Pantheon Report

Generated at 2018-07-18 09:39:29 (UTC).

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

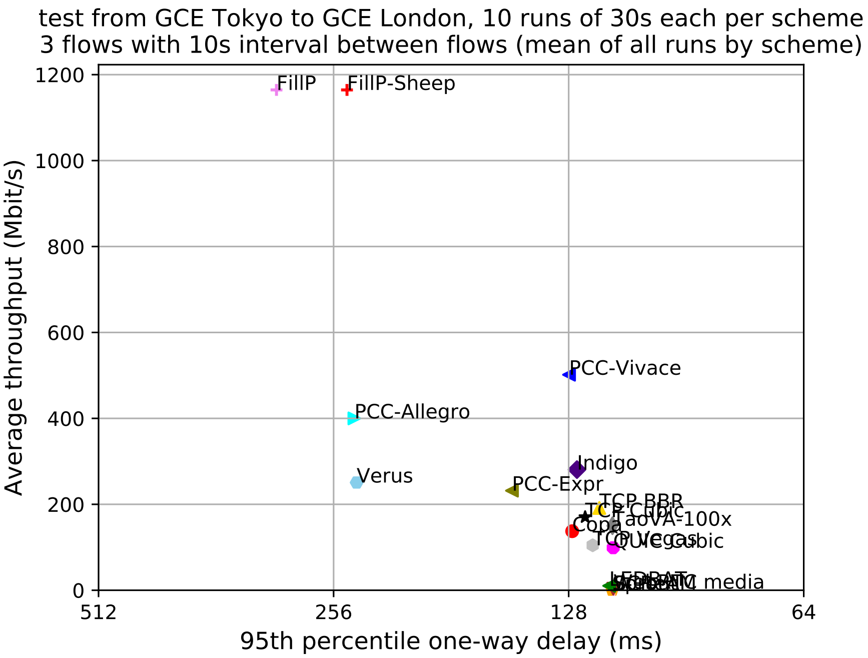
Repeated the test of 17 congestion control schemes 10 times.

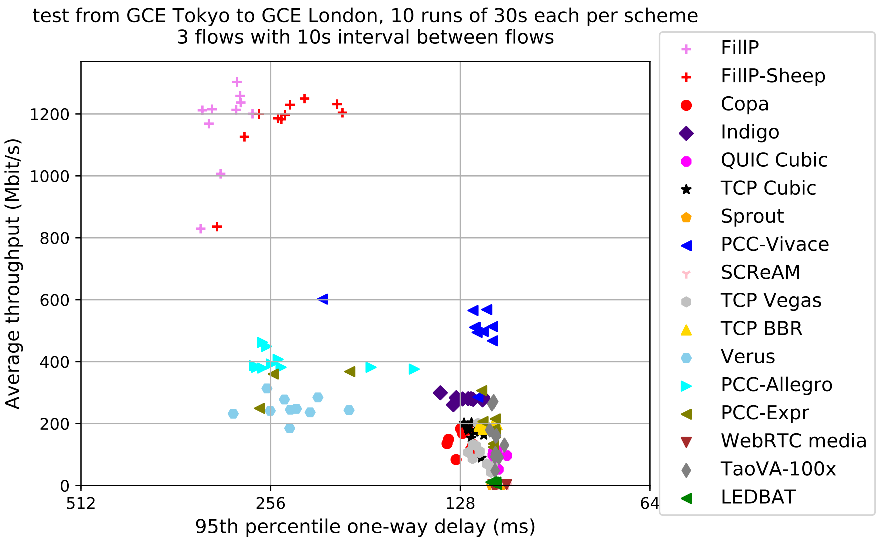
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

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

```
Git summary:
branch: master @ f7befc2d8410f41949e0ad8143a9aab40bab7edb
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```


test from GCE Tokyo to GCE London, 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
200
400
600
800
1000
1200
512
256
128
64
FillP
FillP-Sheep
PCC-Vivace
PCC-Allegro
Verus
Indigo
PCC-Expr
TCP BBR
TCP Cubic
TaoVA-100x
Copa
TCP Vegas
QUIC Cubic
LEDBAT
WebRTC media
SCReAM
Sprout


test from GCE Tokyo to GCE London, 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
200
400
600
800
1000
1200
512
256
128
64
FillP
FillP-Sheep
Copa
Indigo
QUIC Cubic
TCP Cubic
Sprout
PCC-Vivace
SCReAM
TCP Vegas
TCP BBR
Verus
PCC-Allegro
PCC-Expr
WebRTC media
TaoVA-100x
LEDBAT

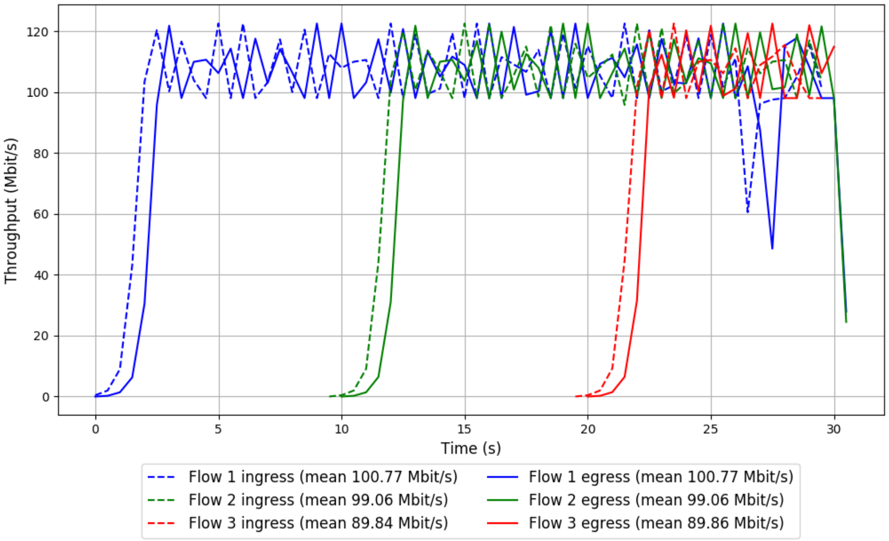
scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	97.87	96.42	89.10	115.12	117.64	118.49	0.00	0.00	0.00
Copa	10	74.19	66.45	57.97	122.15	126.26	128.07	0.00	0.00	0.01
TCP Cubic	10	94.04	85.25	59.05	121.40	122.07	121.47	0.00	0.00	0.06
FillP	10	589.25	594.22	542.32	307.51	294.08	242.35	2.88	2.37	1.94
FillP-Sheep	10	597.18	605.19	495.43	245.34	220.41	207.14	1.98	1.24	0.76
Indigo	10	143.72	146.26	125.15	122.73	125.39	128.11	0.00	0.00	0.00
LEDBAT	10	6.63	4.44	2.37	113.63	113.14	112.83	0.00	0.00	0.00
PCC-Allegro	10	346.29	68.85	24.21	240.07	240.48	217.85	1.45	1.43	0.71
PCC-Expr	10	117.44	131.55	81.23	150.22	150.20	152.85	0.80	1.08	2.84
QUIC Cubic	10	52.21	56.75	28.65	111.67	110.73	109.99	0.00	0.00	0.00
SCReAM	10	0.21	0.21	0.22	111.70	110.49	111.20	0.00	0.00	0.00
Sprout	10	0.23	0.23	0.28	112.51	112.52	111.60	0.00	0.00	0.00
TaoVA-100x	10	86.07	50.45	116.09	111.83	112.82	112.58	0.00	0.00	0.04
TCP Vegas	10	46.56	57.79	59.73	117.88	118.53	117.37	0.00	0.02	0.07
Verus	10	146.28	127.57	62.75	216.88	261.10	230.56	1.01	1.81	2.02
PCC-Vivace	10	308.12	238.66	105.42	127.12	124.59	137.94	0.05	0.01	0.91
WebRTC media	10	1.95	1.19	0.42	112.18	111.16	112.12	0.00	0.02	0.00

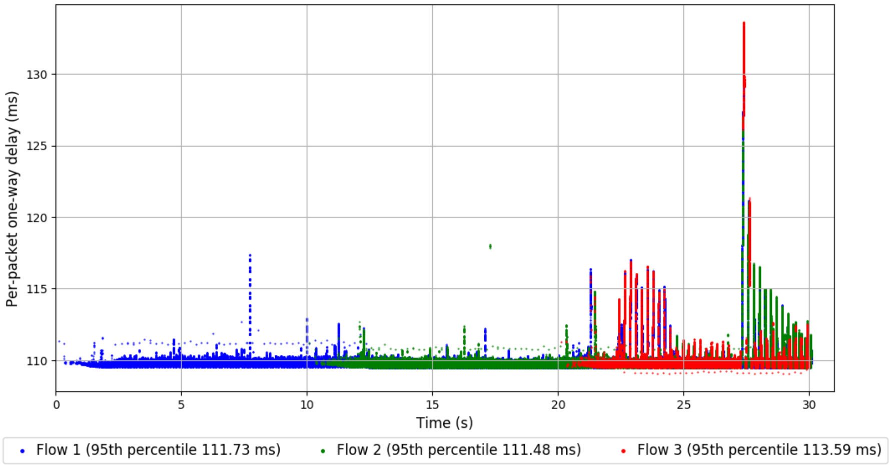
```
Run 1: Statistics of TCP BBR

Start at: 2018-07-18 03:21:10
End at: 2018-07-18 03:21:40
Local clock offset: -0.11 ms
Remote clock offset: -0.557 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 196.39 Mbit/s
95th percentile per-packet one-way delay: 111.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 100.77 Mbit/s
95th percentile per-packet one-way delay: 111.734 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.06 Mbit/s
95th percentile per-packet one-way delay: 111.480 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.86 Mbit/s
95th percentile per-packet one-way delay: 113.592 ms
Loss rate: 0.00%
```

Run 1: Report of TCP BBR — Data Link



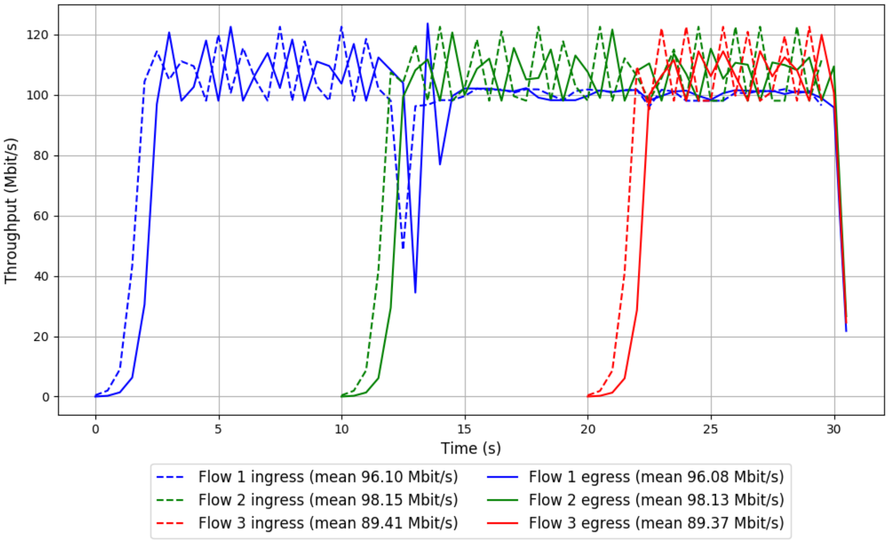


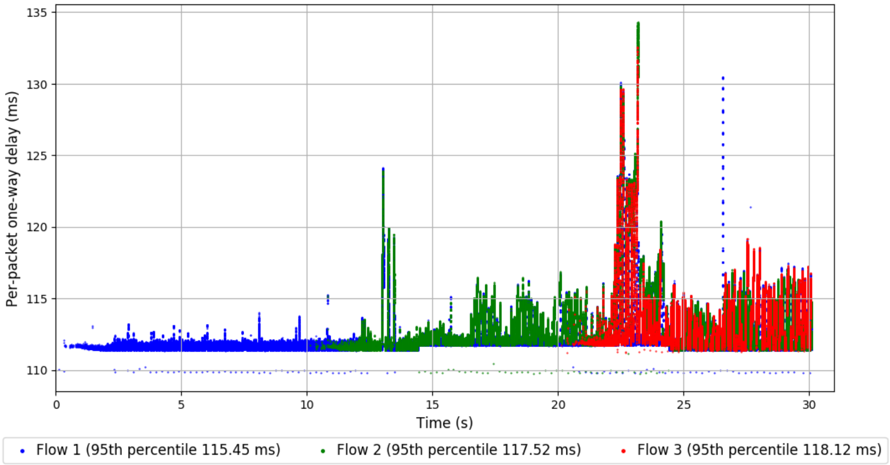
```
Run 2: Statistics of TCP BBR

Start at: 2018-07-18 03:46:58
End at: 2018-07-18 03:47:28
Local clock offset: -0.128 ms
Remote clock offset: 0.192 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 191.05 Mbit/s
95th percentile per-packet one-way delay: 116.585 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.08 Mbit/s
95th percentile per-packet one-way delay: 115.448 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.13 Mbit/s
95th percentile per-packet one-way delay: 117.515 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 118.121 ms
Loss rate: 0.00%
```

Run 2: Report of TCP BBR — Data Link



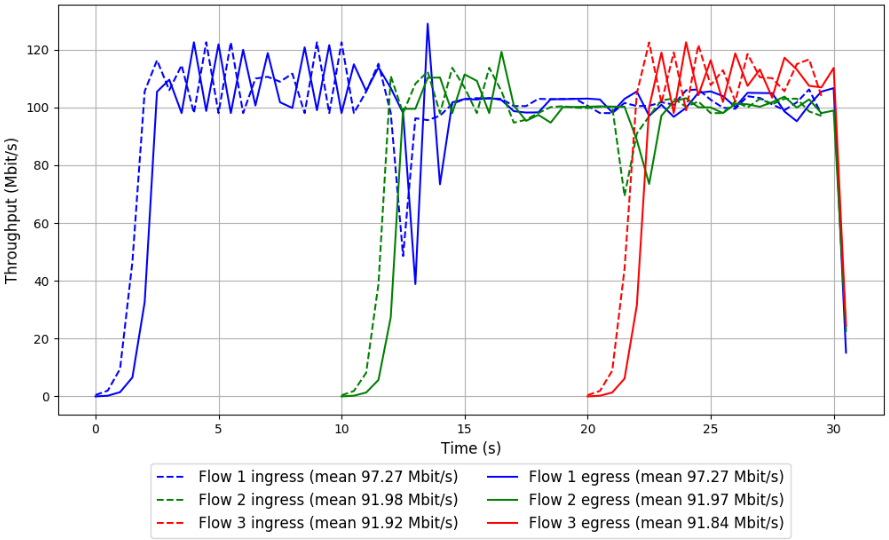


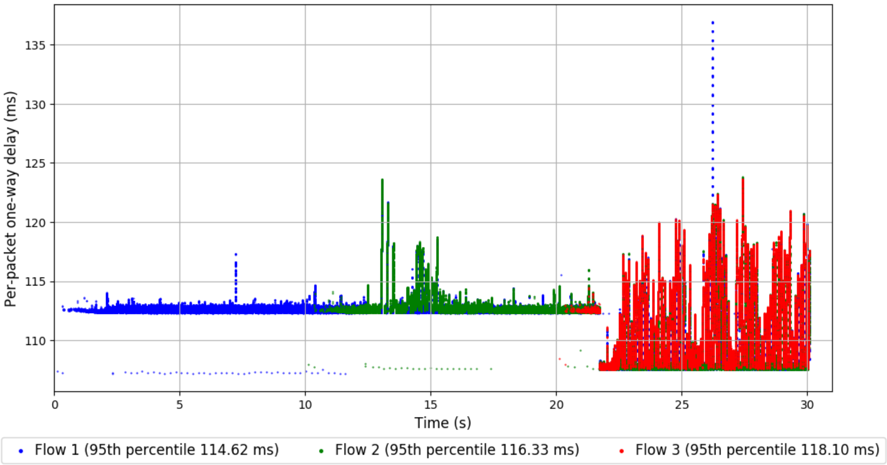
```
Run 3: Statistics of TCP BBR

Start at: 2018-07-18 04:13:01
End at: 2018-07-18 04:13:31
Local clock offset: -0.061 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 188.99 Mbit/s
95th percentile per-packet one-way delay: 116.230 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.27 Mbit/s
95th percentile per-packet one-way delay: 114.616 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.97 Mbit/s
95th percentile per-packet one-way delay: 116.332 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.84 Mbit/s
95th percentile per-packet one-way delay: 118.096 ms
Loss rate: 0.00%
```

Run 3: Report of TCP BBR — Data Link



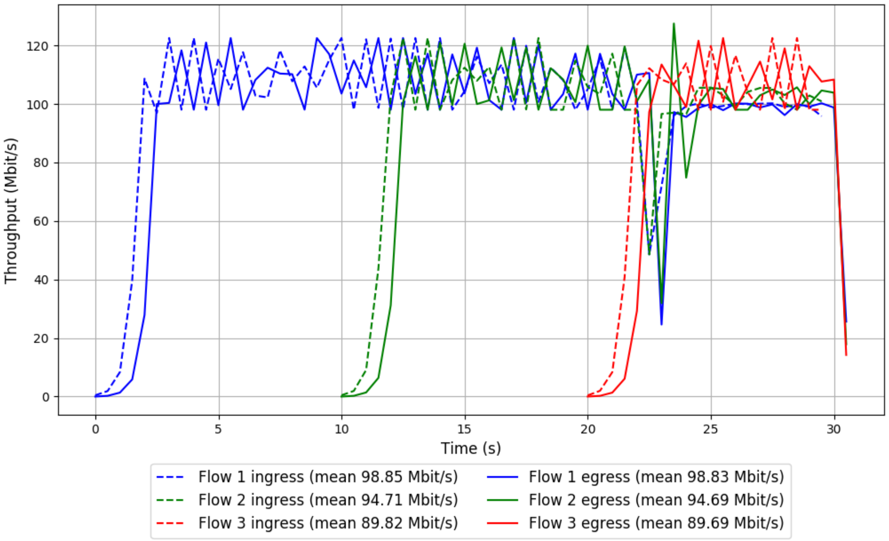


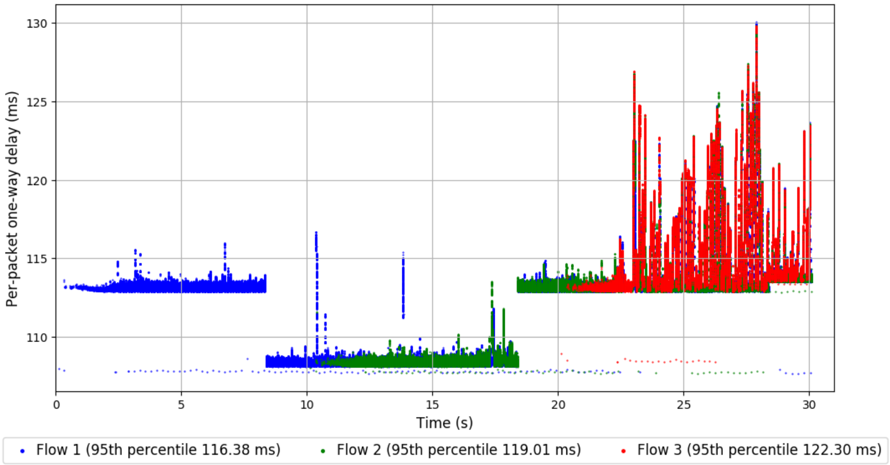
```
Run 4: Statistics of TCP BBR

Start at: 2018-07-18 04:38:24
End at: 2018-07-18 04:38:54
Local clock offset: -0.26 ms
Remote clock offset: 0.334 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 191.51 Mbit/s
95th percentile per-packet one-way delay: 119.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 98.83 Mbit/s
95th percentile per-packet one-way delay: 116.381 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 94.69 Mbit/s
95th percentile per-packet one-way delay: 119.014 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.69 Mbit/s
95th percentile per-packet one-way delay: 122.299 ms
Loss rate: 0.00%
```

Run 4: Report of TCP BBR — Data Link



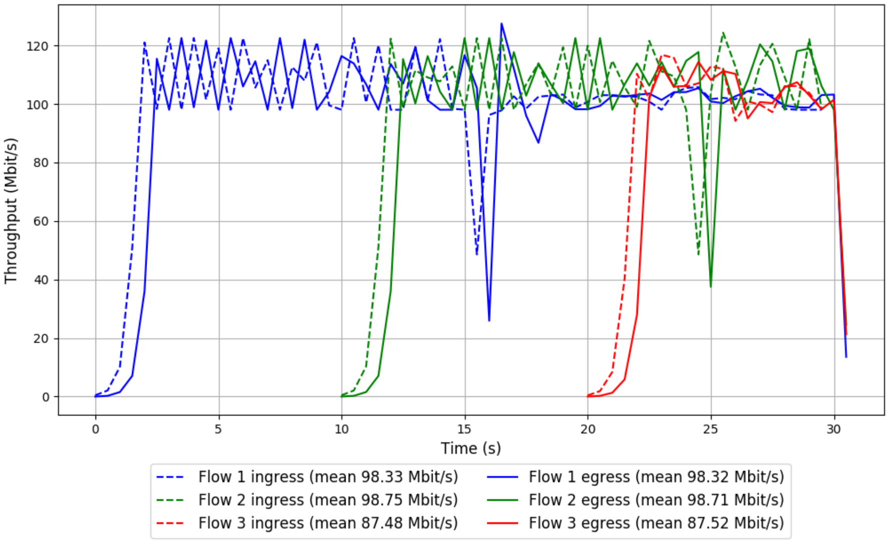


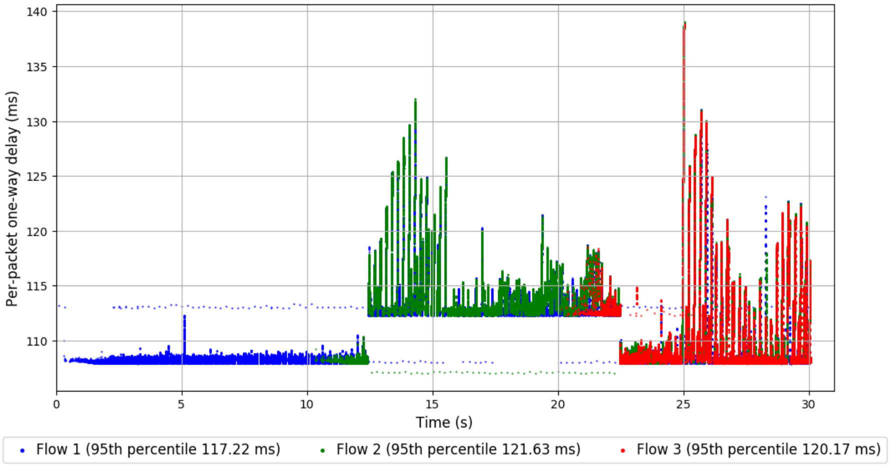
```
Run 5: Statistics of TCP BBR

Start at: 2018-07-18 05:03:20
End at: 2018-07-18 05:03:50
Local clock offset: -0.064 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 192.98 Mbit/s
95th percentile per-packet one-way delay: 119.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 98.32 Mbit/s
95th percentile per-packet one-way delay: 117.224 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.71 Mbit/s
95th percentile per-packet one-way delay: 121.634 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 87.52 Mbit/s
95th percentile per-packet one-way delay: 120.166 ms
Loss rate: 0.00%
```

Run 5: Report of TCP BBR — Data Link



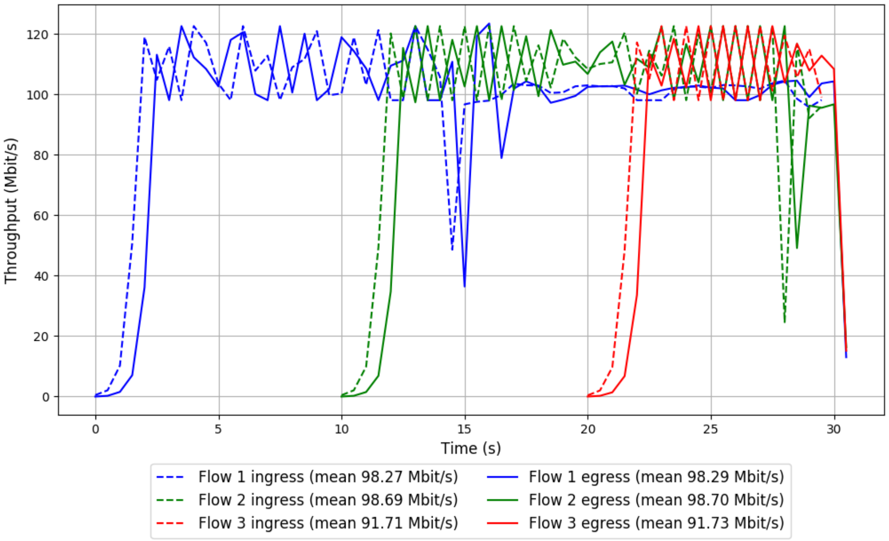


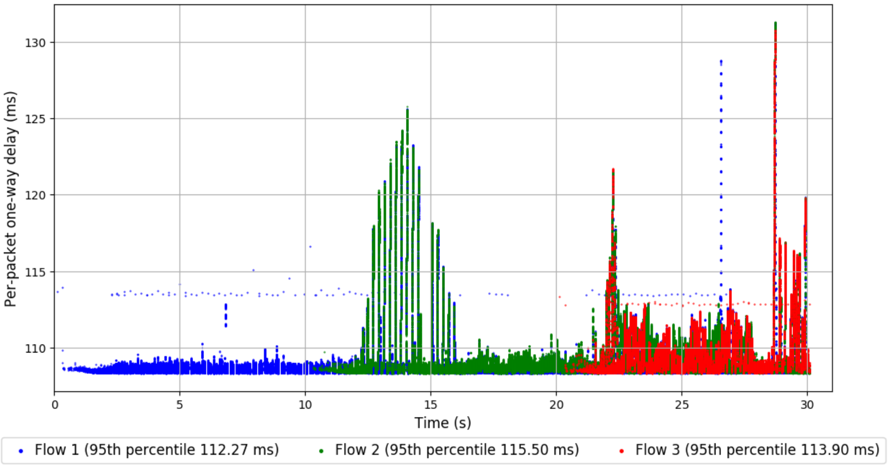
```
Run 6: Statistics of TCP BBR

Start at: 2018-07-18 05:28:41
End at: 2018-07-18 05:29:11
Local clock offset: -0.028 ms
Remote clock offset: 0.225 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 194.36 Mbit/s
95th percentile per-packet one-way delay: 113.703 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 98.29 Mbit/s
95th percentile per-packet one-way delay: 112.266 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.70 Mbit/s
95th percentile per-packet one-way delay: 115.498 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.73 Mbit/s
95th percentile per-packet one-way delay: 113.902 ms
Loss rate: 0.00%
```

Run 6: Report of TCP BBR — Data Link



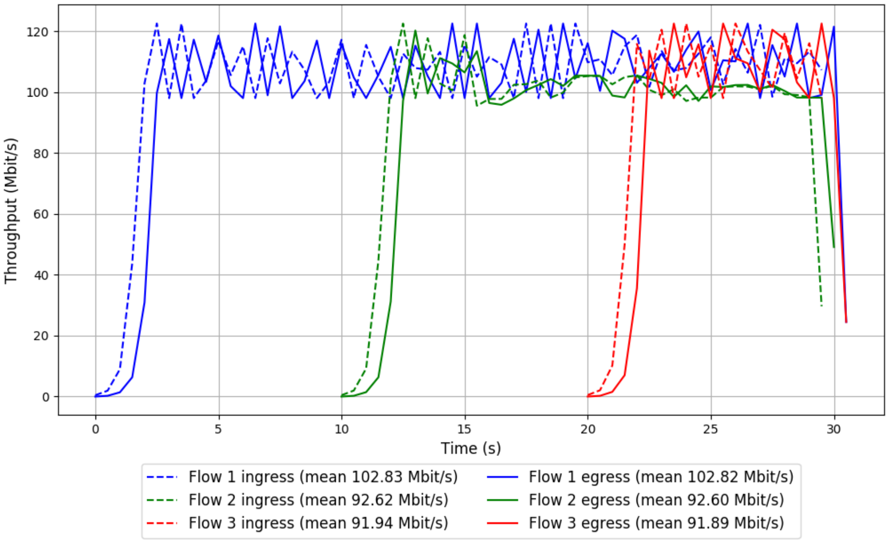


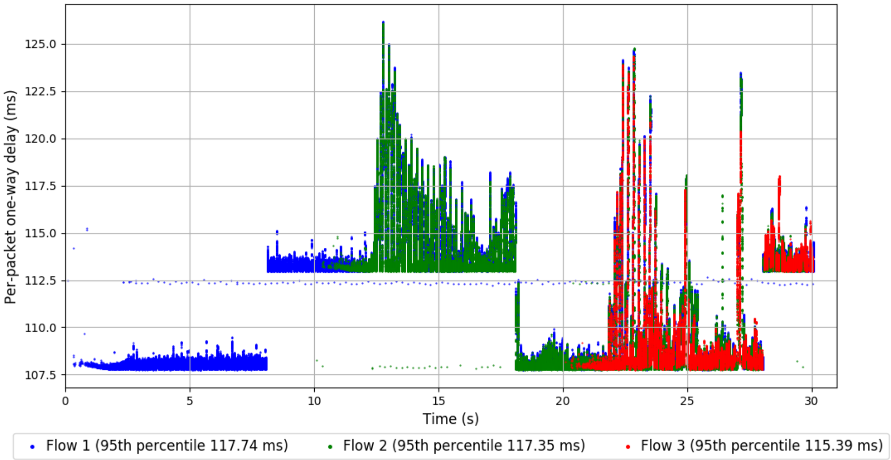
```
Run 7: Statistics of TCP BBR

Start at: 2018-07-18 05:54:35
End at: 2018-07-18 05:55:05
Local clock offset: 0.145 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 194.60 Mbit/s
95th percentile per-packet one-way delay: 117.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.82 Mbit/s
95th percentile per-packet one-way delay: 117.742 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 92.60 Mbit/s
95th percentile per-packet one-way delay: 117.352 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.89 Mbit/s
95th percentile per-packet one-way delay: 115.391 ms
Loss rate: 0.00%
```

Run 7: Report of TCP BBR — Data Link



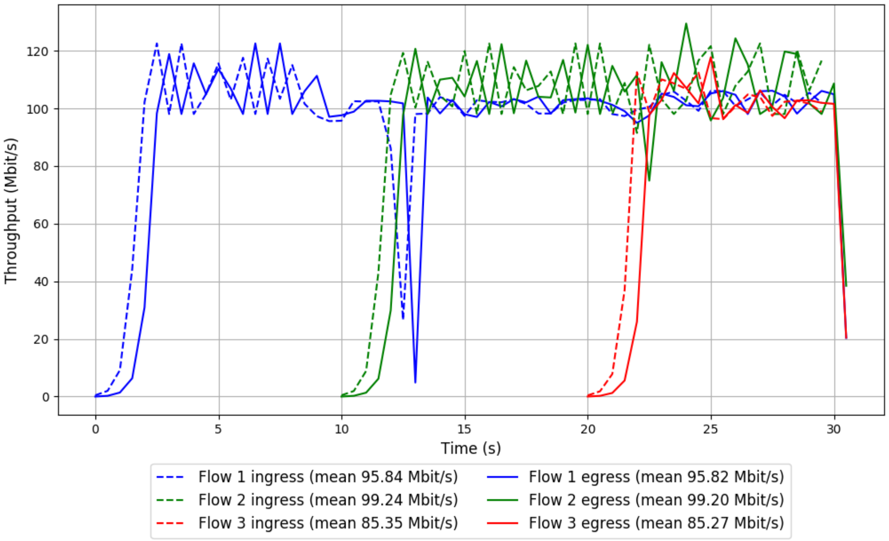


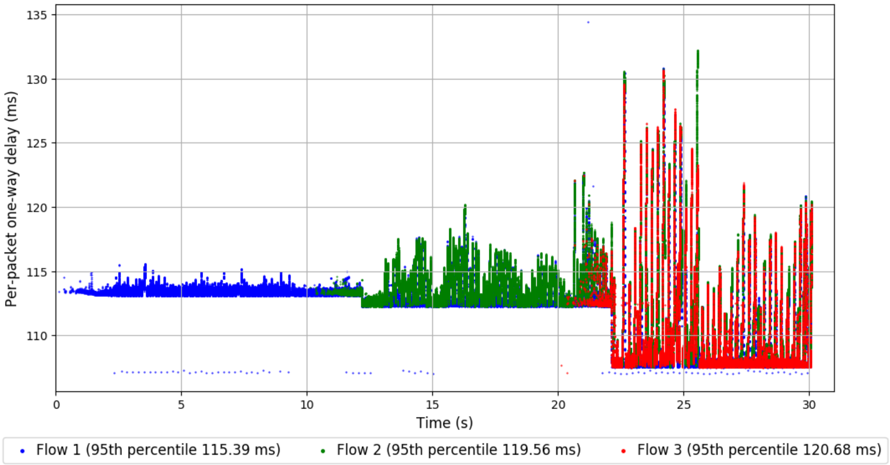
```
Run 8: Statistics of TCP BBR

Start at: 2018-07-18 06:19:41
End at: 2018-07-18 06:20:11
Local clock offset: -0.056 ms
Remote clock offset: -0.019 ms

# Below is generated by plot.py at 2018-07-18 07:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 190.26 Mbit/s
95th percentile per-packet one-way delay: 117.582 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 115.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.20 Mbit/s
95th percentile per-packet one-way delay: 119.559 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 85.27 Mbit/s
95th percentile per-packet one-way delay: 120.676 ms
Loss rate: 0.00%
```

Run 8: Report of TCP BBR — Data Link



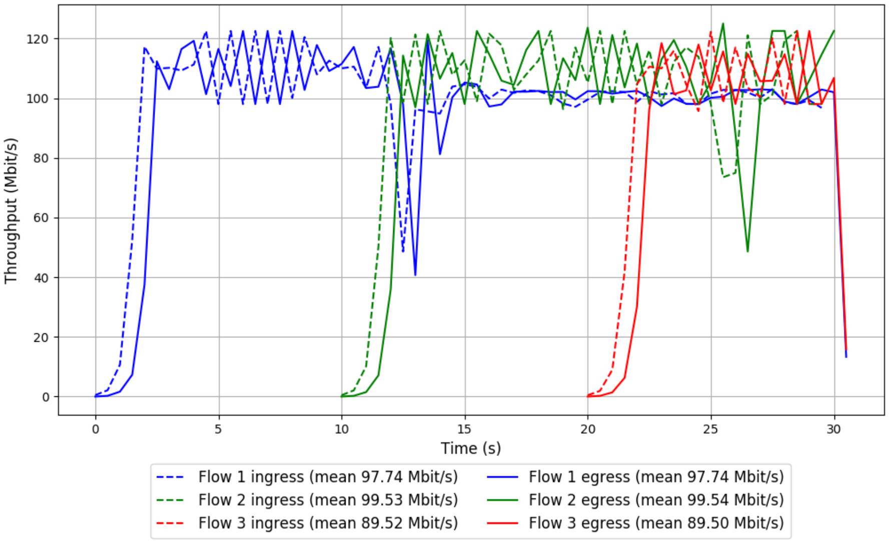


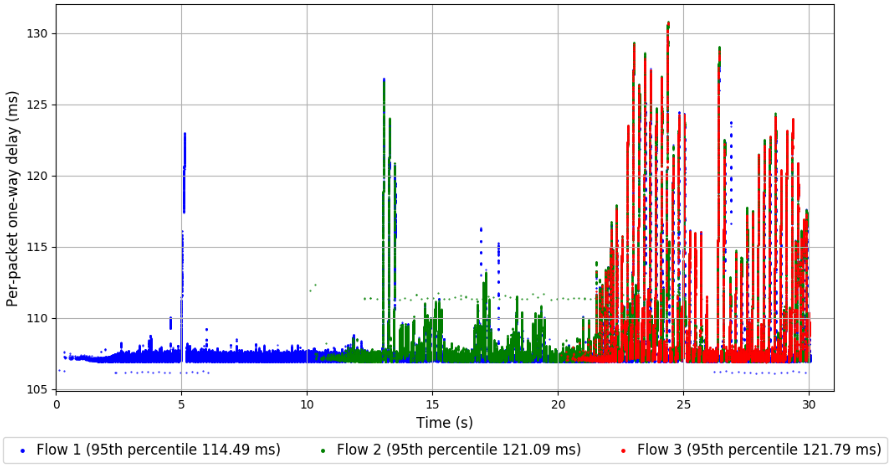
```
Run 9: Statistics of TCP BBR

Start at: 2018-07-18 06:45:17
End at: 2018-07-18 06:45:47
Local clock offset: 1.281 ms
Remote clock offset: 0.207 ms

# Below is generated by plot.py at 2018-07-18 07:44:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 193.43 Mbit/s
95th percentile per-packet one-way delay: 119.444 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.74 Mbit/s
95th percentile per-packet one-way delay: 114.492 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.54 Mbit/s
95th percentile per-packet one-way delay: 121.090 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.50 Mbit/s
95th percentile per-packet one-way delay: 121.793 ms
Loss rate: 0.00%
```

Run 9: Report of TCP BBR — Data Link



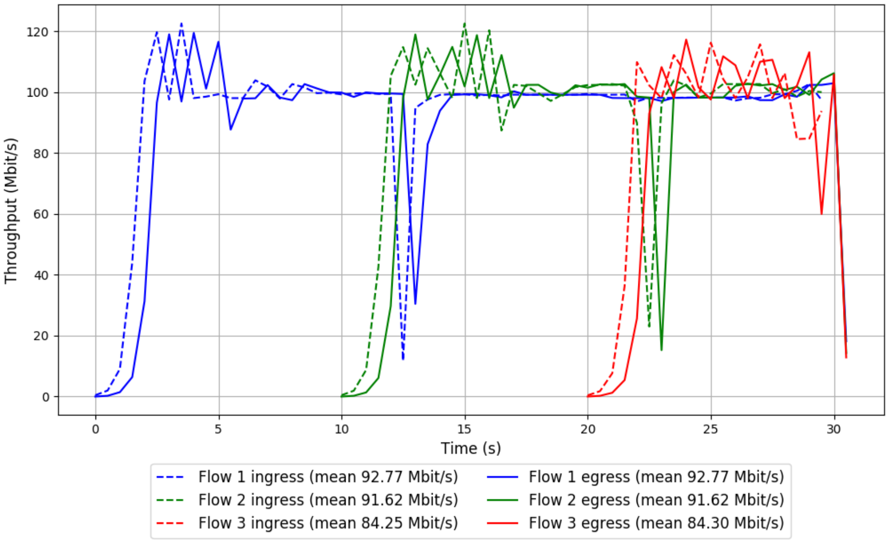


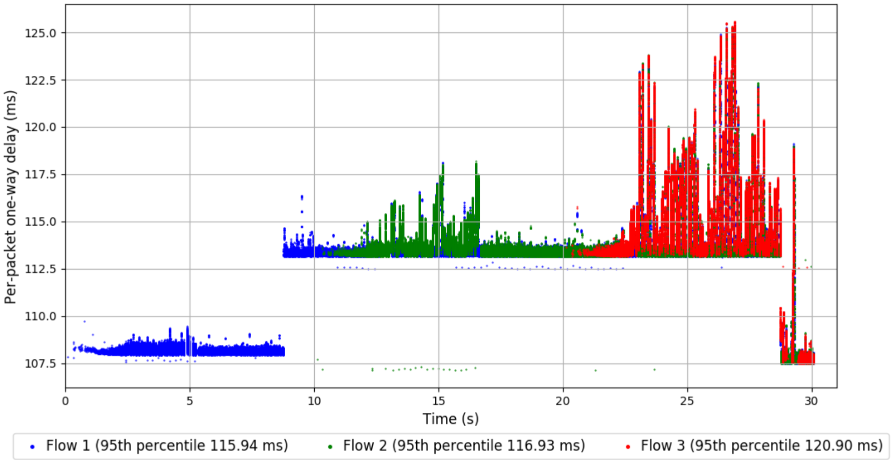
```
Run 10: Statistics of TCP BBR

Start at: 2018-07-18 07:11:04
End at: 2018-07-18 07:11:34
Local clock offset: -0.141 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2018-07-18 07:44:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.77 Mbit/s
95th percentile per-packet one-way delay: 117.773 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 92.77 Mbit/s
95th percentile per-packet one-way delay: 115.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.62 Mbit/s
95th percentile per-packet one-way delay: 116.926 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.30 Mbit/s
95th percentile per-packet one-way delay: 120.902 ms
Loss rate: 0.00%
```

Run 10: Report of TCP BBR — Data Link



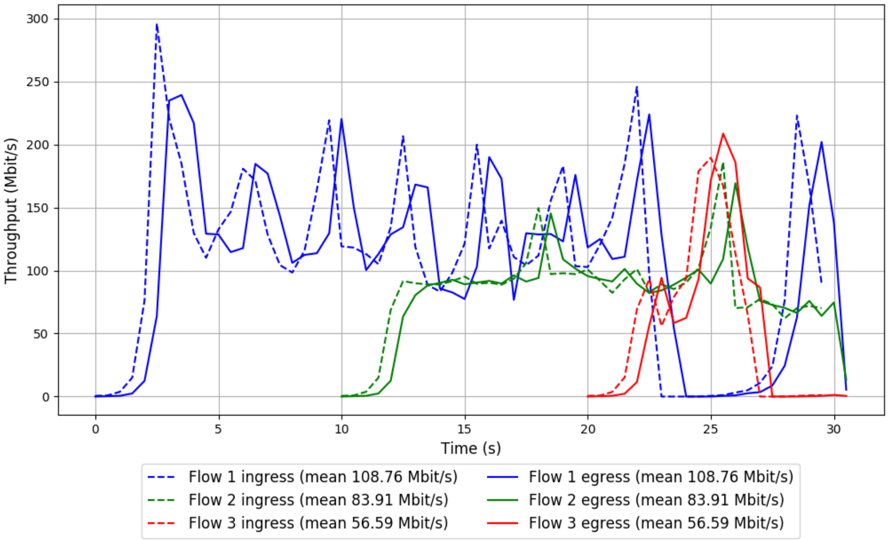


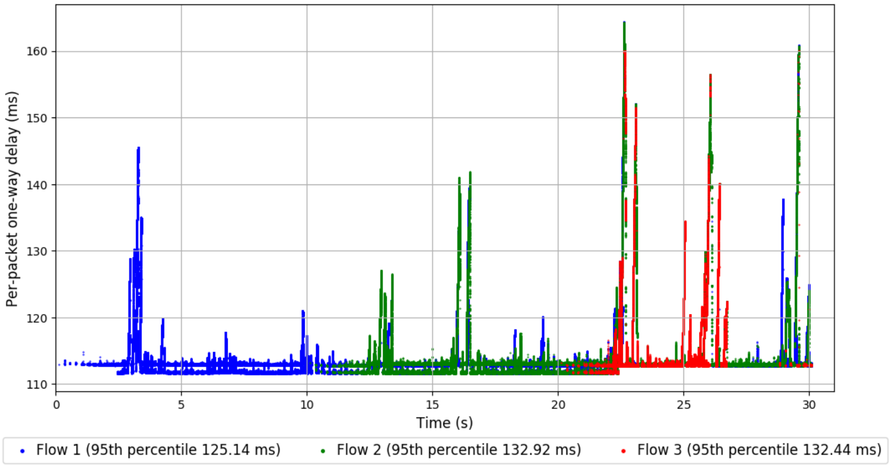
```
Run 1: Statistics of Copa

Start at: 2018-07-18 03:33:40
End at: 2018-07-18 03:34:10
Local clock offset: -1.511 ms
Remote clock offset: 0.177 ms

# Below is generated by plot.py at 2018-07-18 07:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 183.40 Mbit/s
95th percentile per-packet one-way delay: 127.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 108.76 Mbit/s
95th percentile per-packet one-way delay: 125.142 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.91 Mbit/s
95th percentile per-packet one-way delay: 132.919 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 56.59 Mbit/s
95th percentile per-packet one-way delay: 132.443 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link



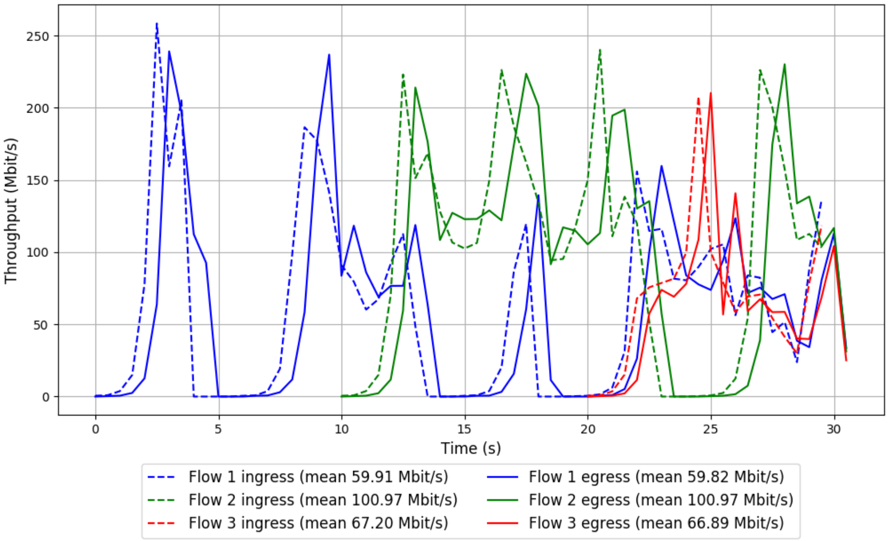


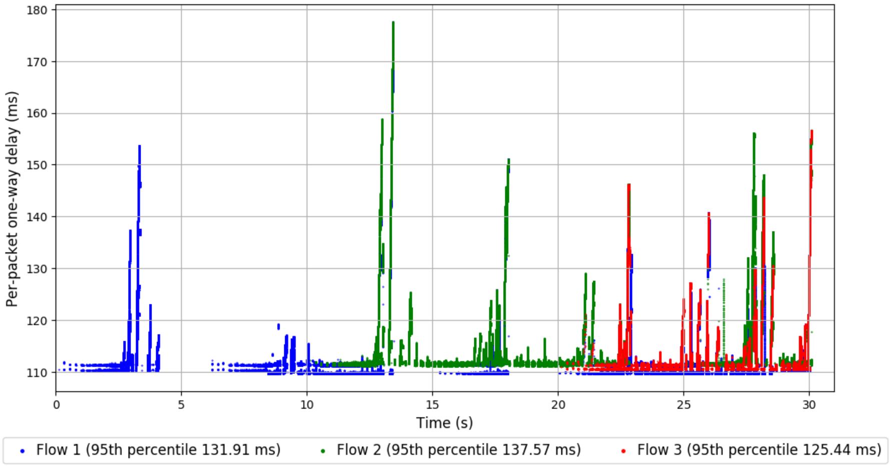
```
Run 2: Statistics of Copa

Start at: 2018-07-18 03:59:22
End at: 2018-07-18 03:59:52
Local clock offset: -0.466 ms
Remote clock offset: -0.15 ms

# Below is generated by plot.py at 2018-07-18 07:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.24 Mbit/s
95th percentile per-packet one-way delay: 133.626 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 131.907 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.97 Mbit/s
95th percentile per-packet one-way delay: 137.572 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 66.89 Mbit/s
95th percentile per-packet one-way delay: 125.437 ms
Loss rate: 0.00%
```

Run 2: Report of Copa — Data Link



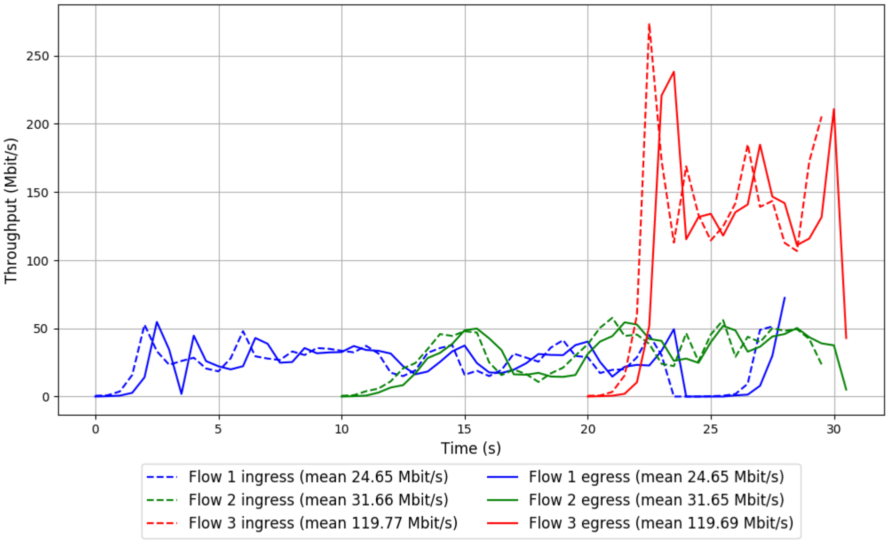


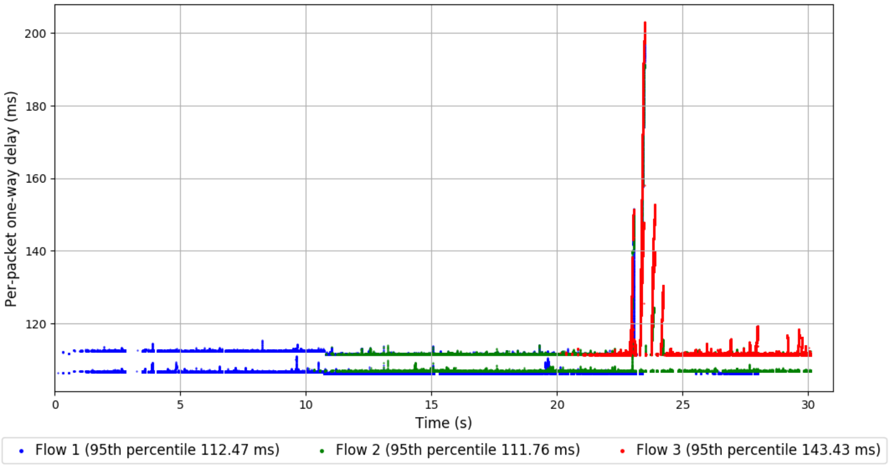
```
Run 3: Statistics of Copa

Start at: 2018-07-18 04:25:12
End at: 2018-07-18 04:25:42
Local clock offset: 1.227 ms
Remote clock offset: 0.282 ms

# Below is generated by plot.py at 2018-07-18 07:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.77 Mbit/s
95th percentile per-packet one-way delay: 129.984 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 24.65 Mbit/s
95th percentile per-packet one-way delay: 112.466 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.65 Mbit/s
95th percentile per-packet one-way delay: 111.757 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 119.69 Mbit/s
95th percentile per-packet one-way delay: 143.425 ms
Loss rate: 0.10%
```

Run 3: Report of Copa — Data Link



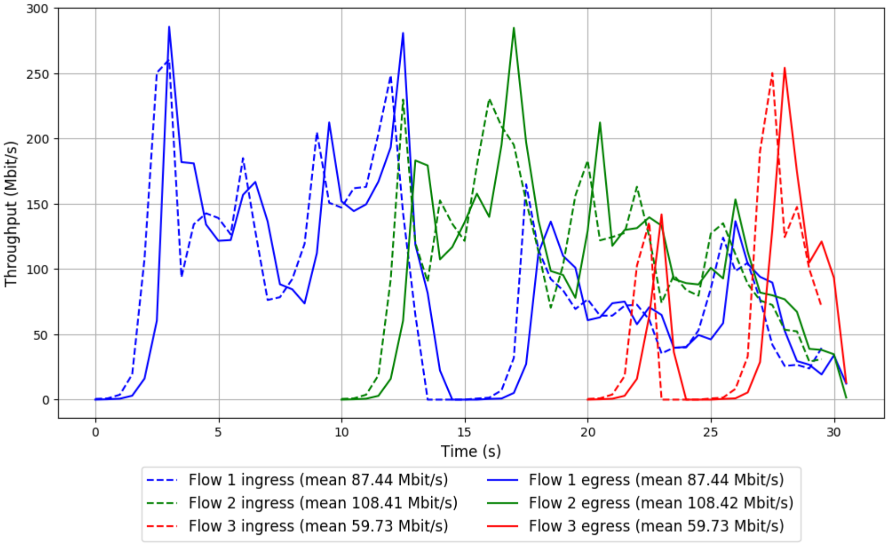


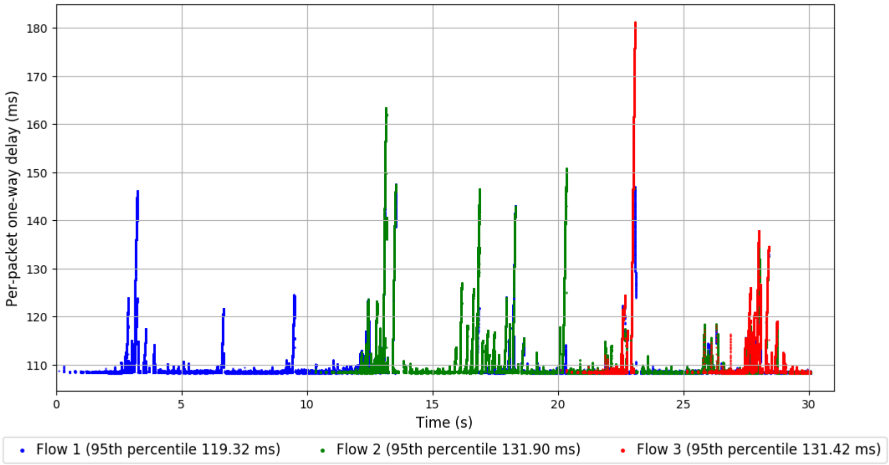
```
Run 4: Statistics of Copa

Start at: 2018-07-18 04:50:08
End at: 2018-07-18 04:50:38
Local clock offset: -0.093 ms
Remote clock offset: 0.295 ms

# Below is generated by plot.py at 2018-07-18 07:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.49 Mbit/s
95th percentile per-packet one-way delay: 124.284 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.44 Mbit/s
95th percentile per-packet one-way delay: 119.318 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 108.42 Mbit/s
95th percentile per-packet one-way delay: 131.904 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.73 Mbit/s
95th percentile per-packet one-way delay: 131.420 ms
Loss rate: 0.00%
```

Run 4: Report of Copa — Data Link



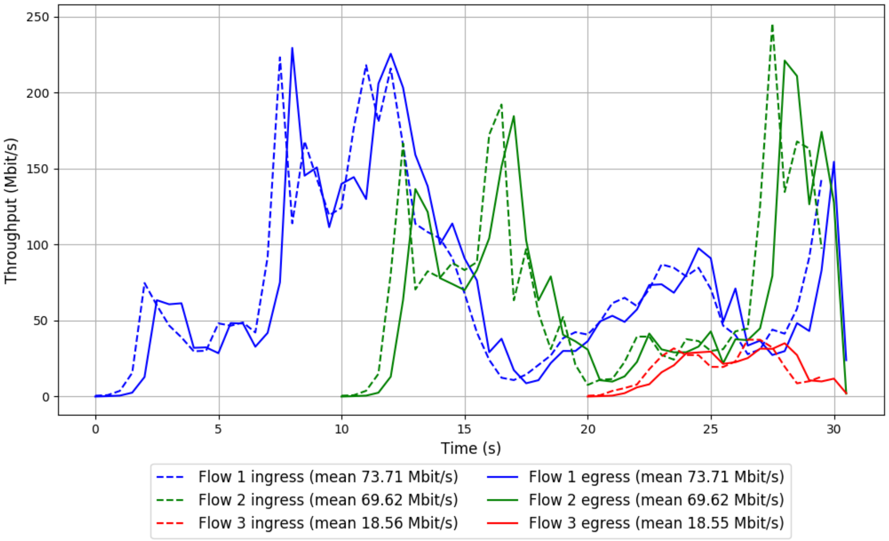


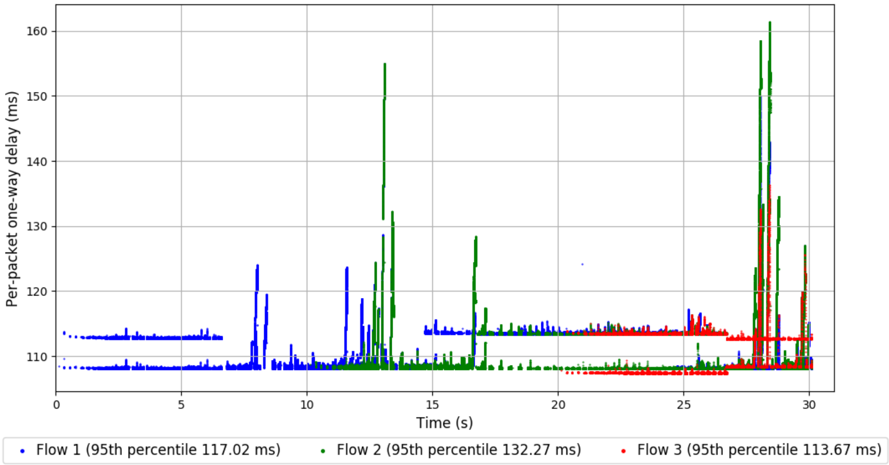
```
Run 5: Statistics of Copa

Start at: 2018-07-18 05:15:26
End at: 2018-07-18 05:15:56
Local clock offset: -0.349 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-07-18 07:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.24 Mbit/s
95th percentile per-packet one-way delay: 122.521 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.71 Mbit/s
95th percentile per-packet one-way delay: 117.018 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.62 Mbit/s
95th percentile per-packet one-way delay: 132.266 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.55 Mbit/s
95th percentile per-packet one-way delay: 113.674 ms
Loss rate: 0.00%
```

Run 5: Report of Copa — Data Link



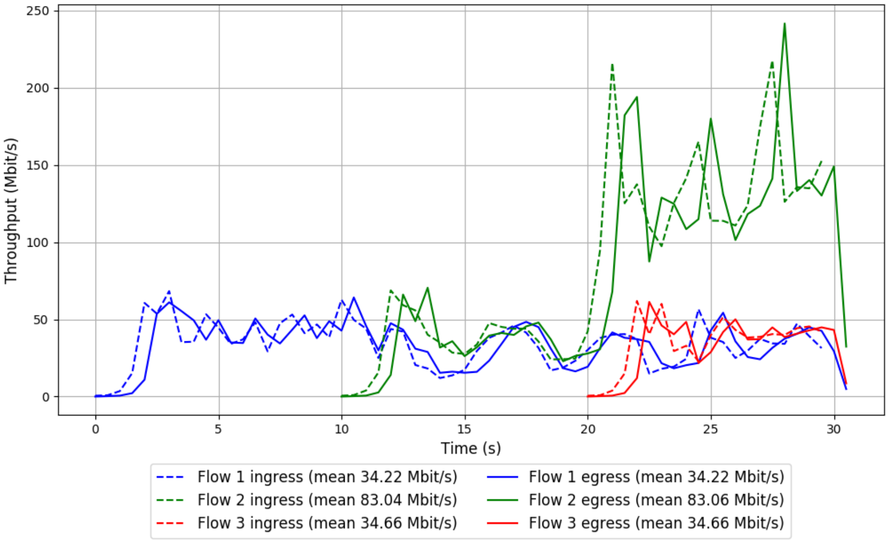


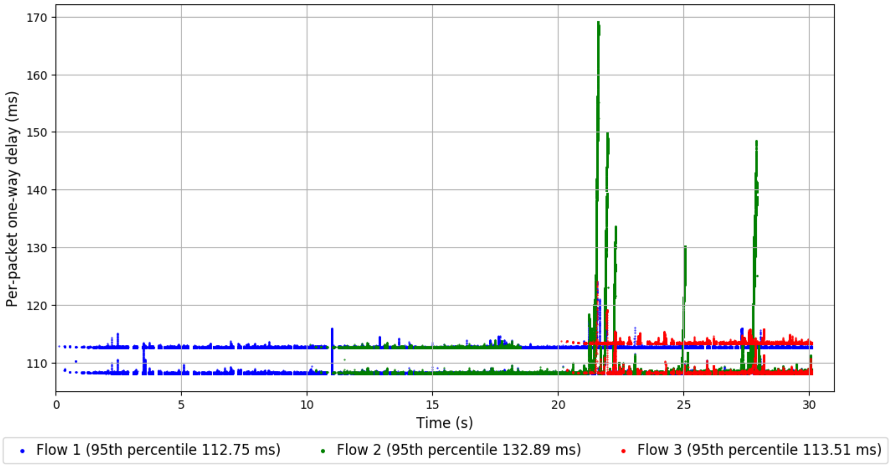
```
Run 6: Statistics of Copa

Start at: 2018-07-18 05:41:14
End at: 2018-07-18 05:41:44
Local clock offset: -0.185 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2018-07-18 07:46:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.03 Mbit/s
95th percentile per-packet one-way delay: 121.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.22 Mbit/s
95th percentile per-packet one-way delay: 112.746 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.06 Mbit/s
95th percentile per-packet one-way delay: 132.887 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.66 Mbit/s
95th percentile per-packet one-way delay: 113.513 ms
Loss rate: 0.00%
```

Run 6: Report of Copa — Data Link



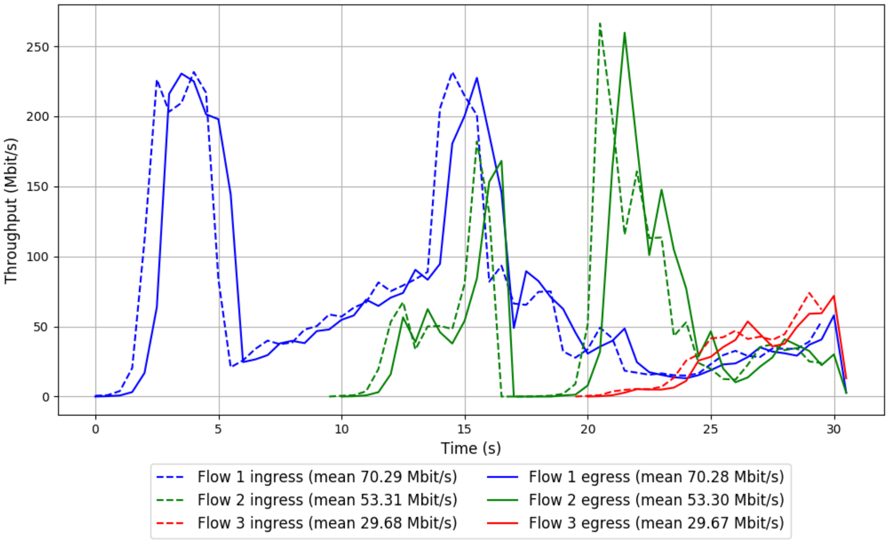


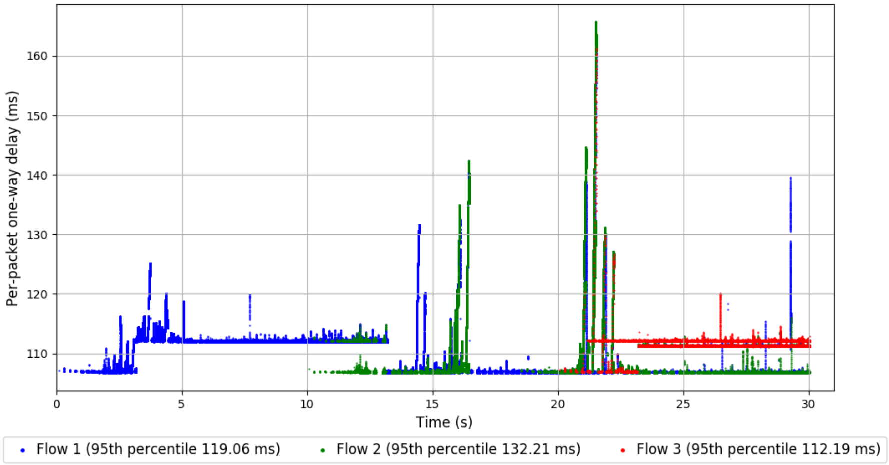
```
Run 7: Statistics of Copa

Start at: 2018-07-18 06:06:50
End at: 2018-07-18 06:07:20
Local clock offset: 1.022 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-18 07:47:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.63 Mbit/s
95th percentile per-packet one-way delay: 123.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.28 Mbit/s
95th percentile per-packet one-way delay: 119.061 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 132.213 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.67 Mbit/s
95th percentile per-packet one-way delay: 112.188 ms
Loss rate: 0.00%
```

Run 7: Report of Copa — Data Link



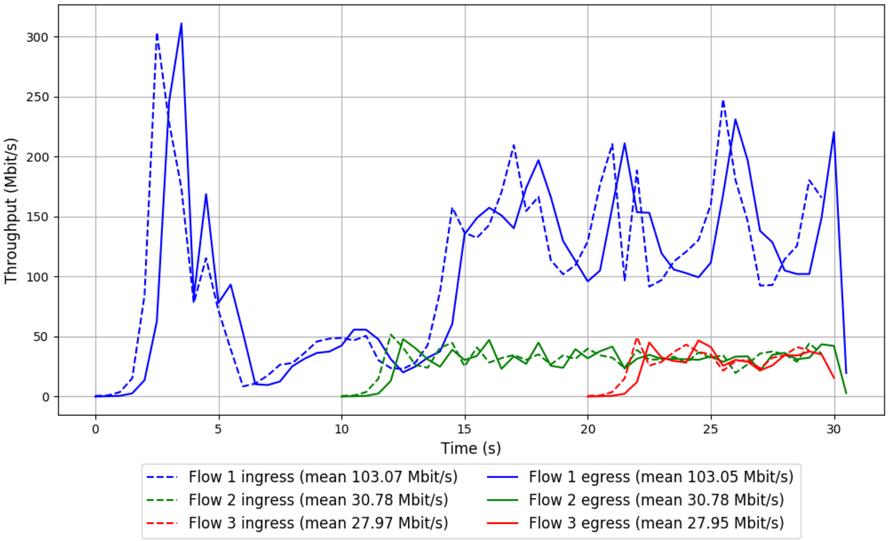


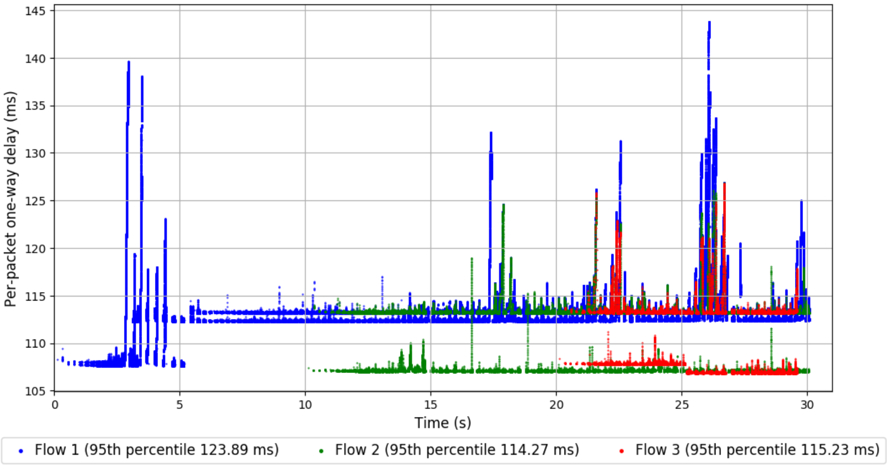
```
Run 8: Statistics of Copa

Start at: 2018-07-18 06:31:58
End at: 2018-07-18 06:32:28
Local clock offset: -0.094 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-18 07:48:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.37 Mbit/s
95th percentile per-packet one-way delay: 121.976 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.05 Mbit/s
95th percentile per-packet one-way delay: 123.888 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.78 Mbit/s
95th percentile per-packet one-way delay: 114.265 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.95 Mbit/s
95th percentile per-packet one-way delay: 115.228 ms
Loss rate: 0.00%
```

Run 8: Report of Copa — Data Link



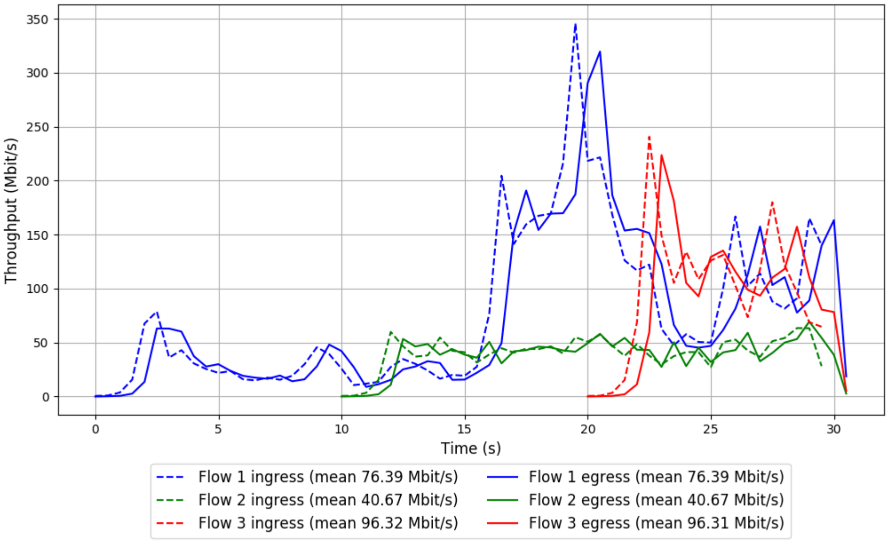


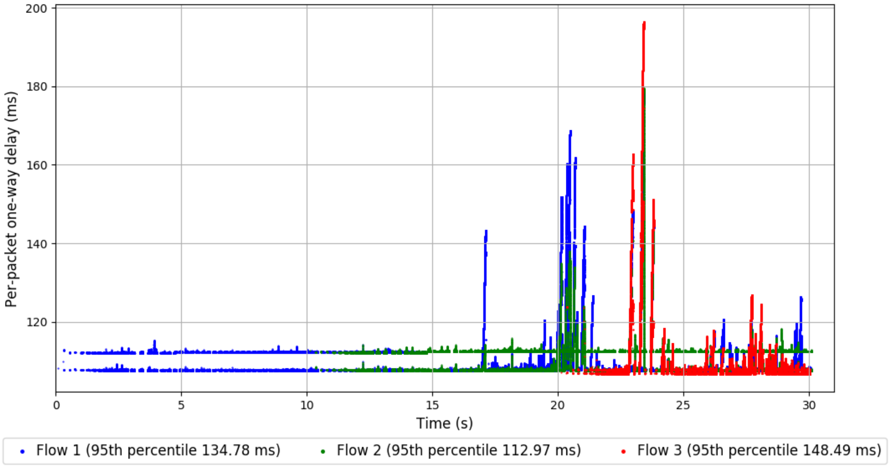
```
Run 9: Statistics of Copa

Start at: 2018-07-18 06:57:48
End at: 2018-07-18 06:58:18
Local clock offset: -0.123 ms
Remote clock offset: -0.479 ms

# Below is generated by plot.py at 2018-07-18 07:48:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.30 Mbit/s
95th percentile per-packet one-way delay: 134.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.39 Mbit/s
95th percentile per-packet one-way delay: 134.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 112.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 148.490 ms
Loss rate: 0.00%
```

Run 9: Report of Copa — Data Link



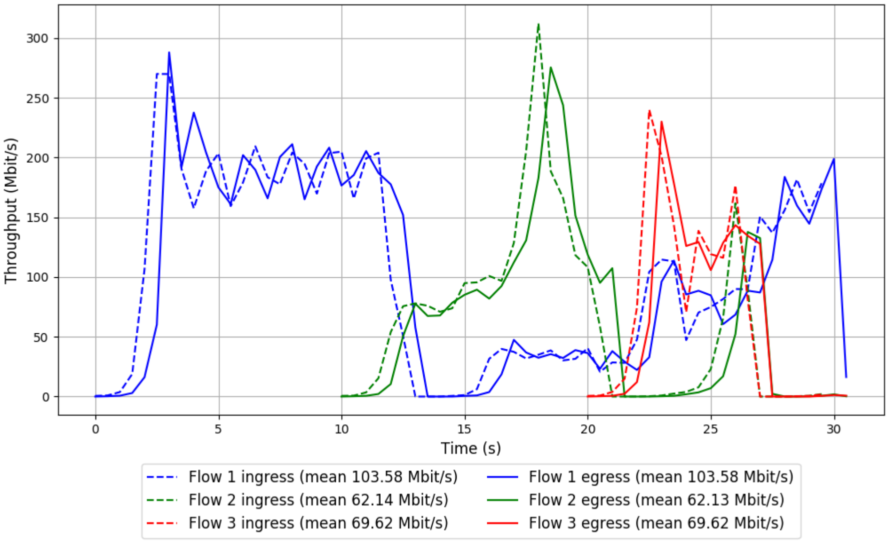


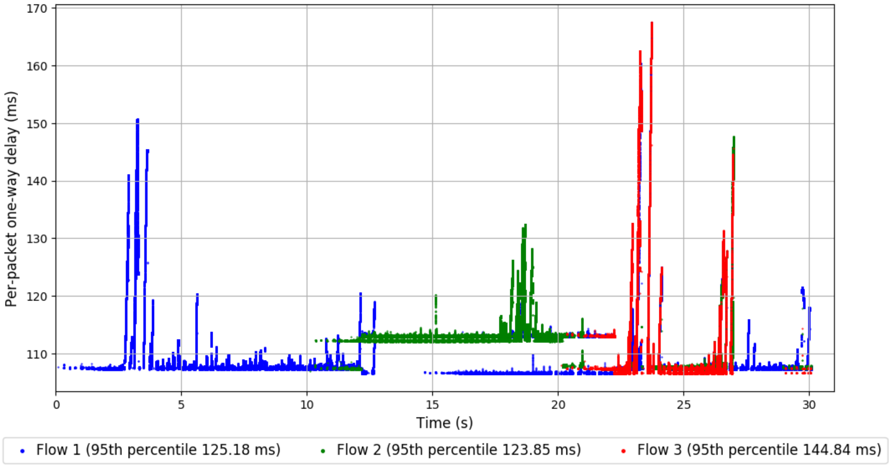
```
Run 10: Statistics of Copa

Start at: 2018-07-18 07:23:01
End at: 2018-07-18 07:23:31
Local clock offset: -0.321 ms
Remote clock offset: -0.414 ms

# Below is generated by plot.py at 2018-07-18 07:49:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.06 Mbit/s
95th percentile per-packet one-way delay: 126.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.58 Mbit/s
95th percentile per-packet one-way delay: 125.178 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.13 Mbit/s
95th percentile per-packet one-way delay: 123.849 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.62 Mbit/s
95th percentile per-packet one-way delay: 144.842 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link



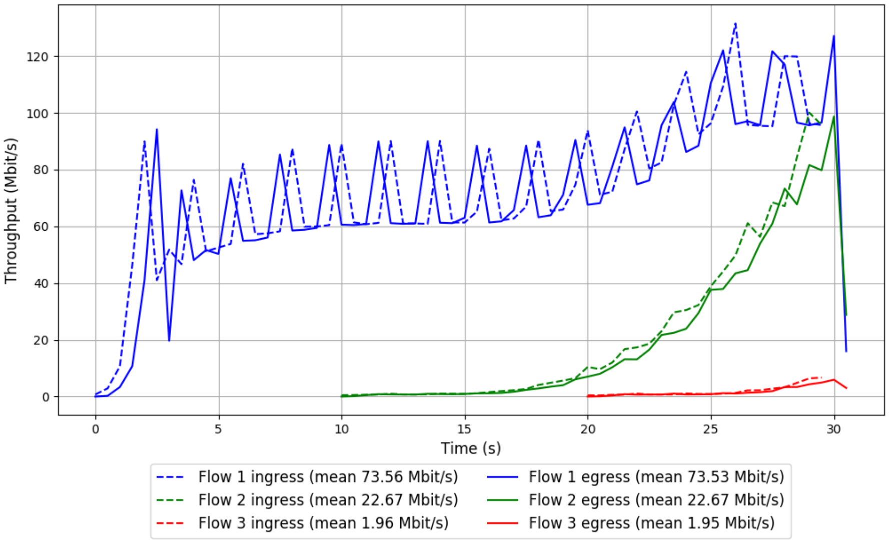


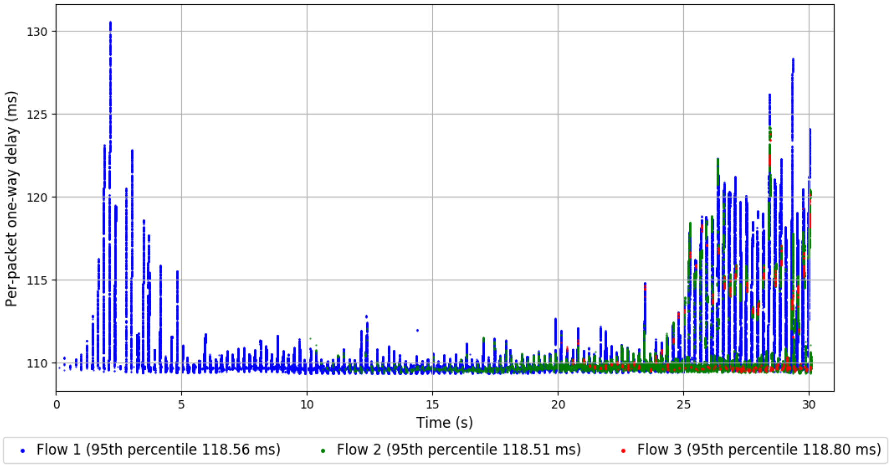
```
Run 1: Statistics of TCP Cubic

Start at: 2018-07-18 03:26:44
End at: 2018-07-18 03:27:14
Local clock offset: 0.346 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-07-18 07:49:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.12 Mbit/s
95th percentile per-packet one-way delay: 118.556 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.53 Mbit/s
95th percentile per-packet one-way delay: 118.560 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.67 Mbit/s
95th percentile per-packet one-way delay: 118.510 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 118.796 ms
Loss rate: 0.37%
```

Run 1: Report of TCP Cubic — Data Link



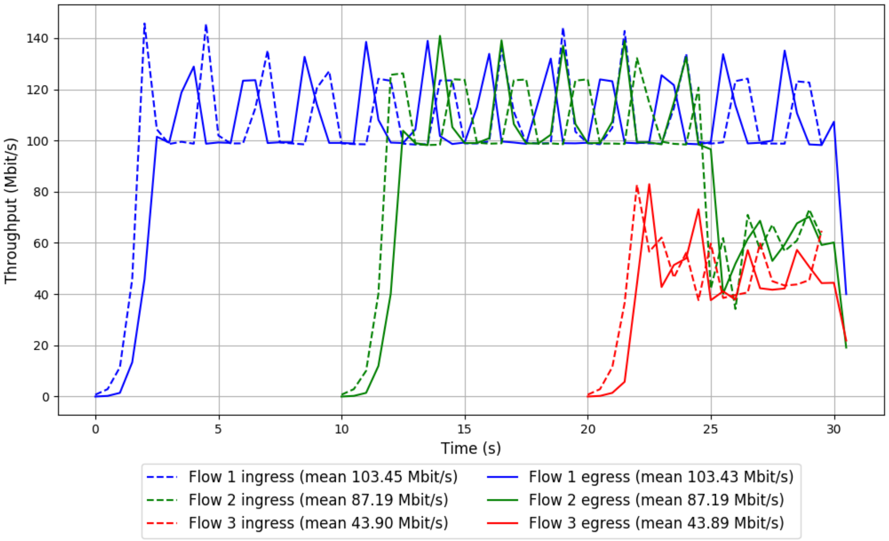


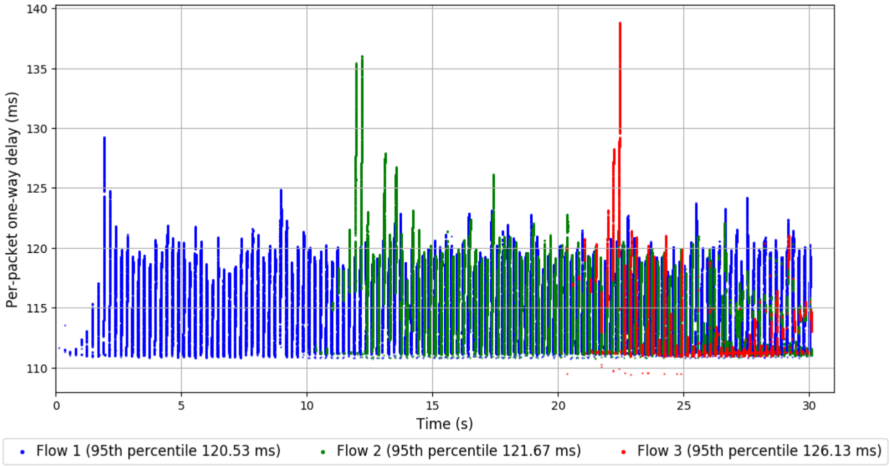
```
Run 2: Statistics of TCP Cubic

Start at: 2018-07-18 03:52:23
End at: 2018-07-18 03:52:53
Local clock offset: -0.092 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2018-07-18 07:49:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.93 Mbit/s
95th percentile per-packet one-way delay: 120.955 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.43 Mbit/s
95th percentile per-packet one-way delay: 120.534 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 87.19 Mbit/s
95th percentile per-packet one-way delay: 121.672 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.89 Mbit/s
95th percentile per-packet one-way delay: 126.130 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Cubic — Data Link



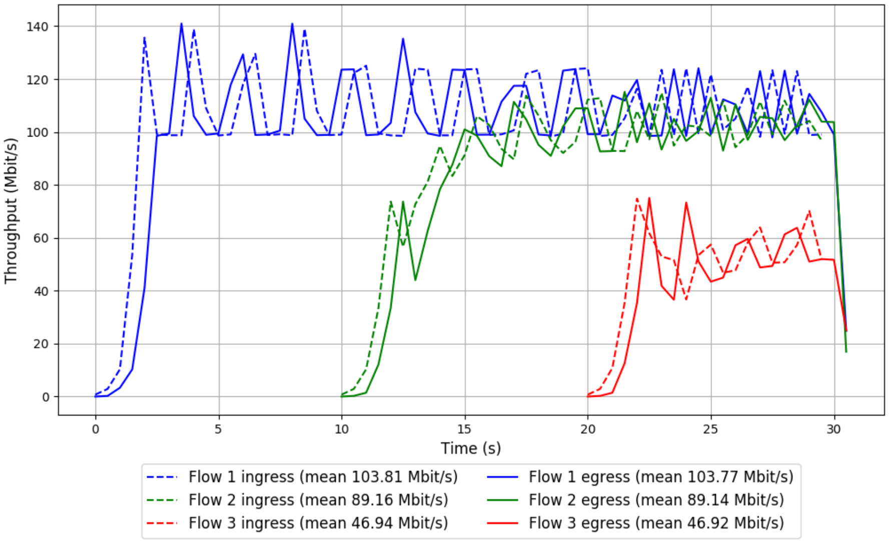


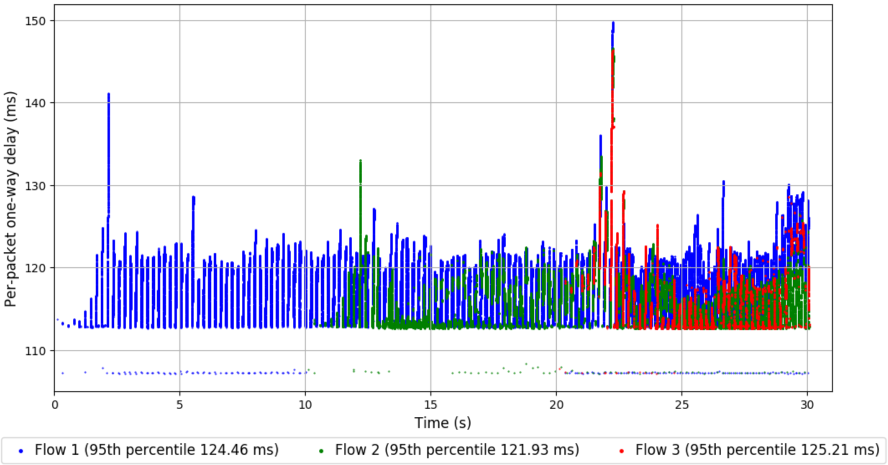
```
Run 3: Statistics of TCP Cubic

Start at: 2018-07-18 04:18:23
End at: 2018-07-18 04:18:53
Local clock offset: -0.363 ms
Remote clock offset: -0.093 ms

# Below is generated by plot.py at 2018-07-18 07:50:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 178.51 Mbit/s
95th percentile per-packet one-way delay: 124.302 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.77 Mbit/s
95th percentile per-packet one-way delay: 124.456 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 89.14 Mbit/s
95th percentile per-packet one-way delay: 121.930 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 125.209 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Cubic — Data Link



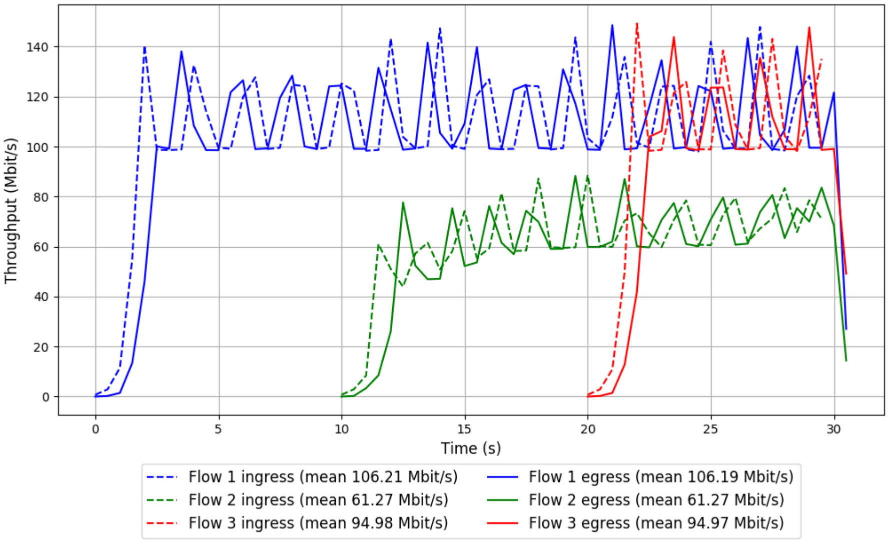


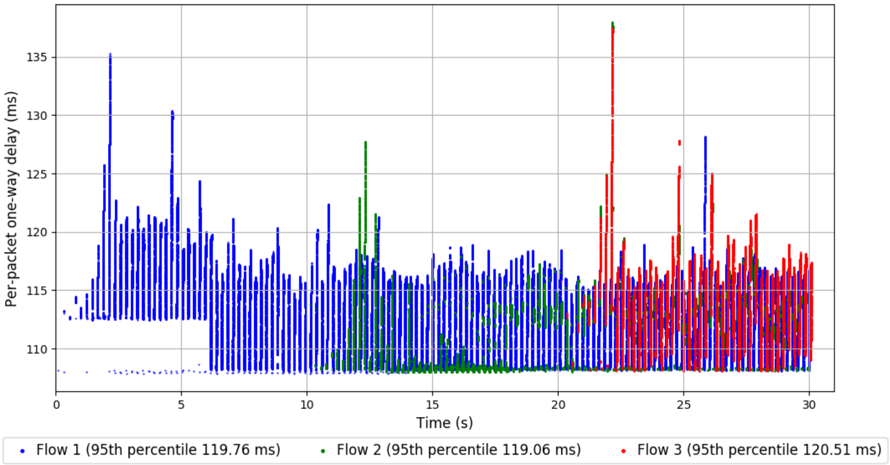
```
Run 4: Statistics of TCP Cubic

Start at: 2018-07-18 04:43:27
End at: 2018-07-18 04:43:57
Local clock offset: -0.116 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-07-18 07:50:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 178.31 Mbit/s
95th percentile per-packet one-way delay: 119.760 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 106.19 Mbit/s
95th percentile per-packet one-way delay: 119.758 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.27 Mbit/s
95th percentile per-packet one-way delay: 119.061 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.97 Mbit/s
95th percentile per-packet one-way delay: 120.514 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Cubic — Data Link



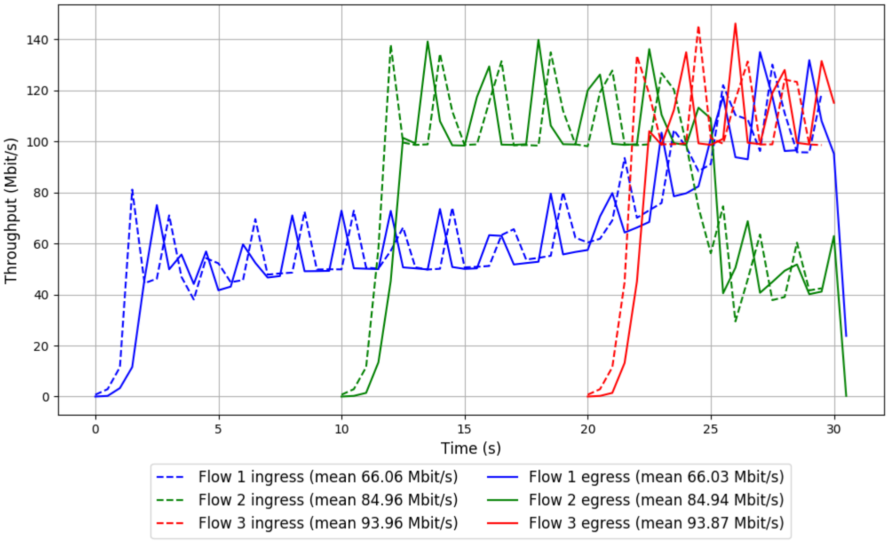


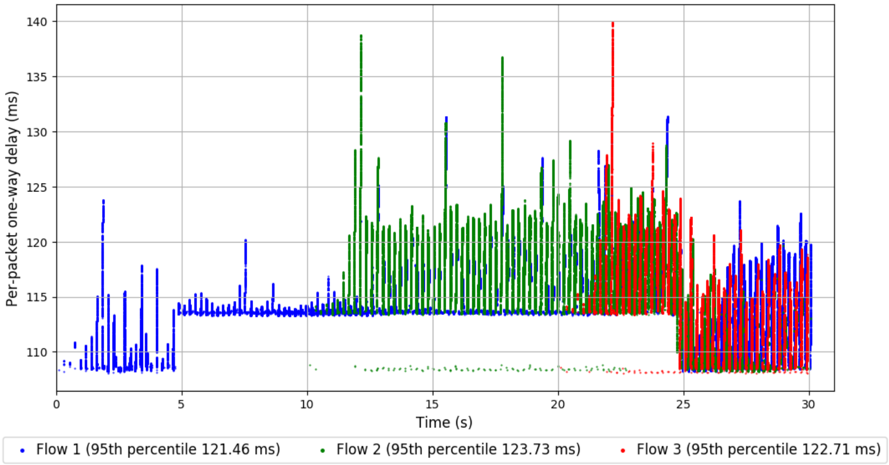
```
Run 5: Statistics of TCP Cubic

Start at: 2018-07-18 05:08:48
End at: 2018-07-18 05:09:18
Local clock offset: 0.051 ms
Remote clock offset: 0.365 ms

# Below is generated by plot.py at 2018-07-18 07:50:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 153.39 Mbit/s
95th percentile per-packet one-way delay: 123.034 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.03 Mbit/s
95th percentile per-packet one-way delay: 121.456 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 84.94 Mbit/s
95th percentile per-packet one-way delay: 123.735 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 93.87 Mbit/s
95th percentile per-packet one-way delay: 122.713 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Cubic — Data Link



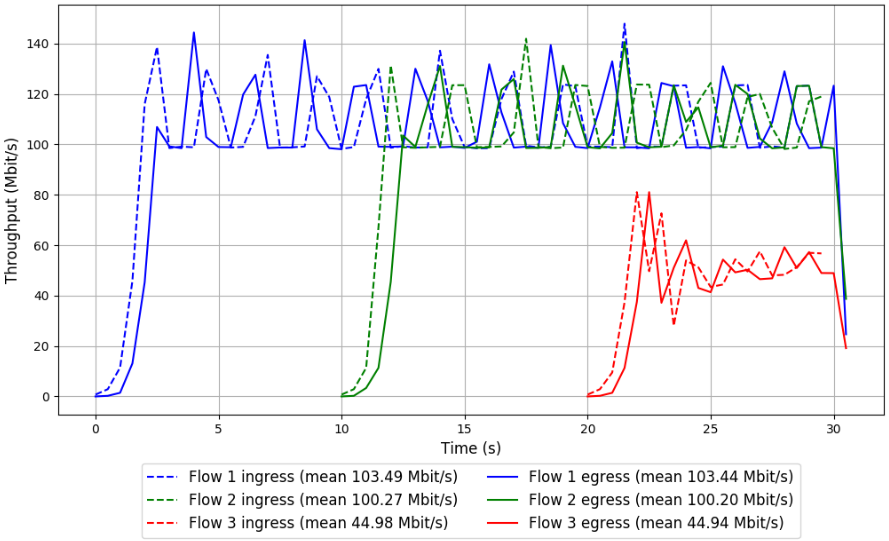


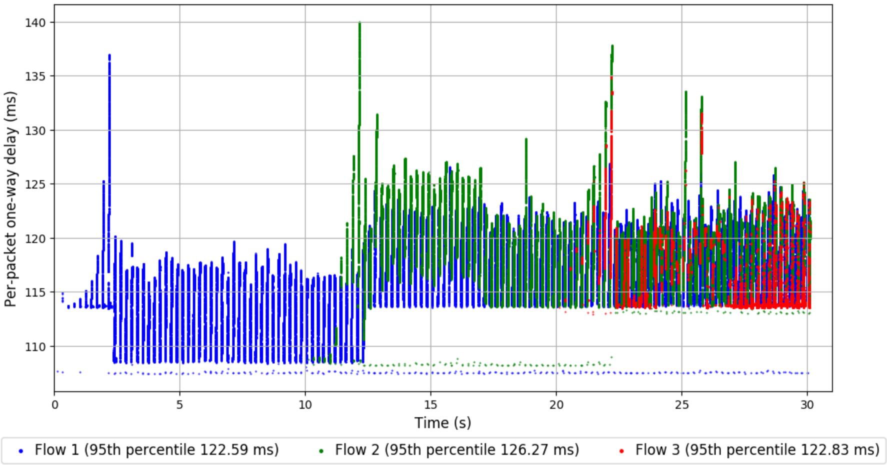
```
Run 6: Statistics of TCP Cubic

Start at: 2018-07-18 05:34:10
End at: 2018-07-18 05:34:40
Local clock offset: 0.01 ms
Remote clock offset: 0.255 ms

# Below is generated by plot.py at 2018-07-18 07:50:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.01 Mbit/s
95th percentile per-packet one-way delay: 124.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.44 Mbit/s
95th percentile per-packet one-way delay: 122.591 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.20 Mbit/s
95th percentile per-packet one-way delay: 126.273 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.94 Mbit/s
95th percentile per-packet one-way delay: 122.825 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Cubic — Data Link



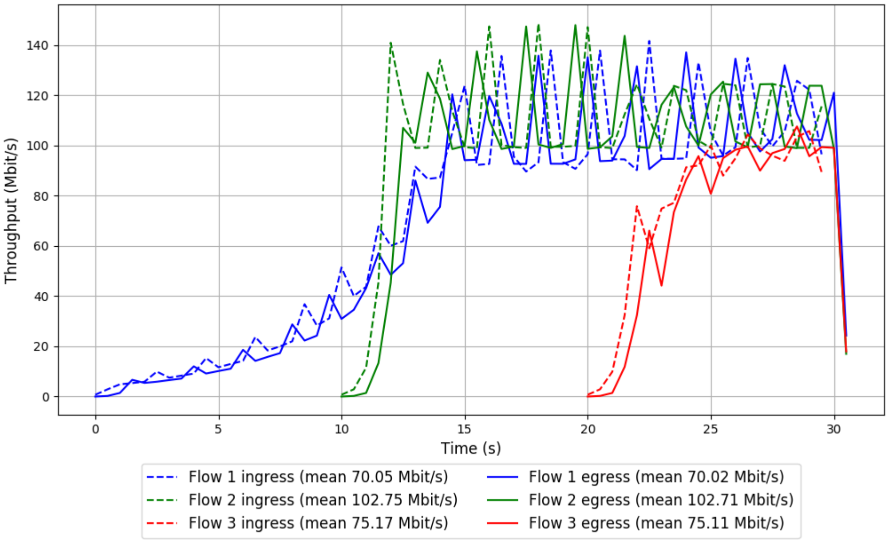


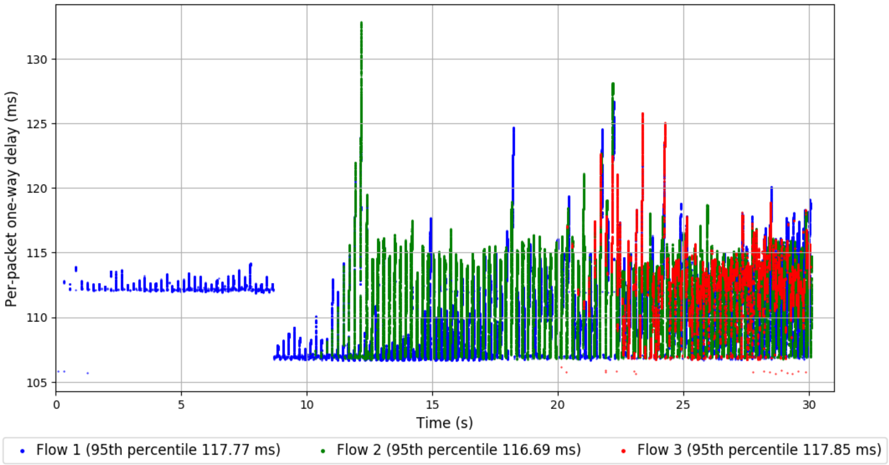
```
Run 7: Statistics of TCP Cubic

Start at: 2018-07-18 06:00:04
End at: 2018-07-18 06:00:34
Local clock offset: 1.207 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2018-07-18 07:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 163.19 Mbit/s
95th percentile per-packet one-way delay: 117.471 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.02 Mbit/s
95th percentile per-packet one-way delay: 117.766 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 102.71 Mbit/s
95th percentile per-packet one-way delay: 116.692 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 75.11 Mbit/s
95th percentile per-packet one-way delay: 117.846 ms
Loss rate: 0.00%
```

Run 7: Report of TCP Cubic — Data Link



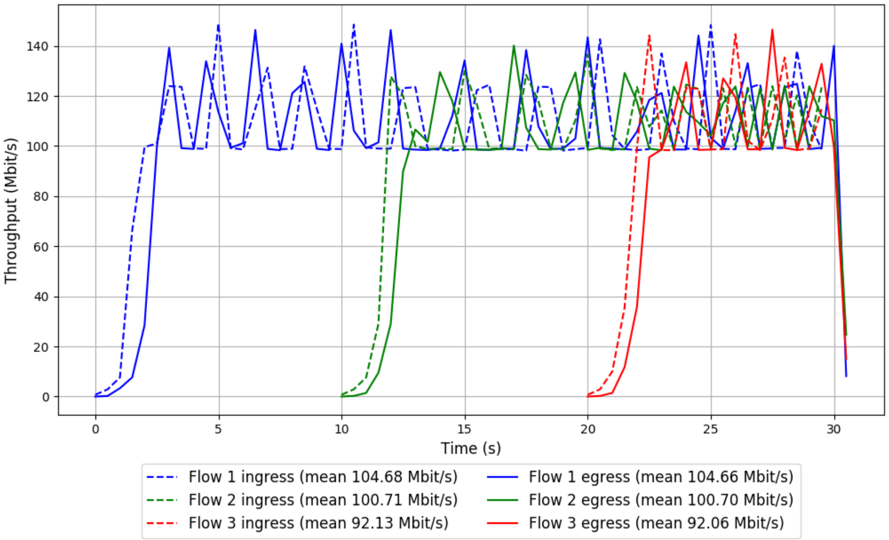


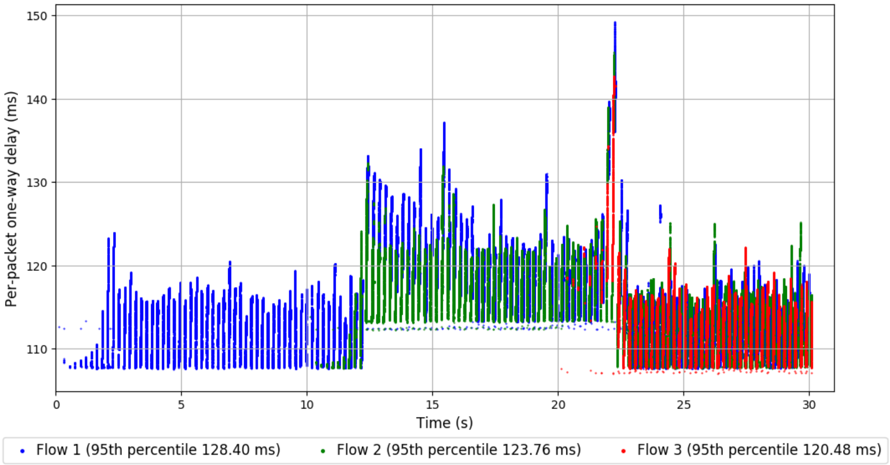
```
Run 8: Statistics of TCP Cubic

Start at: 2018-07-18 06:25:11
End at: 2018-07-18 06:25:41
Local clock offset: -0.103 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2018-07-18 07:52:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 201.99 Mbit/s
95th percentile per-packet one-way delay: 126.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 104.66 Mbit/s
95th percentile per-packet one-way delay: 128.402 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.70 Mbit/s
95th percentile per-packet one-way delay: 123.762 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.06 Mbit/s
95th percentile per-packet one-way delay: 120.482 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Cubic — Data Link



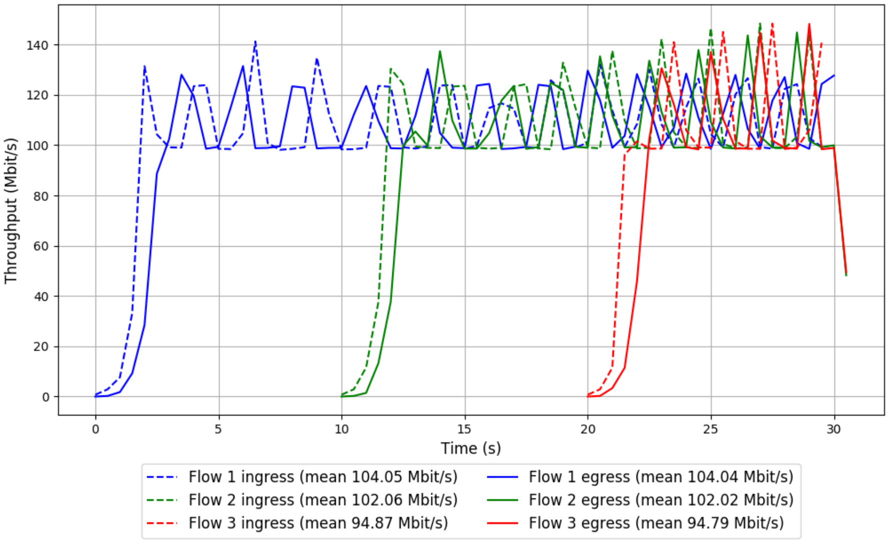


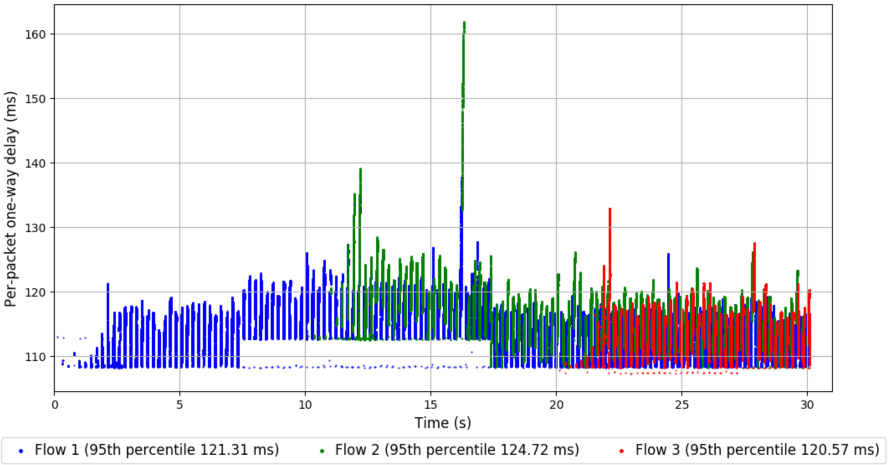
```
Run 9: Statistics of TCP Cubic

Start at: 2018-07-18 06:50:45
End at: 2018-07-18 06:51:15
Local clock offset: 0.046 ms
Remote clock offset: 0.206 ms

# Below is generated by plot.py at 2018-07-18 07:52:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 203.01 Mbit/s
95th percentile per-packet one-way delay: 122.867 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 104.04 Mbit/s
95th percentile per-packet one-way delay: 121.314 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 102.02 Mbit/s
95th percentile per-packet one-way delay: 124.718 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 120.570 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Cubic — Data Link



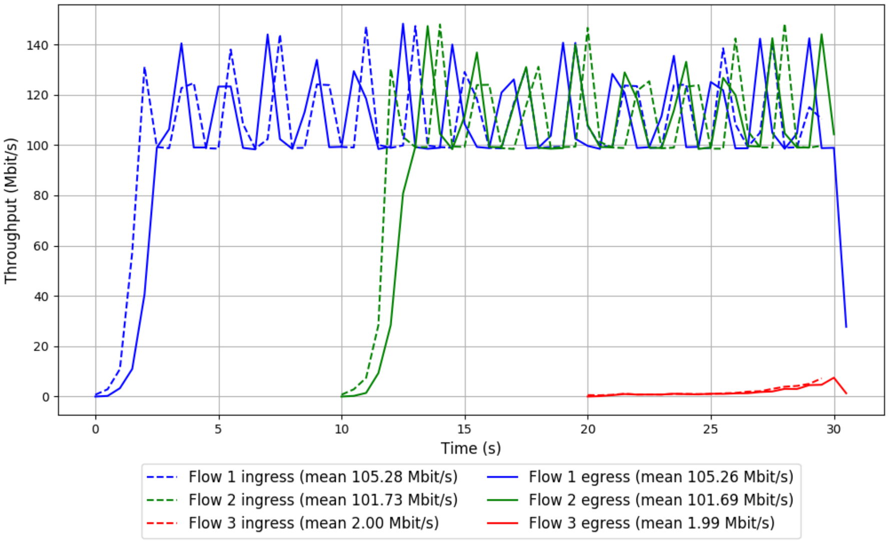


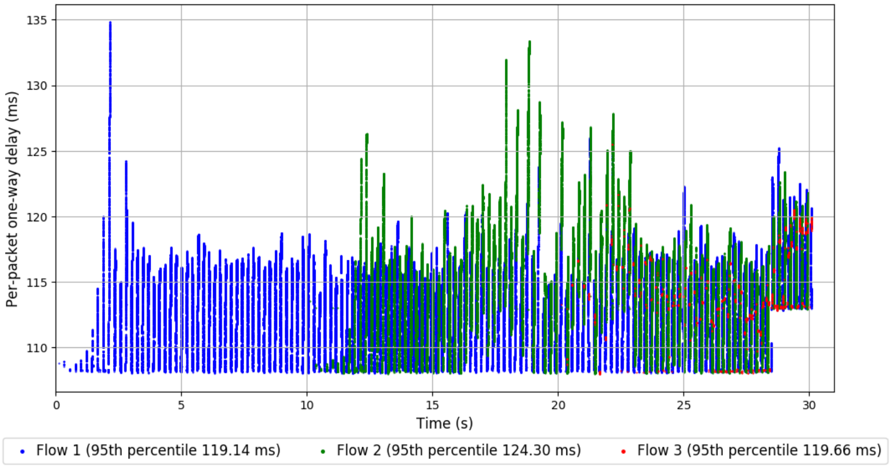
```
Run 10: Statistics of TCP Cubic

Start at: 2018-07-18 07:16:14
End at: 2018-07-18 07:16:44
Local clock offset: -0.288 ms
Remote clock offset: 0.286 ms

# Below is generated by plot.py at 2018-07-18 07:52:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 173.17 Mbit/s
95th percentile per-packet one-way delay: 121.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 105.26 Mbit/s
95th percentile per-packet one-way delay: 119.145 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 101.69 Mbit/s
95th percentile per-packet one-way delay: 124.301 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 119.656 ms
Loss rate: 0.18%
```

Run 10: Report of TCP Cubic — Data Link



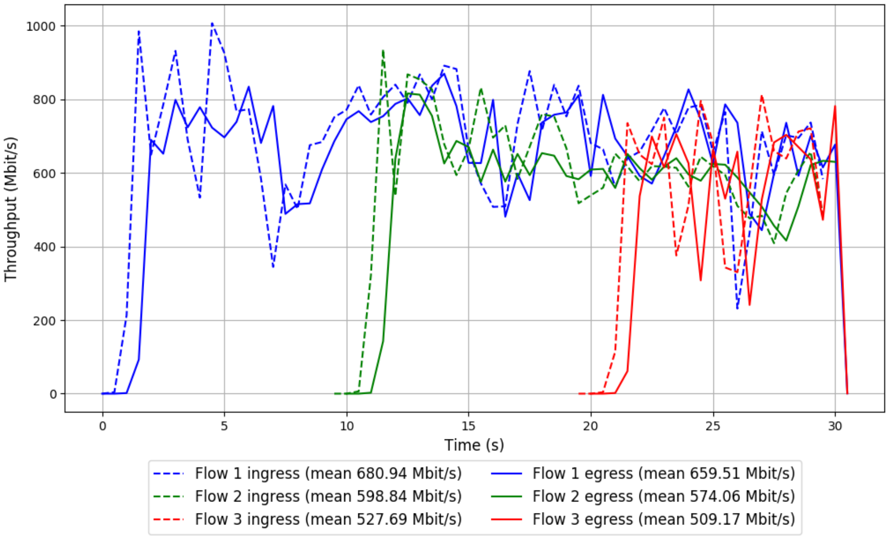


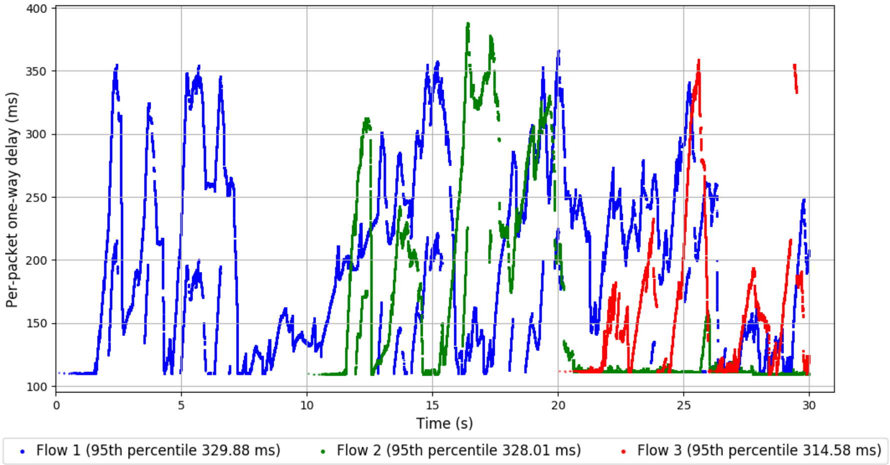
```
Run 1: Statistics of FillP

Start at: 2018-07-18 03:22:35
End at: 2018-07-18 03:23:05
Local clock offset: -0.286 ms
Remote clock offset: -0.226 ms

# Below is generated by plot.py at 2018-07-18 08:13:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1211.81 Mbit/s
95th percentile per-packet one-way delay: 328.501 ms
Loss rate: 3.51%
-- Flow 1:
Average throughput: 659.51 Mbit/s
95th percentile per-packet one-way delay: 329.881 ms
Loss rate: 3.14%
-- Flow 2:
Average throughput: 574.06 Mbit/s
95th percentile per-packet one-way delay: 328.007 ms
Loss rate: 4.14%
-- Flow 3:
Average throughput: 509.17 Mbit/s
95th percentile per-packet one-way delay: 314.577 ms
Loss rate: 3.51%
```

Run 1: Report of FillP — Data Link



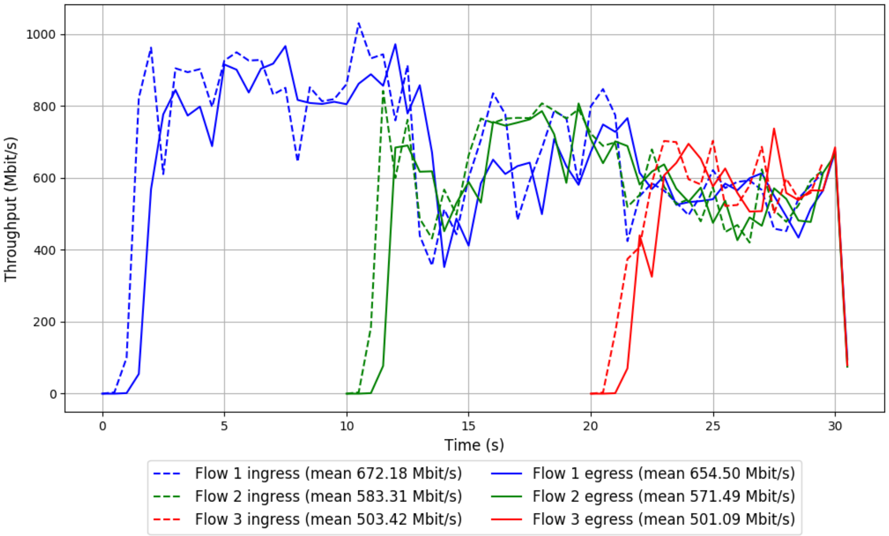


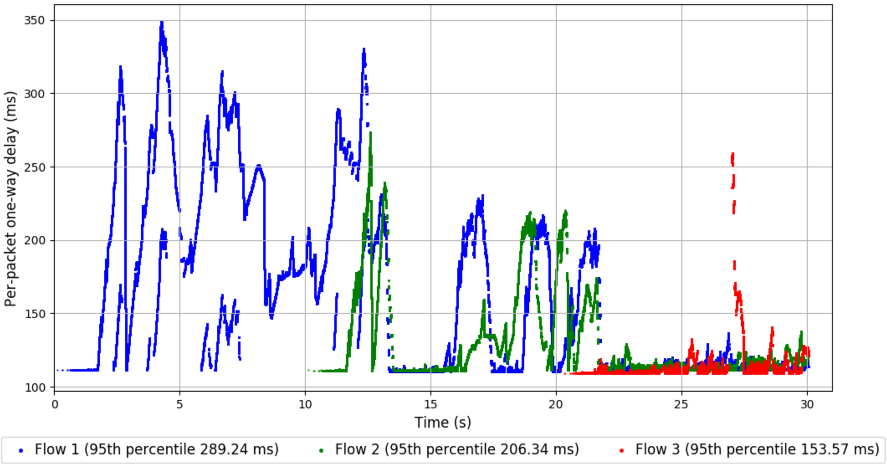
```
Run 2: Statistics of FillP

Start at: 2018-07-18 03:48:22
End at: 2018-07-18 03:48:52
Local clock offset: 0.018 ms
Remote clock offset: -0.183 ms

# Below is generated by plot.py at 2018-07-18 08:13:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1200.80 Mbit/s
95th percentile per-packet one-way delay: 273.532 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 654.50 Mbit/s
95th percentile per-packet one-way delay: 289.241 ms
Loss rate: 2.63%
-- Flow 2:
Average throughput: 571.49 Mbit/s
95th percentile per-packet one-way delay: 206.335 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 501.09 Mbit/s
95th percentile per-packet one-way delay: 153.574 ms
Loss rate: 0.45%
```

Run 2: Report of FillP — Data Link



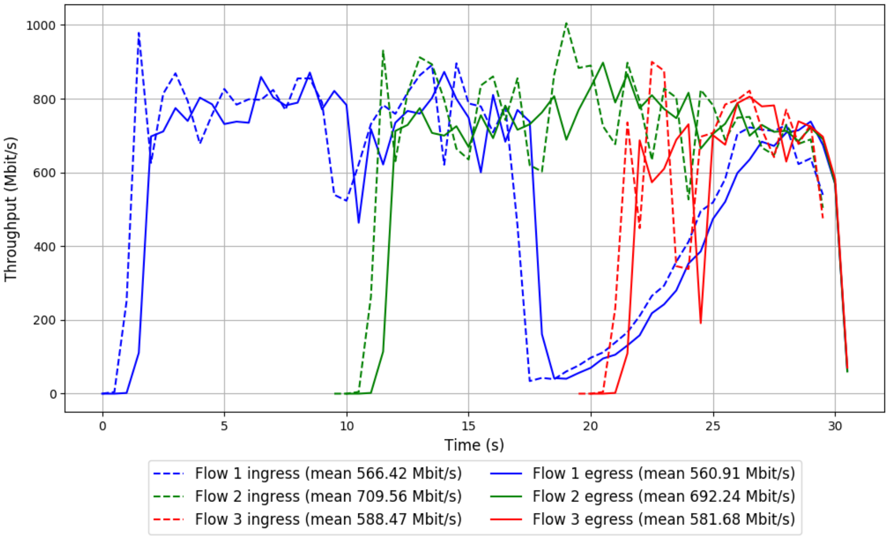


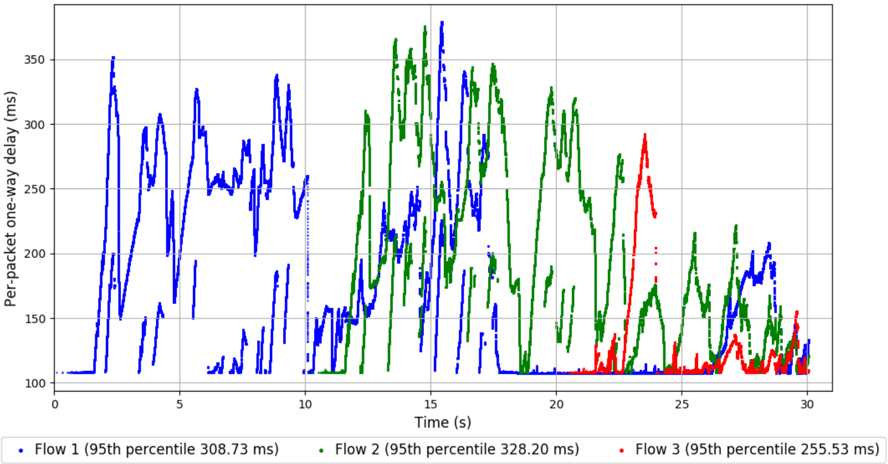
```
Run 3: Statistics of FillP

Start at: 2018-07-18 04:14:24
End at: 2018-07-18 04:14:54
Local clock offset: -0.254 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2018-07-18 08:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1215.15 Mbit/s
95th percentile per-packet one-way delay: 317.158 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 560.91 Mbit/s
95th percentile per-packet one-way delay: 308.726 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 692.24 Mbit/s
95th percentile per-packet one-way delay: 328.200 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 581.68 Mbit/s
95th percentile per-packet one-way delay: 255.525 ms
Loss rate: 1.15%
```

Run 3: Report of FillP — Data Link



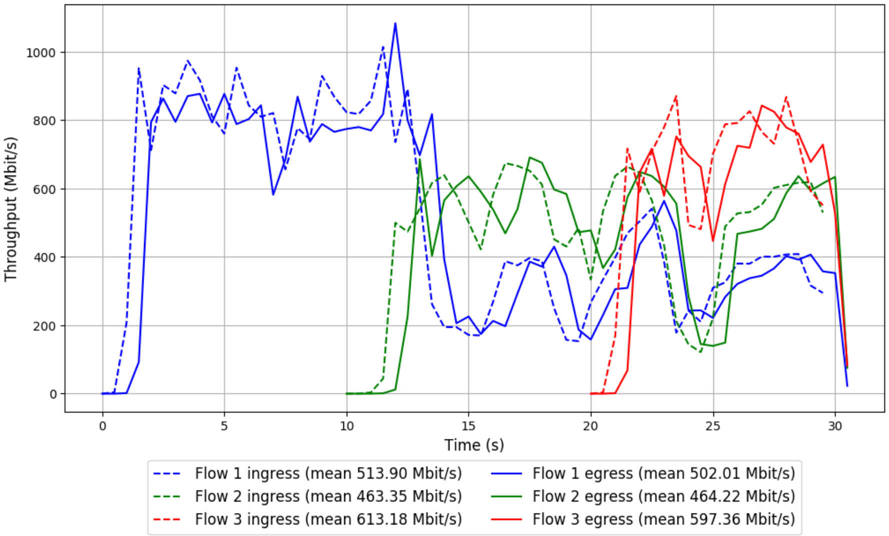


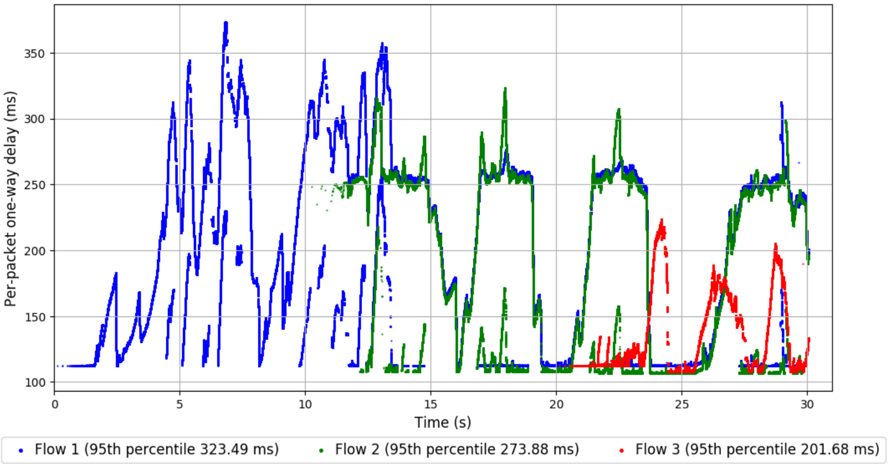
```
Run 4: Statistics of FillP

Start at: 2018-07-18 04:39:49
End at: 2018-07-18 04:40:19
Local clock offset: 0.032 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-07-18 08:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1006.81 Mbit/s
95th percentile per-packet one-way delay: 307.358 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 502.01 Mbit/s
95th percentile per-packet one-way delay: 323.485 ms
Loss rate: 2.31%
-- Flow 2:
Average throughput: 464.22 Mbit/s
95th percentile per-packet one-way delay: 273.883 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 597.36 Mbit/s
95th percentile per-packet one-way delay: 201.680 ms
Loss rate: 2.58%
```

Run 4: Report of FillP — Data Link



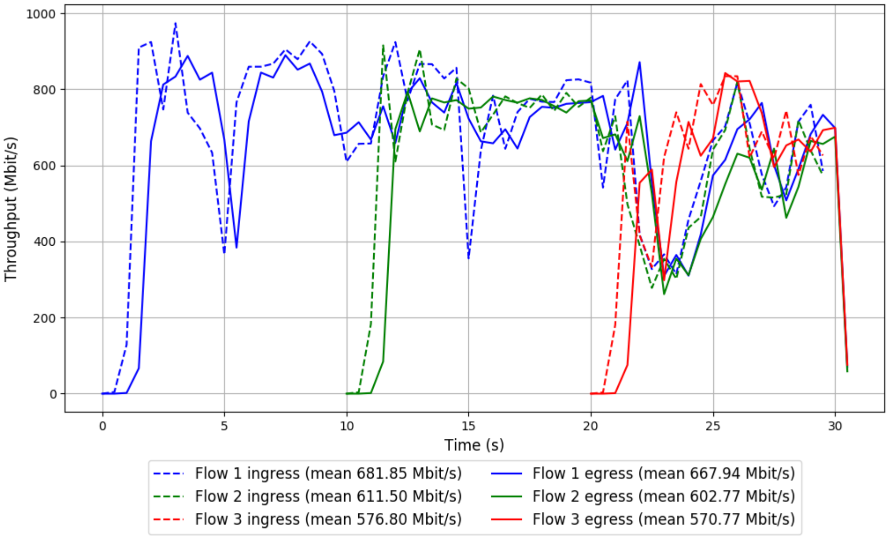


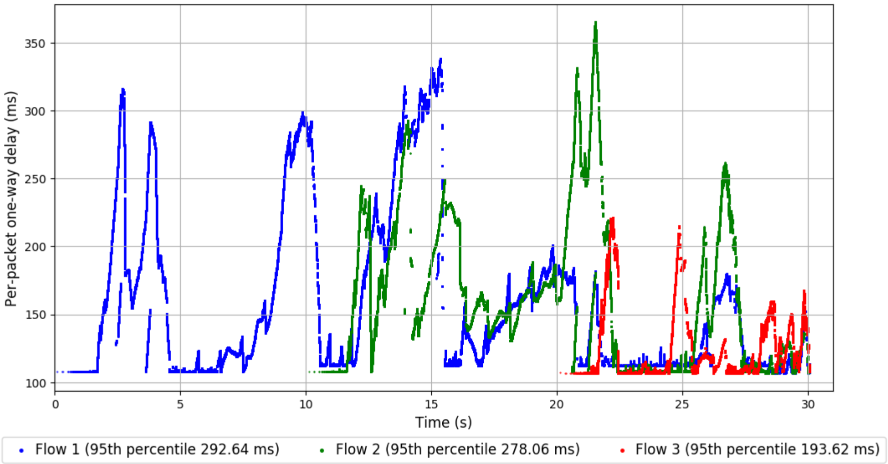
```
Run 5: Statistics of FillP

Start at: 2018-07-18 05:04:44
End at: 2018-07-18 05:05:14
Local clock offset: 0.224 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-18 08:15:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1258.34 Mbit/s
95th percentile per-packet one-way delay: 286.224 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 667.94 Mbit/s
95th percentile per-packet one-way delay: 292.644 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 602.77 Mbit/s
95th percentile per-packet one-way delay: 278.059 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 570.77 Mbit/s
95th percentile per-packet one-way delay: 193.617 ms
Loss rate: 1.02%
```

Run 5: Report of FillP — Data Link



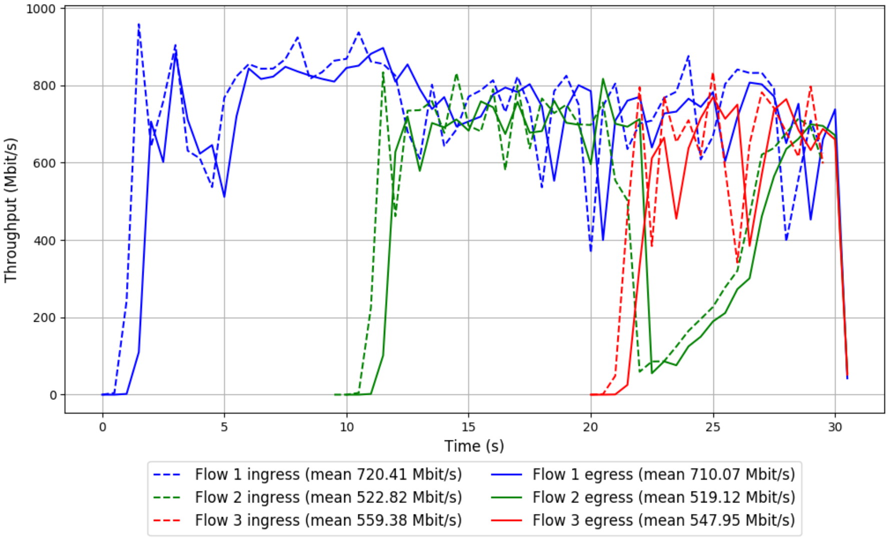


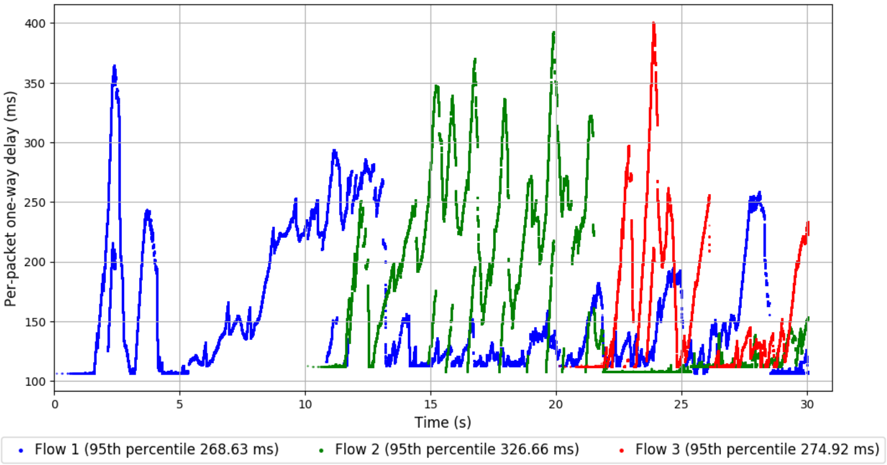
```
Run 6: Statistics of FillP

Start at: 2018-07-18 05:30:07
End at: 2018-07-18 05:30:37
Local clock offset: 0.391 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2018-07-18 08:15:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1236.93 Mbit/s
95th percentile per-packet one-way delay: 285.531 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 710.07 Mbit/s
95th percentile per-packet one-way delay: 268.632 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 519.12 Mbit/s
95th percentile per-packet one-way delay: 326.659 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 547.95 Mbit/s
95th percentile per-packet one-way delay: 274.918 ms
Loss rate: 1.99%
```

Run 6: Report of FillP — Data Link



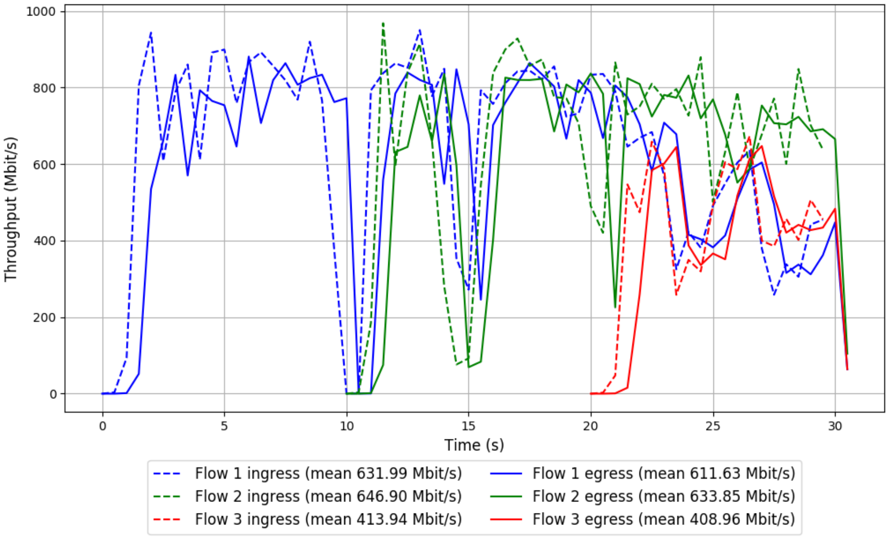


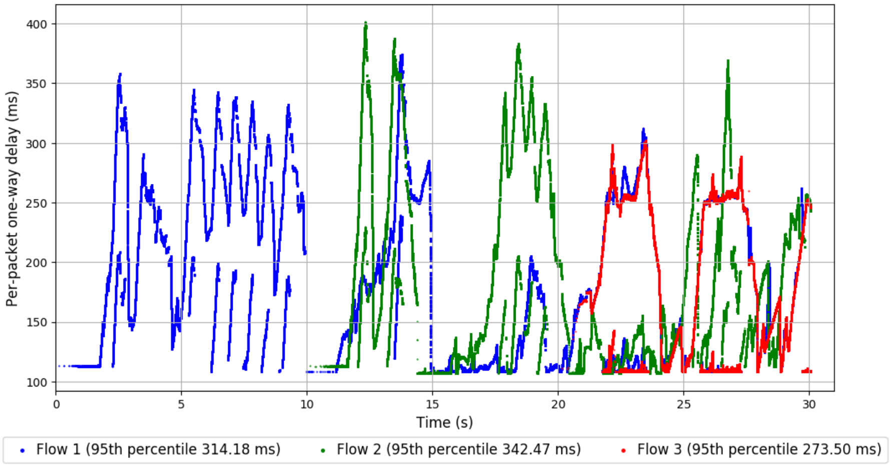
```
Run 7: Statistics of FillP

Start at: 2018-07-18 05:55:59
End at: 2018-07-18 05:56:29
Local clock offset: -0.241 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-07-18 08:15:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1168.77 Mbit/s
95th percentile per-packet one-way delay: 320.779 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 611.63 Mbit/s
95th percentile per-packet one-way delay: 314.184 ms
Loss rate: 3.22%
-- Flow 2:
Average throughput: 633.85 Mbit/s
95th percentile per-packet one-way delay: 342.471 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 408.96 Mbit/s
95th percentile per-packet one-way delay: 273.503 ms
Loss rate: 1.18%
```

Run 7: Report of FillP — Data Link



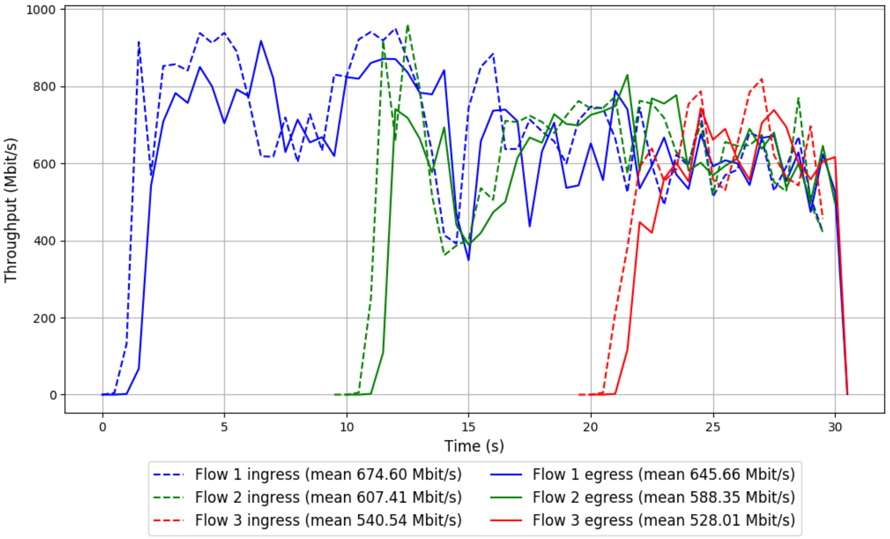


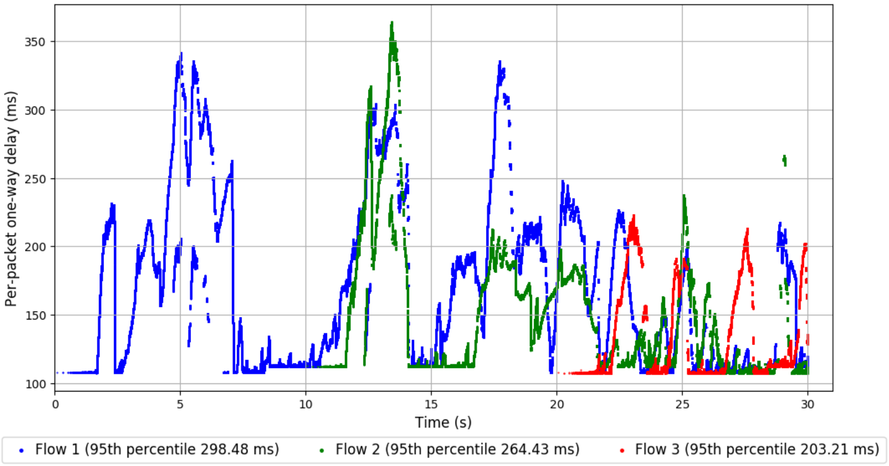
```
Run 8: Statistics of FillP

Start at: 2018-07-18 06:21:04
End at: 2018-07-18 06:21:34
Local clock offset: -0.005 ms
Remote clock offset: -0.358 ms

# Below is generated by plot.py at 2018-07-18 08:16:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1213.30 Mbit/s
95th percentile per-packet one-way delay: 290.384 ms
Loss rate: 3.63%
-- Flow 1:
Average throughput: 645.66 Mbit/s
95th percentile per-packet one-way delay: 298.480 ms
Loss rate: 4.26%
-- Flow 2:
Average throughput: 588.35 Mbit/s
95th percentile per-packet one-way delay: 264.432 ms
Loss rate: 3.16%
-- Flow 3:
Average throughput: 528.01 Mbit/s
95th percentile per-packet one-way delay: 203.209 ms
Loss rate: 2.27%
```

Run 8: Report of FillP — Data Link



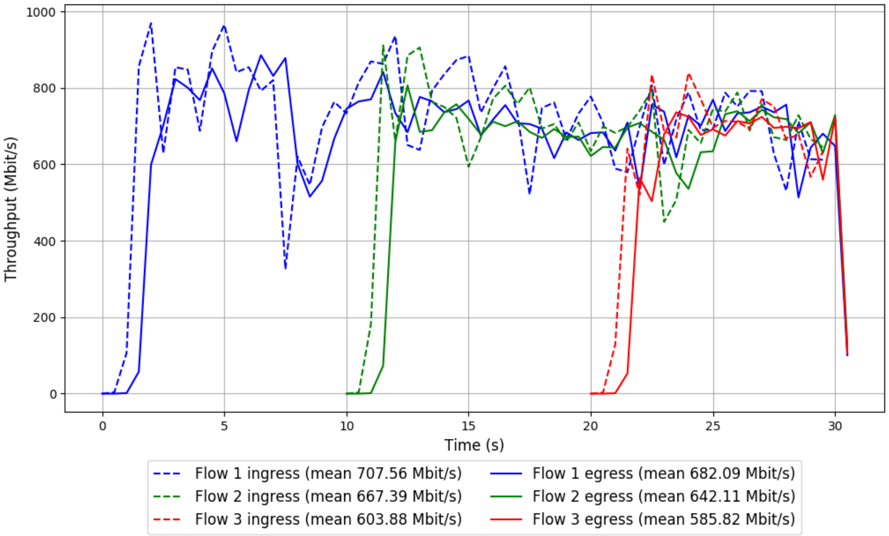


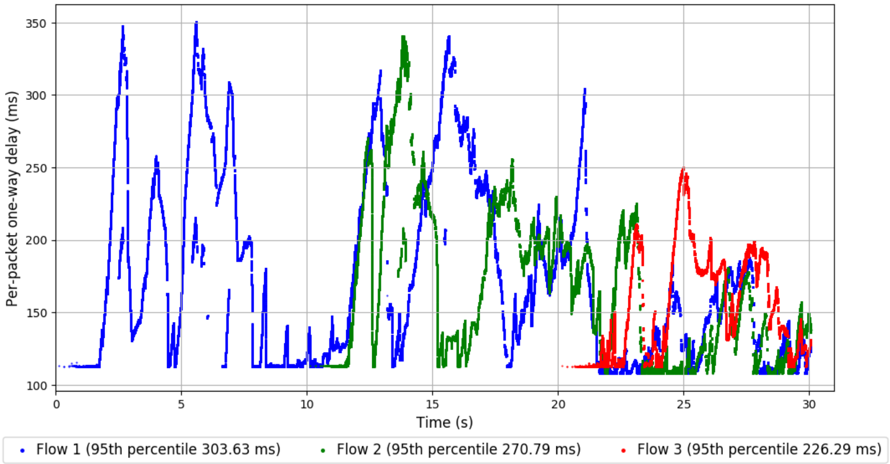
```
Run 9: Statistics of FillP

Start at: 2018-07-18 06:46:41
End at: 2018-07-18 06:47:11
Local clock offset: -0.015 ms
Remote clock offset: 0.236 ms

# Below is generated by plot.py at 2018-07-18 08:36:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1303.42 Mbit/s
95th percentile per-packet one-way delay: 289.544 ms
Loss rate: 3.50%
-- Flow 1:
Average throughput: 682.09 Mbit/s
95th percentile per-packet one-way delay: 303.629 ms
Loss rate: 3.57%
-- Flow 2:
Average throughput: 642.11 Mbit/s
95th percentile per-packet one-way delay: 270.790 ms
Loss rate: 3.71%
-- Flow 3:
Average throughput: 585.82 Mbit/s
95th percentile per-packet one-way delay: 226.292 ms
Loss rate: 2.83%
```

Run 9: Report of FillP — Data Link



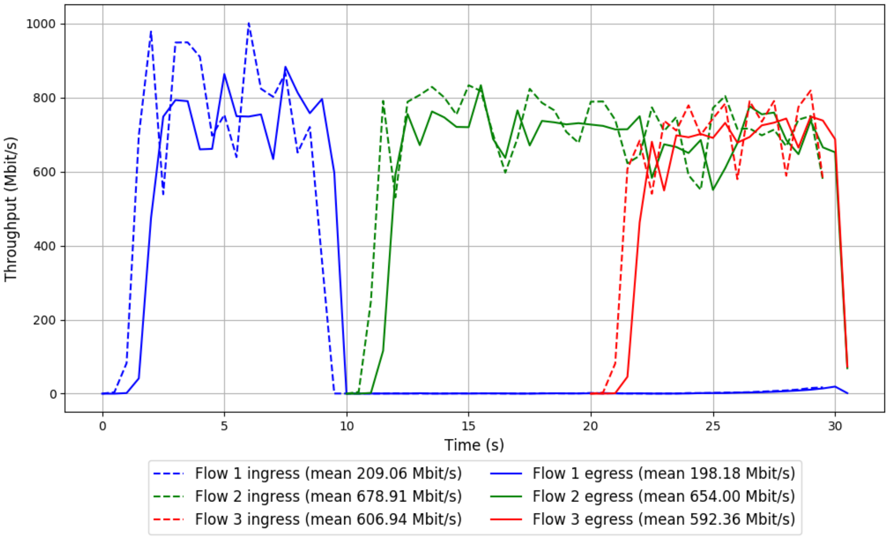


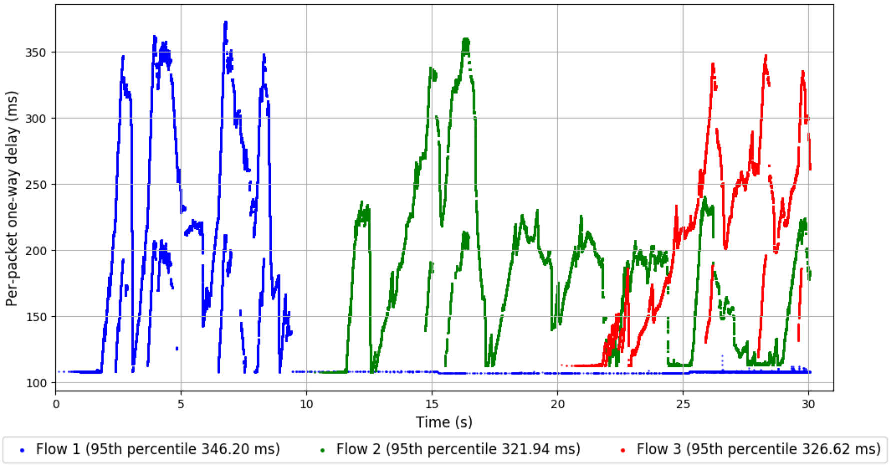
```
Run 10: Statistics of FillP

Start at: 2018-07-18 07:12:28
End at: 2018-07-18 07:12:58
Local clock offset: -0.134 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-07-18 08:36:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 829.60 Mbit/s
95th percentile per-packet one-way delay: 330.586 ms
Loss rate: 3.73%
-- Flow 1:
Average throughput: 198.18 Mbit/s
95th percentile per-packet one-way delay: 346.201 ms
Loss rate: 5.20%
-- Flow 2:
Average throughput: 654.00 Mbit/s
95th percentile per-packet one-way delay: 321.943 ms
Loss rate: 3.64%
-- Flow 3:
Average throughput: 592.36 Mbit/s
95th percentile per-packet one-way delay: 326.623 ms
Loss rate: 2.40%
```

Run 10: Report of FillP — Data Link



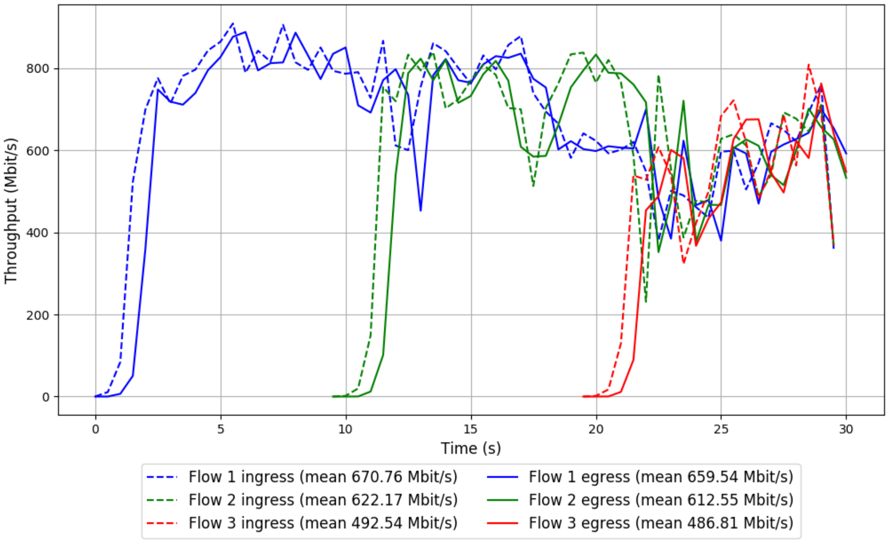


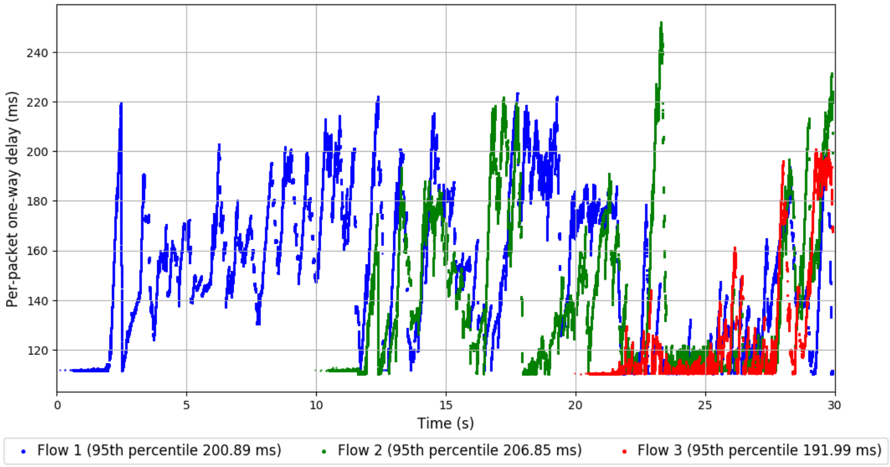
```
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-18 03:19:01
End at: 2018-07-18 03:19:31
Local clock offset: -0.1 ms
Remote clock offset: 0.186 ms

# Below is generated by plot.py at 2018-07-18 08:37:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1231.69 Mbit/s
95th percentile per-packet one-way delay: 200.817 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 659.54 Mbit/s
95th percentile per-packet one-way delay: 200.886 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 612.55 Mbit/s
95th percentile per-packet one-way delay: 206.846 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 486.81 Mbit/s
95th percentile per-packet one-way delay: 191.986 ms
Loss rate: 1.15%
```

Run 1: Report of FillP-Sheep — Data Link



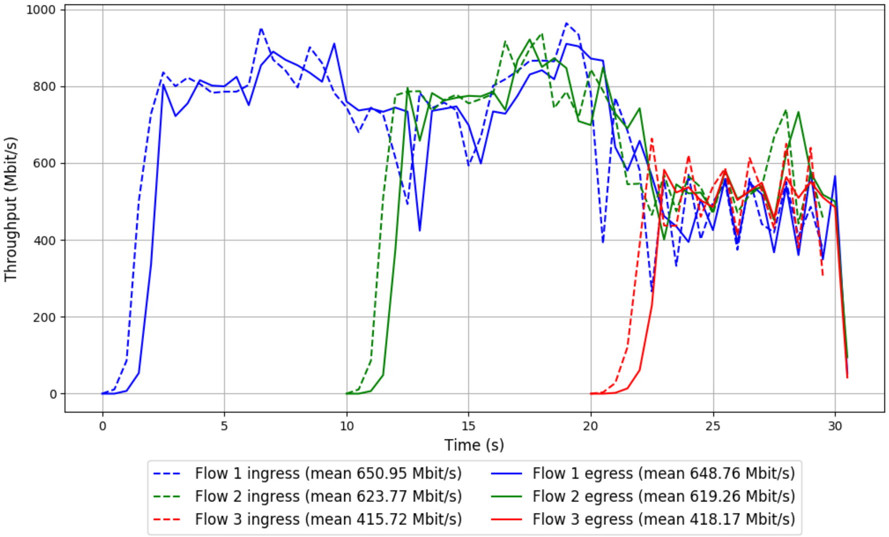


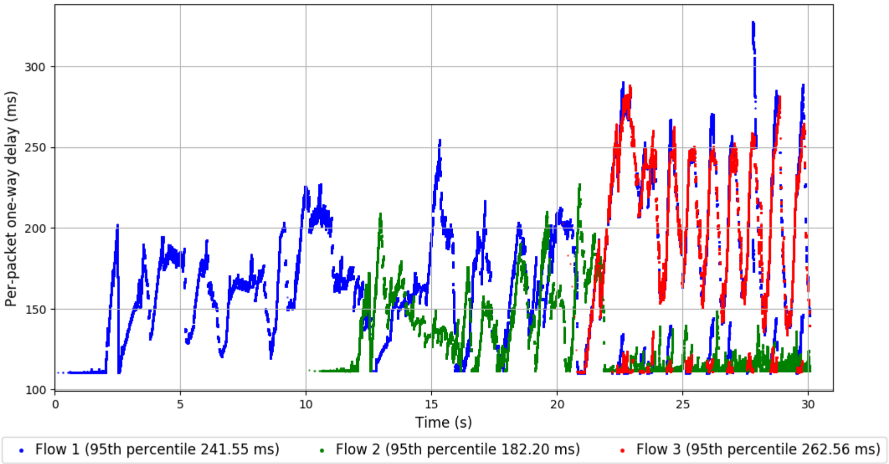
```
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-18 03:44:50
End at: 2018-07-18 03:45:20
Local clock offset: -0.253 ms
Remote clock offset: 0.195 ms

# Below is generated by plot.py at 2018-07-18 08:37:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1198.09 Mbit/s
95th percentile per-packet one-way delay: 242.903 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 648.76 Mbit/s
95th percentile per-packet one-way delay: 241.554 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 619.26 Mbit/s
95th percentile per-packet one-way delay: 182.198 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 418.17 Mbit/s
95th percentile per-packet one-way delay: 262.555 ms
Loss rate: 0.33%
```

Run 2: Report of FillP-Sheep — Data Link



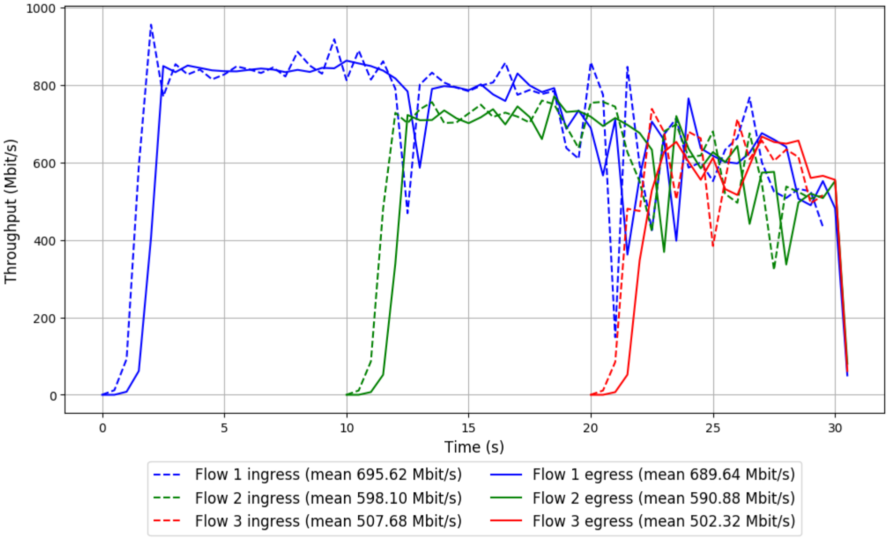


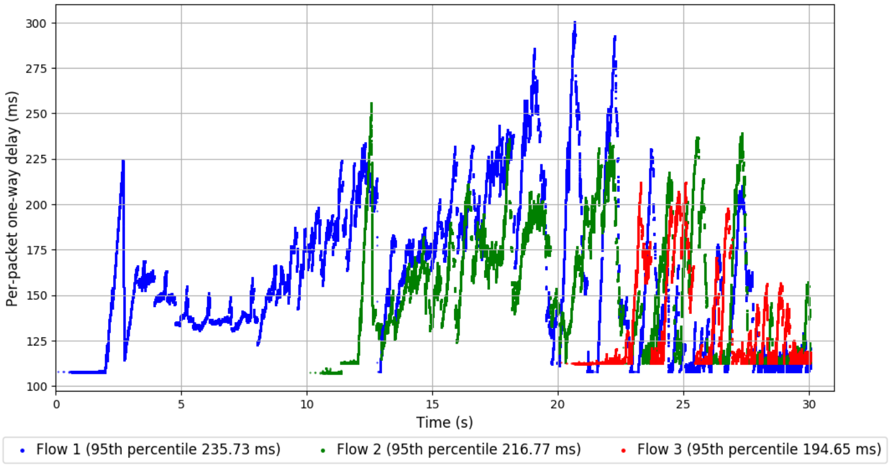
```
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-18 04:10:51
End at: 2018-07-18 04:11:21
Local clock offset: -0.098 ms
Remote clock offset: -0.135 ms

# Below is generated by plot.py at 2018-07-18 08:38:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1249.84 Mbit/s
95th percentile per-packet one-way delay: 226.181 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 689.64 Mbit/s
95th percentile per-packet one-way delay: 235.731 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 590.88 Mbit/s
95th percentile per-packet one-way delay: 216.766 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 502.32 Mbit/s
95th percentile per-packet one-way delay: 194.645 ms
Loss rate: 1.00%
```

Run 3: Report of FillP-Sheep — Data Link



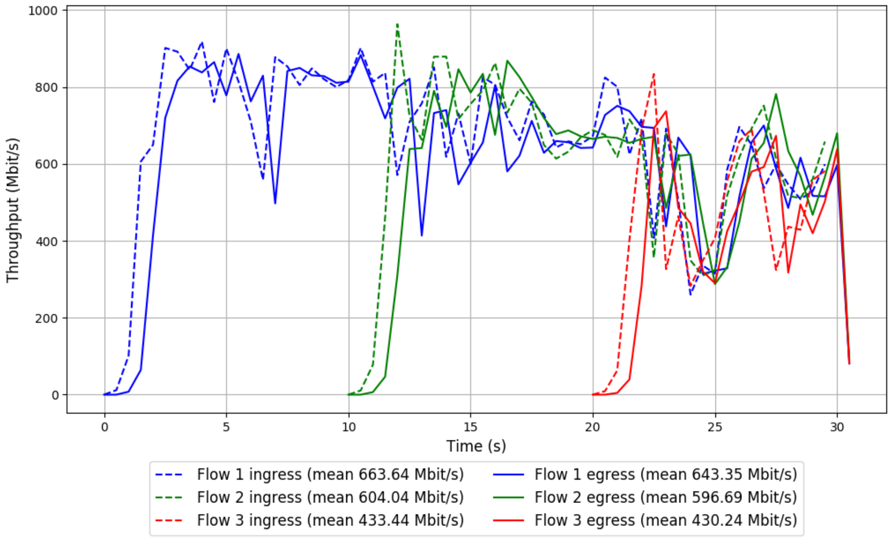


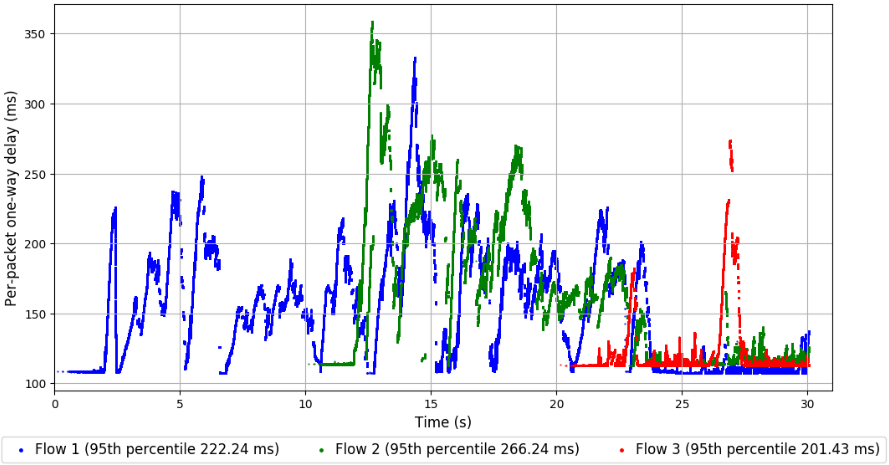
```
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-18 04:36:18
End at: 2018-07-18 04:36:48
Local clock offset: -0.272 ms
Remote clock offset: 0.301 ms

# Below is generated by plot.py at 2018-07-18 08:38:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1182.82 Mbit/s
95th percentile per-packet one-way delay: 246.137 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 643.35 Mbit/s
95th percentile per-packet one-way delay: 222.235 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 596.69 Mbit/s
95th percentile per-packet one-way delay: 266.236 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 430.24 Mbit/s
95th percentile per-packet one-way delay: 201.432 ms
Loss rate: 0.74%
```

Run 4: Report of FillP-Sheep — Data Link



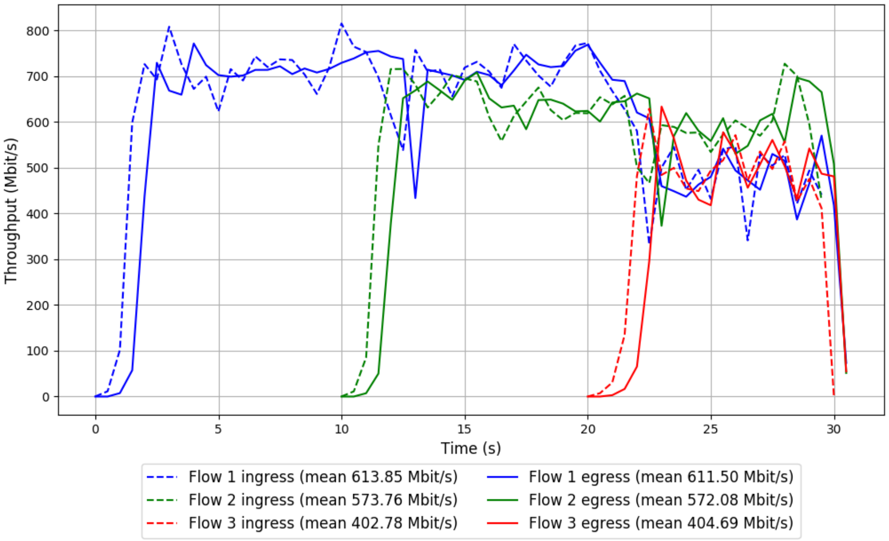


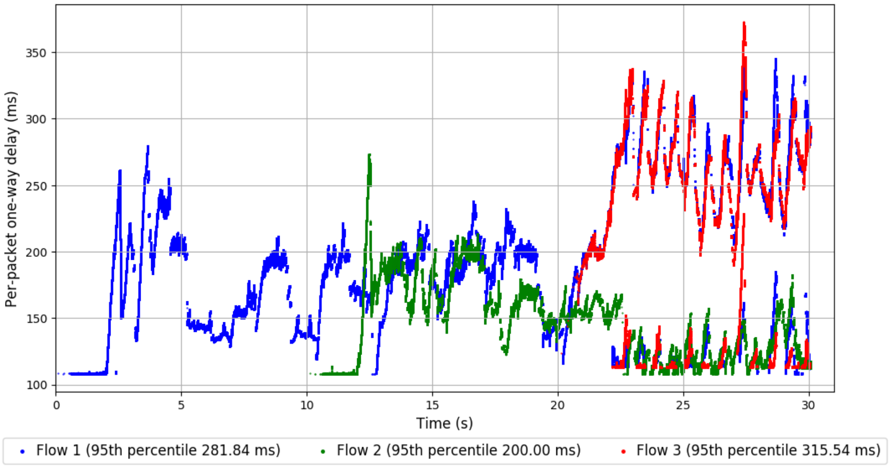
```
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-18 05:01:15
End at: 2018-07-18 05:01:45
Local clock offset: -0.141 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-07-18 08:38:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1126.35 Mbit/s
95th percentile per-packet one-way delay: 281.692 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 611.50 Mbit/s
95th percentile per-packet one-way delay: 281.838 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 572.08 Mbit/s
95th percentile per-packet one-way delay: 200.002 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 404.69 Mbit/s
95th percentile per-packet one-way delay: 315.535 ms
Loss rate: 1.16%
```

Run 5: Report of FillP-Sheep — Data Link



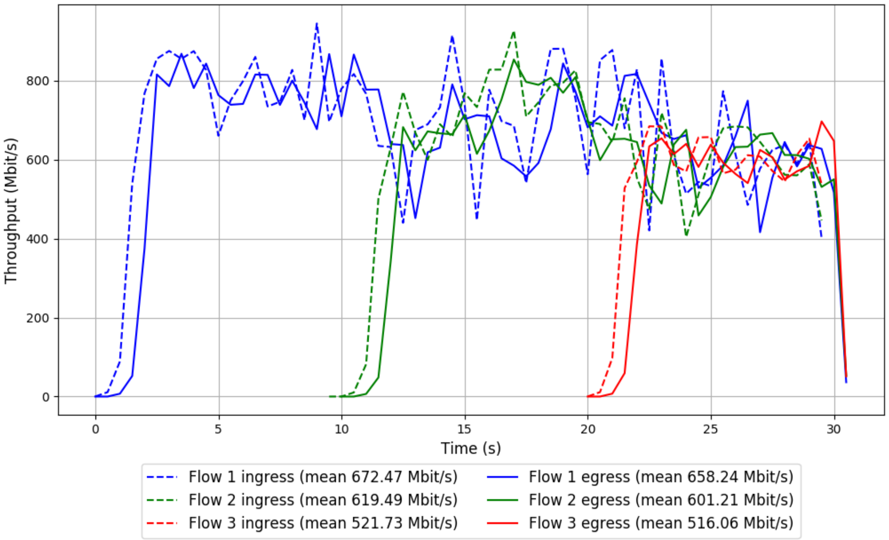


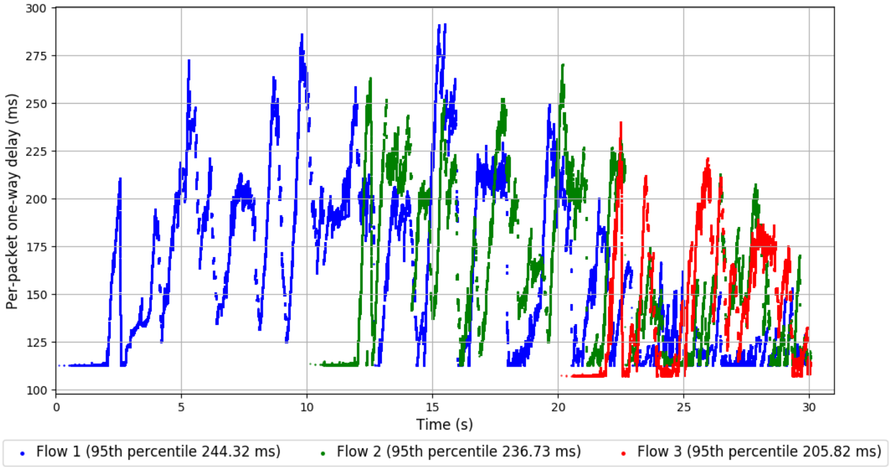
```
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-18 05:26:33
End at: 2018-07-18 05:27:03
Local clock offset: 0.034 ms
Remote clock offset: 0.231 ms

# Below is generated by plot.py at 2018-07-18 08:39:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1229.58 Mbit/s
95th percentile per-packet one-way delay: 238.506 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 658.24 Mbit/s
95th percentile per-packet one-way delay: 244.318 ms
Loss rate: 2.11%
-- Flow 2:
Average throughput: 601.21 Mbit/s
95th percentile per-packet one-way delay: 236.732 ms
Loss rate: 2.93%
-- Flow 3:
Average throughput: 516.06 Mbit/s
95th percentile per-packet one-way delay: 205.824 ms
Loss rate: 1.02%
```

Run 6: Report of FillP-Sheep — Data Link



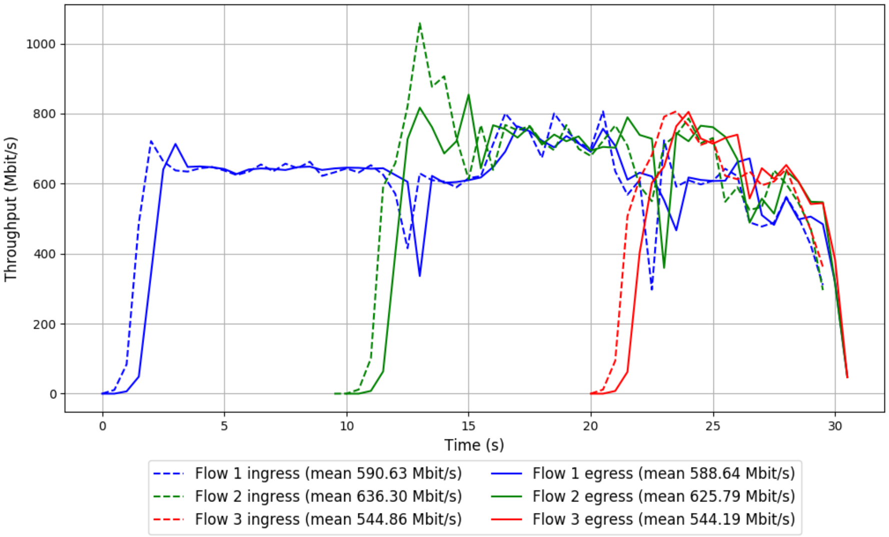


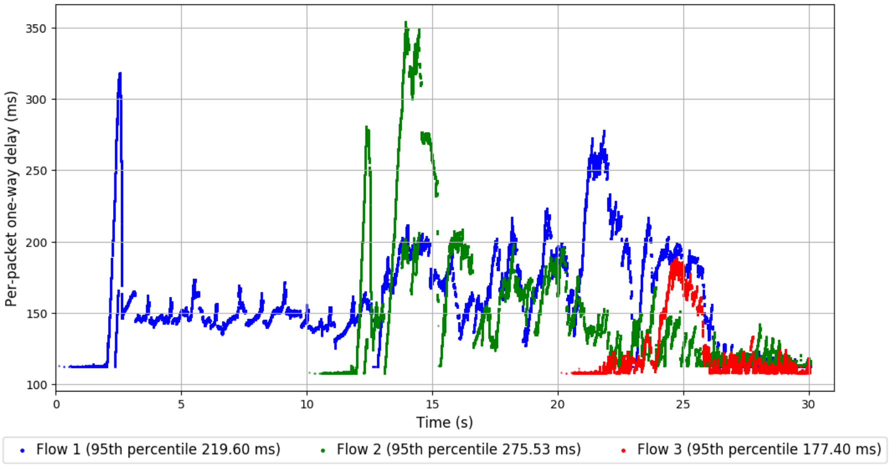
```
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-18 05:52:27
End at: 2018-07-18 05:52:57
Local clock offset: 0.14 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-18 08:55:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1185.89 Mbit/s
95th percentile per-packet one-way delay: 249.181 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 588.64 Mbit/s
95th percentile per-packet one-way delay: 219.598 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 625.79 Mbit/s
95th percentile per-packet one-way delay: 275.529 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 544.19 Mbit/s
95th percentile per-packet one-way delay: 177.397 ms
Loss rate: 0.07%
```

Run 7: Report of FillP-Sheep — Data Link



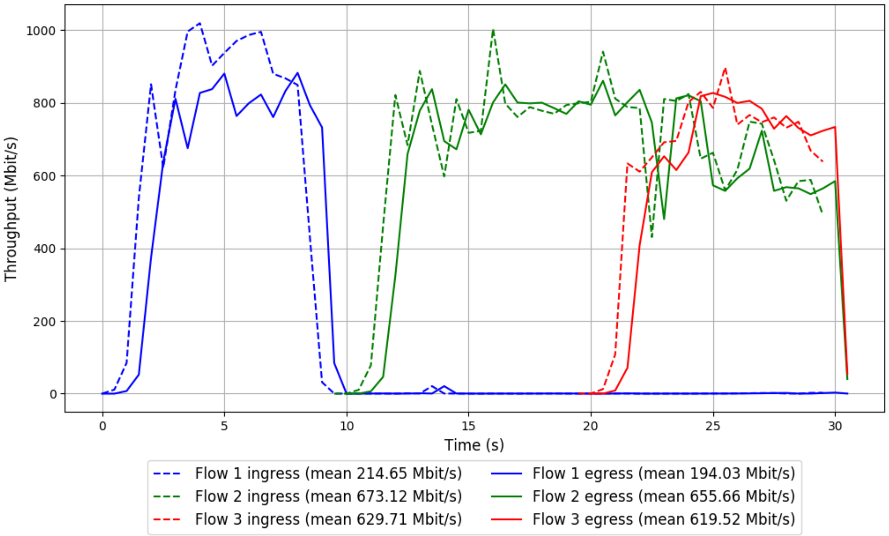


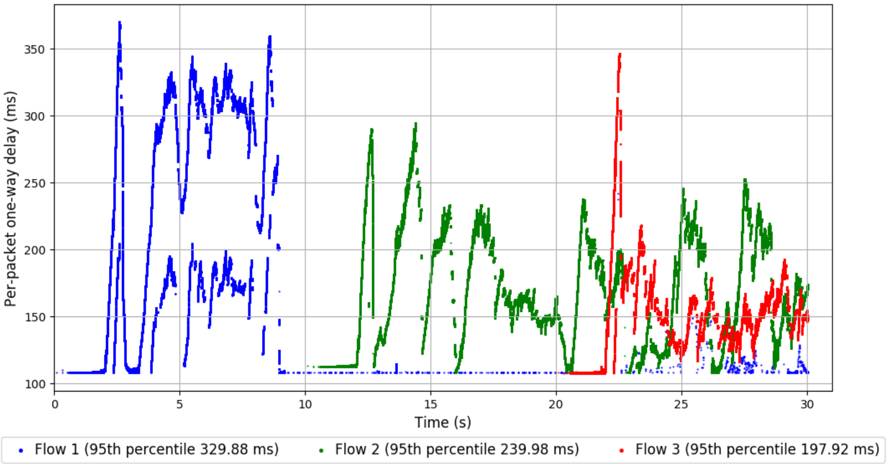
```
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-18 06:17:48
End at: 2018-07-18 06:18:18
Local clock offset: -0.123 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-18 08:55:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 836.32 Mbit/s
95th percentile per-packet one-way delay: 311.464 ms
Loss rate: 4.06%
-- Flow 1:
Average throughput: 194.03 Mbit/s
95th percentile per-packet one-way delay: 329.882 ms
Loss rate: 9.61%
-- Flow 2:
Average throughput: 655.66 Mbit/s
95th percentile per-packet one-way delay: 239.984 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 619.52 Mbit/s
95th percentile per-packet one-way delay: 197.924 ms
Loss rate: 1.53%
```

Run 8: Report of FillP-Sheep — Data Link



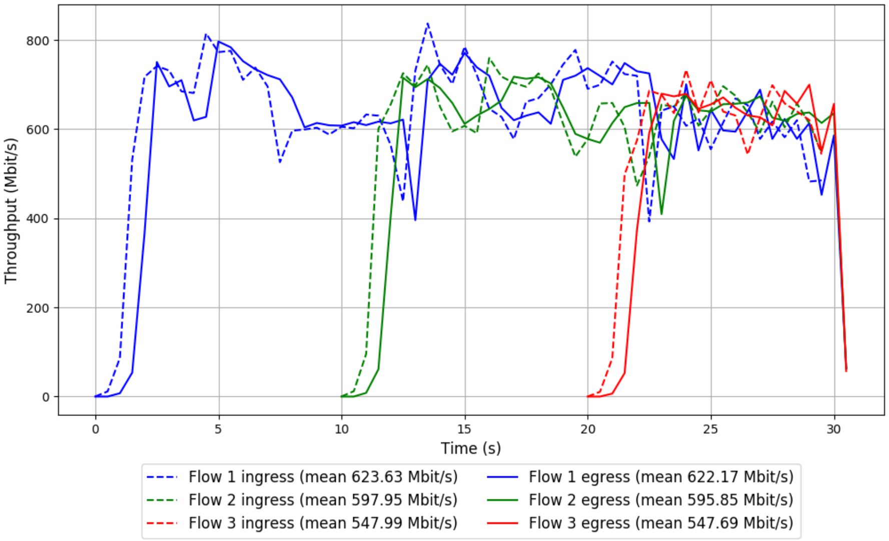


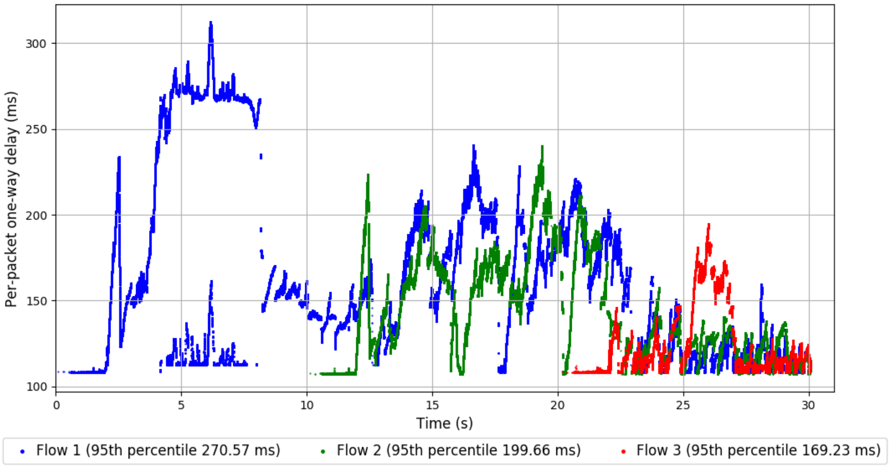
```
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-18 06:43:09
End at: 2018-07-18 06:43:39
Local clock offset: -0.267 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2018-07-18 09:00:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1199.91 Mbit/s
95th percentile per-packet one-way delay: 267.109 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 622.17 Mbit/s
95th percentile per-packet one-way delay: 270.572 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 595.85 Mbit/s
95th percentile per-packet one-way delay: 199.659 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 547.69 Mbit/s
95th percentile per-packet one-way delay: 169.233 ms
Loss rate: 0.00%
```

Run 9: Report of FillP-Sheep — Data Link



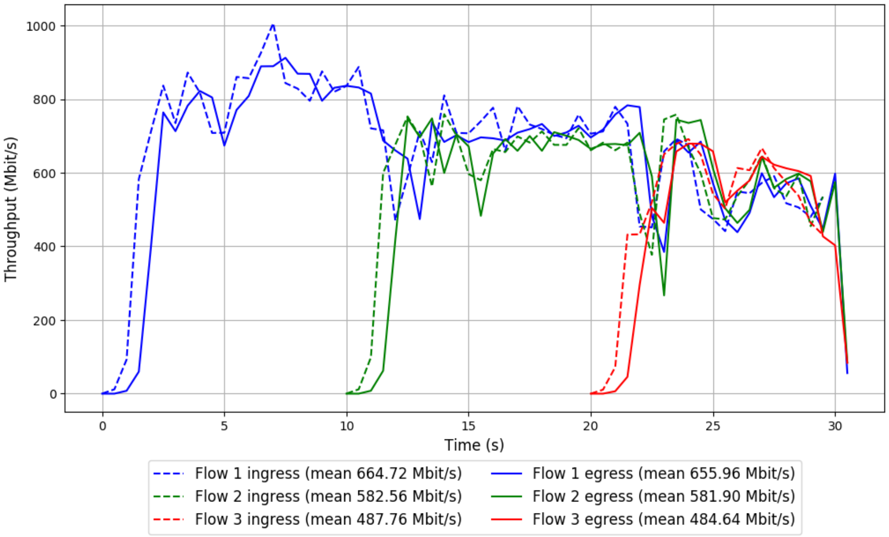


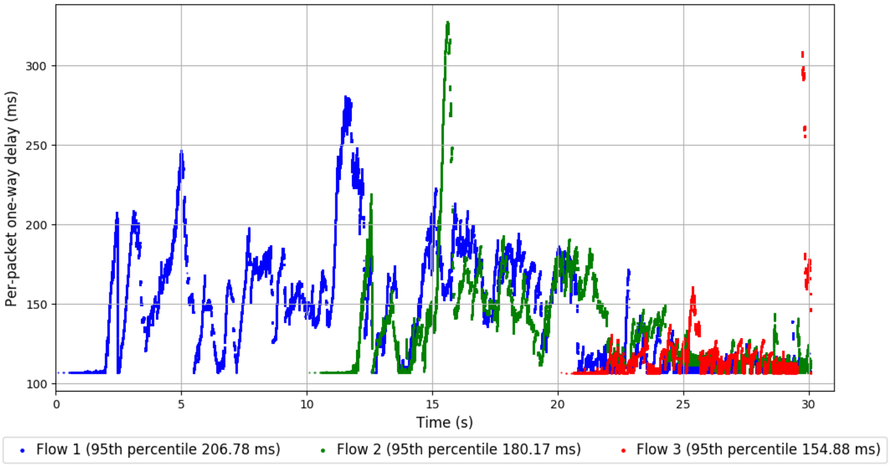
```
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-18 07:08:57
End at: 2018-07-18 07:09:27
Local clock offset: 1.391 ms
Remote clock offset: 0.266 ms

# Below is generated by plot.py at 2018-07-18 09:01:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1204.07 Mbit/s
95th percentile per-packet one-way delay: 196.889 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 655.96 Mbit/s
95th percentile per-packet one-way delay: 206.775 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 581.90 Mbit/s
95th percentile per-packet one-way delay: 180.170 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 484.64 Mbit/s
95th percentile per-packet one-way delay: 154.876 ms
Loss rate: 0.64%
```

Run 10: Report of FillP-Sheep — Data Link



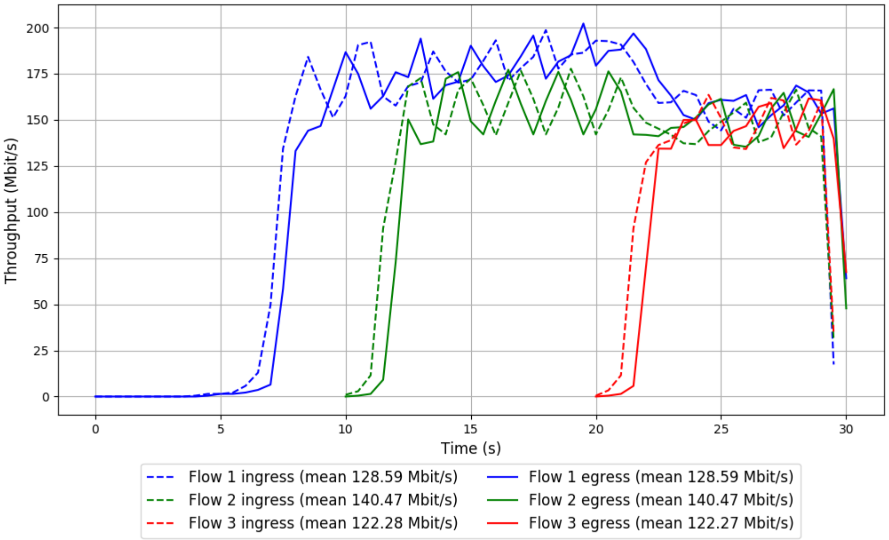


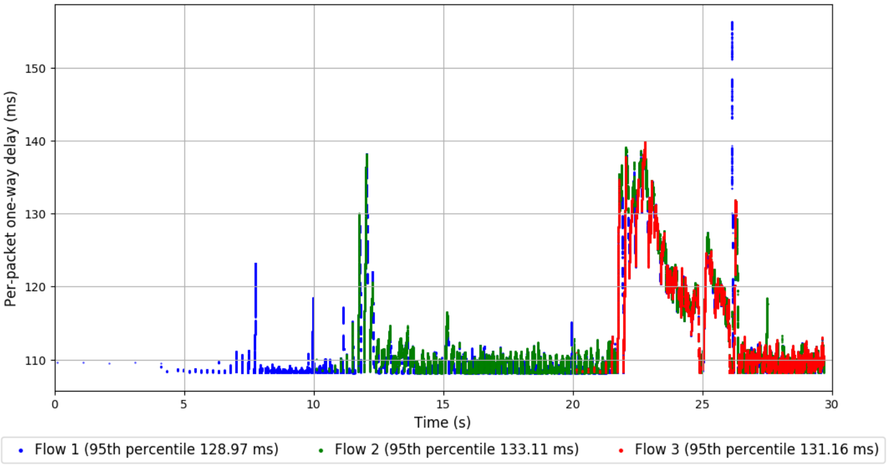
```
Run 1: Statistics of Indigo

Start at: 2018-07-18 03:10:21
End at: 2018-07-18 03:10:51
Local clock offset: 1.209 ms
Remote clock offset: -0.51 ms

# Below is generated by plot.py at 2018-07-18 09:01:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.96 Mbit/s
95th percentile per-packet one-way delay: 131.277 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 128.59 Mbit/s
95th percentile per-packet one-way delay: 128.965 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.47 Mbit/s
95th percentile per-packet one-way delay: 133.114 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 122.27 Mbit/s
95th percentile per-packet one-way delay: 131.156 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



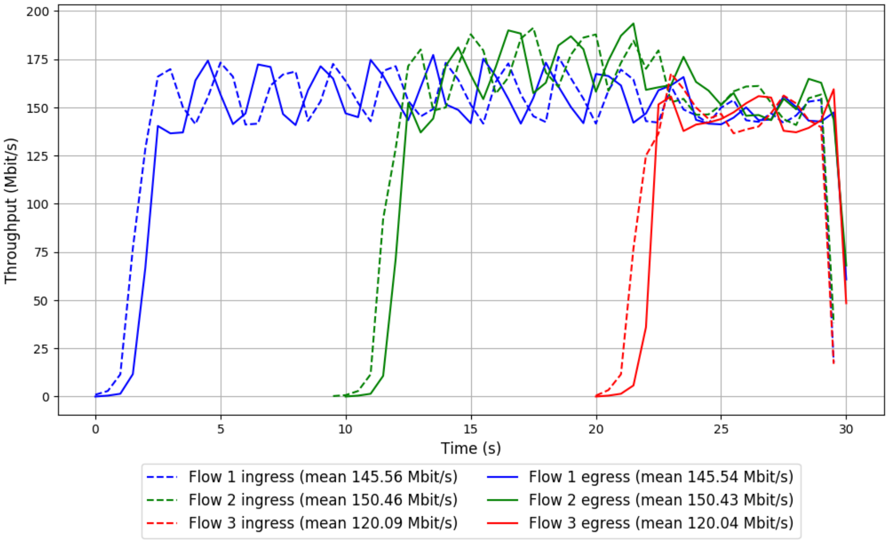


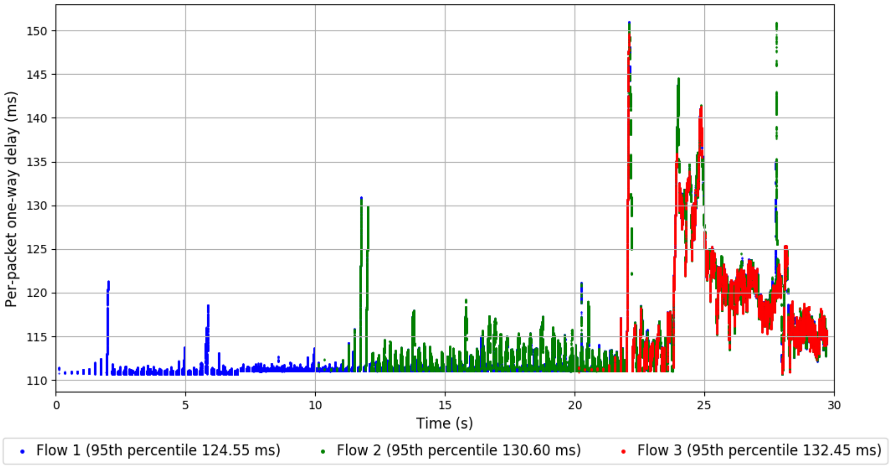
```
Run 2: Statistics of Indigo

Start at: 2018-07-18 03:36:25
End at: 2018-07-18 03:36:55
Local clock offset: -0.098 ms
Remote clock offset: -0.511 ms

# Below is generated by plot.py at 2018-07-18 09:01:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.81 Mbit/s
95th percentile per-packet one-way delay: 129.904 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 145.54 Mbit/s
95th percentile per-packet one-way delay: 124.550 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 150.43 Mbit/s
95th percentile per-packet one-way delay: 130.604 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 120.04 Mbit/s
95th percentile per-packet one-way delay: 132.454 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link



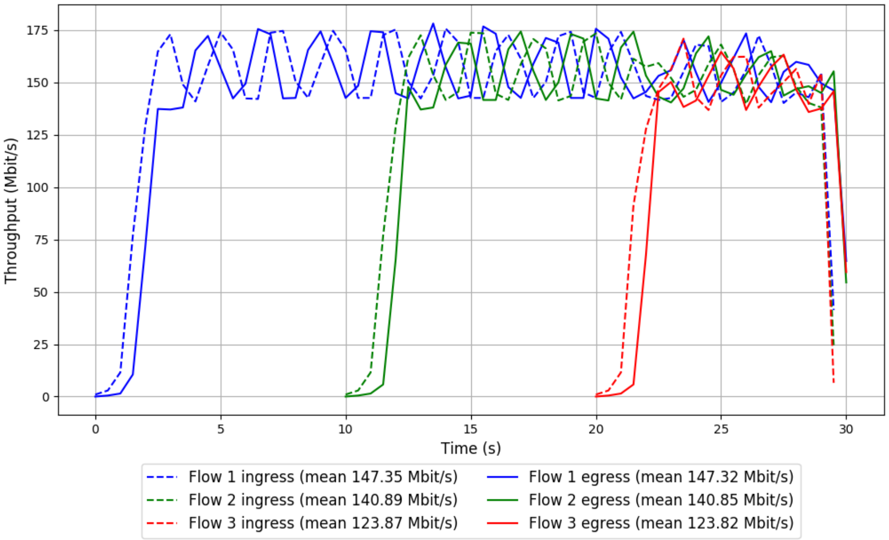


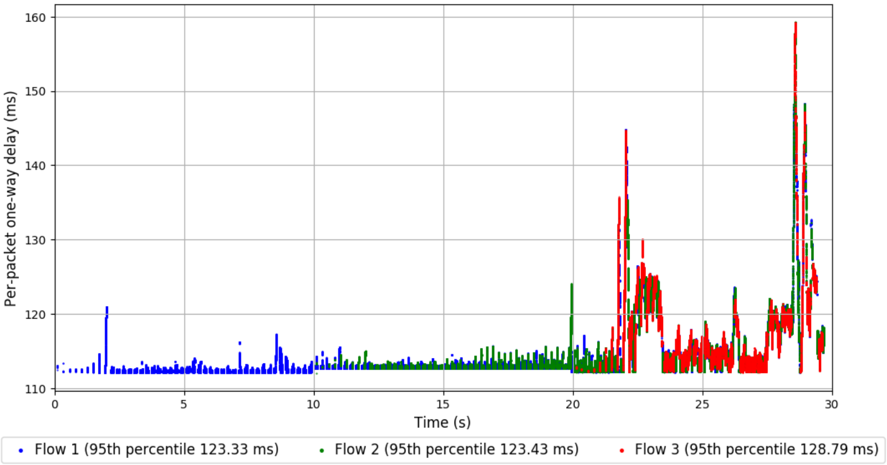
```
Run 3: Statistics of Indigo

Start at: 2018-07-18 04:02:02
End at: 2018-07-18 04:02:32
Local clock offset: -1.44 ms
Remote clock offset: -0.156 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.33 Mbit/s
95th percentile per-packet one-way delay: 124.368 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.32 Mbit/s
95th percentile per-packet one-way delay: 123.328 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.85 Mbit/s
95th percentile per-packet one-way delay: 123.430 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 123.82 Mbit/s
95th percentile per-packet one-way delay: 128.793 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link



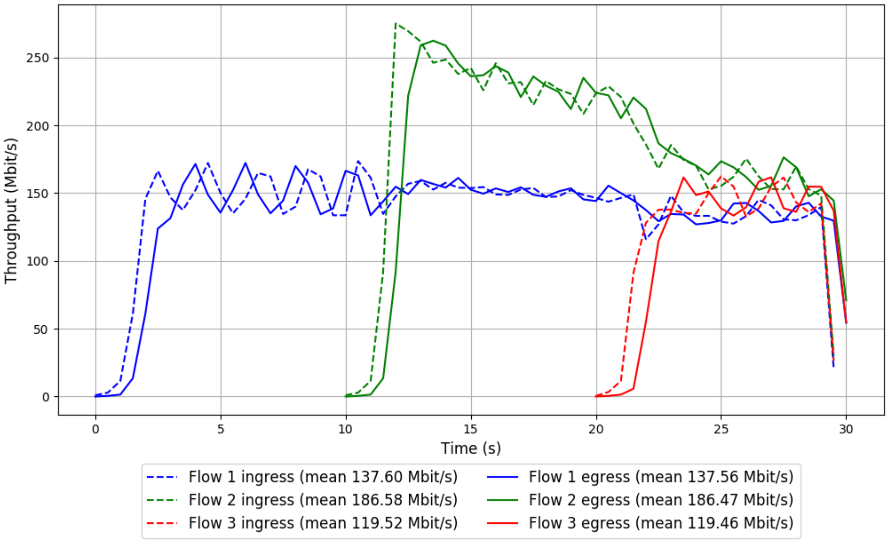


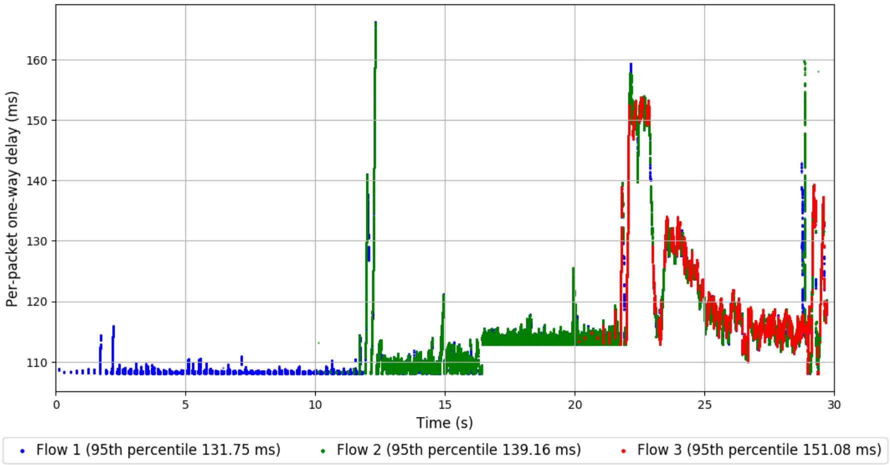
```
Run 4: Statistics of Indigo

Start at: 2018-07-18 04:27:46
End at: 2018-07-18 04:28:16
Local clock offset: -0.243 ms
Remote clock offset: 0.289 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 299.49 Mbit/s
95th percentile per-packet one-way delay: 137.701 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.56 Mbit/s
95th percentile per-packet one-way delay: 131.754 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.47 Mbit/s
95th percentile per-packet one-way delay: 139.162 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 119.46 Mbit/s
95th percentile per-packet one-way delay: 151.080 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link



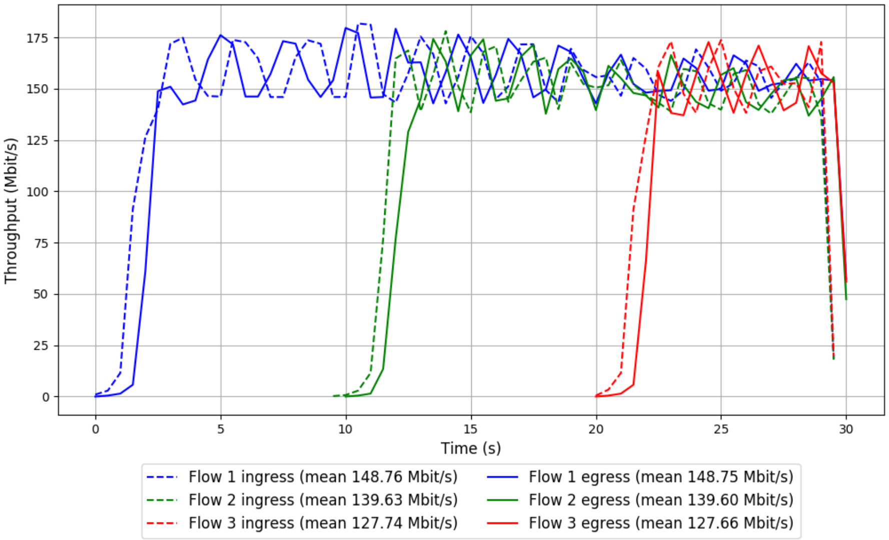


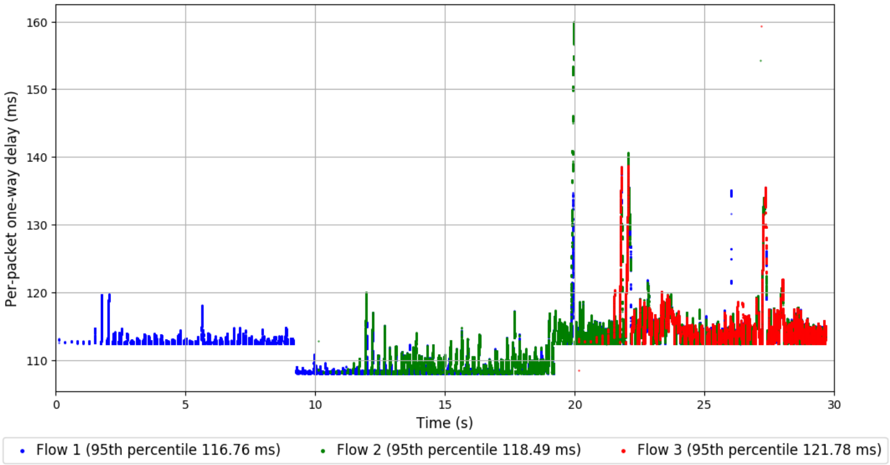
```
Run 5: Statistics of Indigo

Start at: 2018-07-18 04:52:53
End at: 2018-07-18 04:53:23
Local clock offset: -0.119 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 282.31 Mbit/s
95th percentile per-packet one-way delay: 117.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 148.75 Mbit/s
95th percentile per-packet one-way delay: 116.762 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.60 Mbit/s
95th percentile per-packet one-way delay: 118.490 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 127.66 Mbit/s
95th percentile per-packet one-way delay: 121.785 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link



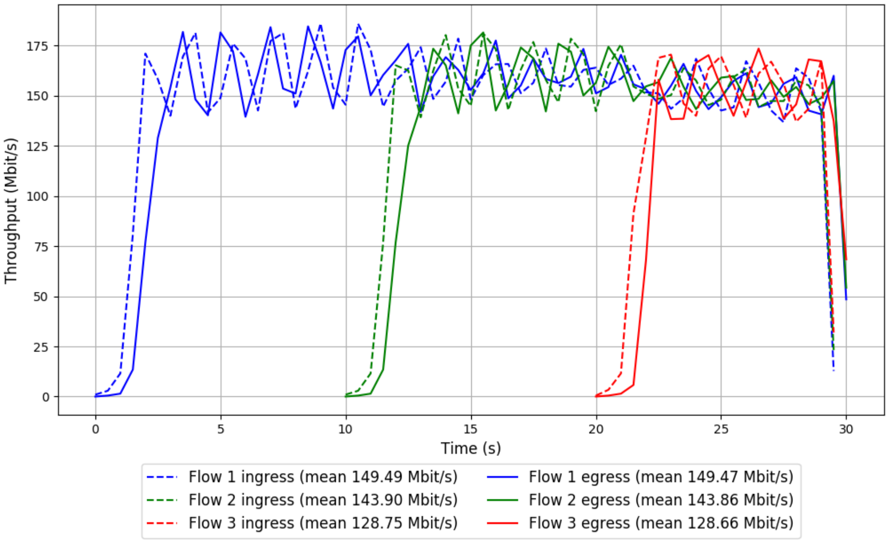


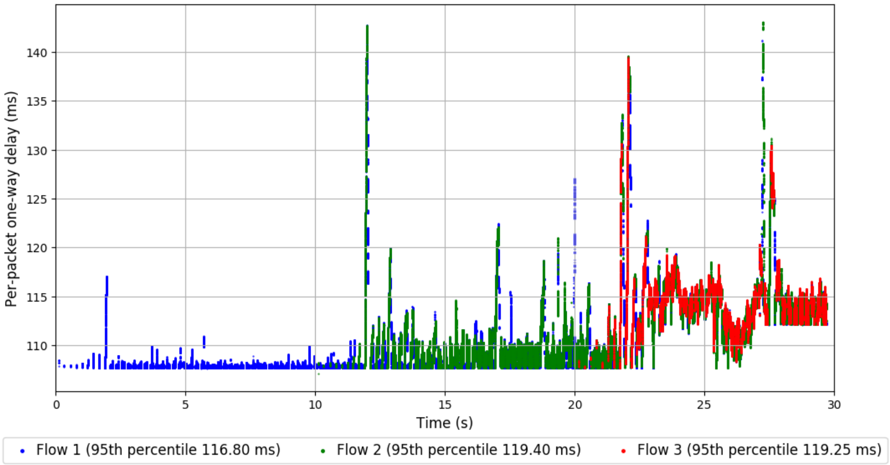
```
Run 6: Statistics of Indigo

Start at: 2018-07-18 05:18:05
End at: 2018-07-18 05:18:35
Local clock offset: -0.084 ms
Remote clock offset: -0.419 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.13 Mbit/s
95th percentile per-packet one-way delay: 117.902 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 149.47 Mbit/s
95th percentile per-packet one-way delay: 116.803 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 143.86 Mbit/s
95th percentile per-packet one-way delay: 119.398 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.66 Mbit/s
95th percentile per-packet one-way delay: 119.254 ms
Loss rate: 0.00%
```

Run 6: Report of Indigo — Data Link



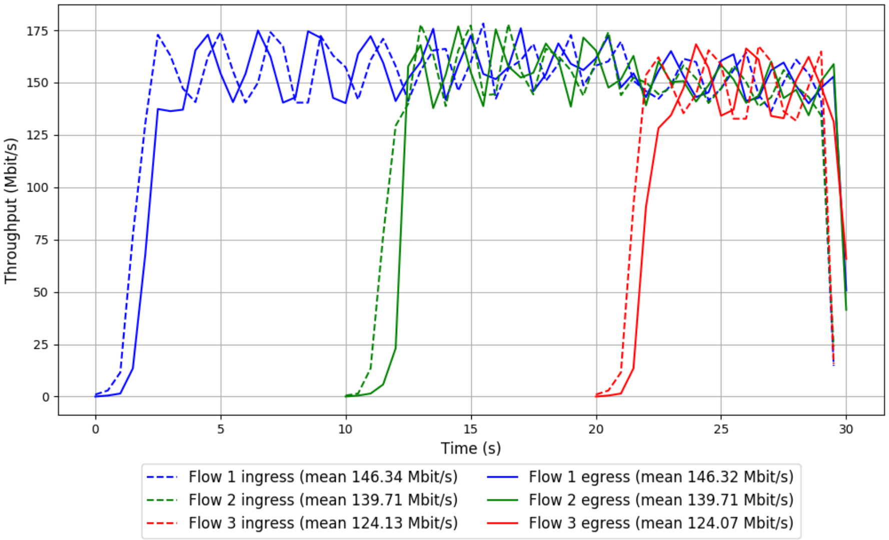


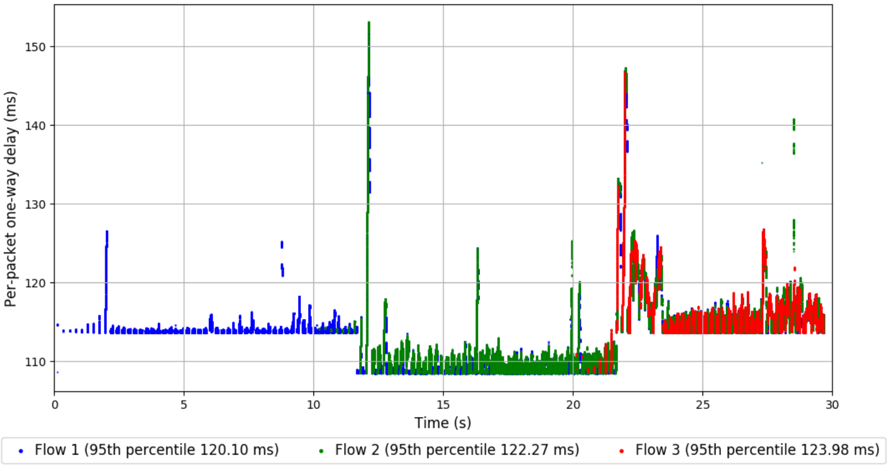
```
Run 7: Statistics of Indigo

Start at: 2018-07-18 05:43:51
End at: 2018-07-18 05:44:21
Local clock offset: -0.151 ms
Remote clock offset: 0.162 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.34 Mbit/s
95th percentile per-packet one-way delay: 122.132 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 146.32 Mbit/s
95th percentile per-packet one-way delay: 120.103 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.71 Mbit/s
95th percentile per-packet one-way delay: 122.265 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.07 Mbit/s
95th percentile per-packet one-way delay: 123.982 ms
Loss rate: 0.00%
```

Run 7: Report of Indigo — Data Link



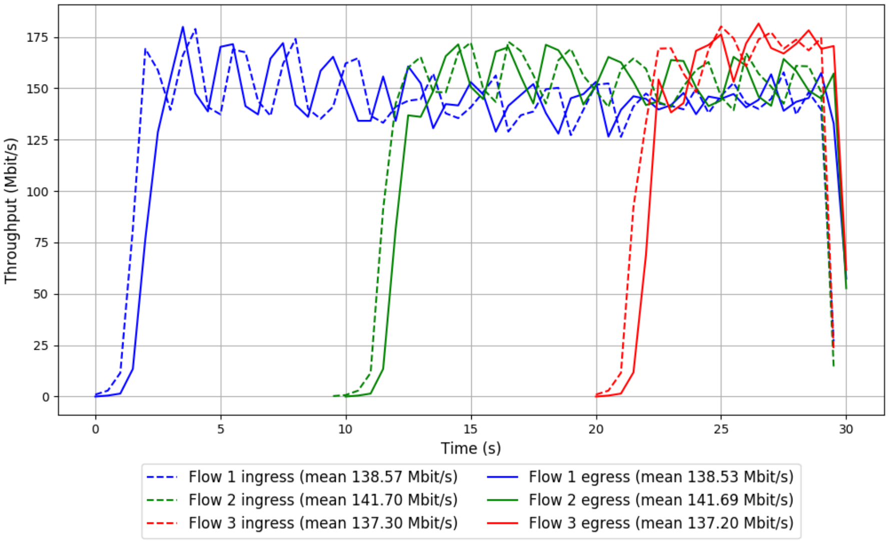


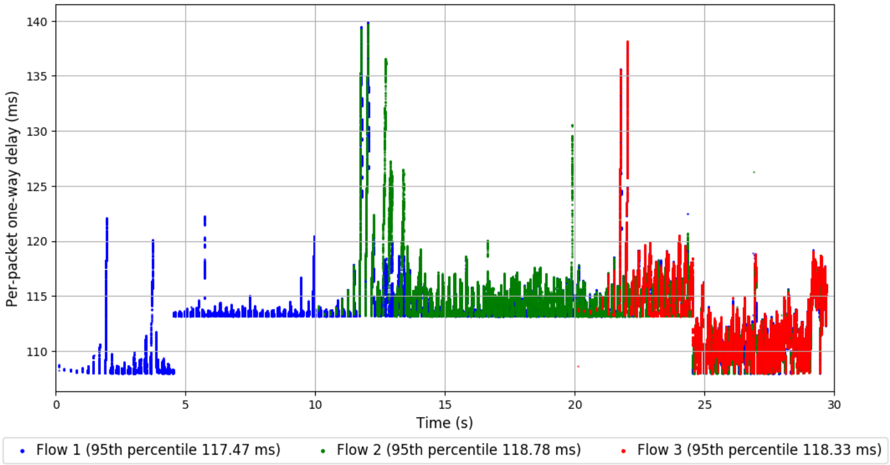
```
Run 8: Statistics of Indigo

Start at: 2018-07-18 06:09:28
End at: 2018-07-18 06:09:58
Local clock offset: -0.427 ms
Remote clock offset: -0.339 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 276.74 Mbit/s
95th percentile per-packet one-way delay: 118.019 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 138.53 Mbit/s
95th percentile per-packet one-way delay: 117.475 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.69 Mbit/s
95th percentile per-packet one-way delay: 118.783 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 137.20 Mbit/s
95th percentile per-packet one-way delay: 118.327 ms
Loss rate: 0.00%
```

Run 8: Report of Indigo — Data Link



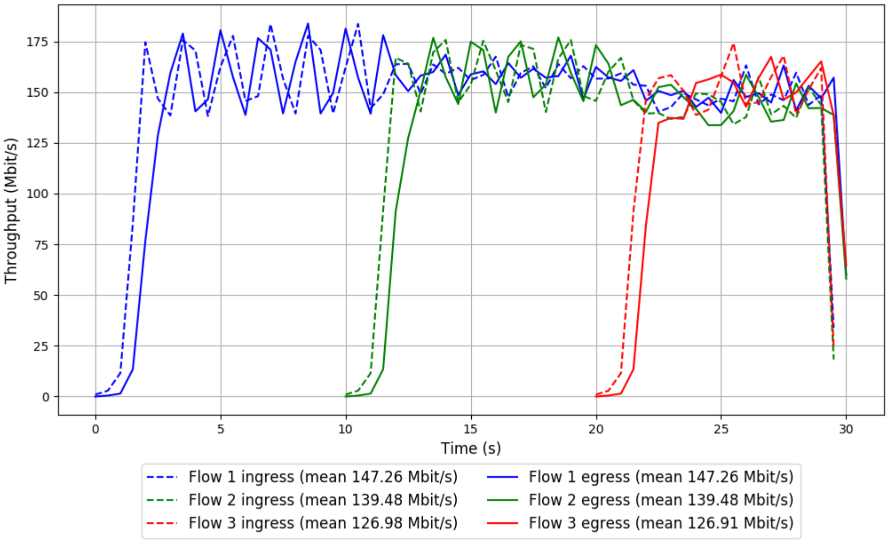


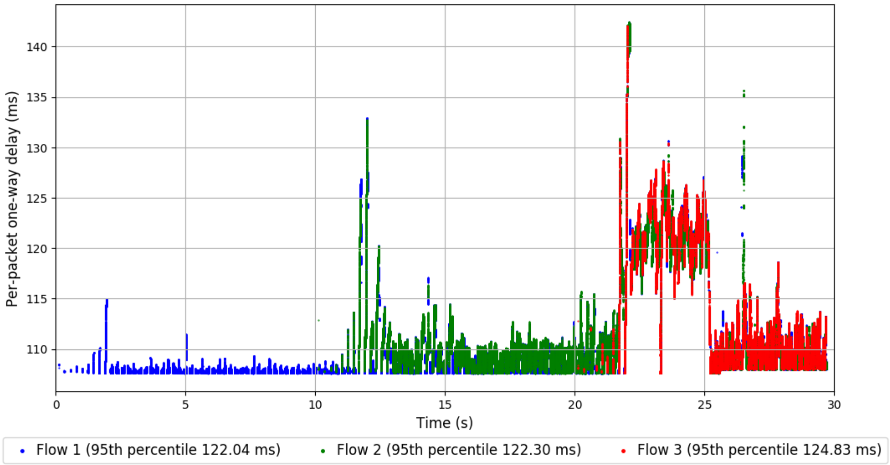
```
Run 9: Statistics of Indigo

Start at: 2018-07-18 06:34:37
End at: 2018-07-18 06:35:07
Local clock offset: -0.083 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.43 Mbit/s
95th percentile per-packet one-way delay: 123.085 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.26 Mbit/s
95th percentile per-packet one-way delay: 122.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.48 Mbit/s
95th percentile per-packet one-way delay: 122.303 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 126.91 Mbit/s
95th percentile per-packet one-way delay: 124.833 ms
Loss rate: 0.00%
```

Run 9: Report of Indigo — Data Link



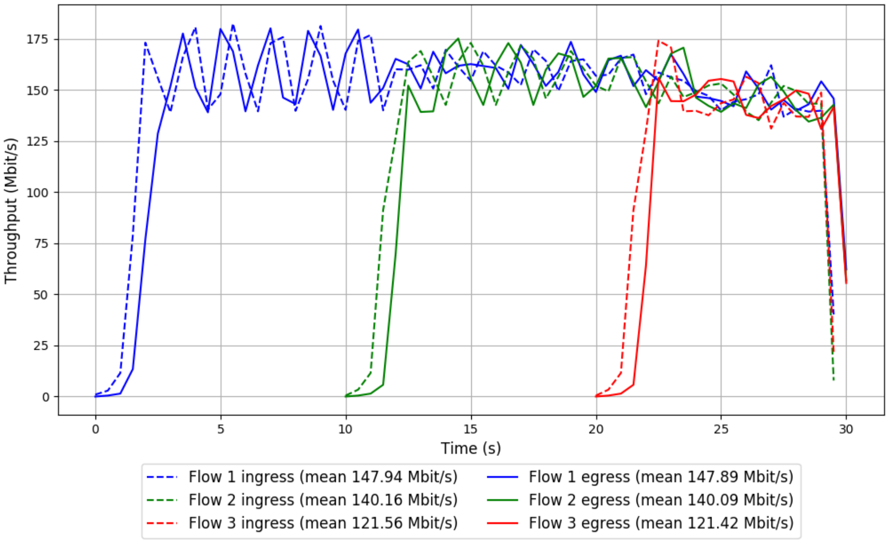


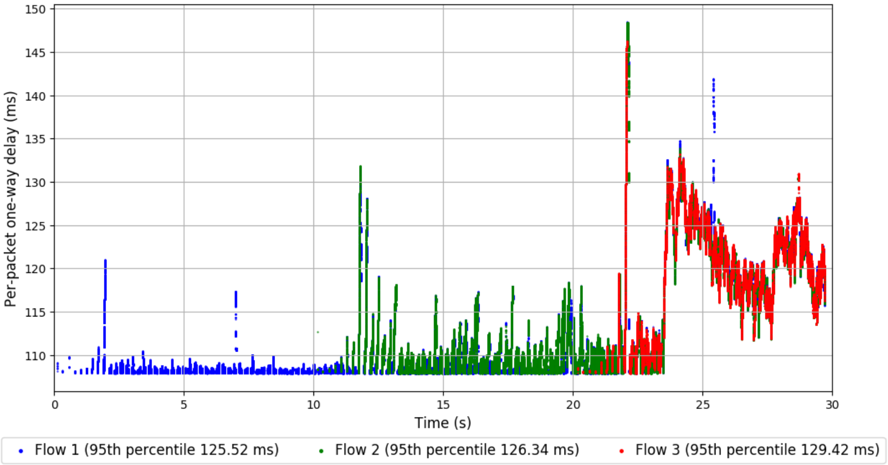
```
Run 10: Statistics of Indigo

Start at: 2018-07-18 07:00:27
End at: 2018-07-18 07:00:57
Local clock offset: -0.051 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.60 Mbit/s
95th percentile per-packet one-way delay: 126.886 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.89 Mbit/s
95th percentile per-packet one-way delay: 125.515 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.09 Mbit/s
95th percentile per-packet one-way delay: 126.339 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.42 Mbit/s
95th percentile per-packet one-way delay: 129.422 ms
Loss rate: 0.00%
```

Run 10: Report of Indigo — Data Link



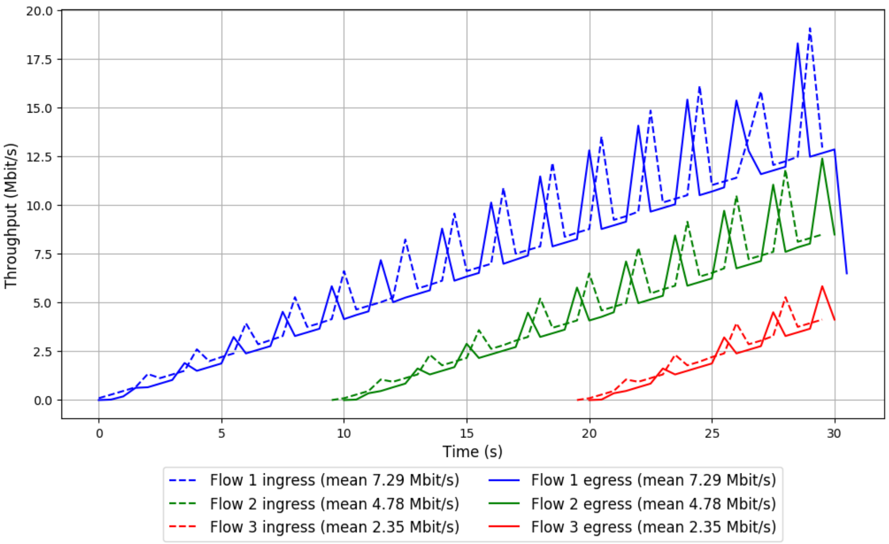


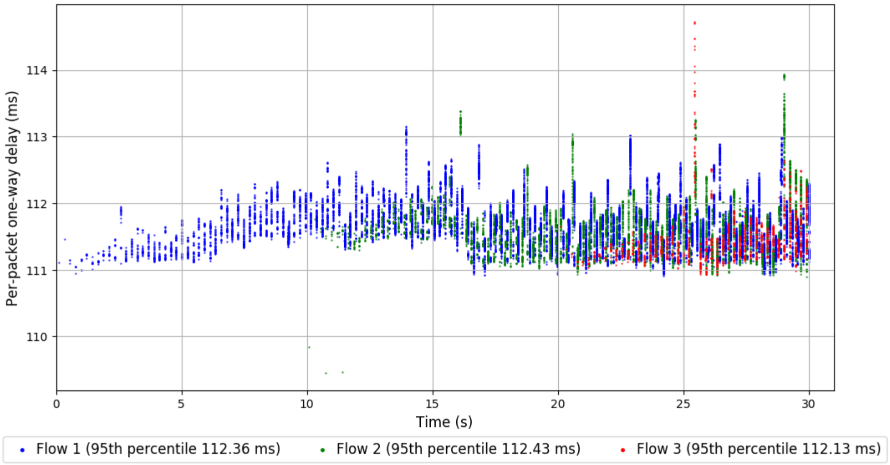
```
Run 1: Statistics of LEDBAT

Start at: 2018-07-18 03:32:26
End at: 2018-07-18 03:32:56
Local clock offset: -0.037 ms
Remote clock offset: -0.21 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 112.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.29 Mbit/s
95th percentile per-packet one-way delay: 112.358 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 112.429 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 112.134 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link



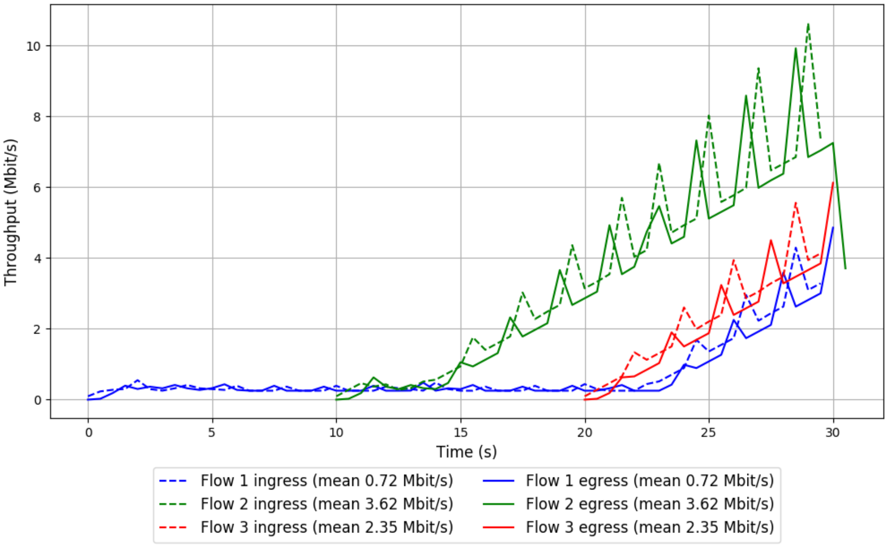


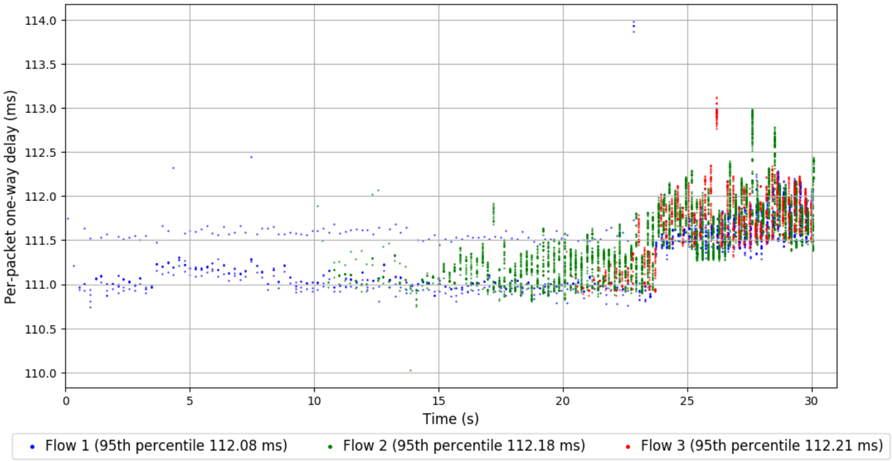
```
Run 2: Statistics of LEDBAT

Start at: 2018-07-18 03:58:09
End at: 2018-07-18 03:58:39
Local clock offset: -0.069 ms
Remote clock offset: -0.193 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 112.176 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 112.075 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 112.183 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 112.211 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



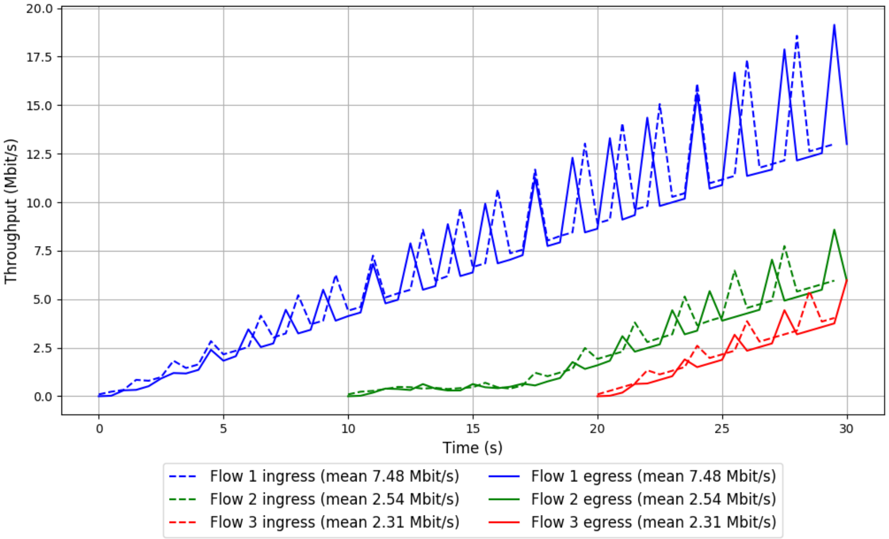


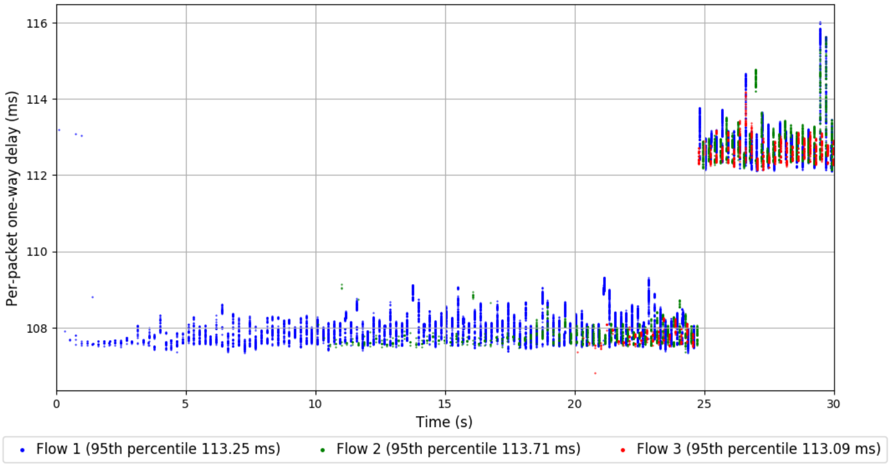
```
Run 3: Statistics of LEDBAT

Start at: 2018-07-18 04:23:58
End at: 2018-07-18 04:24:28
Local clock offset: 0.036 ms
Remote clock offset: -0.161 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.91 Mbit/s
95th percentile per-packet one-way delay: 113.310 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.48 Mbit/s
95th percentile per-packet one-way delay: 113.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 113.709 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 113.094 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link



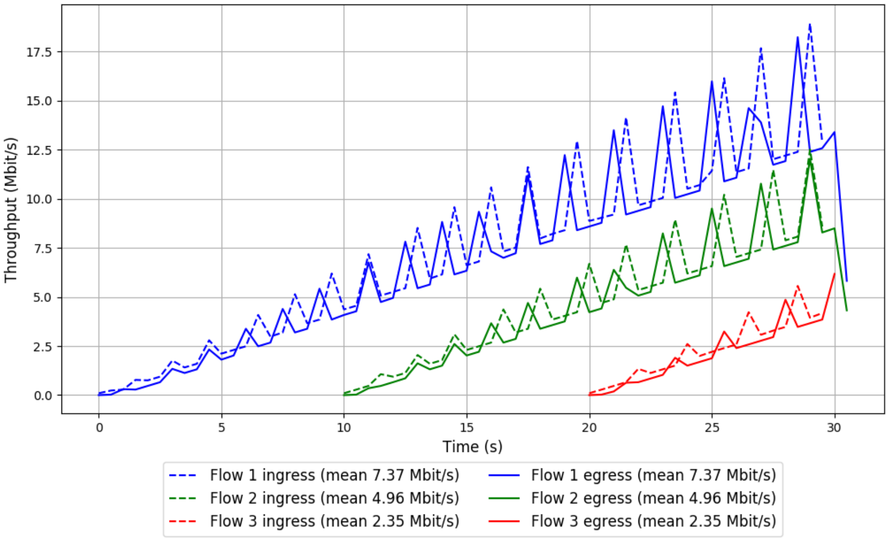


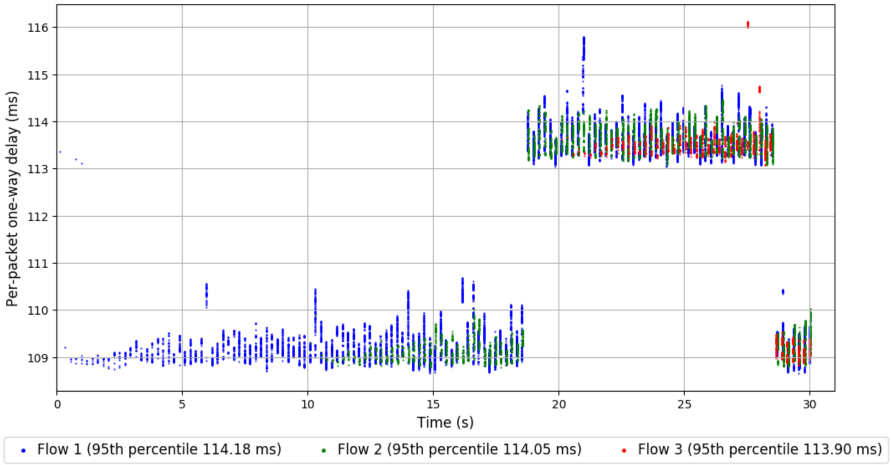
```
Run 4: Statistics of LEDBAT

Start at: 2018-07-18 04:48:54
End at: 2018-07-18 04:49:24
Local clock offset: -0.422 ms
Remote clock offset: 0.3 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 114.109 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.37 Mbit/s
95th percentile per-packet one-way delay: 114.179 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.96 Mbit/s
95th percentile per-packet one-way delay: 114.045 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 113.898 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link



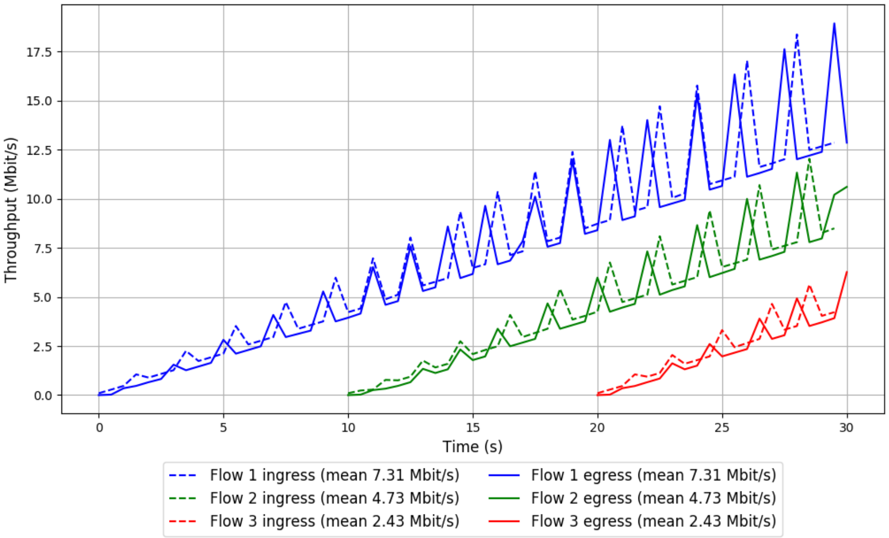


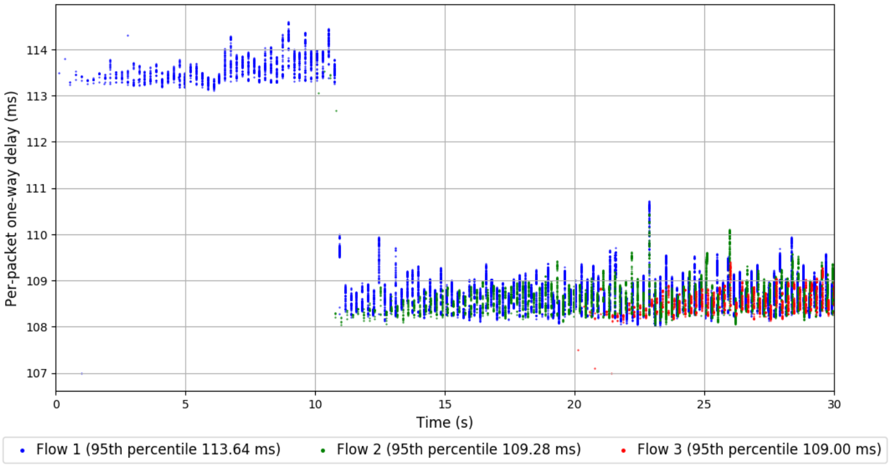
```
Run 5: Statistics of LEDBAT

Start at: 2018-07-18 05:14:12
End at: 2018-07-18 05:14:42
Local clock offset: -0.095 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 113.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 113.641 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.73 Mbit/s
95th percentile per-packet one-way delay: 109.277 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 108.999 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link



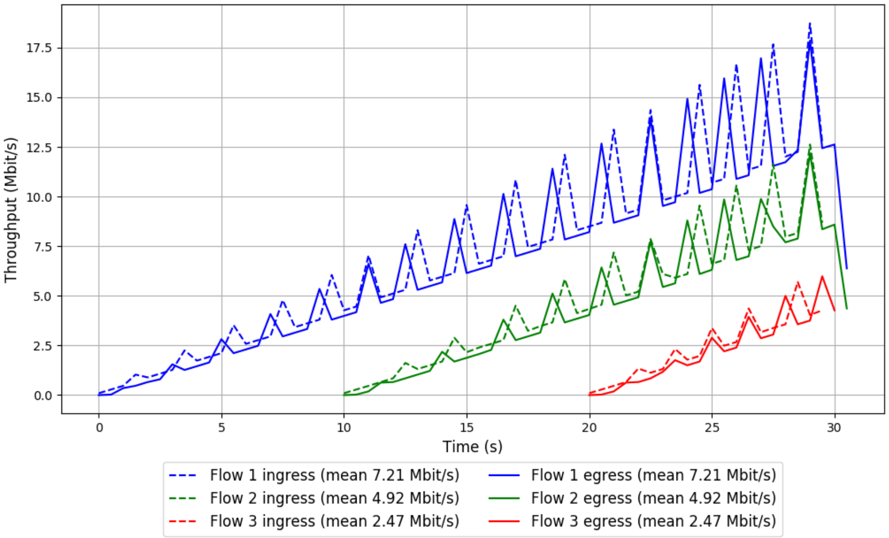


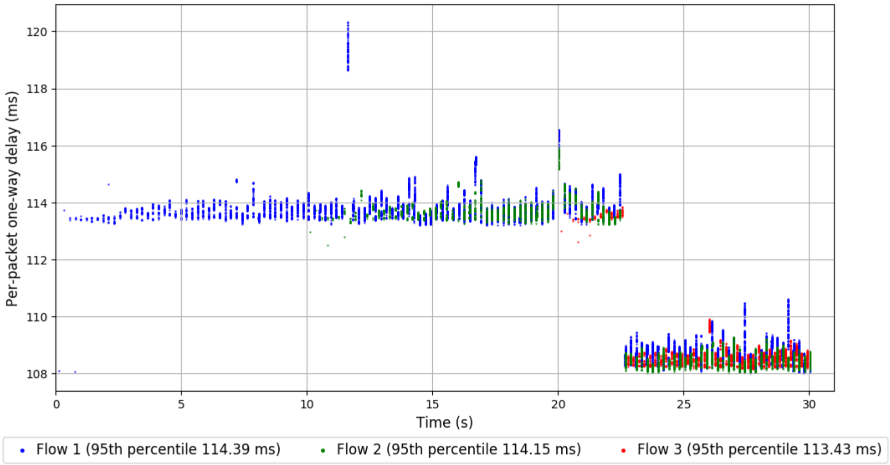
```
Run 6: Statistics of LEDBAT

Start at: 2018-07-18 05:40:00
End at: 2018-07-18 05:40:30
Local clock offset: -0.071 ms
Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 114.283 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 114.388 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.92 Mbit/s
95th percentile per-packet one-way delay: 114.151 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 113.426 ms
Loss rate: 0.00%
```

Run 6: Report of LEDBAT — Data Link



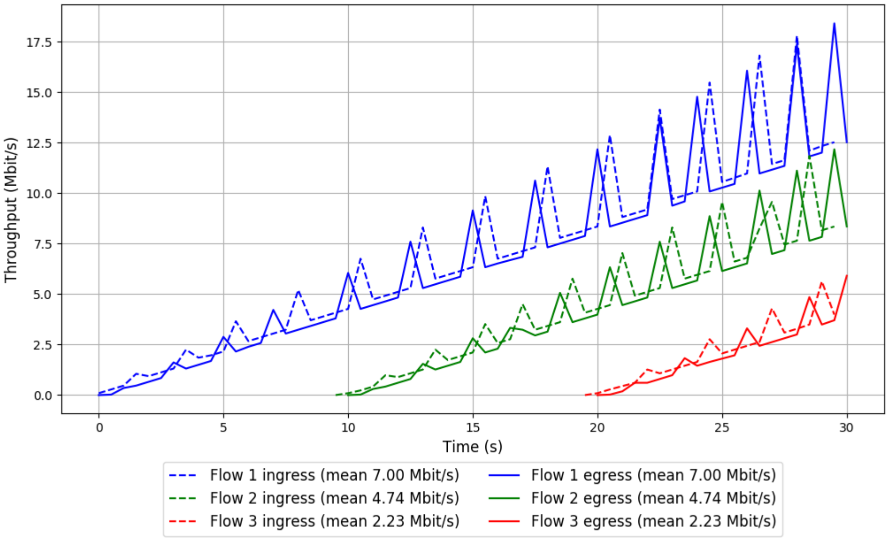


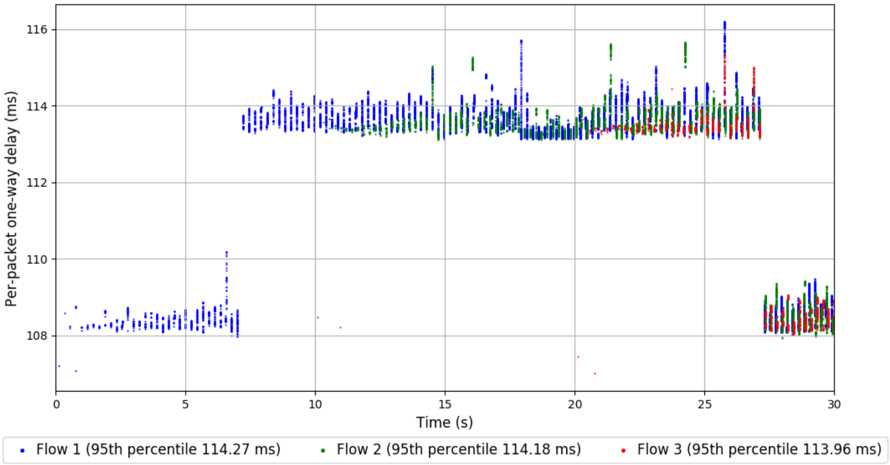
```
Run 7: Statistics of LEDBAT

Start at: 2018-07-18 06:05:36
End at: 2018-07-18 06:06:06
Local clock offset: -0.065 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.86 Mbit/s
95th percentile per-packet one-way delay: 114.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 114.272 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 114.176 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 113.963 ms
Loss rate: 0.00%
```

Run 7: Report of LEDBAT — Data Link



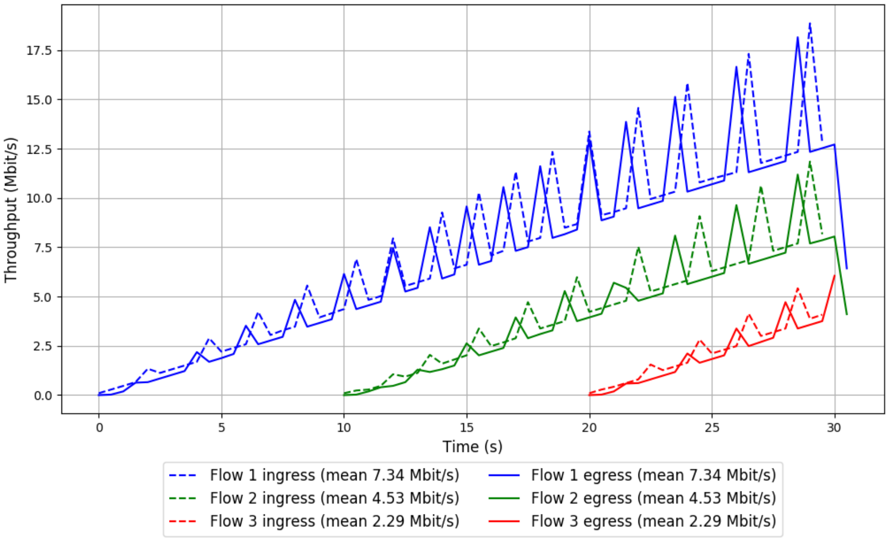


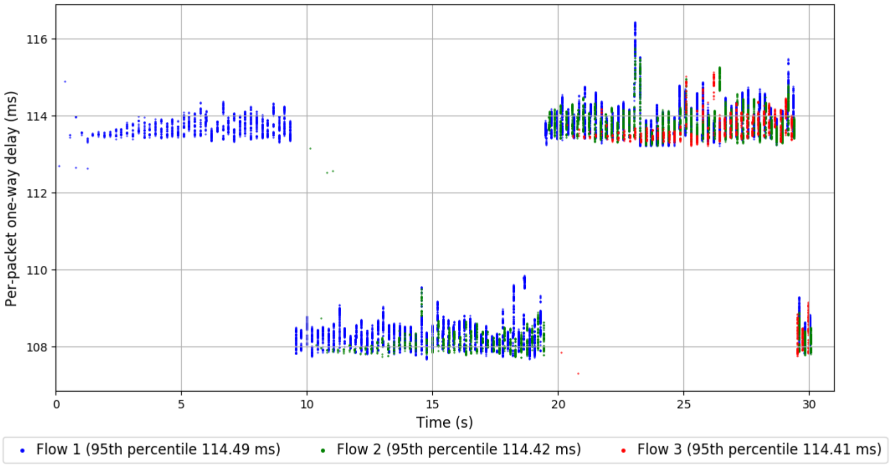
```
Run 8: Statistics of LEDBAT

Start at: 2018-07-18 06:30:43
End at: 2018-07-18 06:31:13
Local clock offset: -0.179 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.11 Mbit/s
95th percentile per-packet one-way delay: 114.476 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 114.491 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.53 Mbit/s
95th percentile per-packet one-way delay: 114.425 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 114.407 ms
Loss rate: 0.00%
```

Run 8: Report of LEDBAT — Data Link



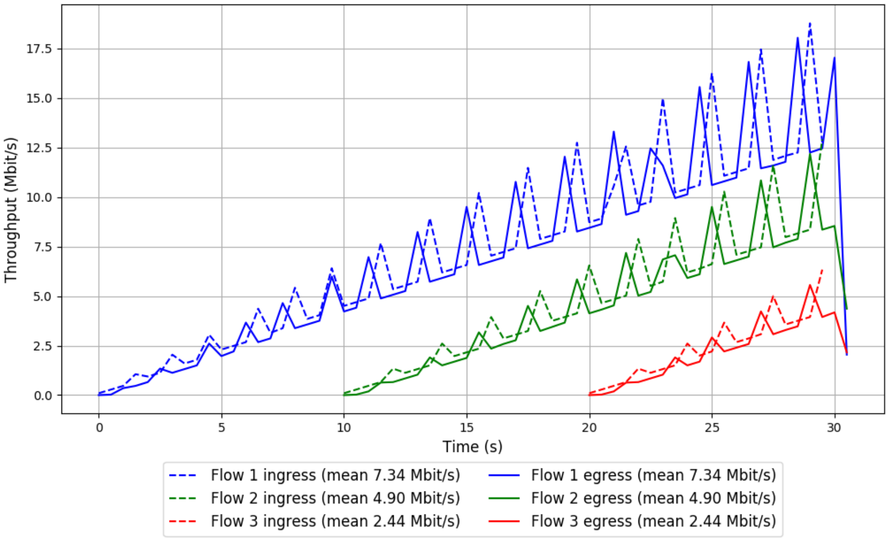


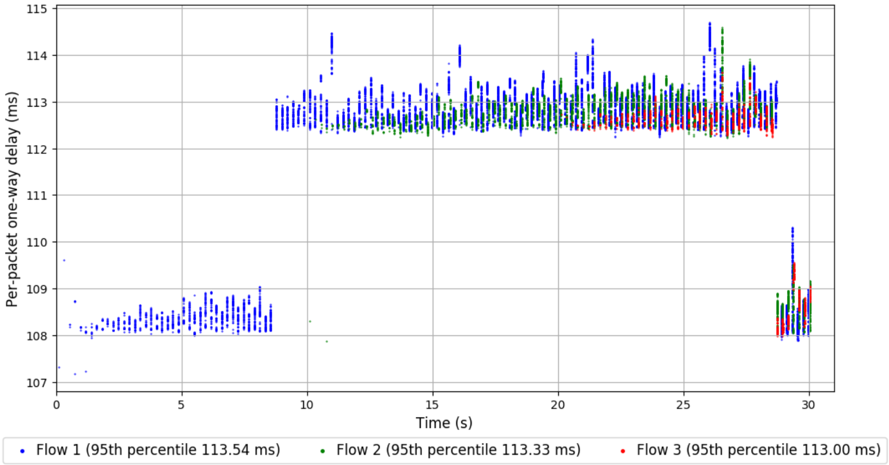
```
Run 9: Statistics of LEDBAT

Start at: 2018-07-18 06:56:34
End at: 2018-07-18 06:57:04
Local clock offset: 0.353 ms
Remote clock offset: 0.26 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.40 Mbit/s
95th percentile per-packet one-way delay: 113.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 113.540 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.90 Mbit/s
95th percentile per-packet one-way delay: 113.327 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 113.001 ms
Loss rate: 0.00%
```

Run 9: Report of LEDBAT — Data Link



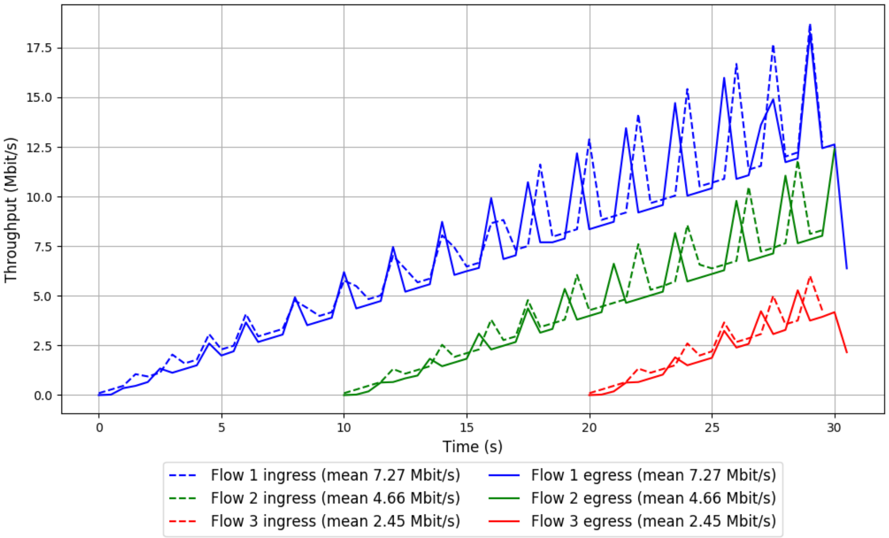


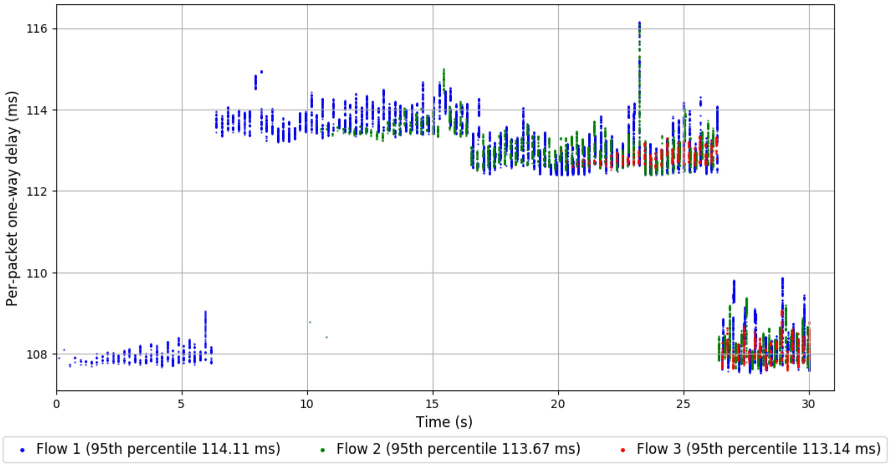
```
Run 10: Statistics of LEDBAT

Start at: 2018-07-18 07:21:46
End at: 2018-07-18 07:22:16
Local clock offset: -0.248 ms
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.17 Mbit/s
95th percentile per-packet one-way delay: 114.032 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.27 Mbit/s
95th percentile per-packet one-way delay: 114.108 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 113.673 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 113.139 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link



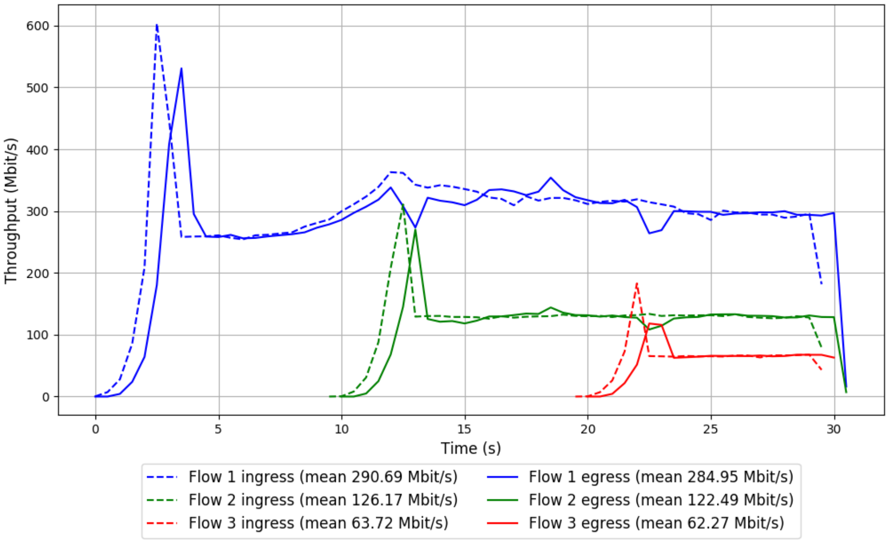


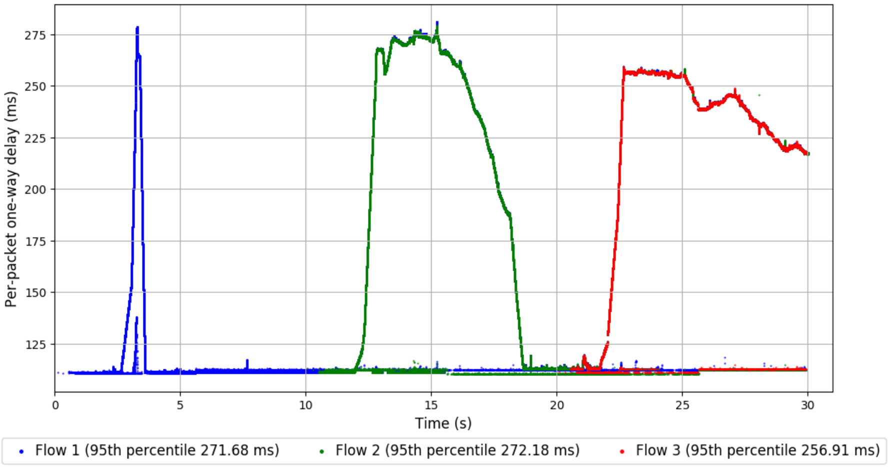
```
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-18 03:14:47
End at: 2018-07-18 03:15:17
Local clock offset: -1.045 ms
Remote clock offset: 0.177 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.18 Mbit/s
95th percentile per-packet one-way delay: 271.686 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 284.95 Mbit/s
95th percentile per-packet one-way delay: 271.676 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 122.49 Mbit/s
95th percentile per-packet one-way delay: 272.184 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 62.27 Mbit/s
95th percentile per-packet one-way delay: 256.909 ms
Loss rate: 1.94%
```

Run 1: Report of PCC-Allegro — Data Link



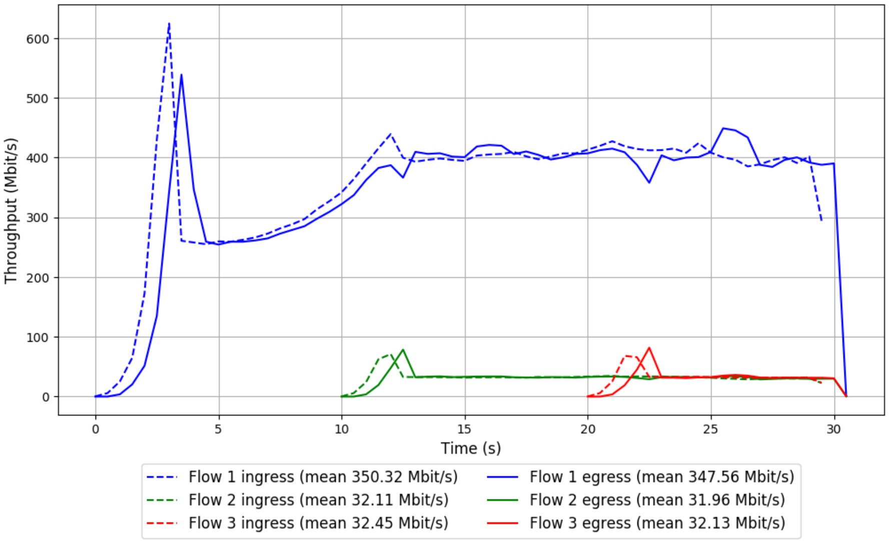


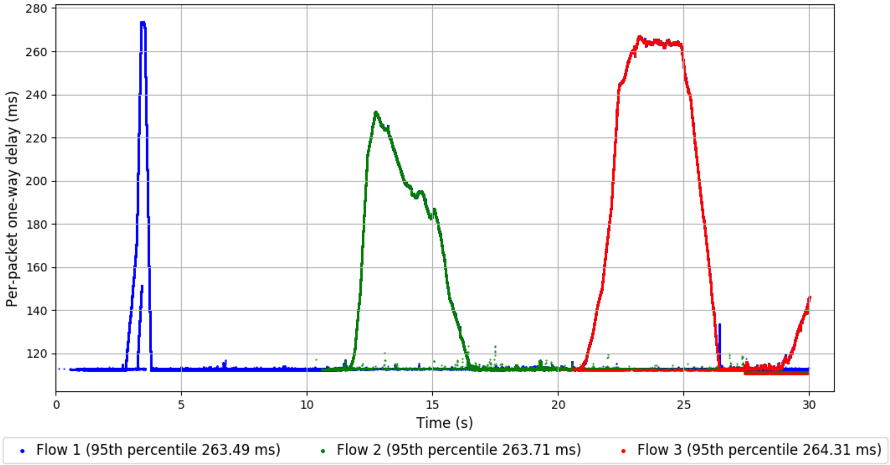
```
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-18 03:40:35
End at: 2018-07-18 03:41:05
Local clock offset: -1.367 ms
Remote clock offset: -0.186 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.34 Mbit/s
95th percentile per-packet one-way delay: 263.564 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 347.56 Mbit/s
95th percentile per-packet one-way delay: 263.487 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 263.713 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 264.307 ms
Loss rate: 0.67%
```

Run 2: Report of PCC-Allegro — Data Link



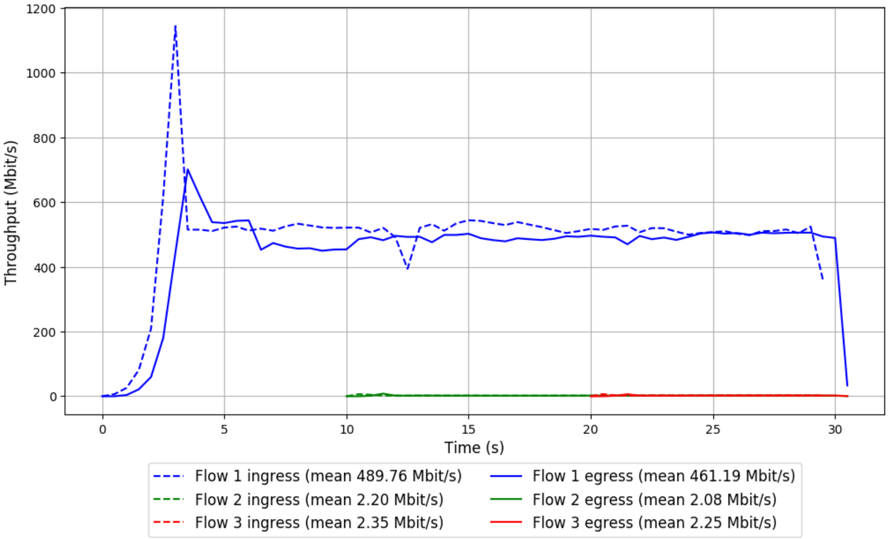


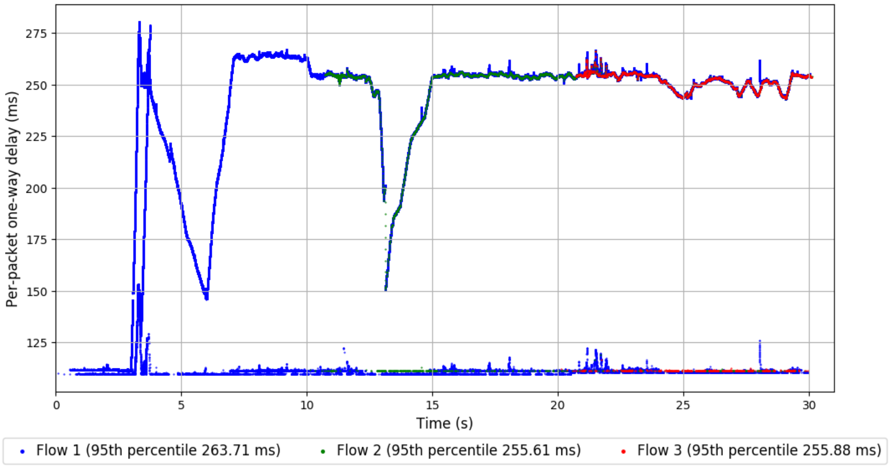
```
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-18 04:06:30
End at: 2018-07-18 04:07:00
Local clock offset: -0.418 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.14 Mbit/s
95th percentile per-packet one-way delay: 263.704 ms
Loss rate: 5.63%
-- Flow 1:
Average throughput: 461.19 Mbit/s
95th percentile per-packet one-way delay: 263.709 ms
Loss rate: 5.64%
-- Flow 2:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 255.613 ms
Loss rate: 4.72%
-- Flow 3:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 255.882 ms
Loss rate: 2.96%
```

Run 3: Report of PCC-Allegro — Data Link



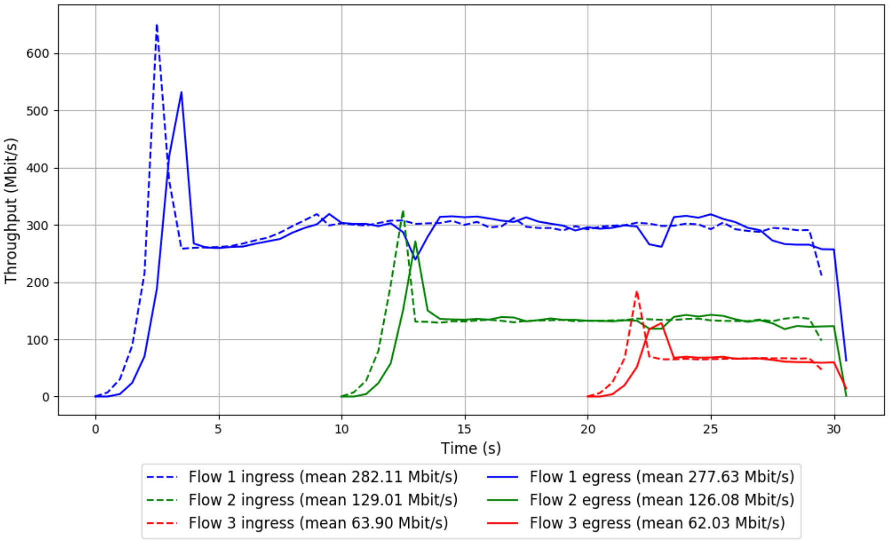


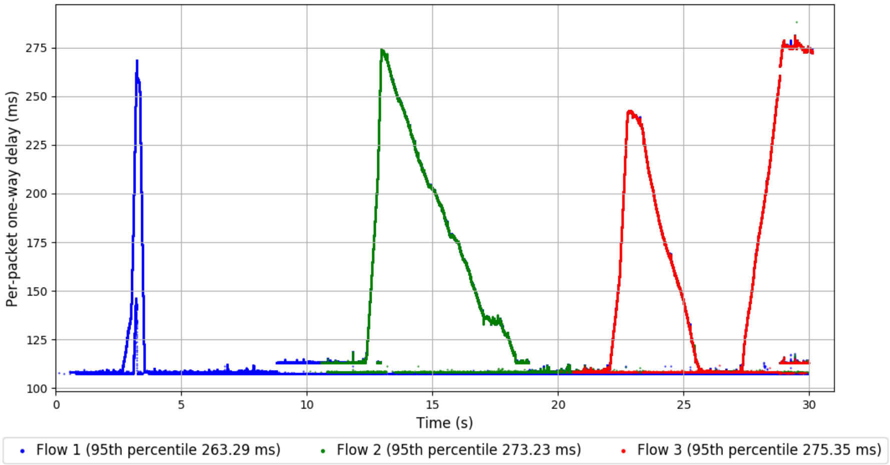
```
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-18 04:32:04
End at: 2018-07-18 04:32:34
Local clock offset: -0.401 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-18 09:01:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.83 Mbit/s
95th percentile per-packet one-way delay: 269.404 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 277.63 Mbit/s
95th percentile per-packet one-way delay: 263.289 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 126.08 Mbit/s
95th percentile per-packet one-way delay: 273.229 ms
Loss rate: 2.09%
-- Flow 3:
Average throughput: 62.03 Mbit/s
95th percentile per-packet one-way delay: 275.348 ms
Loss rate: 1.35%
```

Run 4: Report of PCC-Allegro — Data Link



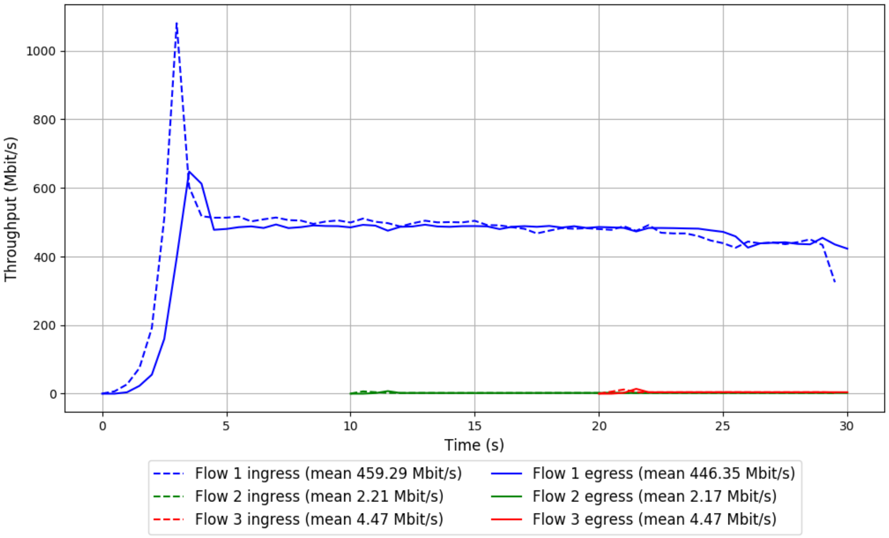


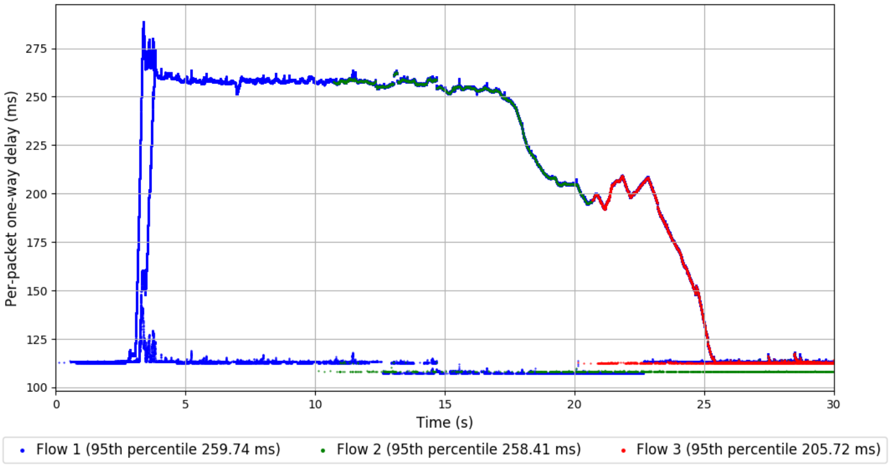
```
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-18 04:56:58
End at: 2018-07-18 04:57:28
Local clock offset: -0.232 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-18 09:01:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.27 Mbit/s
95th percentile per-packet one-way delay: 259.724 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 446.35 Mbit/s
95th percentile per-packet one-way delay: 259.738 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 258.408 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 205.715 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link



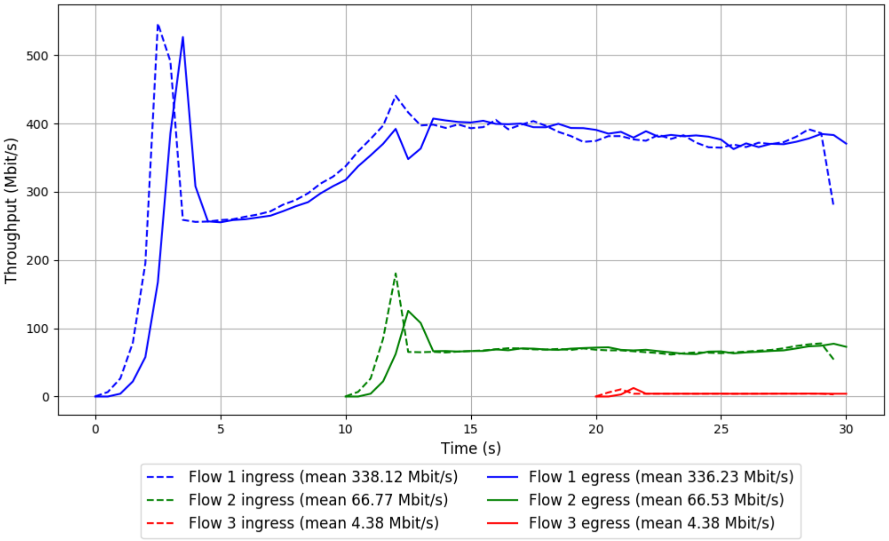


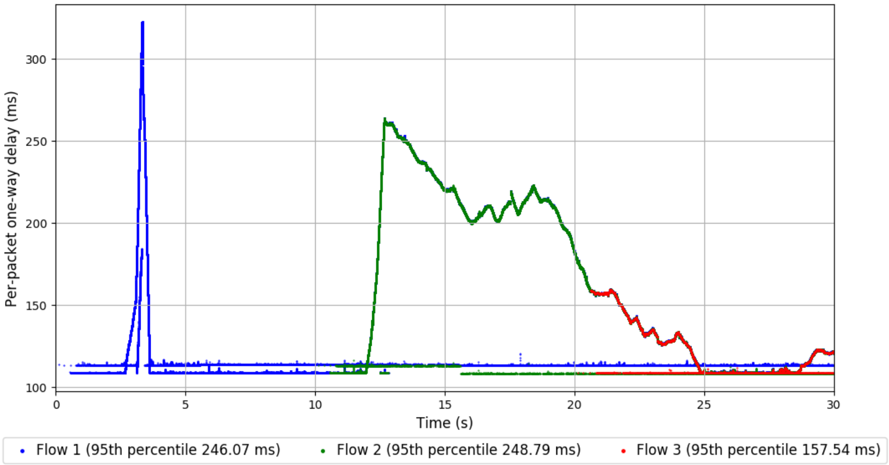
```
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-18 05:22:17
End at: 2018-07-18 05:22:47
Local clock offset: -0.154 ms
Remote clock offset: 0.241 ms

# Below is generated by plot.py at 2018-07-18 09:01:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.92 Mbit/s
95th percentile per-packet one-way delay: 246.428 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 336.23 Mbit/s
95th percentile per-packet one-way delay: 246.067 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 66.53 Mbit/s
95th percentile per-packet one-way delay: 248.790 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 157.536 ms
Loss rate: 0.00%
```

Run 6: Report of PCC-Allegro — Data Link



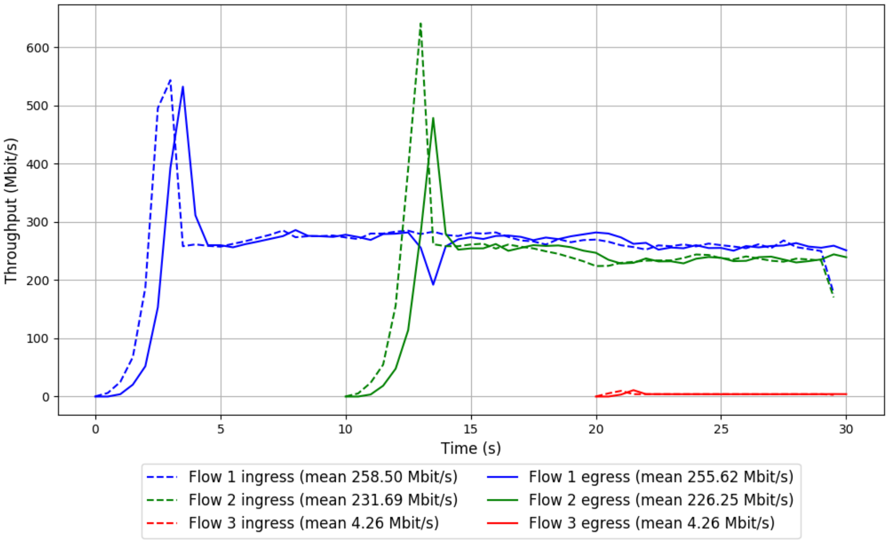


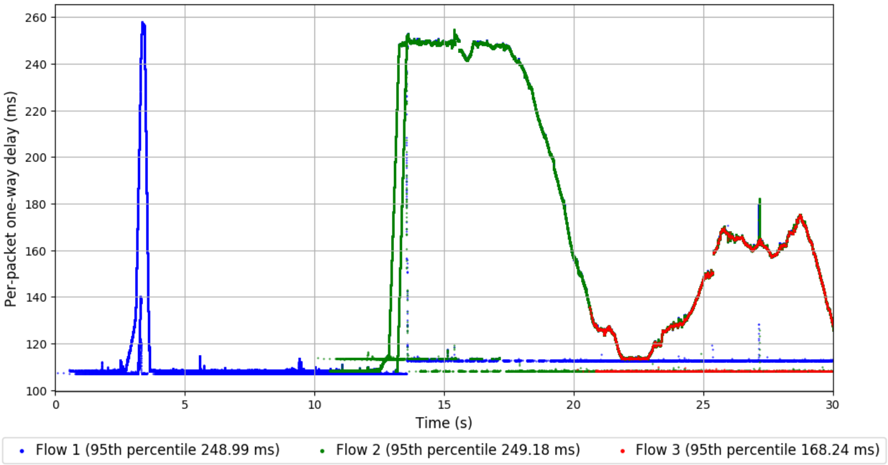
```
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-18 05:48:09
End at: 2018-07-18 05:48:39
Local clock offset: -0.282 ms
Remote clock offset: -0.187 ms

# Below is generated by plot.py at 2018-07-18 09:03:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.44 Mbit/s
95th percentile per-packet one-way delay: 249.081 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 255.62 Mbit/s
95th percentile per-packet one-way delay: 248.986 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 226.25 Mbit/s
95th percentile per-packet one-way delay: 249.181 ms
Loss rate: 2.29%
-- Flow 3:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 168.242 ms
Loss rate: 0.00%
```

Run 7: Report of PCC-Allegro — Data Link



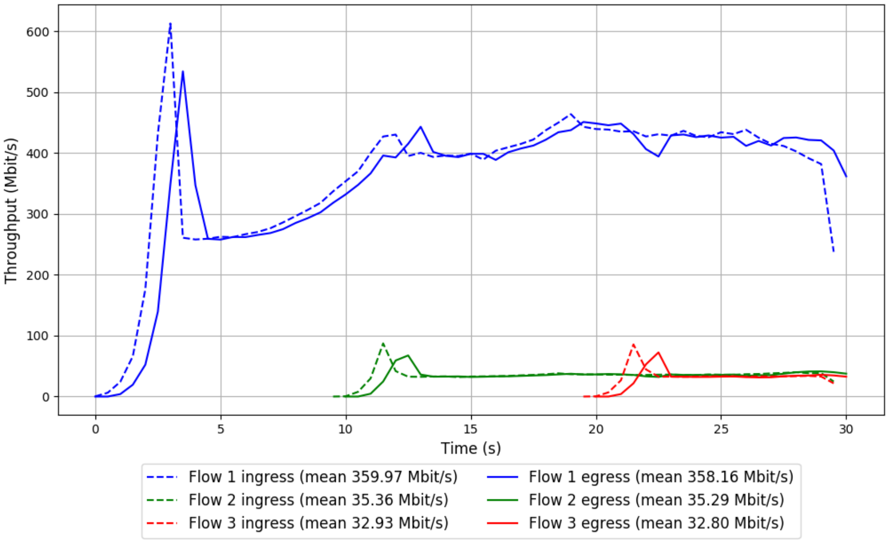


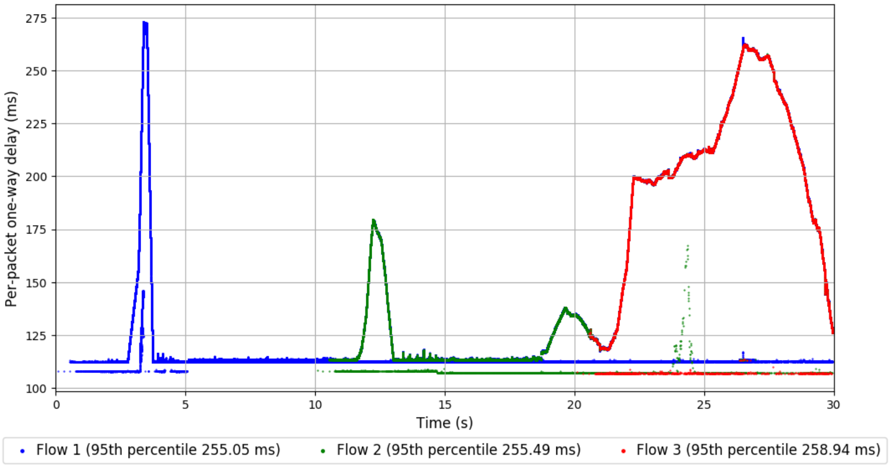
```
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-18 06:13:37
End at: 2018-07-18 06:14:08
Local clock offset: -0.049 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-07-18 09:03:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 392.49 Mbit/s
95th percentile per-packet one-way delay: 255.363 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 358.16 Mbit/s
95th percentile per-packet one-way delay: 255.046 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 35.29 Mbit/s
95th percentile per-packet one-way delay: 255.490 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 258.941 ms
Loss rate: 0.19%
```

Run 8: Report of PCC-Allegro — Data Link



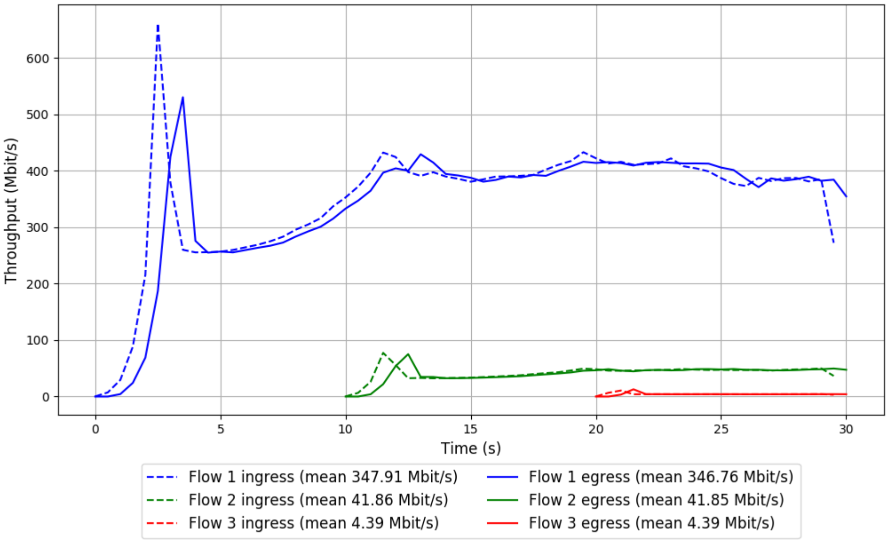


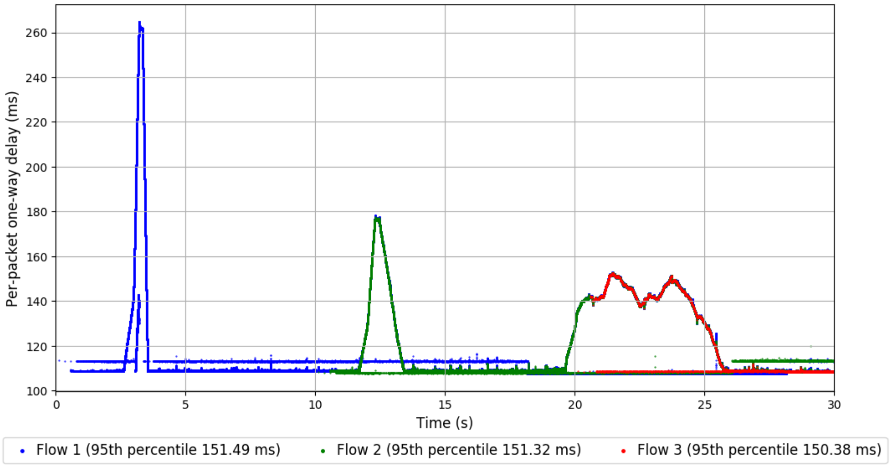
```
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-18 06:38:55
End at: 2018-07-18 06:39:25
Local clock offset: -1.125 ms
Remote clock offset: -0.466 ms

# Below is generated by plot.py at 2018-07-18 09:05:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.03 Mbit/s
95th percentile per-packet one-way delay: 151.455 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 346.76 Mbit/s
95th percentile per-packet one-way delay: 151.494 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 41.85 Mbit/s
95th percentile per-packet one-way delay: 151.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 150.382 ms
Loss rate: 0.00%
```

Run 9: Report of PCC-Allegro — Data Link



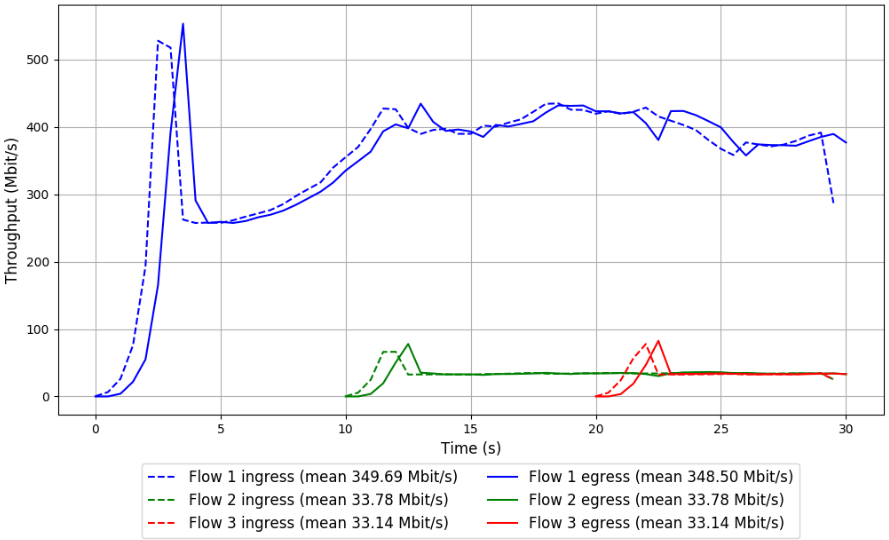


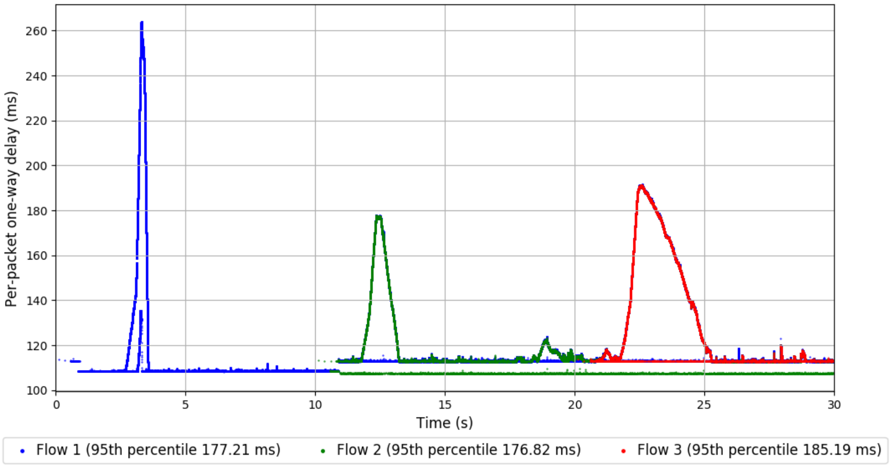
```
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-18 07:04:42
End at: 2018-07-18 07:05:12
Local clock offset: -0.081 ms
Remote clock offset: 0.278 ms

# Below is generated by plot.py at 2018-07-18 09:05:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.87 Mbit/s
95th percentile per-packet one-way delay: 177.352 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 348.50 Mbit/s
95th percentile per-packet one-way delay: 177.212 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 33.78 Mbit/s
95th percentile per-packet one-way delay: 176.820 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.14 Mbit/s
95th percentile per-packet one-way delay: 185.193 ms
Loss rate: 0.00%
```

Run 10: Report of PCC-Allegro — Data Link



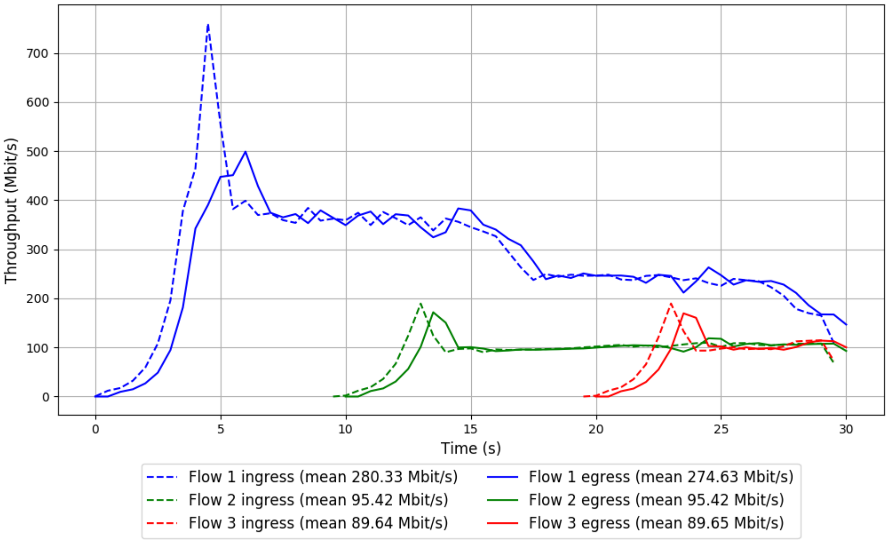


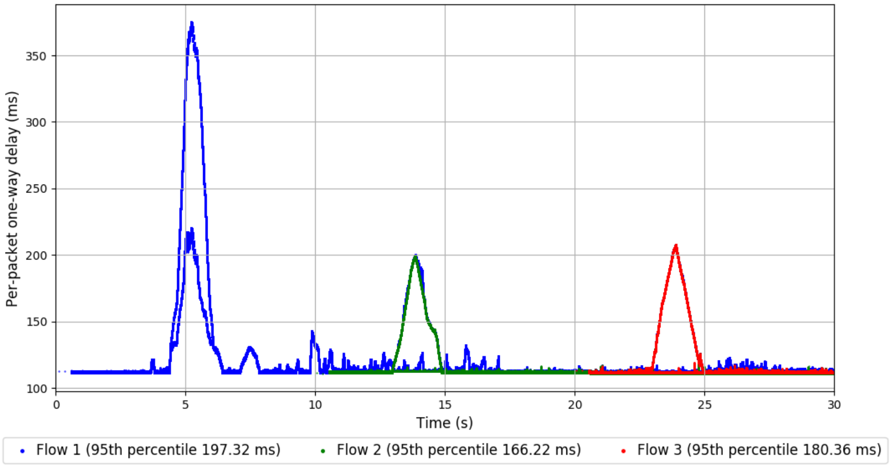
```
Run 1: Statistics of PCC-Expr

Start at: 2018-07-18 03:28:02
End at: 2018-07-18 03:28:32
Local clock offset: -1.232 ms
Remote clock offset: 0.157 ms

# Below is generated by plot.py at 2018-07-18 09:12:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.91 Mbit/s
95th percentile per-packet one-way delay: 191.700 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 274.63 Mbit/s
95th percentile per-packet one-way delay: 197.323 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 95.42 Mbit/s
95th percentile per-packet one-way delay: 166.217 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.65 Mbit/s
95th percentile per-packet one-way delay: 180.360 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link



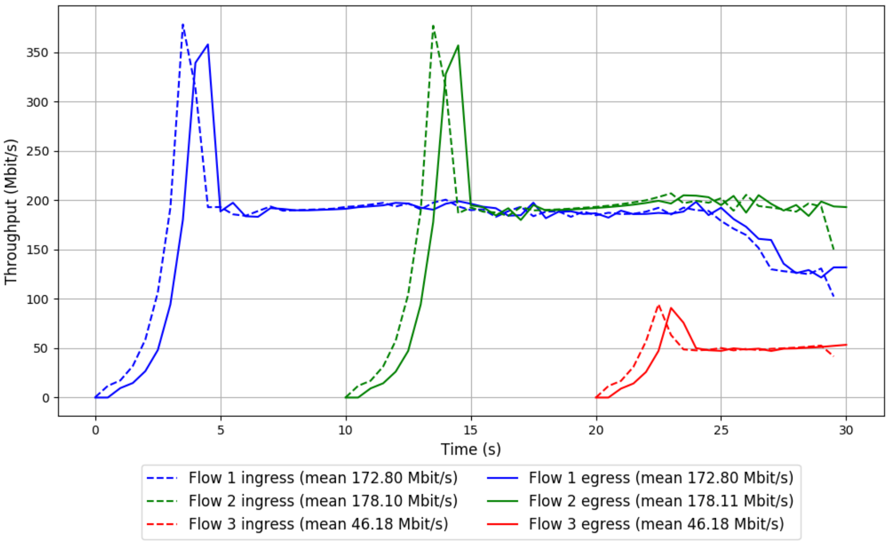


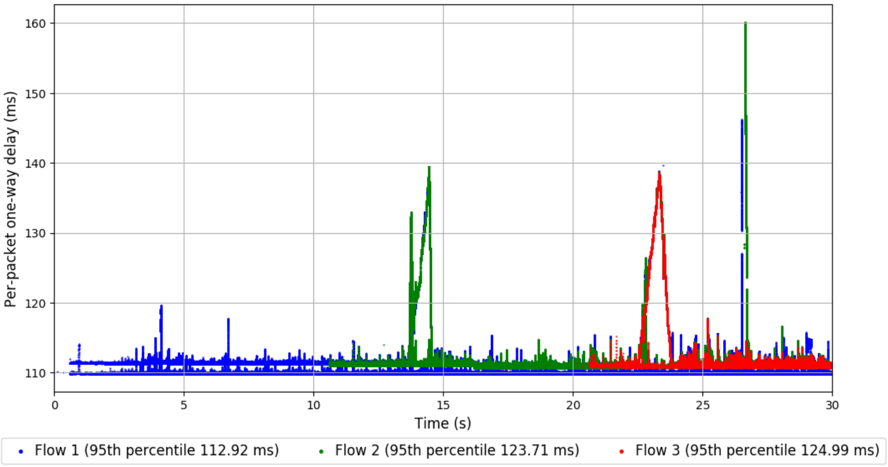
```
Run 2: Statistics of PCC-Expr

Start at: 2018-07-18 03:53:46
End at: 2018-07-18 03:54:16
Local clock offset: -0.041 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2018-07-18 09:12:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.49 Mbit/s
95th percentile per-packet one-way delay: 118.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 172.80 Mbit/s
95th percentile per-packet one-way delay: 112.916 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 178.11 Mbit/s
95th percentile per-packet one-way delay: 123.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.18 Mbit/s
95th percentile per-packet one-way delay: 124.994 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Expr — Data Link



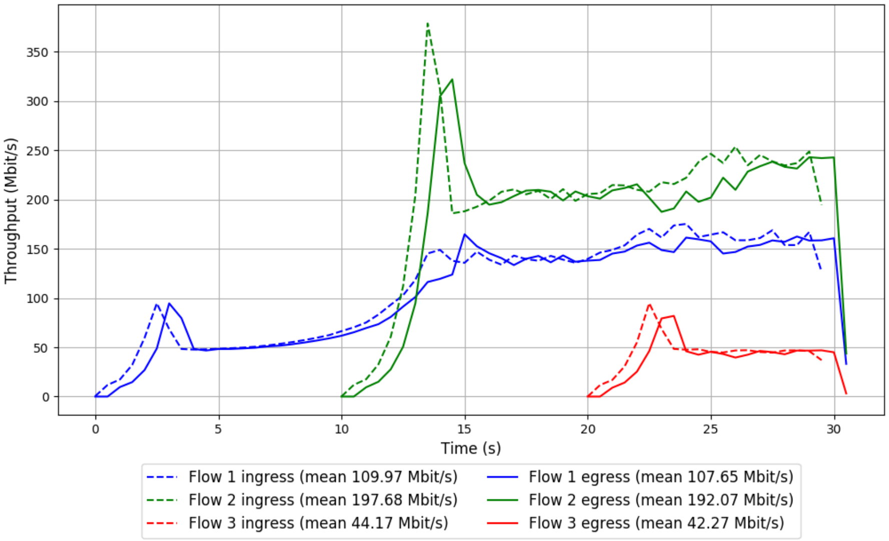


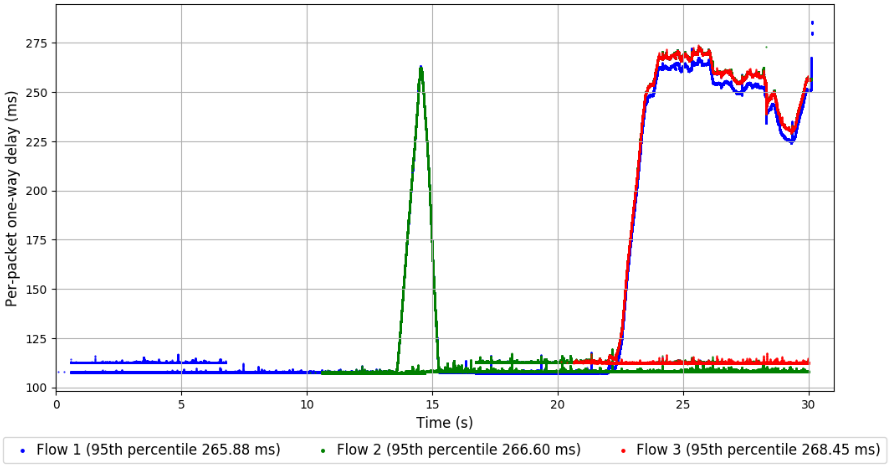
```
Run 3: Statistics of PCC-Expr

Start at: 2018-07-18 04:19:46
End at: 2018-07-18 04:20:16
Local clock offset: -0.208 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-07-18 09:12:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.38 Mbit/s
95th percentile per-packet one-way delay: 266.649 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 107.65 Mbit/s
95th percentile per-packet one-way delay: 265.876 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 192.07 Mbit/s
95th percentile per-packet one-way delay: 266.601 ms
Loss rate: 2.32%
-- Flow 3:
Average throughput: 42.27 Mbit/s
95th percentile per-packet one-way delay: 268.451 ms
Loss rate: 3.93%
```

Run 3: Report of PCC-Expr — Data Link



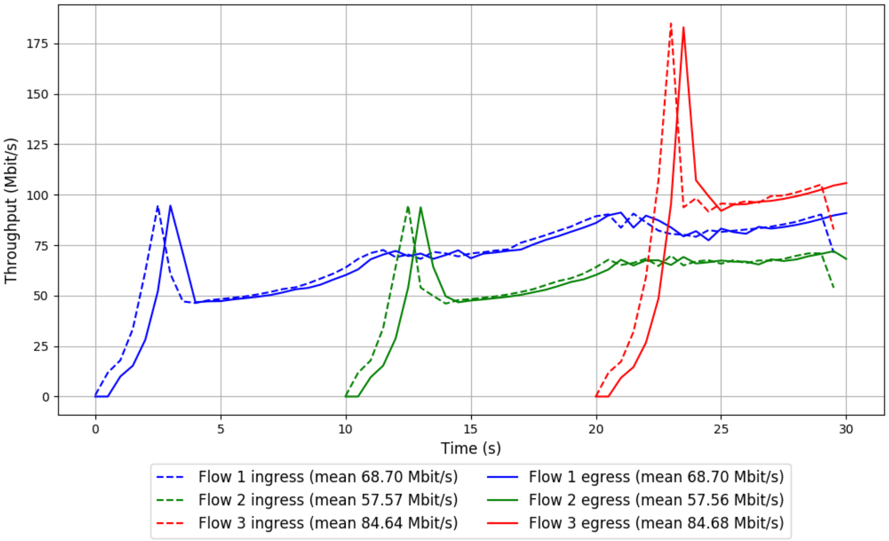


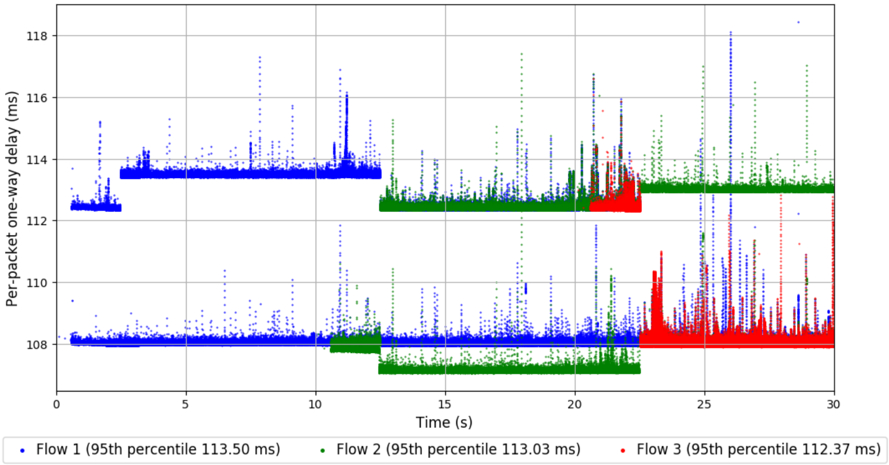
```
Run 4: Statistics of PCC-Expr

Start at: 2018-07-18 04:44:50
End at: 2018-07-18 04:45:20
Local clock offset: -0.167 ms
Remote clock offset: -0.124 ms

# Below is generated by plot.py at 2018-07-18 09:12:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.92 Mbit/s
95th percentile per-packet one-way delay: 113.451 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.70 Mbit/s
95th percentile per-packet one-way delay: 113.496 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.56 Mbit/s
95th percentile per-packet one-way delay: 113.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.68 Mbit/s
95th percentile per-packet one-way delay: 112.373 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Expr — Data Link



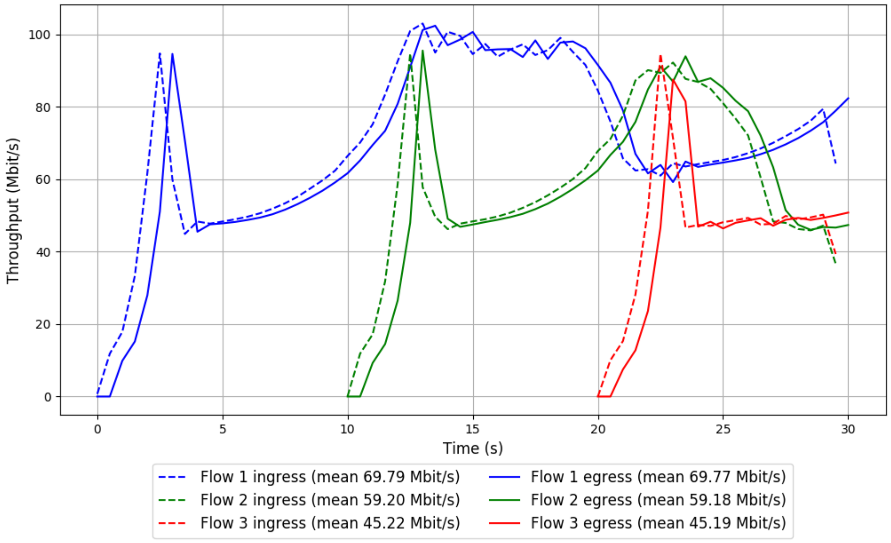


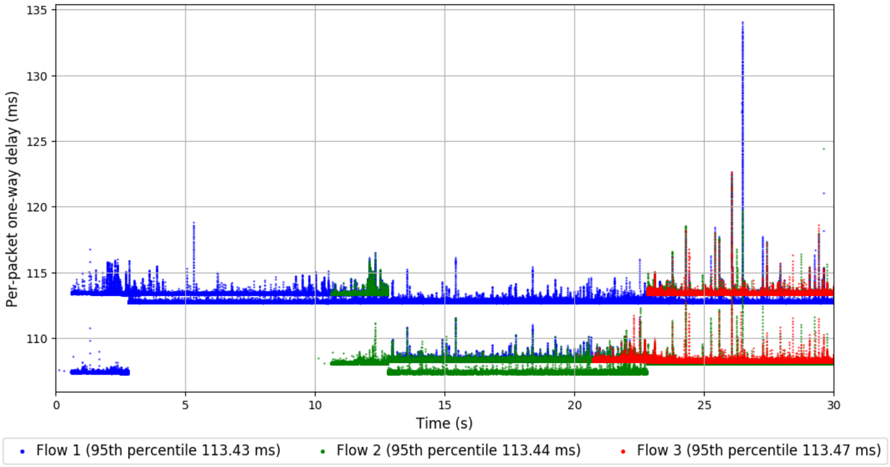
```
Run 5: Statistics of PCC-Expr

Start at: 2018-07-18 05:10:10
End at: 2018-07-18 05:10:40
Local clock offset: 0.01 ms
Remote clock offset: 0.31 ms

# Below is generated by plot.py at 2018-07-18 09:12:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.04 Mbit/s
95th percentile per-packet one-way delay: 113.442 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.77 Mbit/s
95th percentile per-packet one-way delay: 113.432 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 113.443 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.19 Mbit/s
95th percentile per-packet one-way delay: 113.469 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Expr — Data Link



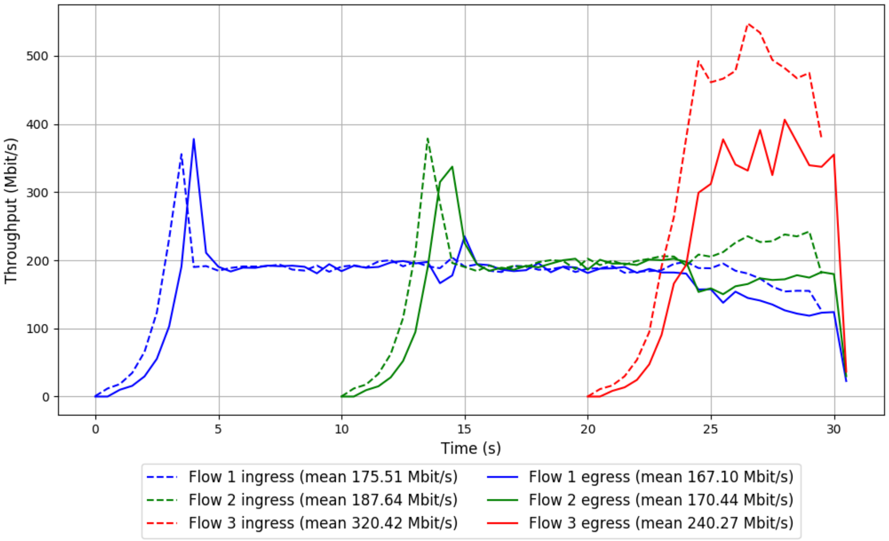


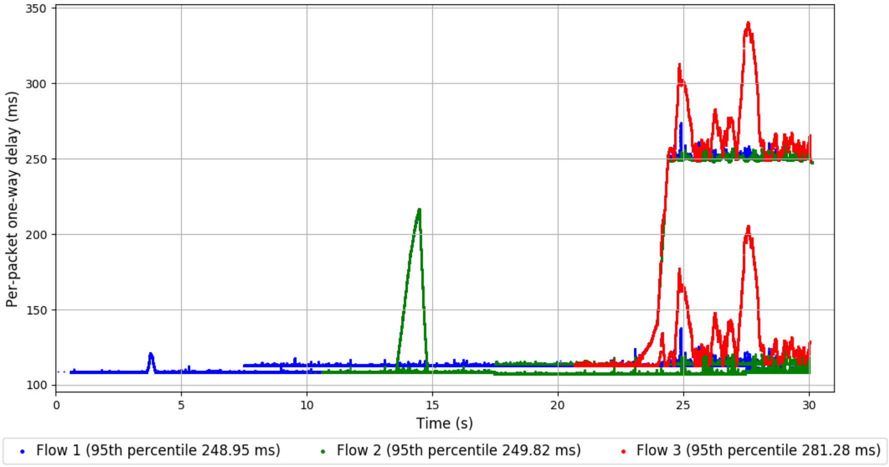
```
Run 6: Statistics of PCC-Expr

Start at: 2018-07-18 05:35:35
End at: 2018-07-18 05:36:05
Local clock offset: -0.353 ms
Remote clock offset: -0.174 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 360.09 Mbit/s
95th percentile per-packet one-way delay: 253.523 ms
Loss rate: 10.88%
-- Flow 1:
Average throughput: 167.10 Mbit/s
95th percentile per-packet one-way delay: 248.946 ms
Loss rate: 4.35%
-- Flow 2:
Average throughput: 170.44 Mbit/s
95th percentile per-packet one-way delay: 249.825 ms
Loss rate: 8.53%
-- Flow 3:
Average throughput: 240.27 Mbit/s
95th percentile per-packet one-way delay: 281.280 ms
Loss rate: 24.50%
```

Run 6: Report of PCC-Expr — Data Link



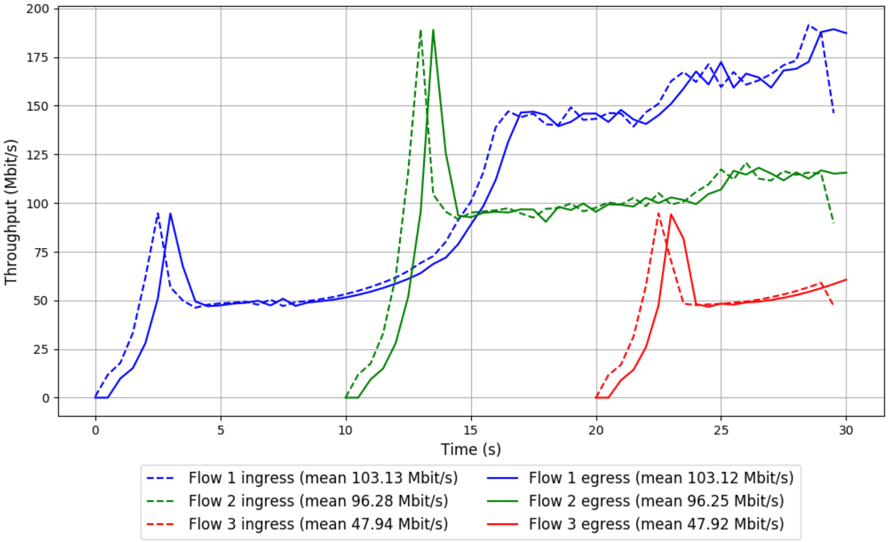


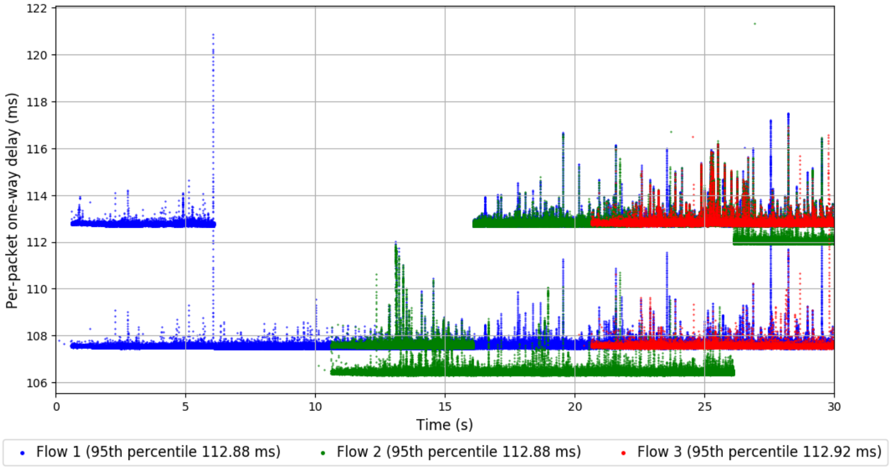
```
Run 7: Statistics of PCC-Expr

Start at: 2018-07-18 06:01:27
End at: 2018-07-18 06:01:57
Local clock offset: 0.342 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.94 Mbit/s
95th percentile per-packet one-way delay: 112.887 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.12 Mbit/s
95th percentile per-packet one-way delay: 112.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 112.880 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.92 Mbit/s
95th percentile per-packet one-way delay: 112.925 ms
Loss rate: 0.00%
```

Run 7: Report of PCC-Expr — Data Link



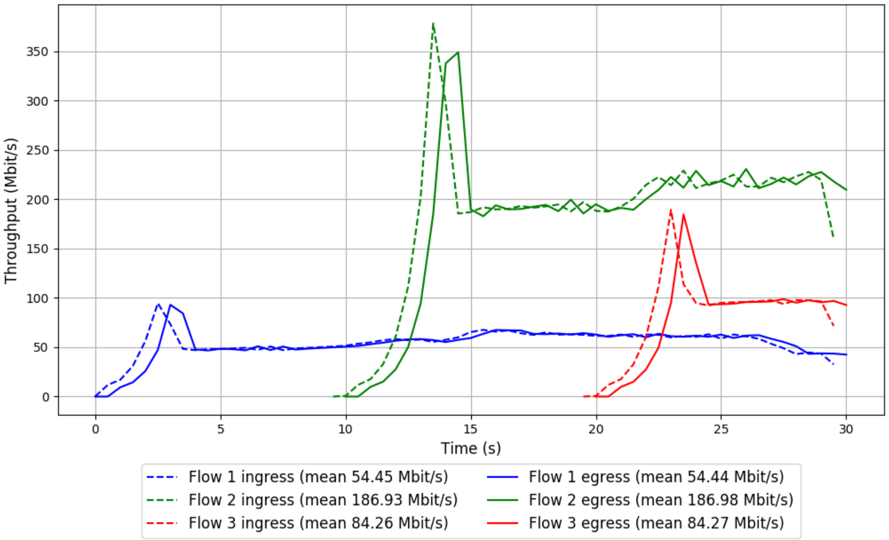


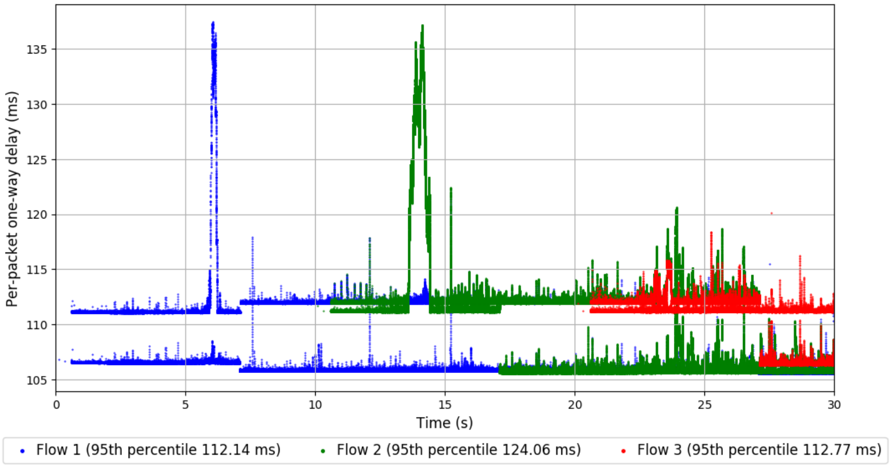
```
Run 8: Statistics of PCC-Expr

Start at: 2018-07-18 06:26:36
End at: 2018-07-18 06:27:06
Local clock offset: 1.154 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 206.68 Mbit/s
95th percentile per-packet one-way delay: 117.812 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.44 Mbit/s
95th percentile per-packet one-way delay: 112.144 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.98 Mbit/s
95th percentile per-packet one-way delay: 124.060 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.27 Mbit/s
95th percentile per-packet one-way delay: 112.773 ms
Loss rate: 0.00%
```

Run 8: Report of PCC-Expr — Data Link



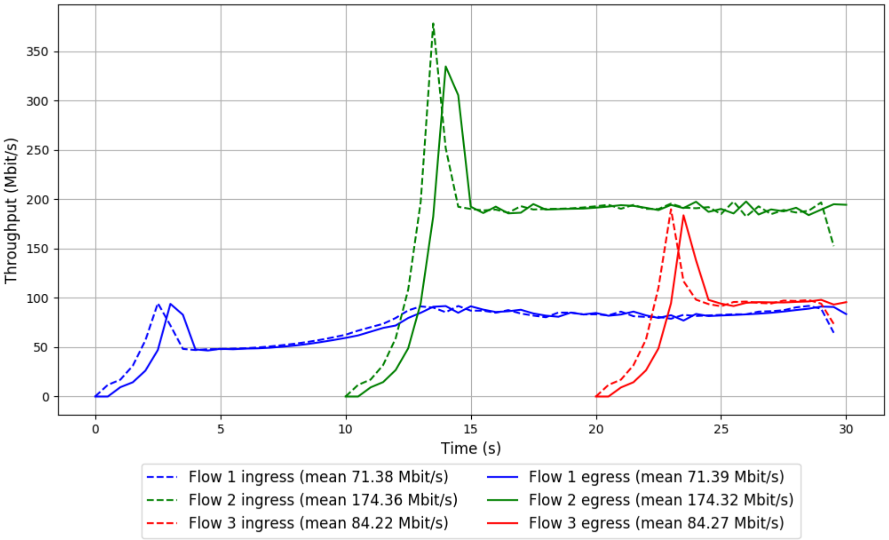


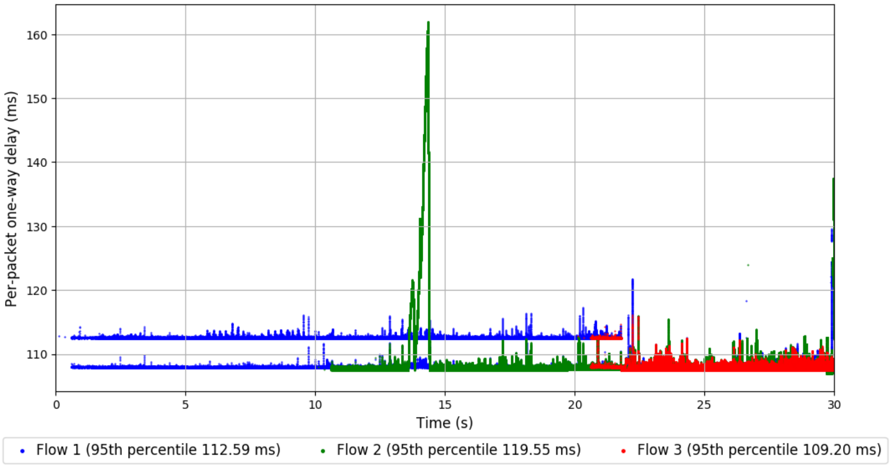
```
Run 9: Statistics of PCC-Expr

Start at: 2018-07-18 06:52:11
End at: 2018-07-18 06:52:41
Local clock offset: -0.037 ms
Remote clock offset: -0.167 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 215.13 Mbit/s
95th percentile per-packet one-way delay: 112.637 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.39 Mbit/s
95th percentile per-packet one-way delay: 112.591 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 174.32 Mbit/s
95th percentile per-packet one-way delay: 119.554 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.27 Mbit/s
95th percentile per-packet one-way delay: 109.204 ms
Loss rate: 0.00%
```

Run 9: Report of PCC-Expr — Data Link



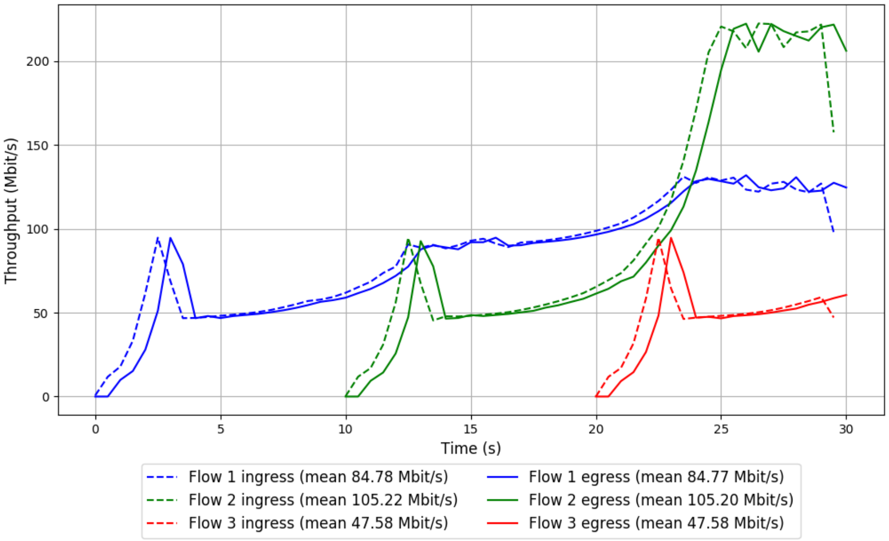


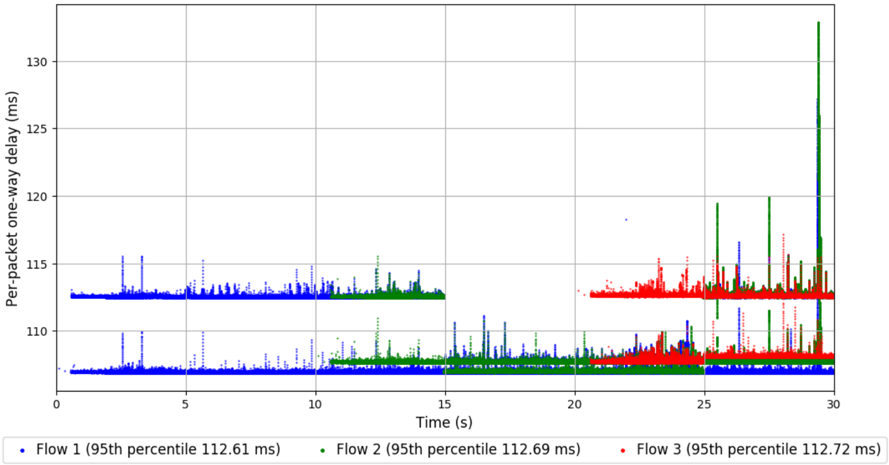
```
Run 10: Statistics of PCC-Expr

Start at: 2018-07-18 07:17:38
End at: 2018-07-18 07:18:08
Local clock offset: -0.284 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.42 Mbit/s
95th percentile per-packet one-way delay: 112.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.77 Mbit/s
95th percentile per-packet one-way delay: 112.607 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 105.20 Mbit/s
95th percentile per-packet one-way delay: 112.694 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.58 Mbit/s
95th percentile per-packet one-way delay: 112.720 ms
Loss rate: 0.00%
```

Run 10: Report of PCC-Expr — Data Link



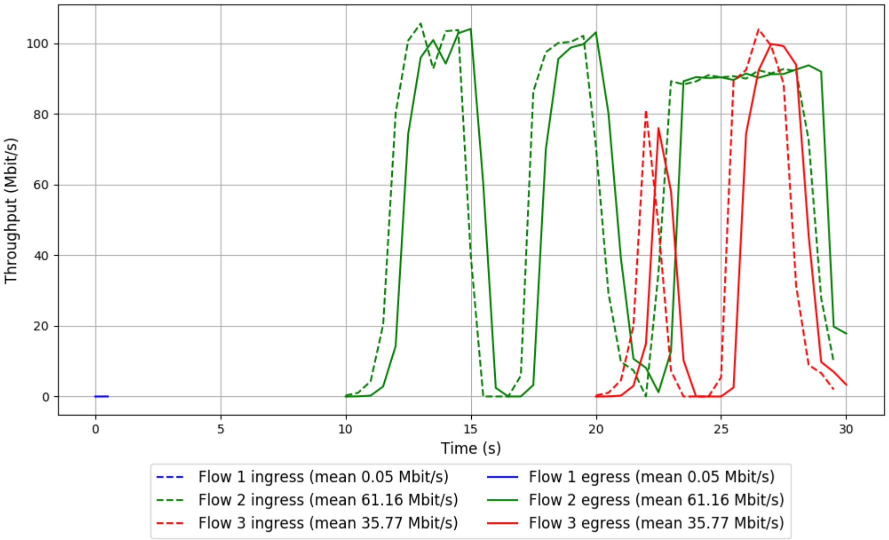


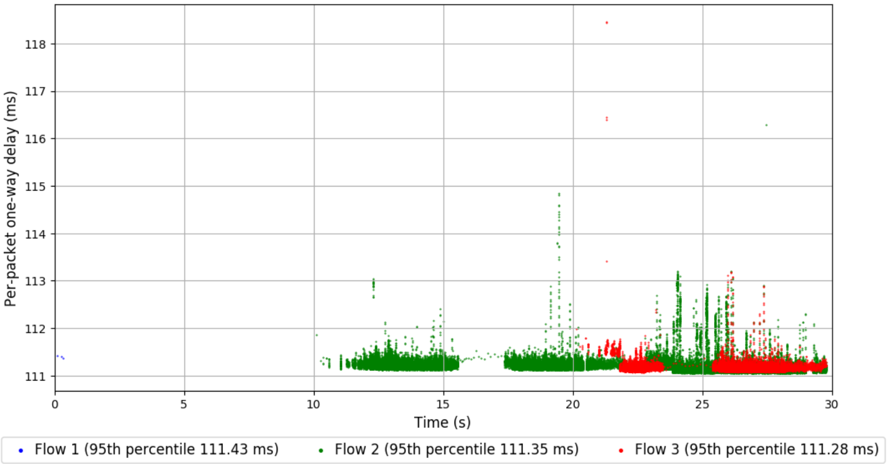
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-18 03:29:49
End at: 2018-07-18 03:30:19
Local clock offset: 0.039 ms
Remote clock offset: 0.146 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.17 Mbit/s
95th percentile per-packet one-way delay: 111.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 111.426 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.16 Mbit/s
95th percentile per-packet one-way delay: 111.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.77 Mbit/s
95th percentile per-packet one-way delay: 111.278 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



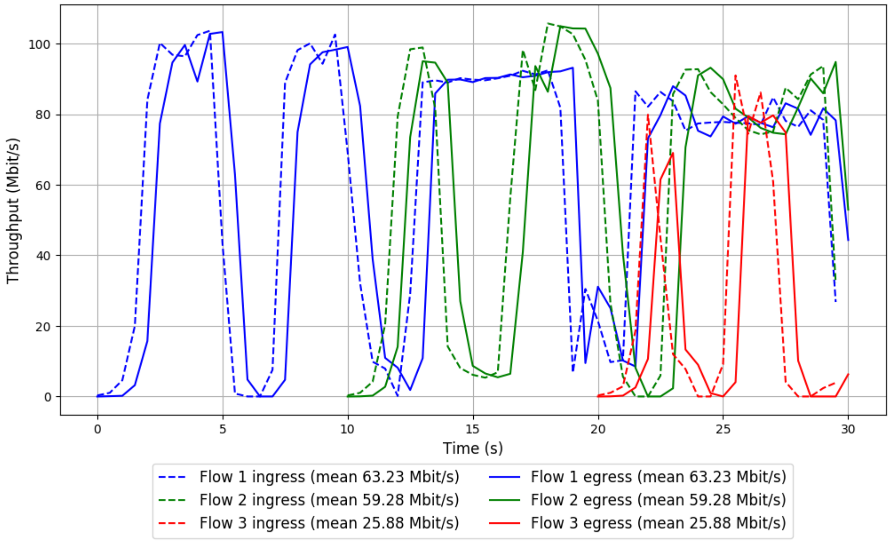


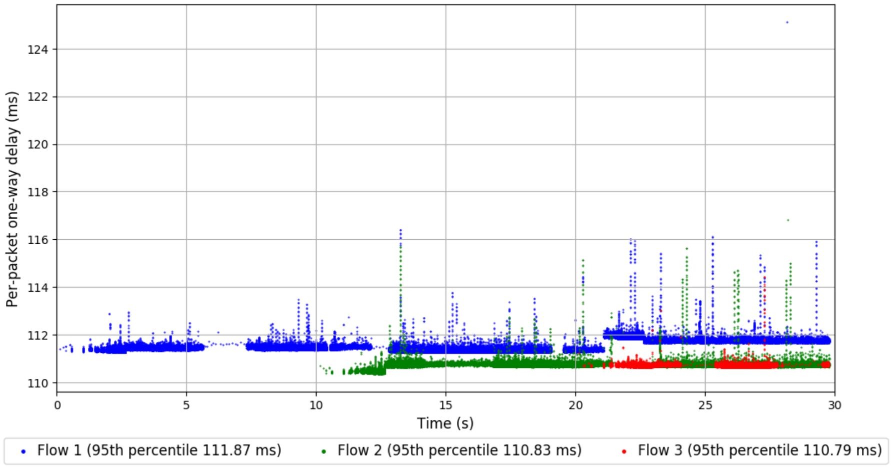
```
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-18 03:55:30
End at: 2018-07-18 03:56:00
Local clock offset: -0.306 ms
Remote clock offset: 0.142 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.90 Mbit/s
95th percentile per-packet one-way delay: 111.793 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.23 Mbit/s
95th percentile per-packet one-way delay: 111.870 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.28 Mbit/s
95th percentile per-packet one-way delay: 110.831 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.88 Mbit/s
95th percentile per-packet one-way delay: 110.793 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



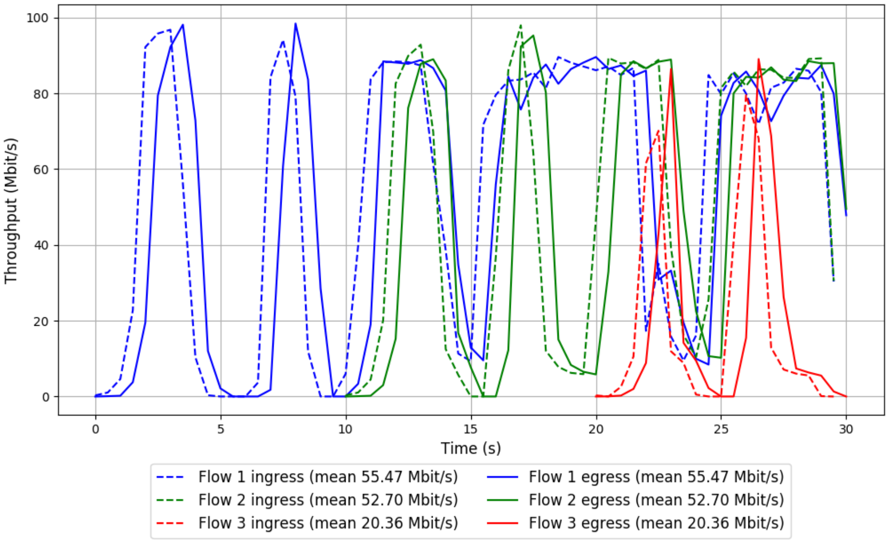


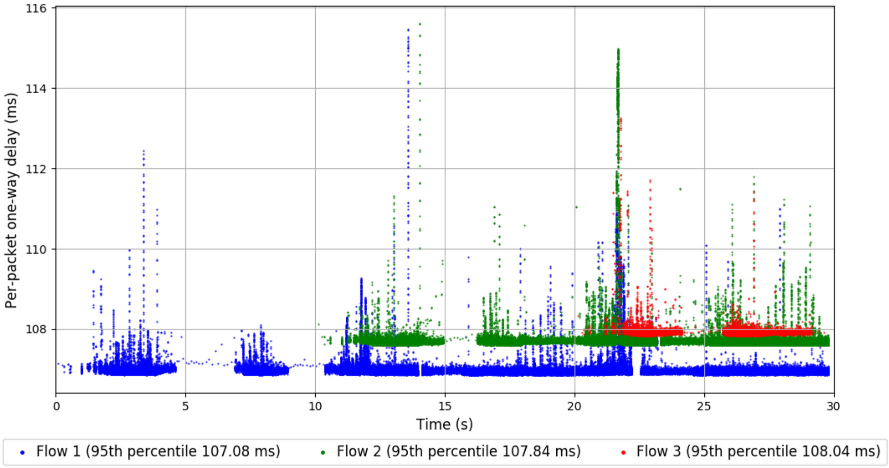
```
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-18 04:21:20
End at: 2018-07-18 04:21:50
Local clock offset: -0.154 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.91 Mbit/s
95th percentile per-packet one-way delay: 107.913 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.47 Mbit/s
95th percentile per-packet one-way delay: 107.082 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.70 Mbit/s
95th percentile per-packet one-way delay: 107.845 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.36 Mbit/s
95th percentile per-packet one-way delay: 108.044 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link



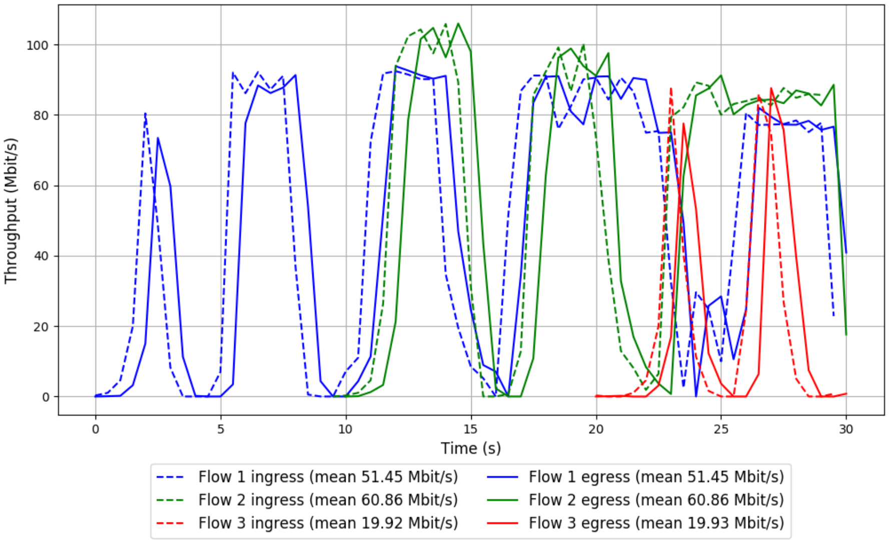


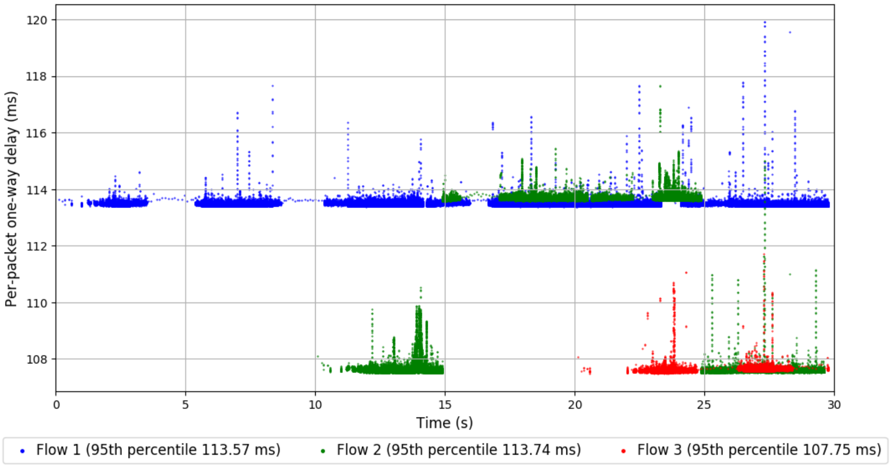
```
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-18 04:46:18
End at: 2018-07-18 04:46:48
Local clock offset: -0.197 ms
Remote clock offset: 0.302 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.96 Mbit/s
95th percentile per-packet one-way delay: 113.698 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.45 Mbit/s
95th percentile per-packet one-way delay: 113.570 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.86 Mbit/s
95th percentile per-packet one-way delay: 113.743 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.93 Mbit/s
95th percentile per-packet one-way delay: 107.755 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link



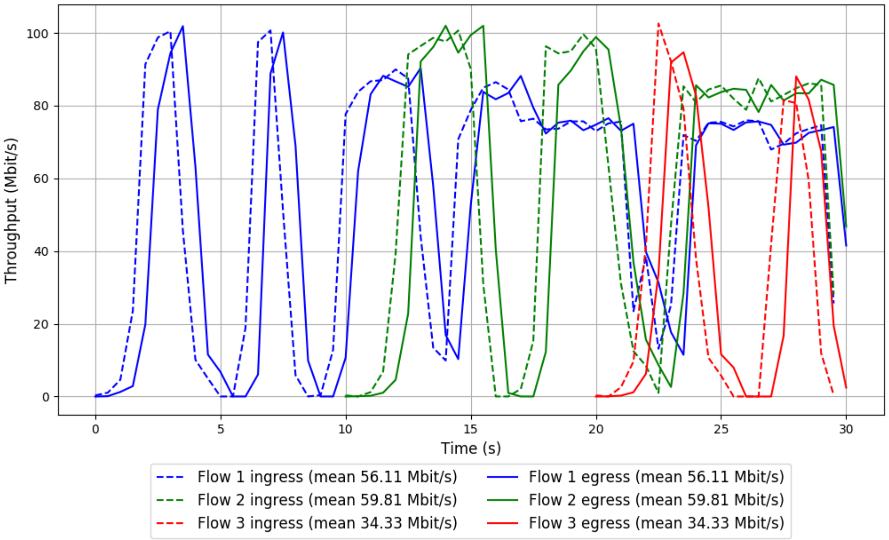


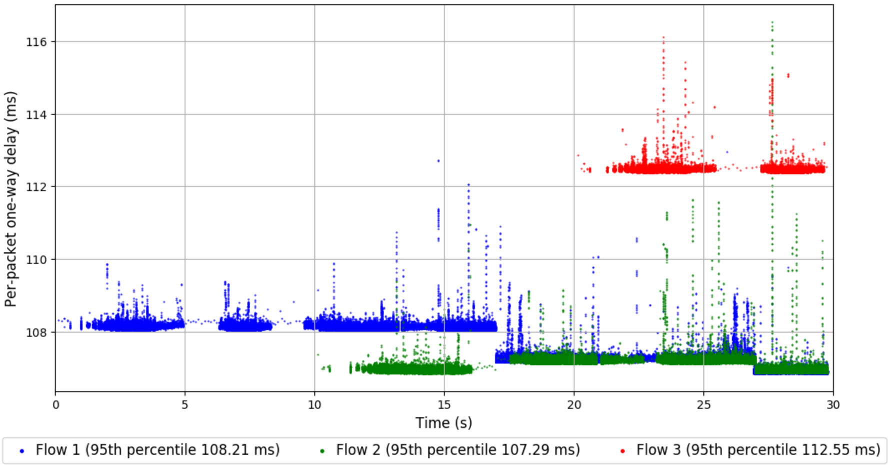
```
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-18 05:11:35
End at: 2018-07-18 05:12:05
Local clock offset: -0.114 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.83 Mbit/s
95th percentile per-packet one-way delay: 112.446 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 108.206 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.81 Mbit/s
95th percentile per-packet one-way delay: 107.287 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 112.546 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link



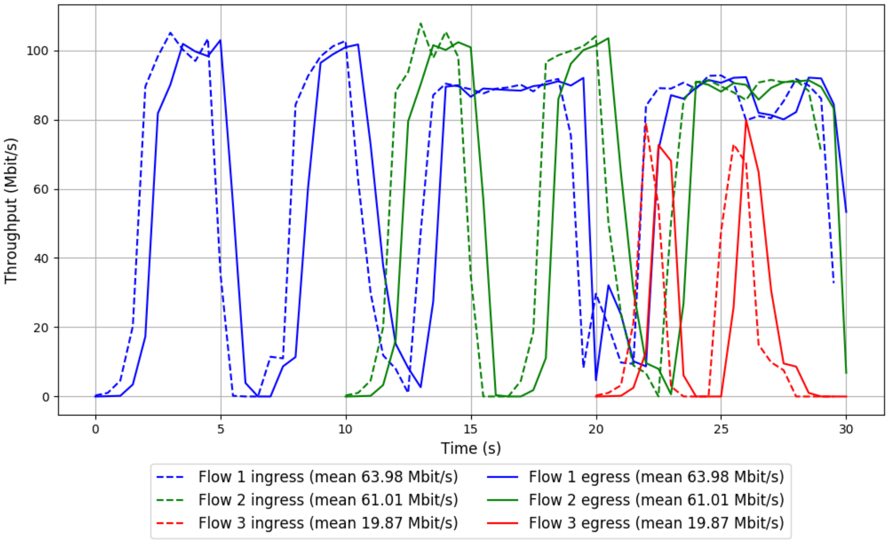


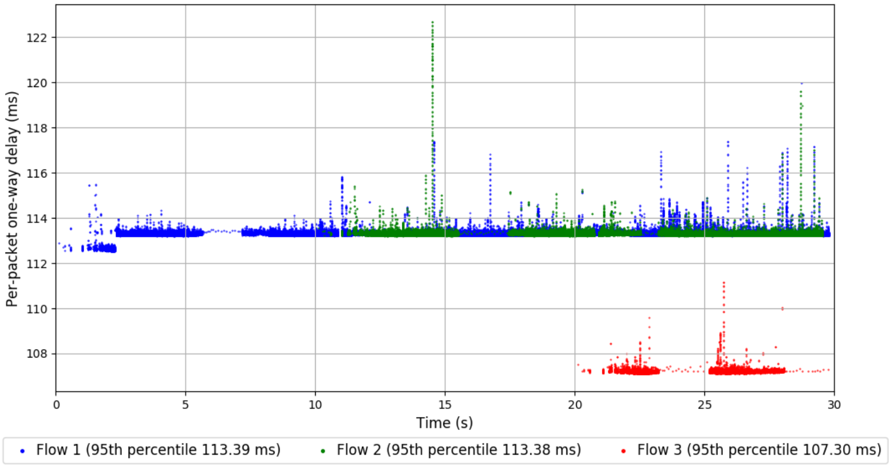
```
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-18 05:37:20
End at: 2018-07-18 05:37:50
Local clock offset: -0.135 ms
Remote clock offset: -0.174 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.36 Mbit/s
95th percentile per-packet one-way delay: 113.378 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.98 Mbit/s
95th percentile per-packet one-way delay: 113.385 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.01 Mbit/s
95th percentile per-packet one-way delay: 113.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.87 Mbit/s
95th percentile per-packet one-way delay: 107.299 ms
Loss rate: 0.00%
```

Run 6: Report of QUIC Cubic — Data Link



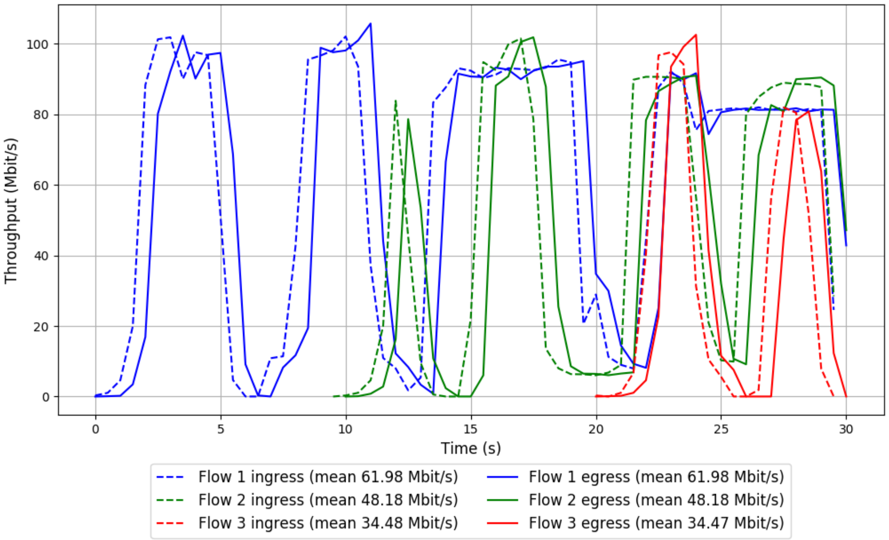


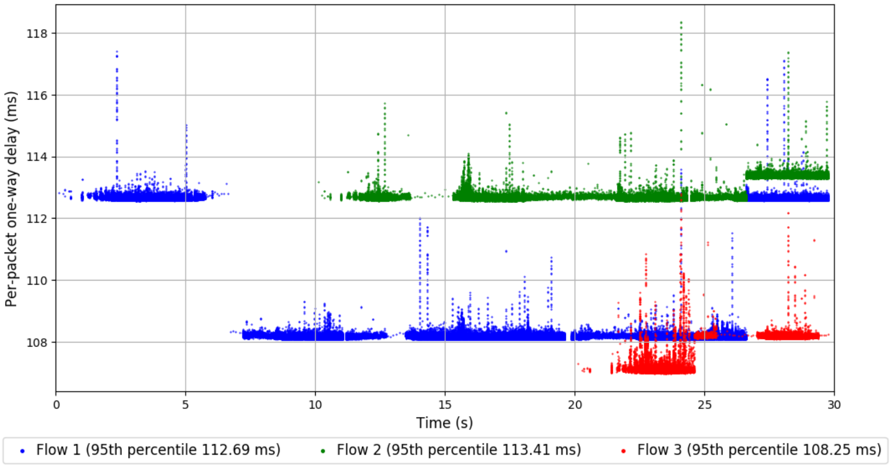
```
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-18 06:02:56
End at: 2018-07-18 06:03:26
Local clock offset: -0.269 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.12 Mbit/s
95th percentile per-packet one-way delay: 113.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.98 Mbit/s
95th percentile per-packet one-way delay: 112.686 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.18 Mbit/s
95th percentile per-packet one-way delay: 113.407 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.47 Mbit/s
95th percentile per-packet one-way delay: 108.250 ms
Loss rate: 0.00%
```

Run 7: Report of QUIC Cubic — Data Link



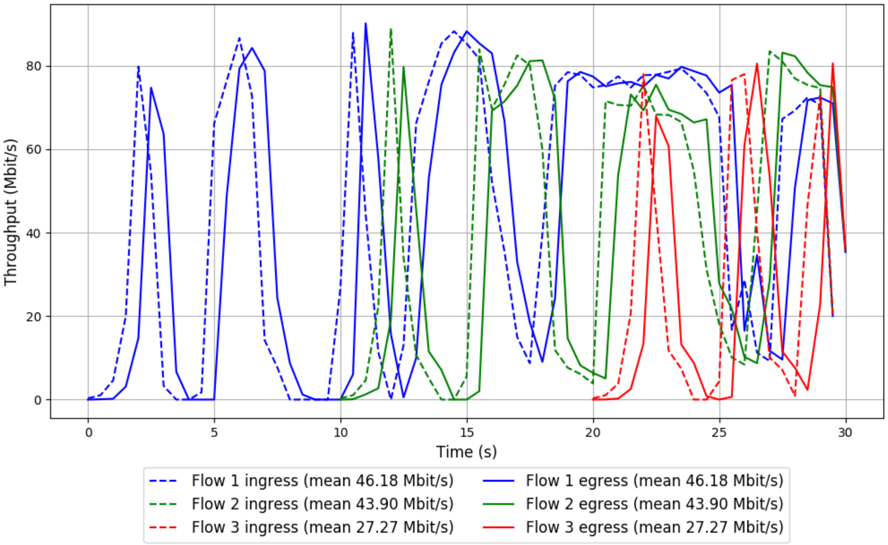


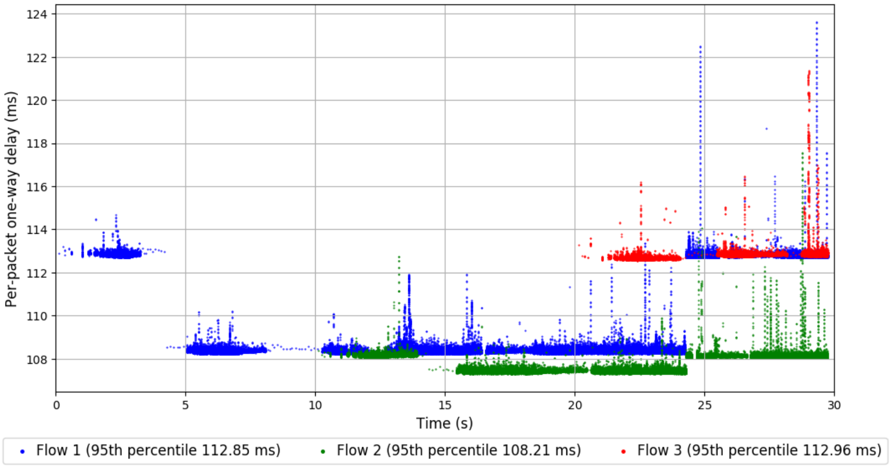
```
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-18 06:28:08
End at: 2018-07-18 06:28:38
Local clock offset: -0.053 ms
Remote clock offset: 0.258 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.11 Mbit/s
95th percentile per-packet one-way delay: 112.852 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.18 Mbit/s
95th percentile per-packet one-way delay: 112.851 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.90 Mbit/s
95th percentile per-packet one-way delay: 108.206 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.27 Mbit/s
95th percentile per-packet one-way delay: 112.958 ms
Loss rate: 0.00%
```

Run 8: Report of QUIC Cubic — Data Link



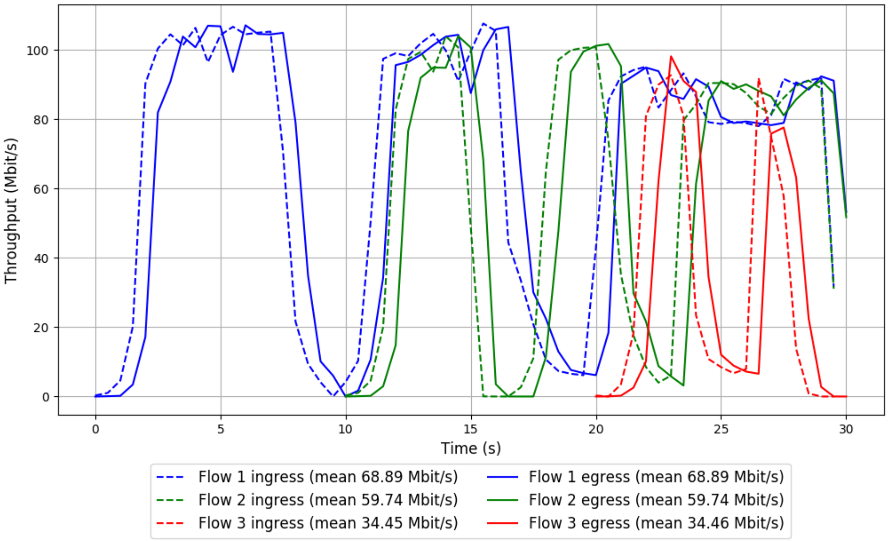


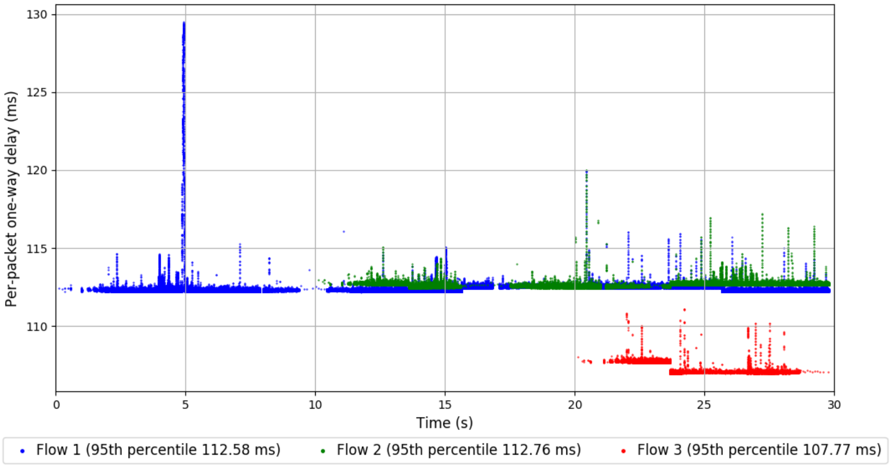
```
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-18 06:53:47
End at: 2018-07-18 06:54:17
Local clock offset: -0.018 ms
Remote clock offset: -0.174 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 119.65 Mbit/s
95th percentile per-packet one-way delay: 112.717 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.89 Mbit/s
95th percentile per-packet one-way delay: 112.576 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.74 Mbit/s
95th percentile per-packet one-way delay: 112.759 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.46 Mbit/s
95th percentile per-packet one-way delay: 107.768 ms
Loss rate: 0.00%
```

Run 9: Report of QUIC Cubic — Data Link



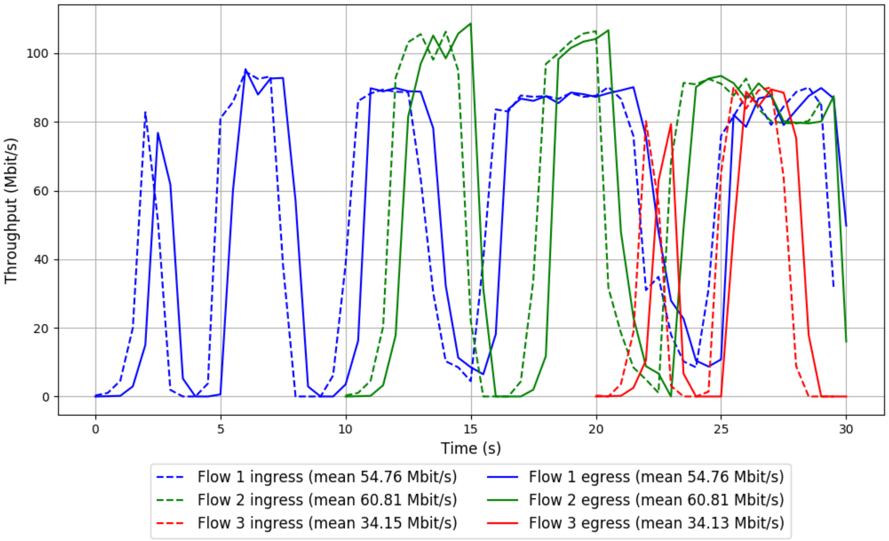


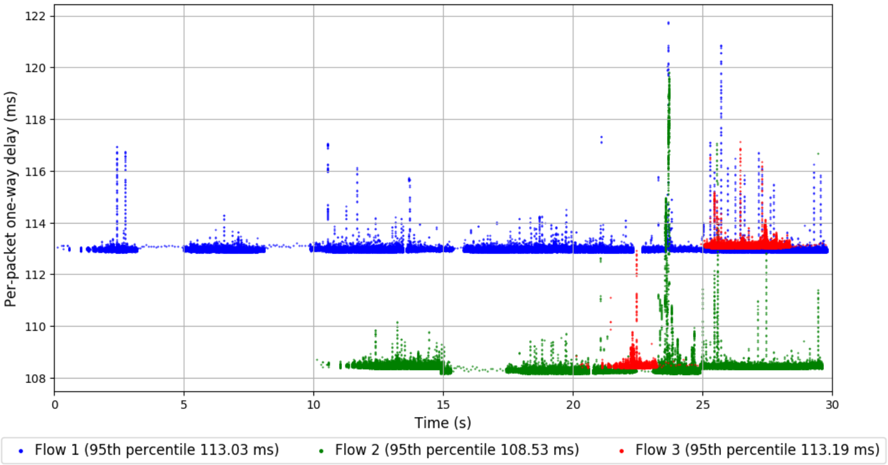
```
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-18 07:19:08
End at: 2018-07-18 07:19:38
Local clock offset: -0.213 ms
Remote clock offset: 0.342 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.72 Mbit/s
95th percentile per-packet one-way delay: 113.096 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.76 Mbit/s
95th percentile per-packet one-way delay: 113.032 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.81 Mbit/s
95th percentile per-packet one-way delay: 108.527 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.13 Mbit/s
95th percentile per-packet one-way delay: 113.195 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link



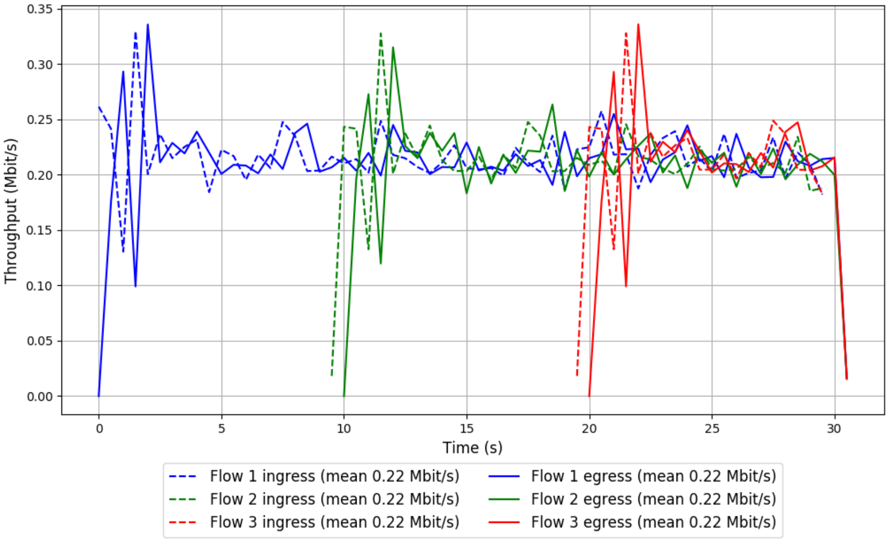


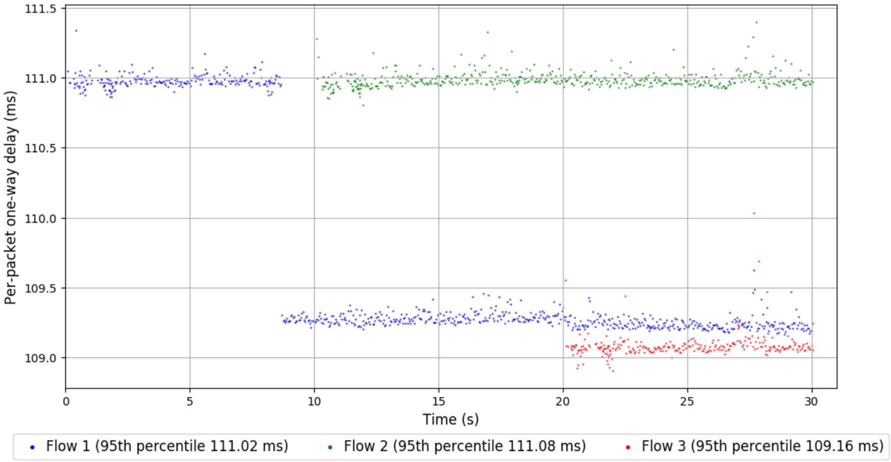
```
Run 1: Statistics of SCReAM

Start at: 2018-07-18 03:13:34
End at: 2018-07-18 03:14:04
Local clock offset: 0.195 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 111.038 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.082 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.160 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link



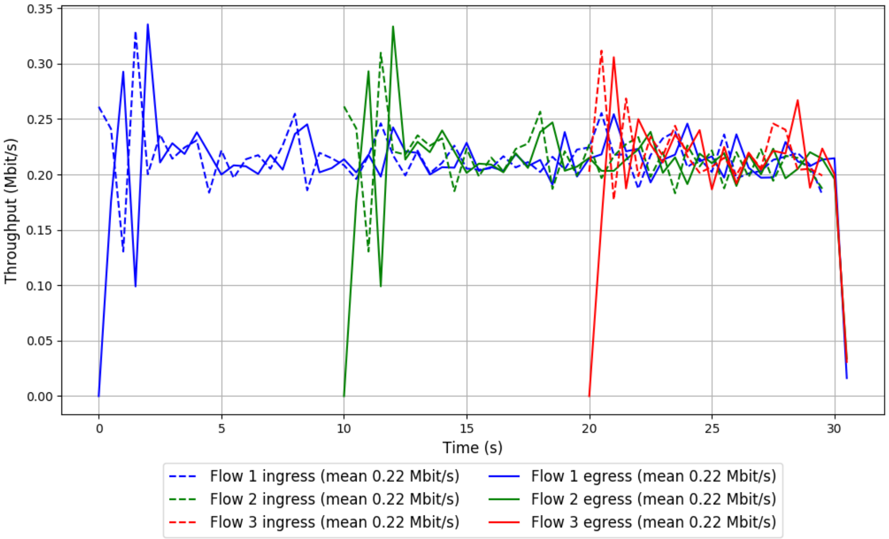


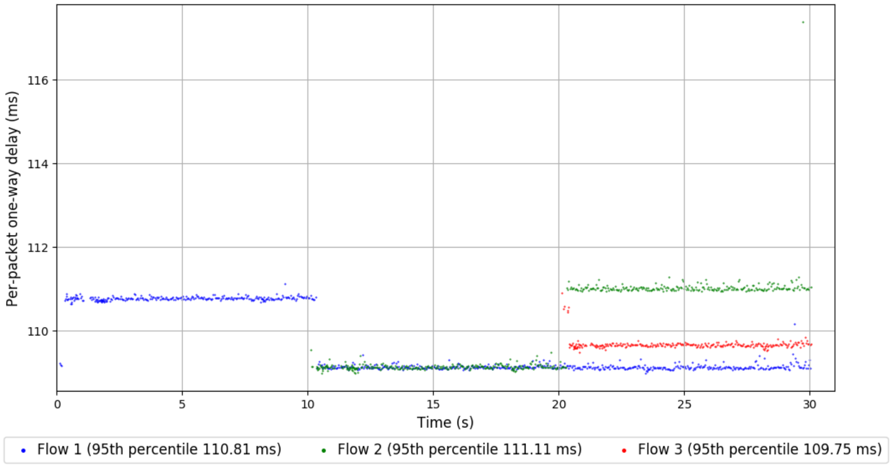
```
Run 2: Statistics of SCReAM

Start at: 2018-07-18 03:39:22
End at: 2018-07-18 03:39:52
Local clock offset: -0.027 ms
Remote clock offset: -0.525 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 111.023 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.806 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.105 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.747 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link



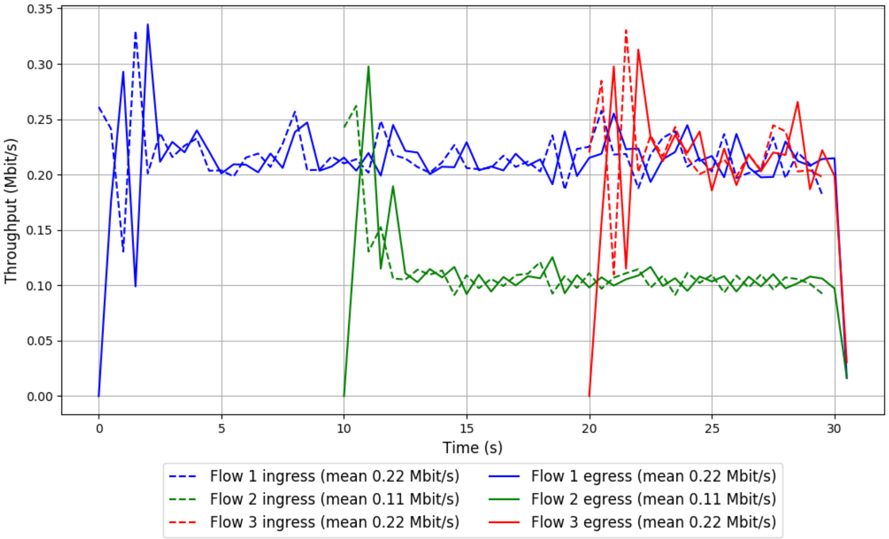


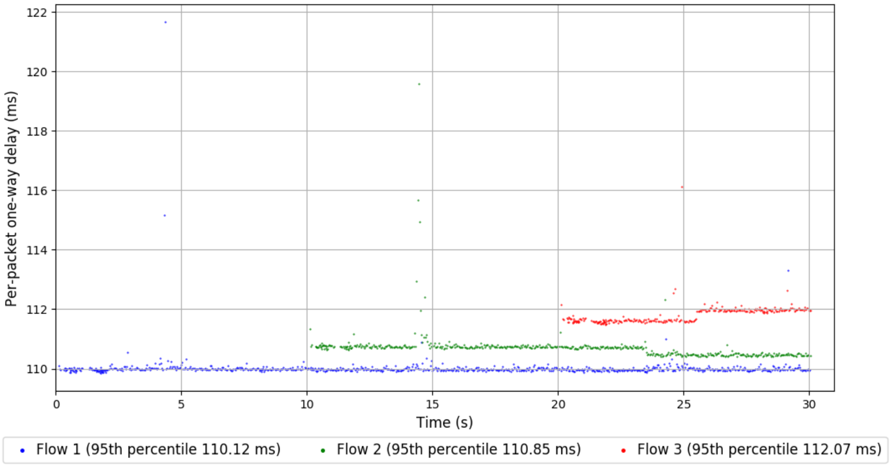
```
Run 3: Statistics of SCReAM

Start at: 2018-07-18 04:05:17
End at: 2018-07-18 04:05:47
Local clock offset: -0.221 ms
Remote clock offset: 0.153 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 111.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.116 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 110.847 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.071 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link



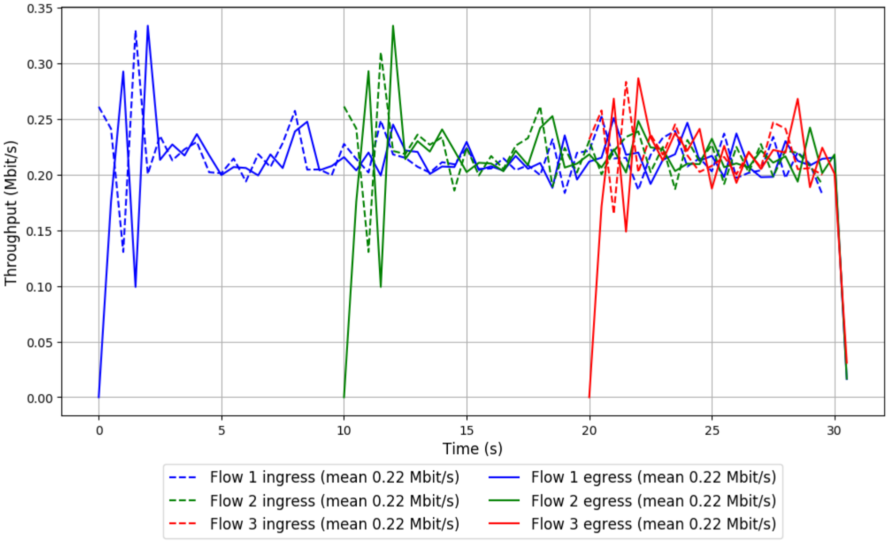


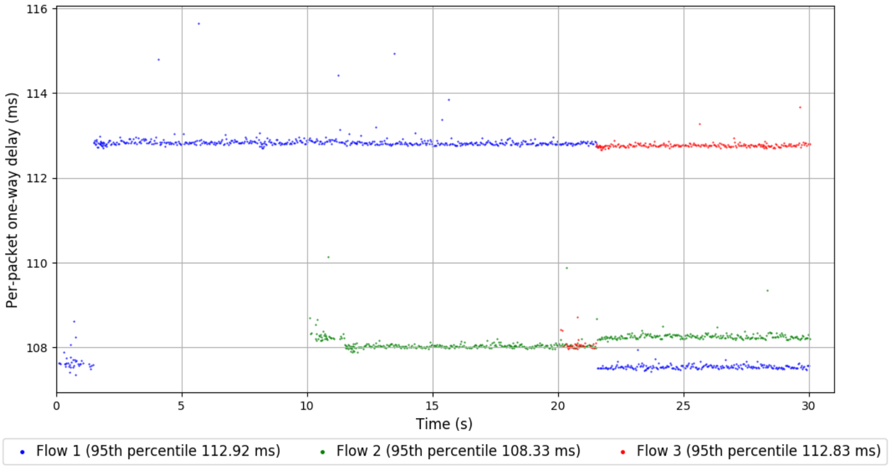
```
Run 4: Statistics of SCReAM

Start at: 2018-07-18 04:30:51
End at: 2018-07-18 04:31:21
Local clock offset: -0.392 ms
Remote clock offset: -0.099 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 112.882 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.918 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.826 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



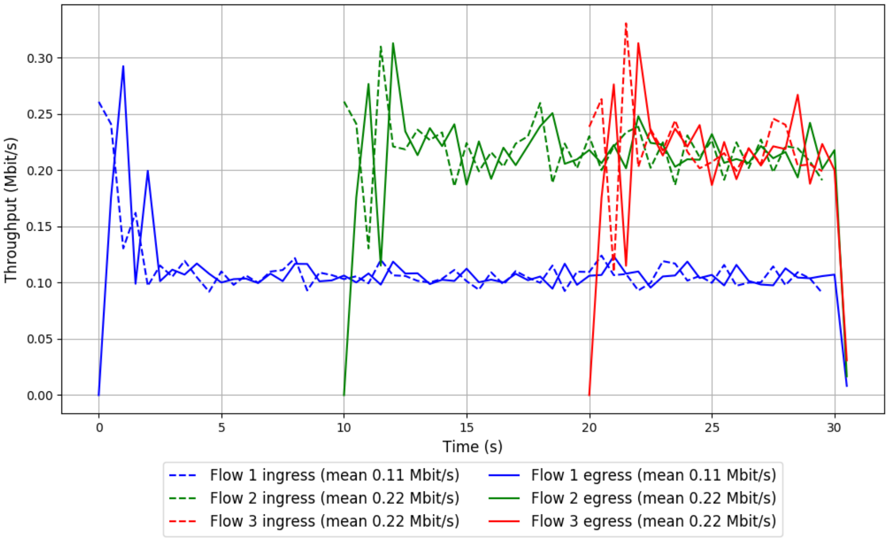


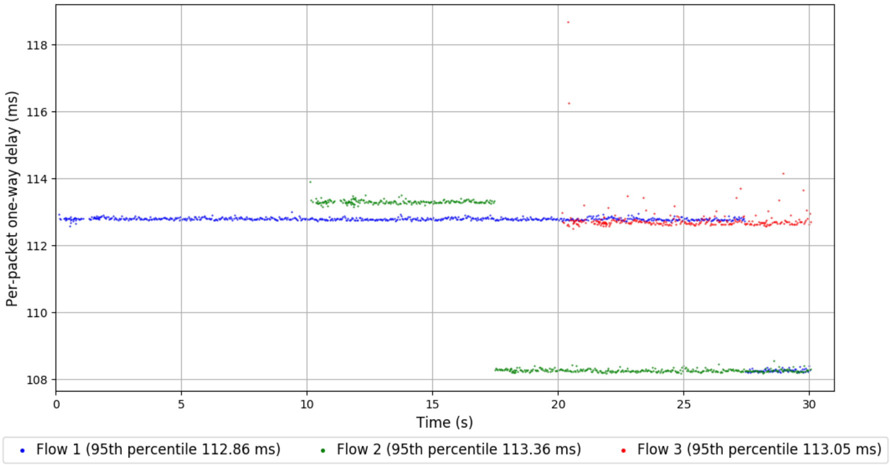
```
Run 5: Statistics of SCReAM

Start at: 2018-07-18 04:55:45
End at: 2018-07-18 04:56:15
Local clock offset: -0.244 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 113.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 112.862 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.361 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.050 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



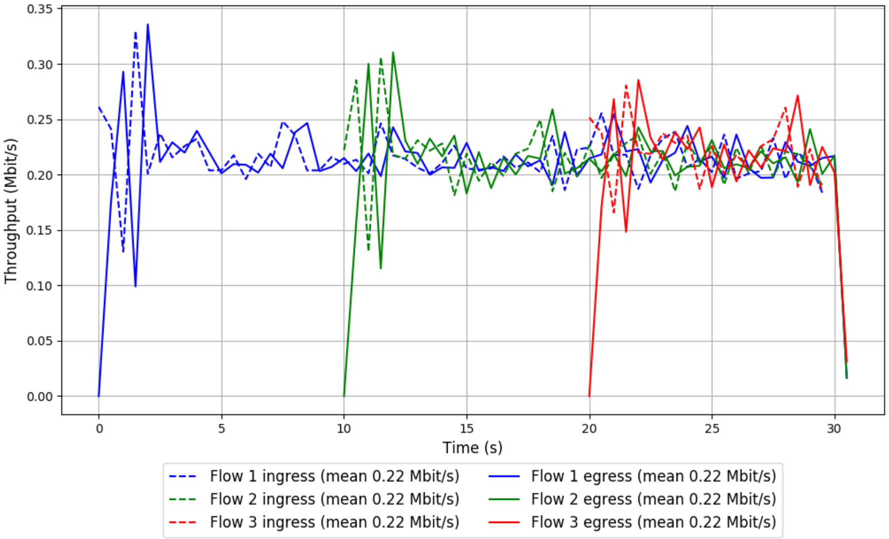


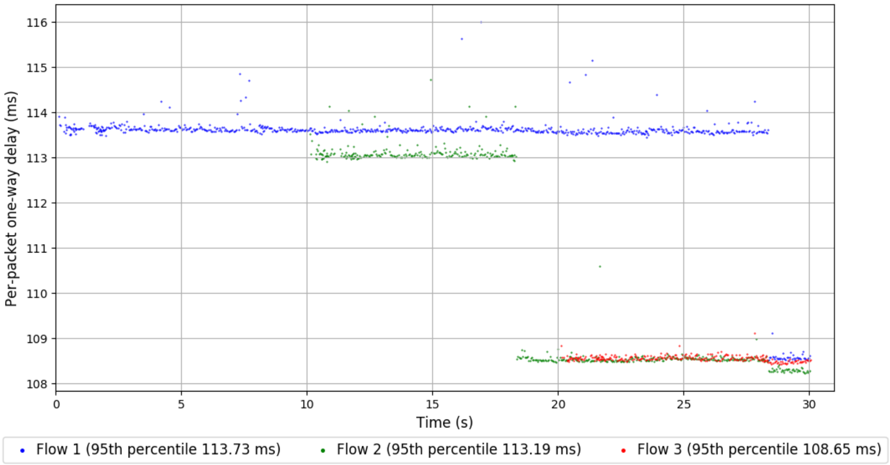
```
Run 6: Statistics of SCReAM

Start at: 2018-07-18 05:21:04
End at: 2018-07-18 05:21:34
Local clock offset: -0.048 ms
Remote clock offset: 0.242 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.696 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.728 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.193 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.646 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



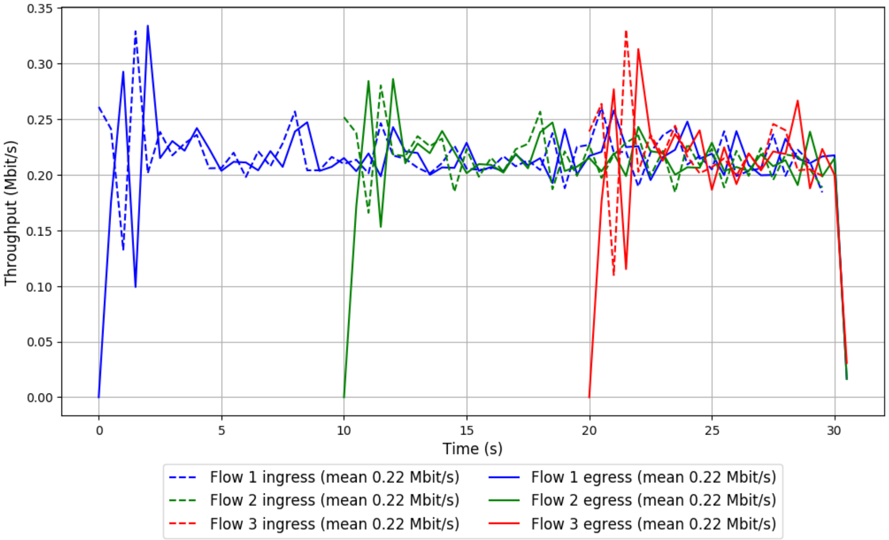


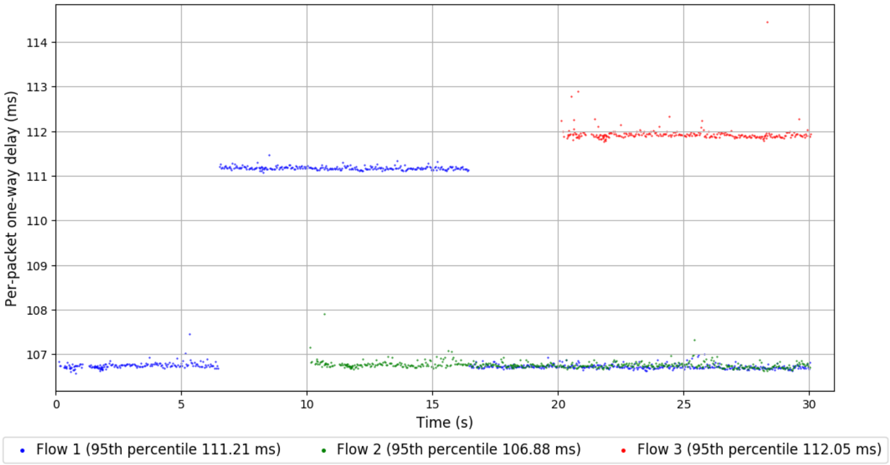
```
Run 7: Statistics of SCReAM

Start at: 2018-07-18 05:46:56
End at: 2018-07-18 05:47:26
Local clock offset: 1.403 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 111.941 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.210 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 106.884 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.051 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link



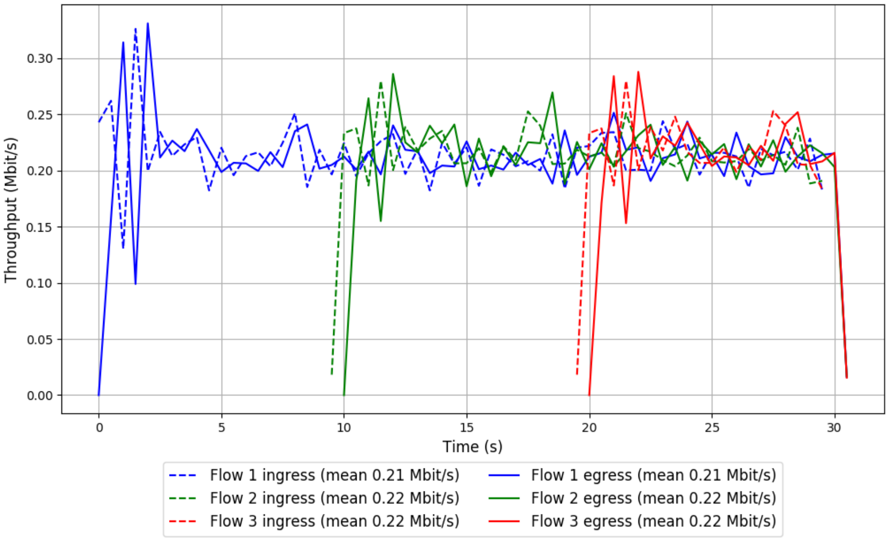


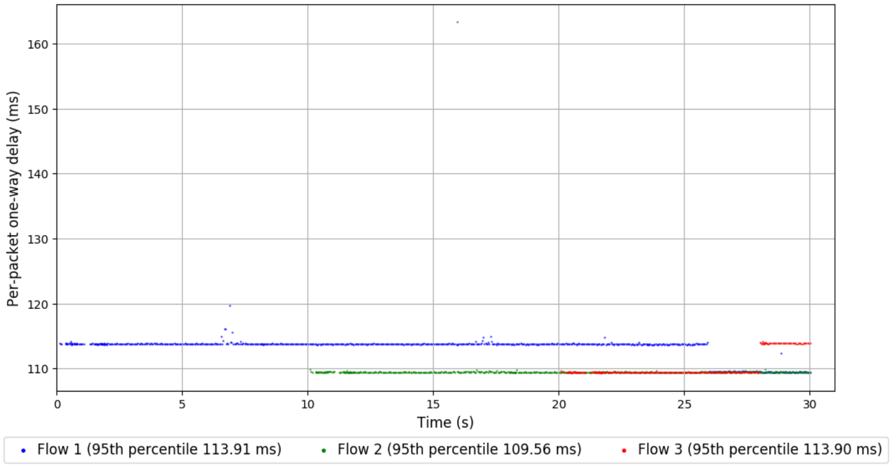
```
Run 8: Statistics of SCReAM

Start at: 2018-07-18 06:12:25
End at: 2018-07-18 06:12:55
Local clock offset: -1.355 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.883 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.914 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.556 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.899 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



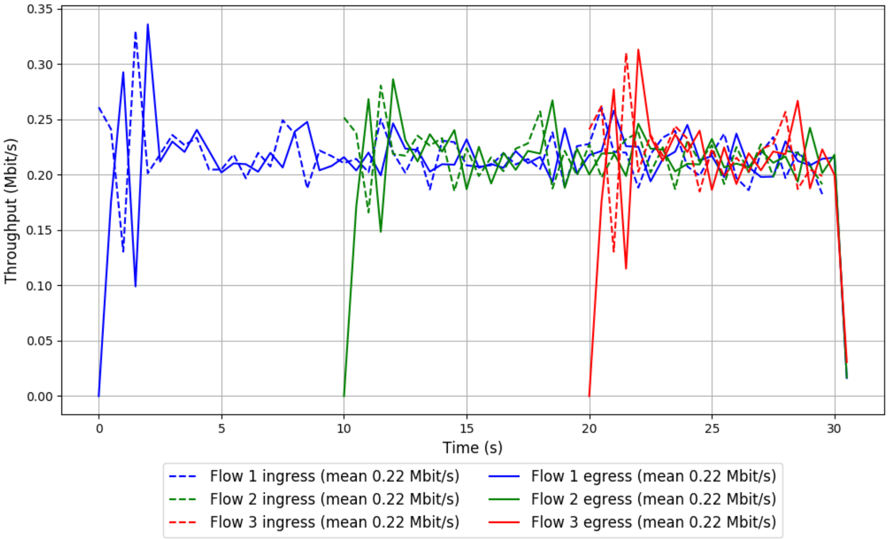


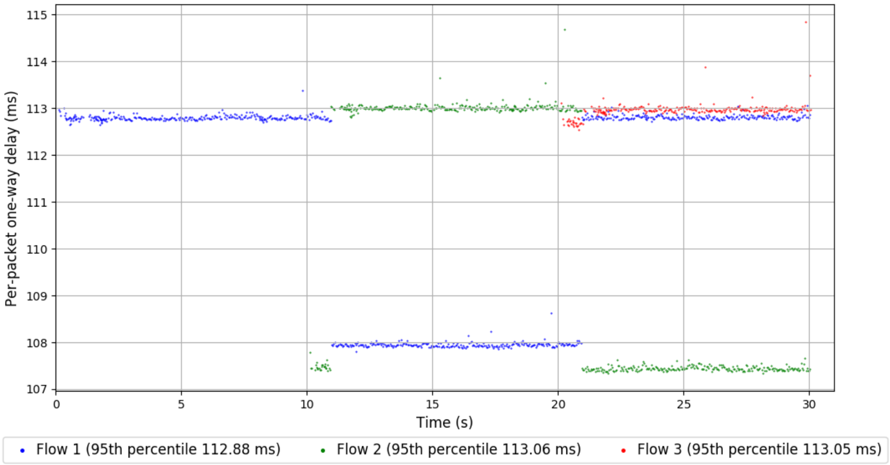
```
Run 9: Statistics of SCReAM

Start at: 2018-07-18 06:37:42
End at: 2018-07-18 06:38:12
Local clock offset: -0.262 ms
Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 113.042 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.876 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.065 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.052 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link



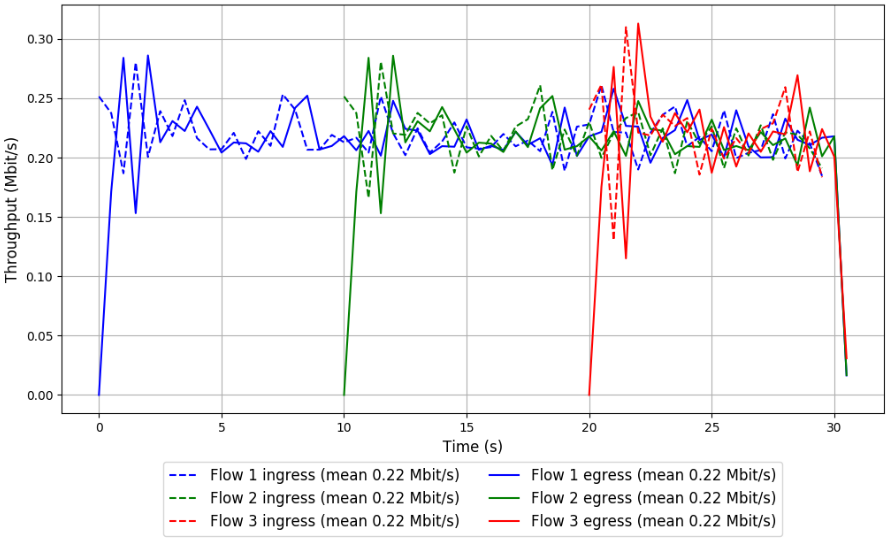


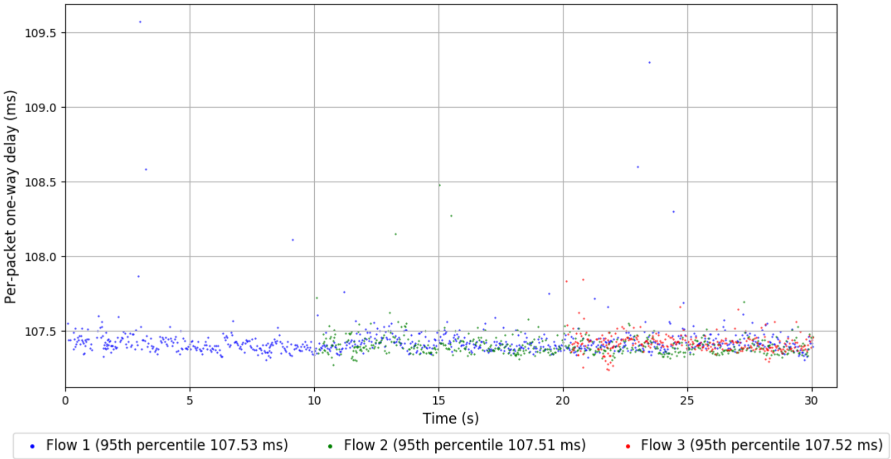
```
Run 10: Statistics of SCReAM

Start at: 2018-07-18 07:03:29
End at: 2018-07-18 07:03:59
Local clock offset: 0.099 ms
Remote clock offset: 0.235 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 107.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.525 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.522 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link



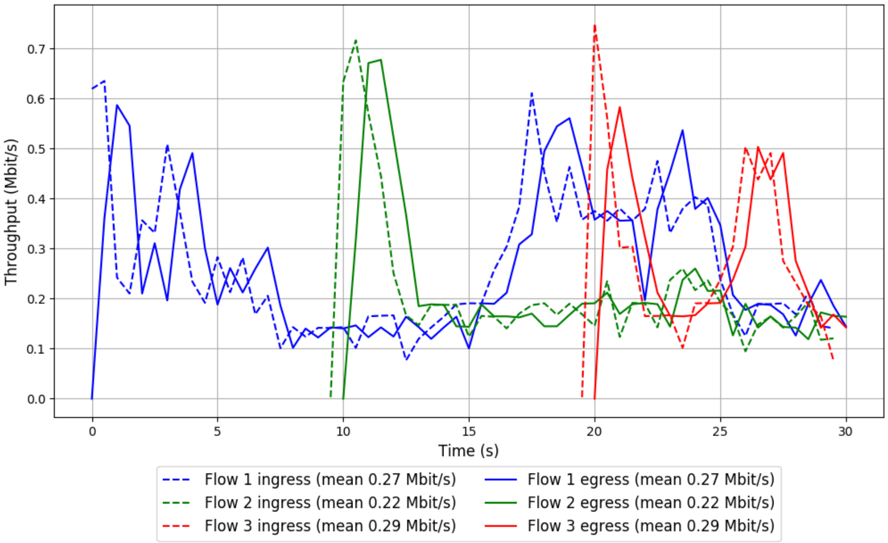


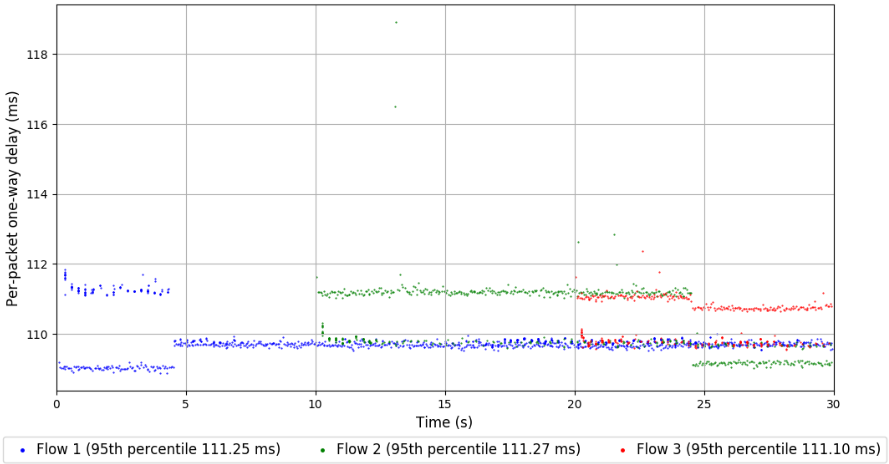
```
Run 1: Statistics of Sprout

Start at: 2018-07-18 03:17:48
End at: 2018-07-18 03:18:18
Local clock offset: -0.129 ms
Remote clock offset: -0.579 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 111.250 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 111.251 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.271 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 111.101 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



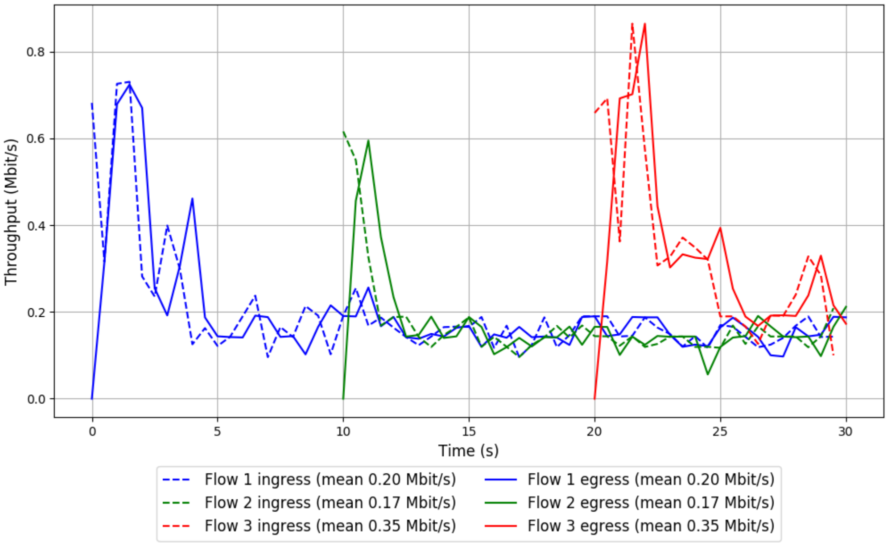


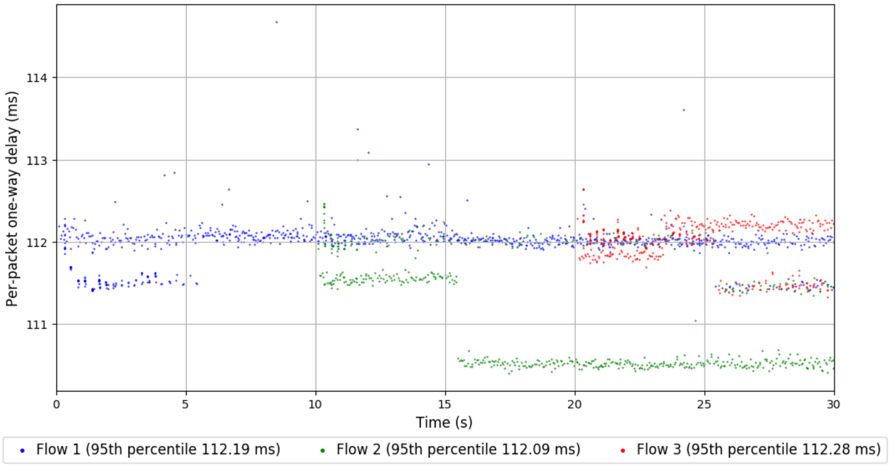
```
Run 2: Statistics of Sprout

Start at: 2018-07-18 03:43:37
End at: 2018-07-18 03:44:07
Local clock offset: -0.215 ms
Remote clock offset: 0.191 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.235 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 112.194 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 112.087 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 112.284 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link



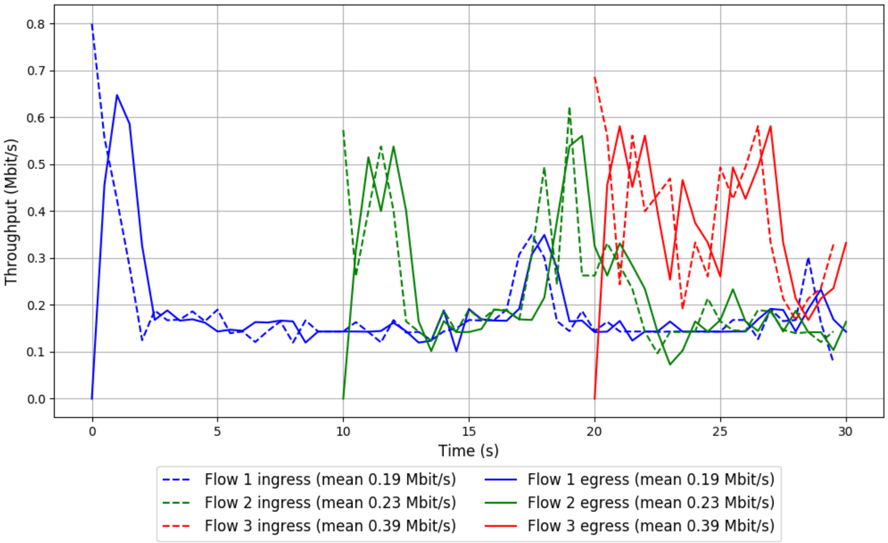


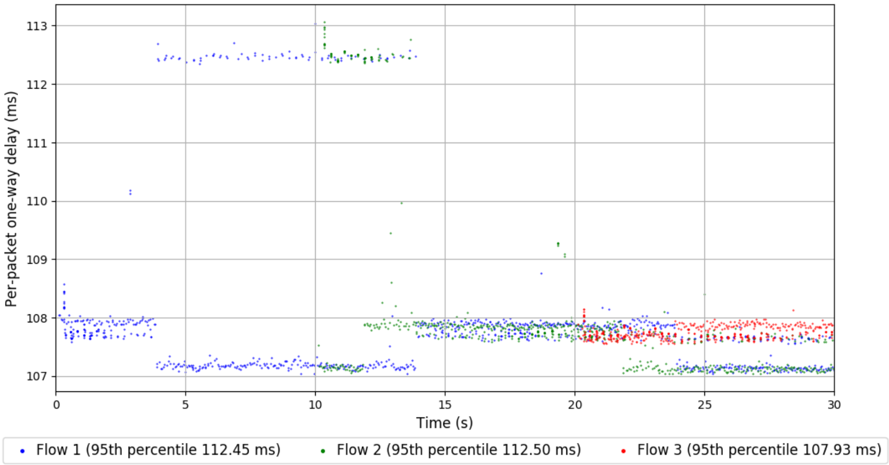
```
Run 3: Statistics of Sprout

Start at: 2018-07-18 04:09:39
End at: 2018-07-18 04:10:09
Local clock offset: 0.014 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 112.449 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 112.446 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 112.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 107.926 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link



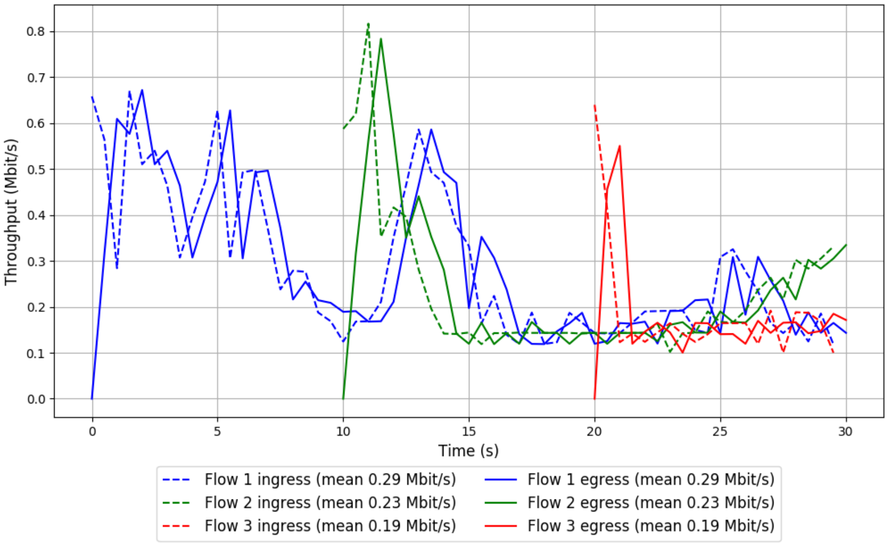


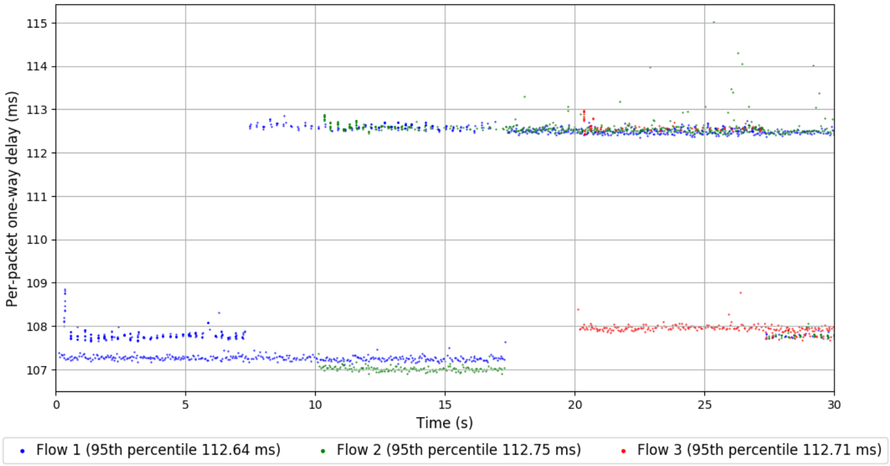
```
Run 4: Statistics of Sprout

Start at: 2018-07-18 04:35:05
End at: 2018-07-18 04:35:35
Local clock offset: -0.112 ms
Remote clock offset: -0.061 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 112.665 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 112.644 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 112.745 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 112.706 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link



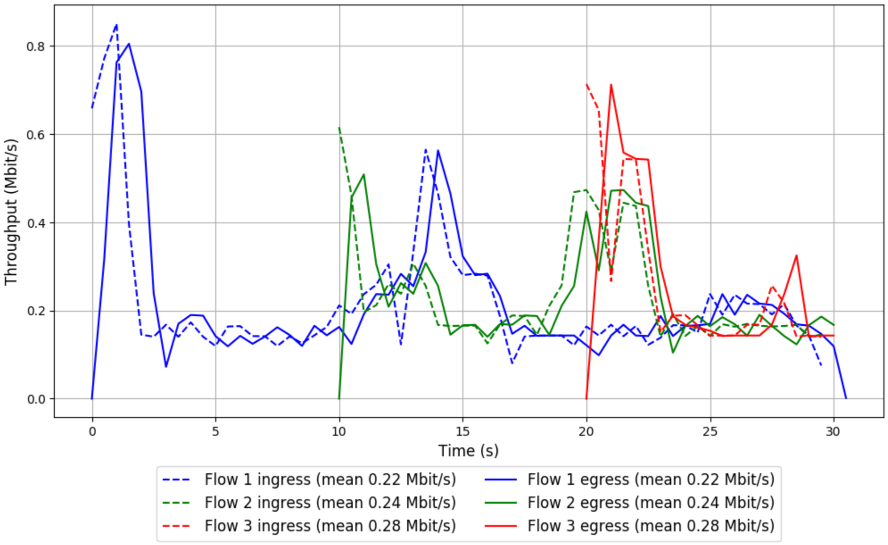


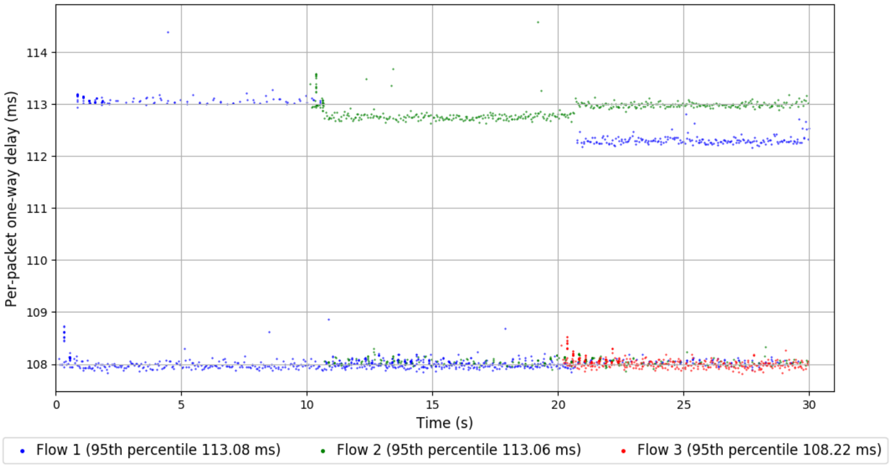
```
Run 5: Statistics of Sprout

Start at: 2018-07-18 05:00:02
End at: 2018-07-18 05:00:32
Local clock offset: 0.093 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 113.066 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.083 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 113.063 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 108.217 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



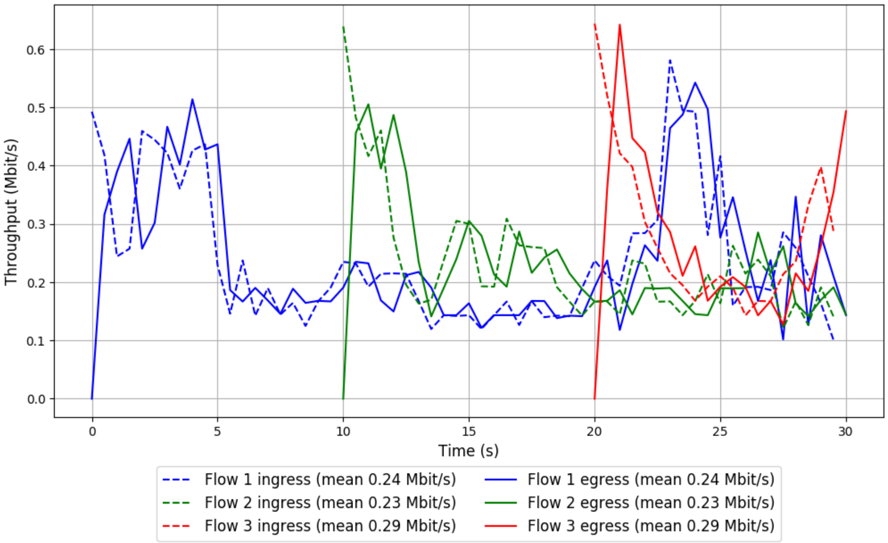


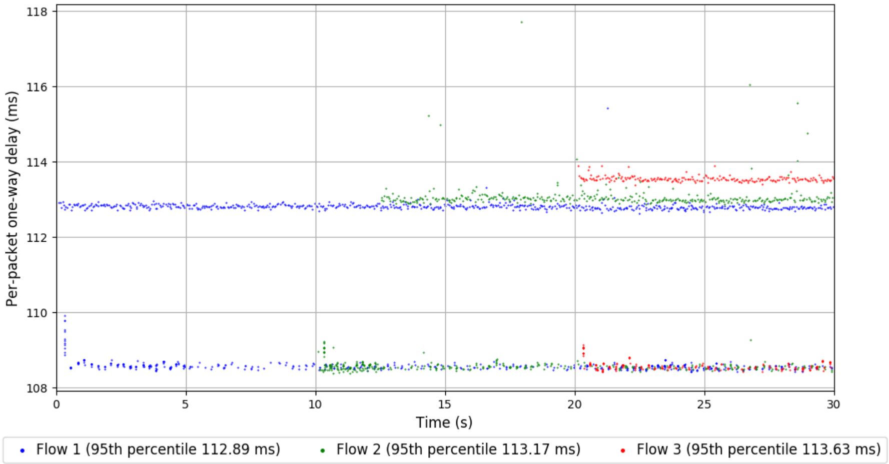
```
Run 6: Statistics of Sprout

Start at: 2018-07-18 05:25:20
End at: 2018-07-18 05:25:50
Local clock offset: -0.056 ms
Remote clock offset: 0.211 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 113.545 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 112.893 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 113.170 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 113.628 ms
Loss rate: 0.00%
```

Run 6: Report of Sprout — Data Link



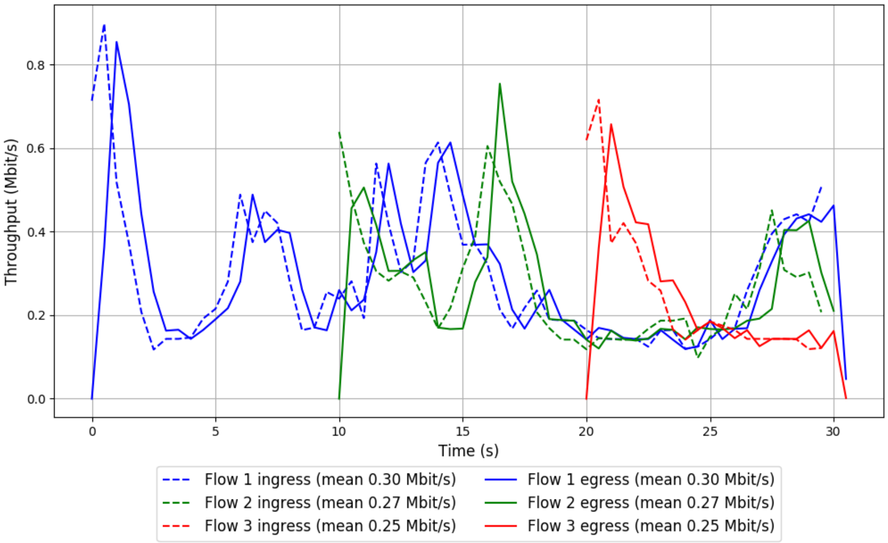


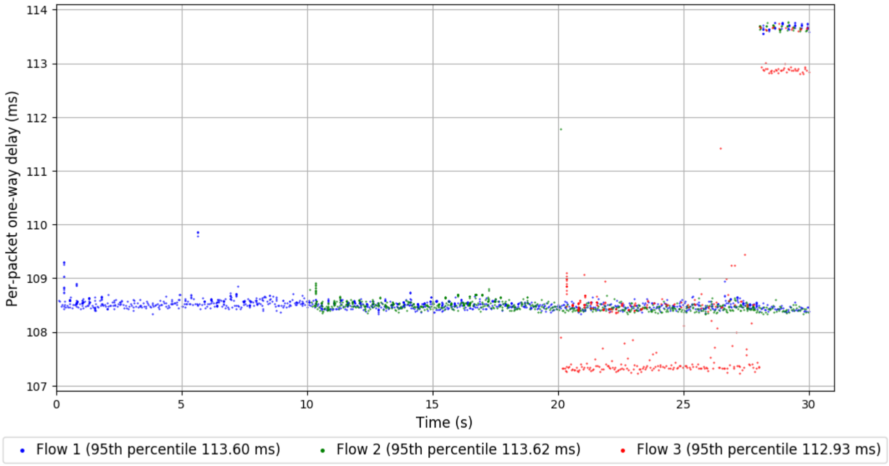
```
Run 7: Statistics of Sprout

Start at: 2018-07-18 05:51:15
End at: 2018-07-18 05:51:45
Local clock offset: -0.047 ms
Remote clock offset: 0.211 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 113.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 113.598 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 113.622 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 112.934 ms
Loss rate: 0.00%
```

Run 7: Report of Sprout — Data Link



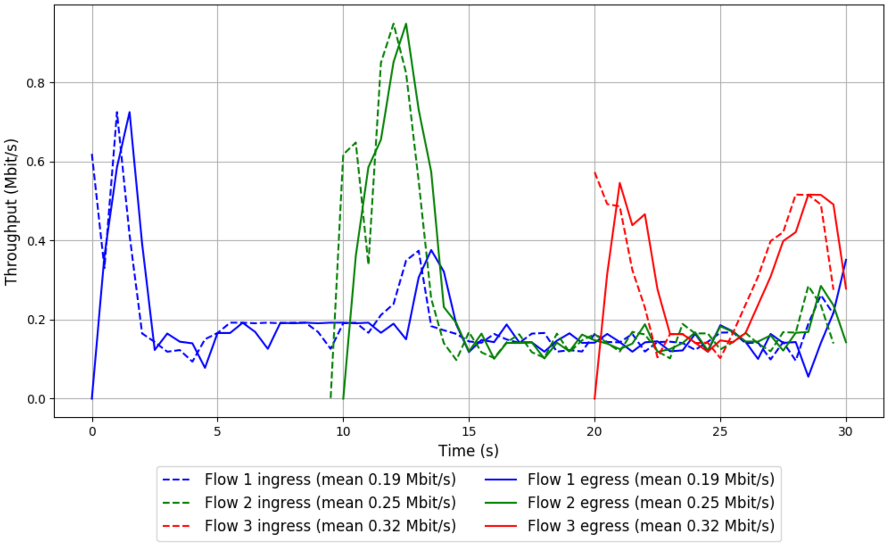


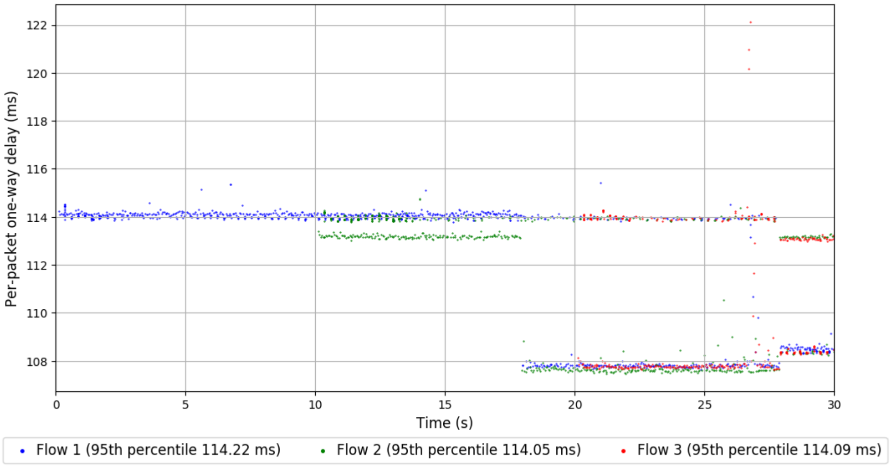
```
Run 8: Statistics of Sprout

Start at: 2018-07-18 06:16:35
End at: 2018-07-18 06:17:05
Local clock offset: -0.339 ms
Remote clock offset: 0.312 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 114.173 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 114.219 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 114.054 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 114.094 ms
Loss rate: 0.00%
```

Run 8: Report of Sprout — Data Link



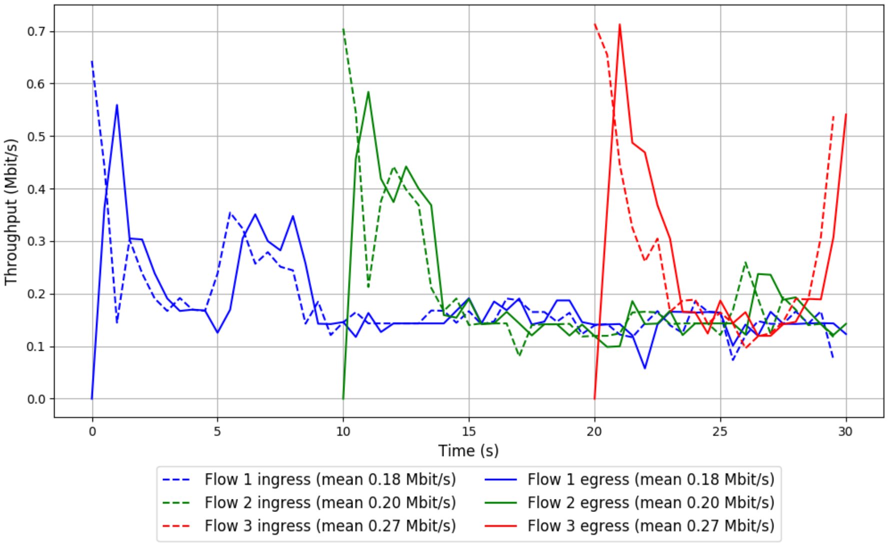


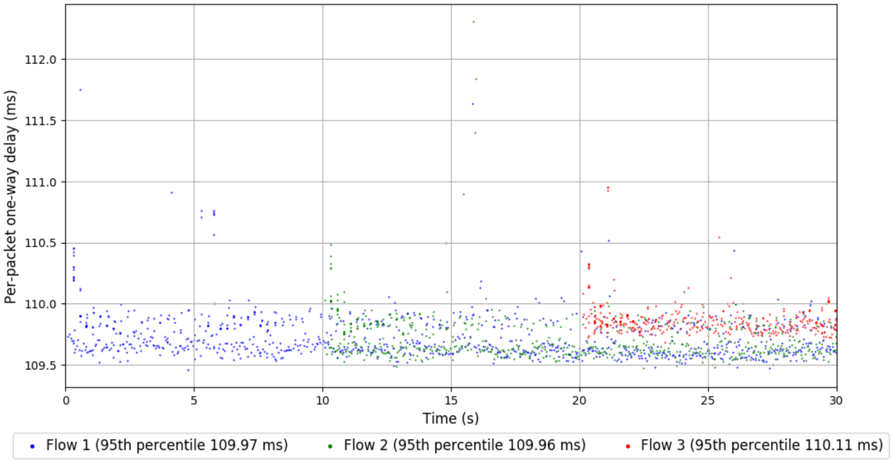
```
Run 9: Statistics of Sprout

Start at: 2018-07-18 06:41:56
End at: 2018-07-18 06:42:26
Local clock offset: -1.393 ms
Remote clock offset: 0.257 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 110.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 109.975 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 109.964 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 110.114 ms
Loss rate: 0.00%
```

Run 9: Report of Sprout — Data Link



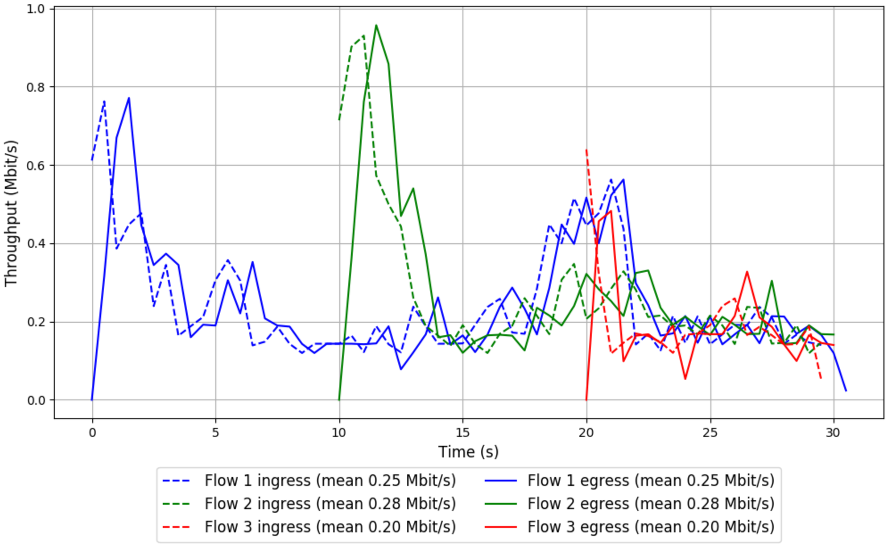


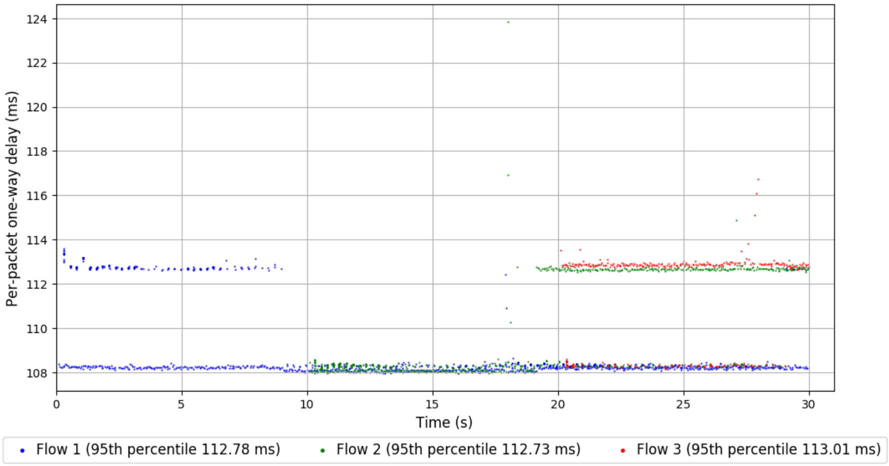
```
Run 10: Statistics of Sprout

Start at: 2018-07-18 07:07:44
End at: 2018-07-18 07:08:14
Local clock offset: -0.253 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-07-18 09:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 112.891 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 112.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 112.728 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 113.009 ms
Loss rate: 0.00%
```

Run 10: Report of Sprout — Data Link



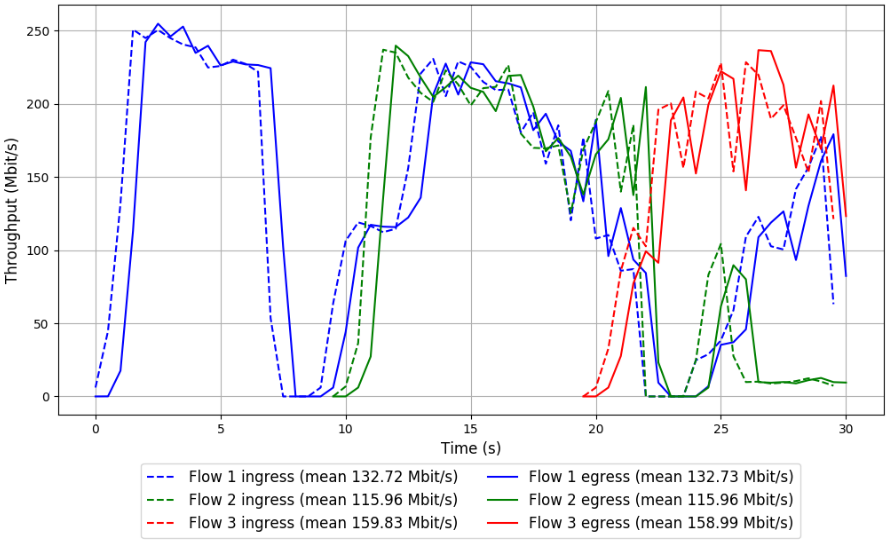


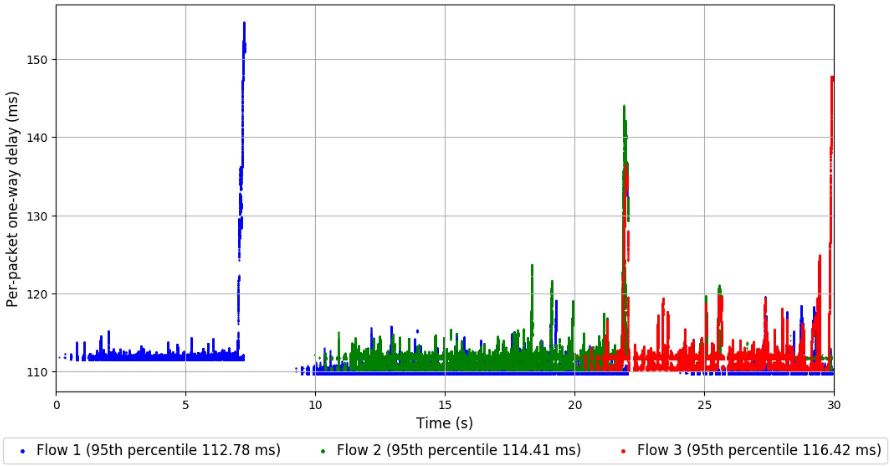
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-18 03:11:54
End at: 2018-07-18 03:12:24
Local clock offset: -0.103 ms
Remote clock offset: 0.21 ms

# Below is generated by plot.py at 2018-07-18 09:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.52 Mbit/s
95th percentile per-packet one-way delay: 114.057 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 132.73 Mbit/s
95th percentile per-packet one-way delay: 112.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 115.96 Mbit/s
95th percentile per-packet one-way delay: 114.413 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 158.99 Mbit/s
95th percentile per-packet one-way delay: 116.420 ms
Loss rate: 0.39%
```

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



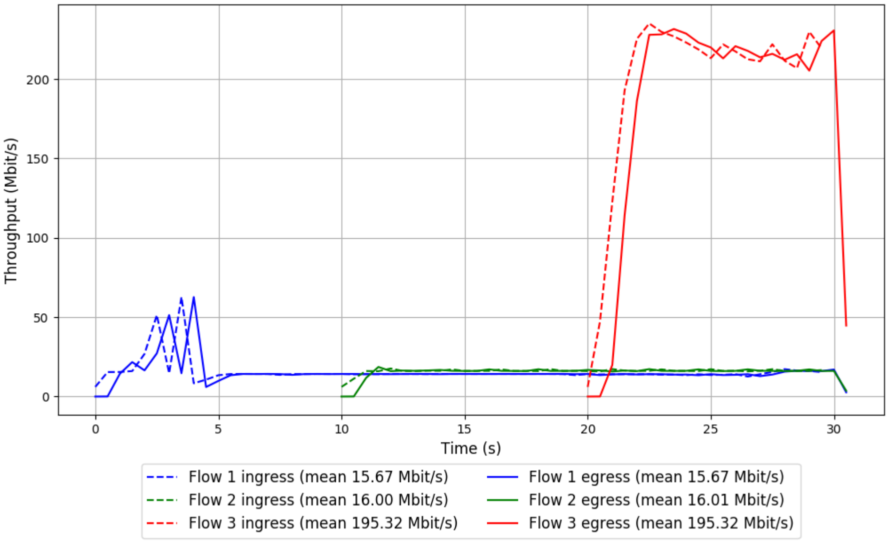


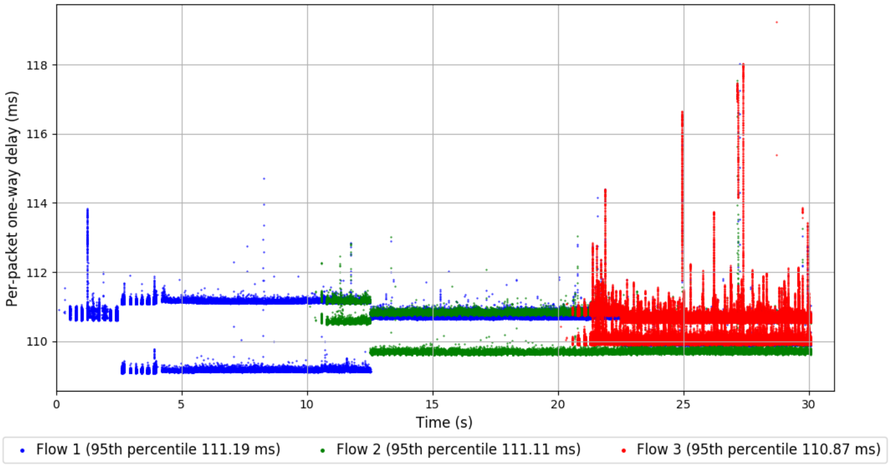
```
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-18 03:38:00
End at: 2018-07-18 03:38:30
Local clock offset: -0.228 ms
Remote clock offset: -0.539 ms

# Below is generated by plot.py at 2018-07-18 09:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.25 Mbit/s
95th percentile per-packet one-way delay: 111.098 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 111.189 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 16.01 Mbit/s
95th percentile per-packet one-way delay: 111.112 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 195.32 Mbit/s
95th percentile per-packet one-way delay: 110.873 ms
Loss rate: 0.00%
```

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



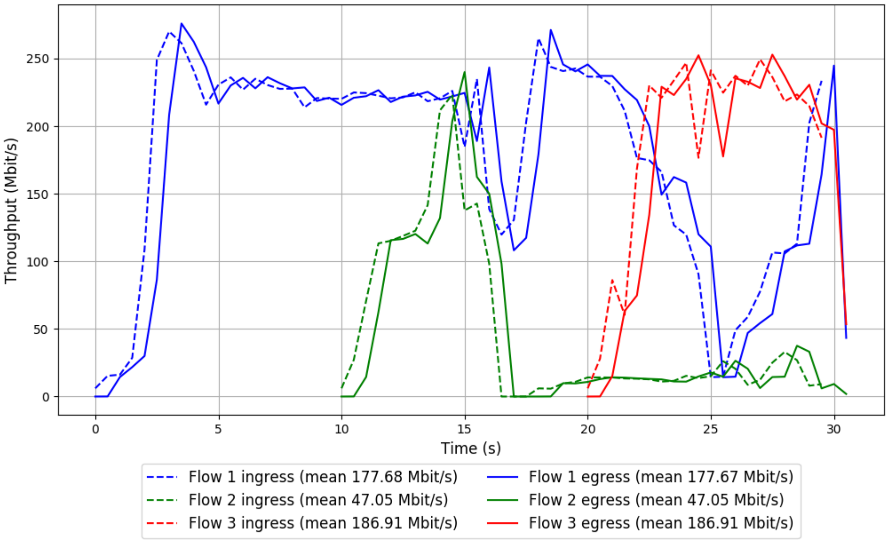


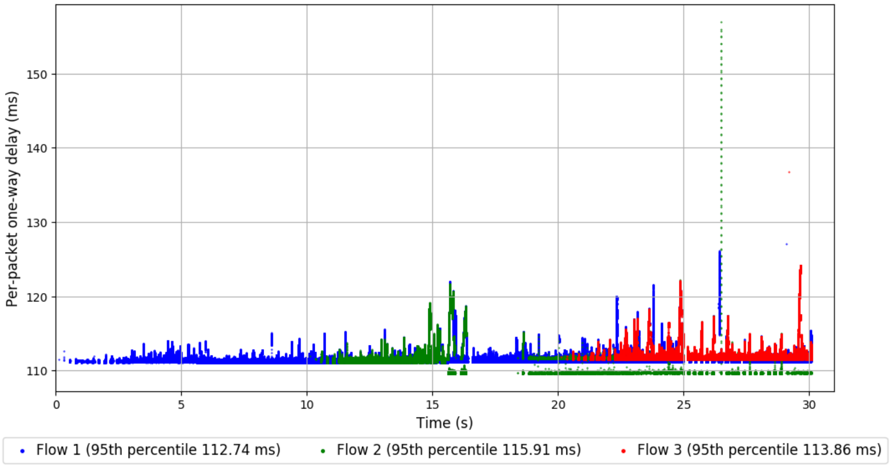
```
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-18 04:03:37
End at: 2018-07-18 04:04:07
Local clock offset: -0.056 ms
Remote clock offset: 0.157 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 271.10 Mbit/s
95th percentile per-packet one-way delay: 113.293 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 177.67 Mbit/s
95th percentile per-packet one-way delay: 112.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.05 Mbit/s
95th percentile per-packet one-way delay: 115.911 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.91 Mbit/s
95th percentile per-packet one-way delay: 113.863 ms
Loss rate: 0.00%
```

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



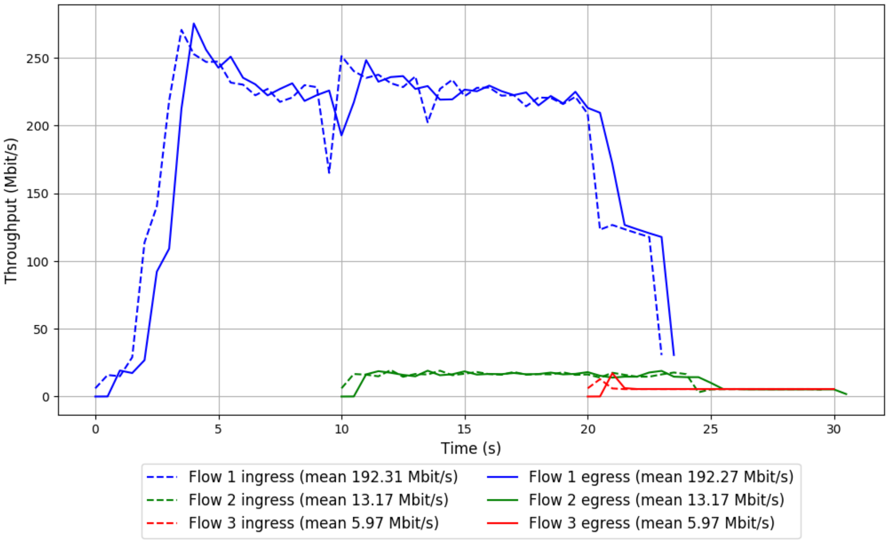


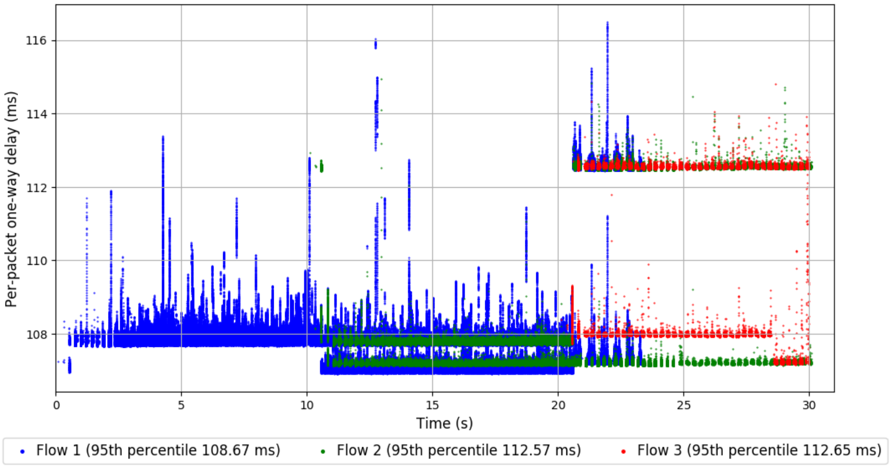
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-18 04:29:22
End at: 2018-07-18 04:29:52
Local clock offset: 0.184 ms
Remote clock offset: 0.337 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 159.49 Mbit/s
95th percentile per-packet one-way delay: 112.456 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 192.27 Mbit/s
95th percentile per-packet one-way delay: 108.666 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 112.571 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.97 Mbit/s
95th percentile per-packet one-way delay: 112.647 ms
Loss rate: 0.00%
```

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



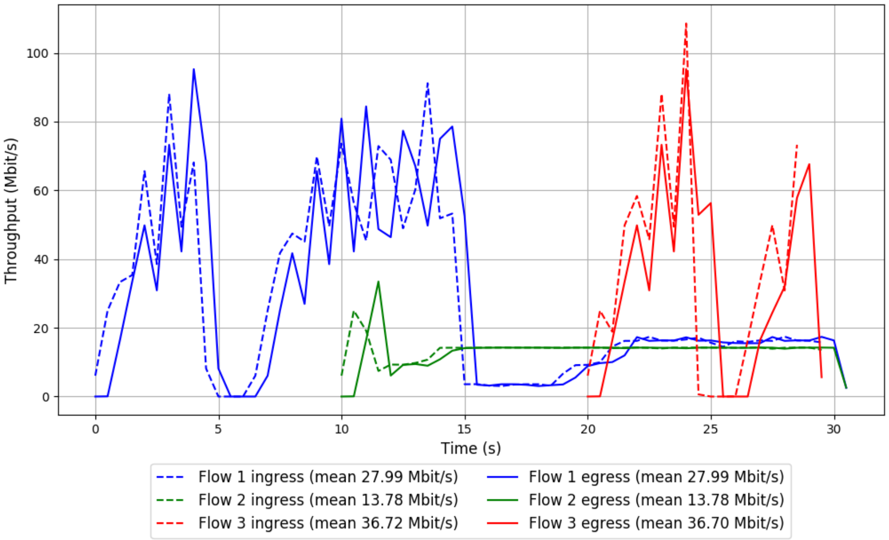


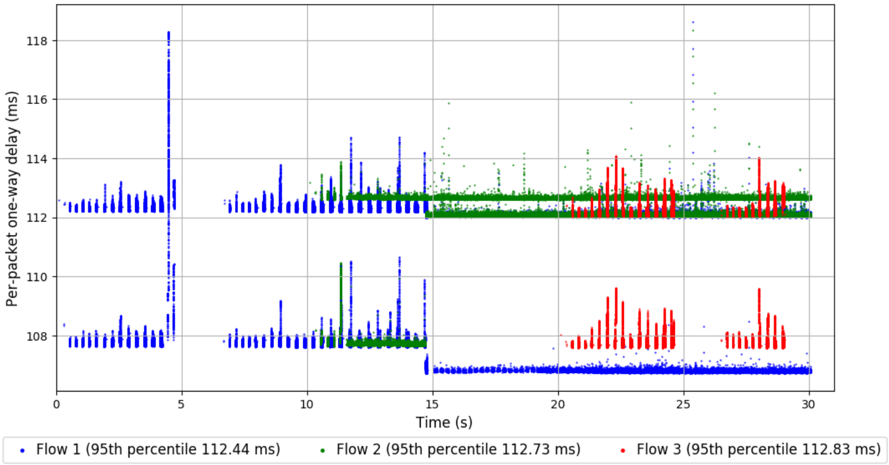
```
Run 5: Statistics of TaoVA-100x

Start at: 2018-07-18 04:54:28
End at: 2018-07-18 04:54:58
Local clock offset: -0.052 ms
Remote clock offset: -0.375 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.08 Mbit/s
95th percentile per-packet one-way delay: 112.691 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.99 Mbit/s
95th percentile per-packet one-way delay: 112.442 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.78 Mbit/s
95th percentile per-packet one-way delay: 112.730 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.70 Mbit/s
95th percentile per-packet one-way delay: 112.835 ms
Loss rate: 0.00%
```

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



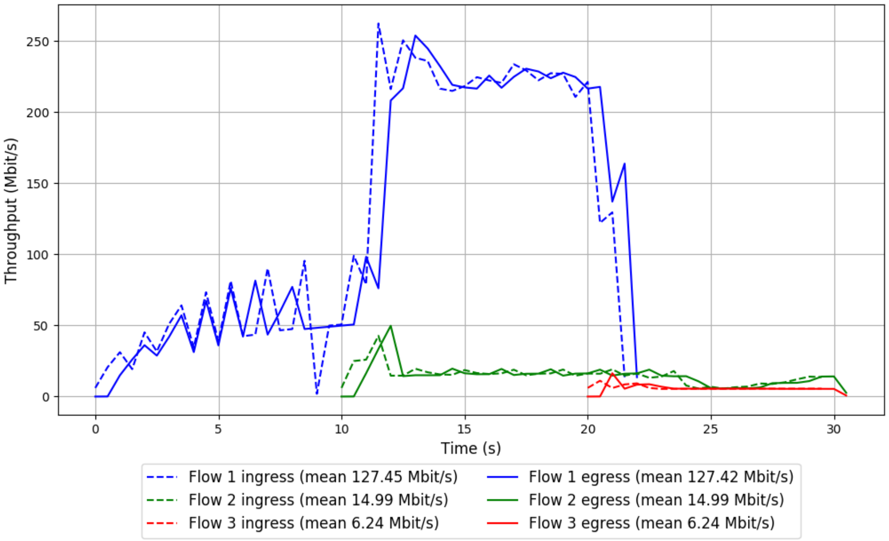


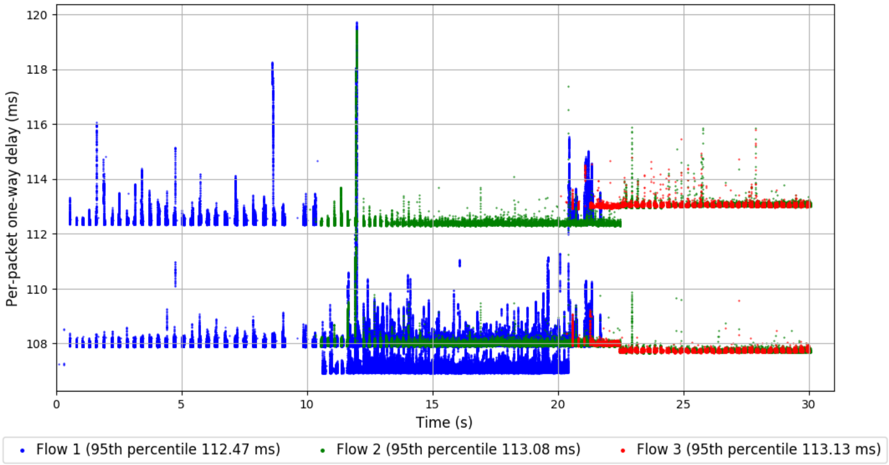
```
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-18 05:19:40
End at: 2018-07-18 05:20:10
Local clock offset: -0.004 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.82 Mbit/s
95th percentile per-packet one-way delay: 112.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 127.42 Mbit/s
95th percentile per-packet one-way delay: 112.474 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.99 Mbit/s
95th percentile per-packet one-way delay: 113.078 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.24 Mbit/s
95th percentile per-packet one-way delay: 113.126 ms
Loss rate: 0.00%
```

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



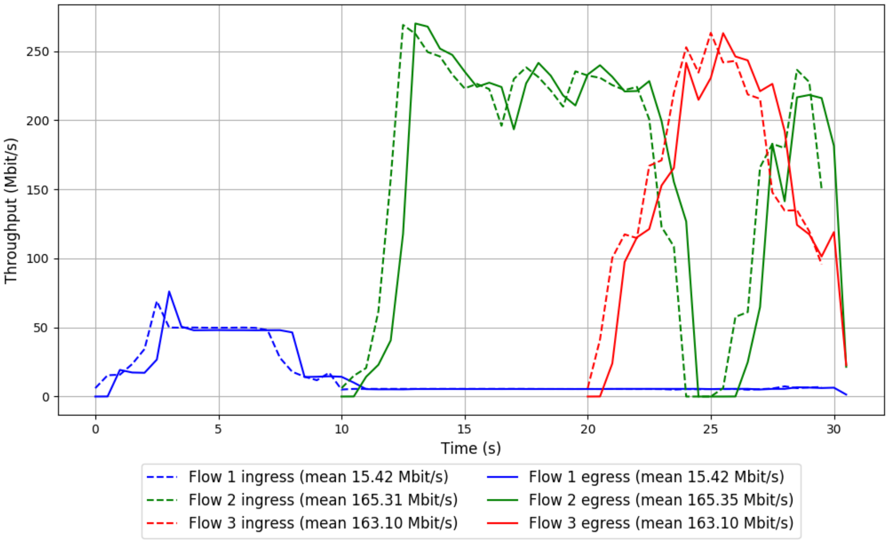


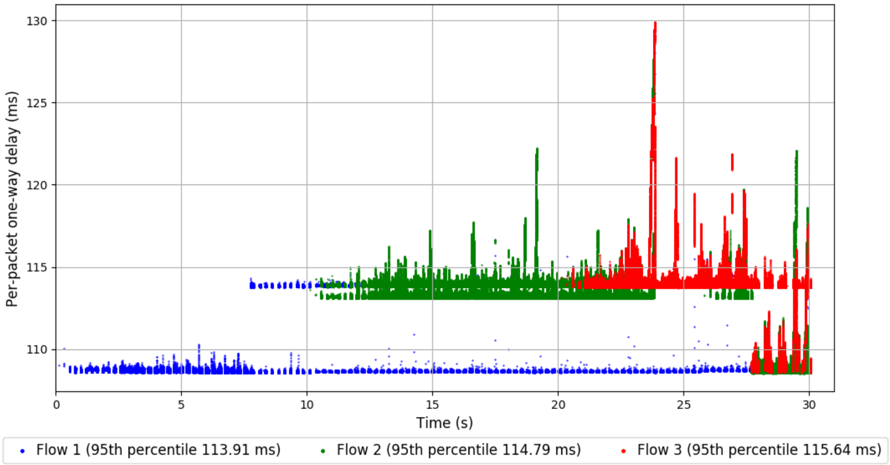
```
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-18 05:45:25
End at: 2018-07-18 05:45:55
Local clock offset: -0.327 ms
Remote clock offset: 0.167 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.49 Mbit/s
95th percentile per-packet one-way delay: 114.952 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.42 Mbit/s
95th percentile per-packet one-way delay: 113.911 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 165.35 Mbit/s
95th percentile per-packet one-way delay: 114.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 163.10 Mbit/s
95th percentile per-packet one-way delay: 115.643 ms
Loss rate: 0.00%
```

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



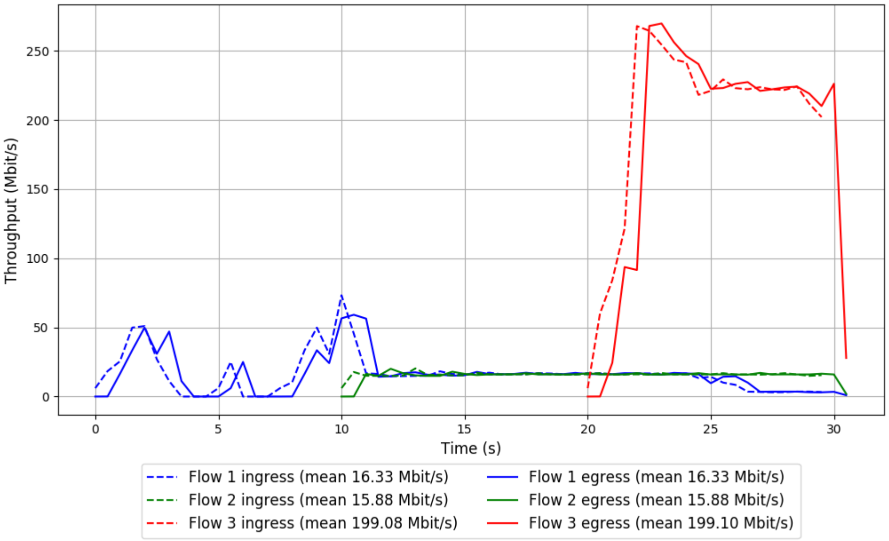


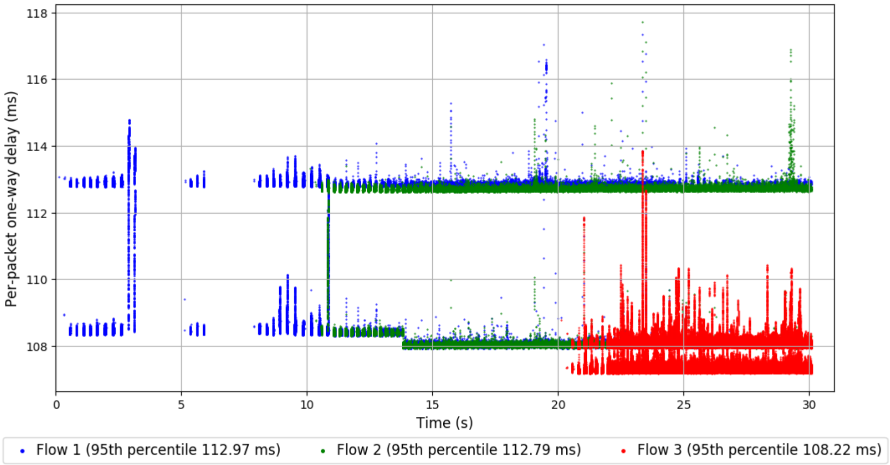
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-18 06:11:03
End at: 2018-07-18 06:11:33
Local clock offset: -0.147 ms
Remote clock offset: 0.311 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.02 Mbit/s
95th percentile per-packet one-way delay: 112.848 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 112.967 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.88 Mbit/s
95th percentile per-packet one-way delay: 112.793 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 199.10 Mbit/s
95th percentile per-packet one-way delay: 108.216 ms
Loss rate: 0.00%
```

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



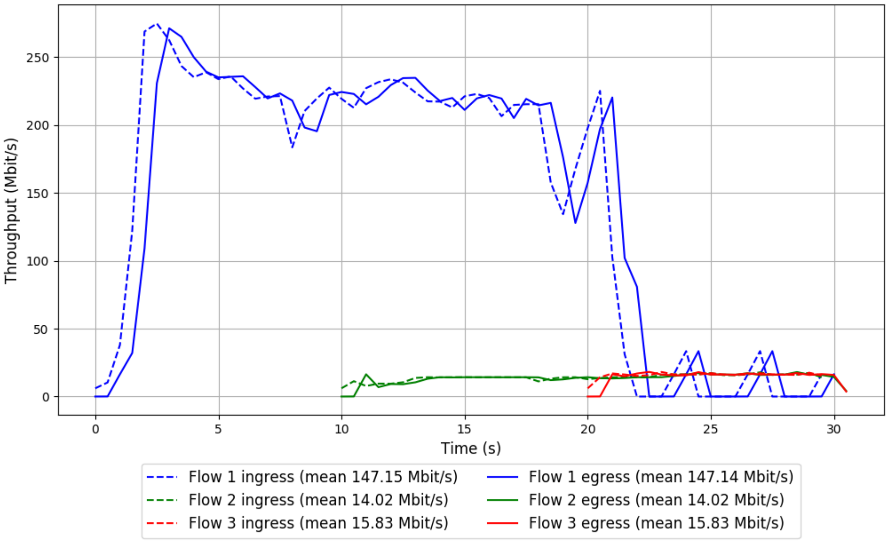


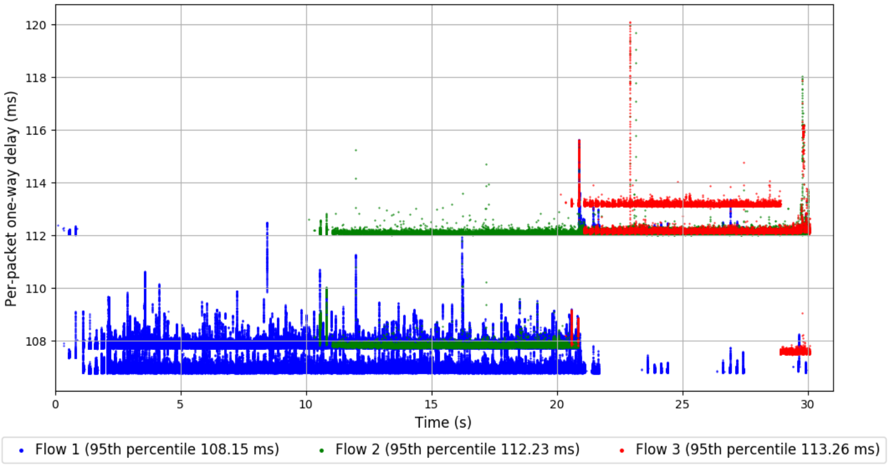
```
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-18 06:36:12
End at: 2018-07-18 06:36:42
Local clock offset: 0.184 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.00 Mbit/s
95th percentile per-packet one-way delay: 112.141 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.14 Mbit/s
95th percentile per-packet one-way delay: 108.149 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.02 Mbit/s
95th percentile per-packet one-way delay: 112.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.83 Mbit/s
95th percentile per-packet one-way delay: 113.261 ms
Loss rate: 0.00%
```

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



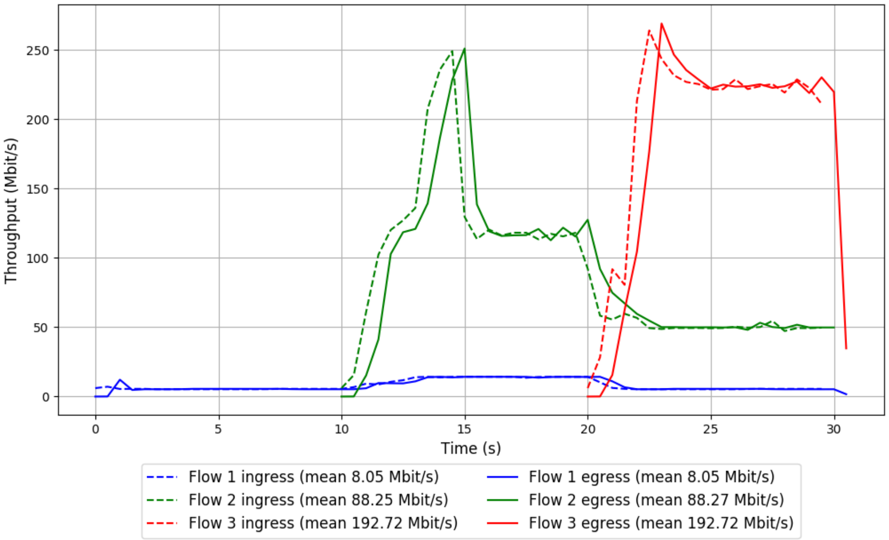


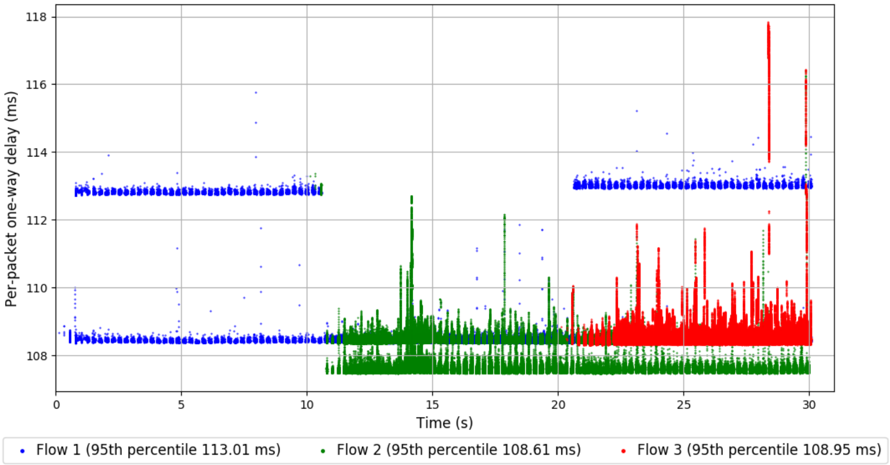
```
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-18 07:02:02
End at: 2018-07-18 07:02:32
Local clock offset: -0.179 ms
Remote clock offset: 0.26 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.57 Mbit/s
95th percentile per-packet one-way delay: 108.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 113.014 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 88.27 Mbit/s
95th percentile per-packet one-way delay: 108.612 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 192.72 Mbit/s
95th percentile per-packet one-way delay: 108.947 ms
Loss rate: 0.00%
```

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



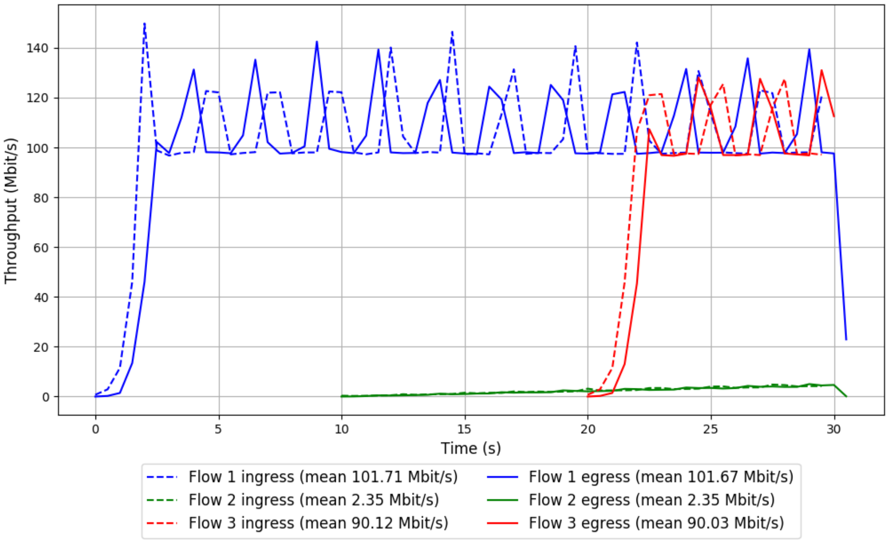


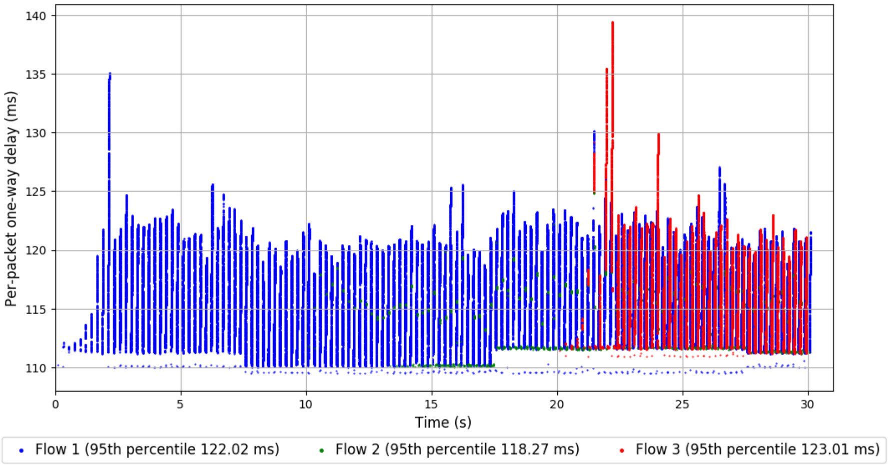
```
Run 1: Statistics of TCP Vegas

Start at: 2018-07-18 03:31:05
End at: 2018-07-18 03:31:35
Local clock offset: 0.126 ms
Remote clock offset: 0.119 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.75 Mbit/s
95th percentile per-packet one-way delay: 122.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 101.67 Mbit/s
95th percentile per-packet one-way delay: 122.017 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 118.268 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 90.03 Mbit/s
95th percentile per-packet one-way delay: 123.006 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link



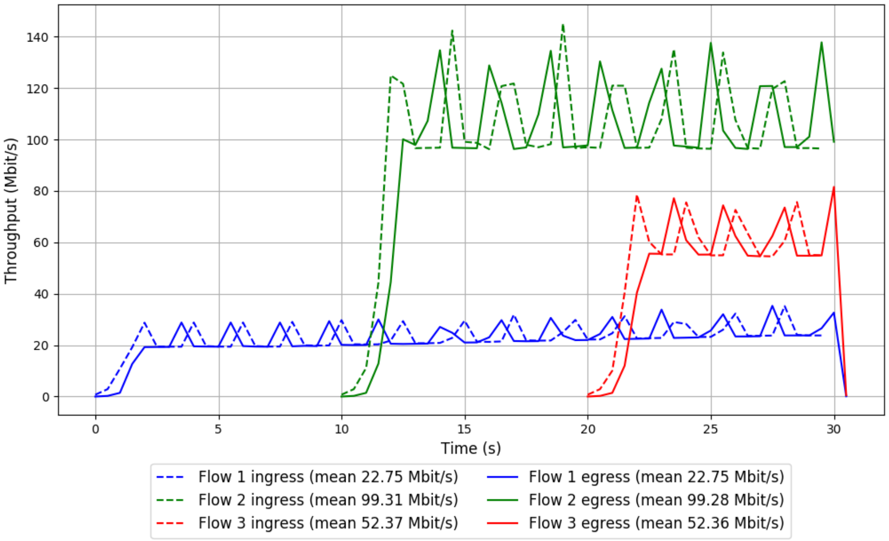


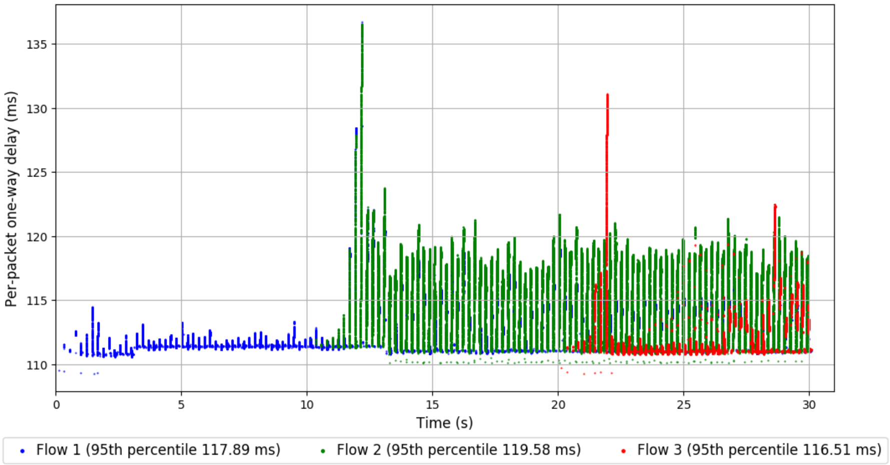
```
Run 2: Statistics of TCP Vegas

Start at: 2018-07-18 03:56:50
End at: 2018-07-18 03:57:20
Local clock offset: 0.092 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.79 Mbit/s
95th percentile per-packet one-way delay: 119.329 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 22.75 Mbit/s
95th percentile per-packet one-way delay: 117.886 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.28 Mbit/s
95th percentile per-packet one-way delay: 119.579 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.36 Mbit/s
95th percentile per-packet one-way delay: 116.513 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link



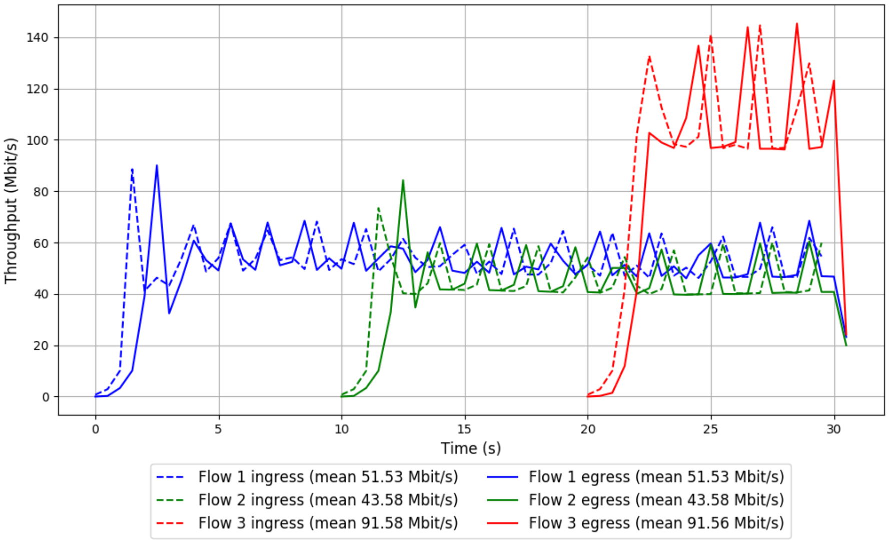


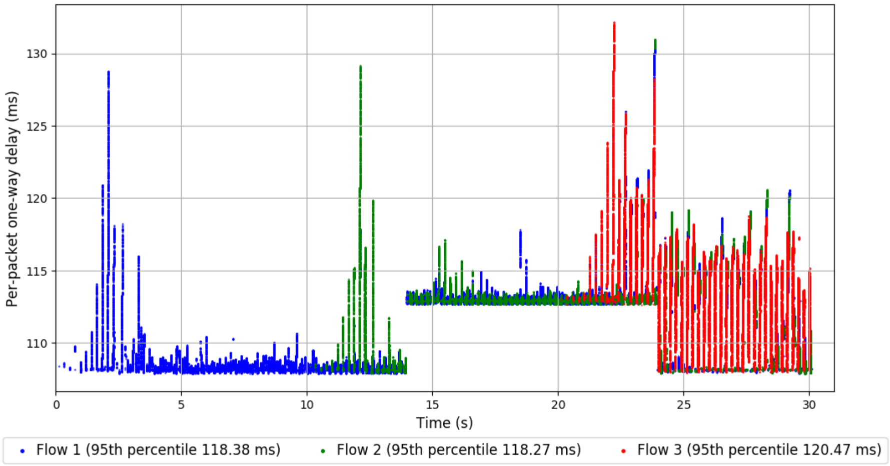
```
Run 3: Statistics of TCP Vegas

Start at: 2018-07-18 04:22:39
End at: 2018-07-18 04:23:09
Local clock offset: -0.463 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.75 Mbit/s
95th percentile per-packet one-way delay: 119.235 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.53 Mbit/s
95th percentile per-packet one-way delay: 118.381 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.58 Mbit/s
95th percentile per-packet one-way delay: 118.271 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.56 Mbit/s
95th percentile per-packet one-way delay: 120.466 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Vegas — Data Link



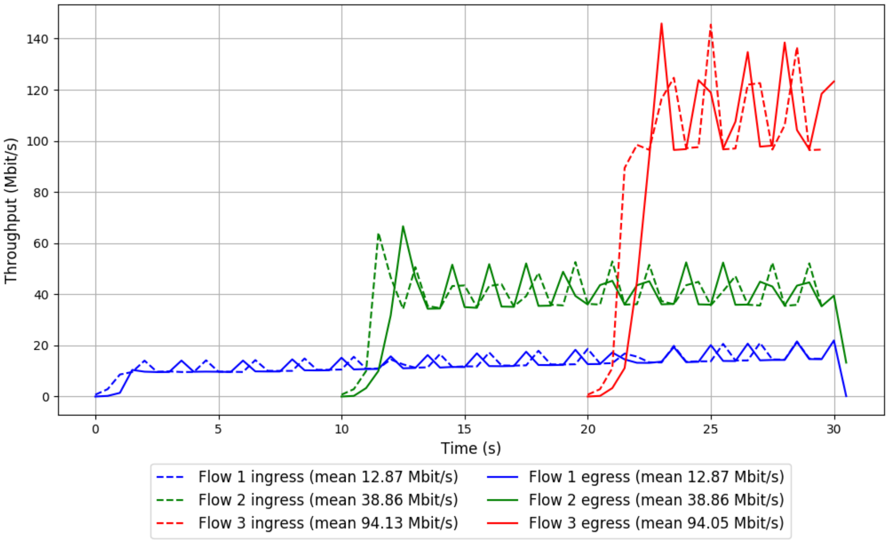


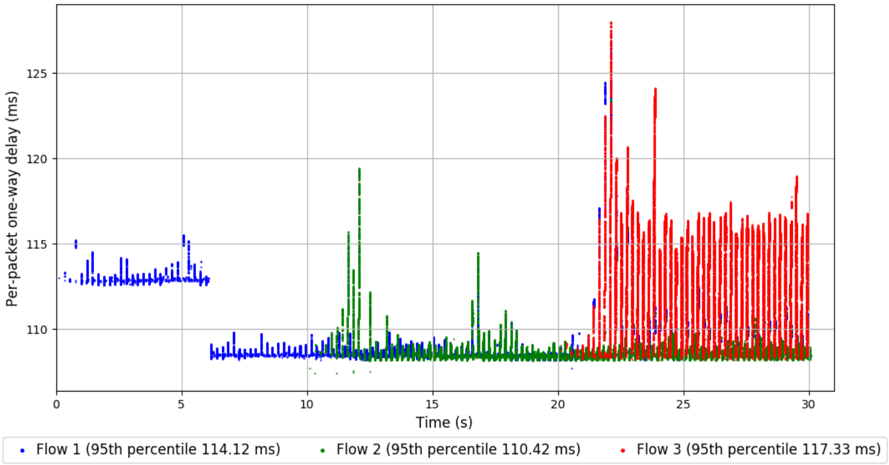
```
Run 4: Statistics of TCP Vegas

Start at: 2018-07-18 04:47:37
End at: 2018-07-18 04:48:07
Local clock offset: -0.298 ms
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2018-07-18 09:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.64 Mbit/s
95th percentile per-packet one-way delay: 116.233 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 114.125 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.86 Mbit/s
95th percentile per-packet one-way delay: 110.418 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.05 Mbit/s
95th percentile per-packet one-way delay: 117.329 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link



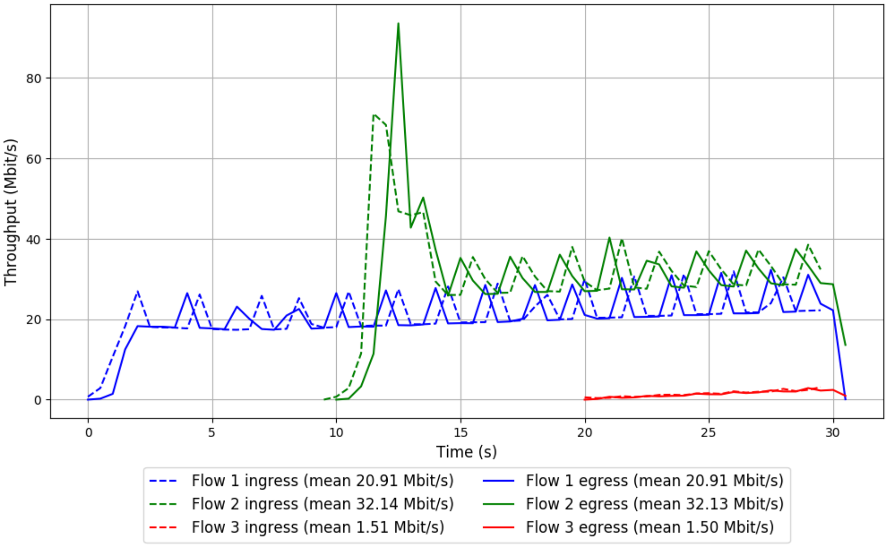


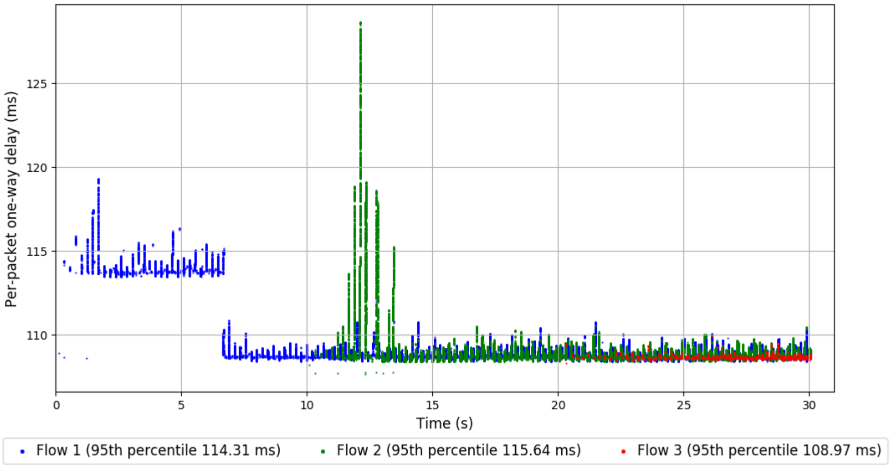
```
Run 5: Statistics of TCP Vegas

Start at: 2018-07-18 05:12:56
End at: 2018-07-18 05:13:26
Local clock offset: -0.139 ms
Remote clock offset: 0.316 ms

# Below is generated by plot.py at 2018-07-18 09:23:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.80 Mbit/s
95th percentile per-packet one-way delay: 114.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 20.91 Mbit/s
95th percentile per-packet one-way delay: 114.311 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 115.641 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 108.966 ms
Loss rate: 0.24%
```

Run 5: Report of TCP Vegas — Data Link



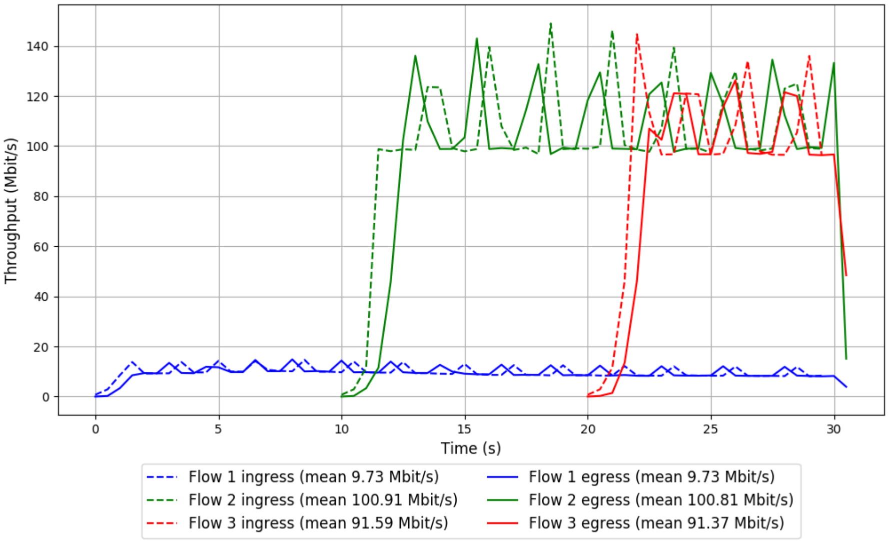


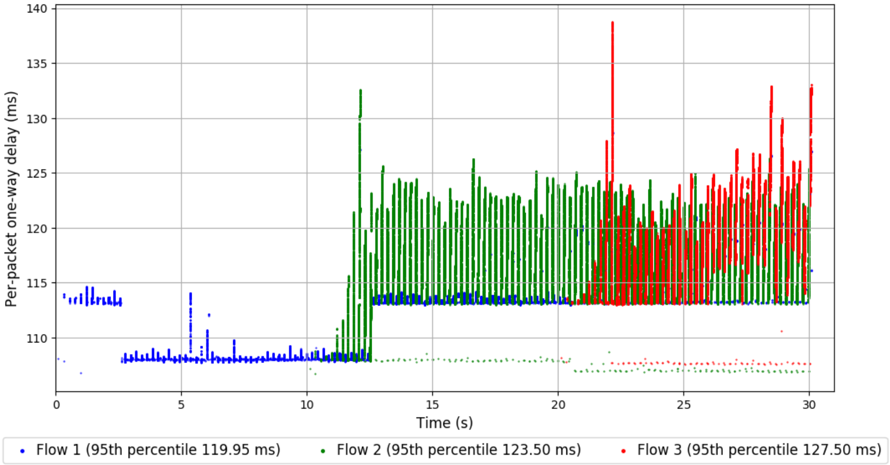
```
Run 6: Statistics of TCP Vegas

Start at: 2018-07-18 05:38:40
End at: 2018-07-18 05:39:10
Local clock offset: -0.219 ms
Remote clock offset: -0.548 ms

# Below is generated by plot.py at 2018-07-18 09:23:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.02 Mbit/s
95th percentile per-packet one-way delay: 124.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 119.947 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.81 Mbit/s
95th percentile per-packet one-way delay: 123.499 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.37 Mbit/s
95th percentile per-packet one-way delay: 127.505 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Vegas — Data Link



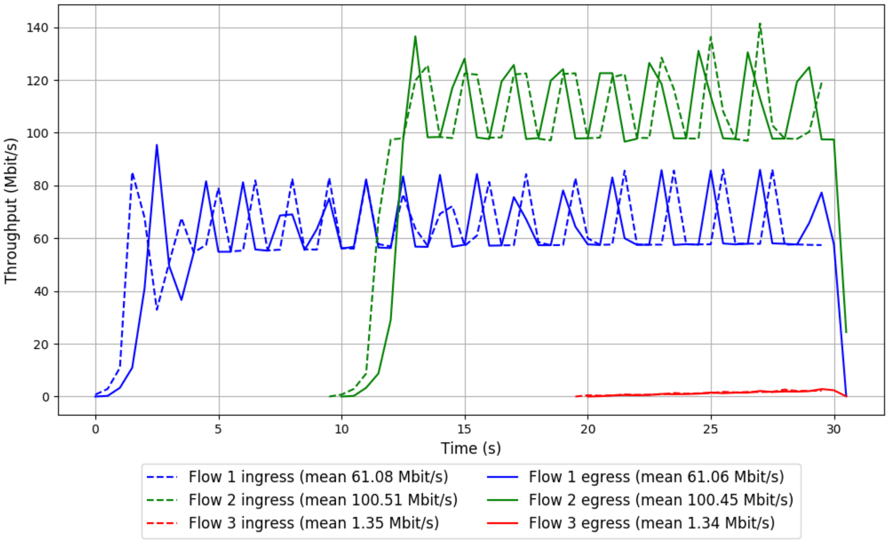


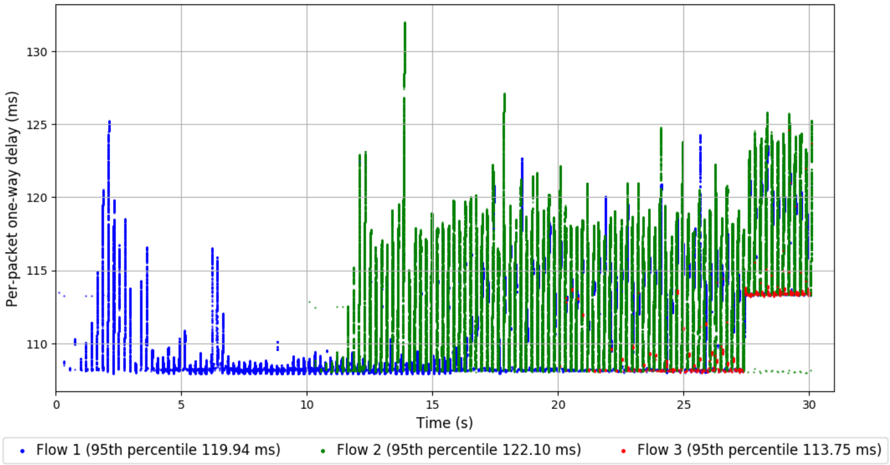
```
Run 7: Statistics of TCP Vegas

Start at: 2018-07-18 06:04:15
End at: 2018-07-18 06:04:45
Local clock offset: -0.137 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-07-18 09:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.49 Mbit/s
95th percentile per-packet one-way delay: 120.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.06 Mbit/s
95th percentile per-packet one-way delay: 119.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 100.45 Mbit/s
95th percentile per-packet one-way delay: 122.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 113.751 ms
Loss rate: 0.45%
```

Run 7: Report of TCP Vegas — Data Link



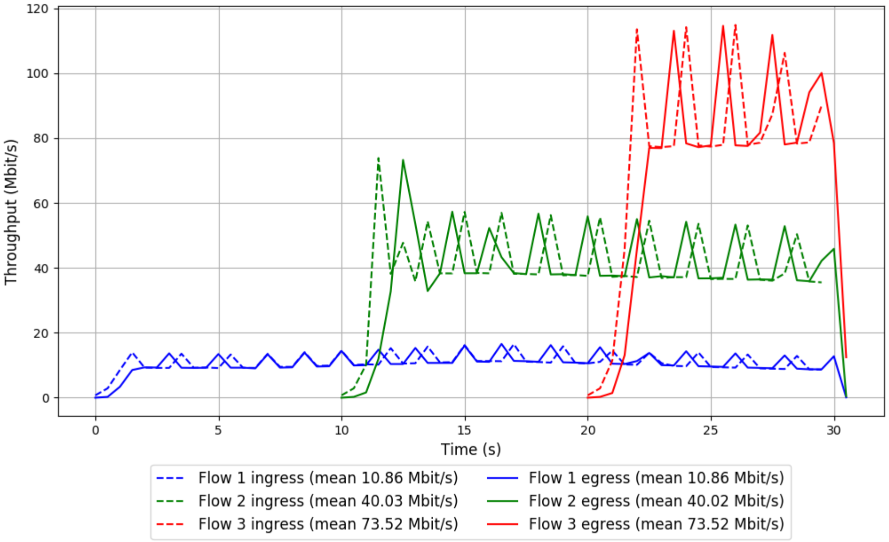


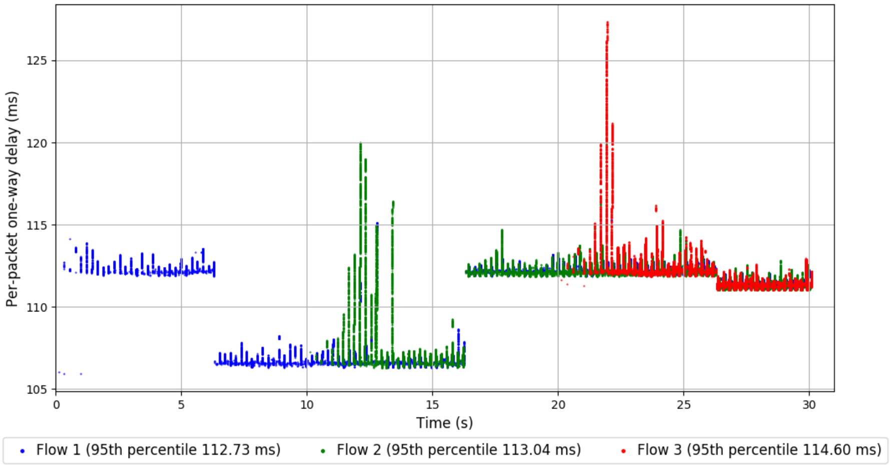
```
Run 8: Statistics of TCP Vegas

Start at: 2018-07-18 06:29:26
End at: 2018-07-18 06:29:56
Local clock offset: 1.186 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-07-18 09:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 113.453 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.86 Mbit/s
95th percentile per-packet one-way delay: 112.727 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 113.044 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.52 Mbit/s
95th percentile per-packet one-way delay: 114.600 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Vegas — Data Link



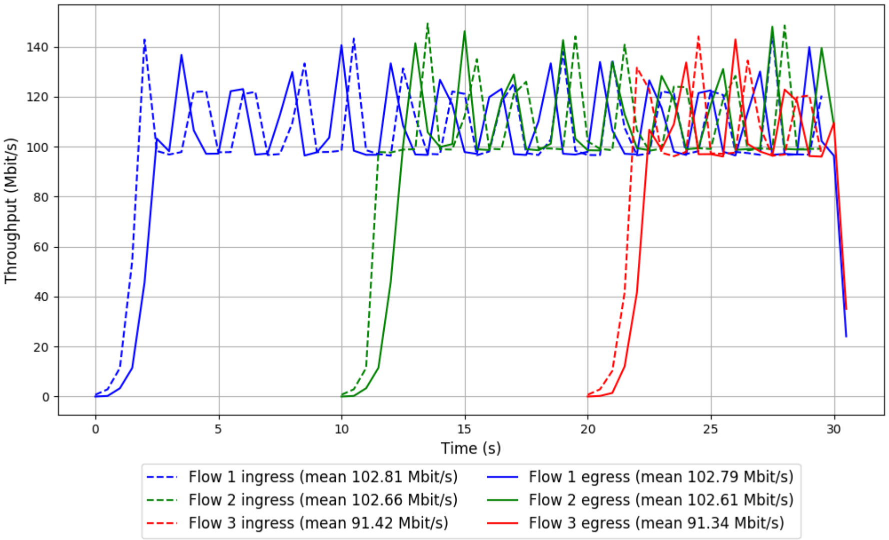


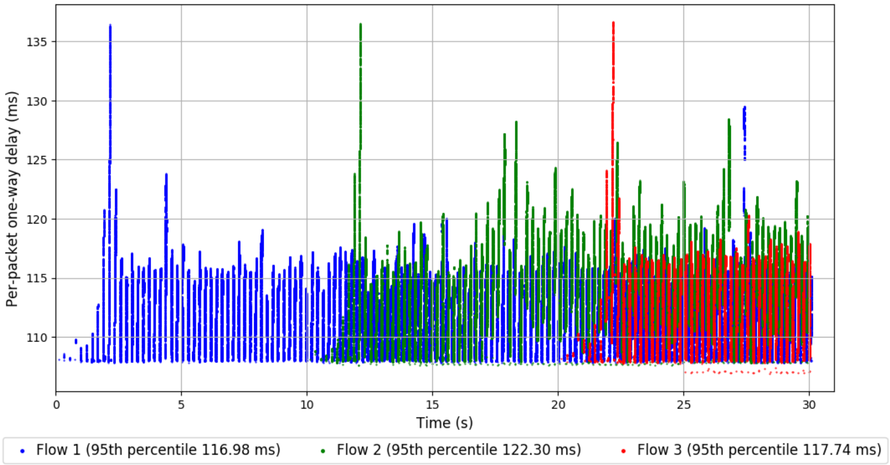
```
Run 9: Statistics of TCP Vegas

Start at: 2018-07-18 06:55:08
End at: 2018-07-18 06:55:38
Local clock offset: -0.247 ms
Remote clock offset: -0.496 ms

# Below is generated by plot.py at 2018-07-18 09:25:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 200.85 Mbit/s
95th percentile per-packet one-way delay: 119.982 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 102.79 Mbit/s
95th percentile per-packet one-way delay: 116.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 102.61 Mbit/s
95th percentile per-packet one-way delay: 122.296 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 91.34 Mbit/s
95th percentile per-packet one-way delay: 117.740 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Vegas — Data Link



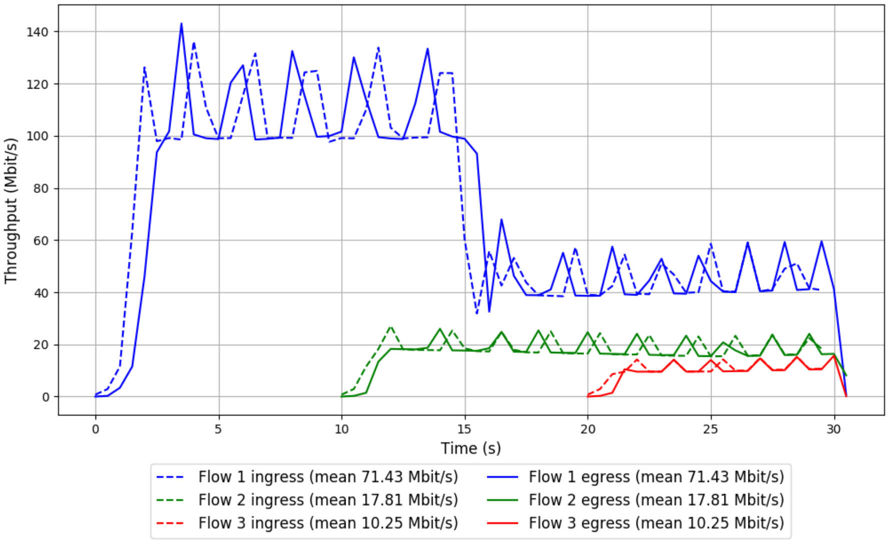


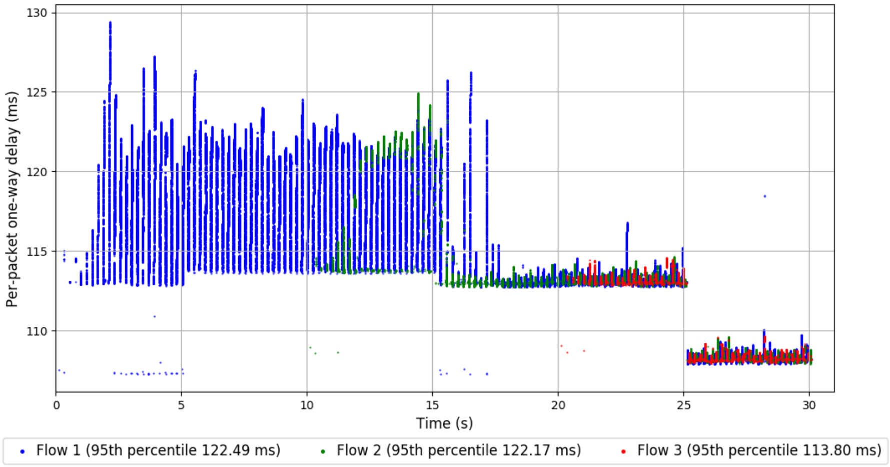
```
Run 10: Statistics of TCP Vegas

Start at: 2018-07-18 07:20:28
End at: 2018-07-18 07:20:58
Local clock offset: -0.196 ms
Remote clock offset: 0.306 ms

# Below is generated by plot.py at 2018-07-18 09:25:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.69 Mbit/s
95th percentile per-packet one-way delay: 122.387 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.43 Mbit/s
95th percentile per-packet one-way delay: 122.493 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.81 Mbit/s
95th percentile per-packet one-way delay: 122.173 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 113.799 ms
Loss rate: 0.00%
```

Run 10: Report of TCP Vegas — Data Link



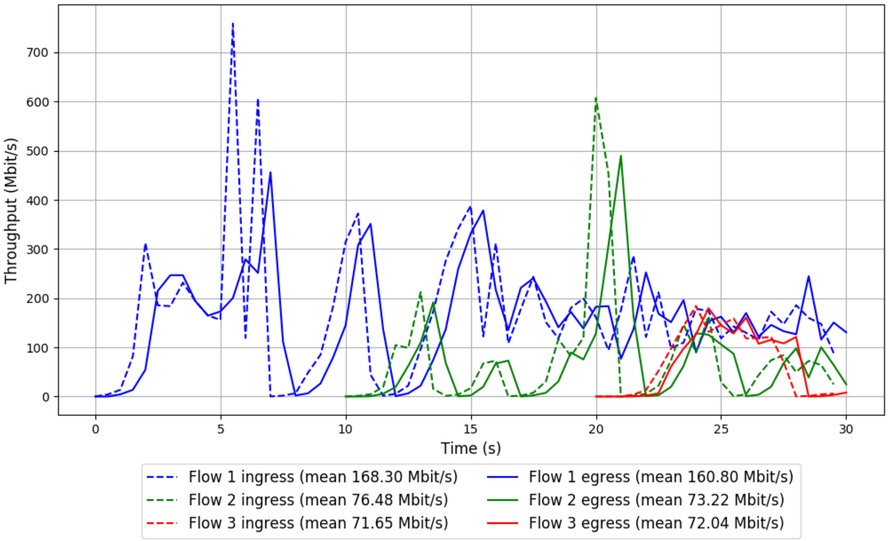


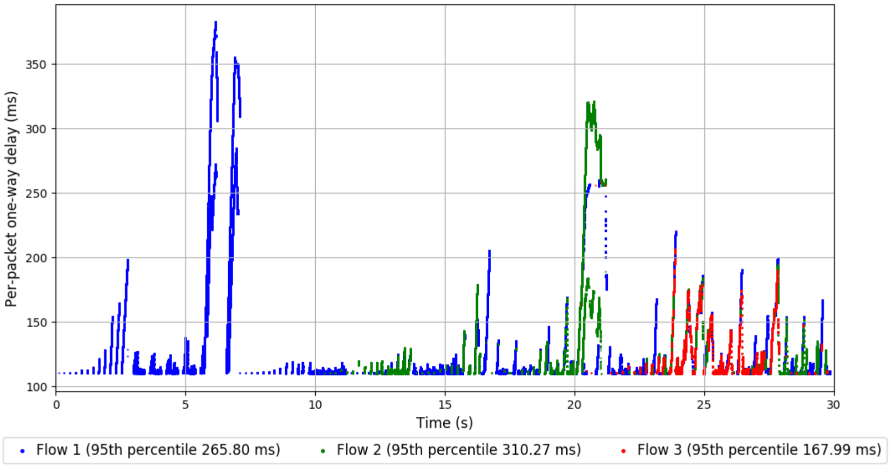
```
Run 1: Statistics of Verus

Start at: 2018-07-18 03:16:17
End at: 2018-07-18 03:16:47
Local clock offset: 0.145 ms
Remote clock offset: 0.173 ms

# Below is generated by plot.py at 2018-07-18 09:26:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.05 Mbit/s
95th percentile per-packet one-way delay: 293.523 ms
Loss rate: 3.98%
-- Flow 1:
Average throughput: 160.80 Mbit/s
95th percentile per-packet one-way delay: 265.804 ms
Loss rate: 4.45%
-- Flow 2:
Average throughput: 73.22 Mbit/s
95th percentile per-packet one-way delay: 310.271 ms
Loss rate: 4.24%
-- Flow 3:
Average throughput: 72.04 Mbit/s
95th percentile per-packet one-way delay: 167.986 ms
Loss rate: 0.01%
```

Run 1: Report of Verus — Data Link



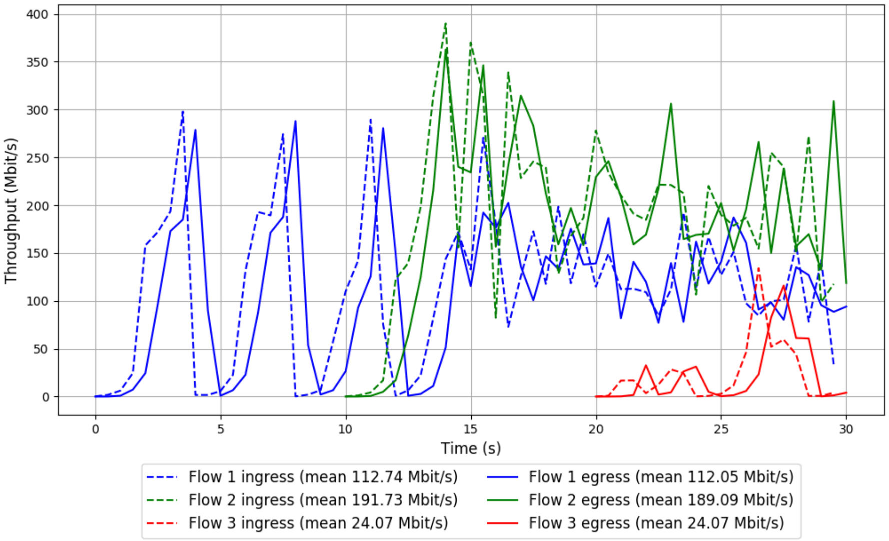


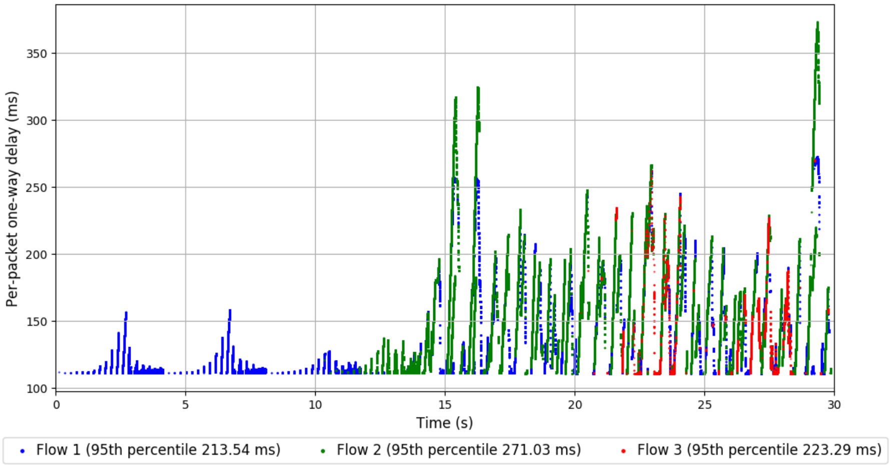
```
Run 2: Statistics of Verus

Start at: 2018-07-18 03:42:05
End at: 2018-07-18 03:42:35
Local clock offset: -0.094 ms
Remote clock offset: -0.167 ms

# Below is generated by plot.py at 2018-07-18 09:26:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.98 Mbit/s
95th percentile per-packet one-way delay: 238.187 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 112.05 Mbit/s
95th percentile per-packet one-way delay: 213.545 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 189.09 Mbit/s
95th percentile per-packet one-way delay: 271.027 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 24.07 Mbit/s
95th percentile per-packet one-way delay: 223.290 ms
Loss rate: 0.00%
```

Run 2: Report of Verus — Data Link



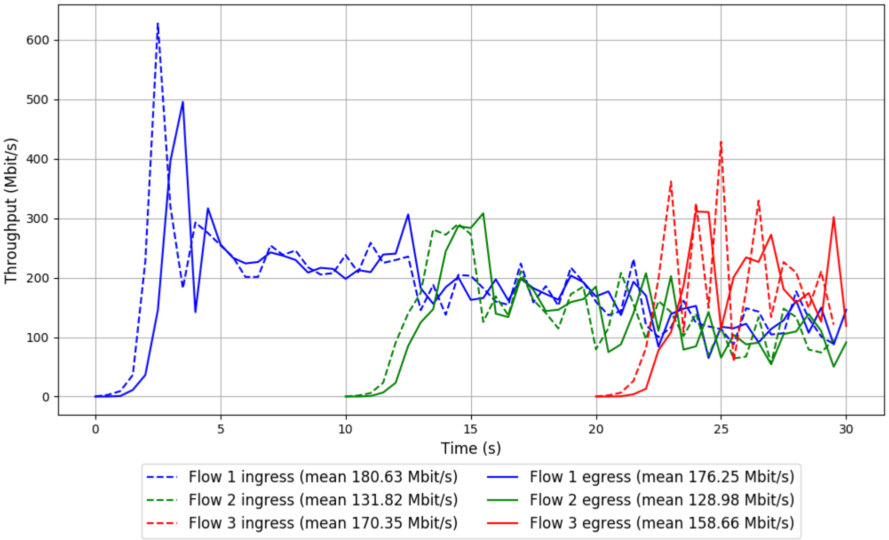


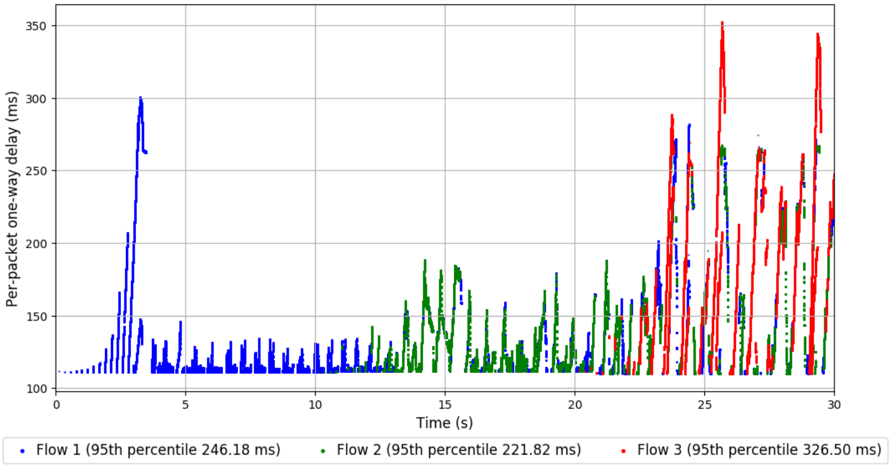
```
Run 3: Statistics of Verus

Start at: 2018-07-18 04:08:02
End at: 2018-07-18 04:08:32
Local clock offset: -0.028 ms
Remote clock offset: 0.234 ms

# Below is generated by plot.py at 2018-07-18 09:28:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.69 Mbit/s
95th percentile per-packet one-way delay: 259.496 ms
Loss rate: 2.62%
-- Flow 1:
Average throughput: 176.25 Mbit/s
95th percentile per-packet one-way delay: 246.180 ms
Loss rate: 1.98%
-- Flow 2:
Average throughput: 128.98 Mbit/s
95th percentile per-packet one-way delay: 221.817 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 158.66 Mbit/s
95th percentile per-packet one-way delay: 326.502 ms
Loss rate: 5.58%
```

Run 3: Report of Verus — Data Link



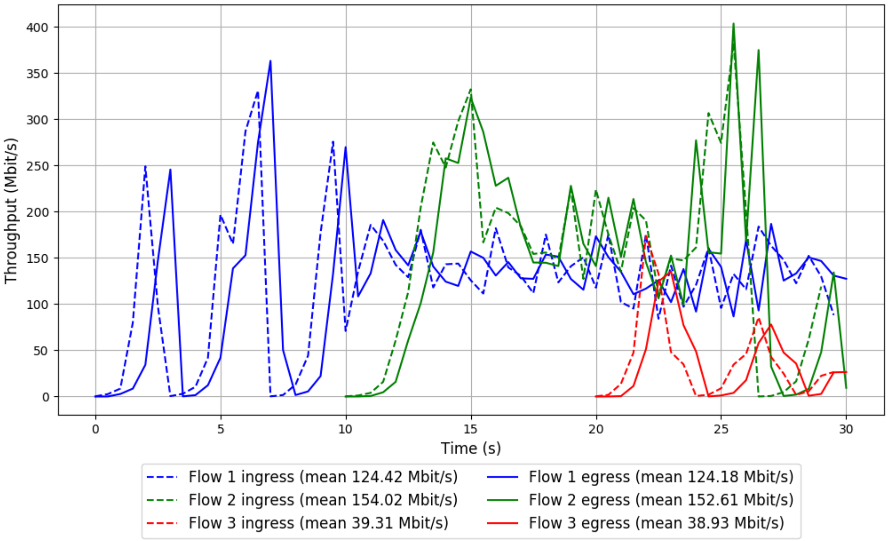


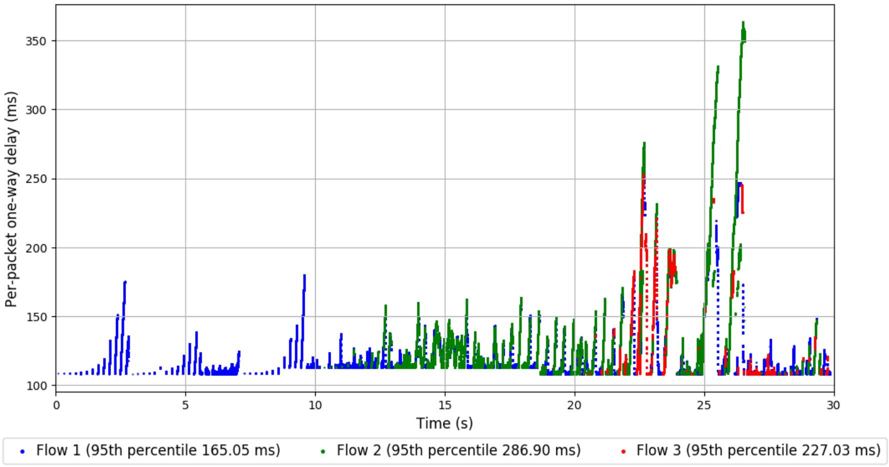
```
Run 4: Statistics of Verus

Start at: 2018-07-18 04:33:34
End at: 2018-07-18 04:34:04
Local clock offset: -0.199 ms
Remote clock offset: 0.265 ms

# Below is generated by plot.py at 2018-07-18 09:28:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.37 Mbit/s
95th percentile per-packet one-way delay: 221.599 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 124.18 Mbit/s
95th percentile per-packet one-way delay: 165.051 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 152.61 Mbit/s
95th percentile per-packet one-way delay: 286.904 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 227.032 ms
Loss rate: 0.97%
```

Run 4: Report of Verus — Data Link



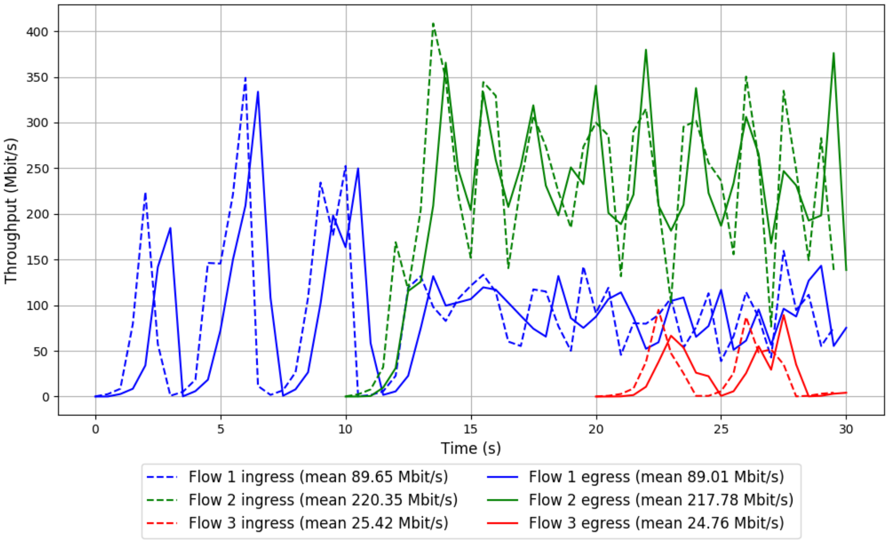


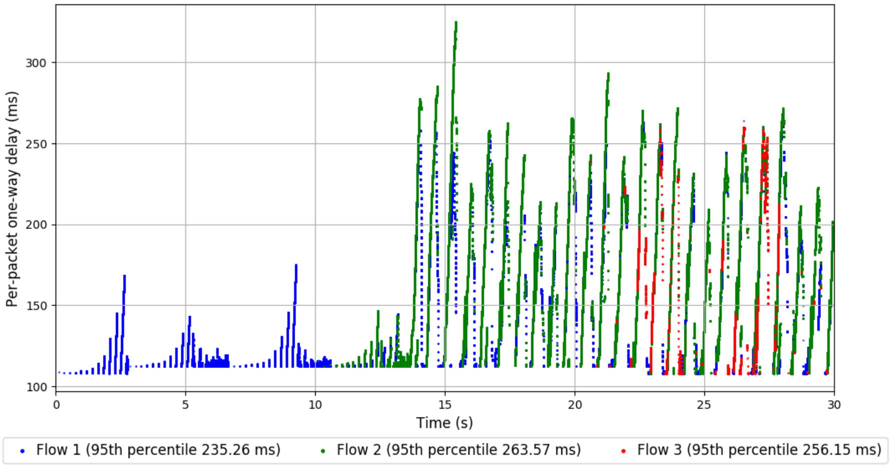
```
Run 5: Statistics of Verus

Start at: 2018-07-18 04:58:30
End at: 2018-07-18 04:59:00
Local clock offset: 0.022 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-18 09:28:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.49 Mbit/s
95th percentile per-packet one-way delay: 256.402 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 89.01 Mbit/s
95th percentile per-packet one-way delay: 235.257 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 217.78 Mbit/s
95th percentile per-packet one-way delay: 263.567 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 256.150 ms
Loss rate: 2.77%
```

Run 5: Report of Verus — Data Link



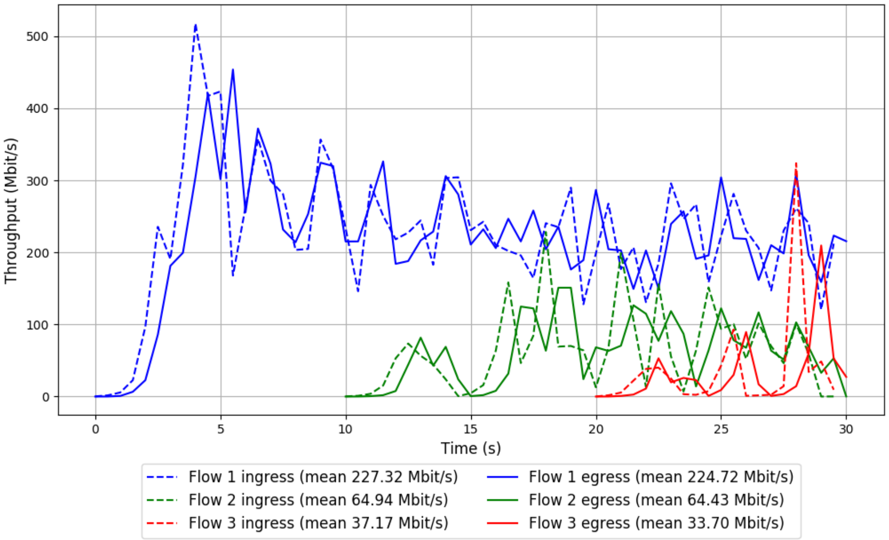


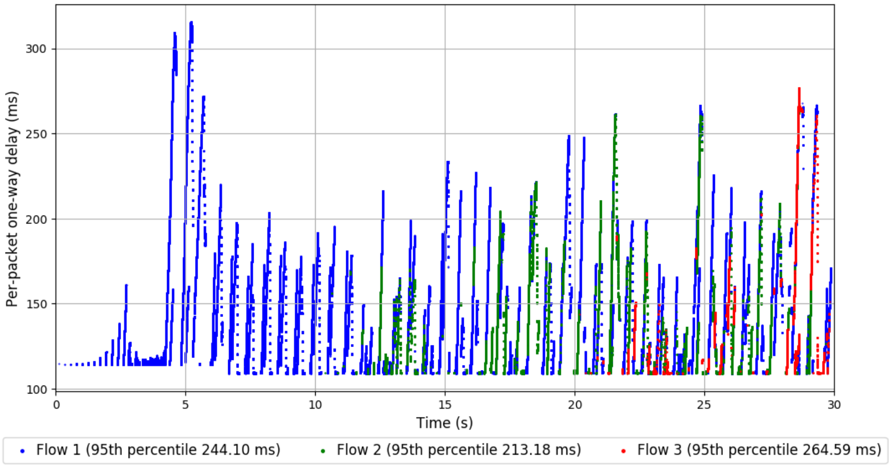
```
Run 6: Statistics of Verus

Start at: 2018-07-18 05:23:46
End at: 2018-07-18 05:24:16
Local clock offset: -1.445 ms
Remote clock offset: -0.479 ms

# Below is generated by plot.py at 2018-07-18 09:28:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 277.90 Mbit/s
95th percentile per-packet one-way delay: 243.464 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 224.72 Mbit/s
95th percentile per-packet one-way delay: 244.099 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 64.43 Mbit/s
95th percentile per-packet one-way delay: 213.179 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 33.70 Mbit/s
95th percentile per-packet one-way delay: 264.592 ms
Loss rate: 9.29%
```

Run 6: Report of Verus — Data Link



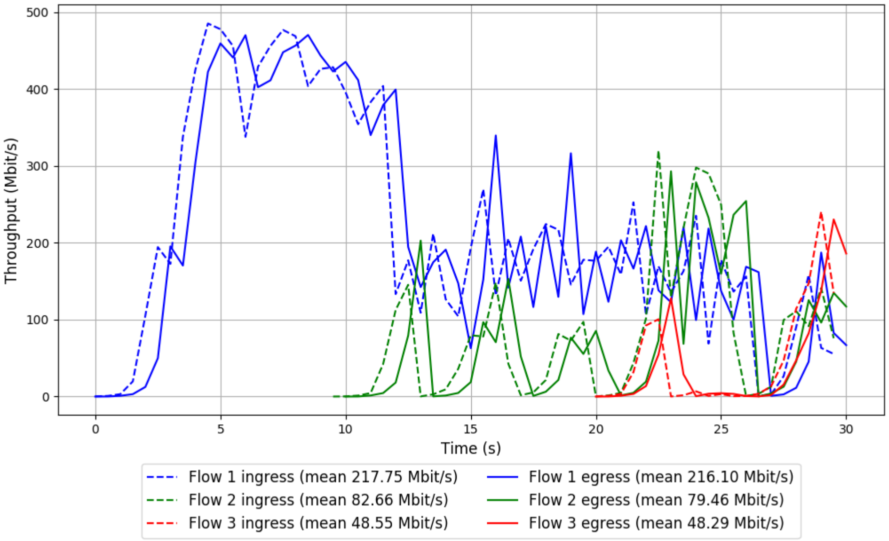


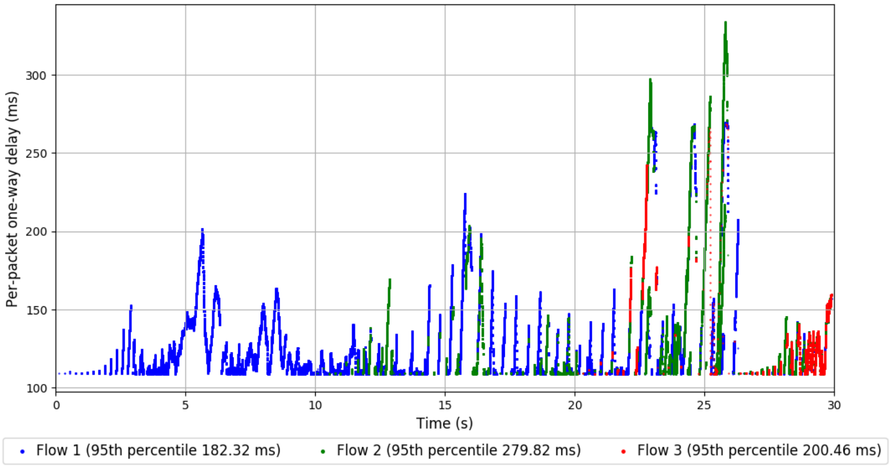
```
Run 7: Statistics of Verus

Start at: 2018-07-18 05:49:40
End at: 2018-07-18 05:50:10
Local clock offset: -0.378 ms
Remote clock offset: 0.204 ms

# Below is generated by plot.py at 2018-07-18 09:28:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.72 Mbit/s
95th percentile per-packet one-way delay: 215.382 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 216.10 Mbit/s
95th percentile per-packet one-way delay: 182.320 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 79.46 Mbit/s
95th percentile per-packet one-way delay: 279.819 ms
Loss rate: 3.63%
-- Flow 3:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 200.455 ms
Loss rate: 0.03%
```

Run 7: Report of Verus — Data Link



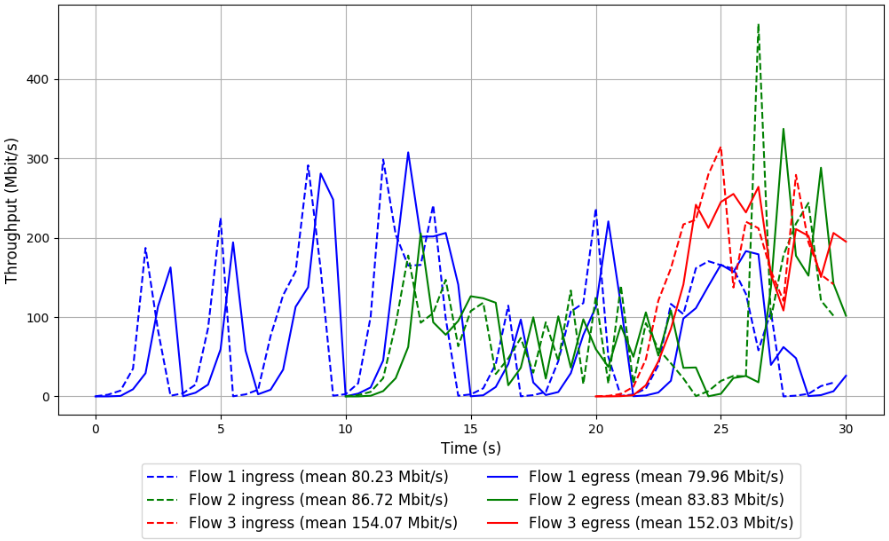


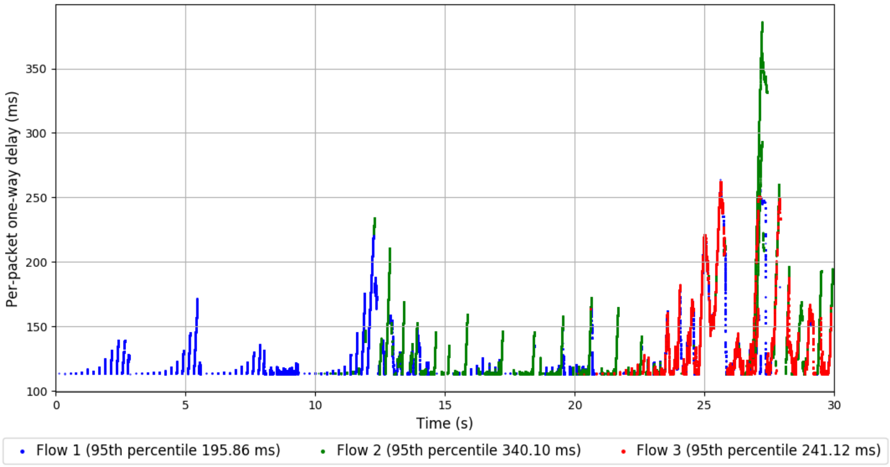
```
Run 8: Statistics of Verus

Start at: 2018-07-18 06:15:07
End at: 2018-07-18 06:15:37
Local clock offset: -0.249 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-07-18 09:28:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 184.95 Mbit/s
95th percentile per-packet one-way delay: 238.757 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 79.96 Mbit/s
95th percentile per-packet one-way delay: 195.857 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 83.83 Mbit/s
95th percentile per-packet one-way delay: 340.096 ms
Loss rate: 2.95%
-- Flow 3:
Average throughput: 152.03 Mbit/s
95th percentile per-packet one-way delay: 241.125 ms
Loss rate: 1.07%
```

Run 8: Report of Verus — Data Link



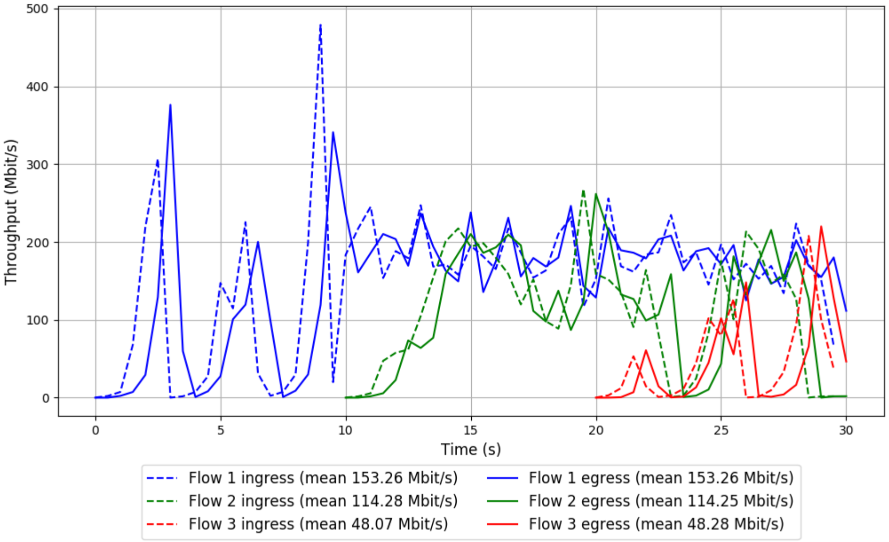


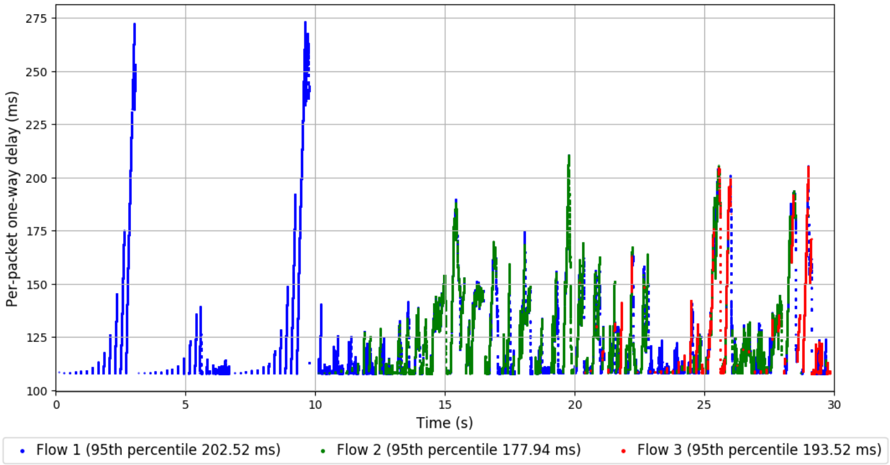
```
Run 9: Statistics of Verus

Start at: 2018-07-18 06:40:24
End at: 2018-07-18 06:40:54
Local clock offset: -0.022 ms
Remote clock offset: 0.206 ms

# Below is generated by plot.py at 2018-07-18 09:30:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 243.34 Mbit/s
95th percentile per-packet one-way delay: 192.214 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 153.26 Mbit/s
95th percentile per-packet one-way delay: 202.519 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 114.25 Mbit/s
95th percentile per-packet one-way delay: 177.941 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.28 Mbit/s
95th percentile per-packet one-way delay: 193.519 ms
Loss rate: 0.00%
```

Run 9: Report of Verus — Data Link



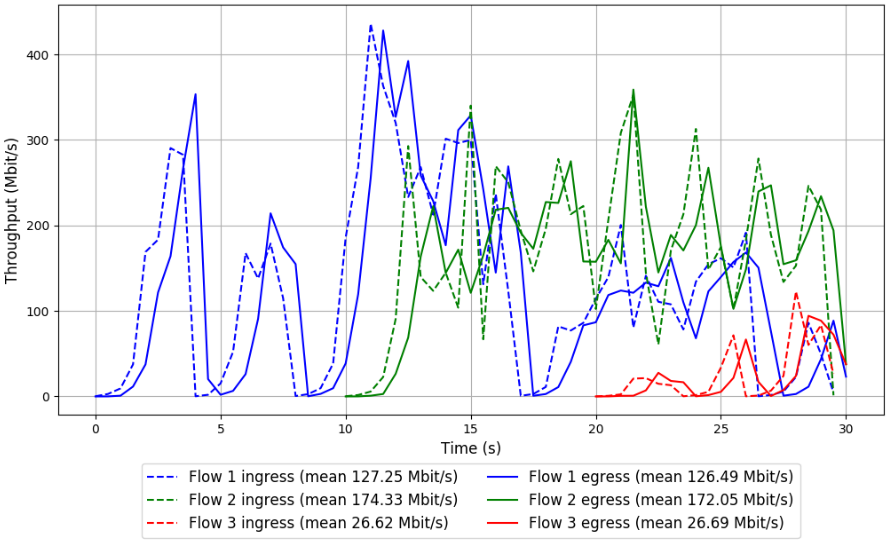


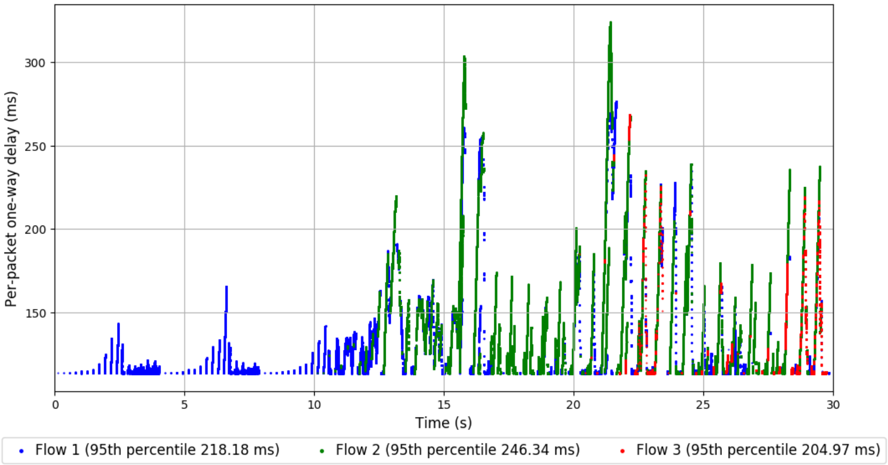
```
Run 10: Statistics of Verus

Start at: 2018-07-18 07:06:11
End at: 2018-07-18 07:06:41
Local clock offset: -1.227 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2018-07-18 09:30:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.92 Mbit/s
95th percentile per-packet one-way delay: 232.963 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 126.49 Mbit/s
95th percentile per-packet one-way delay: 218.181 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 172.05 Mbit/s
95th percentile per-packet one-way delay: 246.335 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 26.69 Mbit/s
95th percentile per-packet one-way delay: 204.970 ms
Loss rate: 0.47%
```

Run 10: Report of Verus — Data Link



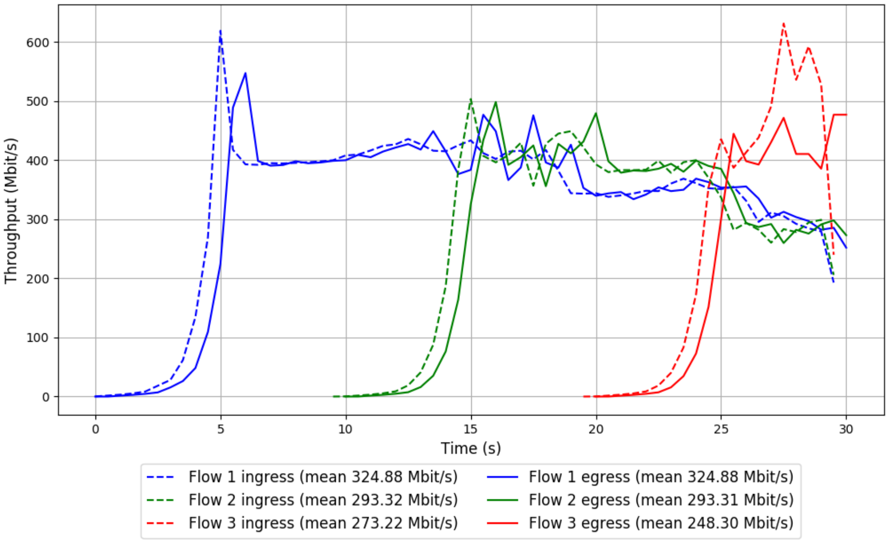


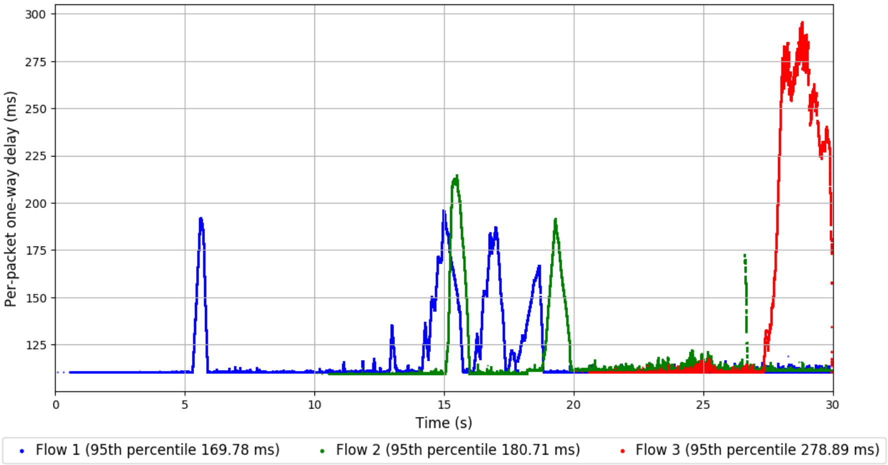
```
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-18 03:24:44
End at: 2018-07-18 03:25:14
Local clock offset: -0.212 ms
Remote clock offset: 0.164 ms

# Below is generated by plot.py at 2018-07-18 09:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 602.05 Mbit/s
95th percentile per-packet one-way delay: 211.867 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 324.88 Mbit/s
95th percentile per-packet one-way delay: 169.785 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 293.31 Mbit/s
95th percentile per-packet one-way delay: 180.708 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 248.30 Mbit/s
95th percentile per-packet one-way delay: 278.891 ms
Loss rate: 9.12%
```

Run 1: Report of PCC-Vivace — Data Link



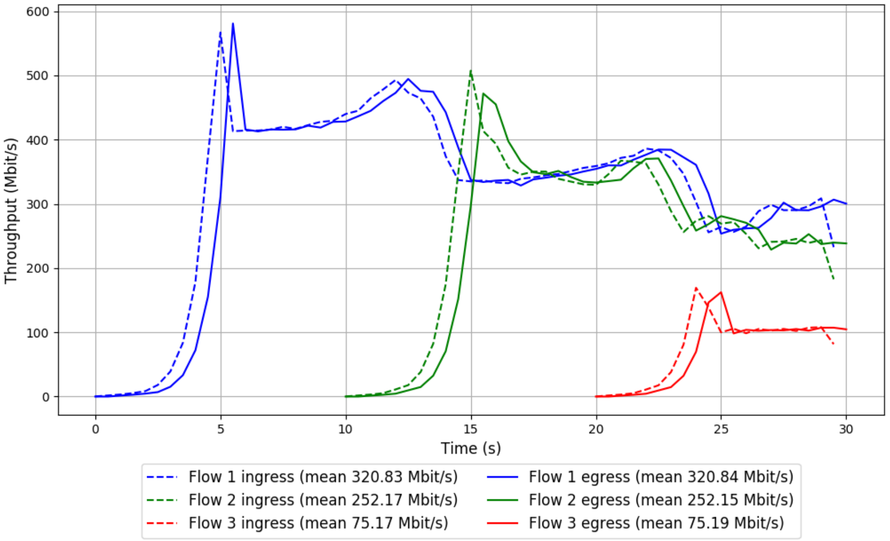


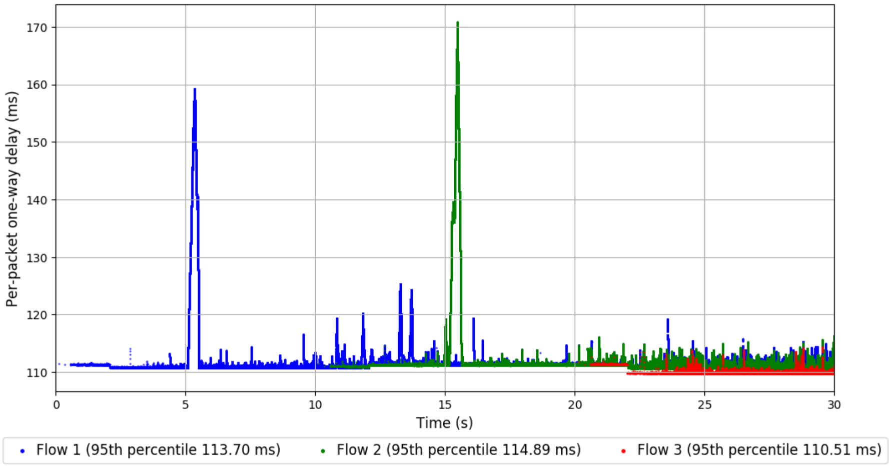
```
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-18 03:50:31
End at: 2018-07-18 03:51:01
Local clock offset: -0.038 ms
Remote clock offset: -0.191 ms

# Below is generated by plot.py at 2018-07-18 09:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 513.30 Mbit/s
95th percentile per-packet one-way delay: 113.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 320.84 Mbit/s
95th percentile per-packet one-way delay: 113.705 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 252.15 Mbit/s
95th percentile per-packet one-way delay: 114.887 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 75.19 Mbit/s
95th percentile per-packet one-way delay: 110.513 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link



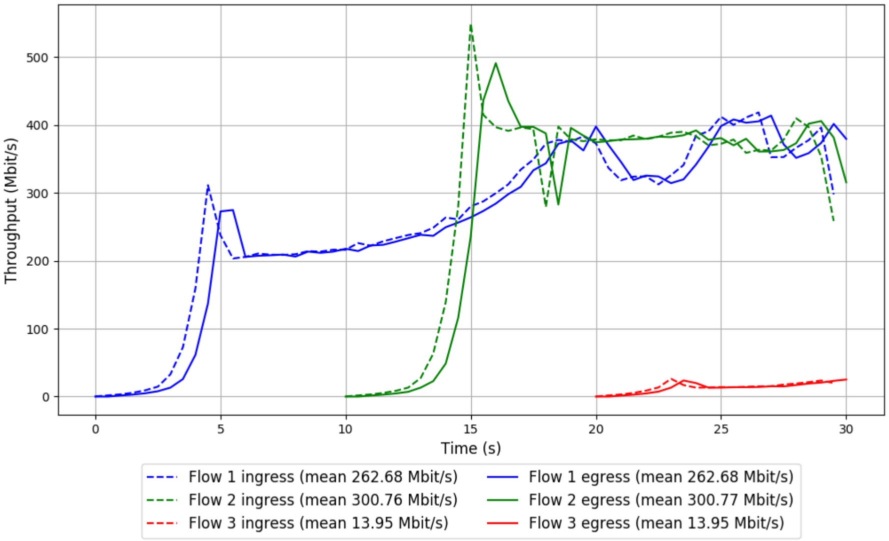


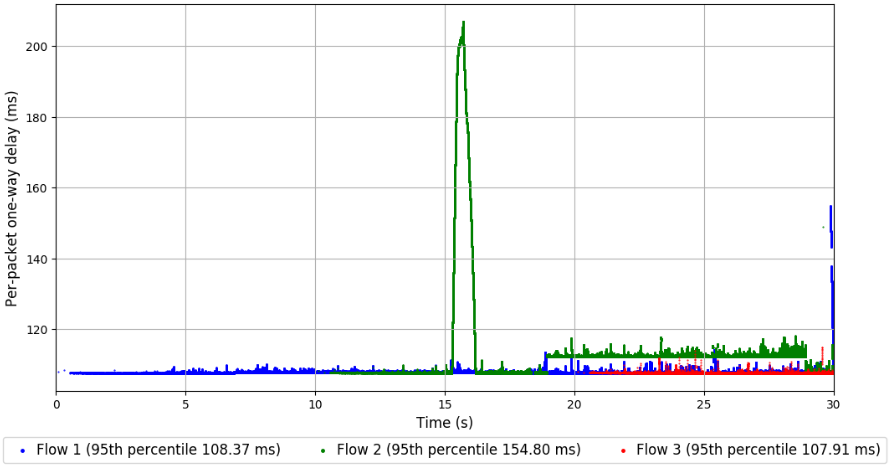
```
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-18 04:16:34
End at: 2018-07-18 04:17:04
Local clock offset: -0.095 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-07-18 09:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.30 Mbit/s
95th percentile per-packet one-way delay: 113.797 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 262.68 Mbit/s
95th percentile per-packet one-way delay: 108.368 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 300.77 Mbit/s
95th percentile per-packet one-way delay: 154.801 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.95 Mbit/s
95th percentile per-packet one-way delay: 107.907 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link



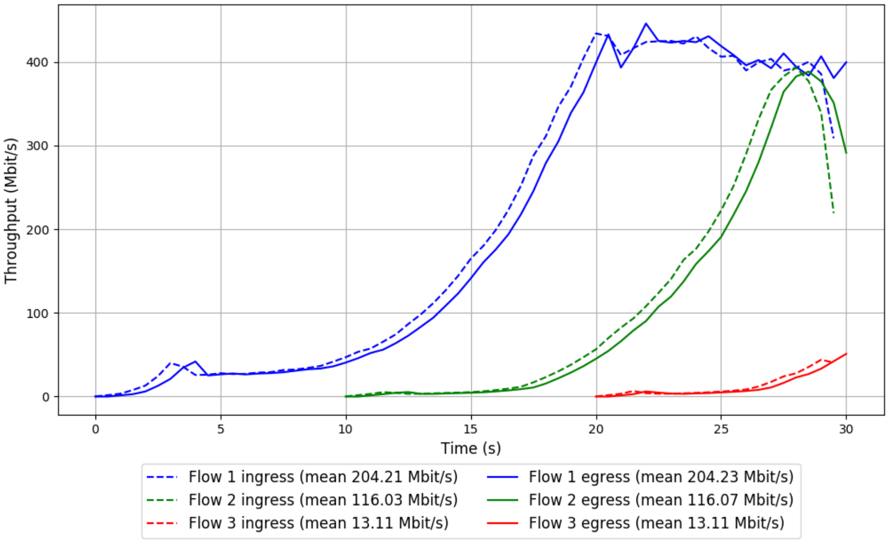


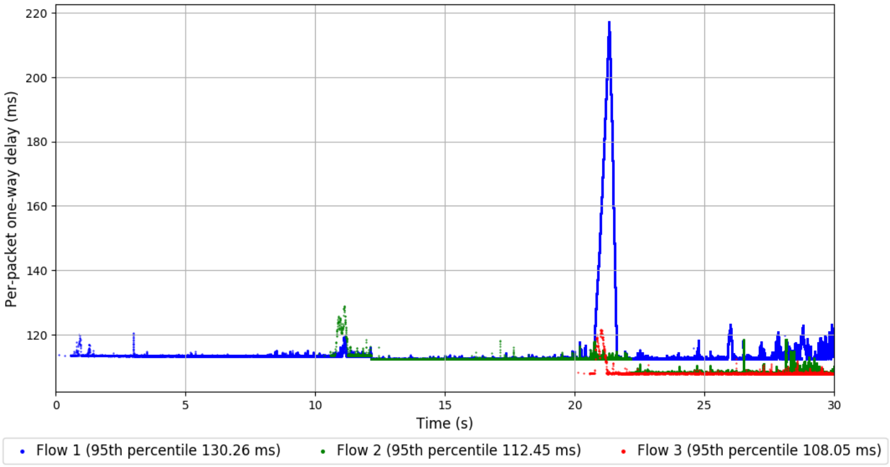
```
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-18 04:41:51
End at: 2018-07-18 04:42:21
Local clock offset: -0.011 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2018-07-18 09:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.73 Mbit/s
95th percentile per-packet one-way delay: 120.030 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.23 Mbit/s
95th percentile per-packet one-way delay: 130.262 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 116.07 Mbit/s
95th percentile per-packet one-way delay: 112.455 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 108.049 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Vivace — Data Link



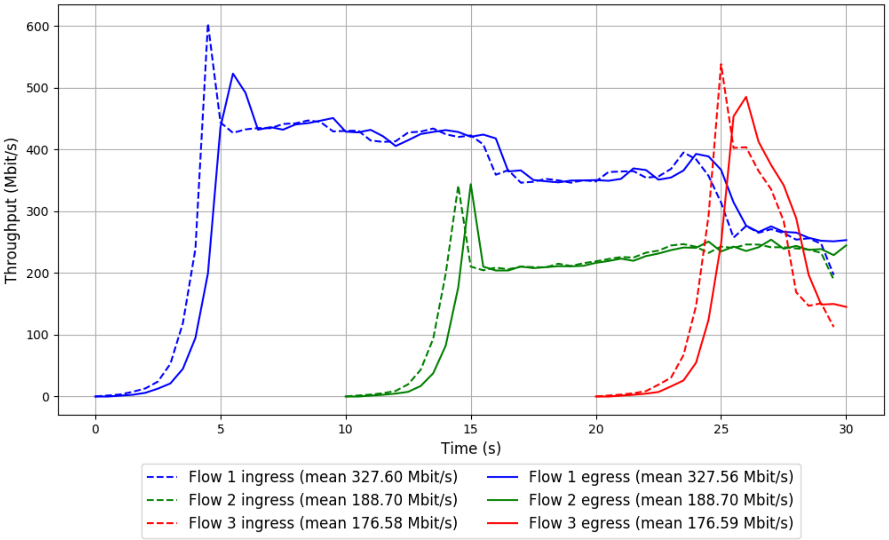


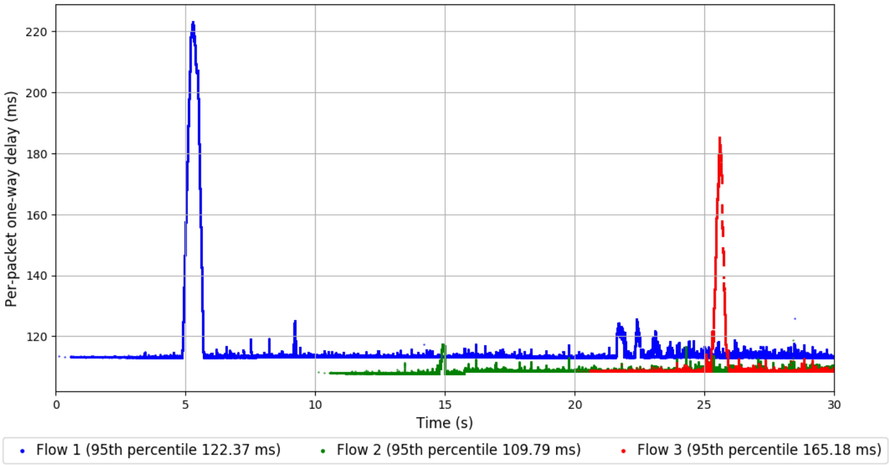
```
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-18 05:06:55
End at: 2018-07-18 05:07:25
Local clock offset: -0.476 ms
Remote clock offset: 0.309 ms

# Below is generated by plot.py at 2018-07-18 09:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.34 Mbit/s
95th percentile per-packet one-way delay: 121.235 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 327.56 Mbit/s
95th percentile per-packet one-way delay: 122.367 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 188.70 Mbit/s
95th percentile per-packet one-way delay: 109.786 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.59 Mbit/s
95th percentile per-packet one-way delay: 165.184 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link



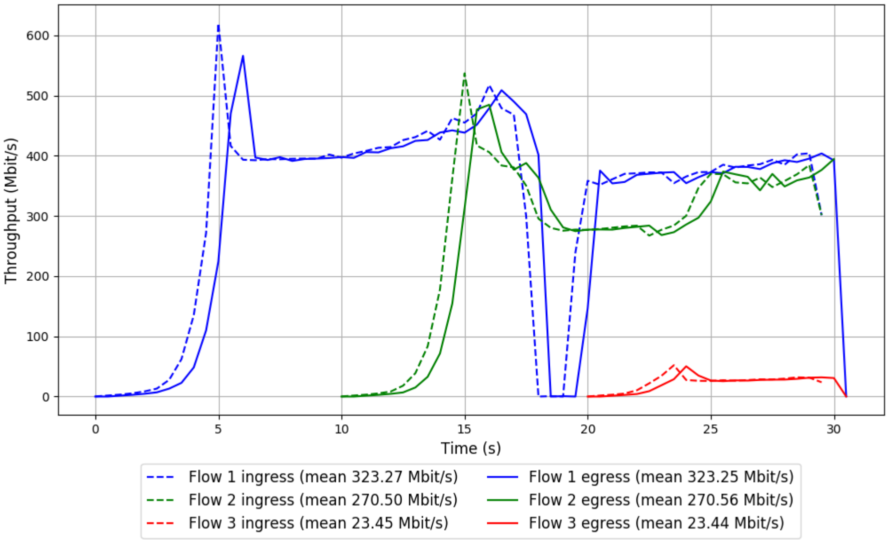


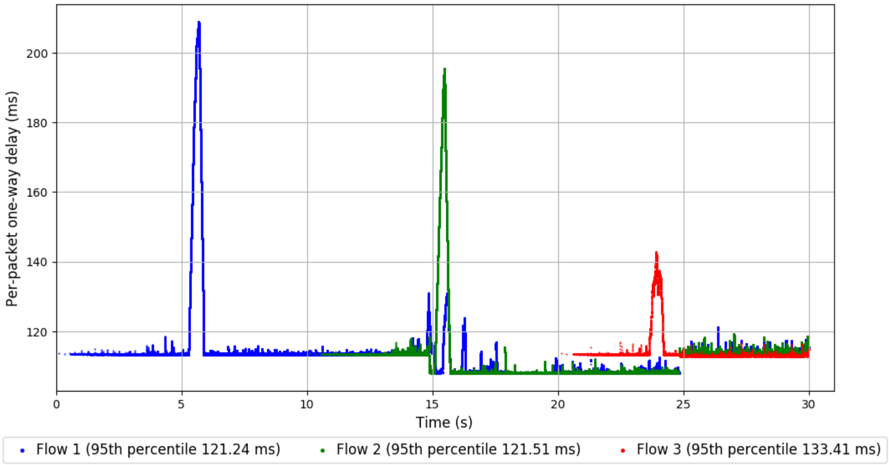
```
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-18 05:32:18
End at: 2018-07-18 05:32:48
Local clock offset: 0.033 ms
Remote clock offset: 0.184 ms

# Below is generated by plot.py at 2018-07-18 09:37:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 510.82 Mbit/s
95th percentile per-packet one-way delay: 121.500 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 323.25 Mbit/s
95th percentile per-packet one-way delay: 121.240 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 270.56 Mbit/s
95th percentile per-packet one-way delay: 121.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.44 Mbit/s
95th percentile per-packet one-way delay: 133.405 ms
Loss rate: 0.02%
```

Run 6: Report of PCC-Vivace — Data Link



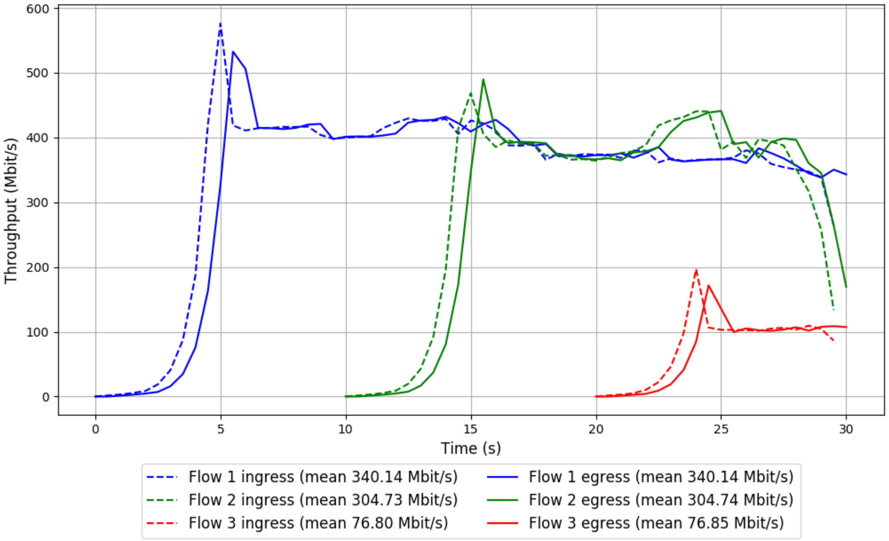


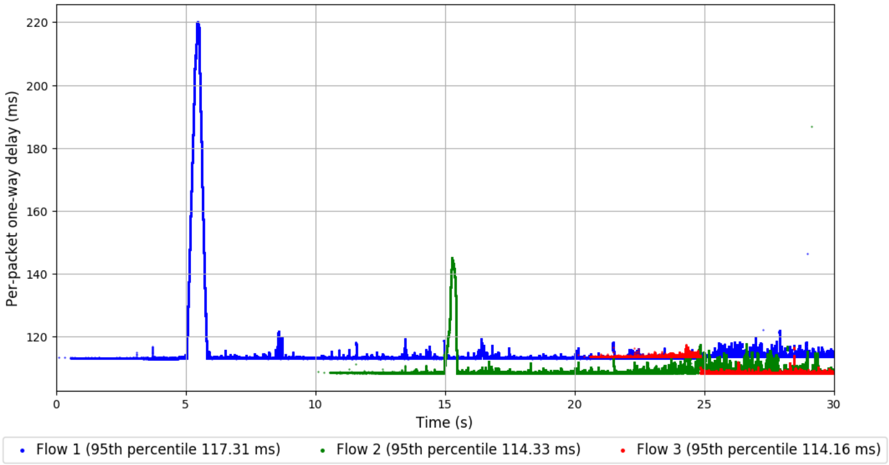
```
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-18 05:58:08
End at: 2018-07-18 05:58:38
Local clock offset: -0.279 ms
Remote clock offset: 0.286 ms

# Below is generated by plot.py at 2018-07-18 09:38:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 568.12 Mbit/s
95th percentile per-packet one-way delay: 116.197 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 340.14 Mbit/s
95th percentile per-packet one-way delay: 117.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 304.74 Mbit/s
95th percentile per-packet one-way delay: 114.334 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.85 Mbit/s
95th percentile per-packet one-way delay: 114.157 ms
Loss rate: 0.00%
```

Run 7: Report of PCC-Vivace — Data Link



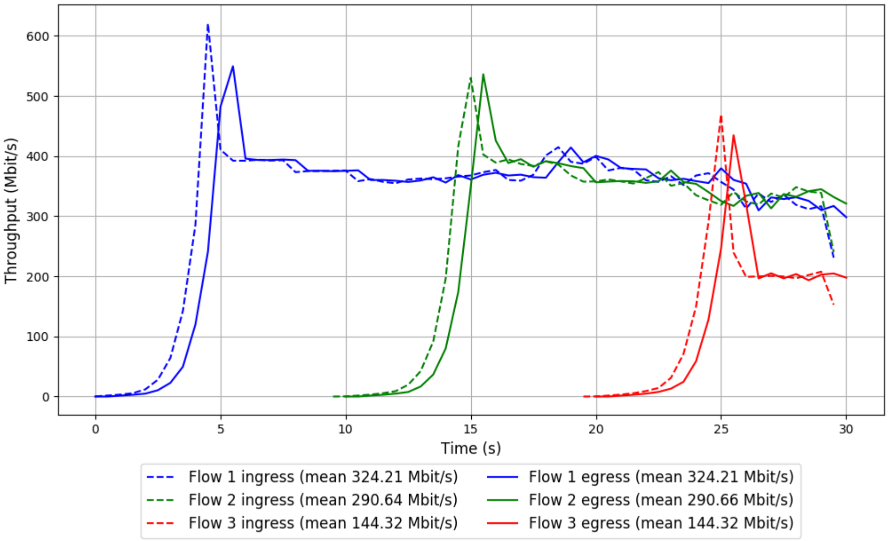


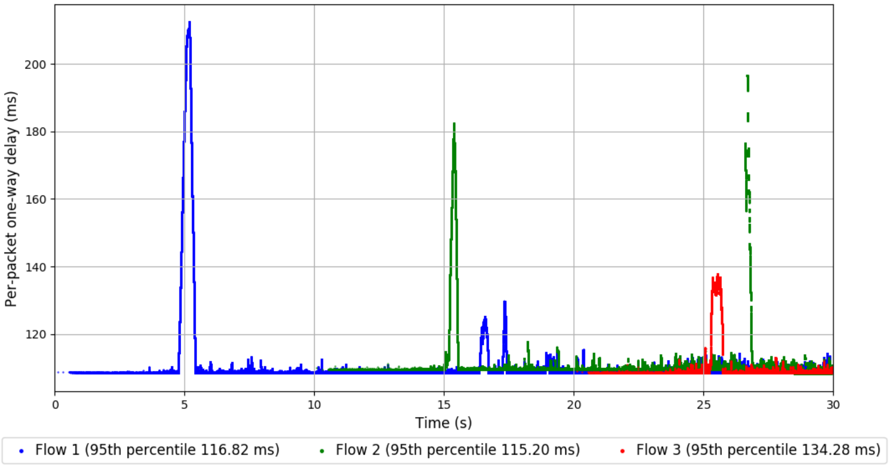
```
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-18 06:23:14
End at: 2018-07-18 06:23:44
Local clock offset: -1.53 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2018-07-18 09:38:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.31 Mbit/s
95th percentile per-packet one-way delay: 122.209 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 324.21 Mbit/s
95th percentile per-packet one-way delay: 116.819 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 290.66 Mbit/s
95th percentile per-packet one-way delay: 115.203 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 144.32 Mbit/s
95th percentile per-packet one-way delay: 134.284 ms
Loss rate: 0.00%
```

Run 8: Report of PCC-Vivace — Data Link



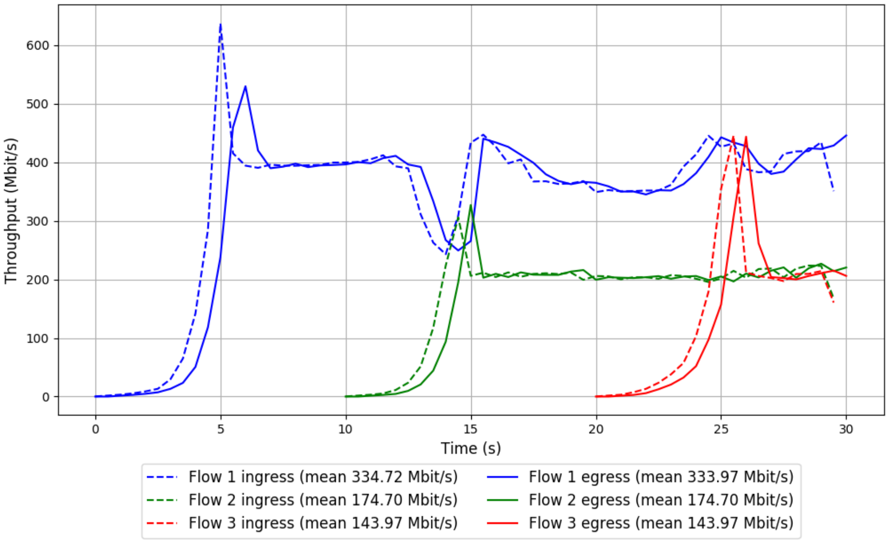


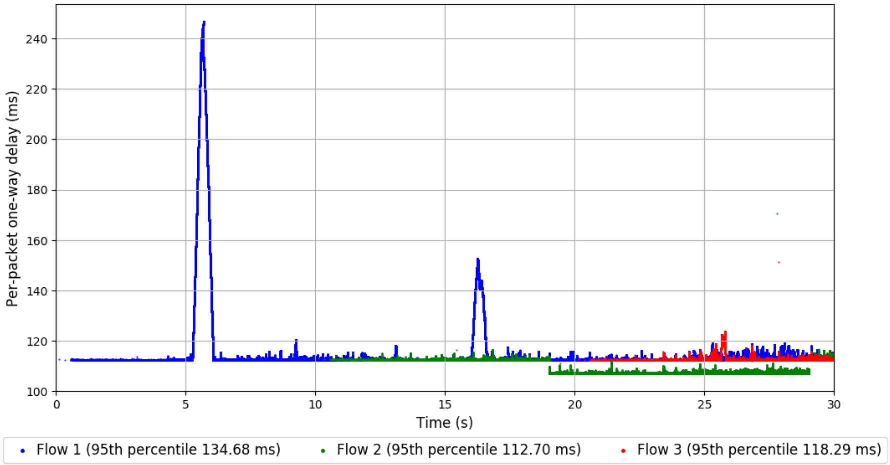
```
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-18 06:48:54
End at: 2018-07-18 06:49:24
Local clock offset: -0.122 ms
Remote clock offset: -0.181 ms

# Below is generated by plot.py at 2018-07-18 09:39:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.63 Mbit/s
95th percentile per-packet one-way delay: 117.738 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 333.97 Mbit/s
95th percentile per-packet one-way delay: 134.679 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 174.70 Mbit/s
95th percentile per-packet one-way delay: 112.698 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 143.97 Mbit/s
95th percentile per-packet one-way delay: 118.289 ms
Loss rate: 0.00%
```

Run 9: Report of PCC-Vivace — Data Link



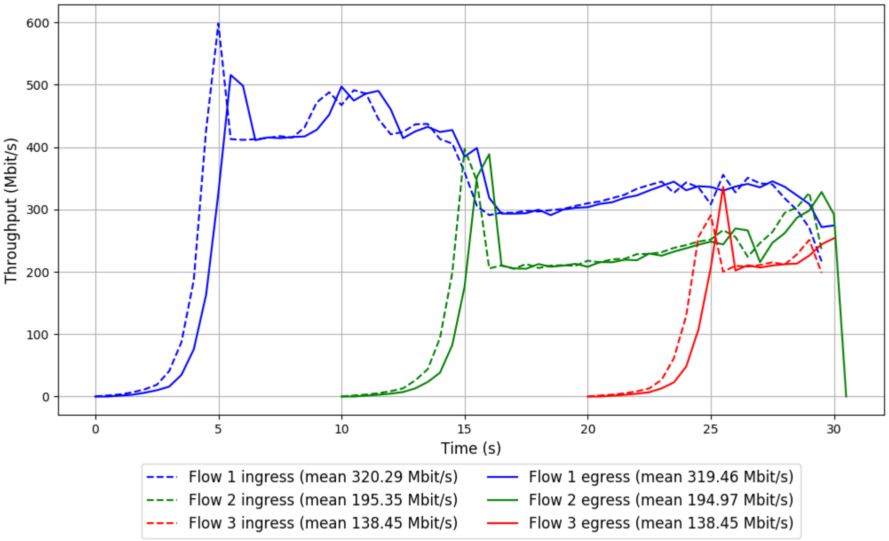


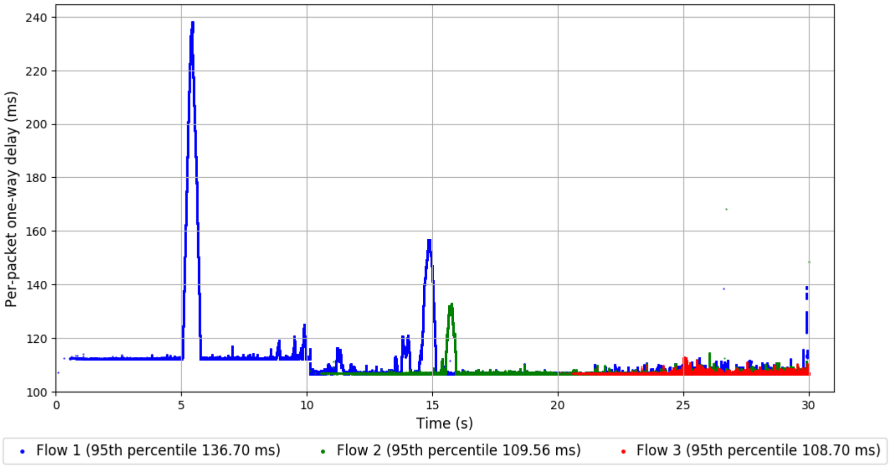
```
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-18 07:14:23
End at: 2018-07-18 07:14:53
Local clock offset: -0.323 ms
Remote clock offset: -0.384 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 494.60 Mbit/s
95th percentile per-packet one-way delay: 120.383 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 319.46 Mbit/s
95th percentile per-packet one-way delay: 136.699 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 194.97 Mbit/s
95th percentile per-packet one-way delay: 109.557 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 138.45 Mbit/s
95th percentile per-packet one-way delay: 108.699 ms
Loss rate: 0.00%
```

Run 10: Report of PCC-Vivace — Data Link



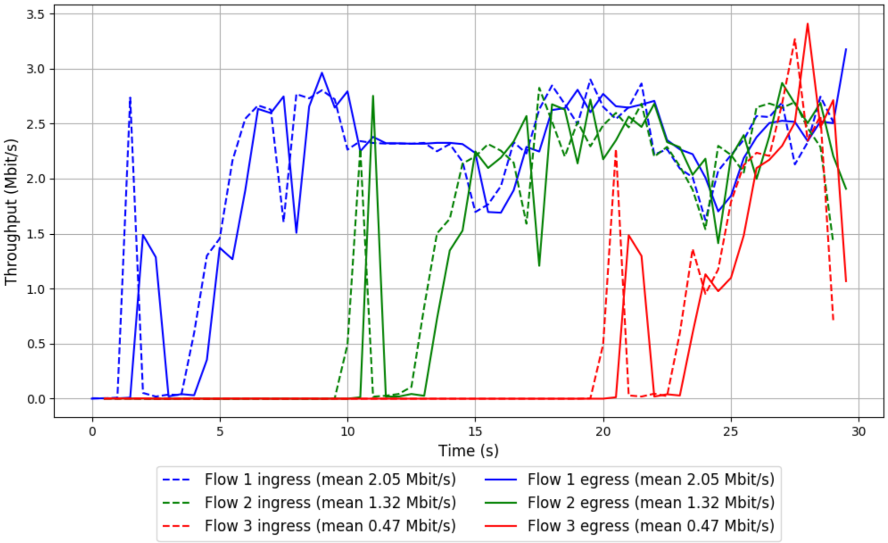


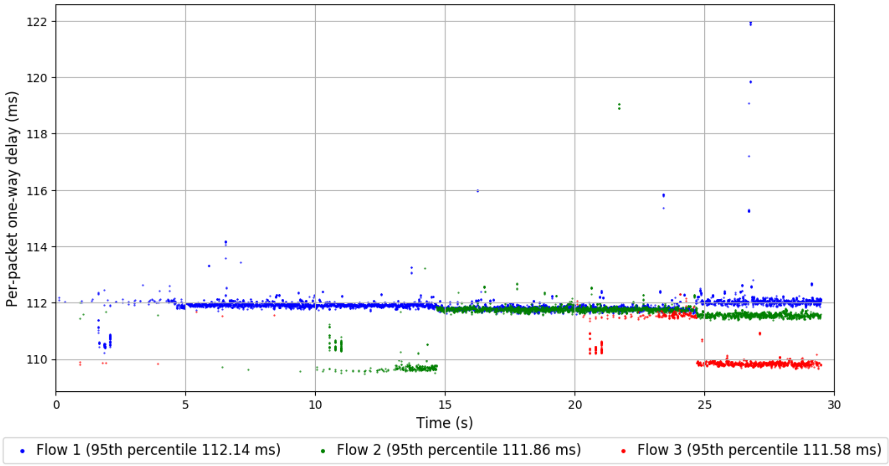
```
Run 1: Statistics of WebRTC media

Start at: 2018-07-18 03:09:07
End at: 2018-07-18 03:09:37
Local clock offset: -0.404 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 112.090 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 112.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 111.857 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 111.585 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



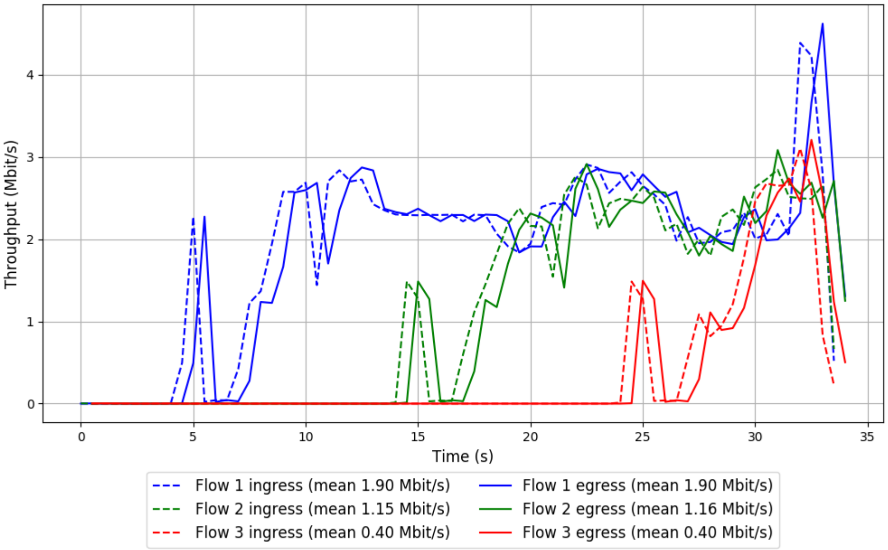


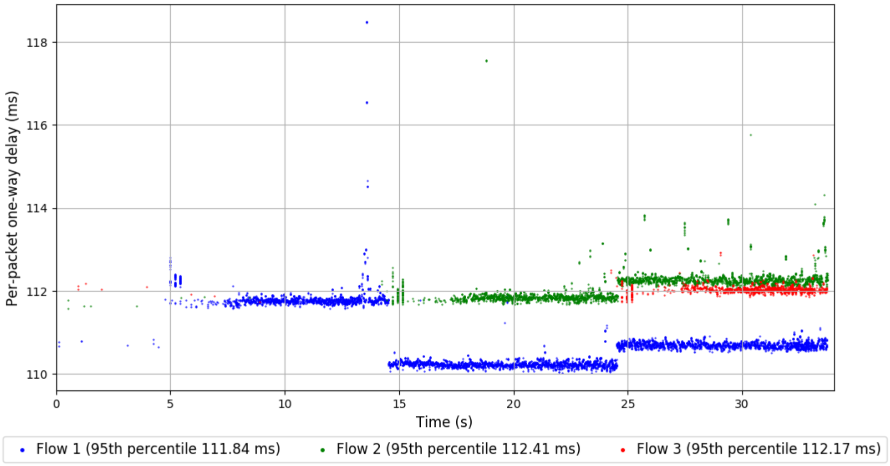
```
Run 2: Statistics of WebRTC media

Start at: 2018-07-18 03:35:12
End at: 2018-07-18 03:35:42
Local clock offset: -0.399 ms
Remote clock offset: 0.184 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 112.320 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 111.839 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 112.413 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 112.165 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



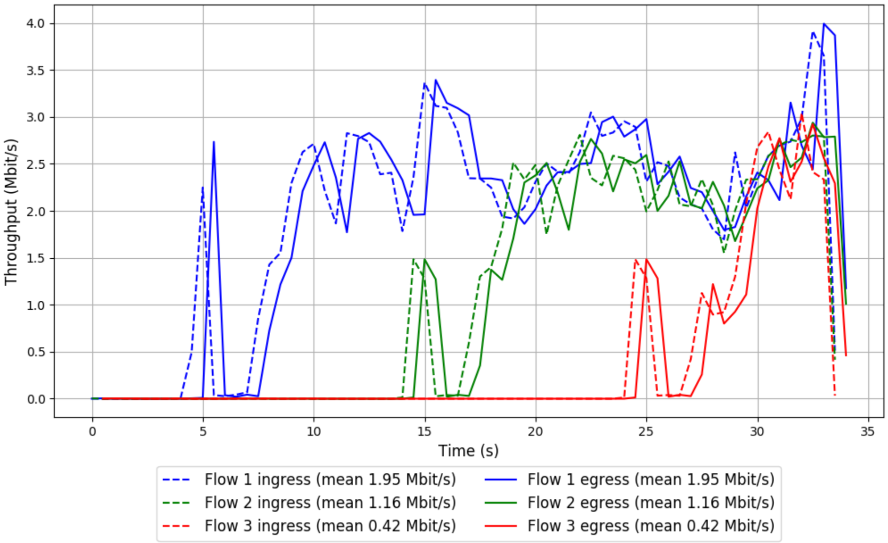


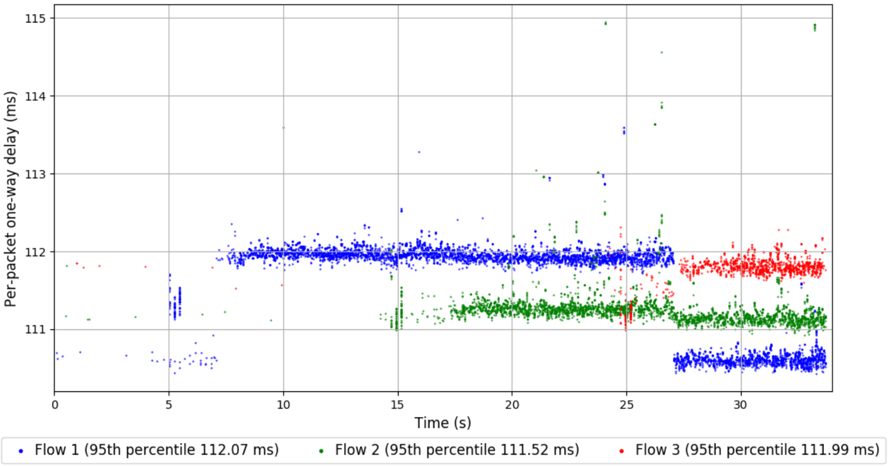
```
Run 3: Statistics of WebRTC media

Start at: 2018-07-18 04:00:49
End at: 2018-07-18 04:01:19
Local clock offset: -0.262 ms
Remote clock offset: -0.164 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 112.050 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 112.073 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 111.518 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 111.989 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link



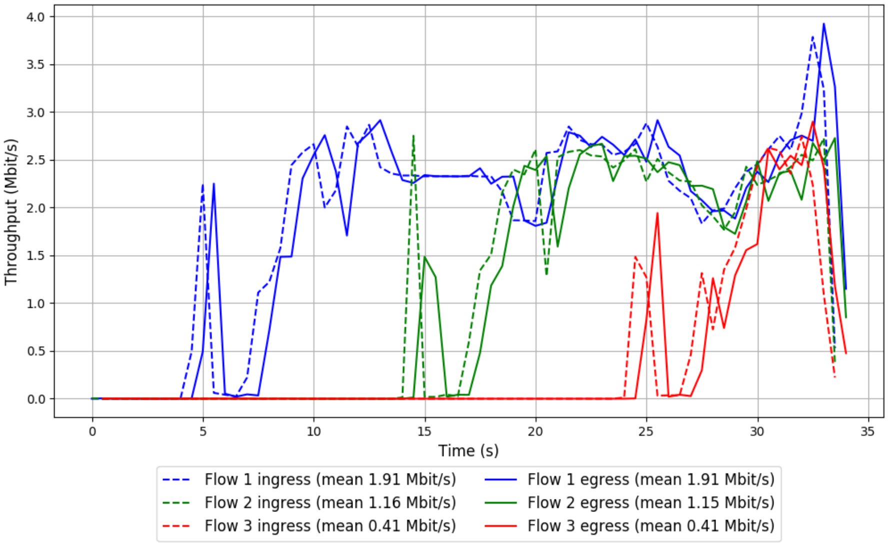


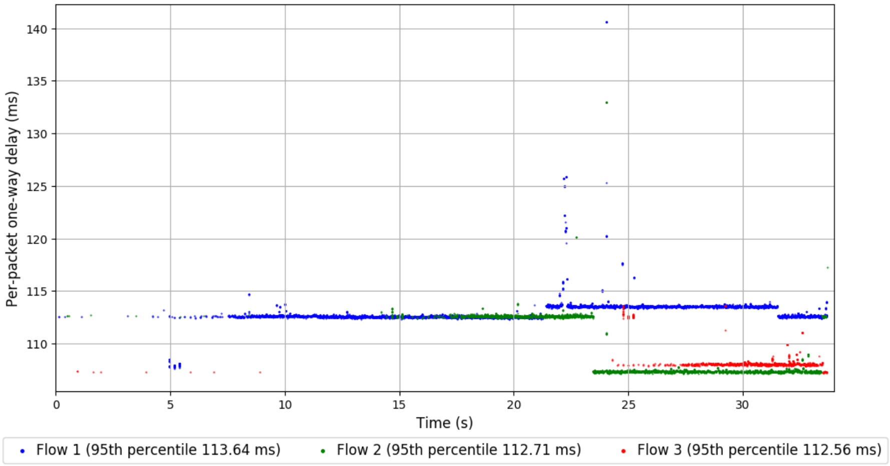
```
Run 4: Statistics of WebRTC media

Start at: 2018-07-18 04:26:33
End at: 2018-07-18 04:27:03
Local clock offset: -0.189 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 113.604 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 113.643 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 112.711 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 112.562 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



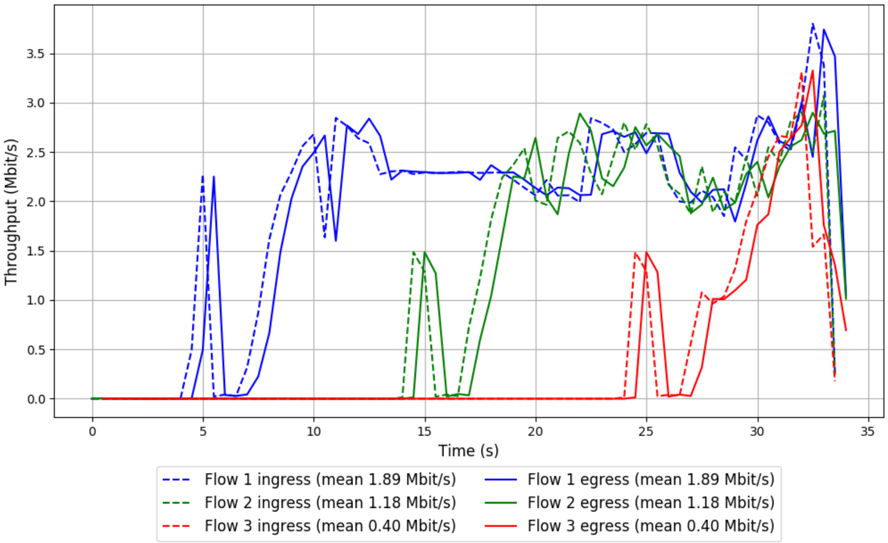


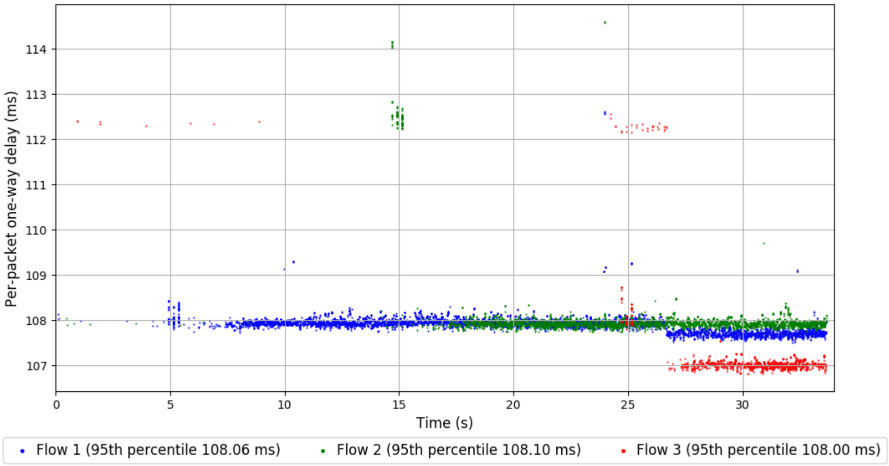
```
Run 5: Statistics of WebRTC media

Start at: 2018-07-18 04:51:40
End at: 2018-07-18 04:52:10
Local clock offset: 0.124 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 108.074 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 108.062 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 108.104 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 107.998 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



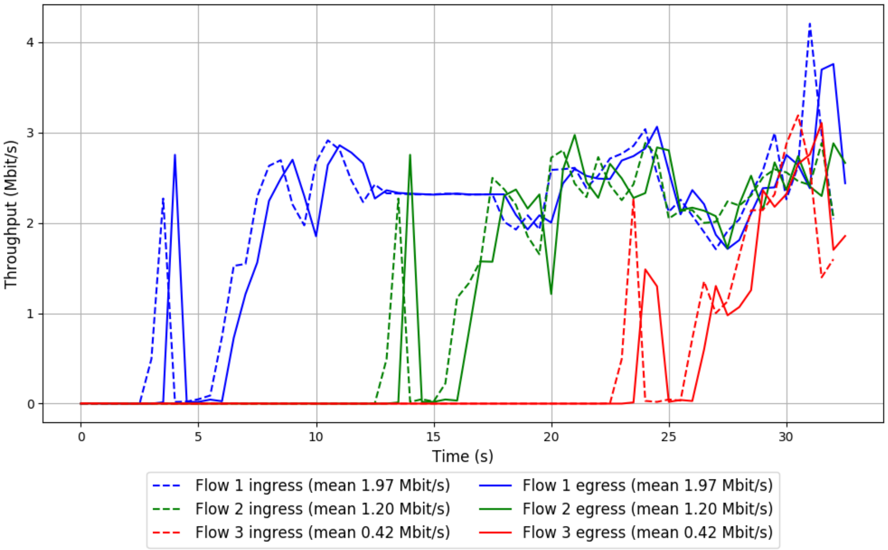


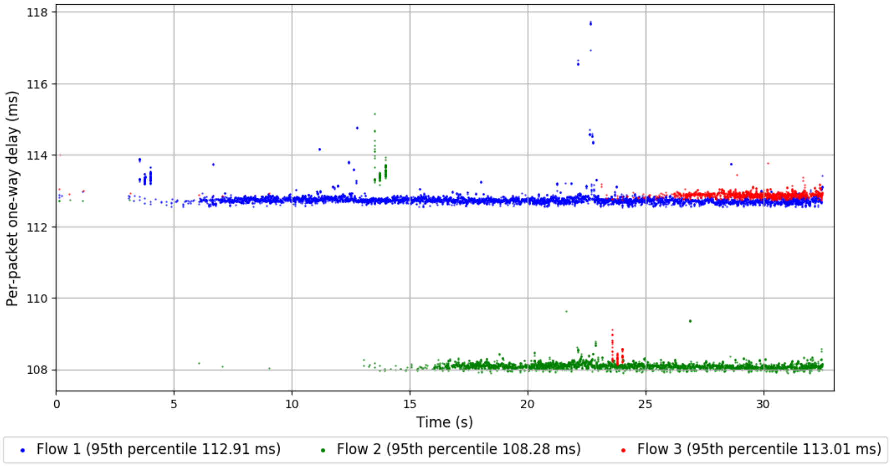
```
Run 6: Statistics of WebRTC media

Start at: 2018-07-18 05:16:52
End at: 2018-07-18 05:17:22
Local clock offset: -0.191 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 112.936 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 112.908 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 108.285 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 113.008 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link



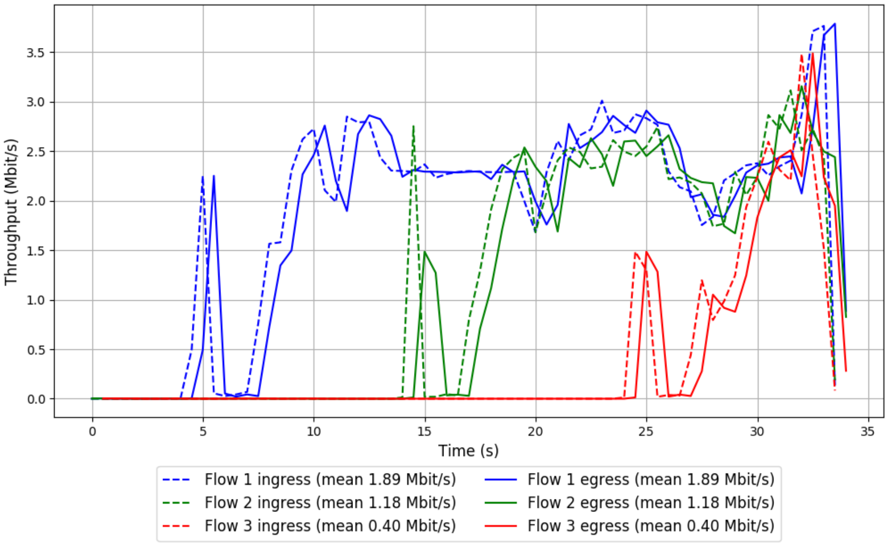


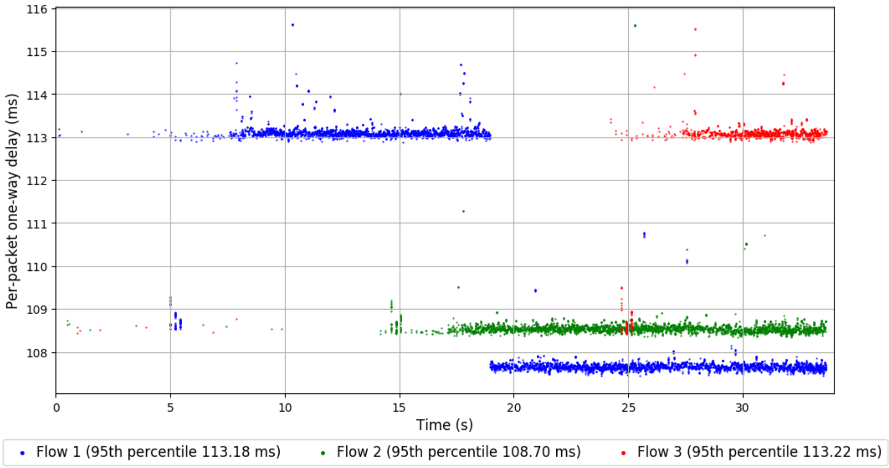
```
Run 7: Statistics of WebRTC media

Start at: 2018-07-18 05:42:37
End at: 2018-07-18 05:43:07
Local clock offset: -0.087 ms
Remote clock offset: 0.165 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 113.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 113.180 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 108.704 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 113.215 ms
Loss rate: 0.00%
```

Run 7: Report of WebRTC media — Data Link



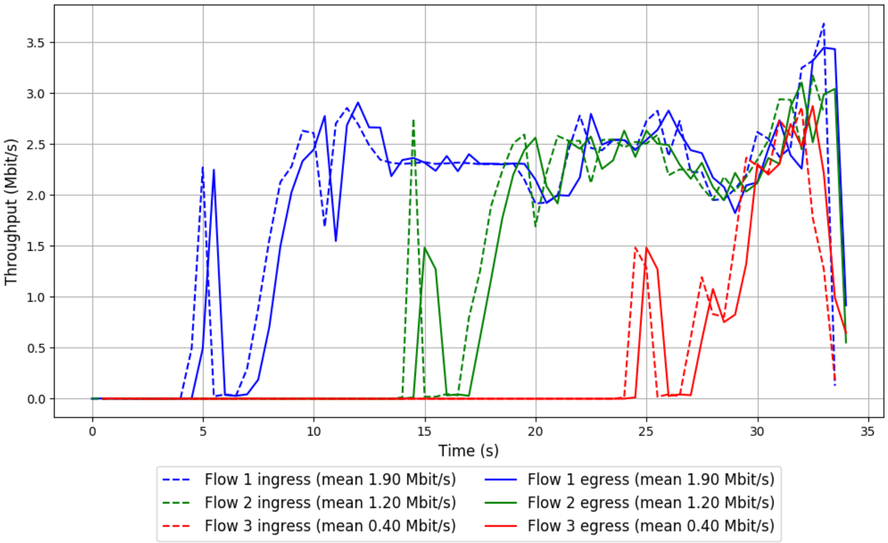


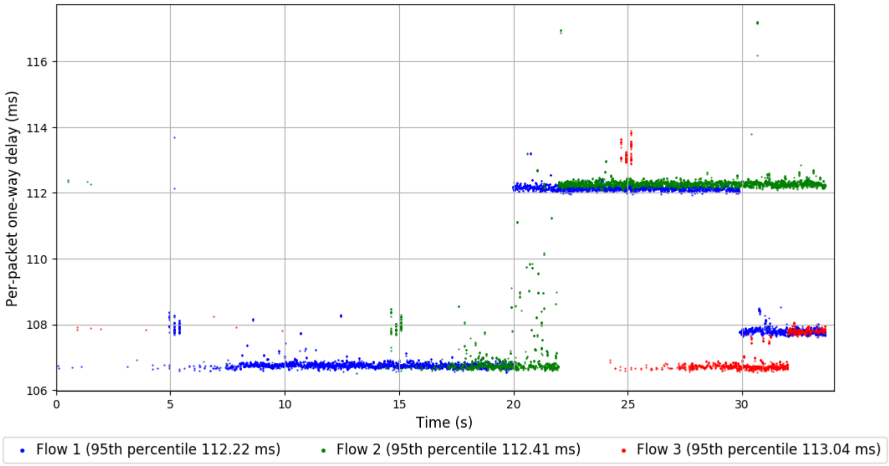
```
Run 8: Statistics of WebRTC media

Start at: 2018-07-18 06:08:14
End at: 2018-07-18 06:08:44
Local clock offset: -0.118 ms
Remote clock offset: -0.381 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 112.351 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 112.217 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 112.405 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 113.037 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link



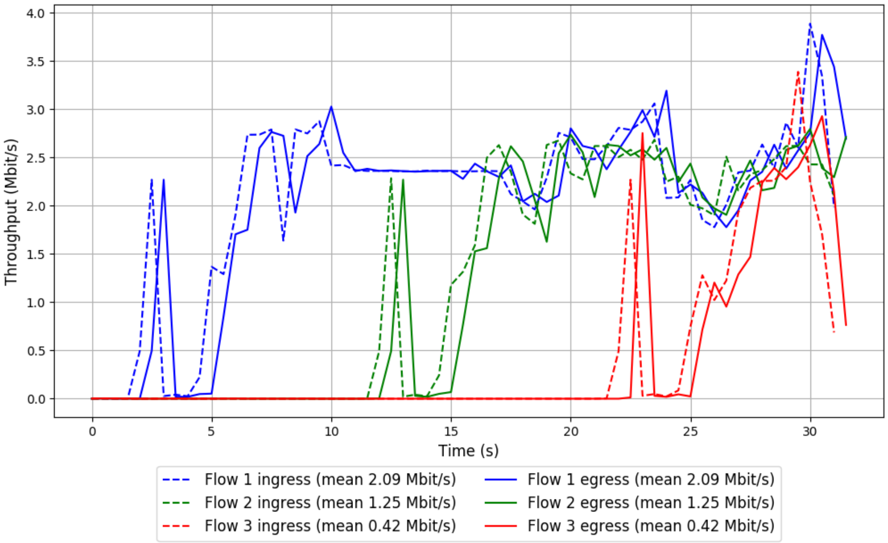


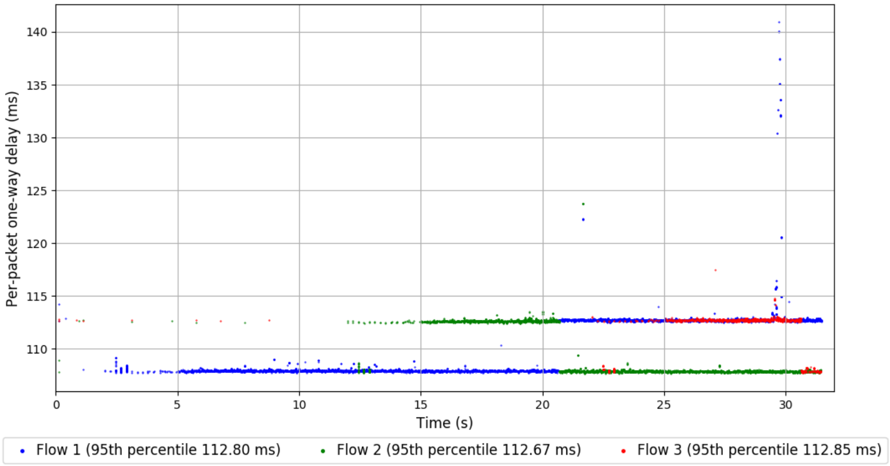
```
Run 9: Statistics of WebRTC media

Start at: 2018-07-18 06:33:23
End at: 2018-07-18 06:33:53
Local clock offset: -0.196 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 112.790 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 112.799 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 112.671 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 112.846 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link

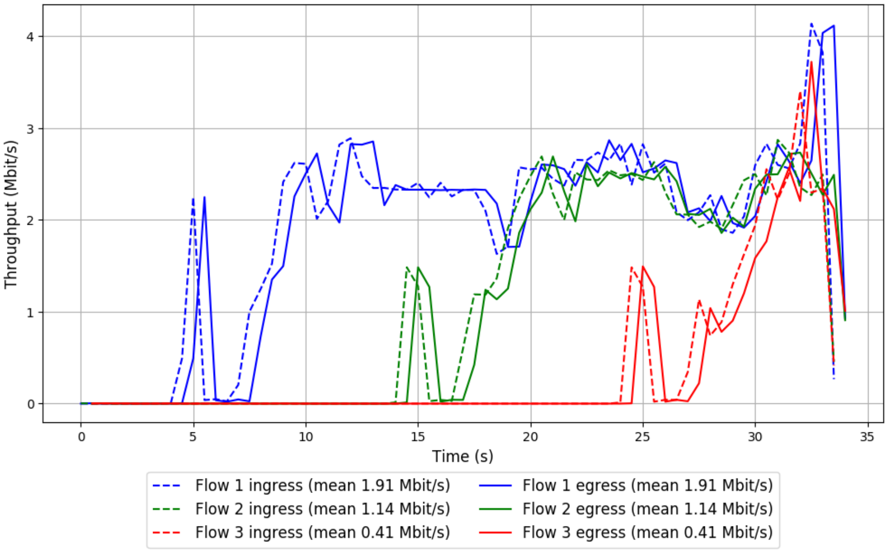


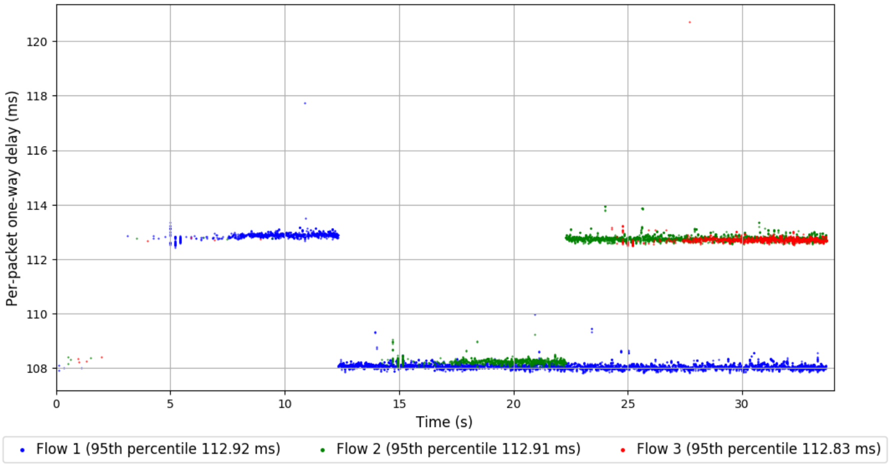


```
Run 10: Statistics of WebRTC media

Start at: 2018-07-18 06:59:14
End at: 2018-07-18 06:59:44
Local clock offset: -0.206 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2018-07-18 09:39:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 112.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 112.921 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 112.905 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 112.830 ms
Loss rate: 0.00%
```


Throughput (Mbit/s)
Time (s)
0
1
2
3
4
0
5
10
15
20
25
30
35
Flow 1 ingress (mean 1.91 Mbit/s)
Flow 2 ingress (mean 1.14 Mbit/s)
Flow 3 ingress (mean 0.41 Mbit/s)
Flow 1 egress (mean 1.91 Mbit/s)
Flow 2 egress (mean 1.14 Mbit/s)
Flow 3 egress (mean 0.41 Mbit/s)


Per-packet one-way delay (ms)
Time (s)
108
110
112
114
116
118
120
0
5
10
15
20
25
30
Flow 1 (95th percentile 112.92 ms)
Flow 2 (95th percentile 112.91 ms)
Flow 3 (95th percentile 112.83 ms)