Pantheon Report

Generated at 2017-09-08 05:29:47 (UTC).

Data path: Mexico Ethernet (*remote*) →AWS California 2 Ethernet (*local*).

Repeated the test of 15 congestion control schemes 10 times.

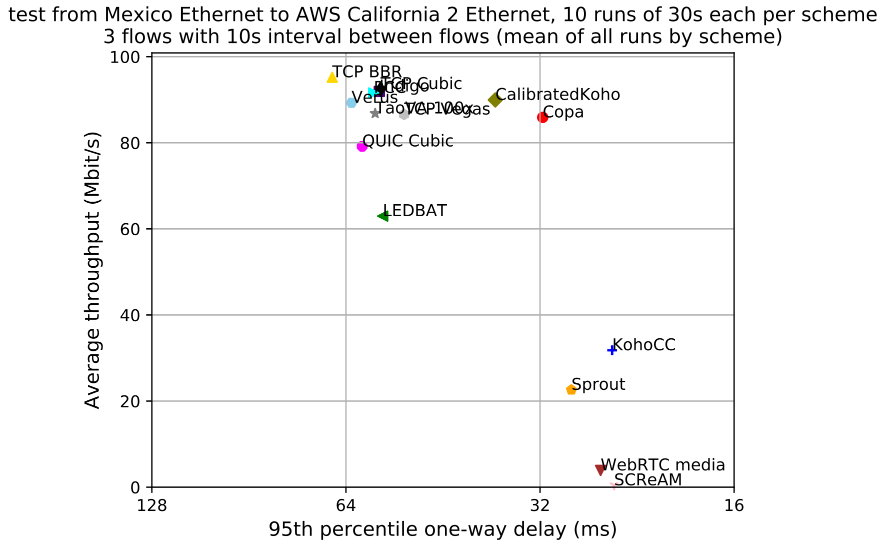
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

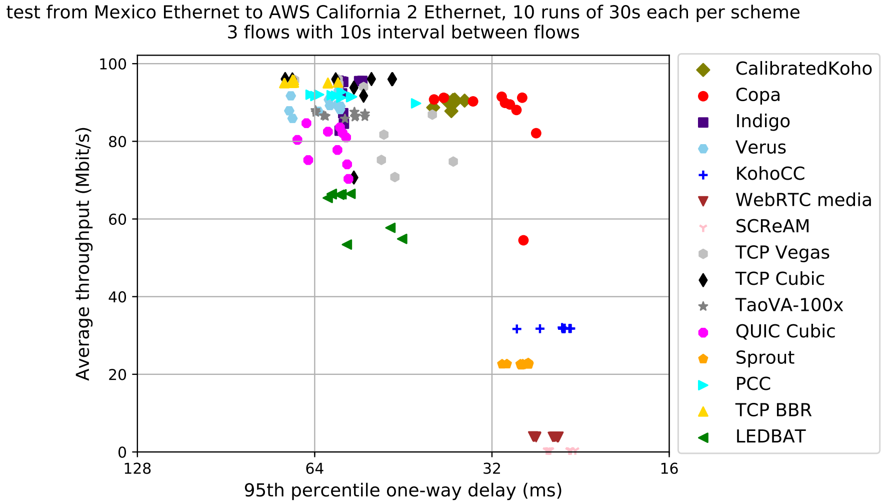
Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

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

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



test from Mexico Ethernet to AWS California 2 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from Mexico Ethernet to AWS California 2 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows

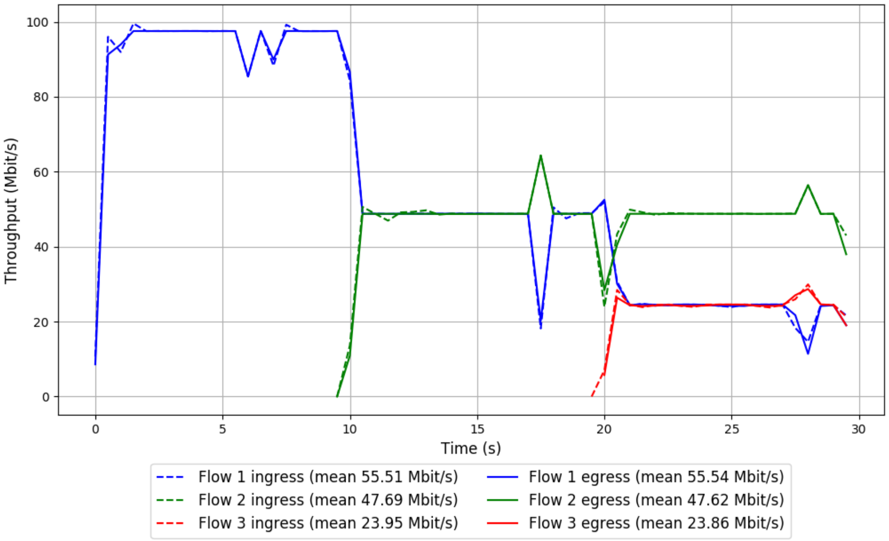
scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	57.88	39.56	33.25	62.61	62.76	60.97	0.21	0.42	1.12
CalibratedKoho	10	63.48	30.10	19.43	37.20	38.11	38.13	0.20	0.37	0.79
Copa	10	58.49	36.90	14.03	30.12	32.48	32.19	0.18	0.35	0.77
TCP Cubic	9	57.35	40.83	31.61	51.24	54.94	58.18	0.19	0.39	4.14
Indigo	10	56.09	40.34	28.30	49.56	55.25	47.75	0.23	0.45	1.04
KohoCC	10	16.00	15.95	15.66	24.74	24.76	24.75	0.25	0.38	0.77
LEDBAT	10	38.79	28.81	15.12	53.23	55.52	46.48	0.29	0.57	1.55
PCC	10	60.10	32.24	30.61	57.09	55.80	53.40	0.21	0.51	0.97
QUIC Cubic	10	44.43	37.36	30.89	56.08	61.14	57.64	0.21	0.49	0.89
SCReAM	10	0.22	0.22	0.22	24.56	24.55	24.53	0.22	0.37	0.51
Sprout	10	11.43	11.36	10.99	28.37	28.61	29.29	0.26	0.37	0.85
TaoVA-100x	10	51.30	40.94	32.68	57.40	54.02	54.47	0.23	0.48	1.31
TCP Vegas	10	50.79	34.30	39.08	45.16	51.38	52.10	0.16	0.41	0.92
Verus	10	53.60	38.71	30.21	60.15	59.14	62.24	0.24	0.52	1.16
WebRTC media	10	2.18	1.34	0.39	25.52	25.95	26.54	0.29	0.41	1.55

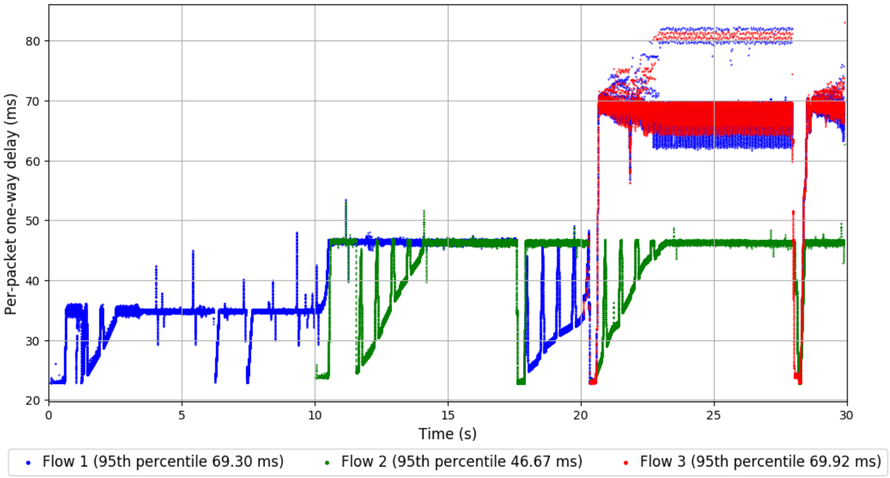
```
Run 1: Statistics of TCP BBR

Start at: 2017-09-07 22:07:00
End at: 2017-09-07 22:07:30
Local clock offset: 0.827 ms
Remote clock offset: -0.954 ms

# Below is generated by plot.py at 2017-09-08 05:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.14 Mbit/s
95th percentile per-packet one-way delay: 69.407 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 55.54 Mbit/s
95th percentile per-packet one-way delay: 69.299 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 47.62 Mbit/s
95th percentile per-packet one-way delay: 46.672 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 23.86 Mbit/s
95th percentile per-packet one-way delay: 69.918 ms
Loss rate: 1.21%
```

Run 1: Report of TCP BBR — Data Link



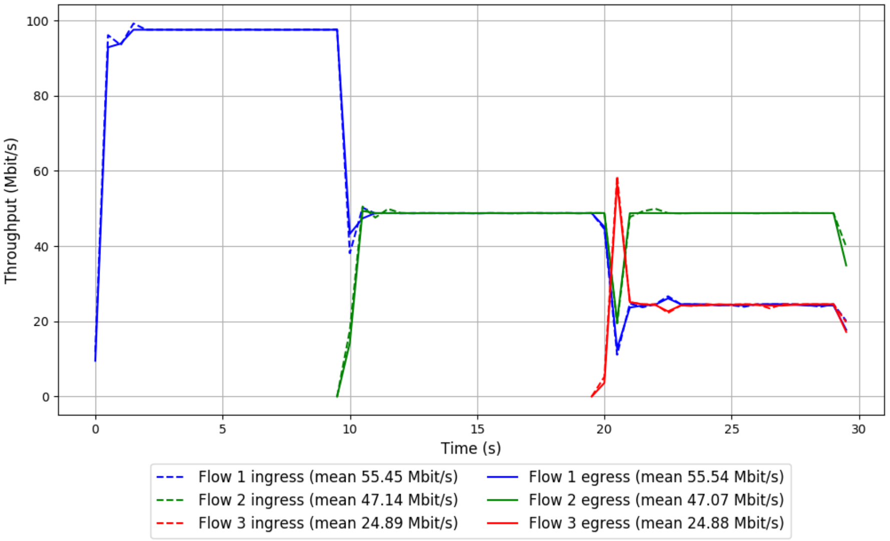


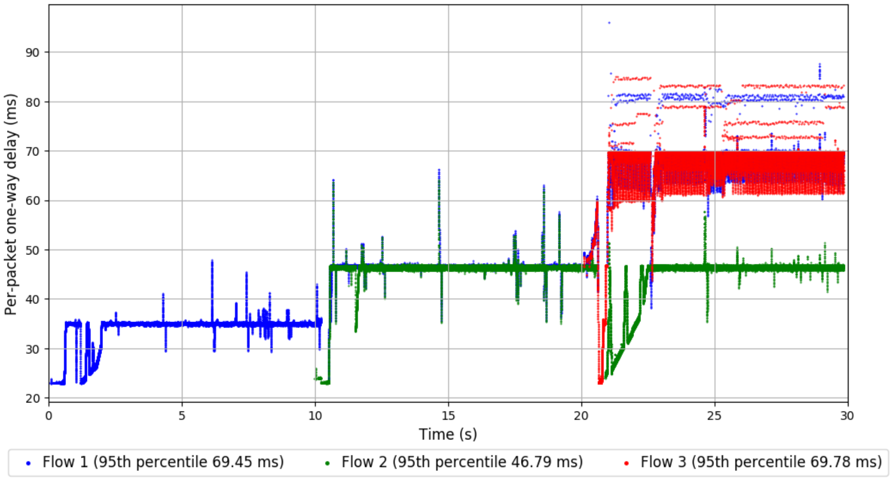
```
Run 2: Statistics of TCP BBR

Start at: 2017-09-07 22:28:08
End at: 2017-09-07 22:28:38
Local clock offset: 0.921 ms
Remote clock offset: -0.751 ms

# Below is generated by plot.py at 2017-09-08 05:16:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 69.501 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 55.54 Mbit/s
95th percentile per-packet one-way delay: 69.450 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 47.07 Mbit/s
95th percentile per-packet one-way delay: 46.788 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 24.88 Mbit/s
95th percentile per-packet one-way delay: 69.780 ms
Loss rate: 1.20%
```

Run 2: Report of TCP BBR — Data Link



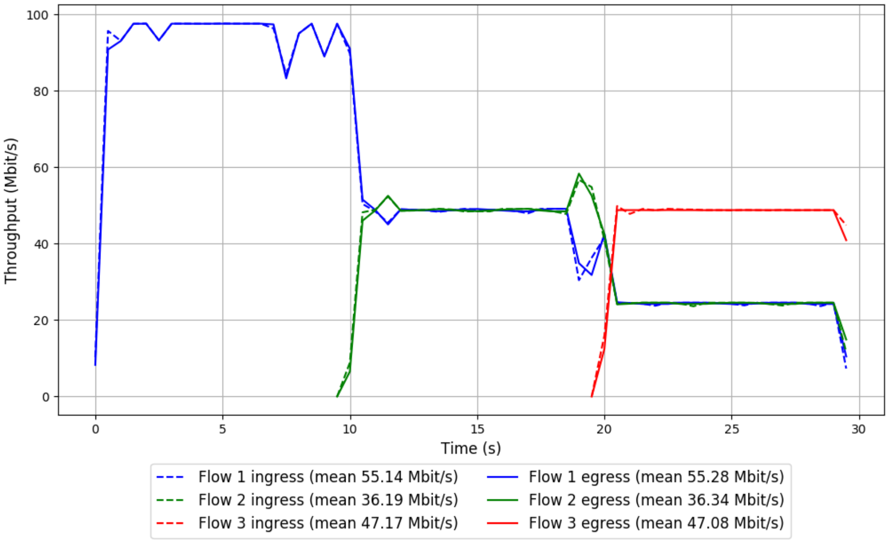


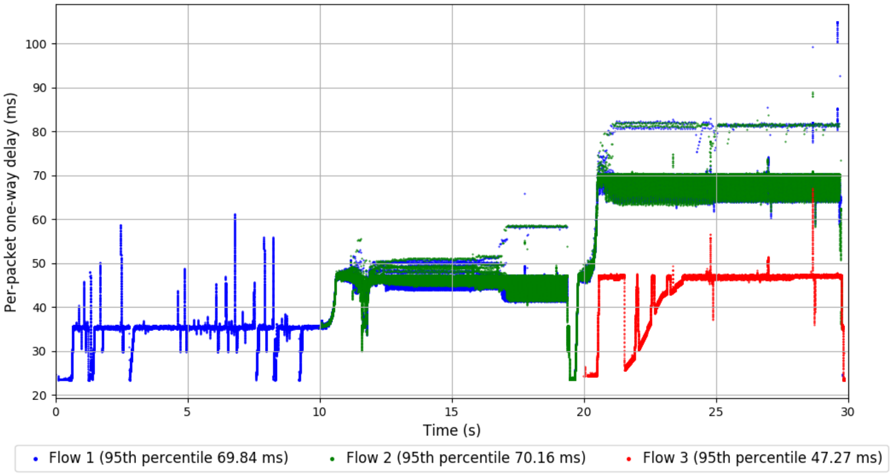
```
Run 3: Statistics of TCP BBR

Start at: 2017-09-07 22:49:13
End at: 2017-09-07 22:49:43
Local clock offset: 0.794 ms
Remote clock offset: -1.137 ms

# Below is generated by plot.py at 2017-09-08 05:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.05 Mbit/s
95th percentile per-packet one-way delay: 69.961 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 69.845 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.34 Mbit/s
95th percentile per-packet one-way delay: 70.159 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 47.08 Mbit/s
95th percentile per-packet one-way delay: 47.272 ms
Loss rate: 0.91%
```

Run 3: Report of TCP BBR — Data Link



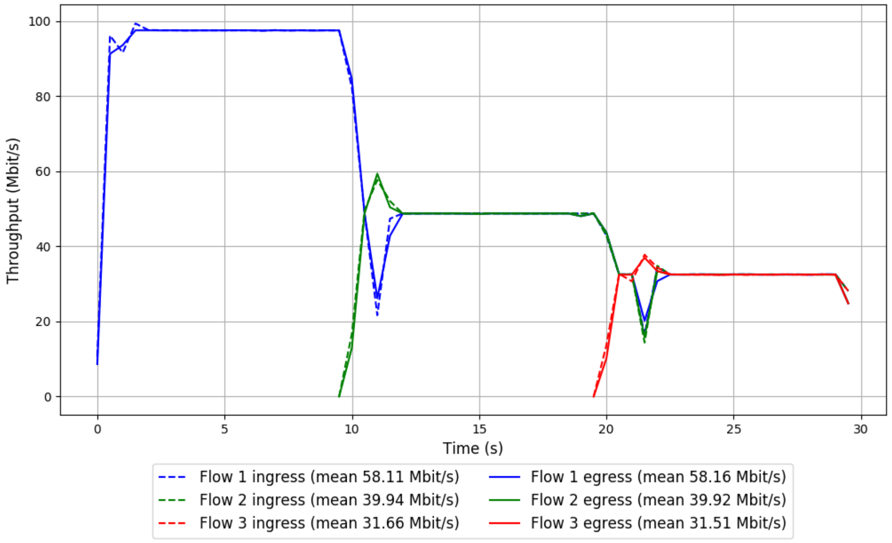


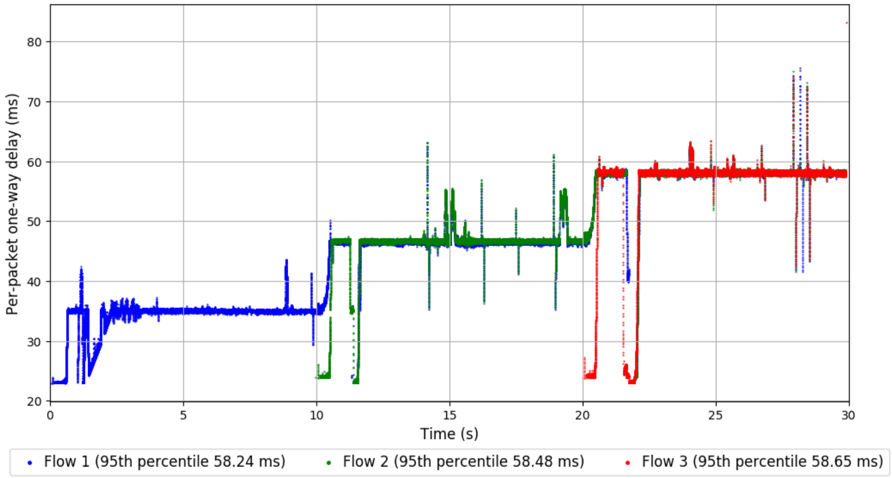
```
Run 4: Statistics of TCP BBR

Start at: 2017-09-07 23:10:20
End at: 2017-09-07 23:10:50
Local clock offset: 0.829 ms
Remote clock offset: -0.708 ms

# Below is generated by plot.py at 2017-09-08 05:16:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.15 Mbit/s
95th percentile per-packet one-way delay: 58.417 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 58.16 Mbit/s
95th percentile per-packet one-way delay: 58.242 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 58.476 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 31.51 Mbit/s
95th percentile per-packet one-way delay: 58.649 ms
Loss rate: 1.12%
```

Run 4: Report of TCP BBR — Data Link



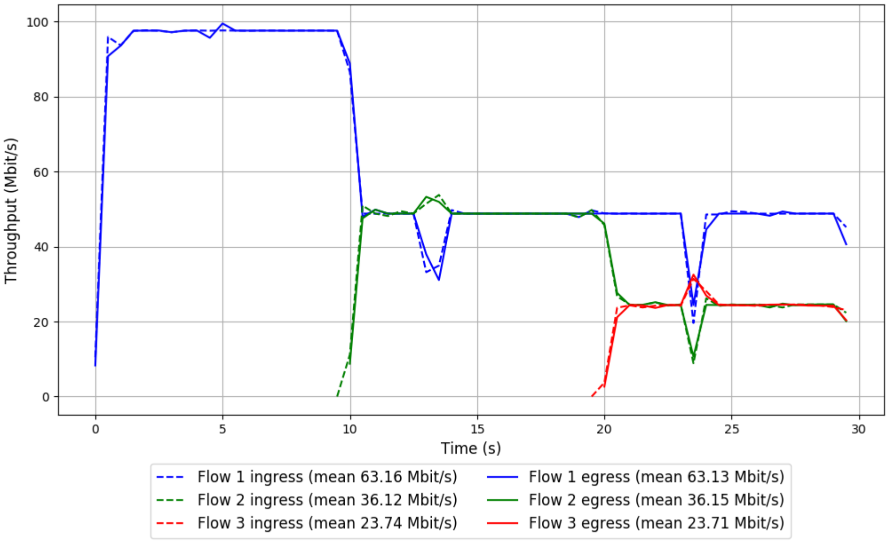


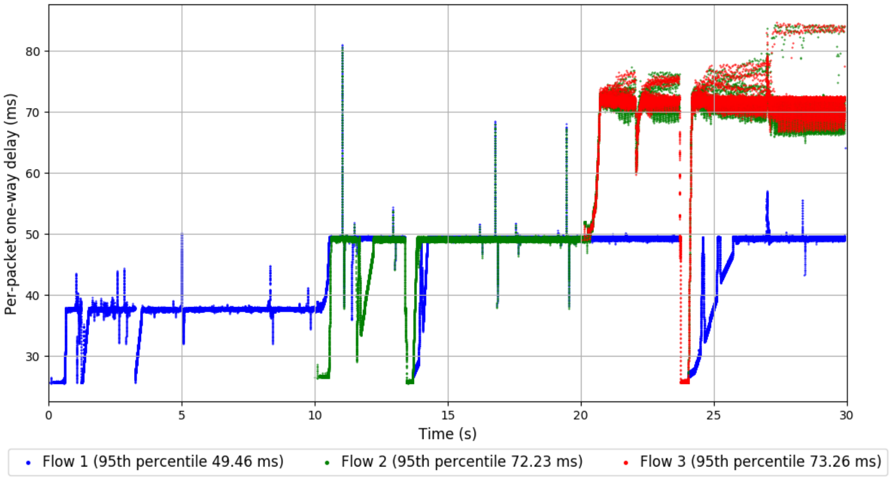
```
Run 5: Statistics of TCP BBR

Start at: 2017-09-07 23:31:20
End at: 2017-09-07 23:31:50
Local clock offset: 0.677 ms
Remote clock offset: -3.35 ms

# Below is generated by plot.py at 2017-09-08 05:17:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.01 Mbit/s
95th percentile per-packet one-way delay: 72.092 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 63.13 Mbit/s
95th percentile per-packet one-way delay: 49.460 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 36.15 Mbit/s
95th percentile per-packet one-way delay: 72.233 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 23.71 Mbit/s
95th percentile per-packet one-way delay: 73.264 ms
Loss rate: 1.27%
```

Run 5: Report of TCP BBR — Data Link



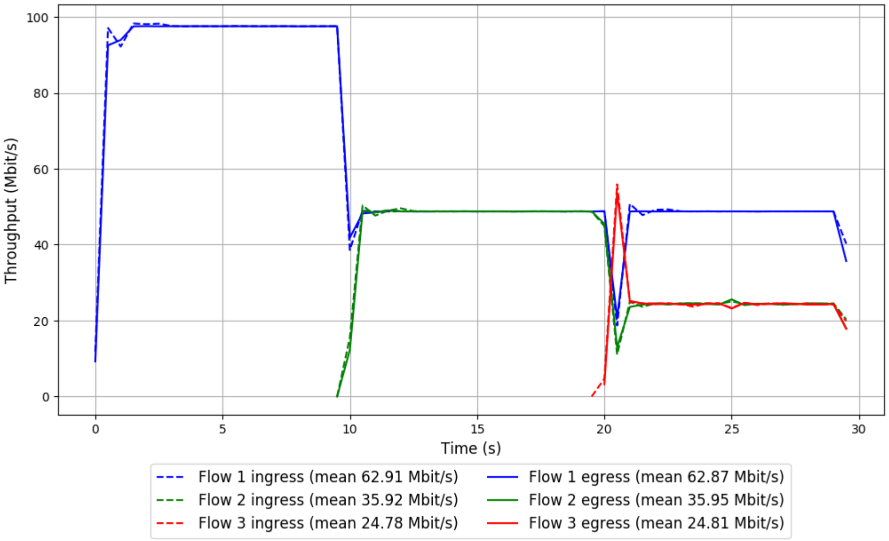


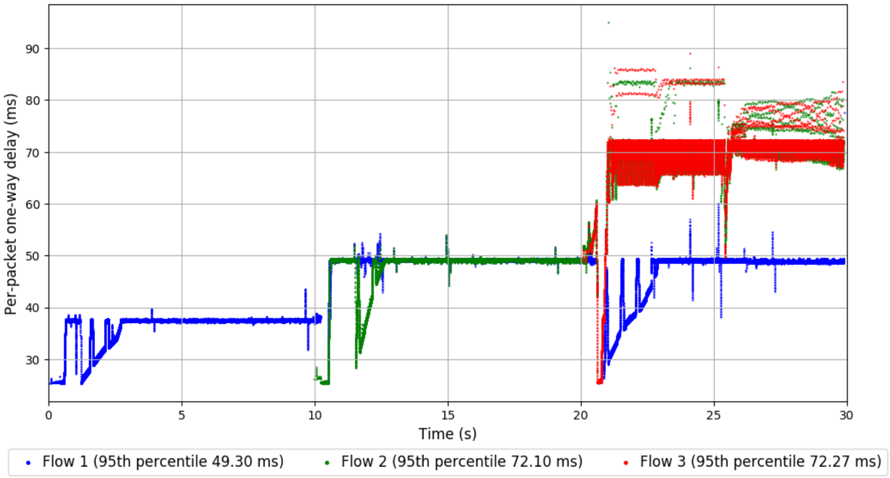
```
Run 6: Statistics of TCP BBR

Start at: 2017-09-07 23:52:18
End at: 2017-09-07 23:52:48
Local clock offset: 0.585 ms
Remote clock offset: -2.448 ms

# Below is generated by plot.py at 2017-09-08 05:17:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 71.962 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 62.87 Mbit/s
95th percentile per-packet one-way delay: 49.299 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 35.95 Mbit/s
95th percentile per-packet one-way delay: 72.101 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 24.81 Mbit/s
95th percentile per-packet one-way delay: 72.267 ms
Loss rate: 1.14%
```

Run 6: Report of TCP BBR — Data Link



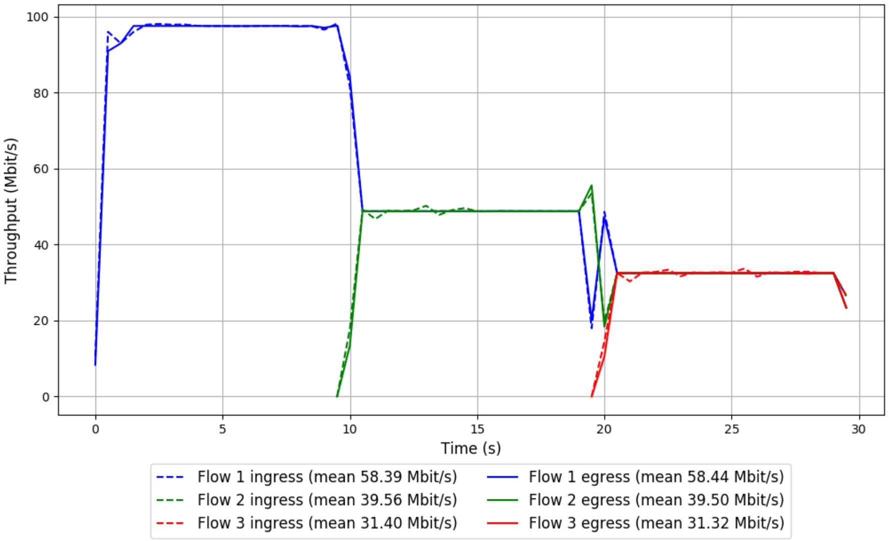


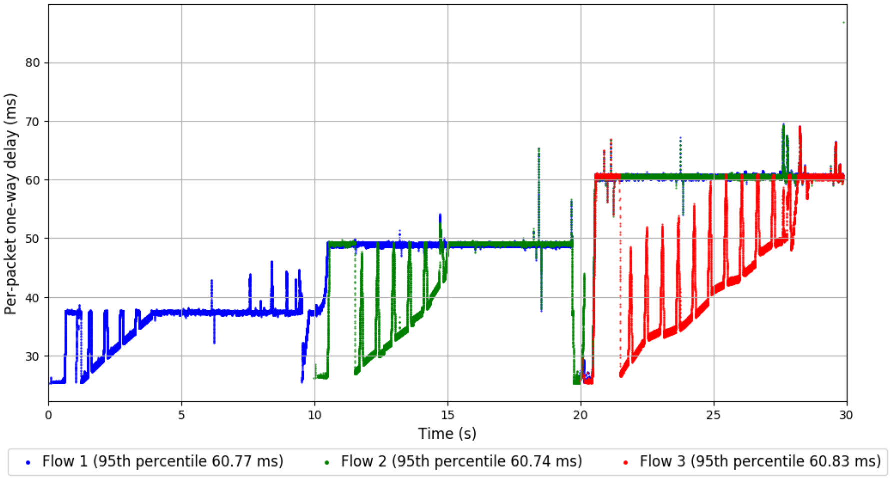
```
Run 7: Statistics of TCP BBR

Start at: 2017-09-08 00:13:29
End at: 2017-09-08 00:13:59
Local clock offset: 0.466 ms
Remote clock offset: -1.778 ms

# Below is generated by plot.py at 2017-09-08 05:17:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.11 Mbit/s
95th percentile per-packet one-way delay: 60.770 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 58.44 Mbit/s
95th percentile per-packet one-way delay: 60.769 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 39.50 Mbit/s
95th percentile per-packet one-way delay: 60.741 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 31.32 Mbit/s
95th percentile per-packet one-way delay: 60.832 ms
Loss rate: 1.17%
```

Run 7: Report of TCP BBR — Data Link



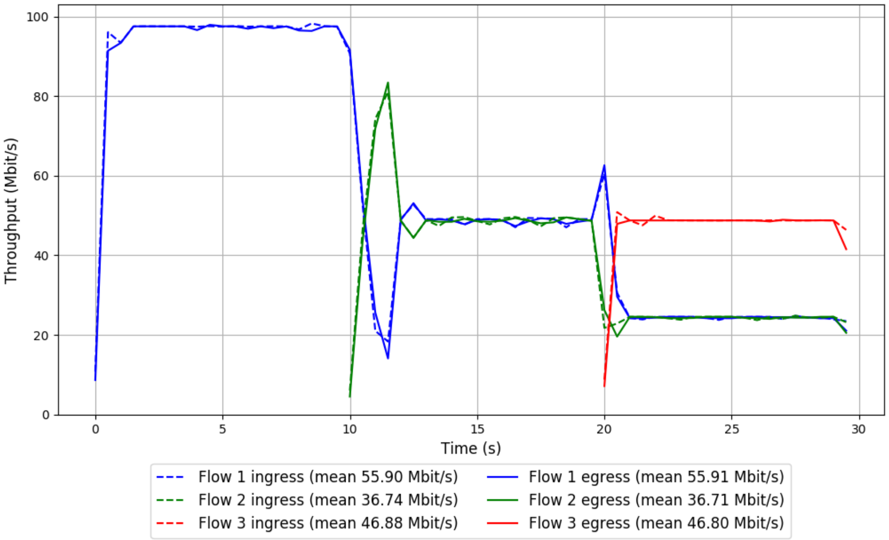


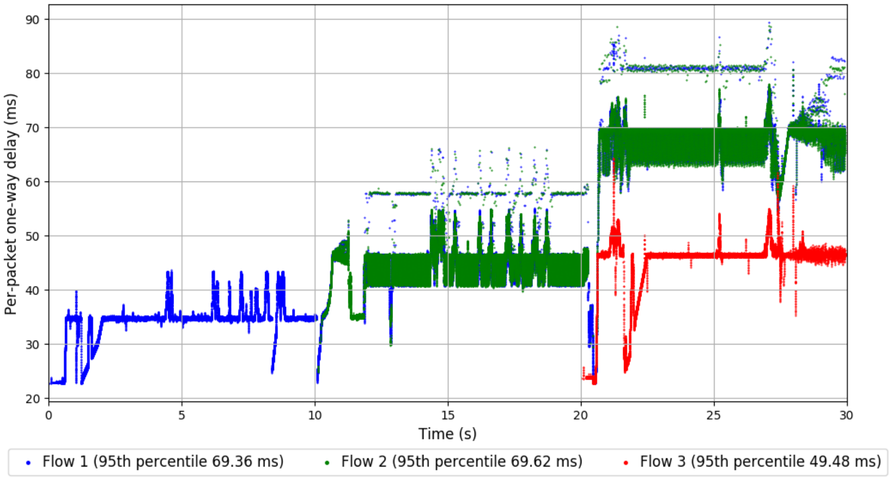
```
Run 8: Statistics of TCP BBR

Start at: 2017-09-08 00:34:32
End at: 2017-09-08 00:35:02
Local clock offset: 0.27 ms
Remote clock offset: 1.175 ms

# Below is generated by plot.py at 2017-09-08 05:17:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 69.417 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 55.91 Mbit/s
95th percentile per-packet one-way delay: 69.355 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 36.71 Mbit/s
95th percentile per-packet one-way delay: 69.620 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 46.80 Mbit/s
95th percentile per-packet one-way delay: 49.478 ms
Loss rate: 1.01%
```

Run 8: Report of TCP BBR — Data Link



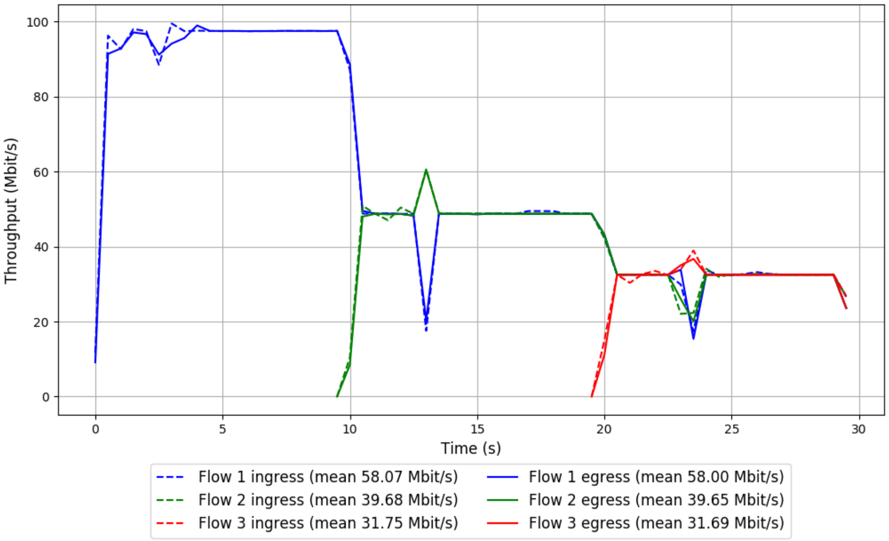


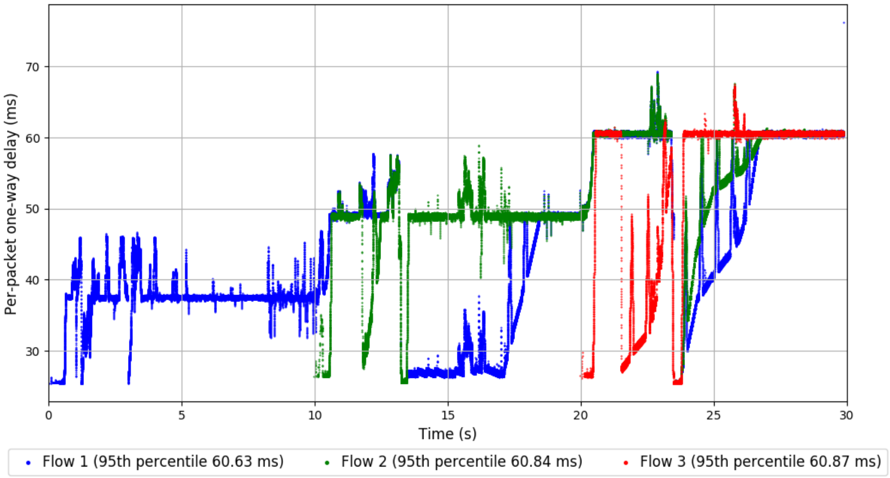
```
Run 9: Statistics of TCP BBR

Start at: 2017-09-08 00:55:26
End at: 2017-09-08 00:55:56
Local clock offset: 0.255 ms
Remote clock offset: -1.381 ms

# Below is generated by plot.py at 2017-09-08 05:17:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.93 Mbit/s
95th percentile per-packet one-way delay: 60.796 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 60.626 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 39.65 Mbit/s
95th percentile per-packet one-way delay: 60.837 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 60.868 ms
Loss rate: 1.12%
```

Run 9: Report of TCP BBR — Data Link



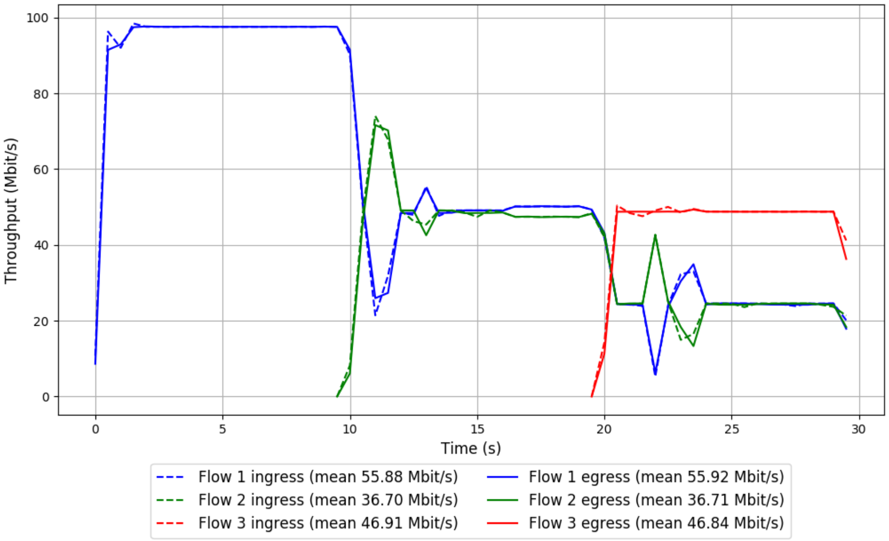


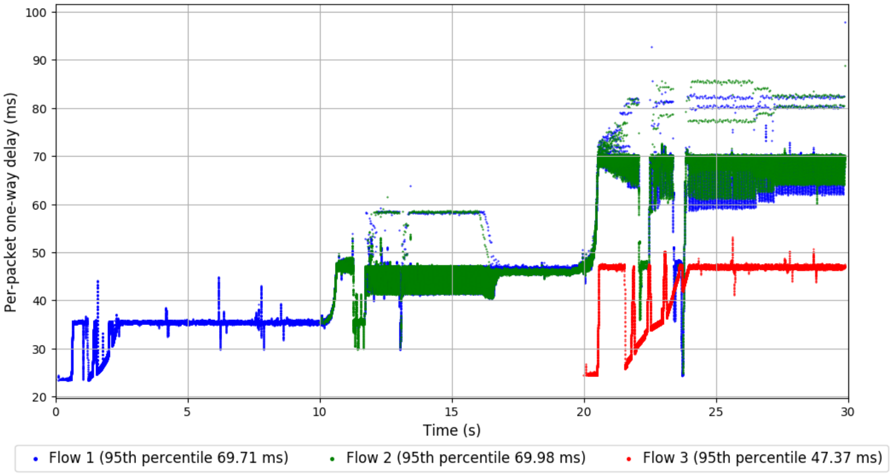
```
Run 10: Statistics of TCP BBR

Start at: 2017-09-08 01:16:16
End at: 2017-09-08 01:16:46
Local clock offset: 0.115 ms
Remote clock offset: 0.199 ms

# Below is generated by plot.py at 2017-09-08 05:17:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.88 Mbit/s
95th percentile per-packet one-way delay: 69.784 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 55.92 Mbit/s
95th percentile per-packet one-way delay: 69.709 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 36.71 Mbit/s
95th percentile per-packet one-way delay: 69.982 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 46.84 Mbit/s
95th percentile per-packet one-way delay: 47.373 ms
Loss rate: 1.01%
```

Run 10: Report of TCP BBR — Data Link



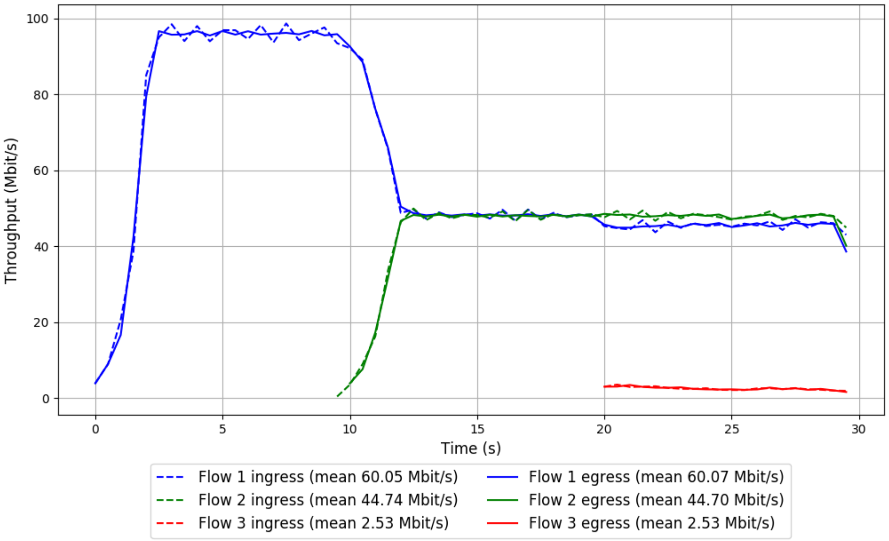


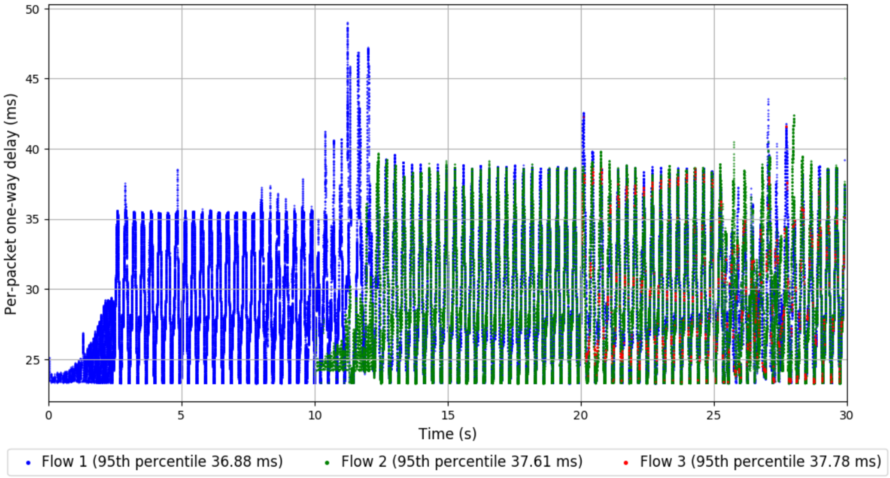
```
Run 1: Statistics of CalibratedKoho

Start at: 2017-09-07 21:53:07
End at: 2017-09-07 21:53:37
Local clock offset: 0.862 ms
Remote clock offset: -1.344 ms

# Below is generated by plot.py at 2017-09-08 05:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.65 Mbit/s
95th percentile per-packet one-way delay: 37.263 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 60.07 Mbit/s
95th percentile per-packet one-way delay: 36.876 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 44.70 Mbit/s
95th percentile per-packet one-way delay: 37.610 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 37.784 ms
Loss rate: 0.62%
```

Run 1: Report of CalibratedKoho — Data Link



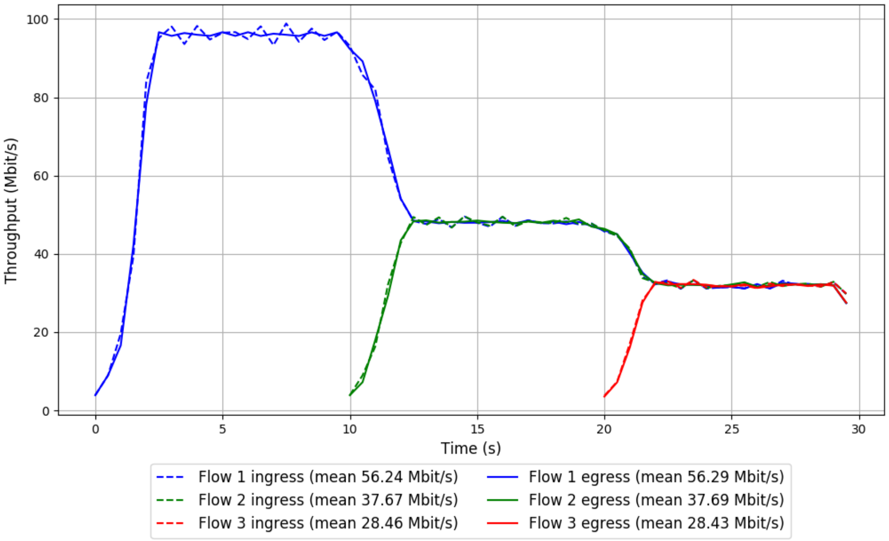


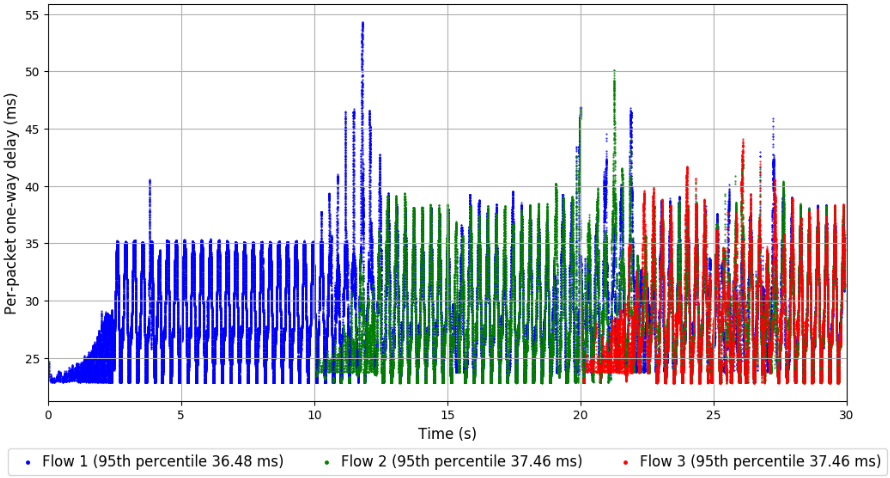
```
Run 2: Statistics of CalibratedKoho

Start at: 2017-09-07 22:14:08
End at: 2017-09-07 22:14:38
Local clock offset: 0.836 ms
Remote clock offset: -0.908 ms

# Below is generated by plot.py at 2017-09-08 05:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 37.015 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 56.29 Mbit/s
95th percentile per-packet one-way delay: 36.485 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 37.69 Mbit/s
95th percentile per-packet one-way delay: 37.462 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 28.43 Mbit/s
95th percentile per-packet one-way delay: 37.460 ms
Loss rate: 0.82%
```

Run 2: Report of CalibratedKoho — Data Link



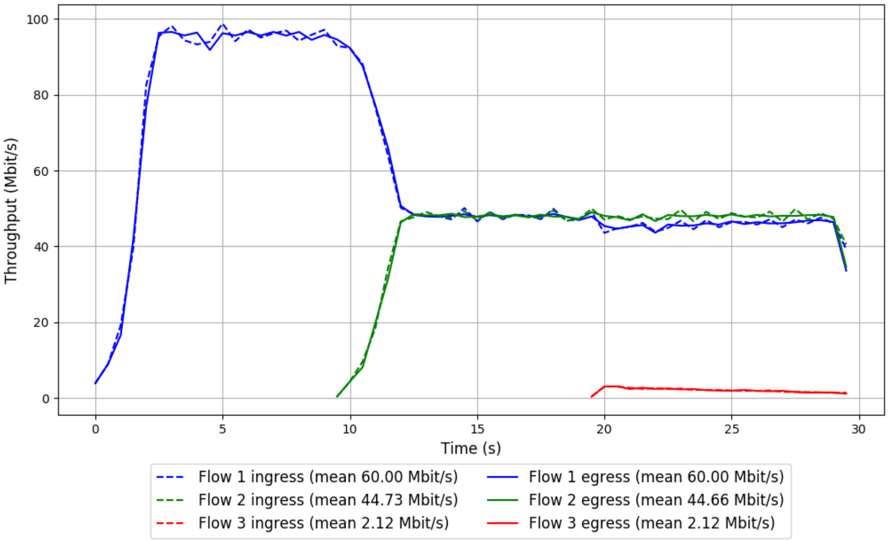


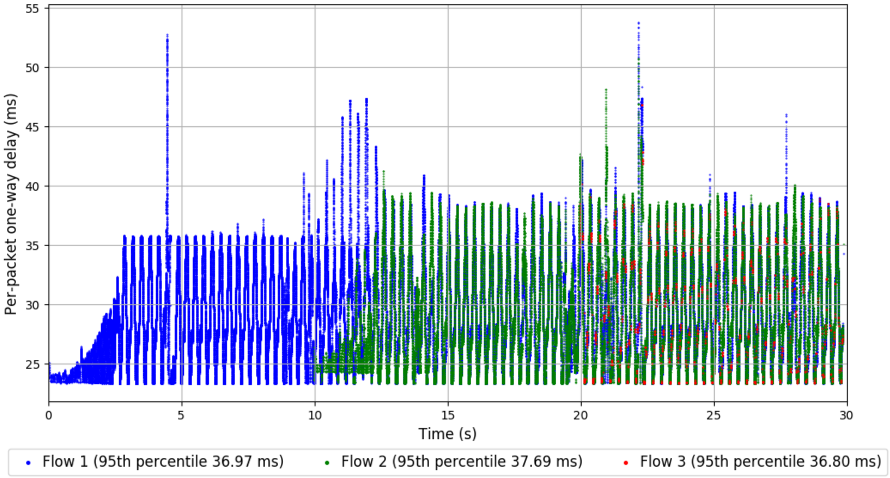
```
Run 3: Statistics of CalibratedKoho

Start at: 2017-09-07 22:35:20
End at: 2017-09-07 22:35:50
Local clock offset: 0.85 ms
Remote clock offset: -1.158 ms

# Below is generated by plot.py at 2017-09-08 05:17:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.48 Mbit/s
95th percentile per-packet one-way delay: 37.319 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 60.00 Mbit/s
95th percentile per-packet one-way delay: 36.973 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 44.66 Mbit/s
95th percentile per-packet one-way delay: 37.688 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 36.798 ms
Loss rate: 0.68%
```

Run 3: Report of CalibratedKoho — Data Link



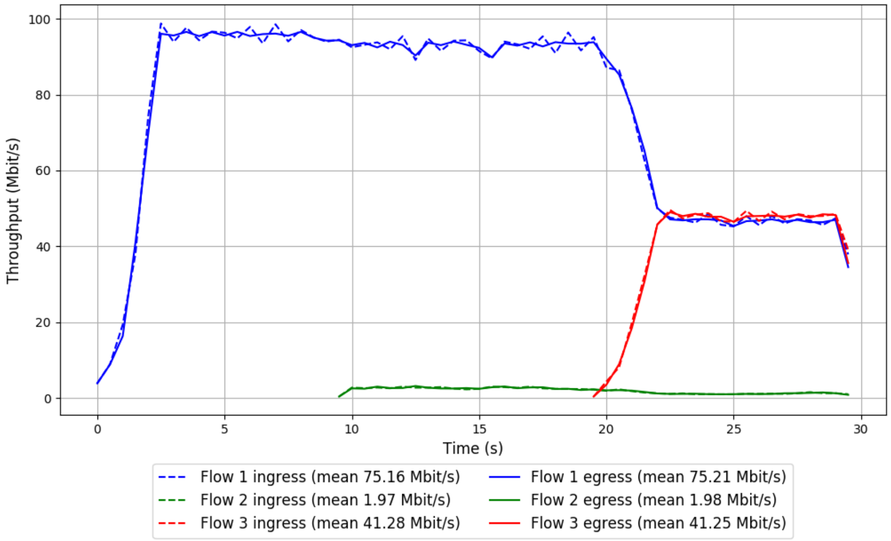


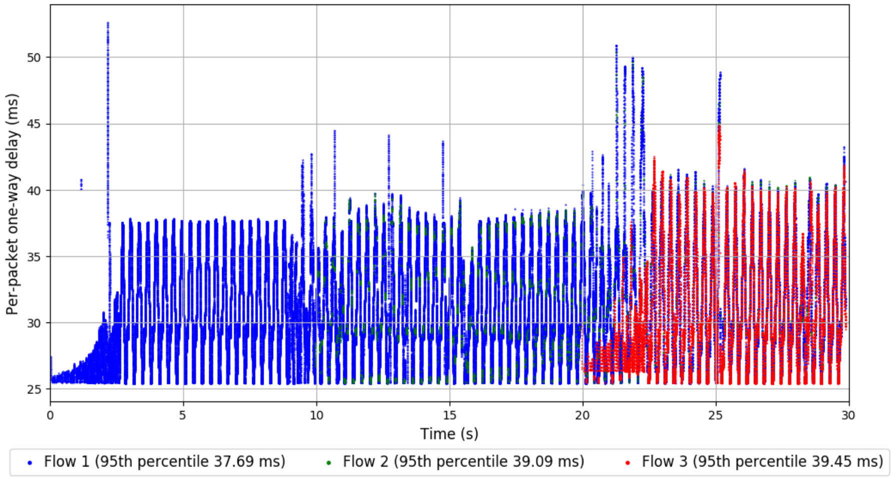
```
Run 4: Statistics of CalibratedKoho

Start at: 2017-09-07 22:56:17
End at: 2017-09-07 22:56:47
Local clock offset: 0.78 ms
Remote clock offset: -3.108 ms

# Below is generated by plot.py at 2017-09-08 05:17:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.18 Mbit/s
95th percentile per-packet one-way delay: 38.032 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 75.21 Mbit/s
95th percentile per-packet one-way delay: 37.685 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 39.089 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 41.25 Mbit/s
95th percentile per-packet one-way delay: 39.451 ms
Loss rate: 0.81%
```

Run 4: Report of CalibratedKoho — Data Link



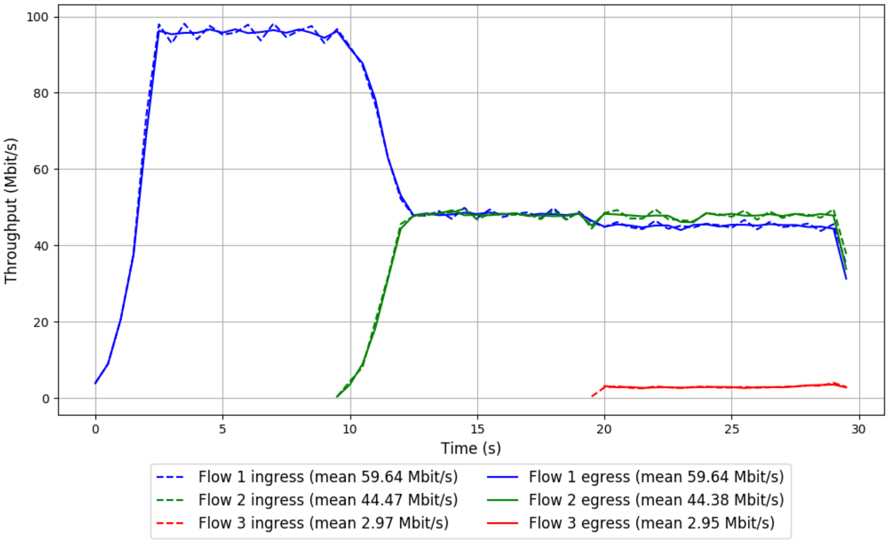


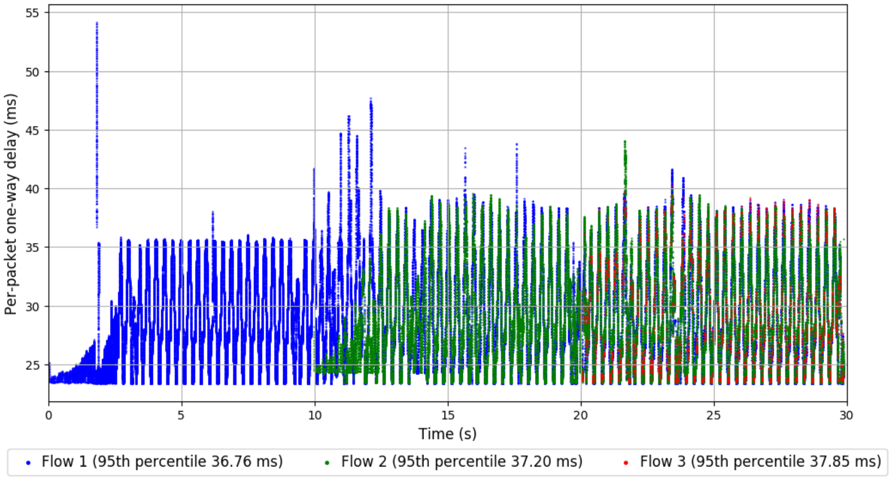
```
Run 5: Statistics of CalibratedKoho

Start at: 2017-09-07 23:17:26
End at: 2017-09-07 23:17:56
Local clock offset: 0.713 ms
Remote clock offset: -1.311 ms

# Below is generated by plot.py at 2017-09-08 05:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.18 Mbit/s
95th percentile per-packet one-way delay: 36.989 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 36.756 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 44.38 Mbit/s
95th percentile per-packet one-way delay: 37.201 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 2.95 Mbit/s
95th percentile per-packet one-way delay: 37.848 ms
Loss rate: 1.22%
```

Run 5: Report of CalibratedKoho — Data Link



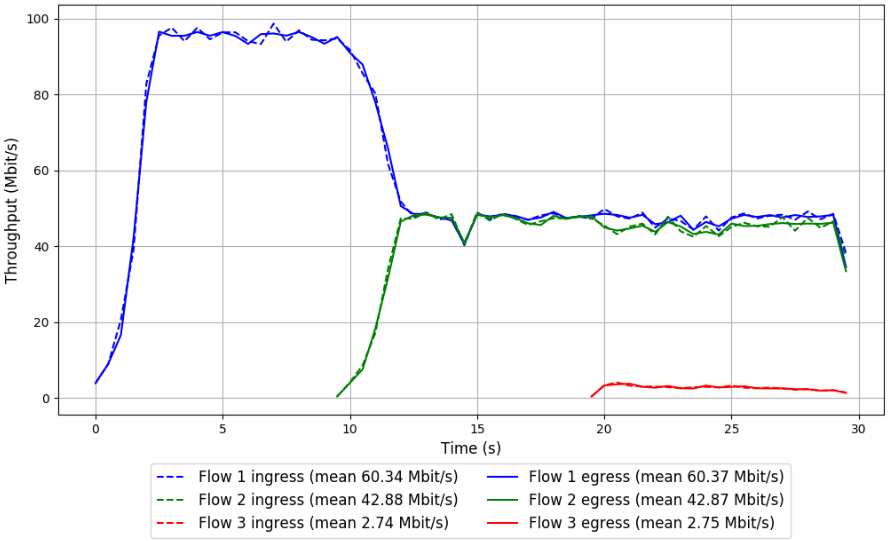


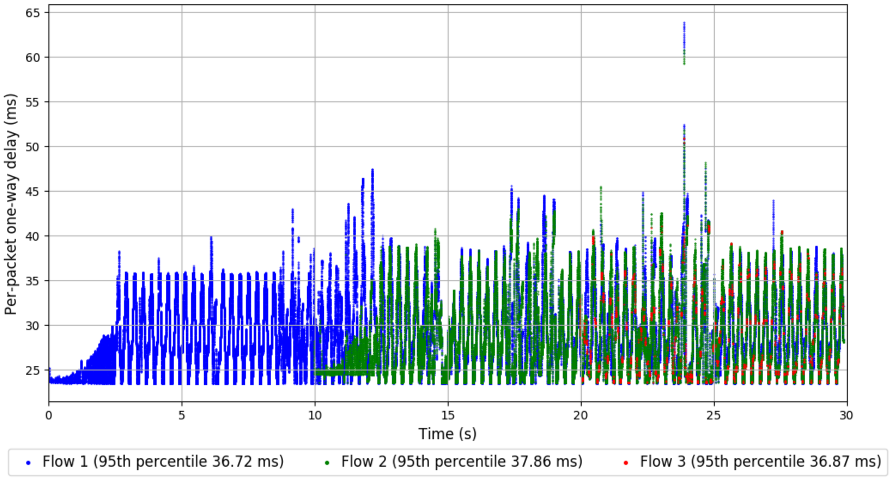
```
Run 6: Statistics of CalibratedKoho

Start at: 2017-09-07 23:38:27
End at: 2017-09-07 23:38:57
Local clock offset: 0.738 ms
Remote clock offset: -1.118 ms

# Below is generated by plot.py at 2017-09-08 05:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.87 Mbit/s
95th percentile per-packet one-way delay: 37.280 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 60.37 Mbit/s
95th percentile per-packet one-way delay: 36.724 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 42.87 Mbit/s
95th percentile per-packet one-way delay: 37.856 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 36.873 ms
Loss rate: 0.49%
```

Run 6: Report of CalibratedKoho — Data Link



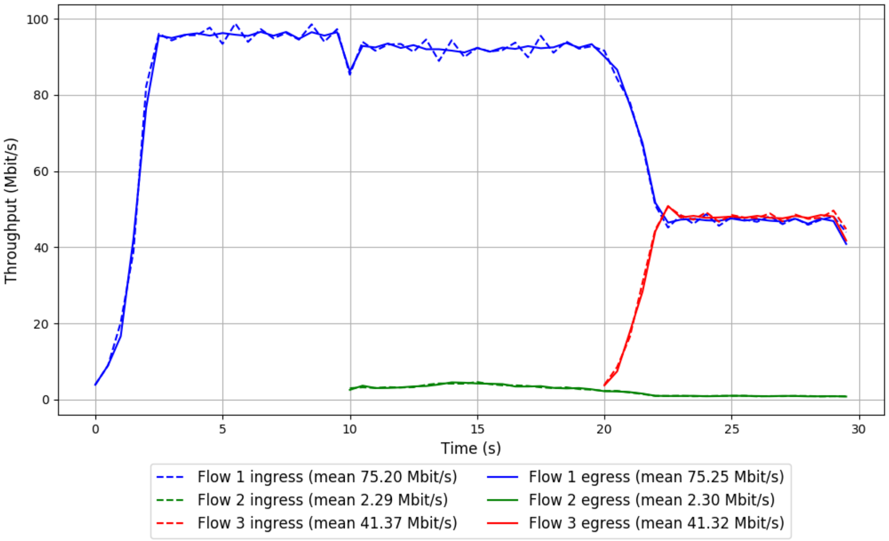


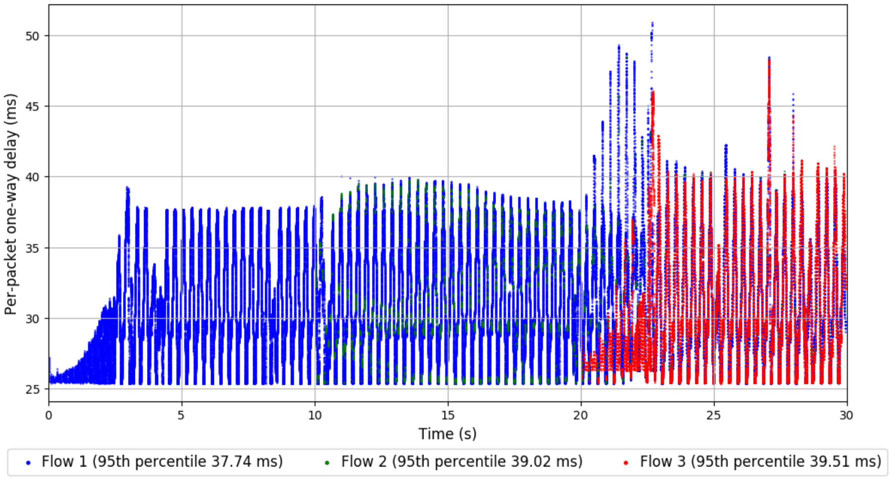
```
Run 7: Statistics of CalibratedKoho

Start at: 2017-09-07 23:59:26
End at: 2017-09-07 23:59:56
Local clock offset: 0.535 ms
Remote clock offset: -2.264 ms

# Below is generated by plot.py at 2017-09-08 05:18:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.44 Mbit/s
95th percentile per-packet one-way delay: 38.126 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 75.25 Mbit/s
95th percentile per-packet one-way delay: 37.740 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 39.018 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 41.32 Mbit/s
95th percentile per-packet one-way delay: 39.510 ms
Loss rate: 0.83%
```

Run 7: Report of CalibratedKoho — Data Link



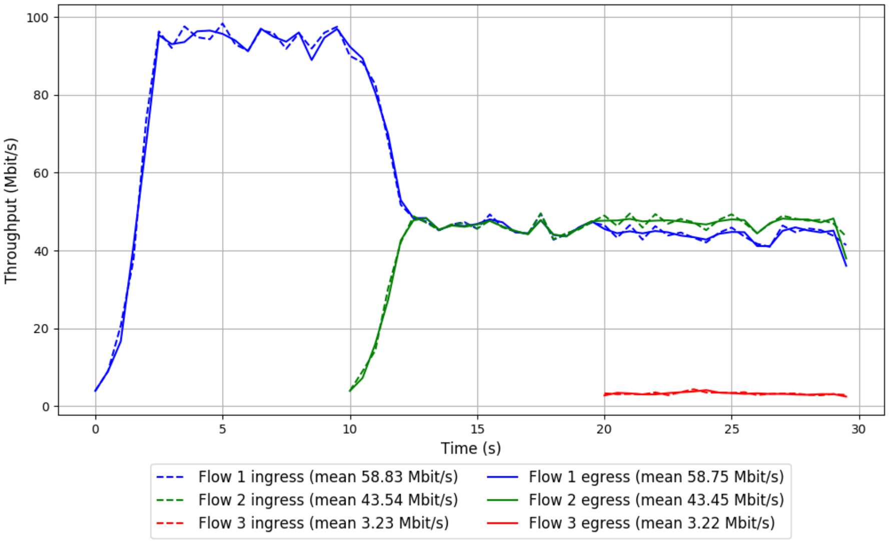


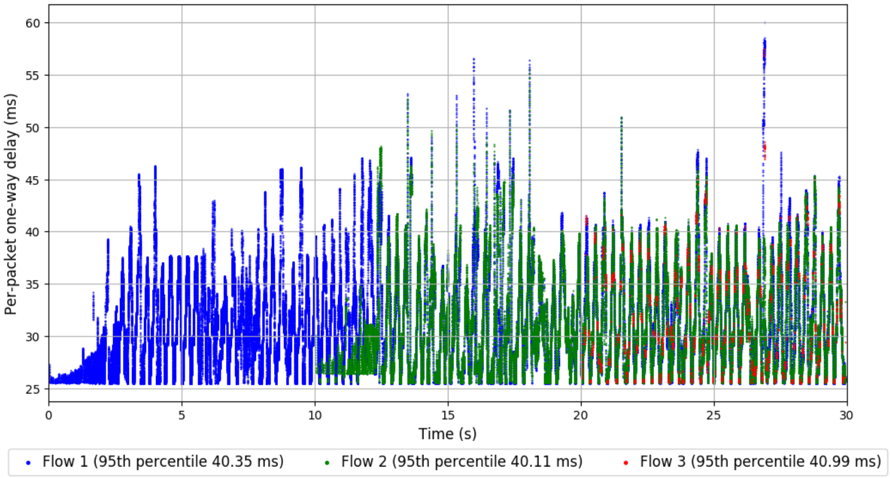
```
Run 8: Statistics of CalibratedKoho

Start at: 2017-09-08 00:20:39
End at: 2017-09-08 00:21:09
Local clock offset: 0.479 ms
Remote clock offset: -1.717 ms

# Below is generated by plot.py at 2017-09-08 05:18:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 40.266 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 58.75 Mbit/s
95th percentile per-packet one-way delay: 40.353 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 43.45 Mbit/s
95th percentile per-packet one-way delay: 40.113 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 40.992 ms
Loss rate: 0.67%
```

Run 8: Report of CalibratedKoho — Data Link



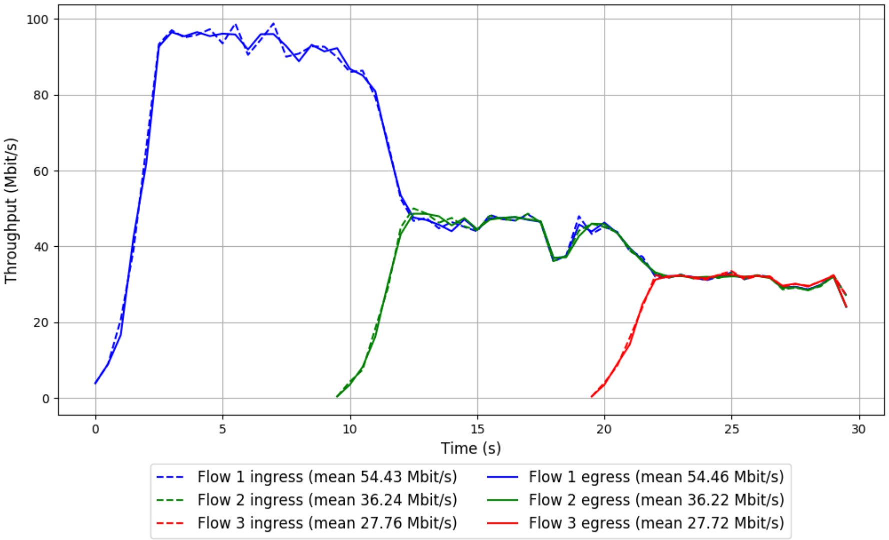


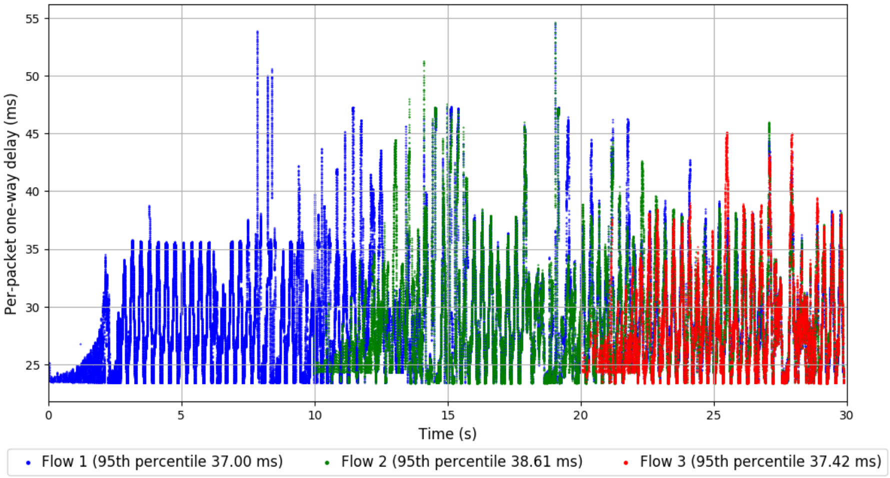
```
Run 9: Statistics of CalibratedKoho

Start at: 2017-09-08 00:41:41
End at: 2017-09-08 00:42:11
Local clock offset: 0.311 ms
Remote clock offset: 0.791 ms

# Below is generated by plot.py at 2017-09-08 05:18:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 37.506 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 54.46 Mbit/s
95th percentile per-packet one-way delay: 36.999 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 36.22 Mbit/s
95th percentile per-packet one-way delay: 38.614 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 27.72 Mbit/s
95th percentile per-packet one-way delay: 37.417 ms
Loss rate: 0.85%
```

Run 9: Report of CalibratedKoho — Data Link



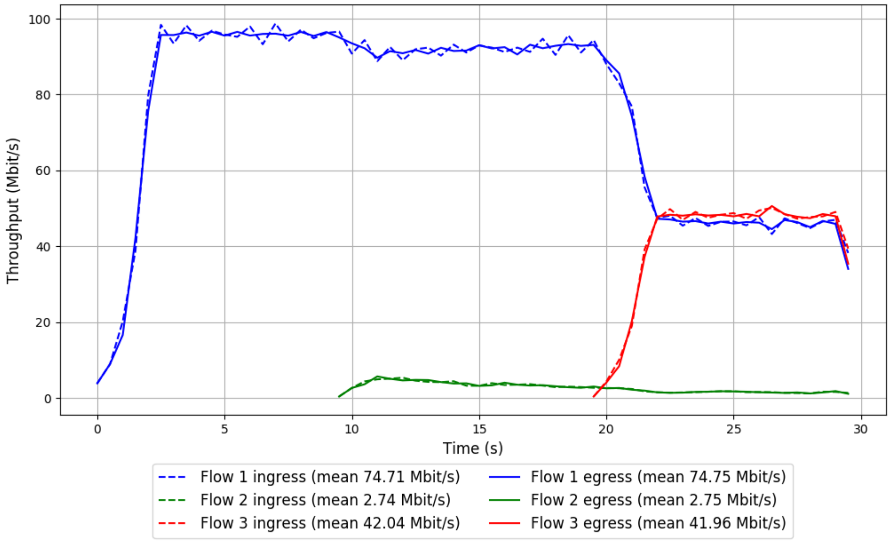


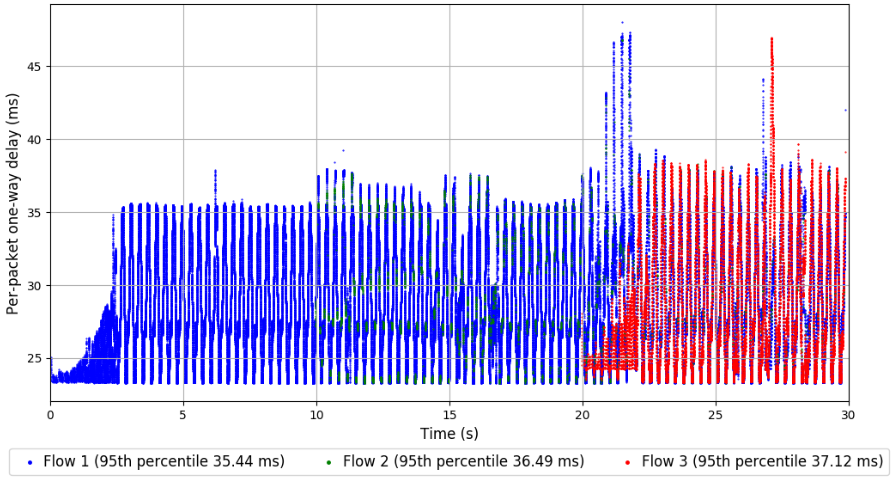
```
Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 01:02:29
End at: 2017-09-08 01:02:59
Local clock offset: 0.113 ms
Remote clock offset: 0.511 ms

# Below is generated by plot.py at 2017-09-08 05:18:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.48 Mbit/s
95th percentile per-packet one-way delay: 35.614 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 74.75 Mbit/s
95th percentile per-packet one-way delay: 35.440 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 36.489 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 41.96 Mbit/s
95th percentile per-packet one-way delay: 37.120 ms
Loss rate: 0.89%
```

Run 10: Report of CalibratedKoho — Data Link



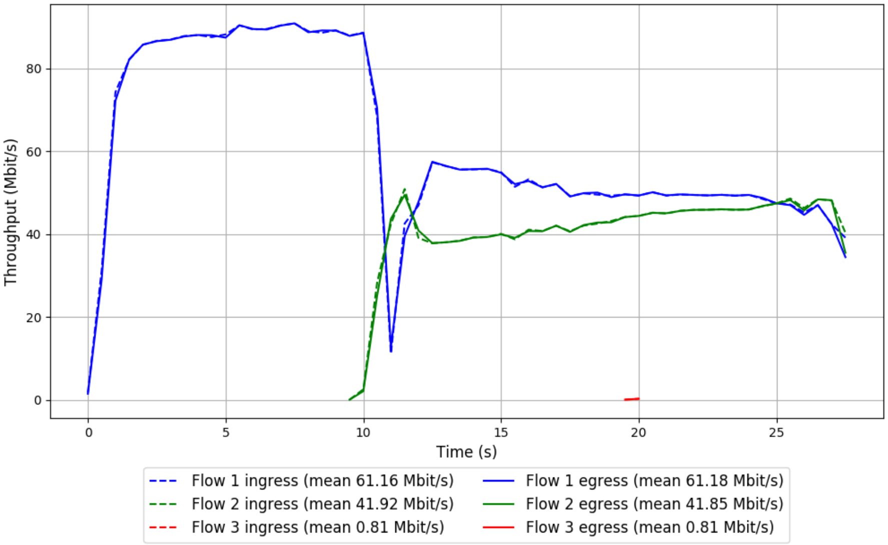


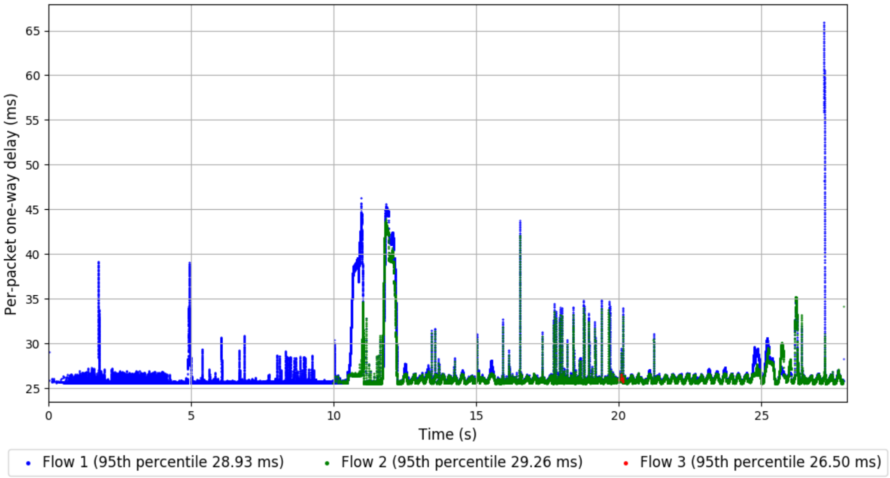
```
Run 1: Statistics of Copa

Start at: 2017-09-07 21:59:58
End at: 2017-09-07 22:00:28
Local clock offset: 0.87 ms
Remote clock offset: -3.545 ms

# Below is generated by plot.py at 2017-09-08 05:18:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.07 Mbit/s
95th percentile per-packet one-way delay: 29.075 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 61.18 Mbit/s
95th percentile per-packet one-way delay: 28.935 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 41.85 Mbit/s
95th percentile per-packet one-way delay: 29.264 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 26.502 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link



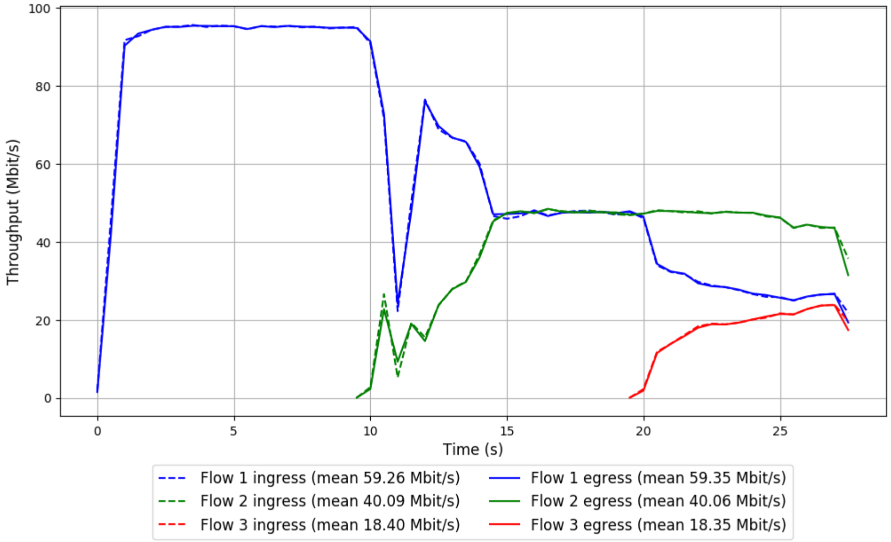


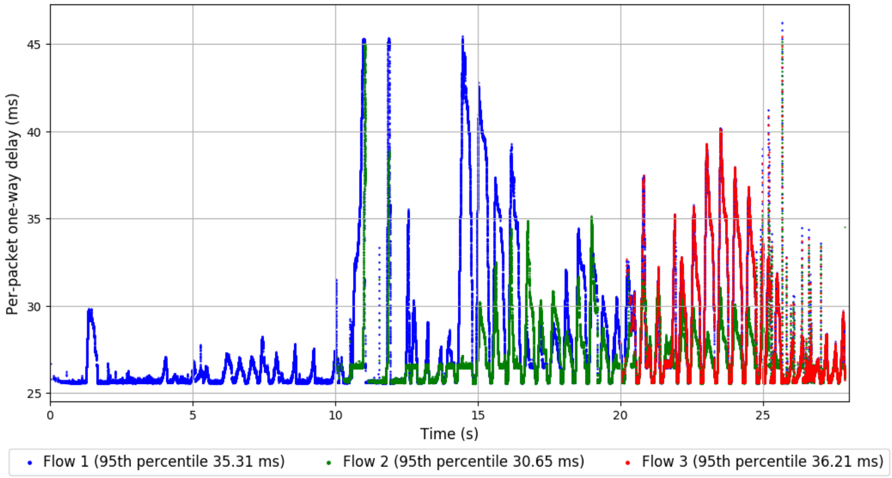
```
Run 2: Statistics of Copa

Start at: 2017-09-07 22:21:07
End at: 2017-09-07 22:21:37
Local clock offset: 0.937 ms
Remote clock offset: -3.458 ms

# Below is generated by plot.py at 2017-09-08 05:18:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.29 Mbit/s
95th percentile per-packet one-way delay: 34.452 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 59.35 Mbit/s
95th percentile per-packet one-way delay: 35.308 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.06 Mbit/s
95th percentile per-packet one-way delay: 30.654 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 36.211 ms
Loss rate: 1.21%
```

Run 2: Report of Copa — Data Link



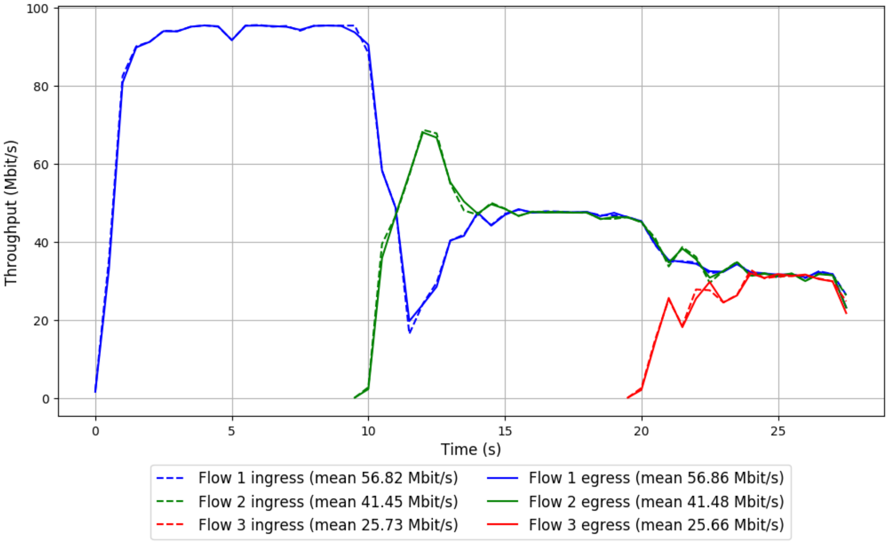


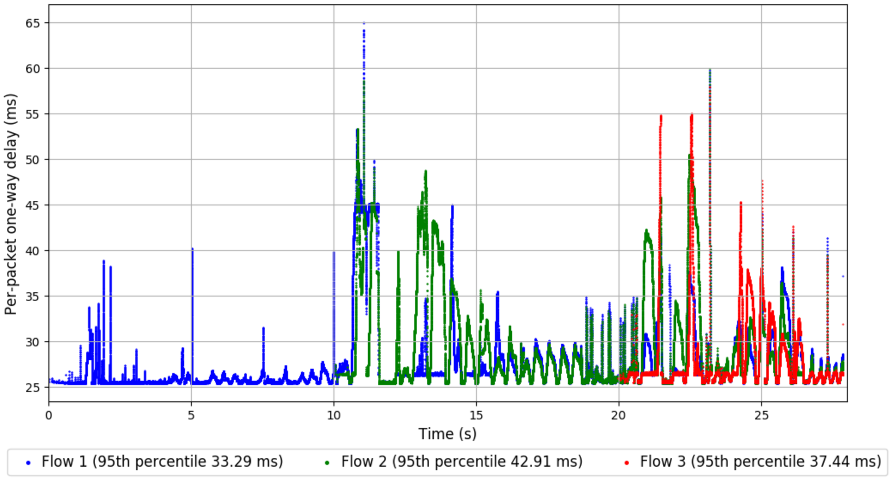
```
Run 3: Statistics of Copa

Start at: 2017-09-07 22:42:13
End at: 2017-09-07 22:42:43
Local clock offset: 0.8 ms
Remote clock offset: -3.215 ms

# Below is generated by plot.py at 2017-09-08 05:19:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.78 Mbit/s
95th percentile per-packet one-way delay: 40.130 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 56.86 Mbit/s
95th percentile per-packet one-way delay: 33.294 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 41.48 Mbit/s
95th percentile per-packet one-way delay: 42.915 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 25.66 Mbit/s
95th percentile per-packet one-way delay: 37.439 ms
Loss rate: 1.13%
```

Run 3: Report of Copa — Data Link



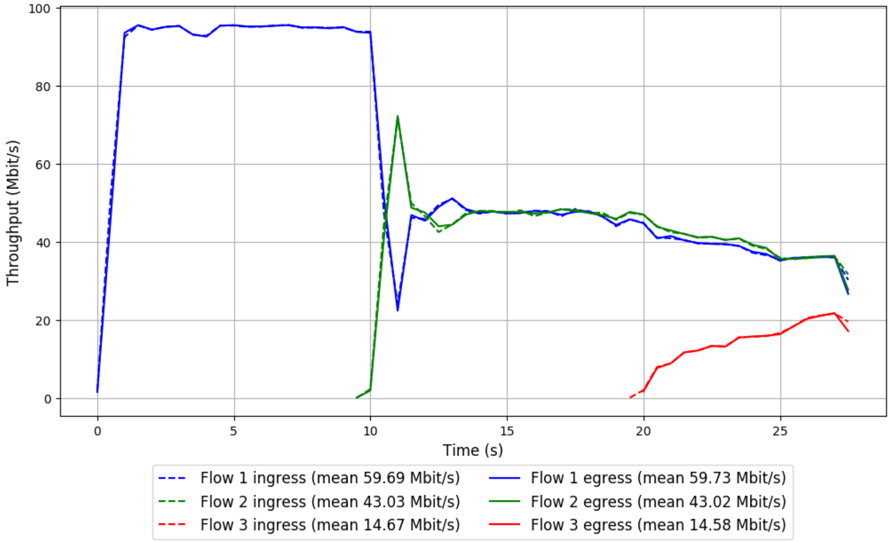


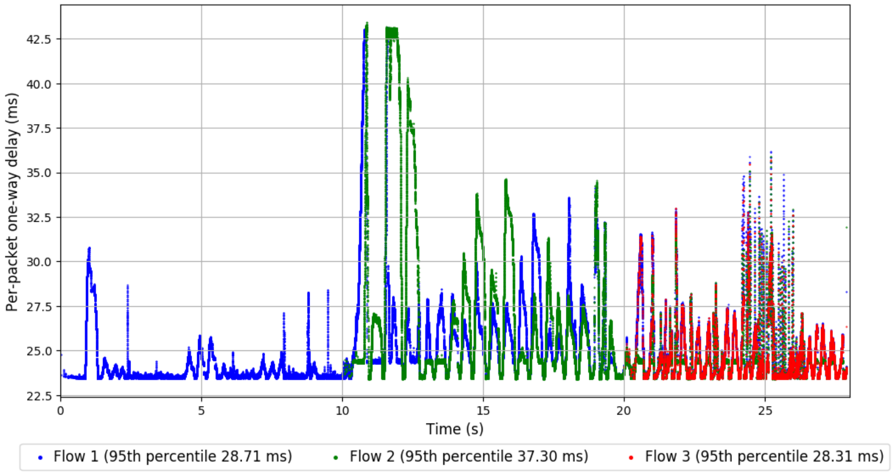
```
Run 4: Statistics of Copa

Start at: 2017-09-07 23:03:10
End at: 2017-09-07 23:03:40
Local clock offset: 0.84 ms
Remote clock offset: -1.011 ms

# Below is generated by plot.py at 2017-09-08 05:19:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.48 Mbit/s
95th percentile per-packet one-way delay: 30.801 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 59.73 Mbit/s
95th percentile per-packet one-way delay: 28.713 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 43.02 Mbit/s
95th percentile per-packet one-way delay: 37.299 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 14.58 Mbit/s
95th percentile per-packet one-way delay: 28.314 ms
Loss rate: 1.51%
```

Run 4: Report of Copa — Data Link



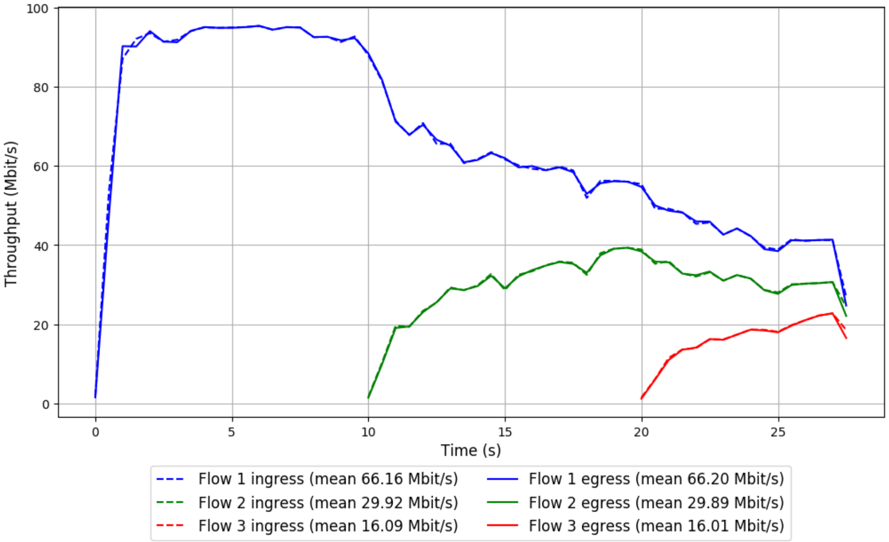


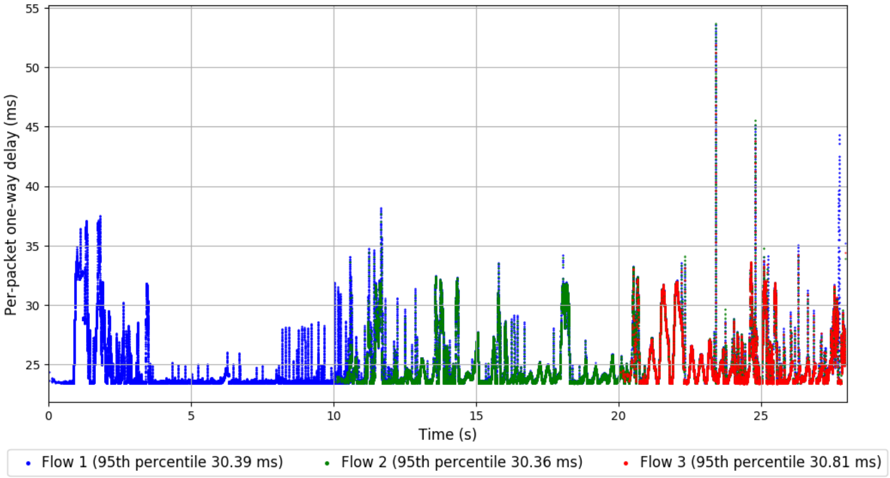
```
Run 5: Statistics of Copa

Start at: 2017-09-07 23:24:18
End at: 2017-09-07 23:24:48
Local clock offset: 0.688 ms
Remote clock offset: -1.289 ms

# Below is generated by plot.py at 2017-09-08 05:19:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.90 Mbit/s
95th percentile per-packet one-way delay: 30.411 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 30.394 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 30.355 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 16.01 Mbit/s
95th percentile per-packet one-way delay: 30.810 ms
Loss rate: 1.33%
```

Run 5: Report of Copa — Data Link



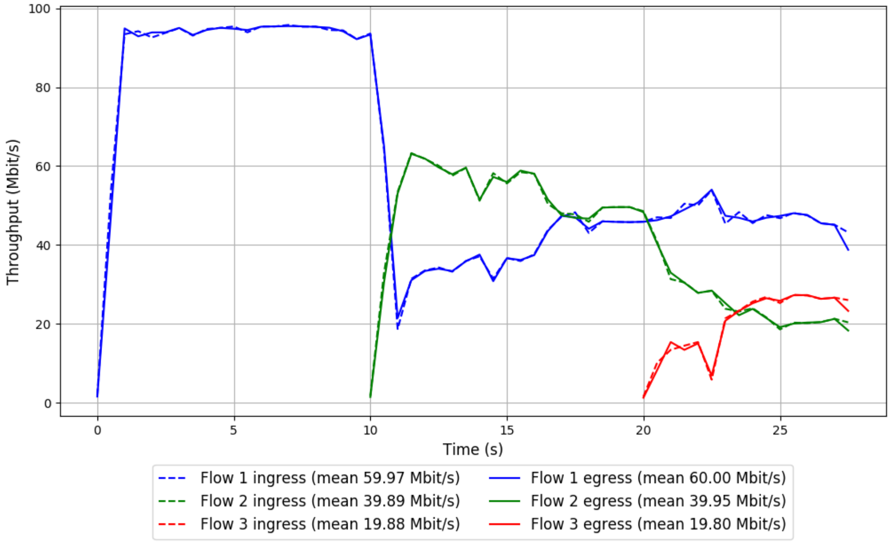


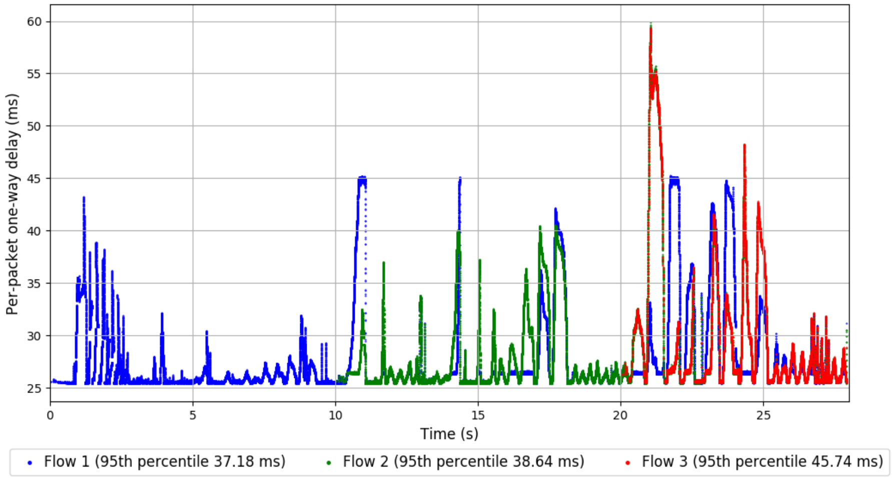
```
Run 6: Statistics of Copa

Start at: 2017-09-07 23:45:18
End at: 2017-09-07 23:45:48
Local clock offset: 0.597 ms
Remote clock offset: -2.852 ms

# Below is generated by plot.py at 2017-09-08 05:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.21 Mbit/s
95th percentile per-packet one-way delay: 38.646 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 60.00 Mbit/s
95th percentile per-packet one-way delay: 37.179 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 38.636 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 19.80 Mbit/s
95th percentile per-packet one-way delay: 45.736 ms
Loss rate: 1.32%
```

Run 6: Report of Copa — Data Link



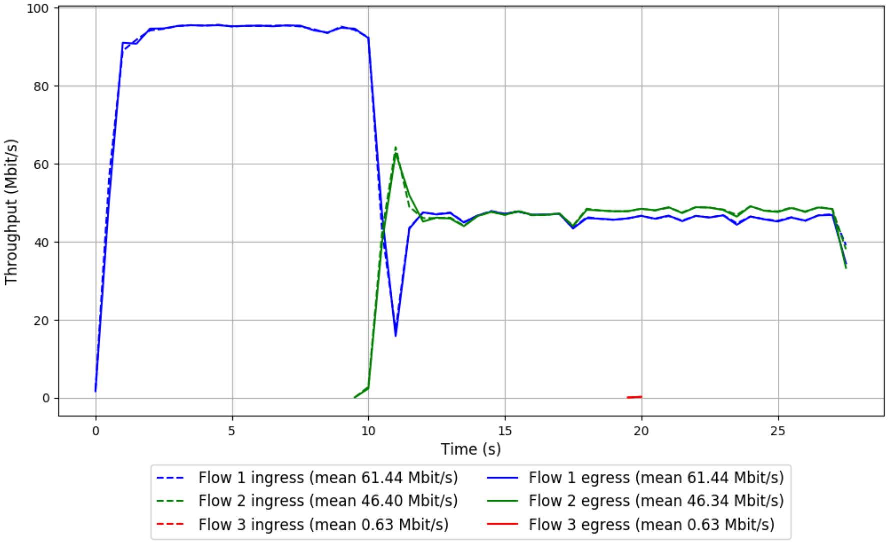


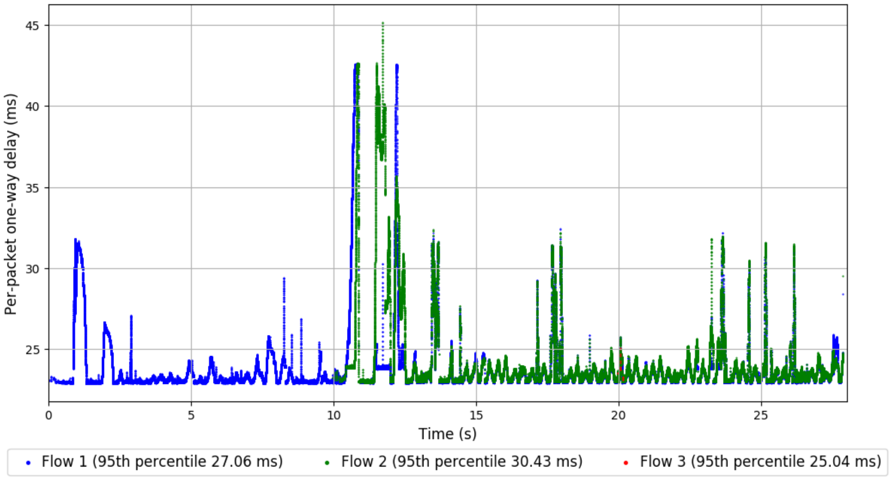
```
Run 7: Statistics of Copa

Start at: 2017-09-08 00:06:19
End at: 2017-09-08 00:06:49
Local clock offset: 0.579 ms
Remote clock offset: 0.549 ms

# Below is generated by plot.py at 2017-09-08 05:19:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.23 Mbit/s
95th percentile per-packet one-way delay: 28.432 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 61.44 Mbit/s
95th percentile per-packet one-way delay: 27.062 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 46.34 Mbit/s
95th percentile per-packet one-way delay: 30.425 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 25.037 ms
Loss rate: 0.00%
```

Run 7: Report of Copa — Data Link



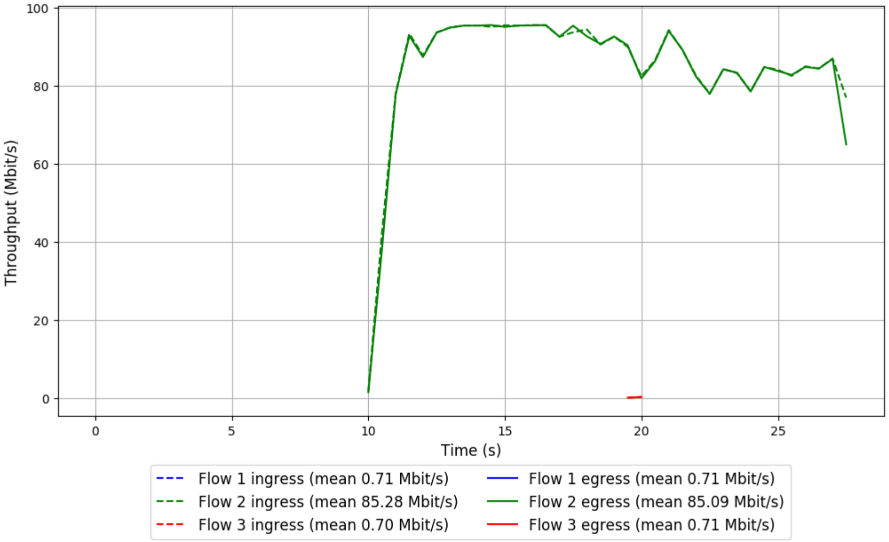


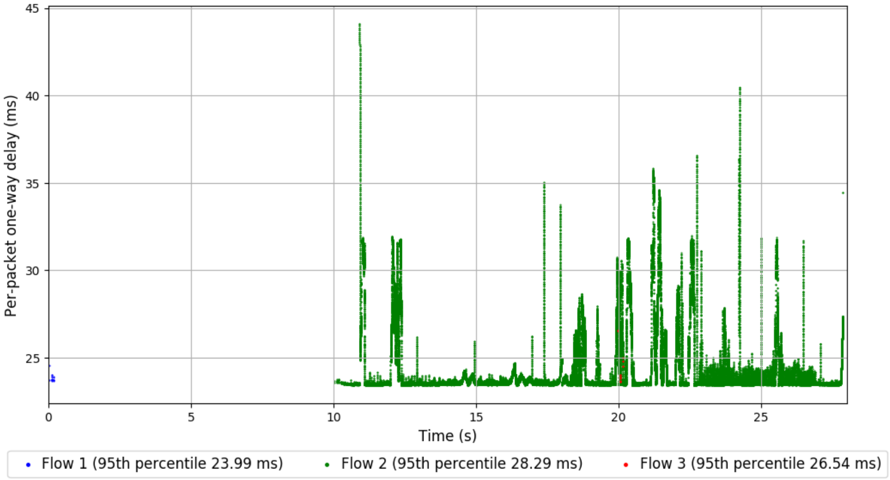
```
Run 8: Statistics of Copa

Start at: 2017-09-08 00:27:35
End at: 2017-09-08 00:28:05
Local clock offset: 0.364 ms
Remote clock offset: 0.448 ms

# Below is generated by plot.py at 2017-09-08 05:19:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.52 Mbit/s
95th percentile per-packet one-way delay: 28.291 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 23.993 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 85.09 Mbit/s
95th percentile per-packet one-way delay: 28.291 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 26.536 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link



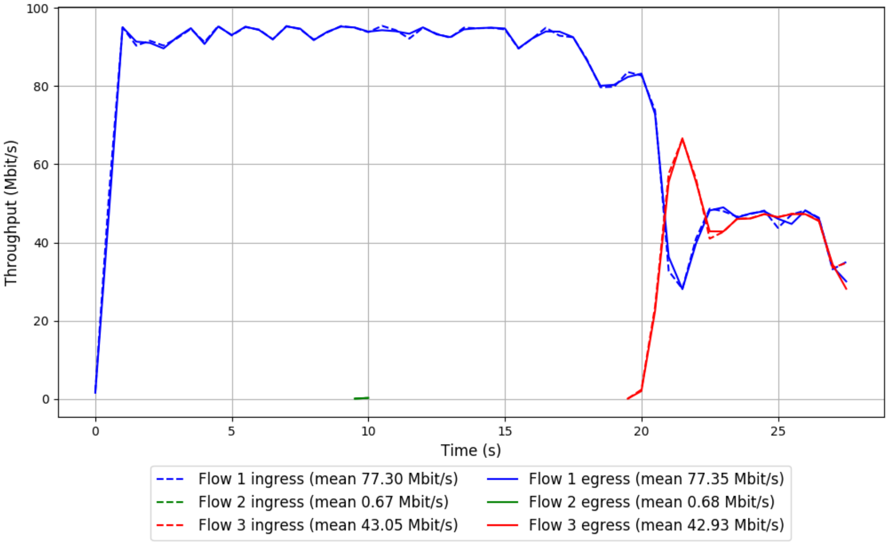


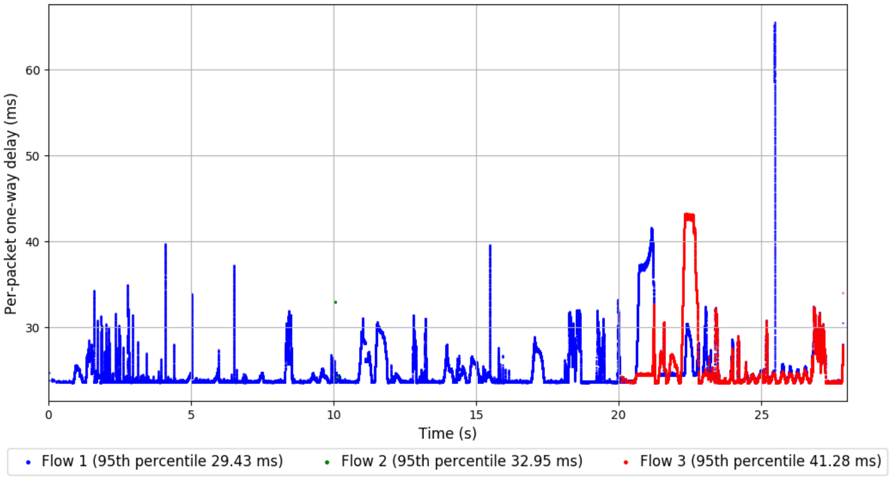
```
Run 9: Statistics of Copa

Start at: 2017-09-08 00:48:28
End at: 2017-09-08 00:48:58
Local clock offset: 0.273 ms
Remote clock offset: 0.644 ms

# Below is generated by plot.py at 2017-09-08 05:20:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.49 Mbit/s
95th percentile per-packet one-way delay: 29.831 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 77.35 Mbit/s
95th percentile per-packet one-way delay: 29.426 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 32.946 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.93 Mbit/s
95th percentile per-packet one-way delay: 41.278 ms
Loss rate: 1.22%
```

Run 9: Report of Copa — Data Link



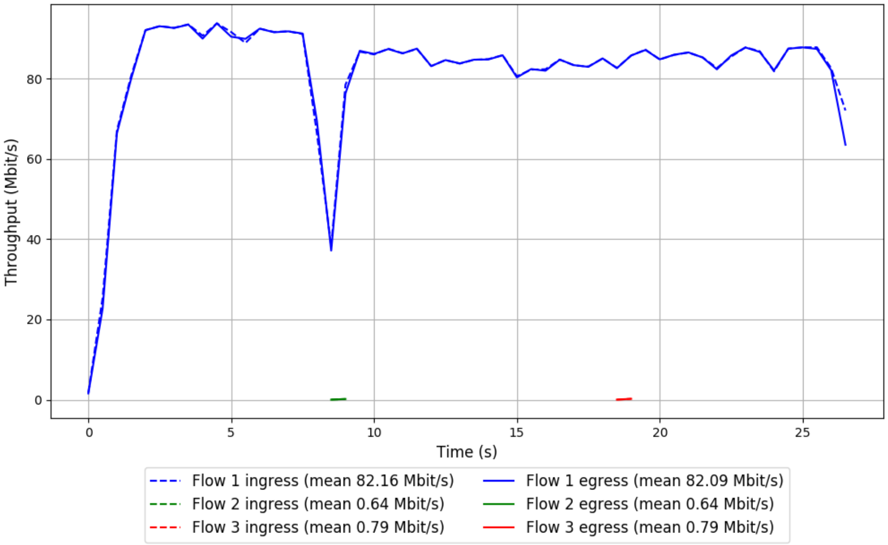


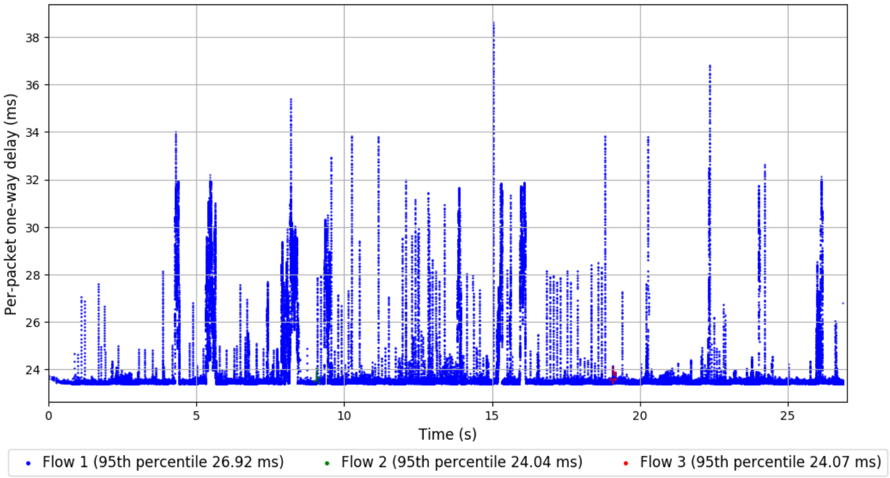
```
Run 10: Statistics of Copa

Start at: 2017-09-08 01:09:20
End at: 2017-09-08 01:09:50
Local clock offset: 0.077 ms
Remote clock offset: 0.376 ms

# Below is generated by plot.py at 2017-09-08 05:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.09 Mbit/s
95th percentile per-packet one-way delay: 26.922 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 82.09 Mbit/s
95th percentile per-packet one-way delay: 26.923 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 24.042 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 24.073 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link





```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-07 21:57:17
End at: 2017-09-07 21:57:47
Local clock offset: 0.964 ms
Remote clock offset: -1.361 ms
```

Run 1: Report of TCP Cubic — Data Link

Figure is missing

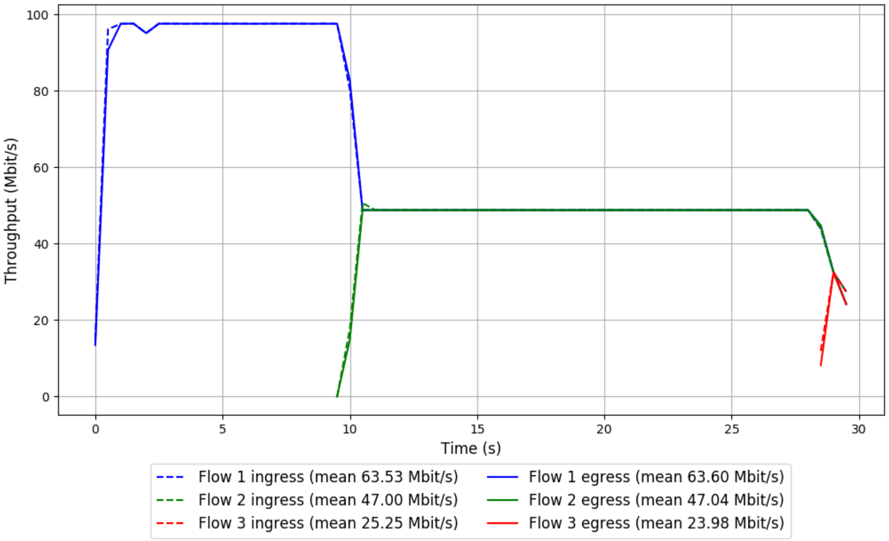
Figure is missing

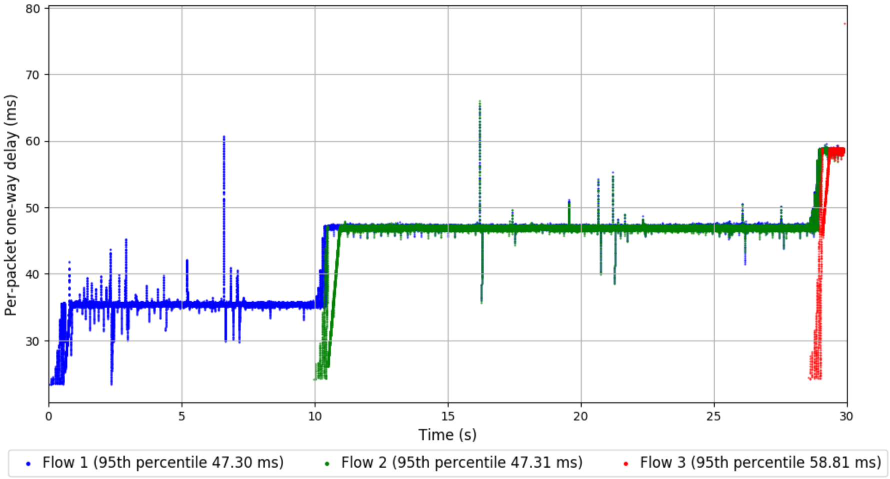
```
Run 2: Statistics of TCP Cubic

Start at: 2017-09-07 22:18:22
End at: 2017-09-07 22:18:52
Local clock offset: 0.849 ms
Remote clock offset: -1.332 ms

# Below is generated by plot.py at 2017-09-08 05:20:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.98 Mbit/s
95th percentile per-packet one-way delay: 47.319 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 63.60 Mbit/s
95th percentile per-packet one-way delay: 47.303 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 47.04 Mbit/s
95th percentile per-packet one-way delay: 47.315 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 23.98 Mbit/s
95th percentile per-packet one-way delay: 58.813 ms
Loss rate: 9.88%
```

Run 2: Report of TCP Cubic — Data Link



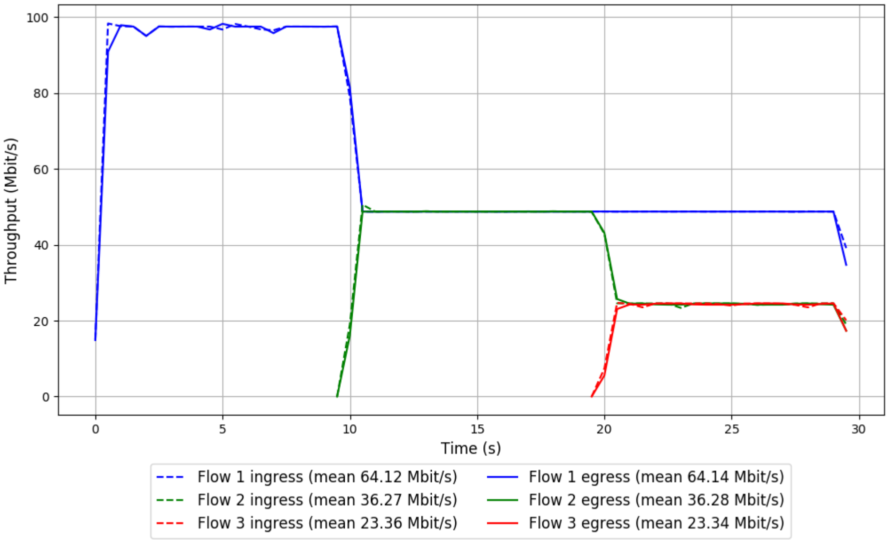


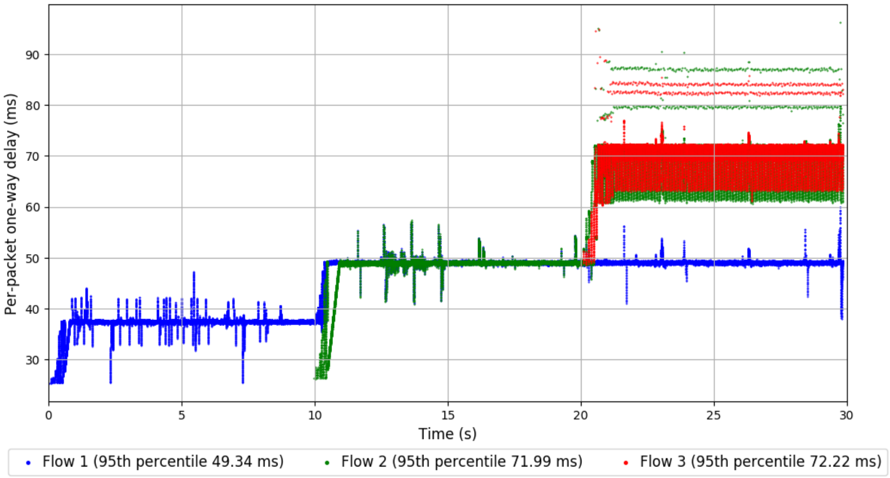
```
Run 3: Statistics of TCP Cubic

Start at: 2017-09-07 22:39:30
End at: 2017-09-07 22:40:00
Local clock offset: 0.812 ms
Remote clock offset: -3.193 ms

# Below is generated by plot.py at 2017-09-08 05:20:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.05 Mbit/s
95th percentile per-packet one-way delay: 71.821 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 64.14 Mbit/s
95th percentile per-packet one-way delay: 49.335 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 71.988 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 23.34 Mbit/s
95th percentile per-packet one-way delay: 72.224 ms
Loss rate: 1.24%
```

Run 3: Report of TCP Cubic — Data Link



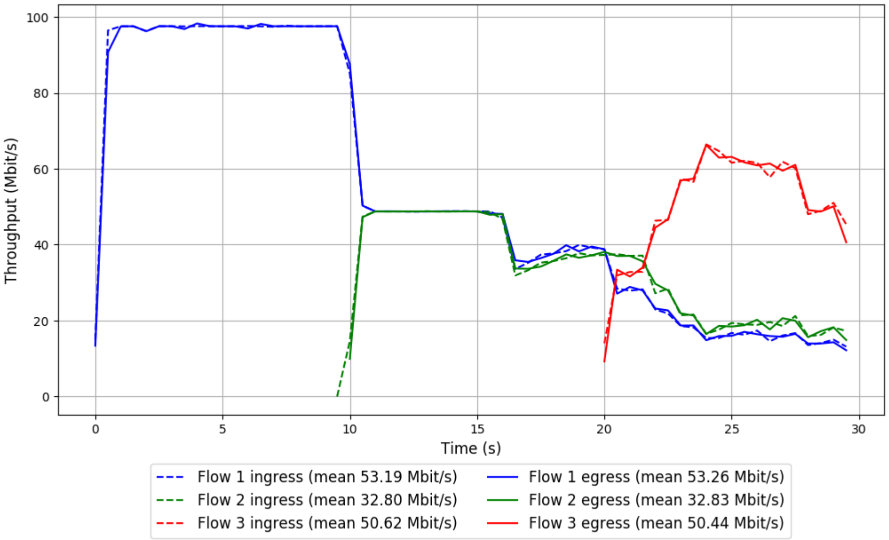


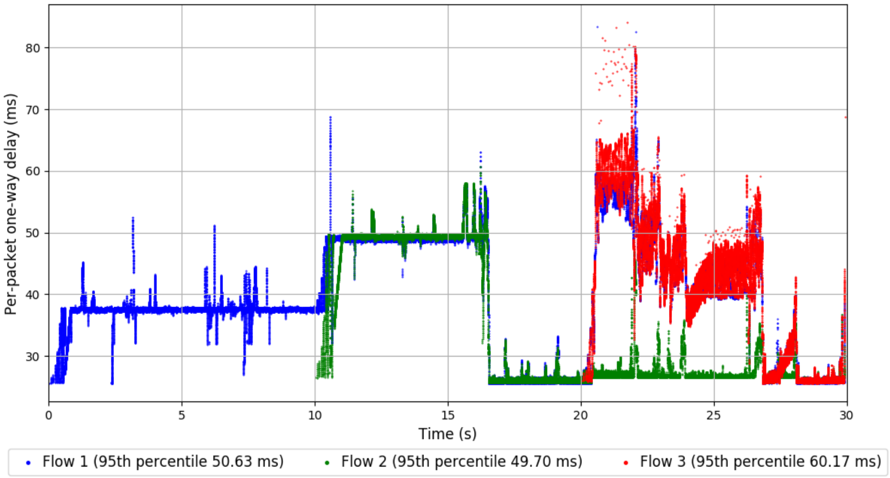
```
Run 4: Statistics of TCP Cubic

Start at: 2017-09-07 23:00:26
End at: 2017-09-07 23:00:56
Local clock offset: 0.884 ms
Remote clock offset: -3.237 ms

# Below is generated by plot.py at 2017-09-08 05:20:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 52.859 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 53.26 Mbit/s
95th percentile per-packet one-way delay: 50.630 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 32.83 Mbit/s
95th percentile per-packet one-way delay: 49.698 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 50.44 Mbit/s
95th percentile per-packet one-way delay: 60.175 ms
Loss rate: 0.86%
```

Run 4: Report of TCP Cubic — Data Link



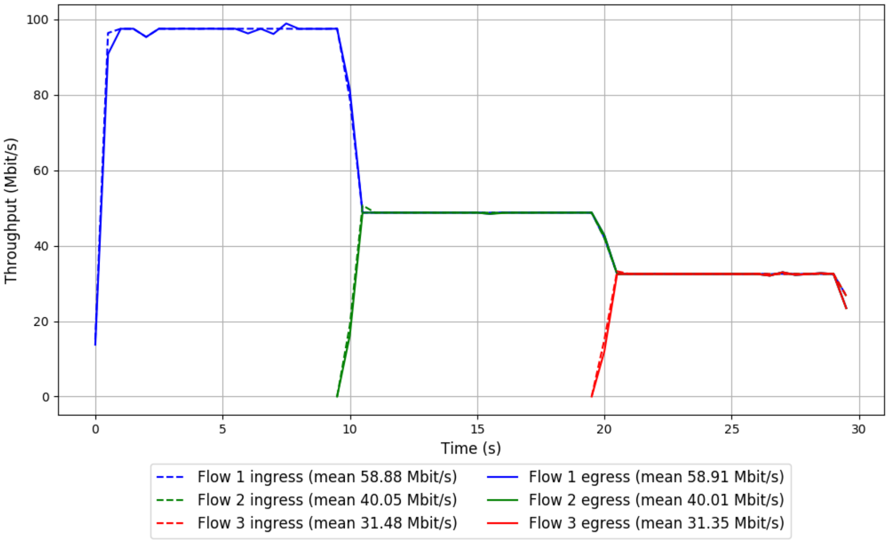


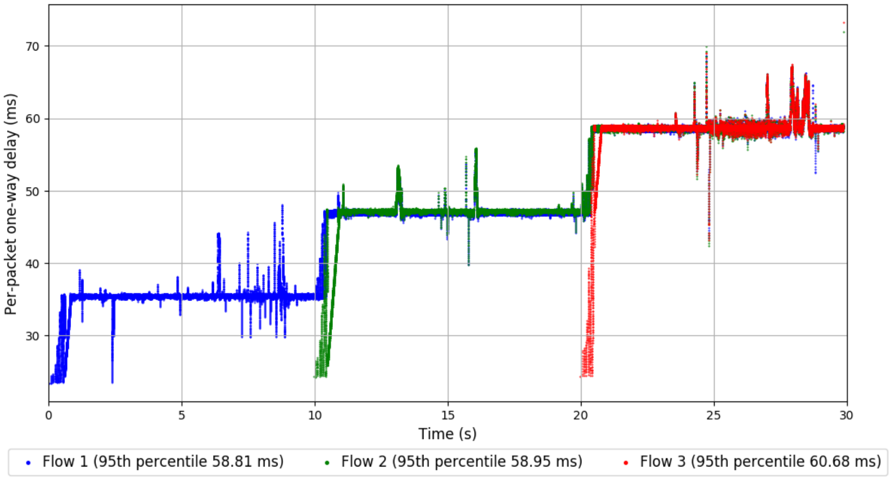
```
Run 5: Statistics of TCP Cubic

Start at: 2017-09-07 23:21:35
End at: 2017-09-07 23:22:05
Local clock offset: 0.796 ms
Remote clock offset: -1.191 ms

# Below is generated by plot.py at 2017-09-08 05:20:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.97 Mbit/s
95th percentile per-packet one-way delay: 58.952 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 58.91 Mbit/s
95th percentile per-packet one-way delay: 58.808 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 40.01 Mbit/s
95th percentile per-packet one-way delay: 58.954 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 31.35 Mbit/s
95th percentile per-packet one-way delay: 60.684 ms
Loss rate: 1.14%
```

Run 5: Report of TCP Cubic — Data Link



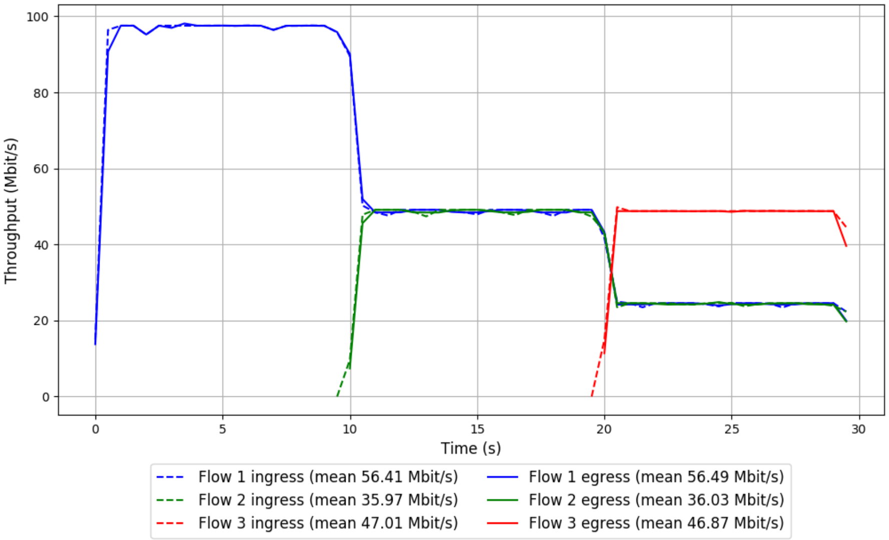


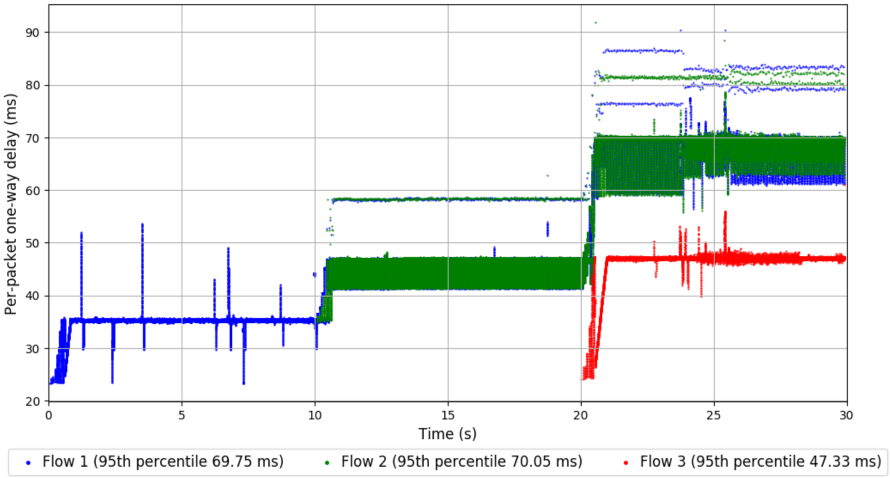
```
Run 6: Statistics of TCP Cubic

Start at: 2017-09-07 23:42:36
End at: 2017-09-07 23:43:06
Local clock offset: 0.647 ms
Remote clock offset: -0.798 ms

# Below is generated by plot.py at 2017-09-08 05:20:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.96 Mbit/s
95th percentile per-packet one-way delay: 69.831 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 56.49 Mbit/s
95th percentile per-packet one-way delay: 69.754 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 36.03 Mbit/s
95th percentile per-packet one-way delay: 70.050 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 46.87 Mbit/s
95th percentile per-packet one-way delay: 47.330 ms
Loss rate: 1.03%
```

Run 6: Report of TCP Cubic — Data Link



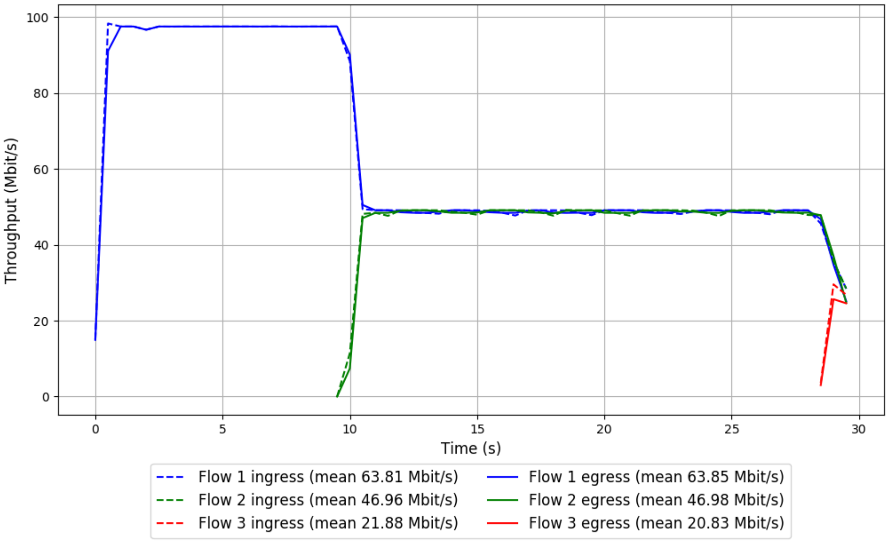


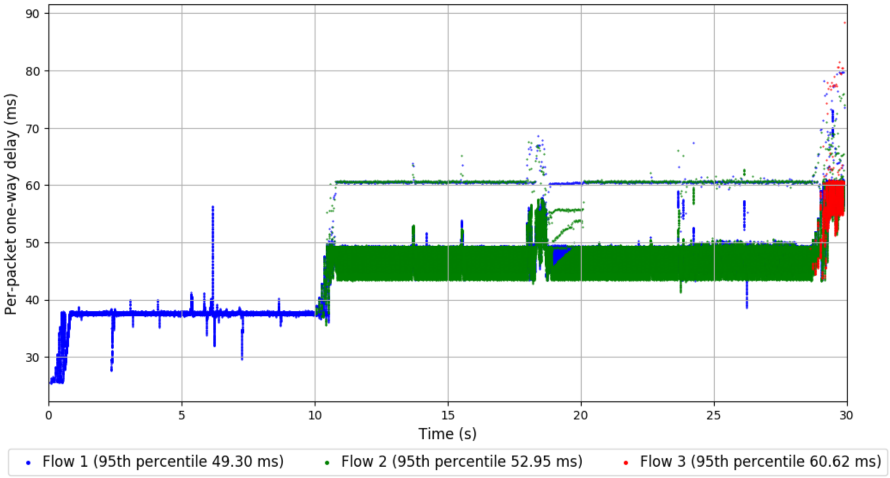
```
Run 7: Statistics of TCP Cubic

Start at: 2017-09-08 00:03:36
End at: 2017-09-08 00:04:06
Local clock offset: 0.604 ms
Remote clock offset: -2.062 ms

# Below is generated by plot.py at 2017-09-08 05:20:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.04 Mbit/s
95th percentile per-packet one-way delay: 51.259 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 63.85 Mbit/s
95th percentile per-packet one-way delay: 49.298 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 46.98 Mbit/s
95th percentile per-packet one-way delay: 52.948 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 20.83 Mbit/s
95th percentile per-packet one-way delay: 60.617 ms
Loss rate: 11.21%
```

Run 7: Report of TCP Cubic — Data Link



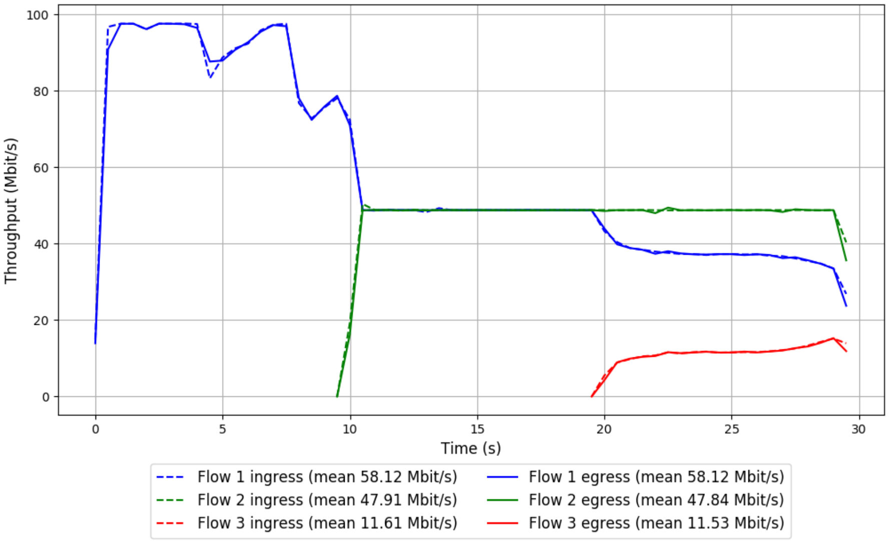


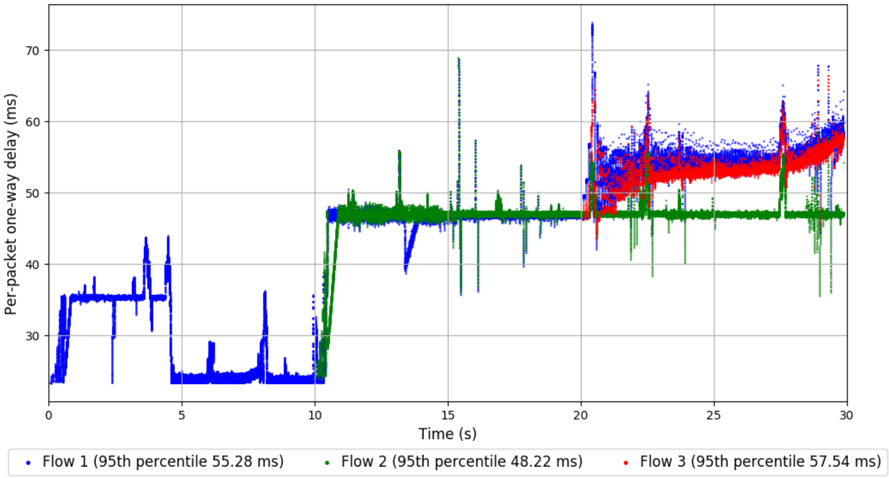
```
Run 8: Statistics of TCP Cubic

Start at: 2017-09-08 00:24:49
End at: 2017-09-08 00:25:19
Local clock offset: 0.378 ms
Remote clock offset: 0.548 ms

# Below is generated by plot.py at 2017-09-08 05:21:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.83 Mbit/s
95th percentile per-packet one-way delay: 54.898 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 58.12 Mbit/s
95th percentile per-packet one-way delay: 55.278 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 47.84 Mbit/s
95th percentile per-packet one-way delay: 48.223 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 11.53 Mbit/s
95th percentile per-packet one-way delay: 57.544 ms
Loss rate: 1.63%
```

Run 8: Report of TCP Cubic — Data Link



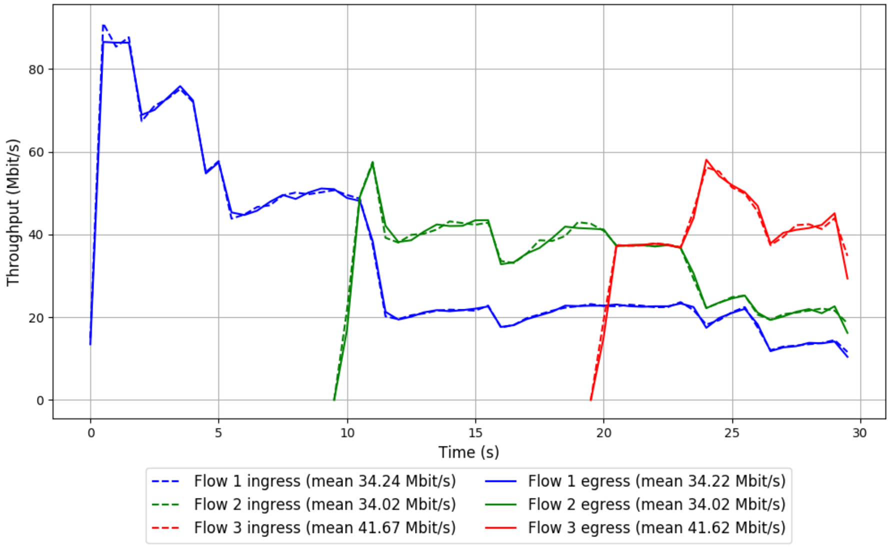


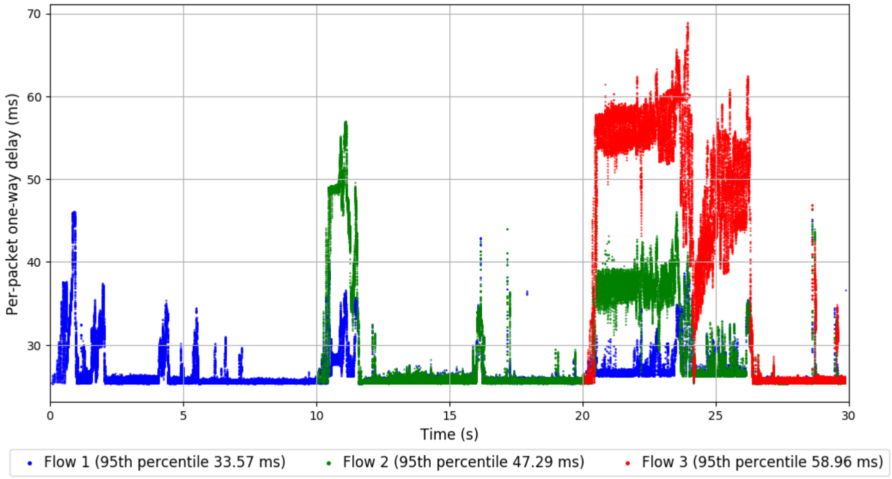
```
Run 9: Statistics of TCP Cubic

Start at: 2017-09-08 00:45:47
End at: 2017-09-08 00:46:17
Local clock offset: 0.221 ms
Remote clock offset: -1.243 ms

# Below is generated by plot.py at 2017-09-08 05:21:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.68 Mbit/s
95th percentile per-packet one-way delay: 54.905 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 34.22 Mbit/s
95th percentile per-packet one-way delay: 33.573 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 34.02 Mbit/s
95th percentile per-packet one-way delay: 47.288 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 41.62 Mbit/s
95th percentile per-packet one-way delay: 58.961 ms
Loss rate: 0.84%
```

Run 9: Report of TCP Cubic — Data Link



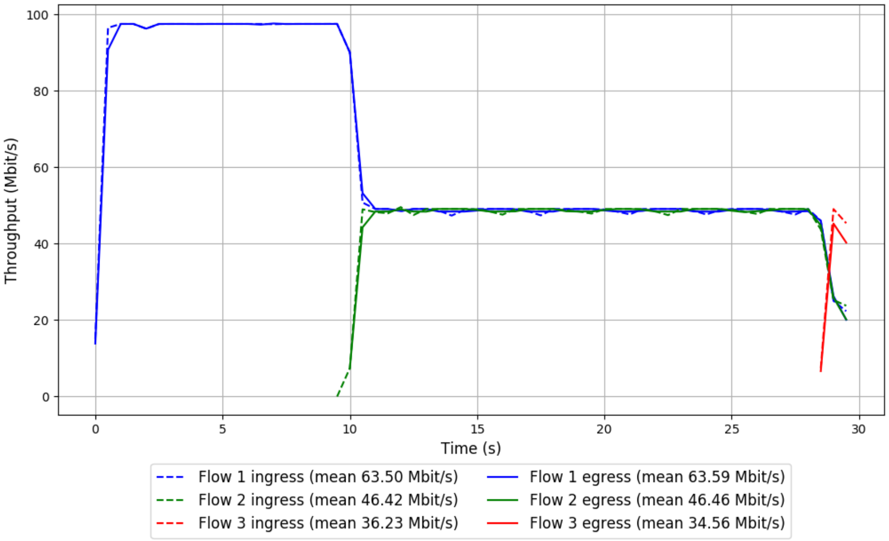


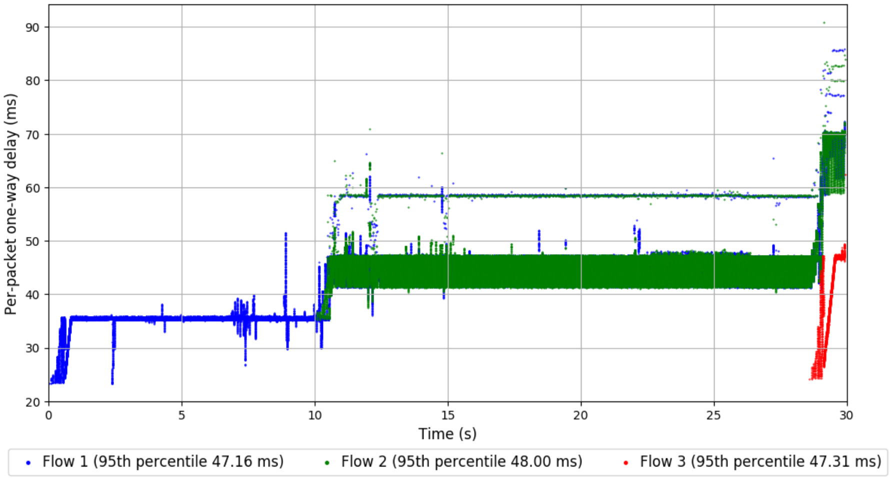
```
Run 10: Statistics of TCP Cubic

Start at: 2017-09-08 01:06:37
End at: 2017-09-08 01:07:07
Local clock offset: 0.15 ms
Remote clock offset: 0.408 ms

# Below is generated by plot.py at 2017-09-08 05:21:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.02 Mbit/s
95th percentile per-packet one-way delay: 47.203 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 63.59 Mbit/s
95th percentile per-packet one-way delay: 47.158 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 46.46 Mbit/s
95th percentile per-packet one-way delay: 47.999 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 34.56 Mbit/s
95th percentile per-packet one-way delay: 47.309 ms
Loss rate: 9.47%
```

Run 10: Report of TCP Cubic — Data Link



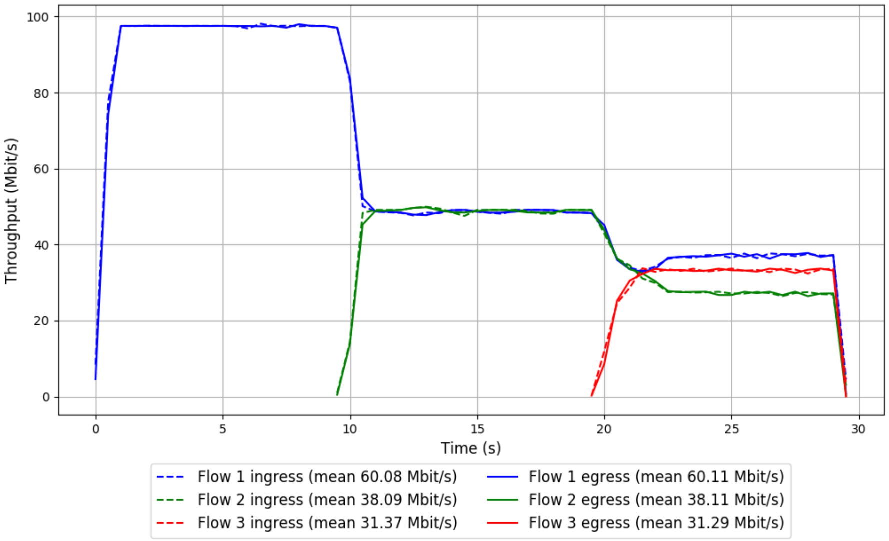


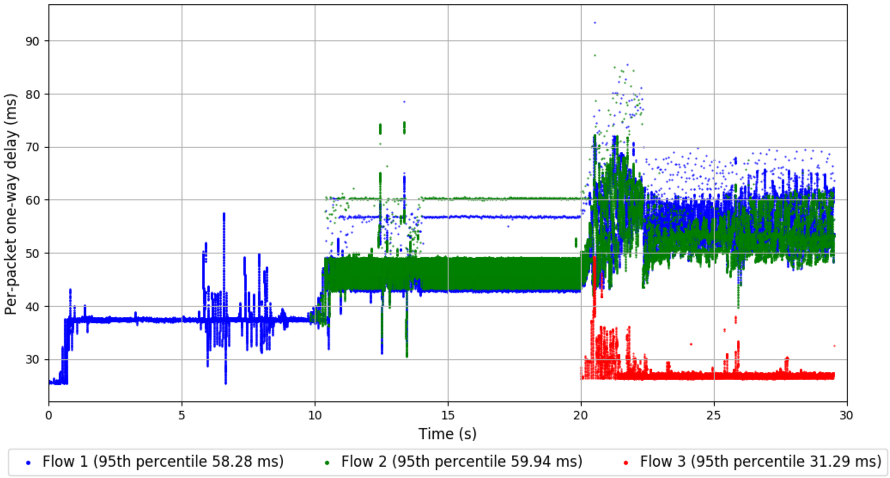
```
Run 1: Statistics of Indigo

Start at: 2017-09-07 22:04:08
End at: 2017-09-07 22:04:38
Local clock offset: 0.847 ms
Remote clock offset: -3.493 ms

# Below is generated by plot.py at 2017-09-08 05:21:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 58.281 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 60.11 Mbit/s
95th percentile per-packet one-way delay: 58.285 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 38.11 Mbit/s
95th percentile per-packet one-way delay: 59.936 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 31.287 ms
Loss rate: 0.83%
```

Run 1: Report of Indigo — Data Link



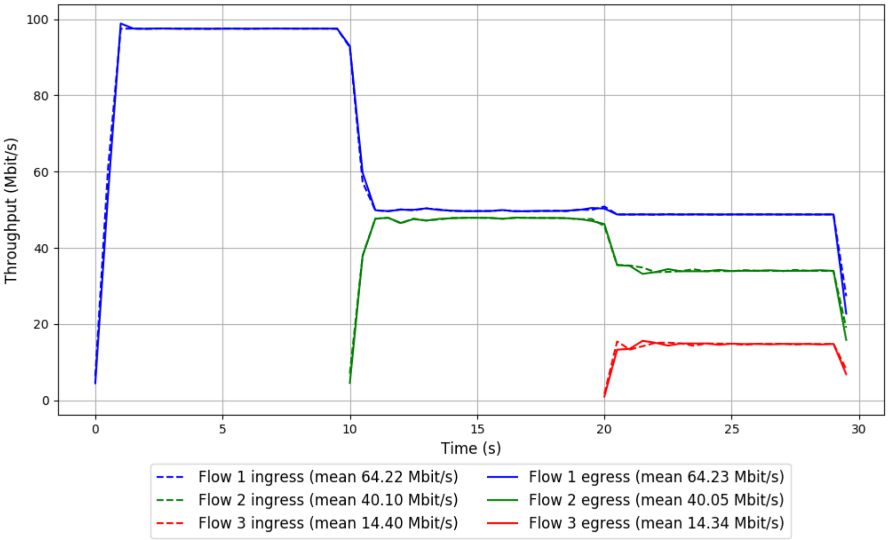


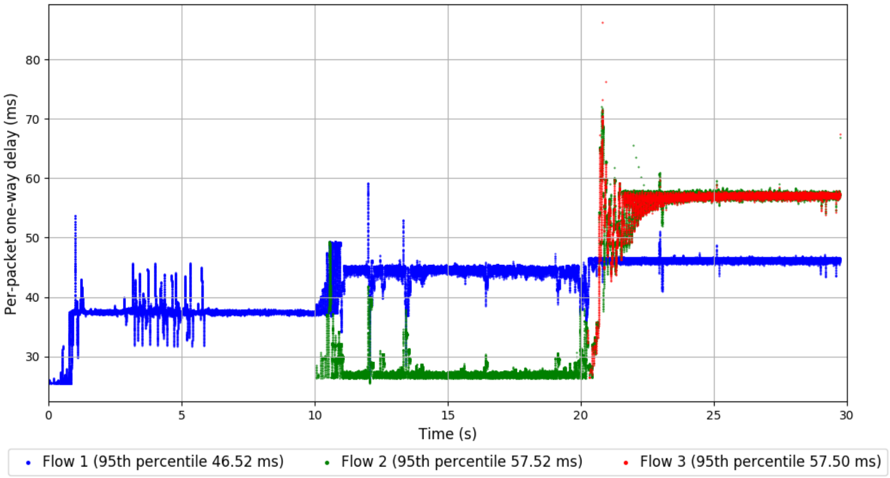
```
Run 2: Statistics of Indigo

Start at: 2017-09-07 22:25:17
End at: 2017-09-07 22:25:47
Local clock offset: 0.908 ms
Remote clock offset: -3.334 ms

# Below is generated by plot.py at 2017-09-08 05:21:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.29 Mbit/s
95th percentile per-packet one-way delay: 57.235 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 64.23 Mbit/s
95th percentile per-packet one-way delay: 46.522 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 57.516 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 14.34 Mbit/s
95th percentile per-packet one-way delay: 57.501 ms
Loss rate: 1.13%
```

Run 2: Report of Indigo — Data Link



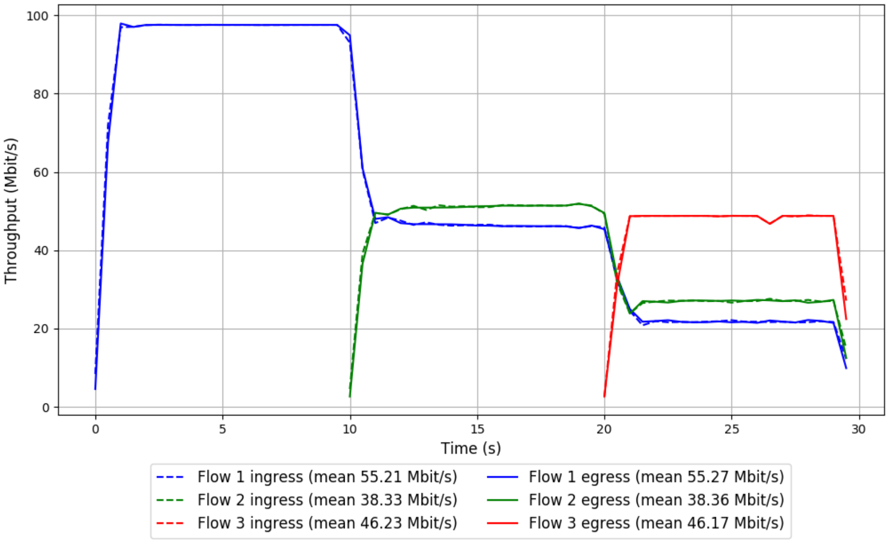


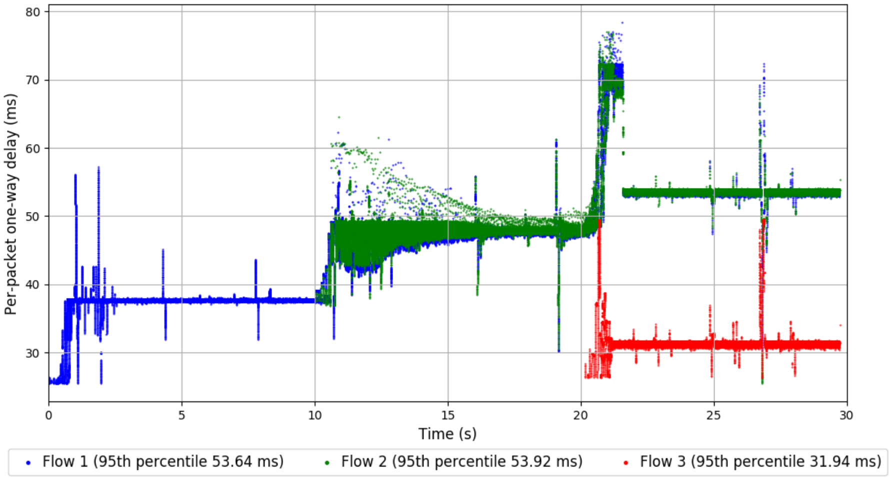
```
Run 3: Statistics of Indigo

Start at: 2017-09-07 22:46:22
End at: 2017-09-07 22:46:52
Local clock offset: 0.805 ms
Remote clock offset: -3.143 ms

# Below is generated by plot.py at 2017-09-08 05:21:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.51 Mbit/s
95th percentile per-packet one-way delay: 53.792 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 55.27 Mbit/s
95th percentile per-packet one-way delay: 53.639 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 38.36 Mbit/s
95th percentile per-packet one-way delay: 53.923 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 46.17 Mbit/s
95th percentile per-packet one-way delay: 31.943 ms
Loss rate: 0.87%
```

Run 3: Report of Indigo — Data Link



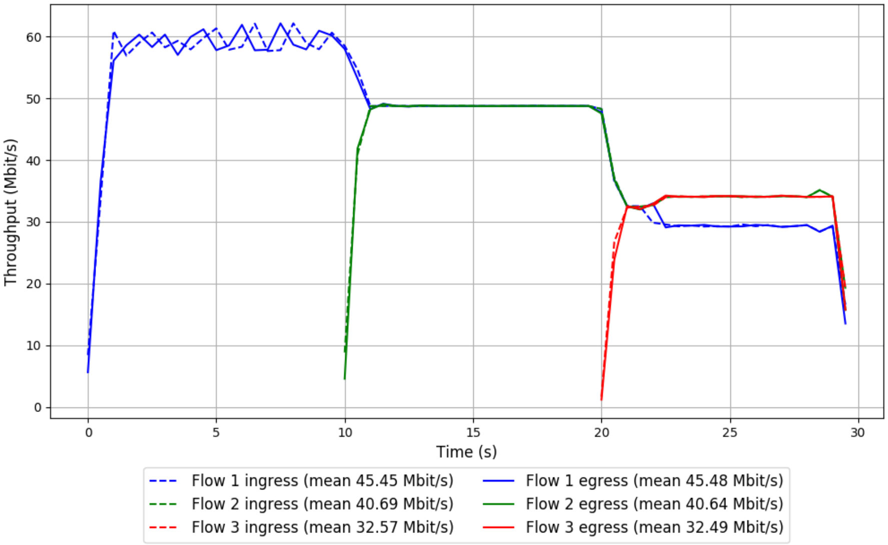


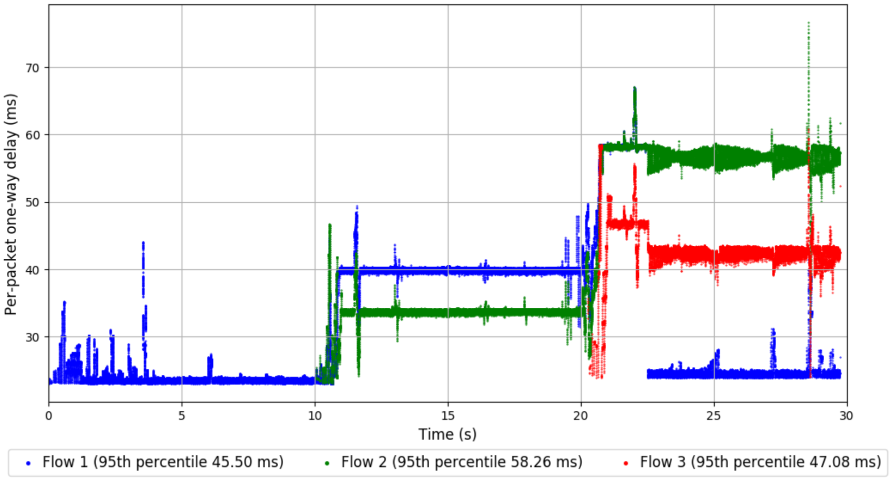
```
Run 4: Statistics of Indigo

Start at: 2017-09-07 23:07:26
End at: 2017-09-07 23:07:56
Local clock offset: 0.734 ms
Remote clock offset: -0.718 ms

# Below is generated by plot.py at 2017-09-08 05:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.74 Mbit/s
95th percentile per-packet one-way delay: 58.050 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 45.48 Mbit/s
95th percentile per-packet one-way delay: 45.497 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 58.259 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 47.082 ms
Loss rate: 1.04%
```

Run 4: Report of Indigo — Data Link



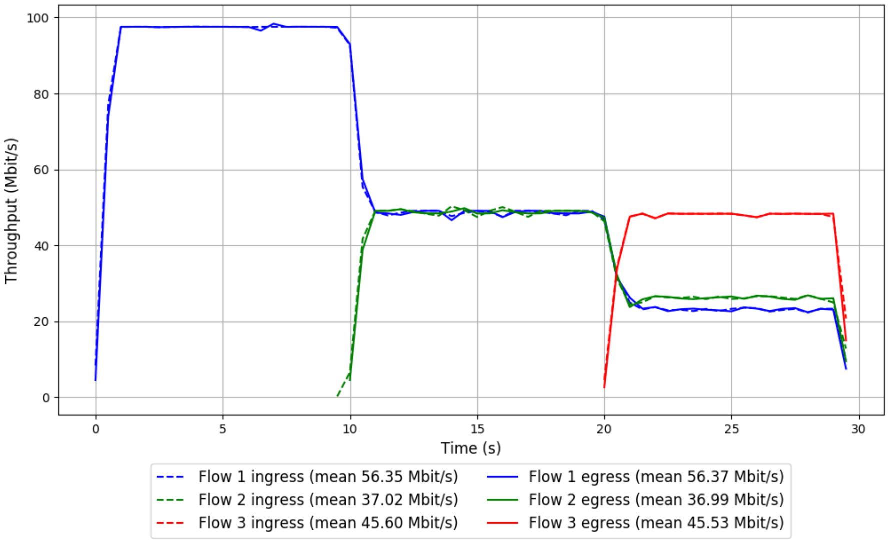


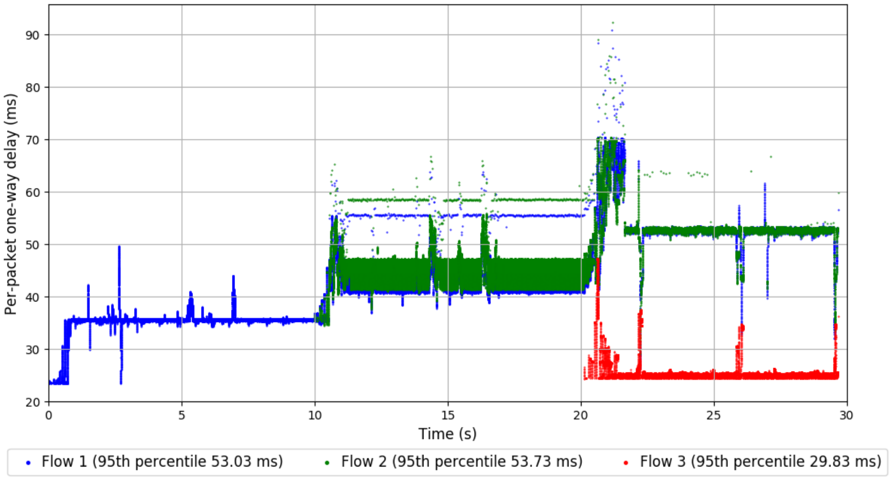
```
Run 5: Statistics of Indigo

Start at: 2017-09-07 23:28:27
End at: 2017-09-07 23:28:57
Local clock offset: 0.755 ms
Remote clock offset: -1.277 ms

# Below is generated by plot.py at 2017-09-08 05:21:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.56 Mbit/s
95th percentile per-packet one-way delay: 53.115 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 56.37 Mbit/s
95th percentile per-packet one-way delay: 53.031 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 53.731 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 45.53 Mbit/s
95th percentile per-packet one-way delay: 29.832 ms
Loss rate: 0.83%
```

Run 5: Report of Indigo — Data Link



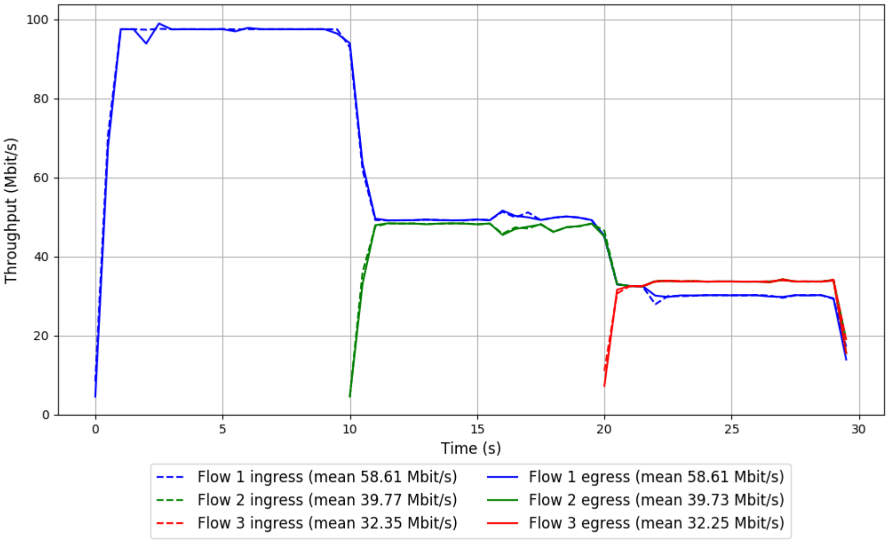


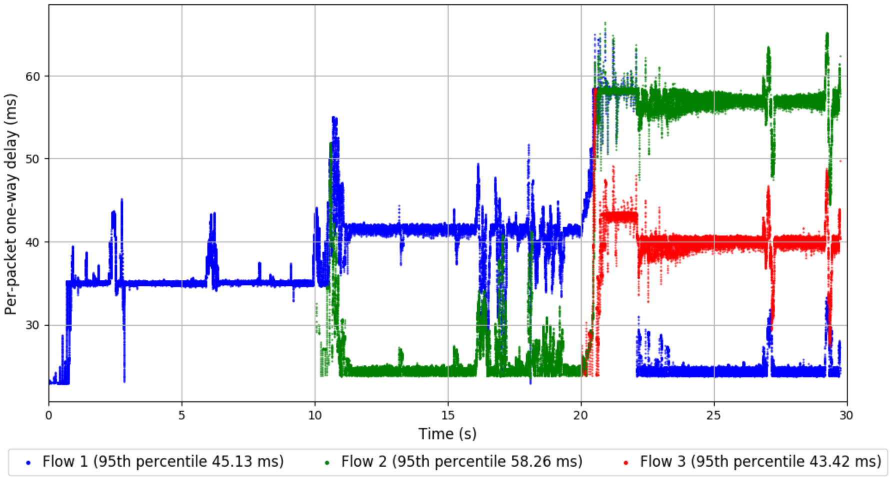
```
Run 6: Statistics of Indigo

Start at: 2017-09-07 23:49:27
End at: 2017-09-07 23:49:57
Local clock offset: 0.593 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2017-09-08 05:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 57.622 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 58.61 Mbit/s
95th percentile per-packet one-way delay: 45.129 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 58.256 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 32.25 Mbit/s
95th percentile per-packet one-way delay: 43.416 ms
Loss rate: 0.98%
```

Run 6: Report of Indigo — Data Link



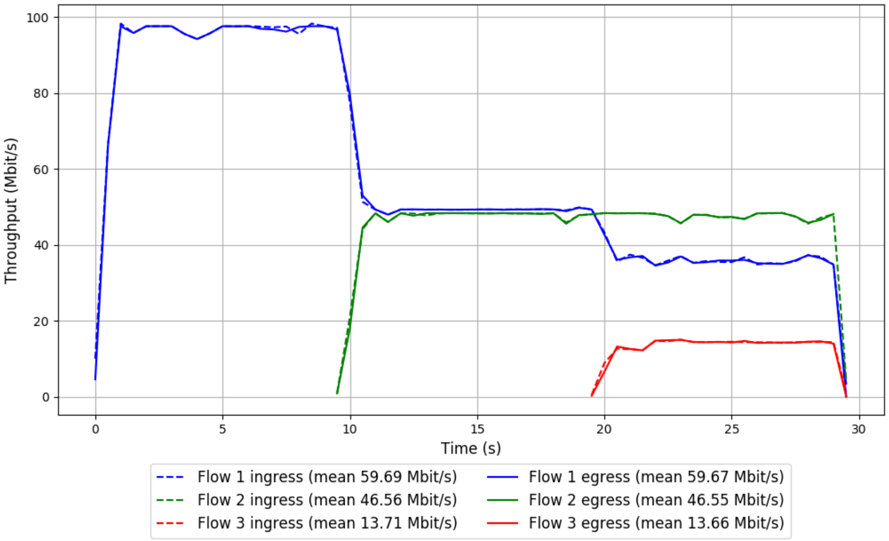


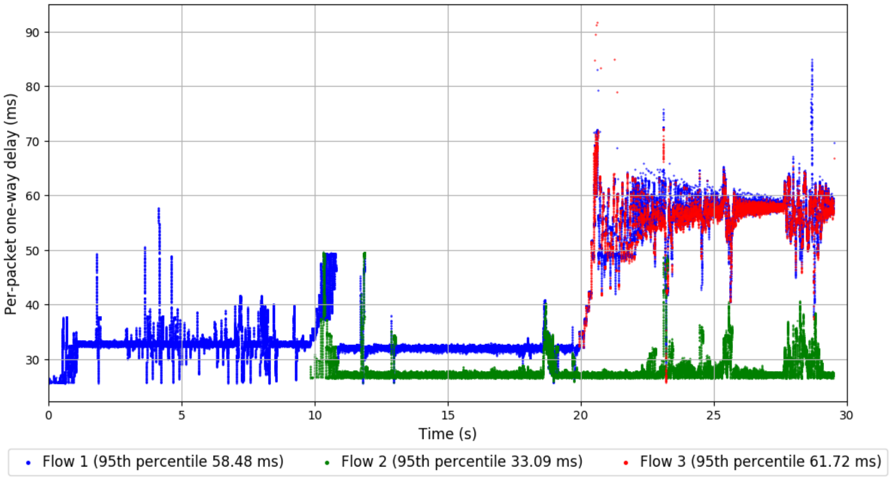
```
Run 7: Statistics of Indigo

Start at: 2017-09-08 00:10:36
End at: 2017-09-08 00:11:07
Local clock offset: 0.559 ms
Remote clock offset: -1.97 ms

# Below is generated by plot.py at 2017-09-08 05:21:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.14 Mbit/s
95th percentile per-packet one-way delay: 58.170 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 59.67 Mbit/s
95th percentile per-packet one-way delay: 58.484 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 46.55 Mbit/s
95th percentile per-packet one-way delay: 33.086 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 13.66 Mbit/s
95th percentile per-packet one-way delay: 61.716 ms
Loss rate: 1.14%
```

Run 7: Report of Indigo — Data Link



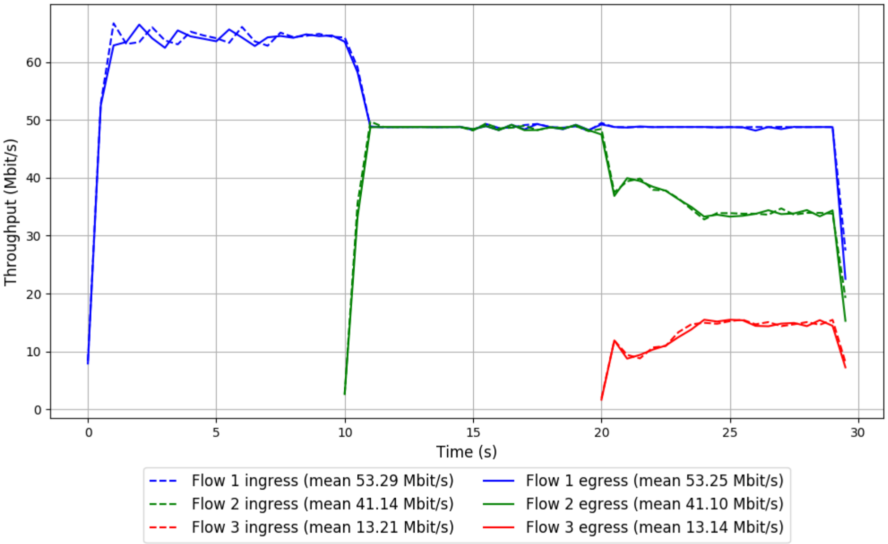


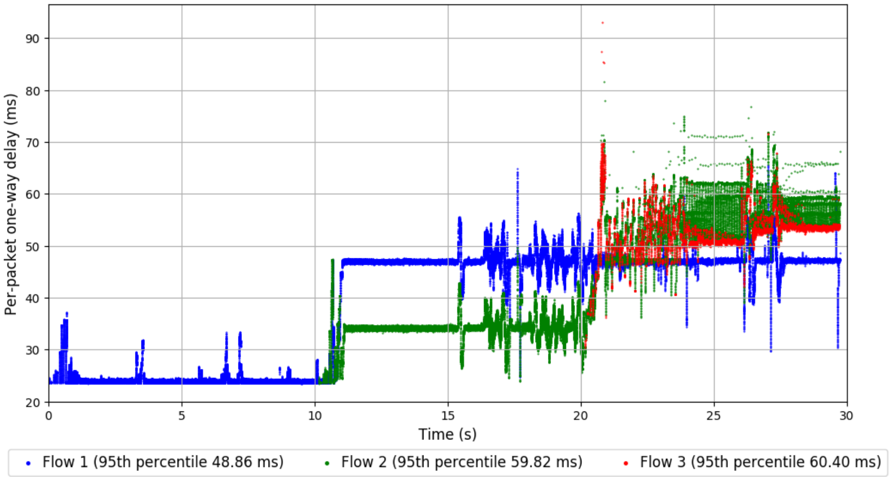
```
Run 8: Statistics of Indigo

Start at: 2017-09-08 00:31:42
End at: 2017-09-08 00:32:12
Local clock offset: 0.395 ms
Remote clock offset: 0.536 ms

# Below is generated by plot.py at 2017-09-08 05:22:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.53 Mbit/s
95th percentile per-packet one-way delay: 57.088 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 53.25 Mbit/s
95th percentile per-packet one-way delay: 48.864 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 59.816 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 60.396 ms
Loss rate: 1.35%
```

Run 8: Report of Indigo — Data Link



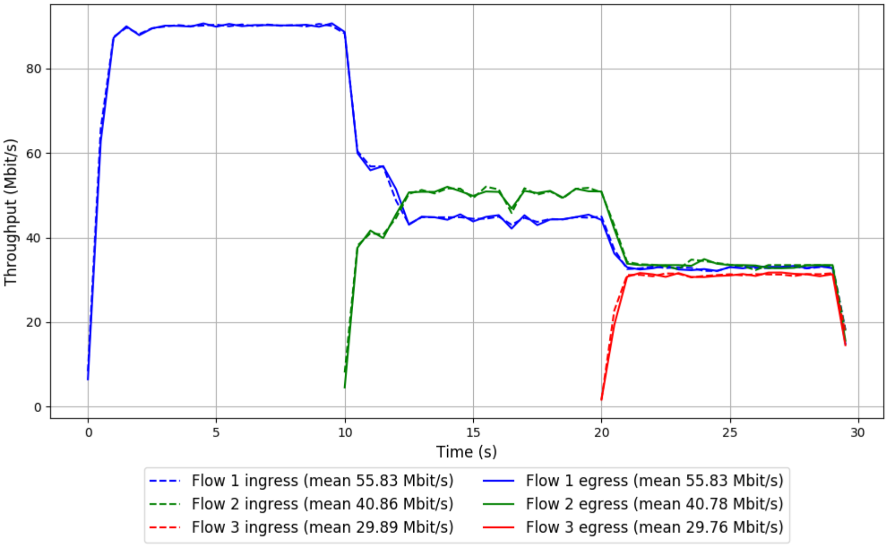


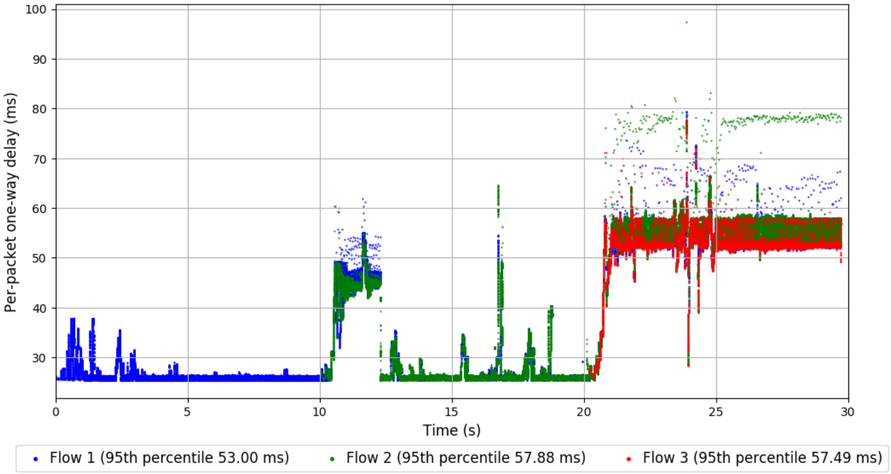
```
Run 9: Statistics of Indigo

Start at: 2017-09-08 00:52:36
End at: 2017-09-08 00:53:06
Local clock offset: 0.145 ms
Remote clock offset: -1.442 ms

# Below is generated by plot.py at 2017-09-08 05:22:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.34 Mbit/s
95th percentile per-packet one-way delay: 57.498 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 53.001 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 40.78 Mbit/s
95th percentile per-packet one-way delay: 57.877 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 29.76 Mbit/s
95th percentile per-packet one-way delay: 57.486 ms
Loss rate: 1.16%
```

Run 9: Report of Indigo — Data Link



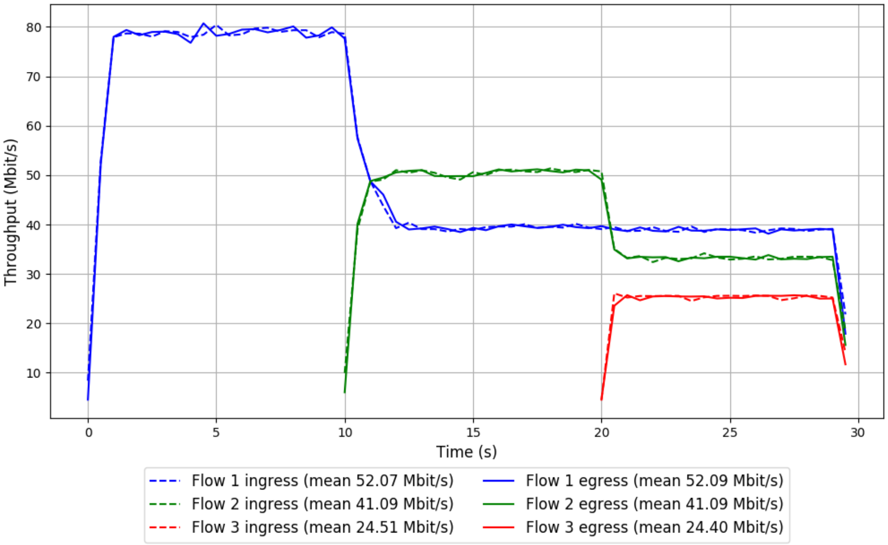


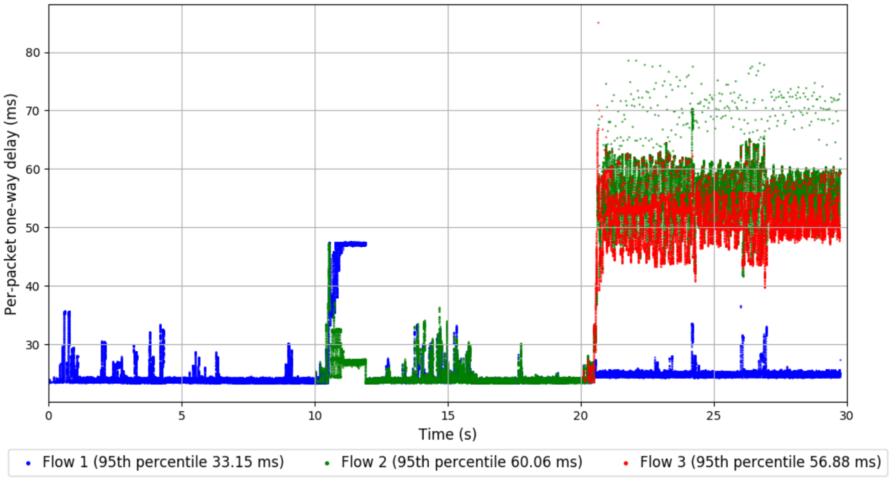
```
Run 10: Statistics of Indigo

Start at: 2017-09-08 01:13:27
End at: 2017-09-08 01:13:57
Local clock offset: 0.091 ms
Remote clock offset: 0.253 ms

# Below is generated by plot.py at 2017-09-08 05:22:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.24 Mbit/s
95th percentile per-packet one-way delay: 57.243 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 52.09 Mbit/s
95th percentile per-packet one-way delay: 33.154 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 41.09 Mbit/s
95th percentile per-packet one-way delay: 60.057 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 56.879 ms
Loss rate: 1.08%
```

Run 10: Report of Indigo — Data Link



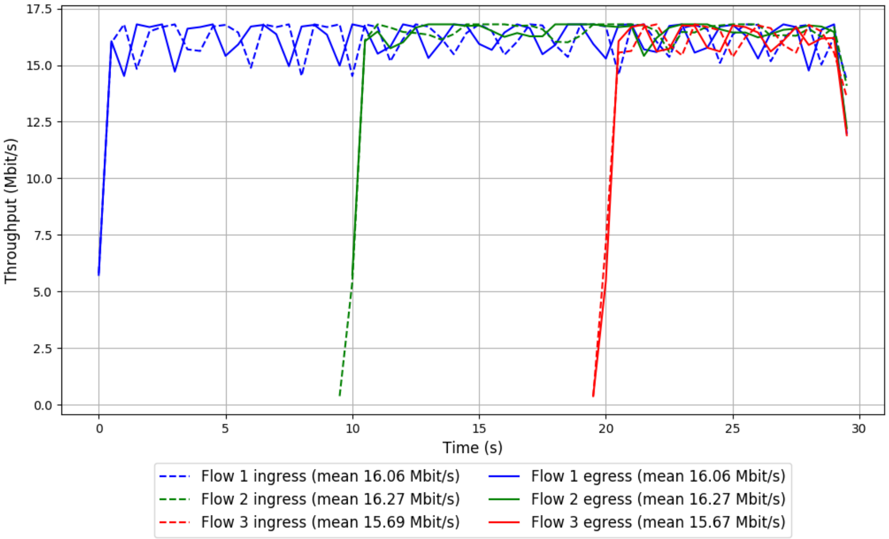


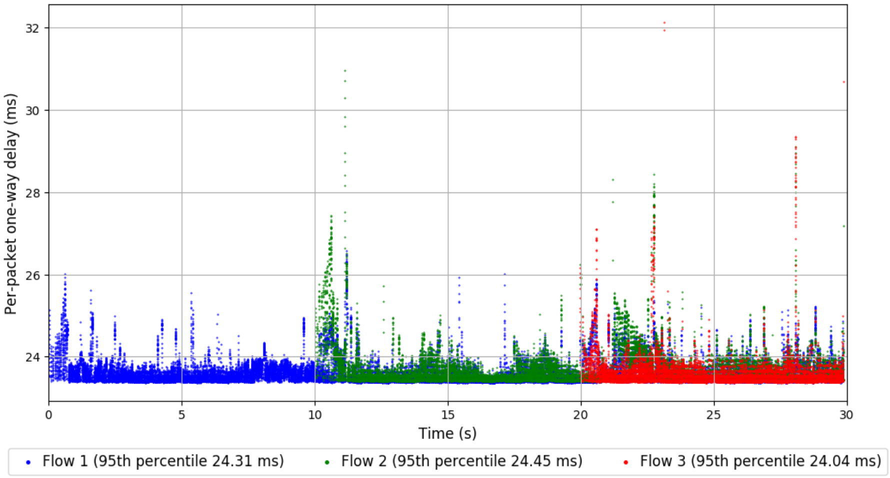
```
Run 1: Statistics of KohoCC

Start at: 2017-09-07 22:01:27
End at: 2017-09-07 22:01:57
Local clock offset: 0.965 ms
Remote clock offset: -1.357 ms

# Below is generated by plot.py at 2017-09-08 05:22:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.05 Mbit/s
95th percentile per-packet one-way delay: 24.323 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 16.06 Mbit/s
95th percentile per-packet one-way delay: 24.306 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 16.27 Mbit/s
95th percentile per-packet one-way delay: 24.447 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 24.036 ms
Loss rate: 0.76%
```

Run 1: Report of KohoCC — Data Link



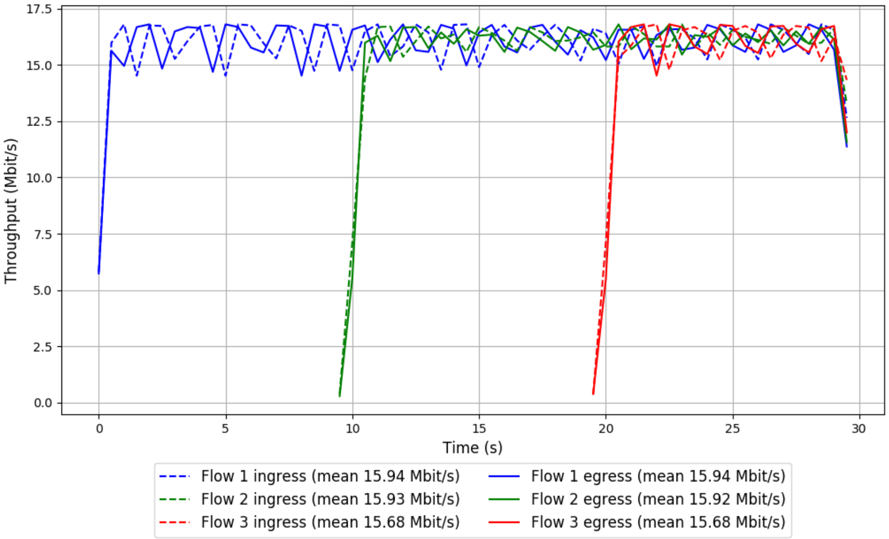


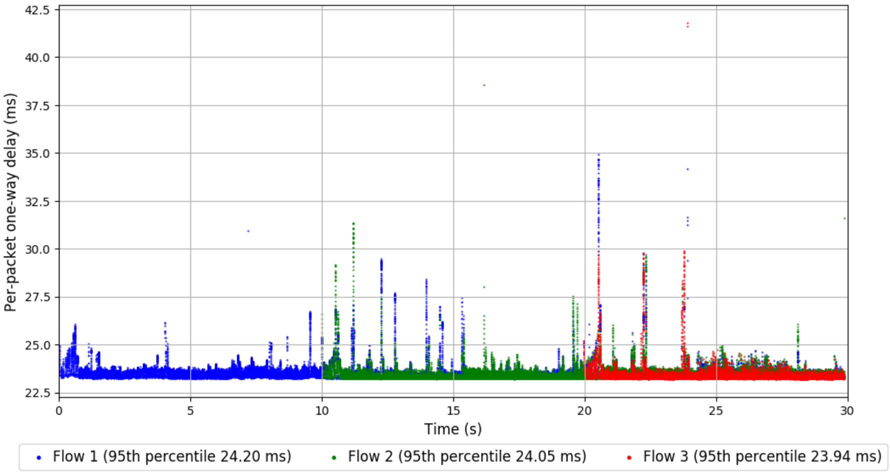
```
Run 2: Statistics of KohoCC

Start at: 2017-09-07 22:22:36
End at: 2017-09-07 22:23:06
Local clock offset: 0.823 ms
Remote clock offset: -1.224 ms

# Below is generated by plot.py at 2017-09-08 05:22:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.73 Mbit/s
95th percentile per-packet one-way delay: 24.103 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 15.94 Mbit/s
95th percentile per-packet one-way delay: 24.195 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 15.92 Mbit/s
95th percentile per-packet one-way delay: 24.051 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 15.68 Mbit/s
95th percentile per-packet one-way delay: 23.937 ms
Loss rate: 0.77%
```

Run 2: Report of KohoCC — Data Link



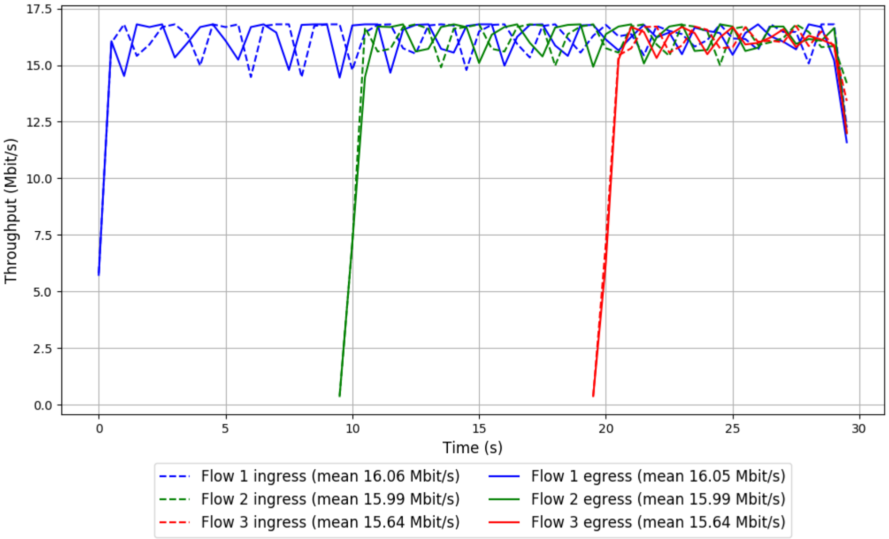


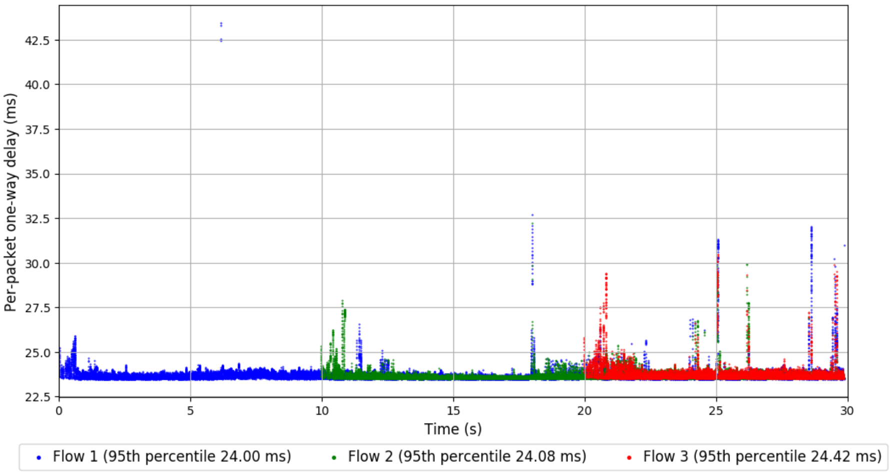
```
Run 3: Statistics of KohoCC

Start at: 2017-09-07 22:43:41
End at: 2017-09-07 22:44:11
Local clock offset: 0.899 ms
Remote clock offset: -1.153 ms

# Below is generated by plot.py at 2017-09-08 05:22:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 24.079 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 16.05 Mbit/s
95th percentile per-packet one-way delay: 24.004 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 15.99 Mbit/s
95th percentile per-packet one-way delay: 24.080 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 15.64 Mbit/s
95th percentile per-packet one-way delay: 24.420 ms
Loss rate: 0.77%
```

Run 3: Report of KohoCC — Data Link



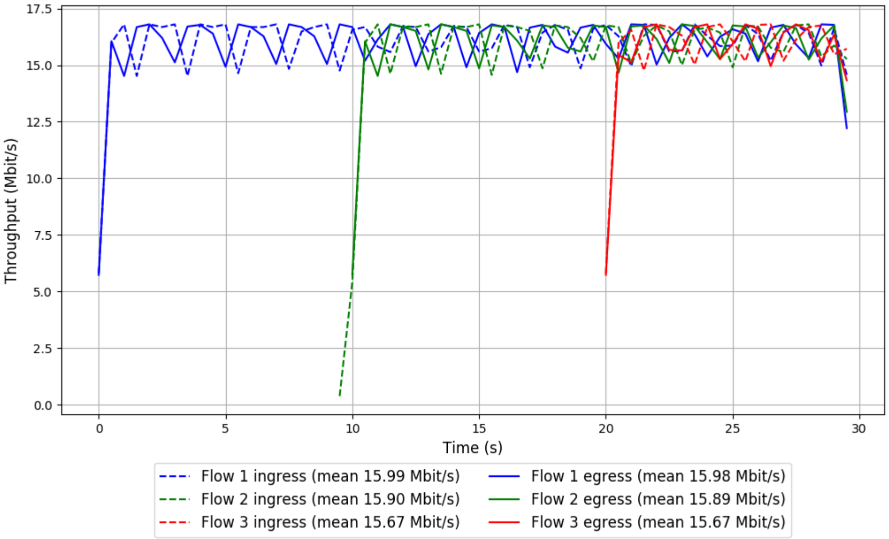


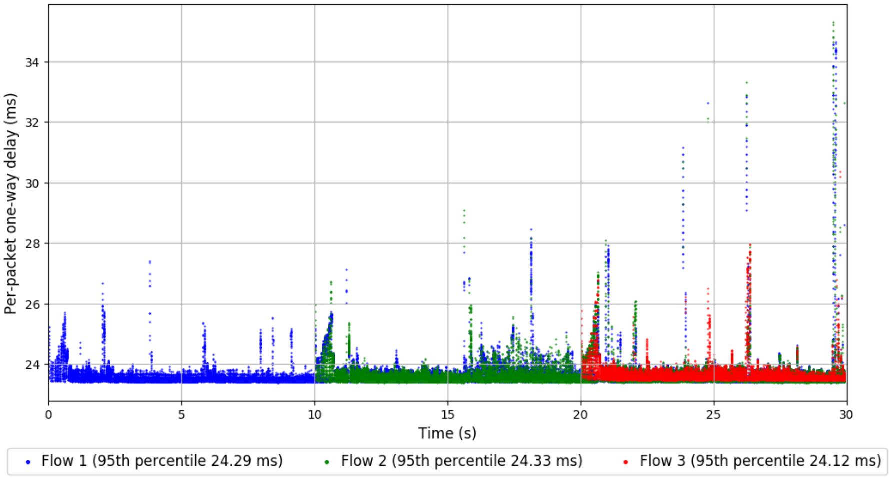
```
Run 4: Statistics of KohoCC

Start at: 2017-09-07 23:04:44
End at: 2017-09-07 23:05:14
Local clock offset: 0.856 ms
Remote clock offset: -0.987 ms

# Below is generated by plot.py at 2017-09-08 05:22:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 24.277 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 15.98 Mbit/s
95th percentile per-packet one-way delay: 24.286 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 24.332 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 24.120 ms
Loss rate: 0.77%
```

Run 4: Report of KohoCC — Data Link



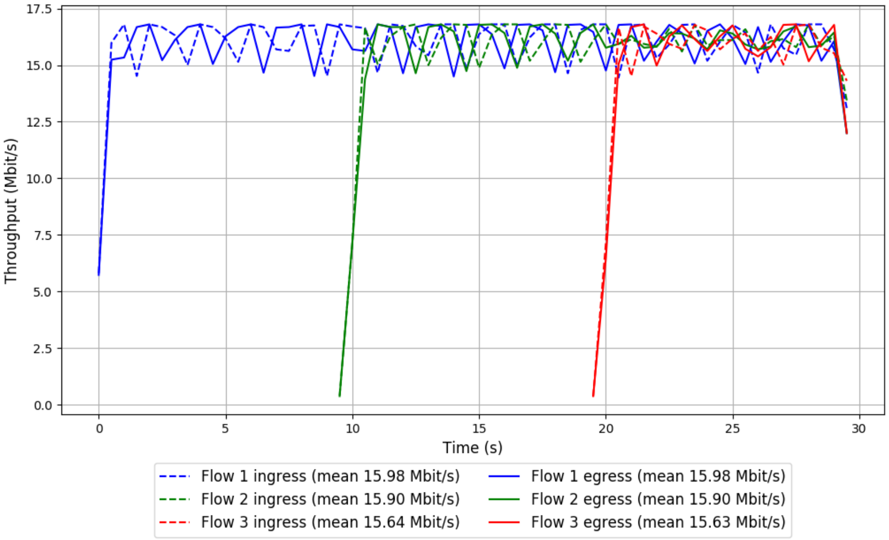


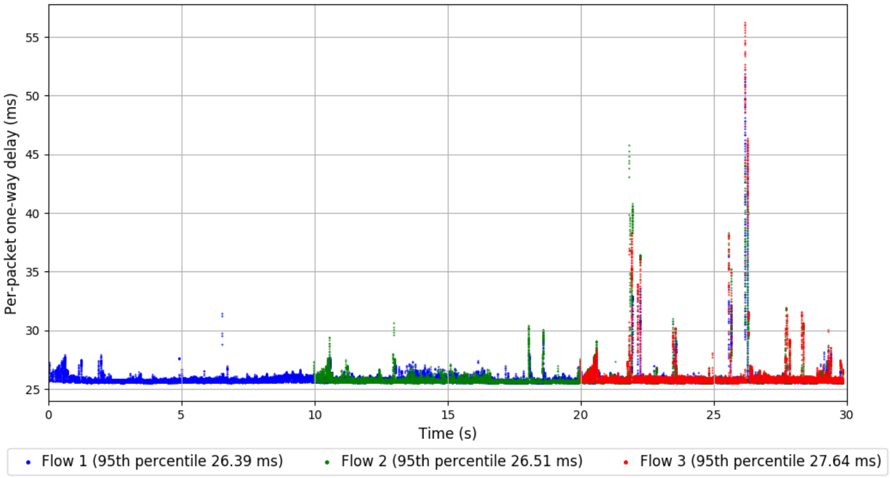
```
Run 5: Statistics of KohoCC

Start at: 2017-09-07 23:25:47
End at: 2017-09-07 23:26:17
Local clock offset: 0.76 ms
Remote clock offset: -3.34 ms

# Below is generated by plot.py at 2017-09-08 05:22:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 26.522 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 15.98 Mbit/s
95th percentile per-packet one-way delay: 26.390 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 15.90 Mbit/s
95th percentile per-packet one-way delay: 26.508 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 15.63 Mbit/s
95th percentile per-packet one-way delay: 27.638 ms
Loss rate: 0.77%
```

Run 5: Report of KohoCC — Data Link



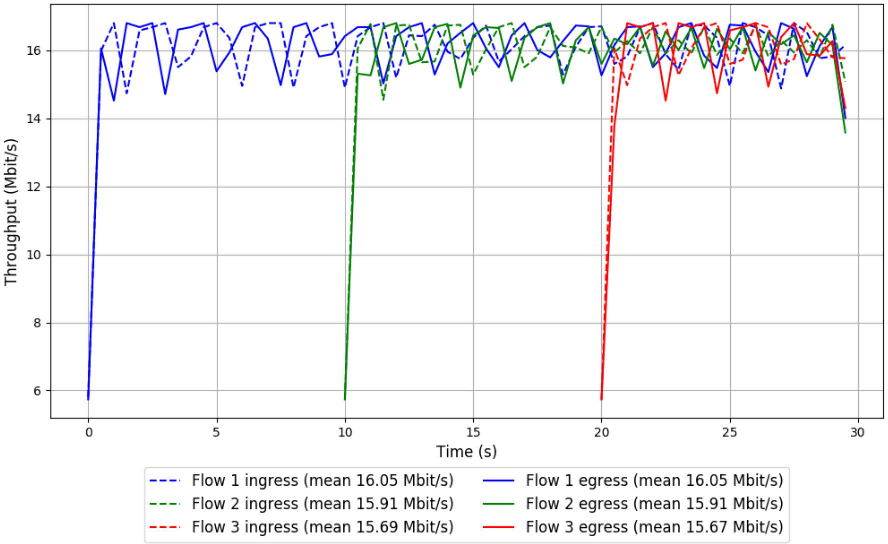


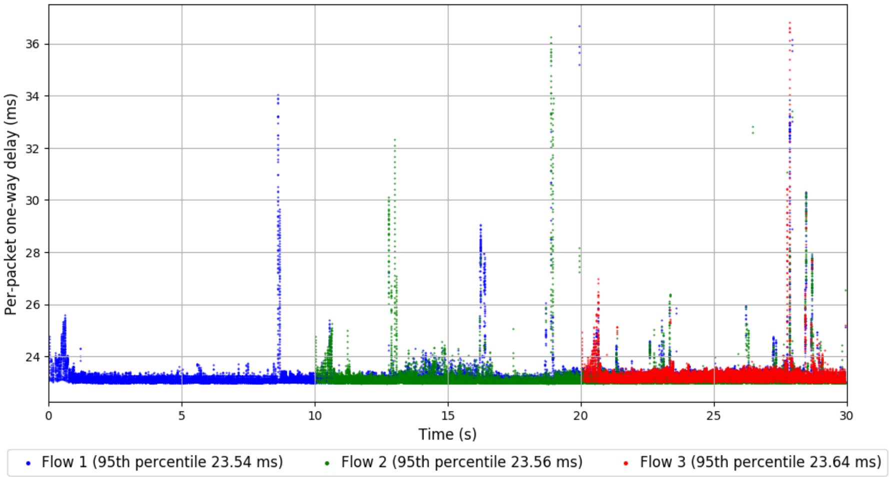
```
Run 6: Statistics of KohoCC

Start at: 2017-09-07 23:46:47
End at: 2017-09-07 23:47:17
Local clock offset: 0.58 ms
Remote clock offset: -0.269 ms

# Below is generated by plot.py at 2017-09-08 05:22:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.81 Mbit/s
95th percentile per-packet one-way delay: 23.570 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 16.05 Mbit/s
95th percentile per-packet one-way delay: 23.543 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 15.91 Mbit/s
95th percentile per-packet one-way delay: 23.556 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 23.639 ms
Loss rate: 0.76%
```

Run 6: Report of KohoCC — Data Link



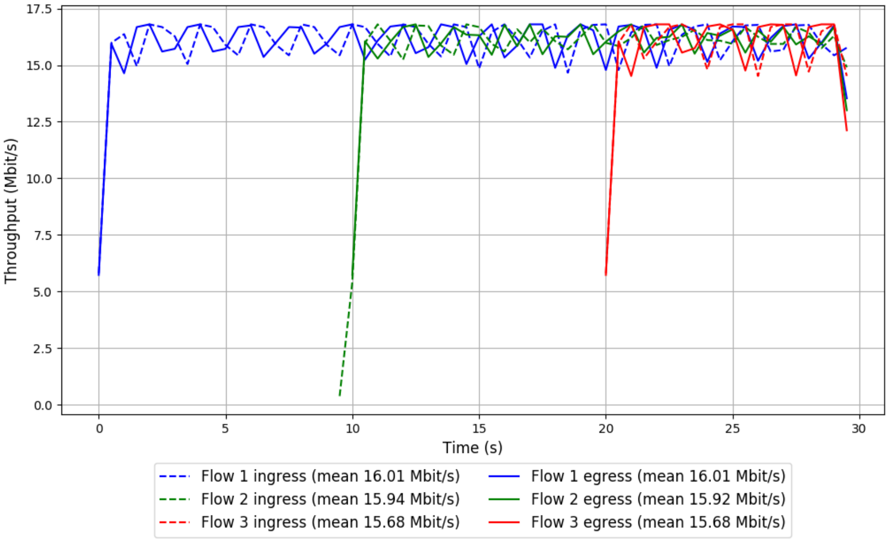


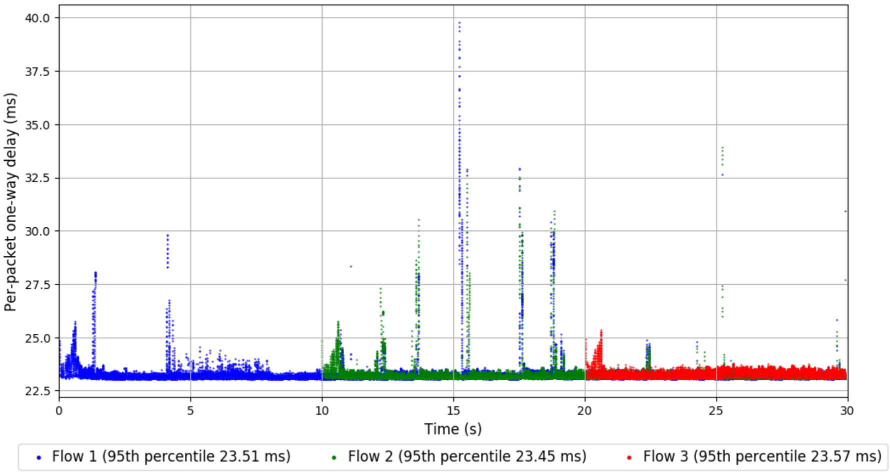
```
Run 7: Statistics of KohoCC

Start at: 2017-09-08 00:07:55
End at: 2017-09-08 00:08:25
Local clock offset: 0.57 ms
Remote clock offset: 0.498 ms

# Below is generated by plot.py at 2017-09-08 05:22:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.79 Mbit/s
95th percentile per-packet one-way delay: 23.517 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 16.01 Mbit/s
95th percentile per-packet one-way delay: 23.506 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 15.92 Mbit/s
95th percentile per-packet one-way delay: 23.454 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 15.68 Mbit/s
95th percentile per-packet one-way delay: 23.574 ms
Loss rate: 0.77%
```

Run 7: Report of KohoCC — Data Link



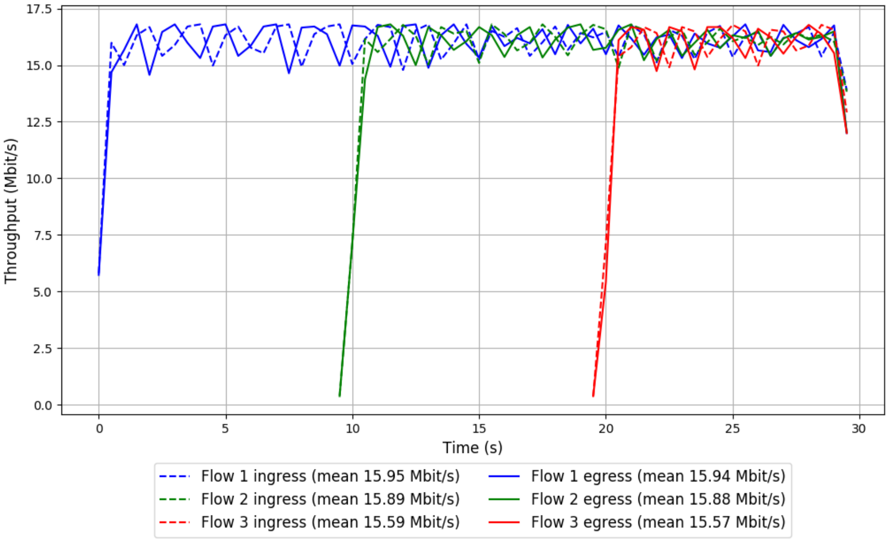


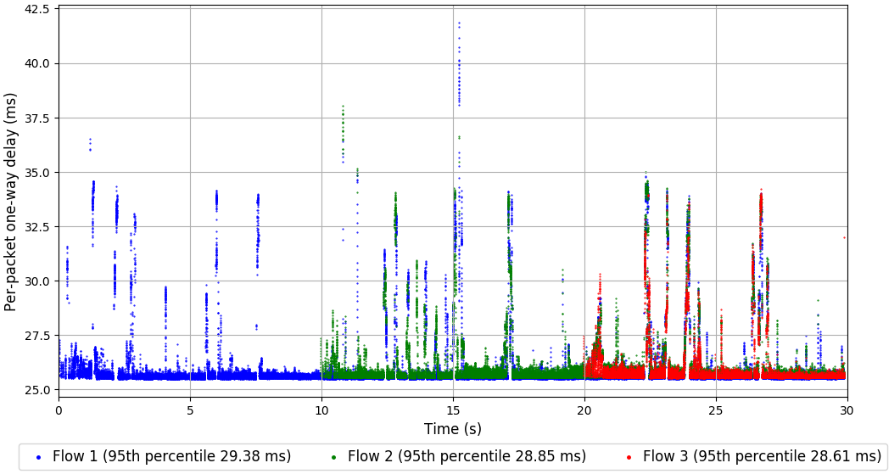
```
Run 8: Statistics of KohoCC

Start at: 2017-09-08 00:29:01
End at: 2017-09-08 00:29:31
Local clock offset: 0.399 ms
Remote clock offset: -1.541 ms

# Below is generated by plot.py at 2017-09-08 05:22:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.68 Mbit/s
95th percentile per-packet one-way delay: 29.031 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 15.94 Mbit/s
95th percentile per-packet one-way delay: 29.375 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 15.88 Mbit/s
95th percentile per-packet one-way delay: 28.847 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 15.57 Mbit/s
95th percentile per-packet one-way delay: 28.610 ms
Loss rate: 0.79%
```

Run 8: Report of KohoCC — Data Link



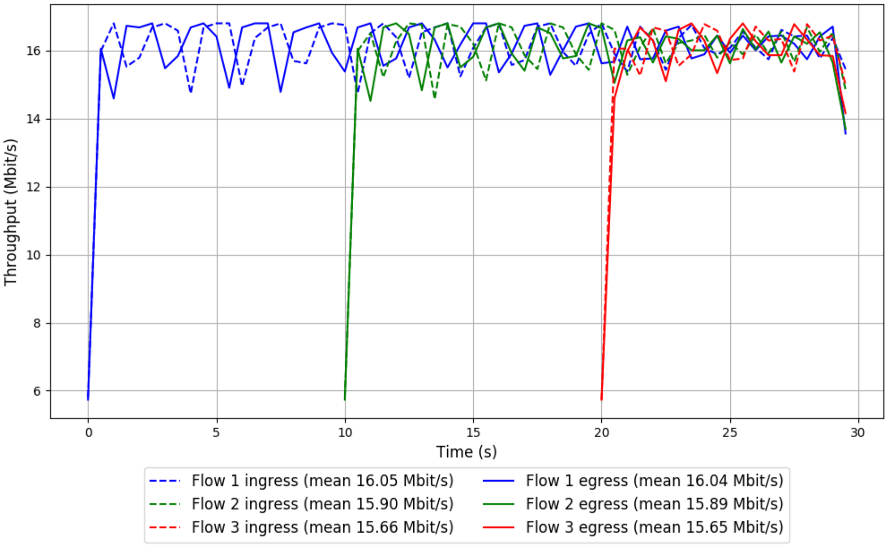


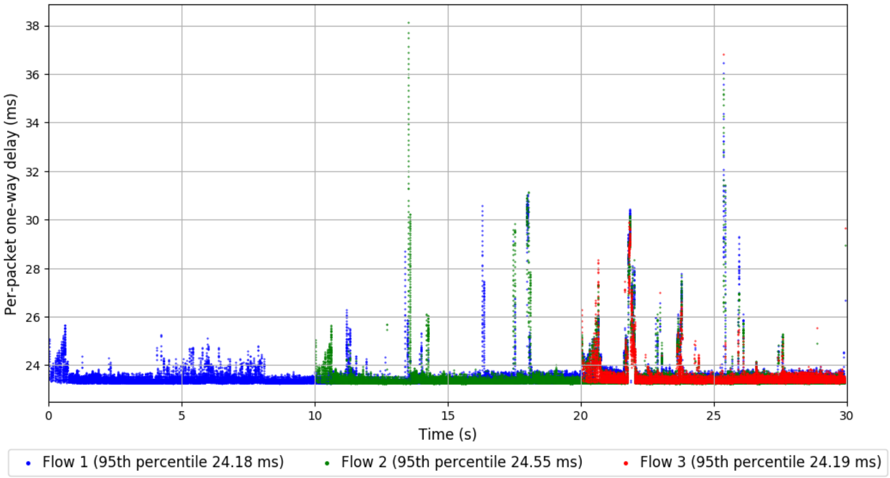
```
Run 9: Statistics of KohoCC

Start at: 2017-09-08 00:49:55
End at: 2017-09-08 00:50:25
Local clock offset: 0.288 ms
Remote clock offset: 0.861 ms

# Below is generated by plot.py at 2017-09-08 05:22:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.80 Mbit/s
95th percentile per-packet one-way delay: 24.284 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 16.04 Mbit/s
95th percentile per-packet one-way delay: 24.181 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 24.551 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 15.65 Mbit/s
95th percentile per-packet one-way delay: 24.193 ms
Loss rate: 0.76%
```

Run 9: Report of KohoCC — Data Link



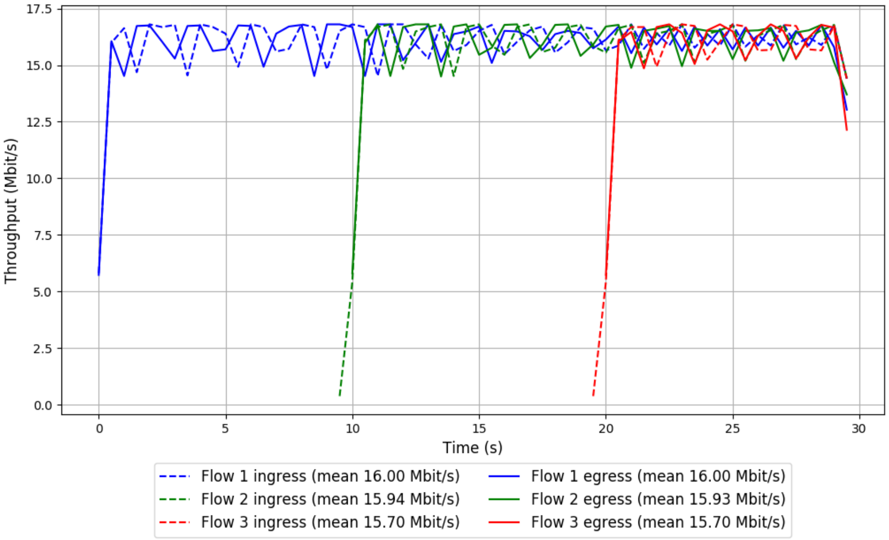


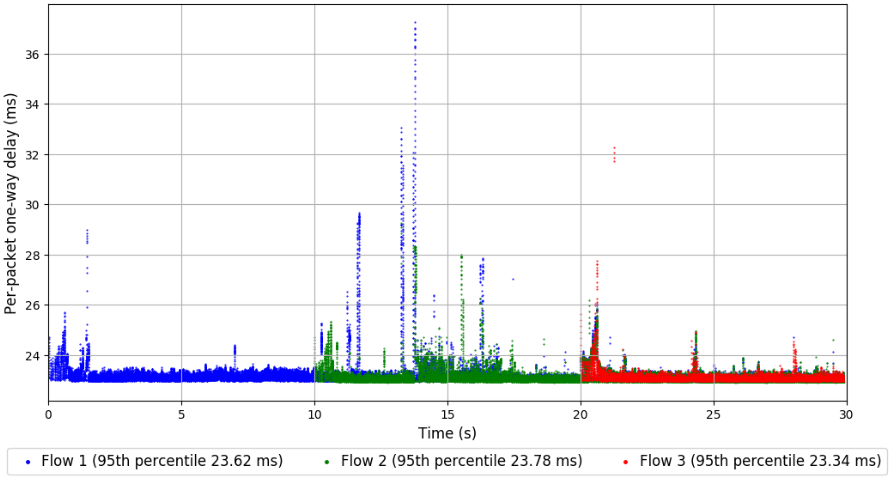
```
Run 10: Statistics of KohoCC

Start at: 2017-09-08 01:10:46
End at: 2017-09-08 01:11:16
Local clock offset: 0.063 ms
Remote clock offset: 0.785 ms

# Below is generated by plot.py at 2017-09-08 05:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.80 Mbit/s
95th percentile per-packet one-way delay: 23.639 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 23.623 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 15.93 Mbit/s
95th percentile per-packet one-way delay: 23.781 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 15.70 Mbit/s
95th percentile per-packet one-way delay: 23.338 ms
Loss rate: 0.77%
```

Run 10: Report of KohoCC — Data Link



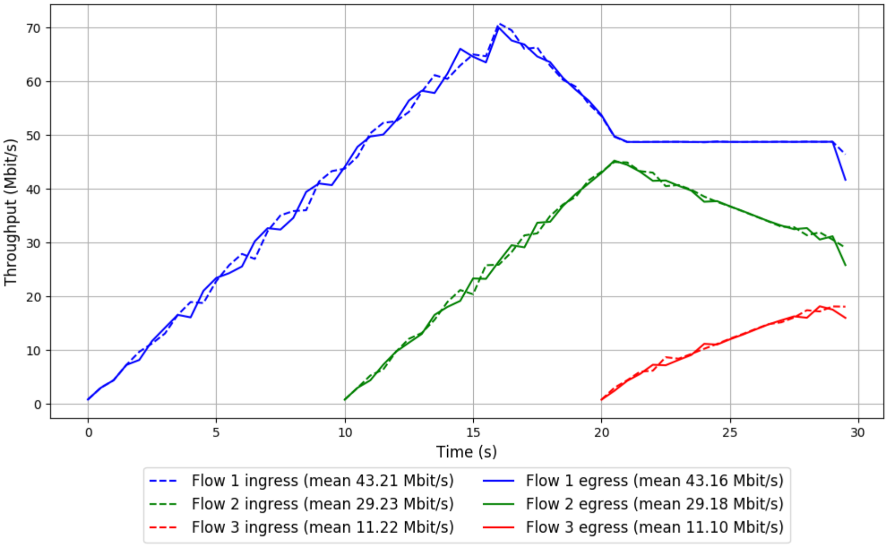


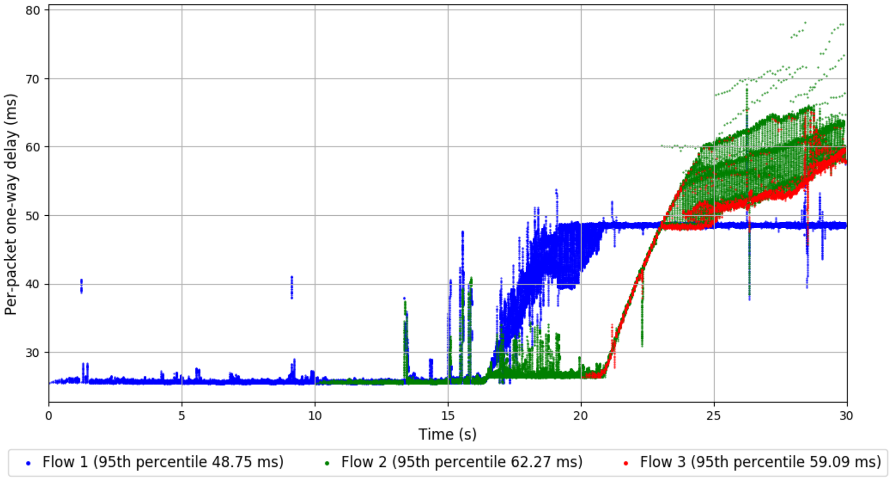
```
Run 1: Statistics of LEDBAT

Start at: 2017-09-07 22:08:26
End at: 2017-09-07 22:08:56
Local clock offset: 0.847 ms
Remote clock offset: -3.504 ms

# Below is generated by plot.py at 2017-09-08 05:22:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.24 Mbit/s
95th percentile per-packet one-way delay: 58.108 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 43.16 Mbit/s
95th percentile per-packet one-way delay: 48.748 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 62.270 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 11.10 Mbit/s
95th percentile per-packet one-way delay: 59.092 ms
Loss rate: 1.80%
```

Run 1: Report of LEDBAT — Data Link



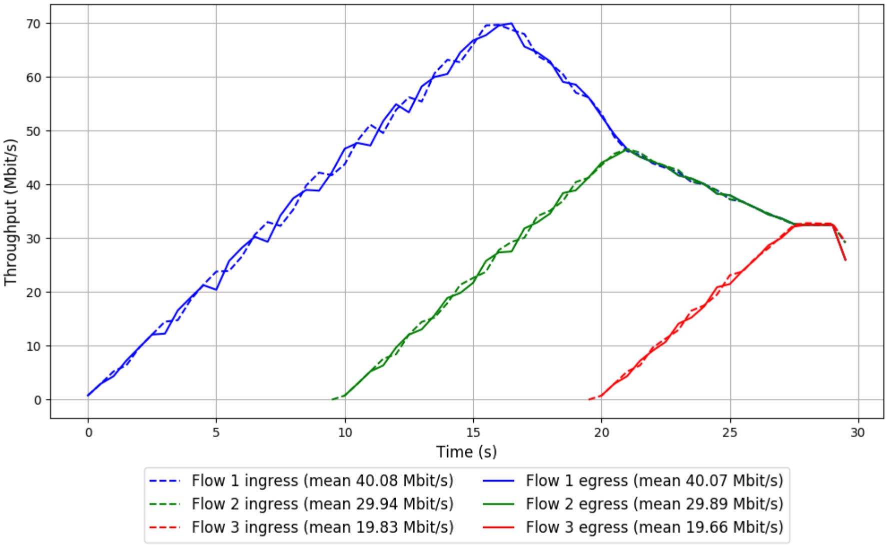


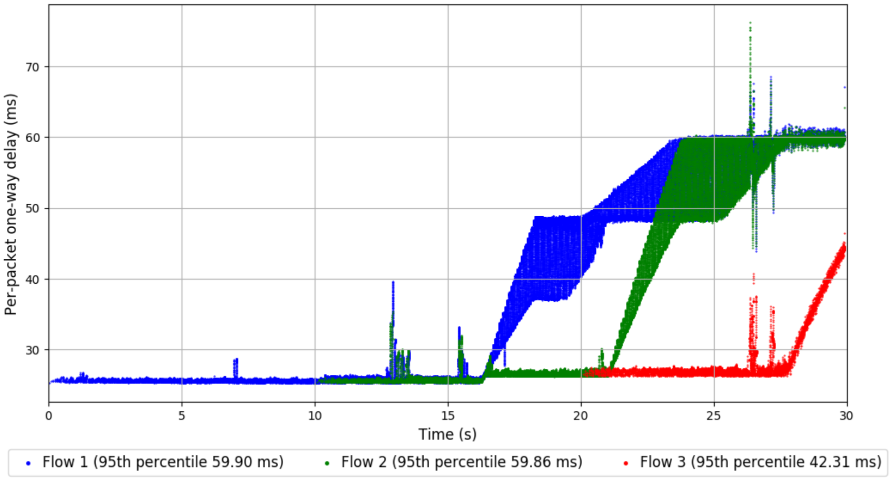
```
Run 2: Statistics of LEDBAT

Start at: 2017-09-07 22:29:33
End at: 2017-09-07 22:30:03
Local clock offset: 0.851 ms
Remote clock offset: -3.275 ms

# Below is generated by plot.py at 2017-09-08 05:22:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.48 Mbit/s
95th percentile per-packet one-way delay: 59.847 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 40.07 Mbit/s
95th percentile per-packet one-way delay: 59.899 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 59.857 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 42.307 ms
Loss rate: 1.53%
```

Run 2: Report of LEDBAT — Data Link



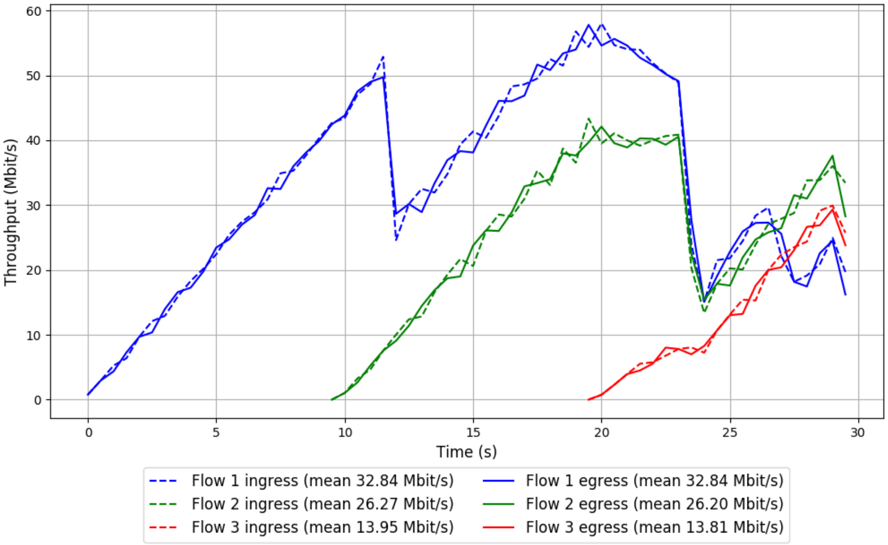


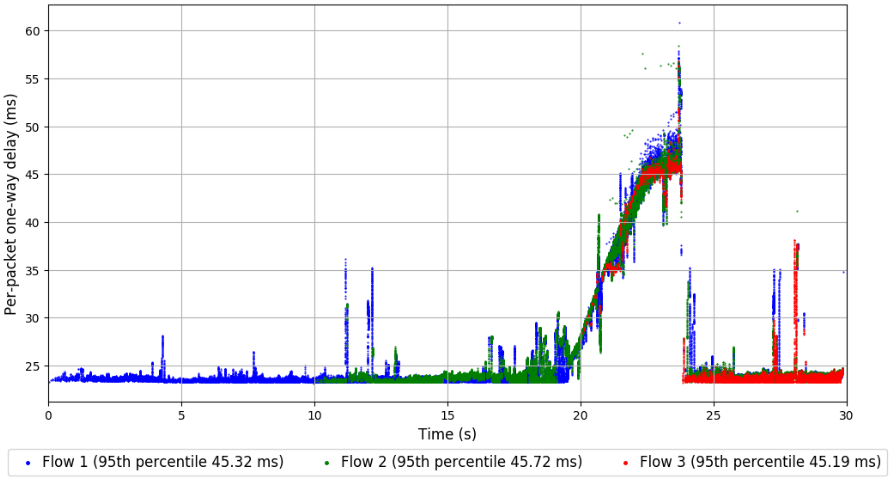
```
Run 3: Statistics of LEDBAT

Start at: 2017-09-07 22:50:38
End at: 2017-09-07 22:51:08
Local clock offset: 0.803 ms
Remote clock offset: -1.052 ms

# Below is generated by plot.py at 2017-09-08 05:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.87 Mbit/s
95th percentile per-packet one-way delay: 45.467 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 32.84 Mbit/s
95th percentile per-packet one-way delay: 45.322 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 26.20 Mbit/s
95th percentile per-packet one-way delay: 45.716 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 13.81 Mbit/s
95th percentile per-packet one-way delay: 45.192 ms
Loss rate: 1.77%
```

Run 3: Report of LEDBAT — Data Link



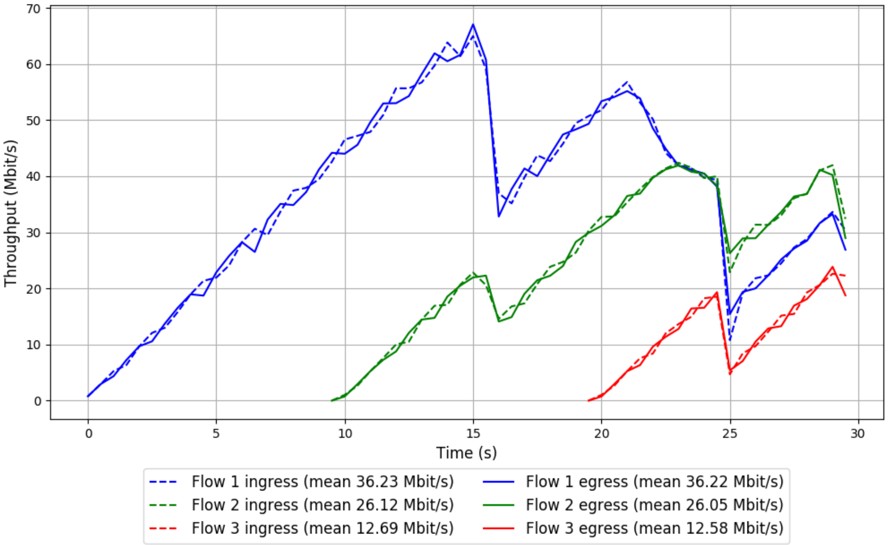


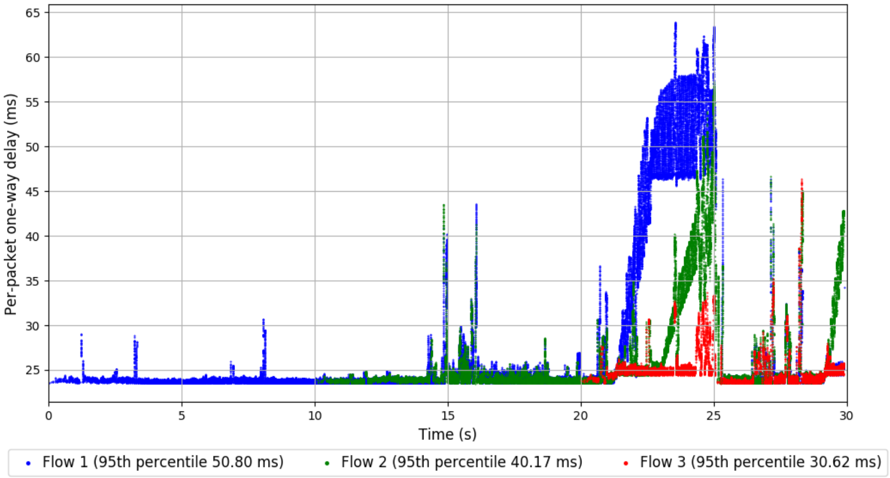
```
Run 4: Statistics of LEDBAT

Start at: 2017-09-07 23:11:45
End at: 2017-09-07 23:12:15
Local clock offset: 0.844 ms
Remote clock offset: -1.22 ms

# Below is generated by plot.py at 2017-09-08 05:22:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.73 Mbit/s
95th percentile per-packet one-way delay: 47.599 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 36.22 Mbit/s
95th percentile per-packet one-way delay: 50.799 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 26.05 Mbit/s
95th percentile per-packet one-way delay: 40.172 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 12.58 Mbit/s
95th percentile per-packet one-way delay: 30.625 ms
Loss rate: 1.61%
```

Run 4: Report of LEDBAT — Data Link



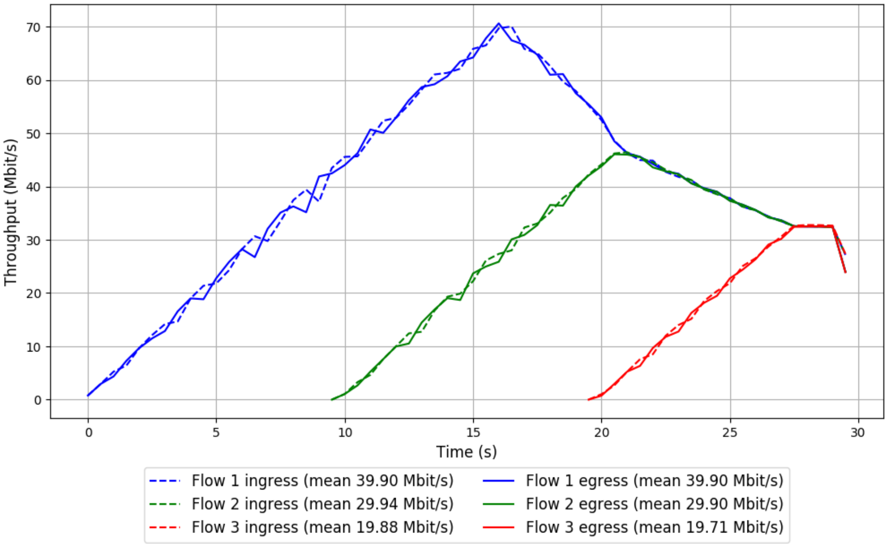


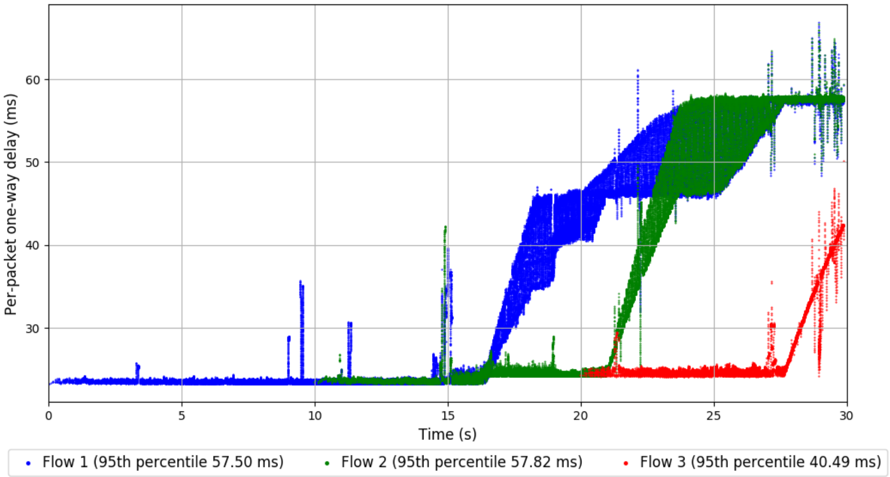
```
Run 5: Statistics of LEDBAT

Start at: 2017-09-07 23:32:45
End at: 2017-09-07 23:33:15
Local clock offset: 0.667 ms
Remote clock offset: -1.018 ms

# Below is generated by plot.py at 2017-09-08 05:23:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.36 Mbit/s
95th percentile per-packet one-way delay: 57.625 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 39.90 Mbit/s
95th percentile per-packet one-way delay: 57.498 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 29.90 Mbit/s
95th percentile per-packet one-way delay: 57.823 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 19.71 Mbit/s
95th percentile per-packet one-way delay: 40.486 ms
Loss rate: 1.53%
```

Run 5: Report of LEDBAT — Data Link



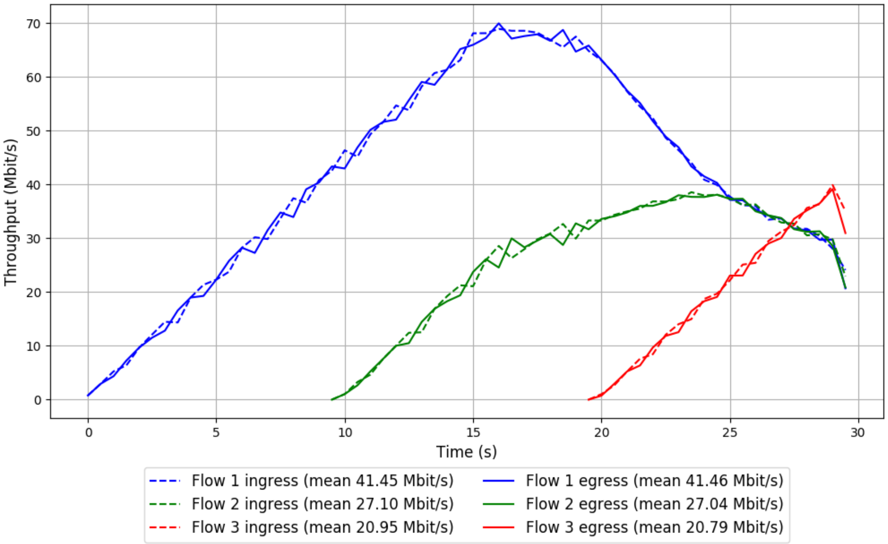


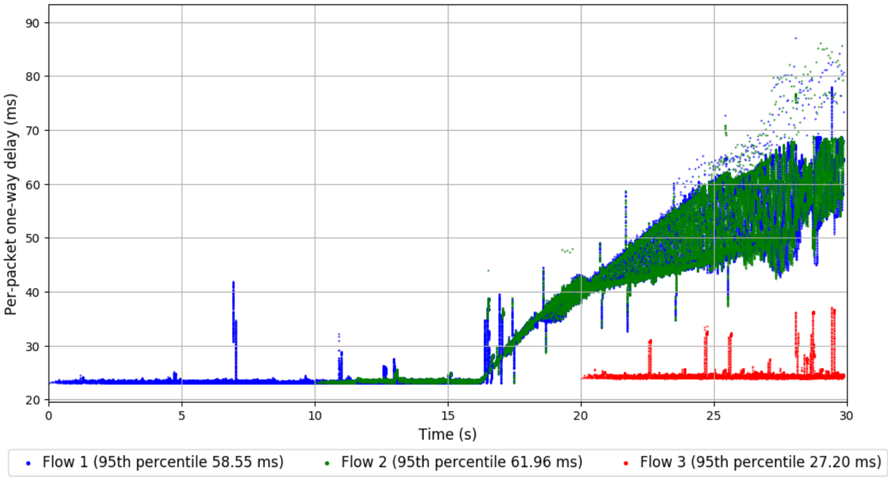
```
Run 6: Statistics of LEDBAT

Start at: 2017-09-07 23:53:43
End at: 2017-09-07 23:54:13
Local clock offset: 0.649 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2017-09-08 05:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.37 Mbit/s
95th percentile per-packet one-way delay: 59.866 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 41.46 Mbit/s
95th percentile per-packet one-way delay: 58.554 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 27.04 Mbit/s
95th percentile per-packet one-way delay: 61.958 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 20.79 Mbit/s
95th percentile per-packet one-way delay: 27.199 ms
Loss rate: 1.52%
```

Run 6: Report of LEDBAT — Data Link



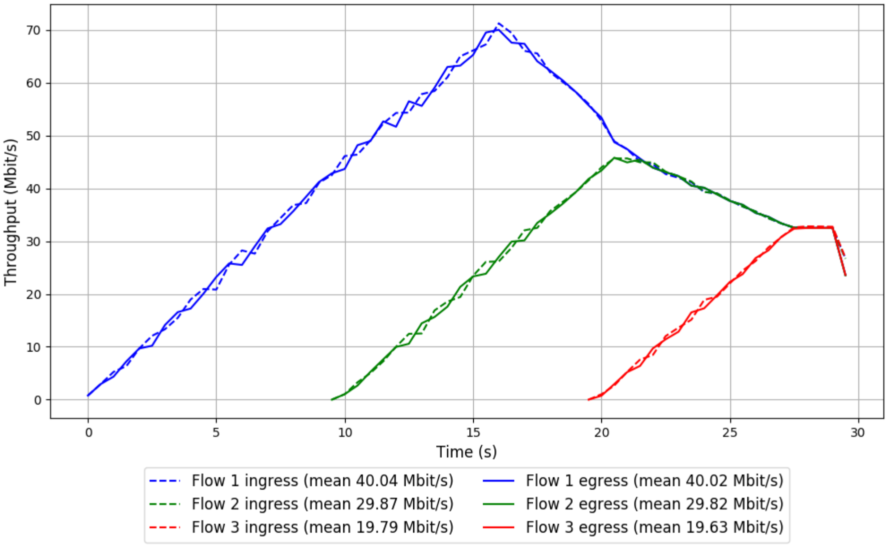


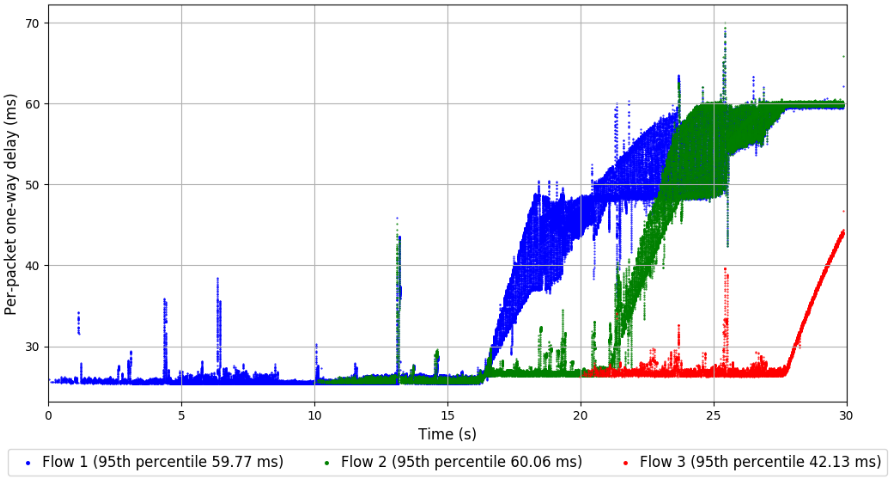
```
Run 7: Statistics of LEDBAT

Start at: 2017-09-08 00:14:55
End at: 2017-09-08 00:15:25
Local clock offset: 0.419 ms
Remote clock offset: -1.83 ms

# Below is generated by plot.py at 2017-09-08 05:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.40 Mbit/s
95th percentile per-packet one-way delay: 59.881 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 59.774 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 29.82 Mbit/s
95th percentile per-packet one-way delay: 60.060 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 19.63 Mbit/s
95th percentile per-packet one-way delay: 42.127 ms
Loss rate: 1.51%
```

Run 7: Report of LEDBAT — Data Link



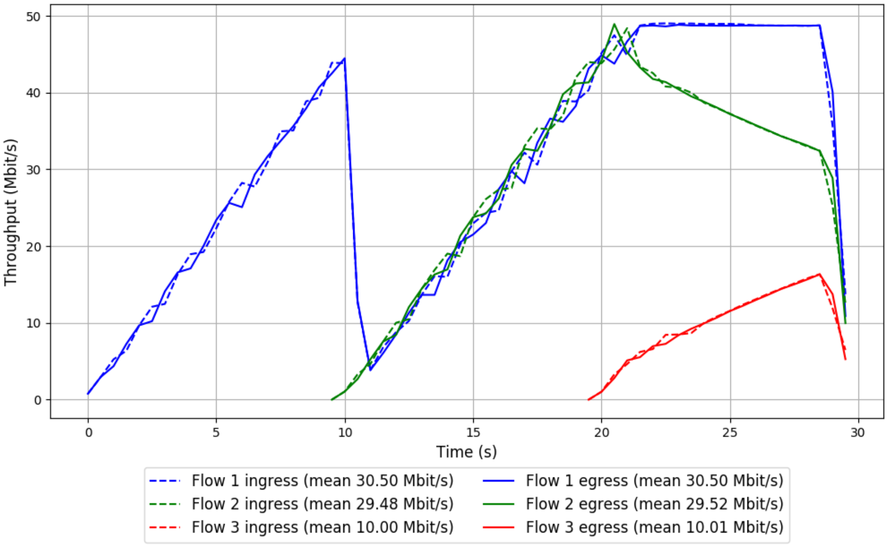


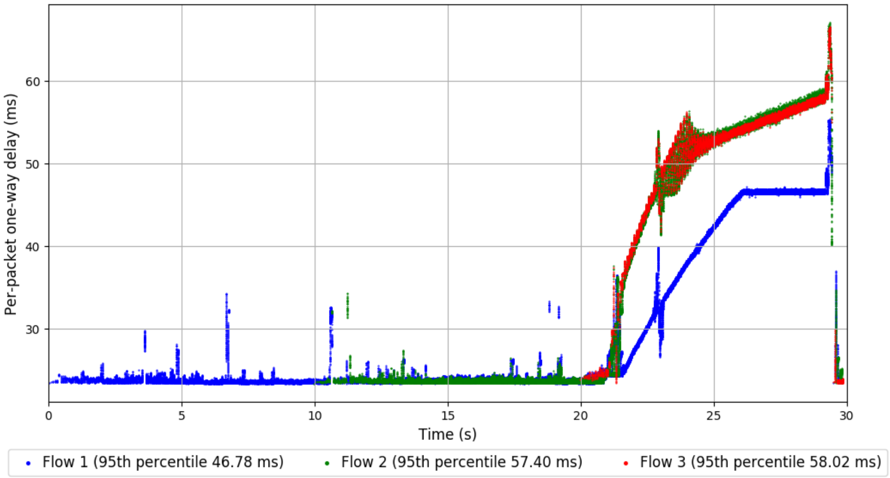
```
Run 8: Statistics of LEDBAT

Start at: 2017-09-08 00:35:57
End at: 2017-09-08 00:36:27
Local clock offset: 0.358 ms
Remote clock offset: 0.676 ms

# Below is generated by plot.py at 2017-09-08 05:23:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.41 Mbit/s
95th percentile per-packet one-way delay: 56.433 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 30.50 Mbit/s
95th percentile per-packet one-way delay: 46.784 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 57.396 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 10.01 Mbit/s
95th percentile per-packet one-way delay: 58.024 ms
Loss rate: 0.62%
```

Run 8: Report of LEDBAT — Data Link



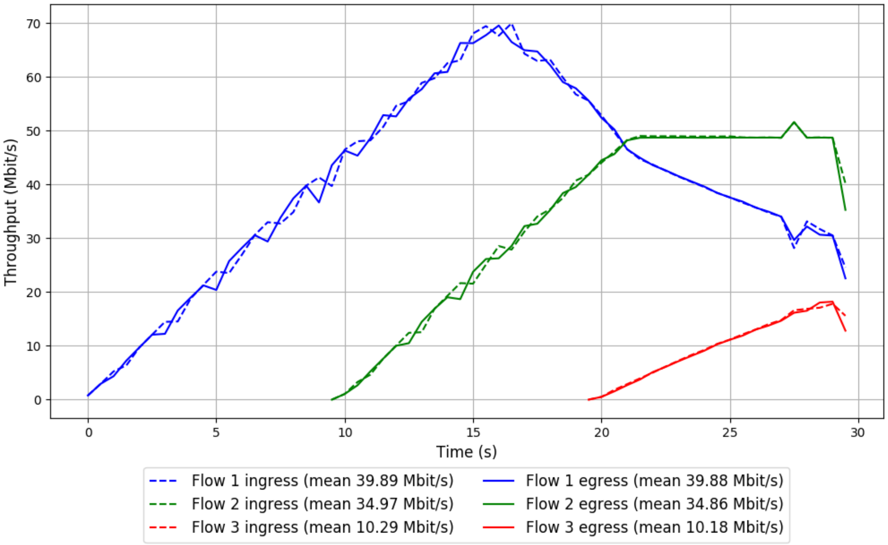


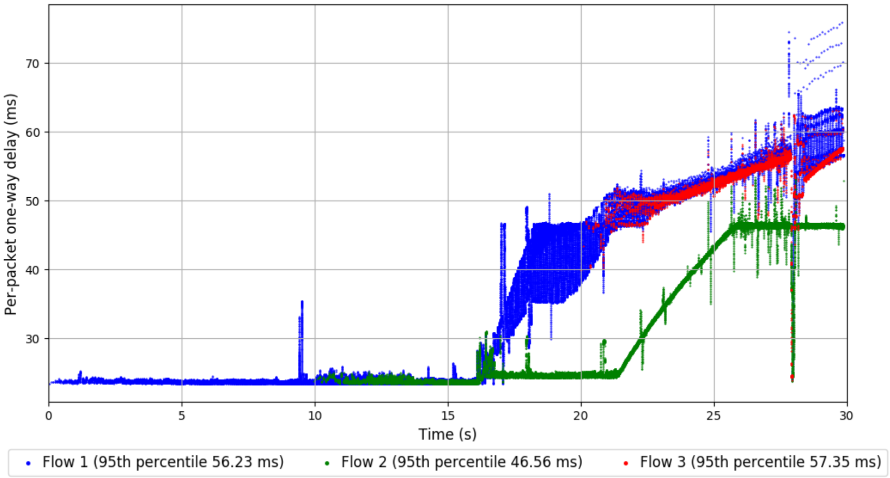
```
Run 9: Statistics of LEDBAT

Start at: 2017-09-08 00:56:50
End at: 2017-09-08 00:57:20
Local clock offset: 0.151 ms
Remote clock offset: 0.494 ms

# Below is generated by plot.py at 2017-09-08 05:23:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.48 Mbit/s
95th percentile per-packet one-way delay: 55.634 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 39.88 Mbit/s
95th percentile per-packet one-way delay: 56.232 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 46.561 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 10.18 Mbit/s
95th percentile per-packet one-way delay: 57.348 ms
Loss rate: 1.96%
```

Run 9: Report of LEDBAT — Data Link



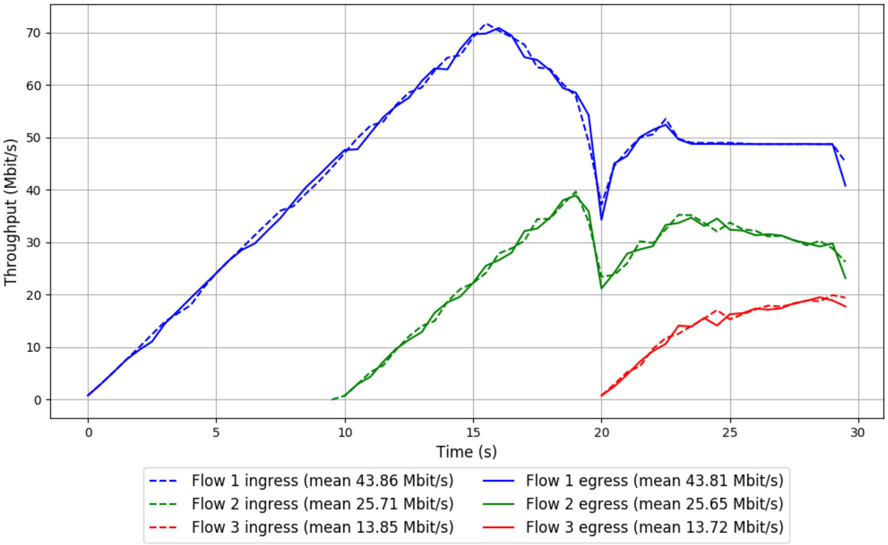


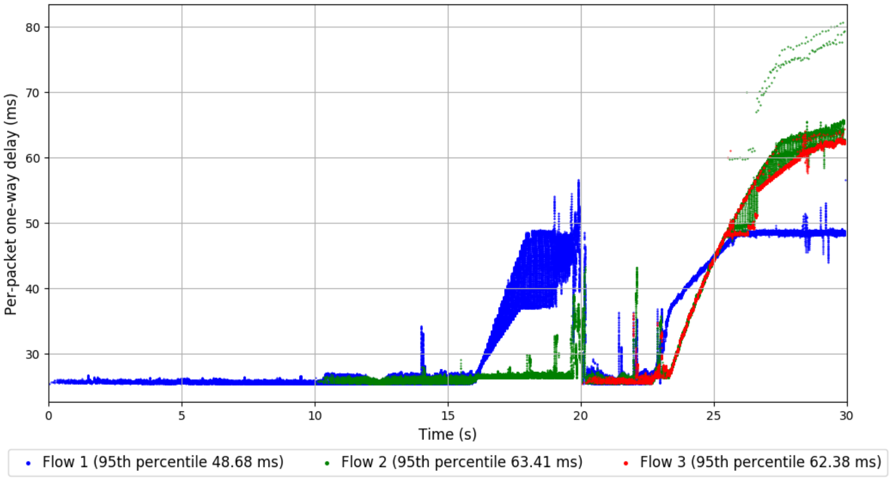
```
Run 10: Statistics of LEDBAT

Start at: 2017-09-08 01:17:40
End at: 2017-09-08 01:18:10
Local clock offset: -0.008 ms
Remote clock offset: -1.88 ms

# Below is generated by plot.py at 2017-09-08 05:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.42 Mbit/s
95th percentile per-packet one-way delay: 60.821 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 43.81 Mbit/s
95th percentile per-packet one-way delay: 48.676 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 25.65 Mbit/s
95th percentile per-packet one-way delay: 63.409 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 13.72 Mbit/s
95th percentile per-packet one-way delay: 62.381 ms
Loss rate: 1.64%
```

Run 10: Report of LEDBAT — Data Link



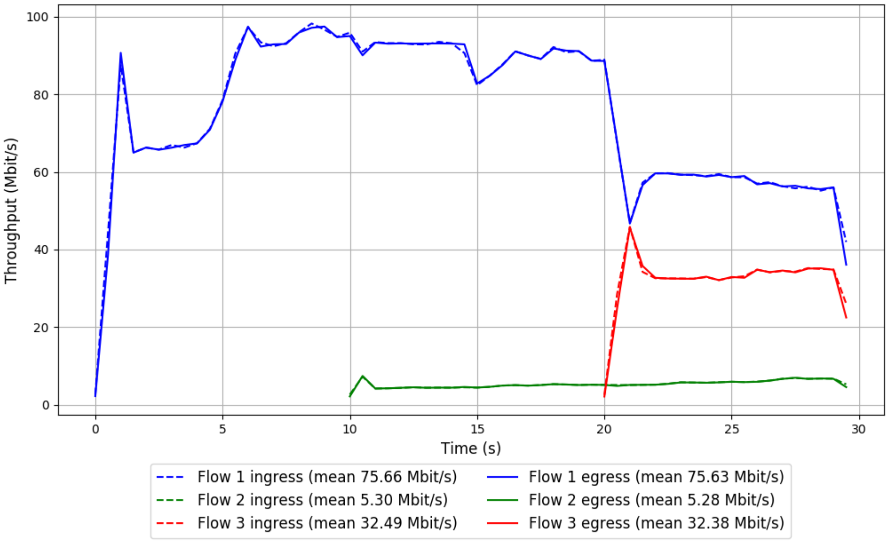


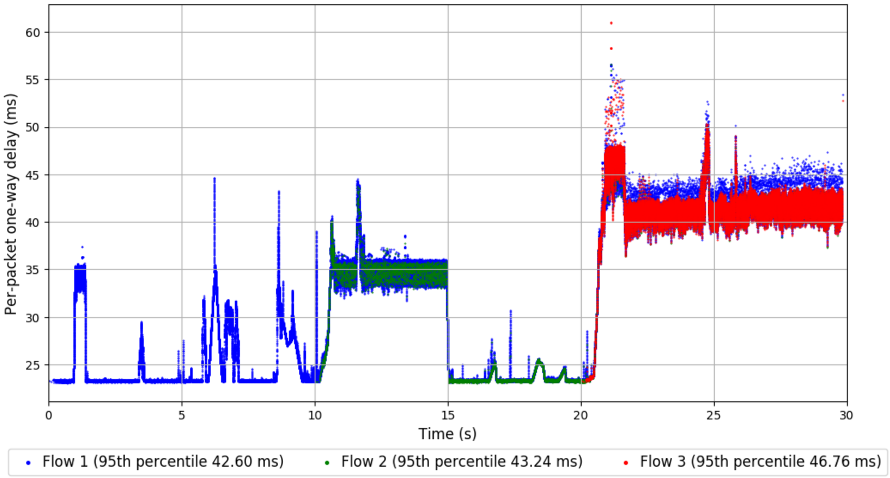
```
Run 1: Statistics of PCC

Start at: 2017-09-07 21:48:51
End at: 2017-09-07 21:49:21
Local clock offset: 0.886 ms
Remote clock offset: -1.232 ms

# Below is generated by plot.py at 2017-09-08 05:23:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.77 Mbit/s
95th percentile per-packet one-way delay: 43.050 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 75.63 Mbit/s
95th percentile per-packet one-way delay: 42.600 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 43.238 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 32.38 Mbit/s
95th percentile per-packet one-way delay: 46.760 ms
Loss rate: 1.03%
```

Run 1: Report of PCC — Data Link



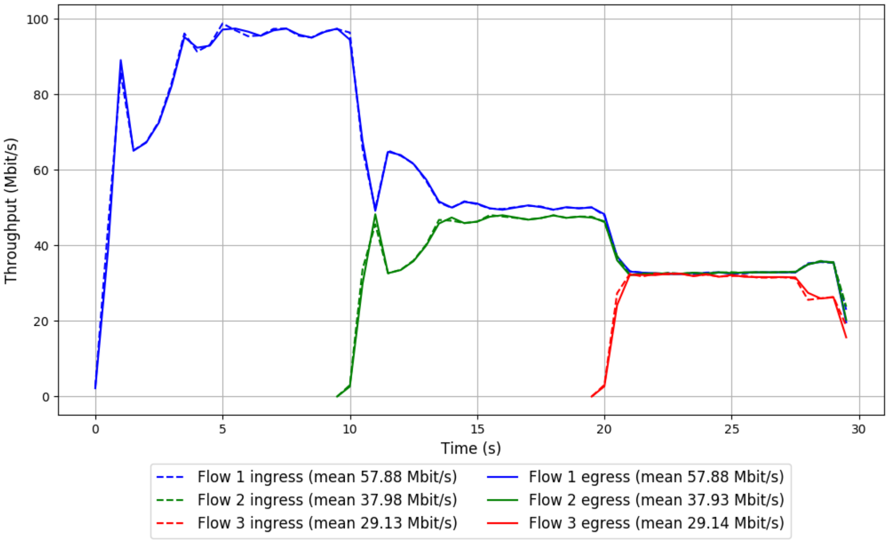


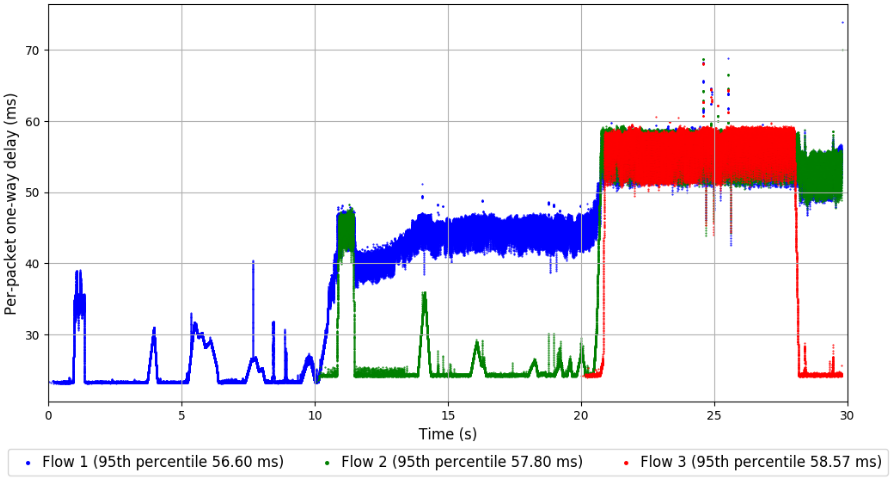
```
Run 2: Statistics of PCC

Start at: 2017-09-07 22:09:50
End at: 2017-09-07 22:10:20
Local clock offset: 0.885 ms
Remote clock offset: -1.372 ms

# Below is generated by plot.py at 2017-09-08 05:23:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.69 Mbit/s
95th percentile per-packet one-way delay: 57.613 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 57.88 Mbit/s
95th percentile per-packet one-way delay: 56.602 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 37.93 Mbit/s
95th percentile per-packet one-way delay: 57.798 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 29.14 Mbit/s
95th percentile per-packet one-way delay: 58.573 ms
Loss rate: 0.76%
```

Run 2: Report of PCC — Data Link



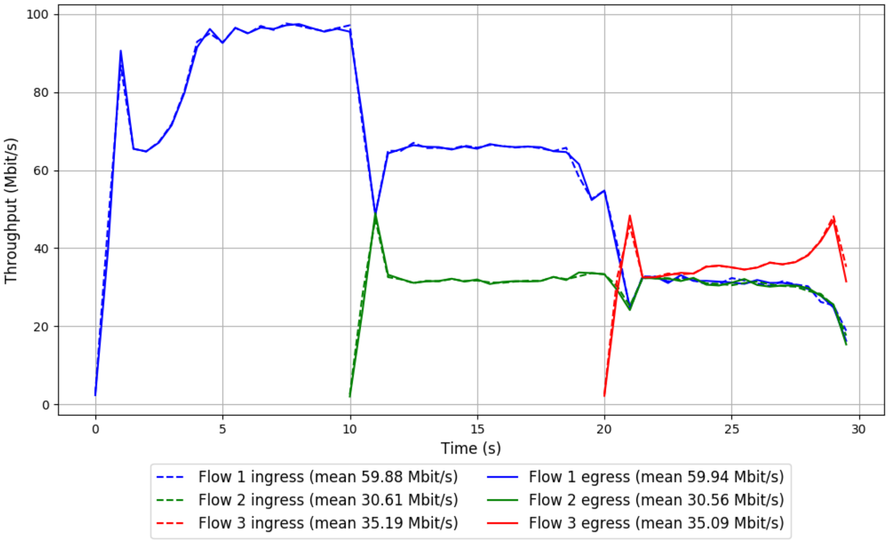


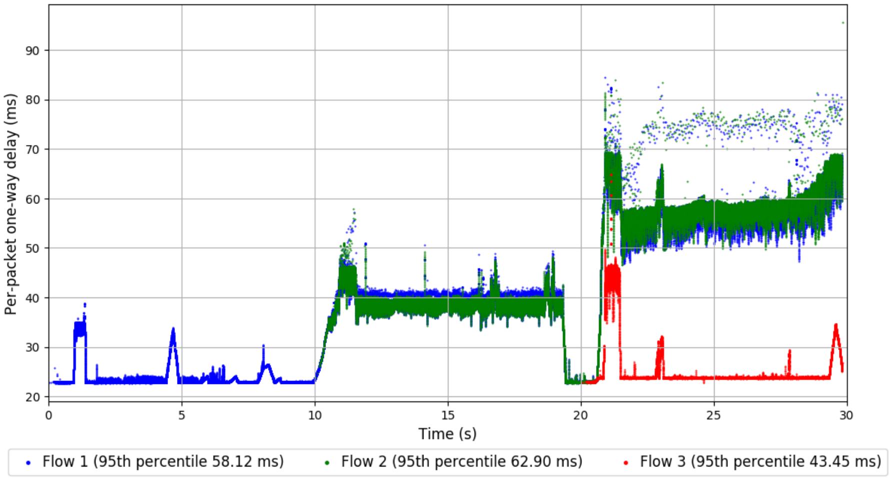
```
Run 3: Statistics of PCC

Start at: 2017-09-07 22:30:58
End at: 2017-09-07 22:31:28
Local clock offset: 0.838 ms
Remote clock offset: -0.78 ms

# Below is generated by plot.py at 2017-09-08 05:23:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.73 Mbit/s
95th percentile per-packet one-way delay: 58.856 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 59.94 Mbit/s
95th percentile per-packet one-way delay: 58.121 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 62.900 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 35.09 Mbit/s
95th percentile per-packet one-way delay: 43.447 ms
Loss rate: 1.00%
```

Run 3: Report of PCC — Data Link



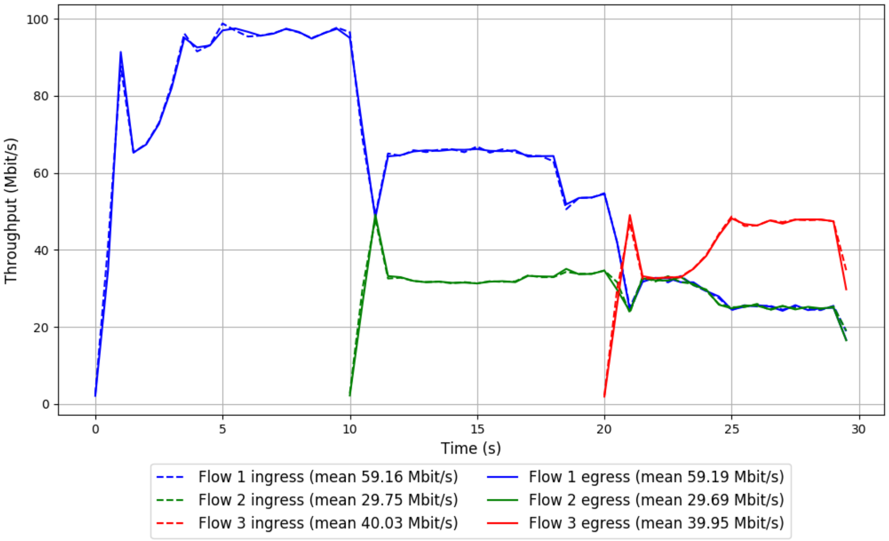


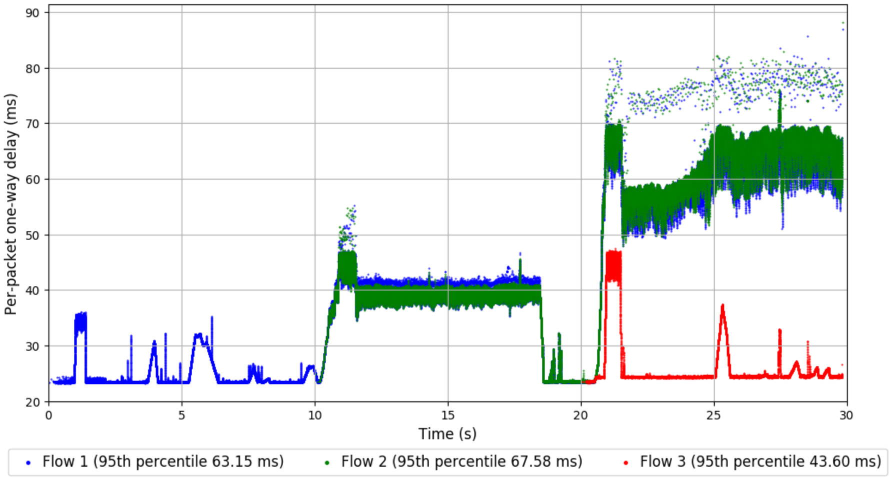
```
Run 4: Statistics of PCC

Start at: 2017-09-07 22:52:01
End at: 2017-09-07 22:52:31
Local clock offset: 0.821 ms
Remote clock offset: -1.145 ms

# Below is generated by plot.py at 2017-09-08 05:23:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 65.029 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 59.19 Mbit/s
95th percentile per-packet one-way delay: 63.146 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 67.579 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 43.599 ms
Loss rate: 0.94%
```

Run 4: Report of PCC — Data Link



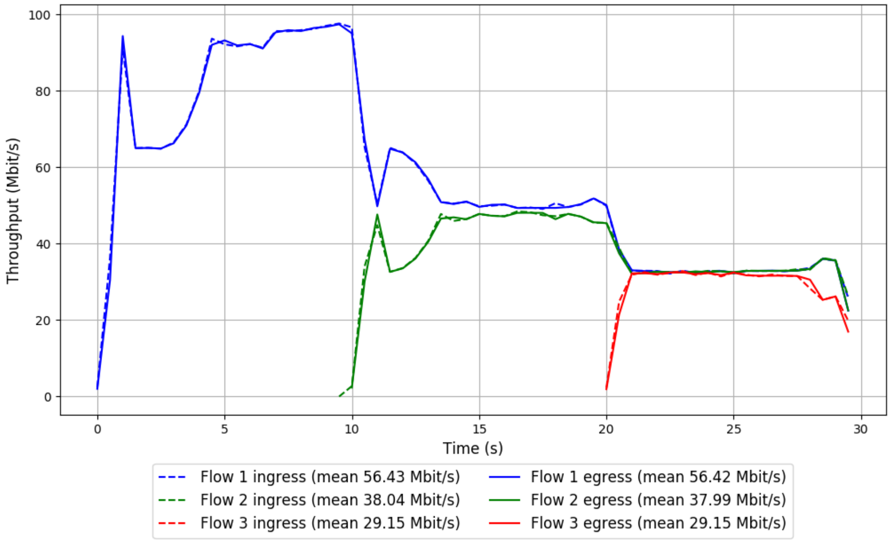


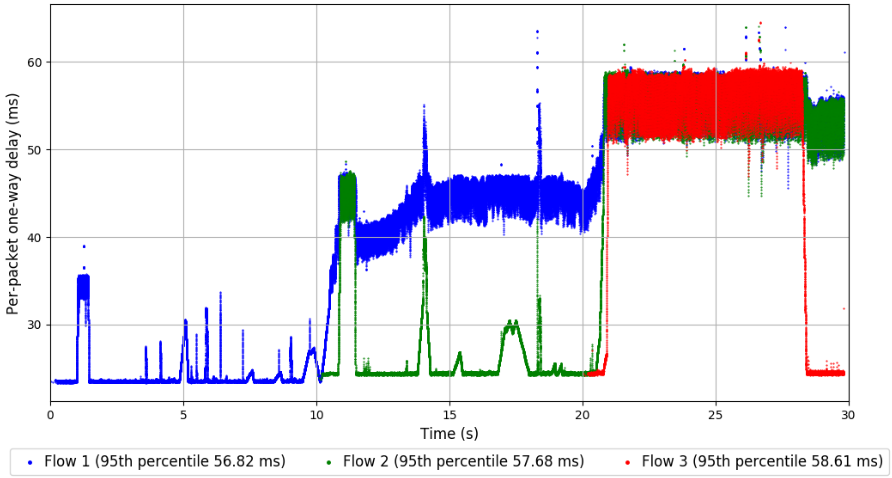
```
Run 5: Statistics of PCC

Start at: 2017-09-07 23:13:09
End at: 2017-09-07 23:13:39
Local clock offset: 0.84 ms
Remote clock offset: -1.128 ms

# Below is generated by plot.py at 2017-09-08 05:23:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.24 Mbit/s
95th percentile per-packet one-way delay: 57.677 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 56.817 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 57.678 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 29.15 Mbit/s
95th percentile per-packet one-way delay: 58.610 ms
Loss rate: 0.73%
```

Run 5: Report of PCC — Data Link



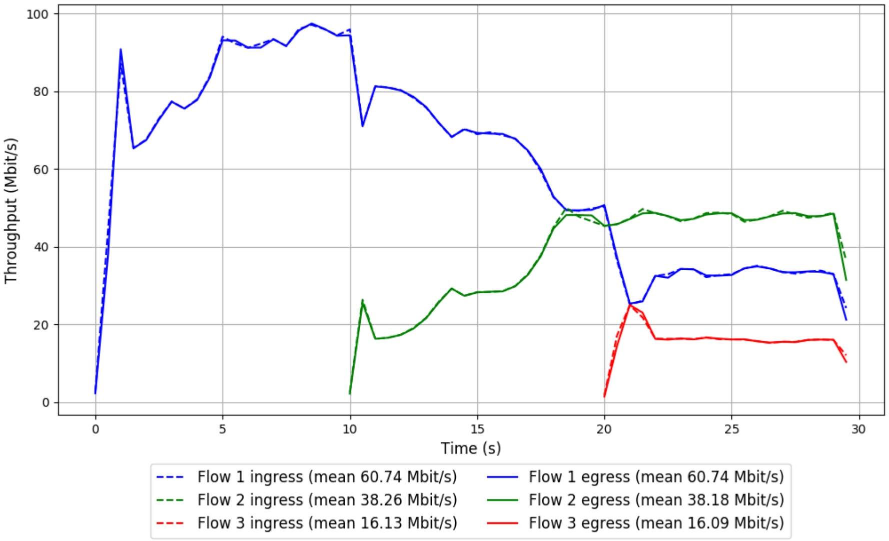


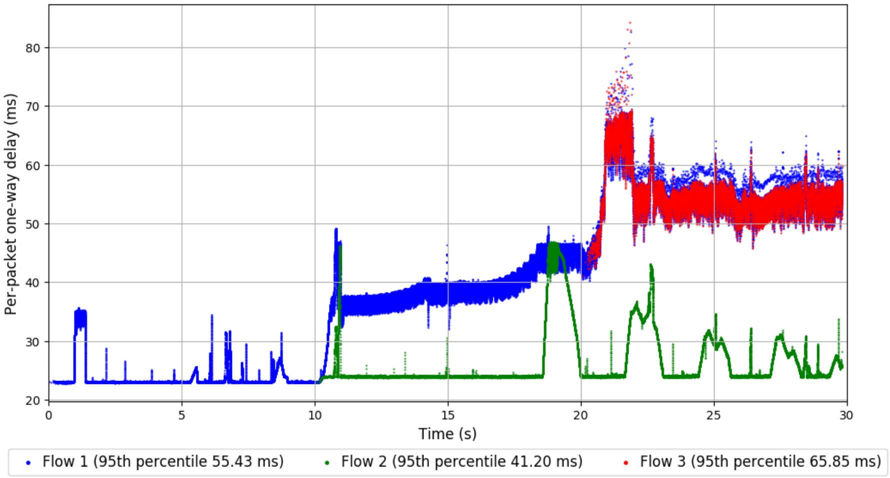
```
Run 6: Statistics of PCC

Start at: 2017-09-07 23:34:10
End at: 2017-09-07 23:34:40
Local clock offset: 0.669 ms
Remote clock offset: -0.767 ms

# Below is generated by plot.py at 2017-09-08 05:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.37 Mbit/s
95th percentile per-packet one-way delay: 55.515 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 60.74 Mbit/s
95th percentile per-packet one-way delay: 55.431 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 38.18 Mbit/s
95th percentile per-packet one-way delay: 41.197 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 16.09 Mbit/s
95th percentile per-packet one-way delay: 65.854 ms
Loss rate: 1.11%
```

Run 6: Report of PCC — Data Link



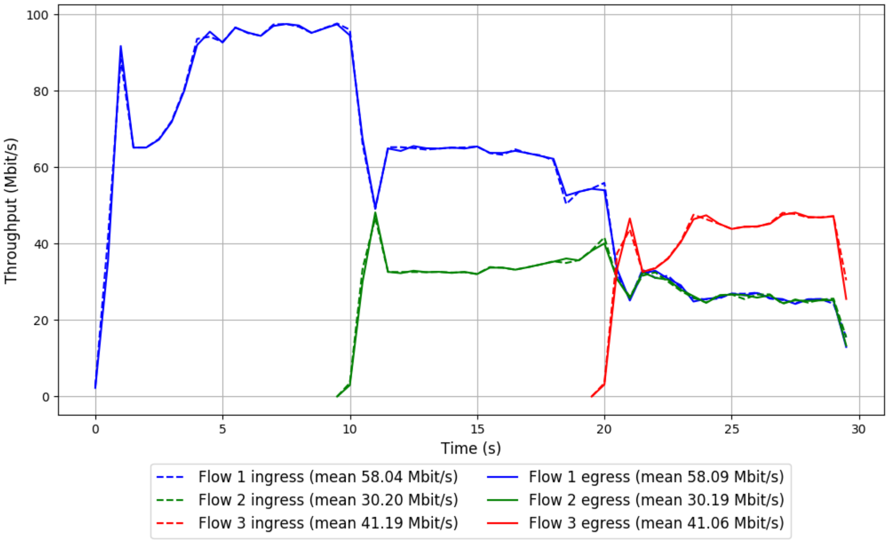


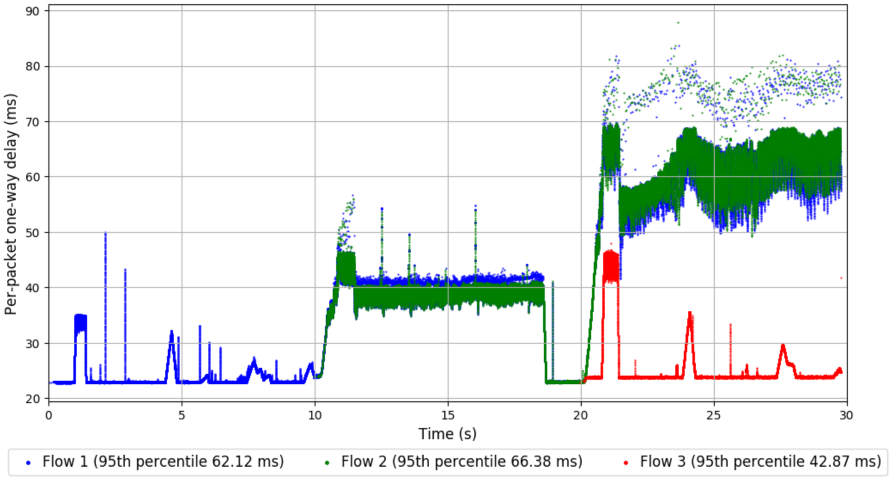
```
Run 7: Statistics of PCC

Start at: 2017-09-07 23:55:08
End at: 2017-09-07 23:55:38
Local clock offset: 0.552 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2017-09-08 05:24:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.67 Mbit/s
95th percentile per-packet one-way delay: 63.832 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 58.09 Mbit/s
95th percentile per-packet one-way delay: 62.117 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 66.380 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 41.06 Mbit/s
95th percentile per-packet one-way delay: 42.866 ms
Loss rate: 0.89%
```

Run 7: Report of PCC — Data Link



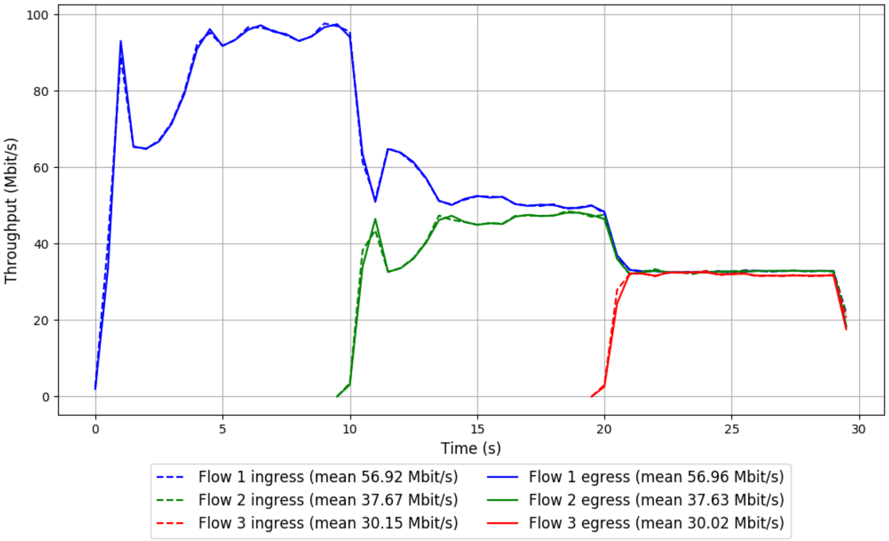


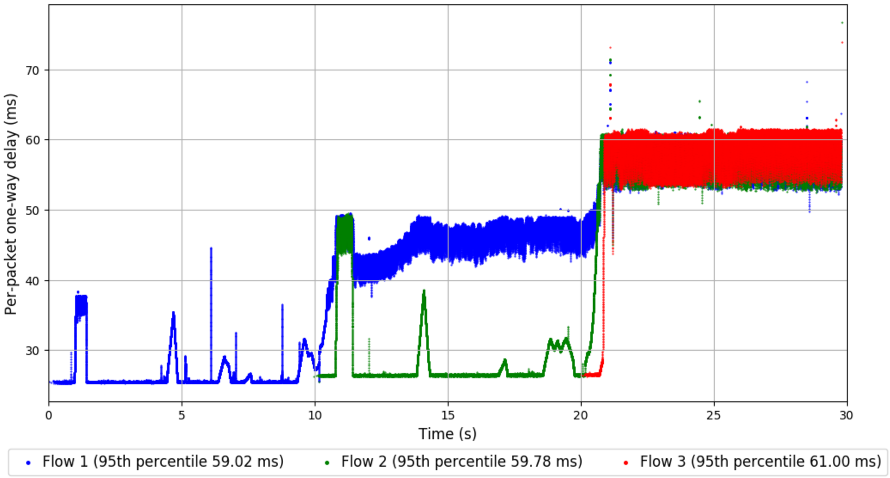
```
Run 8: Statistics of PCC

Start at: 2017-09-08 00:16:20
End at: 2017-09-08 00:16:50
Local clock offset: 0.535 ms
Remote clock offset: -1.749 ms

# Below is generated by plot.py at 2017-09-08 05:24:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 59.885 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 59.020 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 37.63 Mbit/s
95th percentile per-packet one-way delay: 59.783 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 30.02 Mbit/s
95th percentile per-packet one-way delay: 60.997 ms
Loss rate: 1.13%
```

Run 8: Report of PCC — Data Link



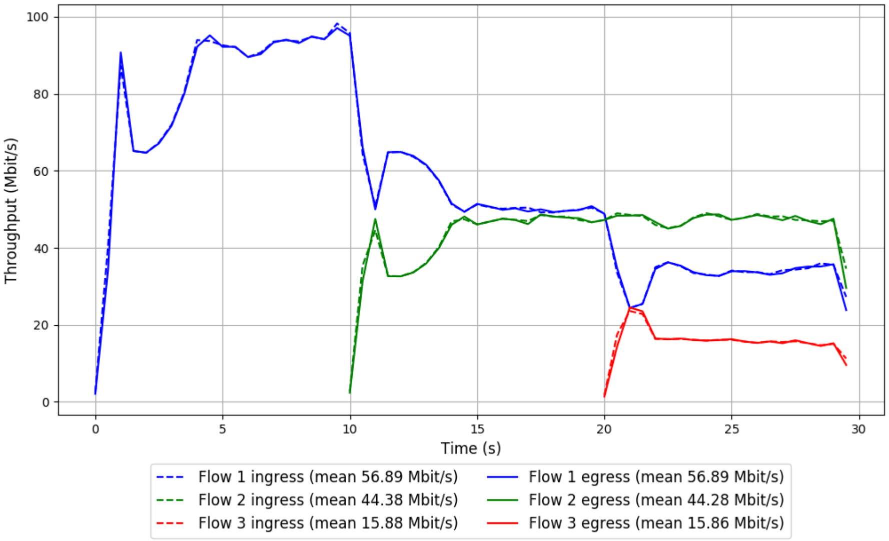


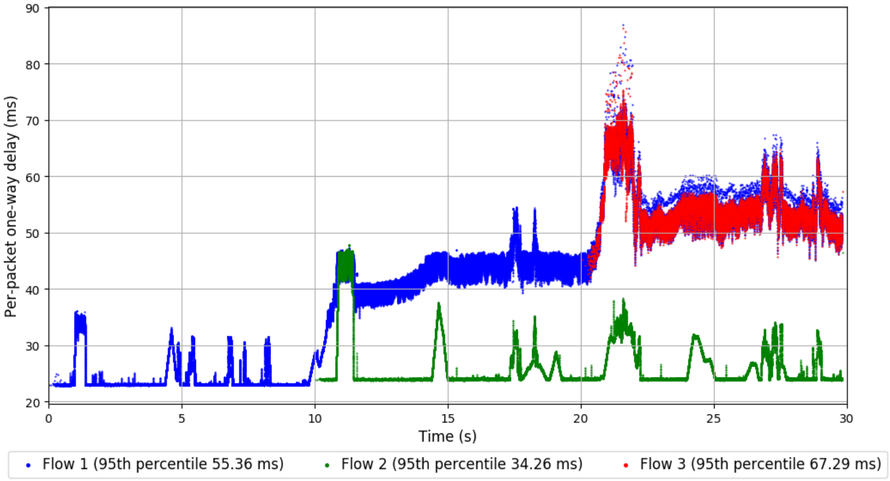
```
Run 9: Statistics of PCC

Start at: 2017-09-08 00:37:21
End at: 2017-09-08 00:37:51
Local clock offset: 0.33 ms
Remote clock offset: 1.048 ms

# Below is generated by plot.py at 2017-09-08 05:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.47 Mbit/s
95th percentile per-packet one-way delay: 55.290 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 55.361 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 44.28 Mbit/s
95th percentile per-packet one-way delay: 34.261 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 15.86 Mbit/s
95th percentile per-packet one-way delay: 67.294 ms
Loss rate: 1.10%
```

Run 9: Report of PCC — Data Link



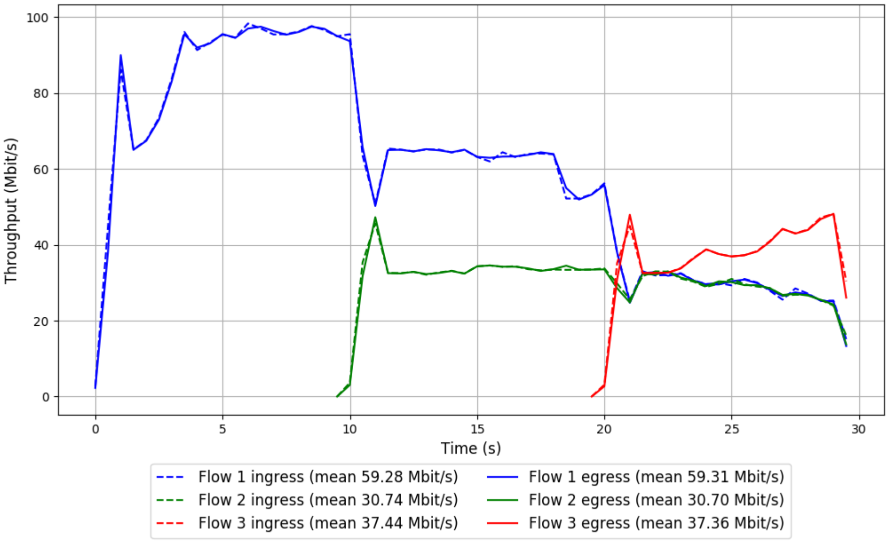


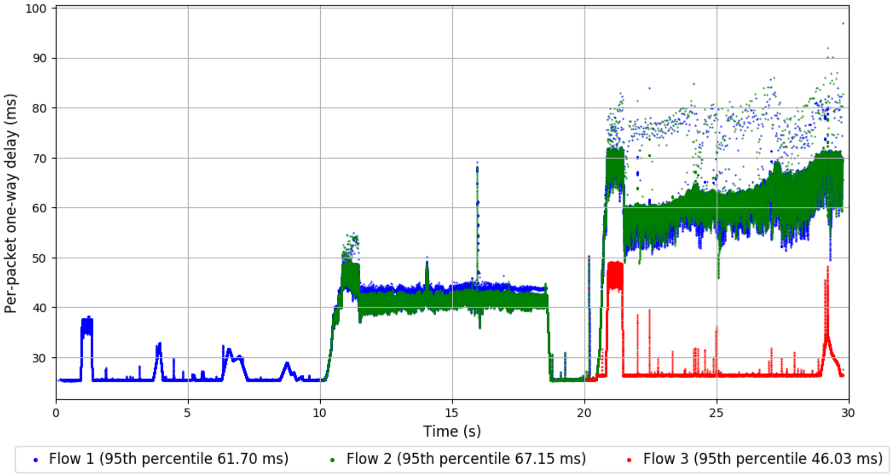
```
Run 10: Statistics of PCC

Start at: 2017-09-08 00:58:14
End at: 2017-09-08 00:58:44
Local clock offset: 0.242 ms
Remote clock offset: -1.507 ms

# Below is generated by plot.py at 2017-09-08 05:24:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.03 Mbit/s
95th percentile per-packet one-way delay: 62.902 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 61.700 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 67.149 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 37.36 Mbit/s
95th percentile per-packet one-way delay: 46.031 ms
Loss rate: 0.97%
```

Run 10: Report of PCC — Data Link



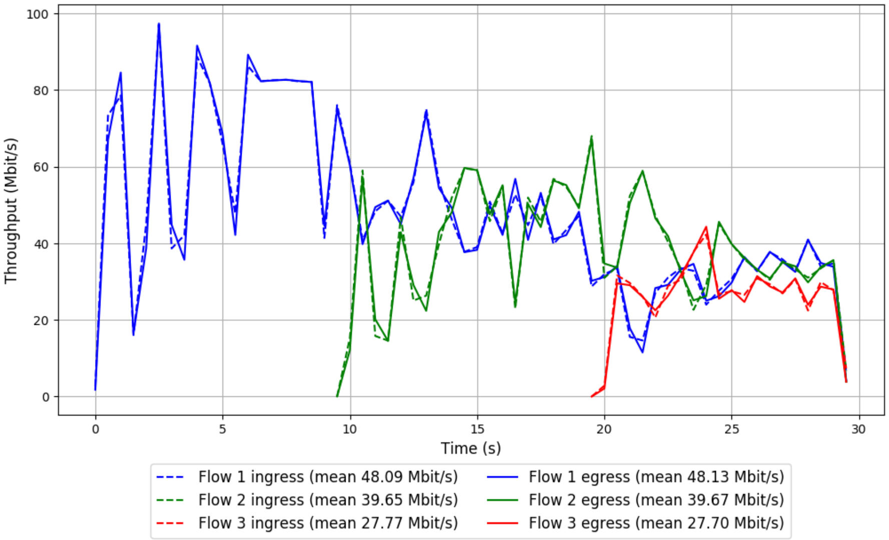


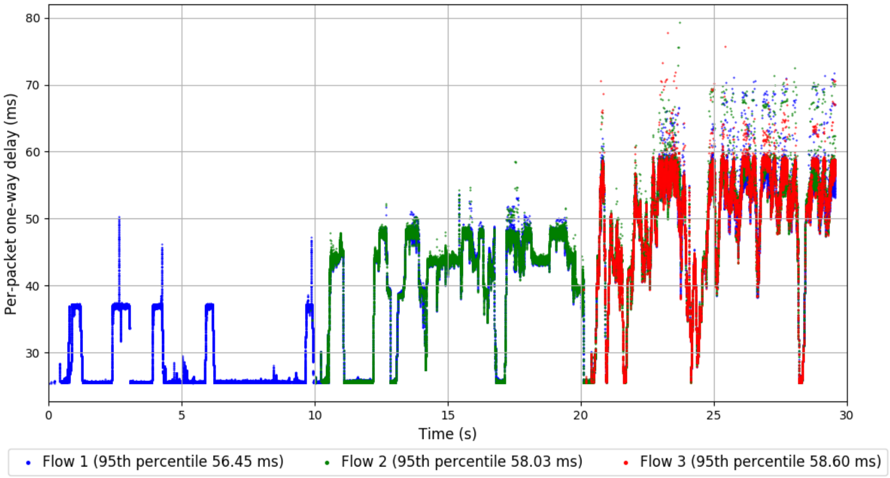
```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-07 22:05:36
End at: 2017-09-07 22:06:06
Local clock offset: 0.851 ms
Remote clock offset: -3.623 ms

# Below is generated by plot.py at 2017-09-08 05:24:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.59 Mbit/s
95th percentile per-packet one-way delay: 57.973 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 48.13 Mbit/s
95th percentile per-packet one-way delay: 56.450 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 58.028 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 58.603 ms
Loss rate: 1.22%
```

Run 1: Report of QUIC Cubic — Data Link



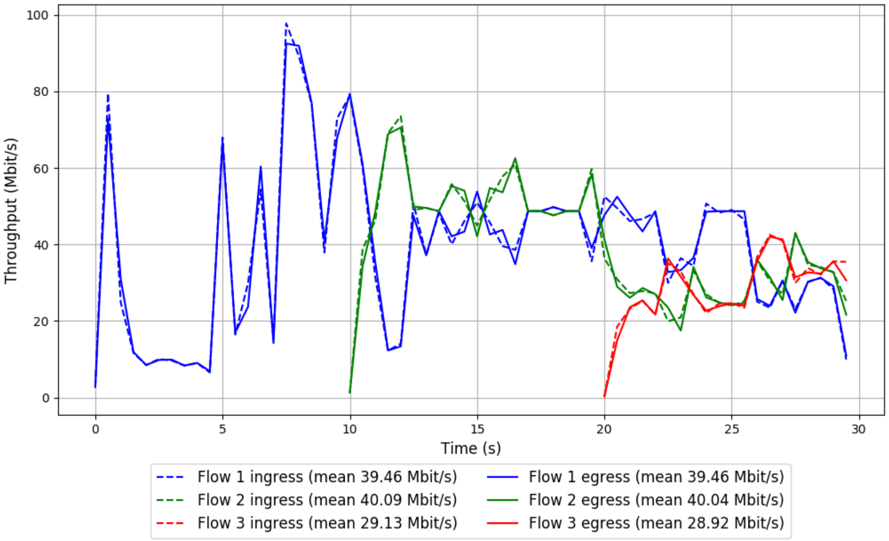


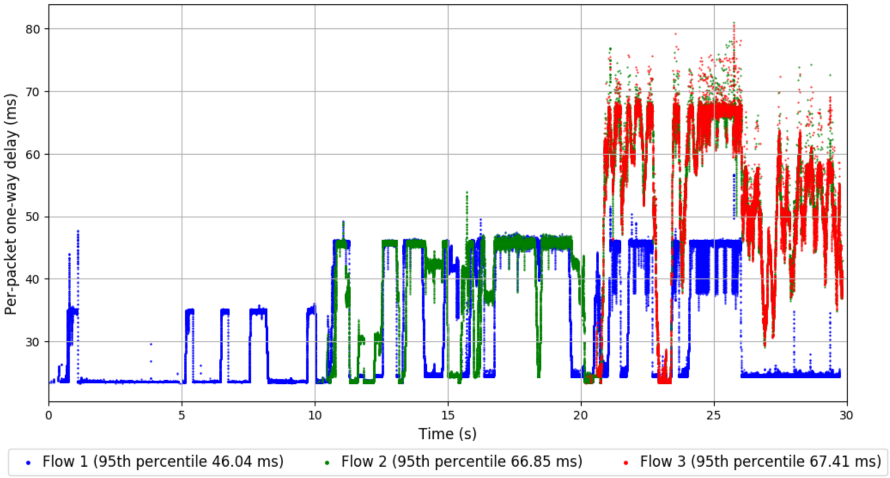
```
Run 2: Statistics of QUIC Cubic

Start at: 2017-09-07 22:26:44
End at: 2017-09-07 22:27:14
Local clock offset: 0.926 ms
Remote clock offset: -1.279 ms

# Below is generated by plot.py at 2017-09-08 05:24:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.17 Mbit/s
95th percentile per-packet one-way delay: 65.632 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 39.46 Mbit/s
95th percentile per-packet one-way delay: 46.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 66.848 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 28.92 Mbit/s
95th percentile per-packet one-way delay: 67.413 ms
Loss rate: 1.46%
```

Run 2: Report of QUIC Cubic — Data Link



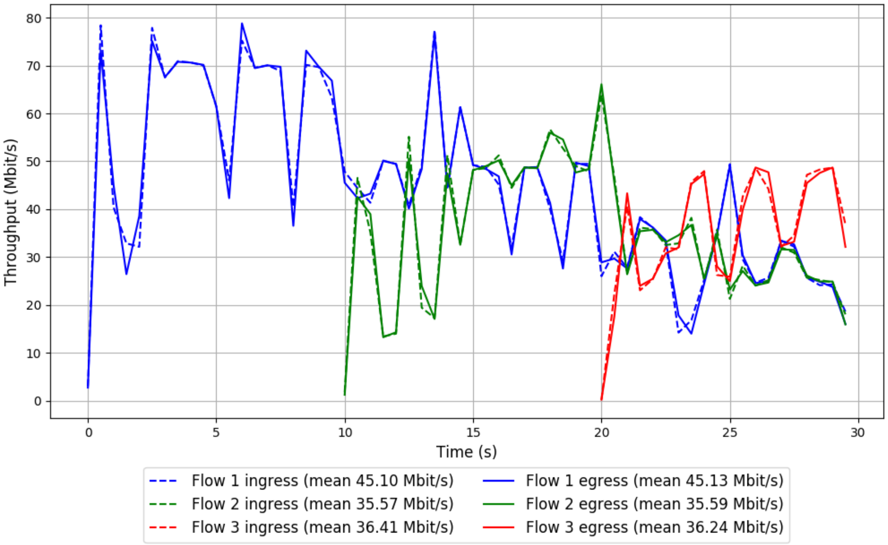


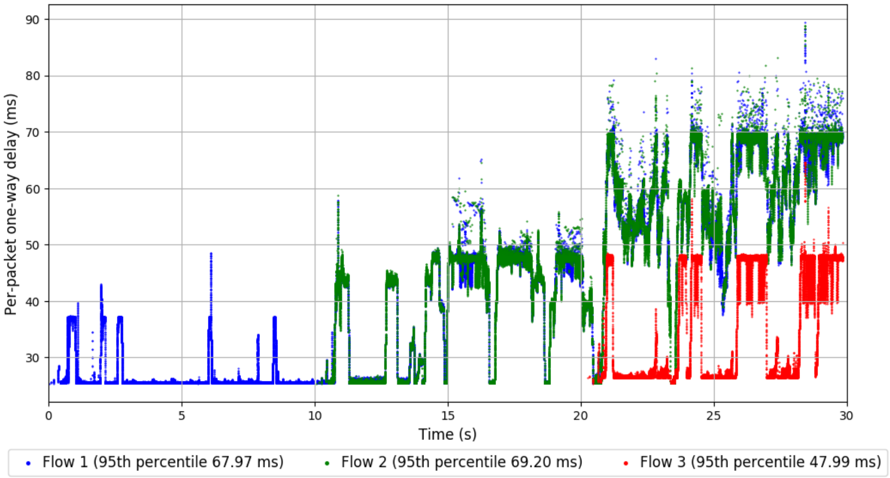
```
Run 3: Statistics of QUIC Cubic

Start at: 2017-09-07 22:47:49
End at: 2017-09-07 22:48:19
Local clock offset: 0.892 ms
Remote clock offset: -3.127 ms

# Below is generated by plot.py at 2017-09-08 05:24:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.37 Mbit/s
95th percentile per-packet one-way delay: 68.480 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 45.13 Mbit/s
95th percentile per-packet one-way delay: 67.969 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 35.59 Mbit/s
95th percentile per-packet one-way delay: 69.197 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 36.24 Mbit/s
95th percentile per-packet one-way delay: 47.989 ms
Loss rate: 1.32%
```

Run 3: Report of QUIC Cubic — Data Link



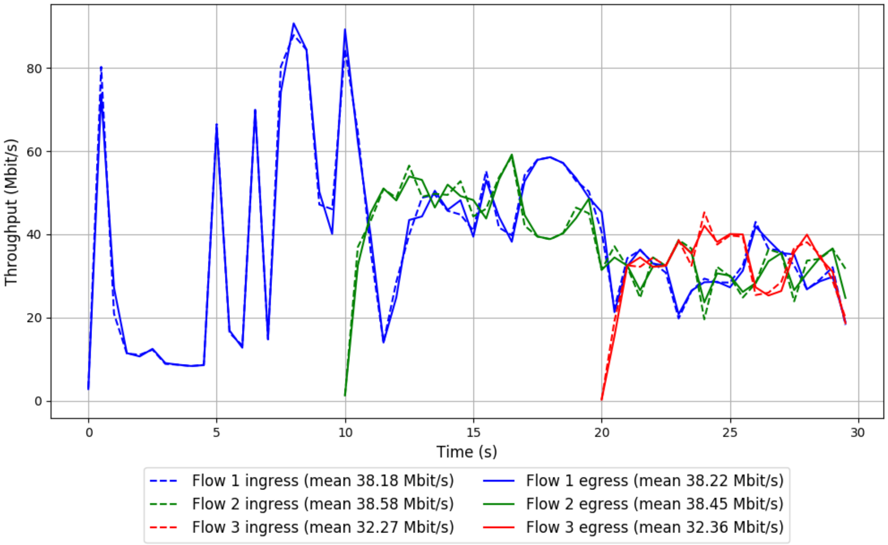


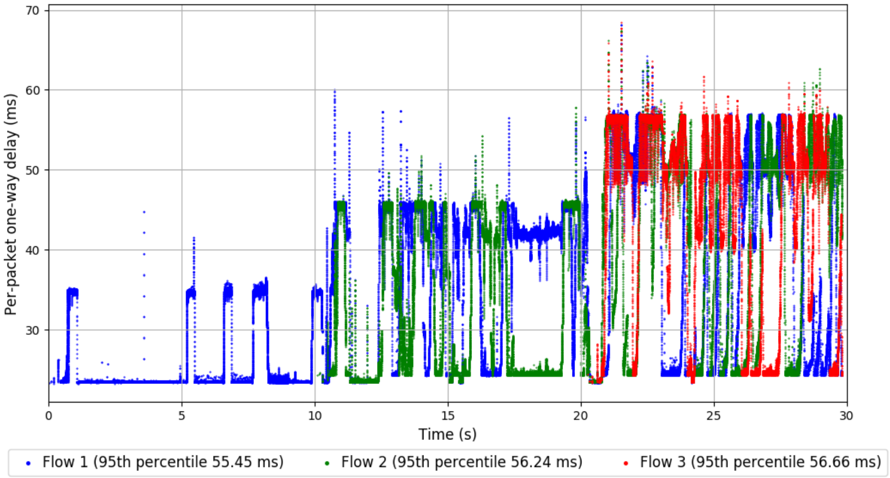
```
Run 4: Statistics of QUIC Cubic

Start at: 2017-09-07 23:08:54
End at: 2017-09-07 23:09:24
Local clock offset: 0.744 ms
Remote clock offset: -1.166 ms

# Below is generated by plot.py at 2017-09-08 05:24:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.07 Mbit/s
95th percentile per-packet one-way delay: 56.371 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 55.447 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 56.240 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 56.659 ms
Loss rate: 0.46%
```

Run 4: Report of QUIC Cubic — Data Link



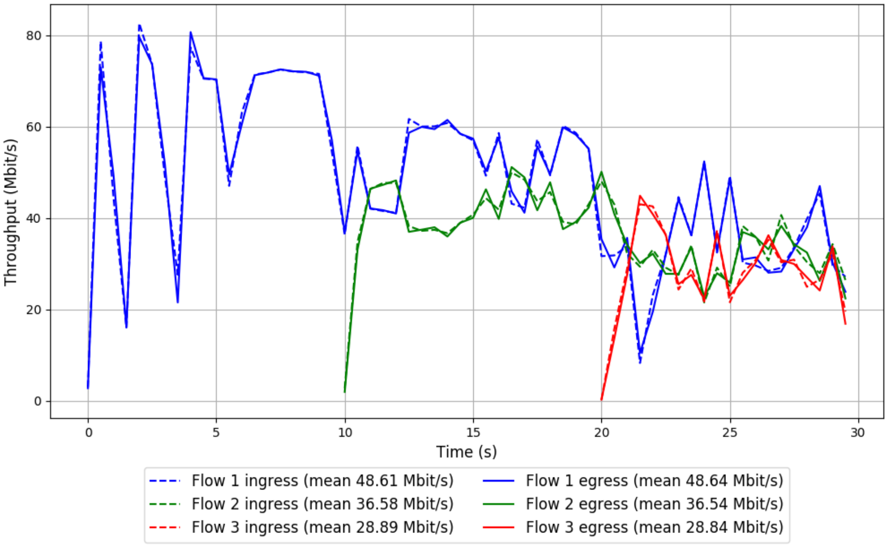


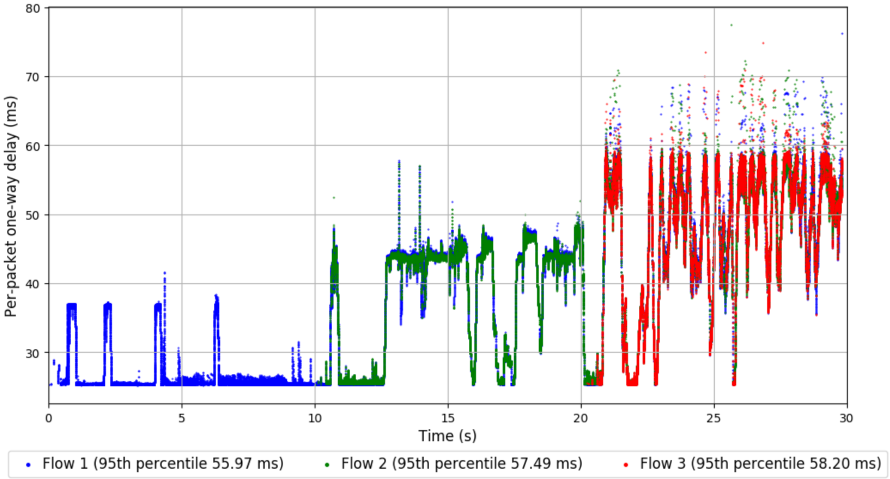
```
Run 5: Statistics of QUIC Cubic

Start at: 2017-09-07 23:29:55
End at: 2017-09-07 23:30:25
Local clock offset: 0.655 ms
Remote clock offset: -3.202 ms

# Below is generated by plot.py at 2017-09-08 05:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.17 Mbit/s
95th percentile per-packet one-way delay: 57.403 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 48.64 Mbit/s
95th percentile per-packet one-way delay: 55.970 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 36.54 Mbit/s
95th percentile per-packet one-way delay: 57.492 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 28.84 Mbit/s
95th percentile per-packet one-way delay: 58.204 ms
Loss rate: 0.92%
```

Run 5: Report of QUIC Cubic — Data Link



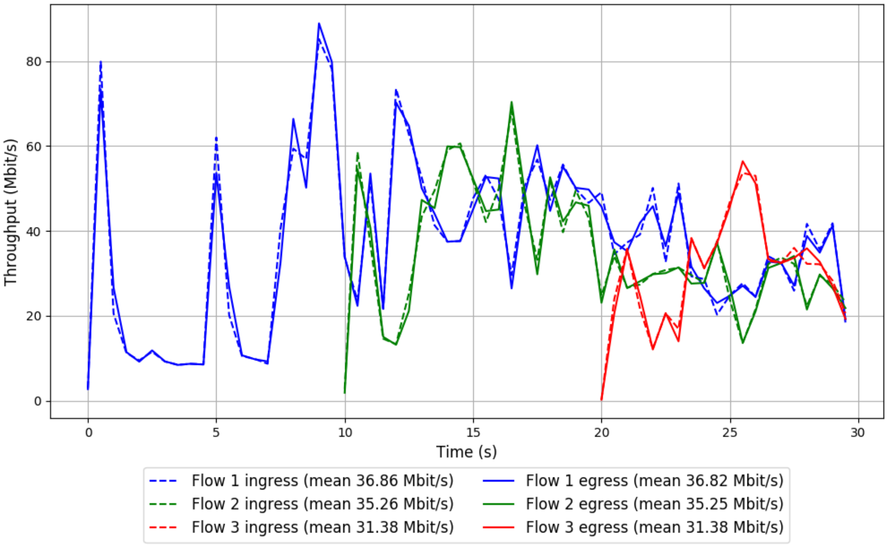


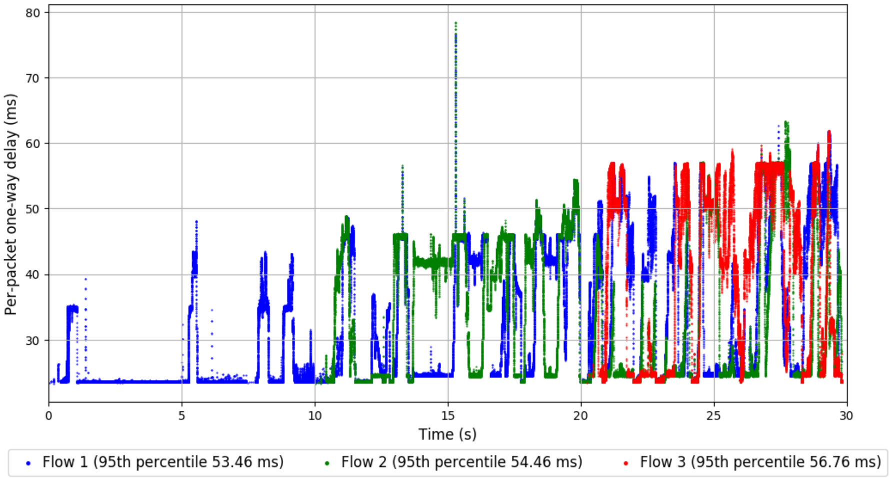
```
Run 6: Statistics of QUIC Cubic

Start at: 2017-09-07 23:50:54
End at: 2017-09-07 23:51:24
Local clock offset: 0.682 ms
Remote clock offset: -0.554 ms

# Below is generated by plot.py at 2017-09-08 05:25:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.32 Mbit/s
95th percentile per-packet one-way delay: 56.085 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 36.82 Mbit/s
95th percentile per-packet one-way delay: 53.461 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 35.25 Mbit/s
95th percentile per-packet one-way delay: 54.458 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 56.762 ms
Loss rate: 0.73%
```

Run 6: Report of QUIC Cubic — Data Link



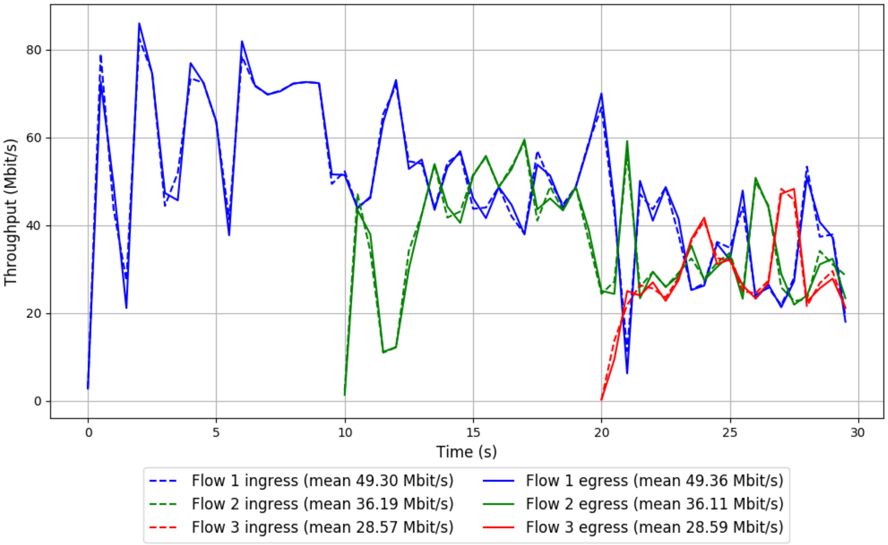


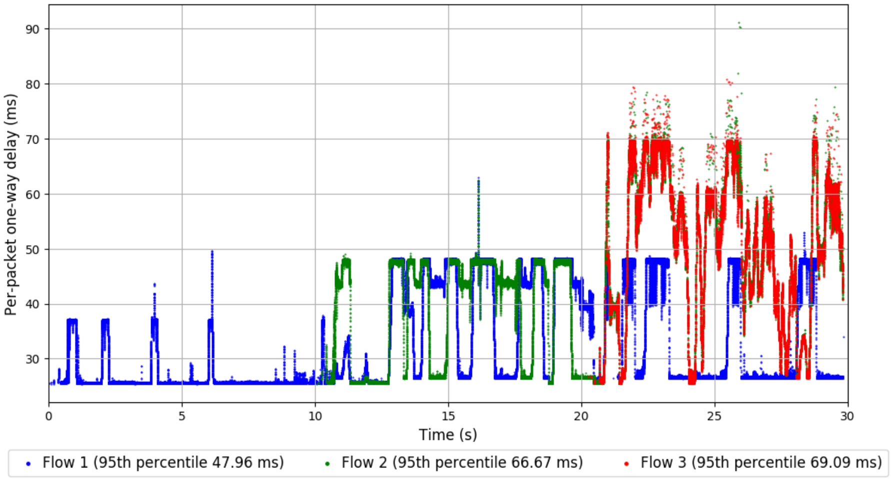
```
Run 7: Statistics of QUIC Cubic

Start at: 2017-09-08 00:12:04
End at: 2017-09-08 00:12:34
Local clock offset: 0.555 ms
Remote clock offset: -1.925 ms

# Below is generated by plot.py at 2017-09-08 05:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.48 Mbit/s
95th percentile per-packet one-way delay: 60.775 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 49.36 Mbit/s
95th percentile per-packet one-way delay: 47.957 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 36.11 Mbit/s
95th percentile per-packet one-way delay: 66.670 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 28.59 Mbit/s
95th percentile per-packet one-way delay: 69.087 ms
Loss rate: 0.70%
```

Run 7: Report of QUIC Cubic — Data Link



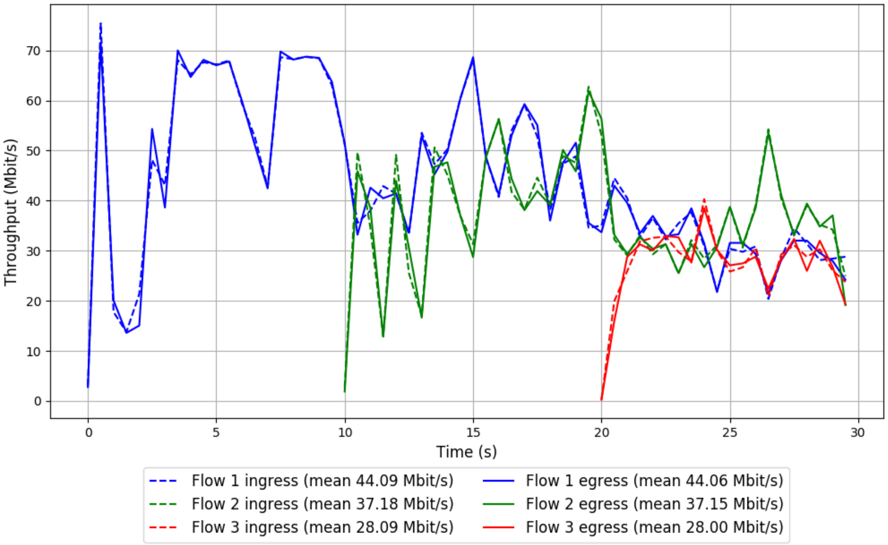


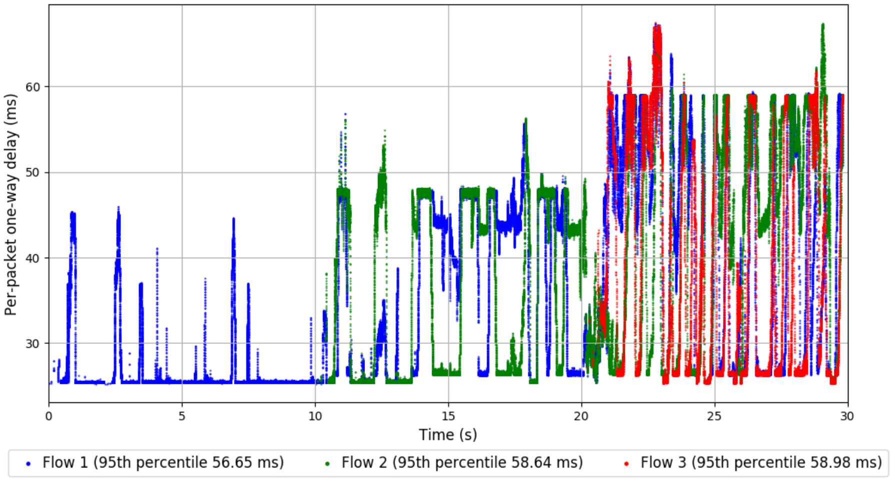
```
Run 8: Statistics of QUIC Cubic

Start at: 2017-09-08 00:33:08
End at: 2017-09-08 00:33:38
Local clock offset: 0.299 ms
Remote clock offset: -1.378 ms

# Below is generated by plot.py at 2017-09-08 05:25:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.77 Mbit/s
95th percentile per-packet one-way delay: 58.552 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 44.06 Mbit/s
95th percentile per-packet one-way delay: 56.653 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 37.15 Mbit/s
95th percentile per-packet one-way delay: 58.642 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 28.00 Mbit/s
95th percentile per-packet one-way delay: 58.979 ms
Loss rate: 1.09%
```

Run 8: Report of QUIC Cubic — Data Link



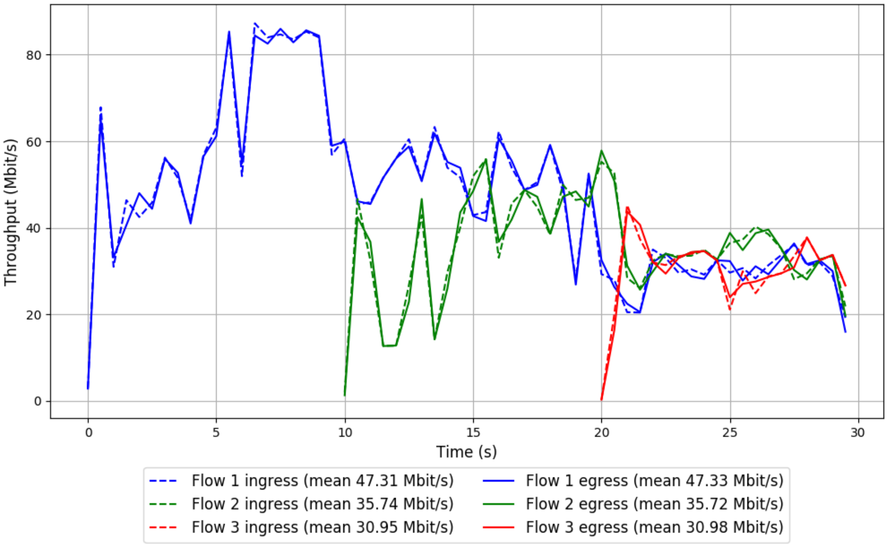


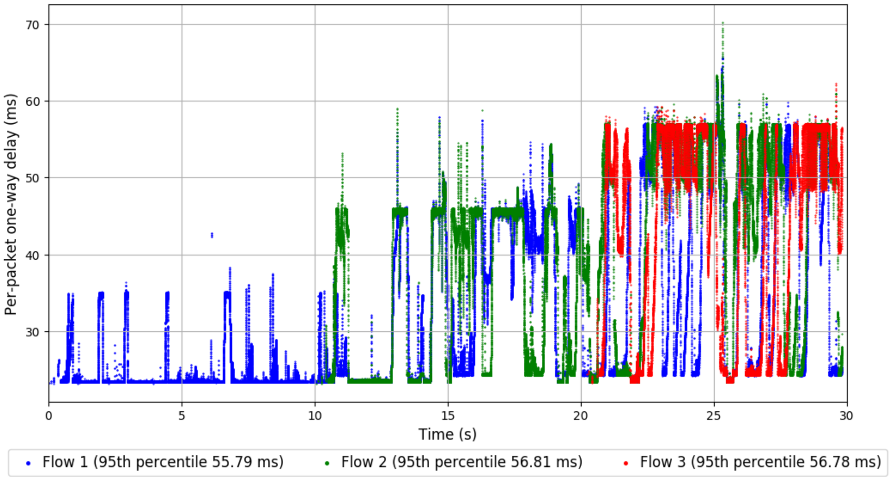
```
Run 9: Statistics of QUIC Cubic

Start at: 2017-09-08 00:54:02
End at: 2017-09-08 00:54:32
Local clock offset: 0.154 ms
Remote clock offset: 0.541 ms

# Below is generated by plot.py at 2017-09-08 05:25:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.00 Mbit/s
95th percentile per-packet one-way delay: 56.598 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 47.33 Mbit/s
95th percentile per-packet one-way delay: 55.789 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 35.72 Mbit/s
95th percentile per-packet one-way delay: 56.810 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 30.98 Mbit/s
95th percentile per-packet one-way delay: 56.778 ms
Loss rate: 0.63%
```

Run 9: Report of QUIC Cubic — Data Link



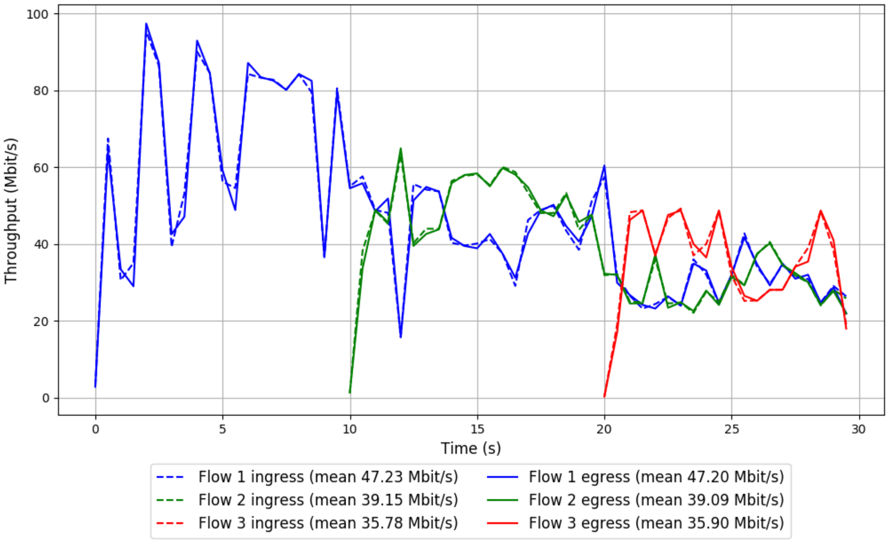


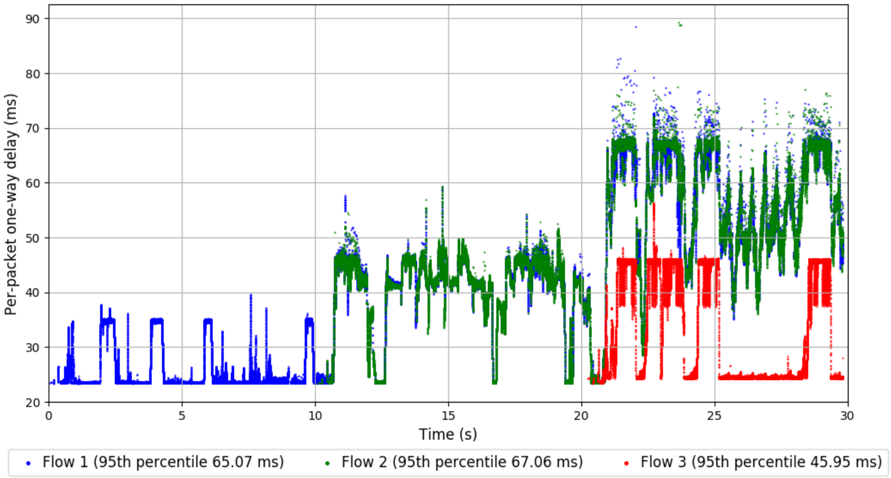
```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-08 01:14:52
End at: 2017-09-08 01:15:22
Local clock offset: 0.119 ms
Remote clock offset: 0.285 ms

# Below is generated by plot.py at 2017-09-08 05:25:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.67 Mbit/s
95th percentile per-packet one-way delay: 66.101 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 47.20 Mbit/s
95th percentile per-packet one-way delay: 65.066 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 67.060 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 35.90 Mbit/s
95th percentile per-packet one-way delay: 45.955 ms
Loss rate: 0.40%
```

Run 10: Report of QUIC Cubic — Data Link



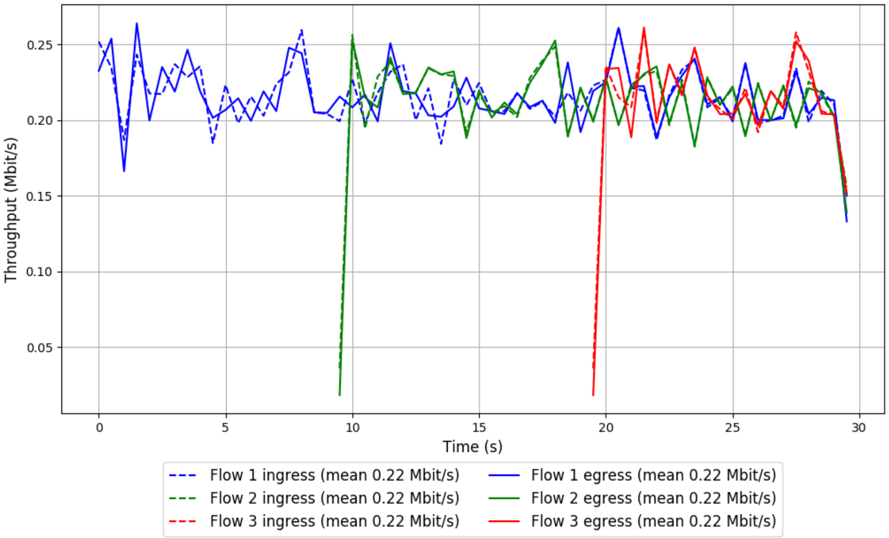


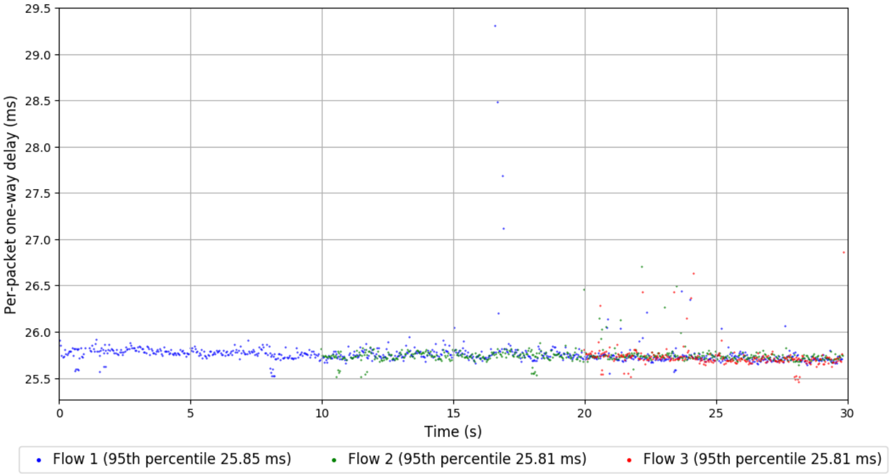
```
Run 1: Statistics of SCReAM

Start at: 2017-09-07 21:58:39
End at: 2017-09-07 21:59:09
Local clock offset: 0.974 ms
Remote clock offset: -3.595 ms

# Below is generated by plot.py at 2017-09-08 05:25:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 25.837 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.851 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.811 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.810 ms
Loss rate: 0.35%
```

Run 1: Report of SCReAM — Data Link



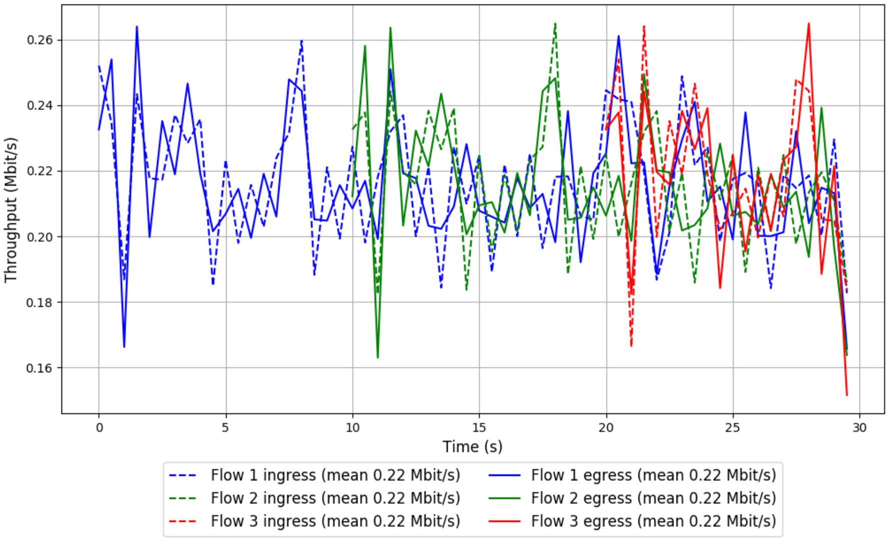


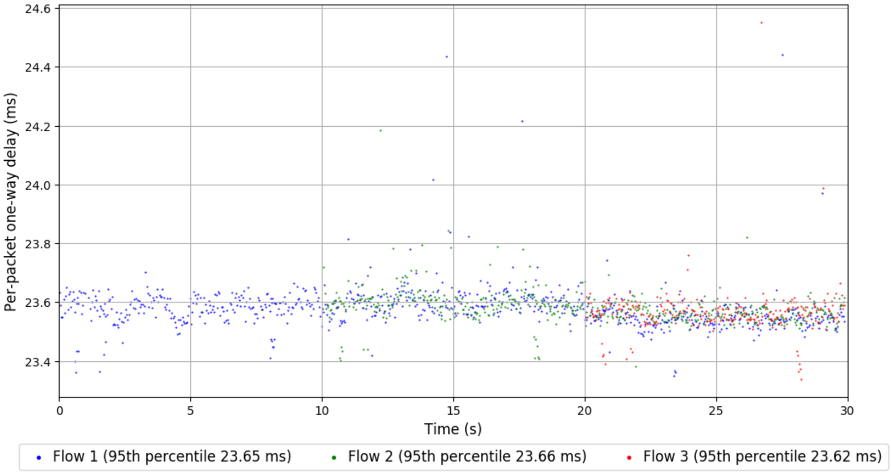
```
Run 2: Statistics of SCReAM

Start at: 2017-09-07 22:19:48
End at: 2017-09-07 22:20:18
Local clock offset: 0.932 ms
Remote clock offset: -1.383 ms

# Below is generated by plot.py at 2017-09-08 05:25:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 23.648 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.650 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.659 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.620 ms
Loss rate: 0.74%
```

Run 2: Report of SCReAM — Data Link



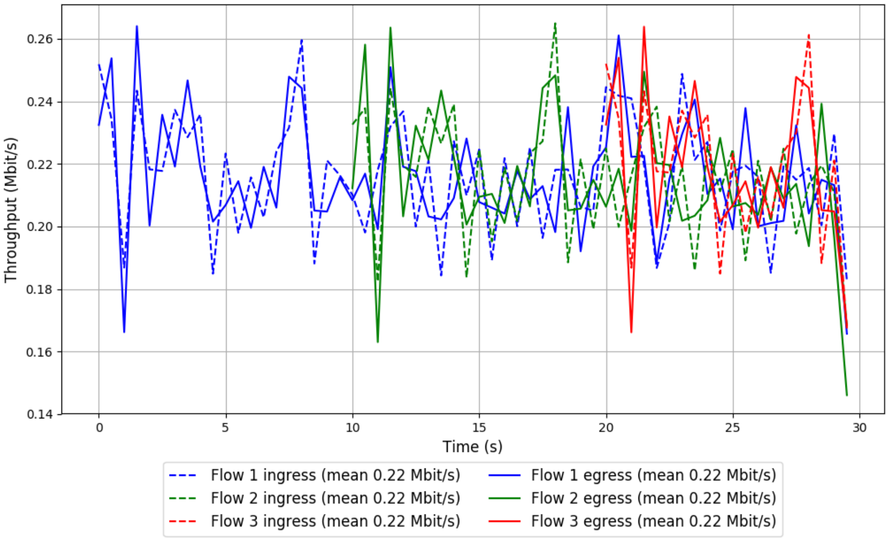


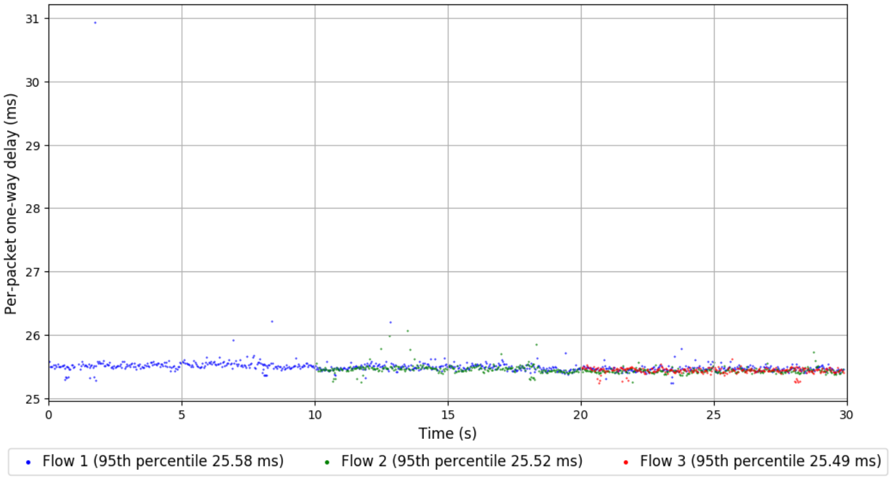
```
Run 3: Statistics of SCReAM

Start at: 2017-09-07 22:40:54
End at: 2017-09-07 22:41:24
Local clock offset: 0.823 ms
Remote clock offset: -3.188 ms

# Below is generated by plot.py at 2017-09-08 05:25:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 25.560 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.577 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.521 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.490 ms
Loss rate: 0.35%
```

Run 3: Report of SCReAM — Data Link



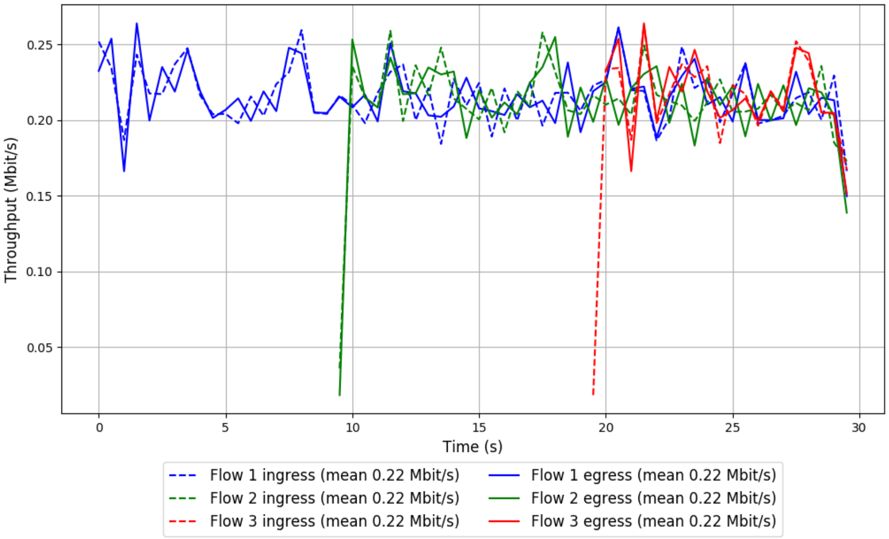


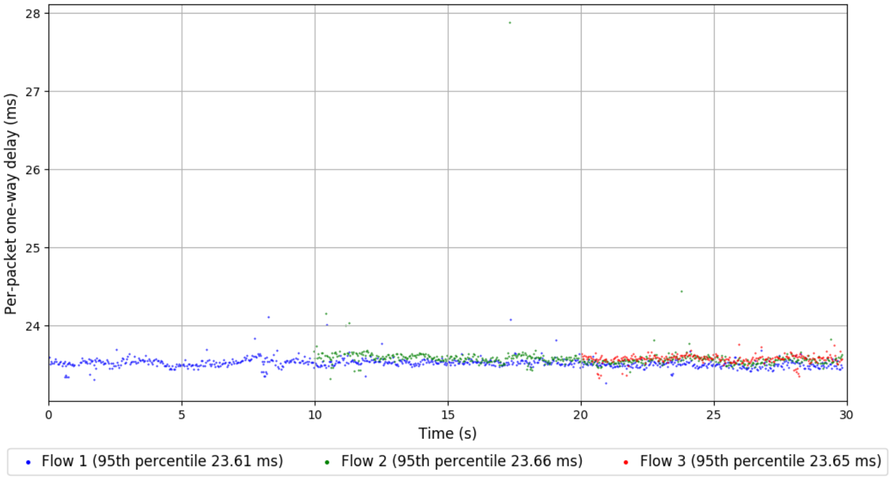
```
Run 4: Statistics of SCReAM

Start at: 2017-09-07 23:01:52
End at: 2017-09-07 23:02:22
Local clock offset: 0.865 ms
Remote clock offset: -1.061 ms

# Below is generated by plot.py at 2017-09-08 05:25:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 23.645 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.607 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.657 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.651 ms
Loss rate: 0.74%
```

Run 4: Report of SCReAM — Data Link



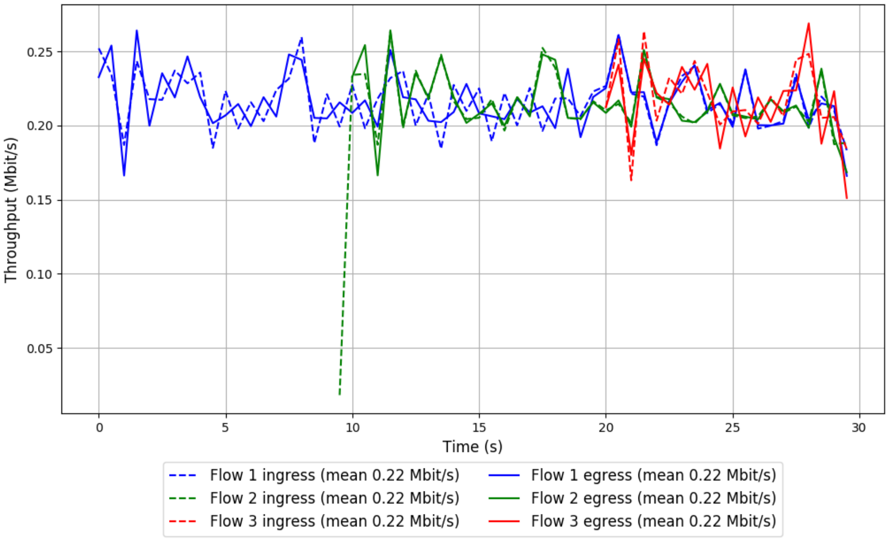


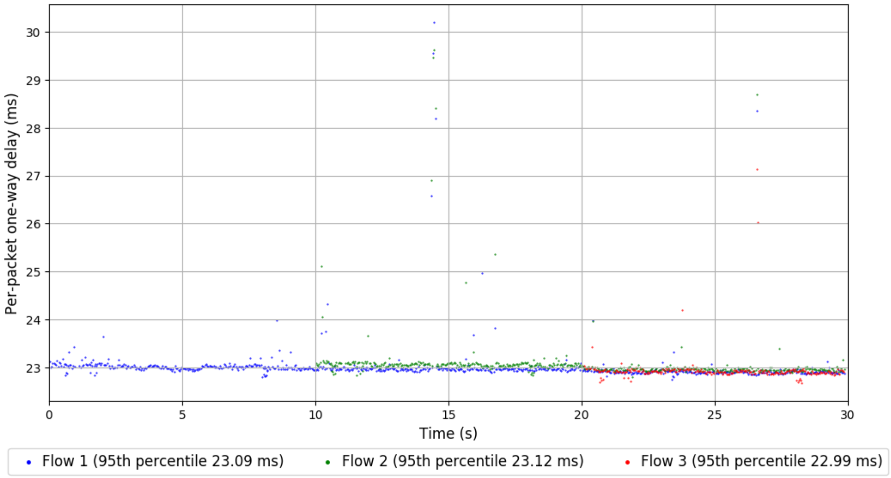
```
Run 5: Statistics of SCReAM

Start at: 2017-09-07 23:23:00
End at: 2017-09-07 23:23:30
Local clock offset: 0.796 ms
Remote clock offset: -0.605 ms

# Below is generated by plot.py at 2017-09-08 05:25:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 23.100 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.093 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.123 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 22.989 ms
Loss rate: 0.76%
```

Run 5: Report of SCReAM — Data Link



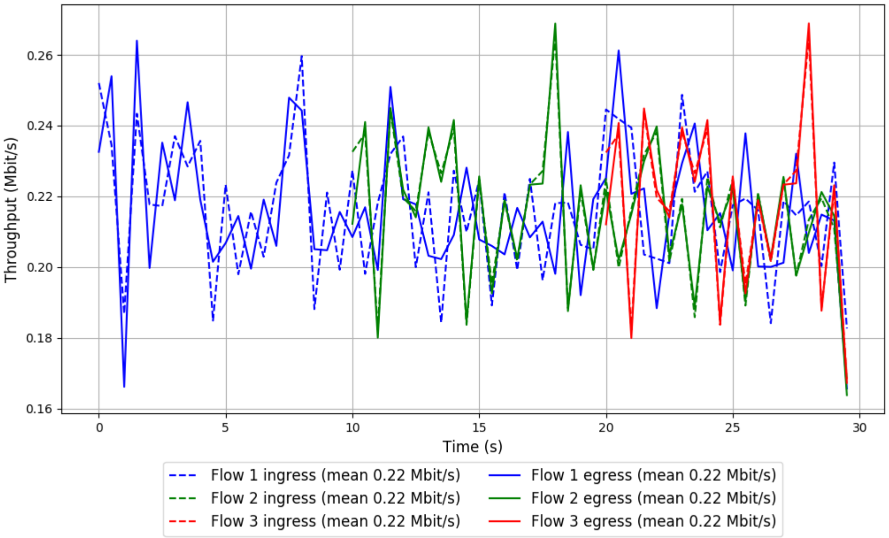


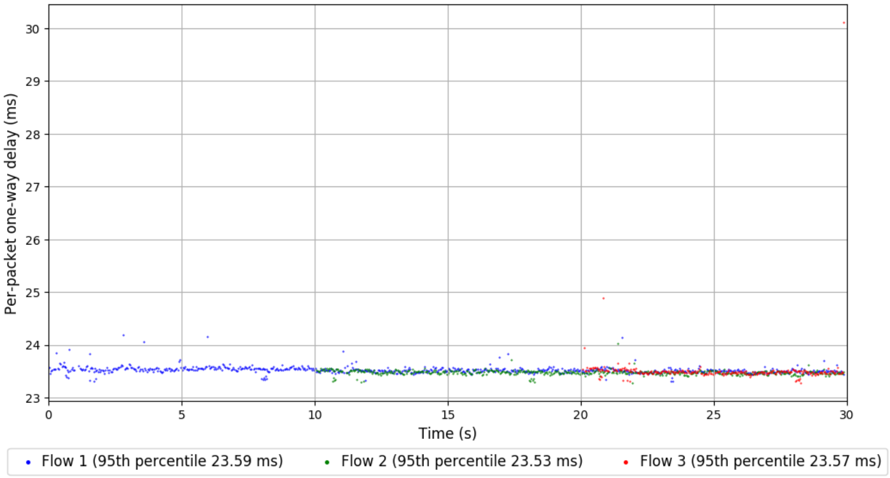
```
Run 6: Statistics of SCReAM

Start at: 2017-09-07 23:44:00
End at: 2017-09-07 23:44:30
Local clock offset: 0.706 ms
Remote clock offset: -0.784 ms

# Below is generated by plot.py at 2017-09-08 05:25:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 23.578 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.595 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.532 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.565 ms
Loss rate: 0.38%
```

Run 6: Report of SCReAM — Data Link



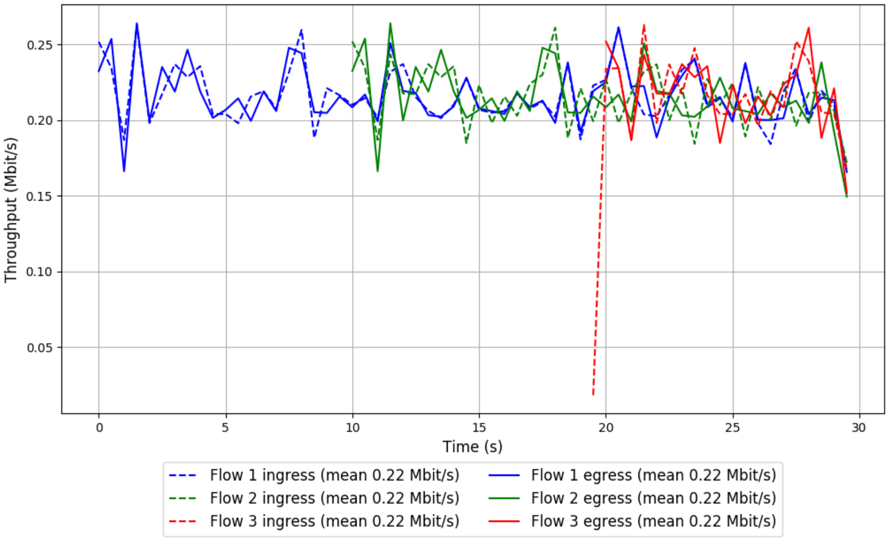


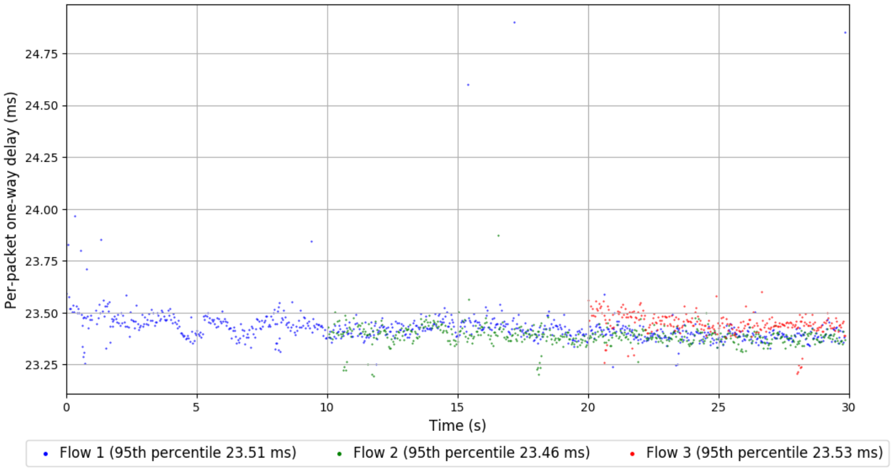
```
Run 7: Statistics of SCReAM

Start at: 2017-09-08 00:05:01
End at: 2017-09-08 00:05:31
Local clock offset: 0.516 ms
Remote clock offset: 0.051 ms

# Below is generated by plot.py at 2017-09-08 05:25:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 23.504 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.511 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.456 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 23.530 ms
Loss rate: 0.35%
```

Run 7: Report of SCReAM — Data Link



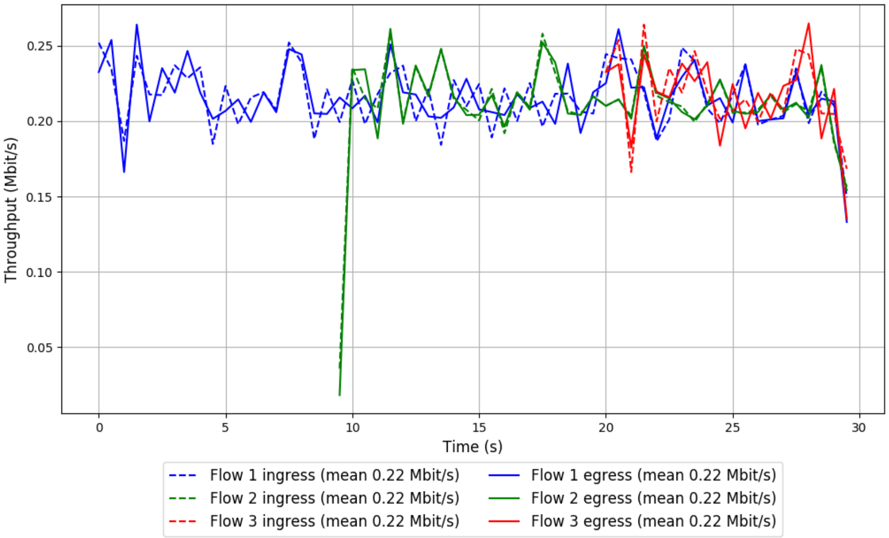


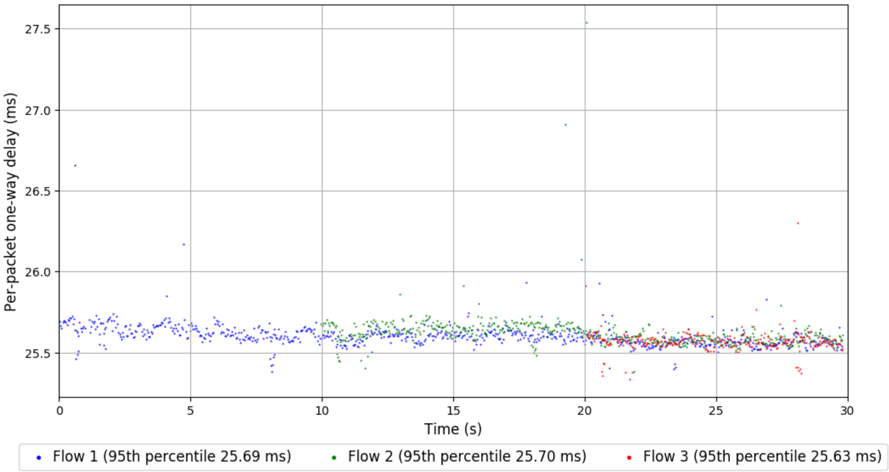
```
Run 8: Statistics of SCReAM

Start at: 2017-09-08 00:26:17
End at: 2017-09-08 00:26:47
Local clock offset: 0.44 ms
Remote clock offset: -1.549 ms

# Below is generated by plot.py at 2017-09-08 05:25:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 25.693 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.694 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.697 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.629 ms
Loss rate: 0.76%
```

Run 8: Report of SCReAM — Data Link



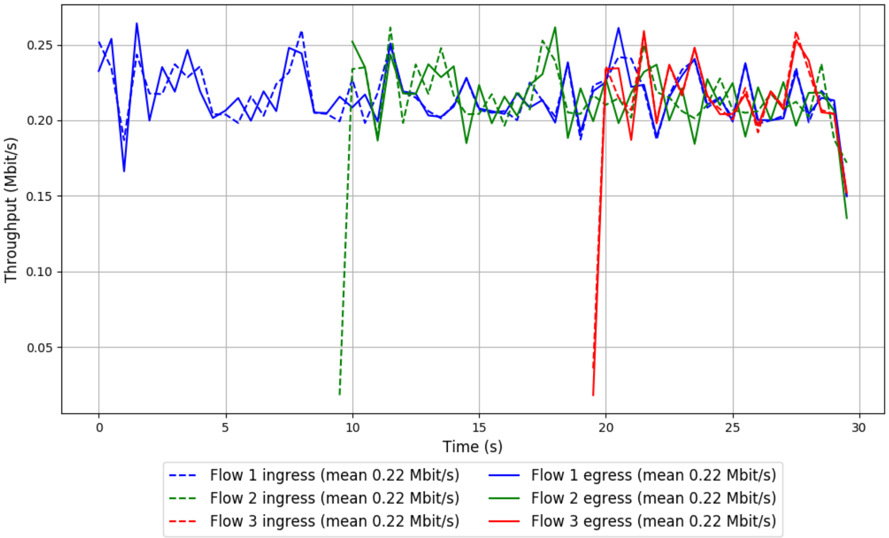


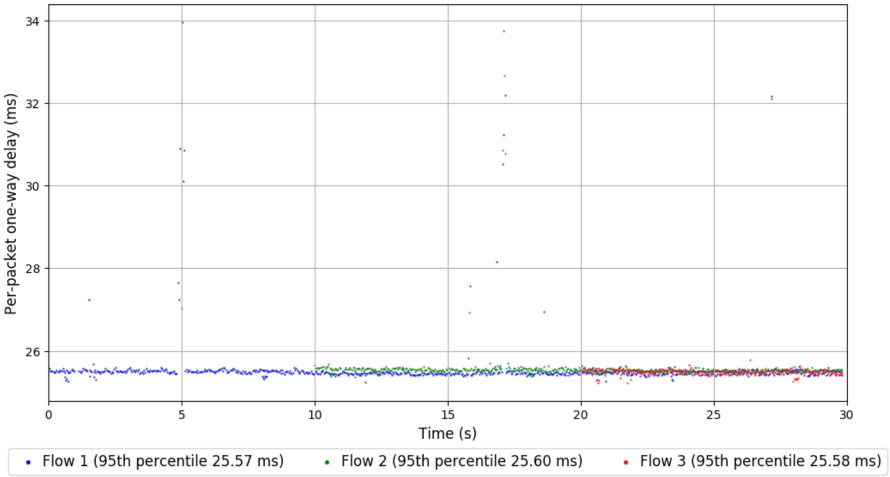
```
Run 9: Statistics of SCReAM

Start at: 2017-09-08 00:47:10
End at: 2017-09-08 00:47:40
Local clock offset: 0.201 ms
Remote clock offset: -1.361 ms

# Below is generated by plot.py at 2017-09-08 05:25:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 25.593 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.575 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.604 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.578 ms
Loss rate: 0.35%
```

Run 9: Report of SCReAM — Data Link



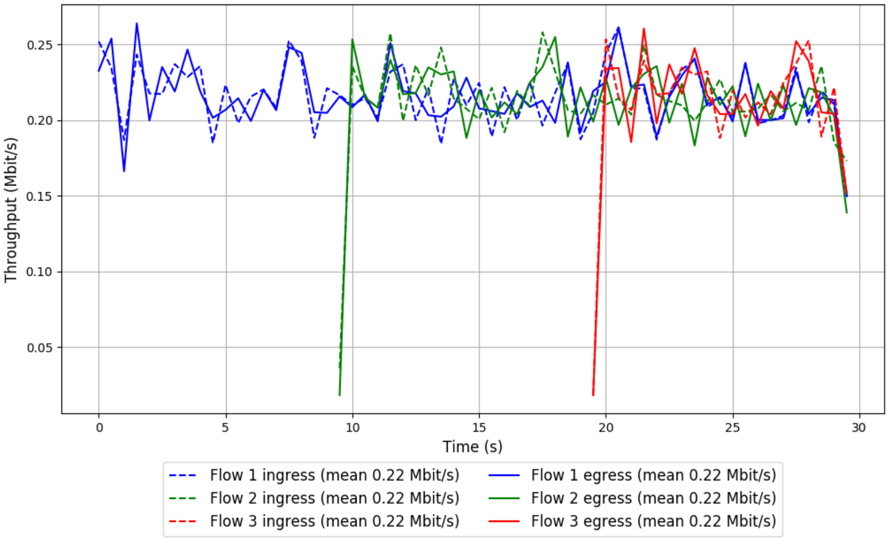


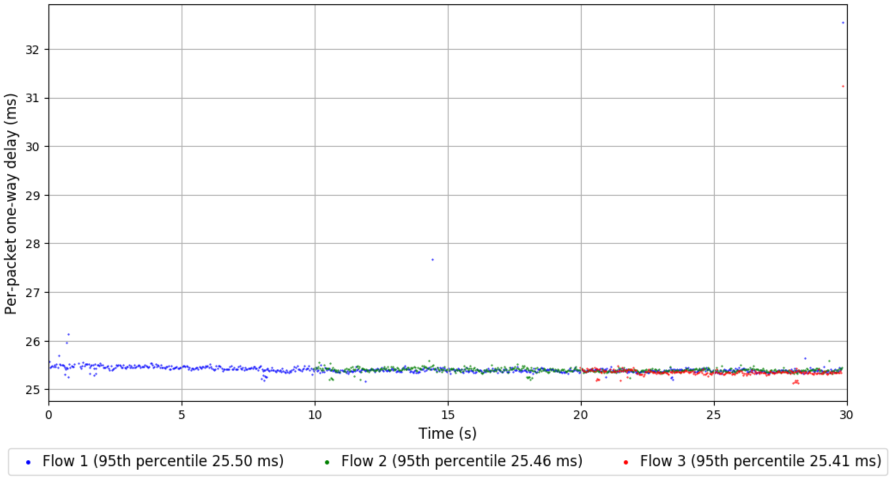
```
Run 10: Statistics of SCReAM

Start at: 2017-09-08 01:08:02
End at: 2017-09-08 01:08:32
Local clock offset: 0.069 ms
Remote clock offset: -1.585 ms

# Below is generated by plot.py at 2017-09-08 05:25:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 25.478 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.495 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.459 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.410 ms
Loss rate: 0.35%
```

Run 10: Report of SCReAM — Data Link



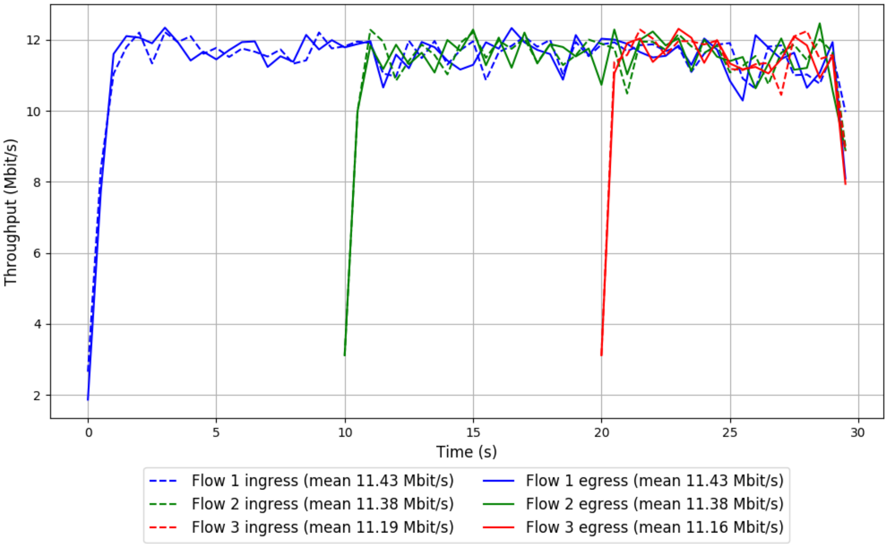


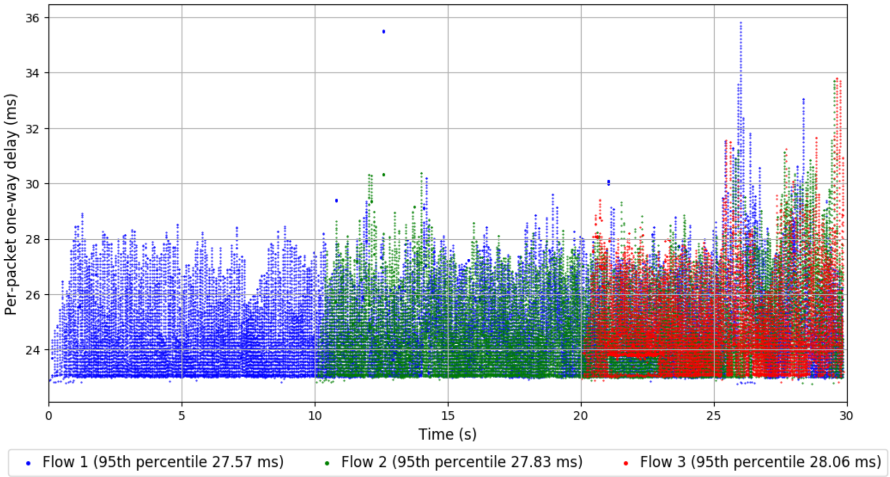
```
Run 1: Statistics of Sprout

Start at: 2017-09-07 22:02:49
End at: 2017-09-07 22:03:19
Local clock offset: 0.965 ms
Remote clock offset: -0.916 ms

# Below is generated by plot.py at 2017-09-08 05:25:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.66 Mbit/s
95th percentile per-packet one-way delay: 27.726 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 27.574 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 11.38 Mbit/s
95th percentile per-packet one-way delay: 27.832 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 28.058 ms
Loss rate: 0.85%
```

Run 1: Report of Sprout — Data Link



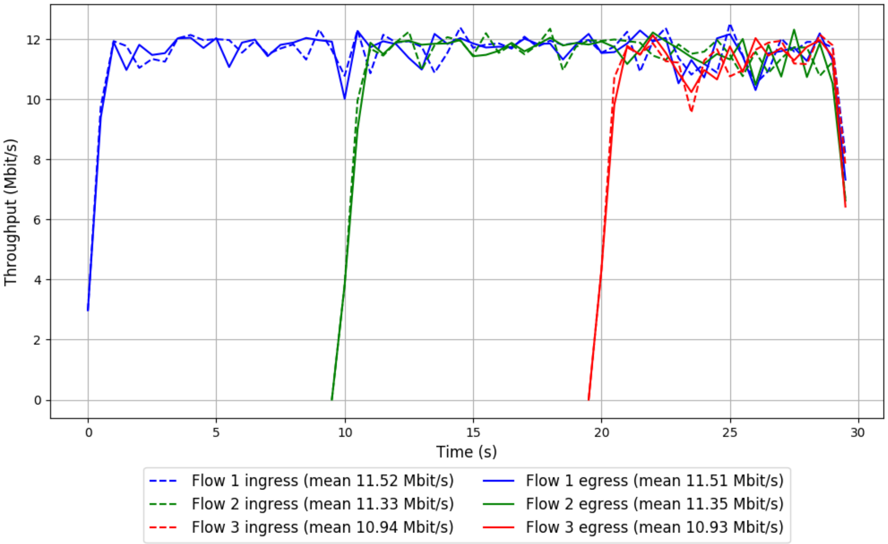


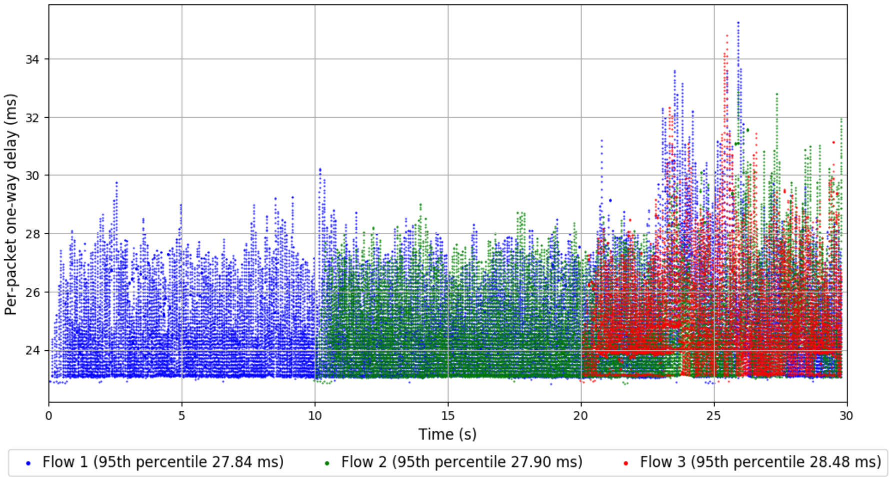
```
Run 2: Statistics of Sprout

Start at: 2017-09-07 22:23:57
End at: 2017-09-07 22:24:27
Local clock offset: 0.916 ms
Remote clock offset: -0.933 ms

# Below is generated by plot.py at 2017-09-08 05:25:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.67 Mbit/s
95th percentile per-packet one-way delay: 27.979 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 27.840 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 11.35 Mbit/s
95th percentile per-packet one-way delay: 27.898 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 28.477 ms
Loss rate: 0.90%
```

Run 2: Report of Sprout — Data Link



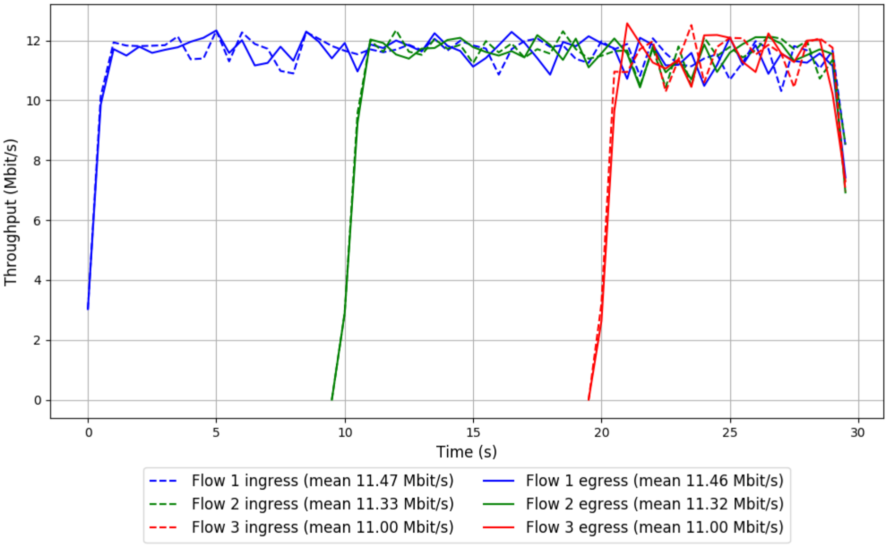


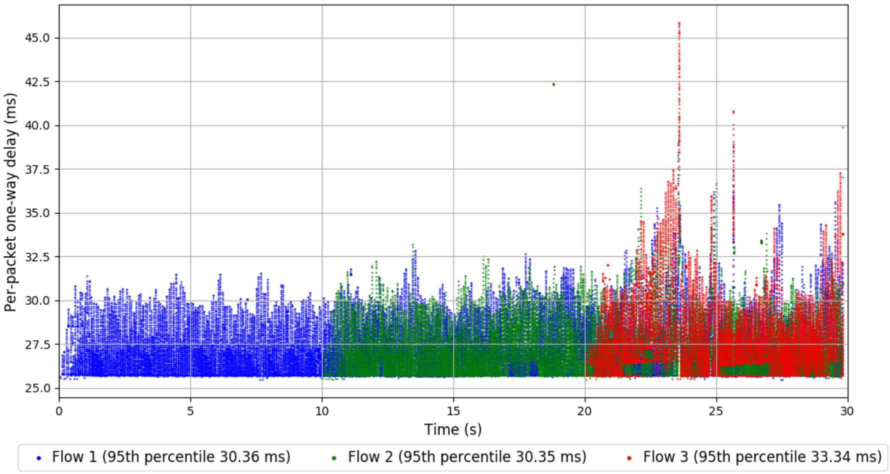
```
Run 3: Statistics of Sprout

Start at: 2017-09-07 22:45:02
End at: 2017-09-07 22:45:32
Local clock offset: 0.919 ms
Remote clock offset: -3.255 ms

# Below is generated by plot.py at 2017-09-08 05:25:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.62 Mbit/s
95th percentile per-packet one-way delay: 30.753 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 11.46 Mbit/s
95th percentile per-packet one-way delay: 30.359 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 30.351 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 11.00 Mbit/s
95th percentile per-packet one-way delay: 33.335 ms
Loss rate: 0.67%
```

Run 3: Report of Sprout — Data Link



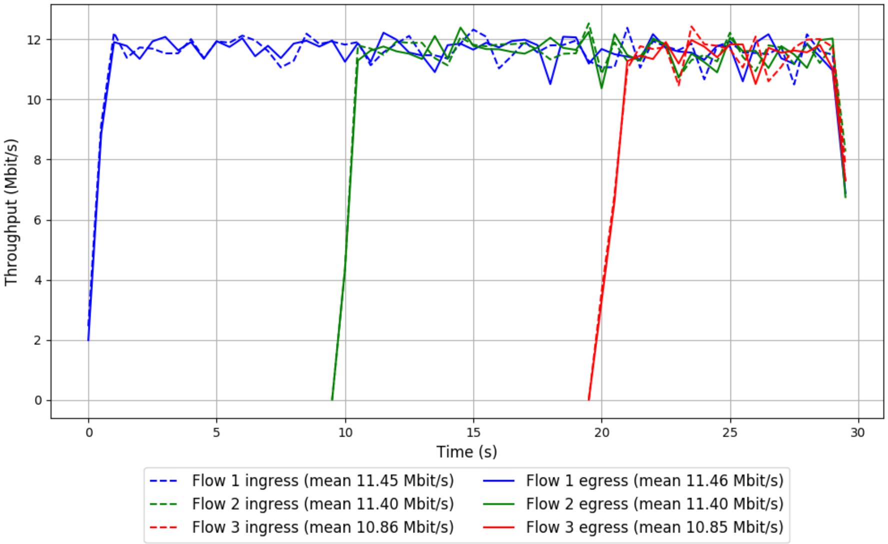


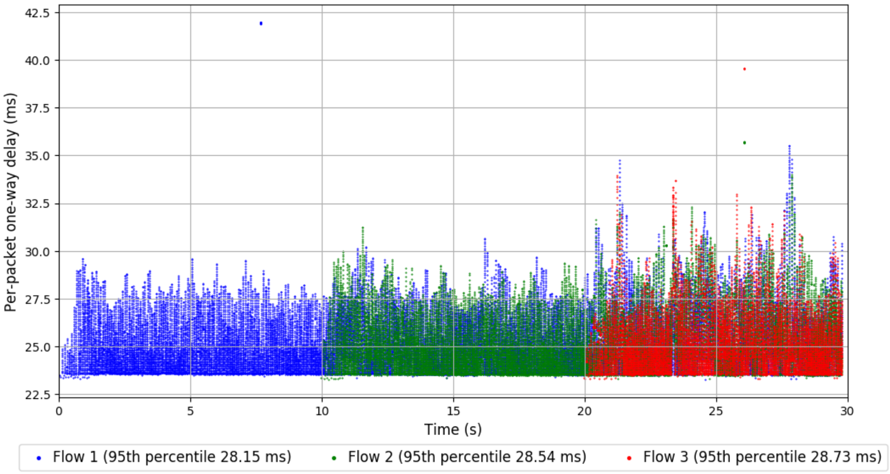
```
Run 4: Statistics of Sprout

Start at: 2017-09-07 23:06:06
End at: 2017-09-07 23:06:36
Local clock offset: 0.842 ms
Remote clock offset: -1.11 ms

# Below is generated by plot.py at 2017-09-08 05:25:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.63 Mbit/s
95th percentile per-packet one-way delay: 28.373 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 11.46 Mbit/s
95th percentile per-packet one-way delay: 28.146 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 11.40 Mbit/s
95th percentile per-packet one-way delay: 28.544 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 10.85 Mbit/s
95th percentile per-packet one-way delay: 28.731 ms
Loss rate: 0.90%
```

Run 4: Report of Sprout — Data Link



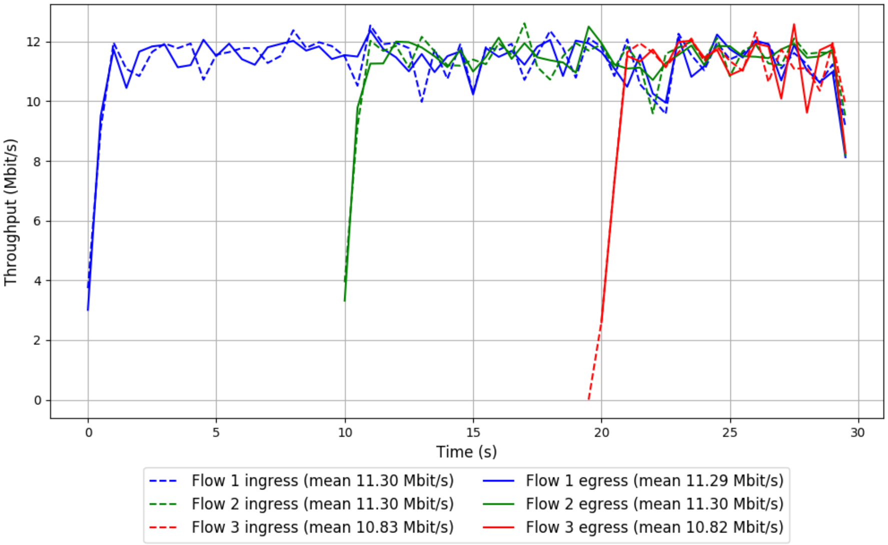


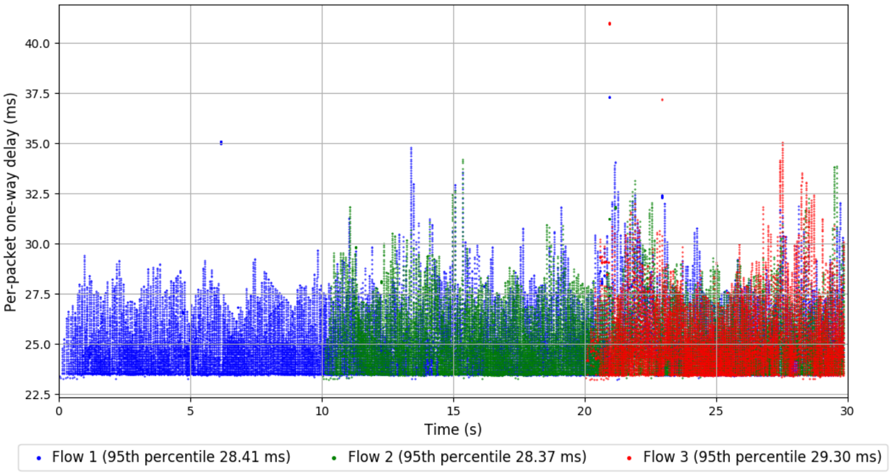
```
Run 5: Statistics of Sprout

Start at: 2017-09-07 23:27:08
End at: 2017-09-07 23:27:38
Local clock offset: 0.662 ms
Remote clock offset: -1.33 ms

# Below is generated by plot.py at 2017-09-08 05:25:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.37 Mbit/s
95th percentile per-packet one-way delay: 28.547 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 28.412 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 28.366 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 29.302 ms
Loss rate: 0.90%
```

Run 5: Report of Sprout — Data Link



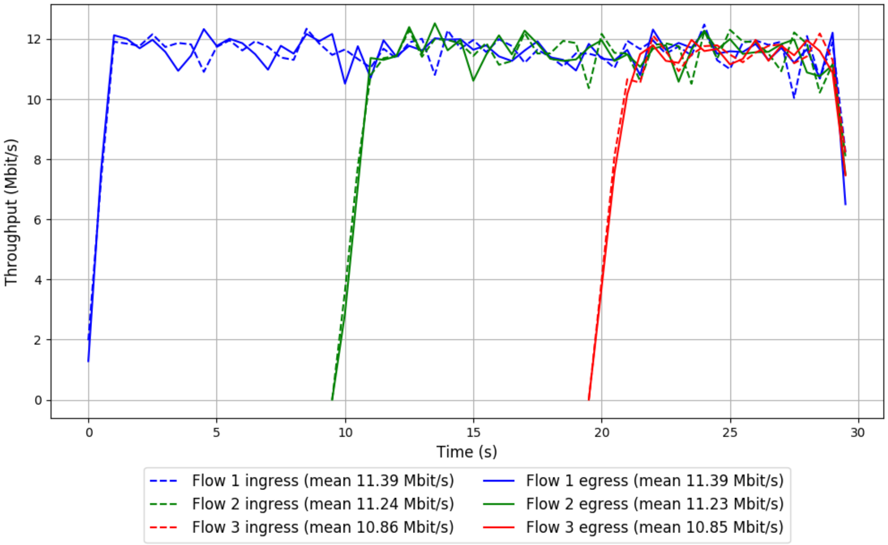


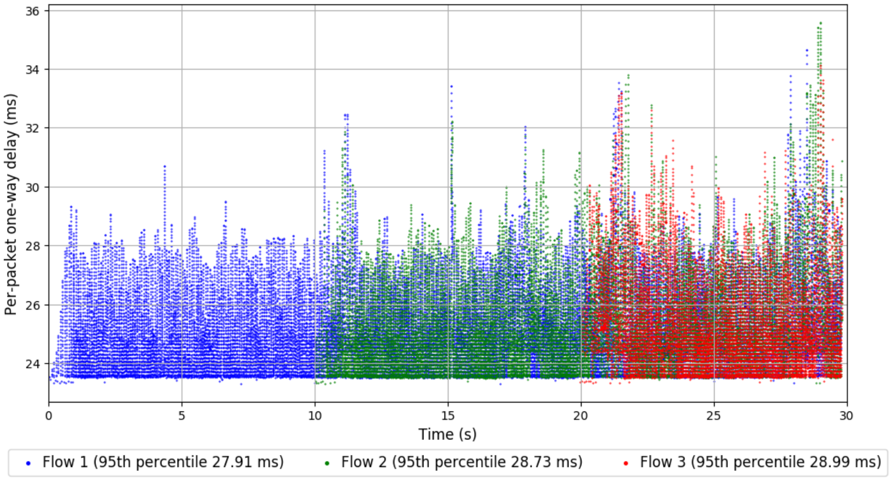
```
Run 6: Statistics of Sprout

Start at: 2017-09-07 23:48:08
End at: 2017-09-07 23:48:38
Local clock offset: 0.703 ms
Remote clock offset: -0.587 ms

# Below is generated by plot.py at 2017-09-08 05:25:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.44 Mbit/s
95th percentile per-packet one-way delay: 28.387 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 27.910 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 28.726 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 10.85 Mbit/s
95th percentile per-packet one-way delay: 28.989 ms
Loss rate: 0.81%
```

Run 6: Report of Sprout — Data Link



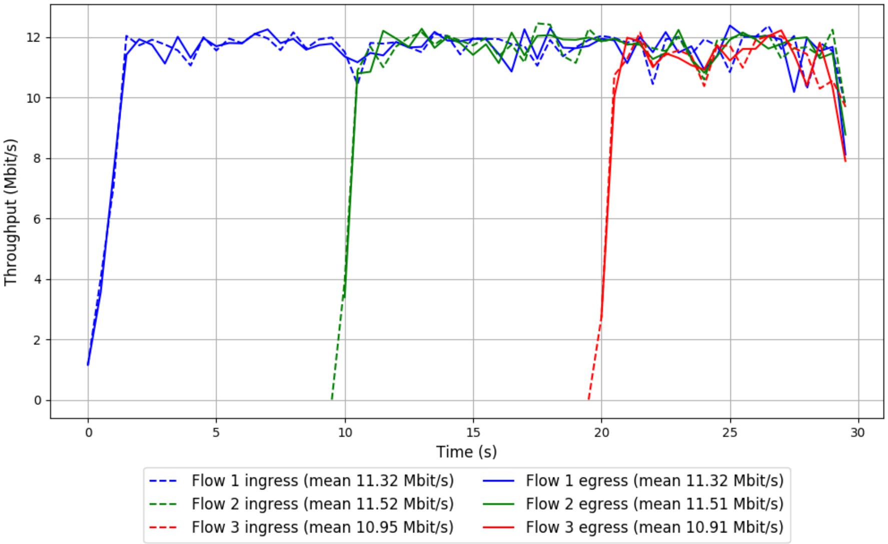


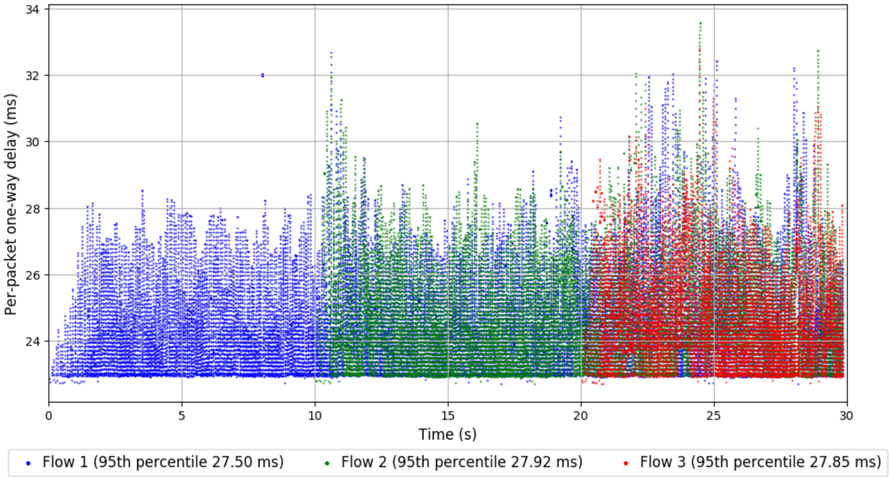
```
Run 7: Statistics of Sprout

Start at: 2017-09-08 00:09:17
End at: 2017-09-08 00:09:47
Local clock offset: 0.477 ms
Remote clock offset: 0.601 ms

# Below is generated by plot.py at 2017-09-08 05:25:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.57 Mbit/s
95th percentile per-packet one-way delay: 27.713 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 27.499 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 27.919 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 27.852 ms
Loss rate: 0.94%
```

Run 7: Report of Sprout — Data Link



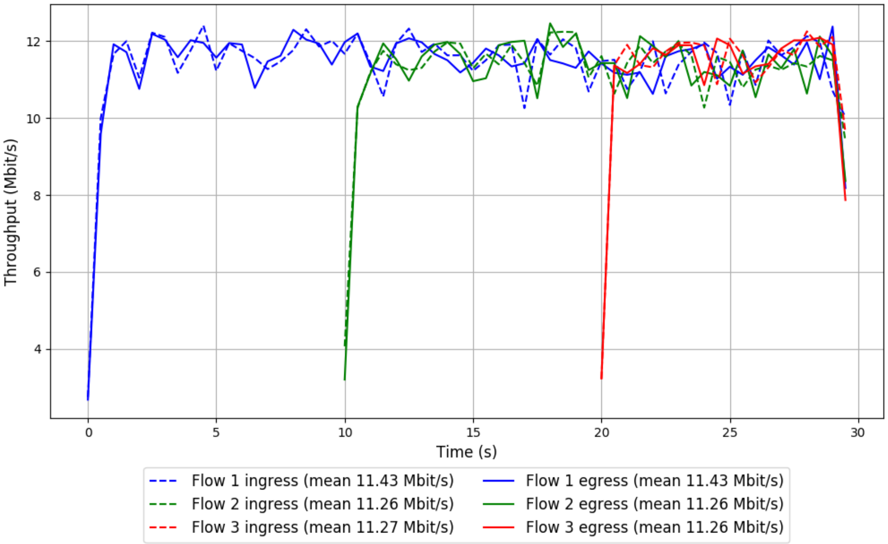


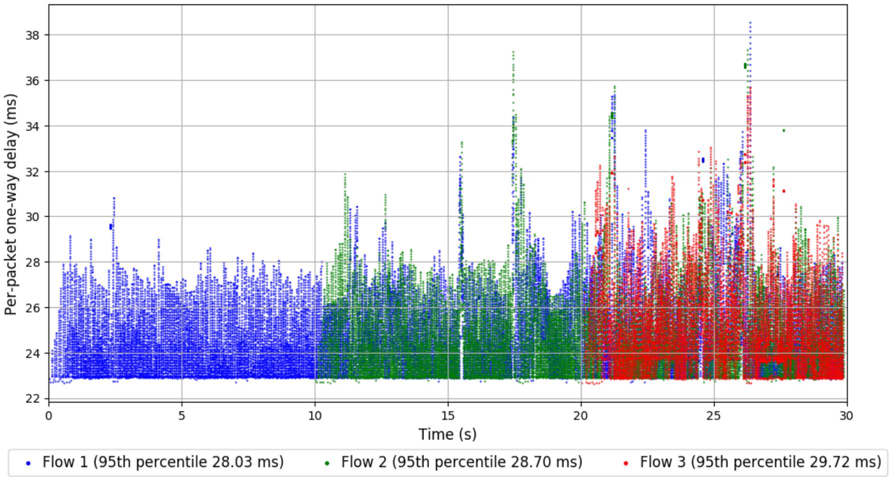
```
Run 8: Statistics of Sprout

Start at: 2017-09-08 00:30:23
End at: 2017-09-08 00:30:53
Local clock offset: 0.303 ms
Remote clock offset: 1.074 ms

# Below is generated by plot.py at 2017-09-08 05:25:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.61 Mbit/s
95th percentile per-packet one-way delay: 28.635 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 28.034 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 28.696 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 29.720 ms
Loss rate: 0.88%
```

Run 8: Report of Sprout — Data Link



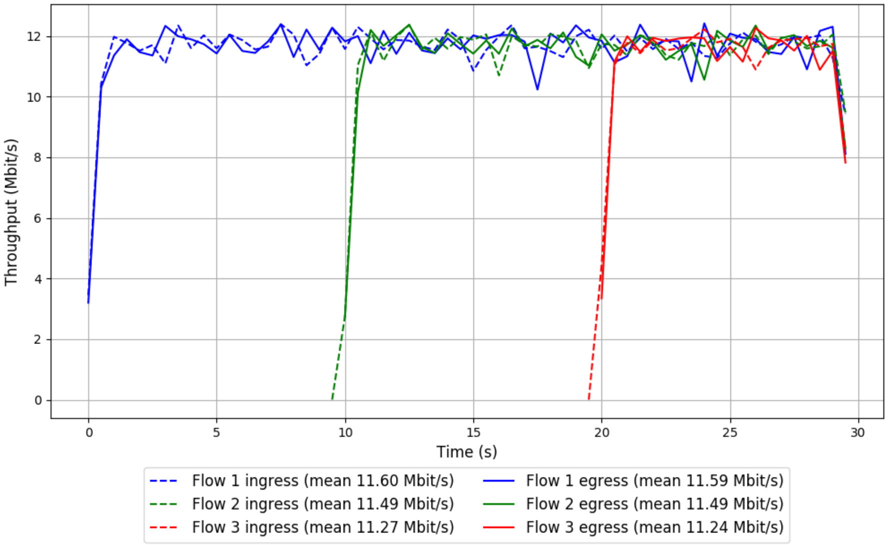


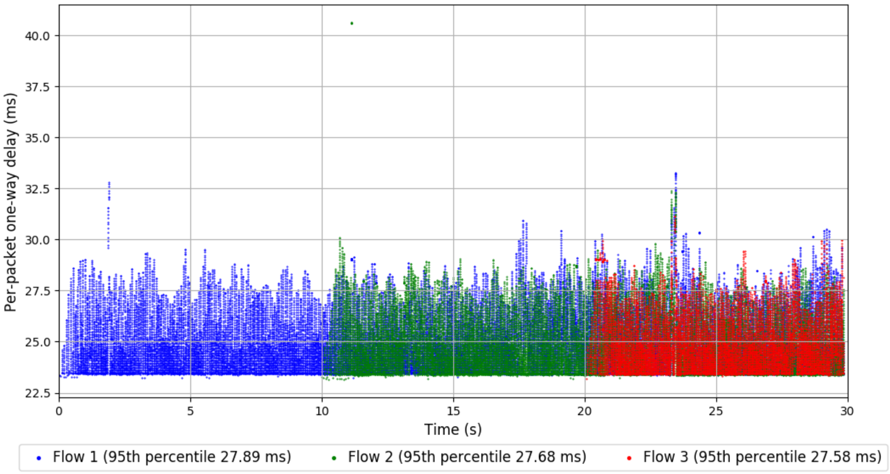
```
Run 9: Statistics of Sprout

Start at: 2017-09-08 00:51:16
End at: 2017-09-08 00:51:46
Local clock offset: 0.181 ms
Remote clock offset: 0.701 ms

# Below is generated by plot.py at 2017-09-08 05:25:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.94 Mbit/s
95th percentile per-packet one-way delay: 27.769 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 11.59 Mbit/s
95th percentile per-packet one-way delay: 27.888 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 27.675 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 11.24 Mbit/s
95th percentile per-packet one-way delay: 27.584 ms
Loss rate: 0.77%
```

Run 9: Report of Sprout — Data Link



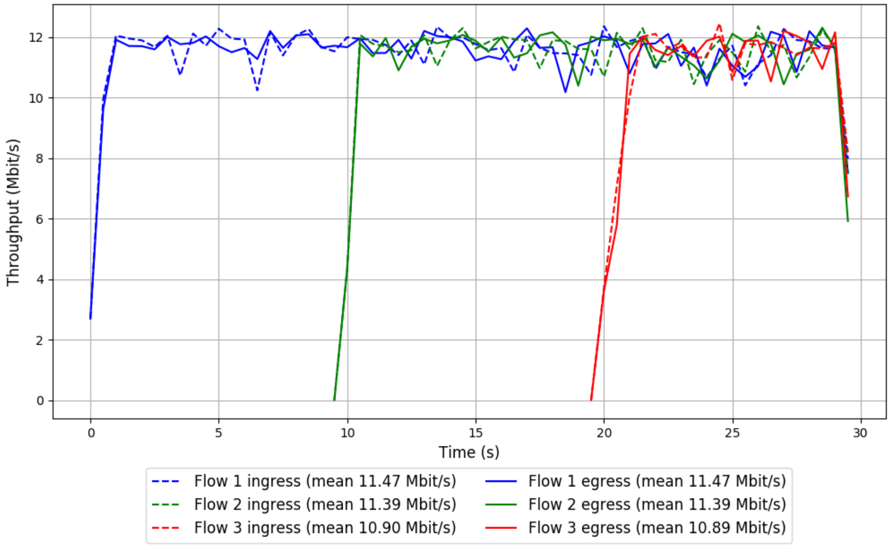


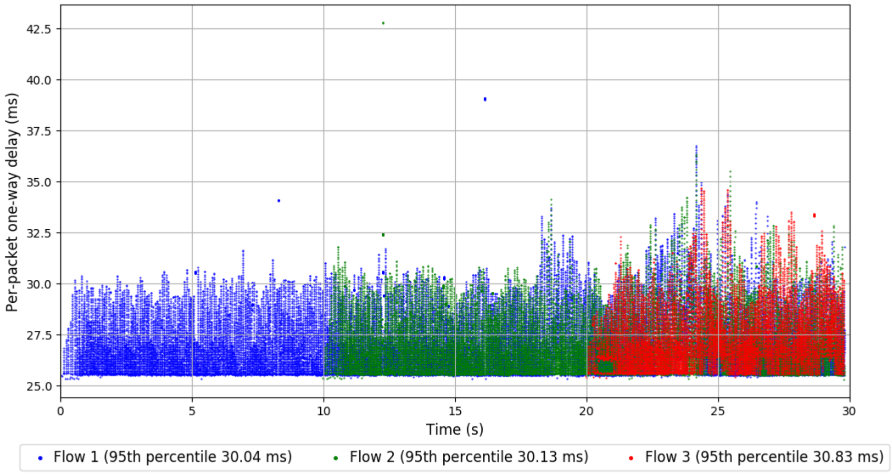
```
Run 10: Statistics of Sprout

Start at: 2017-09-08 01:12:07
End at: 2017-09-08 01:12:37
Local clock offset: 0.059 ms
Remote clock offset: -1.784 ms

# Below is generated by plot.py at 2017-09-08 05:25:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.65 Mbit/s
95th percentile per-packet one-way delay: 30.182 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 11.47 Mbit/s
95th percentile per-packet one-way delay: 30.042 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 30.134 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 10.89 Mbit/s
95th percentile per-packet one-way delay: 30.826 ms
Loss rate: 0.90%
```

Run 10: Report of Sprout — Data Link



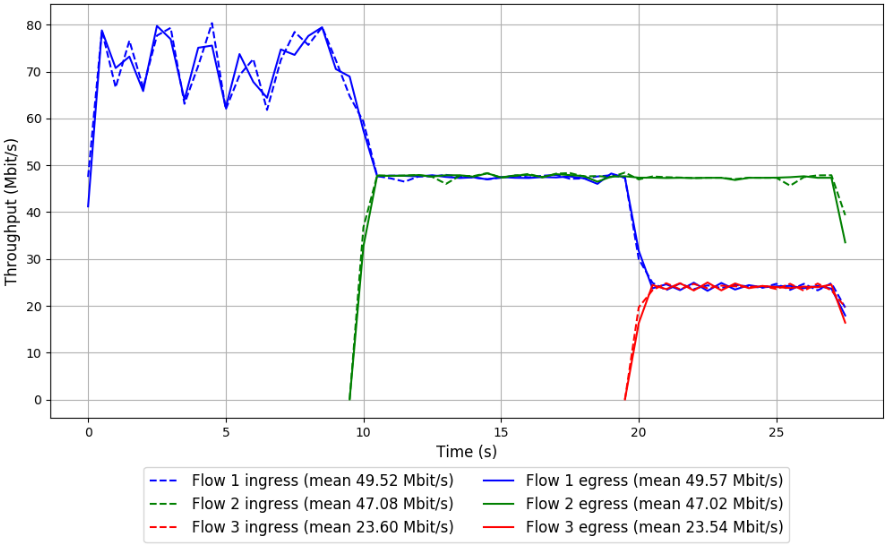


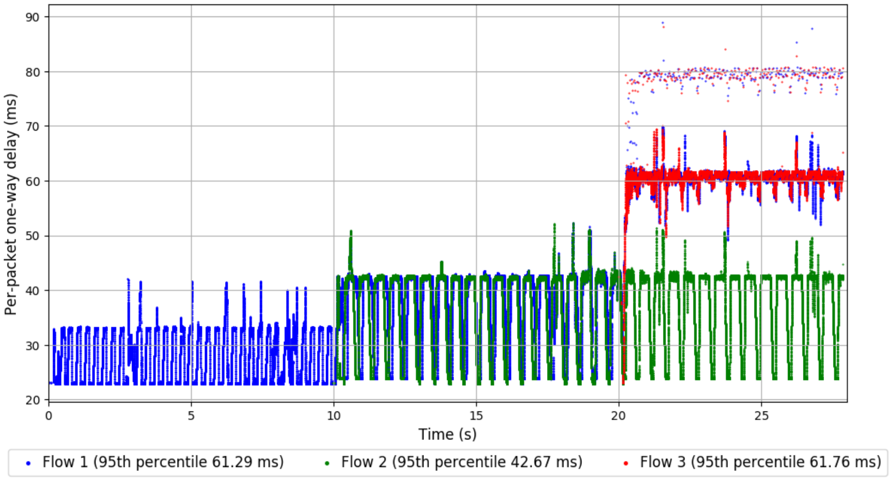
```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-07 21:51:40
End at: 2017-09-07 21:52:10
Local clock offset: 0.891 ms
Remote clock offset: -0.895 ms

# Below is generated by plot.py at 2017-09-08 05:26:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 61.356 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 61.288 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 47.02 Mbit/s
95th percentile per-packet one-way delay: 42.668 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 23.54 Mbit/s
95th percentile per-packet one-way delay: 61.757 ms
Loss rate: 1.47%
```

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



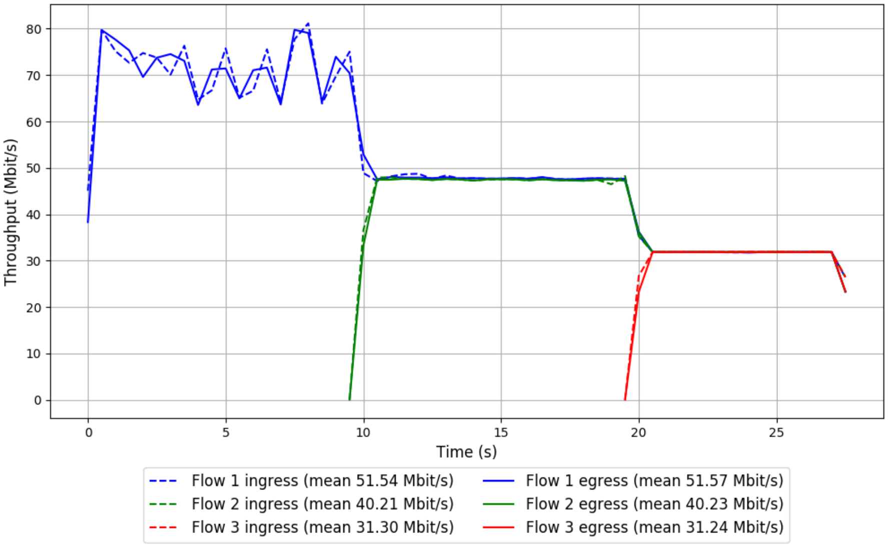


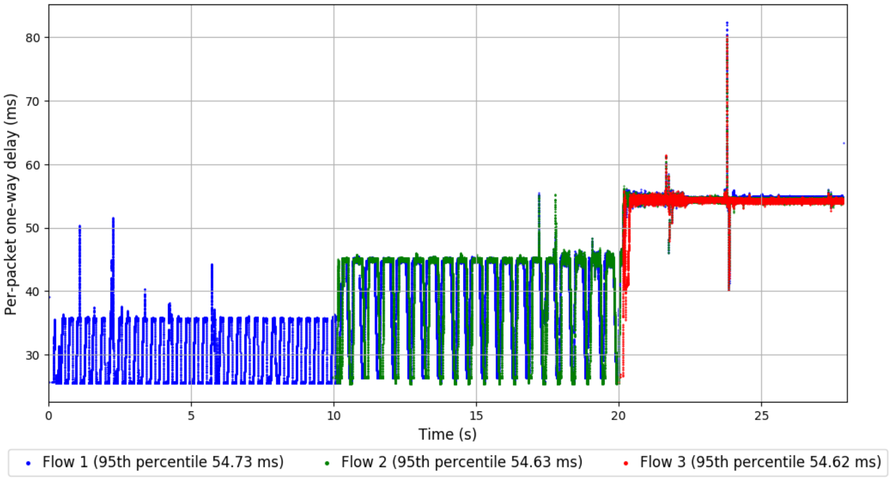
```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-07 22:12:40
End at: 2017-09-07 22:13:10
Local clock offset: 0.932 ms
Remote clock offset: -3.436 ms

# Below is generated by plot.py at 2017-09-08 05:26:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.26 Mbit/s
95th percentile per-packet one-way delay: 54.699 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 51.57 Mbit/s
95th percentile per-packet one-way delay: 54.735 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 54.634 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 54.621 ms
Loss rate: 1.31%
```

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



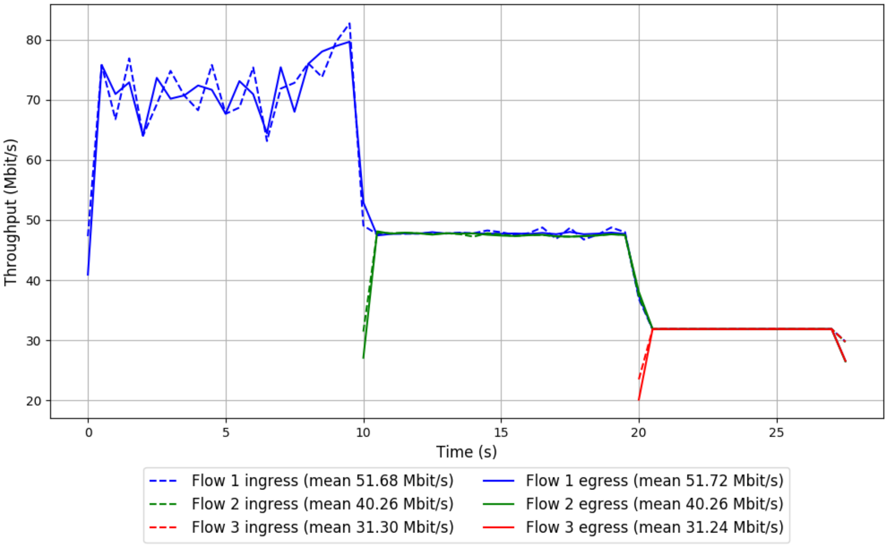


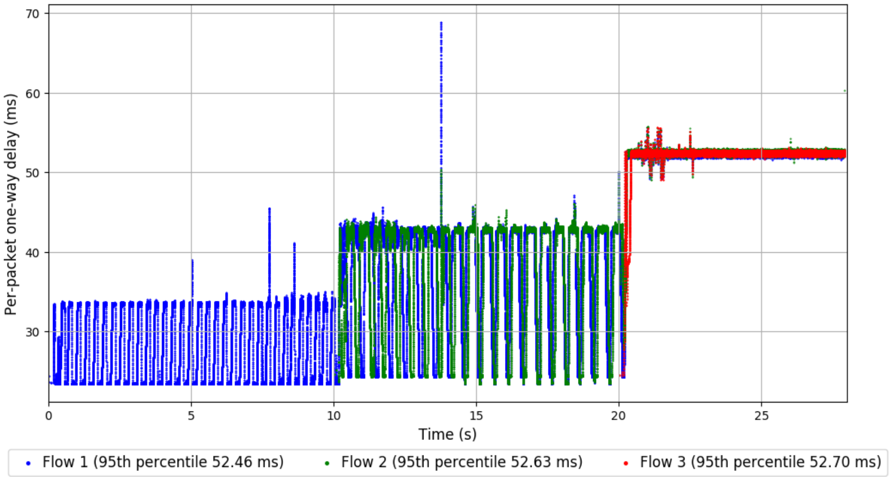
```
Run 3: Statistics of TaoVA-100x

Start at: 2017-09-07 22:33:50
End at: 2017-09-07 22:34:20
Local clock offset: 0.96 ms
Remote clock offset: -1.209 ms

# Below is generated by plot.py at 2017-09-08 05:26:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.37 Mbit/s
95th percentile per-packet one-way delay: 52.597 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 51.72 Mbit/s
95th percentile per-packet one-way delay: 52.460 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 40.26 Mbit/s
95th percentile per-packet one-way delay: 52.626 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 52.698 ms
Loss rate: 1.31%
```

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



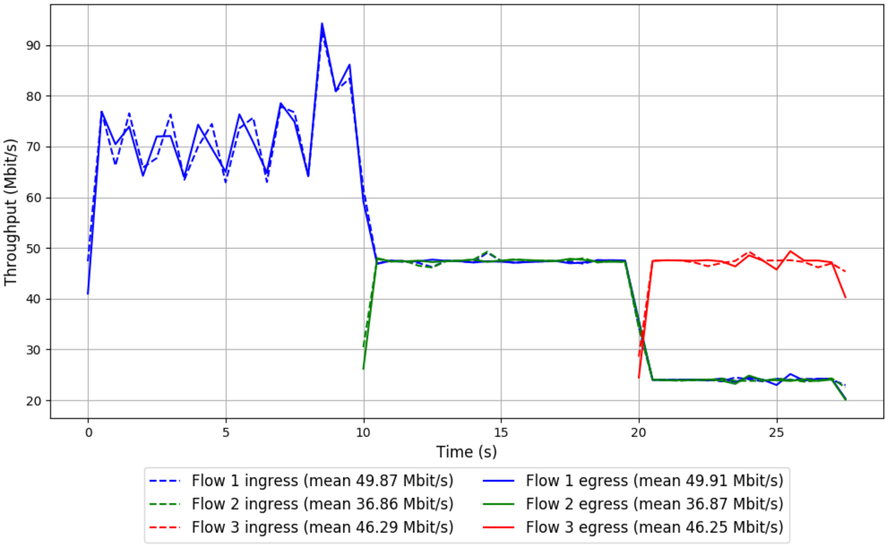


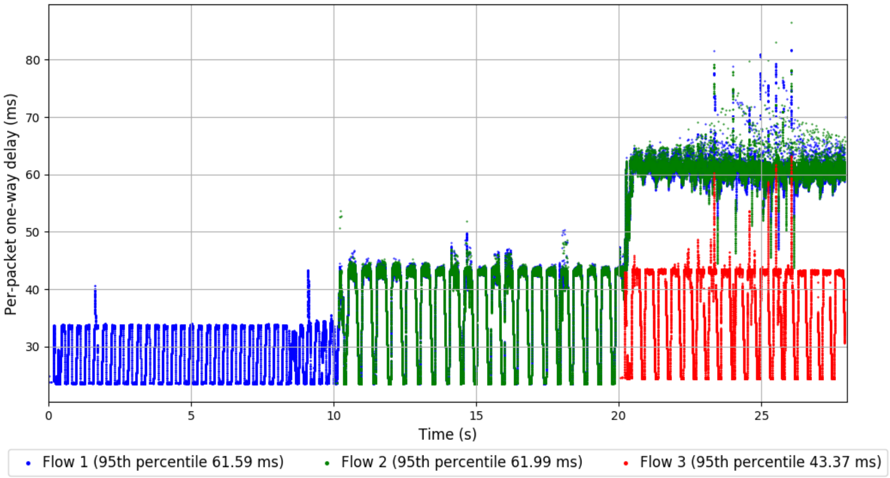
```
Run 4: Statistics of TaoVA-100x

Start at: 2017-09-07 22:54:49
End at: 2017-09-07 22:55:19
Local clock offset: 0.891 ms
Remote clock offset: -1.094 ms

# Below is generated by plot.py at 2017-09-08 05:26:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.63 Mbit/s
95th percentile per-packet one-way delay: 61.745 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 61.591 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 61.995 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 46.25 Mbit/s
95th percentile per-packet one-way delay: 43.366 ms
Loss rate: 1.00%
```

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



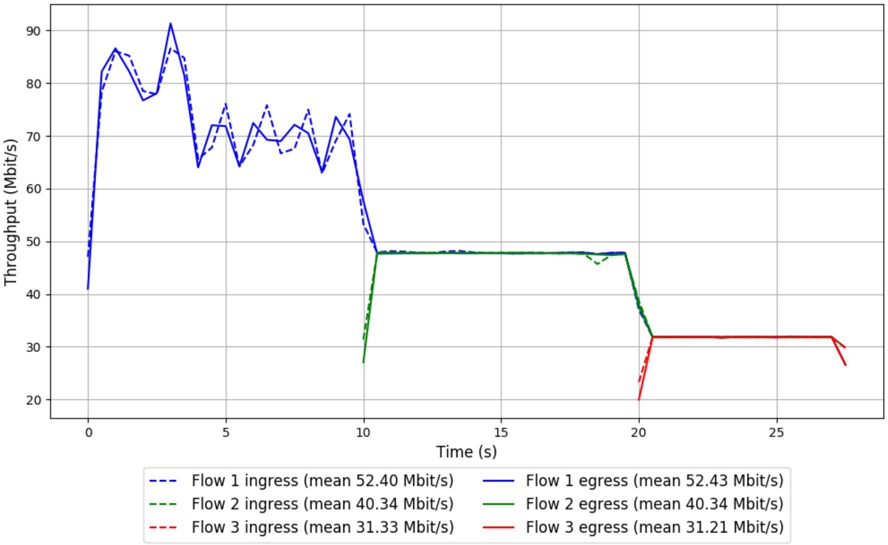


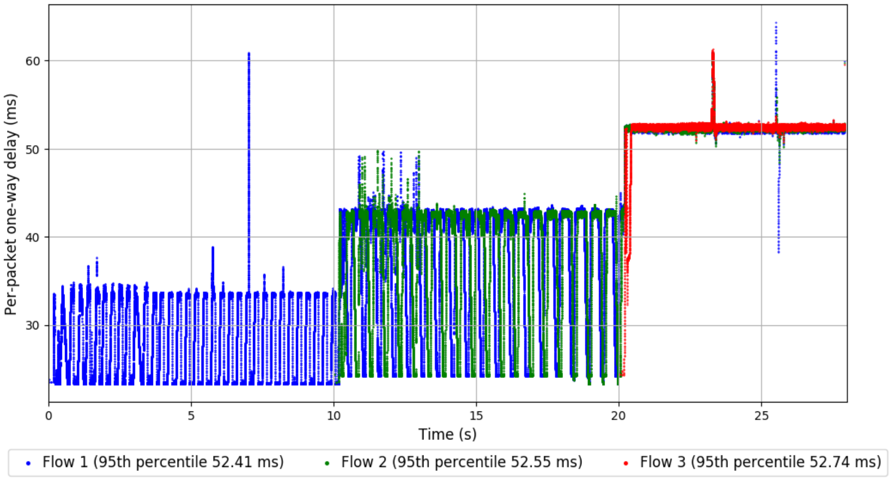
```
Run 5: Statistics of TaoVA-100x

Start at: 2017-09-07 23:15:58
End at: 2017-09-07 23:16:28
Local clock offset: 0.803 ms
Remote clock offset: -1.136 ms

# Below is generated by plot.py at 2017-09-08 05:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.13 Mbit/s
95th percentile per-packet one-way delay: 52.578 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 52.43 Mbit/s
95th percentile per-packet one-way delay: 52.405 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 40.34 Mbit/s
95th percentile per-packet one-way delay: 52.550 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 52.743 ms
Loss rate: 1.31%
```

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



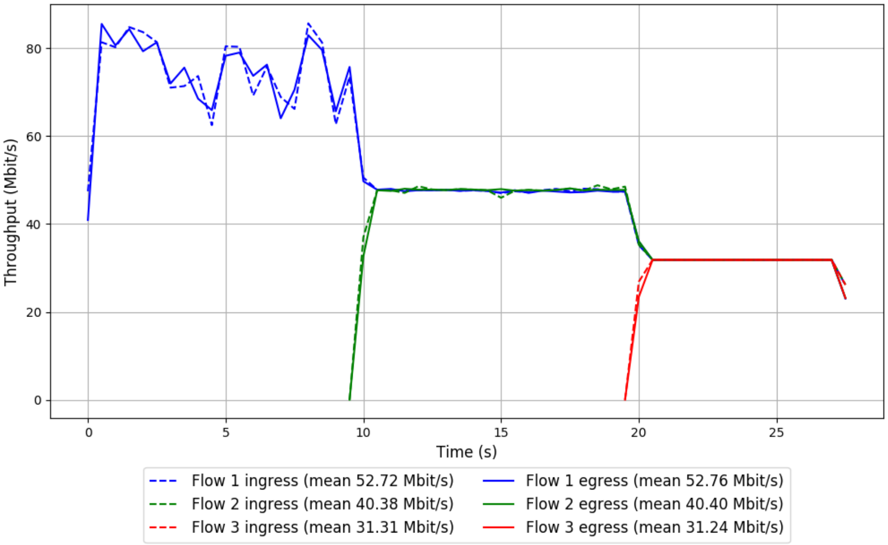


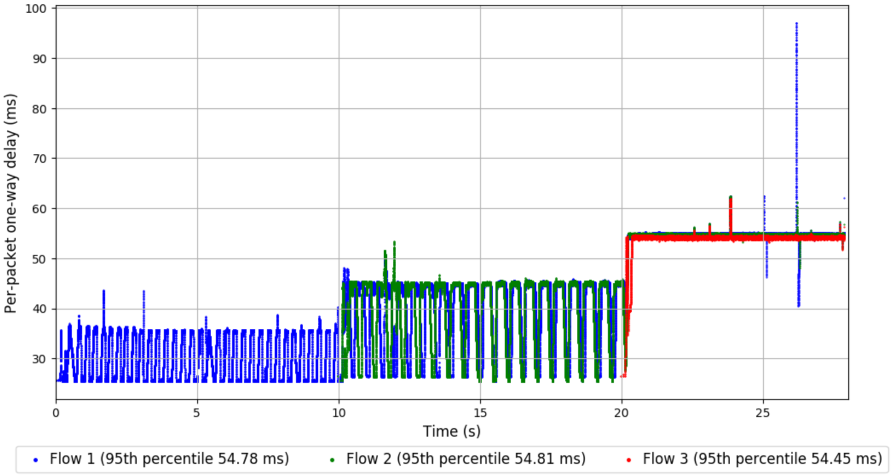
```
Run 6: Statistics of TaoVA-100x

Start at: 2017-09-07 23:36:59
End at: 2017-09-07 23:37:29
Local clock offset: 0.657 ms
Remote clock offset: -3.195 ms

# Below is generated by plot.py at 2017-09-08 05:26:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 54.785 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 52.76 Mbit/s
95th percentile per-packet one-way delay: 54.781 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 40.40 Mbit/s
95th percentile per-packet one-way delay: 54.809 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 31.24 Mbit/s
95th percentile per-packet one-way delay: 54.448 ms
Loss rate: 1.29%
```

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



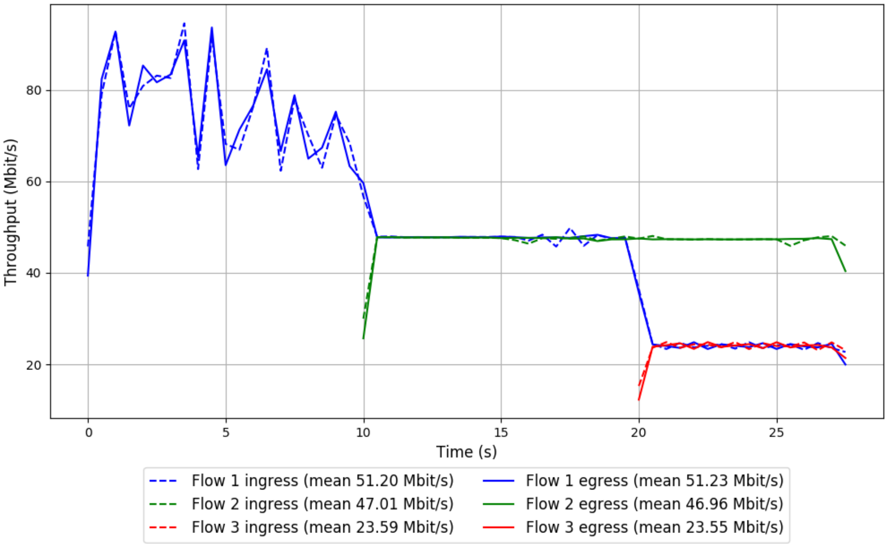


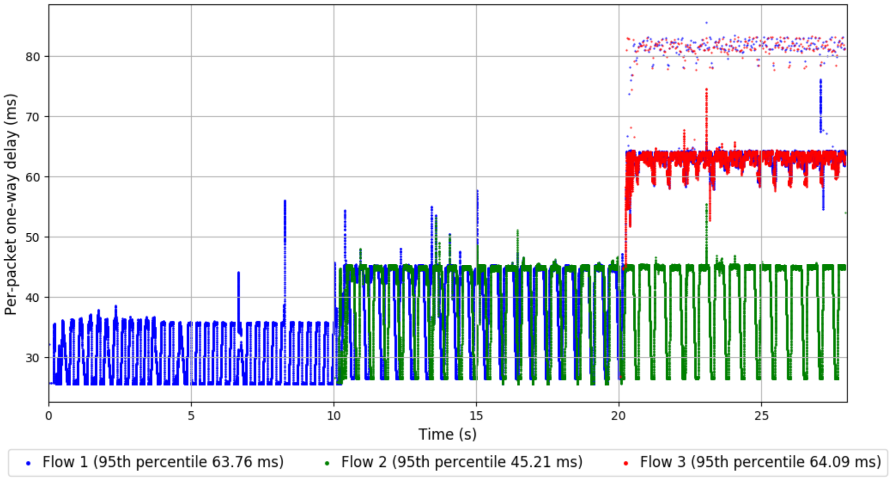
```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-07 23:57:58
End at: 2017-09-07 23:58:28
Local clock offset: 0.658 ms
Remote clock offset: -2.294 ms

# Below is generated by plot.py at 2017-09-08 05:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.98 Mbit/s
95th percentile per-packet one-way delay: 63.795 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 51.23 Mbit/s
95th percentile per-packet one-way delay: 63.760 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 46.96 Mbit/s
95th percentile per-packet one-way delay: 45.213 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 23.55 Mbit/s
95th percentile per-packet one-way delay: 64.092 ms
Loss rate: 1.41%
```

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



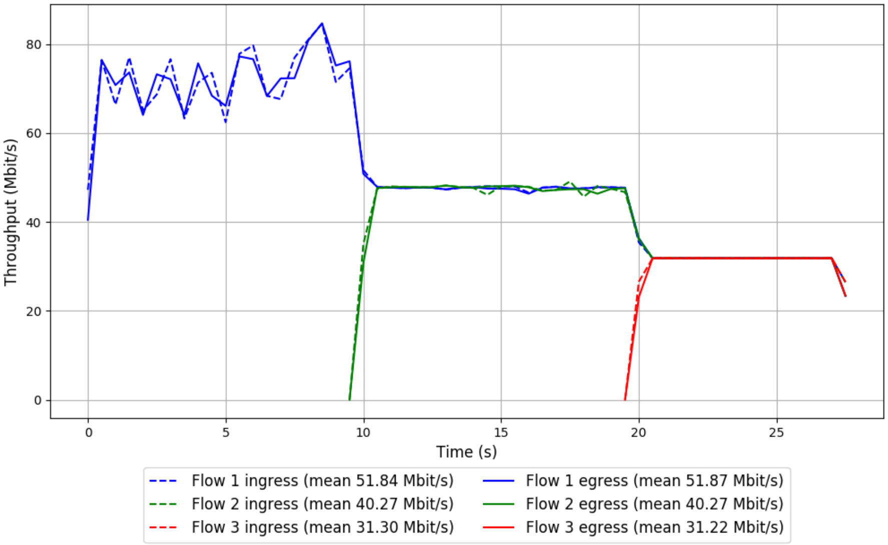


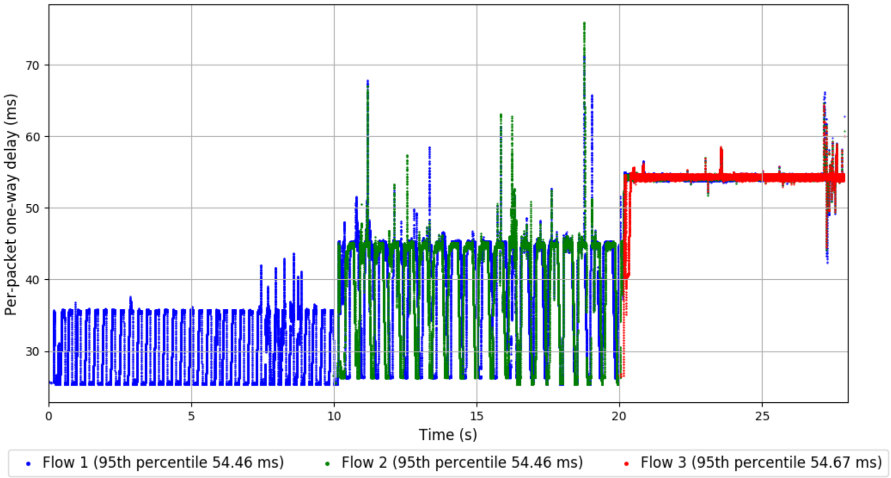
```
Run 8: Statistics of TaoVA-100x

Start at: 2017-09-08 00:19:10
End at: 2017-09-08 00:19:40
Local clock offset: 0.421 ms
Remote clock offset: -1.74 ms

# Below is generated by plot.py at 2017-09-08 05:27:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 54.502 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 51.87 Mbit/s
95th percentile per-packet one-way delay: 54.464 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 54.460 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 54.672 ms
Loss rate: 1.31%
```

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



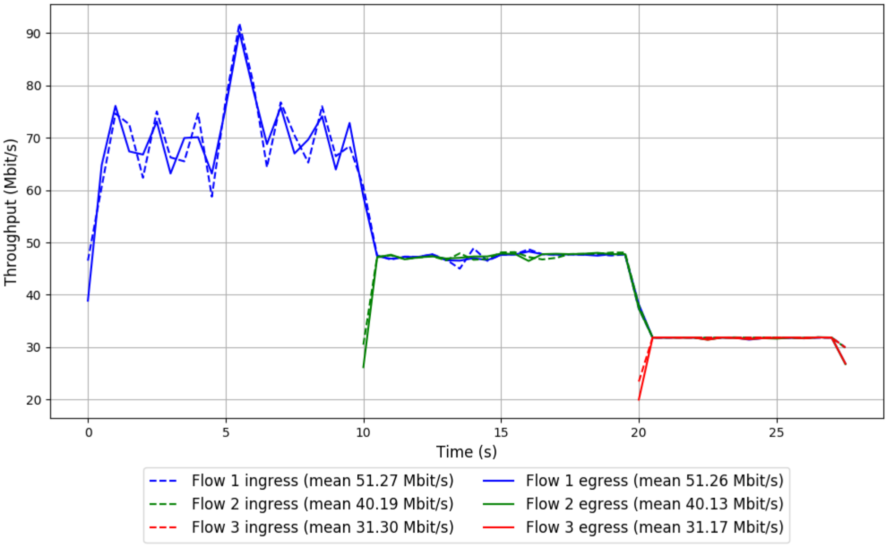


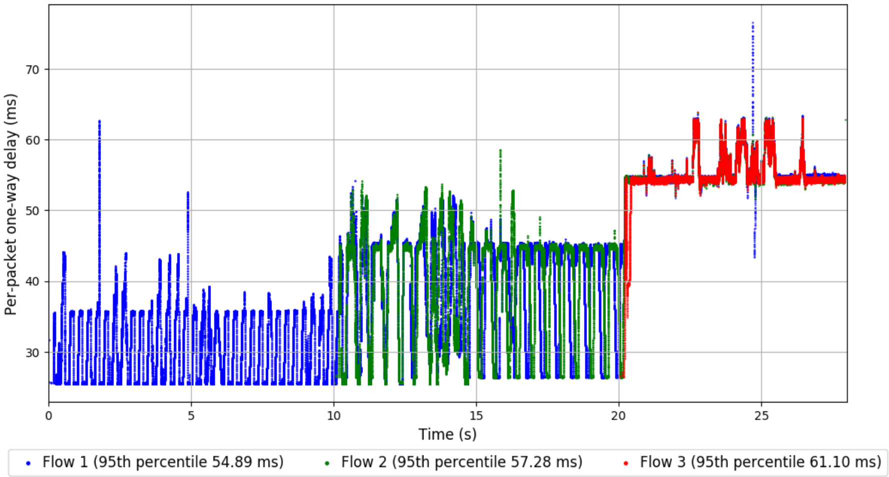
```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-08 00:40:12
End at: 2017-09-08 00:40:42
Local clock offset: 0.235 ms
Remote clock offset: -1.454 ms

# Below is generated by plot.py at 2017-09-08 05:27:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.80 Mbit/s
95th percentile per-packet one-way delay: 56.850 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 51.26 Mbit/s
95th percentile per-packet one-way delay: 54.890 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 40.13 Mbit/s
95th percentile per-packet one-way delay: 57.278 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 61.101 ms
Loss rate: 1.52%
```

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



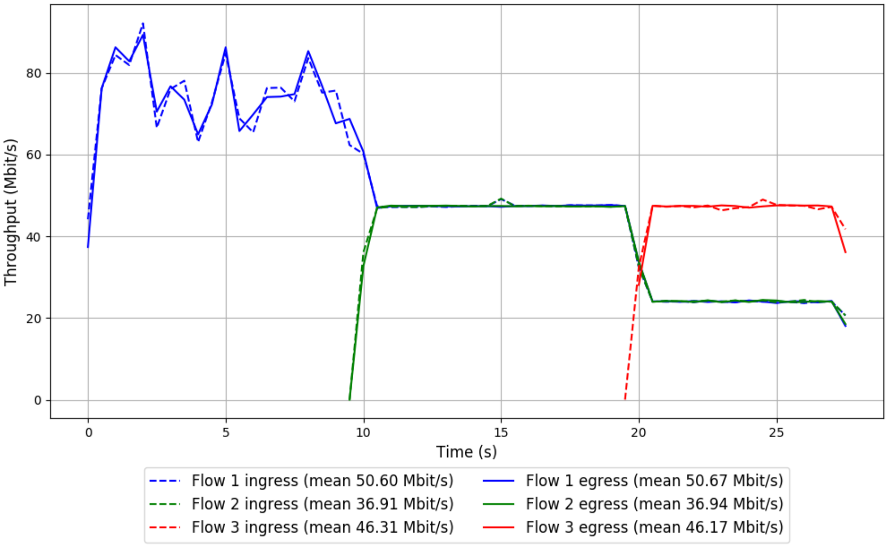


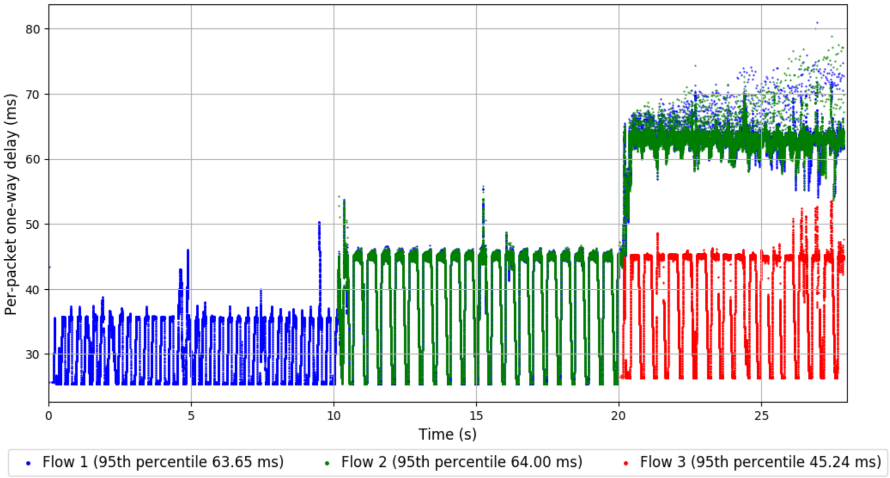
```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-08 01:01:02
End at: 2017-09-08 01:01:32
Local clock offset: 0.19 ms
Remote clock offset: -1.537 ms

# Below is generated by plot.py at 2017-09-08 05:27:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 63.717 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 50.67 Mbit/s
95th percentile per-packet one-way delay: 63.653 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 36.94 Mbit/s
95th percentile per-packet one-way delay: 63.999 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 46.17 Mbit/s
95th percentile per-packet one-way delay: 45.243 ms
Loss rate: 1.20%
```

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



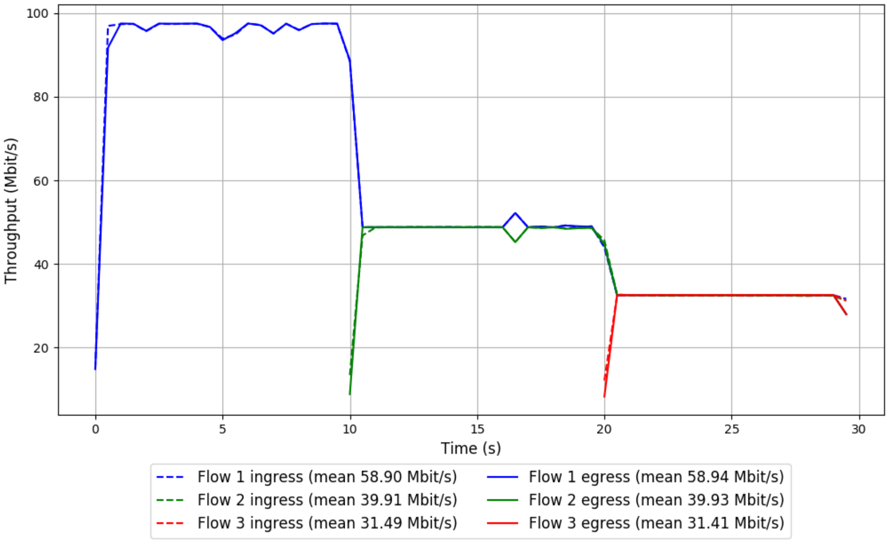


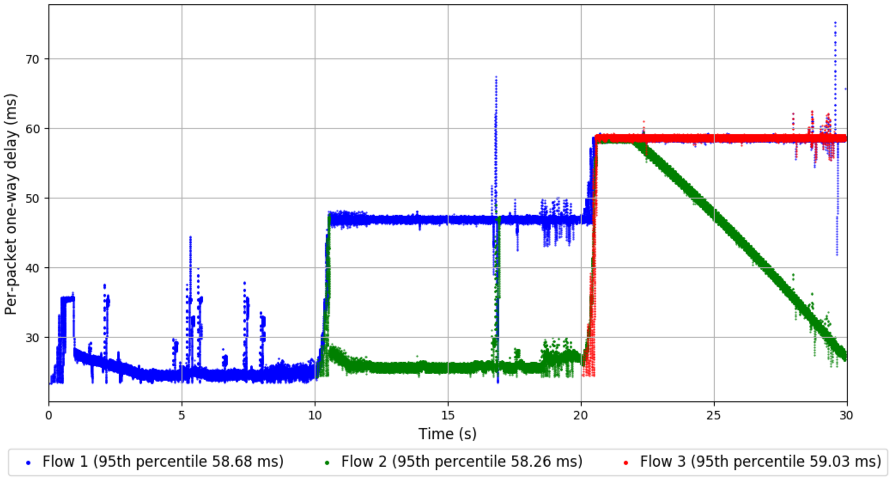
```
Run 1: Statistics of TCP Vegas

Start at: 2017-09-07 21:55:52
End at: 2017-09-07 21:56:22
Local clock offset: 0.935 ms
Remote clock offset: -1.495 ms

# Below is generated by plot.py at 2017-09-08 05:27:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.88 Mbit/s
95th percentile per-packet one-way delay: 58.780 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 58.678 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 39.93 Mbit/s
95th percentile per-packet one-way delay: 58.263 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 31.41 Mbit/s
95th percentile per-packet one-way delay: 59.029 ms
Loss rate: 1.12%
```

Run 1: Report of TCP Vegas — Data Link



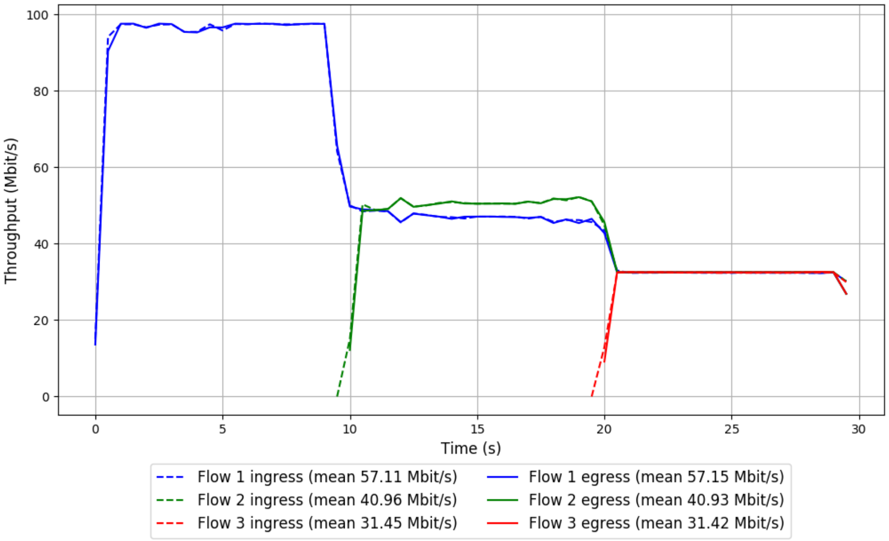


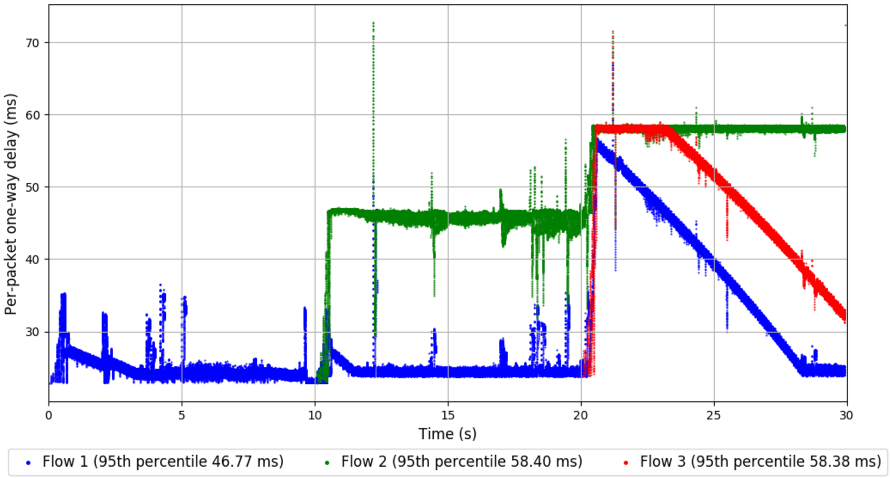
```
Run 2: Statistics of TCP Vegas

Start at: 2017-09-07 22:16:56
End at: 2017-09-07 22:17:26
Local clock offset: 0.834 ms
Remote clock offset: -0.97 ms

# Below is generated by plot.py at 2017-09-08 05:27:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 58.225 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 46.771 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 58.398 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 58.375 ms
Loss rate: 0.84%
```

Run 2: Report of TCP Vegas — Data Link



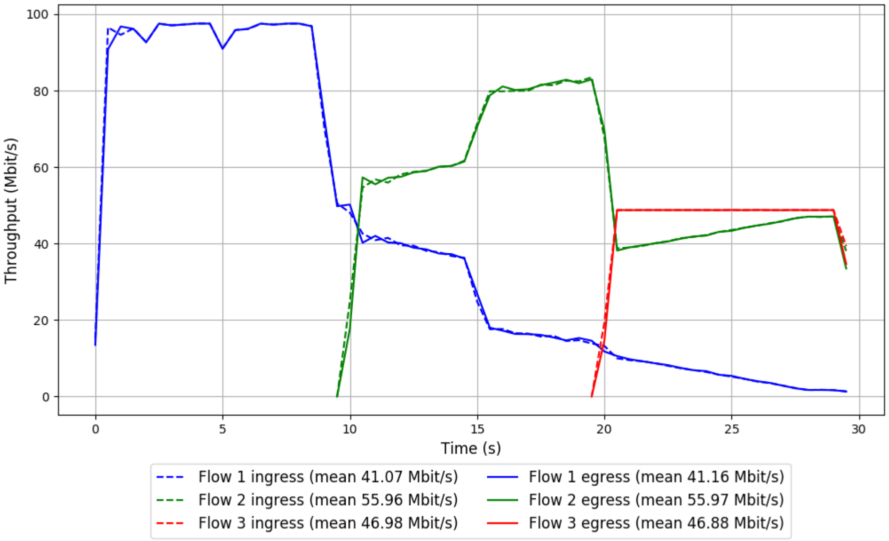


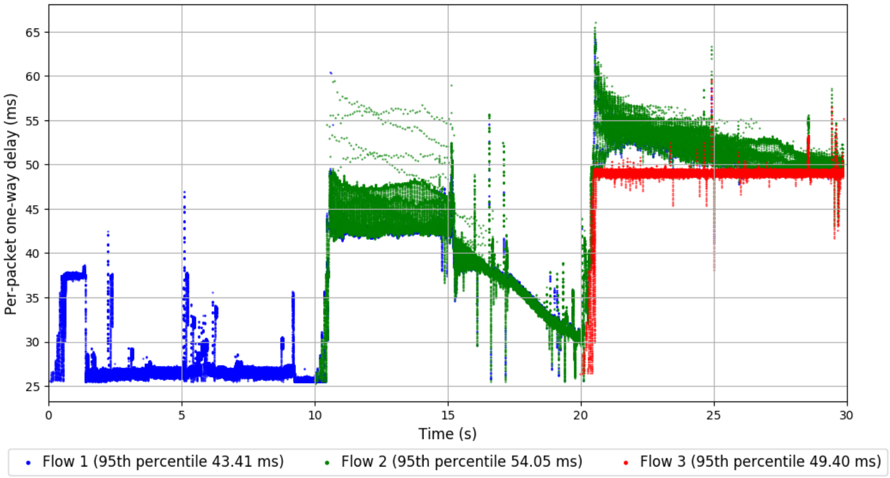
```
Run 3: Statistics of TCP Vegas

Start at: 2017-09-07 22:38:05
End at: 2017-09-07 22:38:35
Local clock offset: 0.802 ms
Remote clock offset: -3.314 ms

# Below is generated by plot.py at 2017-09-08 05:27:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.00 Mbit/s
95th percentile per-packet one-way delay: 52.847 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 41.16 Mbit/s
95th percentile per-packet one-way delay: 43.413 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 54.055 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 46.88 Mbit/s
95th percentile per-packet one-way delay: 49.402 ms
Loss rate: 1.01%
```

Run 3: Report of TCP Vegas — Data Link



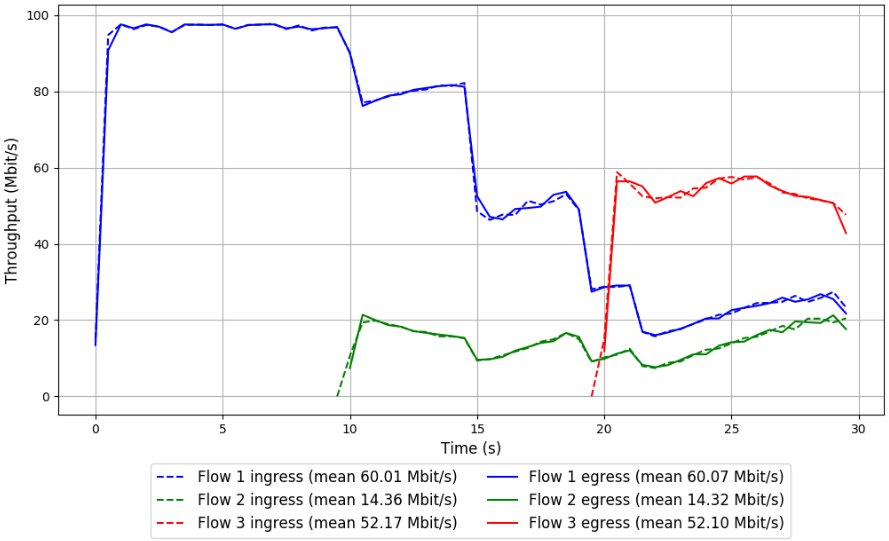


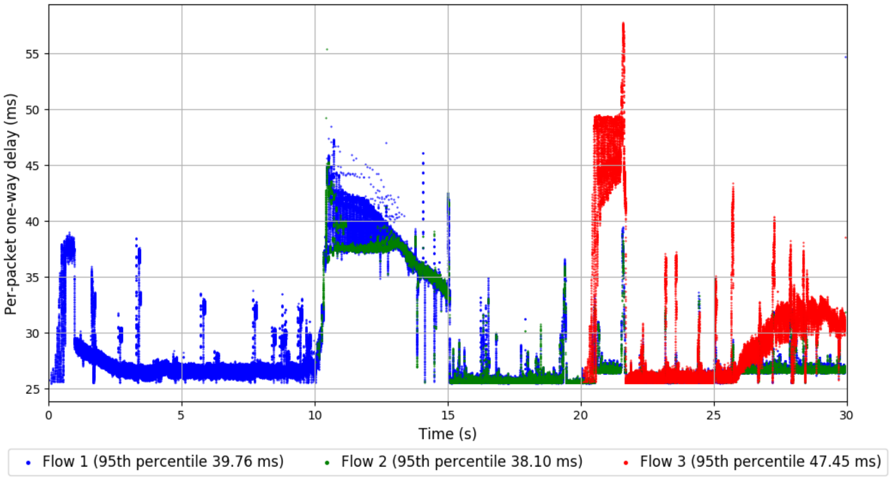
```
Run 4: Statistics of TCP Vegas

Start at: 2017-09-07 22:59:02
End at: 2017-09-07 22:59:32
Local clock offset: 0.891 ms
Remote clock offset: -3.137 ms

# Below is generated by plot.py at 2017-09-08 05:27:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.86 Mbit/s
95th percentile per-packet one-way delay: 40.401 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 60.07 Mbit/s
95th percentile per-packet one-way delay: 39.761 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 14.32 Mbit/s
95th percentile per-packet one-way delay: 38.097 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 47.455 ms
Loss rate: 0.80%
```

Run 4: Report of TCP Vegas — Data Link



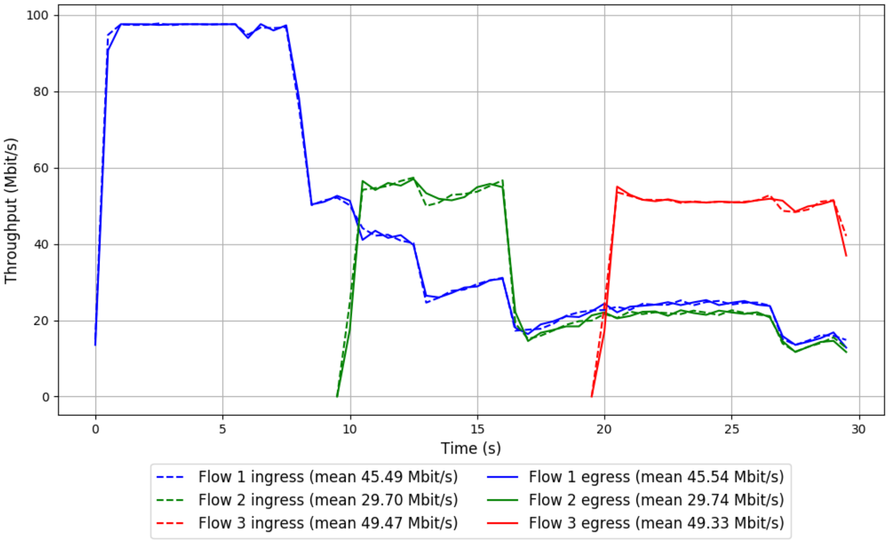


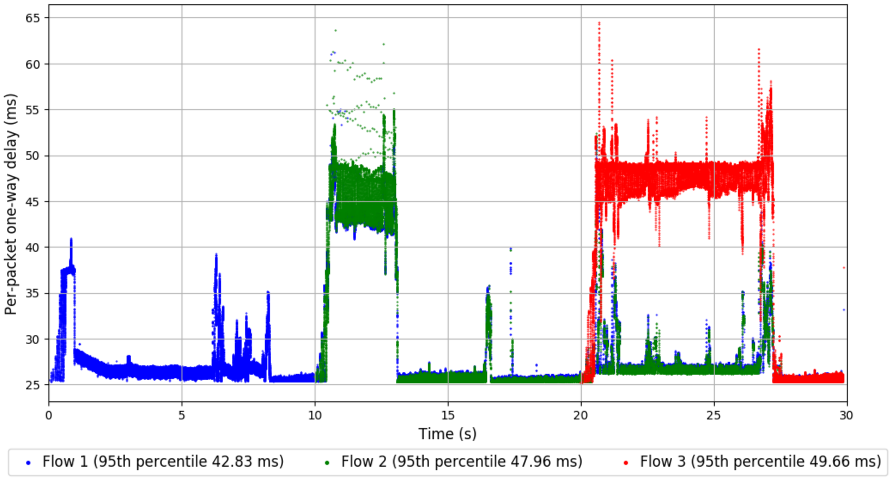
```
Run 5: Statistics of TCP Vegas

Start at: 2017-09-07 23:20:11
End at: 2017-09-07 23:20:41
Local clock offset: 0.693 ms
Remote clock offset: -3.212 ms

# Below is generated by plot.py at 2017-09-08 05:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.71 Mbit/s
95th percentile per-packet one-way delay: 48.828 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 45.54 Mbit/s
95th percentile per-packet one-way delay: 42.827 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 29.74 Mbit/s
95th percentile per-packet one-way delay: 47.959 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 49.33 Mbit/s
95th percentile per-packet one-way delay: 49.664 ms
Loss rate: 0.83%
```

Run 5: Report of TCP Vegas — Data Link



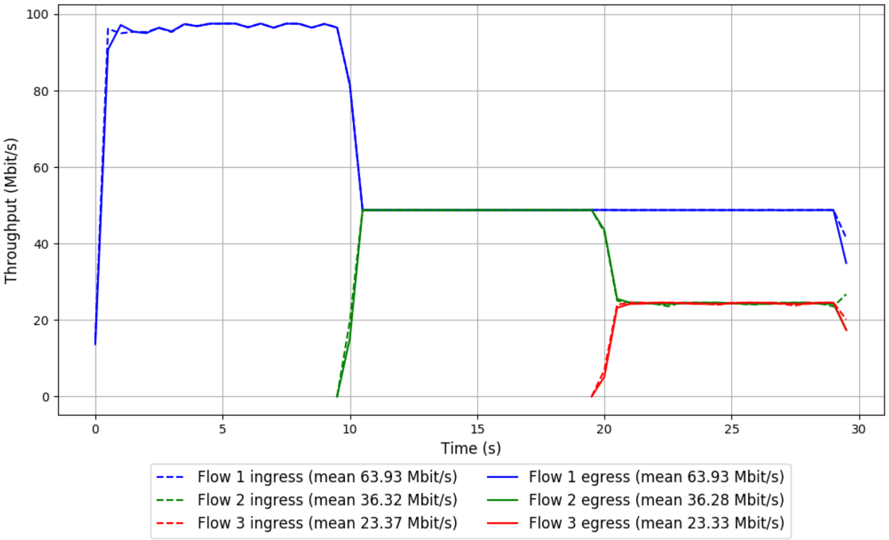


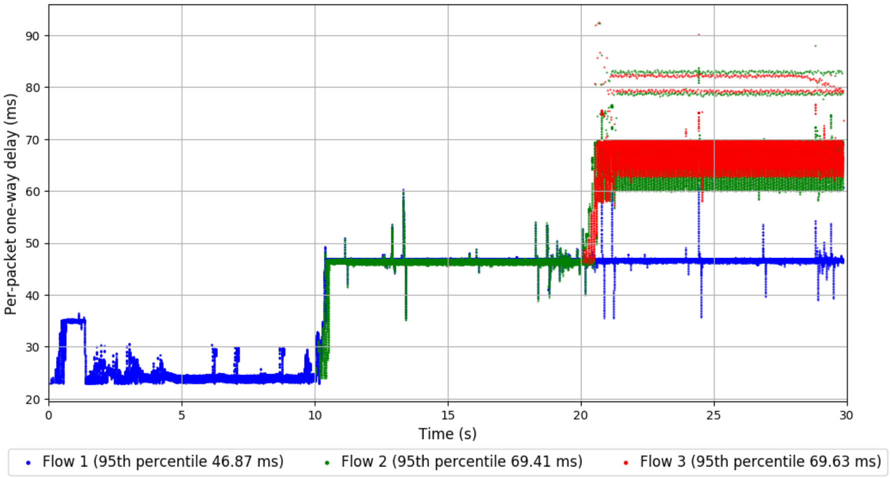
```
Run 6: Statistics of TCP Vegas

Start at: 2017-09-07 23:41:11
End at: 2017-09-07 23:41:41
Local clock offset: 0.64 ms
Remote clock offset: -0.483 ms

# Below is generated by plot.py at 2017-09-08 05:28:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 69.220 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 63.93 Mbit/s
95th percentile per-packet one-way delay: 46.865 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 69.411 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 23.33 Mbit/s
95th percentile per-packet one-way delay: 69.631 ms
Loss rate: 1.28%
```

Run 6: Report of TCP Vegas — Data Link



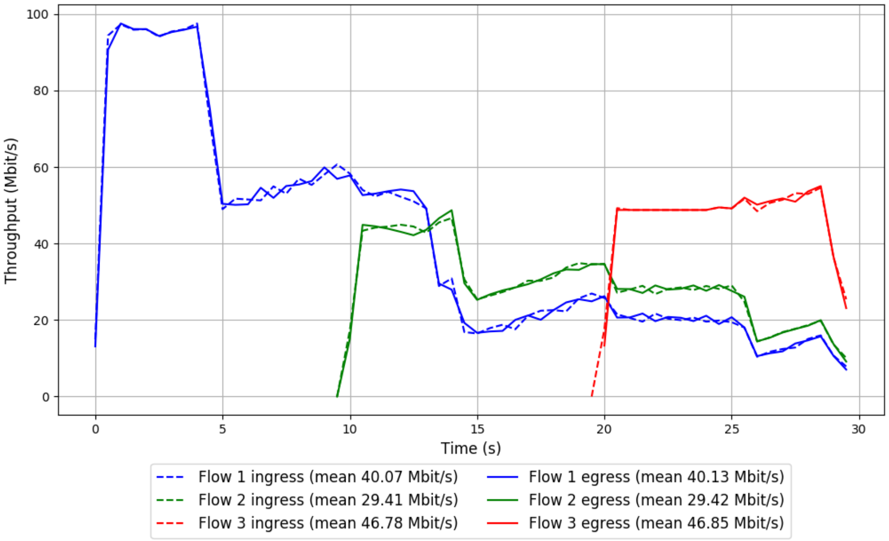


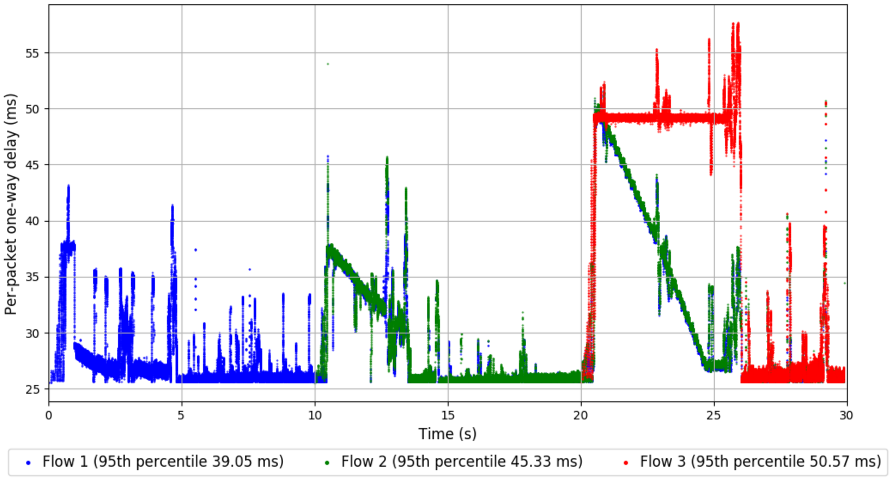
```
Run 7: Statistics of TCP Vegas

Start at: 2017-09-08 00:02:12
End at: 2017-09-08 00:02:42
Local clock offset: 0.612 ms
Remote clock offset: -2.244 ms

# Below is generated by plot.py at 2017-09-08 05:28:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.21 Mbit/s
95th percentile per-packet one-way delay: 49.306 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 40.13 Mbit/s
95th percentile per-packet one-way delay: 39.052 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 29.42 Mbit/s
95th percentile per-packet one-way delay: 45.327 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 46.85 Mbit/s
95th percentile per-packet one-way delay: 50.566 ms
Loss rate: 0.57%
```

Run 7: Report of TCP Vegas — Data Link



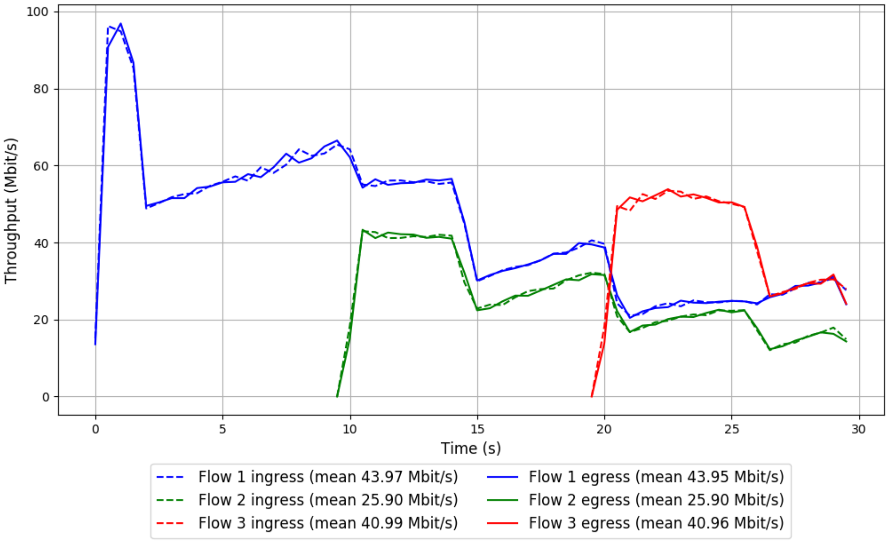


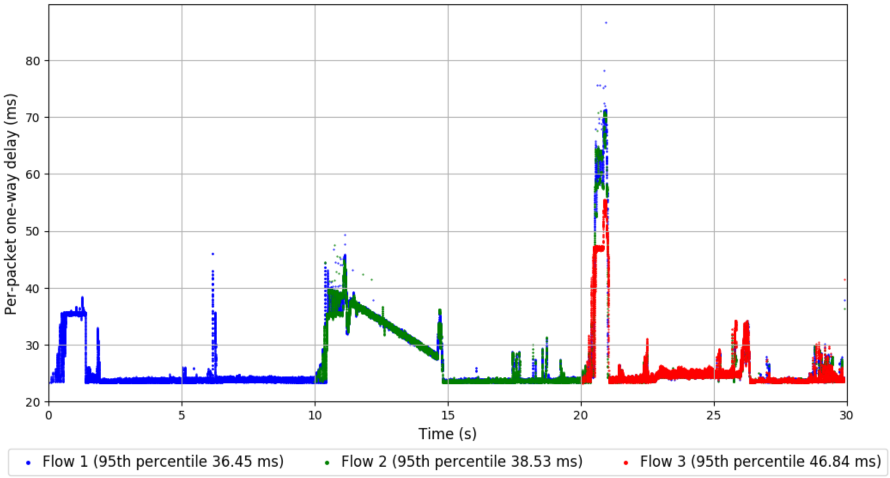
```
Run 8: Statistics of TCP Vegas

Start at: 2017-09-08 00:23:24
End at: 2017-09-08 00:23:54
Local clock offset: 0.465 ms
Remote clock offset: 0.47 ms

# Below is generated by plot.py at 2017-09-08 05:28:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.79 Mbit/s
95th percentile per-packet one-way delay: 37.224 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 43.95 Mbit/s
95th percentile per-packet one-way delay: 36.452 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 25.90 Mbit/s
95th percentile per-packet one-way delay: 38.533 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 46.840 ms
Loss rate: 0.65%
```

Run 8: Report of TCP Vegas — Data Link



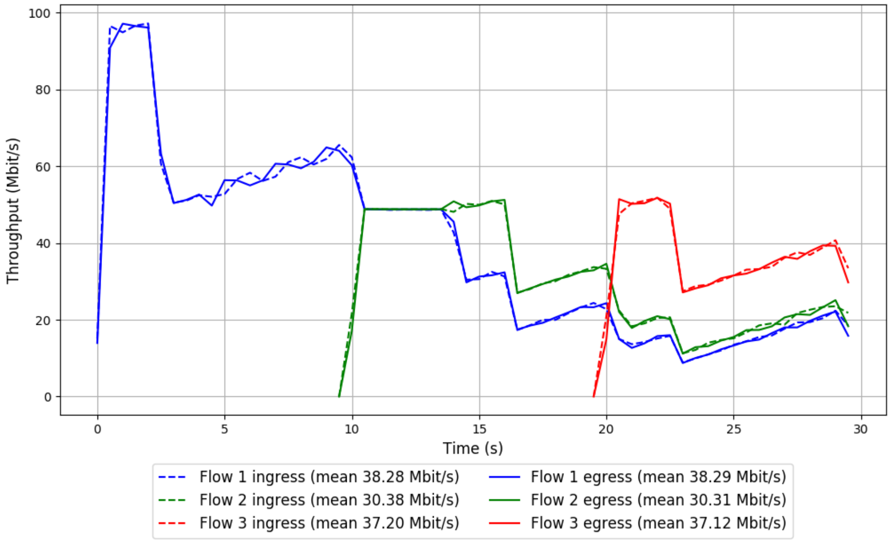


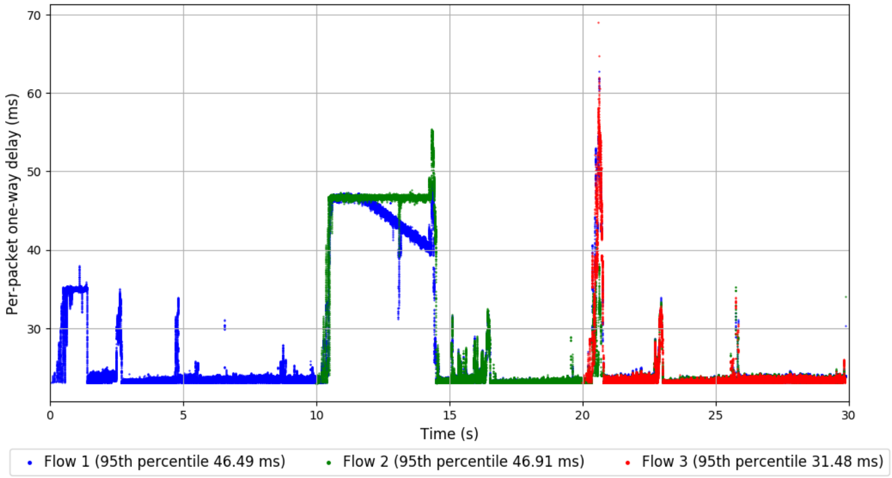
```
Run 9: Statistics of TCP Vegas

Start at: 2017-09-08 00:44:24
End at: 2017-09-08 00:44:54
Local clock offset: 0.286 ms
Remote clock offset: 1.156 ms

# Below is generated by plot.py at 2017-09-08 05:28:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.79 Mbit/s
95th percentile per-packet one-way delay: 46.775 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 38.29 Mbit/s
95th percentile per-packet one-way delay: 46.486 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 30.31 Mbit/s
95th percentile per-packet one-way delay: 46.913 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 31.480 ms
Loss rate: 0.95%
```

Run 9: Report of TCP Vegas — Data Link



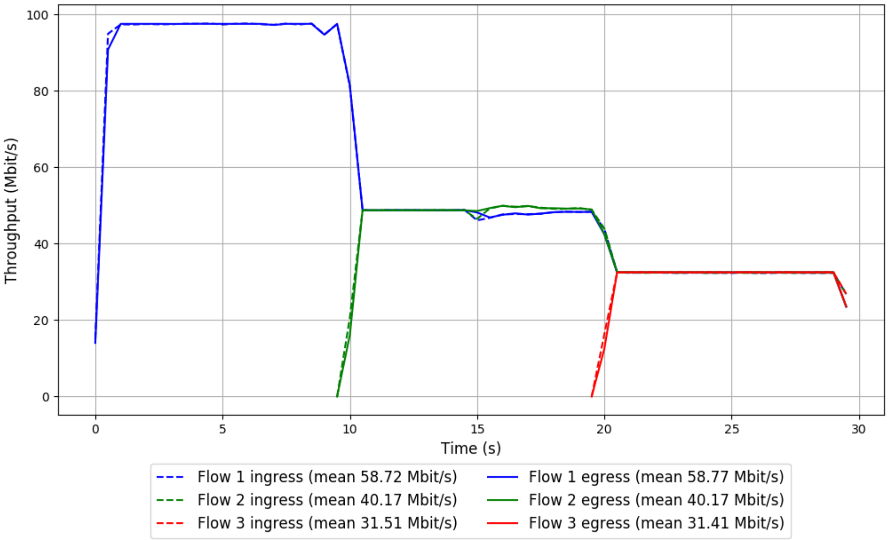


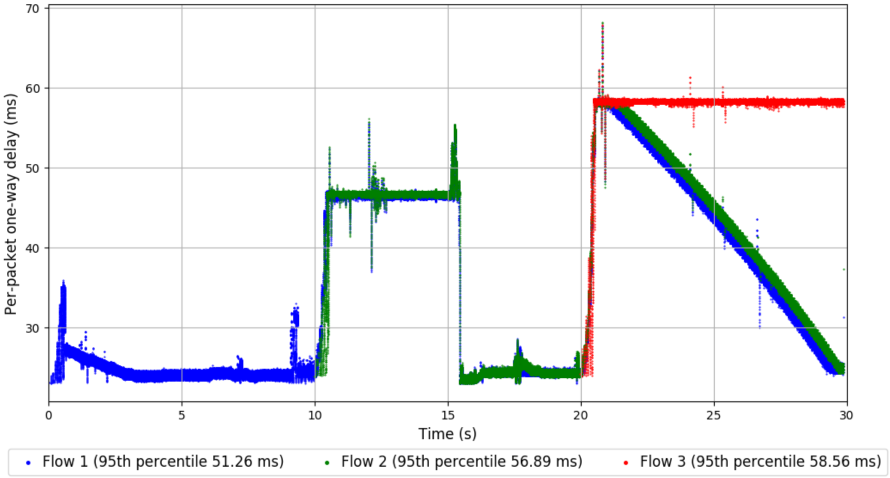
```
Run 10: Statistics of TCP Vegas

Start at: 2017-09-08 01:05:13
End at: 2017-09-08 01:05:43
Local clock offset: 0.221 ms
Remote clock offset: 0.801 ms

# Below is generated by plot.py at 2017-09-08 05:28:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.96 Mbit/s
95th percentile per-packet one-way delay: 58.375 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 58.77 Mbit/s
95th percentile per-packet one-way delay: 51.261 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 56.886 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 31.41 Mbit/s
95th percentile per-packet one-way delay: 58.562 ms
Loss rate: 1.13%
```

Run 10: Report of TCP Vegas — Data Link



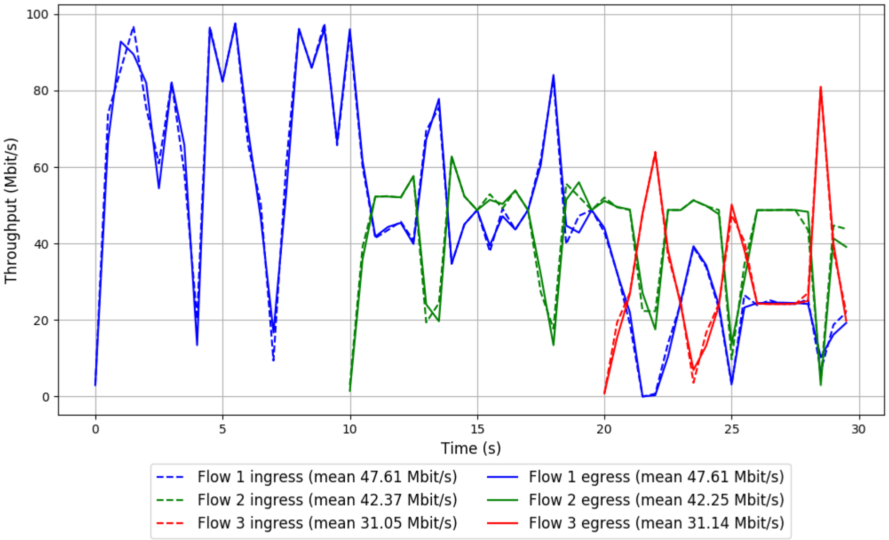


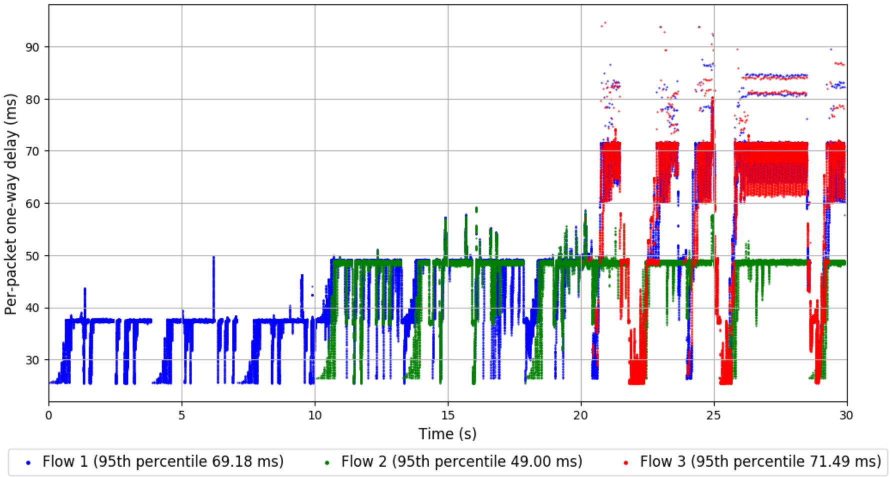
```
Run 1: Statistics of Verus

Start at: 2017-09-07 21:50:14
End at: 2017-09-07 21:50:44
Local clock offset: 0.879 ms
Remote clock offset: -3.444 ms

# Below is generated by plot.py at 2017-09-08 05:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.90 Mbit/s
95th percentile per-packet one-way delay: 69.798 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 47.61 Mbit/s
95th percentile per-packet one-way delay: 69.176 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 49.000 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 71.492 ms
Loss rate: 0.99%
```

Run 1: Report of Verus — Data Link



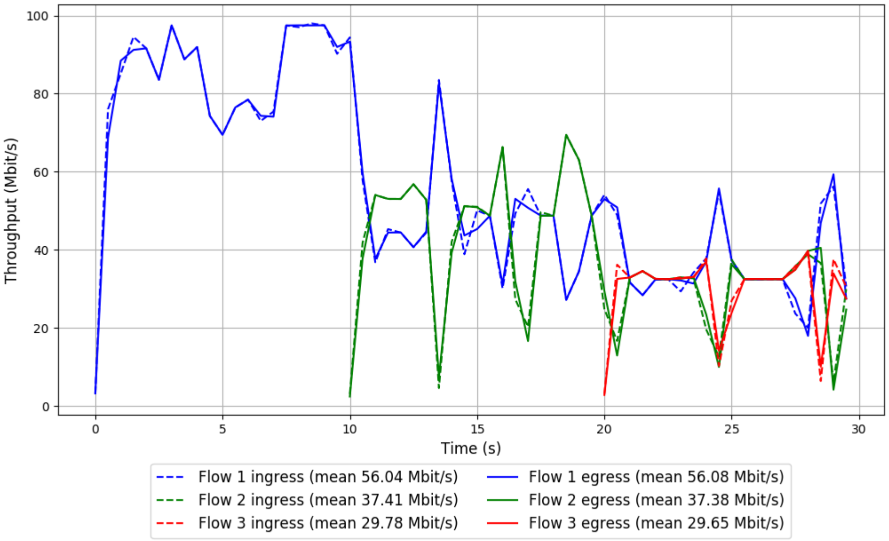


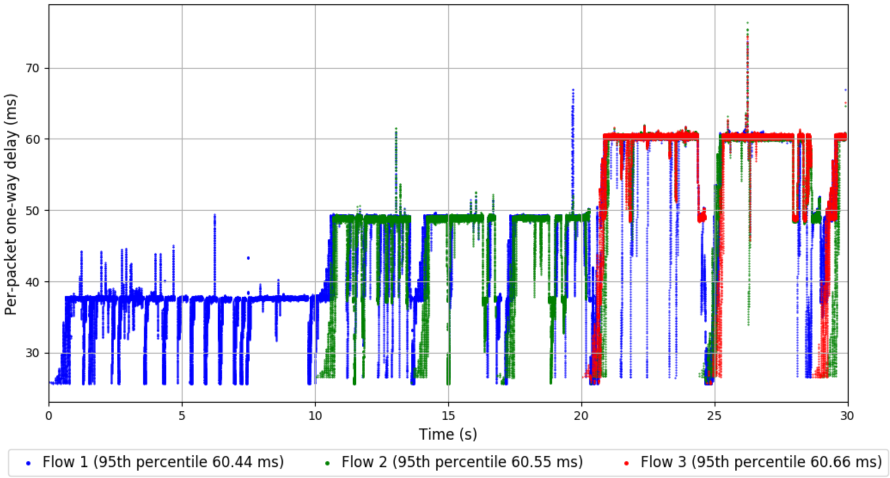
```
Run 2: Statistics of Verus

Start at: 2017-09-07 22:11:14
End at: 2017-09-07 22:11:44
Local clock offset: 0.956 ms
Remote clock offset: -3.569 ms

# Below is generated by plot.py at 2017-09-08 05:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.72 Mbit/s
95th percentile per-packet one-way delay: 60.560 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 56.08 Mbit/s
95th percentile per-packet one-way delay: 60.437 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 37.38 Mbit/s
95th percentile per-packet one-way delay: 60.551 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 29.65 Mbit/s
95th percentile per-packet one-way delay: 60.658 ms
Loss rate: 1.17%
```

Run 2: Report of Verus — Data Link



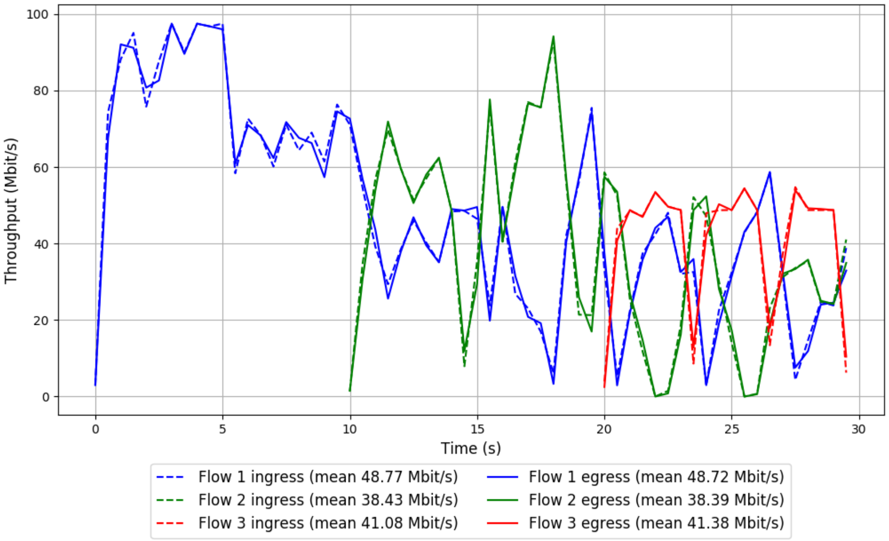


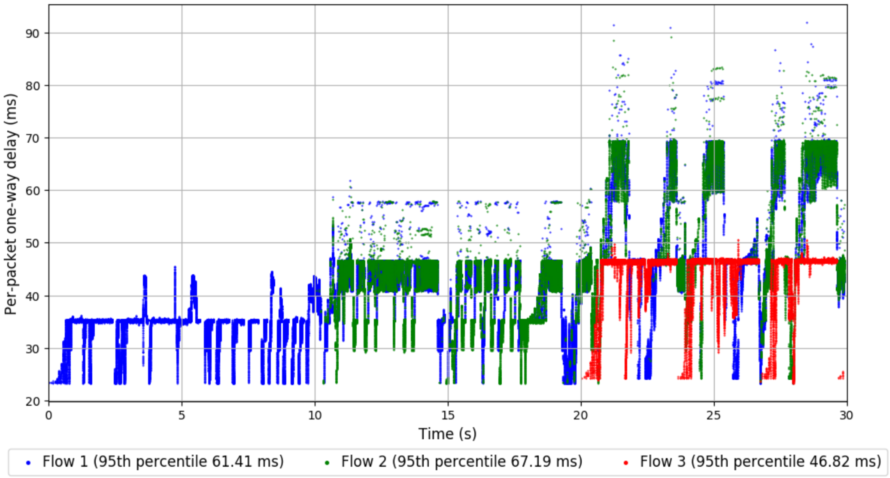
```
Run 3: Statistics of Verus

Start at: 2017-09-07 22:32:21
End at: 2017-09-07 22:32:51
Local clock offset: 0.924 ms
Remote clock offset: -1.128 ms

# Below is generated by plot.py at 2017-09-08 05:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.75 Mbit/s
95th percentile per-packet one-way delay: 63.097 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 48.72 Mbit/s
95th percentile per-packet one-way delay: 61.411 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: 67.186 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 41.38 Mbit/s
95th percentile per-packet one-way delay: 46.822 ms
Loss rate: 0.05%
```

Run 3: Report of Verus — Data Link



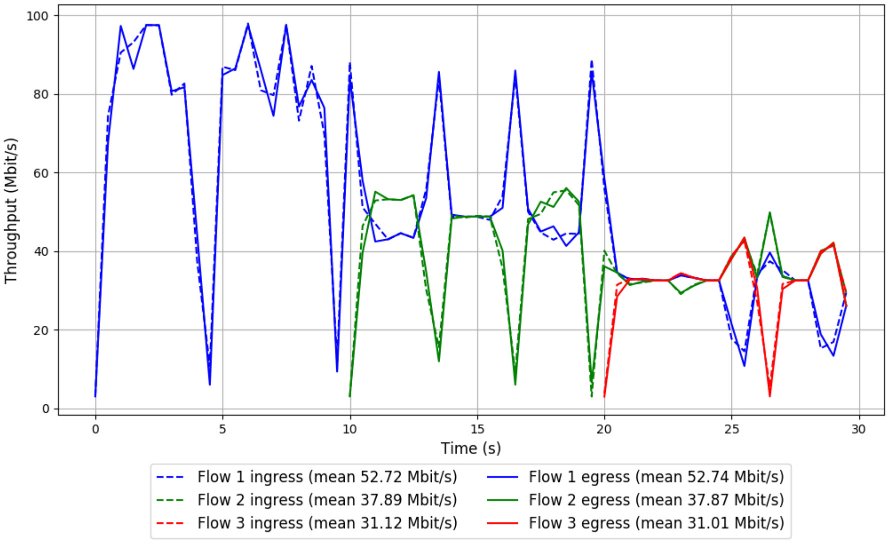


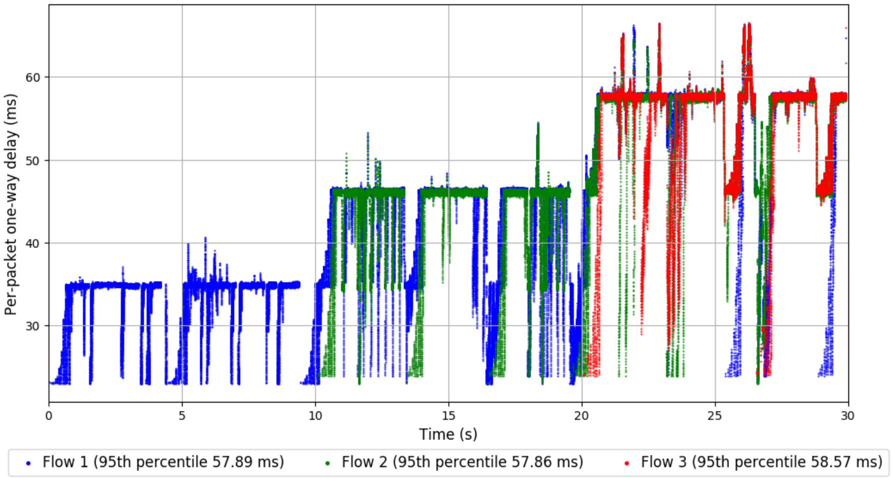
```
Run 4: Statistics of Verus

Start at: 2017-09-07 22:53:23
End at: 2017-09-07 22:53:53
Local clock offset: 0.79 ms
Remote clock offset: -0.624 ms

# Below is generated by plot.py at 2017-09-08 05:28:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.18 Mbit/s
95th percentile per-packet one-way delay: 57.936 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 52.74 Mbit/s
95th percentile per-packet one-way delay: 57.893 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 37.87 Mbit/s
95th percentile per-packet one-way delay: 57.862 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 31.01 Mbit/s
95th percentile per-packet one-way delay: 58.571 ms
Loss rate: 1.20%
```

Run 4: Report of Verus — Data Link



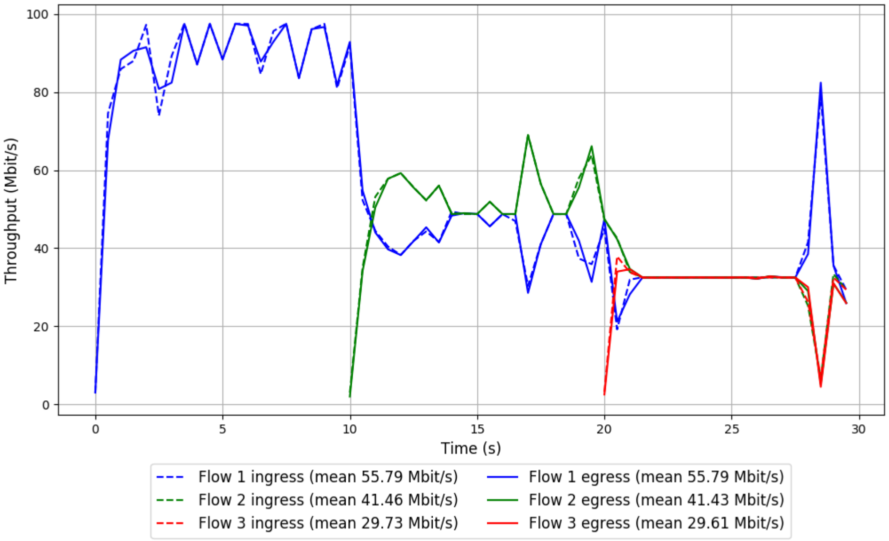


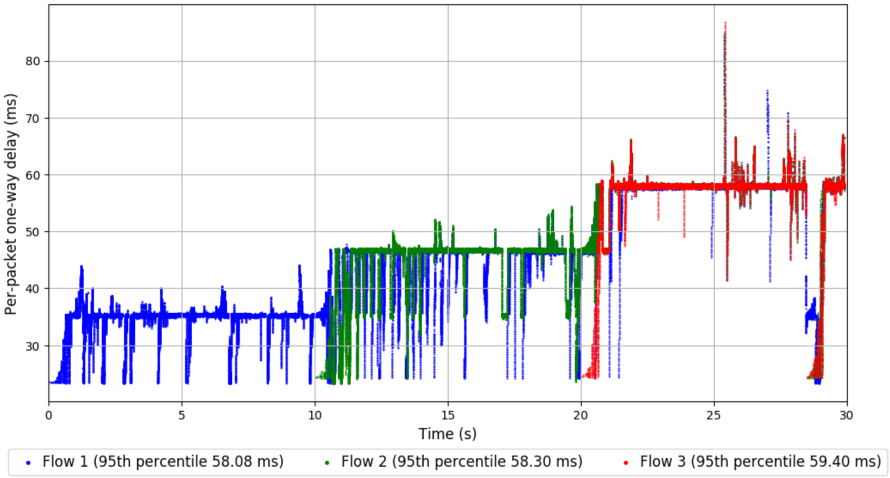
```
Run 5: Statistics of Verus

Start at: 2017-09-07 23:14:32
End at: 2017-09-07 23:15:02
Local clock offset: 0.736 ms
Remote clock offset: -1.188 ms

# Below is generated by plot.py at 2017-09-08 05:29:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.12 Mbit/s
95th percentile per-packet one-way delay: 58.260 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 55.79 Mbit/s
95th percentile per-packet one-way delay: 58.076 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 41.43 Mbit/s
95th percentile per-packet one-way delay: 58.301 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 59.403 ms
Loss rate: 1.23%
```

Run 5: Report of Verus — Data Link



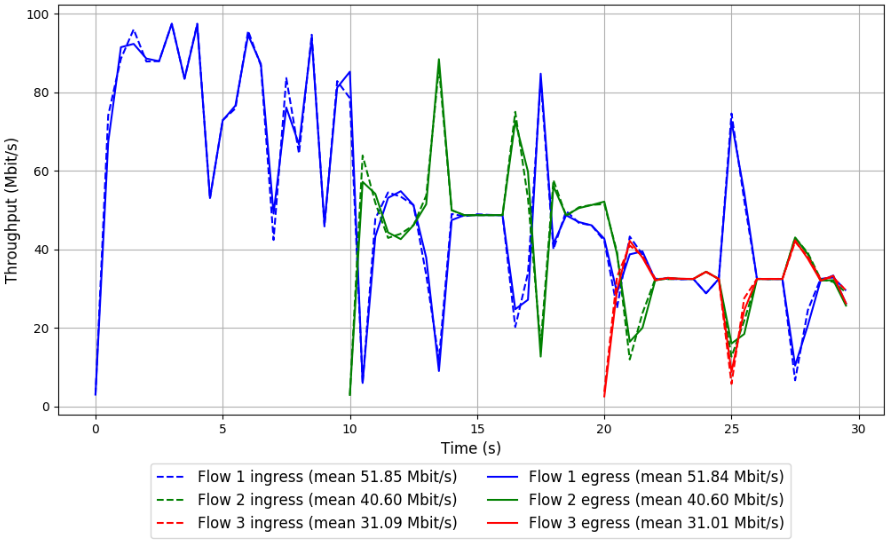


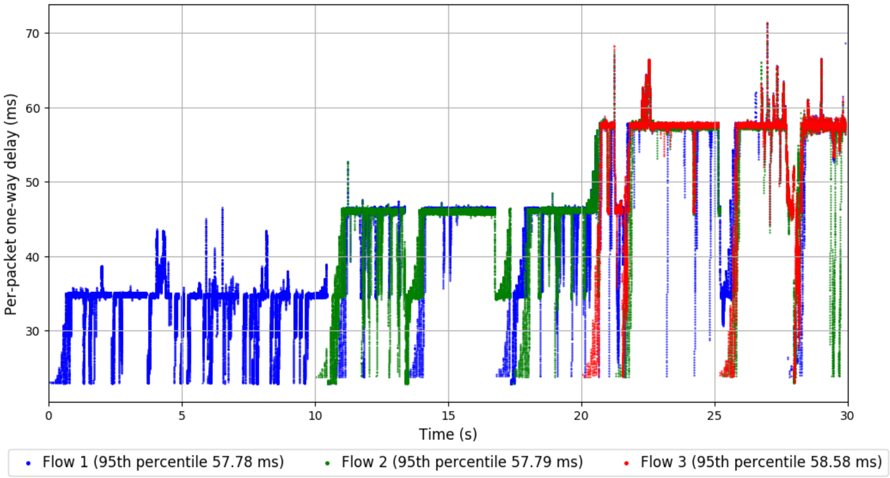
```
Run 6: Statistics of Verus

Start at: 2017-09-07 23:35:33
End at: 2017-09-07 23:36:03
Local clock offset: 0.733 ms
Remote clock offset: -0.589 ms

# Below is generated by plot.py at 2017-09-08 05:29:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.05 Mbit/s
95th percentile per-packet one-way delay: 57.862 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 51.84 Mbit/s
95th percentile per-packet one-way delay: 57.782 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 40.60 Mbit/s
95th percentile per-packet one-way delay: 57.793 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 31.01 Mbit/s
95th percentile per-packet one-way delay: 58.579 ms
Loss rate: 1.18%
```

Run 6: Report of Verus — Data Link



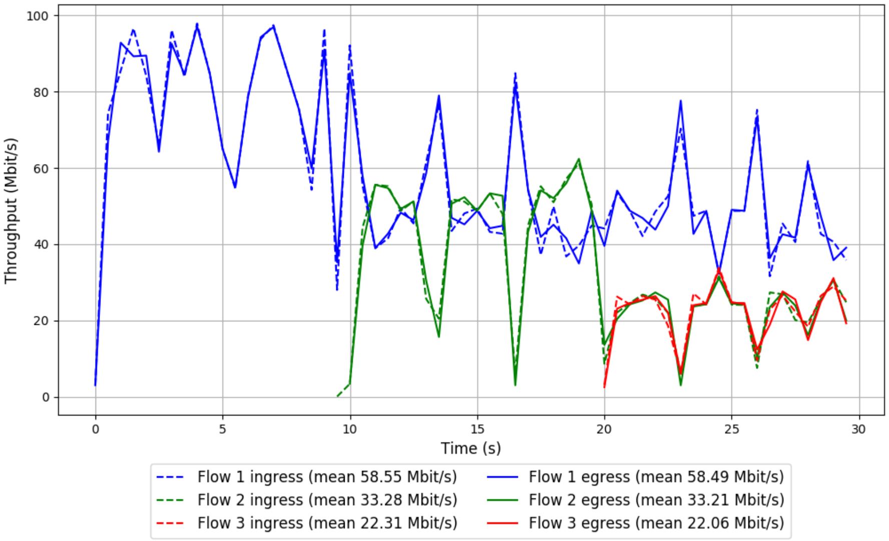


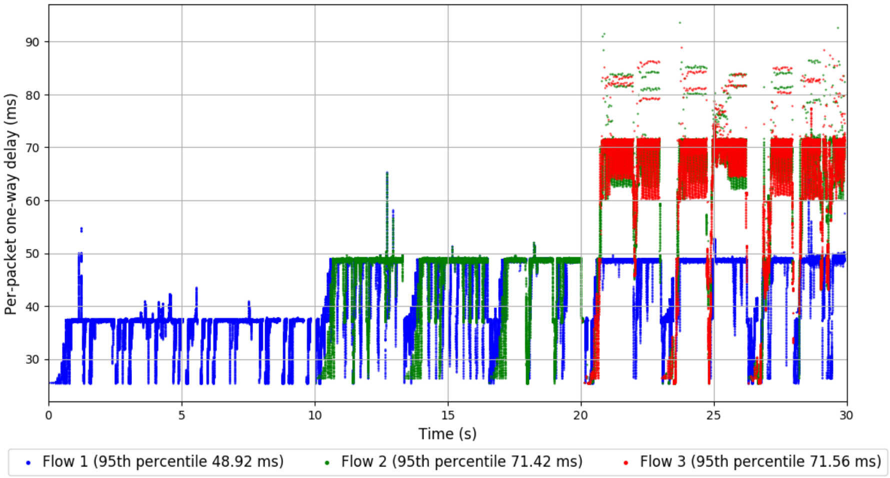
```
Run 7: Statistics of Verus

Start at: 2017-09-07 23:56:31
End at: 2017-09-07 23:57:01
Local clock offset: 0.546 ms
Remote clock offset: -2.379 ms

# Below is generated by plot.py at 2017-09-08 05:29:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.86 Mbit/s
95th percentile per-packet one-way delay: 70.700 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 48.924 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 71.420 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 22.06 Mbit/s
95th percentile per-packet one-way delay: 71.565 ms
Loss rate: 2.01%
```

Run 7: Report of Verus — Data Link



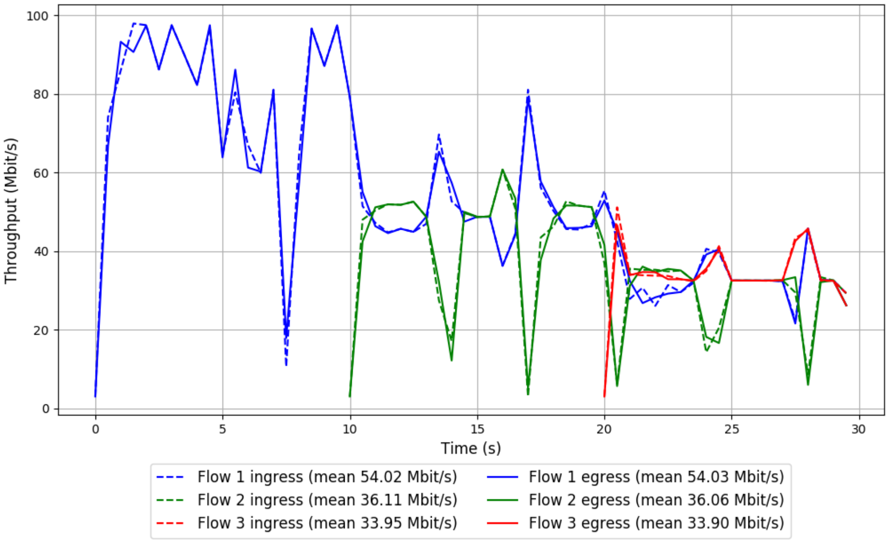


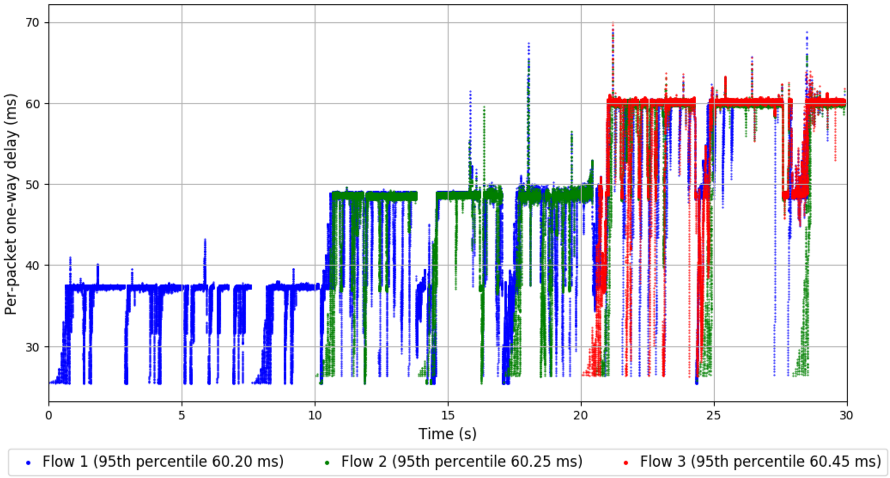
```
Run 8: Statistics of Verus

Start at: 2017-09-08 00:17:44
End at: 2017-09-08 00:18:14
Local clock offset: 0.421 ms
Remote clock offset: -1.761 ms

# Below is generated by plot.py at 2017-09-08 05:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.21 Mbit/s
95th percentile per-packet one-way delay: 60.316 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 54.03 Mbit/s
95th percentile per-packet one-way delay: 60.195 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 60.246 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 33.90 Mbit/s
95th percentile per-packet one-way delay: 60.453 ms
Loss rate: 1.03%
```

Run 8: Report of Verus — Data Link



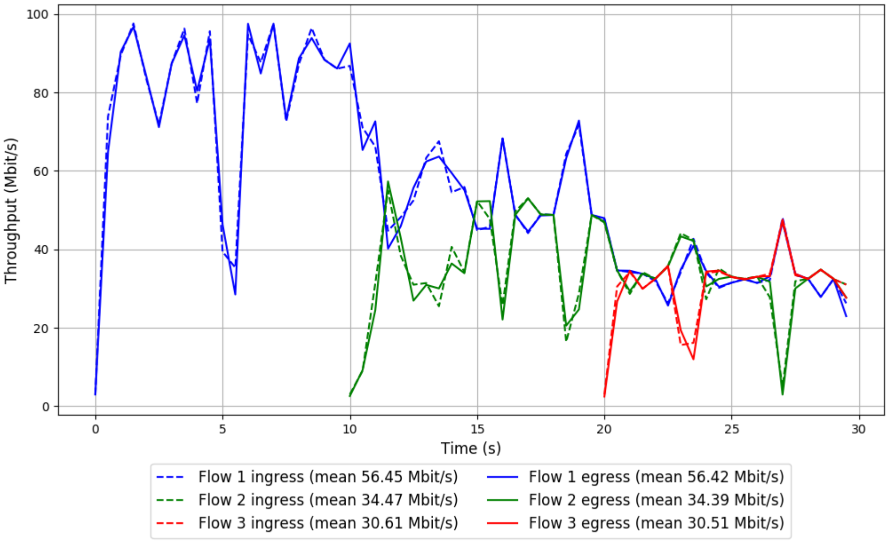


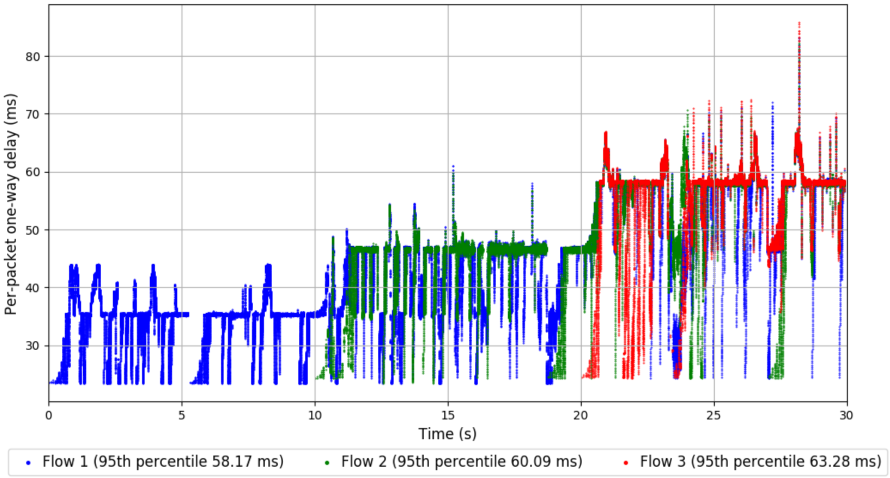
```
Run 9: Statistics of Verus

Start at: 2017-09-08 00:38:45
End at: 2017-09-08 00:39:15
Local clock offset: 0.356 ms
Remote clock offset: 0.709 ms

# Below is generated by plot.py at 2017-09-08 05:29:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 58.609 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 58.172 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 34.39 Mbit/s
95th percentile per-packet one-way delay: 60.092 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 63.282 ms
Loss rate: 1.20%
```

Run 9: Report of Verus — Data Link



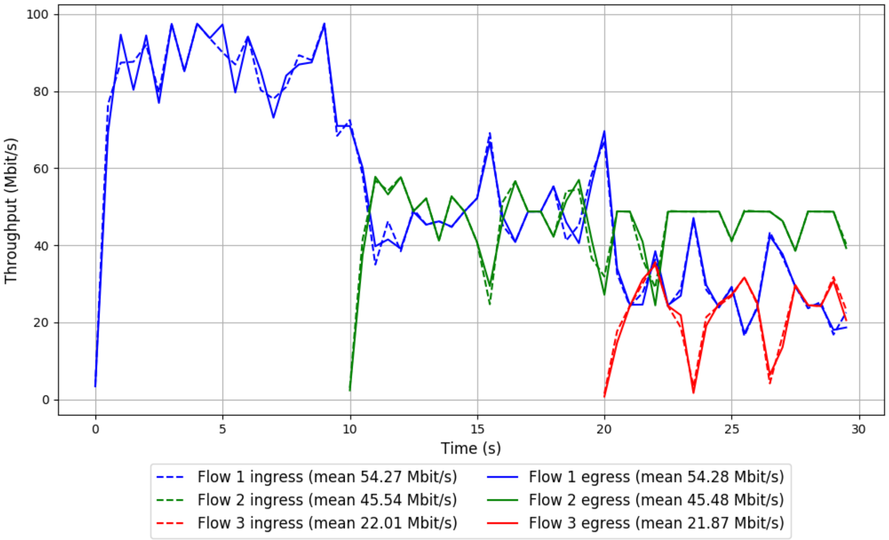


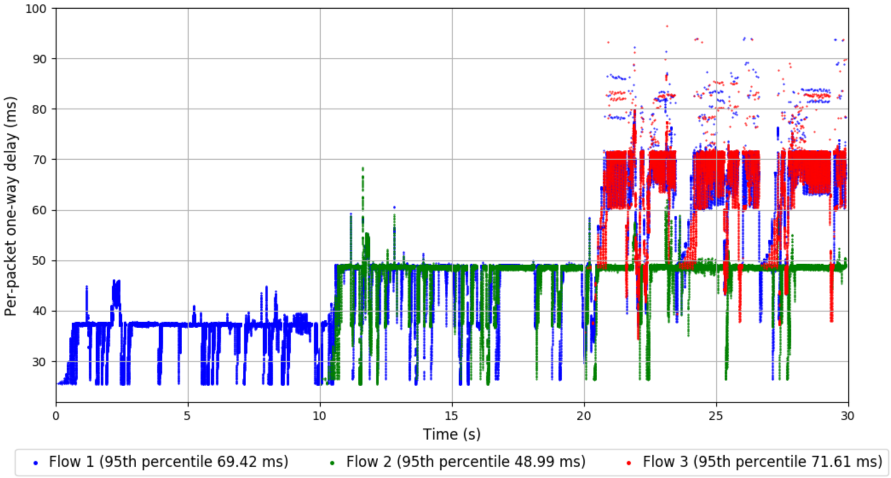
```
Run 10: Statistics of Verus

Start at: 2017-09-08 00:59:36
End at: 2017-09-08 01:00:06
Local clock offset: 0.239 ms
Remote clock offset: -1.487 ms

# Below is generated by plot.py at 2017-09-08 05:29:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.71 Mbit/s
95th percentile per-packet one-way delay: 70.260 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 54.28 Mbit/s
95th percentile per-packet one-way delay: 69.416 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 45.48 Mbit/s
95th percentile per-packet one-way delay: 48.986 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 71.612 ms
Loss rate: 1.59%
```

Run 10: Report of Verus — Data Link



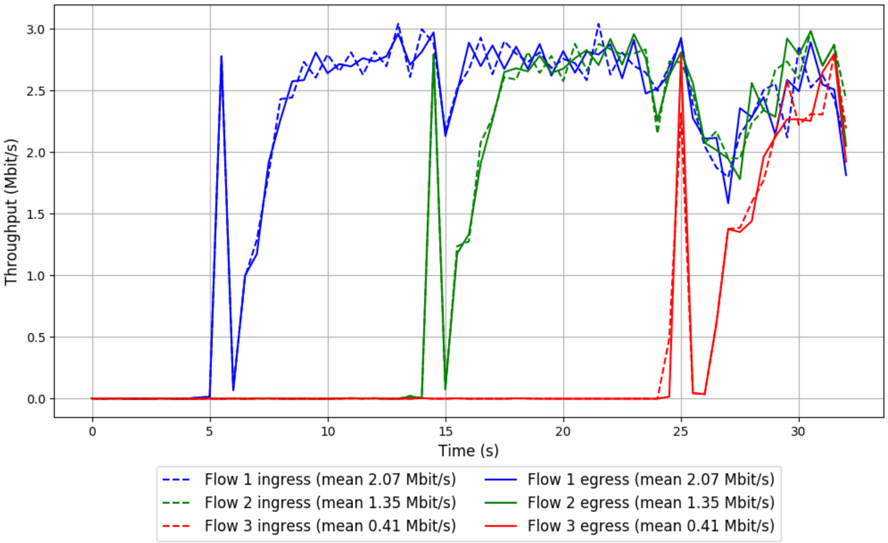


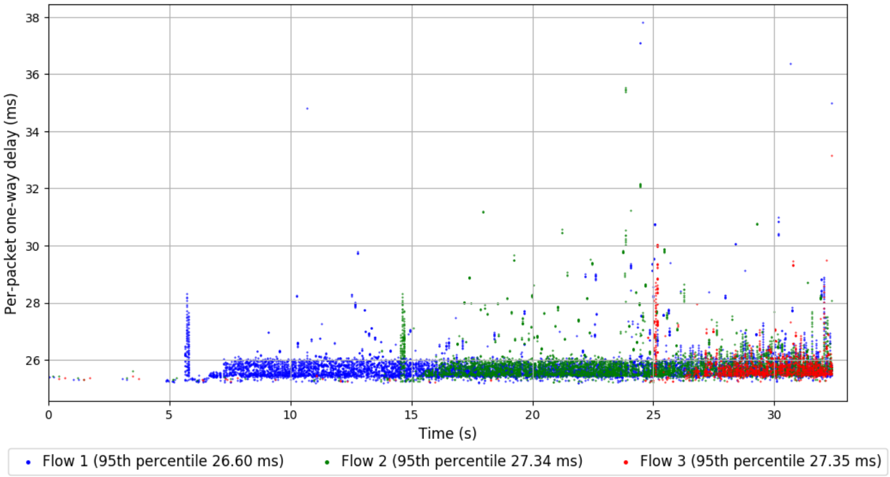
```
Run 1: Statistics of WebRTC media

Start at: 2017-09-07 21:54:33
End at: 2017-09-07 21:55:03
Local clock offset: 0.949 ms
Remote clock offset: -3.394 ms

# Below is generated by plot.py at 2017-09-08 05:29:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 26.925 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 26.598 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 27.337 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 27.354 ms
Loss rate: 1.03%
```

Run 1: Report of WebRTC media — Data Link



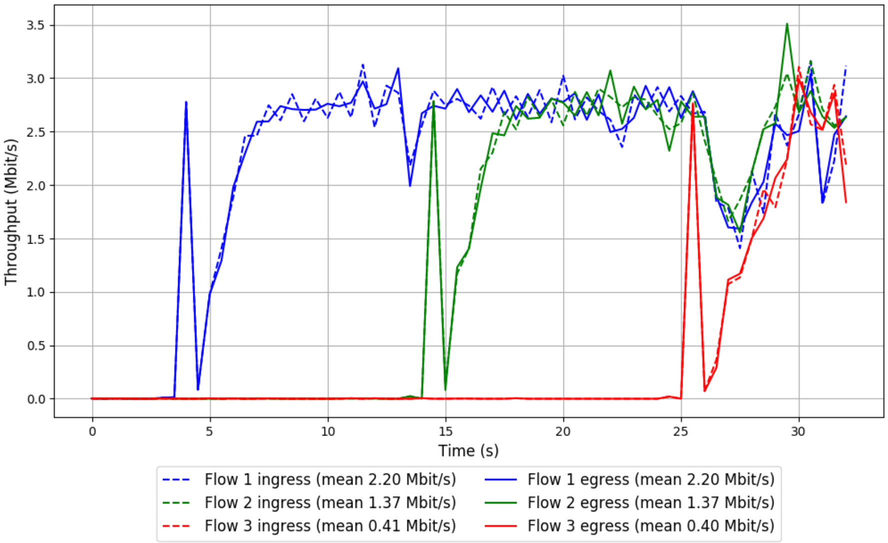


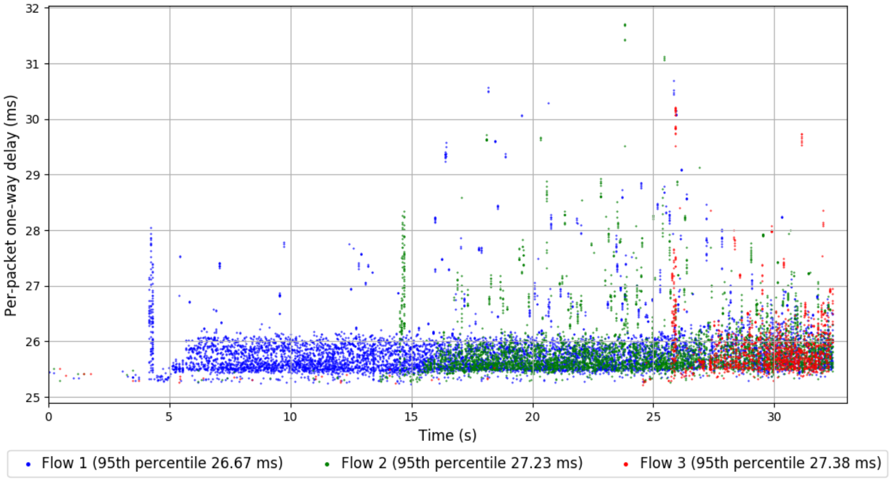
```
Run 2: Statistics of WebRTC media

Start at: 2017-09-07 22:15:37
End at: 2017-09-07 22:16:07
Local clock offset: 0.933 ms
Remote clock offset: -3.421 ms

# Below is generated by plot.py at 2017-09-08 05:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 26.942 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 26.666 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 27.228 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 27.381 ms
Loss rate: 1.64%
```

Run 2: Report of WebRTC media — Data Link



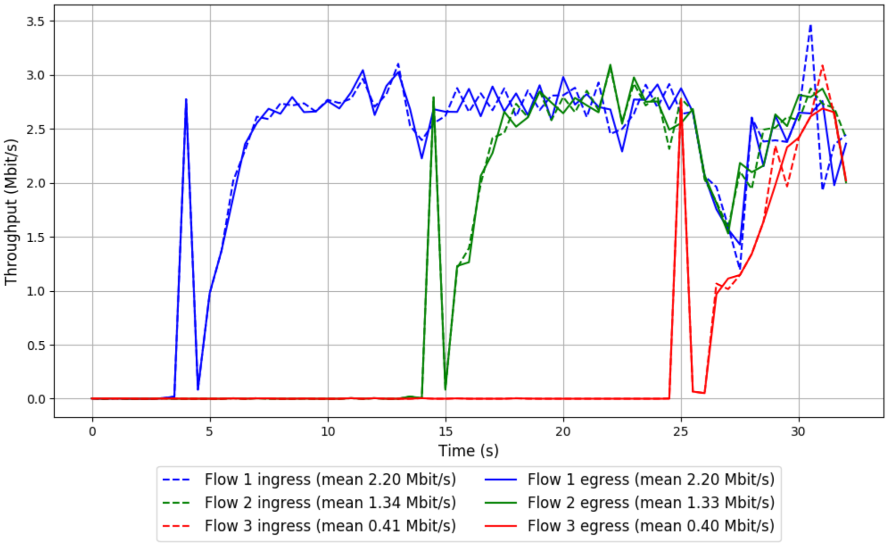


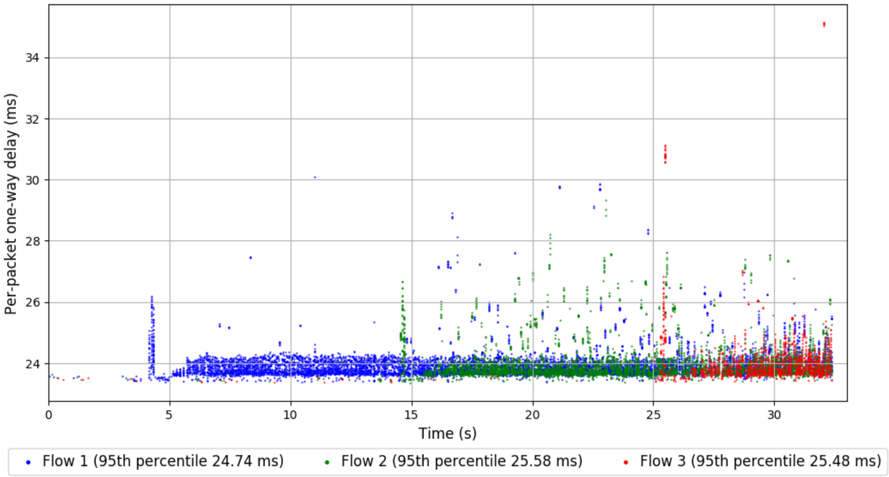
```
Run 3: Statistics of WebRTC media

Start at: 2017-09-07 22:36:46
End at: 2017-09-07 22:37:16
Local clock offset: 0.945 ms
Remote clock offset: -1.237 ms

# Below is generated by plot.py at 2017-09-08 05:29:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 25.094 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 24.739 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 25.581 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 25.478 ms
Loss rate: 1.39%
```

Run 3: Report of WebRTC media — Data Link



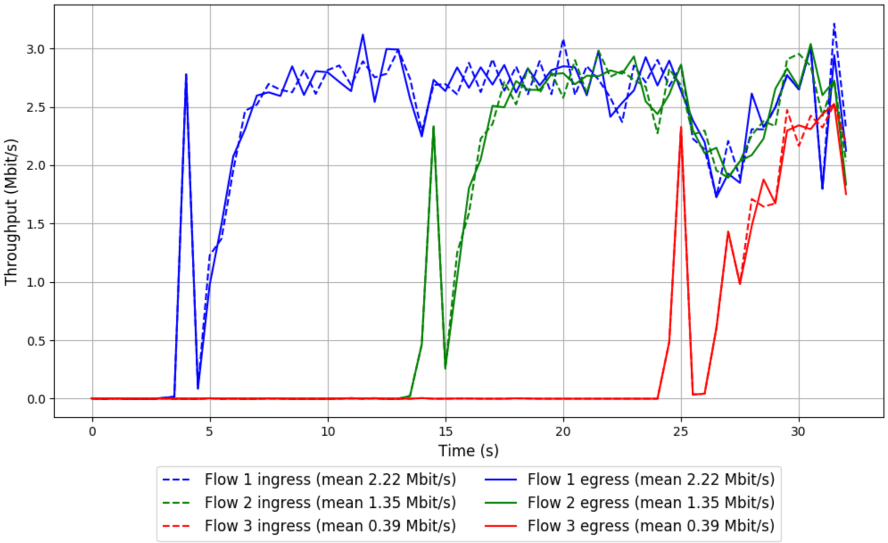


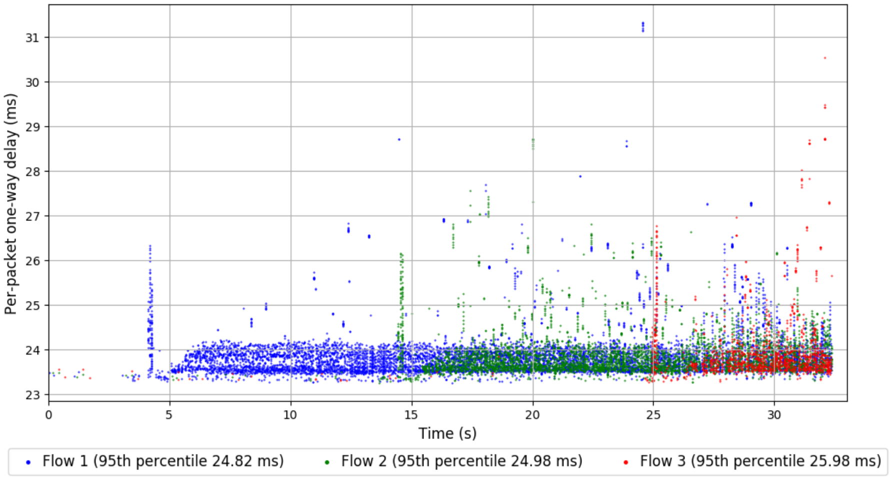
```
Run 4: Statistics of WebRTC media

Start at: 2017-09-07 22:57:44
End at: 2017-09-07 22:58:14
Local clock offset: 0.847 ms
Remote clock offset: -1.084 ms

# Below is generated by plot.py at 2017-09-08 05:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 25.003 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 24.816 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 24.978 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 25.983 ms
Loss rate: 1.74%
```

Run 4: Report of WebRTC media — Data Link



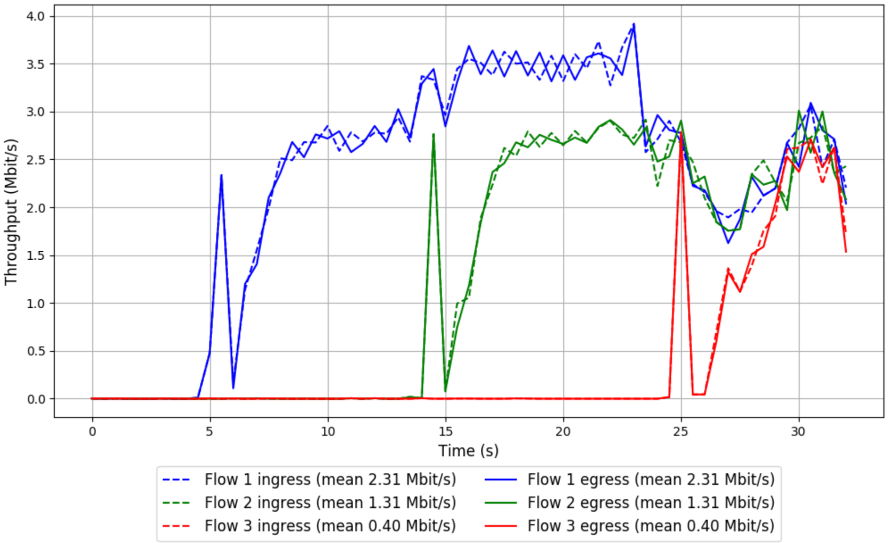


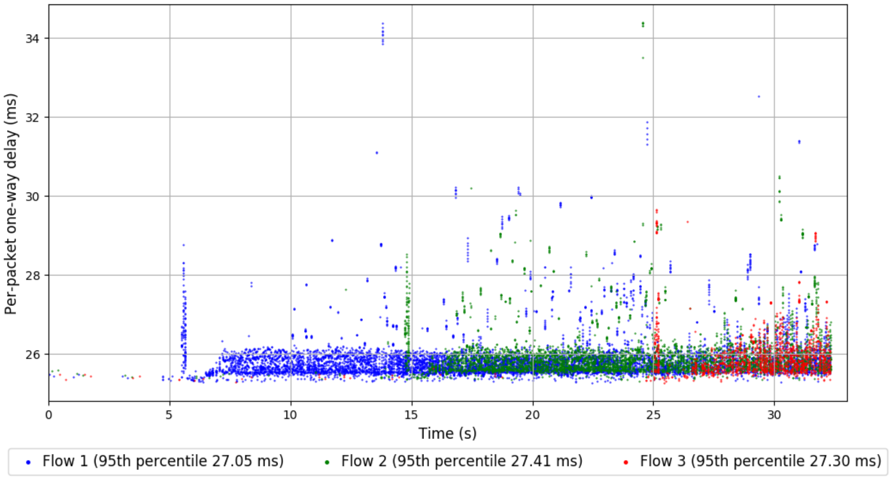
```
Run 5: Statistics of WebRTC media

Start at: 2017-09-07 23:18:52
End at: 2017-09-07 23:19:22
Local clock offset: 0.812 ms
Remote clock offset: -3.273 ms

# Below is generated by plot.py at 2017-09-08 05:29:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 27.239 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 27.045 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 27.408 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 27.305 ms
Loss rate: 1.62%
```

Run 5: Report of WebRTC media — Data Link



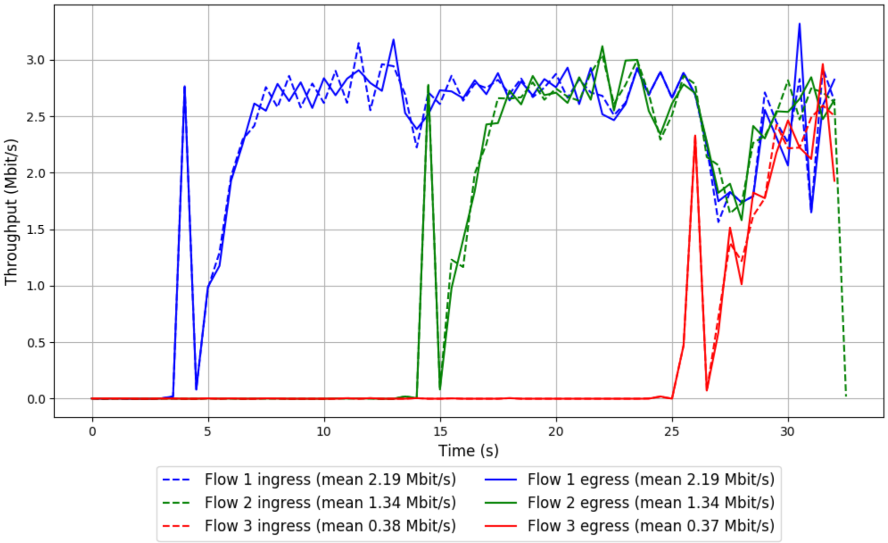


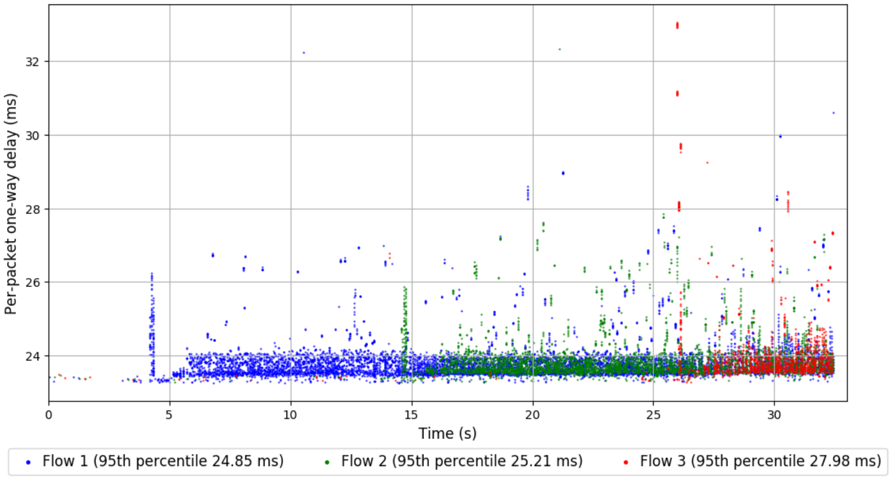
```
Run 6: Statistics of WebRTC media

Start at: 2017-09-07 23:39:53
End at: 2017-09-07 23:40:23
Local clock offset: 0.65 ms
Remote clock offset: -1.014 ms

# Below is generated by plot.py at 2017-09-08 05:29:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 25.222 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 24.851 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 25.212 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 27.981 ms
Loss rate: 2.39%
```

Run 6: Report of WebRTC media — Data Link



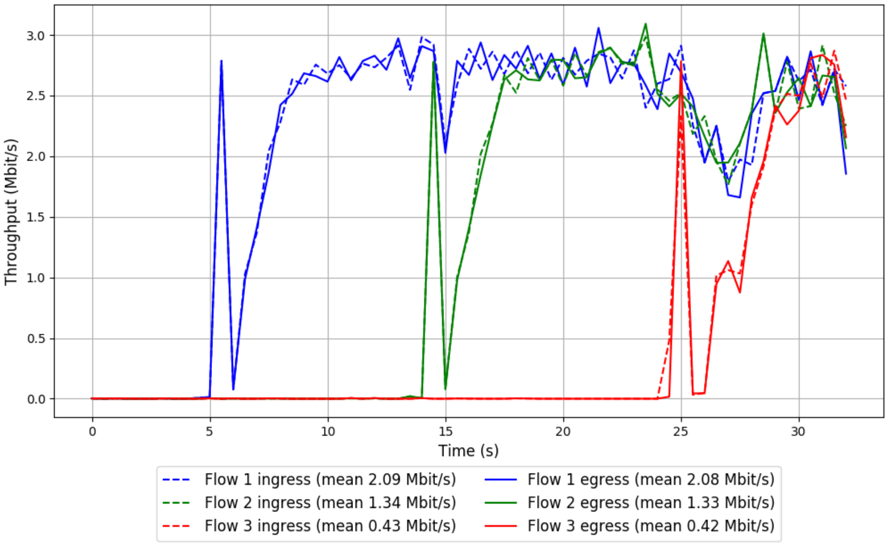


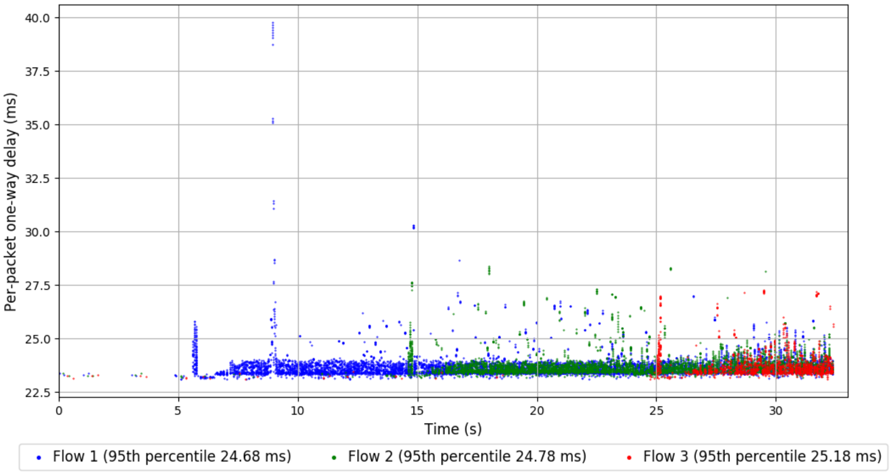
```
Run 7: Statistics of WebRTC media

Start at: 2017-09-08 00:00:53
End at: 2017-09-08 00:01:23
Local clock offset: 0.525 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2017-09-08 05:29:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 24.799 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 24.679 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 24.781 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 25.179 ms
Loss rate: 1.53%
```

Run 7: Report of WebRTC media — Data Link



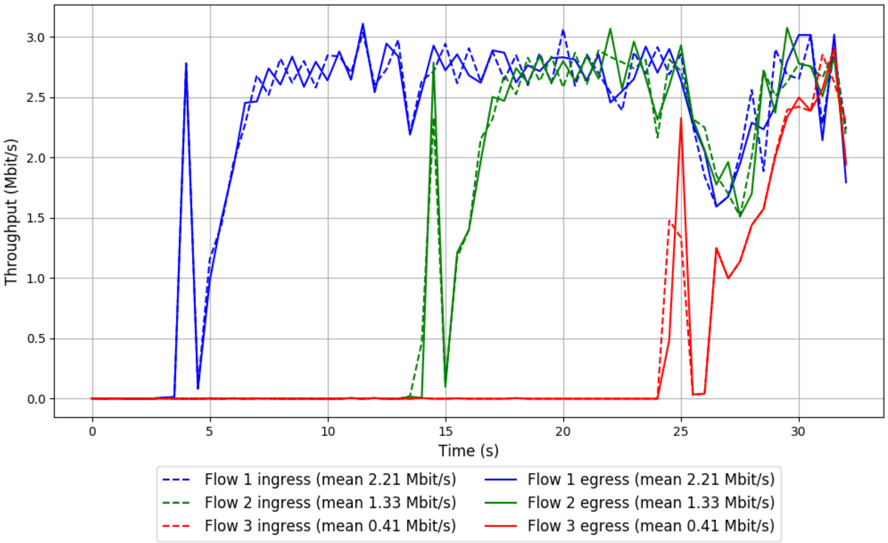


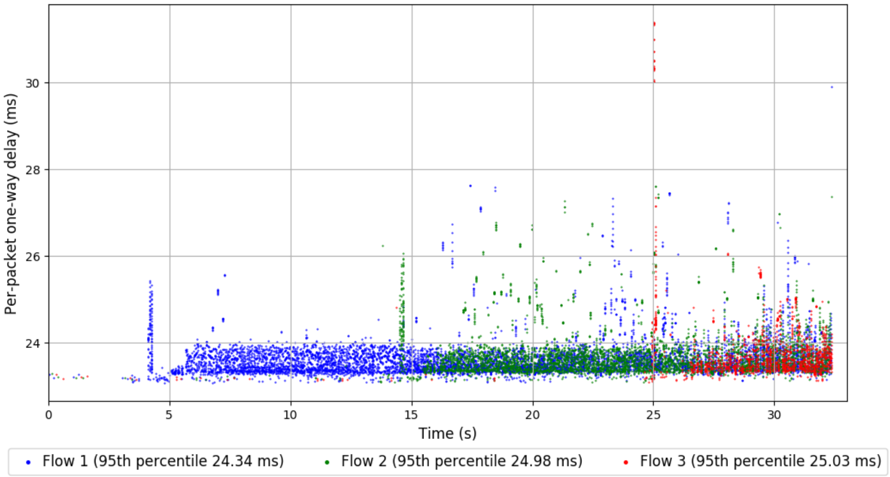
```
Run 8: Statistics of WebRTC media

Start at: 2017-09-08 00:22:06
End at: 2017-09-08 00:22:36
Local clock offset: 0.409 ms
Remote clock offset: 0.464 ms

# Below is generated by plot.py at 2017-09-08 05:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 24.669 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 24.343 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 24.975 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 25.031 ms
Loss rate: 1.32%
```

Run 8: Report of WebRTC media — Data Link



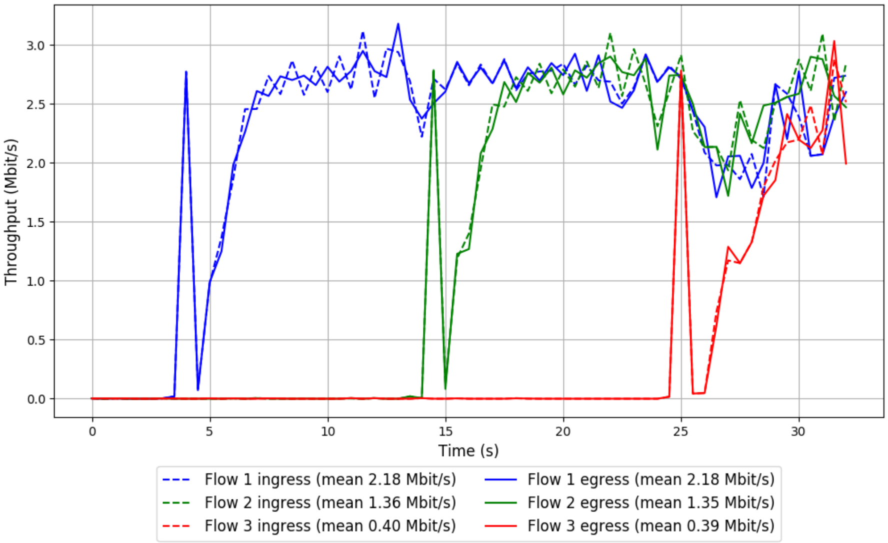


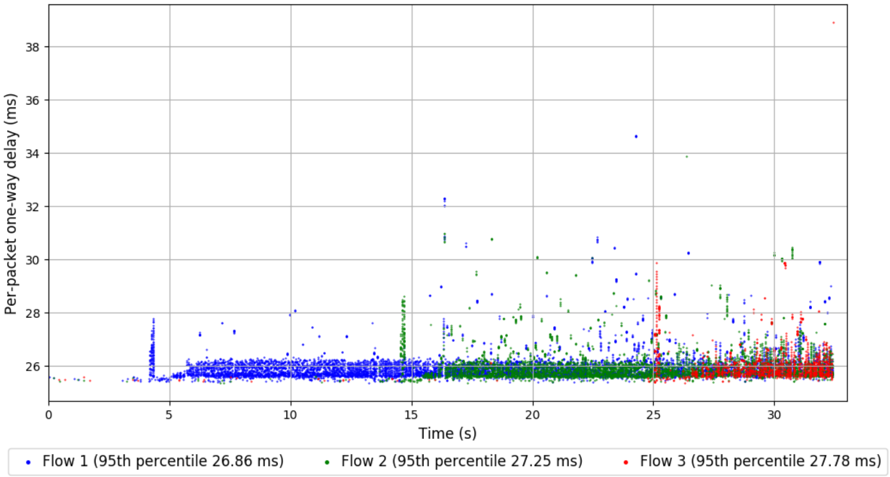
```
Run 9: Statistics of WebRTC media

Start at: 2017-09-08 00:43:06
End at: 2017-09-08 00:43:36
Local clock offset: 0.315 ms
Remote clock offset: -1.348 ms

# Below is generated by plot.py at 2017-09-08 05:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 27.149 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 26.863 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 27.251 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 27.776 ms
Loss rate: 2.04%
```

Run 9: Report of WebRTC media — Data Link



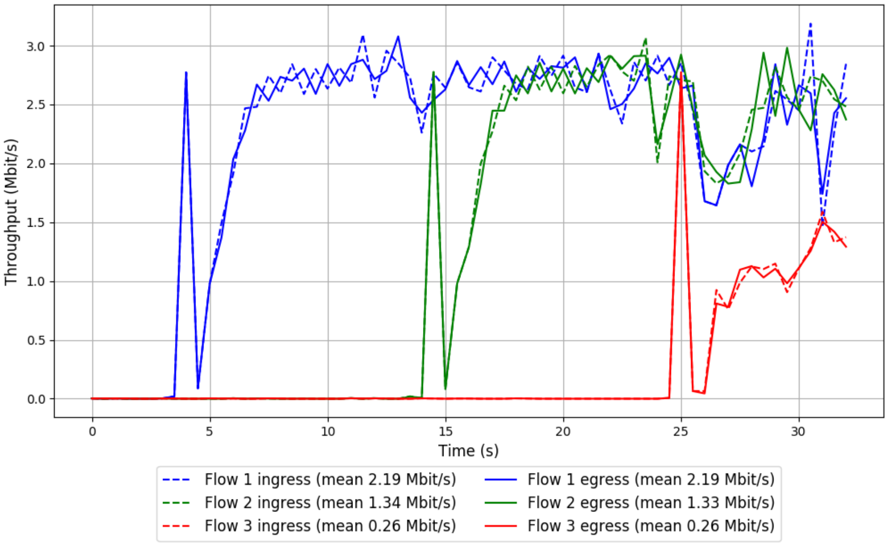


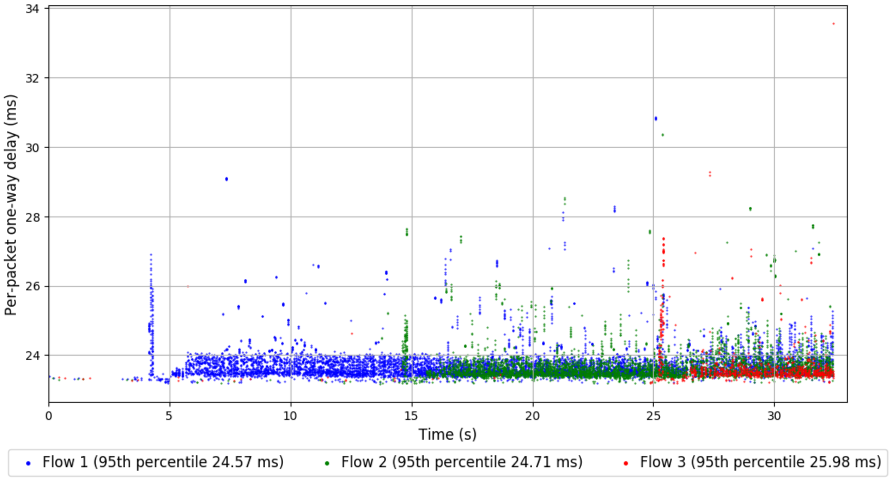
```
Run 10: Statistics of WebRTC media

Start at: 2017-09-08 01:03:55
End at: 2017-09-08 01:04:25
Local clock offset: 0.098 ms
Remote clock offset: 0.36 ms

# Below is generated by plot.py at 2017-09-08 05:29:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 24.719 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 24.567 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 24.706 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 25.975 ms
Loss rate: 0.82%
```

Run 10: Report of WebRTC media — Data Link


Throughput (Mbit/s)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 2.19 Mbit/s)
Flow 1 egress (mean 2.19 Mbit/s)
Flow 2 ingress (mean 1.34 Mbit/s)
Flow 2 egress (mean 1.33 Mbit/s)
Flow 3 ingress (mean 0.26 Mbit/s)
Flow 3 egress (mean 0.26 Mbit/s)


Per-packet one-way delay (ms)
34
32
30
28
26
24
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 24.57 ms)
Flow 2 (95th percentile 24.71 ms)
Flow 3 (95th percentile 25.98 ms)