Pantheon Report

Generated at 2017-08-11 14:36:32 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

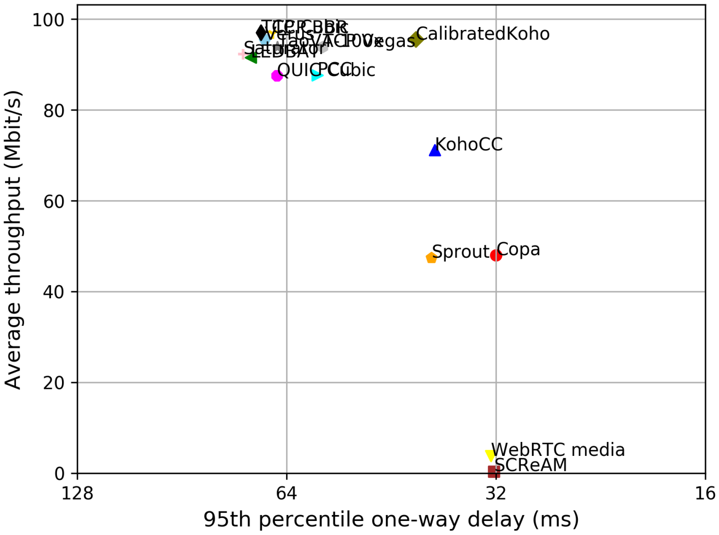
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

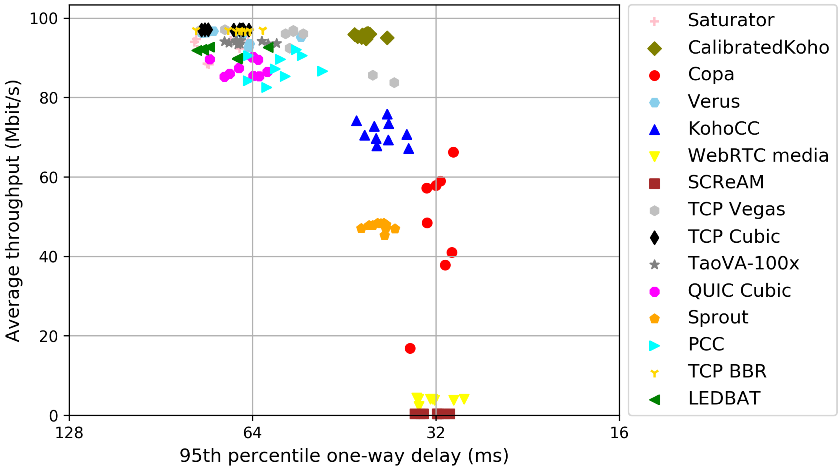
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ e43be7582298d552838afcf6382342bf187fbbd6
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
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 India Ethernet to AWS India 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)


test from India Ethernet to AWS India 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows

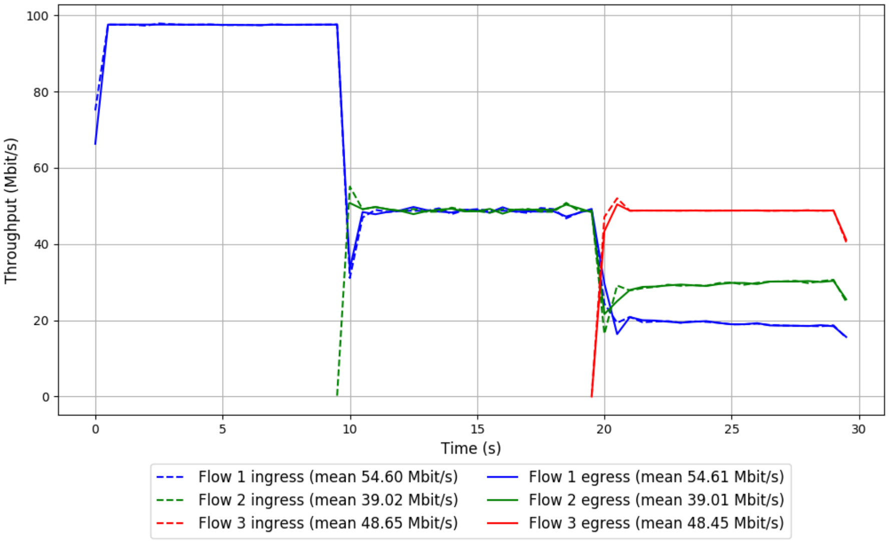
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	58.58	40.66	33.77	64.30	66.46	66.42	0.11	0.26	0.57
CalibratedKoho	10	57.08	41.42	32.87	41.67	41.72	42.09	0.05	0.11	0.32
Copa	8	25.23	24.64	17.16	31.99	31.97	32.22	0.09	0.14	0.21
TCP Cubic	10	58.94	42.07	32.02	69.39	65.29	67.73	0.14	0.33	0.83
KohoCC	10	35.66	37.25	32.16	38.51	37.94	37.92	0.10	0.14	0.33
LEDBAT	7	57.76	37.27	28.09	66.30	71.83	67.98	0.19	0.36	1.12
PCC	9	58.37	36.23	15.70	55.84	52.13	56.44	3.41	5.95	7.55
QUIC Cubic	10	51.79	39.28	29.85	63.33	64.38	64.25	0.10	0.22	0.44
Saturator	8	52.84	44.22	30.27	73.74	59.59	70.42	0.14	0.27	0.78
SCReAM	10	0.21	0.21	0.21	32.22	32.20	32.25	0.07	0.12	0.18
Sprout	10	23.92	23.78	23.43	38.93	39.52	40.86	0.09	0.15	0.30
TaoVA-100x	10	56.73	39.29	33.23	62.18	62.68	61.07	0.12	0.26	0.63
TCP Vegas	10	57.94	40.98	33.51	54.99	53.04	52.72	0.07	0.14	1.01
Verus	10	60.94	39.02	26.26	61.52	67.90	69.54	0.10	0.23	0.82
WebRTC media	9	1.98	1.46	0.47	32.47	32.66	33.08	0.16	0.03	0.39

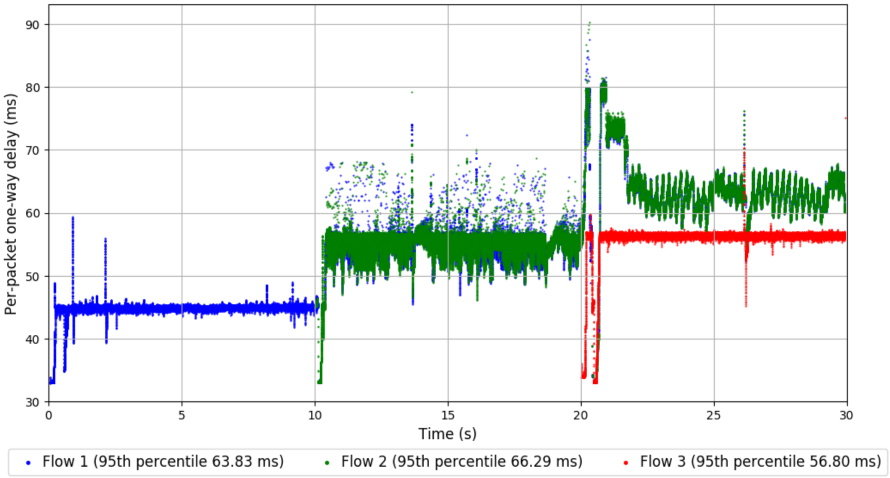
```
Run 1: Statistics of TCP BBR

Start at: 2017-08-11 05:48:19
End at: 2017-08-11 05:48:49
Local clock offset: -0.173 ms
Remote clock offset: -19.743 ms

# Below is generated by plot.py at 2017-08-11 14:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.68 Mbit/s
95th percentile per-packet one-way delay: 64.612 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 54.61 Mbit/s
95th percentile per-packet one-way delay: 63.828 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 66.293 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 48.45 Mbit/s
95th percentile per-packet one-way delay: 56.805 ms
Loss rate: 0.51%
```

Run 1: Report of TCP BBR — Data Link



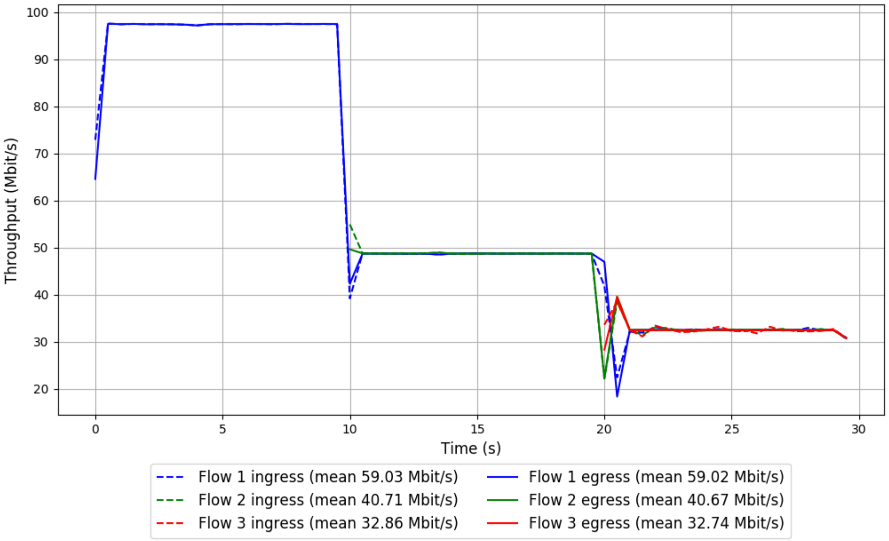


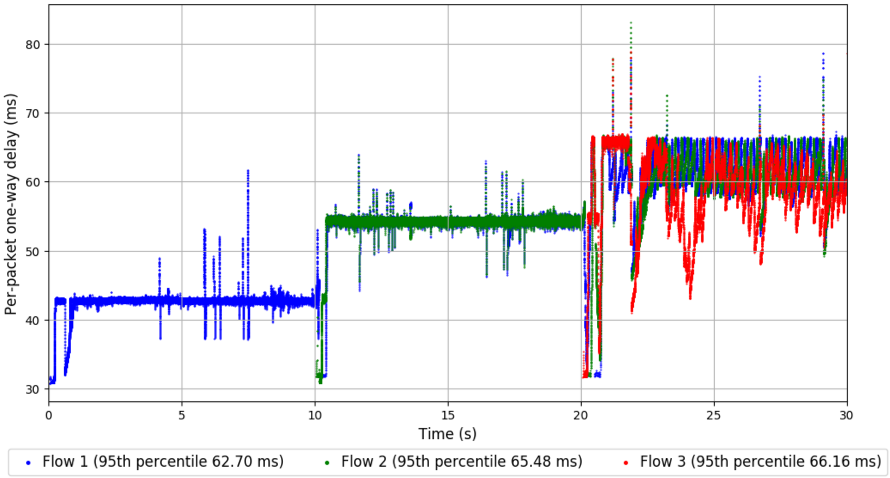
```
Run 2: Statistics of TCP BBR

Start at: 2017-08-11 06:06:43
End at: 2017-08-11 06:07:13
Local clock offset: -2.225 ms
Remote clock offset: -18.424 ms

# Below is generated by plot.py at 2017-08-11 14:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.91 Mbit/s
95th percentile per-packet one-way delay: 64.756 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.02 Mbit/s
95th percentile per-packet one-way delay: 62.704 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 65.479 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 32.74 Mbit/s
95th percentile per-packet one-way delay: 66.157 ms
Loss rate: 0.59%
```

Run 2: Report of TCP BBR — Data Link



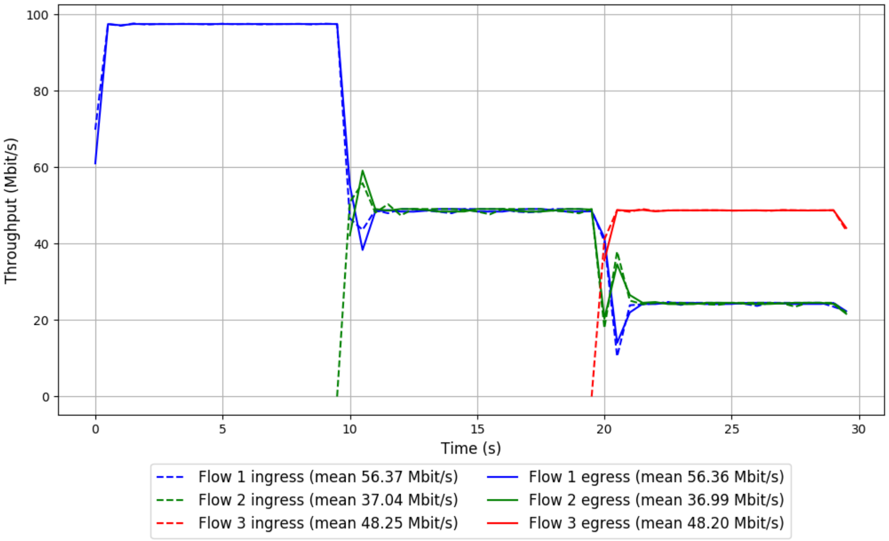


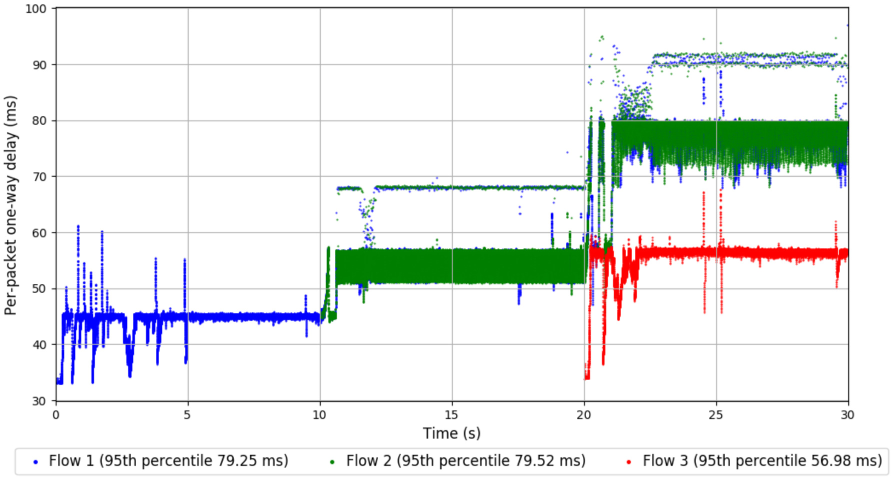
```
Run 3: Statistics of TCP BBR

Start at: 2017-08-11 06:24:41
End at: 2017-08-11 06:25:11
Local clock offset: 0.034 ms
Remote clock offset: -18.486 ms

# Below is generated by plot.py at 2017-08-11 14:22:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.97 Mbit/s
95th percentile per-packet one-way delay: 79.303 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 56.36 Mbit/s
95th percentile per-packet one-way delay: 79.252 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 79.516 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 48.20 Mbit/s
95th percentile per-packet one-way delay: 56.982 ms
Loss rate: 0.51%
```

Run 3: Report of TCP BBR — Data Link



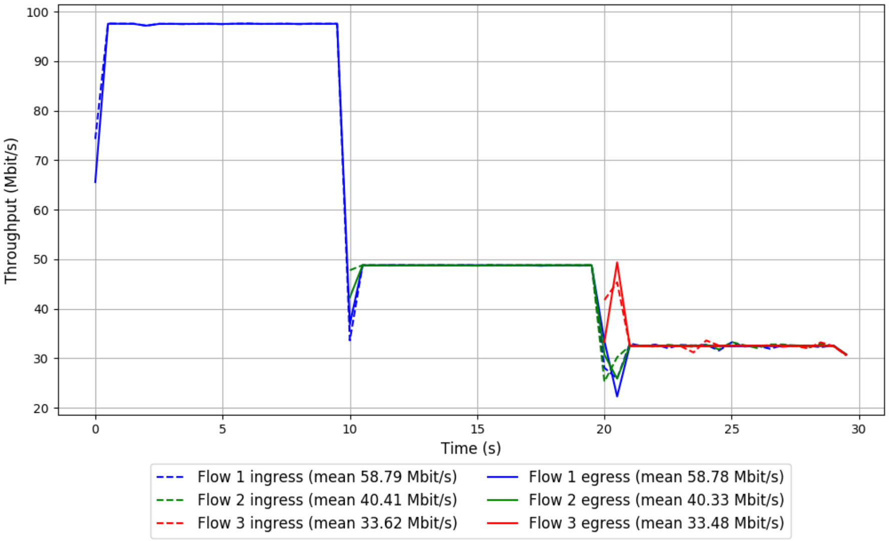


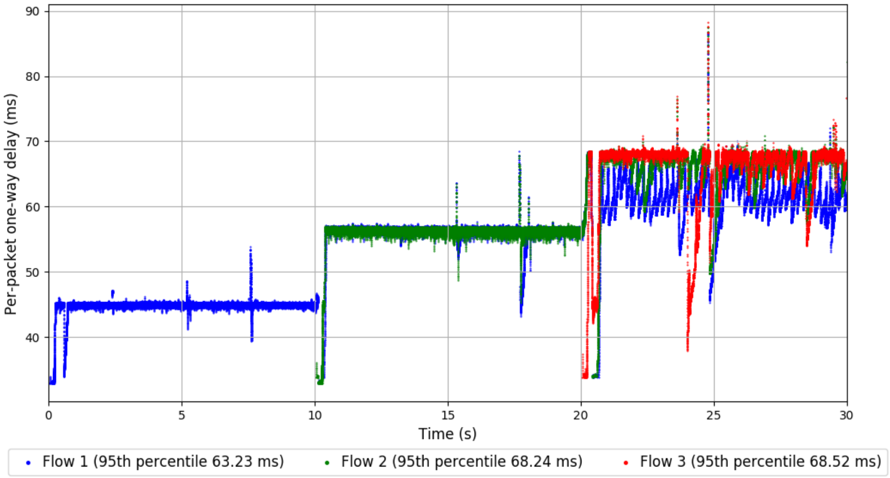
```
Run 4: Statistics of TCP BBR

Start at: 2017-08-11 06:42:32
End at: 2017-08-11 06:43:02
Local clock offset: -0.869 ms
Remote clock offset: -18.414 ms

# Below is generated by plot.py at 2017-08-11 14:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.72 Mbit/s
95th percentile per-packet one-way delay: 68.197 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 58.78 Mbit/s
95th percentile per-packet one-way delay: 63.235 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.33 Mbit/s
95th percentile per-packet one-way delay: 68.241 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 68.515 ms
Loss rate: 0.64%
```

Run 4: Report of TCP BBR — Data Link



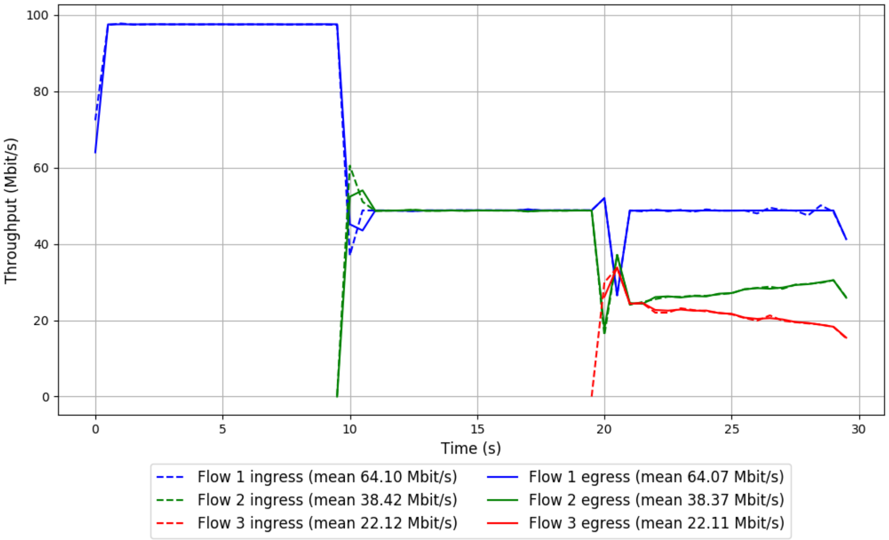


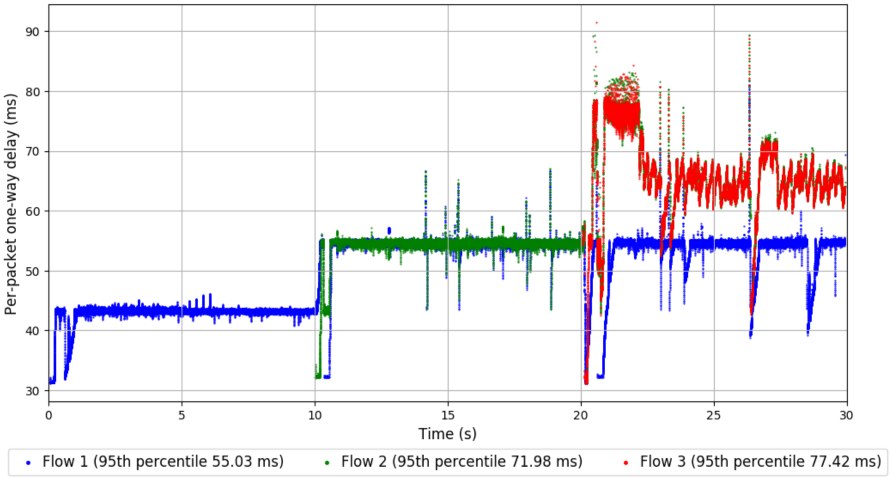
```
Run 5: Statistics of TCP BBR

Start at: 2017-08-11 07:00:45
End at: 2017-08-11 07:01:15
Local clock offset: -2.573 ms
Remote clock offset: -19.516 ms

# Below is generated by plot.py at 2017-08-11 14:23:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.98 Mbit/s
95th percentile per-packet one-way delay: 67.318 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 64.07 Mbit/s
95th percentile per-packet one-way delay: 55.030 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 38.37 Mbit/s
95th percentile per-packet one-way delay: 71.984 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 22.11 Mbit/s
95th percentile per-packet one-way delay: 77.417 ms
Loss rate: 0.50%
```

Run 5: Report of TCP BBR — Data Link



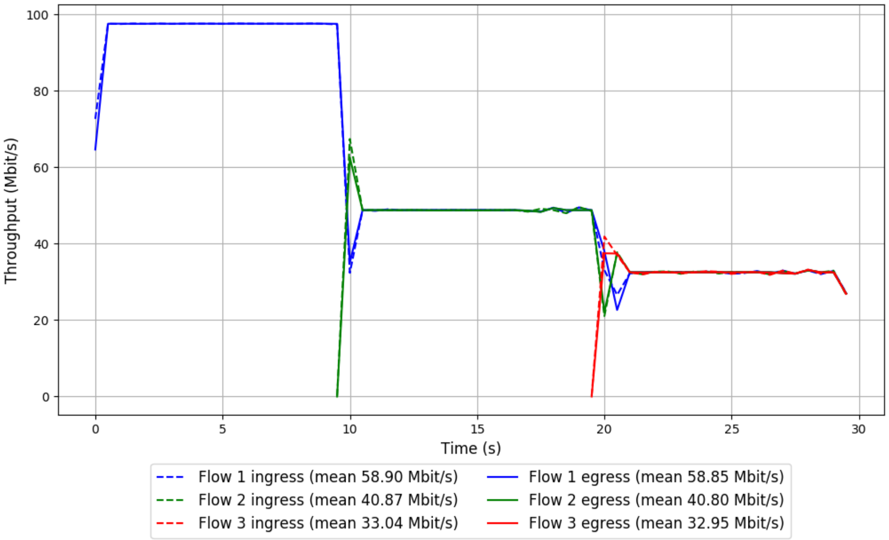


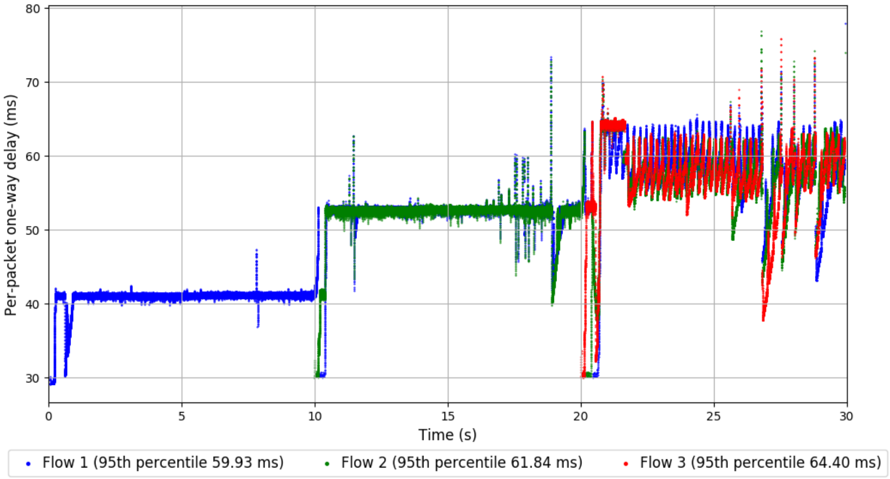
```
Run 6: Statistics of TCP BBR

Start at: 2017-08-11 07:18:43
End at: 2017-08-11 07:19:13
Local clock offset: -2.077 ms
Remote clock offset: -18.197 ms

# Below is generated by plot.py at 2017-08-11 14:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.01 Mbit/s
95th percentile per-packet one-way delay: 61.555 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 58.85 Mbit/s
95th percentile per-packet one-way delay: 59.929 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.80 Mbit/s
95th percentile per-packet one-way delay: 61.835 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 64.396 ms
Loss rate: 0.55%
```

Run 6: Report of TCP BBR — Data Link



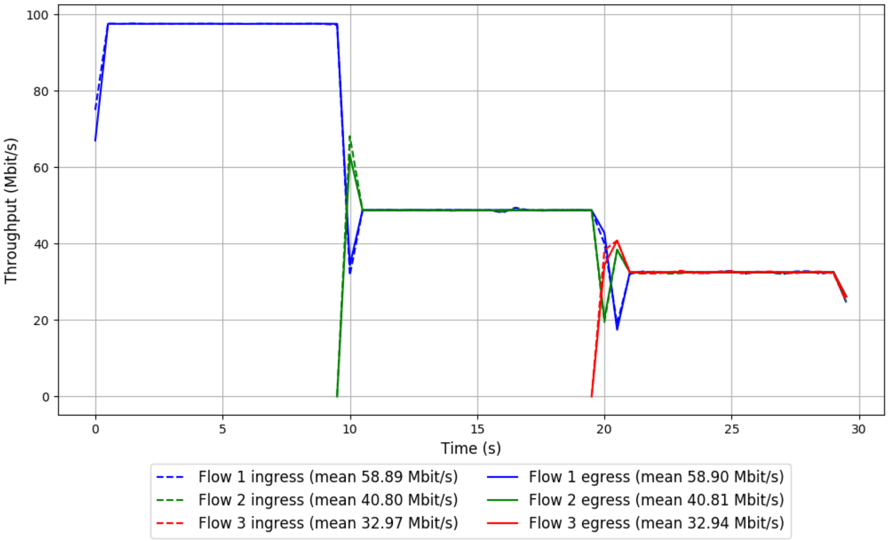


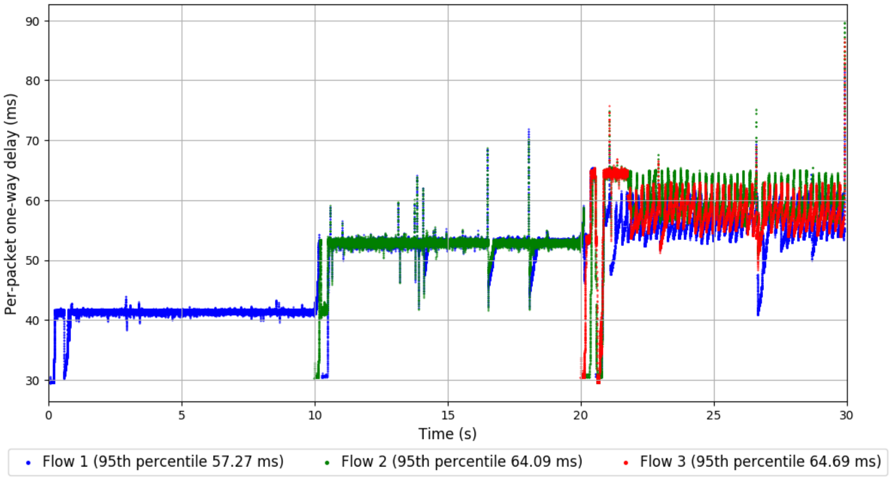
```
Run 7: Statistics of TCP BBR

Start at: 2017-08-11 07:36:49
End at: 2017-08-11 07:37:19
Local clock offset: -2.629 ms
Remote clock offset: -19.939 ms

# Below is generated by plot.py at 2017-08-11 14:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.07 Mbit/s
95th percentile per-packet one-way delay: 61.637 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 58.90 Mbit/s
95th percentile per-packet one-way delay: 57.275 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 64.095 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.94 Mbit/s
95th percentile per-packet one-way delay: 64.688 ms
Loss rate: 0.36%
```

Run 7: Report of TCP BBR — Data Link



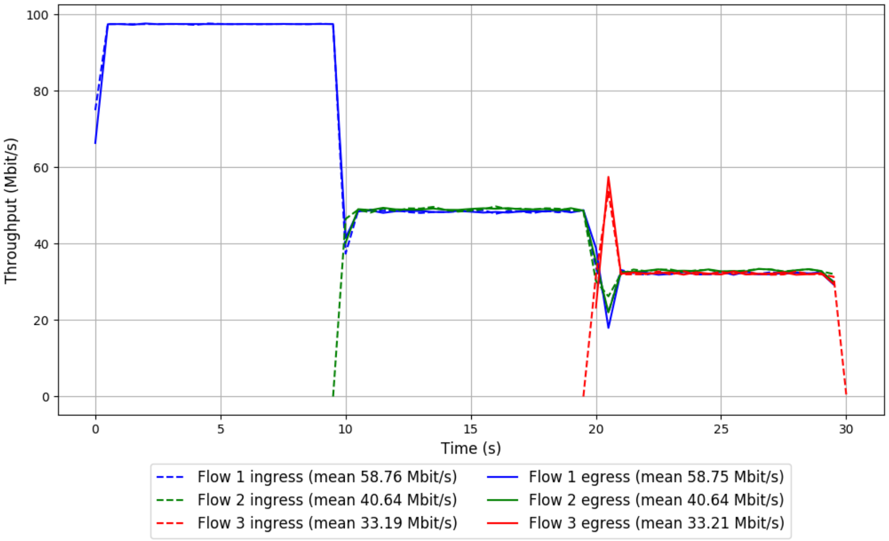


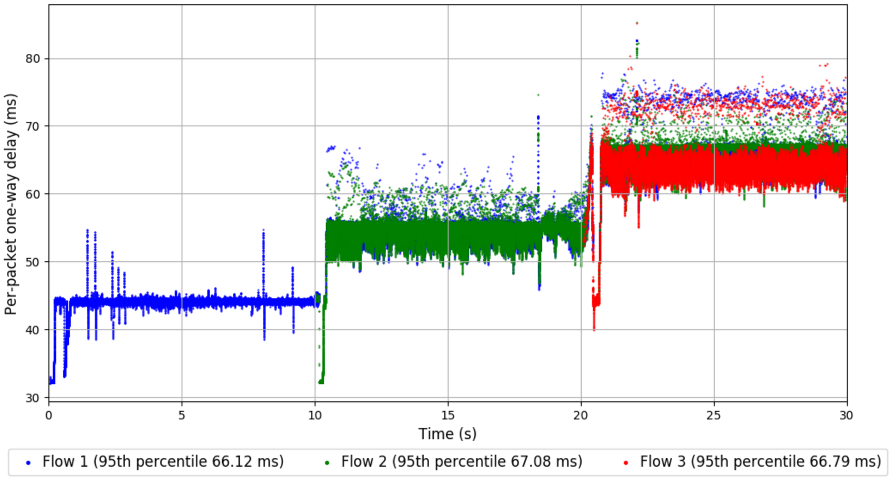
```
Run 8: Statistics of TCP BBR

Start at: 2017-08-11 07:54:58
End at: 2017-08-11 07:55:28
Local clock offset: 0.371 ms
Remote clock offset: -18.982 ms

# Below is generated by plot.py at 2017-08-11 14:23:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.81 Mbit/s
95th percentile per-packet one-way delay: 66.790 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 58.75 Mbit/s
95th percentile per-packet one-way delay: 66.121 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 67.081 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 66.792 ms
Loss rate: 1.00%
```

Run 8: Report of TCP BBR — Data Link



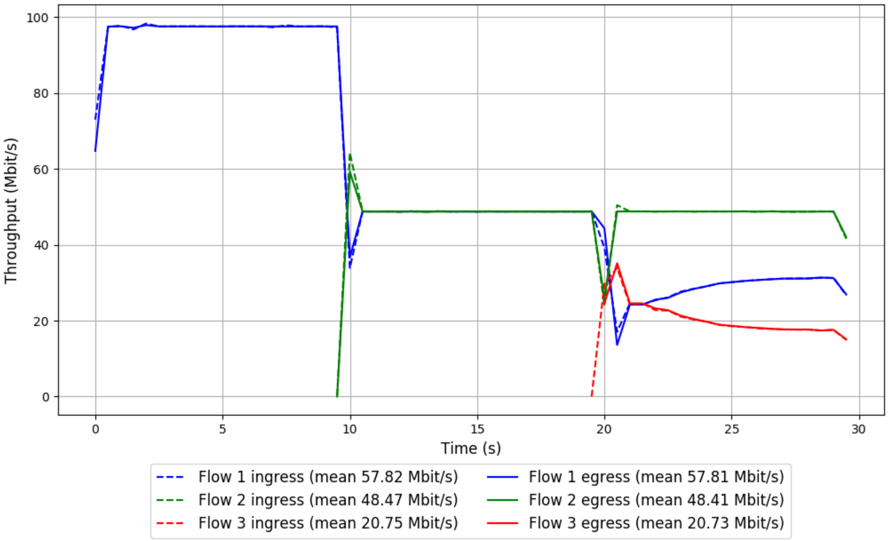


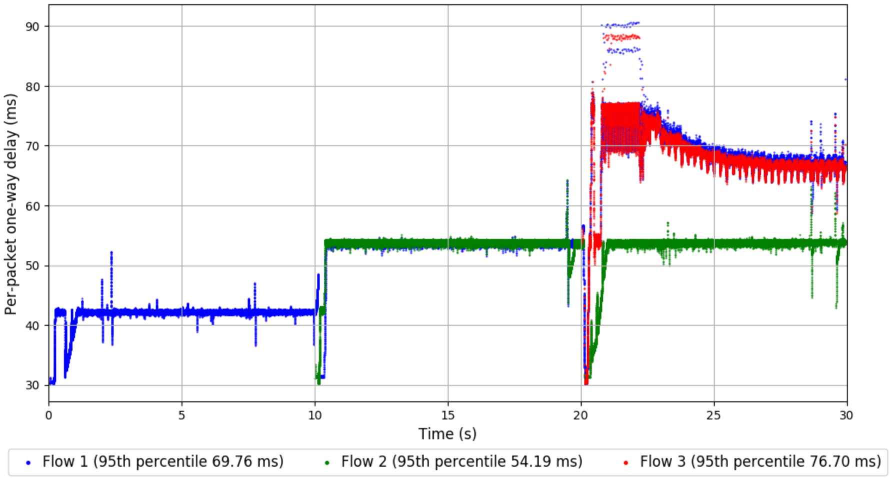
```
Run 9: Statistics of TCP BBR

Start at: 2017-08-11 08:13:11
End at: 2017-08-11 08:13:41
Local clock offset: -0.492 ms
Remote clock offset: -18.95 ms

# Below is generated by plot.py at 2017-08-11 14:23:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.96 Mbit/s
95th percentile per-packet one-way delay: 70.194 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 57.81 Mbit/s
95th percentile per-packet one-way delay: 69.757 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 48.41 Mbit/s
95th percentile per-packet one-way delay: 54.186 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 20.73 Mbit/s
95th percentile per-packet one-way delay: 76.705 ms
Loss rate: 0.55%
```

Run 9: Report of TCP BBR — Data Link



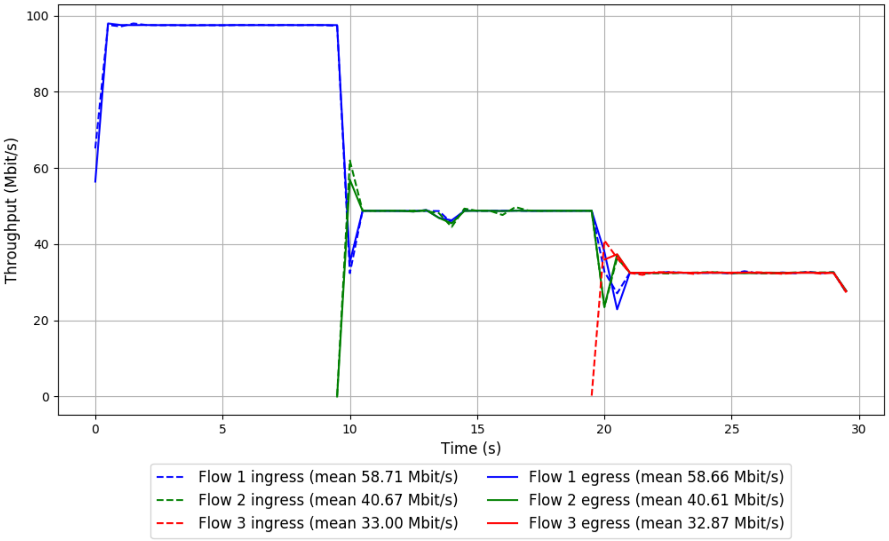


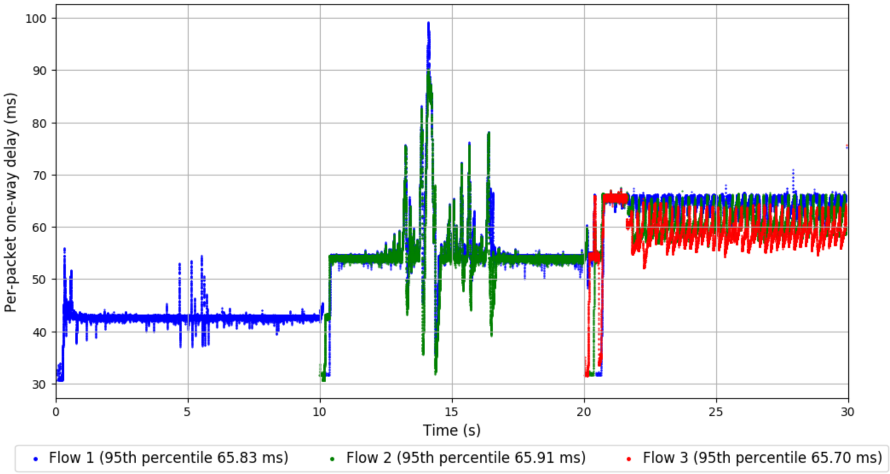
```
Run 10: Statistics of TCP BBR

Start at: 2017-08-11 08:31:15
End at: 2017-08-11 08:31:45
Local clock offset: -1.406 ms
Remote clock offset: -21.083 ms

# Below is generated by plot.py at 2017-08-11 14:23:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.64 Mbit/s
95th percentile per-packet one-way delay: 65.831 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 58.66 Mbit/s
95th percentile per-packet one-way delay: 65.833 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 65.912 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 32.87 Mbit/s
95th percentile per-packet one-way delay: 65.697 ms
Loss rate: 0.53%
```

Run 10: Report of TCP BBR — Data Link



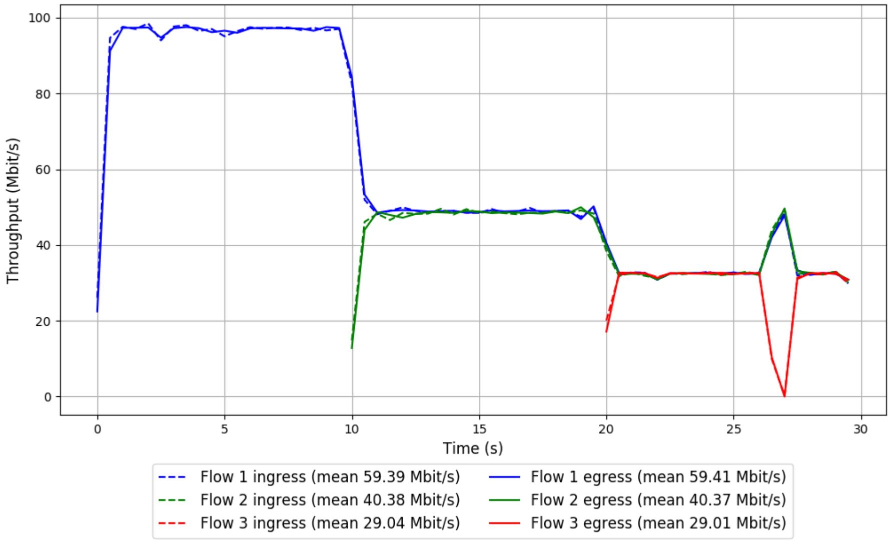


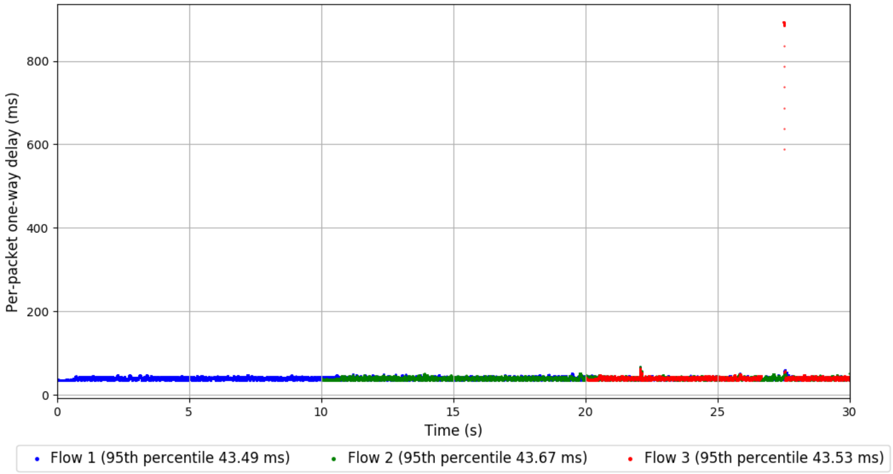
```
Run 1: Statistics of CalibratedKoho

Start at: 2017-08-11 05:50:49
End at: 2017-08-11 05:51:19
Local clock offset: 0.484 ms
Remote clock offset: -19.962 ms

# Below is generated by plot.py at 2017-08-11 14:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.90 Mbit/s
95th percentile per-packet one-way delay: 43.549 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 59.41 Mbit/s
95th percentile per-packet one-way delay: 43.489 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 40.37 Mbit/s
95th percentile per-packet one-way delay: 43.673 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 29.01 Mbit/s
95th percentile per-packet one-way delay: 43.530 ms
Loss rate: 0.32%
```

Run 1: Report of CalibratedKoho — Data Link



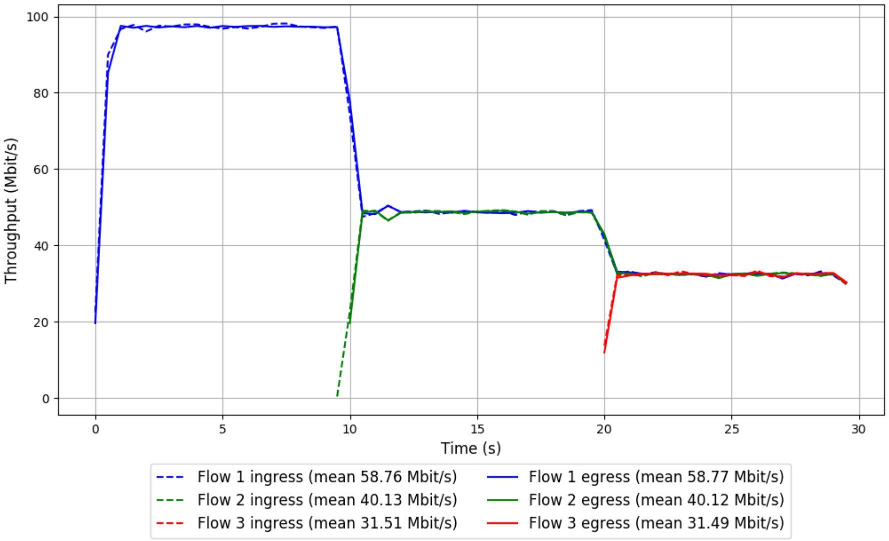


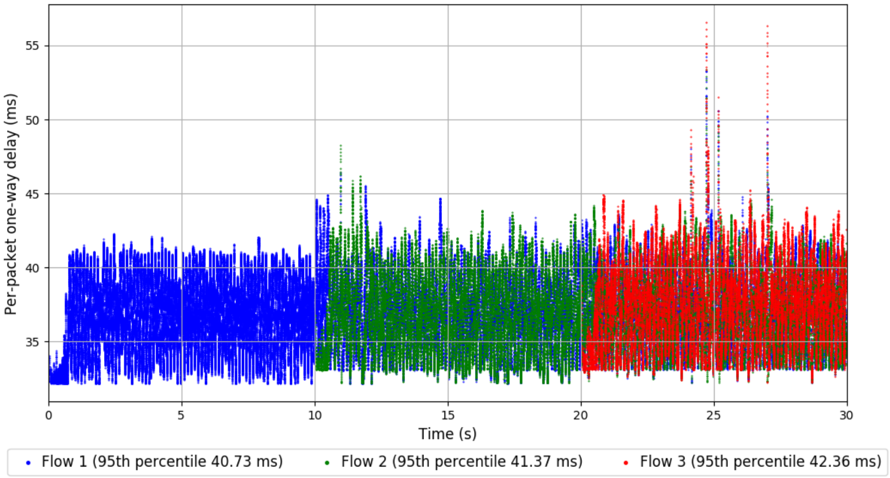
```
Run 2: Statistics of CalibratedKoho

Start at: 2017-08-11 06:09:11
End at: 2017-08-11 06:09:41
Local clock offset: -0.107 ms
Remote clock offset: -17.455 ms

# Below is generated by plot.py at 2017-08-11 14:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 41.114 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 58.77 Mbit/s
95th percentile per-packet one-way delay: 40.733 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.12 Mbit/s
95th percentile per-packet one-way delay: 41.371 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.49 Mbit/s
95th percentile per-packet one-way delay: 42.364 ms
Loss rate: 0.29%
```

Run 2: Report of CalibratedKoho — Data Link



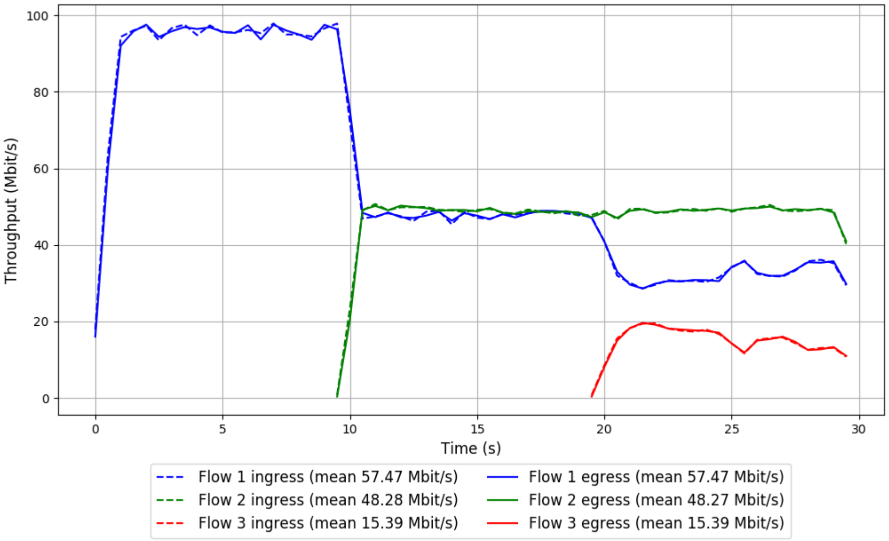


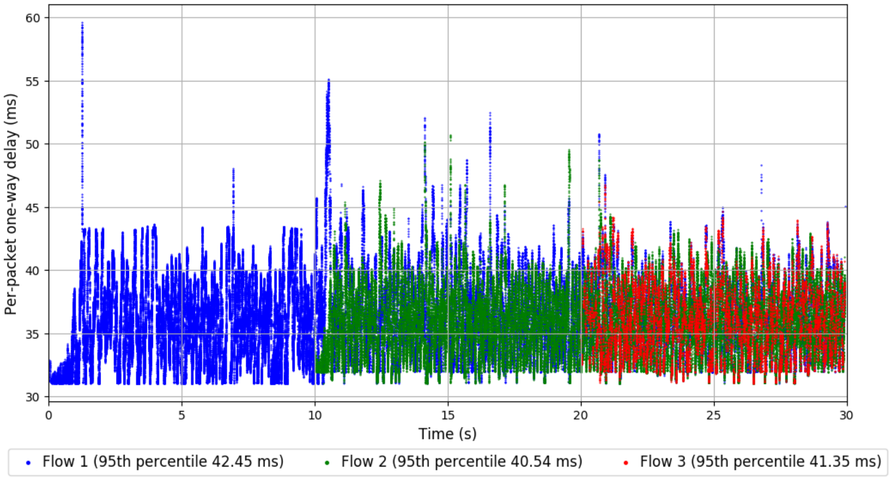
```
Run 3: Statistics of CalibratedKoho

Start at: 2017-08-11 06:27:03
End at: 2017-08-11 06:27:33
Local clock offset: -1.755 ms
Remote clock offset: -18.321 ms

# Below is generated by plot.py at 2017-08-11 14:24:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.76 Mbit/s
95th percentile per-packet one-way delay: 41.707 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 57.47 Mbit/s
95th percentile per-packet one-way delay: 42.446 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 48.27 Mbit/s
95th percentile per-packet one-way delay: 40.537 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 41.355 ms
Loss rate: 0.23%
```

Run 3: Report of CalibratedKoho — Data Link



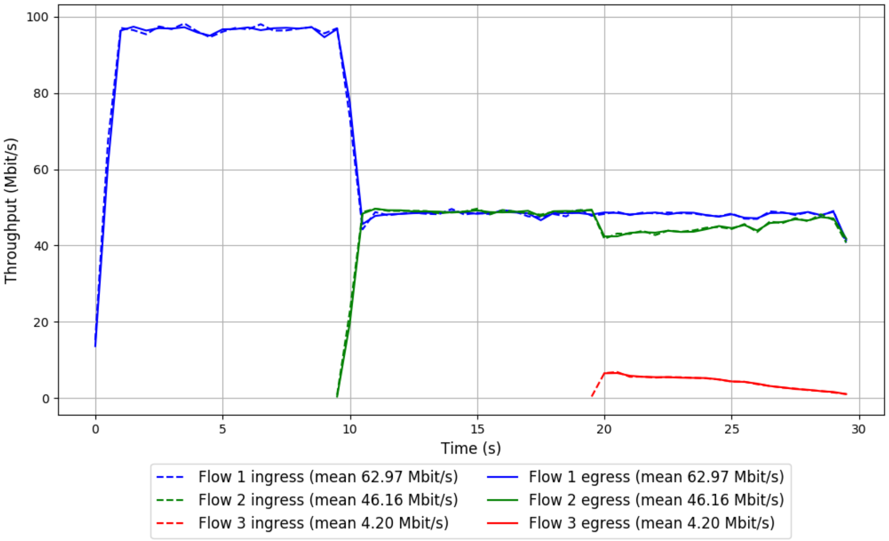


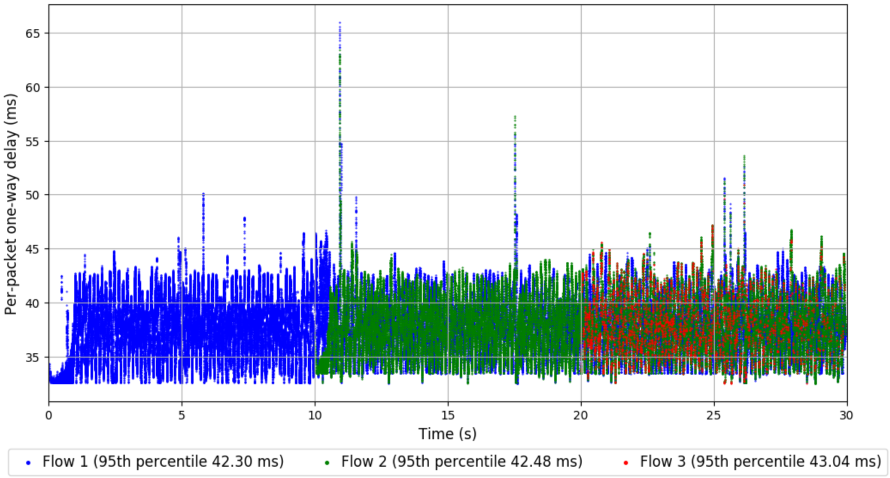
```
Run 4: Statistics of CalibratedKoho

Start at: 2017-08-11 06:44:59
End at: 2017-08-11 06:45:29
Local clock offset: -0.779 ms
Remote clock offset: -18.168 ms

# Below is generated by plot.py at 2017-08-11 14:24:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.15 Mbit/s
95th percentile per-packet one-way delay: 42.370 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 62.97 Mbit/s
95th percentile per-packet one-way delay: 42.304 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 46.16 Mbit/s
95th percentile per-packet one-way delay: 42.484 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 43.038 ms
Loss rate: 0.09%
```

Run 4: Report of CalibratedKoho — Data Link



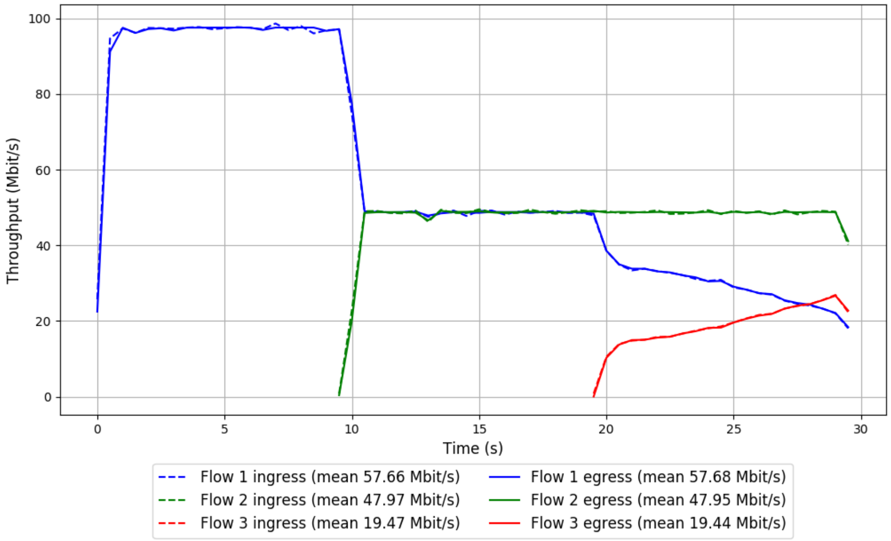


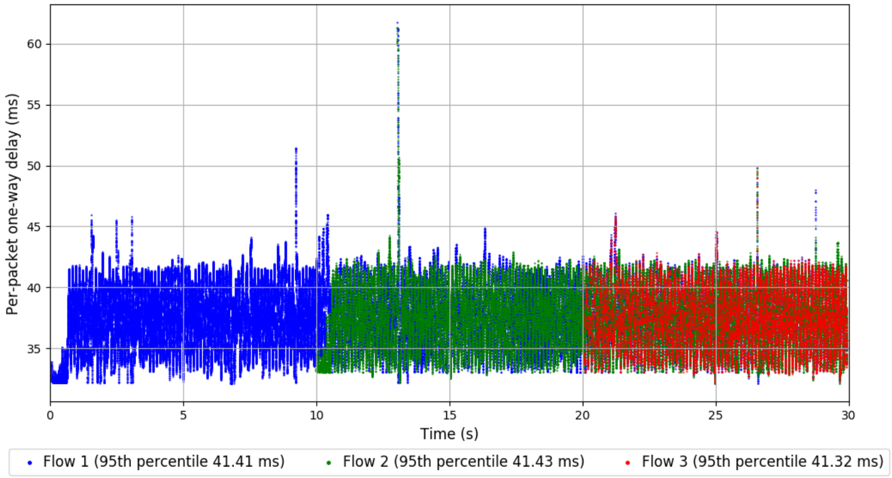
```
Run 5: Statistics of CalibratedKoho

Start at: 2017-08-11 07:03:11
End at: 2017-08-11 07:03:41
Local clock offset: -0.233 ms
Remote clock offset: -18.358 ms

# Below is generated by plot.py at 2017-08-11 14:24:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 41.409 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 57.68 Mbit/s
95th percentile per-packet one-way delay: 41.408 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 47.95 Mbit/s
95th percentile per-packet one-way delay: 41.432 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 19.44 Mbit/s
95th percentile per-packet one-way delay: 41.316 ms
Loss rate: 0.41%
```

Run 5: Report of CalibratedKoho — Data Link



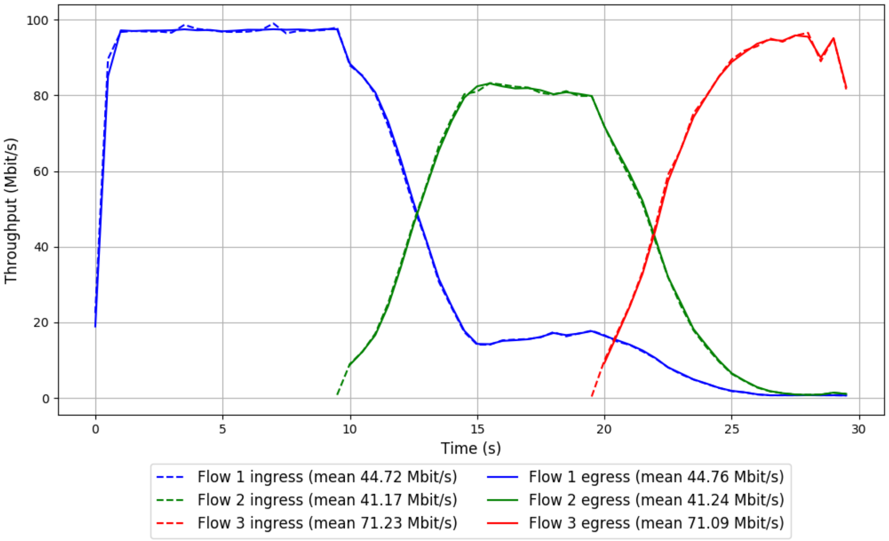


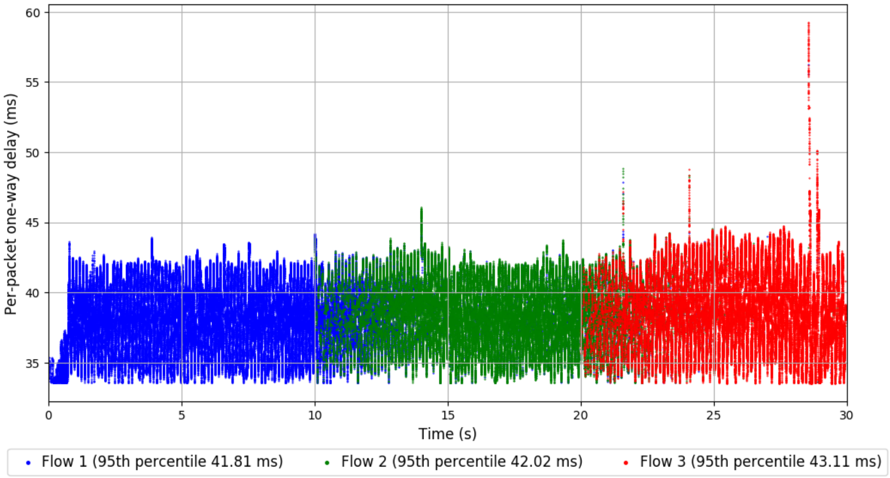
```
Run 6: Statistics of CalibratedKoho

Start at: 2017-08-11 07:21:08
End at: 2017-08-11 07:21:38
Local clock offset: 0.377 ms
Remote clock offset: -20.277 ms

# Below is generated by plot.py at 2017-08-11 14:24:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 42.240 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 44.76 Mbit/s
95th percentile per-packet one-way delay: 41.810 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.24 Mbit/s
95th percentile per-packet one-way delay: 42.022 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 71.09 Mbit/s
95th percentile per-packet one-way delay: 43.106 ms
Loss rate: 0.46%
```

Run 6: Report of CalibratedKoho — Data Link



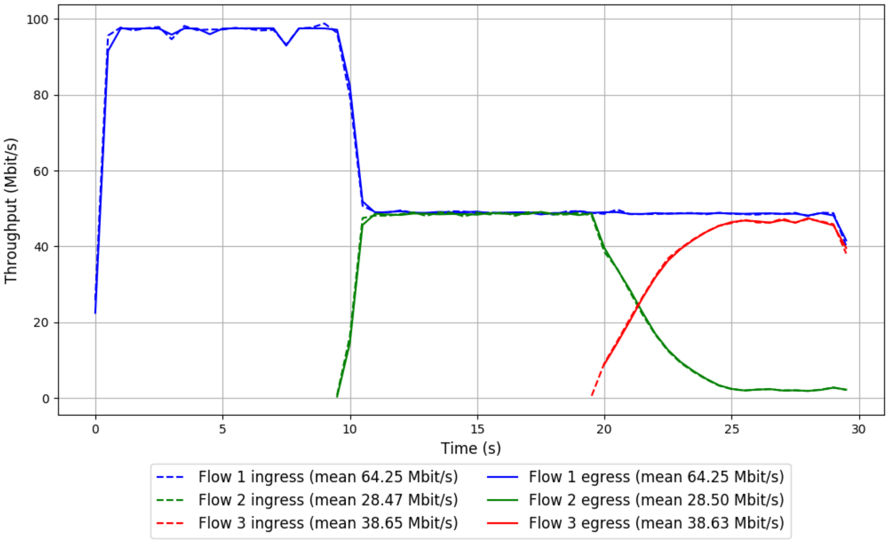


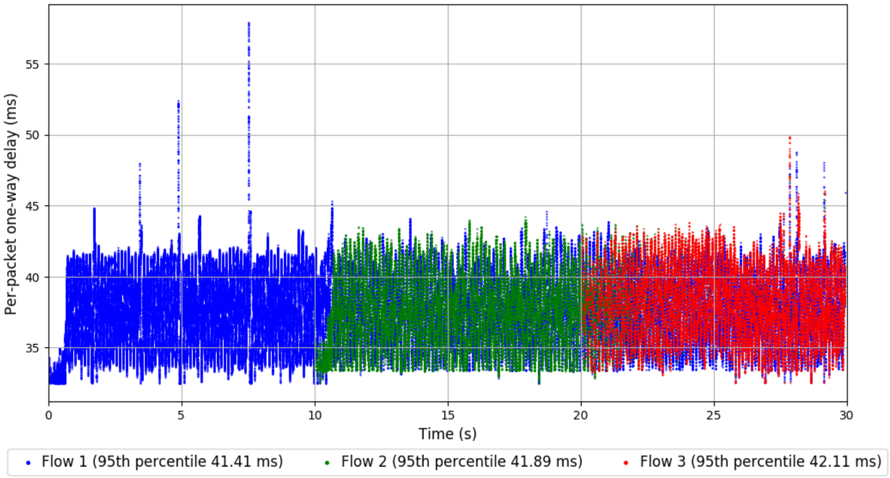
```
Run 7: Statistics of CalibratedKoho

Start at: 2017-08-11 07:39:13
End at: 2017-08-11 07:39:43
Local clock offset: -0.086 ms
Remote clock offset: -20.256 ms

# Below is generated by plot.py at 2017-08-11 14:24:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 41.621 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 64.25 Mbit/s
95th percentile per-packet one-way delay: 41.414 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 28.50 Mbit/s
95th percentile per-packet one-way delay: 41.887 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 38.63 Mbit/s
95th percentile per-packet one-way delay: 42.106 ms
Loss rate: 0.32%
```

Run 7: Report of CalibratedKoho — Data Link



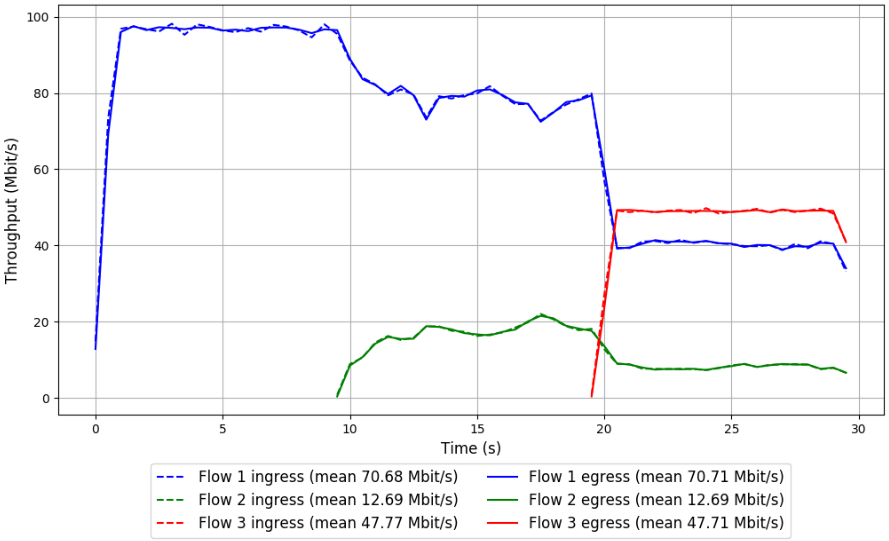


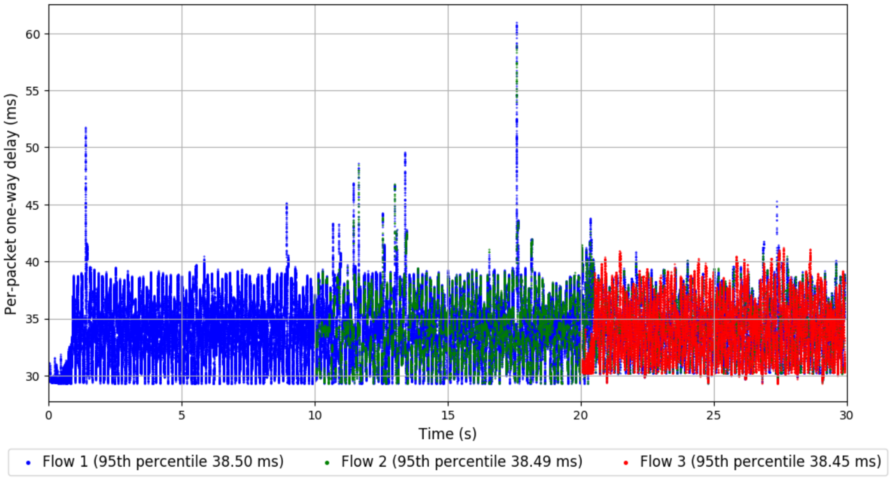
```
Run 8: Statistics of CalibratedKoho

Start at: 2017-08-11 07:57:29
End at: 2017-08-11 07:57:59
Local clock offset: -1.976 ms
Remote clock offset: -18.663 ms

# Below is generated by plot.py at 2017-08-11 14:24:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.01 Mbit/s
95th percentile per-packet one-way delay: 38.490 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 70.71 Mbit/s
95th percentile per-packet one-way delay: 38.496 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 38.488 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 47.71 Mbit/s
95th percentile per-packet one-way delay: 38.446 ms
Loss rate: 0.32%
```

Run 8: Report of CalibratedKoho — Data Link



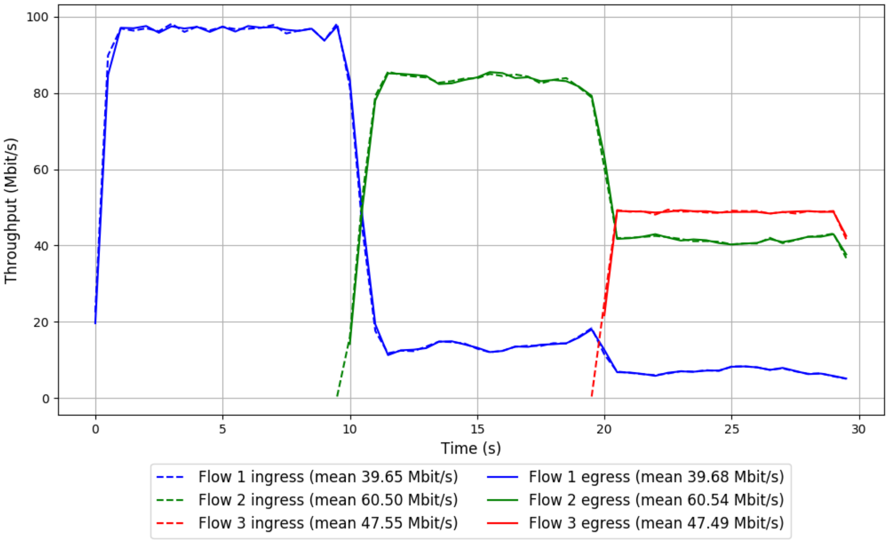


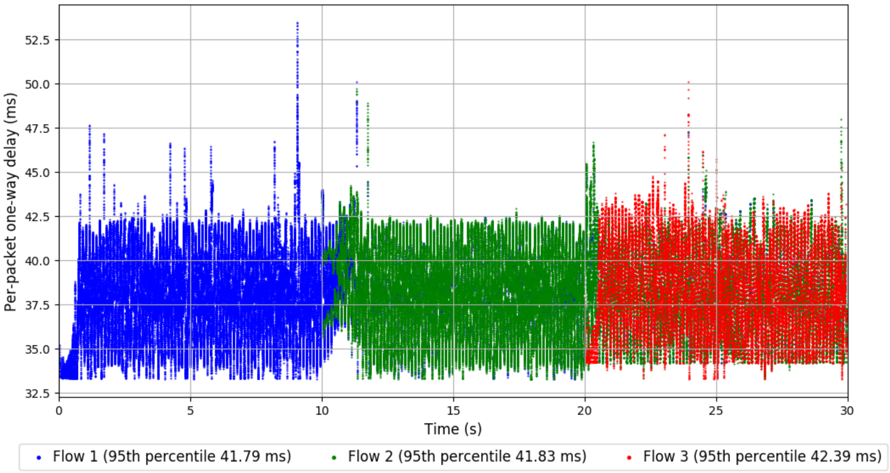
```
Run 9: Statistics of CalibratedKoho

Start at: 2017-08-11 08:15:37
End at: 2017-08-11 08:16:07
Local clock offset: 0.952 ms
Remote clock offset: -20.619 ms

# Below is generated by plot.py at 2017-08-11 14:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 41.884 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 41.790 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 60.54 Mbit/s
95th percentile per-packet one-way delay: 41.829 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 47.49 Mbit/s
95th percentile per-packet one-way delay: 42.392 ms
Loss rate: 0.30%
```

Run 9: Report of CalibratedKoho — Data Link



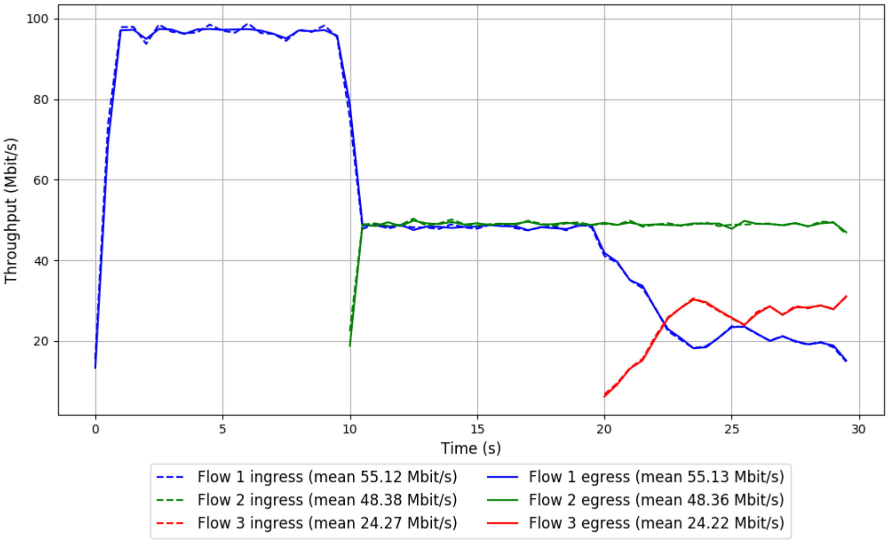


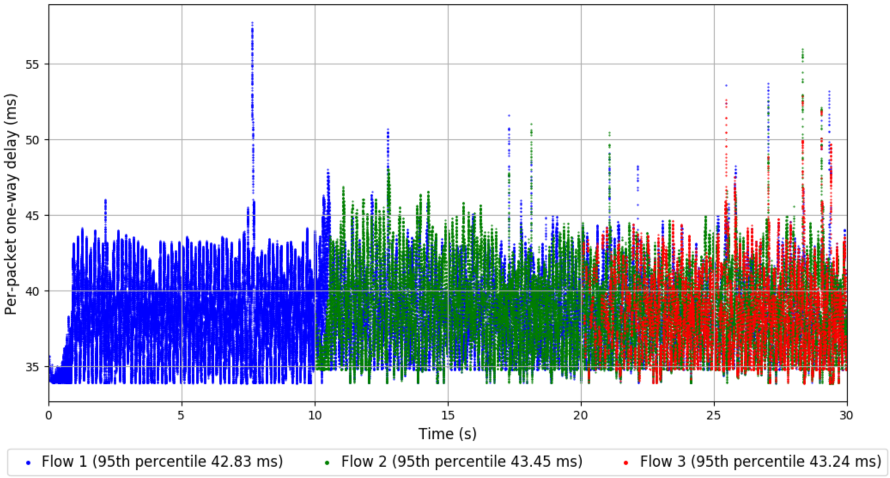
```
Run 10: Statistics of CalibratedKoho

Start at: 2017-08-11 08:33:42
End at: 2017-08-11 08:34:12
Local clock offset: 2.491 ms
Remote clock offset: -20.511 ms

# Below is generated by plot.py at 2017-08-11 14:24:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.34 Mbit/s
95th percentile per-packet one-way delay: 43.021 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 55.13 Mbit/s
95th percentile per-packet one-way delay: 42.827 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 48.36 Mbit/s
95th percentile per-packet one-way delay: 43.446 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 43.237 ms
Loss rate: 0.47%
```

Run 10: Report of CalibratedKoho — Data Link



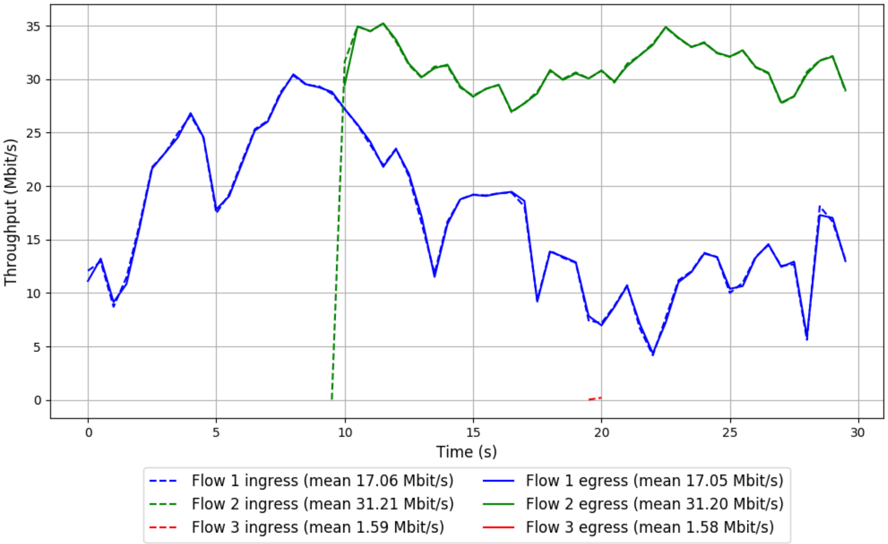


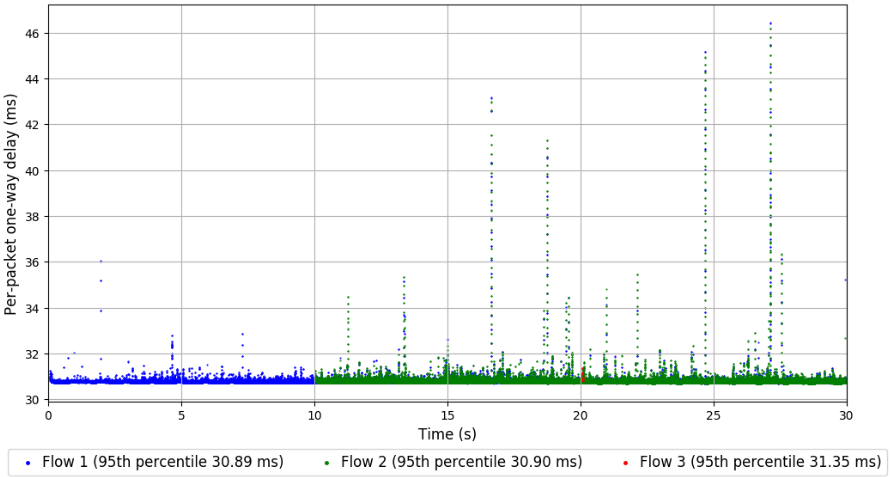
```
Run 1: Statistics of Copa

Start at: 2017-08-11 05:42:27
End at: 2017-08-11 05:42:57
Local clock offset: -1.519 ms
Remote clock offset: -18.713 ms

# Below is generated by plot.py at 2017-08-11 14:24:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.85 Mbit/s
95th percentile per-packet one-way delay: 30.895 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 17.05 Mbit/s
95th percentile per-packet one-way delay: 30.891 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 30.900 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 31.348 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link



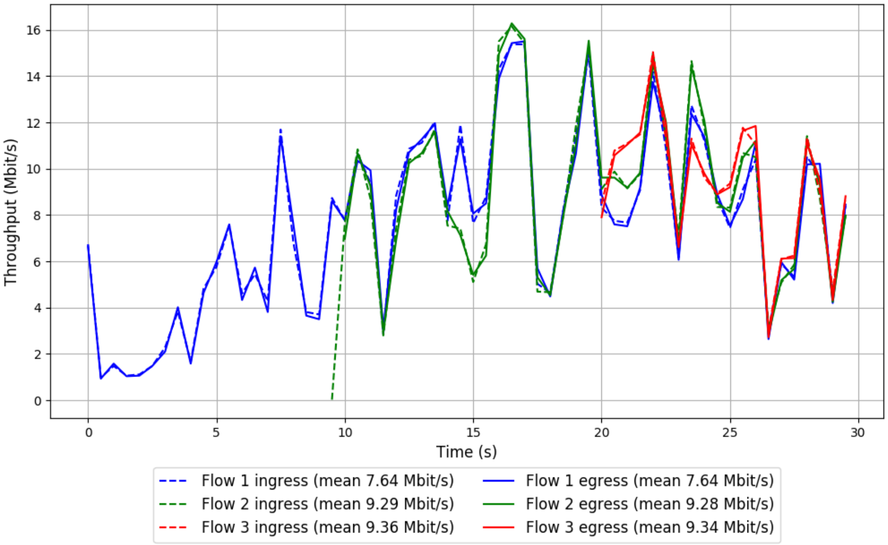


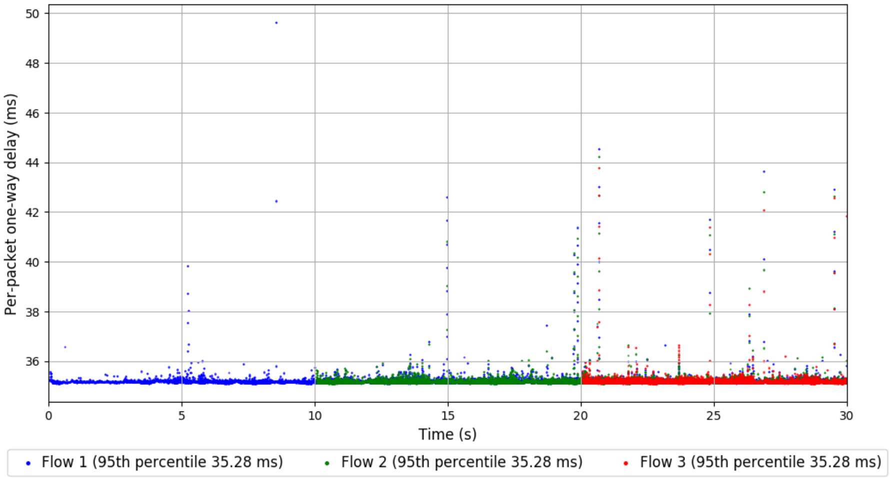
```
Run 2: Statistics of Copa

Start at: 2017-08-11 06:00:57
End at: 2017-08-11 06:01:27
Local clock offset: 1.668 ms
Remote clock offset: -19.041 ms

# Below is generated by plot.py at 2017-08-11 14:24:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.92 Mbit/s
95th percentile per-packet one-way delay: 35.283 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 35.281 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 35.285 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 35.285 ms
Loss rate: 0.32%
```

Run 2: Report of Copa — Data Link

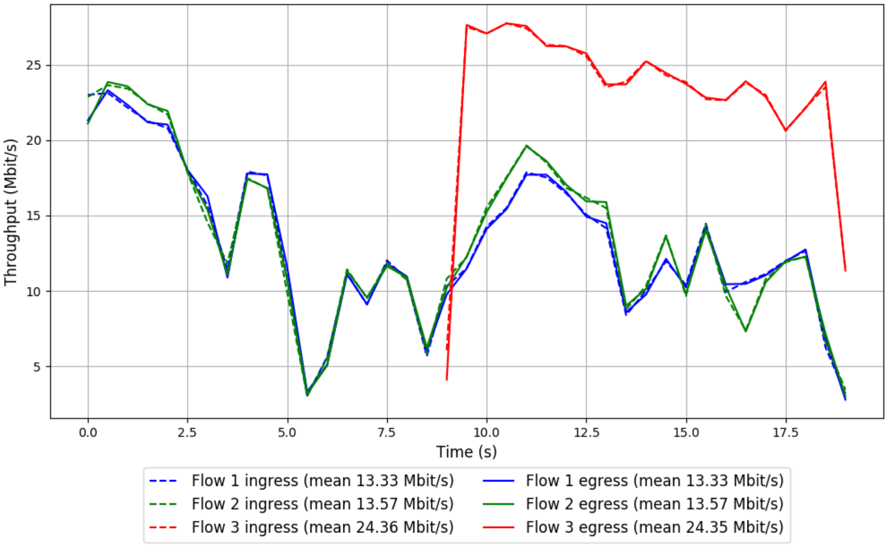


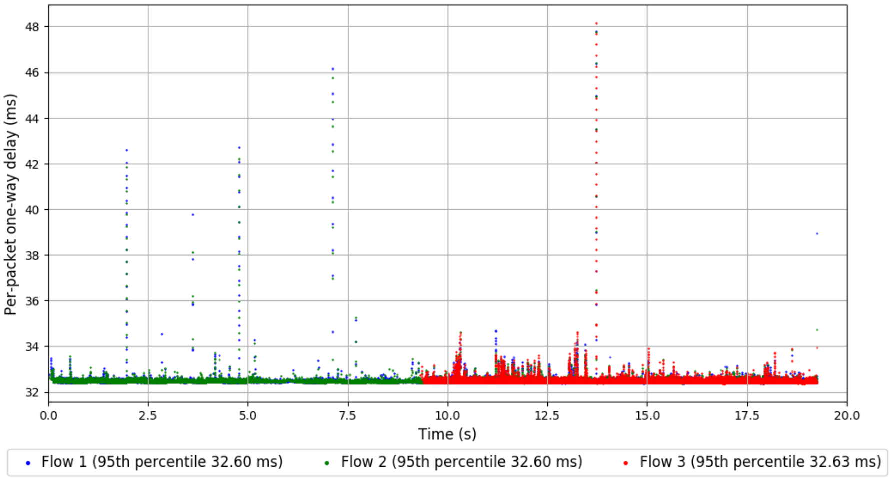


```
Run 3: Statistics of Copa

Start at: 2017-08-11 06:18:56
End at: 2017-08-11 06:19:26
Local clock offset: -0.984 ms
Remote clock offset: -18.398 ms
```

Run 3: Report of Copa — Data Link



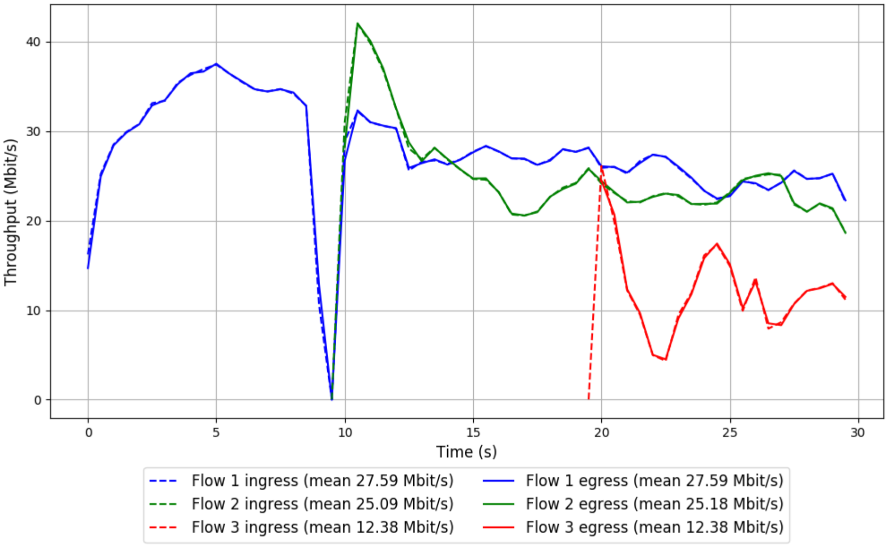


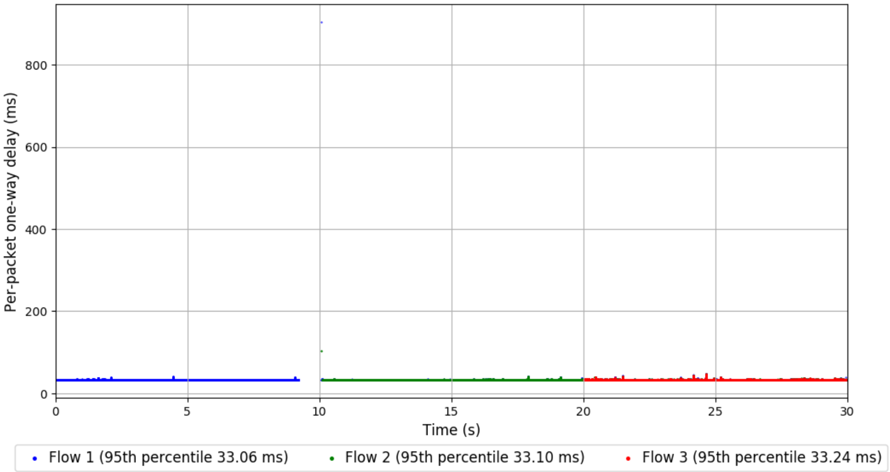
```
Run 4: Statistics of Copa

Start at: 2017-08-11 06:36:38
End at: 2017-08-11 06:37:08
Local clock offset: 0.516 ms
Remote clock offset: -17.226 ms

# Below is generated by plot.py at 2017-08-11 14:25:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.42 Mbit/s
95th percentile per-packet one-way delay: 33.094 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 33.063 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 25.18 Mbit/s
95th percentile per-packet one-way delay: 33.105 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 33.243 ms
Loss rate: 0.25%
```

Run 4: Report of Copa — Data Link



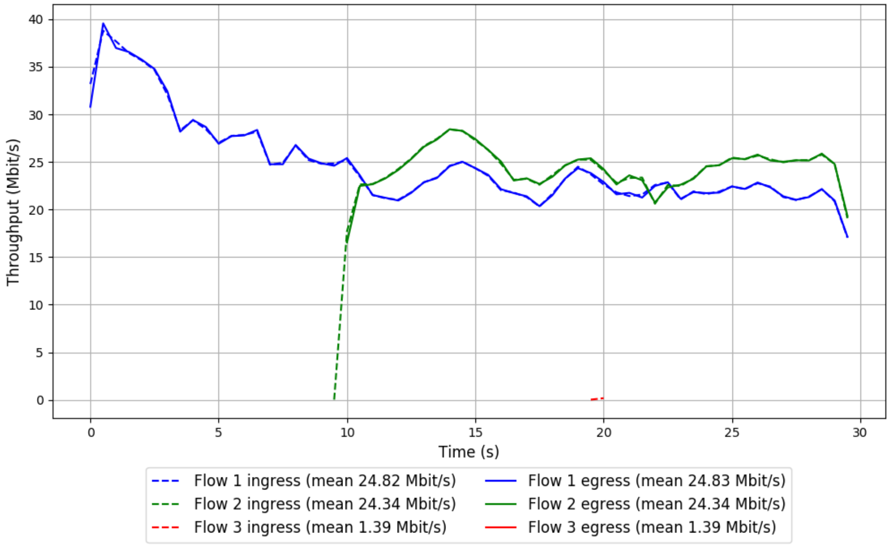


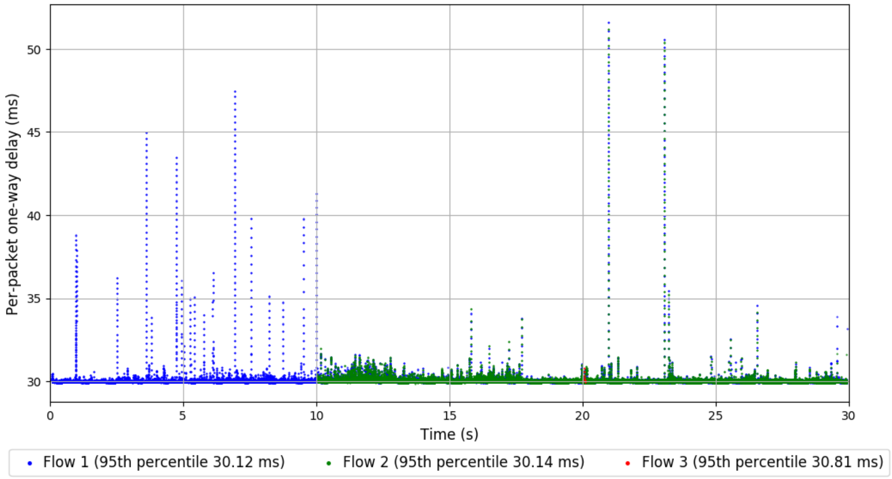
```
Run 5: Statistics of Copa

Start at: 2017-08-11 06:54:49
End at: 2017-08-11 06:55:19
Local clock offset: -3.102 ms
Remote clock offset: -18.481 ms

# Below is generated by plot.py at 2017-08-11 14:25:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.05 Mbit/s
95th percentile per-packet one-way delay: 30.128 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 24.83 Mbit/s
95th percentile per-packet one-way delay: 30.122 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 24.34 Mbit/s
95th percentile per-packet one-way delay: 30.137 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 30.807 ms
Loss rate: 0.00%
```

Run 5: Report of Copa — Data Link



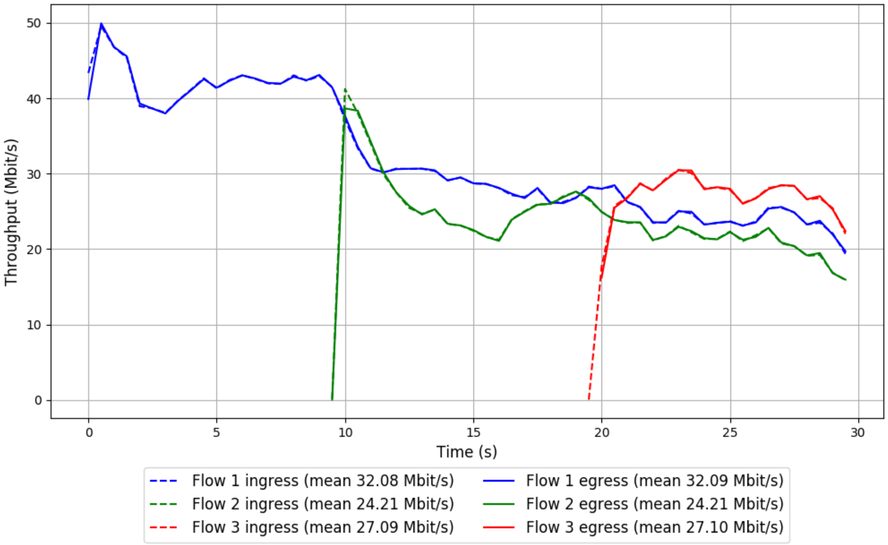


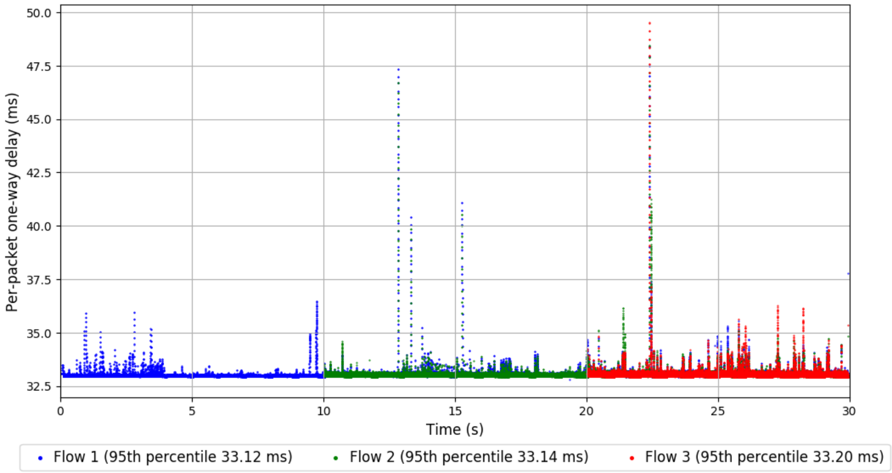
```
Run 6: Statistics of Copa

Start at: 2017-08-11 07:12:47
End at: 2017-08-11 07:13:17
Local clock offset: -0.099 ms
Remote clock offset: -19.691 ms

# Below is generated by plot.py at 2017-08-11 14:25:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.22 Mbit/s
95th percentile per-packet one-way delay: 33.138 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 32.09 Mbit/s
95th percentile per-packet one-way delay: 33.117 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 24.21 Mbit/s
95th percentile per-packet one-way delay: 33.143 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 27.10 Mbit/s
95th percentile per-packet one-way delay: 33.195 ms
Loss rate: 0.26%
```

Run 6: Report of Copa — Data Link



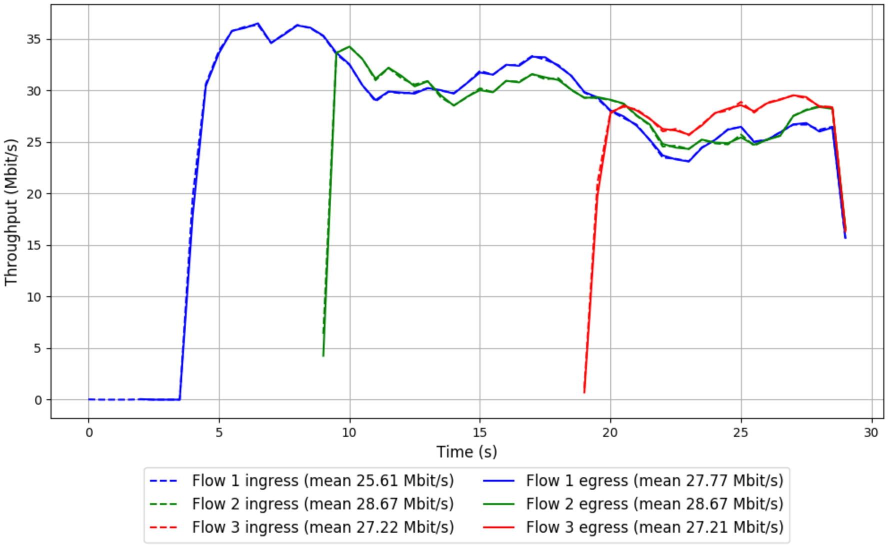


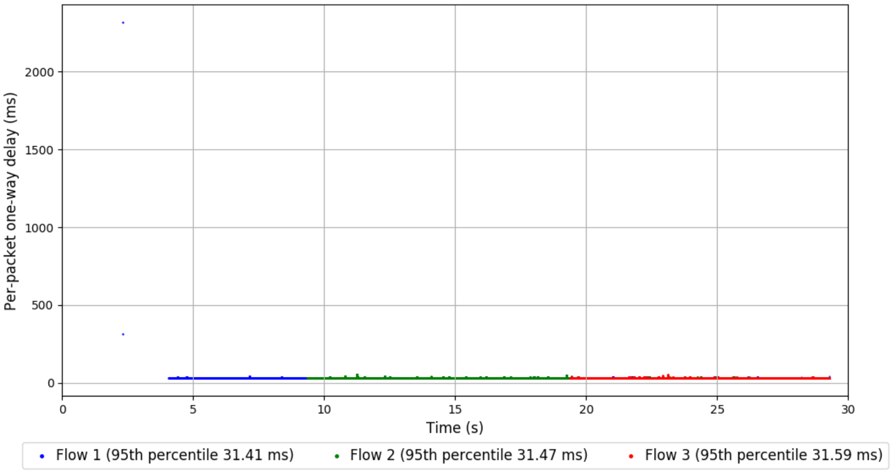
```
Run 7: Statistics of Copa

Start at: 2017-08-11 07:30:57
End at: 2017-08-11 07:31:27
Local clock offset: 0.531 ms
Remote clock offset: -18.311 ms

# Below is generated by plot.py at 2017-08-11 14:25:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.95 Mbit/s
95th percentile per-packet one-way delay: 31.457 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 27.77 Mbit/s
95th percentile per-packet one-way delay: 31.406 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 28.67 Mbit/s
95th percentile per-packet one-way delay: 31.473 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 27.21 Mbit/s
95th percentile per-packet one-way delay: 31.590 ms
Loss rate: 0.28%
```

Run 7: Report of Copa — Data Link

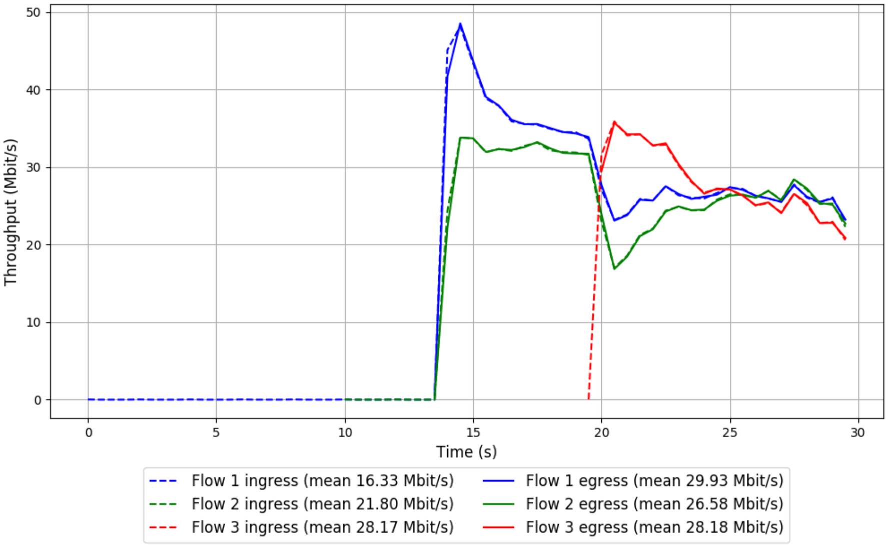


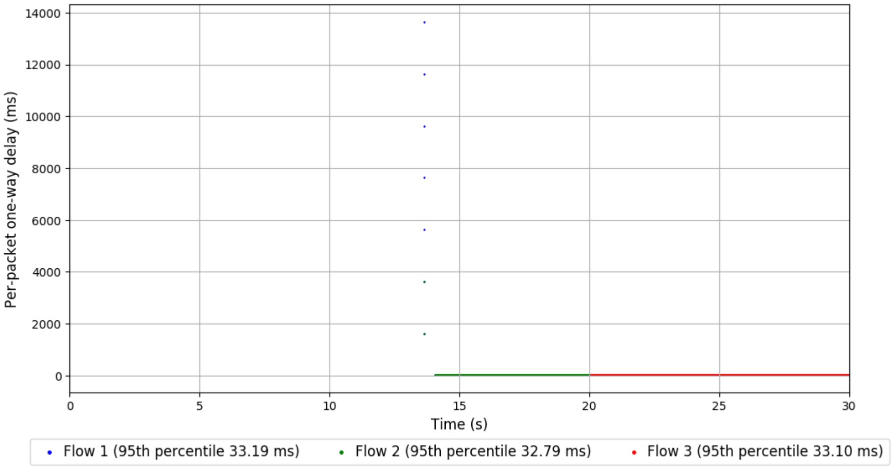


```
Run 8: Statistics of Copa

Start at: 2017-08-11 07:48:58
End at: 2017-08-11 07:49:28
Local clock offset: -0.32 ms
Remote clock offset: -19.441 ms
```

Run 8: Report of Copa — Data Link



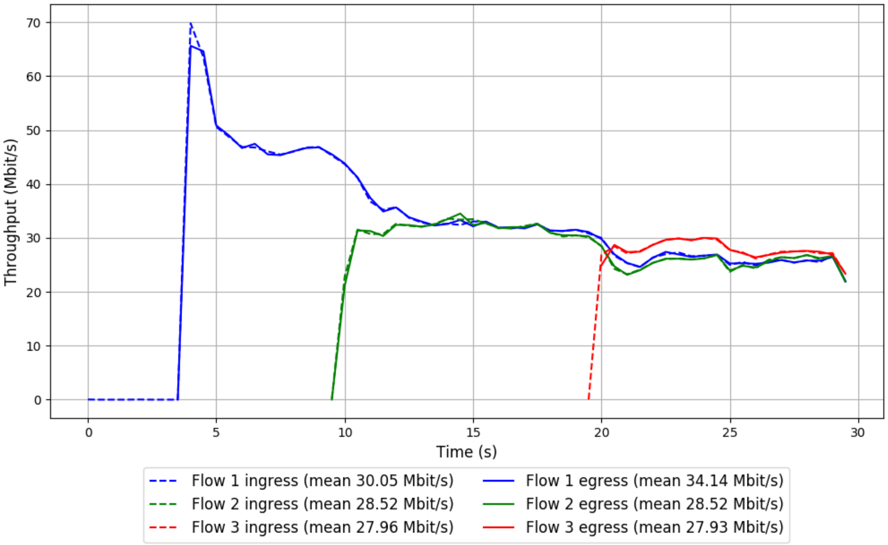


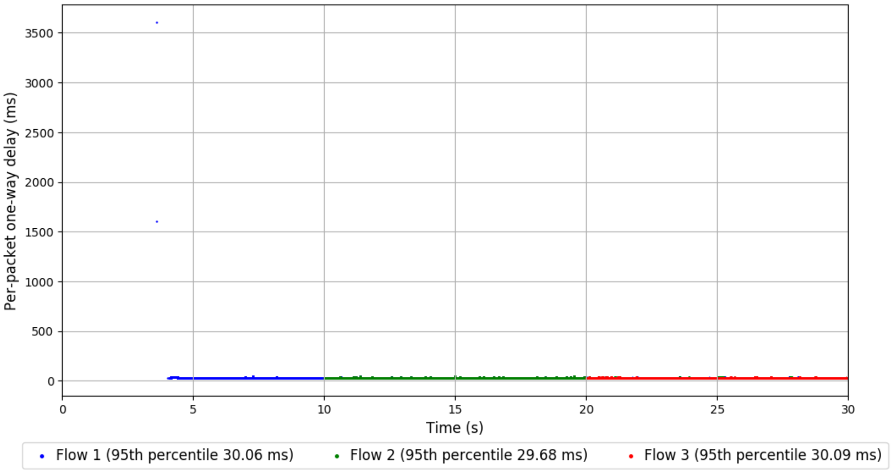
```
Run 9: Statistics of Copa

Start at: 2017-08-11 08:07:20
End at: 2017-08-11 08:07:50
Local clock offset: -2.238 ms
Remote clock offset: -19.095 ms

# Below is generated by plot.py at 2017-08-11 14:25:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.26 Mbit/s
95th percentile per-packet one-way delay: 29.951 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 30.063 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 28.52 Mbit/s
95th percentile per-packet one-way delay: 29.684 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 27.93 Mbit/s
95th percentile per-packet one-way delay: 30.089 ms
Loss rate: 0.28%
```

Run 9: Report of Copa — Data Link



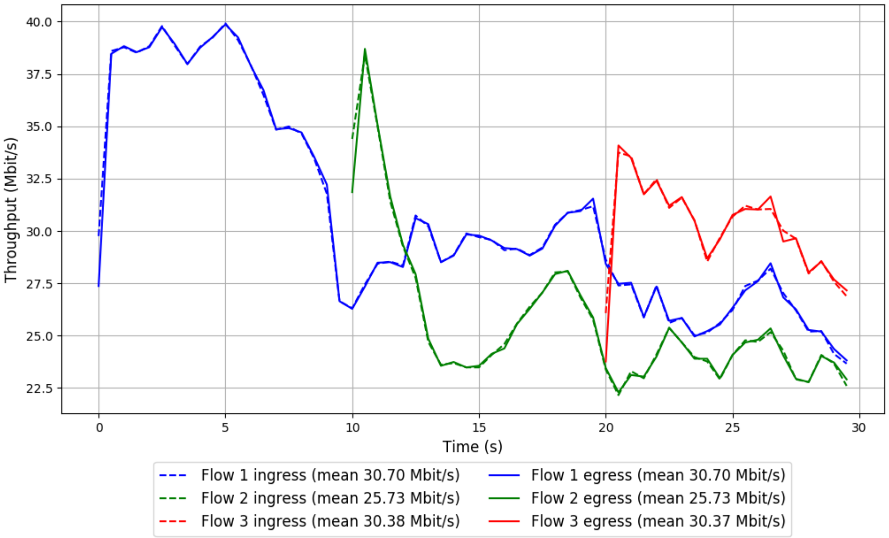


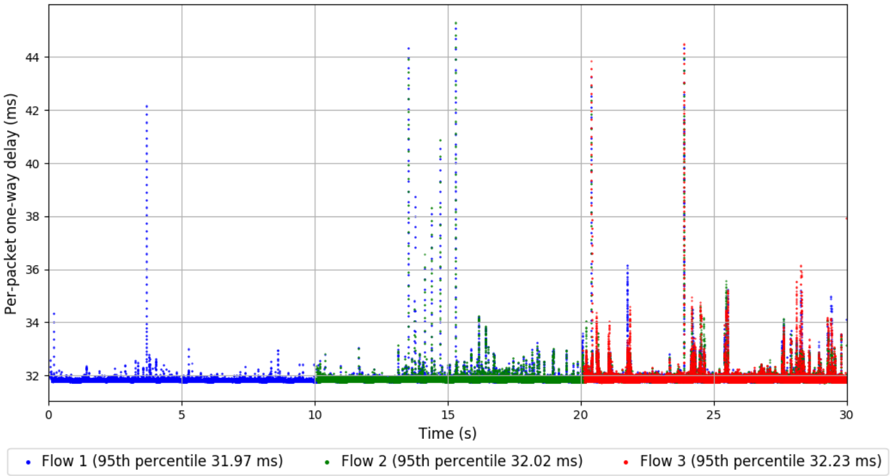
```
Run 10: Statistics of Copa

Start at: 2017-08-11 08:25:27
End at: 2017-08-11 08:25:57
Local clock offset: -1.301 ms
Remote clock offset: -21.735 ms

# Below is generated by plot.py at 2017-08-11 14:25:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.88 Mbit/s
95th percentile per-packet one-way delay: 32.011 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 31.974 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 25.73 Mbit/s
95th percentile per-packet one-way delay: 32.022 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 32.228 ms
Loss rate: 0.25%
```

Run 10: Report of Copa — Data Link



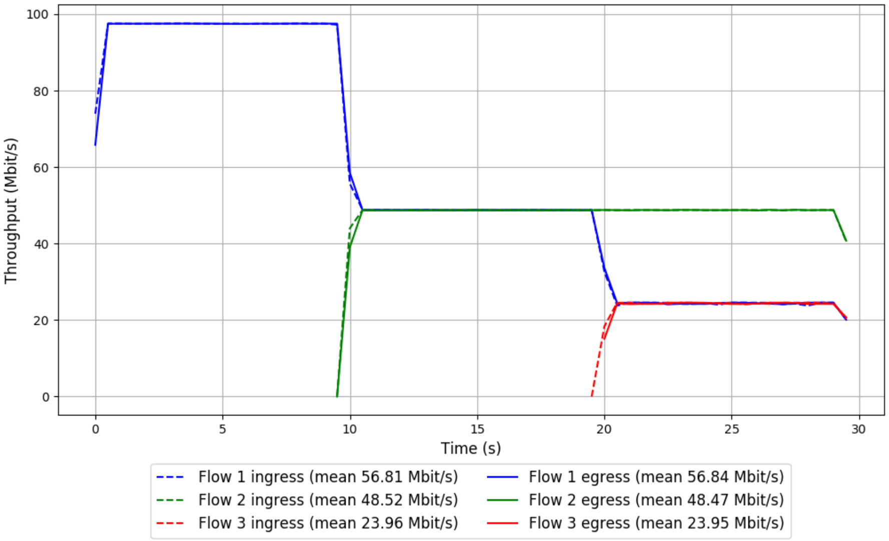


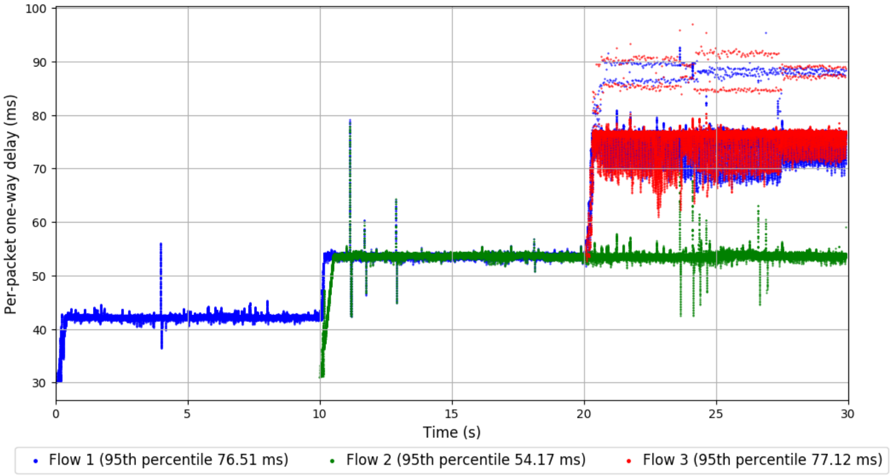
```
Run 1: Statistics of TCP Cubic

Start at: 2017-08-11 05:34:36
End at: 2017-08-11 05:35:06
Local clock offset: -1.646 ms
Remote clock offset: -17.929 ms

# Below is generated by plot.py at 2017-08-11 14:25:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.07 Mbit/s
95th percentile per-packet one-way delay: 76.629 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 76.509 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 48.47 Mbit/s
95th percentile per-packet one-way delay: 54.174 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 23.95 Mbit/s
95th percentile per-packet one-way delay: 77.122 ms
Loss rate: 0.79%
```

Run 1: Report of TCP Cubic — Data Link



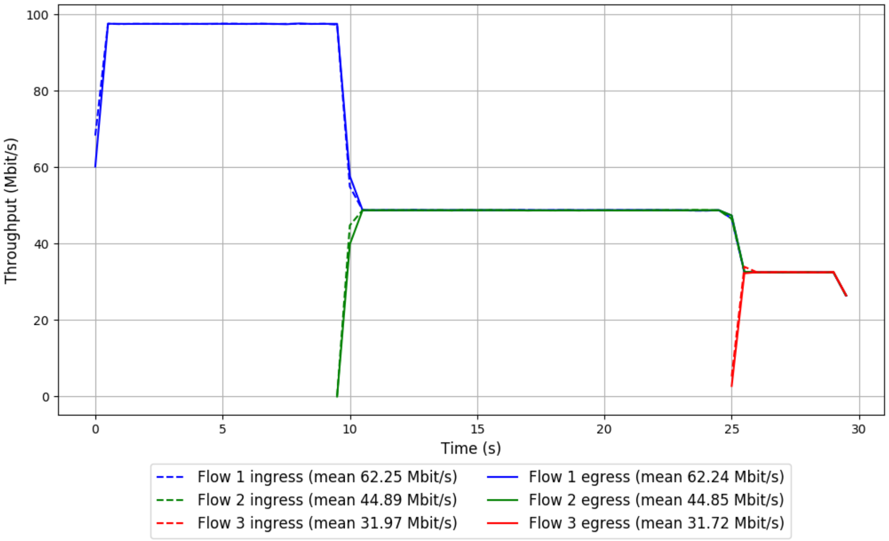


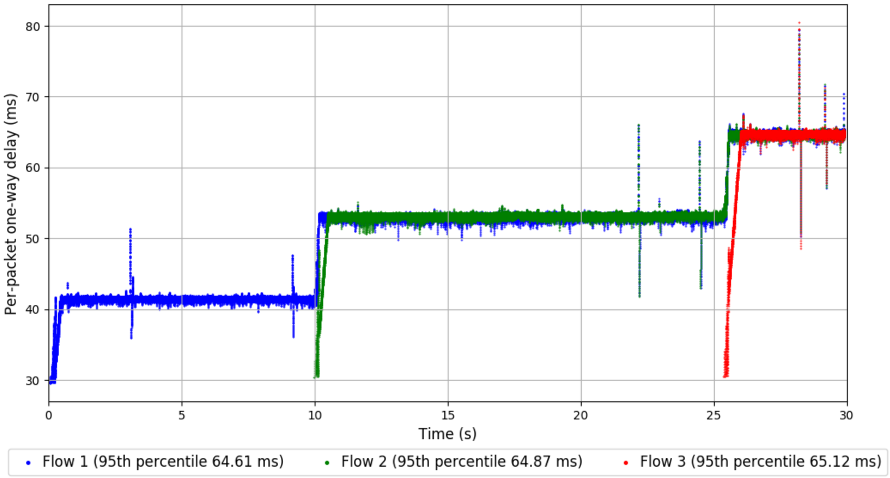
```
Run 2: Statistics of TCP Cubic

Start at: 2017-08-11 05:53:17
End at: 2017-08-11 05:53:47
Local clock offset: -3.164 ms
Remote clock offset: -18.88 ms

# Below is generated by plot.py at 2017-08-11 14:25:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.99 Mbit/s
95th percentile per-packet one-way delay: 64.868 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 62.24 Mbit/s
95th percentile per-packet one-way delay: 64.614 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 44.85 Mbit/s
95th percentile per-packet one-way delay: 64.873 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 65.120 ms
Loss rate: 1.38%
```

Run 2: Report of TCP Cubic — Data Link



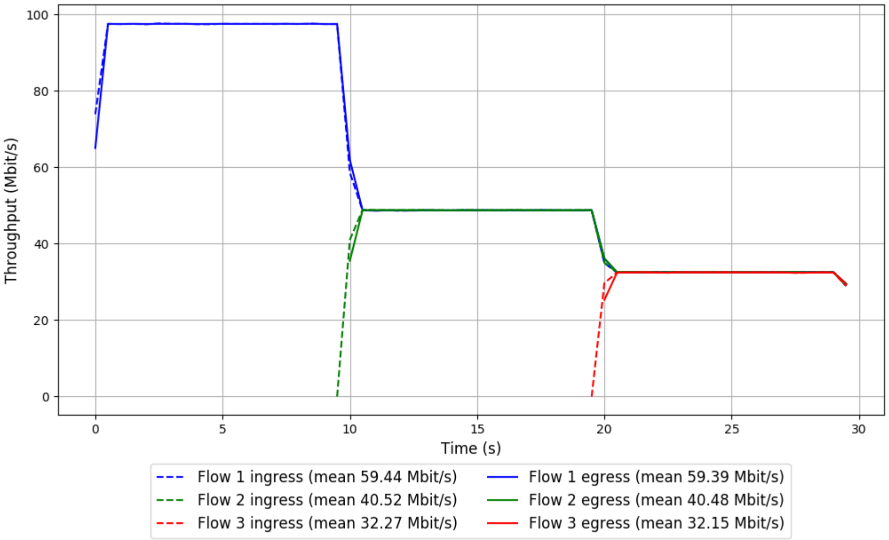


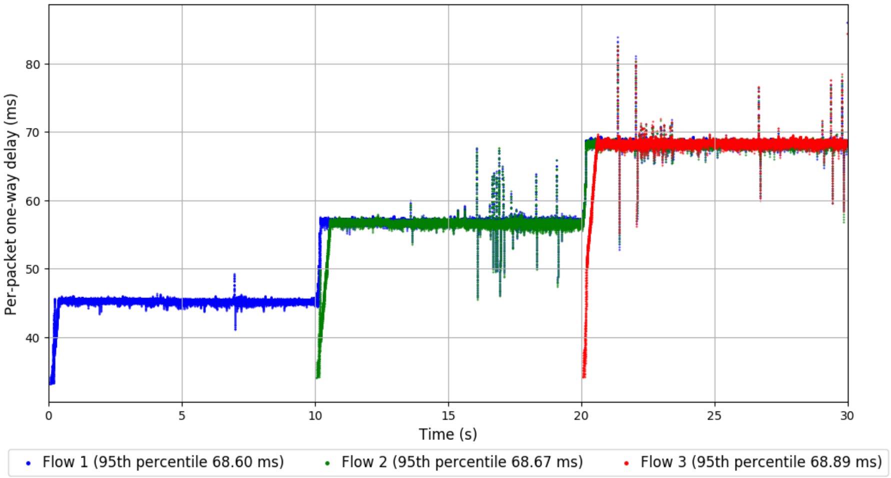
```
Run 3: Statistics of TCP Cubic

Start at: 2017-08-11 06:11:43
End at: 2017-08-11 06:12:13
Local clock offset: 0.311 ms
Remote clock offset: -17.995 ms

# Below is generated by plot.py at 2017-08-11 14:26:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.02 Mbit/s
95th percentile per-packet one-way delay: 68.693 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.39 Mbit/s
95th percentile per-packet one-way delay: 68.599 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.48 Mbit/s
95th percentile per-packet one-way delay: 68.674 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 32.15 Mbit/s
95th percentile per-packet one-way delay: 68.894 ms
Loss rate: 0.61%
```

Run 3: Report of TCP Cubic — Data Link



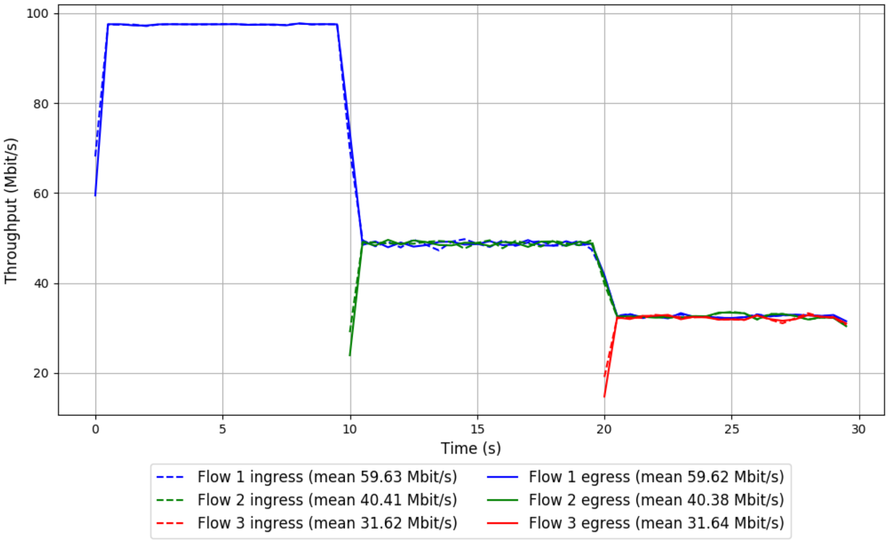


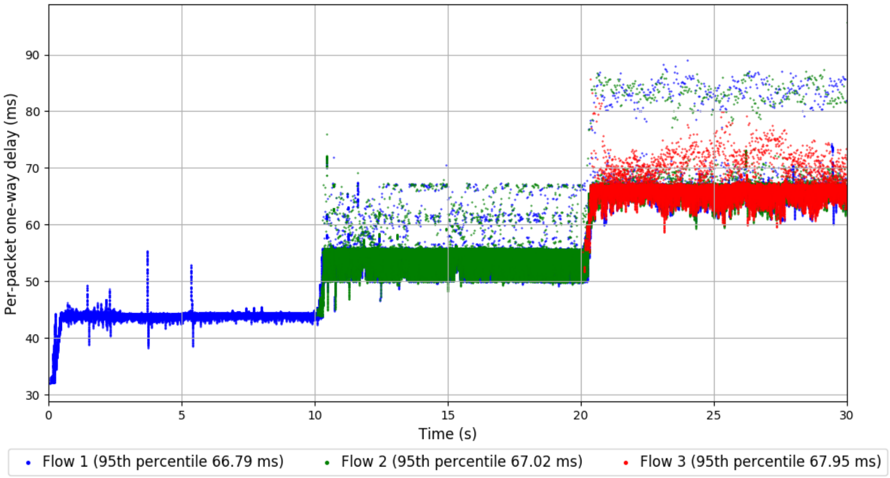
```
Run 4: Statistics of TCP Cubic

Start at: 2017-08-11 06:29:34
End at: 2017-08-11 06:30:04
Local clock offset: -1.107 ms
Remote clock offset: -18.545 ms

# Below is generated by plot.py at 2017-08-11 14:26:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.91 Mbit/s
95th percentile per-packet one-way delay: 66.954 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 66.794 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 40.38 Mbit/s
95th percentile per-packet one-way delay: 67.016 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 67.949 ms
Loss rate: 0.64%
```

Run 4: Report of TCP Cubic — Data Link



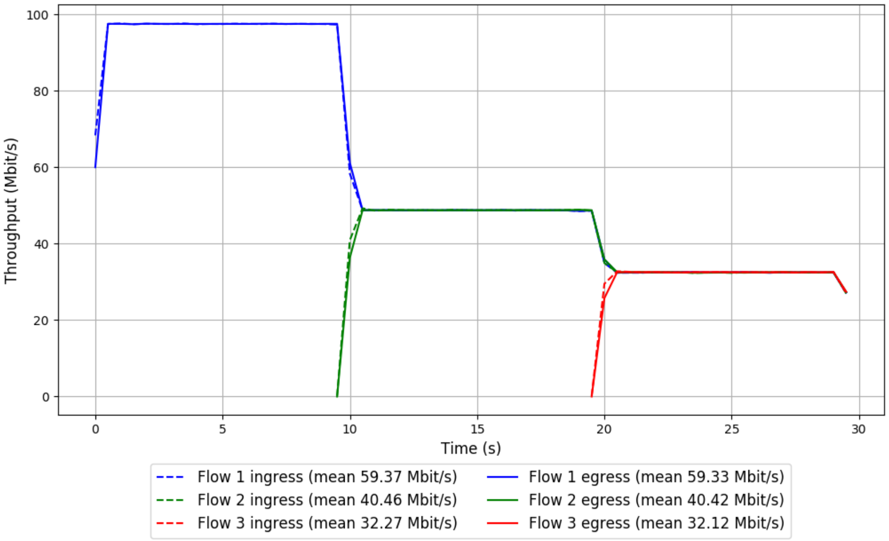


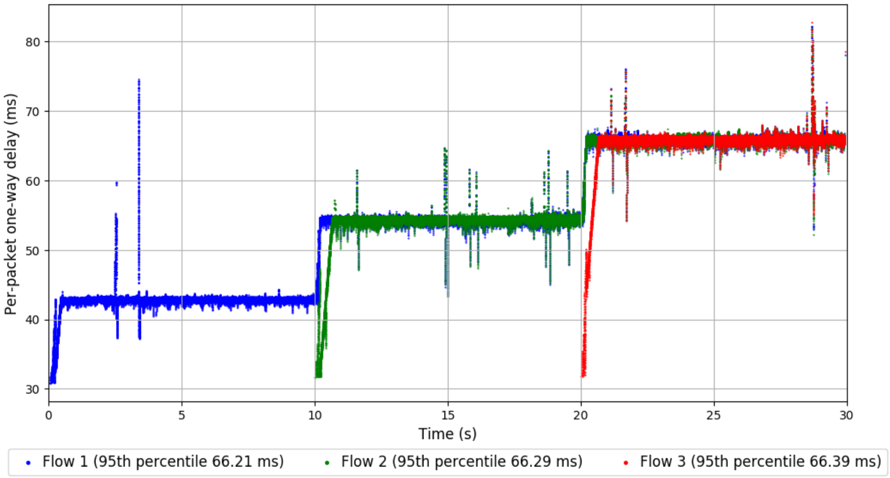
```
Run 5: Statistics of TCP Cubic

Start at: 2017-08-11 06:47:28
End at: 2017-08-11 06:47:58
Local clock offset: -1.172 ms
Remote clock offset: -17.02 ms

# Below is generated by plot.py at 2017-08-11 14:26:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.95 Mbit/s
95th percentile per-packet one-way delay: 66.286 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.33 Mbit/s
95th percentile per-packet one-way delay: 66.208 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.42 Mbit/s
95th percentile per-packet one-way delay: 66.291 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 66.388 ms
Loss rate: 0.61%
```

Run 5: Report of TCP Cubic — Data Link



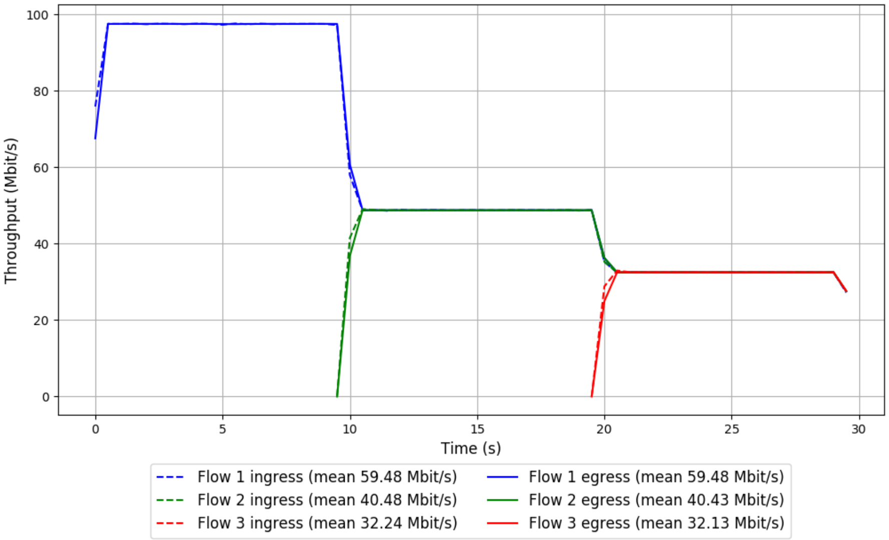


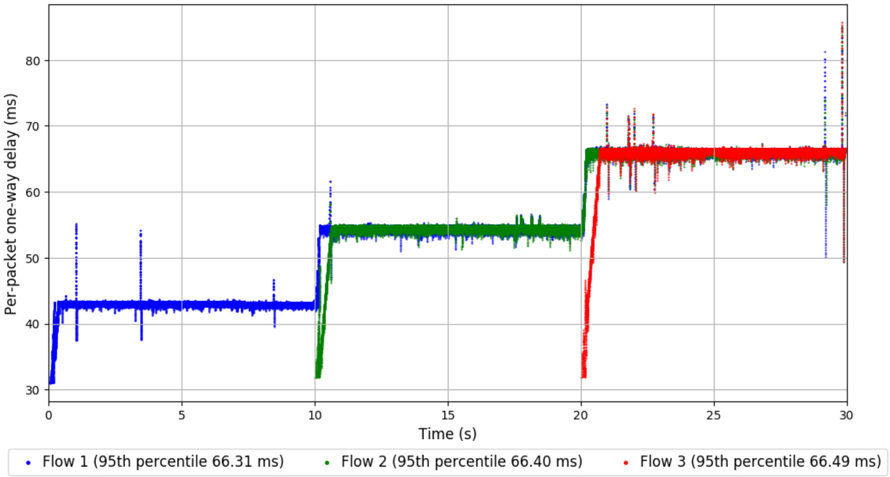
```
Run 6: Statistics of TCP Cubic

Start at: 2017-08-11 07:05:39
End at: 2017-08-11 07:06:09
Local clock offset: -1.043 ms
Remote clock offset: -18.203 ms

# Below is generated by plot.py at 2017-08-11 14:26:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.11 Mbit/s
95th percentile per-packet one-way delay: 66.403 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 59.48 Mbit/s
95th percentile per-packet one-way delay: 66.313 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.43 Mbit/s
95th percentile per-packet one-way delay: 66.404 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 66.488 ms
Loss rate: 0.67%
```

Run 6: Report of TCP Cubic — Data Link



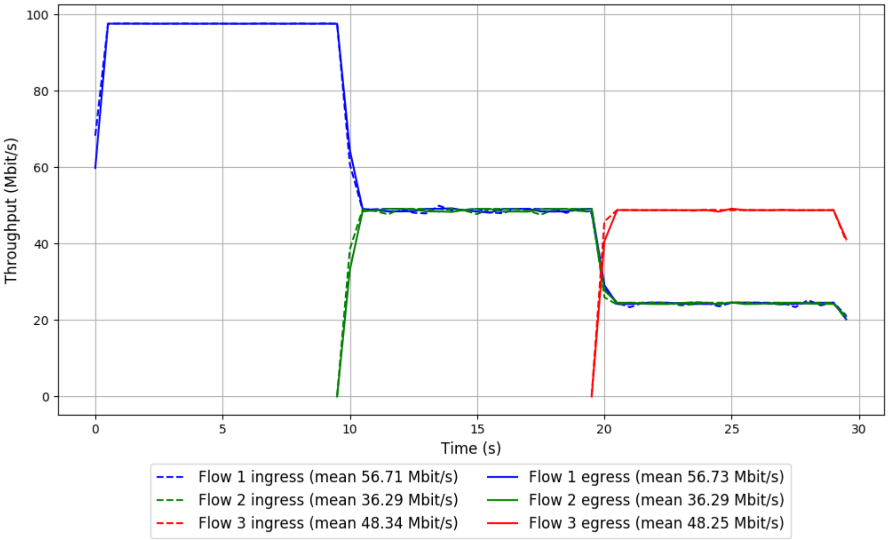


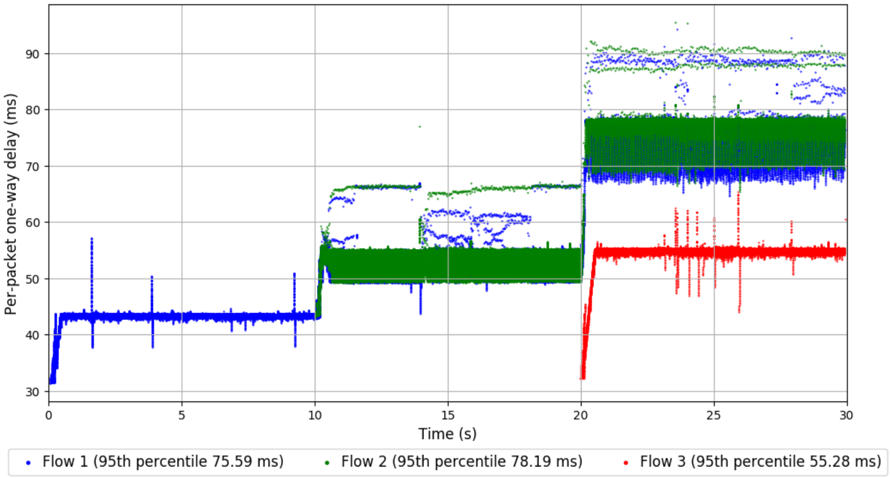
```
Run 7: Statistics of TCP Cubic

Start at: 2017-08-11 07:23:37
End at: 2017-08-11 07:24:07
Local clock offset: -0.236 ms
Remote clock offset: -18.97 ms

# Below is generated by plot.py at 2017-08-11 14:26:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.97 Mbit/s
95th percentile per-packet one-way delay: 77.657 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 56.73 Mbit/s
95th percentile per-packet one-way delay: 75.592 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 36.29 Mbit/s
95th percentile per-packet one-way delay: 78.195 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 48.25 Mbit/s
95th percentile per-packet one-way delay: 55.284 ms
Loss rate: 0.50%
```

Run 7: Report of TCP Cubic — Data Link



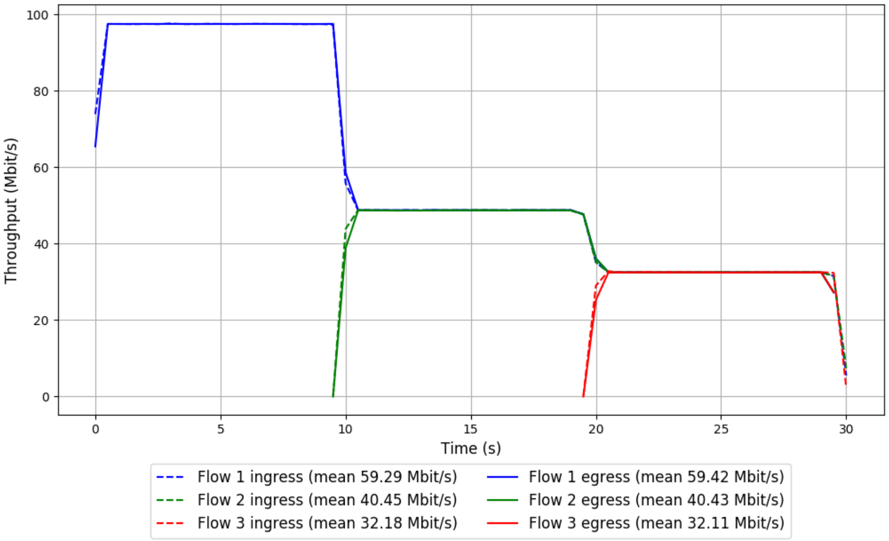


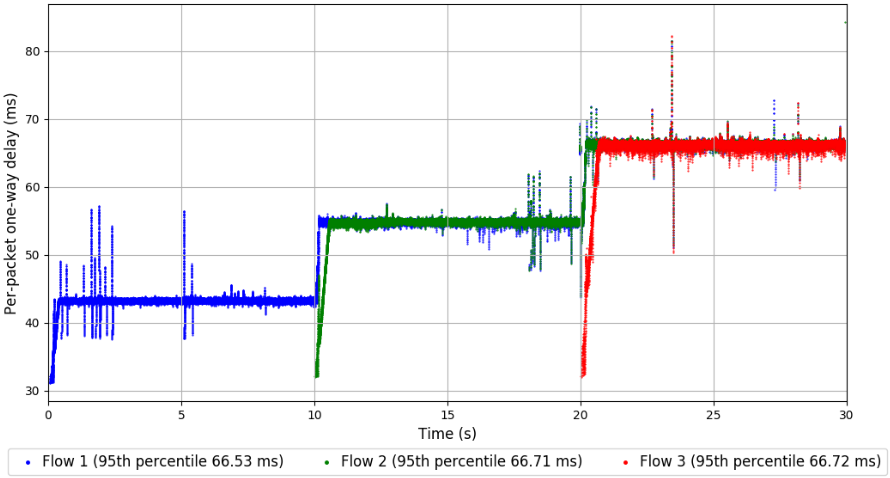
```
Run 8: Statistics of TCP Cubic

Start at: 2017-08-11 07:41:42
End at: 2017-08-11 07:42:12
Local clock offset: 0.517 ms
Remote clock offset: -18.222 ms

# Below is generated by plot.py at 2017-08-11 14:26:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.00 Mbit/s
95th percentile per-packet one-way delay: 66.639 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 59.42 Mbit/s
95th percentile per-packet one-way delay: 66.532 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 40.43 Mbit/s
95th percentile per-packet one-way delay: 66.709 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 66.717 ms
Loss rate: 1.80%
```

Run 8: Report of TCP Cubic — Data Link



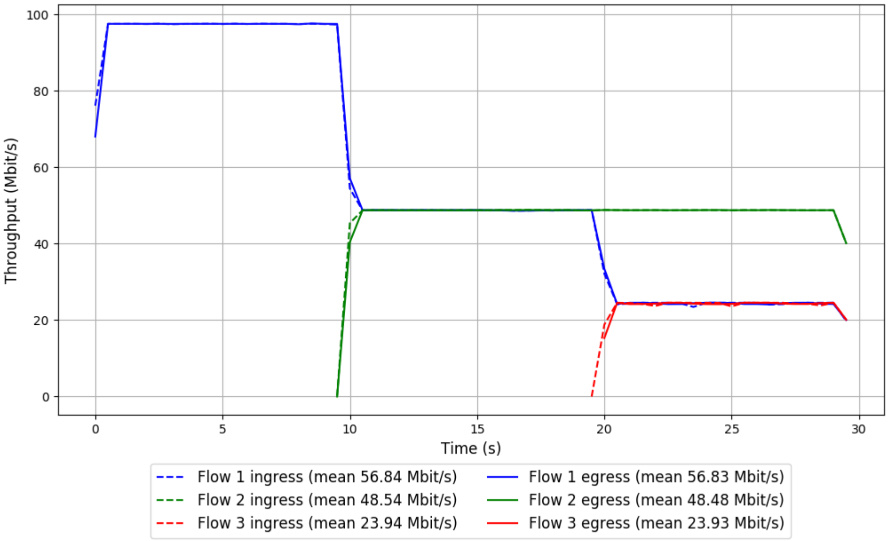


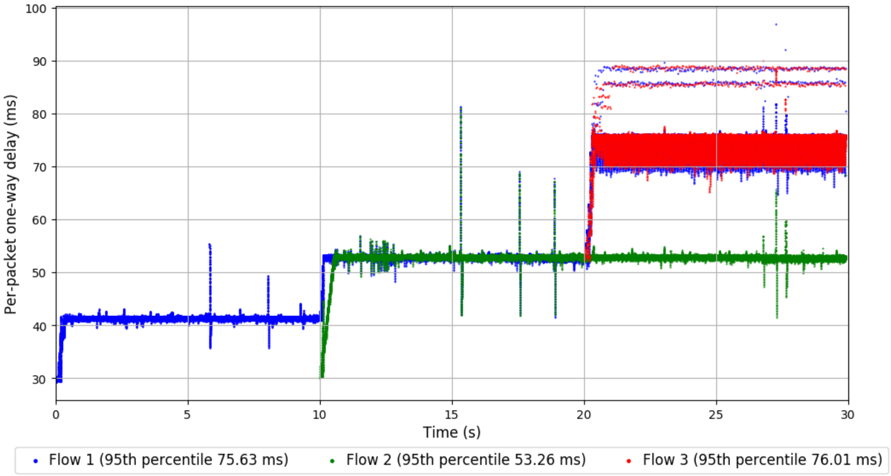
```
Run 9: Statistics of TCP Cubic

Start at: 2017-08-11 08:00:02
End at: 2017-08-11 08:00:32
Local clock offset: -2.078 ms
Remote clock offset: -18.831 ms

# Below is generated by plot.py at 2017-08-11 14:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 75.650 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 56.83 Mbit/s
95th percentile per-packet one-way delay: 75.629 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 48.48 Mbit/s
95th percentile per-packet one-way delay: 53.261 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 76.013 ms
Loss rate: 0.68%
```

Run 9: Report of TCP Cubic — Data Link



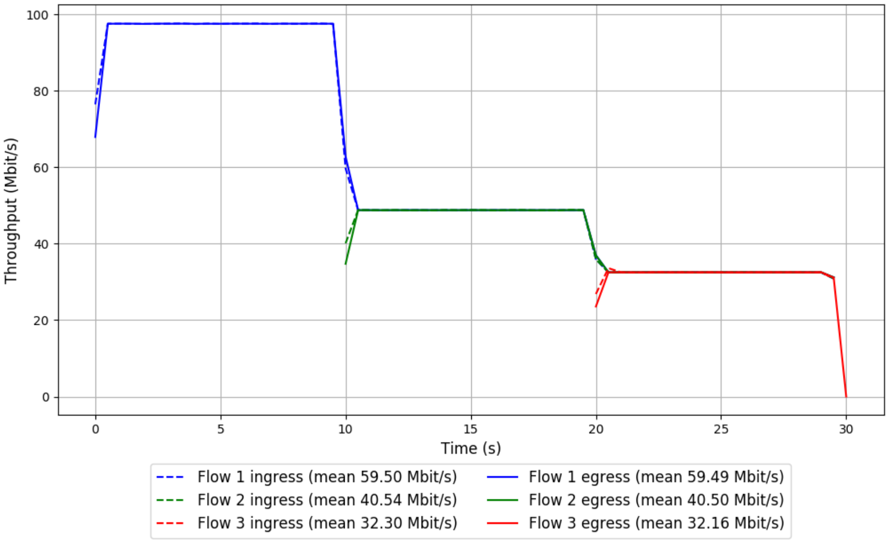


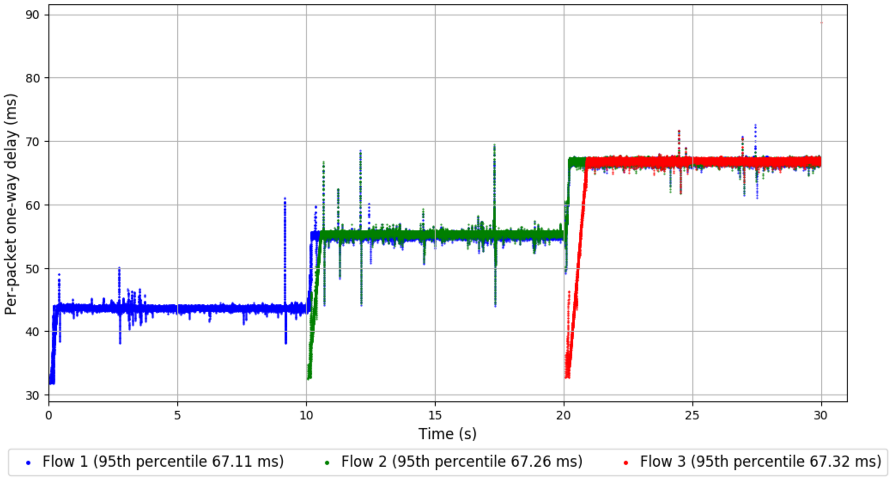
```
Run 10: Statistics of TCP Cubic

Start at: 2017-08-11 08:18:10
End at: 2017-08-11 08:18:40
Local clock offset: 0.06 ms
Remote clock offset: -20.126 ms

# Below is generated by plot.py at 2017-08-11 14:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.07 Mbit/s
95th percentile per-packet one-way delay: 67.229 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 59.49 Mbit/s
95th percentile per-packet one-way delay: 67.106 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.50 Mbit/s
95th percentile per-packet one-way delay: 67.258 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 32.16 Mbit/s
95th percentile per-packet one-way delay: 67.319 ms
Loss rate: 0.63%
```

Run 10: Report of TCP Cubic — Data Link



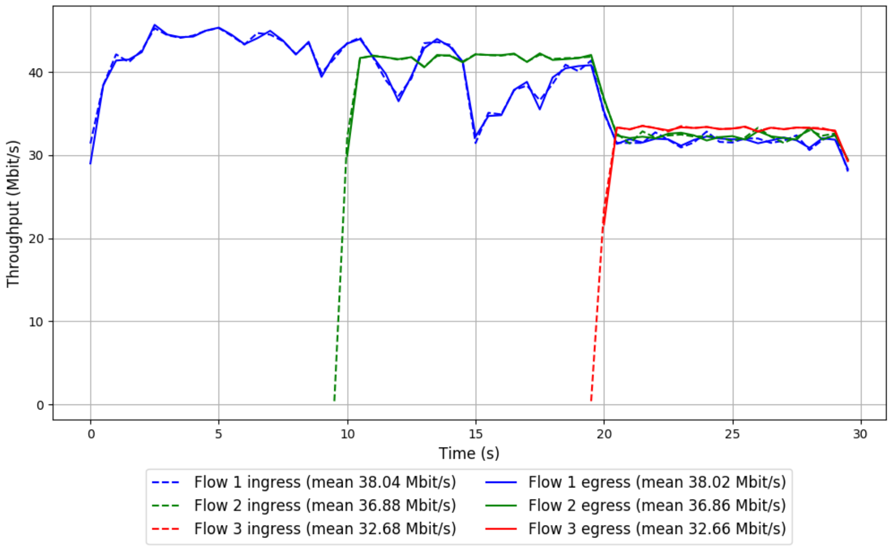


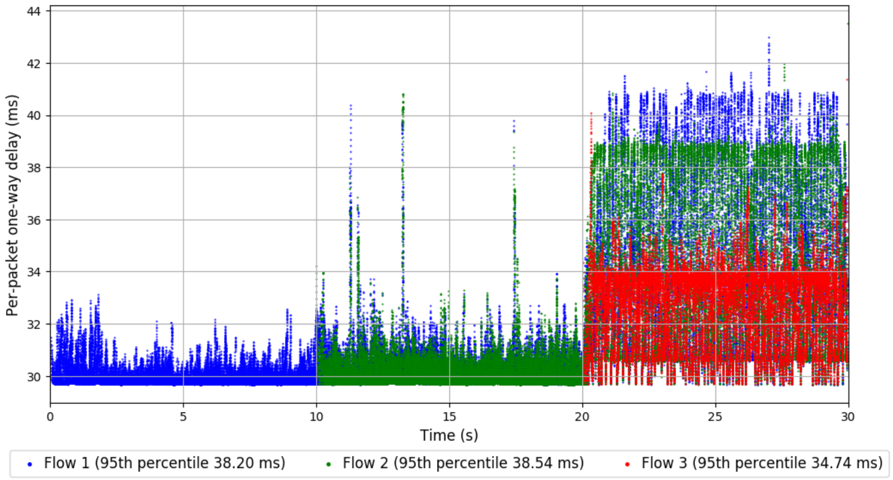
```
Run 1: Statistics of KohoCC

Start at: 2017-08-11 05:44:49
End at: 2017-08-11 05:45:19
Local clock offset: -3.129 ms
Remote clock offset: -19.397 ms

# Below is generated by plot.py at 2017-08-11 14:26:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.42 Mbit/s
95th percentile per-packet one-way delay: 38.265 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 38.02 Mbit/s
95th percentile per-packet one-way delay: 38.196 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 36.86 Mbit/s
95th percentile per-packet one-way delay: 38.543 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.66 Mbit/s
95th percentile per-packet one-way delay: 34.742 ms
Loss rate: 0.33%
```

Run 1: Report of KohoCC — Data Link



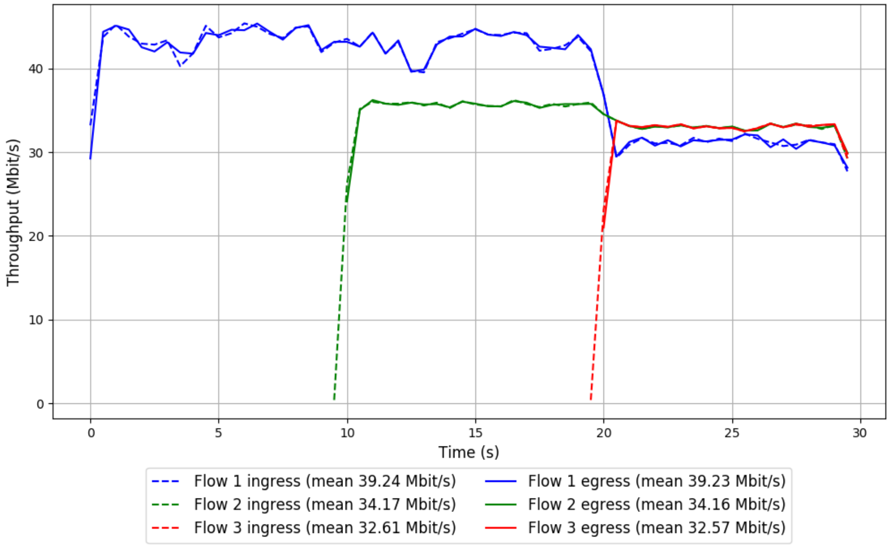


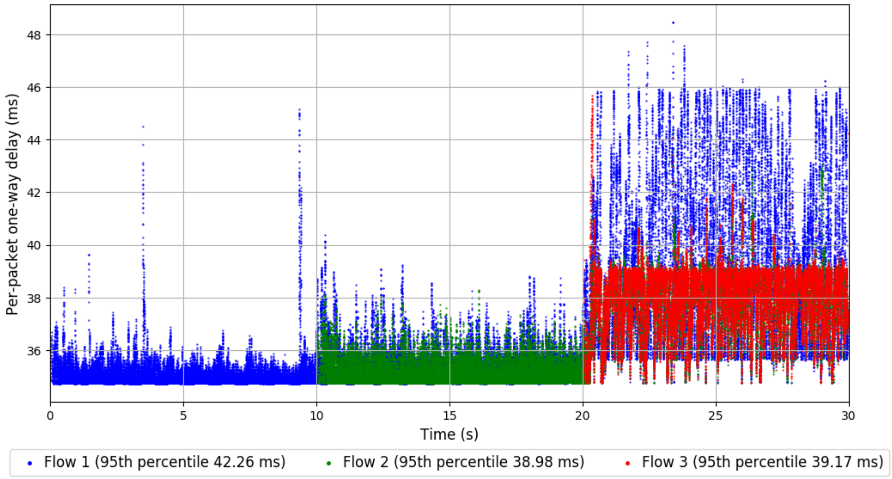
```
Run 2: Statistics of KohoCC

Start at: 2017-08-11 06:03:12
End at: 2017-08-11 06:03:42
Local clock offset: 0.23 ms
Remote clock offset: -20.029 ms

# Below is generated by plot.py at 2017-08-11 14:27:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.81 Mbit/s
95th percentile per-packet one-way delay: 40.419 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 39.23 Mbit/s
95th percentile per-packet one-way delay: 42.258 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 34.16 Mbit/s
95th percentile per-packet one-way delay: 38.981 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.57 Mbit/s
95th percentile per-packet one-way delay: 39.169 ms
Loss rate: 0.30%
```

Run 2: Report of KohoCC — Data Link



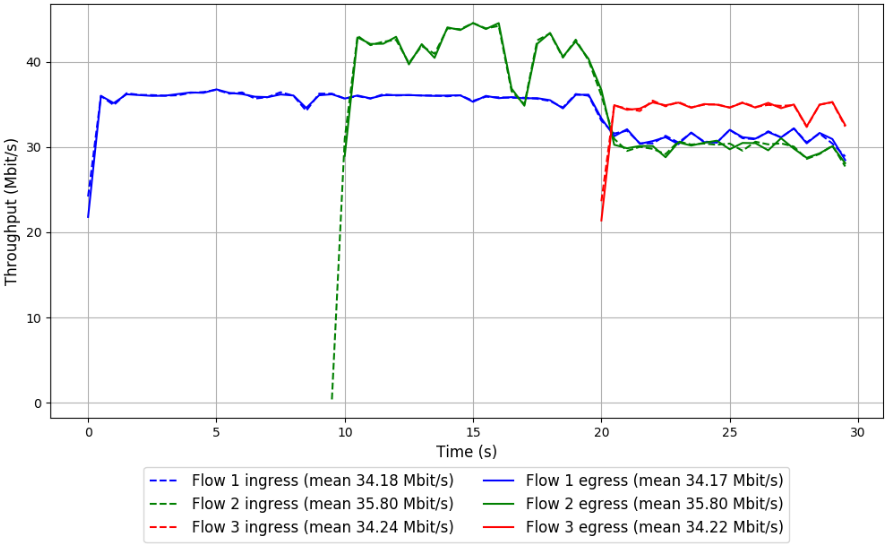


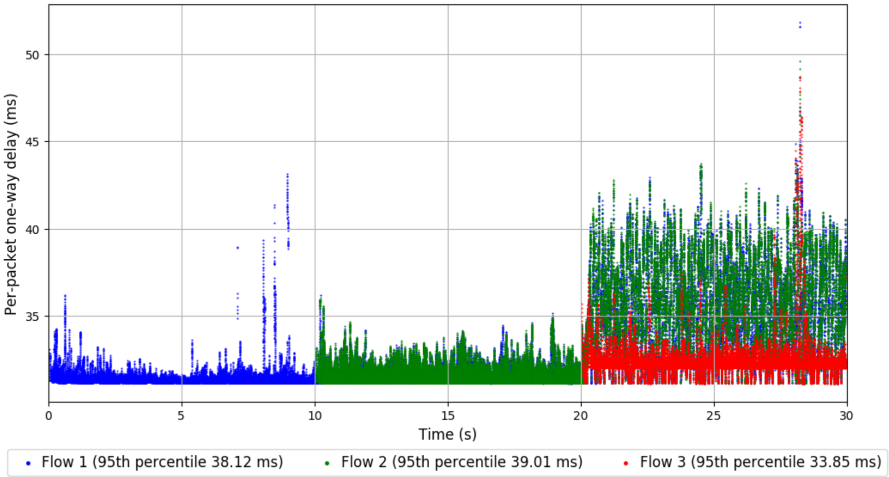
```
Run 3: Statistics of KohoCC

Start at: 2017-08-11 06:21:13
End at: 2017-08-11 06:21:43
Local clock offset: -0.628 ms
Remote clock offset: -16.977 ms

# Below is generated by plot.py at 2017-08-11 14:27:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.36 Mbit/s
95th percentile per-packet one-way delay: 38.351 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 34.17 Mbit/s
95th percentile per-packet one-way delay: 38.120 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 35.80 Mbit/s
95th percentile per-packet one-way delay: 39.012 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 34.22 Mbit/s
95th percentile per-packet one-way delay: 33.846 ms
Loss rate: 0.30%
```

Run 3: Report of KohoCC — Data Link



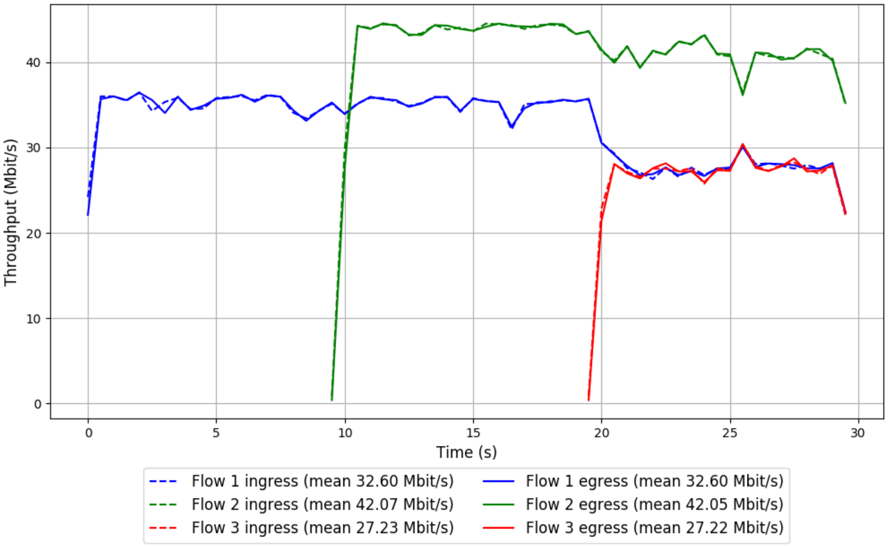


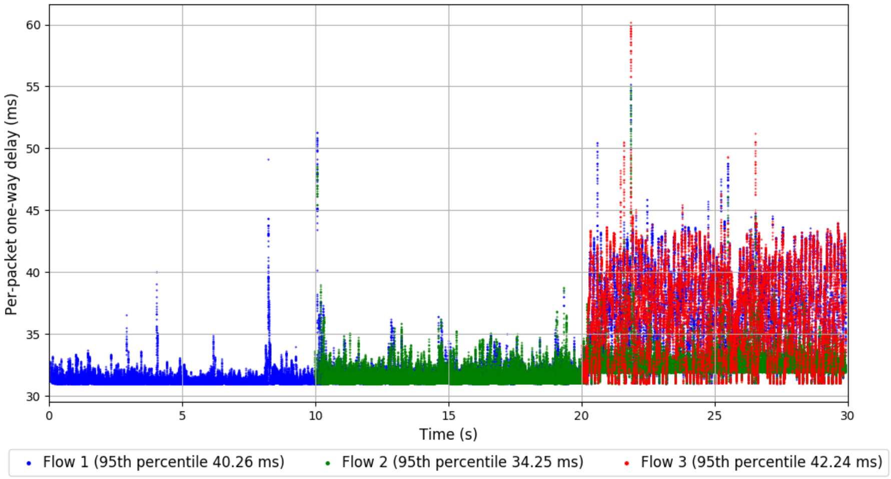
```
Run 4: Statistics of KohoCC

Start at: 2017-08-11 06:39:00
End at: 2017-08-11 06:39:30
Local clock offset: -0.121 ms
Remote clock offset: -15.836 ms

# Below is generated by plot.py at 2017-08-11 14:27:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.69 Mbit/s
95th percentile per-packet one-way delay: 40.154 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 32.60 Mbit/s
95th percentile per-packet one-way delay: 40.263 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 42.05 Mbit/s
95th percentile per-packet one-way delay: 34.253 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 42.242 ms
Loss rate: 0.29%
```

Run 4: Report of KohoCC — Data Link



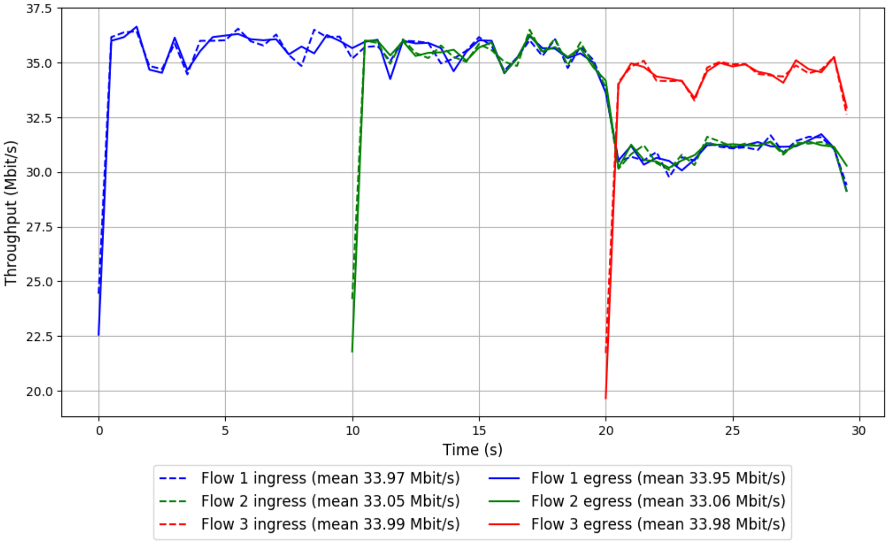


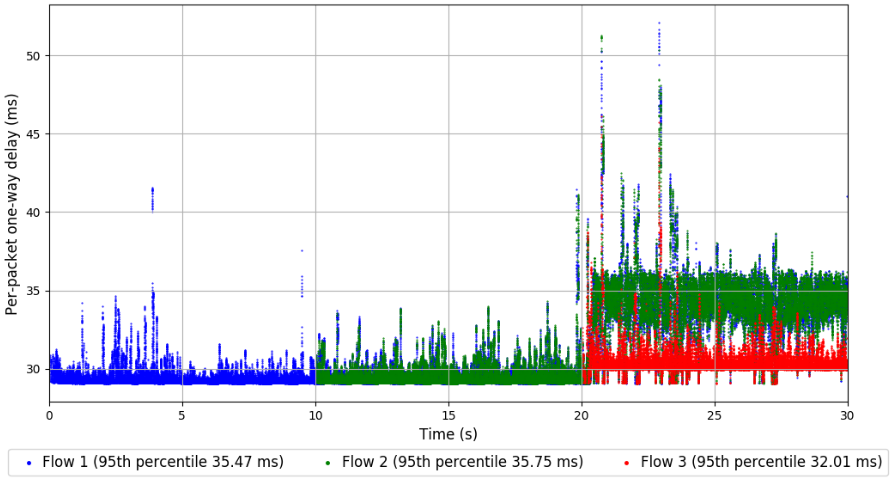
```
Run 5: Statistics of KohoCC

Start at: 2017-08-11 06:57:09
End at: 2017-08-11 06:57:39
Local clock offset: -3.162 ms
Remote clock offset: -17.787 ms

# Below is generated by plot.py at 2017-08-11 14:27:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.22 Mbit/s
95th percentile per-packet one-way delay: 35.499 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 35.471 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 35.752 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 33.98 Mbit/s
95th percentile per-packet one-way delay: 32.008 ms
Loss rate: 0.26%
```

Run 5: Report of KohoCC — Data Link



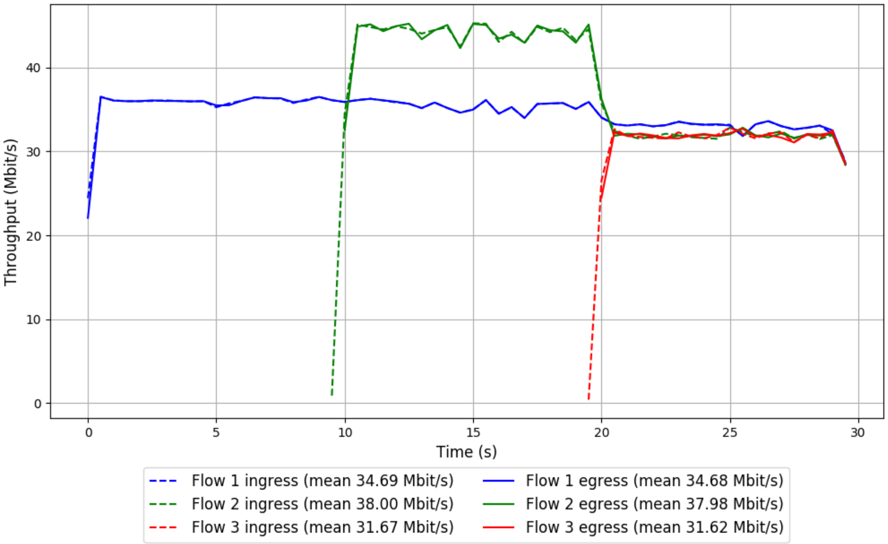


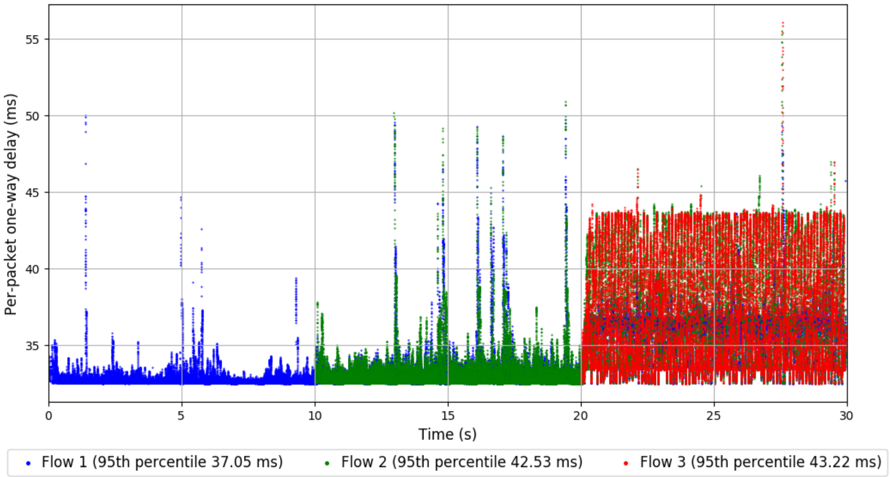
```
Run 6: Statistics of KohoCC

Start at: 2017-08-11 07:15:11
End at: 2017-08-11 07:15:41
Local clock offset: 0.229 ms
Remote clock offset: -19.053 ms

# Below is generated by plot.py at 2017-08-11 14:27:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.49 Mbit/s
95th percentile per-packet one-way delay: 41.938 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 34.68 Mbit/s
95th percentile per-packet one-way delay: 37.053 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 37.98 Mbit/s
95th percentile per-packet one-way delay: 42.530 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 43.224 ms
Loss rate: 0.38%
```

Run 6: Report of KohoCC — Data Link



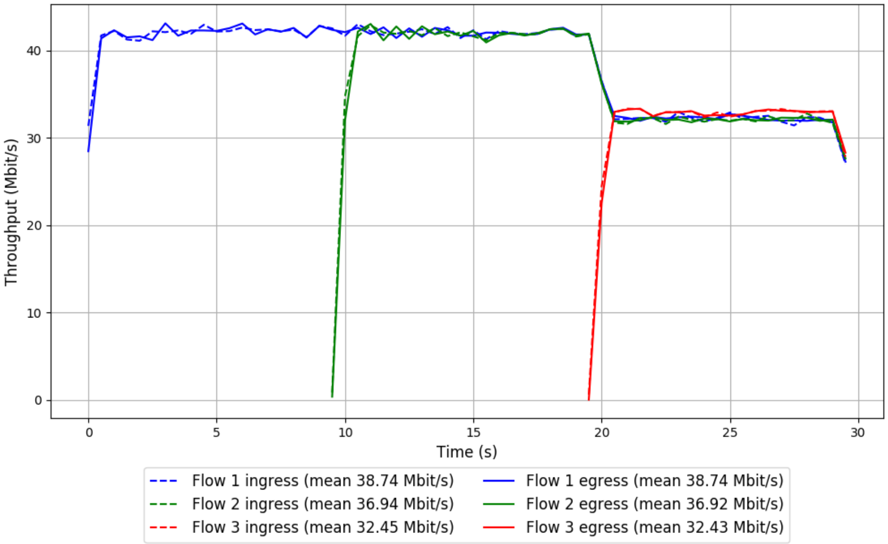


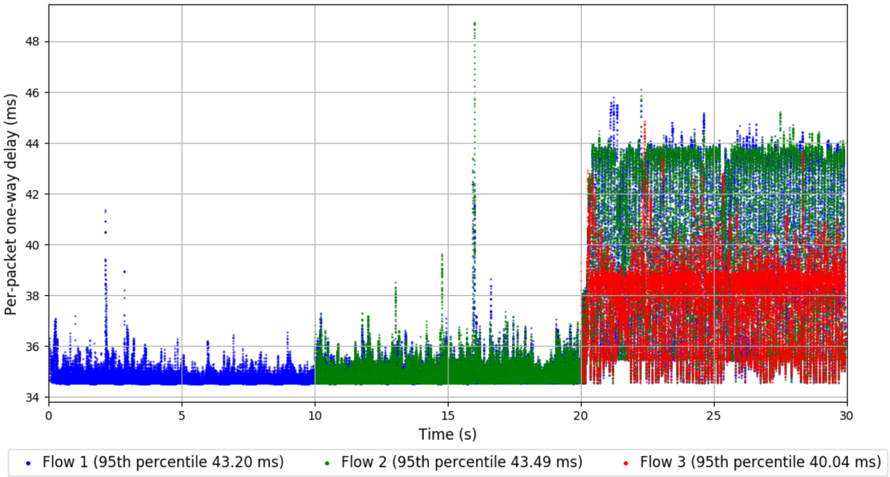
```
Run 7: Statistics of KohoCC

Start at: 2017-08-11 07:33:17
End at: 2017-08-11 07:33:47
Local clock offset: 1.112 ms
Remote clock offset: -21.249 ms

# Below is generated by plot.py at 2017-08-11 14:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.13 Mbit/s
95th percentile per-packet one-way delay: 43.249 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 38.74 Mbit/s
95th percentile per-packet one-way delay: 43.195 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 36.92 Mbit/s
95th percentile per-packet one-way delay: 43.494 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 40.043 ms
Loss rate: 0.32%
```

Run 7: Report of KohoCC — Data Link



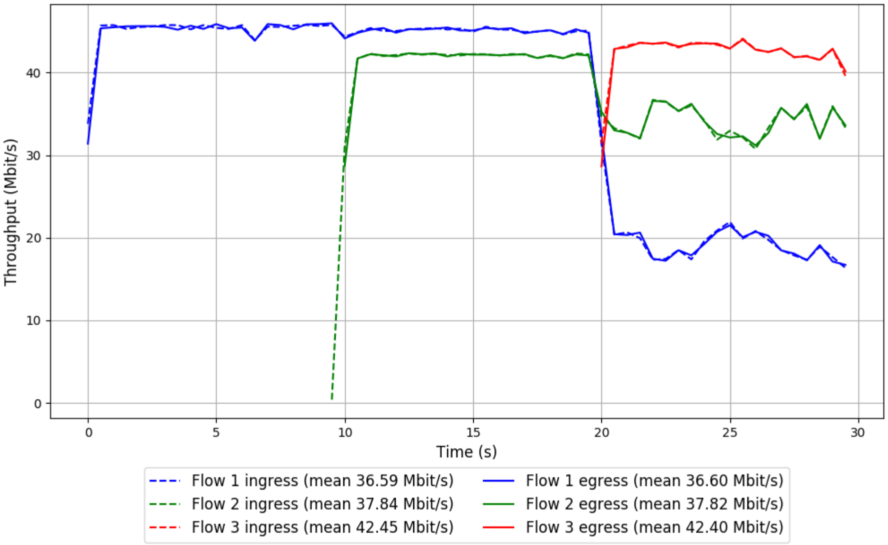


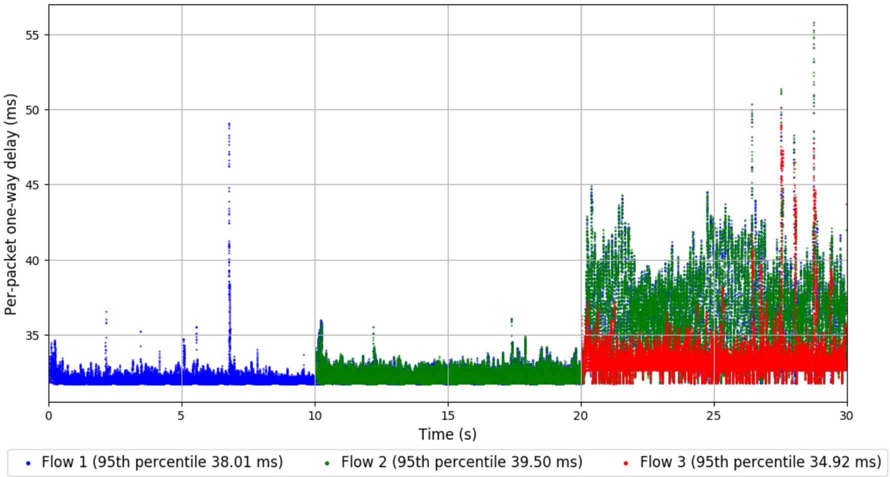
```
Run 8: Statistics of KohoCC

Start at: 2017-08-11 07:51:18
End at: 2017-08-11 07:51:48
Local clock offset: 0.696 ms
Remote clock offset: -18.307 ms

# Below is generated by plot.py at 2017-08-11 14:27:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.85 Mbit/s
95th percentile per-packet one-way delay: 38.509 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 36.60 Mbit/s
95th percentile per-packet one-way delay: 38.005 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 37.82 Mbit/s
95th percentile per-packet one-way delay: 39.501 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 42.40 Mbit/s
95th percentile per-packet one-way delay: 34.923 ms
Loss rate: 0.28%
```

Run 8: Report of KohoCC — Data Link



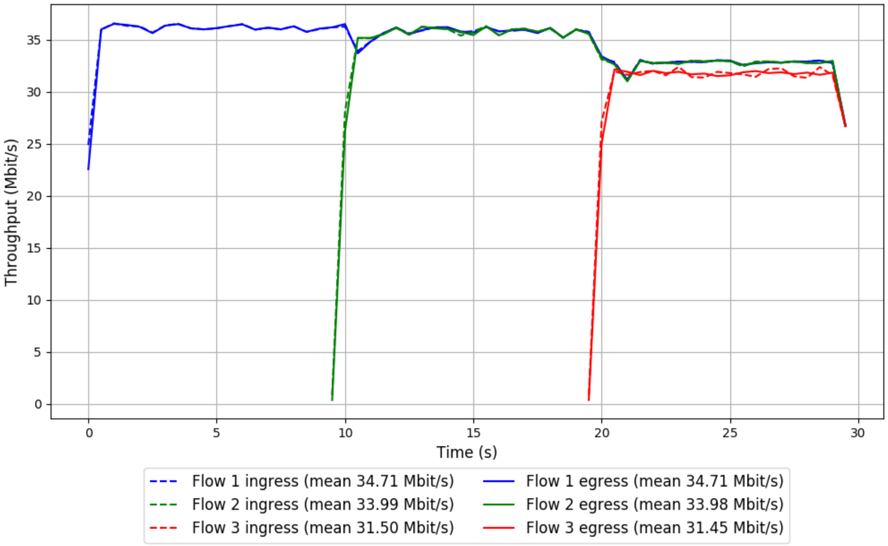


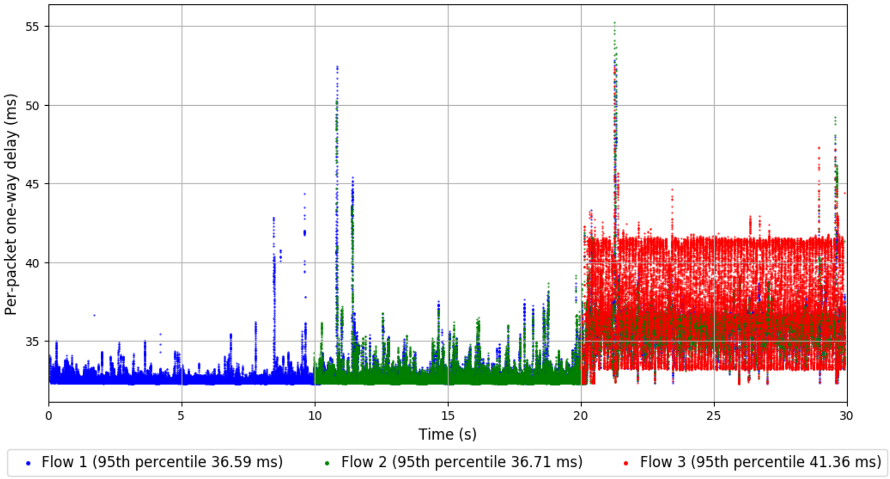
```
Run 9: Statistics of KohoCC

Start at: 2017-08-11 08:09:40
End at: 2017-08-11 08:10:10
Local clock offset: 0.459 ms
Remote clock offset: -19.843 ms

# Below is generated by plot.py at 2017-08-11 14:27:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.82 Mbit/s
95th percentile per-packet one-way delay: 40.010 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 34.71 Mbit/s
95th percentile per-packet one-way delay: 36.592 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 33.98 Mbit/s
95th percentile per-packet one-way delay: 36.707 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 31.45 Mbit/s
95th percentile per-packet one-way delay: 41.359 ms
Loss rate: 0.38%
```

Run 9: Report of KohoCC — Data Link



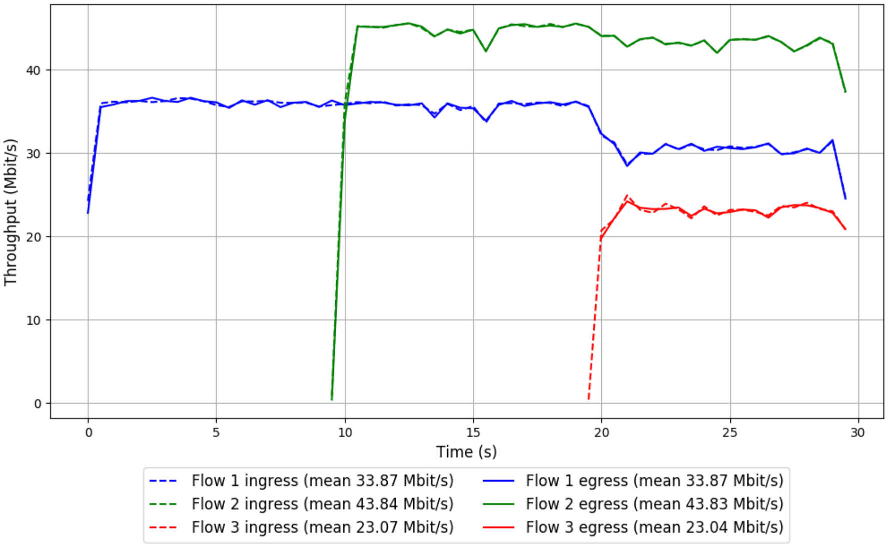


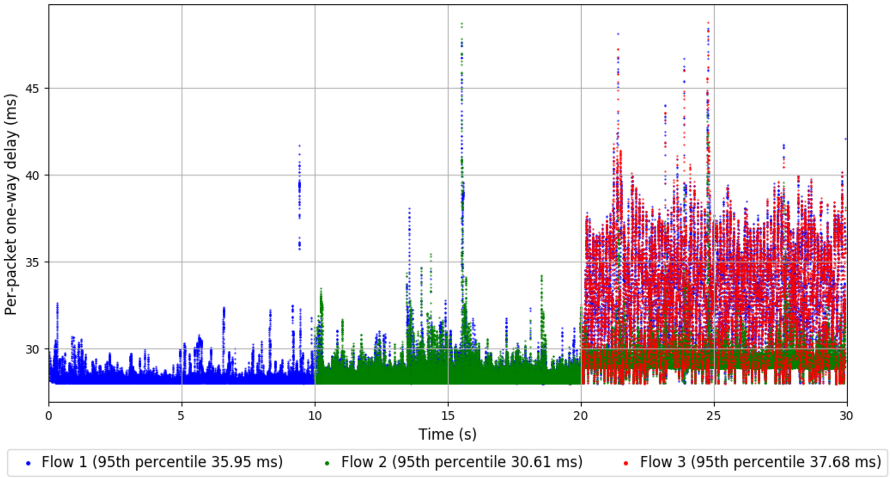
```
Run 10: Statistics of KohoCC

Start at: 2017-08-11 08:27:46
End at: 2017-08-11 08:28:16
Local clock offset: -2.014 ms
Remote clock offset: -18.855 ms

# Below is generated by plot.py at 2017-08-11 14:27:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.74 Mbit/s
95th percentile per-packet one-way delay: 35.728 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 33.87 Mbit/s
95th percentile per-packet one-way delay: 35.952 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 43.83 Mbit/s
95th percentile per-packet one-way delay: 30.612 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 23.04 Mbit/s
95th percentile per-packet one-way delay: 37.678 ms
Loss rate: 0.41%
```

Run 10: Report of KohoCC — Data Link





```
Run 1: Statistics of LEDBAT

Start at: 2017-08-11 05:46:02
End at: 2017-08-11 05:46:32
Local clock offset: -0.417 ms
Remote clock offset: -18.498 ms
```

Run 1: Report of LEDBAT — Data Link

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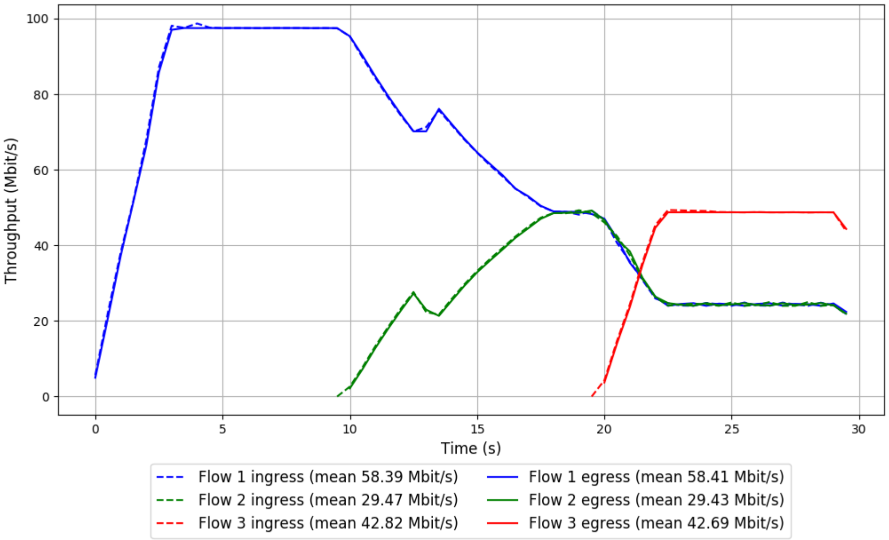
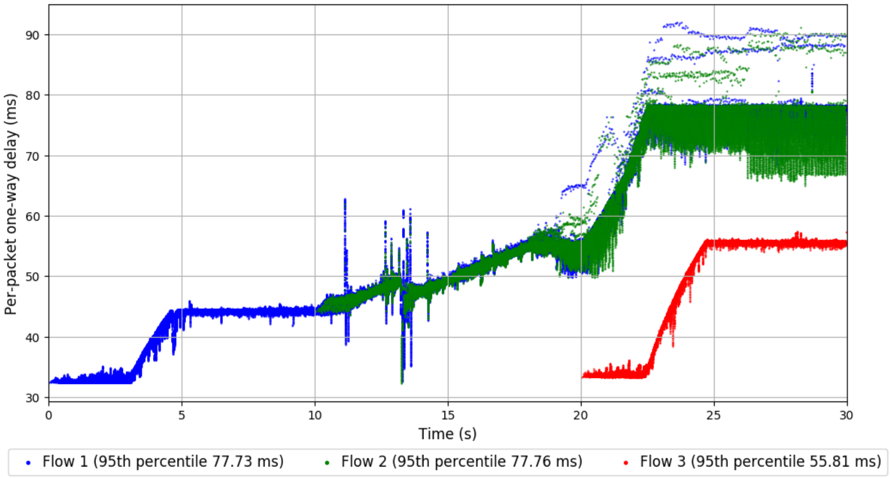
```
Run 2: Statistics of LEDBAT

Start at: 2017-08-11 06:04:24
End at: 2017-08-11 06:04:54
Local clock offset: -0.275 ms
Remote clock offset: -18.168 ms

# Below is generated by plot.py at 2017-08-11 14:27:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.15 Mbit/s
95th percentile per-packet one-way delay: 77.492 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 58.41 Mbit/s
95th percentile per-packet one-way delay: 77.735 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 77.760 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 42.69 Mbit/s
95th percentile per-packet one-way delay: 55.815 ms
Loss rate: 0.57%
```

Run 2: Report of LEDBAT — Data Link





```
Run 3: Statistics of LEDBAT

Start at: 2017-08-11 06:22:25
End at: 2017-08-11 06:22:55
Local clock offset: 1.3 ms
Remote clock offset: -19.721 ms
```

Run 3: Report of LEDBAT — Data Link

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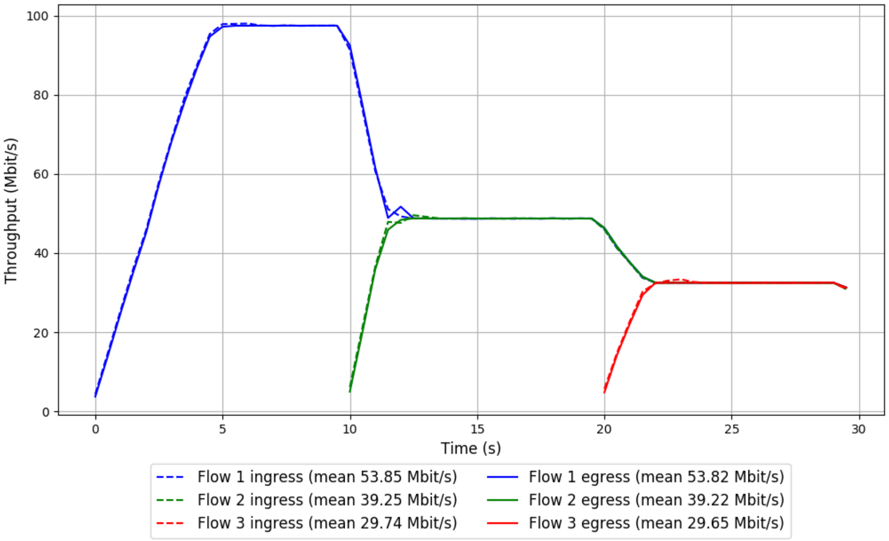
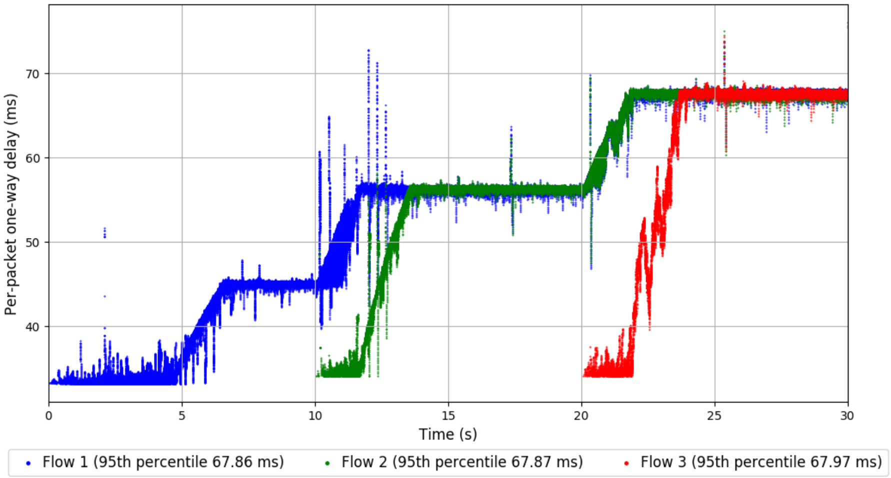
```
Run 4: Statistics of LEDBAT

Start at: 2017-08-11 06:40:12
End at: 2017-08-11 06:40:42
Local clock offset: 0.472 ms
Remote clock offset: -17.405 ms

# Below is generated by plot.py at 2017-08-11 14:27:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.77 Mbit/s
95th percentile per-packet one-way delay: 67.888 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 53.82 Mbit/s
95th percentile per-packet one-way delay: 67.856 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.22 Mbit/s
95th percentile per-packet one-way delay: 67.868 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 29.65 Mbit/s
95th percentile per-packet one-way delay: 67.973 ms
Loss rate: 0.68%
```

Run 4: Report of LEDBAT — Data Link



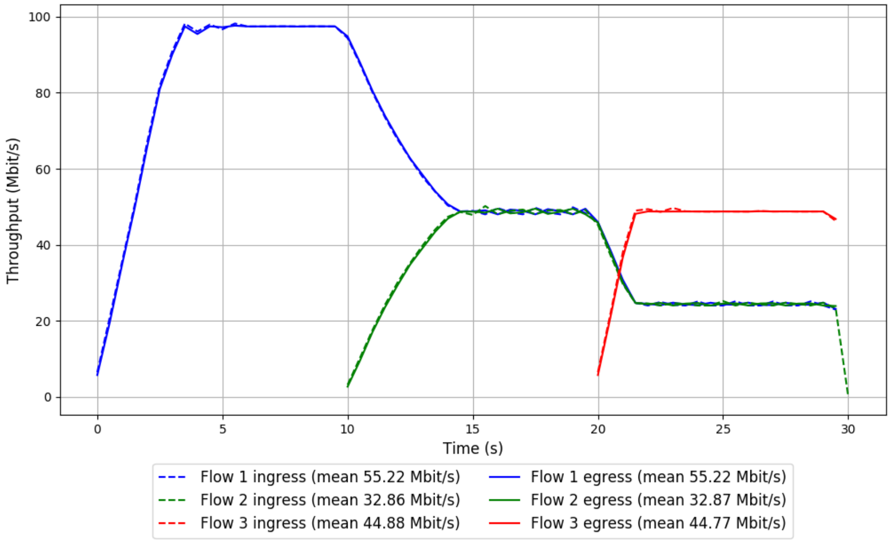


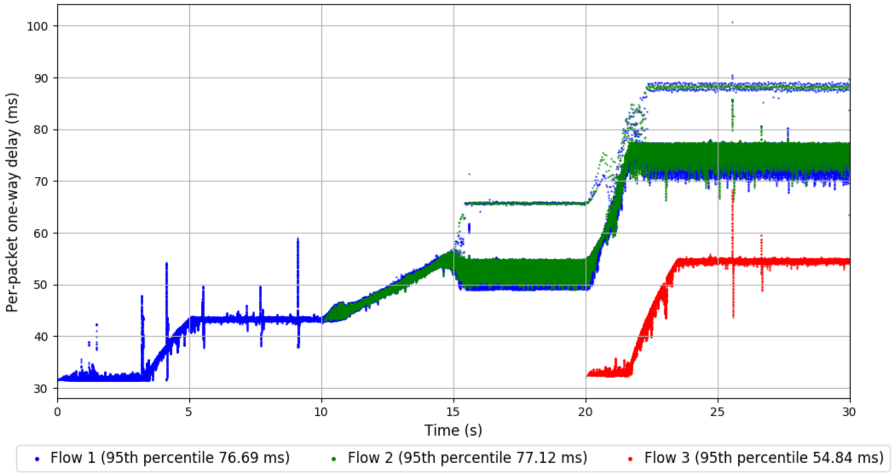
```
Run 5: Statistics of LEDBAT

Start at: 2017-08-11 06:58:25
End at: 2017-08-11 06:58:55
Local clock offset: -0.395 ms
Remote clock offset: -17.497 ms

# Below is generated by plot.py at 2017-08-11 14:28:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.92 Mbit/s
95th percentile per-packet one-way delay: 76.945 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 55.22 Mbit/s
95th percentile per-packet one-way delay: 76.692 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 32.87 Mbit/s
95th percentile per-packet one-way delay: 77.118 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 44.77 Mbit/s
95th percentile per-packet one-way delay: 54.839 ms
Loss rate: 0.54%
```

Run 5: Report of LEDBAT — Data Link



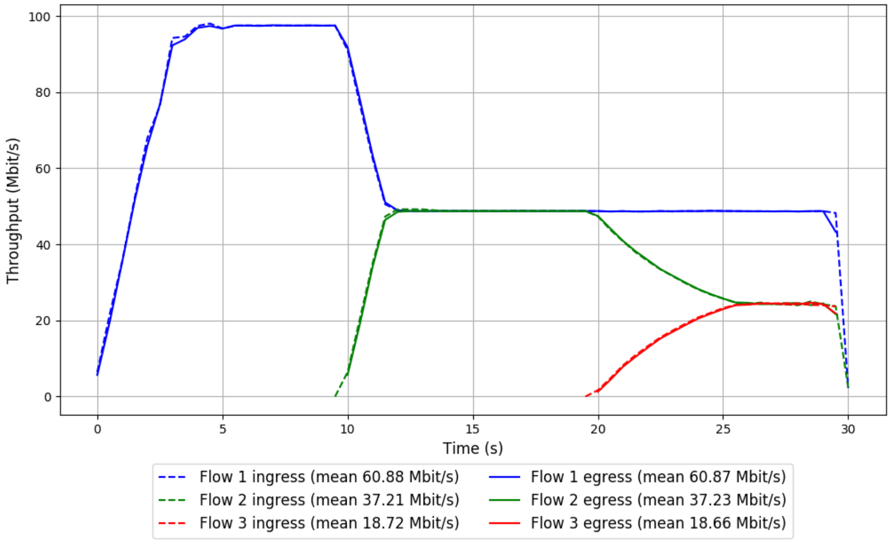


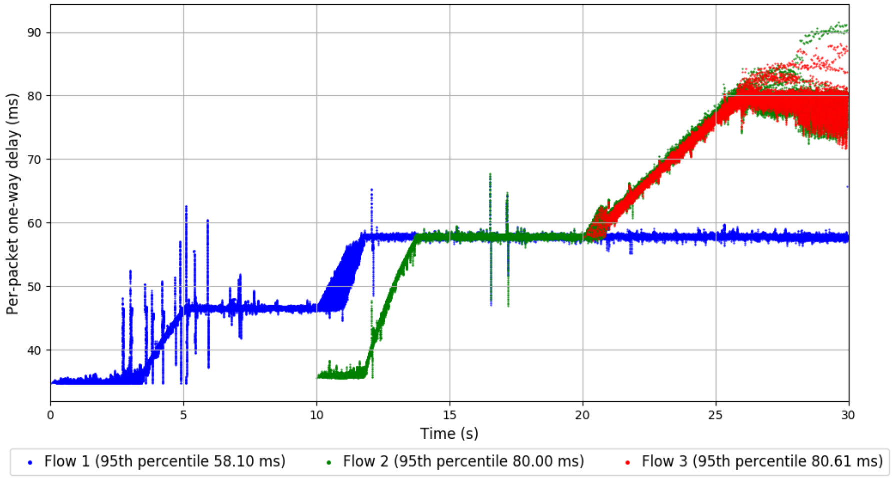
```
Run 6: Statistics of LEDBAT

Start at: 2017-08-11 07:16:23
End at: 2017-08-11 07:16:53
Local clock offset: 0.916 ms
Remote clock offset: -20.667 ms

# Below is generated by plot.py at 2017-08-11 14:28:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.86 Mbit/s
95th percentile per-packet one-way delay: 78.995 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 60.87 Mbit/s
95th percentile per-packet one-way delay: 58.103 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 37.23 Mbit/s
95th percentile per-packet one-way delay: 80.005 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 18.66 Mbit/s
95th percentile per-packet one-way delay: 80.612 ms
Loss rate: 1.41%
```

Run 6: Report of LEDBAT — Data Link



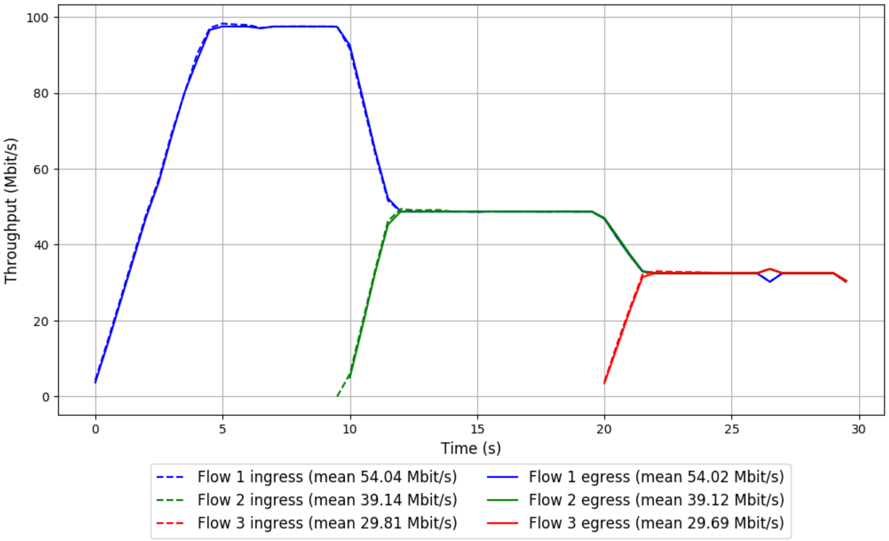


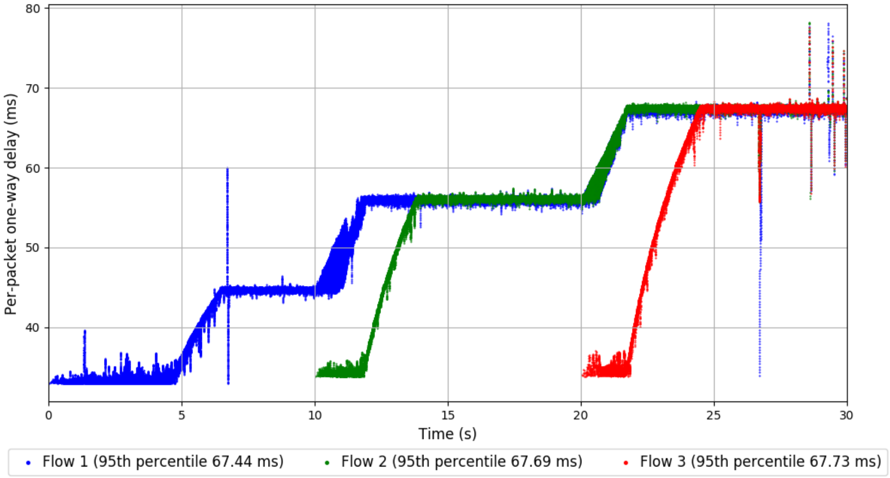
```
Run 7: Statistics of LEDBAT

Start at: 2017-08-11 07:34:30
End at: 2017-08-11 07:35:00
Local clock offset: 0.497 ms
Remote clock offset: -20.213 ms

# Below is generated by plot.py at 2017-08-11 14:28:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.92 Mbit/s
95th percentile per-packet one-way delay: 67.646 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 54.02 Mbit/s
95th percentile per-packet one-way delay: 67.435 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 67.695 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 67.734 ms
Loss rate: 0.68%
```

Run 7: Report of LEDBAT — Data Link





```
Run 8: Statistics of LEDBAT

Start at: 2017-08-11 07:52:36
End at: 2017-08-11 07:53:06
Local clock offset: 0.655 ms
Remote clock offset: -18.143 ms
```

Run 8: Report of LEDBAT — Data Link

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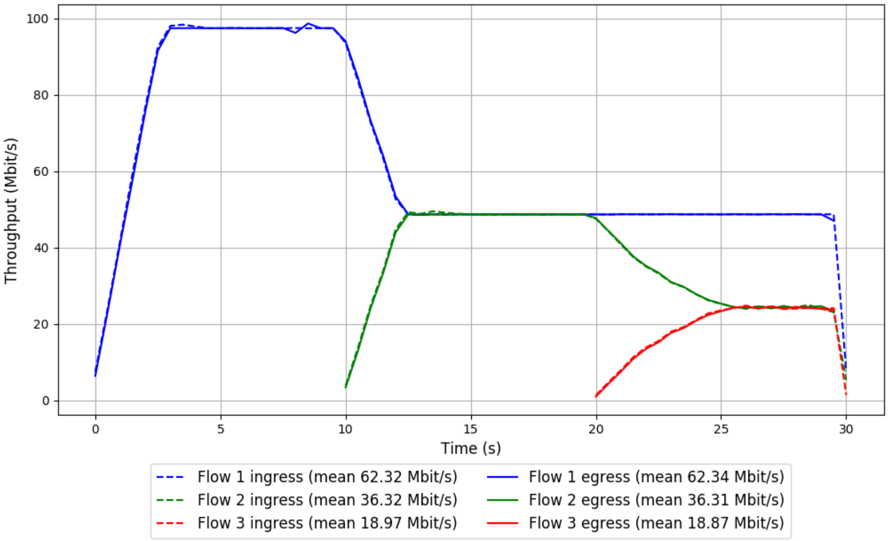
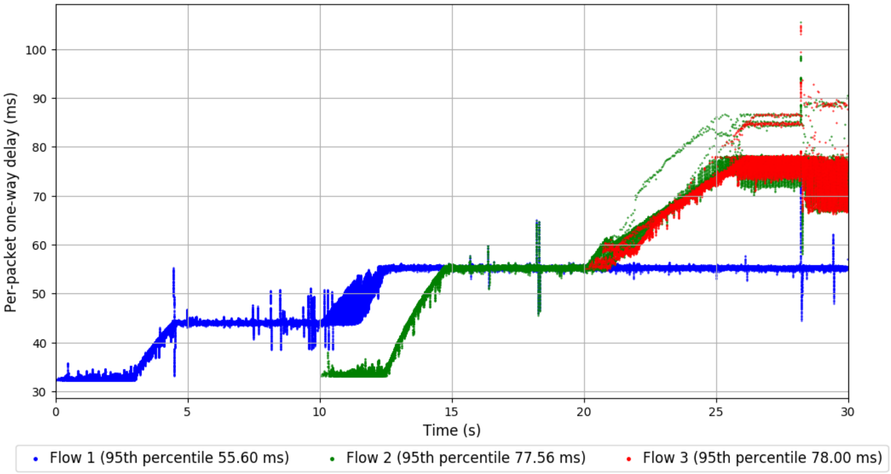
```
Run 9: Statistics of LEDBAT

Start at: 2017-08-11 08:10:52
End at: 2017-08-11 08:11:22
Local clock offset: 0.089 ms
Remote clock offset: -20.246 ms

# Below is generated by plot.py at 2017-08-11 14:28:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 75.376 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 62.34 Mbit/s
95th percentile per-packet one-way delay: 55.601 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 36.31 Mbit/s
95th percentile per-packet one-way delay: 77.564 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 78.003 ms
Loss rate: 1.41%
```

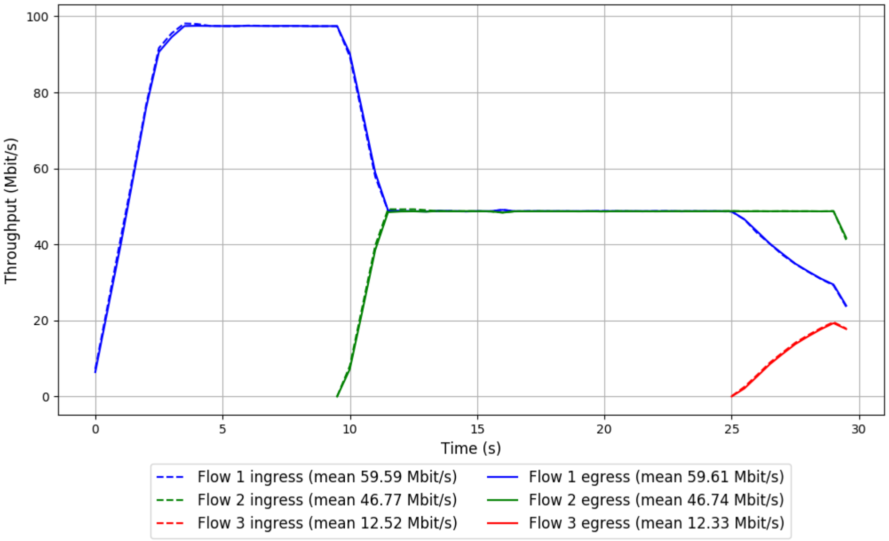
Run 9: Report of LEDBAT — Data Link

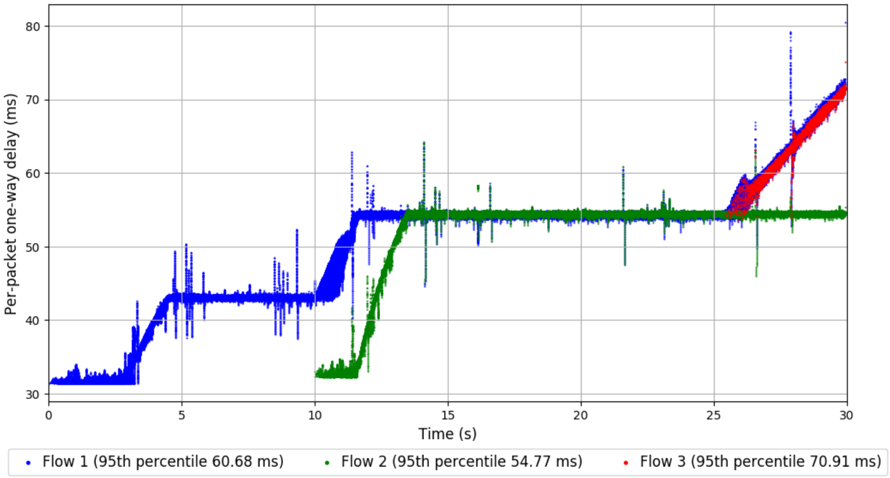




```
Run 10: Statistics of LEDBAT

Start at: 2017-08-11 08:28:57
End at: 2017-08-11 08:29:27
Local clock offset: 0.671 ms
Remote clock offset: -19.622 ms

# Below is generated by plot.py at 2017-08-11 14:28:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.64 Mbit/s
95th percentile per-packet one-way delay: 60.393 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 60.684 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 46.74 Mbit/s
95th percentile per-packet one-way delay: 54.765 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 12.33 Mbit/s
95th percentile per-packet one-way delay: 70.910 ms
Loss rate: 2.56%
```

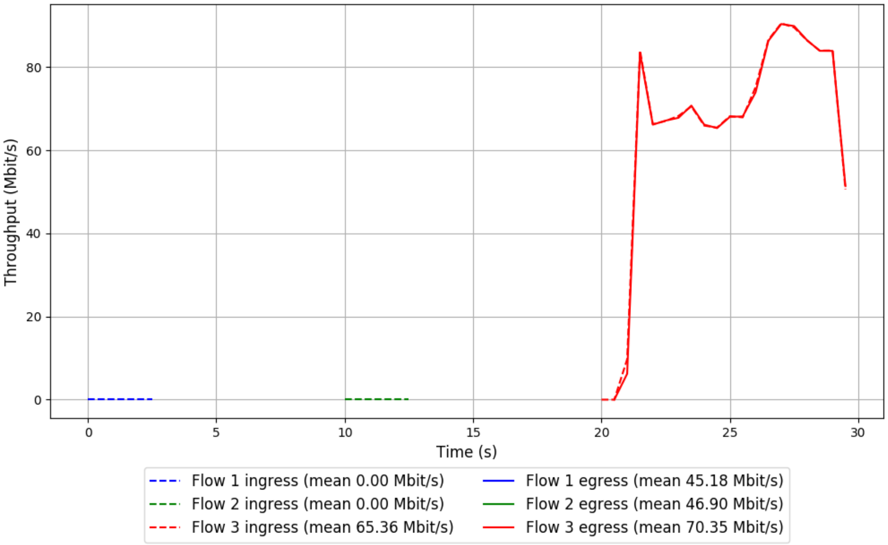
Run 10: Report of LEDBAT — Data Link

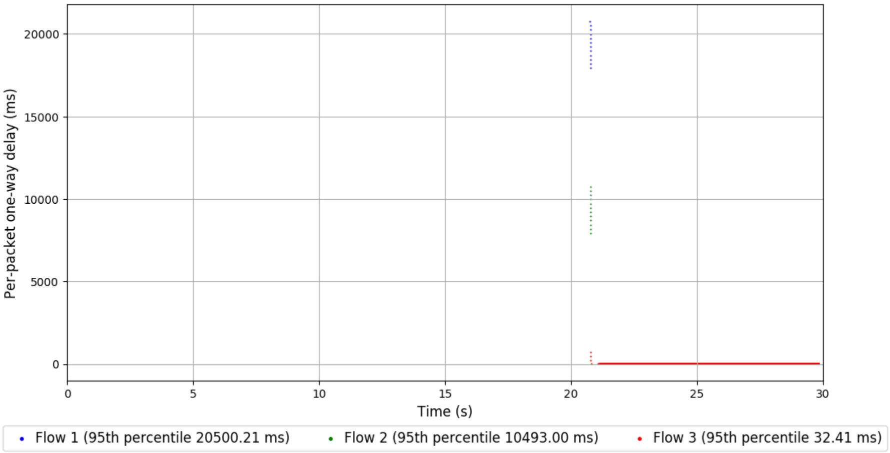




```
Run 1: Statistics of PCC

Start at: 2017-08-11 05:41:19
End at: 2017-08-11 05:41:49
Local clock offset: -1.811 ms
Remote clock offset: -20.199 ms
```

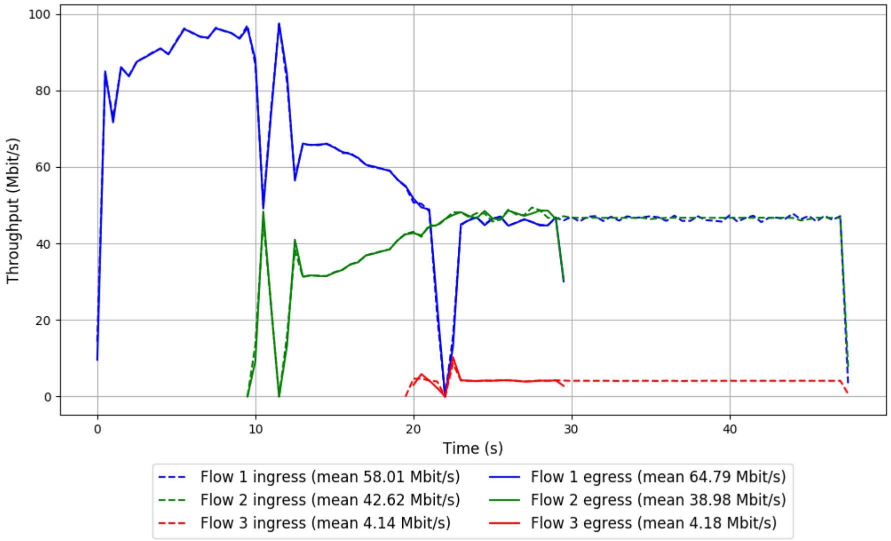
Run 1: Report of PCC — Data Link

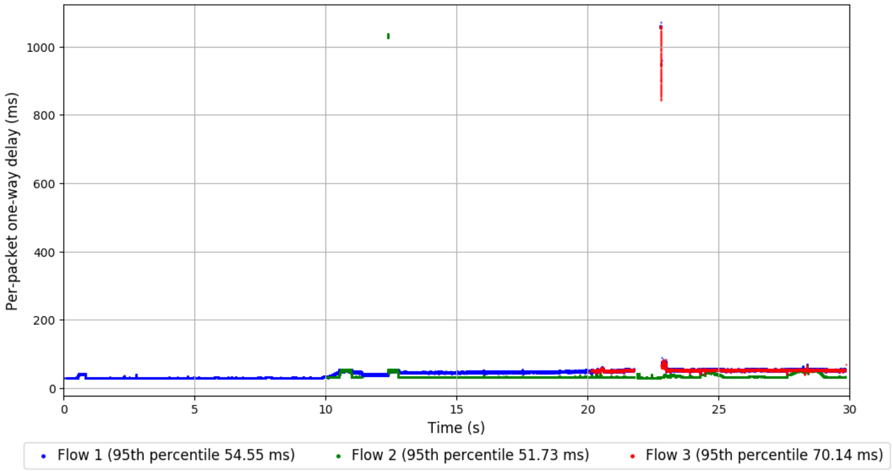




```
Run 2: Statistics of PCC

Start at: 2017-08-11 05:59:28
End at: 2017-08-11 05:59:58
Local clock offset: -2.526 ms
Remote clock offset: -18.501 ms

# Below is generated by plot.py at 2017-08-11 14:28:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.07 Mbit/s
95th percentile per-packet one-way delay: 54.262 ms
Loss rate: 38.66%
-- Flow 1:
Average throughput: 64.79 Mbit/s
95th percentile per-packet one-way delay: 54.550 ms
Loss rate: 29.99%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 51.730 ms
Loss rate: 51.77%
-- Flow 3:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 70.138 ms
Loss rate: 64.04%
```

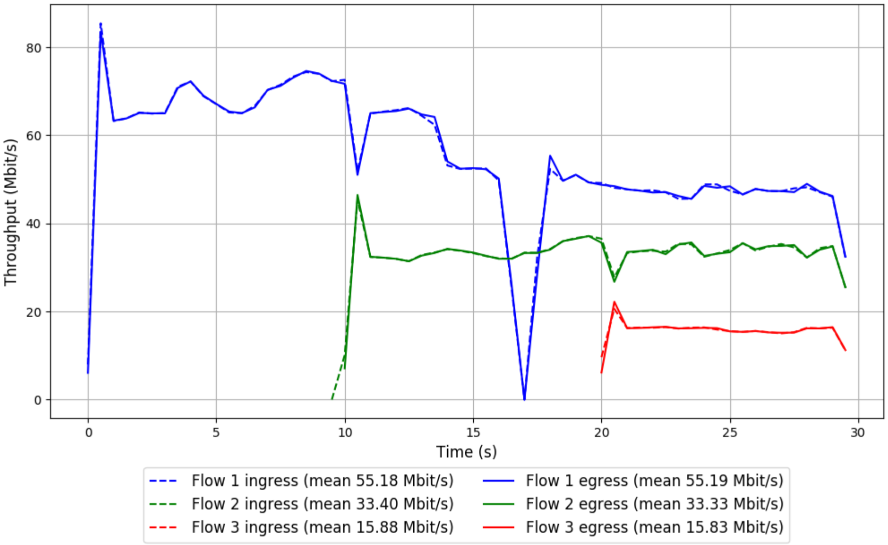
Run 2: Report of PCC — Data Link

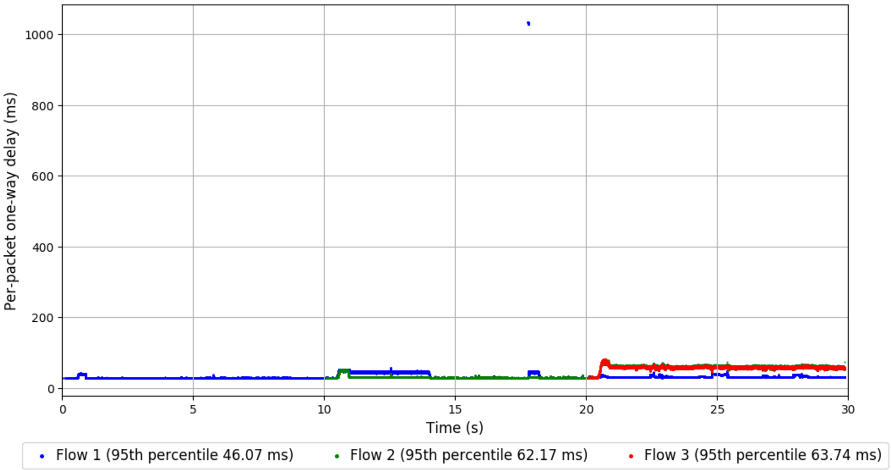




```
Run 3: Statistics of PCC

Start at: 2017-08-11 06:17:44
End at: 2017-08-11 06:18:14
Local clock offset: -3.202 ms
Remote clock offset: -17.116 ms

# Below is generated by plot.py at 2017-08-11 14:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.54 Mbit/s
95th percentile per-packet one-way delay: 60.674 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 55.19 Mbit/s
95th percentile per-packet one-way delay: 46.068 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.33 Mbit/s
95th percentile per-packet one-way delay: 62.170 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 15.83 Mbit/s
95th percentile per-packet one-way delay: 63.744 ms
Loss rate: 0.56%
```

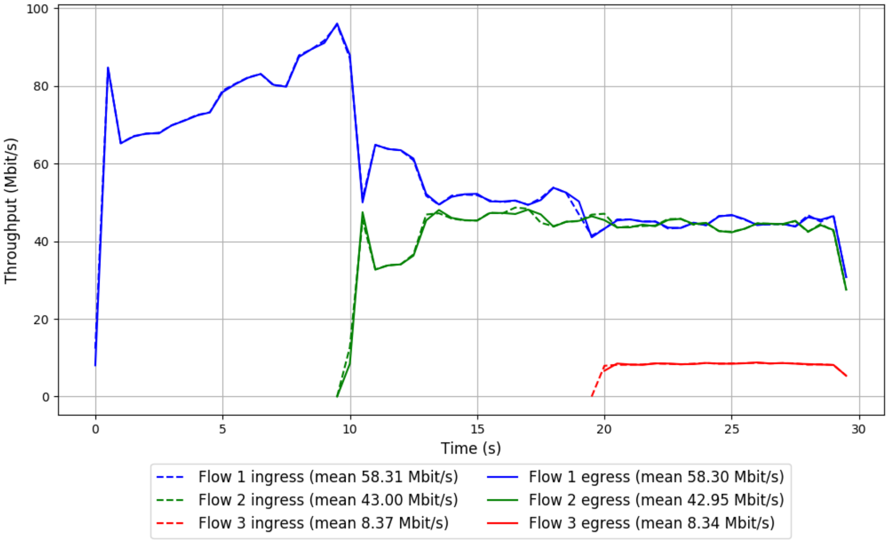
Run 3: Report of PCC — Data Link

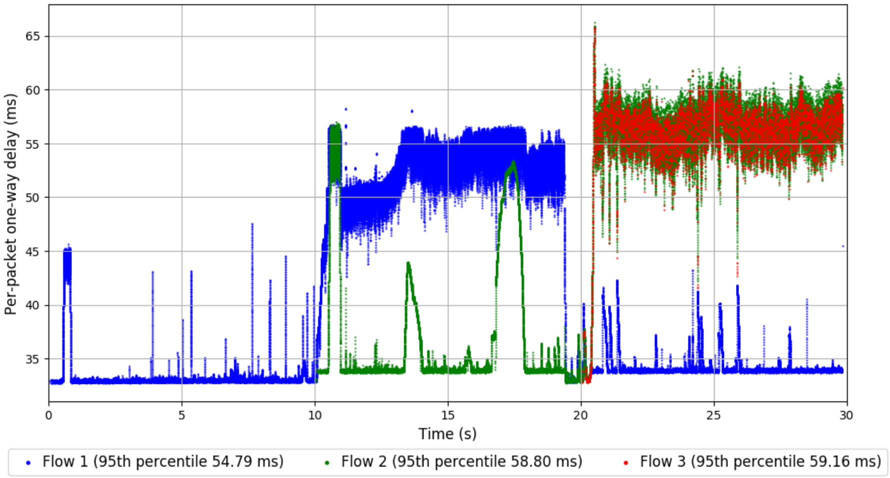




```
Run 4: Statistics of PCC

Start at: 2017-08-11 06:35:28
End at: 2017-08-11 06:35:58
Local clock offset: -0.062 ms
Remote clock offset: -17.93 ms

# Below is generated by plot.py at 2017-08-11 14:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.63 Mbit/s
95th percentile per-packet one-way delay: 57.632 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 58.30 Mbit/s
95th percentile per-packet one-way delay: 54.791 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 42.95 Mbit/s
95th percentile per-packet one-way delay: 58.796 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 59.164 ms
Loss rate: 0.54%
```

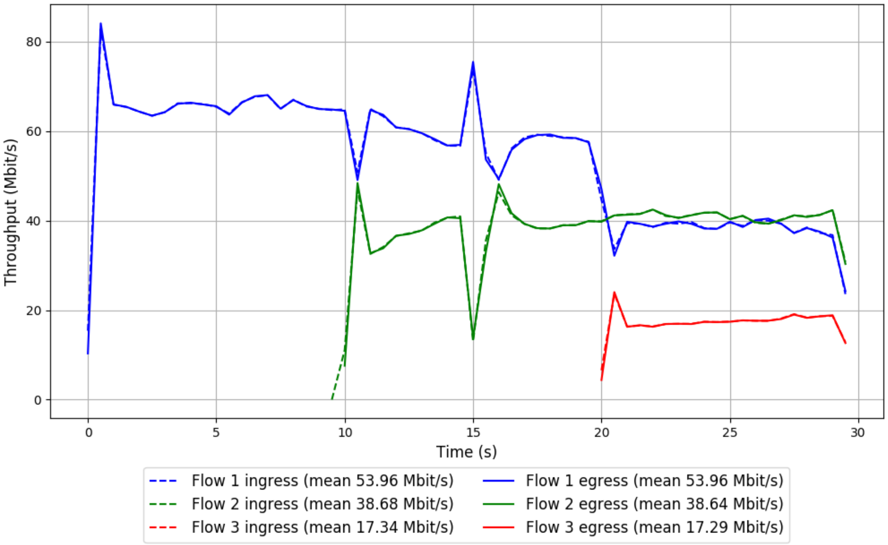
Run 4: Report of PCC — Data Link

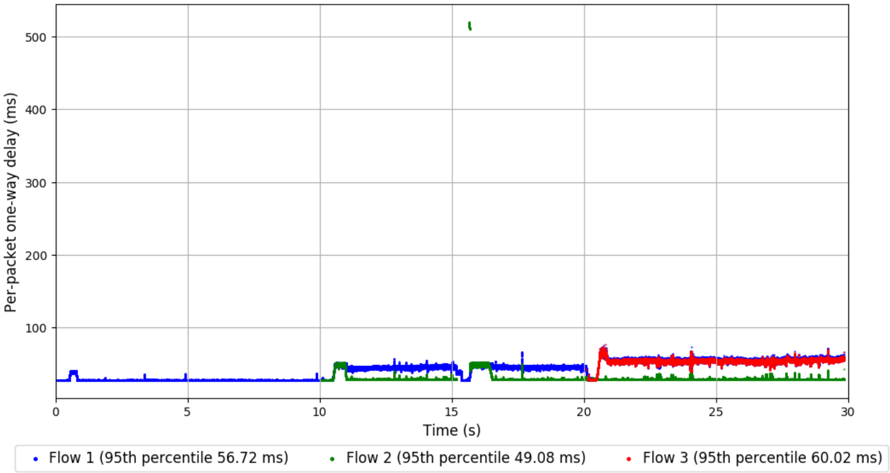




```
Run 5: Statistics of PCC

Start at: 2017-08-11 06:53:37
End at: 2017-08-11 06:54:07
Local clock offset: -2.963 ms
Remote clock offset: -16.718 ms

# Below is generated by plot.py at 2017-08-11 14:28:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.34 Mbit/s
95th percentile per-packet one-way delay: 56.568 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 53.96 Mbit/s
95th percentile per-packet one-way delay: 56.716 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 38.64 Mbit/s
95th percentile per-packet one-way delay: 49.079 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 17.29 Mbit/s
95th percentile per-packet one-way delay: 60.016 ms
Loss rate: 0.65%
```

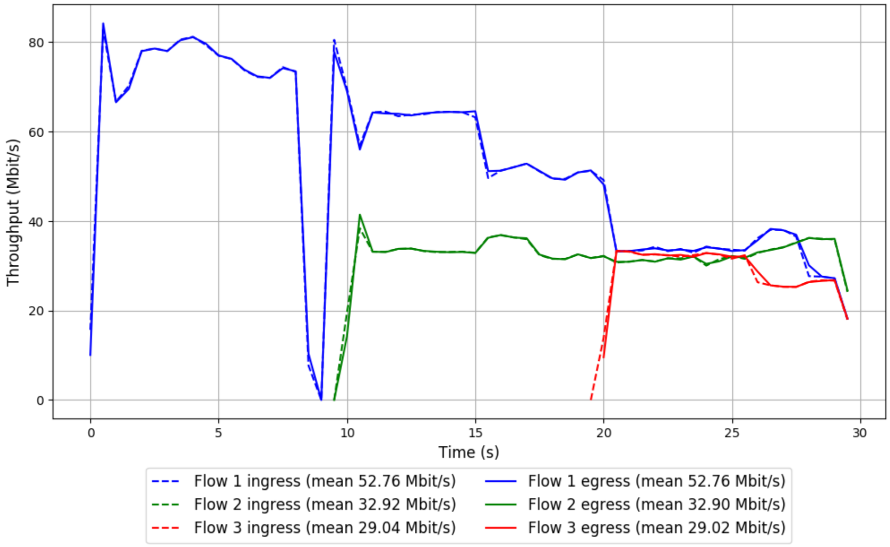
Run 5: Report of PCC — Data Link

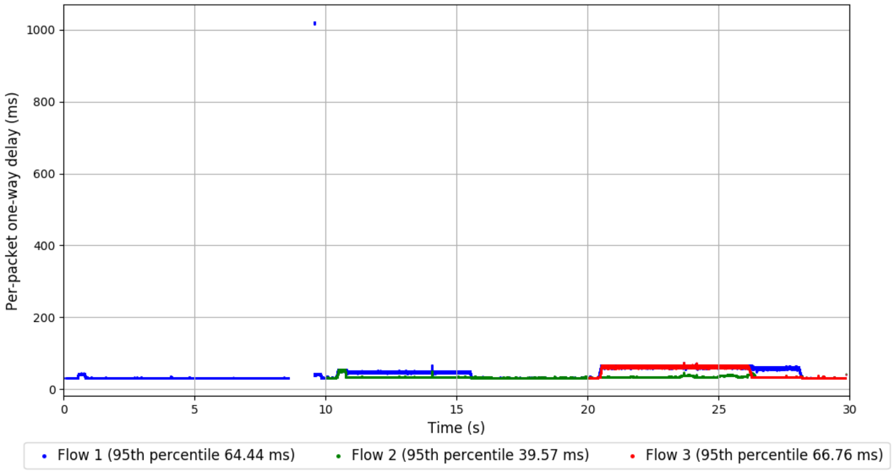




```
Run 6: Statistics of PCC

Start at: 2017-08-11 07:11:36
End at: 2017-08-11 07:12:06
Local clock offset: 0.091 ms
Remote clock offset: -18.668 ms

# Below is generated by plot.py at 2017-08-11 14:29:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.23 Mbit/s
95th percentile per-packet one-way delay: 65.073 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 52.76 Mbit/s
95th percentile per-packet one-way delay: 64.443 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 39.566 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 29.02 Mbit/s
95th percentile per-packet one-way delay: 66.759 ms
Loss rate: 0.27%
```

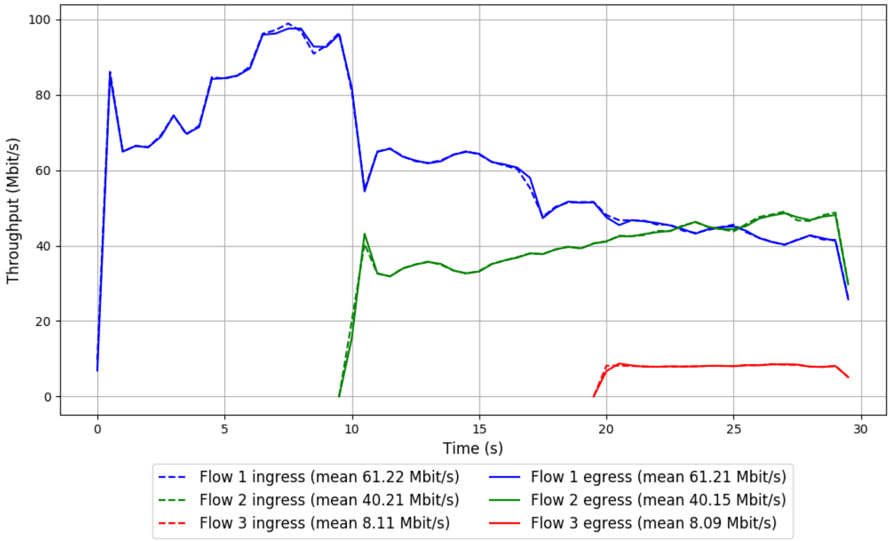
Run 6: Report of PCC — Data Link

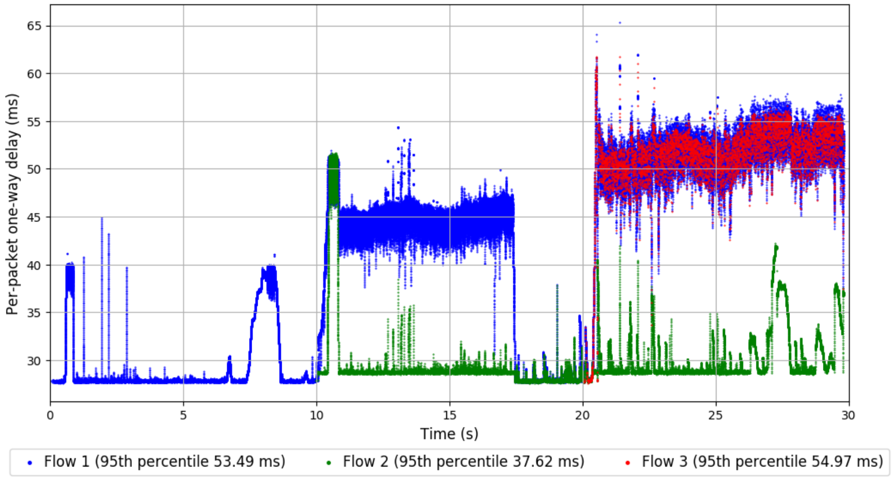




```
Run 7: Statistics of PCC

Start at: 2017-08-11 07:29:47
End at: 2017-08-11 07:30:17
Local clock offset: -2.656 ms
Remote clock offset: -18.116 ms

# Below is generated by plot.py at 2017-08-11 14:29:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.60 Mbit/s
95th percentile per-packet one-way delay: 53.102 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 61.21 Mbit/s
95th percentile per-packet one-way delay: 53.488 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 37.616 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 54.973 ms
Loss rate: 0.56%
```

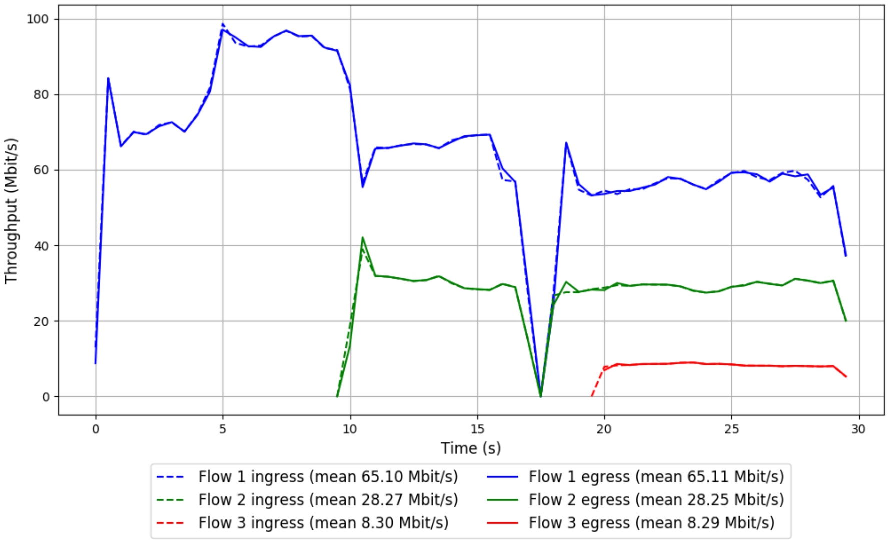
Run 7: Report of PCC — Data Link

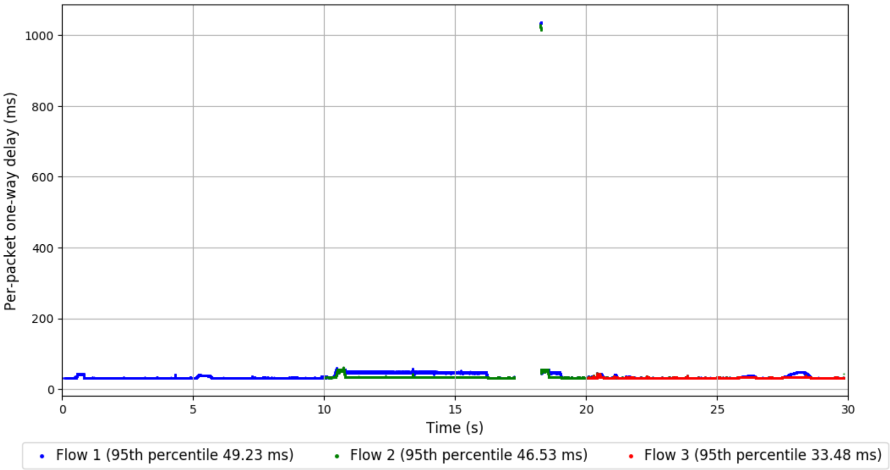




```
Run 8: Statistics of PCC

Start at: 2017-08-11 07:47:46
End at: 2017-08-11 07:48:16
Local clock offset: 0.29 ms
Remote clock offset: -19.36 ms

# Below is generated by plot.py at 2017-08-11 14:29:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.63 Mbit/s
95th percentile per-packet one-way delay: 49.177 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 65.11 Mbit/s
95th percentile per-packet one-way delay: 49.228 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 28.25 Mbit/s
95th percentile per-packet one-way delay: 46.529 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 33.475 ms
Loss rate: 0.28%
```

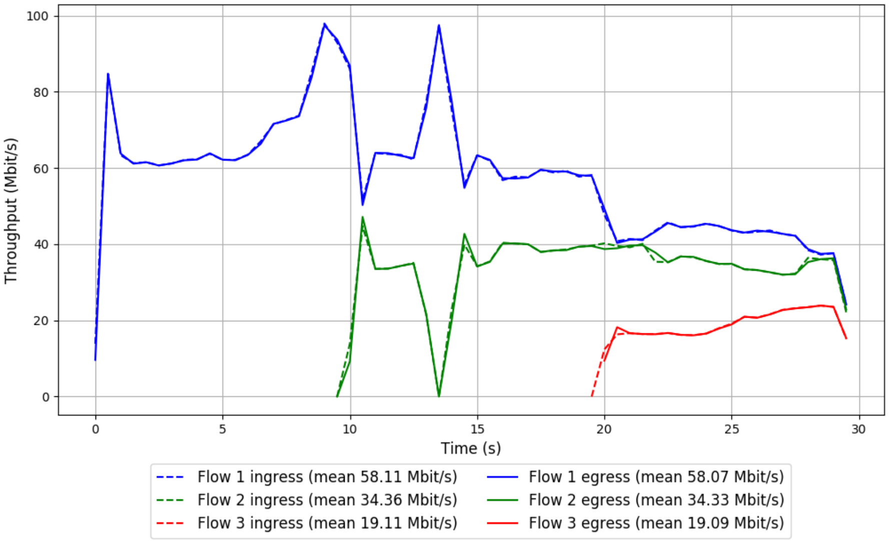
Run 8: Report of PCC — Data Link

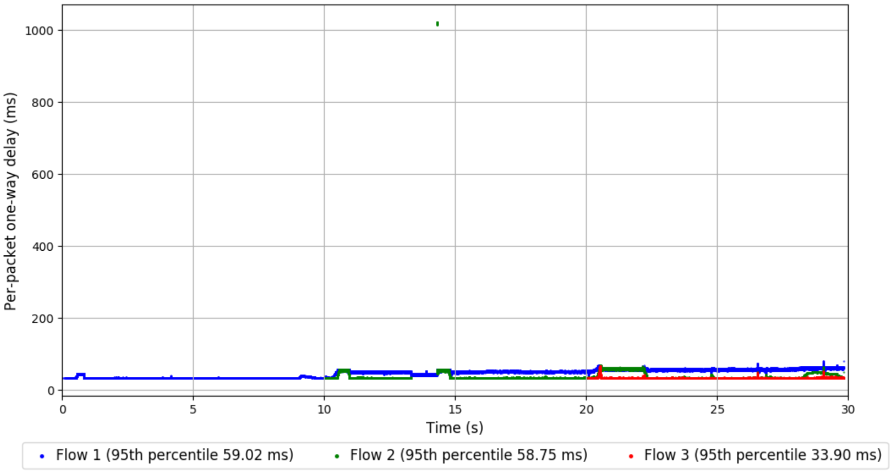




```
Run 9: Statistics of PCC

Start at: 2017-08-11 08:06:10
End at: 2017-08-11 08:06:40
Local clock offset: 0.999 ms
Remote clock offset: -18.936 ms

# Below is generated by plot.py at 2017-08-11 14:29:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.21 Mbit/s
95th percentile per-packet one-way delay: 58.785 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 58.07 Mbit/s
95th percentile per-packet one-way delay: 59.017 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 58.748 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 19.09 Mbit/s
95th percentile per-packet one-way delay: 33.895 ms
Loss rate: 0.39%
```

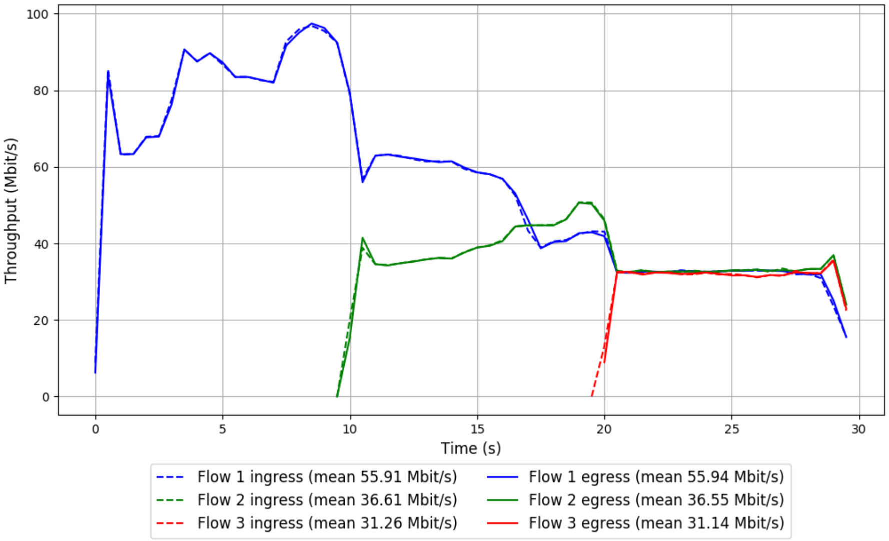
Run 9: Report of PCC — Data Link

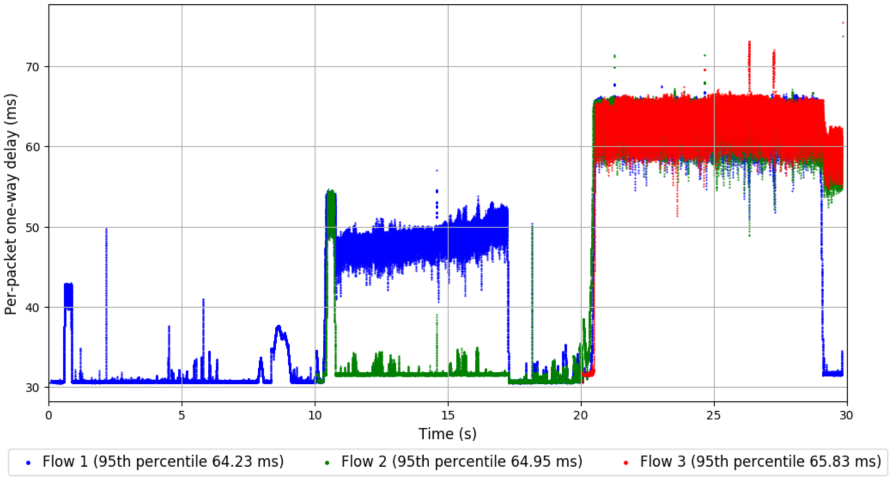




```
Run 10: Statistics of PCC

Start at: 2017-08-11 08:24:16
End at: 2017-08-11 08:24:46
Local clock offset: -0.949 ms
Remote clock offset: -20.204 ms

# Below is generated by plot.py at 2017-08-11 14:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 64.964 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 55.94 Mbit/s
95th percentile per-packet one-way delay: 64.229 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 36.55 Mbit/s
95th percentile per-packet one-way delay: 64.948 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 65.830 ms
Loss rate: 0.64%
```

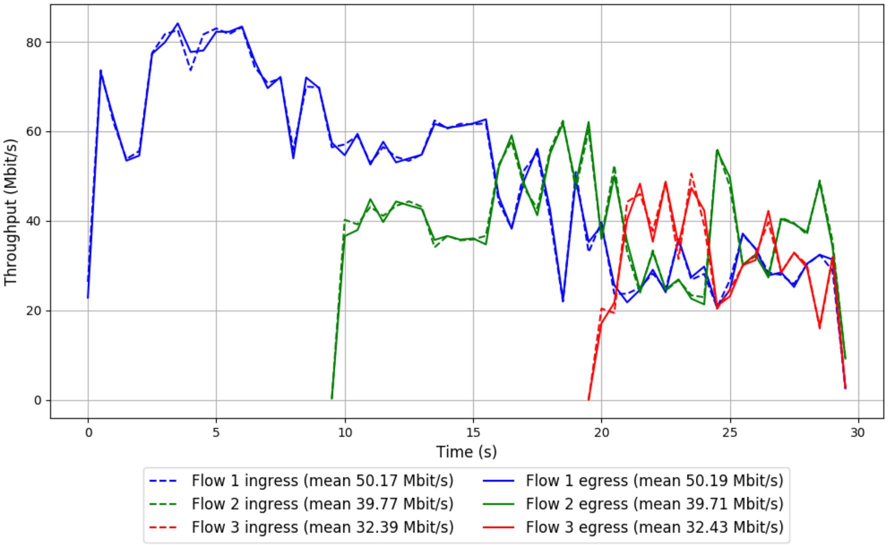
Run 10: Report of PCC — Data Link

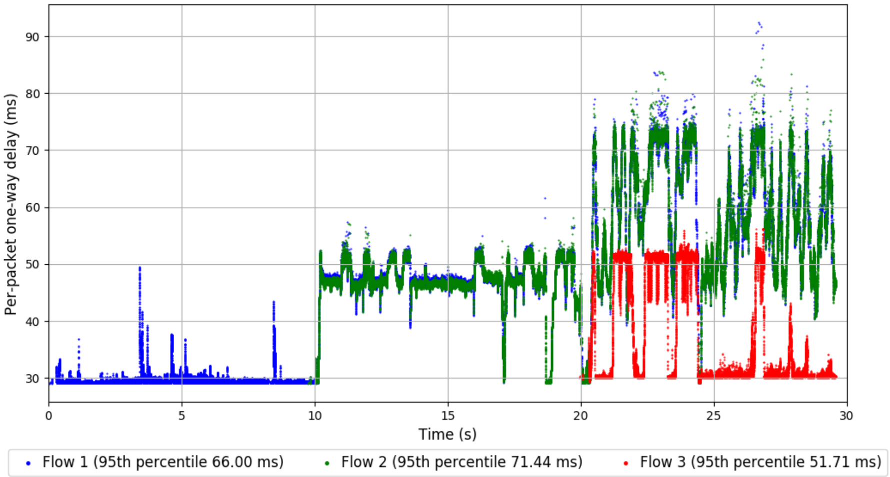




```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-11 05:49:36
End at: 2017-08-11 05:50:06
Local clock offset: -3.151 ms
Remote clock offset: -18.741 ms

# Below is generated by plot.py at 2017-08-11 14:29:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.42 Mbit/s
95th percentile per-packet one-way delay: 67.429 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 65.996 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 71.442 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 51.711 ms
Loss rate: 0.17%
```

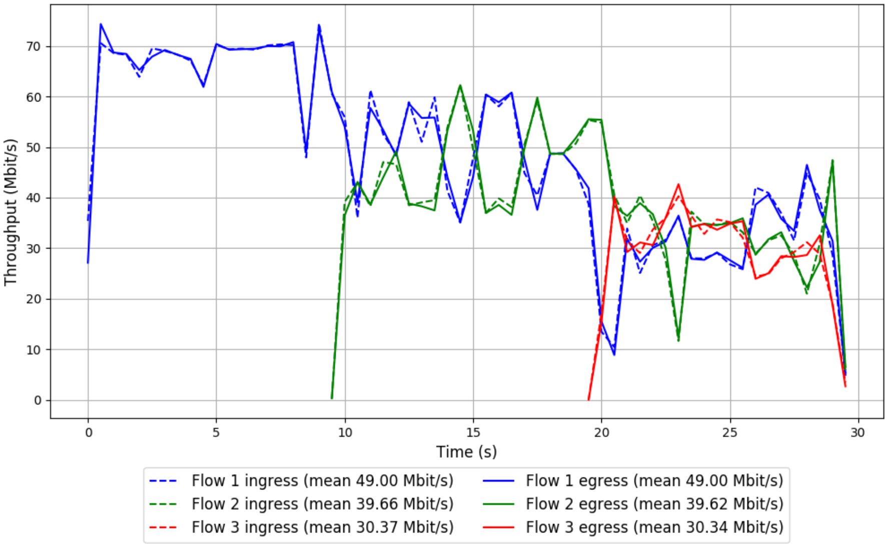
Run 1: Report of QUIC Cubic — Data Link

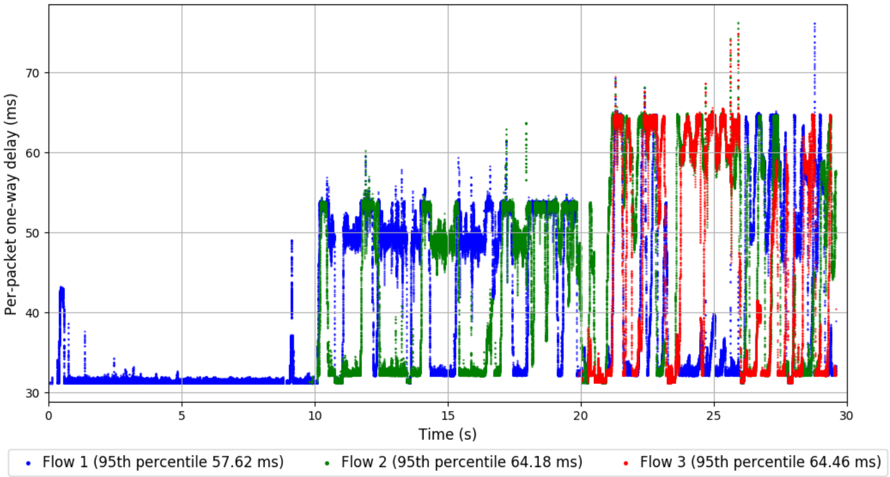




```
Run 2: Statistics of QUIC Cubic

Start at: 2017-08-11 06:07:59
End at: 2017-08-11 06:08:29
Local clock offset: -2.775 ms
Remote clock offset: -19.201 ms

# Below is generated by plot.py at 2017-08-11 14:29:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.45 Mbit/s
95th percentile per-packet one-way delay: 63.870 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 49.00 Mbit/s
95th percentile per-packet one-way delay: 57.615 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.62 Mbit/s
95th percentile per-packet one-way delay: 64.183 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 64.460 ms
Loss rate: 0.33%
```

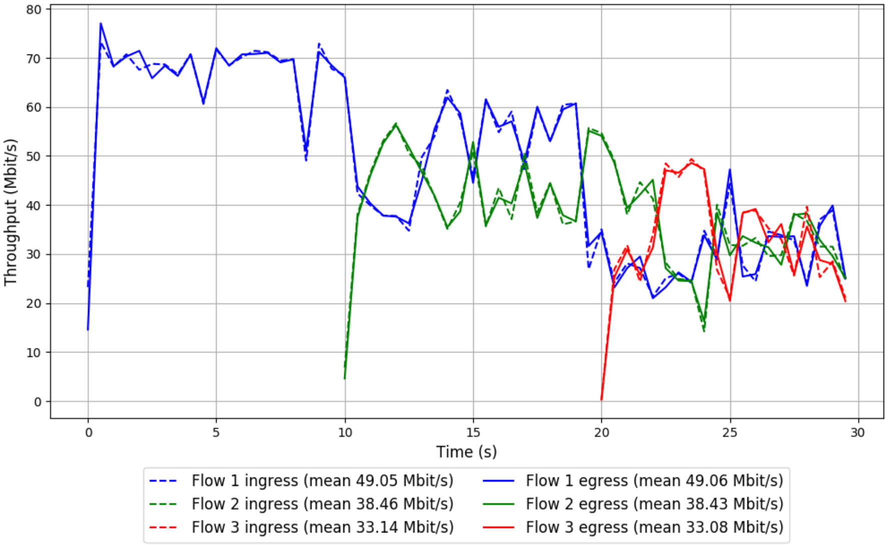
Run 2: Report of QUIC Cubic — Data Link

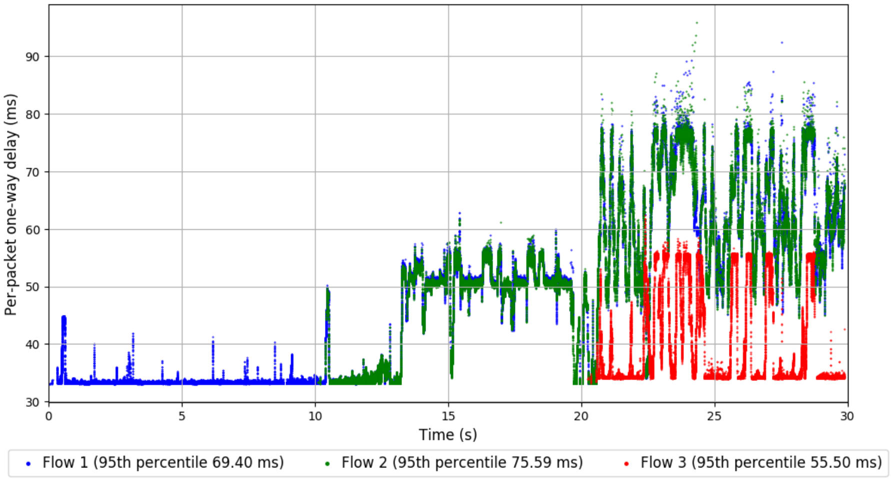




```
Run 3: Statistics of QUIC Cubic

Start at: 2017-08-11 06:25:52
End at: 2017-08-11 06:26:22
Local clock offset: 0.531 ms
Remote clock offset: -18.14 ms

# Below is generated by plot.py at 2017-08-11 14:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.23 Mbit/s
95th percentile per-packet one-way delay: 71.192 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 49.06 Mbit/s
95th percentile per-packet one-way delay: 69.397 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 38.43 Mbit/s
95th percentile per-packet one-way delay: 75.595 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 55.502 ms
Loss rate: 0.48%
```

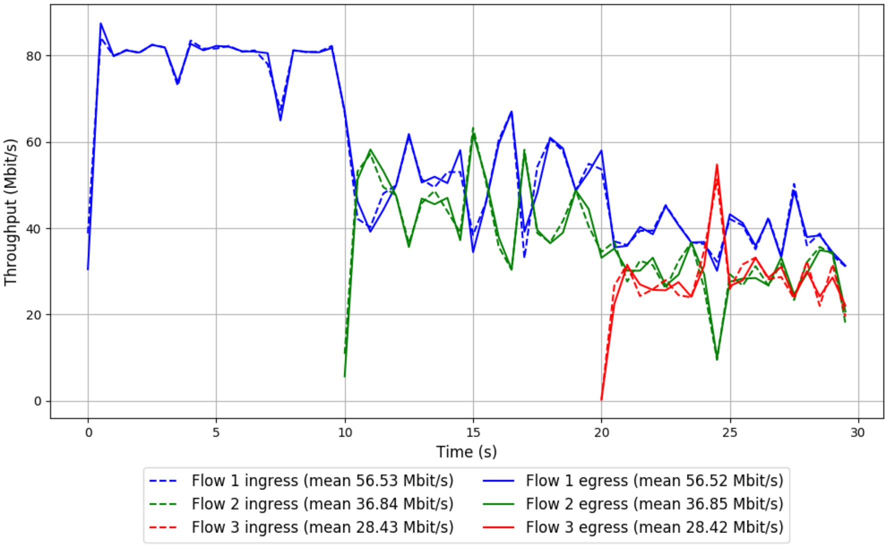
Run 3: Report of QUIC Cubic — Data Link

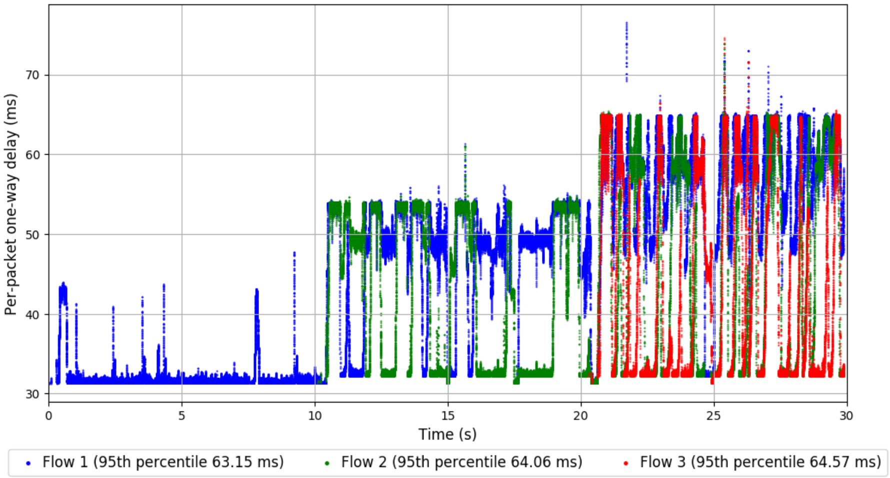




```
Run 4: Statistics of QUIC Cubic

Start at: 2017-08-11 06:43:46
End at: 2017-08-11 06:44:16
Local clock offset: -1.922 ms
Remote clock offset: -17.961 ms

# Below is generated by plot.py at 2017-08-11 14:29:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.07 Mbit/s
95th percentile per-packet one-way delay: 64.083 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 56.52 Mbit/s
95th percentile per-packet one-way delay: 63.146 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 36.85 Mbit/s
95th percentile per-packet one-way delay: 64.063 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 28.42 Mbit/s
95th percentile per-packet one-way delay: 64.566 ms
Loss rate: 0.30%
```

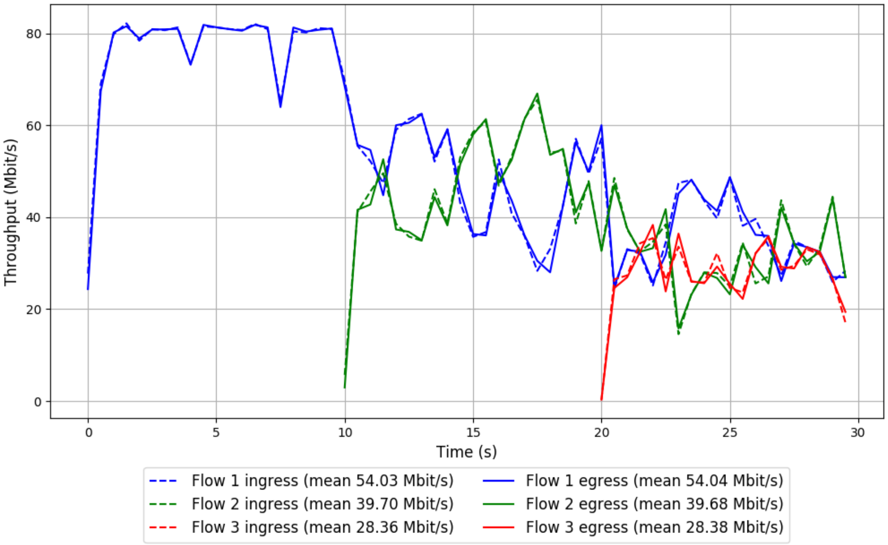
Run 4: Report of QUIC Cubic — Data Link

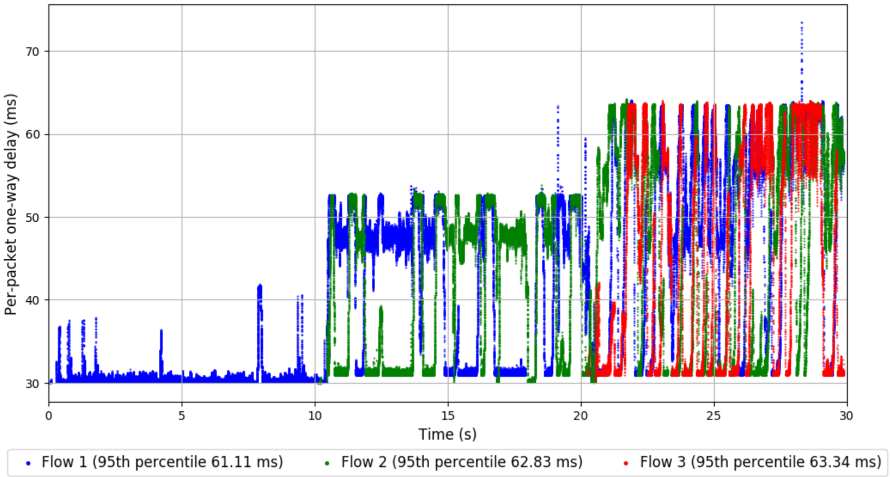




```
Run 5: Statistics of QUIC Cubic

Start at: 2017-08-11 07:01:59
End at: 2017-08-11 07:02:29
Local clock offset: -1.287 ms
Remote clock offset: -17.195 ms

# Below is generated by plot.py at 2017-08-11 14:29:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.50 Mbit/s
95th percentile per-packet one-way delay: 62.707 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 54.04 Mbit/s
95th percentile per-packet one-way delay: 61.110 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 62.830 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 28.38 Mbit/s
95th percentile per-packet one-way delay: 63.336 ms
Loss rate: 0.20%
```

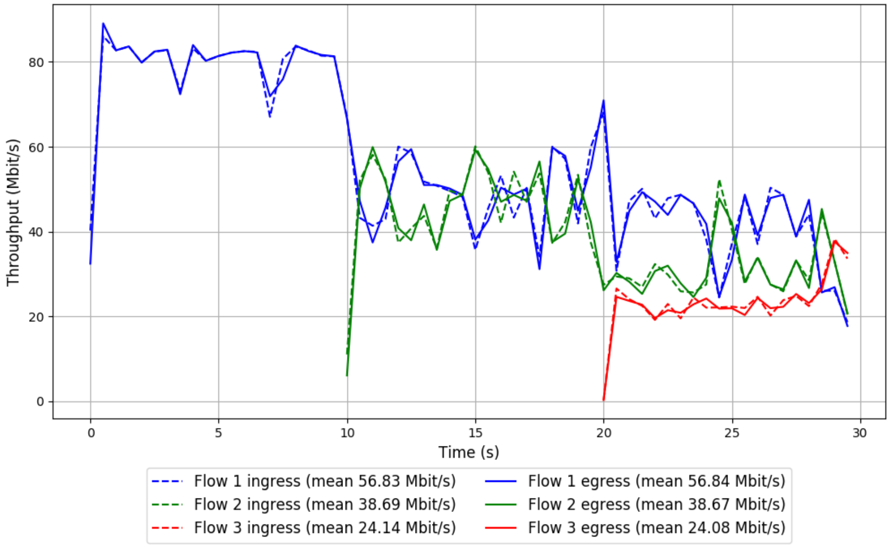
Run 5: Report of QUIC Cubic — Data Link

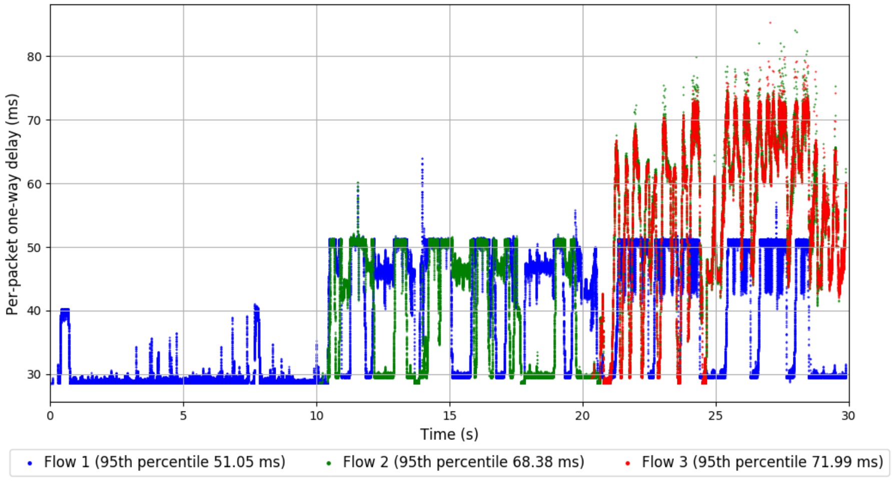




```
Run 6: Statistics of QUIC Cubic

Start at: 2017-08-11 07:19:56
End at: 2017-08-11 07:20:26
Local clock offset: -2.709 ms
Remote clock offset: -18.283 ms

# Below is generated by plot.py at 2017-08-11 14:30:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.16 Mbit/s
95th percentile per-packet one-way delay: 63.845 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 51.045 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 68.384 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 24.08 Mbit/s
95th percentile per-packet one-way delay: 71.987 ms
Loss rate: 0.70%
```

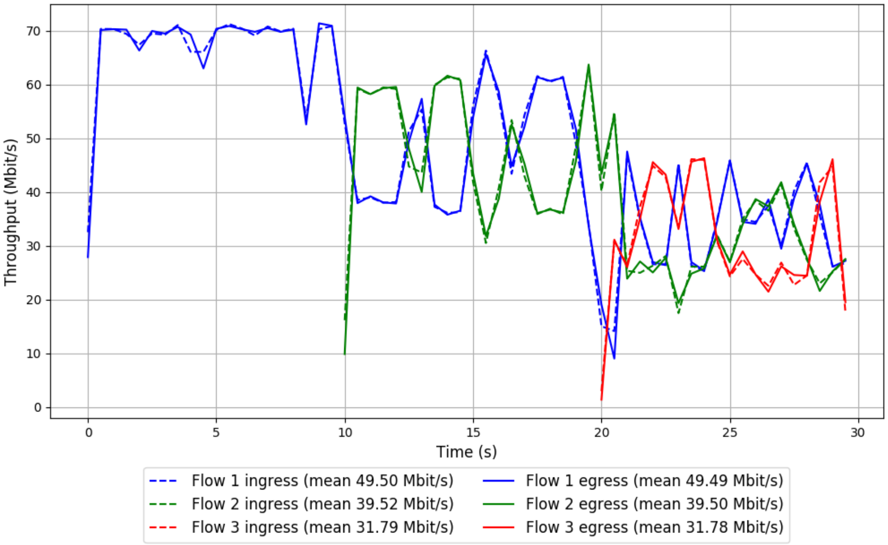
Run 6: Report of QUIC Cubic — Data Link

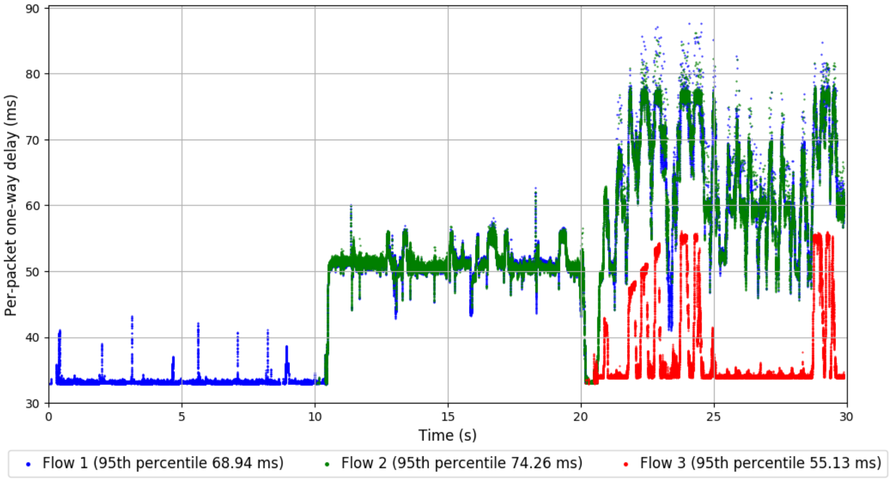




```
Run 7: Statistics of QUIC Cubic

Start at: 2017-08-11 07:38:01
End at: 2017-08-11 07:38:31
Local clock offset: -0.307 ms
Remote clock offset: -21.026 ms

# Below is generated by plot.py at 2017-08-11 14:30:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.02 Mbit/s
95th percentile per-packet one-way delay: 69.841 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 68.938 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 39.50 Mbit/s
95th percentile per-packet one-way delay: 74.259 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 31.78 Mbit/s
95th percentile per-packet one-way delay: 55.129 ms
Loss rate: 0.27%
```

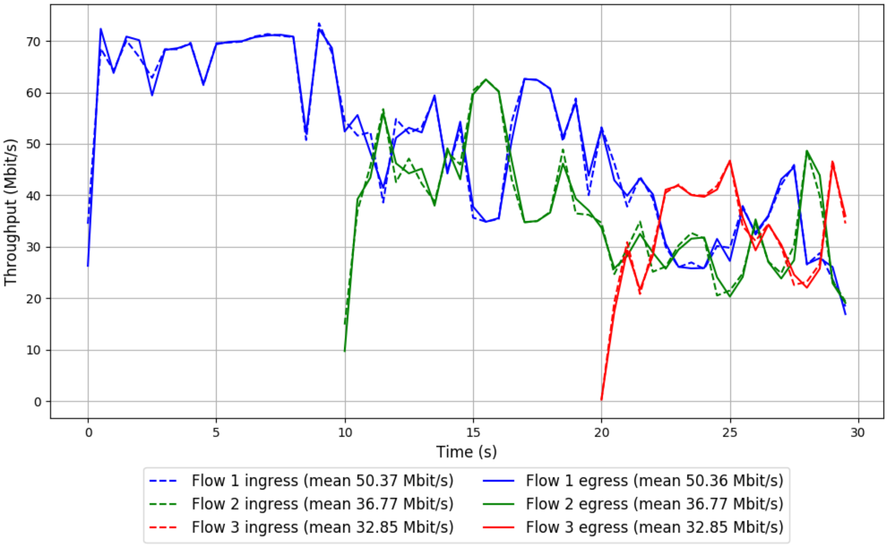
Run 7: Report of QUIC Cubic — Data Link

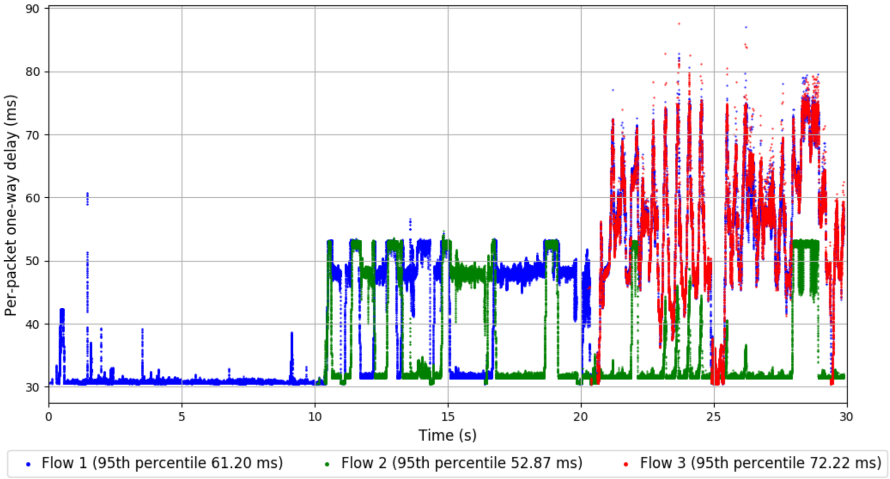




```
Run 8: Statistics of QUIC Cubic

Start at: 2017-08-11 07:56:16
End at: 2017-08-11 07:56:46
Local clock offset: -0.598 ms
Remote clock offset: -18.444 ms

# Below is generated by plot.py at 2017-08-11 14:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.34 Mbit/s
95th percentile per-packet one-way delay: 62.451 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 50.36 Mbit/s
95th percentile per-packet one-way delay: 61.198 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 36.77 Mbit/s
95th percentile per-packet one-way delay: 52.869 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.85 Mbit/s
95th percentile per-packet one-way delay: 72.223 ms
Loss rate: 0.57%
```

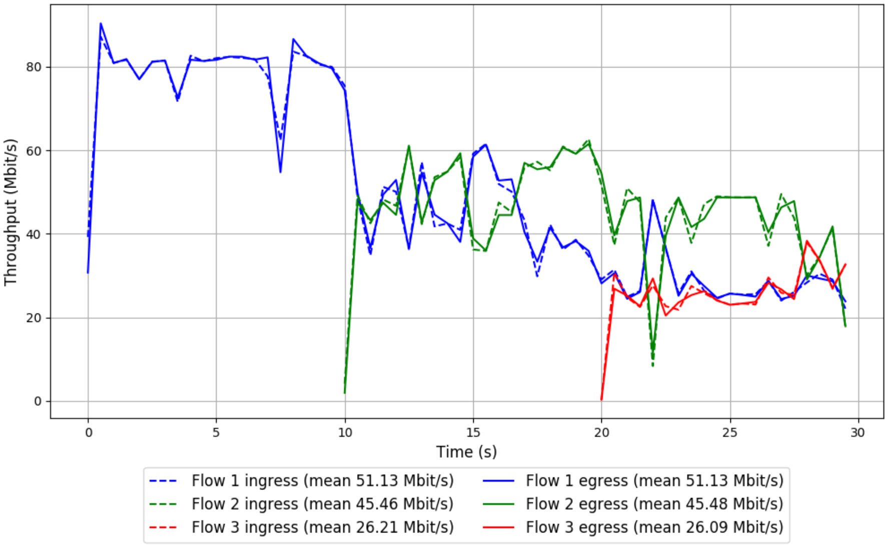
Run 8: Report of QUIC Cubic — Data Link

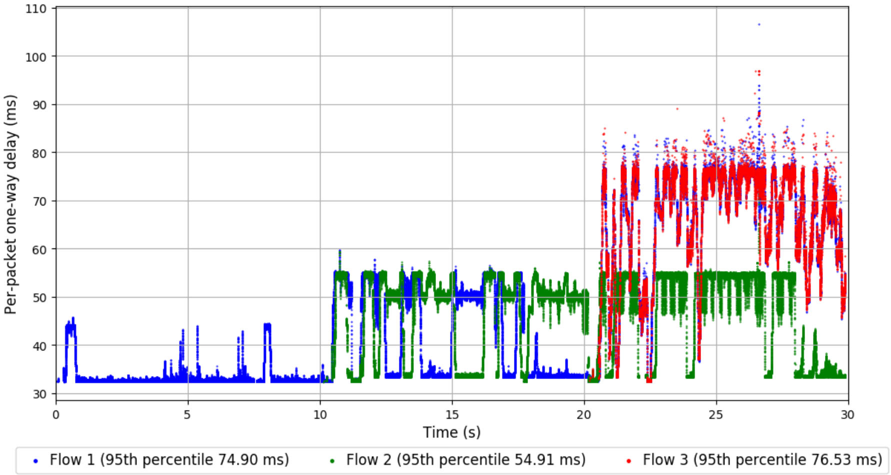




```
Run 9: Statistics of QUIC Cubic

Start at: 2017-08-11 08:14:24
End at: 2017-08-11 08:14:54
Local clock offset: 0.824 ms
Remote clock offset: -19.858 ms

# Below is generated by plot.py at 2017-08-11 14:30:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 75.240 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 51.13 Mbit/s
95th percentile per-packet one-way delay: 74.903 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 45.48 Mbit/s
95th percentile per-packet one-way delay: 54.905 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 26.09 Mbit/s
95th percentile per-packet one-way delay: 76.528 ms
Loss rate: 0.76%
```

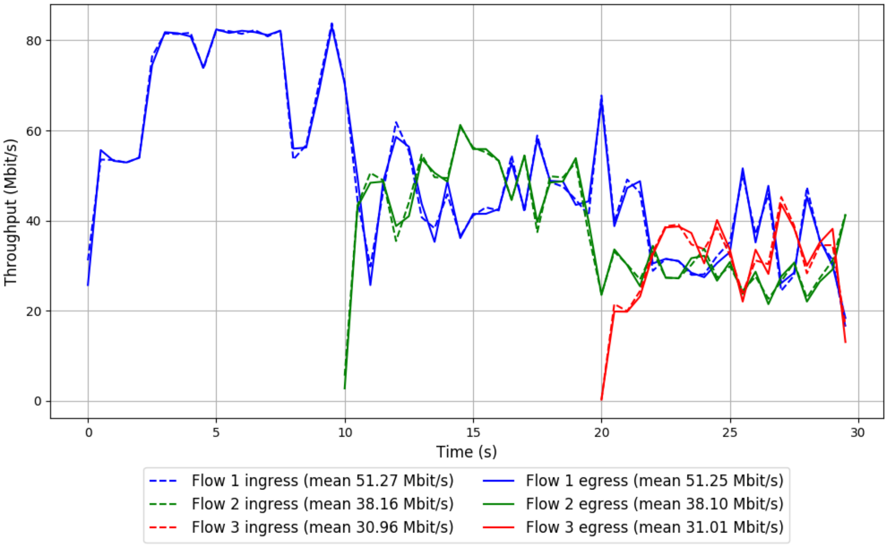
Run 9: Report of QUIC Cubic — Data Link

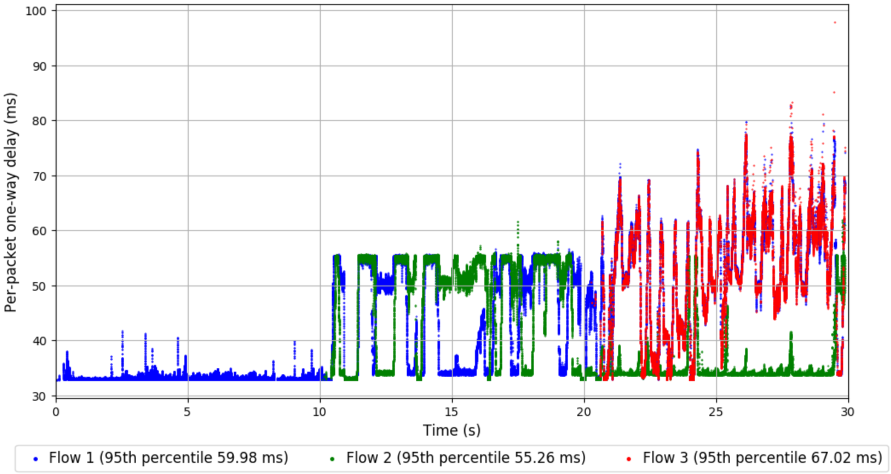




```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-11 08:32:30
End at: 2017-08-11 08:33:00
Local clock offset: 2.175 ms
Remote clock offset: -19.804 ms

# Below is generated by plot.py at 2017-08-11 14:30:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 60.570 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 51.25 Mbit/s
95th percentile per-packet one-way delay: 59.976 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 38.10 Mbit/s
95th percentile per-packet one-way delay: 55.264 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 31.01 Mbit/s
95th percentile per-packet one-way delay: 67.017 ms
Loss rate: 0.61%
```

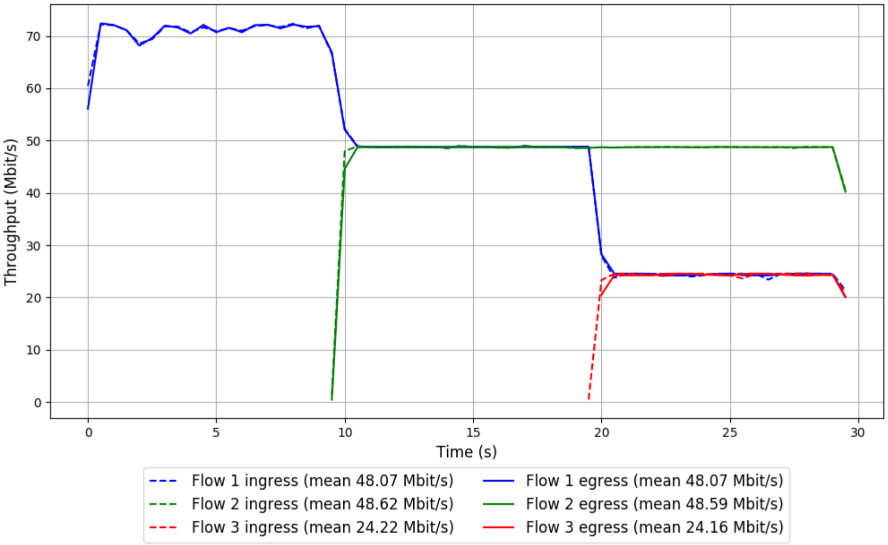
Run 10: Report of QUIC Cubic — Data Link

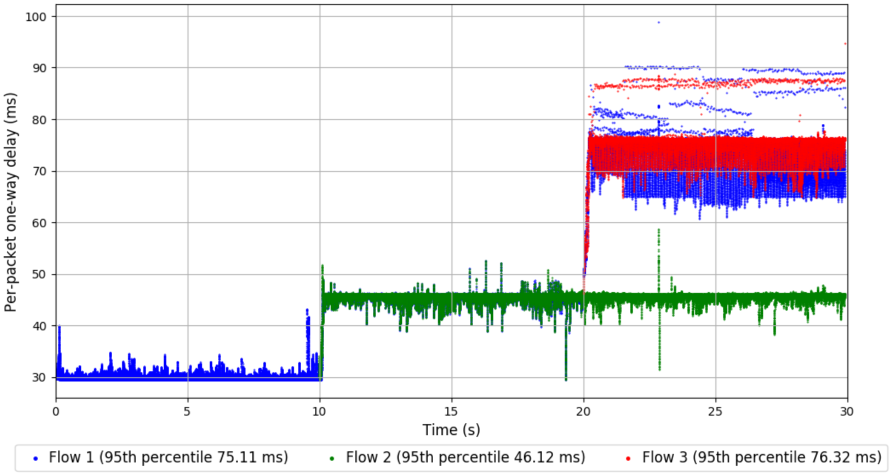




```
Run 1: Statistics of Saturator

Start at: 2017-08-11 05:39:57
End at: 2017-08-11 05:40:27
Local clock offset: -2.048 ms
Remote clock offset: -17.832 ms

# Below is generated by plot.py at 2017-08-11 14:30:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.50 Mbit/s
95th percentile per-packet one-way delay: 76.003 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 48.07 Mbit/s
95th percentile per-packet one-way delay: 75.108 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 46.122 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 76.324 ms
Loss rate: 0.99%
```

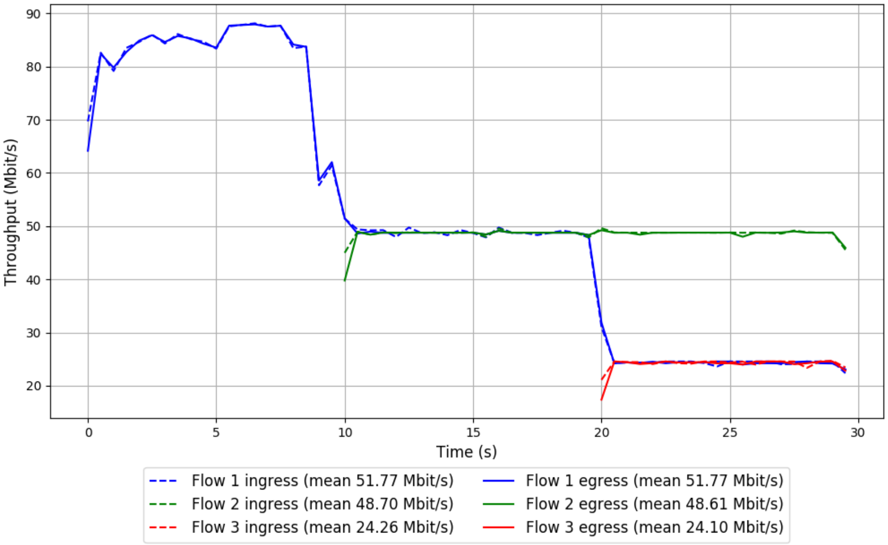
Run 1: Report of Saturator — Data Link

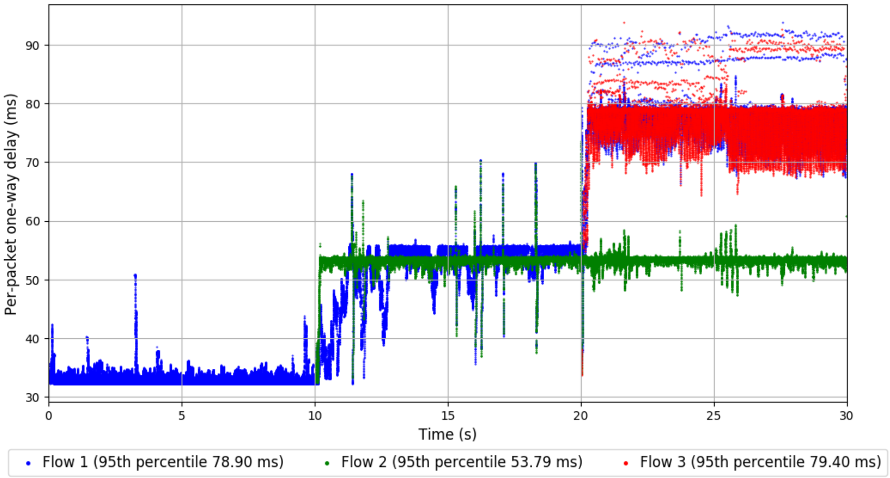




```
Run 2: Statistics of Saturator

Start at: 2017-08-11 05:58:09
End at: 2017-08-11 05:58:39
Local clock offset: -0.304 ms
Remote clock offset: -18.292 ms

# Below is generated by plot.py at 2017-08-11 14:30:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 78.855 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 51.77 Mbit/s
95th percentile per-packet one-way delay: 78.900 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 48.61 Mbit/s
95th percentile per-packet one-way delay: 53.789 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 24.10 Mbit/s
95th percentile per-packet one-way delay: 79.403 ms
Loss rate: 0.93%
```

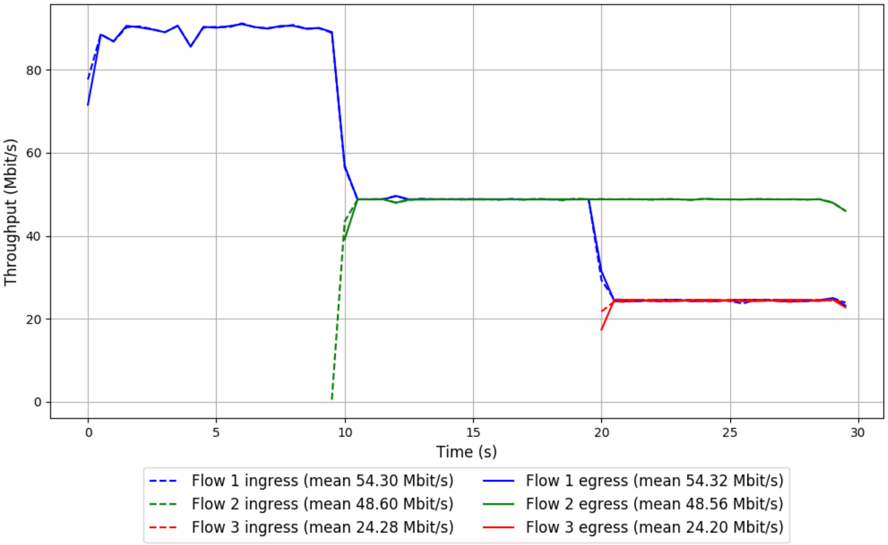
Run 2: Report of Saturator — Data Link

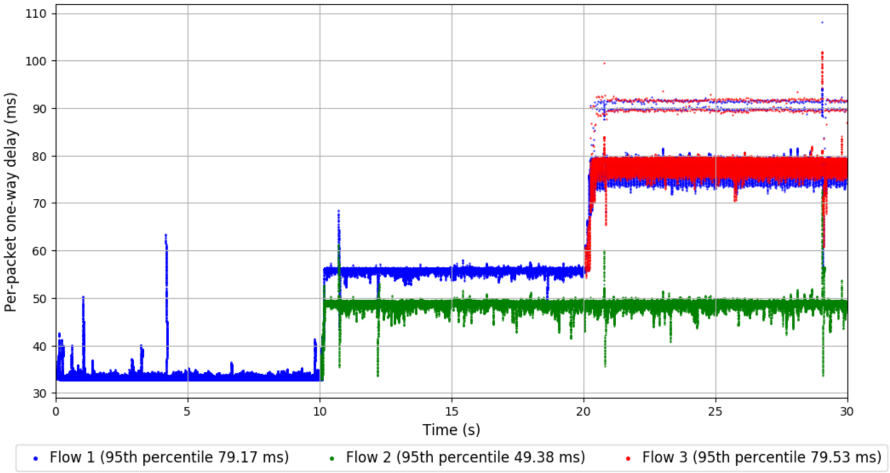




```
Run 3: Statistics of Saturator

Start at: 2017-08-11 06:16:29
End at: 2017-08-11 06:16:59
Local clock offset: -0.793 ms
Remote clock offset: -18.39 ms

# Below is generated by plot.py at 2017-08-11 14:30:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.66 Mbit/s
95th percentile per-packet one-way delay: 79.210 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 54.32 Mbit/s
95th percentile per-packet one-way delay: 79.171 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 48.56 Mbit/s
95th percentile per-packet one-way delay: 49.381 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 79.531 ms
Loss rate: 0.99%
```

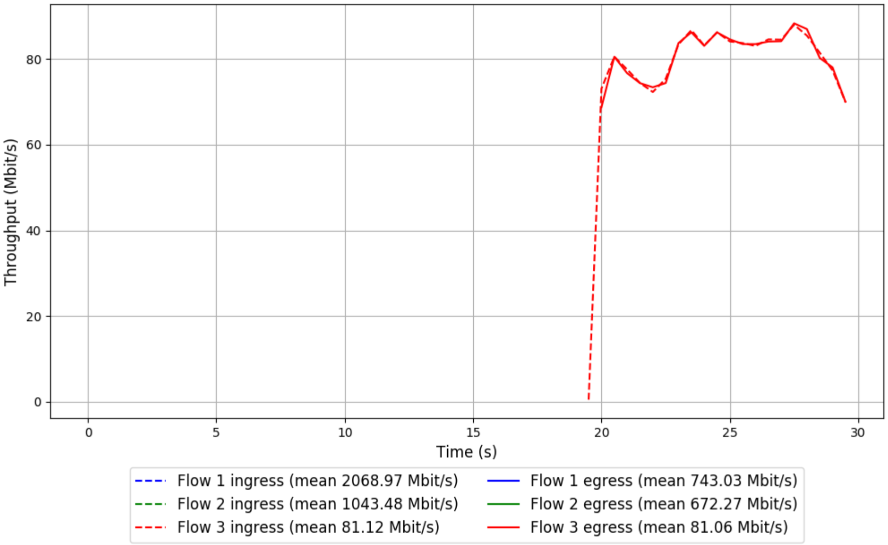
Run 3: Report of Saturator — Data Link

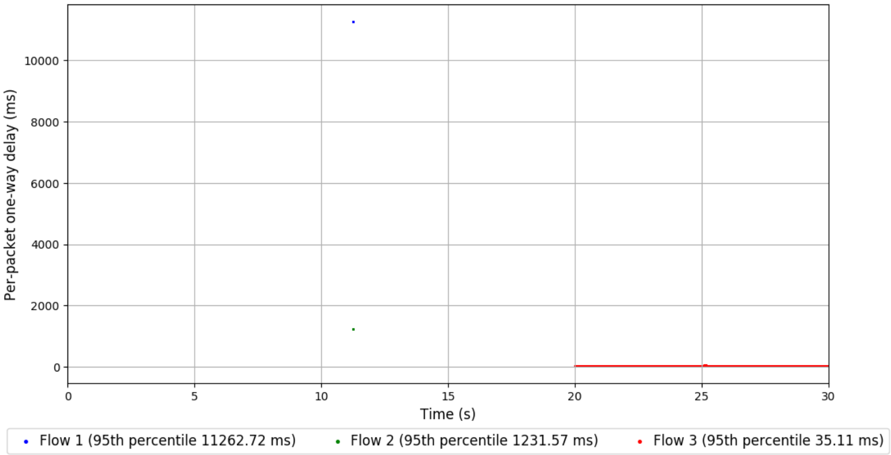




```
Run 4: Statistics of Saturator

Start at: 2017-08-11 06:34:19
End at: 2017-08-11 06:34:49
Local clock offset: 0.648 ms
Remote clock offset: -17.136 ms
```

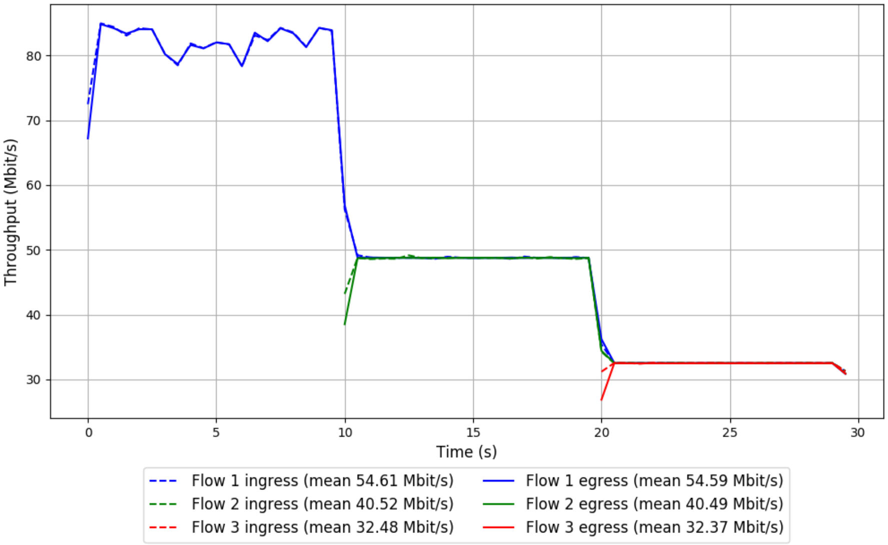
Run 4: Report of Saturator — Data Link

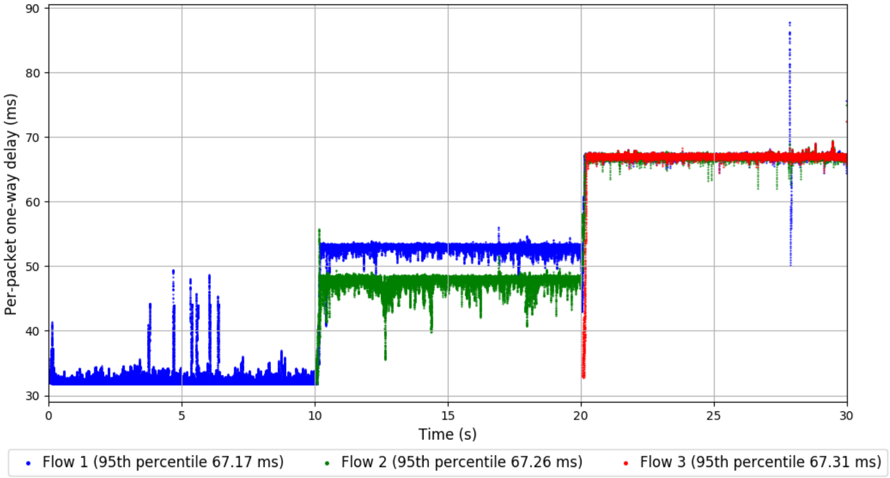




```
Run 5: Statistics of Saturator

Start at: 2017-08-11 06:52:23
End at: 2017-08-11 06:52:53
Local clock offset: -0.102 ms
Remote clock offset: -17.243 ms

# Below is generated by plot.py at 2017-08-11 14:31:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 67.250 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 54.59 Mbit/s
95th percentile per-packet one-way delay: 67.171 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.49 Mbit/s
95th percentile per-packet one-way delay: 67.260 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 32.37 Mbit/s
95th percentile per-packet one-way delay: 67.315 ms
Loss rate: 0.74%
```

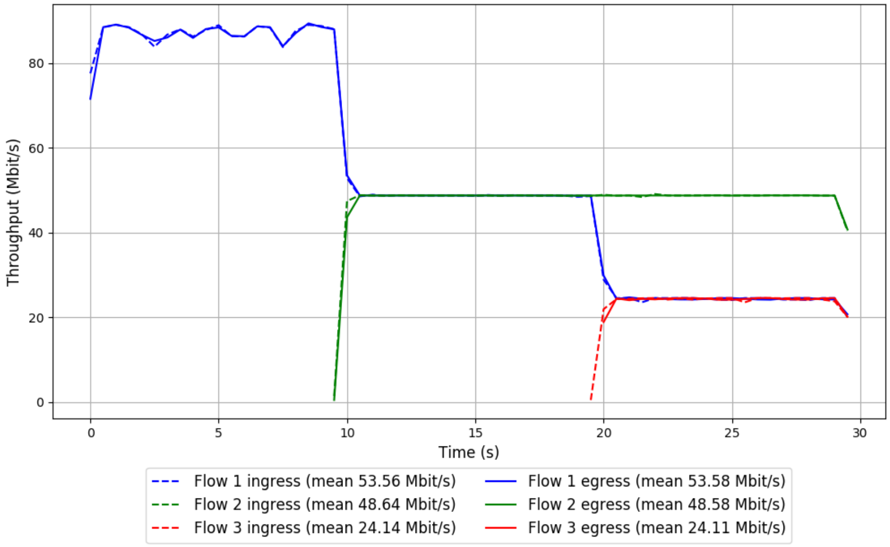
Run 5: Report of Saturator — Data Link

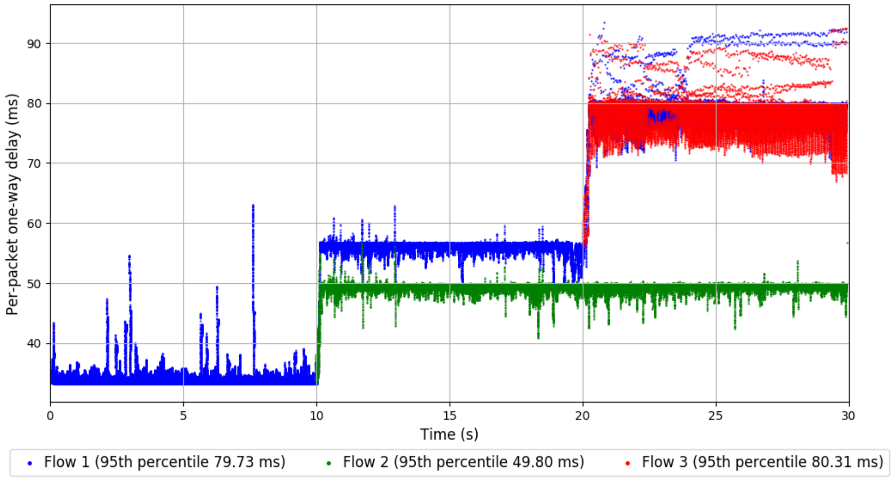




```
Run 6: Statistics of Saturator

Start at: 2017-08-11 07:10:23
End at: 2017-08-11 07:10:53
Local clock offset: 0.926 ms
Remote clock offset: -18.786 ms

# Below is generated by plot.py at 2017-08-11 14:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.97 Mbit/s
95th percentile per-packet one-way delay: 79.678 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 53.58 Mbit/s
95th percentile per-packet one-way delay: 79.727 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 48.58 Mbit/s
95th percentile per-packet one-way delay: 49.805 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 24.11 Mbit/s
95th percentile per-packet one-way delay: 80.306 ms
Loss rate: 0.68%
```

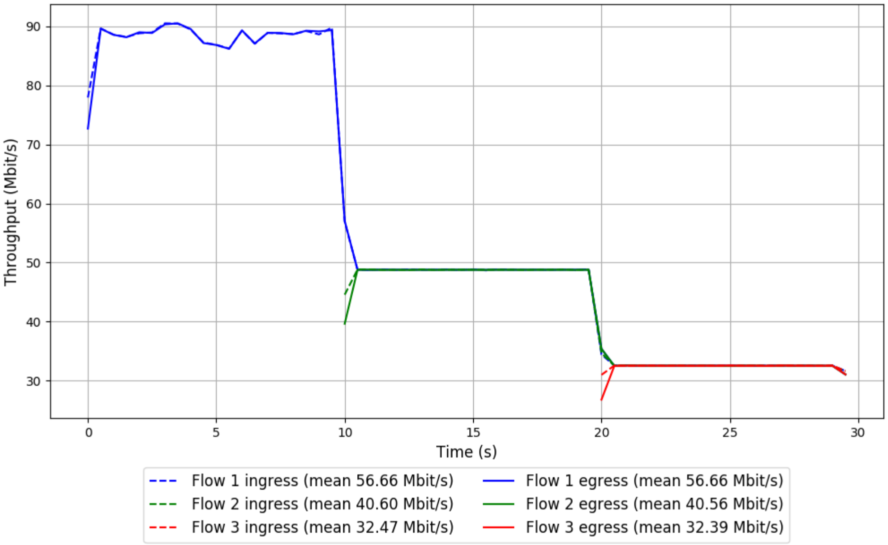
Run 6: Report of Saturator — Data Link

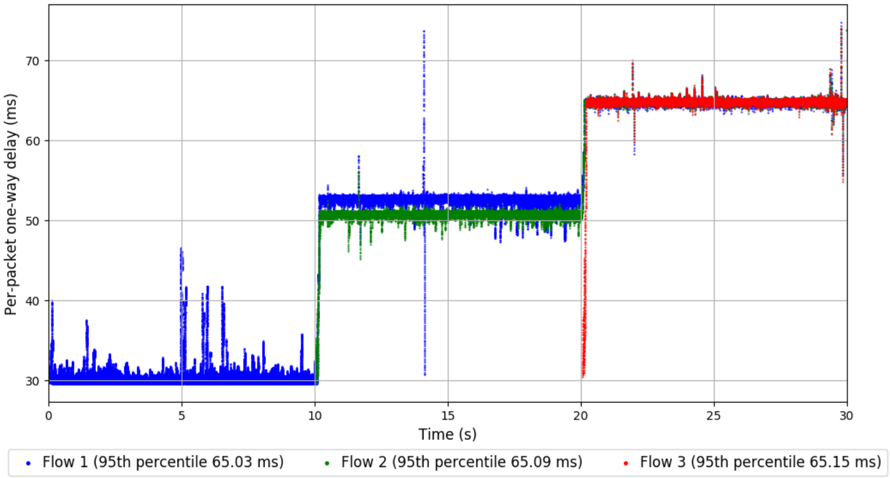




```
Run 7: Statistics of Saturator

Start at: 2017-08-11 07:28:32
End at: 2017-08-11 07:29:02
Local clock offset: -2.011 ms
Remote clock offset: -19.219 ms

# Below is generated by plot.py at 2017-08-11 14:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.38 Mbit/s
95th percentile per-packet one-way delay: 65.084 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 56.66 Mbit/s
95th percentile per-packet one-way delay: 65.033 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.56 Mbit/s
95th percentile per-packet one-way delay: 65.087 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 32.39 Mbit/s
95th percentile per-packet one-way delay: 65.151 ms
Loss rate: 0.74%
```

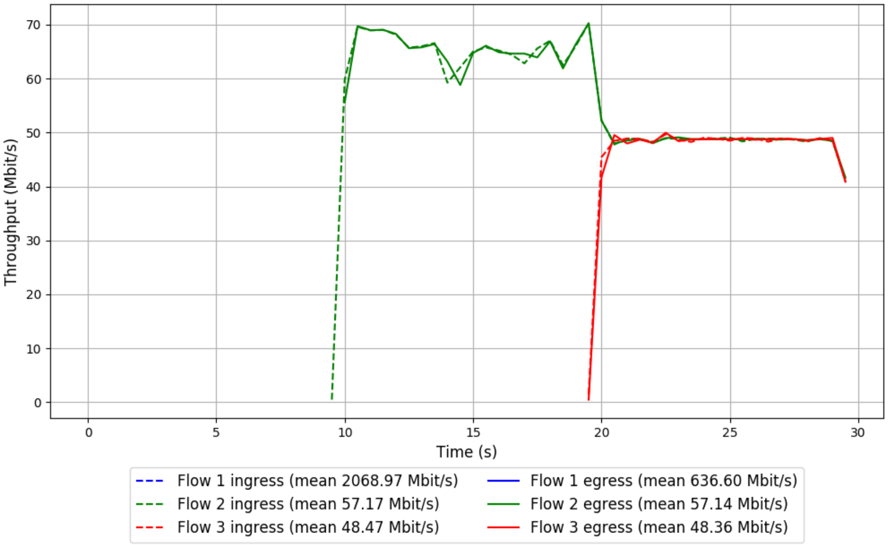
Run 7: Report of Saturator — Data Link

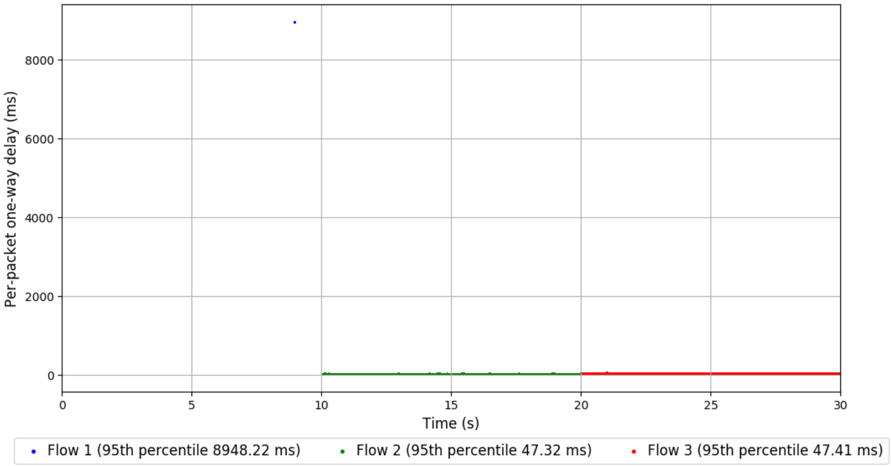




```
Run 8: Statistics of Saturator

Start at: 2017-08-11 07:46:33
End at: 2017-08-11 07:47:03
Local clock offset: -1.138 ms
Remote clock offset: -19.398 ms
```

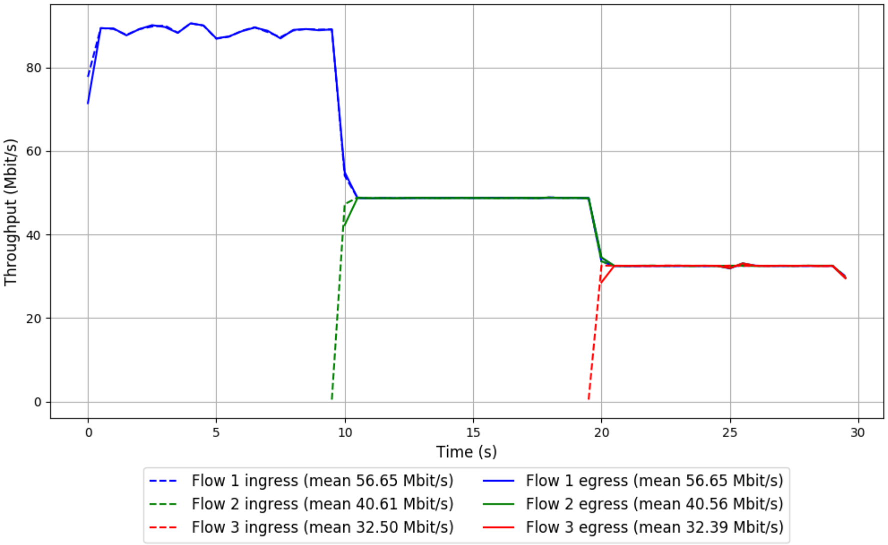
Run 8: Report of Saturator — Data Link

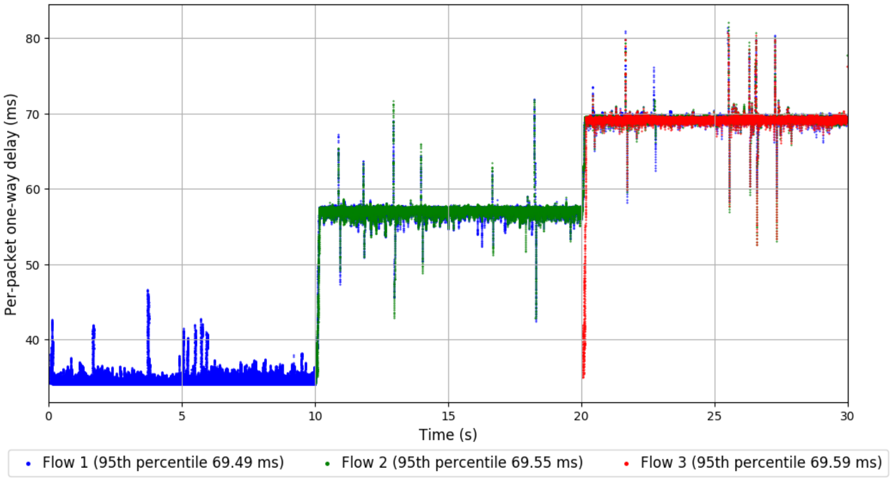




```
Run 9: Statistics of Saturator

Start at: 2017-08-11 08:04:55
End at: 2017-08-11 08:05:25
Local clock offset: -1.679 ms
Remote clock offset: -23.486 ms

# Below is generated by plot.py at 2017-08-11 14:31:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.41 Mbit/s
95th percentile per-packet one-way delay: 69.534 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 56.65 Mbit/s
95th percentile per-packet one-way delay: 69.494 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.56 Mbit/s
95th percentile per-packet one-way delay: 69.549 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 32.39 Mbit/s
95th percentile per-packet one-way delay: 69.590 ms
Loss rate: 0.74%
```

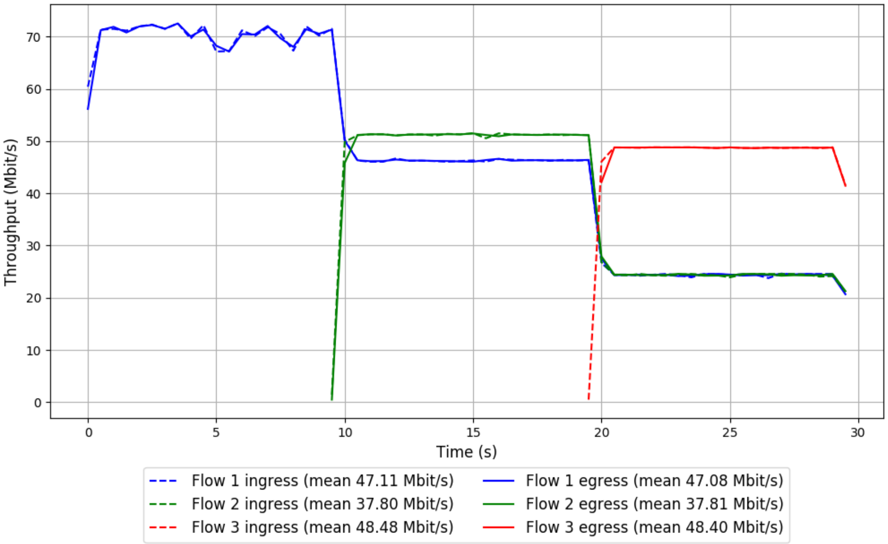
Run 9: Report of Saturator — Data Link

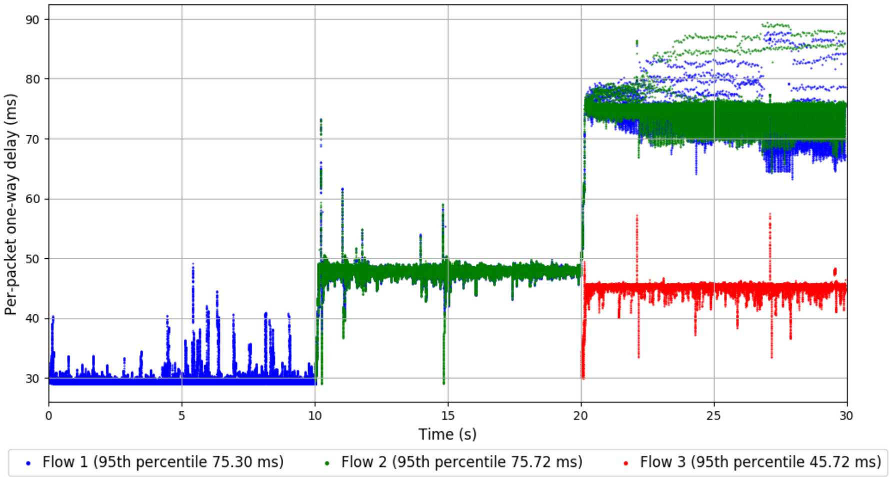




```
Run 10: Statistics of Saturator

Start at: 2017-08-11 08:23:01
End at: 2017-08-11 08:23:31
Local clock offset: -1.567 ms
Remote clock offset: -19.119 ms

# Below is generated by plot.py at 2017-08-11 14:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.35 Mbit/s
95th percentile per-packet one-way delay: 75.487 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 47.08 Mbit/s
95th percentile per-packet one-way delay: 75.304 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 37.81 Mbit/s
95th percentile per-packet one-way delay: 75.723 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 48.40 Mbit/s
95th percentile per-packet one-way delay: 45.718 ms
Loss rate: 0.47%
```

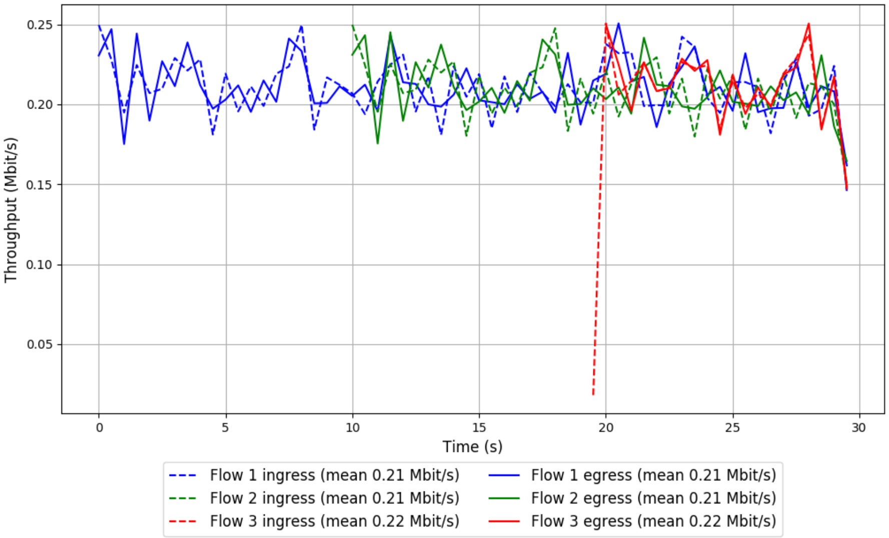
Run 10: Report of Saturator — Data Link

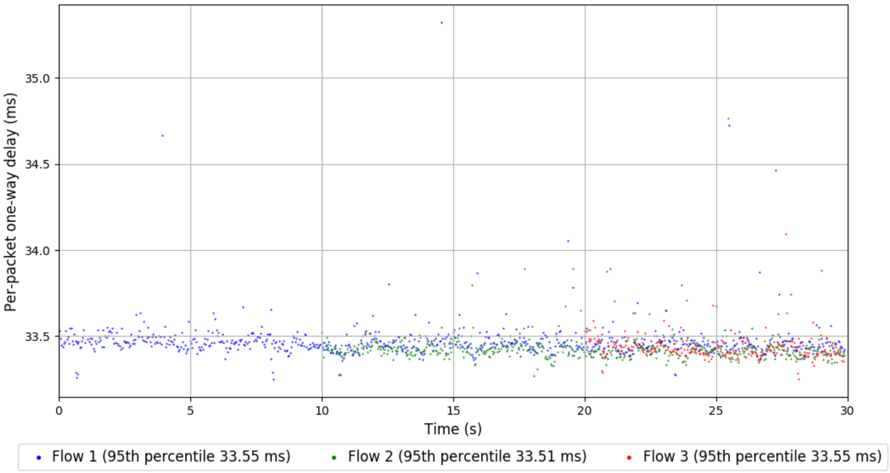




```
Run 1: Statistics of SCReAM

Start at: 2017-08-11 05:47:13
End at: 2017-08-11 05:47:43
Local clock offset: 1.065 ms
Remote clock offset: -18.988 ms

# Below is generated by plot.py at 2017-08-11 14:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 33.546 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.549 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.550 ms
Loss rate: 0.35%
```

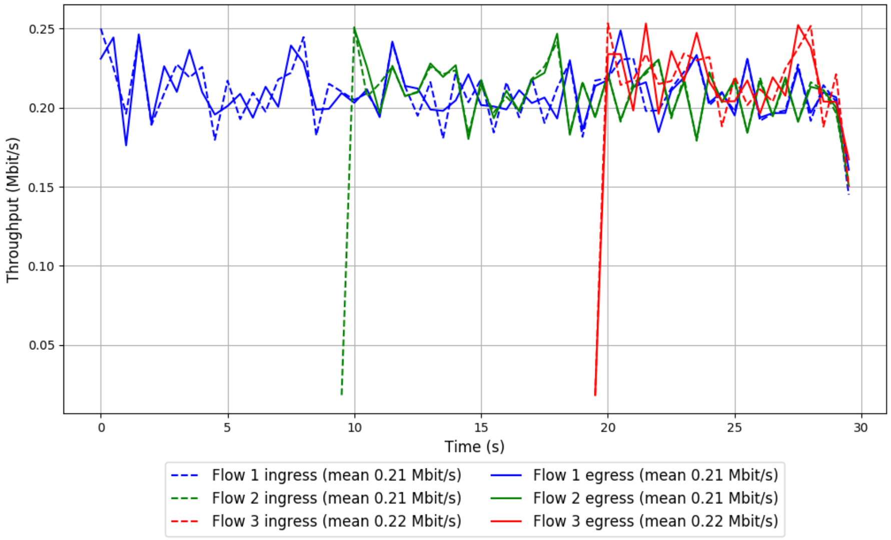
Run 1: Report of SCReAM — Data Link

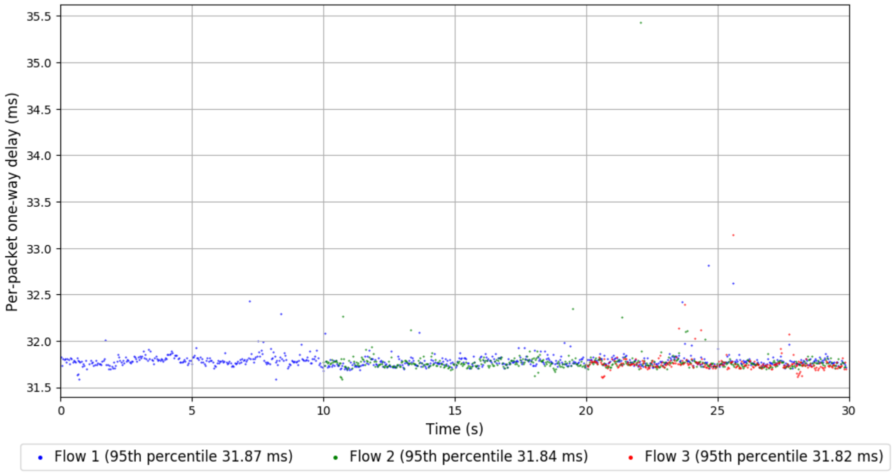




```
Run 2: Statistics of SCReAM

Start at: 2017-08-11 06:05:37
End at: 2017-08-11 06:06:07
Local clock offset: -0.848 ms
Remote clock offset: -17.93 ms

# Below is generated by plot.py at 2017-08-11 14:31:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 31.857 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.870 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.837 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.822 ms
Loss rate: 0.00%
```

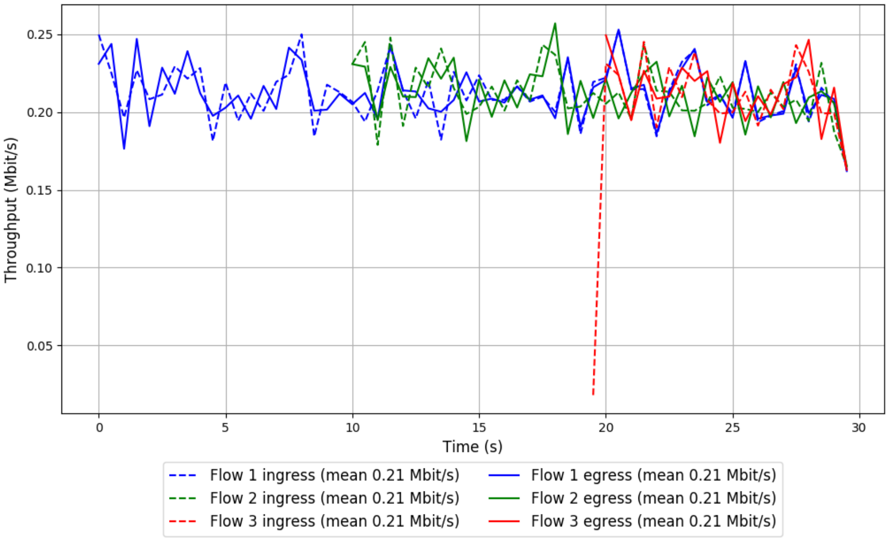
Run 2: Report of SCReAM — Data Link

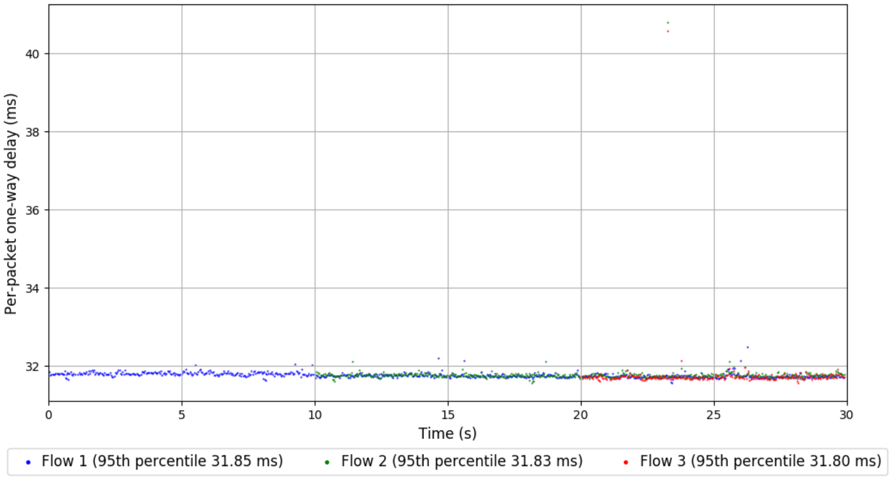




```
Run 3: Statistics of SCReAM

Start at: 2017-08-11 06:23:35
End at: 2017-08-11 06:24:05
Local clock offset: -0.387 ms
Remote clock offset: -17.477 ms

# Below is generated by plot.py at 2017-08-11 14:31:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 31.847 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.854 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.834 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.800 ms
Loss rate: 0.00%
```

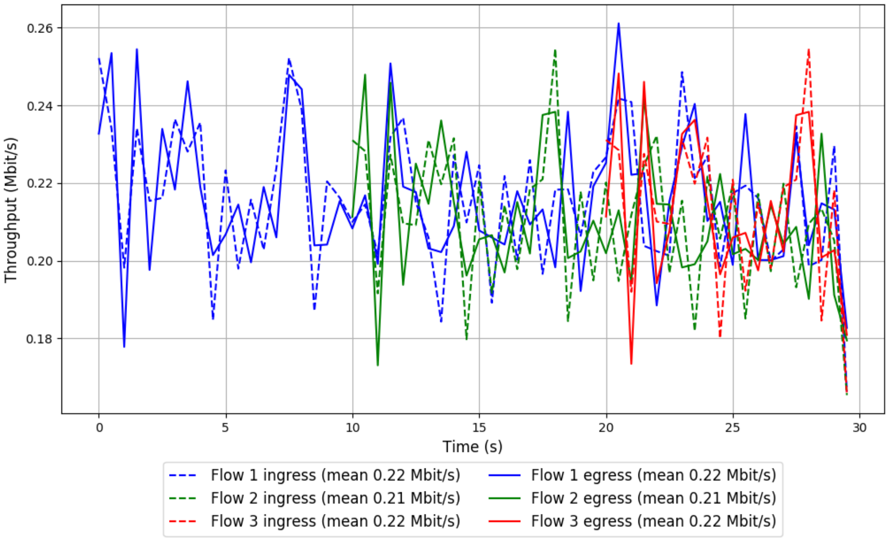
Run 3: Report of SCReAM — Data Link

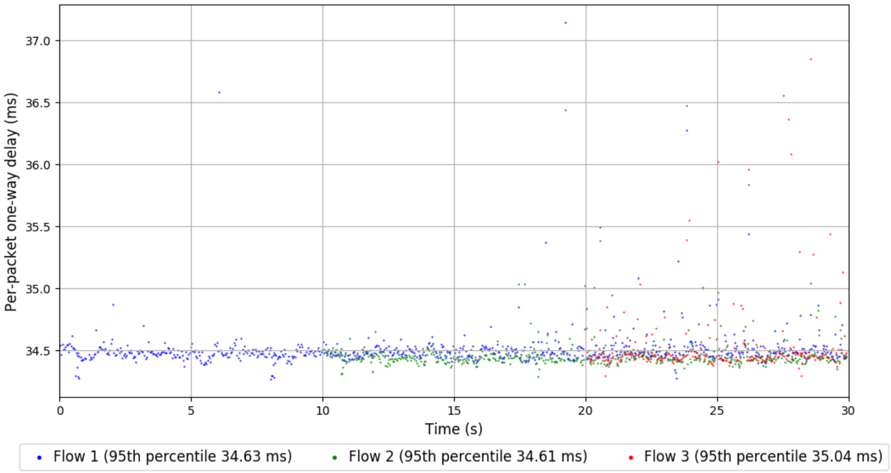




```
Run 4: Statistics of SCReAM

Start at: 2017-08-11 06:41:27
End at: 2017-08-11 06:41:57
Local clock offset: 0.449 ms
Remote clock offset: -18.553 ms

# Below is generated by plot.py at 2017-08-11 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 34.668 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 34.630 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 35.039 ms
Loss rate: 0.00%
```

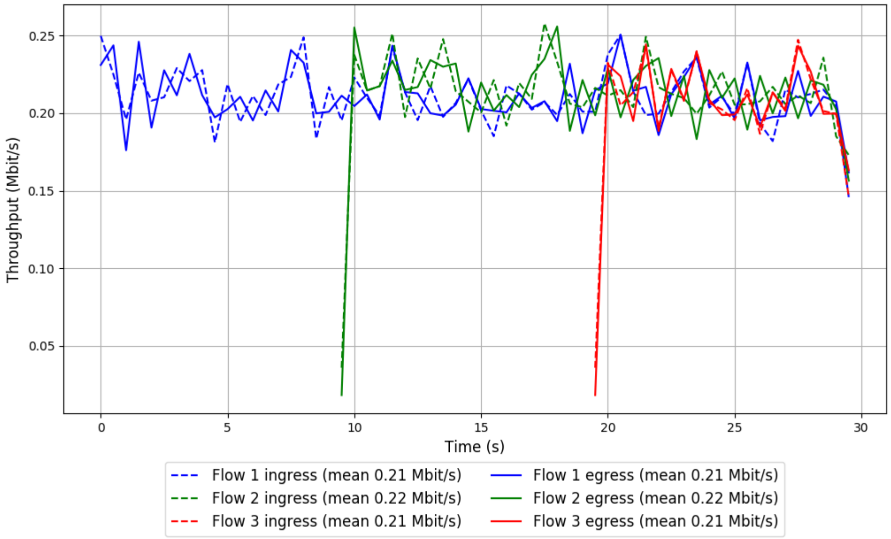
Run 4: Report of SCReAM — Data Link

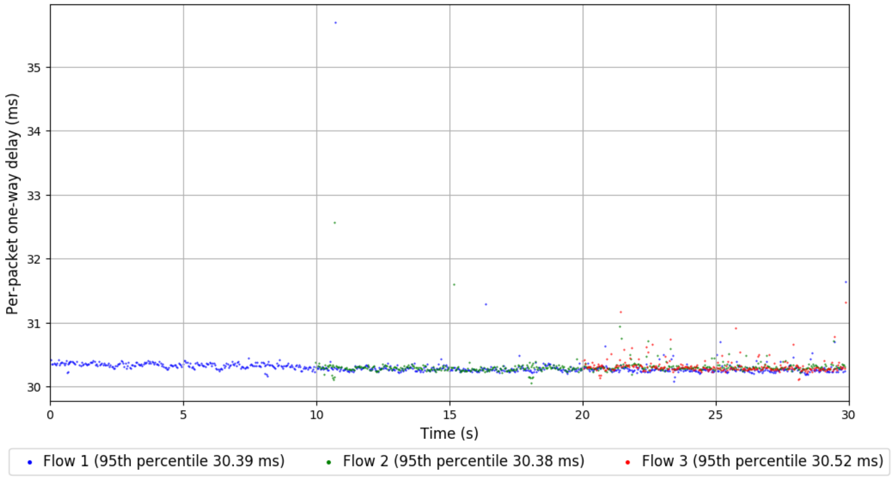




```
Run 5: Statistics of SCReAM

Start at: 2017-08-11 06:59:39
End at: 2017-08-11 07:00:09
Local clock offset: -2.5 ms
Remote clock offset: -18.416 ms

# Below is generated by plot.py at 2017-08-11 14:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 30.399 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.388 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.375 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.520 ms
Loss rate: 0.00%
```

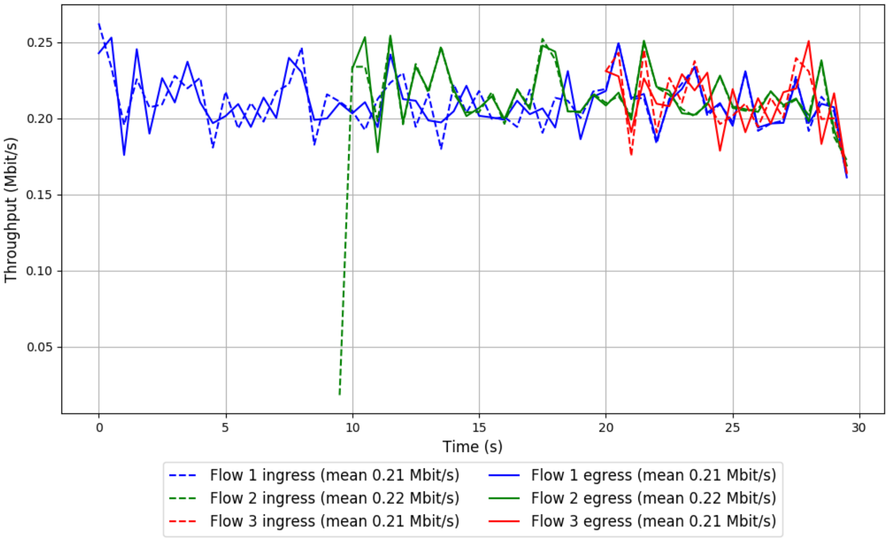
Run 5: Report of SCReAM — Data Link

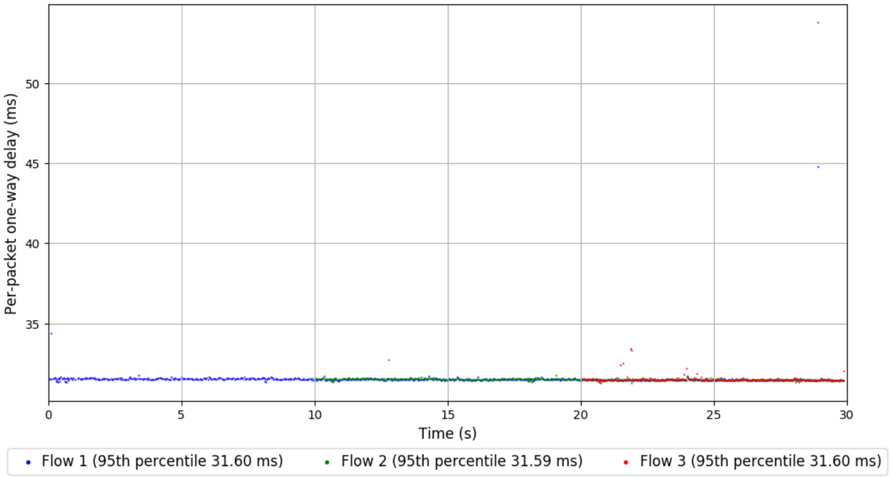




```
Run 6: Statistics of SCReAM

Start at: 2017-08-11 07:17:37
End at: 2017-08-11 07:18:07
Local clock offset: -0.525 ms
Remote clock offset: -18.874 ms

# Below is generated by plot.py at 2017-08-11 14:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 31.600 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.604 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.593 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.597 ms
Loss rate: 0.00%
```

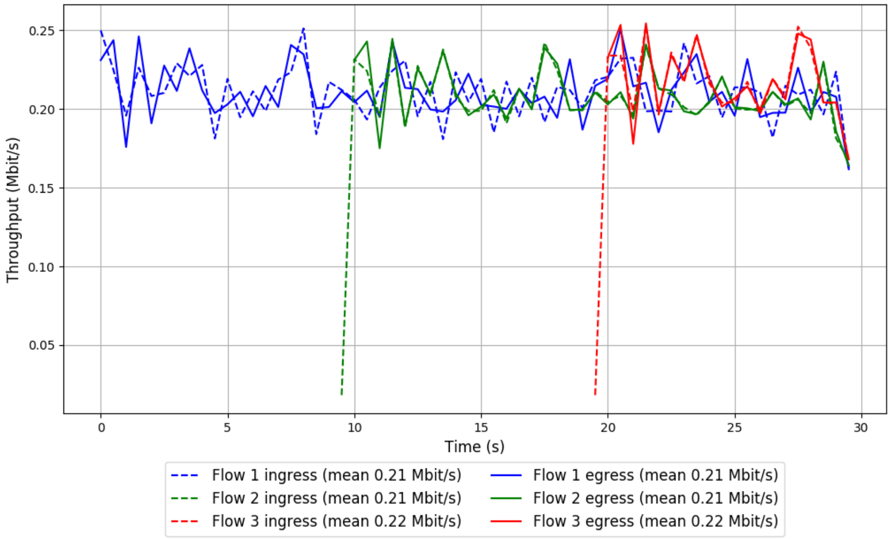
Run 6: Report of SCReAM — Data Link

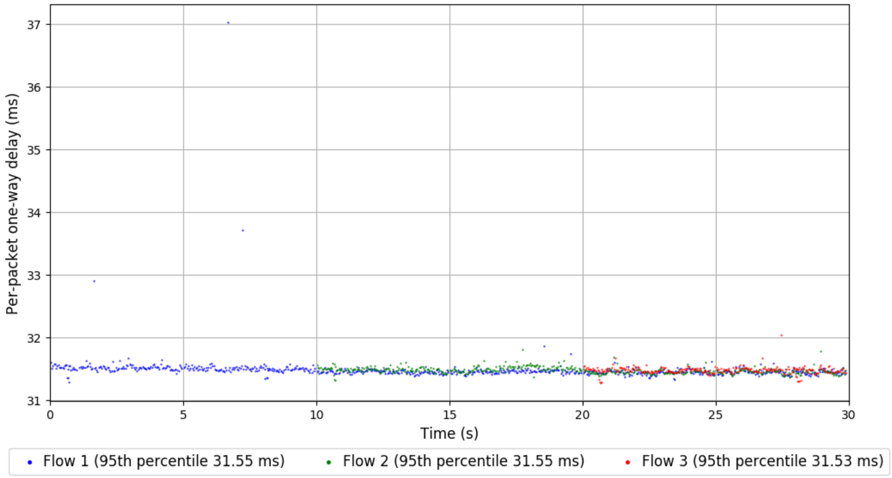




```
Run 7: Statistics of SCReAM

Start at: 2017-08-11 07:35:43
End at: 2017-08-11 07:36:13
Local clock offset: -0.206 ms
Remote clock offset: -19.354 ms

# Below is generated by plot.py at 2017-08-11 14:31:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 31.551 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.551 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.553 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.533 ms
Loss rate: 0.35%
```

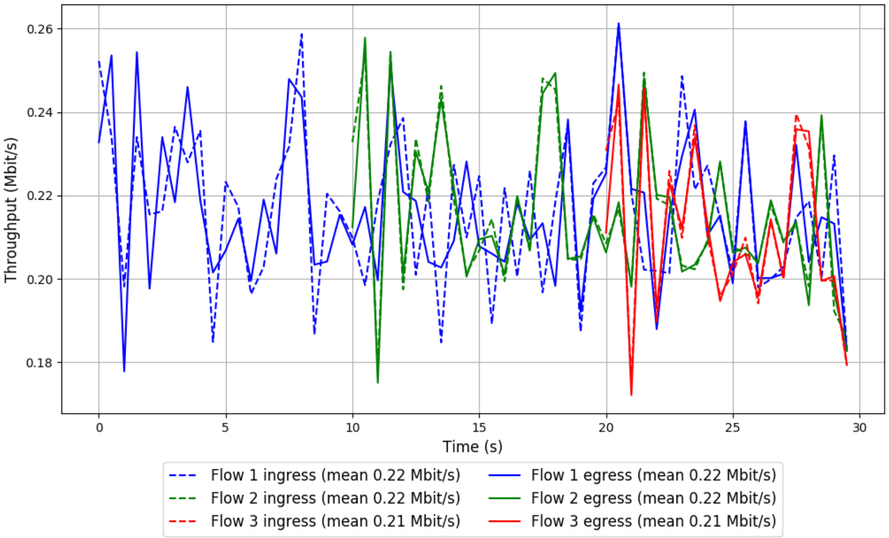
Run 7: Report of SCReAM — Data Link

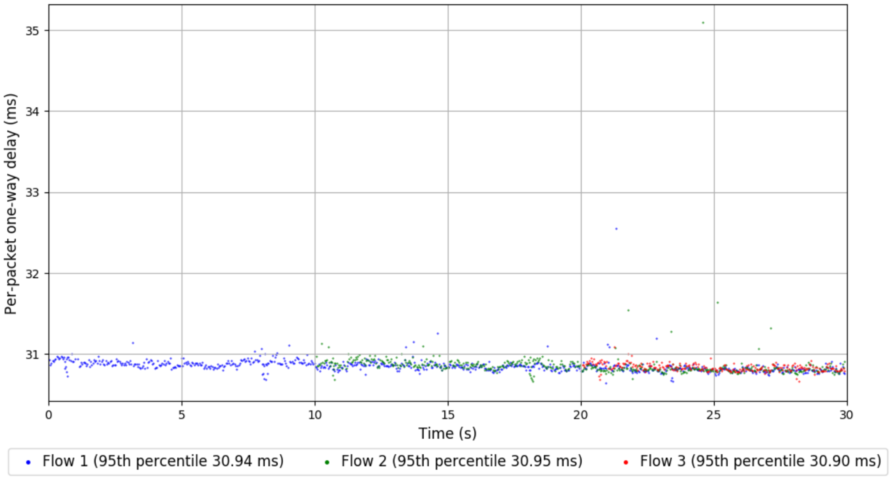




```
Run 8: Statistics of SCReAM

Start at: 2017-08-11 07:53:52
End at: 2017-08-11 07:54:22
Local clock offset: -0.244 ms
Remote clock offset: -18.253 ms

# Below is generated by plot.py at 2017-08-11 14:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 30.938 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.939 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.952 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.902 ms
Loss rate: 0.36%
```

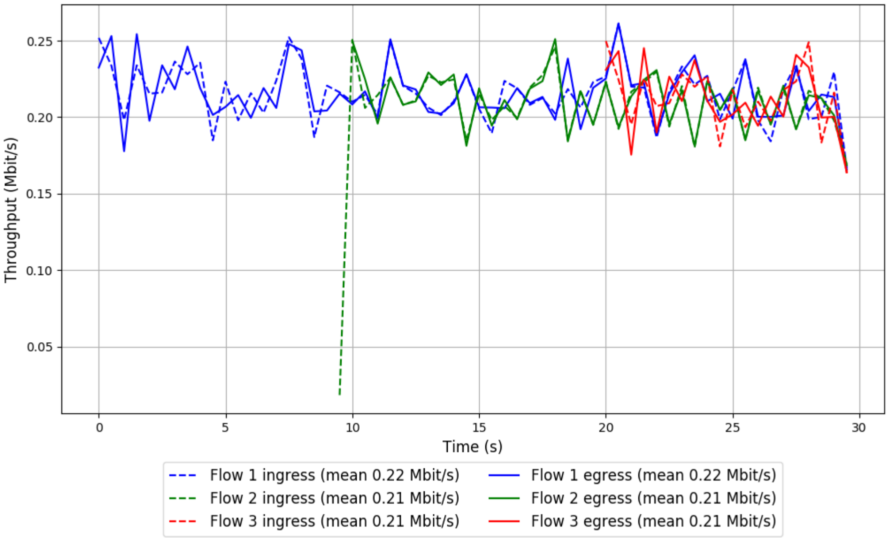
Run 8: Report of SCReAM — Data Link

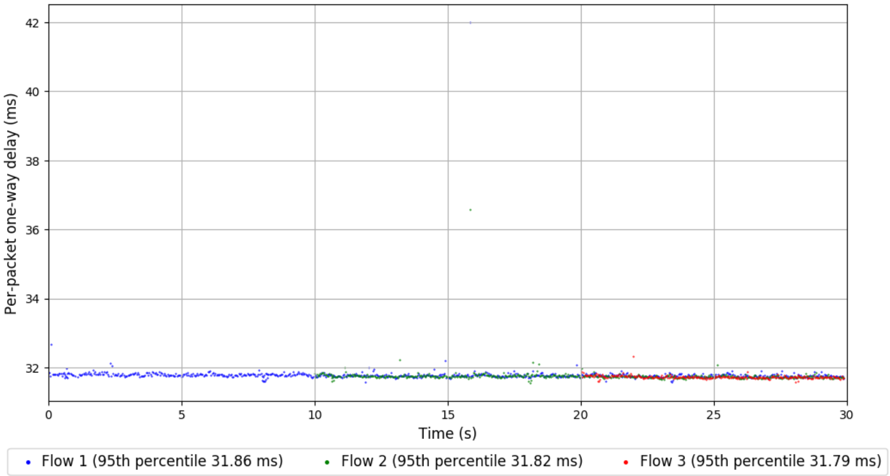




```
Run 9: Statistics of SCReAM

Start at: 2017-08-11 08:12:05
End at: 2017-08-11 08:12:35
Local clock offset: 0.663 ms
Remote clock offset: -19.161 ms

# Below is generated by plot.py at 2017-08-11 14:31:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 31.842 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.858 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.815 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.786 ms
Loss rate: 0.35%
```

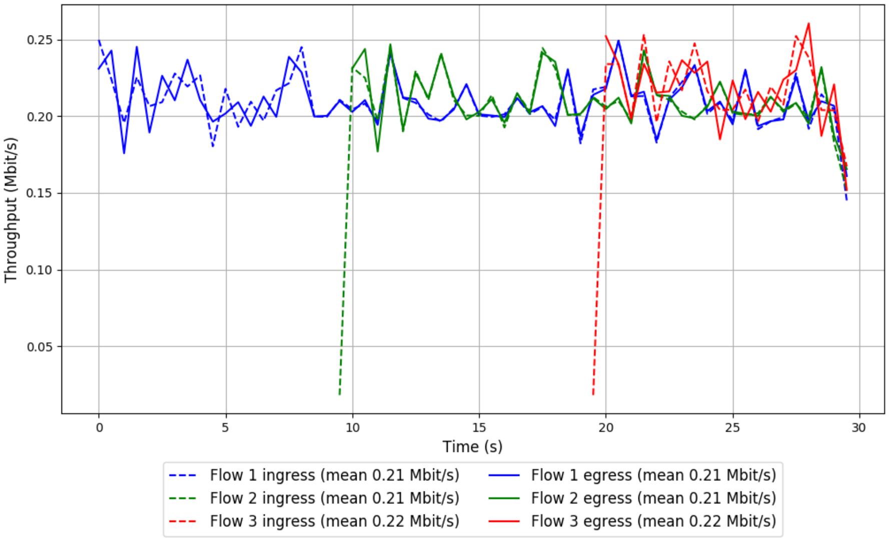
Run 9: Report of SCReAM — Data Link

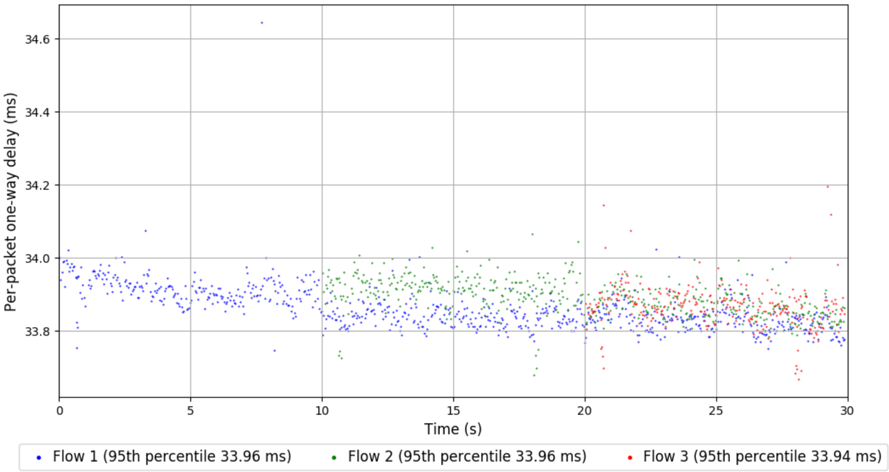




```
Run 10: Statistics of SCReAM

Start at: 2017-08-11 08:30:10
End at: 2017-08-11 08:30:40
Local clock offset: 1.952 ms
Remote clock offset: -20.831 ms

# Below is generated by plot.py at 2017-08-11 14:31:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 33.960 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.959 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.962 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 33.939 ms
Loss rate: 0.35%
```

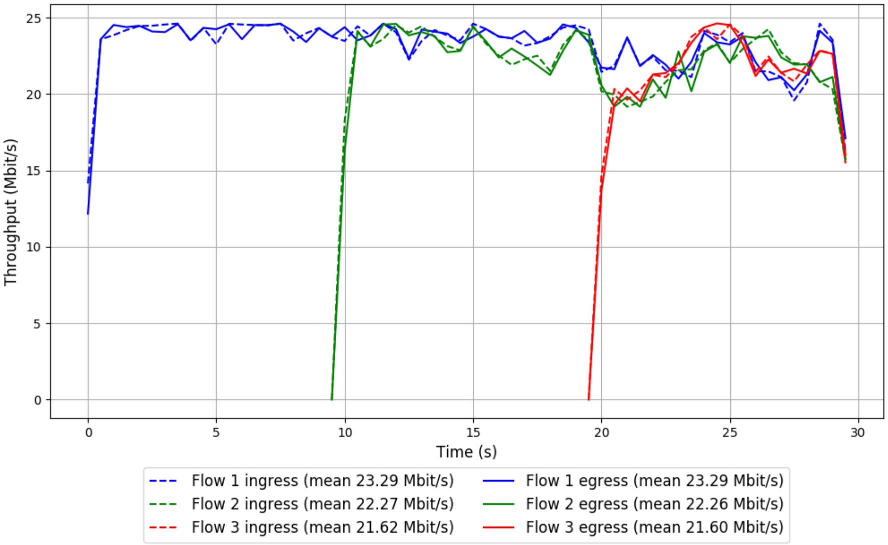
Run 10: Report of SCReAM — Data Link

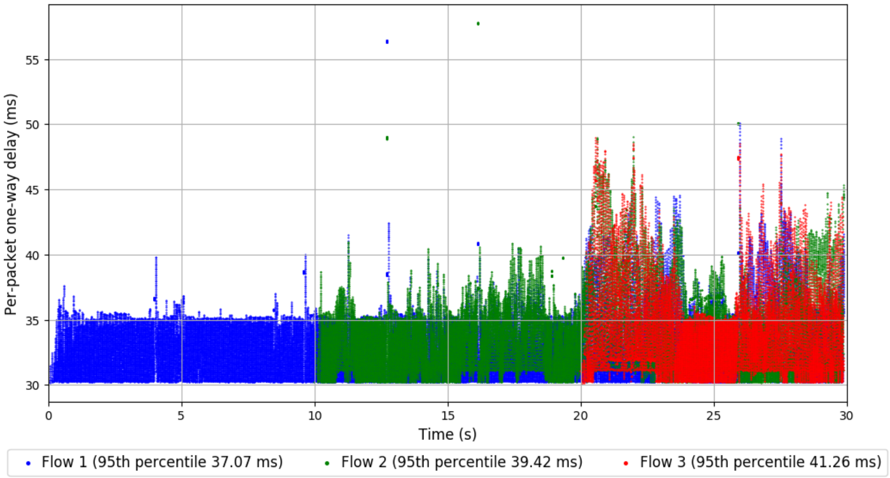




```
Run 1: Statistics of Sprout

Start at: 2017-08-11 05:43:40
End at: 2017-08-11 05:44:10
Local clock offset: -2.574 ms
Remote clock offset: -19.32 ms

# Below is generated by plot.py at 2017-08-11 14:31:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.28 Mbit/s
95th percentile per-packet one-way delay: 38.886 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 23.29 Mbit/s
95th percentile per-packet one-way delay: 37.067 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 22.26 Mbit/s
95th percentile per-packet one-way delay: 39.420 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 21.60 Mbit/s
95th percentile per-packet one-way delay: 41.255 ms
Loss rate: 0.28%
```

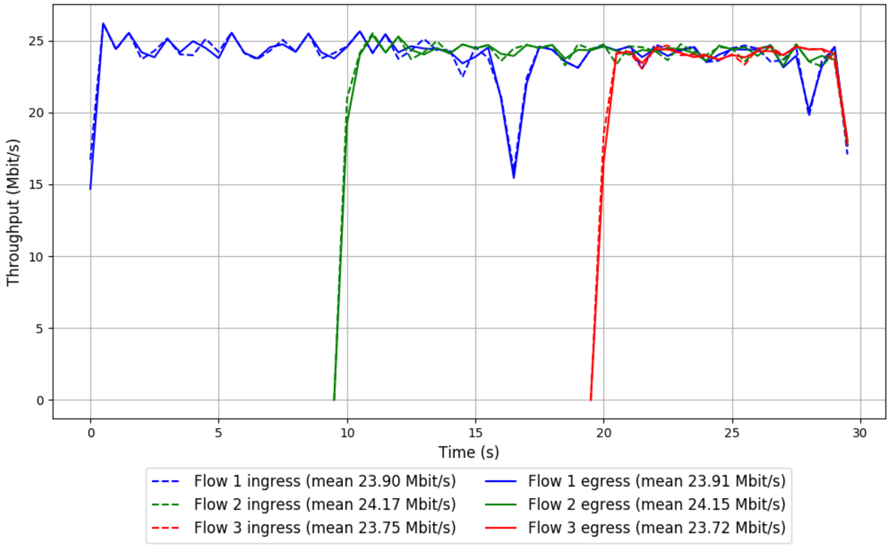
Run 1: Report of Sprout — Data Link

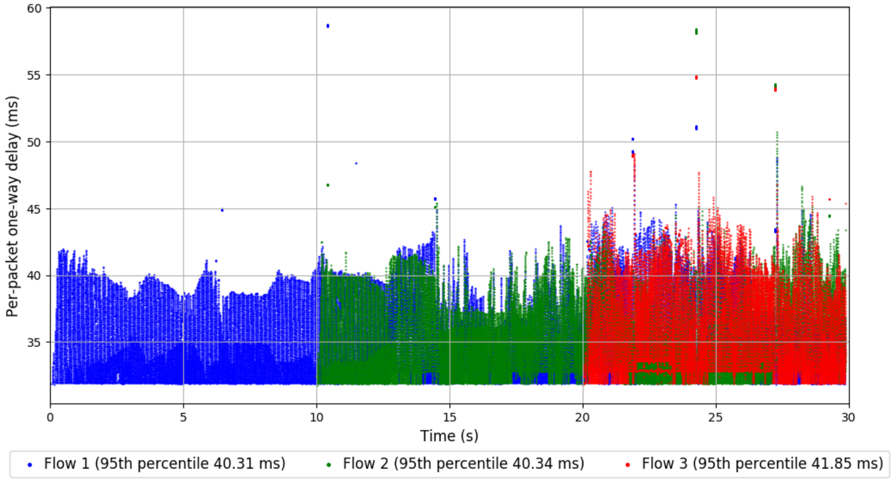




```
Run 2: Statistics of Sprout

Start at: 2017-08-11 06:02:04
End at: 2017-08-11 06:02:34
Local clock offset: -0.223 ms
Remote clock offset: -17.66 ms

# Below is generated by plot.py at 2017-08-11 14:31:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.84 Mbit/s
95th percentile per-packet one-way delay: 40.652 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 23.91 Mbit/s
95th percentile per-packet one-way delay: 40.307 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 24.15 Mbit/s
95th percentile per-packet one-way delay: 40.336 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 23.72 Mbit/s
95th percentile per-packet one-way delay: 41.849 ms
Loss rate: 0.22%
```

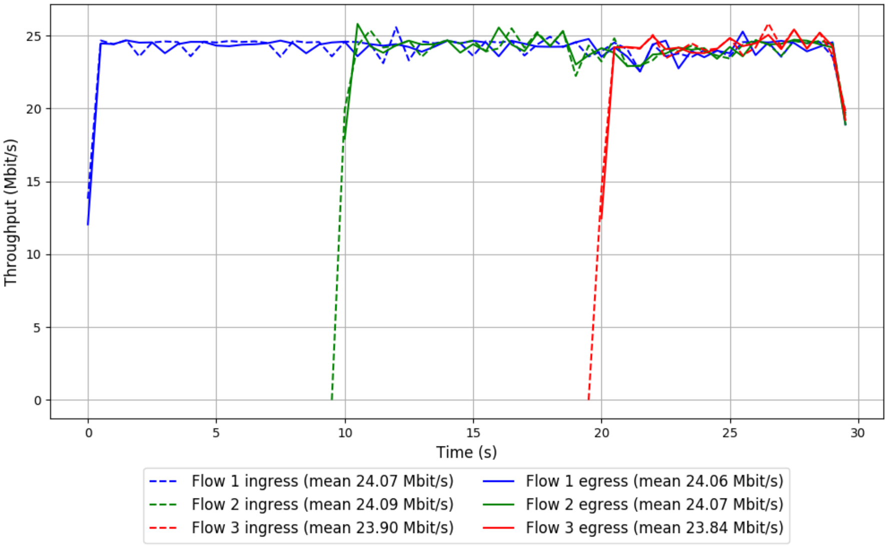
Run 2: Report of Sprout — Data Link

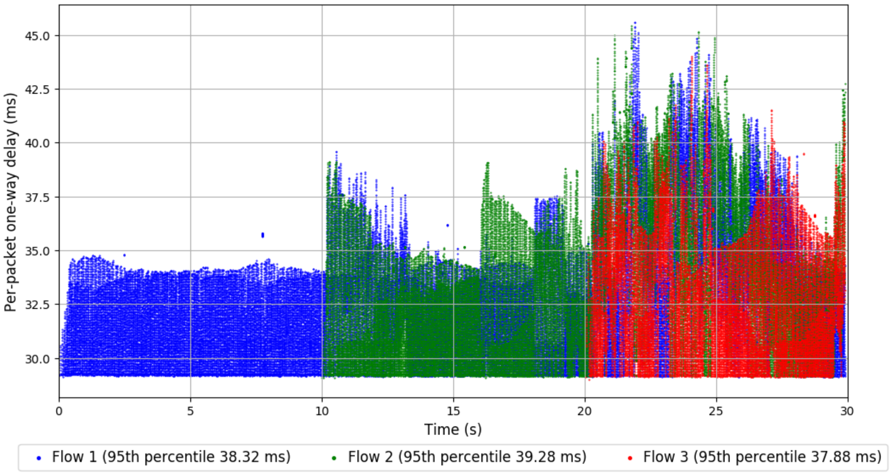




```
Run 3: Statistics of Sprout

Start at: 2017-08-11 06:20:05
End at: 2017-08-11 06:20:35
Local clock offset: -3.282 ms
Remote clock offset: -17.521 ms

# Below is generated by plot.py at 2017-08-11 14:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.95 Mbit/s
95th percentile per-packet one-way delay: 38.638 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 38.318 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 24.07 Mbit/s
95th percentile per-packet one-way delay: 39.283 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 23.84 Mbit/s
95th percentile per-packet one-way delay: 37.881 ms
Loss rate: 0.41%
```

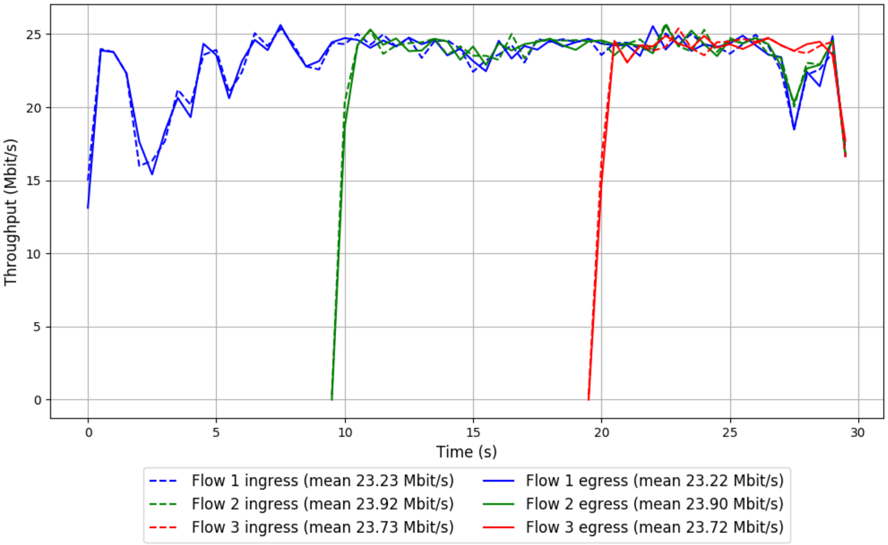
Run 3: Report of Sprout — Data Link

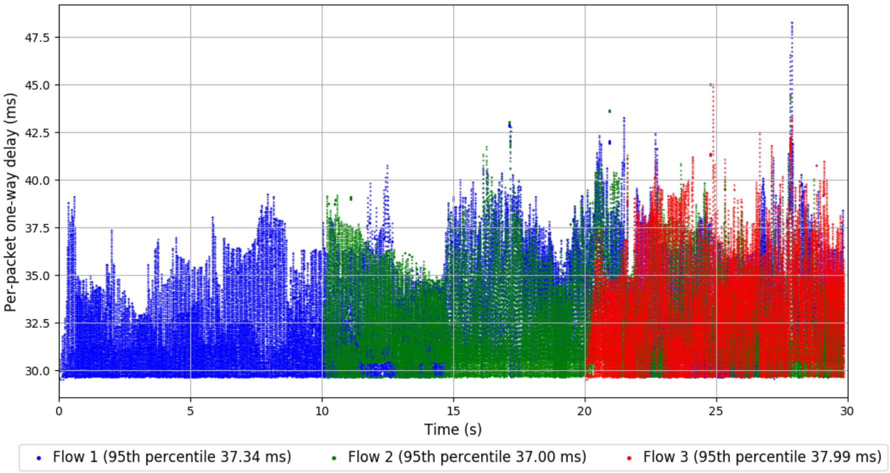




```
Run 4: Statistics of Sprout

Start at: 2017-08-11 06:37:52
End at: 2017-08-11 06:38:22
Local clock offset: -1.596 ms
Remote clock offset: -16.037 ms

# Below is generated by plot.py at 2017-08-11 14:31:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.00 Mbit/s
95th percentile per-packet one-way delay: 37.358 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 23.22 Mbit/s
95th percentile per-packet one-way delay: 37.345 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 23.90 Mbit/s
95th percentile per-packet one-way delay: 36.996 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 23.72 Mbit/s
95th percentile per-packet one-way delay: 37.990 ms
Loss rate: 0.18%
```

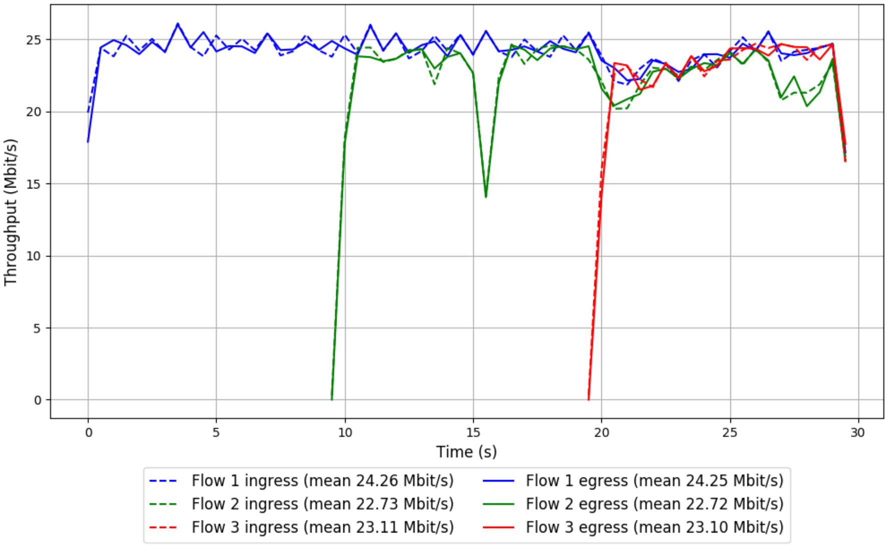
Run 4: Report of Sprout — Data Link

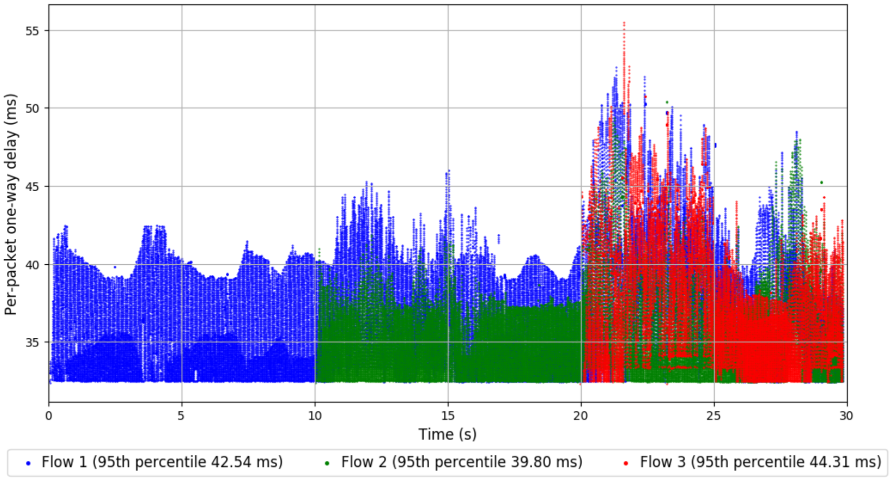




```
Run 5: Statistics of Sprout

Start at: 2017-08-11 06:56:01
End at: 2017-08-11 06:56:31
Local clock offset: -0.479 ms
Remote clock offset: -18.429 ms

# Below is generated by plot.py at 2017-08-11 14:31:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.03 Mbit/s
95th percentile per-packet one-way delay: 42.455 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 24.25 Mbit/s
95th percentile per-packet one-way delay: 42.542 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 22.72 Mbit/s
95th percentile per-packet one-way delay: 39.796 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 23.10 Mbit/s
95th percentile per-packet one-way delay: 44.314 ms
Loss rate: 0.14%
```

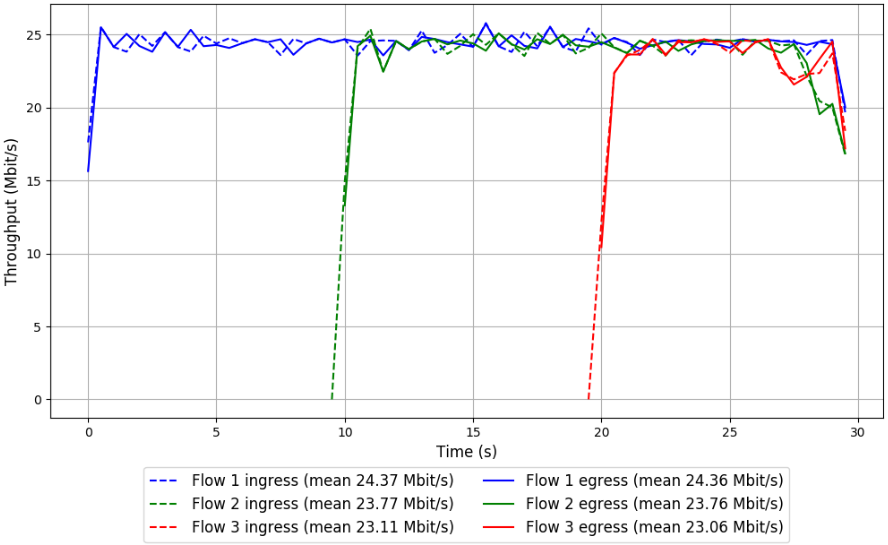
Run 5: Report of Sprout — Data Link

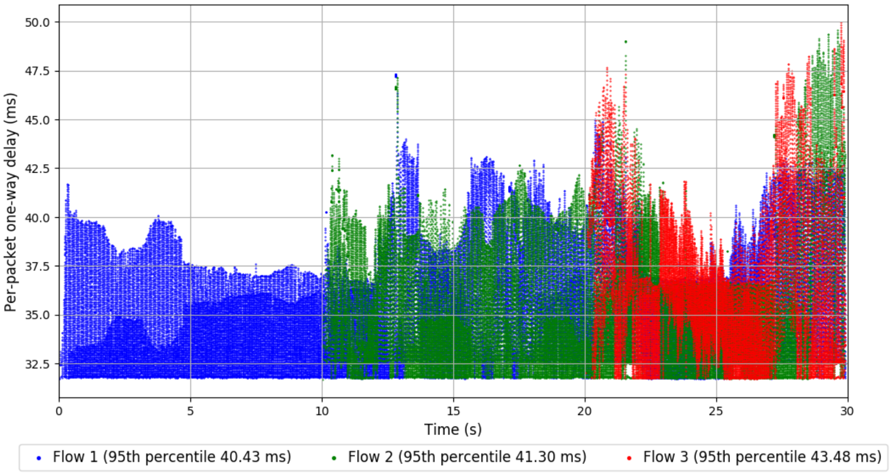




```
Run 6: Statistics of Sprout

Start at: 2017-08-11 07:14:02
End at: 2017-08-11 07:14:32
Local clock offset: -0.551 ms
Remote clock offset: -18.996 ms

# Below is generated by plot.py at 2017-08-11 14:31:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.79 Mbit/s
95th percentile per-packet one-way delay: 41.202 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 40.434 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 41.297 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 23.06 Mbit/s
95th percentile per-packet one-way delay: 43.477 ms
Loss rate: 0.35%
```

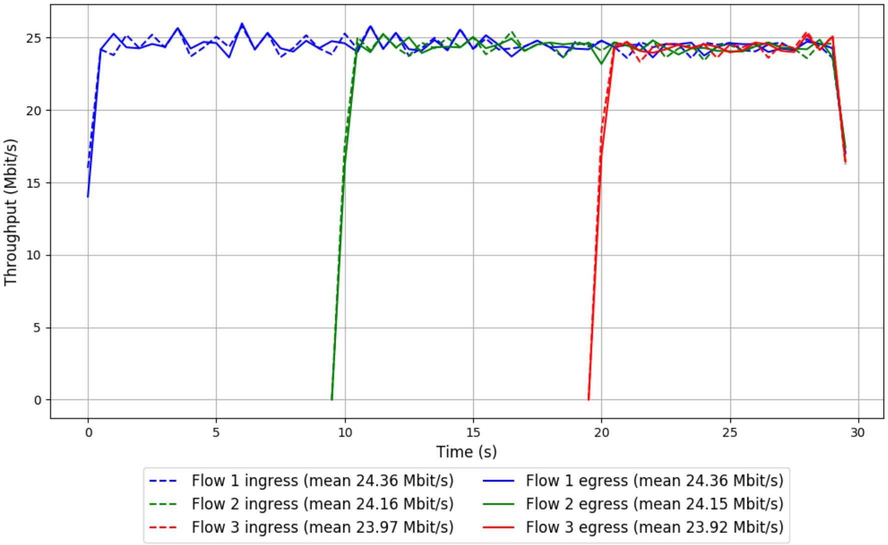
Run 6: Report of Sprout — Data Link

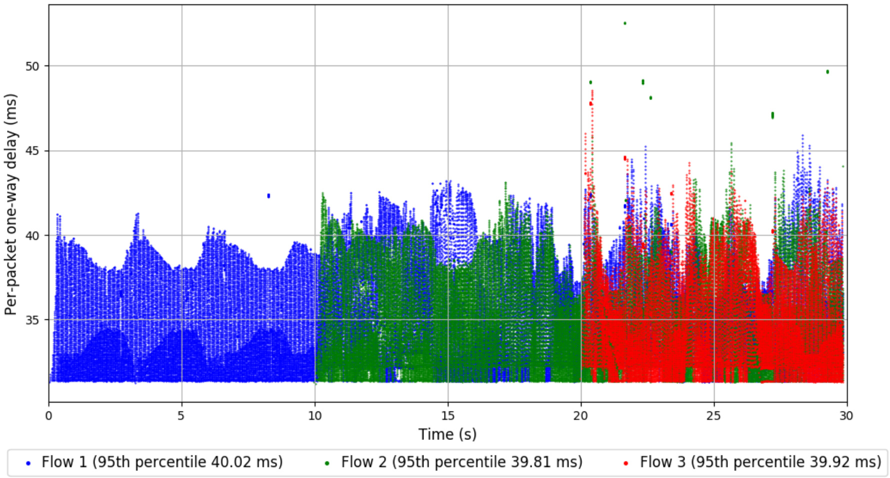




```
Run 7: Statistics of Sprout

Start at: 2017-08-11 07:32:09
End at: 2017-08-11 07:32:39
Local clock offset: 0.513 ms
Remote clock offset: -18.616 ms

# Below is generated by plot.py at 2017-08-11 14:32:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.35 Mbit/s
95th percentile per-packet one-way delay: 39.924 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 40.025 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 24.15 Mbit/s
95th percentile per-packet one-way delay: 39.814 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 23.92 Mbit/s
95th percentile per-packet one-way delay: 39.918 ms
Loss rate: 0.41%
```

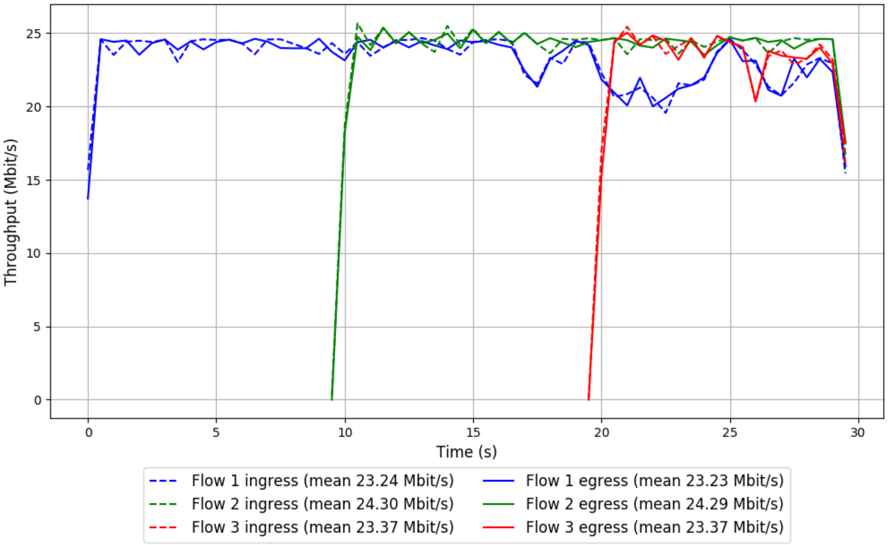
Run 7: Report of Sprout — Data Link

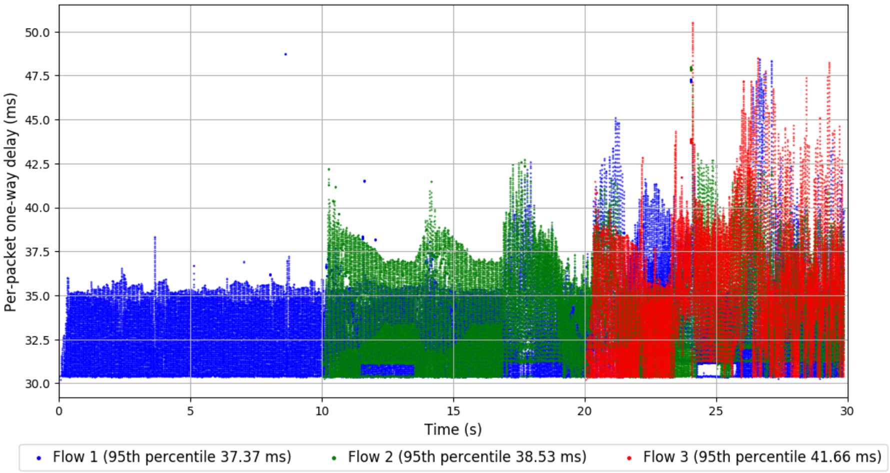




```
Run 8: Statistics of Sprout

Start at: 2017-08-11 07:50:10
End at: 2017-08-11 07:50:40
Local clock offset: -1.506 ms
Remote clock offset: -19.134 ms

# Below is generated by plot.py at 2017-08-11 14:32:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.14 Mbit/s
95th percentile per-packet one-way delay: 38.715 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 23.23 Mbit/s
95th percentile per-packet one-way delay: 37.366 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 24.29 Mbit/s
95th percentile per-packet one-way delay: 38.530 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 23.37 Mbit/s
95th percentile per-packet one-way delay: 41.662 ms
Loss rate: 0.15%
```

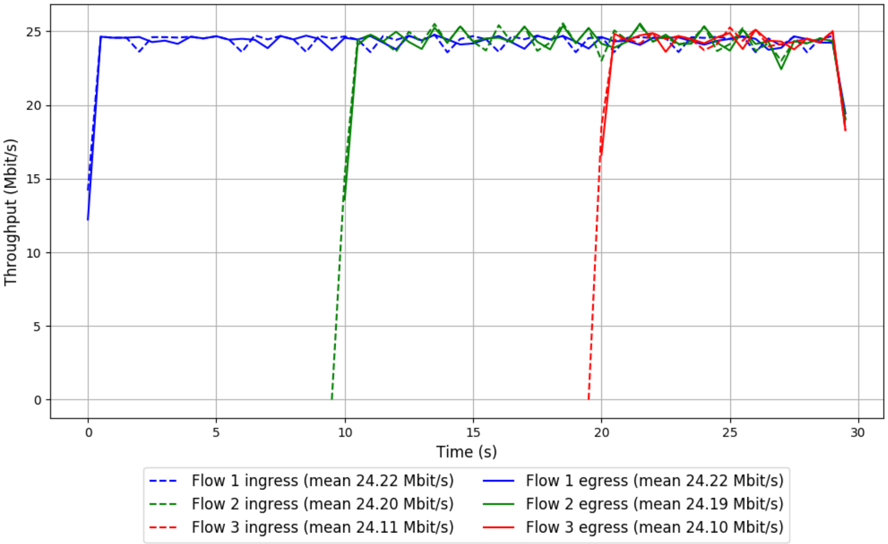
Run 8: Report of Sprout — Data Link

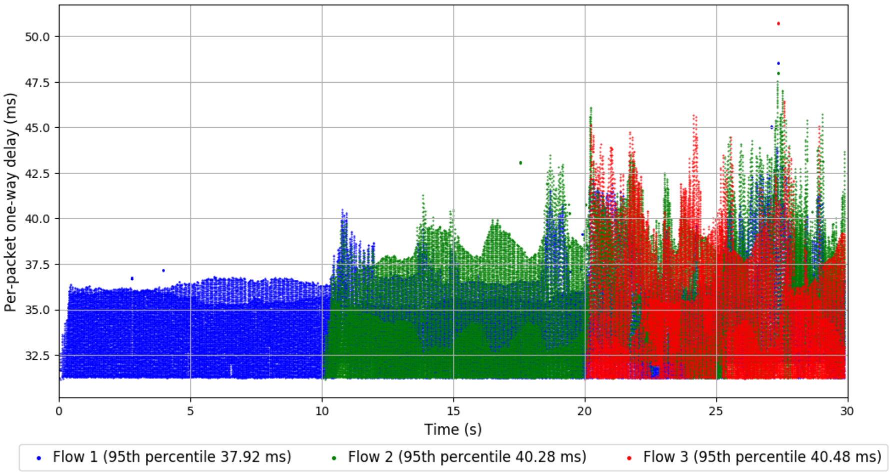




```
Run 9: Statistics of Sprout

Start at: 2017-08-11 08:08:32
End at: 2017-08-11 08:09:02
Local clock offset: -0.825 ms
Remote clock offset: -20.001 ms

# Below is generated by plot.py at 2017-08-11 14:32:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.27 Mbit/s
95th percentile per-packet one-way delay: 39.418 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 37.922 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 40.278 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 24.10 Mbit/s
95th percentile per-packet one-way delay: 40.480 ms
Loss rate: 0.41%
```

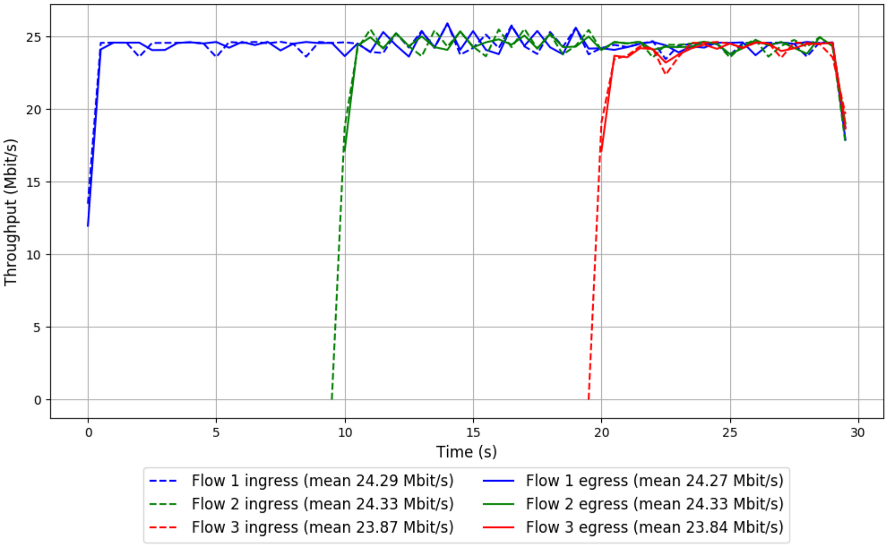
Run 9: Report of Sprout — Data Link

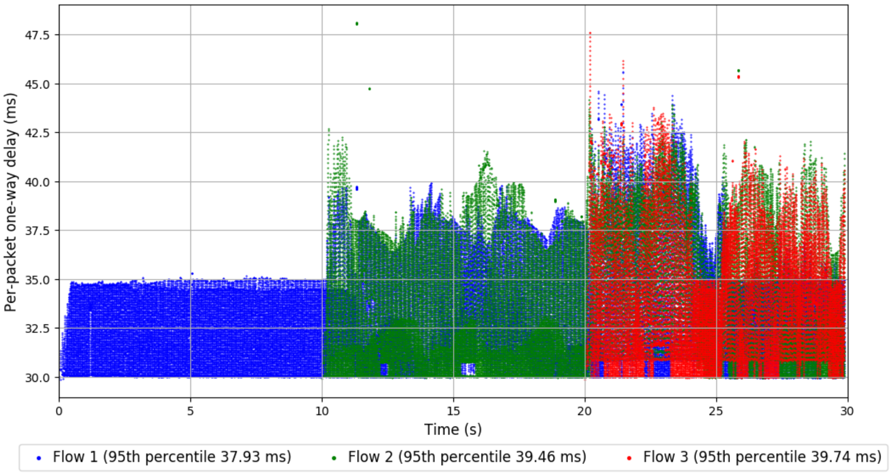




```
Run 10: Statistics of Sprout

Start at: 2017-08-11 08:26:39
End at: 2017-08-11 08:27:09
Local clock offset: 0.114 ms
Remote clock offset: -18.59 ms

# Below is generated by plot.py at 2017-08-11 14:32:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.35 Mbit/s
95th percentile per-packet one-way delay: 38.989 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 24.27 Mbit/s
95th percentile per-packet one-way delay: 37.931 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 24.33 Mbit/s
95th percentile per-packet one-way delay: 39.460 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 23.84 Mbit/s
95th percentile per-packet one-way delay: 39.737 ms
Loss rate: 0.41%
```

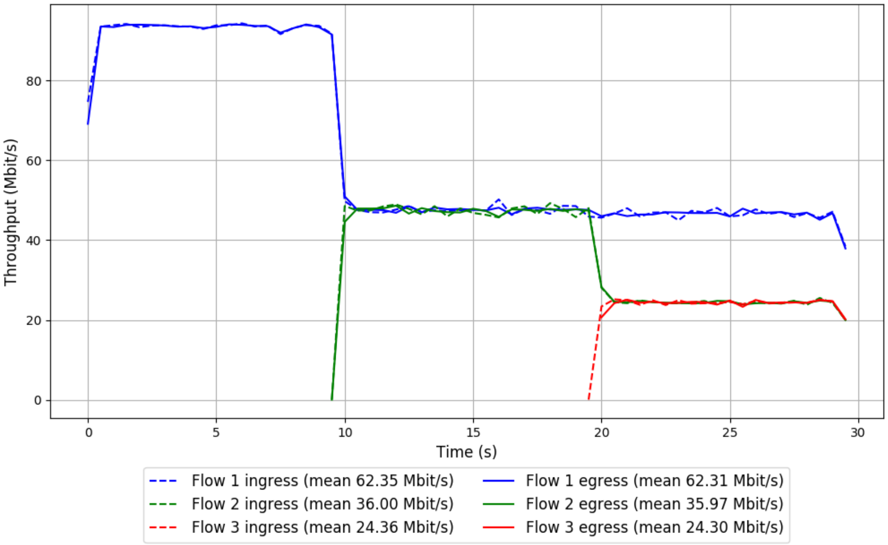
Run 10: Report of Sprout — Data Link

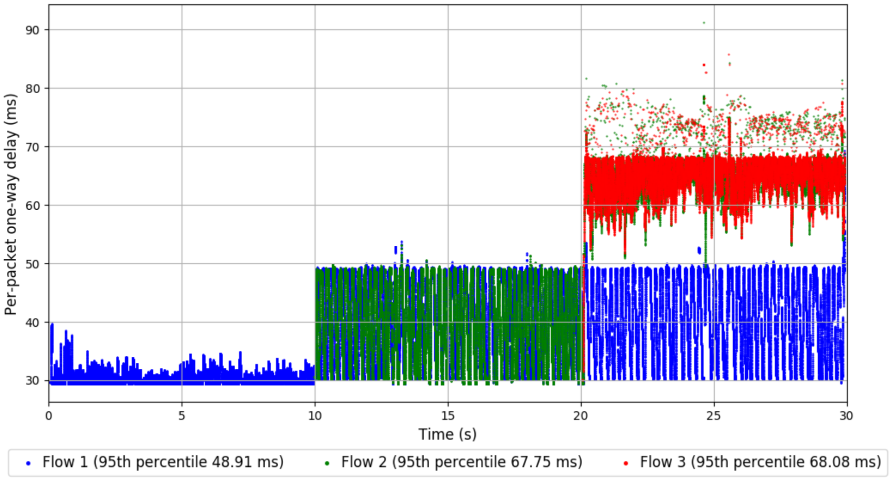




```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-11 05:36:00
End at: 2017-08-11 05:36:30
Local clock offset: -2.859 ms
Remote clock offset: -18.356 ms

# Below is generated by plot.py at 2017-08-11 14:32:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 66.947 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 62.31 Mbit/s
95th percentile per-packet one-way delay: 48.911 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 35.97 Mbit/s
95th percentile per-packet one-way delay: 67.745 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 24.30 Mbit/s
95th percentile per-packet one-way delay: 68.085 ms
Loss rate: 0.62%
```

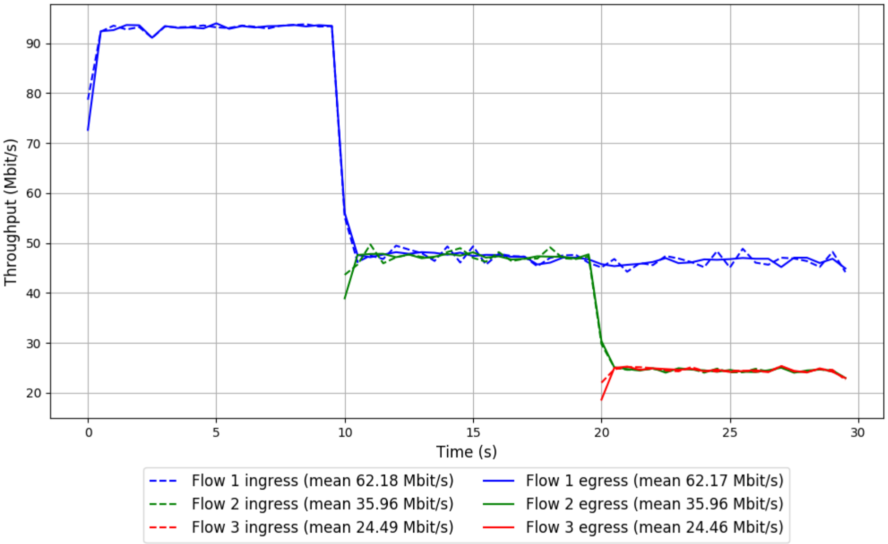
Run 1: Report of TaoVA-100x — Data Link

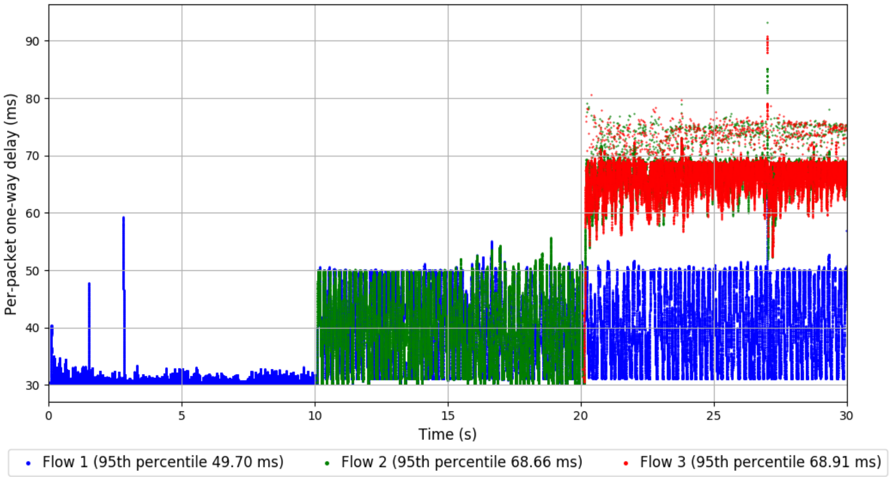




```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-11 05:54:29
End at: 2017-08-11 05:54:59
Local clock offset: -2.042 ms
Remote clock offset: -18.291 ms

# Below is generated by plot.py at 2017-08-11 14:32:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.19 Mbit/s
95th percentile per-packet one-way delay: 68.285 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 62.17 Mbit/s
95th percentile per-packet one-way delay: 49.698 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 35.96 Mbit/s
95th percentile per-packet one-way delay: 68.660 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 24.46 Mbit/s
95th percentile per-packet one-way delay: 68.909 ms
Loss rate: 0.62%
```

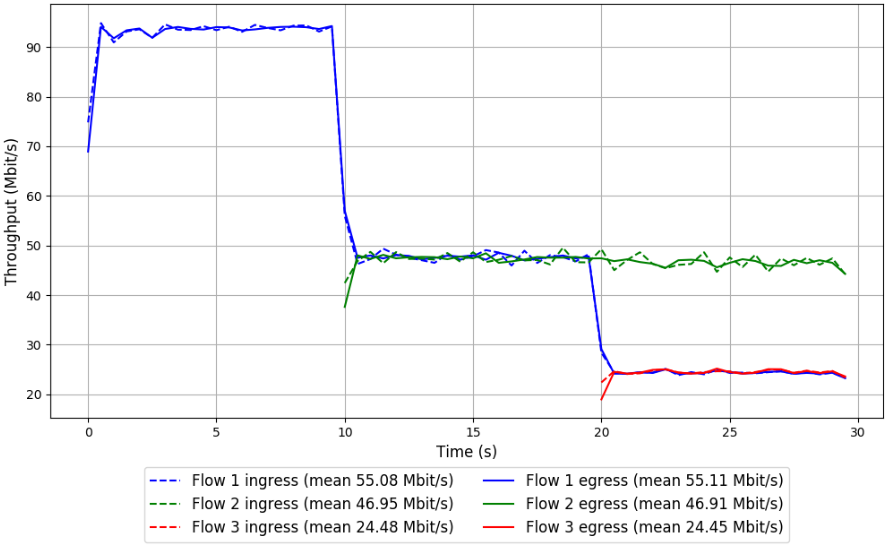
Run 2: Report of TaoVA-100x — Data Link

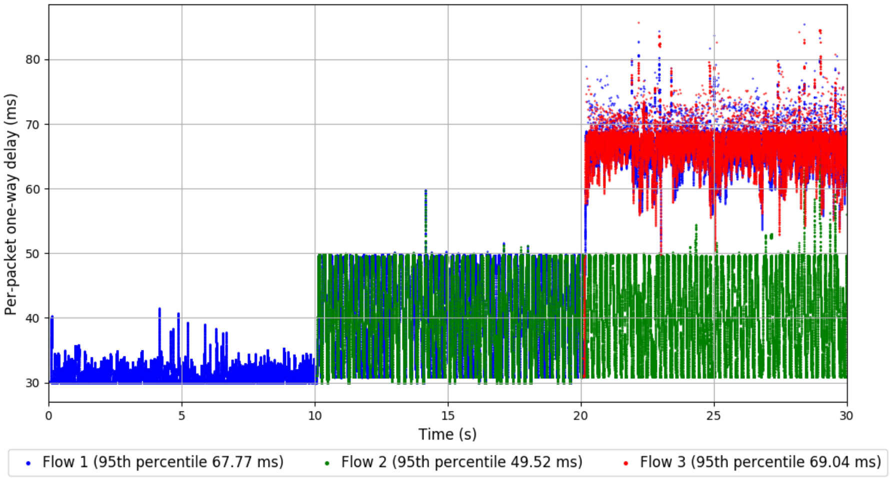




```
Run 3: Statistics of TaoVA-100x

Start at: 2017-08-11 06:12:56
End at: 2017-08-11 06:13:26
Local clock offset: -2.921 ms
Remote clock offset: -17.825 ms

# Below is generated by plot.py at 2017-08-11 14:32:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 67.990 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 55.11 Mbit/s
95th percentile per-packet one-way delay: 67.766 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 46.91 Mbit/s
95th percentile per-packet one-way delay: 49.516 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 69.038 ms
Loss rate: 0.65%
```

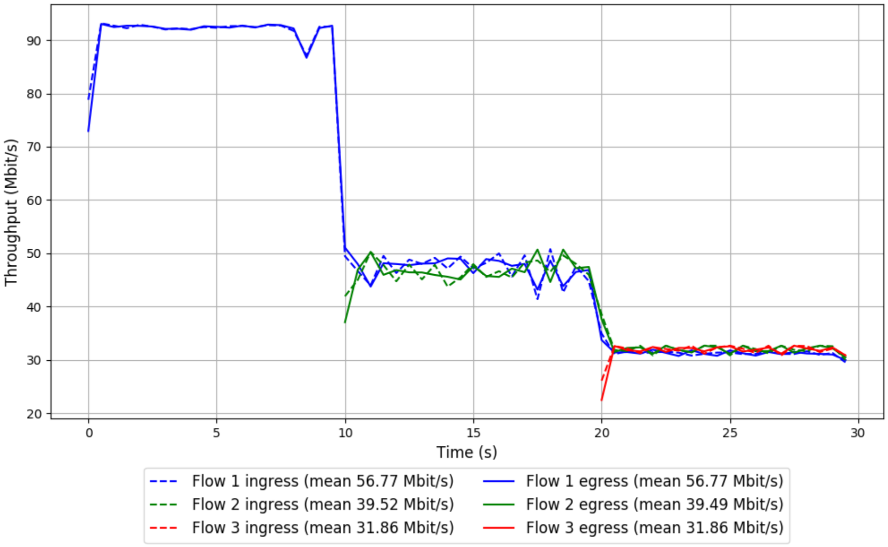
Run 3: Report of TaoVA-100x — Data Link

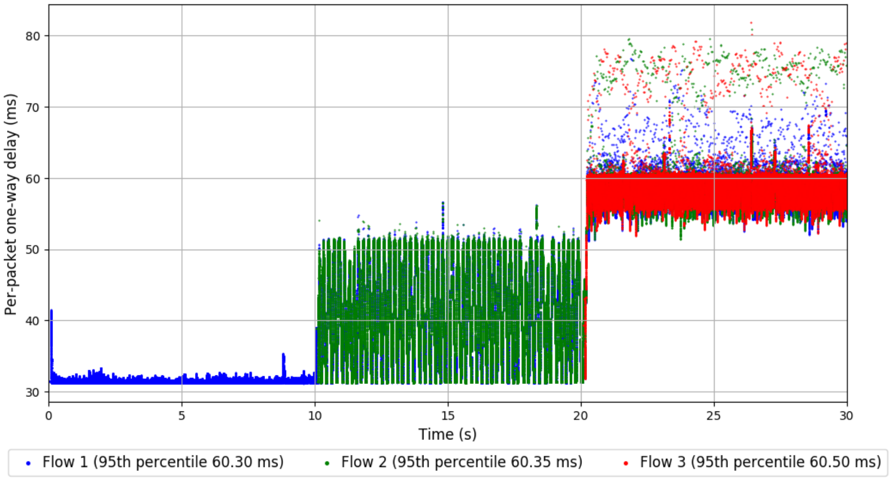




```
Run 4: Statistics of TaoVA-100x

Start at: 2017-08-11 06:30:46
End at: 2017-08-11 06:31:16
Local clock offset: -1.201 ms
Remote clock offset: -17.773 ms

# Below is generated by plot.py at 2017-08-11 14:32:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.55 Mbit/s
95th percentile per-packet one-way delay: 60.360 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 56.77 Mbit/s
95th percentile per-packet one-way delay: 60.299 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.49 Mbit/s
95th percentile per-packet one-way delay: 60.354 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 60.503 ms
Loss rate: 0.58%
```

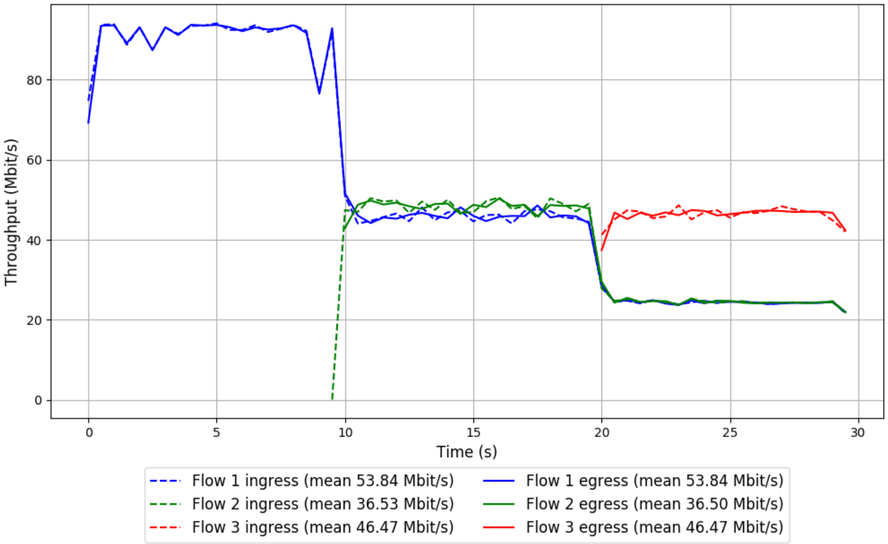
Run 4: Report of TaoVA-100x — Data Link

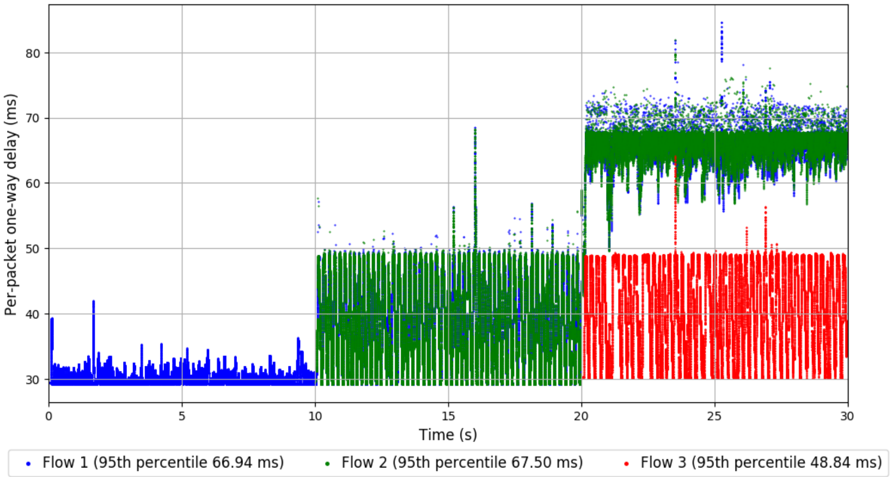




```
Run 5: Statistics of TaoVA-100x

Start at: 2017-08-11 06:48:45
End at: 2017-08-11 06:49:15
Local clock offset: -2.227 ms
Remote clock offset: -16.549 ms

# Below is generated by plot.py at 2017-08-11 14:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.52 Mbit/s
95th percentile per-packet one-way delay: 67.128 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 53.84 Mbit/s
95th percentile per-packet one-way delay: 66.937 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 36.50 Mbit/s
95th percentile per-packet one-way delay: 67.498 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 46.47 Mbit/s
95th percentile per-packet one-way delay: 48.841 ms
Loss rate: 0.26%
```

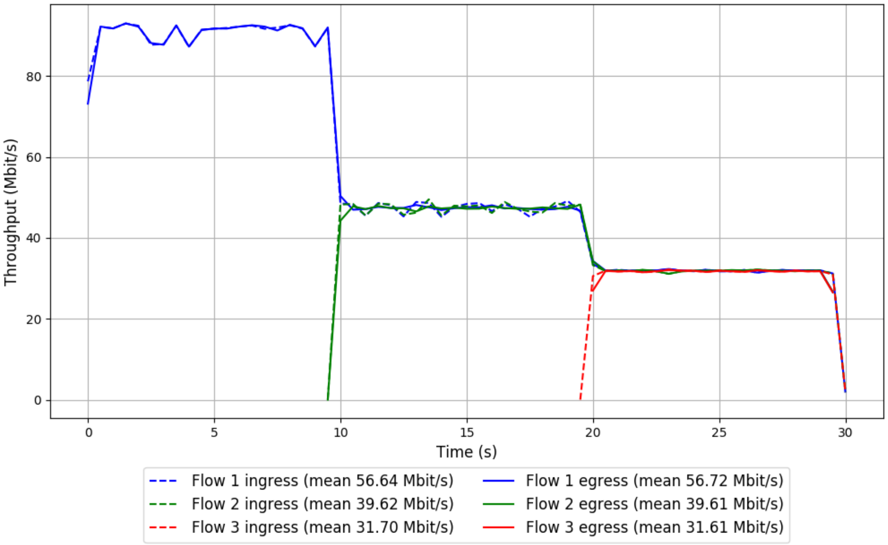
Run 5: Report of TaoVA-100x — Data Link

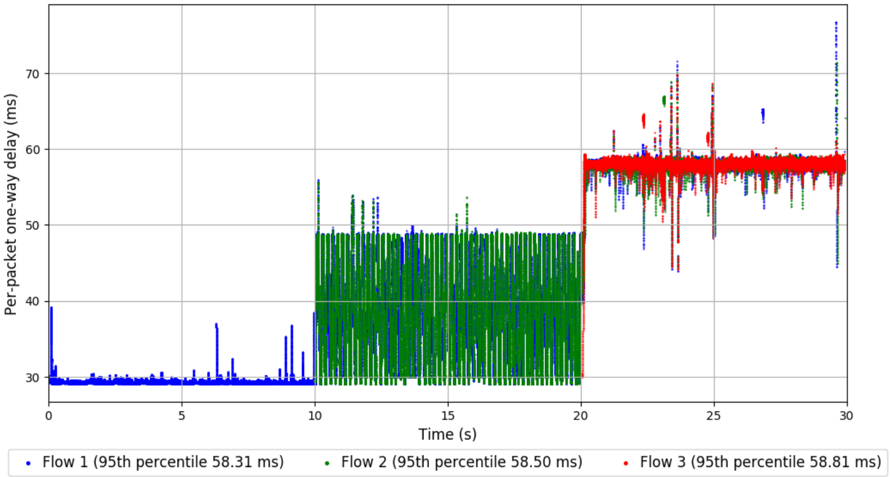




```
Run 6: Statistics of TaoVA-100x

Start at: 2017-08-11 07:06:51
End at: 2017-08-11 07:07:21
Local clock offset: -2.98 ms
Remote clock offset: -18.358 ms

# Below is generated by plot.py at 2017-08-11 14:33:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.60 Mbit/s
95th percentile per-packet one-way delay: 58.481 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 58.312 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 39.61 Mbit/s
95th percentile per-packet one-way delay: 58.503 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 31.61 Mbit/s
95th percentile per-packet one-way delay: 58.810 ms
Loss rate: 1.57%
```

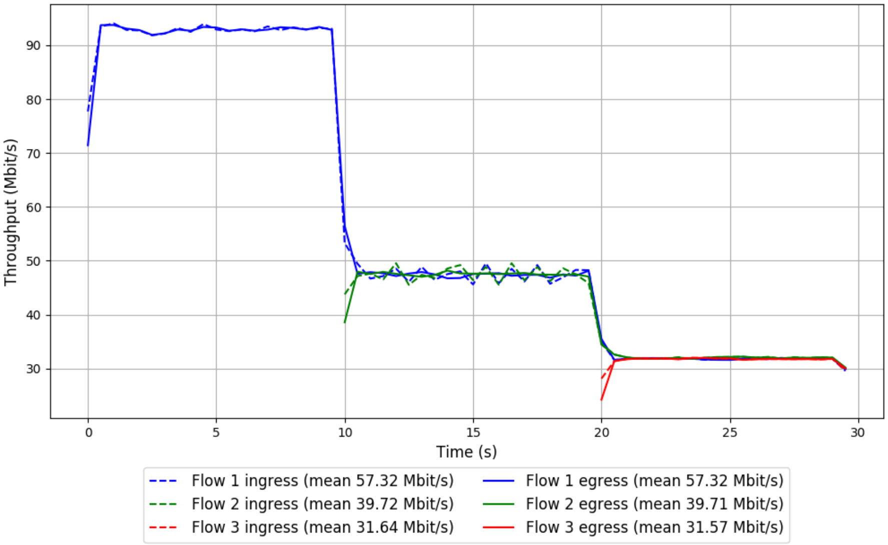
Run 6: Report of TaoVA-100x — Data Link

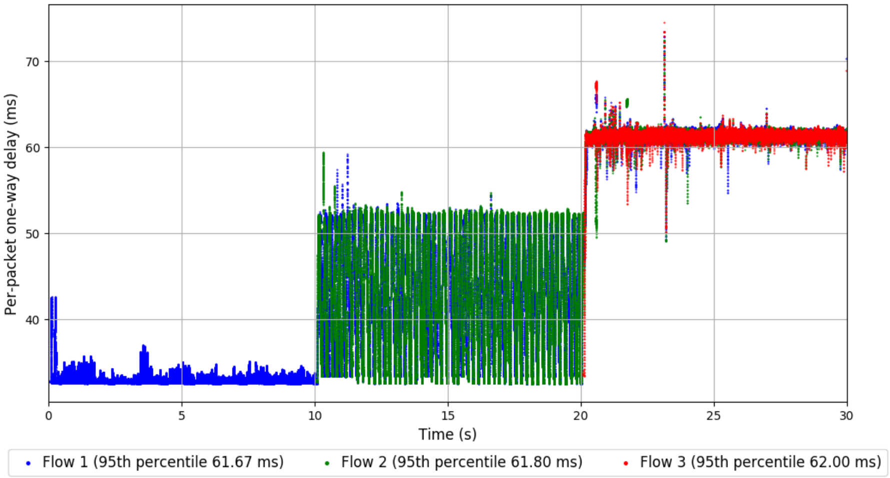




```
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-11 07:24:50
End at: 2017-08-11 07:25:20
Local clock offset: -0.219 ms
Remote clock offset: -20.084 ms

# Below is generated by plot.py at 2017-08-11 14:33:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.20 Mbit/s
95th percentile per-packet one-way delay: 61.794 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 57.32 Mbit/s
95th percentile per-packet one-way delay: 61.669 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 61.798 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 62.002 ms
Loss rate: 0.56%
```

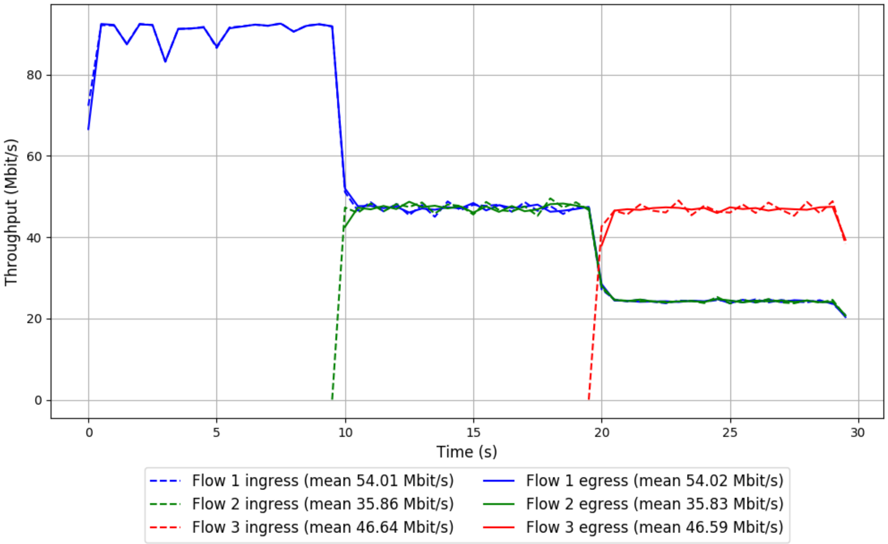
Run 7: Report of TaoVA-100x — Data Link

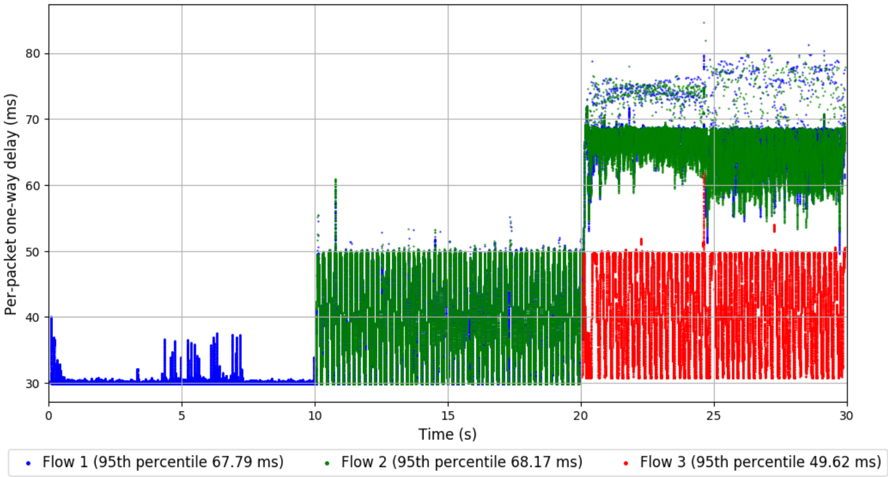




```
Run 8: Statistics of TaoVA-100x

Start at: 2017-08-11 07:42:56
End at: 2017-08-11 07:43:26
Local clock offset: -1.806 ms
Remote clock offset: -19.231 ms

# Below is generated by plot.py at 2017-08-11 14:33:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.32 Mbit/s
95th percentile per-packet one-way delay: 67.722 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 54.02 Mbit/s
95th percentile per-packet one-way delay: 67.787 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 35.83 Mbit/s
95th percentile per-packet one-way delay: 68.167 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 46.59 Mbit/s
95th percentile per-packet one-way delay: 49.617 ms
Loss rate: 0.40%
```

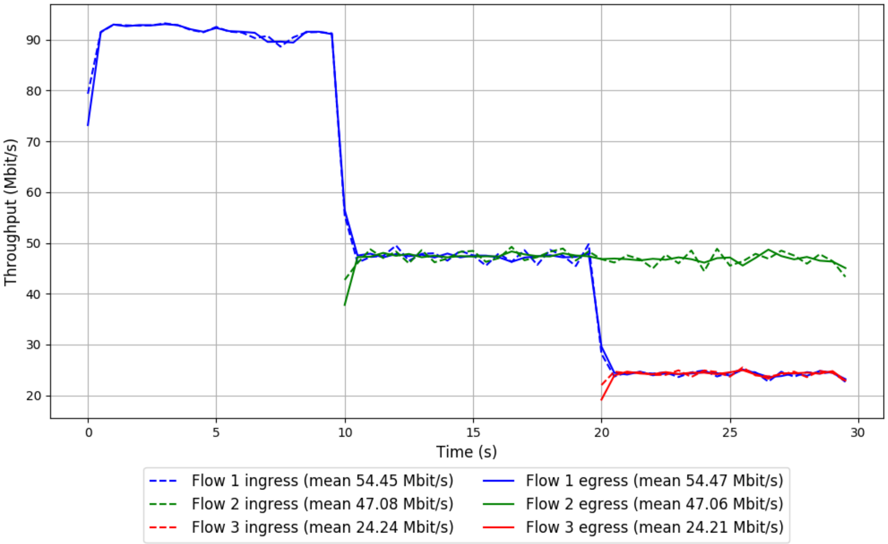
Run 8: Report of TaoVA-100x — Data Link

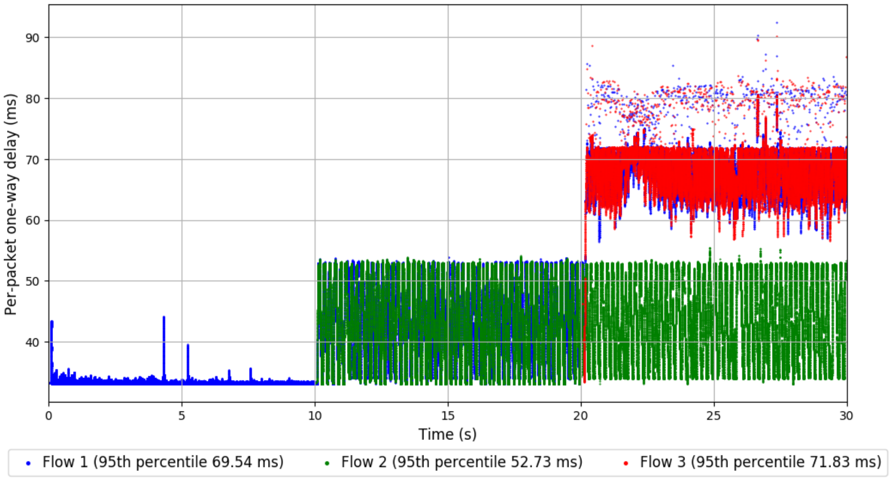




```
Run 9: Statistics of TaoVA-100x

Start at: 2017-08-11 08:01:16
End at: 2017-08-11 08:01:46
Local clock offset: 1.125 ms
Remote clock offset: -19.552 ms

# Below is generated by plot.py at 2017-08-11 14:34:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 69.971 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 54.47 Mbit/s
95th percentile per-packet one-way delay: 69.537 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 47.06 Mbit/s
95th percentile per-packet one-way delay: 52.726 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 24.21 Mbit/s
95th percentile per-packet one-way delay: 71.831 ms
Loss rate: 0.57%
```

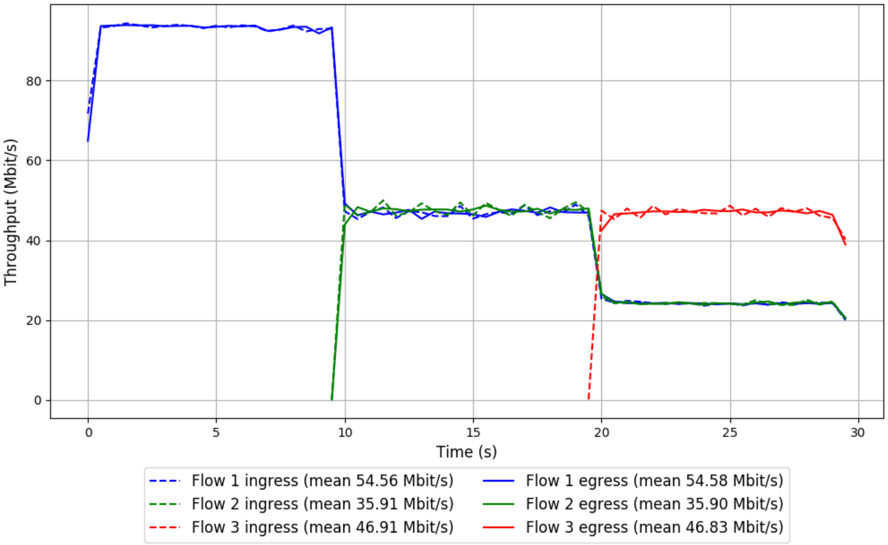
Run 9: Report of TaoVA-100x — Data Link

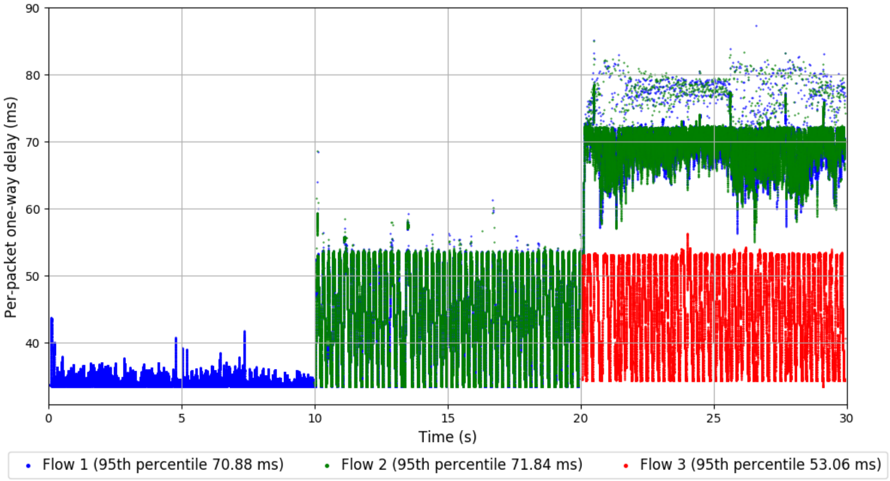




```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-11 08:19:23
End at: 2017-08-11 08:19:53
Local clock offset: 2.032 ms
Remote clock offset: -19.862 ms

# Below is generated by plot.py at 2017-08-11 14:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.07 Mbit/s
95th percentile per-packet one-way delay: 71.174 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 54.58 Mbit/s
95th percentile per-packet one-way delay: 70.880 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 35.90 Mbit/s
95th percentile per-packet one-way delay: 71.841 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 46.83 Mbit/s
95th percentile per-packet one-way delay: 53.065 ms
Loss rate: 0.46%
```

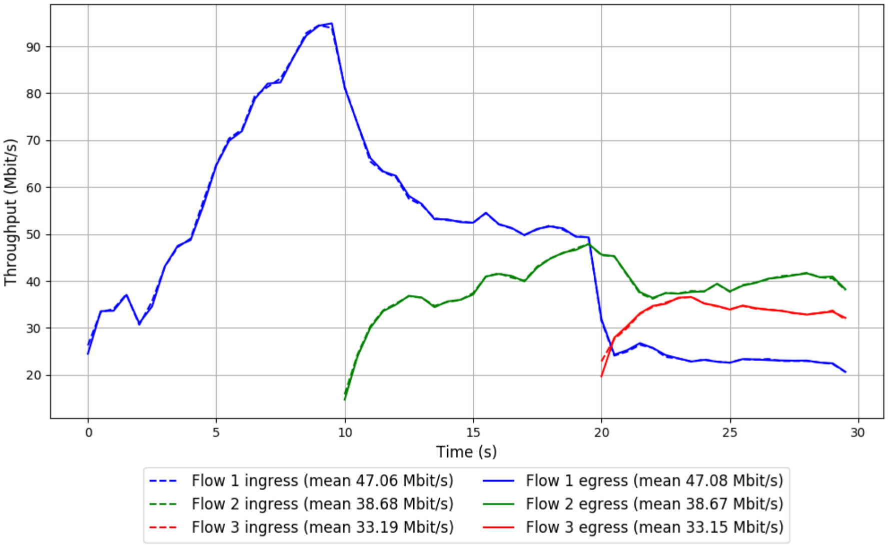
Run 10: Report of TaoVA-100x — Data Link

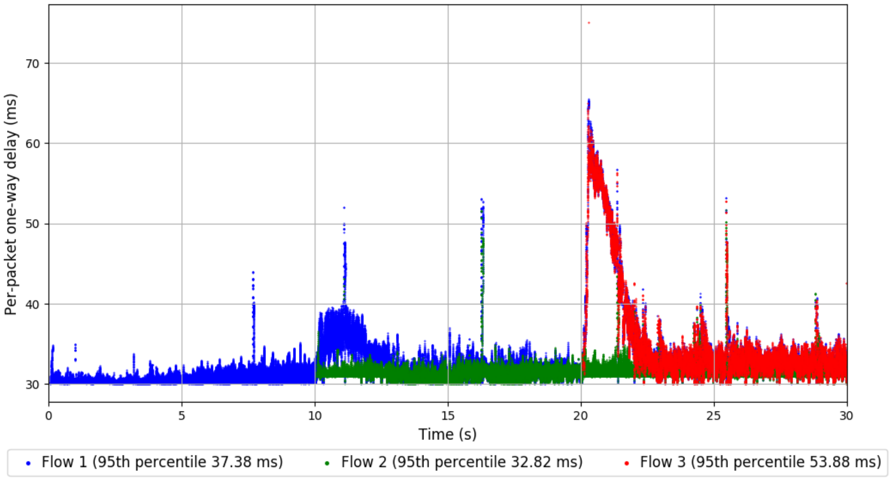




```
Run 1: Statistics of TCP Vegas

Start at: 2017-08-11 05:38:38
End at: 2017-08-11 05:39:08
Local clock offset: -3.233 ms
Remote clock offset: -19.562 ms

# Below is generated by plot.py at 2017-08-11 14:34:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.81 Mbit/s
95th percentile per-packet one-way delay: 37.463 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 47.08 Mbit/s
95th percentile per-packet one-way delay: 37.383 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 32.816 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 33.15 Mbit/s
95th percentile per-packet one-way delay: 53.882 ms
Loss rate: 0.30%
```

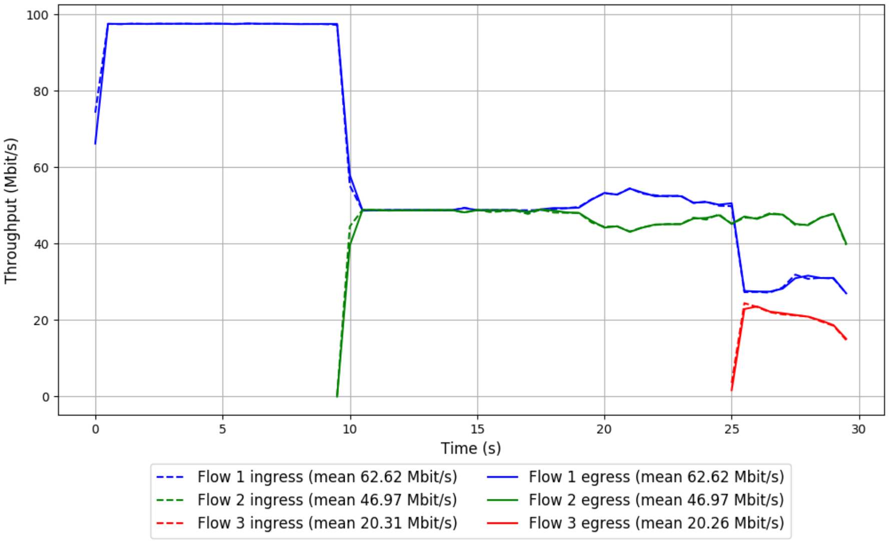
Run 1: Report of TCP Vegas — Data Link

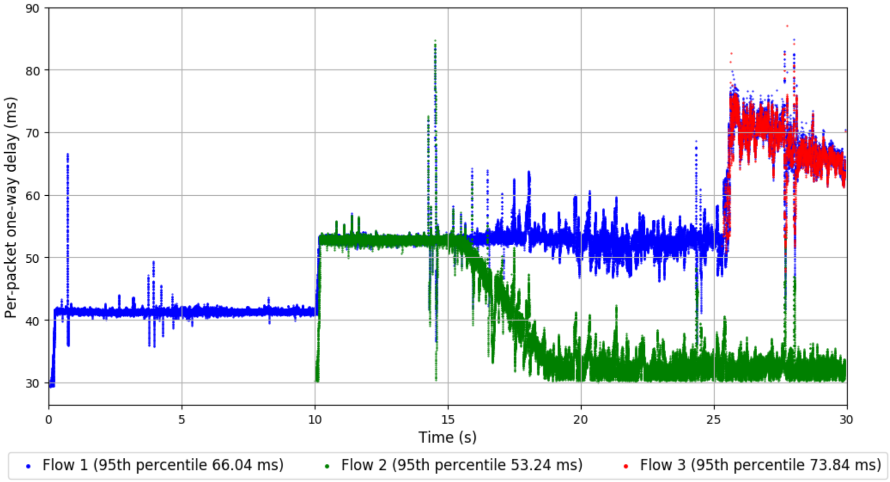




```
Run 2: Statistics of TCP Vegas

Start at: 2017-08-11 05:56:56
End at: 2017-08-11 05:57:26
Local clock offset: -2.561 ms
Remote clock offset: -17.781 ms

# Below is generated by plot.py at 2017-08-11 14:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.06 Mbit/s
95th percentile per-packet one-way delay: 66.523 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 62.62 Mbit/s
95th percentile per-packet one-way delay: 66.036 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 46.97 Mbit/s
95th percentile per-packet one-way delay: 53.245 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 20.26 Mbit/s
95th percentile per-packet one-way delay: 73.836 ms
Loss rate: 1.10%
```

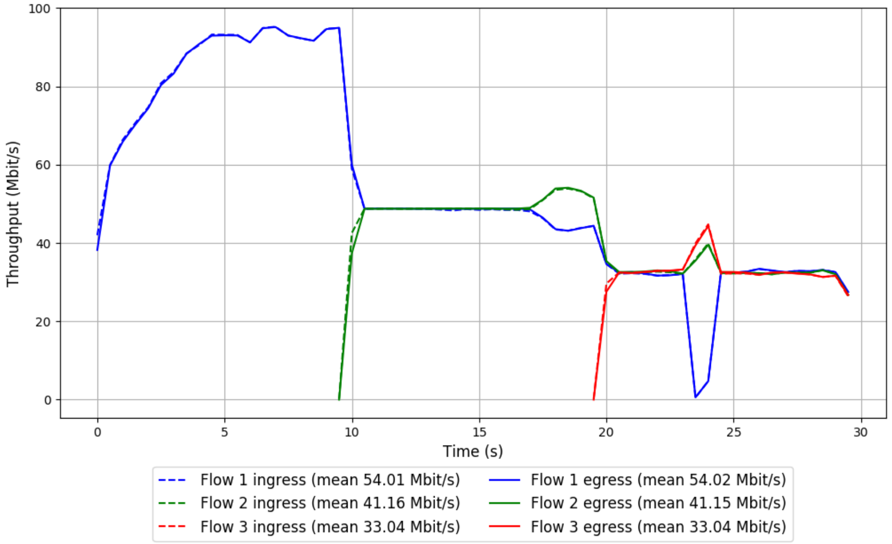
Run 2: Report of TCP Vegas — Data Link

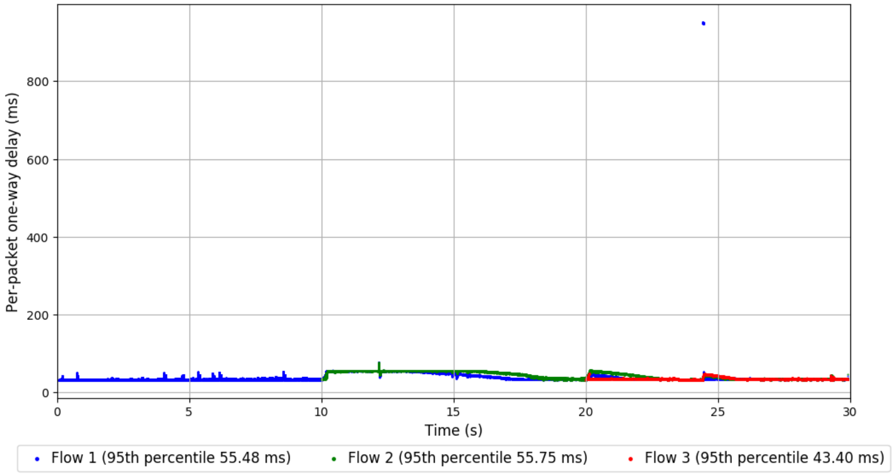




```
Run 3: Statistics of TCP Vegas

Start at: 2017-08-11 06:15:18
End at: 2017-08-11 06:15:48
Local clock offset: -0.808 ms
Remote clock offset: -17.475 ms

# Below is generated by plot.py at 2017-08-11 14:34:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 55.629 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 54.02 Mbit/s
95th percentile per-packet one-way delay: 55.481 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 41.15 Mbit/s
95th percentile per-packet one-way delay: 55.747 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 33.04 Mbit/s
95th percentile per-packet one-way delay: 43.403 ms
Loss rate: 0.27%
```

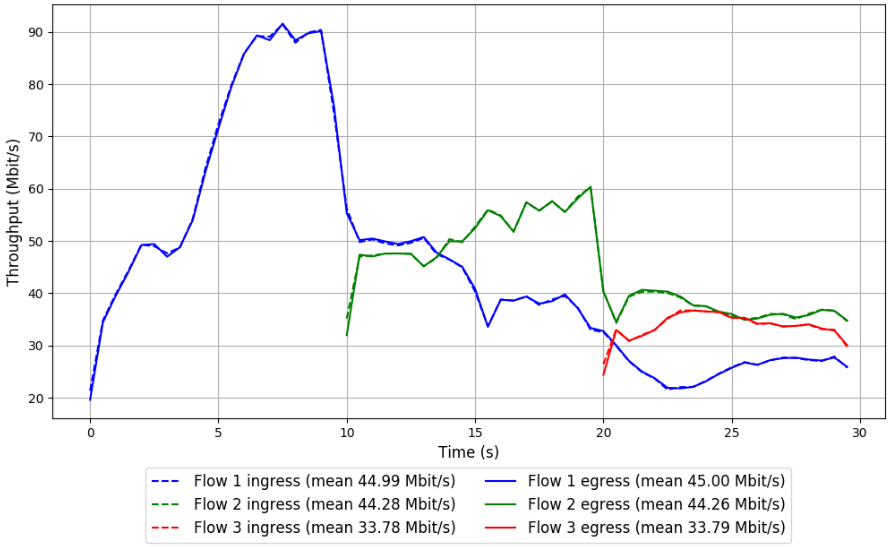
Run 3: Report of TCP Vegas — Data Link

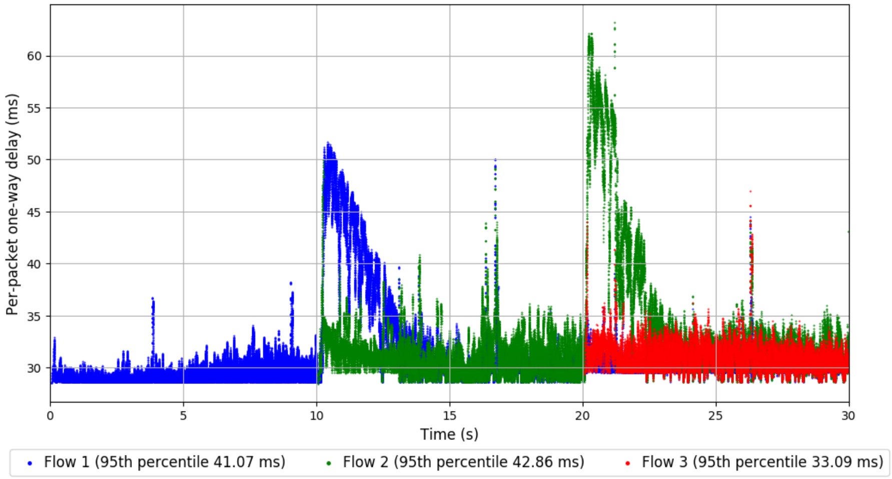




```
Run 4: Statistics of TCP Vegas

Start at: 2017-08-11 06:33:09
End at: 2017-08-11 06:33:39
Local clock offset: -3.306 ms
Remote clock offset: -17.041 ms

# Below is generated by plot.py at 2017-08-11 14:34:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.66 Mbit/s
95th percentile per-packet one-way delay: 40.629 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 45.00 Mbit/s
95th percentile per-packet one-way delay: 41.074 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 44.26 Mbit/s
95th percentile per-packet one-way delay: 42.856 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 33.79 Mbit/s
95th percentile per-packet one-way delay: 33.090 ms
Loss rate: 0.27%
```

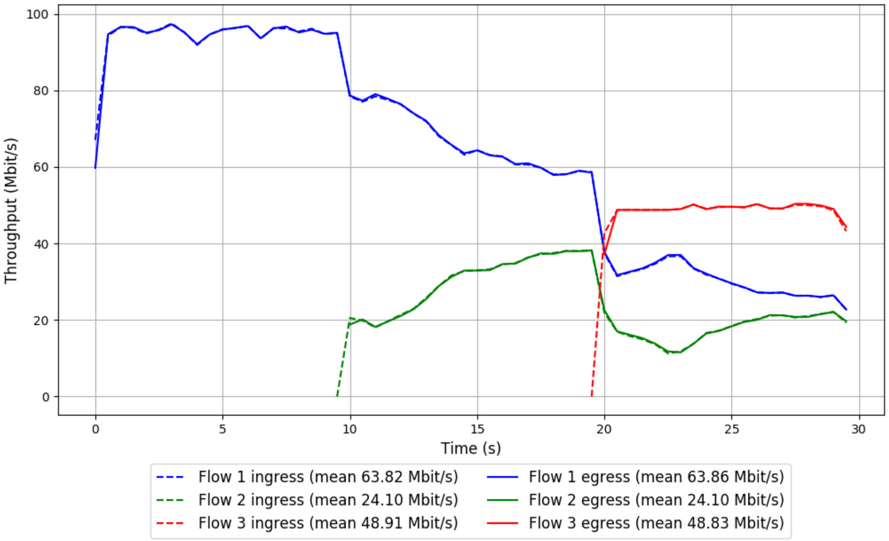
Run 4: Report of TCP Vegas — Data Link

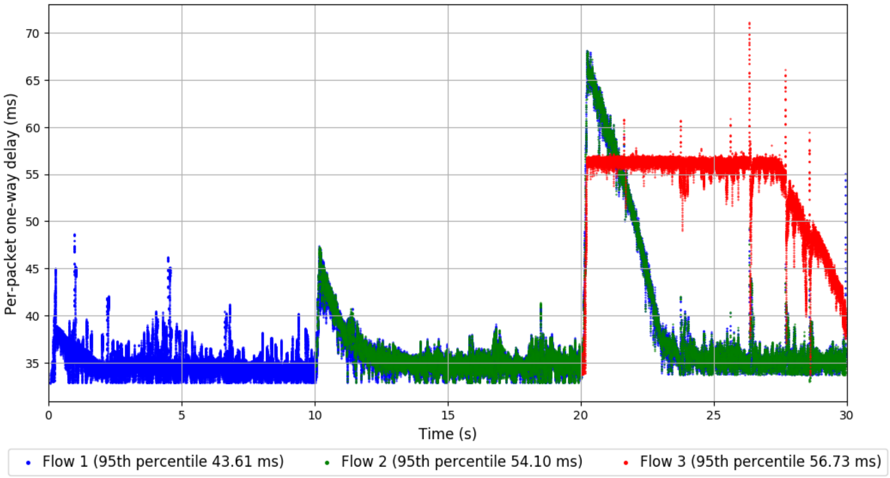




```
Run 5: Statistics of TCP Vegas

Start at: 2017-08-11 06:51:09
End at: 2017-08-11 06:51:39
Local clock offset: -5.763 ms
Remote clock offset: -23.914 ms

# Below is generated by plot.py at 2017-08-11 14:34:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.09 Mbit/s
95th percentile per-packet one-way delay: 56.536 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 63.86 Mbit/s
95th percentile per-packet one-way delay: 43.606 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 24.10 Mbit/s
95th percentile per-packet one-way delay: 54.100 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 56.731 ms
Loss rate: 0.33%
```

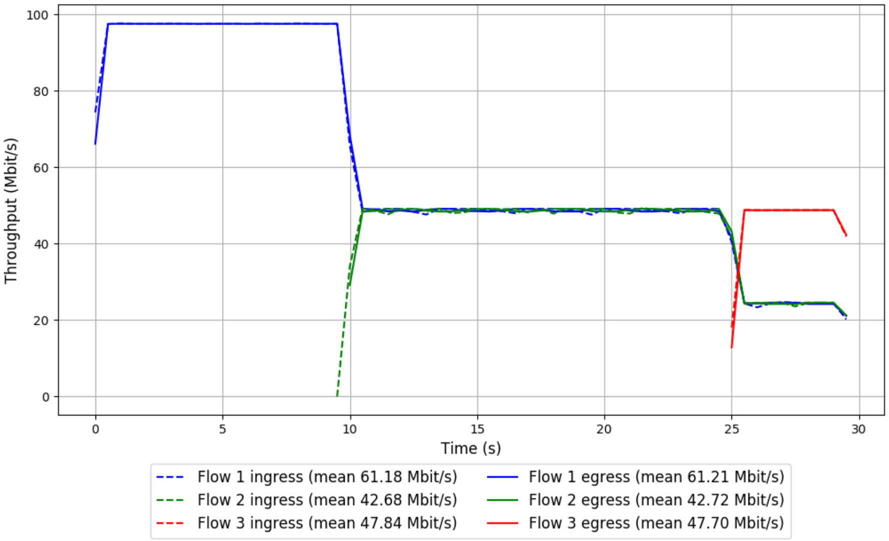
Run 5: Report of TCP Vegas — Data Link

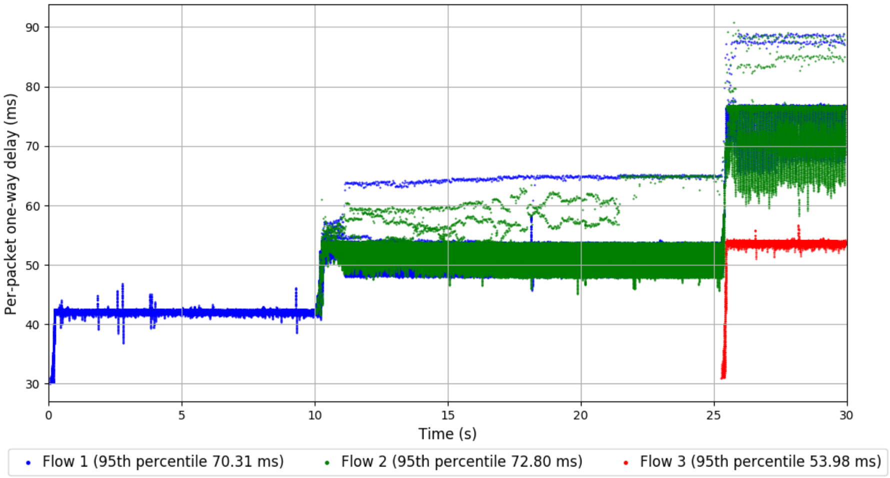




```
Run 6: Statistics of TCP Vegas

Start at: 2017-08-11 07:09:12
End at: 2017-08-11 07:09:42
Local clock offset: -2.334 ms
Remote clock offset: -18.82 ms

# Below is generated by plot.py at 2017-08-11 14:34:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 71.062 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 61.21 Mbit/s
95th percentile per-packet one-way delay: 70.314 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 42.72 Mbit/s
95th percentile per-packet one-way delay: 72.800 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 47.70 Mbit/s
95th percentile per-packet one-way delay: 53.976 ms
Loss rate: 1.06%
```

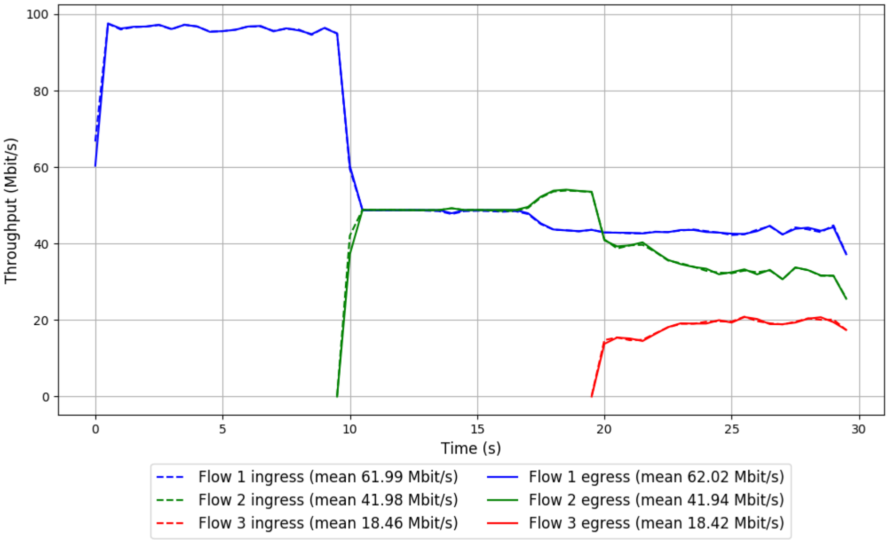
Run 6: Report of TCP Vegas — Data Link

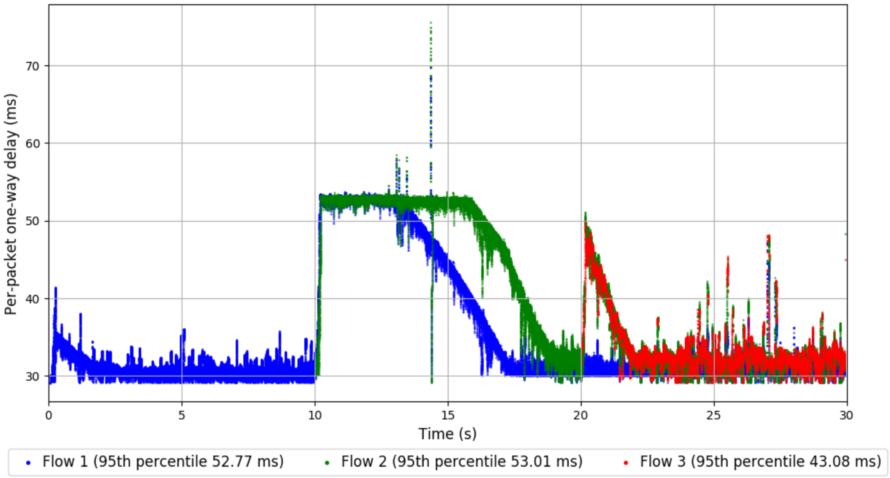




```
Run 7: Statistics of TCP Vegas

Start at: 2017-08-11 07:27:16
End at: 2017-08-11 07:27:46
Local clock offset: -1.693 ms
Remote clock offset: -18.395 ms

# Below is generated by plot.py at 2017-08-11 14:34:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.08 Mbit/s
95th percentile per-packet one-way delay: 52.889 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 62.02 Mbit/s
95th percentile per-packet one-way delay: 52.768 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 41.94 Mbit/s
95th percentile per-packet one-way delay: 53.011 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 18.42 Mbit/s
95th percentile per-packet one-way delay: 43.083 ms
Loss rate: 0.38%
```

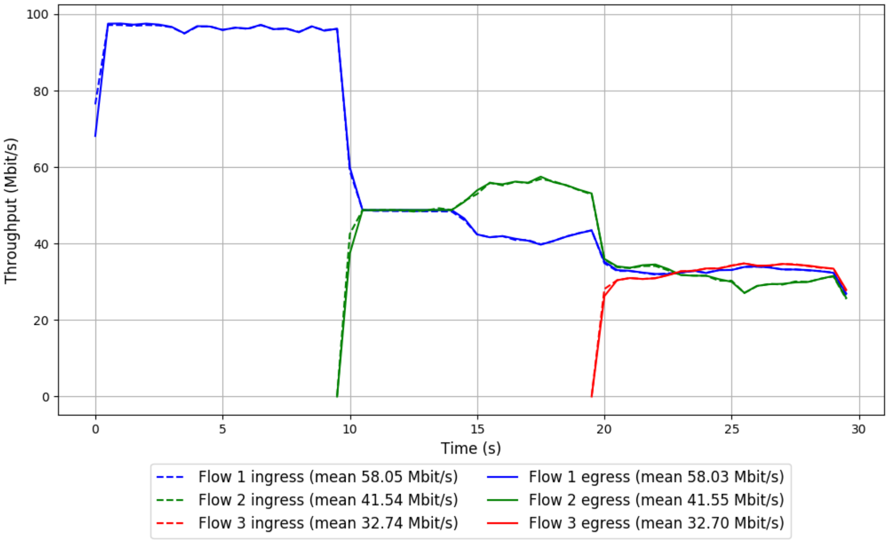
Run 7: Report of TCP Vegas — Data Link

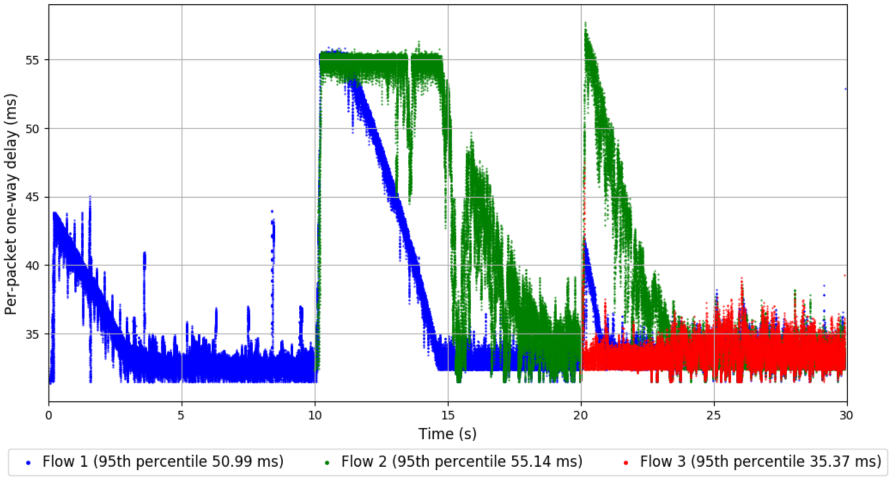




```
Run 8: Statistics of TCP Vegas

Start at: 2017-08-11 07:45:20
End at: 2017-08-11 07:45:50
Local clock offset: 0.621 ms
Remote clock offset: -18.272 ms

# Below is generated by plot.py at 2017-08-11 14:35:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.60 Mbit/s
95th percentile per-packet one-way delay: 54.911 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 58.03 Mbit/s
95th percentile per-packet one-way delay: 50.990 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 41.55 Mbit/s
95th percentile per-packet one-way delay: 55.137 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 35.369 ms
Loss rate: 0.28%
```

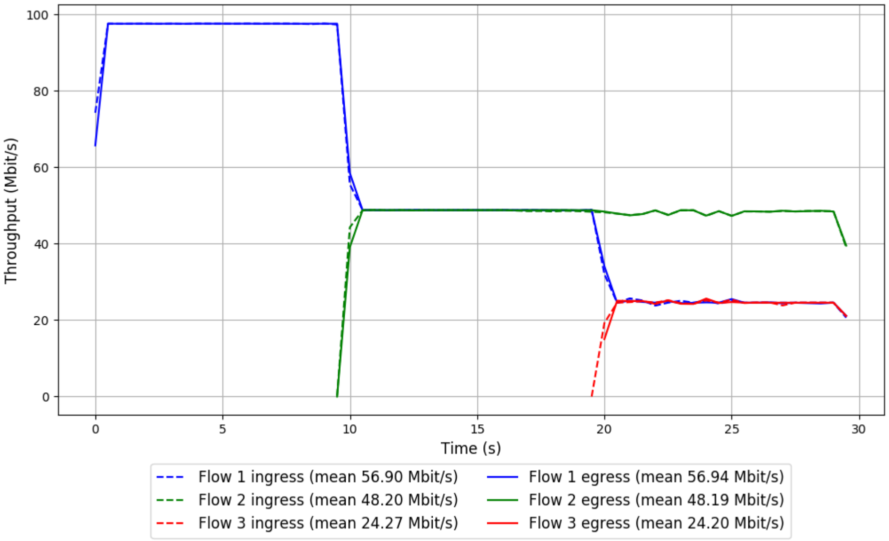
Run 8: Report of TCP Vegas — Data Link

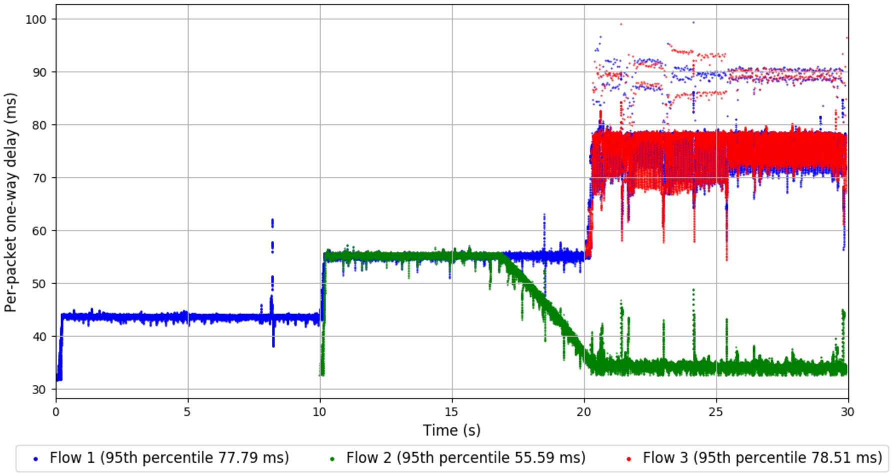




```
Run 9: Statistics of TCP Vegas

Start at: 2017-08-11 08:03:42
End at: 2017-08-11 08:04:12
Local clock offset: 0.714 ms
Remote clock offset: -18.629 ms

# Below is generated by plot.py at 2017-08-11 14:35:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.03 Mbit/s
95th percentile per-packet one-way delay: 77.936 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.94 Mbit/s
95th percentile per-packet one-way delay: 77.787 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 48.19 Mbit/s
95th percentile per-packet one-way delay: 55.595 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 78.514 ms
Loss rate: 0.69%
```

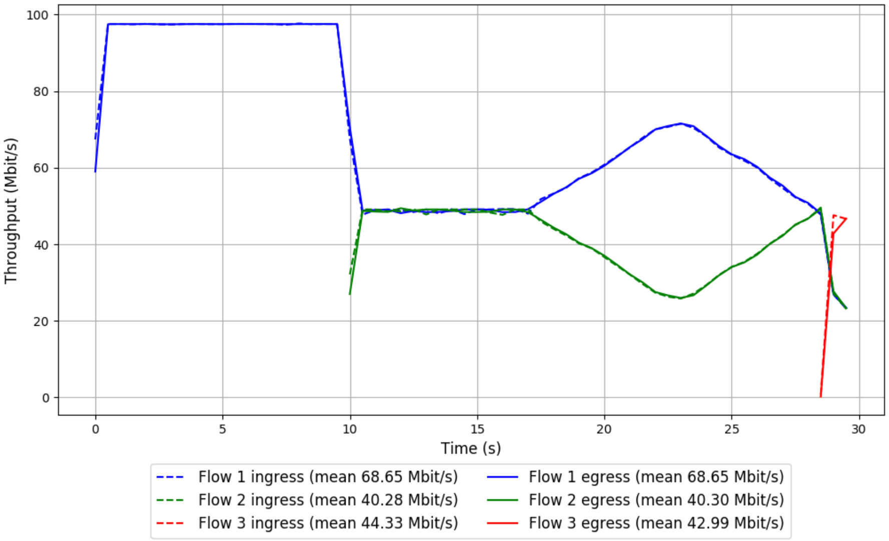
Run 9: Report of TCP Vegas — Data Link

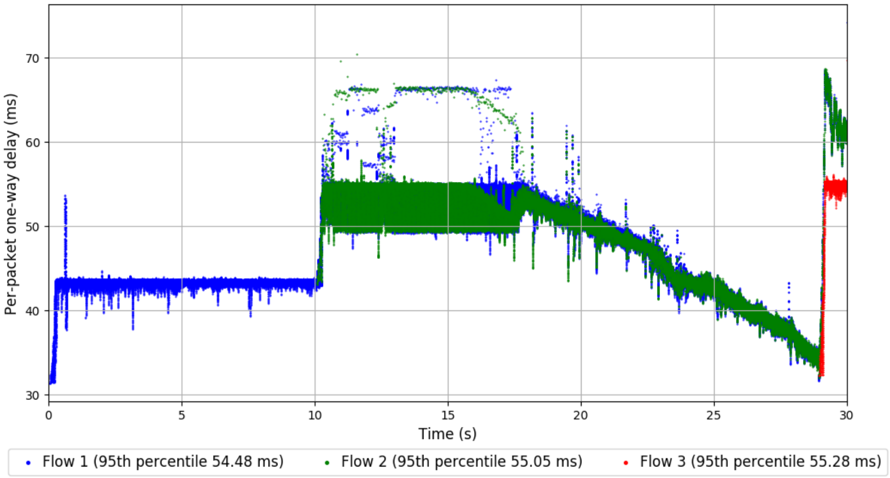




```
Run 10: Statistics of TCP Vegas

Start at: 2017-08-11 08:21:50
End at: 2017-08-11 08:22:20
Local clock offset: 1.356 ms
Remote clock offset: -18.59 ms

# Below is generated by plot.py at 2017-08-11 14:35:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.93 Mbit/s
95th percentile per-packet one-way delay: 54.893 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 68.65 Mbit/s
95th percentile per-packet one-way delay: 54.478 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.30 Mbit/s
95th percentile per-packet one-way delay: 55.048 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 55.278 ms
Loss rate: 5.46%
```

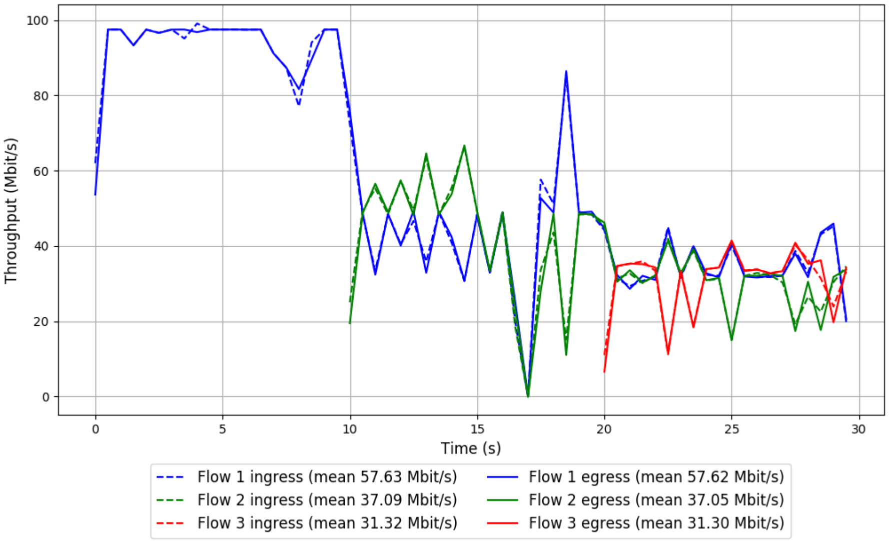
Run 10: Report of TCP Vegas — Data Link

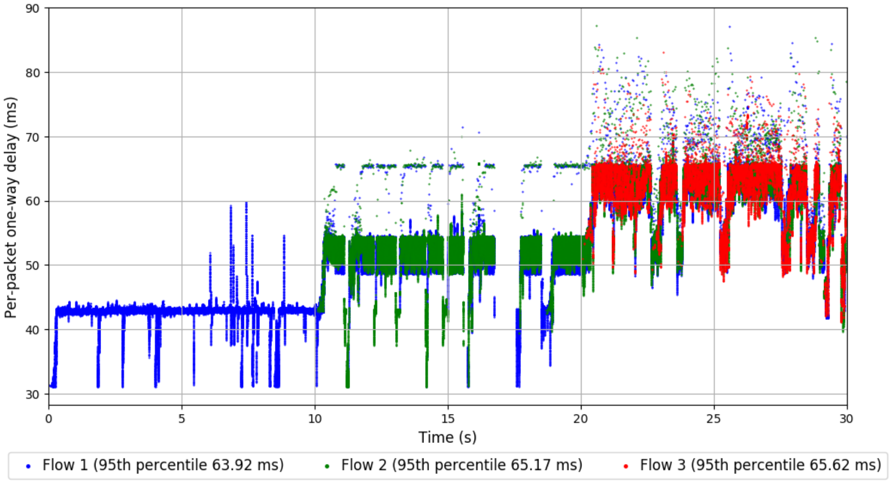




```
Run 1: Statistics of Verus

Start at: 2017-08-11 05:33:14
End at: 2017-08-11 05:33:44
Local clock offset: -1.657 ms
Remote clock offset: -18.81 ms

# Below is generated by plot.py at 2017-08-11 14:35:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.59 Mbit/s
95th percentile per-packet one-way delay: 65.033 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 57.62 Mbit/s
95th percentile per-packet one-way delay: 63.925 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 37.05 Mbit/s
95th percentile per-packet one-way delay: 65.173 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 65.622 ms
Loss rate: 0.52%
```

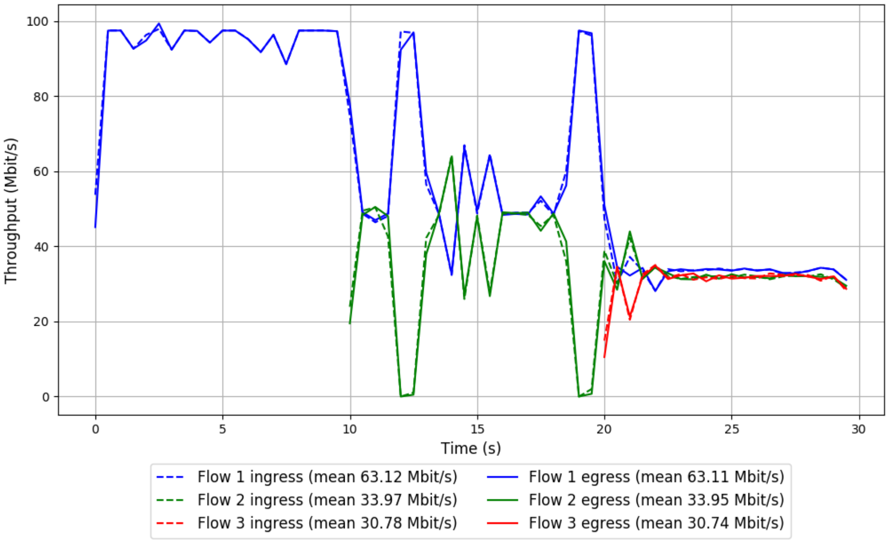
Run 1: Report of Verus — Data Link

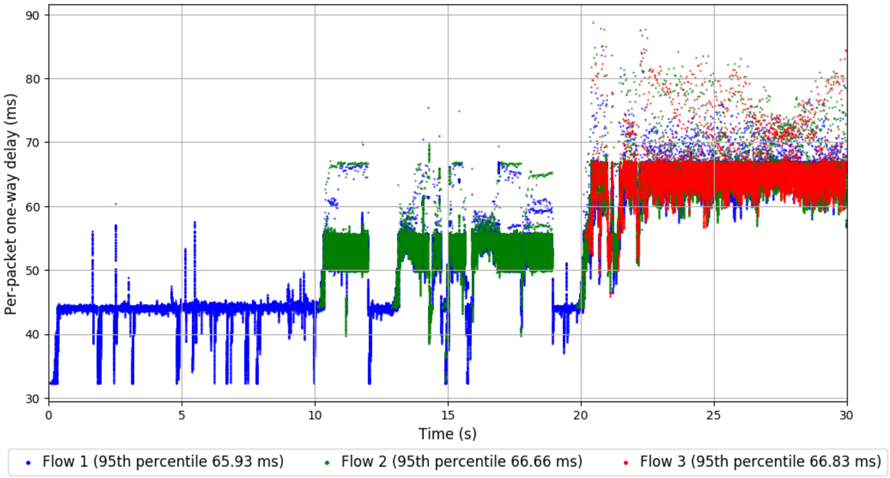




```
Run 2: Statistics of Verus

Start at: 2017-08-11 05:52:03
End at: 2017-08-11 05:52:33
Local clock offset: -0.536 ms
Remote clock offset: -19.095 ms

# Below is generated by plot.py at 2017-08-11 14:35:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 66.501 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.11 Mbit/s
95th percentile per-packet one-way delay: 65.927 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 66.659 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 30.74 Mbit/s
95th percentile per-packet one-way delay: 66.825 ms
Loss rate: 0.58%
```

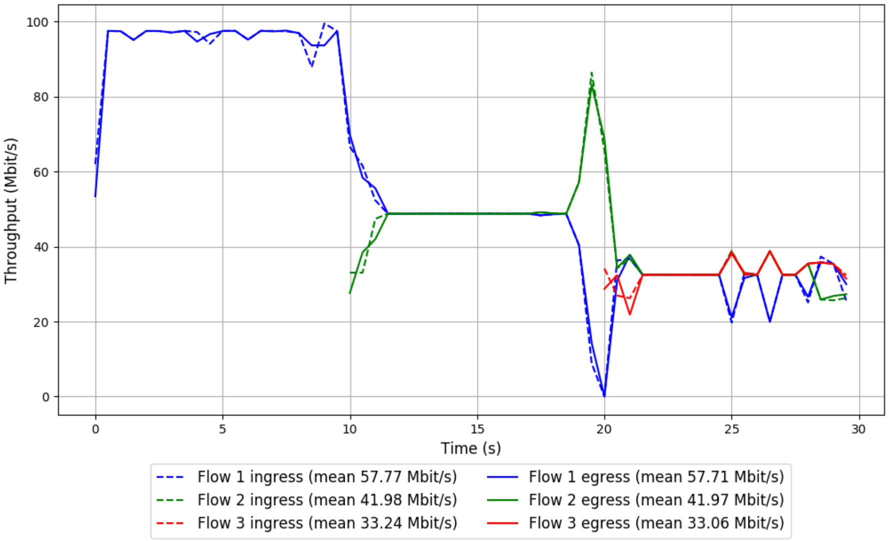
Run 2: Report of Verus — Data Link

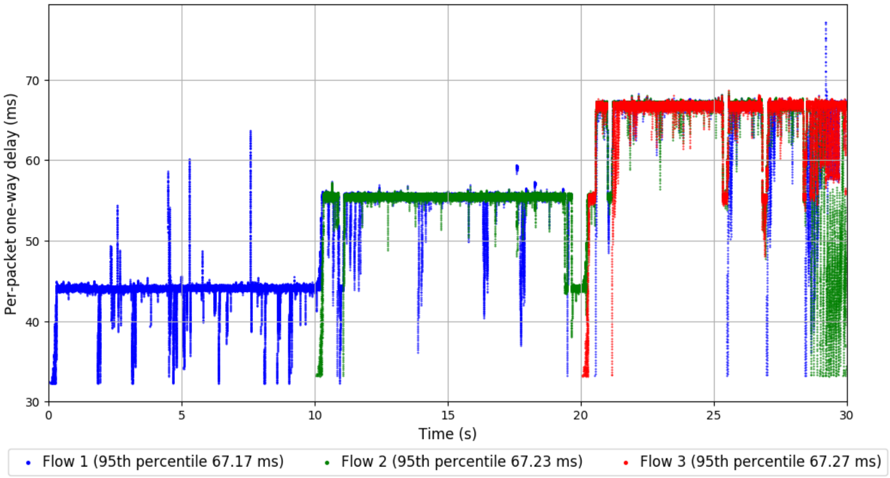




```
Run 3: Statistics of Verus

Start at: 2017-08-11 06:10:27
End at: 2017-08-11 06:10:57
Local clock offset: -0.752 ms
Remote clock offset: -18.128 ms

# Below is generated by plot.py at 2017-08-11 14:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 67.210 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 57.71 Mbit/s
95th percentile per-packet one-way delay: 67.169 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.97 Mbit/s
95th percentile per-packet one-way delay: 67.229 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 67.272 ms
Loss rate: 0.80%
```

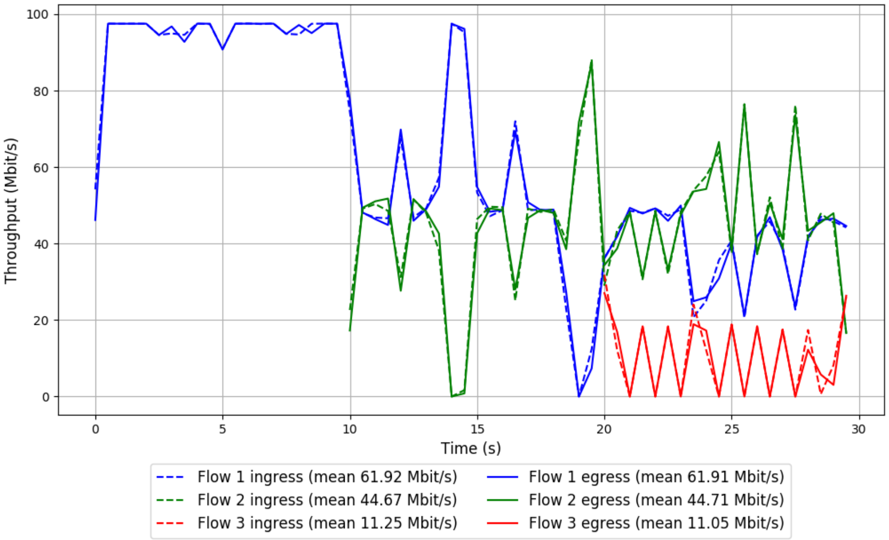
Run 3: Report of Verus — Data Link

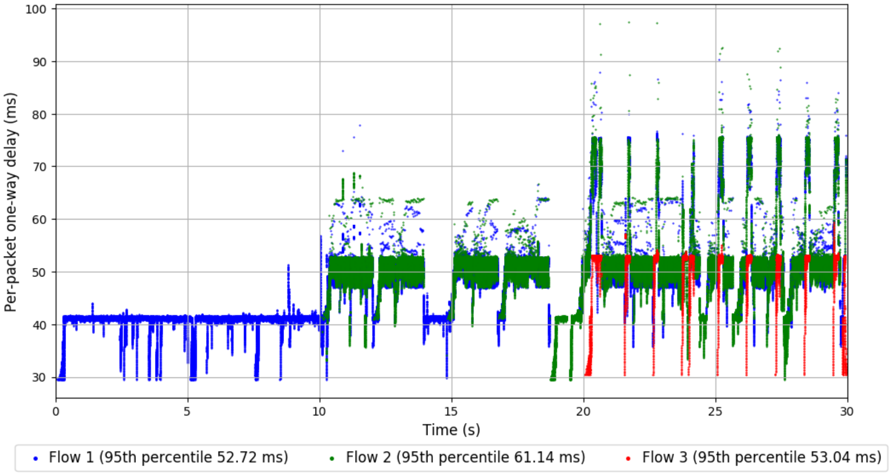




```
Run 4: Statistics of Verus

Start at: 2017-08-11 06:28:18
End at: 2017-08-11 06:28:48
Local clock offset: -2.872 ms
Remote clock offset: -17.769 ms

# Below is generated by plot.py at 2017-08-11 14:35:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.26 Mbit/s
95th percentile per-packet one-way delay: 53.292 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 61.91 Mbit/s
95th percentile per-packet one-way delay: 52.723 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 44.71 Mbit/s
95th percentile per-packet one-way delay: 61.140 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 53.044 ms
Loss rate: 2.16%
```

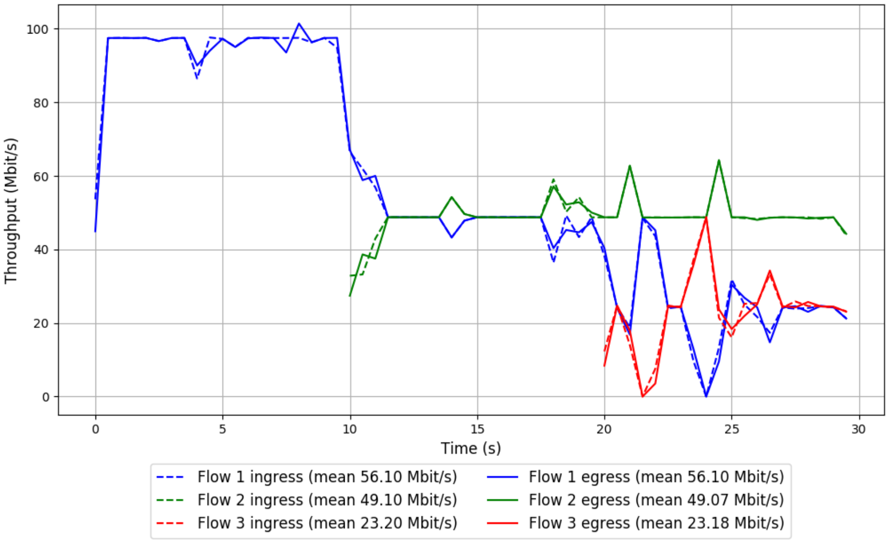
Run 4: Report of Verus — Data Link

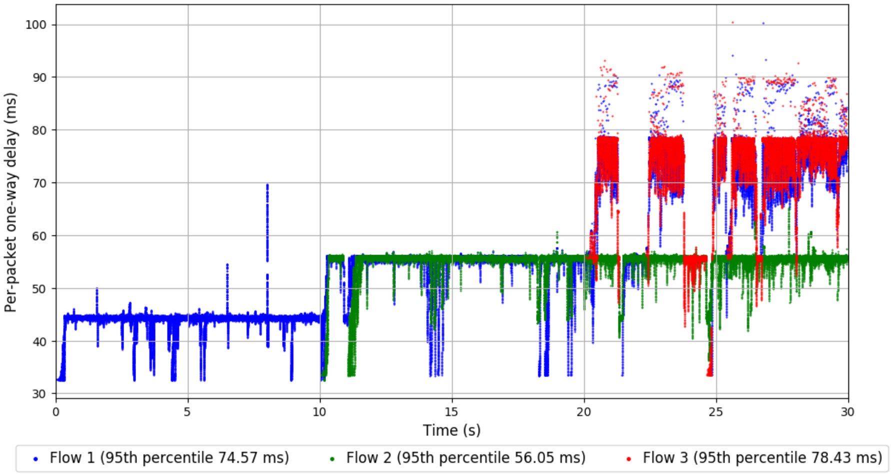




```
Run 5: Statistics of Verus

Start at: 2017-08-11 06:46:13
End at: 2017-08-11 06:46:43
Local clock offset: 0.037 ms
Remote clock offset: -17.379 ms

# Below is generated by plot.py at 2017-08-11 14:35:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.38 Mbit/s
95th percentile per-packet one-way delay: 76.105 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 56.10 Mbit/s
95th percentile per-packet one-way delay: 74.574 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 49.07 Mbit/s
95th percentile per-packet one-way delay: 56.049 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 23.18 Mbit/s
95th percentile per-packet one-way delay: 78.432 ms
Loss rate: 0.78%
```

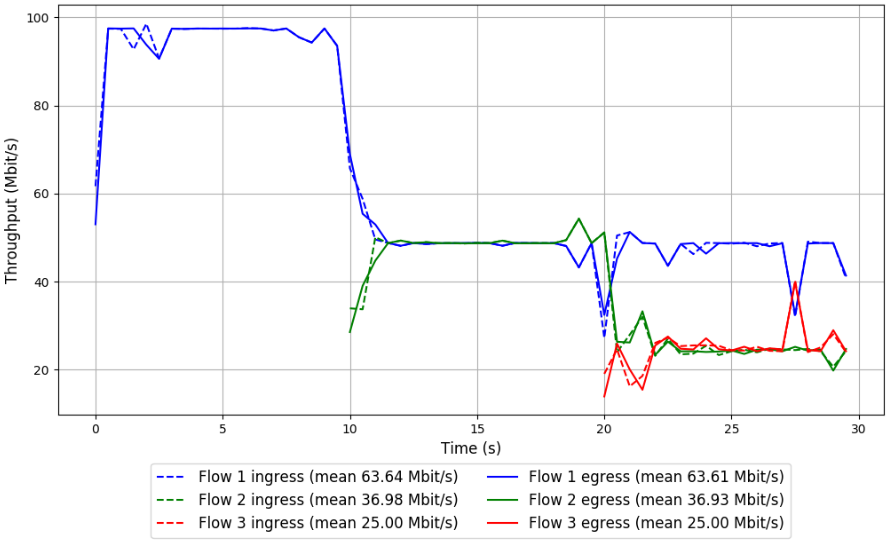
Run 5: Report of Verus — Data Link

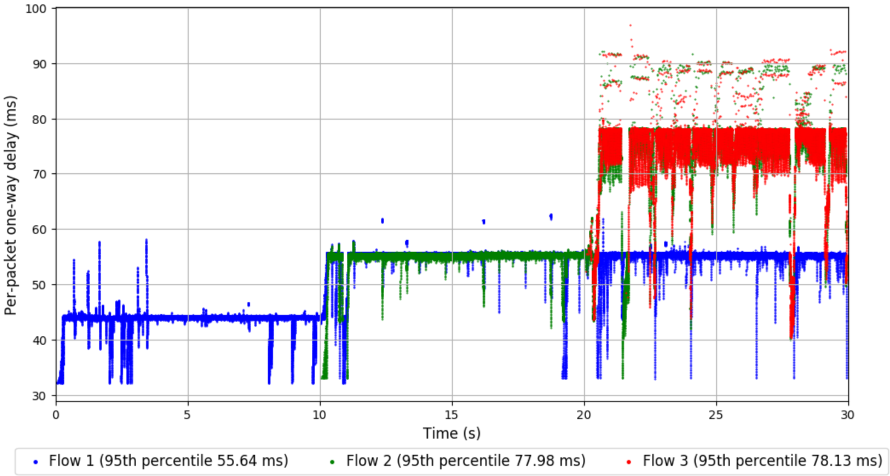




```
Run 6: Statistics of Verus

Start at: 2017-08-11 07:04:25
End at: 2017-08-11 07:04:55
Local clock offset: -0.655 ms
Remote clock offset: -18.814 ms

# Below is generated by plot.py at 2017-08-11 14:35:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.44 Mbit/s
95th percentile per-packet one-way delay: 77.682 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.61 Mbit/s
95th percentile per-packet one-way delay: 55.641 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 36.93 Mbit/s
95th percentile per-packet one-way delay: 77.977 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 25.00 Mbit/s
95th percentile per-packet one-way delay: 78.129 ms
Loss rate: 0.62%
```

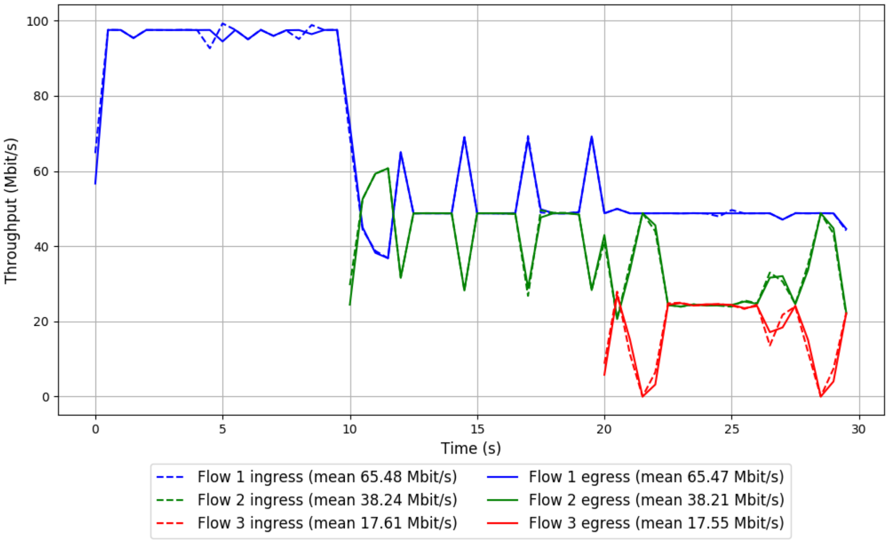
Run 6: Report of Verus — Data Link

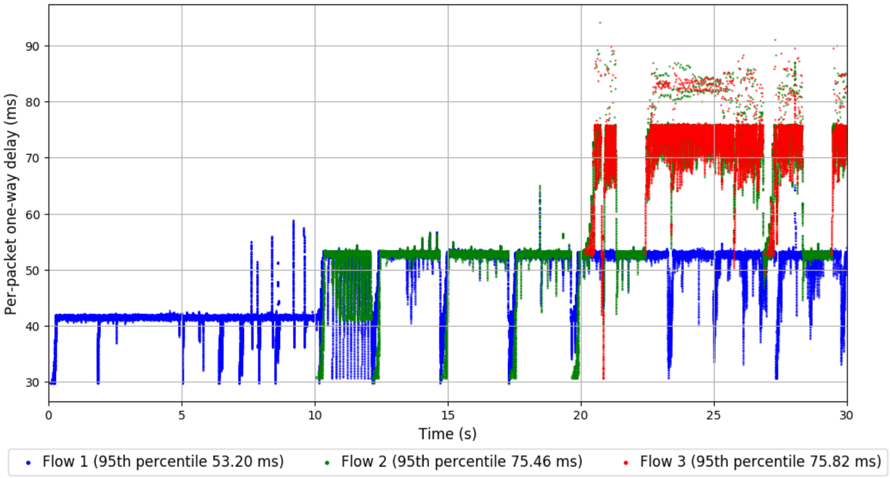




```
Run 7: Statistics of Verus

Start at: 2017-08-11 07:22:22
End at: 2017-08-11 07:22:52
Local clock offset: -2.435 ms
Remote clock offset: -19.363 ms

# Below is generated by plot.py at 2017-08-11 14:36:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.67 Mbit/s
95th percentile per-packet one-way delay: 74.230 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 65.47 Mbit/s
95th percentile per-packet one-way delay: 53.197 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 38.21 Mbit/s
95th percentile per-packet one-way delay: 75.463 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 17.55 Mbit/s
95th percentile per-packet one-way delay: 75.820 ms
Loss rate: 1.01%
```

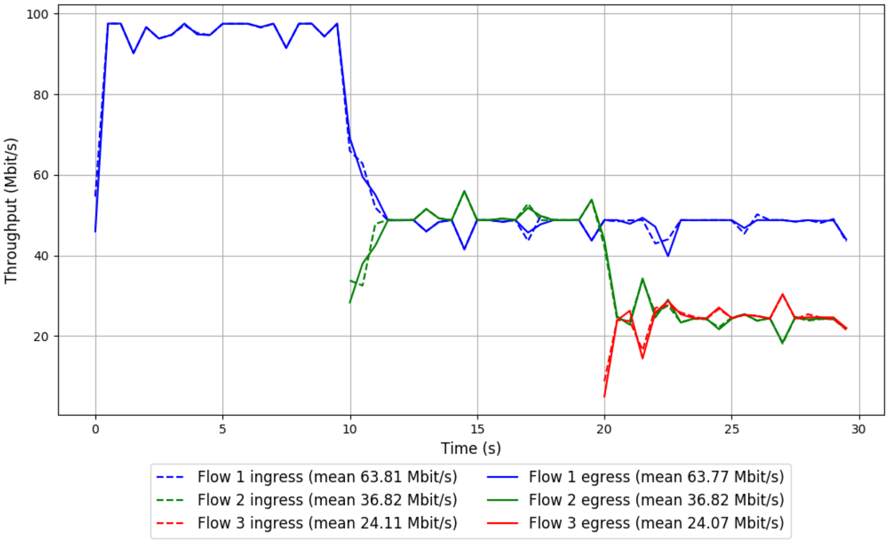
Run 7: Report of Verus — Data Link

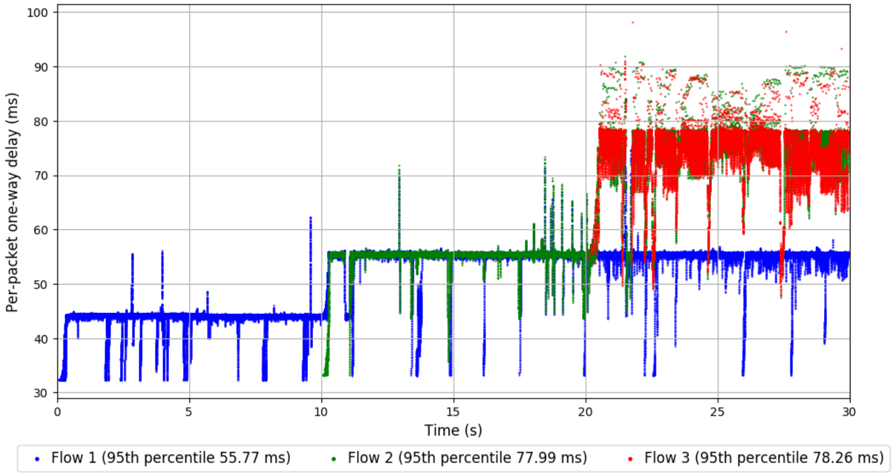




```
Run 8: Statistics of Verus

Start at: 2017-08-11 07:40:28
End at: 2017-08-11 07:40:58
Local clock offset: 0.47 ms
Remote clock offset: -19.381 ms

# Below is generated by plot.py at 2017-08-11 14:36:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.20 Mbit/s
95th percentile per-packet one-way delay: 77.251 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 63.77 Mbit/s
95th percentile per-packet one-way delay: 55.774 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 36.82 Mbit/s
95th percentile per-packet one-way delay: 77.990 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.07 Mbit/s
95th percentile per-packet one-way delay: 78.262 ms
Loss rate: 0.66%
```

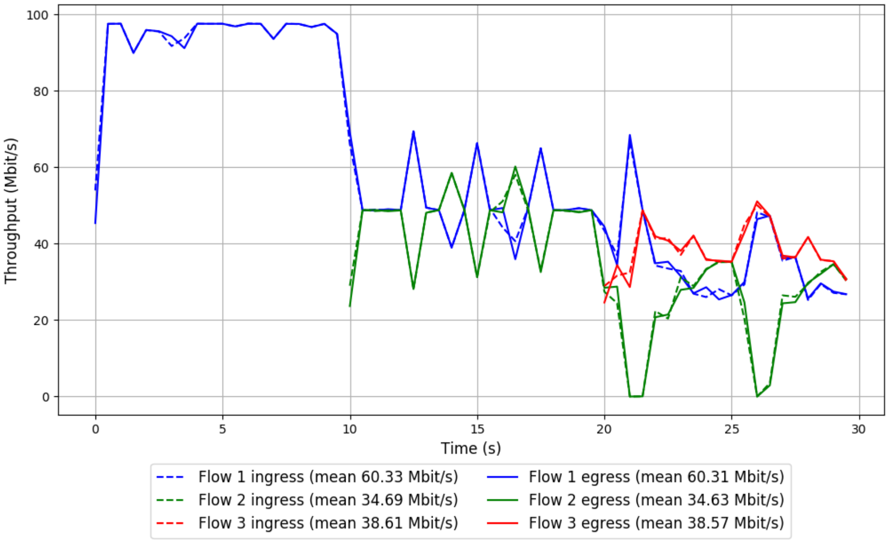
Run 8: Report of Verus — Data Link

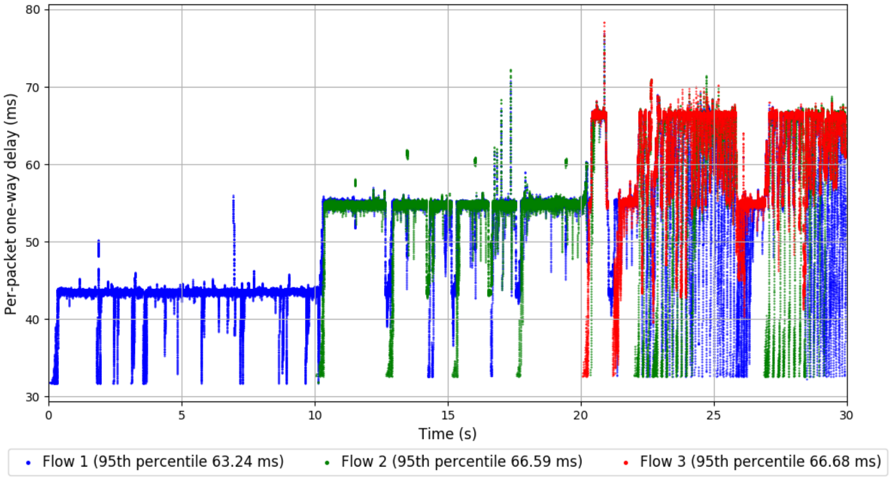




```
Run 9: Statistics of Verus

Start at: 2017-08-11 07:58:43
End at: 2017-08-11 07:59:13
Local clock offset: -0.347 ms
Remote clock offset: -19.433 ms

# Below is generated by plot.py at 2017-08-11 14:36:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 66.487 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 63.242 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 34.63 Mbit/s
95th percentile per-packet one-way delay: 66.588 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 66.681 ms
Loss rate: 0.50%
```

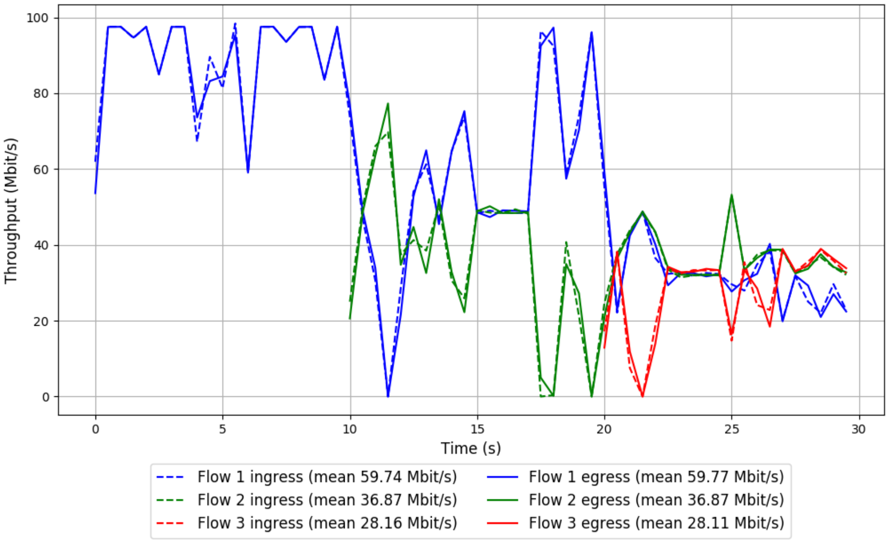
Run 9: Report of Verus — Data Link

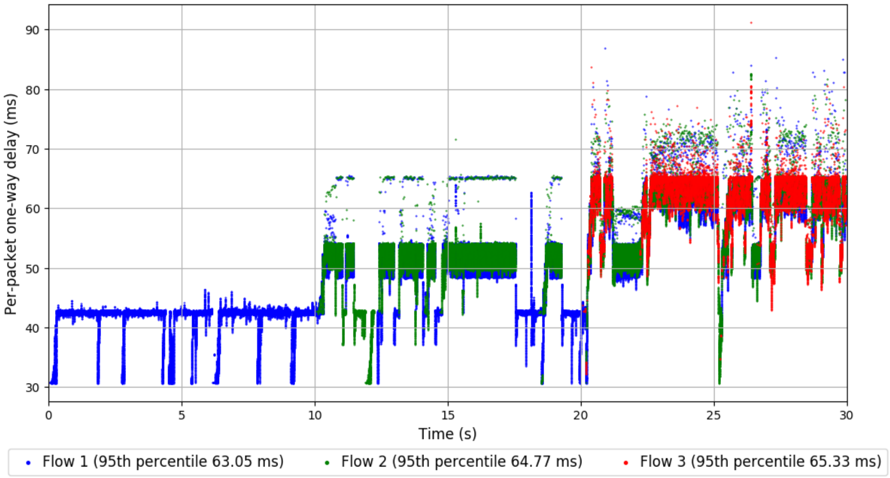




```
Run 10: Statistics of Verus

Start at: 2017-08-11 08:16:54
End at: 2017-08-11 08:17:24
Local clock offset: -1.181 ms
Remote clock offset: -20.168 ms

# Below is generated by plot.py at 2017-08-11 14:36:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.55 Mbit/s
95th percentile per-packet one-way delay: 64.770 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 59.77 Mbit/s
95th percentile per-packet one-way delay: 63.047 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 64.769 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 28.11 Mbit/s
95th percentile per-packet one-way delay: 65.327 ms
Loss rate: 0.56%
```

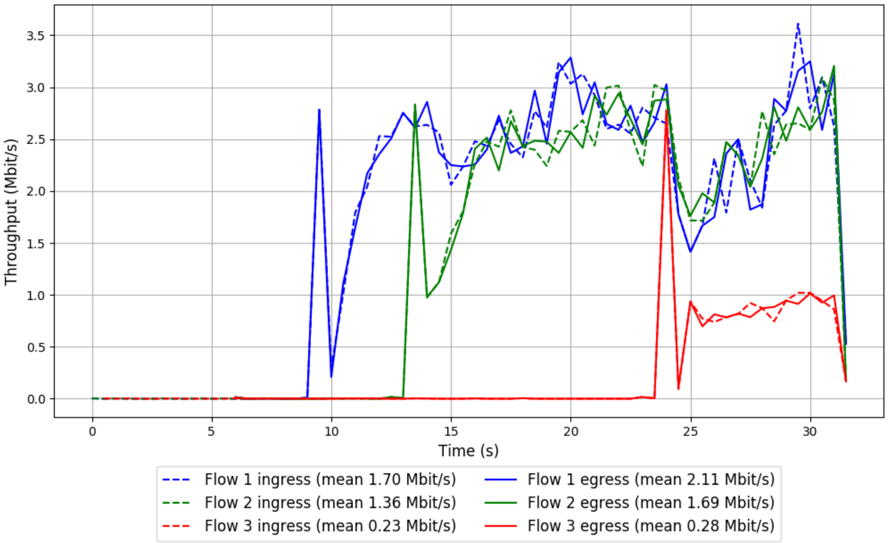
Run 10: Report of Verus — Data Link

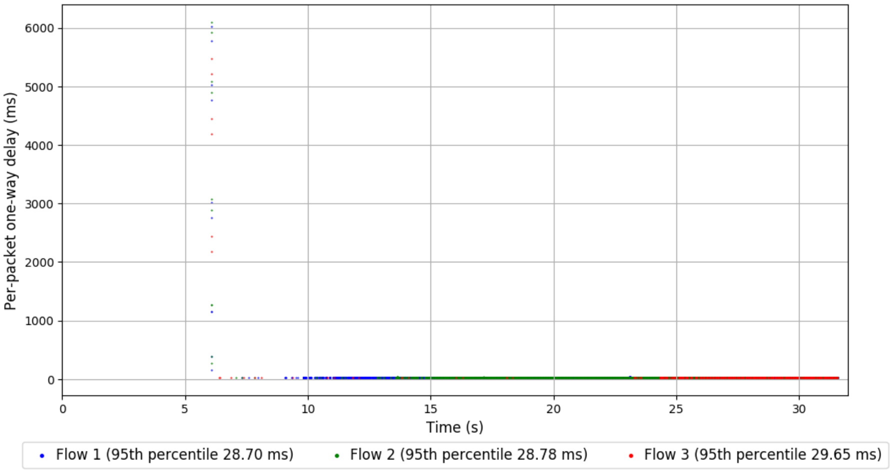




```
Run 1: Statistics of WebRTC media

Start at: 2017-08-11 05:37:32
End at: 2017-08-11 05:38:02
Local clock offset: -5.238 ms
Remote clock offset: -18.858 ms

# Below is generated by plot.py at 2017-08-11 14:36:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.08 Mbit/s
95th percentile per-packet one-way delay: 28.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 28.703 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 28.777 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 29.649 ms
Loss rate: 0.00%
```

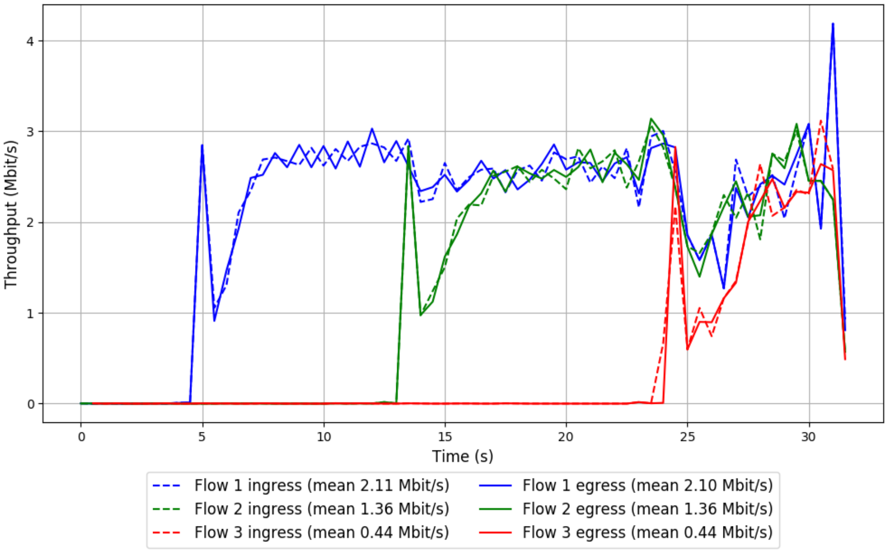
Run 1: Report of WebRTC media — Data Link

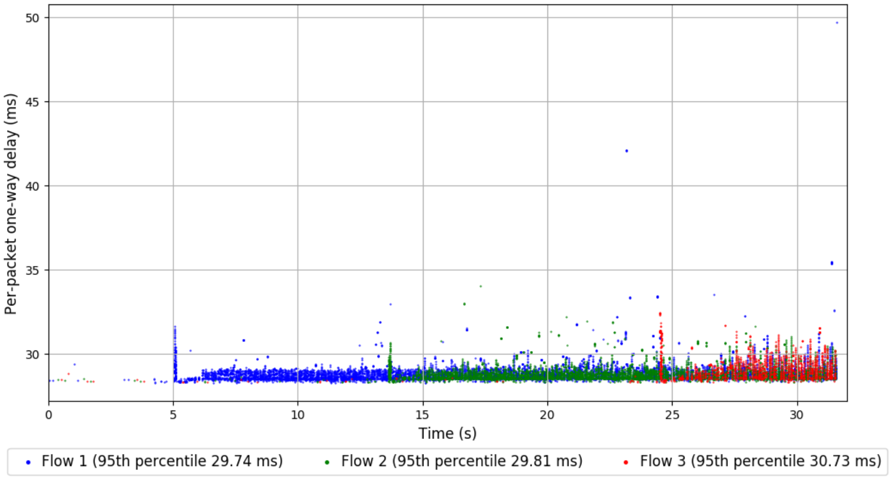




```
Run 2: Statistics of WebRTC media

Start at: 2017-08-11 05:55:50
End at: 2017-08-11 05:56:20
Local clock offset: -3.206 ms
Remote clock offset: -17.556 ms

# Below is generated by plot.py at 2017-08-11 14:36:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 29.922 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 29.743 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 29.808 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.731 ms
Loss rate: 0.00%
```

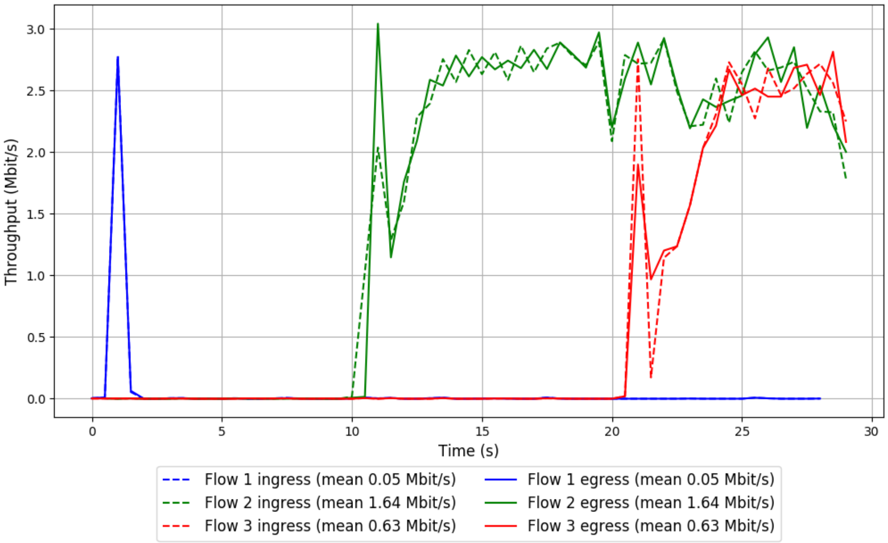
Run 2: Report of WebRTC media — Data Link

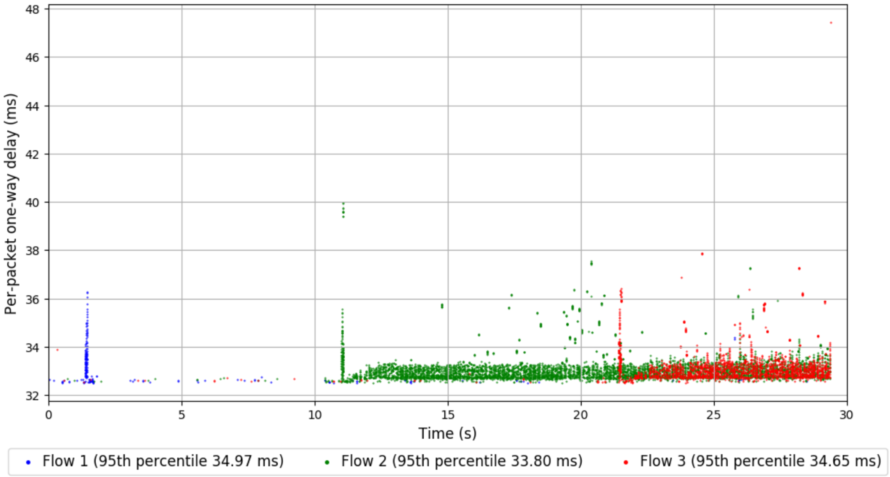




```
Run 3: Statistics of WebRTC media

Start at: 2017-08-11 06:14:13
End at: 2017-08-11 06:14:43
Local clock offset: 0.696 ms
Remote clock offset: -16.852 ms

# Below is generated by plot.py at 2017-08-11 14:36:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 34.151 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.969 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 33.795 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 34.652 ms
Loss rate: 0.46%
```

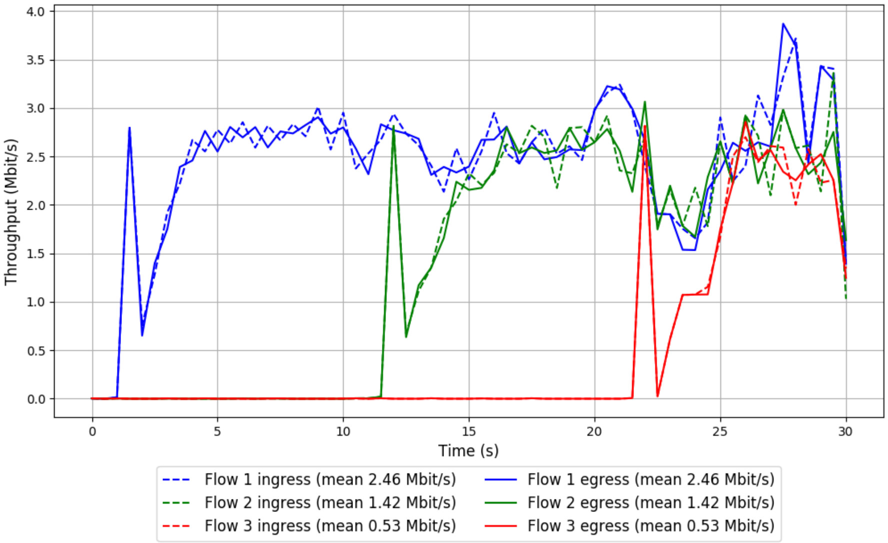
Run 3: Report of WebRTC media — Data Link

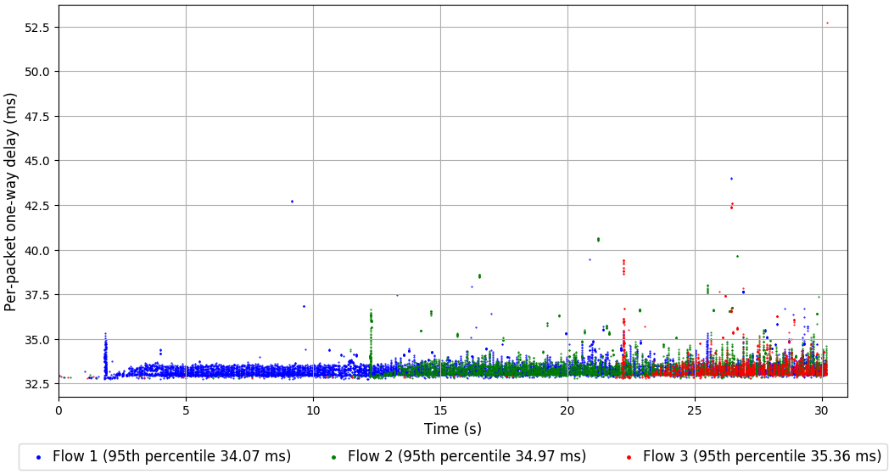




```
Run 4: Statistics of WebRTC media

Start at: 2017-08-11 06:32:03
End at: 2017-08-11 06:32:33
Local clock offset: 0.402 ms
Remote clock offset: -17.755 ms

# Below is generated by plot.py at 2017-08-11 14:36:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 34.420 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 34.072 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 34.966 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 35.361 ms
Loss rate: 0.31%
```

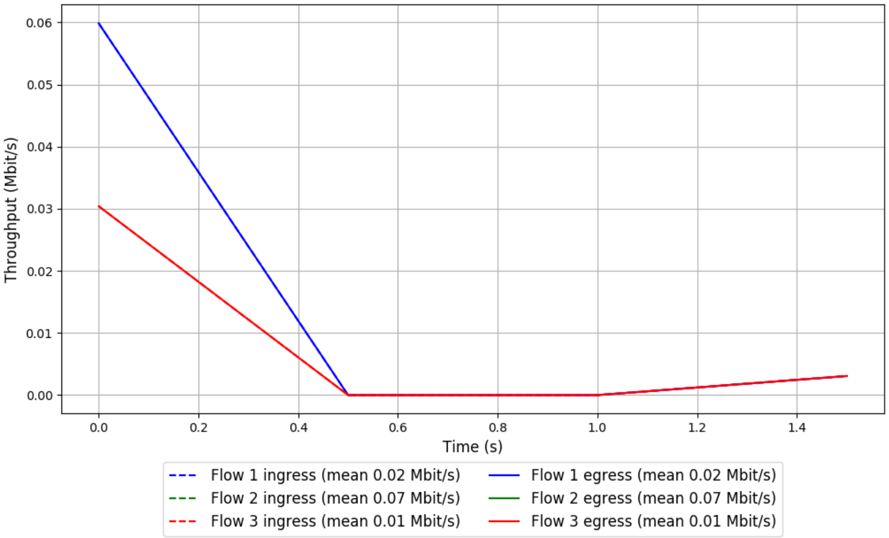
Run 4: Report of WebRTC media — Data Link

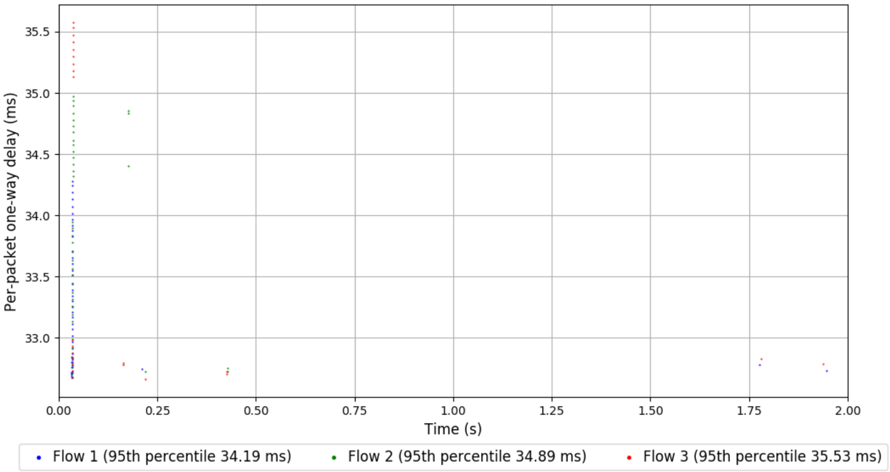




```
Run 5: Statistics of WebRTC media

Start at: 2017-08-11 06:50:03
End at: 2017-08-11 06:50:33
Local clock offset: 0.716 ms
Remote clock offset: -17.334 ms
```

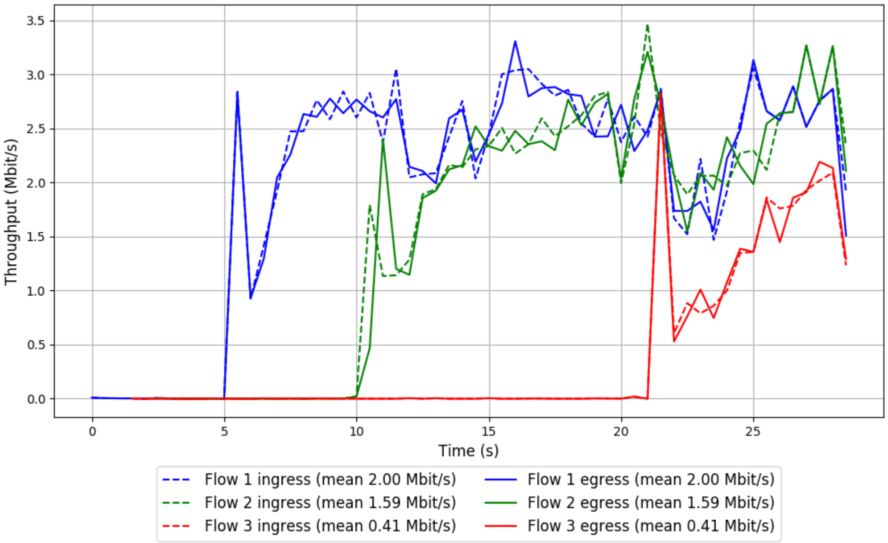
Run 5: Report of WebRTC media — Data Link

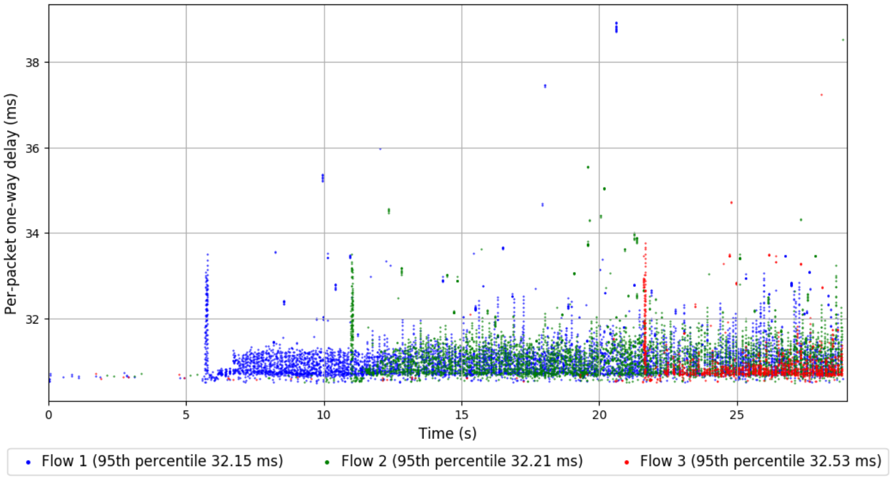




```
Run 6: Statistics of WebRTC media

Start at: 2017-08-11 07:08:06
End at: 2017-08-11 07:08:36
Local clock offset: -2.533 ms
Remote clock offset: -19.569 ms

# Below is generated by plot.py at 2017-08-11 14:36:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 32.200 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 32.150 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 32.213 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 32.528 ms
Loss rate: 0.00%
```

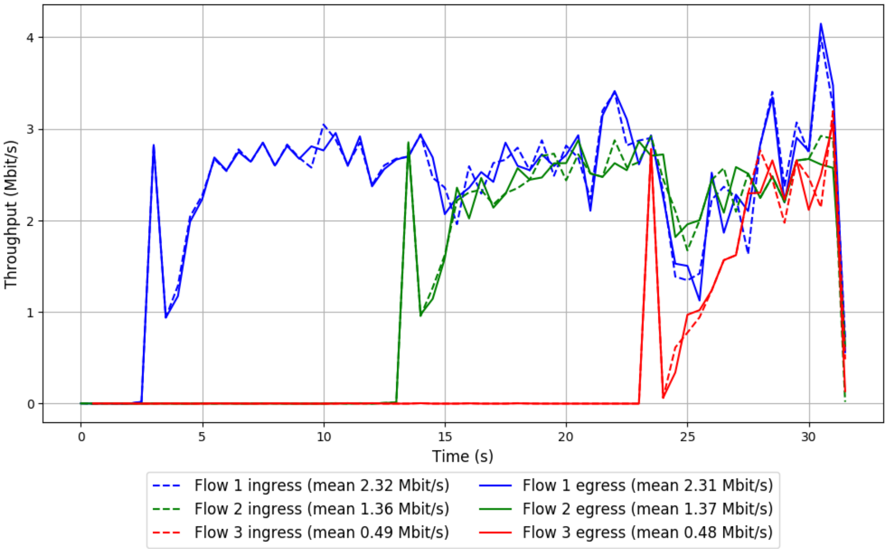
Run 6: Report of WebRTC media — Data Link

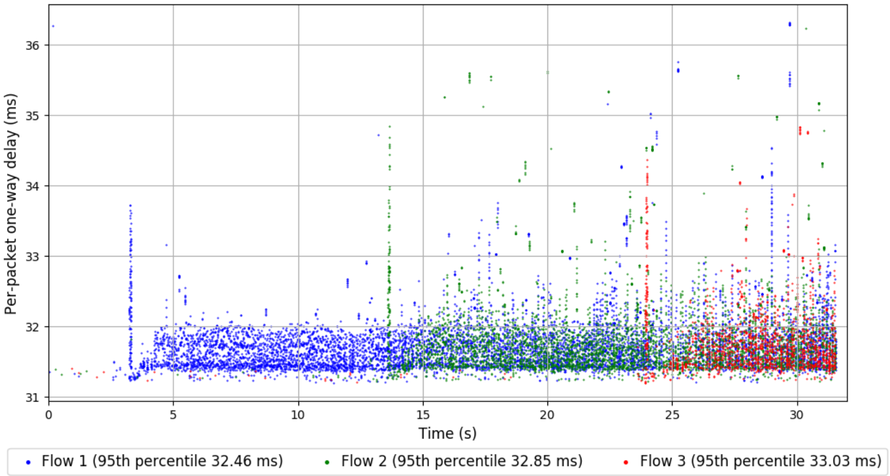




```
Run 7: Statistics of WebRTC media

Start at: 2017-08-11 07:26:10
End at: 2017-08-11 07:26:40
Local clock offset: -0.423 ms
Remote clock offset: -19.26 ms

# Below is generated by plot.py at 2017-08-11 14:36:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 32.664 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 32.464 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 32.847 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 33.029 ms
Loss rate: 1.61%
```

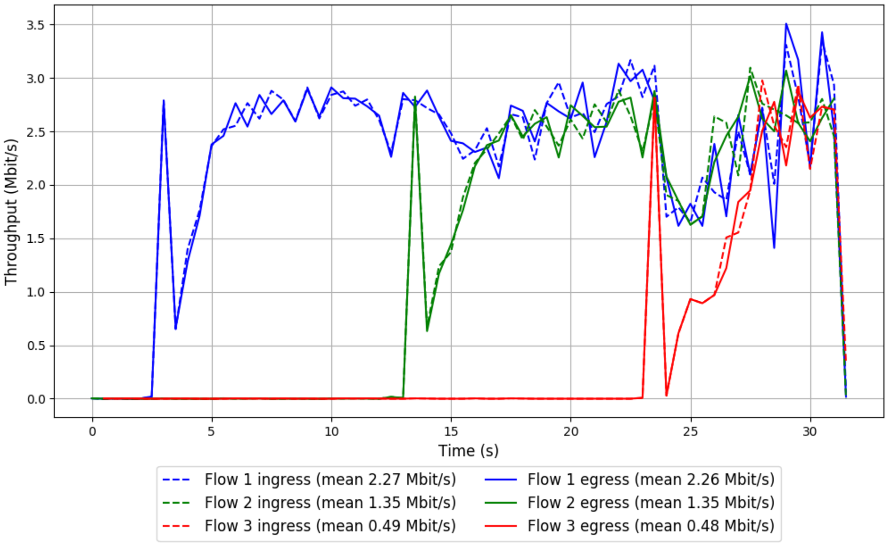
Run 7: Report of WebRTC media — Data Link

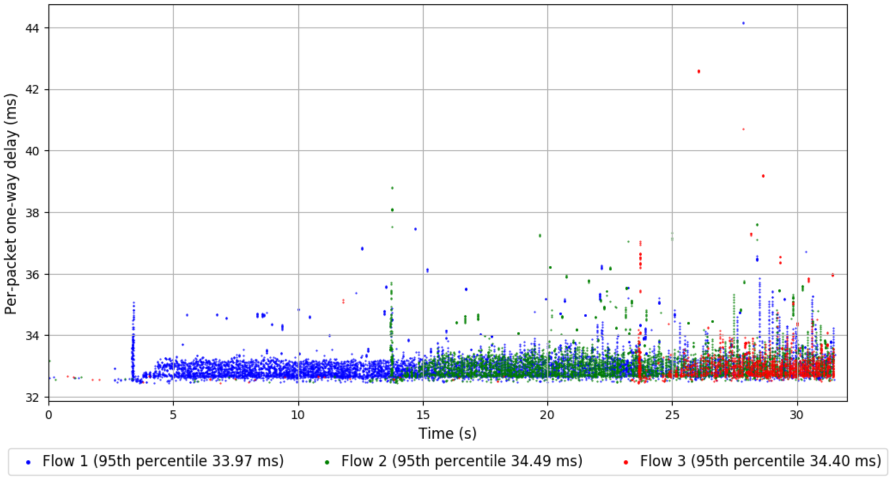




```
Run 8: Statistics of WebRTC media

Start at: 2017-08-11 07:44:14
End at: 2017-08-11 07:44:44
Local clock offset: 0.11 ms
Remote clock offset: -19.976 ms

# Below is generated by plot.py at 2017-08-11 14:36:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.08 Mbit/s
95th percentile per-packet one-way delay: 34.181 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 33.974 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 34.490 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 34.399 ms
Loss rate: 1.10%
```

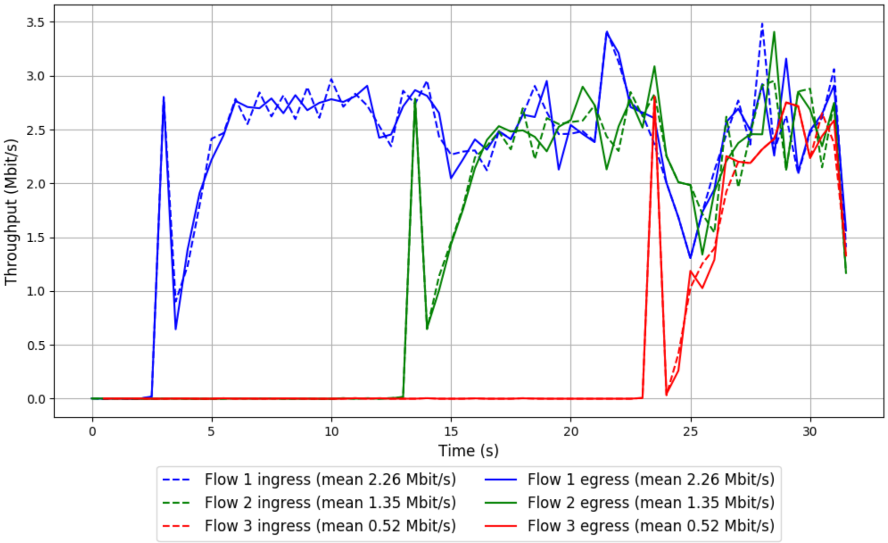
Run 8: Report of WebRTC media — Data Link

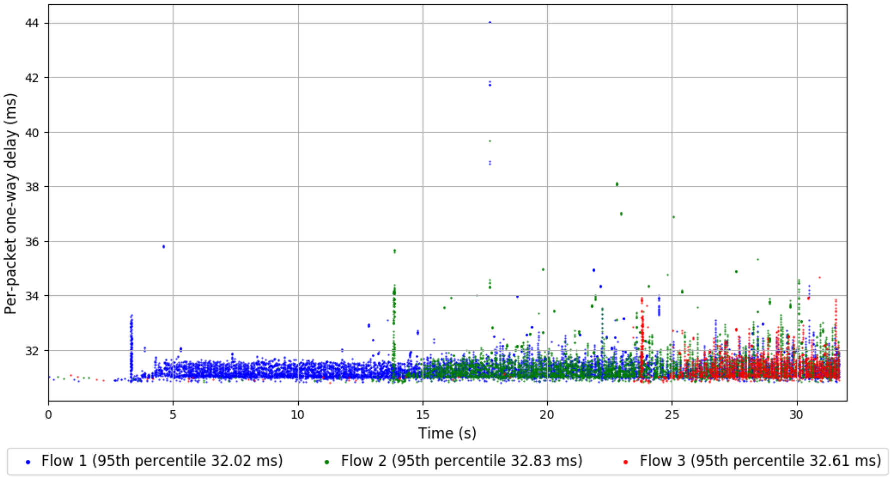




```
Run 9: Statistics of WebRTC media

Start at: 2017-08-11 08:02:36
End at: 2017-08-11 08:03:06
Local clock offset: -0.187 ms
Remote clock offset: -18.767 ms

# Below is generated by plot.py at 2017-08-11 14:36:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 32.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 32.019 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 32.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 32.607 ms
Loss rate: 0.00%
```

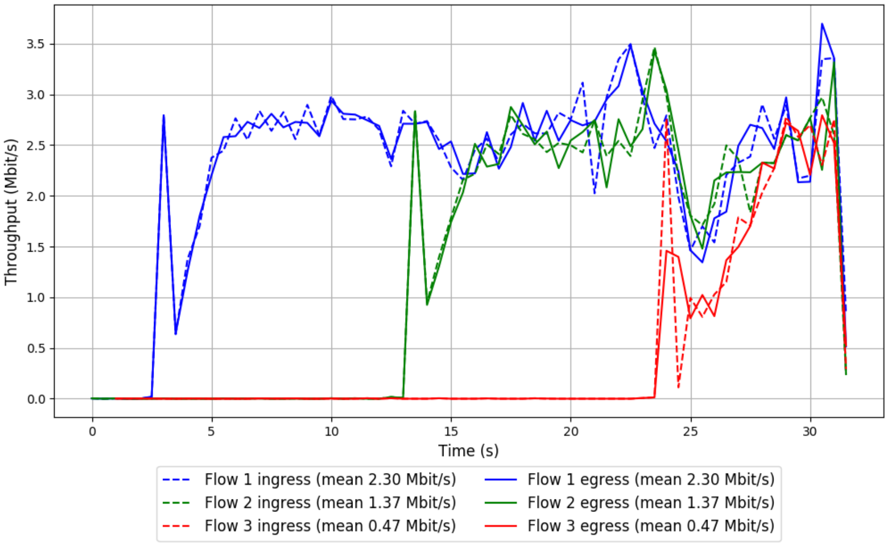
Run 9: Report of WebRTC media — Data Link



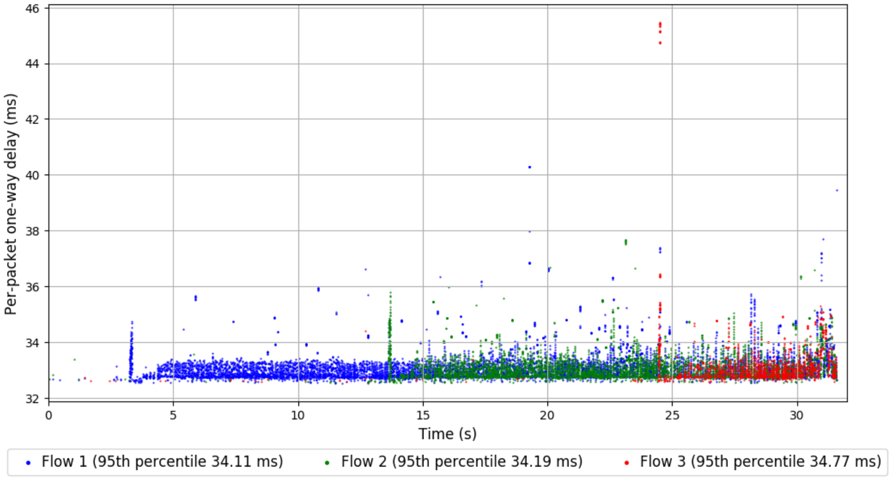


```
Run 10: Statistics of WebRTC media

Start at: 2017-08-11 08:20:44
End at: 2017-08-11 08:21:14
Local clock offset: 1.372 ms
Remote clock offset: -19.799 ms

# Below is generated by plot.py at 2017-08-11 14:36:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 34.223 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 34.109 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 34.189 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 34.770 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link



Throughput (Mbit/s)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 2.30 Mbit/s)
Flow 2 ingress (mean 1.37 Mbit/s)
Flow 3 ingress (mean 0.47 Mbit/s)
Flow 1 egress (mean 2.30 Mbit/s)
Flow 2 egress (mean 1.37 Mbit/s)
Flow 3 egress (mean 0.47 Mbit/s)



Per-packet one-way delay (ms)
46
44
42
40
38
36
34
32
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 34.11 ms)
Flow 2 (95th percentile 34.19 ms)
Flow 3 (95th percentile 34.77 ms)