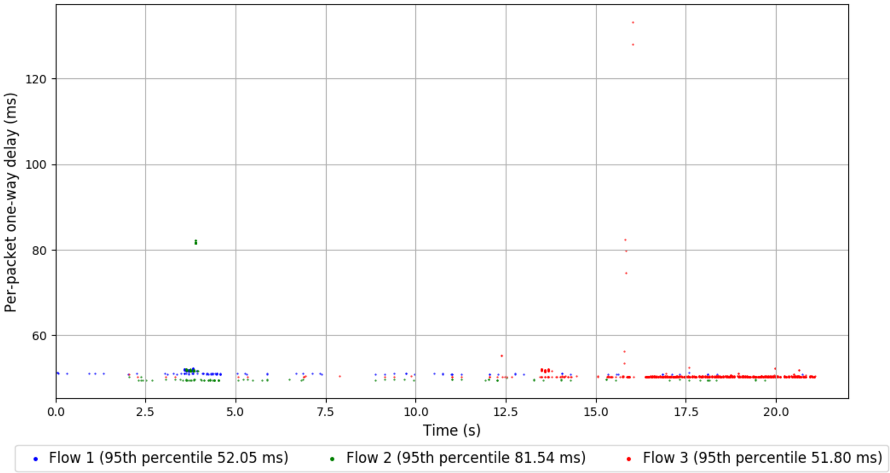


```
Run 1: Statistics of WebRTC media

Start at: 2017-09-08 06:20:18
End at: 2017-09-08 06:20:48
```

Run 1: Report of WebRTC media — Data Link



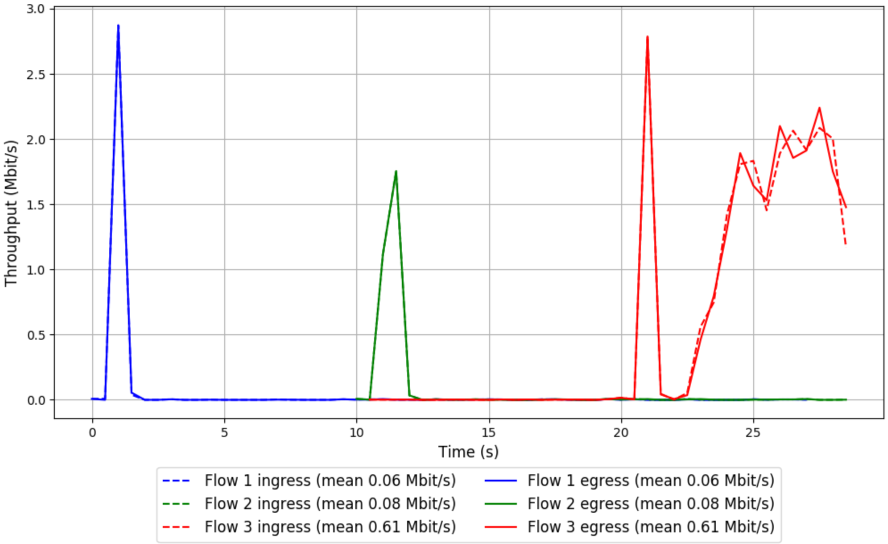


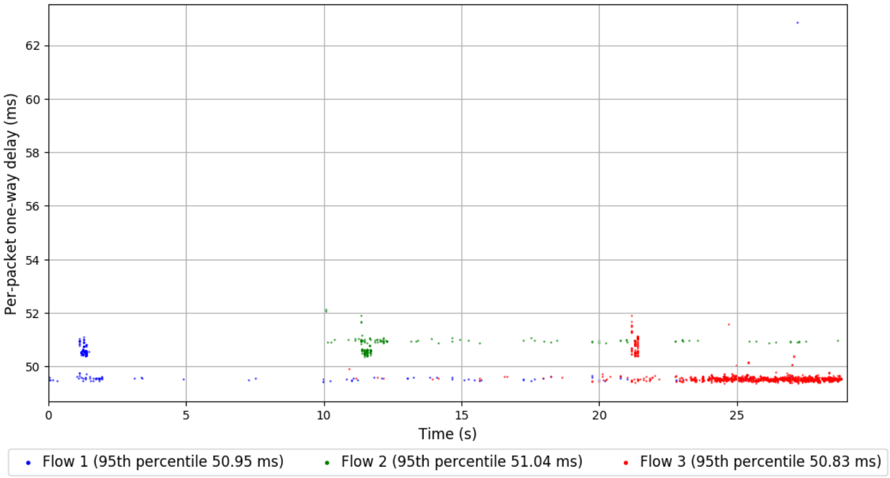
```
Run 2: Statistics of WebRTC media

Start at: 2017-09-08 06:32:05
End at: 2017-09-08 06:32:35

# Below is generated by plot.py at 2017-09-08 10:51:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 50.987 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.951 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 51.041 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 50.831 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



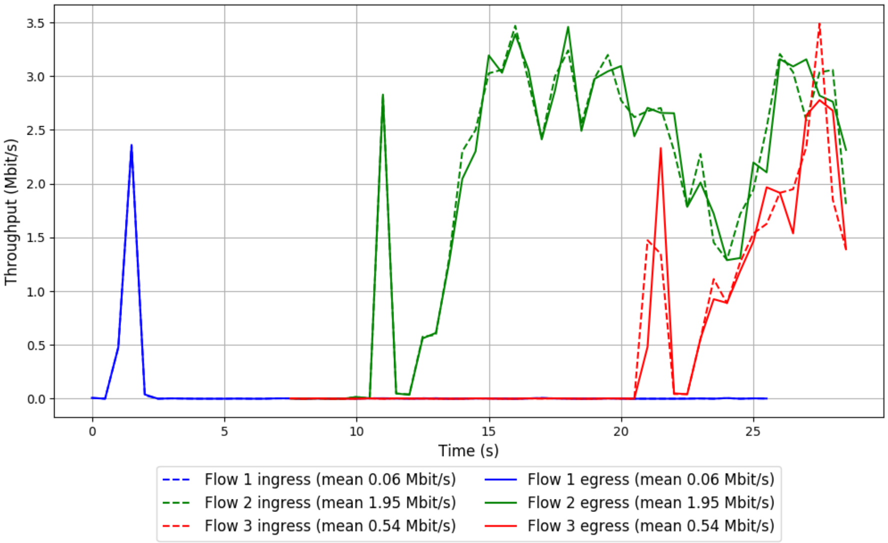


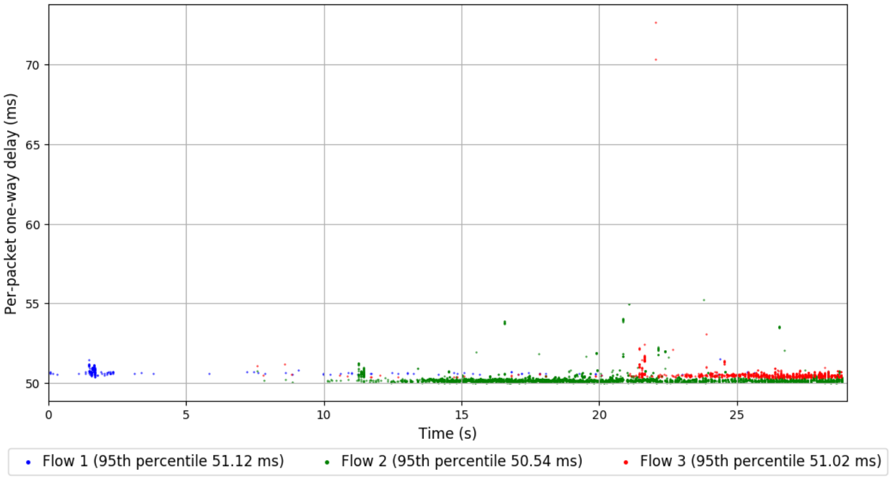
```
Run 3: Statistics of WebRTC media

Start at: 2017-09-08 06:43:53
End at: 2017-09-08 06:44:23

# Below is generated by plot.py at 2017-09-08 10:51:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 50.713 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.115 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.539 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 51.020 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link



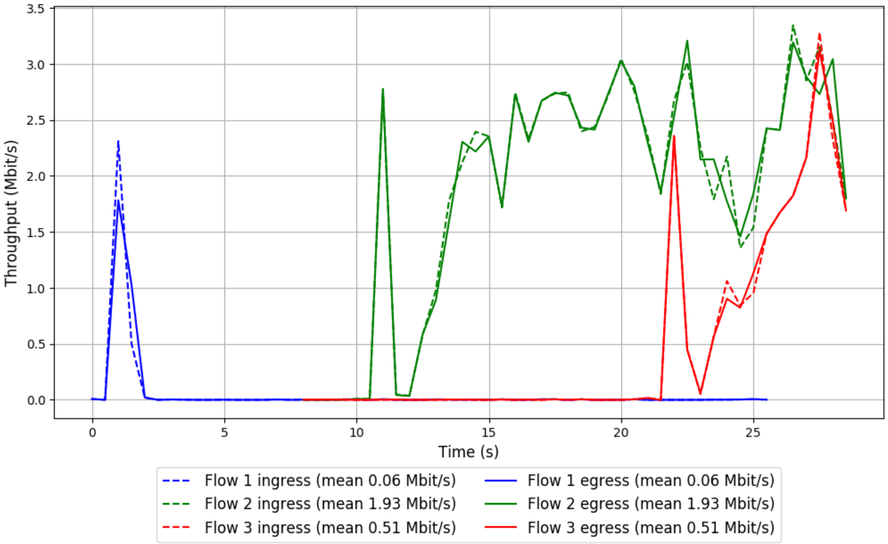


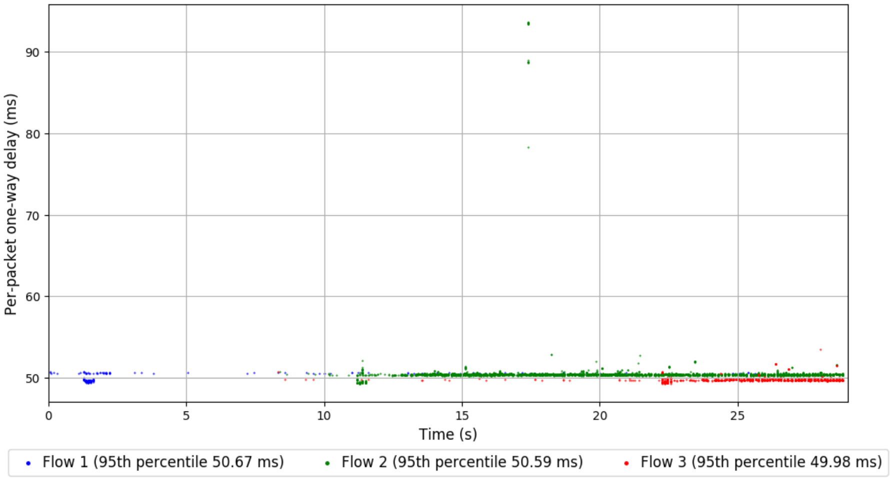
```
Run 4: Statistics of WebRTC media

Start at: 2017-09-08 06:55:55
End at: 2017-09-08 06:56:25

# Below is generated by plot.py at 2017-09-08 10:51:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 50.598 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.672 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 50.587 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 49.982 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



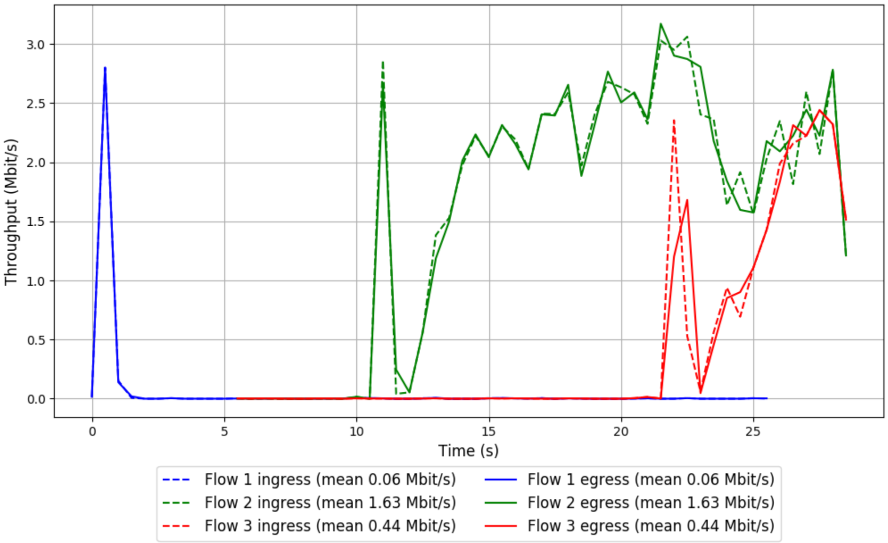


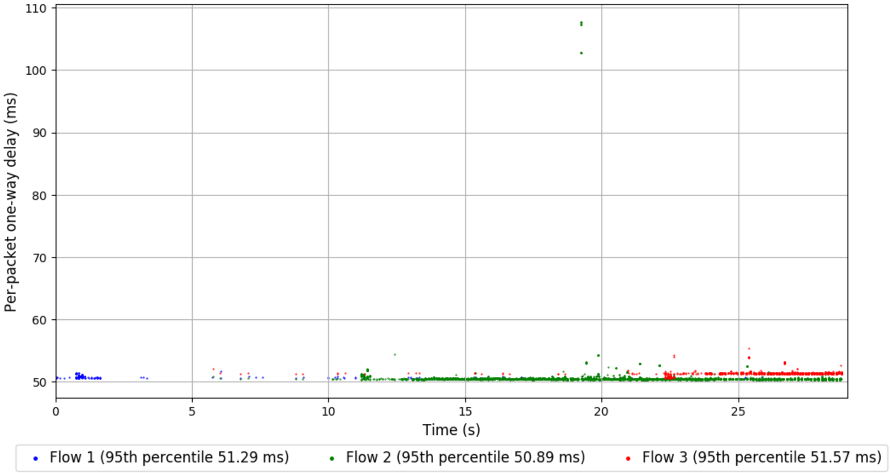
```
Run 5: Statistics of WebRTC media

Start at: 2017-09-08 07:08:16
End at: 2017-09-08 07:08:46

# Below is generated by plot.py at 2017-09-08 10:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 51.464 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.286 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 50.893 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 51.567 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



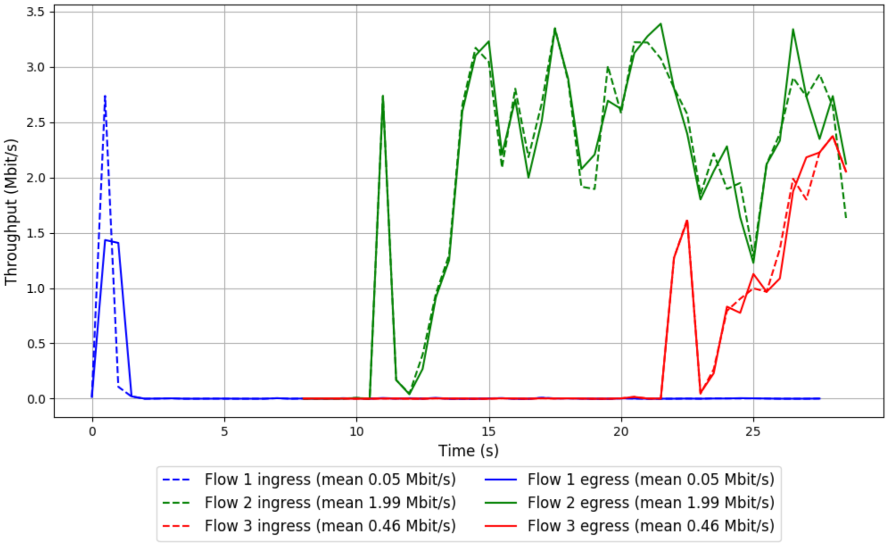


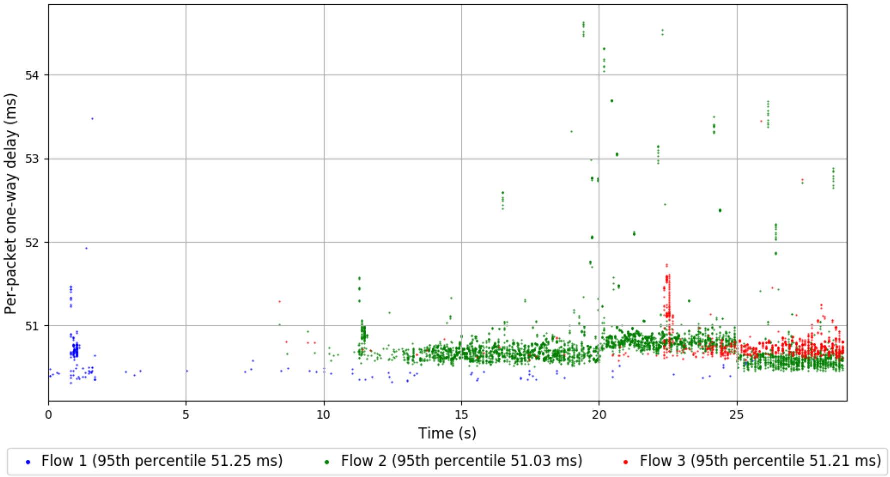
```
Run 6: Statistics of WebRTC media

Start at: 2017-09-08 07:20:37
End at: 2017-09-08 07:21:07

# Below is generated by plot.py at 2017-09-08 10:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 51.114 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 51.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 51.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 51.212 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link



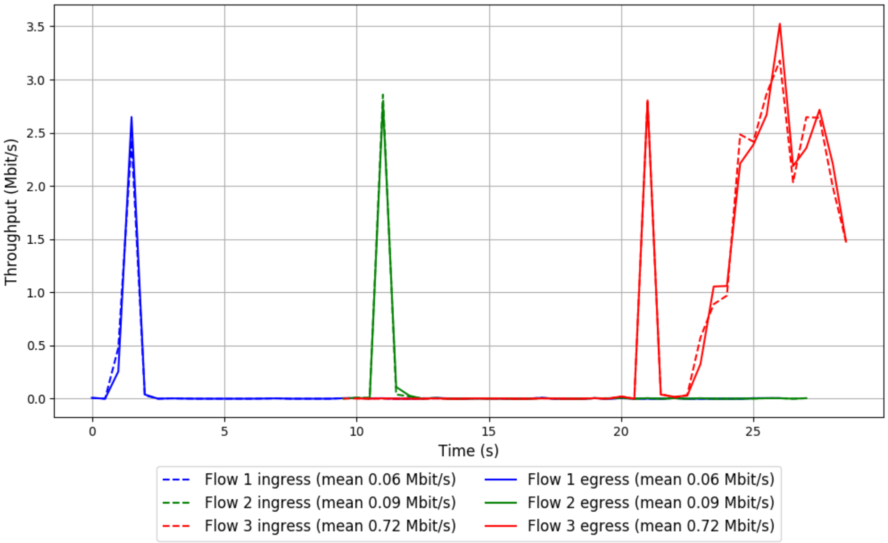


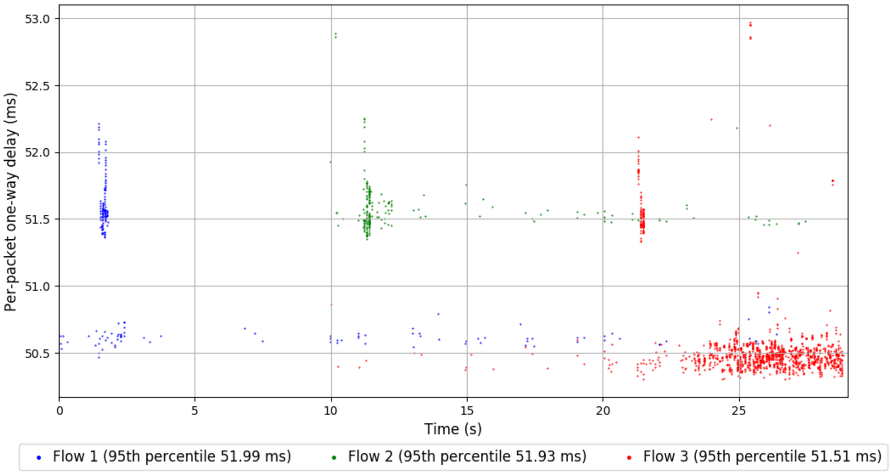
```
Run 7: Statistics of WebRTC media

Start at: 2017-09-08 07:32:53
End at: 2017-09-08 07:33:23

# Below is generated by plot.py at 2017-09-08 10:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 51.706 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.986 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 51.928 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 51.509 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link



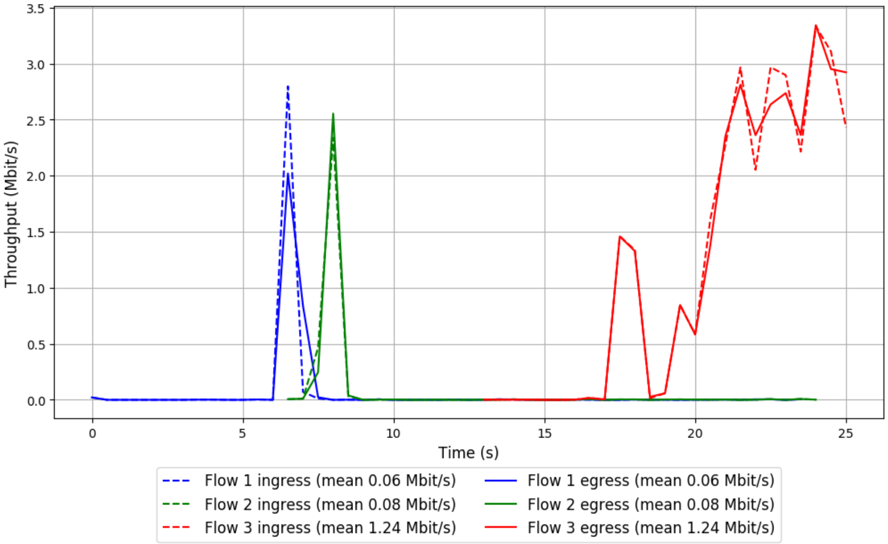


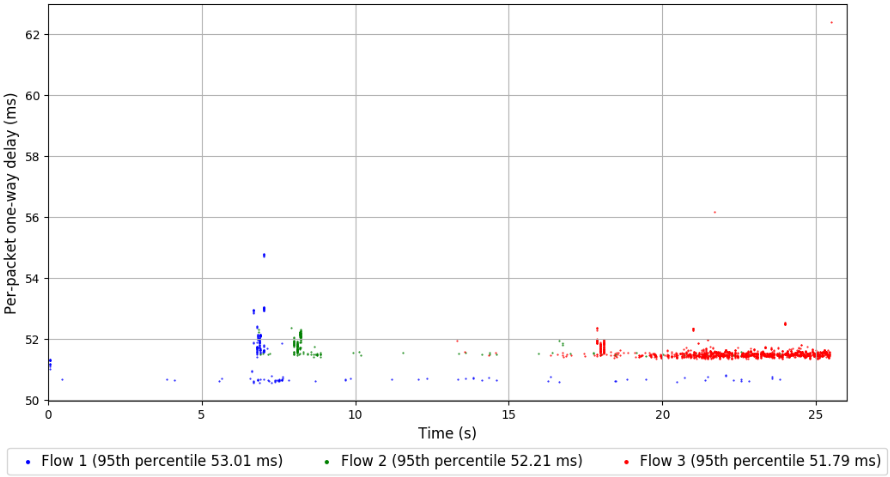
```
Run 8: Statistics of WebRTC media

Start at: 2017-09-08 07:45:03
End at: 2017-09-08 07:45:33

# Below is generated by plot.py at 2017-09-08 10:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 52.093 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 53.005 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 52.213 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 51.786 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link



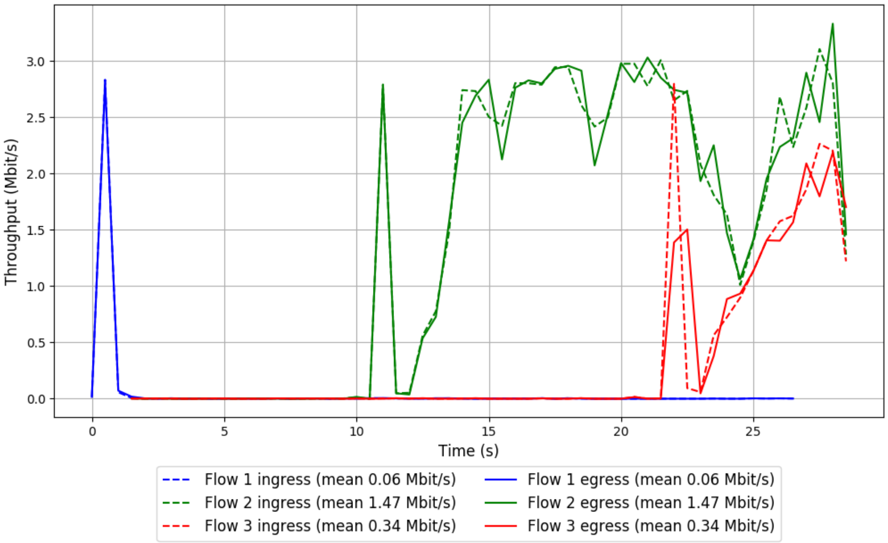


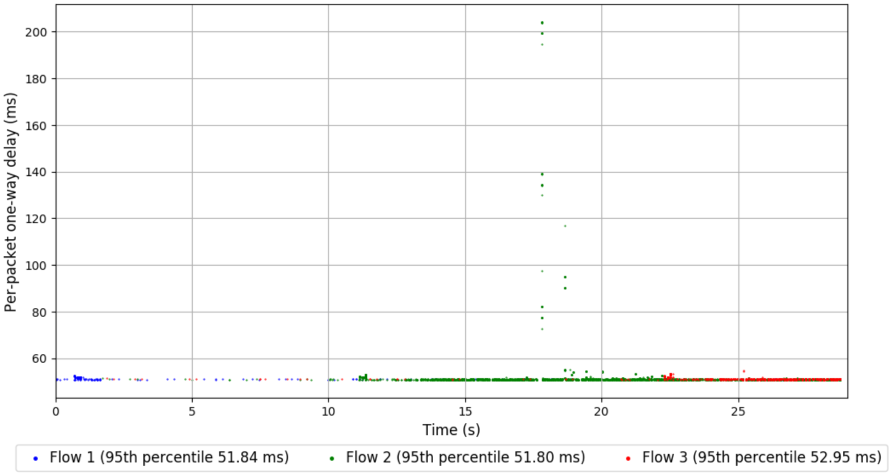
```
Run 9: Statistics of WebRTC media

Start at: 2017-09-08 07:57:13
End at: 2017-09-08 07:57:43

# Below is generated by plot.py at 2017-09-08 10:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 51.873 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 51.801 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 52.948 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link



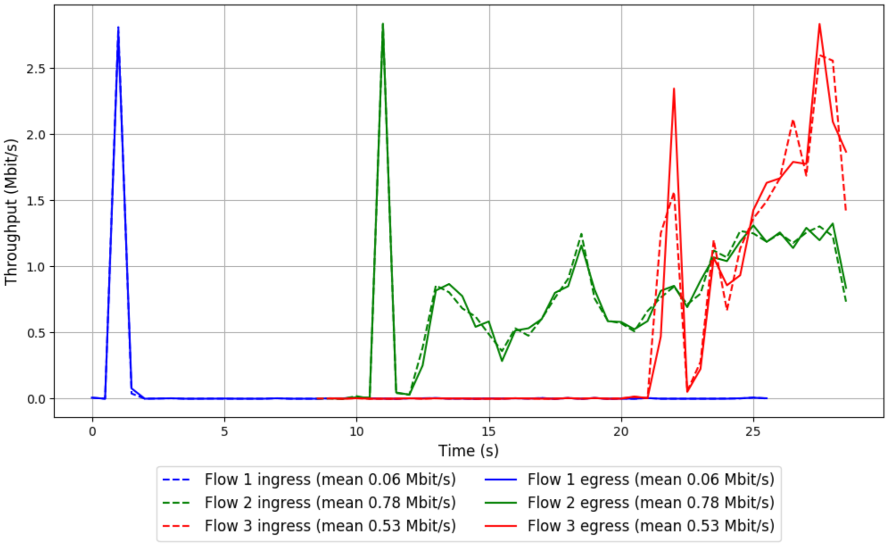


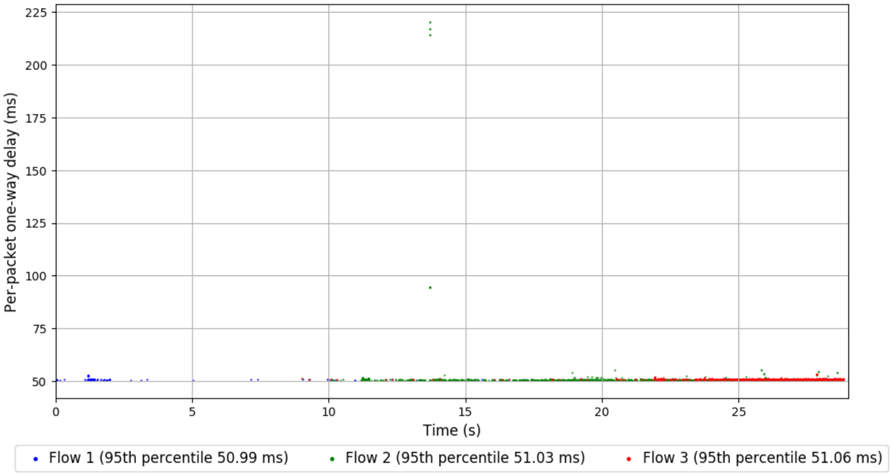
```
Run 10: Statistics of WebRTC media

Start at: 2017-09-08 08:09:24
End at: 2017-09-08 08:09:54

# Below is generated by plot.py at 2017-09-08 10:51:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 51.038 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.986 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 51.028 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 51.057 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link


Throughput (Mbit/s)
Time (s)
0.0
0.5
1.0
1.5
2.0
2.5
0
5
10
15
20
25
Flow 1 ingress (mean 0.06 Mbit/s)
Flow 2 ingress (mean 0.78 Mbit/s)
Flow 3 ingress (mean 0.53 Mbit/s)
Flow 1 egress (mean 0.06 Mbit/s)
Flow 2 egress (mean 0.78 Mbit/s)
Flow 3 egress (mean 0.53 Mbit/s)


Per-packet one-way delay (ms)
Time (s)
50
75
100
125
150
175
200
225
0
5
10
15
20
25
Flow 1 (95th percentile 50.99 ms)
Flow 2 (95th percentile 51.03 ms)
Flow 3 (95th percentile 51.06 ms)