Pantheon Summary (Generated at Mon, 10 Jul 2017 02:35:40 +0000 with pantheon version `c3610718e2bbac84102e8ac47b889a75d4392d79`)

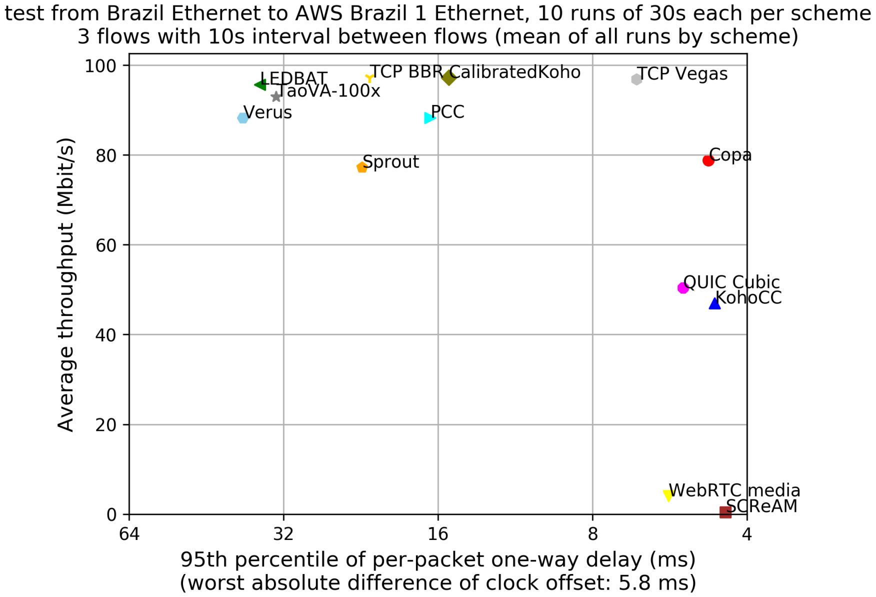
Repeated the test of 15 congestion control schemes 10 times.

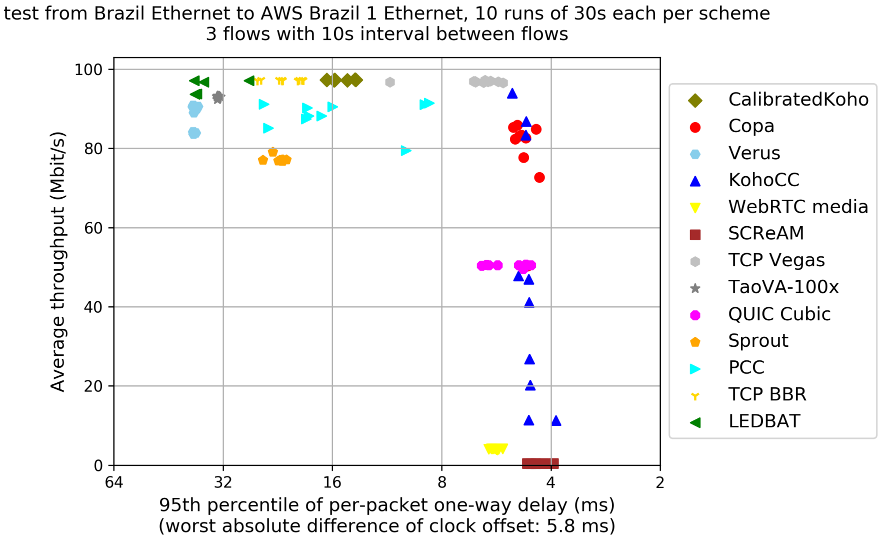
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

Data path **from** Brazil Ethernet **to** AWS Brazil 1 Ethernet.

NTP offset measured against gps.ntp.br.

```
git branch: master @ c3610718e2bbac84102e8ac47b889a75d4392d79
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
third_party/pantheon-tunnel @ c792f8e8e0704b1646a0e024766675d8e9a835f1
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 Brazil Ethernet to AWS Brazil 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
100
80
60
40
20
0
95th percentile of per-packet one-way delay (ms)
(worst absolute difference of clock offset: 5.8 ms)
64
32
16
8
4
LEDBAT
TaoVA-100x
Verus
TCP BBR
CalibratedKoho
TCP Vegas
PCC
Sprout
Copa
QUIC Cubic
KohoCC
WebRTC media
SCReAM


test from Brazil Ethernet to AWS Brazil 1 Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
100
80
60
40
20
0
95th percentile of per-packet one-way delay (ms)
(worst absolute difference of clock offset: 5.8 ms)
64
32
16
8
4
2
CalibratedKoho
Copa
Verus
KohoCC
WebRTC media
SCReAM
TCP Vegas
TaoVA-100x
QUIC Cubic
Sprout
PCC
TCP BBR
LEDBAT

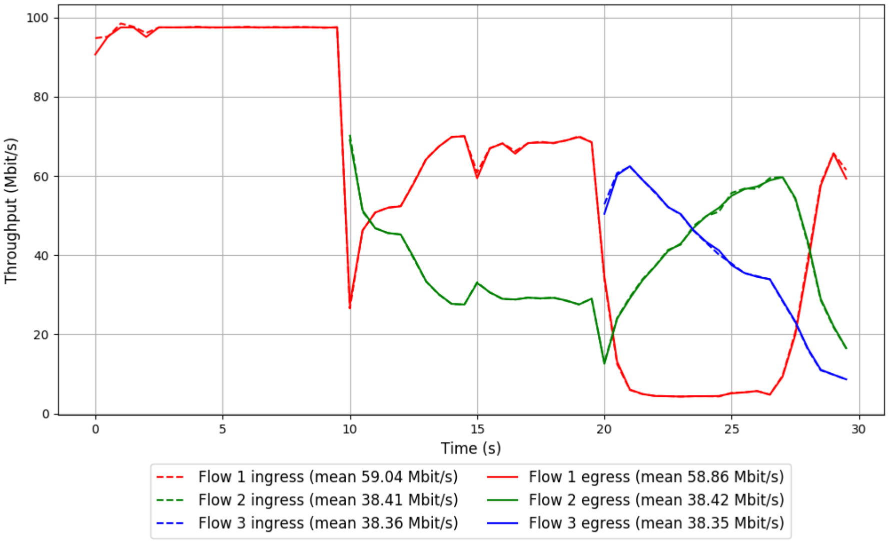
		mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
scheme	# runs	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	63.20	37.02	28.46	21.32	21.17	24.18	0.17	0.07	0.12
CalibratedKoho	10	34.42	54.07	90.47	10.35	14.86	15.82	0.06	0.12	0.25
Copa	10	47.44	36.03	27.77	4.72	4.84	4.95	0.01	0.01	0.04
TCP Cubic	10	nan	nan	nan	nan	nan	nan	nan	nan	nan
KohoCC	10	23.76	24.61	20.67	4.60	4.62	4.78	0.01	0.02	0.03
LEDBAT	10	60.79	40.93	33.45	34.30	36.22	36.72	0.15	0.29	0.78
PCC	10	69.00	21.79	14.64	15.85	17.87	18.72	0.11	0.08	0.10
QUIC Cubic	10	70.95	72.56	77.04	5.12	5.32	5.73	0.00	0.04	0.06
Saturator	10	nan	nan	nan	nan	nan	nan	nan	nan	nan
SCReAM	10	0.22	0.22	0.22	4.42	4.38	4.40	0.00	0.02	0.00
Sprout	10	42.51	37.85	28.32	21.29	22.47	24.34	0.08	0.10	0.28
TaoVA-100x	10	56.23	39.34	31.89	32.73	33.10	33.17	0.18	0.23	0.38
TCP Vegas	10	53.87	44.05	41.37	6.49	7.25	5.94	0.01	0.02	0.04
Verus	10	51.88	39.05	31.57	37.58	38.45	38.61	0.17	0.22	0.47
WebRTC media	10	2.30	1.39	0.42	5.53	5.83	6.06	0.00	0.08	0.00

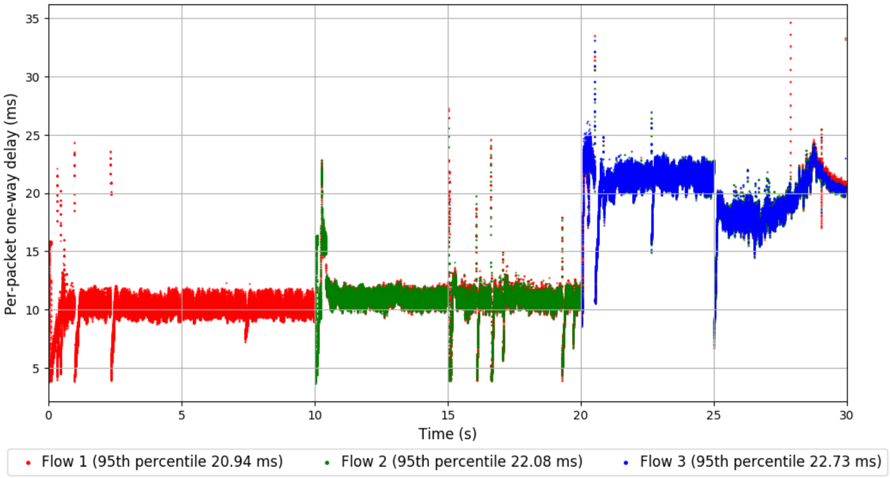
```
Run 1: Statistics of TCP BBR

Start at: Sun, 09 Jul 2017 22:59:44 +0000
End at: Sun, 09 Jul 2017 23:00:14 +0000
Local clock offset: -1.802 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:23:54 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 21.985 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 58.86 Mbit/s
95th percentile per-packet one-way delay: 20.939 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 38.42 Mbit/s
95th percentile per-packet one-way delay: 22.079 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 38.35 Mbit/s
95th percentile per-packet one-way delay: 22.734 ms
Loss rate: 0.09%
```

Run 1: Report of TCP BBR — Data Link



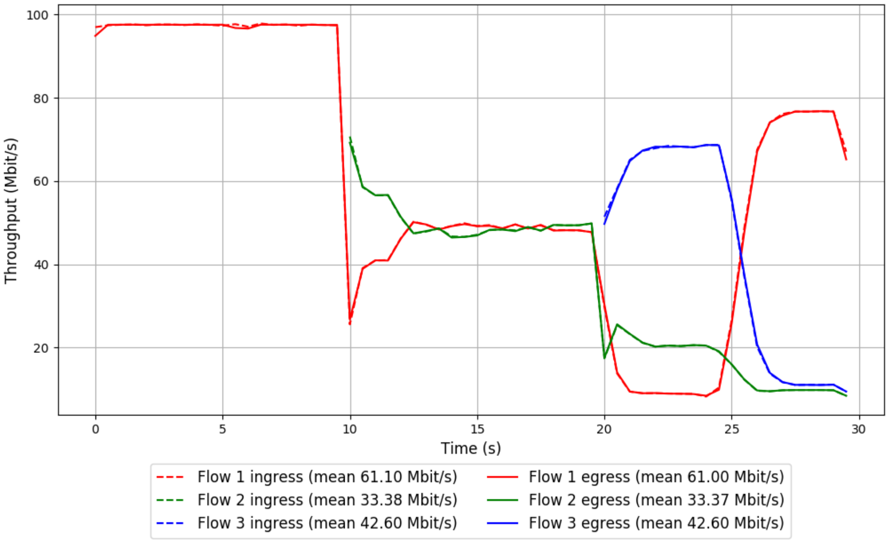


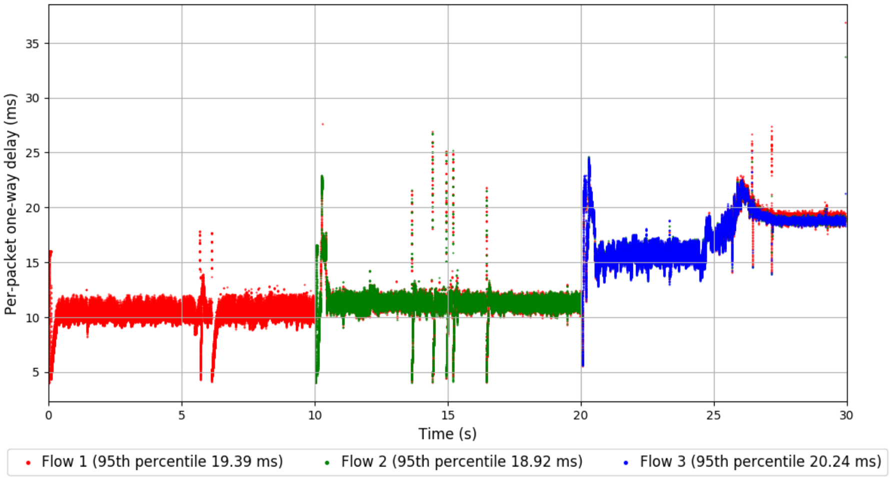
```
Run 2: Statistics of TCP BBR

Start at: Sun, 09 Jul 2017 23:16:54 +0000
End at: Sun, 09 Jul 2017 23:17:24 +0000
Local clock offset: -2.024 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:23:54 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.27 Mbit/s
95th percentile per-packet one-way delay: 19.373 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 61.00 Mbit/s
95th percentile per-packet one-way delay: 19.393 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 33.37 Mbit/s
95th percentile per-packet one-way delay: 18.922 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 42.60 Mbit/s
95th percentile per-packet one-way delay: 20.243 ms
Loss rate: 0.05%
```

Run 2: Report of TCP BBR — Data Link



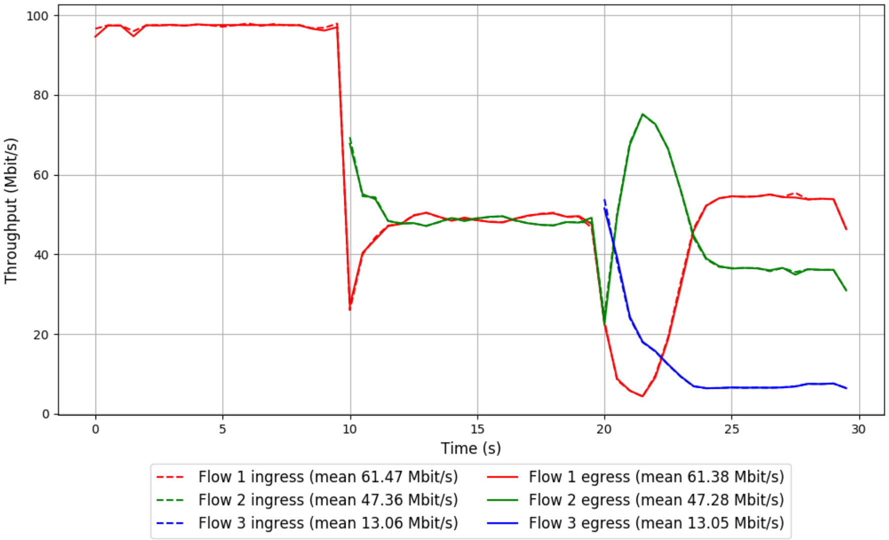


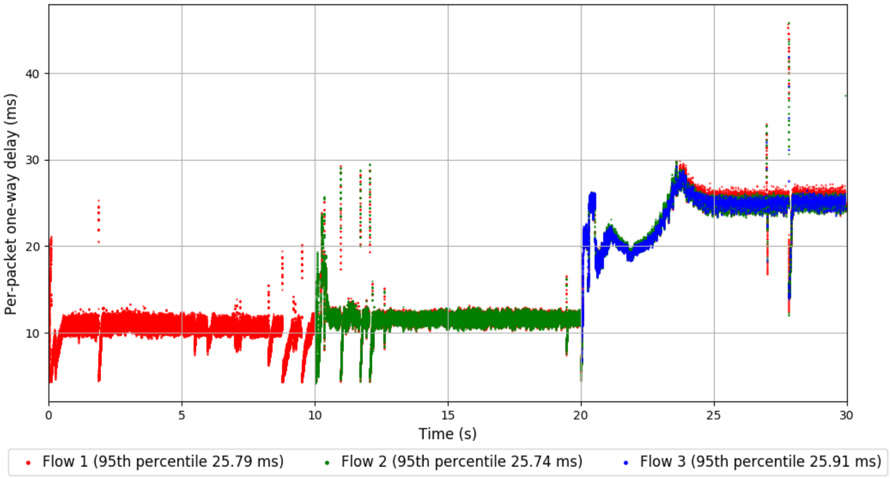
```
Run 3: Statistics of TCP BBR

Start at: Sun, 09 Jul 2017 23:33:59 +0000
End at: Sun, 09 Jul 2017 23:34:29 +0000
Local clock offset: -2.242 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:08 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.14 Mbit/s
95th percentile per-packet one-way delay: 25.779 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 25.787 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 47.28 Mbit/s
95th percentile per-packet one-way delay: 25.736 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 25.906 ms
Loss rate: 0.15%
```

Run 3: Report of TCP BBR — Data Link



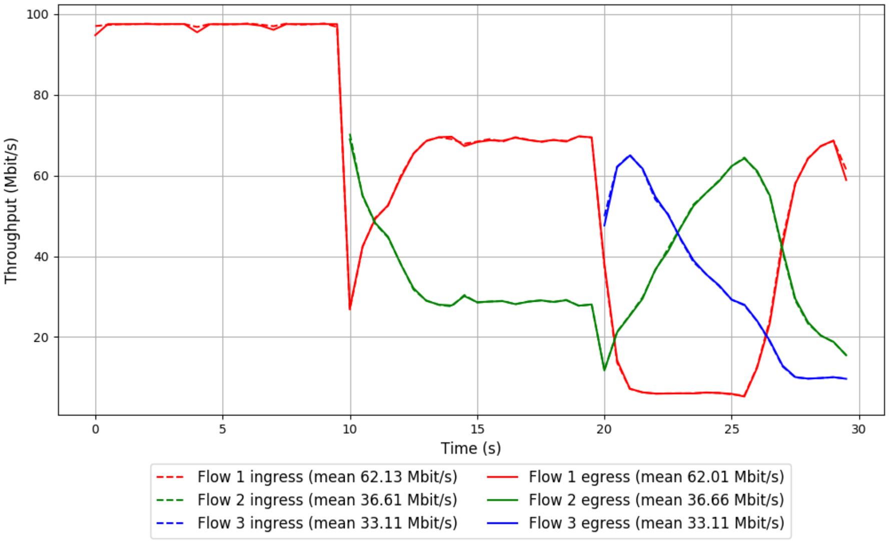


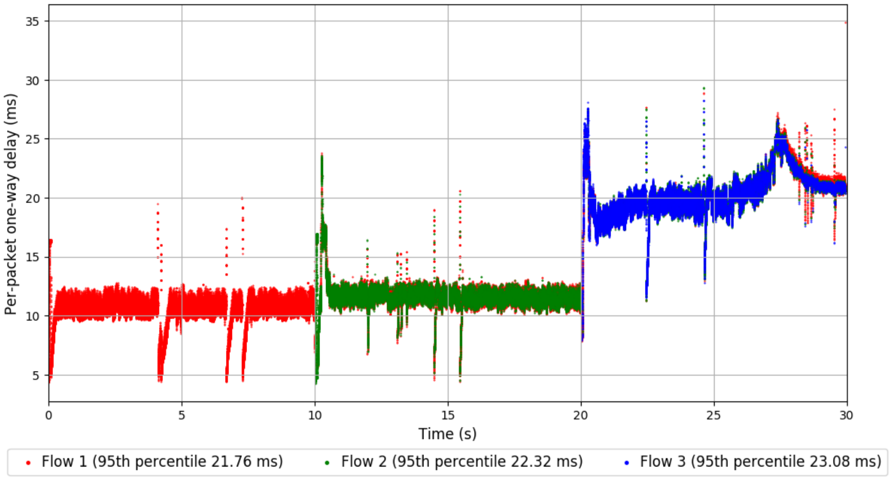
```
Run 4: Statistics of TCP BBR

Start at: Sun, 09 Jul 2017 23:51:08 +0000
End at: Sun, 09 Jul 2017 23:51:38 +0000
Local clock offset: -2.317 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:08 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 22.039 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 62.01 Mbit/s
95th percentile per-packet one-way delay: 21.761 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 36.66 Mbit/s
95th percentile per-packet one-way delay: 22.317 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 33.11 Mbit/s
95th percentile per-packet one-way delay: 23.082 ms
Loss rate: 0.07%
```

Run 4: Report of TCP BBR — Data Link



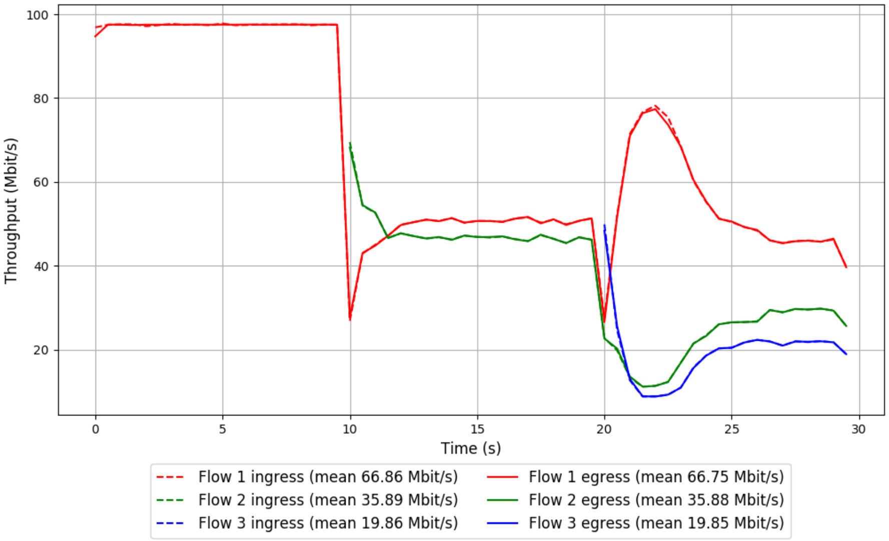


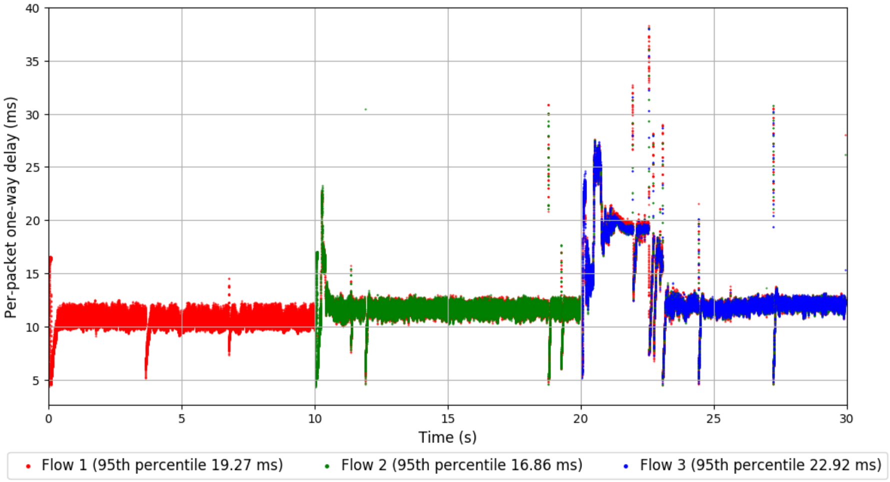
```
Run 5: Statistics of TCP BBR

Start at: Mon, 10 Jul 2017 00:08:14 +0000
End at: Mon, 10 Jul 2017 00:08:44 +0000
Local clock offset: -2.434 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:20 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.19 Mbit/s
95th percentile per-packet one-way delay: 19.244 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 66.75 Mbit/s
95th percentile per-packet one-way delay: 19.268 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 35.88 Mbit/s
95th percentile per-packet one-way delay: 16.861 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 19.85 Mbit/s
95th percentile per-packet one-way delay: 22.922 ms
Loss rate: 0.13%
```

Run 5: Report of TCP BBR — Data Link



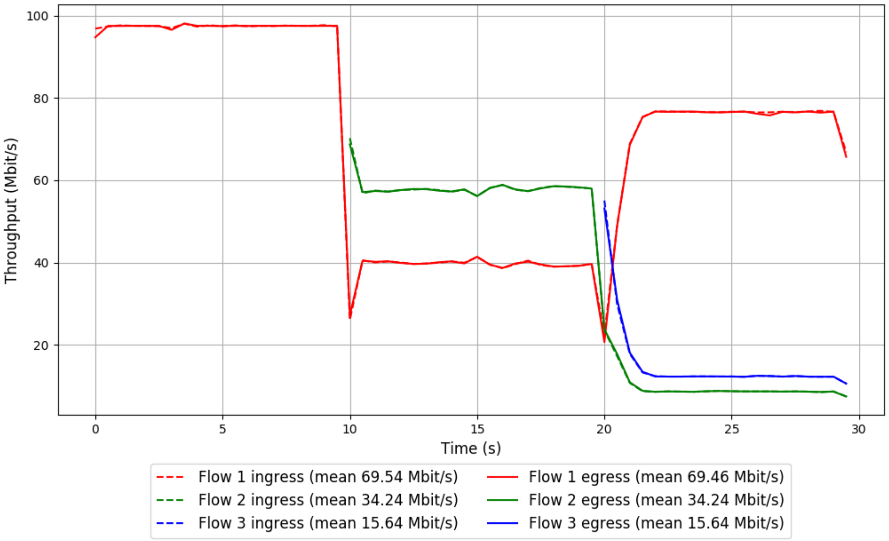


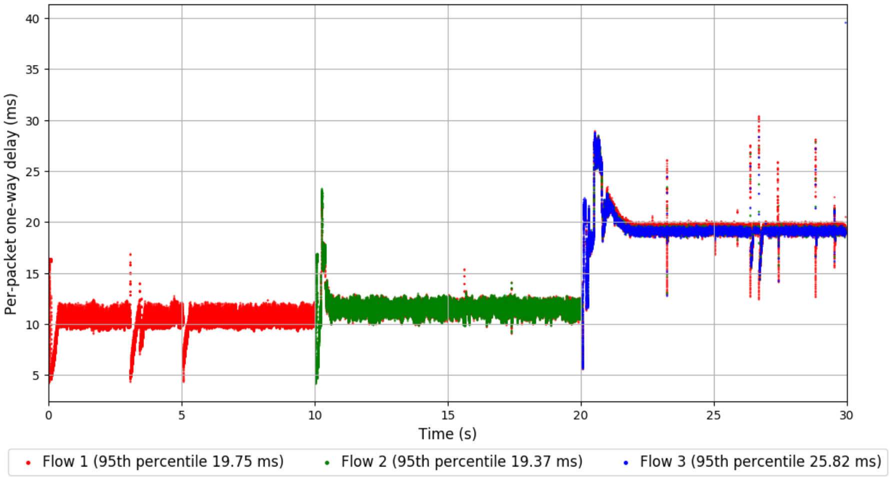
```
Run 6: Statistics of TCP BBR

Start at: Mon, 10 Jul 2017 00:25:17 +0000
End at: Mon, 10 Jul 2017 00:25:47 +0000
Local clock offset: -2.396 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:22 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 19.760 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 69.46 Mbit/s
95th percentile per-packet one-way delay: 19.747 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 34.24 Mbit/s
95th percentile per-packet one-way delay: 19.372 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 15.64 Mbit/s
95th percentile per-packet one-way delay: 25.820 ms
Loss rate: 0.15%
```

Run 6: Report of TCP BBR — Data Link



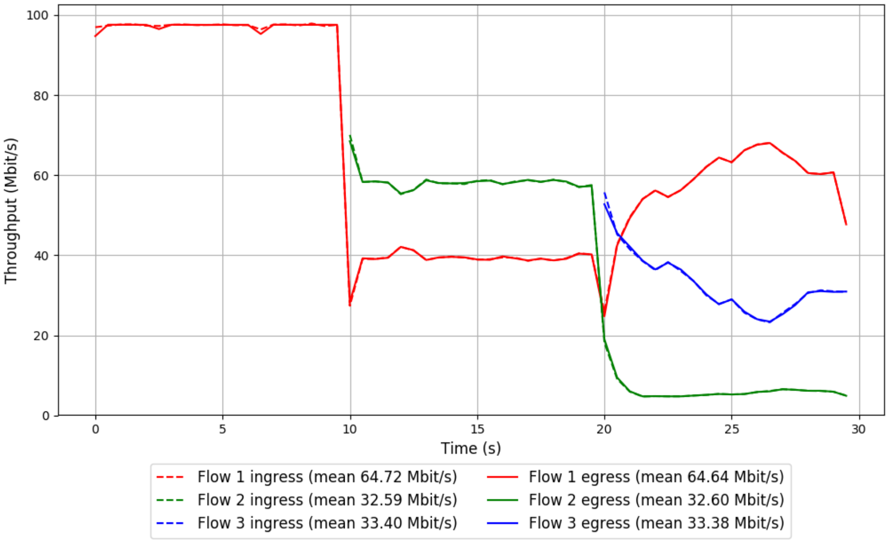


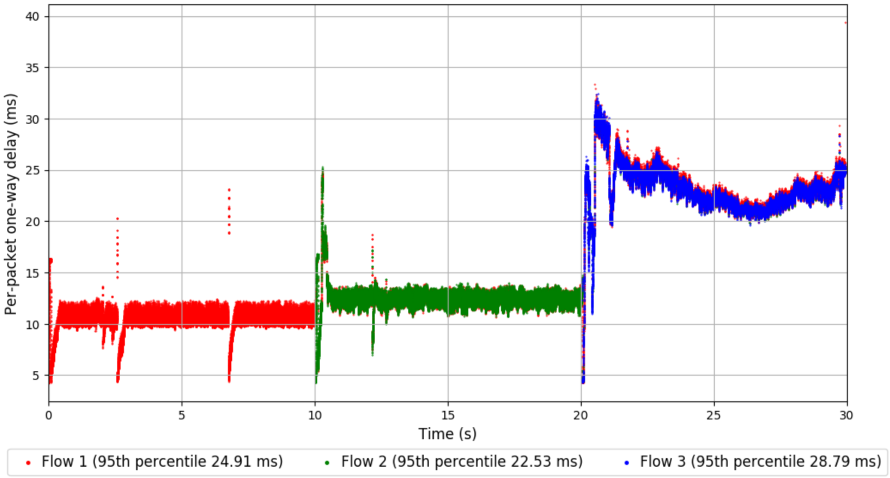
```
Run 7: Statistics of TCP BBR

Start at: Mon, 10 Jul 2017 00:42:27 +0000
End at: Mon, 10 Jul 2017 00:42:57 +0000
Local clock offset: -2.428 ms
Remote clock offset: -0.248 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:34 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 25.152 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 64.64 Mbit/s
95th percentile per-packet one-way delay: 24.910 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 32.60 Mbit/s
95th percentile per-packet one-way delay: 22.527 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 28.786 ms
Loss rate: 0.24%
```

Run 7: Report of TCP BBR — Data Link



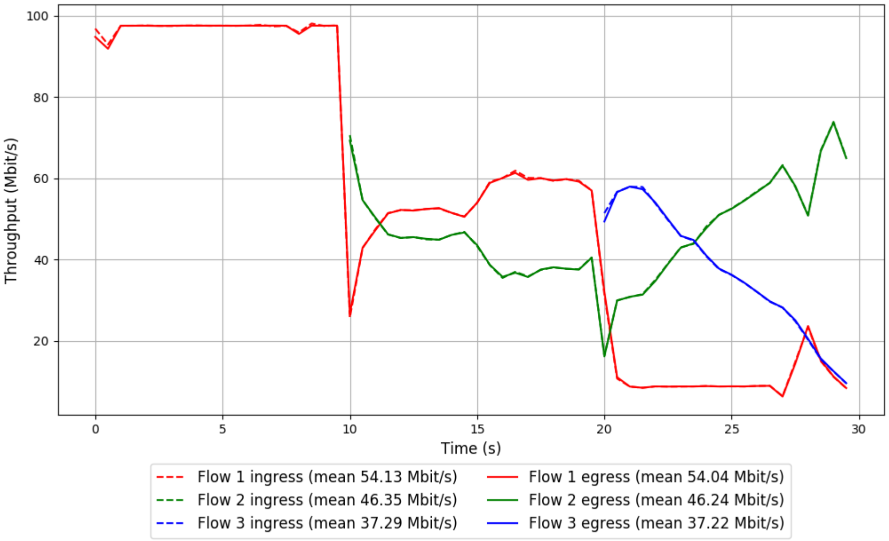


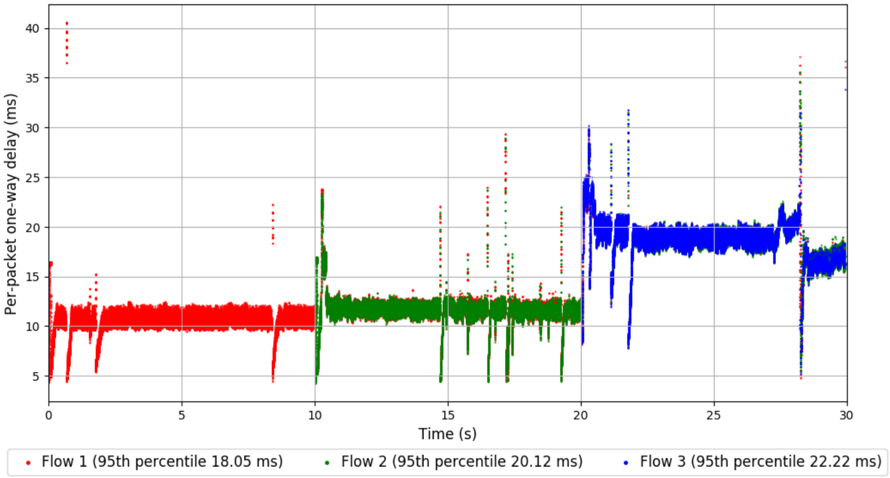
```
Run 8: Statistics of TCP BBR

Start at: Mon, 10 Jul 2017 00:59:31 +0000
End at: Mon, 10 Jul 2017 01:00:01 +0000
Local clock offset: -2.63 ms
Remote clock offset: -0.332 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:36 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.14 Mbit/s
95th percentile per-packet one-way delay: 19.943 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 54.04 Mbit/s
95th percentile per-packet one-way delay: 18.052 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 46.24 Mbit/s
95th percentile per-packet one-way delay: 20.117 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 37.22 Mbit/s
95th percentile per-packet one-way delay: 22.220 ms
Loss rate: 0.11%
```

Run 8: Report of TCP BBR — Data Link



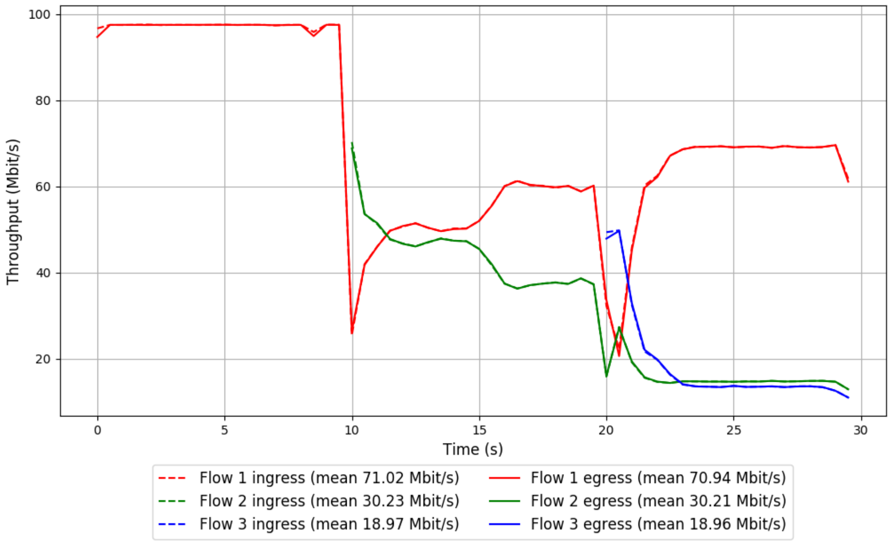


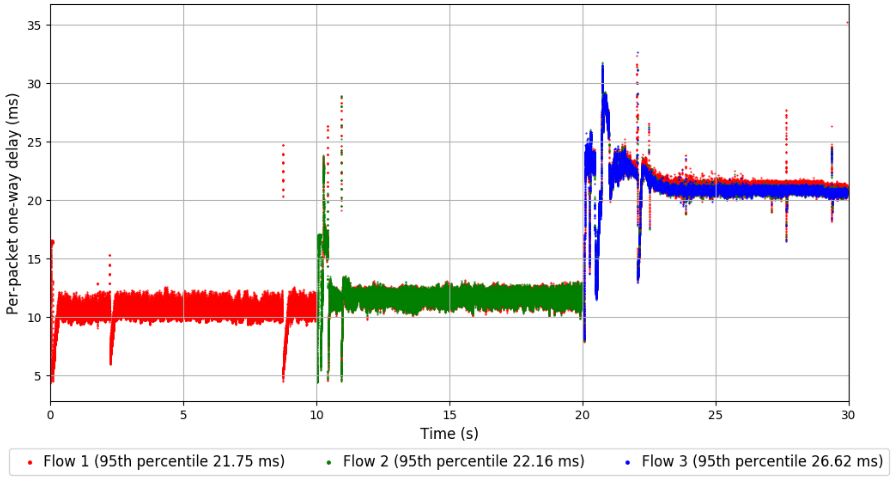
```
Run 9: Statistics of TCP BBR

Start at: Mon, 10 Jul 2017 01:16:37 +0000
End at: Mon, 10 Jul 2017 01:17:07 +0000
Local clock offset: -2.755 ms
Remote clock offset: -0.4 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:48 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.31 Mbit/s
95th percentile per-packet one-way delay: 22.439 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 70.94 Mbit/s
95th percentile per-packet one-way delay: 21.752 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 30.21 Mbit/s
95th percentile per-packet one-way delay: 22.164 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 18.96 Mbit/s
95th percentile per-packet one-way delay: 26.621 ms
Loss rate: 0.15%
```

Run 9: Report of TCP BBR — Data Link



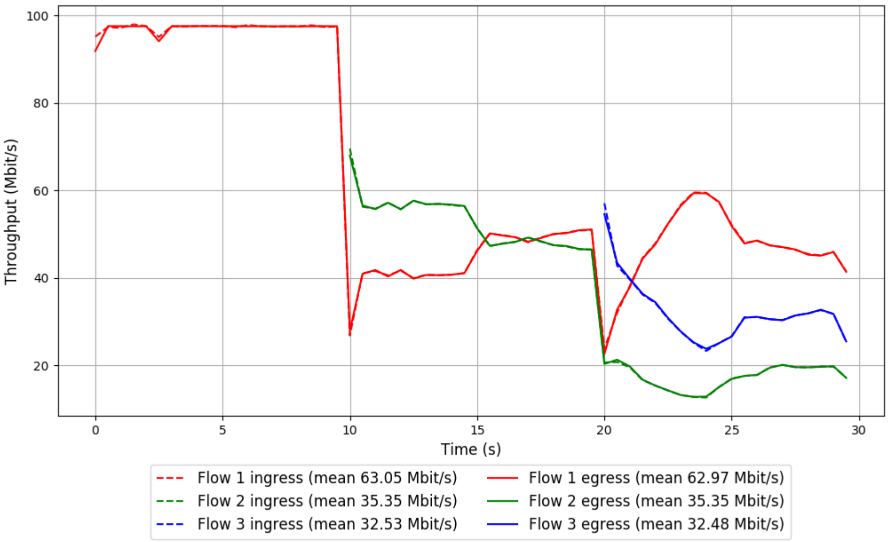


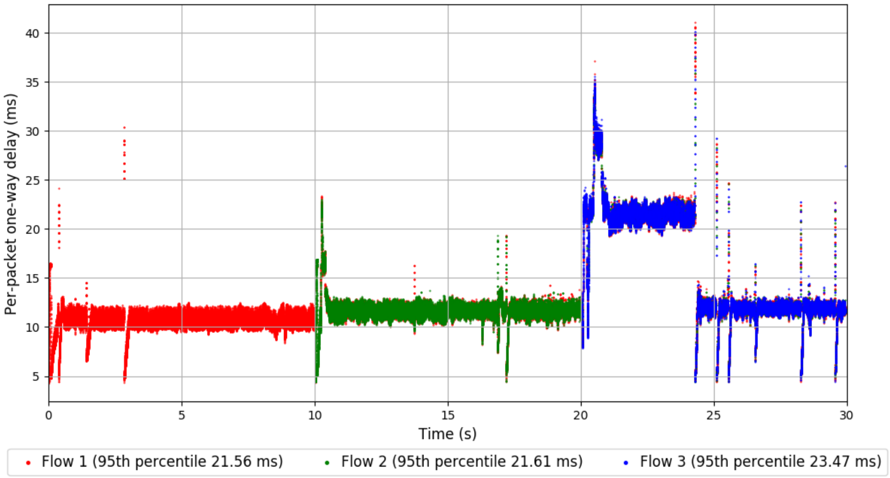
```
Run 10: Statistics of TCP BBR

Start at: Mon, 10 Jul 2017 01:33:43 +0000
End at: Mon, 10 Jul 2017 01:34:13 +0000
Local clock offset: -2.848 ms
Remote clock offset: -0.579 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:24:49 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.21 Mbit/s
95th percentile per-packet one-way delay: 21.915 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 62.97 Mbit/s
95th percentile per-packet one-way delay: 21.556 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 35.35 Mbit/s
95th percentile per-packet one-way delay: 21.612 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 23.473 ms
Loss rate: 0.10%
```

Run 10: Report of TCP BBR — Data Link



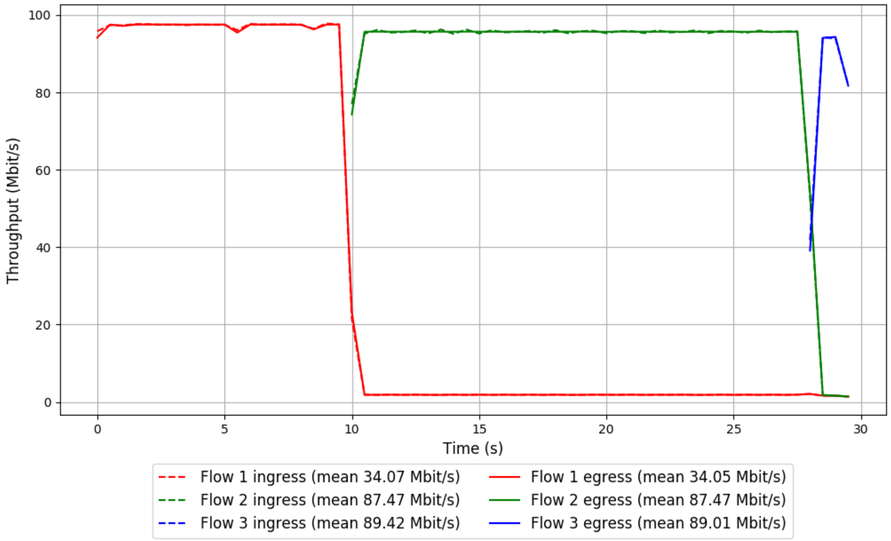


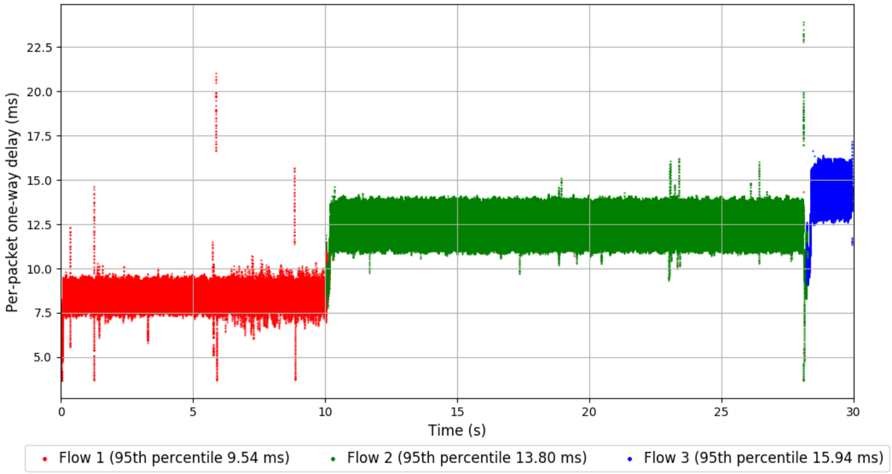
```
Run 1: Statistics of CalibratedKoho

Start at: Sun, 09 Jul 2017 22:51:54 +0000
End at: Sun, 09 Jul 2017 22:52:24 +0000
Local clock offset: -1.672 ms
Remote clock offset: -0.178 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:01 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.37 Mbit/s
95th percentile per-packet one-way delay: 13.868 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 34.05 Mbit/s
95th percentile per-packet one-way delay: 9.537 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 87.47 Mbit/s
95th percentile per-packet one-way delay: 13.797 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 89.01 Mbit/s
95th percentile per-packet one-way delay: 15.941 ms
Loss rate: 0.85%
```

Run 1: Report of CalibratedKoho — Data Link





```
Run 2: Statistics of CalibratedKoho

Start at: Sun, 09 Jul 2017 23:09:00 +0000
End at: Sun, 09 Jul 2017 23:09:30 +0000
Local clock offset: -1.895 ms
Remote clock offset: -0.102 ms
```

Run 2: Report of CalibratedKoho — Data Link

Figure is missing

Figure is missing

```
Run 3: Statistics of CalibratedKoho

Start at: Sun, 09 Jul 2017 23:26:06 +0000
End at: Sun, 09 Jul 2017 23:26:36 +0000
Local clock offset: -2.124 ms
Remote clock offset: -0.039 ms
```

Run 3: Report of CalibratedKoho — Data Link

Figure is missing

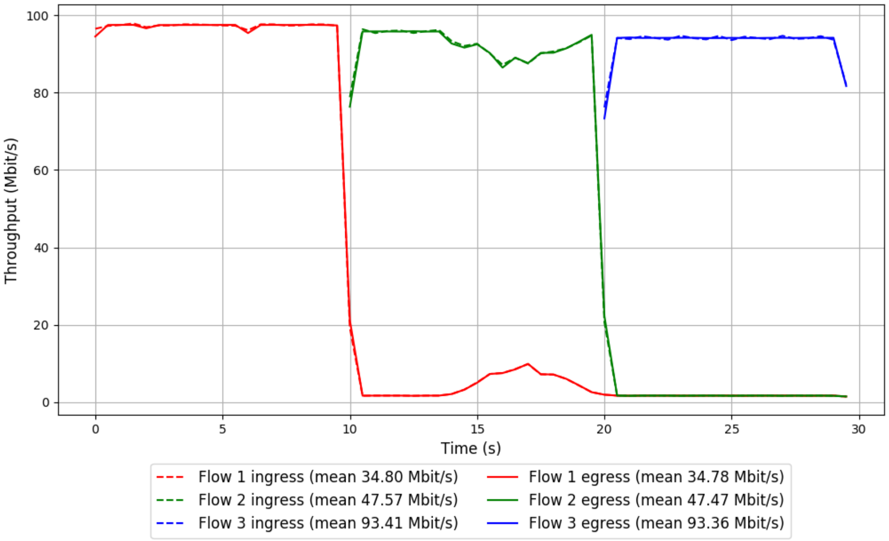
Figure is missing

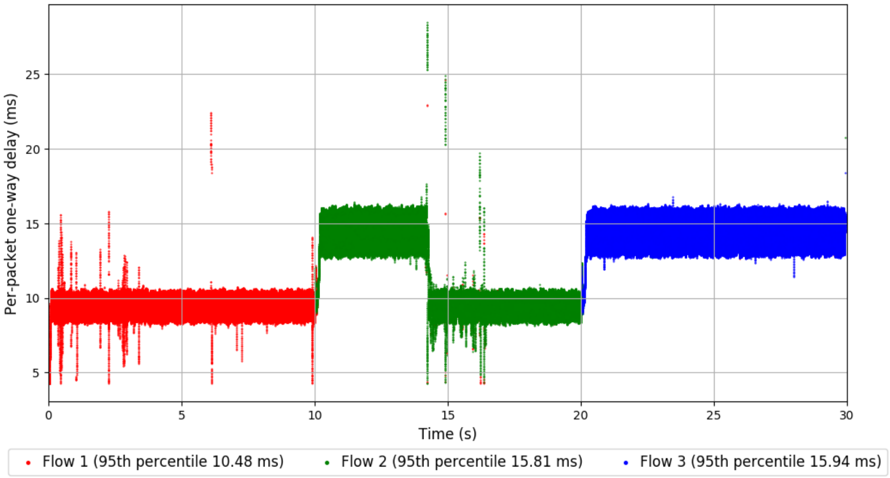
```
Run 4: Statistics of CalibratedKoho

Start at: Sun, 09 Jul 2017 23:43:14 +0000
End at: Sun, 09 Jul 2017 23:43:44 +0000
Local clock offset: -2.245 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:03 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.26 Mbit/s
95th percentile per-packet one-way delay: 15.817 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 34.78 Mbit/s
95th percentile per-packet one-way delay: 10.480 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 47.47 Mbit/s
95th percentile per-packet one-way delay: 15.814 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 93.36 Mbit/s
95th percentile per-packet one-way delay: 15.942 ms
Loss rate: 0.15%
```

Run 4: Report of CalibratedKoho — Data Link



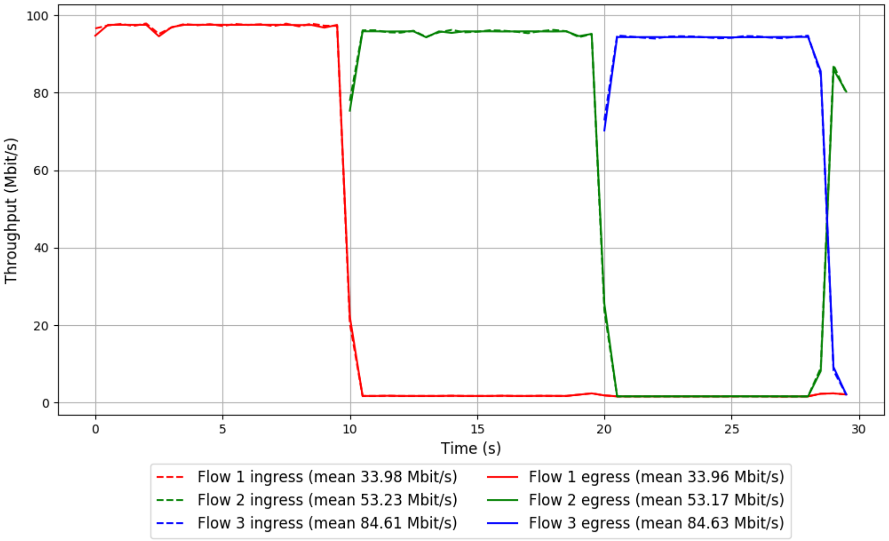


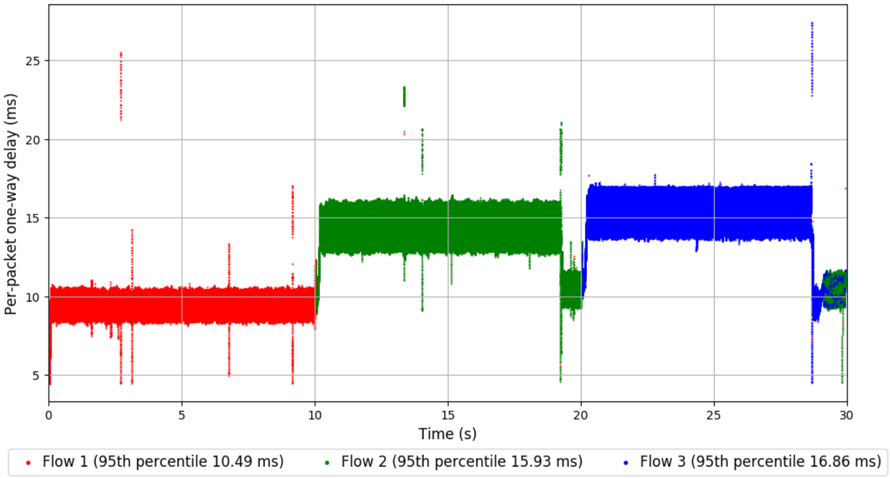
```
Run 5: Statistics of CalibratedKoho

Start at: Mon, 10 Jul 2017 00:00:21 +0000
End at: Mon, 10 Jul 2017 00:00:51 +0000
Local clock offset: -2.495 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:16 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.33 Mbit/s
95th percentile per-packet one-way delay: 16.586 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 33.96 Mbit/s
95th percentile per-packet one-way delay: 10.486 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 53.17 Mbit/s
95th percentile per-packet one-way delay: 15.931 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 84.63 Mbit/s
95th percentile per-packet one-way delay: 16.865 ms
Loss rate: 0.08%
```

Run 5: Report of CalibratedKoho — Data Link



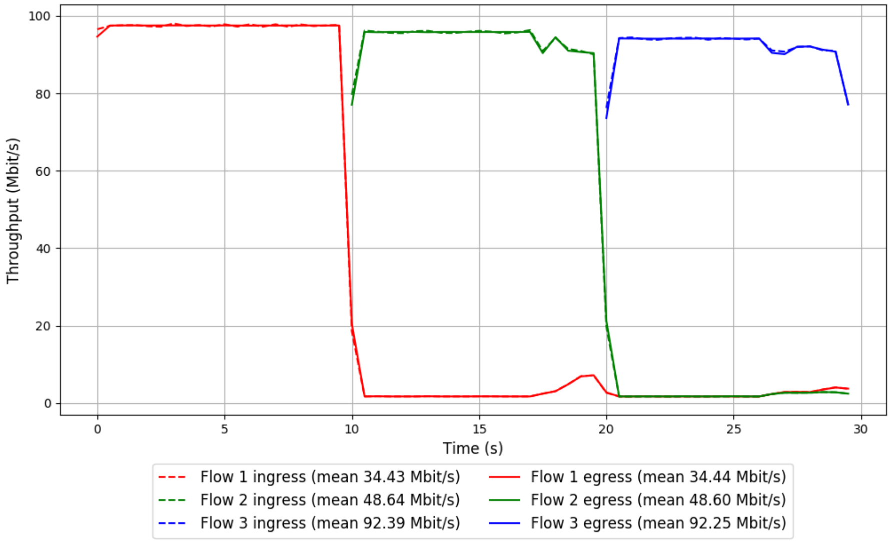


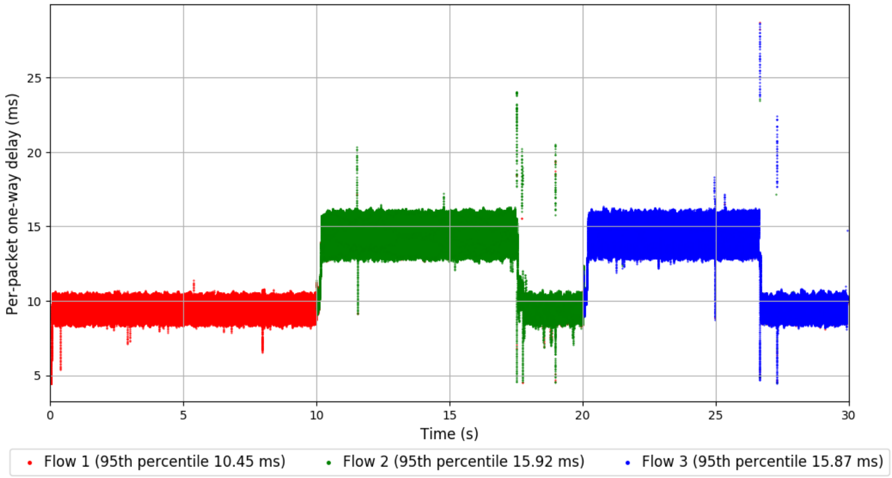
```
Run 6: Statistics of CalibratedKoho

Start at: Mon, 10 Jul 2017 00:17:26 +0000
End at: Mon, 10 Jul 2017 00:17:56 +0000
Local clock offset: -2.424 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:16 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.29 Mbit/s
95th percentile per-packet one-way delay: 15.808 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 34.44 Mbit/s
95th percentile per-packet one-way delay: 10.453 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.60 Mbit/s
95th percentile per-packet one-way delay: 15.917 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 15.868 ms
Loss rate: 0.19%
```

Run 6: Report of CalibratedKoho — Data Link



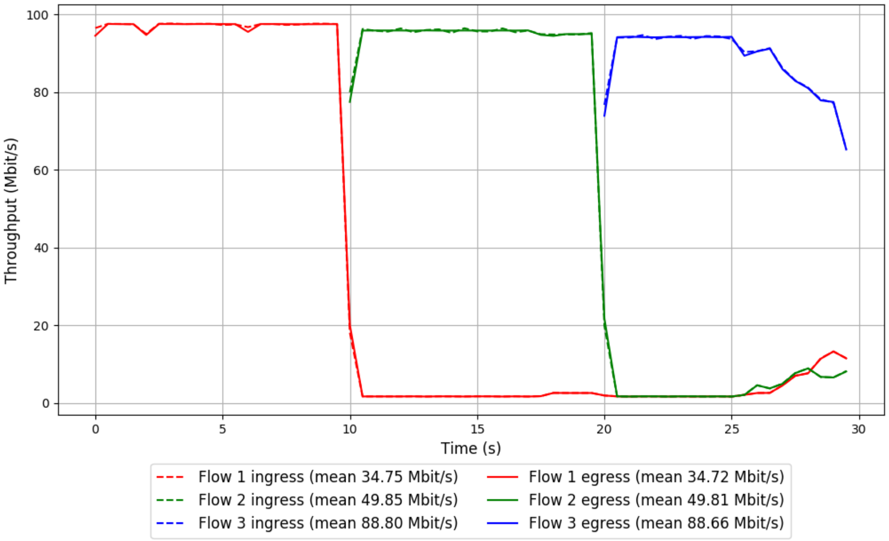


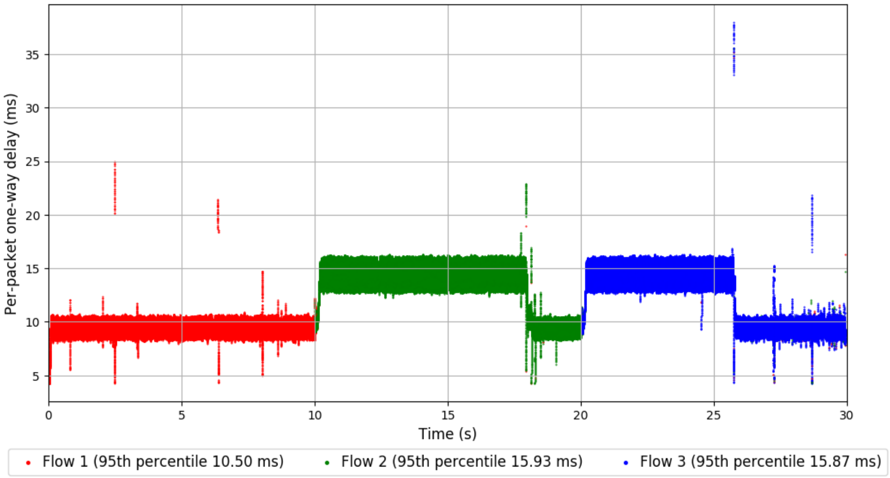
```
Run 7: Statistics of CalibratedKoho

Start at: Mon, 10 Jul 2017 00:34:32 +0000
End at: Mon, 10 Jul 2017 00:35:02 +0000
Local clock offset: -2.327 ms
Remote clock offset: -0.21 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:30 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.23 Mbit/s
95th percentile per-packet one-way delay: 15.815 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 34.72 Mbit/s
95th percentile per-packet one-way delay: 10.499 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 49.81 Mbit/s
95th percentile per-packet one-way delay: 15.929 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 88.66 Mbit/s
95th percentile per-packet one-way delay: 15.870 ms
Loss rate: 0.23%
```

Run 7: Report of CalibratedKoho — Data Link



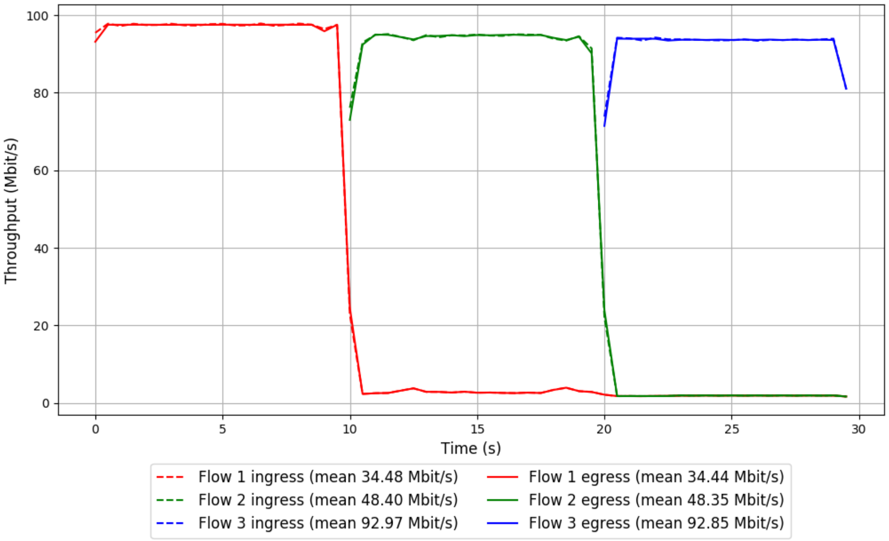


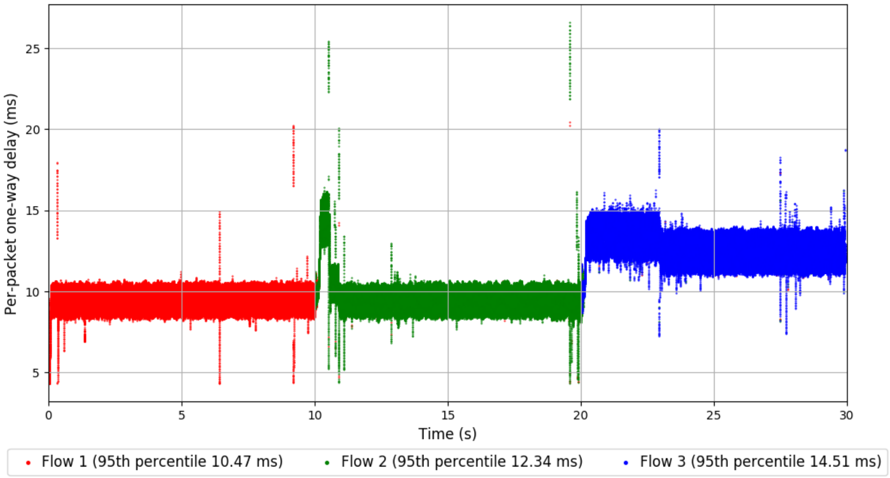
```
Run 8: Statistics of CalibratedKoho

Start at: Mon, 10 Jul 2017 00:51:40 +0000
End at: Mon, 10 Jul 2017 00:52:10 +0000
Local clock offset: -2.582 ms
Remote clock offset: -0.327 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:30 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.29 Mbit/s
95th percentile per-packet one-way delay: 13.804 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 34.44 Mbit/s
95th percentile per-packet one-way delay: 10.475 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 48.35 Mbit/s
95th percentile per-packet one-way delay: 12.342 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 92.85 Mbit/s
95th percentile per-packet one-way delay: 14.510 ms
Loss rate: 0.15%
```

Run 8: Report of CalibratedKoho — Data Link



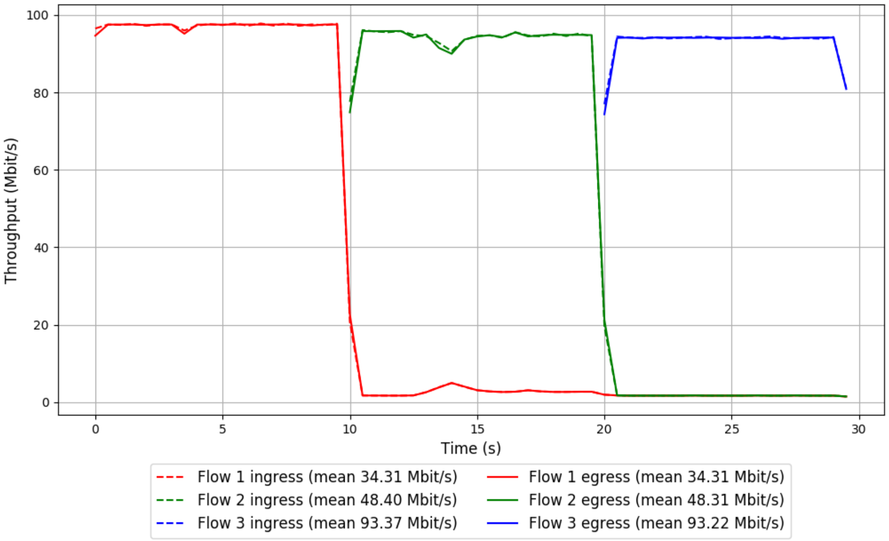


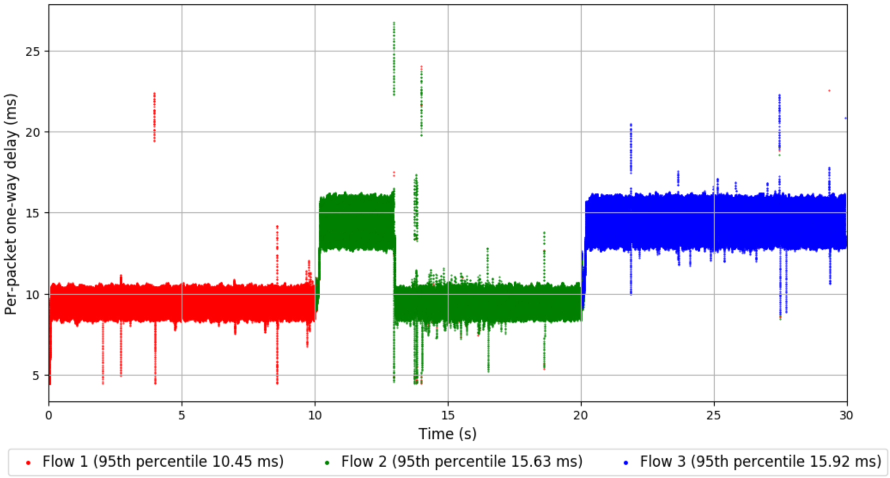
```
Run 9: Statistics of CalibratedKoho

Start at: Mon, 10 Jul 2017 01:08:46 +0000
End at: Mon, 10 Jul 2017 01:09:16 +0000
Local clock offset: -2.696 ms
Remote clock offset: -0.398 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:44 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 15.759 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 34.31 Mbit/s
95th percentile per-packet one-way delay: 10.447 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 48.31 Mbit/s
95th percentile per-packet one-way delay: 15.632 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 93.22 Mbit/s
95th percentile per-packet one-way delay: 15.919 ms
Loss rate: 0.18%
```

Run 9: Report of CalibratedKoho — Data Link



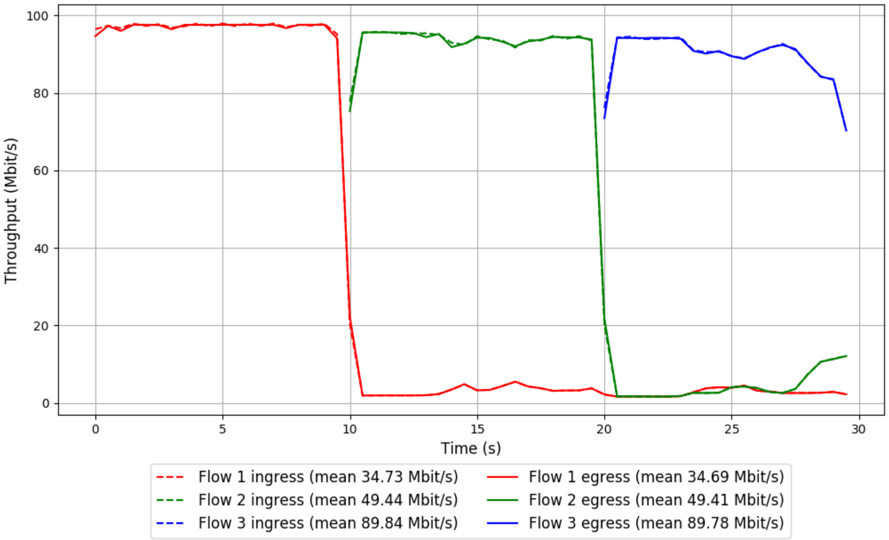


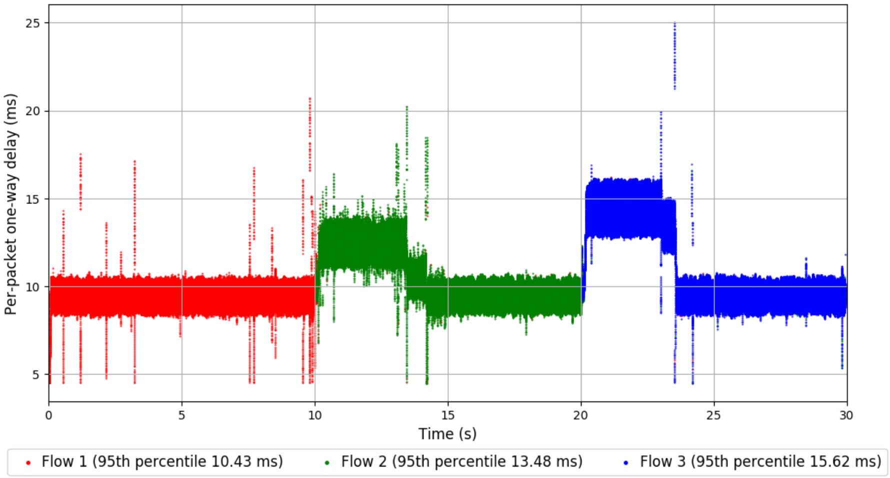
```
Run 10: Statistics of CalibratedKoho

Start at: Mon, 10 Jul 2017 01:25:50 +0000
End at: Mon, 10 Jul 2017 01:26:20 +0000
Local clock offset: -2.891 ms
Remote clock offset: -0.475 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:25:44 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.26 Mbit/s
95th percentile per-packet one-way delay: 14.550 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 34.69 Mbit/s
95th percentile per-packet one-way delay: 10.426 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 49.41 Mbit/s
95th percentile per-packet one-way delay: 13.478 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 89.78 Mbit/s
95th percentile per-packet one-way delay: 15.616 ms
Loss rate: 0.17%
```

Run 10: Report of CalibratedKoho — Data Link



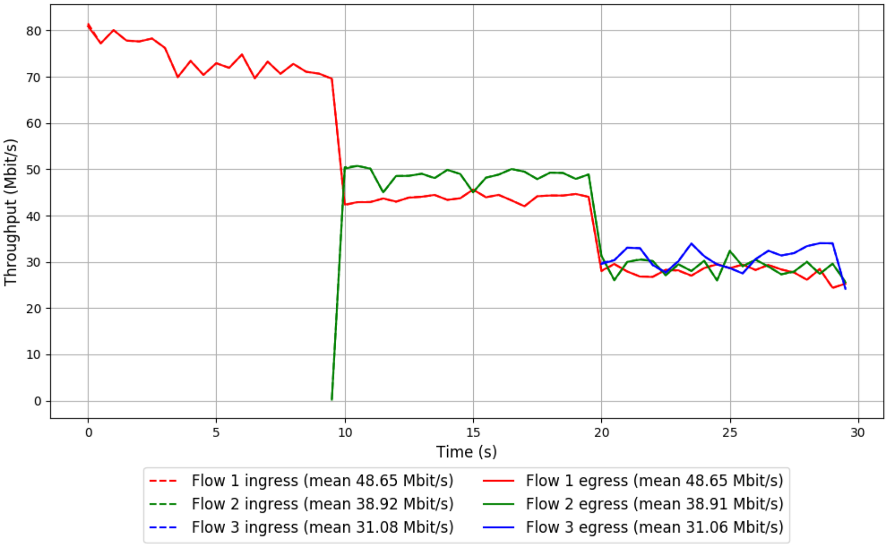


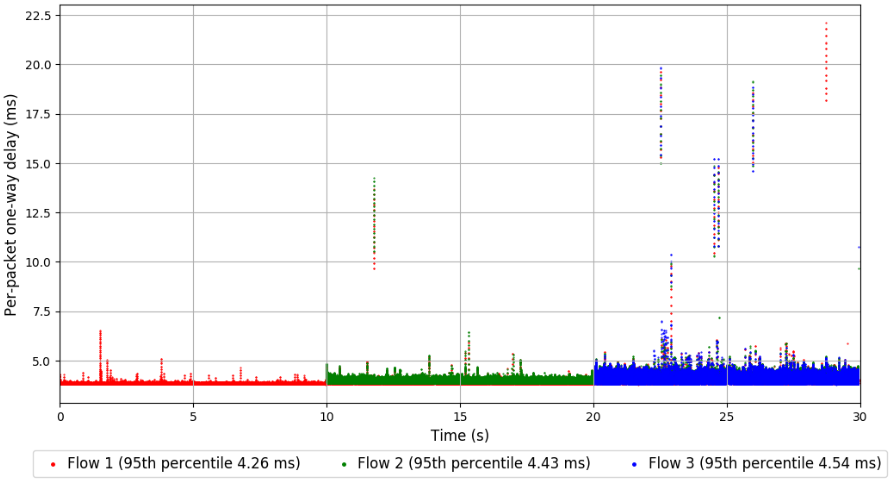
```
Run 1: Statistics of Copa

Start at: Sun, 09 Jul 2017 23:05:26 +0000
End at: Sun, 09 Jul 2017 23:05:56 +0000
Local clock offset: -1.83 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:26:06 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.85 Mbit/s
95th percentile per-packet one-way delay: 4.395 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 48.65 Mbit/s
95th percentile per-packet one-way delay: 4.264 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 4.430 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 4.542 ms
Loss rate: 0.05%
```

Run 1: Report of Copa — Data Link



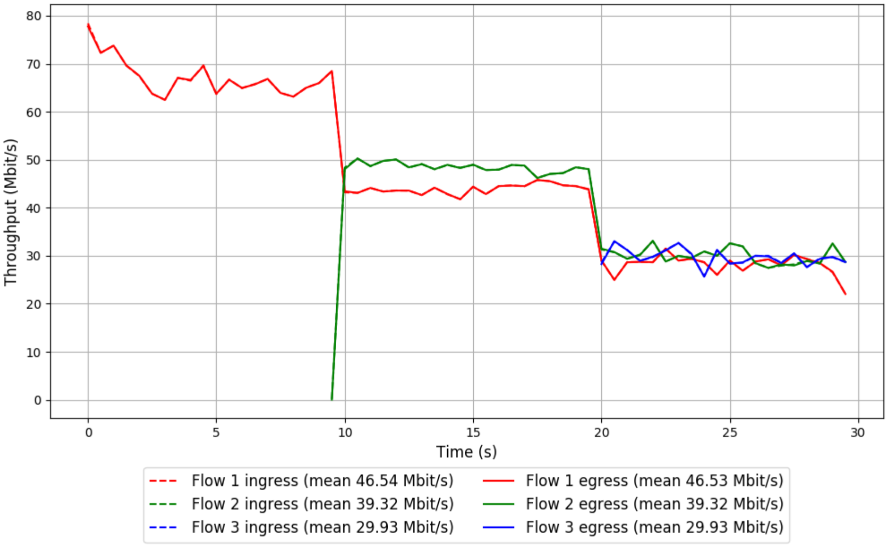


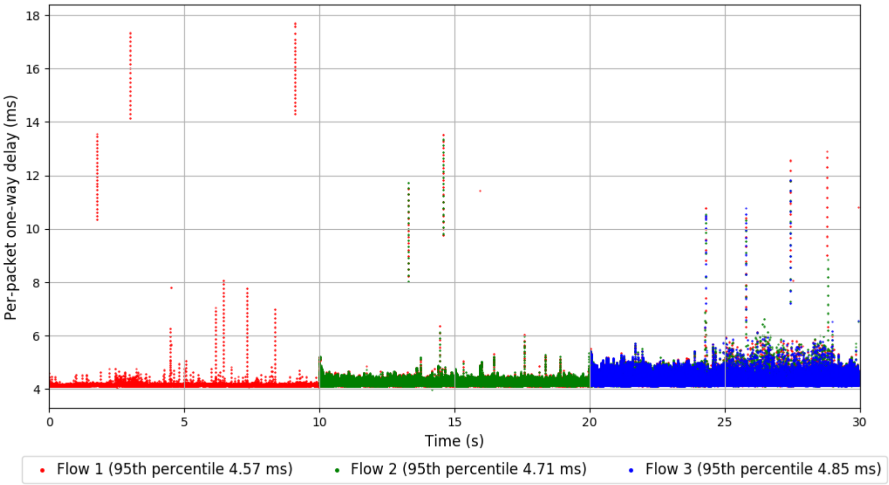
```
Run 2: Statistics of Copa

Start at: Sun, 09 Jul 2017 23:22:35 +0000
End at: Sun, 09 Jul 2017 23:23:05 +0000
Local clock offset: -2.094 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:26:06 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.63 Mbit/s
95th percentile per-packet one-way delay: 4.690 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 46.53 Mbit/s
95th percentile per-packet one-way delay: 4.569 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.32 Mbit/s
95th percentile per-packet one-way delay: 4.709 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.93 Mbit/s
95th percentile per-packet one-way delay: 4.853 ms
Loss rate: 0.04%
```

Run 2: Report of Copa — Data Link



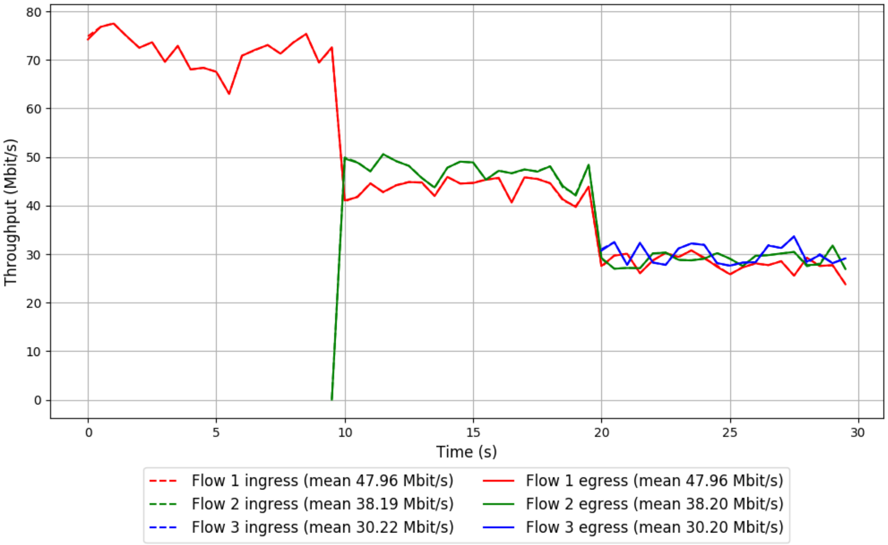


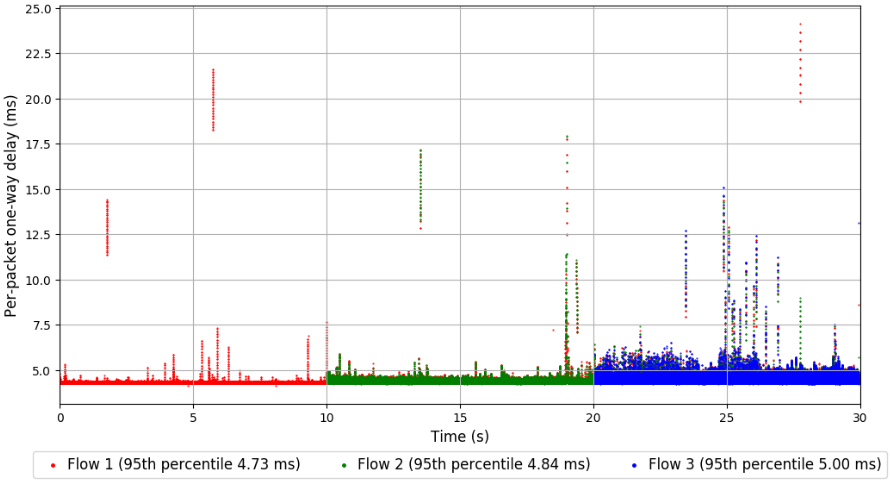
```
Run 3: Statistics of Copa

Start at: Sun, 09 Jul 2017 23:39:40 +0000
End at: Sun, 09 Jul 2017 23:40:10 +0000
Local clock offset: -2.287 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:26:25 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.39 Mbit/s
95th percentile per-packet one-way delay: 4.828 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 47.96 Mbit/s
95th percentile per-packet one-way delay: 4.727 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.20 Mbit/s
95th percentile per-packet one-way delay: 4.839 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 30.20 Mbit/s
95th percentile per-packet one-way delay: 5.002 ms
Loss rate: 0.05%
```

Run 3: Report of Copa — Data Link



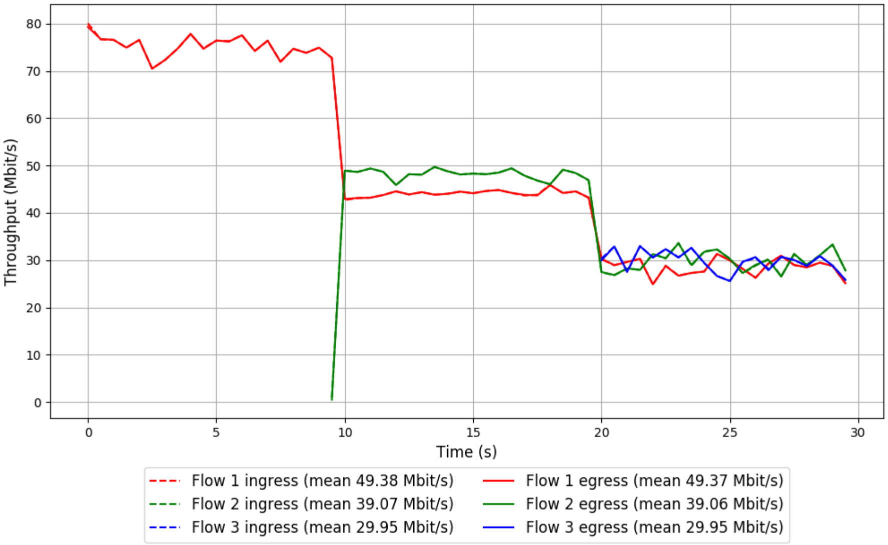


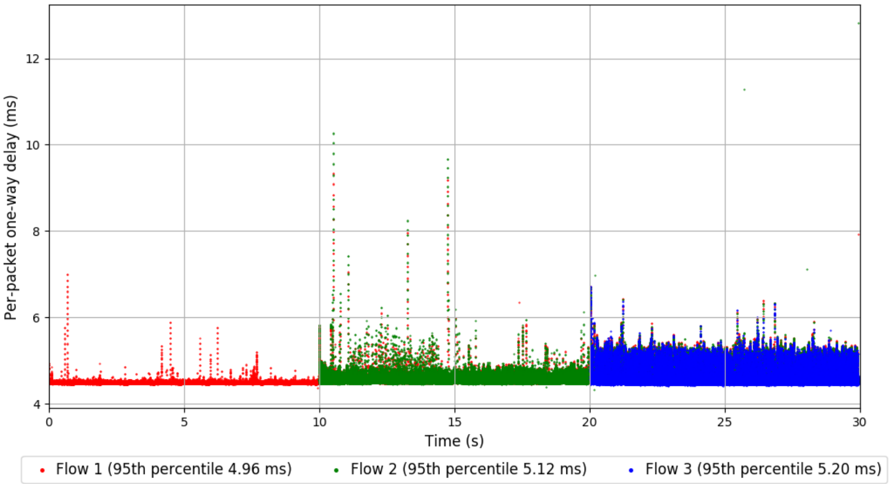
```
Run 4: Statistics of Copa

Start at: Sun, 09 Jul 2017 23:56:49 +0000
End at: Sun, 09 Jul 2017 23:57:19 +0000
Local clock offset: -2.376 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:26:27 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.33 Mbit/s
95th percentile per-packet one-way delay: 5.078 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 49.37 Mbit/s
95th percentile per-packet one-way delay: 4.961 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.06 Mbit/s
95th percentile per-packet one-way delay: 5.117 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.95 Mbit/s
95th percentile per-packet one-way delay: 5.198 ms
Loss rate: 0.05%
```

Run 4: Report of Copa — Data Link



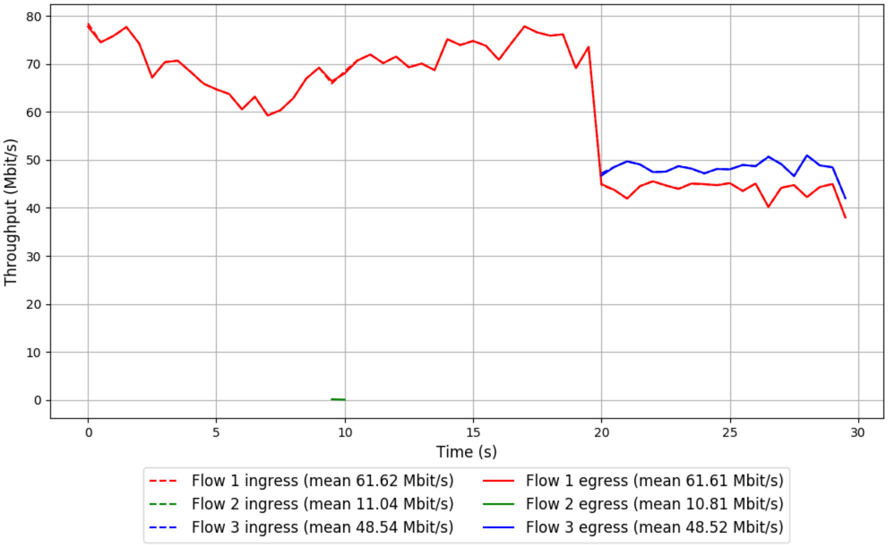


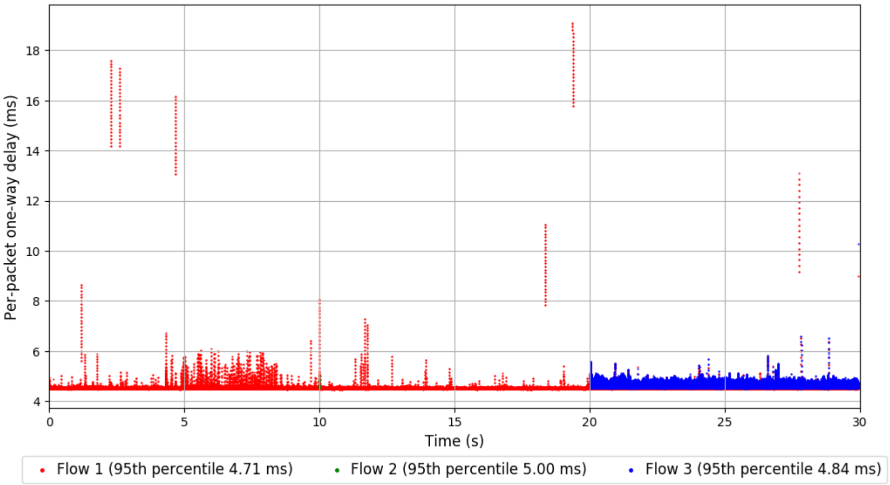
```
Run 5: Statistics of Copa

Start at: Mon, 10 Jul 2017 00:13:55 +0000
End at: Mon, 10 Jul 2017 00:14:25 +0000
Local clock offset: -2.444 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:26:45 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.71 Mbit/s
95th percentile per-packet one-way delay: 4.764 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 61.61 Mbit/s
95th percentile per-packet one-way delay: 4.706 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 5.002 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.52 Mbit/s
95th percentile per-packet one-way delay: 4.840 ms
Loss rate: 0.04%
```

Run 5: Report of Copa — Data Link



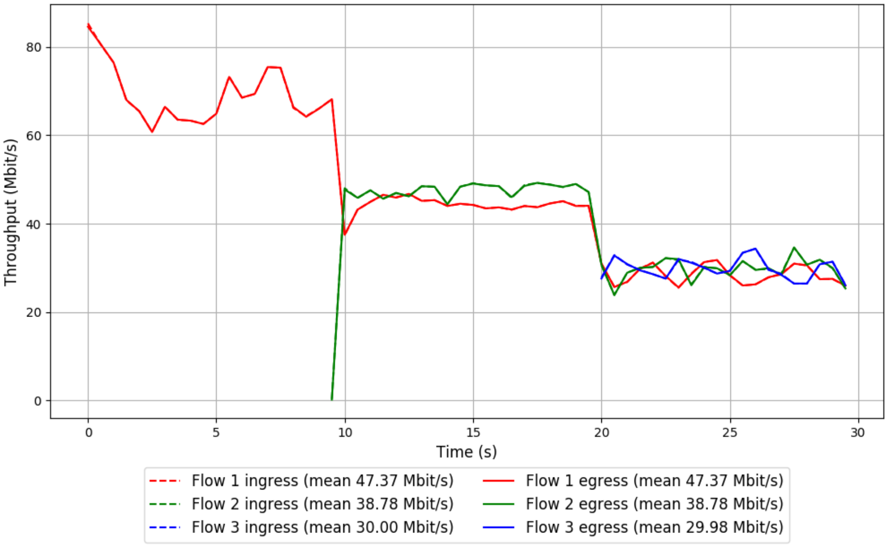


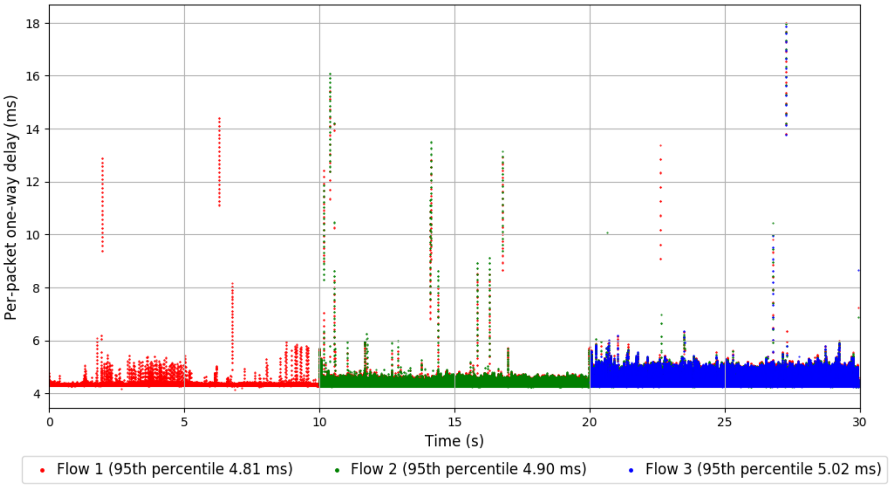
```
Run 6: Statistics of Copa

Start at: Mon, 10 Jul 2017 00:30:58 +0000
End at: Mon, 10 Jul 2017 00:31:28 +0000
Local clock offset: -2.454 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:26:47 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.15 Mbit/s
95th percentile per-packet one-way delay: 4.898 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 47.37 Mbit/s
95th percentile per-packet one-way delay: 4.810 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.78 Mbit/s
95th percentile per-packet one-way delay: 4.898 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 5.021 ms
Loss rate: 0.05%
```

Run 6: Report of Copa — Data Link



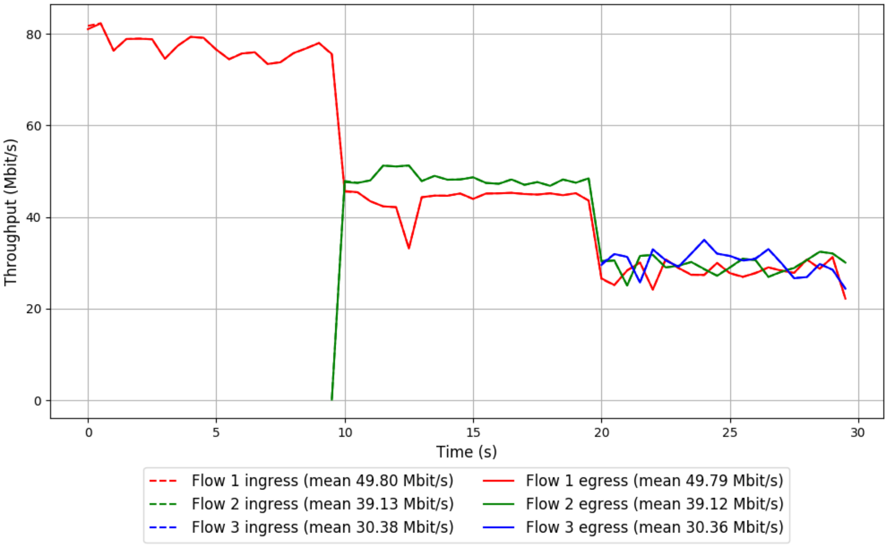


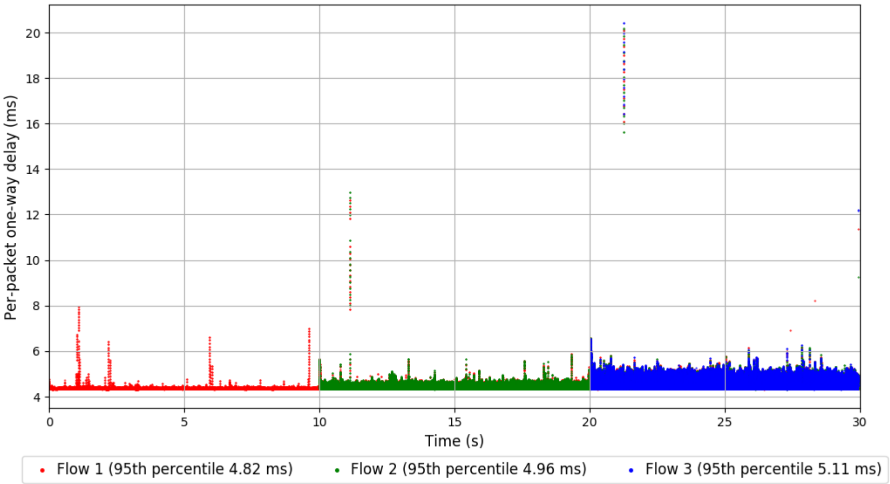
```
Run 7: Statistics of Copa

Start at: Mon, 10 Jul 2017 00:48:09 +0000
End at: Mon, 10 Jul 2017 00:48:39 +0000
Local clock offset: -2.493 ms
Remote clock offset: -0.294 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:09 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.92 Mbit/s
95th percentile per-packet one-way delay: 4.949 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 49.79 Mbit/s
95th percentile per-packet one-way delay: 4.818 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.12 Mbit/s
95th percentile per-packet one-way delay: 4.963 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 5.105 ms
Loss rate: 0.04%
```

Run 7: Report of Copa — Data Link



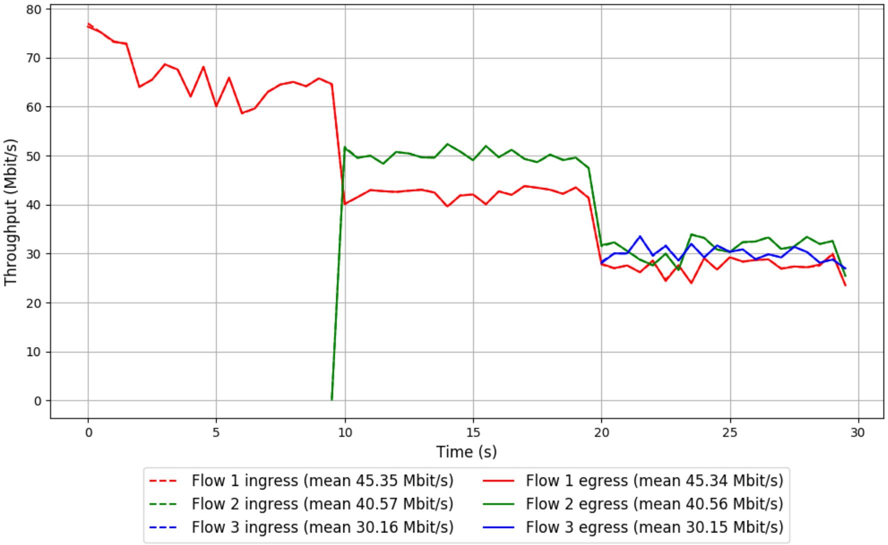


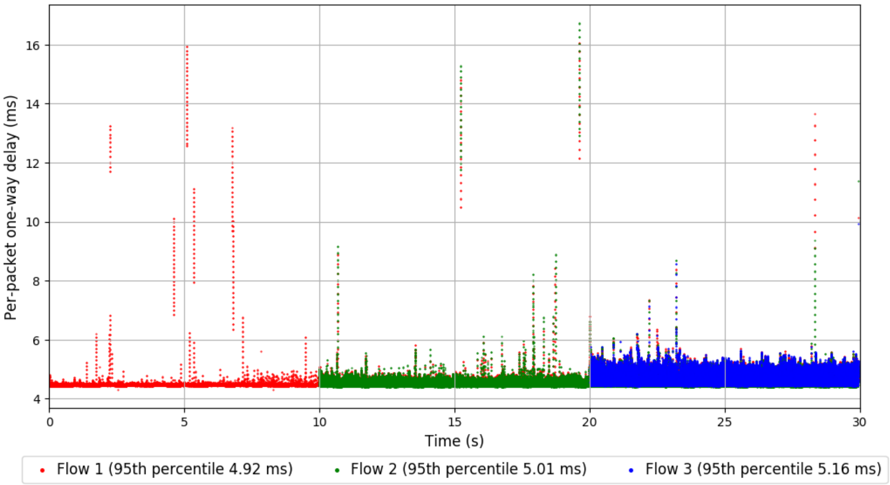
```
Run 8: Statistics of Copa

Start at: Mon, 10 Jul 2017 01:05:12 +0000
End at: Mon, 10 Jul 2017 01:05:42 +0000
Local clock offset: -2.71 ms
Remote clock offset: -0.409 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:09 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.36 Mbit/s
95th percentile per-packet one-way delay: 5.020 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 45.34 Mbit/s
95th percentile per-packet one-way delay: 4.921 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.56 Mbit/s
95th percentile per-packet one-way delay: 5.009 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 30.15 Mbit/s
95th percentile per-packet one-way delay: 5.163 ms
Loss rate: 0.04%
```

Run 8: Report of Copa — Data Link



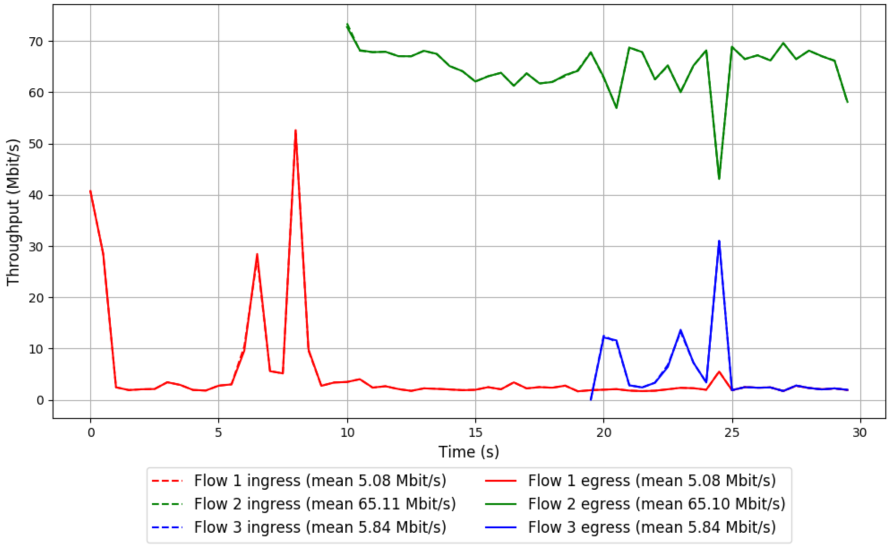


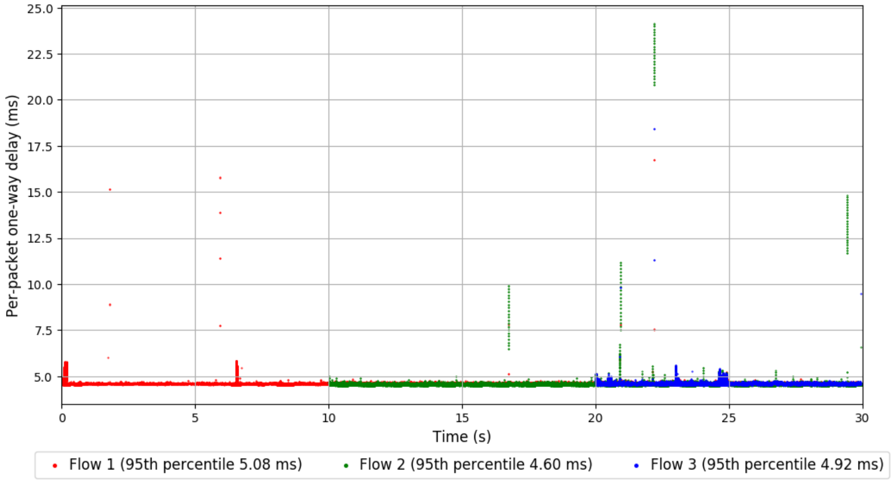
```
Run 9: Statistics of Copa

Start at: Mon, 10 Jul 2017 01:22:19 +0000
End at: Mon, 10 Jul 2017 01:22:49 +0000
Local clock offset: -2.792 ms
Remote clock offset: -0.391 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:19 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.34 Mbit/s
95th percentile per-packet one-way delay: 4.643 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 5.080 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 65.10 Mbit/s
95th percentile per-packet one-way delay: 4.599 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 5.84 Mbit/s
95th percentile per-packet one-way delay: 4.920 ms
Loss rate: 0.00%
```

Run 9: Report of Copa — Data Link



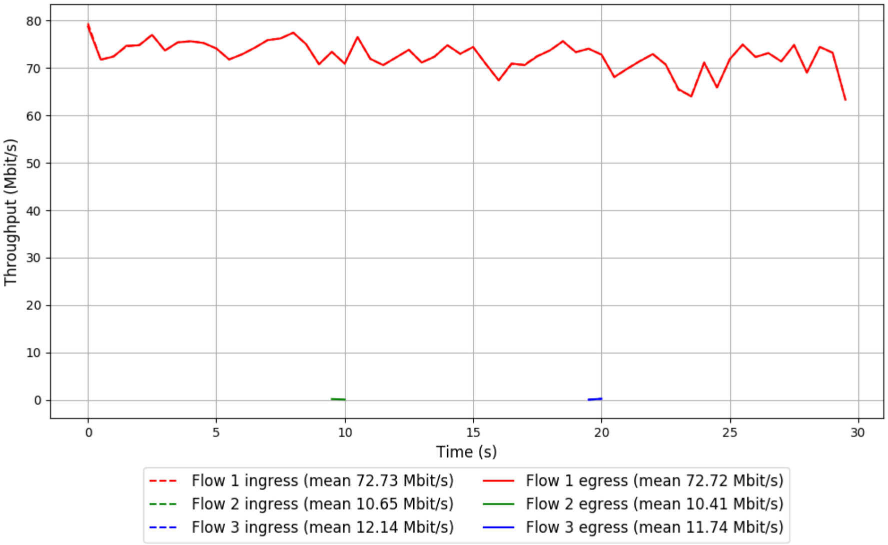


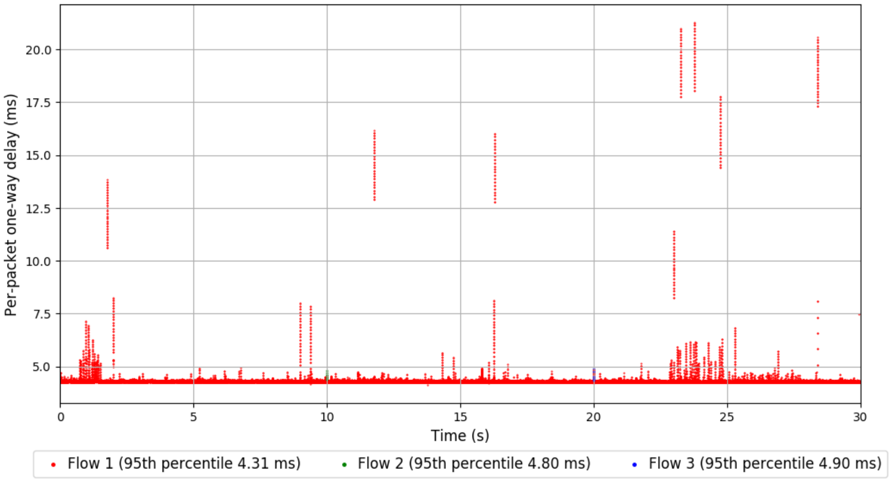
```
Run 10: Statistics of Copa

Start at: Mon, 10 Jul 2017 01:39:24 +0000
End at: Mon, 10 Jul 2017 01:39:54 +0000
Local clock offset: -2.87 ms
Remote clock offset: -0.644 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:29 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.73 Mbit/s
95th percentile per-packet one-way delay: 4.308 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 72.72 Mbit/s
95th percentile per-packet one-way delay: 4.308 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 10.41 Mbit/s
95th percentile per-packet one-way delay: 4.796 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 4.901 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link





```
Run 1: Statistics of TCP Cubic

Start at: Sun, 09 Jul 2017 22:53:05 +0000
End at: Sun, 09 Jul 2017 22:53:35 +0000
Local clock offset: -1.733 ms
Remote clock offset: -0.152 ms
```

Run 1: Report of TCP Cubic — Data Link

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```
Run 2: Statistics of TCP Cubic

Start at: Sun, 09 Jul 2017 23:10:08 +0000
End at: Sun, 09 Jul 2017 23:10:38 +0000
Local clock offset: -1.896 ms
Remote clock offset: -0.149 ms
```

Run 2: Report of TCP Cubic — Data Link

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```
Run 3: Statistics of TCP Cubic

Start at: Sun, 09 Jul 2017 23:27:14 +0000
End at: Sun, 09 Jul 2017 23:27:44 +0000
Local clock offset: -2.125 ms
Remote clock offset: -0.042 ms
```

Run 3: Report of TCP Cubic — Data Link

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Figure is missing

```
Run 4: Statistics of TCP Cubic

Start at: Sun, 09 Jul 2017 23:44:25 +0000
End at: Sun, 09 Jul 2017 23:44:55 +0000
Local clock offset: -2.219 ms
Remote clock offset: -0.015 ms
```

Run 4: Report of TCP Cubic — Data Link

Figure is missing

Figure is missing

```
Run 5: Statistics of TCP Cubic

Start at: Mon, 10 Jul 2017 00:01:32 +0000
End at: Mon, 10 Jul 2017 00:02:02 +0000
Local clock offset: -2.518 ms
Remote clock offset: -0.029 ms
```

Run 5: Report of TCP Cubic — Data Link

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```
Run 6: Statistics of TCP Cubic

Start at: Mon, 10 Jul 2017 00:18:37 +0000
End at: Mon, 10 Jul 2017 00:19:07 +0000
Local clock offset: -2.433 ms
Remote clock offset: -0.055 ms
```

Run 6: Report of TCP Cubic — Data Link

Figure is missing

Figure is missing

```
Run 7: Statistics of TCP Cubic

Start at: Mon, 10 Jul 2017 00:35:43 +0000
End at: Mon, 10 Jul 2017 00:36:13 +0000
Local clock offset: -2.389 ms
Remote clock offset: -0.276 ms
```

Run 7: Report of TCP Cubic — Data Link

Figure is missing

Figure is missing

```
Run 8: Statistics of TCP Cubic

Start at: Mon, 10 Jul 2017 00:52:51 +0000
End at: Mon, 10 Jul 2017 00:53:21 +0000
Local clock offset: -2.606 ms
Remote clock offset: -0.412 ms
```

Run 8: Report of TCP Cubic — Data Link

Figure is missing

Figure is missing

```
Run 9: Statistics of TCP Cubic

Start at: Mon, 10 Jul 2017 01:09:58 +0000
End at: Mon, 10 Jul 2017 01:10:28 +0000
Local clock offset: -2.703 ms
Remote clock offset: -0.375 ms
```

Run 9: Report of TCP Cubic — Data Link

Figure is missing

Figure is missing

```
Run 10: Statistics of TCP Cubic

Start at: Mon, 10 Jul 2017 01:27:01 +0000
End at: Mon, 10 Jul 2017 01:27:31 +0000
Local clock offset: -2.814 ms
Remote clock offset: -0.467 ms
```

Run 10: Report of TCP Cubic — Data Link

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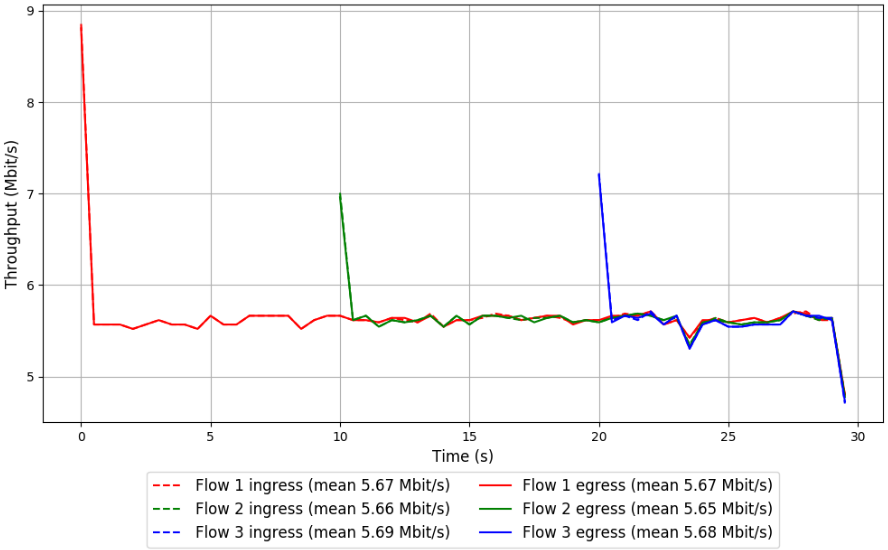
Figure is missing

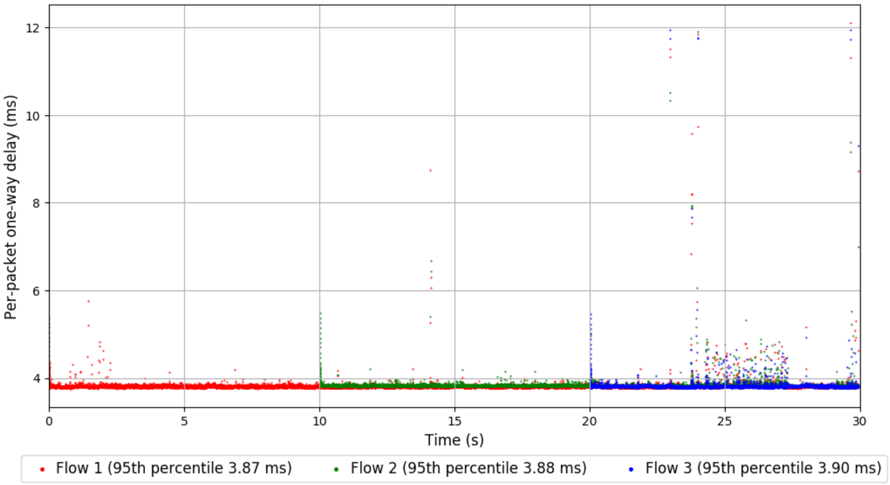
```
Run 1: Statistics of KohoCC

Start at: Sun, 09 Jul 2017 22:57:36 +0000
End at: Sun, 09 Jul 2017 22:58:06 +0000
Local clock offset: -1.758 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:29 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.31 Mbit/s
95th percentile per-packet one-way delay: 3.877 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 5.67 Mbit/s
95th percentile per-packet one-way delay: 3.866 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 3.880 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 3.896 ms
Loss rate: 0.02%
```

Run 1: Report of KohoCC — Data Link



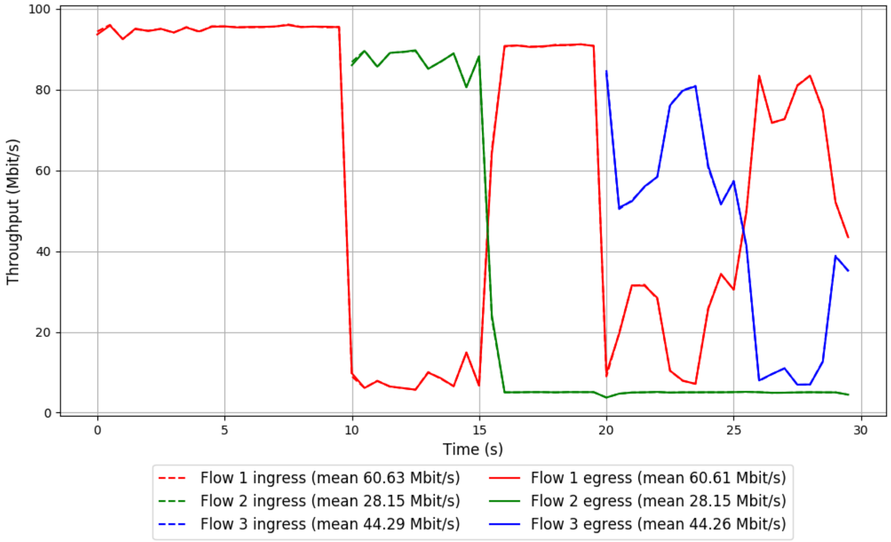


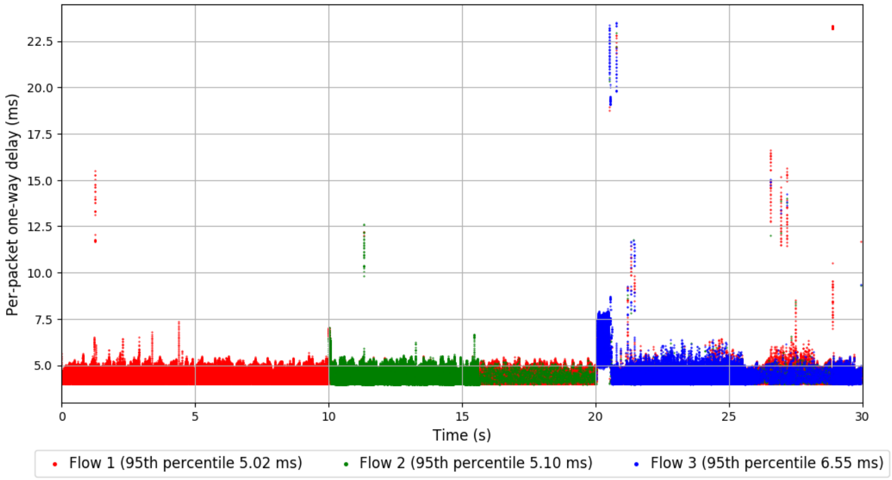
```
Run 2: Statistics of KohoCC

Start at: Sun, 09 Jul 2017 23:14:39 +0000
End at: Sun, 09 Jul 2017 23:15:09 +0000
Local clock offset: -1.969 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:36 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.02 Mbit/s
95th percentile per-packet one-way delay: 5.111 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 60.61 Mbit/s
95th percentile per-packet one-way delay: 5.018 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 5.097 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.26 Mbit/s
95th percentile per-packet one-way delay: 6.555 ms
Loss rate: 0.04%
```

Run 2: Report of KohoCC — Data Link



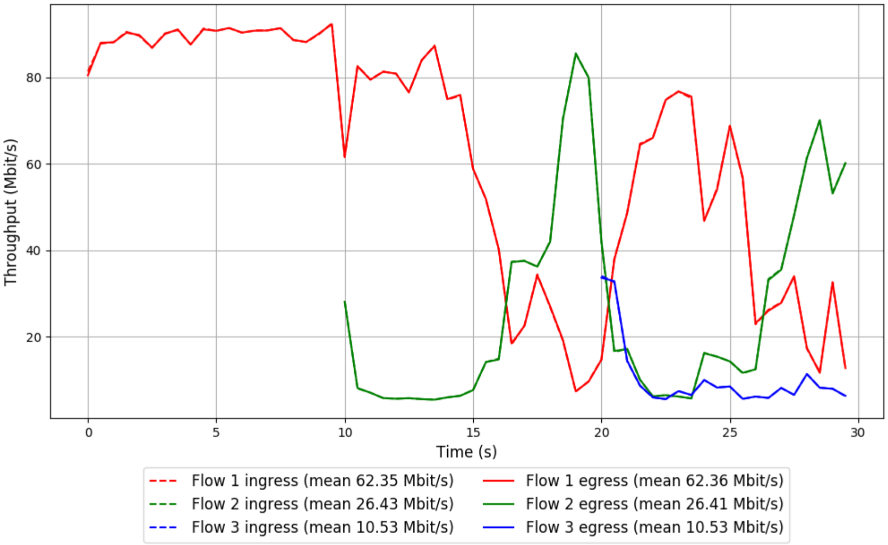


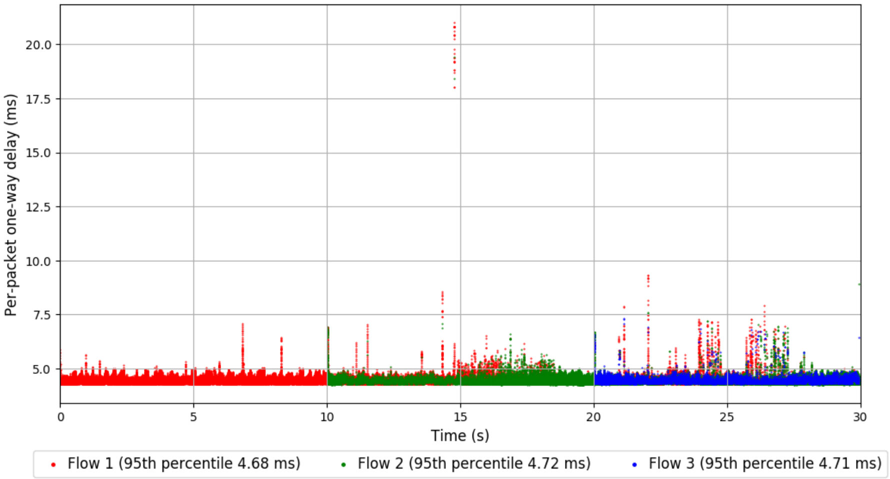
```
Run 3: Statistics of KohoCC

Start at: Sun, 09 Jul 2017 23:31:45 +0000
End at: Sun, 09 Jul 2017 23:32:15 +0000
Local clock offset: -2.195 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:41 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.39 Mbit/s
95th percentile per-packet one-way delay: 4.694 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 62.36 Mbit/s
95th percentile per-packet one-way delay: 4.680 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.41 Mbit/s
95th percentile per-packet one-way delay: 4.725 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 10.53 Mbit/s
95th percentile per-packet one-way delay: 4.713 ms
Loss rate: 0.01%
```

Run 3: Report of KohoCC — Data Link



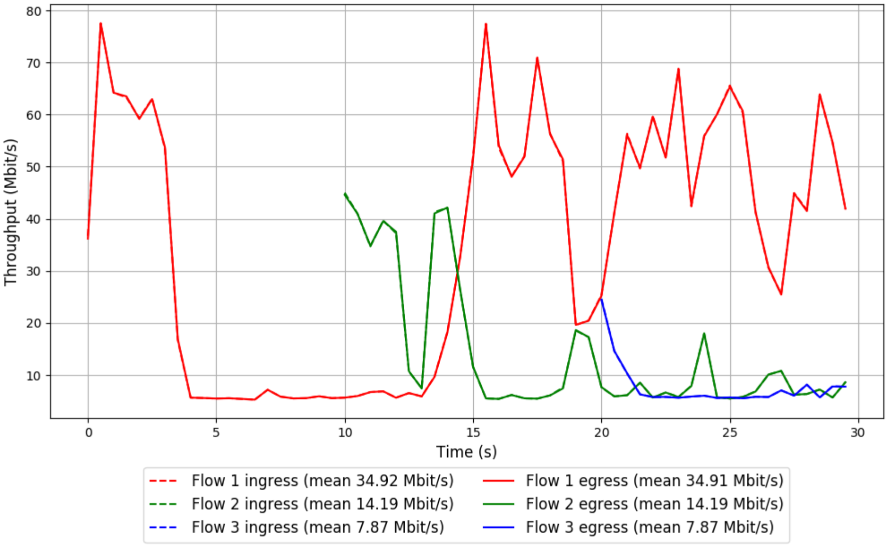


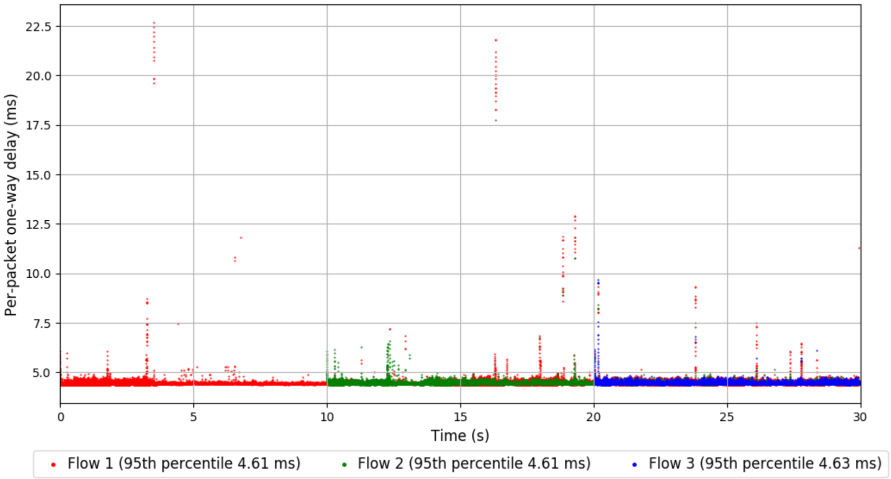
```
Run 4: Statistics of KohoCC

Start at: Sun, 09 Jul 2017 23:48:56 +0000
End at: Sun, 09 Jul 2017 23:49:26 +0000
Local clock offset: -2.366 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:45 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.96 Mbit/s
95th percentile per-packet one-way delay: 4.610 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 34.91 Mbit/s
95th percentile per-packet one-way delay: 4.610 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 14.19 Mbit/s
95th percentile per-packet one-way delay: 4.605 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 4.629 ms
Loss rate: 0.06%
```

Run 4: Report of KohoCC — Data Link



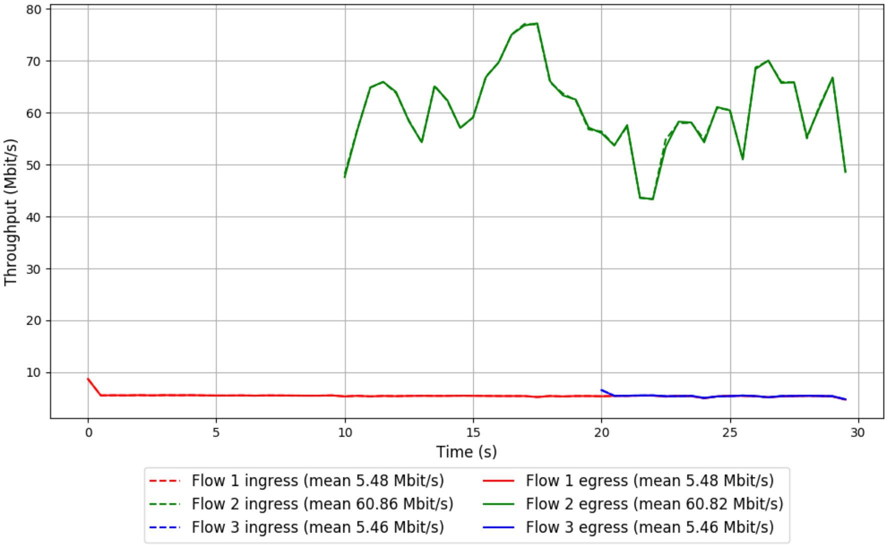


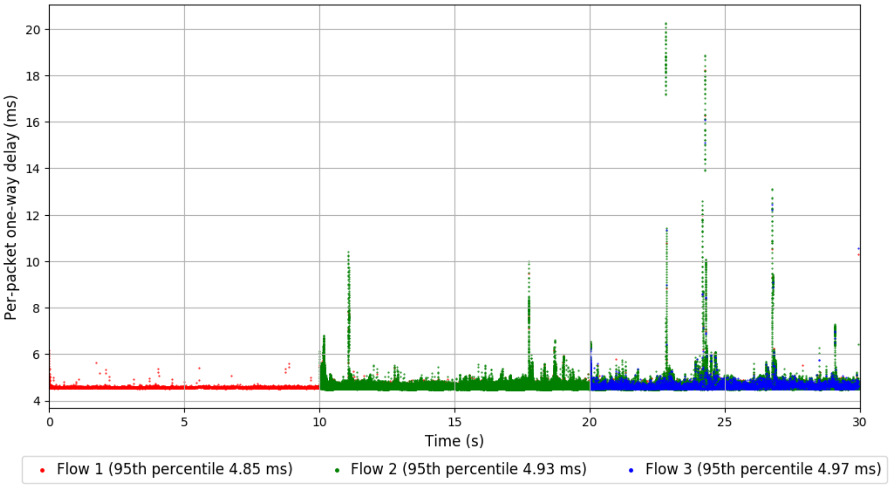
```
Run 5: Statistics of KohoCC

Start at: Mon, 10 Jul 2017 00:06:02 +0000
End at: Mon, 10 Jul 2017 00:06:32 +0000
Local clock offset: -2.505 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:48 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.76 Mbit/s
95th percentile per-packet one-way delay: 4.916 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 5.48 Mbit/s
95th percentile per-packet one-way delay: 4.848 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 60.82 Mbit/s
95th percentile per-packet one-way delay: 4.928 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 4.973 ms
Loss rate: 0.02%
```

Run 5: Report of KohoCC — Data Link



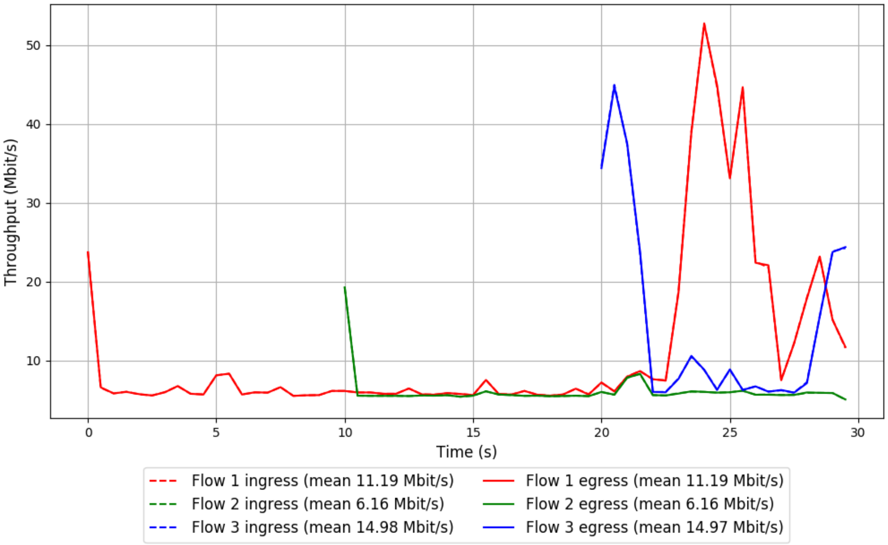


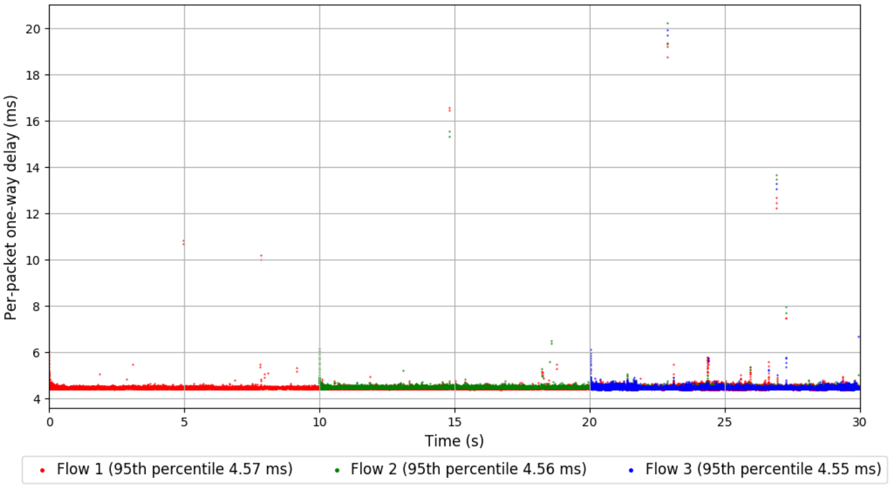
```
Run 6: Statistics of KohoCC

Start at: Mon, 10 Jul 2017 00:23:07 +0000
End at: Mon, 10 Jul 2017 00:23:37 +0000
Local clock offset: -2.495 ms
Remote clock offset: -0.203 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:27:49 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.25 Mbit/s
95th percentile per-packet one-way delay: 4.562 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 4.568 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 6.16 Mbit/s
95th percentile per-packet one-way delay: 4.560 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 14.97 Mbit/s
95th percentile per-packet one-way delay: 4.555 ms
Loss rate: 0.05%
```

Run 6: Report of KohoCC — Data Link



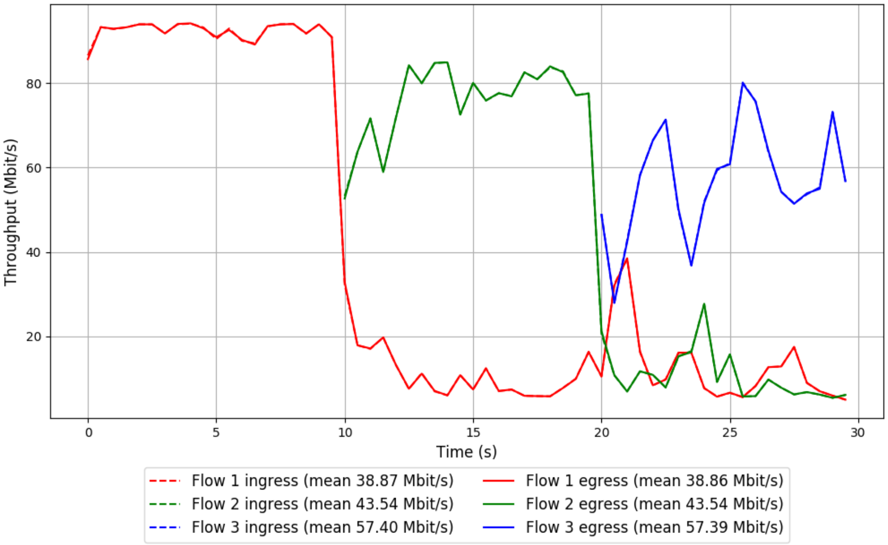


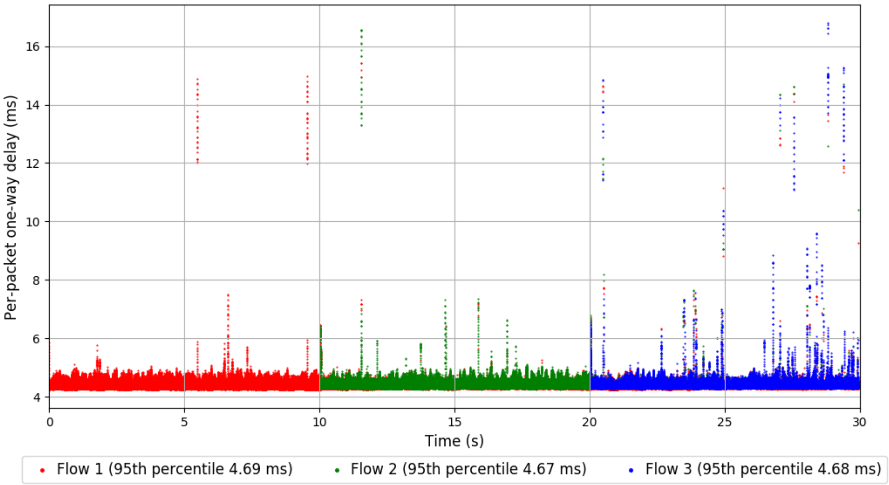
```
Run 7: Statistics of KohoCC

Start at: Mon, 10 Jul 2017 00:40:13 +0000
End at: Mon, 10 Jul 2017 00:40:43 +0000
Local clock offset: -2.394 ms
Remote clock offset: -0.261 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:00 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.83 Mbit/s
95th percentile per-packet one-way delay: 4.681 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 38.86 Mbit/s
95th percentile per-packet one-way delay: 4.686 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.54 Mbit/s
95th percentile per-packet one-way delay: 4.672 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.39 Mbit/s
95th percentile per-packet one-way delay: 4.677 ms
Loss rate: 0.04%
```

Run 7: Report of KohoCC — Data Link



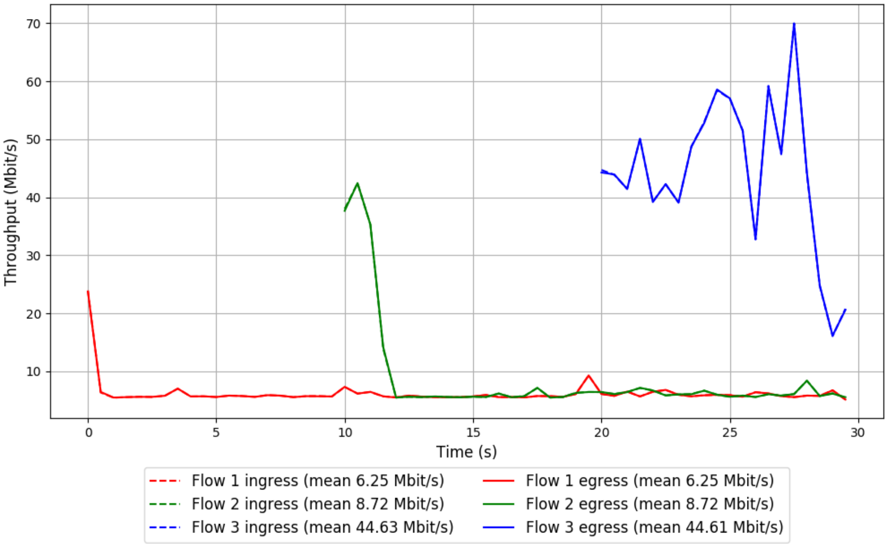


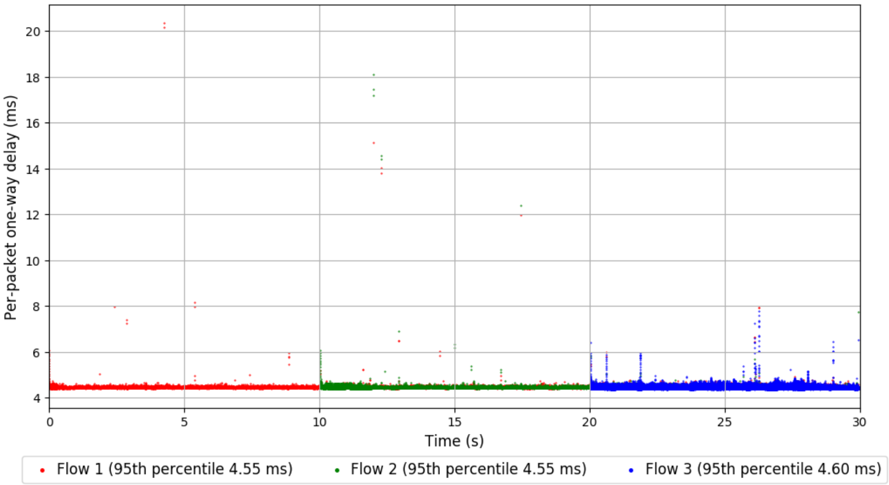
```
Run 8: Statistics of KohoCC

Start at: Mon, 10 Jul 2017 00:57:21 +0000
End at: Mon, 10 Jul 2017 00:57:51 +0000
Local clock offset: -2.58 ms
Remote clock offset: -0.329 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:00 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.82 Mbit/s
95th percentile per-packet one-way delay: 4.589 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 6.25 Mbit/s
95th percentile per-packet one-way delay: 4.551 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 4.547 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 44.61 Mbit/s
95th percentile per-packet one-way delay: 4.600 ms
Loss rate: 0.04%
```

Run 8: Report of KohoCC — Data Link



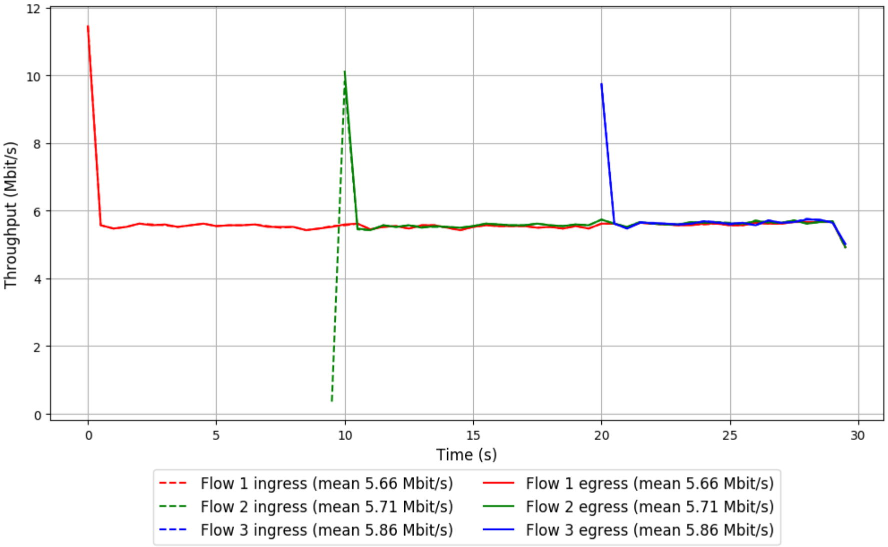


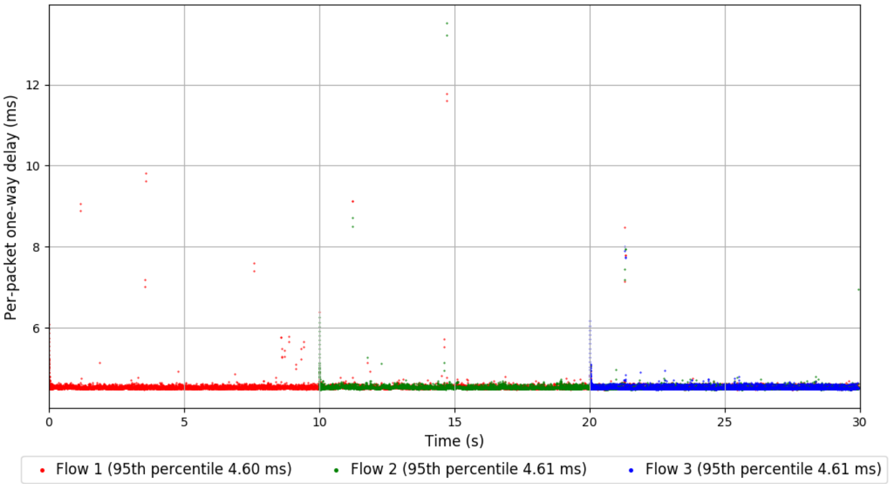
```
Run 9: Statistics of KohoCC

Start at: Mon, 10 Jul 2017 01:14:29 +0000
End at: Mon, 10 Jul 2017 01:14:59 +0000
Local clock offset: -2.755 ms
Remote clock offset: -0.371 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:00 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.40 Mbit/s
95th percentile per-packet one-way delay: 4.606 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 5.66 Mbit/s
95th percentile per-packet one-way delay: 4.602 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 4.606 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 4.611 ms
Loss rate: 0.04%
```

Run 9: Report of KohoCC — Data Link



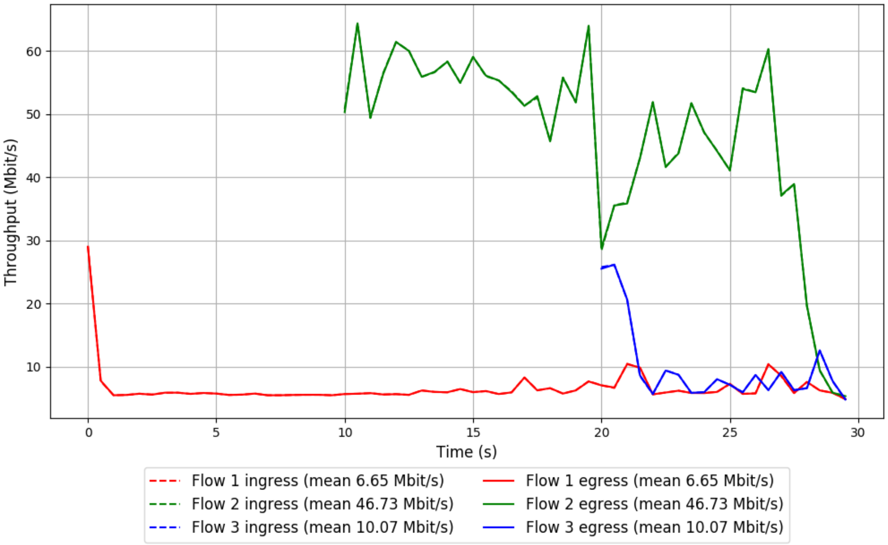


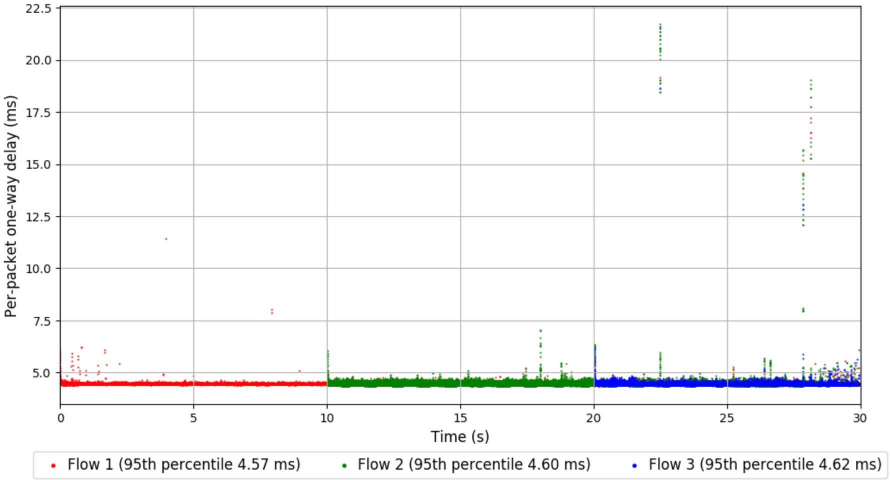
```
Run 10: Statistics of KohoCC

Start at: Mon, 10 Jul 2017 01:31:32 +0000
End at: Mon, 10 Jul 2017 01:32:02 +0000
Local clock offset: -2.817 ms
Remote clock offset: -0.566 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:02 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.09 Mbit/s
95th percentile per-packet one-way delay: 4.597 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 4.565 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.73 Mbit/s
95th percentile per-packet one-way delay: 4.596 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 4.623 ms
Loss rate: 0.01%
```

Run 10: Report of KohoCC — Data Link





```
Run 1: Statistics of LEDBAT

Start at: Sun, 09 Jul 2017 22:50:45 +0000
End at: Sun, 09 Jul 2017 22:51:15 +0000
Local clock offset: -1.687 ms
Remote clock offset: -0.101 ms
```

Run 1: Report of LEDBAT — Data Link

Figure is missing

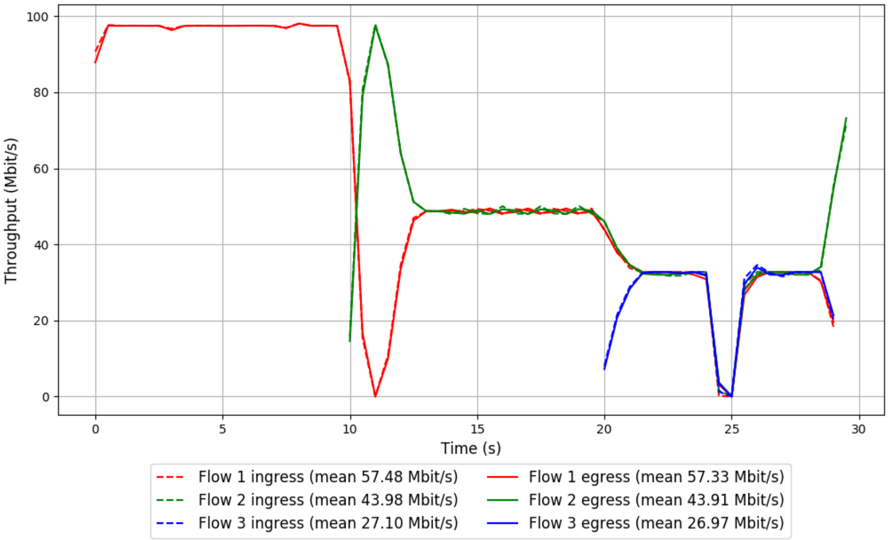
Figure is missing

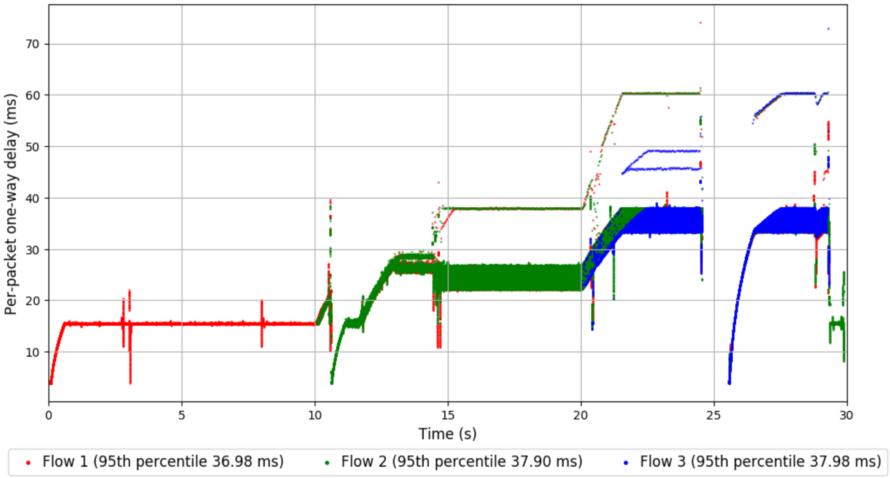
```
Run 2: Statistics of LEDBAT

Start at: Sun, 09 Jul 2017 23:07:49 +0000
End at: Sun, 09 Jul 2017 23:08:19 +0000
Local clock offset: -1.815 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:14 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.83 Mbit/s
95th percentile per-packet one-way delay: 37.860 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 36.985 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 43.91 Mbit/s
95th percentile per-packet one-way delay: 37.901 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 26.97 Mbit/s
95th percentile per-packet one-way delay: 37.983 ms
Loss rate: 0.40%
```

Run 2: Report of LEDBAT — Data Link





```
Run 3: Statistics of LEDBAT

Start at: Sun, 09 Jul 2017 23:24:58 +0000
End at: Sun, 09 Jul 2017 23:25:28 +0000
Local clock offset: -2.099 ms
Remote clock offset: -0.061 ms
```

Run 3: Report of LEDBAT — Data Link

Figure is missing

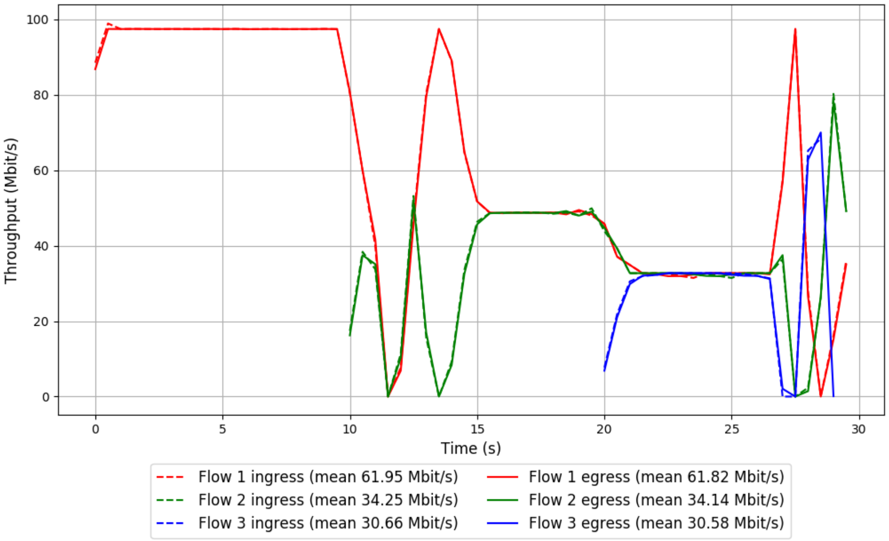
Figure is missing

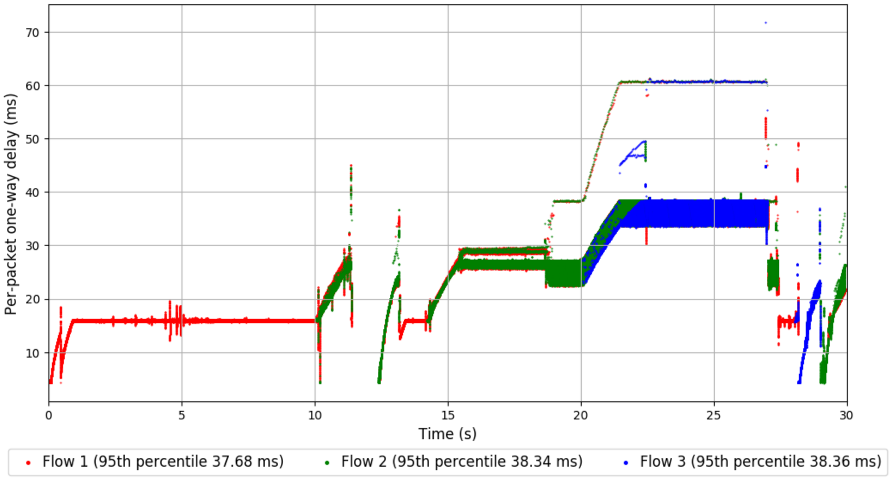
```
Run 4: Statistics of LEDBAT

Start at: Sun, 09 Jul 2017 23:42:03 +0000
End at: Sun, 09 Jul 2017 23:42:33 +0000
Local clock offset: -2.215 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:16 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 38.285 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 61.82 Mbit/s
95th percentile per-packet one-way delay: 37.682 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 38.340 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 30.58 Mbit/s
95th percentile per-packet one-way delay: 38.359 ms
Loss rate: 0.34%
```

Run 4: Report of LEDBAT — Data Link





```
Run 5: Statistics of LEDBAT

Start at: Sun, 09 Jul 2017 23:59:12 +0000
End at: Sun, 09 Jul 2017 23:59:42 +0000
Local clock offset: -2.417 ms
Remote clock offset: -0.066 ms
```

Run 5: Report of LEDBAT — Data Link

Figure is missing

Figure is missing

```
Run 6: Statistics of LEDBAT

Start at: Mon, 10 Jul 2017 00:16:17 +0000
End at: Mon, 10 Jul 2017 00:16:47 +0000
Local clock offset: -2.461 ms
Remote clock offset: -0.082 ms
```

Run 6: Report of LEDBAT — Data Link

Figure is missing

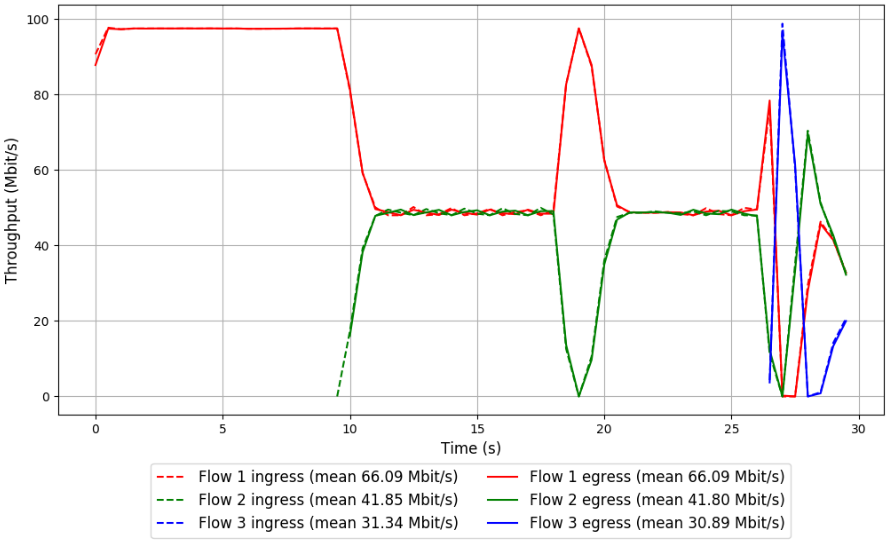
Figure is missing

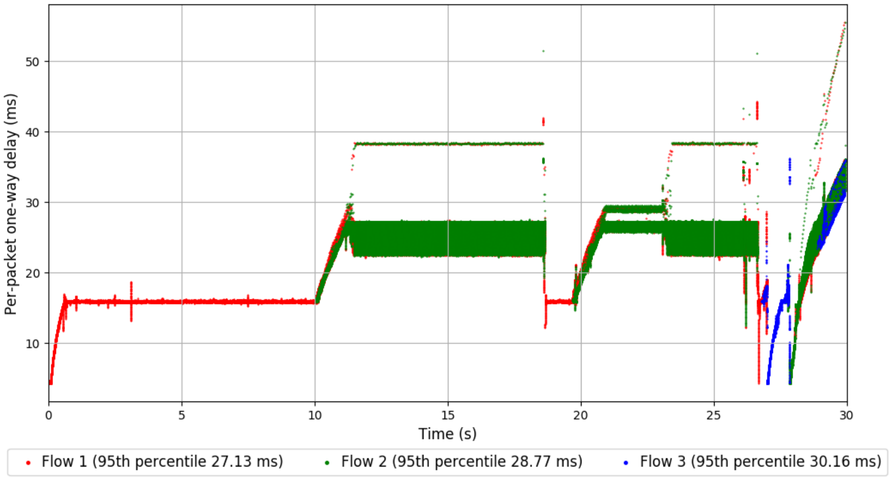
```
Run 7: Statistics of LEDBAT

Start at: Mon, 10 Jul 2017 00:33:21 +0000
End at: Mon, 10 Jul 2017 00:33:51 +0000
Local clock offset: -2.404 ms
Remote clock offset: -0.234 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:27 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 27.183 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 66.09 Mbit/s
95th percentile per-packet one-way delay: 27.131 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 41.80 Mbit/s
95th percentile per-packet one-way delay: 28.772 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 30.89 Mbit/s
95th percentile per-packet one-way delay: 30.163 ms
Loss rate: 1.93%
```

Run 7: Report of LEDBAT — Data Link





```
Run 8: Statistics of LEDBAT

Start at: Mon, 10 Jul 2017 00:50:32 +0000
End at: Mon, 10 Jul 2017 00:51:02 +0000
Local clock offset: -2.531 ms
Remote clock offset: -0.302 ms
```

Run 8: Report of LEDBAT — Data Link

Figure is missing

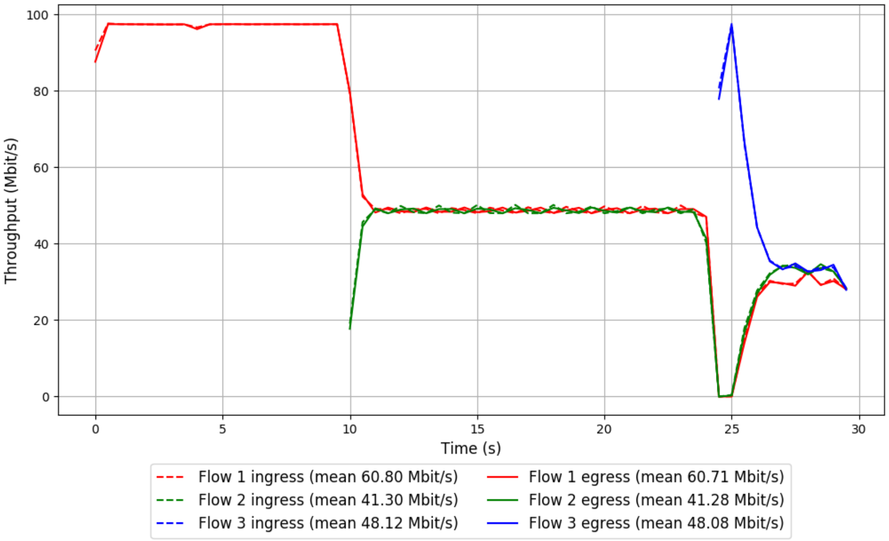
Figure is missing

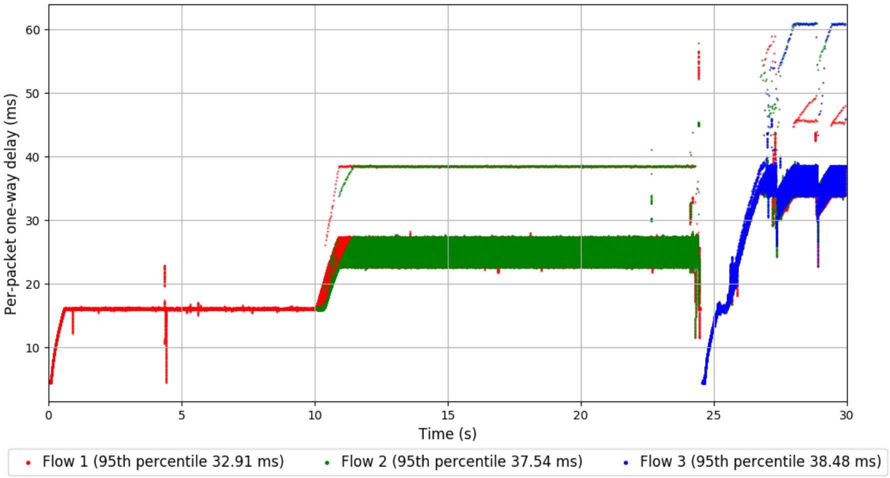
```
Run 9: Statistics of LEDBAT

Start at: Mon, 10 Jul 2017 01:07:35 +0000
End at: Mon, 10 Jul 2017 01:08:05 +0000
Local clock offset: -2.704 ms
Remote clock offset: -0.423 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:30 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.78 Mbit/s
95th percentile per-packet one-way delay: 36.169 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 60.71 Mbit/s
95th percentile per-packet one-way delay: 32.906 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 41.28 Mbit/s
95th percentile per-packet one-way delay: 37.539 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 48.08 Mbit/s
95th percentile per-packet one-way delay: 38.483 ms
Loss rate: 0.51%
```

Run 9: Report of LEDBAT — Data Link



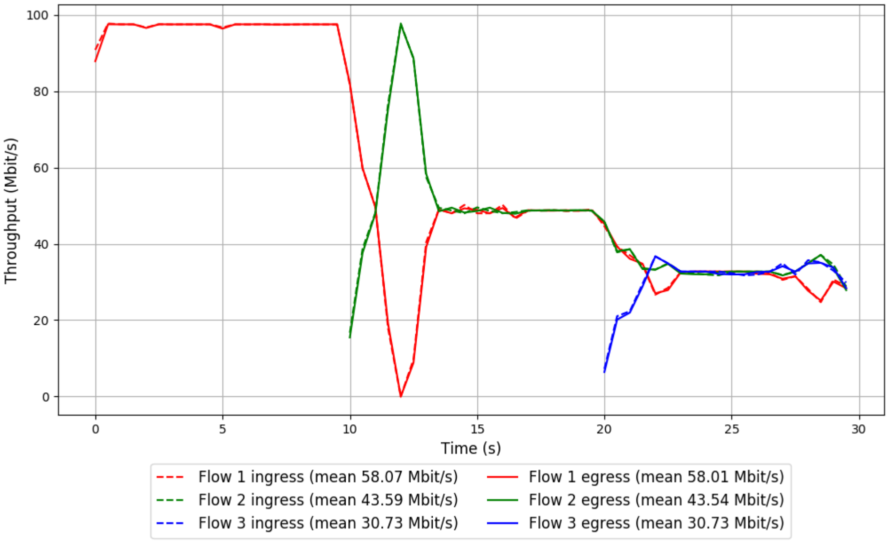


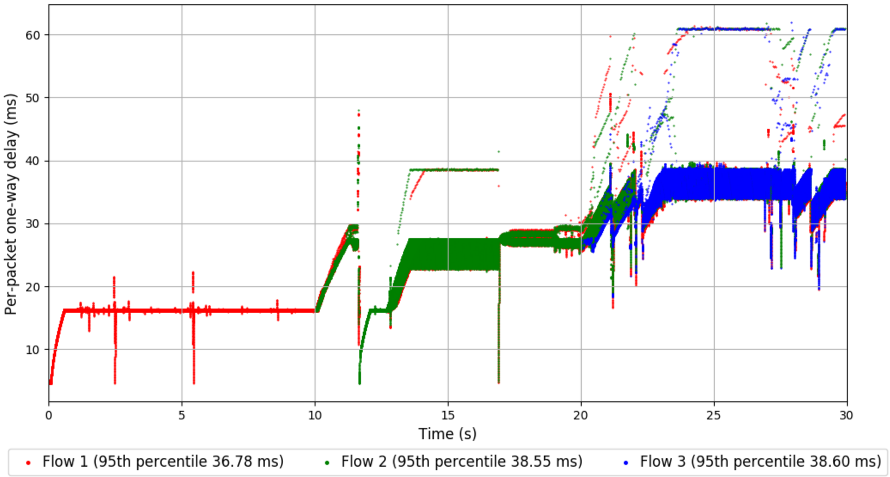
```
Run 10: Statistics of LEDBAT

Start at: Mon, 10 Jul 2017 01:24:38 +0000
End at: Mon, 10 Jul 2017 01:25:08 +0000
Local clock offset: -2.807 ms
Remote clock offset: -0.409 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:41 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 38.491 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 58.01 Mbit/s
95th percentile per-packet one-way delay: 36.781 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 43.54 Mbit/s
95th percentile per-packet one-way delay: 38.549 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 38.596 ms
Loss rate: 0.73%
```

Run 10: Report of LEDBAT — Data Link



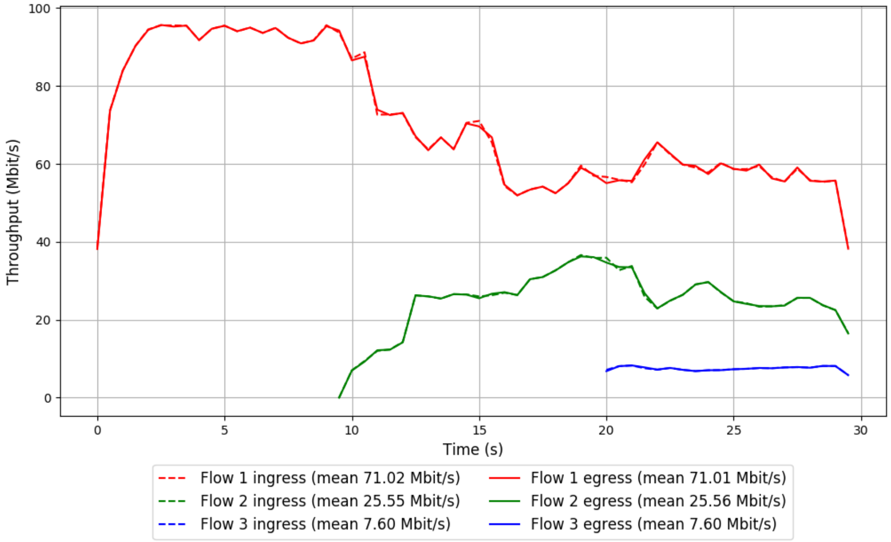


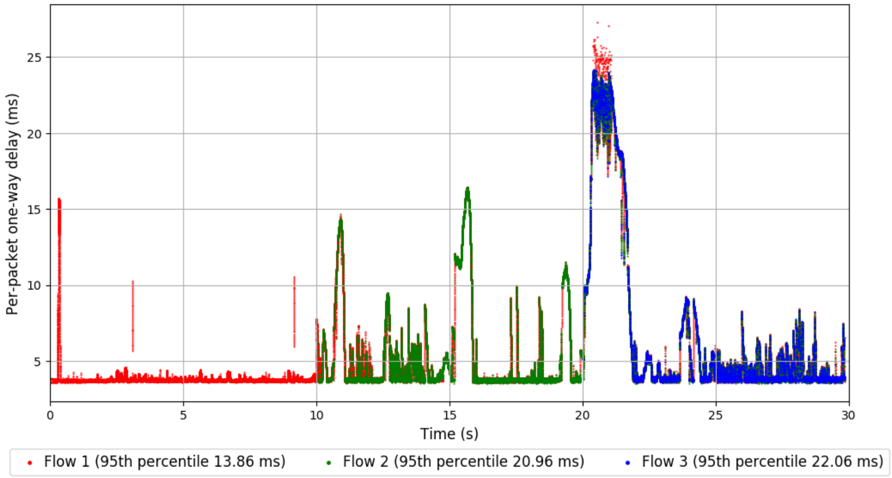
```
Run 1: Statistics of PCC

Start at: Sun, 09 Jul 2017 22:55:21 +0000
End at: Sun, 09 Jul 2017 22:55:51 +0000
Local clock offset: -1.777 ms
Remote clock offset: -7.577 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:43 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.50 Mbit/s
95th percentile per-packet one-way delay: 15.977 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 71.01 Mbit/s
95th percentile per-packet one-way delay: 13.859 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 25.56 Mbit/s
95th percentile per-packet one-way delay: 20.963 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 7.60 Mbit/s
95th percentile per-packet one-way delay: 22.057 ms
Loss rate: 0.07%
```

Run 1: Report of PCC — Data Link



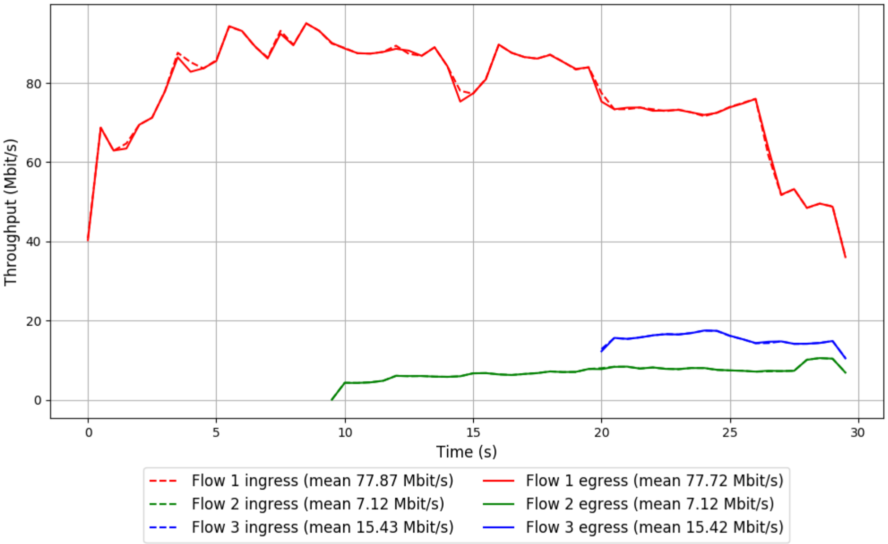


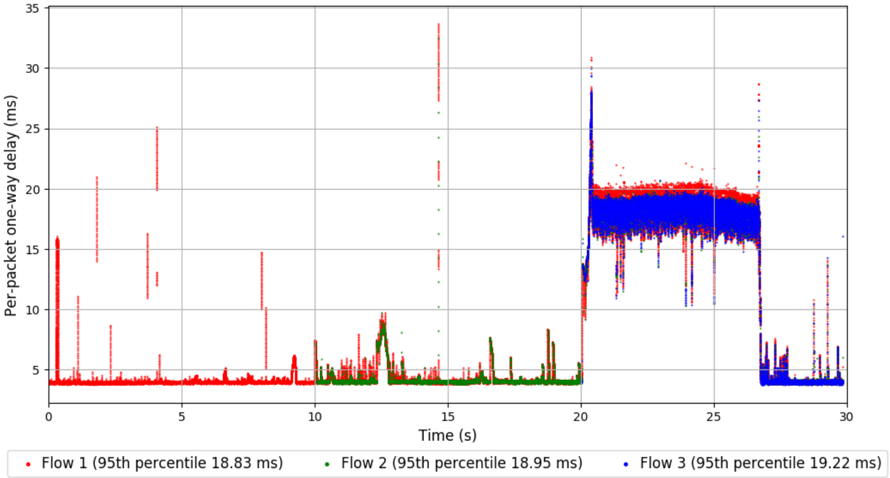
```
Run 2: Statistics of PCC

Start at: Sun, 09 Jul 2017 23:12:25 +0000
End at: Sun, 09 Jul 2017 23:12:55 +0000
Local clock offset: -1.927 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:52 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.51 Mbit/s
95th percentile per-packet one-way delay: 18.894 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 77.72 Mbit/s
95th percentile per-packet one-way delay: 18.828 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 18.954 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 15.42 Mbit/s
95th percentile per-packet one-way delay: 19.220 ms
Loss rate: 0.06%
```

Run 2: Report of PCC — Data Link



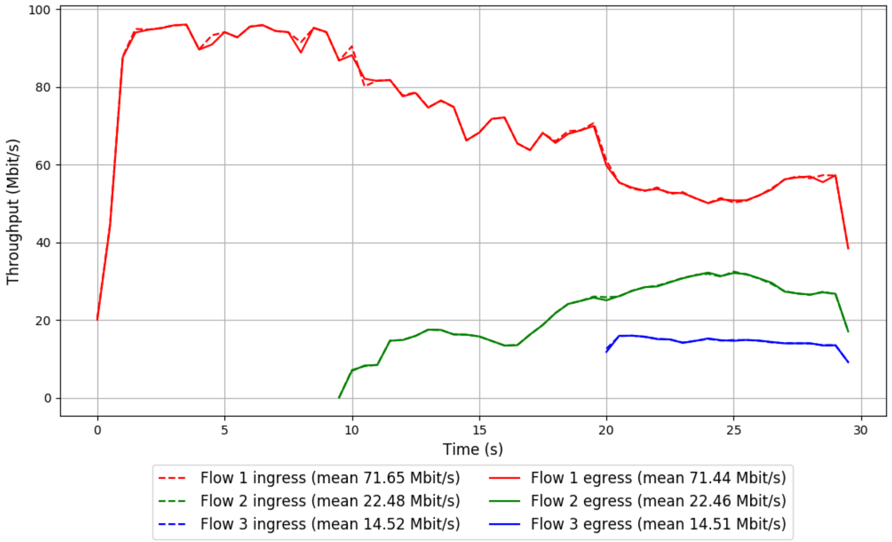


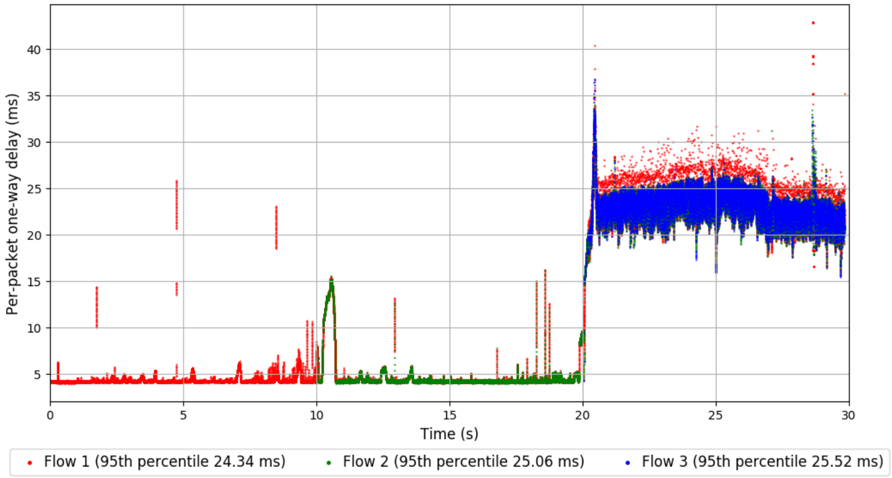
```
Run 3: Statistics of PCC

Start at: Sun, 09 Jul 2017 23:29:31 +0000
End at: Sun, 09 Jul 2017 23:30:01 +0000
Local clock offset: -2.148 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:28:56 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.15 Mbit/s
95th percentile per-packet one-way delay: 24.688 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 71.44 Mbit/s
95th percentile per-packet one-way delay: 24.344 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 22.46 Mbit/s
95th percentile per-packet one-way delay: 25.059 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 14.51 Mbit/s
95th percentile per-packet one-way delay: 25.521 ms
Loss rate: 0.22%
```

Run 3: Report of PCC — Data Link



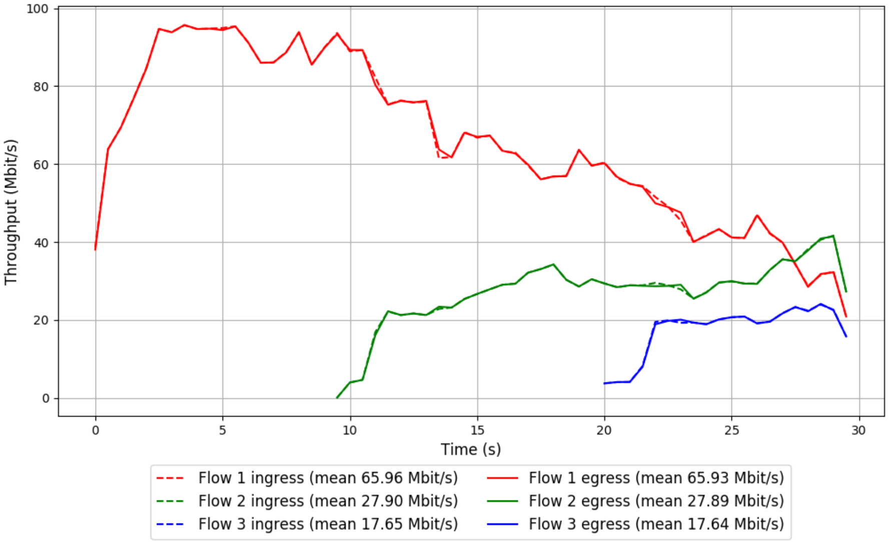


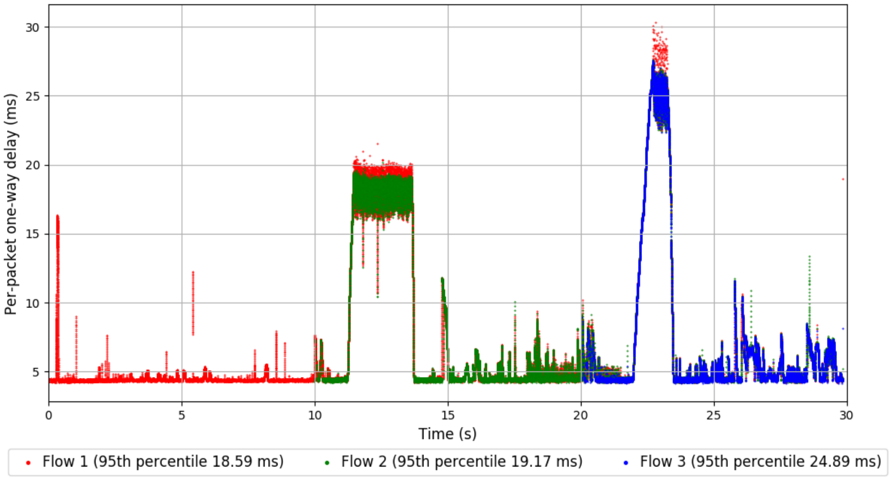
```
Run 4: Statistics of PCC

Start at: Sun, 09 Jul 2017 23:46:42 +0000
End at: Sun, 09 Jul 2017 23:47:12 +0000
Local clock offset: -2.262 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:08 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.28 Mbit/s
95th percentile per-packet one-way delay: 18.773 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 65.93 Mbit/s
95th percentile per-packet one-way delay: 18.587 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 27.89 Mbit/s
95th percentile per-packet one-way delay: 19.173 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 17.64 Mbit/s
95th percentile per-packet one-way delay: 24.895 ms
Loss rate: 0.08%
```

Run 4: Report of PCC — Data Link



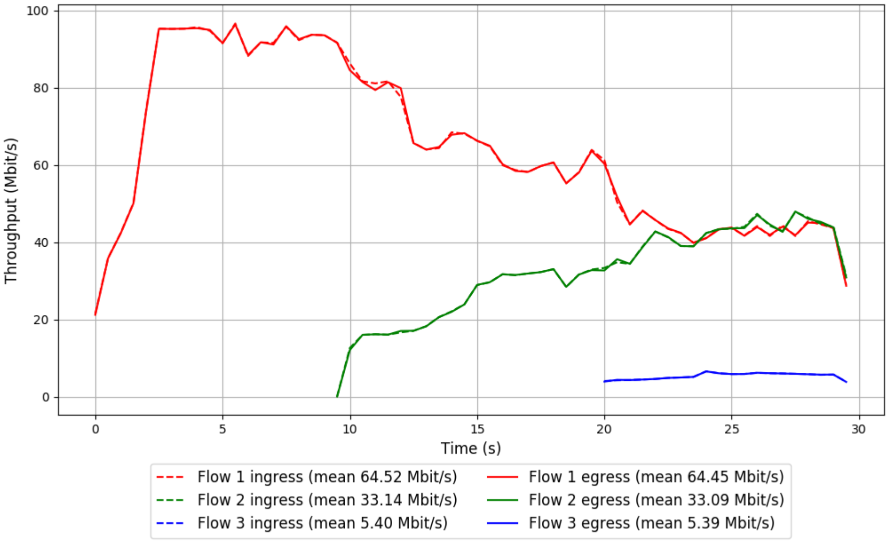


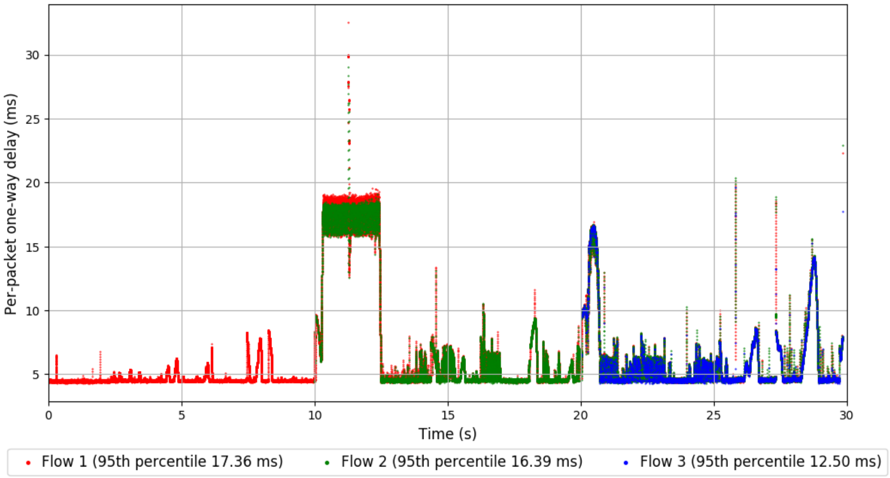
```
Run 5: Statistics of PCC

Start at: Mon, 10 Jul 2017 00:03:48 +0000
End at: Mon, 10 Jul 2017 00:04:18 +0000
Local clock offset: -2.424 ms
Remote clock offset: -0.065 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:09 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.25 Mbit/s
95th percentile per-packet one-way delay: 17.148 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 64.45 Mbit/s
95th percentile per-packet one-way delay: 17.355 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 16.395 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 5.39 Mbit/s
95th percentile per-packet one-way delay: 12.501 ms
Loss rate: 0.07%
```

Run 5: Report of PCC — Data Link



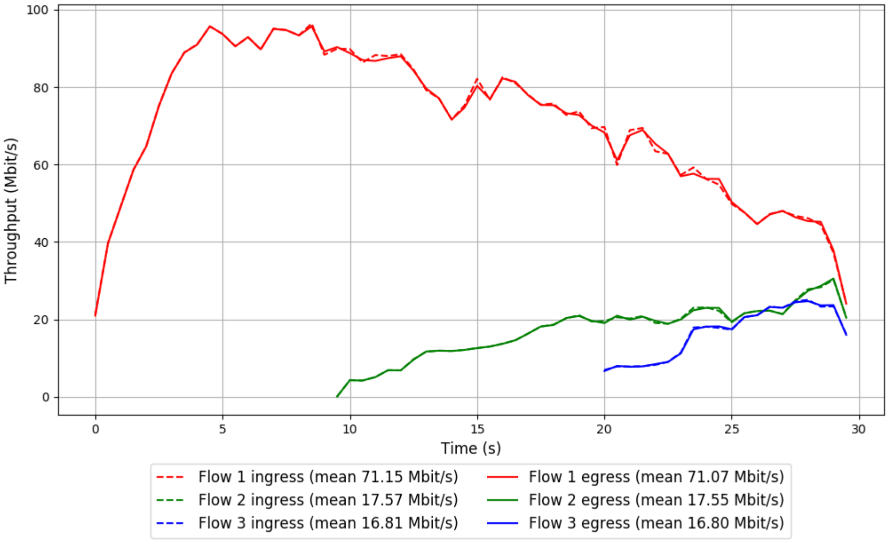


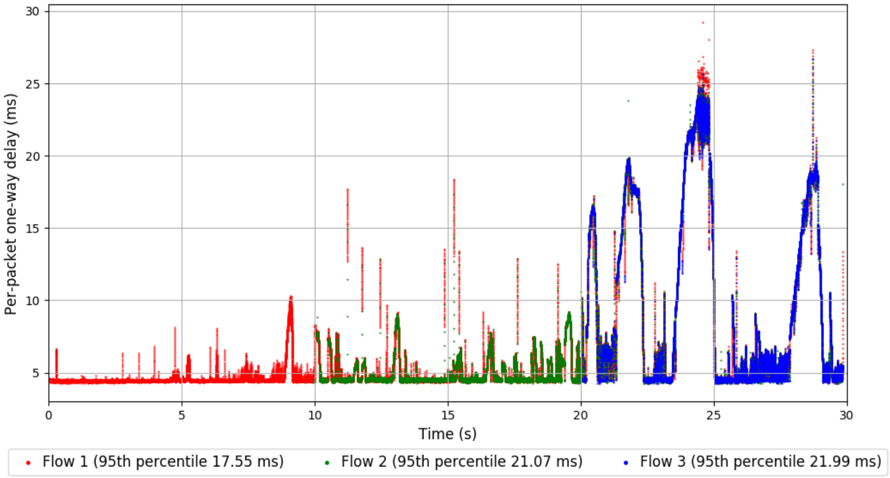
```
Run 6: Statistics of PCC

Start at: Mon, 10 Jul 2017 00:20:53 +0000
End at: Mon, 10 Jul 2017 00:21:23 +0000
Local clock offset: -2.446 ms
Remote clock offset: -0.171 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:21 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 18.599 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 71.07 Mbit/s
95th percentile per-packet one-way delay: 17.545 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 17.55 Mbit/s
95th percentile per-packet one-way delay: 21.073 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 16.80 Mbit/s
95th percentile per-packet one-way delay: 21.993 ms
Loss rate: 0.12%
```

Run 6: Report of PCC — Data Link



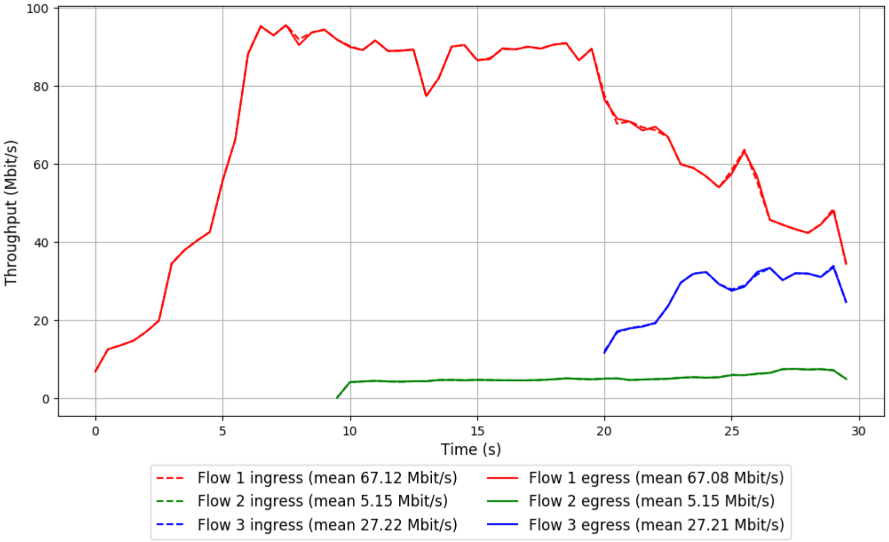


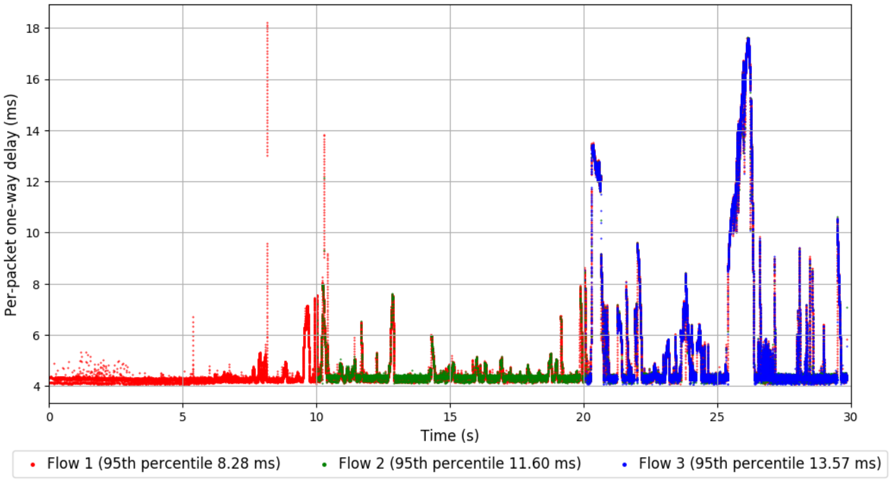
```
Run 7: Statistics of PCC

Start at: Mon, 10 Jul 2017 00:38:00 +0000
End at: Mon, 10 Jul 2017 00:38:30 +0000
Local clock offset: -2.377 ms
Remote clock offset: -0.2 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:21 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.47 Mbit/s
95th percentile per-packet one-way delay: 10.031 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 67.08 Mbit/s
95th percentile per-packet one-way delay: 8.280 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 11.598 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 27.21 Mbit/s
95th percentile per-packet one-way delay: 13.568 ms
Loss rate: 0.08%
```

Run 7: Report of PCC — Data Link



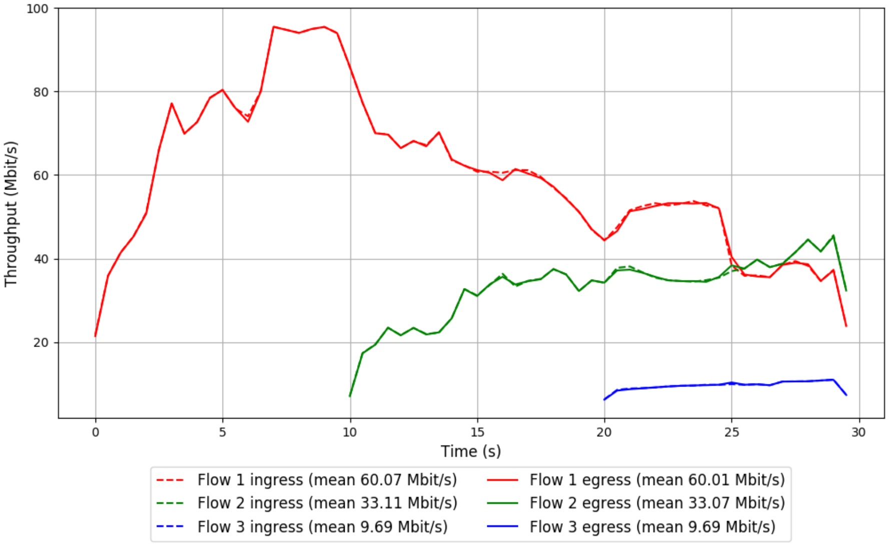


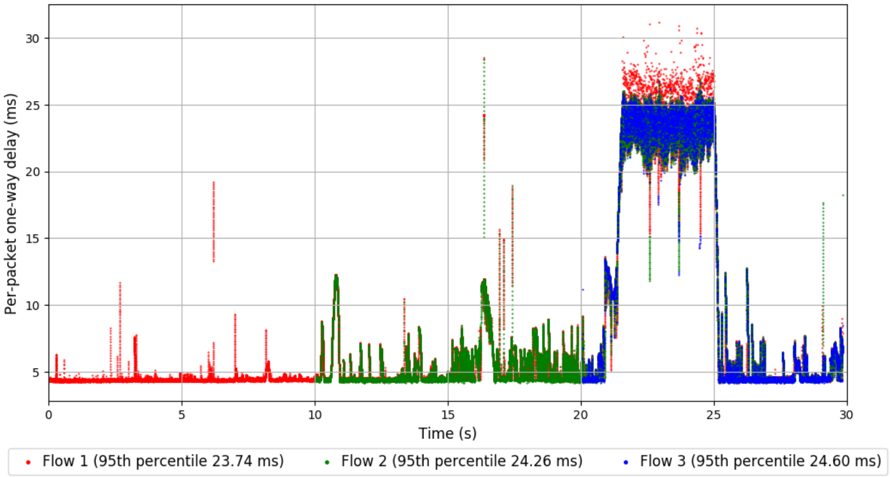
```
Run 8: Statistics of PCC

Start at: Mon, 10 Jul 2017 00:55:07 +0000
End at: Mon, 10 Jul 2017 00:55:37 +0000
Local clock offset: -2.592 ms
Remote clock offset: -0.322 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:33 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.16 Mbit/s
95th percentile per-packet one-way delay: 24.020 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 23.738 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 33.07 Mbit/s
95th percentile per-packet one-way delay: 24.264 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 24.599 ms
Loss rate: 0.09%
```

Run 8: Report of PCC — Data Link



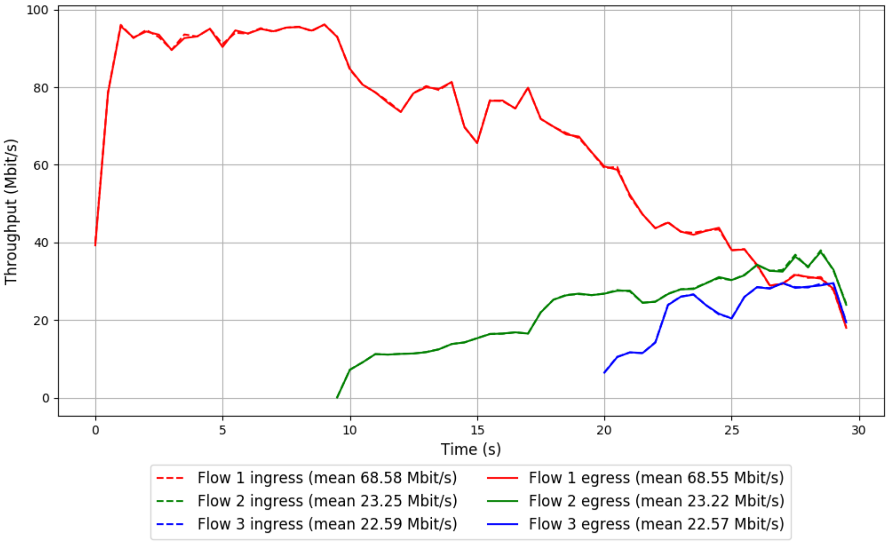


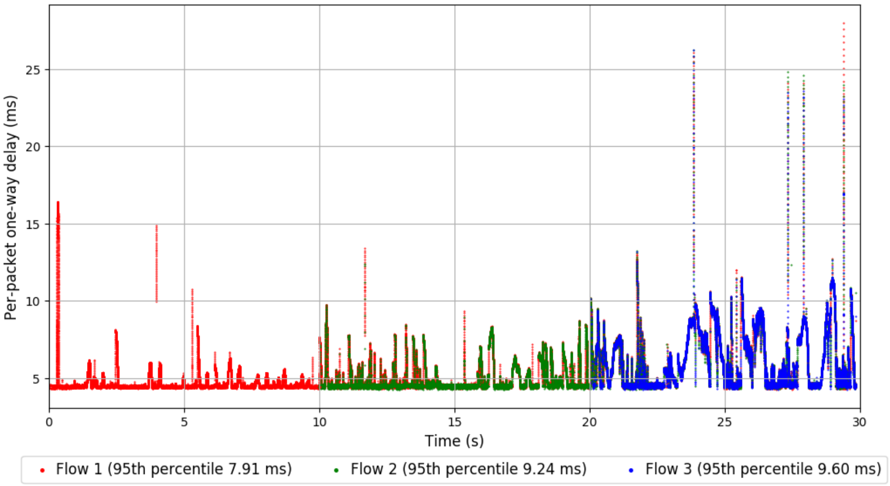
```
Run 9: Statistics of PCC

Start at: Mon, 10 Jul 2017 01:12:14 +0000
End at: Mon, 10 Jul 2017 01:12:44 +0000
Local clock offset: -2.734 ms
Remote clock offset: -0.352 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:34 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.42 Mbit/s
95th percentile per-packet one-way delay: 8.659 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 68.55 Mbit/s
95th percentile per-packet one-way delay: 7.906 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 23.22 Mbit/s
95th percentile per-packet one-way delay: 9.241 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 22.57 Mbit/s
95th percentile per-packet one-way delay: 9.598 ms
Loss rate: 0.14%
```

Run 9: Report of PCC — Data Link



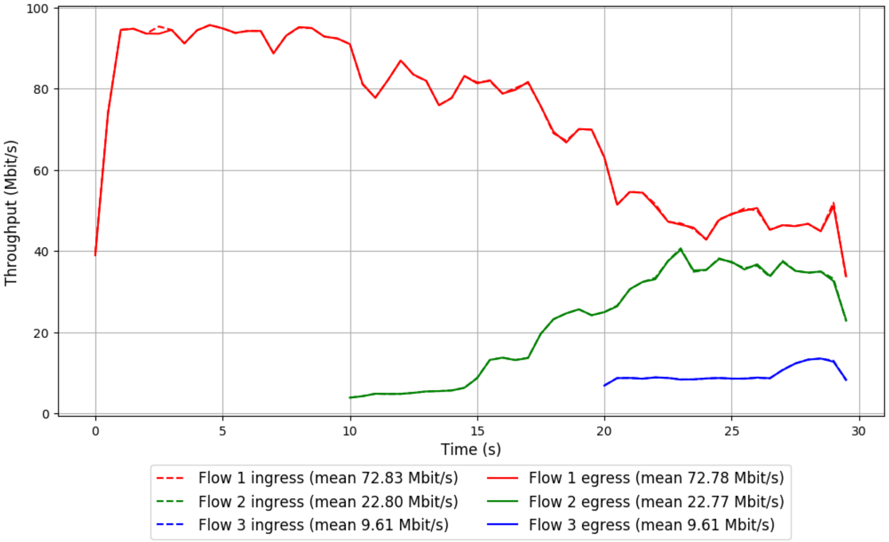


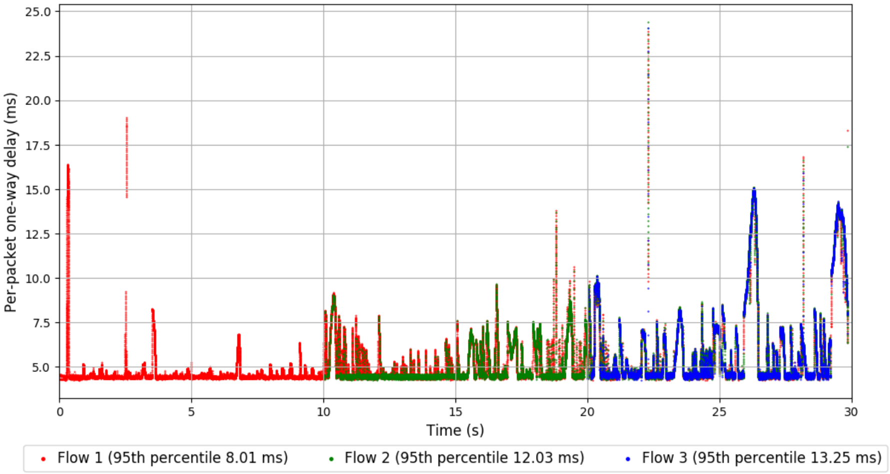
```
Run 10: Statistics of PCC

Start at: Mon, 10 Jul 2017 01:29:17 +0000
End at: Mon, 10 Jul 2017 01:29:47 +0000
Local clock offset: -2.854 ms
Remote clock offset: -0.519 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:45 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.09 Mbit/s
95th percentile per-packet one-way delay: 8.914 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 72.78 Mbit/s
95th percentile per-packet one-way delay: 8.014 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 22.77 Mbit/s
95th percentile per-packet one-way delay: 12.027 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 9.61 Mbit/s
95th percentile per-packet one-way delay: 13.247 ms
Loss rate: 0.07%
```

Run 10: Report of PCC — Data Link



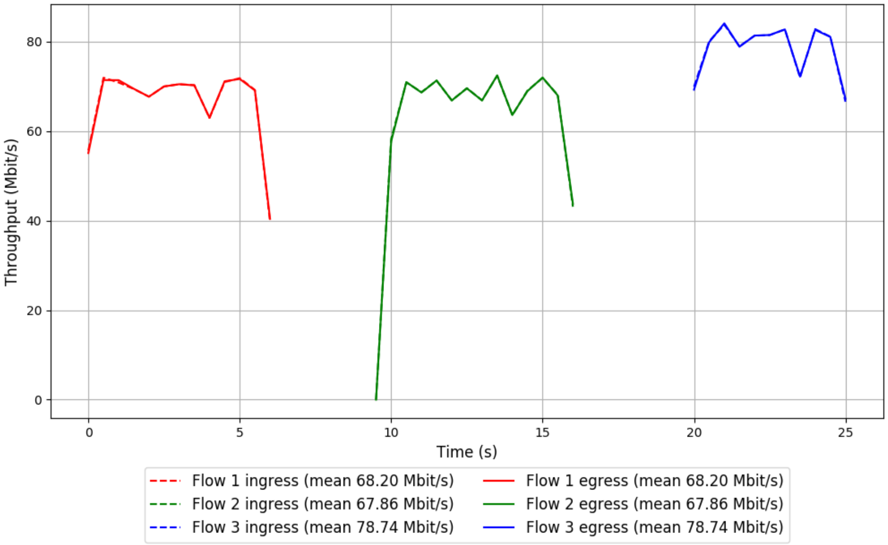


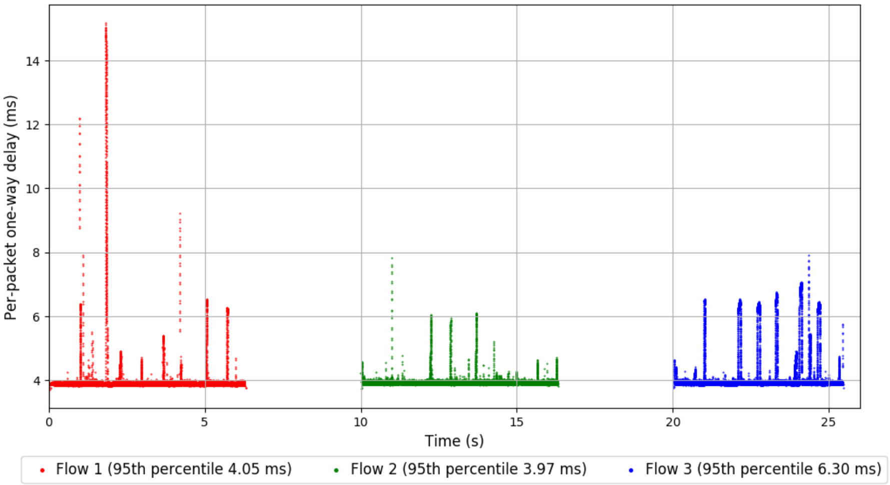
```
Run 1: Statistics of QUIC Cubic

Start at: Sun, 09 Jul 2017 23:03:15 +0000
End at: Sun, 09 Jul 2017 23:03:45 +0000
Local clock offset: -1.85 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:45 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.68 Mbit/s
95th percentile per-packet one-way delay: 4.688 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.20 Mbit/s
95th percentile per-packet one-way delay: 4.049 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 67.86 Mbit/s
95th percentile per-packet one-way delay: 3.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 78.74 Mbit/s
95th percentile per-packet one-way delay: 6.304 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



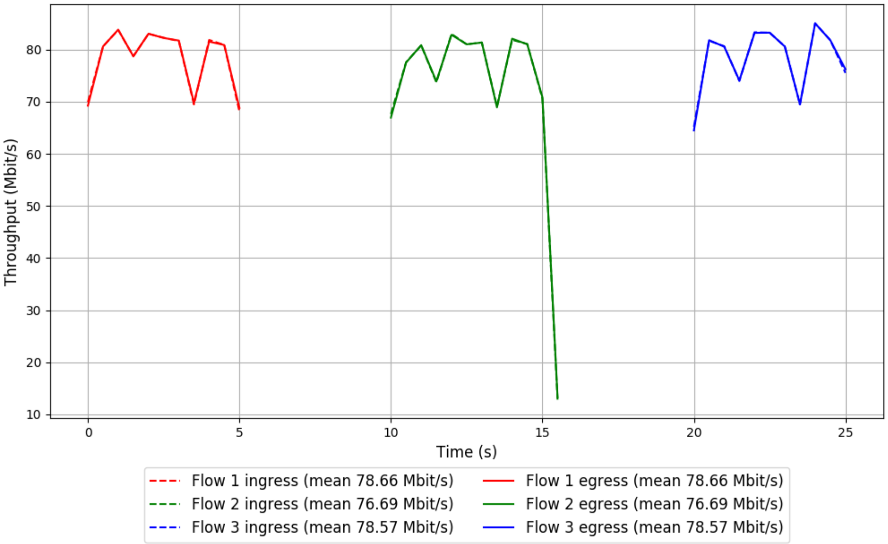


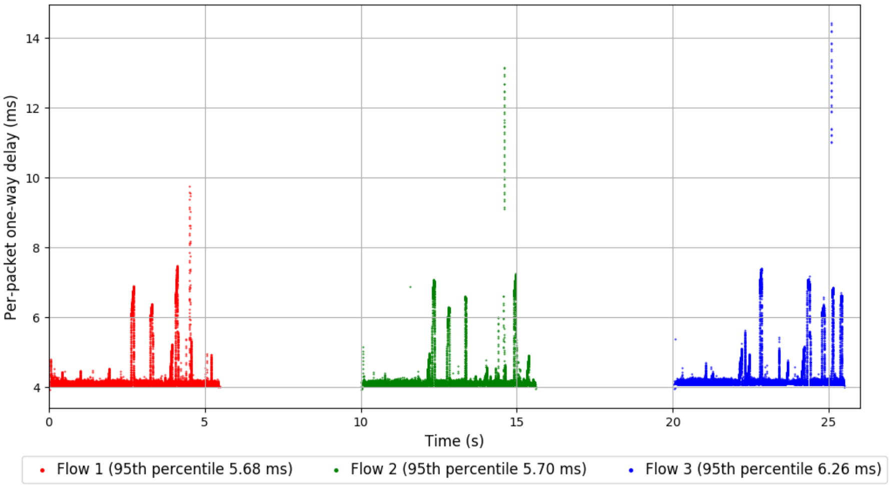
```
Run 2: Statistics of QUIC Cubic

Start at: Sun, 09 Jul 2017 23:20:25 +0000
End at: Sun, 09 Jul 2017 23:20:55 +0000
Local clock offset: -2.054 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:49 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 6.024 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.66 Mbit/s
95th percentile per-packet one-way delay: 5.678 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.69 Mbit/s
95th percentile per-packet one-way delay: 5.701 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 78.57 Mbit/s
95th percentile per-packet one-way delay: 6.258 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



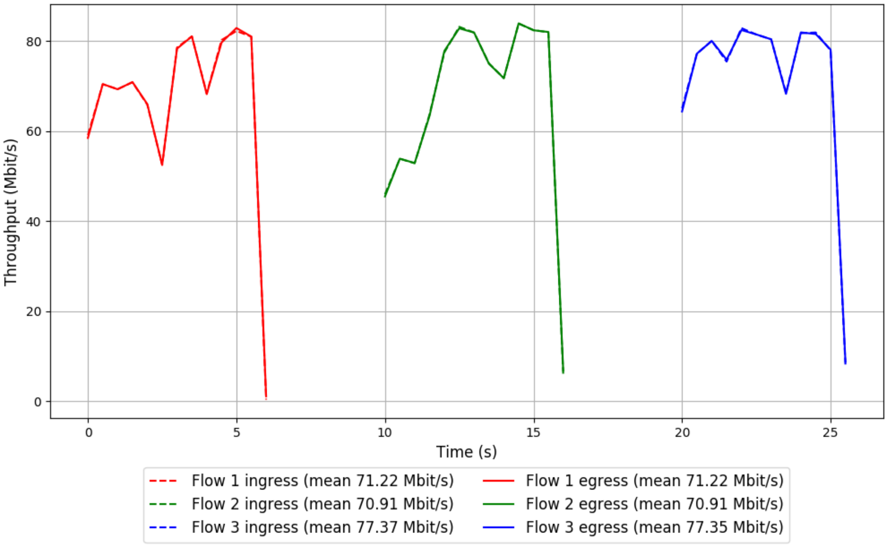


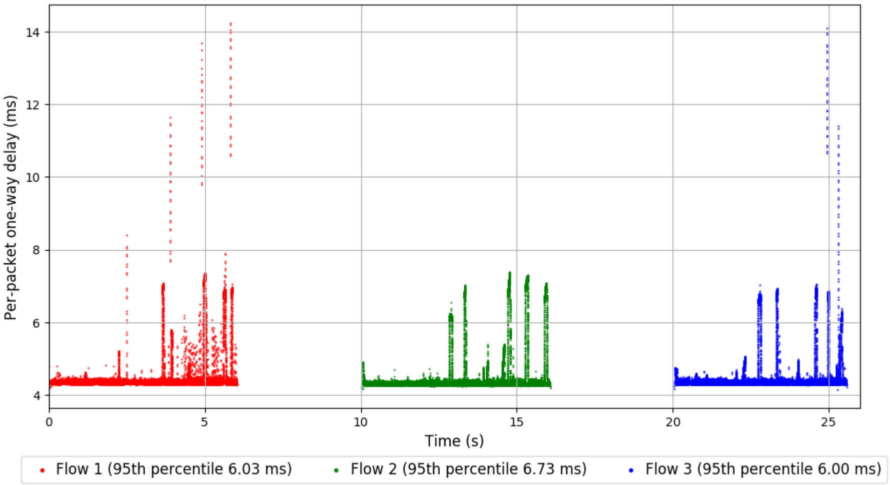
```
Run 3: Statistics of QUIC Cubic

Start at: Sun, 09 Jul 2017 23:37:30 +0000
End at: Sun, 09 Jul 2017 23:38:00 +0000
Local clock offset: -2.238 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:52 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.45 Mbit/s
95th percentile per-packet one-way delay: 6.205 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 71.22 Mbit/s
95th percentile per-packet one-way delay: 6.029 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.91 Mbit/s
95th percentile per-packet one-way delay: 6.730 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 77.35 Mbit/s
95th percentile per-packet one-way delay: 5.997 ms
Loss rate: 0.03%
```

Run 3: Report of QUIC Cubic — Data Link

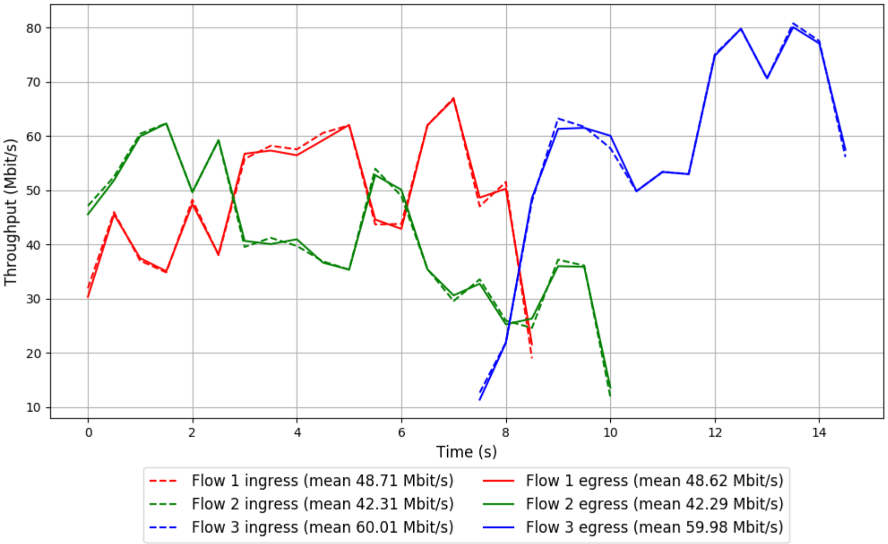


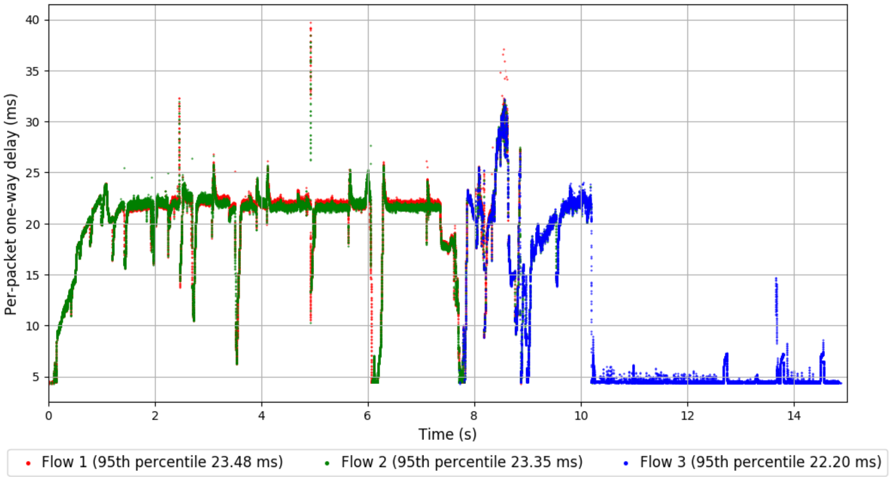


```
Run 4: Statistics of QUIC Cubic

Start at: Sun, 09 Jul 2017 23:54:39 +0000
End at: Sun, 09 Jul 2017 23:55:09 +0000
Local clock offset: -2.36 ms
Remote clock offset: -0.05 ms
```

Run 4: Report of QUIC Cubic — Data Link



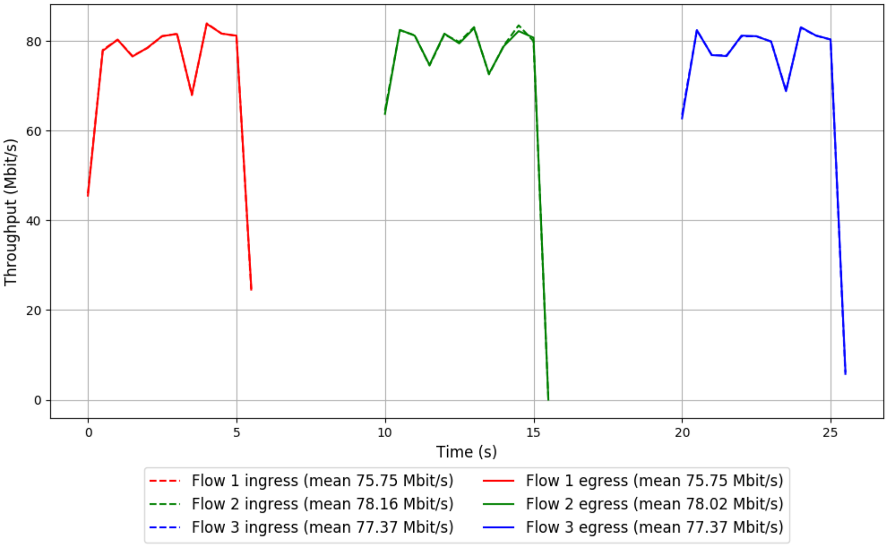


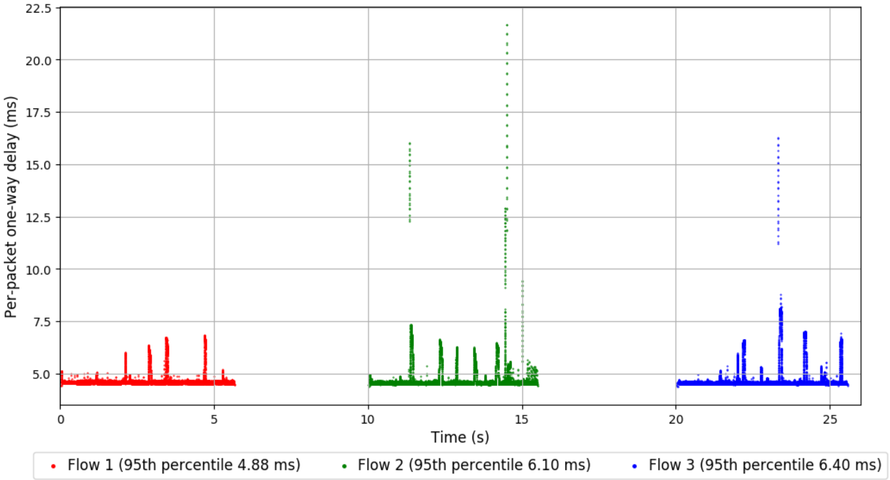
```
Run 5: Statistics of QUIC Cubic

Start at: Mon, 10 Jul 2017 00:11:45 +0000
End at: Mon, 10 Jul 2017 00:12:15 +0000
Local clock offset: -2.453 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:29:59 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.47 Mbit/s
95th percentile per-packet one-way delay: 5.935 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 75.75 Mbit/s
95th percentile per-packet one-way delay: 4.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 78.02 Mbit/s
95th percentile per-packet one-way delay: 6.103 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 77.37 Mbit/s
95th percentile per-packet one-way delay: 6.403 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

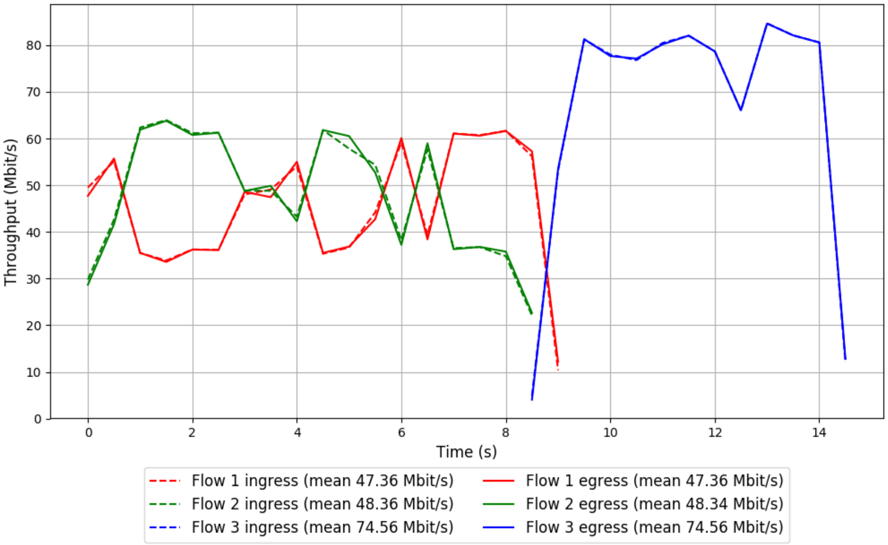


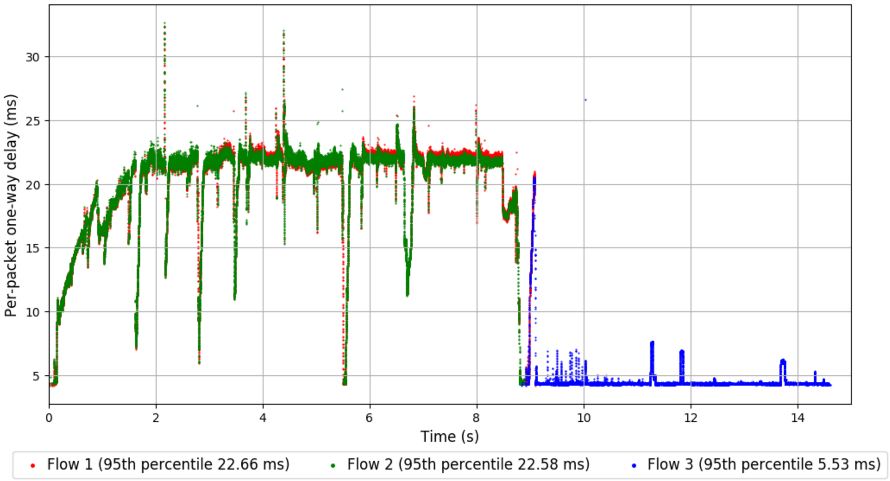


```
Run 6: Statistics of QUIC Cubic

Start at: Mon, 10 Jul 2017 00:28:48 +0000
End at: Mon, 10 Jul 2017 00:29:18 +0000
Local clock offset: -2.376 ms
Remote clock offset: -0.162 ms
```

Run 6: Report of QUIC Cubic — Data Link



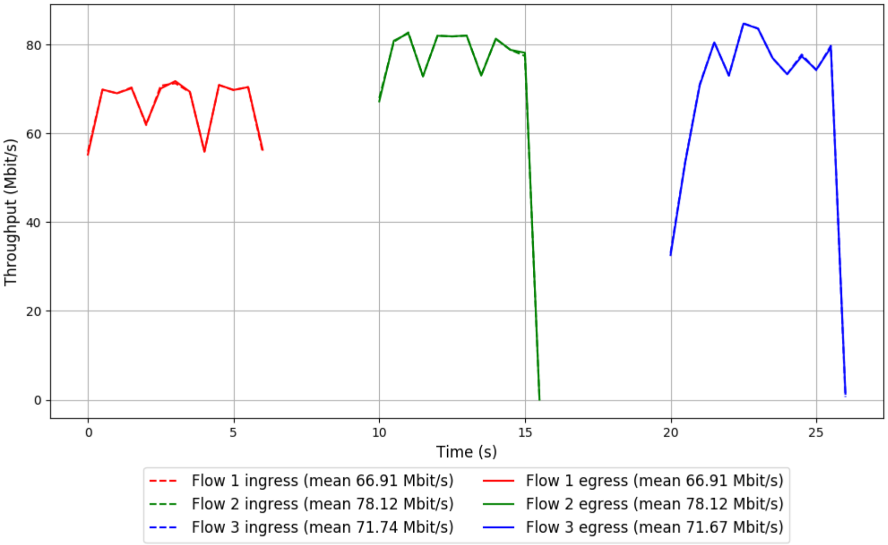


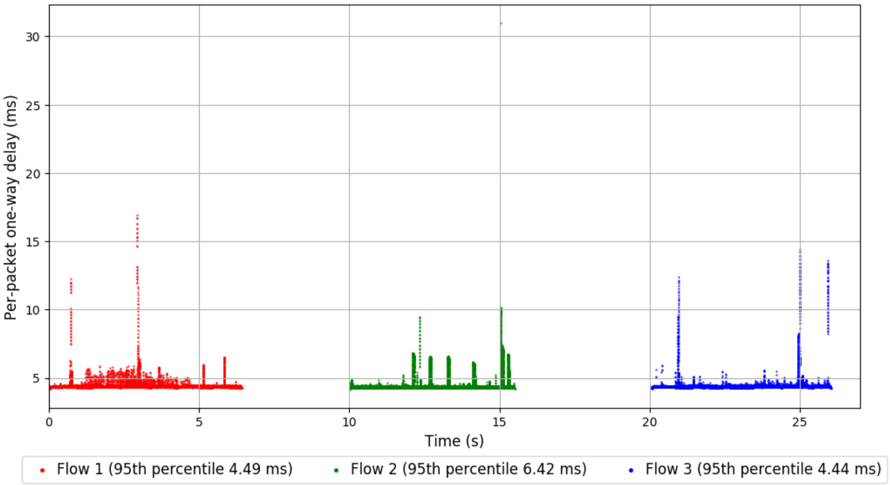
```
Run 7: Statistics of QUIC Cubic

Start at: Mon, 10 Jul 2017 00:45:59 +0000
End at: Mon, 10 Jul 2017 00:46:29 +0000
Local clock offset: -2.476 ms
Remote clock offset: -0.369 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:06 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.58 Mbit/s
95th percentile per-packet one-way delay: 4.768 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 66.91 Mbit/s
95th percentile per-packet one-way delay: 4.490 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 78.12 Mbit/s
95th percentile per-packet one-way delay: 6.416 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.67 Mbit/s
95th percentile per-packet one-way delay: 4.438 ms
Loss rate: 0.11%
```

Run 7: Report of QUIC Cubic — Data Link



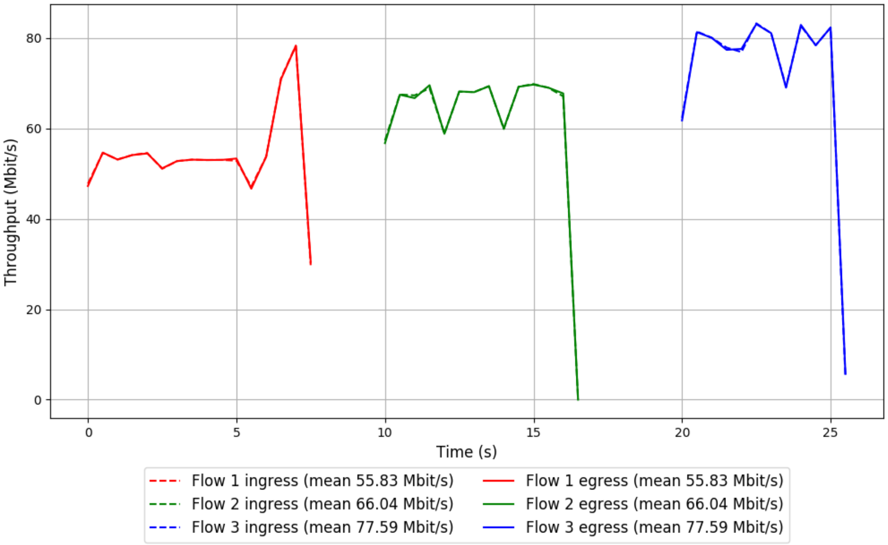


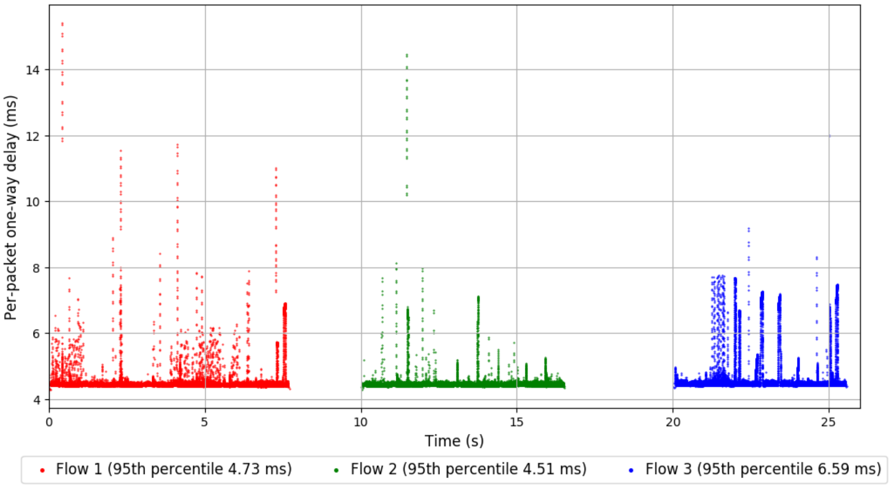
```
Run 8: Statistics of QUIC Cubic

Start at: Mon, 10 Jul 2017 01:03:02 +0000
End at: Mon, 10 Jul 2017 01:03:32 +0000
Local clock offset: -2.667 ms
Remote clock offset: -0.466 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:10 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.48 Mbit/s
95th percentile per-packet one-way delay: 4.909 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 4.726 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.04 Mbit/s
95th percentile per-packet one-way delay: 4.506 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 77.59 Mbit/s
95th percentile per-packet one-way delay: 6.587 ms
Loss rate: 0.00%
```

Run 8: Report of QUIC Cubic — Data Link



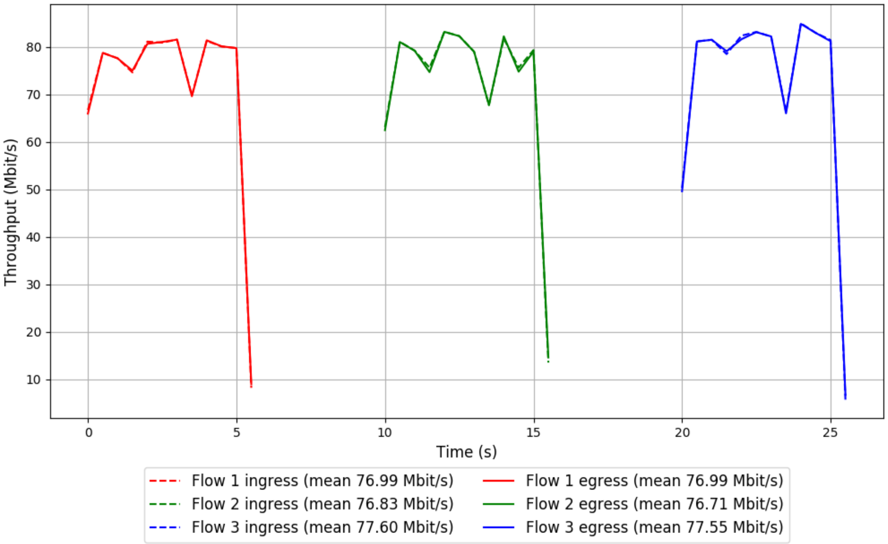


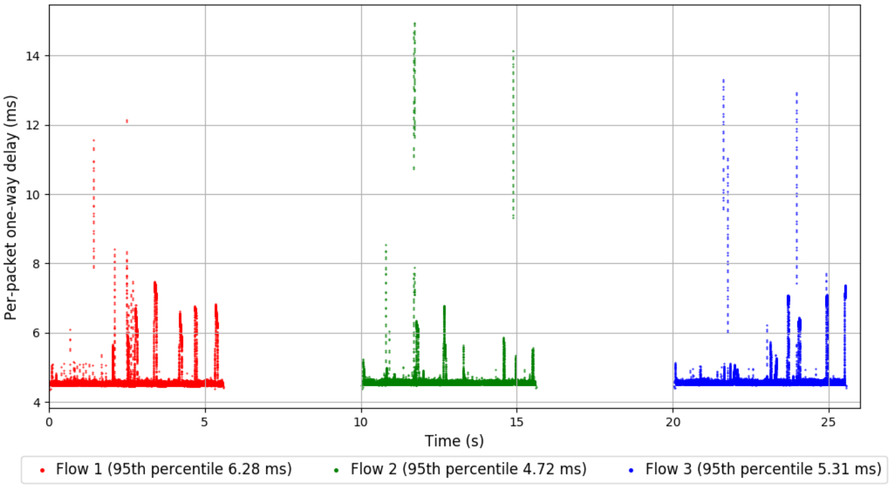
```
Run 9: Statistics of QUIC Cubic

Start at: Mon, 10 Jul 2017 01:20:08 +0000
End at: Mon, 10 Jul 2017 01:20:38 +0000
Local clock offset: -2.77 ms
Remote clock offset: -0.386 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:13 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.48 Mbit/s
95th percentile per-packet one-way delay: 5.614 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 76.99 Mbit/s
95th percentile per-packet one-way delay: 6.279 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.71 Mbit/s
95th percentile per-packet one-way delay: 4.721 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 77.55 Mbit/s
95th percentile per-packet one-way delay: 5.309 ms
Loss rate: 0.07%
```

Run 9: Report of QUIC Cubic — Data Link



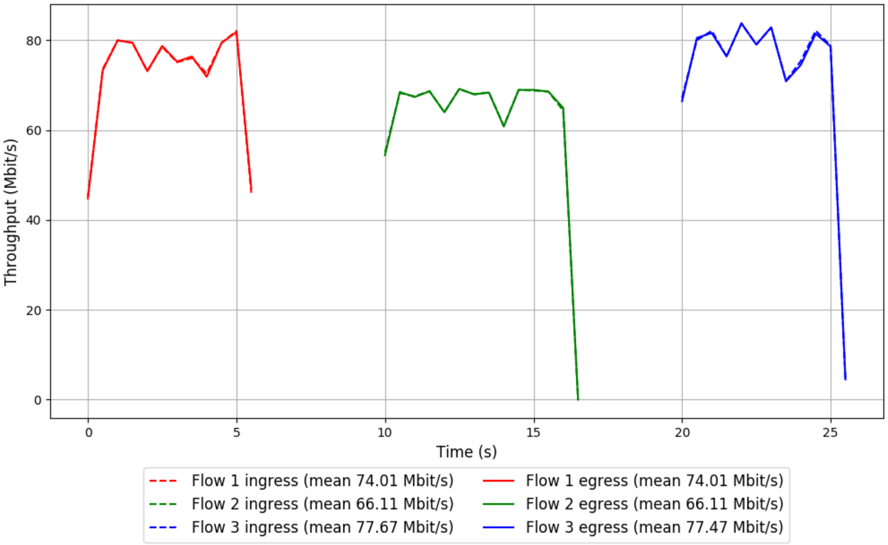


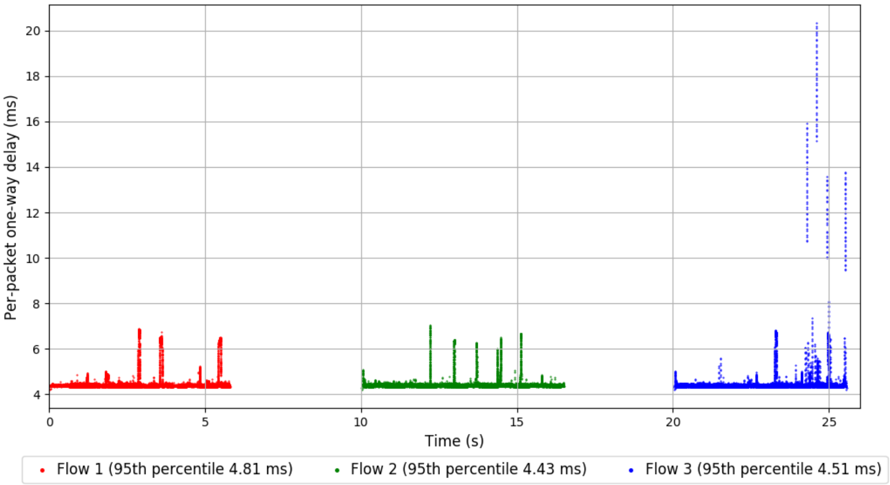
```
Run 10: Statistics of QUIC Cubic

Start at: Mon, 10 Jul 2017 01:37:14 +0000
End at: Mon, 10 Jul 2017 01:37:44 +0000
Local clock offset: -2.874 ms
Remote clock offset: -0.635 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.48 Mbit/s
95th percentile per-packet one-way delay: 4.539 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 74.01 Mbit/s
95th percentile per-packet one-way delay: 4.812 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.11 Mbit/s
95th percentile per-packet one-way delay: 4.432 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 77.47 Mbit/s
95th percentile per-packet one-way delay: 4.508 ms
Loss rate: 0.26%
```

Run 10: Report of QUIC Cubic — Data Link





```
Run 1: Statistics of Saturator

Start at: Sun, 09 Jul 2017 23:02:07 +0000
End at: Sun, 09 Jul 2017 23:02:37 +0000
Local clock offset: -1.855 ms
Remote clock offset: -0.1 ms
```

Run 1: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 2: Statistics of Saturator

Start at: Sun, 09 Jul 2017 23:19:16 +0000
End at: Sun, 09 Jul 2017 23:19:46 +0000
Local clock offset: -2.053 ms
Remote clock offset: -0.049 ms
```

Run 2: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 3: Statistics of Saturator

Start at: Sun, 09 Jul 2017 23:36:22 +0000
End at: Sun, 09 Jul 2017 23:36:52 +0000
Local clock offset: -2.228 ms
Remote clock offset: -0.108 ms
```

Run 3: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 4: Statistics of Saturator

Start at: Sun, 09 Jul 2017 23:53:30 +0000
End at: Sun, 09 Jul 2017 23:54:00 +0000
Local clock offset: -2.36 ms
Remote clock offset: -0.028 ms
```

Run 4: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 5: Statistics of Saturator

Start at: Mon, 10 Jul 2017 00:10:37 +0000
End at: Mon, 10 Jul 2017 00:11:07 +0000
Local clock offset: -2.446 ms
Remote clock offset: -0.029 ms
```

Run 5: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 6: Statistics of Saturator

Start at: Mon, 10 Jul 2017 00:27:39 +0000
End at: Mon, 10 Jul 2017 00:28:09 +0000
Local clock offset: -2.363 ms
Remote clock offset: -0.171 ms
```

Run 6: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 7: Statistics of Saturator

Start at: Mon, 10 Jul 2017 00:44:50 +0000
End at: Mon, 10 Jul 2017 00:45:20 +0000
Local clock offset: -2.448 ms
Remote clock offset: -0.251 ms
```

Run 7: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 8: Statistics of Saturator

Start at: Mon, 10 Jul 2017 01:01:54 +0000
End at: Mon, 10 Jul 2017 01:02:24 +0000
Local clock offset: -2.654 ms
Remote clock offset: -0.348 ms
```

Run 8: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 9: Statistics of Saturator

Start at: Mon, 10 Jul 2017 01:19:00 +0000
End at: Mon, 10 Jul 2017 01:19:30 +0000
Local clock offset: -2.78 ms
Remote clock offset: -0.425 ms
```

Run 9: Report of Saturator — Data Link

Figure is missing

Figure is missing

```
Run 10: Statistics of Saturator

Start at: Mon, 10 Jul 2017 01:36:06 +0000
End at: Mon, 10 Jul 2017 01:36:36 +0000
Local clock offset: -2.881 ms
Remote clock offset: -0.639 ms
```

Run 10: Report of Saturator — Data Link

Figure is missing

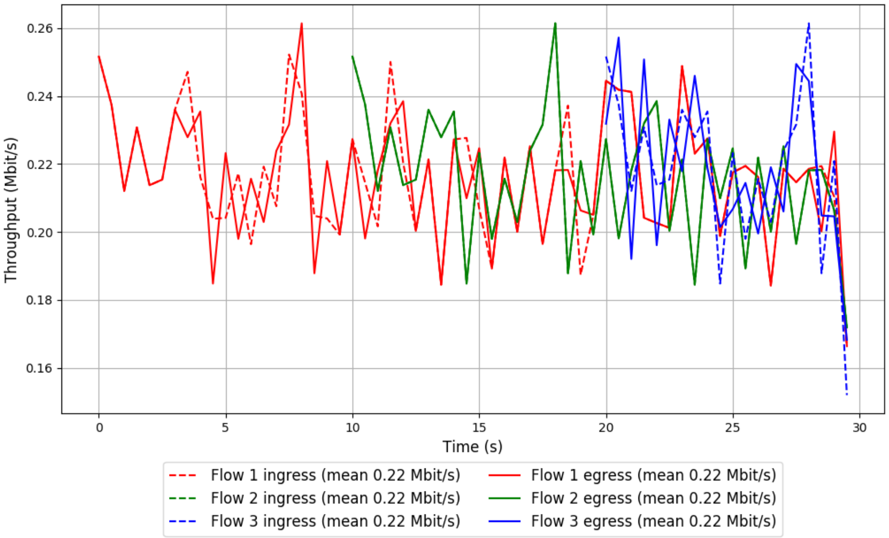
Figure is missing

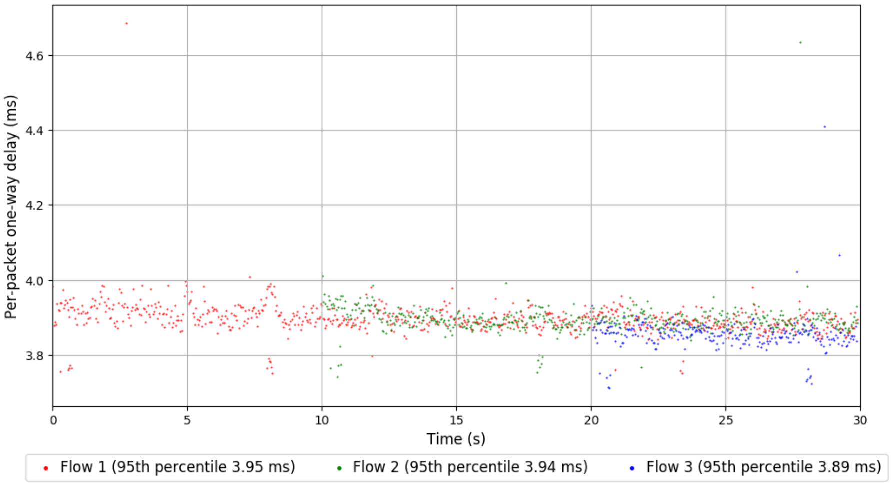
```
Run 1: Statistics of SCReAM

Start at: Sun, 09 Jul 2017 23:04:22 +0000
End at: Sun, 09 Jul 2017 23:04:52 +0000
Local clock offset: -1.846 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.949 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.937 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.888 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



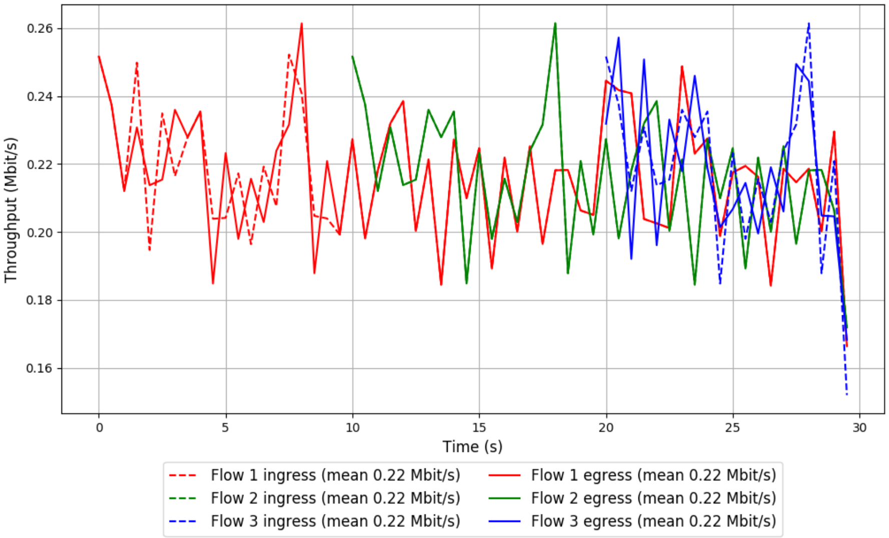


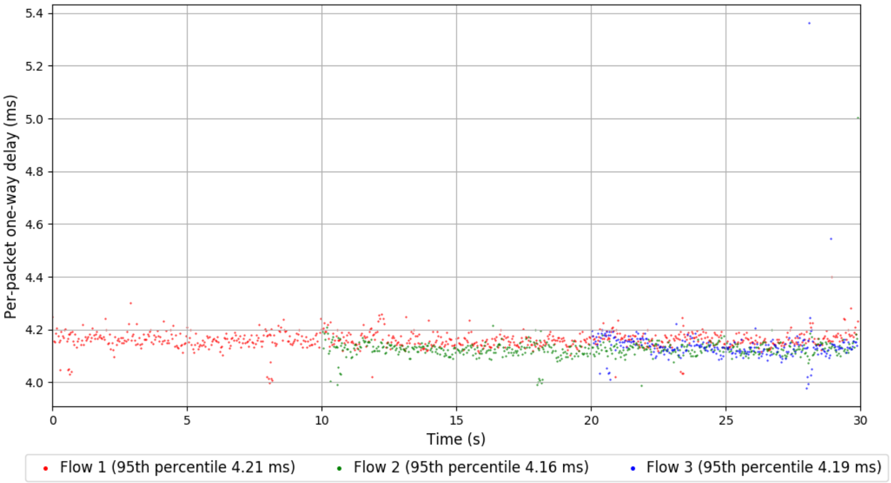
```
Run 2: Statistics of SCReAM

Start at: Sun, 09 Jul 2017 23:21:31 +0000
End at: Sun, 09 Jul 2017 23:22:01 +0000
Local clock offset: -2.116 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.198 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.209 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.163 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.187 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



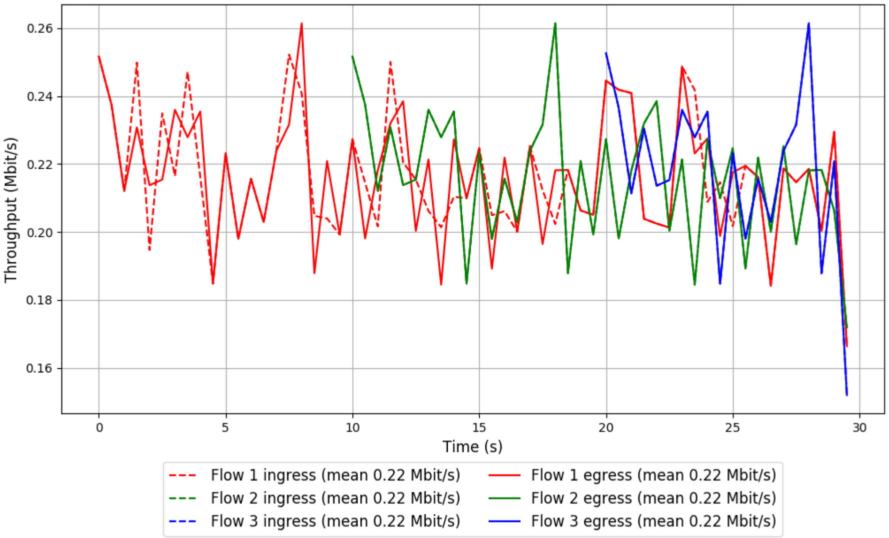


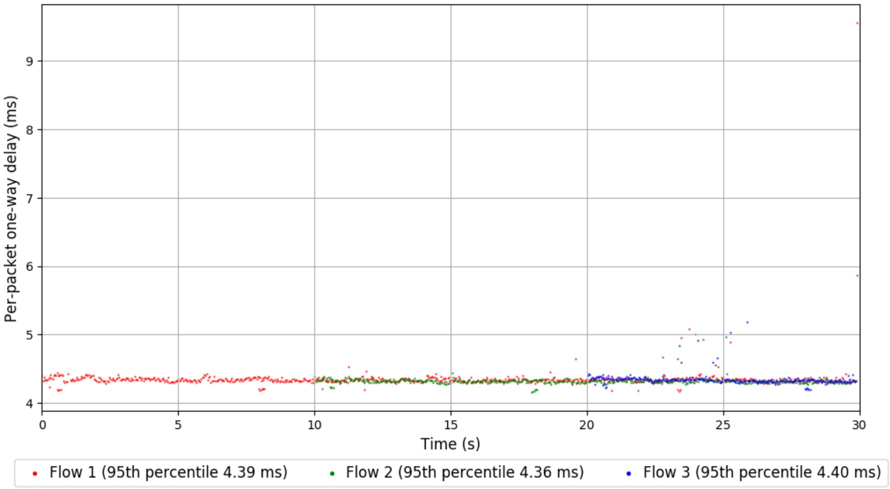
```
Run 3: Statistics of SCReAM

Start at: Sun, 09 Jul 2017 23:38:37 +0000
End at: Sun, 09 Jul 2017 23:39:07 +0000
Local clock offset: -2.225 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.388 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.395 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.362 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.401 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



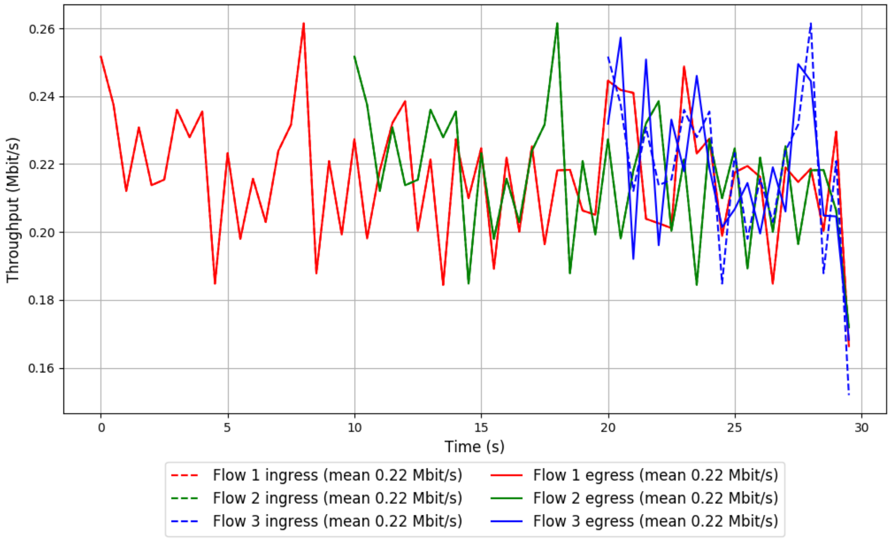


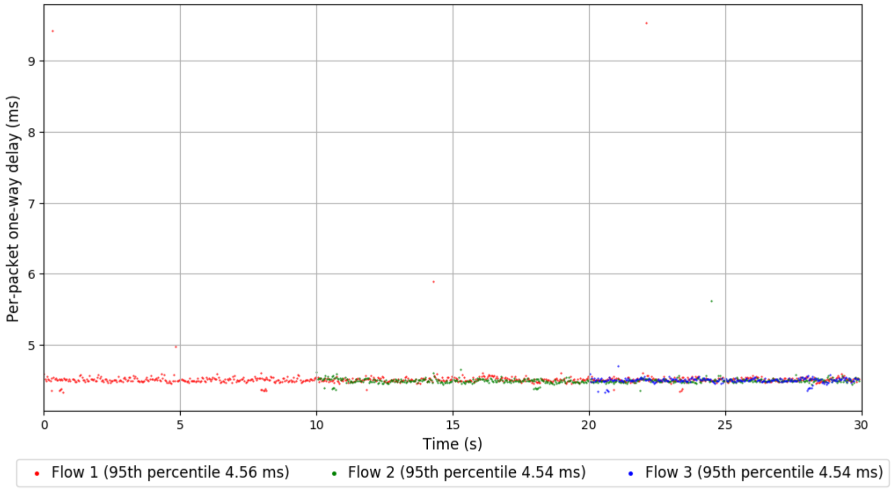
```
Run 4: Statistics of SCReAM

Start at: Sun, 09 Jul 2017 23:55:45 +0000
End at: Sun, 09 Jul 2017 23:56:15 +0000
Local clock offset: -2.374 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.552 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.562 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.539 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.543 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



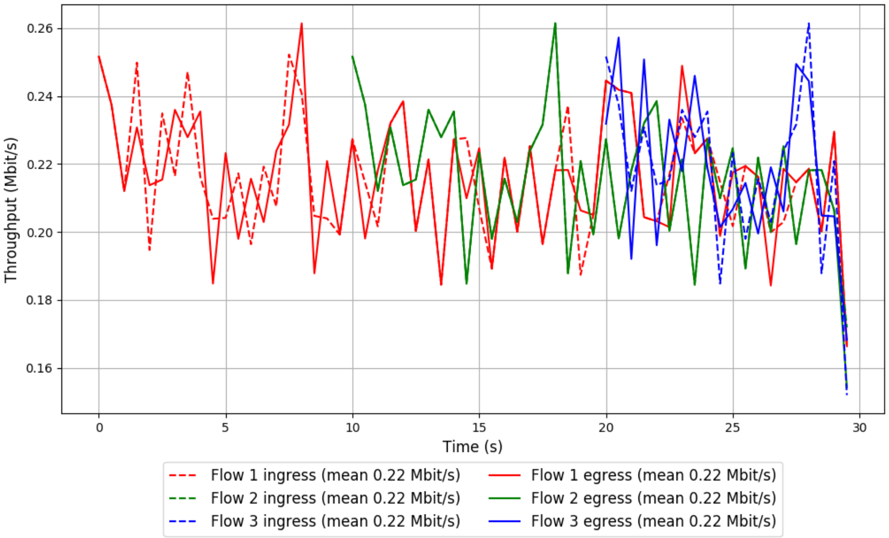


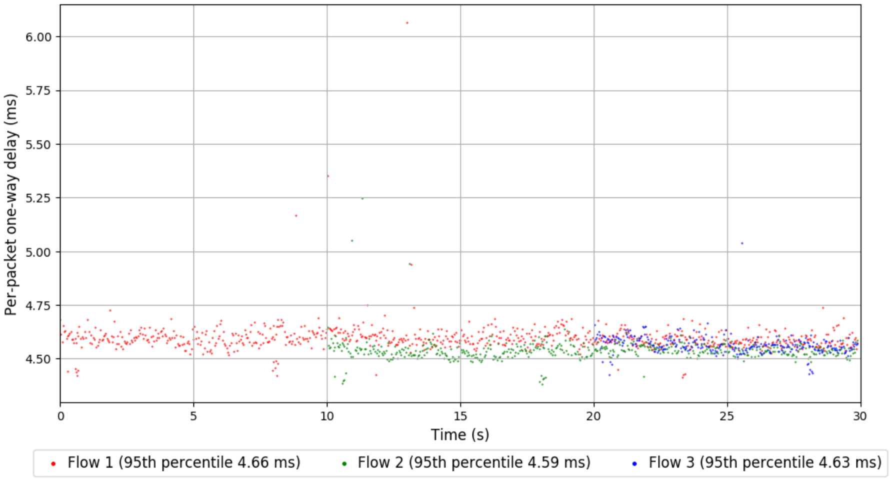
```
Run 5: Statistics of SCReAM

Start at: Mon, 10 Jul 2017 00:12:51 +0000
End at: Mon, 10 Jul 2017 00:13:21 +0000
Local clock offset: -2.467 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.647 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.659 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.587 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.626 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



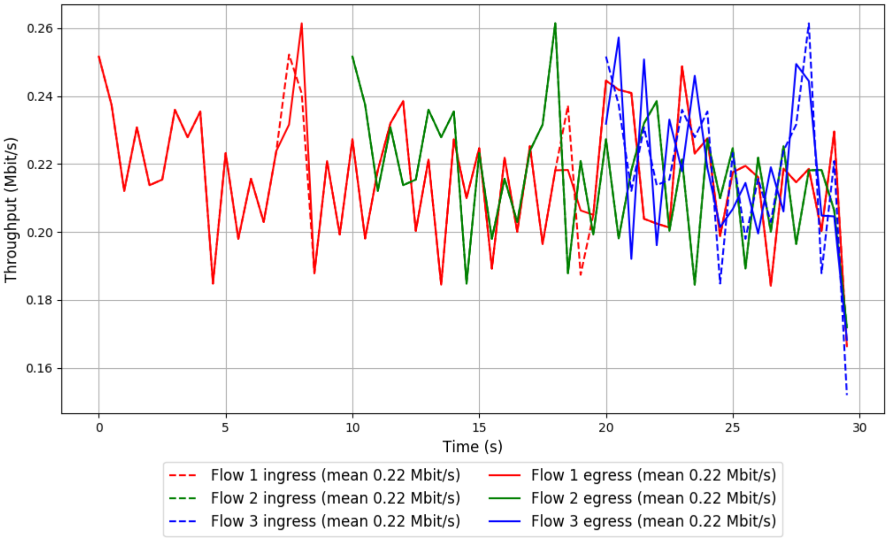


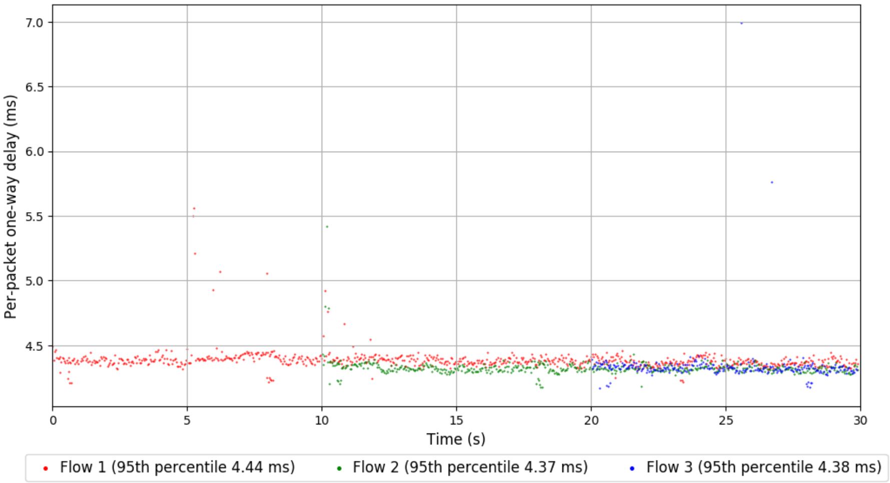
```
Run 6: Statistics of SCReAM

Start at: Mon, 10 Jul 2017 00:29:54 +0000
End at: Mon, 10 Jul 2017 00:30:24 +0000
Local clock offset: -2.365 ms
Remote clock offset: -0.194 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.428 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.443 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.374 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.380 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



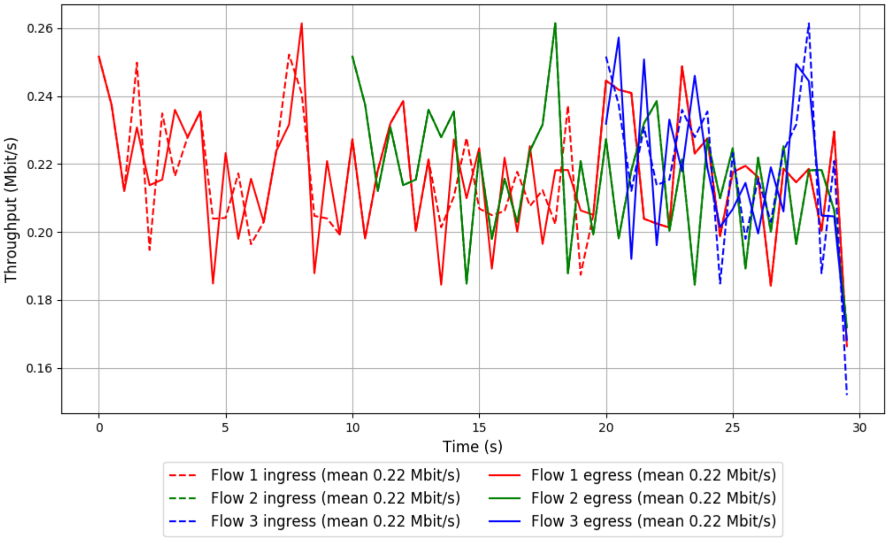


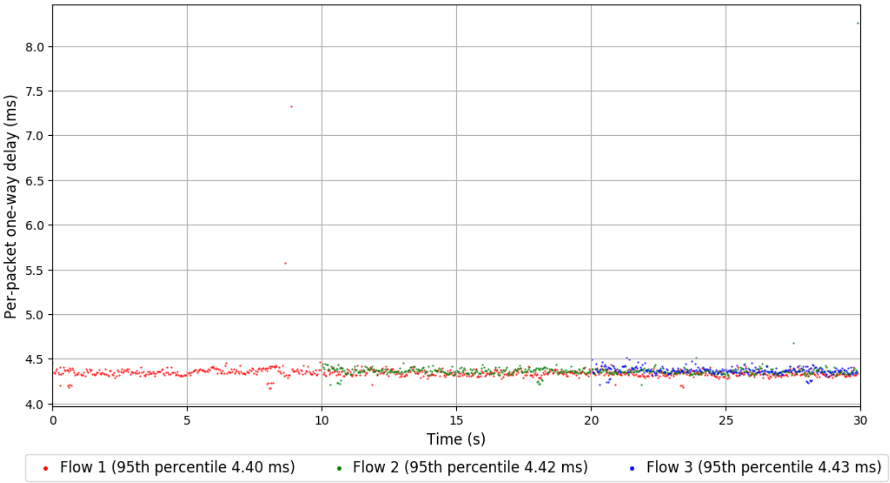
```
Run 7: Statistics of SCReAM

Start at: Mon, 10 Jul 2017 00:47:05 +0000
End at: Mon, 10 Jul 2017 00:47:35 +0000
Local clock offset: -2.572 ms
Remote clock offset: -0.346 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.404 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.417 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.435 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link



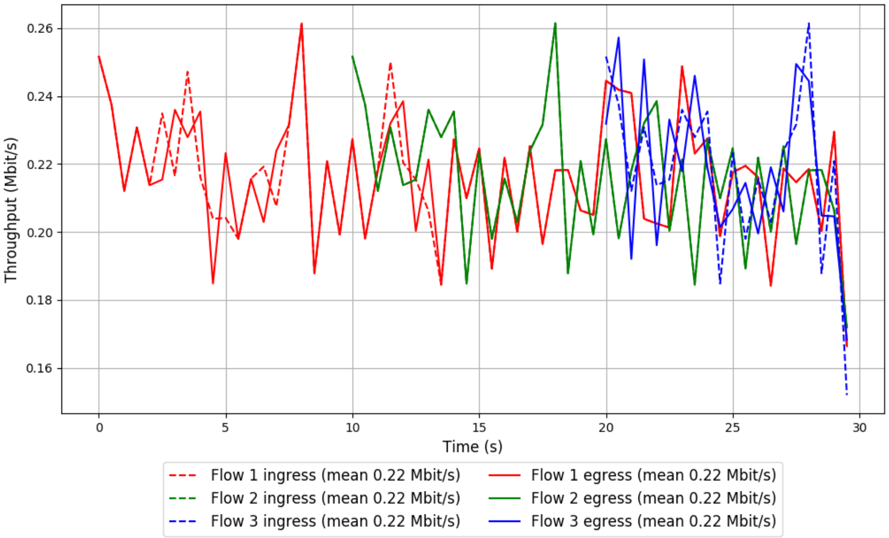


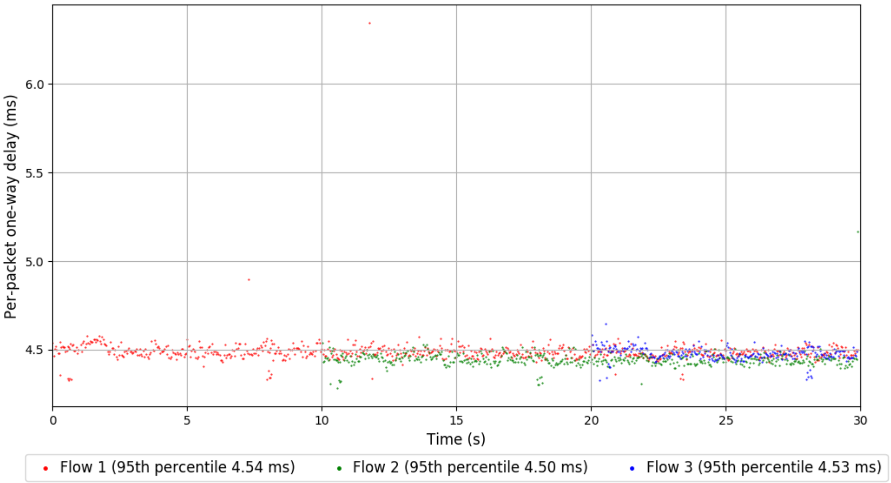
```
Run 8: Statistics of SCReAM

Start at: Mon, 10 Jul 2017 01:04:09 +0000
End at: Mon, 10 Jul 2017 01:04:39 +0000
Local clock offset: -2.697 ms
Remote clock offset: -0.361 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.534 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.542 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.495 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.533 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



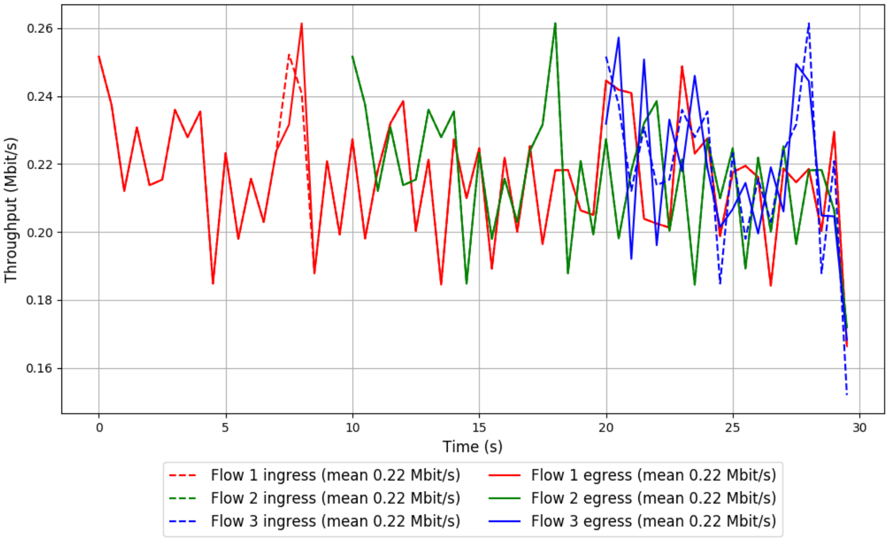


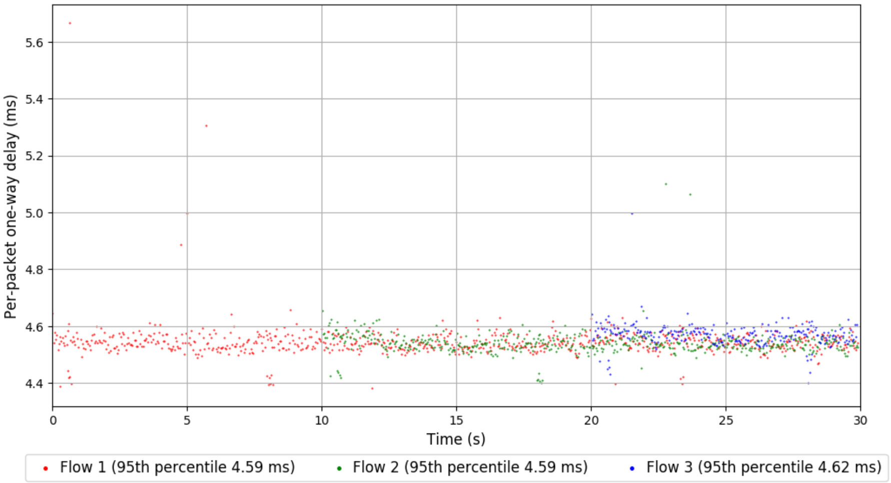
```
Run 9: Statistics of SCReAM

Start at: Mon, 10 Jul 2017 01:21:15 +0000
End at: Mon, 10 Jul 2017 01:21:45 +0000
Local clock offset: -2.863 ms
Remote clock offset: -0.362 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.600 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.592 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.586 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.615 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link

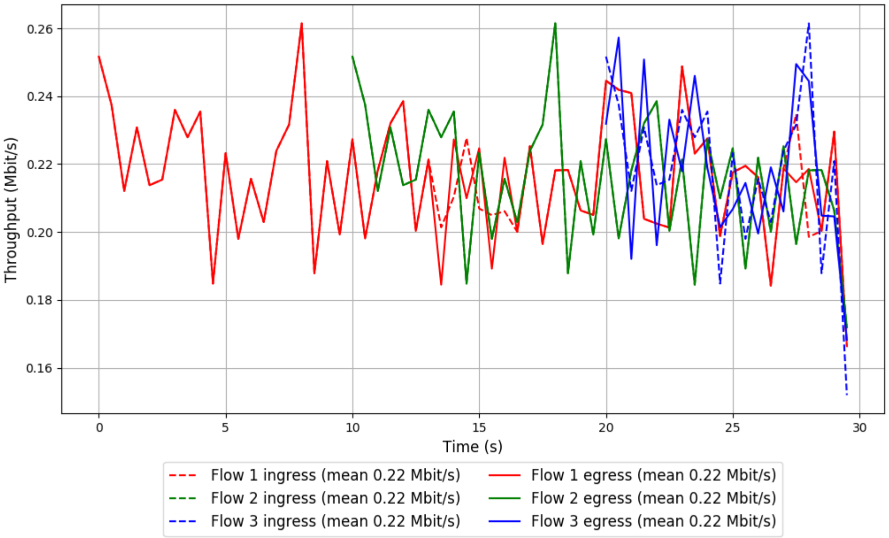


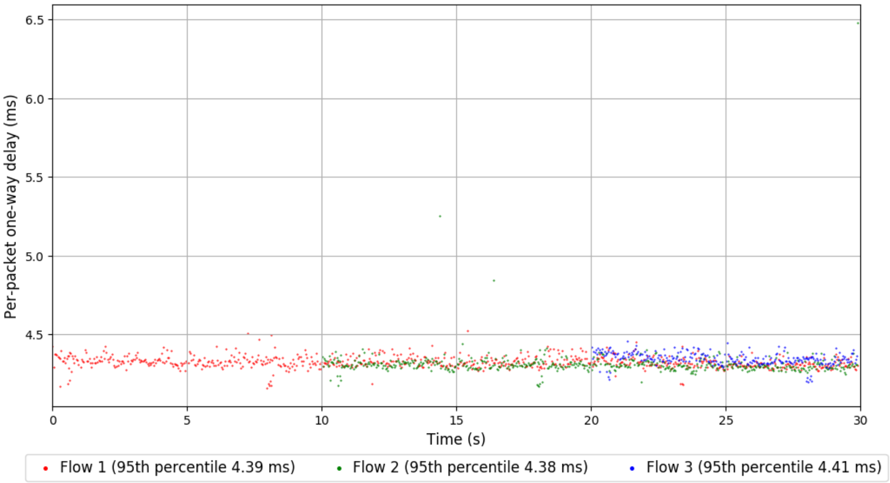


```
Run 10: Statistics of SCReAM

Start at: Mon, 10 Jul 2017 01:38:20 +0000
End at: Mon, 10 Jul 2017 01:38:50 +0000
Local clock offset: -2.925 ms
Remote clock offset: -0.648 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:24 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 4.395 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.395 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.379 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.412 ms
Loss rate: 0.00%
```


Throughput (Mbit/s)
0.26
0.24
0.22
0.20
0.18
0.16
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 0.22 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)
Flow 1 egress (mean 0.22 Mbit/s)
Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 egress (mean 0.22 Mbit/s)

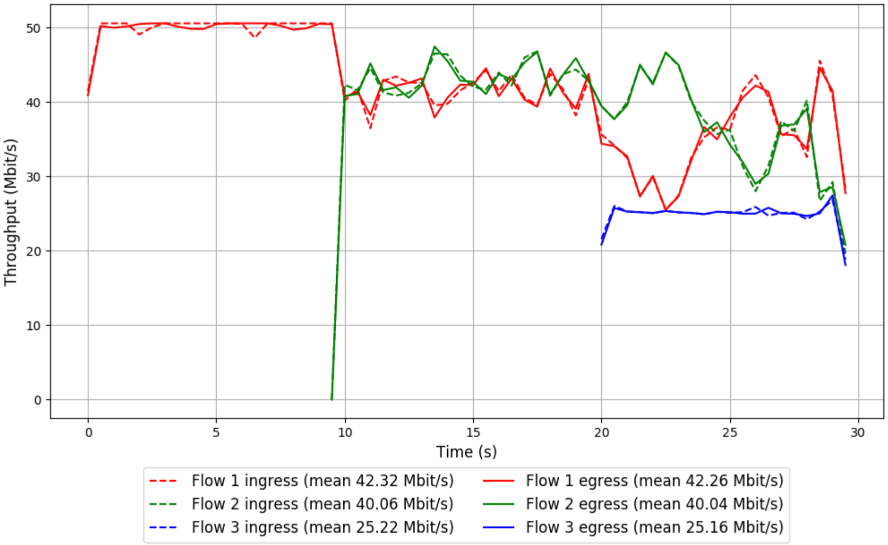

Per-packet one-way delay (ms)
6.5
6.0
5.5
5.0
4.5
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 4.39 ms)
Flow 2 (95th percentile 4.38 ms)
Flow 3 (95th percentile 4.41 ms)

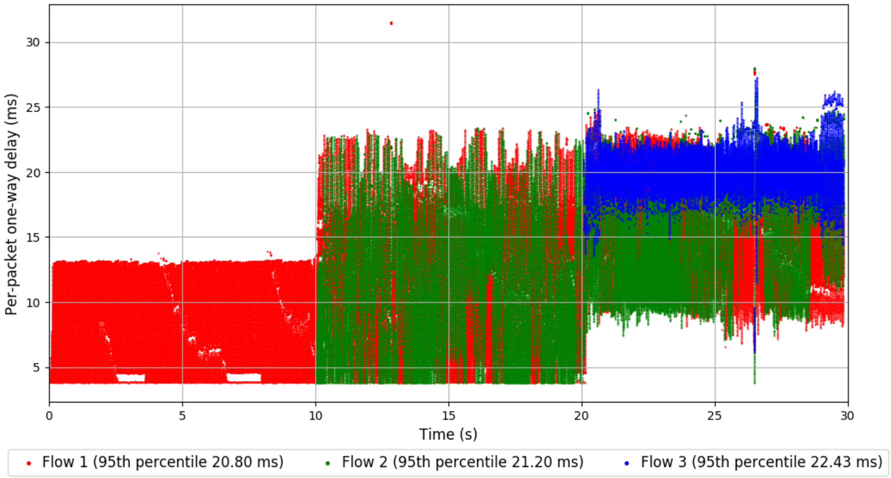
```
Run 1: Statistics of Sprout

Start at: Sun, 09 Jul 2017 22:56:29 +0000
End at: Sun, 09 Jul 2017 22:56:59 +0000
Local clock offset: -1.845 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:35 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.17 Mbit/s
95th percentile per-packet one-way delay: 21.407 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 42.26 Mbit/s
95th percentile per-packet one-way delay: 20.800 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 21.201 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 25.16 Mbit/s
95th percentile per-packet one-way delay: 22.428 ms
Loss rate: 0.23%
```

Run 1: Report of Sprout — Data Link



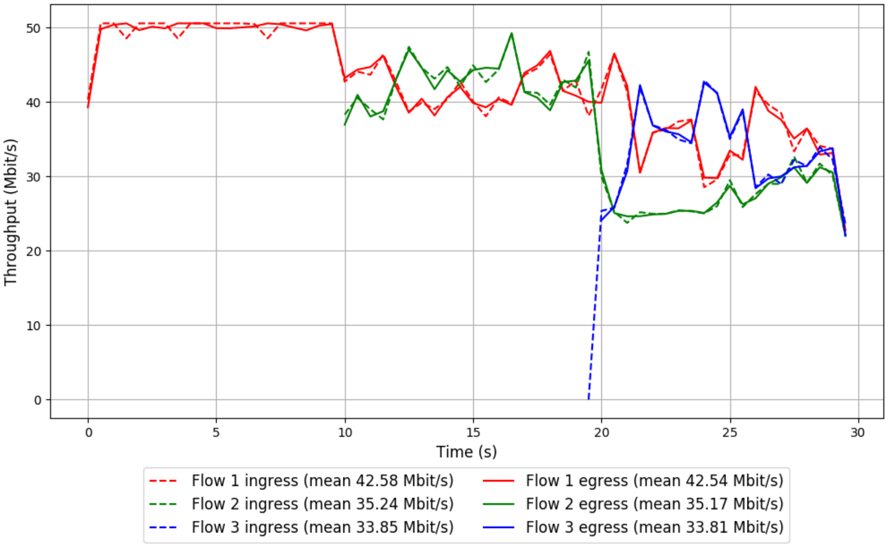


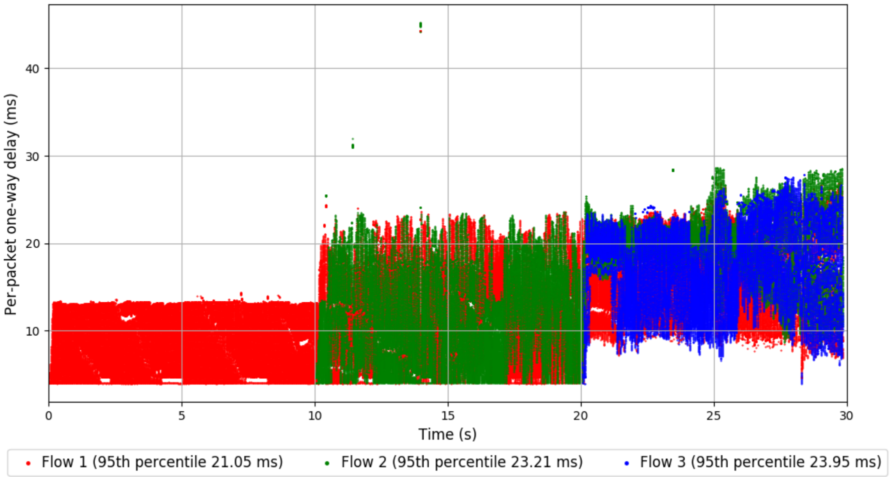
```
Run 2: Statistics of Sprout

Start at: Sun, 09 Jul 2017 23:13:32 +0000
End at: Sun, 09 Jul 2017 23:14:02 +0000
Local clock offset: -1.958 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:36 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 22.367 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 42.54 Mbit/s
95th percentile per-packet one-way delay: 21.048 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 35.17 Mbit/s
95th percentile per-packet one-way delay: 23.206 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 33.81 Mbit/s
95th percentile per-packet one-way delay: 23.952 ms
Loss rate: 0.30%
```

Run 2: Report of Sprout — Data Link



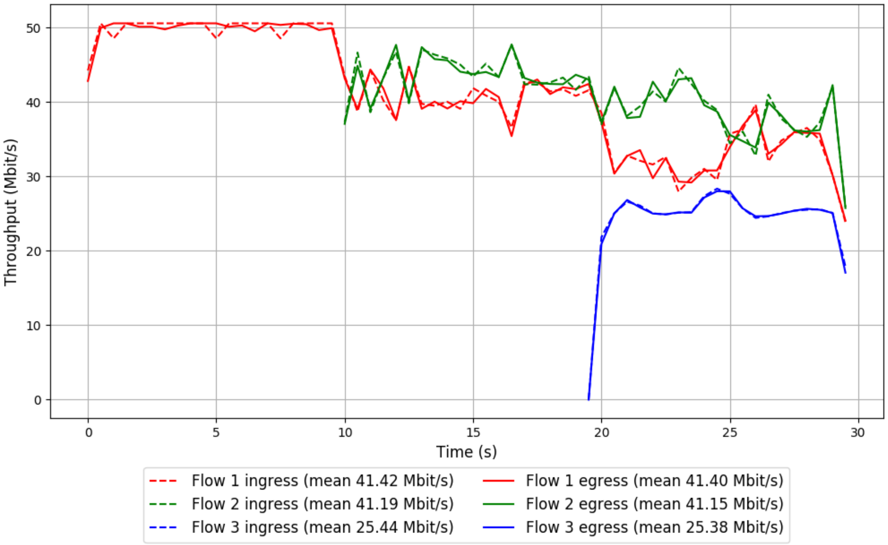


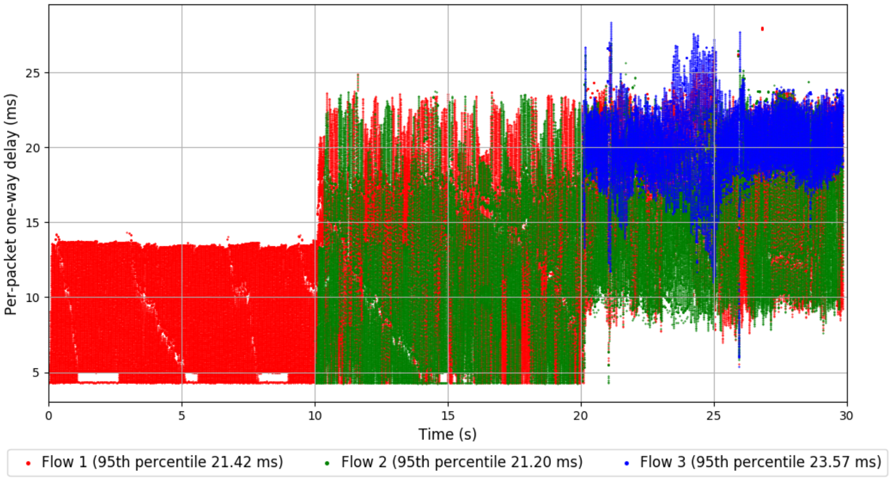
```
Run 3: Statistics of Sprout

Start at: Sun, 09 Jul 2017 23:30:38 +0000
End at: Sun, 09 Jul 2017 23:31:08 +0000
Local clock offset: -2.289 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:46 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.13 Mbit/s
95th percentile per-packet one-way delay: 21.907 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 41.40 Mbit/s
95th percentile per-packet one-way delay: 21.416 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 41.15 Mbit/s
95th percentile per-packet one-way delay: 21.200 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 25.38 Mbit/s
95th percentile per-packet one-way delay: 23.570 ms
Loss rate: 0.35%
```

Run 3: Report of Sprout — Data Link



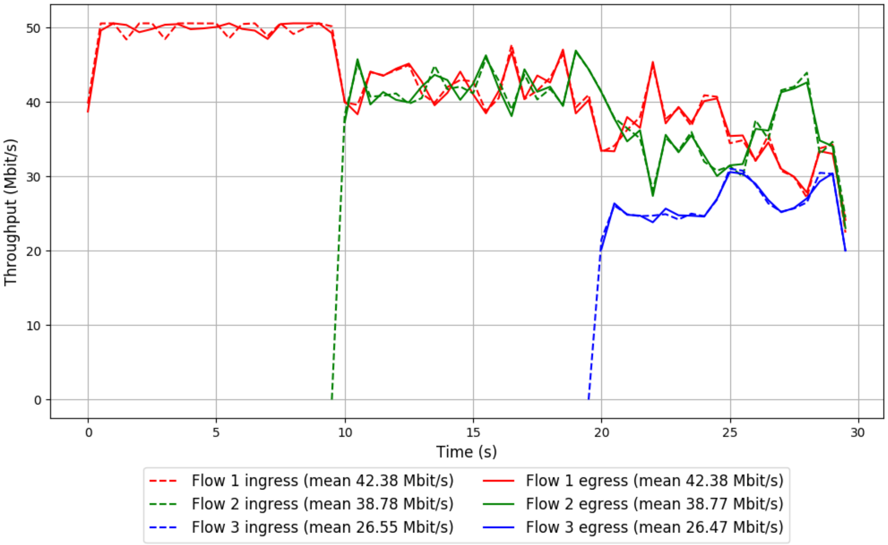


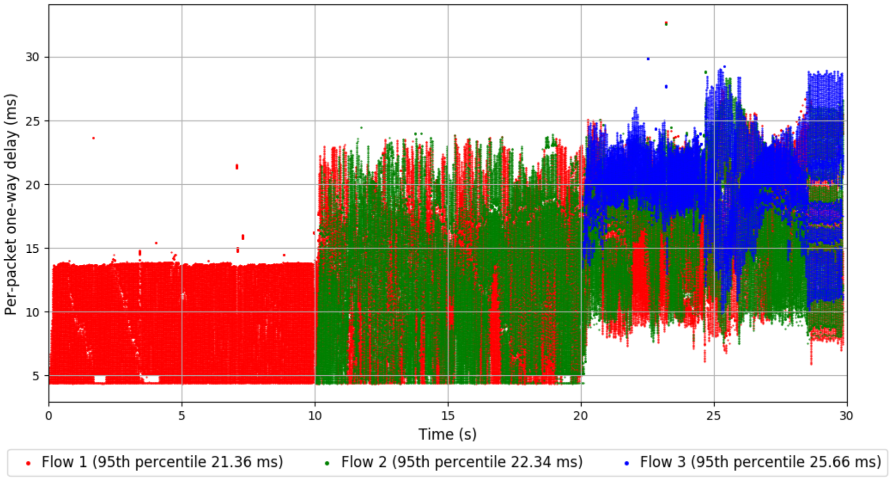
```
Run 4: Statistics of Sprout

Start at: Sun, 09 Jul 2017 23:47:49 +0000
End at: Sun, 09 Jul 2017 23:48:19 +0000
Local clock offset: -2.285 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:47 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.86 Mbit/s
95th percentile per-packet one-way delay: 22.566 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 42.38 Mbit/s
95th percentile per-packet one-way delay: 21.355 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.77 Mbit/s
95th percentile per-packet one-way delay: 22.343 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 26.47 Mbit/s
95th percentile per-packet one-way delay: 25.664 ms
Loss rate: 0.29%
```

Run 4: Report of Sprout — Data Link



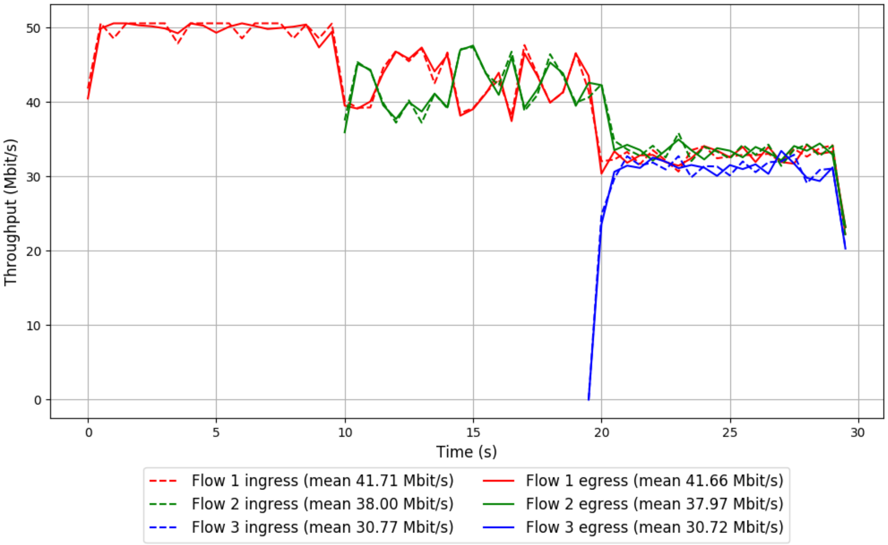


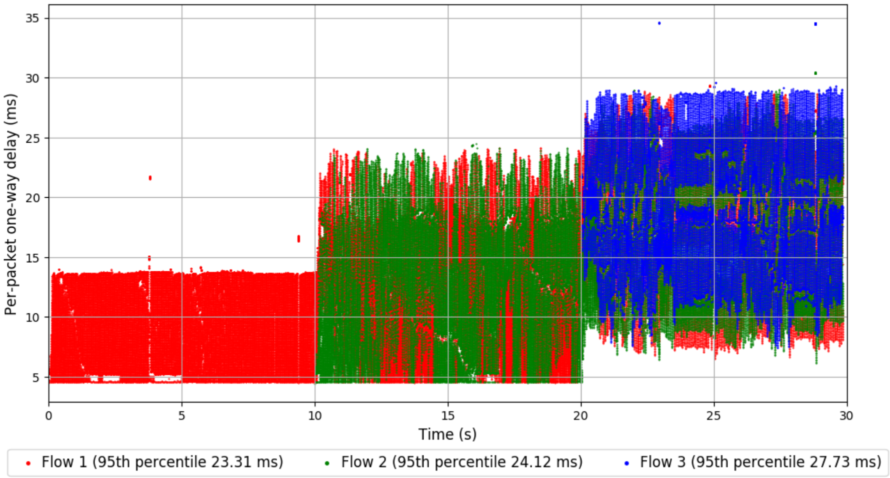
```
Run 5: Statistics of Sprout

Start at: Mon, 10 Jul 2017 00:04:56 +0000
End at: Mon, 10 Jul 2017 00:05:26 +0000
Local clock offset: -2.437 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:58 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 24.864 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 41.66 Mbit/s
95th percentile per-packet one-way delay: 23.306 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 37.97 Mbit/s
95th percentile per-packet one-way delay: 24.123 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 30.72 Mbit/s
95th percentile per-packet one-way delay: 27.728 ms
Loss rate: 0.39%
```

Run 5: Report of Sprout — Data Link



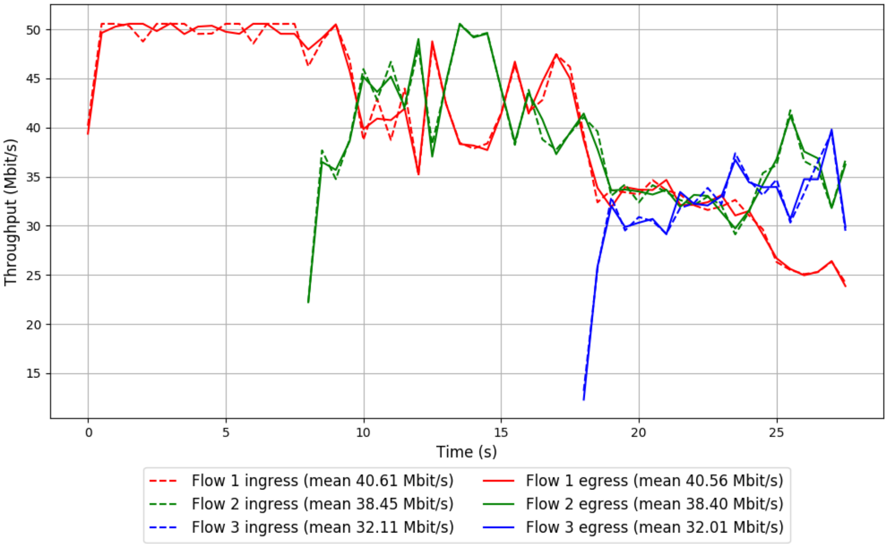


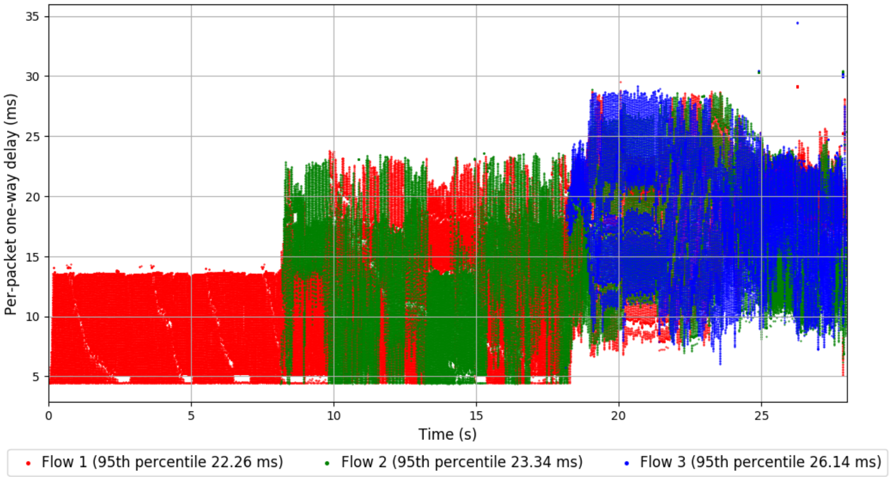
```
Run 6: Statistics of Sprout

Start at: Mon, 10 Jul 2017 00:22:01 +0000
End at: Mon, 10 Jul 2017 00:22:31 +0000
Local clock offset: -2.471 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:30:58 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.08 Mbit/s
95th percentile per-packet one-way delay: 23.376 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 40.56 Mbit/s
95th percentile per-packet one-way delay: 22.261 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 38.40 Mbit/s
95th percentile per-packet one-way delay: 23.338 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 26.136 ms
Loss rate: 0.19%
```

Run 6: Report of Sprout — Data Link

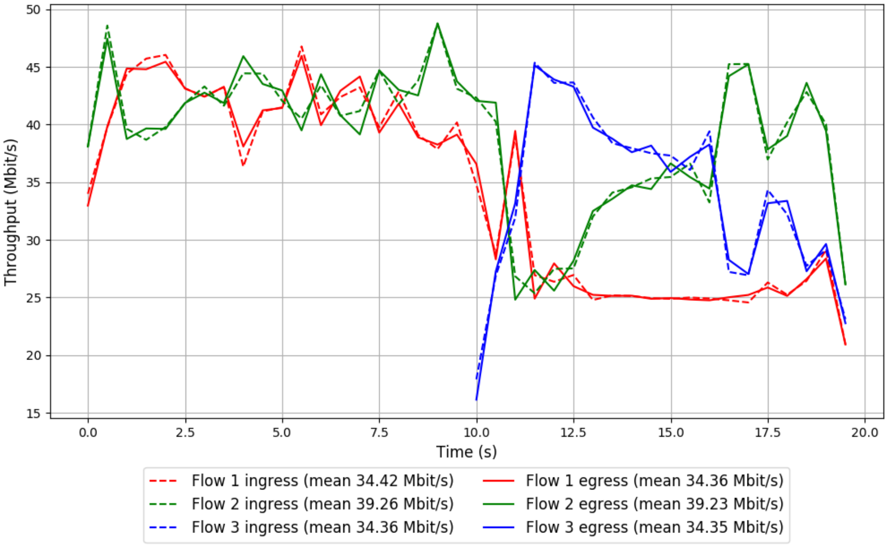


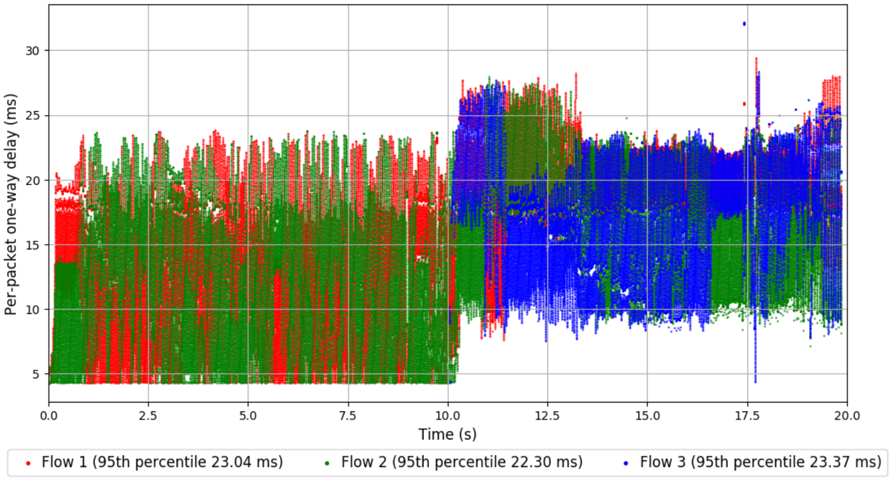


```
Run 7: Statistics of Sprout

Start at: Mon, 10 Jul 2017 00:39:07 +0000
End at: Mon, 10 Jul 2017 00:39:37 +0000
Local clock offset: -2.386 ms
Remote clock offset: -0.238 ms
```

Run 7: Report of Sprout — Data Link



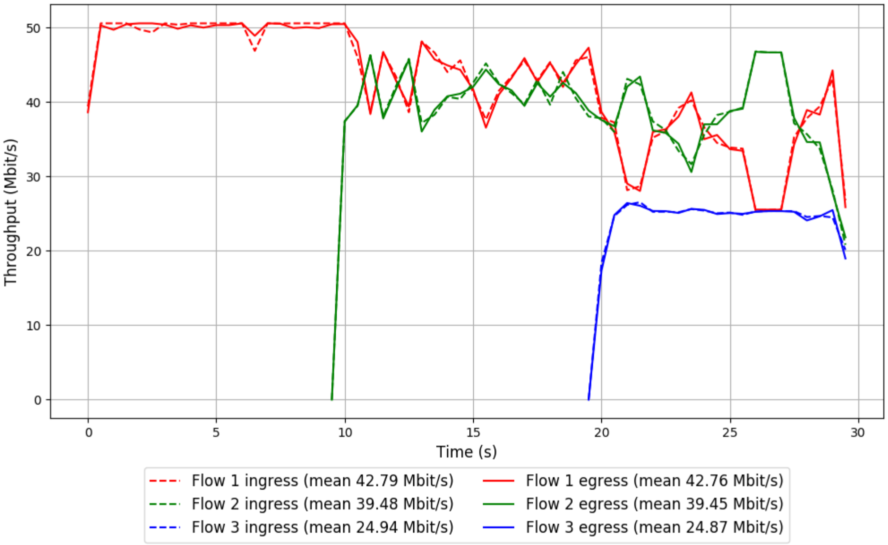


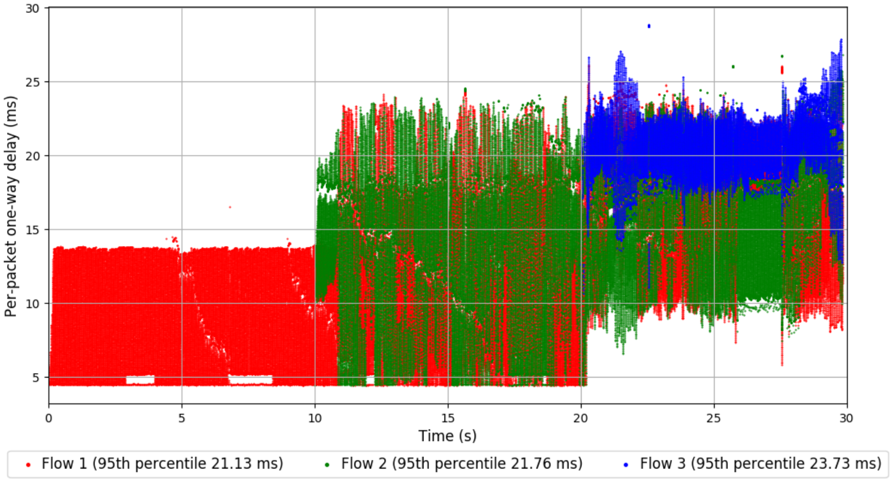
```
Run 8: Statistics of Sprout

Start at: Mon, 10 Jul 2017 00:56:15 +0000
End at: Mon, 10 Jul 2017 00:56:45 +0000
Local clock offset: -2.593 ms
Remote clock offset: -3.945 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:31:09 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.20 Mbit/s
95th percentile per-packet one-way delay: 22.016 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 42.76 Mbit/s
95th percentile per-packet one-way delay: 21.131 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 21.758 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 23.732 ms
Loss rate: 0.36%
```

Run 8: Report of Sprout — Data Link



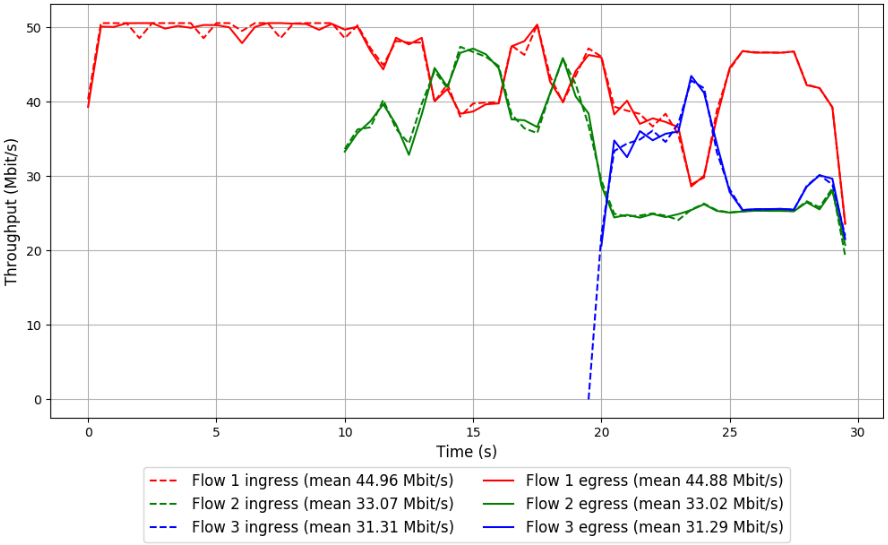


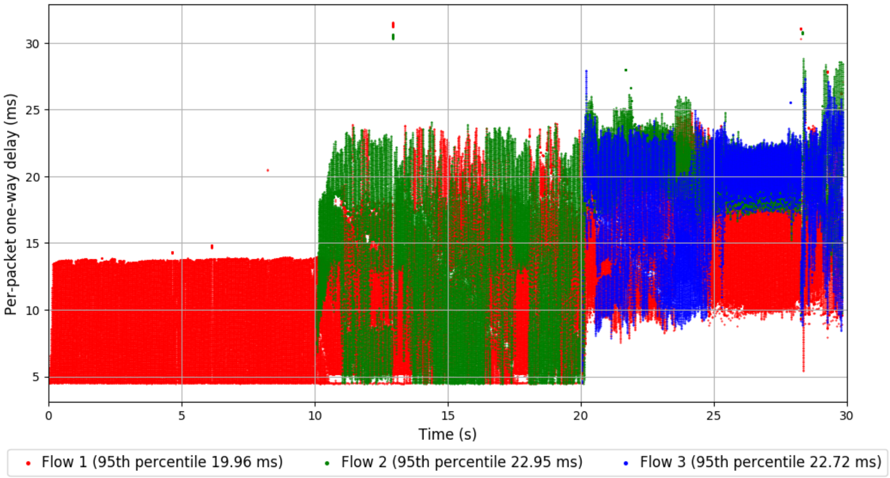
```
Run 9: Statistics of Sprout

Start at: Mon, 10 Jul 2017 01:13:22 +0000
End at: Mon, 10 Jul 2017 01:13:52 +0000
Local clock offset: -2.747 ms
Remote clock offset: -0.359 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:31:18 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.11 Mbit/s
95th percentile per-packet one-way delay: 22.084 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 44.88 Mbit/s
95th percentile per-packet one-way delay: 19.963 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 33.02 Mbit/s
95th percentile per-packet one-way delay: 22.949 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 22.718 ms
Loss rate: 0.17%
```

Run 9: Report of Sprout — Data Link



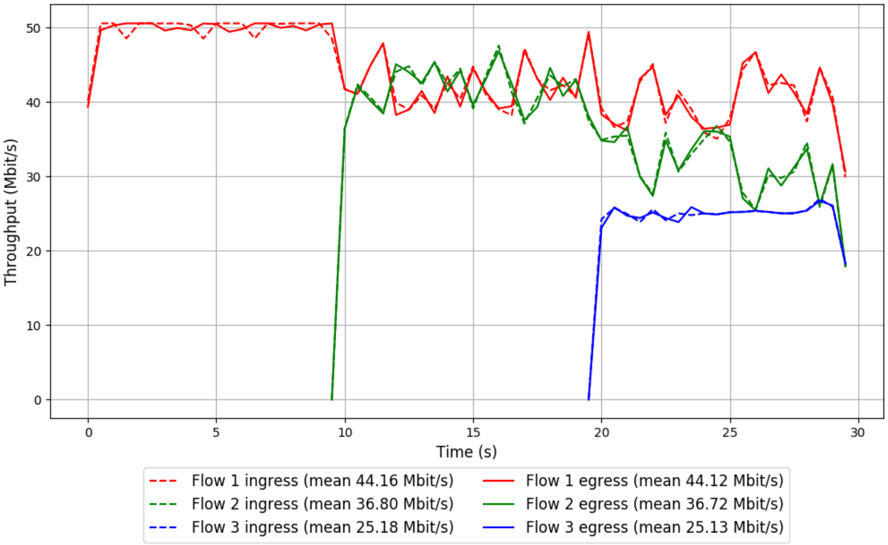


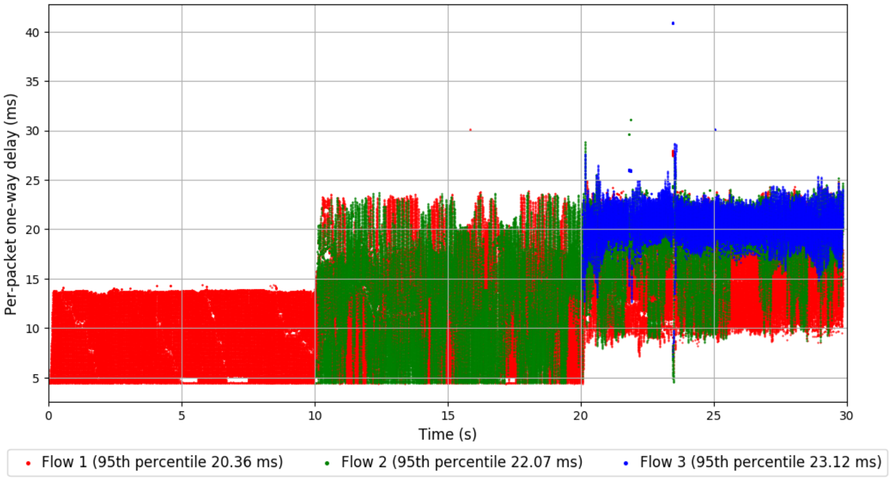
```
Run 10: Statistics of Sprout

Start at: Mon, 10 Jul 2017 01:30:25 +0000
End at: Mon, 10 Jul 2017 01:30:55 +0000
Local clock offset: -2.895 ms
Remote clock offset: -0.538 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:31:20 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.82 Mbit/s
95th percentile per-packet one-way delay: 21.982 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 44.12 Mbit/s
95th percentile per-packet one-way delay: 20.363 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 36.72 Mbit/s
95th percentile per-packet one-way delay: 22.072 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 25.13 Mbit/s
95th percentile per-packet one-way delay: 23.120 ms
Loss rate: 0.23%
```

Run 10: Report of Sprout — Data Link



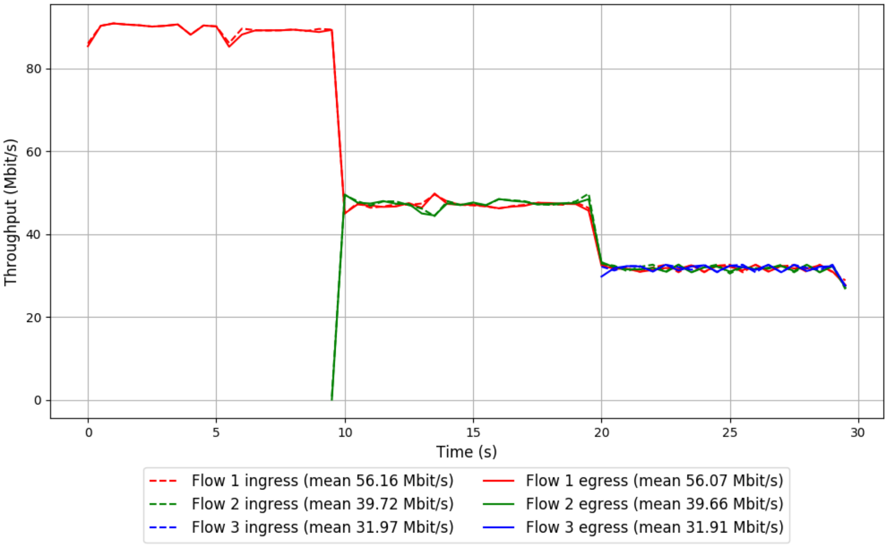


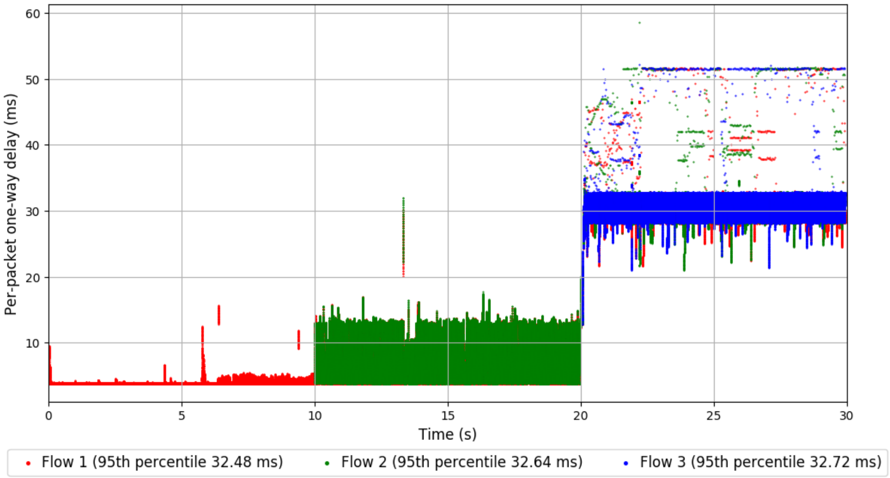
```
Run 1: Statistics of TaoVA-100x

Start at: Sun, 09 Jul 2017 23:00:54 +0000
End at: Sun, 09 Jul 2017 23:01:24 +0000
Local clock offset: -1.812 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:31:36 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.03 Mbit/s
95th percentile per-packet one-way delay: 32.623 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 56.07 Mbit/s
95th percentile per-packet one-way delay: 32.483 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 32.637 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 32.717 ms
Loss rate: 0.30%
```

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



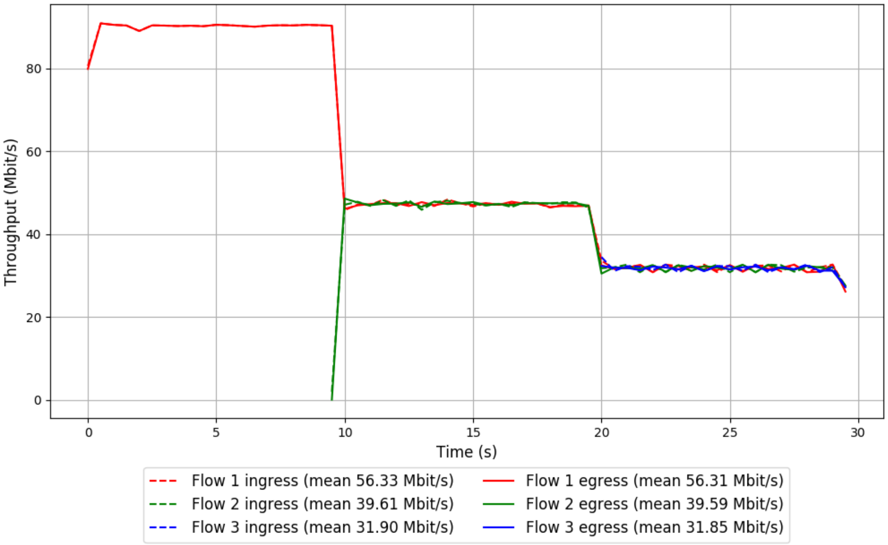


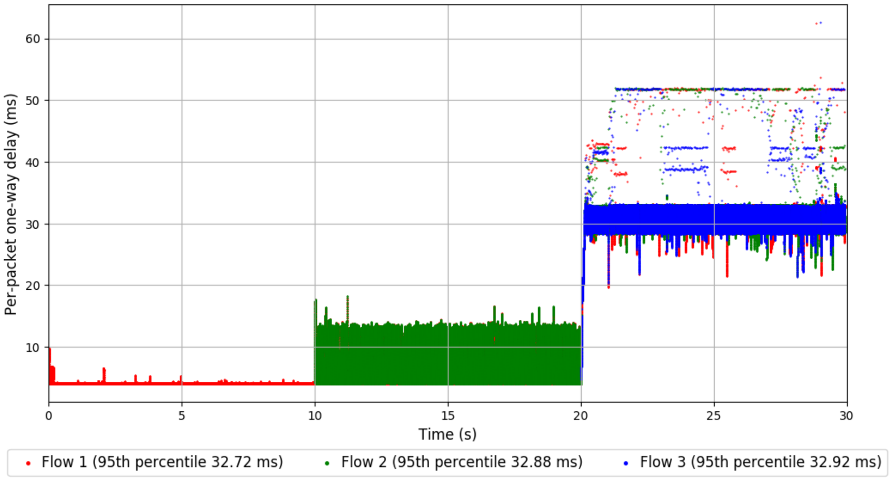
```
Run 2: Statistics of TaoVA-100x

Start at: Sun, 09 Jul 2017 23:18:03 +0000
End at: Sun, 09 Jul 2017 23:18:33 +0000
Local clock offset: -2.019 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:31:44 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.22 Mbit/s
95th percentile per-packet one-way delay: 32.836 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.31 Mbit/s
95th percentile per-packet one-way delay: 32.722 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 39.59 Mbit/s
95th percentile per-packet one-way delay: 32.875 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 32.923 ms
Loss rate: 0.42%
```

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



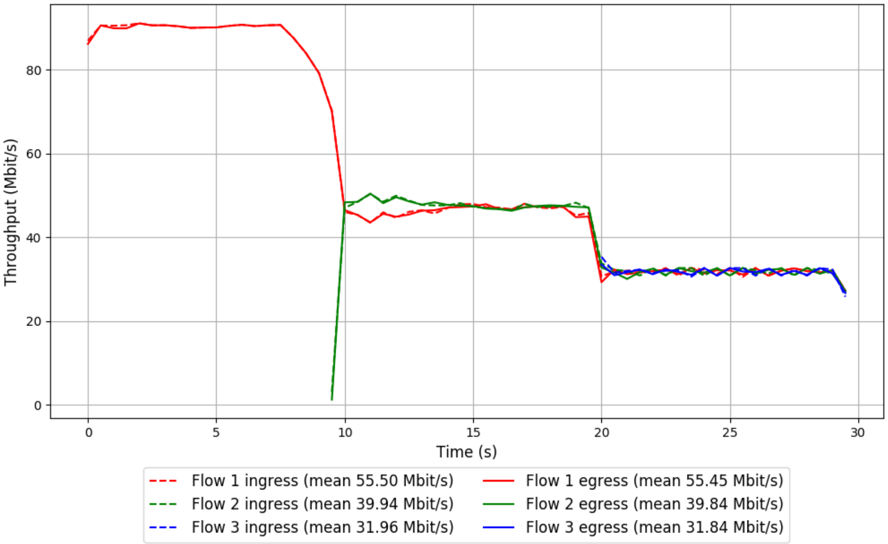


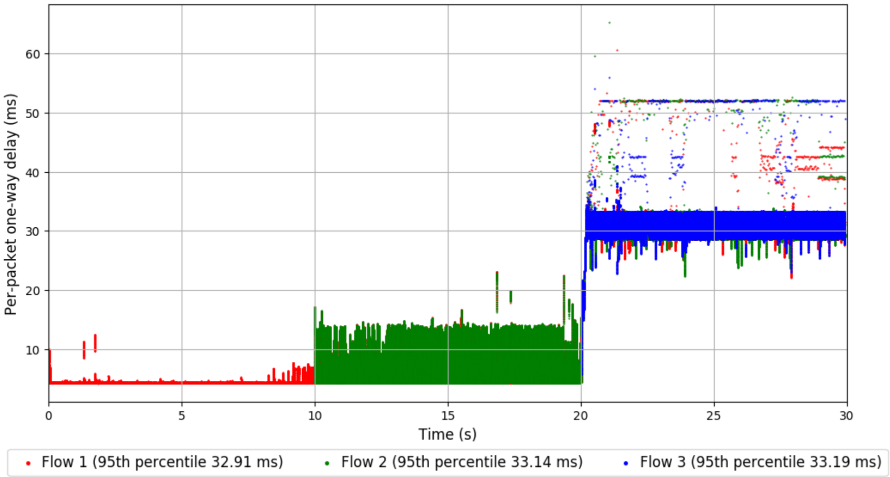
```
Run 3: Statistics of TaoVA-100x

Start at: Sun, 09 Jul 2017 23:35:09 +0000
End at: Sun, 09 Jul 2017 23:35:39 +0000
Local clock offset: -2.243 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:31:59 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.55 Mbit/s
95th percentile per-packet one-way delay: 33.105 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 55.45 Mbit/s
95th percentile per-packet one-way delay: 32.915 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 33.139 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 31.84 Mbit/s
95th percentile per-packet one-way delay: 33.194 ms
Loss rate: 0.43%
```

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



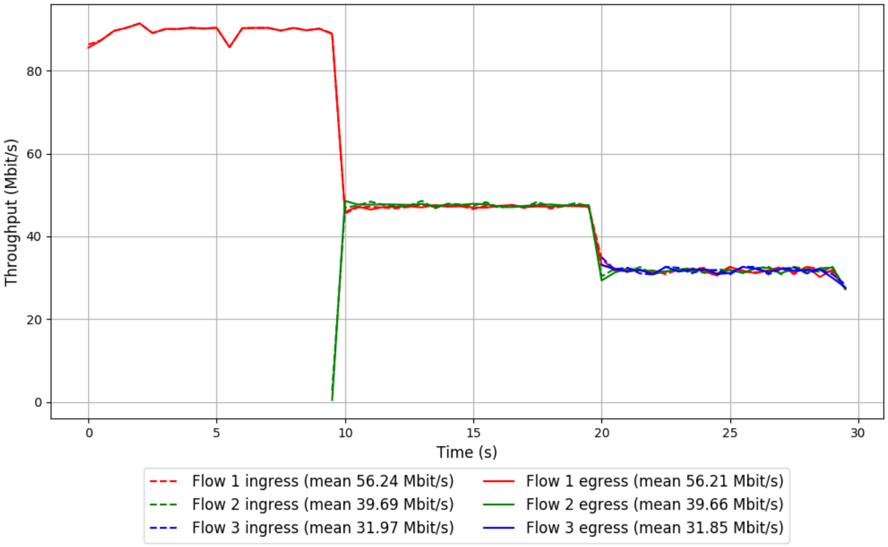


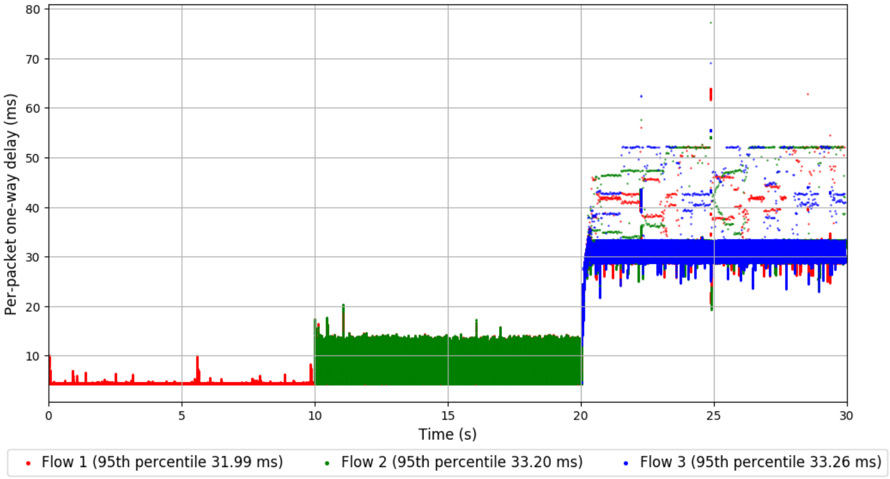
```
Run 4: Statistics of TaoVA-100x

Start at: Sun, 09 Jul 2017 23:52:17 +0000
End at: Sun, 09 Jul 2017 23:52:47 +0000
Local clock offset: -2.387 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:32:07 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.14 Mbit/s
95th percentile per-packet one-way delay: 33.154 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 31.991 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 33.200 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 33.260 ms
Loss rate: 0.62%
```

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



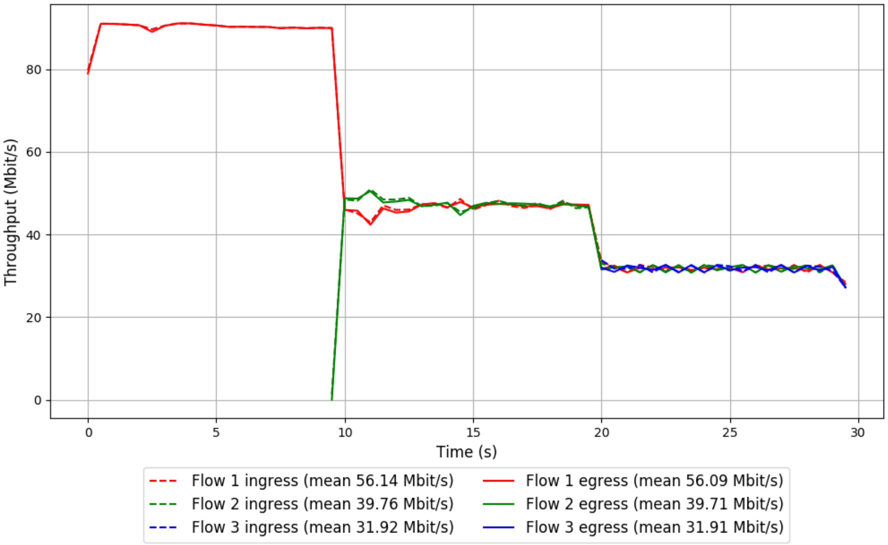


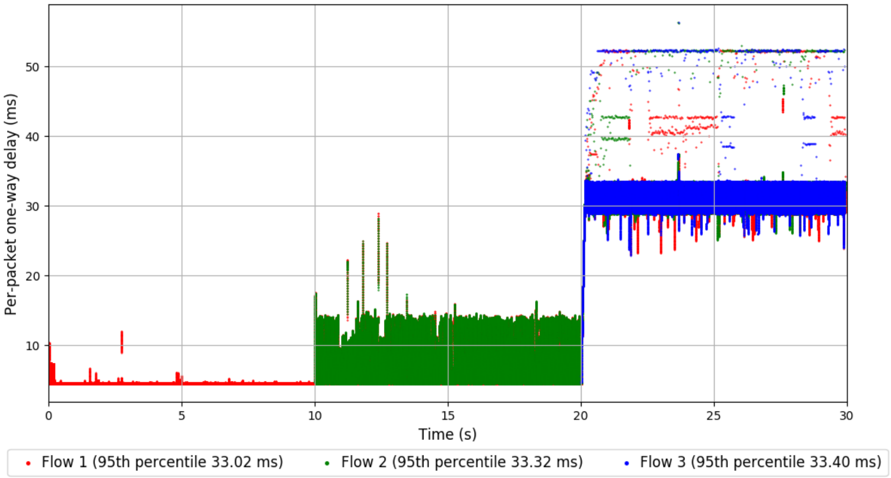
```
Run 5: Statistics of TaoVA-100x

Start at: Mon, 10 Jul 2017 00:09:23 +0000
End at: Mon, 10 Jul 2017 00:09:53 +0000
Local clock offset: -2.448 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:32:26 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.10 Mbit/s
95th percentile per-packet one-way delay: 33.305 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 56.09 Mbit/s
95th percentile per-packet one-way delay: 33.016 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 33.321 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 33.402 ms
Loss rate: 0.29%
```

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



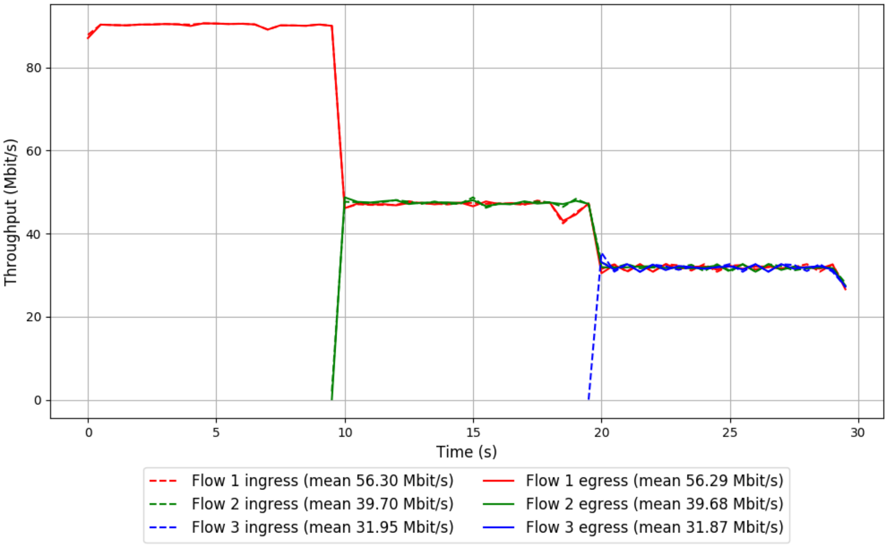


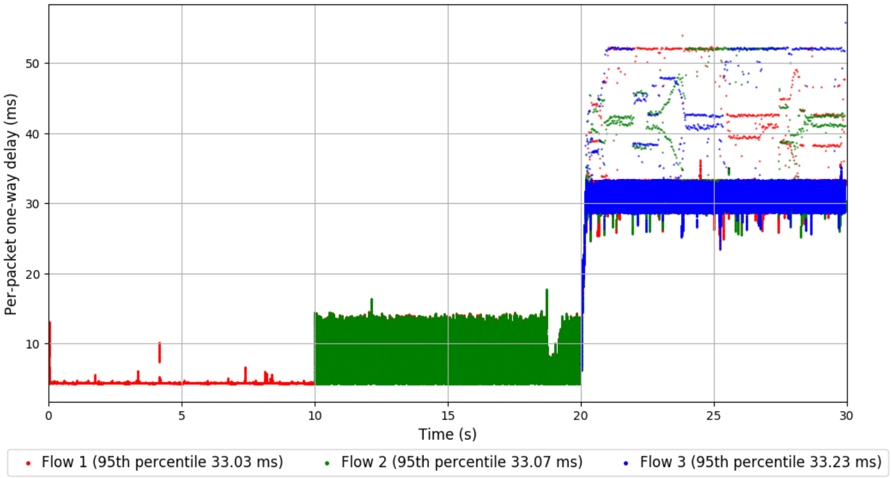
```
Run 6: Statistics of TaoVA-100x

Start at: Mon, 10 Jul 2017 00:26:26 +0000
End at: Mon, 10 Jul 2017 00:26:56 +0000
Local clock offset: -2.352 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:32:31 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.29 Mbit/s
95th percentile per-packet one-way delay: 33.123 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 56.29 Mbit/s
95th percentile per-packet one-way delay: 33.033 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 33.069 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 33.226 ms
Loss rate: 0.29%
```

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



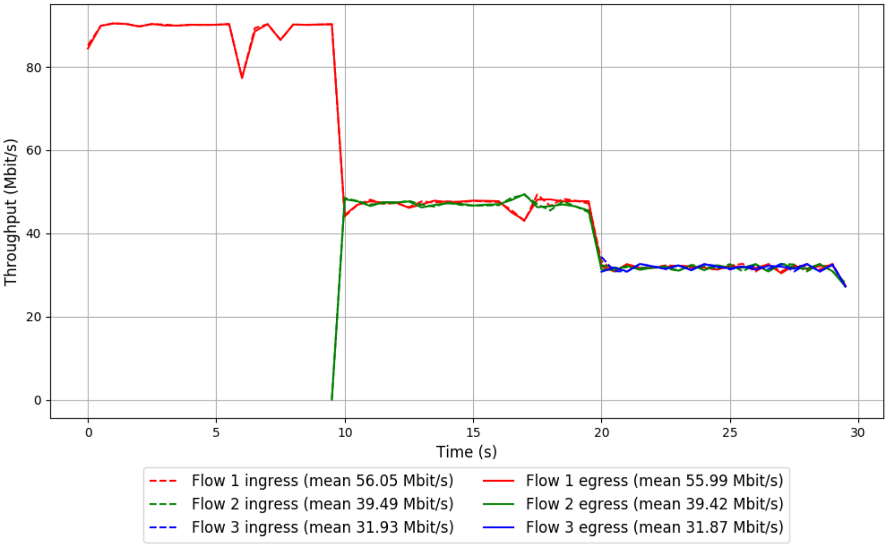


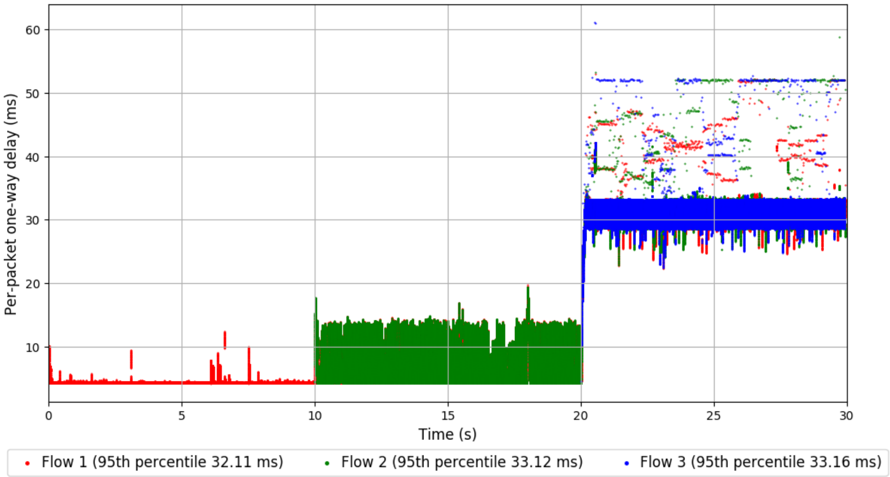
```
Run 7: Statistics of TaoVA-100x

Start at: Mon, 10 Jul 2017 00:43:37 +0000
End at: Mon, 10 Jul 2017 00:44:07 +0000
Local clock offset: -2.469 ms
Remote clock offset: -0.354 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:32:46 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.79 Mbit/s
95th percentile per-packet one-way delay: 33.068 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 32.114 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.42 Mbit/s
95th percentile per-packet one-way delay: 33.117 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 33.157 ms
Loss rate: 0.43%
```

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



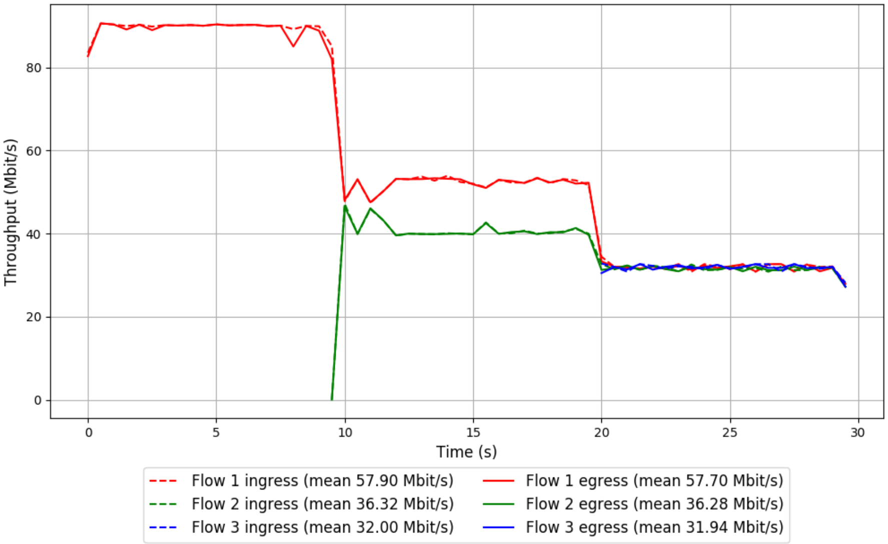


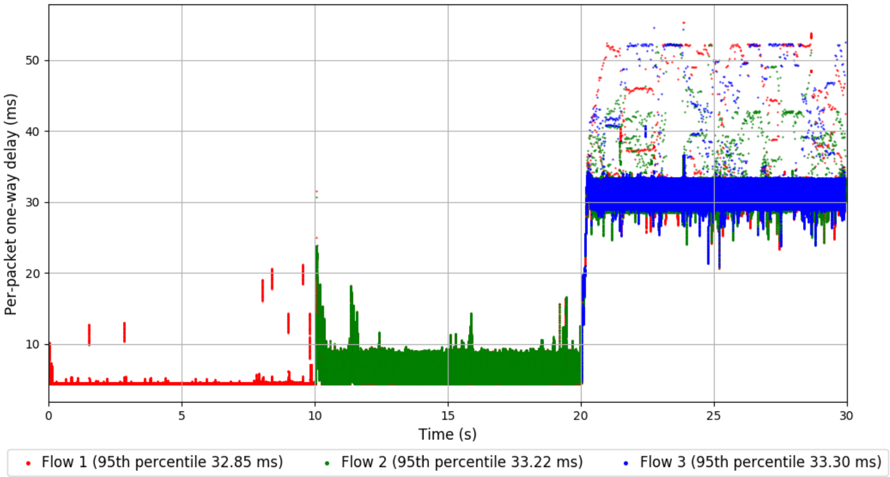
```
Run 8: Statistics of TaoVA-100x

Start at: Mon, 10 Jul 2017 01:00:40 +0000
End at: Mon, 10 Jul 2017 01:01:10 +0000
Local clock offset: -2.685 ms
Remote clock offset: -0.354 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:32:54 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 33.183 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 57.70 Mbit/s
95th percentile per-packet one-way delay: 32.847 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 33.222 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 31.94 Mbit/s
95th percentile per-packet one-way delay: 33.295 ms
Loss rate: 0.46%
```

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



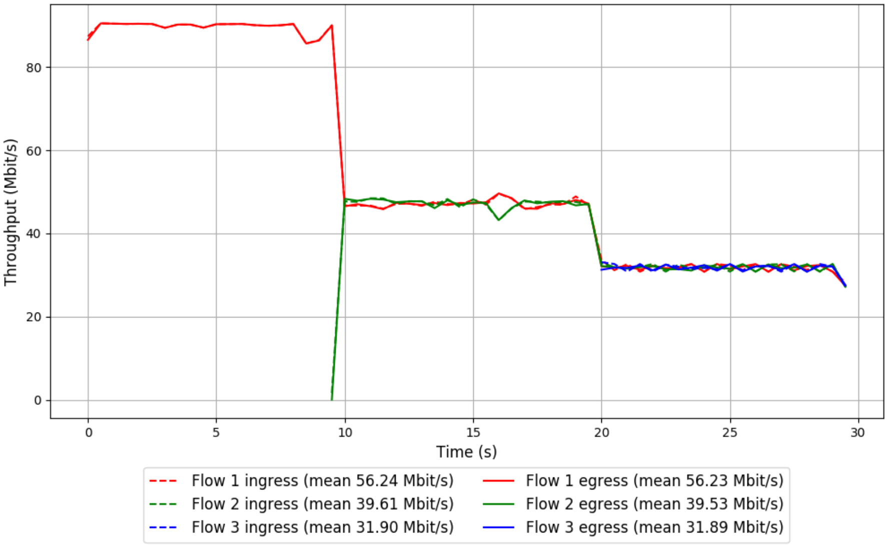


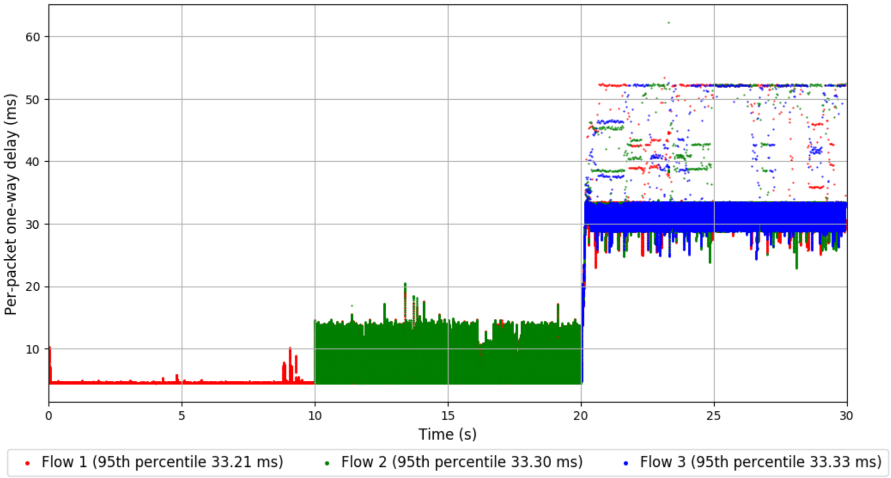
```
Run 9: Statistics of TaoVA-100x

Start at: Mon, 10 Jul 2017 01:17:47 +0000
End at: Mon, 10 Jul 2017 01:18:17 +0000
Local clock offset: -2.827 ms
Remote clock offset: -0.396 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:09 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.11 Mbit/s
95th percentile per-packet one-way delay: 33.276 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 56.23 Mbit/s
95th percentile per-packet one-way delay: 33.208 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 39.53 Mbit/s
95th percentile per-packet one-way delay: 33.301 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 33.326 ms
Loss rate: 0.29%
```

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



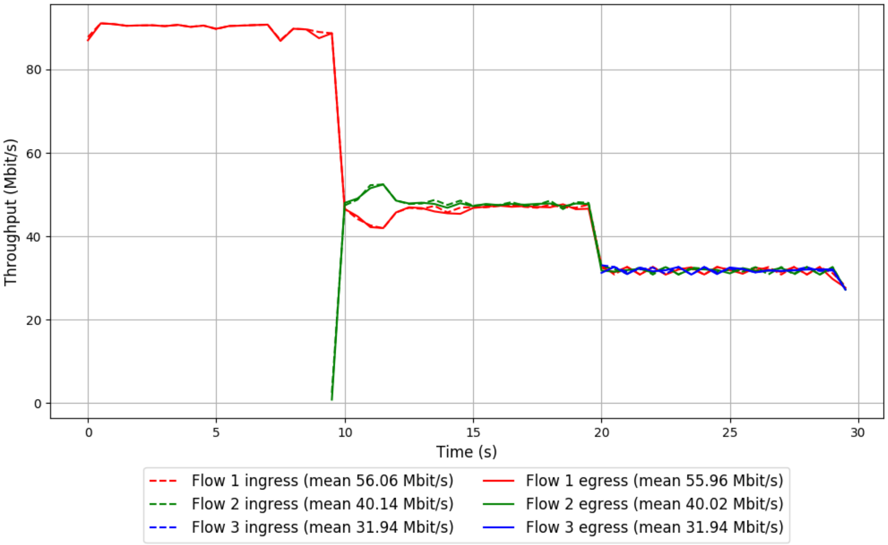


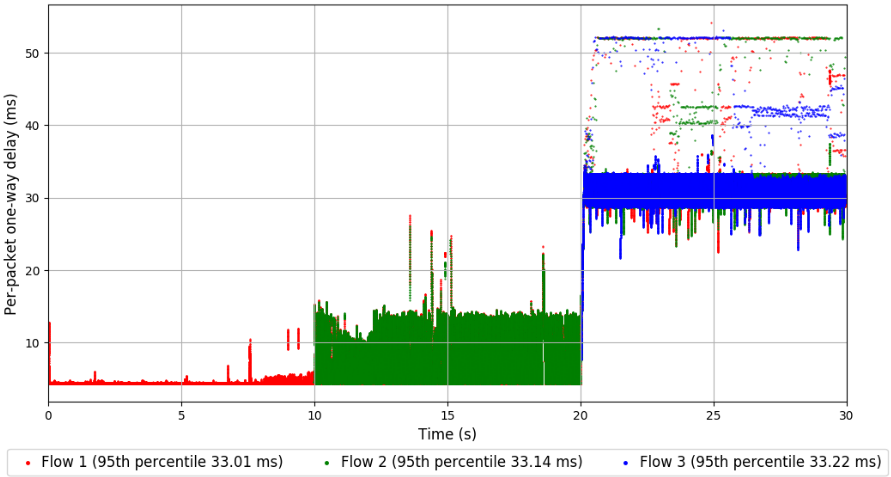
```
Run 10: Statistics of TaoVA-100x

Start at: Mon, 10 Jul 2017 01:34:52 +0000
End at: Mon, 10 Jul 2017 01:35:22 +0000
Local clock offset: -2.953 ms
Remote clock offset: -0.689 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:18 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 33.120 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 55.96 Mbit/s
95th percentile per-packet one-way delay: 33.006 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 33.142 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 31.94 Mbit/s
95th percentile per-packet one-way delay: 33.219 ms
Loss rate: 0.29%
```

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



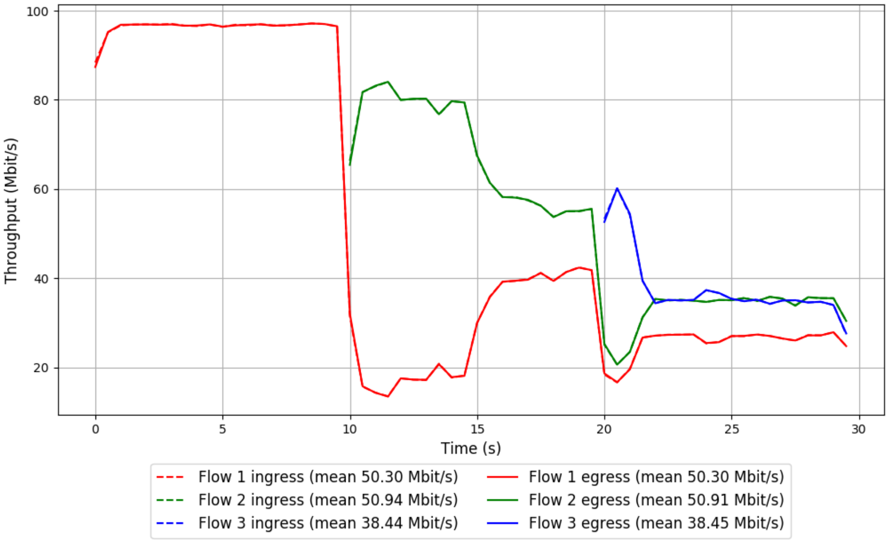


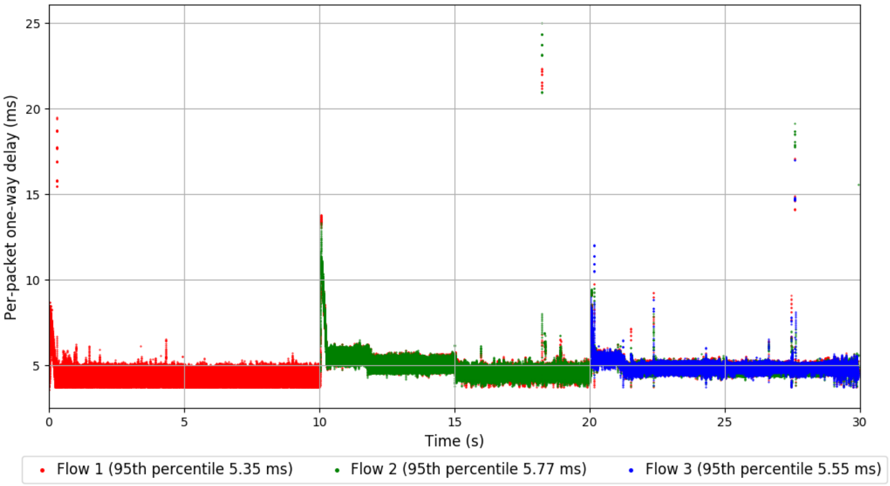
```
Run 1: Statistics of TCP Vegas

Start at: Sun, 09 Jul 2017 22:54:12 +0000
End at: Sun, 09 Jul 2017 22:54:42 +0000
Local clock offset: -1.745 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:25 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.88 Mbit/s
95th percentile per-packet one-way delay: 5.590 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.30 Mbit/s
95th percentile per-packet one-way delay: 5.351 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.91 Mbit/s
95th percentile per-packet one-way delay: 5.772 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 38.45 Mbit/s
95th percentile per-packet one-way delay: 5.548 ms
Loss rate: 0.03%
```

Run 1: Report of TCP Vegas — Data Link



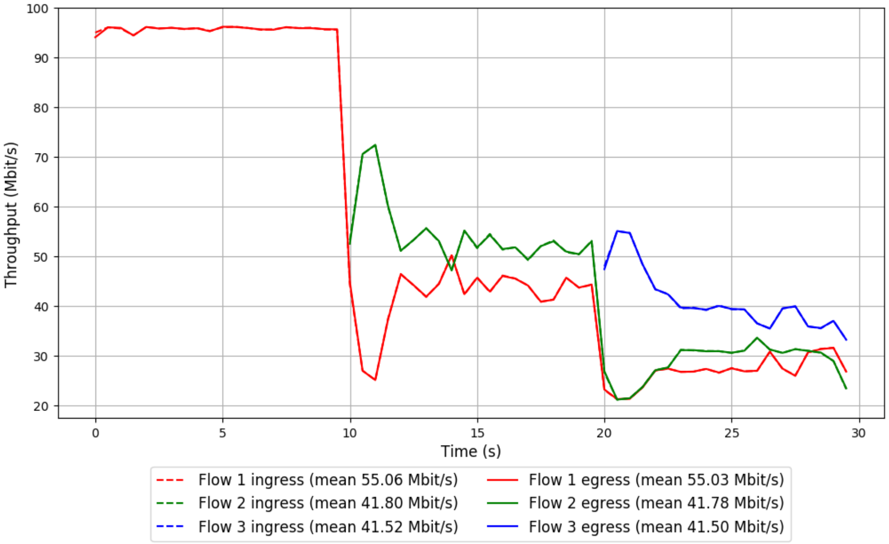


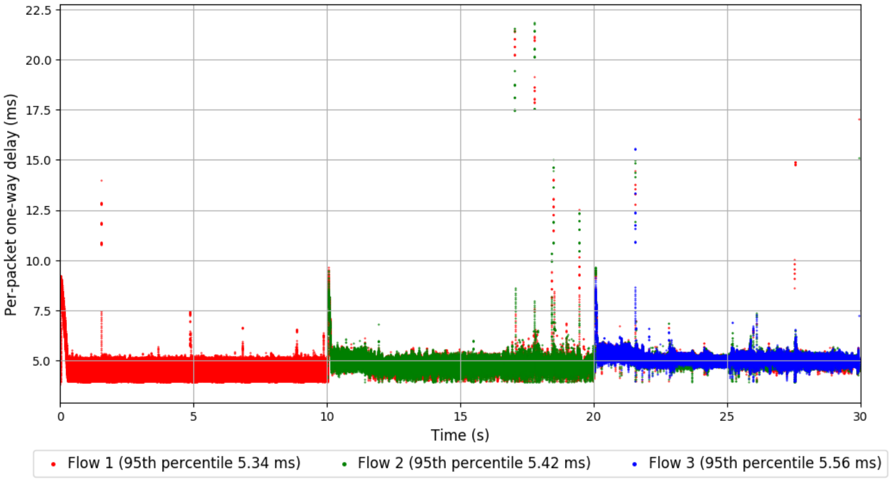
```
Run 2: Statistics of TCP Vegas

Start at: Sun, 09 Jul 2017 23:11:15 +0000
End at: Sun, 09 Jul 2017 23:11:45 +0000
Local clock offset: -1.937 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:31 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 5.422 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 55.03 Mbit/s
95th percentile per-packet one-way delay: 5.340 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 41.78 Mbit/s
95th percentile per-packet one-way delay: 5.420 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 41.50 Mbit/s
95th percentile per-packet one-way delay: 5.558 ms
Loss rate: 0.04%
```

Run 2: Report of TCP Vegas — Data Link



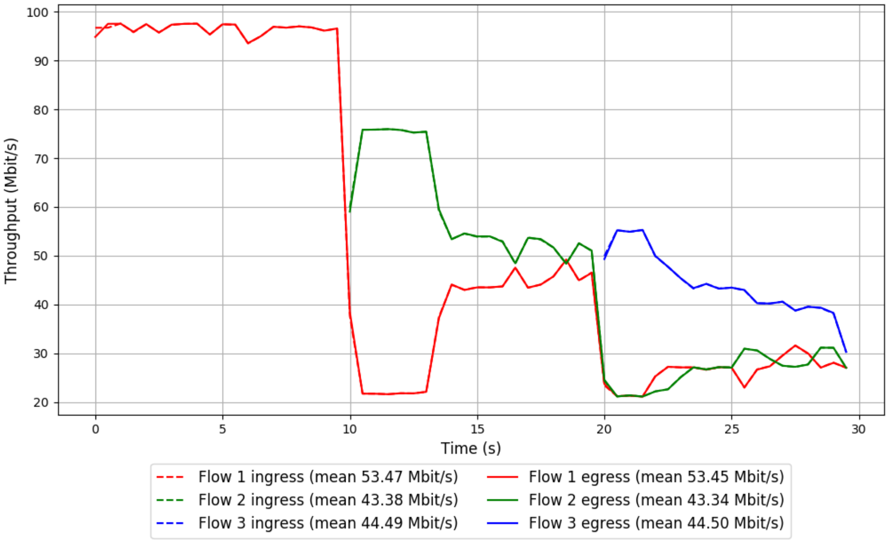


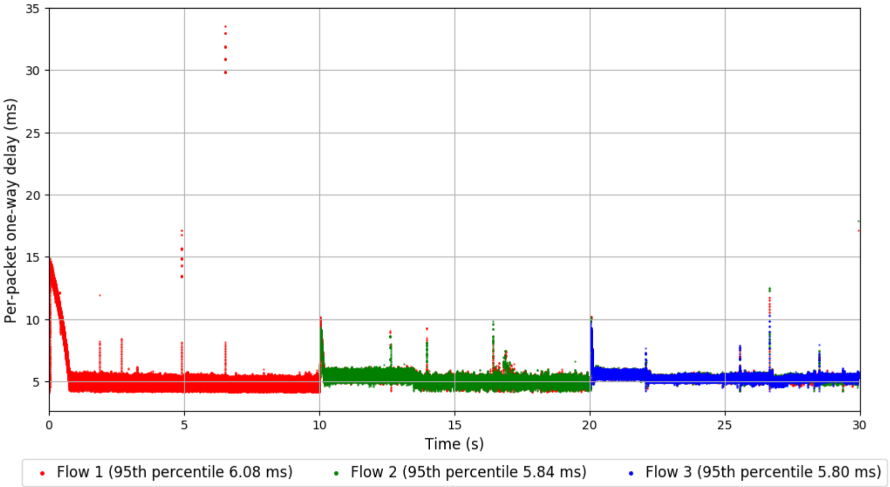
```
Run 3: Statistics of TCP Vegas

Start at: Sun, 09 Jul 2017 23:28:21 +0000
End at: Sun, 09 Jul 2017 23:28:51 +0000
Local clock offset: -2.127 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:39 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.03 Mbit/s
95th percentile per-packet one-way delay: 5.870 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 53.45 Mbit/s
95th percentile per-packet one-way delay: 6.082 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.34 Mbit/s
95th percentile per-packet one-way delay: 5.842 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 44.50 Mbit/s
95th percentile per-packet one-way delay: 5.805 ms
Loss rate: 0.03%
```

Run 3: Report of TCP Vegas — Data Link



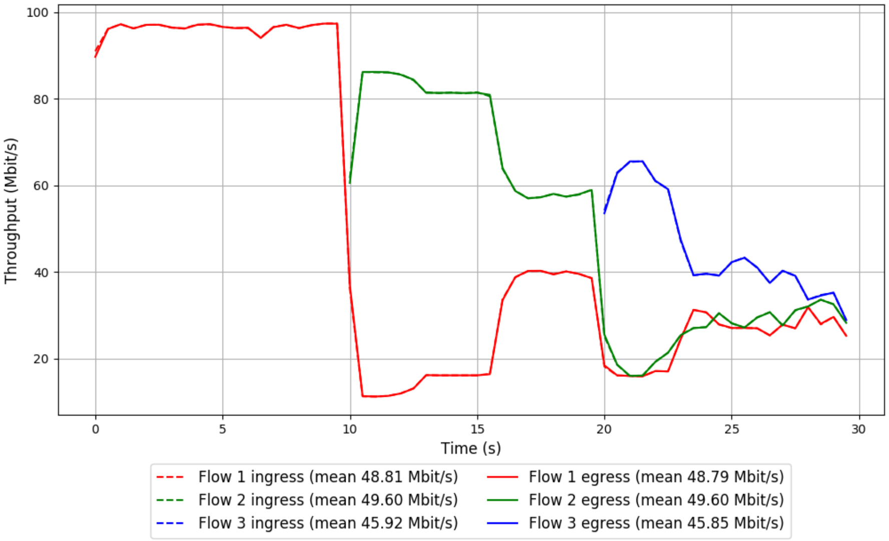


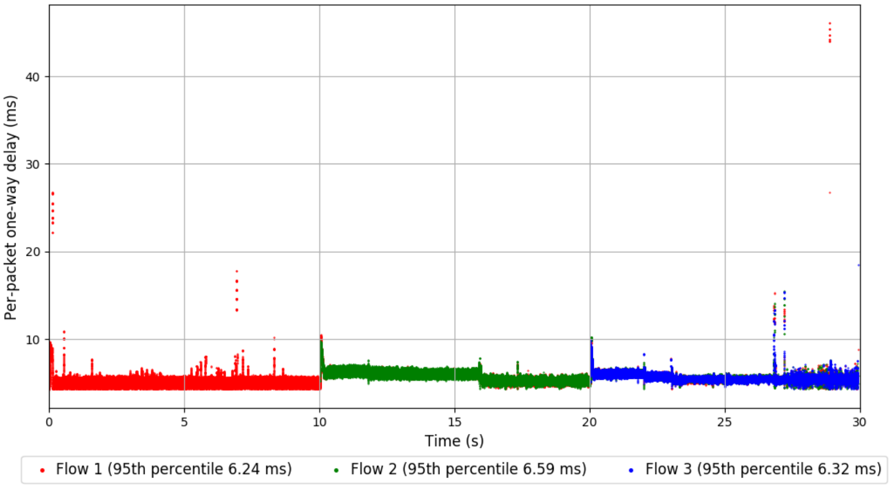
```
Run 4: Statistics of TCP Vegas

Start at: Sun, 09 Jul 2017 23:45:33 +0000
End at: Sun, 09 Jul 2017 23:46:03 +0000
Local clock offset: -2.278 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:45 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.93 Mbit/s
95th percentile per-packet one-way delay: 6.468 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 48.79 Mbit/s
95th percentile per-packet one-way delay: 6.243 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 49.60 Mbit/s
95th percentile per-packet one-way delay: 6.592 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 45.85 Mbit/s
95th percentile per-packet one-way delay: 6.323 ms
Loss rate: 0.04%
```

Run 4: Report of TCP Vegas — Data Link



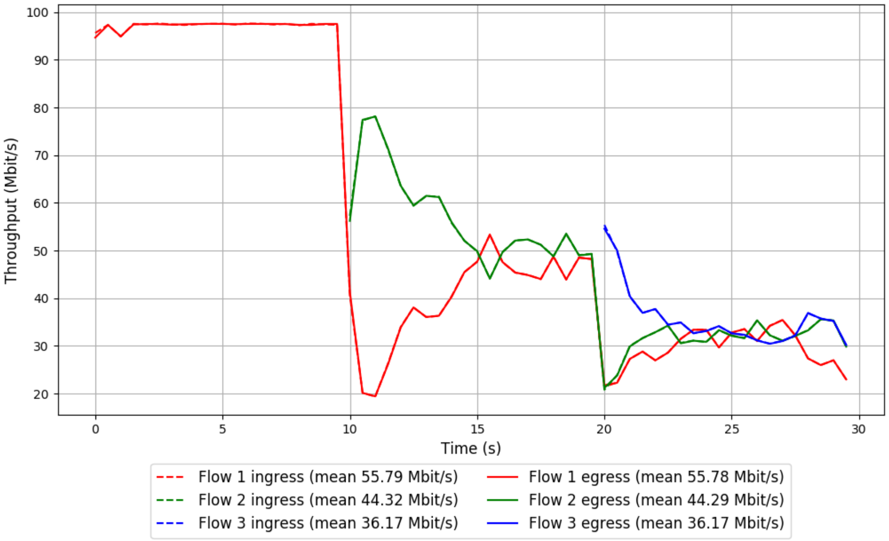


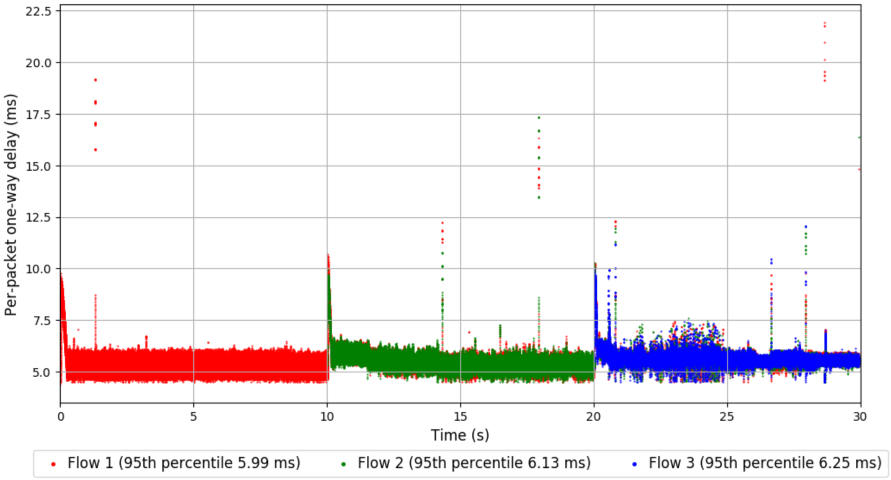
```
Run 5: Statistics of TCP Vegas

Start at: Mon, 10 Jul 2017 00:02:39 +0000
End at: Mon, 10 Jul 2017 00:03:09 +0000
Local clock offset: -2.42 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:52 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.21 Mbit/s
95th percentile per-packet one-way delay: 6.083 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 55.78 Mbit/s
95th percentile per-packet one-way delay: 5.993 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 44.29 Mbit/s
95th percentile per-packet one-way delay: 6.128 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 6.254 ms
Loss rate: 0.05%
```

Run 5: Report of TCP Vegas — Data Link



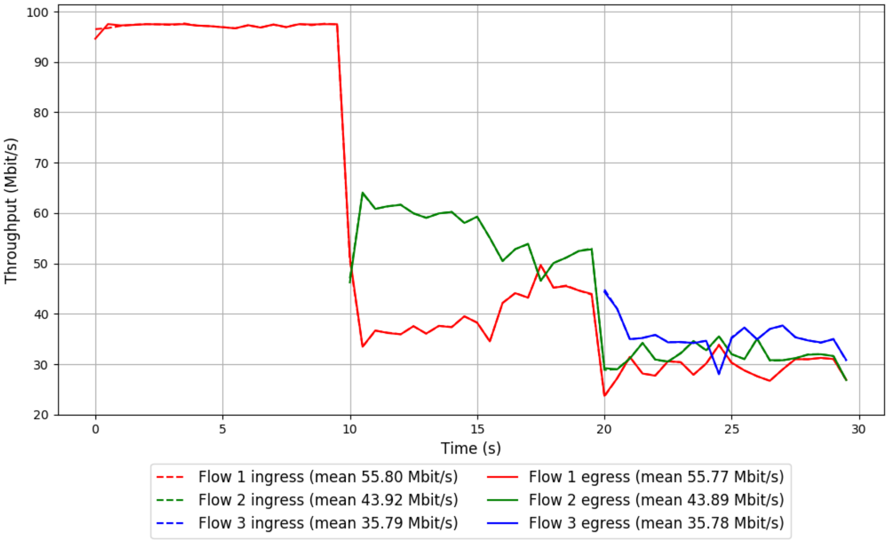


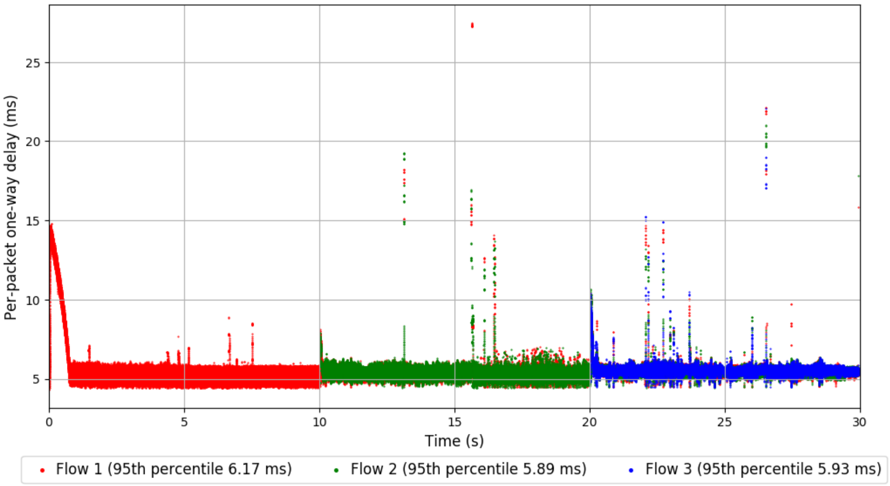
```
Run 6: Statistics of TCP Vegas

Start at: Mon, 10 Jul 2017 00:19:44 +0000
End at: Mon, 10 Jul 2017 00:20:14 +0000
Local clock offset: -2.443 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:33:59 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.82 Mbit/s
95th percentile per-packet one-way delay: 5.964 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 55.77 Mbit/s
95th percentile per-packet one-way delay: 6.168 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.89 Mbit/s
95th percentile per-packet one-way delay: 5.889 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 35.78 Mbit/s
95th percentile per-packet one-way delay: 5.927 ms
Loss rate: 0.04%
```

Run 6: Report of TCP Vegas — Data Link



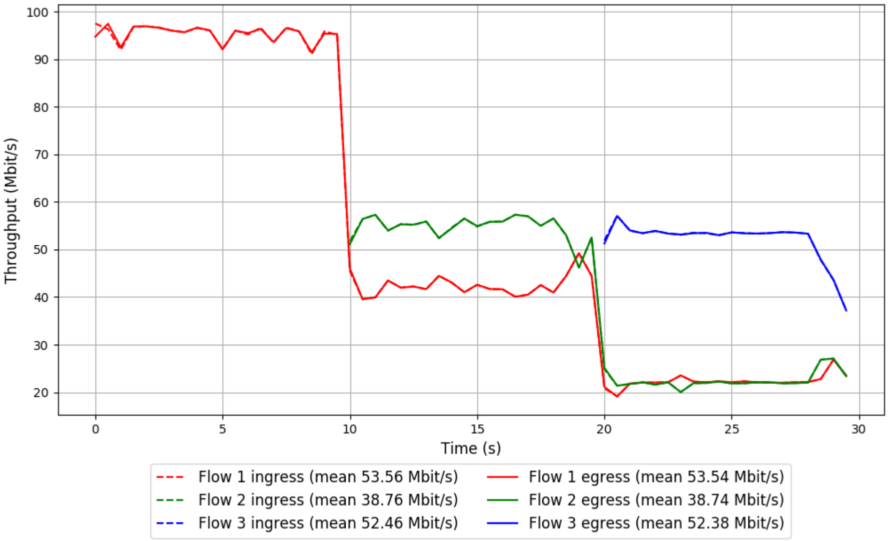


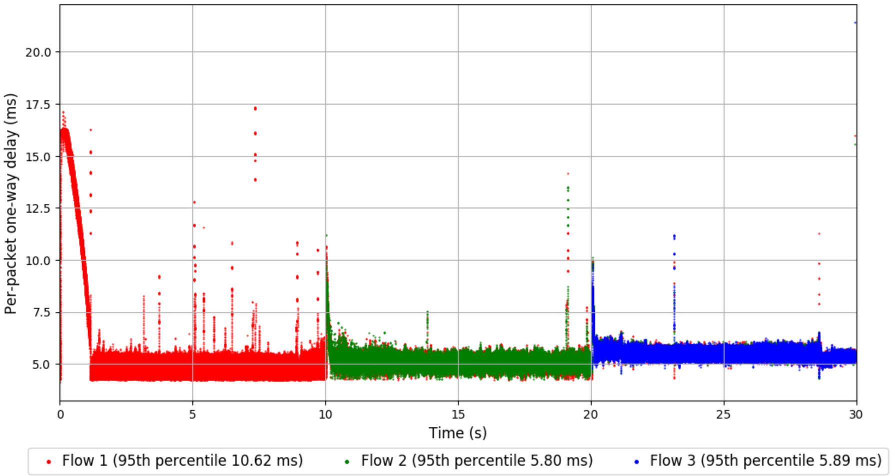
```
Run 7: Statistics of TCP Vegas

Start at: Mon, 10 Jul 2017 00:36:51 +0000
End at: Mon, 10 Jul 2017 00:37:21 +0000
Local clock offset: -2.342 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:06 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 6.139 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.54 Mbit/s
95th percentile per-packet one-way delay: 10.623 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 38.74 Mbit/s
95th percentile per-packet one-way delay: 5.803 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 52.38 Mbit/s
95th percentile per-packet one-way delay: 5.888 ms
Loss rate: 0.04%
```

Run 7: Report of TCP Vegas — Data Link



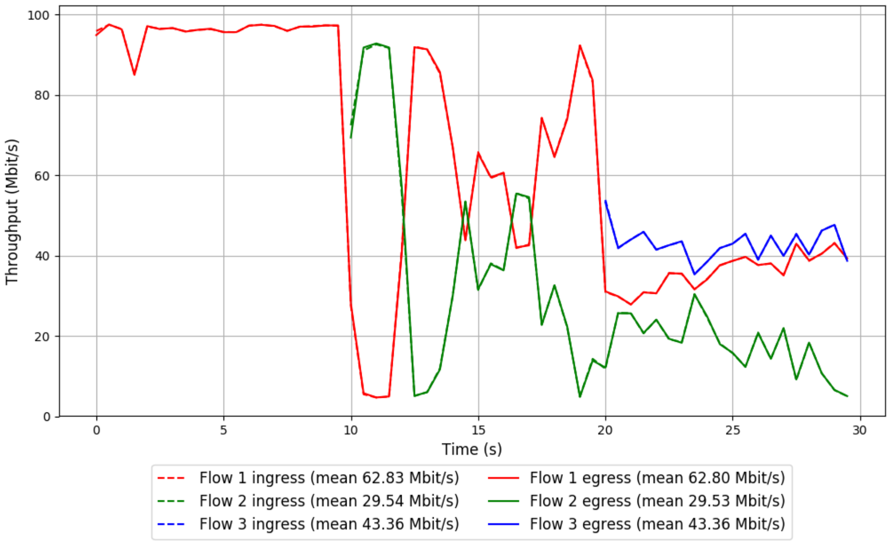


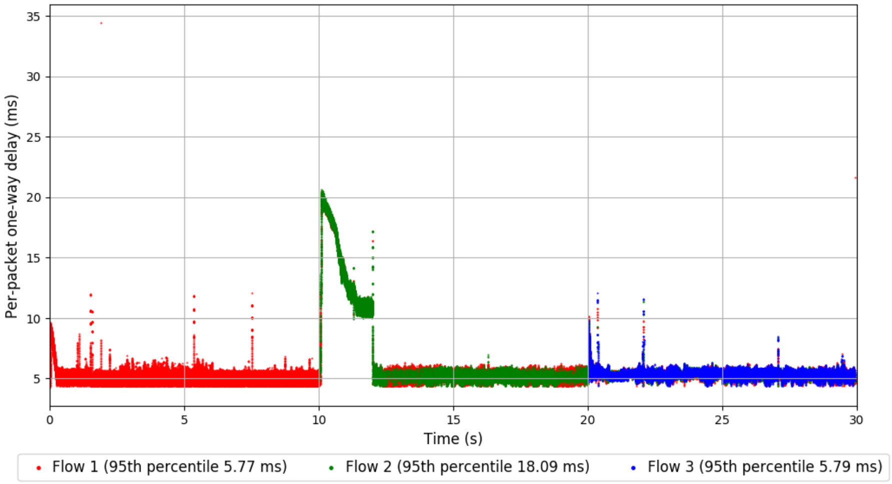
```
Run 8: Statistics of TCP Vegas

Start at: Mon, 10 Jul 2017 00:53:58 +0000
End at: Mon, 10 Jul 2017 00:54:28 +0000
Local clock offset: -2.615 ms
Remote clock offset: -0.342 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:12 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.79 Mbit/s
95th percentile per-packet one-way delay: 11.114 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 62.80 Mbit/s
95th percentile per-packet one-way delay: 5.771 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 29.53 Mbit/s
95th percentile per-packet one-way delay: 18.092 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 43.36 Mbit/s
95th percentile per-packet one-way delay: 5.795 ms
Loss rate: 0.04%
```

Run 8: Report of TCP Vegas — Data Link



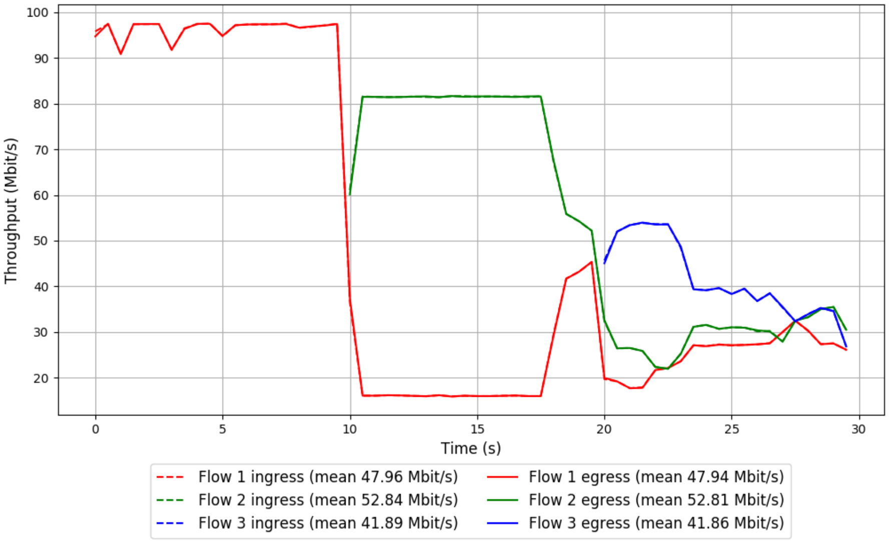


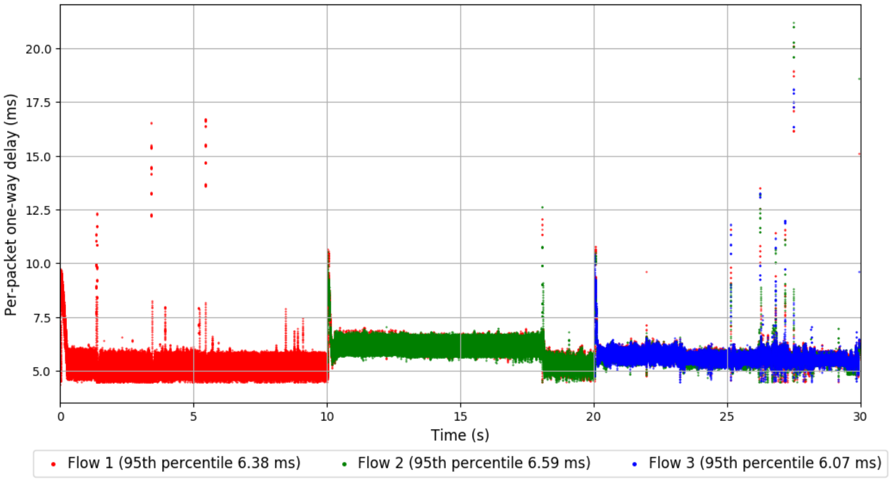
```
Run 9: Statistics of TCP Vegas

Start at: Mon, 10 Jul 2017 01:11:05 +0000
End at: Mon, 10 Jul 2017 01:11:35 +0000
Local clock offset: -2.797 ms
Remote clock offset: -0.363 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:19 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.94 Mbit/s
95th percentile per-packet one-way delay: 6.527 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 47.94 Mbit/s
95th percentile per-packet one-way delay: 6.375 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 52.81 Mbit/s
95th percentile per-packet one-way delay: 6.587 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 41.86 Mbit/s
95th percentile per-packet one-way delay: 6.074 ms
Loss rate: 0.04%
```

Run 9: Report of TCP Vegas — Data Link



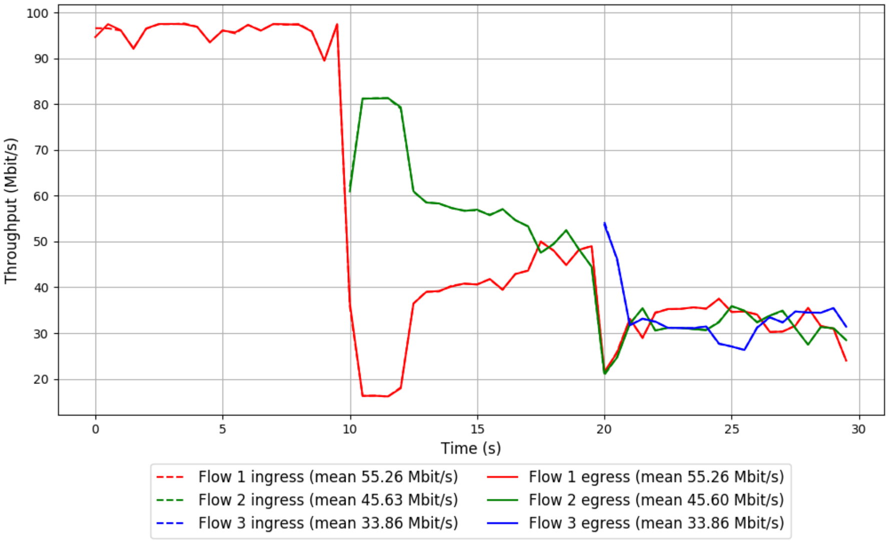


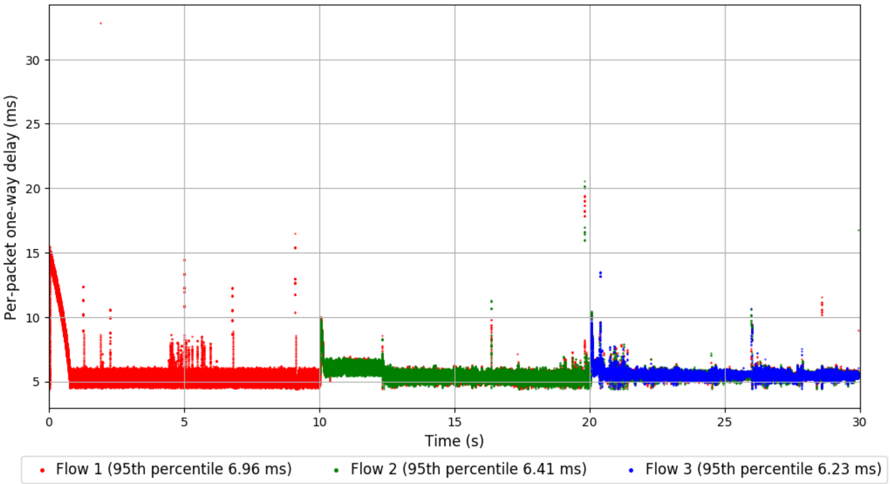
```
Run 10: Statistics of TCP Vegas

Start at: Mon, 10 Jul 2017 01:28:08 +0000
End at: Mon, 10 Jul 2017 01:28:38 +0000
Local clock offset: -2.849 ms
Remote clock offset: -0.545 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:26 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.79 Mbit/s
95th percentile per-packet one-way delay: 6.453 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 55.26 Mbit/s
95th percentile per-packet one-way delay: 6.959 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 45.60 Mbit/s
95th percentile per-packet one-way delay: 6.405 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.86 Mbit/s
95th percentile per-packet one-way delay: 6.233 ms
Loss rate: 0.05%
```

Run 10: Report of TCP Vegas — Data Link



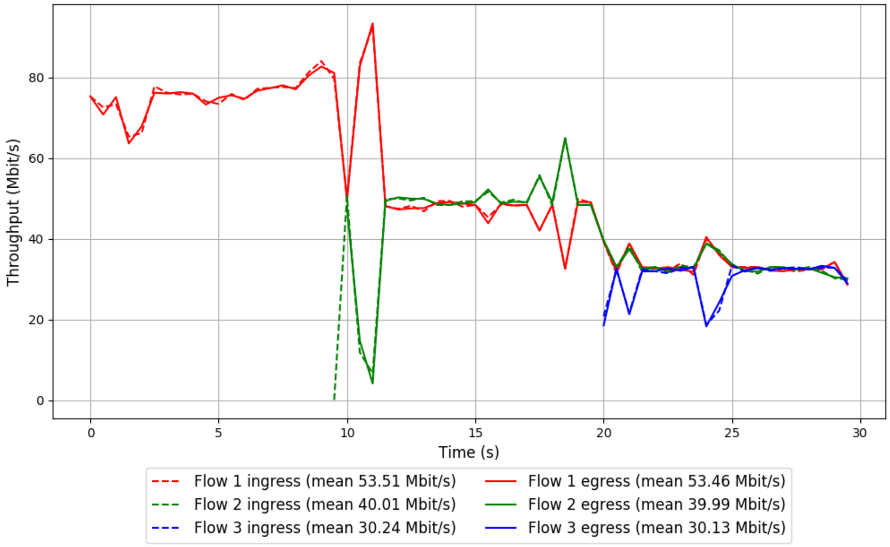


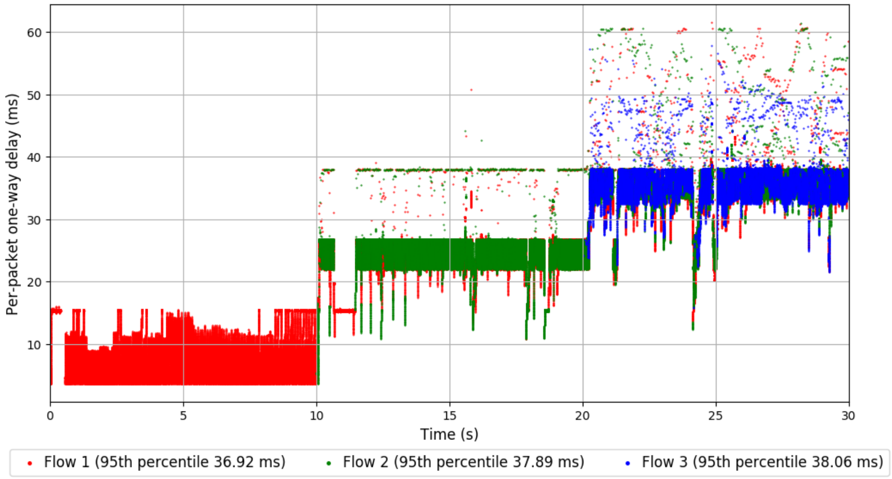
```
Run 1: Statistics of Verus

Start at: Sun, 09 Jul 2017 22:49:35 +0000
End at: Sun, 09 Jul 2017 22:50:05 +0000
Local clock offset: -1.626 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:32 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.06 Mbit/s
95th percentile per-packet one-way delay: 37.821 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 53.46 Mbit/s
95th percentile per-packet one-way delay: 36.918 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 39.99 Mbit/s
95th percentile per-packet one-way delay: 37.894 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 38.065 ms
Loss rate: 0.58%
```

Run 1: Report of Verus — Data Link



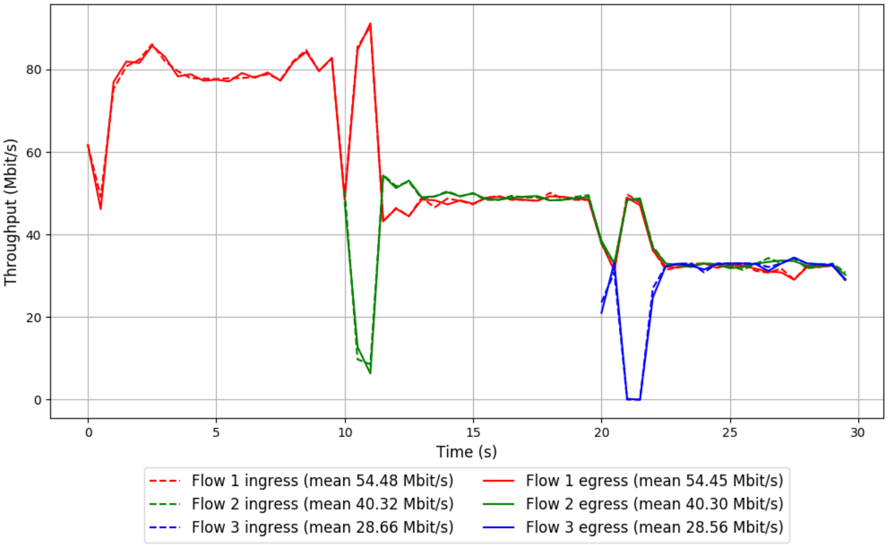


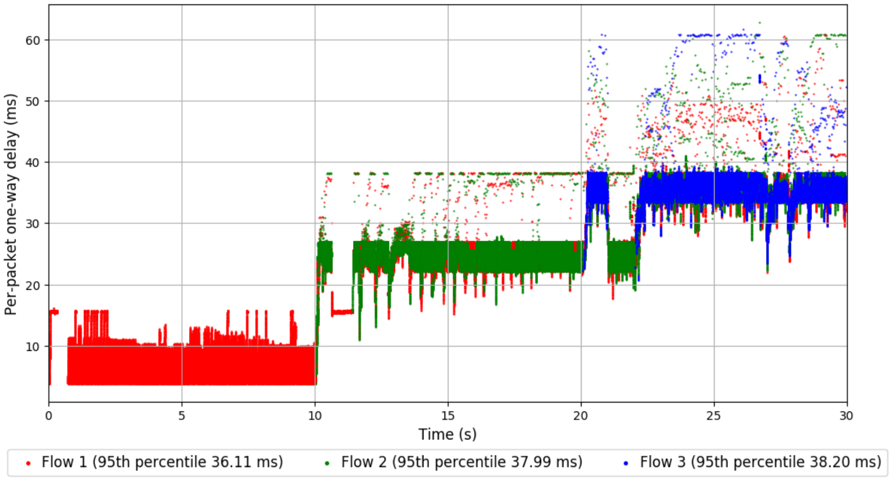
```
Run 2: Statistics of Verus

Start at: Sun, 09 Jul 2017 23:06:38 +0000
End at: Sun, 09 Jul 2017 23:07:08 +0000
Local clock offset: -1.852 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:39 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.67 Mbit/s
95th percentile per-packet one-way delay: 37.574 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 54.45 Mbit/s
95th percentile per-packet one-way delay: 36.106 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.30 Mbit/s
95th percentile per-packet one-way delay: 37.989 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 28.56 Mbit/s
95th percentile per-packet one-way delay: 38.201 ms
Loss rate: 0.58%
```

Run 2: Report of Verus — Data Link



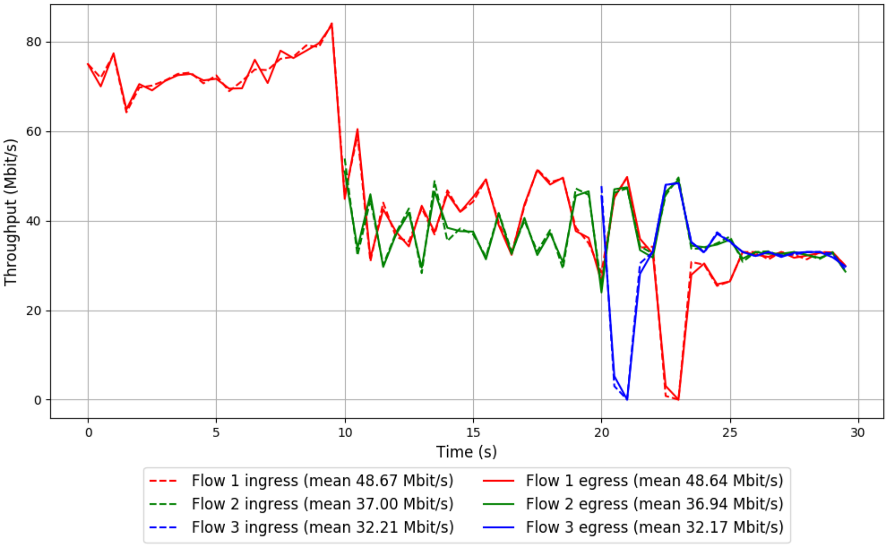


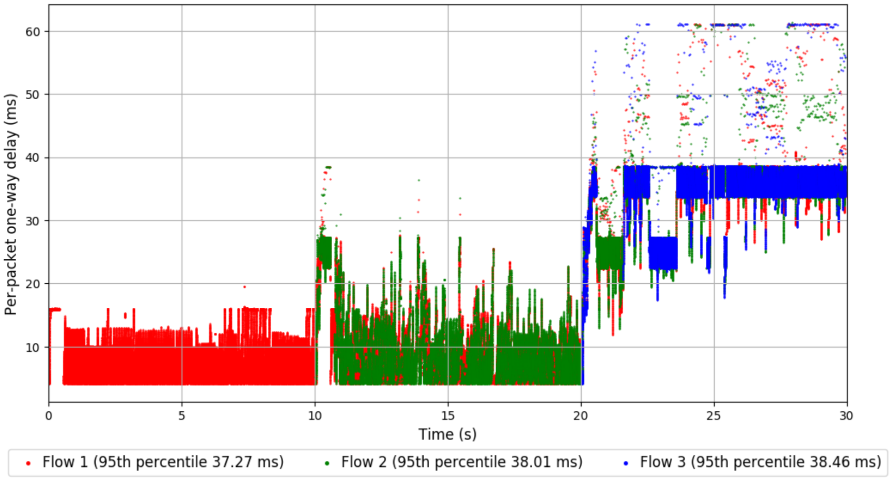
```
Run 3: Statistics of Verus

Start at: Sun, 09 Jul 2017 23:23:48 +0000
End at: Sun, 09 Jul 2017 23:24:18 +0000
Local clock offset: -2.116 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:44 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.91 Mbit/s
95th percentile per-packet one-way delay: 38.094 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 48.64 Mbit/s
95th percentile per-packet one-way delay: 37.267 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 36.94 Mbit/s
95th percentile per-packet one-way delay: 38.007 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 38.460 ms
Loss rate: 0.35%
```

Run 3: Report of Verus — Data Link



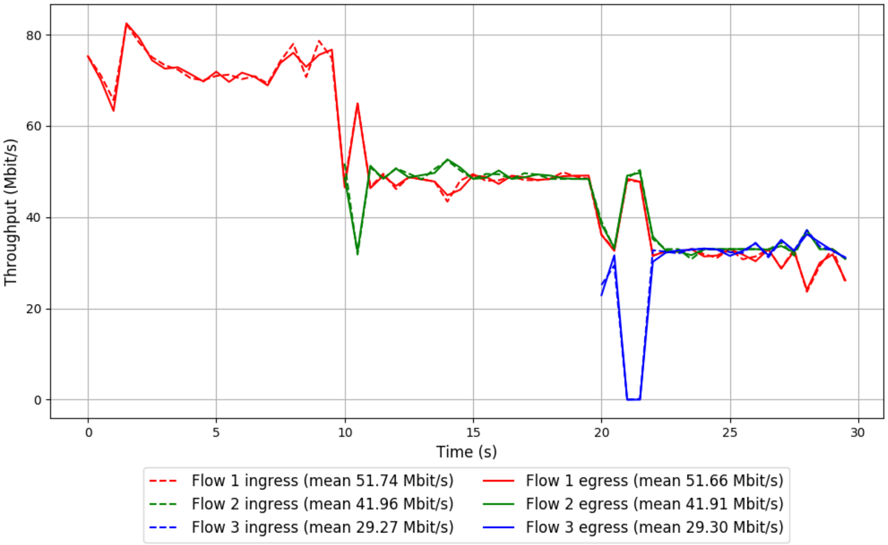


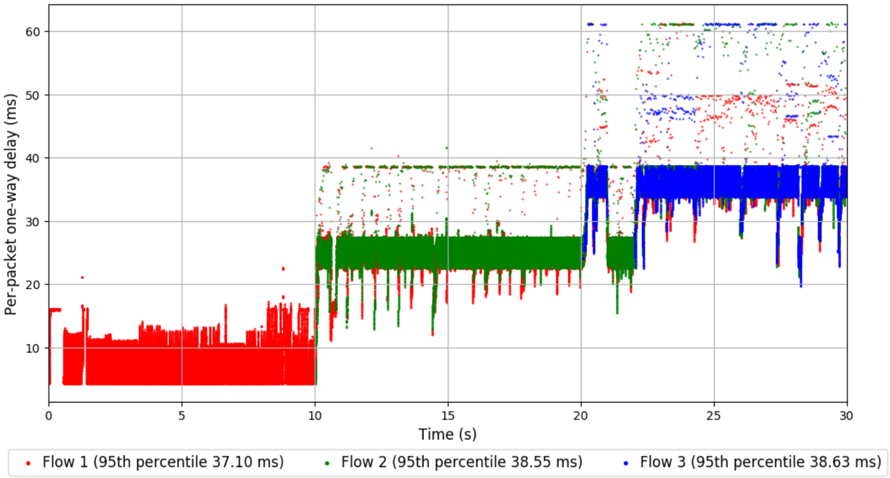
```
Run 4: Statistics of Verus

Start at: Sun, 09 Jul 2017 23:40:53 +0000
End at: Sun, 09 Jul 2017 23:41:23 +0000
Local clock offset: -2.212 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:51 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.26 Mbit/s
95th percentile per-packet one-way delay: 38.476 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 51.66 Mbit/s
95th percentile per-packet one-way delay: 37.097 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 41.91 Mbit/s
95th percentile per-packet one-way delay: 38.553 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 29.30 Mbit/s
95th percentile per-packet one-way delay: 38.627 ms
Loss rate: 0.39%
```

Run 4: Report of Verus — Data Link



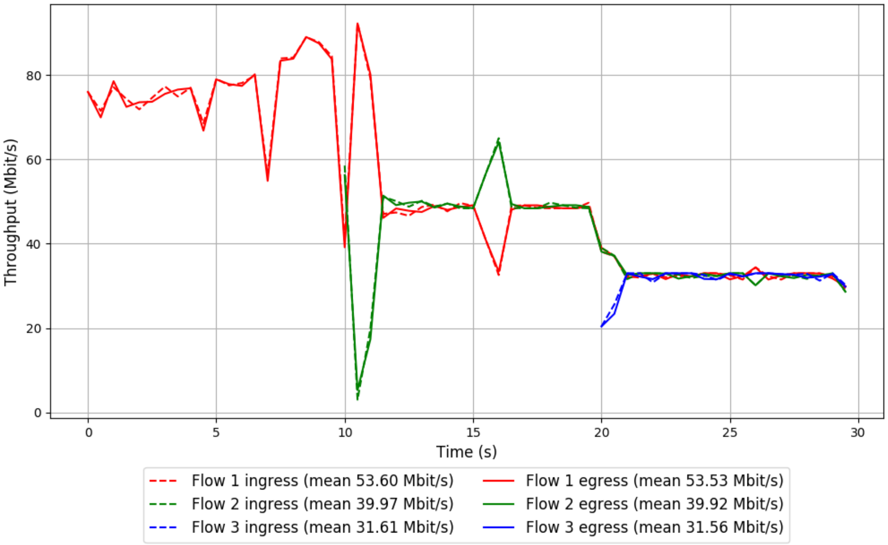


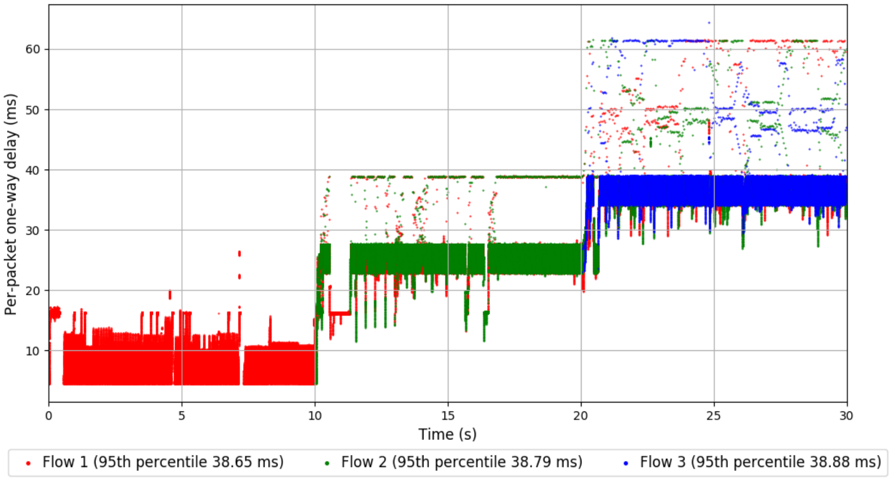
```
Run 5: Statistics of Verus

Start at: Sun, 09 Jul 2017 23:58:02 +0000
End at: Sun, 09 Jul 2017 23:58:32 +0000
Local clock offset: -2.381 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:34:57 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 38.780 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 53.53 Mbit/s
95th percentile per-packet one-way delay: 38.651 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 38.792 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 31.56 Mbit/s
95th percentile per-packet one-way delay: 38.875 ms
Loss rate: 0.55%
```

Run 5: Report of Verus — Data Link



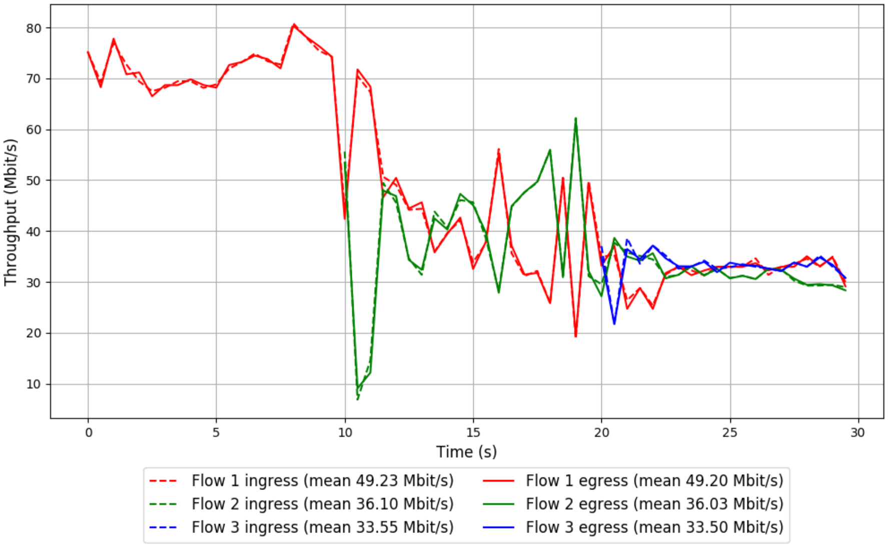


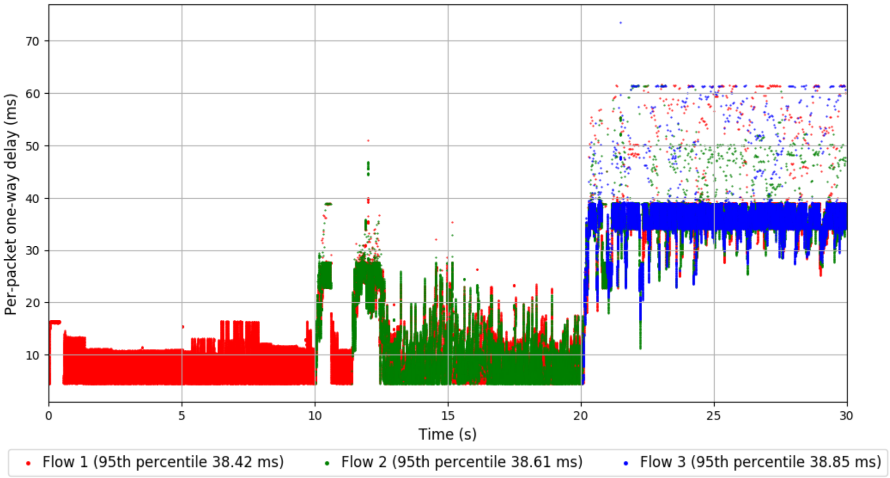
```
Run 6: Statistics of Verus

Start at: Mon, 10 Jul 2017 00:15:07 +0000
End at: Mon, 10 Jul 2017 00:15:37 +0000
Local clock offset: -2.428 ms
Remote clock offset: -0.117 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:04 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.23 Mbit/s
95th percentile per-packet one-way delay: 38.739 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 38.425 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 36.03 Mbit/s
95th percentile per-packet one-way delay: 38.614 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 33.50 Mbit/s
95th percentile per-packet one-way delay: 38.850 ms
Loss rate: 0.52%
```

Run 6: Report of Verus — Data Link



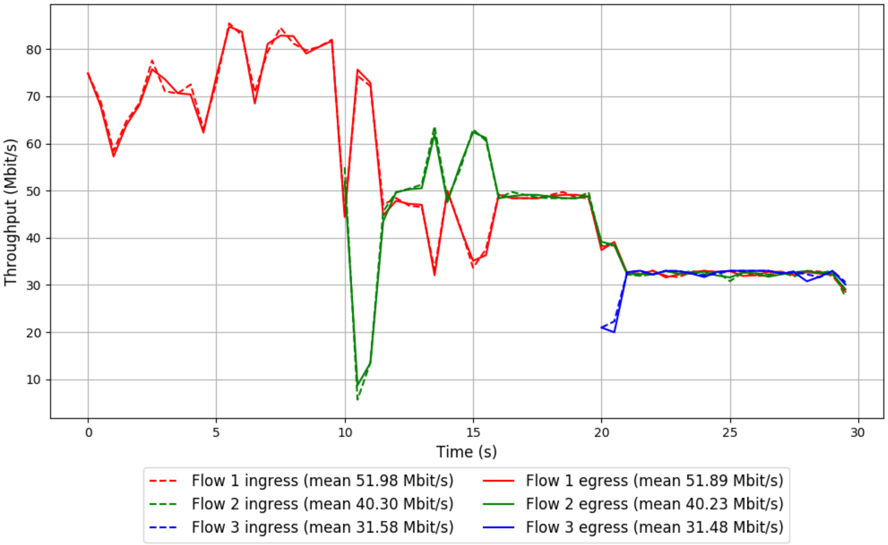


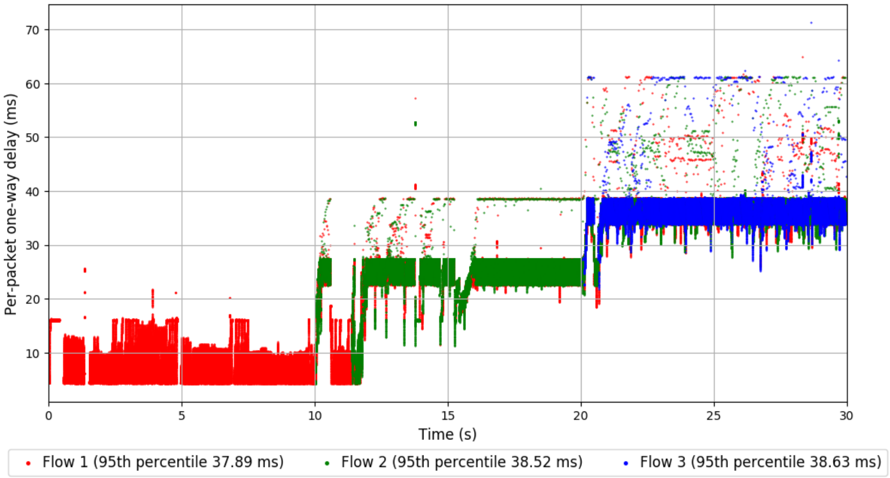
```
Run 7: Statistics of Verus

Start at: Mon, 10 Jul 2017 00:32:10 +0000
End at: Mon, 10 Jul 2017 00:32:40 +0000
Local clock offset: -2.345 ms
Remote clock offset: -0.267 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:10 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.02 Mbit/s
95th percentile per-packet one-way delay: 38.526 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 51.89 Mbit/s
95th percentile per-packet one-way delay: 37.891 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 38.521 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 38.630 ms
Loss rate: 0.68%
```

Run 7: Report of Verus — Data Link



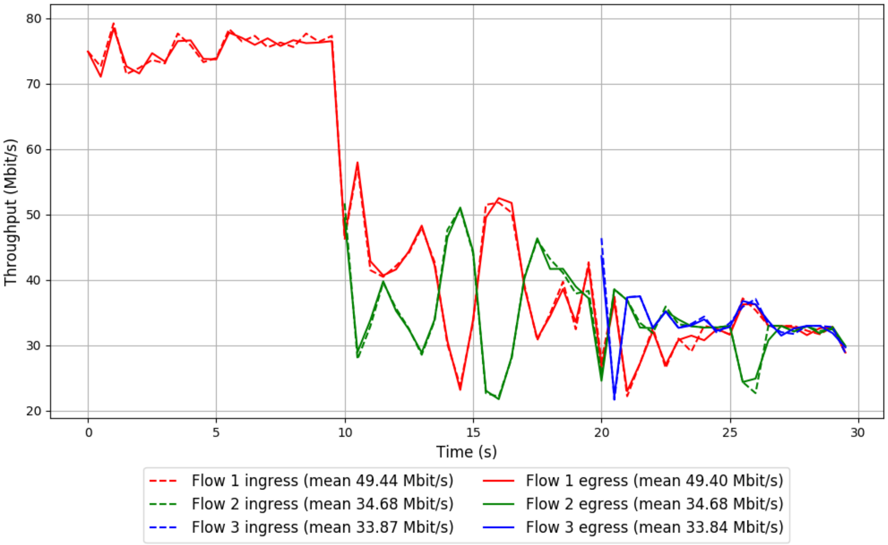


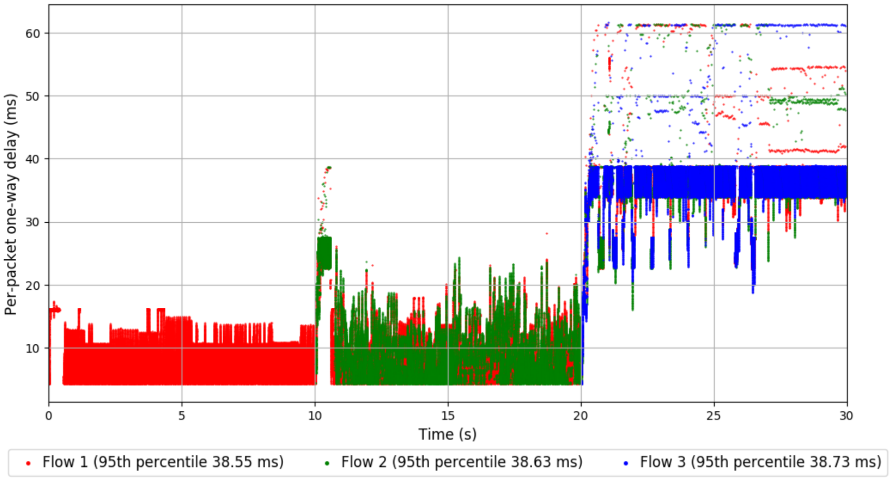
```
Run 8: Statistics of Verus

Start at: Mon, 10 Jul 2017 00:49:22 +0000
End at: Mon, 10 Jul 2017 00:49:52 +0000
Local clock offset: -2.514 ms
Remote clock offset: -0.357 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:16 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.70 Mbit/s
95th percentile per-packet one-way delay: 38.647 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 49.40 Mbit/s
95th percentile per-packet one-way delay: 38.553 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 34.68 Mbit/s
95th percentile per-packet one-way delay: 38.634 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 33.84 Mbit/s
95th percentile per-packet one-way delay: 38.725 ms
Loss rate: 0.34%
```

Run 8: Report of Verus — Data Link



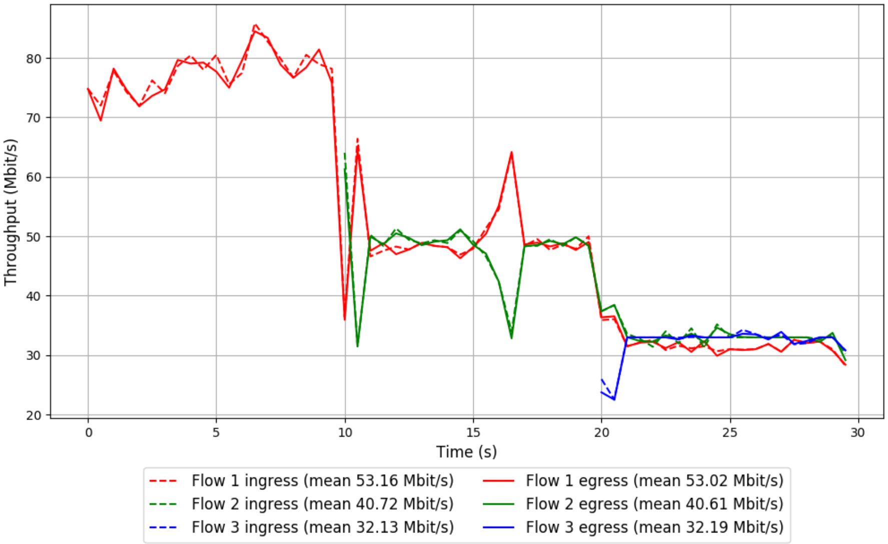


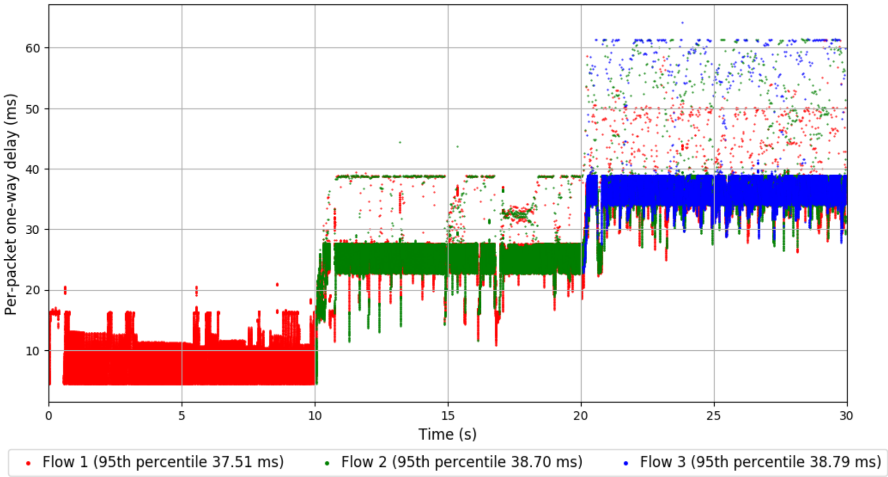
```
Run 9: Statistics of Verus

Start at: Mon, 10 Jul 2017 01:06:25 +0000
End at: Mon, 10 Jul 2017 01:06:55 +0000
Local clock offset: -2.816 ms
Remote clock offset: -0.408 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:23 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.69 Mbit/s
95th percentile per-packet one-way delay: 38.661 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 53.02 Mbit/s
95th percentile per-packet one-way delay: 37.513 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 38.696 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 38.793 ms
Loss rate: 0.35%
```

Run 9: Report of Verus — Data Link



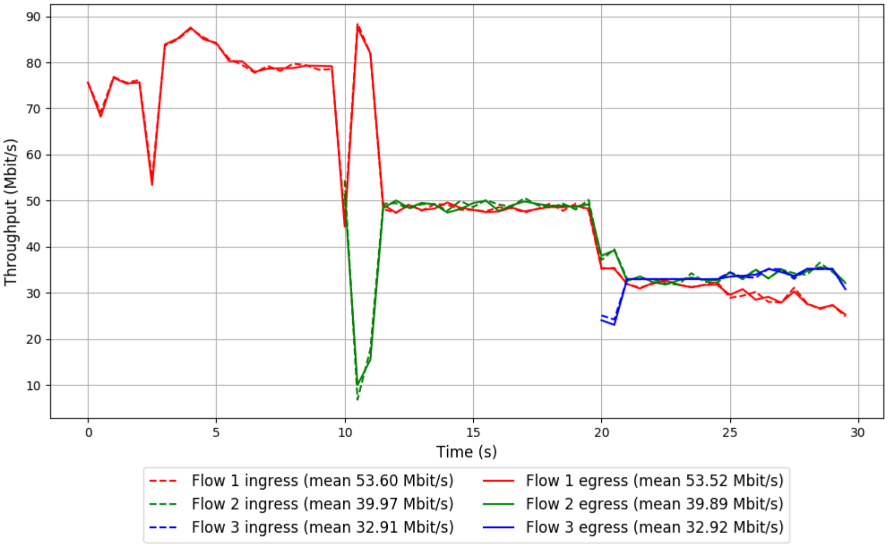


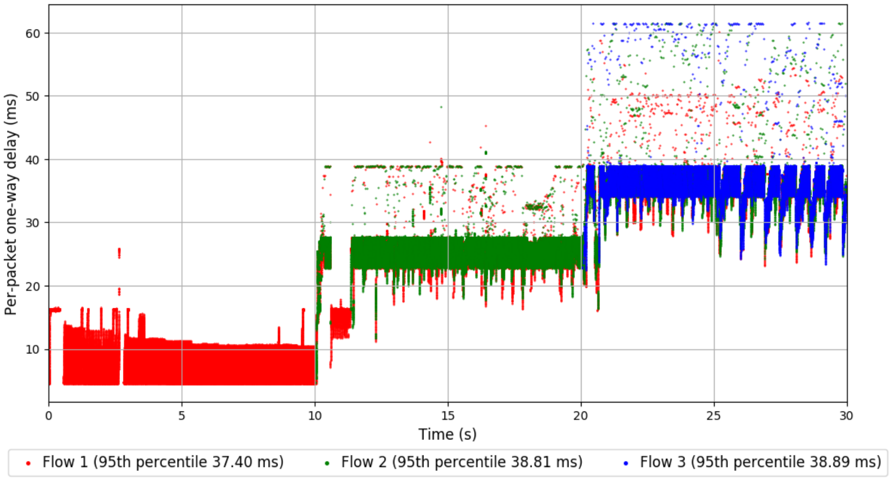
```
Run 10: Statistics of Verus

Start at: Mon, 10 Jul 2017 01:23:28 +0000
End at: Mon, 10 Jul 2017 01:23:58 +0000
Local clock offset: -2.782 ms
Remote clock offset: -0.406 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:32 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.94 Mbit/s
95th percentile per-packet one-way delay: 38.759 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 53.52 Mbit/s
95th percentile per-packet one-way delay: 37.397 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.89 Mbit/s
95th percentile per-packet one-way delay: 38.807 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 32.92 Mbit/s
95th percentile per-packet one-way delay: 38.889 ms
Loss rate: 0.34%
```

Run 10: Report of Verus — Data Link



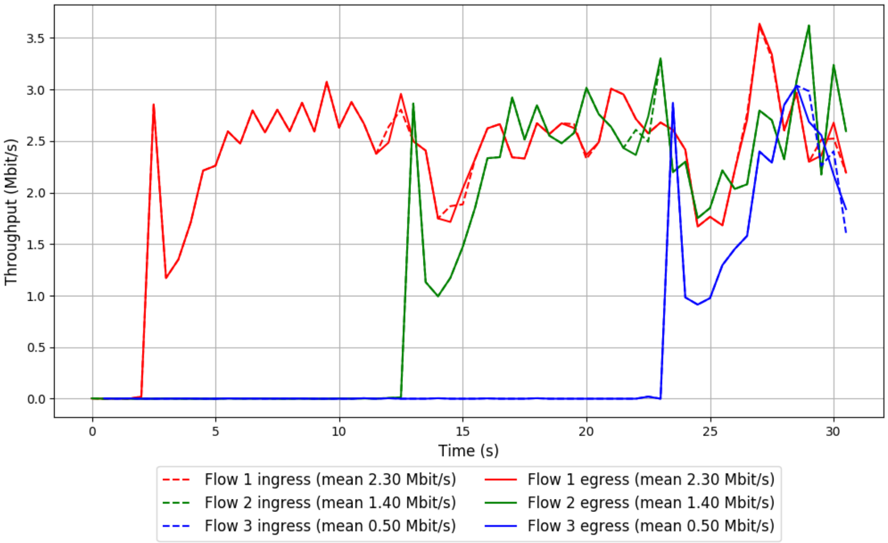


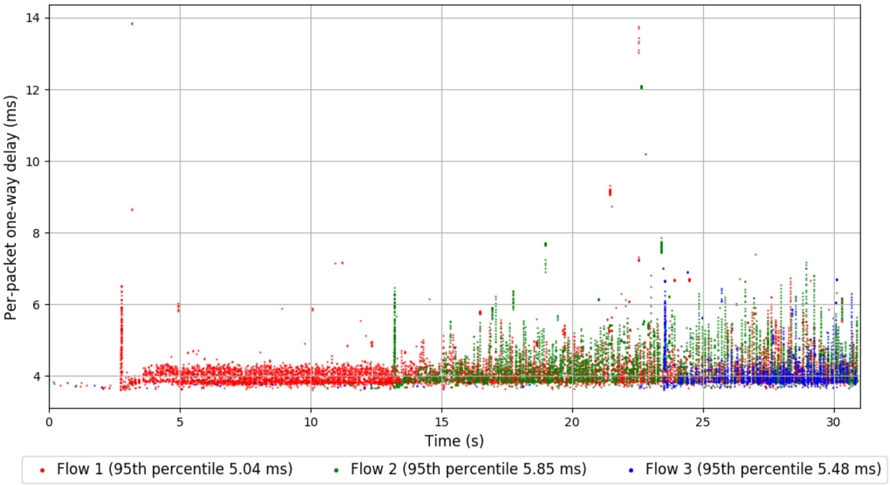
```
Run 1: Statistics of WebRTC media

Start at: Sun, 09 Jul 2017 22:58:40 +0000
End at: Sun, 09 Jul 2017 22:59:10 +0000
Local clock offset: -1.858 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:32 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 5.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 5.044 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 5.847 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 5.482 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



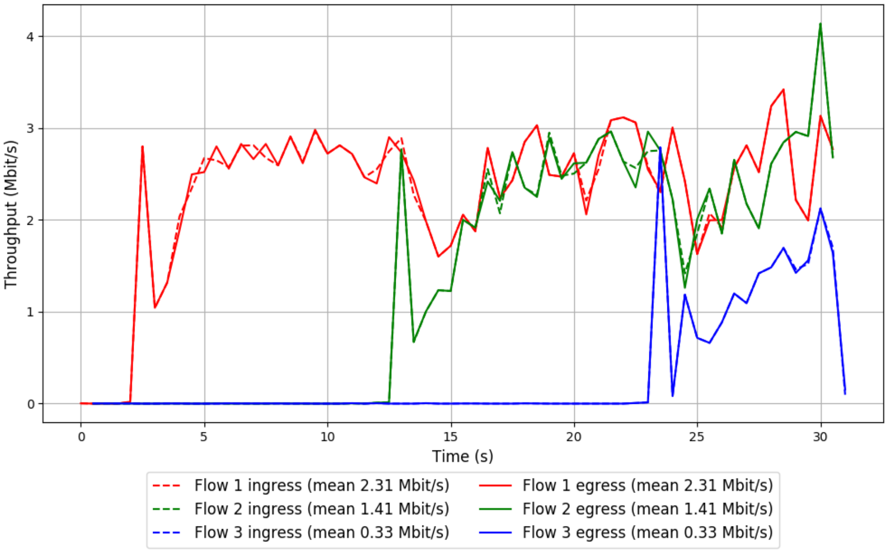


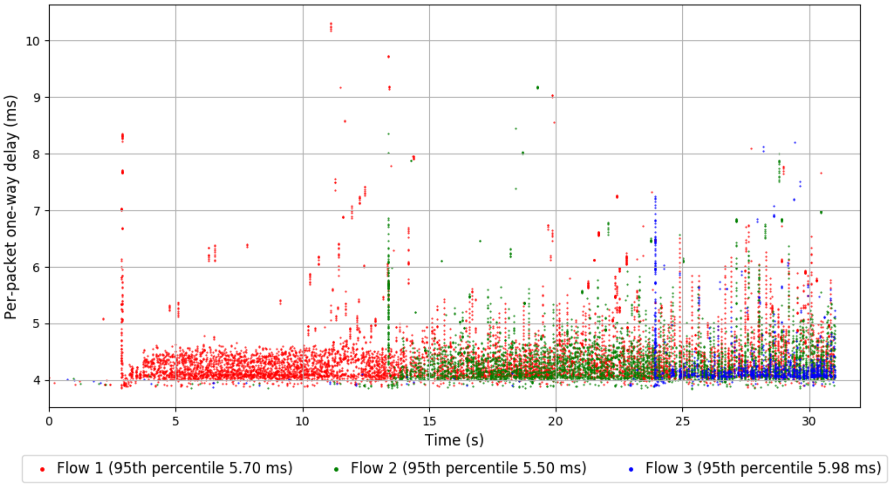
```
Run 2: Statistics of WebRTC media

Start at: Sun, 09 Jul 2017 23:15:50 +0000
End at: Sun, 09 Jul 2017 23:16:20 +0000
Local clock offset: -1.974 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:32 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 5.660 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 5.703 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 5.504 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 5.977 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



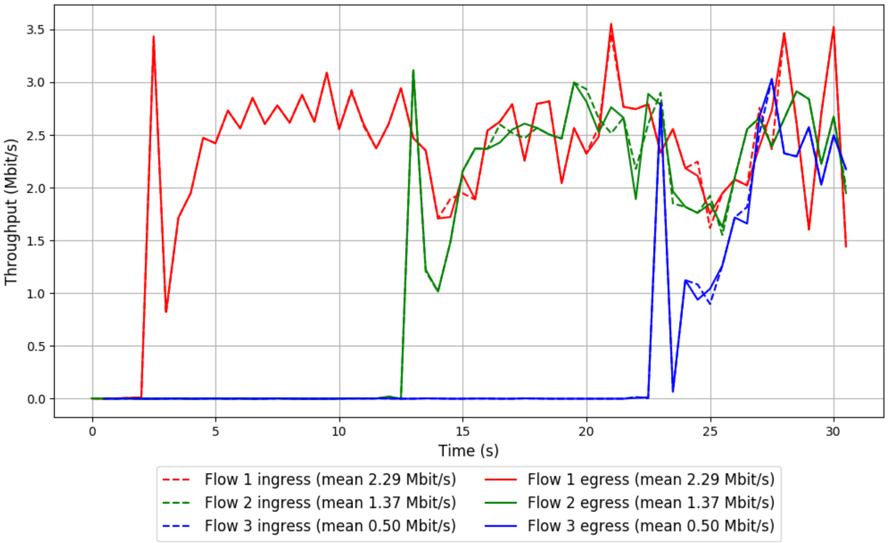


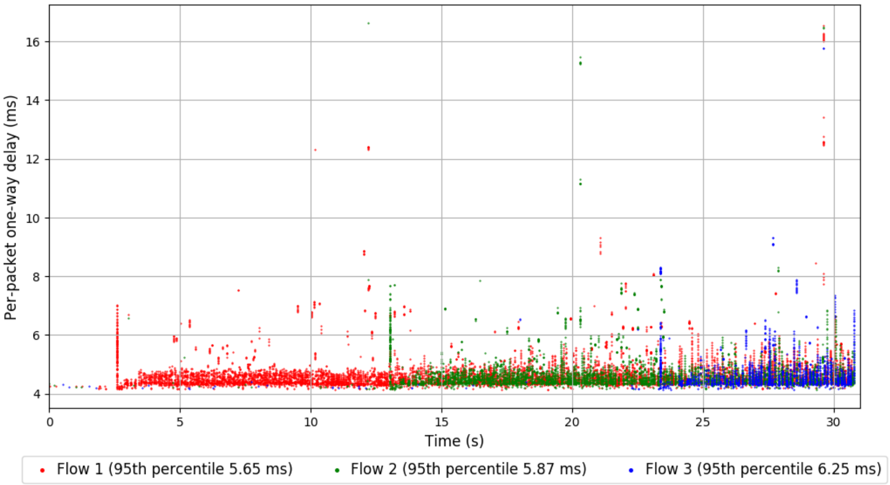
```
Run 3: Statistics of WebRTC media

Start at: Sun, 09 Jul 2017 23:32:55 +0000
End at: Sun, 09 Jul 2017 23:33:25 +0000
Local clock offset: -2.31 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:32 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 5.839 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 5.653 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 5.867 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 6.252 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link



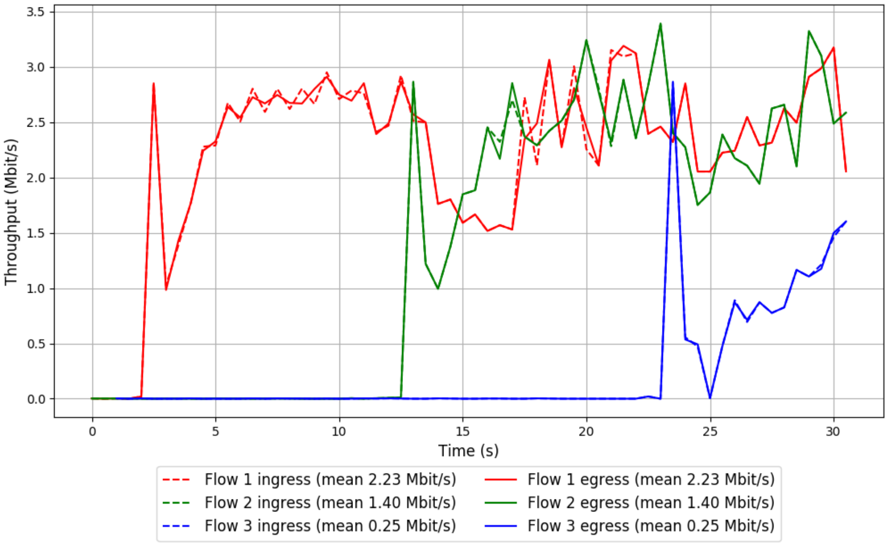


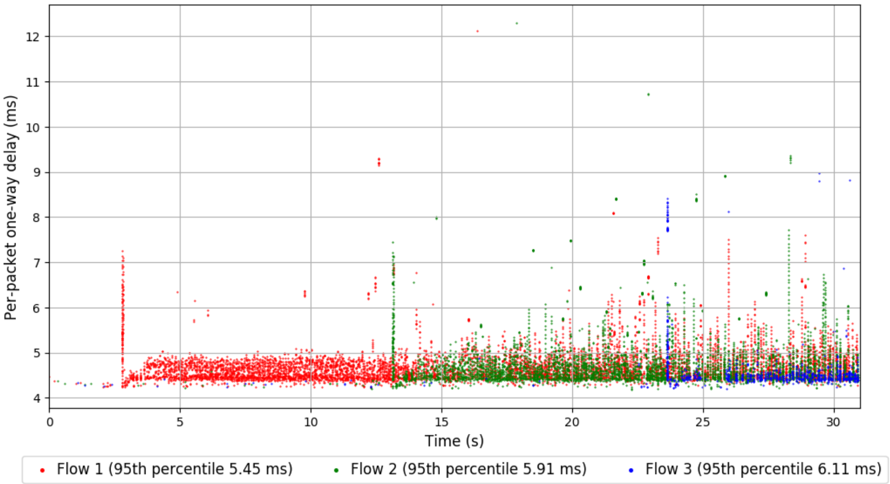
```
Run 4: Statistics of WebRTC media

Start at: Sun, 09 Jul 2017 23:50:03 +0000
End at: Sun, 09 Jul 2017 23:50:34 +0000
Local clock offset: -2.383 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:32 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 5.626 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 5.454 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 5.914 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 6.112 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



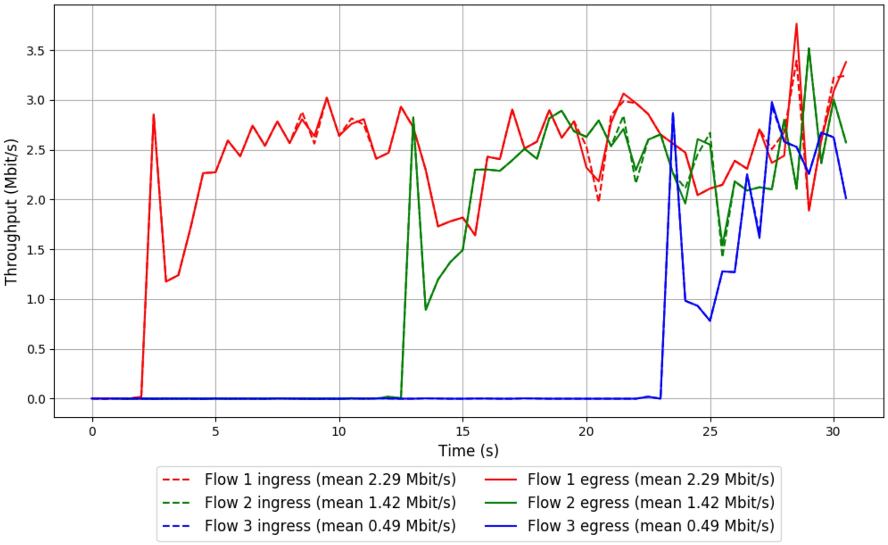


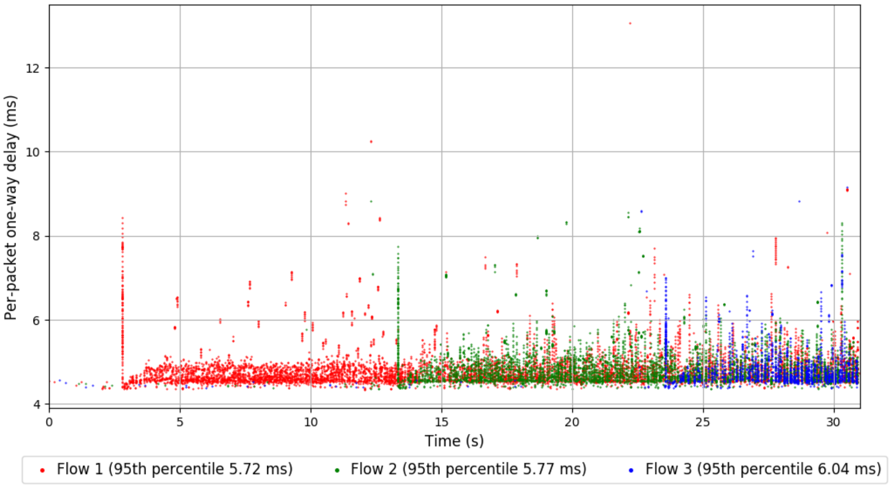
```
Run 5: Statistics of WebRTC media

Start at: Mon, 10 Jul 2017 00:07:10 +0000
End at: Mon, 10 Jul 2017 00:07:40 +0000
Local clock offset: -2.442 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:33 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 5.798 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 5.723 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 5.767 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 6.042 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



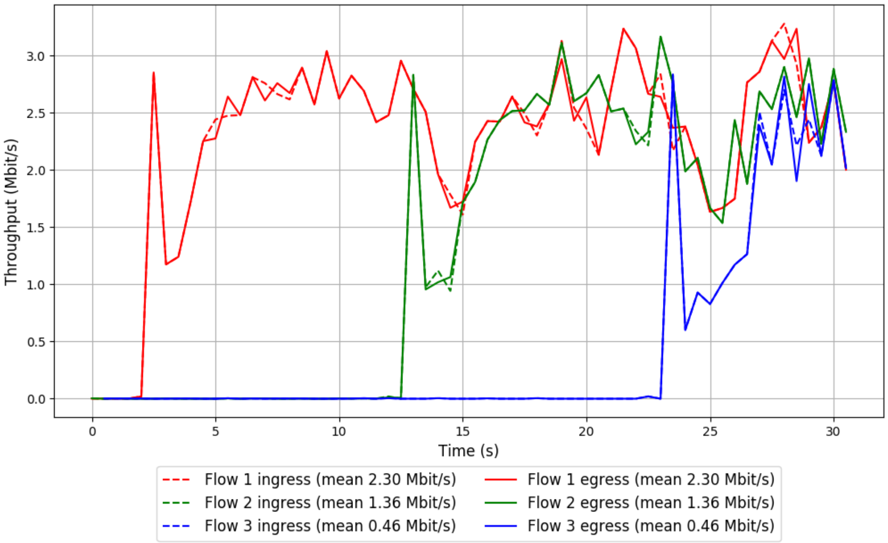


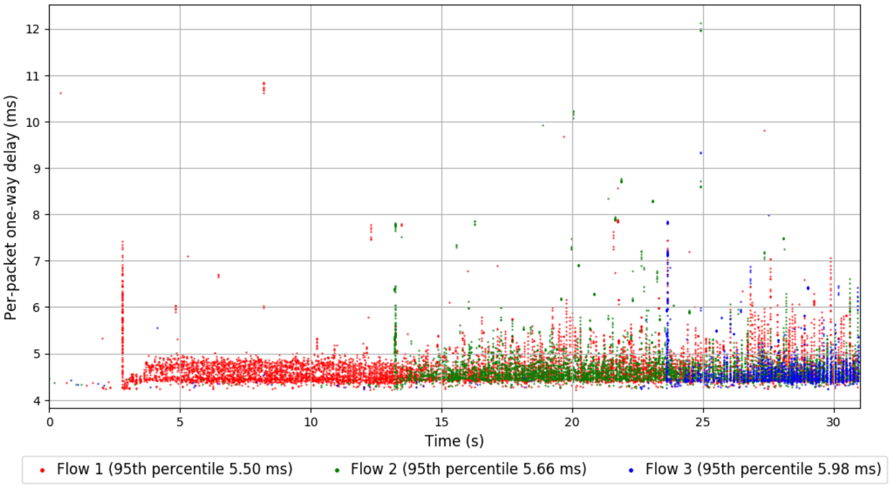
```
Run 6: Statistics of WebRTC media

Start at: Mon, 10 Jul 2017 00:24:13 +0000
End at: Mon, 10 Jul 2017 00:24:43 +0000
Local clock offset: -2.441 ms
Remote clock offset: -0.164 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:34 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 5.578 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 5.500 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 5.655 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 5.976 ms
Loss rate: 0.01%
```

Run 6: Report of WebRTC media — Data Link



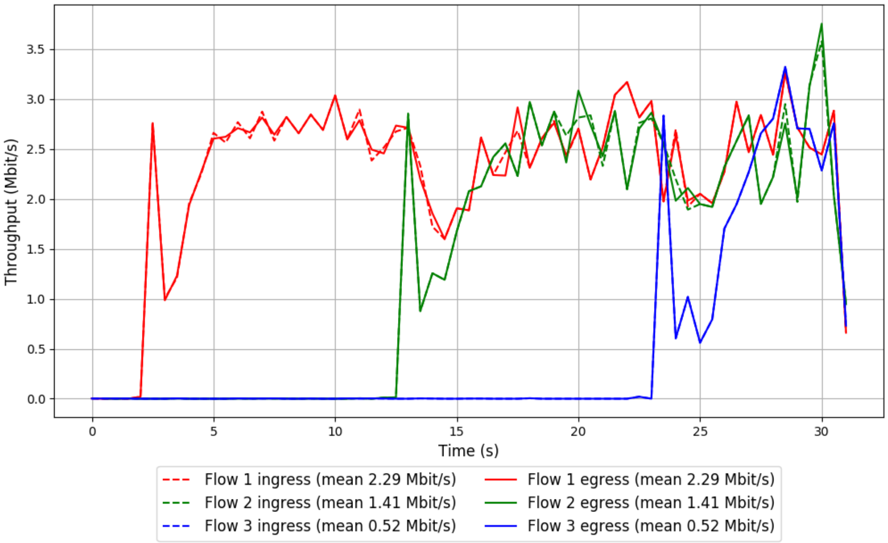


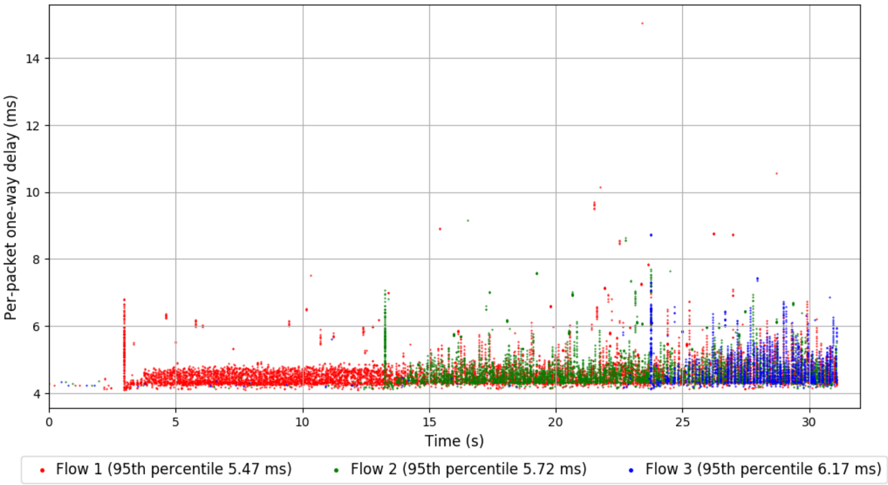
```
Run 7: Statistics of WebRTC media

Start at: Mon, 10 Jul 2017 00:41:23 +0000
End at: Mon, 10 Jul 2017 00:41:53 +0000
Local clock offset: -2.432 ms
Remote clock offset: -0.278 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:35 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 5.702 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 5.471 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 5.719 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 6.166 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link



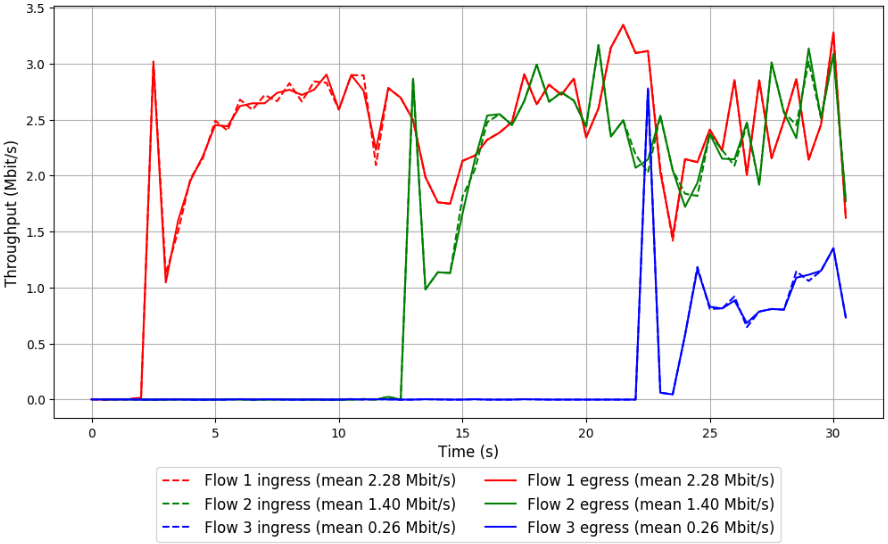


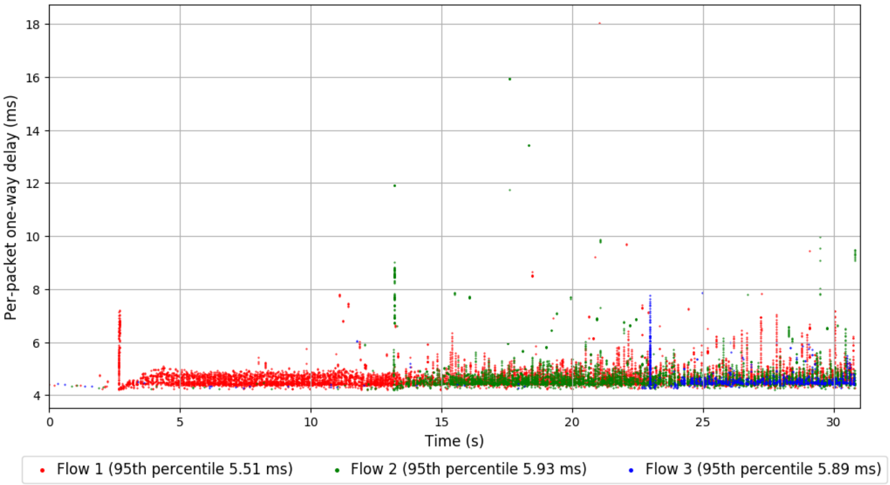
```
Run 8: Statistics of WebRTC media

Start at: Mon, 10 Jul 2017 00:58:27 +0000
End at: Mon, 10 Jul 2017 00:58:57 +0000
Local clock offset: -2.615 ms
Remote clock offset: -0.396 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:36 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 5.616 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 5.510 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 5.935 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 5.895 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link



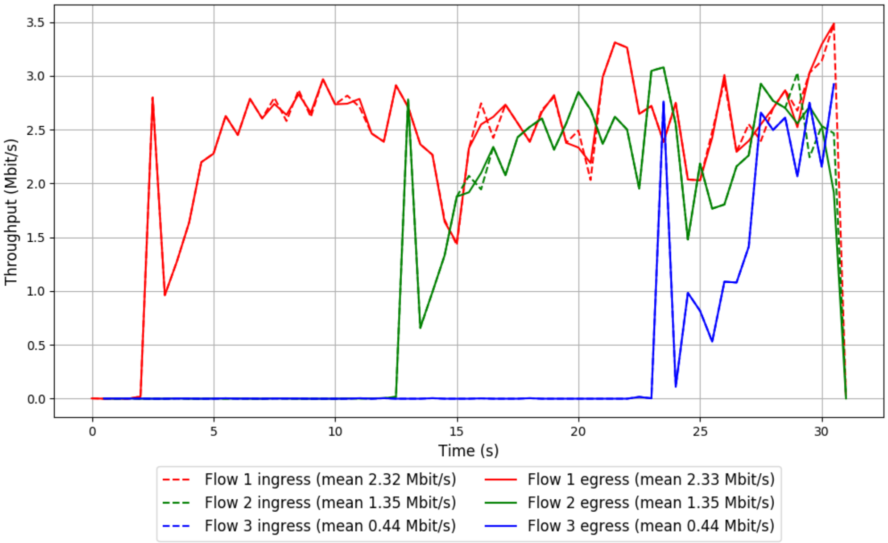


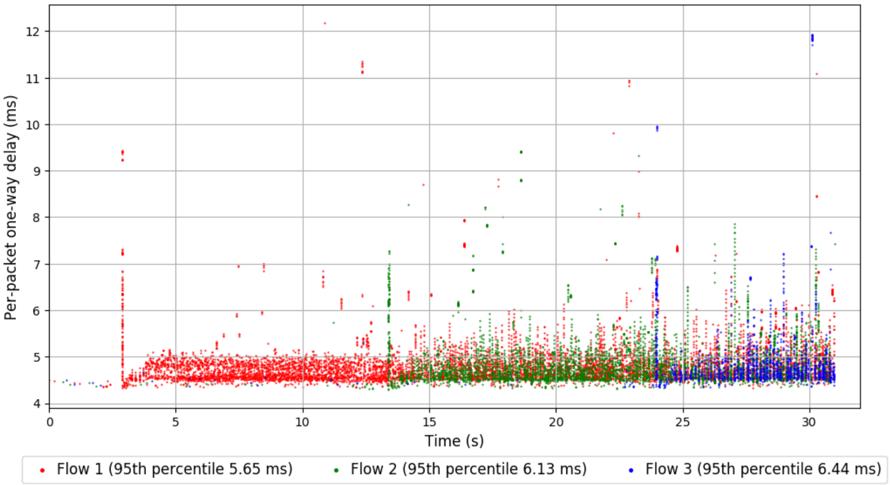
```
Run 9: Statistics of WebRTC media

Start at: Mon, 10 Jul 2017 01:15:33 +0000
End at: Mon, 10 Jul 2017 01:16:03 +0000
Local clock offset: -2.757 ms
Remote clock offset: -0.43 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:37 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.08 Mbit/s
95th percentile per-packet one-way delay: 5.932 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 5.653 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 6.133 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 6.443 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link



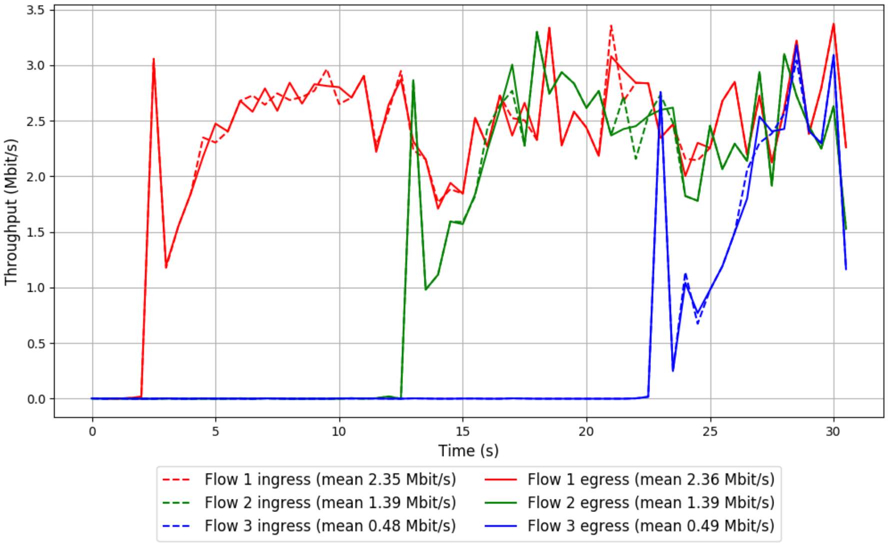


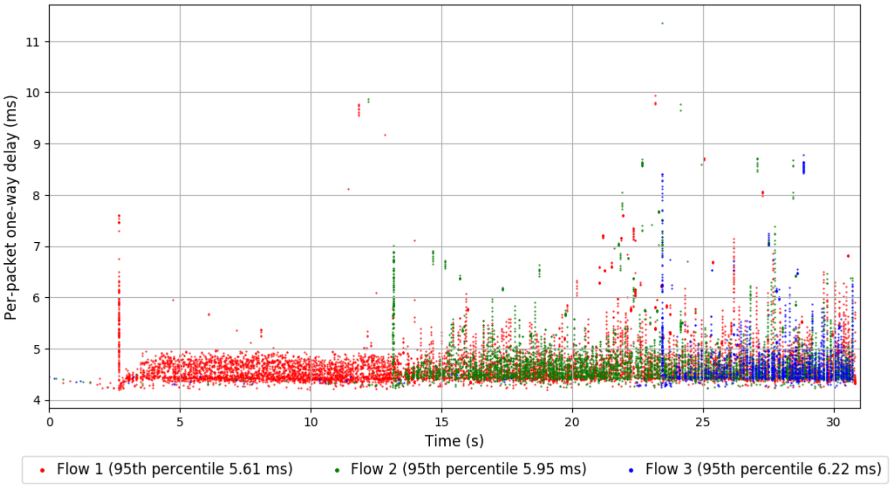
```
Run 10: Statistics of WebRTC media

Start at: Mon, 10 Jul 2017 01:32:38 +0000
End at: Mon, 10 Jul 2017 01:33:08 +0000
Local clock offset: -2.854 ms
Remote clock offset: -0.586 ms

# Below is generated by plot.py at Mon, 10 Jul 2017 02:35:38 +0000
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 5.774 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 5.609 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 5.954 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 6.224 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link


Throughput (Mbit/s)
Time (s)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
Flow 1 ingress (mean 2.35 Mbit/s)
Flow 1 egress (mean 2.36 Mbit/s)
Flow 2 ingress (mean 1.39 Mbit/s)
Flow 2 egress (mean 1.39 Mbit/s)
Flow 3 ingress (mean 0.48 Mbit/s)
Flow 3 egress (mean 0.49 Mbit/s)


Per-packet one-way delay (ms)
Time (s)
11
10
9
8
7
6
5
4
0
5
10
15
20
25
30
Flow 1 (95th percentile 5.61 ms)
Flow 2 (95th percentile 5.95 ms)
Flow 3 (95th percentile 6.22 ms)