Pantheon Report

Generated at 2018-08-22 06:04:51 (UTC).

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

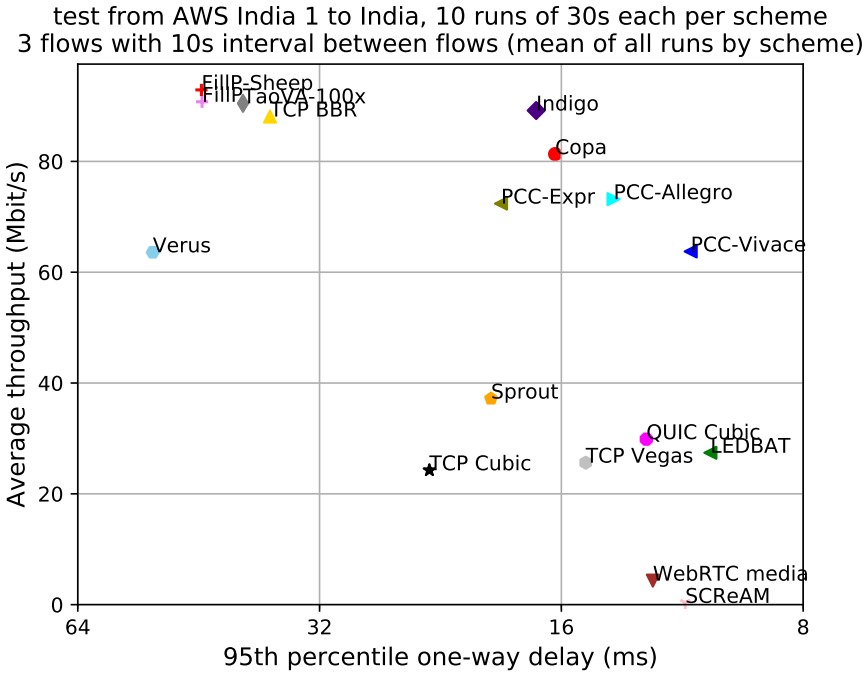
Repeated the test of 17 congestion control schemes 10 times.

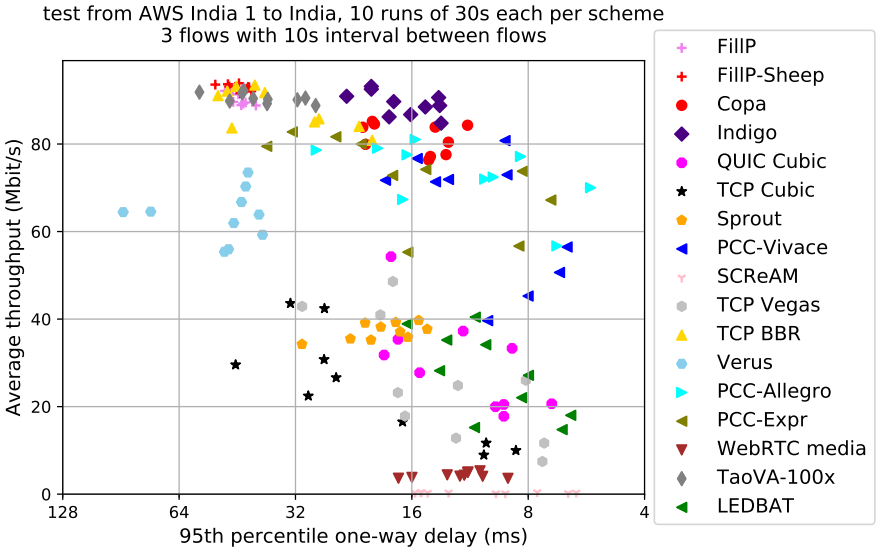
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

```
System info:
Linux 4.15.0-1017-aws
net.core.default_qdisc = fq_codel
net.core.rmem_default = 16777216
net.core.rmem_max = 33554432
net.core.wmem_default = 212992
net.core.wmem_max = 212992
net.ipv4.tcp_rmem = 4096 87380 6291456
net.ipv4.tcp_wmem = 4096 16384 4194304

Git summary:
branch: master @ 7719b900495aa706f8452ab7d4a94dd562e9296e
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 AWS India 1 to India, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
FillP-Sheep
FillP
TaoVA-100x
TCP BBR
Indigo
Copa
PCC-Expr
PCC-Allegro
Verus
PCC-Vivace
Sprout
QUIC Cubic
LEDBAT
TCP Cubic
TCP Vegas
WebRTC media
SCReAM
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
64
32
16
8


test from AWS India 1 to India, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
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
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
128
64
32
16
8
4

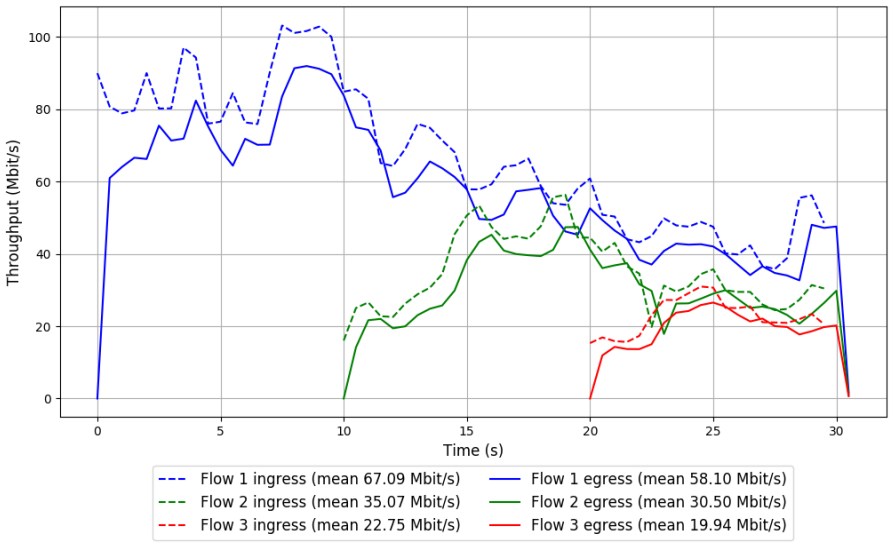
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	59.66	30.53	25.04	35.59	38.85	37.27	10.78	11.15	11.19
Copa	10	51.92	31.79	24.76	16.32	15.83	15.75	9.56	10.40	11.33
TCP Cubic	10	13.33	10.75	11.34	23.30	20.25	19.81	1.25	1.07	1.63
FillP	10	56.57	38.45	26.20	44.34	44.96	45.71	23.48	31.34	35.11
FillP-Sheep	10	55.02	40.69	32.71	42.93	45.66	46.66	18.06	25.39	31.51
Indigo	10	52.96	37.82	34.41	16.64	16.37	17.79	9.38	10.38	11.26
LEDBAT	10	16.24	12.13	10.27	9.26	10.79	9.50	1.01	1.22	2.07
PCC-Allegro	10	64.69	10.50	4.60	13.21	13.72	13.16	7.03	6.96	7.47
PCC-Expr	10	56.35	17.65	12.98	17.57	18.14	16.40	8.48	8.46	8.39
QUIC Cubic	10	15.99	14.31	13.22	12.19	11.24	13.10	2.66	3.04	2.67
SCReAM	10	0.15	0.16	0.18	9.14	9.10	10.79	1.06	1.04	1.15
Sprout	10	19.04	18.65	17.39	18.52	18.93	21.54	2.77	3.17	4.08
TaoVA-100x	10	54.17	37.12	34.96	36.53	40.04	44.09	10.76	13.87	17.74
TCP Vegas	10	14.46	11.11	11.37	12.66	13.39	17.05	1.26	1.50	1.66
Verus	10	38.55	31.83	16.13	43.08	57.19	40.99	36.60	52.21	44.24
PCC-Vivace	10	42.23	24.77	15.25	10.02	10.94	11.78	6.01	6.71	6.65
WebRTC media	10	2.37	1.54	0.44	11.30	11.51	11.83	0.79	0.63	0.64

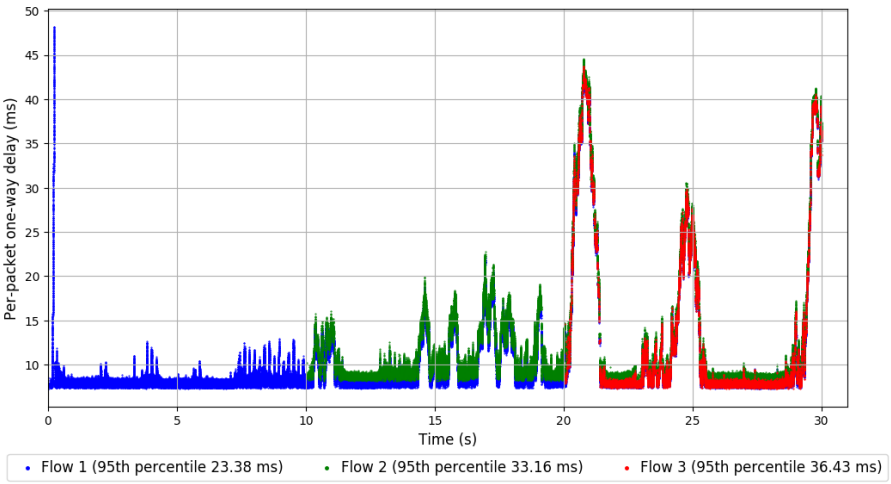
```
Run 1: Statistics of TCP BBR

Start at: 2018-08-22 02:40:07
End at: 2018-08-22 02:40:37
Local clock offset: 1.145 ms
Remote clock offset: -61.05 ms

# Below is generated by plot.py at 2018-08-22 05:45:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.06 Mbit/s
95th percentile per-packet one-way delay: 28.568 ms
Loss rate: 13.15%
-- Flow 1:
Average throughput: 58.10 Mbit/s
95th percentile per-packet one-way delay: 23.379 ms
Loss rate: 13.33%
-- Flow 2:
Average throughput: 30.50 Mbit/s
95th percentile per-packet one-way delay: 33.155 ms
Loss rate: 12.92%
-- Flow 3:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 36.428 ms
Loss rate: 12.18%
```

Run 1: Report of TCP BBR — Data Link



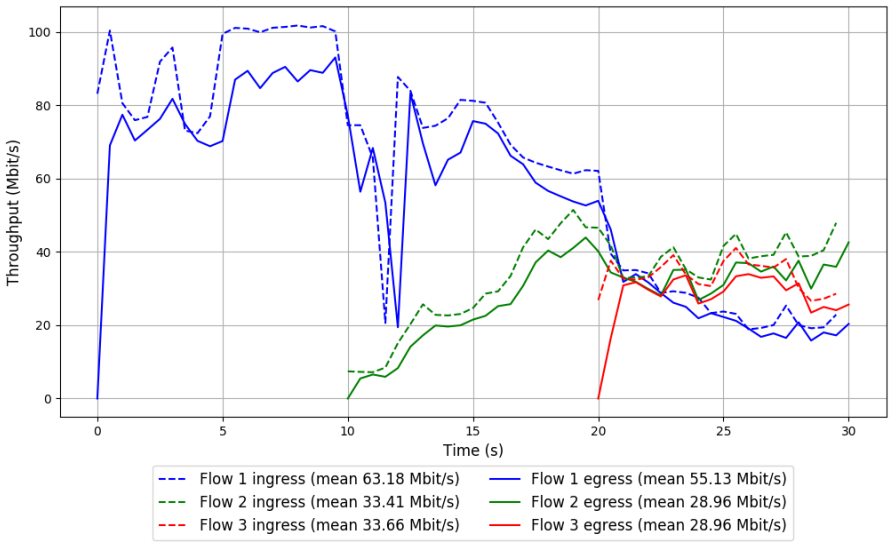


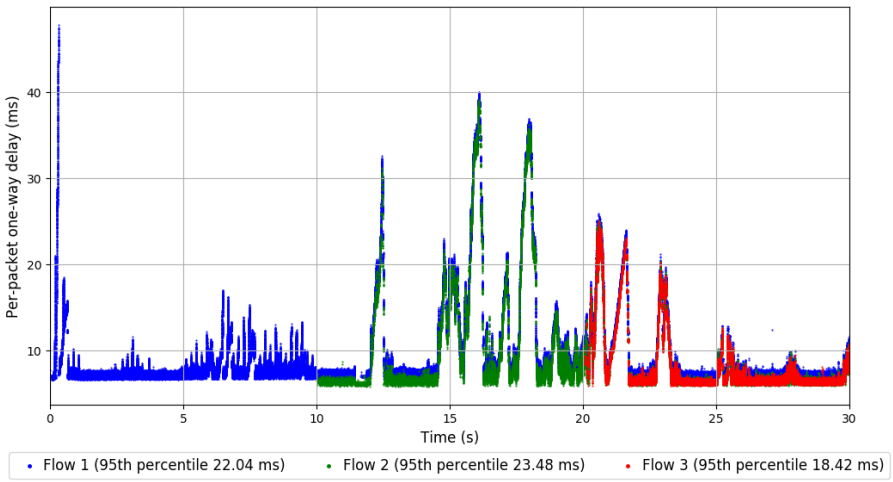
```
Run 2: Statistics of TCP BBR

Start at: 2018-08-22 02:59:38
End at: 2018-08-22 03:00:08
Local clock offset: 2.42 ms
Remote clock offset: -60.485 ms

# Below is generated by plot.py at 2018-08-22 05:45:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.05 Mbit/s
95th percentile per-packet one-way delay: 21.898 ms
Loss rate: 13.00%
-- Flow 1:
Average throughput: 55.13 Mbit/s
95th percentile per-packet one-way delay: 22.040 ms
Loss rate: 12.73%
-- Flow 2:
Average throughput: 28.96 Mbit/s
95th percentile per-packet one-way delay: 23.477 ms
Loss rate: 13.29%
-- Flow 3:
Average throughput: 28.96 Mbit/s
95th percentile per-packet one-way delay: 18.423 ms
Loss rate: 13.95%
```

Run 2: Report of TCP BBR — Data Link



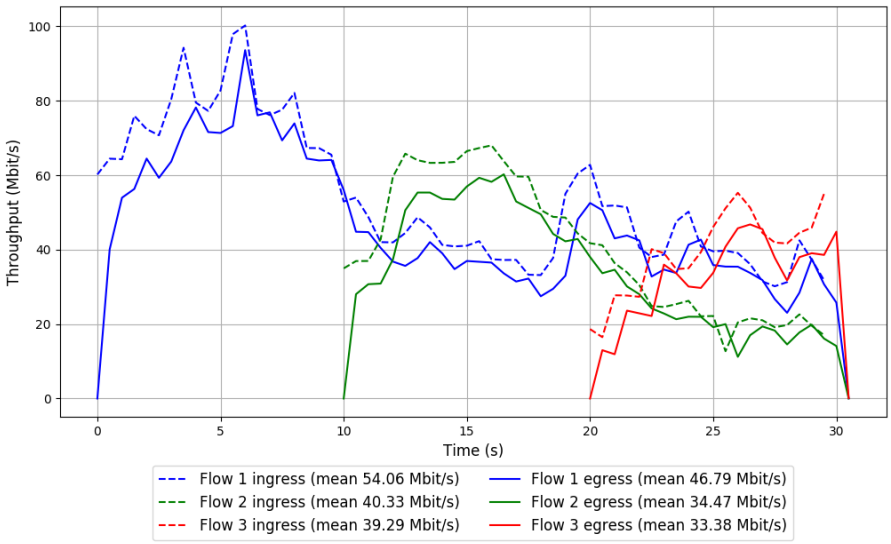


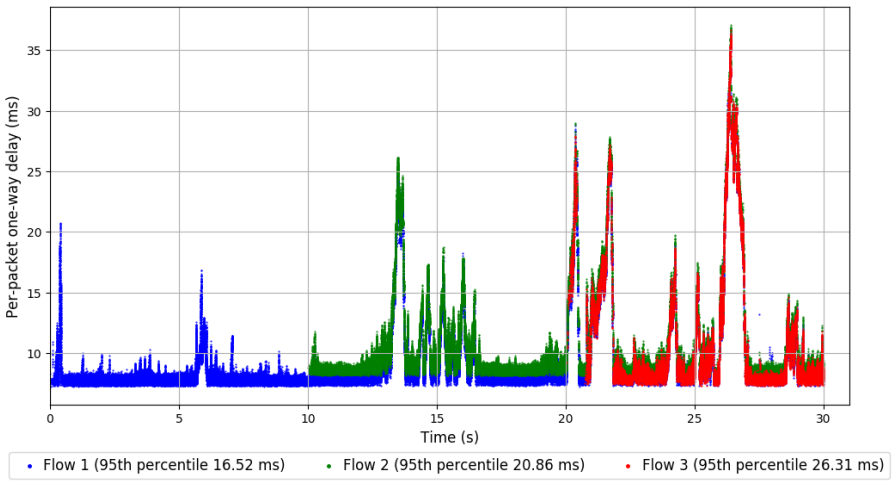
```
Run 3: Statistics of TCP BBR

Start at: 2018-08-22 03:19:10
End at: 2018-08-22 03:19:40
Local clock offset: -0.009 ms
Remote clock offset: -62.846 ms

# Below is generated by plot.py at 2018-08-22 05:45:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.85 Mbit/s
95th percentile per-packet one-way delay: 20.273 ms
Loss rate: 13.98%
-- Flow 1:
Average throughput: 46.79 Mbit/s
95th percentile per-packet one-way delay: 16.515 ms
Loss rate: 13.45%
-- Flow 2:
Average throughput: 34.47 Mbit/s
95th percentile per-packet one-way delay: 20.863 ms
Loss rate: 14.53%
-- Flow 3:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 26.313 ms
Loss rate: 15.03%
```

Run 3: Report of TCP BBR — Data Link



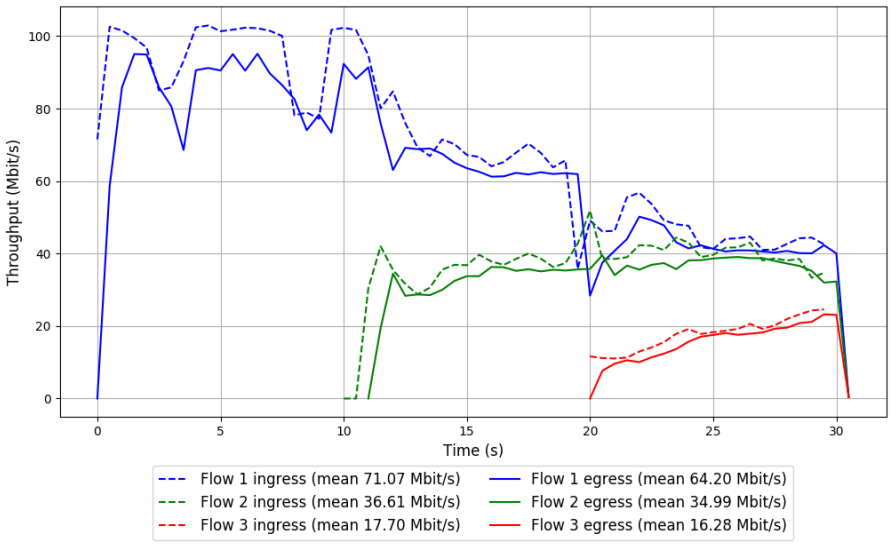


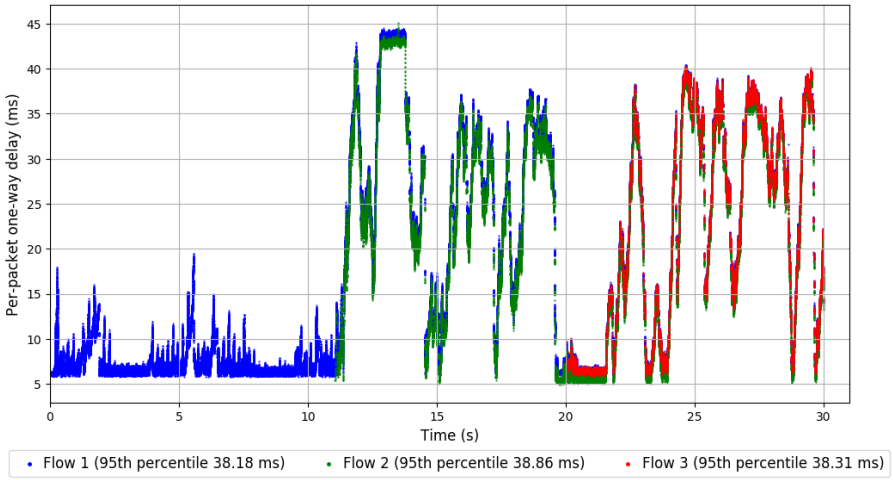
```
Run 4: Statistics of TCP BBR

Start at: 2018-08-22 03:38:49
End at: 2018-08-22 03:39:19
Local clock offset: 1.726 ms
Remote clock offset: -63.081 ms

# Below is generated by plot.py at 2018-08-22 05:46:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.75 Mbit/s
95th percentile per-packet one-way delay: 38.409 ms
Loss rate: 9.44%
-- Flow 1:
Average throughput: 64.20 Mbit/s
95th percentile per-packet one-way delay: 38.178 ms
Loss rate: 9.64%
-- Flow 2:
Average throughput: 34.99 Mbit/s
95th percentile per-packet one-way delay: 38.857 ms
Loss rate: 9.23%
-- Flow 3:
Average throughput: 16.28 Mbit/s
95th percentile per-packet one-way delay: 38.308 ms
Loss rate: 7.95%
```

Run 4: Report of TCP BBR — Data Link



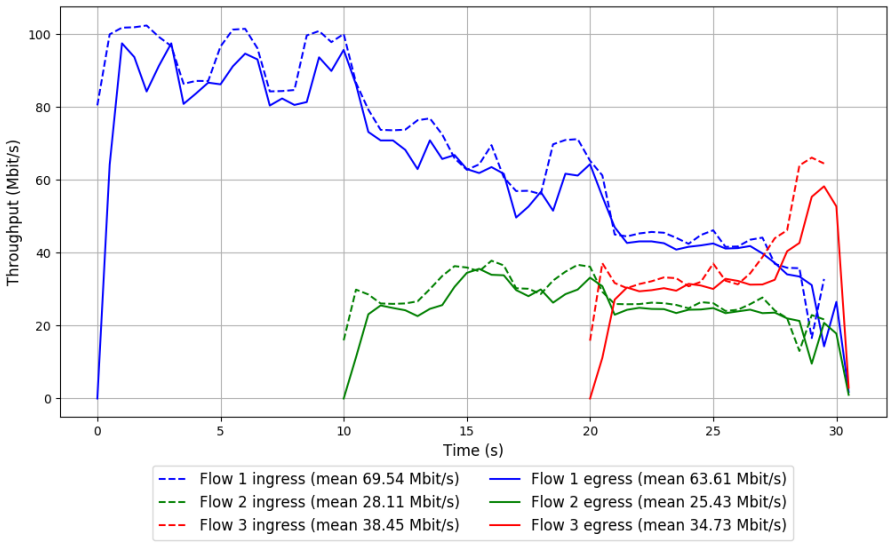


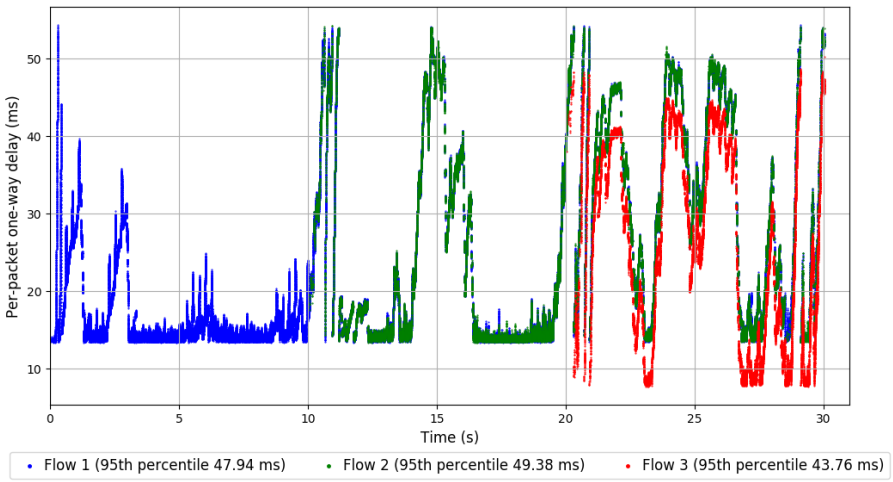
```
Run 5: Statistics of TCP BBR

Start at: 2018-08-22 03:58:40
End at: 2018-08-22 03:59:10
Local clock offset: 2.365 ms
Remote clock offset: -62.136 ms

# Below is generated by plot.py at 2018-08-22 05:46:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.10 Mbit/s
95th percentile per-packet one-way delay: 48.022 ms
Loss rate: 8.75%
-- Flow 1:
Average throughput: 63.61 Mbit/s
95th percentile per-packet one-way delay: 47.938 ms
Loss rate: 8.43%
-- Flow 2:
Average throughput: 25.43 Mbit/s
95th percentile per-packet one-way delay: 49.377 ms
Loss rate: 9.39%
-- Flow 3:
Average throughput: 34.73 Mbit/s
95th percentile per-packet one-way delay: 43.761 ms
Loss rate: 9.56%
```

Run 5: Report of TCP BBR — Data Link



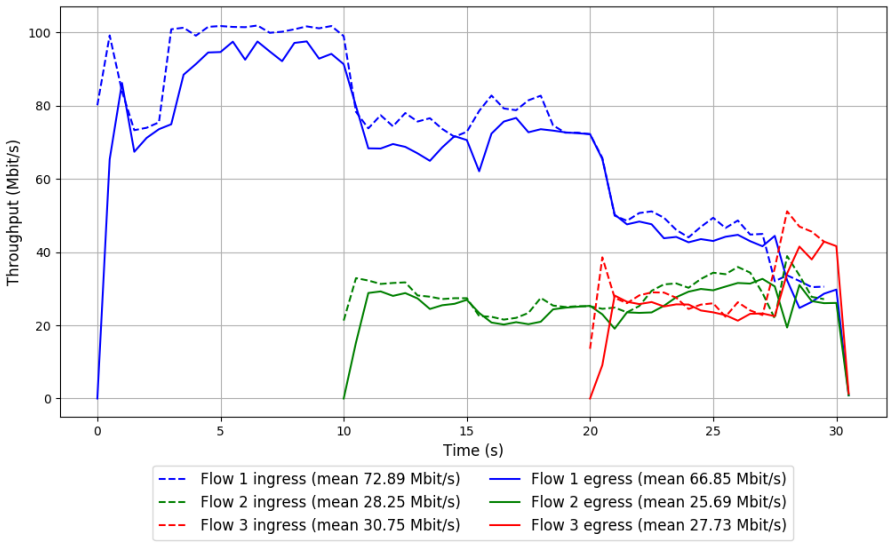


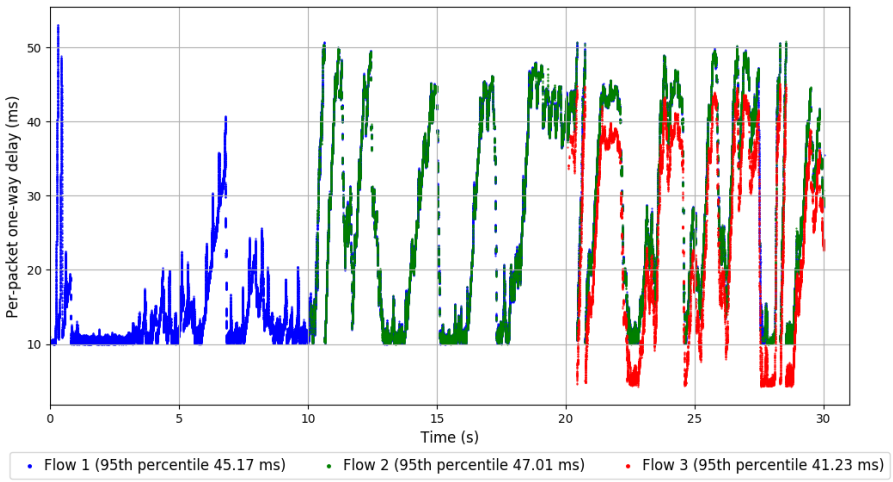
```
Run 6: Statistics of TCP BBR

Start at: 2018-08-22 04:18:10
End at: 2018-08-22 04:18:40
Local clock offset: 0.633 ms
Remote clock offset: -68.034 ms

# Below is generated by plot.py at 2018-08-22 05:46:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.17 Mbit/s
95th percentile per-packet one-way delay: 45.555 ms
Loss rate: 8.54%
-- Flow 1:
Average throughput: 66.85 Mbit/s
95th percentile per-packet one-way delay: 45.168 ms
Loss rate: 8.23%
-- Flow 2:
Average throughput: 25.69 Mbit/s
95th percentile per-packet one-way delay: 47.012 ms
Loss rate: 8.99%
-- Flow 3:
Average throughput: 27.73 Mbit/s
95th percentile per-packet one-way delay: 41.233 ms
Loss rate: 9.92%
```

Run 6: Report of TCP BBR — Data Link



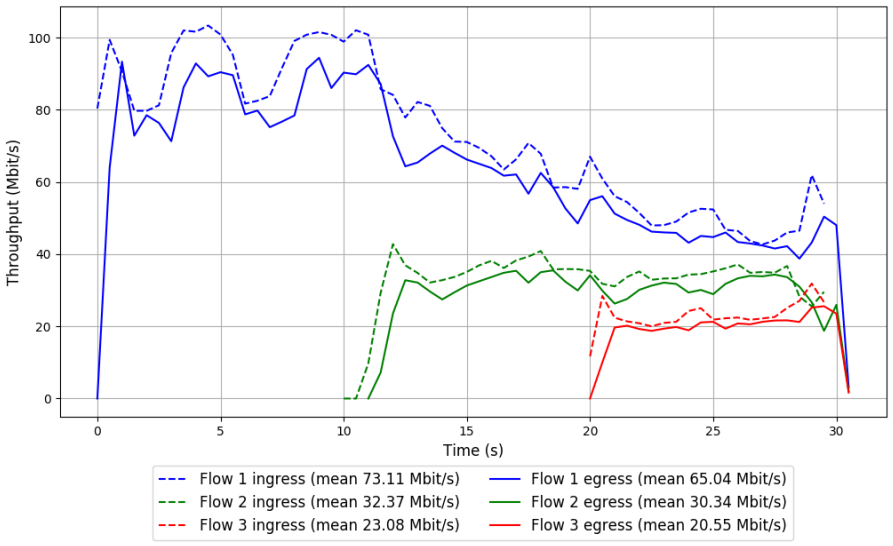


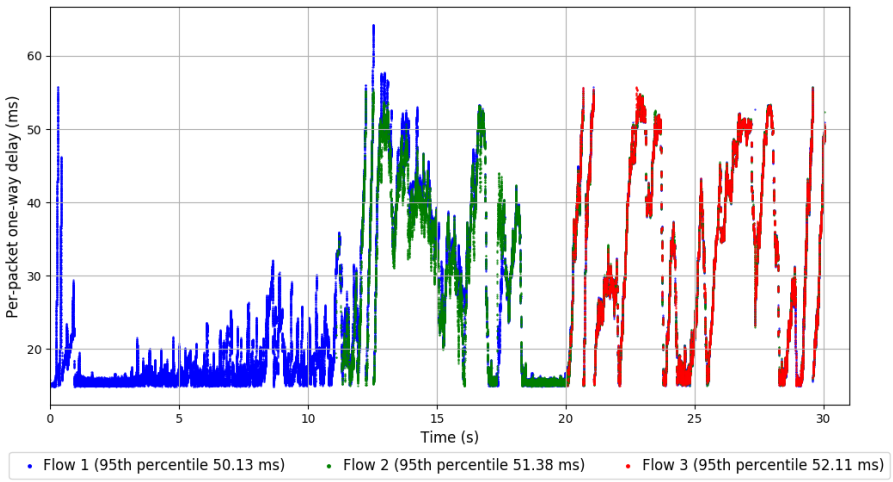
```
Run 7: Statistics of TCP BBR

Start at: 2018-08-22 04:37:47
End at: 2018-08-22 04:38:17
Local clock offset: 0.04 ms
Remote clock offset: -64.618 ms

# Below is generated by plot.py at 2018-08-22 05:46:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.06 Mbit/s
95th percentile per-packet one-way delay: 50.758 ms
Loss rate: 10.93%
-- Flow 1:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 50.134 ms
Loss rate: 10.95%
-- Flow 2:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 51.380 ms
Loss rate: 10.93%
-- Flow 3:
Average throughput: 20.55 Mbit/s
95th percentile per-packet one-way delay: 52.112 ms
Loss rate: 10.72%
```

Run 7: Report of TCP BBR — Data Link



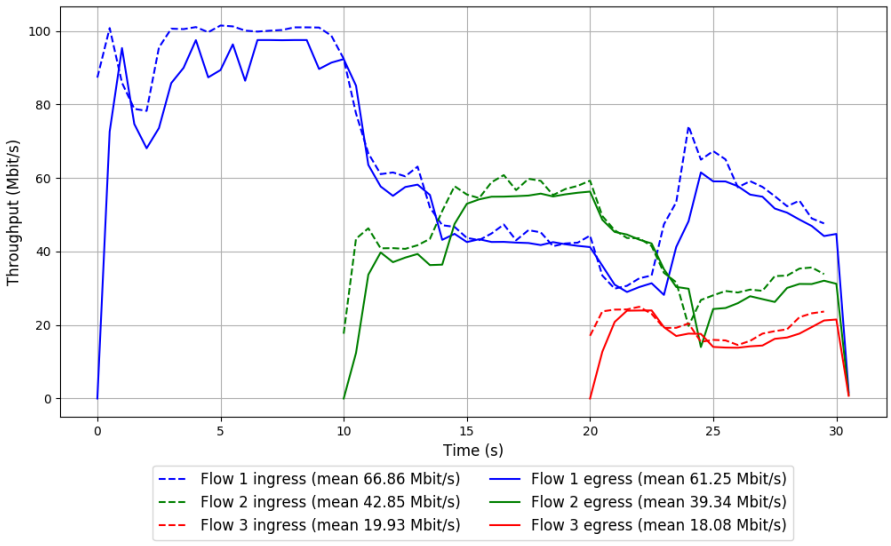


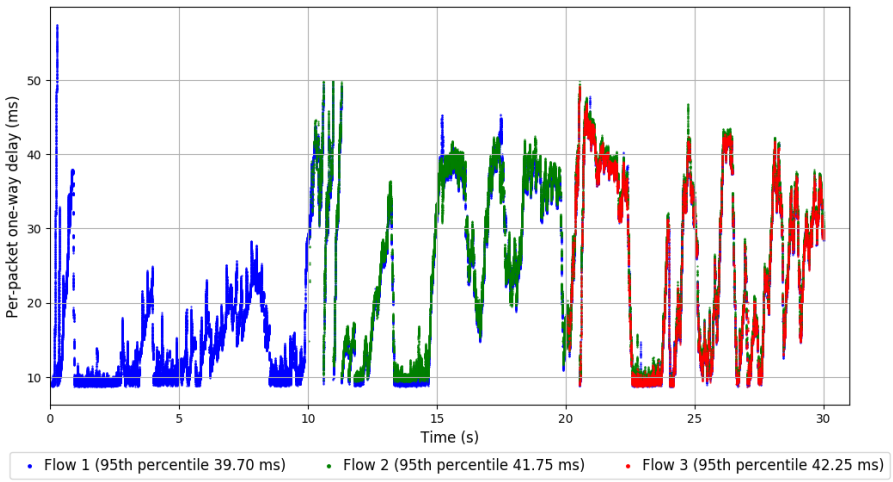
```
Run 8: Statistics of TCP BBR

Start at: 2018-08-22 04:57:17
End at: 2018-08-22 04:57:47
Local clock offset: 0.427 ms
Remote clock offset: -63.332 ms

# Below is generated by plot.py at 2018-08-22 05:46:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.47 Mbit/s
95th percentile per-packet one-way delay: 40.764 ms
Loss rate: 8.33%
-- Flow 1:
Average throughput: 61.25 Mbit/s
95th percentile per-packet one-way delay: 39.695 ms
Loss rate: 8.33%
-- Flow 2:
Average throughput: 39.34 Mbit/s
95th percentile per-packet one-way delay: 41.748 ms
Loss rate: 8.13%
-- Flow 3:
Average throughput: 18.08 Mbit/s
95th percentile per-packet one-way delay: 42.249 ms
Loss rate: 9.18%
```

Run 8: Report of TCP BBR — Data Link



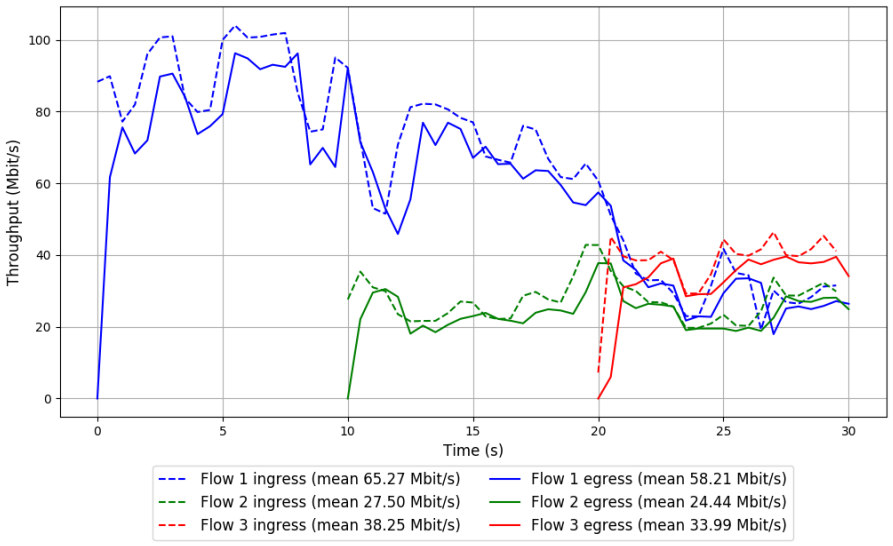


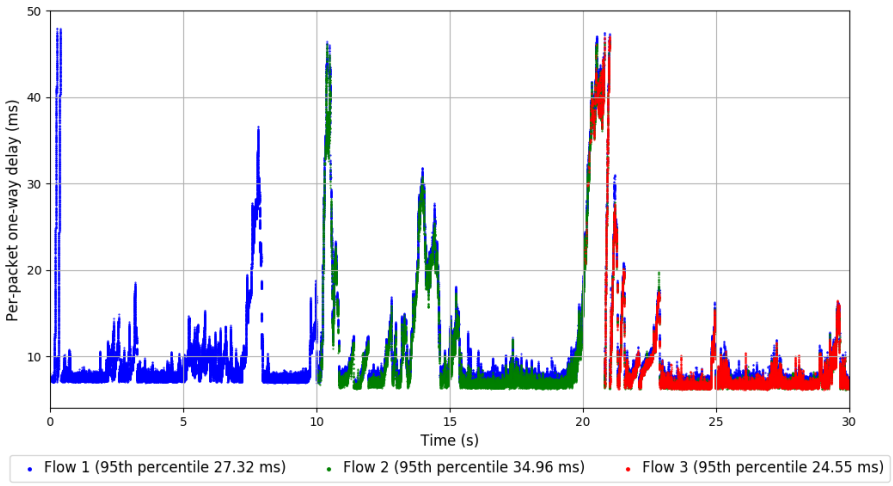
```
Run 9: Statistics of TCP BBR

Start at: 2018-08-22 05:16:57
End at: 2018-08-22 05:17:27
Local clock offset: 1.52 ms
Remote clock offset: -63.176 ms

# Below is generated by plot.py at 2018-08-22 05:46:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.76 Mbit/s
95th percentile per-packet one-way delay: 27.817 ms
Loss rate: 10.94%
-- Flow 1:
Average throughput: 58.21 Mbit/s
95th percentile per-packet one-way delay: 27.316 ms
Loss rate: 10.82%
-- Flow 2:
Average throughput: 24.44 Mbit/s
95th percentile per-packet one-way delay: 34.957 ms
Loss rate: 11.16%
-- Flow 3:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 24.549 ms
Loss rate: 11.27%
```

Run 9: Report of TCP BBR — Data Link



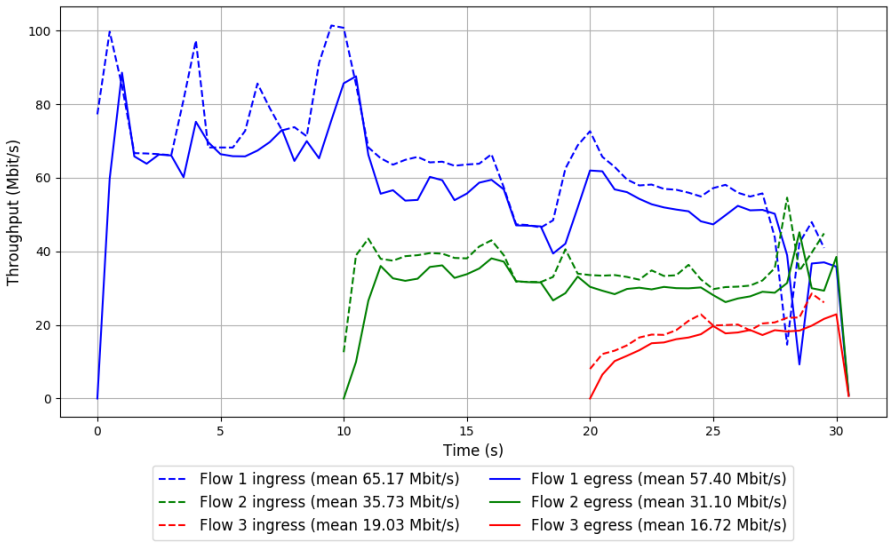


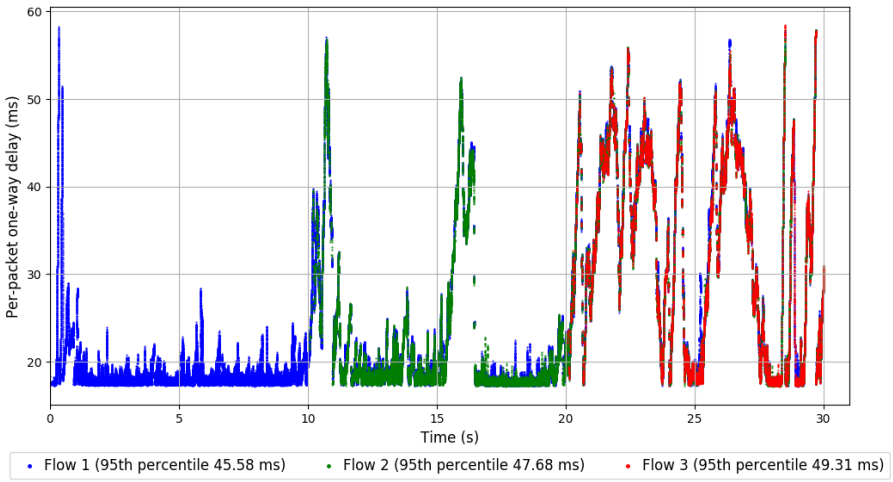
```
Run 10: Statistics of TCP BBR

Start at: 2018-08-22 05:36:37
End at: 2018-08-22 05:37:07
Local clock offset: -0.183 ms
Remote clock offset: -59.49 ms

# Below is generated by plot.py at 2018-08-22 05:46:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.68 Mbit/s
95th percentile per-packet one-way delay: 46.748 ms
Loss rate: 12.18%
-- Flow 1:
Average throughput: 57.40 Mbit/s
95th percentile per-packet one-way delay: 45.579 ms
Loss rate: 11.91%
-- Flow 2:
Average throughput: 31.10 Mbit/s
95th percentile per-packet one-way delay: 47.681 ms
Loss rate: 12.95%
-- Flow 3:
Average throughput: 16.72 Mbit/s
95th percentile per-packet one-way delay: 49.314 ms
Loss rate: 12.16%
```

Run 10: Report of TCP BBR — Data Link



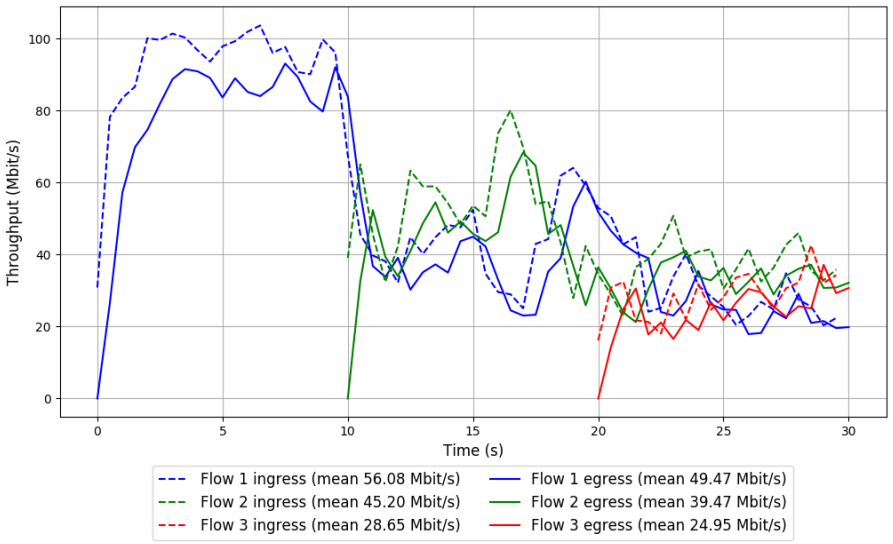


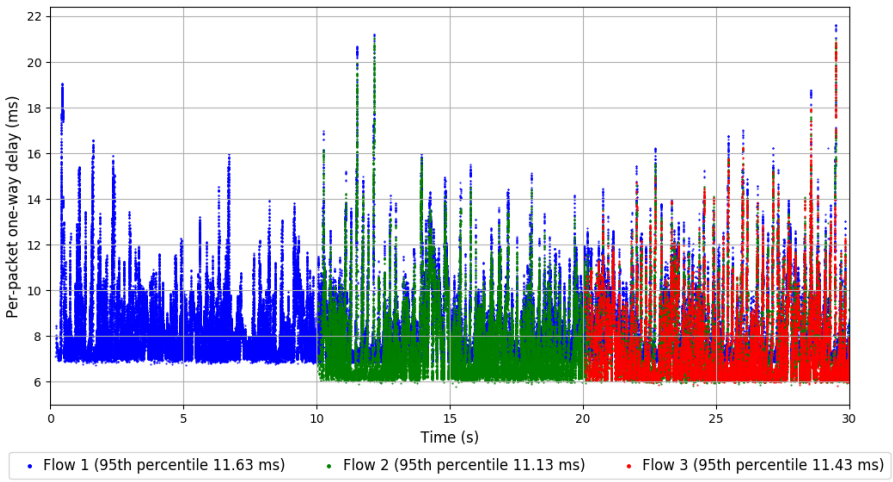
```
Run 1: Statistics of Copa

Start at: 2018-08-22 02:38:55
End at: 2018-08-22 02:39:25
Local clock offset: 3.503 ms
Remote clock offset: -60.217 ms

# Below is generated by plot.py at 2018-08-22 05:47:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.29 Mbit/s
95th percentile per-packet one-way delay: 11.481 ms
Loss rate: 12.52%
-- Flow 1:
Average throughput: 49.47 Mbit/s
95th percentile per-packet one-way delay: 11.626 ms
Loss rate: 12.37%
-- Flow 2:
Average throughput: 39.47 Mbit/s
95th percentile per-packet one-way delay: 11.133 ms
Loss rate: 12.68%
-- Flow 3:
Average throughput: 24.95 Mbit/s
95th percentile per-packet one-way delay: 11.428 ms
Loss rate: 12.96%
```

Run 1: Report of Copa — Data Link



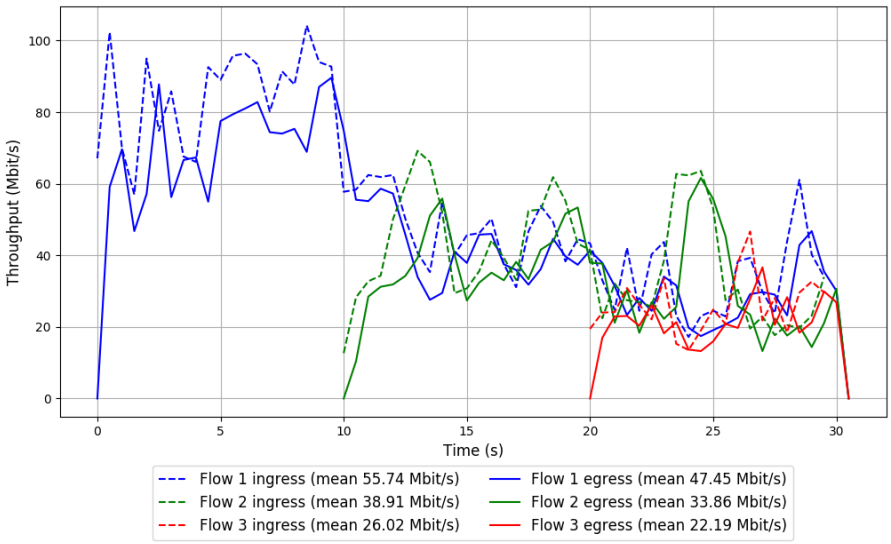


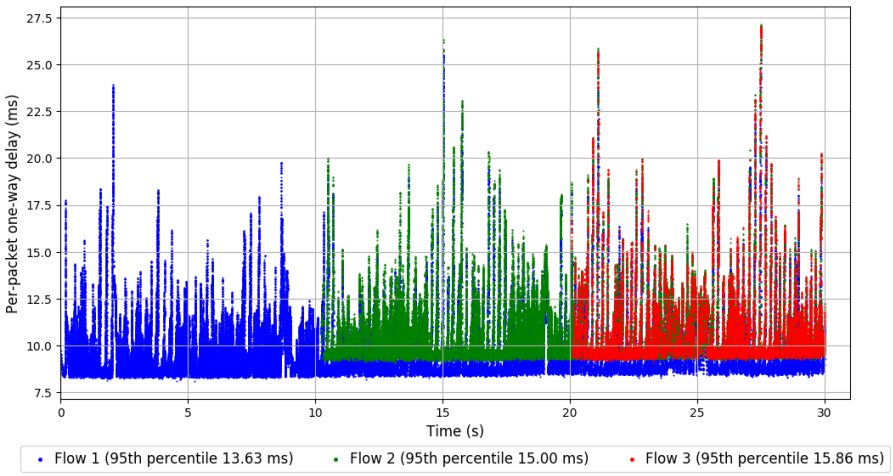
```
Run 2: Statistics of Copa

Start at: 2018-08-22 02:58:26
End at: 2018-08-22 02:58:56
Local clock offset: -0.017 ms
Remote clock offset: -60.065 ms

# Below is generated by plot.py at 2018-08-22 05:47:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.15 Mbit/s
95th percentile per-packet one-way delay: 14.327 ms
Loss rate: 14.57%
-- Flow 1:
Average throughput: 47.45 Mbit/s
95th percentile per-packet one-way delay: 13.628 ms
Loss rate: 14.88%
-- Flow 2:
Average throughput: 33.86 Mbit/s
95th percentile per-packet one-way delay: 15.000 ms
Loss rate: 13.84%
-- Flow 3:
Average throughput: 22.19 Mbit/s
95th percentile per-packet one-way delay: 15.856 ms
Loss rate: 14.73%
```

Run 2: Report of Copa — Data Link



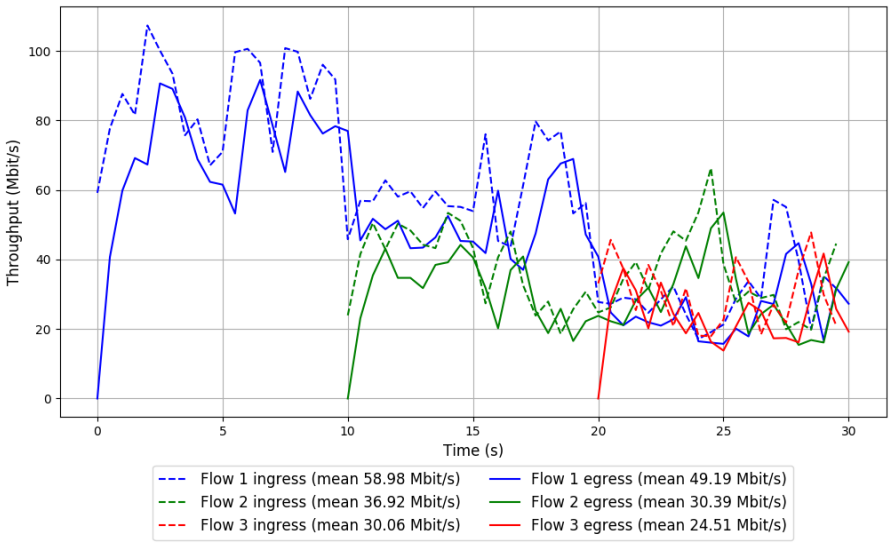


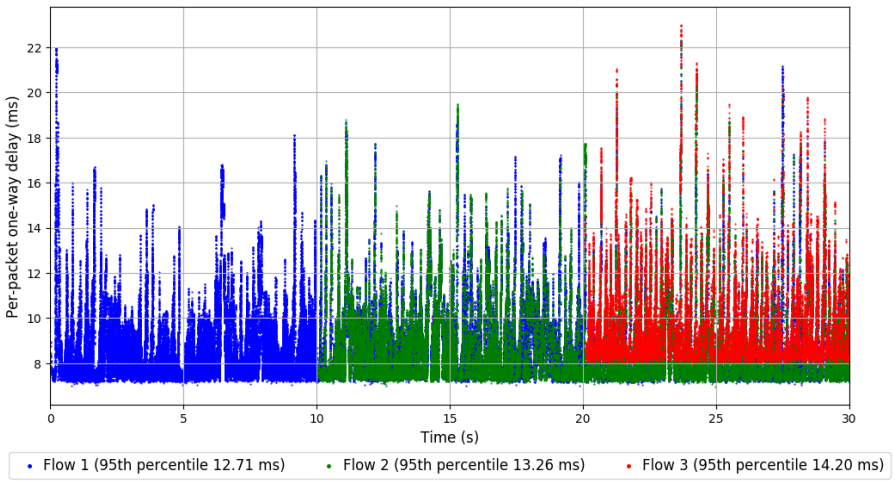
```
Run 3: Statistics of Copa

Start at: 2018-08-22 03:17:57
End at: 2018-08-22 03:18:27
Local clock offset: -0.38 ms
Remote clock offset: -63.375 ms

# Below is generated by plot.py at 2018-08-22 05:47:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.58 Mbit/s
95th percentile per-packet one-way delay: 13.054 ms
Loss rate: 17.09%
-- Flow 1:
Average throughput: 49.19 Mbit/s
95th percentile per-packet one-way delay: 12.712 ms
Loss rate: 16.60%
-- Flow 2:
Average throughput: 30.39 Mbit/s
95th percentile per-packet one-way delay: 13.260 ms
Loss rate: 17.70%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 14.197 ms
Loss rate: 18.47%
```

Run 3: Report of Copa — Data Link



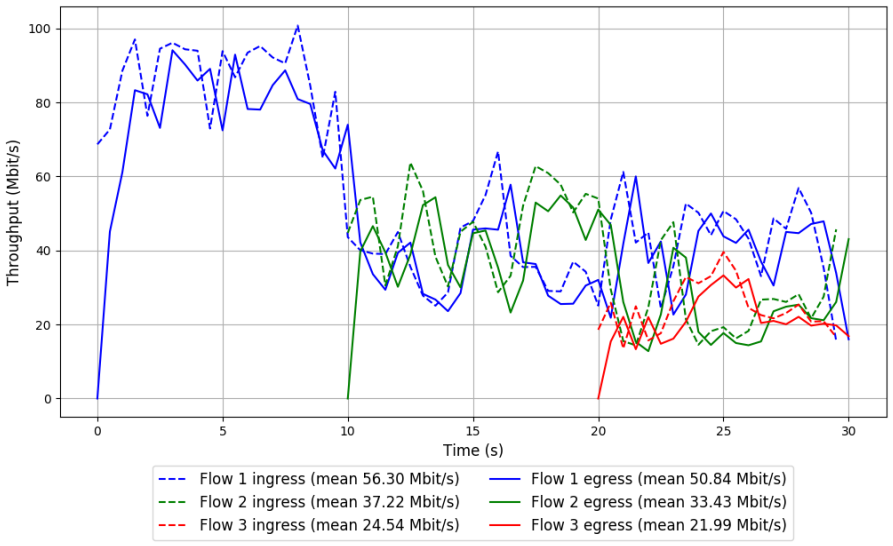


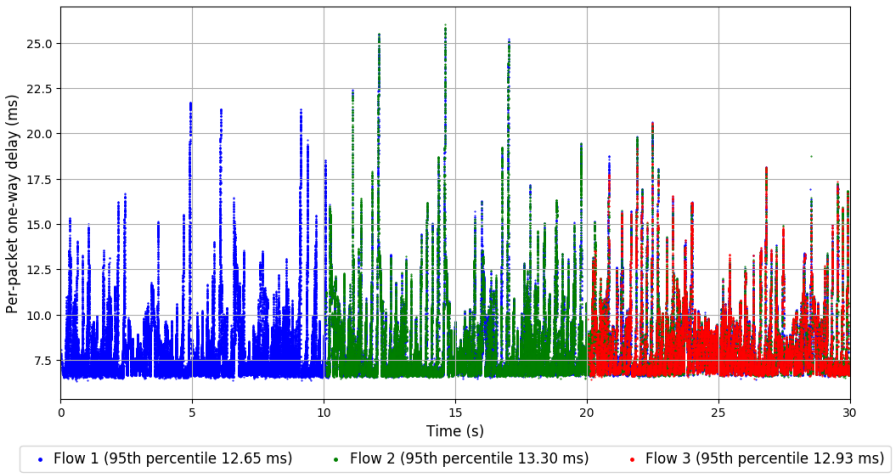
```
Run 4: Statistics of Copa

Start at: 2018-08-22 03:37:37
End at: 2018-08-22 03:38:07
Local clock offset: 0.887 ms
Remote clock offset: -63.009 ms

# Below is generated by plot.py at 2018-08-22 05:47:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.42 Mbit/s
95th percentile per-packet one-way delay: 12.871 ms
Loss rate: 9.90%
-- Flow 1:
Average throughput: 50.84 Mbit/s
95th percentile per-packet one-way delay: 12.647 ms
Loss rate: 9.70%
-- Flow 2:
Average throughput: 33.43 Mbit/s
95th percentile per-packet one-way delay: 13.297 ms
Loss rate: 10.19%
-- Flow 3:
Average throughput: 21.99 Mbit/s
95th percentile per-packet one-way delay: 12.931 ms
Loss rate: 10.40%
```

Run 4: Report of Copa — Data Link



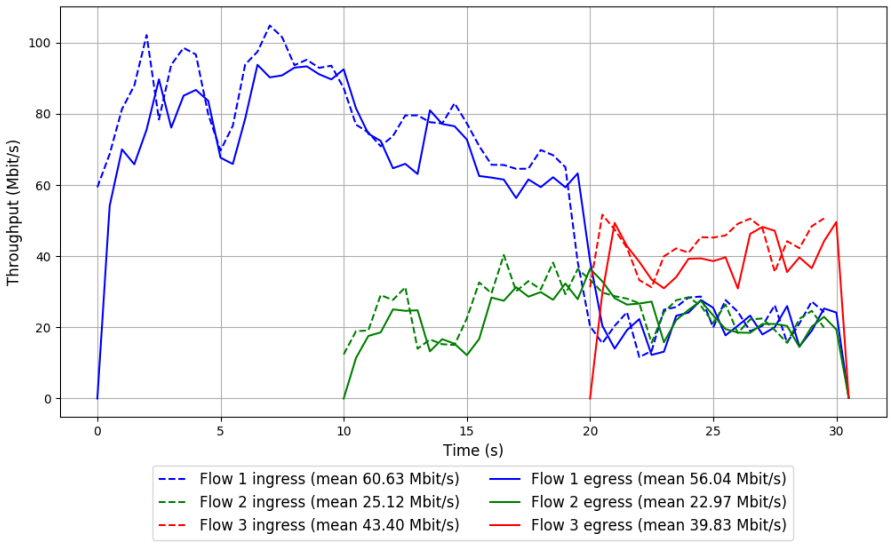


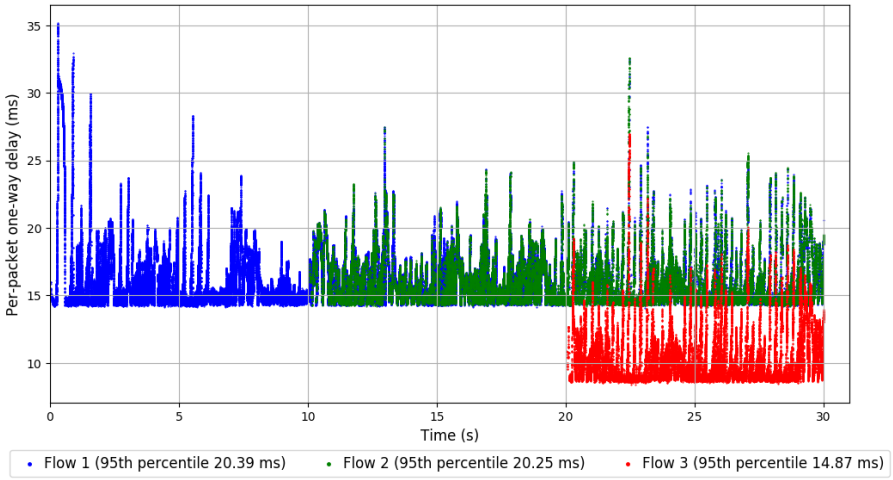
```
Run 5: Statistics of Copa

Start at: 2018-08-22 03:57:27
End at: 2018-08-22 03:57:57
Local clock offset: 1.696 ms
Remote clock offset: -61.871 ms

# Below is generated by plot.py at 2018-08-22 05:47:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.58 Mbit/s
95th percentile per-packet one-way delay: 19.996 ms
Loss rate: 7.85%
-- Flow 1:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 20.394 ms
Loss rate: 7.57%
-- Flow 2:
Average throughput: 22.97 Mbit/s
95th percentile per-packet one-way delay: 20.247 ms
Loss rate: 8.58%
-- Flow 3:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 14.868 ms
Loss rate: 8.20%
```

Run 5: Report of Copa — Data Link



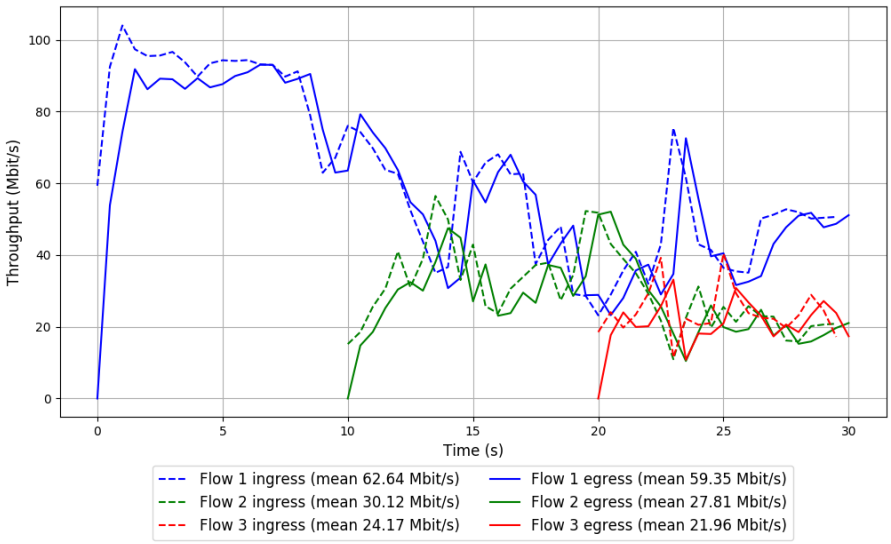


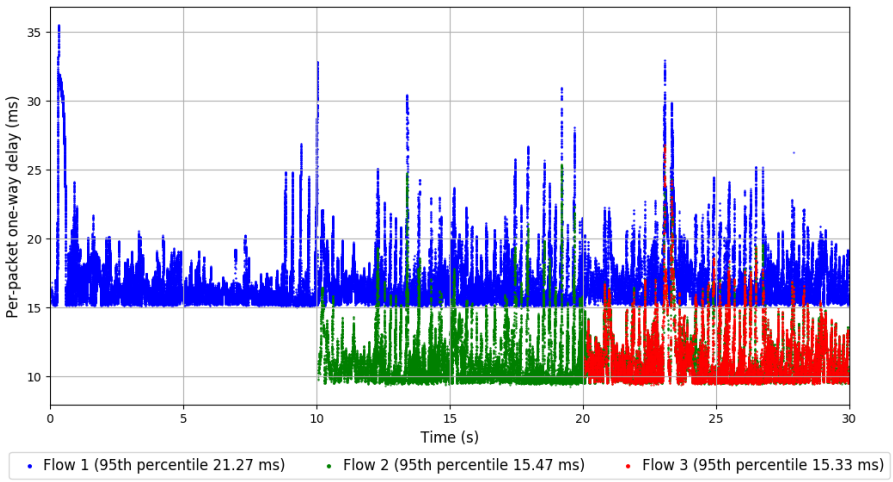
```
Run 6: Statistics of Copa

Start at: 2018-08-22 04:16:58
End at: 2018-08-22 04:17:28
Local clock offset: 0.396 ms
Remote clock offset: -63.058 ms

# Below is generated by plot.py at 2018-08-22 05:47:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.17 Mbit/s
95th percentile per-packet one-way delay: 20.247 ms
Loss rate: 6.15%
-- Flow 1:
Average throughput: 59.35 Mbit/s
95th percentile per-packet one-way delay: 21.270 ms
Loss rate: 5.26%
-- Flow 2:
Average throughput: 27.81 Mbit/s
95th percentile per-packet one-way delay: 15.474 ms
Loss rate: 7.71%
-- Flow 3:
Average throughput: 21.96 Mbit/s
95th percentile per-packet one-way delay: 15.328 ms
Loss rate: 9.18%
```

Run 6: Report of Copa — Data Link



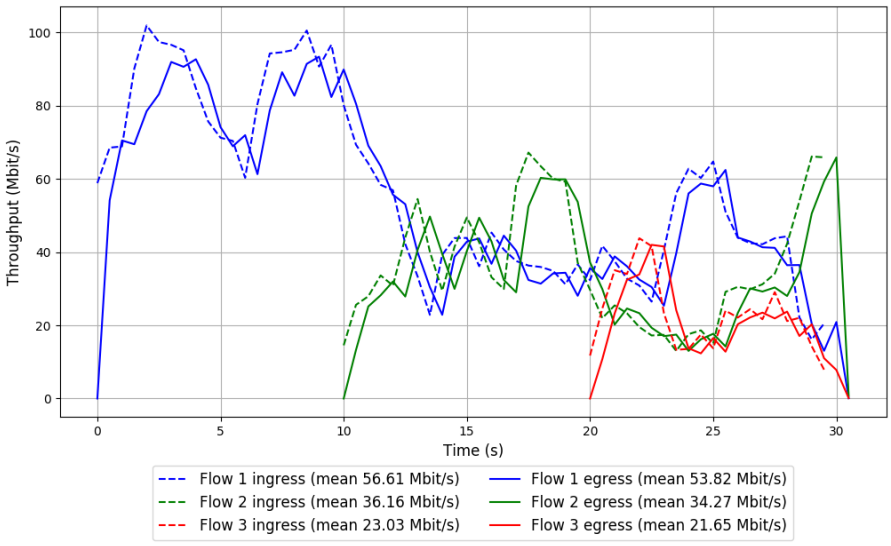


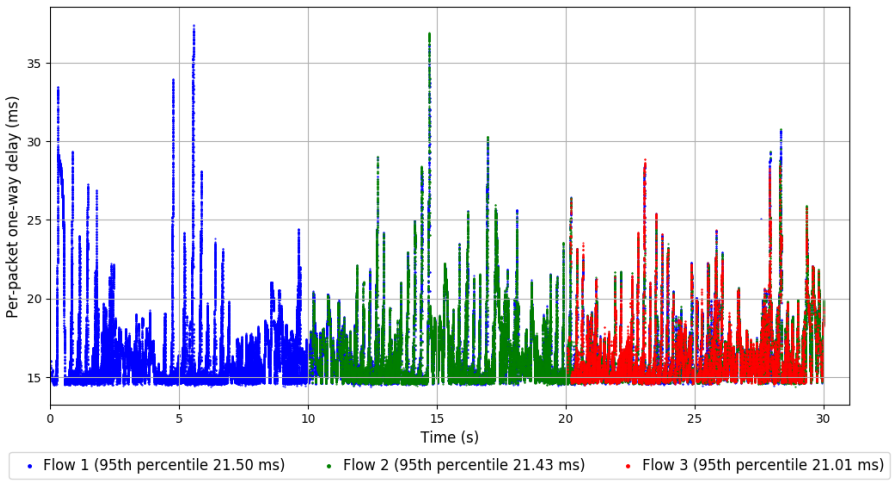
```
Run 7: Statistics of Copa

Start at: 2018-08-22 04:36:35
End at: 2018-08-22 04:37:05
Local clock offset: 0.354 ms
Remote clock offset: -64.512 ms

# Below is generated by plot.py at 2018-08-22 05:48:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.83 Mbit/s
95th percentile per-packet one-way delay: 21.434 ms
Loss rate: 5.12%
-- Flow 1:
Average throughput: 53.82 Mbit/s
95th percentile per-packet one-way delay: 21.502 ms
Loss rate: 4.94%
-- Flow 2:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 21.429 ms
Loss rate: 5.25%
-- Flow 3:
Average throughput: 21.65 Mbit/s
95th percentile per-packet one-way delay: 21.010 ms
Loss rate: 6.03%
```

Run 7: Report of Copa — Data Link



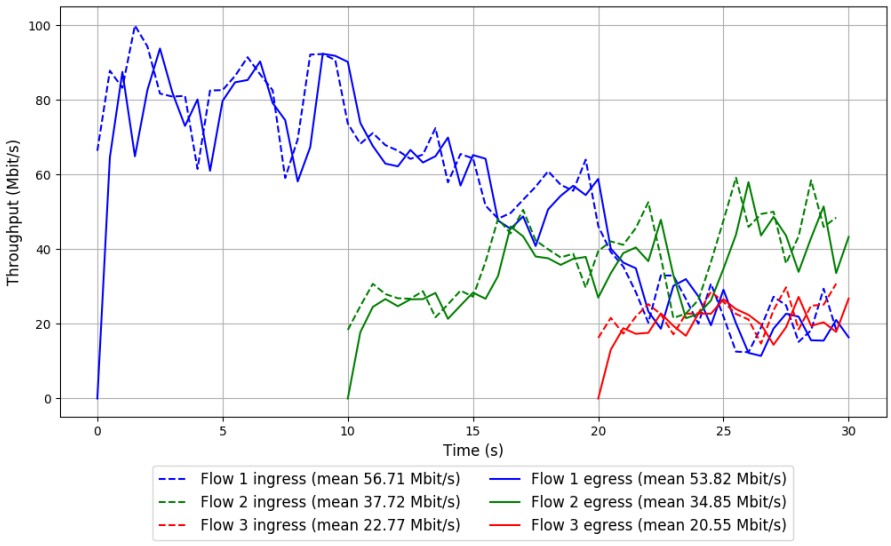


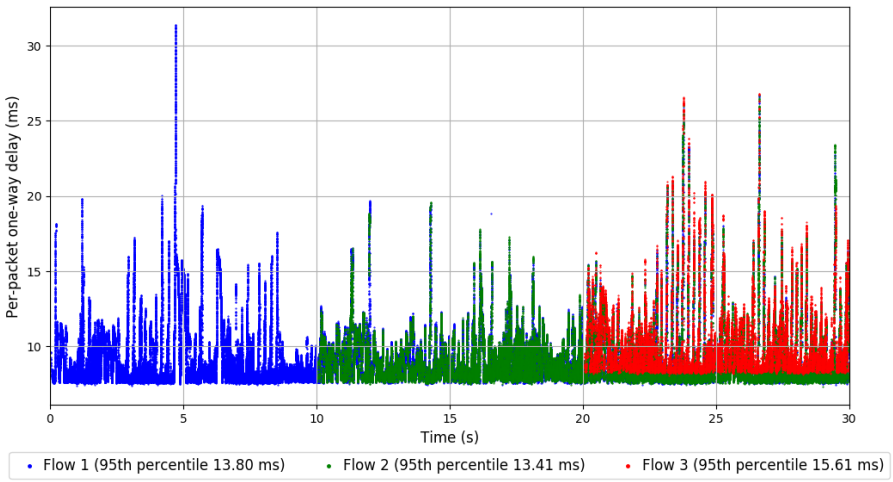
```
Run 8: Statistics of Copa

Start at: 2018-08-22 04:56:03
End at: 2018-08-22 04:56:33
Local clock offset: 2.671 ms
Remote clock offset: -62.315 ms

# Below is generated by plot.py at 2018-08-22 05:48:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.86 Mbit/s
95th percentile per-packet one-way delay: 13.923 ms
Loss rate: 6.20%
-- Flow 1:
Average throughput: 53.82 Mbit/s
95th percentile per-packet one-way delay: 13.801 ms
Loss rate: 5.10%
-- Flow 2:
Average throughput: 34.85 Mbit/s
95th percentile per-packet one-way delay: 13.414 ms
Loss rate: 7.62%
-- Flow 3:
Average throughput: 20.55 Mbit/s
95th percentile per-packet one-way delay: 15.613 ms
Loss rate: 9.72%
```

Run 8: Report of Copa — Data Link



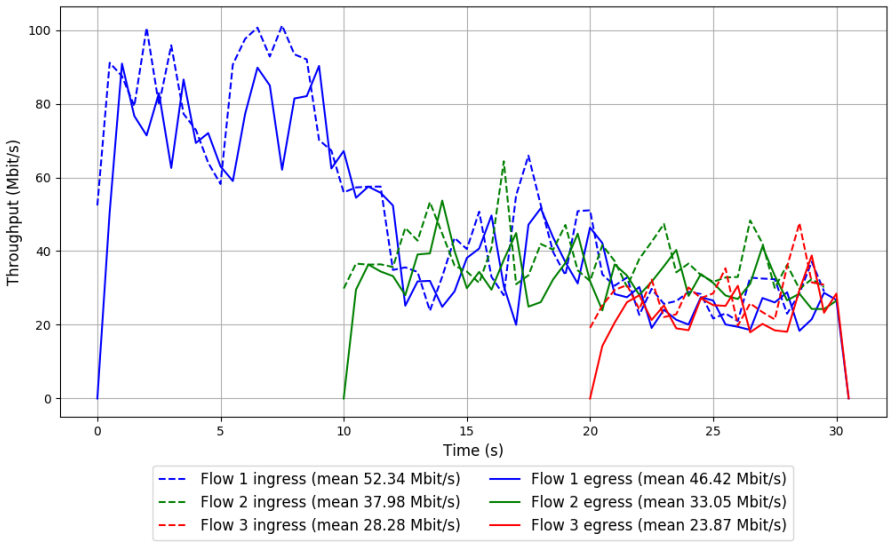


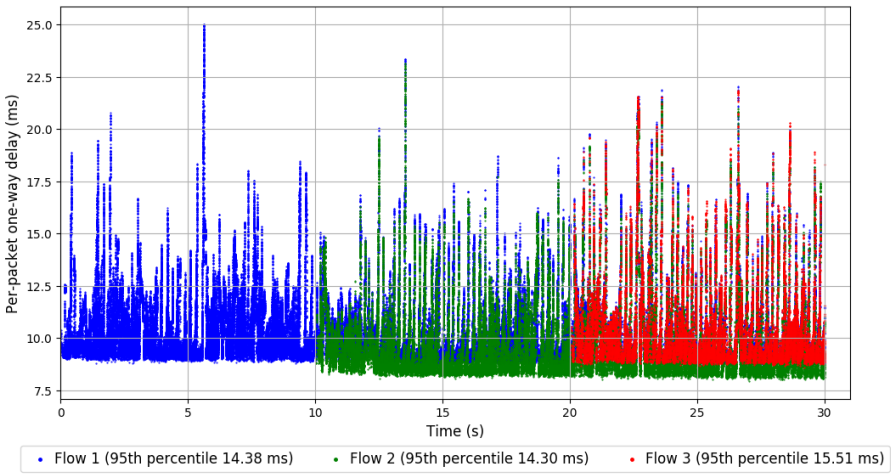
```
Run 9: Statistics of Copa

Start at: 2018-08-22 05:15:44
End at: 2018-08-22 05:16:14
Local clock offset: -0.129 ms
Remote clock offset: -63.503 ms

# Below is generated by plot.py at 2018-08-22 05:49:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.36 Mbit/s
95th percentile per-packet one-way delay: 14.472 ms
Loss rate: 12.25%
-- Flow 1:
Average throughput: 46.42 Mbit/s
95th percentile per-packet one-way delay: 14.379 ms
Loss rate: 11.31%
-- Flow 2:
Average throughput: 33.05 Mbit/s
95th percentile per-packet one-way delay: 14.303 ms
Loss rate: 12.99%
-- Flow 3:
Average throughput: 23.87 Mbit/s
95th percentile per-packet one-way delay: 15.514 ms
Loss rate: 15.52%
```

Run 9: Report of Copa — Data Link



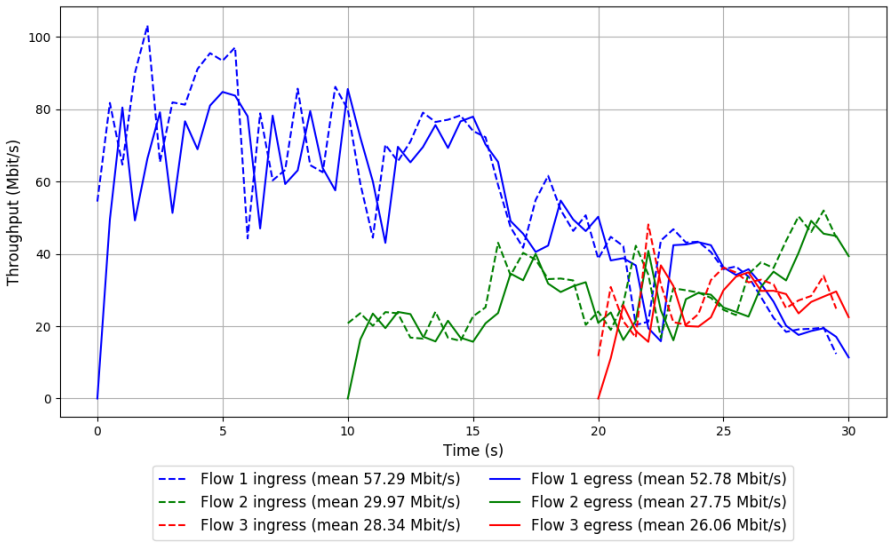


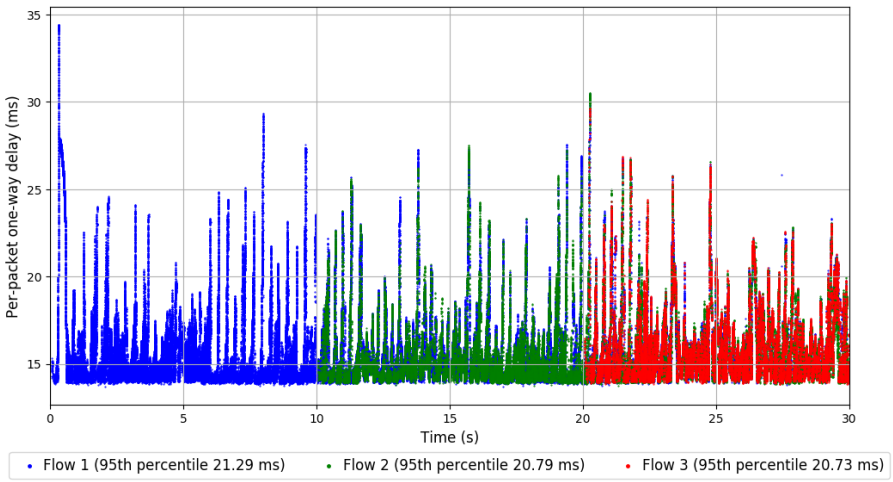
```
Run 10: Statistics of Copa

Start at: 2018-08-22 05:35:23
End at: 2018-08-22 05:35:53
Local clock offset: 2.516 ms
Remote clock offset: -60.274 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.92 Mbit/s
95th percentile per-packet one-way delay: 21.078 ms
Loss rate: 7.82%
-- Flow 1:
Average throughput: 52.78 Mbit/s
95th percentile per-packet one-way delay: 21.286 ms
Loss rate: 7.90%
-- Flow 2:
Average throughput: 27.75 Mbit/s
95th percentile per-packet one-way delay: 20.786 ms
Loss rate: 7.44%
-- Flow 3:
Average throughput: 26.06 Mbit/s
95th percentile per-packet one-way delay: 20.735 ms
Loss rate: 8.12%
```

Run 10: Report of Copa — Data Link



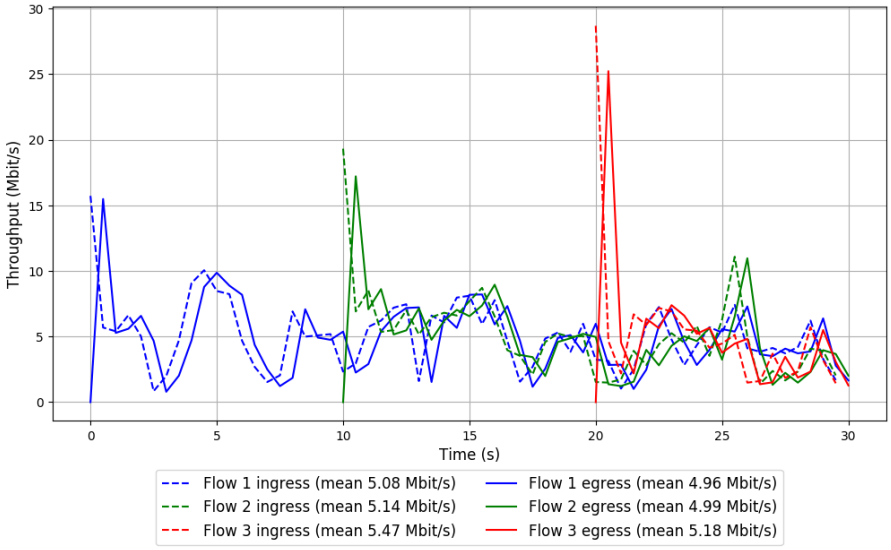


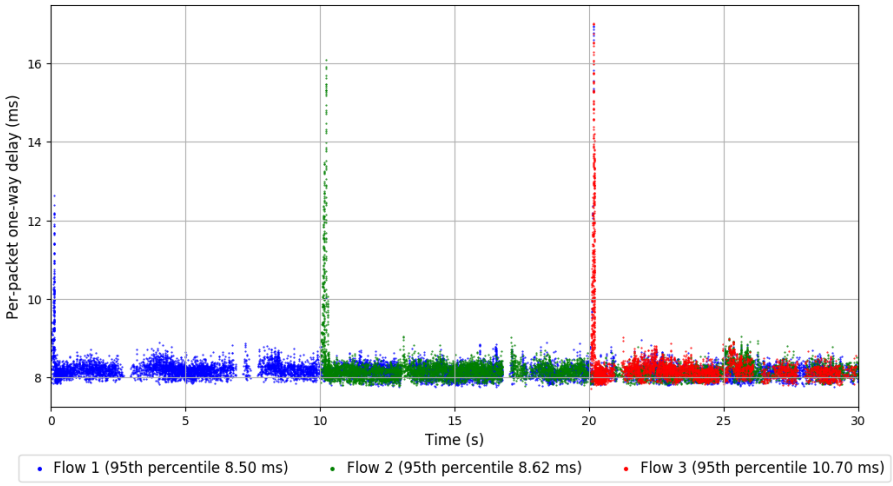
```
Run 1: Statistics of TCP Cubic

Start at: 2018-08-22 02:27:39
End at: 2018-08-22 02:28:09
Local clock offset: 1.691 ms
Remote clock offset: -62.176 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 8.609 ms
Loss rate: 3.11%
-- Flow 1:
Average throughput: 4.96 Mbit/s
95th percentile per-packet one-way delay: 8.498 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 8.624 ms
Loss rate: 2.96%
-- Flow 3:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 10.702 ms
Loss rate: 5.56%
```

Run 1: Report of TCP Cubic — Data Link



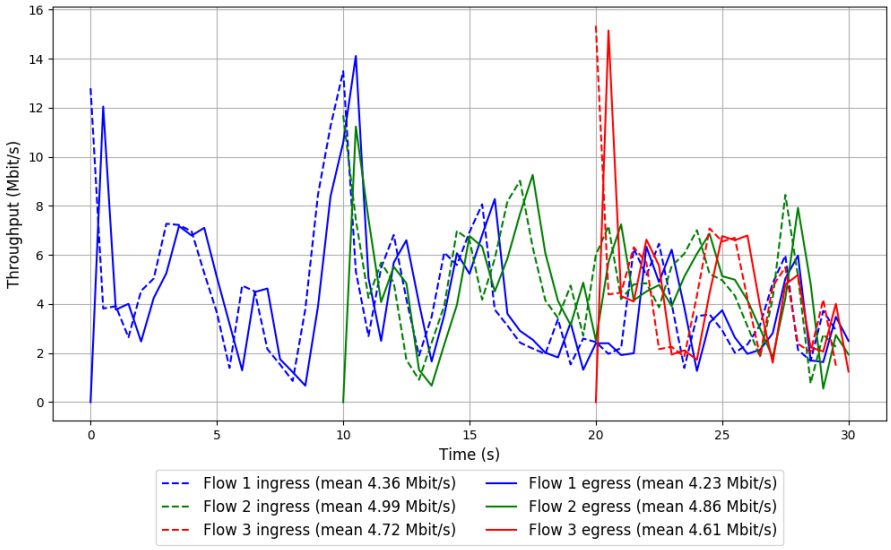


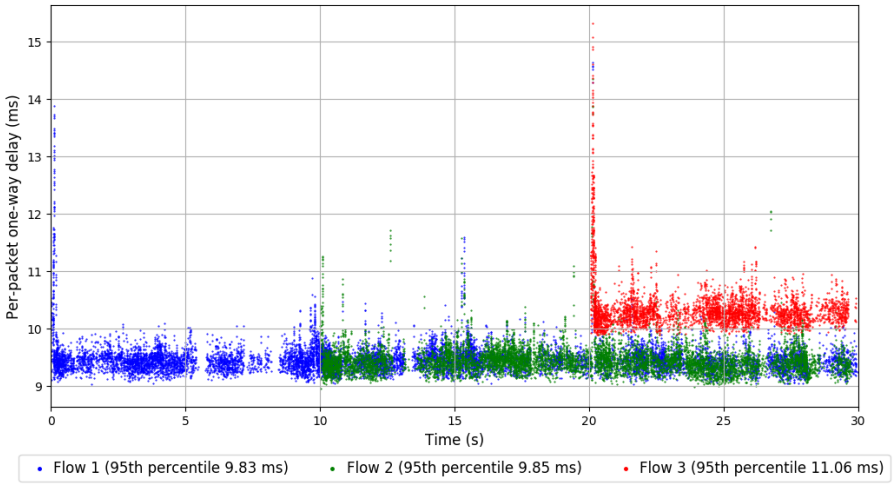
```
Run 2: Statistics of TCP Cubic

Start at: 2018-08-22 02:47:01
End at: 2018-08-22 02:47:31
Local clock offset: 0.462 ms
Remote clock offset: -59.429 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.95 Mbit/s
95th percentile per-packet one-way delay: 10.420 ms
Loss rate: 2.90%
-- Flow 1:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 9.832 ms
Loss rate: 3.16%
-- Flow 2:
Average throughput: 4.86 Mbit/s
95th percentile per-packet one-way delay: 9.853 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 11.059 ms
Loss rate: 2.49%
```

Run 2: Report of TCP Cubic — Data Link



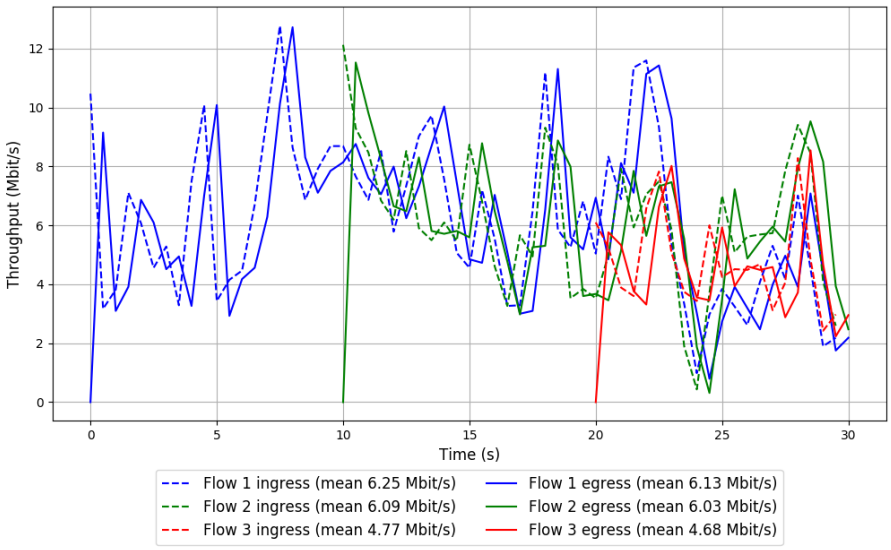


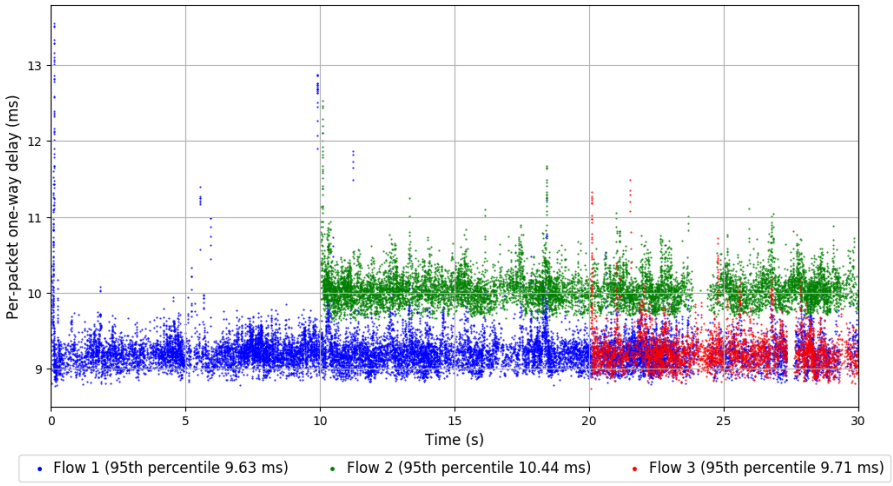
```
Run 3: Statistics of TCP Cubic

Start at: 2018-08-22 03:06:32
End at: 2018-08-22 03:07:02
Local clock offset: -0.008 ms
Remote clock offset: -61.543 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 10.276 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 6.13 Mbit/s
95th percentile per-packet one-way delay: 9.629 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 10.440 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 9.714 ms
Loss rate: 1.94%
```

Run 3: Report of TCP Cubic — Data Link



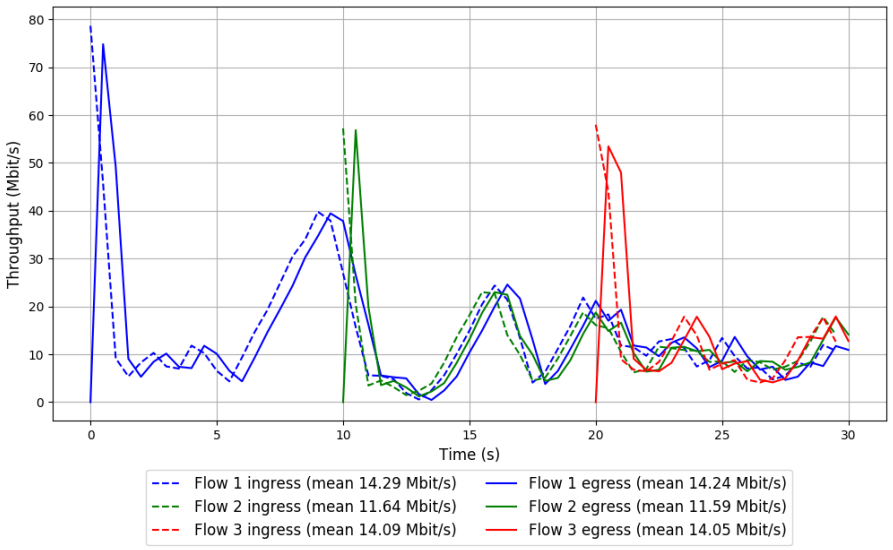


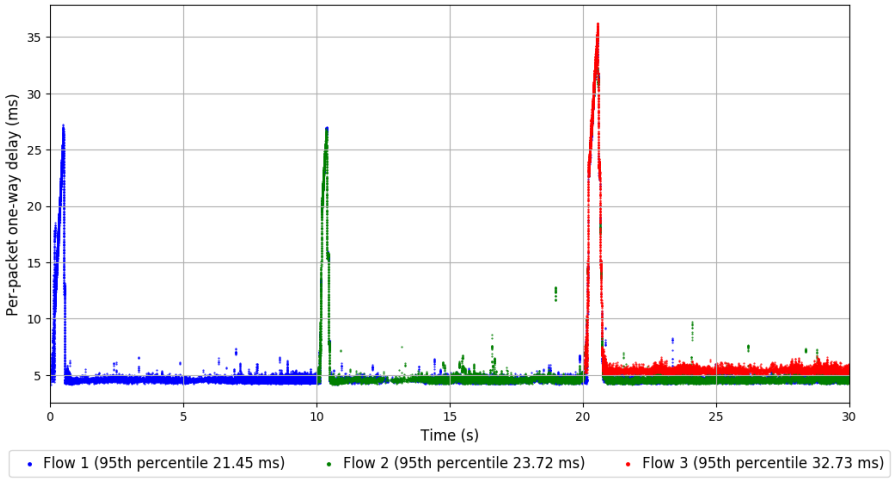
```
Run 4: Statistics of TCP Cubic

Start at: 2018-08-22 03:26:14
End at: 2018-08-22 03:26:44
Local clock offset: 2.415 ms
Remote clock offset: -63.531 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.63 Mbit/s
95th percentile per-packet one-way delay: 25.115 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 14.24 Mbit/s
95th percentile per-packet one-way delay: 21.451 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 11.59 Mbit/s
95th percentile per-packet one-way delay: 23.717 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 14.05 Mbit/s
95th percentile per-packet one-way delay: 32.732 ms
Loss rate: 0.28%
```

Run 4: Report of TCP Cubic — Data Link



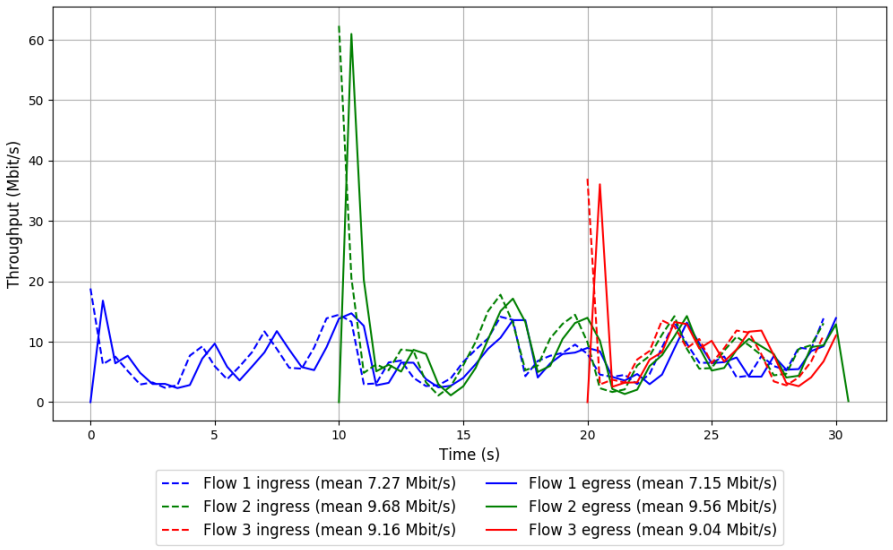


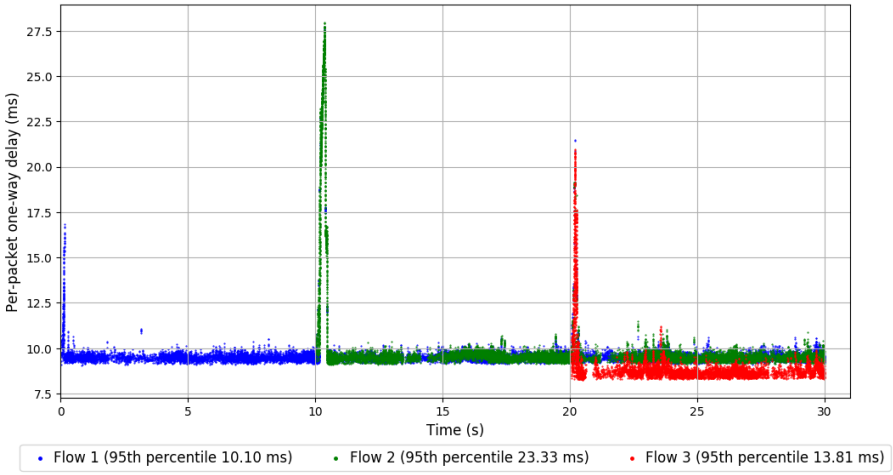
```
Run 5: Statistics of TCP Cubic

Start at: 2018-08-22 03:46:05
End at: 2018-08-22 03:46:35
Local clock offset: 0.369 ms
Remote clock offset: -61.992 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 16.912 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 7.15 Mbit/s
95th percentile per-packet one-way delay: 10.100 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 9.56 Mbit/s
95th percentile per-packet one-way delay: 23.330 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 9.04 Mbit/s
95th percentile per-packet one-way delay: 13.814 ms
Loss rate: 1.38%
```

Run 5: Report of TCP Cubic — Data Link



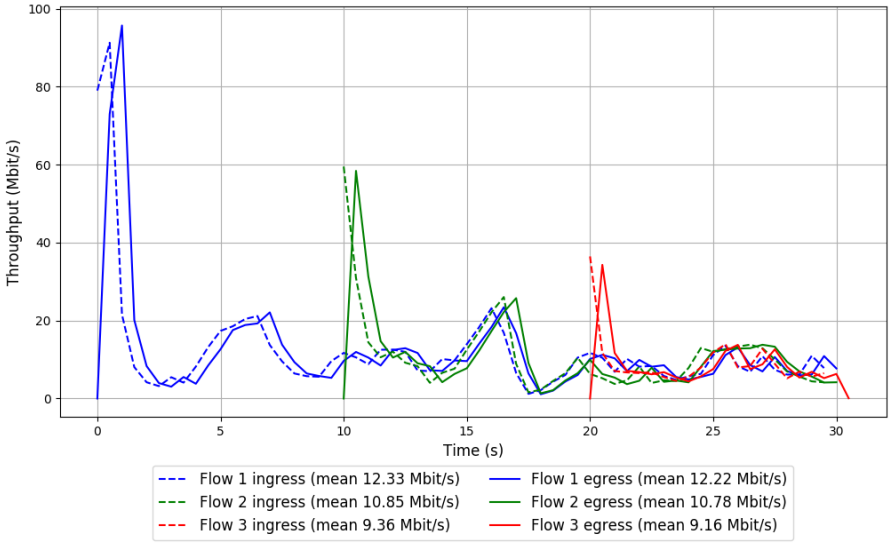


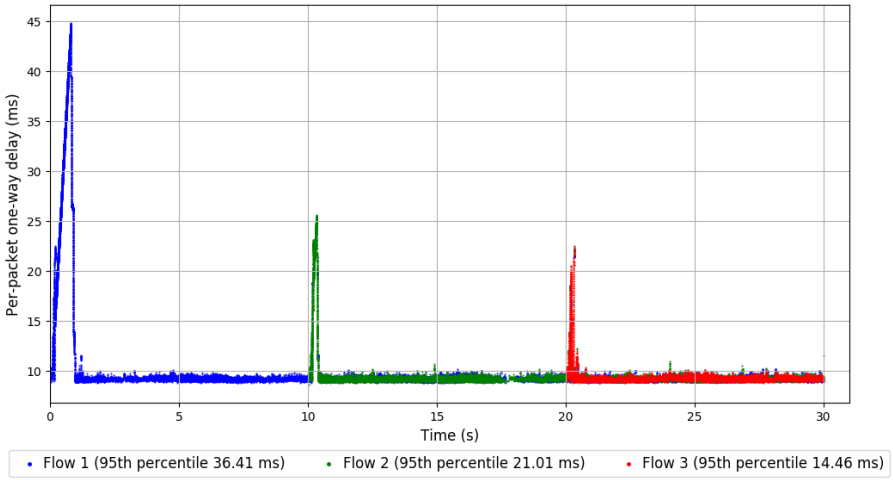
```
Run 6: Statistics of TCP Cubic

Start at: 2018-08-22 04:05:38
End at: 2018-08-22 04:06:08
Local clock offset: 1.339 ms
Remote clock offset: -62.269 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.45 Mbit/s
95th percentile per-packet one-way delay: 29.643 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 12.22 Mbit/s
95th percentile per-packet one-way delay: 36.412 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 10.78 Mbit/s
95th percentile per-packet one-way delay: 21.013 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 9.16 Mbit/s
95th percentile per-packet one-way delay: 14.459 ms
Loss rate: 2.08%
```

Run 6: Report of TCP Cubic — Data Link



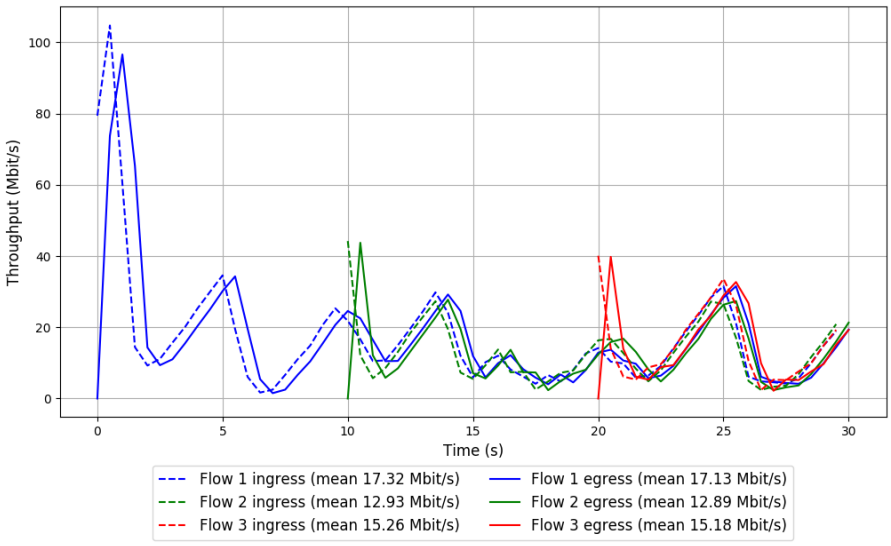


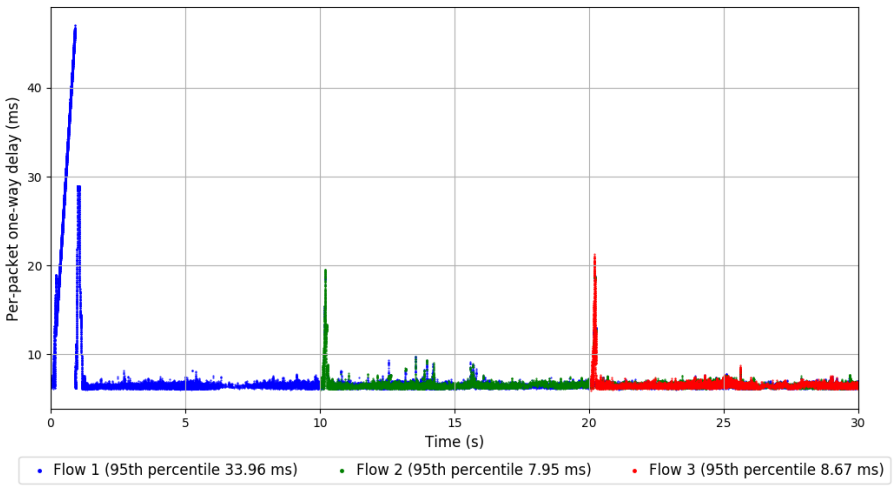
```
Run 7: Statistics of TCP Cubic

Start at: 2018-08-22 04:25:13
End at: 2018-08-22 04:25:43
Local clock offset: 3.333 ms
Remote clock offset: -63.835 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.76 Mbit/s
95th percentile per-packet one-way delay: 26.986 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 17.13 Mbit/s
95th percentile per-packet one-way delay: 33.963 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 12.89 Mbit/s
95th percentile per-packet one-way delay: 7.945 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 15.18 Mbit/s
95th percentile per-packet one-way delay: 8.672 ms
Loss rate: 0.53%
```

Run 7: Report of TCP Cubic — Data Link



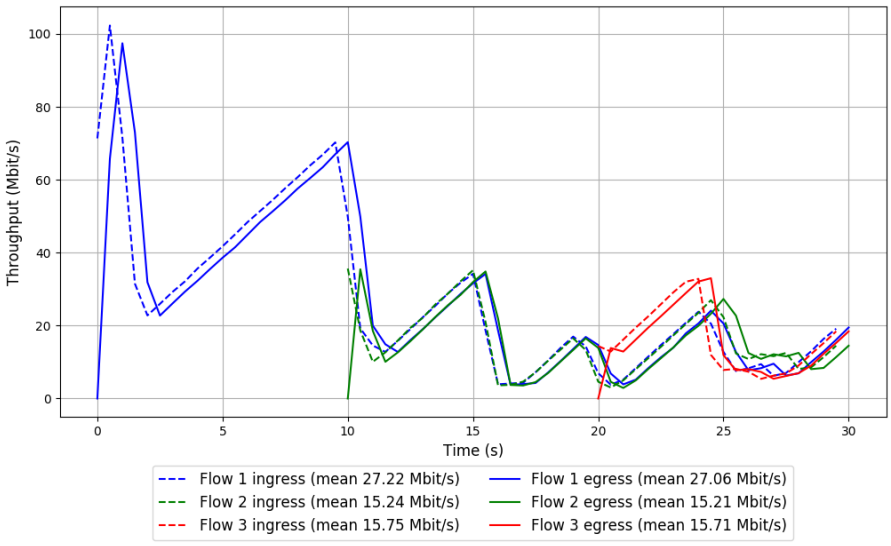


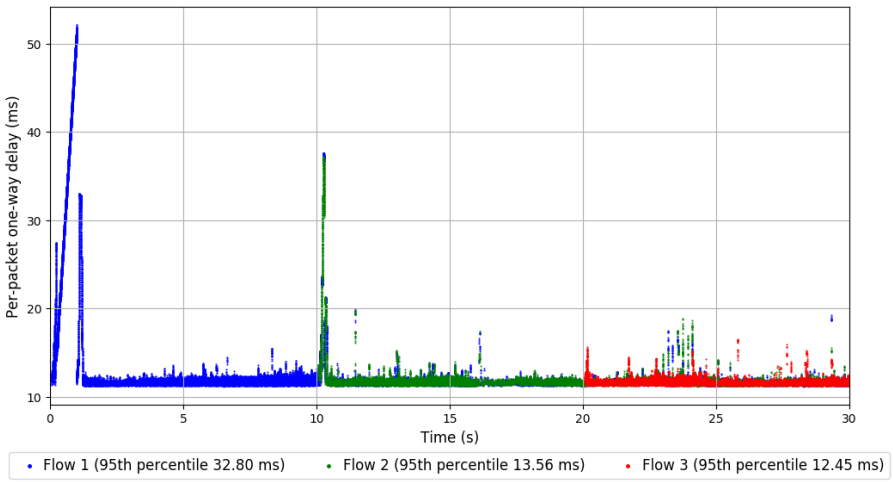
```
Run 8: Statistics of TCP Cubic

Start at: 2018-08-22 04:44:46
End at: 2018-08-22 04:45:16
Local clock offset: 4.14 ms
Remote clock offset: -64.082 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.42 Mbit/s
95th percentile per-packet one-way delay: 26.925 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 27.06 Mbit/s
95th percentile per-packet one-way delay: 32.805 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 15.21 Mbit/s
95th percentile per-packet one-way delay: 13.556 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 15.71 Mbit/s
95th percentile per-packet one-way delay: 12.446 ms
Loss rate: 0.25%
```

Run 8: Report of TCP Cubic — Data Link



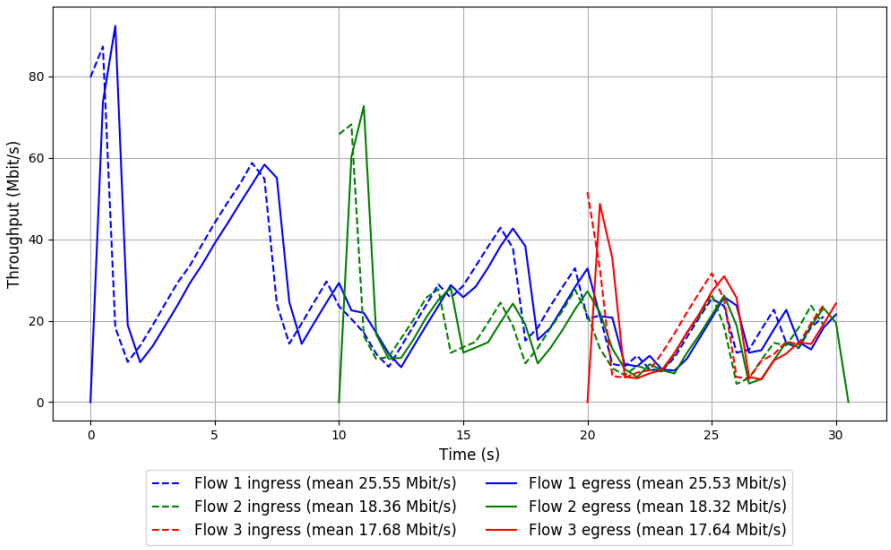


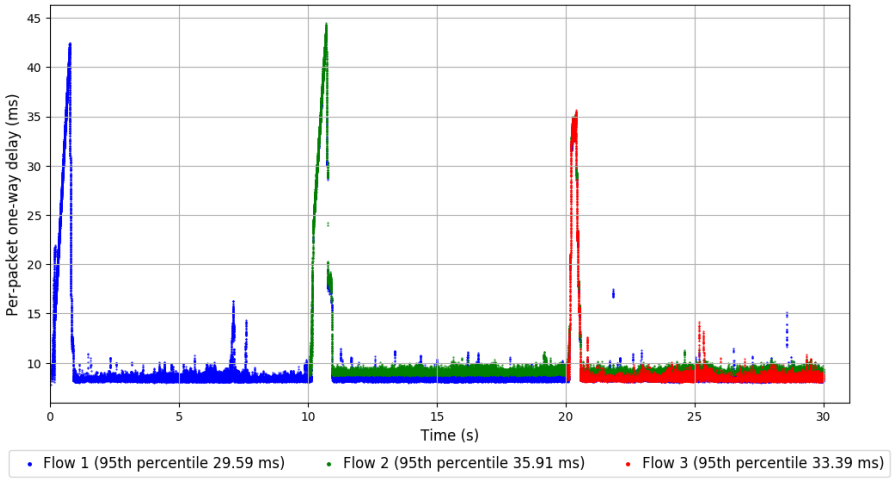
```
Run 9: Statistics of TCP Cubic

Start at: 2018-08-22 05:04:18
End at: 2018-08-22 05:04:48
Local clock offset: 1.344 ms
Remote clock offset: -62.988 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.60 Mbit/s
95th percentile per-packet one-way delay: 32.975 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 25.53 Mbit/s
95th percentile per-packet one-way delay: 29.593 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 18.32 Mbit/s
95th percentile per-packet one-way delay: 35.913 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 17.64 Mbit/s
95th percentile per-packet one-way delay: 33.392 ms
Loss rate: 0.24%
```

Run 9: Report of TCP Cubic — Data Link



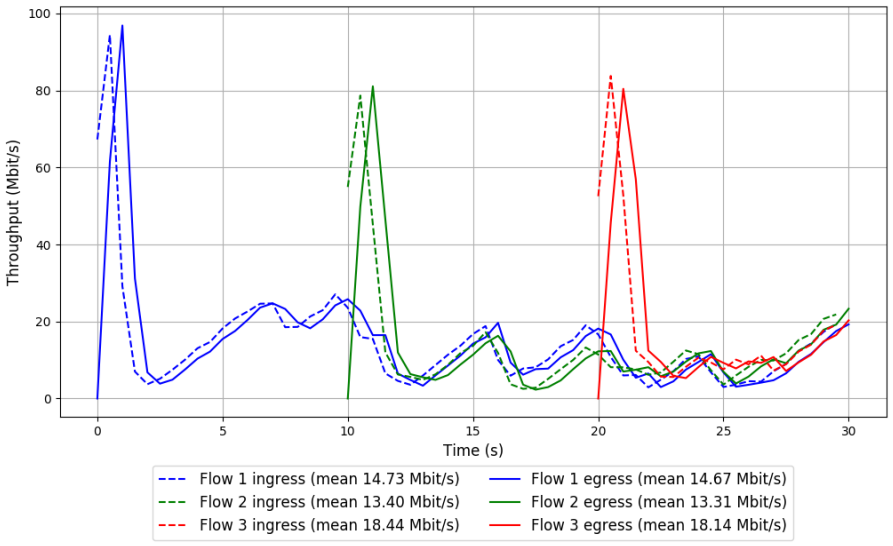


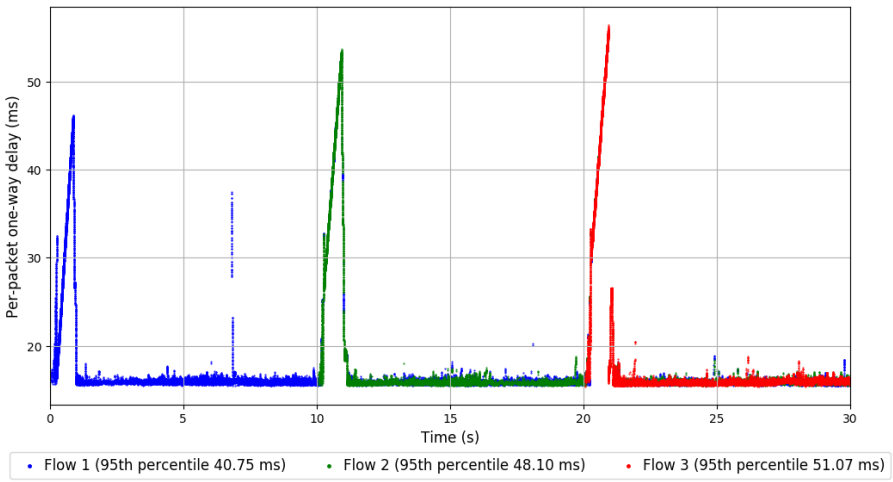
```
Run 10: Statistics of TCP Cubic

Start at: 2018-08-22 05:24:00
End at: 2018-08-22 05:24:30
Local clock offset: 2.227 ms
Remote clock offset: -60.511 ms

# Below is generated by plot.py at 2018-08-22 05:49:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.56 Mbit/s
95th percentile per-packet one-way delay: 45.713 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 14.67 Mbit/s
95th percentile per-packet one-way delay: 40.750 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 48.098 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 18.14 Mbit/s
95th percentile per-packet one-way delay: 51.070 ms
Loss rate: 1.58%
```

Run 10: Report of TCP Cubic — Data Link



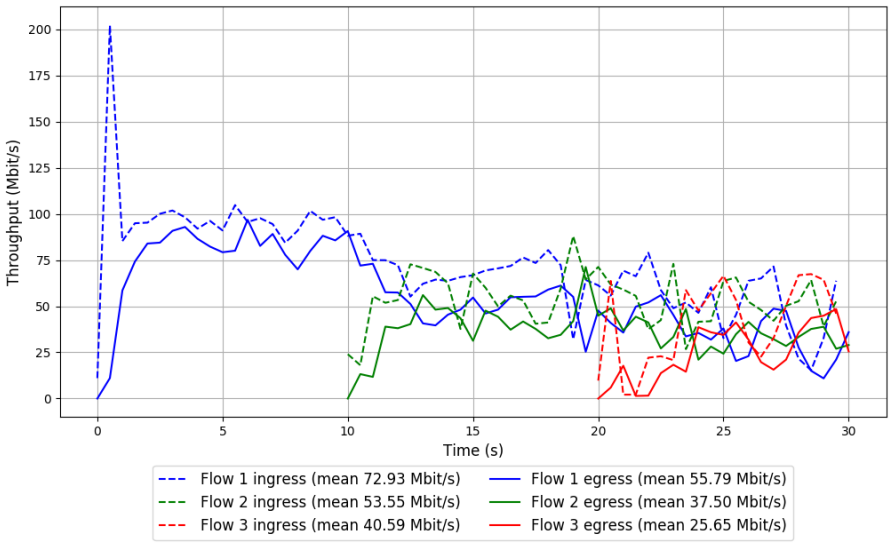


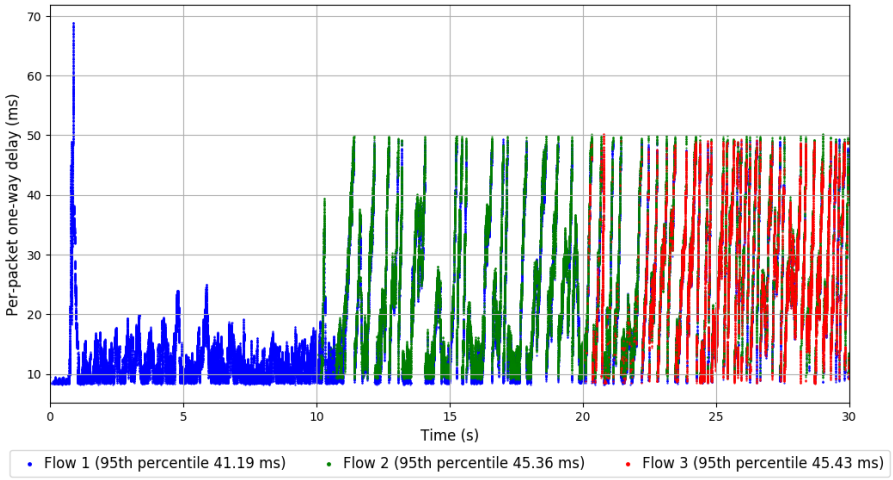
```
Run 1: Statistics of FillP

Start at: 2018-08-22 02:32:05
End at: 2018-08-22 02:32:35
Local clock offset: 1.498 ms
Remote clock offset: -60.353 ms

# Below is generated by plot.py at 2018-08-22 05:49:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.26 Mbit/s
95th percentile per-packet one-way delay: 43.693 ms
Loss rate: 26.86%
-- Flow 1:
Average throughput: 55.79 Mbit/s
95th percentile per-packet one-way delay: 41.186 ms
Loss rate: 23.49%
-- Flow 2:
Average throughput: 37.50 Mbit/s
95th percentile per-packet one-way delay: 45.358 ms
Loss rate: 29.97%
-- Flow 3:
Average throughput: 25.65 Mbit/s
95th percentile per-packet one-way delay: 45.430 ms
Loss rate: 36.84%
```

Run 1: Report of FillP — Data Link



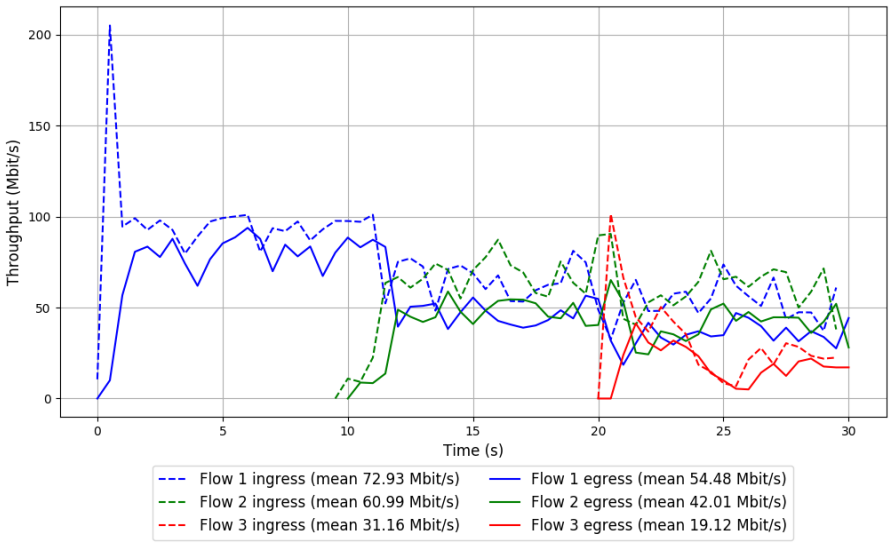


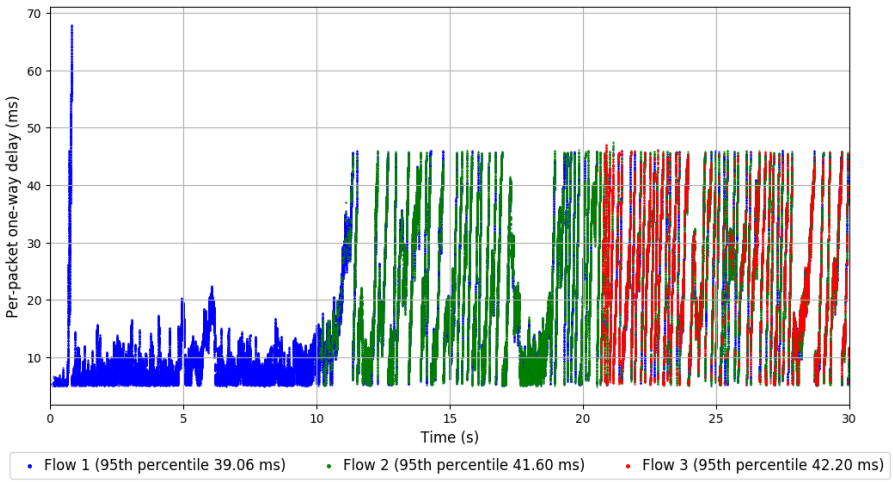
```
Run 2: Statistics of FillP

Start at: 2018-08-22 02:51:33
End at: 2018-08-22 02:52:03
Local clock offset: 3.097 ms
Remote clock offset: -60.346 ms

# Below is generated by plot.py at 2018-08-22 05:50:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.80 Mbit/s
95th percentile per-packet one-way delay: 40.511 ms
Loss rate: 28.31%
-- Flow 1:
Average throughput: 54.48 Mbit/s
95th percentile per-packet one-way delay: 39.060 ms
Loss rate: 25.28%
-- Flow 2:
Average throughput: 42.01 Mbit/s
95th percentile per-packet one-way delay: 41.601 ms
Loss rate: 31.11%
-- Flow 3:
Average throughput: 19.12 Mbit/s
95th percentile per-packet one-way delay: 42.196 ms
Loss rate: 38.75%
```

Run 2: Report of FillP — Data Link



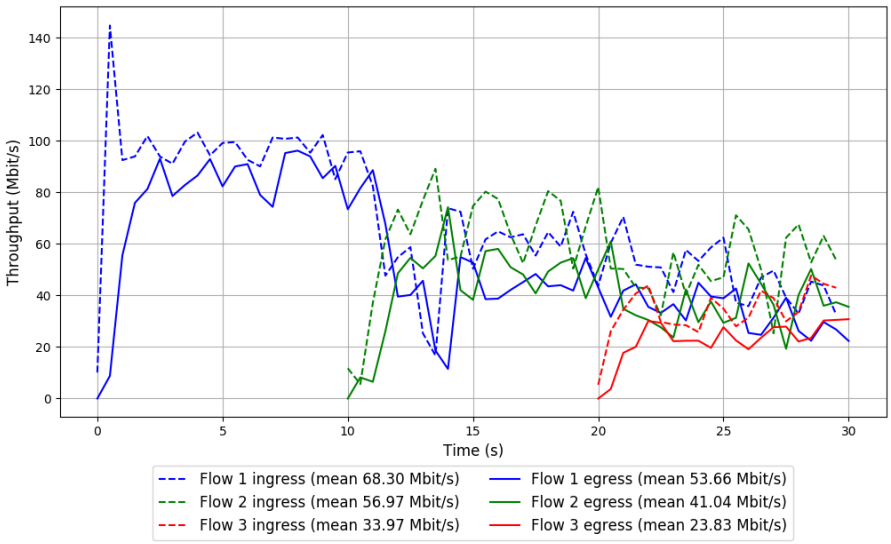


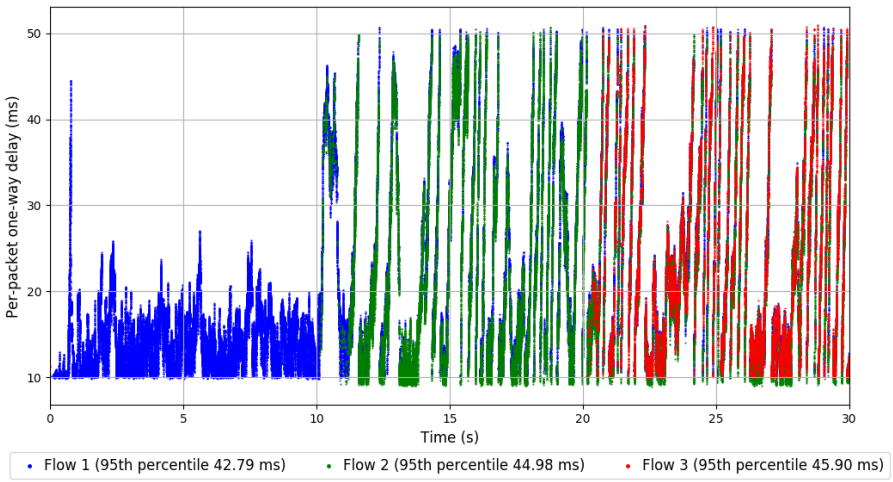
```
Run 3: Statistics of FillP

Start at: 2018-08-22 03:10:57
End at: 2018-08-22 03:11:27
Local clock offset: -0.748 ms
Remote clock offset: -61.799 ms

# Below is generated by plot.py at 2018-08-22 05:50:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.88 Mbit/s
95th percentile per-packet one-way delay: 44.186 ms
Loss rate: 24.36%
-- Flow 1:
Average throughput: 53.66 Mbit/s
95th percentile per-packet one-way delay: 42.793 ms
Loss rate: 21.43%
-- Flow 2:
Average throughput: 41.04 Mbit/s
95th percentile per-packet one-way delay: 44.983 ms
Loss rate: 27.96%
-- Flow 3:
Average throughput: 23.83 Mbit/s
95th percentile per-packet one-way delay: 45.904 ms
Loss rate: 29.98%
```

Run 3: Report of FillP — Data Link



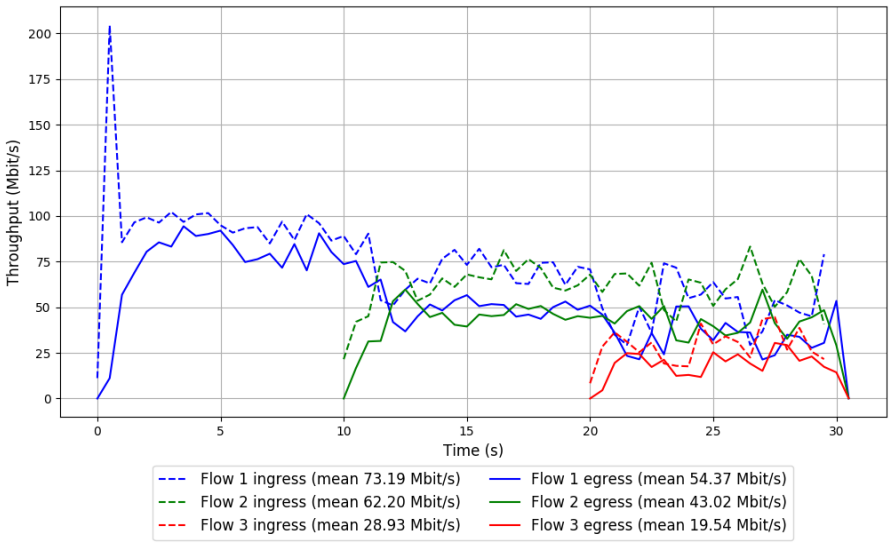


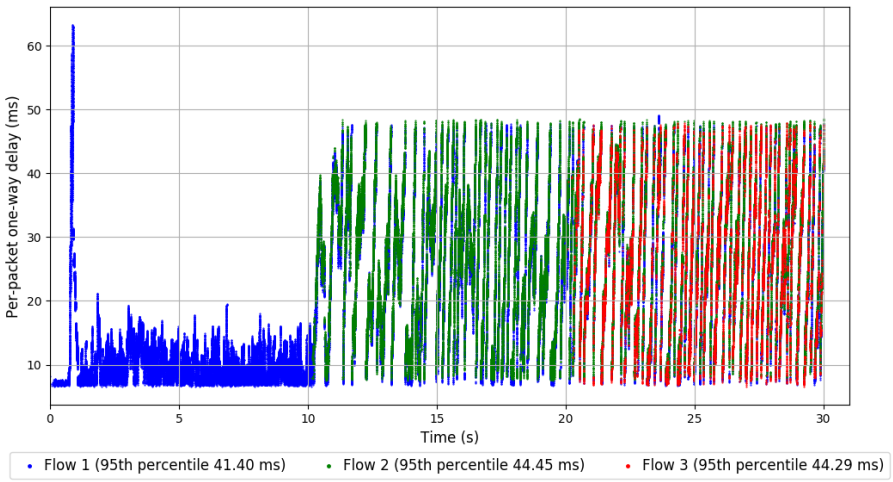
```
Run 4: Statistics of FillP

Start at: 2018-08-22 03:30:42
End at: 2018-08-22 03:31:12
Local clock offset: 0.414 ms
Remote clock offset: -62.932 ms

# Below is generated by plot.py at 2018-08-22 05:50:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.49 Mbit/s
95th percentile per-packet one-way delay: 43.074 ms
Loss rate: 27.83%
-- Flow 1:
Average throughput: 54.37 Mbit/s
95th percentile per-packet one-way delay: 41.404 ms
Loss rate: 25.61%
-- Flow 2:
Average throughput: 43.02 Mbit/s
95th percentile per-packet one-way delay: 44.454 ms
Loss rate: 30.71%
-- Flow 3:
Average throughput: 19.54 Mbit/s
95th percentile per-packet one-way delay: 44.289 ms
Loss rate: 32.33%
```

Run 4: Report of FillP — Data Link



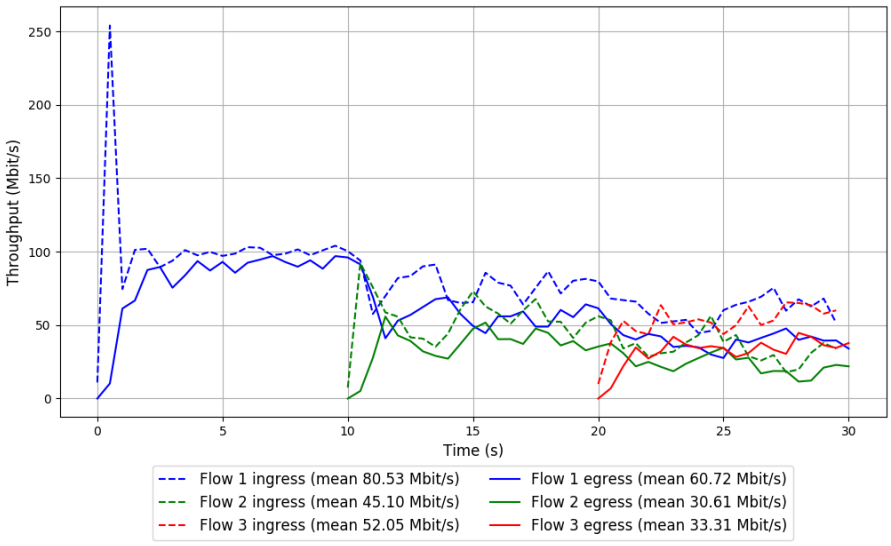


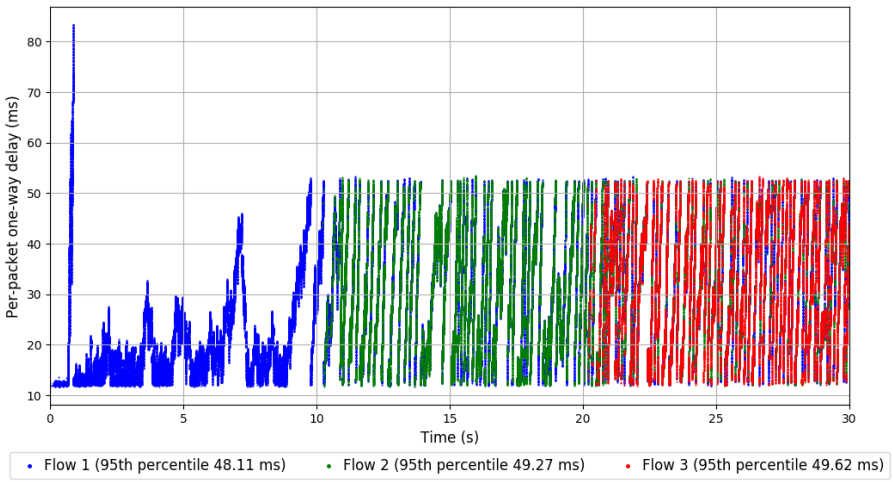
```
Run 5: Statistics of FillP

Start at: 2018-08-22 03:50:31
End at: 2018-08-22 03:51:01
Local clock offset: 3.139 ms
Remote clock offset: -62.433 ms

# Below is generated by plot.py at 2018-08-22 05:50:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.14 Mbit/s
95th percentile per-packet one-way delay: 48.699 ms
Loss rate: 27.87%
-- Flow 1:
Average throughput: 60.72 Mbit/s
95th percentile per-packet one-way delay: 48.109 ms
Loss rate: 24.55%
-- Flow 2:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 49.268 ms
Loss rate: 32.15%
-- Flow 3:
Average throughput: 33.31 Mbit/s
95th percentile per-packet one-way delay: 49.616 ms
Loss rate: 35.90%
```

Run 5: Report of FillP — Data Link



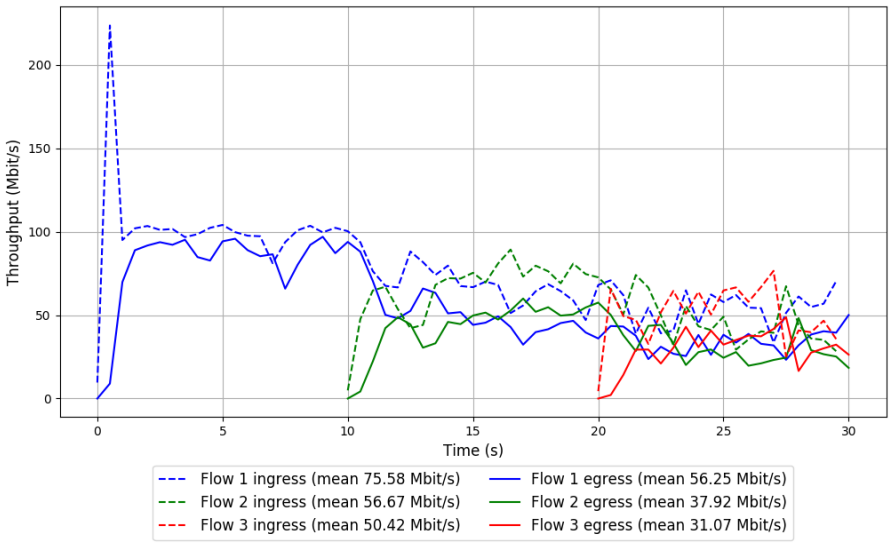


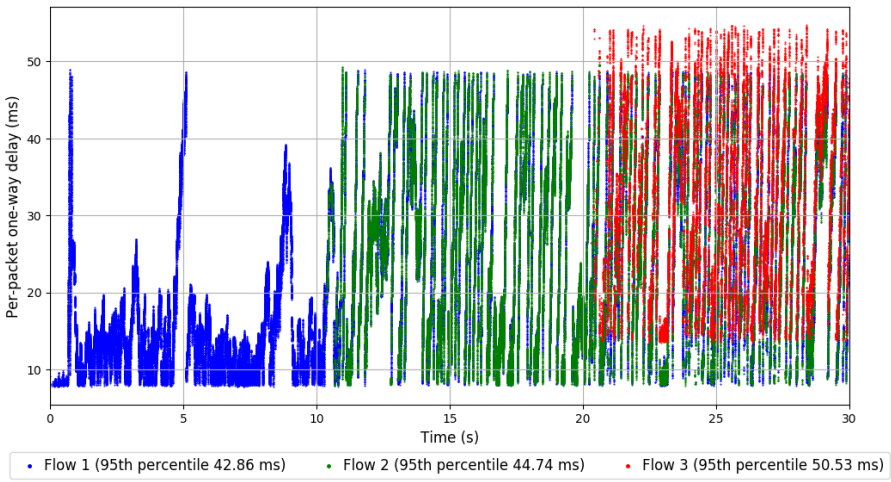
```
Run 6: Statistics of FillP

Start at: 2018-08-22 04:10:05
End at: 2018-08-22 04:10:35
Local clock offset: 1.541 ms
Remote clock offset: -63.0 ms

# Below is generated by plot.py at 2018-08-22 05:50:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.36 Mbit/s
95th percentile per-packet one-way delay: 44.942 ms
Loss rate: 29.66%
-- Flow 1:
Average throughput: 56.25 Mbit/s
95th percentile per-packet one-way delay: 42.859 ms
Loss rate: 25.49%
-- Flow 2:
Average throughput: 37.92 Mbit/s
95th percentile per-packet one-way delay: 44.743 ms
Loss rate: 33.67%
-- Flow 3:
Average throughput: 31.07 Mbit/s
95th percentile per-packet one-way delay: 50.528 ms
Loss rate: 39.45%
```

Run 6: Report of FillP — Data Link



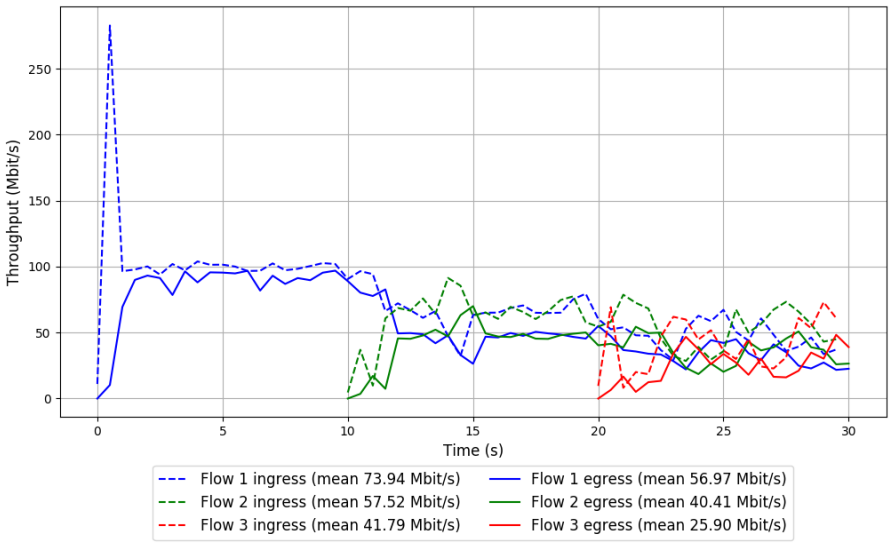


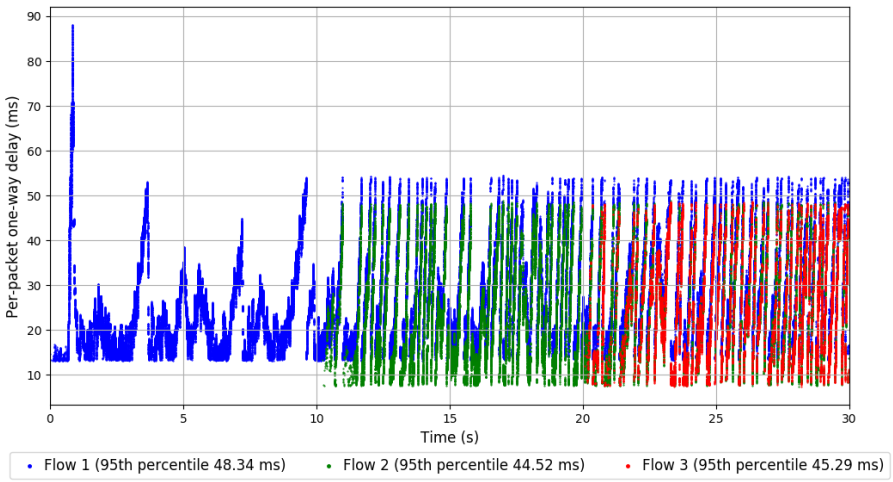
```
Run 7: Statistics of FillP

Start at: 2018-08-22 04:29:42
End at: 2018-08-22 04:30:12
Local clock offset: 1.241 ms
Remote clock offset: -64.532 ms

# Below is generated by plot.py at 2018-08-22 05:50:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.17 Mbit/s
95th percentile per-packet one-way delay: 46.492 ms
Loss rate: 26.89%
-- Flow 1:
Average throughput: 56.97 Mbit/s
95th percentile per-packet one-way delay: 48.342 ms
Loss rate: 22.96%
-- Flow 2:
Average throughput: 40.41 Mbit/s
95th percentile per-packet one-way delay: 44.517 ms
Loss rate: 30.45%
-- Flow 3:
Average throughput: 25.90 Mbit/s
95th percentile per-packet one-way delay: 45.288 ms
Loss rate: 38.04%
```

Run 7: Report of FillP — Data Link



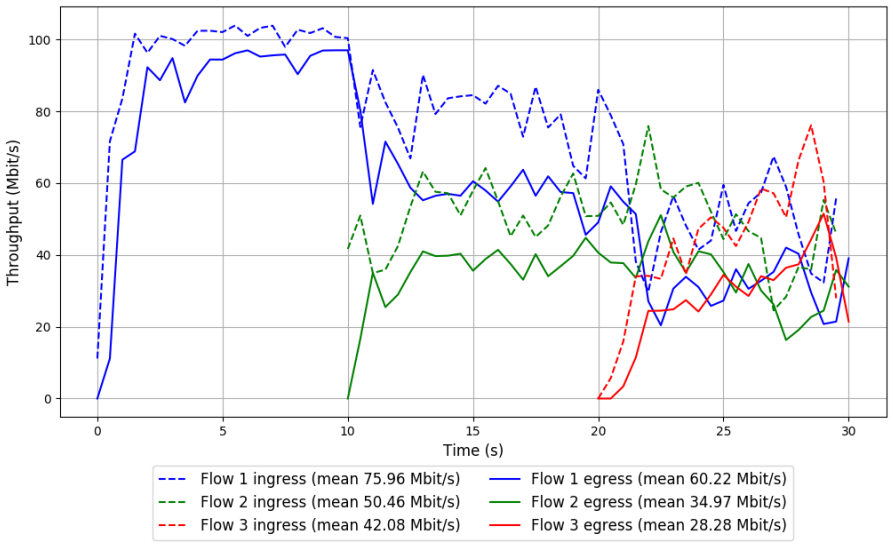


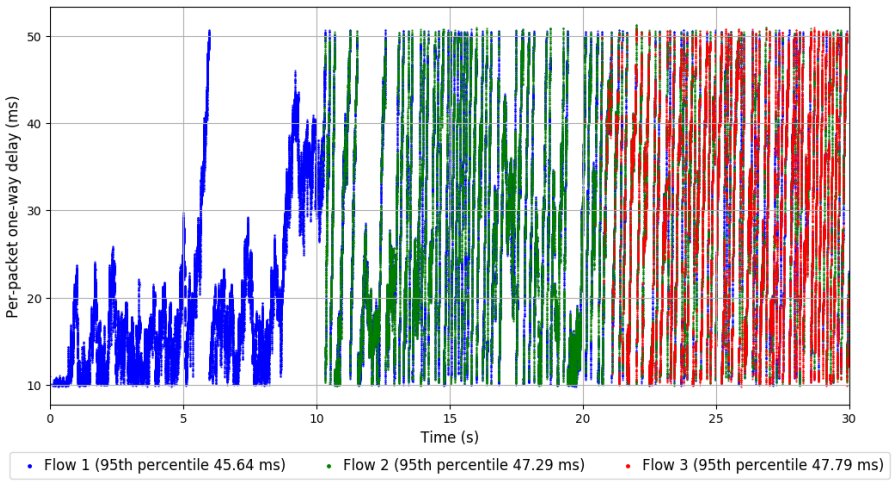
```
Run 8: Statistics of FillP

Start at: 2018-08-22 04:49:14
End at: 2018-08-22 04:49:44
Local clock offset: 0.316 ms
Remote clock offset: -63.046 ms

# Below is generated by plot.py at 2018-08-22 05:51:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.85 Mbit/s
95th percentile per-packet one-way delay: 46.513 ms
Loss rate: 24.82%
-- Flow 1:
Average throughput: 60.22 Mbit/s
95th percentile per-packet one-way delay: 45.639 ms
Loss rate: 20.70%
-- Flow 2:
Average throughput: 34.97 Mbit/s
95th percentile per-packet one-way delay: 47.288 ms
Loss rate: 30.75%
-- Flow 3:
Average throughput: 28.28 Mbit/s
95th percentile per-packet one-way delay: 47.788 ms
Loss rate: 32.94%
```

Run 8: Report of FillP — Data Link



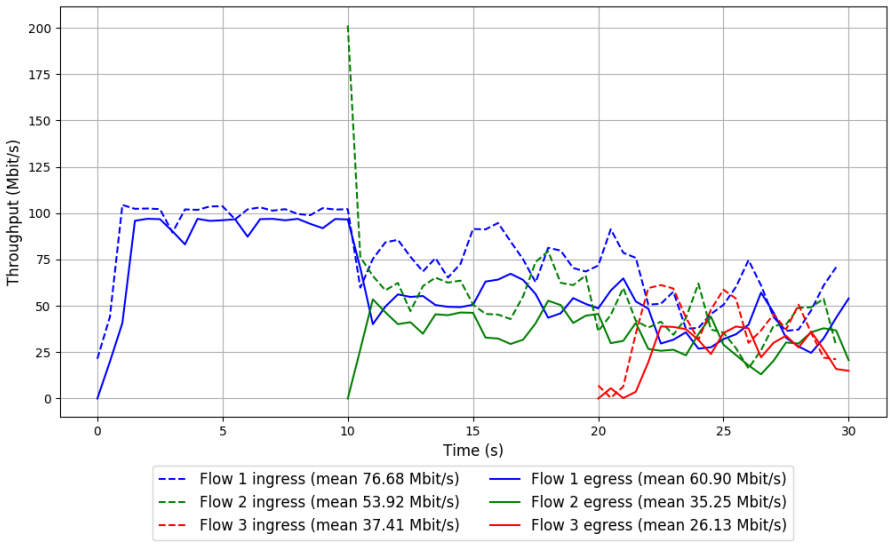


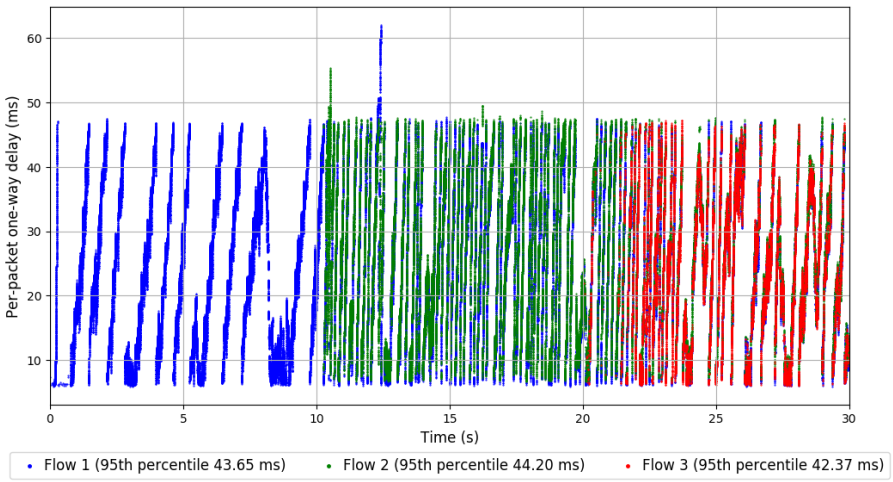
```
Run 9: Statistics of FillP

Start at: 2018-08-22 05:08:47
End at: 2018-08-22 05:09:17
Local clock offset: 3.046 ms
Remote clock offset: -62.907 ms

# Below is generated by plot.py at 2018-08-22 05:51:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 43.694 ms
Loss rate: 25.58%
-- Flow 1:
Average throughput: 60.90 Mbit/s
95th percentile per-packet one-way delay: 43.649 ms
Loss rate: 20.57%
-- Flow 2:
Average throughput: 35.25 Mbit/s
95th percentile per-packet one-way delay: 44.202 ms
Loss rate: 34.68%
-- Flow 3:
Average throughput: 26.13 Mbit/s
95th percentile per-packet one-way delay: 42.370 ms
Loss rate: 30.24%
```

Run 9: Report of FillP — Data Link



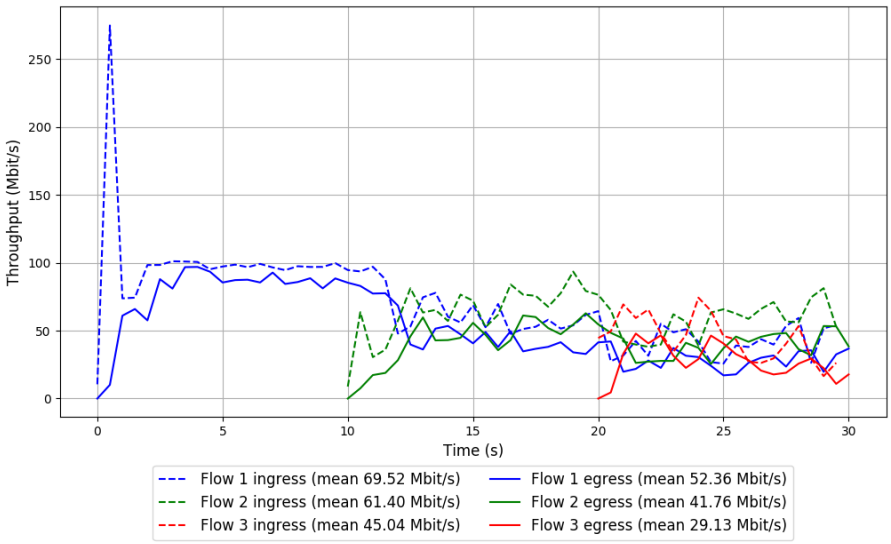


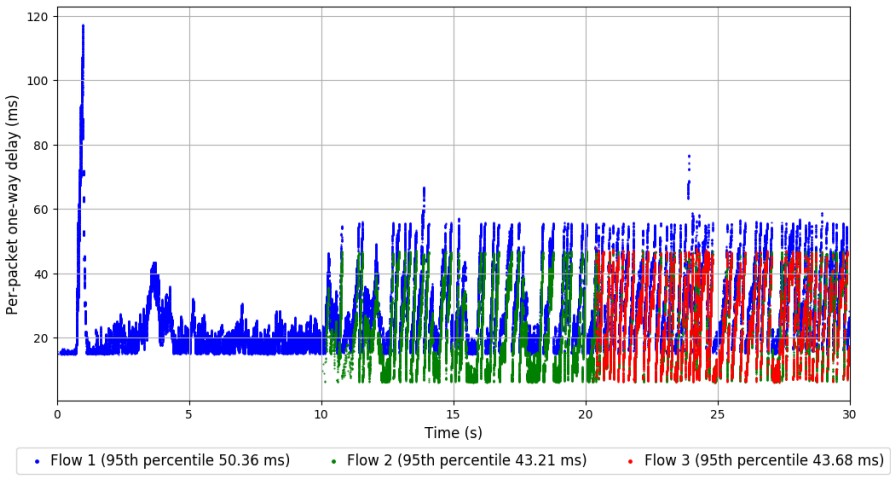
```
Run 10: Statistics of FillP

Start at: 2018-08-22 05:28:31
End at: 2018-08-22 05:29:01
Local clock offset: 2.135 ms
Remote clock offset: -60.252 ms

# Below is generated by plot.py at 2018-08-22 05:51:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.63 Mbit/s
95th percentile per-packet one-way delay: 46.356 ms
Loss rate: 28.47%
-- Flow 1:
Average throughput: 52.36 Mbit/s
95th percentile per-packet one-way delay: 50.361 ms
Loss rate: 24.67%
-- Flow 2:
Average throughput: 41.76 Mbit/s
95th percentile per-packet one-way delay: 43.213 ms
Loss rate: 31.96%
-- Flow 3:
Average throughput: 29.13 Mbit/s
95th percentile per-packet one-way delay: 43.677 ms
Loss rate: 36.63%
```

Run 10: Report of FillP — Data Link



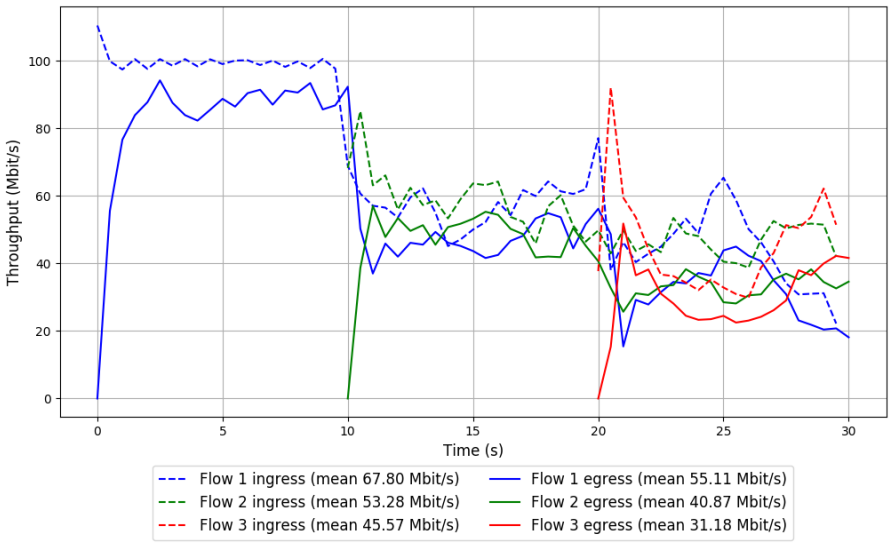


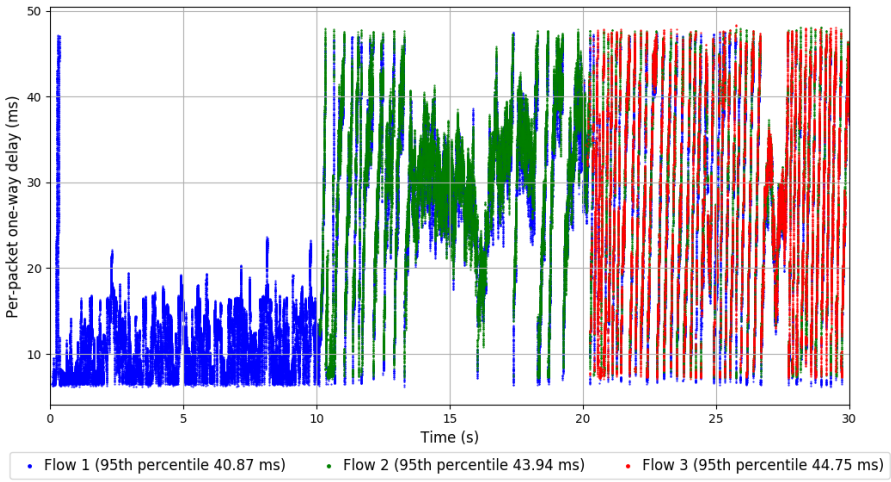
```
Run 1: Statistics of FillP-Sheep

Start at: 2018-08-22 02:35:33
End at: 2018-08-22 02:36:03
Local clock offset: 2.926 ms
Remote clock offset: -60.726 ms

# Below is generated by plot.py at 2018-08-22 05:51:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.68 Mbit/s
95th percentile per-packet one-way delay: 42.789 ms
Loss rate: 21.65%
-- Flow 1:
Average throughput: 55.11 Mbit/s
95th percentile per-packet one-way delay: 40.871 ms
Loss rate: 18.63%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 43.940 ms
Loss rate: 23.16%
-- Flow 3:
Average throughput: 31.18 Mbit/s
95th percentile per-packet one-way delay: 44.746 ms
Loss rate: 31.59%
```

Run 1: Report of FillP-Sheep — Data Link



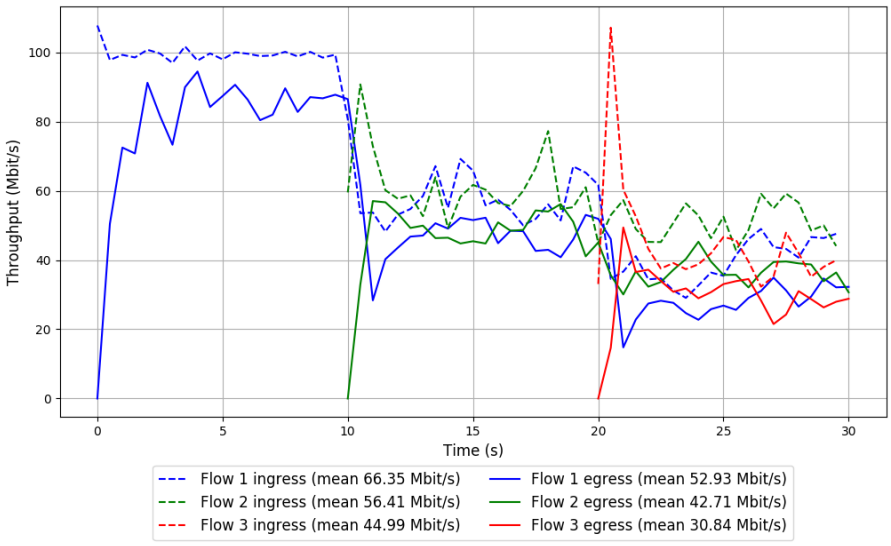


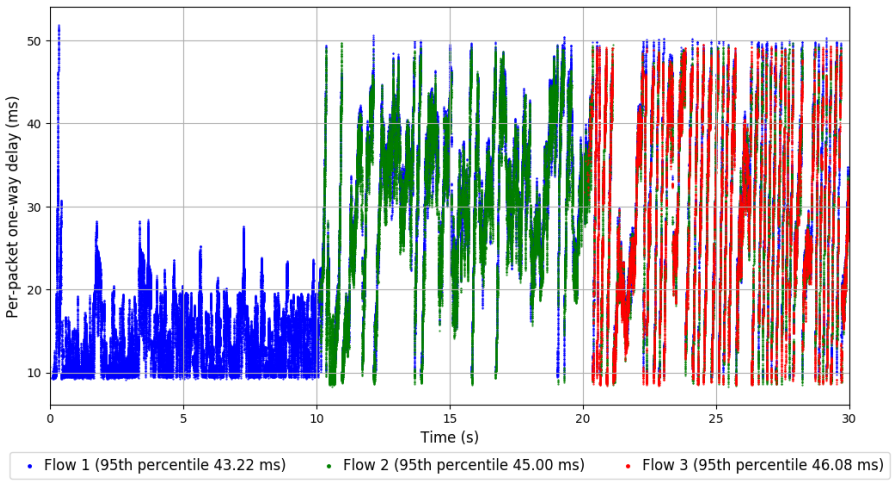
```
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-22 02:55:00
End at: 2018-08-22 02:55:30
Local clock offset: 0.279 ms
Remote clock offset: -59.685 ms

# Below is generated by plot.py at 2018-08-22 05:51:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.60 Mbit/s
95th percentile per-packet one-way delay: 44.474 ms
Loss rate: 22.88%
-- Flow 1:
Average throughput: 52.93 Mbit/s
95th percentile per-packet one-way delay: 43.222 ms
Loss rate: 20.18%
-- Flow 2:
Average throughput: 42.71 Mbit/s
95th percentile per-packet one-way delay: 45.003 ms
Loss rate: 24.22%
-- Flow 3:
Average throughput: 30.84 Mbit/s
95th percentile per-packet one-way delay: 46.084 ms
Loss rate: 31.47%
```

Run 2: Report of FillP-Sheep — Data Link



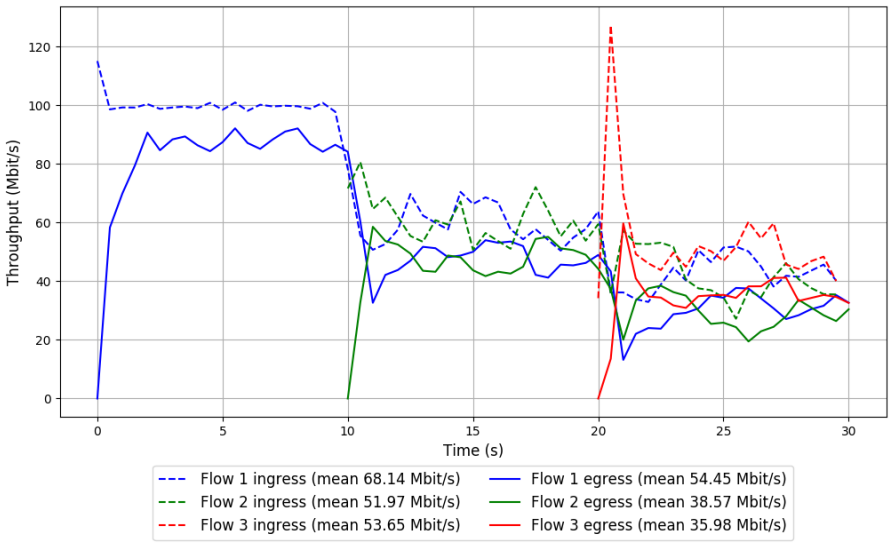


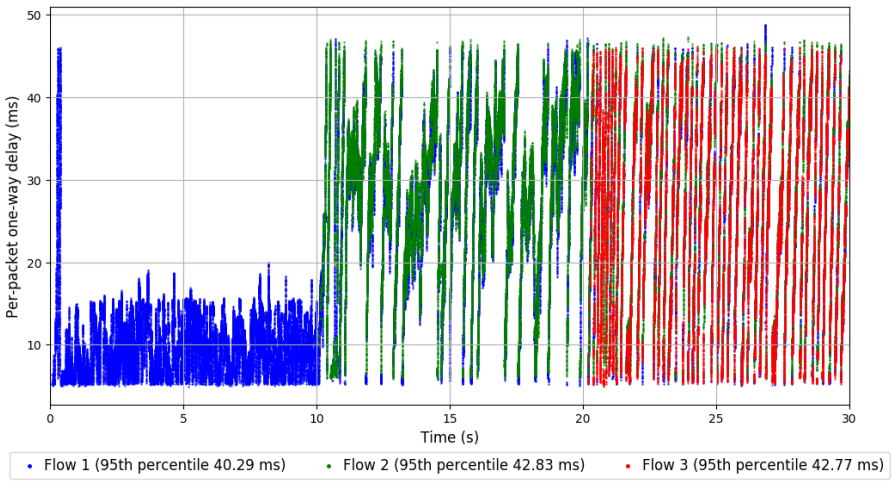
```
Run 3: Statistics of FillP-Sheep

Start at: 2018-08-22 03:14:35
End at: 2018-08-22 03:15:05
Local clock offset: 2.056 ms
Remote clock offset: -62.903 ms

# Below is generated by plot.py at 2018-08-22 05:51:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.06 Mbit/s
95th percentile per-packet one-way delay: 41.629 ms
Loss rate: 23.53%
-- Flow 1:
Average throughput: 54.45 Mbit/s
95th percentile per-packet one-way delay: 40.286 ms
Loss rate: 20.00%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 42.825 ms
Loss rate: 25.67%
-- Flow 3:
Average throughput: 35.98 Mbit/s
95th percentile per-packet one-way delay: 42.772 ms
Loss rate: 32.91%
```

Run 3: Report of FillP-Sheep — Data Link



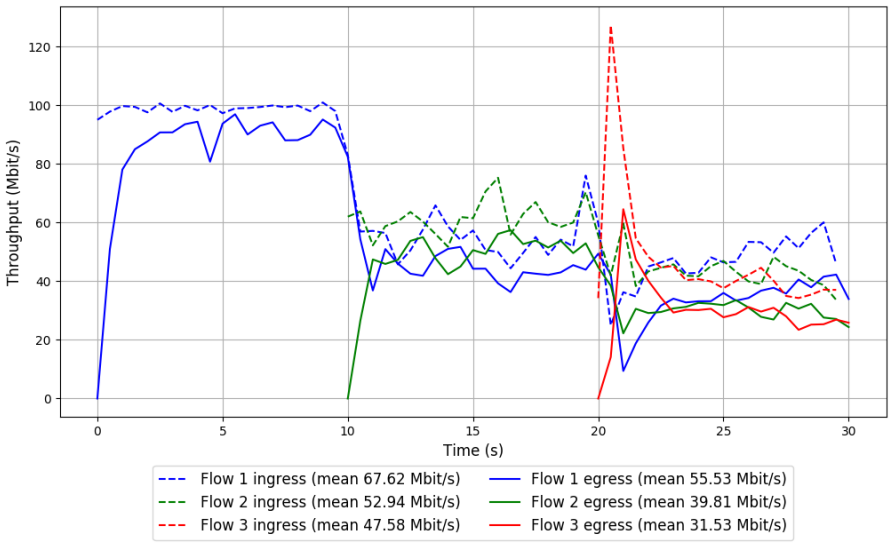


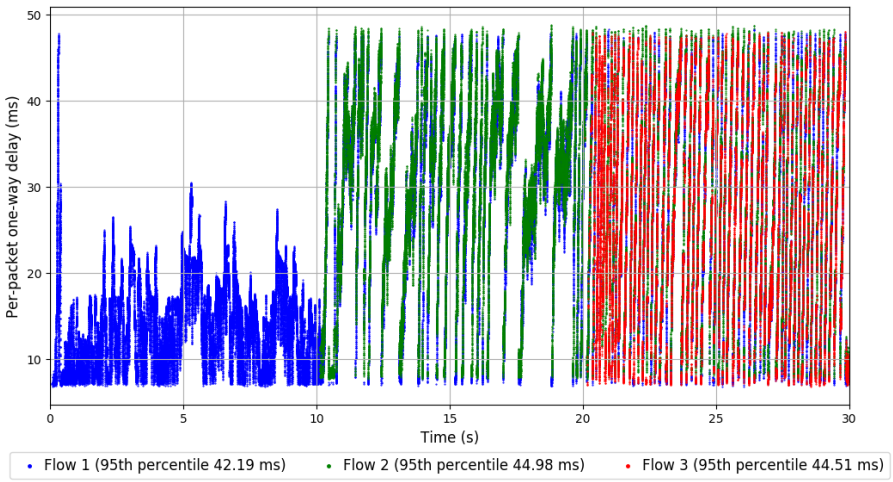
```
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-22 03:34:15
End at: 2018-08-22 03:34:45
Local clock offset: -0.757 ms
Remote clock offset: -63.563 ms

# Below is generated by plot.py at 2018-08-22 05:51:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.45 Mbit/s
95th percentile per-packet one-way delay: 43.726 ms
Loss rate: 22.06%
-- Flow 1:
Average throughput: 55.53 Mbit/s
95th percentile per-packet one-way delay: 42.190 ms
Loss rate: 17.87%
-- Flow 2:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 44.976 ms
Loss rate: 24.81%
-- Flow 3:
Average throughput: 31.53 Mbit/s
95th percentile per-packet one-way delay: 44.514 ms
Loss rate: 33.91%
```

Run 4: Report of FillP-Sheep — Data Link



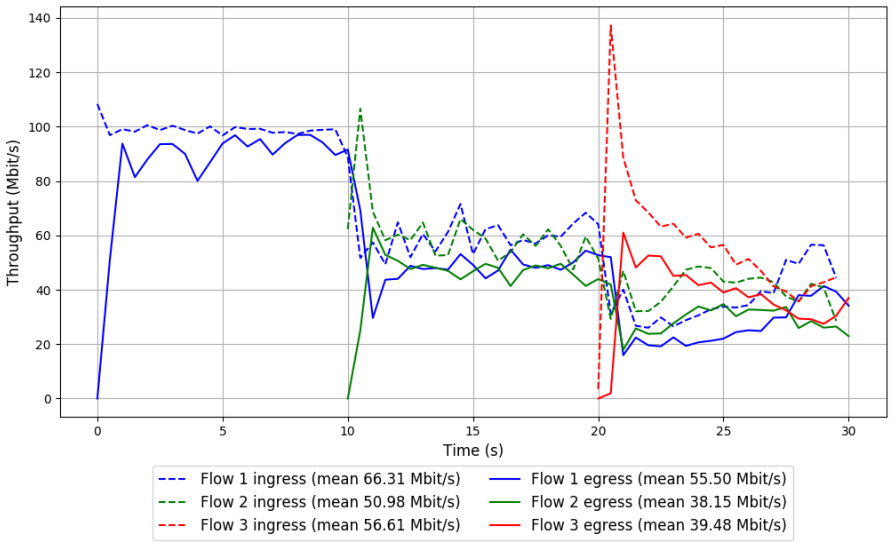


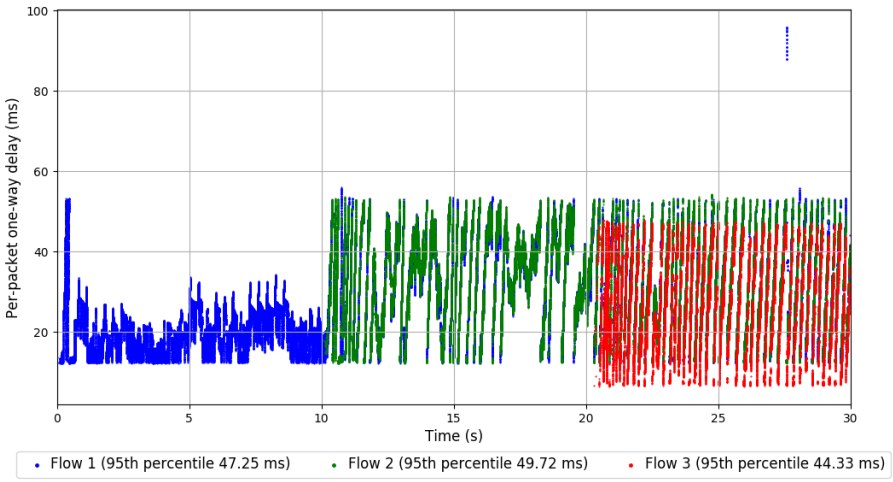
```
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-22 03:54:01
End at: 2018-08-22 03:54:31
Local clock offset: 3.536 ms
Remote clock offset: -61.726 ms

# Below is generated by plot.py at 2018-08-22 05:52:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.67 Mbit/s
95th percentile per-packet one-way delay: 47.863 ms
Loss rate: 21.20%
-- Flow 1:
Average throughput: 55.50 Mbit/s
95th percentile per-packet one-way delay: 47.254 ms
Loss rate: 16.23%
-- Flow 2:
Average throughput: 38.15 Mbit/s
95th percentile per-packet one-way delay: 49.719 ms
Loss rate: 25.10%
-- Flow 3:
Average throughput: 39.48 Mbit/s
95th percentile per-packet one-way delay: 44.326 ms
Loss rate: 31.72%
```

Run 5: Report of FillP-Sheep — Data Link



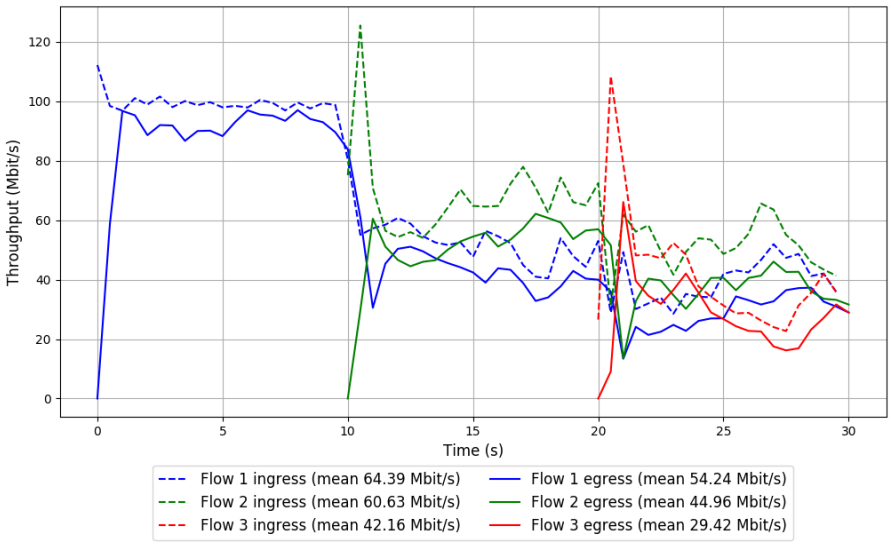


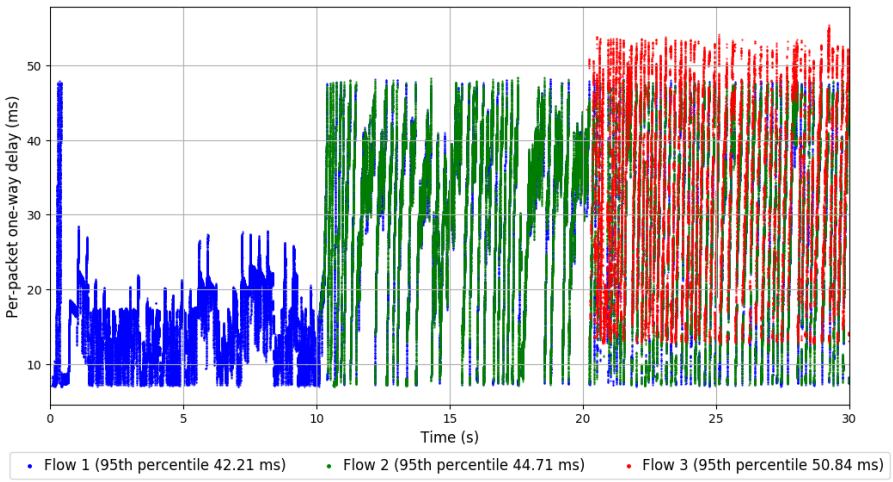
```
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-22 04:13:35
End at: 2018-08-22 04:14:05
Local clock offset: 2.515 ms
Remote clock offset: -63.002 ms

# Below is generated by plot.py at 2018-08-22 05:52:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.88 Mbit/s
95th percentile per-packet one-way delay: 44.812 ms
Loss rate: 20.92%
-- Flow 1:
Average throughput: 54.24 Mbit/s
95th percentile per-packet one-way delay: 42.209 ms
Loss rate: 15.75%
-- Flow 2:
Average throughput: 44.96 Mbit/s
95th percentile per-packet one-way delay: 44.711 ms
Loss rate: 25.86%
-- Flow 3:
Average throughput: 29.42 Mbit/s
95th percentile per-packet one-way delay: 50.839 ms
Loss rate: 30.42%
```

Run 6: Report of FillP-Sheep — Data Link



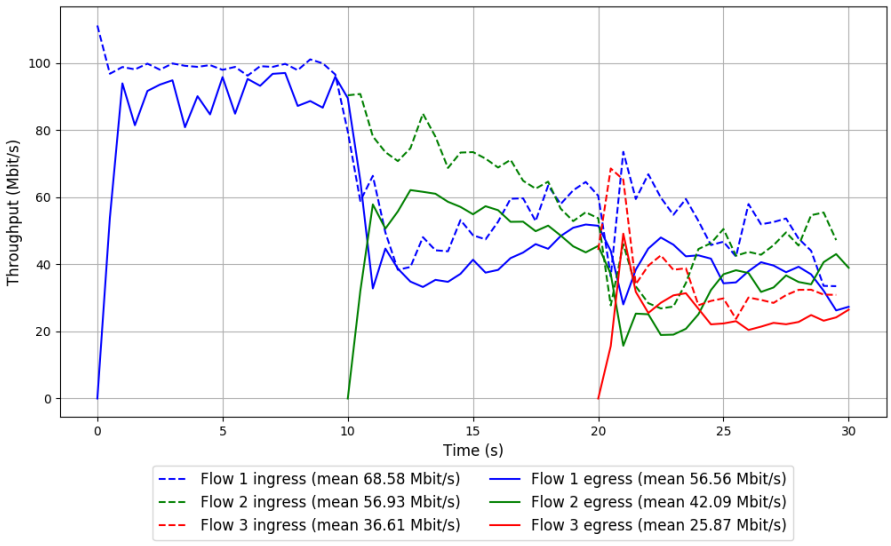


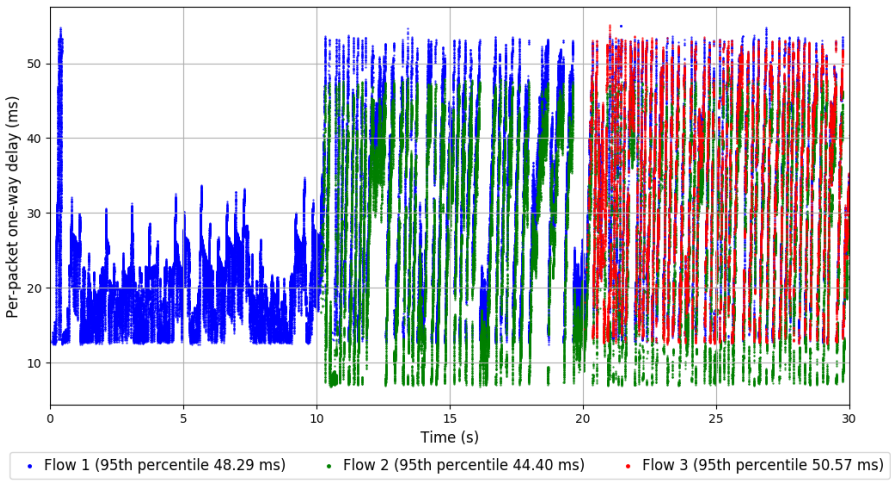
```
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-22 04:33:11
End at: 2018-08-22 04:33:41
Local clock offset: 2.67 ms
Remote clock offset: -63.944 ms

# Below is generated by plot.py at 2018-08-22 05:52:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.15 Mbit/s
95th percentile per-packet one-way delay: 47.493 ms
Loss rate: 21.42%
-- Flow 1:
Average throughput: 56.56 Mbit/s
95th percentile per-packet one-way delay: 48.287 ms
Loss rate: 17.49%
-- Flow 2:
Average throughput: 42.09 Mbit/s
95th percentile per-packet one-way delay: 44.401 ms
Loss rate: 26.04%
-- Flow 3:
Average throughput: 25.87 Mbit/s
95th percentile per-packet one-way delay: 50.573 ms
Loss rate: 29.20%
```

Run 7: Report of FillP-Sheep — Data Link



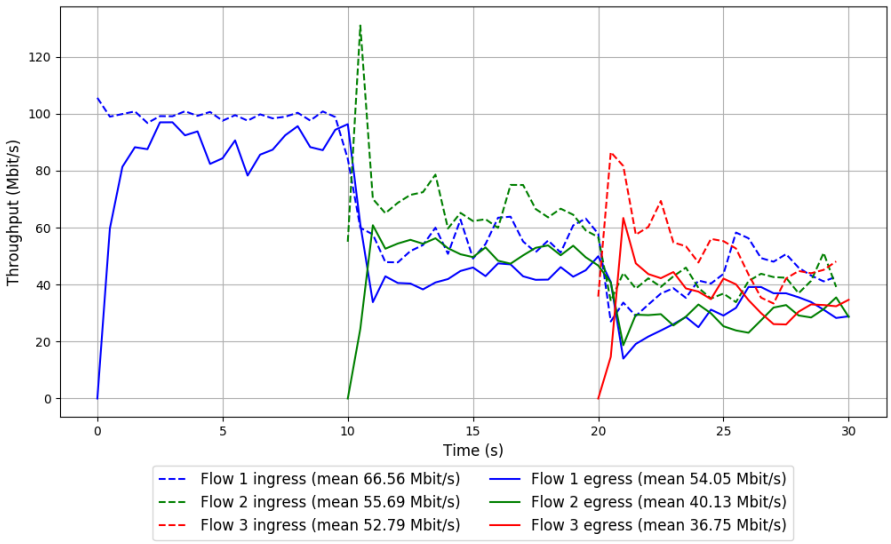


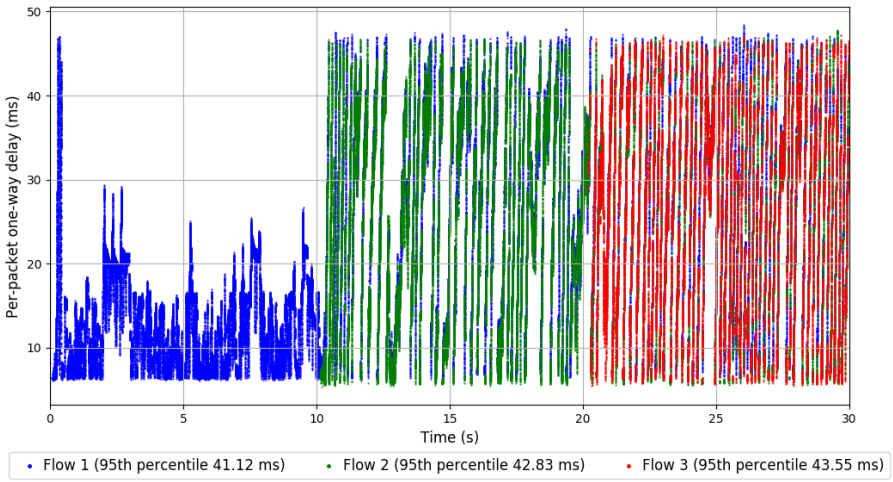
```
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-22 04:52:40
End at: 2018-08-22 04:53:10
Local clock offset: 4.104 ms
Remote clock offset: -62.865 ms

# Below is generated by plot.py at 2018-08-22 05:53:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.91 Mbit/s
95th percentile per-packet one-way delay: 42.190 ms
Loss rate: 23.23%
-- Flow 1:
Average throughput: 54.05 Mbit/s
95th percentile per-packet one-way delay: 41.123 ms
Loss rate: 18.75%
-- Flow 2:
Average throughput: 40.13 Mbit/s
95th percentile per-packet one-way delay: 42.832 ms
Loss rate: 27.90%
-- Flow 3:
Average throughput: 36.75 Mbit/s
95th percentile per-packet one-way delay: 43.553 ms
Loss rate: 30.39%
```

Run 8: Report of FillP-Sheep — Data Link



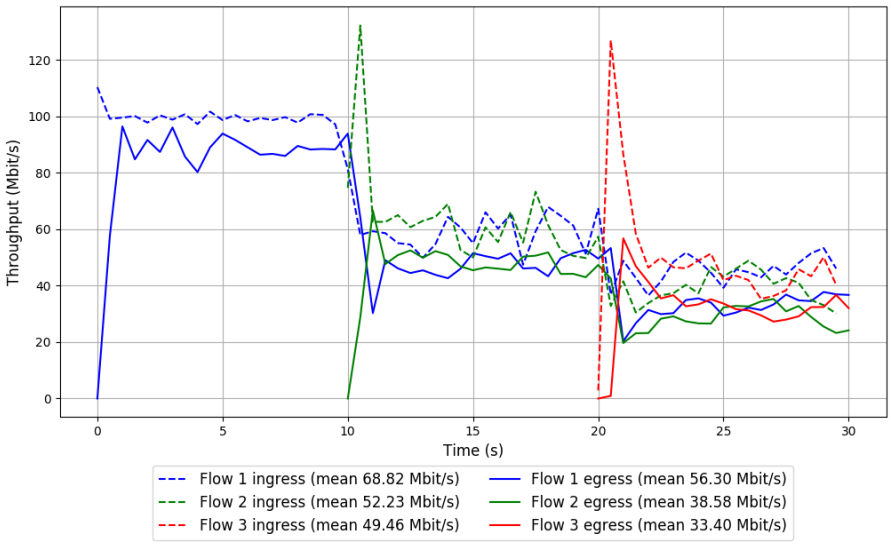


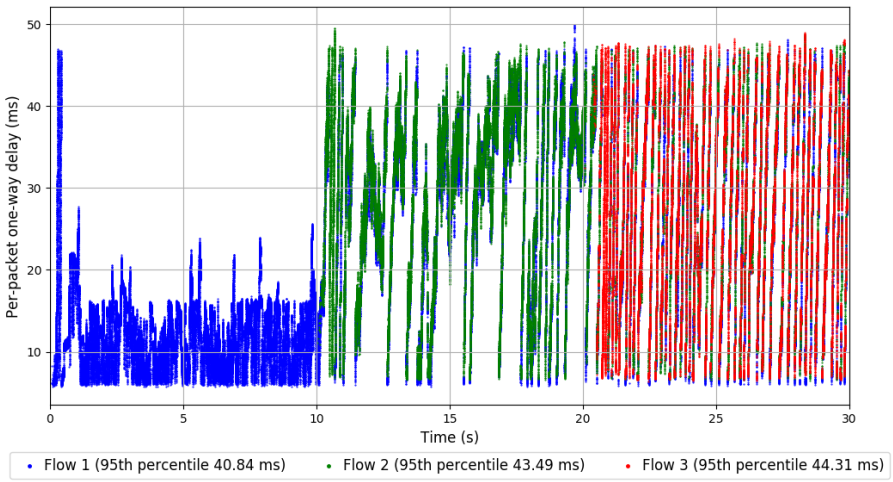
```
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-22 05:12:17
End at: 2018-08-22 05:12:47
Local clock offset: 2.379 ms
Remote clock offset: -63.491 ms

# Below is generated by plot.py at 2018-08-22 05:53:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.05 Mbit/s
95th percentile per-packet one-way delay: 42.394 ms
Loss rate: 22.35%
-- Flow 1:
Average throughput: 56.30 Mbit/s
95th percentile per-packet one-way delay: 40.839 ms
Loss rate: 18.10%
-- Flow 2:
Average throughput: 38.58 Mbit/s
95th percentile per-packet one-way delay: 43.490 ms
Loss rate: 26.01%
-- Flow 3:
Average throughput: 33.40 Mbit/s
95th percentile per-packet one-way delay: 44.313 ms
Loss rate: 32.39%
```

Run 9: Report of FillP-Sheep — Data Link



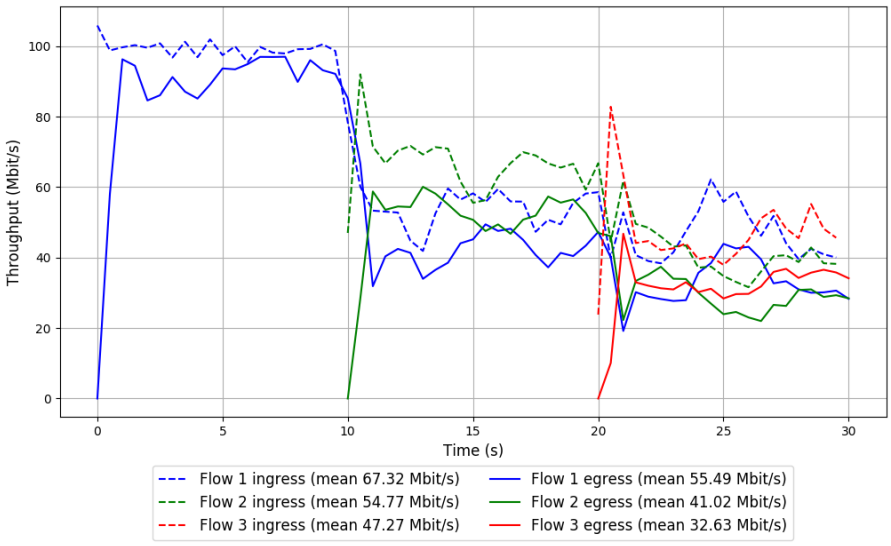


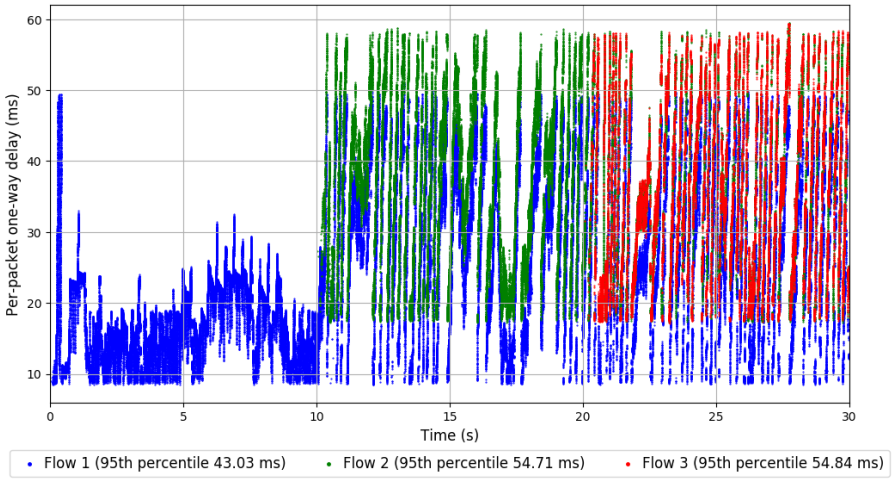
```
Run 10: Statistics of FillP-Sheep

Start at: 2018-08-22 05:31:58
End at: 2018-08-22 05:32:28
Local clock offset: -0.794 ms
Remote clock offset: -60.393 ms

# Below is generated by plot.py at 2018-08-22 05:53:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.58 Mbit/s
95th percentile per-packet one-way delay: 51.598 ms
Loss rate: 21.65%
-- Flow 1:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 43.032 ms
Loss rate: 17.56%
-- Flow 2:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 54.714 ms
Loss rate: 25.14%
-- Flow 3:
Average throughput: 32.63 Mbit/s
95th percentile per-packet one-way delay: 54.836 ms
Loss rate: 31.08%
```

Run 10: Report of FillP-Sheep — Data Link



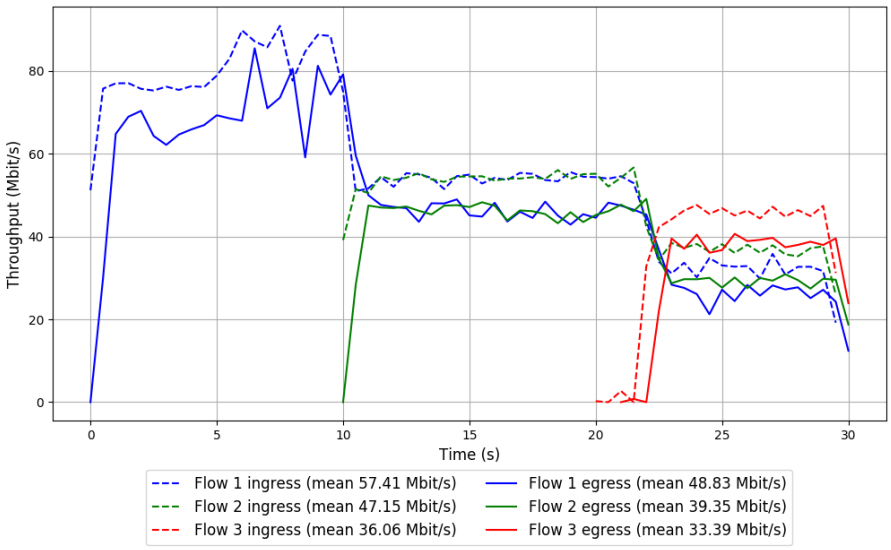


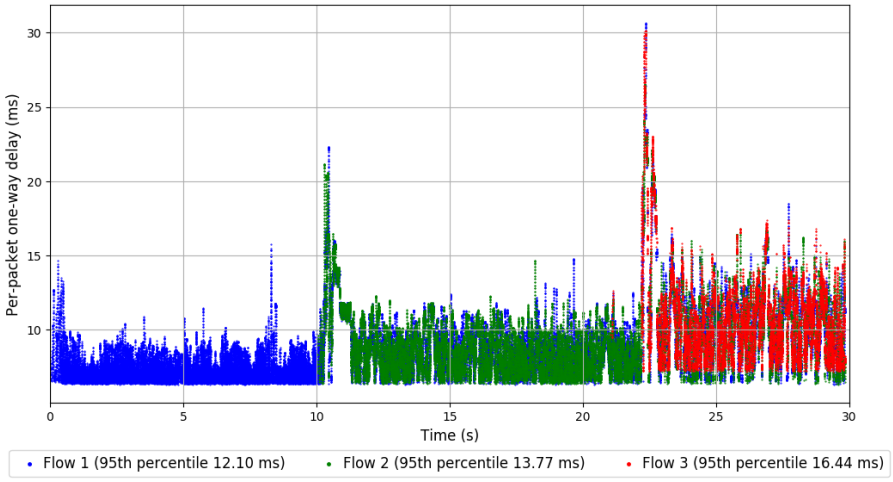
```
Run 1: Statistics of Indigo

Start at: 2018-08-22 02:44:41
End at: 2018-08-22 02:45:11
Local clock offset: 2.364 ms
Remote clock offset: -60.408 ms

# Below is generated by plot.py at 2018-08-22 05:53:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.77 Mbit/s
95th percentile per-packet one-way delay: 13.440 ms
Loss rate: 15.67%
-- Flow 1:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 12.095 ms
Loss rate: 14.94%
-- Flow 2:
Average throughput: 39.35 Mbit/s
95th percentile per-packet one-way delay: 13.769 ms
Loss rate: 16.55%
-- Flow 3:
Average throughput: 33.39 Mbit/s
95th percentile per-packet one-way delay: 16.442 ms
Loss rate: 16.90%
```

Run 1: Report of Indigo — Data Link



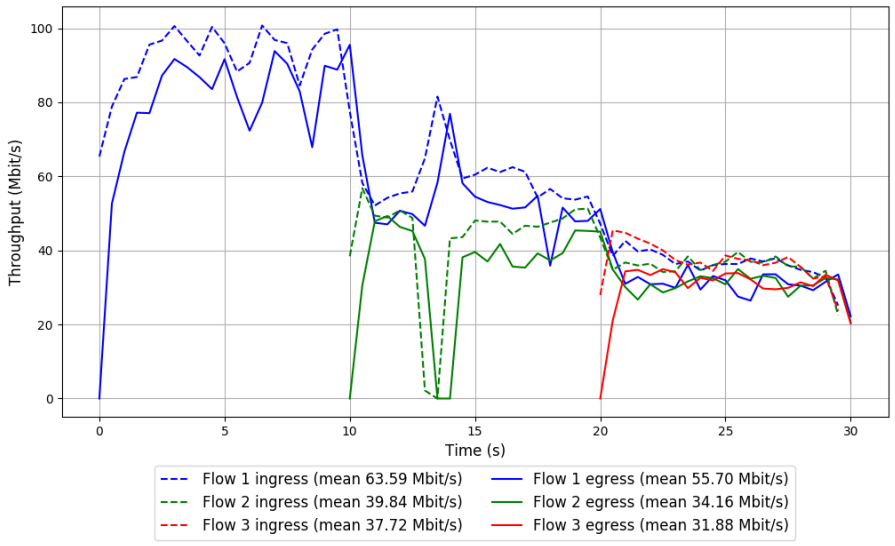


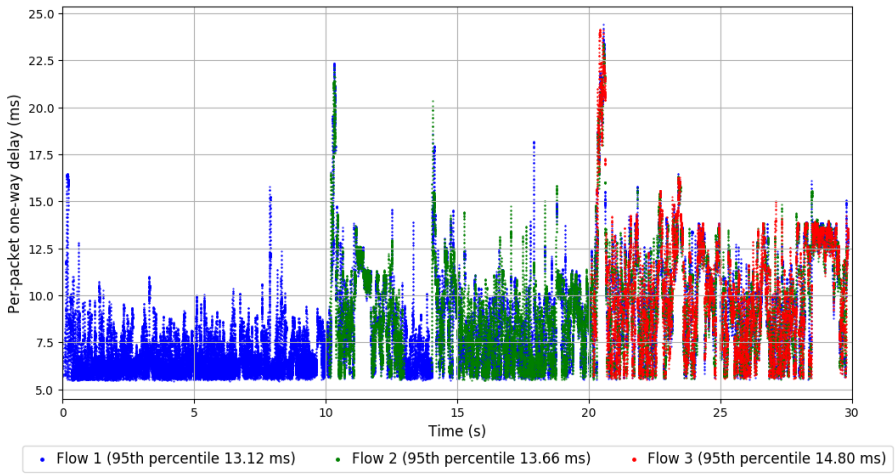
```
Run 2: Statistics of Indigo

Start at: 2018-08-22 03:04:13
End at: 2018-08-22 03:04:43
Local clock offset: -3.147 ms
Remote clock offset: -68.406 ms

# Below is generated by plot.py at 2018-08-22 05:53:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.79 Mbit/s
95th percentile per-packet one-way delay: 13.553 ms
Loss rate: 13.23%
-- Flow 1:
Average throughput: 55.70 Mbit/s
95th percentile per-packet one-way delay: 13.119 ms
Loss rate: 12.39%
-- Flow 2:
Average throughput: 34.16 Mbit/s
95th percentile per-packet one-way delay: 13.656 ms
Loss rate: 14.23%
-- Flow 3:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: 14.802 ms
Loss rate: 15.46%
```

Run 2: Report of Indigo — Data Link



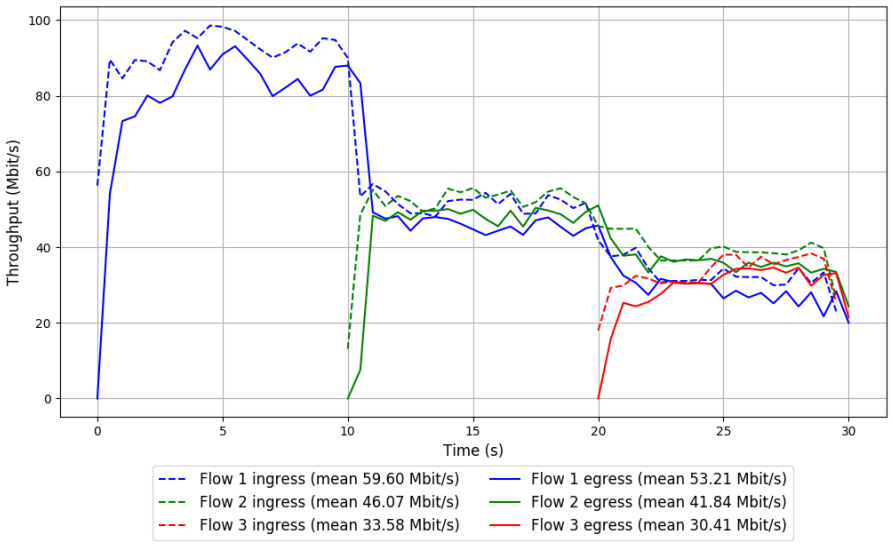


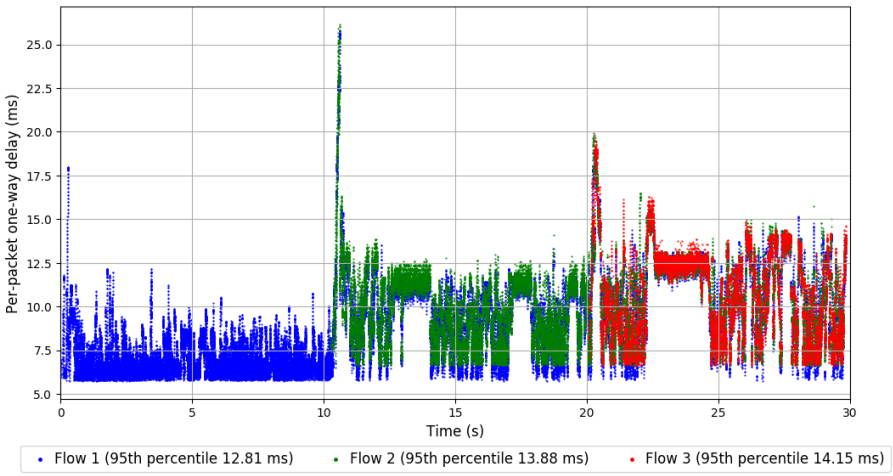
```
Run 3: Statistics of Indigo

Start at: 2018-08-22 03:23:54
End at: 2018-08-22 03:24:24
Local clock offset: 1.358 ms
Remote clock offset: -63.031 ms

# Below is generated by plot.py at 2018-08-22 05:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.61 Mbit/s
95th percentile per-packet one-way delay: 13.640 ms
Loss rate: 10.09%
-- Flow 1:
Average throughput: 53.21 Mbit/s
95th percentile per-packet one-way delay: 12.811 ms
Loss rate: 10.70%
-- Flow 2:
Average throughput: 41.84 Mbit/s
95th percentile per-packet one-way delay: 13.883 ms
Loss rate: 9.15%
-- Flow 3:
Average throughput: 30.41 Mbit/s
95th percentile per-packet one-way delay: 14.147 ms
Loss rate: 9.39%
```

Run 3: Report of Indigo — Data Link



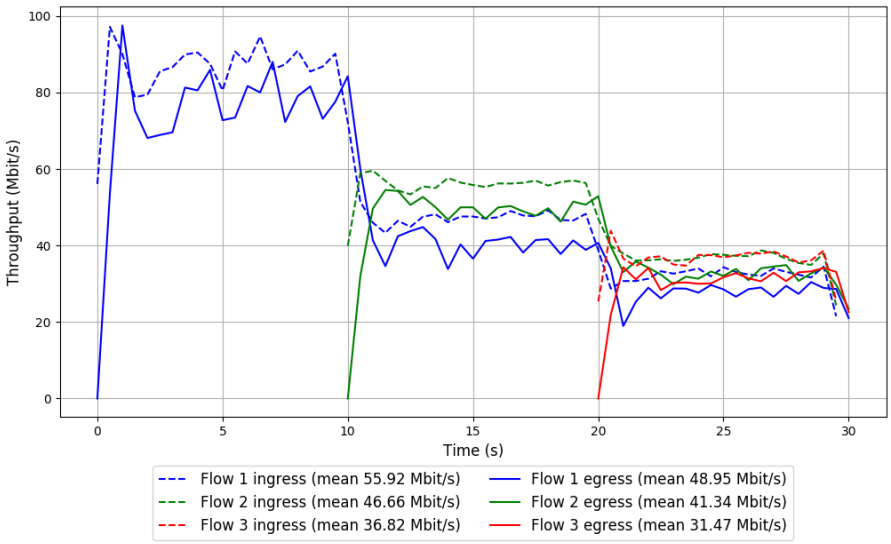


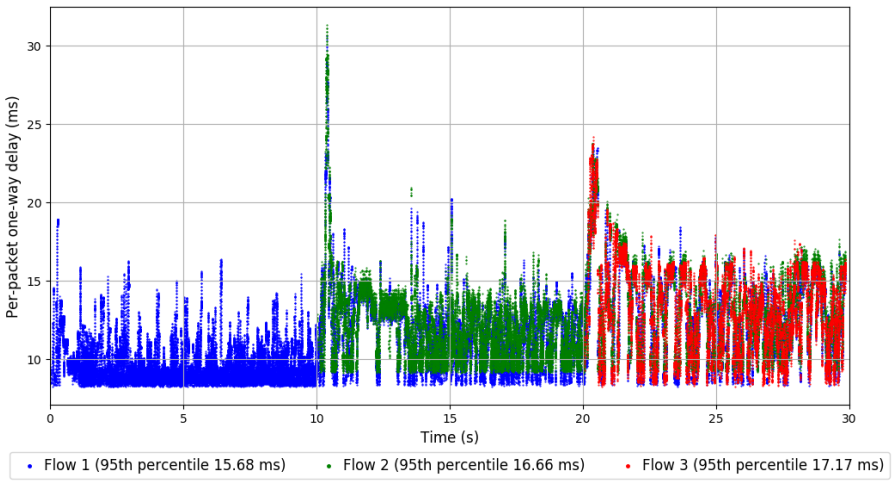
```
Run 4: Statistics of Indigo

Start at: 2018-08-22 03:43:46
End at: 2018-08-22 03:44:16
Local clock offset: -0.87 ms
Remote clock offset: -62.992 ms

# Below is generated by plot.py at 2018-08-22 05:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.73 Mbit/s
95th percentile per-packet one-way delay: 16.114 ms
Loss rate: 12.35%
-- Flow 1:
Average throughput: 48.95 Mbit/s
95th percentile per-packet one-way delay: 15.682 ms
Loss rate: 12.43%
-- Flow 2:
Average throughput: 41.34 Mbit/s
95th percentile per-packet one-way delay: 16.662 ms
Loss rate: 11.38%
-- Flow 3:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 17.172 ms
Loss rate: 14.47%
```

Run 4: Report of Indigo — Data Link



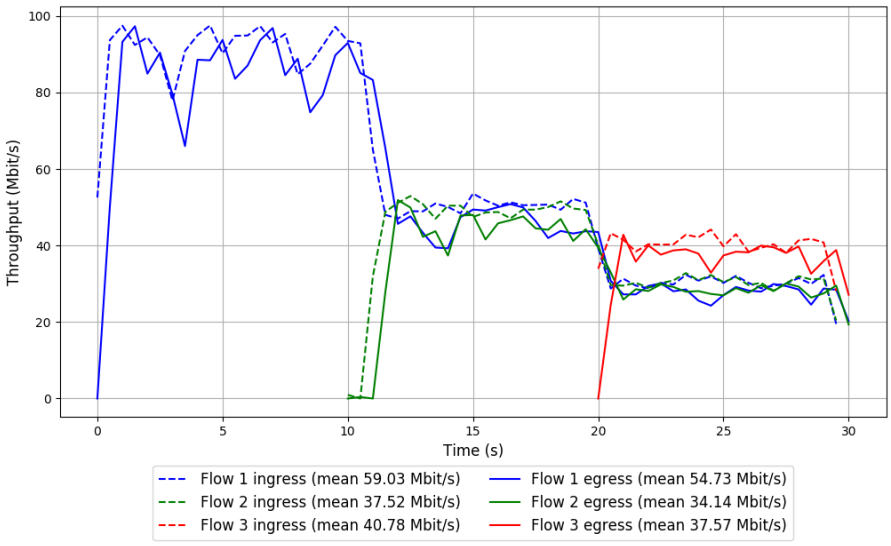


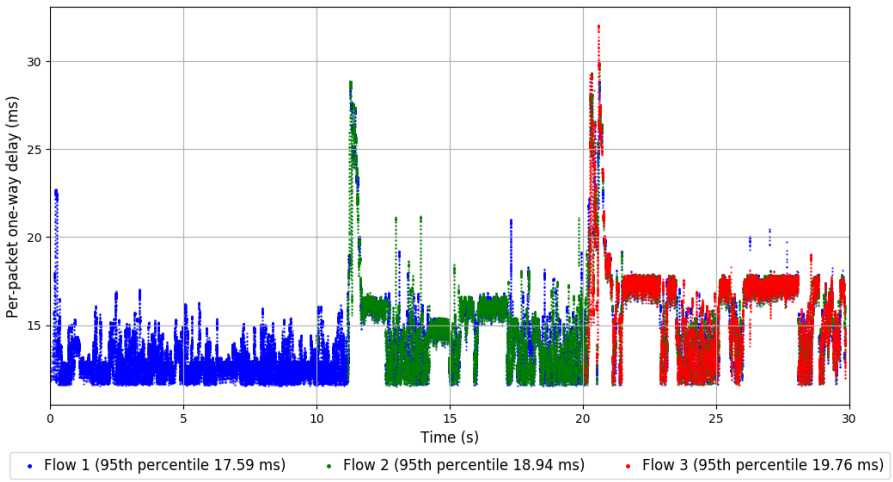
```
Run 5: Statistics of Indigo

Start at: 2018-08-22 04:03:17
End at: 2018-08-22 04:03:47
Local clock offset: 4.173 ms
Remote clock offset: -62.298 ms

# Below is generated by plot.py at 2018-08-22 05:54:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.69 Mbit/s
95th percentile per-packet one-way delay: 17.824 ms
Loss rate: 7.80%
-- Flow 1:
Average throughput: 54.73 Mbit/s
95th percentile per-packet one-way delay: 17.585 ms
Loss rate: 7.27%
-- Flow 2:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 18.939 ms
Loss rate: 9.02%
-- Flow 3:
Average throughput: 37.57 Mbit/s
95th percentile per-packet one-way delay: 19.764 ms
Loss rate: 7.88%
```

Run 5: Report of Indigo — Data Link



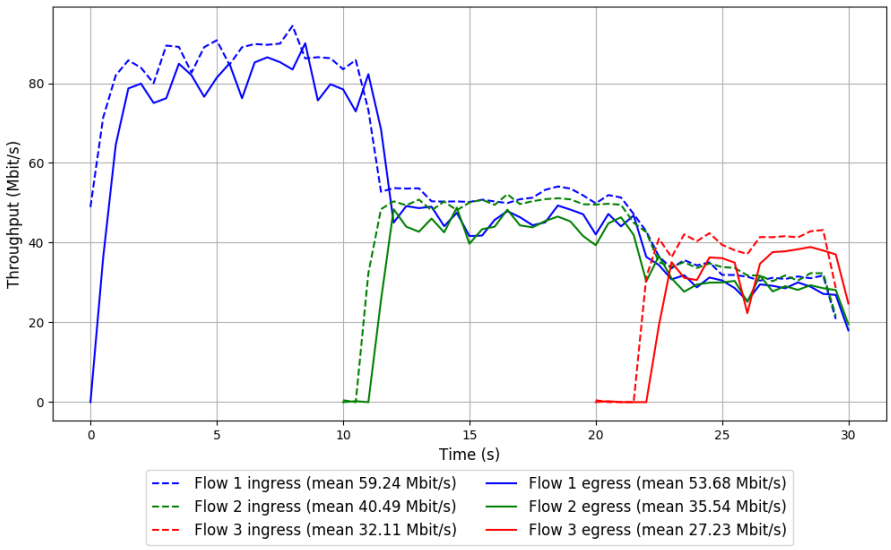


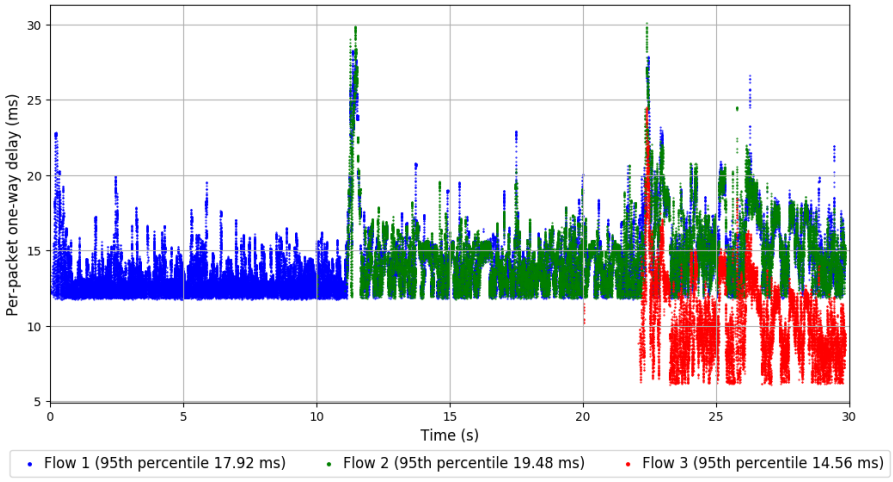
```
Run 6: Statistics of Indigo

Start at: 2018-08-22 04:22:50
End at: 2018-08-22 04:23:20
Local clock offset: 3.354 ms
Remote clock offset: -63.713 ms

# Below is generated by plot.py at 2018-08-22 05:54:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.21 Mbit/s
95th percentile per-packet one-way delay: 18.318 ms
Loss rate: 10.81%
-- Flow 1:
Average throughput: 53.68 Mbit/s
95th percentile per-packet one-way delay: 17.918 ms
Loss rate: 9.39%
-- Flow 2:
Average throughput: 35.54 Mbit/s
95th percentile per-packet one-way delay: 19.484 ms
Loss rate: 12.22%
-- Flow 3:
Average throughput: 27.23 Mbit/s
95th percentile per-packet one-way delay: 14.557 ms
Loss rate: 15.22%
```

Run 6: Report of Indigo — Data Link



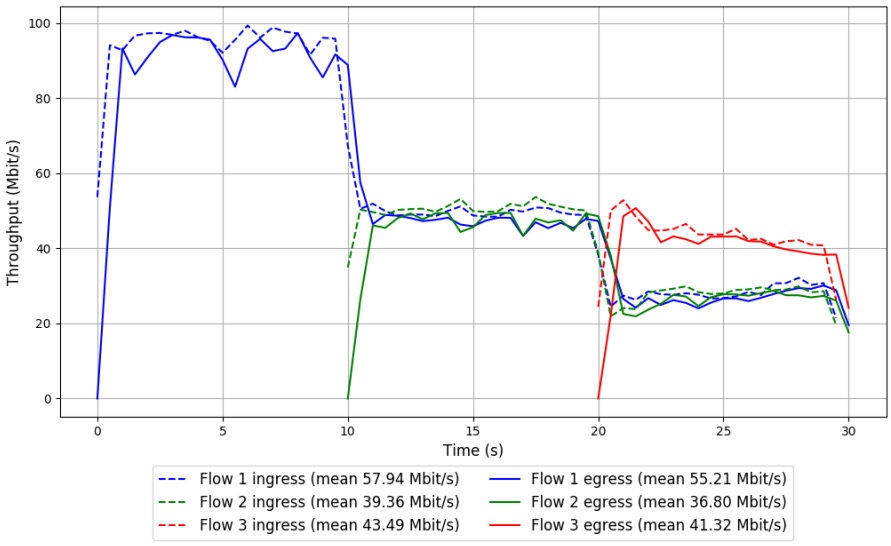


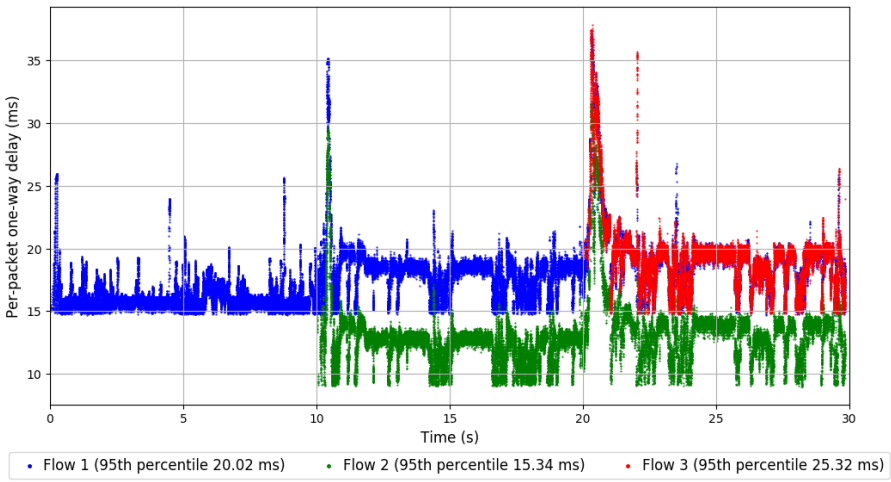
```
Run 7: Statistics of Indigo

Start at: 2018-08-22 04:42:25
End at: 2018-08-22 04:42:55
Local clock offset: 0.431 ms
Remote clock offset: -64.576 ms

# Below is generated by plot.py at 2018-08-22 05:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.16 Mbit/s
95th percentile per-packet one-way delay: 20.370 ms
Loss rate: 5.23%
-- Flow 1:
Average throughput: 55.21 Mbit/s
95th percentile per-packet one-way delay: 20.022 ms
Loss rate: 4.71%
-- Flow 2:
Average throughput: 36.80 Mbit/s
95th percentile per-packet one-way delay: 15.341 ms
Loss rate: 6.51%
-- Flow 3:
Average throughput: 41.32 Mbit/s
95th percentile per-packet one-way delay: 25.323 ms
Loss rate: 4.96%
```

Run 7: Report of Indigo — Data Link



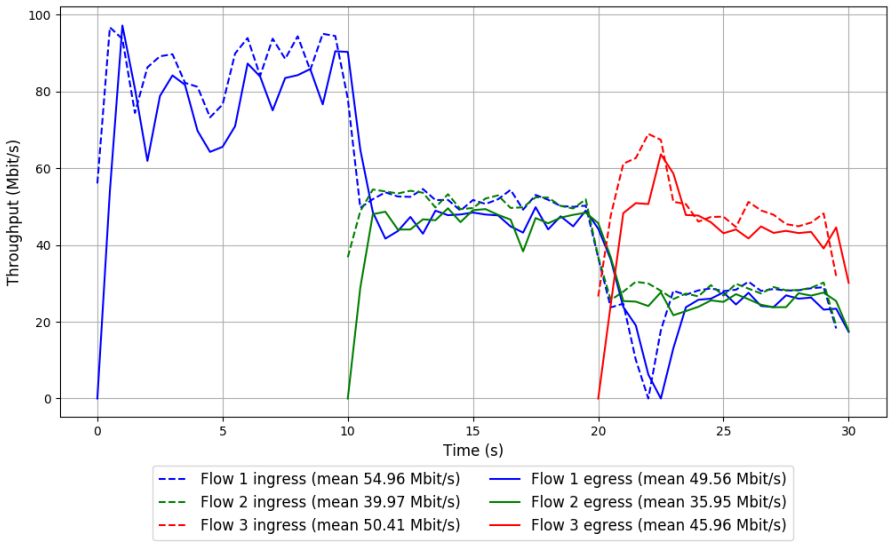


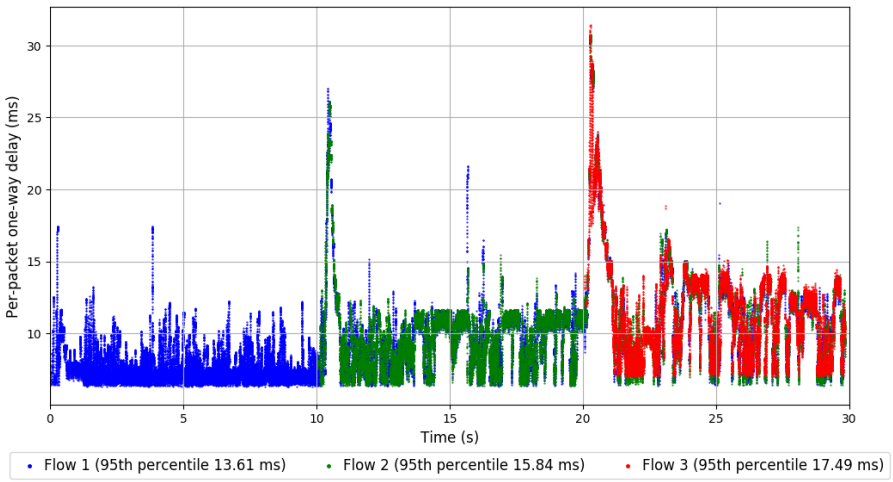
```
Run 8: Statistics of Indigo

Start at: 2018-08-22 05:01:58
End at: 2018-08-22 05:02:28
Local clock offset: 2.582 ms
Remote clock offset: -63.483 ms

# Below is generated by plot.py at 2018-08-22 05:54:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.47 Mbit/s
95th percentile per-packet one-way delay: 14.767 ms
Loss rate: 9.71%
-- Flow 1:
Average throughput: 49.56 Mbit/s
95th percentile per-packet one-way delay: 13.608 ms
Loss rate: 9.82%
-- Flow 2:
Average throughput: 35.95 Mbit/s
95th percentile per-packet one-way delay: 15.843 ms
Loss rate: 10.03%
-- Flow 3:
Average throughput: 45.96 Mbit/s
95th percentile per-packet one-way delay: 17.491 ms
Loss rate: 8.86%
```

Run 8: Report of Indigo — Data Link



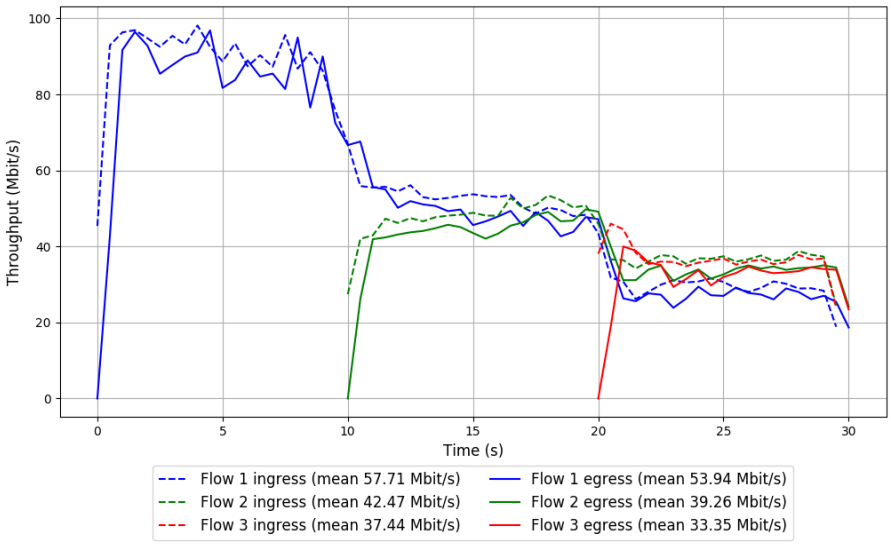


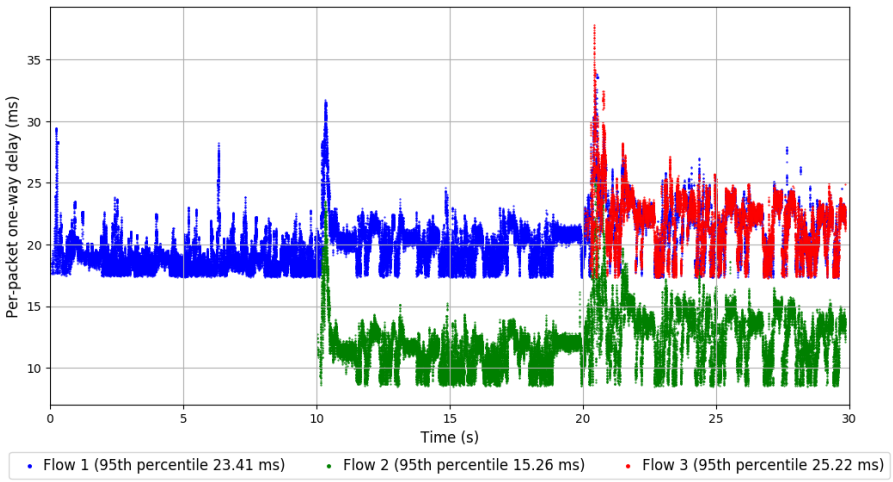
```
Run 9: Statistics of Indigo

Start at: 2018-08-22 05:21:39
End at: 2018-08-22 05:22:09
Local clock offset: -0.481 ms
Remote clock offset: -61.952 ms

# Below is generated by plot.py at 2018-08-22 05:54:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.91 Mbit/s
95th percentile per-packet one-way delay: 23.591 ms
Loss rate: 7.41%
-- Flow 1:
Average throughput: 53.94 Mbit/s
95th percentile per-packet one-way delay: 23.415 ms
Loss rate: 6.59%
-- Flow 2:
Average throughput: 39.26 Mbit/s
95th percentile per-packet one-way delay: 15.264 ms
Loss rate: 7.56%
-- Flow 3:
Average throughput: 33.35 Mbit/s
95th percentile per-packet one-way delay: 25.224 ms
Loss rate: 10.93%
```

Run 9: Report of Indigo — Data Link



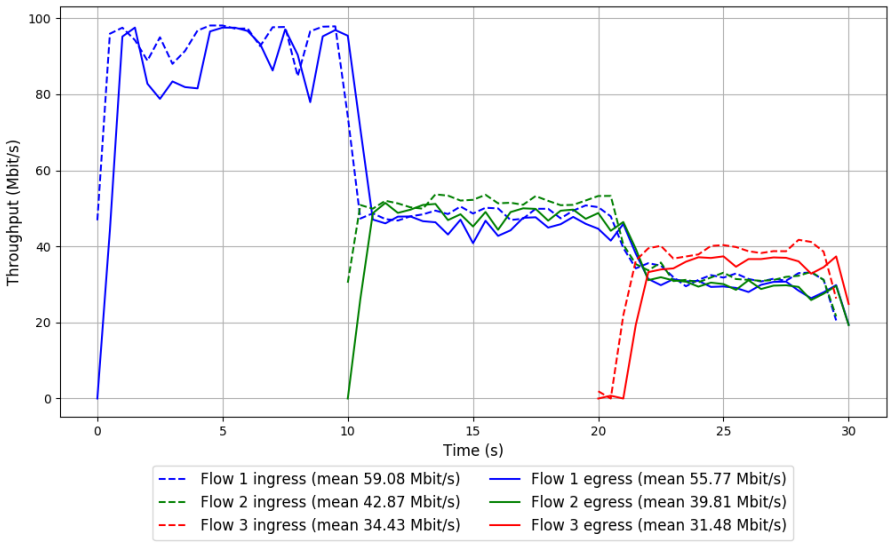


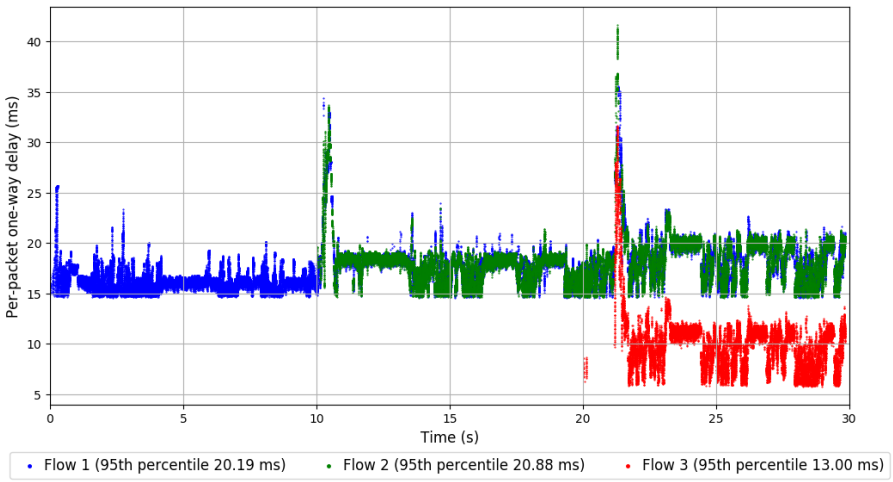
```
Run 10: Statistics of Indigo

Start at: 2018-08-22 05:41:14
End at: 2018-08-22 05:41:44
Local clock offset: 1.845 ms
Remote clock offset: -59.108 ms

# Below is generated by plot.py at 2018-08-22 05:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.53 Mbit/s
95th percentile per-packet one-way delay: 20.369 ms
Loss rate: 6.38%
-- Flow 1:
Average throughput: 55.77 Mbit/s
95th percentile per-packet one-way delay: 20.186 ms
Loss rate: 5.61%
-- Flow 2:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 20.878 ms
Loss rate: 7.13%
-- Flow 3:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 12.999 ms
Loss rate: 8.54%
```

Run 10: Report of Indigo — Data Link



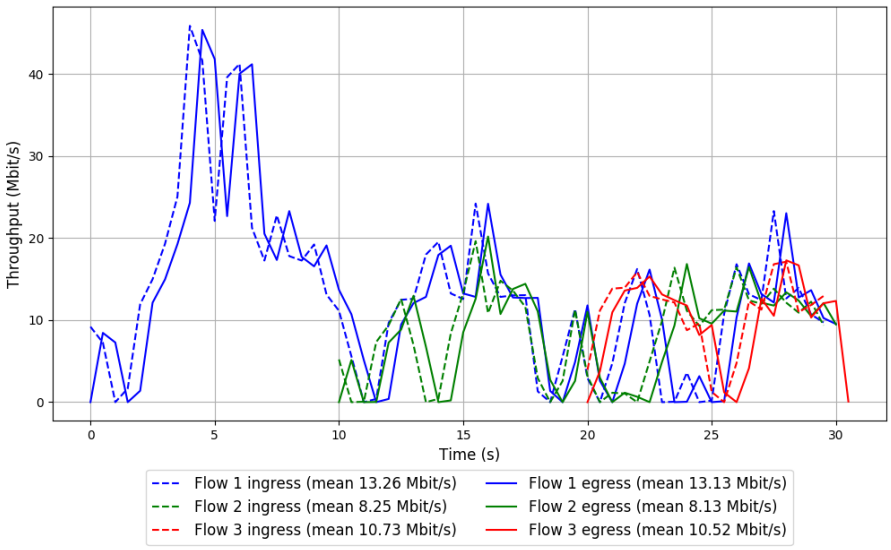


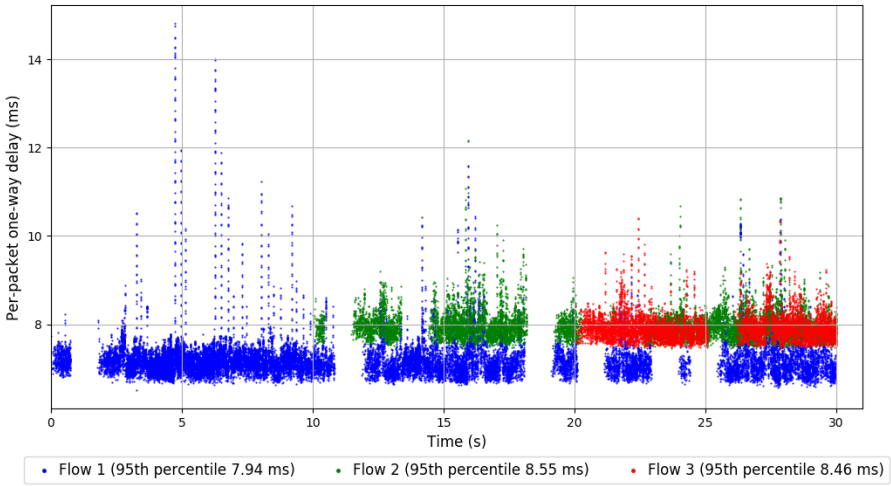
```
Run 1: Statistics of LEDBAT

Start at: 2018-08-22 02:37:48
End at: 2018-08-22 02:38:18
Local clock offset: 2.175 ms
Remote clock offset: -60.983 ms

# Below is generated by plot.py at 2018-08-22 05:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 8.320 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 13.13 Mbit/s
95th percentile per-packet one-way delay: 7.937 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 8.552 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 8.462 ms
Loss rate: 2.02%
```

Run 1: Report of LEDBAT — Data Link



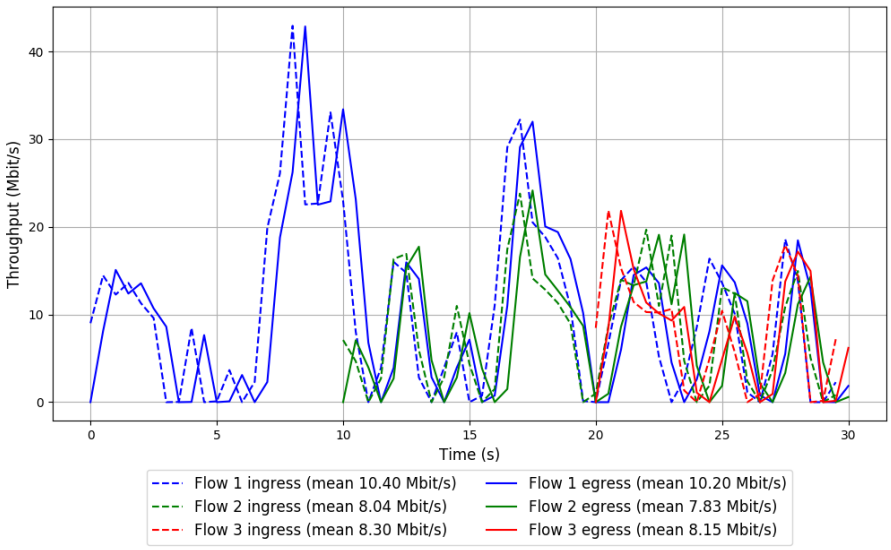


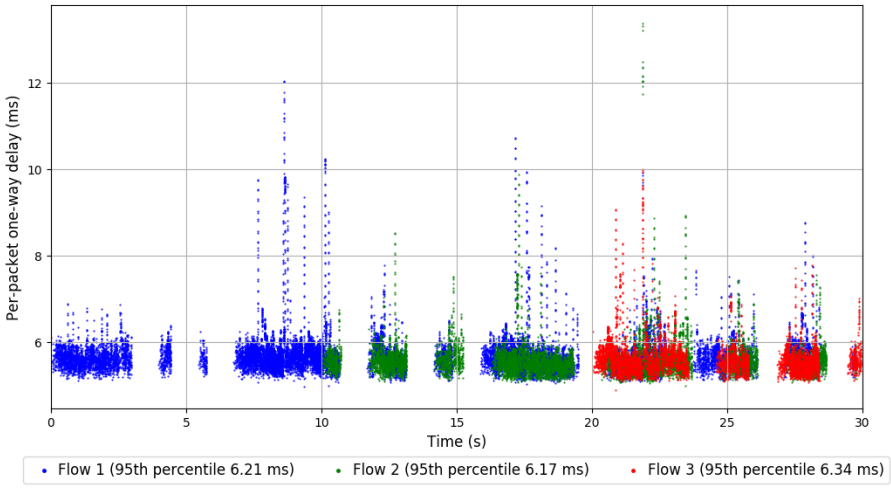
```
Run 2: Statistics of LEDBAT

Start at: 2018-08-22 02:57:20
End at: 2018-08-22 02:57:50
Local clock offset: 4.11 ms
Remote clock offset: -59.182 ms

# Below is generated by plot.py at 2018-08-22 05:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.01 Mbit/s
95th percentile per-packet one-way delay: 6.211 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 6.208 ms
Loss rate: 2.00%
-- Flow 2:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 6.168 ms
Loss rate: 2.76%
-- Flow 3:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 6.342 ms
Loss rate: 2.05%
```

Run 2: Report of LEDBAT — Data Link



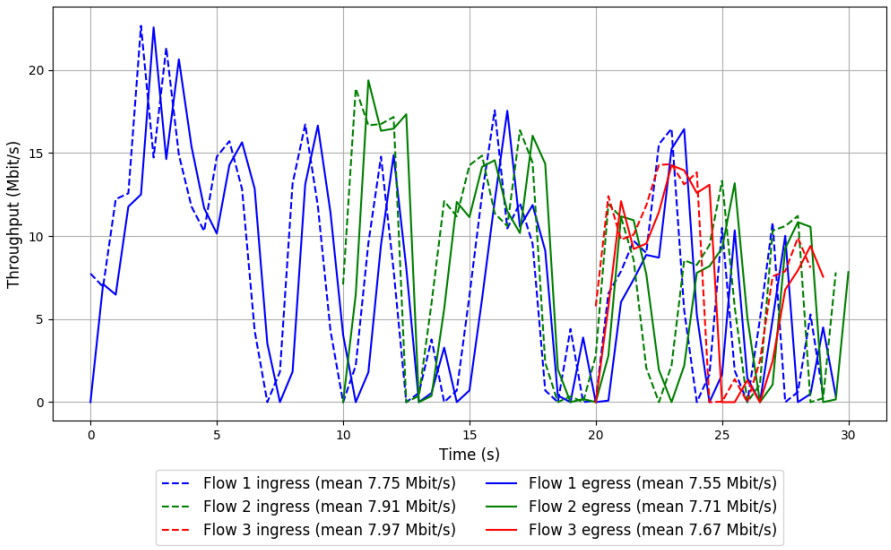


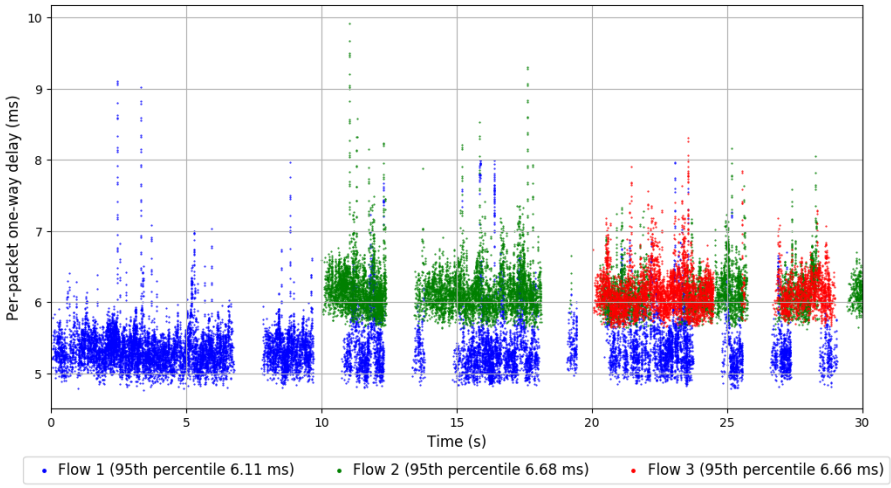
```
Run 3: Statistics of LEDBAT

Start at: 2018-08-22 03:16:52
End at: 2018-08-22 03:17:22
Local clock offset: 2.665 ms
Remote clock offset: -62.694 ms

# Below is generated by plot.py at 2018-08-22 05:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.74 Mbit/s
95th percentile per-packet one-way delay: 6.538 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 7.55 Mbit/s
95th percentile per-packet one-way delay: 6.107 ms
Loss rate: 2.64%
-- Flow 2:
Average throughput: 7.71 Mbit/s
95th percentile per-packet one-way delay: 6.682 ms
Loss rate: 2.49%
-- Flow 3:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 6.663 ms
Loss rate: 3.78%
```

Run 3: Report of LEDBAT — Data Link



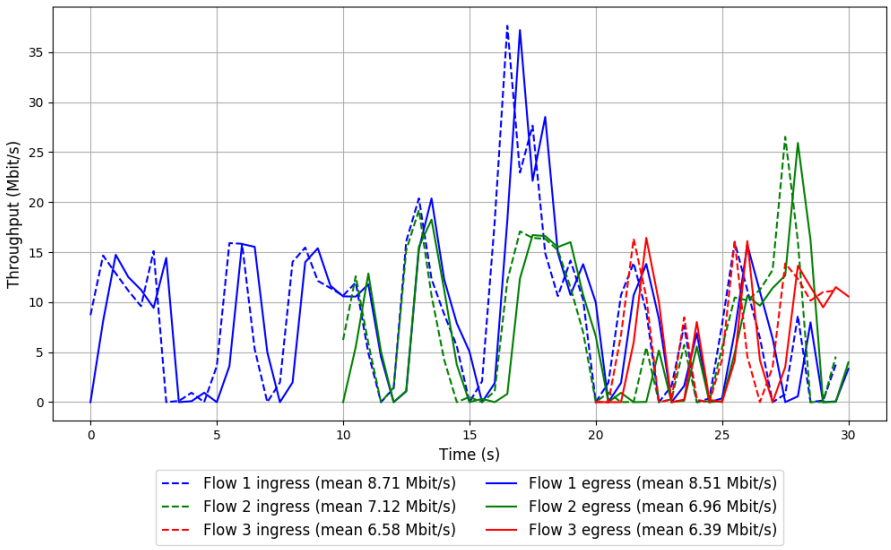


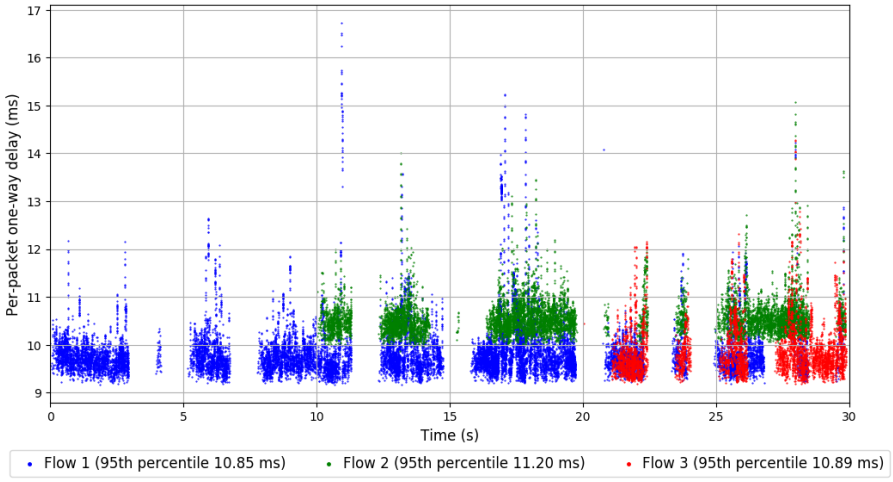
```
Run 4: Statistics of LEDBAT

Start at: 2018-08-22 03:36:31
End at: 2018-08-22 03:37:01
Local clock offset: -2.323 ms
Remote clock offset: -62.561 ms

# Below is generated by plot.py at 2018-08-22 05:54:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.22 Mbit/s
95th percentile per-packet one-way delay: 11.020 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 10.849 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 11.204 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 10.888 ms
Loss rate: 3.10%
```

Run 4: Report of LEDBAT — Data Link



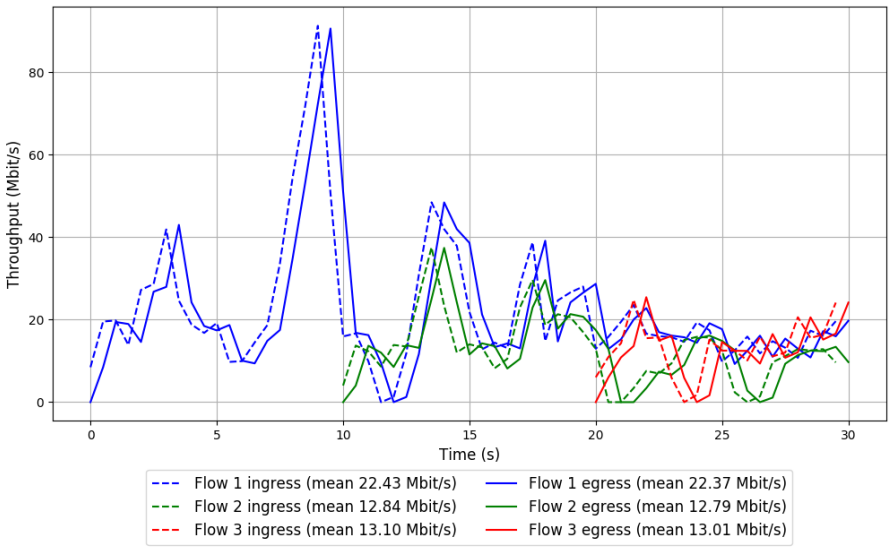


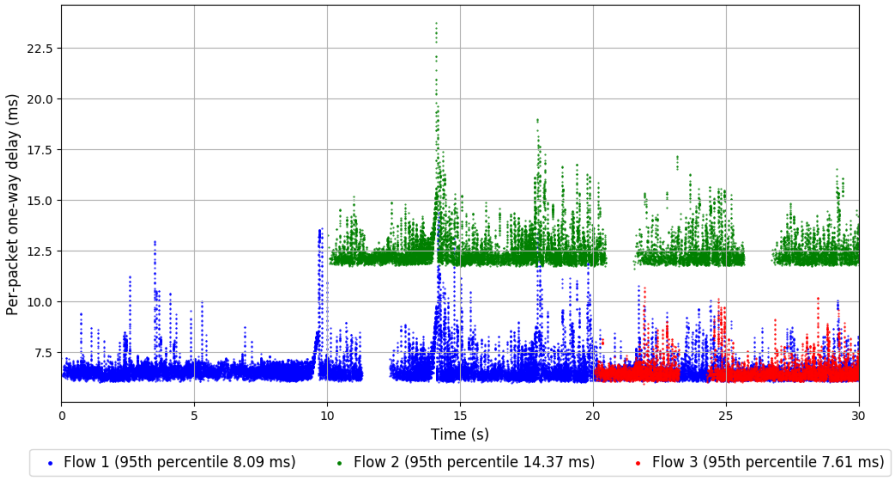
```
Run 5: Statistics of LEDBAT

Start at: 2018-08-22 03:56:19
End at: 2018-08-22 03:56:49
Local clock offset: 4.154 ms
Remote clock offset: -61.827 ms

# Below is generated by plot.py at 2018-08-22 05:54:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.21 Mbit/s
95th percentile per-packet one-way delay: 13.001 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 22.37 Mbit/s
95th percentile per-packet one-way delay: 8.086 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 12.79 Mbit/s
95th percentile per-packet one-way delay: 14.365 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 13.01 Mbit/s
95th percentile per-packet one-way delay: 7.610 ms
Loss rate: 0.64%
```

Run 5: Report of LEDBAT — Data Link



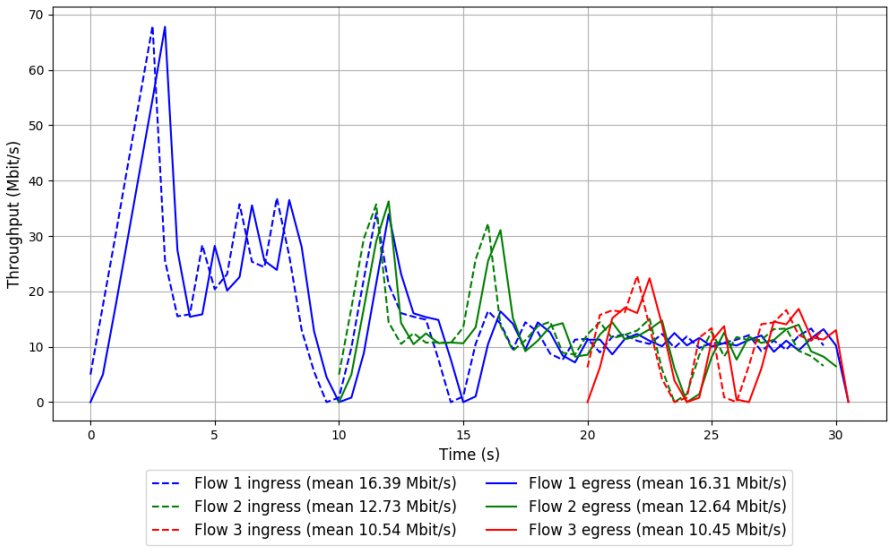


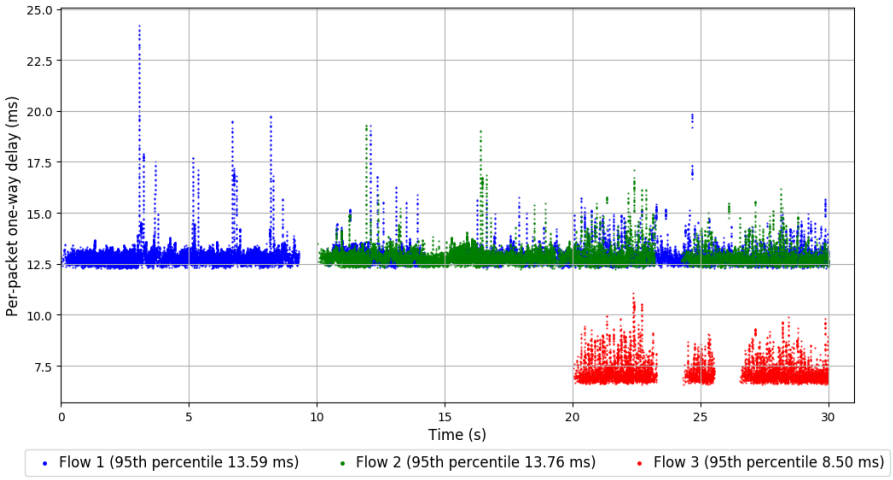
```
Run 6: Statistics of LEDBAT

Start at: 2018-08-22 04:15:52
End at: 2018-08-22 04:16:22
Local clock offset: 3.268 ms
Remote clock offset: -62.941 ms

# Below is generated by plot.py at 2018-08-22 05:54:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.21 Mbit/s
95th percentile per-packet one-way delay: 13.570 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 16.31 Mbit/s
95th percentile per-packet one-way delay: 13.594 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: 13.760 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 10.45 Mbit/s
95th percentile per-packet one-way delay: 8.498 ms
Loss rate: 0.79%
```

Run 6: Report of LEDBAT — Data Link



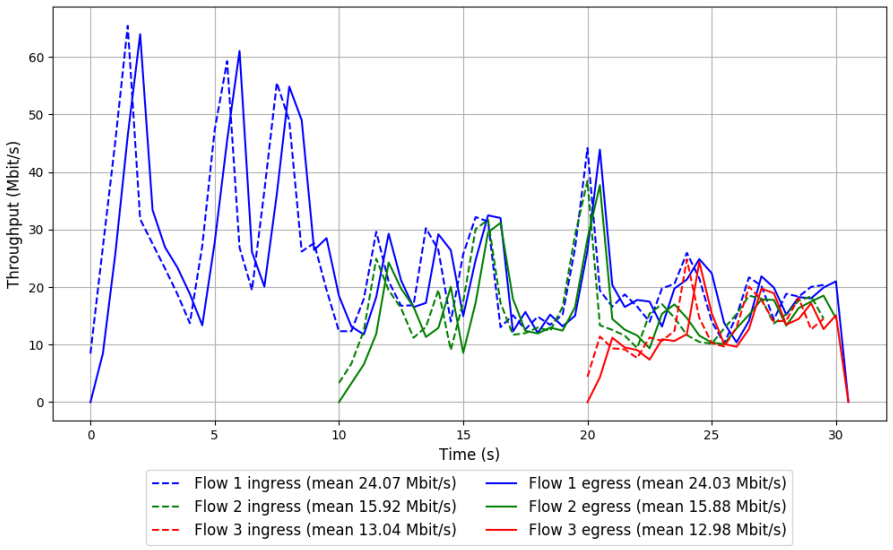


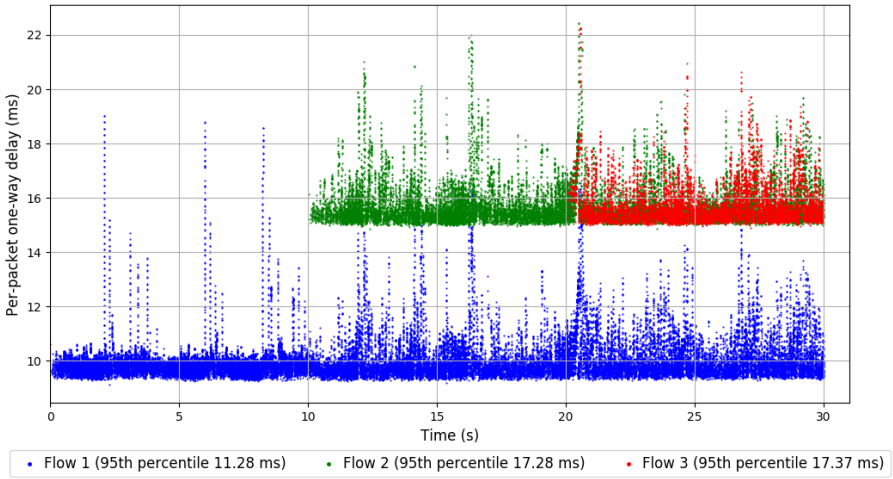
```
Run 7: Statistics of LEDBAT

Start at: 2018-08-22 04:35:28
End at: 2018-08-22 04:35:58
Local clock offset: -0.115 ms
Remote clock offset: -64.464 ms

# Below is generated by plot.py at 2018-08-22 05:54:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 16.456 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 24.03 Mbit/s
95th percentile per-packet one-way delay: 11.283 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 15.88 Mbit/s
95th percentile per-packet one-way delay: 17.283 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 12.98 Mbit/s
95th percentile per-packet one-way delay: 17.374 ms
Loss rate: 0.49%
```

Run 7: Report of LEDBAT — Data Link



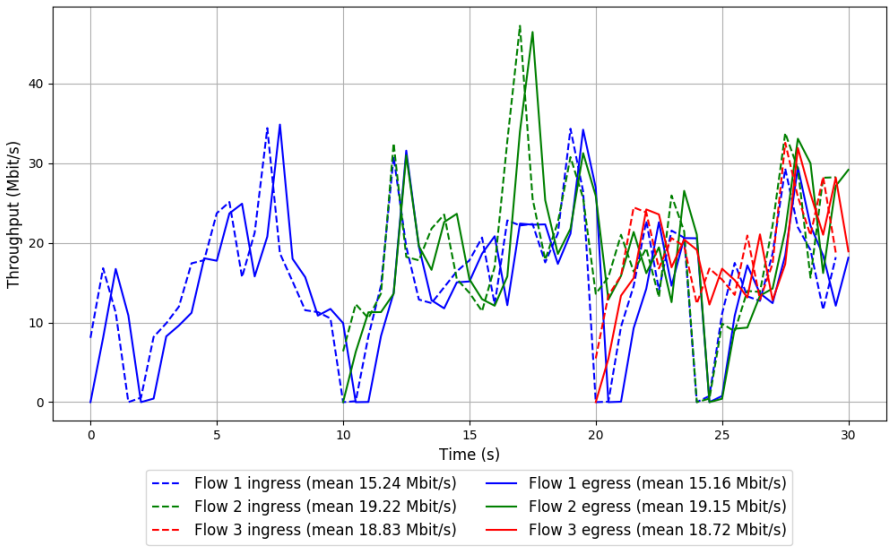


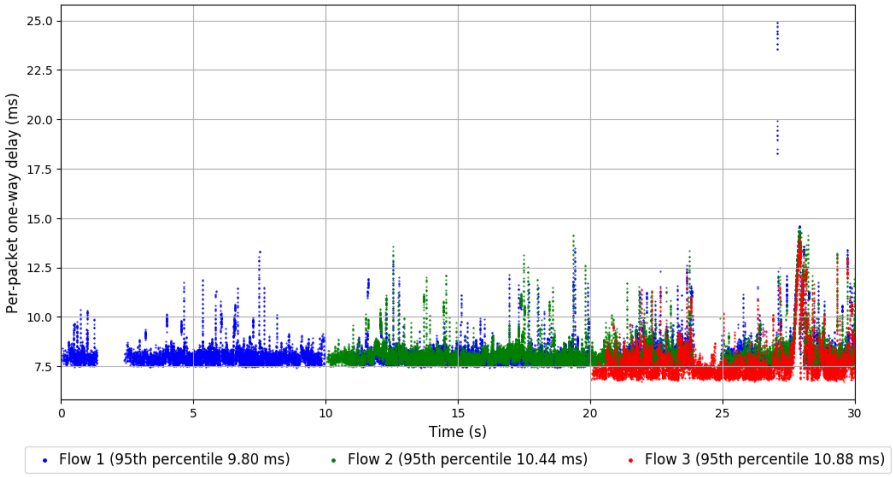
```
Run 8: Statistics of LEDBAT

Start at: 2018-08-22 04:54:56
End at: 2018-08-22 04:55:26
Local clock offset: 1.673 ms
Remote clock offset: -64.027 ms

# Below is generated by plot.py at 2018-08-22 05:54:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 10.305 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 15.16 Mbit/s
95th percentile per-packet one-way delay: 9.800 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 10.439 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 10.877 ms
Loss rate: 0.54%
```

Run 8: Report of LEDBAT — Data Link



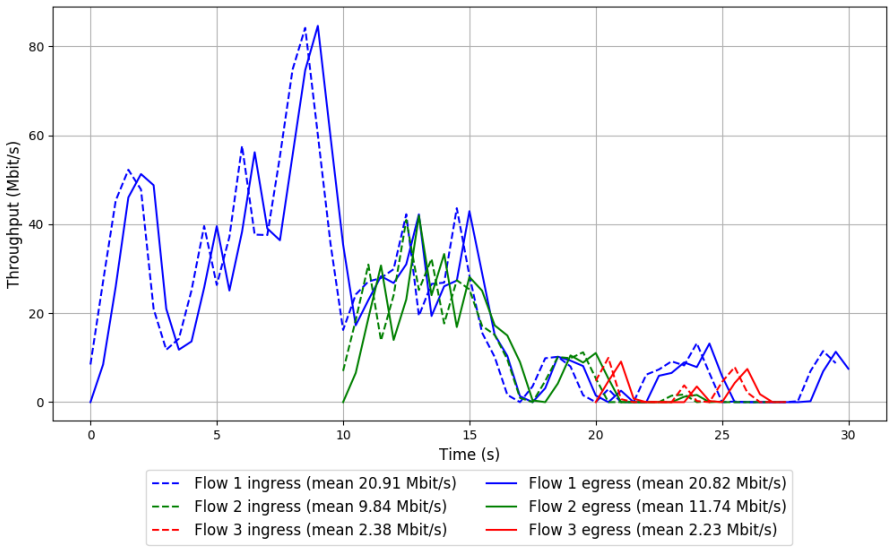


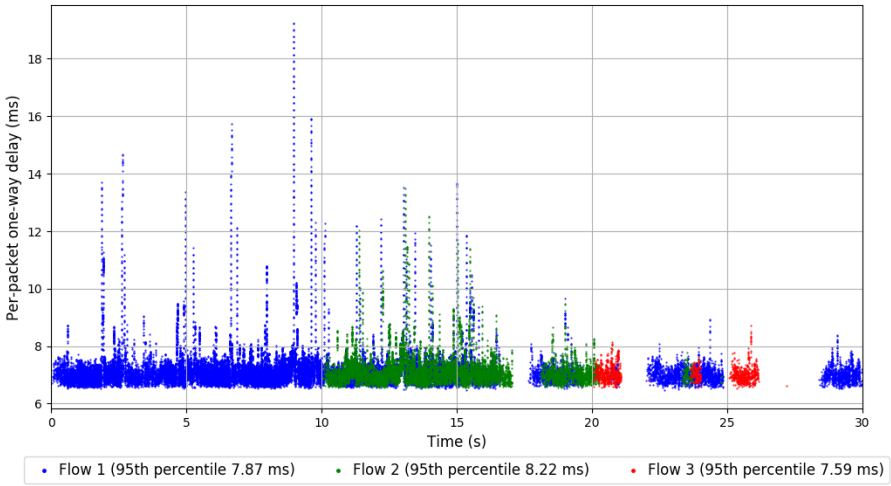
```
Run 9: Statistics of LEDBAT

Start at: 2018-08-22 05:14:36
End at: 2018-08-22 05:15:06
Local clock offset: 2.196 ms
Remote clock offset: -63.628 ms

# Below is generated by plot.py at 2018-08-22 05:54:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.15 Mbit/s
95th percentile per-packet one-way delay: 7.990 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 20.82 Mbit/s
95th percentile per-packet one-way delay: 7.874 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 8.225 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 7.589 ms
Loss rate: 6.38%
```

Run 9: Report of LEDBAT — Data Link



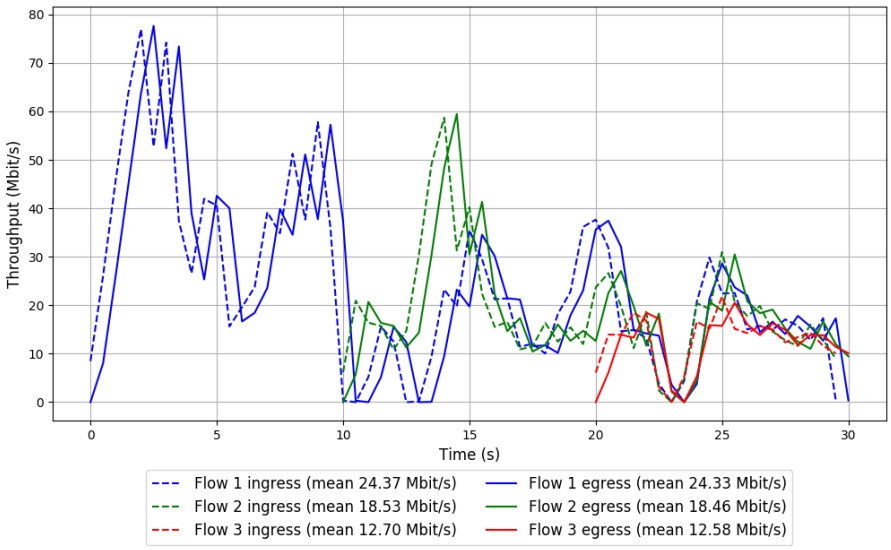


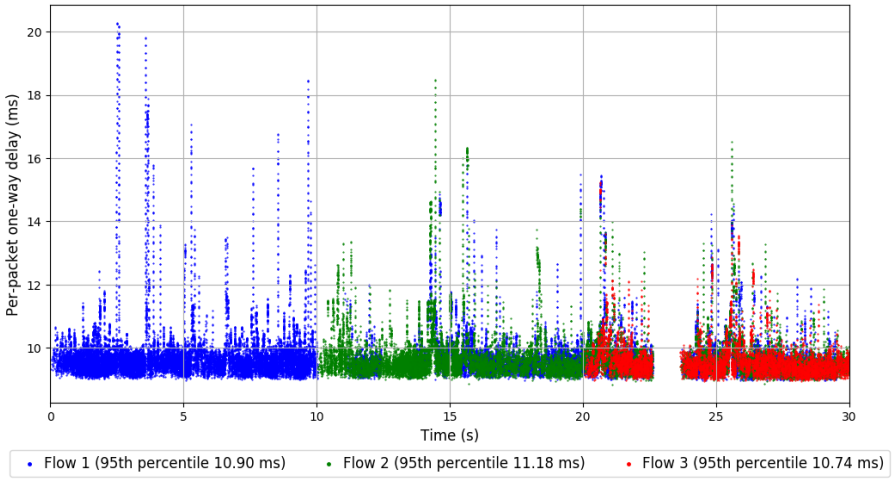
```
Run 10: Statistics of LEDBAT

Start at: 2018-08-22 05:34:14
End at: 2018-08-22 05:34:44
Local clock offset: 0.045 ms
Remote clock offset: -58.917 ms

# Below is generated by plot.py at 2018-08-22 05:54:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.44 Mbit/s
95th percentile per-packet one-way delay: 10.971 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 24.33 Mbit/s
95th percentile per-packet one-way delay: 10.897 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 18.46 Mbit/s
95th percentile per-packet one-way delay: 11.182 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 12.58 Mbit/s
95th percentile per-packet one-way delay: 10.741 ms
Loss rate: 0.95%
```

Run 10: Report of LEDBAT — Data Link



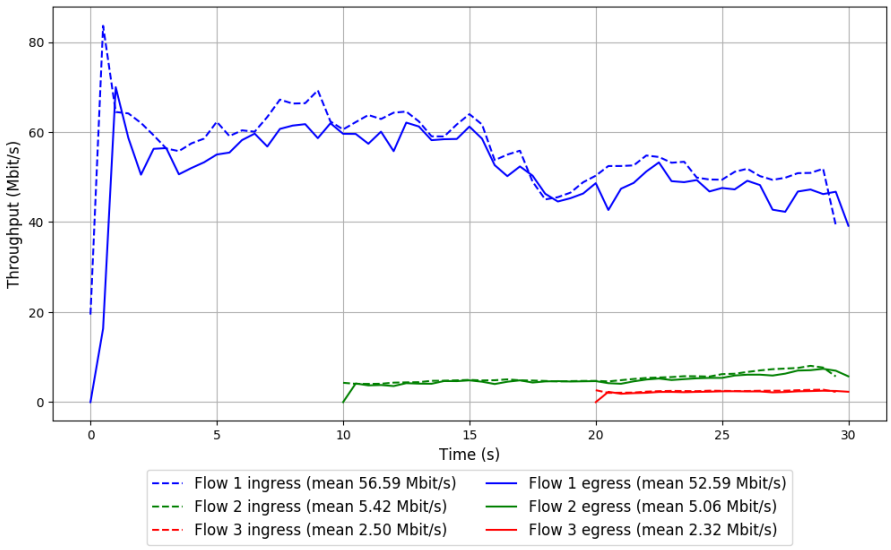


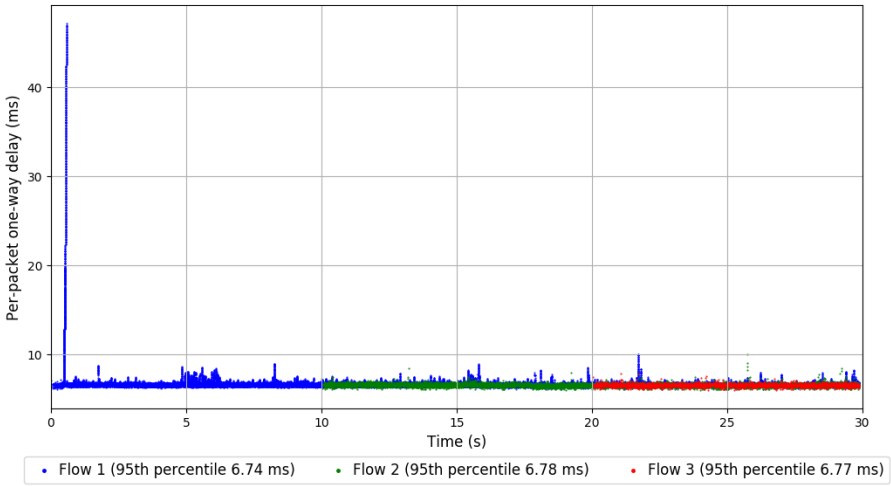
```
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-22 02:43:34
End at: 2018-08-22 02:44:04
Local clock offset: 2.714 ms
Remote clock offset: -60.207 ms

# Below is generated by plot.py at 2018-08-22 05:54:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 6.741 ms
Loss rate: 7.05%
-- Flow 1:
Average throughput: 52.59 Mbit/s
95th percentile per-packet one-way delay: 6.737 ms
Loss rate: 7.08%
-- Flow 2:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 6.775 ms
Loss rate: 6.50%
-- Flow 3:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 6.768 ms
Loss rate: 7.02%
```

Run 1: Report of PCC-Allegro — Data Link



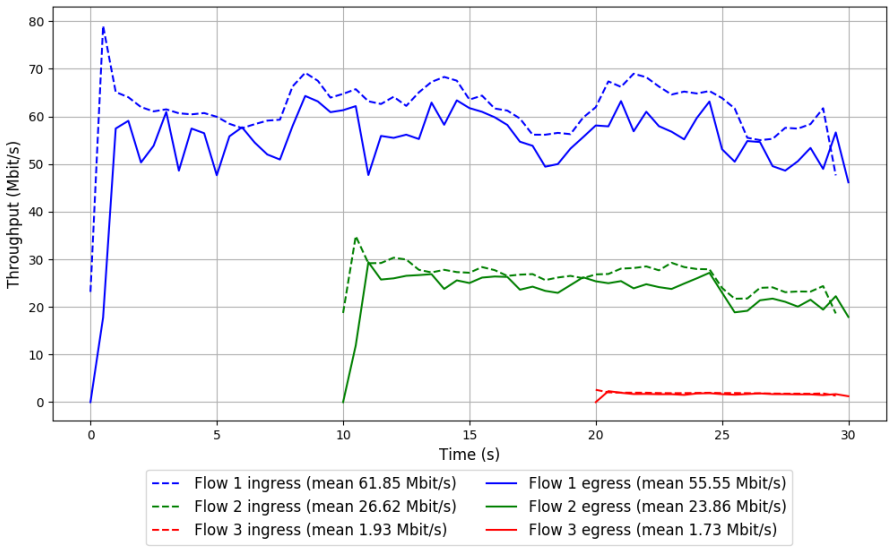


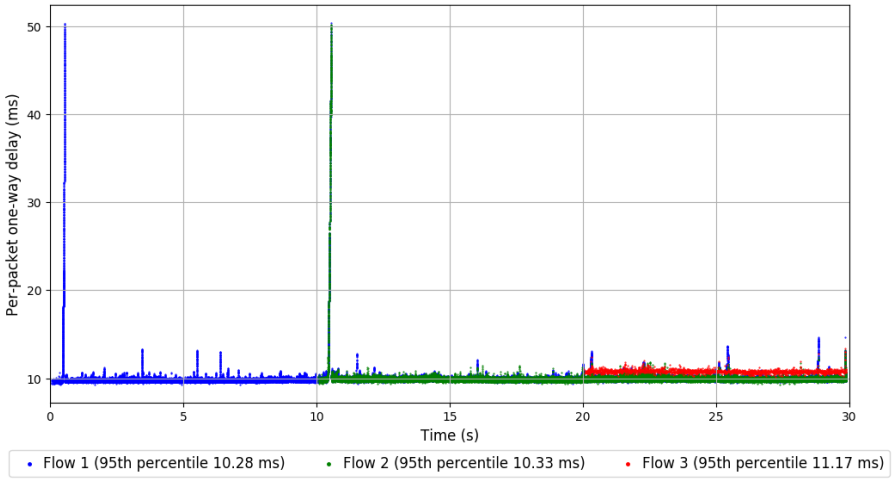
```
Run 2: Statistics of PCC-Allegro

Start at: 2018-08-22 03:03:05
End at: 2018-08-22 03:03:35
Local clock offset: -0.052 ms
Remote clock offset: -60.201 ms

# Below is generated by plot.py at 2018-08-22 05:55:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.98 Mbit/s
95th percentile per-packet one-way delay: 10.361 ms
Loss rate: 10.23%
-- Flow 1:
Average throughput: 55.55 Mbit/s
95th percentile per-packet one-way delay: 10.275 ms
Loss rate: 10.18%
-- Flow 2:
Average throughput: 23.86 Mbit/s
95th percentile per-packet one-way delay: 10.327 ms
Loss rate: 10.38%
-- Flow 3:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 11.172 ms
Loss rate: 10.55%
```

Run 2: Report of PCC-Allegro — Data Link



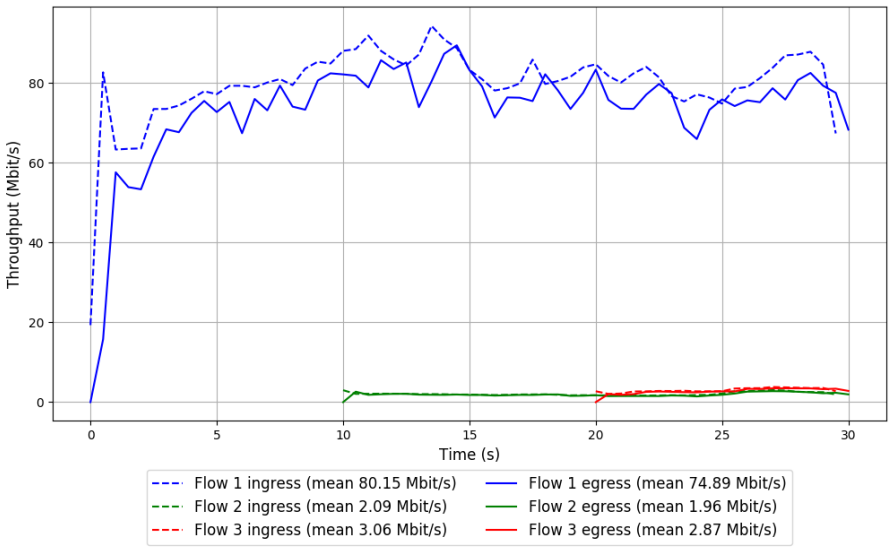


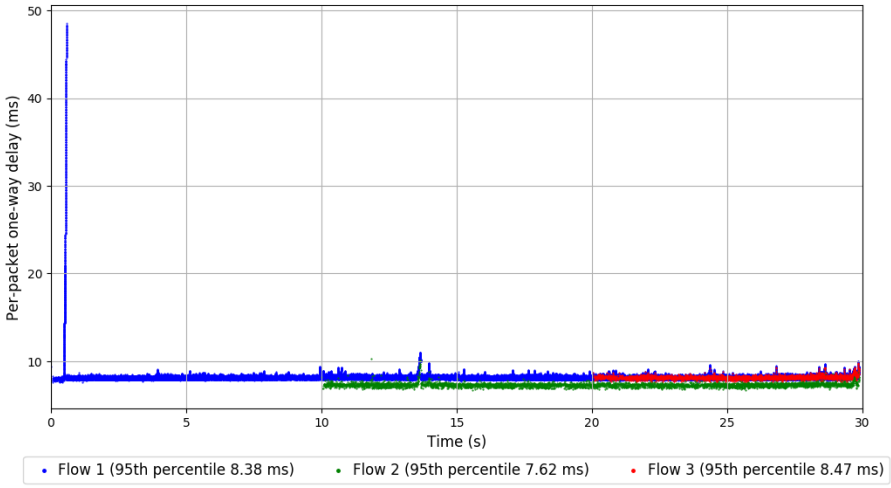
```
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-22 03:22:46
End at: 2018-08-22 03:23:16
Local clock offset: -0.098 ms
Remote clock offset: -63.268 ms

# Below is generated by plot.py at 2018-08-22 05:55:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.14 Mbit/s
95th percentile per-packet one-way delay: 8.375 ms
Loss rate: 6.55%
-- Flow 1:
Average throughput: 74.89 Mbit/s
95th percentile per-packet one-way delay: 8.376 ms
Loss rate: 6.56%
-- Flow 2:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 7.625 ms
Loss rate: 6.36%
-- Flow 3:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 8.472 ms
Loss rate: 6.22%
```

Run 3: Report of PCC-Allegro — Data Link



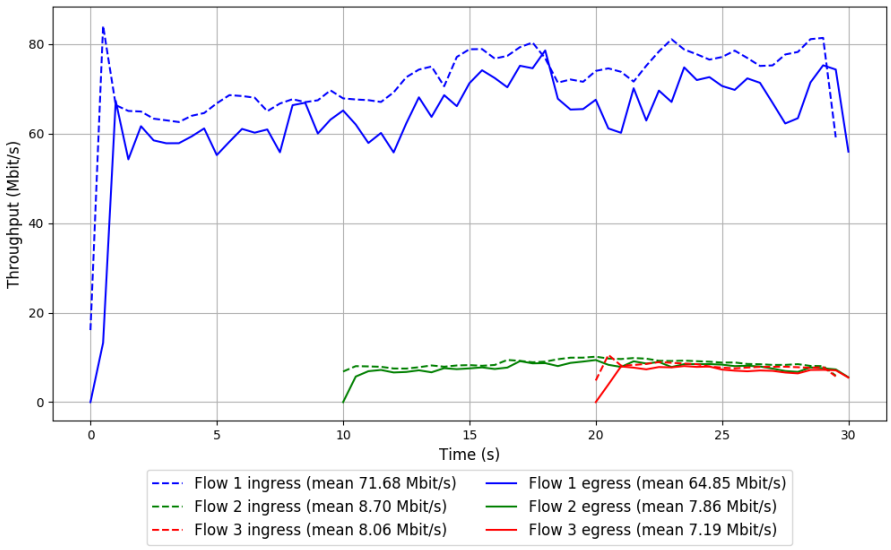


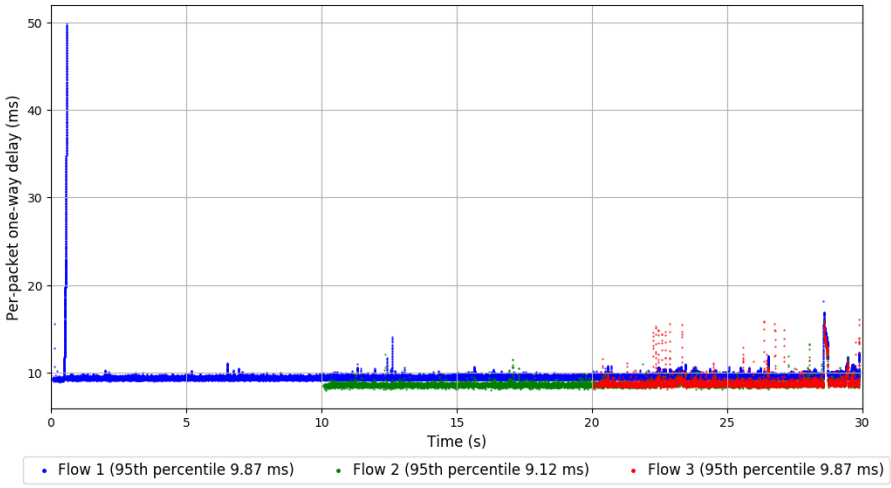
```
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-22 03:42:29
End at: 2018-08-22 03:42:59
Local clock offset: -0.692 ms
Remote clock offset: -62.714 ms

# Below is generated by plot.py at 2018-08-22 05:55:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.45 Mbit/s
95th percentile per-packet one-way delay: 9.854 ms
Loss rate: 9.57%
-- Flow 1:
Average throughput: 64.85 Mbit/s
95th percentile per-packet one-way delay: 9.871 ms
Loss rate: 9.53%
-- Flow 2:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 9.120 ms
Loss rate: 9.60%
-- Flow 3:
Average throughput: 7.19 Mbit/s
95th percentile per-packet one-way delay: 9.872 ms
Loss rate: 10.80%
```

Run 4: Report of PCC-Allegro — Data Link



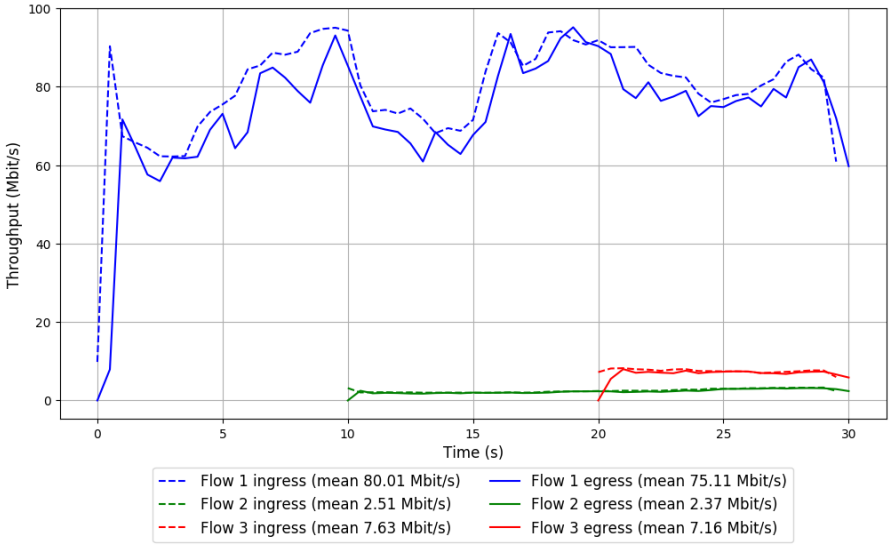


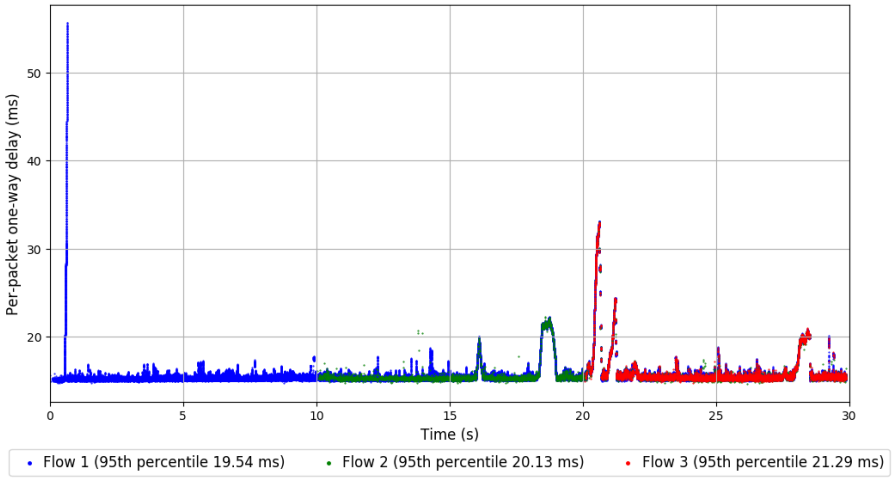
```
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-22 04:02:09
End at: 2018-08-22 04:02:39
Local clock offset: 0.913 ms
Remote clock offset: -62.149 ms

# Below is generated by plot.py at 2018-08-22 05:55:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.03 Mbit/s
95th percentile per-packet one-way delay: 19.619 ms
Loss rate: 6.14%
-- Flow 1:
Average throughput: 75.11 Mbit/s
95th percentile per-packet one-way delay: 19.539 ms
Loss rate: 6.15%
-- Flow 2:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 20.130 ms
Loss rate: 5.55%
-- Flow 3:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 21.287 ms
Loss rate: 6.27%
```

Run 5: Report of PCC-Allegro — Data Link



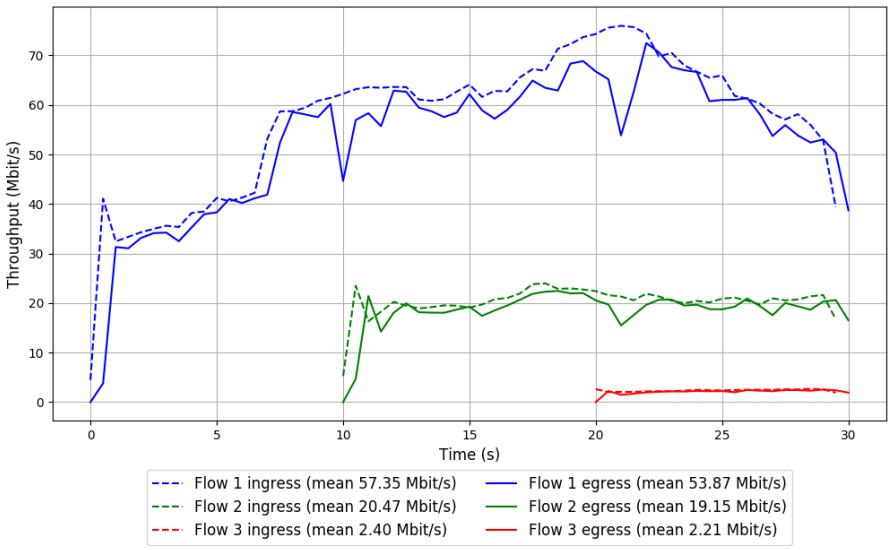


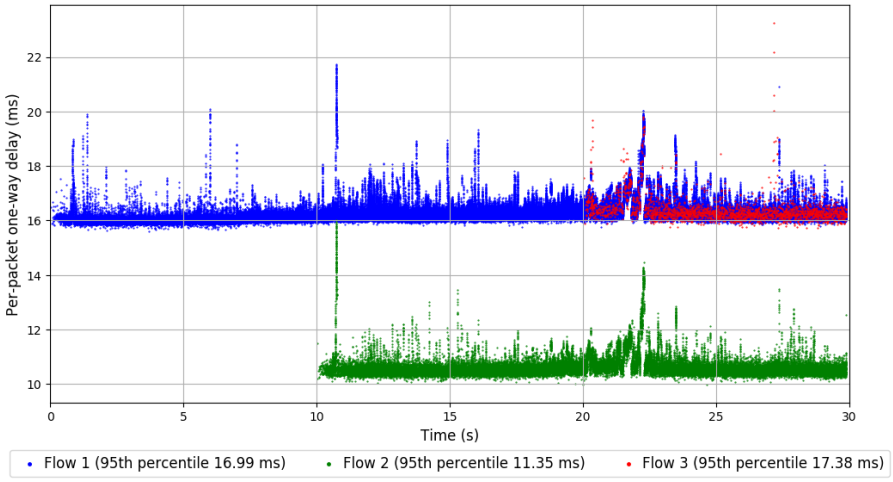
```
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-22 04:21:40
End at: 2018-08-22 04:22:10
Local clock offset: -0.338 ms
Remote clock offset: -63.281 ms

# Below is generated by plot.py at 2018-08-22 05:55:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.33 Mbit/s
95th percentile per-packet one-way delay: 16.891 ms
Loss rate: 6.17%
-- Flow 1:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 16.990 ms
Loss rate: 6.08%
-- Flow 2:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 11.354 ms
Loss rate: 6.45%
-- Flow 3:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 17.377 ms
Loss rate: 7.91%
```

Run 6: Report of PCC-Allegro — Data Link



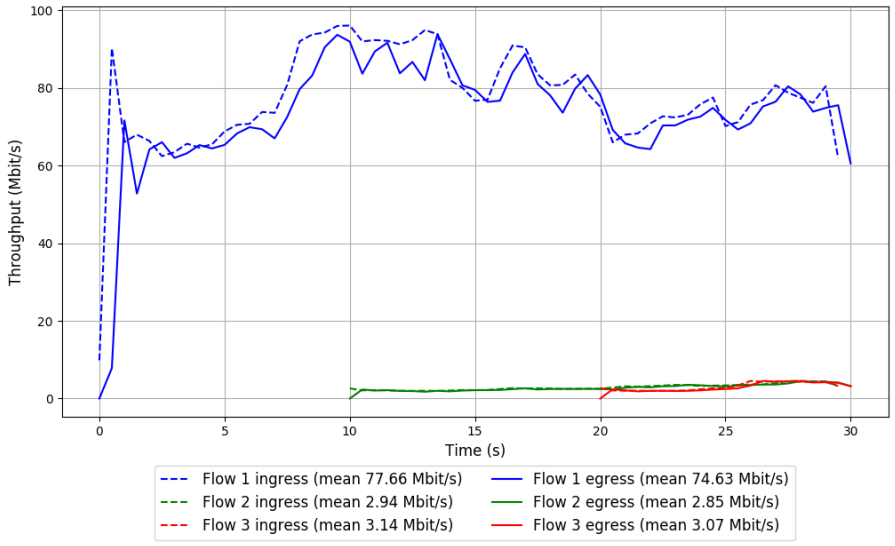


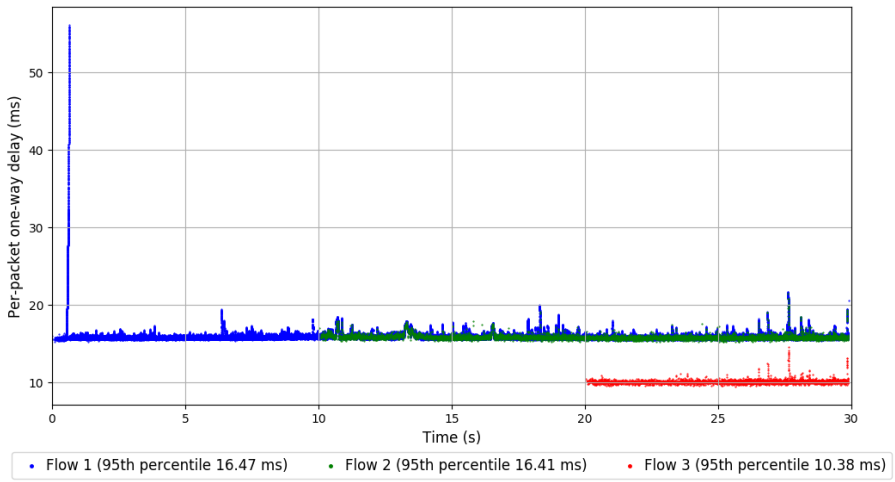
```
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-22 04:41:17
End at: 2018-08-22 04:41:47
Local clock offset: -0.259 ms
Remote clock offset: -64.777 ms

# Below is generated by plot.py at 2018-08-22 05:55:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.54 Mbit/s
95th percentile per-packet one-way delay: 16.458 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 74.63 Mbit/s
95th percentile per-packet one-way delay: 16.469 ms
Loss rate: 3.91%
-- Flow 2:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 16.414 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 10.376 ms
Loss rate: 2.25%
```

Run 7: Report of PCC-Allegro — Data Link



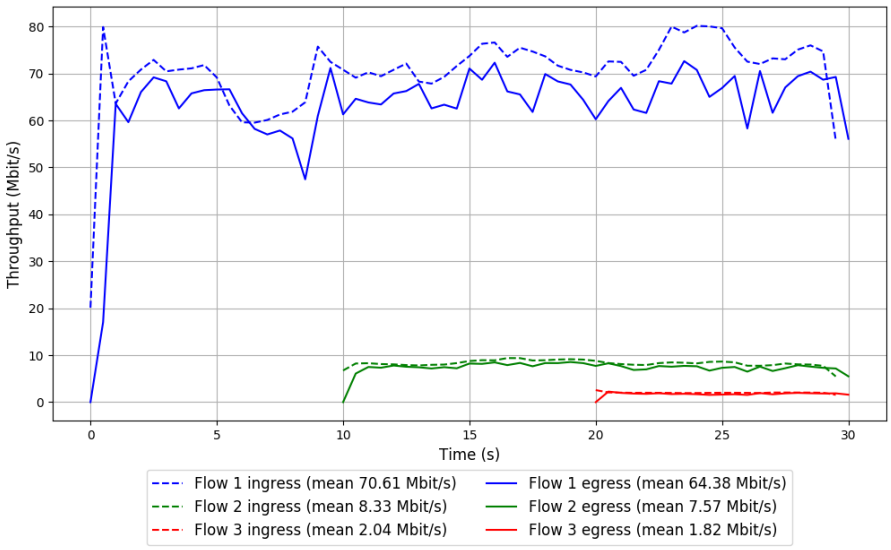


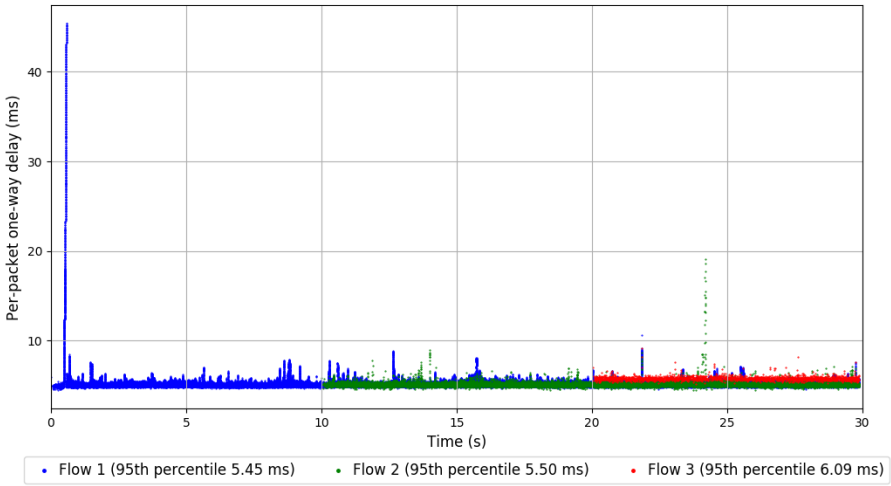
```
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-22 05:00:50
End at: 2018-08-22 05:01:20
Local clock offset: 4.183 ms
Remote clock offset: -63.493 ms

# Below is generated by plot.py at 2018-08-22 05:55:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.02 Mbit/s
95th percentile per-packet one-way delay: 5.517 ms
Loss rate: 8.86%
-- Flow 1:
Average throughput: 64.38 Mbit/s
95th percentile per-packet one-way delay: 5.451 ms
Loss rate: 8.82%
-- Flow 2:
Average throughput: 7.57 Mbit/s
95th percentile per-packet one-way delay: 5.497 ms
Loss rate: 9.15%
-- Flow 3:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 6.093 ms
Loss rate: 10.44%
```

Run 8: Report of PCC-Allegro — Data Link



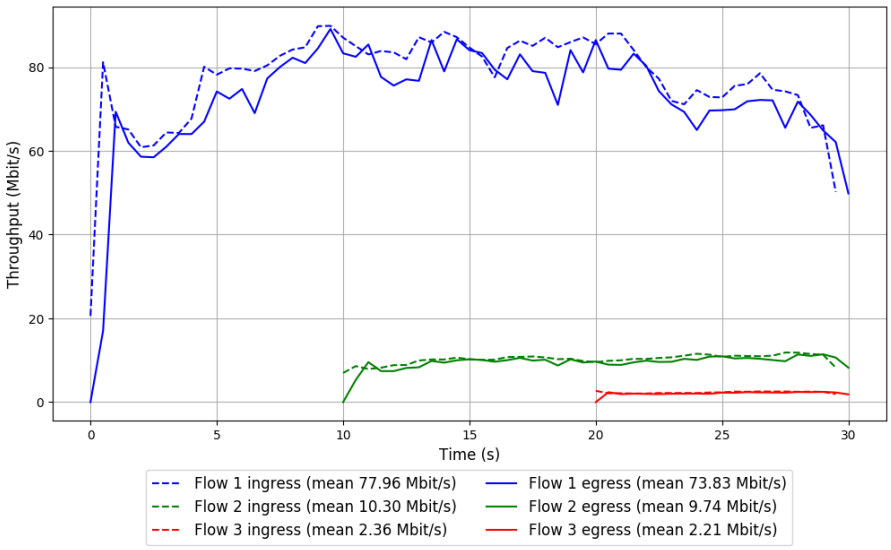


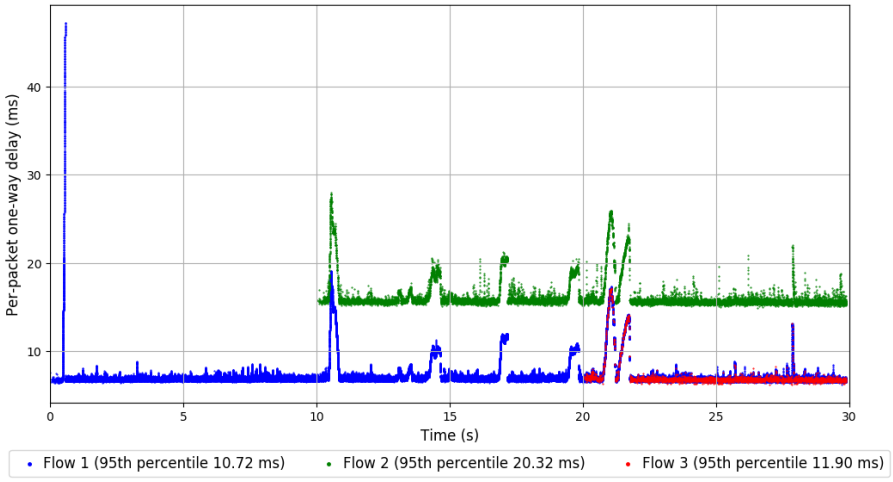
```
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-22 05:20:31
End at: 2018-08-22 05:21:01
Local clock offset: 2.853 ms
Remote clock offset: -61.048 ms

# Below is generated by plot.py at 2018-08-22 05:55:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.03 Mbit/s
95th percentile per-packet one-way delay: 15.681 ms
Loss rate: 5.33%
-- Flow 1:
Average throughput: 73.83 Mbit/s
95th percentile per-packet one-way delay: 10.724 ms
Loss rate: 5.30%
-- Flow 2:
Average throughput: 9.74 Mbit/s
95th percentile per-packet one-way delay: 20.320 ms
Loss rate: 5.54%
-- Flow 3:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 11.904 ms
Loss rate: 6.30%
```

Run 9: Report of PCC-Allegro — Data Link



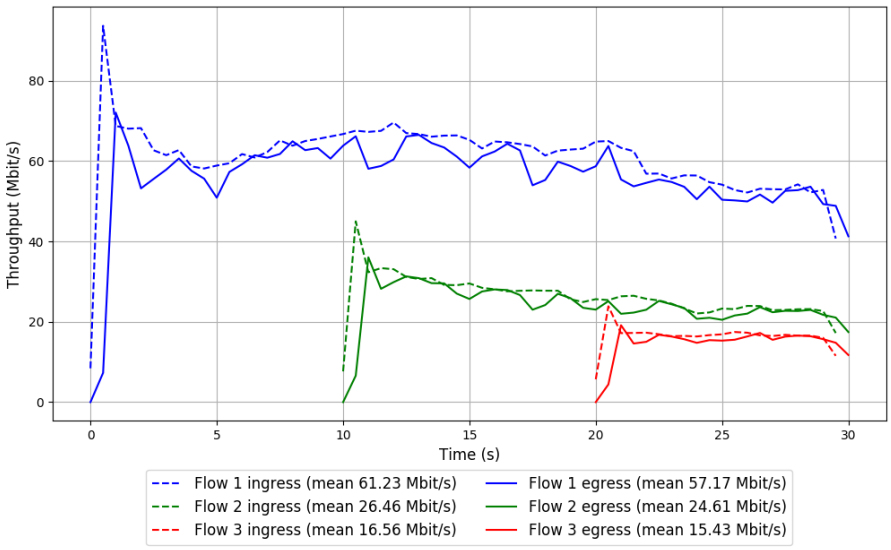


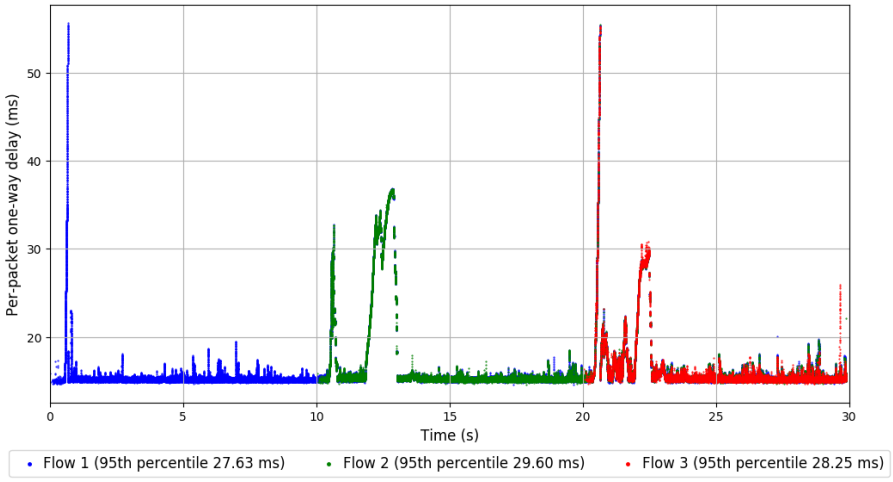
```
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-22 05:40:05
End at: 2018-08-22 05:40:35
Local clock offset: 2.425 ms
Remote clock offset: -58.533 ms

# Below is generated by plot.py at 2018-08-22 05:56:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.60 Mbit/s
95th percentile per-packet one-way delay: 28.265 ms
Loss rate: 6.75%
-- Flow 1:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 27.634 ms
Loss rate: 6.65%
-- Flow 2:
Average throughput: 24.61 Mbit/s
95th percentile per-packet one-way delay: 29.596 ms
Loss rate: 7.01%
-- Flow 3:
Average throughput: 15.43 Mbit/s
95th percentile per-packet one-way delay: 28.251 ms
Loss rate: 6.95%
```

Run 10: Report of PCC-Allegro — Data Link



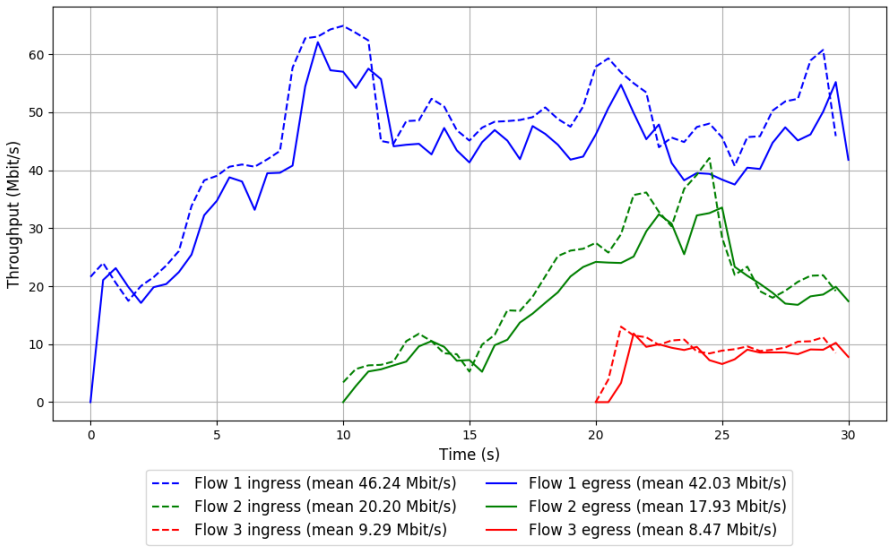


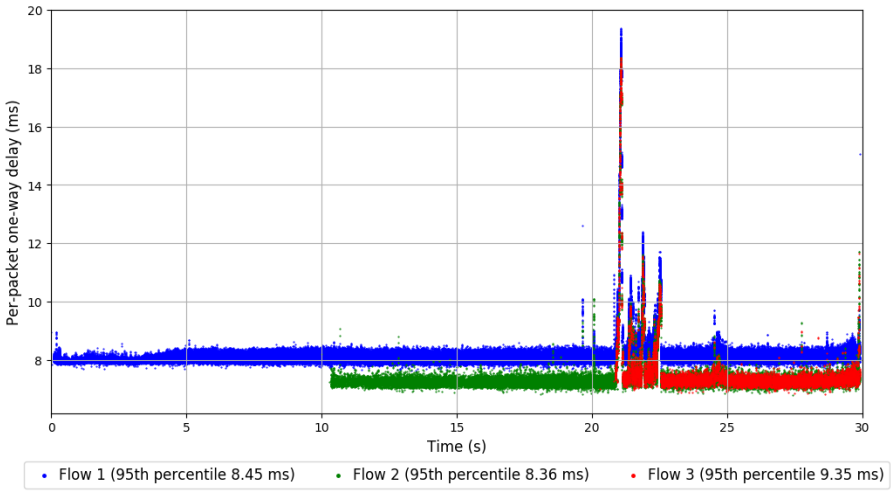
```
Run 1: Statistics of PCC-Expr

Start at: 2018-08-22 02:42:24
End at: 2018-08-22 02:42:54
Local clock offset: 2.29 ms
Remote clock offset: -60.029 ms

# Below is generated by plot.py at 2018-08-22 05:56:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.68 Mbit/s
95th percentile per-packet one-way delay: 8.458 ms
Loss rate: 9.65%
-- Flow 1:
Average throughput: 42.03 Mbit/s
95th percentile per-packet one-way delay: 8.449 ms
Loss rate: 9.09%
-- Flow 2:
Average throughput: 17.93 Mbit/s
95th percentile per-packet one-way delay: 8.357 ms
Loss rate: 11.23%
-- Flow 3:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 9.347 ms
Loss rate: 11.21%
```

Run 1: Report of PCC-Expr — Data Link



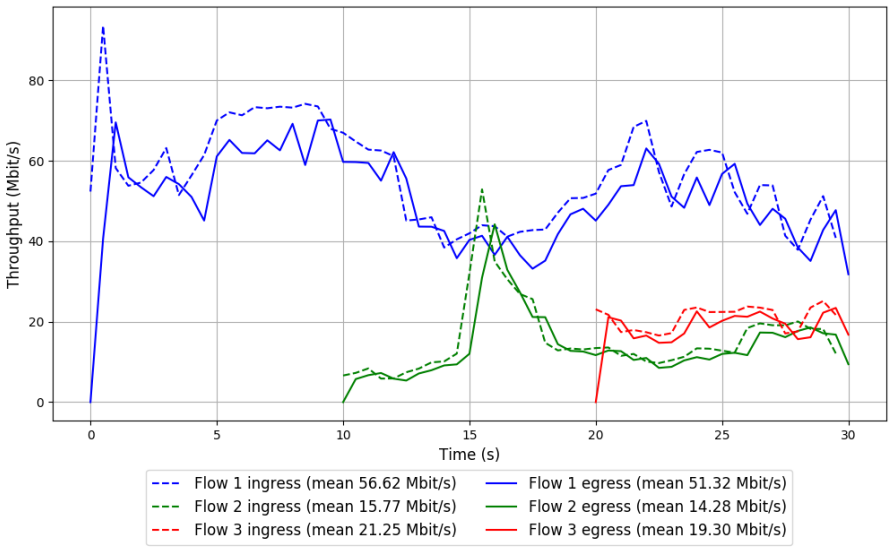


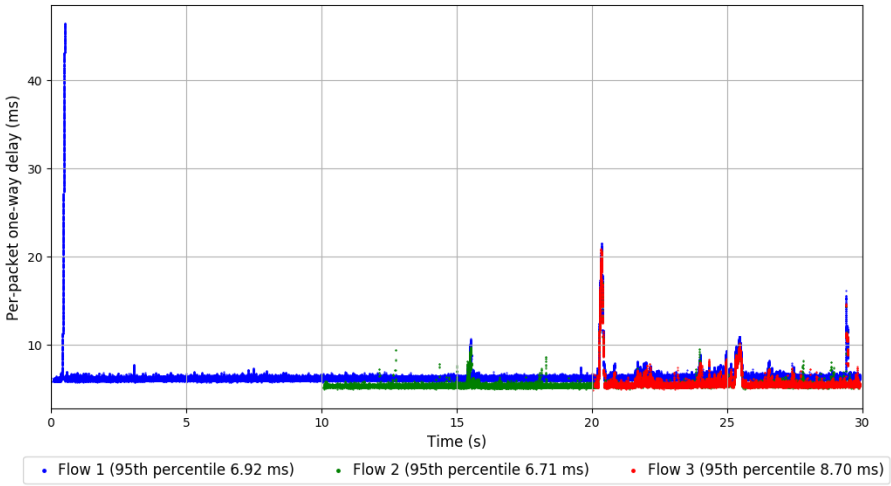
```
Run 2: Statistics of PCC-Expr

Start at: 2018-08-22 03:01:54
End at: 2018-08-22 03:02:24
Local clock offset: 4.119 ms
Remote clock offset: -60.205 ms

# Below is generated by plot.py at 2018-08-22 05:56:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.20 Mbit/s
95th percentile per-packet one-way delay: 6.993 ms
Loss rate: 9.36%
-- Flow 1:
Average throughput: 51.32 Mbit/s
95th percentile per-packet one-way delay: 6.923 ms
Loss rate: 9.36%
-- Flow 2:
Average throughput: 14.28 Mbit/s
95th percentile per-packet one-way delay: 6.713 ms
Loss rate: 9.43%
-- Flow 3:
Average throughput: 19.30 Mbit/s
95th percentile per-packet one-way delay: 8.702 ms
Loss rate: 9.20%
```

Run 2: Report of PCC-Expr — Data Link



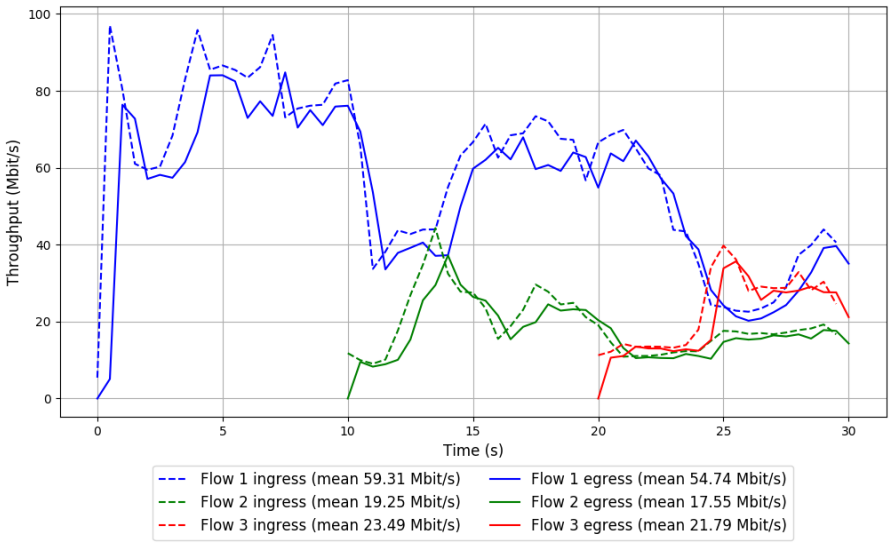


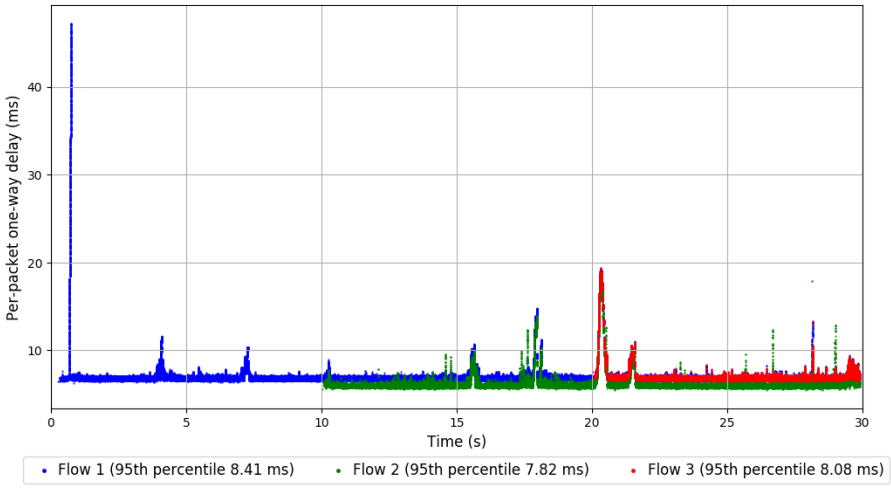
```
Run 3: Statistics of PCC-Expr

Start at: 2018-08-22 03:21:32
End at: 2018-08-22 03:22:02
Local clock offset: 1.167 ms
Remote clock offset: -63.309 ms

# Below is generated by plot.py at 2018-08-22 05:57:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.77 Mbit/s
95th percentile per-packet one-way delay: 8.286 ms
Loss rate: 8.42%
-- Flow 1:
Average throughput: 54.74 Mbit/s
95th percentile per-packet one-way delay: 8.410 ms
Loss rate: 8.48%
-- Flow 2:
Average throughput: 17.55 Mbit/s
95th percentile per-packet one-way delay: 7.821 ms
Loss rate: 8.85%
-- Flow 3:
Average throughput: 21.79 Mbit/s
95th percentile per-packet one-way delay: 8.079 ms
Loss rate: 7.25%
```

Run 3: Report of PCC-Expr — Data Link



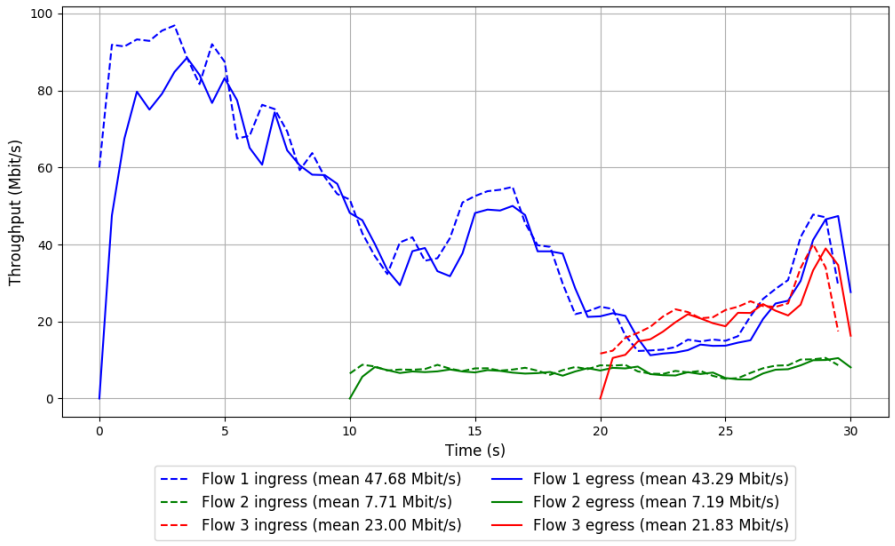


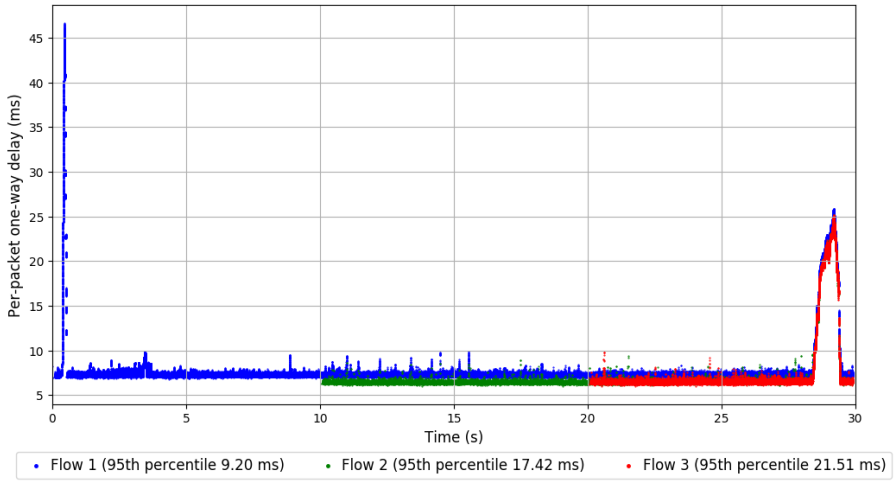
```
Run 4: Statistics of PCC-Expr

Start at: 2018-08-22 03:41:19
End at: 2018-08-22 03:41:49
Local clock offset: 0.95 ms
Remote clock offset: -63.024 ms

# Below is generated by plot.py at 2018-08-22 05:57:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.29 Mbit/s
95th percentile per-packet one-way delay: 16.390 ms
Loss rate: 8.48%
-- Flow 1:
Average throughput: 43.29 Mbit/s
95th percentile per-packet one-way delay: 9.196 ms
Loss rate: 9.21%
-- Flow 2:
Average throughput: 7.19 Mbit/s
95th percentile per-packet one-way delay: 17.421 ms
Loss rate: 6.78%
-- Flow 3:
Average throughput: 21.83 Mbit/s
95th percentile per-packet one-way delay: 21.514 ms
Loss rate: 5.09%
```

Run 4: Report of PCC-Expr — Data Link



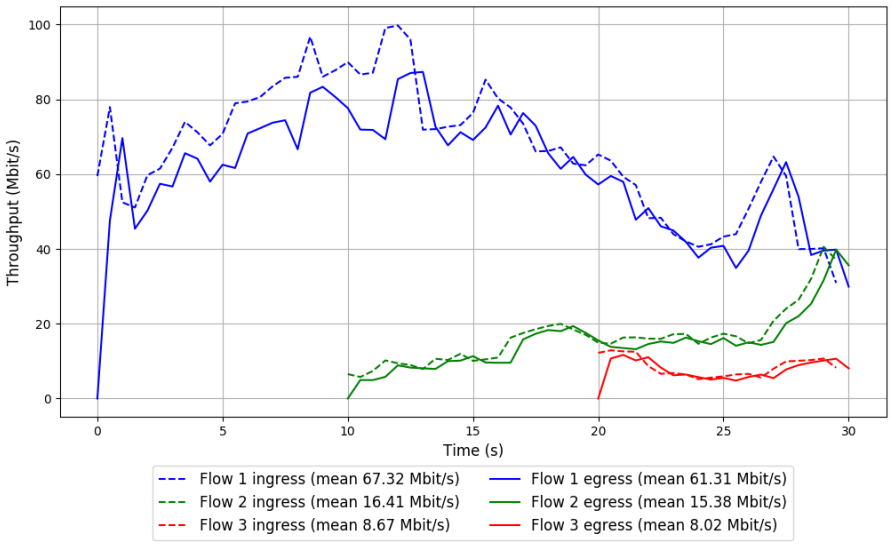


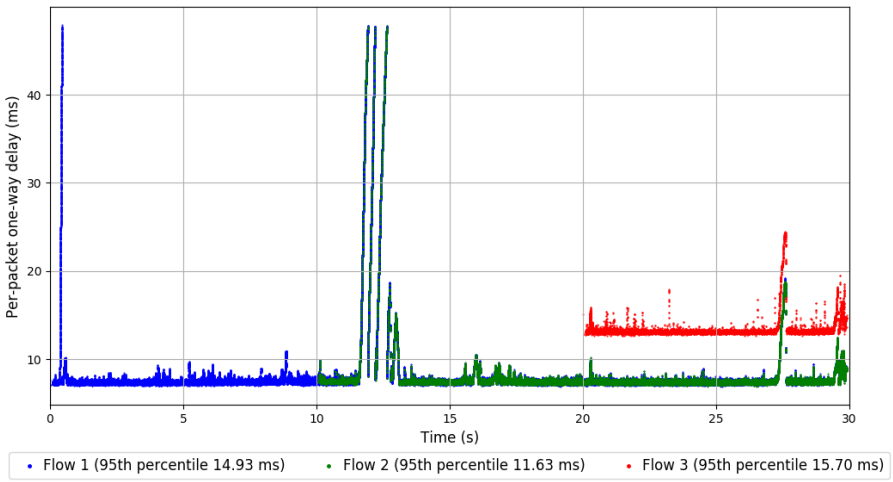
```
Run 5: Statistics of PCC-Expr

Start at: 2018-08-22 04:00:58
End at: 2018-08-22 04:01:28
Local clock offset: 2.878 ms
Remote clock offset: -62.325 ms

# Below is generated by plot.py at 2018-08-22 05:57:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.19 Mbit/s
95th percentile per-packet one-way delay: 14.731 ms
Loss rate: 8.52%
-- Flow 1:
Average throughput: 61.31 Mbit/s
95th percentile per-packet one-way delay: 14.929 ms
Loss rate: 8.93%
-- Flow 2:
Average throughput: 15.38 Mbit/s
95th percentile per-packet one-way delay: 11.630 ms
Loss rate: 6.28%
-- Flow 3:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 15.703 ms
Loss rate: 7.50%
```

Run 5: Report of PCC-Expr — Data Link



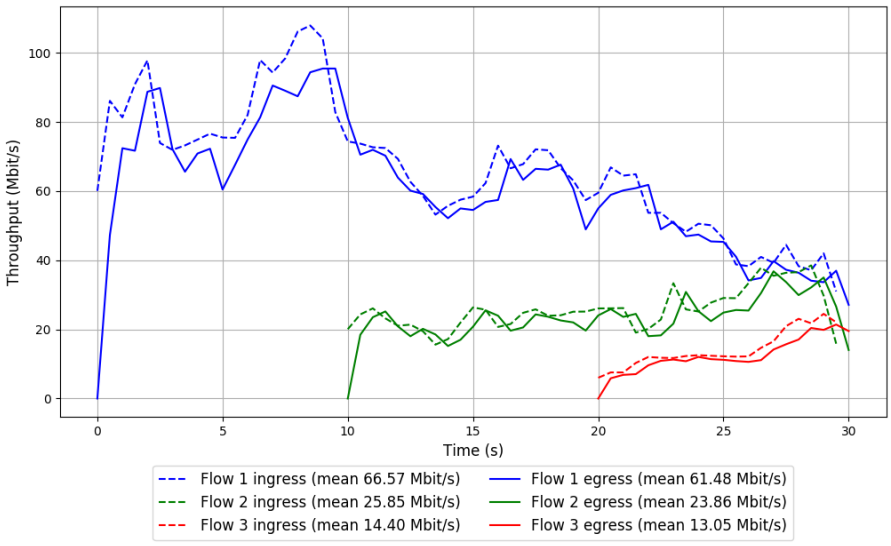


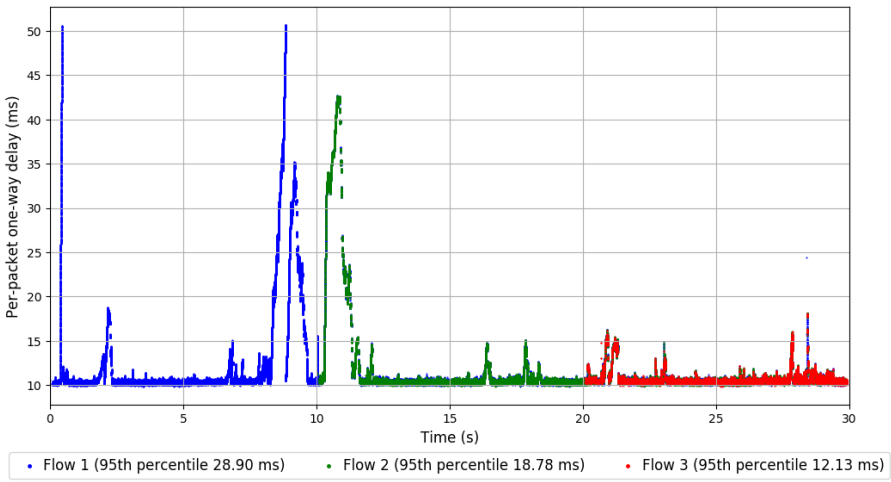
```
Run 6: Statistics of PCC-Expr

Start at: 2018-08-22 04:20:28
End at: 2018-08-22 04:20:58
Local clock offset: -0.099 ms
Remote clock offset: -63.177 ms

# Below is generated by plot.py at 2018-08-22 05:57:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.66 Mbit/s
95th percentile per-packet one-way delay: 25.171 ms
Loss rate: 7.75%
-- Flow 1:
Average throughput: 61.48 Mbit/s
95th percentile per-packet one-way delay: 28.896 ms
Loss rate: 7.65%
-- Flow 2:
Average throughput: 23.86 Mbit/s
95th percentile per-packet one-way delay: 18.778 ms
Loss rate: 7.70%
-- Flow 3:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 12.132 ms
Loss rate: 9.35%
```

Run 6: Report of PCC-Expr — Data Link



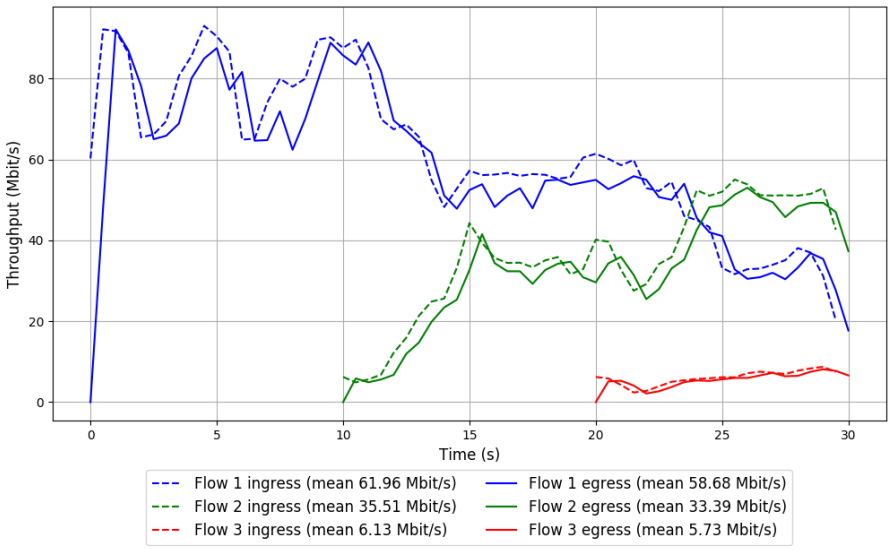


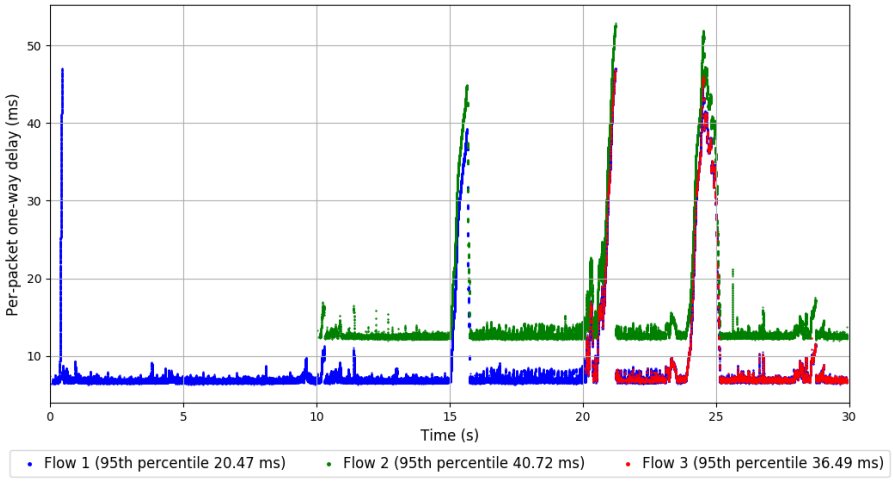
```
Run 7: Statistics of PCC-Expr

Start at: 2018-08-22 04:40:06
End at: 2018-08-22 04:40:36
Local clock offset: 3.492 ms
Remote clock offset: -64.185 ms

# Below is generated by plot.py at 2018-08-22 05:57:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.77 Mbit/s
95th percentile per-packet one-way delay: 32.613 ms
Loss rate: 5.51%
-- Flow 1:
Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 20.472 ms
Loss rate: 5.29%
-- Flow 2:
Average throughput: 33.39 Mbit/s
95th percentile per-packet one-way delay: 40.718 ms
Loss rate: 6.00%
-- Flow 3:
Average throughput: 5.73 Mbit/s
95th percentile per-packet one-way delay: 36.486 ms
Loss rate: 6.59%
```

Run 7: Report of PCC-Expr — Data Link



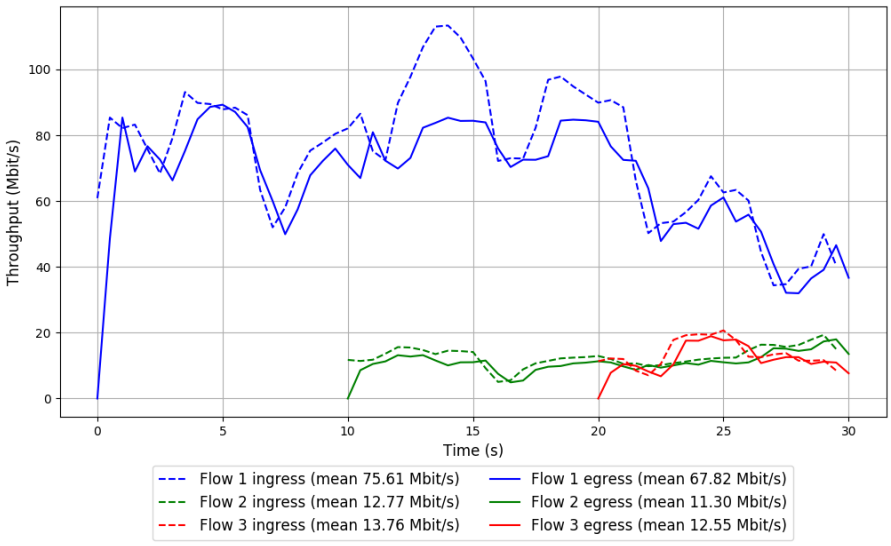


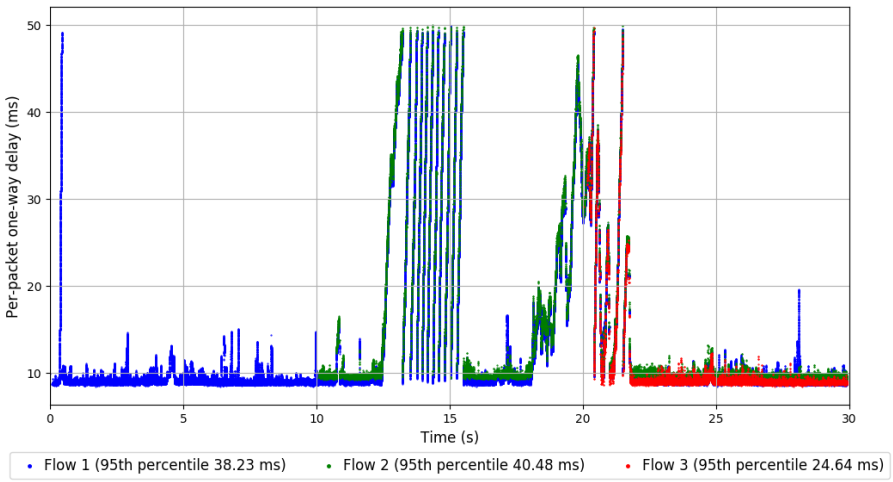
```
Run 8: Statistics of PCC-Expr

Start at: 2018-08-22 04:59:36
End at: 2018-08-22 05:00:06
Local clock offset: 0.493 ms
Remote clock offset: -63.391 ms

# Below is generated by plot.py at 2018-08-22 05:58:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.47 Mbit/s
95th percentile per-packet one-way delay: 37.984 ms
Loss rate: 10.35%
-- Flow 1:
Average throughput: 67.82 Mbit/s
95th percentile per-packet one-way delay: 38.234 ms
Loss rate: 10.30%
-- Flow 2:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 40.483 ms
Loss rate: 11.47%
-- Flow 3:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 24.637 ms
Loss rate: 9.01%
```

Run 8: Report of PCC-Expr — Data Link



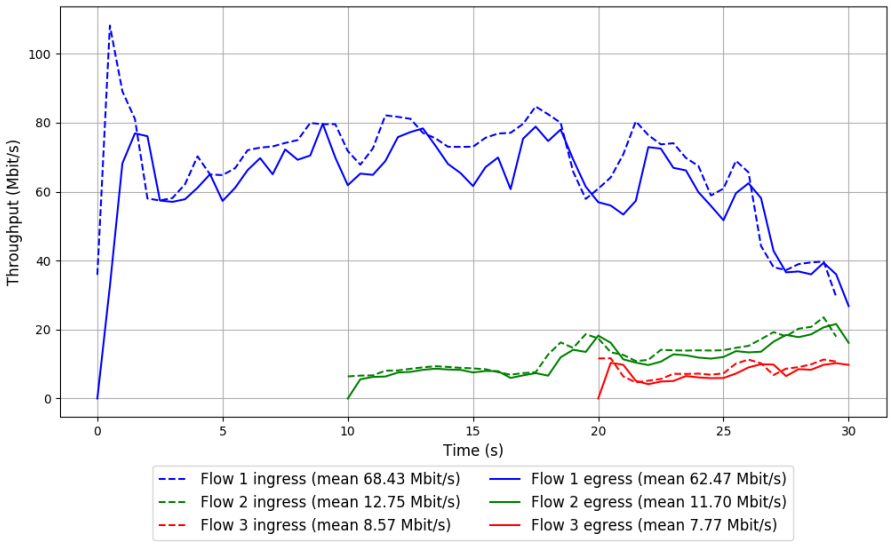


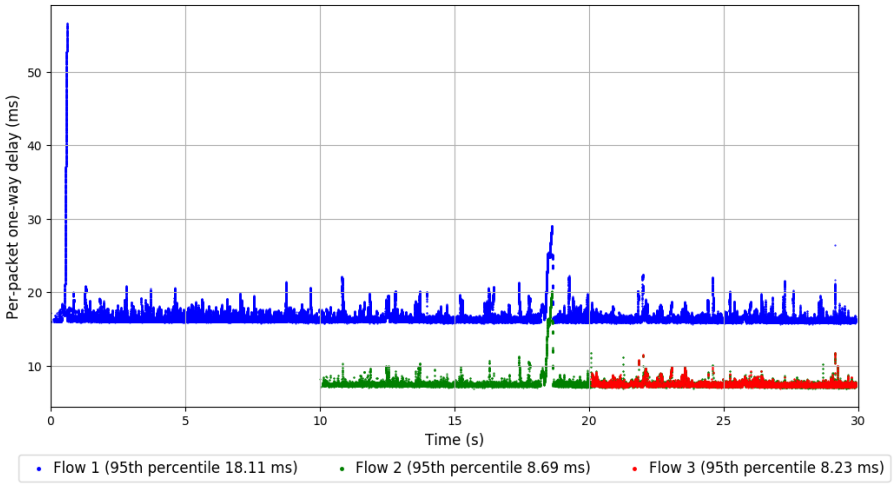
```
Run 9: Statistics of PCC-Expr

Start at: 2018-08-22 05:19:18
End at: 2018-08-22 05:19:48
Local clock offset: 2.154 ms
Remote clock offset: -61.504 ms

# Below is generated by plot.py at 2018-08-22 05:58:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.82 Mbit/s
95th percentile per-packet one-way delay: 17.943 ms
Loss rate: 8.71%
-- Flow 1:
Average throughput: 62.47 Mbit/s
95th percentile per-packet one-way delay: 18.107 ms
Loss rate: 8.73%
-- Flow 2:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 8.686 ms
Loss rate: 8.26%
-- Flow 3:
Average throughput: 7.77 Mbit/s
95th percentile per-packet one-way delay: 8.228 ms
Loss rate: 9.38%
```

Run 9: Report of PCC-Expr — Data Link



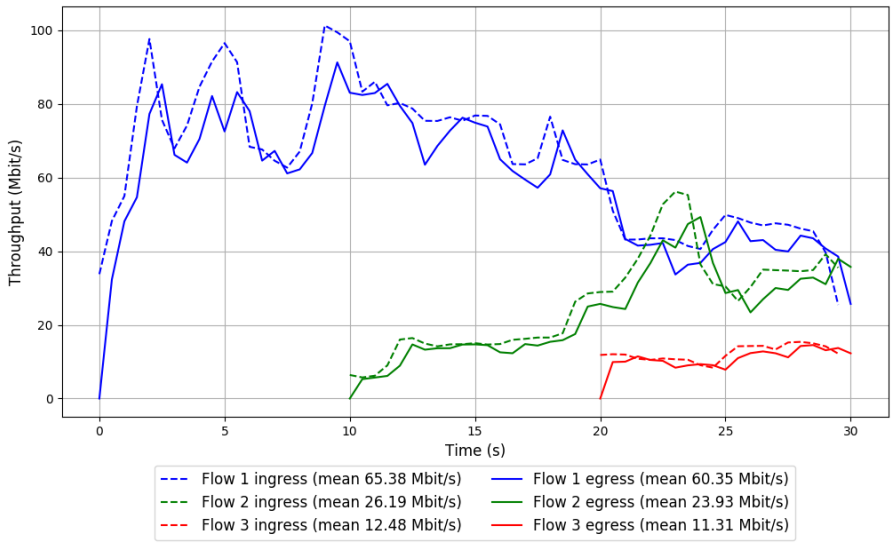


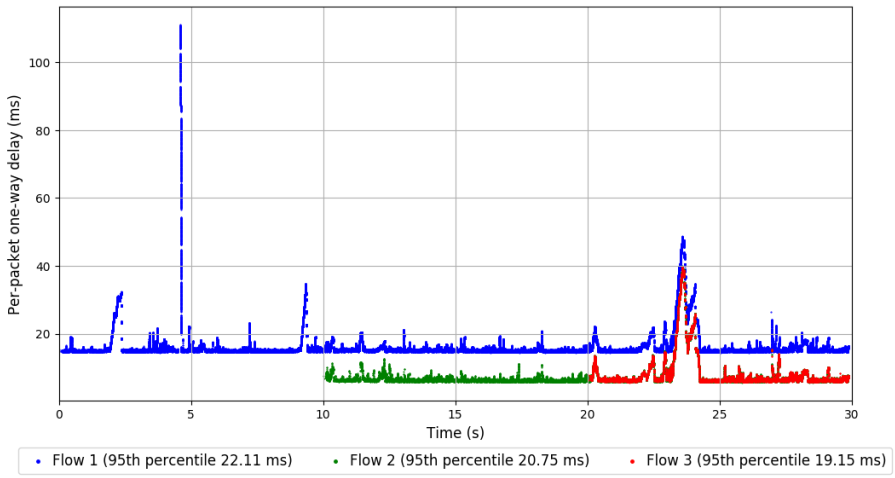
```
Run 10: Statistics of PCC-Expr

Start at: 2018-08-22 05:38:54
End at: 2018-08-22 05:39:24
Local clock offset: 2.296 ms
Remote clock offset: -59.115 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.00 Mbit/s
95th percentile per-packet one-way delay: 21.654 ms
Loss rate: 7.98%
-- Flow 1:
Average throughput: 60.35 Mbit/s
95th percentile per-packet one-way delay: 22.105 ms
Loss rate: 7.72%
-- Flow 2:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 20.746 ms
Loss rate: 8.63%
-- Flow 3:
Average throughput: 11.31 Mbit/s
95th percentile per-packet one-way delay: 19.150 ms
Loss rate: 9.37%
```

Run 10: Report of PCC-Expr — Data Link



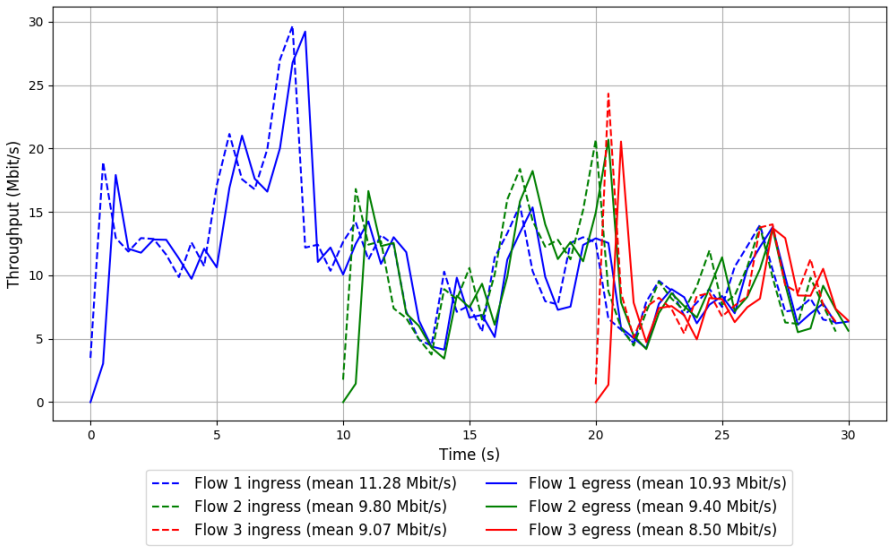


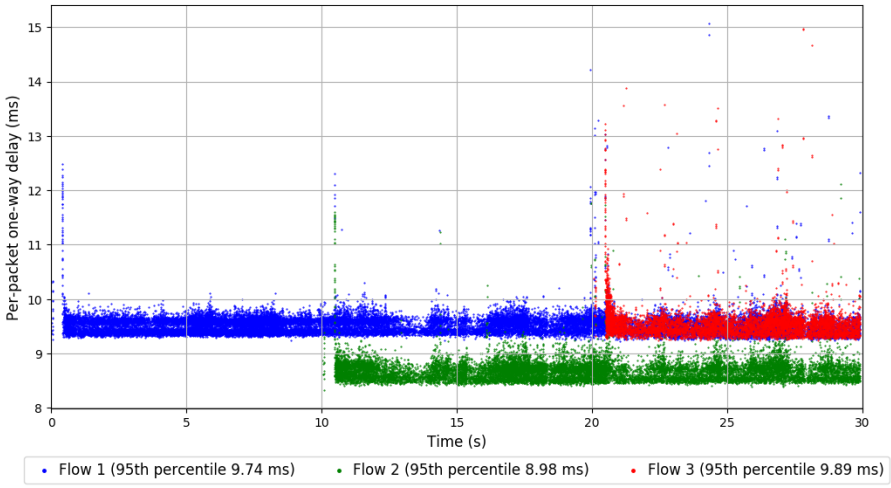
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-08-22 02:41:17
End at: 2018-08-22 02:41:47
Local clock offset: 0.903 ms
Remote clock offset: -60.035 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.98 Mbit/s
95th percentile per-packet one-way delay: 9.724 ms
Loss rate: 3.88%
-- Flow 1:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 9.739 ms
Loss rate: 3.11%
-- Flow 2:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 8.978 ms
Loss rate: 4.11%
-- Flow 3:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 9.894 ms
Loss rate: 6.29%
```

Run 1: Report of QUIC Cubic — Data Link



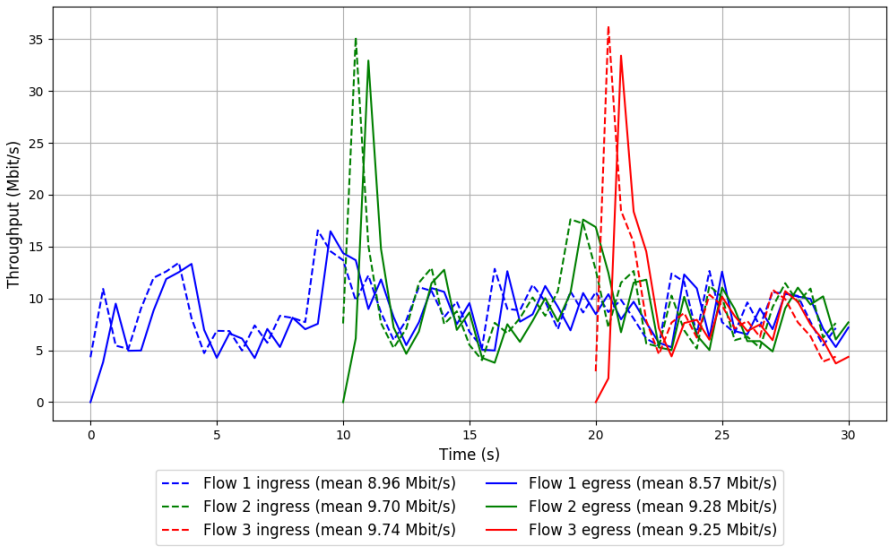


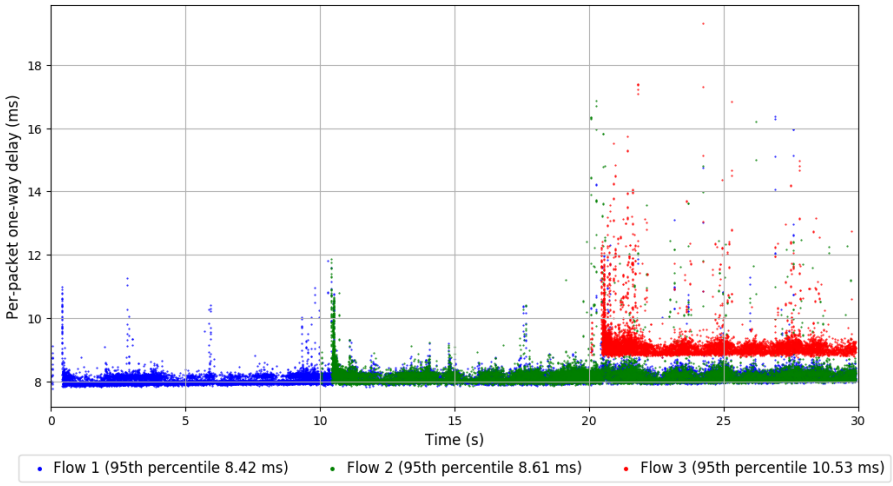
```
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-22 03:00:48
End at: 2018-08-22 03:01:18
Local clock offset: 0.713 ms
Remote clock offset: -60.458 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.79 Mbit/s
95th percentile per-packet one-way delay: 9.251 ms
Loss rate: 4.49%
-- Flow 1:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 8.421 ms
Loss rate: 4.38%
-- Flow 2:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 8.610 ms
Loss rate: 4.37%
-- Flow 3:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 10.531 ms
Loss rate: 5.03%
```

Run 2: Report of QUIC Cubic — Data Link



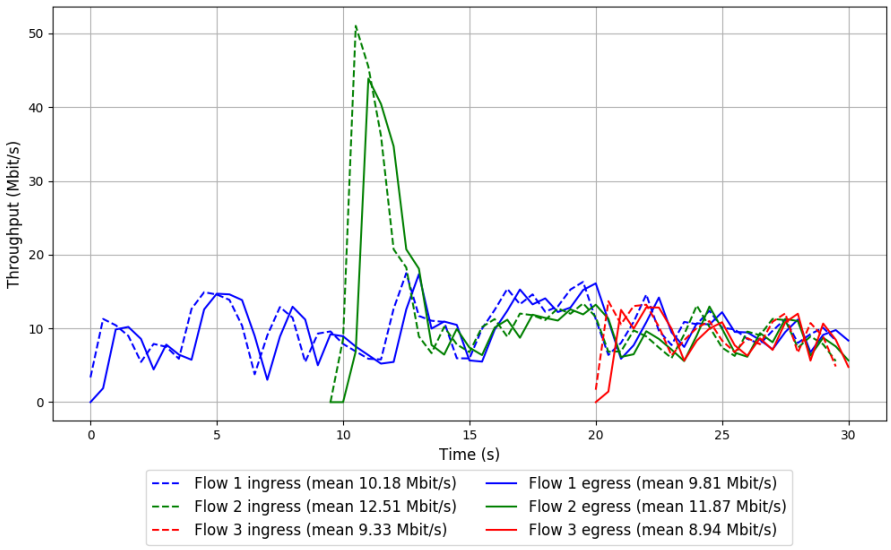


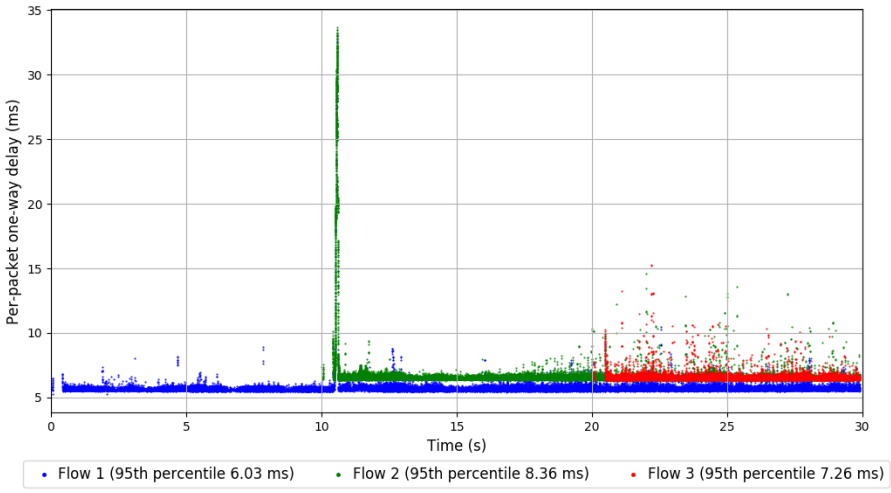
```
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-22 03:20:21
End at: 2018-08-22 03:20:51
Local clock offset: 1.428 ms
Remote clock offset: -63.206 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.66 Mbit/s
95th percentile per-packet one-way delay: 6.954 ms
Loss rate: 4.31%
-- Flow 1:
Average throughput: 9.81 Mbit/s
95th percentile per-packet one-way delay: 6.030 ms
Loss rate: 3.68%
-- Flow 2:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 8.358 ms
Loss rate: 5.16%
-- Flow 3:
Average throughput: 8.94 Mbit/s
95th percentile per-packet one-way delay: 7.259 ms
Loss rate: 4.09%
```

Run 3: Report of QUIC Cubic — Data Link



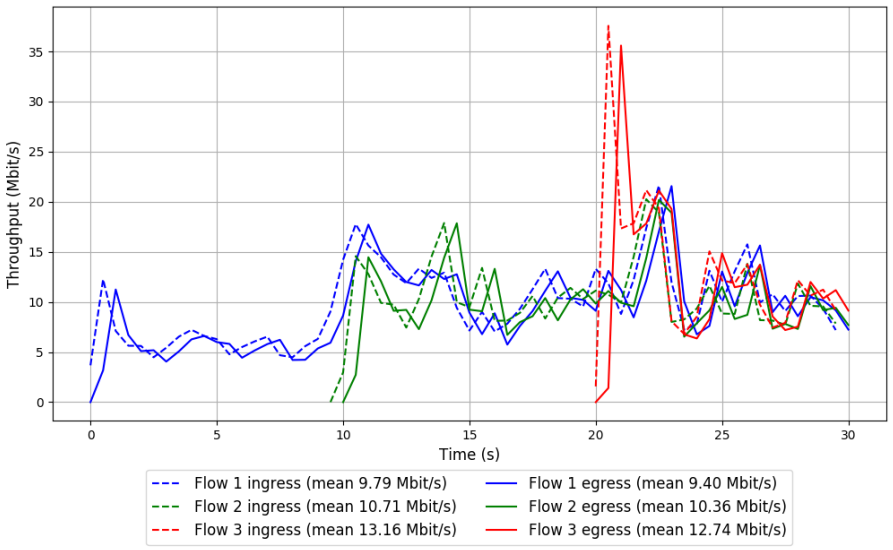


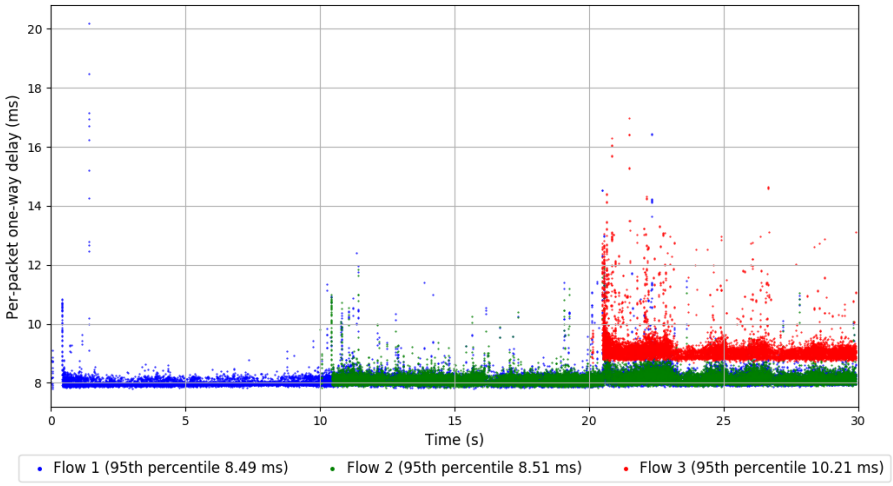
```
Run 4: Statistics of QUIC Cubic

Start at: 2018-08-22 03:40:13
End at: 2018-08-22 03:40:43
Local clock offset: -0.375 ms
Remote clock offset: -62.467 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.49 Mbit/s
95th percentile per-packet one-way delay: 9.255 ms
Loss rate: 3.59%
-- Flow 1:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 8.488 ms
Loss rate: 3.98%
-- Flow 2:
Average throughput: 10.36 Mbit/s
95th percentile per-packet one-way delay: 8.508 ms
Loss rate: 3.28%
-- Flow 3:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 10.206 ms
Loss rate: 3.19%
```

Run 4: Report of QUIC Cubic — Data Link



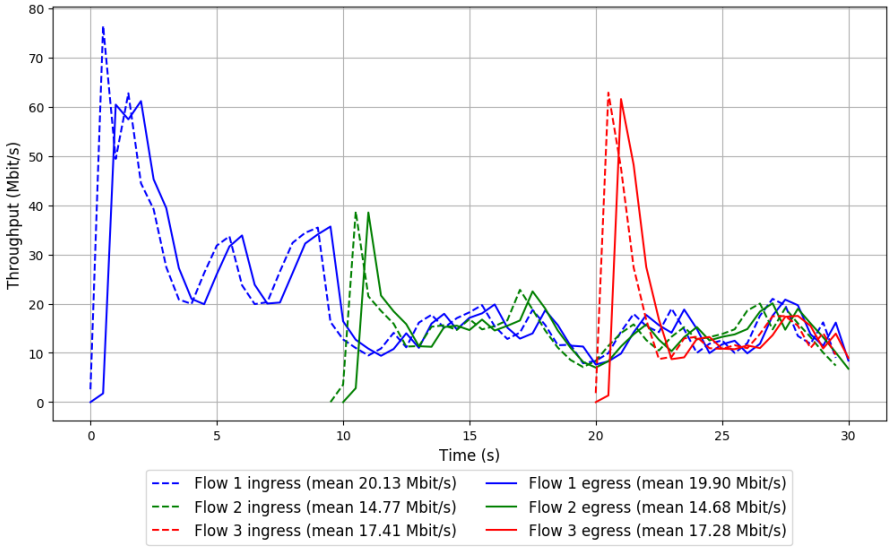


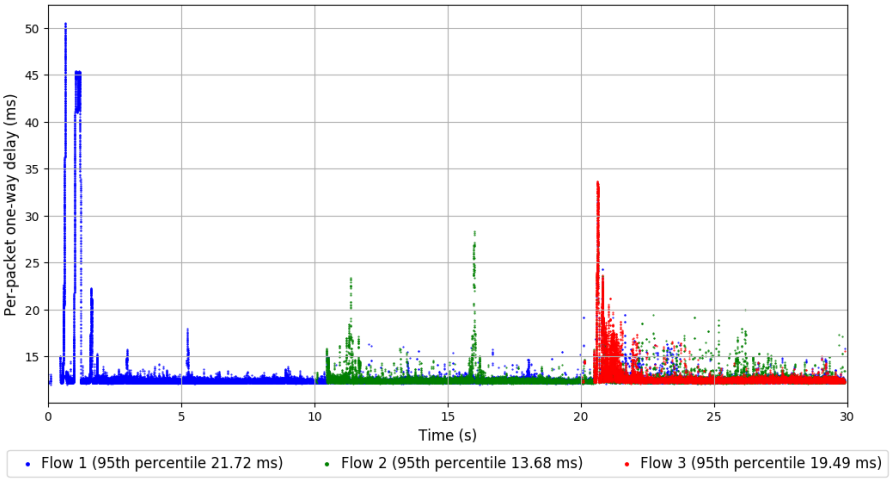
```
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-22 03:59:51
End at: 2018-08-22 04:00:21
Local clock offset: 3.648 ms
Remote clock offset: -62.043 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.38 Mbit/s
95th percentile per-packet one-way delay: 17.378 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 21.724 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 14.68 Mbit/s
95th percentile per-packet one-way delay: 13.677 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 17.28 Mbit/s
95th percentile per-packet one-way delay: 19.490 ms
Loss rate: 0.75%
```

Run 5: Report of QUIC Cubic — Data Link



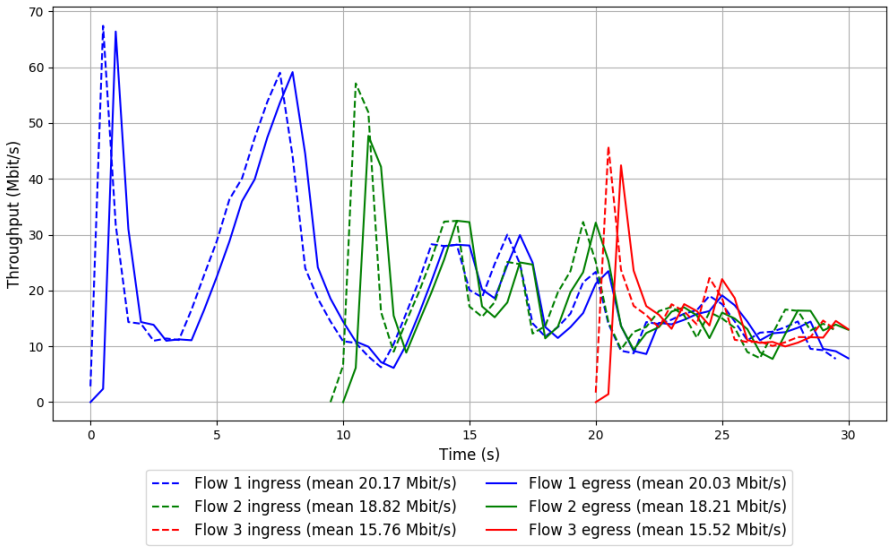


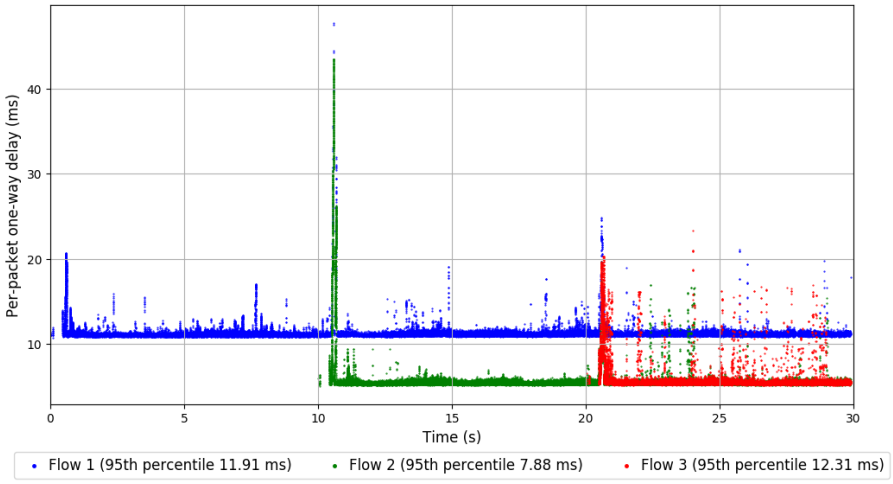
```
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-22 04:19:21
End at: 2018-08-22 04:19:51
Local clock offset: 4.202 ms
Remote clock offset: -63.577 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.26 Mbit/s
95th percentile per-packet one-way delay: 11.786 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 20.03 Mbit/s
95th percentile per-packet one-way delay: 11.907 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 18.21 Mbit/s
95th percentile per-packet one-way delay: 7.875 ms
Loss rate: 3.23%
-- Flow 3:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 12.306 ms
Loss rate: 1.54%
```

Run 6: Report of QUIC Cubic — Data Link



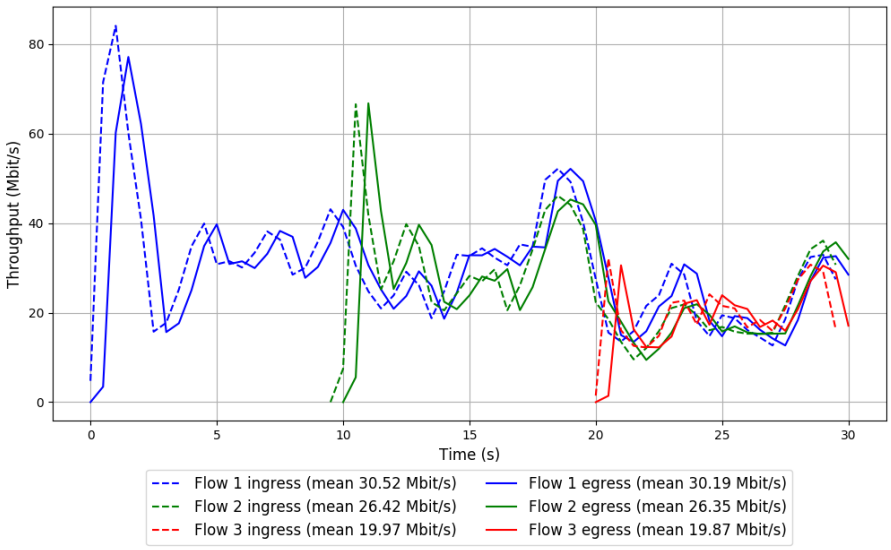


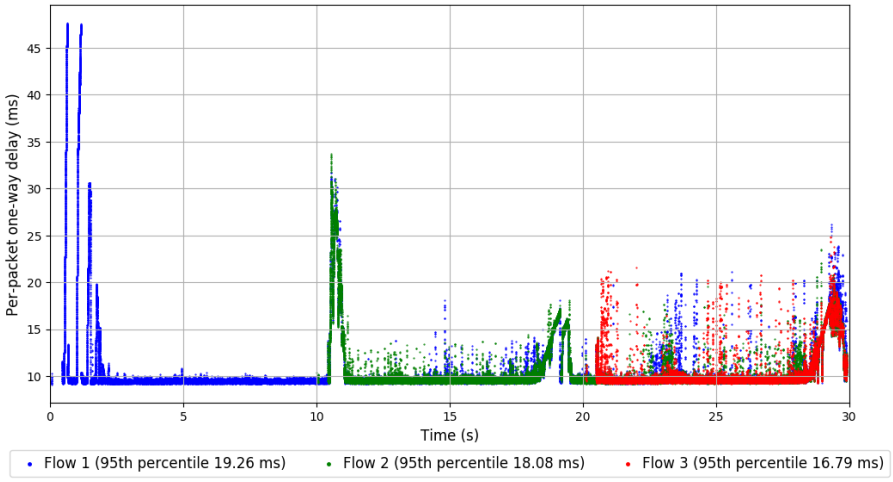
```
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-22 04:38:58
End at: 2018-08-22 04:39:28
Local clock offset: -0.126 ms
Remote clock offset: -64.894 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 18.116 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 19.258 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 26.35 Mbit/s
95th percentile per-packet one-way delay: 18.077 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 19.87 Mbit/s
95th percentile per-packet one-way delay: 16.785 ms
Loss rate: 0.53%
```

Run 7: Report of QUIC Cubic — Data Link



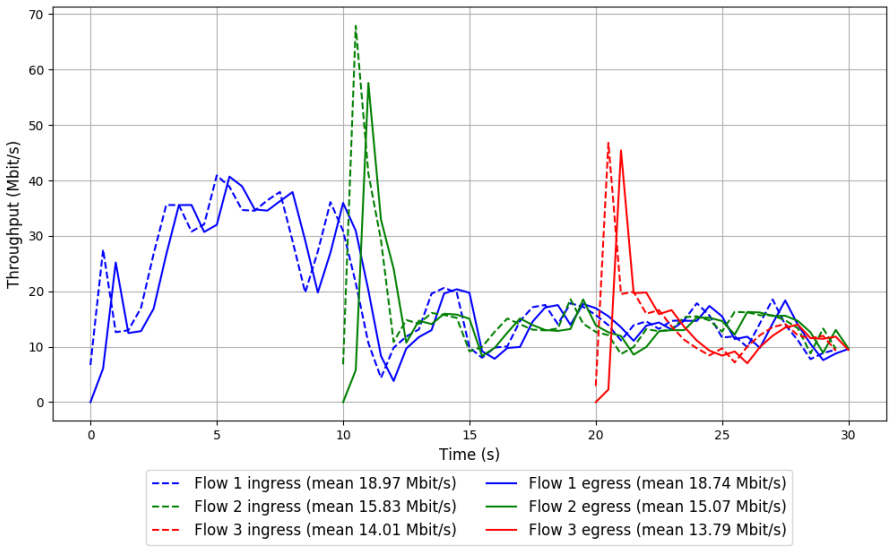


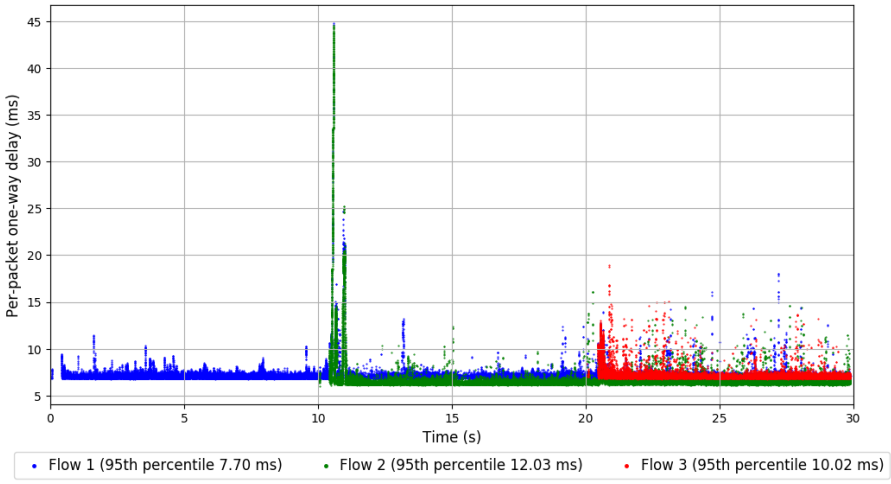
```
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-22 04:58:29
End at: 2018-08-22 04:58:59
Local clock offset: 2.663 ms
Remote clock offset: -63.6 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.31 Mbit/s
95th percentile per-packet one-way delay: 8.806 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 18.74 Mbit/s
95th percentile per-packet one-way delay: 7.695 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 15.07 Mbit/s
95th percentile per-packet one-way delay: 12.034 ms
Loss rate: 4.77%
-- Flow 3:
Average throughput: 13.79 Mbit/s
95th percentile per-packet one-way delay: 10.020 ms
Loss rate: 1.59%
```

Run 8: Report of QUIC Cubic — Data Link



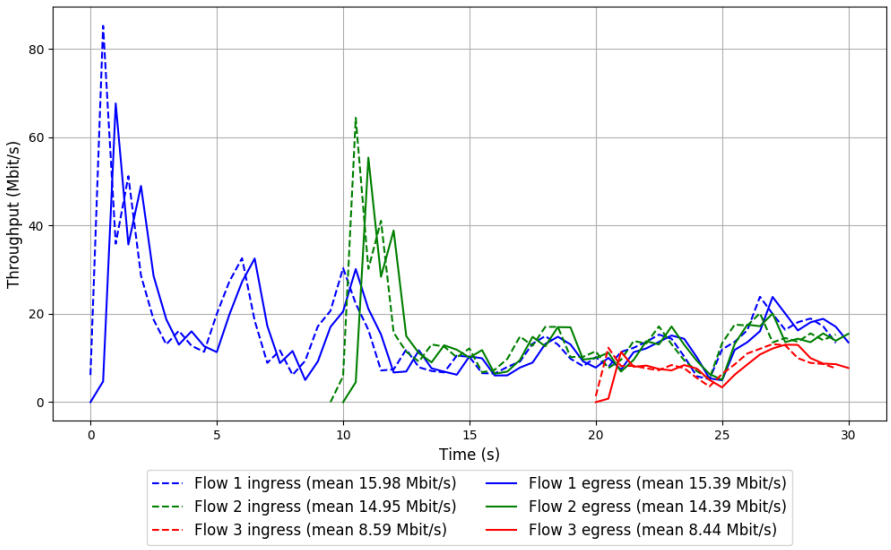


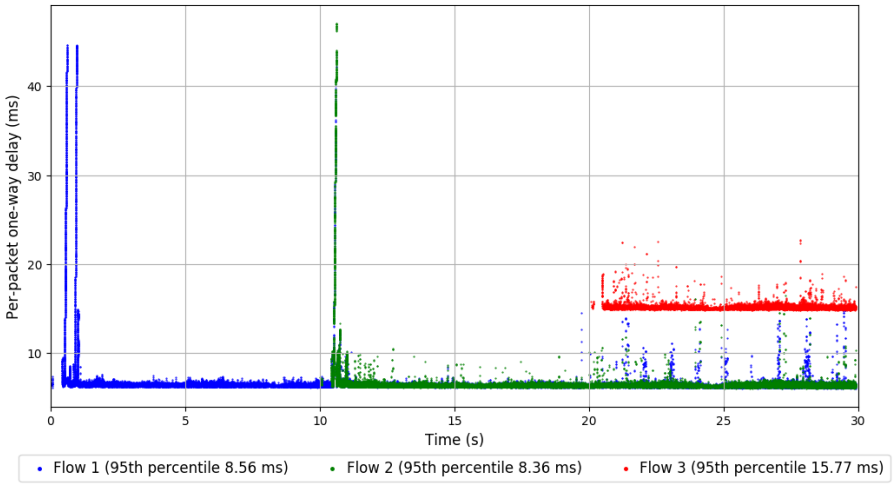
```
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-22 05:18:09
End at: 2018-08-22 05:18:39
Local clock offset: 2.417 ms
Remote clock offset: -62.571 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.75 Mbit/s
95th percentile per-packet one-way delay: 15.275 ms
Loss rate: 3.51%
-- Flow 1:
Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 8.559 ms
Loss rate: 3.67%
-- Flow 2:
Average throughput: 14.39 Mbit/s
95th percentile per-packet one-way delay: 8.357 ms
Loss rate: 3.74%
-- Flow 3:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 15.768 ms
Loss rate: 1.80%
```

Run 9: Report of QUIC Cubic — Data Link



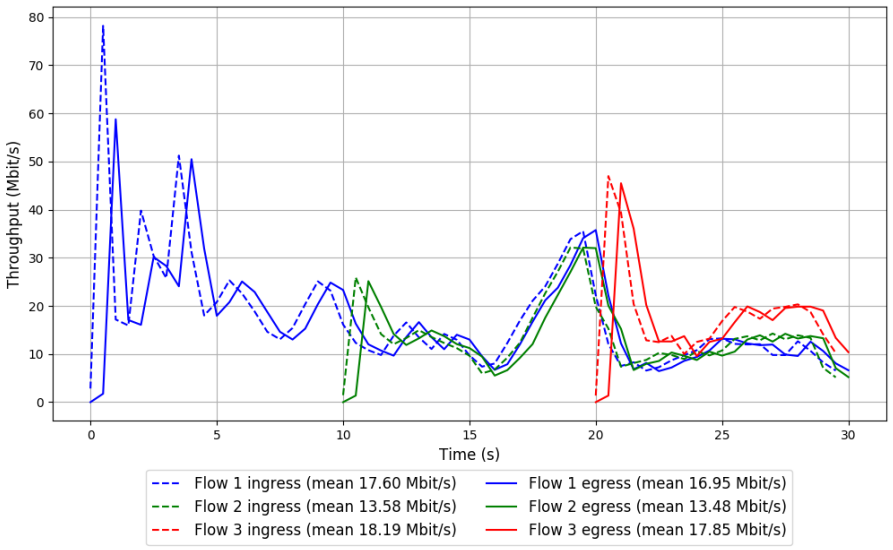


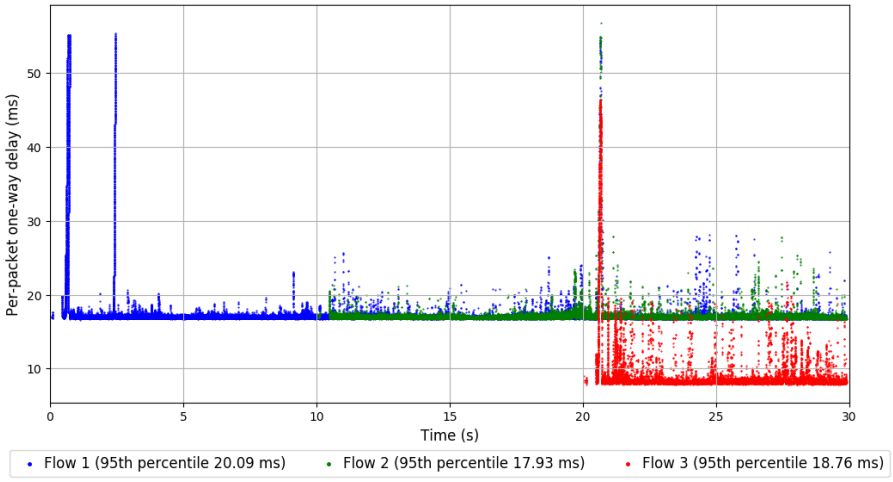
```
Run 10: Statistics of QUIC Cubic

Start at: 2018-08-22 05:37:47
End at: 2018-08-22 05:38:17
Local clock offset: 0.837 ms
Remote clock offset: -58.639 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.79 Mbit/s
95th percentile per-packet one-way delay: 18.876 ms
Loss rate: 2.56%
-- Flow 1:
Average throughput: 16.95 Mbit/s
95th percentile per-packet one-way delay: 20.091 ms
Loss rate: 3.68%
-- Flow 2:
Average throughput: 13.48 Mbit/s
95th percentile per-packet one-way delay: 17.925 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 17.85 Mbit/s
95th percentile per-packet one-way delay: 18.762 ms
Loss rate: 1.87%
```

Run 10: Report of QUIC Cubic — Data Link



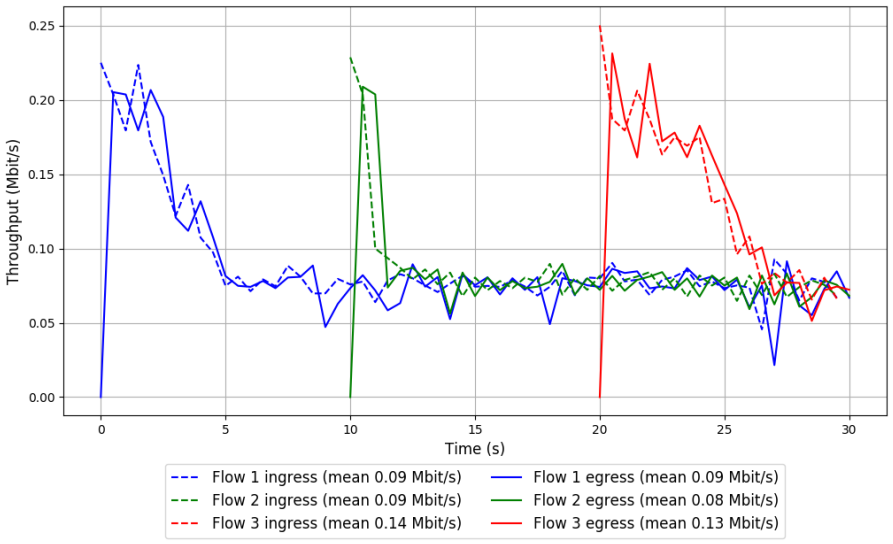


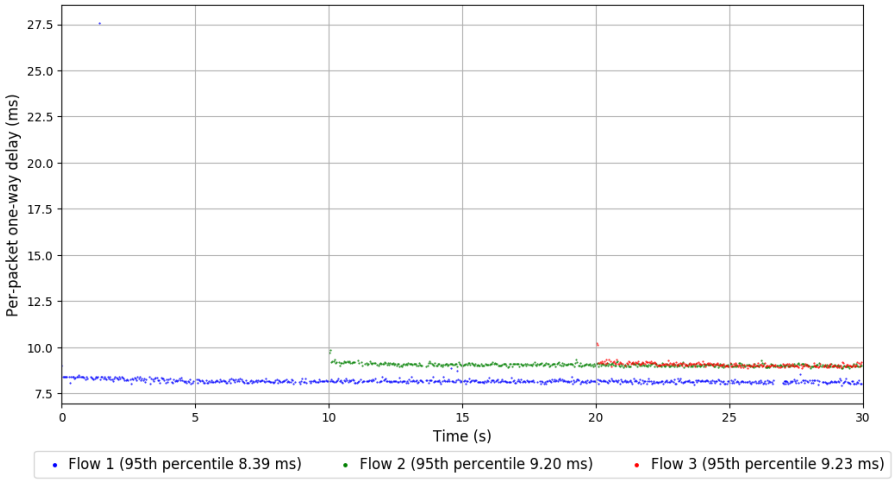
```
Run 1: Statistics of SCReAM

Start at: 2018-08-22 02:31:00
End at: 2018-08-22 02:31:30
Local clock offset: 0.808 ms
Remote clock offset: -61.481 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 9.170 ms
Loss rate: 3.59%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 8.388 ms
Loss rate: 4.23%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 9.200 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 9.229 ms
Loss rate: 2.91%
```

Run 1: Report of SCReAM — Data Link



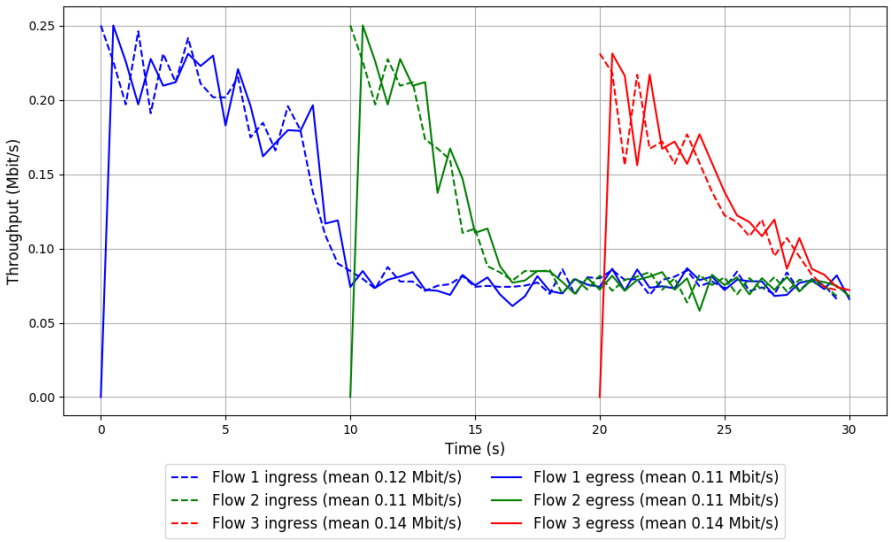


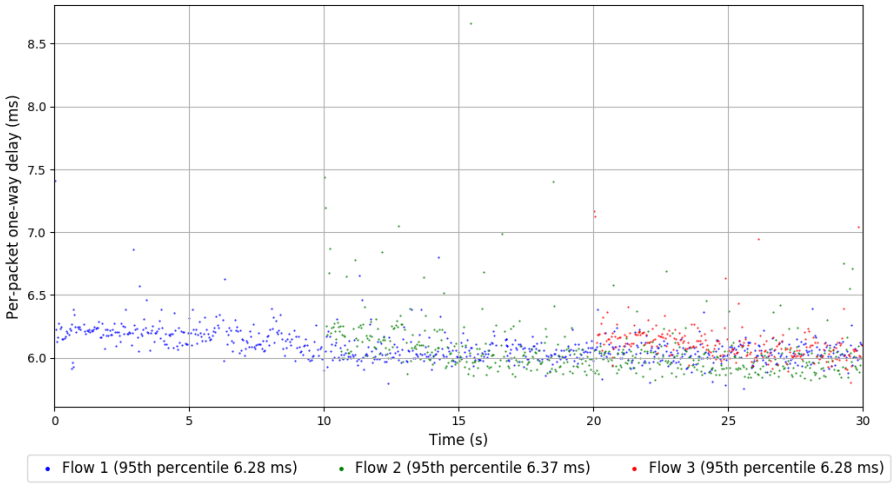
```
Run 2: Statistics of SCReAM

Start at: 2018-08-22 02:50:23
End at: 2018-08-22 02:50:53
Local clock offset: 2.186 ms
Remote clock offset: -60.576 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 6.302 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 6.277 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 6.371 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 6.275 ms
Loss rate: 0.67%
```

Run 2: Report of SCReAM — Data Link



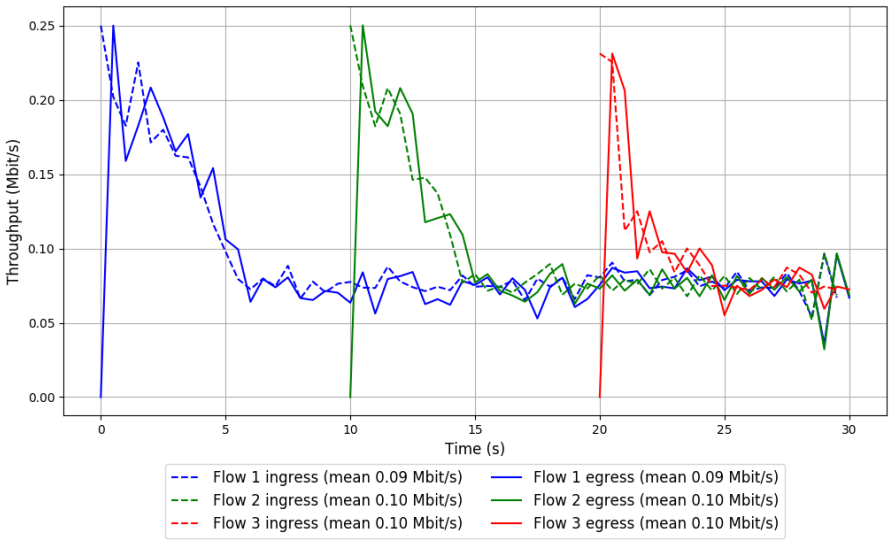


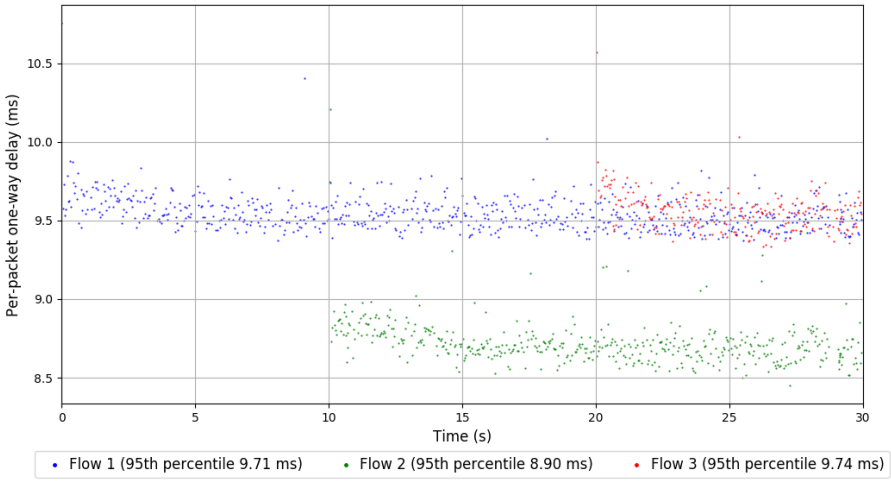
```
Run 3: Statistics of SCReAM

Start at: 2018-08-22 03:09:52
End at: 2018-08-22 03:10:22
Local clock offset: -0.786 ms
Remote clock offset: -62.423 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 9.701 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 9.711 ms
Loss rate: 3.57%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 8.899 ms
Loss rate: 3.67%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 9.741 ms
Loss rate: 4.12%
```

Run 3: Report of SCReAM — Data Link



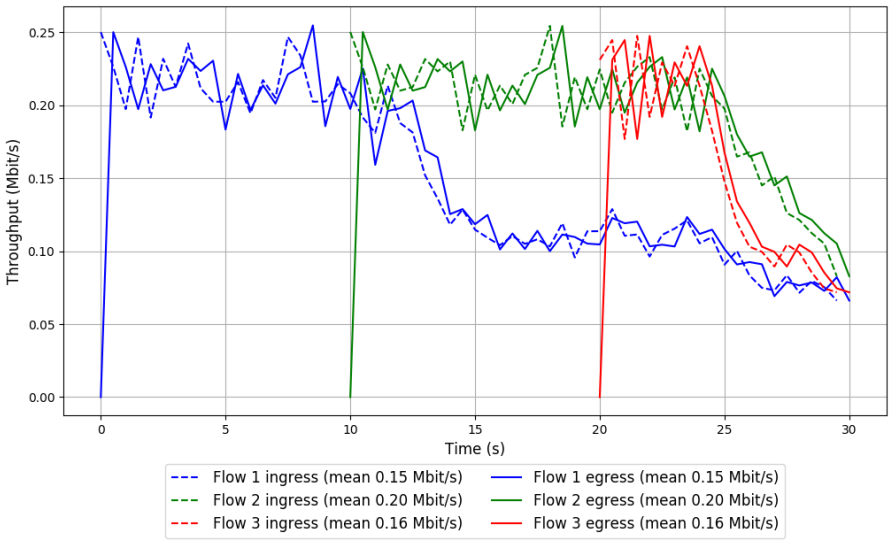


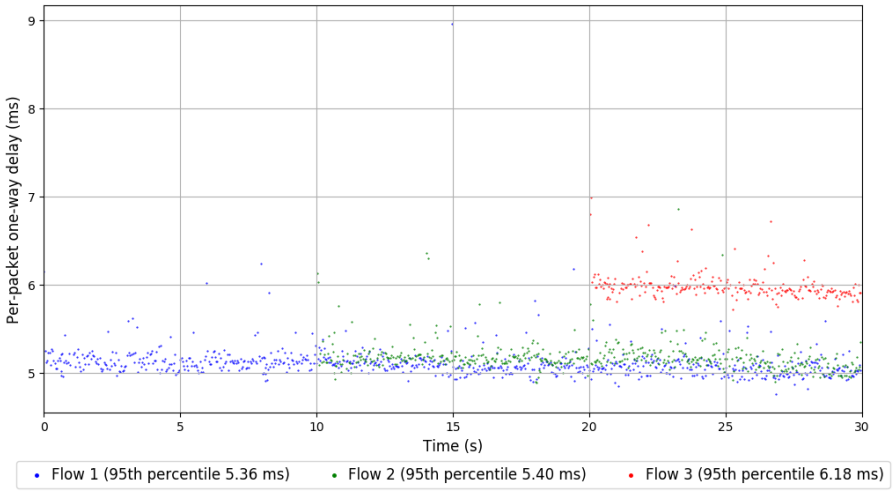
```
Run 4: Statistics of SCReAM

Start at: 2018-08-22 03:29:37
End at: 2018-08-22 03:30:07
Local clock offset: 1.703 ms
Remote clock offset: -63.536 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 6.008 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 5.361 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 5.402 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 6.185 ms
Loss rate: 0.90%
```

Run 4: Report of SCReAM — Data Link



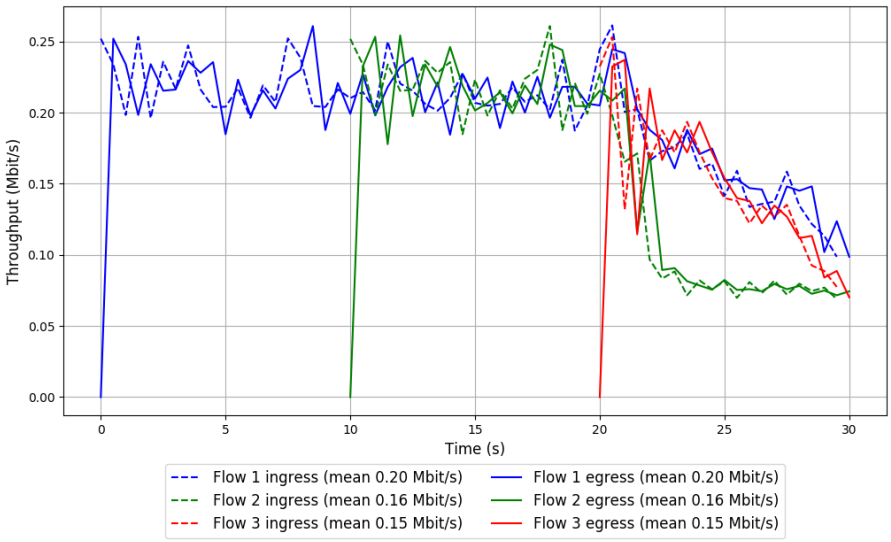


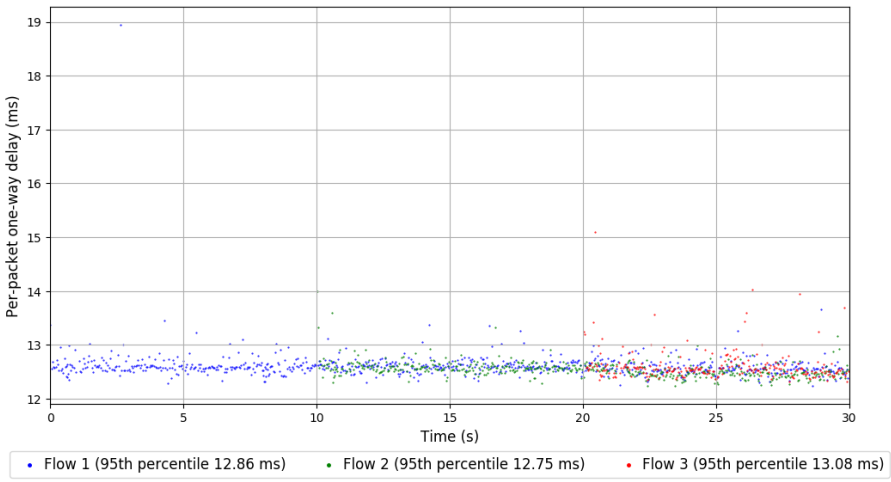
```
Run 5: Statistics of SCReAM

Start at: 2018-08-22 03:49:25
End at: 2018-08-22 03:49:55
Local clock offset: 2.763 ms
Remote clock offset: -62.292 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 12.855 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 12.856 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 12.748 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 13.084 ms
Loss rate: 2.39%
```

Run 5: Report of SCReAM — Data Link



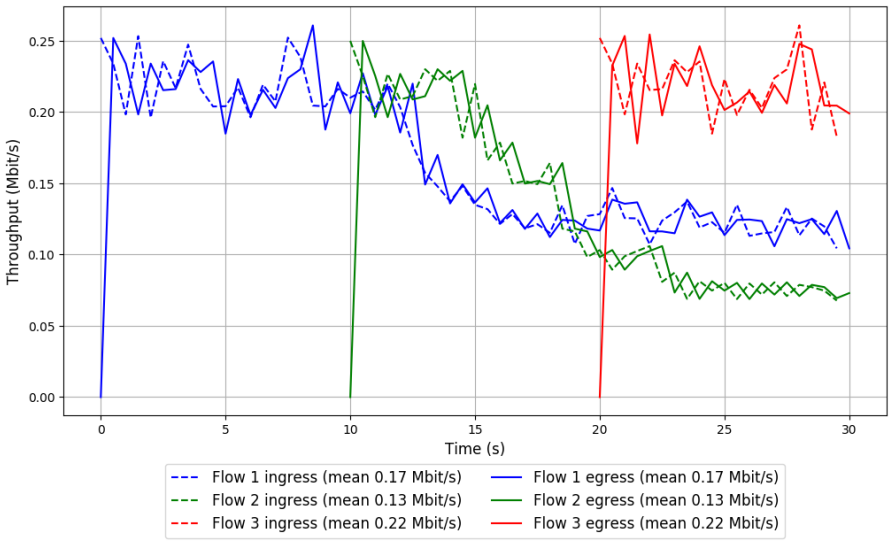


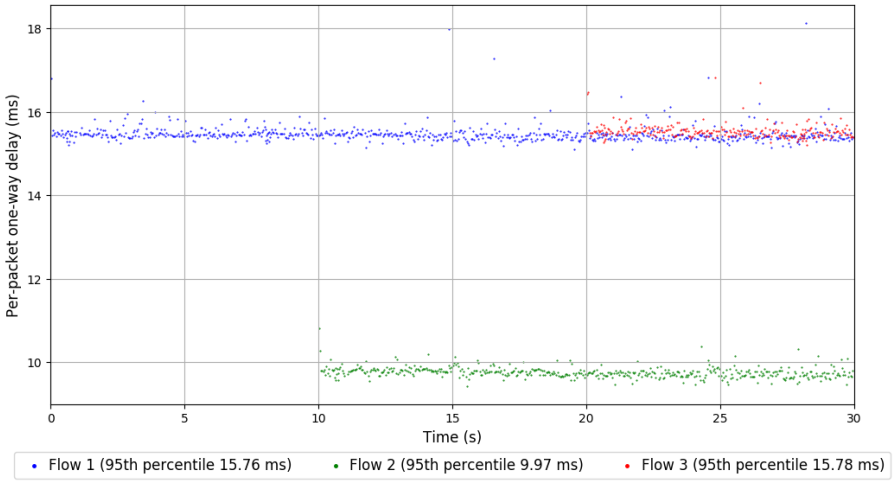
```
Run 6: Statistics of SCReAM

Start at: 2018-08-22 04:09:00
End at: 2018-08-22 04:09:30
Local clock offset: 0.703 ms
Remote clock offset: -62.185 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 15.701 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 15.758 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 9.973 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 15.778 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link



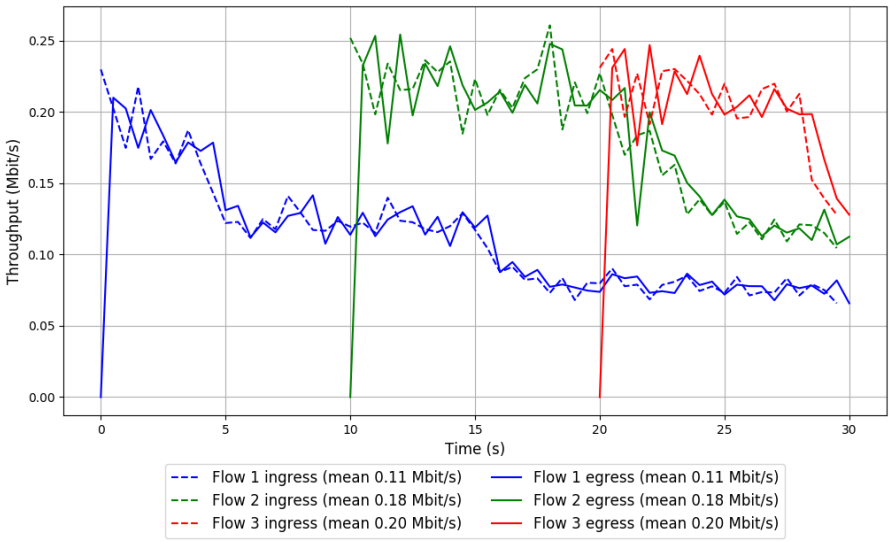


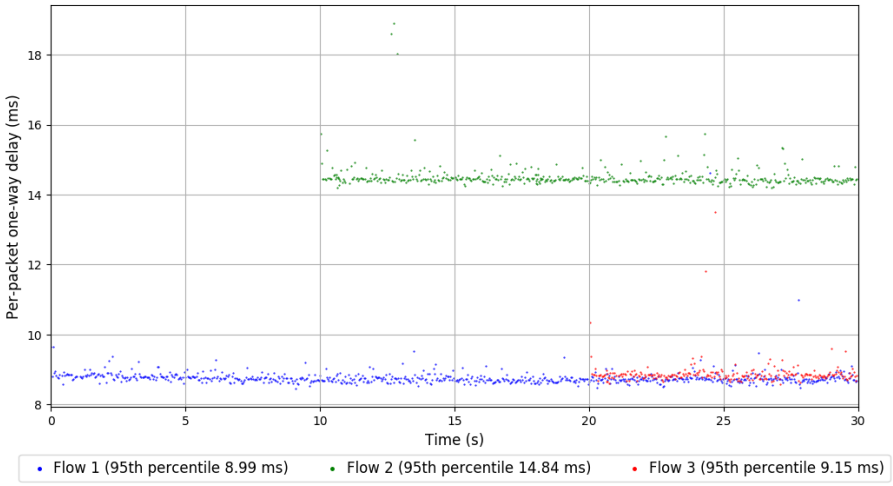
```
Run 7: Statistics of SCReAM

Start at: 2018-08-22 04:28:37
End at: 2018-08-22 04:29:07
Local clock offset: 0.825 ms
Remote clock offset: -63.98 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 14.561 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 8.994 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 14.836 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 9.150 ms
Loss rate: 0.48%
```

Run 7: Report of SCReAM — Data Link



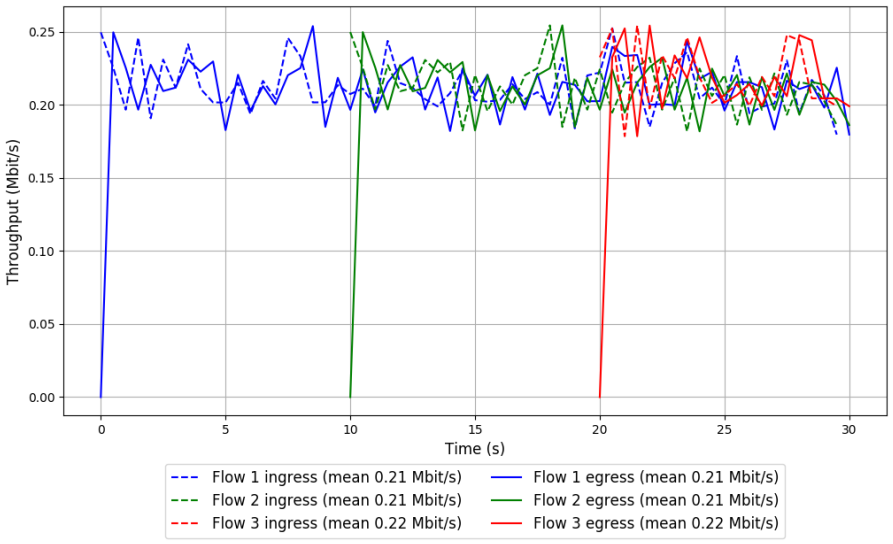


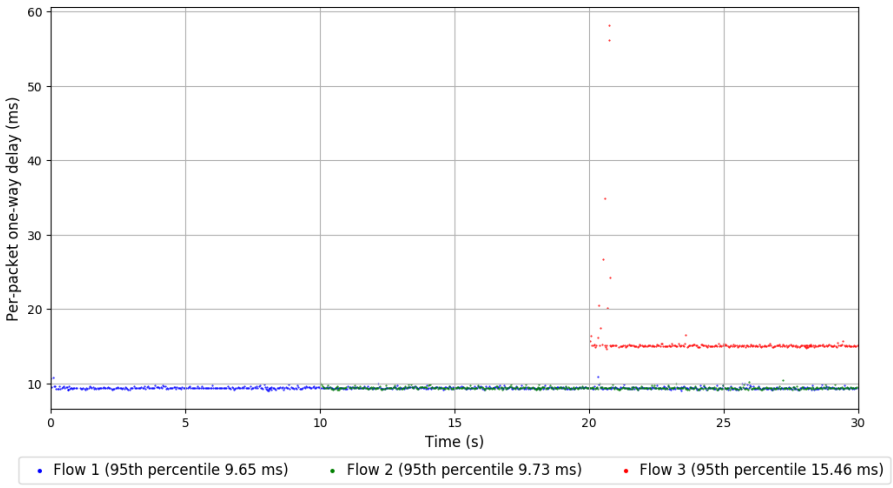
```
Run 8: Statistics of SCReAM

Start at: 2018-08-22 04:48:09
End at: 2018-08-22 04:48:39
Local clock offset: 0.333 ms
Remote clock offset: -63.942 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 15.109 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 9.653 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 9.735 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 15.460 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link



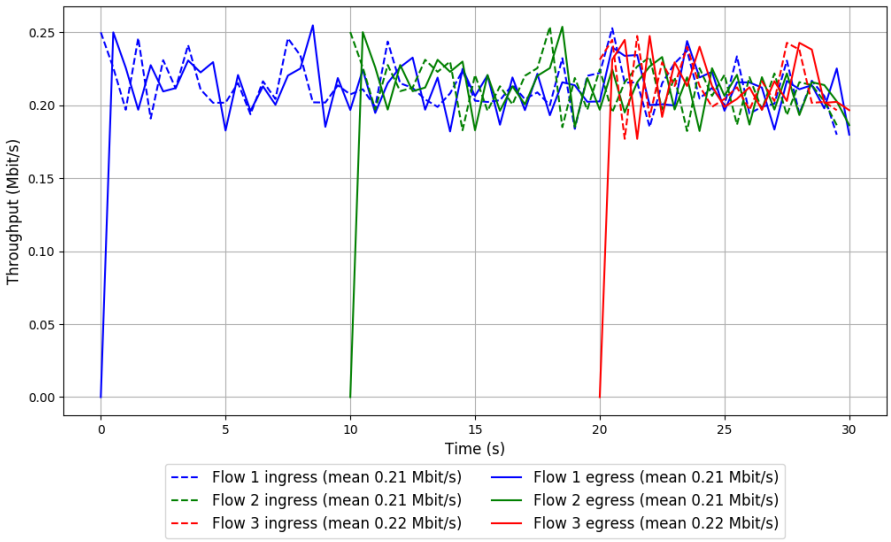


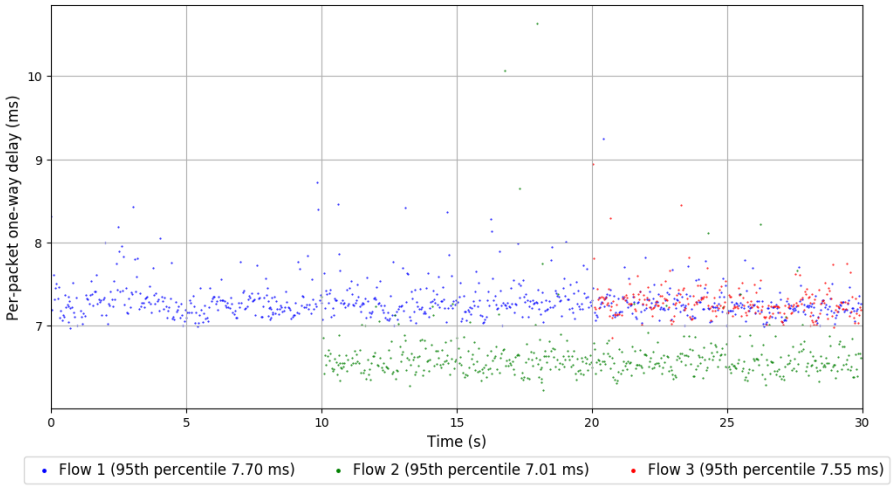
```
Run 9: Statistics of SCReAM

Start at: 2018-08-22 05:07:42
End at: 2018-08-22 05:08:12
Local clock offset: 3.411 ms
Remote clock offset: -62.427 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 7.580 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.704 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.014 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 7.546 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link



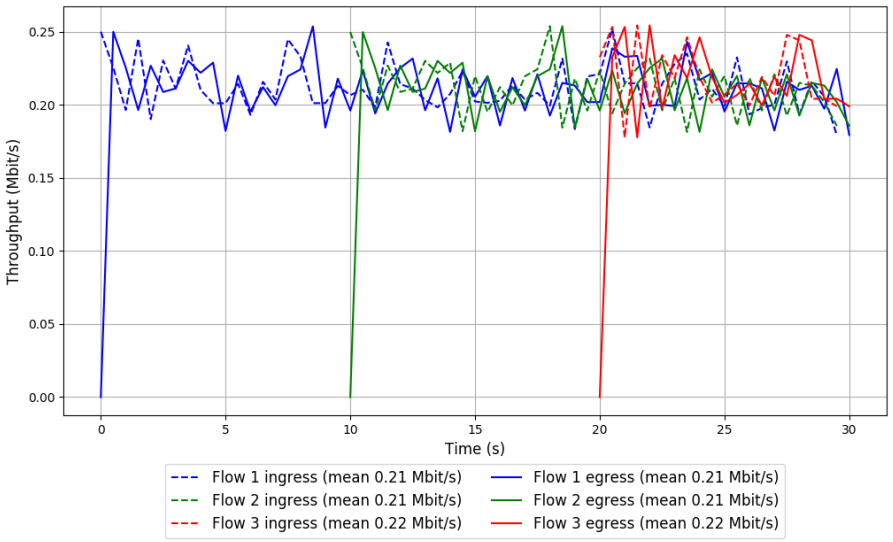


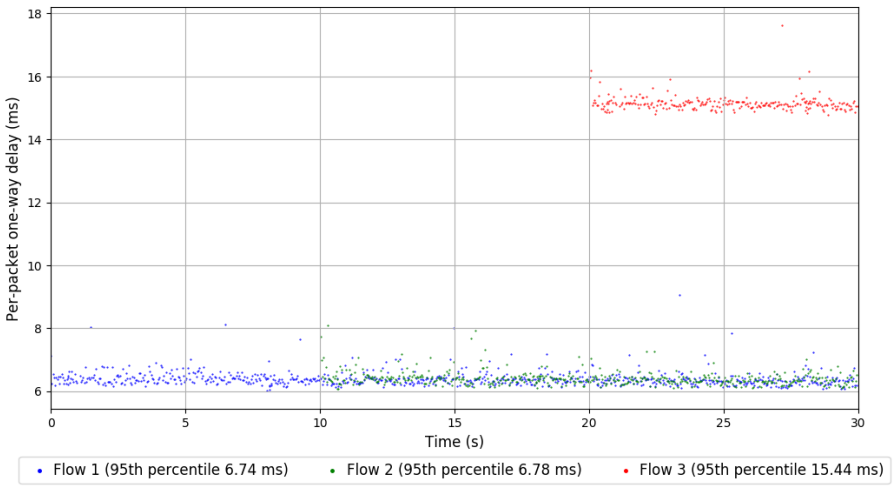
```
Run 10: Statistics of SCReAM

Start at: 2018-08-22 05:27:26
End at: 2018-08-22 05:27:56
Local clock offset: 2.718 ms
Remote clock offset: -59.935 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 15.188 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 6.740 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 6.783 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 15.440 ms
Loss rate: 0.00%
```

Run 10: Report of SCReAM — Data Link



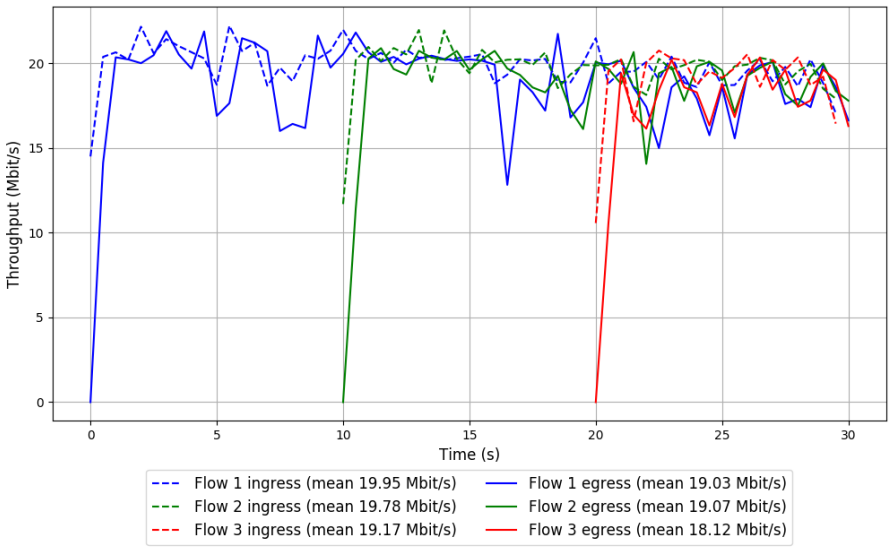


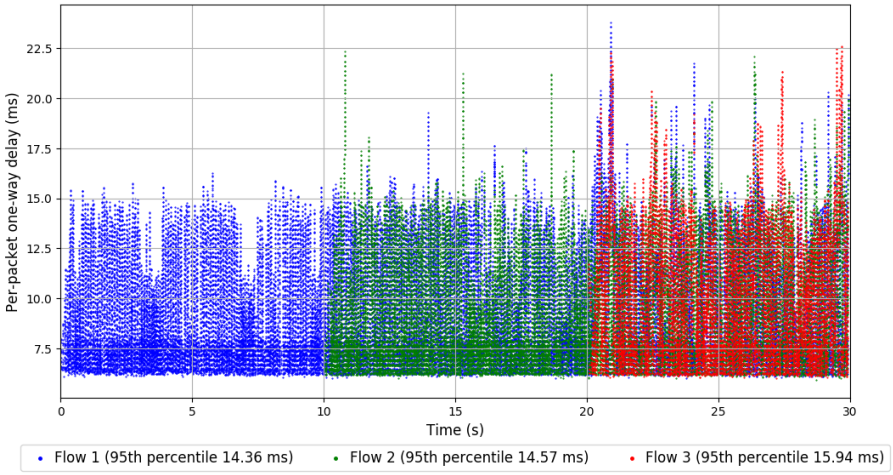
```
Run 1: Statistics of Sprout

Start at: 2018-08-22 02:36:41
End at: 2018-08-22 02:37:11
Local clock offset: 4.39 ms
Remote clock offset: -60.277 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 14.603 ms
Loss rate: 4.34%
-- Flow 1:
Average throughput: 19.03 Mbit/s
95th percentile per-packet one-way delay: 14.357 ms
Loss rate: 4.54%
-- Flow 2:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 14.567 ms
Loss rate: 3.51%
-- Flow 3:
Average throughput: 18.12 Mbit/s
95th percentile per-packet one-way delay: 15.941 ms
Loss rate: 5.43%
```

Run 1: Report of Sprout — Data Link



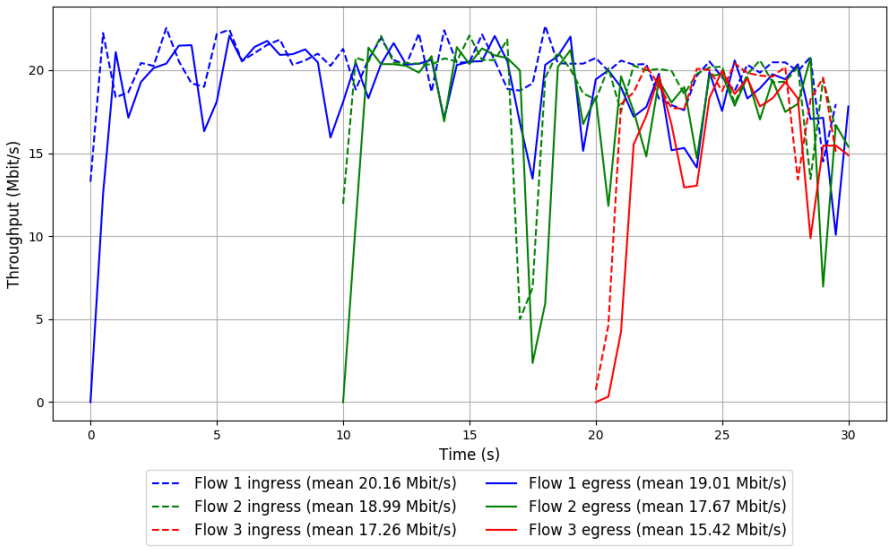


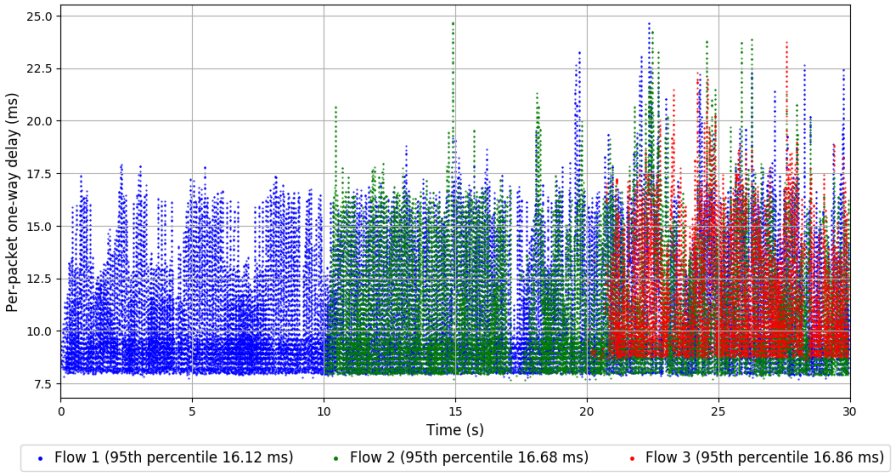
```
Run 2: Statistics of Sprout

Start at: 2018-08-22 02:56:11
End at: 2018-08-22 02:56:41
Local clock offset: 0.439 ms
Remote clock offset: -60.132 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.87 Mbit/s
95th percentile per-packet one-way delay: 16.379 ms
Loss rate: 6.80%
-- Flow 1:
Average throughput: 19.01 Mbit/s
95th percentile per-packet one-way delay: 16.116 ms
Loss rate: 5.66%
-- Flow 2:
Average throughput: 17.67 Mbit/s
95th percentile per-packet one-way delay: 16.676 ms
Loss rate: 6.89%
-- Flow 3:
Average throughput: 15.42 Mbit/s
95th percentile per-packet one-way delay: 16.859 ms
Loss rate: 10.59%
```

Run 2: Report of Sprout — Data Link



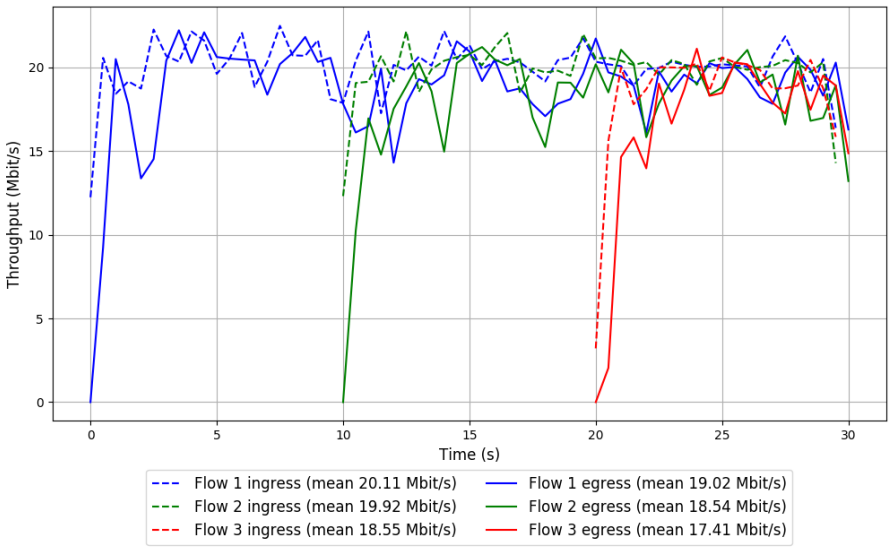


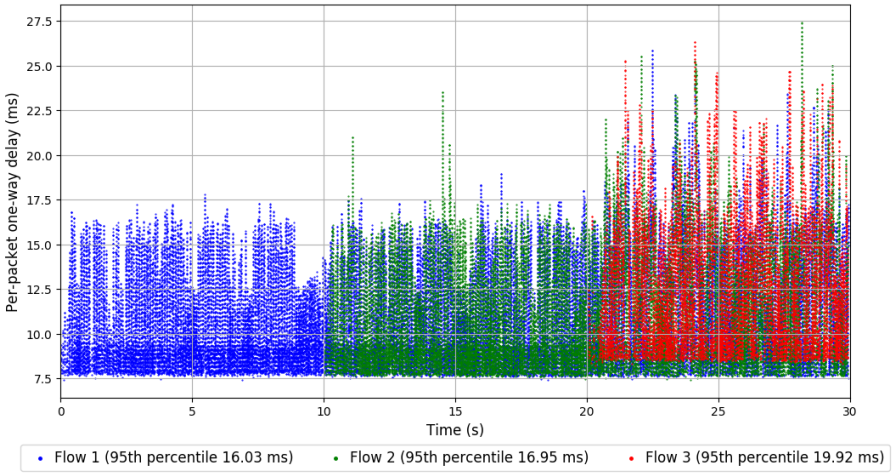
```
Run 3: Statistics of Sprout

Start at: 2018-08-22 03:15:44
End at: 2018-08-22 03:16:14
Local clock offset: 0.066 ms
Remote clock offset: -62.518 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.09 Mbit/s
95th percentile per-packet one-way delay: 17.151 ms
Loss rate: 6.05%
-- Flow 1:
Average throughput: 19.02 Mbit/s
95th percentile per-packet one-way delay: 16.028 ms
Loss rate: 5.42%
-- Flow 2:
Average throughput: 18.54 Mbit/s
95th percentile per-packet one-way delay: 16.954 ms
Loss rate: 6.95%
-- Flow 3:
Average throughput: 17.41 Mbit/s
95th percentile per-packet one-way delay: 19.919 ms
Loss rate: 6.16%
```

Run 3: Report of Sprout — Data Link



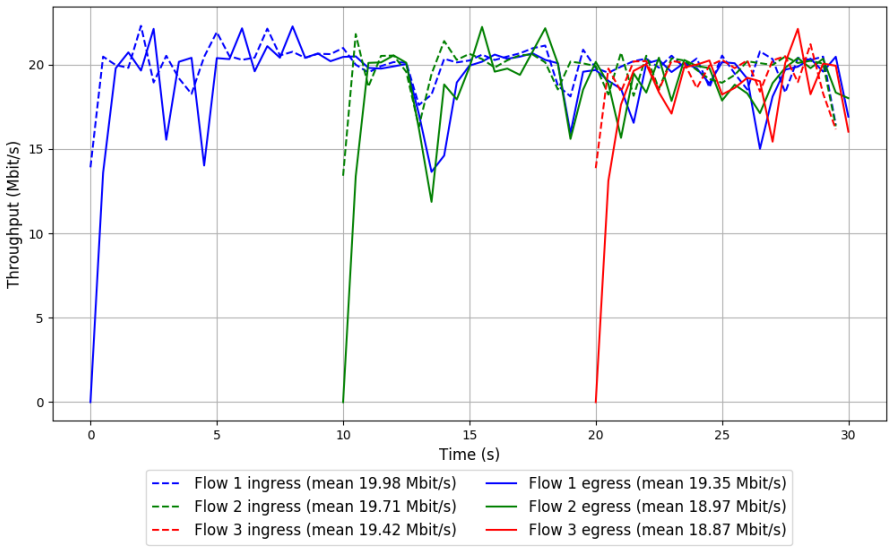


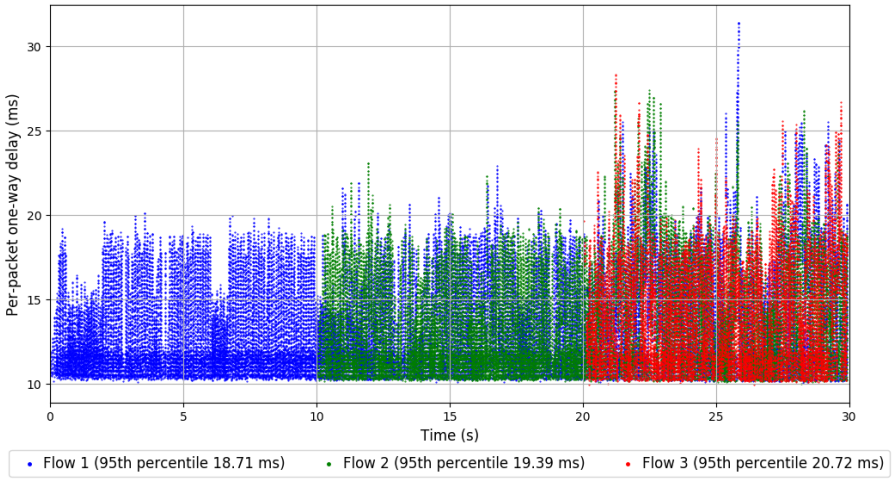
```
Run 4: Statistics of Sprout

Start at: 2018-08-22 03:35:24
End at: 2018-08-22 03:35:54
Local clock offset: -2.289 ms
Remote clock offset: -62.554 ms

# Below is generated by plot.py at 2018-08-22 05:58:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.21 Mbit/s
95th percentile per-packet one-way delay: 19.252 ms
Loss rate: 3.27%
-- Flow 1:
Average throughput: 19.35 Mbit/s
95th percentile per-packet one-way delay: 18.708 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 18.97 Mbit/s
95th percentile per-packet one-way delay: 19.395 ms
Loss rate: 3.69%
-- Flow 3:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 20.721 ms
Loss rate: 2.86%
```

Run 4: Report of Sprout — Data Link



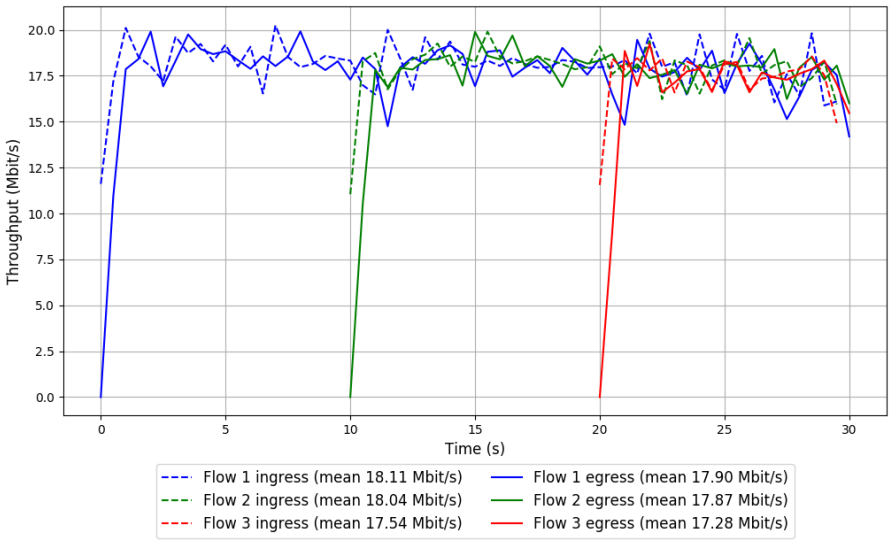


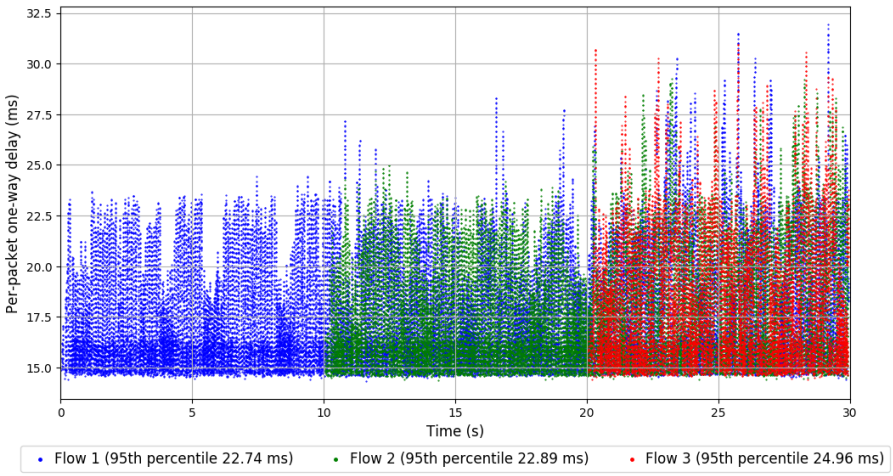
```
Run 5: Statistics of Sprout

Start at: 2018-08-22 03:55:10
End at: 2018-08-22 03:55:40
Local clock offset: 0.498 ms
Remote clock offset: -62.674 ms

# Below is generated by plot.py at 2018-08-22 05:58:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.50 Mbit/s
95th percentile per-packet one-way delay: 23.070 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 17.90 Mbit/s
95th percentile per-packet one-way delay: 22.738 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 17.87 Mbit/s
95th percentile per-packet one-way delay: 22.891 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 17.28 Mbit/s
95th percentile per-packet one-way delay: 24.965 ms
Loss rate: 1.42%
```

Run 5: Report of Sprout — Data Link



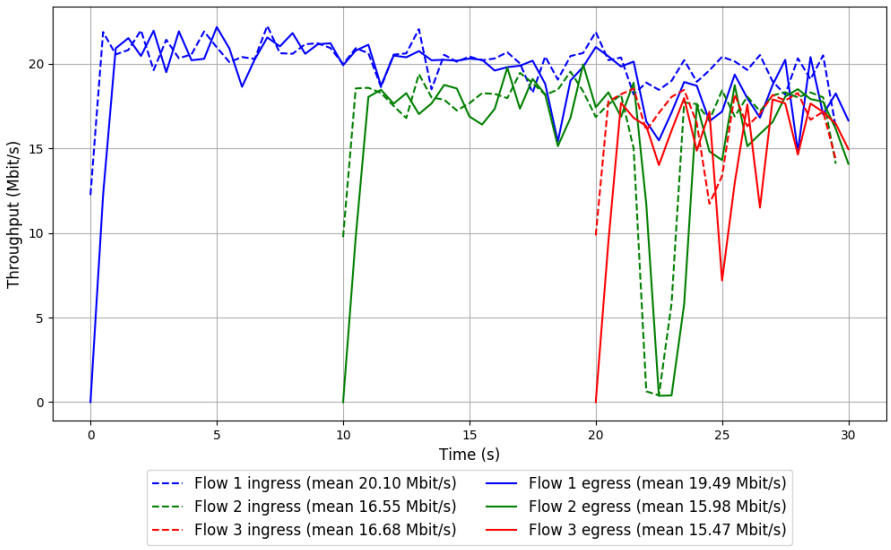


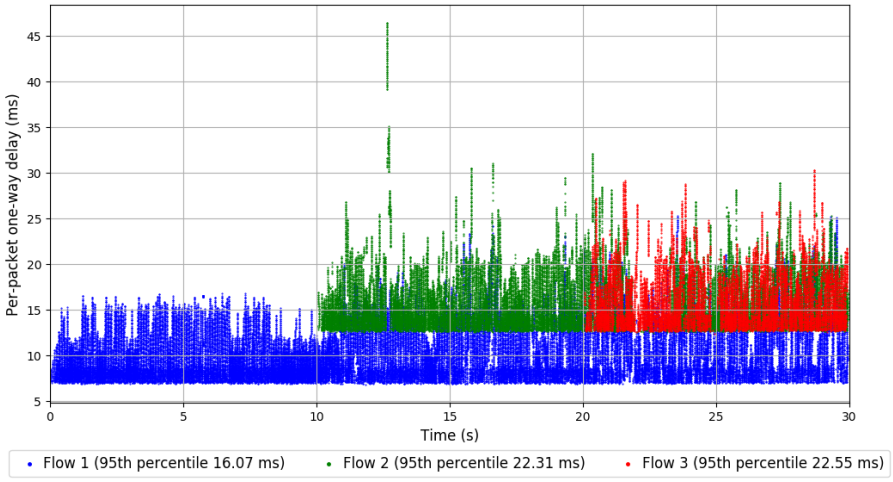
```
Run 6: Statistics of Sprout

Start at: 2018-08-22 04:14:44
End at: 2018-08-22 04:15:14
Local clock offset: 3.292 ms
Remote clock offset: -62.528 ms

# Below is generated by plot.py at 2018-08-22 05:59:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.23 Mbit/s
95th percentile per-packet one-way delay: 20.413 ms
Loss rate: 3.76%
-- Flow 1:
Average throughput: 19.49 Mbit/s
95th percentile per-packet one-way delay: 16.070 ms
Loss rate: 3.01%
-- Flow 2:
Average throughput: 15.98 Mbit/s
95th percentile per-packet one-way delay: 22.308 ms
Loss rate: 3.43%
-- Flow 3:
Average throughput: 15.47 Mbit/s
95th percentile per-packet one-way delay: 22.545 ms
Loss rate: 7.16%
```

Run 6: Report of Sprout — Data Link



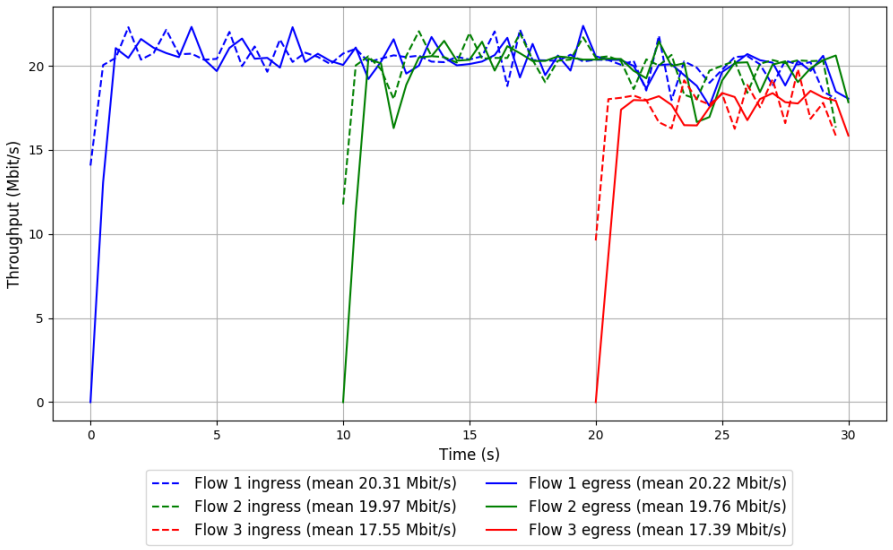


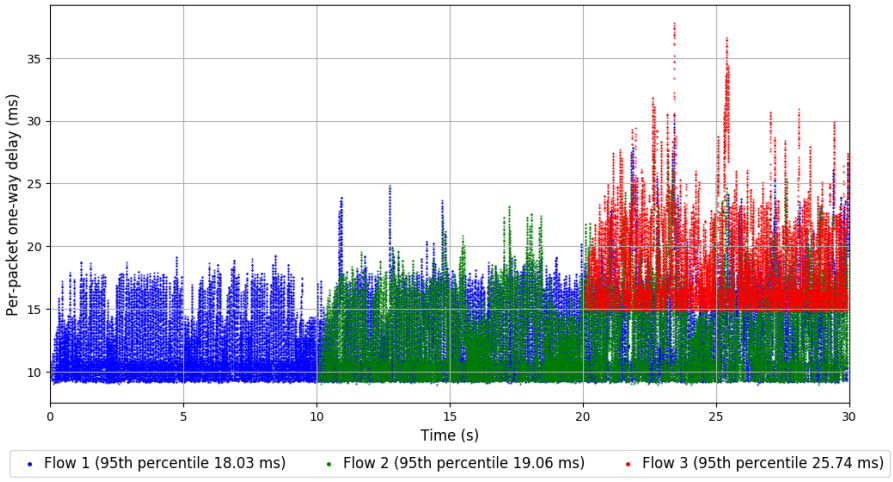
```
Run 7: Statistics of Sprout

Start at: 2018-08-22 04:34:20
End at: 2018-08-22 04:34:50
Local clock offset: 0.366 ms
Remote clock offset: -64.087 ms

# Below is generated by plot.py at 2018-08-22 05:59:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.11 Mbit/s
95th percentile per-packet one-way delay: 21.135 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 20.22 Mbit/s
95th percentile per-packet one-way delay: 18.030 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 19.76 Mbit/s
95th percentile per-packet one-way delay: 19.062 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 17.39 Mbit/s
95th percentile per-packet one-way delay: 25.744 ms
Loss rate: 0.78%
```

Run 7: Report of Sprout — Data Link



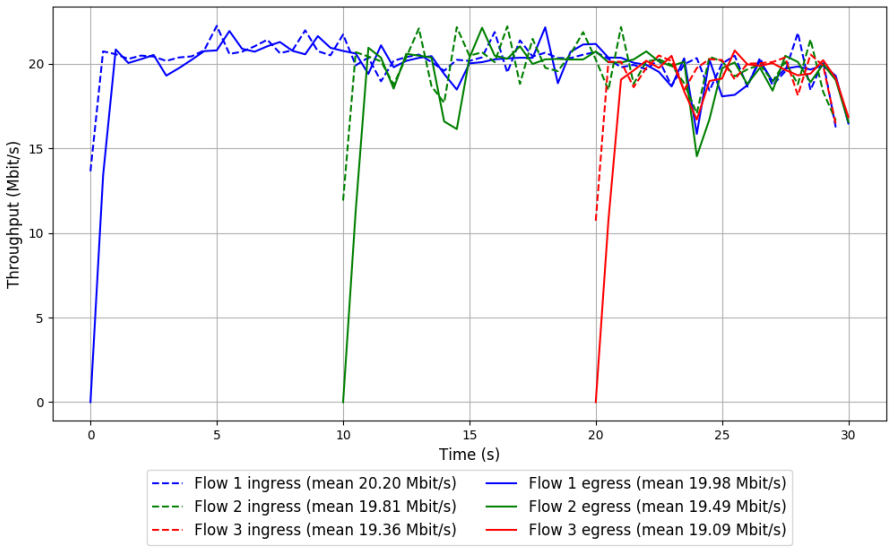


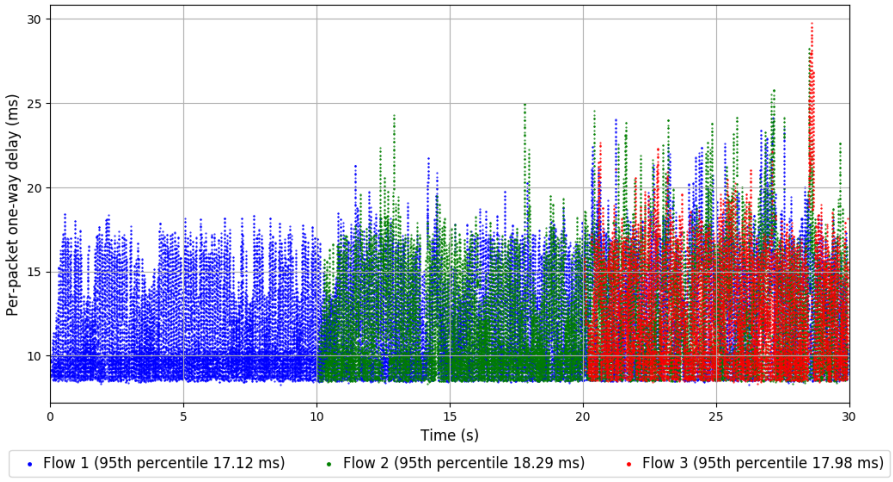
```
Run 8: Statistics of Sprout

Start at: 2018-08-22 04:53:48
End at: 2018-08-22 04:54:18
Local clock offset: 1.197 ms
Remote clock offset: -63.554 ms

# Below is generated by plot.py at 2018-08-22 05:59:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.26 Mbit/s
95th percentile per-packet one-way delay: 17.609 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 19.98 Mbit/s
95th percentile per-packet one-way delay: 17.124 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 19.49 Mbit/s
95th percentile per-packet one-way delay: 18.291 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 19.09 Mbit/s
95th percentile per-packet one-way delay: 17.982 ms
Loss rate: 1.32%
```

Run 8: Report of Sprout — Data Link



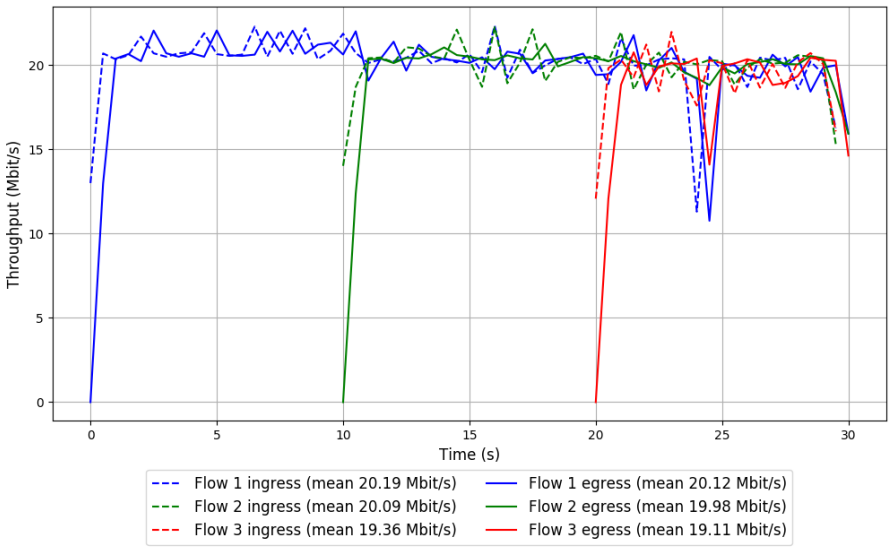


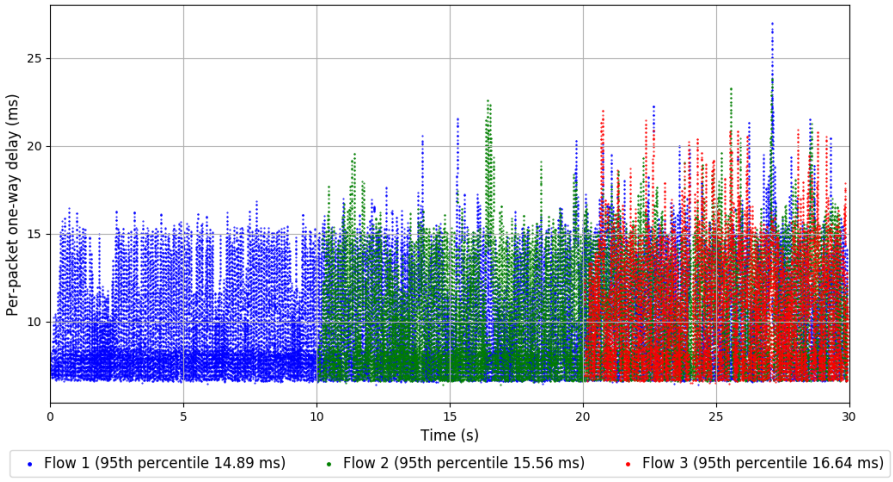
```
Run 9: Statistics of Sprout

Start at: 2018-08-22 05:13:27
End at: 2018-08-22 05:13:57
Local clock offset: 2.604 ms
Remote clock offset: -63.251 ms

# Below is generated by plot.py at 2018-08-22 05:59:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 15.359 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 20.12 Mbit/s
95th percentile per-packet one-way delay: 14.887 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 19.98 Mbit/s
95th percentile per-packet one-way delay: 15.564 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 19.11 Mbit/s
95th percentile per-packet one-way delay: 16.645 ms
Loss rate: 1.28%
```

Run 9: Report of Sprout — Data Link



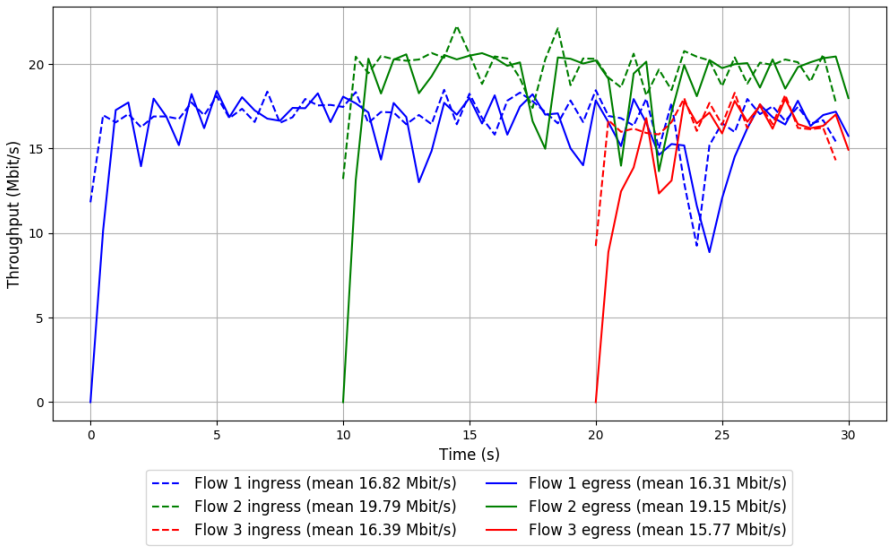


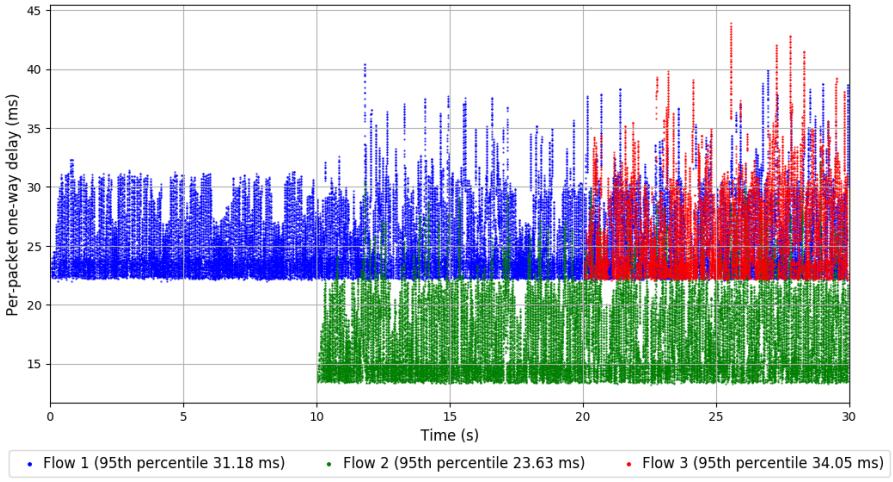
```
Run 10: Statistics of Sprout

Start at: 2018-08-22 05:33:07
End at: 2018-08-22 05:33:37
Local clock offset: -7.762 ms
Remote clock offset: -62.525 ms

# Below is generated by plot.py at 2018-08-22 05:59:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.26 Mbit/s
95th percentile per-packet one-way delay: 30.790 ms
Loss rate: 3.19%
-- Flow 1:
Average throughput: 16.31 Mbit/s
95th percentile per-packet one-way delay: 31.185 ms
Loss rate: 2.98%
-- Flow 2:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 23.629 ms
Loss rate: 3.21%
-- Flow 3:
Average throughput: 15.77 Mbit/s
95th percentile per-packet one-way delay: 34.054 ms
Loss rate: 3.83%
```

Run 10: Report of Sprout — Data Link



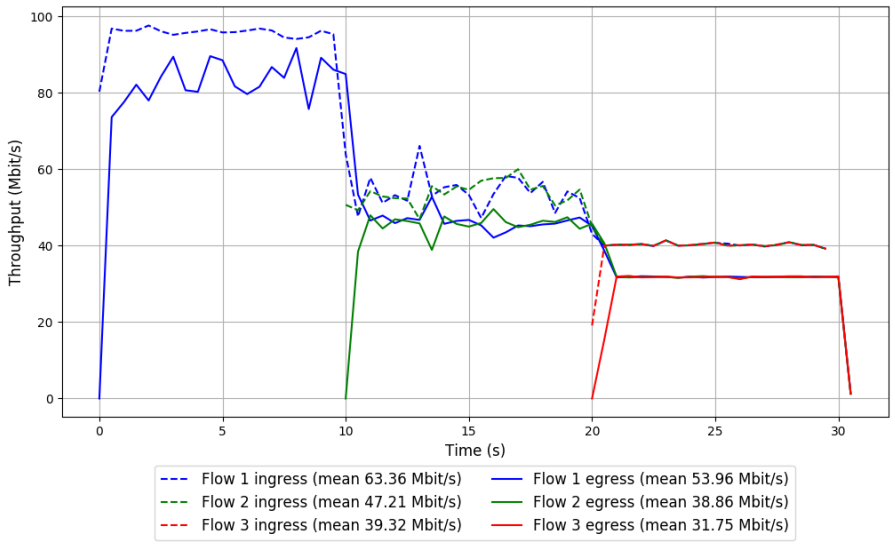


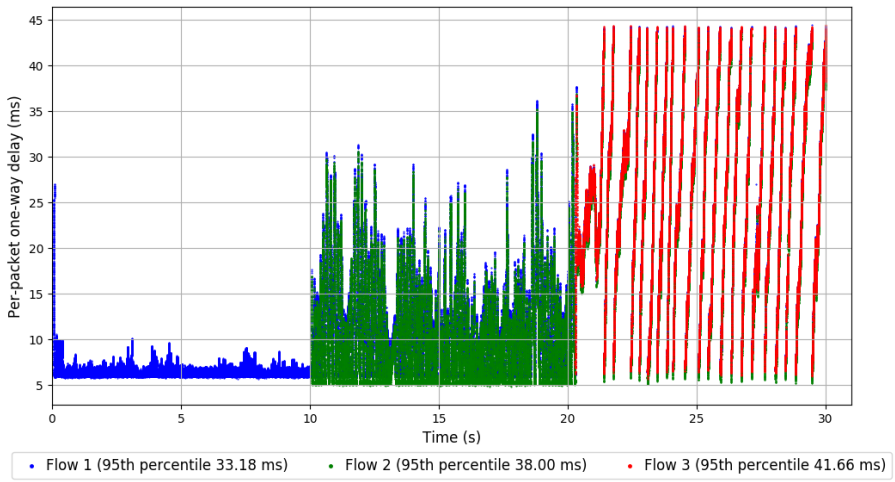
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-08-22 02:34:20
End at: 2018-08-22 02:34:50
Local clock offset: 4.625 ms
Remote clock offset: -60.5 ms

# Below is generated by plot.py at 2018-08-22 06:01:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.21 Mbit/s
95th percentile per-packet one-way delay: 37.734 ms
Loss rate: 16.30%
-- Flow 1:
Average throughput: 53.96 Mbit/s
95th percentile per-packet one-way delay: 33.181 ms
Loss rate: 14.75%
-- Flow 2:
Average throughput: 38.86 Mbit/s
95th percentile per-packet one-way delay: 37.996 ms
Loss rate: 17.58%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 41.659 ms
Loss rate: 20.72%
```

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



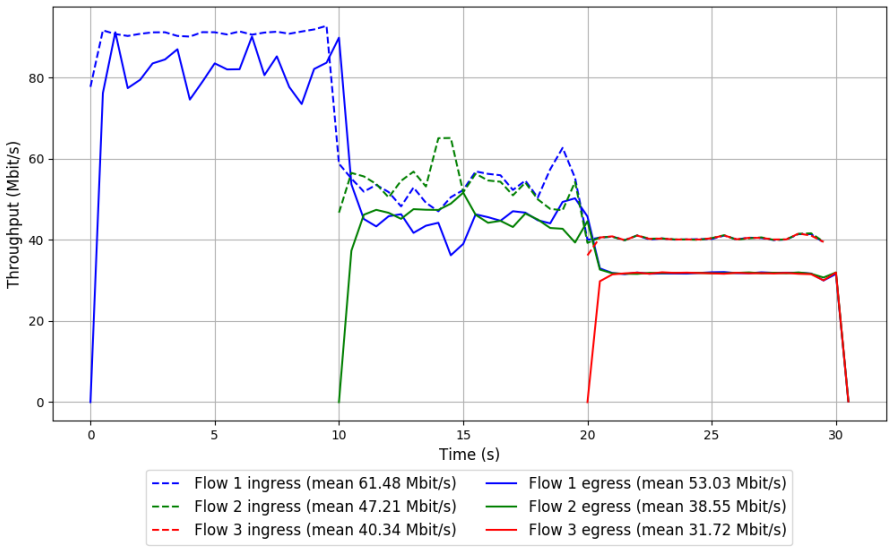


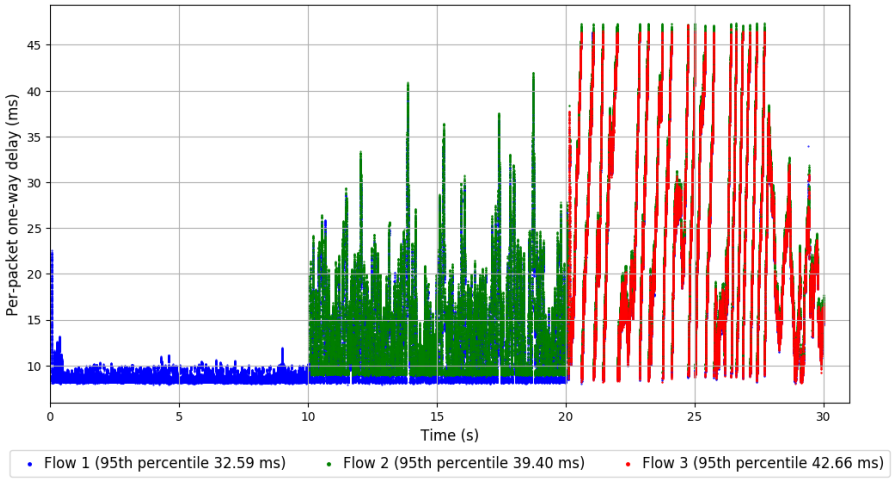
```
Run 2: Statistics of TaoVA-100x

Start at: 2018-08-22 02:53:47
End at: 2018-08-22 02:54:17
Local clock offset: 0.986 ms
Remote clock offset: -59.52 ms

# Below is generated by plot.py at 2018-08-22 06:01:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.24 Mbit/s
95th percentile per-packet one-way delay: 37.892 ms
Loss rate: 16.06%
-- Flow 1:
Average throughput: 53.03 Mbit/s
95th percentile per-packet one-way delay: 32.593 ms
Loss rate: 13.73%
-- Flow 2:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 39.401 ms
Loss rate: 18.31%
-- Flow 3:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 42.658 ms
Loss rate: 21.44%
```

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



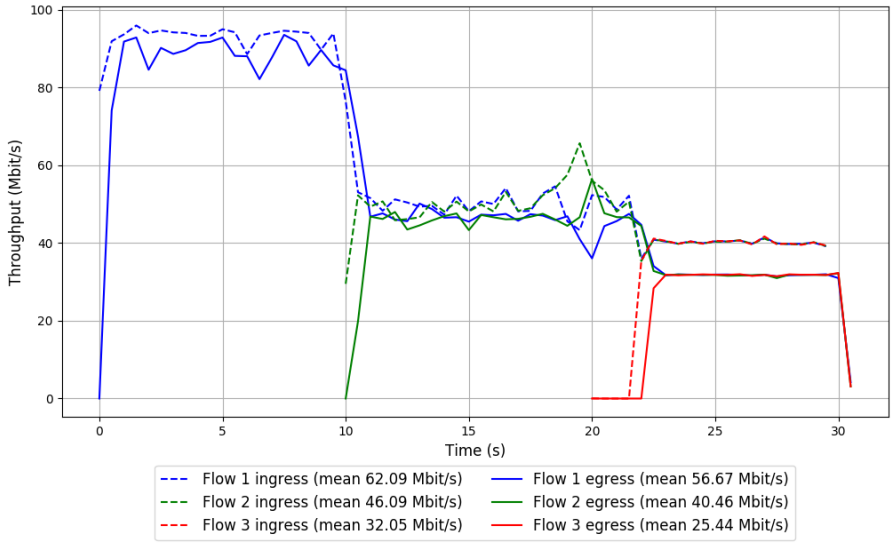


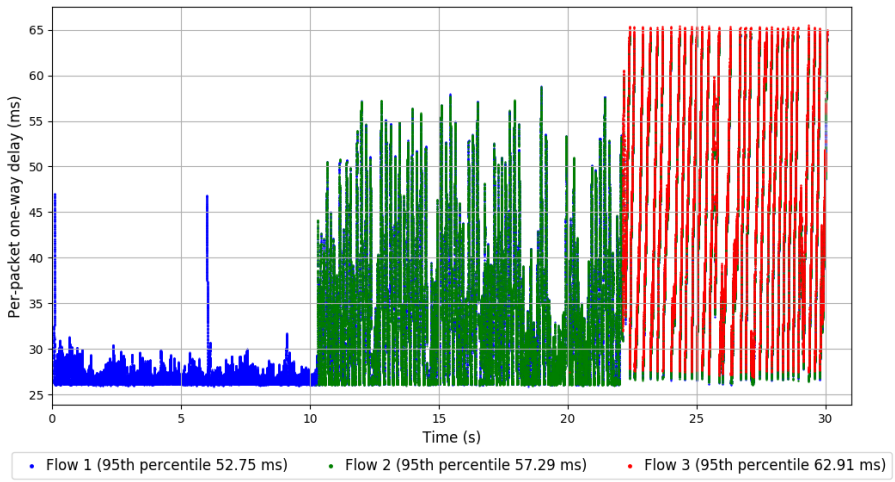
```
Run 3: Statistics of TaoVA-100x

Start at: 2018-08-22 03:13:19
End at: 2018-08-22 03:13:49
Local clock offset: 2.074 ms
Remote clock offset: -42.1 ms

# Below is generated by plot.py at 2018-08-22 06:01:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.85 Mbit/s
95th percentile per-packet one-way delay: 56.706 ms
Loss rate: 11.10%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 52.747 ms
Loss rate: 8.62%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 57.287 ms
Loss rate: 12.91%
-- Flow 3:
Average throughput: 25.44 Mbit/s
95th percentile per-packet one-way delay: 62.915 ms
Loss rate: 20.33%
```

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



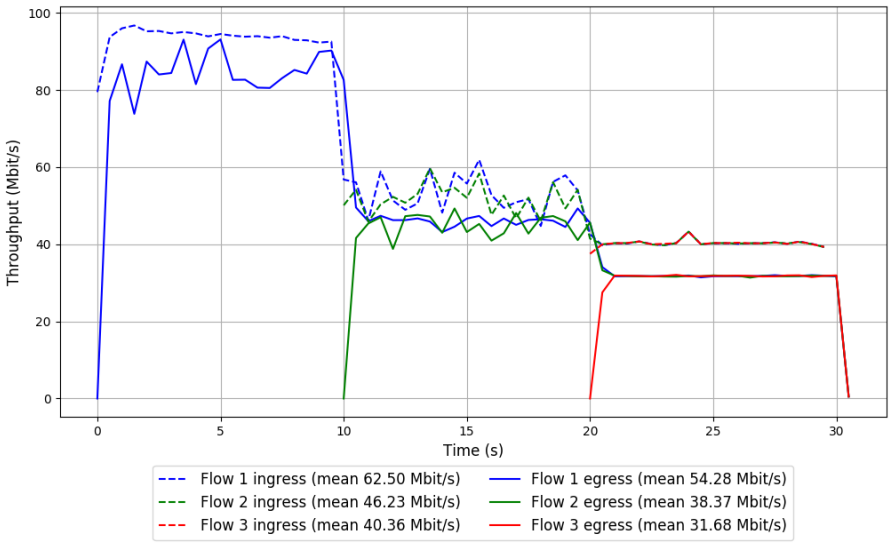


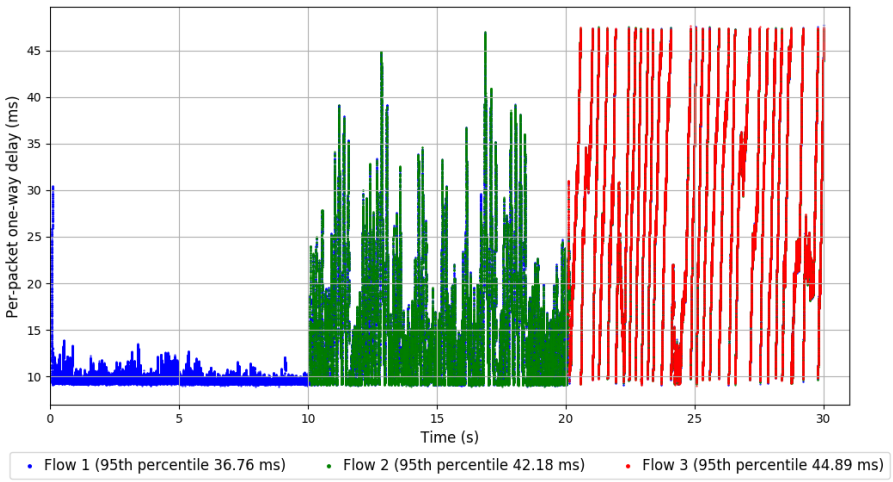
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-08-22 03:32:59
End at: 2018-08-22 03:33:29
Local clock offset: -1.582 ms
Remote clock offset: -63.512 ms

# Below is generated by plot.py at 2018-08-22 06:01:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.39 Mbit/s
95th percentile per-packet one-way delay: 41.168 ms
Loss rate: 15.28%
-- Flow 1:
Average throughput: 54.28 Mbit/s
95th percentile per-packet one-way delay: 36.763 ms
Loss rate: 13.14%
-- Flow 2:
Average throughput: 38.37 Mbit/s
95th percentile per-packet one-way delay: 42.183 ms
Loss rate: 16.96%
-- Flow 3:
Average throughput: 31.68 Mbit/s
95th percentile per-packet one-way delay: 44.891 ms
Loss rate: 21.44%
```

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



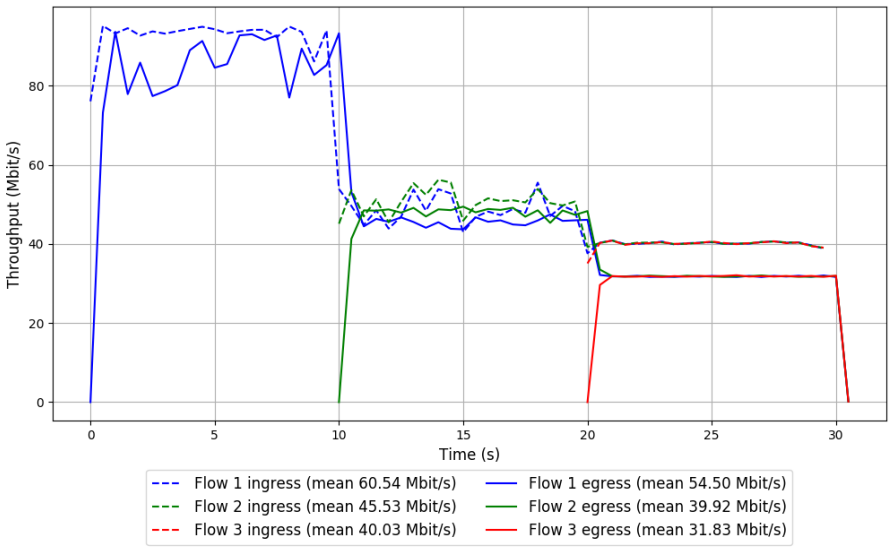


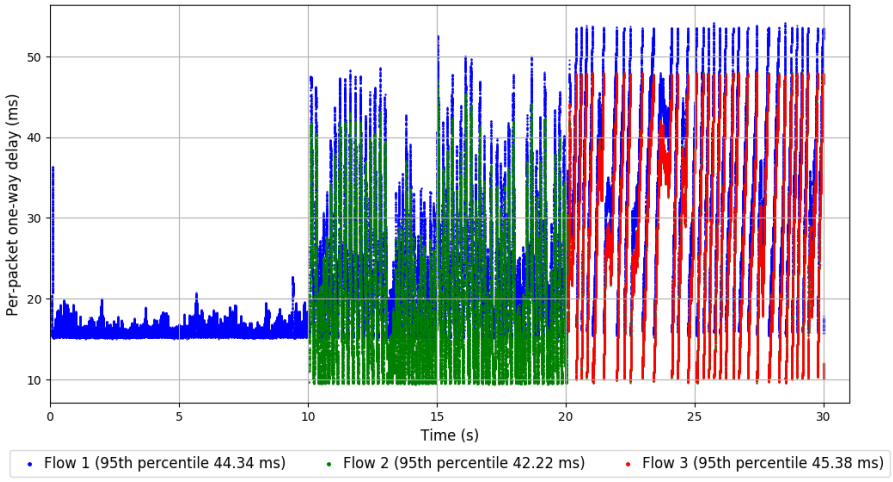
```
Run 5: Statistics of TaoVA-100x

Start at: 2018-08-22 03:52:47
End at: 2018-08-22 03:53:17
Local clock offset: 1.195 ms
Remote clock offset: -61.293 ms

# Below is generated by plot.py at 2018-08-22 06:01:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 43.968 ms
Loss rate: 12.01%
-- Flow 1:
Average throughput: 54.50 Mbit/s
95th percentile per-packet one-way delay: 44.336 ms
Loss rate: 9.99%
-- Flow 2:
Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 42.219 ms
Loss rate: 12.33%
-- Flow 3:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 45.382 ms
Loss rate: 20.51%
```

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



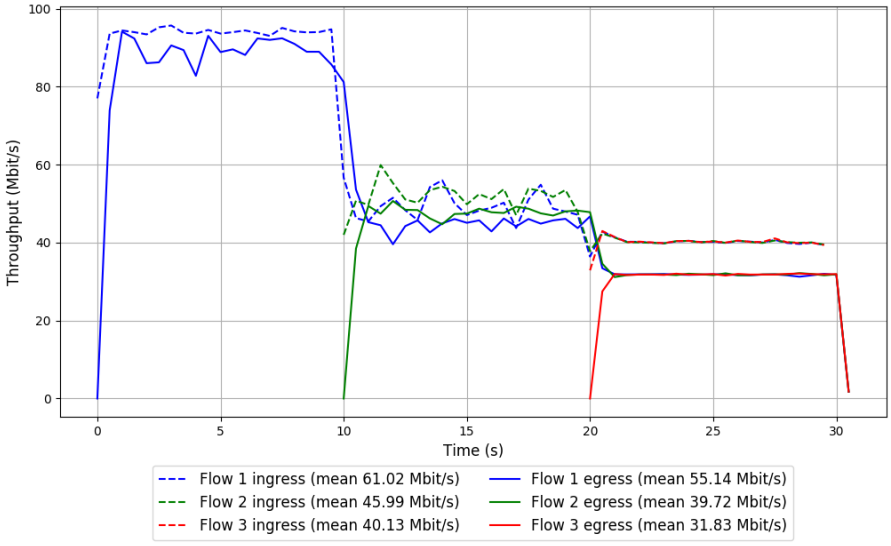


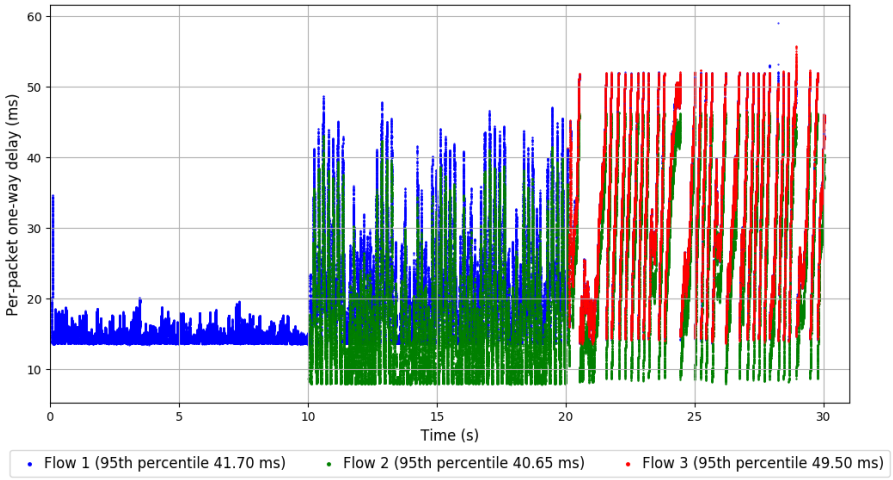
```
Run 6: Statistics of TaoVA-100x

Start at: 2018-08-22 04:12:21
End at: 2018-08-22 04:12:51
Local clock offset: 1.698 ms
Remote clock offset: -63.088 ms

# Below is generated by plot.py at 2018-08-22 06:01:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.18 Mbit/s
95th percentile per-packet one-way delay: 43.576 ms
Loss rate: 12.13%
-- Flow 1:
Average throughput: 55.14 Mbit/s
95th percentile per-packet one-way delay: 41.698 ms
Loss rate: 9.56%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 40.646 ms
Loss rate: 13.51%
-- Flow 3:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 49.496 ms
Loss rate: 20.71%
```

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



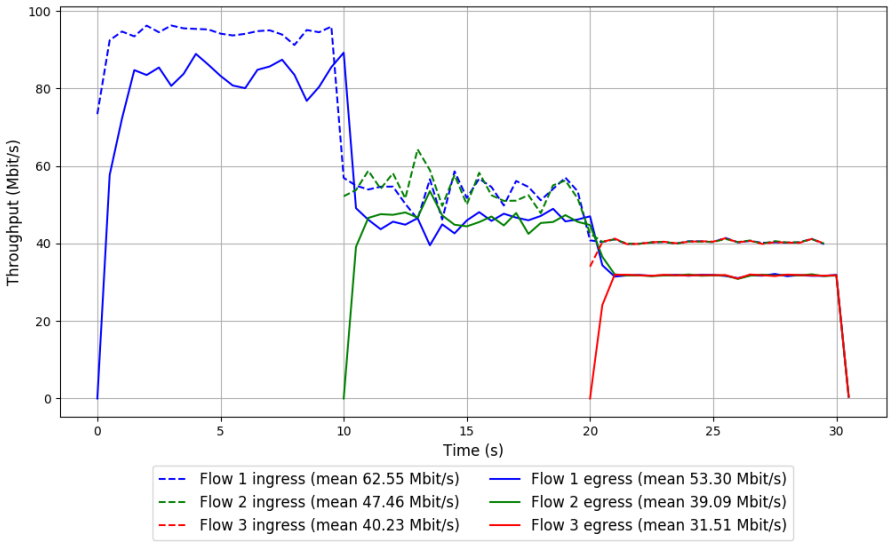


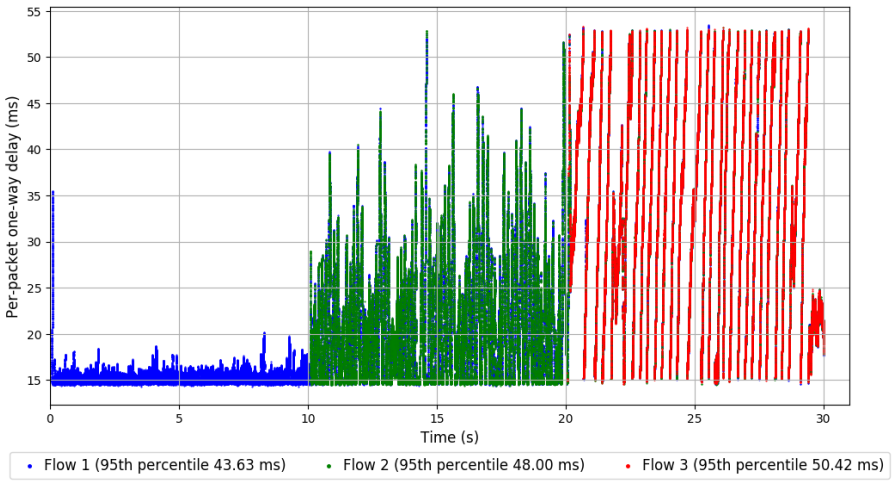
```
Run 7: Statistics of TaoVA-100x

Start at: 2018-08-22 04:31:56
End at: 2018-08-22 04:32:26
Local clock offset: 0.453 ms
Remote clock offset: -64.288 ms

# Below is generated by plot.py at 2018-08-22 06:01:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.82 Mbit/s
95th percentile per-packet one-way delay: 47.344 ms
Loss rate: 16.46%
-- Flow 1:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 43.628 ms
Loss rate: 14.77%
-- Flow 2:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 47.997 ms
Loss rate: 17.62%
-- Flow 3:
Average throughput: 31.51 Mbit/s
95th percentile per-packet one-way delay: 50.425 ms
Loss rate: 21.63%
```

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



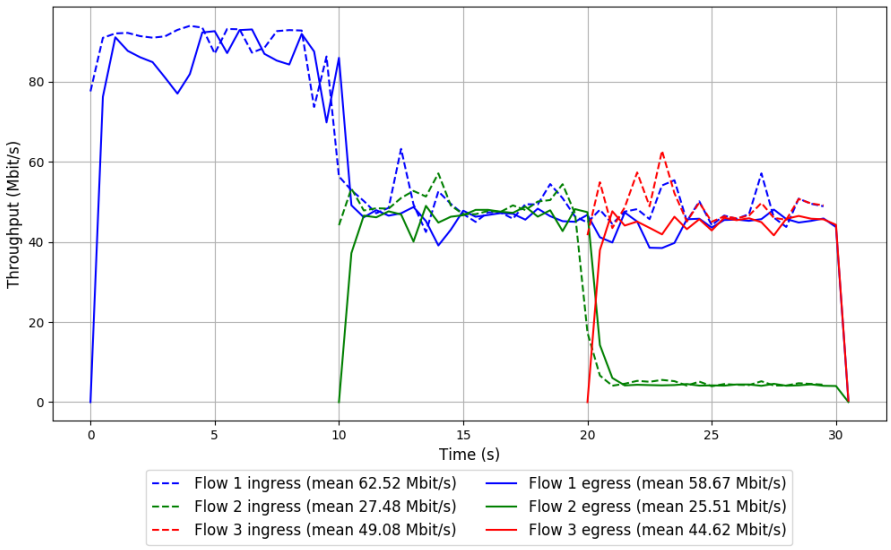


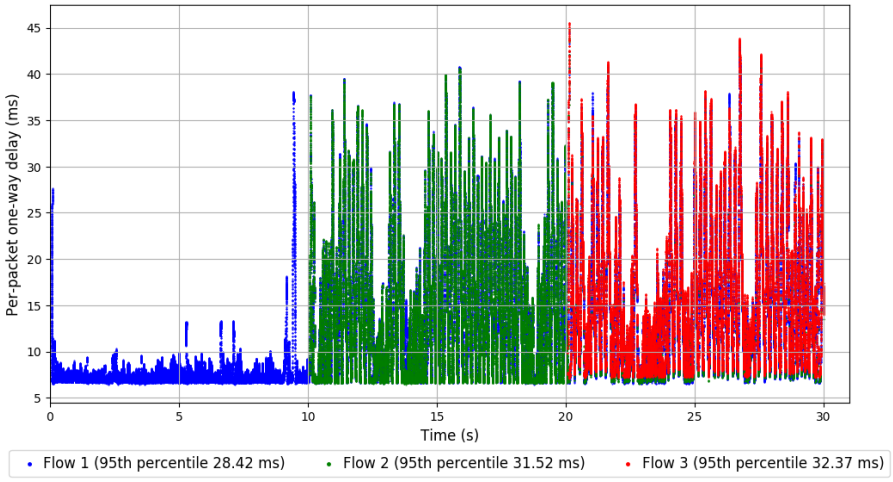
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-08-22 04:51:28
End at: 2018-08-22 04:51:58
Local clock offset: 3.671 ms
Remote clock offset: -62.442 ms

# Below is generated by plot.py at 2018-08-22 06:01:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.50 Mbit/s
95th percentile per-packet one-way delay: 30.149 ms
Loss rate: 6.83%
-- Flow 1:
Average throughput: 58.67 Mbit/s
95th percentile per-packet one-way delay: 28.418 ms
Loss rate: 6.15%
-- Flow 2:
Average throughput: 25.51 Mbit/s
95th percentile per-packet one-way delay: 31.518 ms
Loss rate: 7.15%
-- Flow 3:
Average throughput: 44.62 Mbit/s
95th percentile per-packet one-way delay: 32.365 ms
Loss rate: 9.08%
```

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



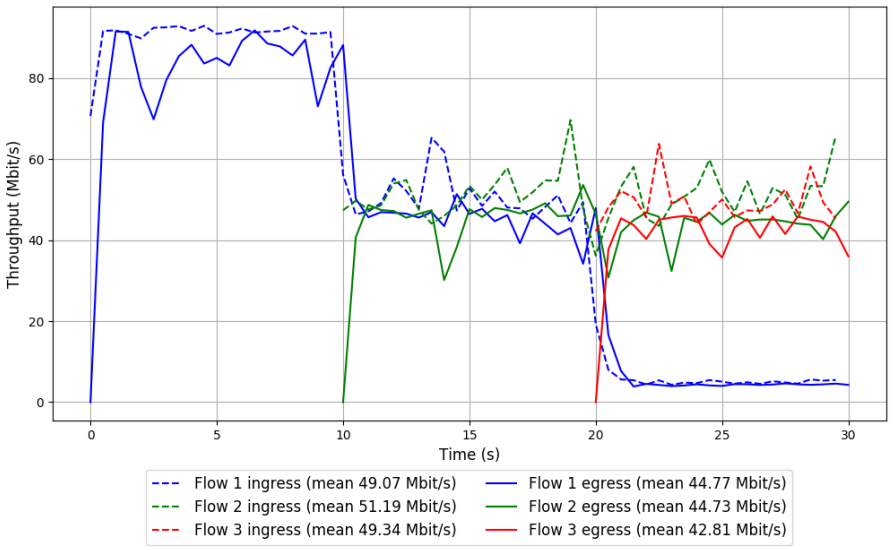


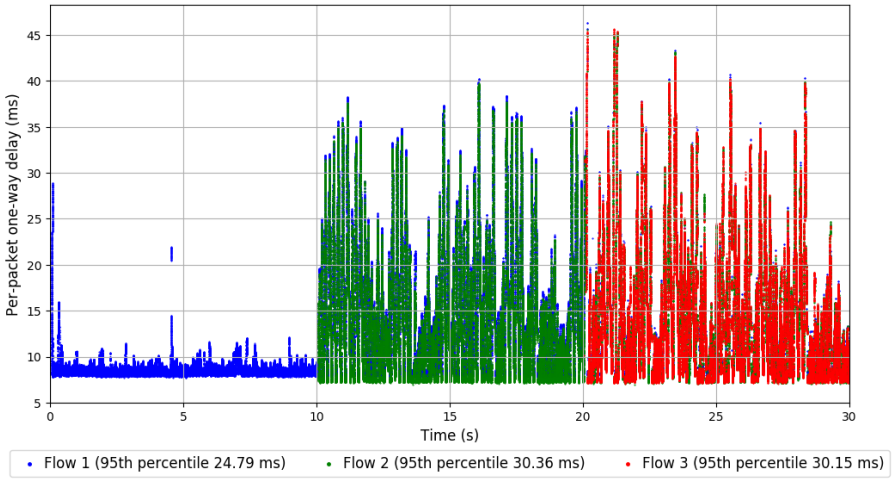
```
Run 9: Statistics of TaoVA-100x

Start at: 2018-08-22 05:11:03
End at: 2018-08-22 05:11:33
Local clock offset: 2.111 ms
Remote clock offset: -62.683 ms

# Below is generated by plot.py at 2018-08-22 06:03:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.79 Mbit/s
95th percentile per-packet one-way delay: 28.373 ms
Loss rate: 10.83%
-- Flow 1:
Average throughput: 44.77 Mbit/s
95th percentile per-packet one-way delay: 24.790 ms
Loss rate: 8.77%
-- Flow 2:
Average throughput: 44.73 Mbit/s
95th percentile per-packet one-way delay: 30.362 ms
Loss rate: 12.62%
-- Flow 3:
Average throughput: 42.81 Mbit/s
95th percentile per-packet one-way delay: 30.150 ms
Loss rate: 13.25%
```

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



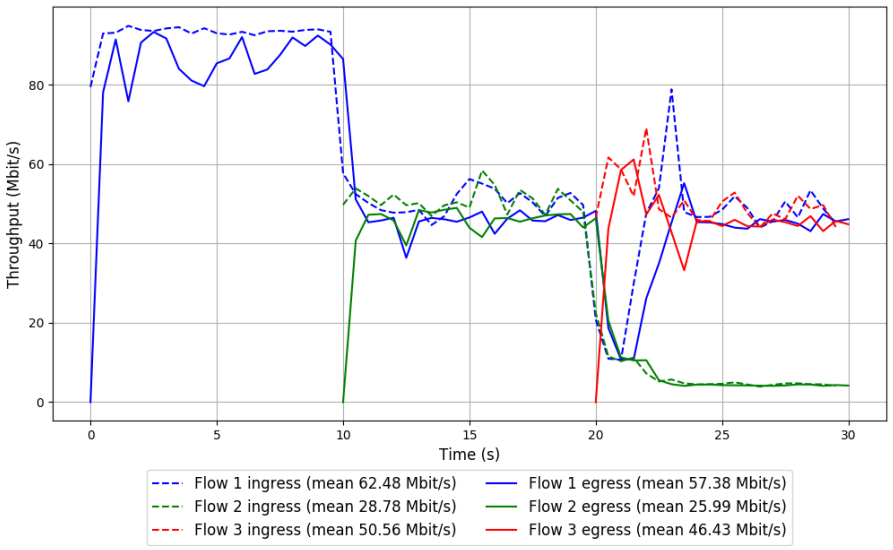


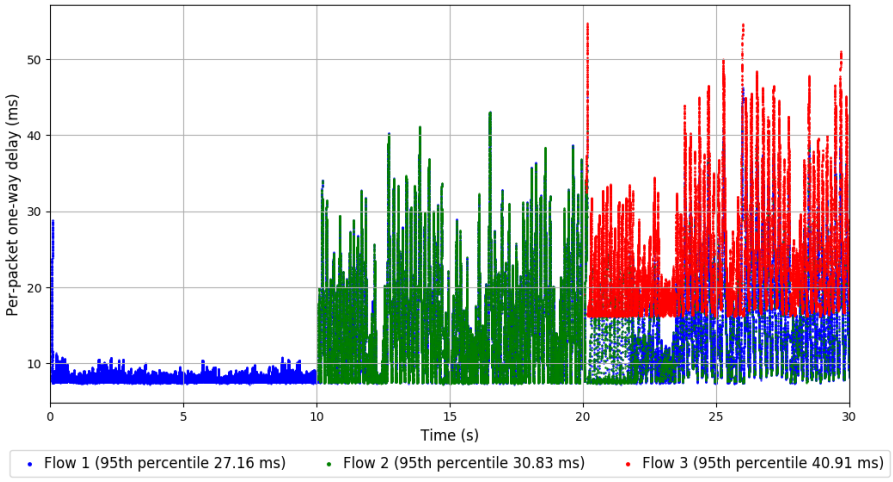
```
Run 10: Statistics of TaoVA-100x

Start at: 2018-08-22 05:30:45
End at: 2018-08-22 05:31:15
Local clock offset: 1.524 ms
Remote clock offset: -59.462 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.11 Mbit/s
95th percentile per-packet one-way delay: 31.647 ms
Loss rate: 8.47%
-- Flow 1:
Average throughput: 57.38 Mbit/s
95th percentile per-packet one-way delay: 27.155 ms
Loss rate: 8.16%
-- Flow 2:
Average throughput: 25.99 Mbit/s
95th percentile per-packet one-way delay: 30.828 ms
Loss rate: 9.70%
-- Flow 3:
Average throughput: 46.43 Mbit/s
95th percentile per-packet one-way delay: 40.912 ms
Loss rate: 8.25%
```

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



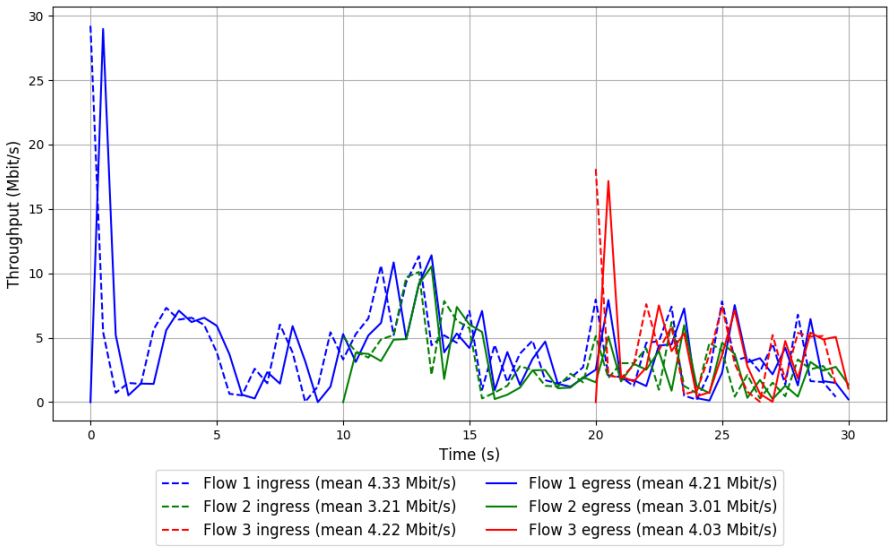


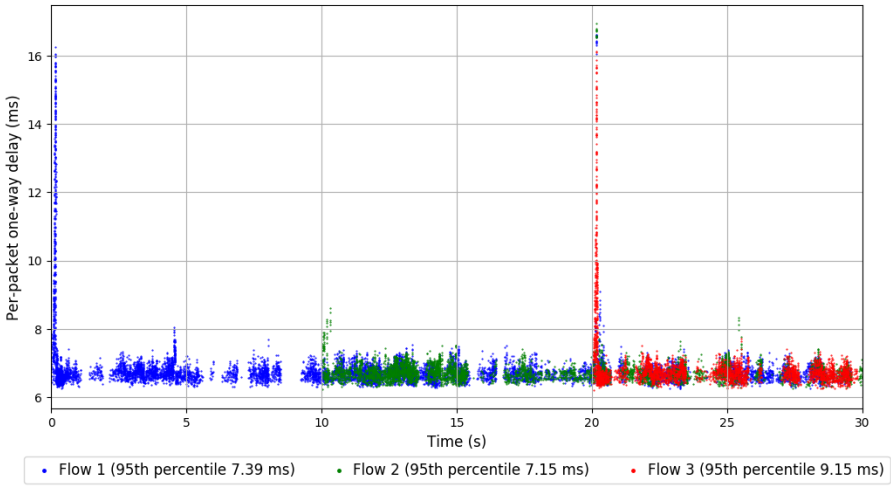
```
Run 1: Statistics of TCP Vegas

Start at: 2018-08-22 02:29:55
End at: 2018-08-22 02:30:25
Local clock offset: 3.348 ms
Remote clock offset: -60.92 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.46 Mbit/s
95th percentile per-packet one-way delay: 7.352 ms
Loss rate: 4.57%
-- Flow 1:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 7.390 ms
Loss rate: 3.77%
-- Flow 2:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 7.149 ms
Loss rate: 6.03%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 9.153 ms
Loss rate: 4.82%
```

Run 1: Report of TCP Vegas — Data Link



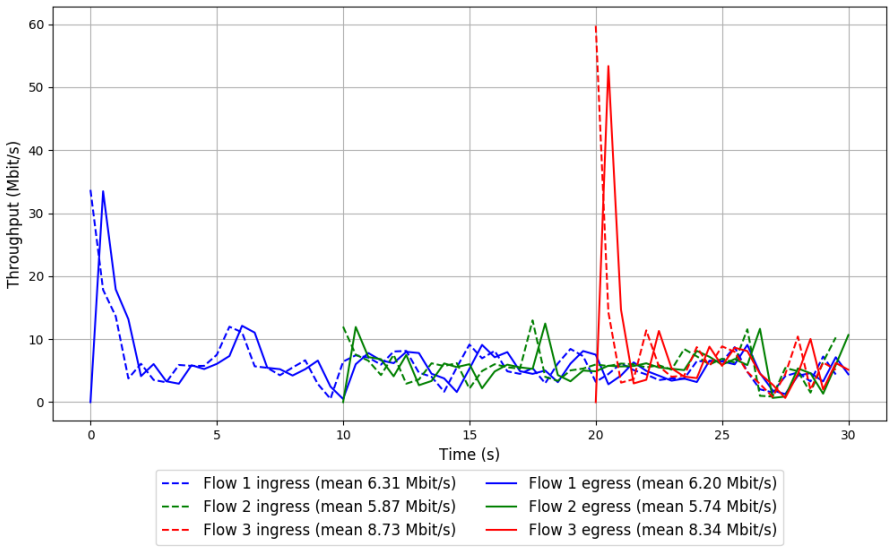


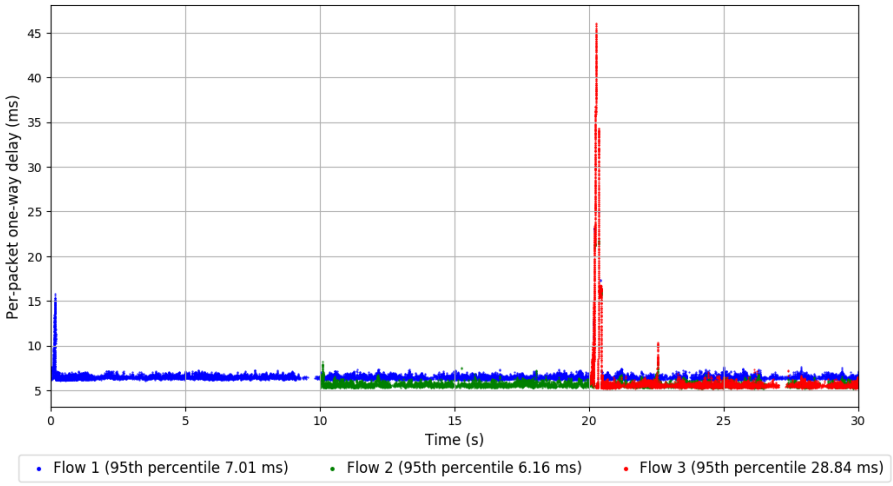
```
Run 2: Statistics of TCP Vegas

Start at: 2018-08-22 02:49:18
End at: 2018-08-22 02:49:48
Local clock offset: 3.298 ms
Remote clock offset: -60.284 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 12.297 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 6.20 Mbit/s
95th percentile per-packet one-way delay: 7.007 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 5.74 Mbit/s
95th percentile per-packet one-way delay: 6.164 ms
Loss rate: 2.16%
-- Flow 3:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 28.837 ms
Loss rate: 4.52%
```

Run 2: Report of TCP Vegas — Data Link



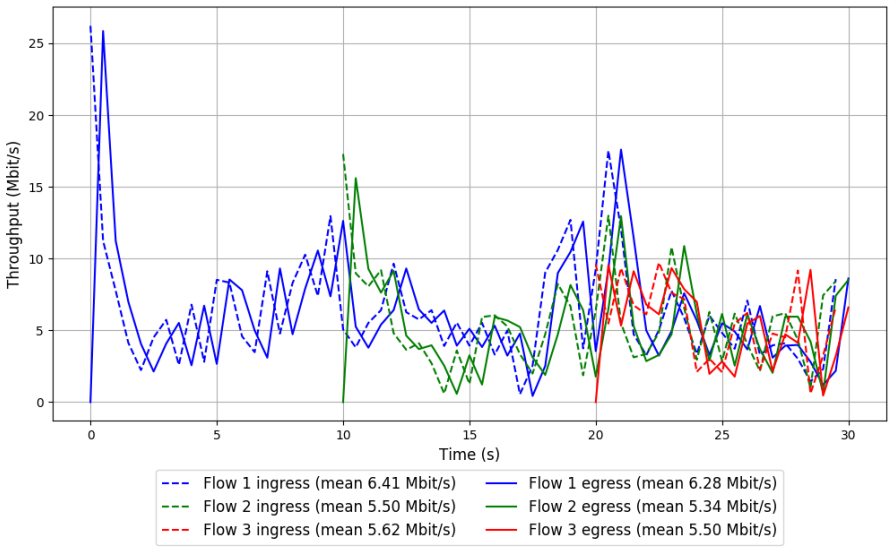


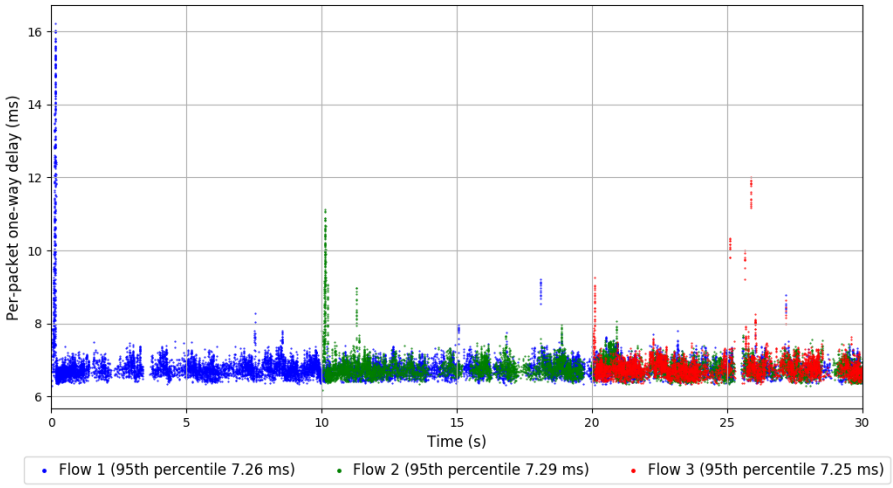
```
Run 3: Statistics of TCP Vegas

Start at: 2018-08-22 03:08:47
End at: 2018-08-22 03:09:17
Local clock offset: 1.492 ms
Remote clock offset: -62.459 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 7.273 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 7.264 ms
Loss rate: 1.95%
-- Flow 2:
Average throughput: 5.34 Mbit/s
95th percentile per-packet one-way delay: 7.292 ms
Loss rate: 2.93%
-- Flow 3:
Average throughput: 5.50 Mbit/s
95th percentile per-packet one-way delay: 7.249 ms
Loss rate: 1.99%
```

Run 3: Report of TCP Vegas — Data Link



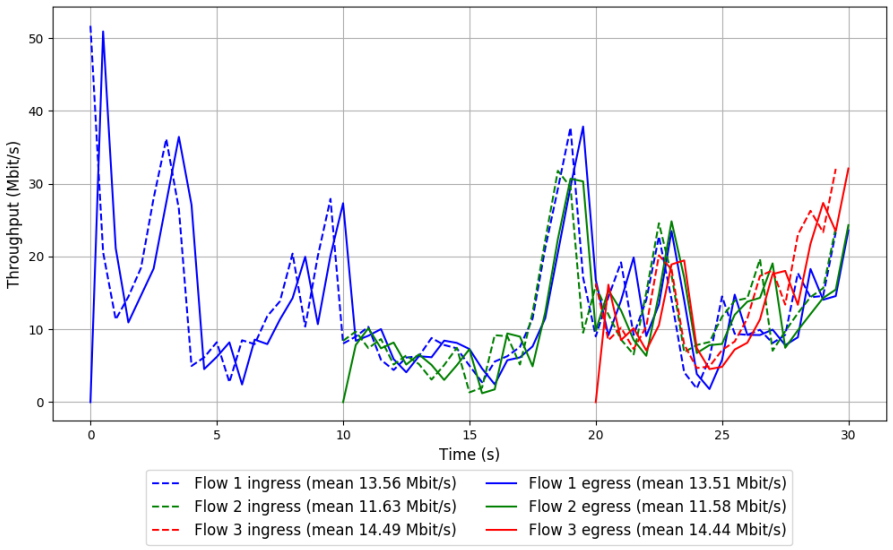


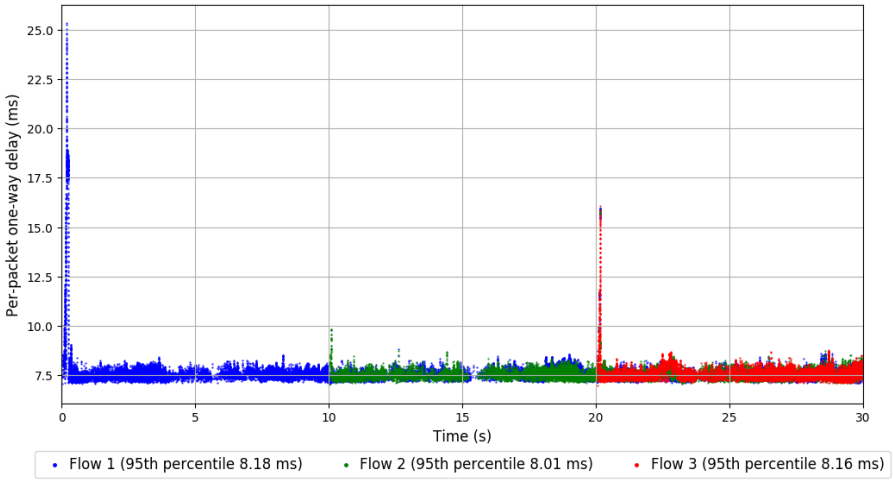
```
Run 4: Statistics of TCP Vegas

Start at: 2018-08-22 03:28:31
End at: 2018-08-22 03:29:01
Local clock offset: 0.769 ms
Remote clock offset: -63.111 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.02 Mbit/s
95th percentile per-packet one-way delay: 8.113 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 13.51 Mbit/s
95th percentile per-packet one-way delay: 8.176 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 8.007 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 14.44 Mbit/s
95th percentile per-packet one-way delay: 8.163 ms
Loss rate: 0.34%
```

Run 4: Report of TCP Vegas — Data Link



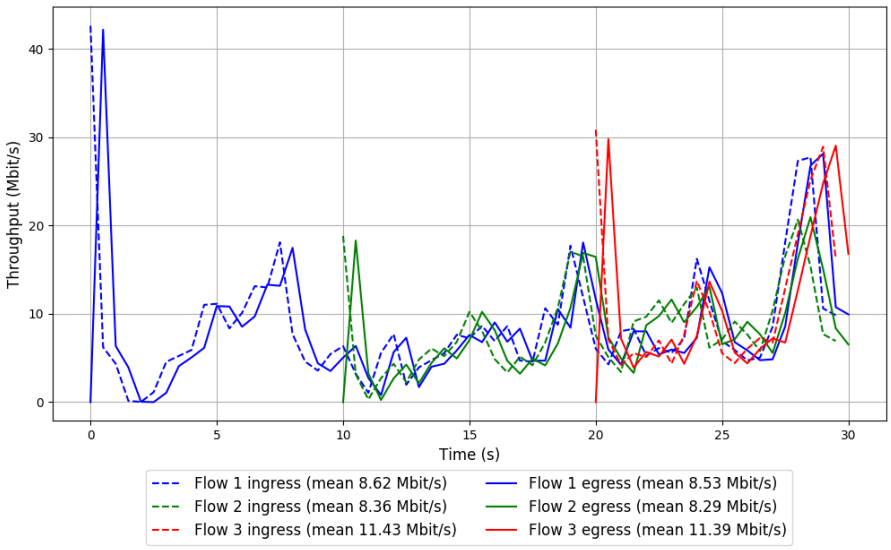


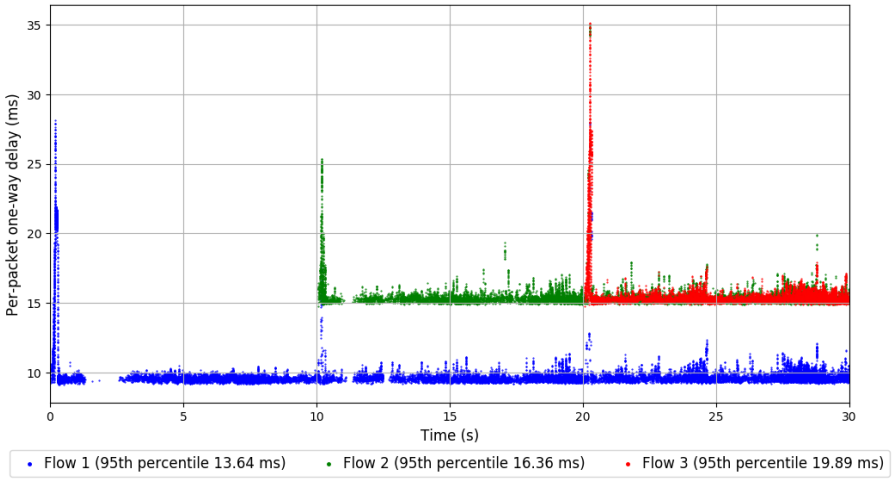
```
Run 5: Statistics of TCP Vegas

Start at: 2018-08-22 03:48:20
End at: 2018-08-22 03:48:50
Local clock offset: 0.669 ms
Remote clock offset: -61.816 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.84 Mbit/s
95th percentile per-packet one-way delay: 16.667 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 13.641 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 16.361 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 19.888 ms
Loss rate: 0.56%
```

Run 5: Report of TCP Vegas — Data Link



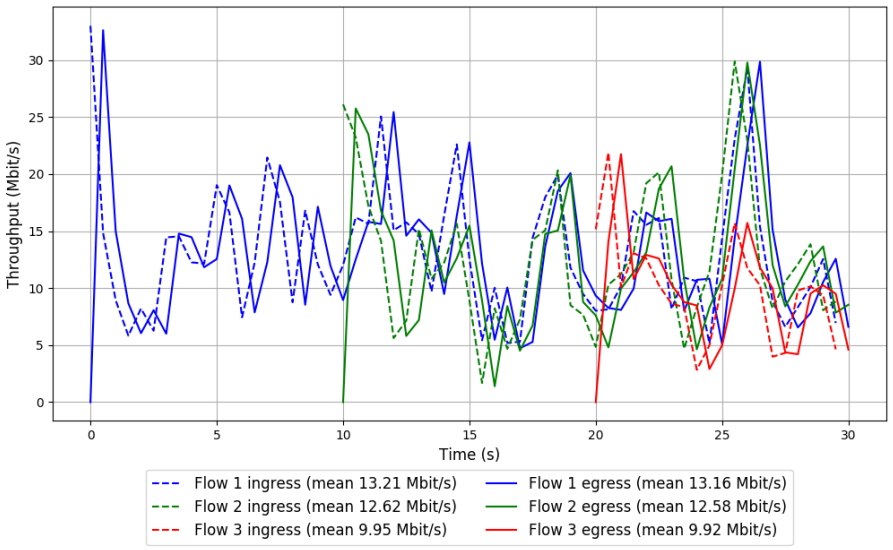


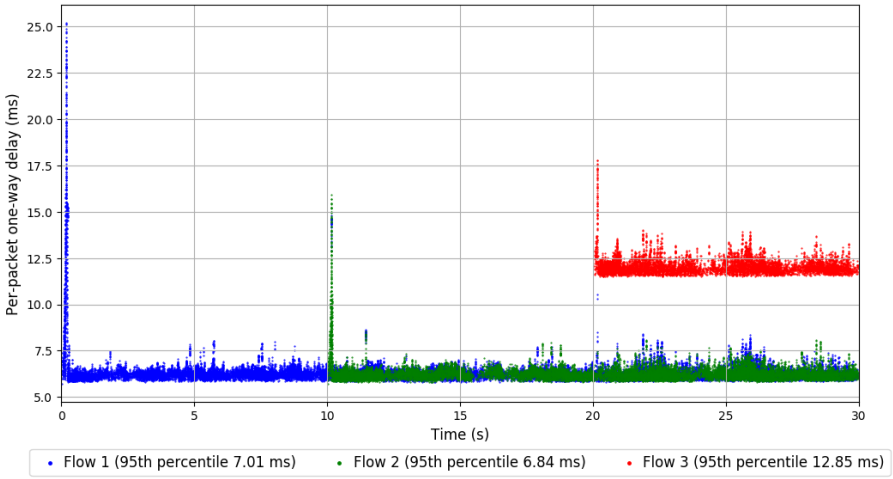
```
Run 6: Statistics of TCP Vegas

Start at: 2018-08-22 04:07:54
End at: 2018-08-22 04:08:24
Local clock offset: 3.927 ms
Remote clock offset: -62.65 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.82 Mbit/s
95th percentile per-packet one-way delay: 12.160 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 7.013 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 12.58 Mbit/s
95th percentile per-packet one-way delay: 6.836 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 9.92 Mbit/s
95th percentile per-packet one-way delay: 12.845 ms
Loss rate: 0.30%
```

Run 6: Report of TCP Vegas — Data Link



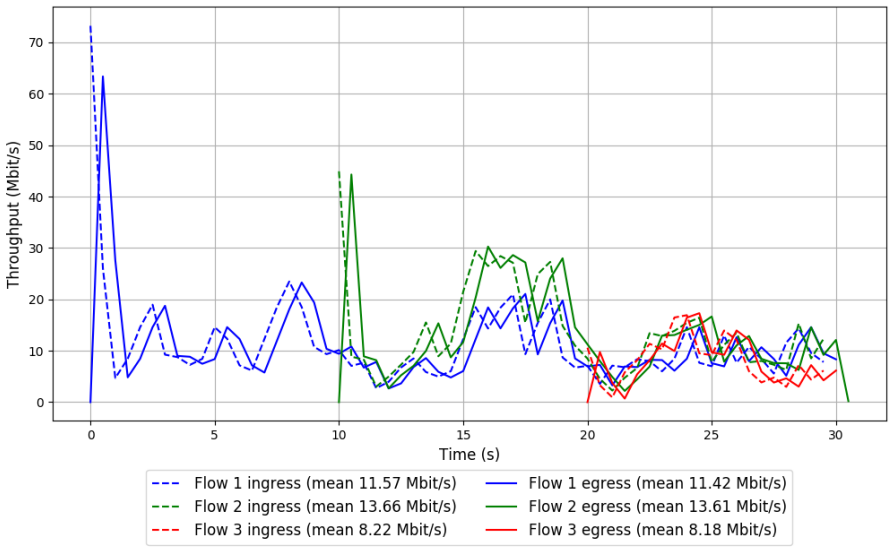


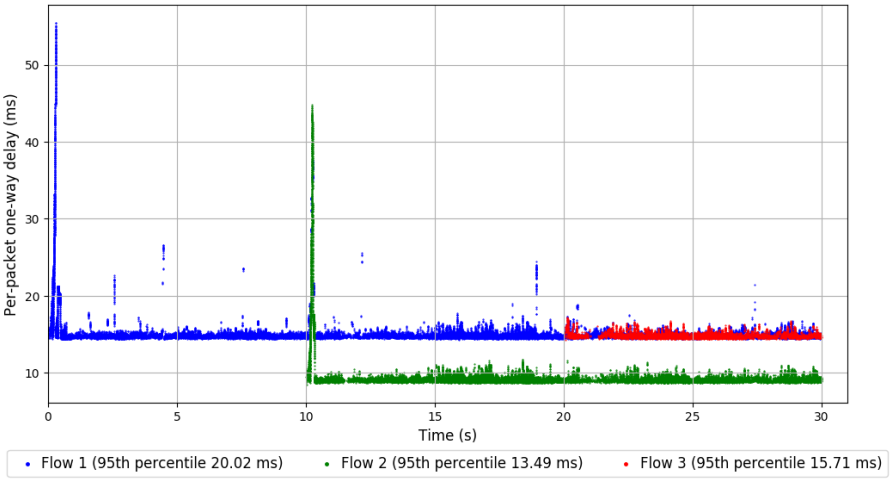
```
Run 7: Statistics of TCP Vegas

Start at: 2018-08-22 04:27:31
End at: 2018-08-22 04:28:01
Local clock offset: 0.757 ms
Remote clock offset: -63.916 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.19 Mbit/s
95th percentile per-packet one-way delay: 17.389 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 11.42 Mbit/s
95th percentile per-packet one-way delay: 20.015 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 13.61 Mbit/s
95th percentile per-packet one-way delay: 13.493 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 8.18 Mbit/s
95th percentile per-packet one-way delay: 15.706 ms
Loss rate: 0.63%
```

Run 7: Report of TCP Vegas — Data Link



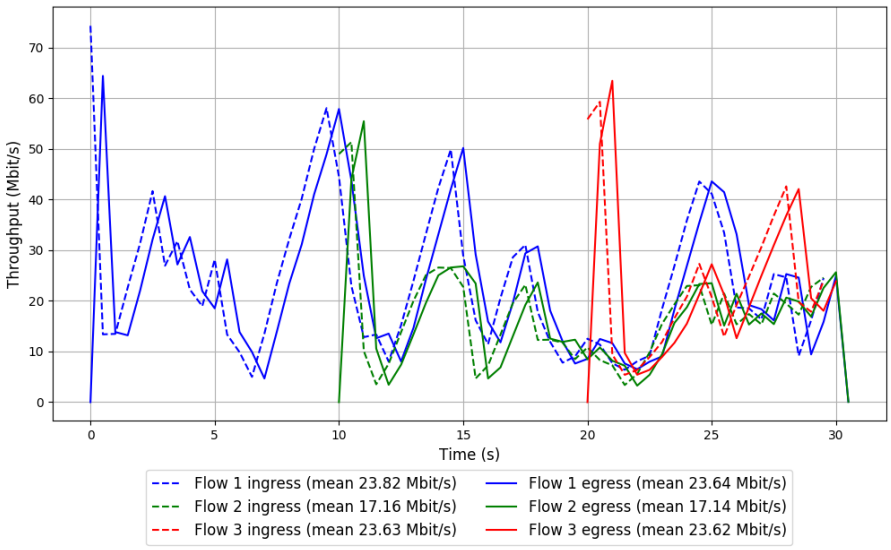


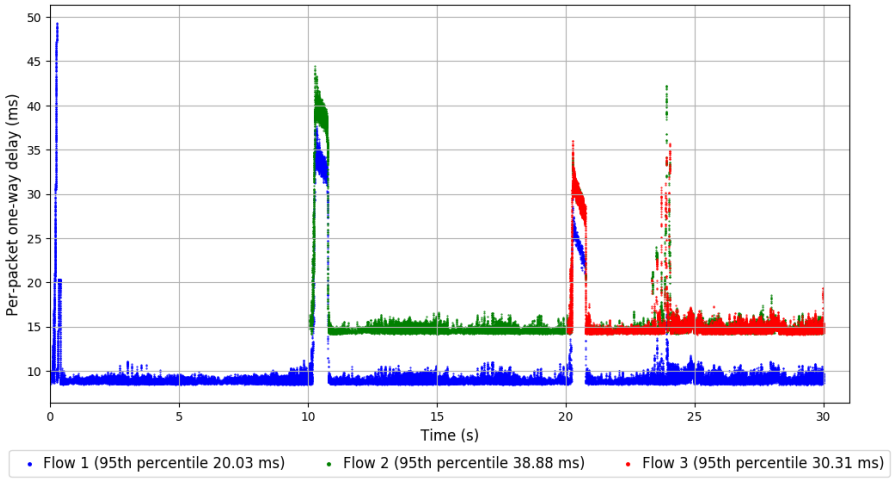
```
Run 8: Statistics of TCP Vegas

Start at: 2018-08-22 04:47:03
End at: 2018-08-22 04:47:33
Local clock offset: 0.987 ms
Remote clock offset: -64.07 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.90 Mbit/s
95th percentile per-packet one-way delay: 30.752 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 23.64 Mbit/s
95th percentile per-packet one-way delay: 20.026 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 17.14 Mbit/s
95th percentile per-packet one-way delay: 38.880 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 23.62 Mbit/s
95th percentile per-packet one-way delay: 30.309 ms
Loss rate: 0.14%
```

Run 8: Report of TCP Vegas — Data Link



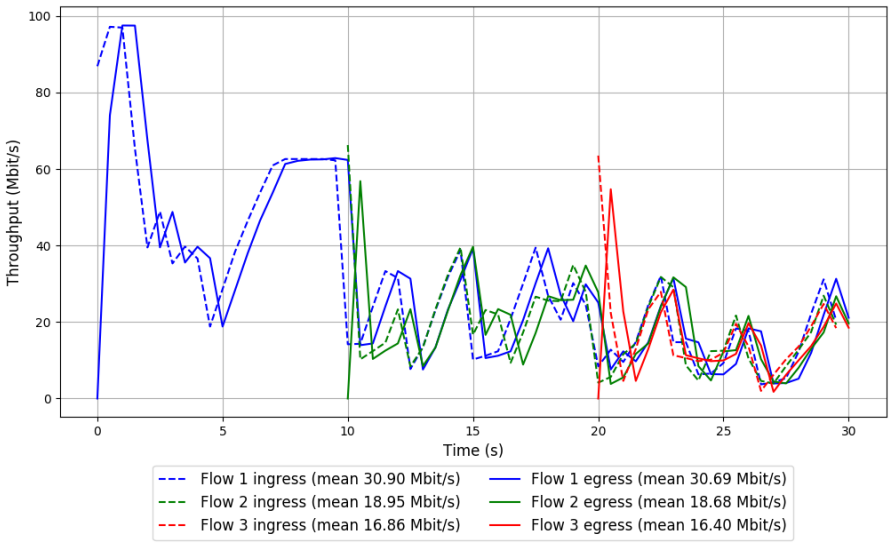


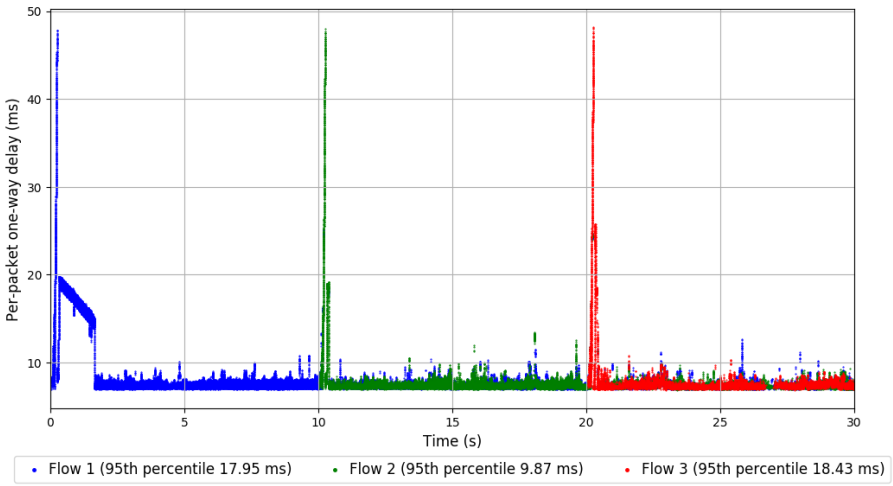
```
Run 9: Statistics of TCP Vegas

Start at: 2018-08-22 05:06:35
End at: 2018-08-22 05:07:05
Local clock offset: 2.335 ms
Remote clock offset: -63.072 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.58 Mbit/s
95th percentile per-packet one-way delay: 17.913 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 30.69 Mbit/s
95th percentile per-packet one-way delay: 17.951 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 18.68 Mbit/s
95th percentile per-packet one-way delay: 9.866 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 16.40 Mbit/s
95th percentile per-packet one-way delay: 18.429 ms
Loss rate: 2.73%
```

Run 9: Report of TCP Vegas — Data Link



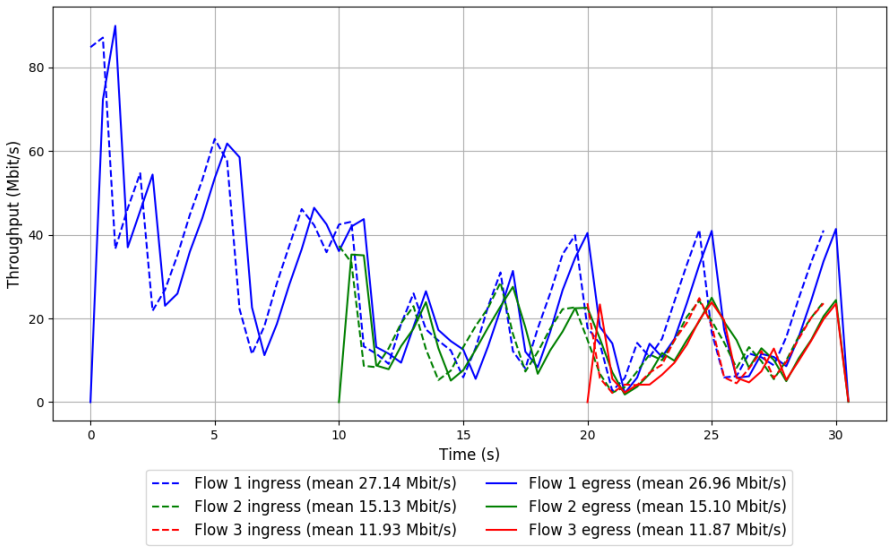


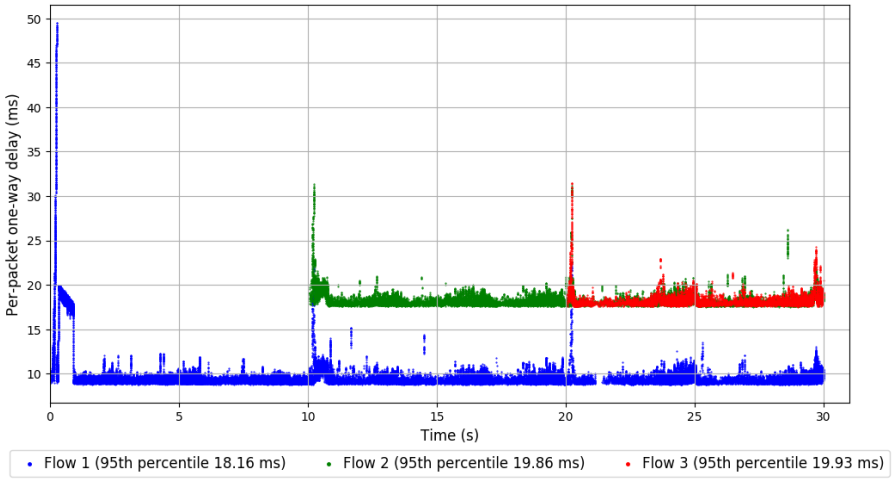
```
Run 10: Statistics of TCP Vegas

Start at: 2018-08-22 05:26:18
End at: 2018-08-22 05:26:48
Local clock offset: -0.395 ms
Remote clock offset: -60.593 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 19.299 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 26.96 Mbit/s
95th percentile per-packet one-way delay: 18.165 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 15.10 Mbit/s
95th percentile per-packet one-way delay: 19.862 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 19.933 ms
Loss rate: 0.58%
```

Run 10: Report of TCP Vegas — Data Link



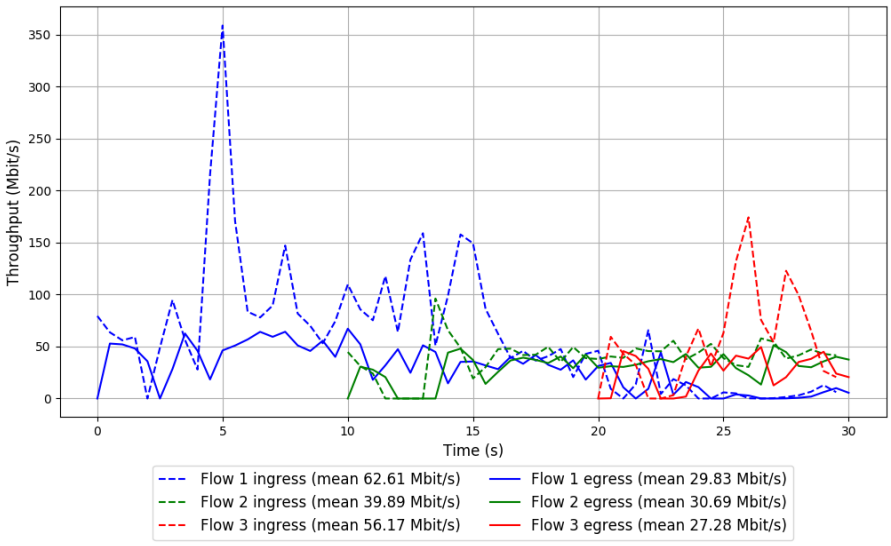


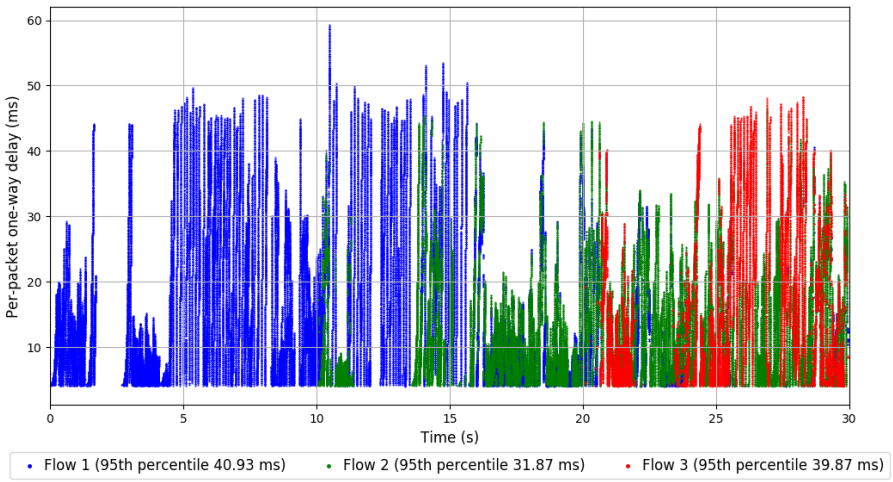
```
Run 1: Statistics of Verus

Start at: 2018-08-22 02:28:45
End at: 2018-08-22 02:29:15
Local clock offset: 4.461 ms
Remote clock offset: -62.183 ms

# Below is generated by plot.py at 2018-08-22 06:03:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 38.941 ms
Loss rate: 44.97%
-- Flow 1:
Average throughput: 29.83 Mbit/s
95th percentile per-packet one-way delay: 40.929 ms
Loss rate: 52.35%
-- Flow 2:
Average throughput: 30.69 Mbit/s
95th percentile per-packet one-way delay: 31.868 ms
Loss rate: 23.00%
-- Flow 3:
Average throughput: 27.28 Mbit/s
95th percentile per-packet one-way delay: 39.870 ms
Loss rate: 51.43%
```

Run 1: Report of Verus — Data Link



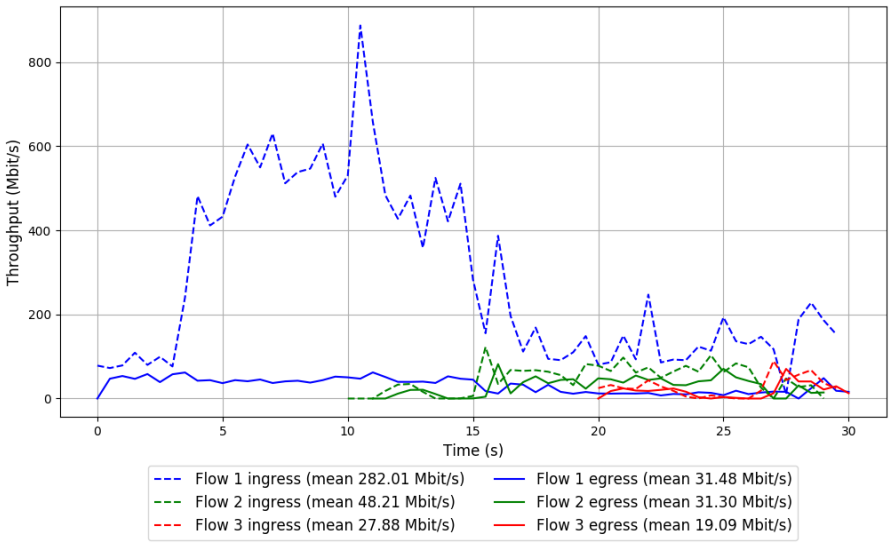


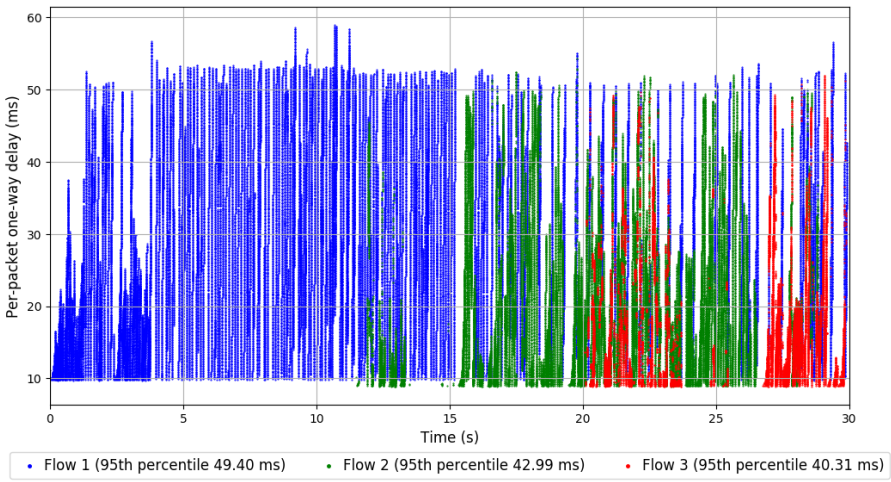
```
Run 2: Statistics of Verus

Start at: 2018-08-22 02:48:06
End at: 2018-08-22 02:48:36
Local clock offset: 0.213 ms
Remote clock offset: -59.722 ms

# Below is generated by plot.py at 2018-08-22 06:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.96 Mbit/s
95th percentile per-packet one-way delay: 47.675 ms
Loss rate: 82.56%
-- Flow 1:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 49.396 ms
Loss rate: 88.83%
-- Flow 2:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 42.989 ms
Loss rate: 39.18%
-- Flow 3:
Average throughput: 19.09 Mbit/s
95th percentile per-packet one-way delay: 40.309 ms
Loss rate: 31.36%
```

Run 2: Report of Verus — Data Link



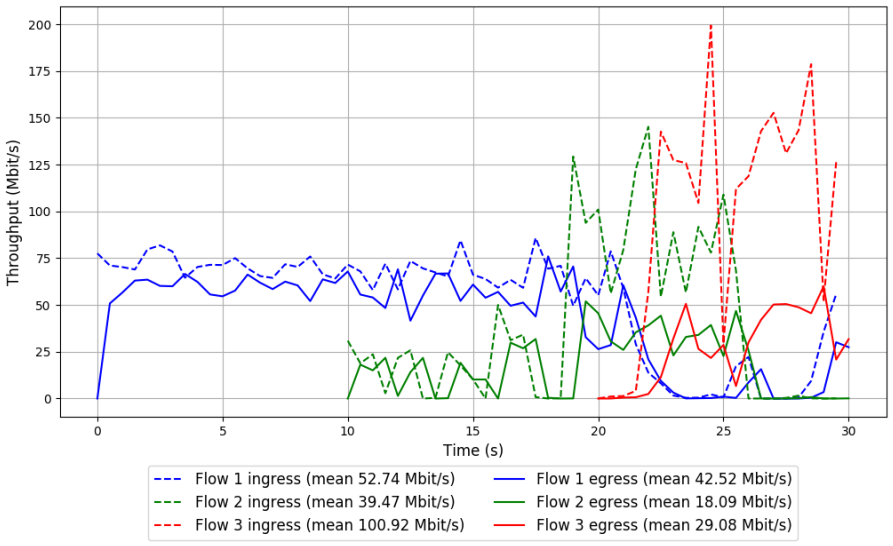


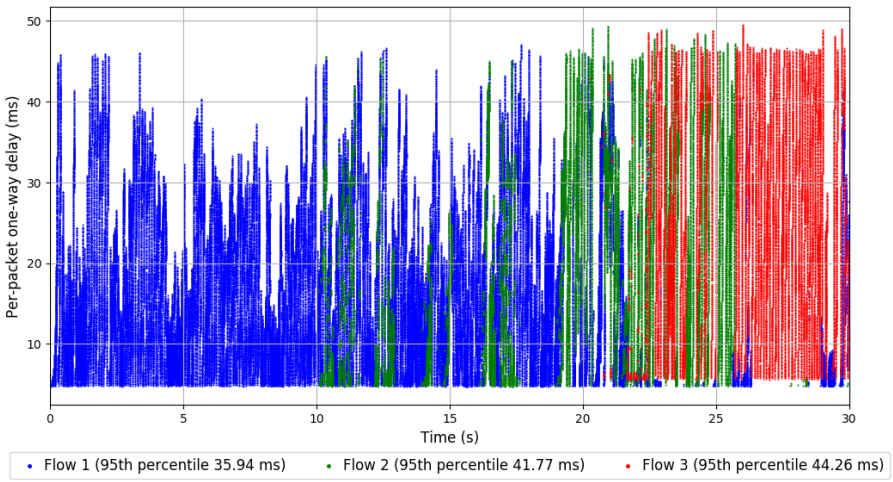
```
Run 3: Statistics of Verus

Start at: 2018-08-22 03:07:37
End at: 2018-08-22 03:08:07
Local clock offset: 3.937 ms
Remote clock offset: -61.62 ms

# Below is generated by plot.py at 2018-08-22 06:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.88 Mbit/s
95th percentile per-packet one-way delay: 39.767 ms
Loss rate: 42.69%
-- Flow 1:
Average throughput: 42.52 Mbit/s
95th percentile per-packet one-way delay: 35.942 ms
Loss rate: 19.33%
-- Flow 2:
Average throughput: 18.09 Mbit/s
95th percentile per-packet one-way delay: 41.768 ms
Loss rate: 54.19%
-- Flow 3:
Average throughput: 29.08 Mbit/s
95th percentile per-packet one-way delay: 44.262 ms
Loss rate: 71.24%
```

Run 3: Report of Verus — Data Link



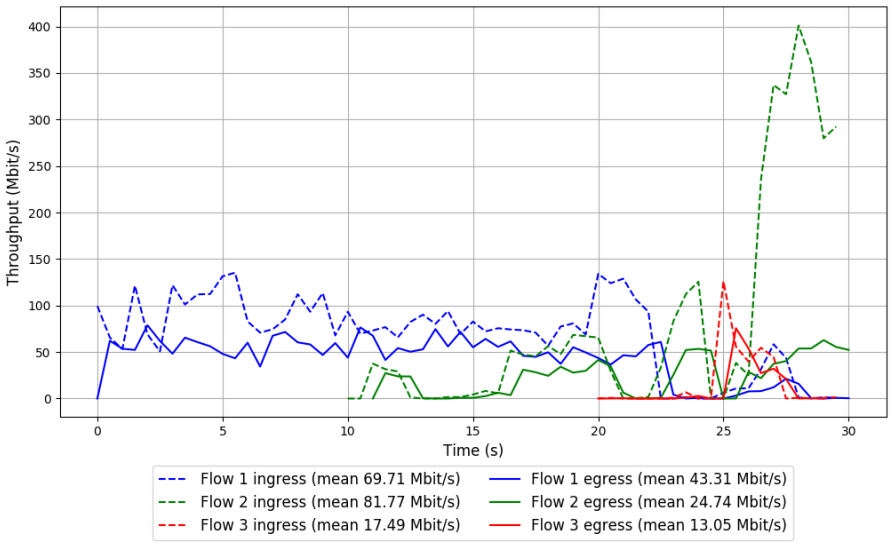


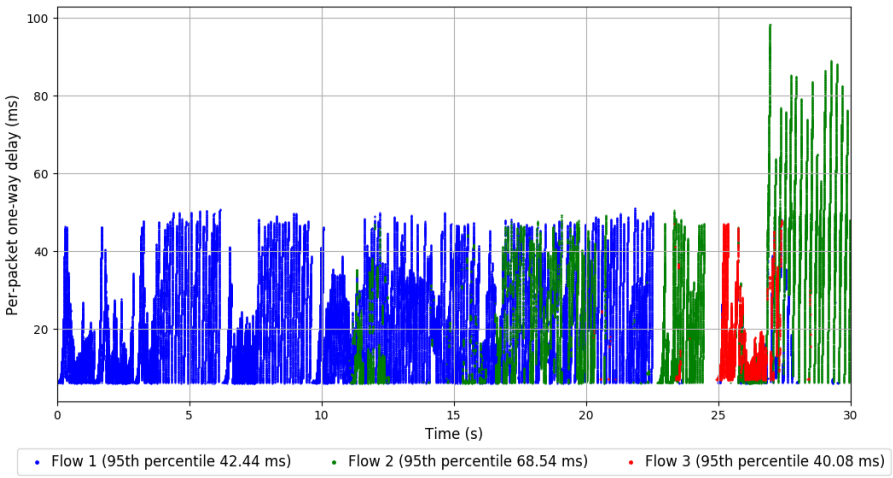
```
Run 4: Statistics of Verus

Start at: 2018-08-22 03:27:20
End at: 2018-08-22 03:27:50
Local clock offset: 1.382 ms
Remote clock offset: -62.796 ms

# Below is generated by plot.py at 2018-08-22 06:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.94 Mbit/s
95th percentile per-packet one-way delay: 46.228 ms
Loss rate: 52.03%
-- Flow 1:
Average throughput: 43.31 Mbit/s
95th percentile per-packet one-way delay: 42.441 ms
Loss rate: 38.34%
-- Flow 2:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 68.539 ms
Loss rate: 71.21%
-- Flow 3:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 40.079 ms
Loss rate: 35.49%
```

Run 4: Report of Verus — Data Link



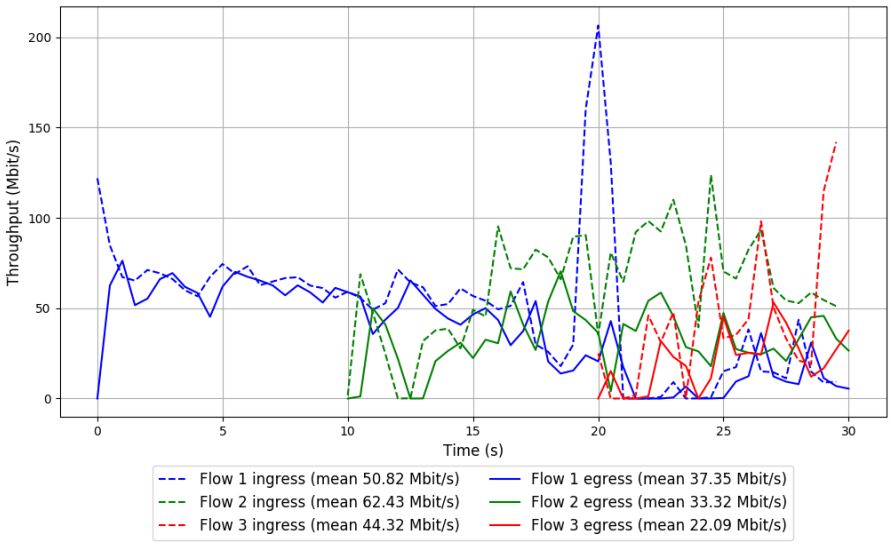


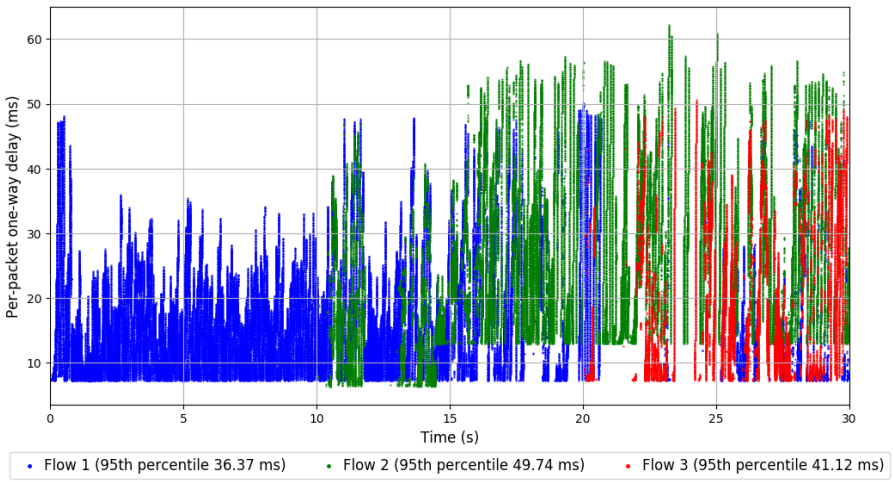
```
Run 5: Statistics of Verus

Start at: 2018-08-22 03:47:11
End at: 2018-08-22 03:47:41
Local clock offset: 2.527 ms
Remote clock offset: -61.85 ms

# Below is generated by plot.py at 2018-08-22 06:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.74 Mbit/s
95th percentile per-packet one-way delay: 44.139 ms
Loss rate: 37.55%
-- Flow 1:
Average throughput: 37.35 Mbit/s
95th percentile per-packet one-way delay: 36.372 ms
Loss rate: 26.52%
-- Flow 2:
Average throughput: 33.32 Mbit/s
95th percentile per-packet one-way delay: 49.737 ms
Loss rate: 46.63%
-- Flow 3:
Average throughput: 22.09 Mbit/s
95th percentile per-packet one-way delay: 41.116 ms
Loss rate: 50.13%
```

Run 5: Report of Verus — Data Link



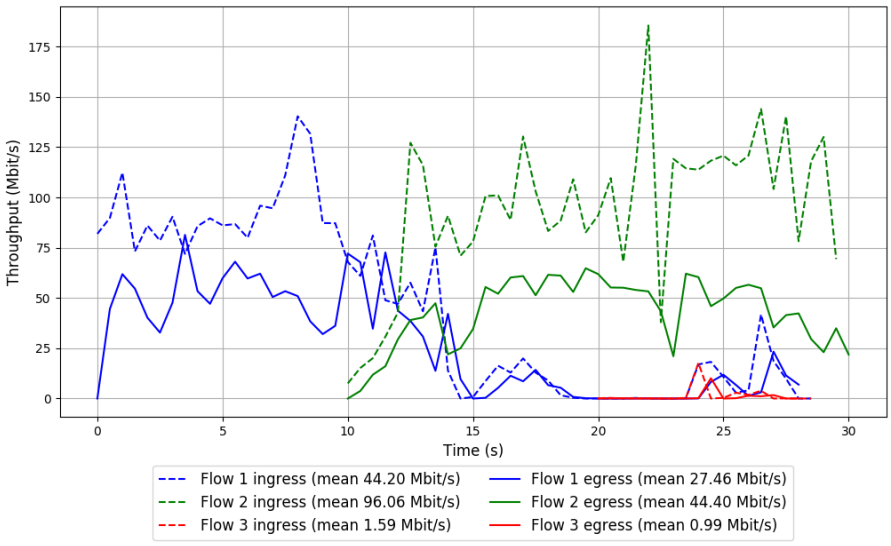


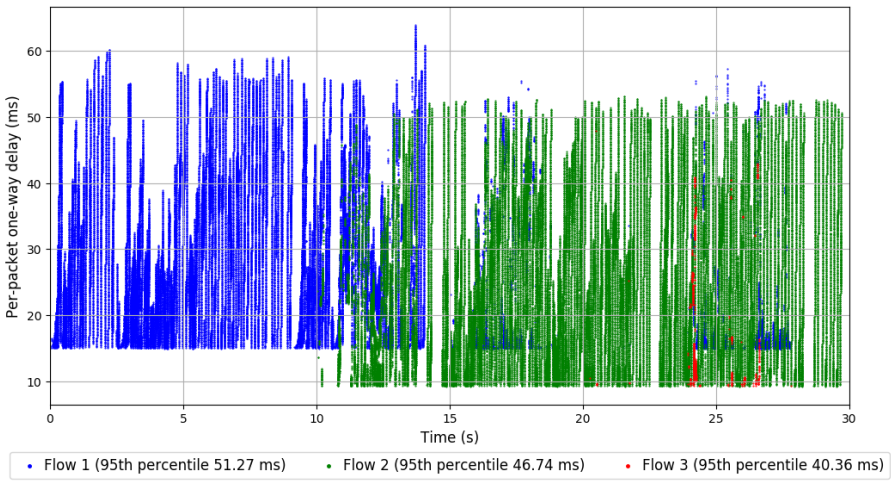
```
Run 6: Statistics of Verus

Start at: 2018-08-22 04:06:44
End at: 2018-08-22 04:07:14
Local clock offset: 1.653 ms
Remote clock offset: -61.501 ms

# Below is generated by plot.py at 2018-08-22 06:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.38 Mbit/s
95th percentile per-packet one-way delay: 48.862 ms
Loss rate: 48.36%
-- Flow 1:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 51.275 ms
Loss rate: 40.42%
-- Flow 2:
Average throughput: 44.40 Mbit/s
95th percentile per-packet one-way delay: 46.740 ms
Loss rate: 53.76%
-- Flow 3:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 40.358 ms
Loss rate: 46.12%
```

Run 6: Report of Verus — Data Link



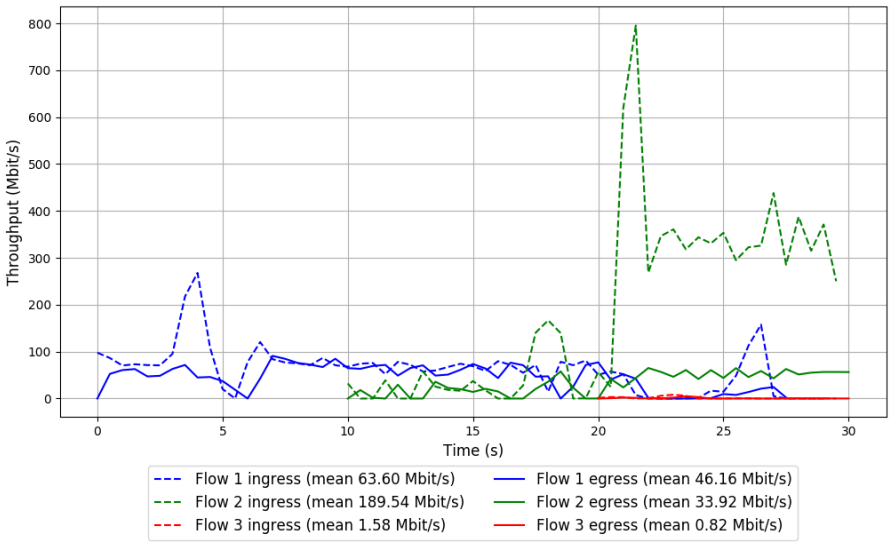


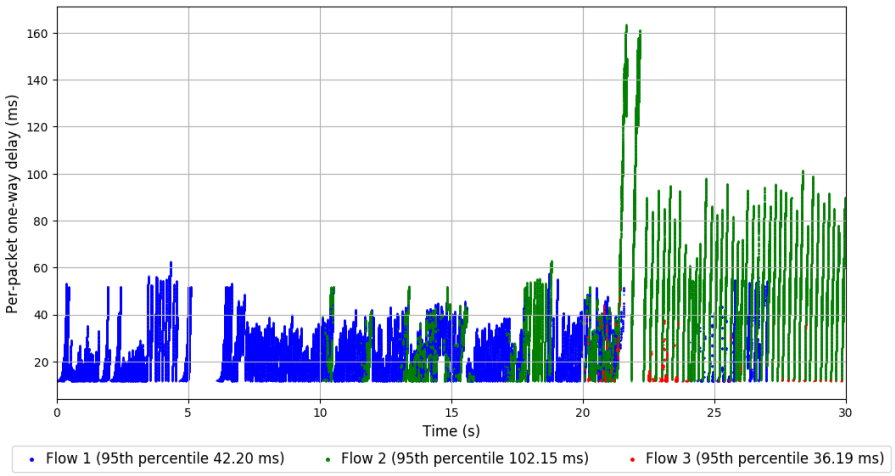
```
Run 7: Statistics of Verus

Start at: 2018-08-22 04:26:20
End at: 2018-08-22 04:26:50
Local clock offset: 3.637 ms
Remote clock offset: -63.709 ms

# Below is generated by plot.py at 2018-08-22 06:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.55 Mbit/s
95th percentile per-packet one-way delay: 75.773 ms
Loss rate: 65.65%
-- Flow 1:
Average throughput: 46.16 Mbit/s
95th percentile per-packet one-way delay: 42.198 ms
Loss rate: 32.40%
-- Flow 2:
Average throughput: 33.92 Mbit/s
95th percentile per-packet one-way delay: 102.153 ms
Loss rate: 82.05%
-- Flow 3:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 36.191 ms
Loss rate: 48.25%
```

Run 7: Report of Verus — Data Link



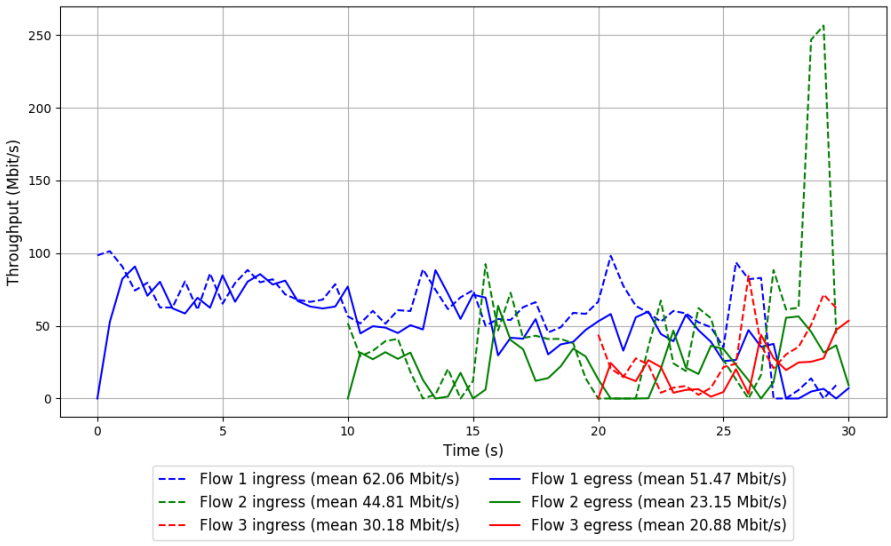


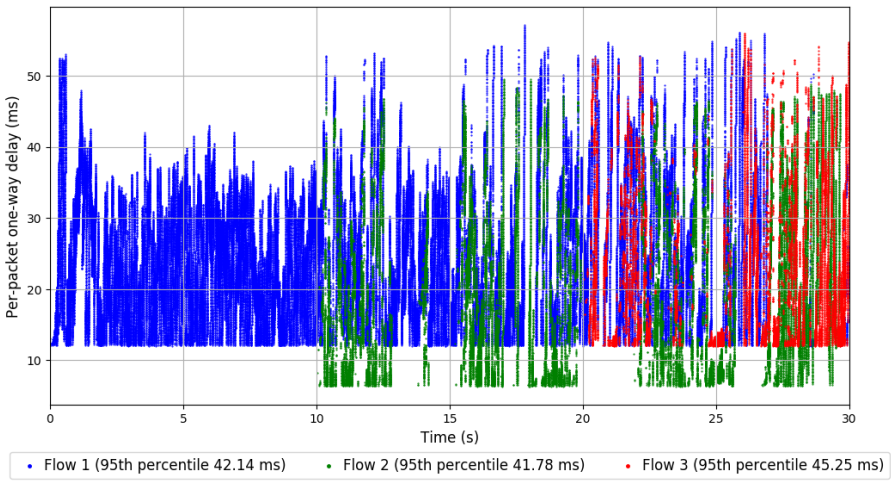
```
Run 8: Statistics of Verus

Start at: 2018-08-22 04:45:53
End at: 2018-08-22 04:46:23
Local clock offset: 3.453 ms
Remote clock offset: -63.834 ms

# Below is generated by plot.py at 2018-08-22 06:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.48 Mbit/s
95th percentile per-packet one-way delay: 42.457 ms
Loss rate: 27.48%
-- Flow 1:
Average throughput: 51.47 Mbit/s
95th percentile per-packet one-way delay: 42.141 ms
Loss rate: 17.11%
-- Flow 2:
Average throughput: 23.15 Mbit/s
95th percentile per-packet one-way delay: 41.781 ms
Loss rate: 48.33%
-- Flow 3:
Average throughput: 20.88 Mbit/s
95th percentile per-packet one-way delay: 45.253 ms
Loss rate: 30.63%
```

Run 8: Report of Verus — Data Link



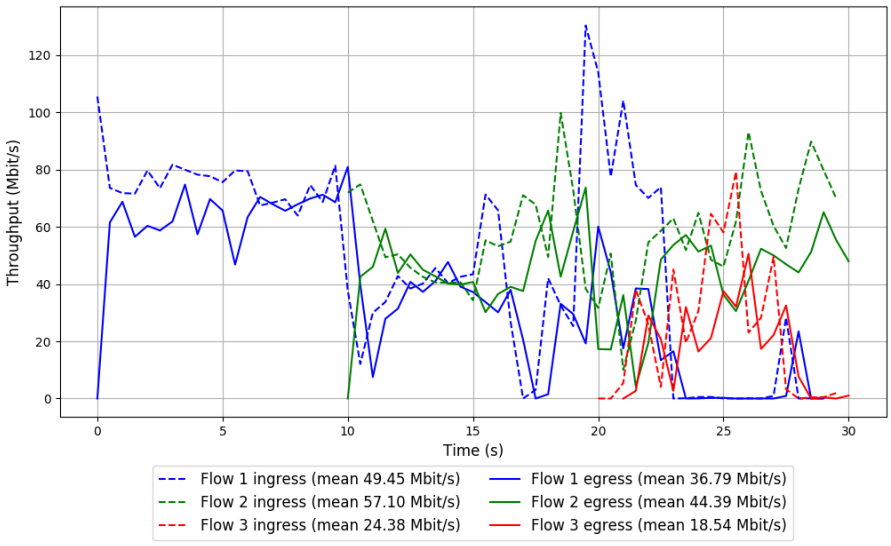


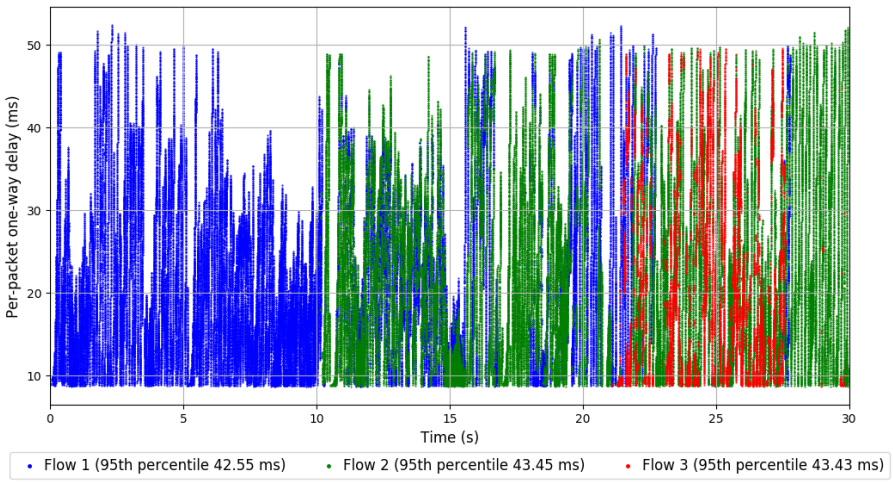
```
Run 9: Statistics of Verus

Start at: 2018-08-22 05:05:25
End at: 2018-08-22 05:05:55
Local clock offset: 0.796 ms
Remote clock offset: -63.537 ms

# Below is generated by plot.py at 2018-08-22 06:03:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.30 Mbit/s
95th percentile per-packet one-way delay: 43.042 ms
Loss rate: 25.12%
-- Flow 1:
Average throughput: 36.79 Mbit/s
95th percentile per-packet one-way delay: 42.546 ms
Loss rate: 26.27%
-- Flow 2:
Average throughput: 44.39 Mbit/s
95th percentile per-packet one-way delay: 43.454 ms
Loss rate: 22.28%
-- Flow 3:
Average throughput: 18.54 Mbit/s
95th percentile per-packet one-way delay: 43.430 ms
Loss rate: 31.72%
```

Run 9: Report of Verus — Data Link



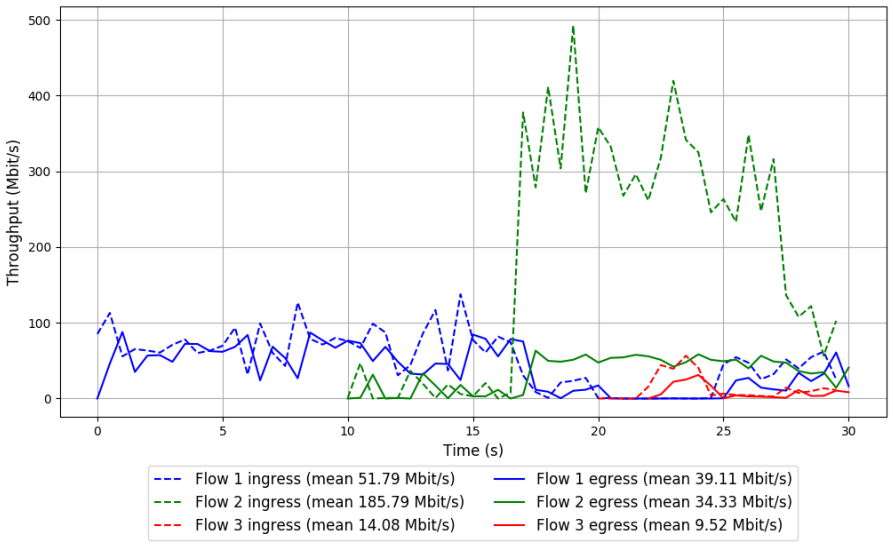


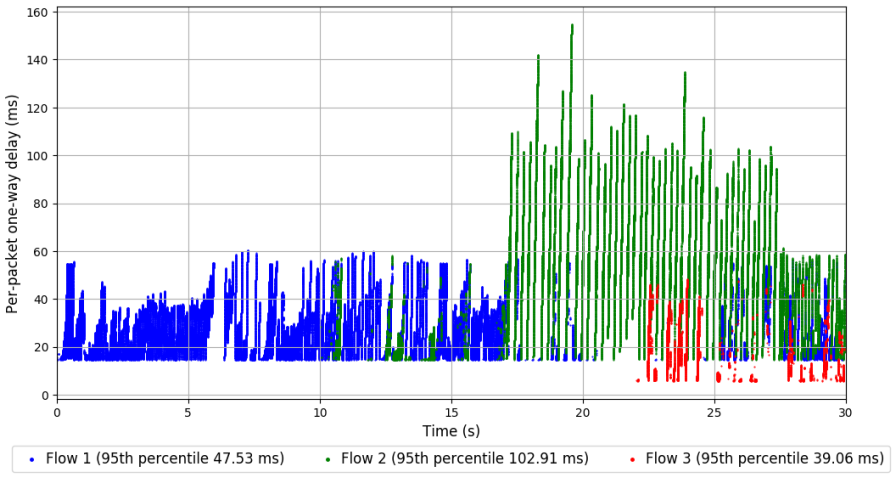
```
Run 10: Statistics of Verus

Start at: 2018-08-22 05:25:06
End at: 2018-08-22 05:25:36
Local clock offset: 2.808 ms
Remote clock offset: -60.62 ms

# Below is generated by plot.py at 2018-08-22 06:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.44 Mbit/s
95th percentile per-packet one-way delay: 89.308 ms
Loss rate: 64.18%
-- Flow 1:
Average throughput: 39.11 Mbit/s
95th percentile per-packet one-way delay: 47.529 ms
Loss rate: 24.40%
-- Flow 2:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 102.905 ms
Loss rate: 81.52%
-- Flow 3:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 39.058 ms
Loss rate: 46.00%
```

Run 10: Report of Verus — Data Link



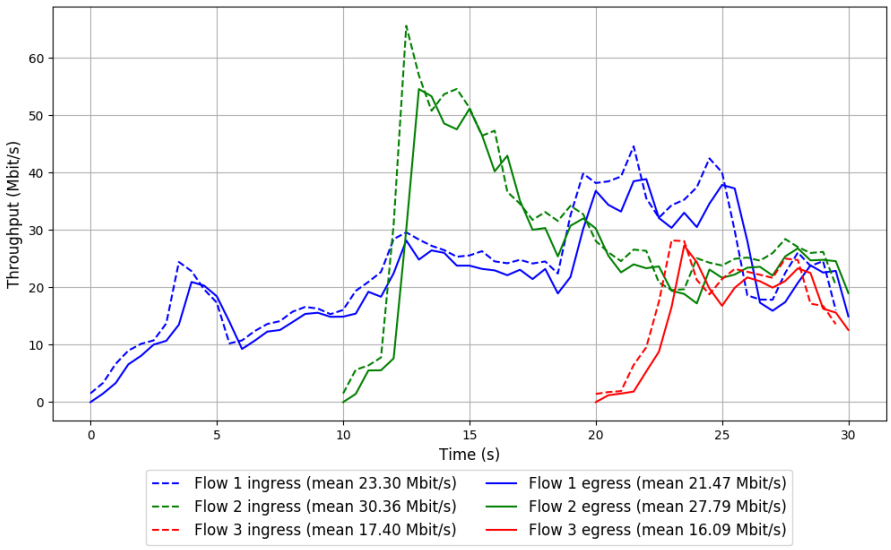


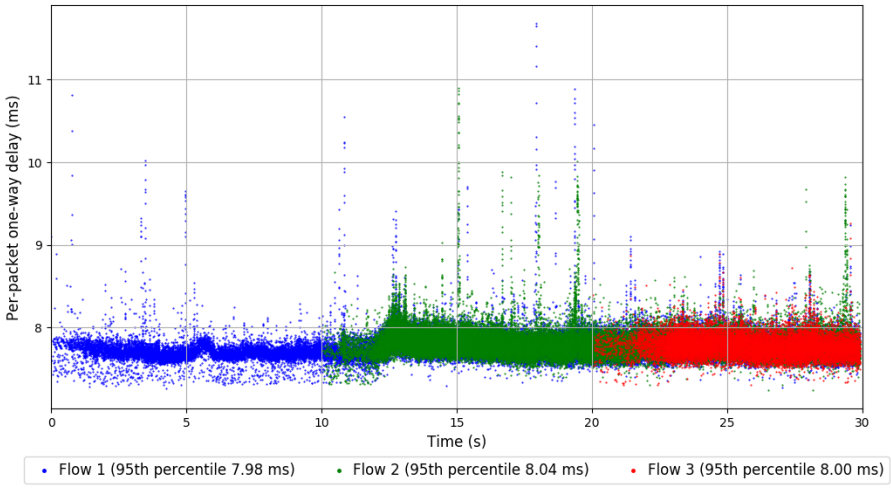
```
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-22 02:26:30
End at: 2018-08-22 02:27:00
Local clock offset: 2.684 ms
Remote clock offset: -60.762 ms

# Below is generated by plot.py at 2018-08-22 06:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.27 Mbit/s
95th percentile per-packet one-way delay: 8.008 ms
Loss rate: 8.08%
-- Flow 1:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 7.982 ms
Loss rate: 7.84%
-- Flow 2:
Average throughput: 27.79 Mbit/s
95th percentile per-packet one-way delay: 8.039 ms
Loss rate: 8.49%
-- Flow 3:
Average throughput: 16.09 Mbit/s
95th percentile per-packet one-way delay: 7.999 ms
Loss rate: 7.56%
```

Run 1: Report of PCC-Vivace — Data Link



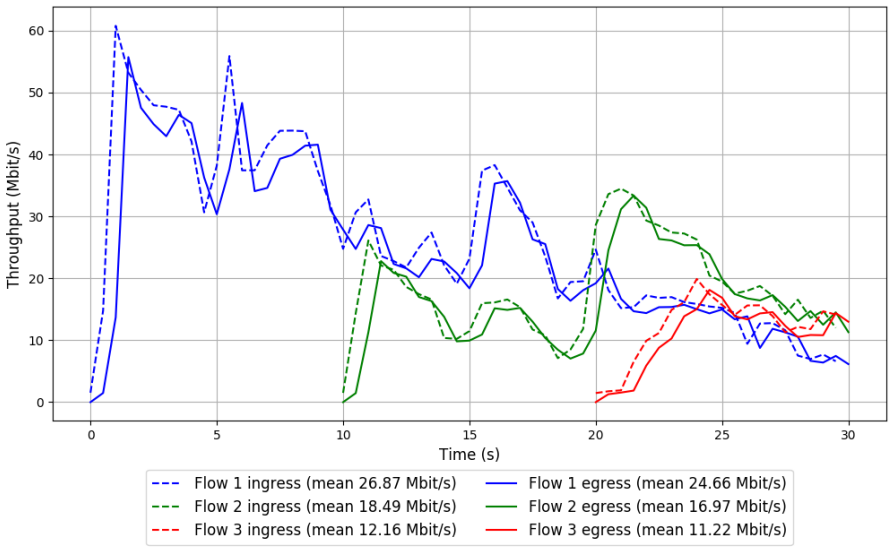


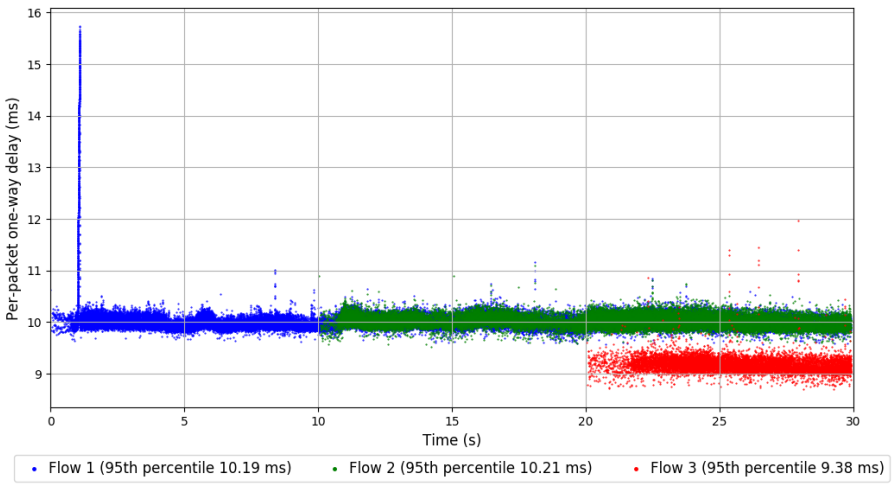
```
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-22 02:45:52
End at: 2018-08-22 02:46:22
Local clock offset: 0.249 ms
Remote clock offset: -59.77 ms

# Below is generated by plot.py at 2018-08-22 06:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.65 Mbit/s
95th percentile per-packet one-way delay: 10.189 ms
Loss rate: 8.19%
-- Flow 1:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 10.187 ms
Loss rate: 8.24%
-- Flow 2:
Average throughput: 16.97 Mbit/s
95th percentile per-packet one-way delay: 10.206 ms
Loss rate: 8.25%
-- Flow 3:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 9.377 ms
Loss rate: 7.73%
```

Run 2: Report of PCC-Vivace — Data Link



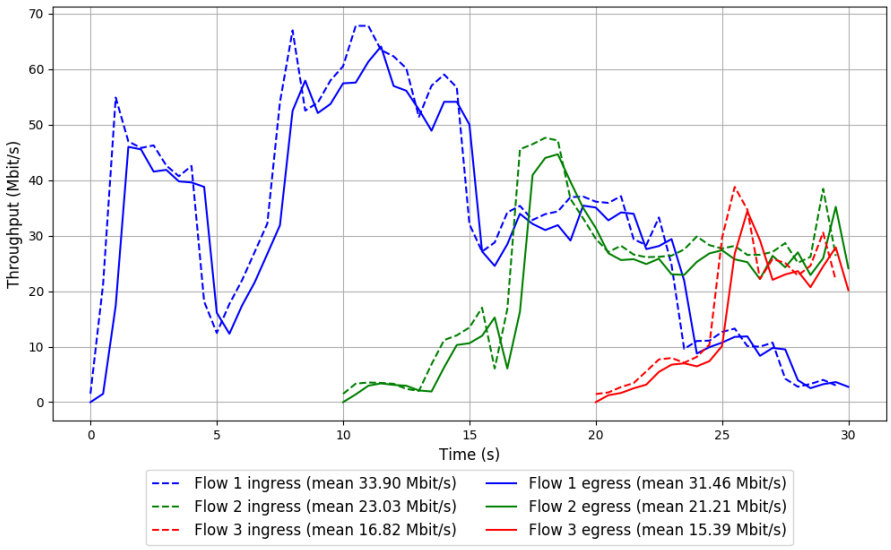


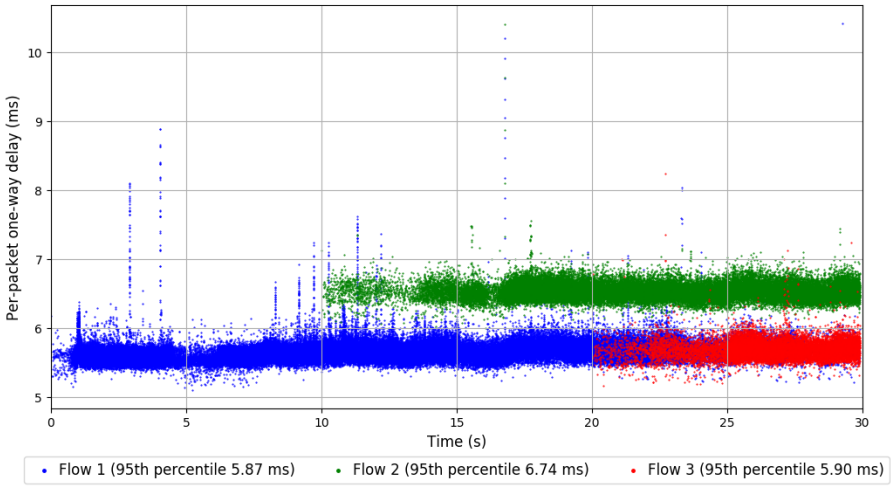
```
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-22 03:05:24
End at: 2018-08-22 03:05:54
Local clock offset: 2.866 ms
Remote clock offset: -61.878 ms

# Below is generated by plot.py at 2018-08-22 06:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.65 Mbit/s
95th percentile per-packet one-way delay: 6.641 ms
Loss rate: 7.53%
-- Flow 1:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 5.870 ms
Loss rate: 7.20%
-- Flow 2:
Average throughput: 21.21 Mbit/s
95th percentile per-packet one-way delay: 6.735 ms
Loss rate: 7.89%
-- Flow 3:
Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 5.904 ms
Loss rate: 8.53%
```

Run 3: Report of PCC-Vivace — Data Link



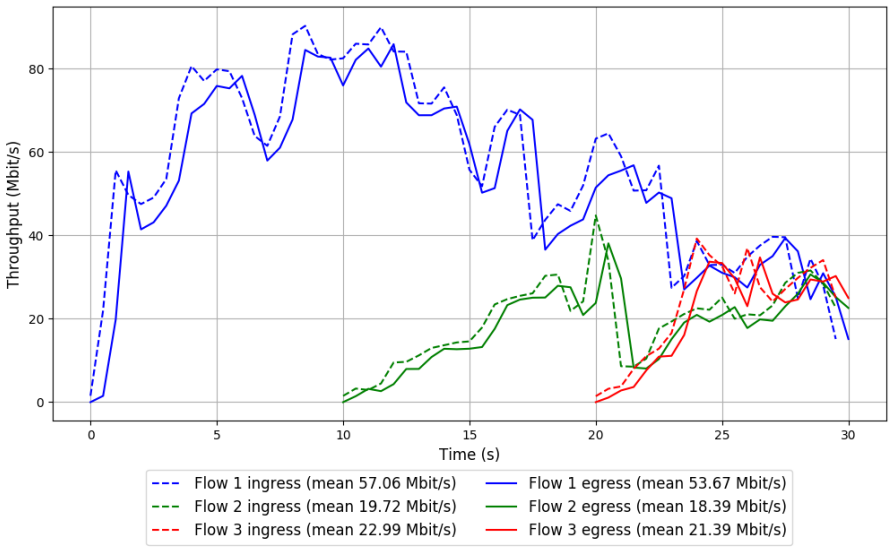


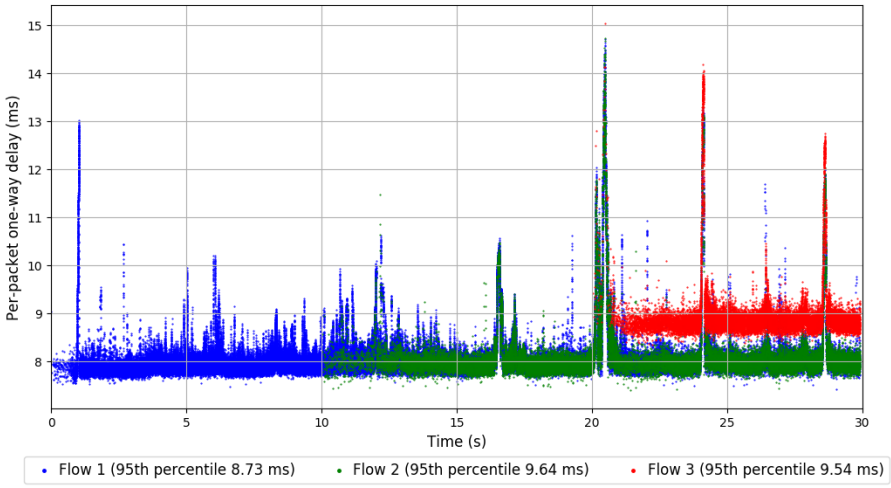
```
Run 4: Statistics of PCC-Vivace

Start at: 2018-08-22 03:25:05
End at: 2018-08-22 03:25:35
Local clock offset: -0.341 ms
Remote clock offset: -62.827 ms

# Below is generated by plot.py at 2018-08-22 06:04:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.96 Mbit/s
95th percentile per-packet one-way delay: 9.079 ms
Loss rate: 6.18%
-- Flow 1:
Average throughput: 53.67 Mbit/s
95th percentile per-packet one-way delay: 8.732 ms
Loss rate: 5.94%
-- Flow 2:
Average throughput: 18.39 Mbit/s
95th percentile per-packet one-way delay: 9.644 ms
Loss rate: 6.75%
-- Flow 3:
Average throughput: 21.39 Mbit/s
95th percentile per-packet one-way delay: 9.545 ms
Loss rate: 6.96%
```

Run 4: Report of PCC-Vivace — Data Link



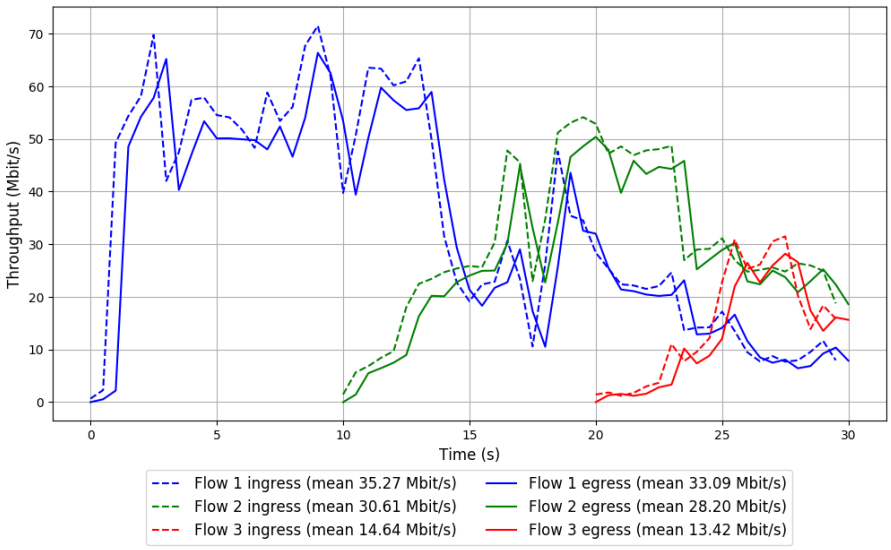


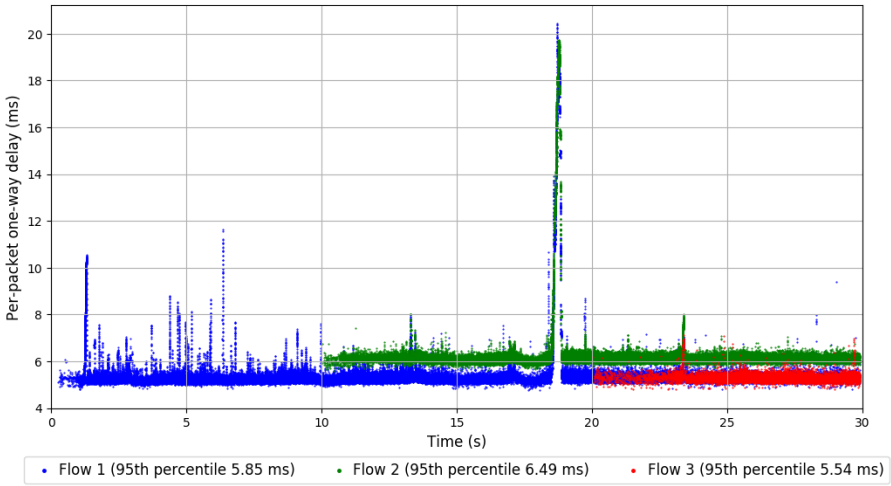
```
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-22 03:44:57
End at: 2018-08-22 03:45:27
Local clock offset: 2.914 ms
Remote clock offset: -62.59 ms

# Below is generated by plot.py at 2018-08-22 06:04:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.47 Mbit/s
95th percentile per-packet one-way delay: 6.348 ms
Loss rate: 7.38%
-- Flow 1:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 5.852 ms
Loss rate: 6.97%
-- Flow 2:
Average throughput: 28.20 Mbit/s
95th percentile per-packet one-way delay: 6.485 ms
Loss rate: 7.88%
-- Flow 3:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 5.542 ms
Loss rate: 8.36%
```

Run 5: Report of PCC-Vivace — Data Link



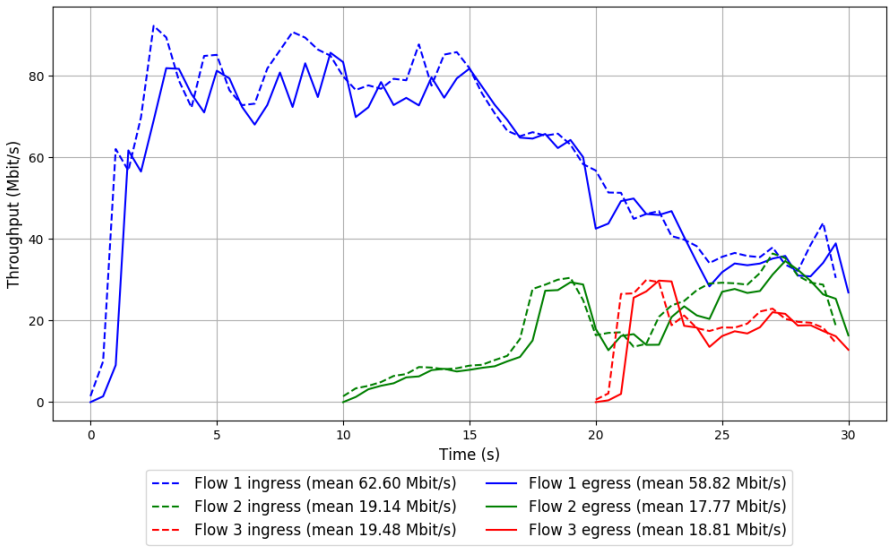


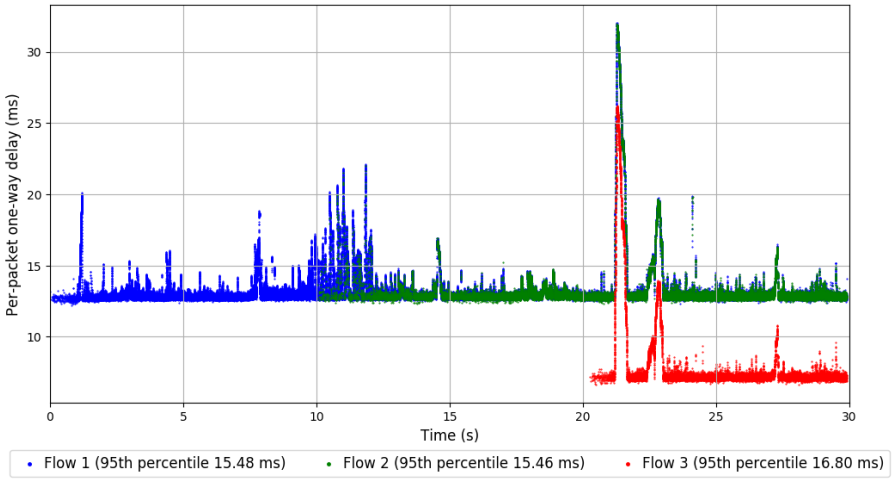
```
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-22 04:04:28
End at: 2018-08-22 04:04:58
Local clock offset: 3.883 ms
Remote clock offset: -61.679 ms

# Below is generated by plot.py at 2018-08-22 06:04:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.69 Mbit/s
95th percentile per-packet one-way delay: 15.502 ms
Loss rate: 6.22%
-- Flow 1:
Average throughput: 58.82 Mbit/s
95th percentile per-packet one-way delay: 15.483 ms
Loss rate: 6.06%
-- Flow 2:
Average throughput: 17.77 Mbit/s
95th percentile per-packet one-way delay: 15.455 ms
Loss rate: 7.18%
-- Flow 3:
Average throughput: 18.81 Mbit/s
95th percentile per-packet one-way delay: 16.805 ms
Loss rate: 5.90%
```

Run 6: Report of PCC-Vivace — Data Link



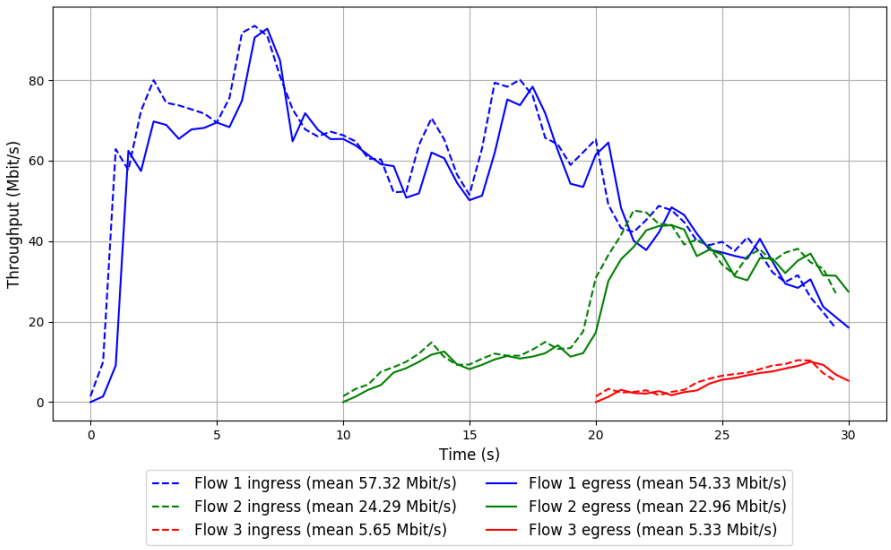


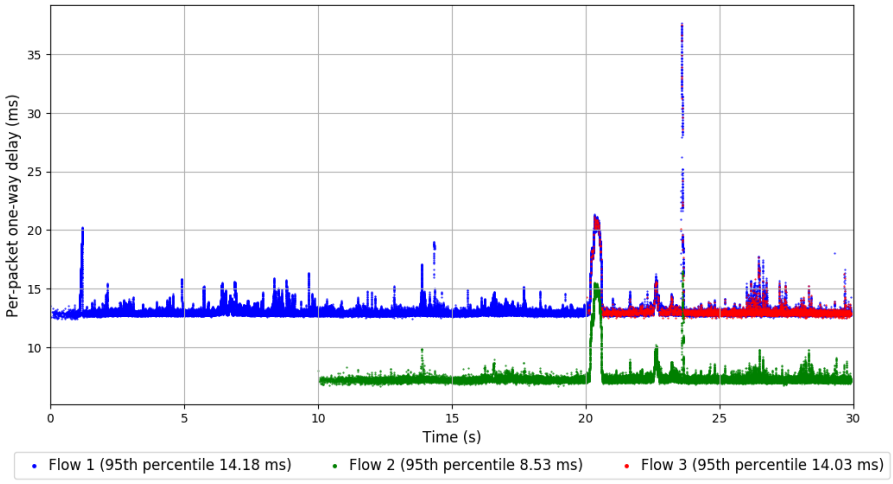
```
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-22 04:24:02
End at: 2018-08-22 04:24:32
Local clock offset: 2.265 ms
Remote clock offset: -64.013 ms

# Below is generated by plot.py at 2018-08-22 06:04:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.37 Mbit/s
95th percentile per-packet one-way delay: 13.902 ms
Loss rate: 5.28%
-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 14.176 ms
Loss rate: 5.22%
-- Flow 2:
Average throughput: 22.96 Mbit/s
95th percentile per-packet one-way delay: 8.530 ms
Loss rate: 5.46%
-- Flow 3:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 14.026 ms
Loss rate: 5.68%
```

Run 7: Report of PCC-Vivace — Data Link



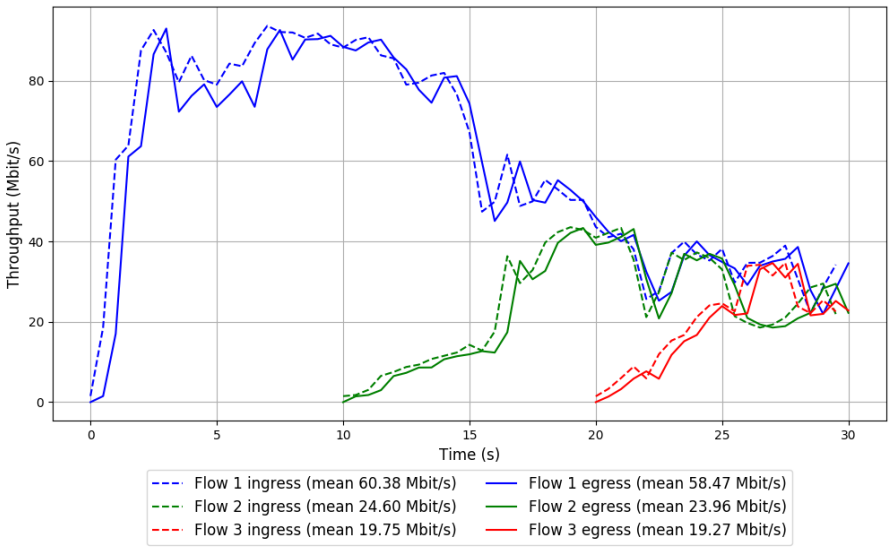


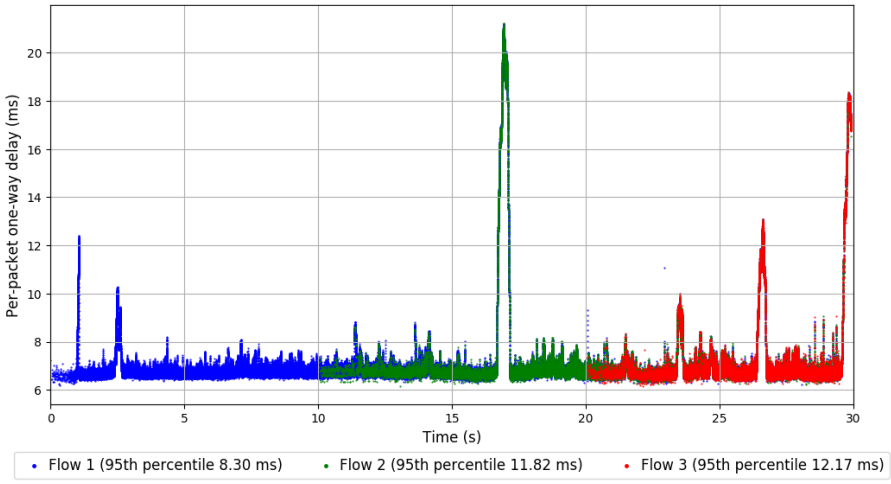
```
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-22 04:43:36
End at: 2018-08-22 04:44:06
Local clock offset: 3.098 ms
Remote clock offset: -64.423 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.78 Mbit/s
95th percentile per-packet one-way delay: 9.187 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 58.47 Mbit/s
95th percentile per-packet one-way delay: 8.297 ms
Loss rate: 3.13%
-- Flow 2:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 11.820 ms
Loss rate: 2.57%
-- Flow 3:
Average throughput: 19.27 Mbit/s
95th percentile per-packet one-way delay: 12.174 ms
Loss rate: 2.33%
```

Run 8: Report of PCC-Vivace — Data Link



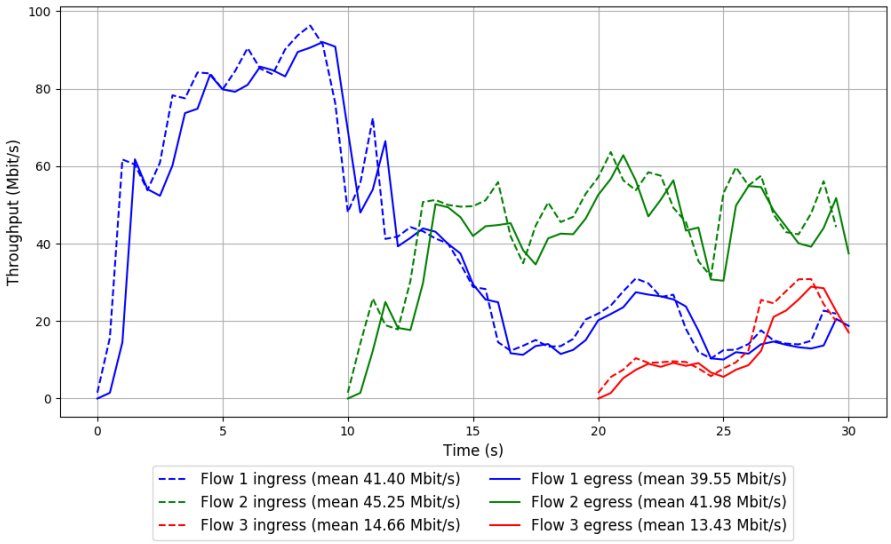


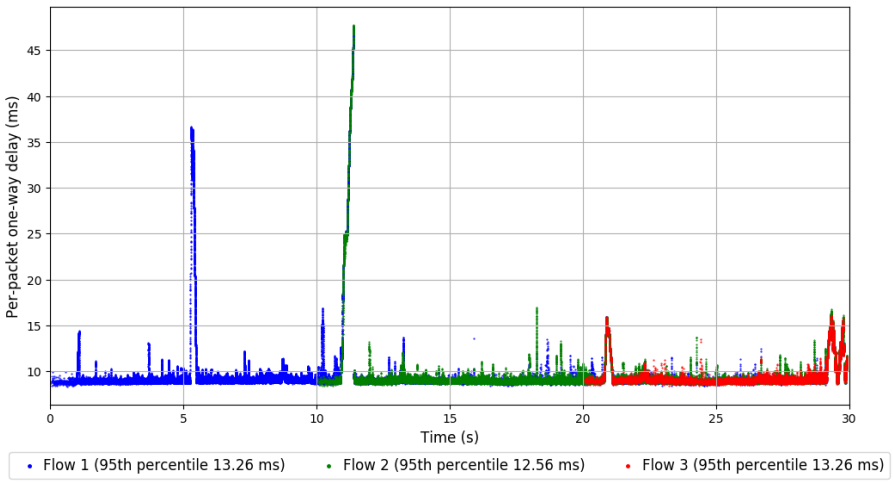
```
Run 9: Statistics of PCC-Vivace

Start at: 2018-08-22 05:03:09
End at: 2018-08-22 05:03:39
Local clock offset: 0.721 ms
Remote clock offset: -63.042 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.90 Mbit/s
95th percentile per-packet one-way delay: 12.867 ms
Loss rate: 5.80%
-- Flow 1:
Average throughput: 39.55 Mbit/s
95th percentile per-packet one-way delay: 13.255 ms
Loss rate: 4.47%
-- Flow 2:
Average throughput: 41.98 Mbit/s
95th percentile per-packet one-way delay: 12.560 ms
Loss rate: 7.21%
-- Flow 3:
Average throughput: 13.43 Mbit/s
95th percentile per-packet one-way delay: 13.264 ms
Loss rate: 8.39%
```

Run 9: Report of PCC-Vivace — Data Link



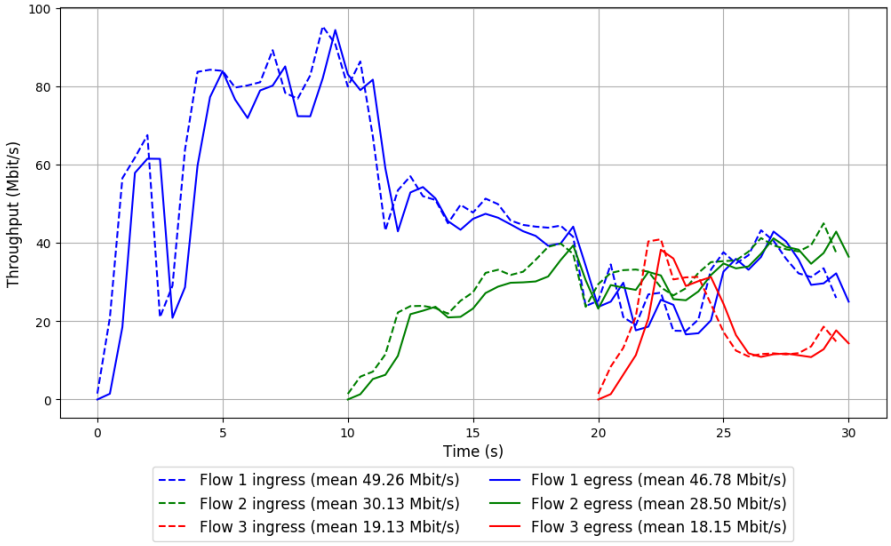


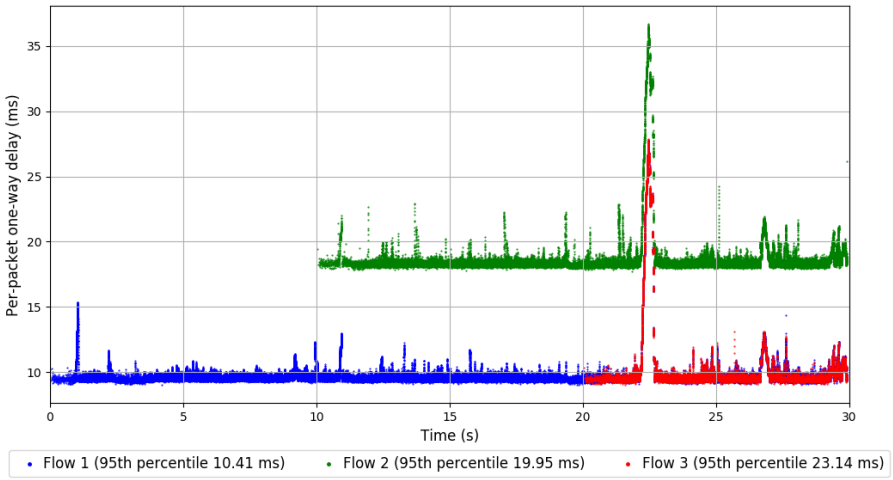
```
Run 10: Statistics of PCC-Vivace

Start at: 2018-08-22 05:22:50
End at: 2018-08-22 05:23:20
Local clock offset: -0.624 ms
Remote clock offset: -61.114 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.72 Mbit/s
95th percentile per-packet one-way delay: 18.723 ms
Loss rate: 5.13%
-- Flow 1:
Average throughput: 46.78 Mbit/s
95th percentile per-packet one-way delay: 10.412 ms
Loss rate: 5.02%
-- Flow 2:
Average throughput: 28.50 Mbit/s
95th percentile per-packet one-way delay: 19.955 ms
Loss rate: 5.42%
-- Flow 3:
Average throughput: 18.15 Mbit/s
95th percentile per-packet one-way delay: 23.137 ms
Loss rate: 5.09%
```

Run 10: Report of PCC-Vivace — Data Link



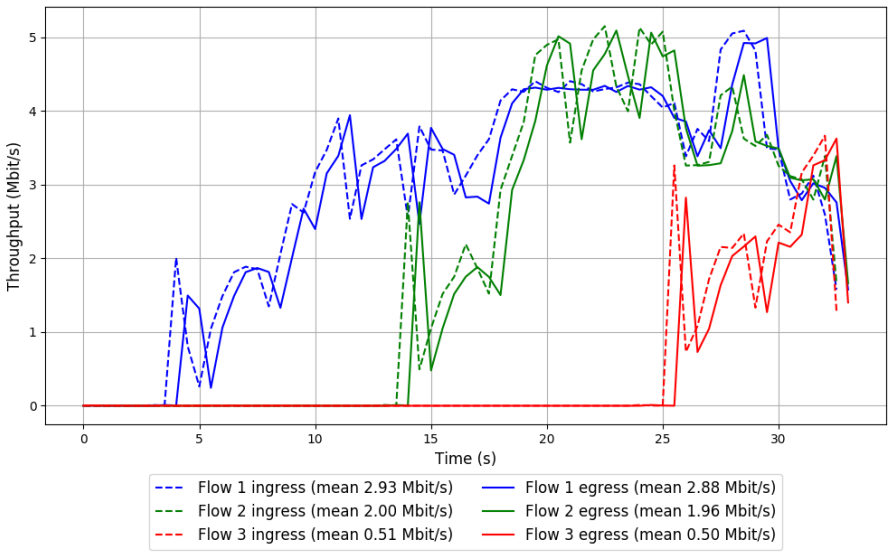


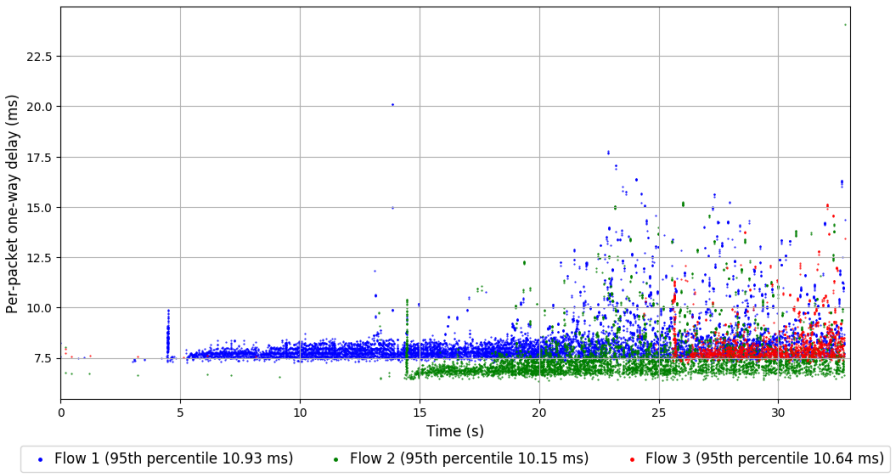
```
Run 1: Statistics of WebRTC media

Start at: 2018-08-22 02:33:14
End at: 2018-08-22 02:33:44
Local clock offset: 2.929 ms
Remote clock offset: -60.629 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.32 Mbit/s
95th percentile per-packet one-way delay: 10.660 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 10.927 ms
Loss rate: 1.71%
-- Flow 2:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 10.151 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 10.641 ms
Loss rate: 2.98%
```

Run 1: Report of WebRTC media — Data Link



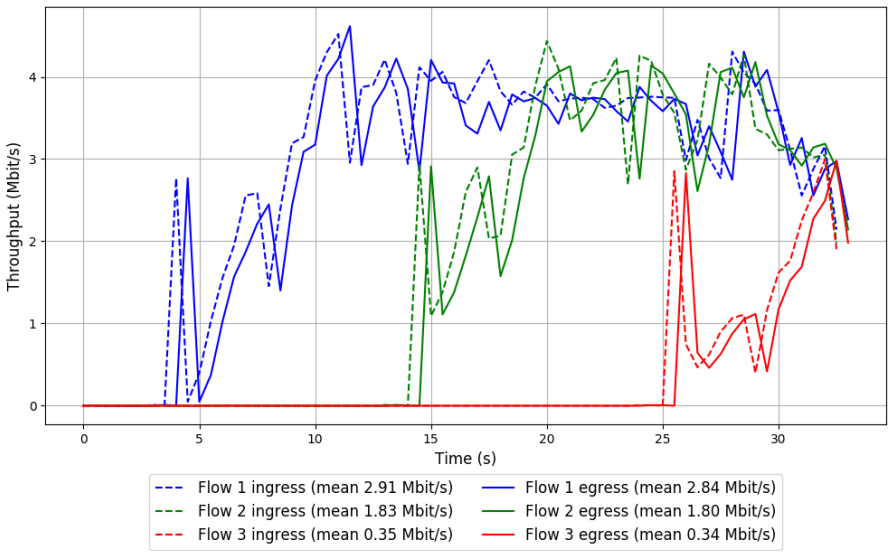


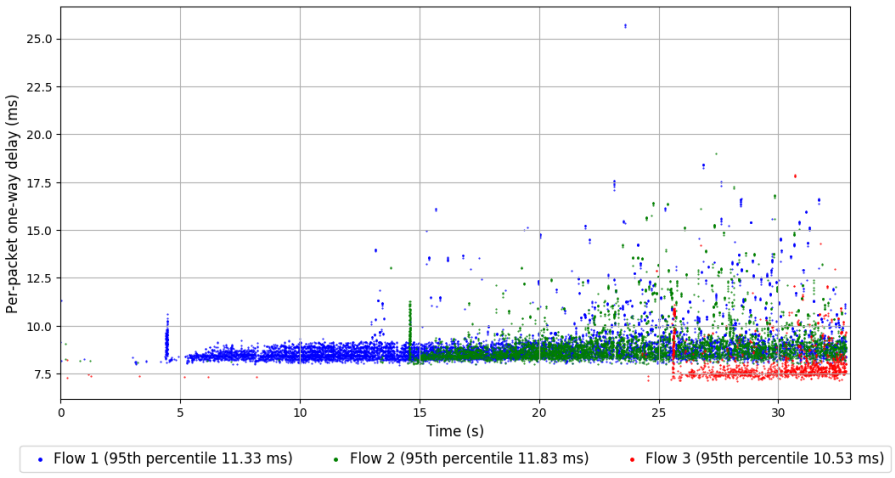
```
Run 2: Statistics of WebRTC media

Start at: 2018-08-22 02:52:42
End at: 2018-08-22 02:53:12
Local clock offset: 1.158 ms
Remote clock offset: -60.125 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.96 Mbit/s
95th percentile per-packet one-way delay: 11.470 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 11.333 ms
Loss rate: 2.34%
-- Flow 2:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 11.830 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 10.533 ms
Loss rate: 1.40%
```

Run 2: Report of WebRTC media — Data Link



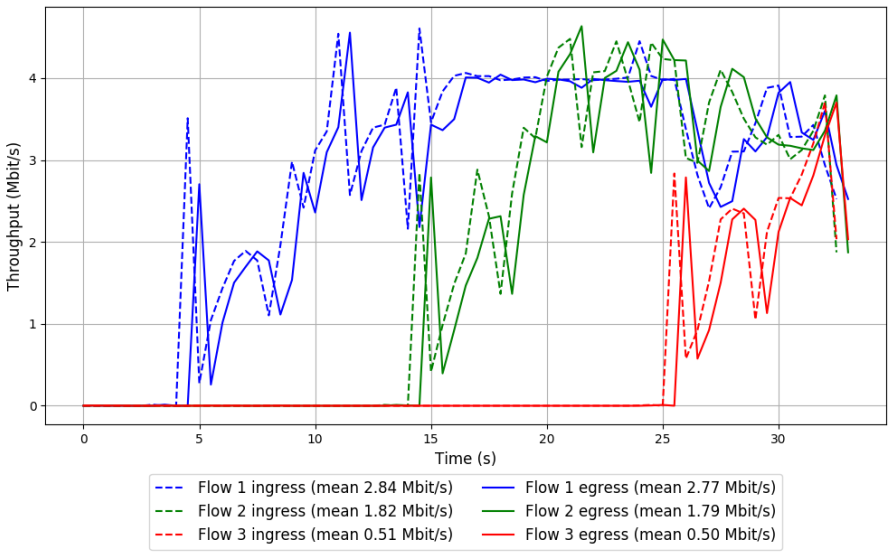


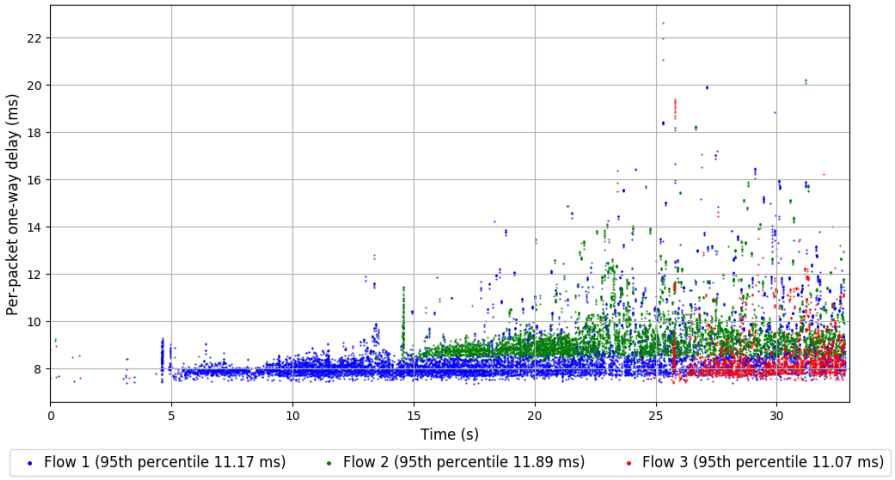
```
Run 3: Statistics of WebRTC media

Start at: 2018-08-22 03:12:09
End at: 2018-08-22 03:12:39
Local clock offset: -0.086 ms
Remote clock offset: -62.653 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 11.448 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 11.169 ms
Loss rate: 2.39%
-- Flow 2:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 11.894 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 11.073 ms
Loss rate: 0.21%
```

Run 3: Report of WebRTC media — Data Link



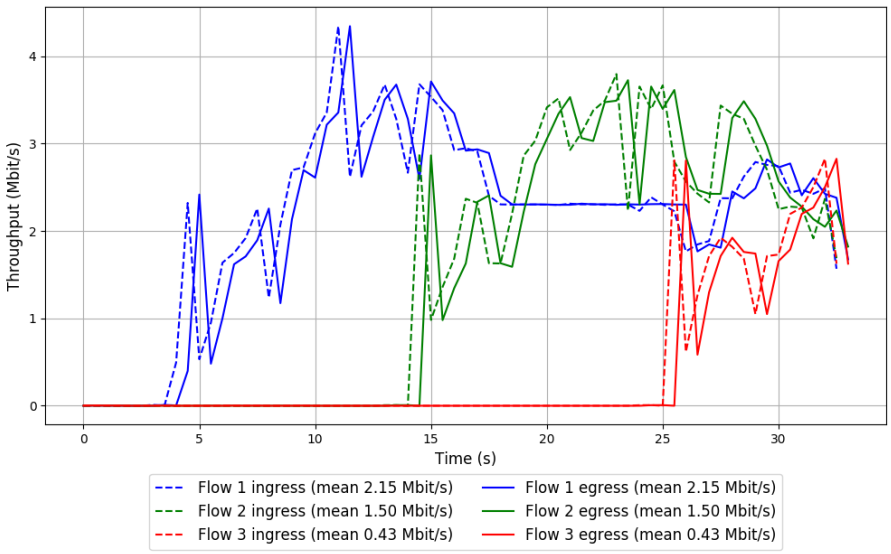


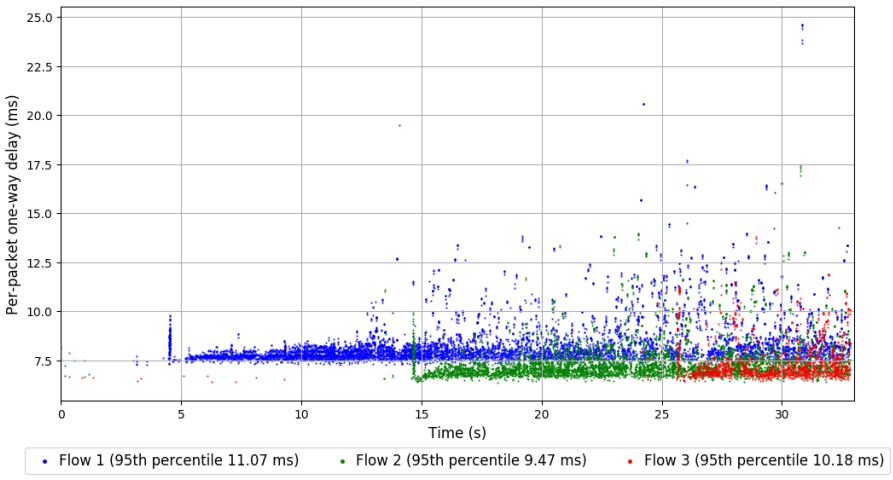
```
Run 4: Statistics of WebRTC media

Start at: 2018-08-22 03:31:54
End at: 2018-08-22 03:32:24
Local clock offset: 0.037 ms
Remote clock offset: -63.534 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 10.492 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 11.068 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 9.467 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 10.183 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



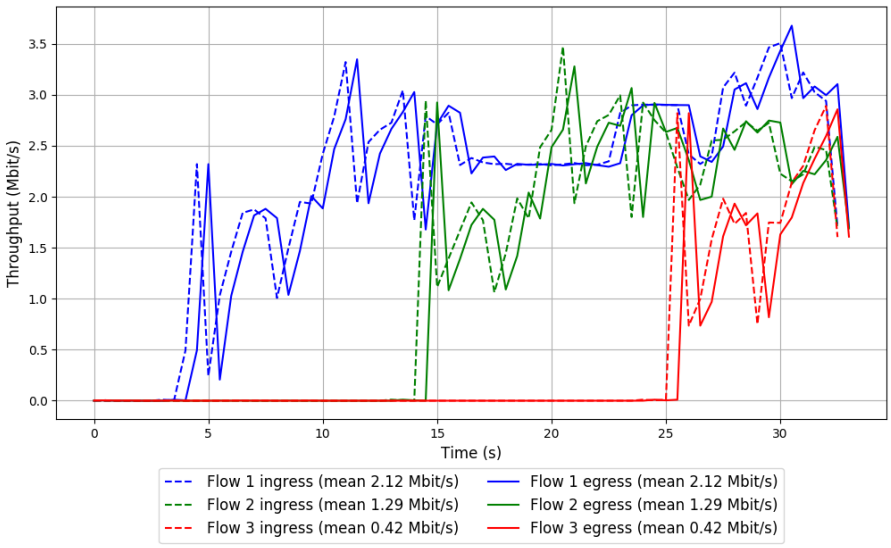


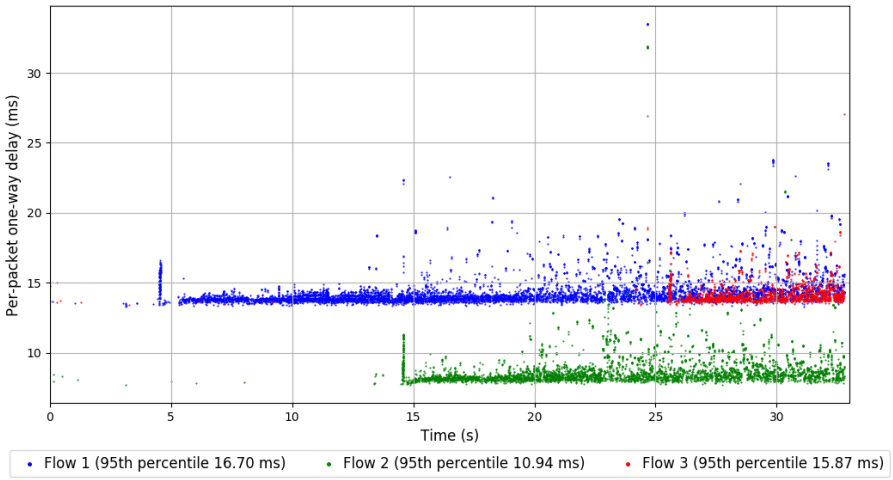
```
Run 5: Statistics of WebRTC media

Start at: 2018-08-22 03:51:42
End at: 2018-08-22 03:52:12
Local clock offset: 2.262 ms
Remote clock offset: -61.731 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 15.993 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 16.704 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 10.938 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 15.868 ms
Loss rate: 0.31%
```

Run 5: Report of WebRTC media — Data Link



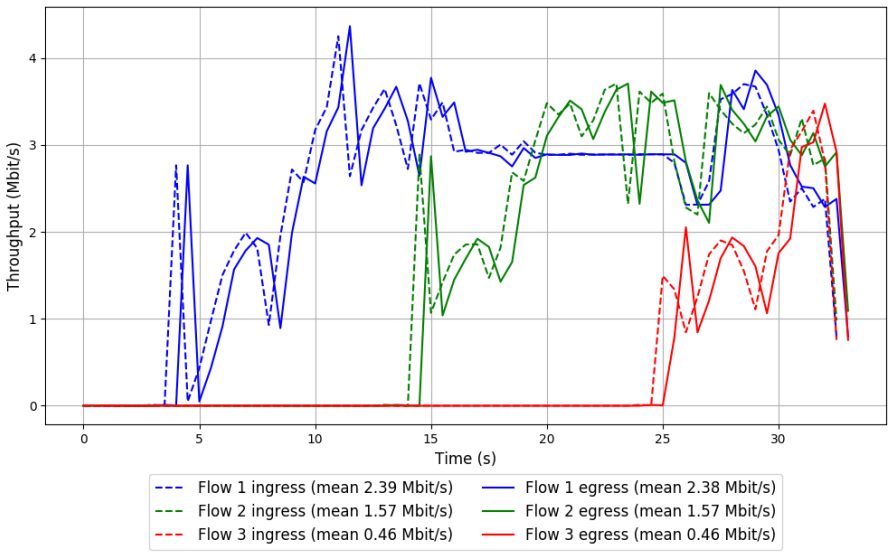


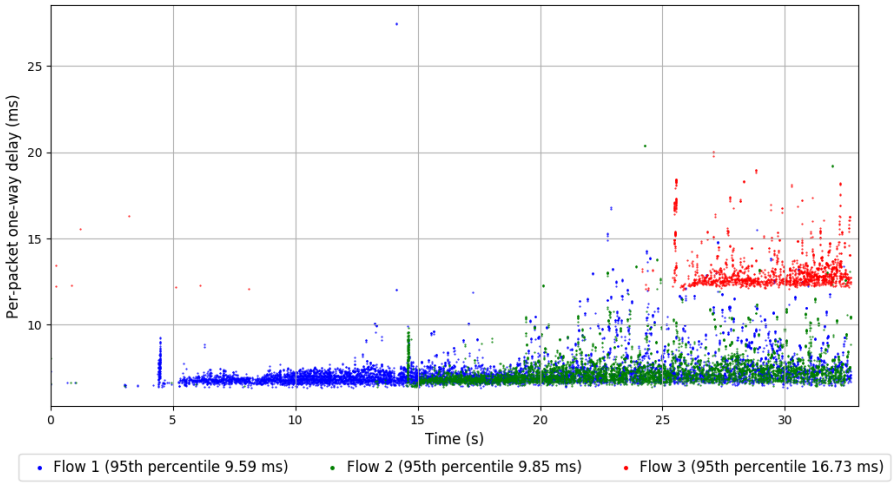
```
Run 6: Statistics of WebRTC media

Start at: 2018-08-22 04:11:16
End at: 2018-08-22 04:11:46
Local clock offset: 3.546 ms
Remote clock offset: -62.519 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 12.957 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 9.588 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 9.849 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 16.731 ms
Loss rate: 0.06%
```

Run 6: Report of WebRTC media — Data Link



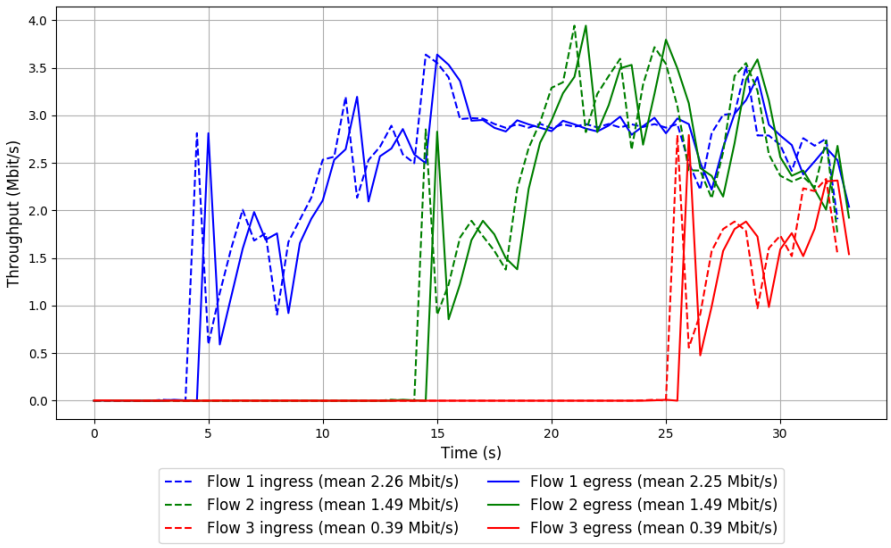


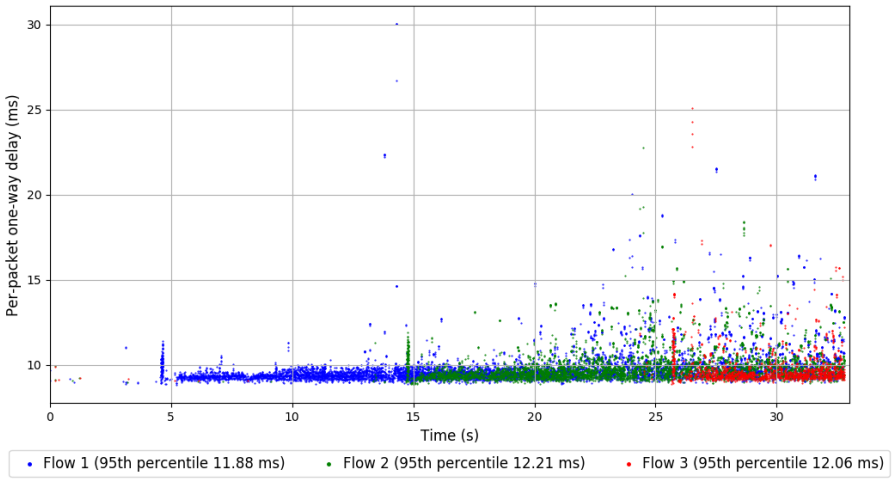
```
Run 7: Statistics of WebRTC media

Start at: 2018-08-22 04:30:51
End at: 2018-08-22 04:31:21
Local clock offset: 0.443 ms
Remote clock offset: -63.971 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 12.013 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 11.877 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 12.211 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 12.065 ms
Loss rate: 1.46%
```

Run 7: Report of WebRTC media — Data Link



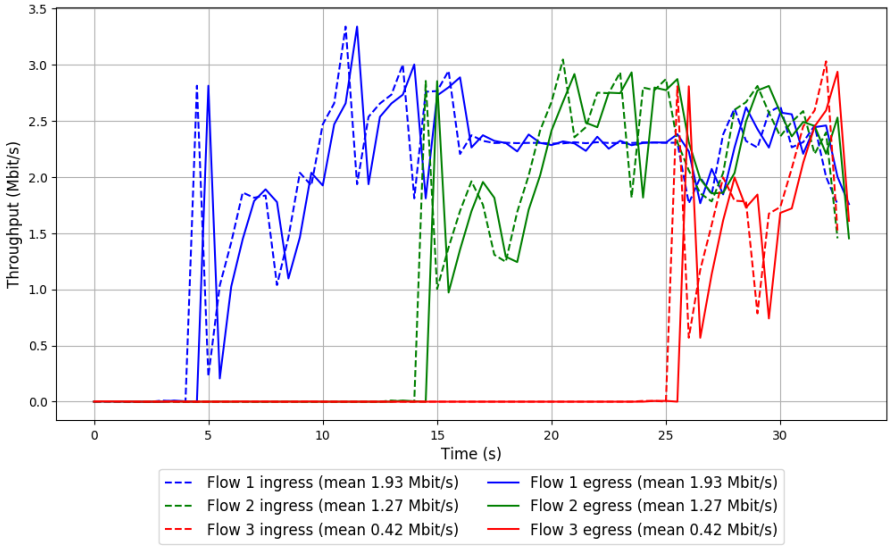


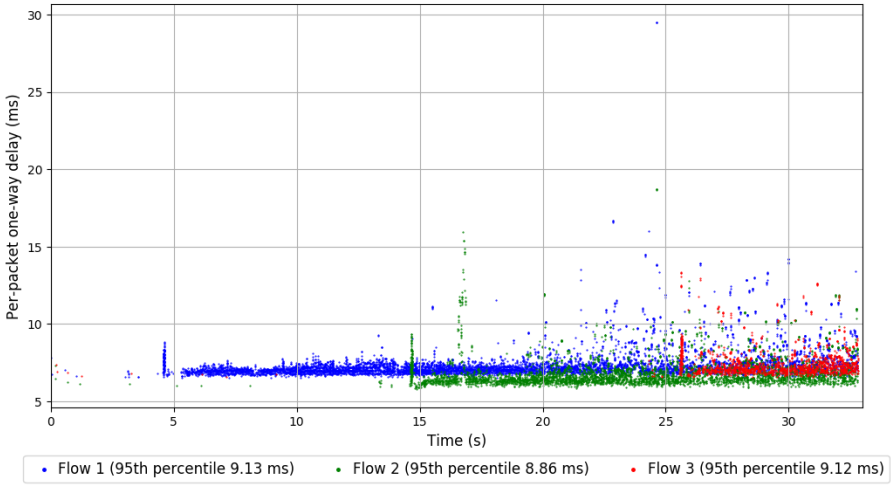
```
Run 8: Statistics of WebRTC media

Start at: 2018-08-22 04:50:23
End at: 2018-08-22 04:50:53
Local clock offset: 3.295 ms
Remote clock offset: -63.313 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 9.025 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 9.134 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 8.855 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 9.116 ms
Loss rate: 0.00%
```

Run 8: Report of WebRTC media — Data Link



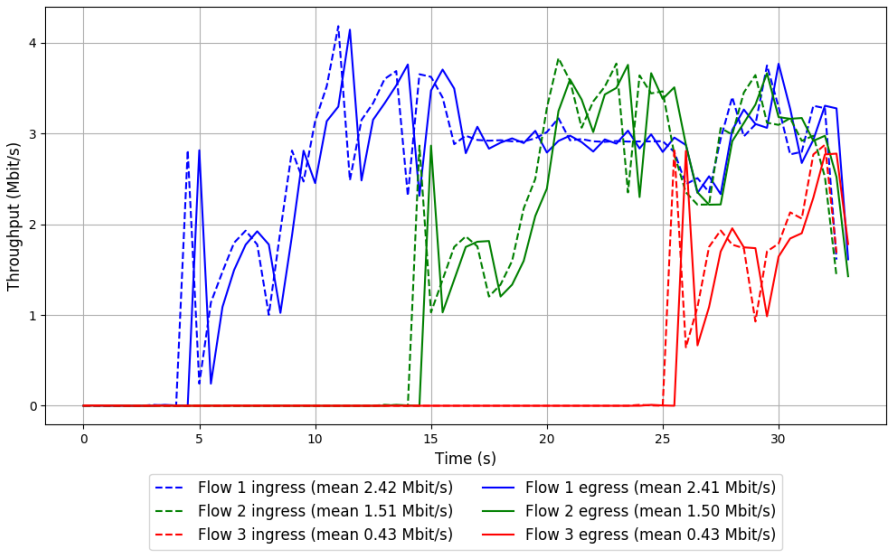


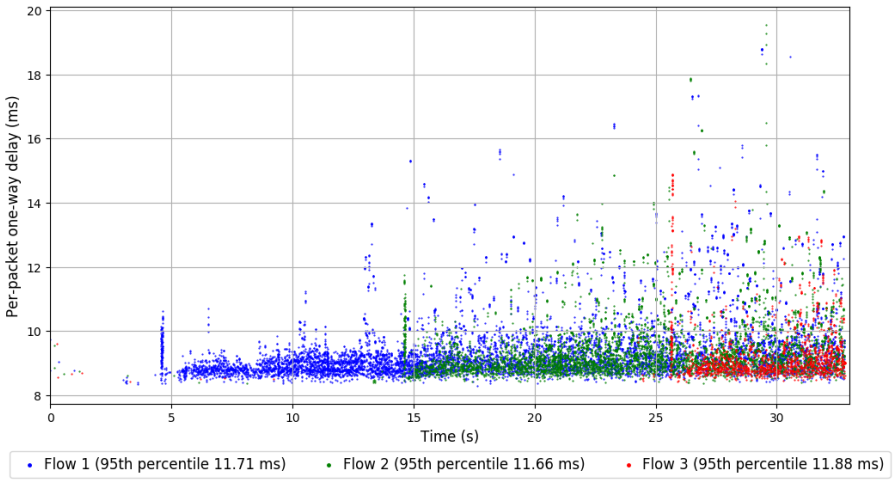
```
Run 9: Statistics of WebRTC media

Start at: 2018-08-22 05:09:58
End at: 2018-08-22 05:10:28
Local clock offset: 0.746 ms
Remote clock offset: -63.366 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 11.706 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 11.715 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 11.665 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 11.882 ms
Loss rate: 0.00%
```

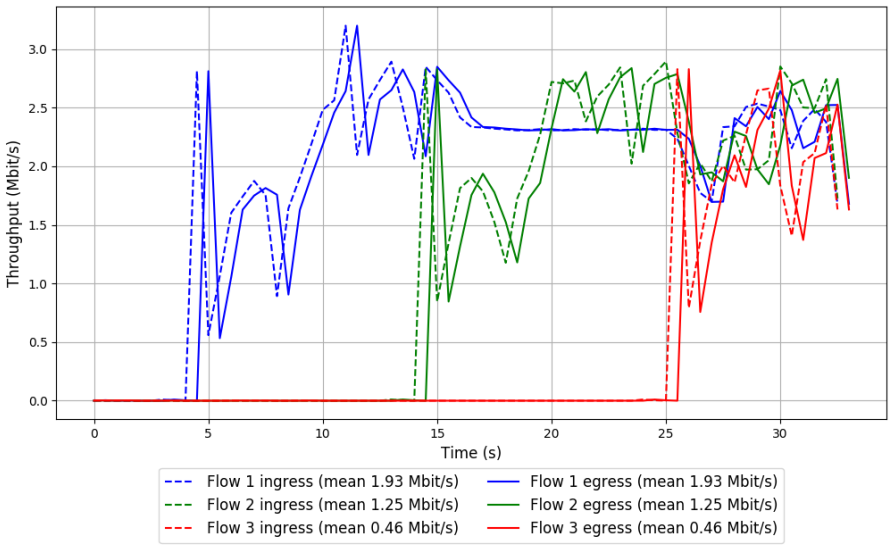
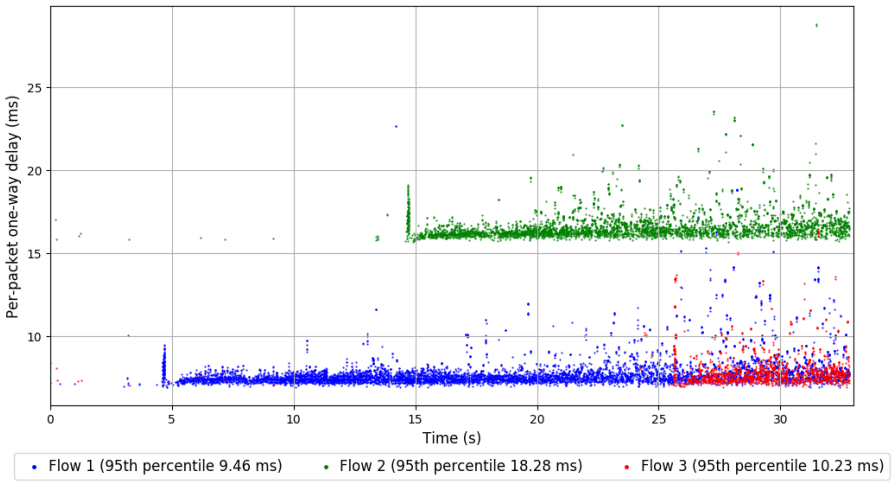
Run 9: Report of WebRTC media — Data Link





```
Run 10: Statistics of WebRTC media

Start at: 2018-08-22 05:29:40
End at: 2018-08-22 05:30:10
Local clock offset: 1.744 ms
Remote clock offset: -59.609 ms

# Below is generated by plot.py at 2018-08-22 06:04:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 17.328 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 9.465 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 18.284 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 10.229 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link