Pantheon Report

Generated at 2017-10-12 10:45:58 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

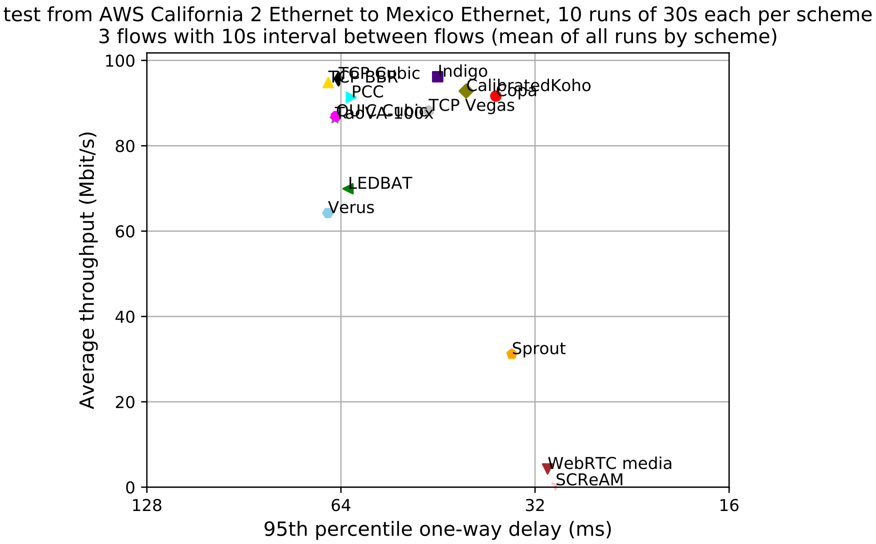
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

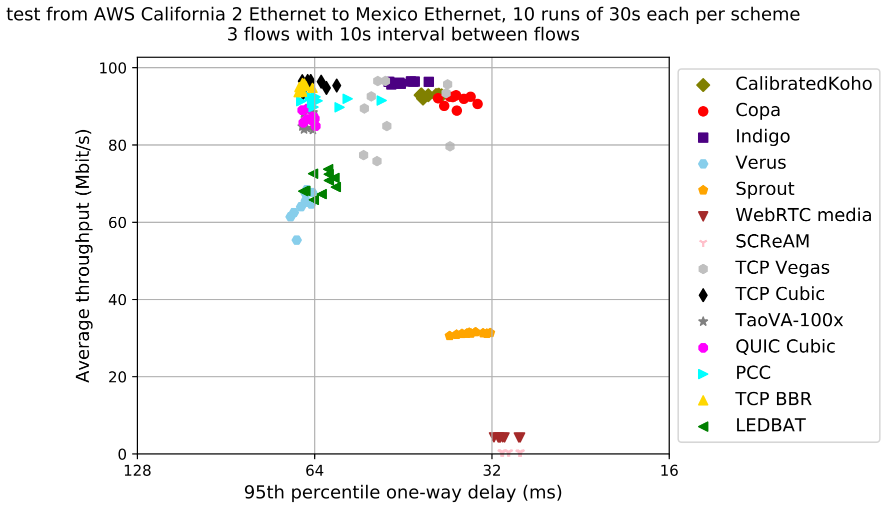
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

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

```
Git summary:
branch: indigos @ 45998d6404be7c5106956530acb9cfc43bd06e7d
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```


test from AWS California 2 Ethernet to Mexico Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
100
128
64
32
16
TCP Cubic
TCP BBR
Indigo
CalibratedKoho
Copa
PCC
QUIC Cubic
TaoVA-100x
TCP Vegas
LEDBAT
Verus
Sprout
WebRTC media
SCReAM


test from AWS California 2 Ethernet to Mexico Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
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TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
PCC
TCP BBR
LEDBAT

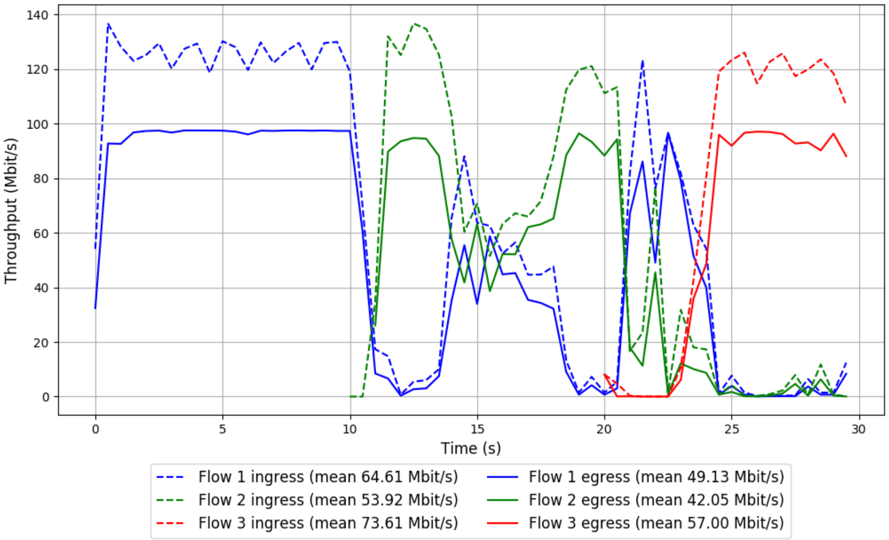
		mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
scheme	# runs	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	73.45	26.80	14.11	66.96	66.70	66.00	23.74	27.69	29.72
TCP Cubic	10	67.71	27.67	28.83	64.33	63.99	62.88	0.51	0.54	0.39
LEDBAT	10	41.25	31.78	22.68	61.42	62.73	63.12	0.13	0.15	0.08
PCC	10	80.14	11.40	10.96	61.19	63.12	62.52	3.09	3.81	5.52
QUIC Cubic	10	60.59	29.74	19.93	64.78	65.54	65.33	1.59	1.31	0.85
SCReAM	10	0.22	0.22	0.22	29.49	29.42	29.56	0.02	0.00	0.05
WebRTC media	10	2.27	1.44	0.58	30.50	30.40	30.78	0.00	0.00	0.01
Sprout	10	15.80	15.69	14.98	34.22	34.59	36.33	0.01	0.02	0.05
TaoVA-100x	10	53.27	39.27	27.66	62.80	65.90	66.24	14.99	26.87	18.63
TCP Vegas	10	56.20	34.37	27.44	47.11	39.70	36.95	0.38	0.13	0.07
Verus	10	38.95	30.07	19.87	66.72	66.01	64.92	41.82	39.53	37.19
Copa	10	63.01	33.55	25.02	36.81	36.68	36.54	0.03	0.02	0.02
CalibratedKoho	10	76.00	21.39	7.82	40.80	41.06	40.88	0.07	0.03	0.00
Indigo	10	64.52	33.93	27.86	41.83	47.72	52.21	0.13	0.22	0.34

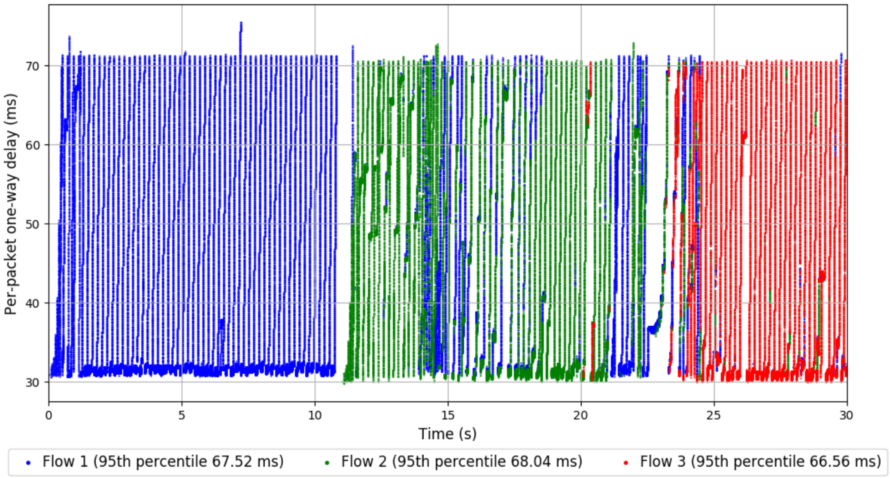
```
Run 1: Statistics of TCP BBR

Start at: 2017-10-12 07:05:20
End at: 2017-10-12 07:05:50
Local clock offset: 0.167 ms
Remote clock offset: -2.06 ms

# Below is generated by plot.py at 2017-10-12 10:25:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.13 Mbit/s
95th percentile per-packet one-way delay: 67.601 ms
Loss rate: 24.33%
-- Flow 1:
Average throughput: 49.13 Mbit/s
95th percentile per-packet one-way delay: 67.515 ms
Loss rate: 23.96%
-- Flow 2:
Average throughput: 42.05 Mbit/s
95th percentile per-packet one-way delay: 68.040 ms
Loss rate: 26.21%
-- Flow 3:
Average throughput: 57.00 Mbit/s
95th percentile per-packet one-way delay: 66.561 ms
Loss rate: 22.57%
```

Run 1: Report of TCP BBR — Data Link



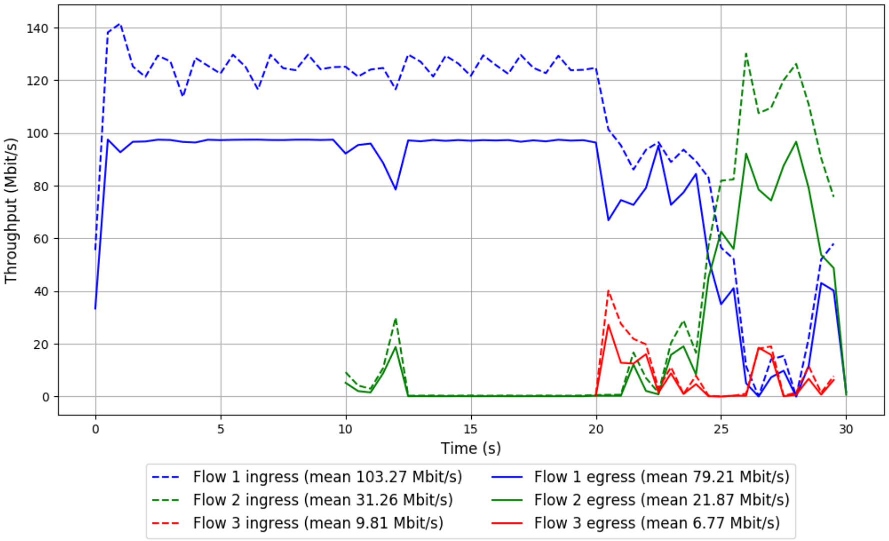


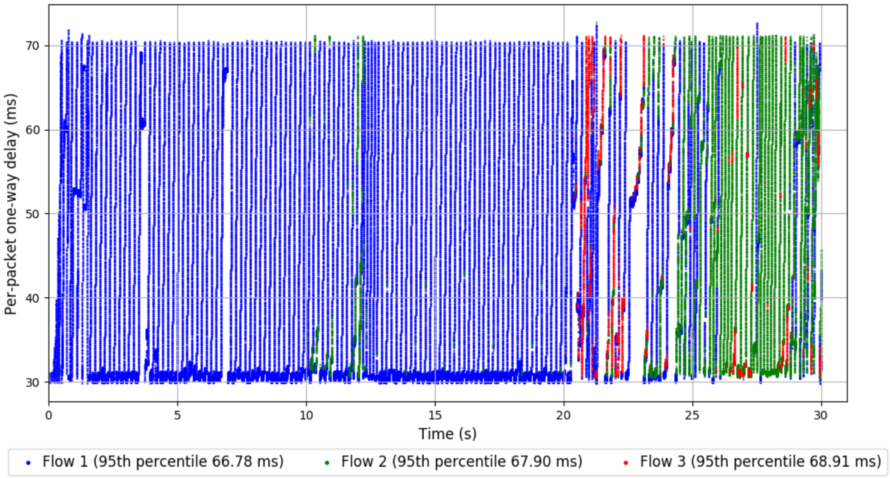
```
Run 2: Statistics of TCP BBR

Start at: 2017-10-12 07:24:24
End at: 2017-10-12 07:24:54
Local clock offset: 0.423 ms
Remote clock offset: -2.022 ms

# Below is generated by plot.py at 2017-10-12 10:25:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.02 Mbit/s
95th percentile per-packet one-way delay: 67.127 ms
Loss rate: 24.56%
-- Flow 1:
Average throughput: 79.21 Mbit/s
95th percentile per-packet one-way delay: 66.785 ms
Loss rate: 23.26%
-- Flow 2:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 67.897 ms
Loss rate: 30.01%
-- Flow 3:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 68.911 ms
Loss rate: 30.97%
```

Run 2: Report of TCP BBR — Data Link



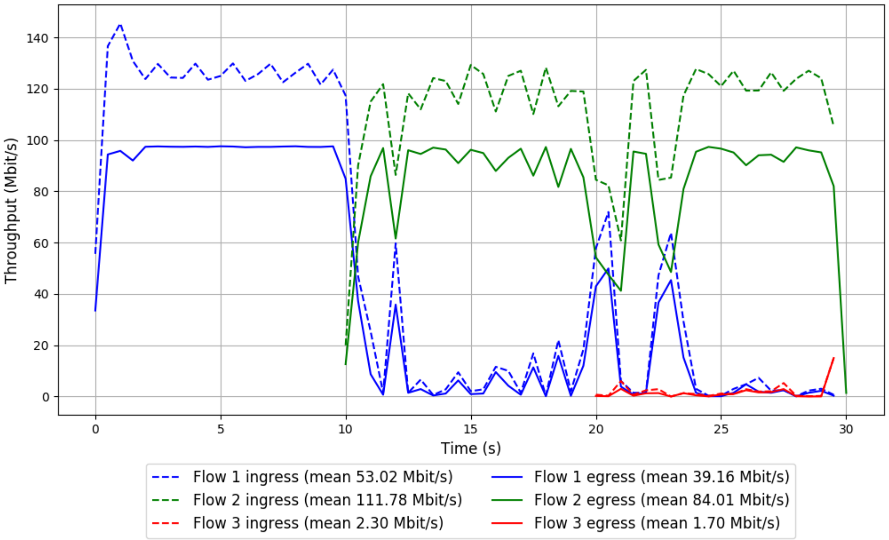


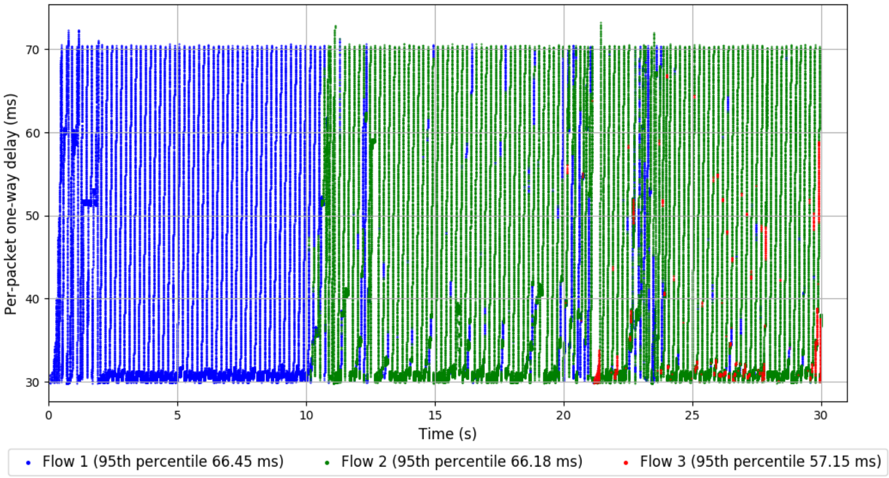
```
Run 3: Statistics of TCP BBR

Start at: 2017-10-12 07:43:33
End at: 2017-10-12 07:44:03
Local clock offset: 0.751 ms
Remote clock offset: -1.798 ms

# Below is generated by plot.py at 2017-10-12 10:25:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 66.229 ms
Loss rate: 25.43%
-- Flow 1:
Average throughput: 39.16 Mbit/s
95th percentile per-packet one-way delay: 66.452 ms
Loss rate: 26.28%
-- Flow 2:
Average throughput: 84.01 Mbit/s
95th percentile per-packet one-way delay: 66.183 ms
Loss rate: 24.81%
-- Flow 3:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 57.147 ms
Loss rate: 26.00%
```

Run 3: Report of TCP BBR — Data Link



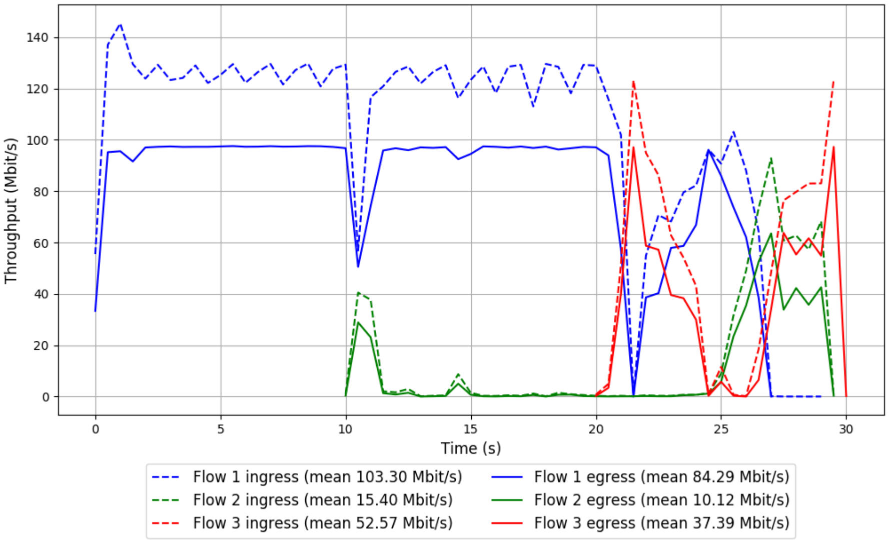


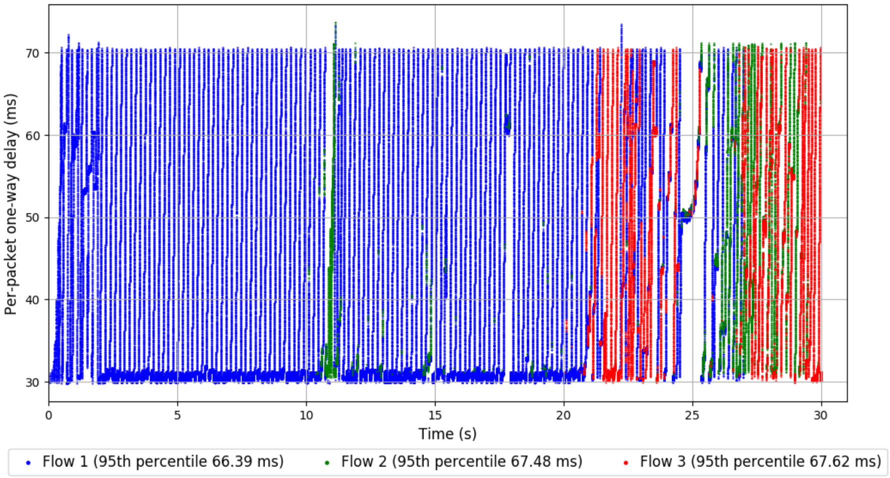
```
Run 4: Statistics of TCP BBR

Start at: 2017-10-12 08:02:37
End at: 2017-10-12 08:03:07
Local clock offset: 0.86 ms
Remote clock offset: -1.663 ms

# Below is generated by plot.py at 2017-10-12 10:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.89 Mbit/s
95th percentile per-packet one-way delay: 66.634 ms
Loss rate: 25.34%
-- Flow 1:
Average throughput: 84.29 Mbit/s
95th percentile per-packet one-way delay: 66.390 ms
Loss rate: 23.83%
-- Flow 2:
Average throughput: 10.12 Mbit/s
95th percentile per-packet one-way delay: 67.485 ms
Loss rate: 34.13%
-- Flow 3:
Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 67.623 ms
Loss rate: 28.88%
```

Run 4: Report of TCP BBR — Data Link



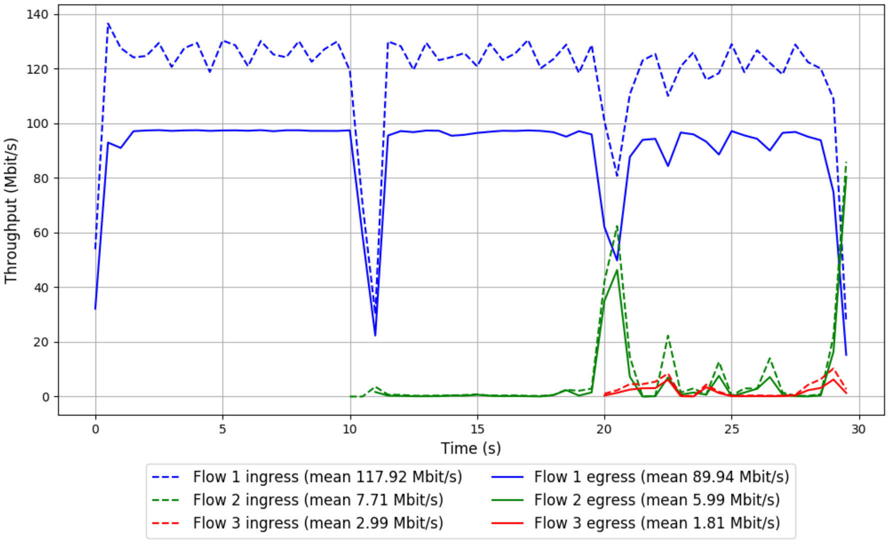


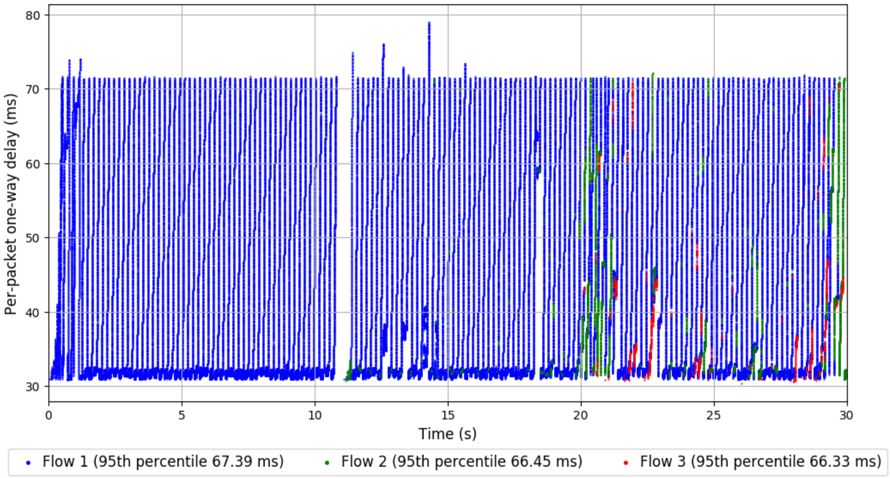
```
Run 5: Statistics of TCP BBR

Start at: 2017-10-12 08:21:41
End at: 2017-10-12 08:22:11
Local clock offset: 0.938 ms
Remote clock offset: -1.228 ms

# Below is generated by plot.py at 2017-10-12 10:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.27 Mbit/s
95th percentile per-packet one-way delay: 67.303 ms
Loss rate: 23.98%
-- Flow 1:
Average throughput: 89.94 Mbit/s
95th percentile per-packet one-way delay: 67.385 ms
Loss rate: 23.73%
-- Flow 2:
Average throughput: 5.99 Mbit/s
95th percentile per-packet one-way delay: 66.453 ms
Loss rate: 26.78%
-- Flow 3:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 66.335 ms
Loss rate: 39.69%
```

Run 5: Report of TCP BBR — Data Link



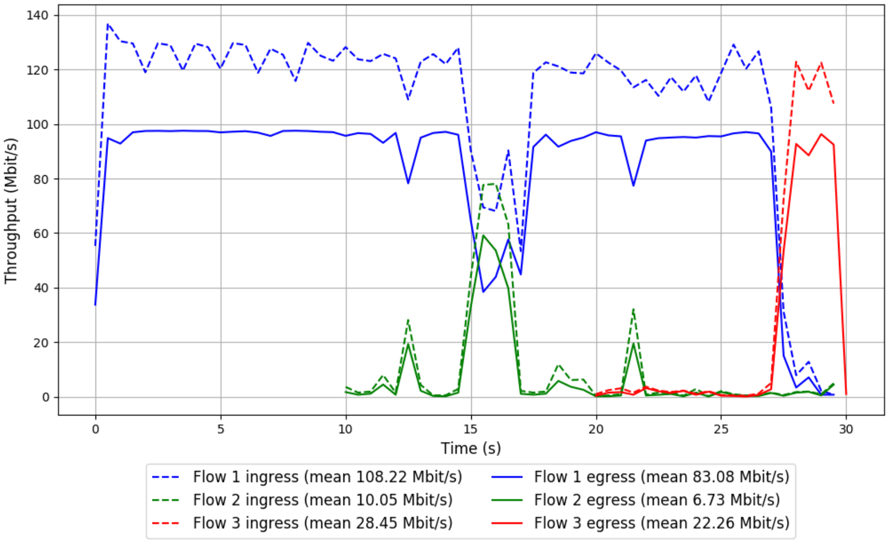


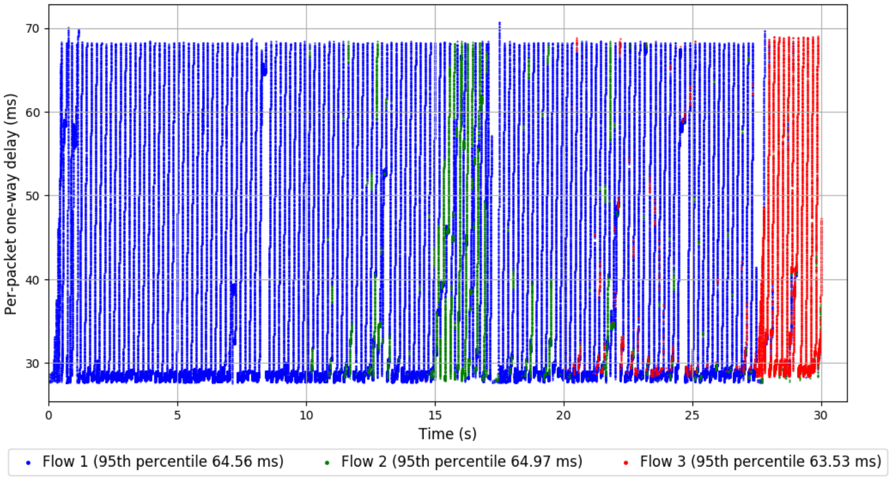
```
Run 6: Statistics of TCP BBR

Start at: 2017-10-12 08:40:48
End at: 2017-10-12 08:41:18
Local clock offset: 1.018 ms
Remote clock offset: -3.705 ms

# Below is generated by plot.py at 2017-10-12 10:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 64.550 ms
Loss rate: 23.63%
-- Flow 1:
Average throughput: 83.08 Mbit/s
95th percentile per-packet one-way delay: 64.556 ms
Loss rate: 23.22%
-- Flow 2:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 64.974 ms
Loss rate: 33.07%
-- Flow 3:
Average throughput: 22.26 Mbit/s
95th percentile per-packet one-way delay: 63.533 ms
Loss rate: 21.62%
```

Run 6: Report of TCP BBR — Data Link



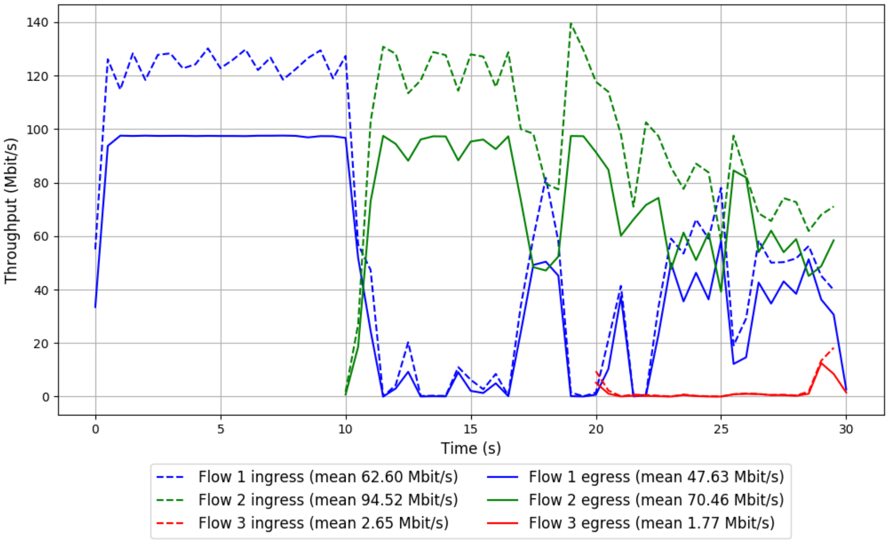


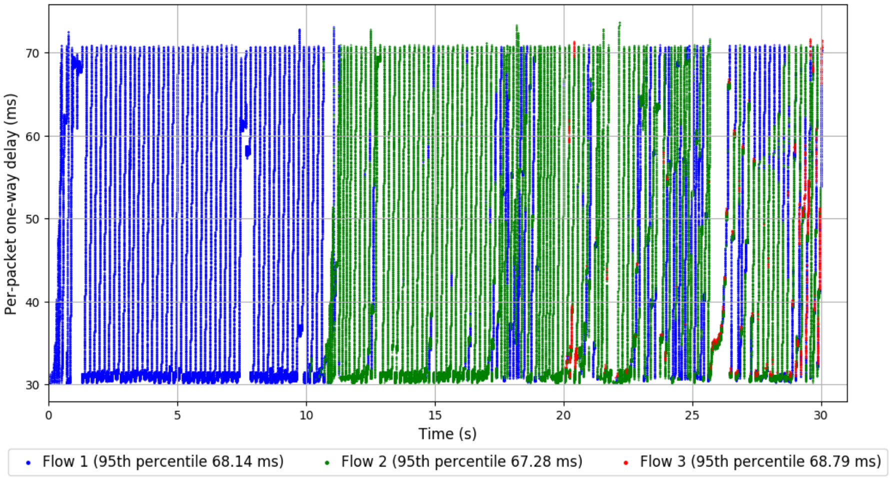
```
Run 7: Statistics of TCP BBR

Start at: 2017-10-12 08:59:56
End at: 2017-10-12 09:00:26
Local clock offset: 0.895 ms
Remote clock offset: -1.061 ms

# Below is generated by plot.py at 2017-10-12 10:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.97 Mbit/s
95th percentile per-packet one-way delay: 67.943 ms
Loss rate: 24.80%
-- Flow 1:
Average throughput: 47.63 Mbit/s
95th percentile per-packet one-way delay: 68.140 ms
Loss rate: 23.85%
-- Flow 2:
Average throughput: 70.46 Mbit/s
95th percentile per-packet one-way delay: 67.279 ms
Loss rate: 25.63%
-- Flow 3:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 68.789 ms
Loss rate: 32.87%
```

Run 7: Report of TCP BBR — Data Link



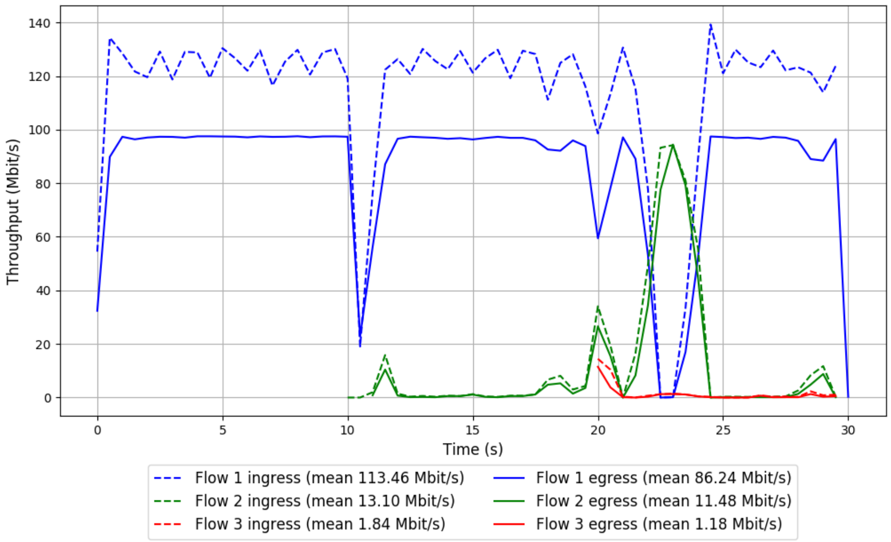


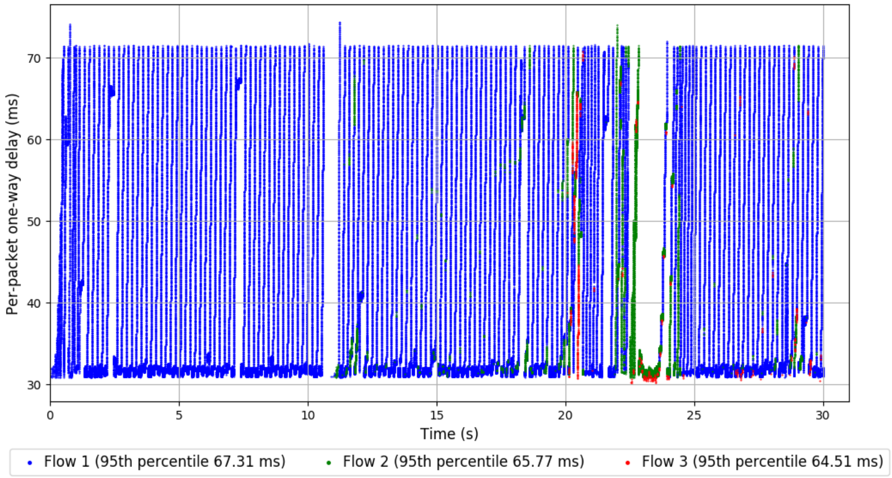
```
Run 8: Statistics of TCP BBR

Start at: 2017-10-12 09:19:01
End at: 2017-10-12 09:19:31
Local clock offset: 0.788 ms
Remote clock offset: -1.025 ms

# Below is generated by plot.py at 2017-10-12 10:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 67.259 ms
Loss rate: 23.56%
-- Flow 1:
Average throughput: 86.24 Mbit/s
95th percentile per-packet one-way delay: 67.308 ms
Loss rate: 23.99%
-- Flow 2:
Average throughput: 11.48 Mbit/s
95th percentile per-packet one-way delay: 65.769 ms
Loss rate: 17.03%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 64.509 ms
Loss rate: 36.47%
```

Run 8: Report of TCP BBR — Data Link



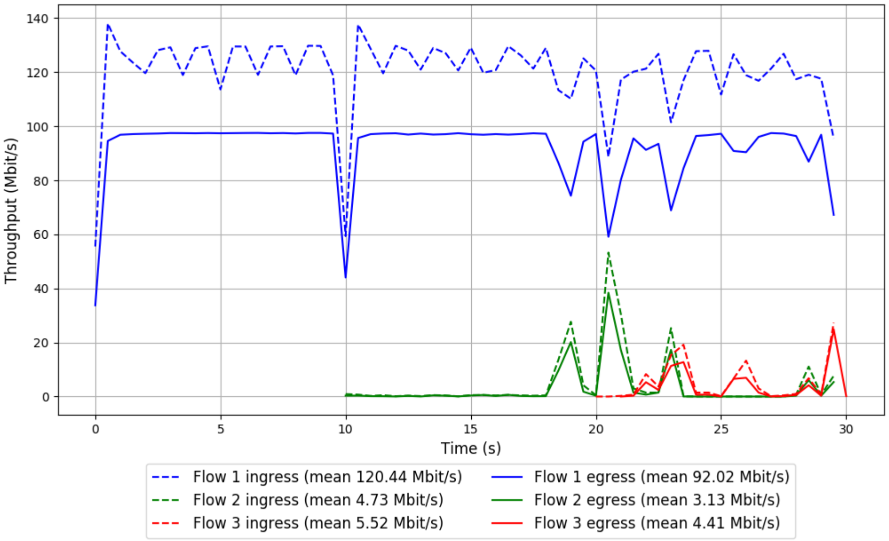


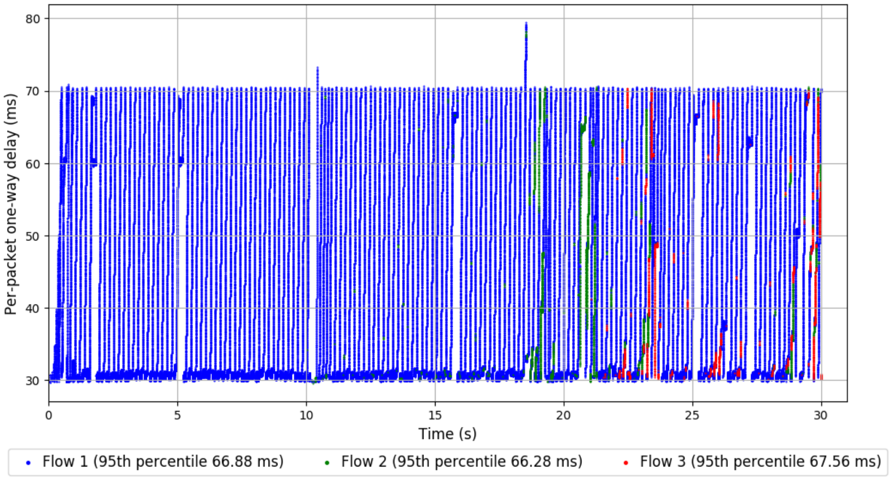
```
Run 9: Statistics of TCP BBR

Start at: 2017-10-12 09:38:06
End at: 2017-10-12 09:38:36
Local clock offset: 0.678 ms
Remote clock offset: -1.366 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 66.872 ms
Loss rate: 23.90%
-- Flow 1:
Average throughput: 92.02 Mbit/s
95th percentile per-packet one-way delay: 66.880 ms
Loss rate: 23.57%
-- Flow 2:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 66.280 ms
Loss rate: 33.82%
-- Flow 3:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 67.557 ms
Loss rate: 28.29%
```

Run 9: Report of TCP BBR — Data Link



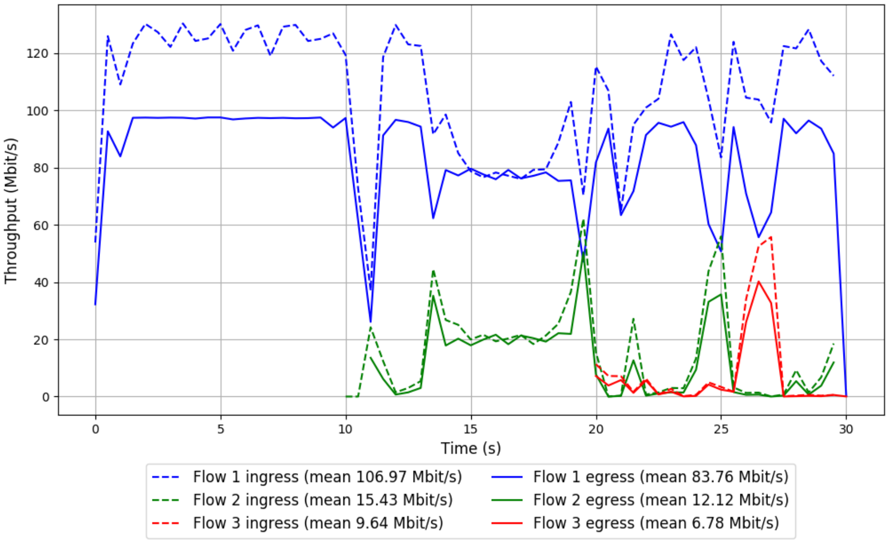


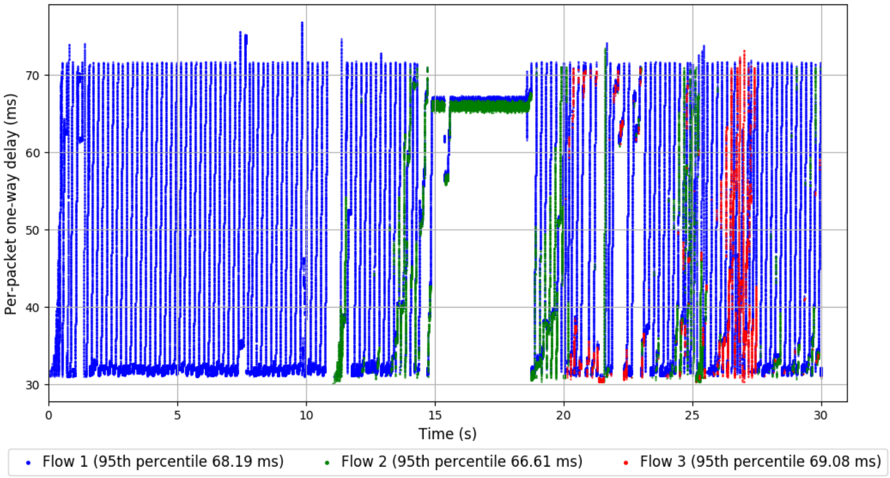
```
Run 10: Statistics of TCP BBR

Start at: 2017-10-12 09:57:12
End at: 2017-10-12 09:57:42
Local clock offset: 0.342 ms
Remote clock offset: -1.037 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.67 Mbit/s
95th percentile per-packet one-way delay: 68.148 ms
Loss rate: 22.23%
-- Flow 1:
Average throughput: 83.76 Mbit/s
95th percentile per-packet one-way delay: 68.189 ms
Loss rate: 21.69%
-- Flow 2:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 66.612 ms
Loss rate: 25.44%
-- Flow 3:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 69.079 ms
Loss rate: 29.84%
```

Run 10: Report of TCP BBR — Data Link



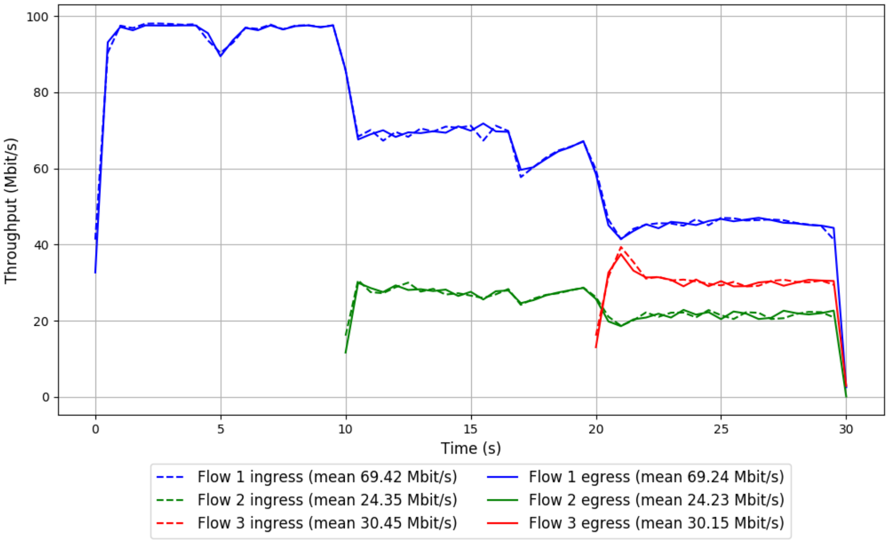


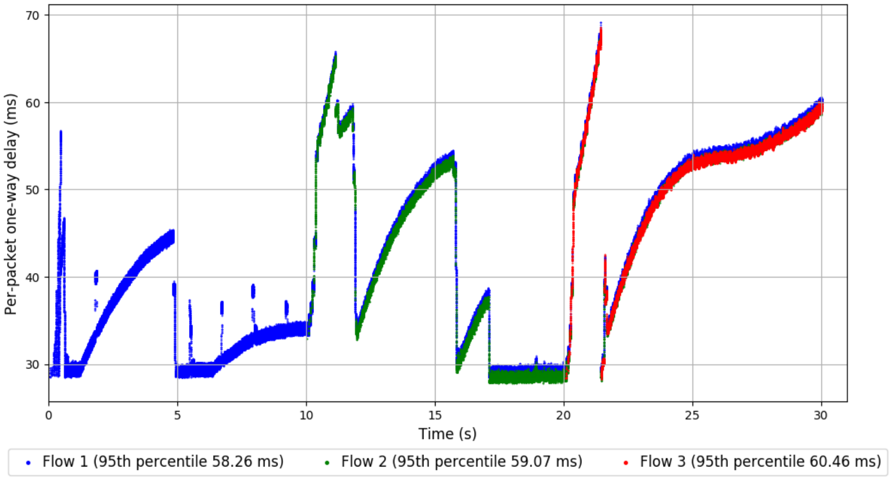
```
Run 1: Statistics of TCP Cubic

Start at: 2017-10-12 06:54:26
End at: 2017-10-12 06:54:56
Local clock offset: 0.013 ms
Remote clock offset: -4.071 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.38 Mbit/s
95th percentile per-packet one-way delay: 58.717 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 69.24 Mbit/s
95th percentile per-packet one-way delay: 58.255 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 59.071 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 30.15 Mbit/s
95th percentile per-packet one-way delay: 60.457 ms
Loss rate: 0.67%
```

Run 1: Report of TCP Cubic — Data Link



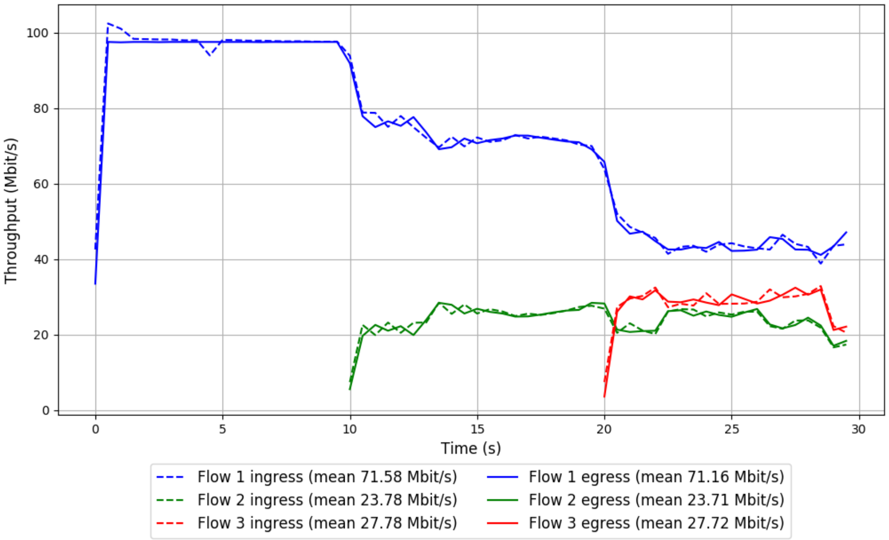


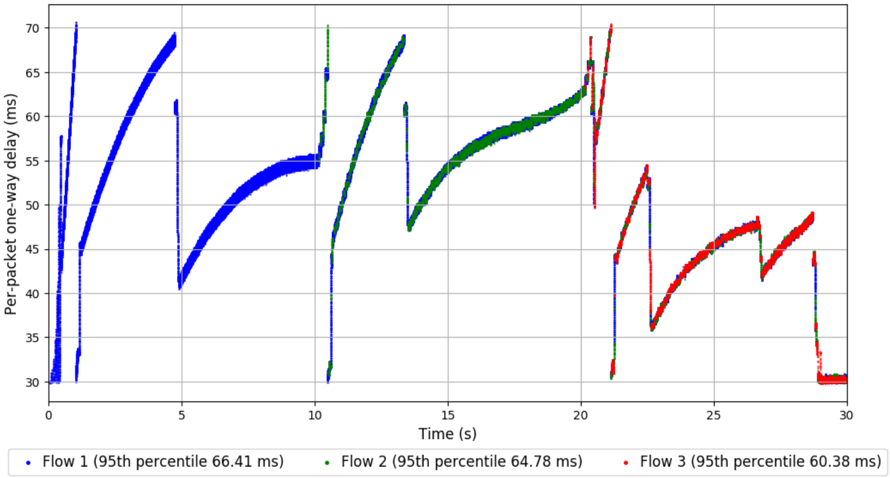
```
Run 2: Statistics of TCP Cubic

Start at: 2017-10-12 07:13:28
End at: 2017-10-12 07:13:58
Local clock offset: 0.359 ms
Remote clock offset: -2.165 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.09 Mbit/s
95th percentile per-packet one-way delay: 65.998 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 71.16 Mbit/s
95th percentile per-packet one-way delay: 66.408 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 23.71 Mbit/s
95th percentile per-packet one-way delay: 64.777 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 27.72 Mbit/s
95th percentile per-packet one-way delay: 60.378 ms
Loss rate: 0.52%
```

Run 2: Report of TCP Cubic — Data Link



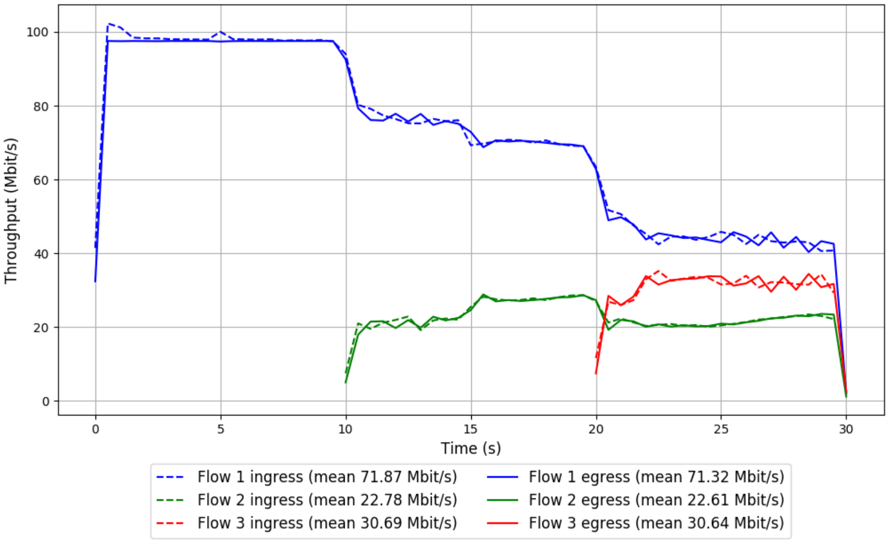


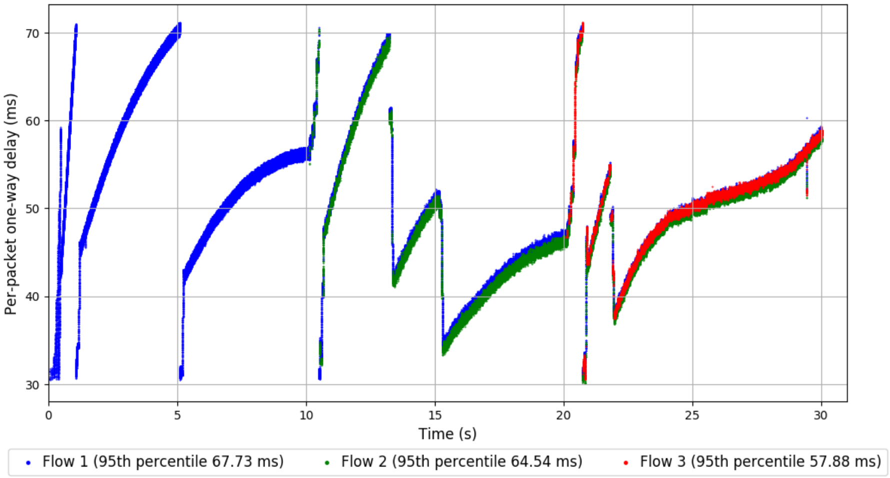
```
Run 3: Statistics of TCP Cubic

Start at: 2017-10-12 07:32:36
End at: 2017-10-12 07:33:06
Local clock offset: 0.631 ms
Remote clock offset: -1.854 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.51 Mbit/s
95th percentile per-packet one-way delay: 67.180 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 71.32 Mbit/s
95th percentile per-packet one-way delay: 67.728 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 22.61 Mbit/s
95th percentile per-packet one-way delay: 64.537 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 30.64 Mbit/s
95th percentile per-packet one-way delay: 57.878 ms
Loss rate: 0.02%
```

Run 3: Report of TCP Cubic — Data Link



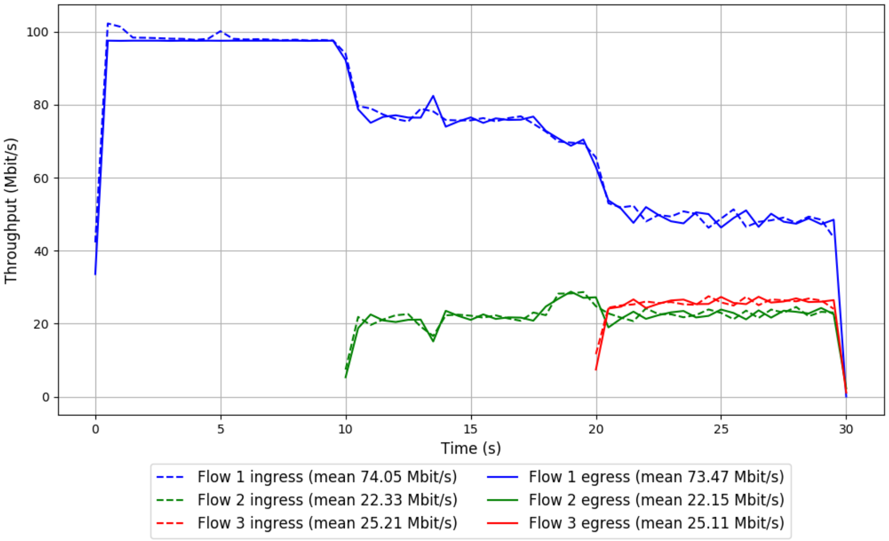


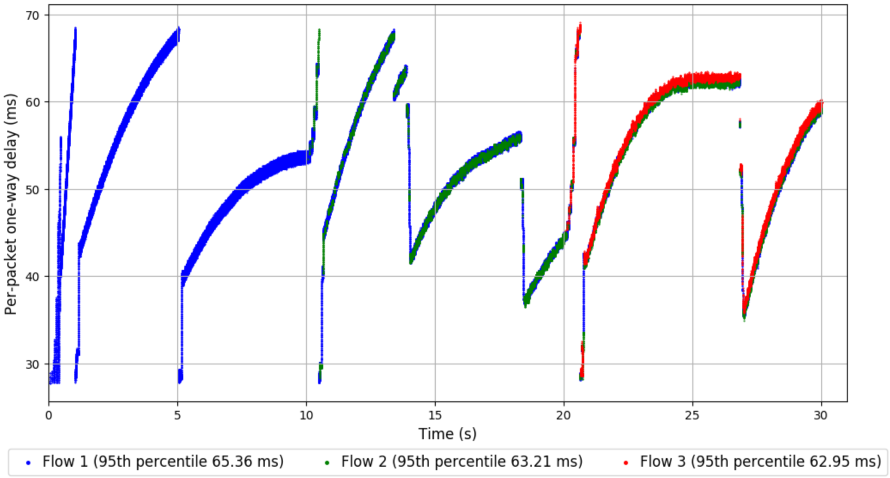
```
Run 4: Statistics of TCP Cubic

Start at: 2017-10-12 07:51:42
End at: 2017-10-12 07:52:12
Local clock offset: 0.802 ms
Remote clock offset: -3.834 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.52 Mbit/s
95th percentile per-packet one-way delay: 65.018 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 73.47 Mbit/s
95th percentile per-packet one-way delay: 65.360 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 22.15 Mbit/s
95th percentile per-packet one-way delay: 63.213 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 25.11 Mbit/s
95th percentile per-packet one-way delay: 62.948 ms
Loss rate: 0.26%
```

Run 4: Report of TCP Cubic — Data Link



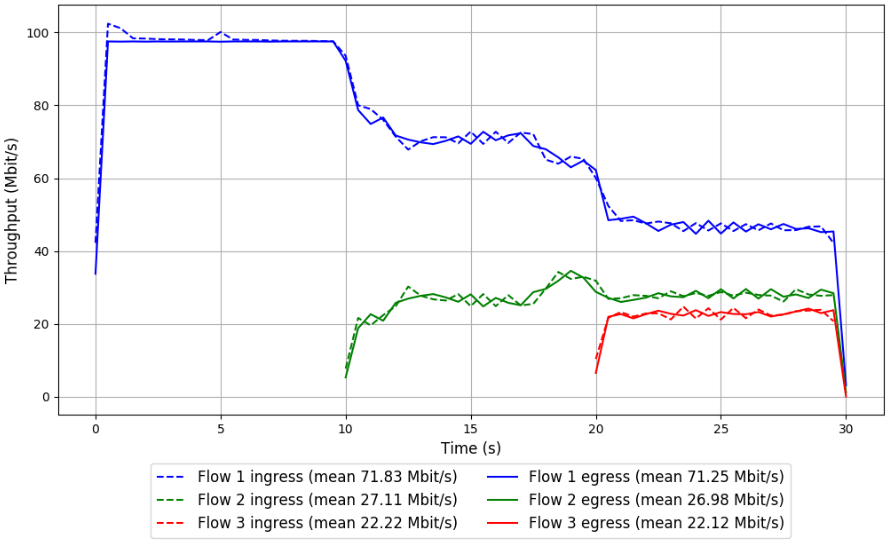


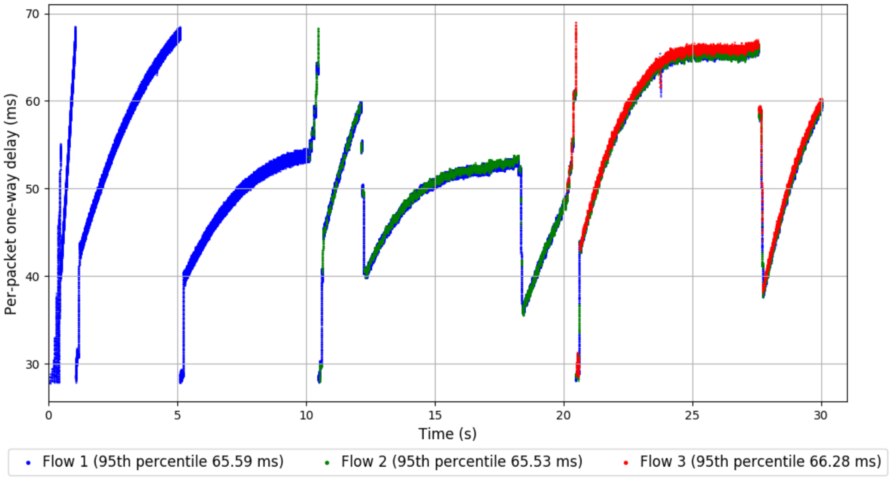
```
Run 5: Statistics of TCP Cubic

Start at: 2017-10-12 08:10:45
End at: 2017-10-12 08:11:15
Local clock offset: 0.82 ms
Remote clock offset: -3.826 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 65.784 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 71.25 Mbit/s
95th percentile per-packet one-way delay: 65.589 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 26.98 Mbit/s
95th percentile per-packet one-way delay: 65.535 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 22.12 Mbit/s
95th percentile per-packet one-way delay: 66.280 ms
Loss rate: 0.35%
```

Run 5: Report of TCP Cubic — Data Link



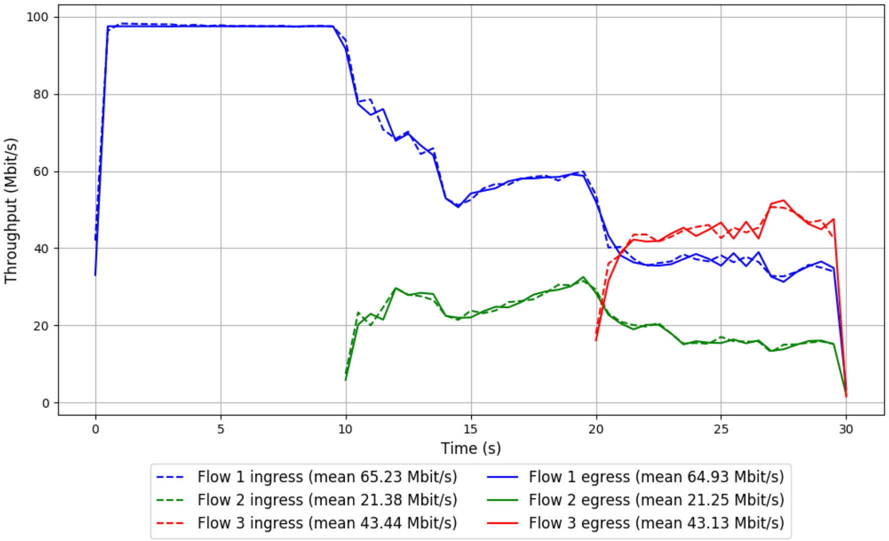


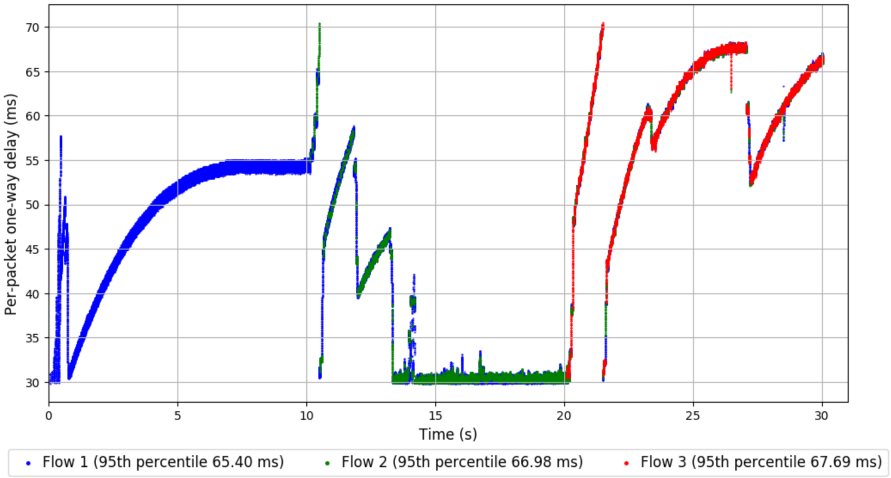
```
Run 6: Statistics of TCP Cubic

Start at: 2017-10-12 08:29:53
End at: 2017-10-12 08:30:23
Local clock offset: 0.878 ms
Remote clock offset: -1.705 ms

# Below is generated by plot.py at 2017-10-12 10:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.41 Mbit/s
95th percentile per-packet one-way delay: 66.967 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 64.93 Mbit/s
95th percentile per-packet one-way delay: 65.404 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 21.25 Mbit/s
95th percentile per-packet one-way delay: 66.981 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 43.13 Mbit/s
95th percentile per-packet one-way delay: 67.690 ms
Loss rate: 0.36%
```

Run 6: Report of TCP Cubic — Data Link



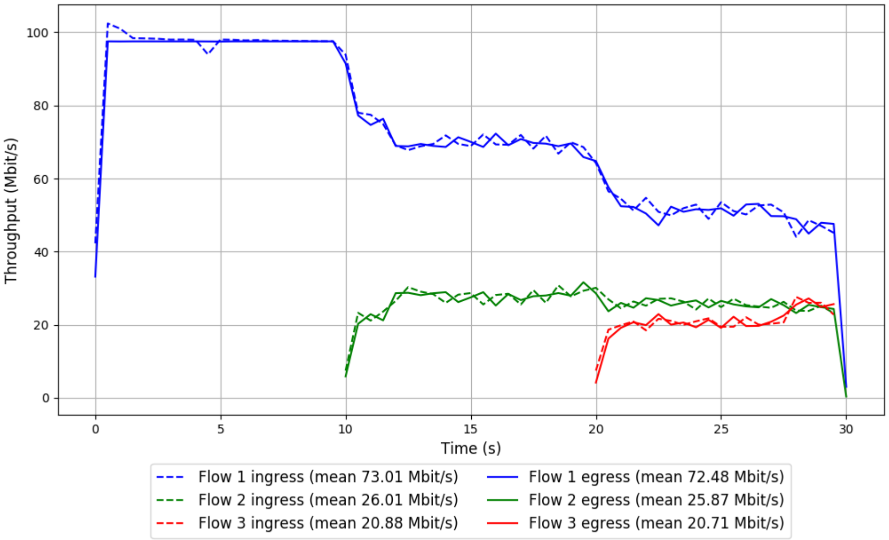


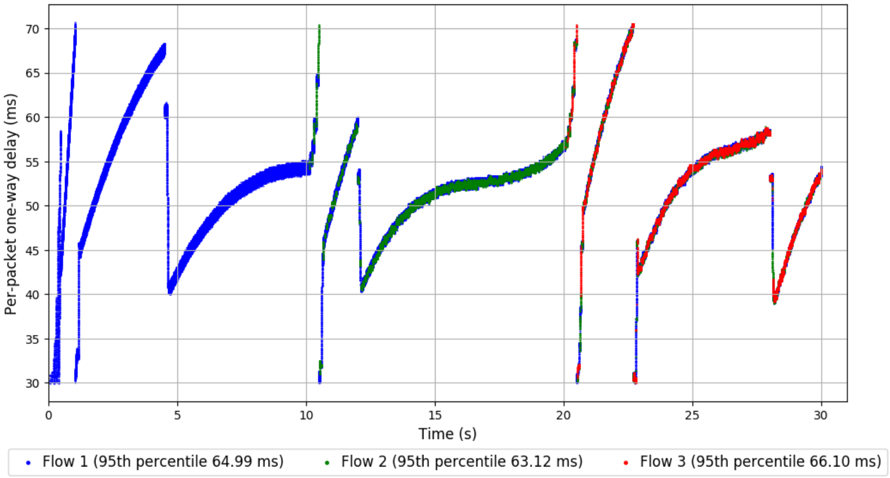
```
Run 7: Statistics of TCP Cubic

Start at: 2017-10-12 08:48:59
End at: 2017-10-12 08:49:29
Local clock offset: 0.856 ms
Remote clock offset: -1.502 ms

# Below is generated by plot.py at 2017-10-12 10:28:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 64.976 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 72.48 Mbit/s
95th percentile per-packet one-way delay: 64.993 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 25.87 Mbit/s
95th percentile per-packet one-way delay: 63.122 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 20.71 Mbit/s
95th percentile per-packet one-way delay: 66.102 ms
Loss rate: 0.83%
```

Run 7: Report of TCP Cubic — Data Link



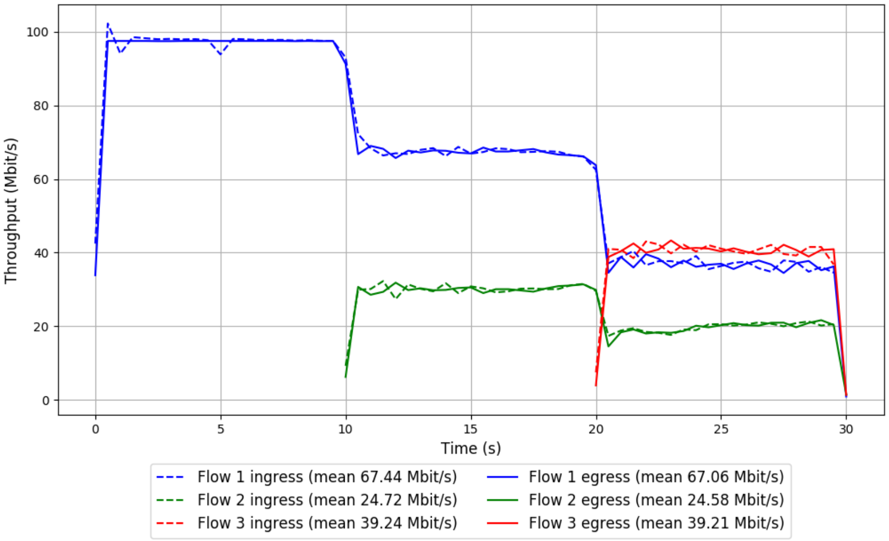


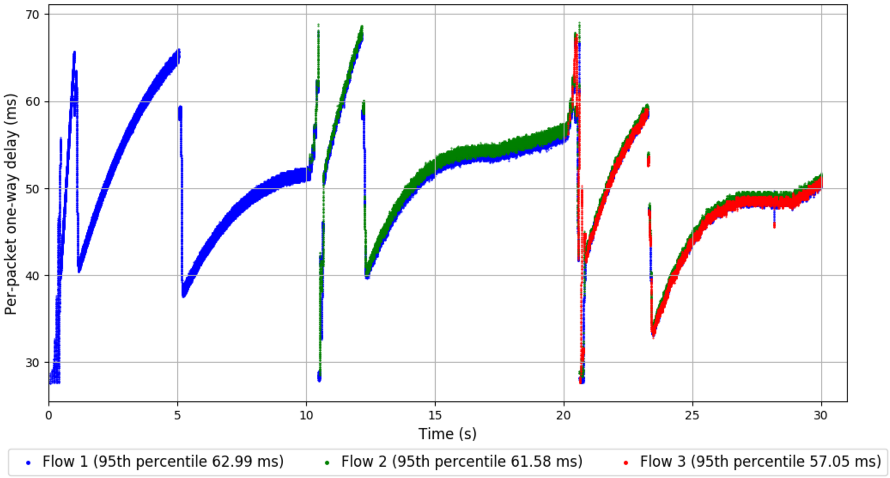
```
Run 8: Statistics of TCP Cubic

Start at: 2017-10-12 09:08:06
End at: 2017-10-12 09:08:36
Local clock offset: 0.85 ms
Remote clock offset: -3.643 ms

# Below is generated by plot.py at 2017-10-12 10:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 62.395 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 67.06 Mbit/s
95th percentile per-packet one-way delay: 62.994 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 61.576 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 39.21 Mbit/s
95th percentile per-packet one-way delay: 57.055 ms
Loss rate: 0.13%
```

Run 8: Report of TCP Cubic — Data Link



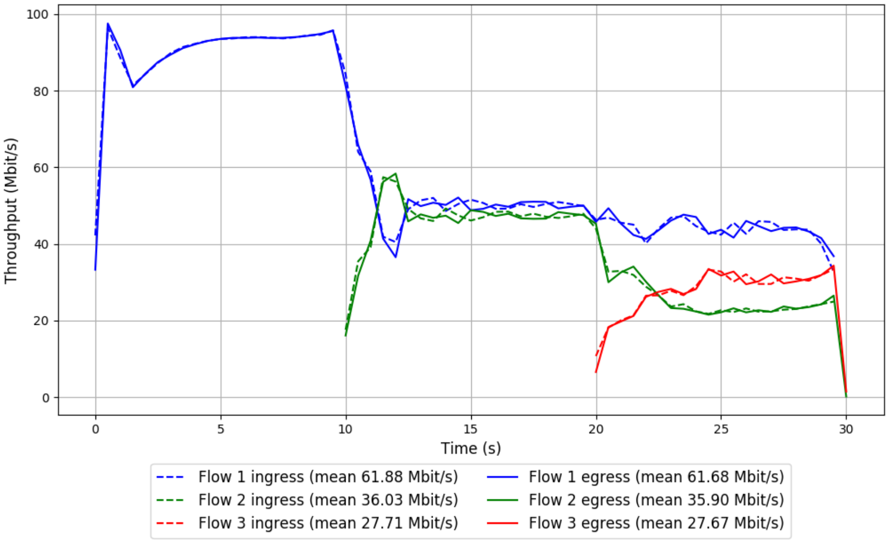


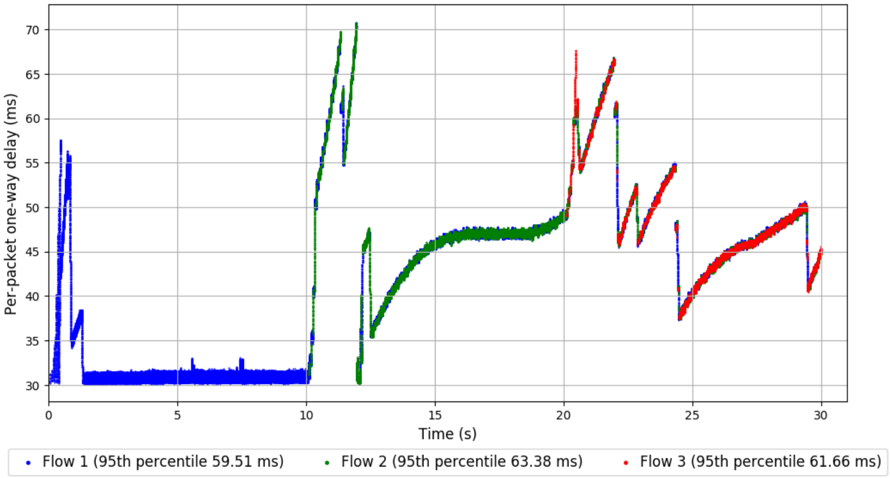
```
Run 9: Statistics of TCP Cubic

Start at: 2017-10-12 09:27:11
End at: 2017-10-12 09:27:41
Local clock offset: 0.768 ms
Remote clock offset: -1.031 ms

# Below is generated by plot.py at 2017-10-12 10:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.75 Mbit/s
95th percentile per-packet one-way delay: 61.126 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 61.68 Mbit/s
95th percentile per-packet one-way delay: 59.507 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 35.90 Mbit/s
95th percentile per-packet one-way delay: 63.377 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 27.67 Mbit/s
95th percentile per-packet one-way delay: 61.662 ms
Loss rate: 0.17%
```

Run 9: Report of TCP Cubic — Data Link



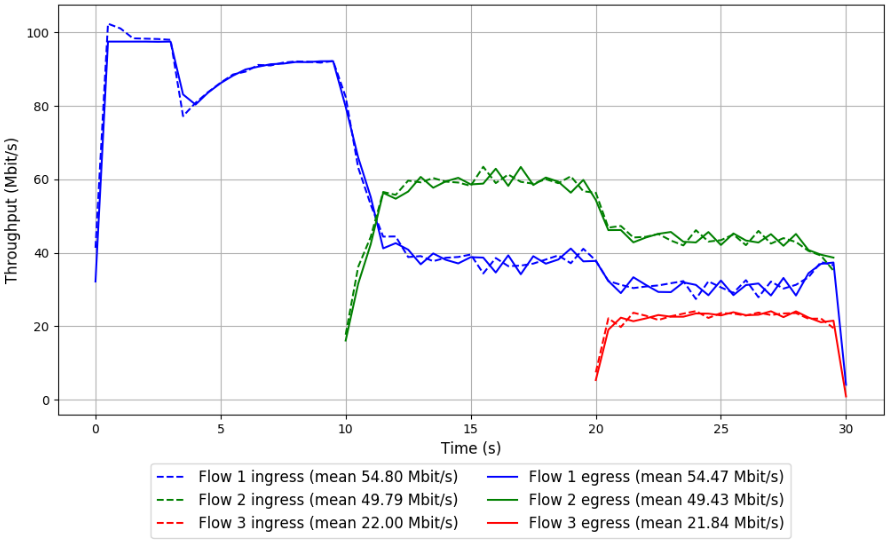


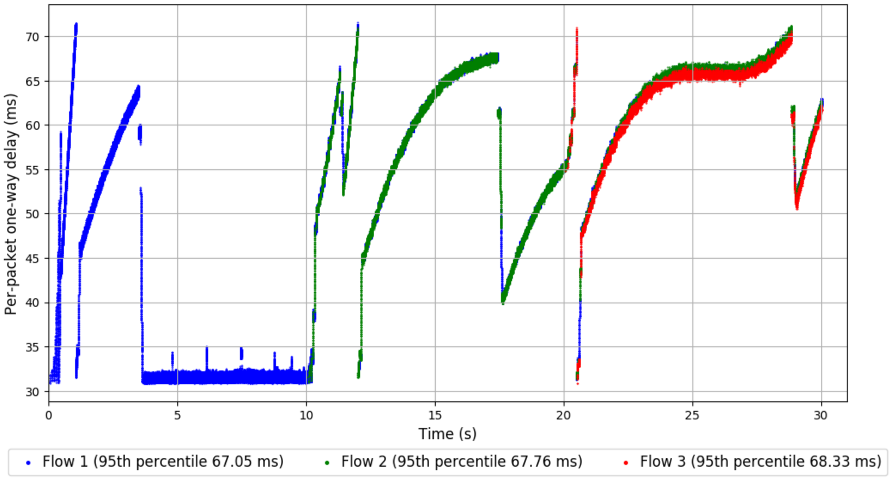
```
Run 10: Statistics of TCP Cubic

Start at: 2017-10-12 09:46:16
End at: 2017-10-12 09:46:46
Local clock offset: 0.538 ms
Remote clock offset: -1.046 ms

# Below is generated by plot.py at 2017-10-12 10:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.60 Mbit/s
95th percentile per-packet one-way delay: 67.395 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 54.47 Mbit/s
95th percentile per-packet one-way delay: 67.046 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 49.43 Mbit/s
95th percentile per-packet one-way delay: 67.757 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 21.84 Mbit/s
95th percentile per-packet one-way delay: 68.332 ms
Loss rate: 0.64%
```

Run 10: Report of TCP Cubic — Data Link



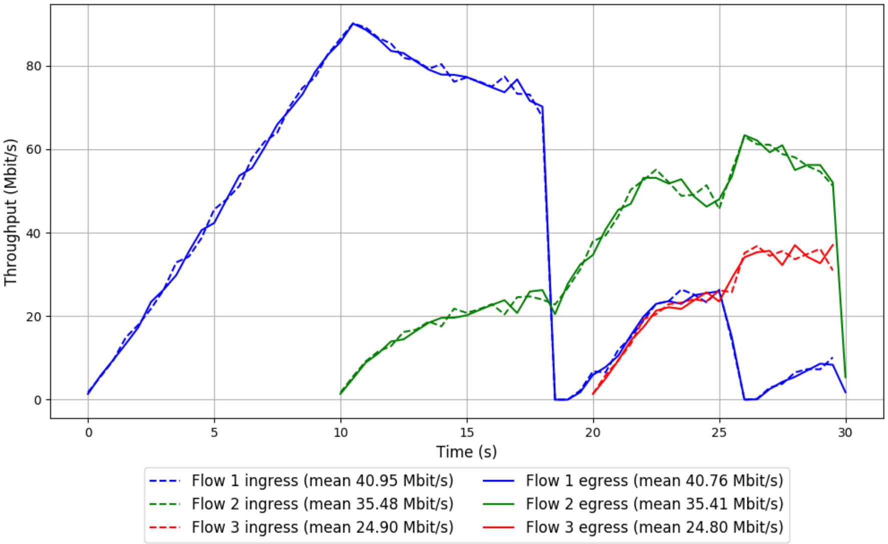


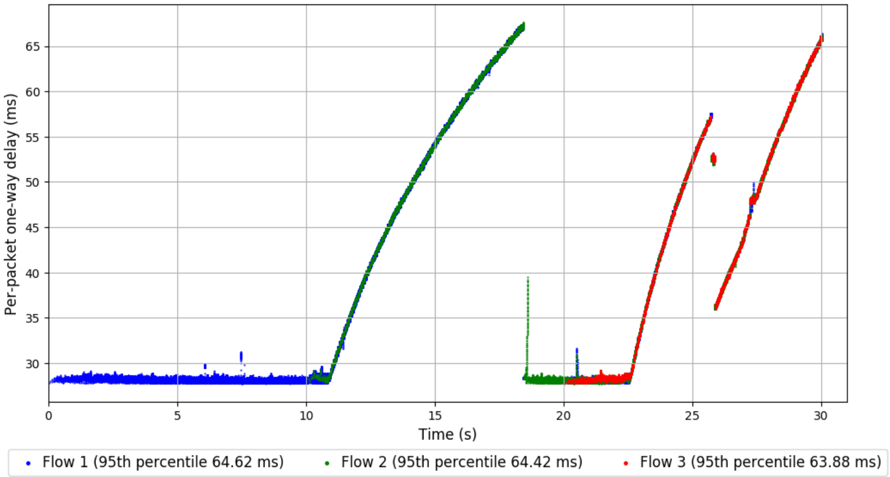
```
Run 1: Statistics of LEDBAT

Start at: 2017-10-12 06:58:26
End at: 2017-10-12 06:58:56
Local clock offset: 0.088 ms
Remote clock offset: -4.108 ms

# Below is generated by plot.py at 2017-10-12 10:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.56 Mbit/s
95th percentile per-packet one-way delay: 64.404 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 40.76 Mbit/s
95th percentile per-packet one-way delay: 64.616 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 35.41 Mbit/s
95th percentile per-packet one-way delay: 64.422 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 63.881 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link



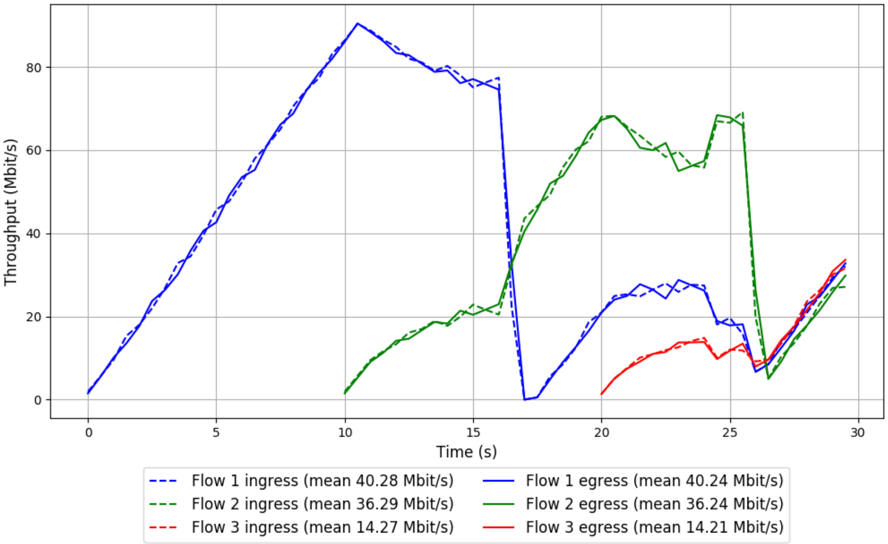


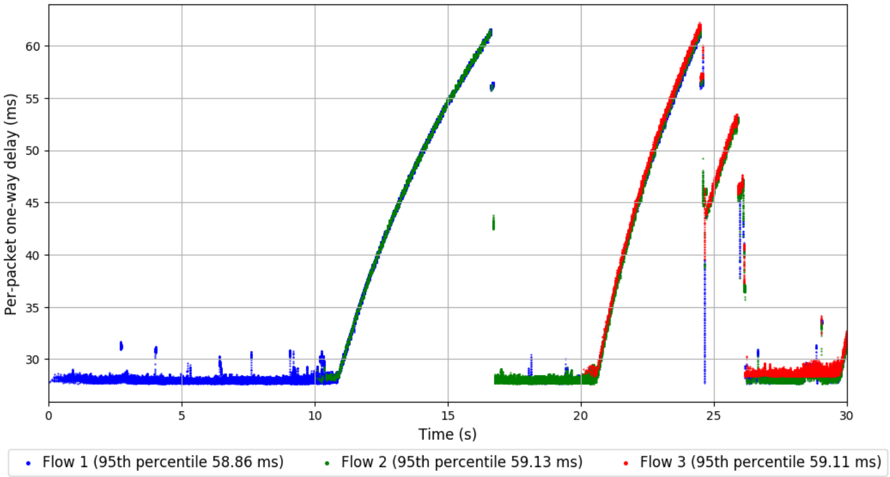
```
Run 2: Statistics of LEDBAT

Start at: 2017-10-12 07:17:29
End at: 2017-10-12 07:17:59
Local clock offset: 0.338 ms
Remote clock offset: -4.324 ms

# Below is generated by plot.py at 2017-10-12 10:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.09 Mbit/s
95th percentile per-packet one-way delay: 58.922 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 58.856 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 36.24 Mbit/s
95th percentile per-packet one-way delay: 59.132 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 59.113 ms
Loss rate: 0.38%
```

Run 2: Report of LEDBAT — Data Link



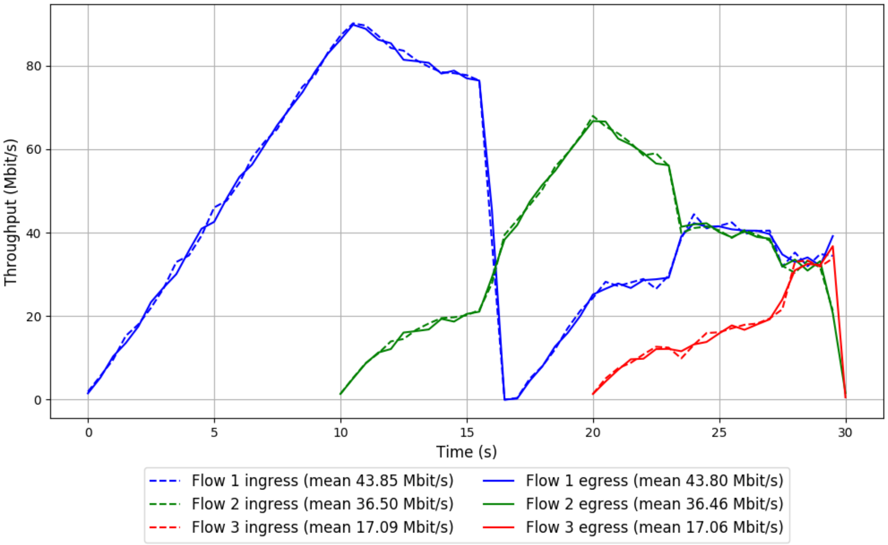


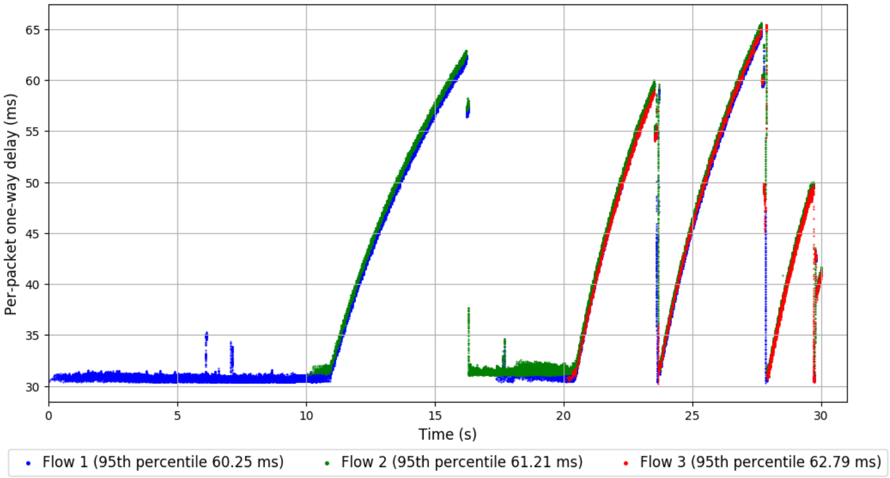
```
Run 3: Statistics of LEDBAT

Start at: 2017-10-12 07:36:38
End at: 2017-10-12 07:37:08
Local clock offset: 0.546 ms
Remote clock offset: -1.34 ms

# Below is generated by plot.py at 2017-10-12 10:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.72 Mbit/s
95th percentile per-packet one-way delay: 60.720 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 43.80 Mbit/s
95th percentile per-packet one-way delay: 60.246 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 36.46 Mbit/s
95th percentile per-packet one-way delay: 61.206 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 17.06 Mbit/s
95th percentile per-packet one-way delay: 62.789 ms
Loss rate: 0.10%
```

Run 3: Report of LEDBAT — Data Link



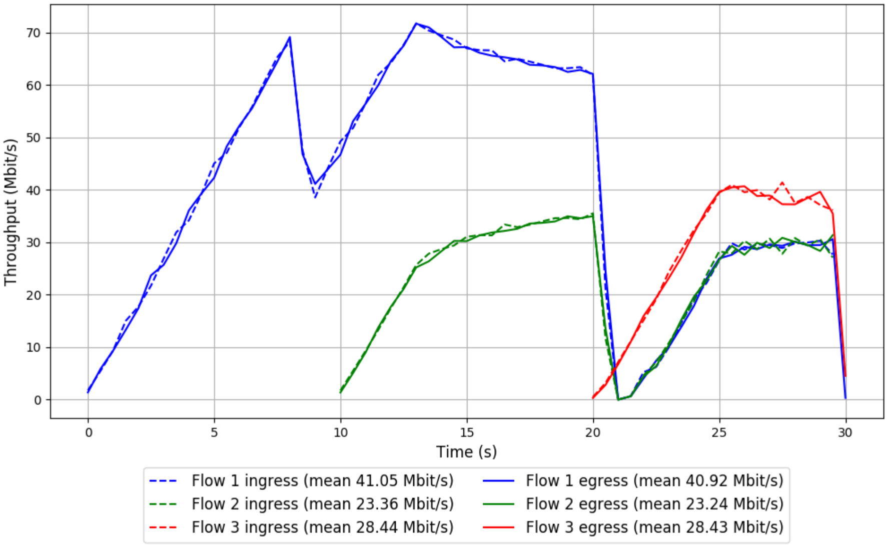


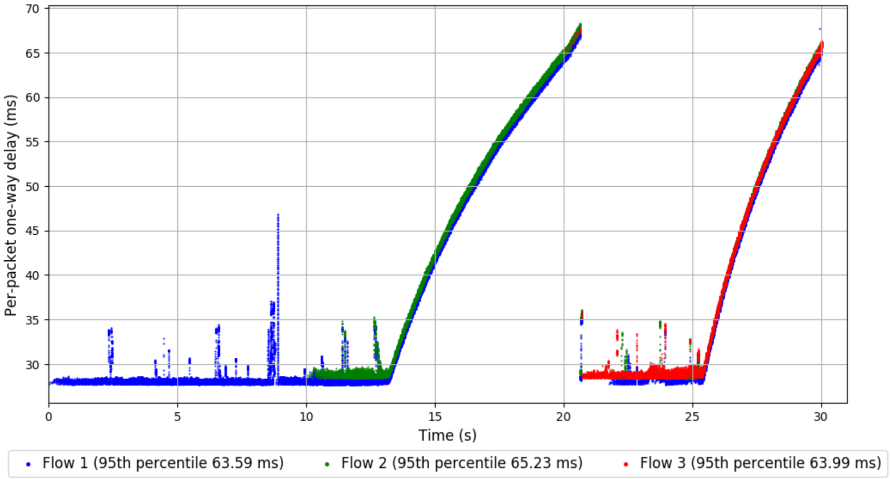
```
Run 4: Statistics of LEDBAT

Start at: 2017-10-12 07:55:43
End at: 2017-10-12 07:56:13
Local clock offset: 0.83 ms
Remote clock offset: -3.878 ms

# Below is generated by plot.py at 2017-10-12 10:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.79 Mbit/s
95th percentile per-packet one-way delay: 64.215 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 63.585 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 23.24 Mbit/s
95th percentile per-packet one-way delay: 65.229 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 28.43 Mbit/s
95th percentile per-packet one-way delay: 63.992 ms
Loss rate: 0.02%
```

Run 4: Report of LEDBAT — Data Link



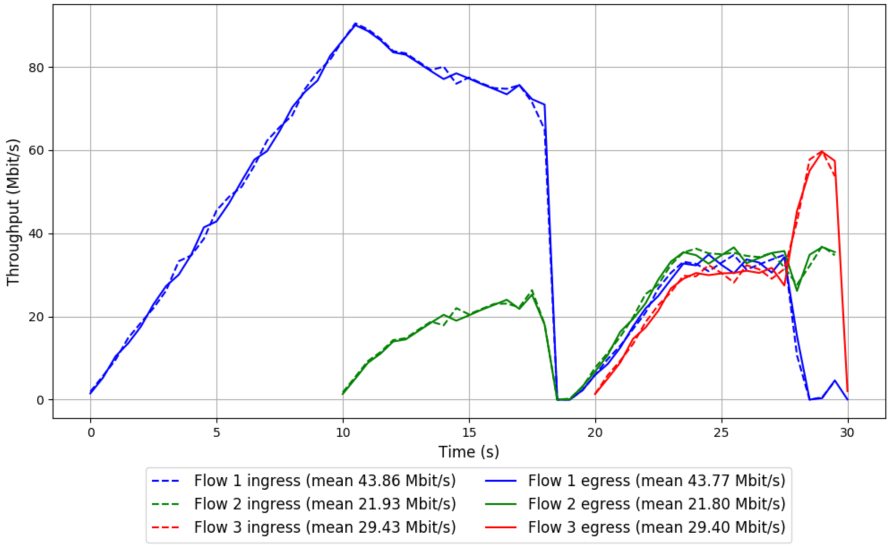


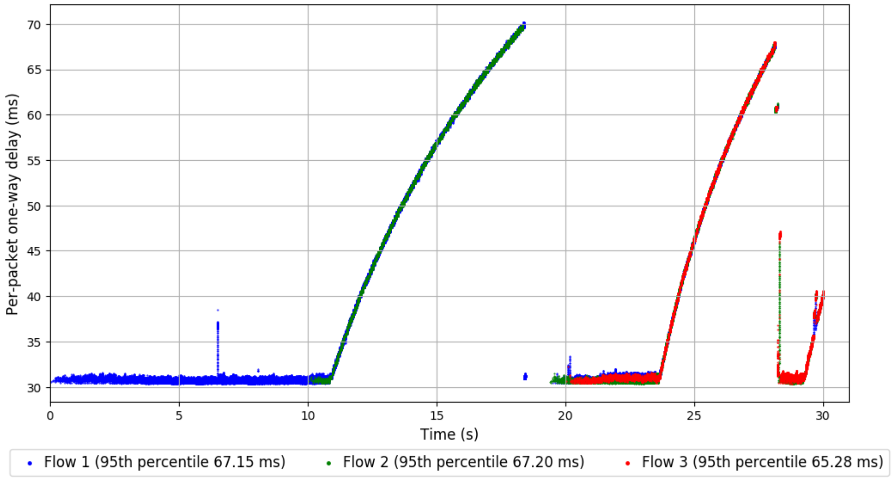
```
Run 5: Statistics of LEDBAT

Start at: 2017-10-12 08:14:46
End at: 2017-10-12 08:15:16
Local clock offset: 0.82 ms
Remote clock offset: -1.173 ms

# Below is generated by plot.py at 2017-10-12 10:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.03 Mbit/s
95th percentile per-packet one-way delay: 66.938 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 43.77 Mbit/s
95th percentile per-packet one-way delay: 67.154 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 21.80 Mbit/s
95th percentile per-packet one-way delay: 67.203 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 29.40 Mbit/s
95th percentile per-packet one-way delay: 65.285 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link



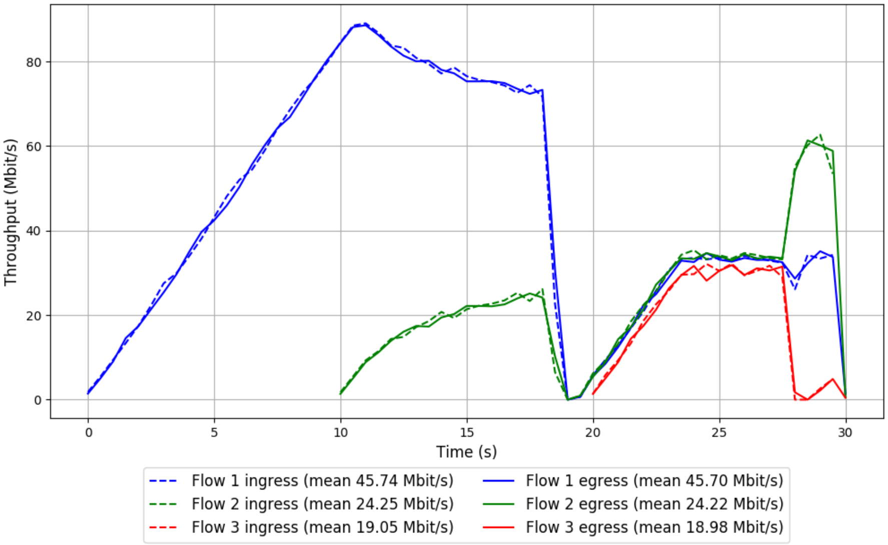


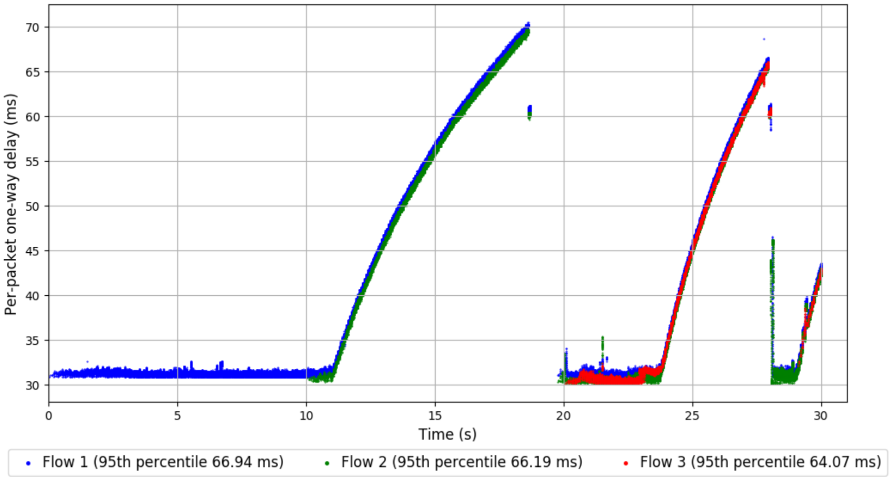
```
Run 6: Statistics of LEDBAT

Start at: 2017-10-12 08:33:54
End at: 2017-10-12 08:34:24
Local clock offset: 1.017 ms
Remote clock offset: -1.301 ms

# Below is generated by plot.py at 2017-10-12 10:28:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.13 Mbit/s
95th percentile per-packet one-way delay: 66.370 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 45.70 Mbit/s
95th percentile per-packet one-way delay: 66.937 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 66.185 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 18.98 Mbit/s
95th percentile per-packet one-way delay: 64.070 ms
Loss rate: 0.20%
```

Run 6: Report of LEDBAT — Data Link



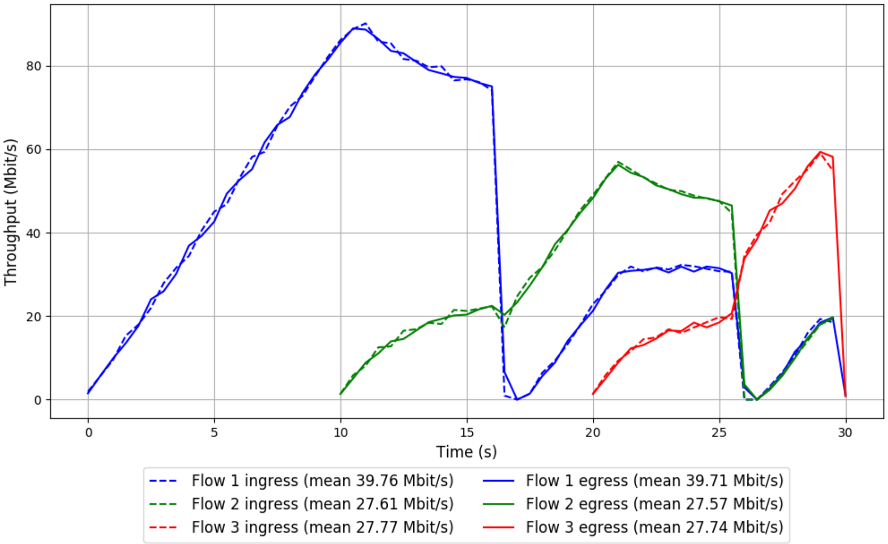


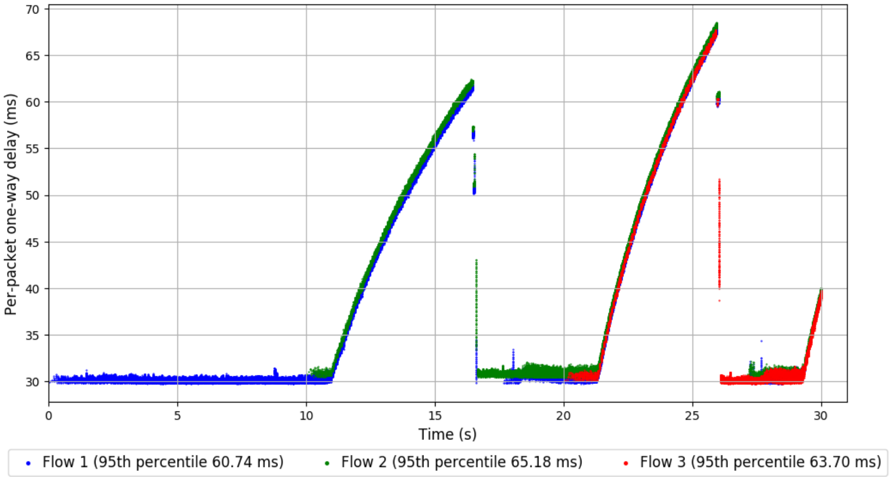
```
Run 7: Statistics of LEDBAT

Start at: 2017-10-12 08:53:01
End at: 2017-10-12 08:53:31
Local clock offset: 0.942 ms
Remote clock offset: -1.493 ms

# Below is generated by plot.py at 2017-10-12 10:28:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.26 Mbit/s
95th percentile per-packet one-way delay: 62.260 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 60.736 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 27.57 Mbit/s
95th percentile per-packet one-way delay: 65.177 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 27.74 Mbit/s
95th percentile per-packet one-way delay: 63.697 ms
Loss rate: 0.00%
```

Run 7: Report of LEDBAT — Data Link



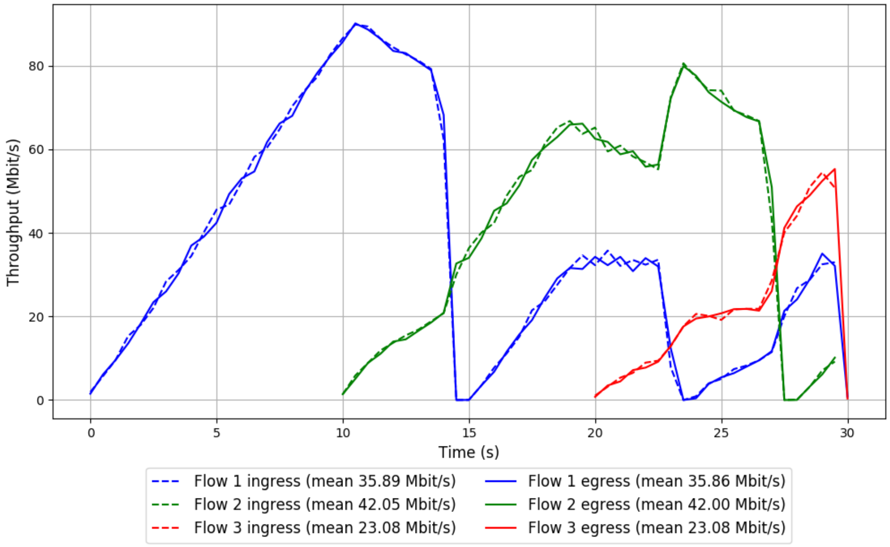


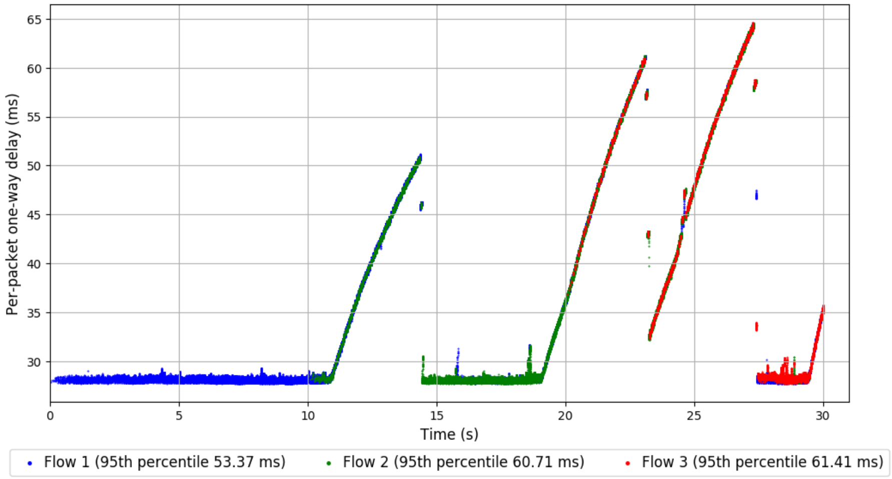
```
Run 8: Statistics of LEDBAT

Start at: 2017-10-12 09:12:07
End at: 2017-10-12 09:12:37
Local clock offset: 0.825 ms
Remote clock offset: -3.477 ms

# Below is generated by plot.py at 2017-10-12 10:28:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.46 Mbit/s
95th percentile per-packet one-way delay: 59.226 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 35.86 Mbit/s
95th percentile per-packet one-way delay: 53.374 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 42.00 Mbit/s
95th percentile per-packet one-way delay: 60.707 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 23.08 Mbit/s
95th percentile per-packet one-way delay: 61.410 ms
Loss rate: 0.00%
```

Run 8: Report of LEDBAT — Data Link



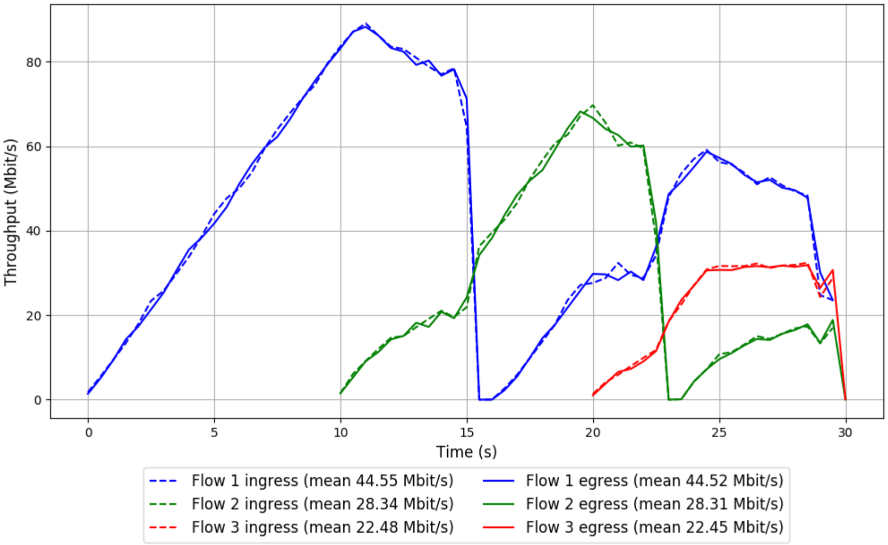


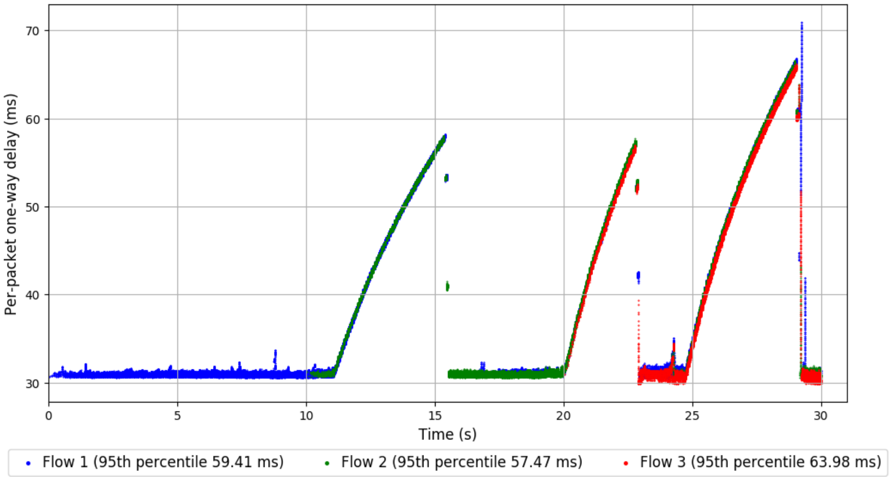
```
Run 9: Statistics of LEDBAT

Start at: 2017-10-12 09:31:12
End at: 2017-10-12 09:31:42
Local clock offset: 0.645 ms
Remote clock offset: -1.358 ms

# Below is generated by plot.py at 2017-10-12 10:29:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.80 Mbit/s
95th percentile per-packet one-way delay: 60.546 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 44.52 Mbit/s
95th percentile per-packet one-way delay: 59.406 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 28.31 Mbit/s
95th percentile per-packet one-way delay: 57.472 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 22.45 Mbit/s
95th percentile per-packet one-way delay: 63.984 ms
Loss rate: 0.13%
```

Run 9: Report of LEDBAT — Data Link



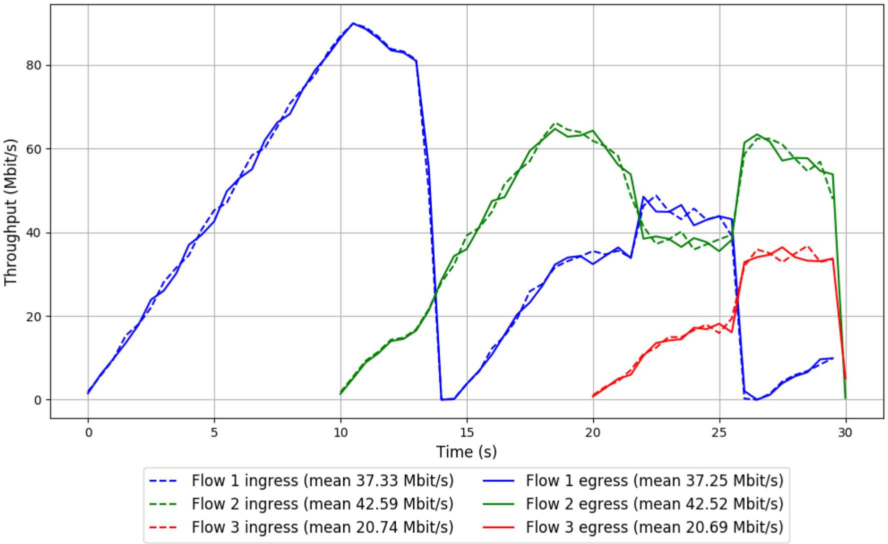


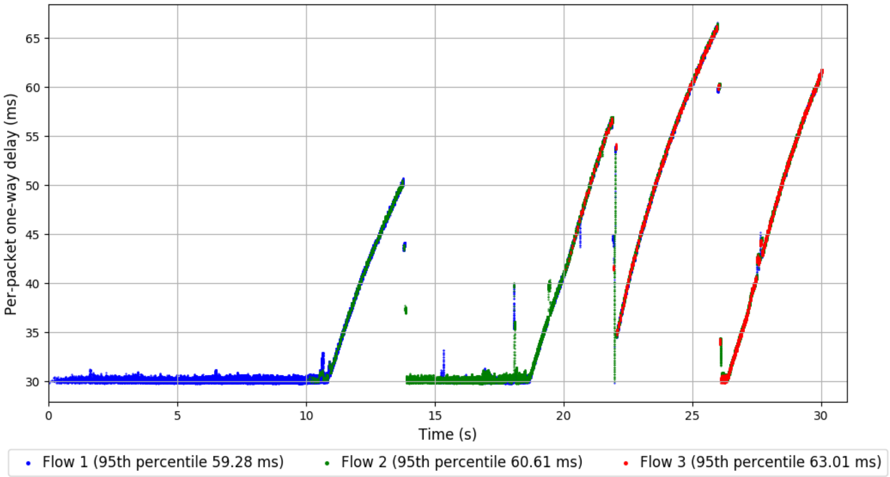
```
Run 10: Statistics of LEDBAT

Start at: 2017-10-12 09:50:18
End at: 2017-10-12 09:50:48
Local clock offset: 0.414 ms
Remote clock offset: -1.485 ms

# Below is generated by plot.py at 2017-10-12 10:29:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.42 Mbit/s
95th percentile per-packet one-way delay: 60.583 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 37.25 Mbit/s
95th percentile per-packet one-way delay: 59.278 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 42.52 Mbit/s
95th percentile per-packet one-way delay: 60.613 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.69 Mbit/s
95th percentile per-packet one-way delay: 63.005 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link



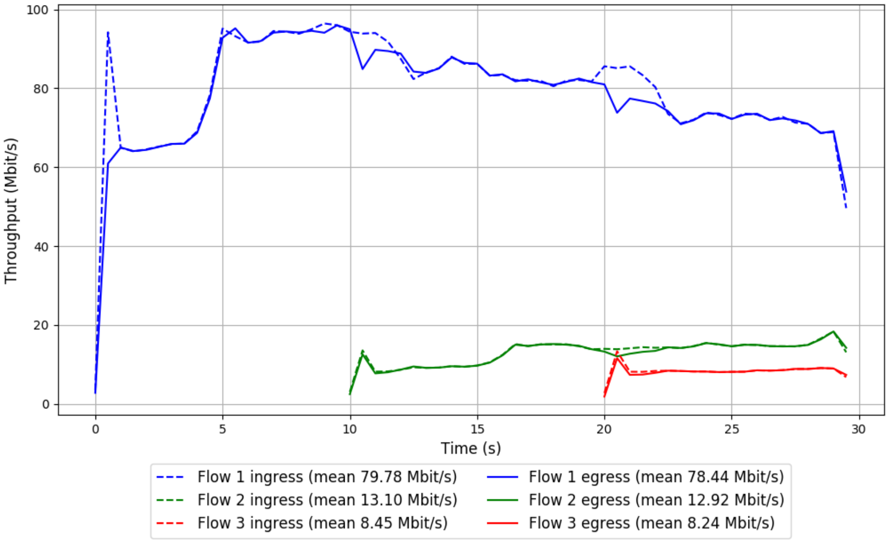


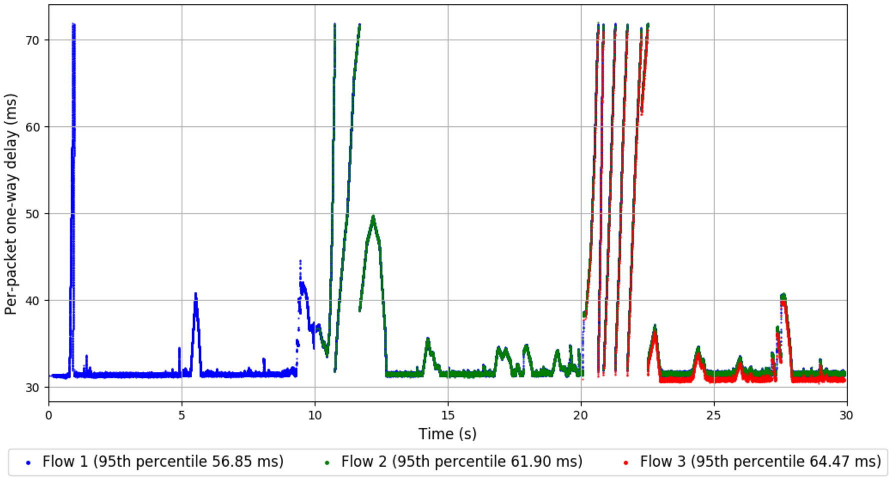
```
Run 1: Statistics of PCC

Start at: 2017-10-12 06:59:48
End at: 2017-10-12 07:00:18
Local clock offset: 0.082 ms
Remote clock offset: -1.366 ms

# Below is generated by plot.py at 2017-10-12 10:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.74 Mbit/s
95th percentile per-packet one-way delay: 58.057 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 78.44 Mbit/s
95th percentile per-packet one-way delay: 56.848 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 12.92 Mbit/s
95th percentile per-packet one-way delay: 61.898 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 64.472 ms
Loss rate: 2.44%
```

Run 1: Report of PCC — Data Link



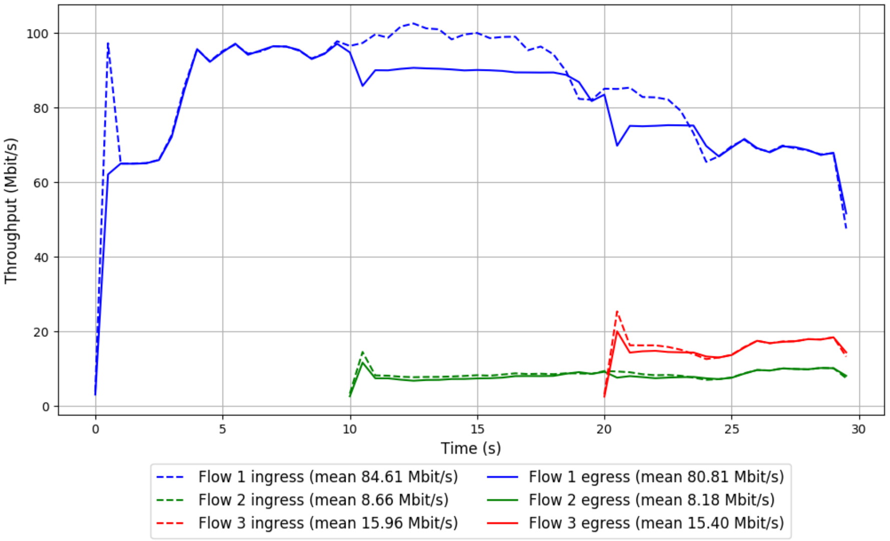


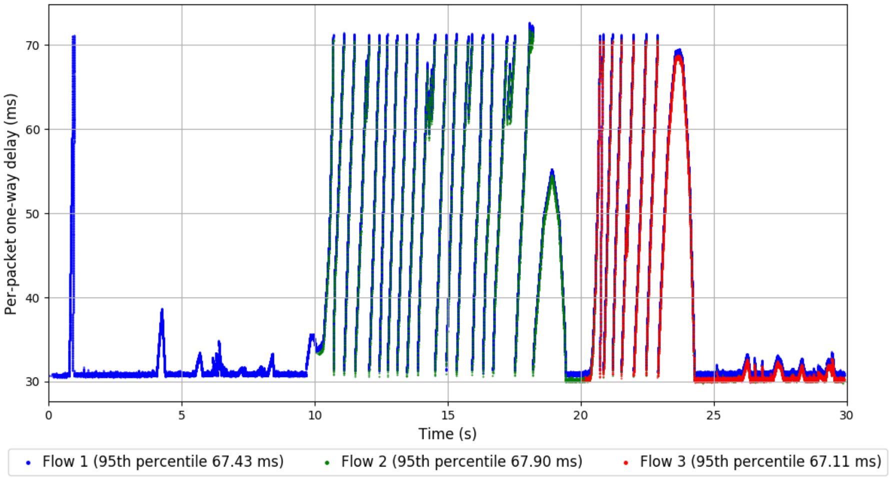
```
Run 2: Statistics of PCC

Start at: 2017-10-12 07:18:50
End at: 2017-10-12 07:19:20
Local clock offset: 0.339 ms
Remote clock offset: -2.037 ms

# Below is generated by plot.py at 2017-10-12 10:29:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.32 Mbit/s
95th percentile per-packet one-way delay: 67.455 ms
Loss rate: 4.50%
-- Flow 1:
Average throughput: 80.81 Mbit/s
95th percentile per-packet one-way delay: 67.430 ms
Loss rate: 4.49%
-- Flow 2:
Average throughput: 8.18 Mbit/s
95th percentile per-packet one-way delay: 67.899 ms
Loss rate: 5.50%
-- Flow 3:
Average throughput: 15.40 Mbit/s
95th percentile per-packet one-way delay: 67.115 ms
Loss rate: 3.53%
```

Run 2: Report of PCC — Data Link



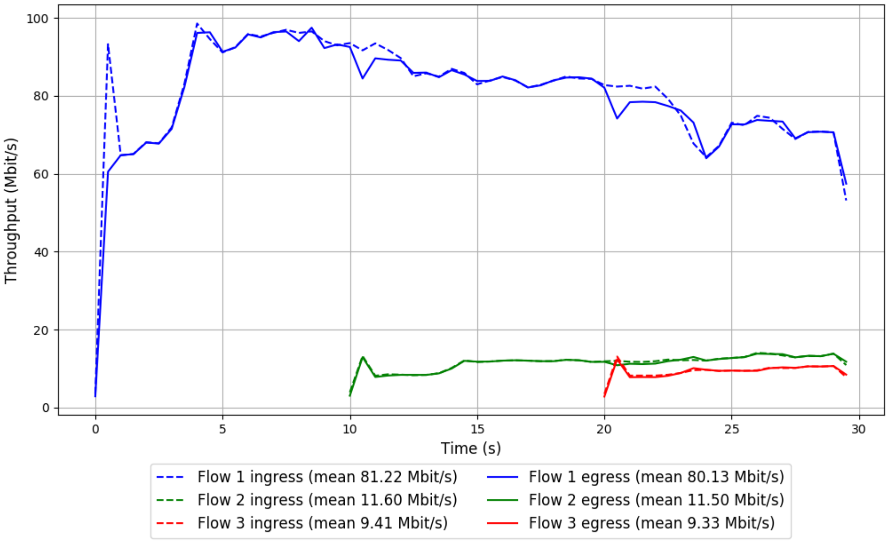


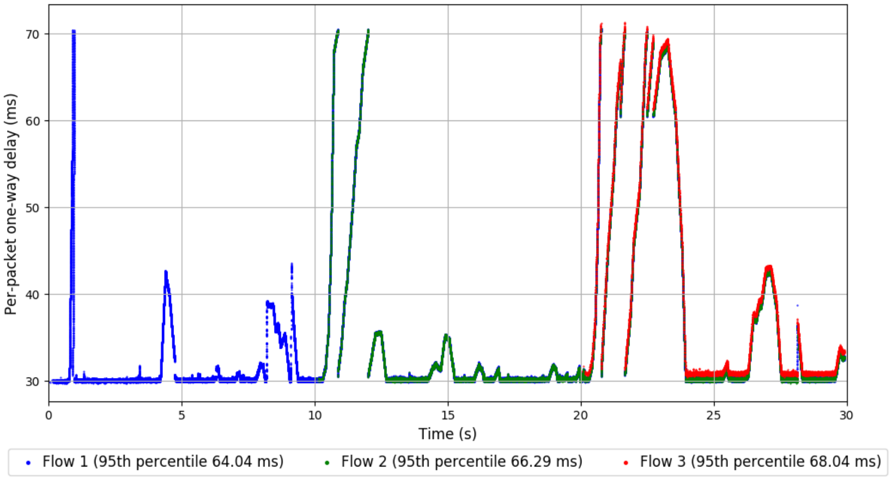
```
Run 3: Statistics of PCC

Start at: 2017-10-12 07:38:00
End at: 2017-10-12 07:38:30
Local clock offset: 0.68 ms
Remote clock offset: -1.728 ms

# Below is generated by plot.py at 2017-10-12 10:30:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.85 Mbit/s
95th percentile per-packet one-way delay: 64.656 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 80.13 Mbit/s
95th percentile per-packet one-way delay: 64.039 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 66.293 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 68.042 ms
Loss rate: 0.91%
```

Run 3: Report of PCC — Data Link



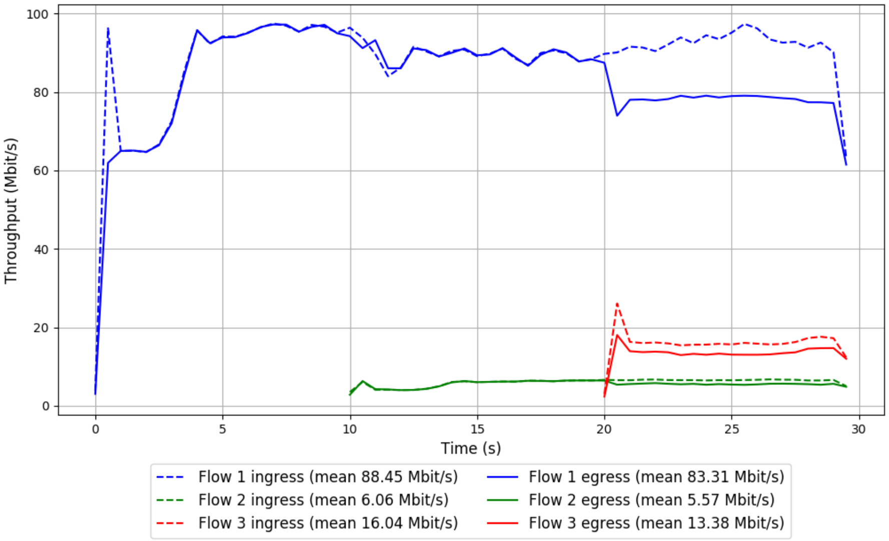


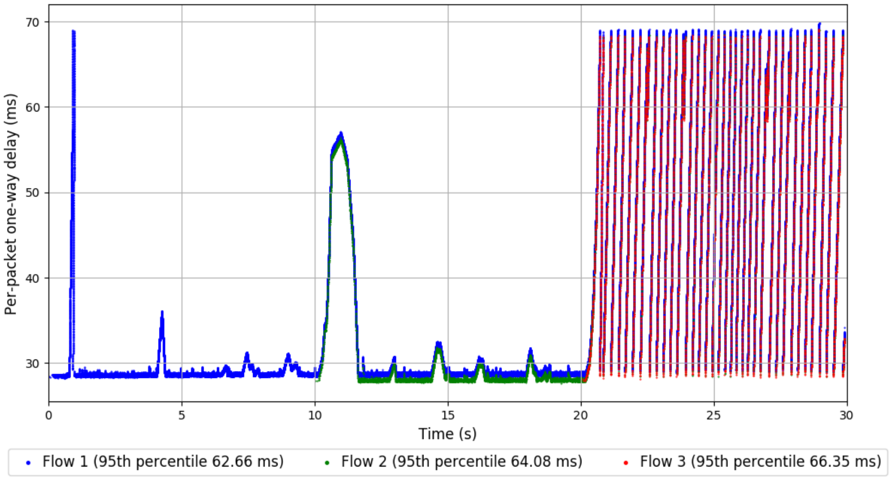
```
Run 4: Statistics of PCC

Start at: 2017-10-12 07:57:05
End at: 2017-10-12 07:57:35
Local clock offset: 0.759 ms
Remote clock offset: -3.934 ms

# Below is generated by plot.py at 2017-10-12 10:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.42 Mbit/s
95th percentile per-packet one-way delay: 63.270 ms
Loss rate: 6.47%
-- Flow 1:
Average throughput: 83.31 Mbit/s
95th percentile per-packet one-way delay: 62.660 ms
Loss rate: 5.79%
-- Flow 2:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 64.085 ms
Loss rate: 8.06%
-- Flow 3:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 66.353 ms
Loss rate: 16.57%
```

Run 4: Report of PCC — Data Link



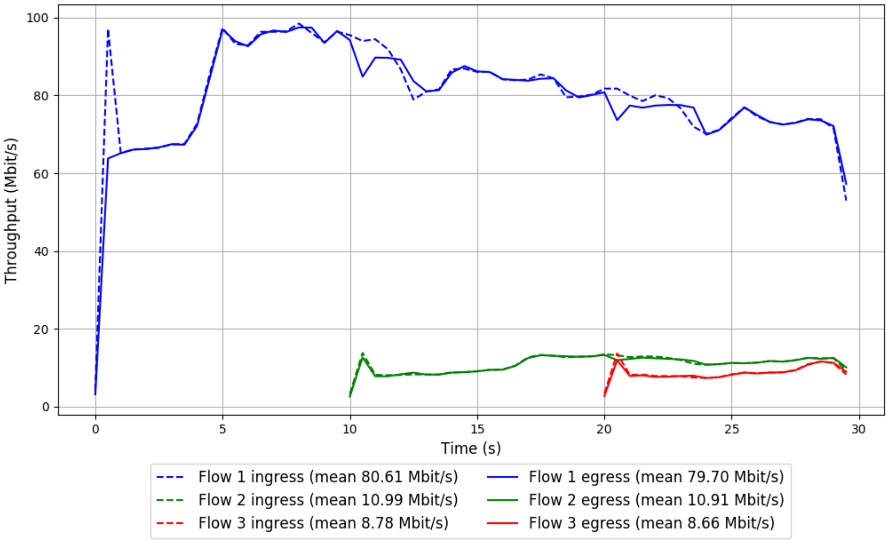


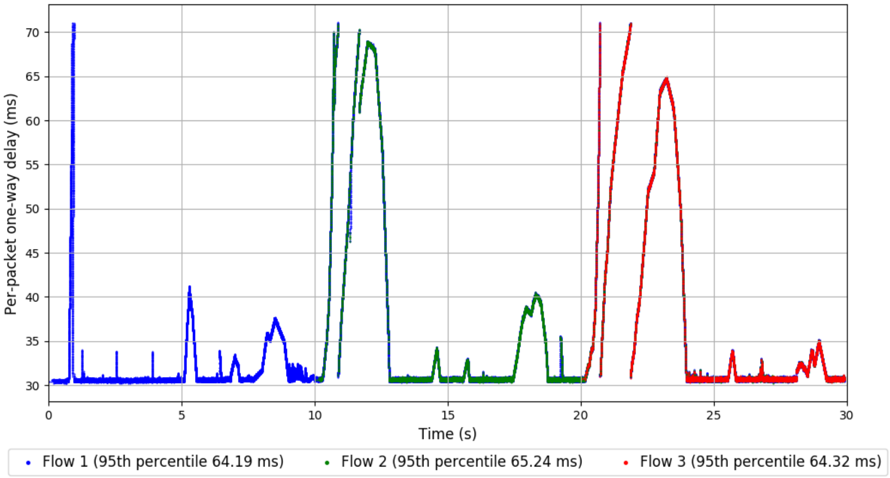
```
Run 5: Statistics of PCC

Start at: 2017-10-12 08:16:07
End at: 2017-10-12 08:16:37
Local clock offset: 0.842 ms
Remote clock offset: -1.144 ms

# Below is generated by plot.py at 2017-10-12 10:30:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.80 Mbit/s
95th percentile per-packet one-way delay: 64.277 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 79.70 Mbit/s
95th percentile per-packet one-way delay: 64.194 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 65.240 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 64.321 ms
Loss rate: 1.36%
```

Run 5: Report of PCC — Data Link



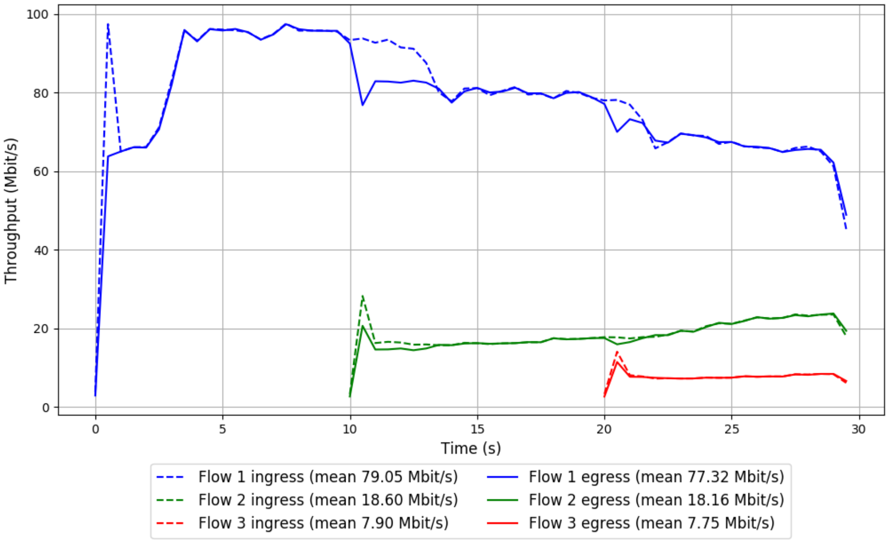


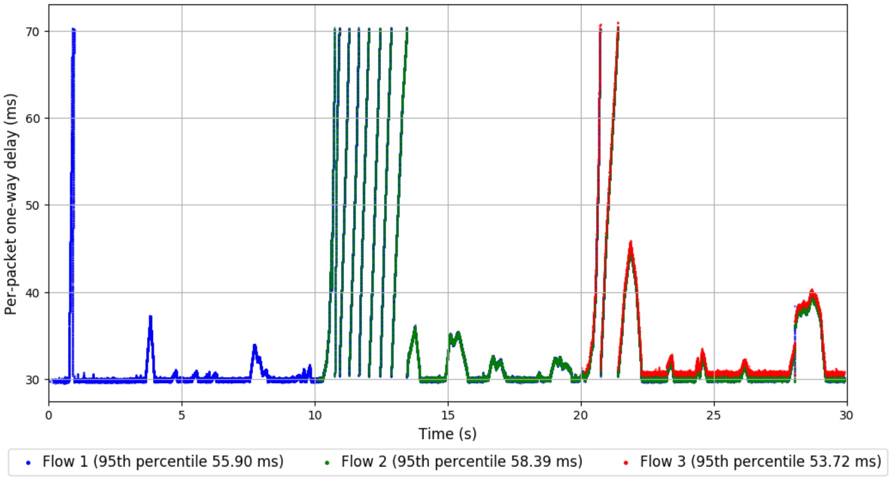
```
Run 6: Statistics of PCC

Start at: 2017-10-12 08:35:16
End at: 2017-10-12 08:35:46
Local clock offset: 1.039 ms
Remote clock offset: -1.726 ms

# Below is generated by plot.py at 2017-10-12 10:30:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.95 Mbit/s
95th percentile per-packet one-way delay: 56.254 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 77.32 Mbit/s
95th percentile per-packet one-way delay: 55.896 ms
Loss rate: 2.19%
-- Flow 2:
Average throughput: 18.16 Mbit/s
95th percentile per-packet one-way delay: 58.387 ms
Loss rate: 2.37%
-- Flow 3:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 53.720 ms
Loss rate: 2.01%
```

Run 6: Report of PCC — Data Link



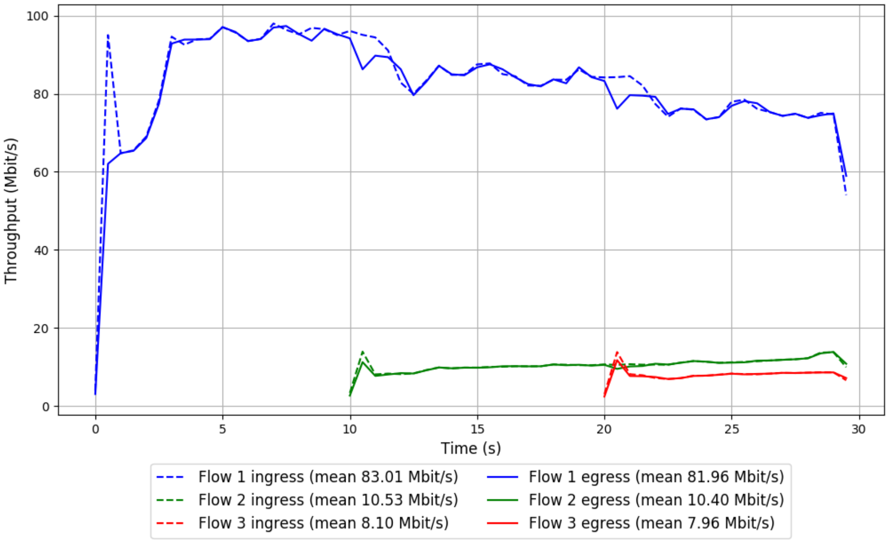


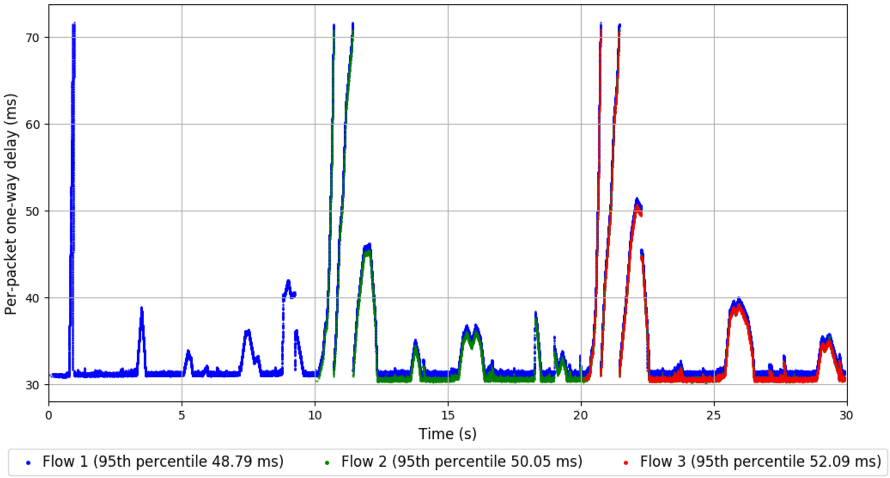
```
Run 7: Statistics of PCC

Start at: 2017-10-12 08:54:23
End at: 2017-10-12 08:54:53
Local clock offset: 0.933 ms
Remote clock offset: -0.988 ms

# Below is generated by plot.py at 2017-10-12 10:30:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.51 Mbit/s
95th percentile per-packet one-way delay: 49.242 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 81.96 Mbit/s
95th percentile per-packet one-way delay: 48.786 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 10.40 Mbit/s
95th percentile per-packet one-way delay: 50.052 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 52.088 ms
Loss rate: 1.67%
```

Run 7: Report of PCC — Data Link



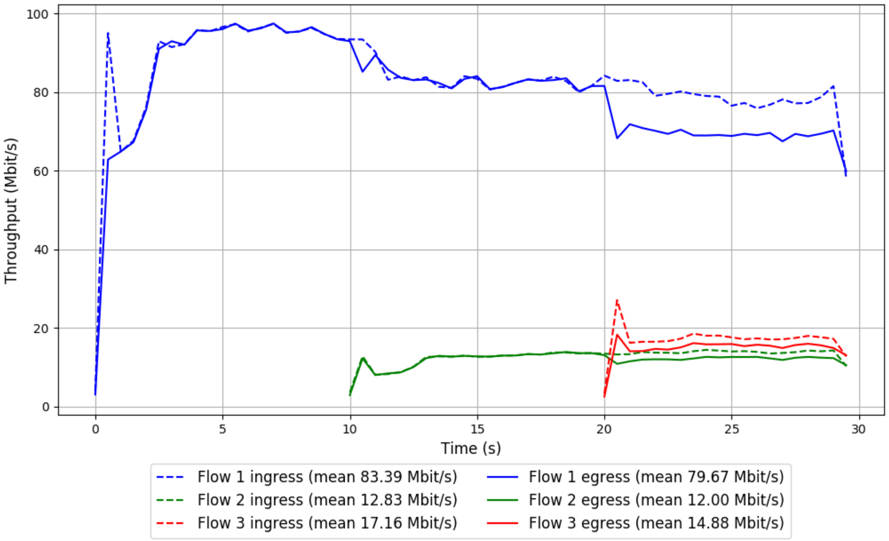


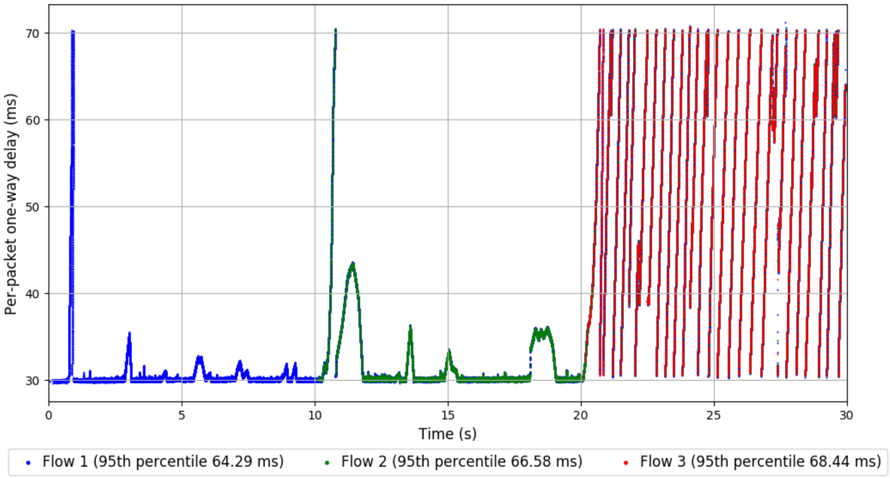
```
Run 8: Statistics of PCC

Start at: 2017-10-12 09:13:29
End at: 2017-10-12 09:13:59
Local clock offset: 0.839 ms
Remote clock offset: -1.389 ms

# Below is generated by plot.py at 2017-10-12 10:30:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.57 Mbit/s
95th percentile per-packet one-way delay: 65.206 ms
Loss rate: 5.02%
-- Flow 1:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 64.288 ms
Loss rate: 4.35%
-- Flow 2:
Average throughput: 12.00 Mbit/s
95th percentile per-packet one-way delay: 66.580 ms
Loss rate: 6.27%
-- Flow 3:
Average throughput: 14.88 Mbit/s
95th percentile per-packet one-way delay: 68.443 ms
Loss rate: 12.99%
```

Run 8: Report of PCC — Data Link



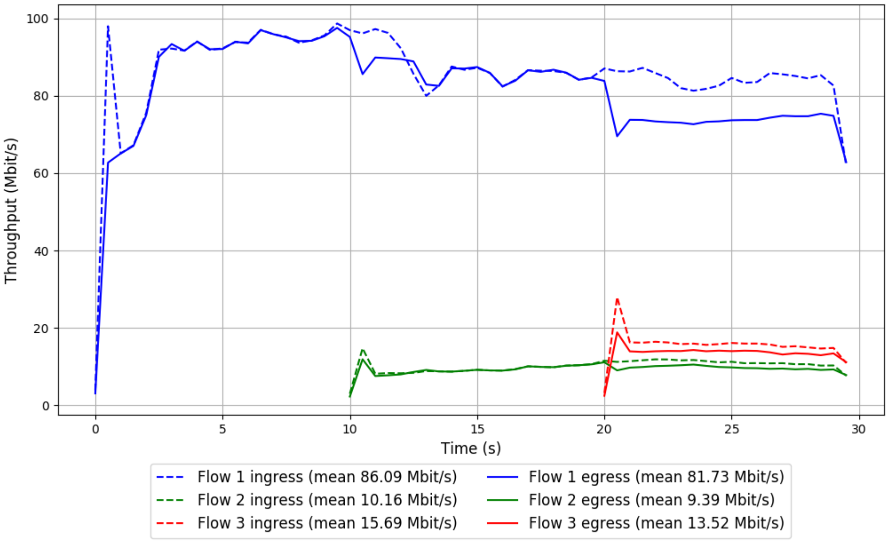


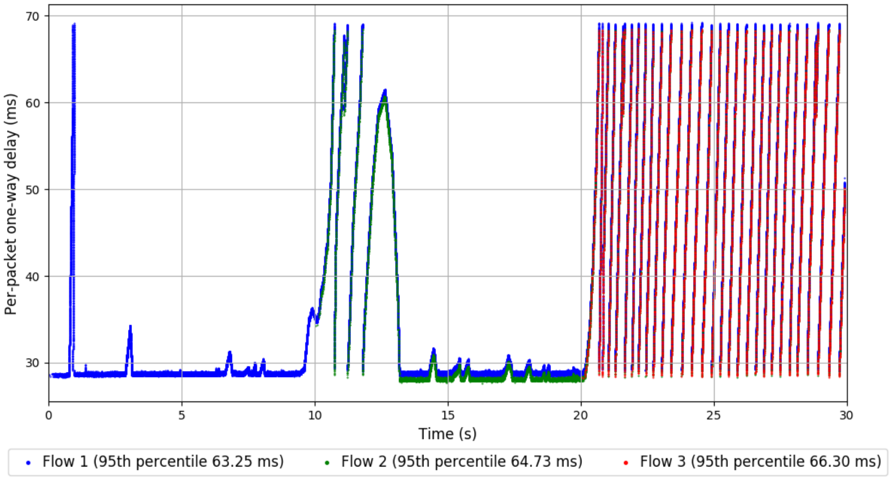
```
Run 9: Statistics of PCC

Start at: 2017-10-12 09:32:34
End at: 2017-10-12 09:33:04
Local clock offset: 0.633 ms
Remote clock offset: -3.464 ms

# Below is generated by plot.py at 2017-10-12 10:30:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 63.778 ms
Loss rate: 5.63%
-- Flow 1:
Average throughput: 81.73 Mbit/s
95th percentile per-packet one-way delay: 63.251 ms
Loss rate: 5.00%
-- Flow 2:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 64.728 ms
Loss rate: 7.49%
-- Flow 3:
Average throughput: 13.52 Mbit/s
95th percentile per-packet one-way delay: 66.302 ms
Loss rate: 13.67%
```

Run 9: Report of PCC — Data Link



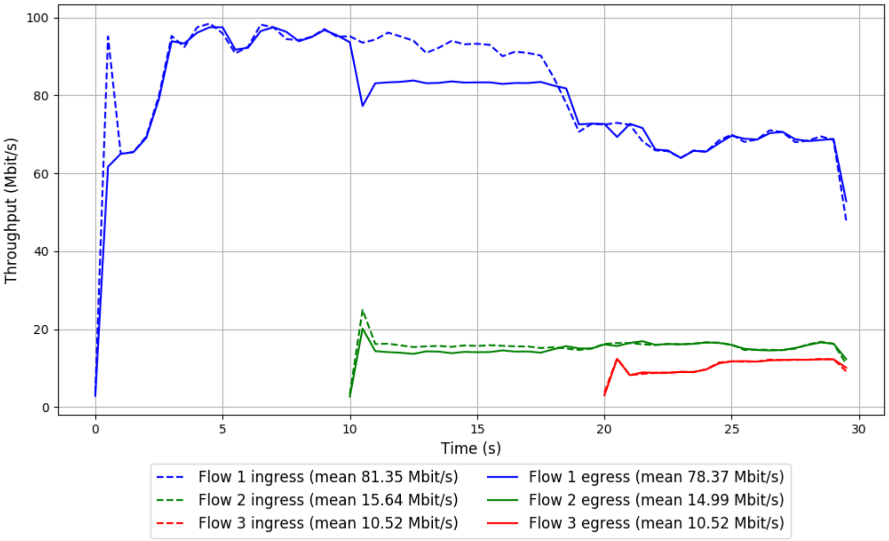


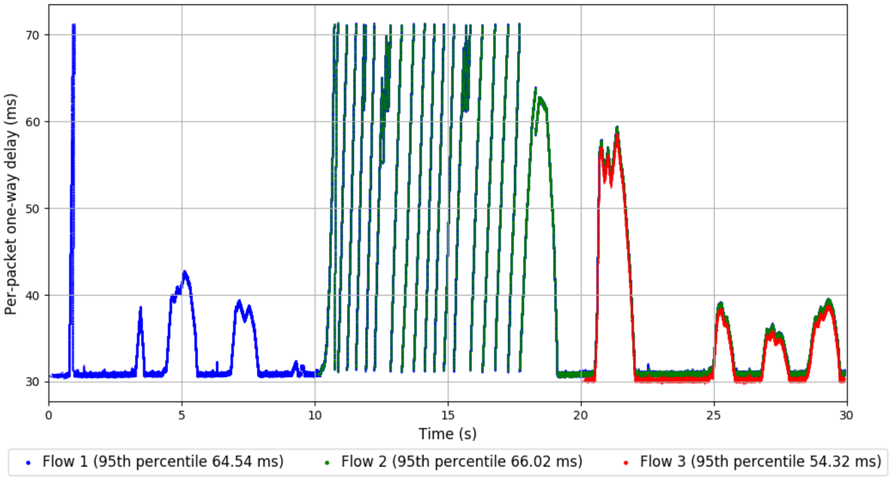
```
Run 10: Statistics of PCC

Start at: 2017-10-12 09:51:39
End at: 2017-10-12 09:52:09
Local clock offset: 0.408 ms
Remote clock offset: -1.39 ms

# Below is generated by plot.py at 2017-10-12 10:30:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.81 Mbit/s
95th percentile per-packet one-way delay: 64.498 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 78.37 Mbit/s
95th percentile per-packet one-way delay: 64.541 ms
Loss rate: 3.66%
-- Flow 2:
Average throughput: 14.99 Mbit/s
95th percentile per-packet one-way delay: 66.024 ms
Loss rate: 4.19%
-- Flow 3:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 54.317 ms
Loss rate: 0.00%
```

Run 10: Report of PCC — Data Link



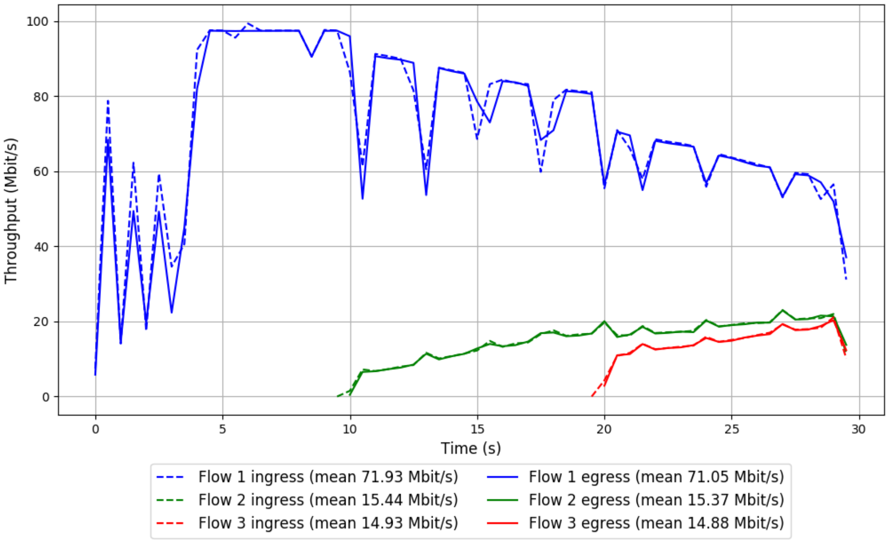


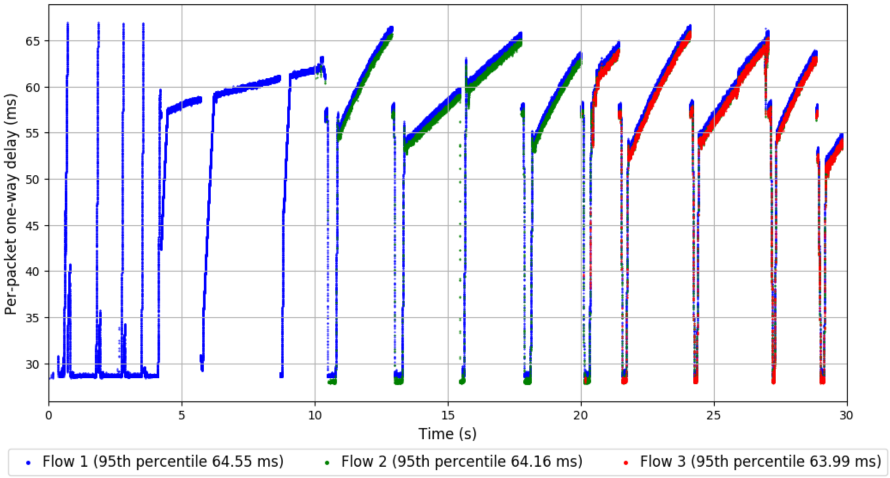
```
Run 1: Statistics of QUIC Cubic

Start at: 2017-10-12 06:51:41
End at: 2017-10-12 06:52:11
Local clock offset: 0.028 ms
Remote clock offset: -3.904 ms

# Below is generated by plot.py at 2017-10-12 10:31:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.15 Mbit/s
95th percentile per-packet one-way delay: 64.479 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 71.05 Mbit/s
95th percentile per-packet one-way delay: 64.546 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 15.37 Mbit/s
95th percentile per-packet one-way delay: 64.159 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 14.88 Mbit/s
95th percentile per-packet one-way delay: 63.994 ms
Loss rate: 0.36%
```

Run 1: Report of QUIC Cubic — Data Link



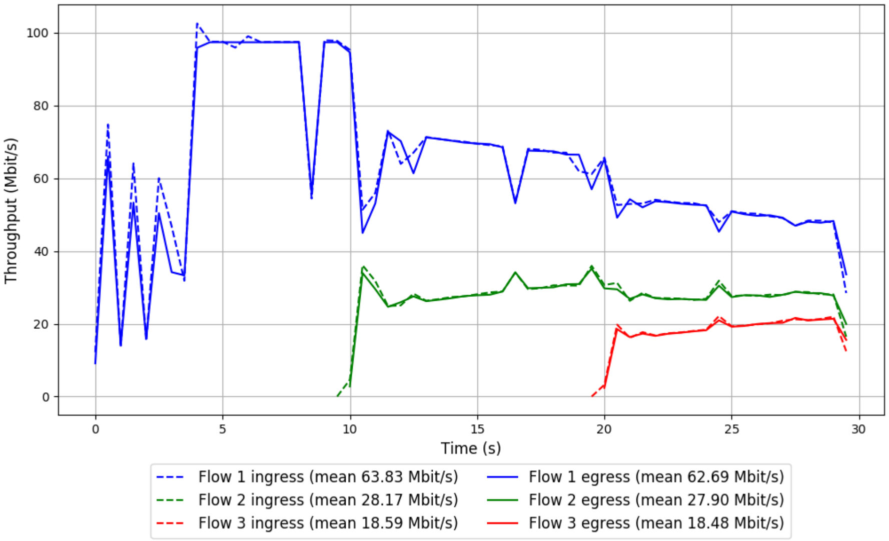


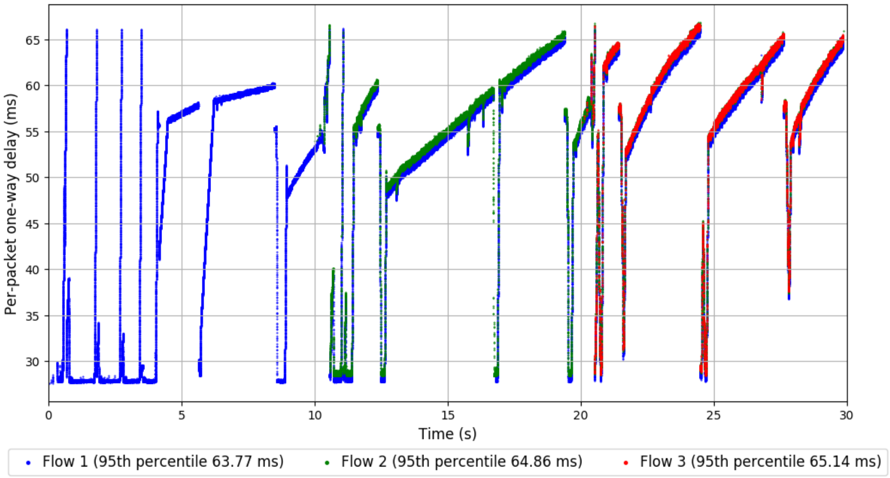
```
Run 2: Statistics of QUIC Cubic

Start at: 2017-10-12 07:10:43
End at: 2017-10-12 07:11:13
Local clock offset: 0.366 ms
Remote clock offset: -4.172 ms

# Below is generated by plot.py at 2017-10-12 10:31:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.31 Mbit/s
95th percentile per-packet one-way delay: 64.288 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 62.69 Mbit/s
95th percentile per-packet one-way delay: 63.773 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 27.90 Mbit/s
95th percentile per-packet one-way delay: 64.862 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 18.48 Mbit/s
95th percentile per-packet one-way delay: 65.140 ms
Loss rate: 0.54%
```

Run 2: Report of QUIC Cubic — Data Link



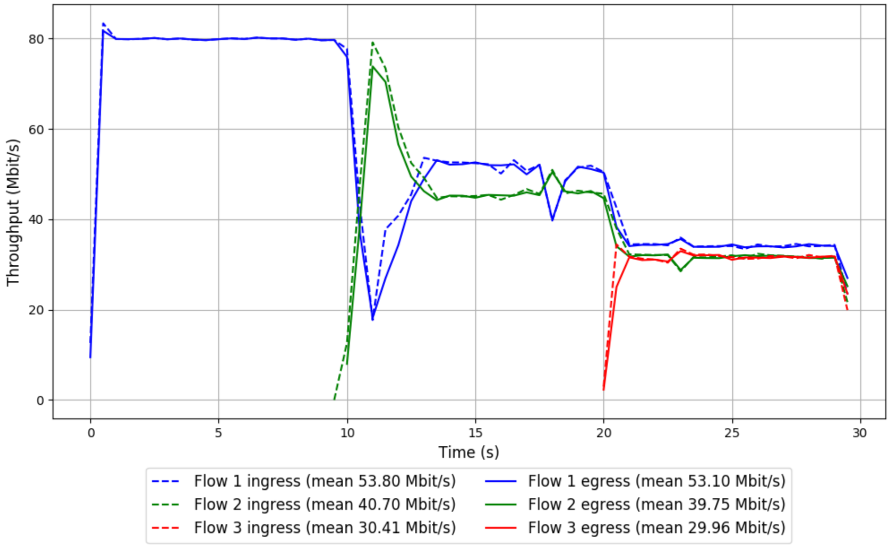


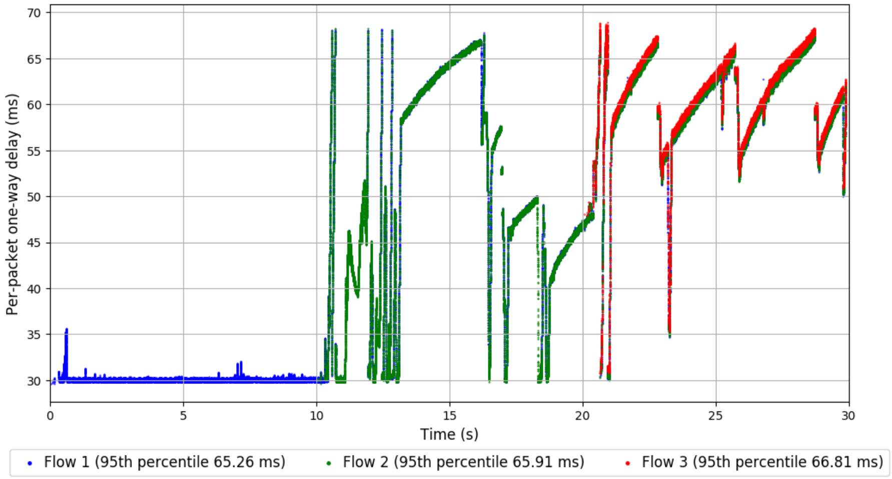
```
Run 3: Statistics of QUIC Cubic

Start at: 2017-10-12 07:29:50
End at: 2017-10-12 07:30:20
Local clock offset: 0.464 ms
Remote clock offset: -2.01 ms

# Below is generated by plot.py at 2017-10-12 10:31:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.40 Mbit/s
95th percentile per-packet one-way delay: 65.815 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 53.10 Mbit/s
95th percentile per-packet one-way delay: 65.259 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 65.914 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 66.811 ms
Loss rate: 1.39%
```

Run 3: Report of QUIC Cubic — Data Link



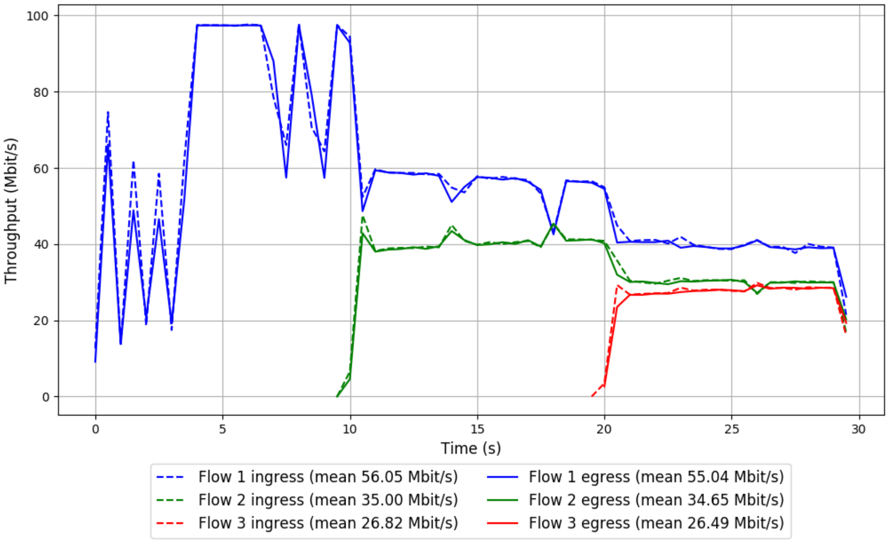


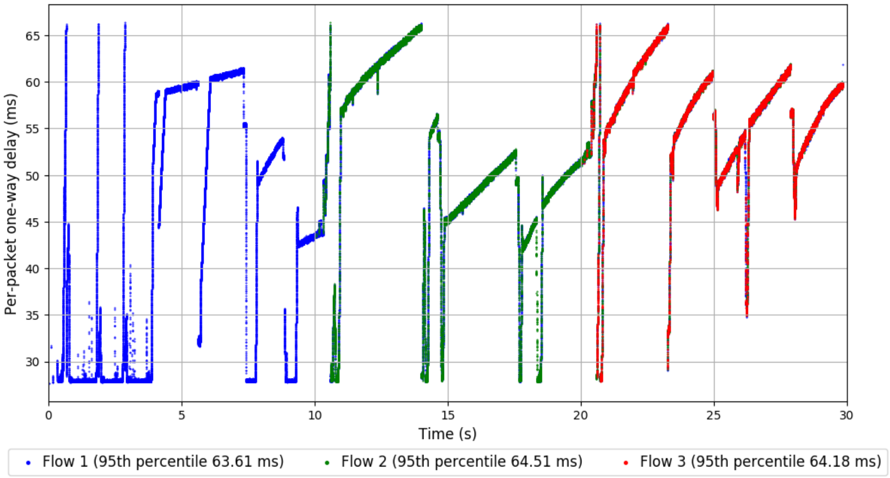
```
Run 4: Statistics of QUIC Cubic

Start at: 2017-10-12 07:48:57
End at: 2017-10-12 07:49:27
Local clock offset: 0.675 ms
Remote clock offset: -3.898 ms

# Below is generated by plot.py at 2017-10-12 10:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.80 Mbit/s
95th percentile per-packet one-way delay: 63.979 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 55.04 Mbit/s
95th percentile per-packet one-way delay: 63.611 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 34.65 Mbit/s
95th percentile per-packet one-way delay: 64.511 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 26.49 Mbit/s
95th percentile per-packet one-way delay: 64.176 ms
Loss rate: 1.14%
```

Run 4: Report of QUIC Cubic — Data Link



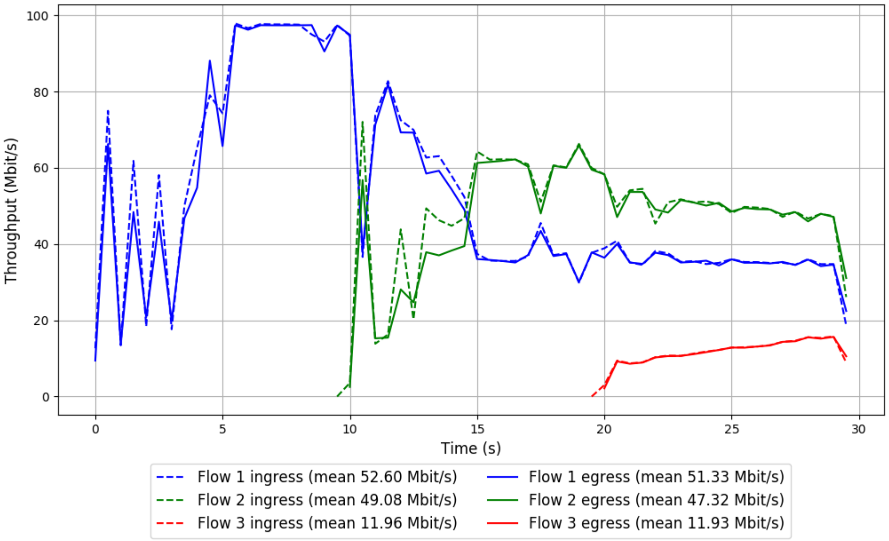


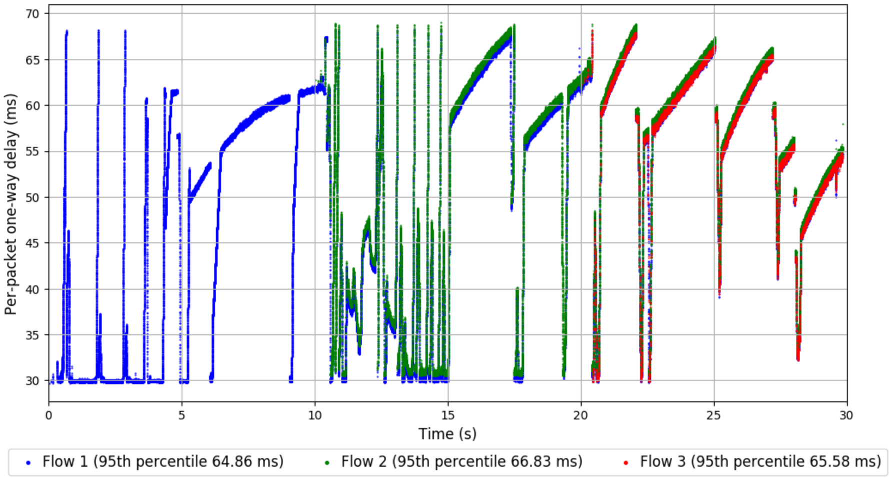
```
Run 5: Statistics of QUIC Cubic

Start at: 2017-10-12 08:08:01
End at: 2017-10-12 08:08:31
Local clock offset: 0.814 ms
Remote clock offset: -1.768 ms

# Below is generated by plot.py at 2017-10-12 10:32:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.68 Mbit/s
95th percentile per-packet one-way delay: 65.950 ms
Loss rate: 2.72%
-- Flow 1:
Average throughput: 51.33 Mbit/s
95th percentile per-packet one-way delay: 64.860 ms
Loss rate: 2.34%
-- Flow 2:
Average throughput: 47.32 Mbit/s
95th percentile per-packet one-way delay: 66.825 ms
Loss rate: 3.60%
-- Flow 3:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 65.580 ms
Loss rate: 0.37%
```

Run 5: Report of QUIC Cubic — Data Link



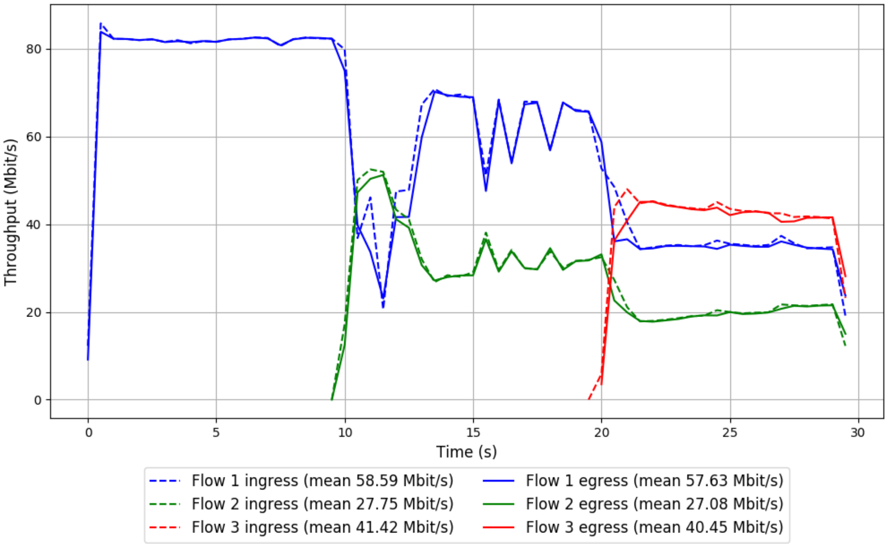


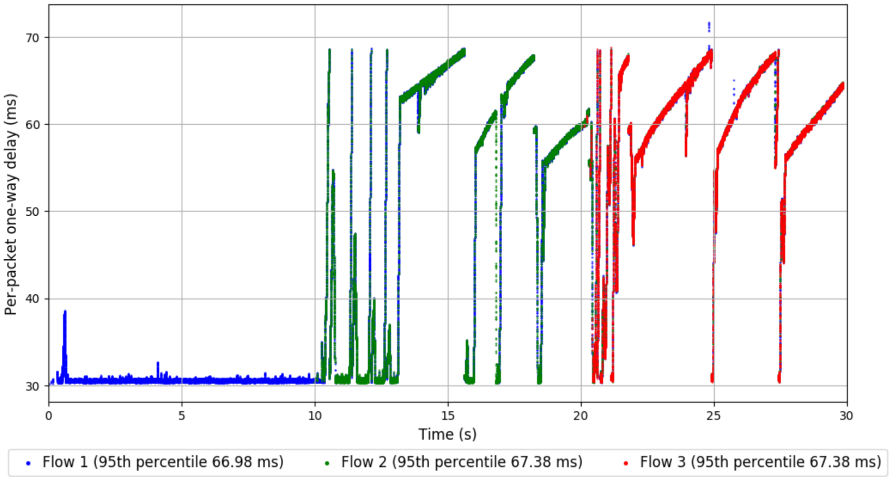
```
Run 6: Statistics of QUIC Cubic

Start at: 2017-10-12 08:27:07
End at: 2017-10-12 08:27:37
Local clock offset: 0.993 ms
Remote clock offset: -1.13 ms

# Below is generated by plot.py at 2017-10-12 10:32:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.99 Mbit/s
95th percentile per-packet one-way delay: 67.179 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 57.63 Mbit/s
95th percentile per-packet one-way delay: 66.978 ms
Loss rate: 1.54%
-- Flow 2:
Average throughput: 27.08 Mbit/s
95th percentile per-packet one-way delay: 67.378 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 67.384 ms
Loss rate: 2.29%
```

Run 6: Report of QUIC Cubic — Data Link



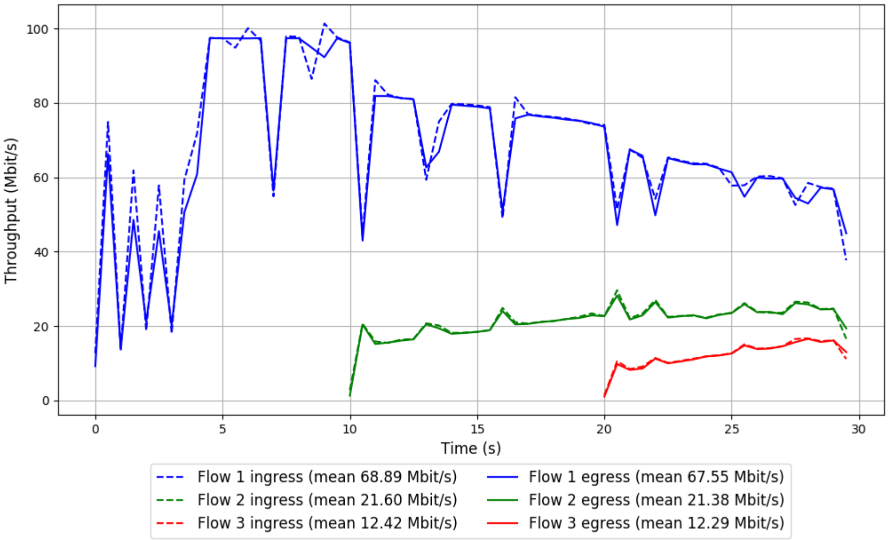


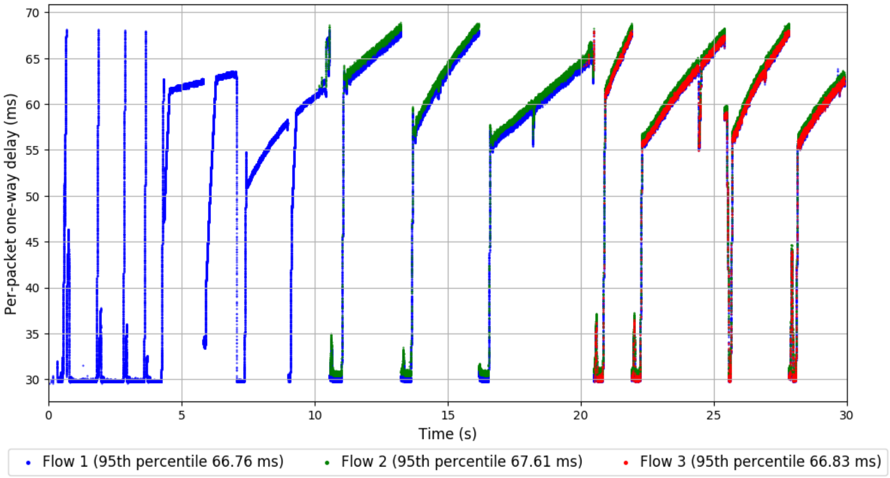
```
Run 7: Statistics of QUIC Cubic

Start at: 2017-10-12 08:46:14
End at: 2017-10-12 08:46:44
Local clock offset: 0.958 ms
Remote clock offset: -1.59 ms

# Below is generated by plot.py at 2017-10-12 10:32:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.76 Mbit/s
95th percentile per-packet one-way delay: 66.898 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 67.55 Mbit/s
95th percentile per-packet one-way delay: 66.763 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 21.38 Mbit/s
95th percentile per-packet one-way delay: 67.613 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 12.29 Mbit/s
95th percentile per-packet one-way delay: 66.828 ms
Loss rate: 1.06%
```

Run 7: Report of QUIC Cubic — Data Link



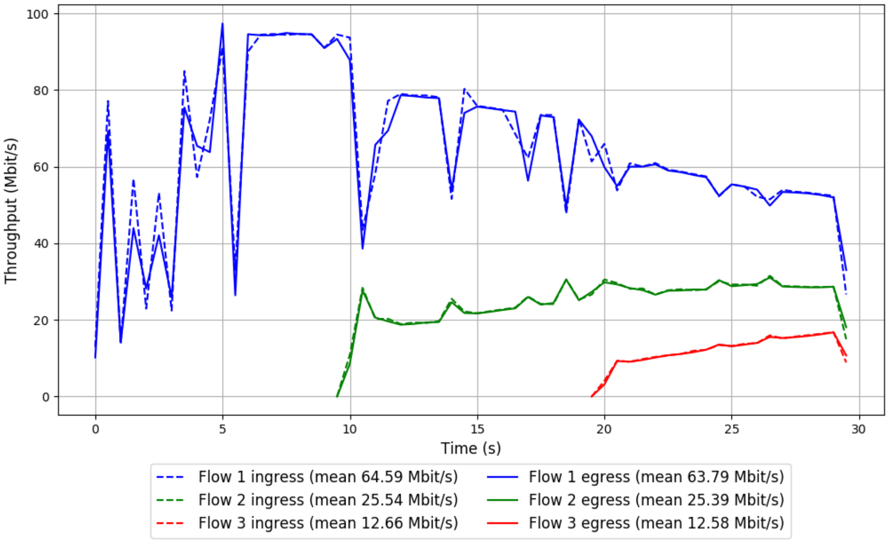


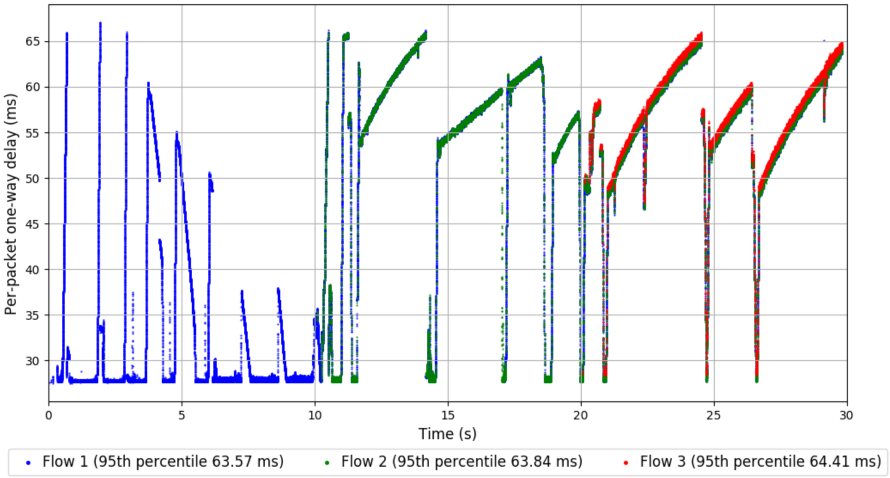
```
Run 8: Statistics of QUIC Cubic

Start at: 2017-10-12 09:05:21
End at: 2017-10-12 09:05:51
Local clock offset: 0.841 ms
Remote clock offset: -3.589 ms

# Below is generated by plot.py at 2017-10-12 10:32:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.87 Mbit/s
95th percentile per-packet one-way delay: 63.736 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 63.79 Mbit/s
95th percentile per-packet one-way delay: 63.572 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 25.39 Mbit/s
95th percentile per-packet one-way delay: 63.838 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 12.58 Mbit/s
95th percentile per-packet one-way delay: 64.414 ms
Loss rate: 0.31%
```

Run 8: Report of QUIC Cubic — Data Link



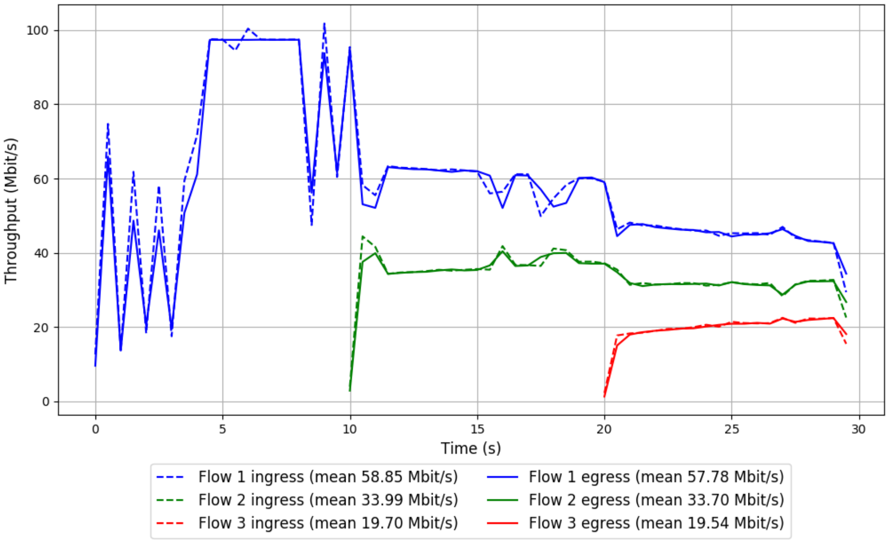


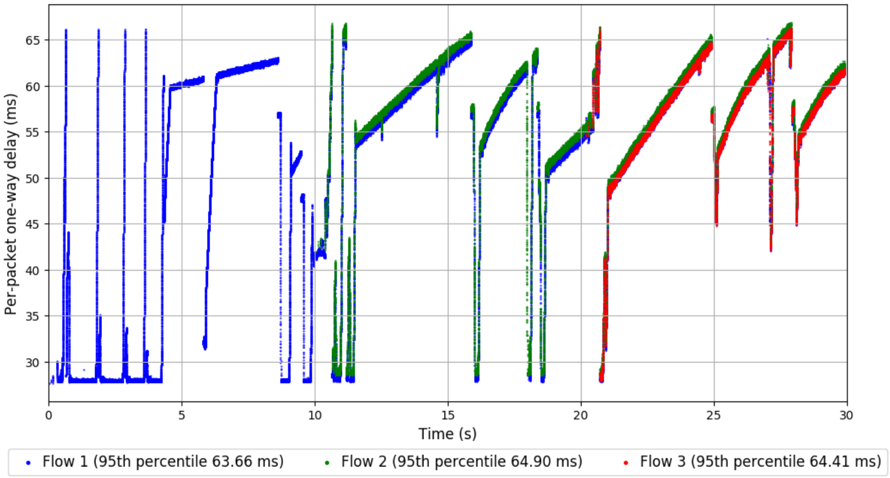
```
Run 9: Statistics of QUIC Cubic

Start at: 2017-10-12 09:24:25
End at: 2017-10-12 09:24:55
Local clock offset: 0.671 ms
Remote clock offset: -3.447 ms

# Below is generated by plot.py at 2017-10-12 10:33:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.57 Mbit/s
95th percentile per-packet one-way delay: 64.182 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 63.656 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 33.70 Mbit/s
95th percentile per-packet one-way delay: 64.900 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 19.54 Mbit/s
95th percentile per-packet one-way delay: 64.413 ms
Loss rate: 0.74%
```

Run 9: Report of QUIC Cubic — Data Link



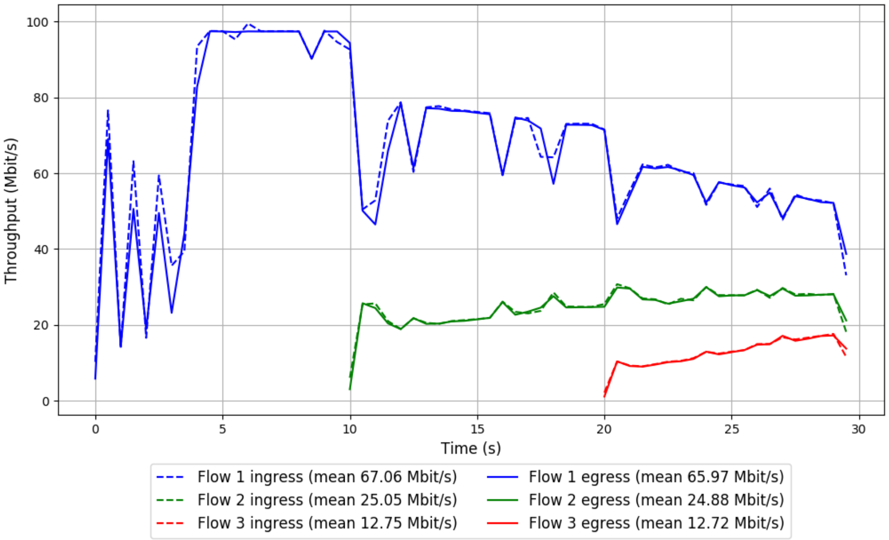


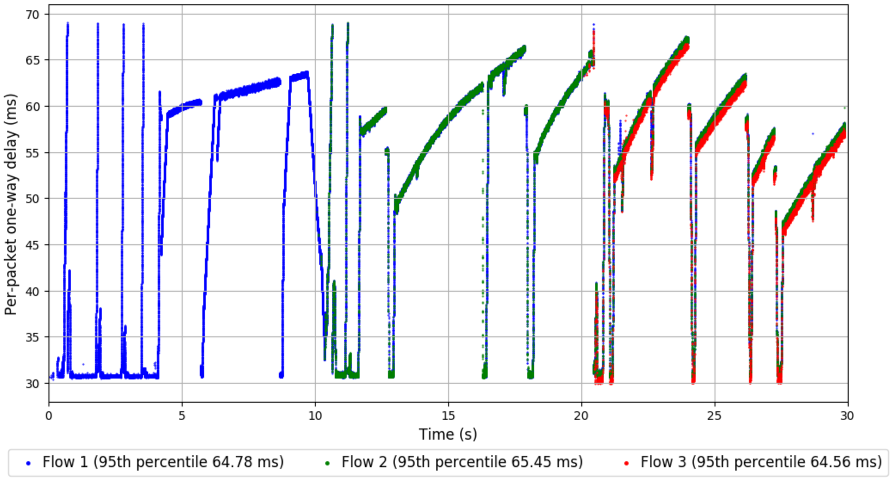
```
Run 10: Statistics of QUIC Cubic

Start at: 2017-10-12 09:43:30
End at: 2017-10-12 09:44:00
Local clock offset: 0.492 ms
Remote clock offset: -1.366 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.66 Mbit/s
95th percentile per-packet one-way delay: 64.898 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 65.97 Mbit/s
95th percentile per-packet one-way delay: 64.776 ms
Loss rate: 1.54%
-- Flow 2:
Average throughput: 24.88 Mbit/s
95th percentile per-packet one-way delay: 65.449 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 12.72 Mbit/s
95th percentile per-packet one-way delay: 64.564 ms
Loss rate: 0.31%
```

Run 10: Report of QUIC Cubic — Data Link



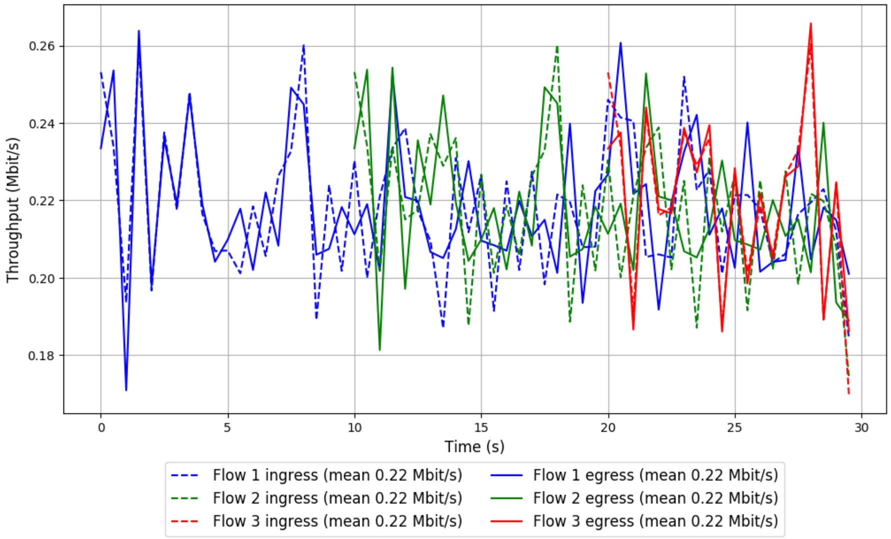


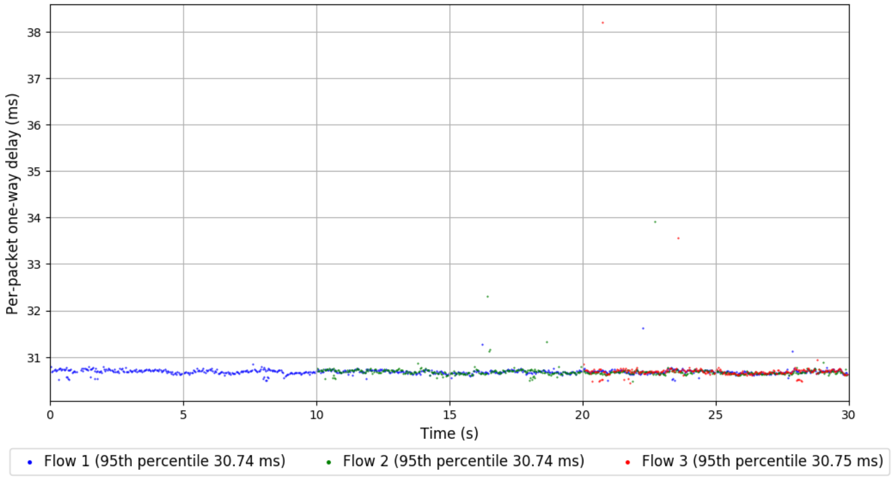
```
Run 1: Statistics of SCReAM

Start at: 2017-10-12 06:48:59
End at: 2017-10-12 06:49:29
Local clock offset: 0.092 ms
Remote clock offset: -1.815 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.745 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.743 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.744 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.748 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



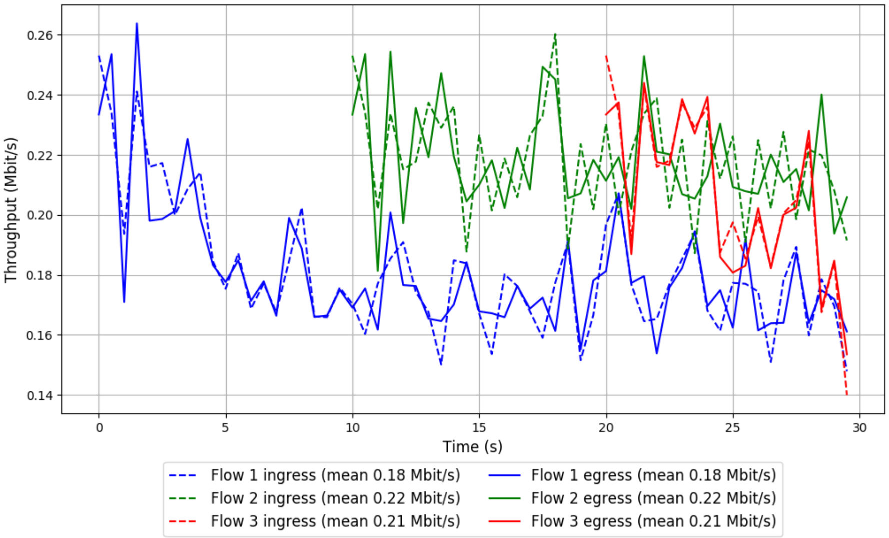


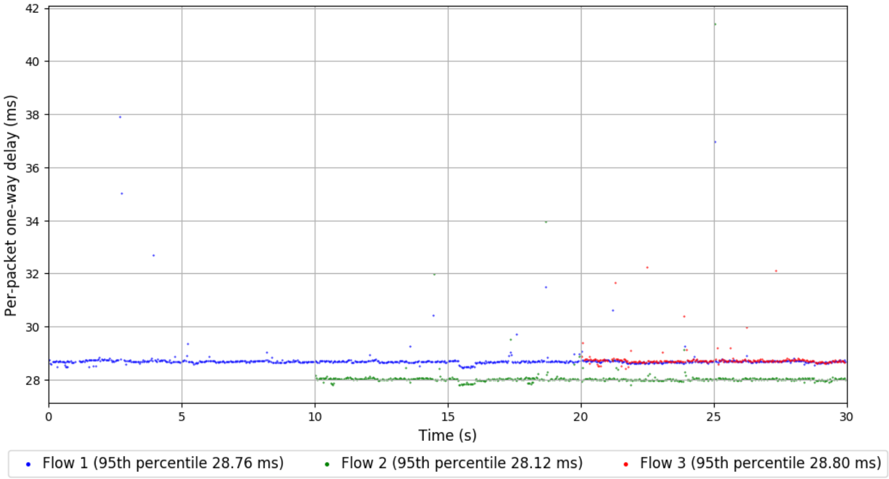
```
Run 2: Statistics of SCReAM

Start at: 2017-10-12 07:08:01
End at: 2017-10-12 07:08:31
Local clock offset: 0.203 ms
Remote clock offset: -4.162 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 28.764 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 28.760 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.118 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 28.805 ms
Loss rate: 0.47%
```

Run 2: Report of SCReAM — Data Link



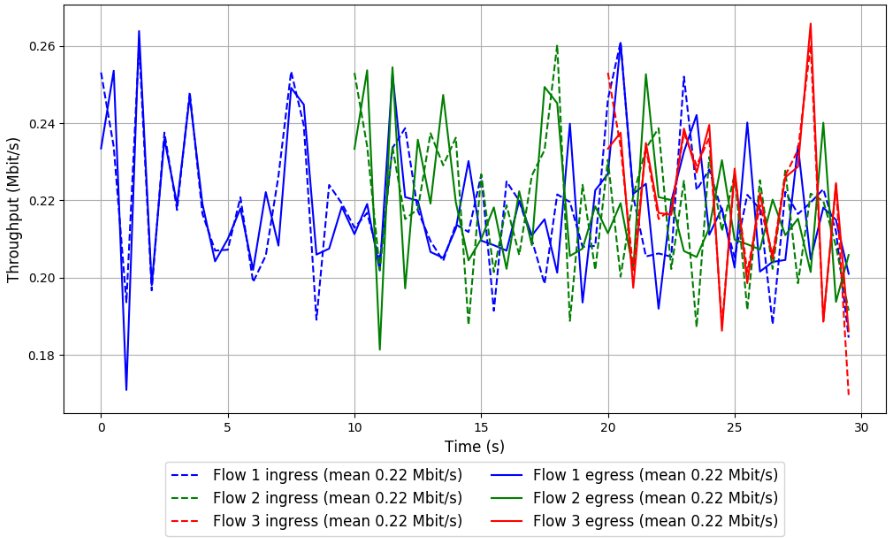


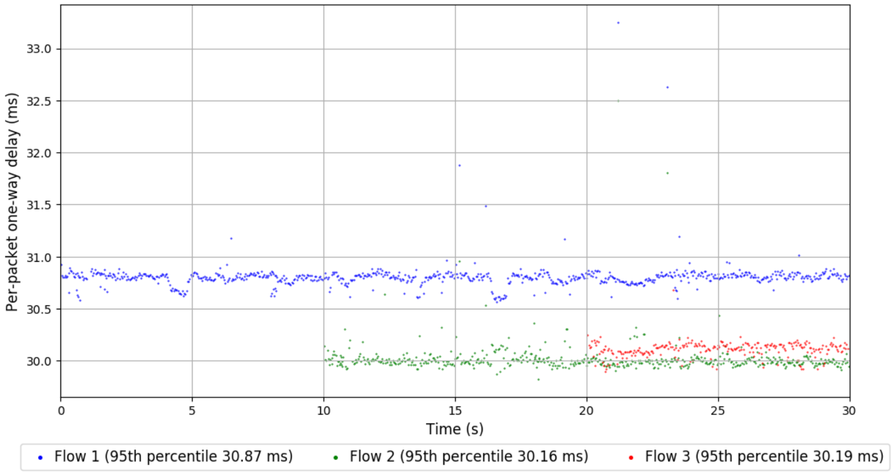
```
Run 3: Statistics of SCReAM

Start at: 2017-10-12 07:27:07
End at: 2017-10-12 07:27:37
Local clock offset: 0.448 ms
Remote clock offset: -1.838 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.850 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.867 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.160 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.191 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



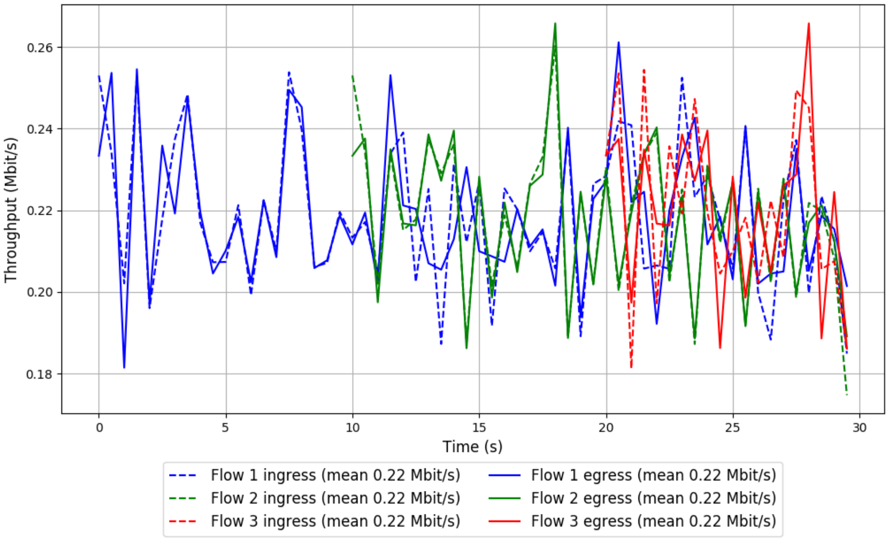


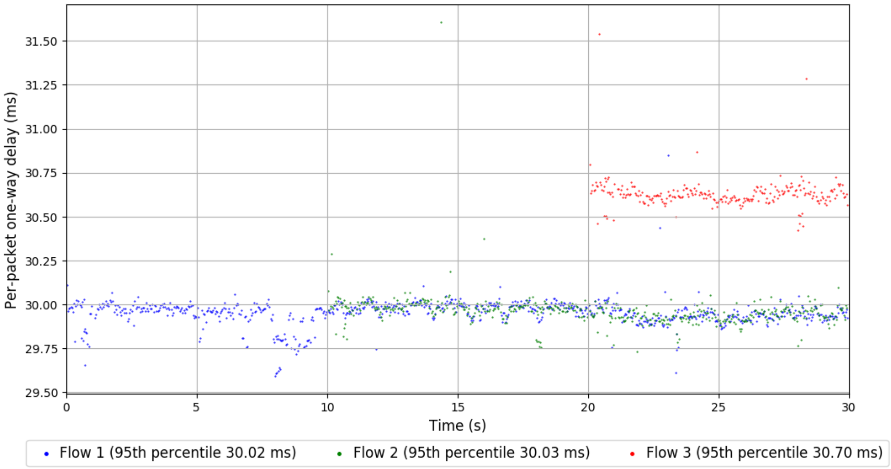
```
Run 4: Statistics of SCReAM

Start at: 2017-10-12 07:46:15
End at: 2017-10-12 07:46:45
Local clock offset: 0.674 ms
Remote clock offset: -1.915 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.648 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.021 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.696 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



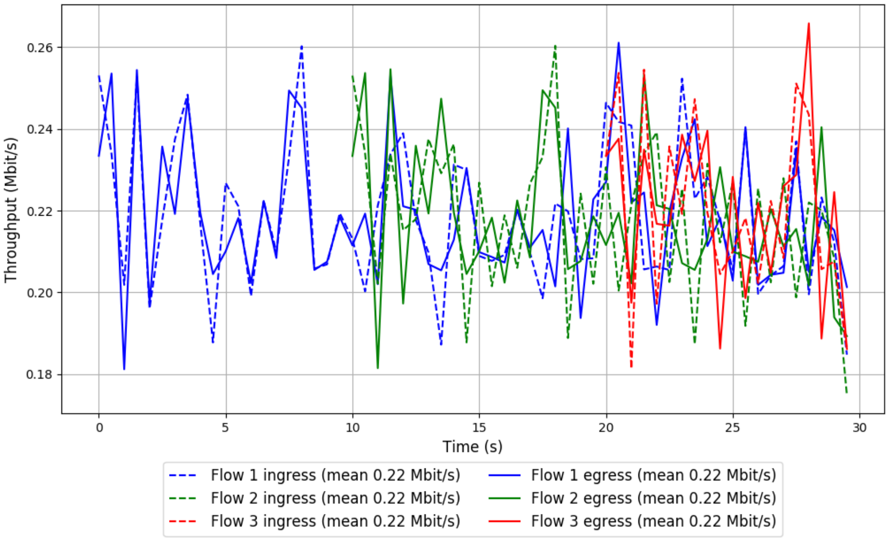


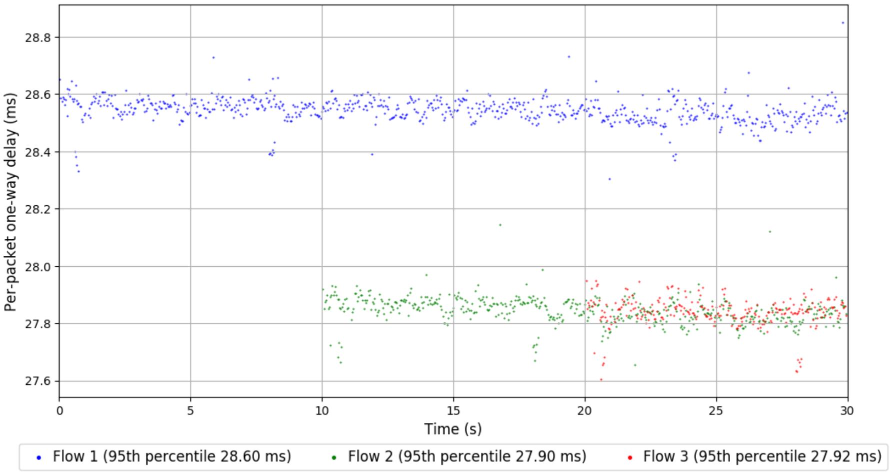
```
Run 5: Statistics of SCReAM

Start at: 2017-10-12 08:05:18
End at: 2017-10-12 08:05:48
Local clock offset: 0.878 ms
Remote clock offset: -3.809 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 28.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.601 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.901 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.921 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



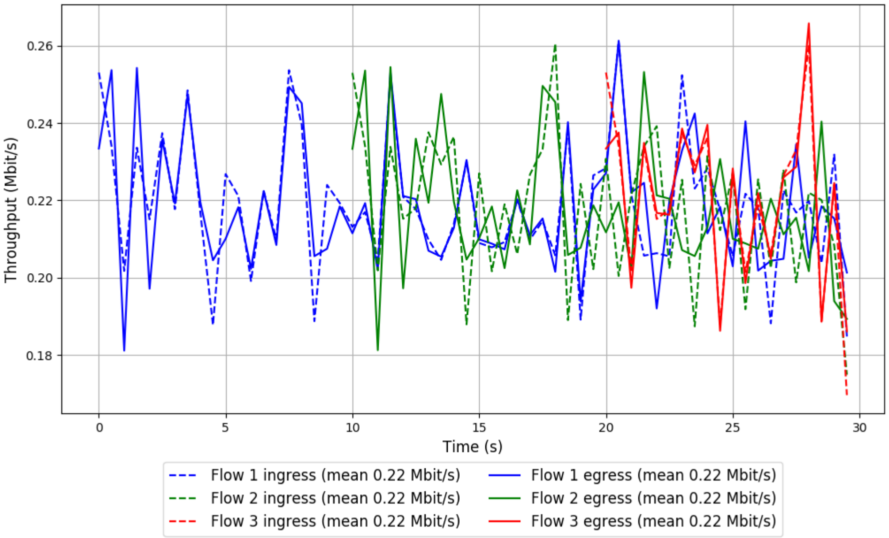


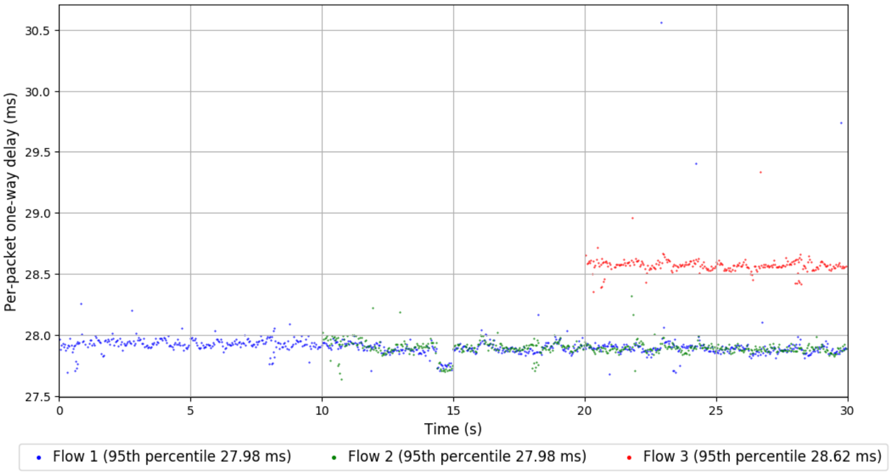
```
Run 6: Statistics of SCReAM

Start at: 2017-10-12 08:24:24
End at: 2017-10-12 08:24:54
Local clock offset: 0.985 ms
Remote clock offset: -3.64 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 28.590 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.977 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.978 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.623 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



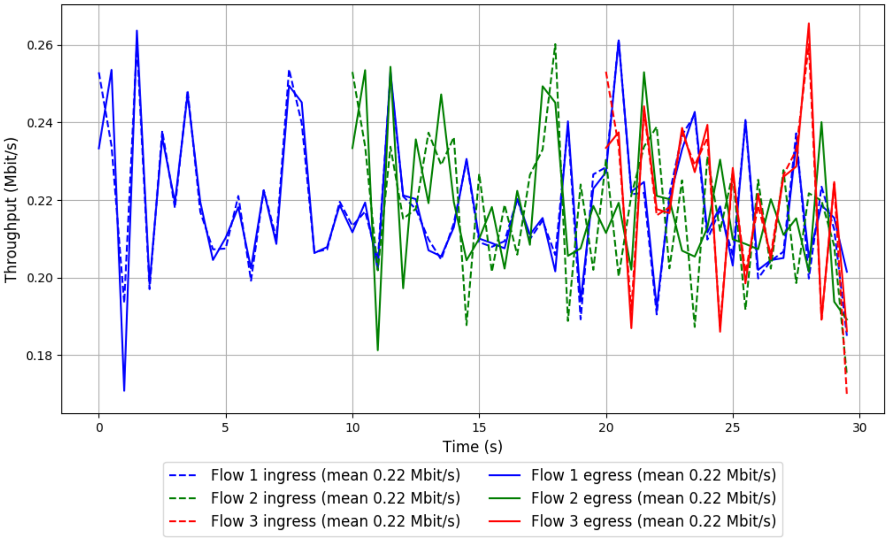


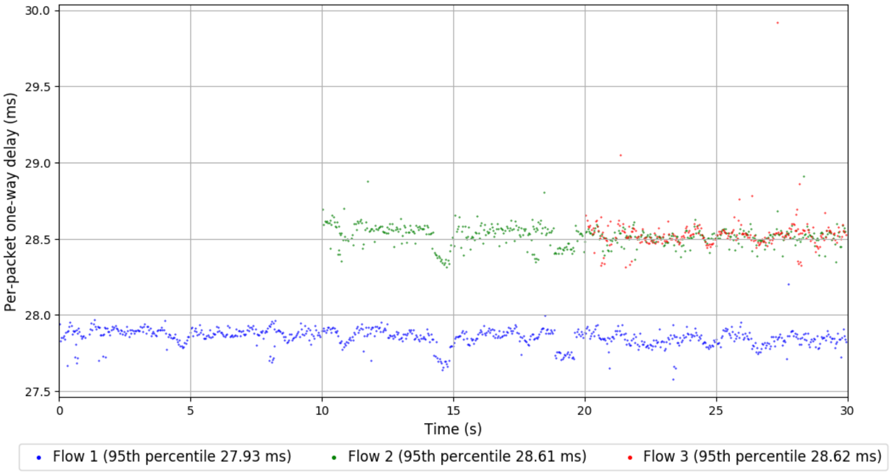
```
Run 7: Statistics of SCReAM

Start at: 2017-10-12 08:43:31
End at: 2017-10-12 08:44:01
Local clock offset: 0.871 ms
Remote clock offset: -3.775 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 28.590 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.926 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.619 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link



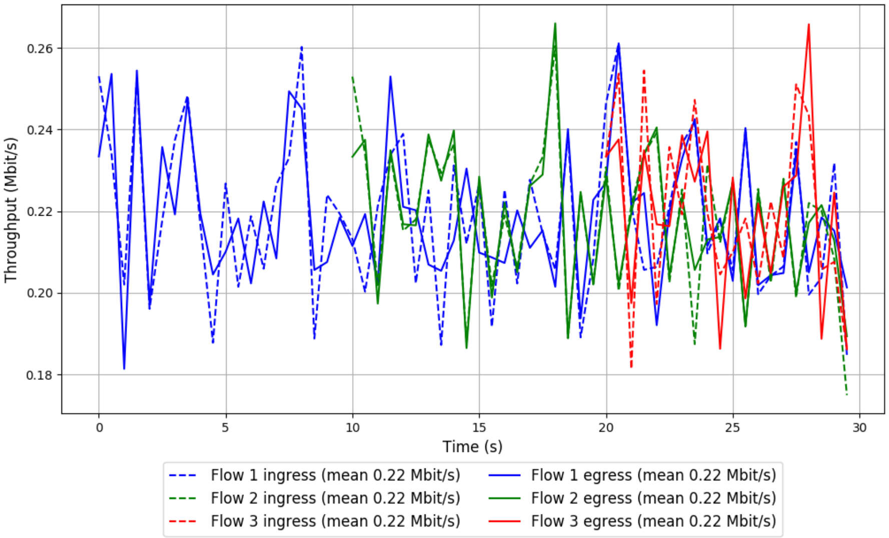


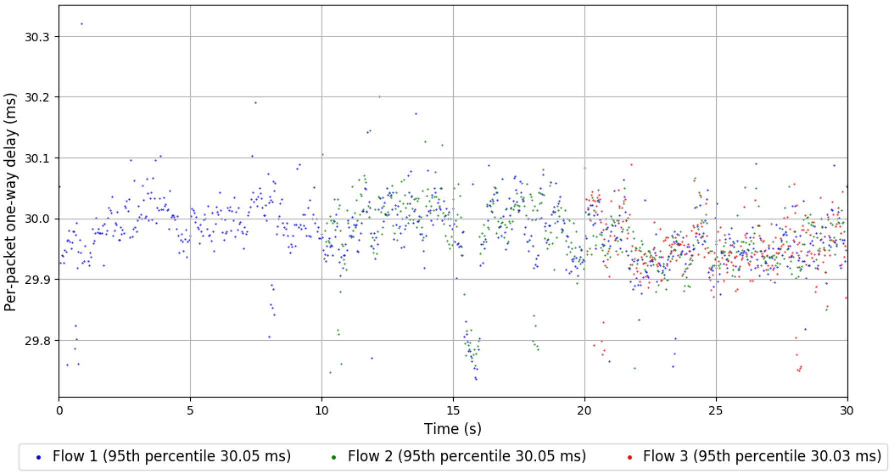
```
Run 8: Statistics of SCReAM

Start at: 2017-10-12 09:02:39
End at: 2017-10-12 09:03:09
Local clock offset: 0.774 ms
Remote clock offset: -1.511 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.047 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.050 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.049 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.031 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



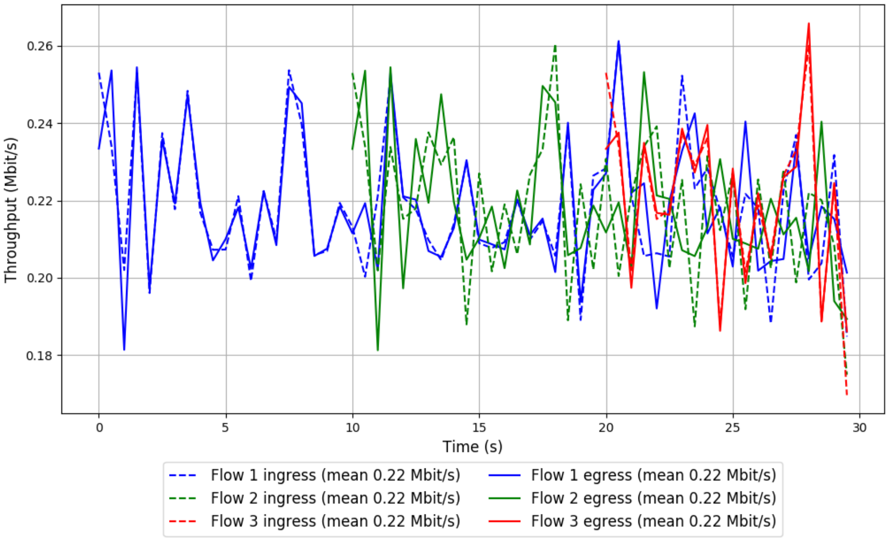


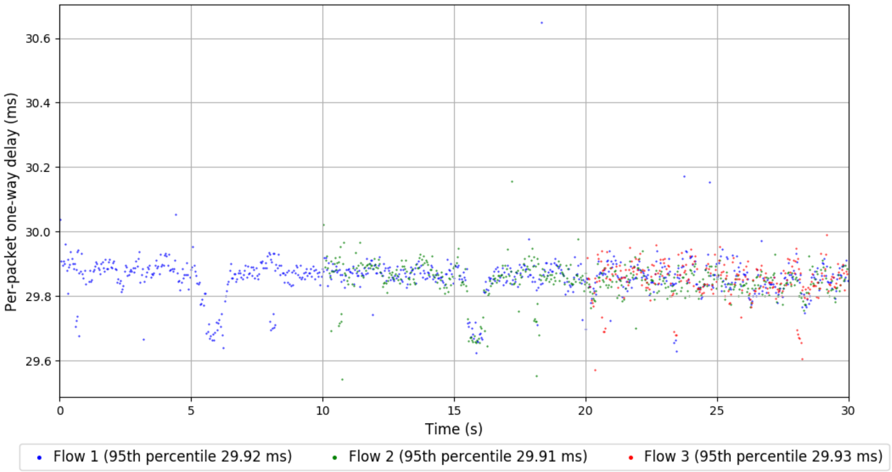
```
Run 9: Statistics of SCReAM

Start at: 2017-10-12 09:21:43
End at: 2017-10-12 09:22:13
Local clock offset: 0.792 ms
Remote clock offset: -1.469 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 29.920 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.920 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.915 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.928 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link



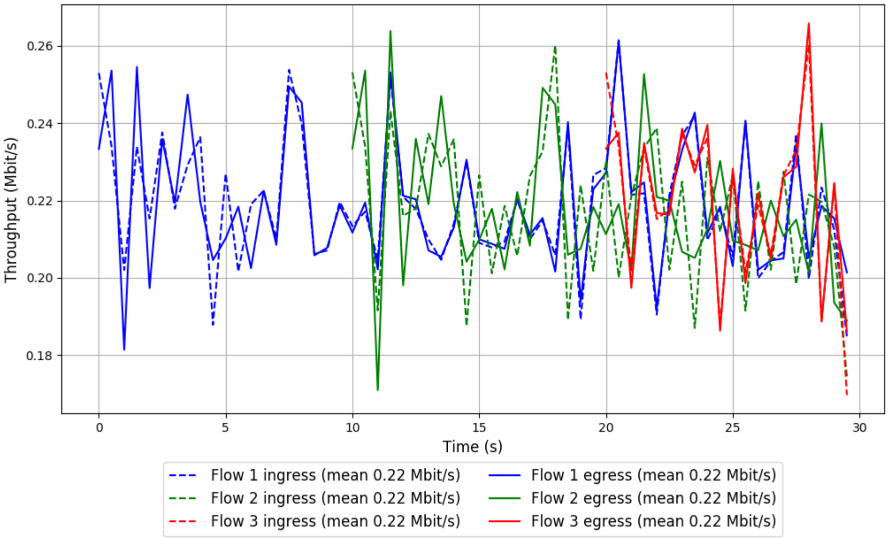


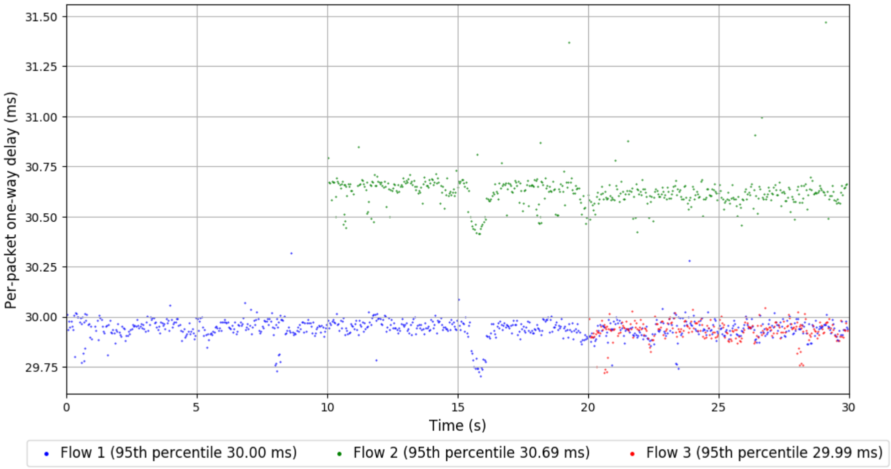
```
Run 10: Statistics of SCReAM

Start at: 2017-10-12 09:40:48
End at: 2017-10-12 09:41:18
Local clock offset: 0.549 ms
Remote clock offset: -1.461 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.669 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.002 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.688 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.994 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link



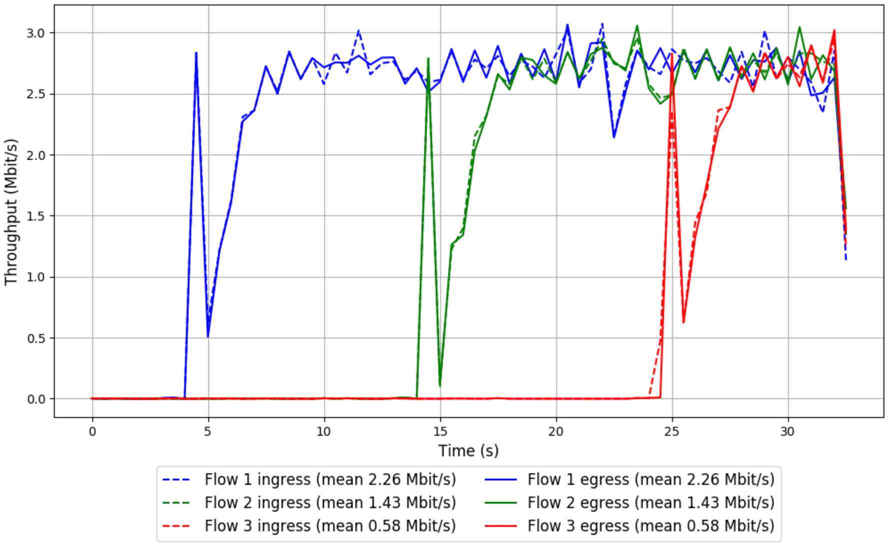


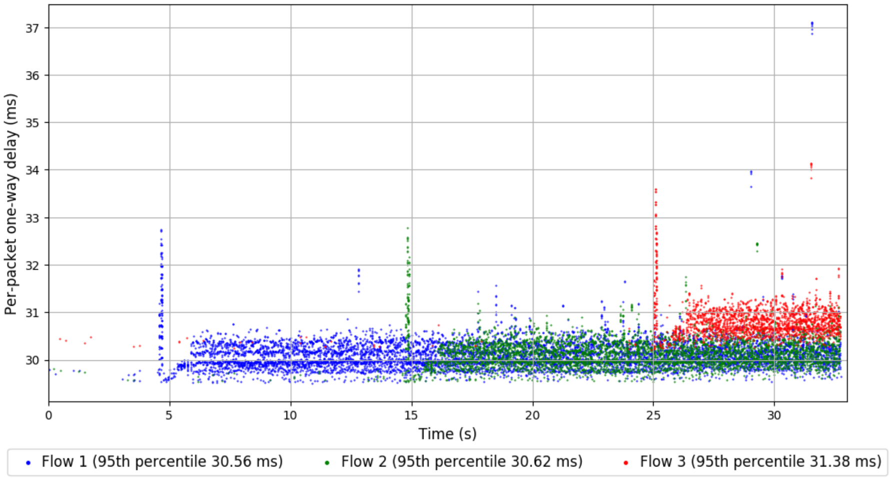
```
Run 1: Statistics of WebRTC media

Start at: 2017-10-12 06:55:48
End at: 2017-10-12 06:56:18
Local clock offset: 0.135 ms
Remote clock offset: -2.057 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 30.979 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 30.557 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 30.623 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 31.376 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



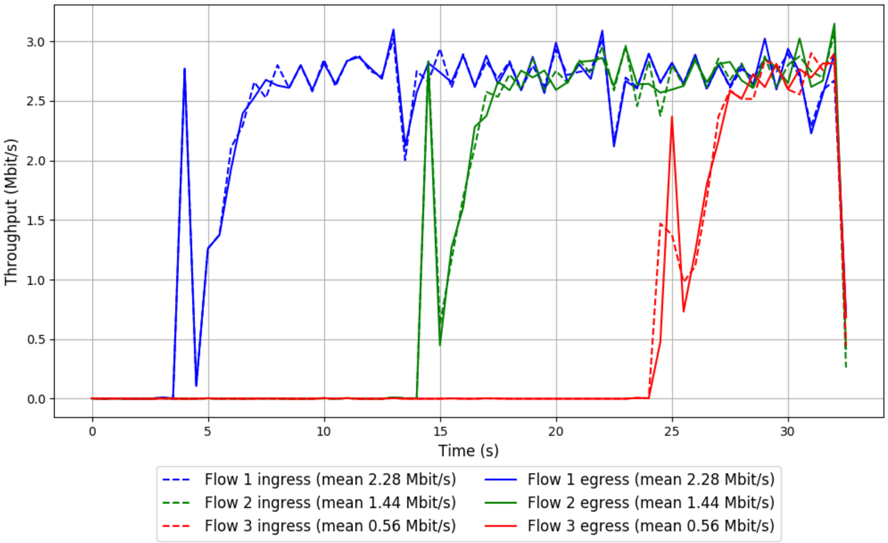


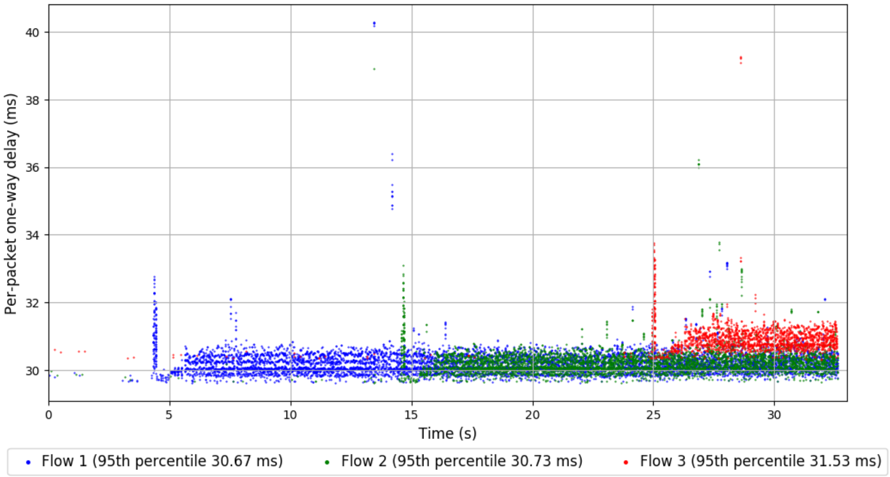
```
Run 2: Statistics of WebRTC media

Start at: 2017-10-12 07:14:50
End at: 2017-10-12 07:15:20
Local clock offset: 0.381 ms
Remote clock offset: -2.131 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 31.119 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 30.666 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 30.730 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 31.527 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



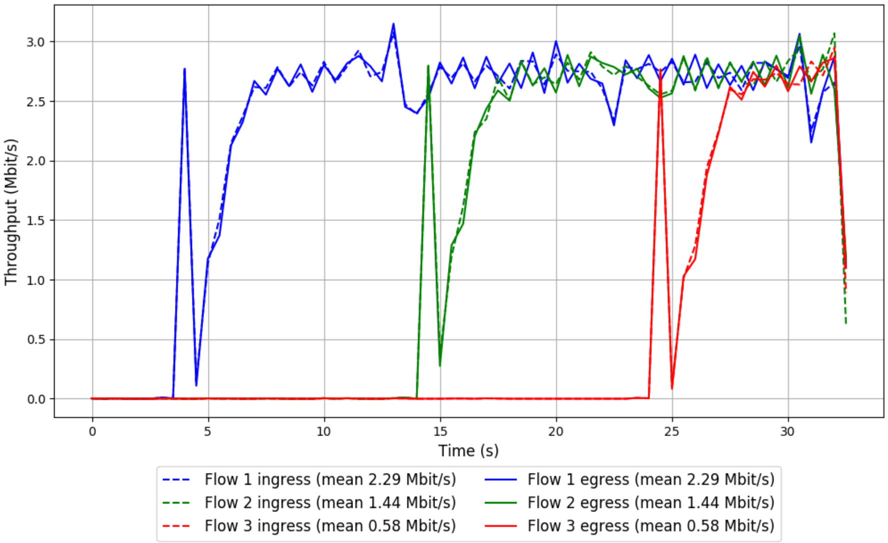


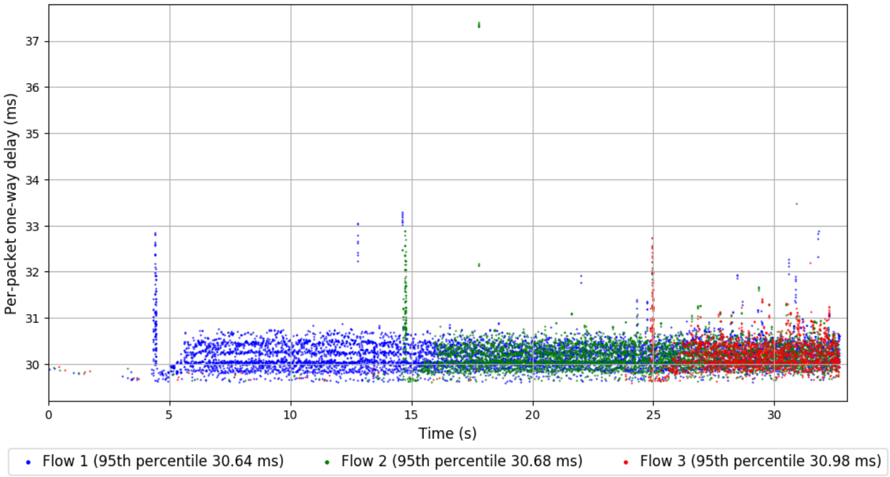
```
Run 3: Statistics of WebRTC media

Start at: 2017-10-12 07:33:59
End at: 2017-10-12 07:34:29
Local clock offset: 0.627 ms
Remote clock offset: -1.822 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 30.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 30.639 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 30.680 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 30.977 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link



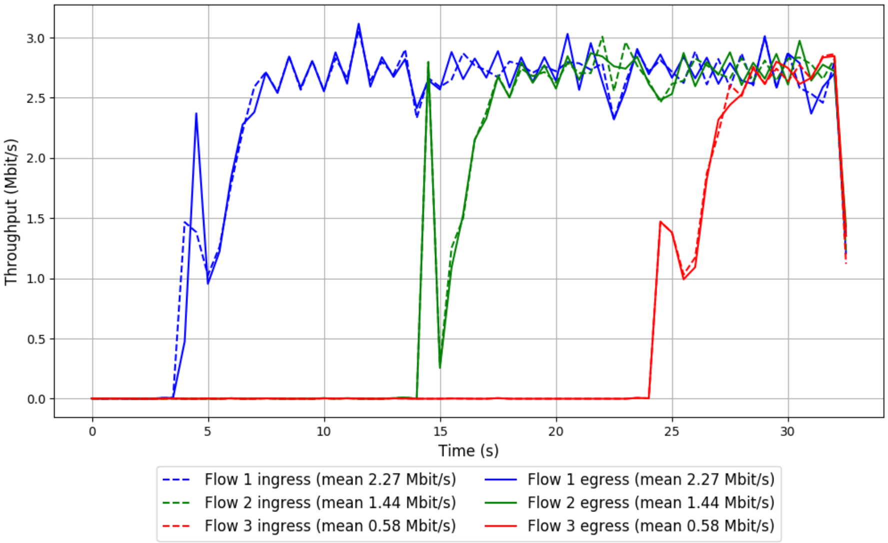


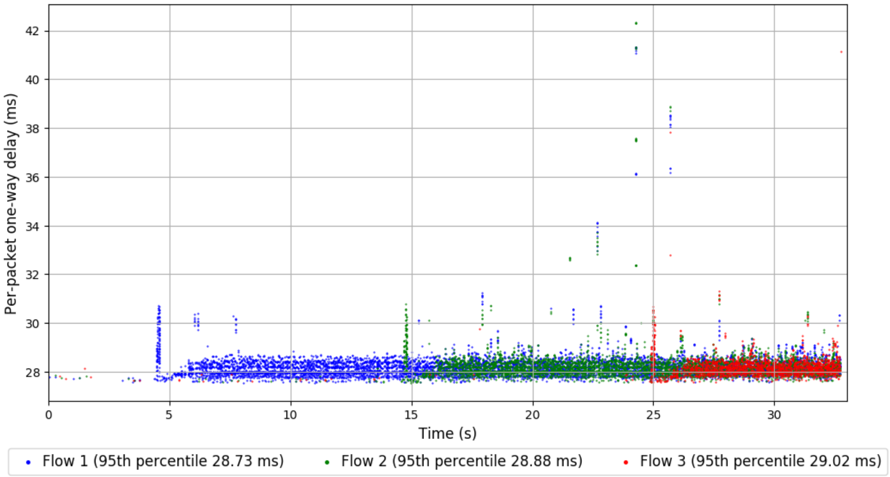
```
Run 4: Statistics of WebRTC media

Start at: 2017-10-12 07:53:04
End at: 2017-10-12 07:53:34
Local clock offset: 0.72 ms
Remote clock offset: -3.881 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 28.811 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 28.733 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 28.875 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 29.021 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



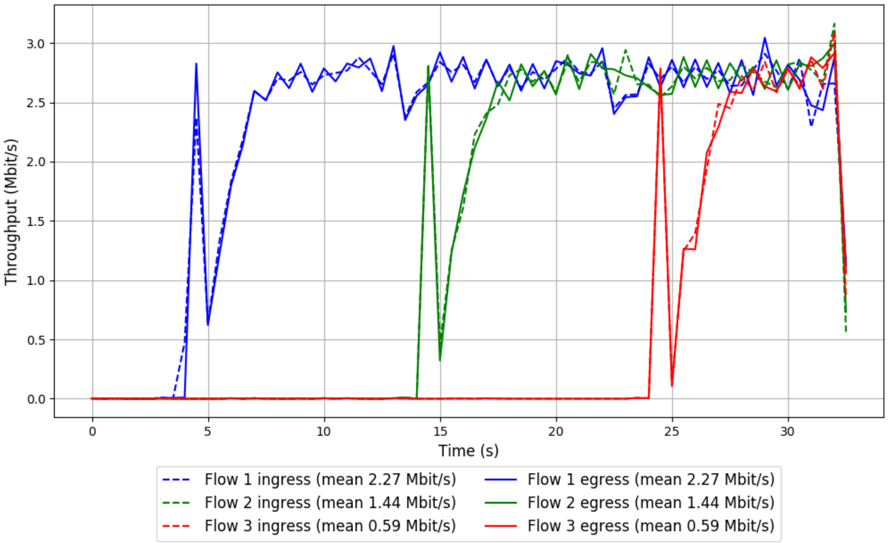


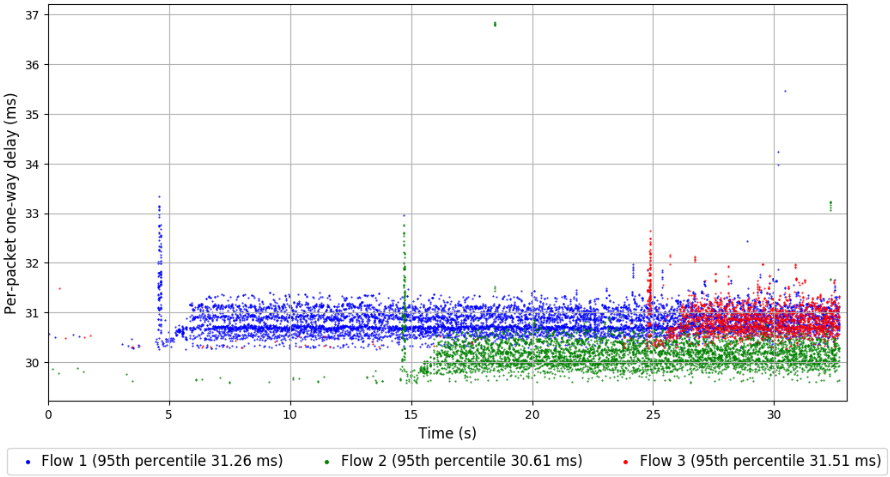
```
Run 5: Statistics of WebRTC media

Start at: 2017-10-12 08:12:07
End at: 2017-10-12 08:12:37
Local clock offset: 0.845 ms
Remote clock offset: -1.713 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 31.230 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 30.608 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 31.510 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



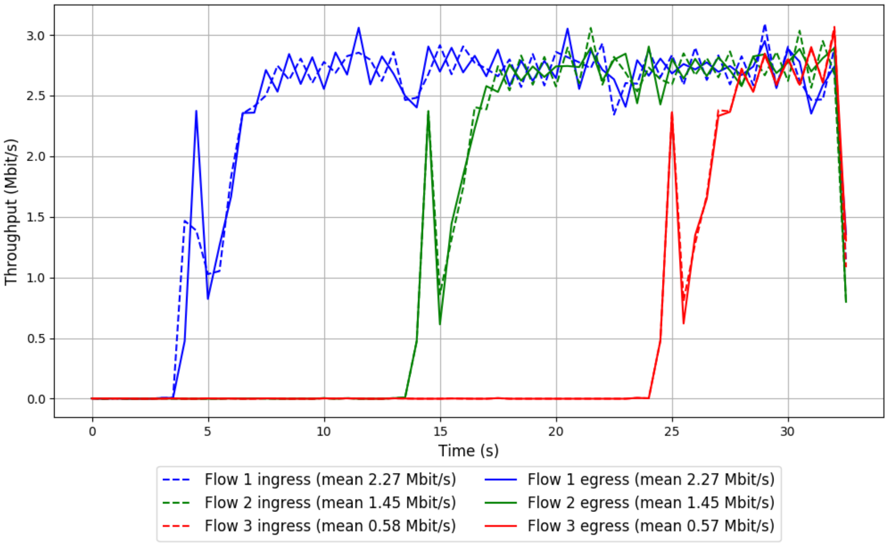


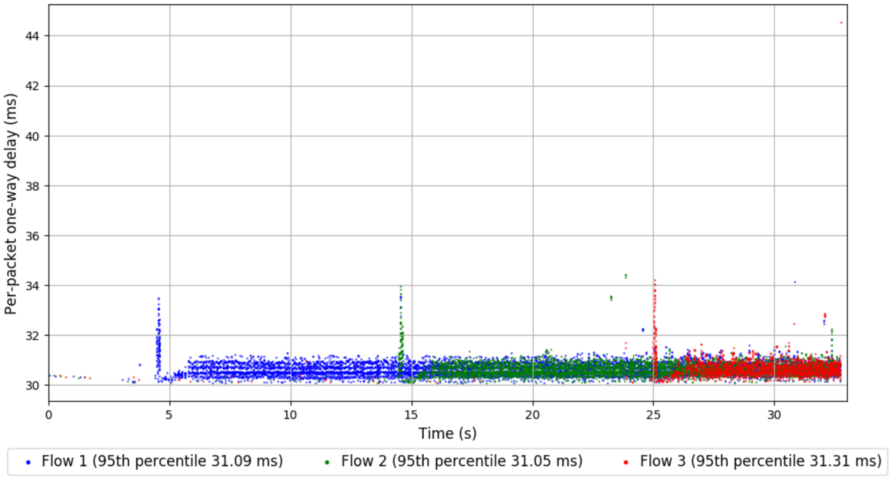
```
Run 6: Statistics of WebRTC media

Start at: 2017-10-12 08:31:15
End at: 2017-10-12 08:31:45
Local clock offset: 0.988 ms
Remote clock offset: -1.15 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 31.098 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.090 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 31.047 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 31.313 ms
Loss rate: 0.05%
```

Run 6: Report of WebRTC media — Data Link



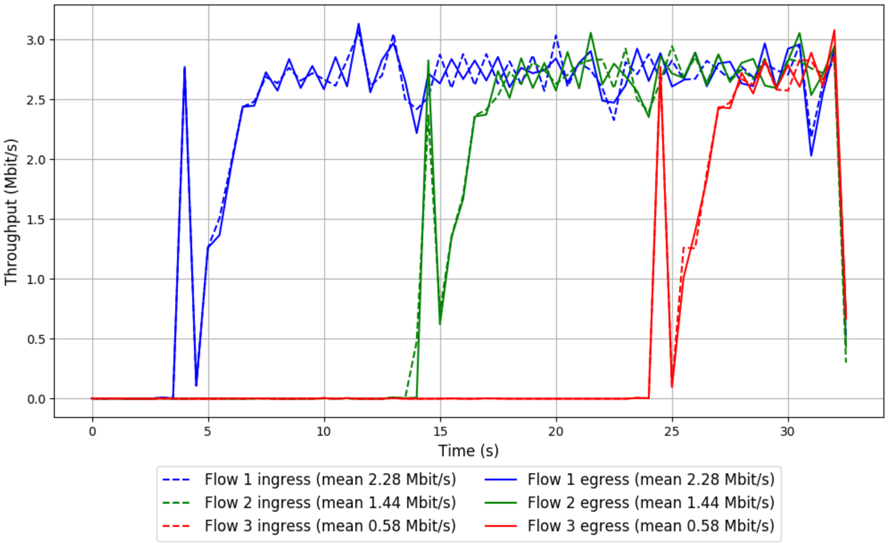


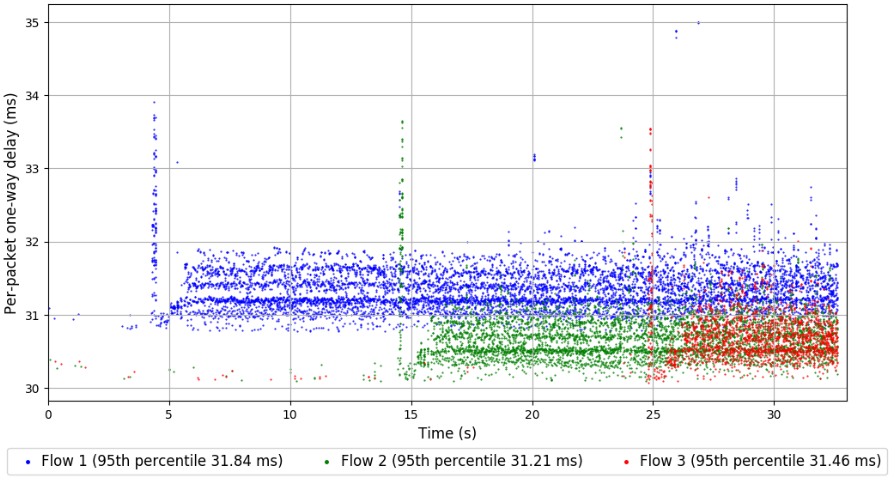
```
Run 7: Statistics of WebRTC media

Start at: 2017-10-12 08:50:21
End at: 2017-10-12 08:50:51
Local clock offset: 0.859 ms
Remote clock offset: -1.104 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 31.751 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 31.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 31.206 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 31.456 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link



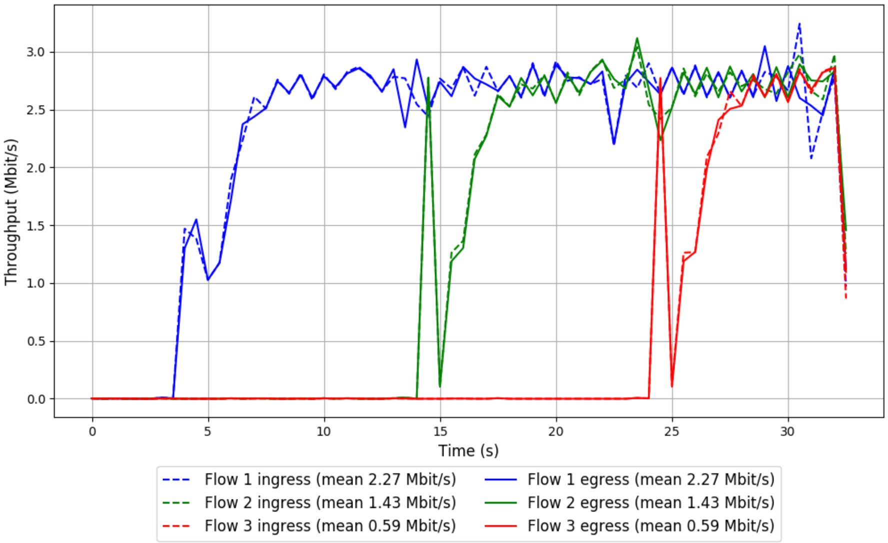


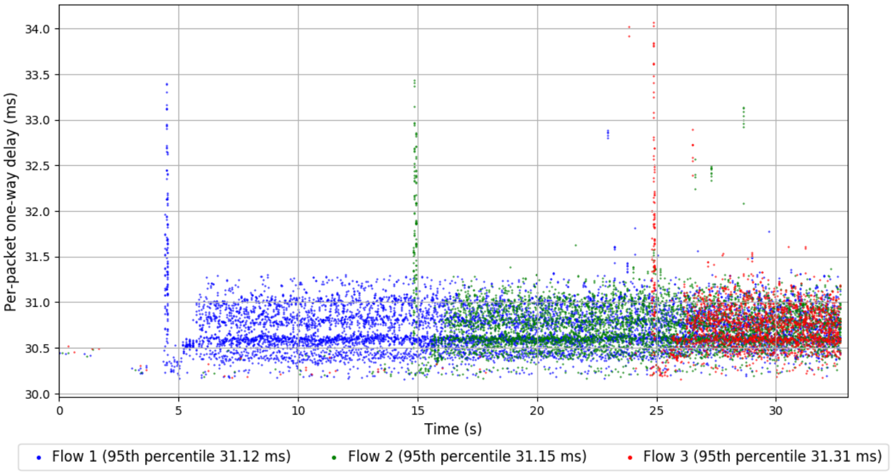
```
Run 8: Statistics of WebRTC media

Start at: 2017-10-12 09:09:28
End at: 2017-10-12 09:09:58
Local clock offset: 0.735 ms
Remote clock offset: -0.946 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 31.150 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.120 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 31.154 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 31.309 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link



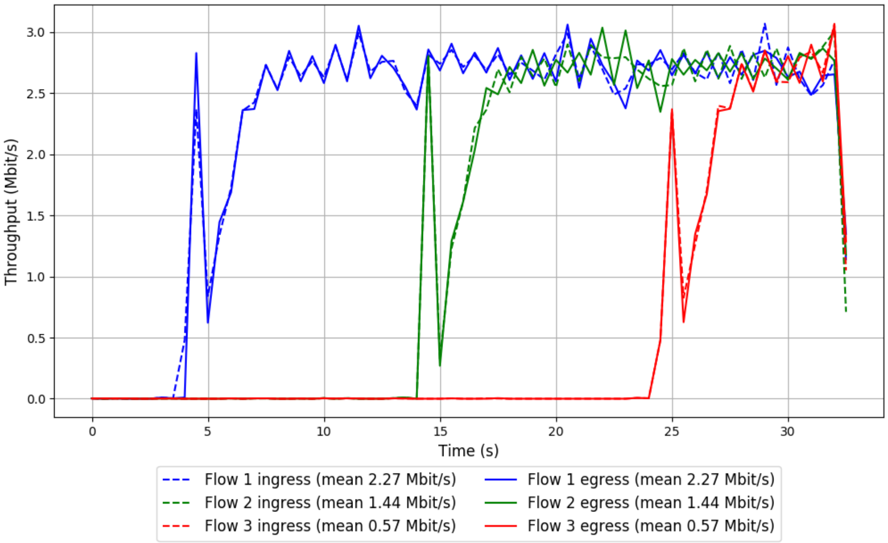


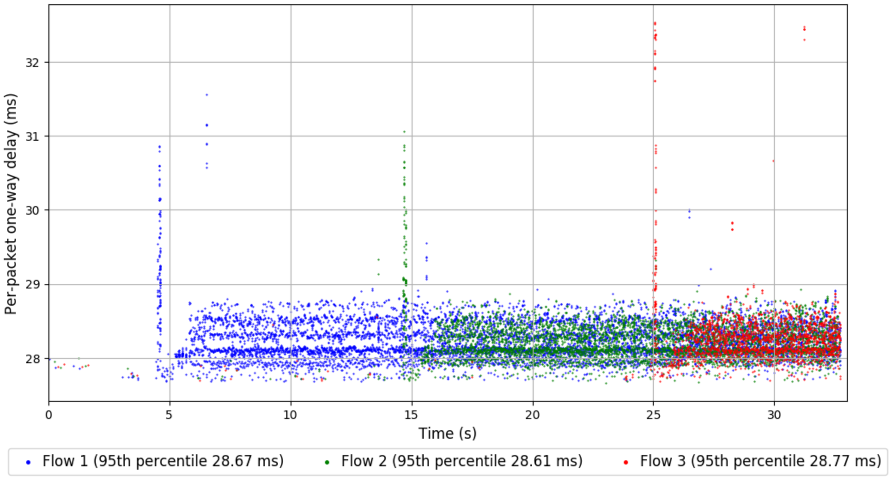
```
Run 9: Statistics of WebRTC media

Start at: 2017-10-12 09:28:33
End at: 2017-10-12 09:29:03
Local clock offset: 0.661 ms
Remote clock offset: -3.415 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 28.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 28.672 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 28.613 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 28.765 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link



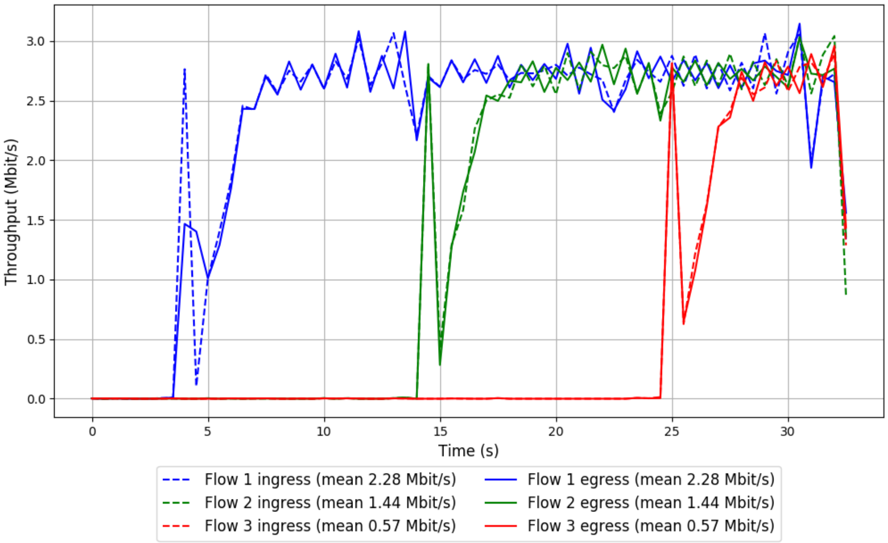


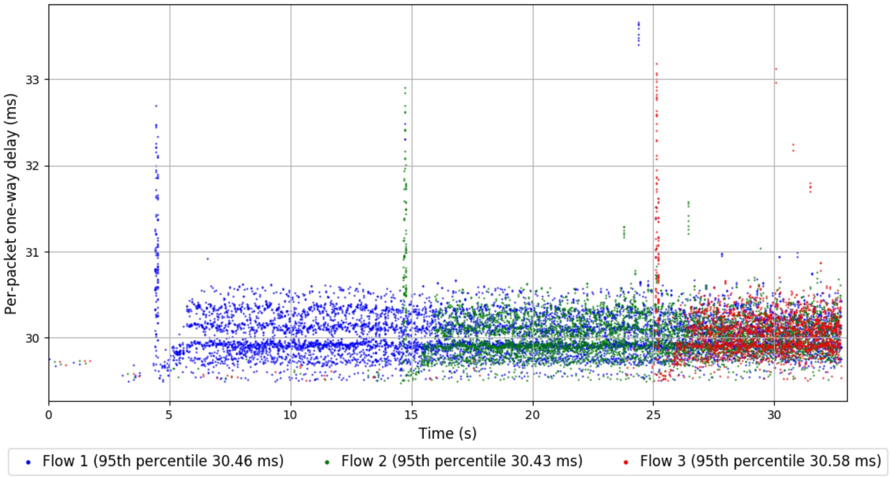
```
Run 10: Statistics of WebRTC media

Start at: 2017-10-12 09:47:38
End at: 2017-10-12 09:48:08
Local clock offset: 0.533 ms
Remote clock offset: -1.532 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 30.465 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 30.464 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 30.433 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 30.577 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link



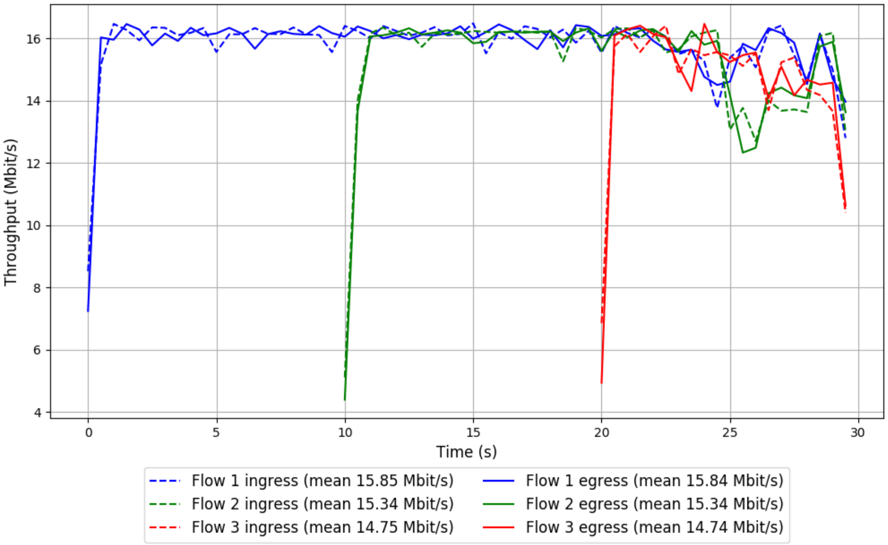


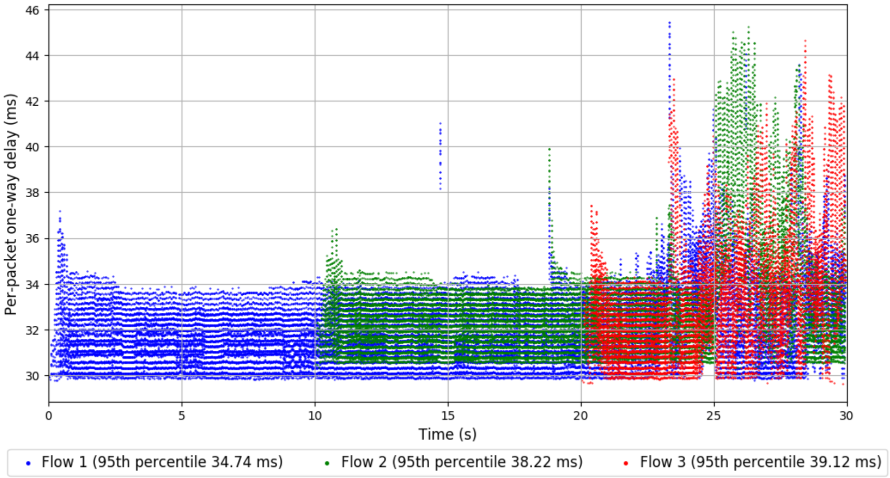
```
Run 1: Statistics of Sprout

Start at: 2017-10-12 06:47:41
End at: 2017-10-12 06:48:11
Local clock offset: 0.003 ms
Remote clock offset: -1.917 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.92 Mbit/s
95th percentile per-packet one-way delay: 36.747 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.84 Mbit/s
95th percentile per-packet one-way delay: 34.741 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.34 Mbit/s
95th percentile per-packet one-way delay: 38.219 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.74 Mbit/s
95th percentile per-packet one-way delay: 39.123 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



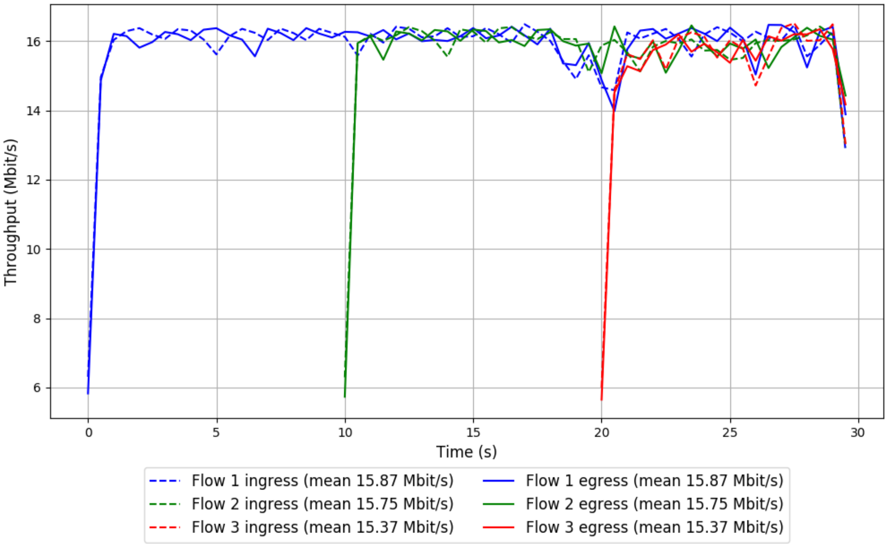


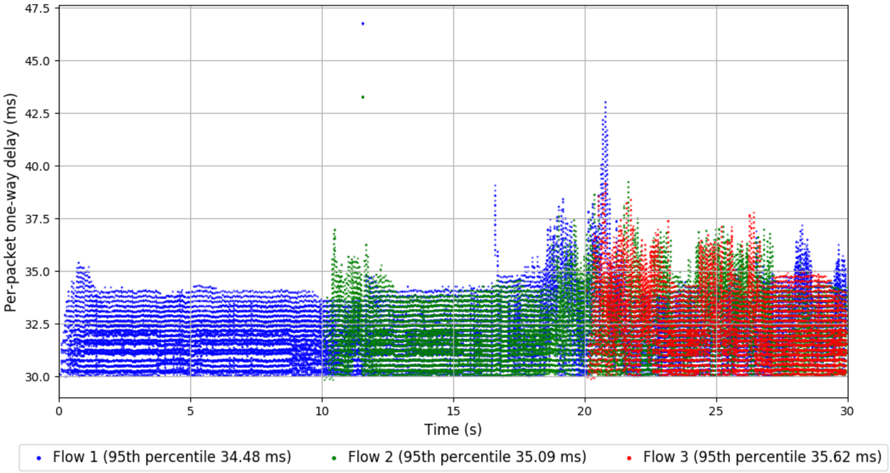
```
Run 2: Statistics of Sprout

Start at: 2017-10-12 07:06:43
End at: 2017-10-12 07:07:13
Local clock offset: 0.192 ms
Remote clock offset: -1.994 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 34.976 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.87 Mbit/s
95th percentile per-packet one-way delay: 34.485 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.75 Mbit/s
95th percentile per-packet one-way delay: 35.094 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.37 Mbit/s
95th percentile per-packet one-way delay: 35.622 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link



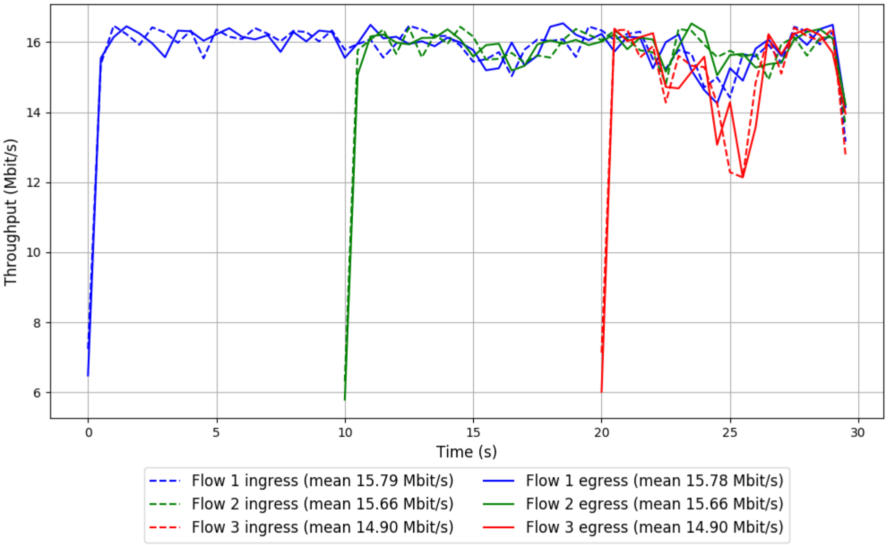


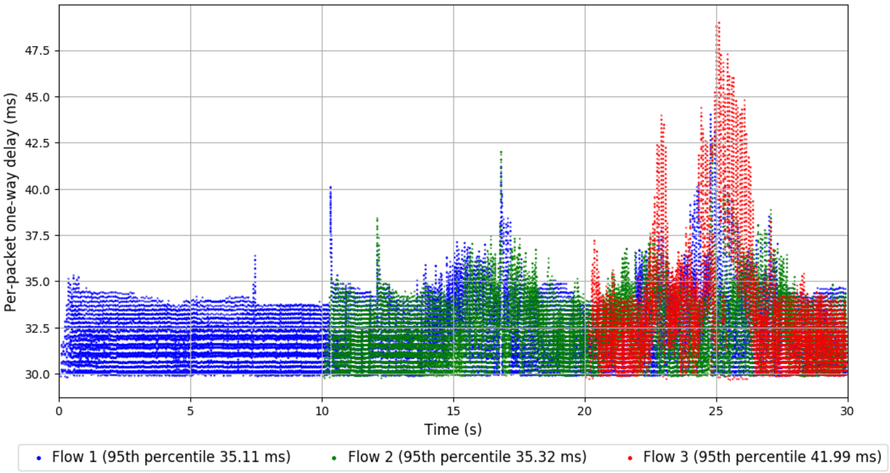
```
Run 3: Statistics of Sprout

Start at: 2017-10-12 07:25:49
End at: 2017-10-12 07:26:19
Local clock offset: 0.447 ms
Remote clock offset: -1.908 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 35.978 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.78 Mbit/s
95th percentile per-packet one-way delay: 35.110 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.66 Mbit/s
95th percentile per-packet one-way delay: 35.324 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.90 Mbit/s
95th percentile per-packet one-way delay: 41.989 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link



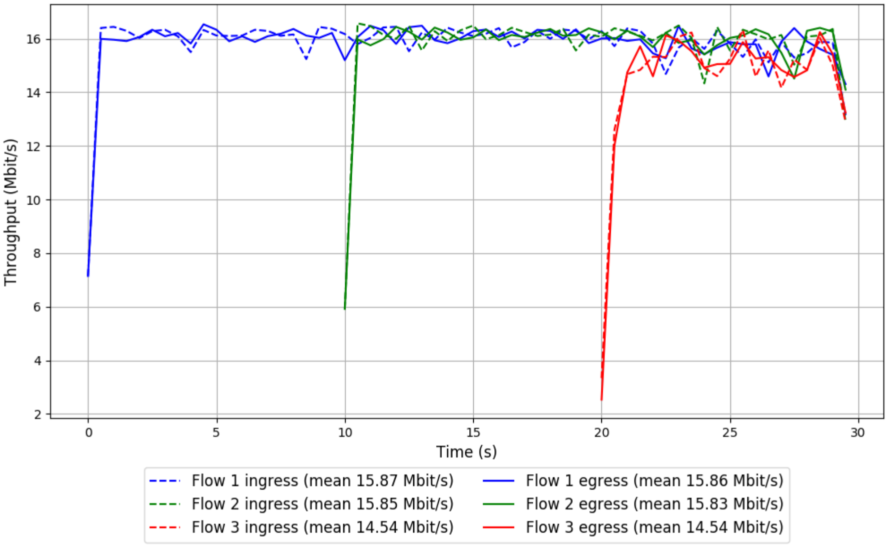


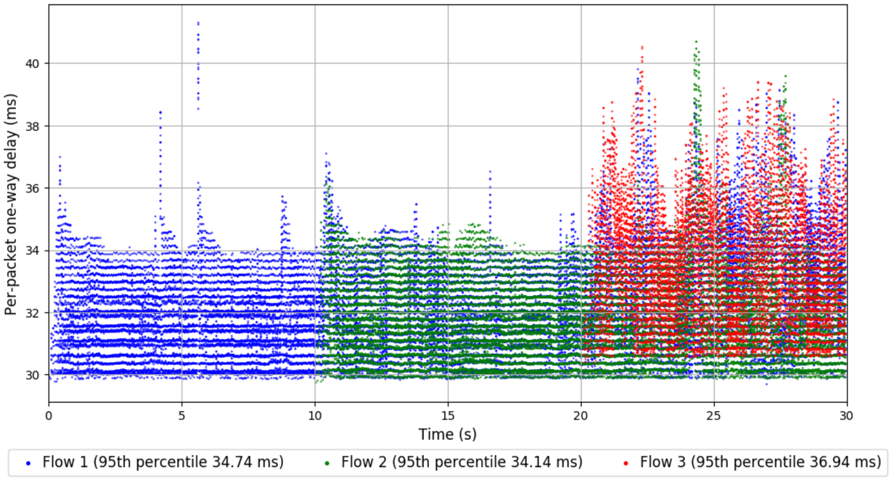
```
Run 4: Statistics of Sprout

Start at: 2017-10-12 07:44:57
End at: 2017-10-12 07:45:27
Local clock offset: 0.724 ms
Remote clock offset: -1.778 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 35.307 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 15.86 Mbit/s
95th percentile per-packet one-way delay: 34.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.83 Mbit/s
95th percentile per-packet one-way delay: 34.144 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 14.54 Mbit/s
95th percentile per-packet one-way delay: 36.935 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link



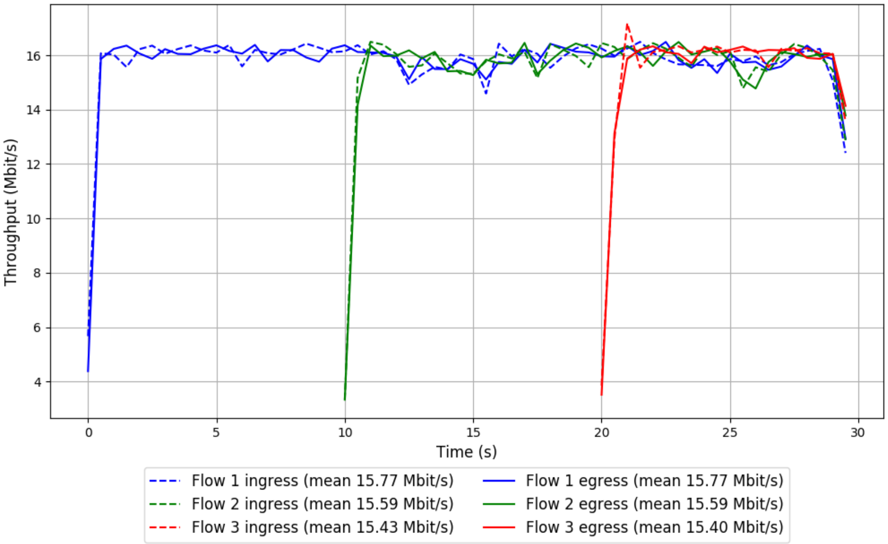


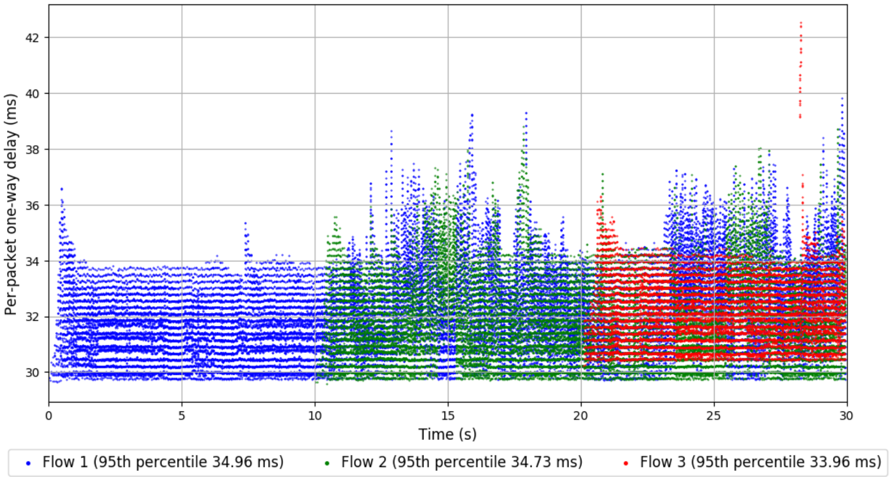
```
Run 5: Statistics of Sprout

Start at: 2017-10-12 08:04:00
End at: 2017-10-12 08:04:30
Local clock offset: 0.879 ms
Remote clock offset: -1.779 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 34.745 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 15.77 Mbit/s
95th percentile per-packet one-way delay: 34.957 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 15.59 Mbit/s
95th percentile per-packet one-way delay: 34.733 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.40 Mbit/s
95th percentile per-packet one-way delay: 33.957 ms
Loss rate: 0.19%
```

Run 5: Report of Sprout — Data Link



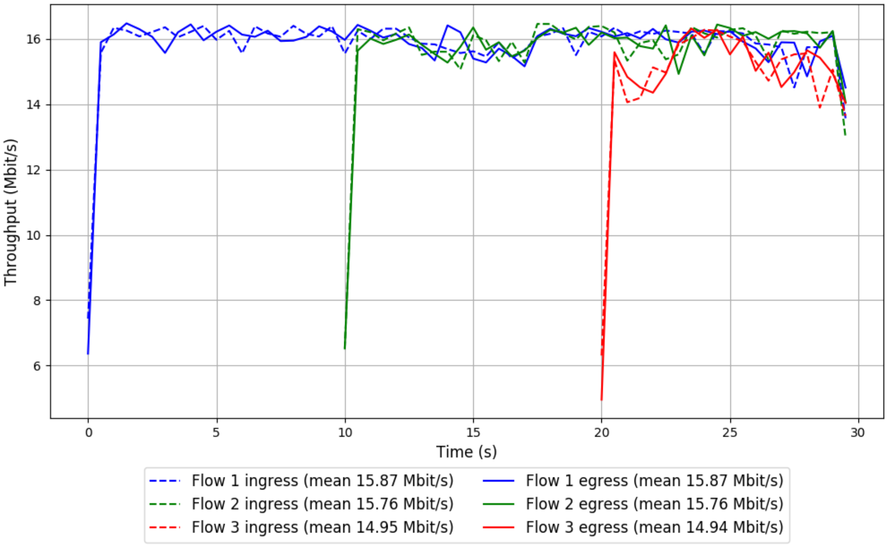


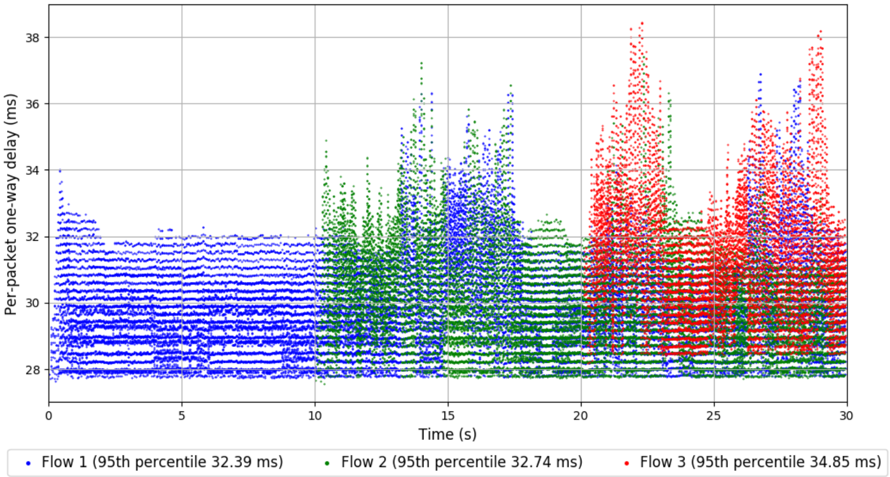
```
Run 6: Statistics of Sprout

Start at: 2017-10-12 08:23:05
End at: 2017-10-12 08:23:35
Local clock offset: 0.949 ms
Remote clock offset: -3.709 ms

# Below is generated by plot.py at 2017-10-12 10:33:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.28 Mbit/s
95th percentile per-packet one-way delay: 33.134 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.87 Mbit/s
95th percentile per-packet one-way delay: 32.387 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.76 Mbit/s
95th percentile per-packet one-way delay: 32.738 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.94 Mbit/s
95th percentile per-packet one-way delay: 34.855 ms
Loss rate: 0.00%
```

Run 6: Report of Sprout — Data Link



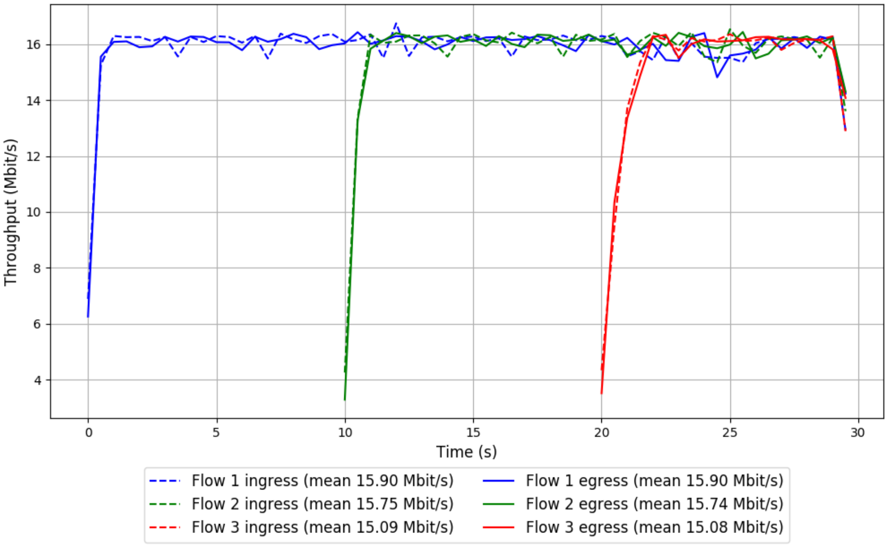


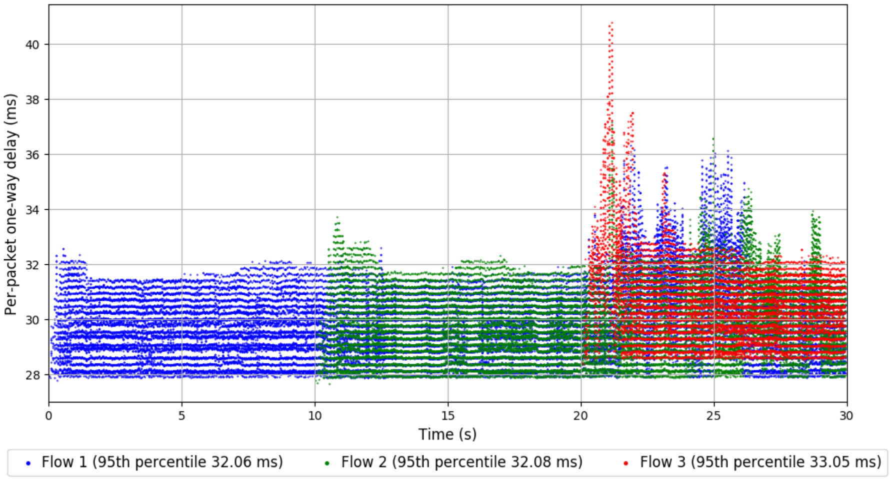
```
Run 7: Statistics of Sprout

Start at: 2017-10-12 08:42:12
End at: 2017-10-12 08:42:42
Local clock offset: 0.912 ms
Remote clock offset: -3.578 ms

# Below is generated by plot.py at 2017-10-12 10:33:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.35 Mbit/s
95th percentile per-packet one-way delay: 32.225 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.90 Mbit/s
95th percentile per-packet one-way delay: 32.064 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.74 Mbit/s
95th percentile per-packet one-way delay: 32.082 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.08 Mbit/s
95th percentile per-packet one-way delay: 33.055 ms
Loss rate: 0.00%
```

Run 7: Report of Sprout — Data Link



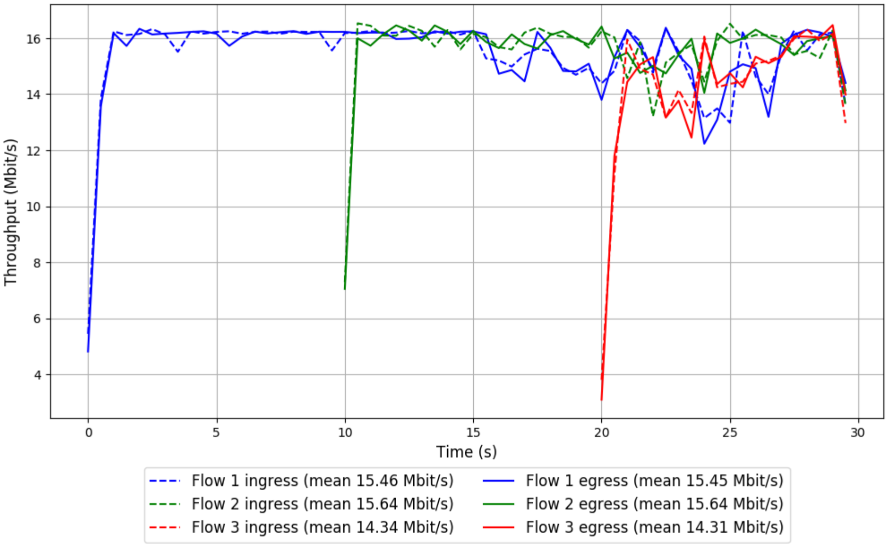


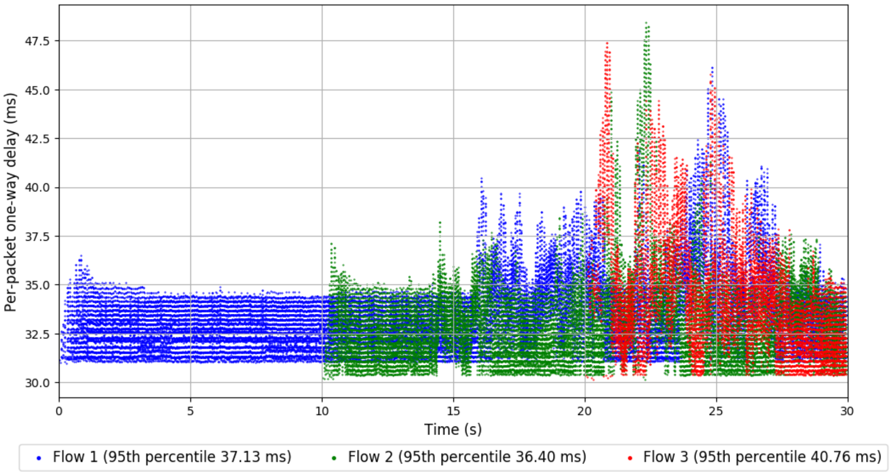
```
Run 8: Statistics of Sprout

Start at: 2017-10-12 09:01:20
End at: 2017-10-12 09:01:50
Local clock offset: 0.794 ms
Remote clock offset: -0.985 ms

# Below is generated by plot.py at 2017-10-12 10:33:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 37.755 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 15.45 Mbit/s
95th percentile per-packet one-way delay: 37.131 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 15.64 Mbit/s
95th percentile per-packet one-way delay: 36.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.31 Mbit/s
95th percentile per-packet one-way delay: 40.757 ms
Loss rate: 0.18%
```

Run 8: Report of Sprout — Data Link



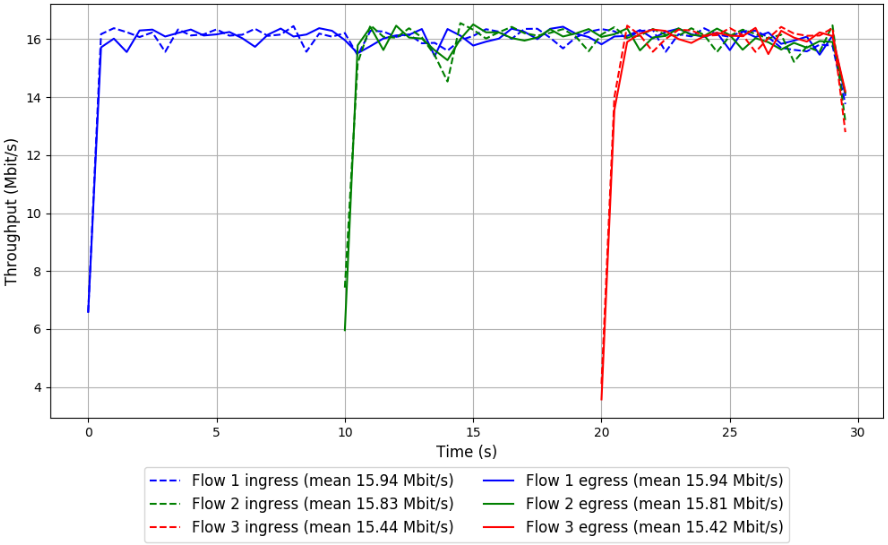


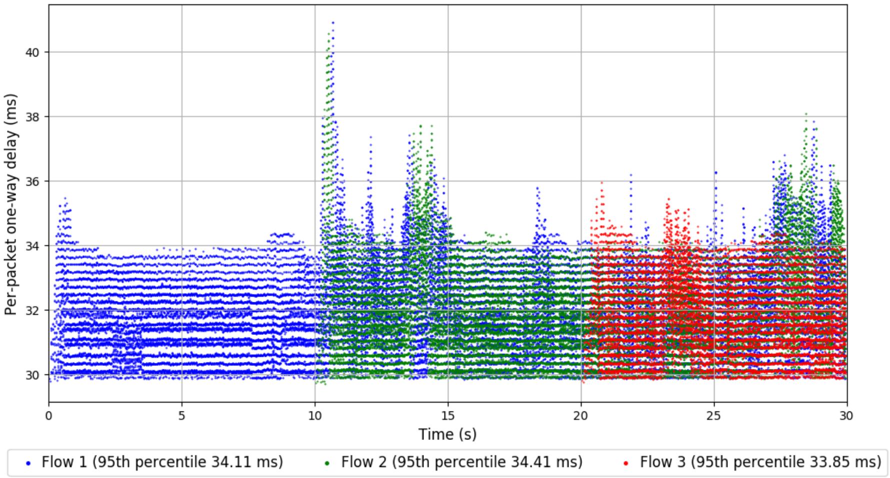
```
Run 9: Statistics of Sprout

Start at: 2017-10-12 09:20:25
End at: 2017-10-12 09:20:55
Local clock offset: 0.698 ms
Remote clock offset: -1.435 ms

# Below is generated by plot.py at 2017-10-12 10:33:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.55 Mbit/s
95th percentile per-packet one-way delay: 34.118 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 15.94 Mbit/s
95th percentile per-packet one-way delay: 34.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.81 Mbit/s
95th percentile per-packet one-way delay: 34.408 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 15.42 Mbit/s
95th percentile per-packet one-way delay: 33.853 ms
Loss rate: 0.13%
```

Run 9: Report of Sprout — Data Link



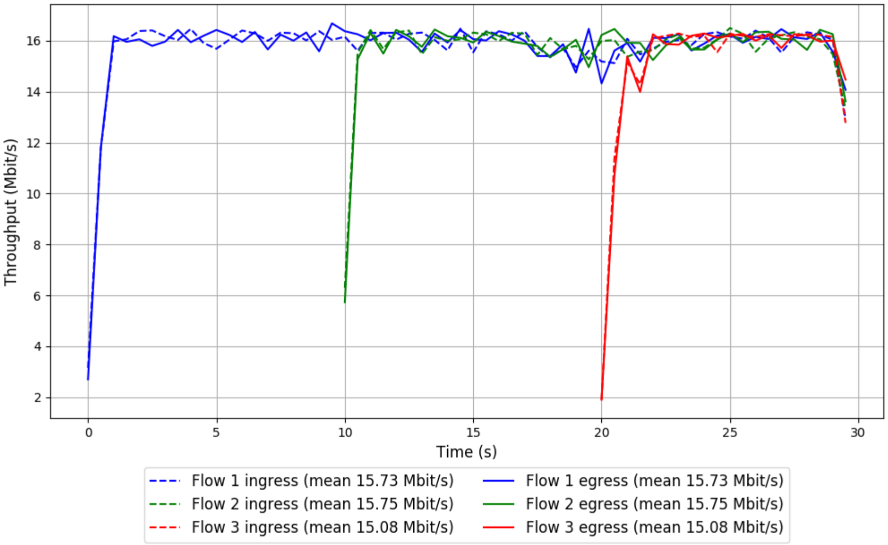


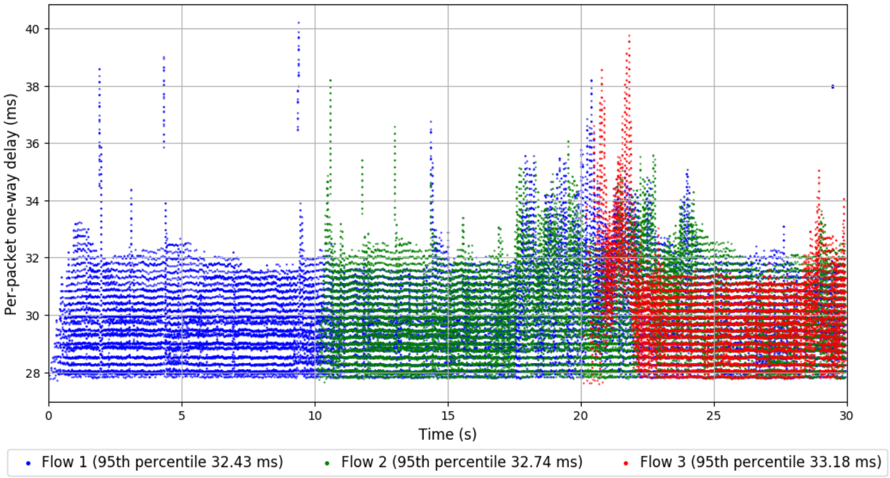
```
Run 10: Statistics of Sprout

Start at: 2017-10-12 09:39:30
End at: 2017-10-12 09:40:00
Local clock offset: 0.542 ms
Remote clock offset: -3.498 ms

# Below is generated by plot.py at 2017-10-12 10:33:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.18 Mbit/s
95th percentile per-packet one-way delay: 32.646 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.73 Mbit/s
95th percentile per-packet one-way delay: 32.432 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.75 Mbit/s
95th percentile per-packet one-way delay: 32.739 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.08 Mbit/s
95th percentile per-packet one-way delay: 33.176 ms
Loss rate: 0.00%
```

Run 10: Report of Sprout — Data Link



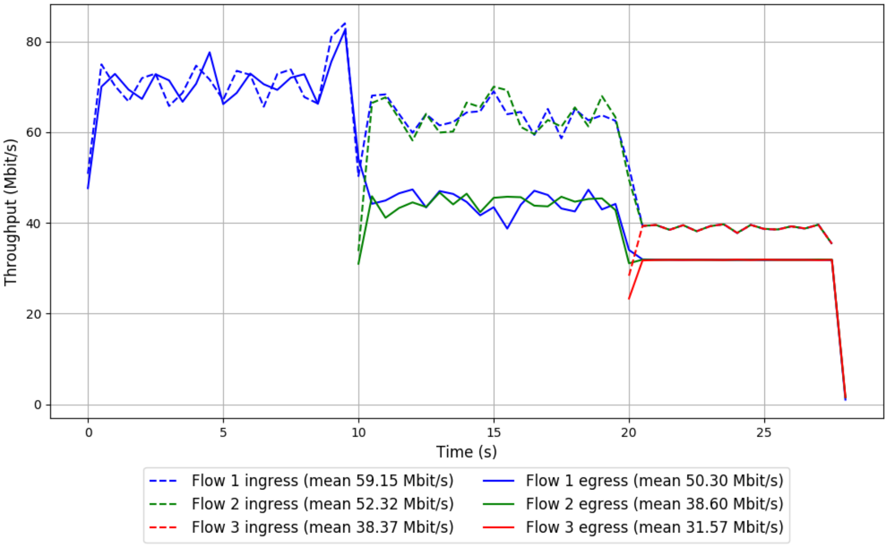


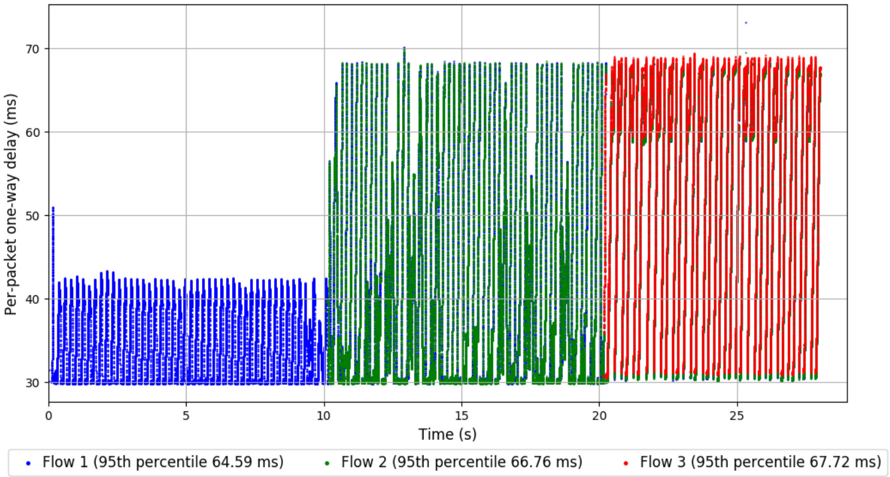
```
Run 1: Statistics of TaoVA-100x

Start at: 2017-10-12 07:02:31
End at: 2017-10-12 07:03:01
Local clock offset: 0.202 ms
Remote clock offset: -2.042 ms

# Below is generated by plot.py at 2017-10-12 10:35:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.03 Mbit/s
95th percentile per-packet one-way delay: 66.721 ms
Loss rate: 18.81%
-- Flow 1:
Average throughput: 50.30 Mbit/s
95th percentile per-packet one-way delay: 64.589 ms
Loss rate: 14.89%
-- Flow 2:
Average throughput: 38.60 Mbit/s
95th percentile per-packet one-way delay: 66.763 ms
Loss rate: 26.12%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 67.715 ms
Loss rate: 17.62%
```

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



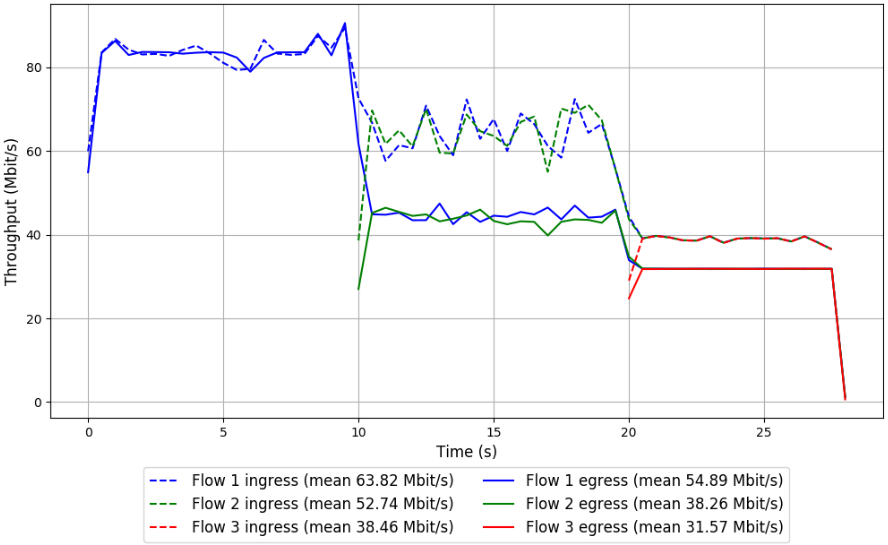


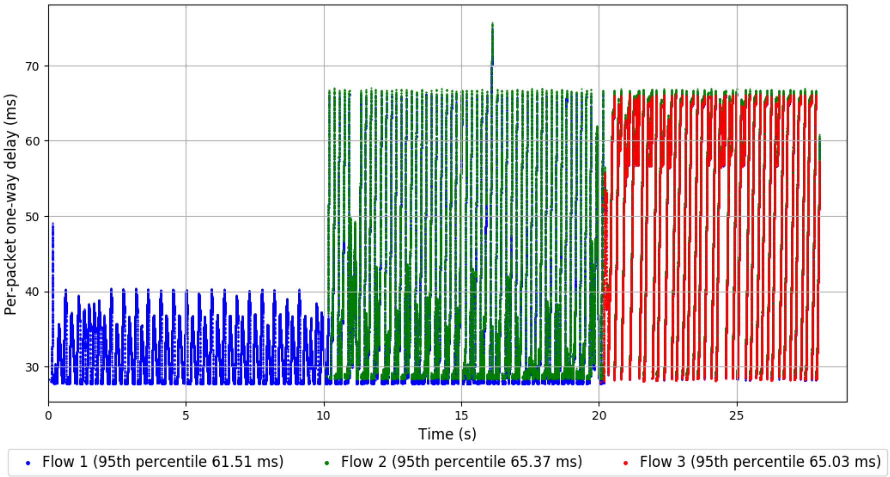
```
Run 2: Statistics of TaoVA-100x

Start at: 2017-10-12 07:21:35
End at: 2017-10-12 07:22:05
Local clock offset: 0.504 ms
Remote clock offset: -4.046 ms

# Below is generated by plot.py at 2017-10-12 10:35:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.44 Mbit/s
95th percentile per-packet one-way delay: 64.443 ms
Loss rate: 18.47%
-- Flow 1:
Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 61.512 ms
Loss rate: 13.90%
-- Flow 2:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 65.372 ms
Loss rate: 27.34%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 65.034 ms
Loss rate: 17.67%
```

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



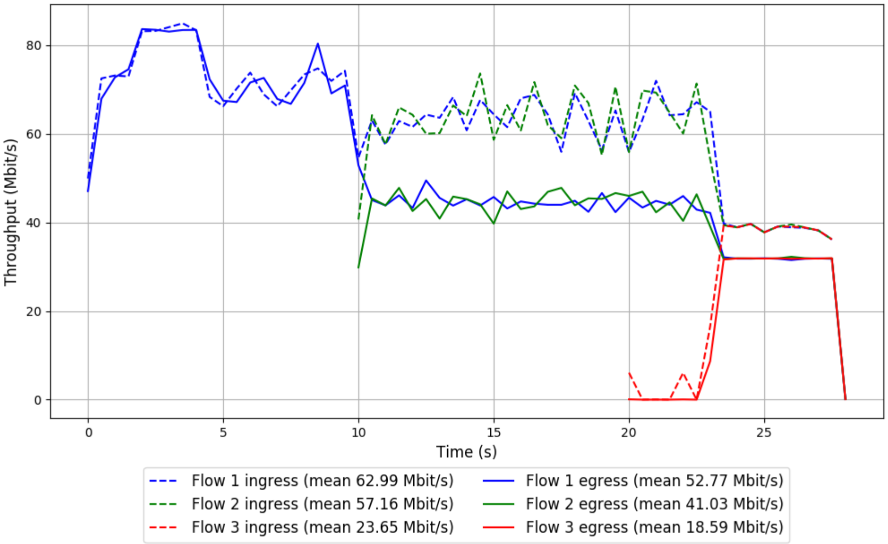


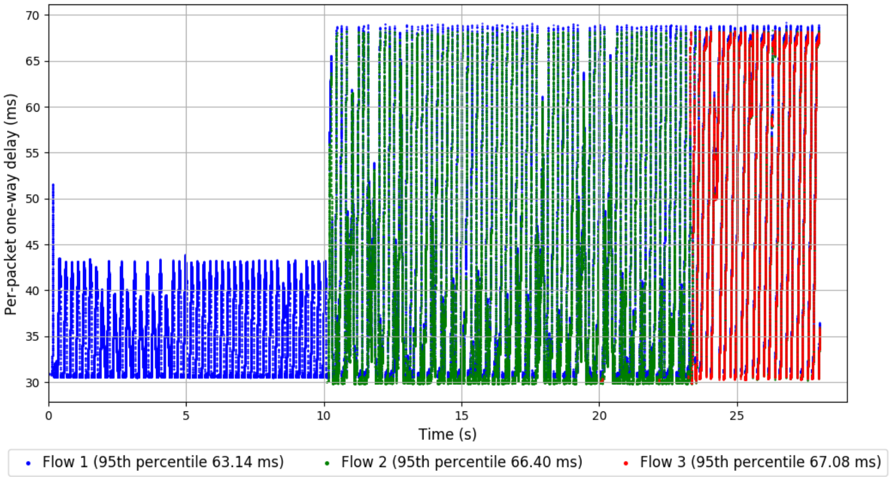
```
Run 3: Statistics of TaoVA-100x

Start at: 2017-10-12 07:40:44
End at: 2017-10-12 07:41:14
Local clock offset: 0.616 ms
Remote clock offset: -1.918 ms

# Below is generated by plot.py at 2017-10-12 10:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.36 Mbit/s
95th percentile per-packet one-way delay: 65.994 ms
Loss rate: 20.68%
-- Flow 1:
Average throughput: 52.77 Mbit/s
95th percentile per-packet one-way delay: 63.141 ms
Loss rate: 16.22%
-- Flow 2:
Average throughput: 41.03 Mbit/s
95th percentile per-packet one-way delay: 66.402 ms
Loss rate: 28.23%
-- Flow 3:
Average throughput: 18.59 Mbit/s
95th percentile per-packet one-way delay: 67.076 ms
Loss rate: 21.34%
```

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



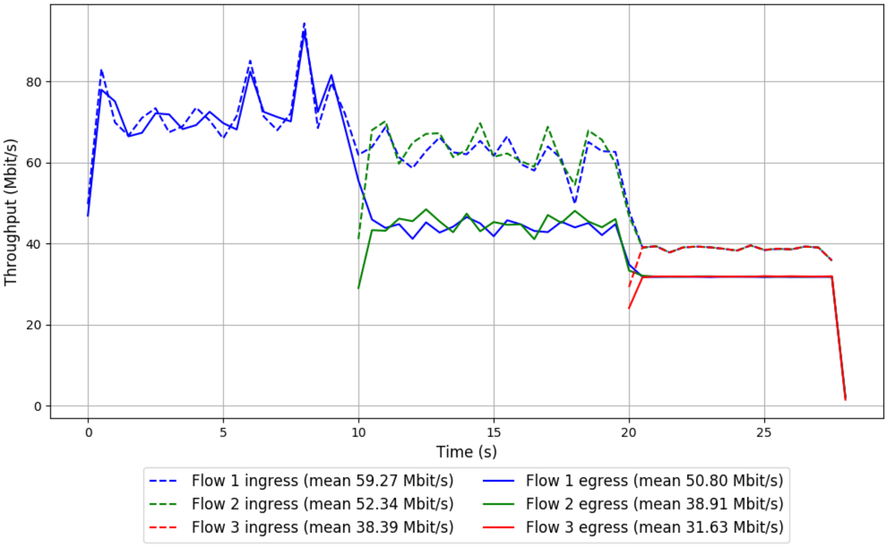


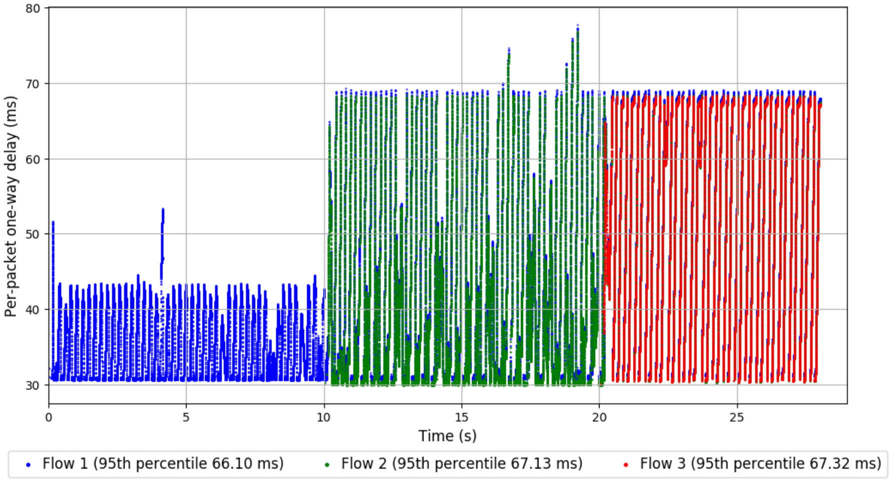
```
Run 4: Statistics of TaoVA-100x

Start at: 2017-10-12 07:59:48
End at: 2017-10-12 08:00:18
Local clock offset: 0.764 ms
Remote clock offset: -1.716 ms

# Below is generated by plot.py at 2017-10-12 10:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.78 Mbit/s
95th percentile per-packet one-way delay: 67.159 ms
Loss rate: 18.18%
-- Flow 1:
Average throughput: 50.80 Mbit/s
95th percentile per-packet one-way delay: 66.099 ms
Loss rate: 14.17%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 67.131 ms
Loss rate: 25.51%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 67.323 ms
Loss rate: 17.34%
```

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



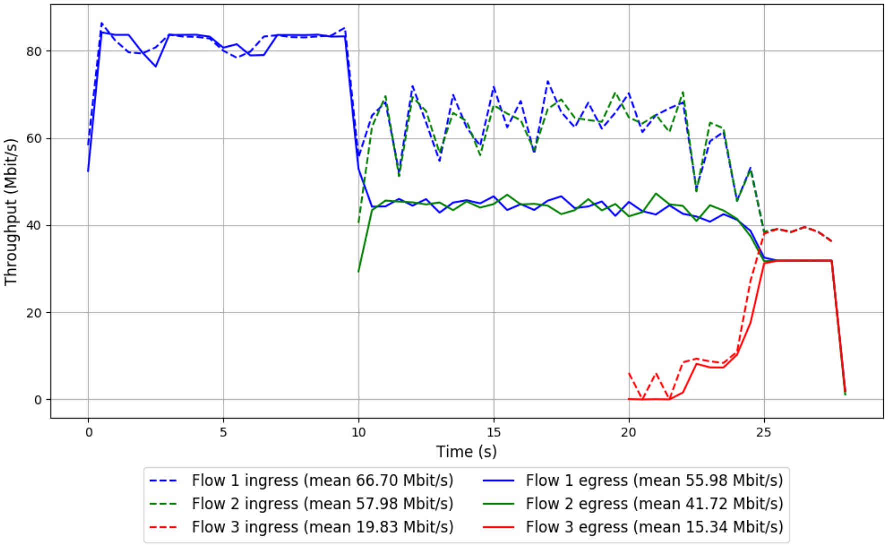


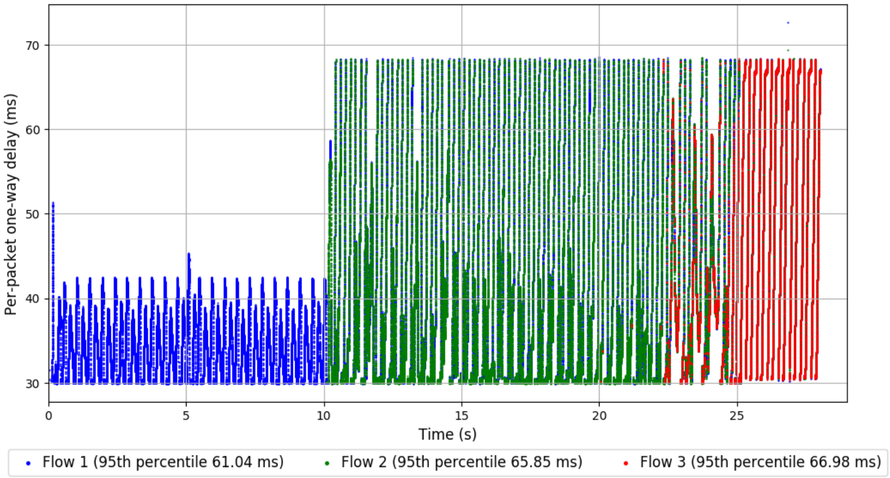
```
Run 5: Statistics of TaoVA-100x

Start at: 2017-10-12 08:18:52
End at: 2017-10-12 08:19:22
Local clock offset: 0.842 ms
Remote clock offset: -1.599 ms

# Below is generated by plot.py at 2017-10-12 10:35:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.12 Mbit/s
95th percentile per-packet one-way delay: 64.548 ms
Loss rate: 20.38%
-- Flow 1:
Average throughput: 55.98 Mbit/s
95th percentile per-packet one-way delay: 61.042 ms
Loss rate: 15.97%
-- Flow 2:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 65.850 ms
Loss rate: 27.99%
-- Flow 3:
Average throughput: 15.34 Mbit/s
95th percentile per-packet one-way delay: 66.983 ms
Loss rate: 22.30%
```

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



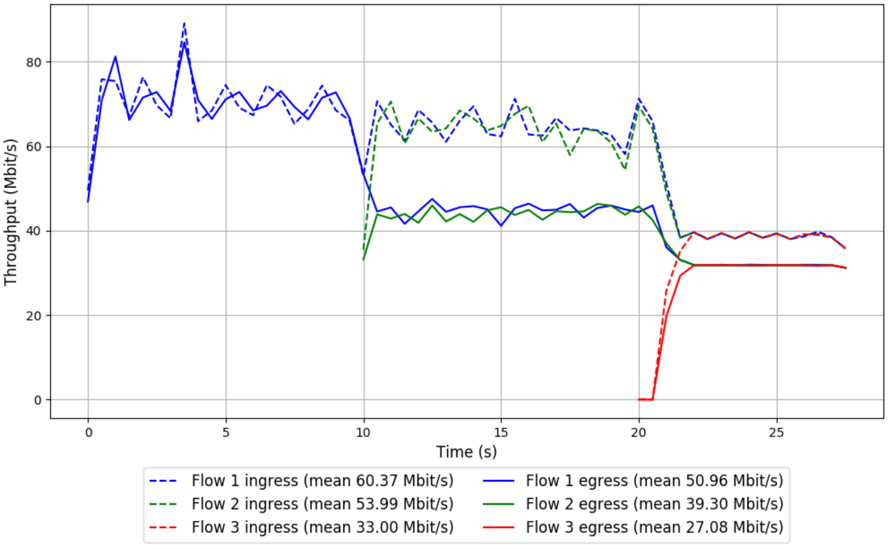


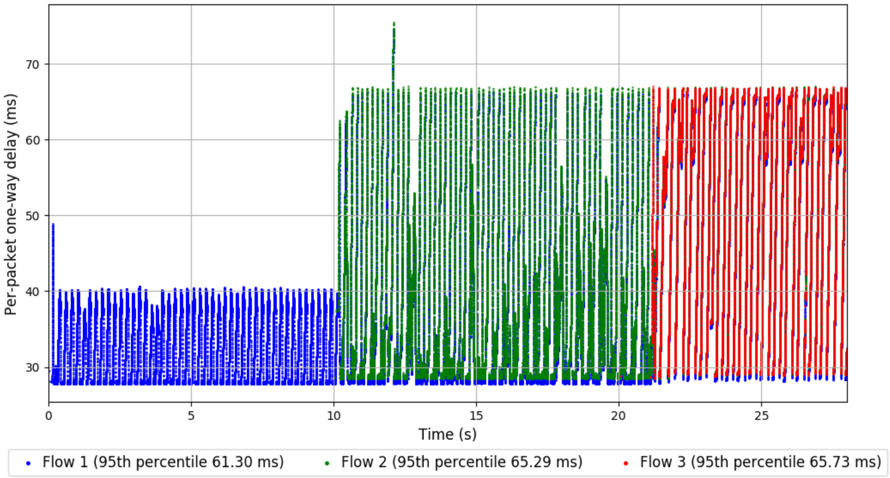
```
Run 6: Statistics of TaoVA-100x

Start at: 2017-10-12 08:37:59
End at: 2017-10-12 08:38:29
Local clock offset: 0.918 ms
Remote clock offset: -3.68 ms

# Below is generated by plot.py at 2017-10-12 10:35:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.87 Mbit/s
95th percentile per-packet one-way delay: 64.443 ms
Loss rate: 19.65%
-- Flow 1:
Average throughput: 50.96 Mbit/s
95th percentile per-packet one-way delay: 61.300 ms
Loss rate: 15.59%
-- Flow 2:
Average throughput: 39.30 Mbit/s
95th percentile per-packet one-way delay: 65.287 ms
Loss rate: 27.21%
-- Flow 3:
Average throughput: 27.08 Mbit/s
95th percentile per-packet one-way delay: 65.732 ms
Loss rate: 17.90%
```

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



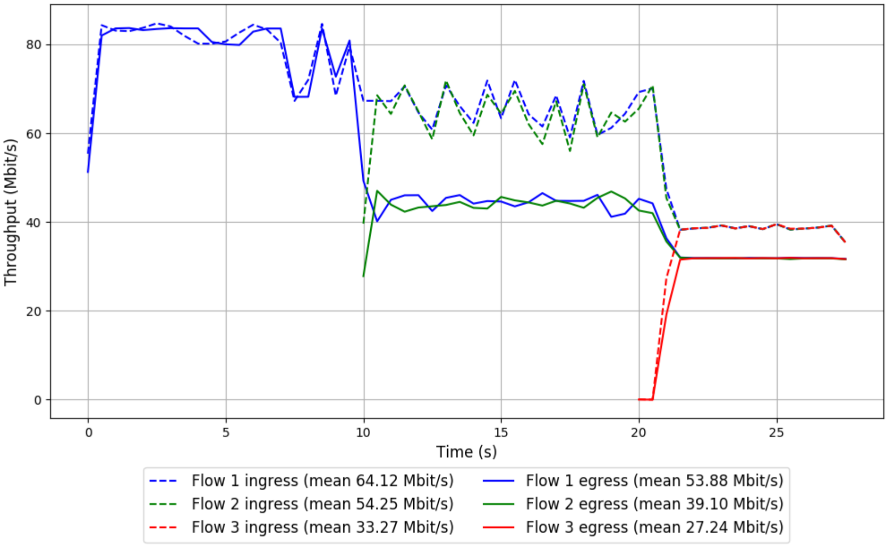


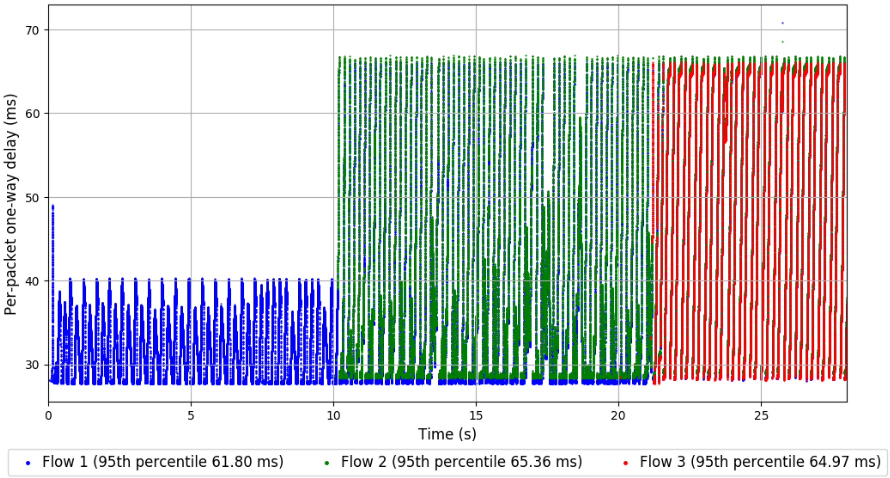
```
Run 7: Statistics of TaoVA-100x

Start at: 2017-10-12 08:57:07
End at: 2017-10-12 08:57:37
Local clock offset: 0.884 ms
Remote clock offset: -3.552 ms

# Below is generated by plot.py at 2017-10-12 10:35:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.72 Mbit/s
95th percentile per-packet one-way delay: 64.669 ms
Loss rate: 19.97%
-- Flow 1:
Average throughput: 53.88 Mbit/s
95th percentile per-packet one-way delay: 61.795 ms
Loss rate: 15.94%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 65.356 ms
Loss rate: 27.89%
-- Flow 3:
Average throughput: 27.24 Mbit/s
95th percentile per-packet one-way delay: 64.968 ms
Loss rate: 18.03%
```

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



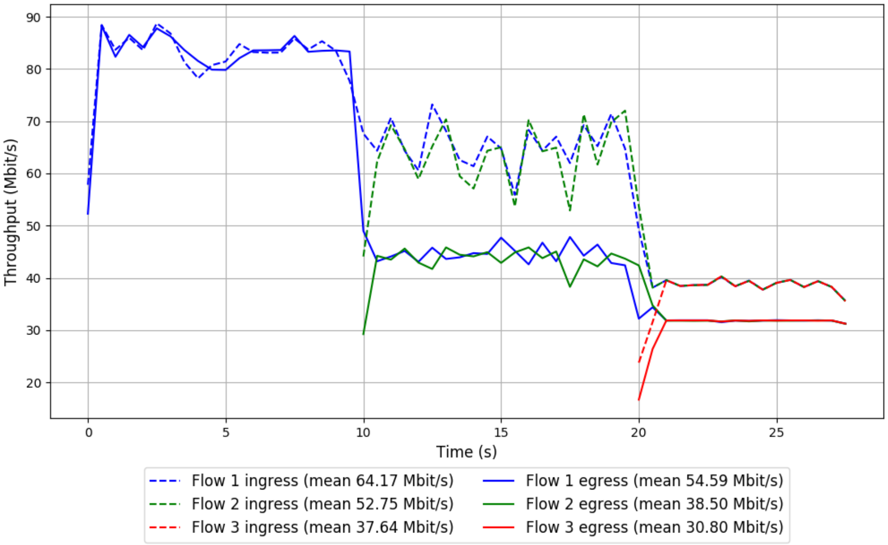


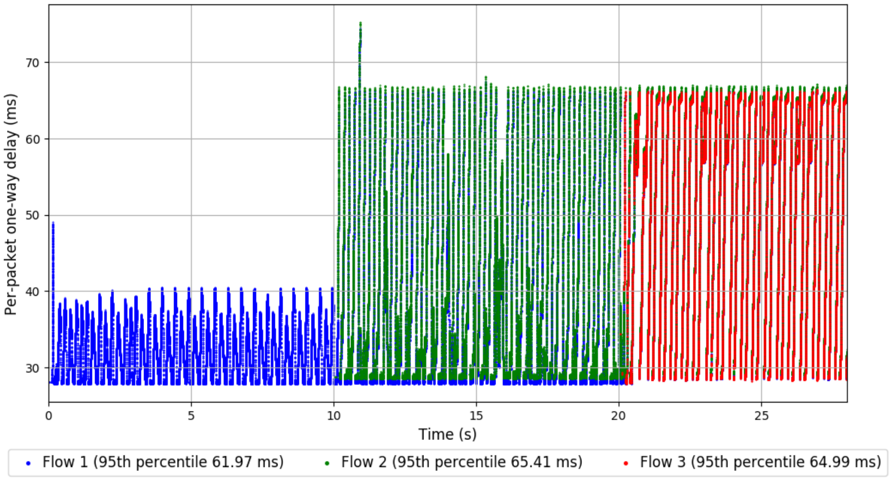
```
Run 8: Statistics of TaoVA-100x

Start at: 2017-10-12 09:16:12
End at: 2017-10-12 09:16:42
Local clock offset: 0.718 ms
Remote clock offset: -3.437 ms

# Below is generated by plot.py at 2017-10-12 10:35:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.04 Mbit/s
95th percentile per-packet one-way delay: 64.661 ms
Loss rate: 19.01%
-- Flow 1:
Average throughput: 54.59 Mbit/s
95th percentile per-packet one-way delay: 61.971 ms
Loss rate: 14.92%
-- Flow 2:
Average throughput: 38.50 Mbit/s
95th percentile per-packet one-way delay: 65.411 ms
Loss rate: 27.00%
-- Flow 3:
Average throughput: 30.80 Mbit/s
95th percentile per-packet one-way delay: 64.991 ms
Loss rate: 18.19%
```

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



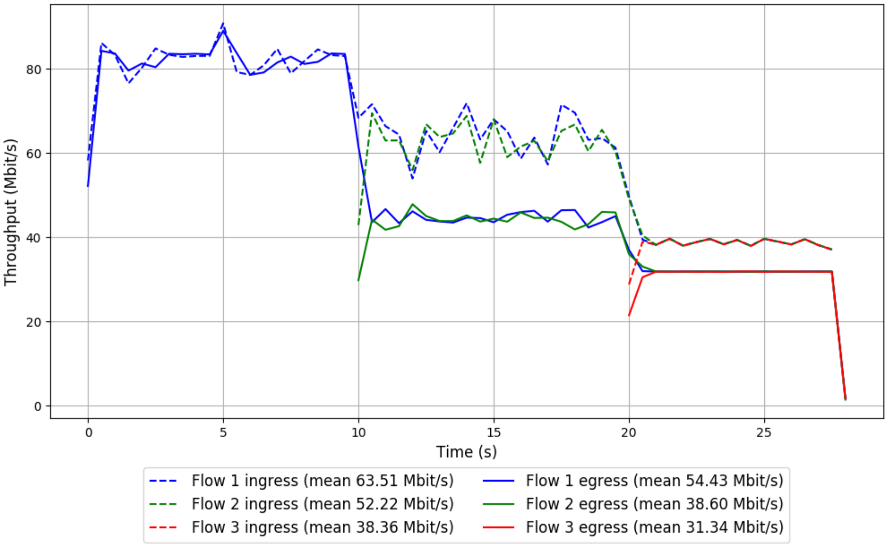


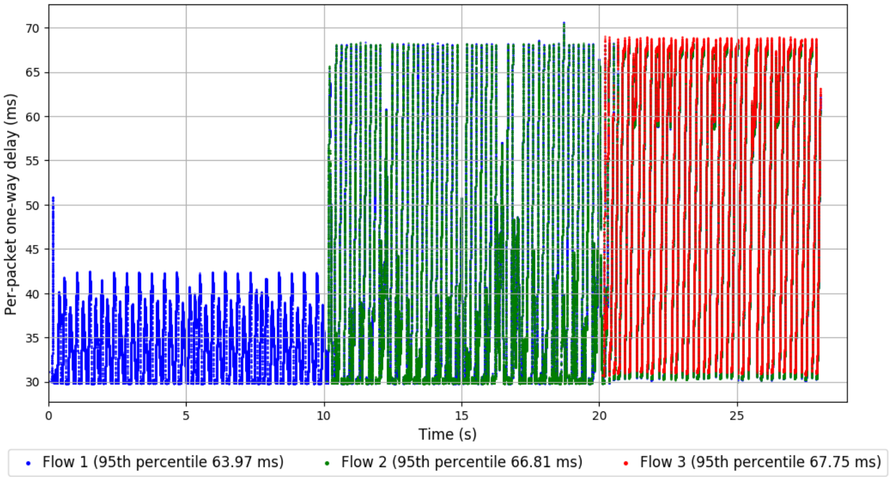
```
Run 9: Statistics of TaoVA-100x

Start at: 2017-10-12 09:35:17
End at: 2017-10-12 09:35:47
Local clock offset: 0.695 ms
Remote clock offset: -1.373 ms

# Below is generated by plot.py at 2017-10-12 10:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.14 Mbit/s
95th percentile per-packet one-way delay: 66.757 ms
Loss rate: 18.25%
-- Flow 1:
Average throughput: 54.43 Mbit/s
95th percentile per-packet one-way delay: 63.969 ms
Loss rate: 14.19%
-- Flow 2:
Average throughput: 38.60 Mbit/s
95th percentile per-packet one-way delay: 66.807 ms
Loss rate: 25.99%
-- Flow 3:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 67.753 ms
Loss rate: 18.07%
```

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



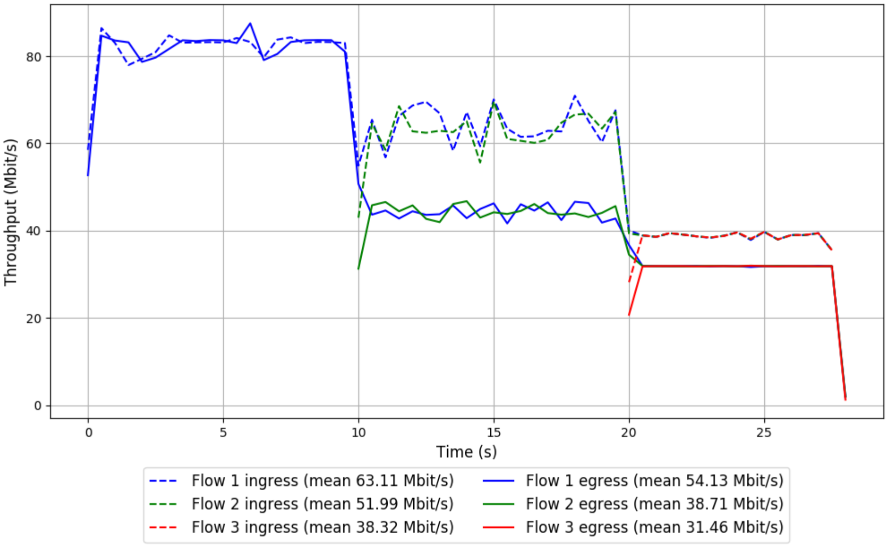


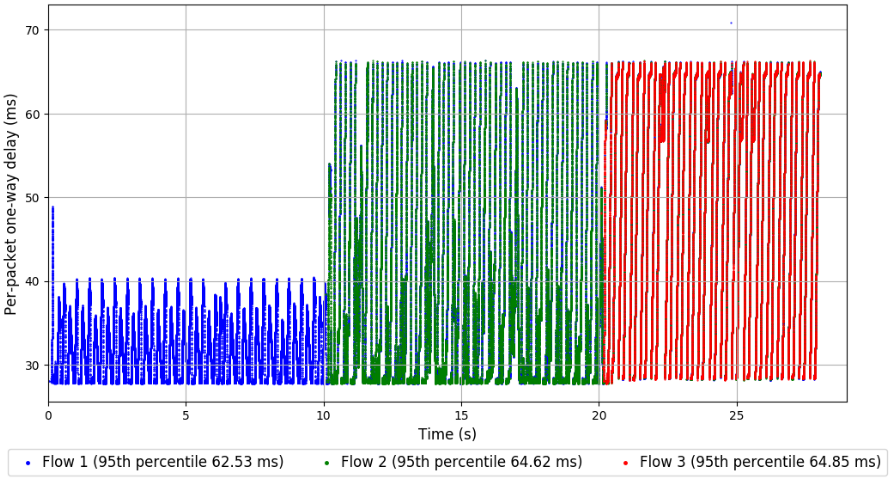
```
Run 10: Statistics of TaoVA-100x

Start at: 2017-10-12 09:54:23
End at: 2017-10-12 09:54:53
Local clock offset: 0.501 ms
Remote clock offset: -3.437 ms

# Below is generated by plot.py at 2017-10-12 10:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 64.510 ms
Loss rate: 18.01%
-- Flow 1:
Average throughput: 54.13 Mbit/s
95th percentile per-packet one-way delay: 62.533 ms
Loss rate: 14.12%
-- Flow 2:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 64.616 ms
Loss rate: 25.43%
-- Flow 3:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 64.848 ms
Loss rate: 17.86%
```

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



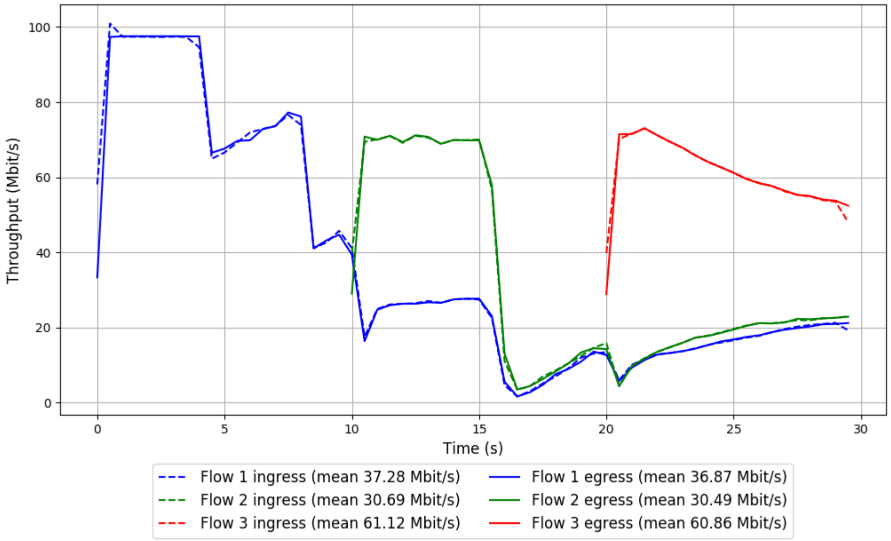


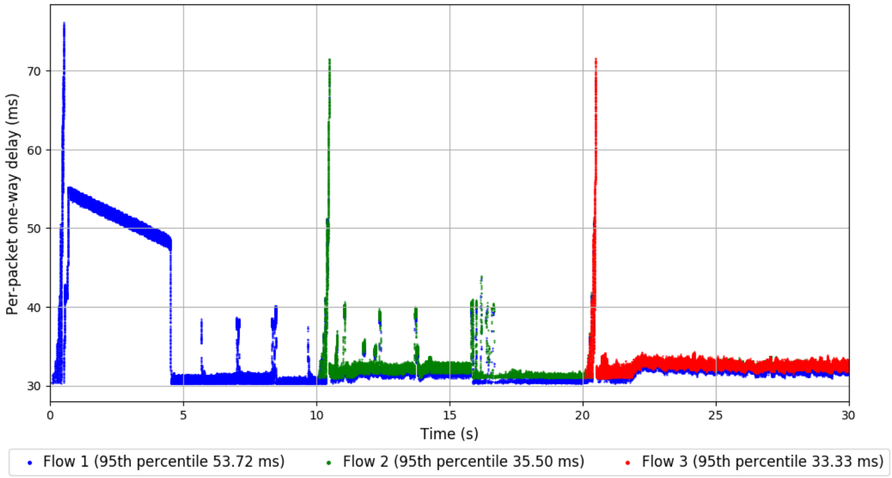
```
Run 1: Statistics of TCP Vegas

Start at: 2017-10-12 06:57:05
End at: 2017-10-12 06:57:35
Local clock offset: 0.149 ms
Remote clock offset: -1.503 ms

# Below is generated by plot.py at 2017-10-12 10:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.36 Mbit/s
95th percentile per-packet one-way delay: 52.859 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 53.719 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 35.497 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 60.86 Mbit/s
95th percentile per-packet one-way delay: 33.333 ms
Loss rate: 0.40%
```

Run 1: Report of TCP Vegas — Data Link



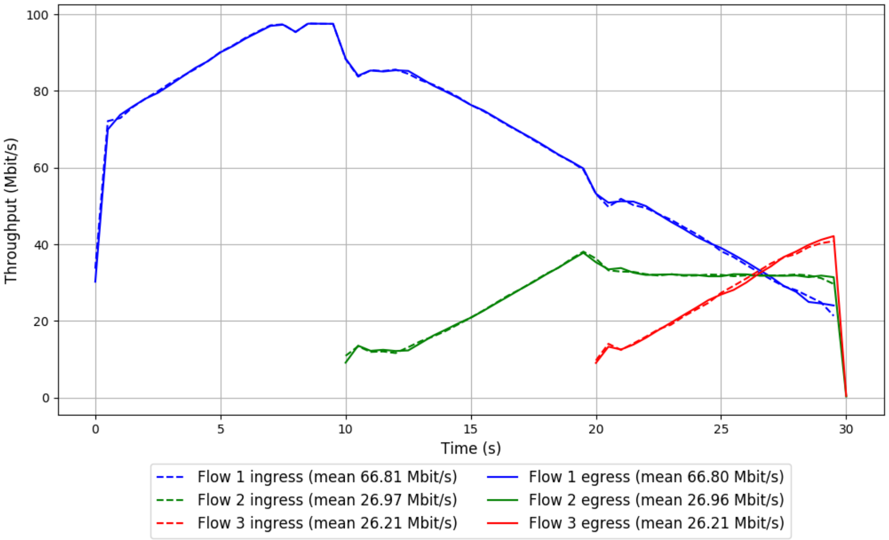


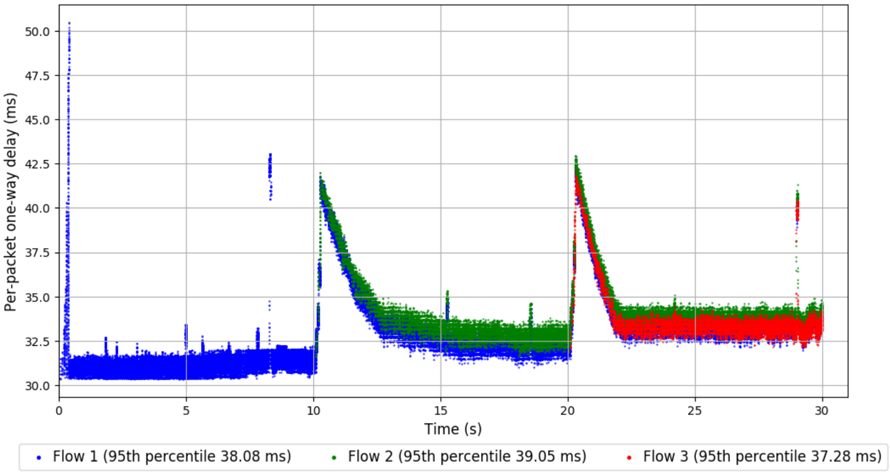
```
Run 2: Statistics of TCP Vegas

Start at: 2017-10-12 07:16:07
End at: 2017-10-12 07:16:37
Local clock offset: 0.298 ms
Remote clock offset: -1.68 ms

# Below is generated by plot.py at 2017-10-12 10:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.40 Mbit/s
95th percentile per-packet one-way delay: 38.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.80 Mbit/s
95th percentile per-packet one-way delay: 38.081 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.96 Mbit/s
95th percentile per-packet one-way delay: 39.051 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.21 Mbit/s
95th percentile per-packet one-way delay: 37.281 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link



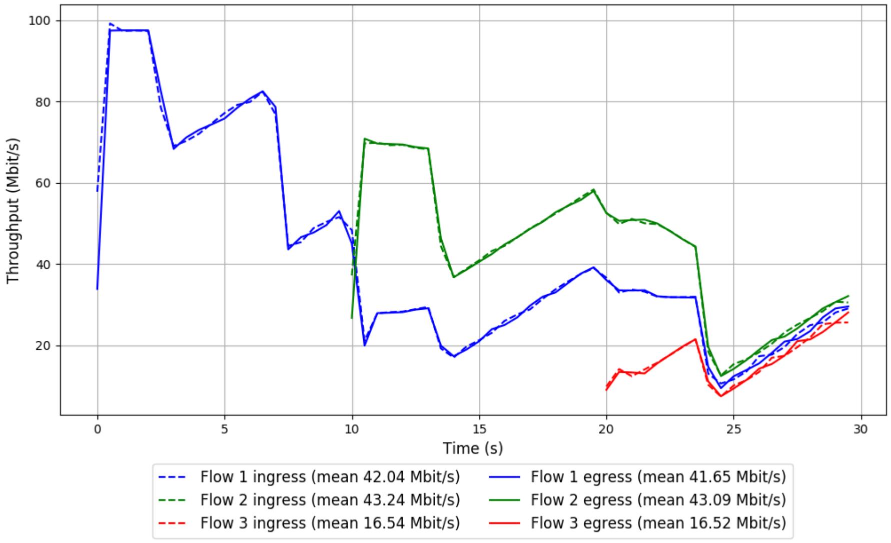


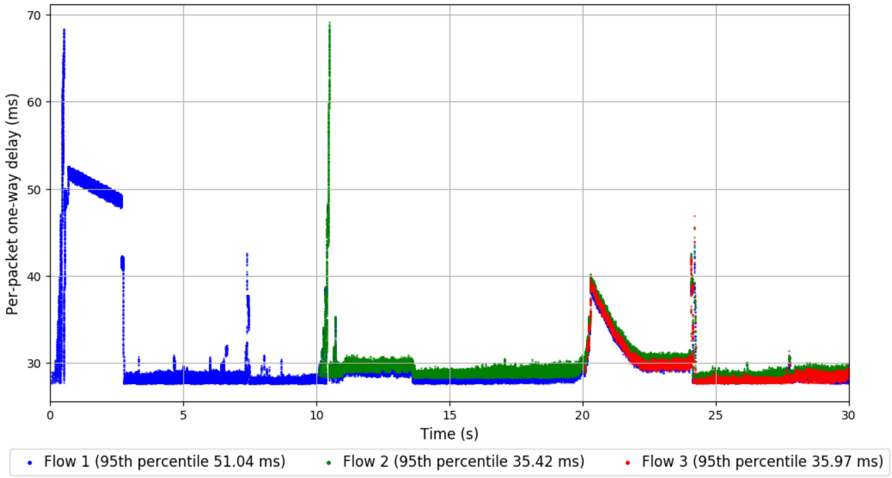
```
Run 3: Statistics of TCP Vegas

Start at: 2017-10-12 07:35:17
End at: 2017-10-12 07:35:47
Local clock offset: 0.637 ms
Remote clock offset: -3.942 ms

# Below is generated by plot.py at 2017-10-12 10:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.80 Mbit/s
95th percentile per-packet one-way delay: 50.161 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 41.65 Mbit/s
95th percentile per-packet one-way delay: 51.036 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 43.09 Mbit/s
95th percentile per-packet one-way delay: 35.417 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 35.966 ms
Loss rate: 0.14%
```

Run 3: Report of TCP Vegas — Data Link



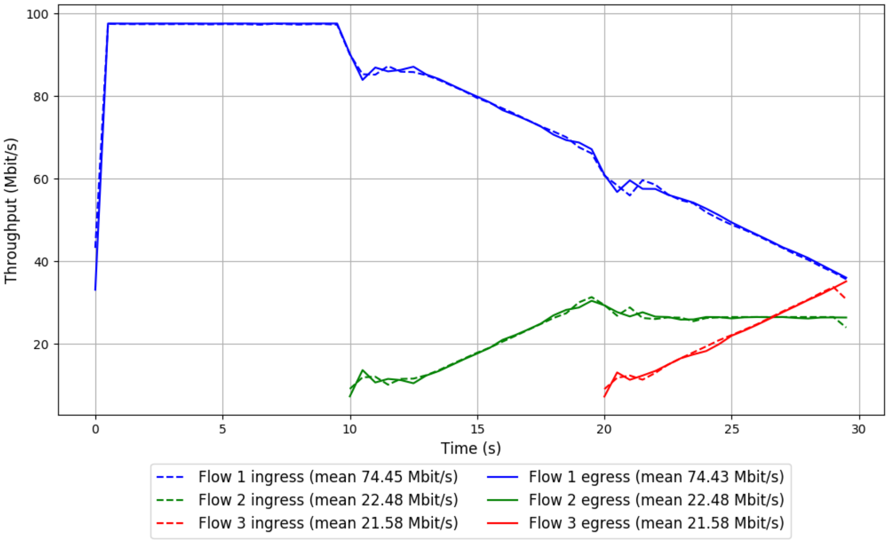


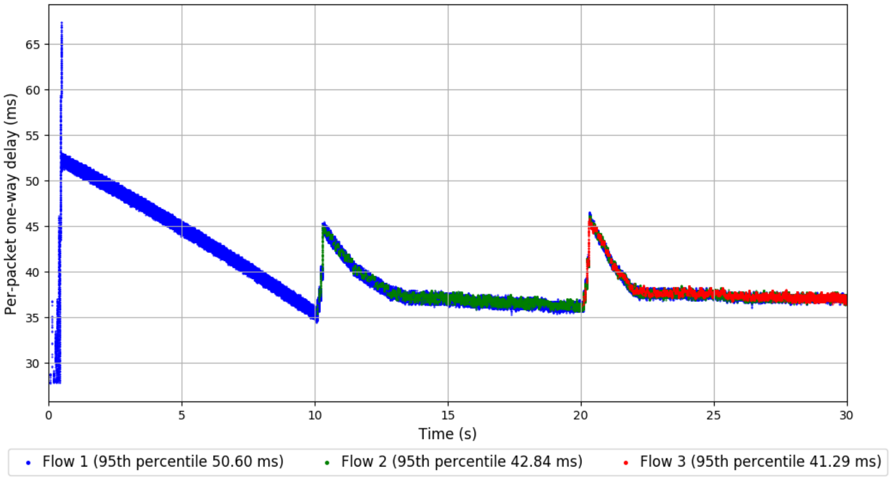
```
Run 4: Statistics of TCP Vegas

Start at: 2017-10-12 07:54:21
End at: 2017-10-12 07:54:51
Local clock offset: 0.716 ms
Remote clock offset: -3.895 ms

# Below is generated by plot.py at 2017-10-12 10:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 50.013 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.43 Mbit/s
95th percentile per-packet one-way delay: 50.601 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.48 Mbit/s
95th percentile per-packet one-way delay: 42.839 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 21.58 Mbit/s
95th percentile per-packet one-way delay: 41.291 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link



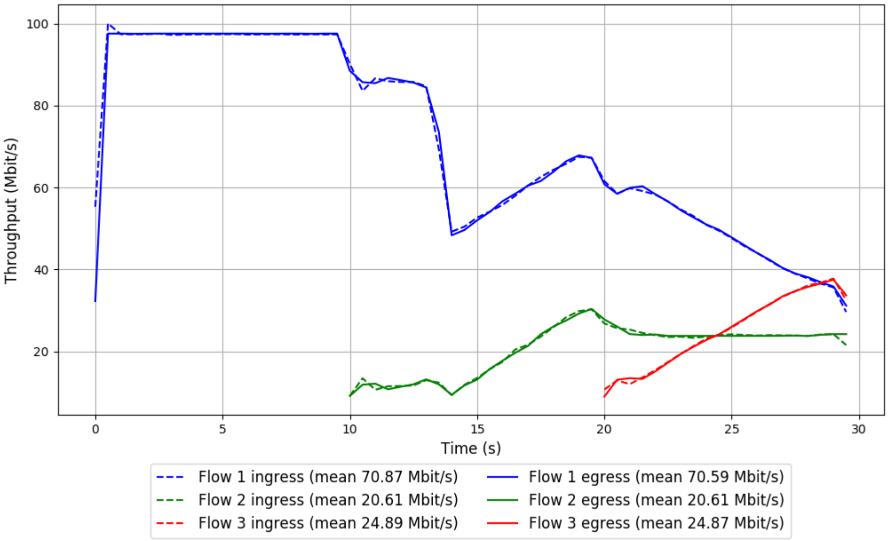


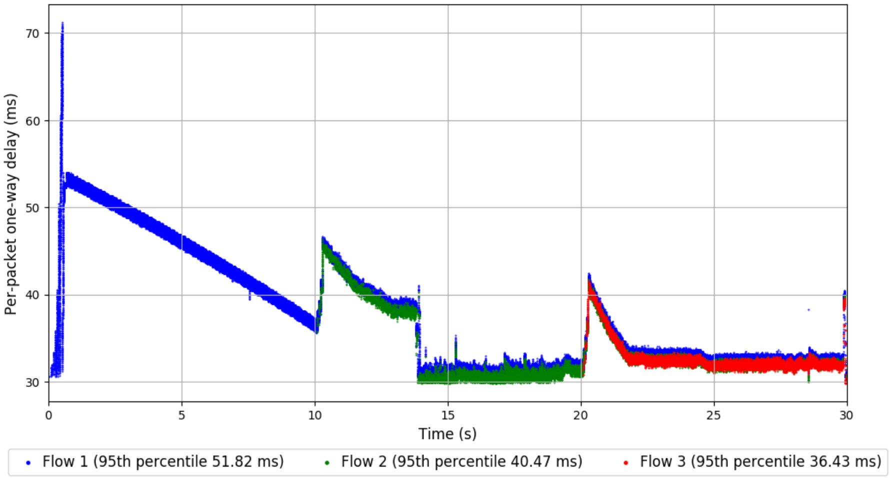
```
Run 5: Statistics of TCP Vegas

Start at: 2017-10-12 08:13:24
End at: 2017-10-12 08:13:54
Local clock offset: 0.931 ms
Remote clock offset: -1.598 ms

# Below is generated by plot.py at 2017-10-12 10:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.57 Mbit/s
95th percentile per-packet one-way delay: 51.293 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 70.59 Mbit/s
95th percentile per-packet one-way delay: 51.818 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 40.473 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 36.429 ms
Loss rate: 0.08%
```

Run 5: Report of TCP Vegas — Data Link



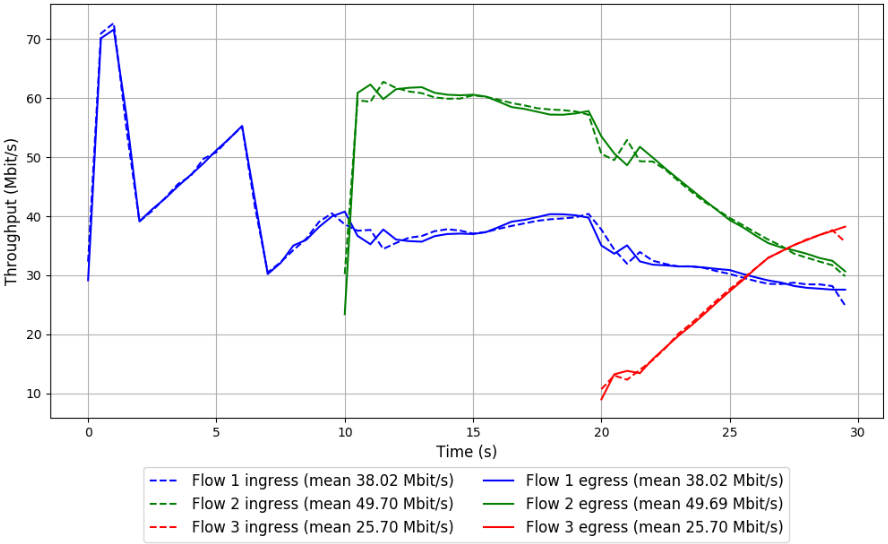


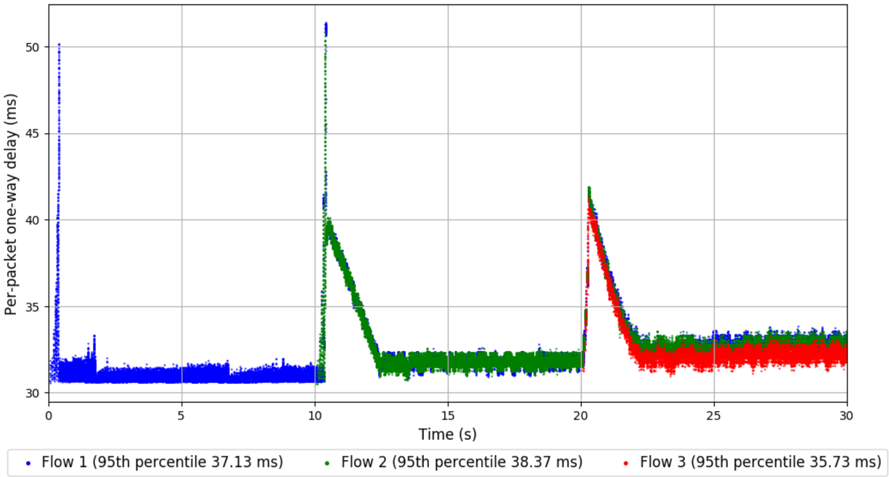
```
Run 6: Statistics of TCP Vegas

Start at: 2017-10-12 08:32:33
End at: 2017-10-12 08:33:03
Local clock offset: 0.909 ms
Remote clock offset: -1.604 ms

# Below is generated by plot.py at 2017-10-12 10:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.64 Mbit/s
95th percentile per-packet one-way delay: 37.707 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 38.02 Mbit/s
95th percentile per-packet one-way delay: 37.131 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 49.69 Mbit/s
95th percentile per-packet one-way delay: 38.371 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 25.70 Mbit/s
95th percentile per-packet one-way delay: 35.726 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Vegas — Data Link



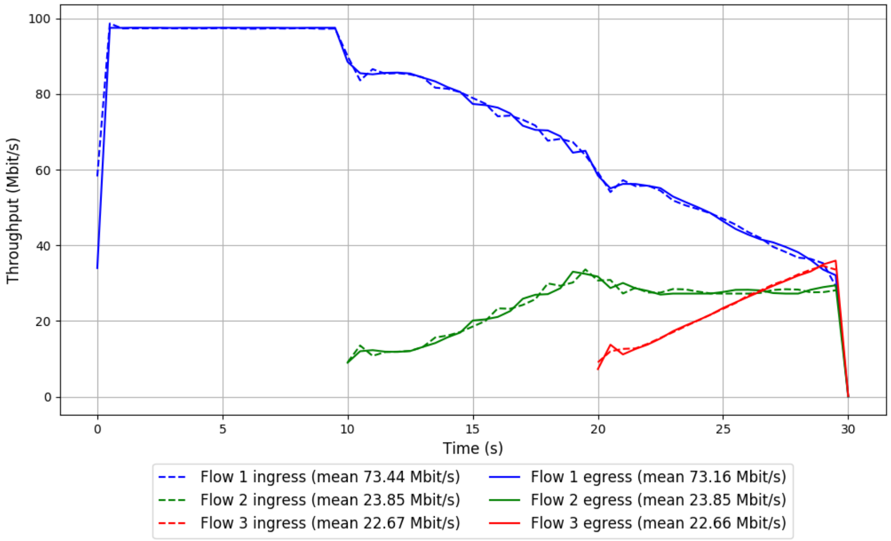


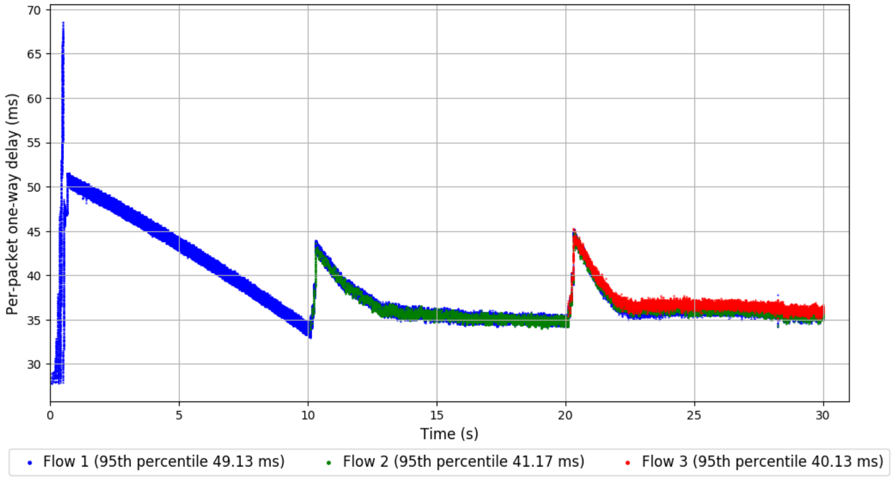
```
Run 7: Statistics of TCP Vegas

Start at: 2017-10-12 08:51:39
End at: 2017-10-12 08:52:09
Local clock offset: 0.833 ms
Remote clock offset: -3.628 ms

# Below is generated by plot.py at 2017-10-12 10:38:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.56 Mbit/s
95th percentile per-packet one-way delay: 48.534 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 73.16 Mbit/s
95th percentile per-packet one-way delay: 49.127 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 23.85 Mbit/s
95th percentile per-packet one-way delay: 41.172 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.66 Mbit/s
95th percentile per-packet one-way delay: 40.134 ms
Loss rate: 0.02%
```

Run 7: Report of TCP Vegas — Data Link



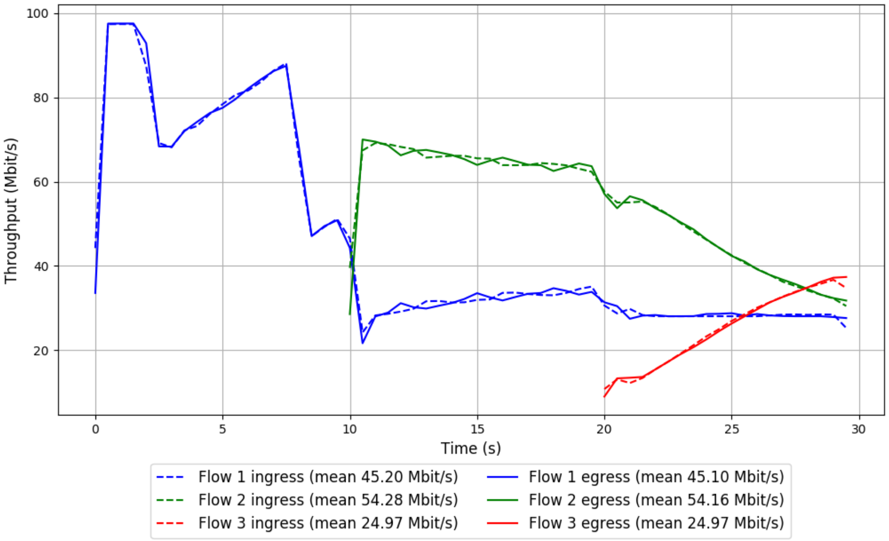


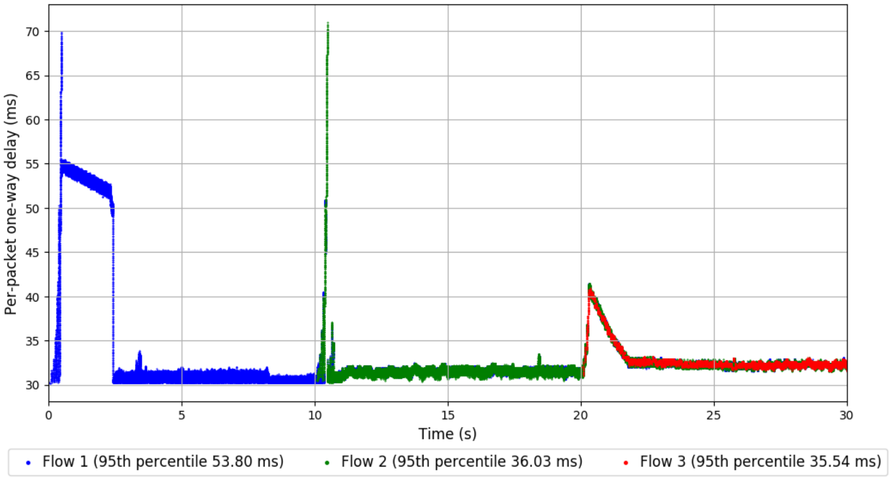
```
Run 8: Statistics of TCP Vegas

Start at: 2017-10-12 09:10:46
End at: 2017-10-12 09:11:16
Local clock offset: 0.849 ms
Remote clock offset: -0.953 ms

# Below is generated by plot.py at 2017-10-12 10:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.44 Mbit/s
95th percentile per-packet one-way delay: 52.703 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 45.10 Mbit/s
95th percentile per-packet one-way delay: 53.805 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 54.16 Mbit/s
95th percentile per-packet one-way delay: 36.026 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 24.97 Mbit/s
95th percentile per-packet one-way delay: 35.544 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Vegas — Data Link



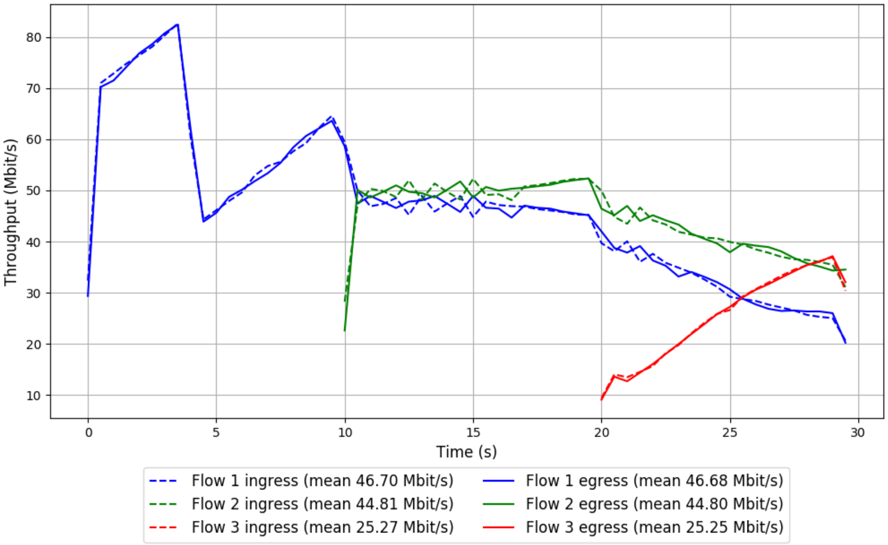


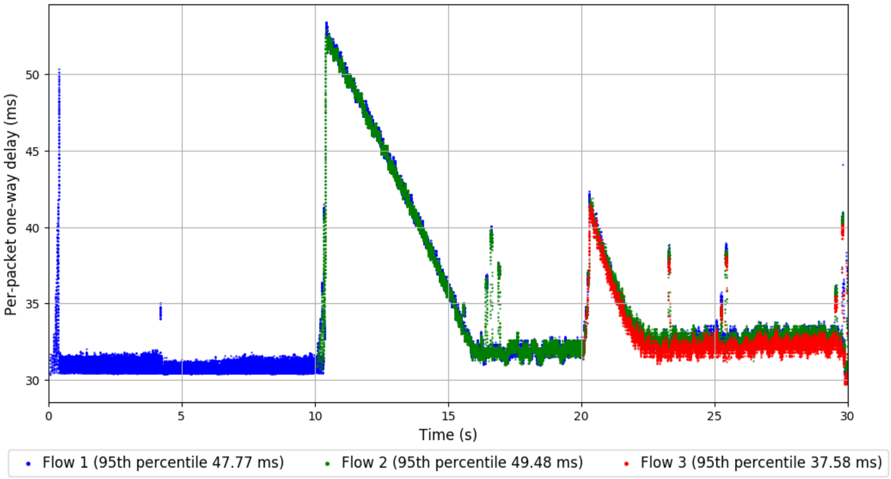
```
Run 9: Statistics of TCP Vegas

Start at: 2017-10-12 09:29:50
End at: 2017-10-12 09:30:20
Local clock offset: 0.754 ms
Remote clock offset: -1.464 ms

# Below is generated by plot.py at 2017-10-12 10:38:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.88 Mbit/s
95th percentile per-packet one-way delay: 48.270 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 46.68 Mbit/s
95th percentile per-packet one-way delay: 47.770 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 44.80 Mbit/s
95th percentile per-packet one-way delay: 49.484 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 25.25 Mbit/s
95th percentile per-packet one-way delay: 37.581 ms
Loss rate: 0.11%
```

Run 9: Report of TCP Vegas — Data Link



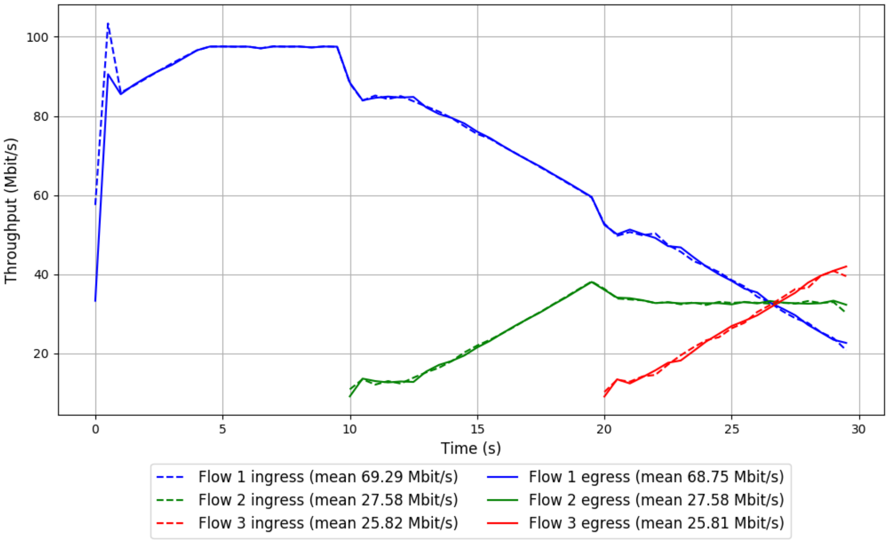


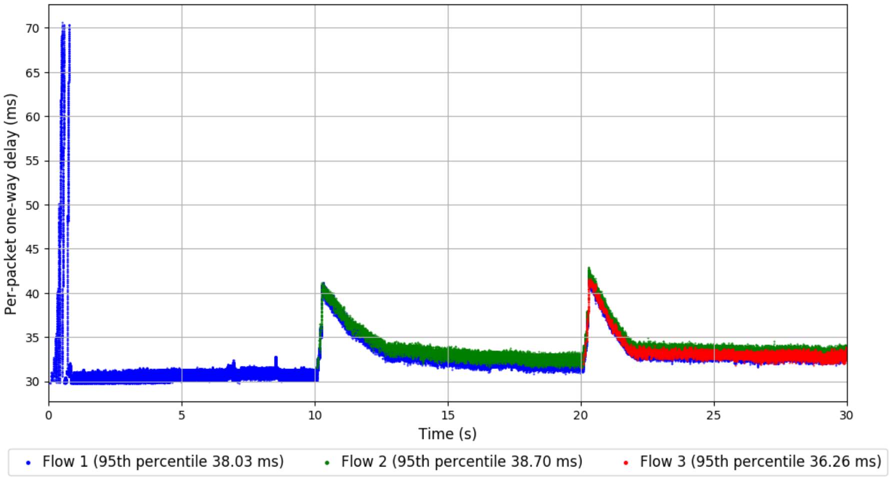
```
Run 10: Statistics of TCP Vegas

Start at: 2017-10-12 09:48:56
End at: 2017-10-12 09:49:26
Local clock offset: 0.465 ms
Remote clock offset: -1.503 ms

# Below is generated by plot.py at 2017-10-12 10:38:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.69 Mbit/s
95th percentile per-packet one-way delay: 38.060 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 68.75 Mbit/s
95th percentile per-packet one-way delay: 38.026 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 27.58 Mbit/s
95th percentile per-packet one-way delay: 38.696 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 25.81 Mbit/s
95th percentile per-packet one-way delay: 36.256 ms
Loss rate: 0.00%
```

Run 10: Report of TCP Vegas — Data Link



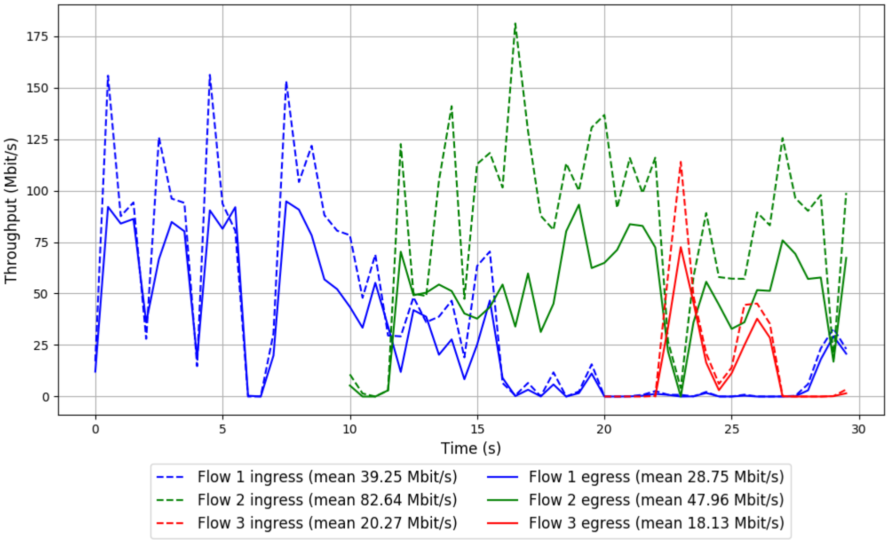


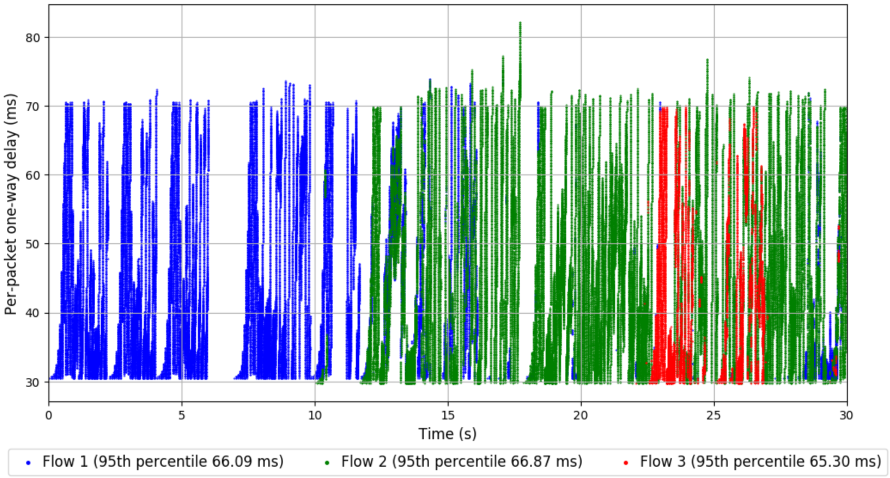
```
Run 1: Statistics of Verus

Start at: 2017-10-12 07:01:09
End at: 2017-10-12 07:01:39
Local clock offset: 0.178 ms
Remote clock offset: -2.102 ms

# Below is generated by plot.py at 2017-10-12 10:38:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.12 Mbit/s
95th percentile per-packet one-way delay: 66.371 ms
Loss rate: 35.19%
-- Flow 1:
Average throughput: 28.75 Mbit/s
95th percentile per-packet one-way delay: 66.095 ms
Loss rate: 26.73%
-- Flow 2:
Average throughput: 47.96 Mbit/s
95th percentile per-packet one-way delay: 66.872 ms
Loss rate: 41.86%
-- Flow 3:
Average throughput: 18.13 Mbit/s
95th percentile per-packet one-way delay: 65.300 ms
Loss rate: 29.58%
```

Run 1: Report of Verus — Data Link



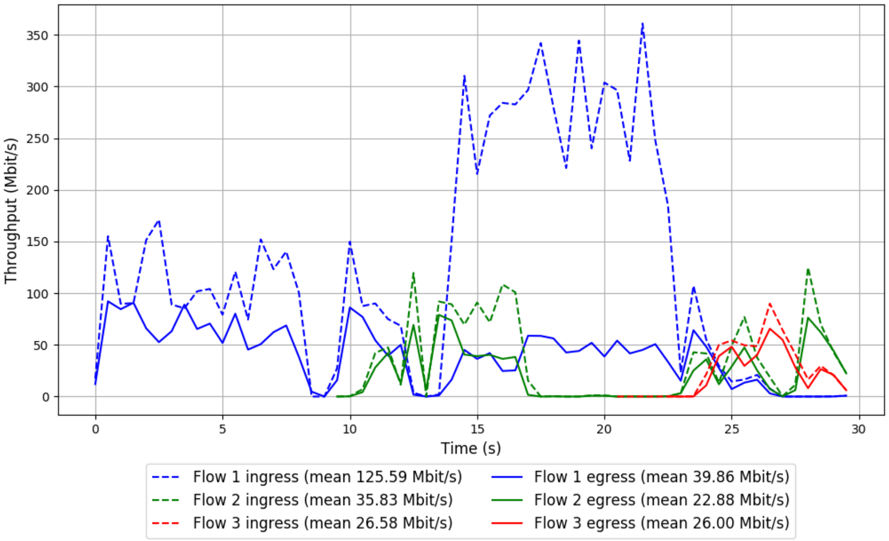


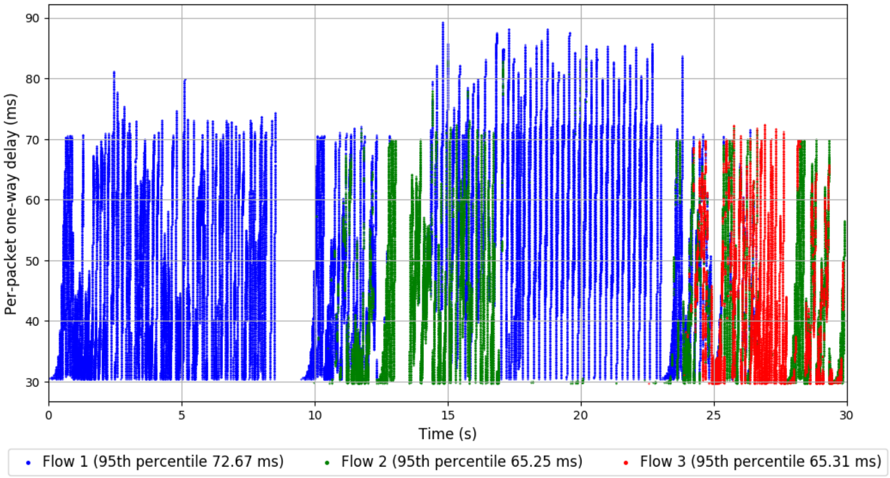
```
Run 2: Statistics of Verus

Start at: 2017-10-12 07:20:11
End at: 2017-10-12 07:20:41
Local clock offset: 0.444 ms
Remote clock offset: -2.119 ms

# Below is generated by plot.py at 2017-10-12 10:38:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.39 Mbit/s
95th percentile per-packet one-way delay: 70.337 ms
Loss rate: 61.01%
-- Flow 1:
Average throughput: 39.86 Mbit/s
95th percentile per-packet one-way delay: 72.673 ms
Loss rate: 68.25%
-- Flow 2:
Average throughput: 22.88 Mbit/s
95th percentile per-packet one-way delay: 65.248 ms
Loss rate: 36.06%
-- Flow 3:
Average throughput: 26.00 Mbit/s
95th percentile per-packet one-way delay: 65.306 ms
Loss rate: 23.11%
```

Run 2: Report of Verus — Data Link



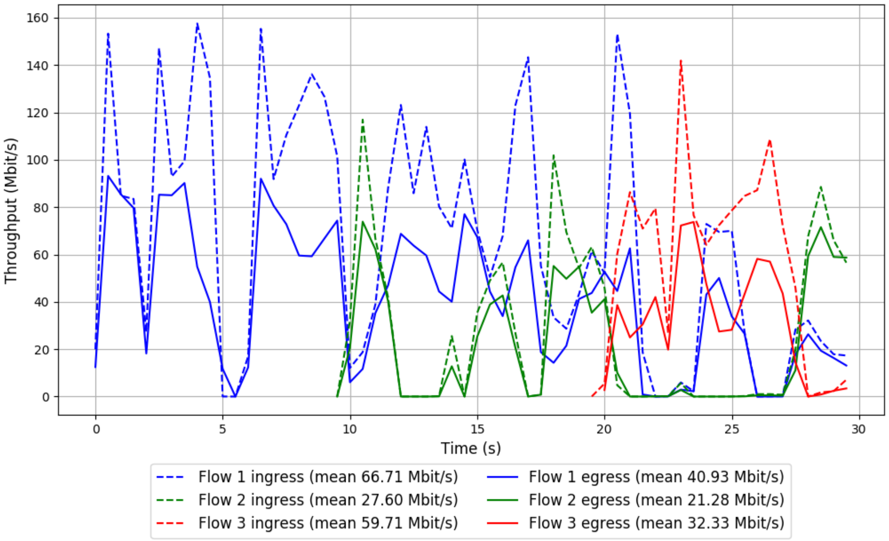


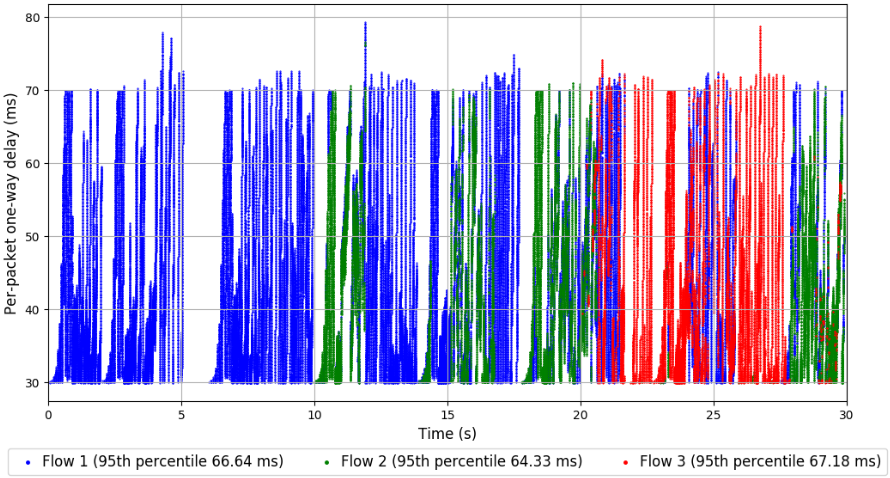
```
Run 3: Statistics of Verus

Start at: 2017-10-12 07:39:21
End at: 2017-10-12 07:39:51
Local clock offset: 0.611 ms
Remote clock offset: -1.836 ms

# Below is generated by plot.py at 2017-10-12 10:38:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.67 Mbit/s
95th percentile per-packet one-way delay: 66.257 ms
Loss rate: 37.25%
-- Flow 1:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 66.637 ms
Loss rate: 38.60%
-- Flow 2:
Average throughput: 21.28 Mbit/s
95th percentile per-packet one-way delay: 64.334 ms
Loss rate: 22.80%
-- Flow 3:
Average throughput: 32.33 Mbit/s
95th percentile per-packet one-way delay: 67.180 ms
Loss rate: 46.21%
```

Run 3: Report of Verus — Data Link



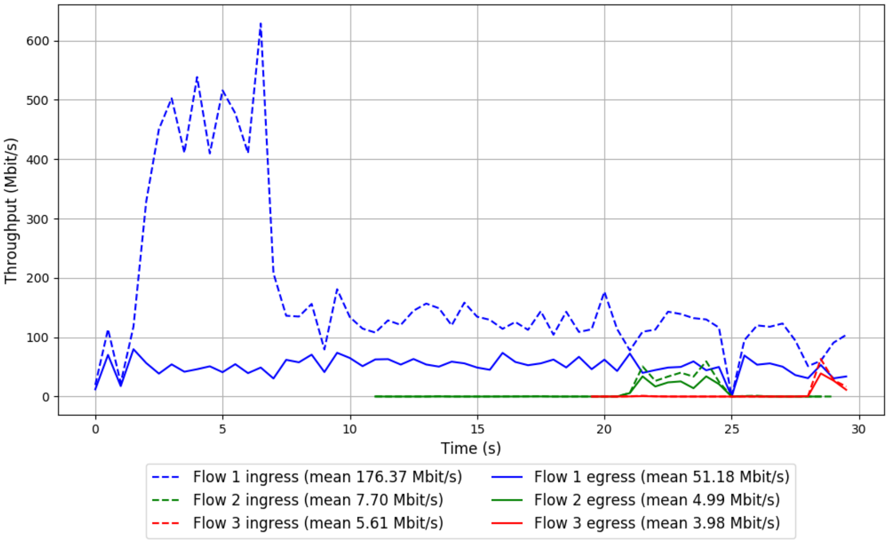


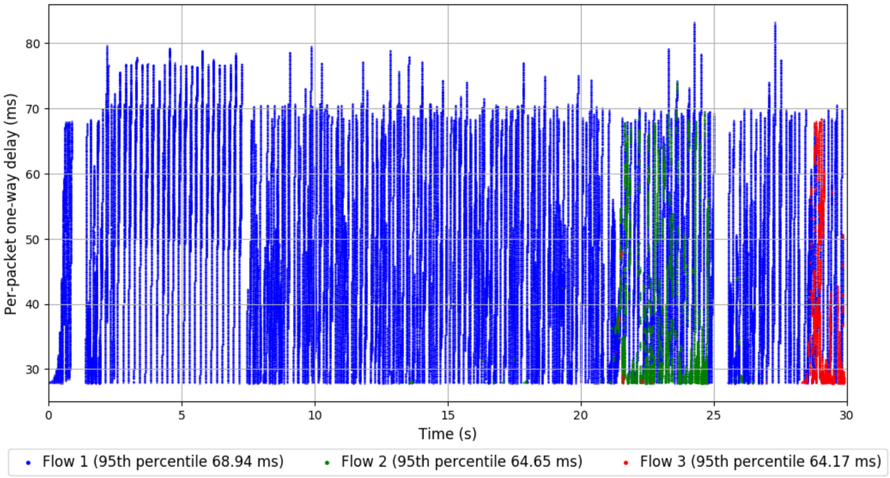
```
Run 4: Statistics of Verus

Start at: 2017-10-12 07:58:25
End at: 2017-10-12 07:58:55
Local clock offset: 0.754 ms
Remote clock offset: -3.789 ms

# Below is generated by plot.py at 2017-10-12 10:39:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.38 Mbit/s
95th percentile per-packet one-way delay: 68.656 ms
Loss rate: 69.65%
-- Flow 1:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 68.937 ms
Loss rate: 70.96%
-- Flow 2:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 64.647 ms
Loss rate: 36.62%
-- Flow 3:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 64.173 ms
Loss rate: 28.98%
```

Run 4: Report of Verus — Data Link



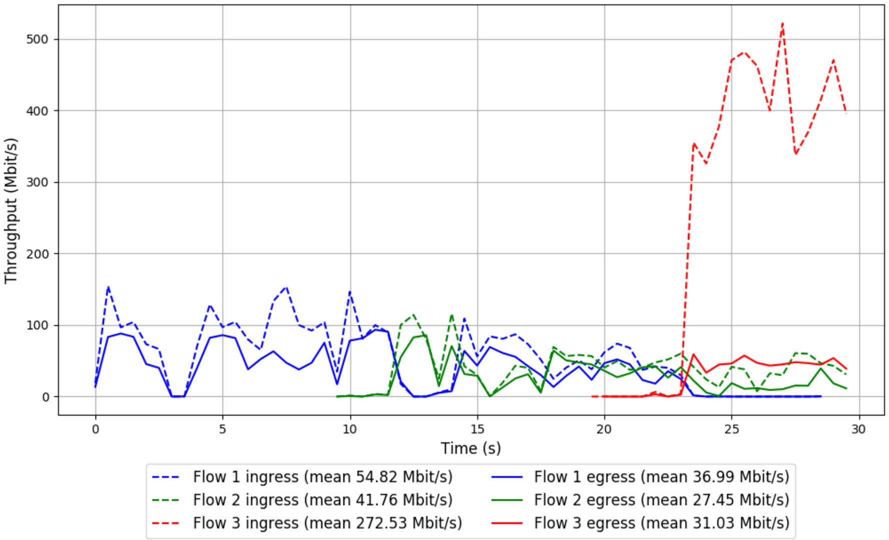


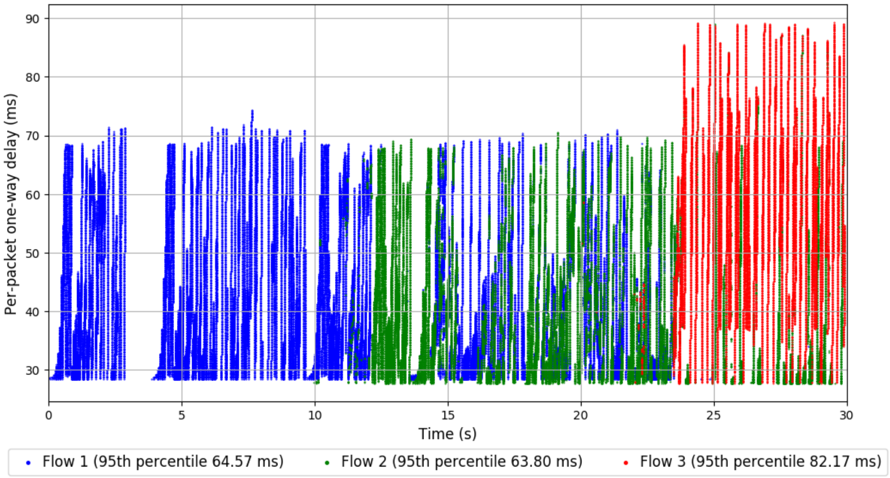
```
Run 5: Statistics of Verus

Start at: 2017-10-12 08:17:28
End at: 2017-10-12 08:17:58
Local clock offset: 0.863 ms
Remote clock offset: -3.763 ms

# Below is generated by plot.py at 2017-10-12 10:39:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 67.506 ms
Loss rate: 62.61%
-- Flow 1:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 64.570 ms
Loss rate: 33.31%
-- Flow 2:
Average throughput: 27.45 Mbit/s
95th percentile per-packet one-way delay: 63.803 ms
Loss rate: 34.31%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 82.166 ms
Loss rate: 88.61%
```

Run 5: Report of Verus — Data Link



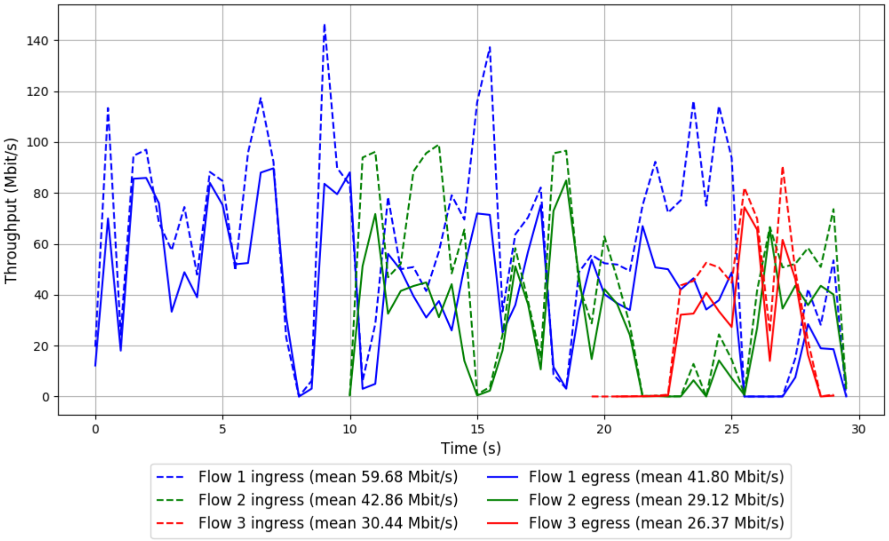


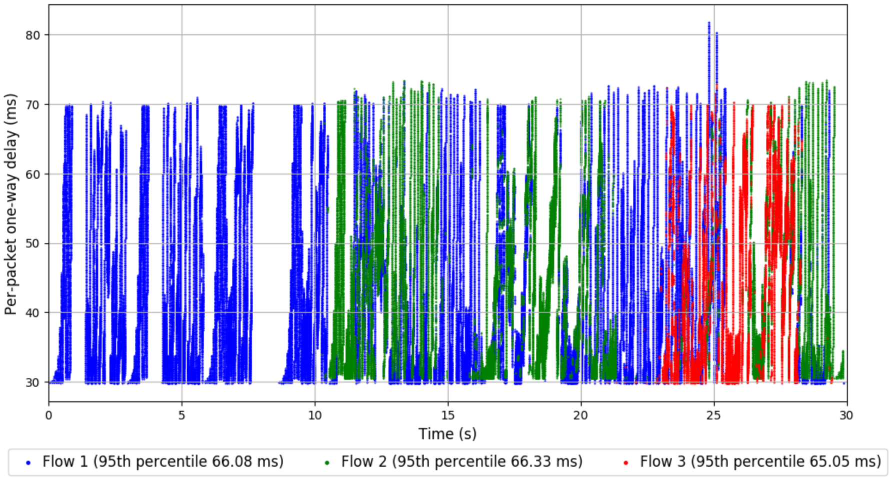
```
Run 6: Statistics of Verus

Start at: 2017-10-12 08:36:37
End at: 2017-10-12 08:37:07
Local clock offset: 1.026 ms
Remote clock offset: -1.587 ms

# Below is generated by plot.py at 2017-10-12 10:39:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.38 Mbit/s
95th percentile per-packet one-way delay: 66.032 ms
Loss rate: 29.87%
-- Flow 1:
Average throughput: 41.80 Mbit/s
95th percentile per-packet one-way delay: 66.083 ms
Loss rate: 29.96%
-- Flow 2:
Average throughput: 29.12 Mbit/s
95th percentile per-packet one-way delay: 66.325 ms
Loss rate: 32.06%
-- Flow 3:
Average throughput: 26.37 Mbit/s
95th percentile per-packet one-way delay: 65.051 ms
Loss rate: 22.96%
```

Run 6: Report of Verus — Data Link



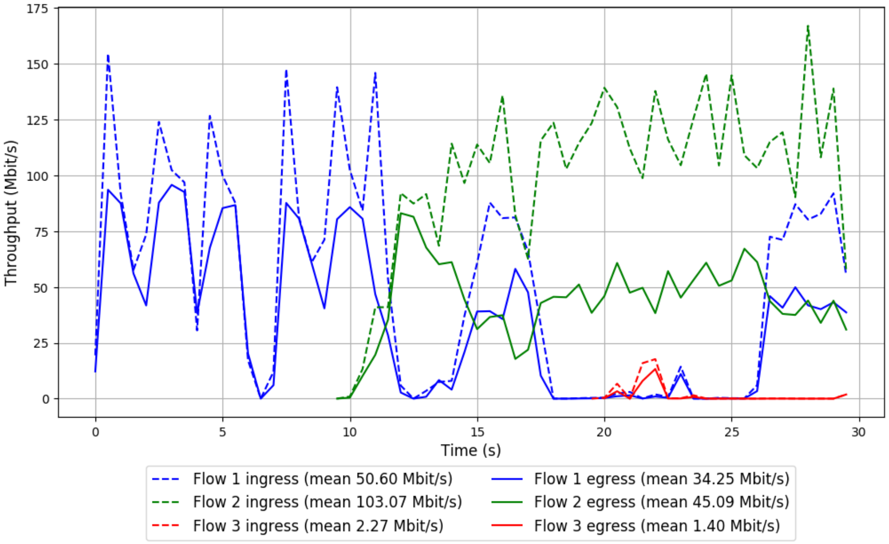


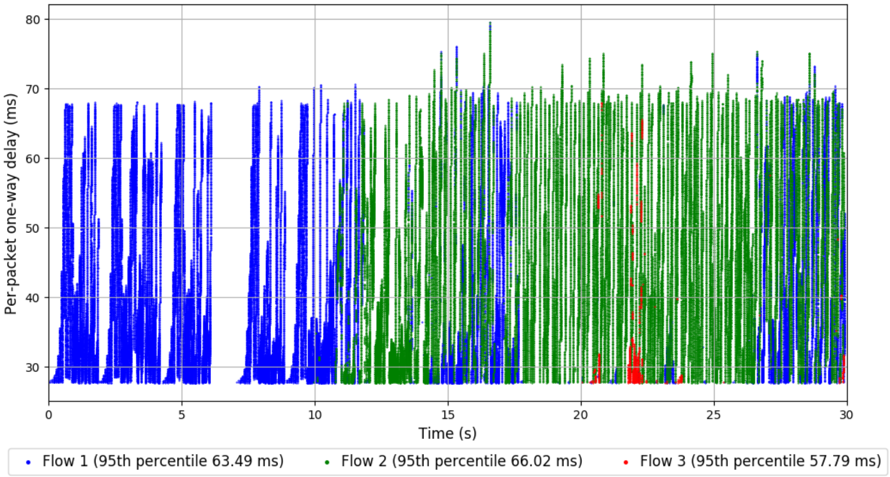
```
Run 7: Statistics of Verus

Start at: 2017-10-12 08:55:44
End at: 2017-10-12 08:56:14
Local clock offset: 0.901 ms
Remote clock offset: -3.59 ms

# Below is generated by plot.py at 2017-10-12 10:39:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.71 Mbit/s
95th percentile per-packet one-way delay: 64.873 ms
Loss rate: 45.96%
-- Flow 1:
Average throughput: 34.25 Mbit/s
95th percentile per-packet one-way delay: 63.494 ms
Loss rate: 32.24%
-- Flow 2:
Average throughput: 45.09 Mbit/s
95th percentile per-packet one-way delay: 66.020 ms
Loss rate: 56.18%
-- Flow 3:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 57.792 ms
Loss rate: 38.40%
```

Run 7: Report of Verus — Data Link



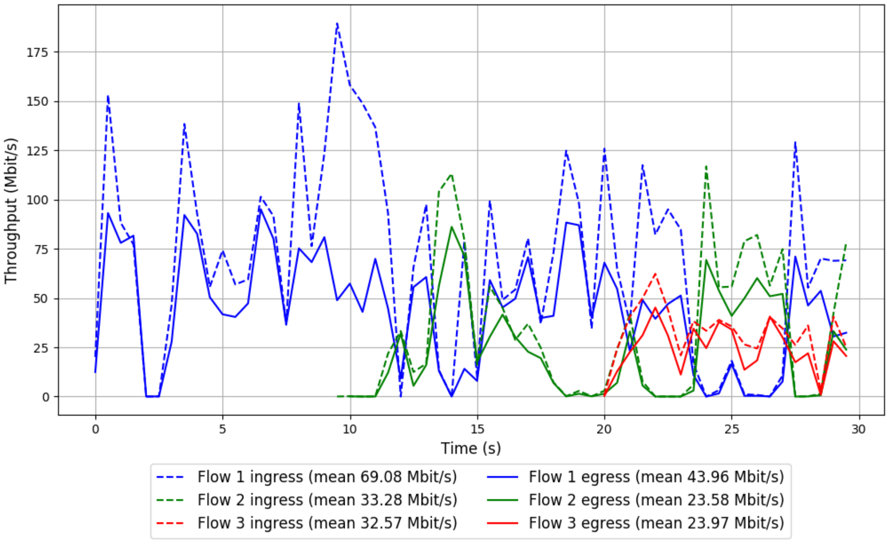


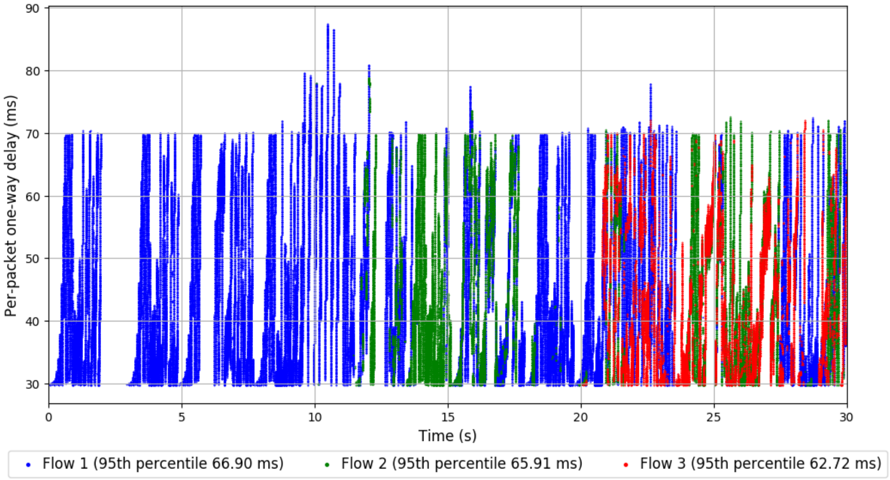
```
Run 8: Statistics of Verus

Start at: 2017-10-12 09:14:50
End at: 2017-10-12 09:15:20
Local clock offset: 0.749 ms
Remote clock offset: -1.461 ms

# Below is generated by plot.py at 2017-10-12 10:39:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.52 Mbit/s
95th percentile per-packet one-way delay: 66.360 ms
Loss rate: 33.72%
-- Flow 1:
Average throughput: 43.96 Mbit/s
95th percentile per-packet one-way delay: 66.897 ms
Loss rate: 36.29%
-- Flow 2:
Average throughput: 23.58 Mbit/s
95th percentile per-packet one-way delay: 65.909 ms
Loss rate: 29.37%
-- Flow 3:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 62.720 ms
Loss rate: 26.15%
```

Run 8: Report of Verus — Data Link



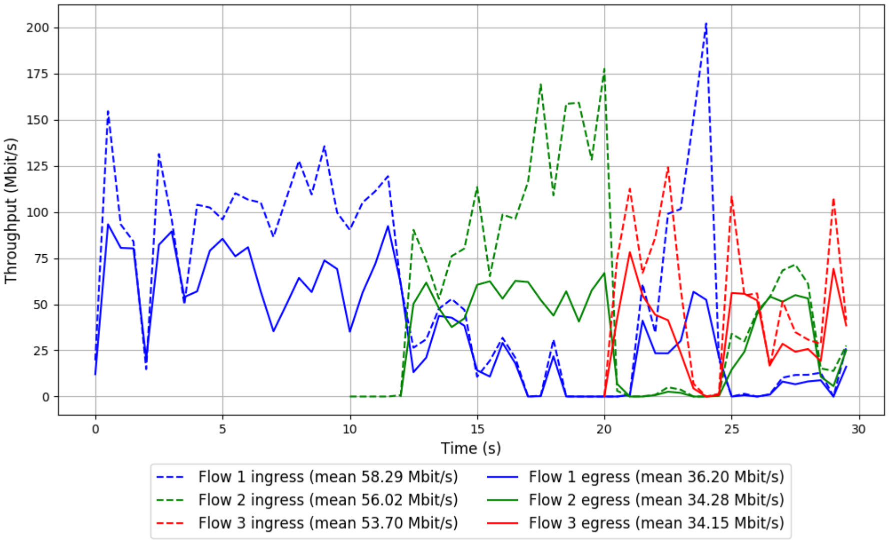


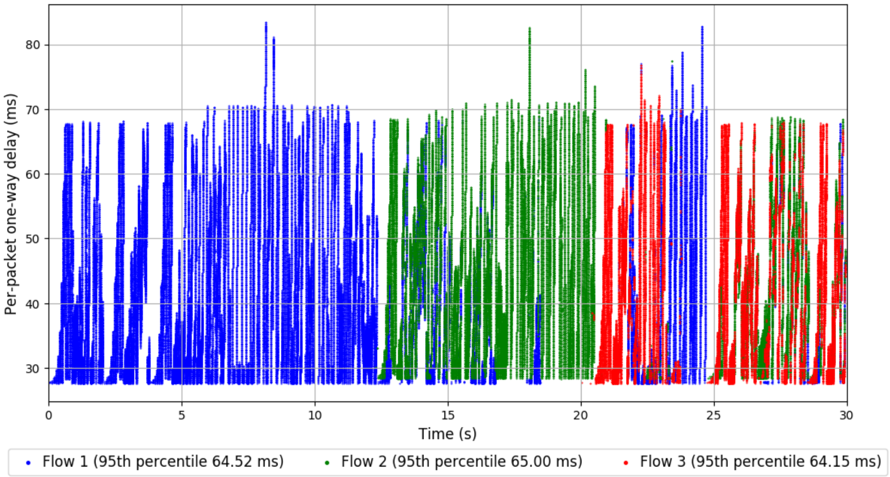
```
Run 9: Statistics of Verus

Start at: 2017-10-12 09:33:54
End at: 2017-10-12 09:34:24
Local clock offset: 0.718 ms
Remote clock offset: -3.502 ms

# Below is generated by plot.py at 2017-10-12 10:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.73 Mbit/s
95th percentile per-packet one-way delay: 64.618 ms
Loss rate: 39.94%
-- Flow 1:
Average throughput: 36.20 Mbit/s
95th percentile per-packet one-way delay: 64.518 ms
Loss rate: 37.86%
-- Flow 2:
Average throughput: 34.28 Mbit/s
95th percentile per-packet one-way delay: 65.003 ms
Loss rate: 44.99%
-- Flow 3:
Average throughput: 34.15 Mbit/s
95th percentile per-packet one-way delay: 64.149 ms
Loss rate: 36.27%
```

Run 9: Report of Verus — Data Link



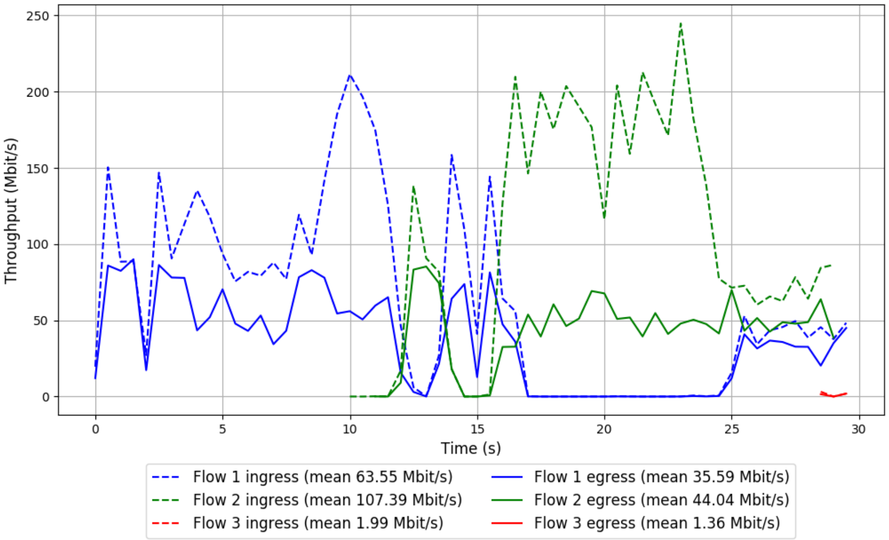


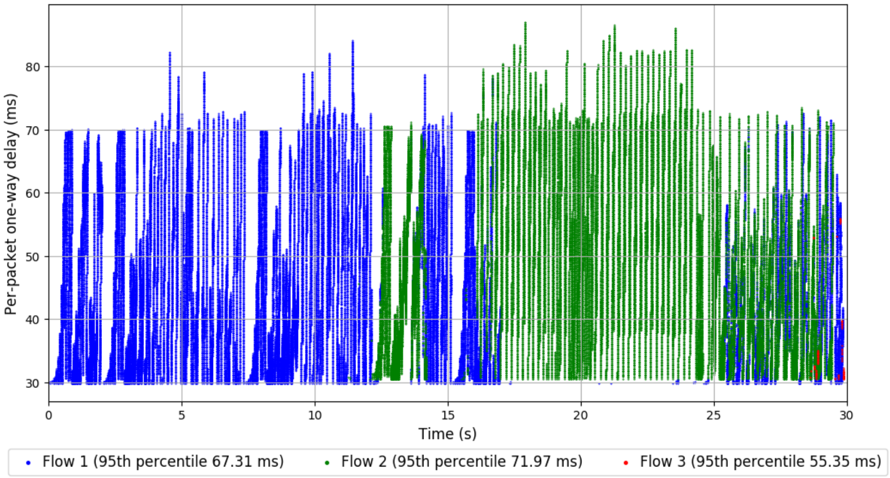
```
Run 10: Statistics of Verus

Start at: 2017-10-12 09:53:00
End at: 2017-10-12 09:53:30
Local clock offset: 0.499 ms
Remote clock offset: -1.387 ms

# Below is generated by plot.py at 2017-10-12 10:39:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.47 Mbit/s
95th percentile per-packet one-way delay: 69.420 ms
Loss rate: 52.88%
-- Flow 1:
Average throughput: 35.59 Mbit/s
95th percentile per-packet one-way delay: 67.314 ms
Loss rate: 43.98%
-- Flow 2:
Average throughput: 44.04 Mbit/s
95th percentile per-packet one-way delay: 71.967 ms
Loss rate: 61.07%
-- Flow 3:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 55.355 ms
Loss rate: 31.63%
```

Run 10: Report of Verus — Data Link



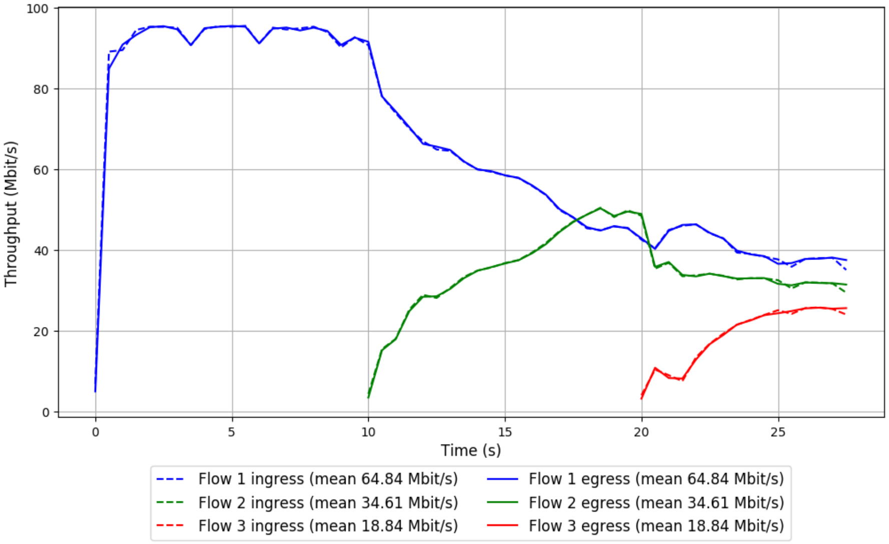


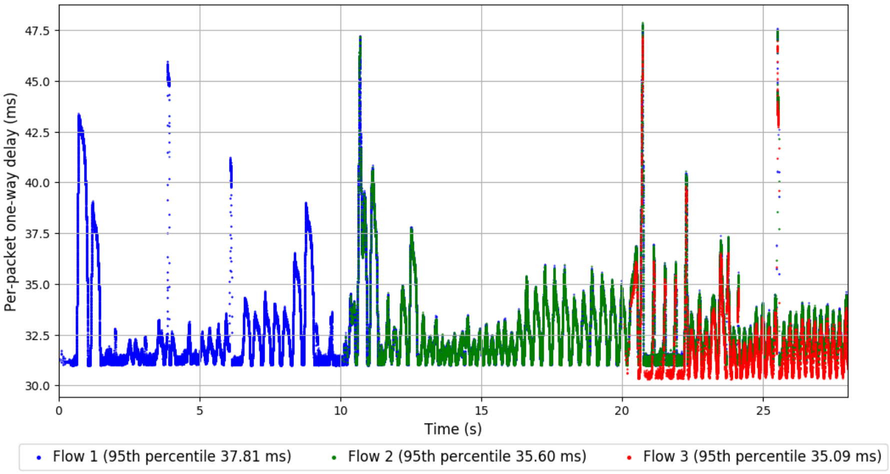
```
Run 1: Statistics of Copa

Start at: 2017-10-12 06:50:16
End at: 2017-10-12 06:50:46
Local clock offset: 0.023 ms
Remote clock offset: -1.461 ms

# Below is generated by plot.py at 2017-10-12 10:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.39 Mbit/s
95th percentile per-packet one-way delay: 37.304 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 64.84 Mbit/s
95th percentile per-packet one-way delay: 37.814 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 35.599 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 18.84 Mbit/s
95th percentile per-packet one-way delay: 35.086 ms
Loss rate: 0.02%
```

Run 1: Report of Copa — Data Link



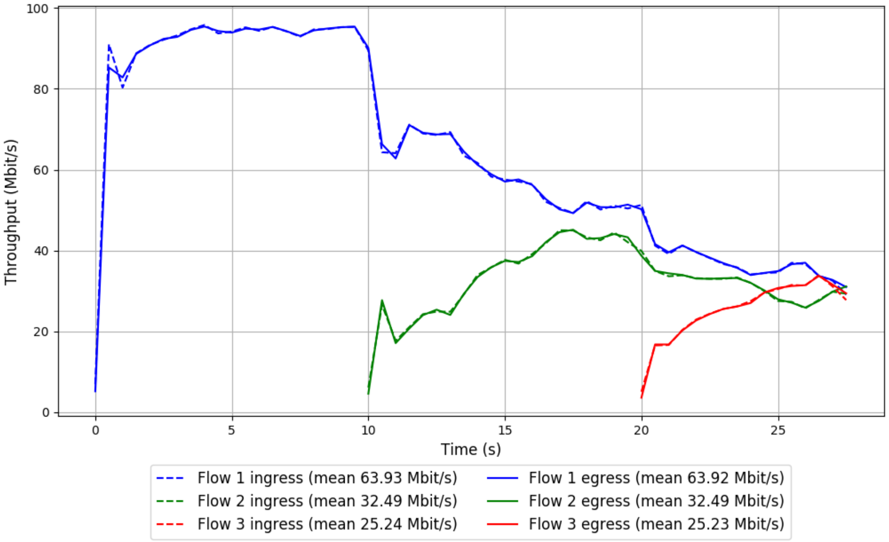


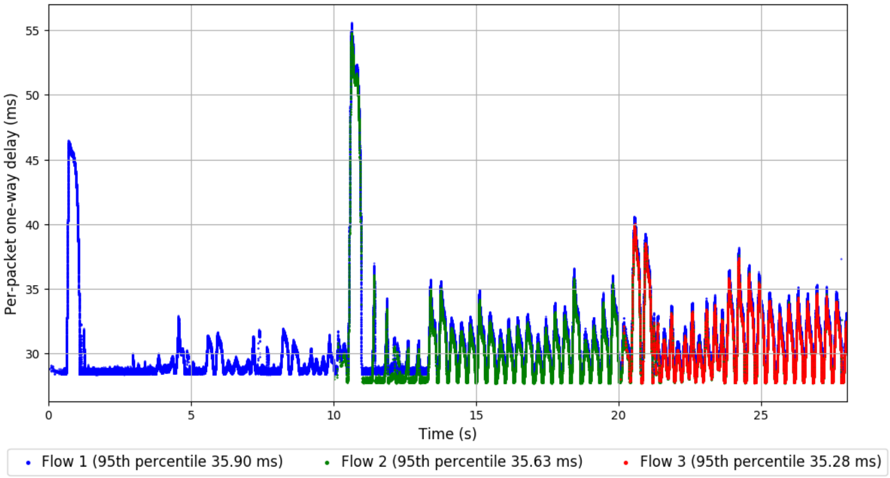
```
Run 2: Statistics of Copa

Start at: 2017-10-12 07:09:18
End at: 2017-10-12 07:09:48
Local clock offset: 0.351 ms
Remote clock offset: -4.215 ms

# Below is generated by plot.py at 2017-10-12 10:41:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.93 Mbit/s
95th percentile per-packet one-way delay: 35.717 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.92 Mbit/s
95th percentile per-packet one-way delay: 35.897 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 35.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.23 Mbit/s
95th percentile per-packet one-way delay: 35.282 ms
Loss rate: 0.00%
```

Run 2: Report of Copa — Data Link



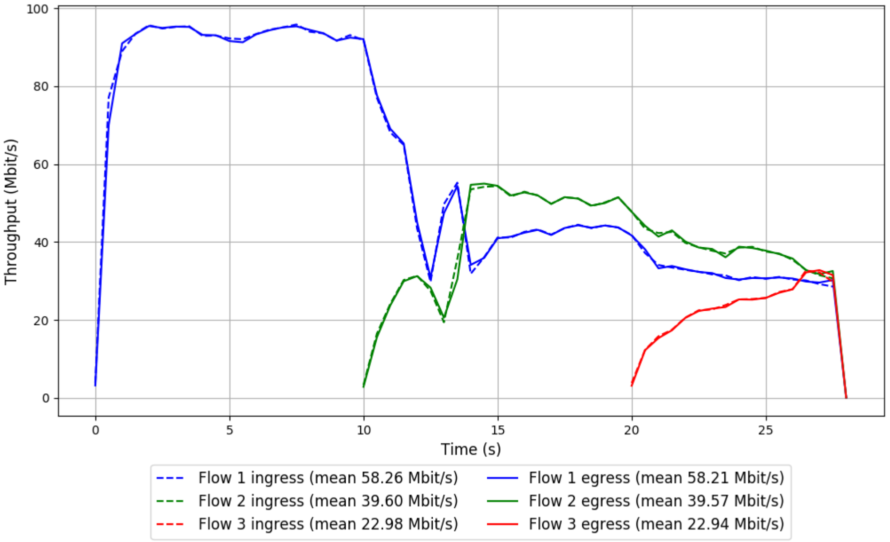


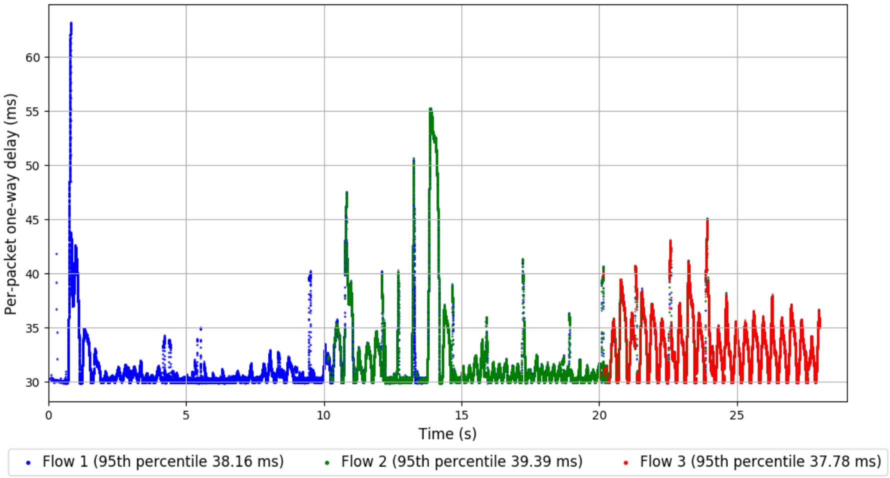
```
Run 3: Statistics of Copa

Start at: 2017-10-12 07:28:25
End at: 2017-10-12 07:28:55
Local clock offset: 0.47 ms
Remote clock offset: -1.922 ms

# Below is generated by plot.py at 2017-10-12 10:41:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.11 Mbit/s
95th percentile per-packet one-way delay: 38.573 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 58.21 Mbit/s
95th percentile per-packet one-way delay: 38.156 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 39.387 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 22.94 Mbit/s
95th percentile per-packet one-way delay: 37.783 ms
Loss rate: 0.09%
```

Run 3: Report of Copa — Data Link



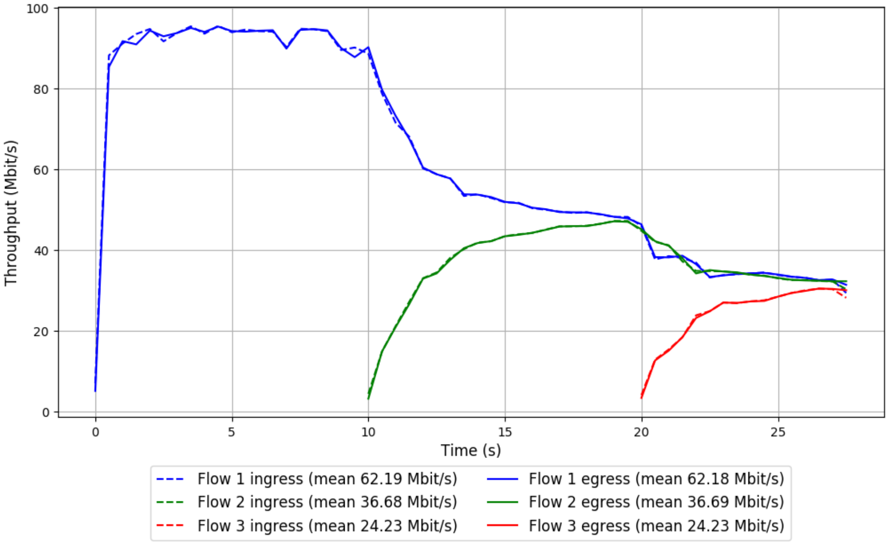


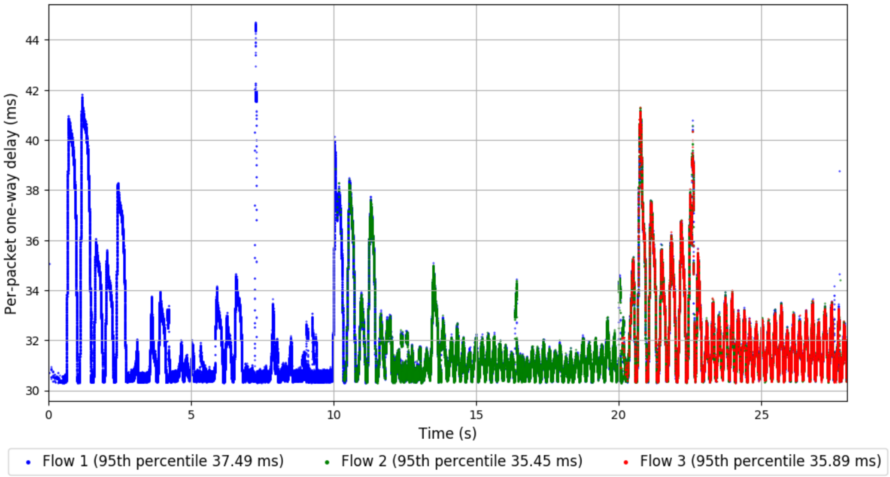
```
Run 4: Statistics of Copa

Start at: 2017-10-12 07:47:32
End at: 2017-10-12 07:48:02
Local clock offset: 0.743 ms
Remote clock offset: -1.356 ms

# Below is generated by plot.py at 2017-10-12 10:41:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.61 Mbit/s
95th percentile per-packet one-way delay: 37.077 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 62.18 Mbit/s
95th percentile per-packet one-way delay: 37.487 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 36.69 Mbit/s
95th percentile per-packet one-way delay: 35.455 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 35.889 ms
Loss rate: 0.04%
```

Run 4: Report of Copa — Data Link



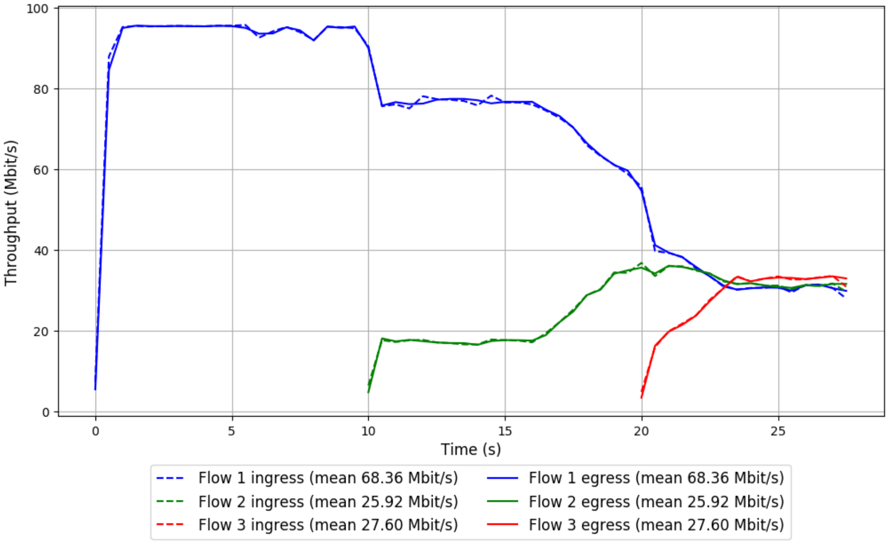


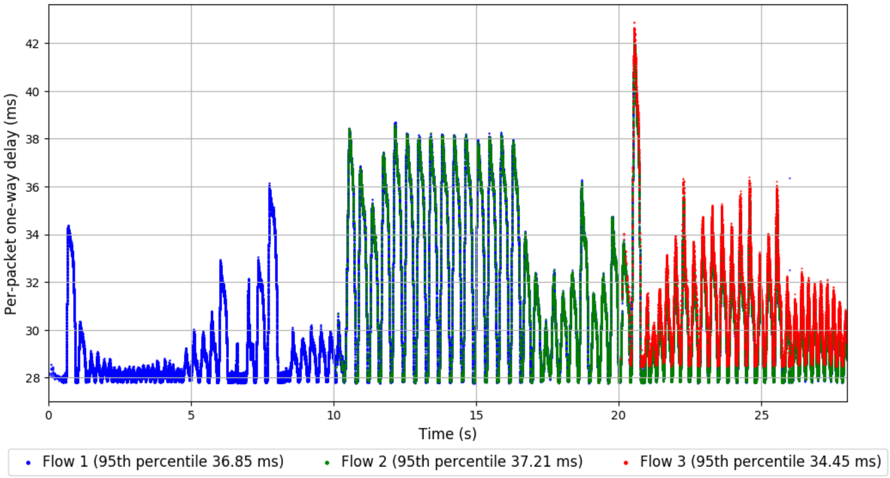
```
Run 5: Statistics of Copa

Start at: 2017-10-12 08:06:35
End at: 2017-10-12 08:07:05
Local clock offset: 0.782 ms
Remote clock offset: -3.832 ms

# Below is generated by plot.py at 2017-10-12 10:41:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.85 Mbit/s
95th percentile per-packet one-way delay: 36.818 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.36 Mbit/s
95th percentile per-packet one-way delay: 36.855 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.92 Mbit/s
95th percentile per-packet one-way delay: 37.206 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 27.60 Mbit/s
95th percentile per-packet one-way delay: 34.448 ms
Loss rate: 0.02%
```

Run 5: Report of Copa — Data Link



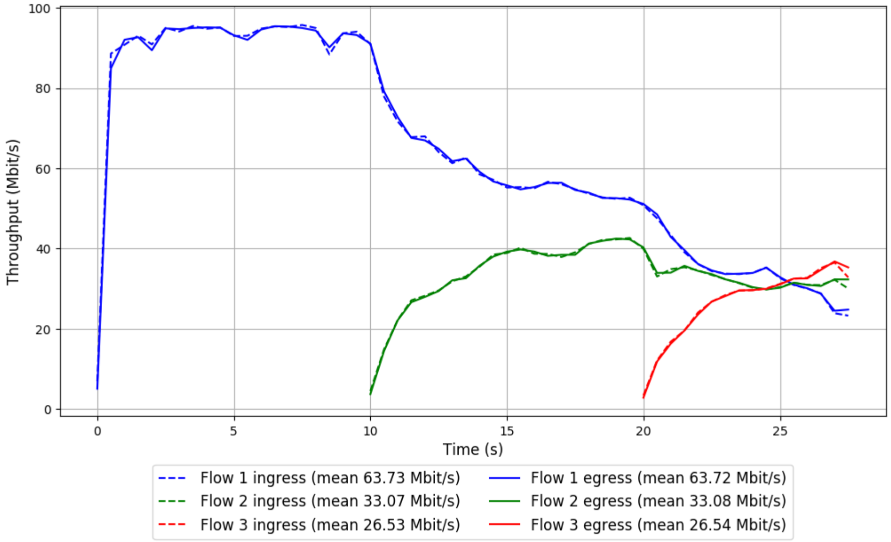


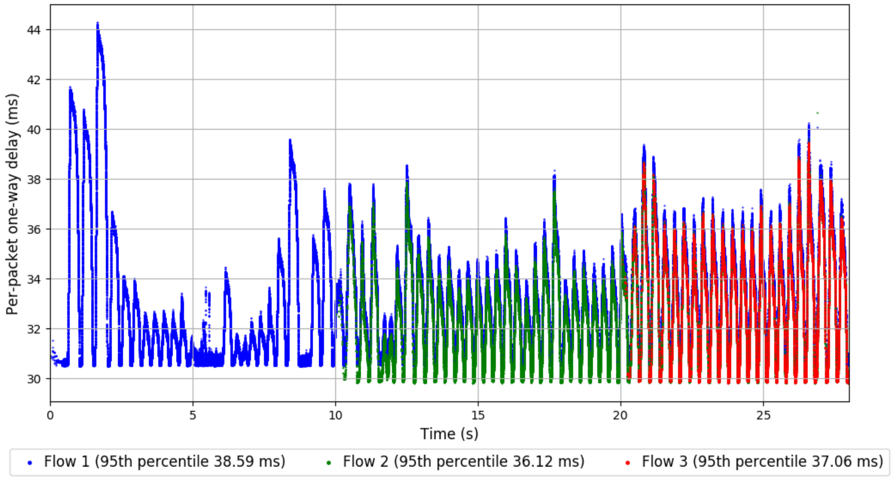
```
Run 6: Statistics of Copa

Start at: 2017-10-12 08:25:41
End at: 2017-10-12 08:26:11
Local clock offset: 0.89 ms
Remote clock offset: -1.713 ms

# Below is generated by plot.py at 2017-10-12 10:41:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 37.719 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 63.72 Mbit/s
95th percentile per-packet one-way delay: 38.593 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 36.124 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.54 Mbit/s
95th percentile per-packet one-way delay: 37.057 ms
Loss rate: 0.00%
```

Run 6: Report of Copa — Data Link



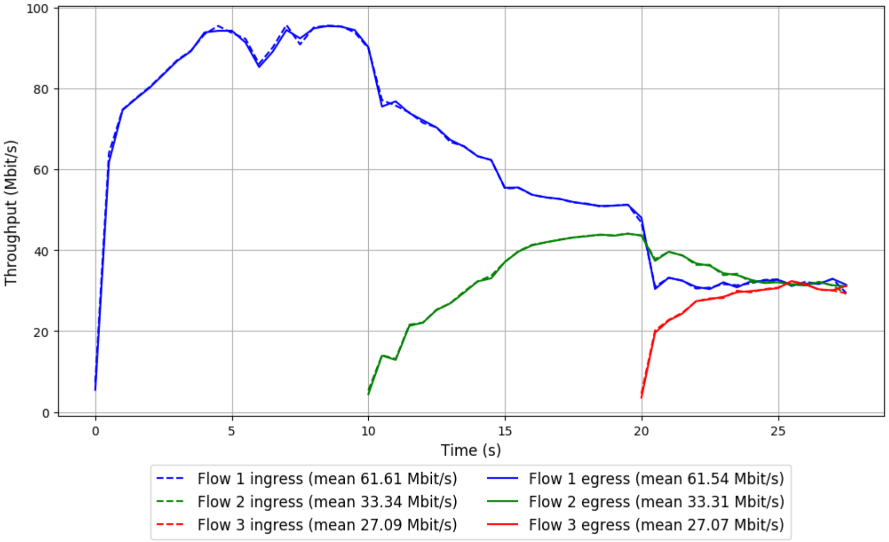


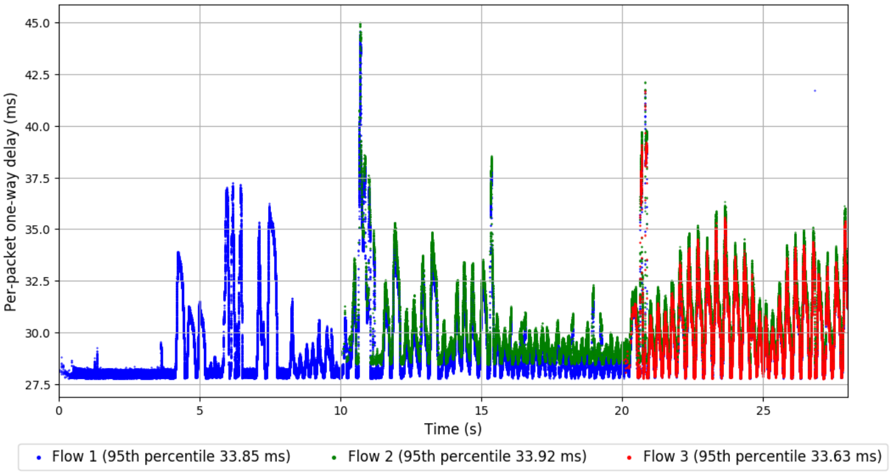
```
Run 7: Statistics of Copa

Start at: 2017-10-12 08:44:48
End at: 2017-10-12 08:45:18
Local clock offset: 0.884 ms
Remote clock offset: -3.674 ms

# Below is generated by plot.py at 2017-10-12 10:41:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.60 Mbit/s
95th percentile per-packet one-way delay: 33.849 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 61.54 Mbit/s
95th percentile per-packet one-way delay: 33.851 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 33.31 Mbit/s
95th percentile per-packet one-way delay: 33.923 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 27.07 Mbit/s
95th percentile per-packet one-way delay: 33.635 ms
Loss rate: 0.06%
```

Run 7: Report of Copa — Data Link



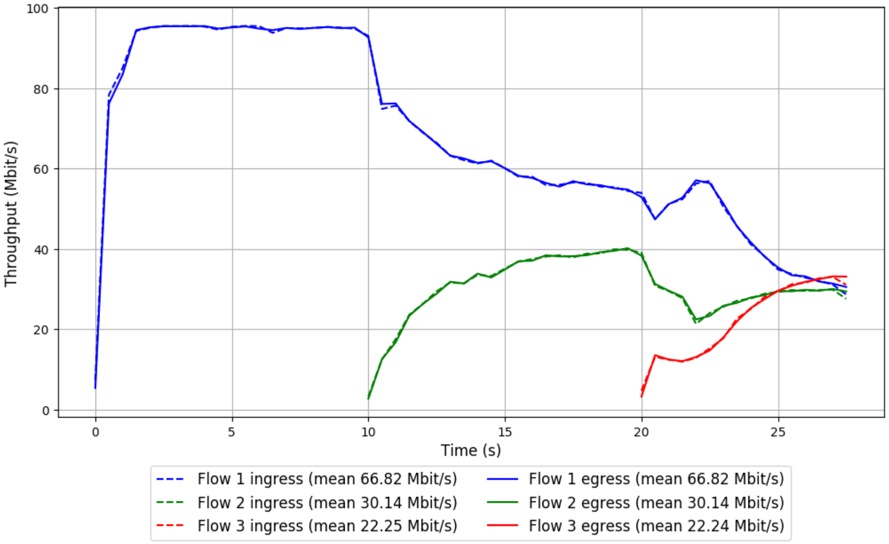


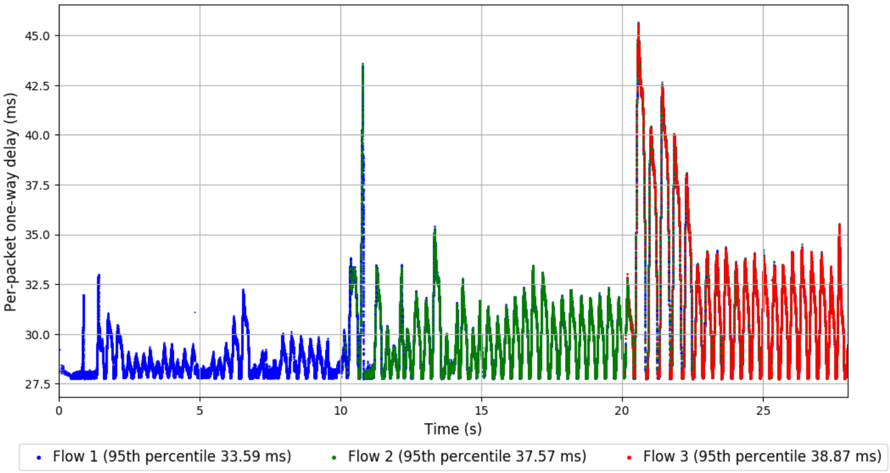
```
Run 8: Statistics of Copa

Start at: 2017-10-12 09:03:56
End at: 2017-10-12 09:04:26
Local clock offset: 0.783 ms
Remote clock offset: -3.554 ms

# Below is generated by plot.py at 2017-10-12 10:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.47 Mbit/s
95th percentile per-packet one-way delay: 34.786 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.82 Mbit/s
95th percentile per-packet one-way delay: 33.588 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 37.568 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.24 Mbit/s
95th percentile per-packet one-way delay: 38.872 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link



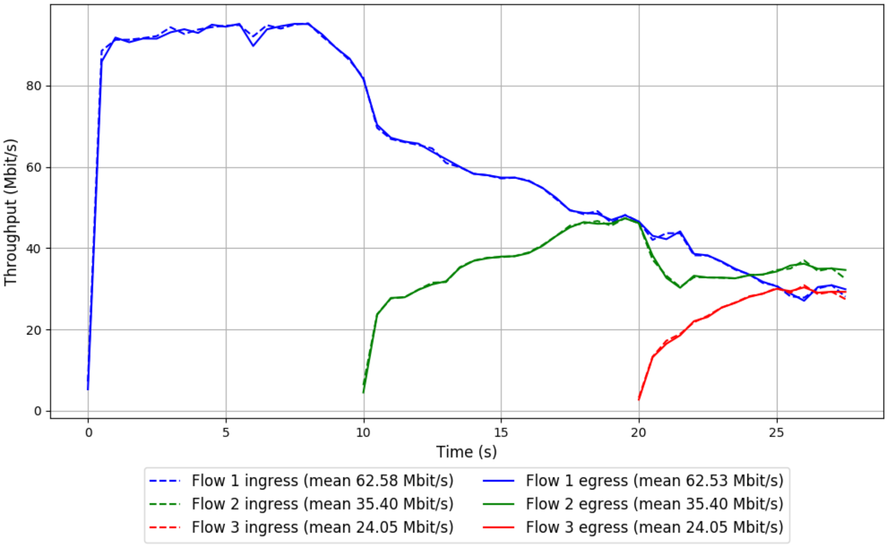


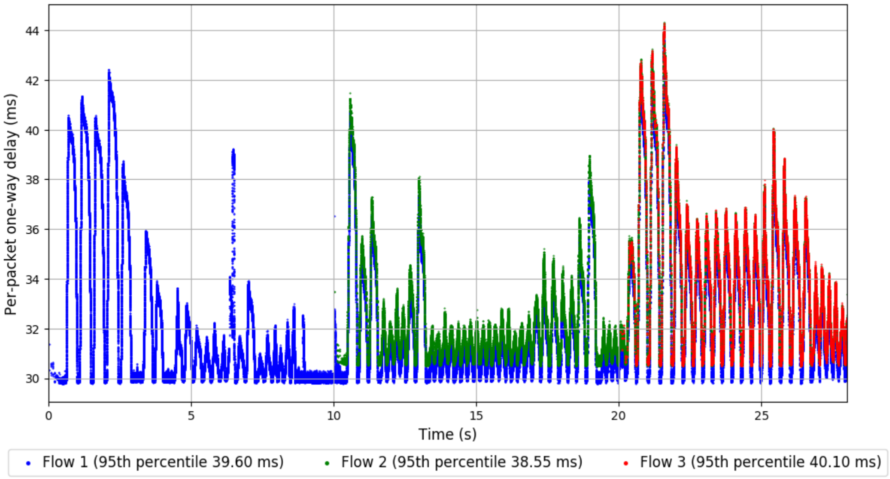
```
Run 9: Statistics of Copa

Start at: 2017-10-12 09:23:00
End at: 2017-10-12 09:23:30
Local clock offset: 0.781 ms
Remote clock offset: -1.362 ms

# Below is generated by plot.py at 2017-10-12 10:43:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.09 Mbit/s
95th percentile per-packet one-way delay: 39.514 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 62.53 Mbit/s
95th percentile per-packet one-way delay: 39.596 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 35.40 Mbit/s
95th percentile per-packet one-way delay: 38.545 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 40.097 ms
Loss rate: 0.01%
```

Run 9: Report of Copa — Data Link



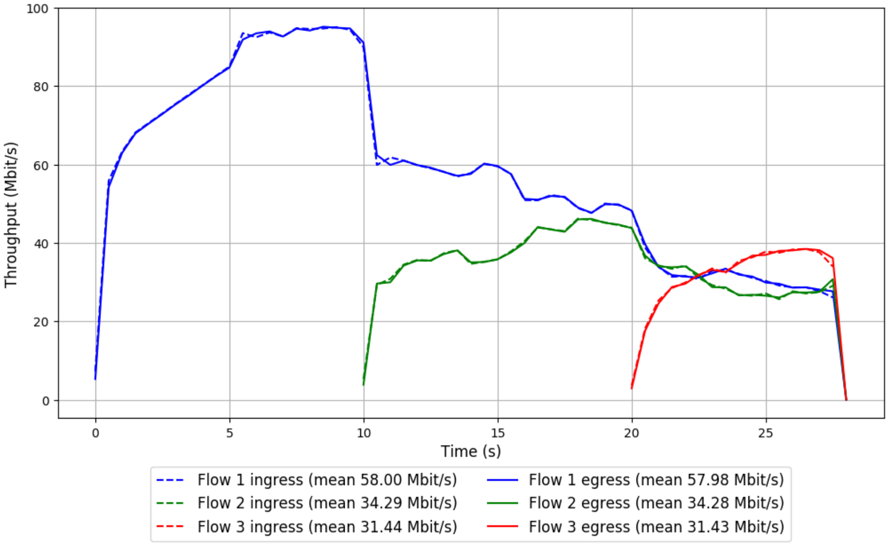


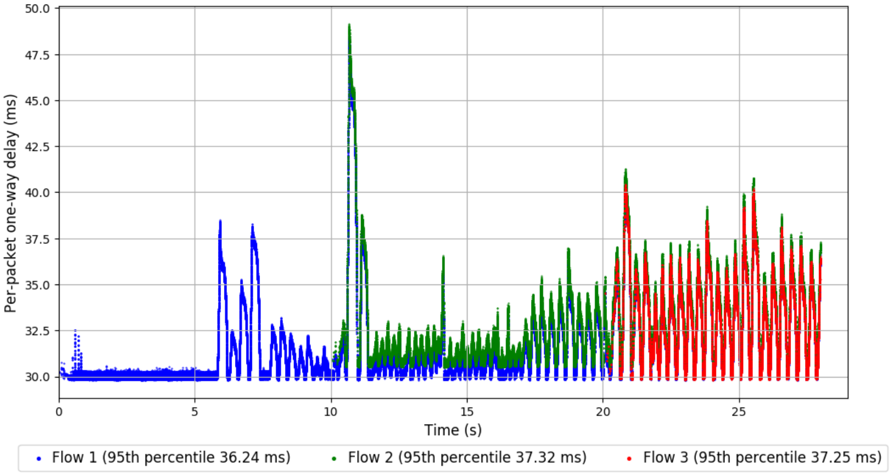
```
Run 10: Statistics of Copa

Start at: 2017-10-12 09:42:06
End at: 2017-10-12 09:42:36
Local clock offset: 0.529 ms
Remote clock offset: -1.44 ms

# Below is generated by plot.py at 2017-10-12 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.89 Mbit/s
95th percentile per-packet one-way delay: 36.713 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 36.240 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.28 Mbit/s
95th percentile per-packet one-way delay: 37.317 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 37.250 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link



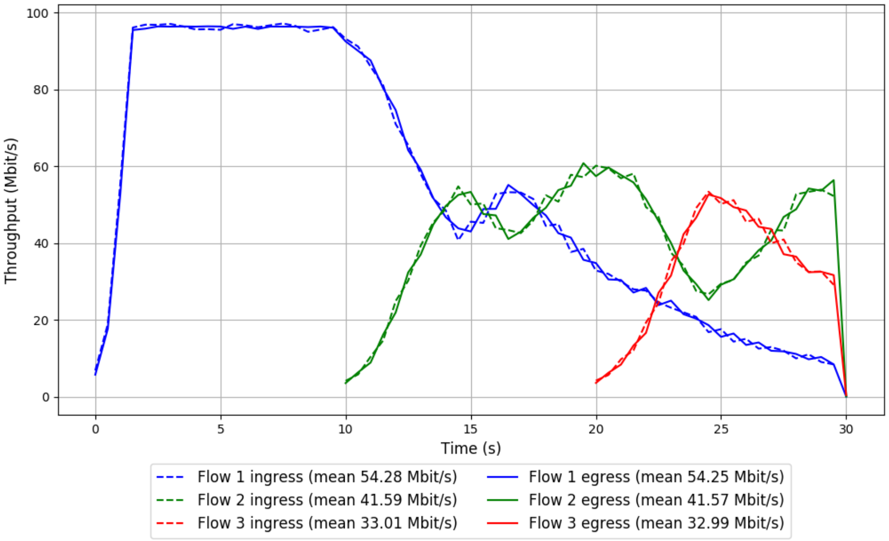


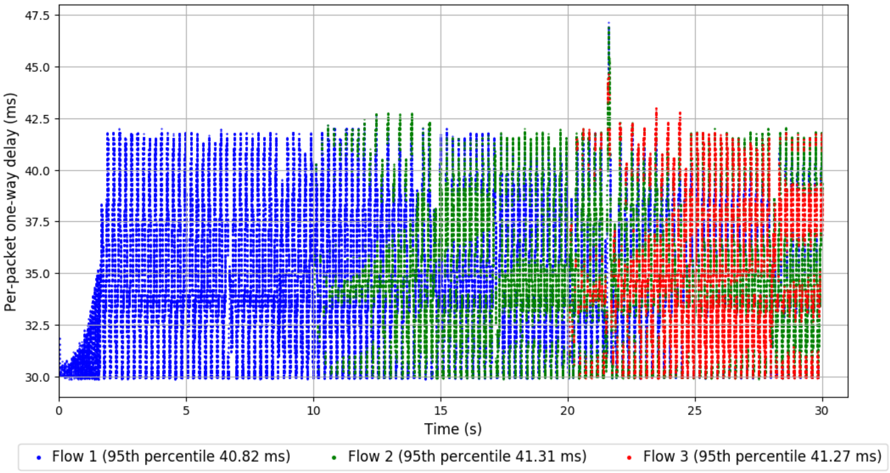
```
Run 1: Statistics of CalibratedKoho

Start at: 2017-10-12 06:53:02
End at: 2017-10-12 06:53:32
Local clock offset: 0.009 ms
Remote clock offset: -1.99 ms

# Below is generated by plot.py at 2017-10-12 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 41.047 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 54.25 Mbit/s
95th percentile per-packet one-way delay: 40.816 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 41.57 Mbit/s
95th percentile per-packet one-way delay: 41.308 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 32.99 Mbit/s
95th percentile per-packet one-way delay: 41.272 ms
Loss rate: 0.01%
```

Run 1: Report of CalibratedKoho — Data Link



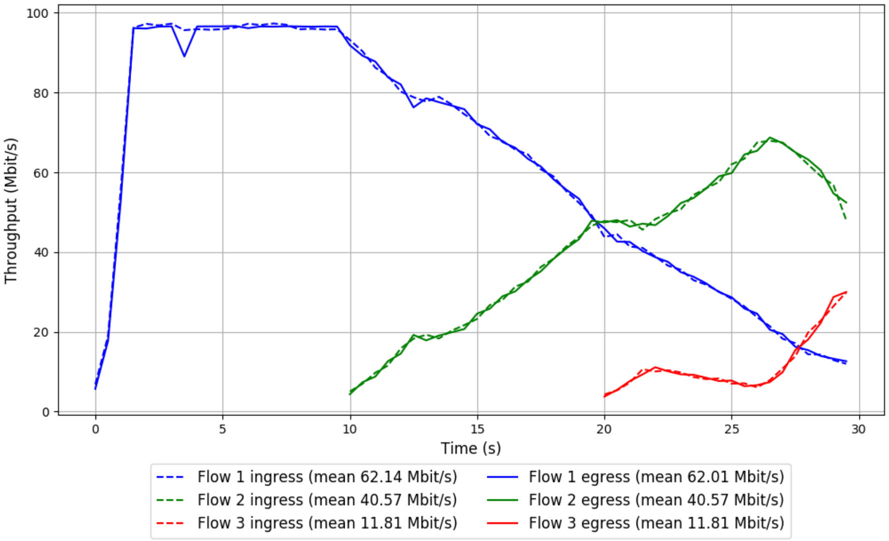


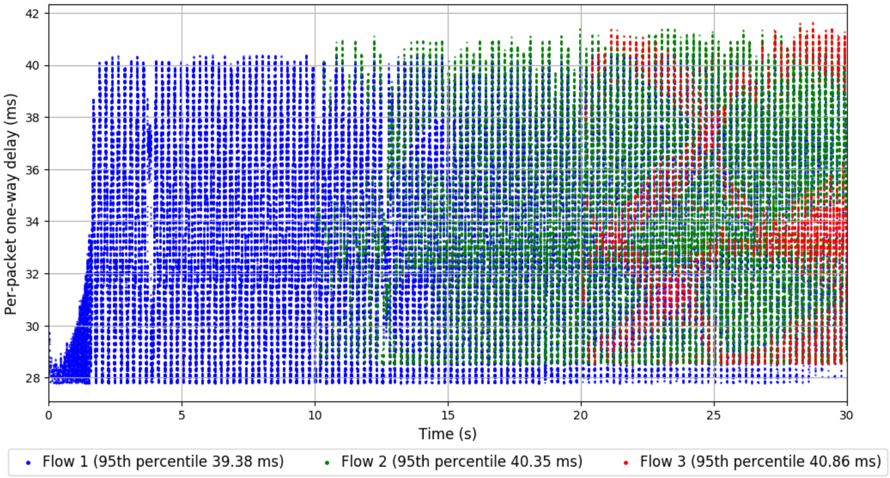
```
Run 2: Statistics of CalibratedKoho

Start at: 2017-10-12 07:12:04
End at: 2017-10-12 07:12:35
Local clock offset: 0.258 ms
Remote clock offset: -4.297 ms

# Below is generated by plot.py at 2017-10-12 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.93 Mbit/s
95th percentile per-packet one-way delay: 39.826 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 62.01 Mbit/s
95th percentile per-packet one-way delay: 39.379 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 40.57 Mbit/s
95th percentile per-packet one-way delay: 40.350 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 40.864 ms
Loss rate: 0.00%
```

Run 2: Report of CalibratedKoho — Data Link



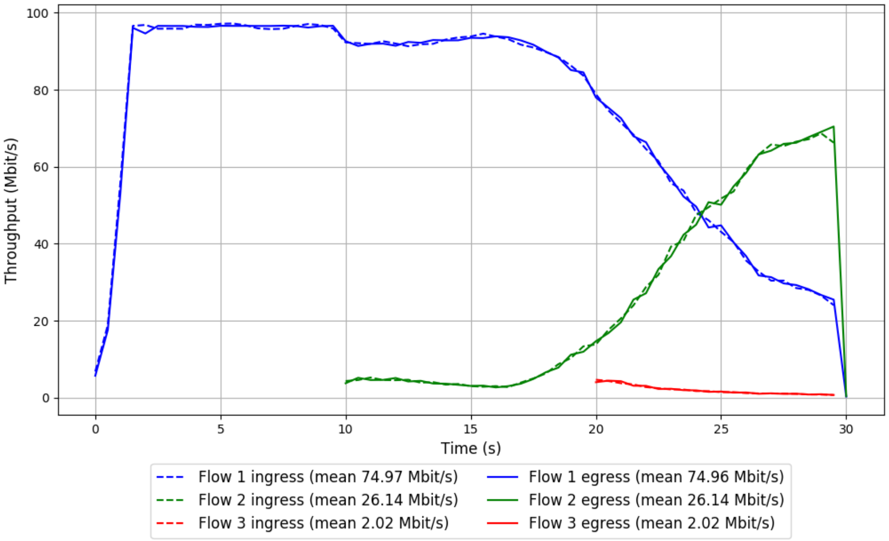


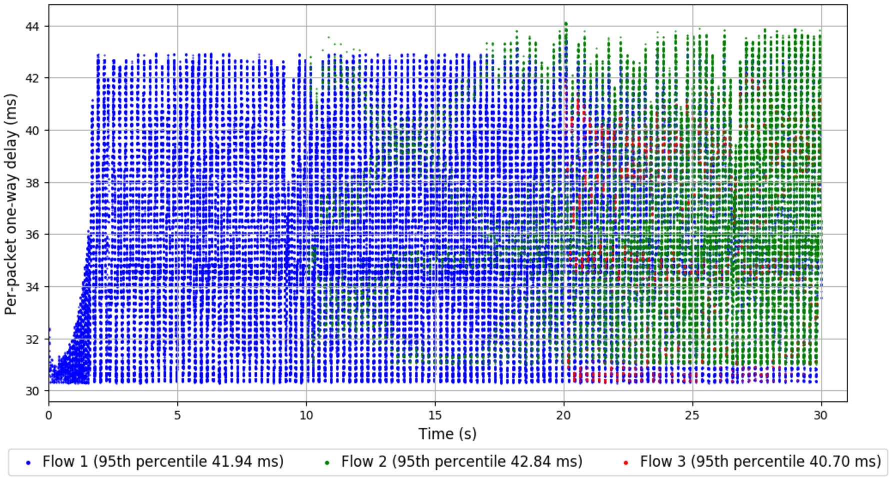
```
Run 3: Statistics of CalibratedKoho

Start at: 2017-10-12 07:31:12
End at: 2017-10-12 07:31:42
Local clock offset: 0.583 ms
Remote clock offset: -1.44 ms

# Below is generated by plot.py at 2017-10-12 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.03 Mbit/s
95th percentile per-packet one-way delay: 42.157 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.96 Mbit/s
95th percentile per-packet one-way delay: 41.941 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.14 Mbit/s
95th percentile per-packet one-way delay: 42.840 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 40.695 ms
Loss rate: 0.00%
```

Run 3: Report of CalibratedKoho — Data Link



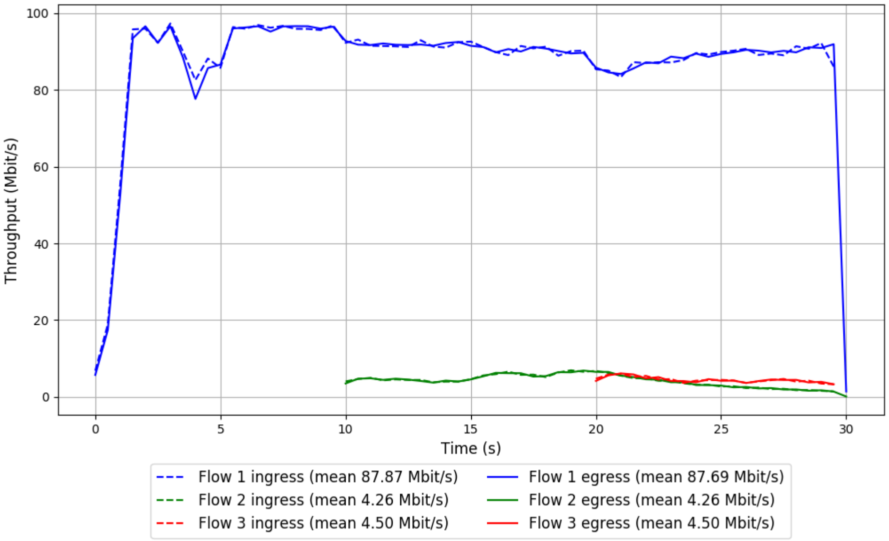


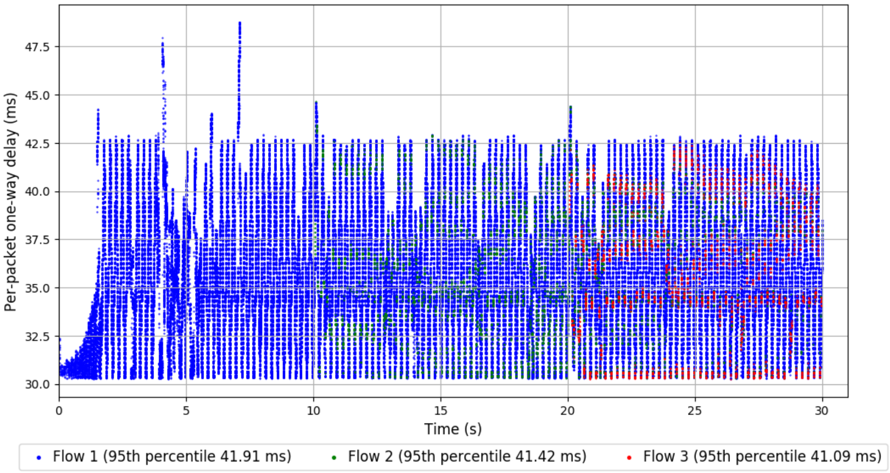
```
Run 4: Statistics of CalibratedKoho

Start at: 2017-10-12 07:50:19
End at: 2017-10-12 07:50:49
Local clock offset: 0.809 ms
Remote clock offset: -1.364 ms

# Below is generated by plot.py at 2017-10-12 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 41.903 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 87.69 Mbit/s
95th percentile per-packet one-way delay: 41.913 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 41.422 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 41.086 ms
Loss rate: 0.00%
```

Run 4: Report of CalibratedKoho — Data Link



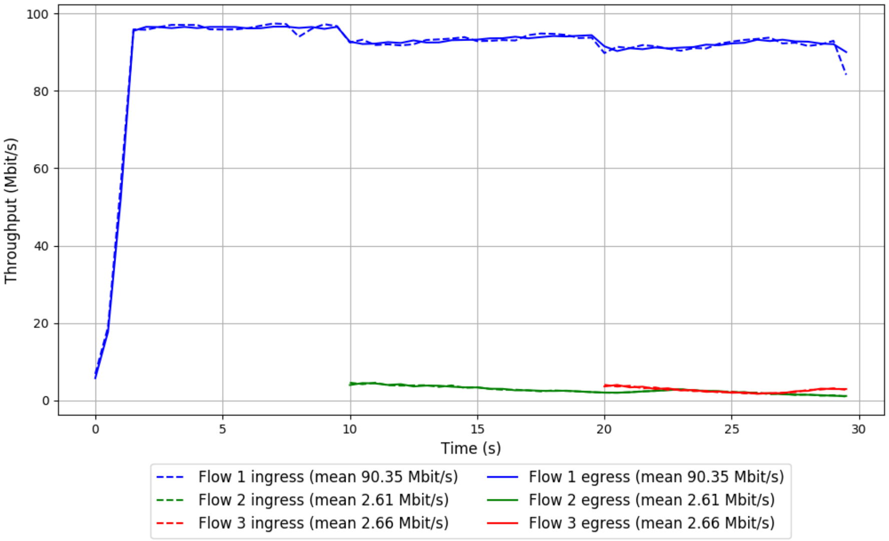


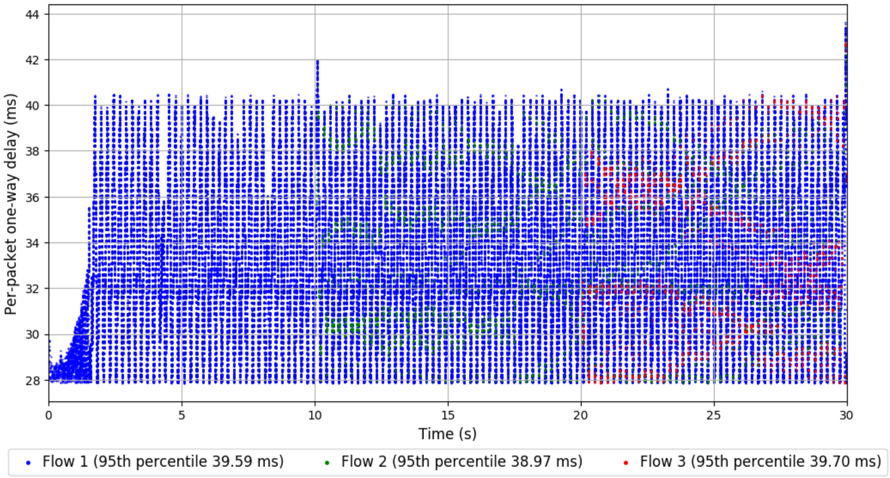
```
Run 5: Statistics of CalibratedKoho

Start at: 2017-10-12 08:09:22
End at: 2017-10-12 08:09:52
Local clock offset: 0.805 ms
Remote clock offset: -3.736 ms

# Below is generated by plot.py at 2017-10-12 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.97 Mbit/s
95th percentile per-packet one-way delay: 39.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 90.35 Mbit/s
95th percentile per-packet one-way delay: 39.589 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 38.973 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 39.705 ms
Loss rate: 0.00%
```

Run 5: Report of CalibratedKoho — Data Link



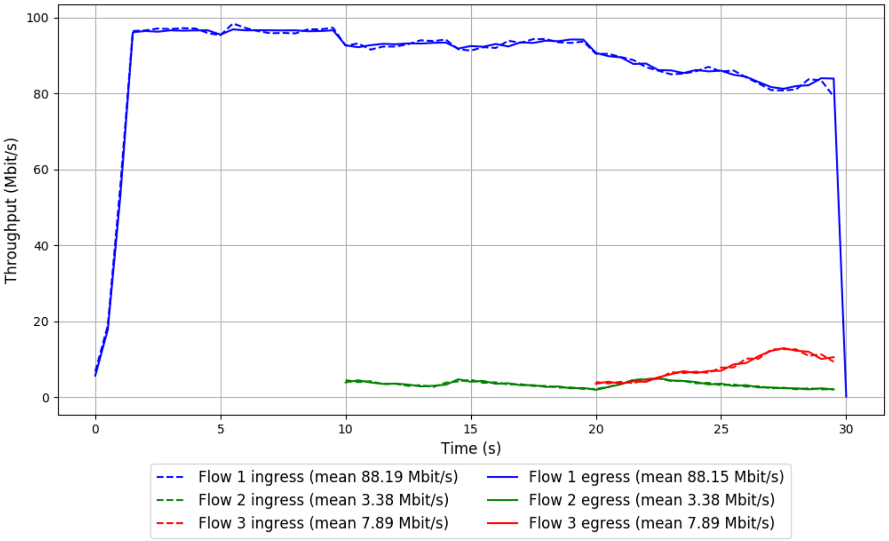


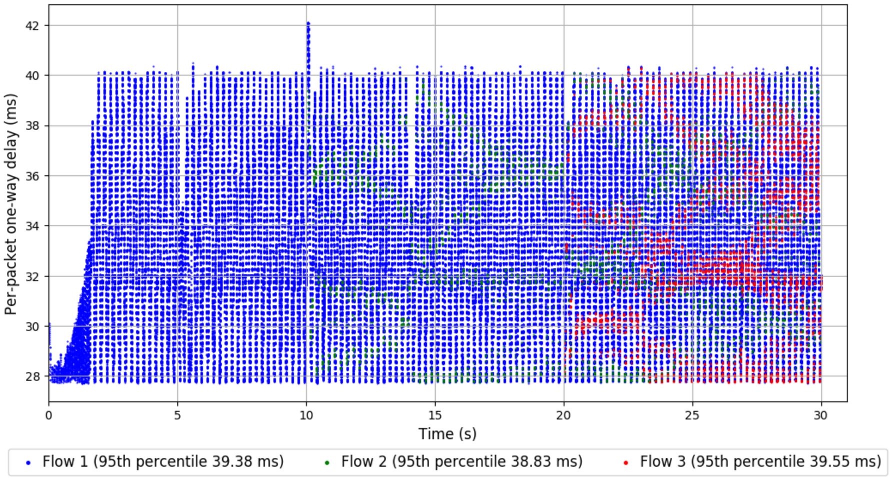
```
Run 6: Statistics of CalibratedKoho

Start at: 2017-10-12 08:28:29
End at: 2017-10-12 08:28:59
Local clock offset: 0.917 ms
Remote clock offset: -3.79 ms

# Below is generated by plot.py at 2017-10-12 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 39.374 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 88.15 Mbit/s
95th percentile per-packet one-way delay: 39.376 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 38.829 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 39.545 ms
Loss rate: 0.00%
```

Run 6: Report of CalibratedKoho — Data Link



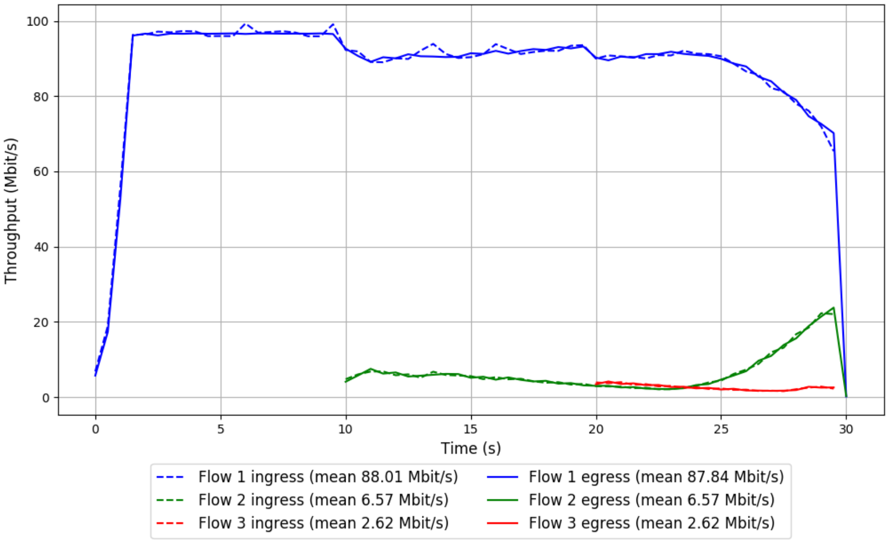


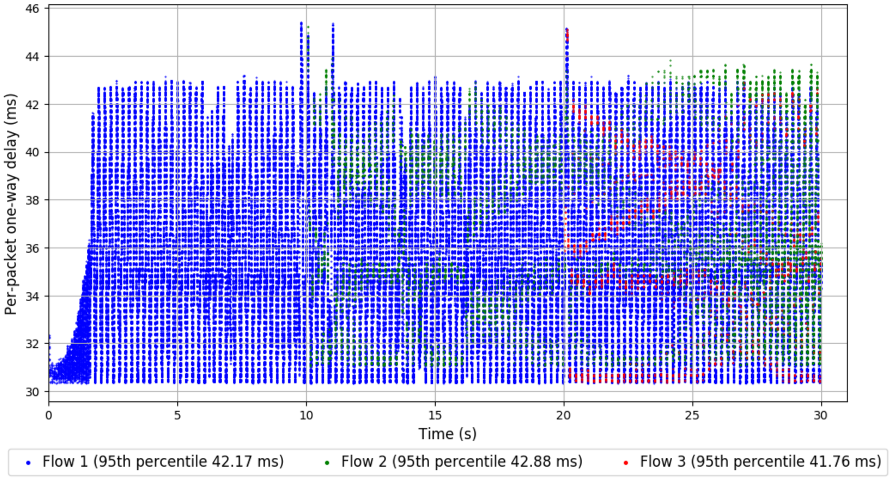
```
Run 7: Statistics of CalibratedKoho

Start at: 2017-10-12 08:47:35
End at: 2017-10-12 08:48:05
Local clock offset: 0.888 ms
Remote clock offset: -1.074 ms

# Below is generated by plot.py at 2017-10-12 10:44:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.08 Mbit/s
95th percentile per-packet one-way delay: 42.183 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 87.84 Mbit/s
95th percentile per-packet one-way delay: 42.170 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 42.875 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 41.761 ms
Loss rate: 0.00%
```

Run 7: Report of CalibratedKoho — Data Link



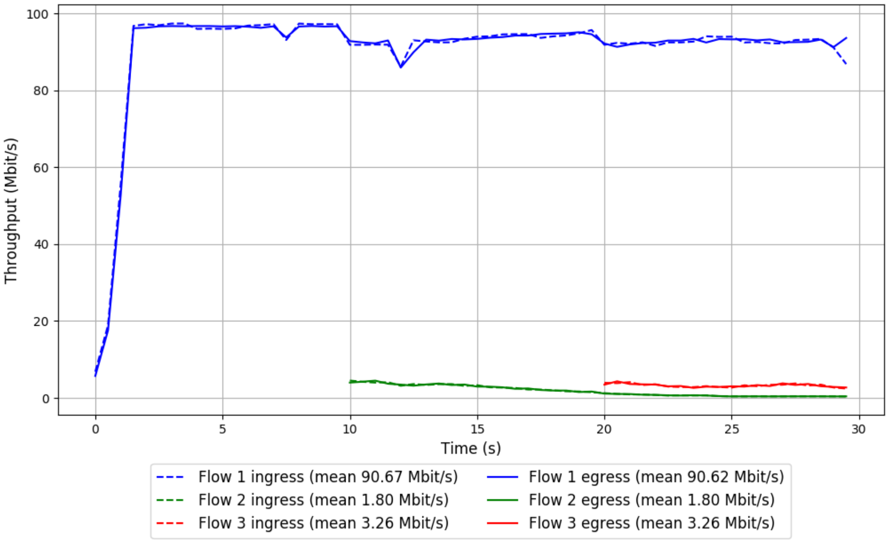


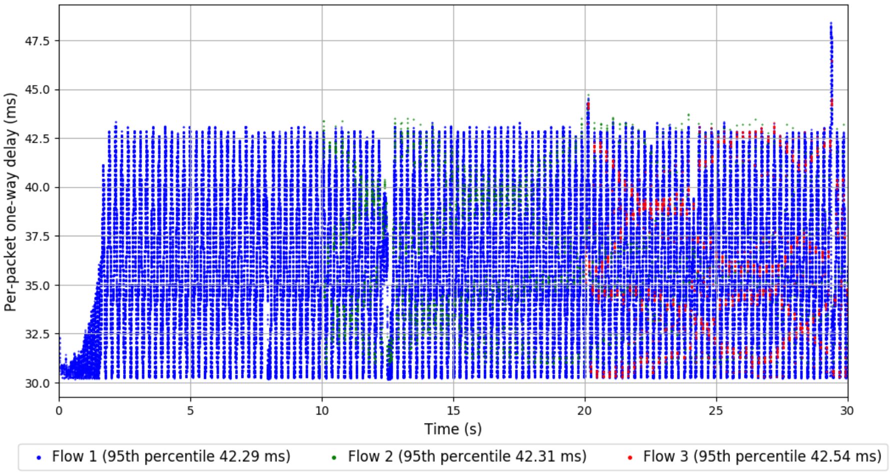
```
Run 8: Statistics of CalibratedKoho

Start at: 2017-10-12 09:06:43
End at: 2017-10-12 09:07:13
Local clock offset: 0.845 ms
Remote clock offset: -1.049 ms

# Below is generated by plot.py at 2017-10-12 10:44:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.89 Mbit/s
95th percentile per-packet one-way delay: 42.295 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 90.62 Mbit/s
95th percentile per-packet one-way delay: 42.293 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 42.314 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 42.537 ms
Loss rate: 0.00%
```

Run 8: Report of CalibratedKoho — Data Link



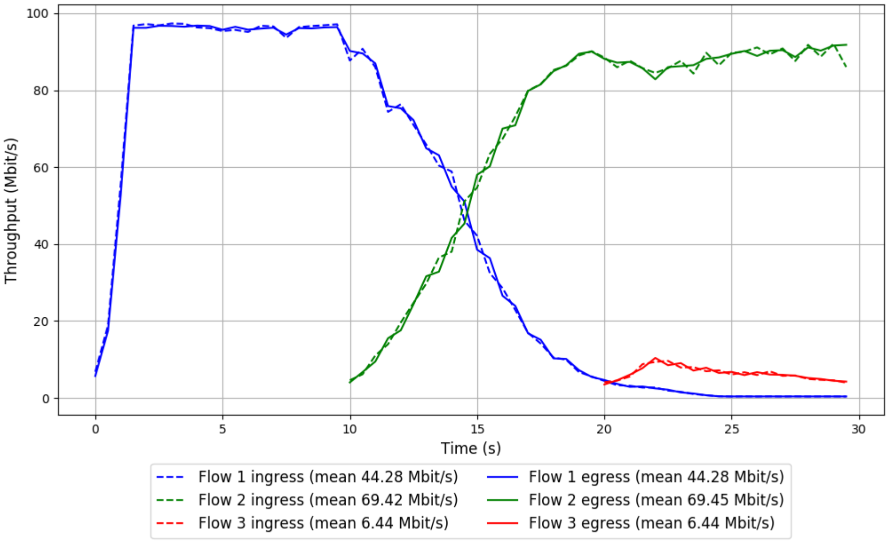


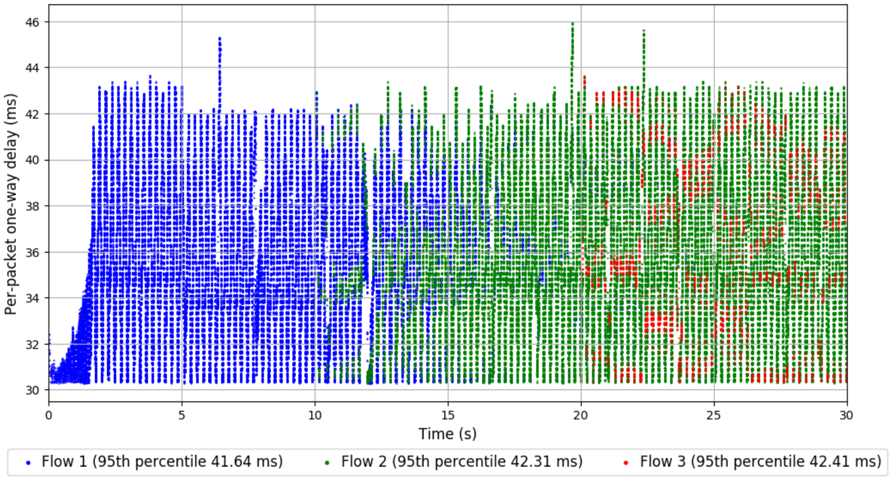
```
Run 9: Statistics of CalibratedKoho

Start at: 2017-10-12 09:25:47
End at: 2017-10-12 09:26:17
Local clock offset: 0.695 ms
Remote clock offset: -0.994 ms

# Below is generated by plot.py at 2017-10-12 10:44:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.59 Mbit/s
95th percentile per-packet one-way delay: 41.930 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.28 Mbit/s
95th percentile per-packet one-way delay: 41.637 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.45 Mbit/s
95th percentile per-packet one-way delay: 42.307 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 42.408 ms
Loss rate: 0.00%
```

Run 9: Report of CalibratedKoho — Data Link



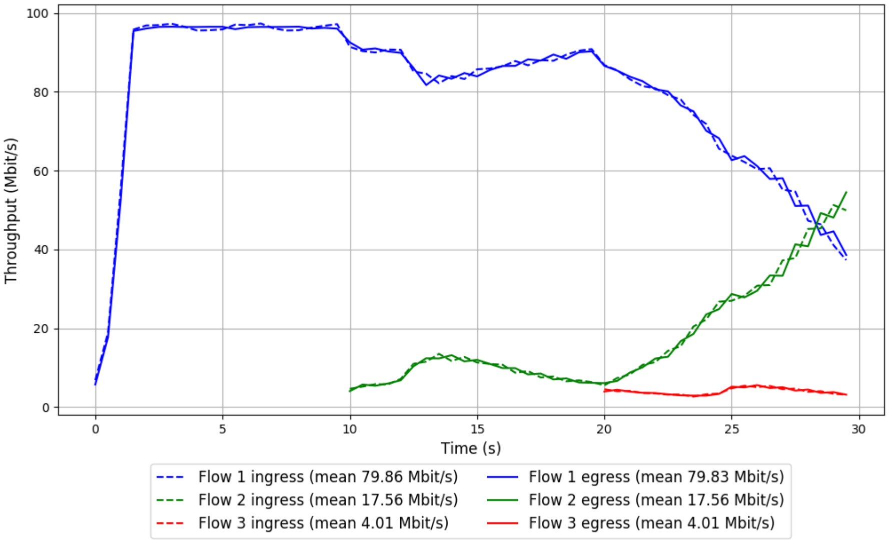


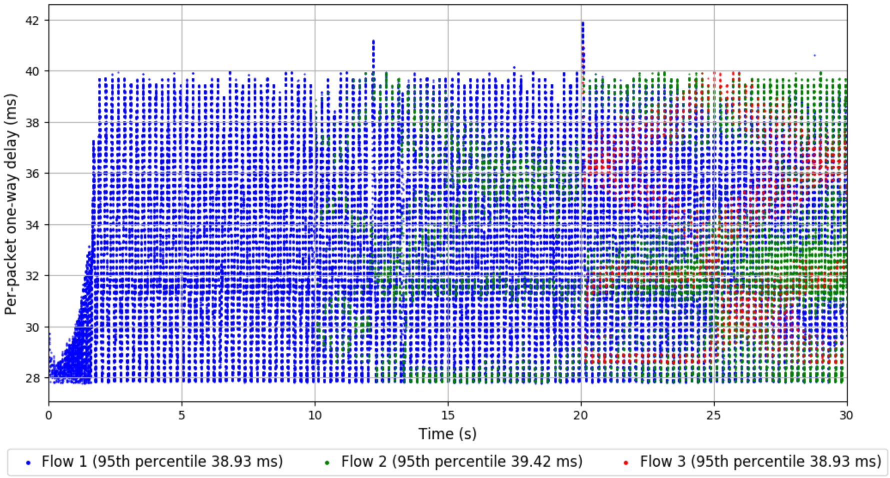
```
Run 10: Statistics of CalibratedKoho

Start at: 2017-10-12 09:44:52
End at: 2017-10-12 09:45:22
Local clock offset: 0.501 ms
Remote clock offset: -3.512 ms

# Below is generated by plot.py at 2017-10-12 10:44:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 38.966 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 79.83 Mbit/s
95th percentile per-packet one-way delay: 38.930 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 17.56 Mbit/s
95th percentile per-packet one-way delay: 39.417 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 38.933 ms
Loss rate: 0.00%
```

Run 10: Report of CalibratedKoho — Data Link



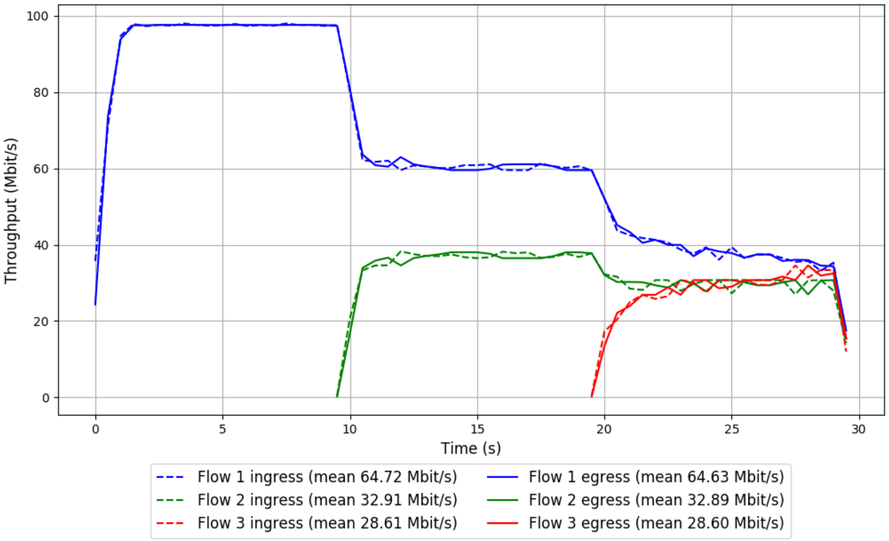


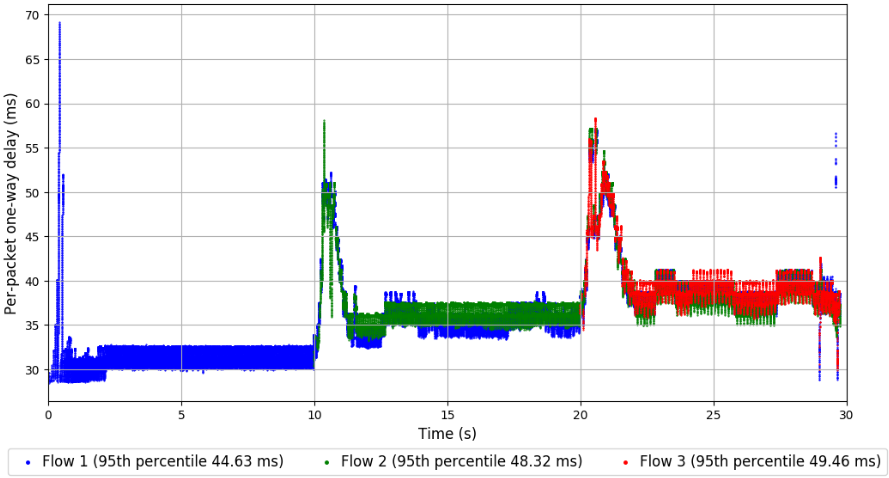
```
Run 1: Statistics of Indigo

Start at: 2017-10-12 07:03:56
End at: 2017-10-12 07:04:26
Local clock offset: 0.136 ms
Remote clock offset: -4.106 ms

# Below is generated by plot.py at 2017-10-12 10:44:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.89 Mbit/s
95th percentile per-packet one-way delay: 46.499 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 64.63 Mbit/s
95th percentile per-packet one-way delay: 44.630 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 32.89 Mbit/s
95th percentile per-packet one-way delay: 48.317 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 28.60 Mbit/s
95th percentile per-packet one-way delay: 49.457 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



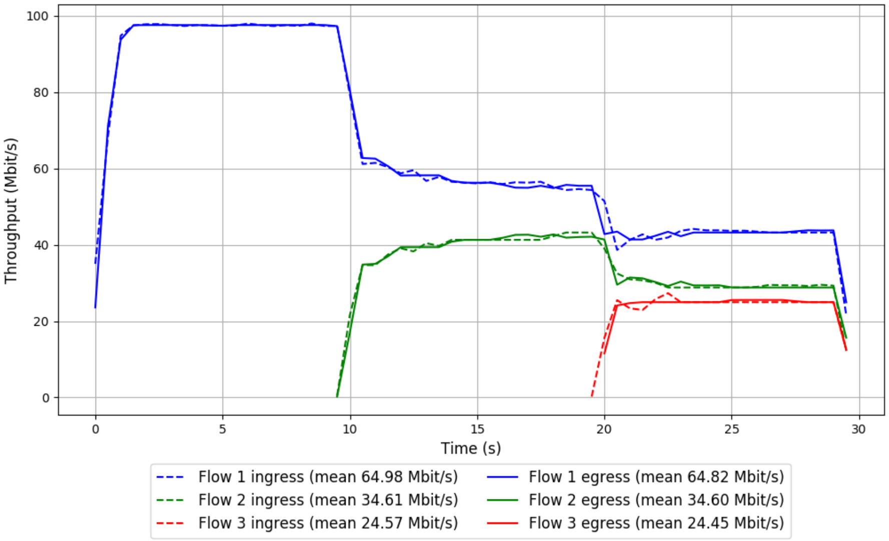


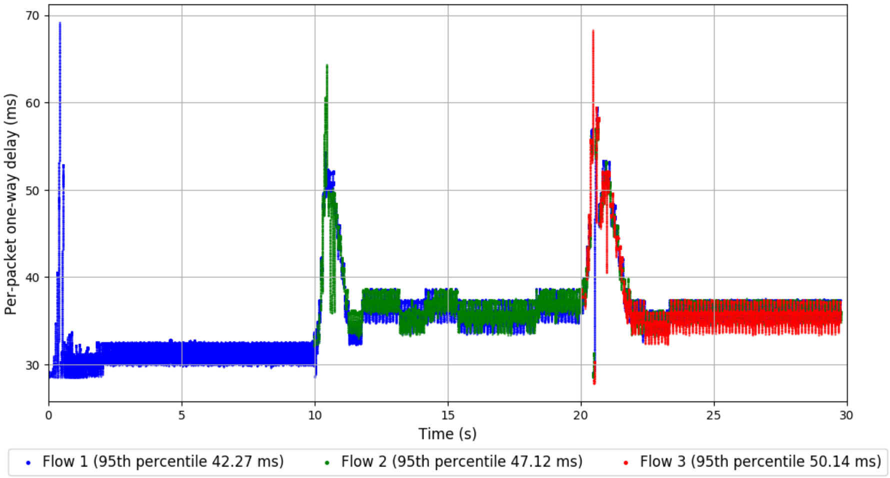
```
Run 2: Statistics of Indigo

Start at: 2017-10-12 07:23:00
End at: 2017-10-12 07:23:30
Local clock offset: 0.494 ms
Remote clock offset: -3.996 ms

# Below is generated by plot.py at 2017-10-12 10:45:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 45.708 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 64.82 Mbit/s
95th percentile per-packet one-way delay: 42.265 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 34.60 Mbit/s
95th percentile per-packet one-way delay: 47.125 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 50.143 ms
Loss rate: 0.48%
```

Run 2: Report of Indigo — Data Link



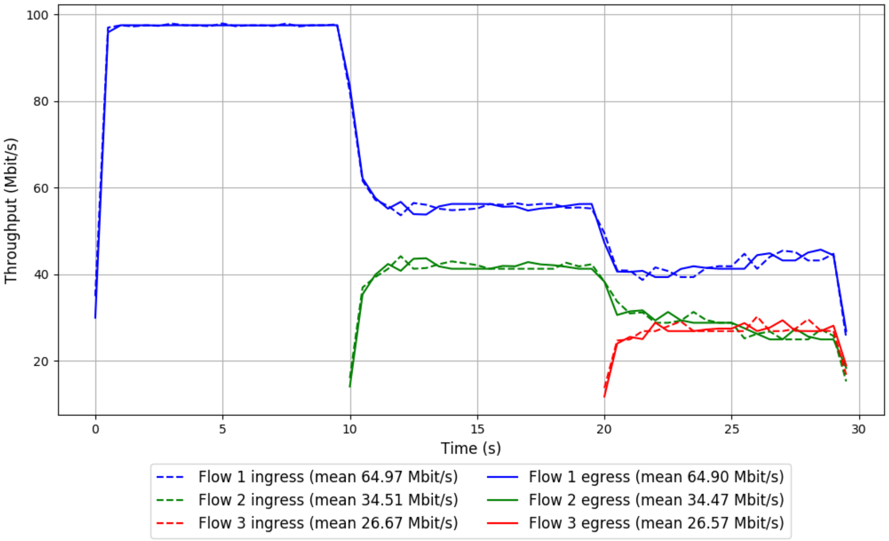


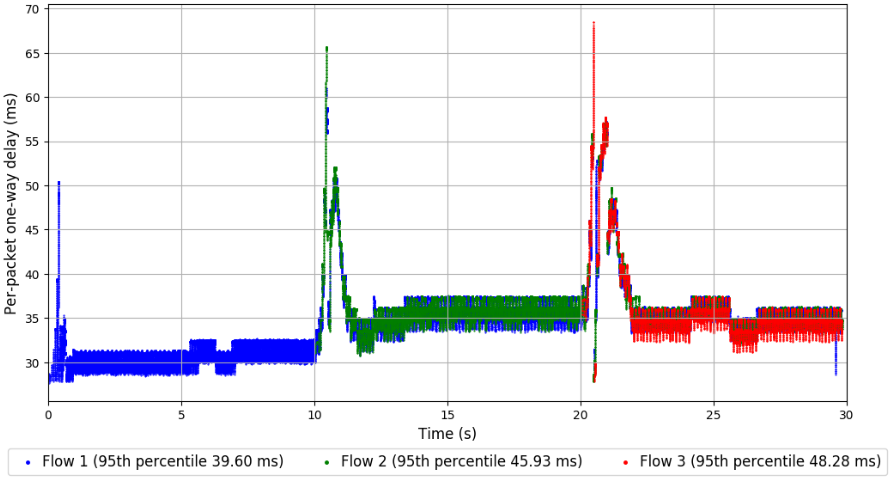
```
Run 3: Statistics of Indigo

Start at: 2017-10-12 07:42:09
End at: 2017-10-12 07:42:39
Local clock offset: 0.607 ms
Remote clock offset: -3.946 ms

# Below is generated by plot.py at 2017-10-12 10:45:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.41 Mbit/s
95th percentile per-packet one-way delay: 43.279 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 64.90 Mbit/s
95th percentile per-packet one-way delay: 39.598 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 34.47 Mbit/s
95th percentile per-packet one-way delay: 45.932 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 26.57 Mbit/s
95th percentile per-packet one-way delay: 48.285 ms
Loss rate: 0.38%
```

Run 3: Report of Indigo — Data Link



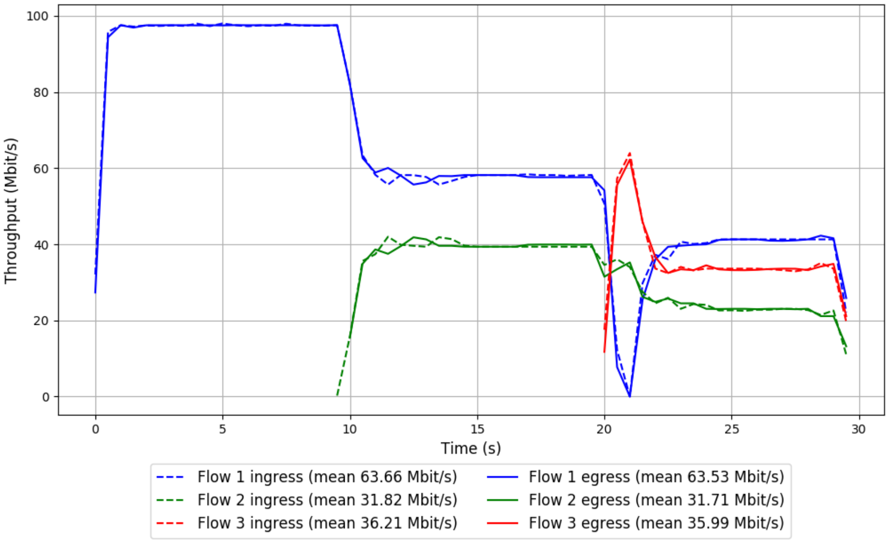


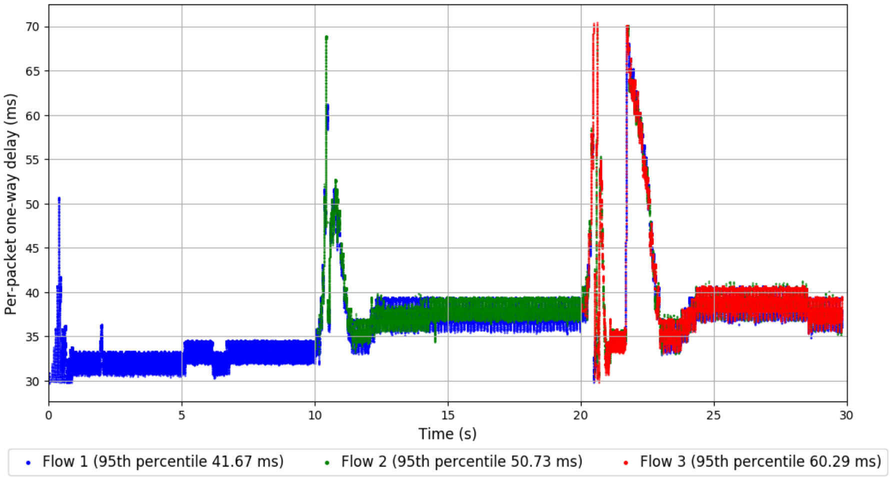
```
Run 4: Statistics of Indigo

Start at: 2017-10-12 08:01:13
End at: 2017-10-12 08:01:43
Local clock offset: 0.782 ms
Remote clock offset: -1.793 ms

# Below is generated by plot.py at 2017-10-12 10:45:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.36 Mbit/s
95th percentile per-packet one-way delay: 47.935 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 63.53 Mbit/s
95th percentile per-packet one-way delay: 41.669 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 50.726 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 35.99 Mbit/s
95th percentile per-packet one-way delay: 60.290 ms
Loss rate: 0.61%
```

Run 4: Report of Indigo — Data Link



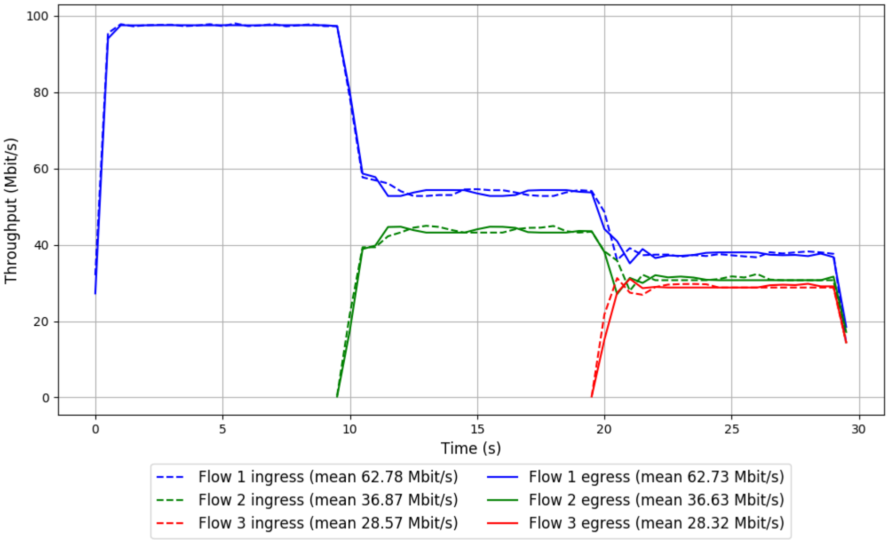


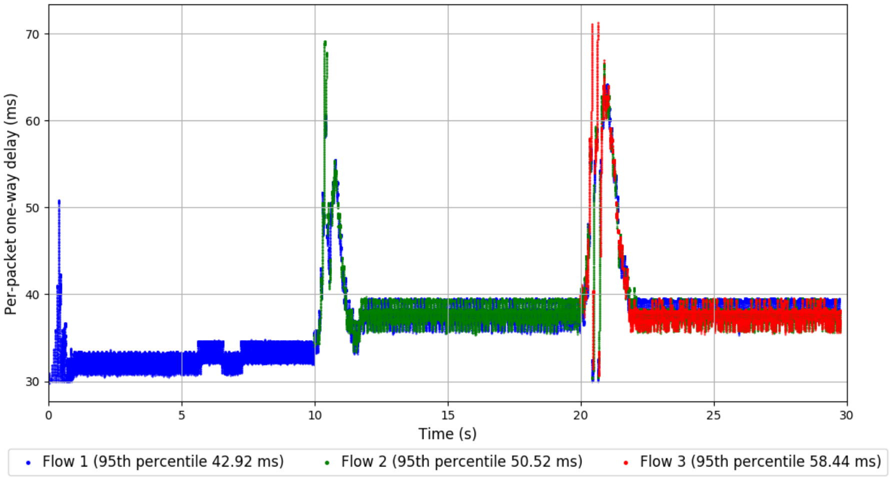
```
Run 5: Statistics of Indigo

Start at: 2017-10-12 08:20:17
End at: 2017-10-12 08:20:47
Local clock offset: 0.843 ms
Remote clock offset: -1.597 ms

# Below is generated by plot.py at 2017-10-12 10:45:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.35 Mbit/s
95th percentile per-packet one-way delay: 47.800 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 62.73 Mbit/s
95th percentile per-packet one-way delay: 42.919 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 36.63 Mbit/s
95th percentile per-packet one-way delay: 50.518 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 28.32 Mbit/s
95th percentile per-packet one-way delay: 58.438 ms
Loss rate: 0.88%
```

Run 5: Report of Indigo — Data Link



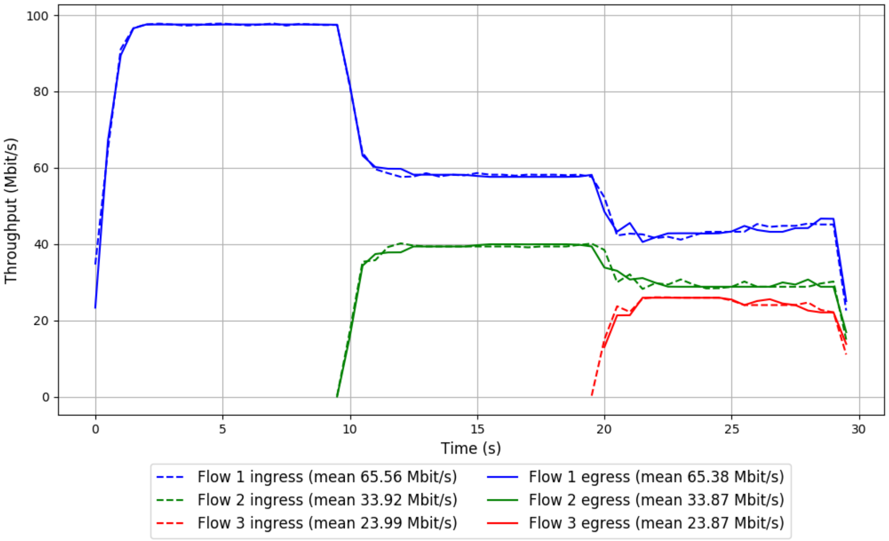


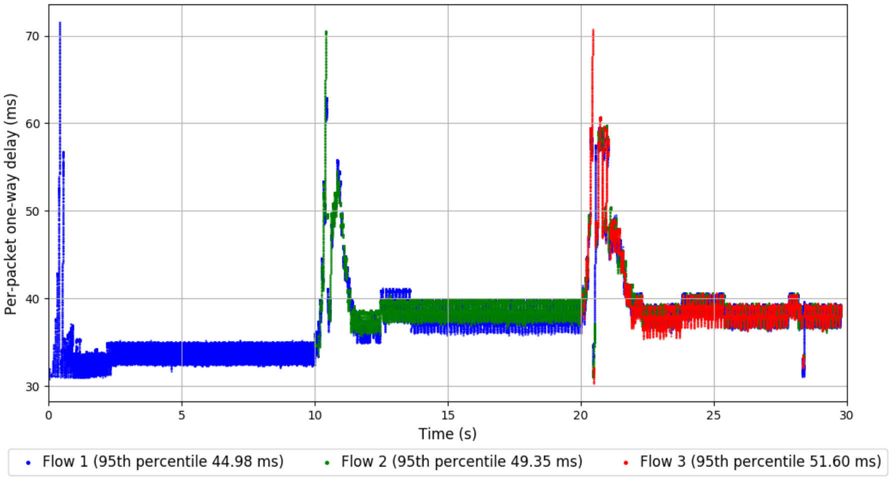
```
Run 6: Statistics of Indigo

Start at: 2017-10-12 08:39:24
End at: 2017-10-12 08:39:54
Local clock offset: 0.914 ms
Remote clock offset: -1.215 ms

# Below is generated by plot.py at 2017-10-12 10:45:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.68 Mbit/s
95th percentile per-packet one-way delay: 47.425 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 65.38 Mbit/s
95th percentile per-packet one-way delay: 44.976 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 33.87 Mbit/s
95th percentile per-packet one-way delay: 49.355 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 23.87 Mbit/s
95th percentile per-packet one-way delay: 51.605 ms
Loss rate: 0.48%
```

Run 6: Report of Indigo — Data Link



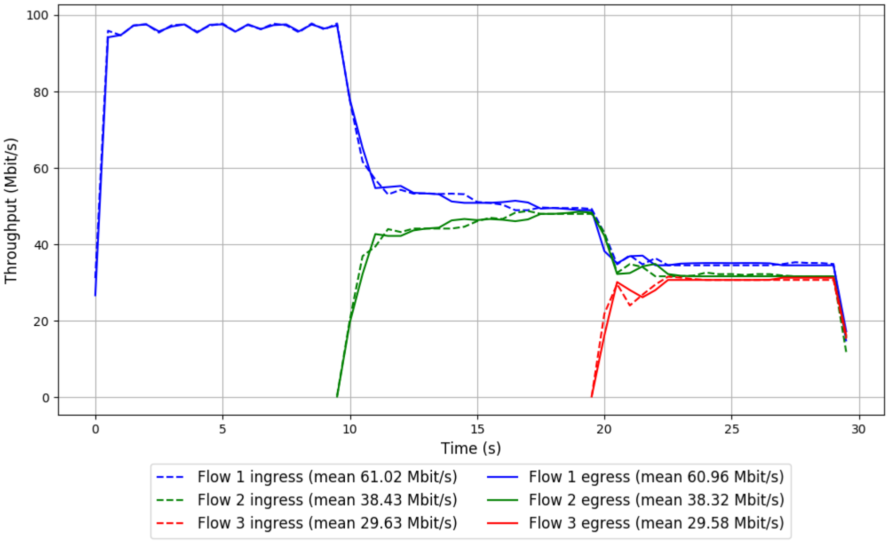


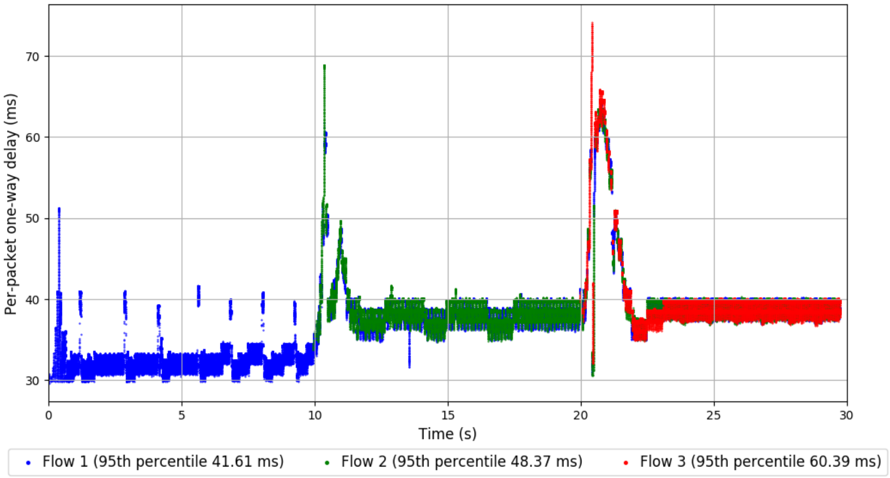
```
Run 7: Statistics of Indigo

Start at: 2017-10-12 08:58:32
End at: 2017-10-12 08:59:02
Local clock offset: 0.916 ms
Remote clock offset: -1.43 ms

# Below is generated by plot.py at 2017-10-12 10:45:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 45.946 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 60.96 Mbit/s
95th percentile per-packet one-way delay: 41.613 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 38.32 Mbit/s
95th percentile per-packet one-way delay: 48.368 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 60.394 ms
Loss rate: 0.19%
```

Run 7: Report of Indigo — Data Link



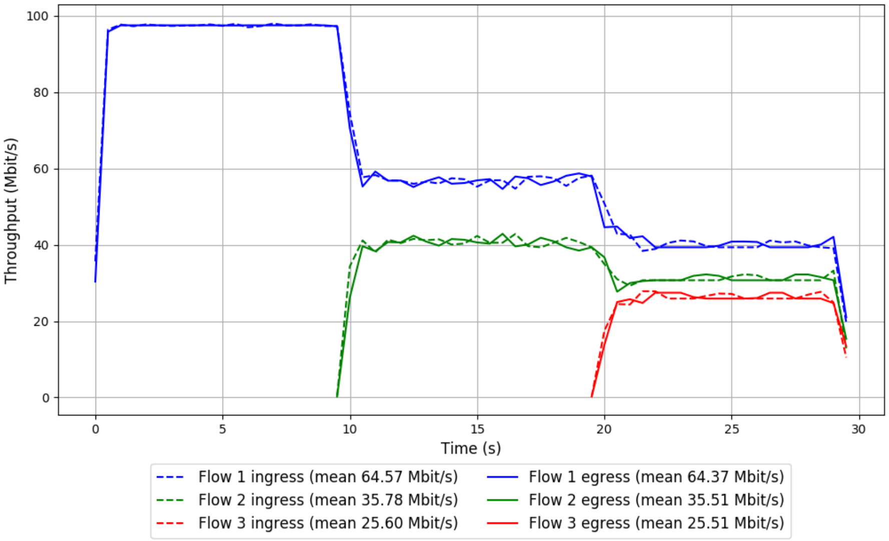


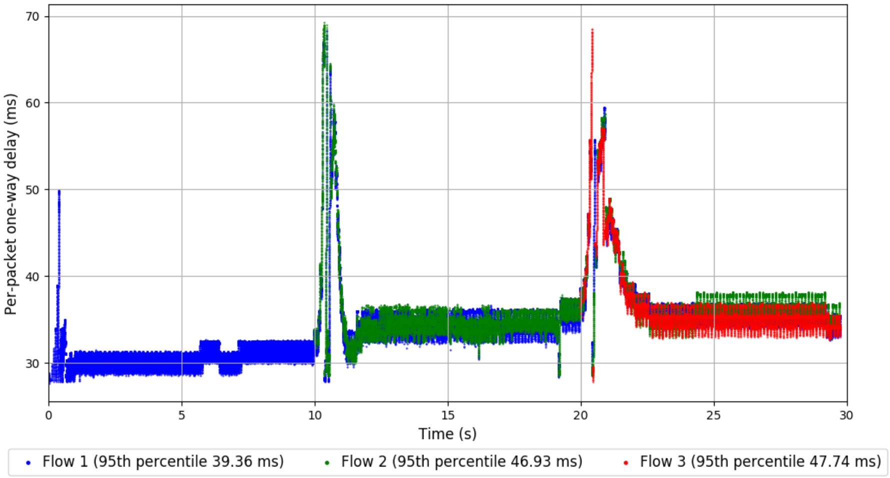
```
Run 8: Statistics of Indigo

Start at: 2017-10-12 09:17:38
End at: 2017-10-12 09:18:08
Local clock offset: 0.798 ms
Remote clock offset: -3.413 ms

# Below is generated by plot.py at 2017-10-12 10:45:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.36 Mbit/s
95th percentile per-packet one-way delay: 43.540 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 64.37 Mbit/s
95th percentile per-packet one-way delay: 39.361 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 46.929 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 25.51 Mbit/s
95th percentile per-packet one-way delay: 47.741 ms
Loss rate: 0.37%
```

Run 8: Report of Indigo — Data Link



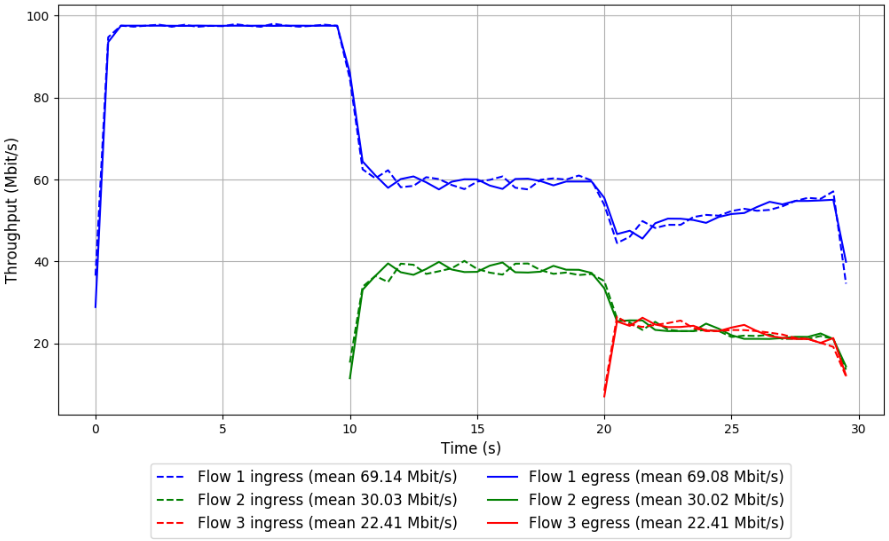


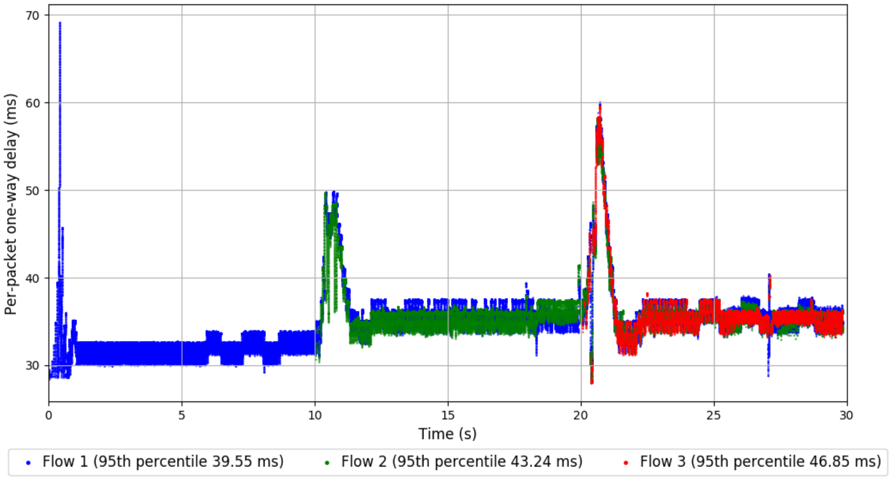
```
Run 9: Statistics of Indigo

Start at: 2017-10-12 09:36:42
End at: 2017-10-12 09:37:12
Local clock offset: 0.579 ms
Remote clock offset: -3.421 ms

# Below is generated by plot.py at 2017-10-12 10:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 40.963 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 69.08 Mbit/s
95th percentile per-packet one-way delay: 39.549 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 30.02 Mbit/s
95th percentile per-packet one-way delay: 43.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.41 Mbit/s
95th percentile per-packet one-way delay: 46.848 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo — Data Link



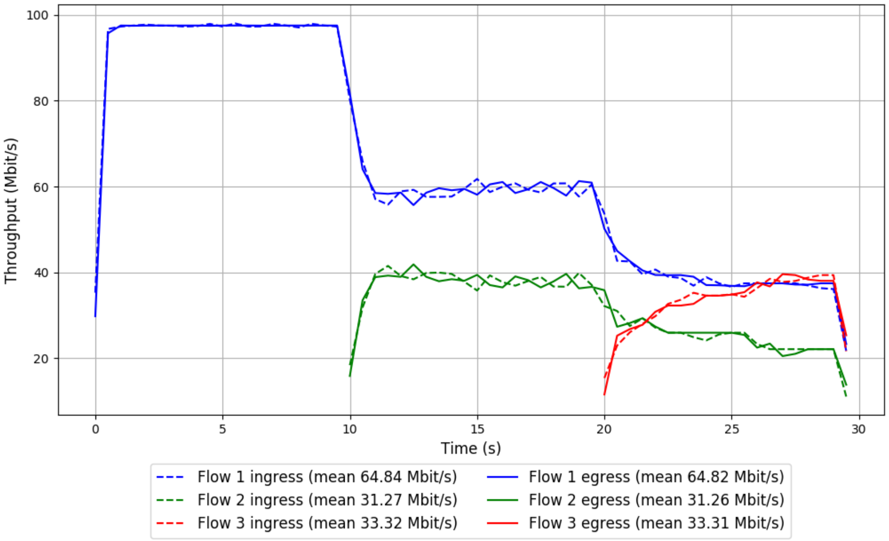


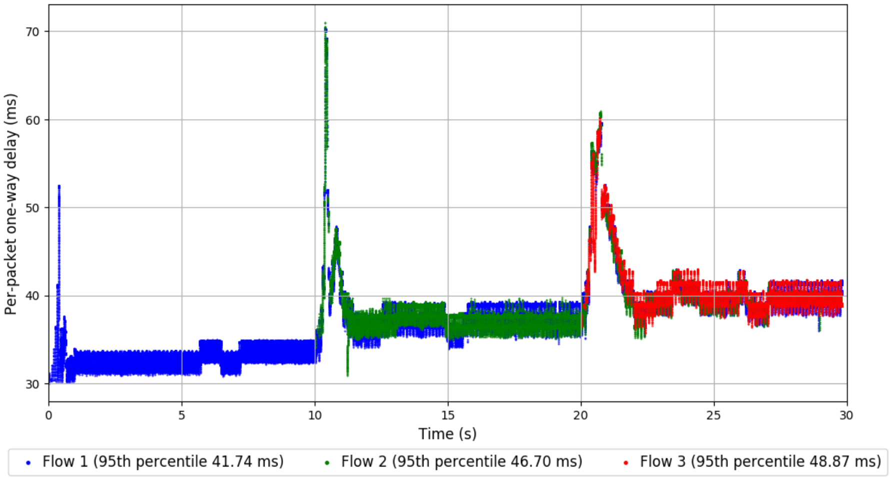
```
Run 10: Statistics of Indigo

Start at: 2017-10-12 09:55:48
End at: 2017-10-12 09:56:18
Local clock offset: 0.476 ms
Remote clock offset: -1.058 ms

# Below is generated by plot.py at 2017-10-12 10:45:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.45 Mbit/s
95th percentile per-packet one-way delay: 43.926 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.82 Mbit/s
95th percentile per-packet one-way delay: 41.743 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.26 Mbit/s
95th percentile per-packet one-way delay: 46.705 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.31 Mbit/s
95th percentile per-packet one-way delay: 48.873 ms
Loss rate: 0.00%
```

Run 10: Report of Indigo — Data Link


Throughput (Mbit/s)
100
80
60
40
20
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 64.84 Mbit/s)
Flow 2 ingress (mean 31.27 Mbit/s)
Flow 3 ingress (mean 33.32 Mbit/s)
Flow 1 egress (mean 64.82 Mbit/s)
Flow 2 egress (mean 31.26 Mbit/s)
Flow 3 egress (mean 33.31 Mbit/s)


Per-packet one-way delay (ms)
70
60
50
40
30
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 41.74 ms)
Flow 2 (95th percentile 46.70 ms)
Flow 3 (95th percentile 48.87 ms)