Pantheon Report

Generated at 2017-09-23 15:02:06 (UTC).

Data path: China Ethernet (*remote*) →AWS Korea Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

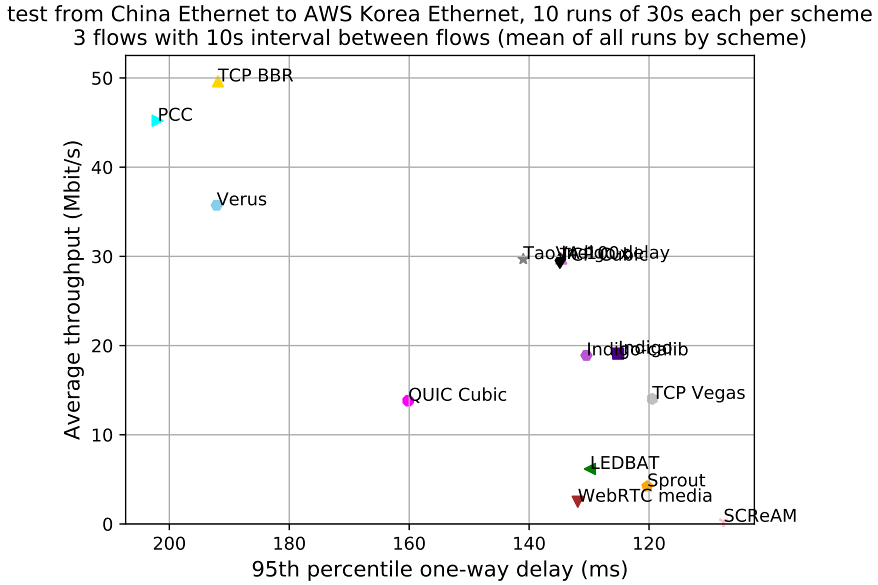
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

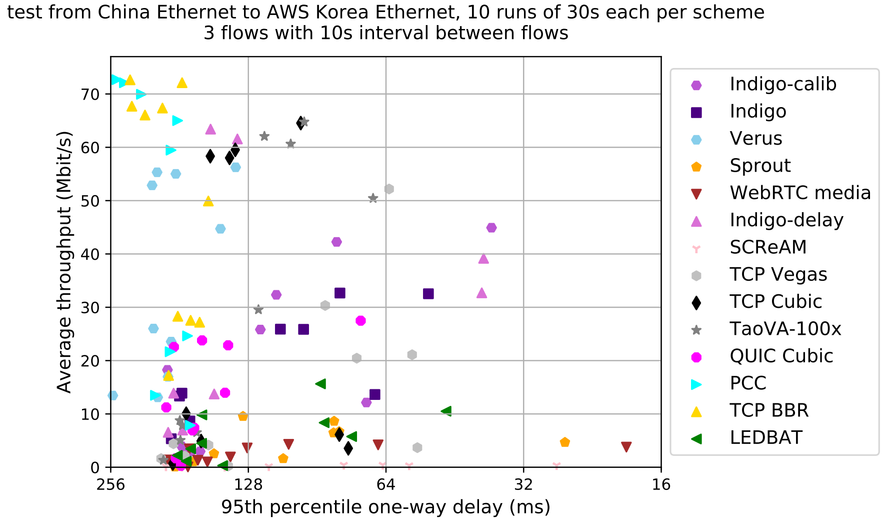
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: indigos @ 46c7c812d4acb71eea4f5fb0b03b3657cea3062f
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```


test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
10
20
30
40
50
200
180
160
140
120
TCP BBR
PCC
Verus
TaoVA-100x
TCP Cubic
Indigo-delay
Indigo-calib
Indigo
QUIC Cubic
TCP Vegas
LEDBAT
Sprout
WebRTC media
SCReAM


test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
10
20
30
40
50
60
70
256
128
64
32
16
Indigo-calib
Indigo
Verus
Sprout
WebRTC media
Indigo-delay
SCReAM
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
PCC
TCP BBR
LEDBAT

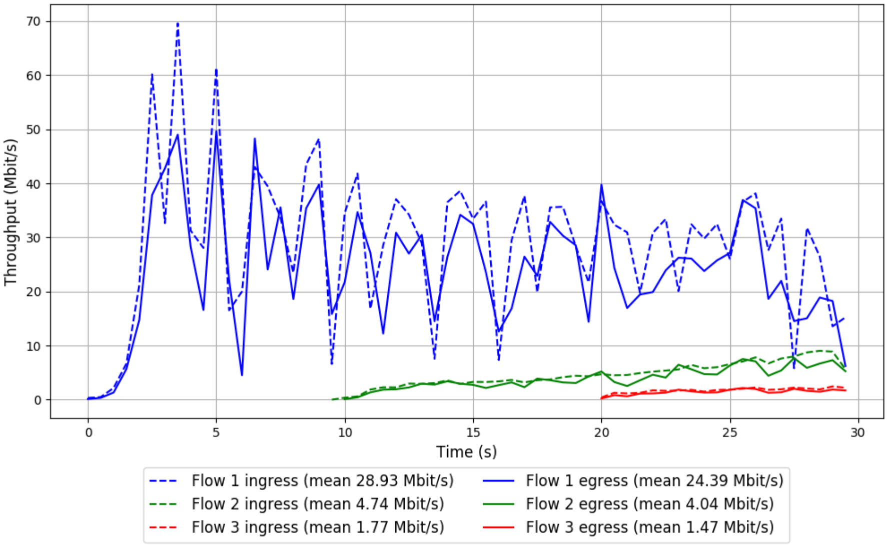
scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	32.90	18.87	13.01	187.55	194.64	200.80	8.75	10.51	14.41
TCP Cubic	9	18.33	10.27	13.34	132.93	133.58	135.03	3.33	3.60	3.62
LEDBAT	10	3.85	2.53	2.00	129.41	130.49	124.34	2.68	4.46	6.66
PCC	9	34.32	14.02	5.01	200.50	198.50	205.40	6.64	9.44	13.07
QUIC Cubic	10	2.35	10.59	13.58	140.47	158.57	160.98	6.45	8.44	9.78
SCReAM	8	0.11	0.14	0.14	108.36	107.00	105.27	10.34	10.89	12.40
WebRTC media	10	1.33	1.04	0.24	128.26	132.94	132.88	7.56	8.75	10.76
Sprout	10	2.07	2.39	1.75	118.77	120.84	119.10	7.68	7.72	8.26
TaoVA-100x	10	13.94	17.79	15.66	144.56	140.78	145.35	11.06	12.20	15.36
TCP Vegas	10	5.86	7.47	9.71	117.14	120.94	119.67	3.40	3.59	3.64
Verus	10	22.35	15.21	8.69	190.42	190.74	197.31	9.22	9.96	14.32
Indigo	9	8.02	10.65	12.47	126.06	126.77	114.16	9.58	10.79	11.08
Indigo-calib	10	6.84	10.66	15.51	138.92	127.02	122.41	5.38	7.26	7.33
Indigo-delay	8	18.86	10.94	11.38	135.70	134.49	130.42	6.63	7.05	8.38

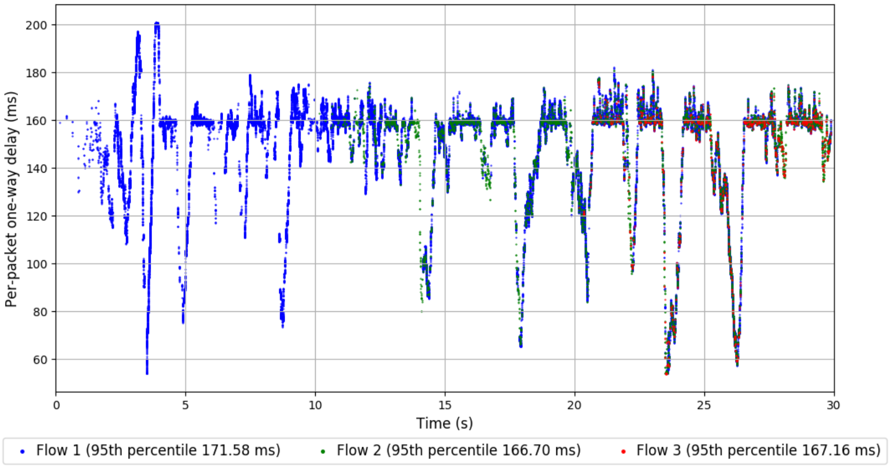
```
Run 1: Statistics of TCP BBR

Start at: 2017-09-23 08:20:18
End at: 2017-09-23 08:20:48
Local clock offset: -1.403 ms
Remote clock offset: -16.547 ms

# Below is generated by plot.py at 2017-09-23 14:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.56 Mbit/s
95th percentile per-packet one-way delay: 171.156 ms
Loss rate: 16.27%
-- Flow 1:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 171.579 ms
Loss rate: 16.30%
-- Flow 2:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 166.704 ms
Loss rate: 15.67%
-- Flow 3:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 167.163 ms
Loss rate: 18.19%
```

Run 1: Report of TCP BBR — Data Link



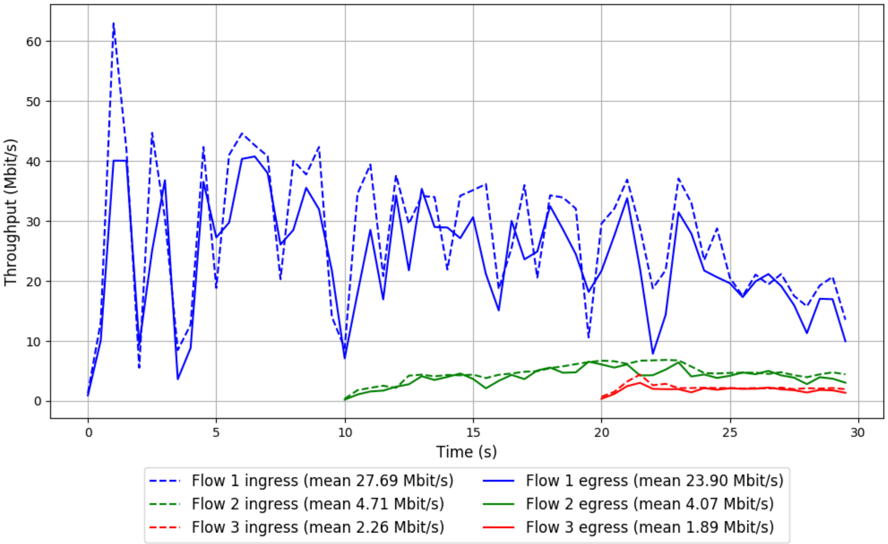


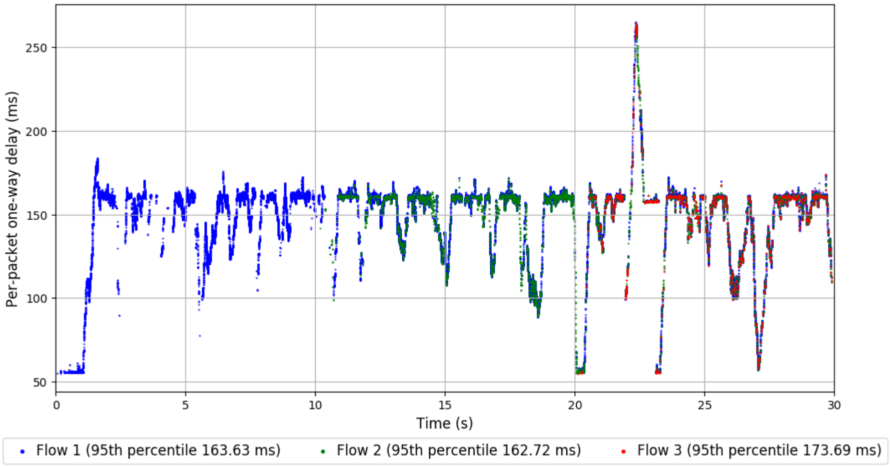
```
Run 2: Statistics of TCP BBR

Start at: 2017-09-23 08:40:48
End at: 2017-09-23 08:41:18
Local clock offset: -1.446 ms
Remote clock offset: -17.016 ms

# Below is generated by plot.py at 2017-09-23 14:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.20 Mbit/s
95th percentile per-packet one-way delay: 163.589 ms
Loss rate: 14.35%
-- Flow 1:
Average throughput: 23.90 Mbit/s
95th percentile per-packet one-way delay: 163.628 ms
Loss rate: 14.20%
-- Flow 2:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 162.721 ms
Loss rate: 14.87%
-- Flow 3:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 173.694 ms
Loss rate: 17.81%
```

Run 2: Report of TCP BBR — Data Link



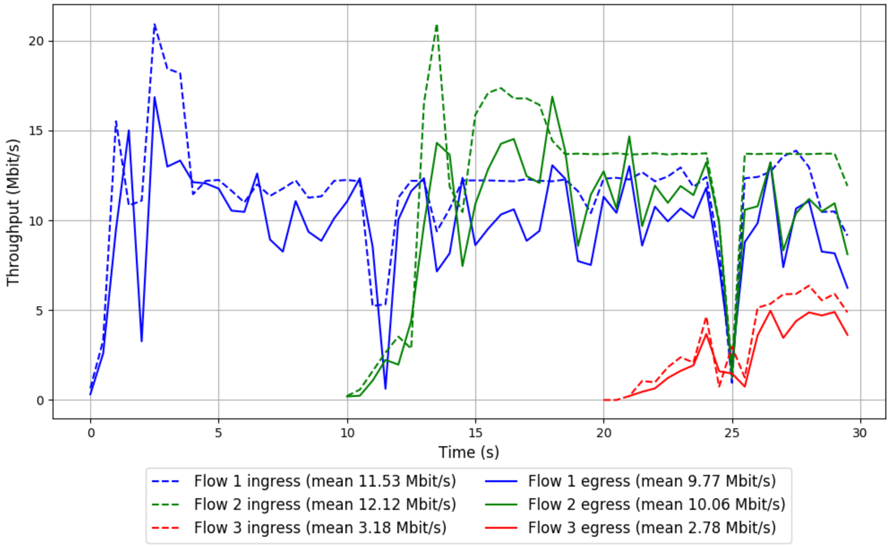


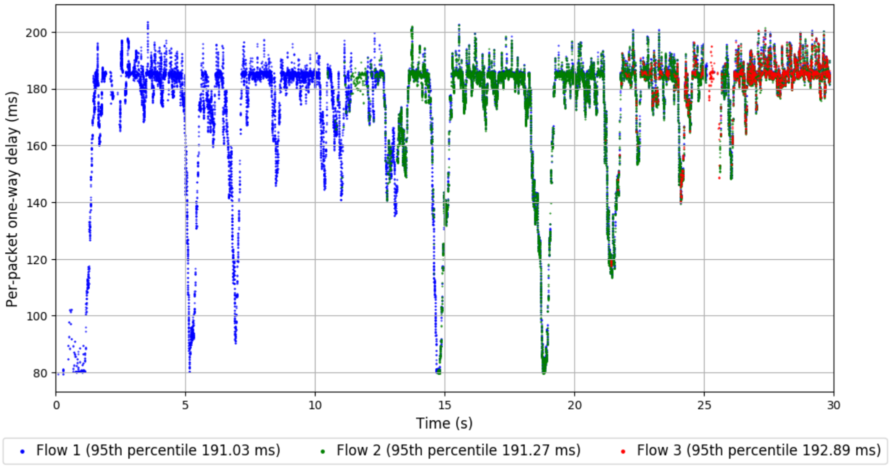
```
Run 3: Statistics of TCP BBR

Start at: 2017-09-23 09:01:42
End at: 2017-09-23 09:02:12
Local clock offset: -1.613 ms
Remote clock offset: -40.687 ms

# Below is generated by plot.py at 2017-09-23 14:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.22 Mbit/s
95th percentile per-packet one-way delay: 191.262 ms
Loss rate: 17.14%
-- Flow 1:
Average throughput: 9.77 Mbit/s
95th percentile per-packet one-way delay: 191.030 ms
Loss rate: 15.78%
-- Flow 2:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 191.266 ms
Loss rate: 18.23%
-- Flow 3:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 192.887 ms
Loss rate: 23.77%
```

Run 3: Report of TCP BBR — Data Link



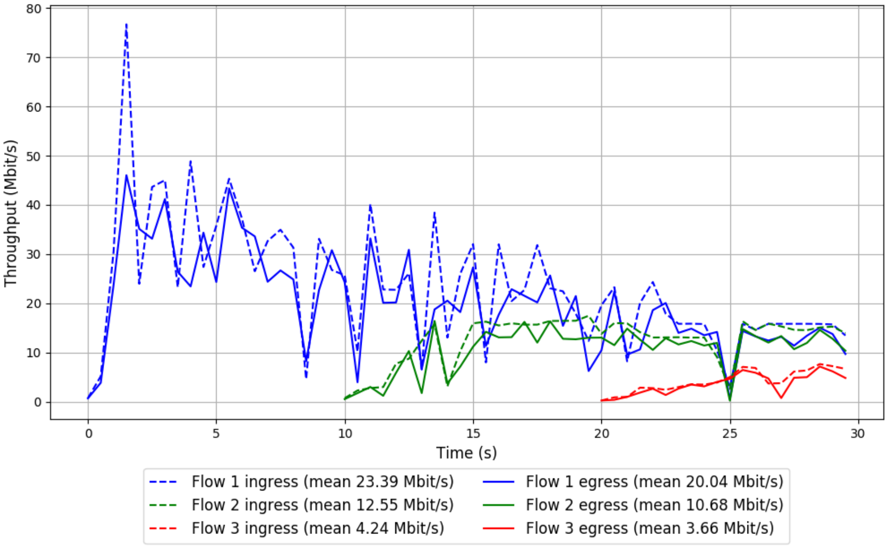


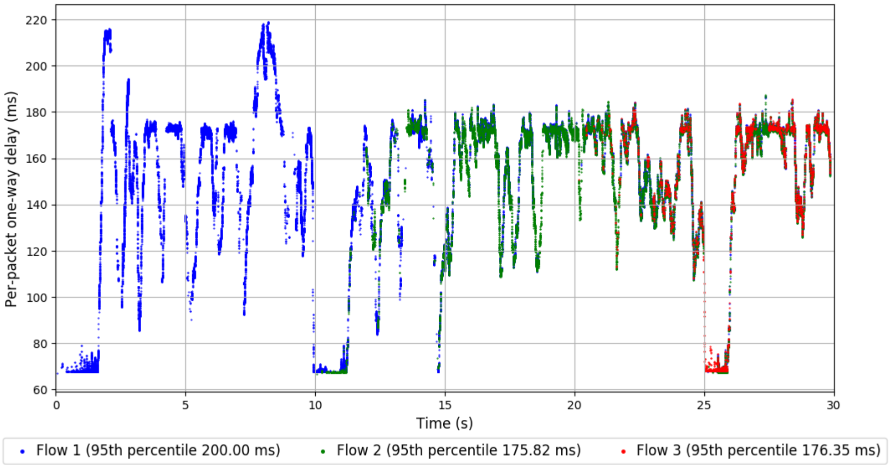
```
Run 4: Statistics of TCP BBR

Start at: 2017-09-23 09:24:56
End at: 2017-09-23 09:25:26
Local clock offset: -1.615 ms
Remote clock offset: -27.034 ms

# Below is generated by plot.py at 2017-09-23 14:55:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.31 Mbit/s
95th percentile per-packet one-way delay: 182.595 ms
Loss rate: 15.02%
-- Flow 1:
Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 199.999 ms
Loss rate: 14.79%
-- Flow 2:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 175.825 ms
Loss rate: 15.55%
-- Flow 3:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 176.349 ms
Loss rate: 15.81%
```

Run 4: Report of TCP BBR — Data Link



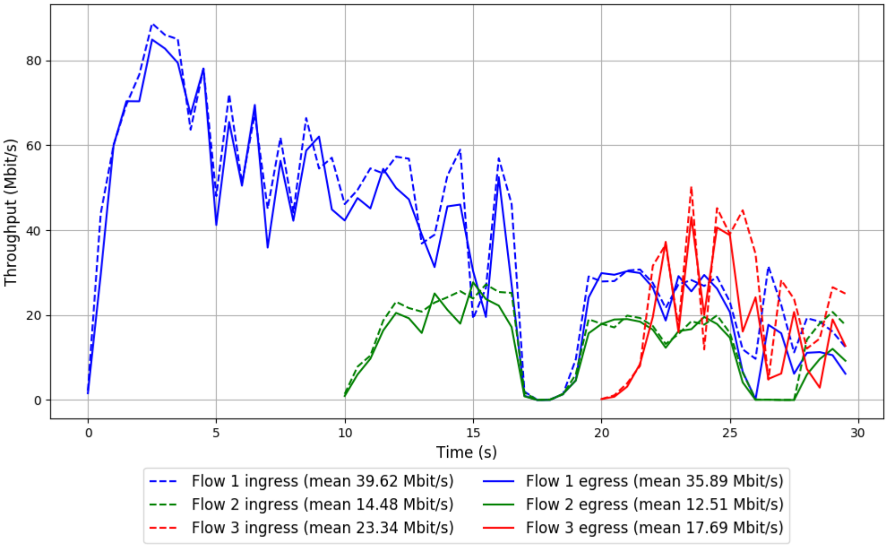


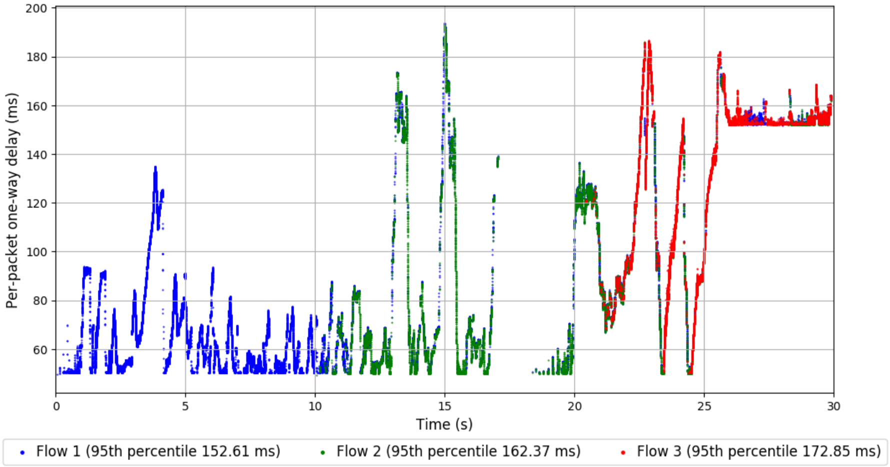
```
Run 5: Statistics of TCP BBR

Start at: 2017-09-23 09:46:59
End at: 2017-09-23 09:47:29
Local clock offset: -1.488 ms
Remote clock offset: -10.186 ms

# Below is generated by plot.py at 2017-09-23 14:55:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.93 Mbit/s
95th percentile per-packet one-way delay: 156.566 ms
Loss rate: 12.54%
-- Flow 1:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 152.613 ms
Loss rate: 9.67%
-- Flow 2:
Average throughput: 12.51 Mbit/s
95th percentile per-packet one-way delay: 162.369 ms
Loss rate: 13.99%
-- Flow 3:
Average throughput: 17.69 Mbit/s
95th percentile per-packet one-way delay: 172.849 ms
Loss rate: 25.49%
```

Run 5: Report of TCP BBR — Data Link



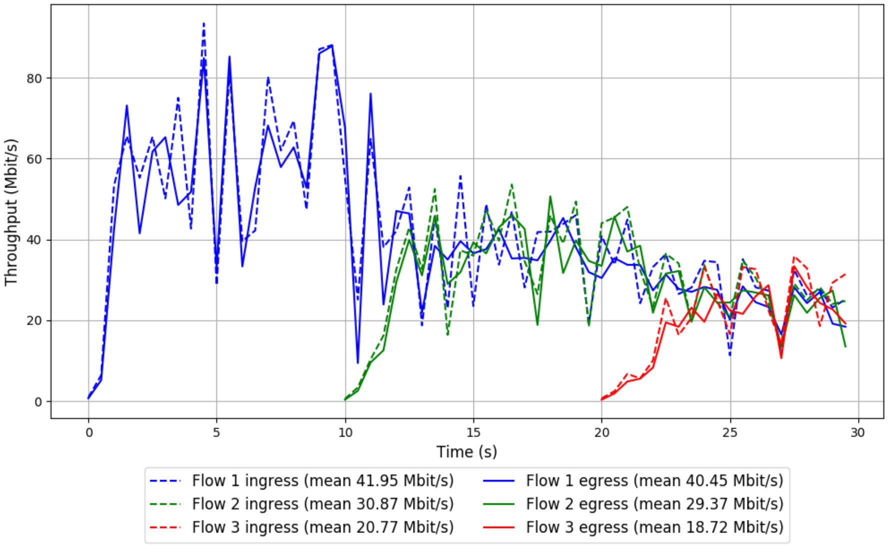


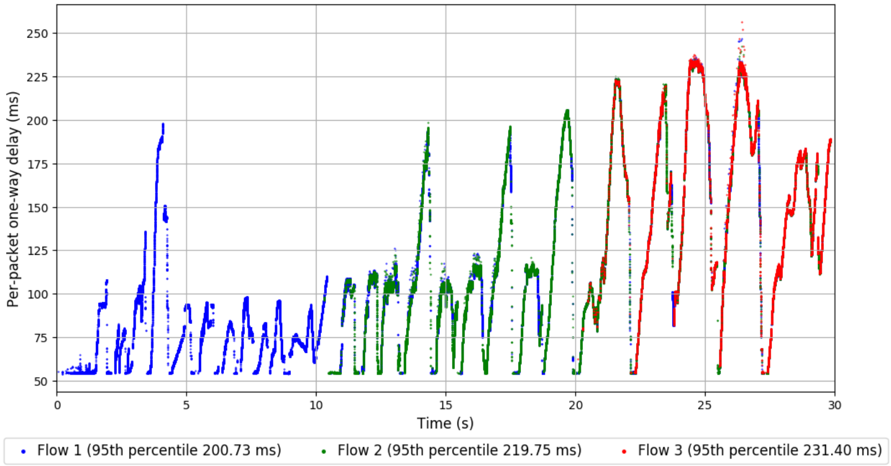
```
Run 6: Statistics of TCP BBR

Start at: 2017-09-23 10:08:58
End at: 2017-09-23 10:09:28
Local clock offset: -0.404 ms
Remote clock offset: -13.785 ms

# Below is generated by plot.py at 2017-09-23 14:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.05 Mbit/s
95th percentile per-packet one-way delay: 215.403 ms
Loss rate: 5.39%
-- Flow 1:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 200.730 ms
Loss rate: 4.15%
-- Flow 2:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 219.749 ms
Loss rate: 5.83%
-- Flow 3:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 231.403 ms
Loss rate: 11.59%
```

Run 6: Report of TCP BBR — Data Link



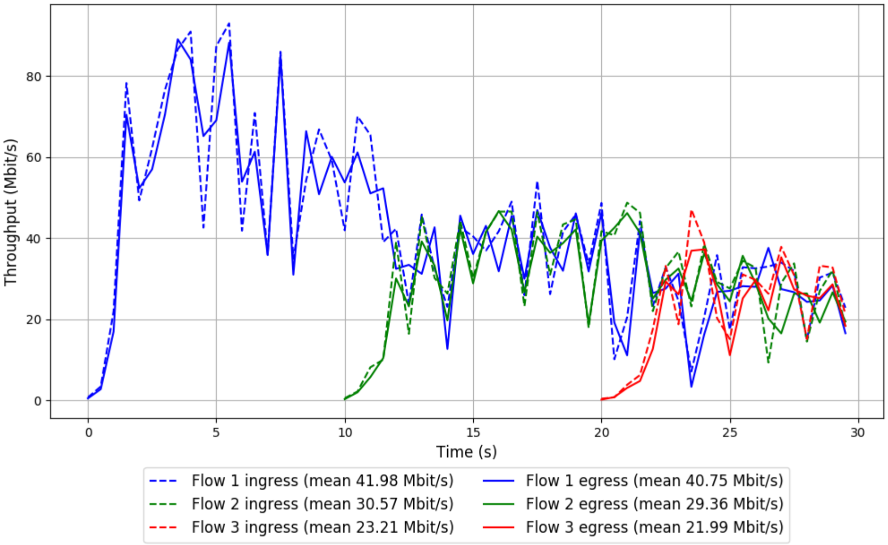


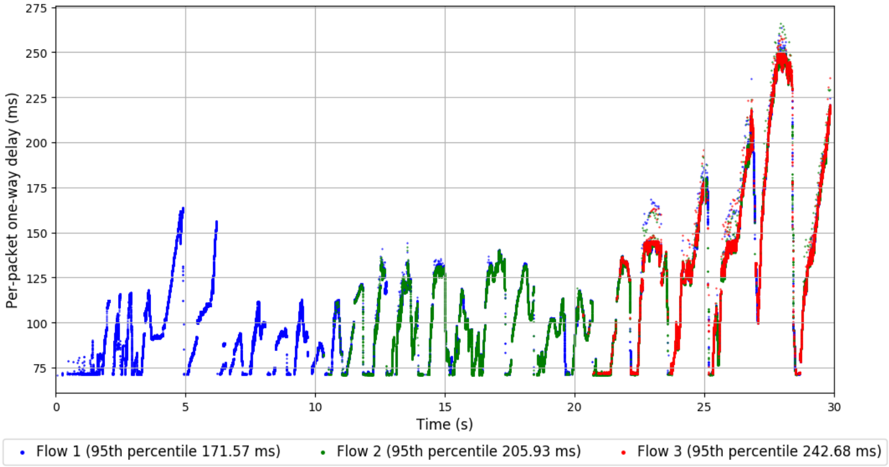
```
Run 7: Statistics of TCP BBR

Start at: 2017-09-23 10:28:22
End at: 2017-09-23 10:28:52
Local clock offset: -1.905 ms
Remote clock offset: -31.657 ms

# Below is generated by plot.py at 2017-09-23 14:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.36 Mbit/s
95th percentile per-packet one-way delay: 197.272 ms
Loss rate: 4.17%
-- Flow 1:
Average throughput: 40.75 Mbit/s
95th percentile per-packet one-way delay: 171.575 ms
Loss rate: 3.49%
-- Flow 2:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 205.930 ms
Loss rate: 4.43%
-- Flow 3:
Average throughput: 21.99 Mbit/s
95th percentile per-packet one-way delay: 242.682 ms
Loss rate: 7.23%
```

Run 7: Report of TCP BBR — Data Link



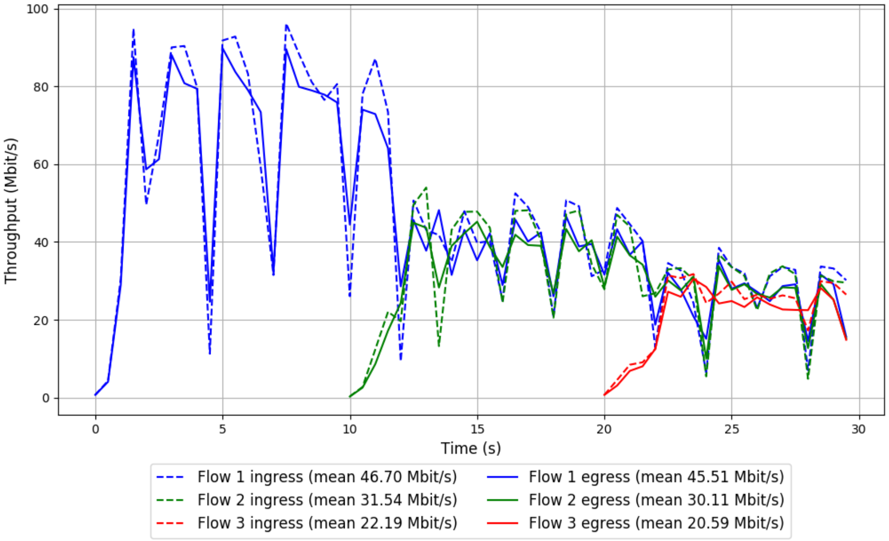


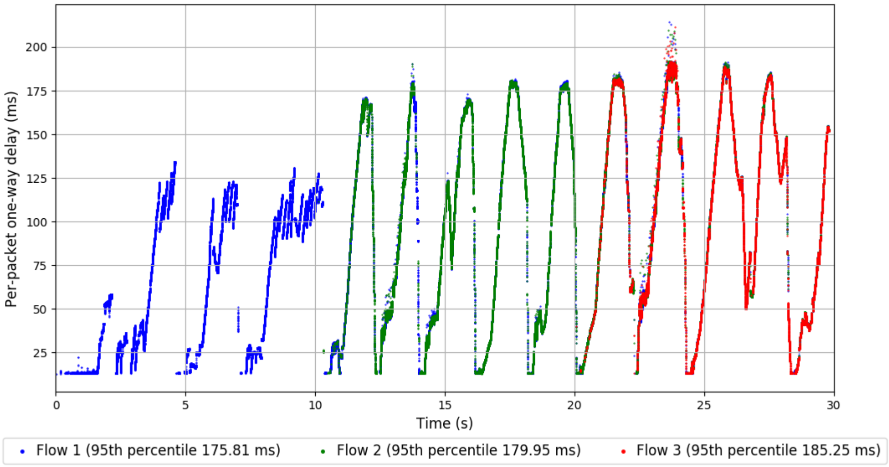
```
Run 8: Statistics of TCP BBR

Start at: 2017-09-23 10:47:46
End at: 2017-09-23 10:48:16
Local clock offset: -2.026 ms
Remote clock offset: 26.198 ms

# Below is generated by plot.py at 2017-09-23 14:55:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.12 Mbit/s
95th percentile per-packet one-way delay: 178.708 ms
Loss rate: 4.55%
-- Flow 1:
Average throughput: 45.51 Mbit/s
95th percentile per-packet one-way delay: 175.813 ms
Loss rate: 3.18%
-- Flow 2:
Average throughput: 30.11 Mbit/s
95th percentile per-packet one-way delay: 179.952 ms
Loss rate: 5.93%
-- Flow 3:
Average throughput: 20.59 Mbit/s
95th percentile per-packet one-way delay: 185.255 ms
Loss rate: 9.26%
```

Run 8: Report of TCP BBR — Data Link



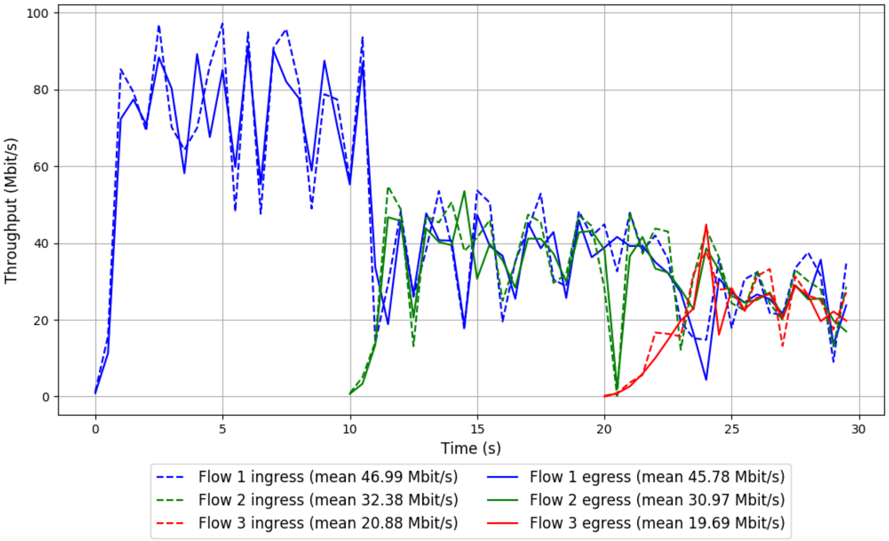


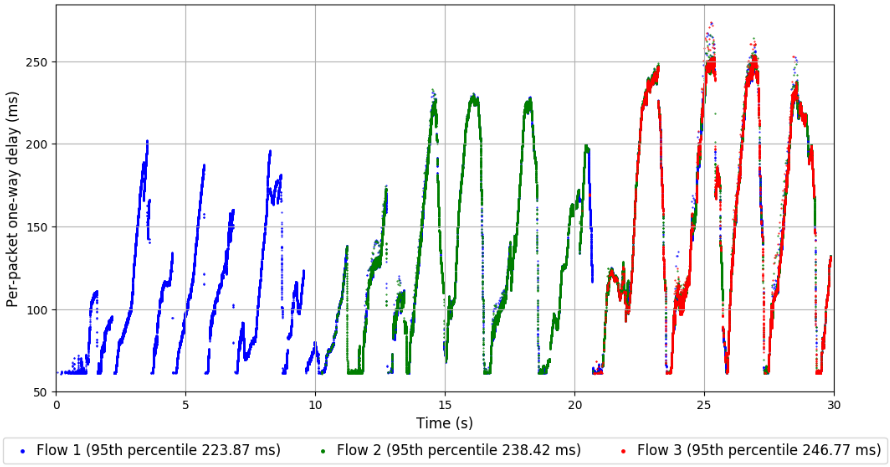
```
Run 9: Statistics of TCP BBR

Start at: 2017-09-23 11:07:19
End at: 2017-09-23 11:07:49
Local clock offset: -1.934 ms
Remote clock offset: -21.713 ms

# Below is generated by plot.py at 2017-09-23 14:56:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.66 Mbit/s
95th percentile per-packet one-way delay: 232.220 ms
Loss rate: 4.15%
-- Flow 1:
Average throughput: 45.78 Mbit/s
95th percentile per-packet one-way delay: 223.865 ms
Loss rate: 3.08%
-- Flow 2:
Average throughput: 30.97 Mbit/s
95th percentile per-packet one-way delay: 238.421 ms
Loss rate: 5.17%
-- Flow 3:
Average throughput: 19.69 Mbit/s
95th percentile per-packet one-way delay: 246.770 ms
Loss rate: 8.26%
```

Run 9: Report of TCP BBR — Data Link



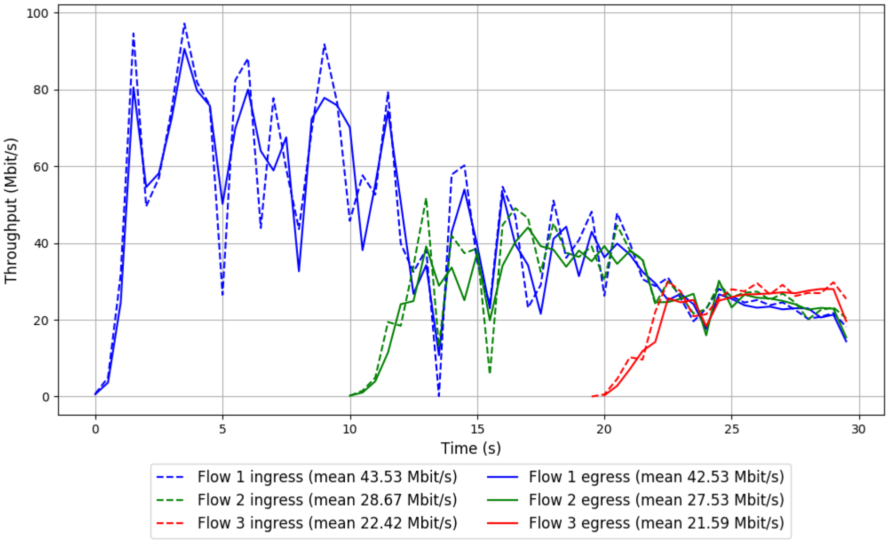


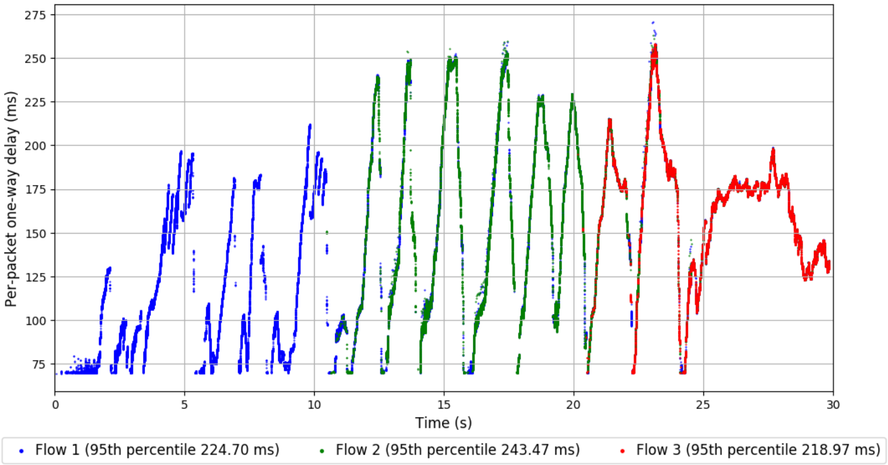
```
Run 10: Statistics of TCP BBR

Start at: 2017-09-23 11:27:11
End at: 2017-09-23 11:27:41
Local clock offset: -2.233 ms
Remote clock offset: -30.829 ms

# Below is generated by plot.py at 2017-09-23 14:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.70 Mbit/s
95th percentile per-packet one-way delay: 230.158 ms
Loss rate: 3.99%
-- Flow 1:
Average throughput: 42.53 Mbit/s
95th percentile per-packet one-way delay: 224.699 ms
Loss rate: 2.89%
-- Flow 2:
Average throughput: 27.53 Mbit/s
95th percentile per-packet one-way delay: 243.471 ms
Loss rate: 5.42%
-- Flow 3:
Average throughput: 21.59 Mbit/s
95th percentile per-packet one-way delay: 218.968 ms
Loss rate: 6.71%
```

Run 10: Report of TCP BBR — Data Link



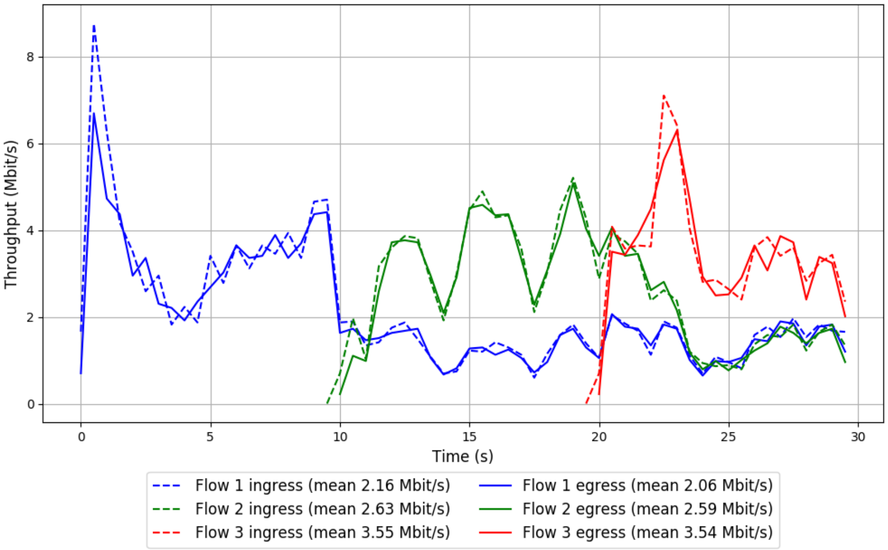


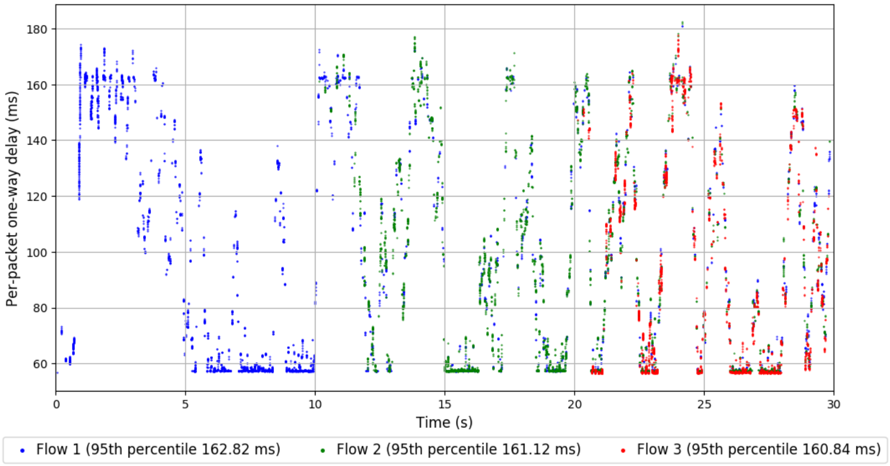
```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-23 08:18:57
End at: 2017-09-23 08:19:27
Local clock offset: -1.417 ms
Remote clock offset: -19.443 ms

# Below is generated by plot.py at 2017-09-23 14:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.92 Mbit/s
95th percentile per-packet one-way delay: 162.405 ms
Loss rate: 3.73%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 162.820 ms
Loss rate: 5.04%
-- Flow 2:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 161.124 ms
Loss rate: 2.84%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 160.841 ms
Loss rate: 2.67%
```

Run 1: Report of TCP Cubic — Data Link



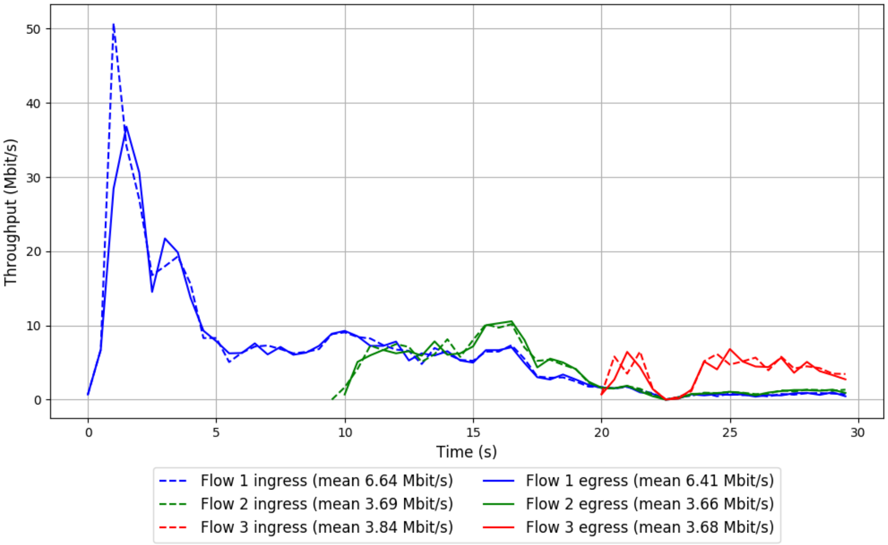


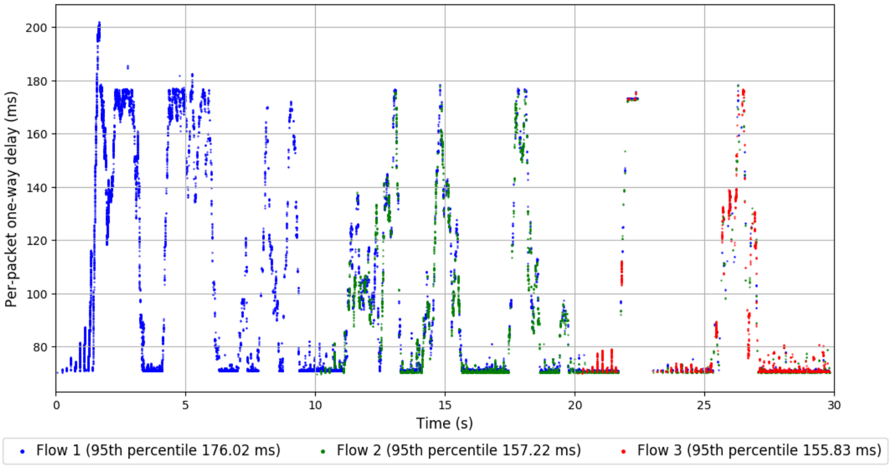
```
Run 2: Statistics of TCP Cubic

Start at: 2017-09-23 08:39:05
End at: 2017-09-23 08:39:35
Local clock offset: -1.671 ms
Remote clock offset: -32.593 ms

# Below is generated by plot.py at 2017-09-23 14:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.04 Mbit/s
95th percentile per-packet one-way delay: 175.043 ms
Loss rate: 3.66%
-- Flow 1:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 176.016 ms
Loss rate: 3.95%
-- Flow 2:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 157.223 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 155.826 ms
Loss rate: 5.97%
```

Run 2: Report of TCP Cubic — Data Link



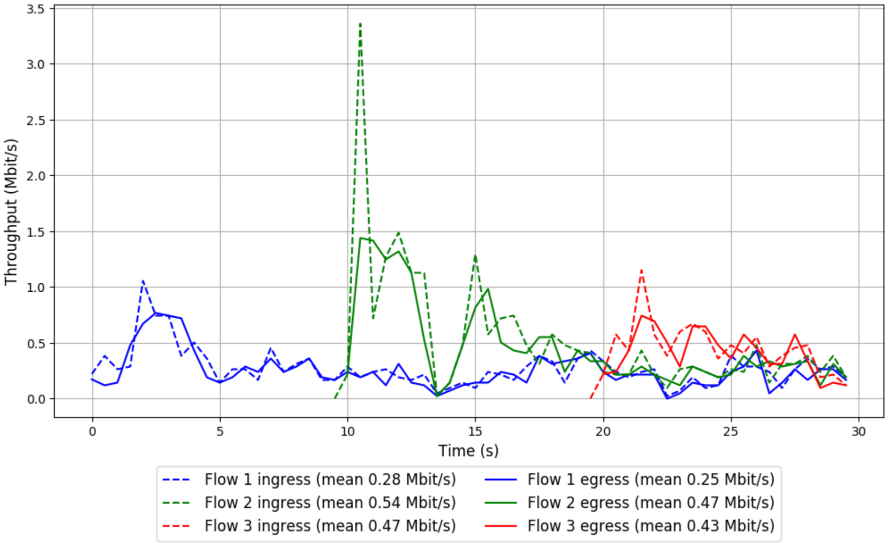


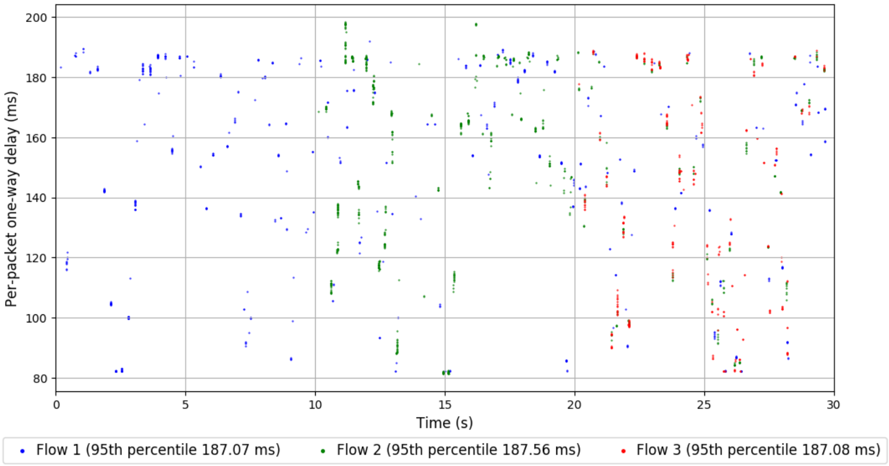
```
Run 3: Statistics of TCP Cubic

Start at: 2017-09-23 09:00:12
End at: 2017-09-23 09:00:42
Local clock offset: -1.712 ms
Remote clock offset: -42.569 ms

# Below is generated by plot.py at 2017-09-23 14:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 187.257 ms
Loss rate: 11.76%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 187.068 ms
Loss rate: 9.05%
-- Flow 2:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 187.564 ms
Loss rate: 14.39%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 187.080 ms
Loss rate: 10.49%
```

Run 3: Report of TCP Cubic — Data Link

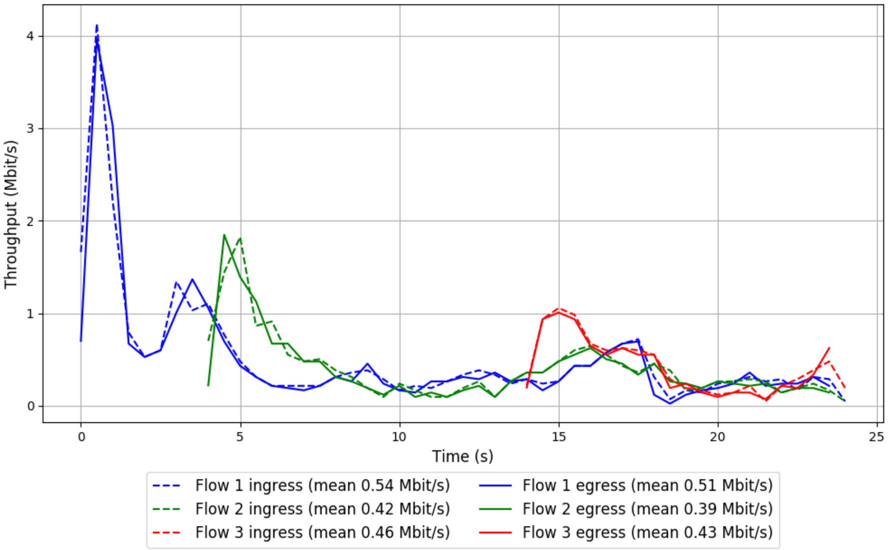


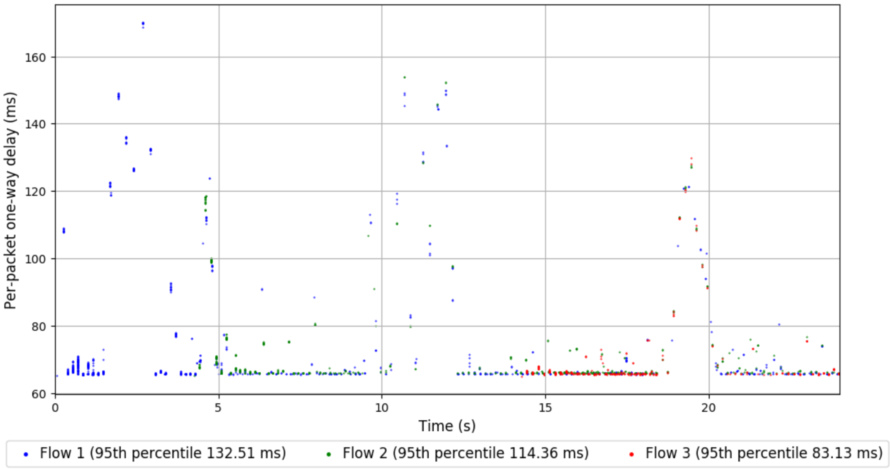


```
Run 4: Statistics of TCP Cubic

Start at: 2017-09-23 09:23:35
End at: 2017-09-23 09:24:05
Local clock offset: -1.62 ms
Remote clock offset: -25.176 ms
```

Run 4: Report of TCP Cubic — Data Link



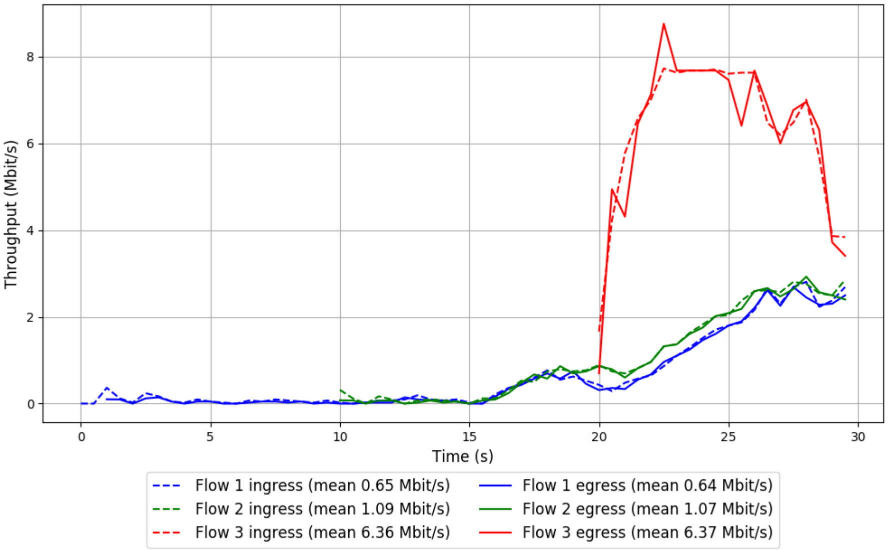


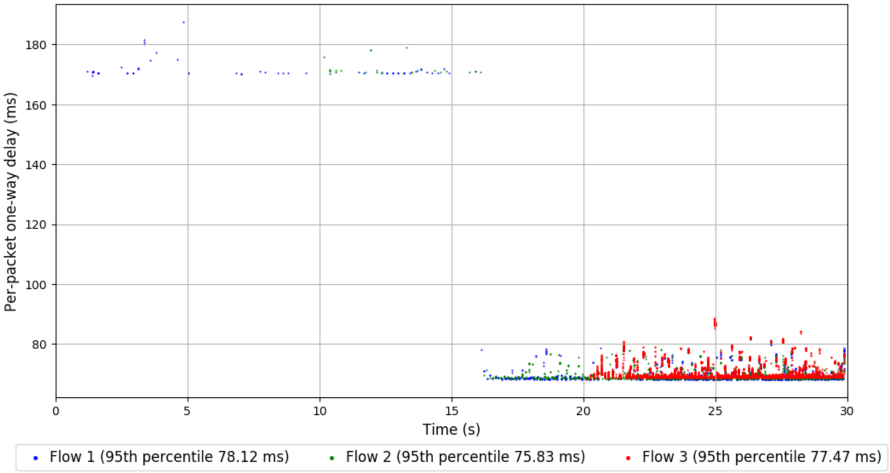
```
Run 5: Statistics of TCP Cubic

Start at: 2017-09-23 09:45:43
End at: 2017-09-23 09:46:13
Local clock offset: 19.094 ms
Remote clock offset: -7.815 ms

# Below is generated by plot.py at 2017-09-23 14:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 77.366 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 78.124 ms
Loss rate: 5.24%
-- Flow 2:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 75.825 ms
Loss rate: 3.48%
-- Flow 3:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 77.468 ms
Loss rate: 1.18%
```

Run 5: Report of TCP Cubic — Data Link



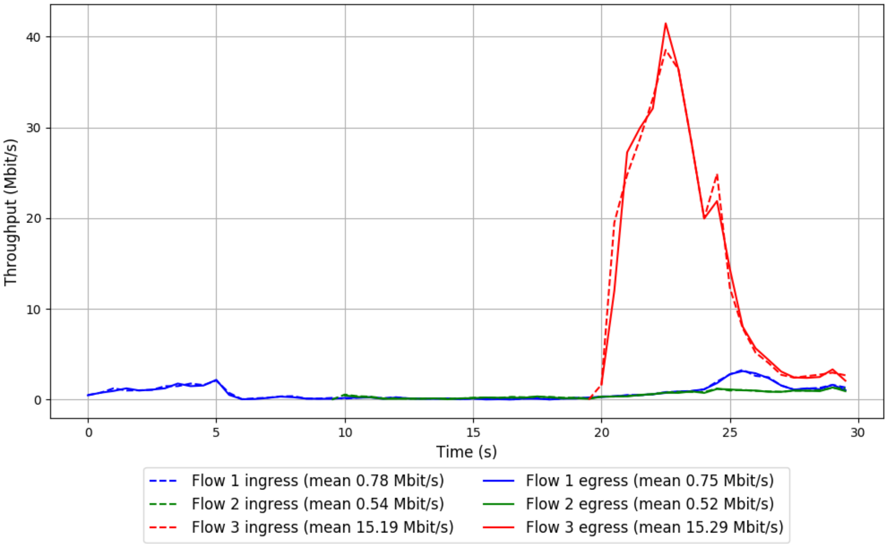


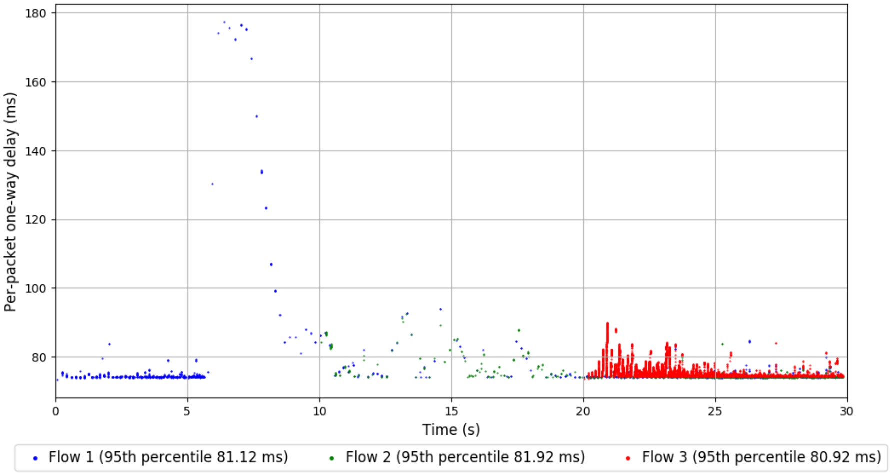
```
Run 6: Statistics of TCP Cubic

Start at: 2017-09-23 10:07:41
End at: 2017-09-23 10:08:11
Local clock offset: 16.542 ms
Remote clock offset: -16.375 ms

# Below is generated by plot.py at 2017-09-23 14:56:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 80.963 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 81.116 ms
Loss rate: 4.07%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 81.919 ms
Loss rate: 5.43%
-- Flow 3:
Average throughput: 15.29 Mbit/s
95th percentile per-packet one-way delay: 80.923 ms
Loss rate: 0.76%
```

Run 6: Report of TCP Cubic — Data Link



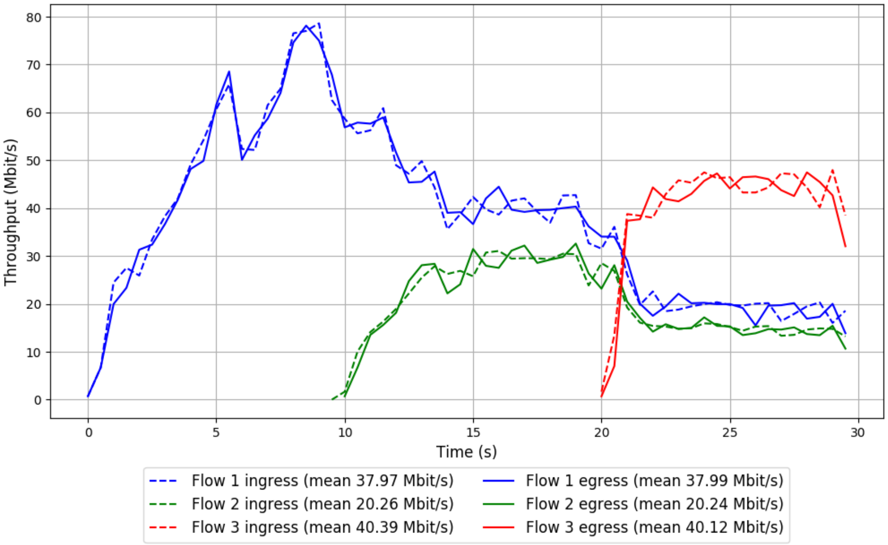


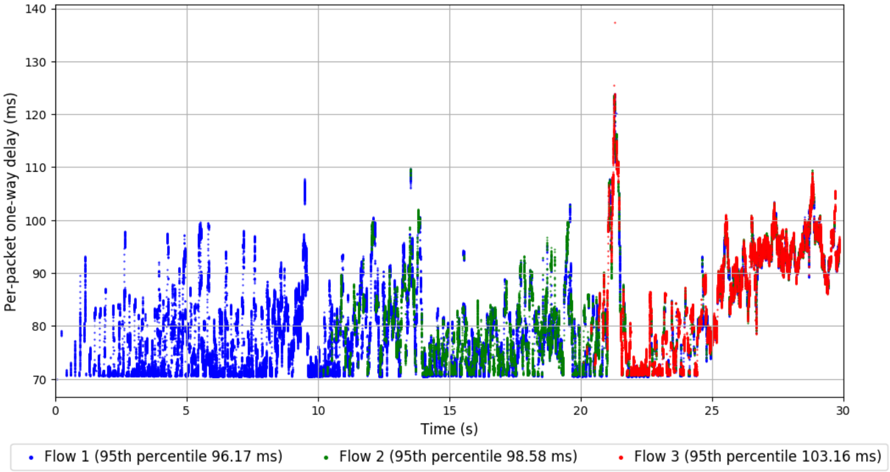
```
Run 7: Statistics of TCP Cubic

Start at: 2017-09-23 10:26:55
End at: 2017-09-23 10:27:25
Local clock offset: -1.851 ms
Remote clock offset: -30.778 ms

# Below is generated by plot.py at 2017-09-23 14:56:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.54 Mbit/s
95th percentile per-packet one-way delay: 98.293 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 96.175 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 20.24 Mbit/s
95th percentile per-packet one-way delay: 98.582 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 40.12 Mbit/s
95th percentile per-packet one-way delay: 103.156 ms
Loss rate: 2.14%
```

Run 7: Report of TCP Cubic — Data Link



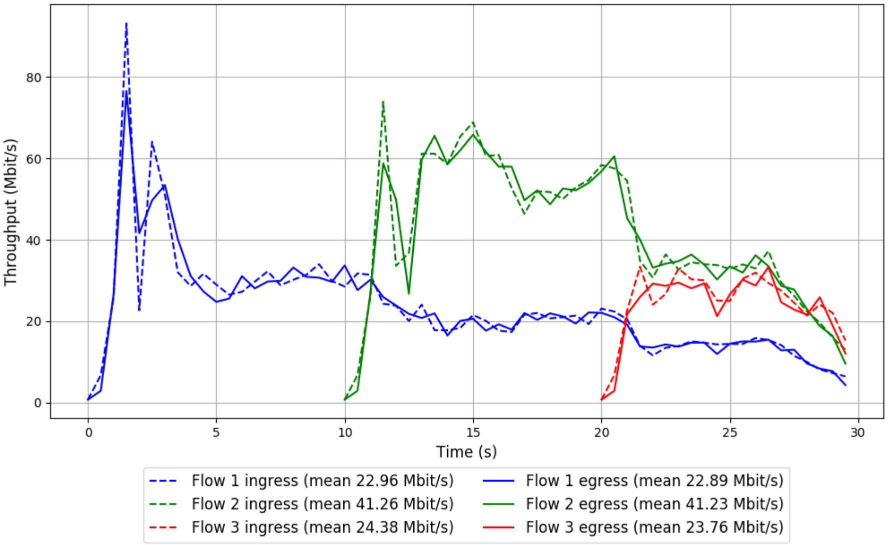


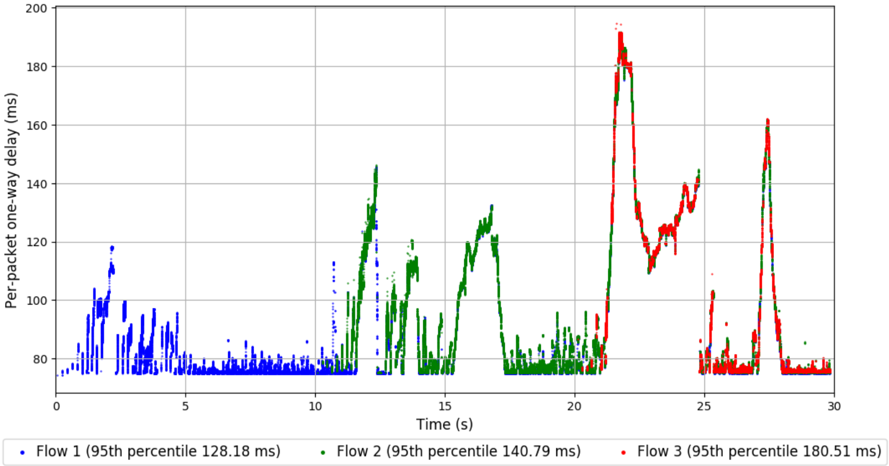
```
Run 8: Statistics of TCP Cubic

Start at: 2017-09-23 10:45:54
End at: 2017-09-23 10:46:24
Local clock offset: -1.909 ms
Remote clock offset: -35.692 ms

# Below is generated by plot.py at 2017-09-23 14:56:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.01 Mbit/s
95th percentile per-packet one-way delay: 140.714 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 22.89 Mbit/s
95th percentile per-packet one-way delay: 128.183 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 140.788 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 180.514 ms
Loss rate: 4.56%
```

Run 8: Report of TCP Cubic — Data Link



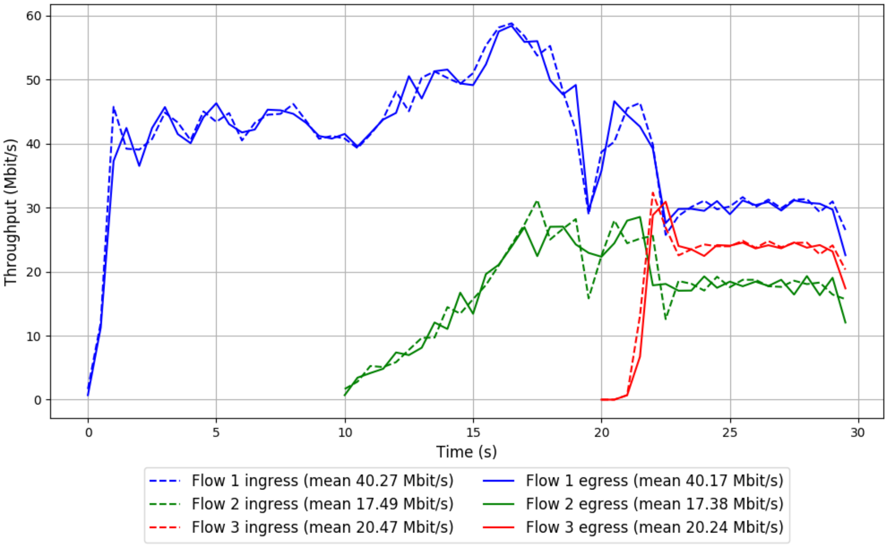


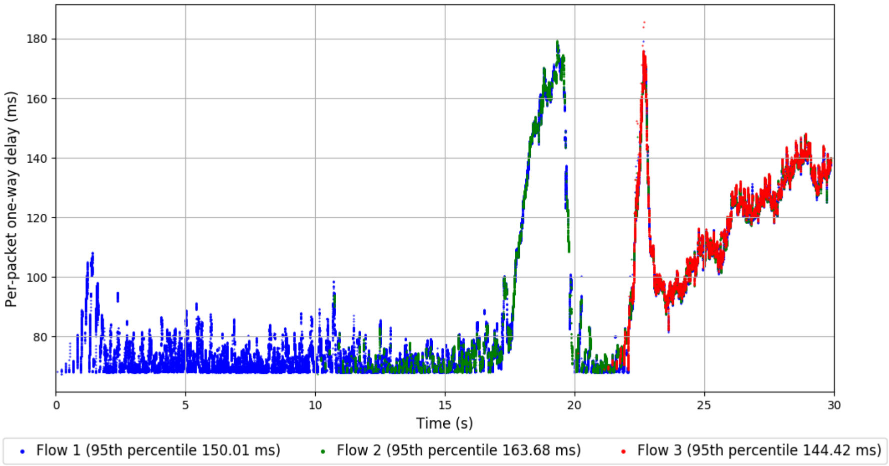
```
Run 9: Statistics of TCP Cubic

Start at: 2017-09-23 11:06:00
End at: 2017-09-23 11:06:30
Local clock offset: -2.064 ms
Remote clock offset: -29.099 ms

# Below is generated by plot.py at 2017-09-23 14:56:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.33 Mbit/s
95th percentile per-packet one-way delay: 155.047 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 150.011 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 17.38 Mbit/s
95th percentile per-packet one-way delay: 163.678 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 20.24 Mbit/s
95th percentile per-packet one-way delay: 144.417 ms
Loss rate: 2.54%
```

Run 9: Report of TCP Cubic — Data Link



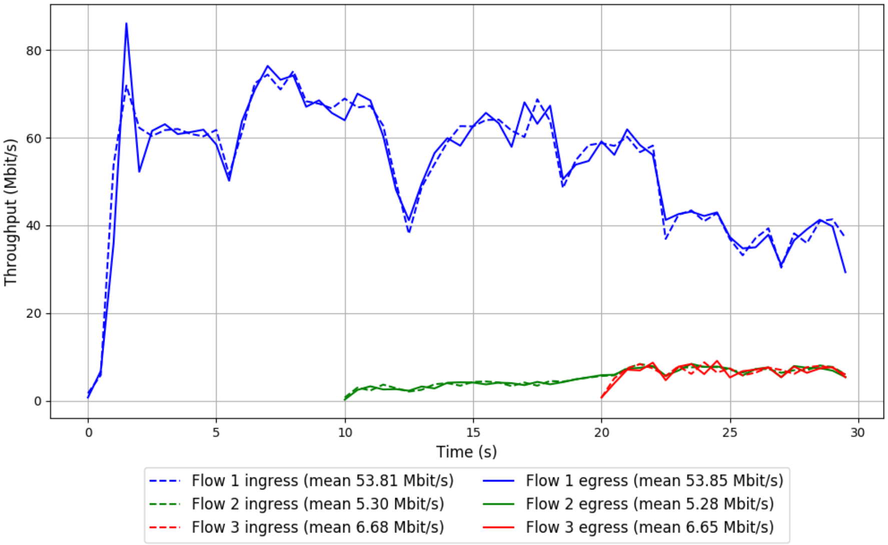


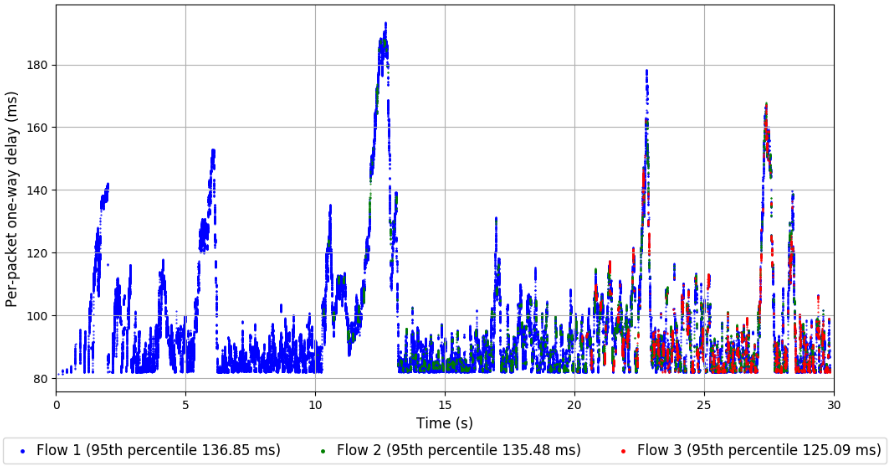
```
Run 10: Statistics of TCP Cubic

Start at: 2017-09-23 11:25:49
End at: 2017-09-23 11:26:19
Local clock offset: -0.972 ms
Remote clock offset: -41.161 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.53 Mbit/s
95th percentile per-packet one-way delay: 136.716 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 136.848 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 135.481 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 125.090 ms
Loss rate: 2.28%
```

Run 10: Report of TCP Cubic — Data Link



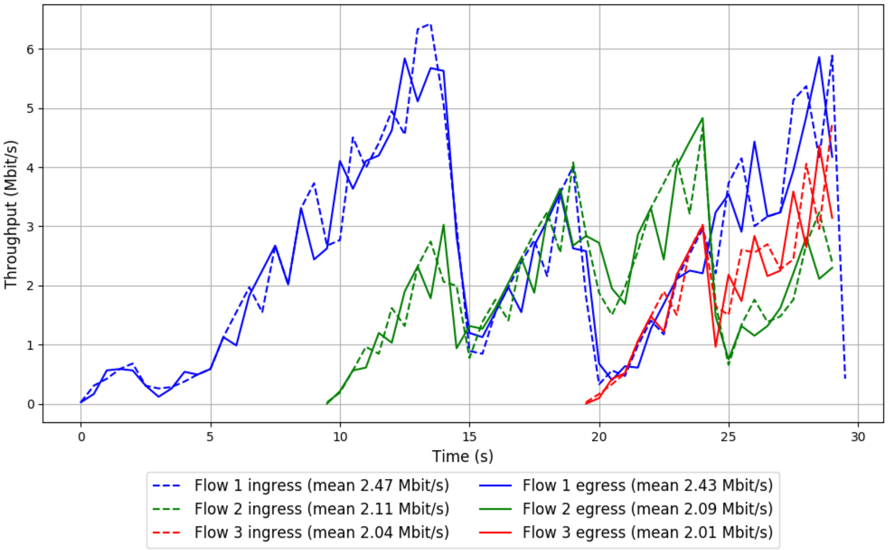


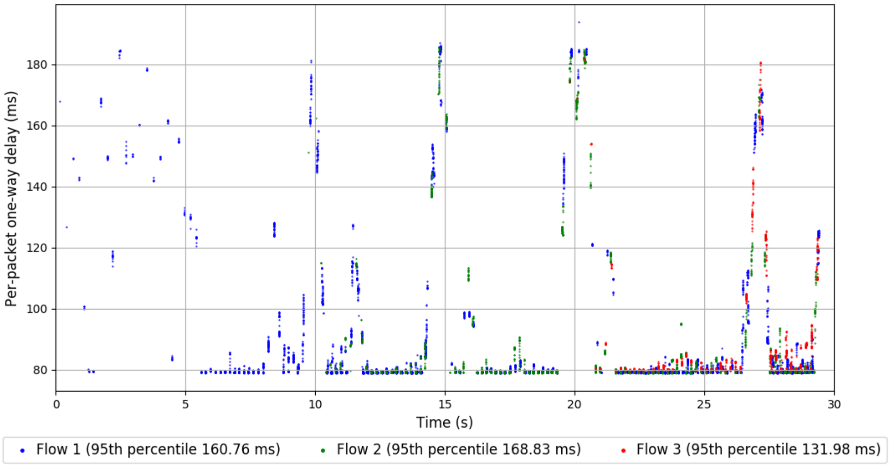
```
Run 1: Statistics of LEDBAT

Start at: 2017-09-23 08:14:57
End at: 2017-09-23 08:15:27
Local clock offset: -1.494 ms
Remote clock offset: -42.085 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 162.007 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 160.760 ms
Loss rate: 2.40%
-- Flow 2:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 168.828 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 131.982 ms
Loss rate: 4.10%
```

Run 1: Report of LEDBAT — Data Link



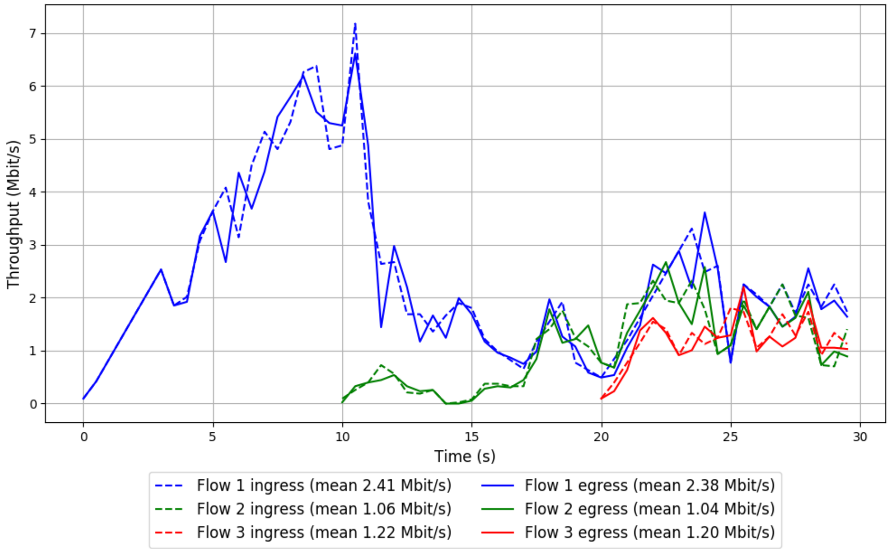


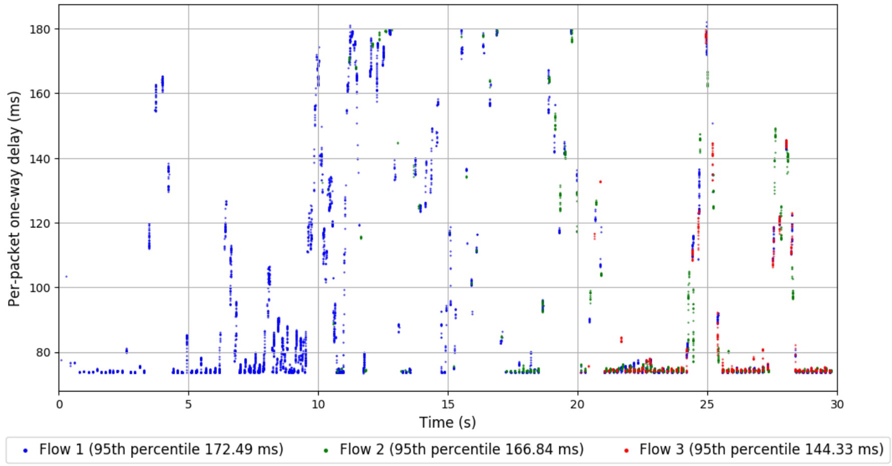
```
Run 2: Statistics of LEDBAT

Start at: 2017-09-23 08:35:08
End at: 2017-09-23 08:35:38
Local clock offset: -1.555 ms
Remote clock offset: -35.65 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 171.177 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 172.488 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 166.838 ms
Loss rate: 3.07%
-- Flow 3:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 144.328 ms
Loss rate: 3.62%
```

Run 2: Report of LEDBAT — Data Link



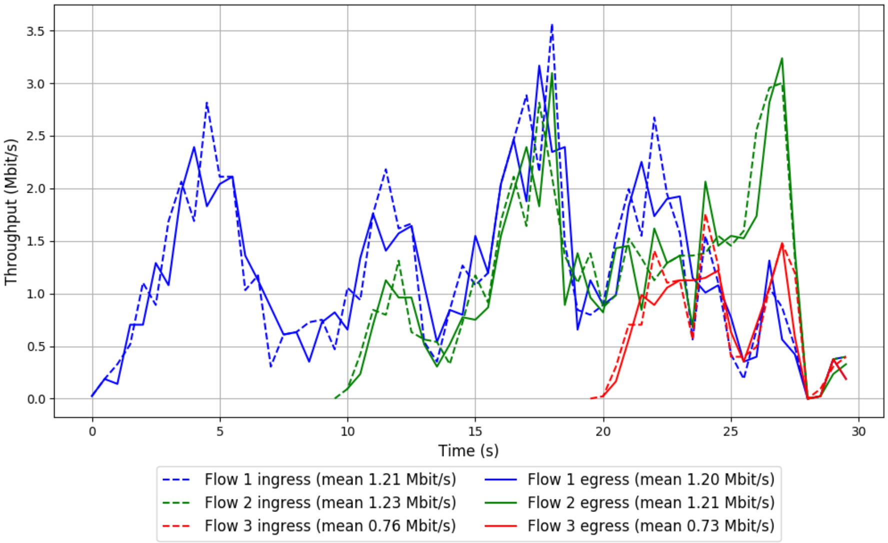


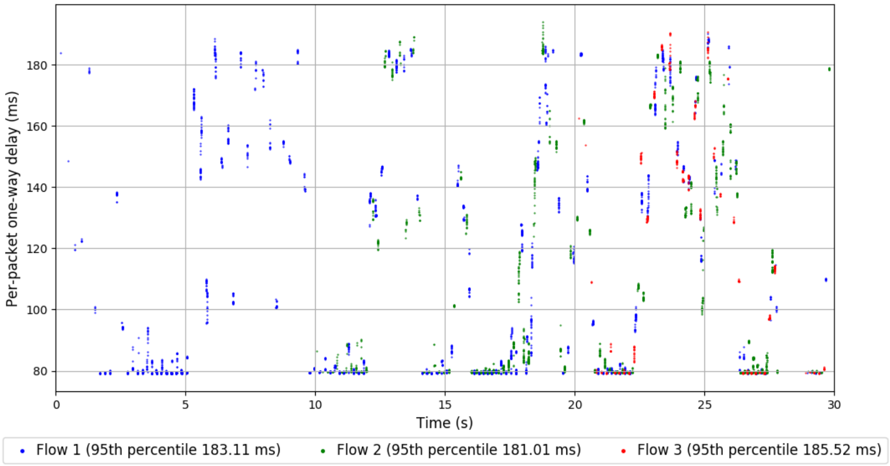
```
Run 3: Statistics of LEDBAT

Start at: 2017-09-23 08:55:45
End at: 2017-09-23 08:56:15
Local clock offset: -1.503 ms
Remote clock offset: -39.915 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 183.015 ms
Loss rate: 2.65%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 183.112 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 181.010 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 185.520 ms
Loss rate: 7.30%
```

Run 3: Report of LEDBAT — Data Link



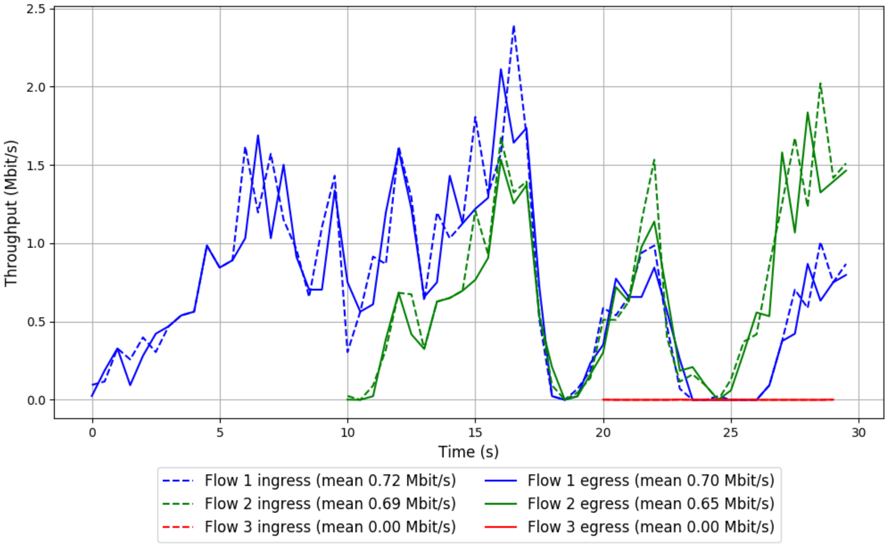


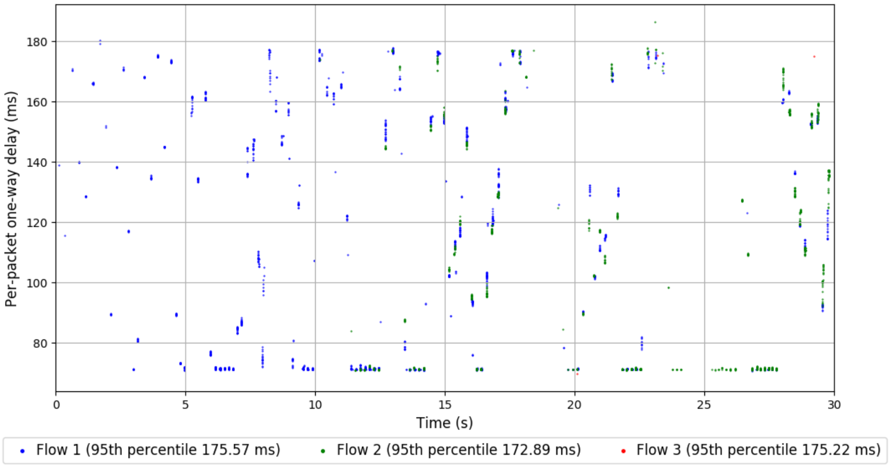
```
Run 4: Statistics of LEDBAT

Start at: 2017-09-23 09:19:16
End at: 2017-09-23 09:19:46
Local clock offset: -1.788 ms
Remote clock offset: -30.738 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 174.992 ms
Loss rate: 5.05%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 175.569 ms
Loss rate: 4.07%
-- Flow 2:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 172.886 ms
Loss rate: 6.61%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 175.219 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link



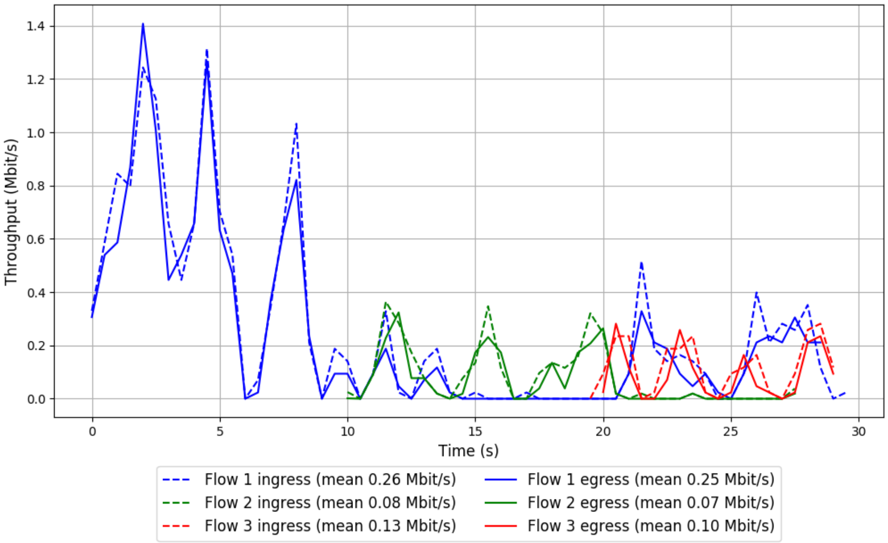


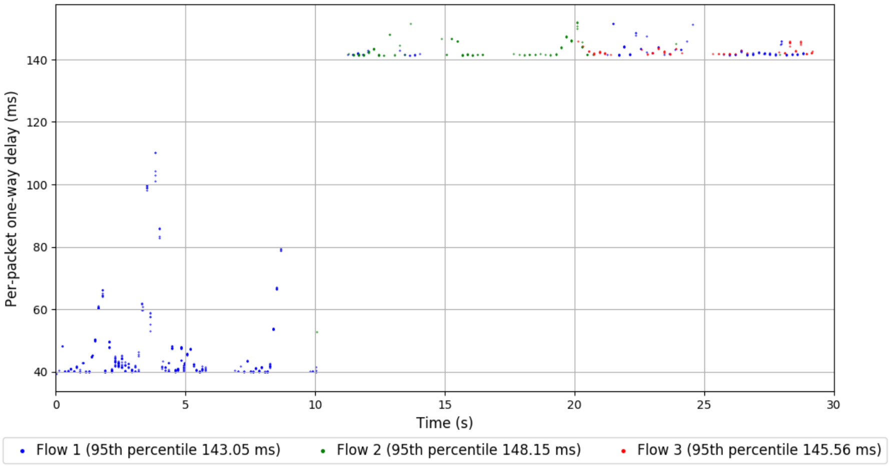
```
Run 5: Statistics of LEDBAT

Start at: 2017-09-23 09:40:53
End at: 2017-09-23 09:41:23
Local clock offset: -0.52 ms
Remote clock offset: 1.341 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 145.741 ms
Loss rate: 13.83%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 143.054 ms
Loss rate: 10.83%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 148.152 ms
Loss rate: 18.88%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 145.562 ms
Loss rate: 27.71%
```

Run 5: Report of LEDBAT — Data Link



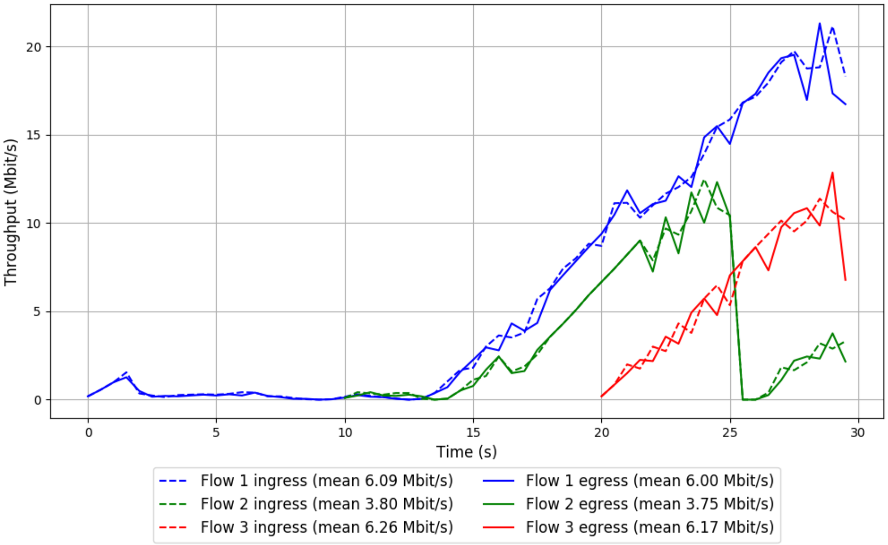


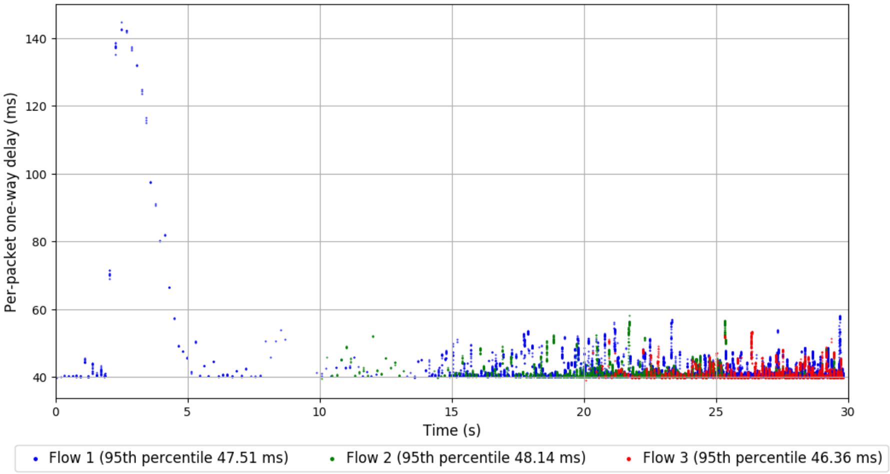
```
Run 6: Statistics of LEDBAT

Start at: 2017-09-23 10:03:41
End at: 2017-09-23 10:04:11
Local clock offset: -1.662 ms
Remote clock offset: -0.41 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.51 Mbit/s
95th percentile per-packet one-way delay: 47.308 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 47.505 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 3.75 Mbit/s
95th percentile per-packet one-way delay: 48.143 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 46.363 ms
Loss rate: 2.74%
```

Run 6: Report of LEDBAT — Data Link



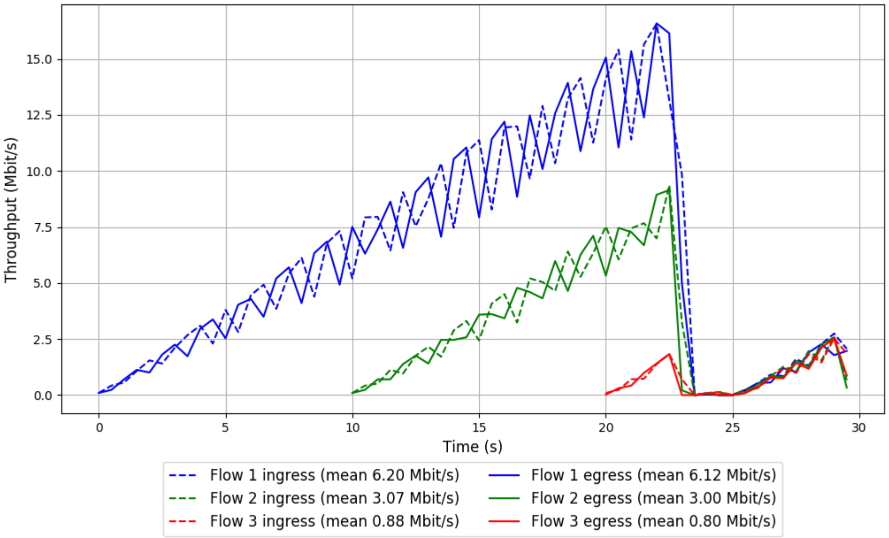


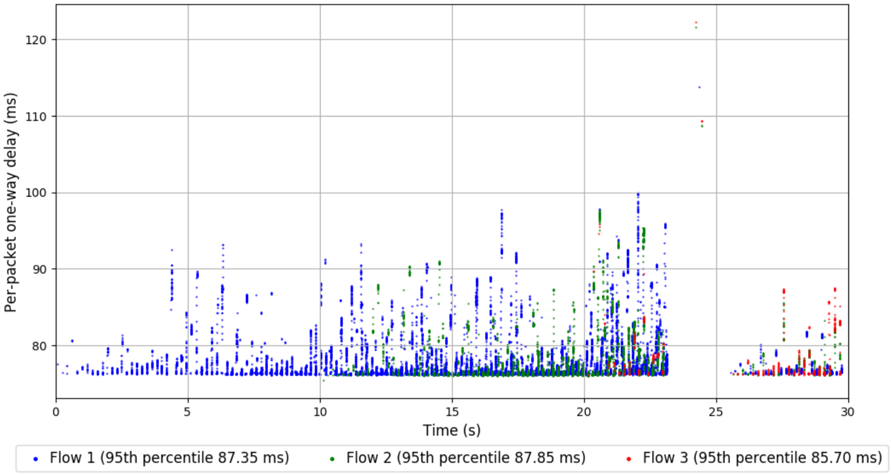
```
Run 7: Statistics of LEDBAT

Start at: 2017-09-23 10:22:53
End at: 2017-09-23 10:23:23
Local clock offset: -1.829 ms
Remote clock offset: -36.519 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.36 Mbit/s
95th percentile per-packet one-way delay: 87.398 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 87.352 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 87.854 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 85.699 ms
Loss rate: 10.76%
```

Run 7: Report of LEDBAT — Data Link



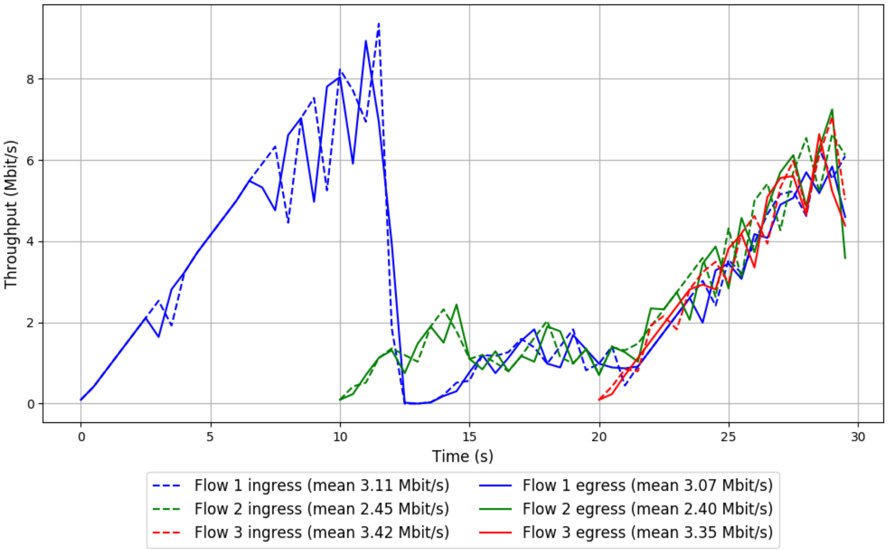


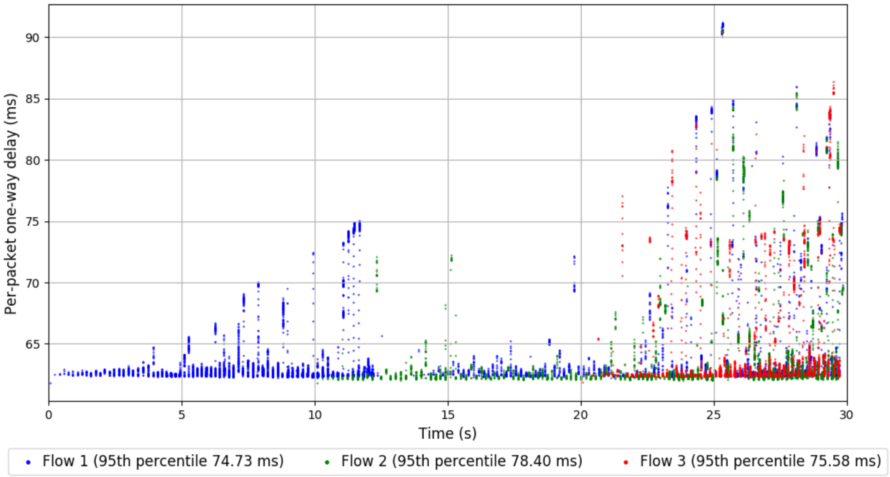
```
Run 8: Statistics of LEDBAT

Start at: 2017-09-23 10:41:54
End at: 2017-09-23 10:42:24
Local clock offset: -1.773 ms
Remote clock offset: -22.661 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.76 Mbit/s
95th percentile per-packet one-way delay: 76.092 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 74.730 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 78.396 ms
Loss rate: 3.05%
-- Flow 3:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 75.584 ms
Loss rate: 3.71%
```

Run 8: Report of LEDBAT — Data Link



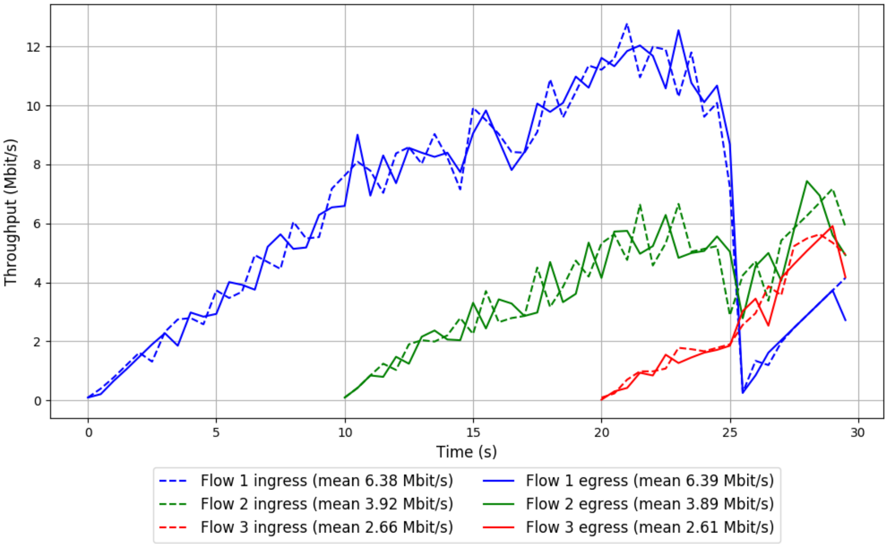


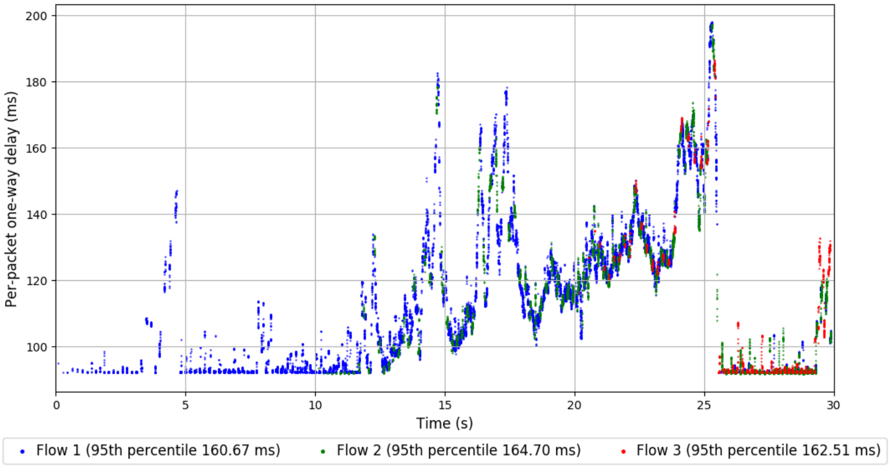
```
Run 9: Statistics of LEDBAT

Start at: 2017-09-23 11:02:05
End at: 2017-09-23 11:02:35
Local clock offset: 15.861 ms
Remote clock offset: -34.724 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 161.772 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 160.671 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 164.701 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 162.511 ms
Loss rate: 4.06%
```

Run 9: Report of LEDBAT — Data Link



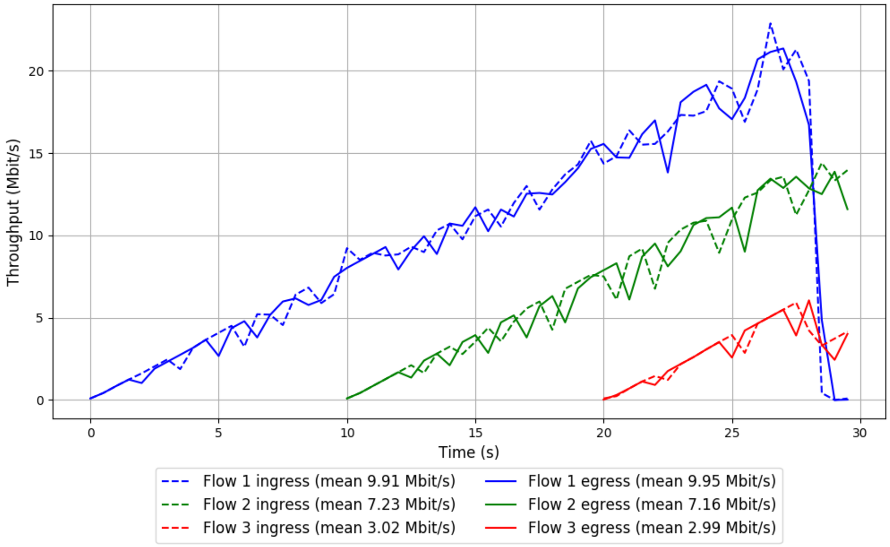


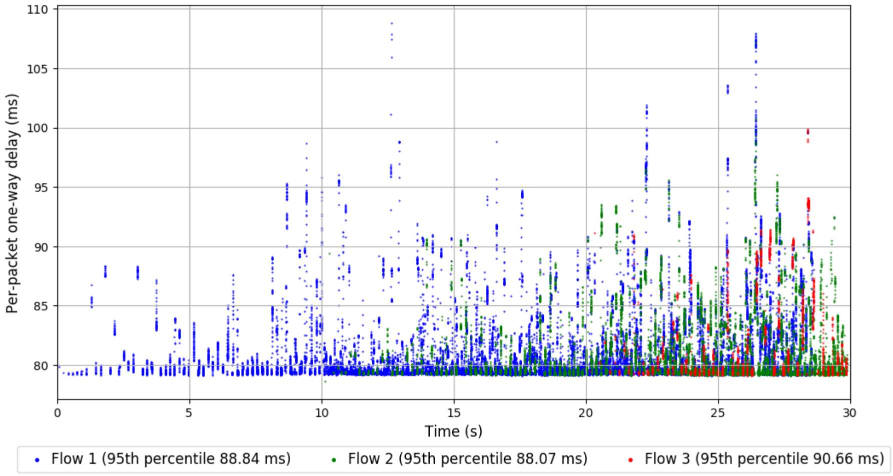
```
Run 10: Statistics of LEDBAT

Start at: 2017-09-23 11:21:44
End at: 2017-09-23 11:22:14
Local clock offset: -2.102 ms
Remote clock offset: -40.065 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.64 Mbit/s
95th percentile per-packet one-way delay: 89.020 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 9.95 Mbit/s
95th percentile per-packet one-way delay: 88.840 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 88.072 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 90.658 ms
Loss rate: 2.60%
```

Run 10: Report of LEDBAT — Data Link



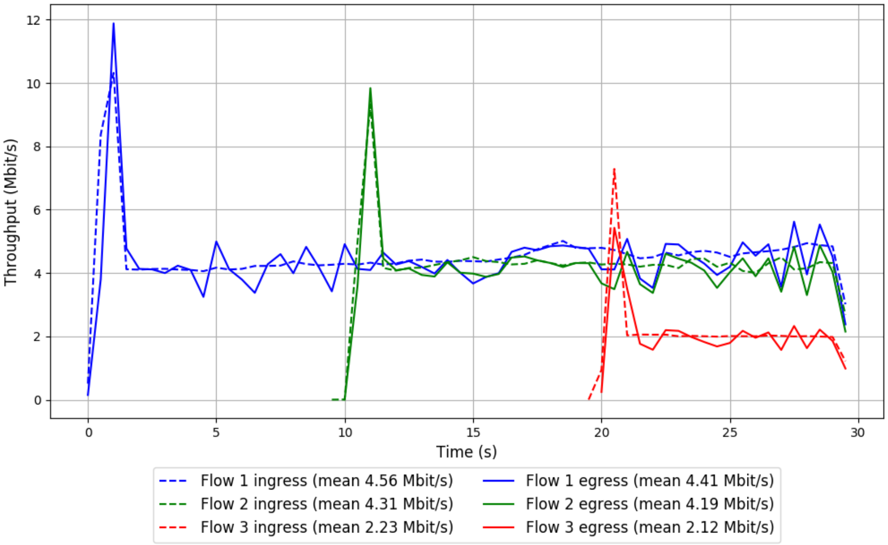


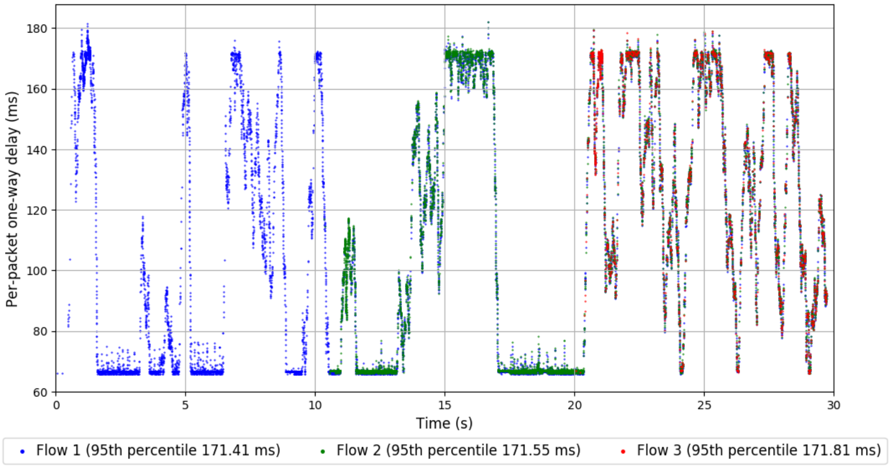
```
Run 1: Statistics of PCC

Start at: 2017-09-23 08:12:11
End at: 2017-09-23 08:12:41
Local clock offset: -1.346 ms
Remote clock offset: -29.684 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 171.500 ms
Loss rate: 4.12%
-- Flow 1:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 171.408 ms
Loss rate: 3.86%
-- Flow 2:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 171.550 ms
Loss rate: 4.02%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 171.812 ms
Loss rate: 6.18%
```

Run 1: Report of PCC — Data Link



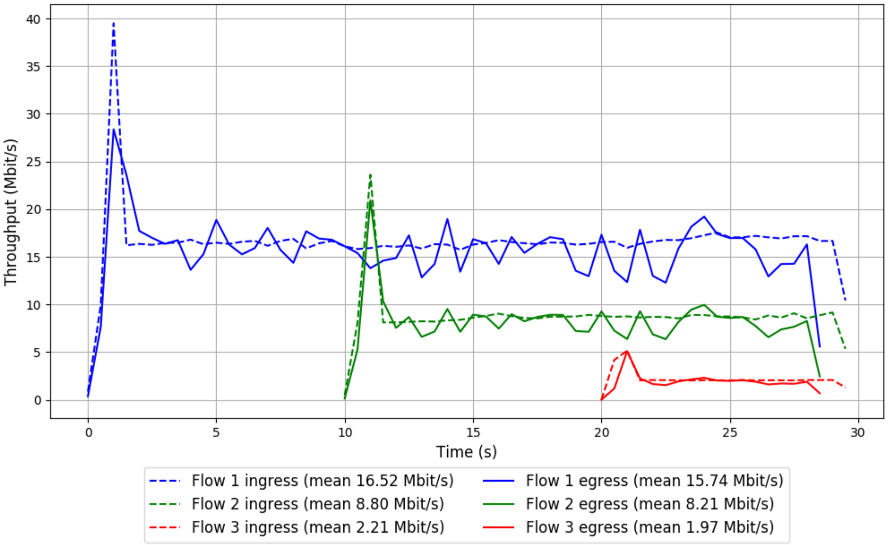


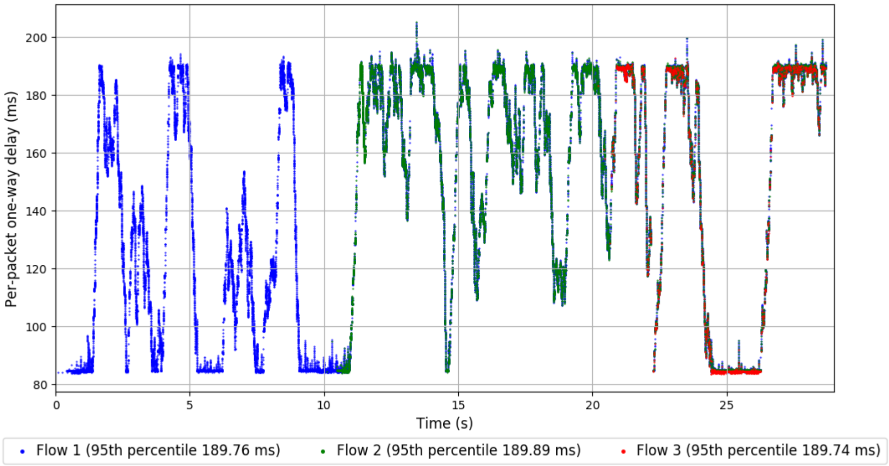
```
Run 2: Statistics of PCC

Start at: 2017-09-23 08:31:59
End at: 2017-09-23 08:32:29
Local clock offset: 12.961 ms
Remote clock offset: -32.243 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.66 Mbit/s
95th percentile per-packet one-way delay: 189.793 ms
Loss rate: 9.98%
-- Flow 1:
Average throughput: 15.74 Mbit/s
95th percentile per-packet one-way delay: 189.756 ms
Loss rate: 8.57%
-- Flow 2:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 189.892 ms
Loss rate: 12.40%
-- Flow 3:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 189.742 ms
Loss rate: 22.72%
```

Run 2: Report of PCC — Data Link



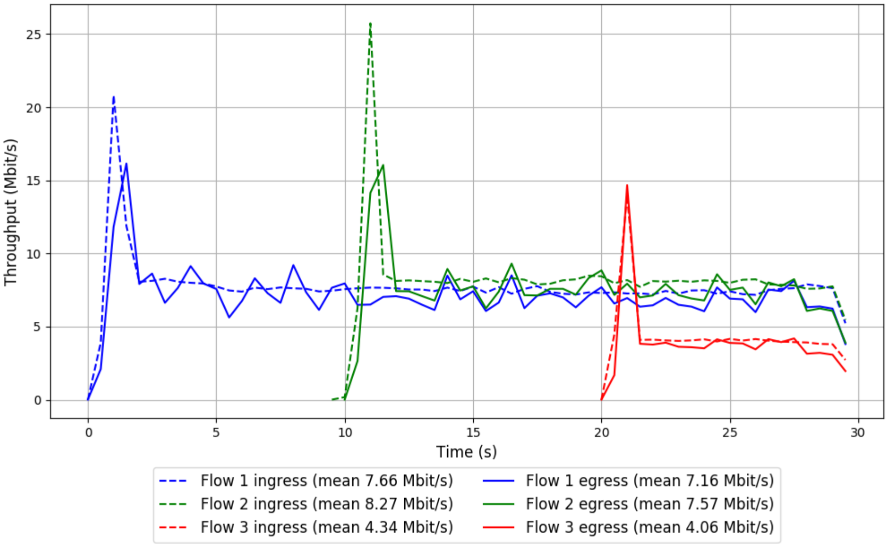


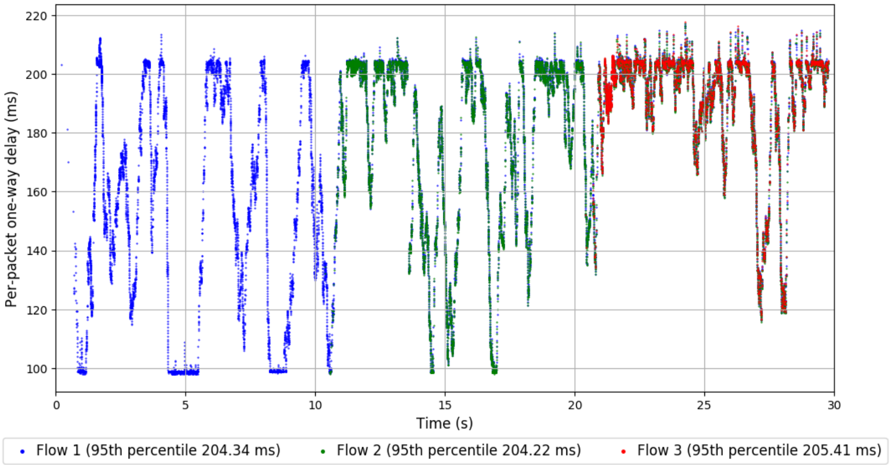
```
Run 3: Statistics of PCC

Start at: 2017-09-23 08:52:32
End at: 2017-09-23 08:53:02
Local clock offset: 16.747 ms
Remote clock offset: -41.719 ms

# Below is generated by plot.py at 2017-09-23 14:56:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.49 Mbit/s
95th percentile per-packet one-way delay: 204.370 ms
Loss rate: 8.39%
-- Flow 1:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 204.337 ms
Loss rate: 7.41%
-- Flow 2:
Average throughput: 7.57 Mbit/s
95th percentile per-packet one-way delay: 204.215 ms
Loss rate: 9.55%
-- Flow 3:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 205.414 ms
Loss rate: 9.25%
```

Run 3: Report of PCC — Data Link



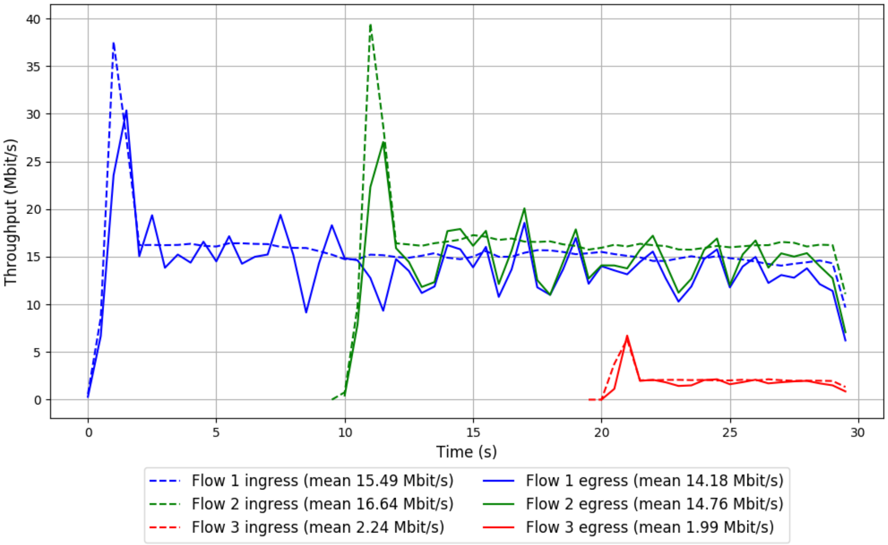


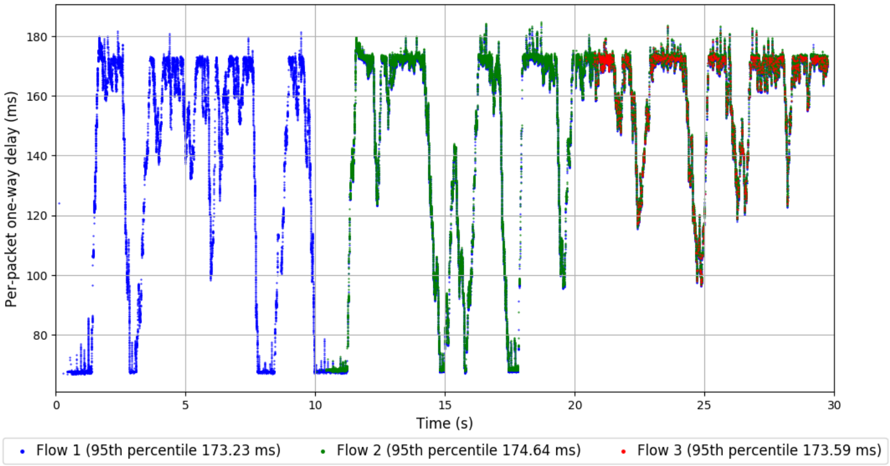
```
Run 4: Statistics of PCC

Start at: 2017-09-23 09:15:40
End at: 2017-09-23 09:16:10
Local clock offset: -1.518 ms
Remote clock offset: -27.72 ms

# Below is generated by plot.py at 2017-09-23 14:57:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 173.868 ms
Loss rate: 10.47%
-- Flow 1:
Average throughput: 14.18 Mbit/s
95th percentile per-packet one-way delay: 173.227 ms
Loss rate: 9.16%
-- Flow 2:
Average throughput: 14.76 Mbit/s
95th percentile per-packet one-way delay: 174.638 ms
Loss rate: 12.09%
-- Flow 3:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 173.588 ms
Loss rate: 13.78%
```

Run 4: Report of PCC — Data Link

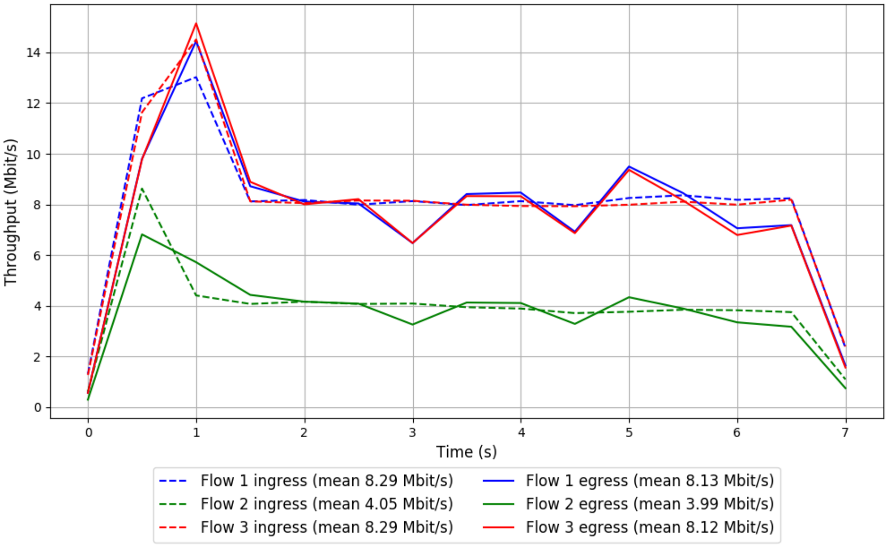


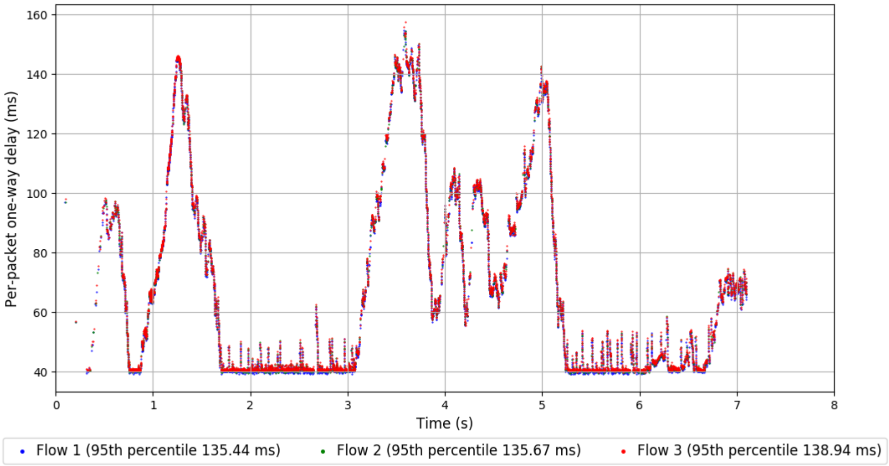


```
Run 5: Statistics of PCC

Start at: 2017-09-23 09:37:12
End at: 2017-09-23 09:37:42
Local clock offset: -0.384 ms
Remote clock offset: 1.229 ms
```

Run 5: Report of PCC — Data Link



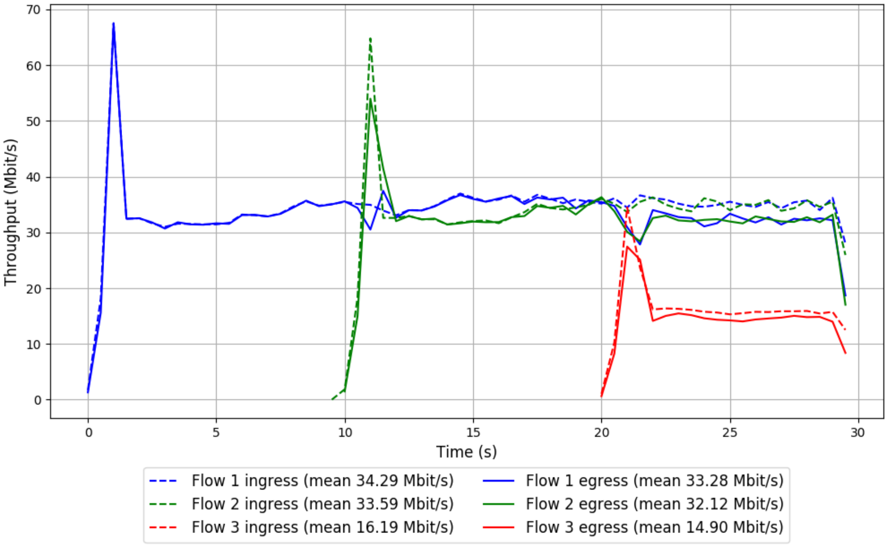


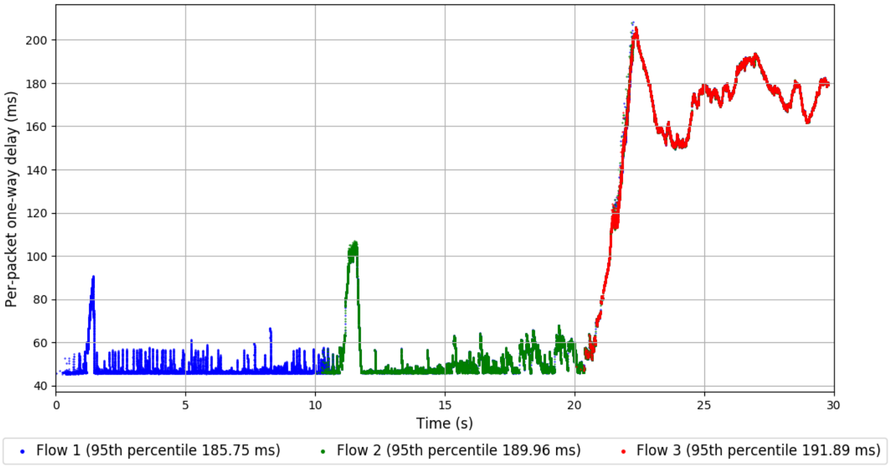
```
Run 6: Statistics of PCC

Start at: 2017-09-23 10:00:41
End at: 2017-09-23 10:01:11
Local clock offset: -1.542 ms
Remote clock offset: -5.802 ms

# Below is generated by plot.py at 2017-09-23 14:57:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.47 Mbit/s
95th percentile per-packet one-way delay: 188.926 ms
Loss rate: 4.59%
-- Flow 1:
Average throughput: 33.28 Mbit/s
95th percentile per-packet one-way delay: 185.747 ms
Loss rate: 3.46%
-- Flow 2:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 189.961 ms
Loss rate: 5.14%
-- Flow 3:
Average throughput: 14.90 Mbit/s
95th percentile per-packet one-way delay: 191.886 ms
Loss rate: 9.48%
```

Run 6: Report of PCC — Data Link



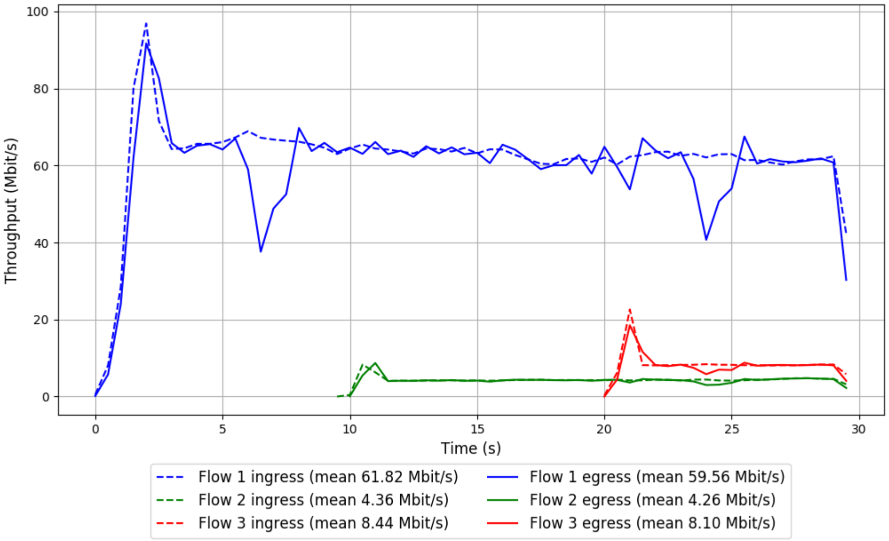


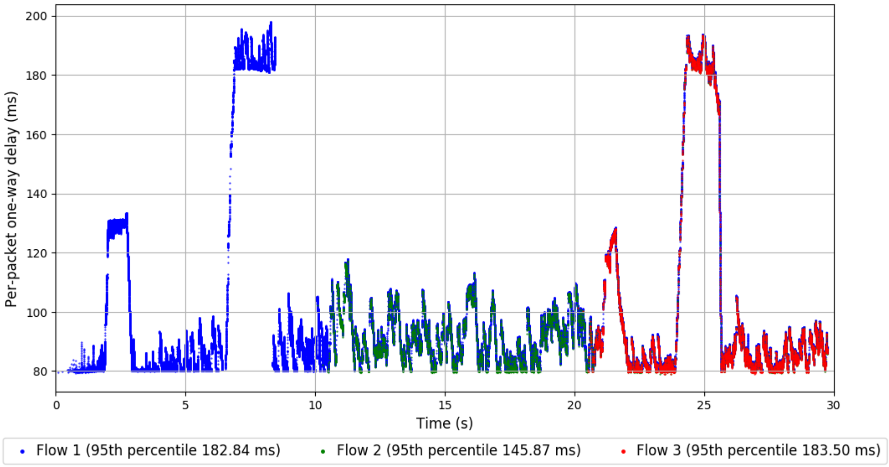
```
Run 7: Statistics of PCC

Start at: 2017-09-23 10:19:47
End at: 2017-09-23 10:20:17
Local clock offset: -1.845 ms
Remote clock offset: -40.246 ms

# Below is generated by plot.py at 2017-09-23 14:57:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.01 Mbit/s
95th percentile per-packet one-way delay: 182.751 ms
Loss rate: 4.30%
-- Flow 1:
Average throughput: 59.56 Mbit/s
95th percentile per-packet one-way delay: 182.838 ms
Loss rate: 4.27%
-- Flow 2:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 145.870 ms
Loss rate: 3.32%
-- Flow 3:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 183.499 ms
Loss rate: 6.04%
```

Run 7: Report of PCC — Data Link



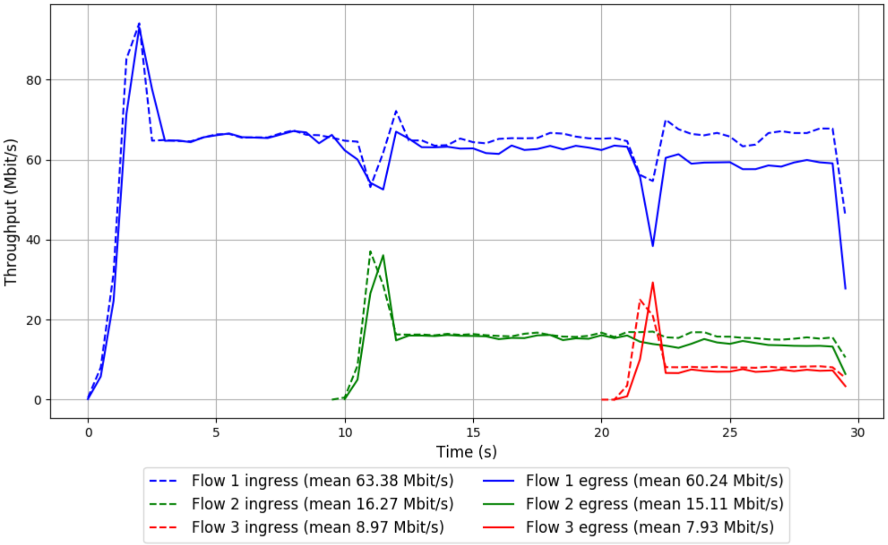


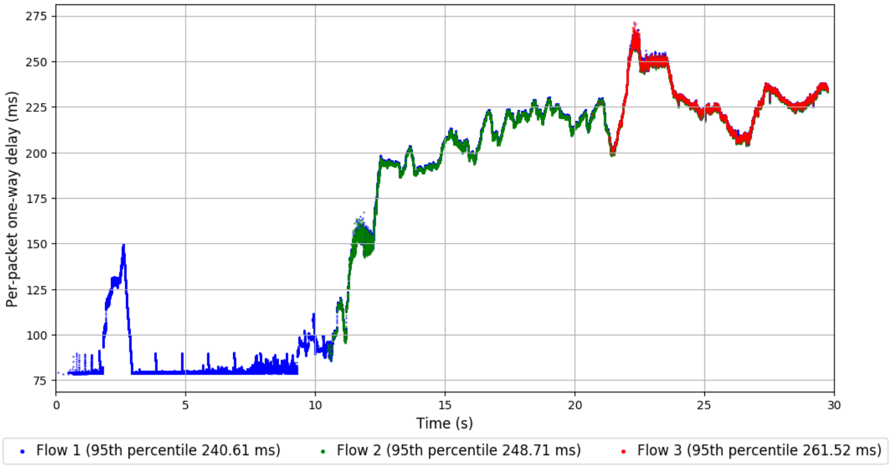
```
Run 8: Statistics of PCC

Start at: 2017-09-23 10:39:13
End at: 2017-09-23 10:39:43
Local clock offset: -1.899 ms
Remote clock offset: -39.165 ms

# Below is generated by plot.py at 2017-09-23 14:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.68 Mbit/s
95th percentile per-packet one-way delay: 248.158 ms
Loss rate: 6.23%
-- Flow 1:
Average throughput: 60.24 Mbit/s
95th percentile per-packet one-way delay: 240.610 ms
Loss rate: 5.54%
-- Flow 2:
Average throughput: 15.11 Mbit/s
95th percentile per-packet one-way delay: 248.706 ms
Loss rate: 8.04%
-- Flow 3:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 261.522 ms
Loss rate: 14.67%
```

Run 8: Report of PCC — Data Link



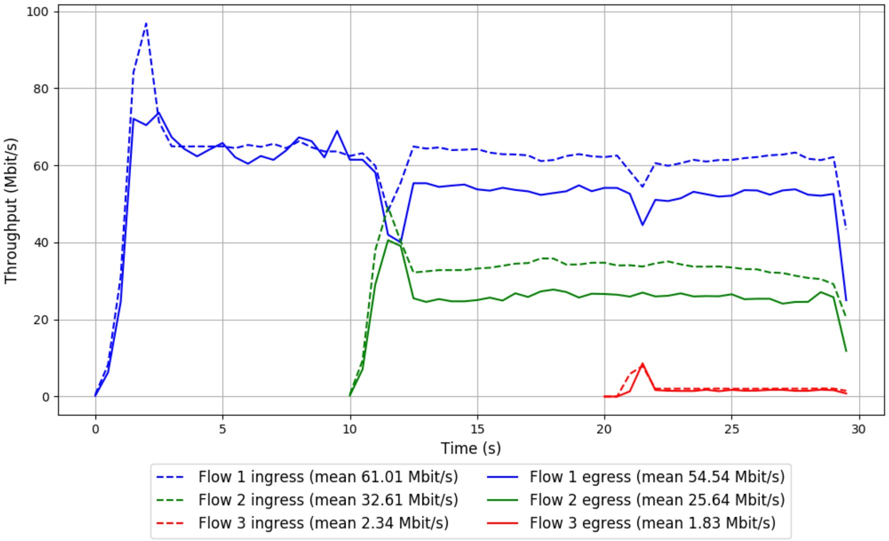


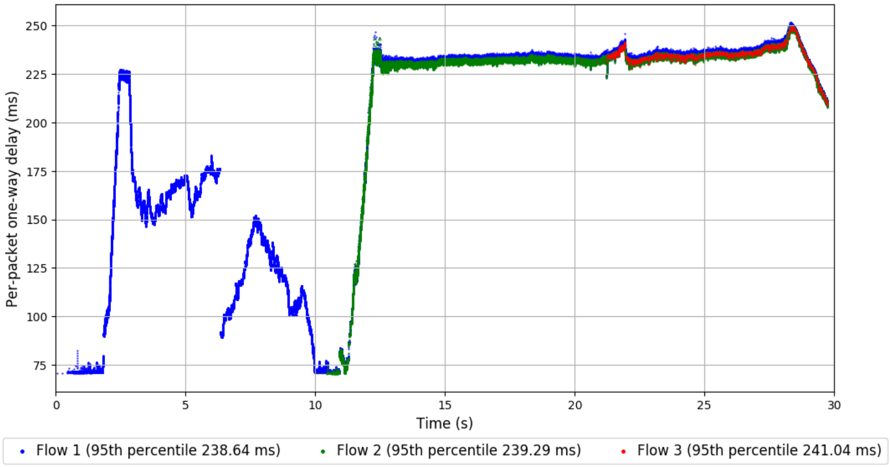
```
Run 9: Statistics of PCC

Start at: 2017-09-23 10:59:02
End at: 2017-09-23 10:59:32
Local clock offset: -1.87 ms
Remote clock offset: -31.55 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.10 Mbit/s
95th percentile per-packet one-way delay: 238.962 ms
Loss rate: 14.12%
-- Flow 1:
Average throughput: 54.54 Mbit/s
95th percentile per-packet one-way delay: 238.643 ms
Loss rate: 11.15%
-- Flow 2:
Average throughput: 25.64 Mbit/s
95th percentile per-packet one-way delay: 239.288 ms
Loss rate: 22.11%
-- Flow 3:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 241.040 ms
Loss rate: 24.60%
```

Run 9: Report of PCC — Data Link



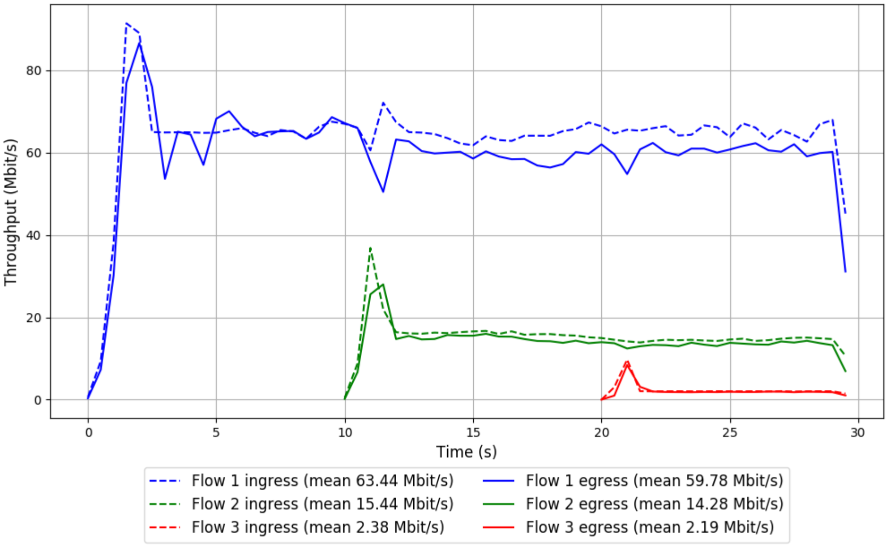


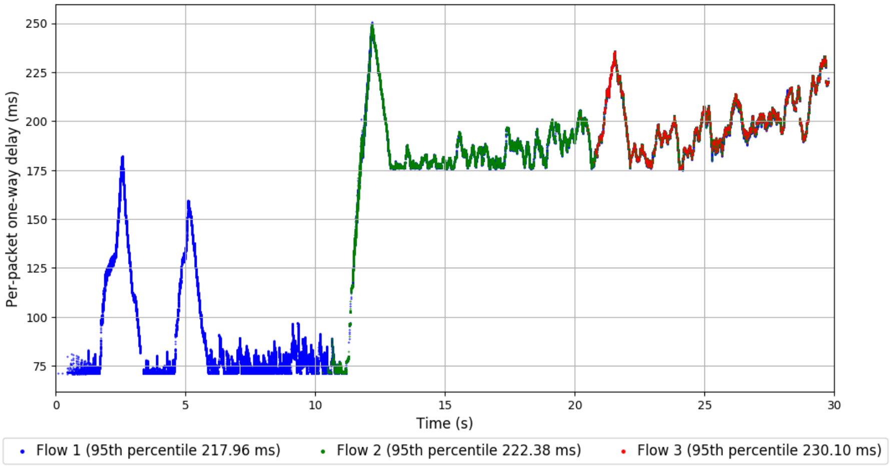
```
Run 10: Statistics of PCC

Start at: 2017-09-23 11:18:52
End at: 2017-09-23 11:19:22
Local clock offset: -1.971 ms
Remote clock offset: -31.971 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.94 Mbit/s
95th percentile per-packet one-way delay: 219.315 ms
Loss rate: 6.65%
-- Flow 1:
Average throughput: 59.78 Mbit/s
95th percentile per-packet one-way delay: 217.956 ms
Loss rate: 6.33%
-- Flow 2:
Average throughput: 14.28 Mbit/s
95th percentile per-packet one-way delay: 222.383 ms
Loss rate: 8.32%
-- Flow 3:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 230.104 ms
Loss rate: 10.88%
```

Run 10: Report of PCC — Data Link



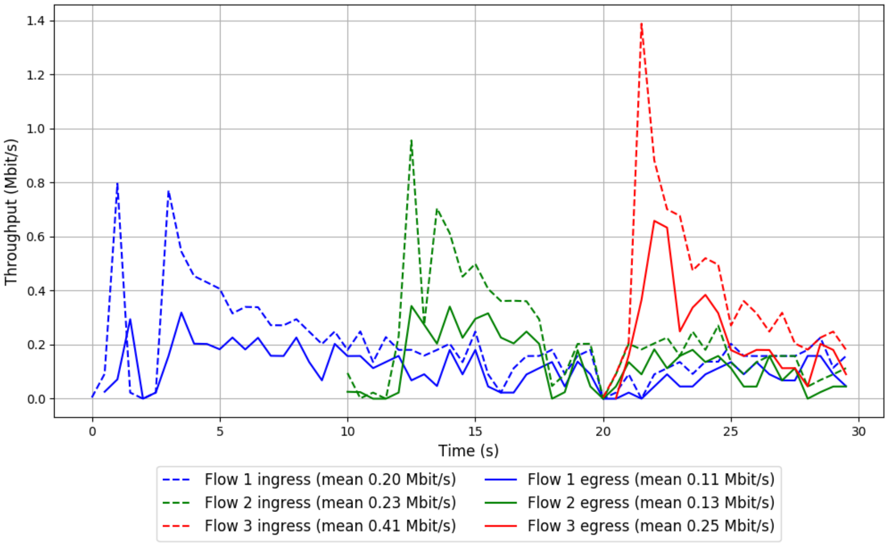


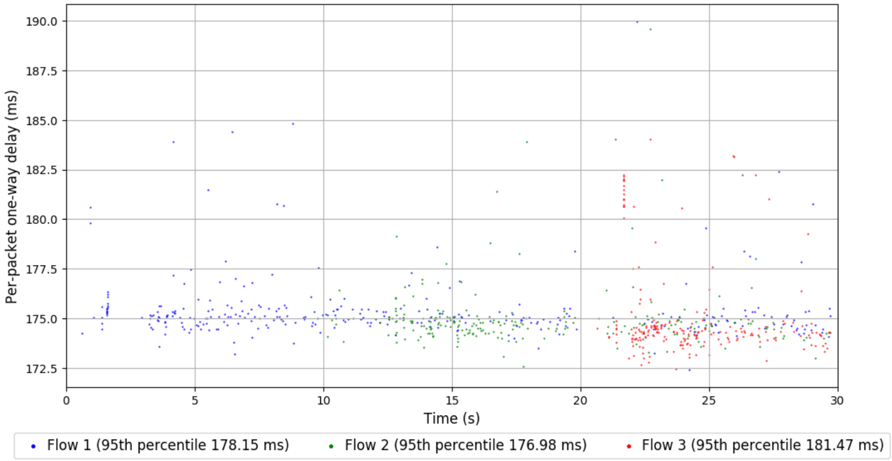
```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-23 08:01:44
End at: 2017-09-23 08:02:14
Local clock offset: -1.318 ms
Remote clock offset: -32.473 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 179.798 ms
Loss rate: 43.78%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 178.151 ms
Loss rate: 43.75%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 176.982 ms
Loss rate: 44.38%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 181.475 ms
Loss rate: 43.13%
```

Run 1: Report of QUIC Cubic — Data Link



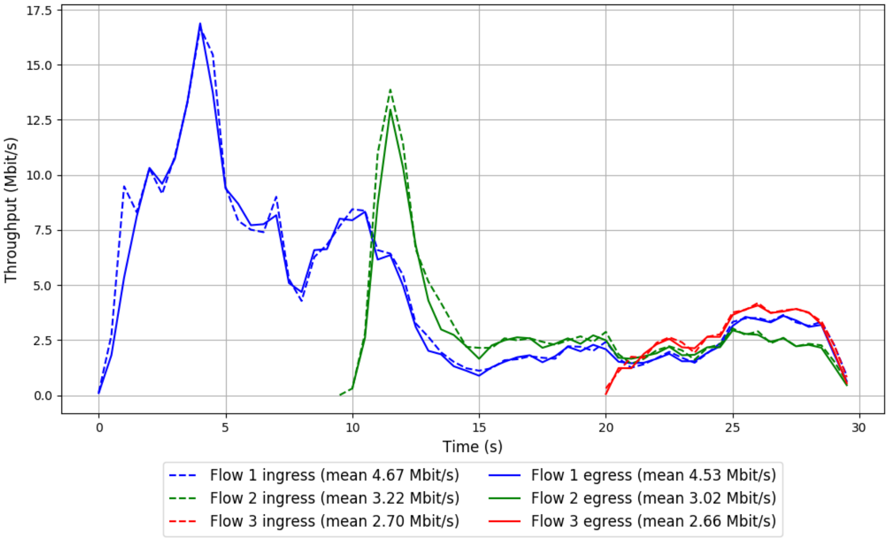


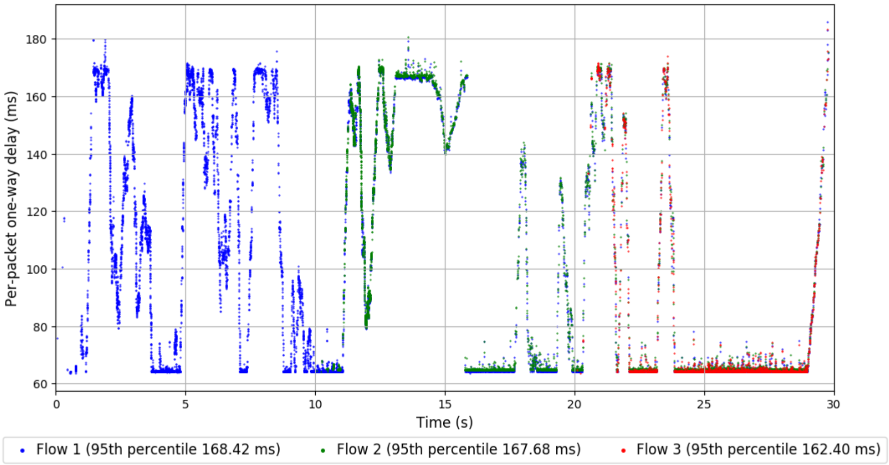
```
Run 2: Statistics of QUIC Cubic

Start at: 2017-09-23 08:27:44
End at: 2017-09-23 08:28:14
Local clock offset: -1.47 ms
Remote clock offset: -26.776 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.40 Mbit/s
95th percentile per-packet one-way delay: 168.117 ms
Loss rate: 4.32%
-- Flow 1:
Average throughput: 4.53 Mbit/s
95th percentile per-packet one-way delay: 168.423 ms
Loss rate: 3.49%
-- Flow 2:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 167.678 ms
Loss rate: 6.64%
-- Flow 3:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 162.395 ms
Loss rate: 3.11%
```

Run 2: Report of QUIC Cubic — Data Link



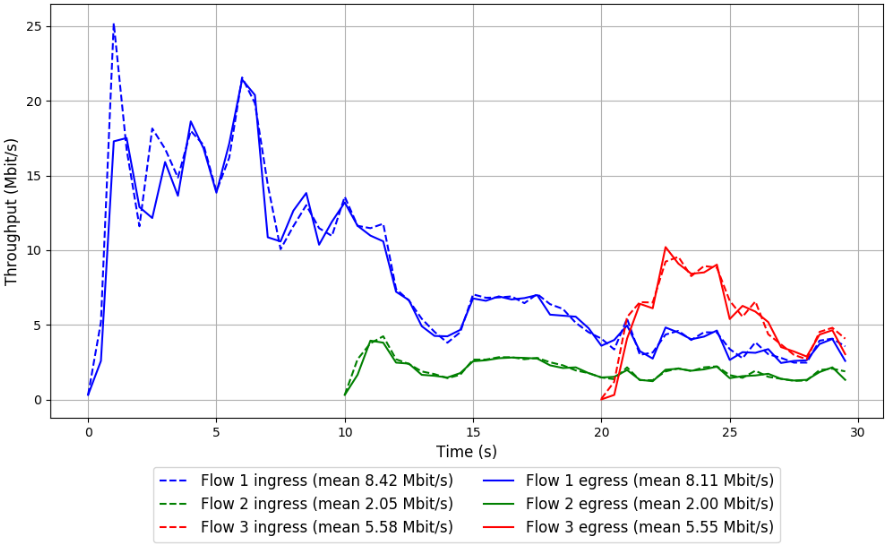


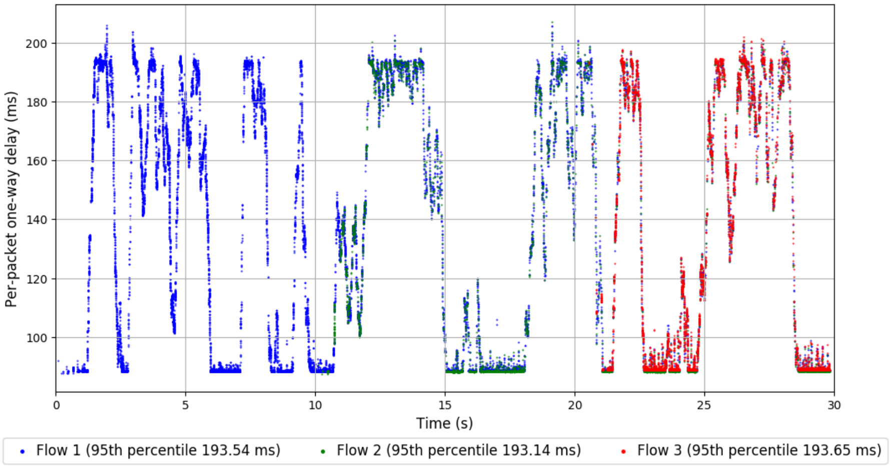
```
Run 3: Statistics of QUIC Cubic

Start at: 2017-09-23 08:48:06
End at: 2017-09-23 08:48:36
Local clock offset: 16.458 ms
Remote clock offset: -31.937 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 193.506 ms
Loss rate: 4.09%
-- Flow 1:
Average throughput: 8.11 Mbit/s
95th percentile per-packet one-way delay: 193.540 ms
Loss rate: 4.29%
-- Flow 2:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 193.136 ms
Loss rate: 3.57%
-- Flow 3:
Average throughput: 5.55 Mbit/s
95th percentile per-packet one-way delay: 193.646 ms
Loss rate: 3.57%
```

Run 3: Report of QUIC Cubic — Data Link



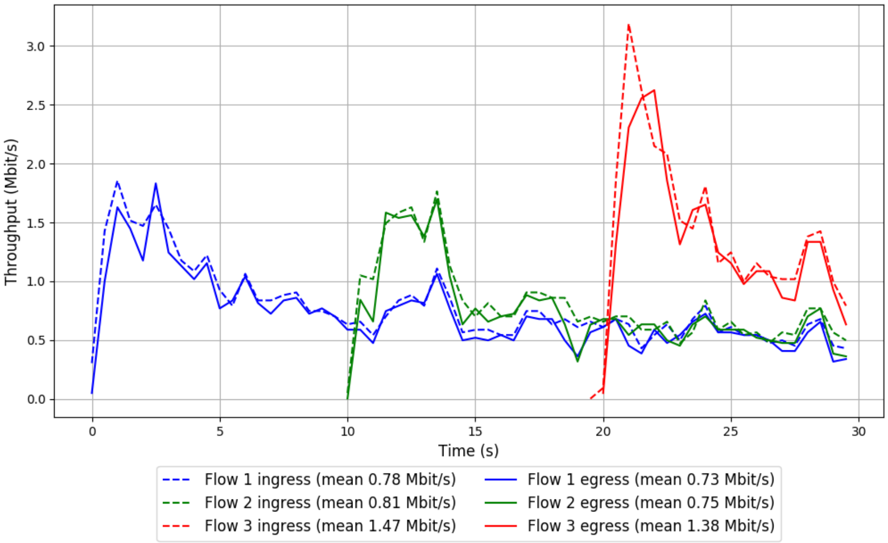


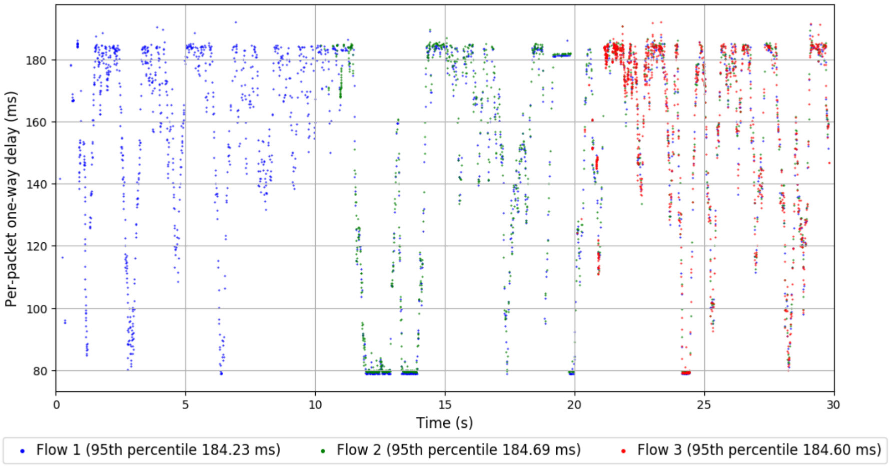
```
Run 4: Statistics of QUIC Cubic

Start at: 2017-09-23 09:11:17
End at: 2017-09-23 09:11:47
Local clock offset: 9.506 ms
Remote clock offset: -28.249 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 184.513 ms
Loss rate: 8.14%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 184.230 ms
Loss rate: 8.30%
-- Flow 2:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 184.685 ms
Loss rate: 8.28%
-- Flow 3:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 184.604 ms
Loss rate: 7.72%
```

Run 4: Report of QUIC Cubic — Data Link



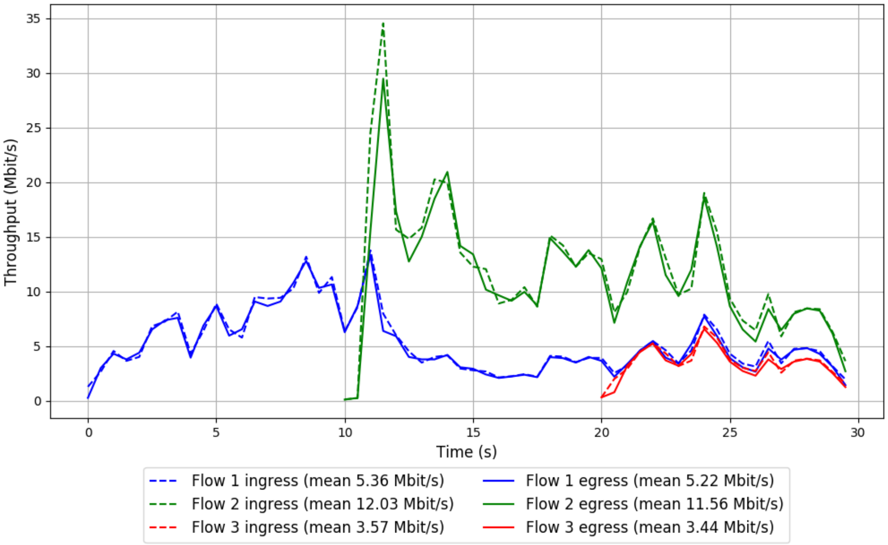


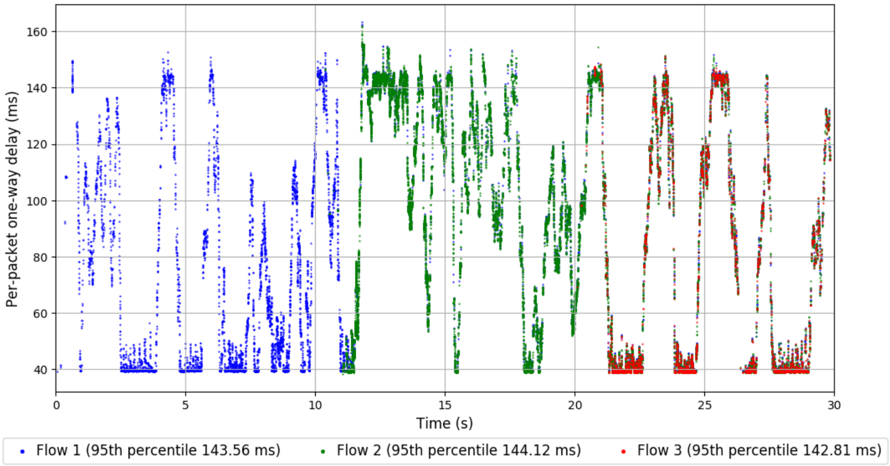
```
Run 5: Statistics of QUIC Cubic

Start at: 2017-09-23 09:33:02
End at: 2017-09-23 09:33:32
Local clock offset: -1.453 ms
Remote clock offset: 1.387 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.97 Mbit/s
95th percentile per-packet one-way delay: 143.945 ms
Loss rate: 4.23%
-- Flow 1:
Average throughput: 5.22 Mbit/s
95th percentile per-packet one-way delay: 143.559 ms
Loss rate: 2.90%
-- Flow 2:
Average throughput: 11.56 Mbit/s
95th percentile per-packet one-way delay: 144.116 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 142.813 ms
Loss rate: 5.04%
```

Run 5: Report of QUIC Cubic — Data Link



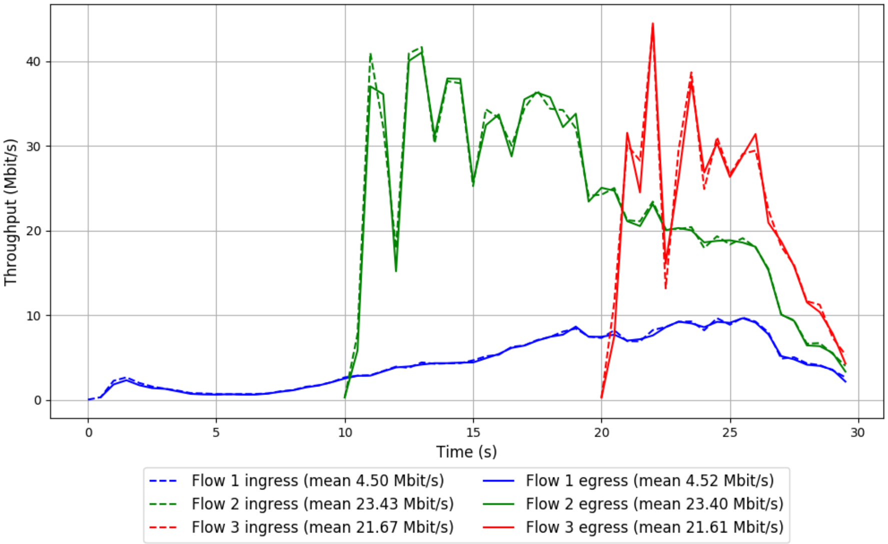


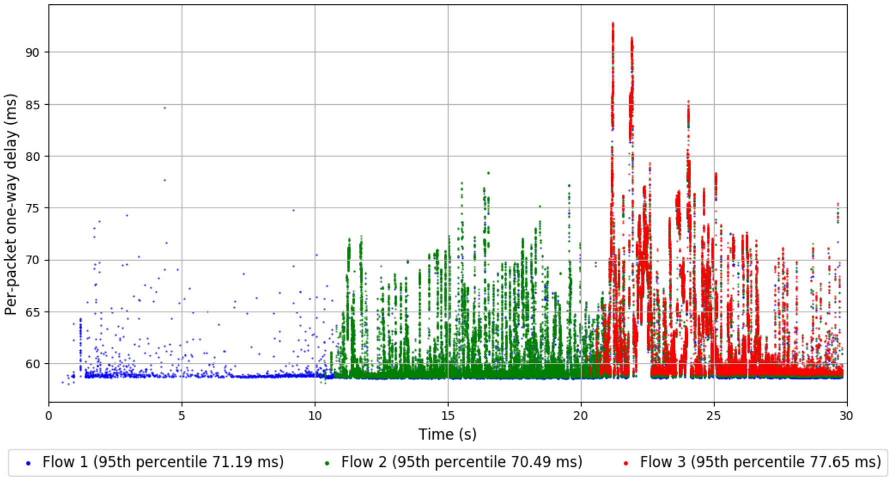
```
Run 6: Statistics of QUIC Cubic

Start at: 2017-09-23 09:55:13
End at: 2017-09-23 09:55:43
Local clock offset: 16.848 ms
Remote clock offset: -0.459 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.49 Mbit/s
95th percentile per-packet one-way delay: 72.689 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 71.187 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 23.40 Mbit/s
95th percentile per-packet one-way delay: 70.494 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 21.61 Mbit/s
95th percentile per-packet one-way delay: 77.649 ms
Loss rate: 1.69%
```

Run 6: Report of QUIC Cubic — Data Link



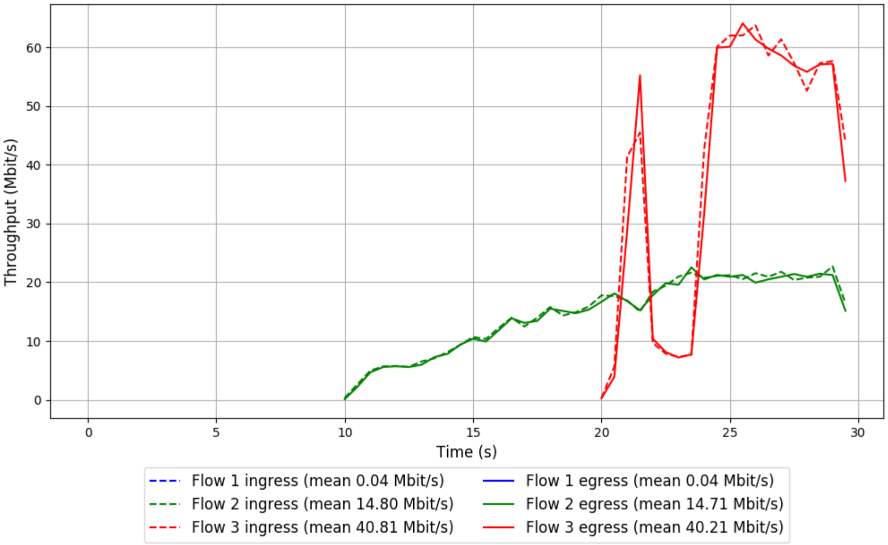


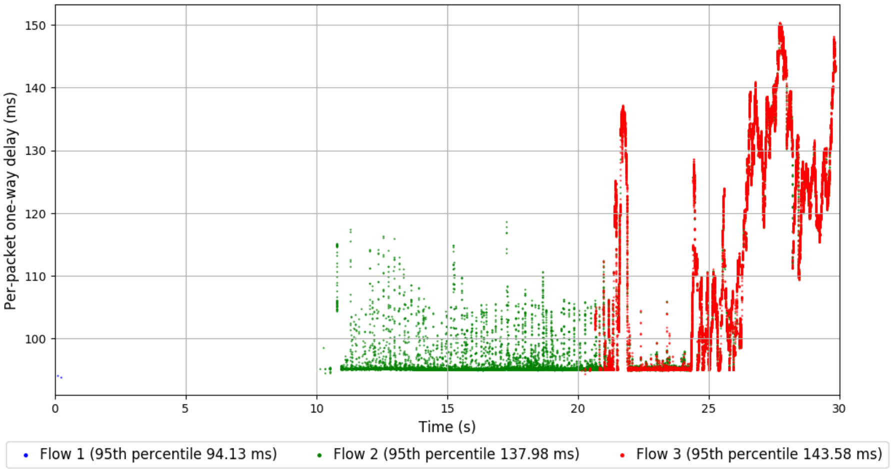
```
Run 7: Statistics of QUIC Cubic

Start at: 2017-09-23 10:15:45
End at: 2017-09-23 10:16:15
Local clock offset: 13.846 ms
Remote clock offset: -39.582 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.87 Mbit/s
95th percentile per-packet one-way delay: 141.715 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 94.134 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.71 Mbit/s
95th percentile per-packet one-way delay: 137.983 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 40.21 Mbit/s
95th percentile per-packet one-way delay: 143.580 ms
Loss rate: 2.88%
```

Run 7: Report of QUIC Cubic — Data Link



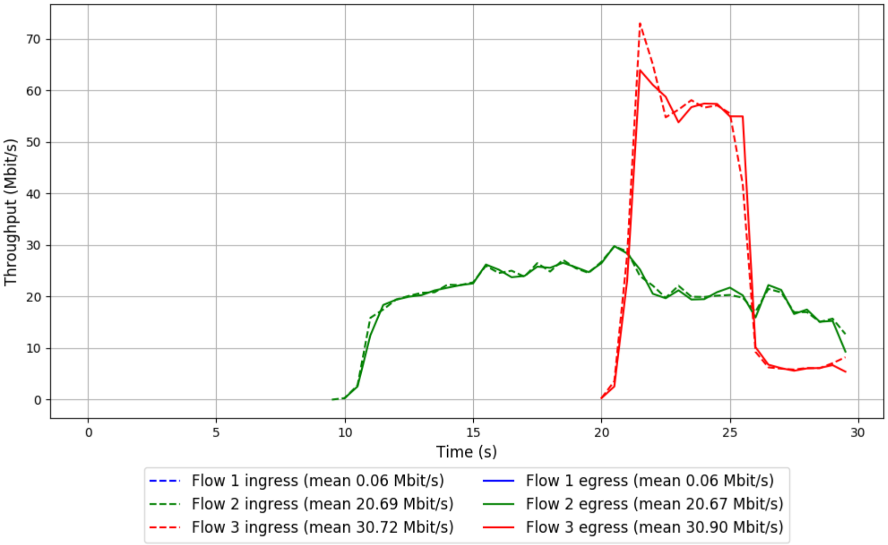


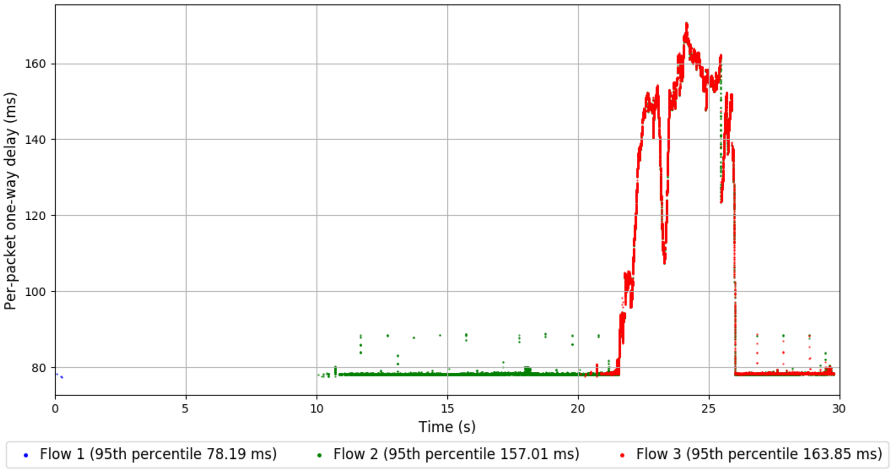
```
Run 8: Statistics of QUIC Cubic

Start at: 2017-09-23 10:35:16
End at: 2017-09-23 10:35:46
Local clock offset: -0.673 ms
Remote clock offset: -37.318 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.79 Mbit/s
95th percentile per-packet one-way delay: 161.608 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 78.191 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.67 Mbit/s
95th percentile per-packet one-way delay: 157.011 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 163.846 ms
Loss rate: 1.20%
```

Run 8: Report of QUIC Cubic — Data Link



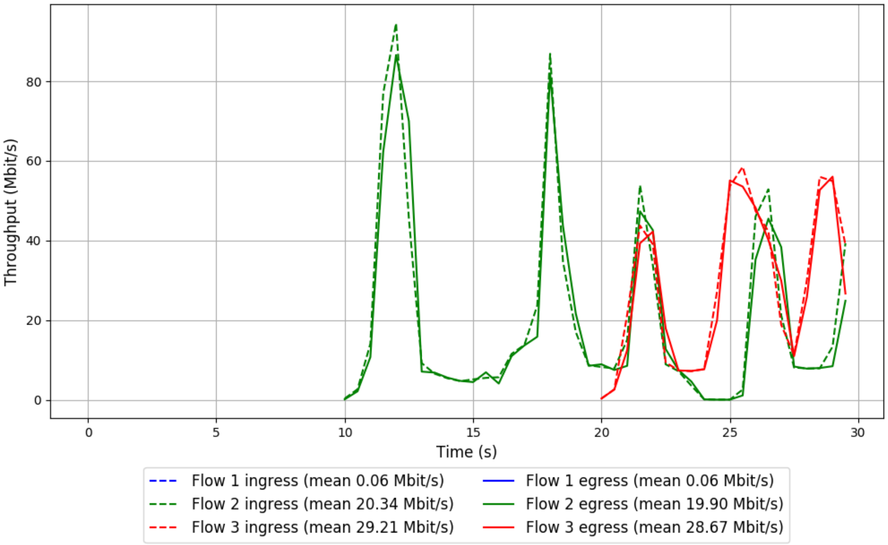


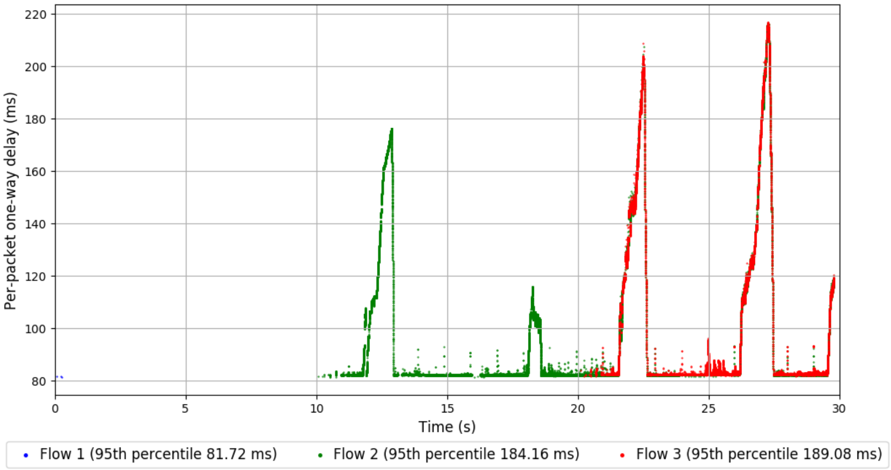
```
Run 9: Statistics of QUIC Cubic

Start at: 2017-09-23 10:54:49
End at: 2017-09-23 10:55:19
Local clock offset: -1.999 ms
Remote clock offset: -42.868 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.55 Mbit/s
95th percentile per-packet one-way delay: 186.217 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 81.717 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 184.161 ms
Loss rate: 3.12%
-- Flow 3:
Average throughput: 28.67 Mbit/s
95th percentile per-packet one-way delay: 189.080 ms
Loss rate: 3.76%
```

Run 9: Report of QUIC Cubic — Data Link



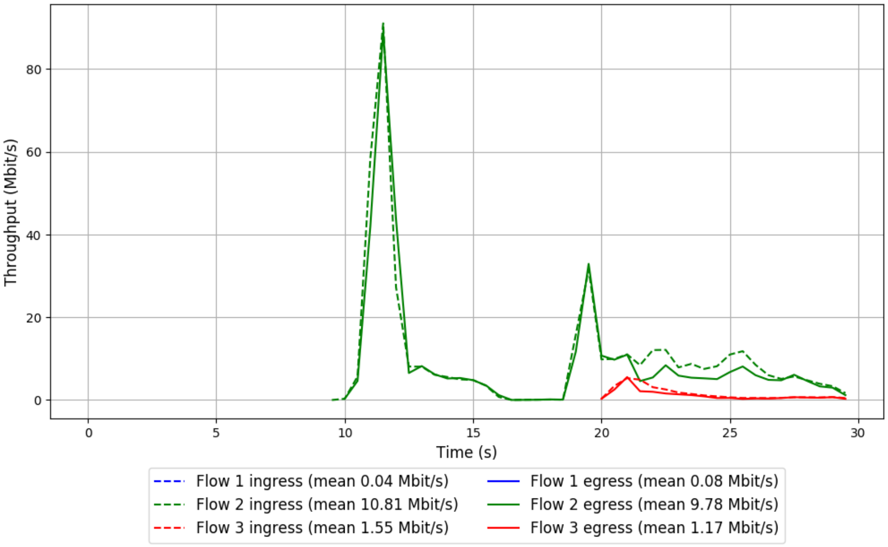


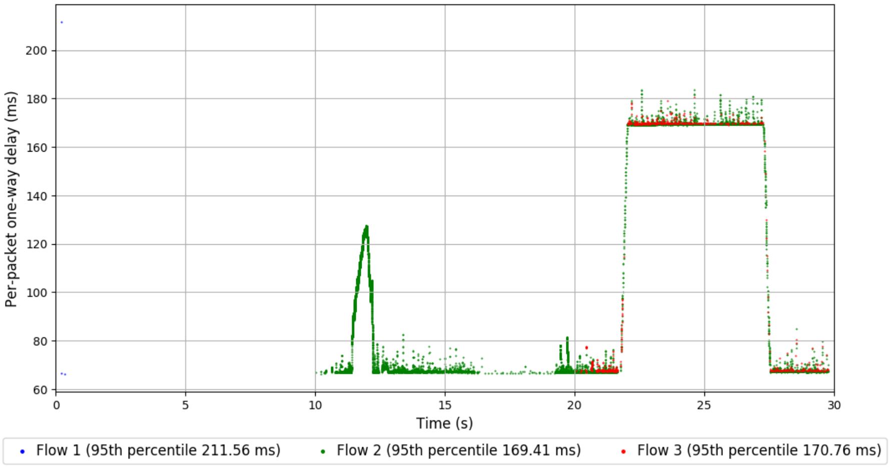
```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-23 11:14:32
End at: 2017-09-23 11:15:02
Local clock offset: -2.009 ms
Remote clock offset: -27.651 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.91 Mbit/s
95th percentile per-packet one-way delay: 169.544 ms
Loss rate: 11.28%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 211.560 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 169.414 ms
Loss rate: 10.25%
-- Flow 3:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 170.757 ms
Loss rate: 25.68%
```

Run 10: Report of QUIC Cubic — Data Link



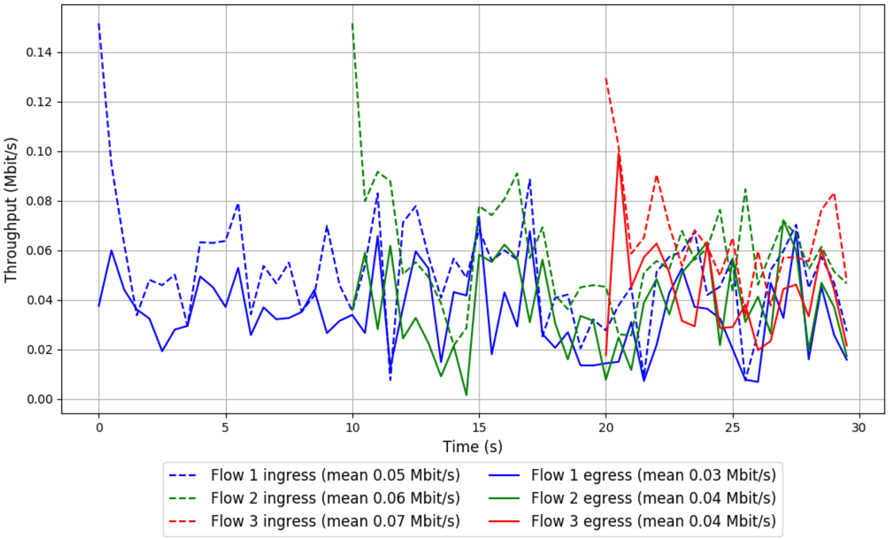


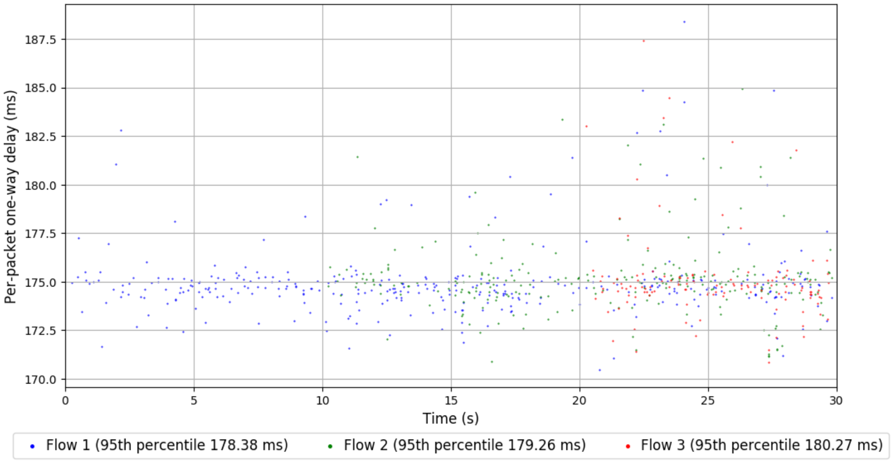
```
Run 1: Statistics of SCReAM

Start at: 2017-09-23 07:53:26
End at: 2017-09-23 07:53:56
Local clock offset: -1.348 ms
Remote clock offset: -33.395 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 178.959 ms
Loss rate: 35.52%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 178.383 ms
Loss rate: 34.10%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 179.262 ms
Loss rate: 37.05%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 180.273 ms
Loss rate: 36.06%
```

Run 1: Report of SCReAM — Data Link

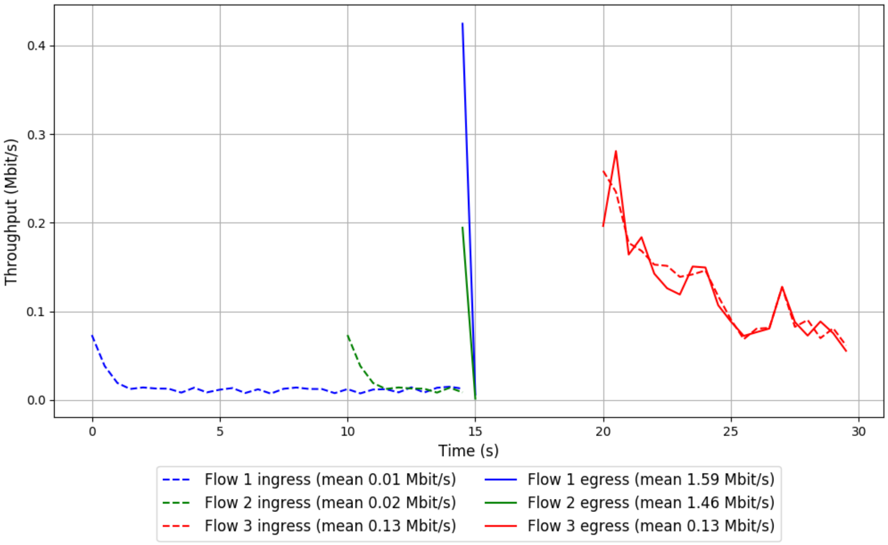


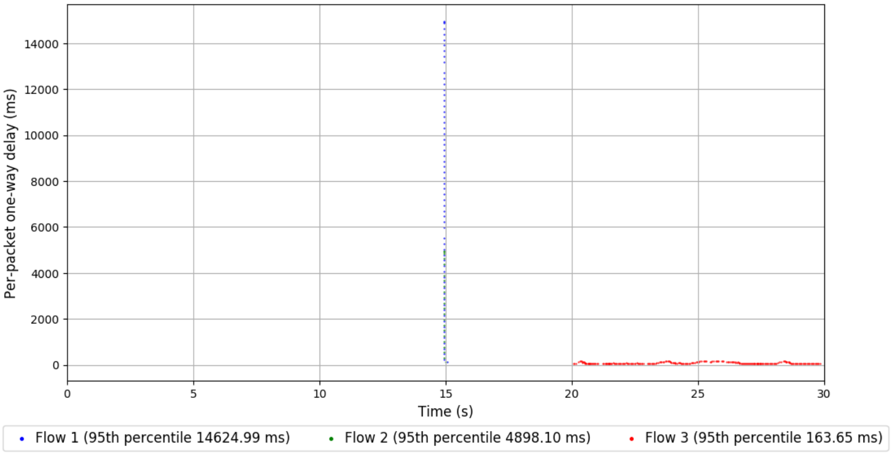


```
Run 2: Statistics of SCReAM

Start at: 2017-09-23 08:23:37
End at: 2017-09-23 08:24:07
Local clock offset: 2.292 ms
Remote clock offset: -22.315 ms
```

Run 2: Report of SCReAM — Data Link

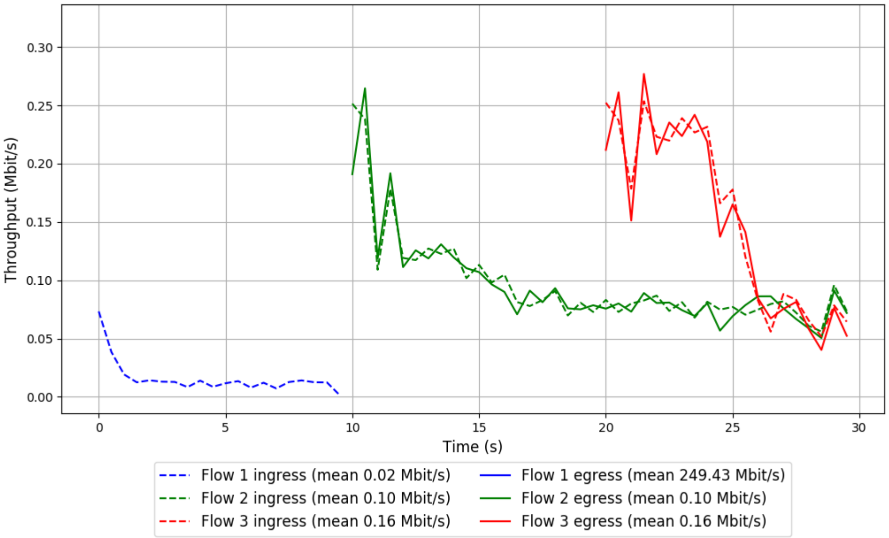


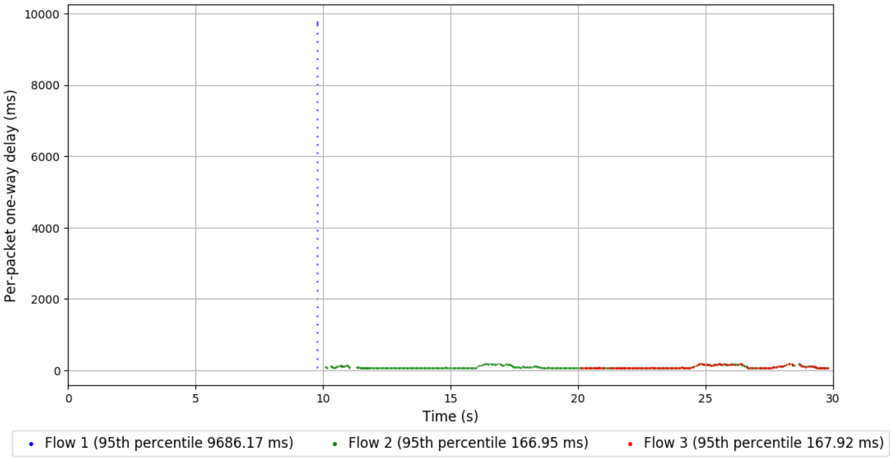


```
Run 3: Statistics of SCReAM

Start at: 2017-09-23 08:43:59
End at: 2017-09-23 08:44:29
Local clock offset: -1.69 ms
Remote clock offset: -29.461 ms
```

Run 3: Report of SCReAM — Data Link



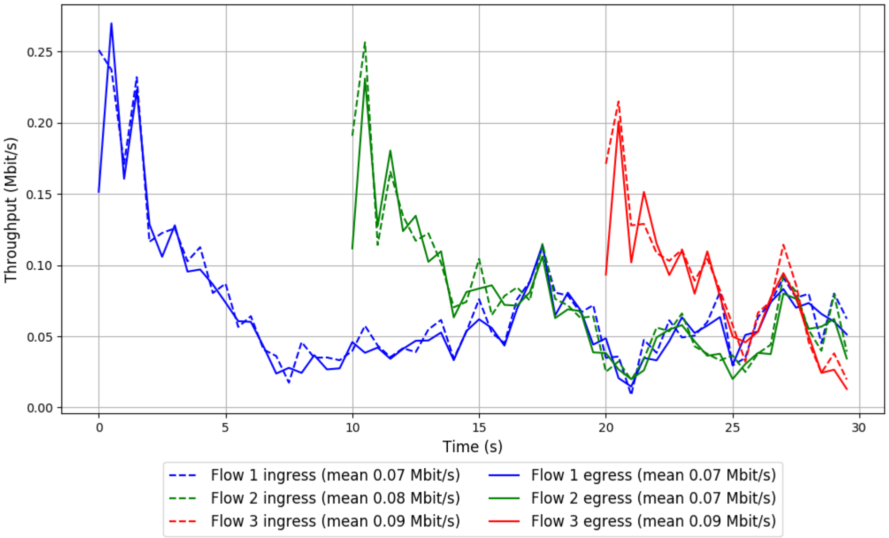


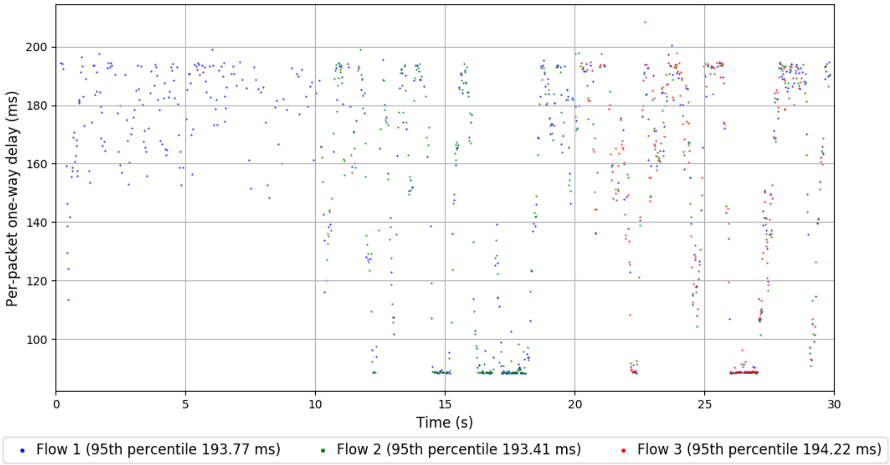
```
Run 4: Statistics of SCReAM

Start at: 2017-09-23 09:06:27
End at: 2017-09-23 09:06:57
Local clock offset: 16.577 ms
Remote clock offset: -31.12 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 193.832 ms
Loss rate: 6.90%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 193.773 ms
Loss rate: 6.78%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 193.415 ms
Loss rate: 6.06%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 194.220 ms
Loss rate: 8.62%
```

Run 4: Report of SCReAM — Data Link



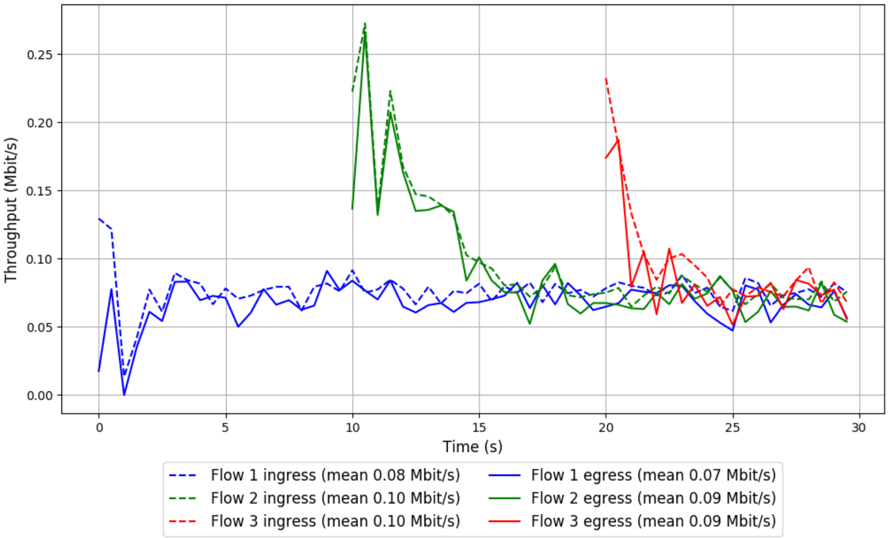


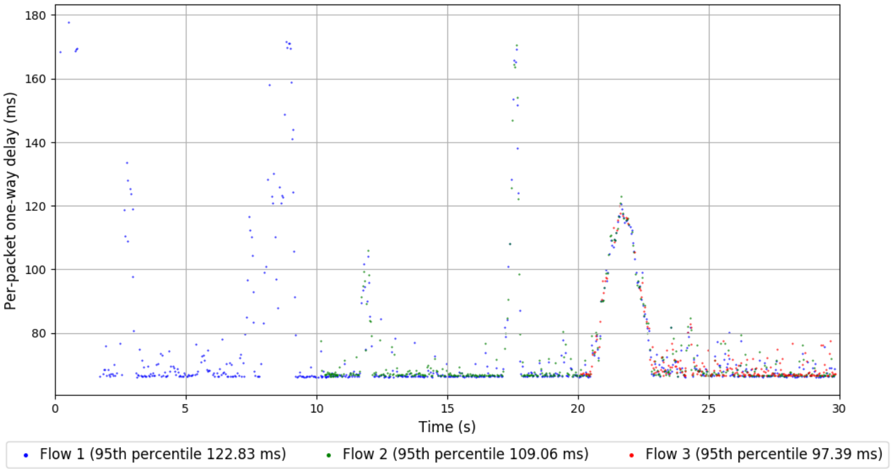
```
Run 5: Statistics of SCReAM

Start at: 2017-09-23 09:28:33
End at: 2017-09-23 09:29:03
Local clock offset: -1.542 ms
Remote clock offset: -26.549 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 115.464 ms
Loss rate: 10.85%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 122.830 ms
Loss rate: 11.93%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 109.059 ms
Loss rate: 8.78%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 97.390 ms
Loss rate: 12.61%
```

Run 5: Report of SCReAM — Data Link



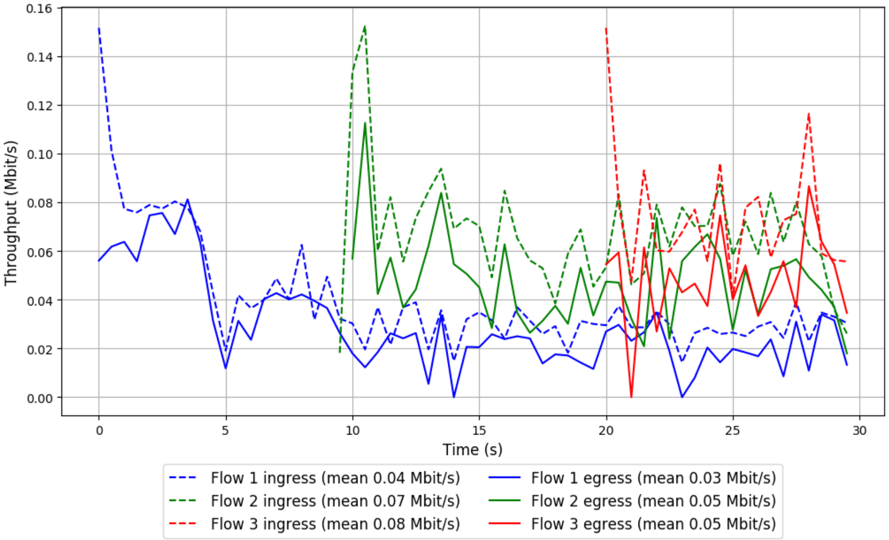


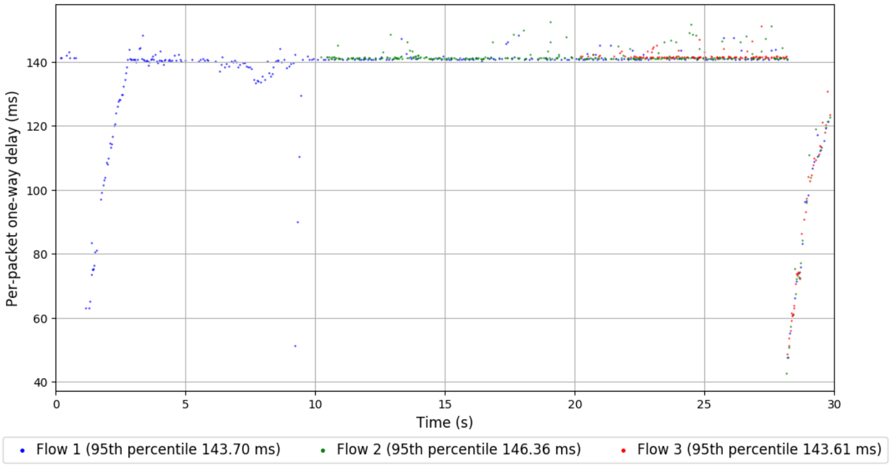
```
Run 6: Statistics of SCReAM

Start at: 2017-09-23 09:50:02
End at: 2017-09-23 09:50:32
Local clock offset: -0.576 ms
Remote clock offset: 0.914 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 144.163 ms
Loss rate: 30.58%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 143.700 ms
Loss rate: 26.68%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 146.362 ms
Loss rate: 31.46%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 143.613 ms
Loss rate: 35.24%
```

Run 6: Report of SCReAM — Data Link



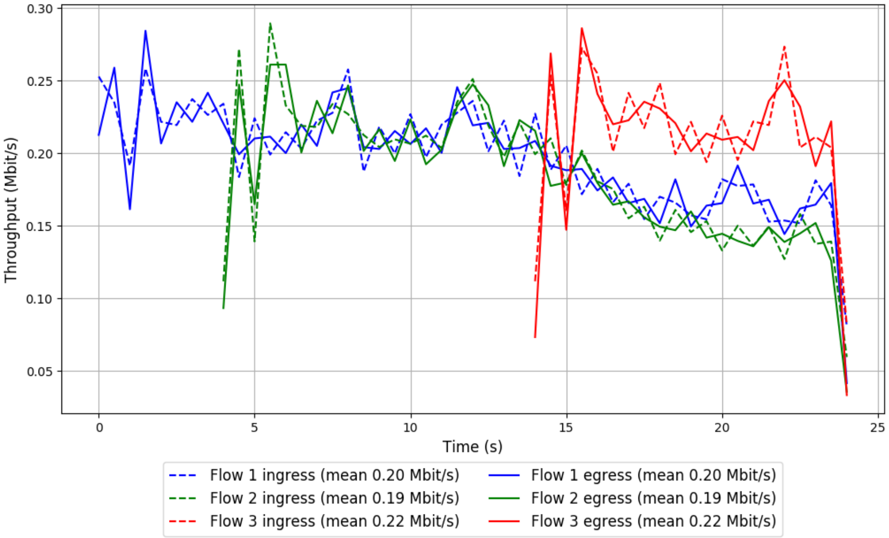


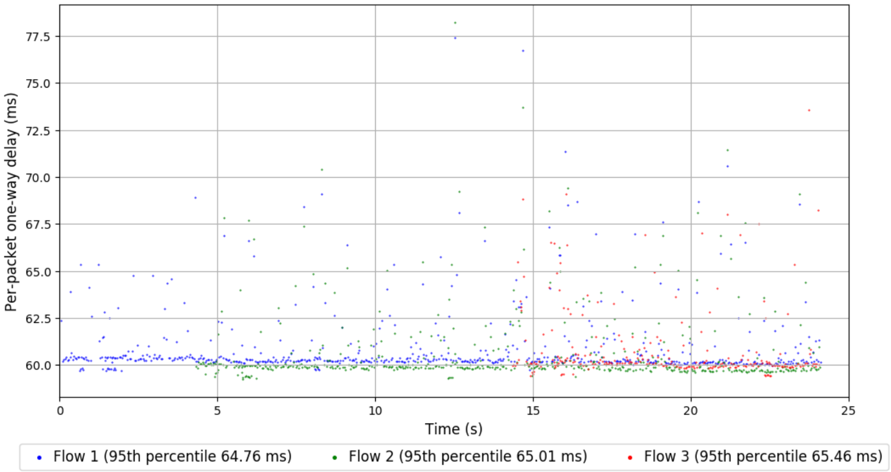
```
Run 7: Statistics of SCReAM

Start at: 2017-09-23 10:11:49
End at: 2017-09-23 10:12:19
Local clock offset: -1.514 ms
Remote clock offset: -20.176 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 65.040 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 64.756 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 65.013 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.458 ms
Loss rate: 1.48%
```

Run 7: Report of SCReAM — Data Link



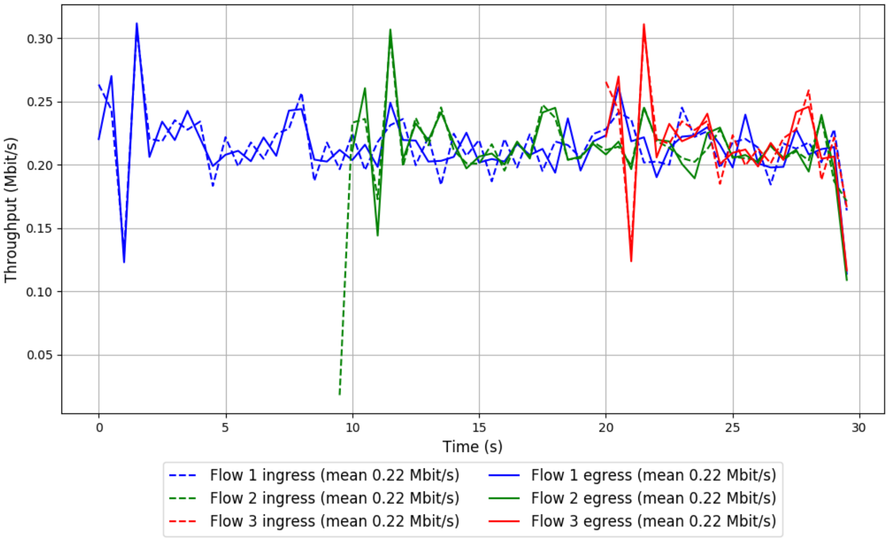


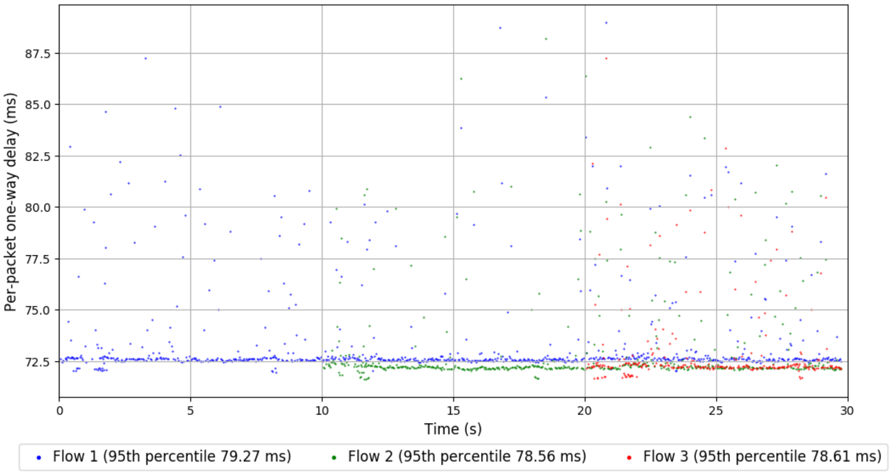
```
Run 8: Statistics of SCReAM

Start at: 2017-09-23 10:31:17
End at: 2017-09-23 10:31:48
Local clock offset: -1.88 ms
Remote clock offset: -32.662 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 79.153 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 79.269 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 78.559 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 78.614 ms
Loss rate: 1.86%
```

Run 8: Report of SCReAM — Data Link



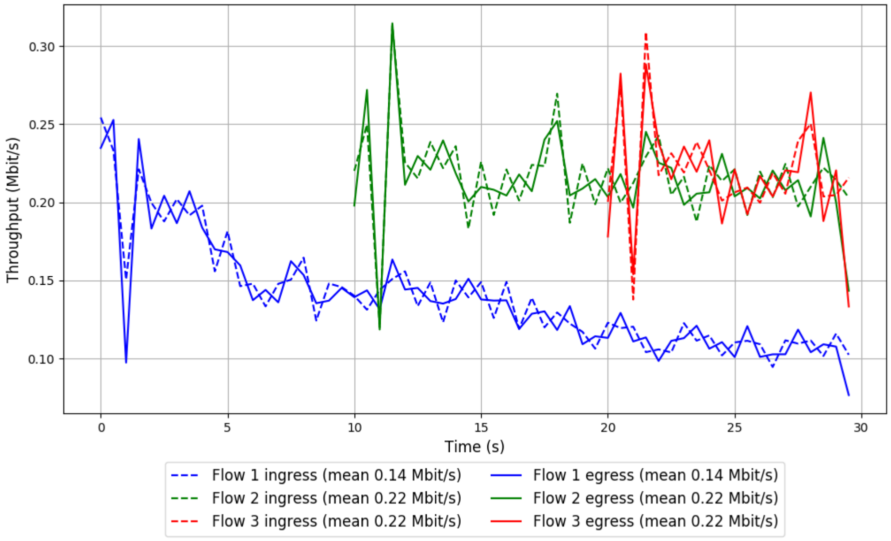


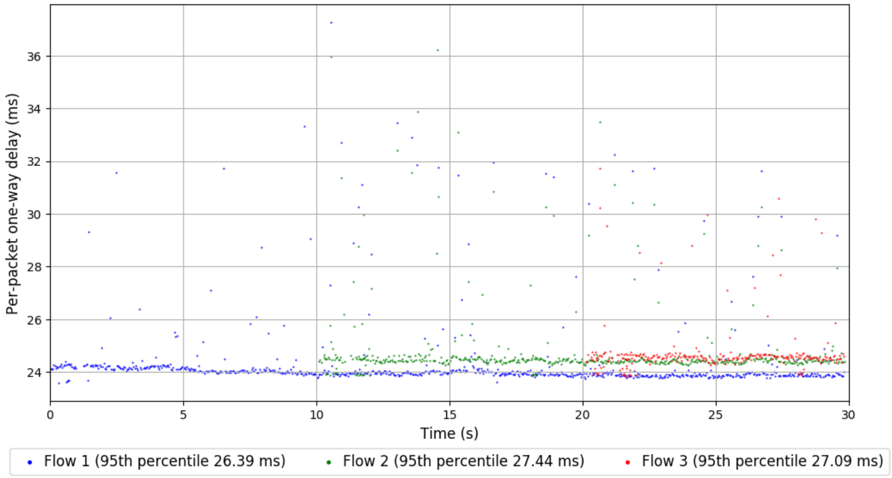
```
Run 9: Statistics of SCReAM

Start at: 2017-09-23 10:50:50
End at: 2017-09-23 10:51:20
Local clock offset: 13.538 ms
Remote clock offset: 30.789 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 27.098 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 26.385 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.442 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.091 ms
Loss rate: 1.87%
```

Run 9: Report of SCReAM — Data Link

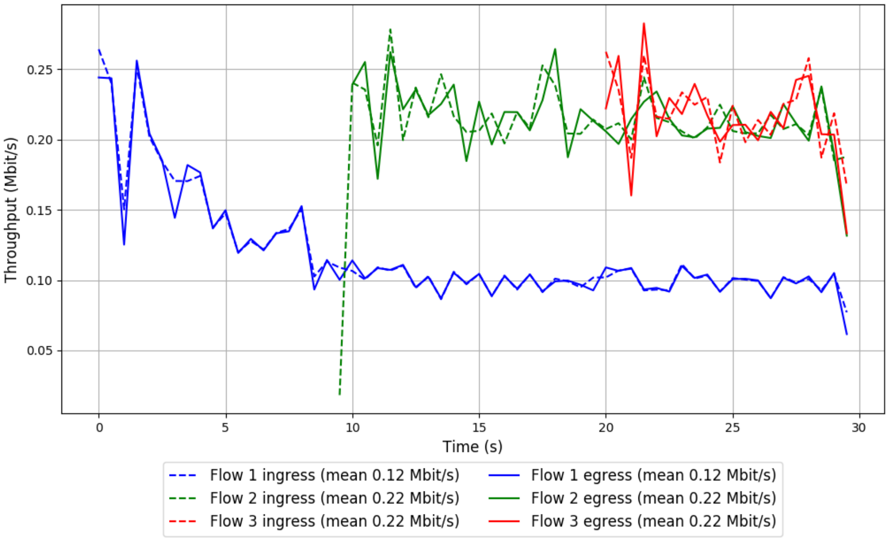


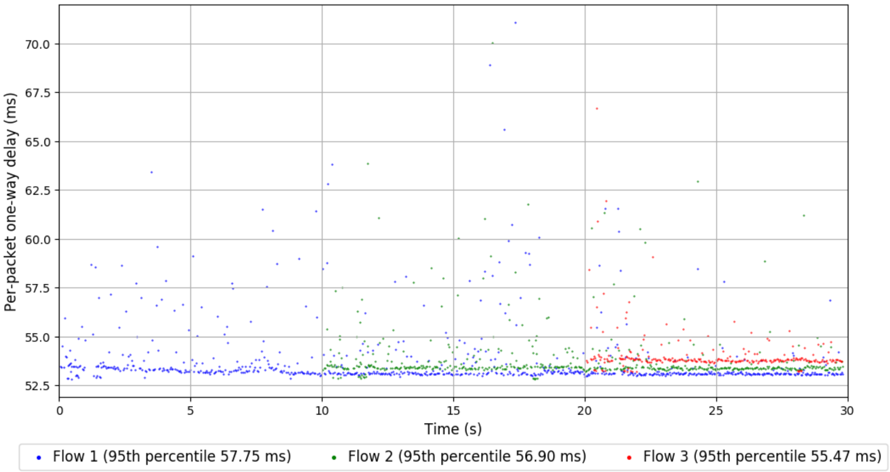


```
Run 10: Statistics of SCReAM

Start at: 2017-09-23 11:10:17
End at: 2017-09-23 11:10:47
Local clock offset: -2.004 ms
Remote clock offset: -14.18 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 56.949 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 57.752 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.903 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 55.470 ms
Loss rate: 1.50%
```


Throughput (Mbit/s)
0.25
0.20
0.15
0.10
0.05
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 0.12 Mbit/s)
Flow 2 ingress (mean 0.22 Mbit/s)
Flow 3 ingress (mean 0.22 Mbit/s)
Flow 1 egress (mean 0.12 Mbit/s)
Flow 2 egress (mean 0.22 Mbit/s)
Flow 3 egress (mean 0.22 Mbit/s)

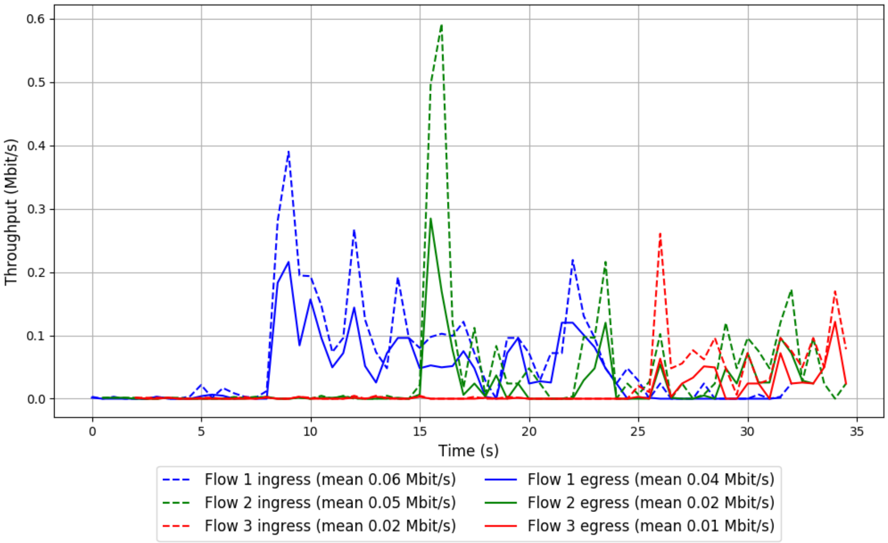

Per-packet one-way delay (ms)
70.0
67.5
65.0
62.5
60.0
57.5
55.0
52.5
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 57.75 ms)
Flow 2 (95th percentile 56.90 ms)
Flow 3 (95th percentile 55.47 ms)

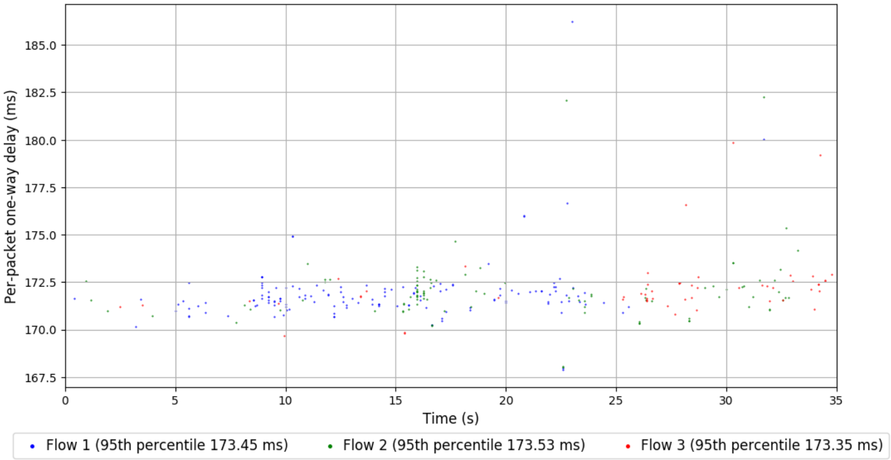
```
Run 1: Statistics of WebRTC media

Start at: 2017-09-23 07:58:27
End at: 2017-09-23 07:58:57
Local clock offset: -1.348 ms
Remote clock offset: -29.907 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 173.526 ms
Loss rate: 48.34%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 173.454 ms
Loss rate: 38.67%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 173.526 ms
Loss rate: 56.89%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 173.353 ms
Loss rate: 56.61%
```

Run 1: Report of WebRTC media — Data Link



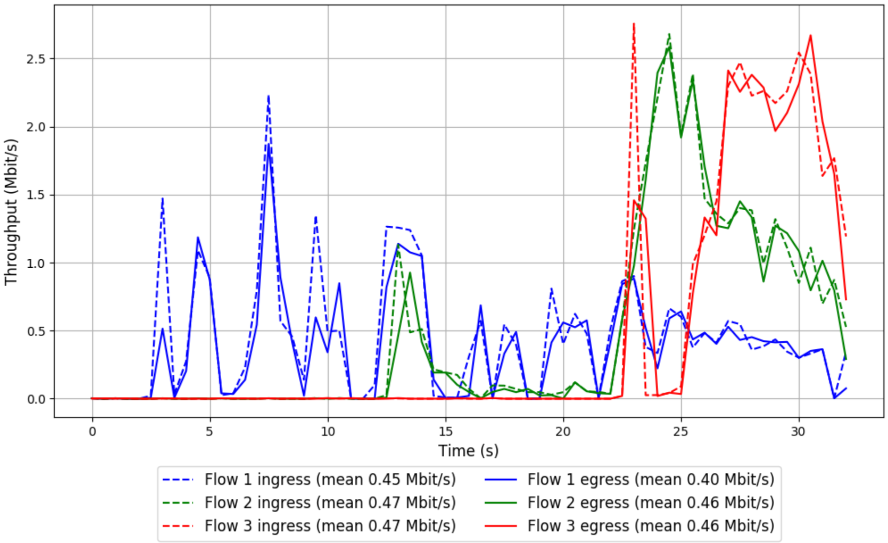


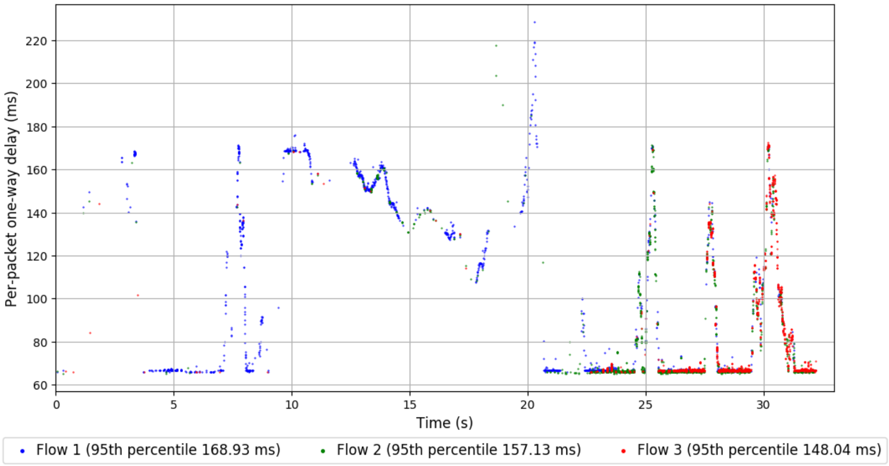
```
Run 2: Statistics of WebRTC media

Start at: 2017-09-23 08:26:23
End at: 2017-09-23 08:26:53
Local clock offset: -0.449 ms
Remote clock offset: -27.575 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 165.066 ms
Loss rate: 6.08%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 168.928 ms
Loss rate: 12.43%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 157.126 ms
Loss rate: 3.31%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 148.043 ms
Loss rate: 2.70%
```

Run 2: Report of WebRTC media — Data Link



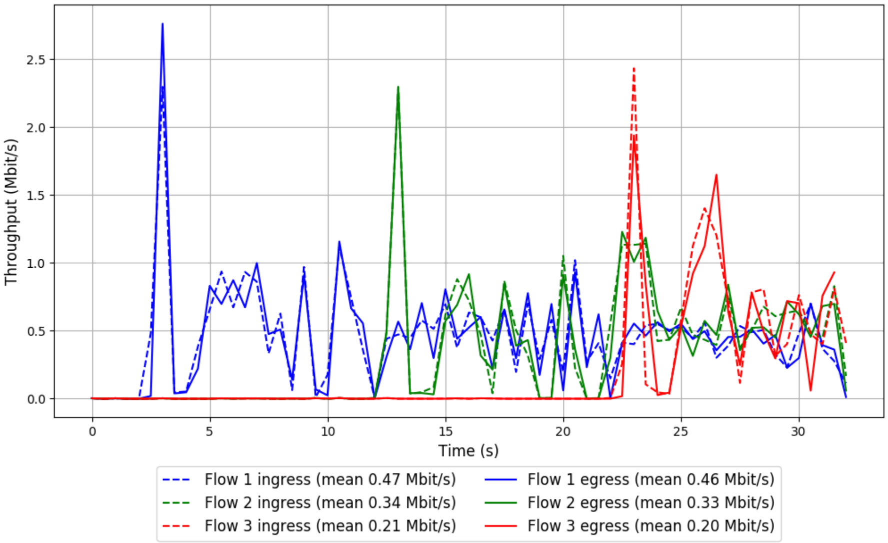


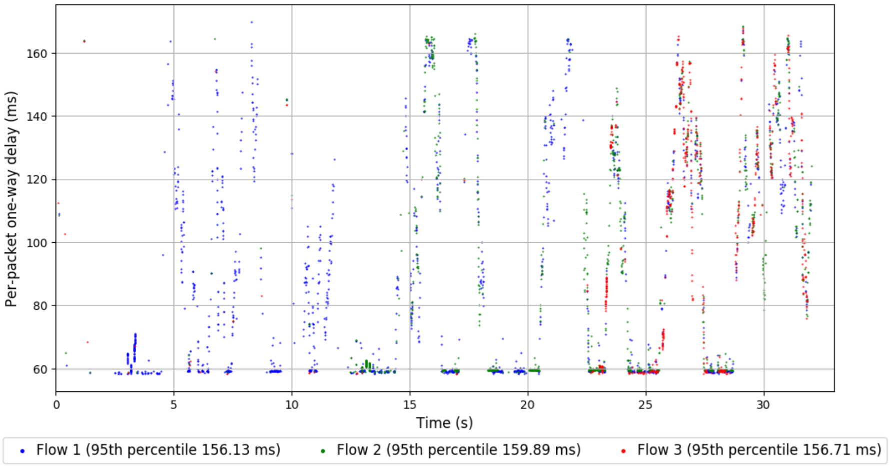
```
Run 3: Statistics of WebRTC media

Start at: 2017-09-23 08:46:47
End at: 2017-09-23 08:47:17
Local clock offset: -1.668 ms
Remote clock offset: -20.755 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 157.330 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 156.128 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 159.894 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 156.710 ms
Loss rate: 3.55%
```

Run 3: Report of WebRTC media — Data Link



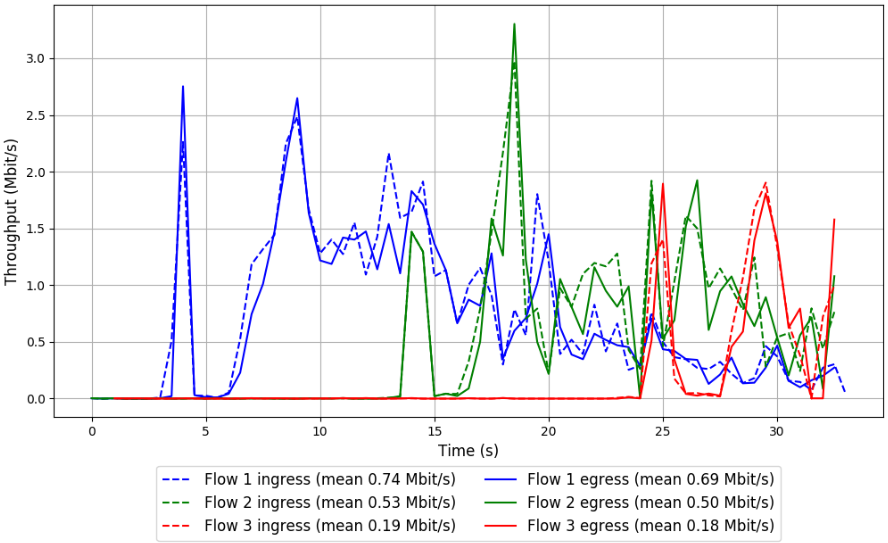


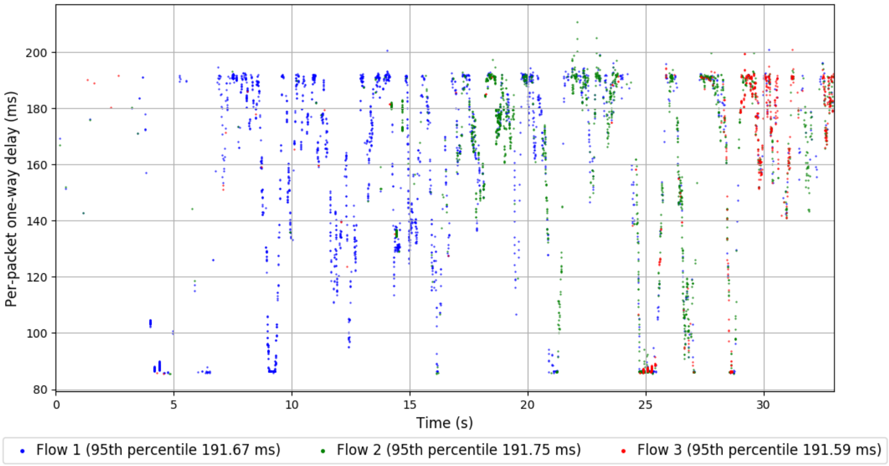
```
Run 4: Statistics of WebRTC media

Start at: 2017-09-23 09:09:39
End at: 2017-09-23 09:10:09
Local clock offset: 14.785 ms
Remote clock offset: -30.028 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 191.695 ms
Loss rate: 6.43%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 191.670 ms
Loss rate: 6.46%
-- Flow 2:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 191.746 ms
Loss rate: 6.56%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 191.590 ms
Loss rate: 5.92%
```

Run 4: Report of WebRTC media — Data Link



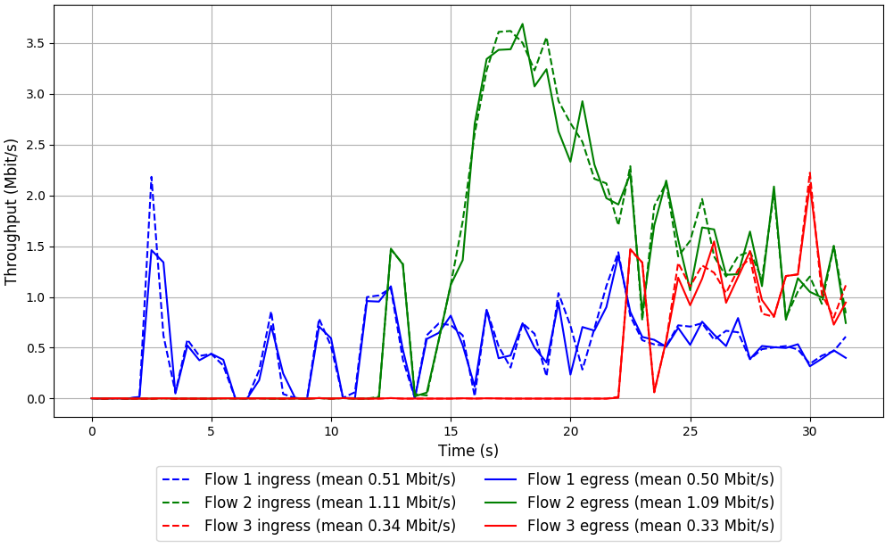


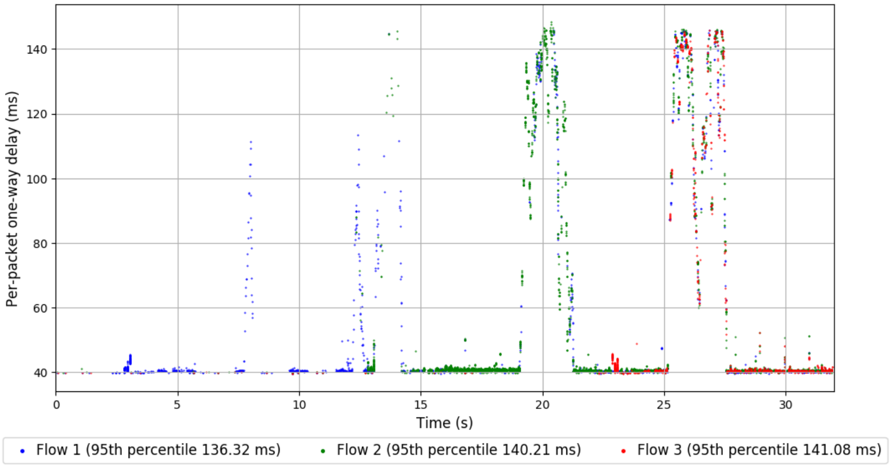
```
Run 5: Statistics of WebRTC media

Start at: 2017-09-23 09:31:41
End at: 2017-09-23 09:32:11
Local clock offset: -0.505 ms
Remote clock offset: 1.0 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 140.106 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 136.317 ms
Loss rate: 2.49%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 140.212 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 141.078 ms
Loss rate: 1.68%
```

Run 5: Report of WebRTC media — Data Link



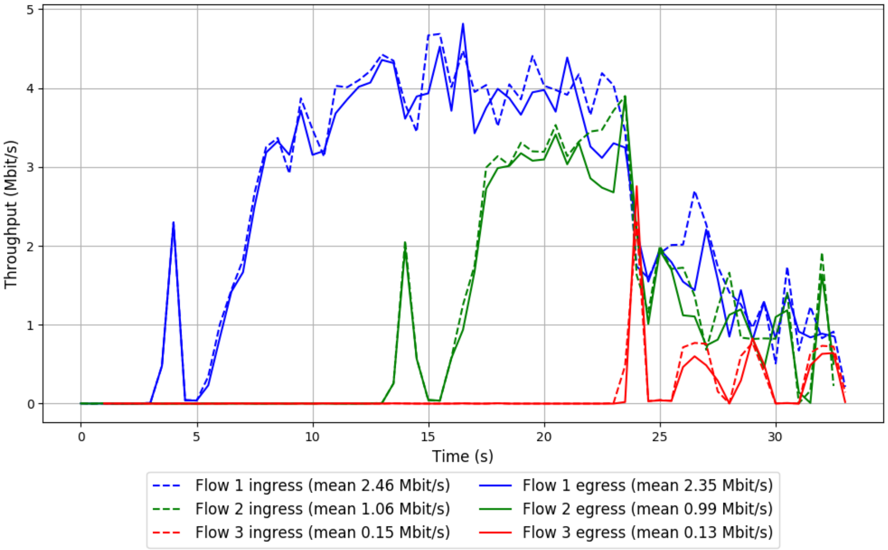


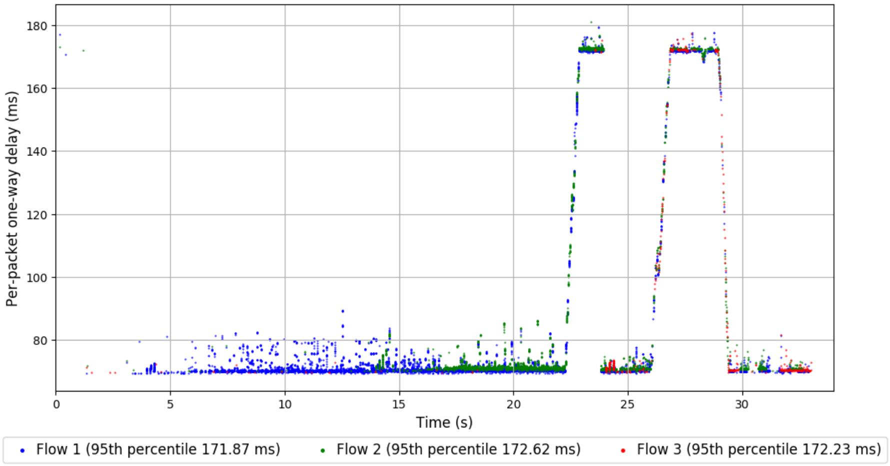
```
Run 6: Statistics of WebRTC media

Start at: 2017-09-23 09:53:40
End at: 2017-09-23 09:54:10
Local clock offset: 15.781 ms
Remote clock offset: -13.243 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 172.266 ms
Loss rate: 6.29%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 171.874 ms
Loss rate: 5.40%
-- Flow 2:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 172.625 ms
Loss rate: 7.53%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 172.230 ms
Loss rate: 12.61%
```

Run 6: Report of WebRTC media — Data Link



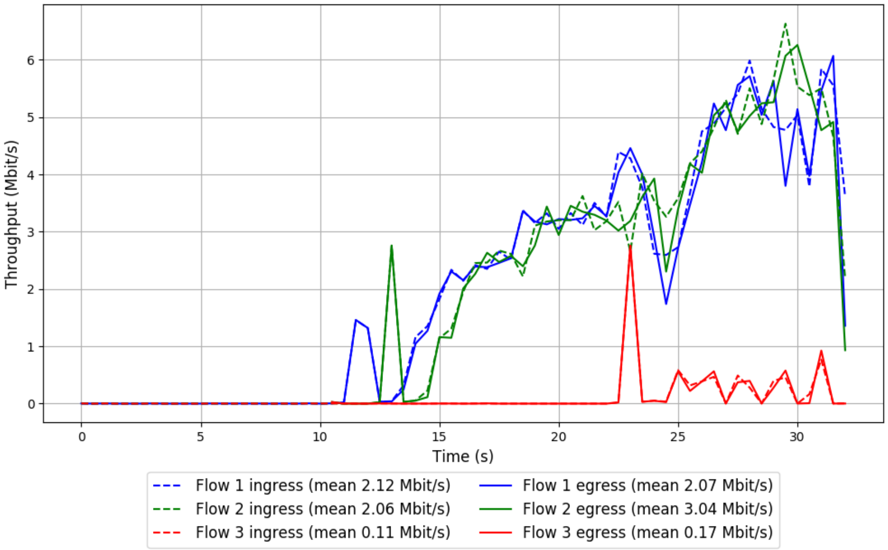


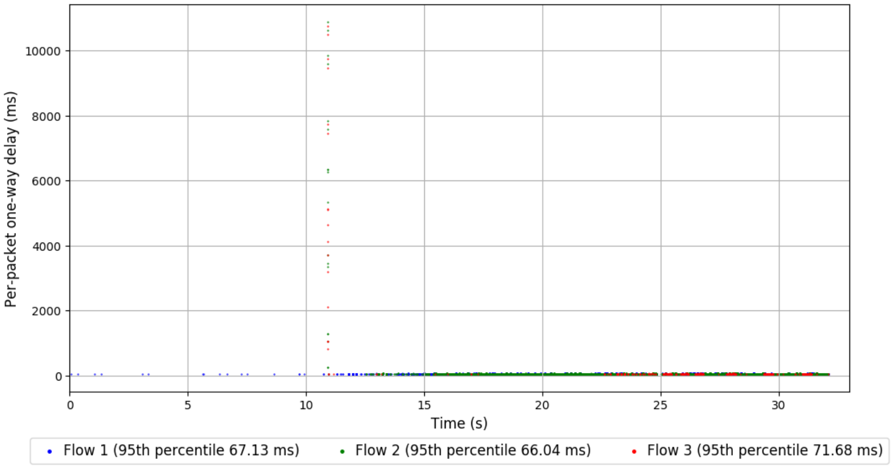
```
Run 7: Statistics of WebRTC media

Start at: 2017-09-23 10:14:25
End at: 2017-09-23 10:14:55
Local clock offset: -1.625 ms
Remote clock offset: -16.518 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 66.582 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 67.128 ms
Loss rate: 2.89%
-- Flow 2:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 66.036 ms
Loss rate: 2.73%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 71.684 ms
Loss rate: 0.44%
```

Run 7: Report of WebRTC media — Data Link



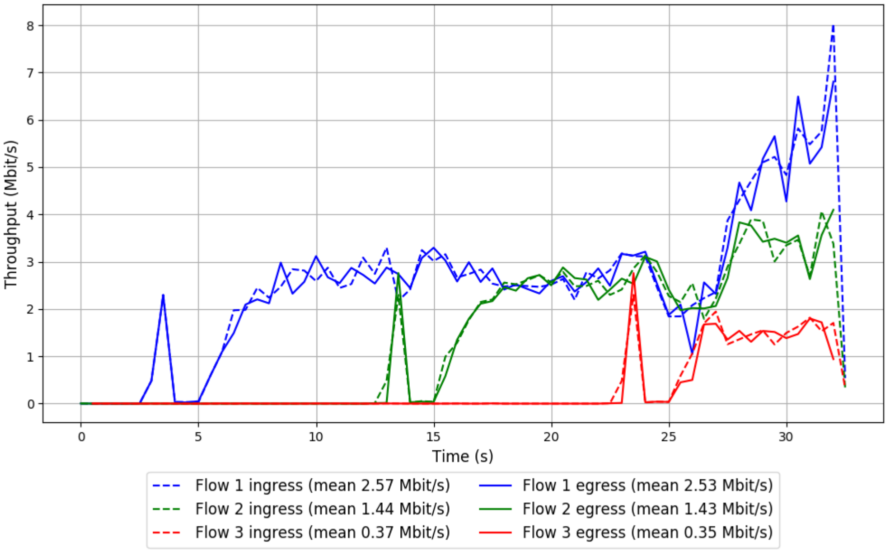


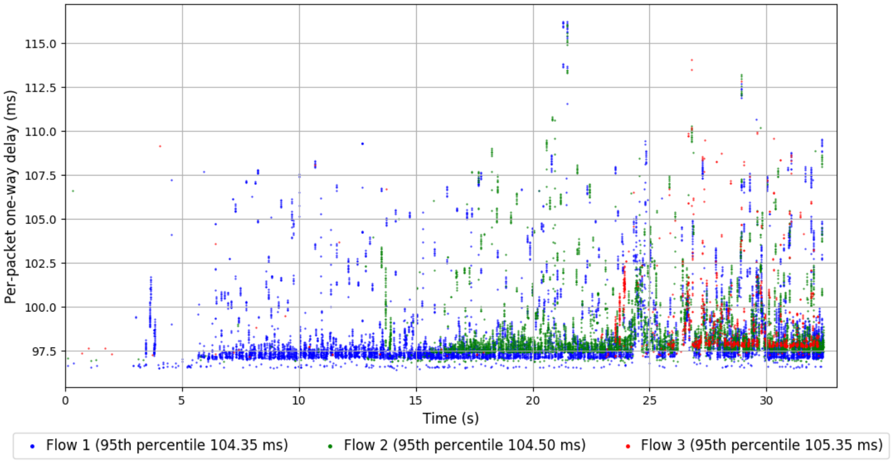
```
Run 8: Statistics of WebRTC media

Start at: 2017-09-23 10:33:59
End at: 2017-09-23 10:34:29
Local clock offset: 18.746 ms
Remote clock offset: -37.247 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 104.485 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 104.346 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 104.500 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 105.352 ms
Loss rate: 7.64%
```

Run 8: Report of WebRTC media — Data Link



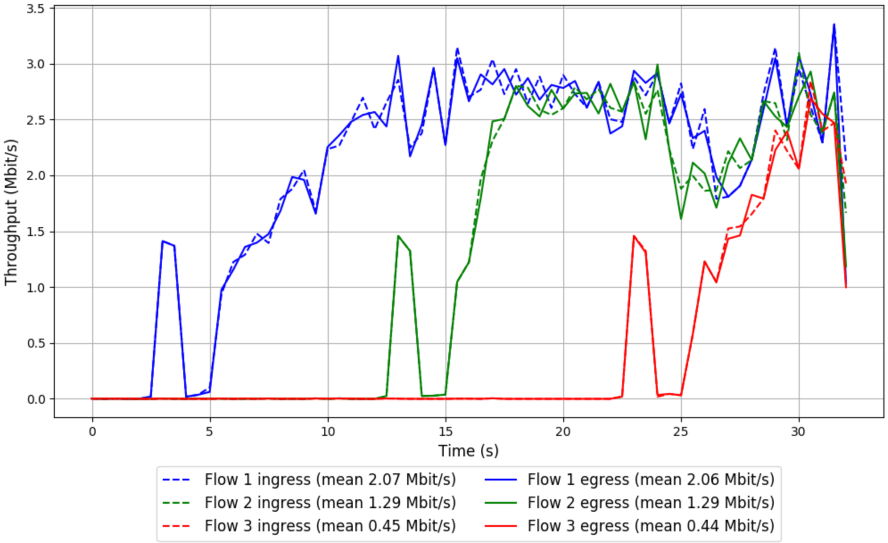


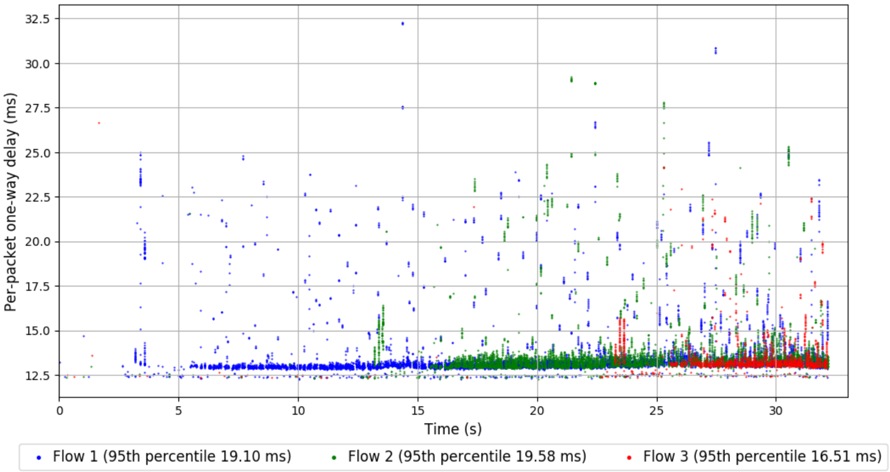
```
Run 9: Statistics of WebRTC media

Start at: 2017-09-23 10:53:30
End at: 2017-09-23 10:54:00
Local clock offset: -2.022 ms
Remote clock offset: 26.616 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 19.070 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 19.104 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 19.578 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 16.509 ms
Loss rate: 3.24%
```

Run 9: Report of WebRTC media — Data Link



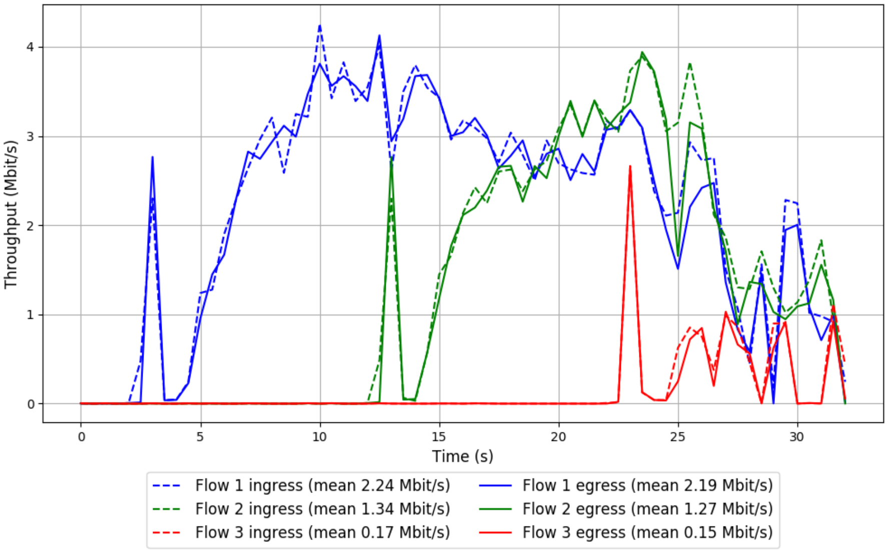


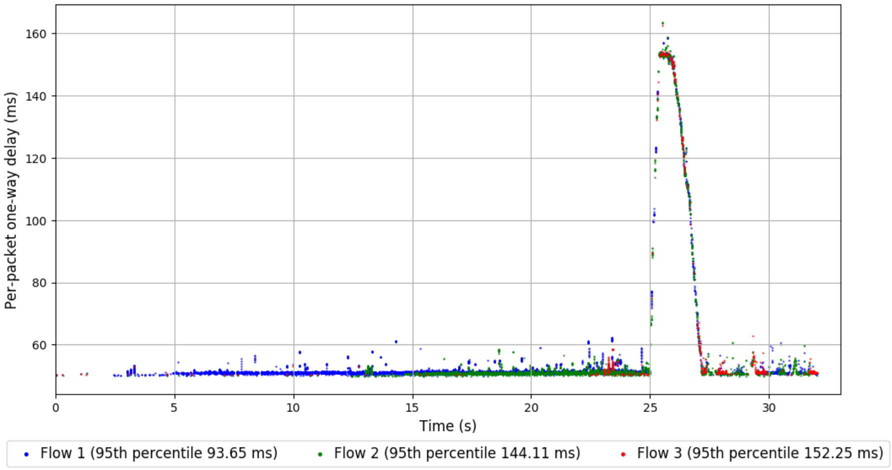
```
Run 10: Statistics of WebRTC media

Start at: 2017-09-23 11:13:17
End at: 2017-09-23 11:13:47
Local clock offset: -0.838 ms
Remote clock offset: -10.429 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 128.737 ms
Loss rate: 4.03%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 93.654 ms
Loss rate: 2.70%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 144.113 ms
Loss rate: 5.05%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 152.254 ms
Loss rate: 13.23%
```

Run 10: Report of WebRTC media — Data Link



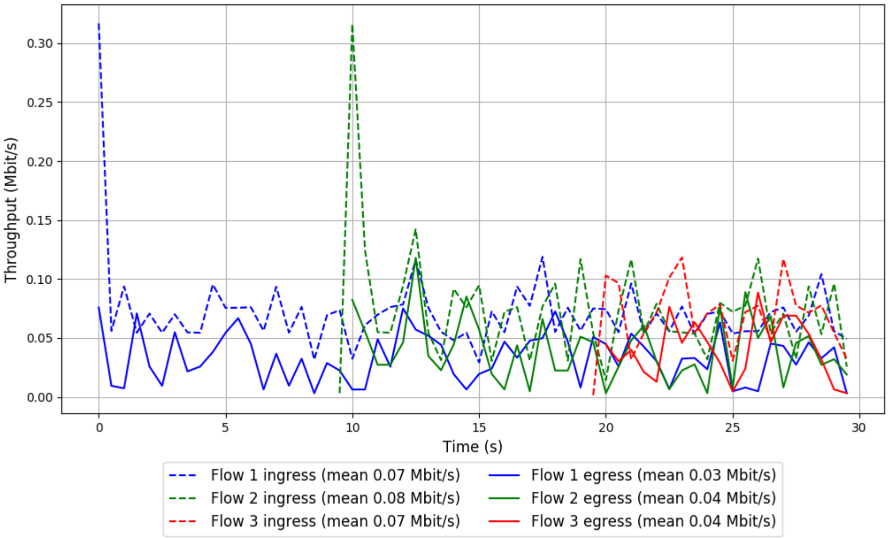


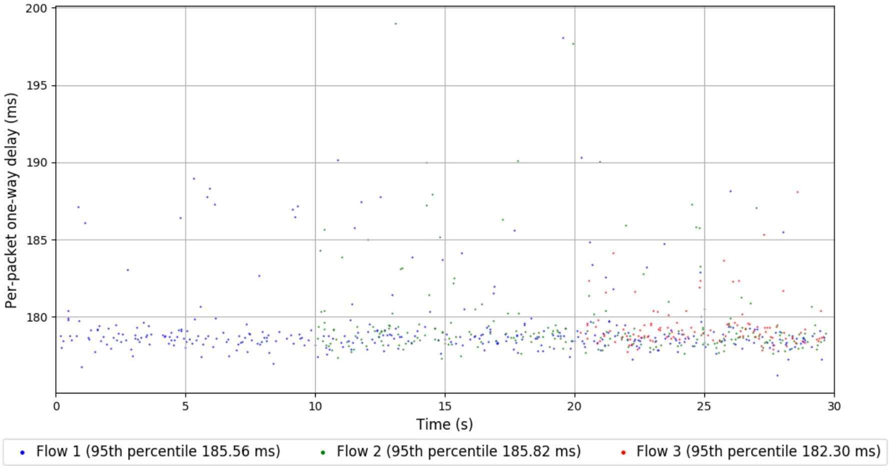
```
Run 1: Statistics of Sprout

Start at: 2017-09-23 08:05:14
End at: 2017-09-23 08:05:44
Local clock offset: -1.448 ms
Remote clock offset: -37.285 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 185.335 ms
Loss rate: 49.96%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 185.562 ms
Loss rate: 53.56%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 185.816 ms
Loss rate: 47.65%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 182.299 ms
Loss rate: 44.06%
```

Run 1: Report of Sprout — Data Link



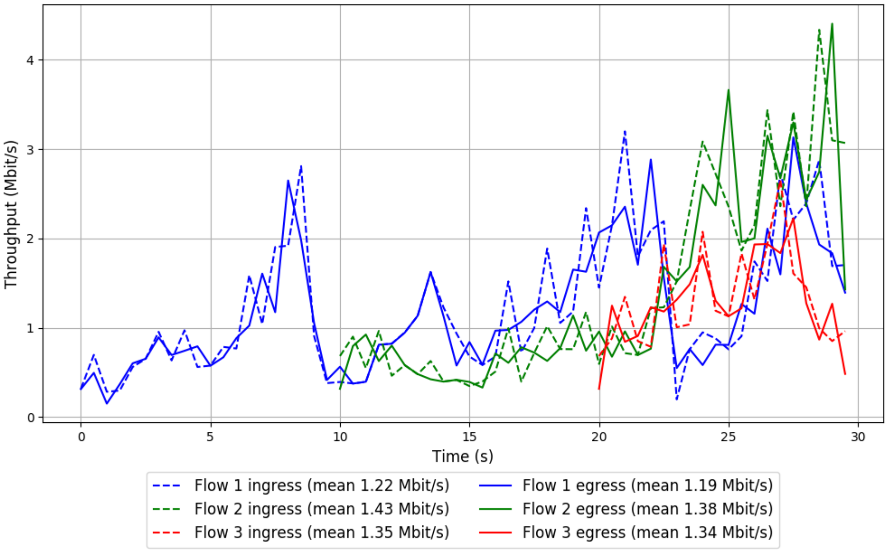


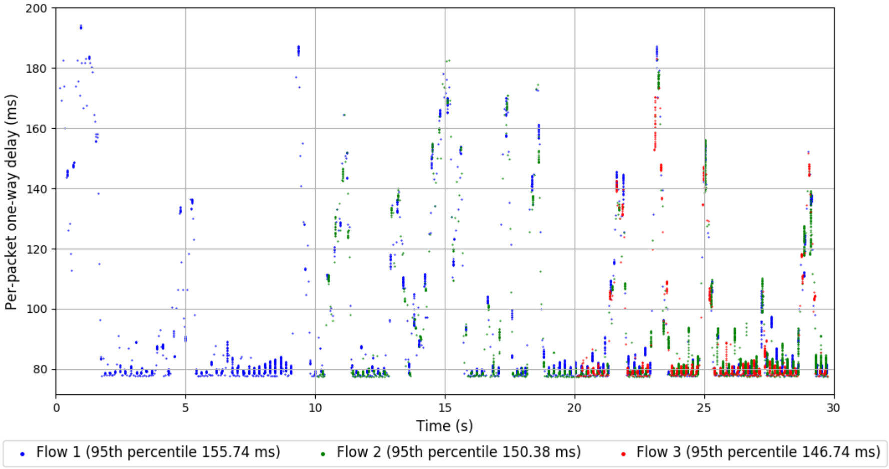
```
Run 2: Statistics of Sprout

Start at: 2017-09-23 08:29:20
End at: 2017-09-23 08:29:50
Local clock offset: 13.839 ms
Remote clock offset: -24.996 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 152.195 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 155.744 ms
Loss rate: 3.52%
-- Flow 2:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 150.379 ms
Loss rate: 4.32%
-- Flow 3:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 146.735 ms
Loss rate: 2.68%
```

Run 2: Report of Sprout — Data Link



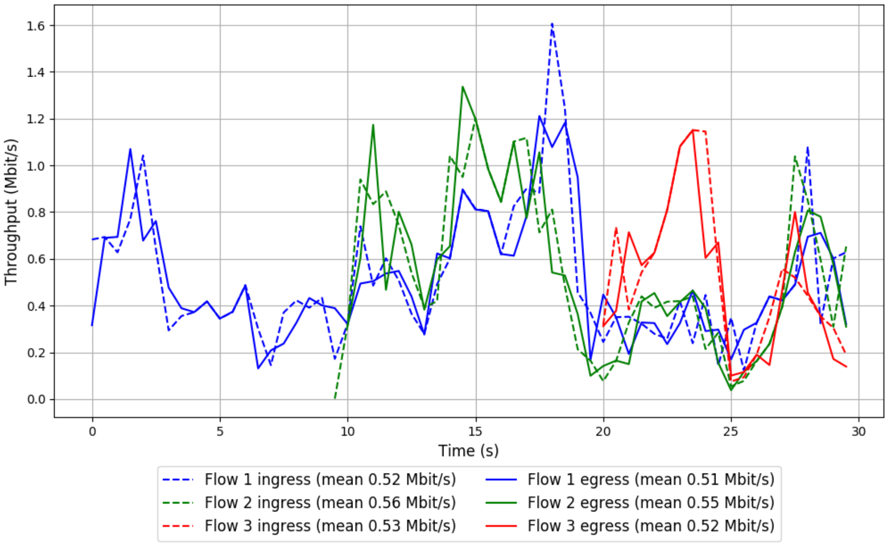


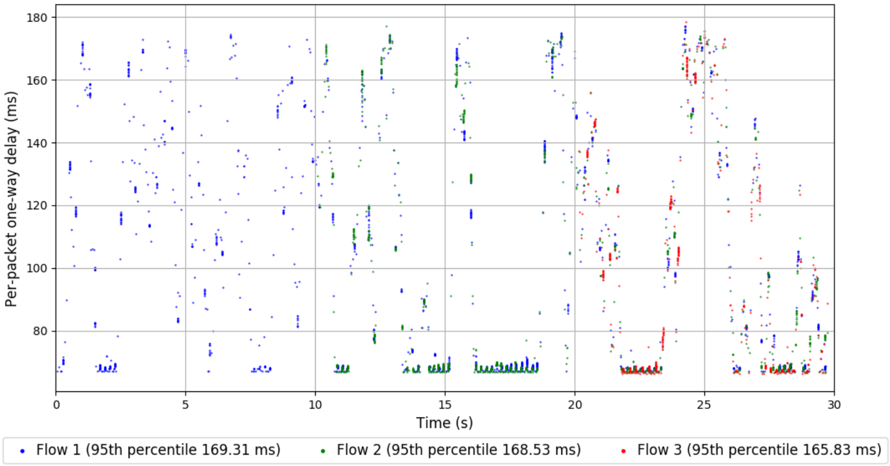
```
Run 3: Statistics of Sprout

Start at: 2017-09-23 08:49:33
End at: 2017-09-23 08:50:03
Local clock offset: -1.726 ms
Remote clock offset: -28.853 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 168.798 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 169.311 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 168.525 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 165.828 ms
Loss rate: 5.44%
```

Run 3: Report of Sprout — Data Link



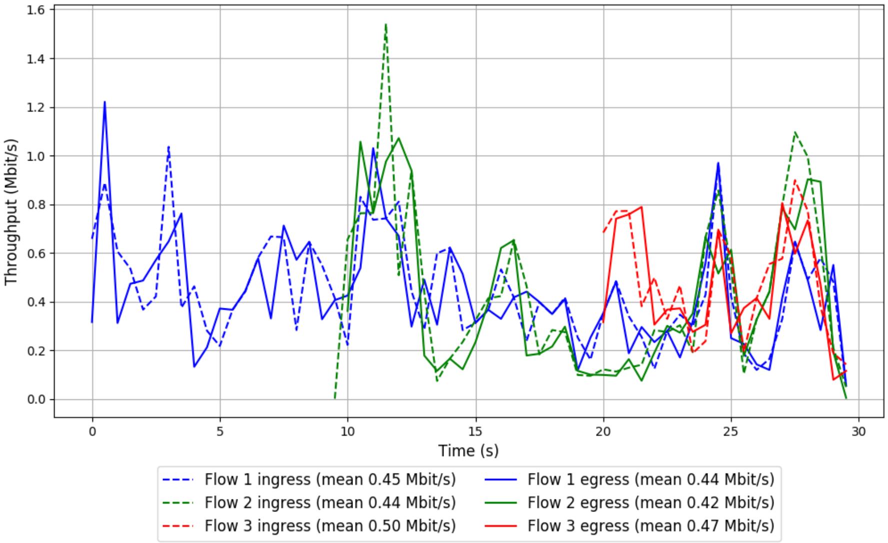


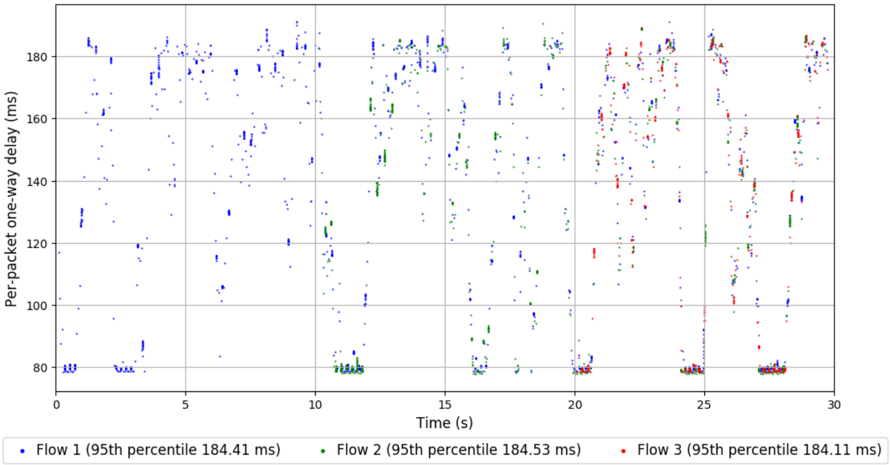
```
Run 4: Statistics of Sprout

Start at: 2017-09-23 09:12:46
End at: 2017-09-23 09:13:16
Local clock offset: 7.623 ms
Remote clock offset: -29.887 ms

# Below is generated by plot.py at 2017-09-23 14:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 184.413 ms
Loss rate: 4.71%
-- Flow 1:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 184.413 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 184.532 ms
Loss rate: 6.02%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 184.113 ms
Loss rate: 6.31%
```

Run 4: Report of Sprout — Data Link



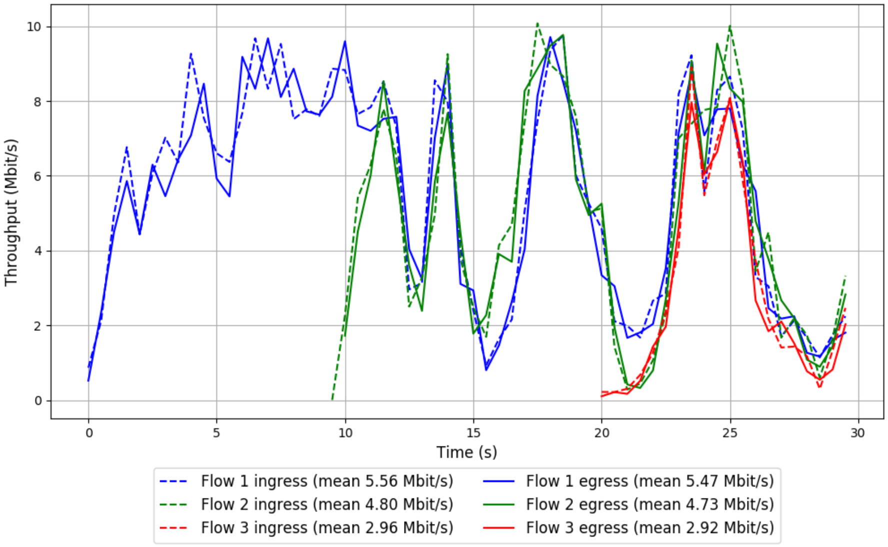


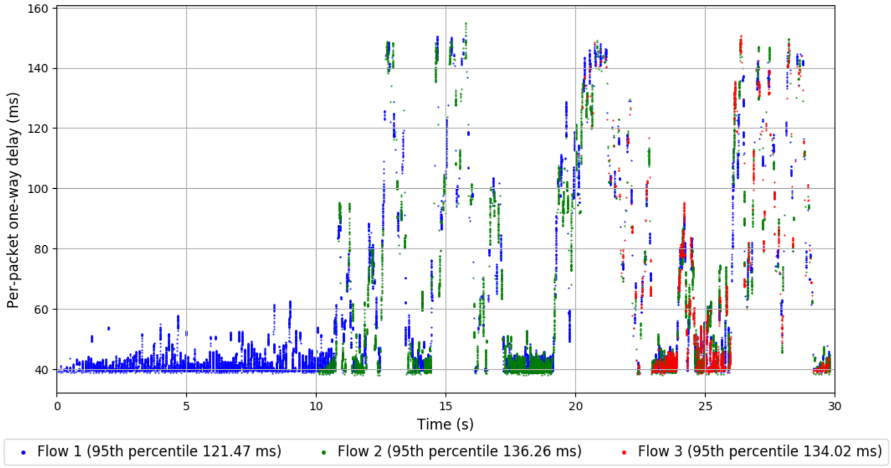
```
Run 5: Statistics of Sprout

Start at: 2017-09-23 09:34:29
End at: 2017-09-23 09:34:59
Local clock offset: -1.441 ms
Remote clock offset: 1.276 ms

# Below is generated by plot.py at 2017-09-23 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 131.490 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 5.47 Mbit/s
95th percentile per-packet one-way delay: 121.474 ms
Loss rate: 2.08%
-- Flow 2:
Average throughput: 4.73 Mbit/s
95th percentile per-packet one-way delay: 136.264 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 134.022 ms
Loss rate: 3.49%
```

Run 5: Report of Sprout — Data Link



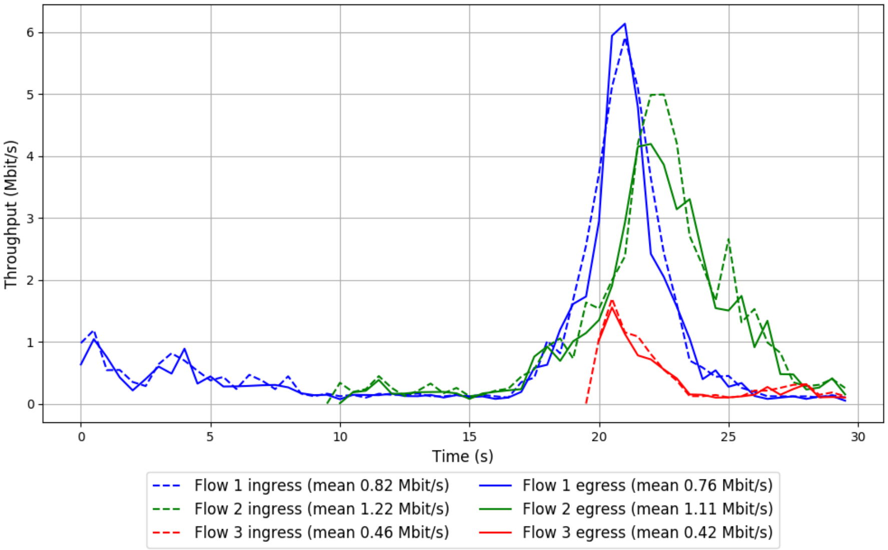


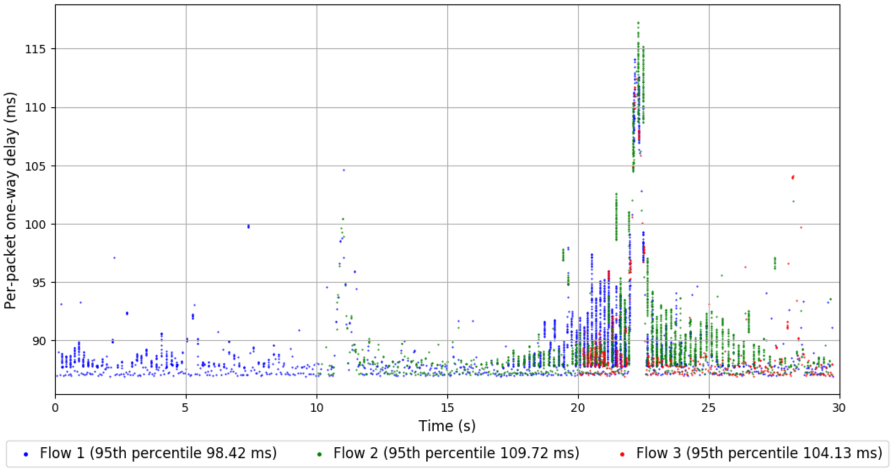
```
Run 6: Statistics of Sprout

Start at: 2017-09-23 09:57:33
End at: 2017-09-23 09:58:03
Local clock offset: 20.228 ms
Remote clock offset: -26.05 ms

# Below is generated by plot.py at 2017-09-23 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 107.393 ms
Loss rate: 9.11%
-- Flow 1:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 98.422 ms
Loss rate: 8.11%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 109.715 ms
Loss rate: 10.07%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 104.134 ms
Loss rate: 9.43%
```

Run 6: Report of Sprout — Data Link



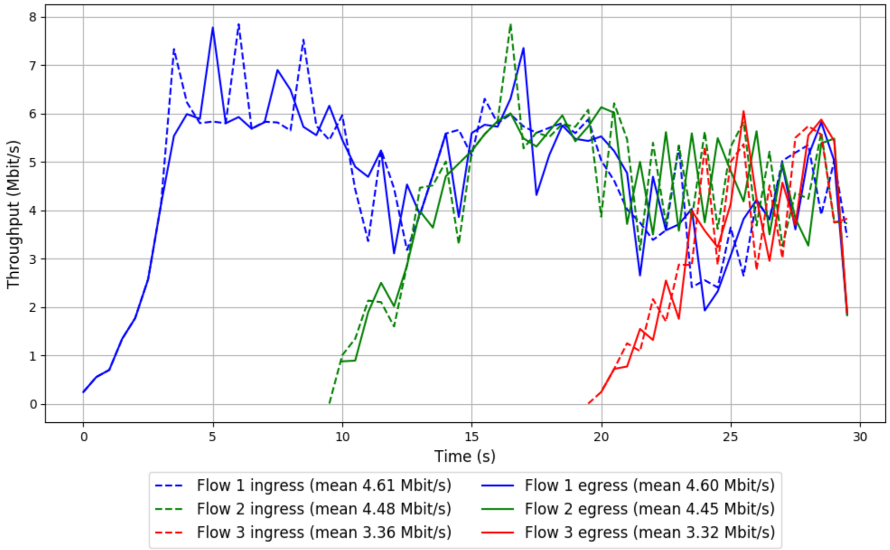


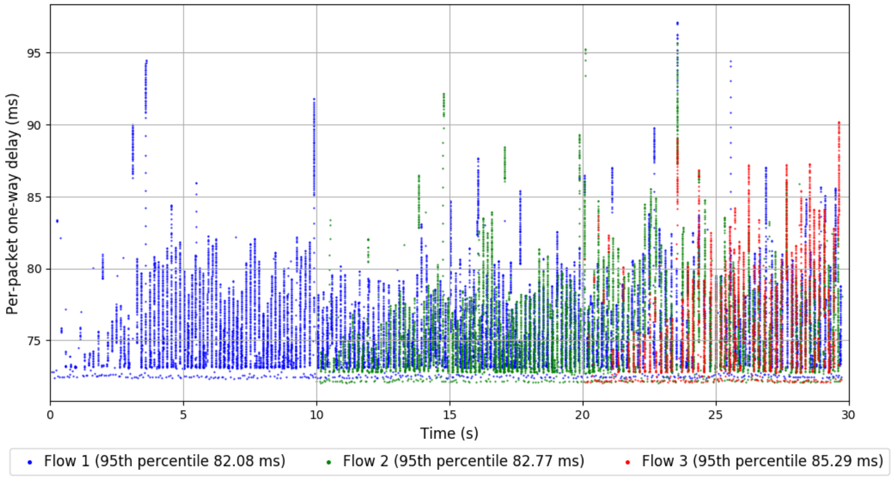
```
Run 7: Statistics of Sprout

Start at: 2017-09-23 10:17:14
End at: 2017-09-23 10:17:44
Local clock offset: 16.527 ms
Remote clock offset: -14.794 ms

# Below is generated by plot.py at 2017-09-23 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 83.114 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 82.080 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 82.772 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 85.286 ms
Loss rate: 3.12%
```

Run 7: Report of Sprout — Data Link



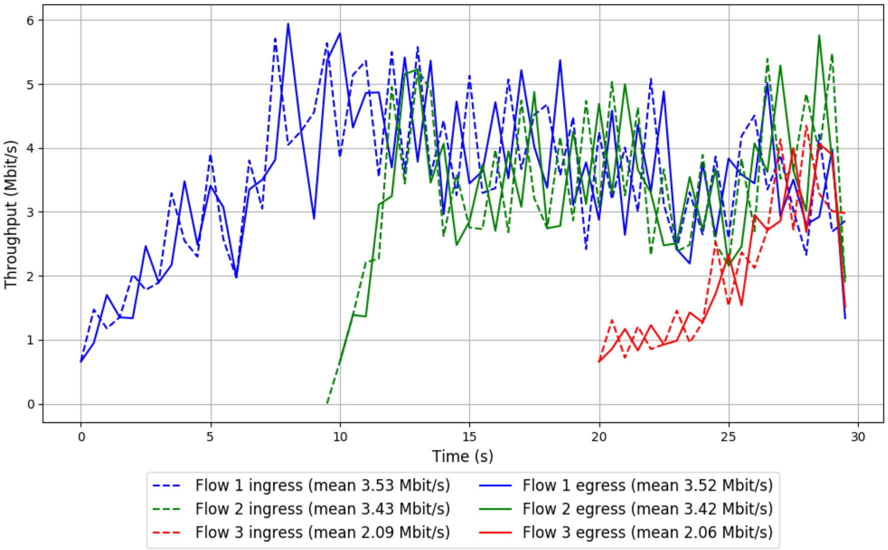


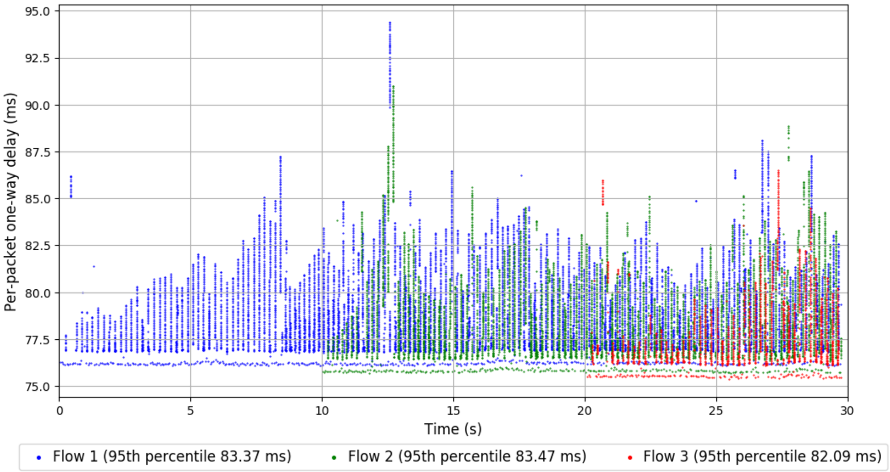
```
Run 8: Statistics of Sprout

Start at: 2017-09-23 10:36:35
End at: 2017-09-23 10:37:05
Local clock offset: -0.675 ms
Remote clock offset: -35.53 ms

# Below is generated by plot.py at 2017-09-23 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 83.343 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 83.368 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 83.470 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 82.091 ms
Loss rate: 3.57%
```

Run 8: Report of Sprout — Data Link



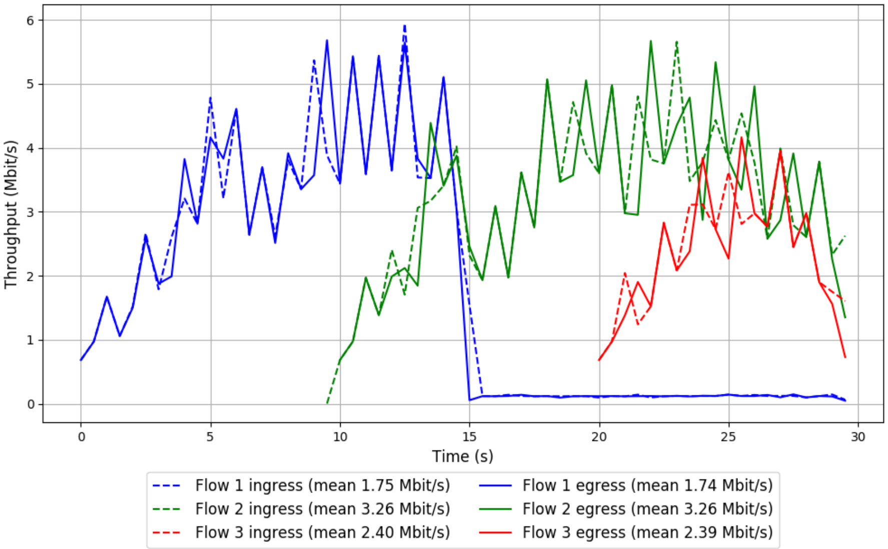


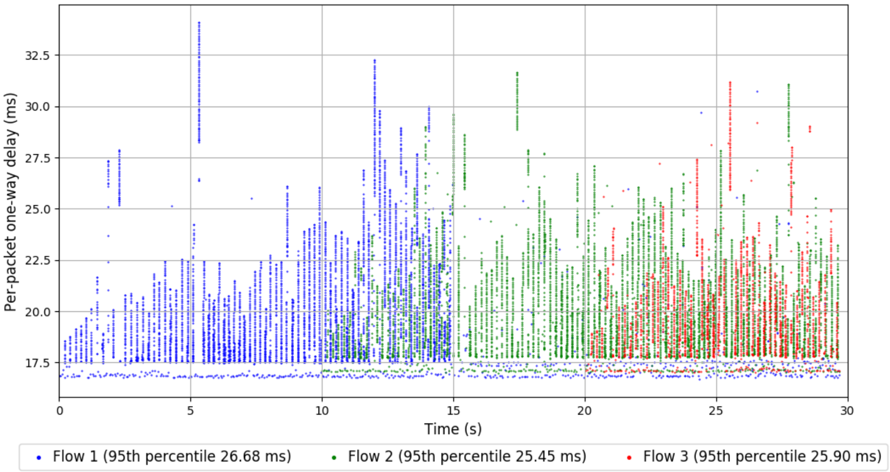
```
Run 9: Statistics of Sprout

Start at: 2017-09-23 10:56:14
End at: 2017-09-23 10:56:44
Local clock offset: -1.85 ms
Remote clock offset: 21.741 ms

# Below is generated by plot.py at 2017-09-23 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 25.986 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 26.682 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 25.452 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 25.899 ms
Loss rate: 2.26%
```

Run 9: Report of Sprout — Data Link



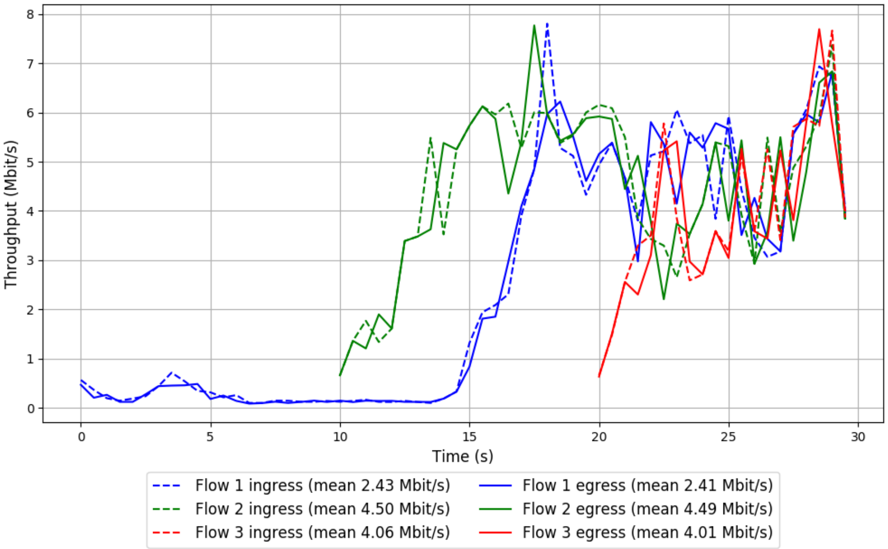


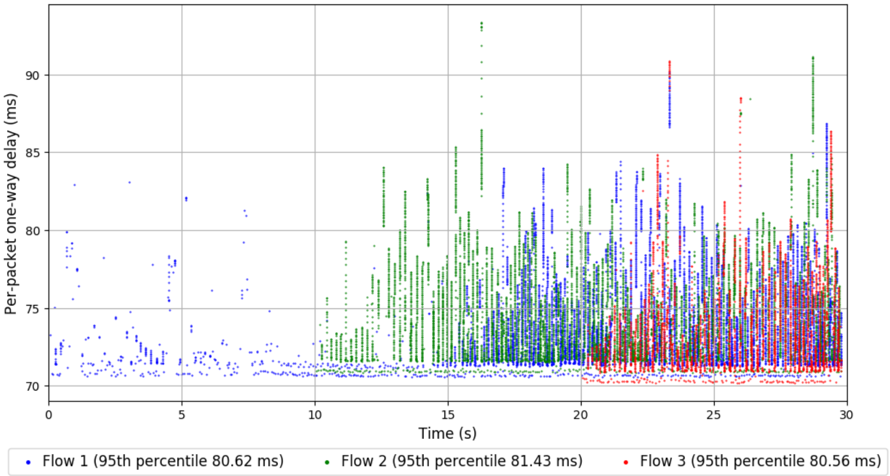
```
Run 10: Statistics of Sprout

Start at: 2017-09-23 11:15:48
End at: 2017-09-23 11:16:18
Local clock offset: -0.905 ms
Remote clock offset: -30.683 ms

# Below is generated by plot.py at 2017-09-23 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 81.005 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 80.617 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 81.434 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 4.01 Mbit/s
95th percentile per-packet one-way delay: 80.562 ms
Loss rate: 2.21%
```

Run 10: Report of Sprout — Data Link



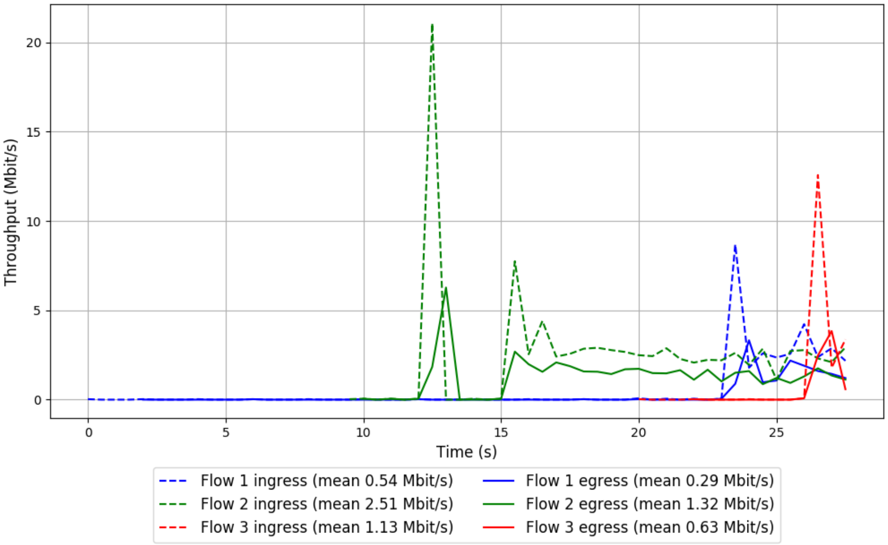


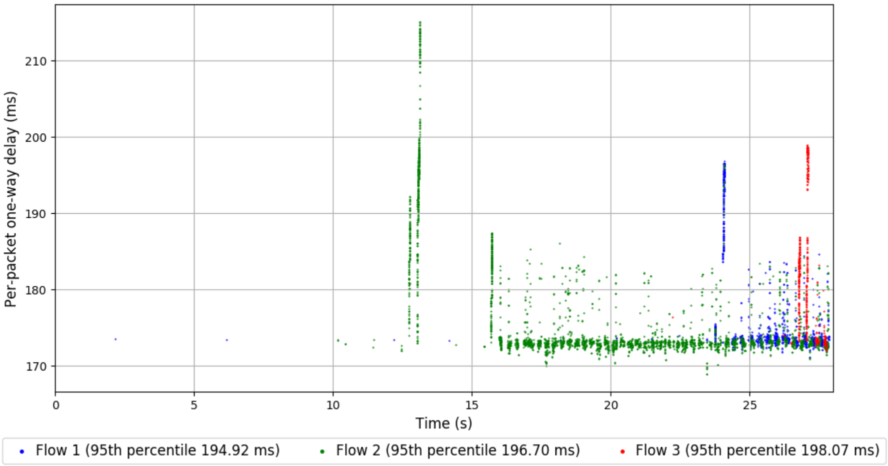
```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-23 07:55:21
End at: 2017-09-23 07:55:51
Local clock offset: -1.34 ms
Remote clock offset: -31.264 ms

# Below is generated by plot.py at 2017-09-23 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 196.361 ms
Loss rate: 50.56%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 194.923 ms
Loss rate: 51.06%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 196.703 ms
Loss rate: 48.34%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 198.070 ms
Loss rate: 60.90%
```

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



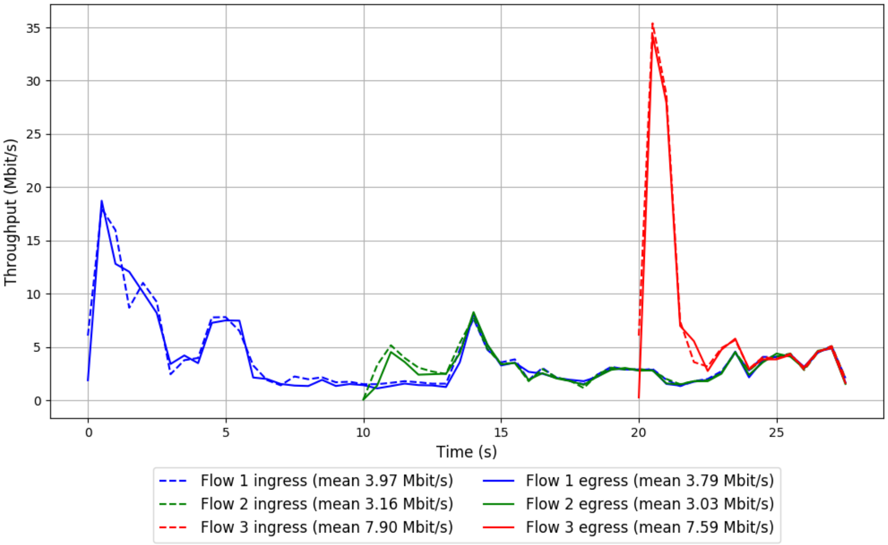


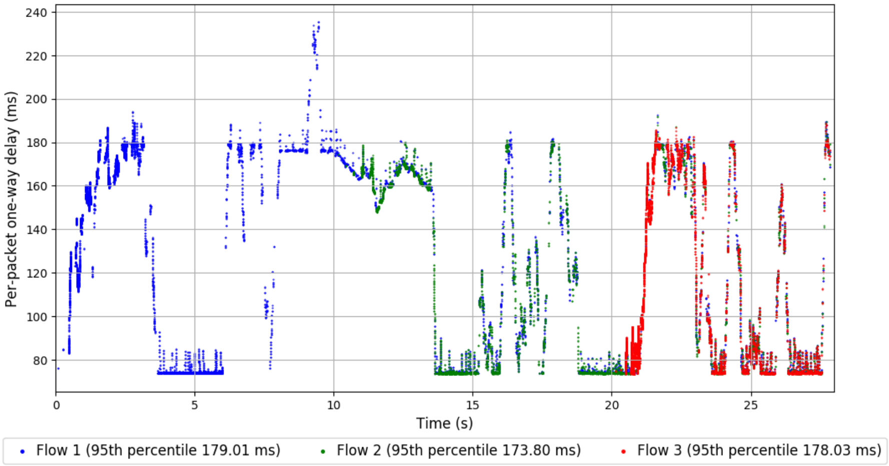
```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-23 08:24:54
End at: 2017-09-23 08:25:24
Local clock offset: 5.4 ms
Remote clock offset: -29.187 ms

# Below is generated by plot.py at 2017-09-23 14:58:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 178.417 ms
Loss rate: 5.44%
-- Flow 1:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 179.015 ms
Loss rate: 5.22%
-- Flow 2:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 173.802 ms
Loss rate: 5.40%
-- Flow 3:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 178.035 ms
Loss rate: 5.87%
```

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



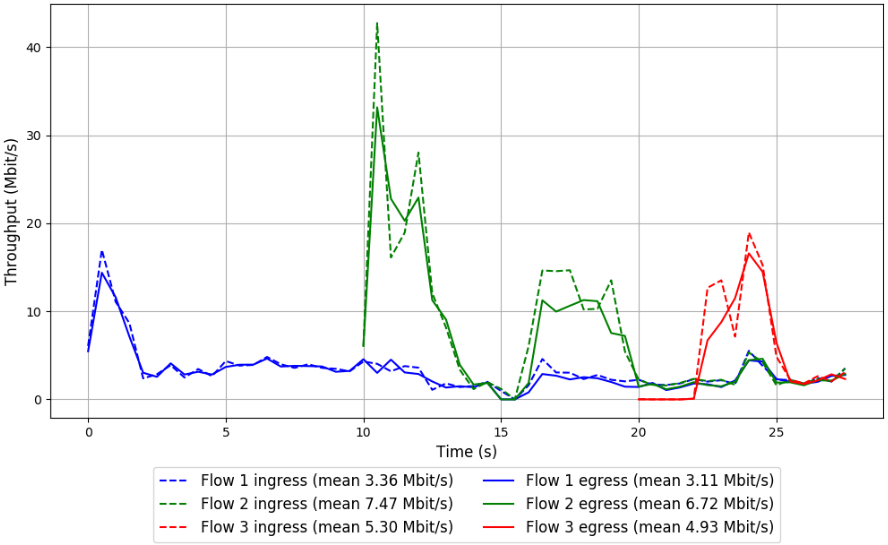


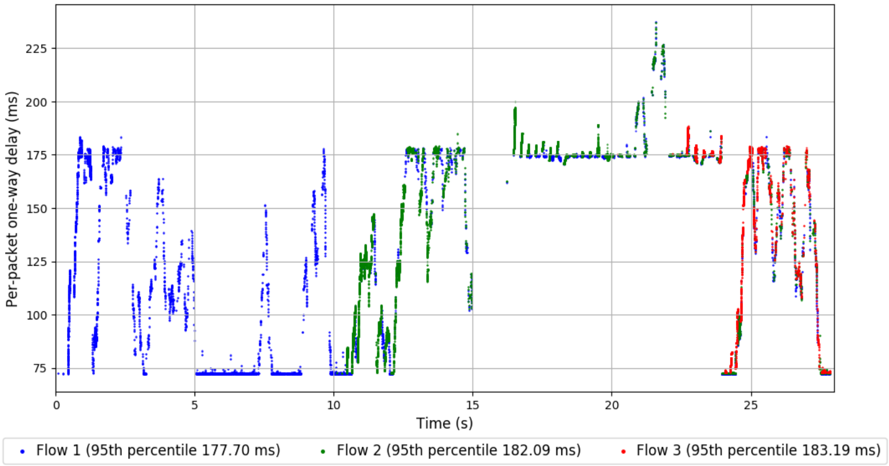
```
Run 3: Statistics of TaoVA-100x

Start at: 2017-09-23 08:45:15
End at: 2017-09-23 08:45:45
Local clock offset: -0.62 ms
Remote clock offset: -33.14 ms

# Below is generated by plot.py at 2017-09-23 14:58:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.77 Mbit/s
95th percentile per-packet one-way delay: 180.731 ms
Loss rate: 9.76%
-- Flow 1:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 177.704 ms
Loss rate: 7.82%
-- Flow 2:
Average throughput: 6.72 Mbit/s
95th percentile per-packet one-way delay: 182.086 ms
Loss rate: 10.96%
-- Flow 3:
Average throughput: 4.93 Mbit/s
95th percentile per-packet one-way delay: 183.189 ms
Loss rate: 10.28%
```

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



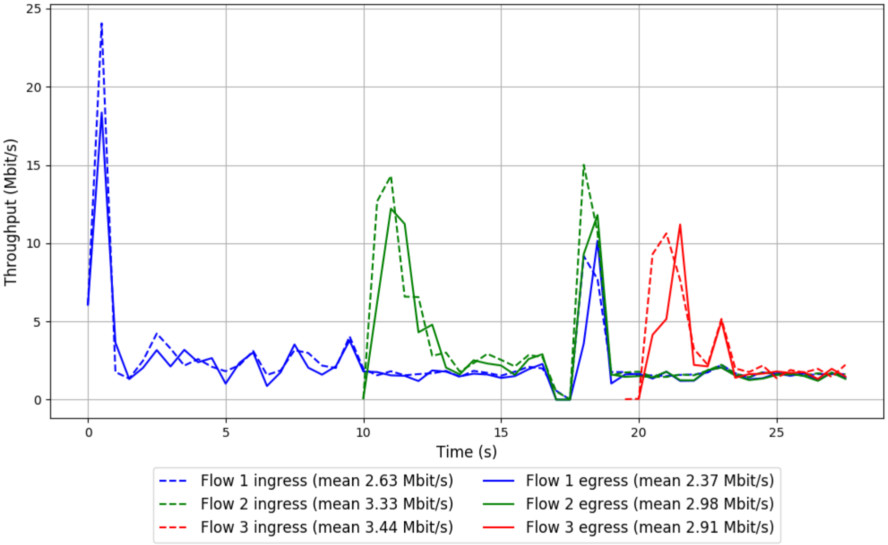


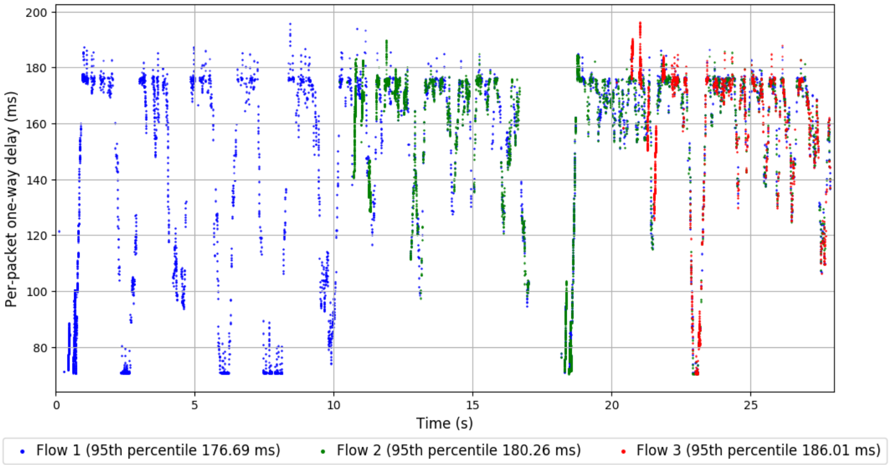
```
Run 4: Statistics of TaoVA-100x

Start at: 2017-09-23 09:07:55
End at: 2017-09-23 09:08:25
Local clock offset: -0.619 ms
Remote clock offset: -30.105 ms

# Below is generated by plot.py at 2017-09-23 14:58:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 180.208 ms
Loss rate: 12.46%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 176.685 ms
Loss rate: 10.55%
-- Flow 2:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 180.256 ms
Loss rate: 12.01%
-- Flow 3:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 186.014 ms
Loss rate: 18.56%
```

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



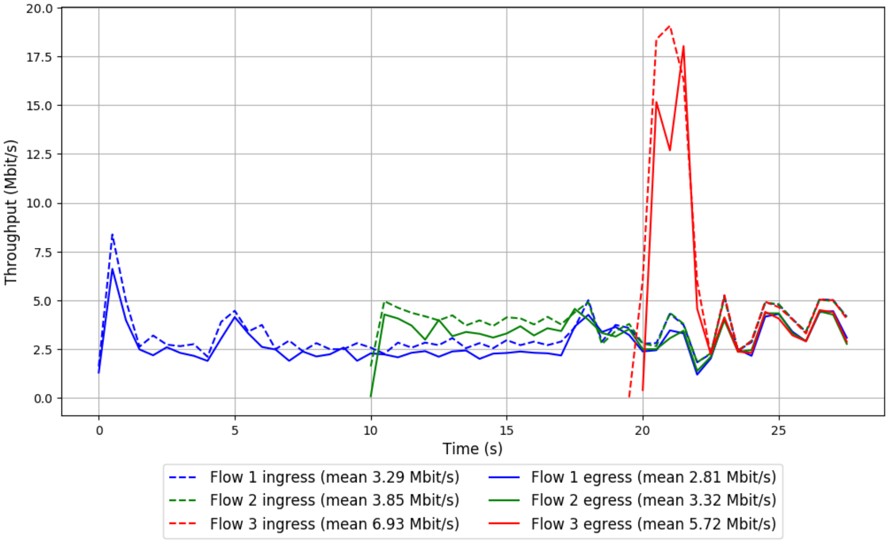


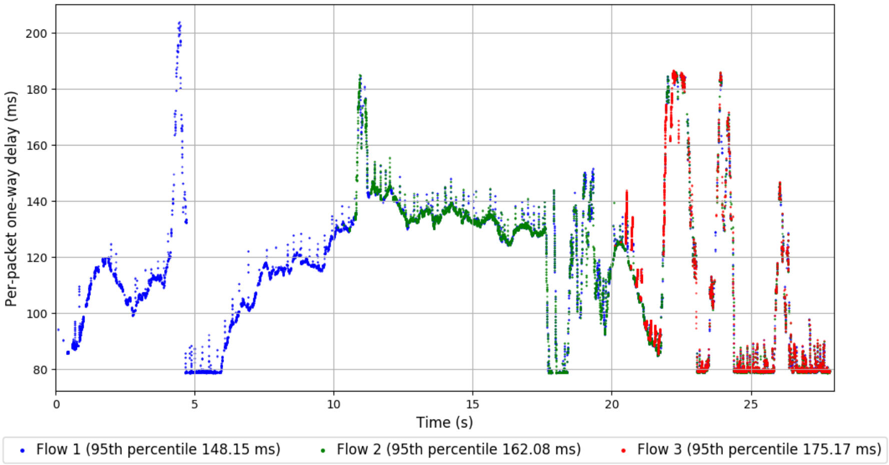
```
Run 5: Statistics of TaoVA-100x

Start at: 2017-09-23 09:29:55
End at: 2017-09-23 09:30:25
Local clock offset: -1.605 ms
Remote clock offset: -38.825 ms

# Below is generated by plot.py at 2017-09-23 14:58:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.52 Mbit/s
95th percentile per-packet one-way delay: 165.997 ms
Loss rate: 16.02%
-- Flow 1:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 148.149 ms
Loss rate: 15.08%
-- Flow 2:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 162.084 ms
Loss rate: 14.55%
-- Flow 3:
Average throughput: 5.72 Mbit/s
95th percentile per-packet one-way delay: 175.166 ms
Loss rate: 19.47%
```

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



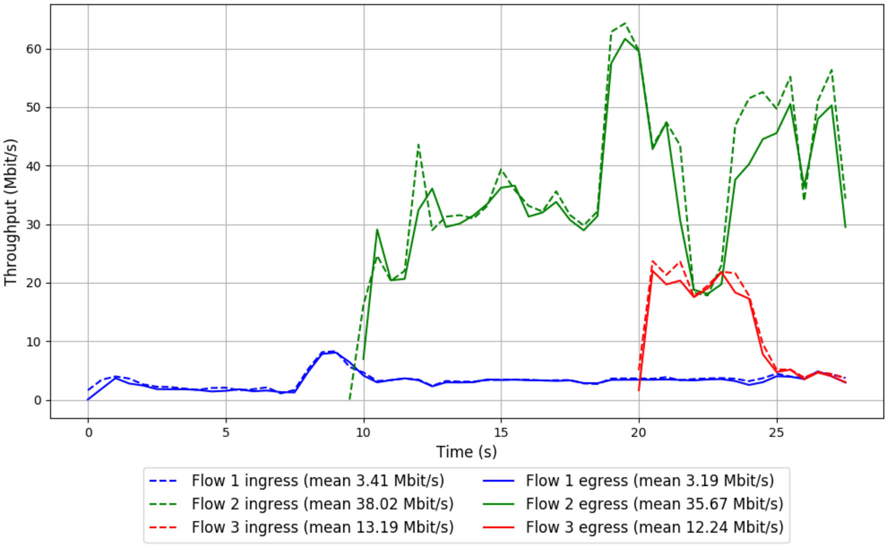


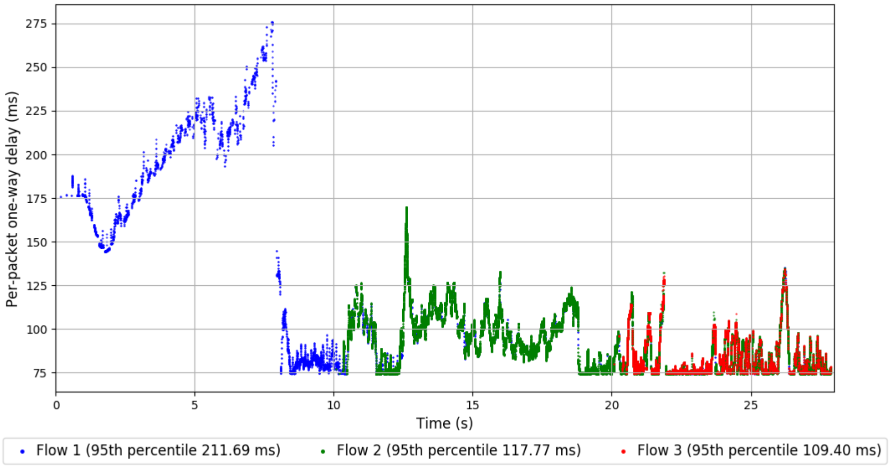
```
Run 6: Statistics of TaoVA-100x

Start at: 2017-09-23 09:51:27
End at: 2017-09-23 09:51:57
Local clock offset: 14.202 ms
Remote clock offset: -18.562 ms

# Below is generated by plot.py at 2017-09-23 14:59:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.55 Mbit/s
95th percentile per-packet one-way delay: 121.654 ms
Loss rate: 7.16%
-- Flow 1:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 211.695 ms
Loss rate: 7.40%
-- Flow 2:
Average throughput: 35.67 Mbit/s
95th percentile per-packet one-way delay: 117.765 ms
Loss rate: 6.89%
-- Flow 3:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 109.398 ms
Loss rate: 8.68%
```

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



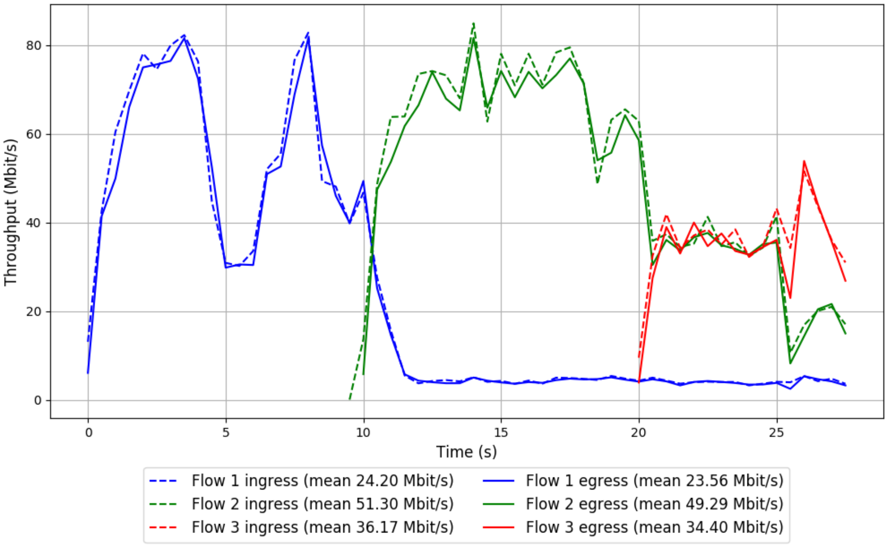


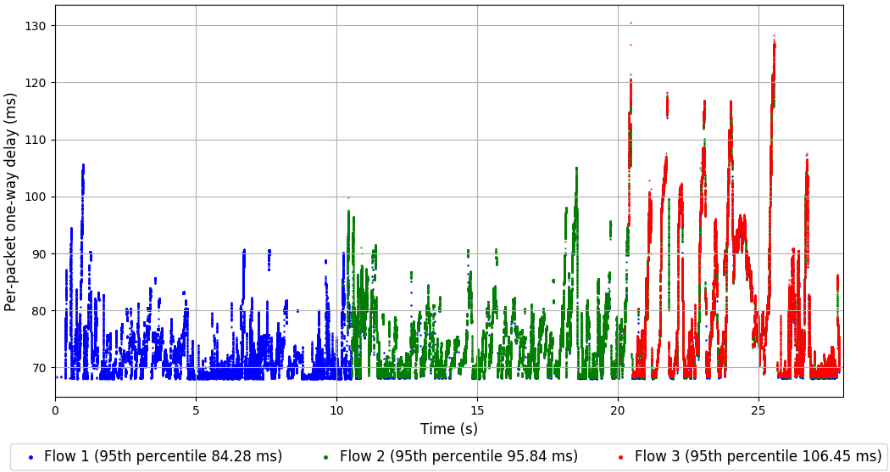
```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-23 10:13:03
End at: 2017-09-23 10:13:33
Local clock offset: 18.332 ms
Remote clock offset: -8.701 ms

# Below is generated by plot.py at 2017-09-23 15:00:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.76 Mbit/s
95th percentile per-packet one-way delay: 96.622 ms
Loss rate: 4.38%
-- Flow 1:
Average throughput: 23.56 Mbit/s
95th percentile per-packet one-way delay: 84.275 ms
Loss rate: 3.09%
-- Flow 2:
Average throughput: 49.29 Mbit/s
95th percentile per-packet one-way delay: 95.836 ms
Loss rate: 4.65%
-- Flow 3:
Average throughput: 34.40 Mbit/s
95th percentile per-packet one-way delay: 106.454 ms
Loss rate: 6.56%
```

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



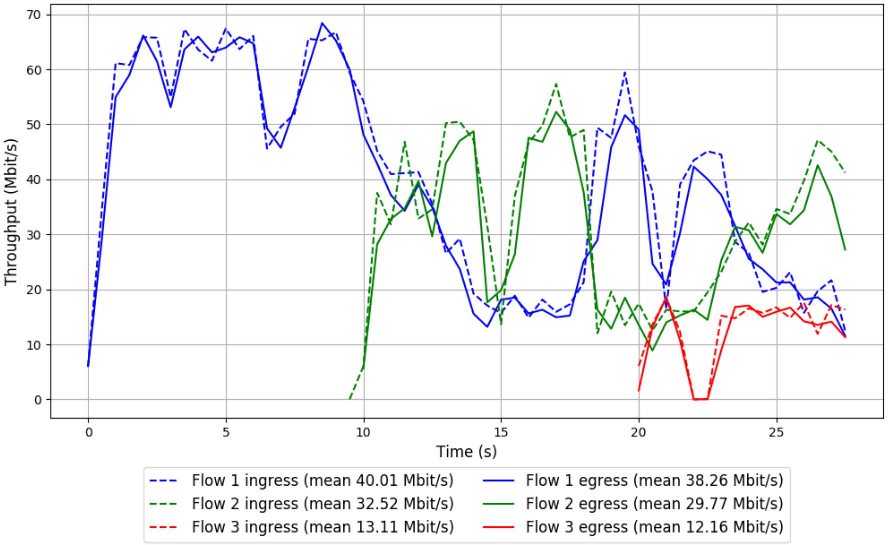


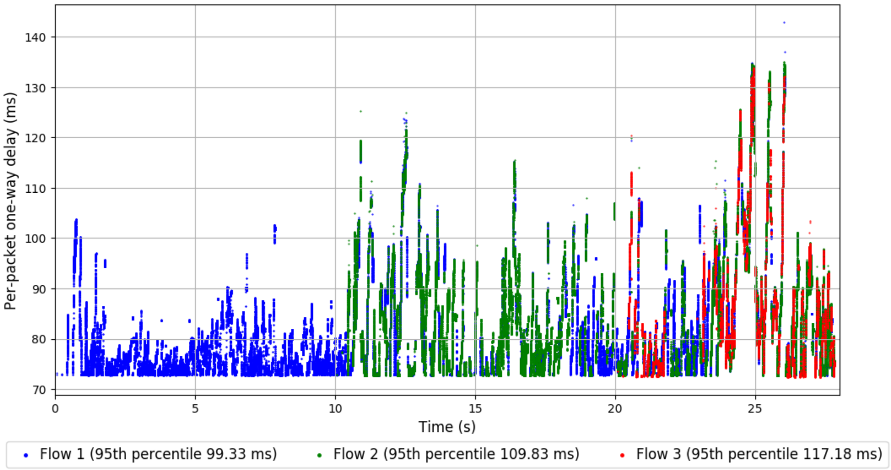
```
Run 8: Statistics of TaoVA-100x

Start at: 2017-09-23 10:32:34
End at: 2017-09-23 10:33:04
Local clock offset: -1.836 ms
Remote clock offset: -33.136 ms

# Below is generated by plot.py at 2017-09-23 15:00:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.63 Mbit/s
95th percentile per-packet one-way delay: 103.415 ms
Loss rate: 6.70%
-- Flow 1:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 99.329 ms
Loss rate: 5.06%
-- Flow 2:
Average throughput: 29.77 Mbit/s
95th percentile per-packet one-way delay: 109.830 ms
Loss rate: 9.35%
-- Flow 3:
Average throughput: 12.16 Mbit/s
95th percentile per-packet one-way delay: 117.181 ms
Loss rate: 9.39%
```

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



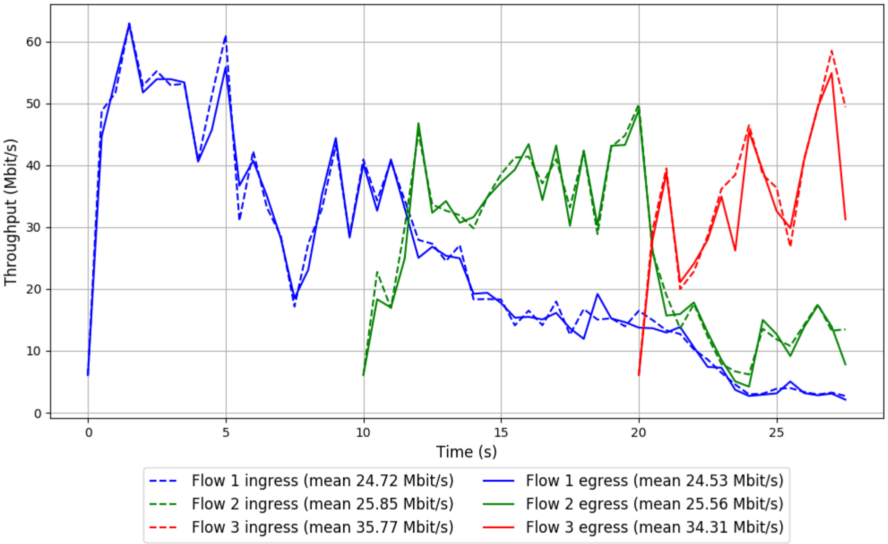


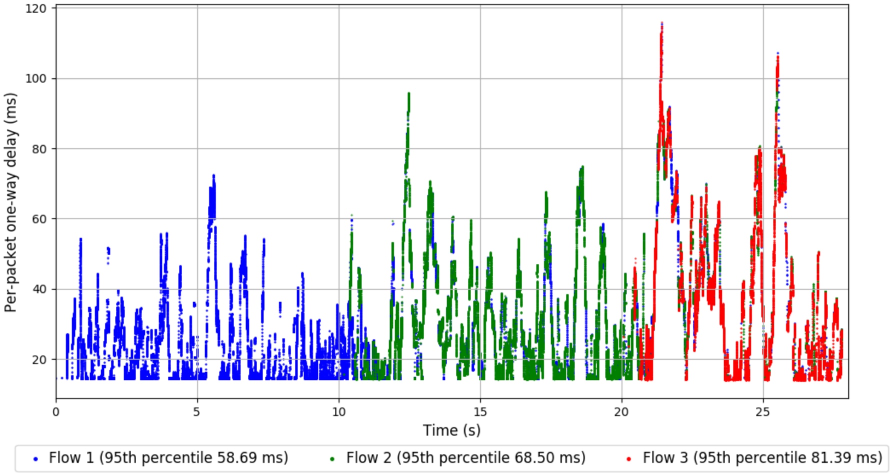
```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-23 10:52:07
End at: 2017-09-23 10:52:37
Local clock offset: -1.958 ms
Remote clock offset: 24.992 ms

# Below is generated by plot.py at 2017-09-23 15:00:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.43 Mbit/s
95th percentile per-packet one-way delay: 68.295 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 58.688 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 25.56 Mbit/s
95th percentile per-packet one-way delay: 68.504 ms
Loss rate: 2.15%
-- Flow 3:
Average throughput: 34.31 Mbit/s
95th percentile per-packet one-way delay: 81.393 ms
Loss rate: 6.52%
```

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



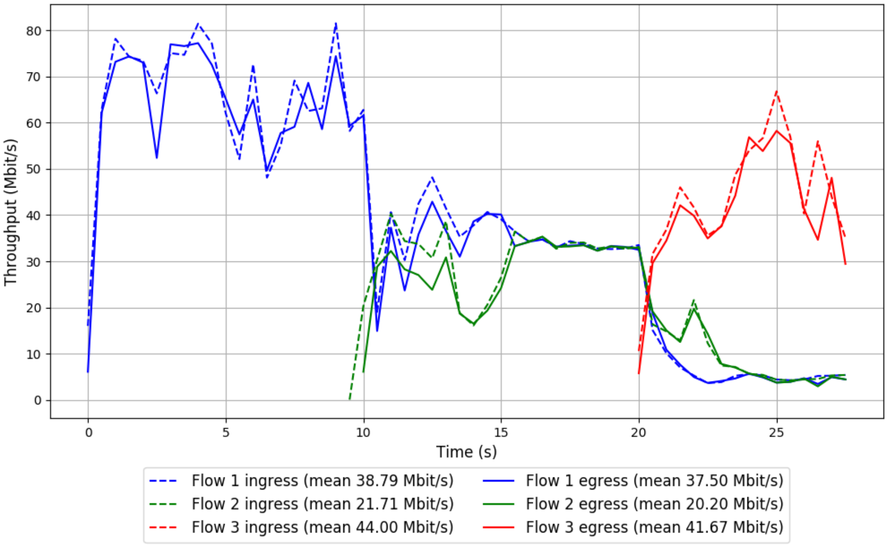


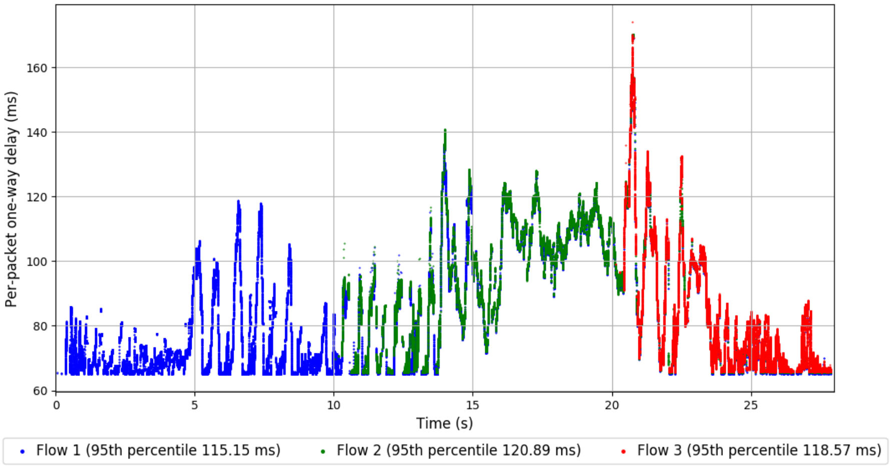
```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-23 11:11:31
End at: 2017-09-23 11:12:01
Local clock offset: 13.989 ms
Remote clock offset: -10.174 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.06 Mbit/s
95th percentile per-packet one-way delay: 118.051 ms
Loss rate: 5.36%
-- Flow 1:
Average throughput: 37.50 Mbit/s
95th percentile per-packet one-way delay: 115.149 ms
Loss rate: 3.85%
-- Flow 2:
Average throughput: 20.20 Mbit/s
95th percentile per-packet one-way delay: 120.892 ms
Loss rate: 7.70%
-- Flow 3:
Average throughput: 41.67 Mbit/s
95th percentile per-packet one-way delay: 118.570 ms
Loss rate: 7.40%
```

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



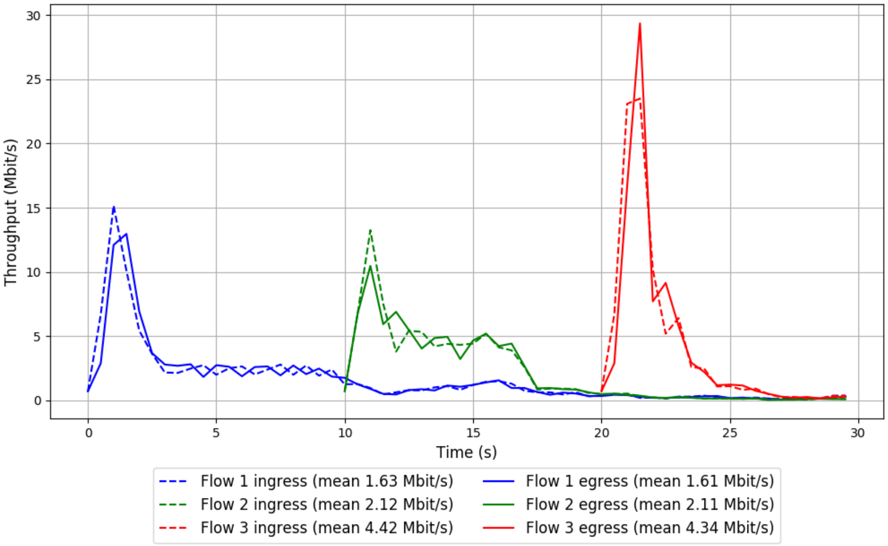


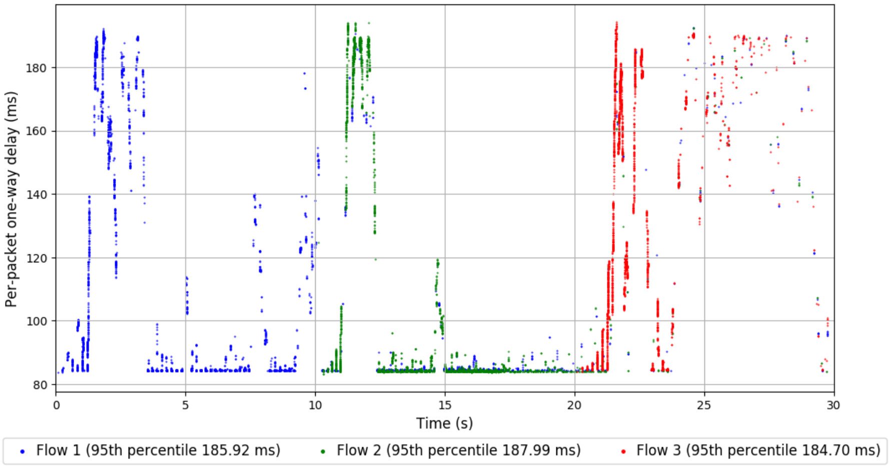
```
Run 1: Statistics of TCP Vegas

Start at: 2017-09-23 08:16:18
End at: 2017-09-23 08:16:48
Local clock offset: 4.209 ms
Remote clock offset: -41.19 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 186.615 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 185.923 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 187.989 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 184.704 ms
Loss rate: 3.54%
```

Run 1: Report of TCP Vegas — Data Link



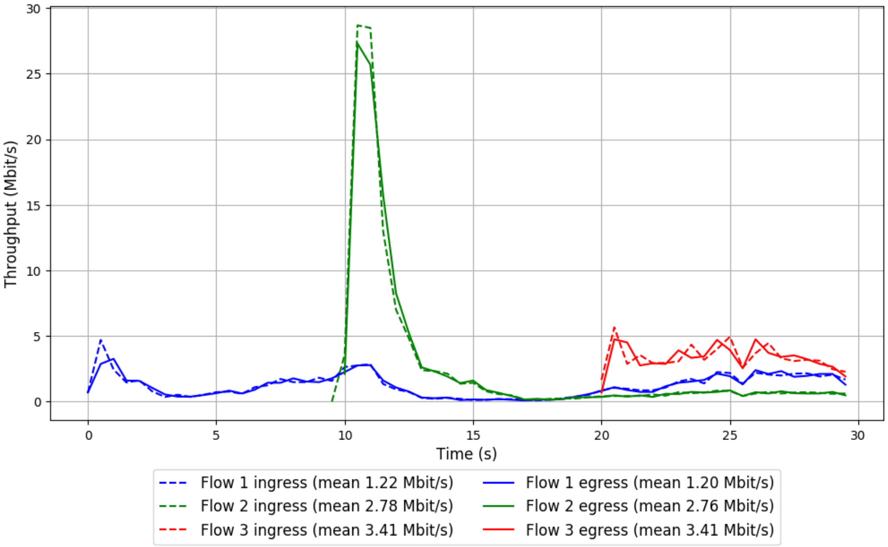


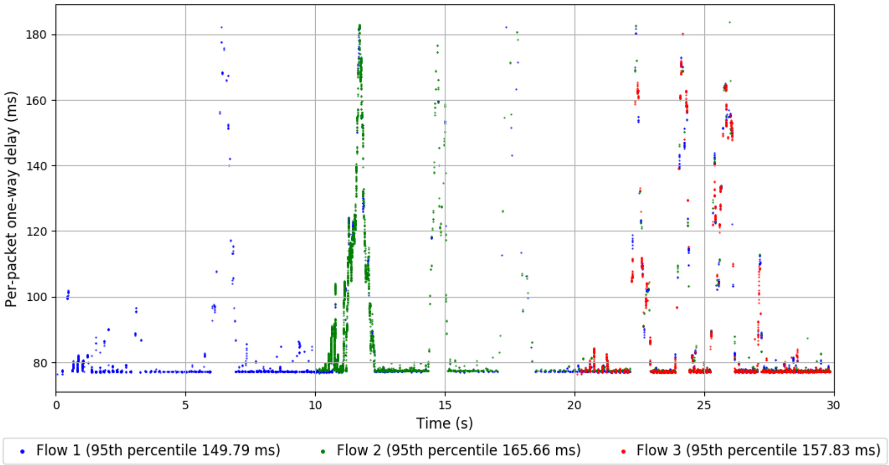
```
Run 2: Statistics of TCP Vegas

Start at: 2017-09-23 08:36:27
End at: 2017-09-23 08:36:57
Local clock offset: -0.329 ms
Remote clock offset: -37.661 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 156.447 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 149.795 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 2.76 Mbit/s
95th percentile per-packet one-way delay: 165.661 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 157.831 ms
Loss rate: 1.32%
```

Run 2: Report of TCP Vegas — Data Link



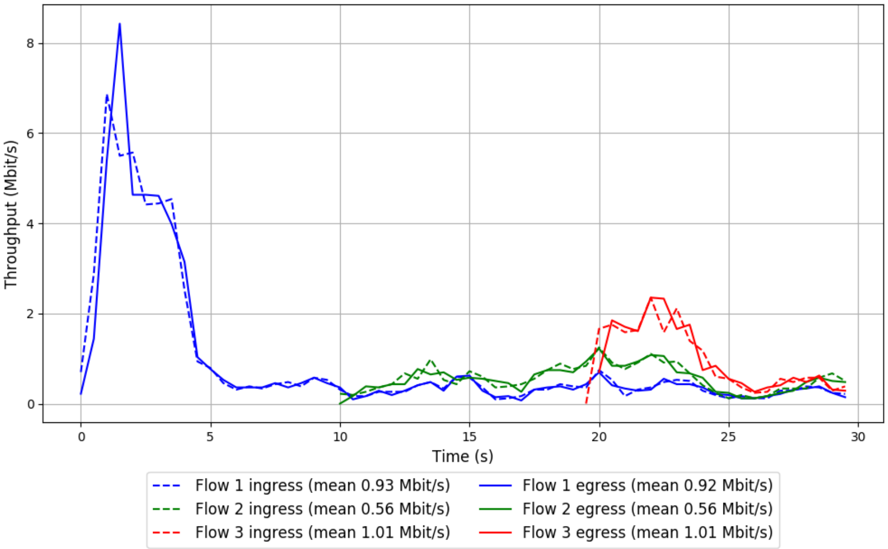


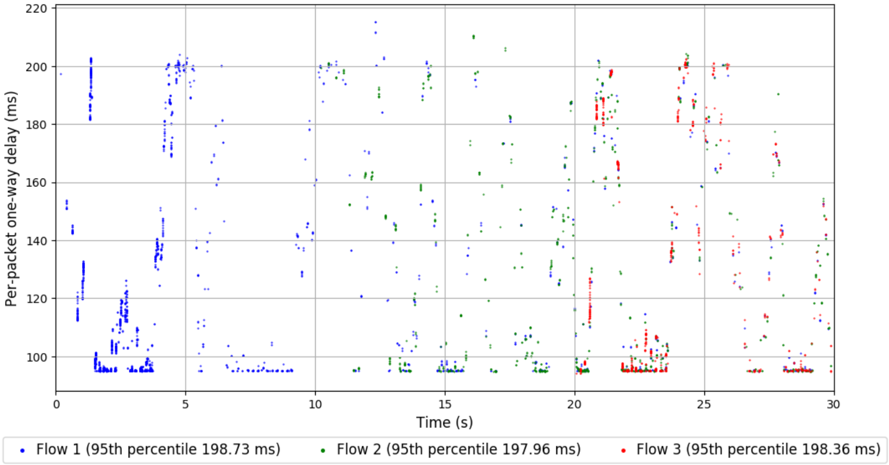
```
Run 3: Statistics of TCP Vegas

Start at: 2017-09-23 08:57:13
End at: 2017-09-23 08:57:43
Local clock offset: 12.755 ms
Remote clock offset: -41.386 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 198.584 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 198.730 ms
Loss rate: 1.98%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 197.962 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 198.356 ms
Loss rate: 1.31%
```

Run 3: Report of TCP Vegas — Data Link



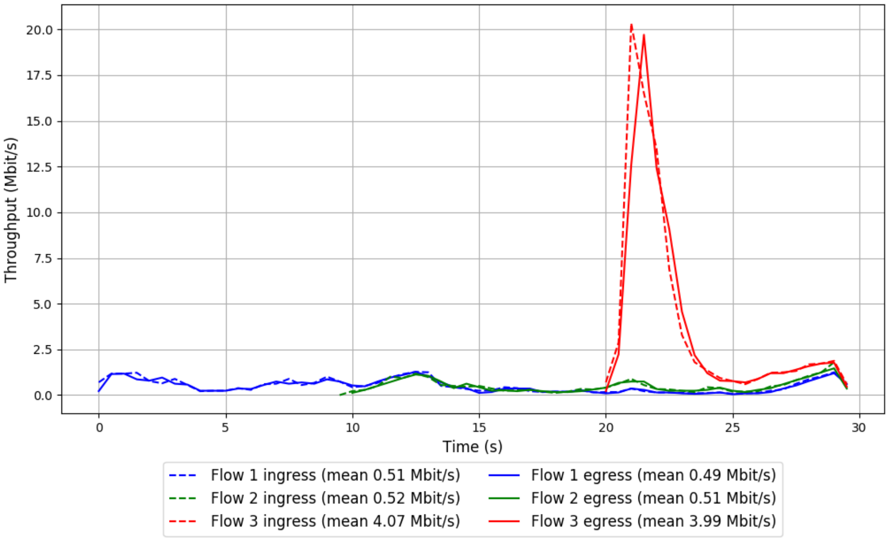


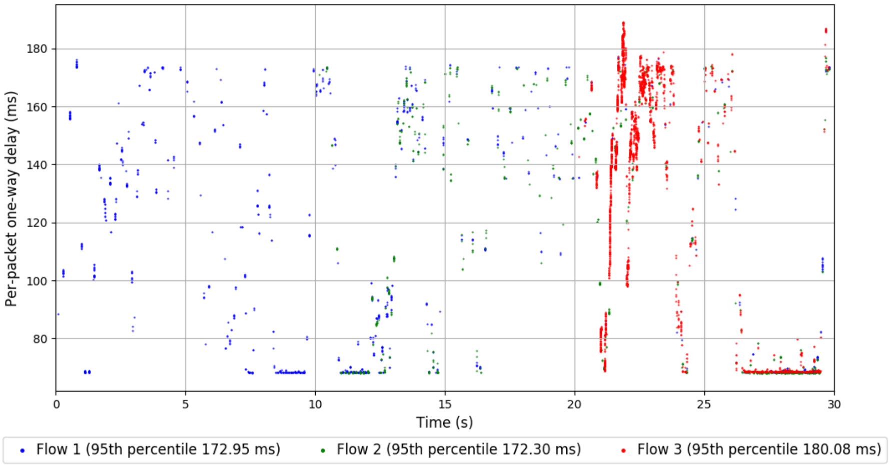
```
Run 4: Statistics of TCP Vegas

Start at: 2017-09-23 09:20:38
End at: 2017-09-23 09:21:08
Local clock offset: -1.464 ms
Remote clock offset: -27.613 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 176.351 ms
Loss rate: 4.39%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 172.949 ms
Loss rate: 4.95%
-- Flow 2:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 172.296 ms
Loss rate: 4.05%
-- Flow 3:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 180.081 ms
Loss rate: 4.26%
```

Run 4: Report of TCP Vegas — Data Link



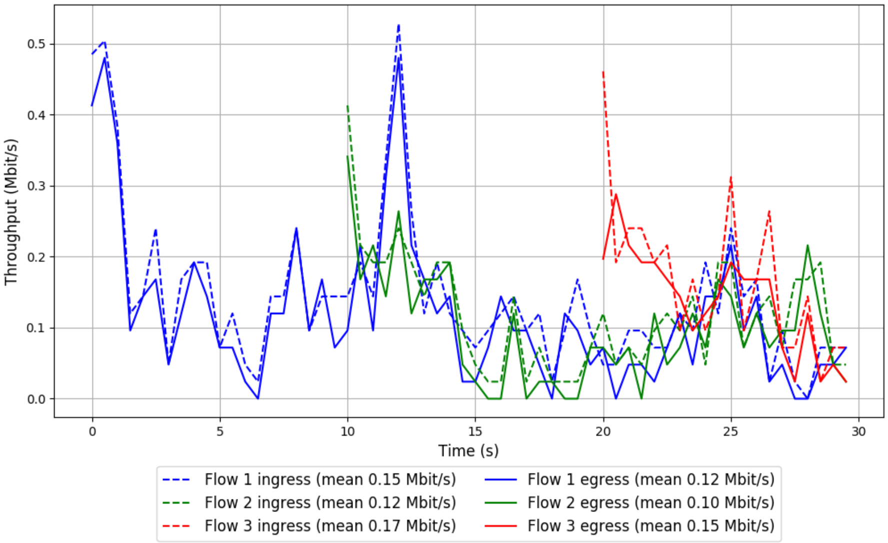


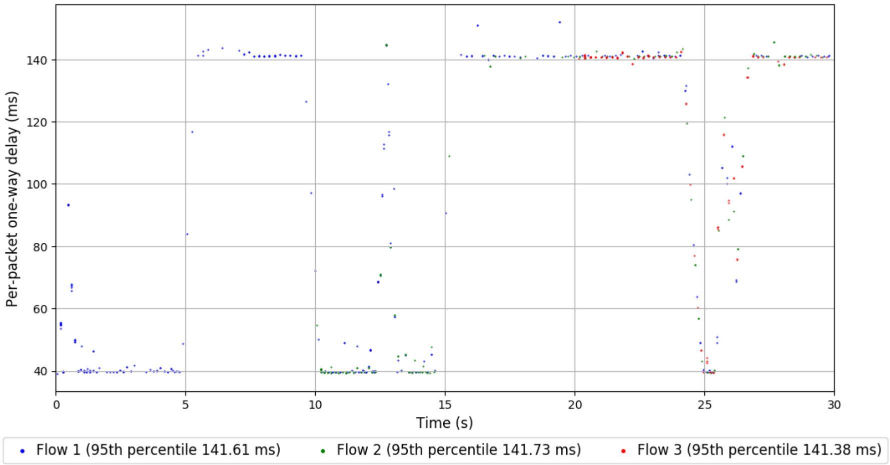
```
Run 5: Statistics of TCP Vegas

Start at: 2017-09-23 09:42:17
End at: 2017-09-23 09:42:47
Local clock offset: -1.493 ms
Remote clock offset: 0.807 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 141.718 ms
Loss rate: 17.58%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 141.607 ms
Loss rate: 17.39%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 141.731 ms
Loss rate: 18.16%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 141.385 ms
Loss rate: 17.24%
```

Run 5: Report of TCP Vegas — Data Link



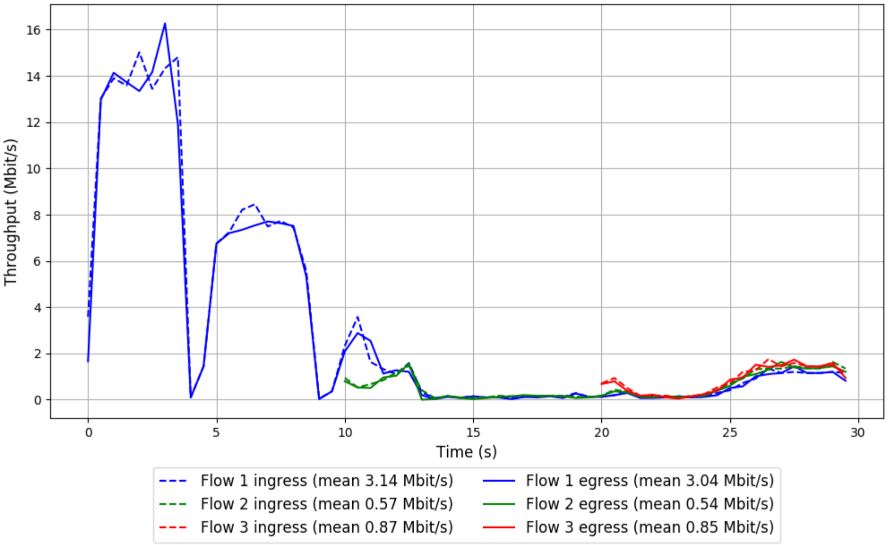


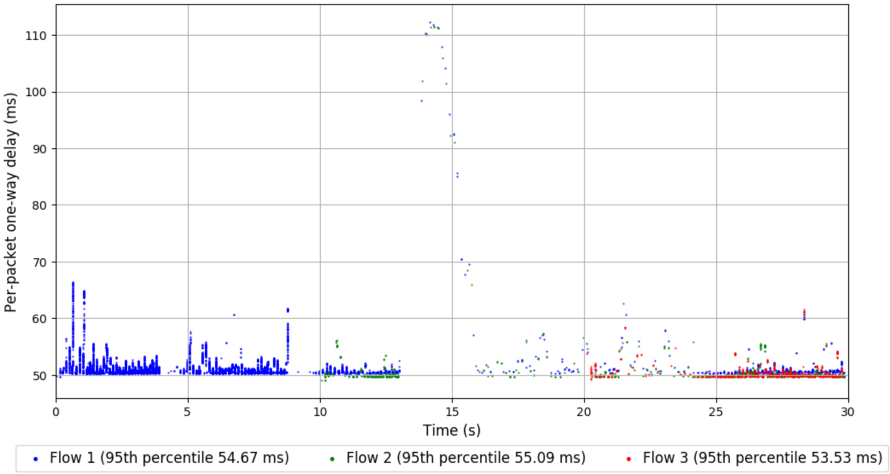
```
Run 6: Statistics of TCP Vegas

Start at: 2017-09-23 10:05:02
End at: 2017-09-23 10:05:32
Local clock offset: -1.596 ms
Remote clock offset: -10.207 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 54.638 ms
Loss rate: 3.93%
-- Flow 1:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 54.671 ms
Loss rate: 3.65%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 55.085 ms
Loss rate: 6.65%
-- Flow 3:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 53.533 ms
Loss rate: 3.37%
```

Run 6: Report of TCP Vegas — Data Link



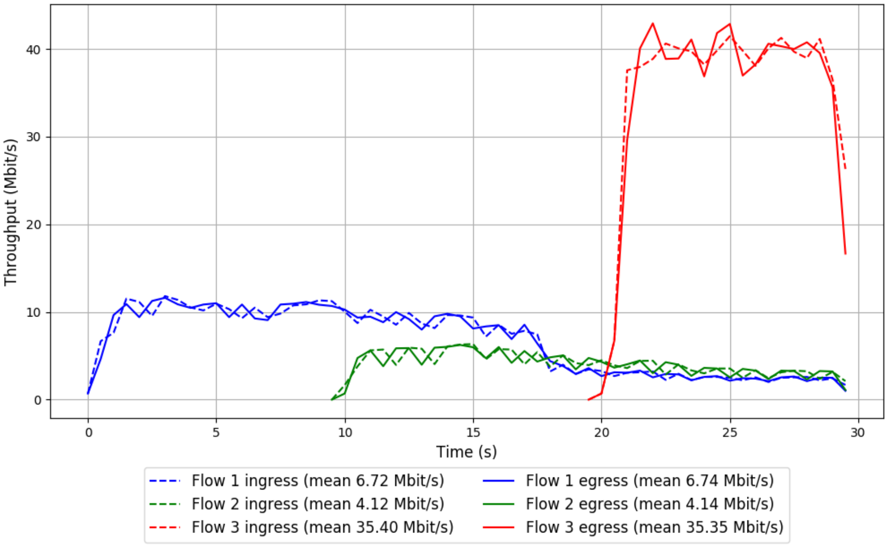


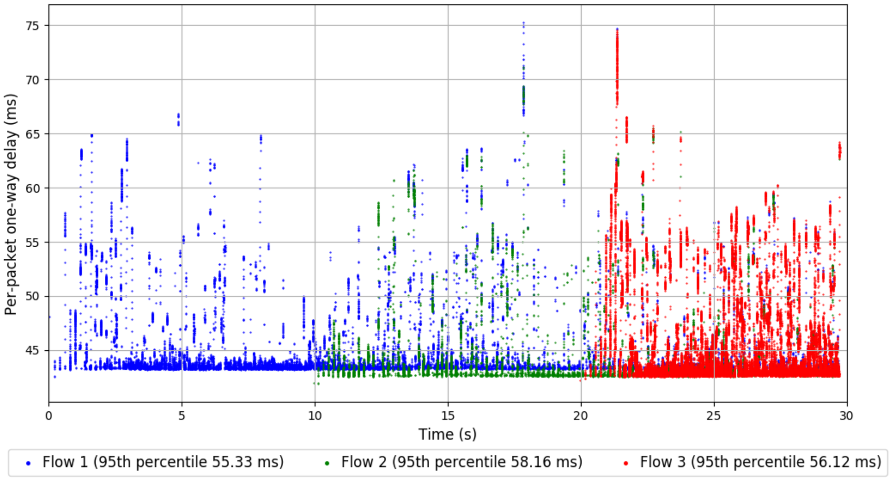
```
Run 7: Statistics of TCP Vegas

Start at: 2017-09-23 10:24:11
End at: 2017-09-23 10:24:41
Local clock offset: -0.731 ms
Remote clock offset: -2.081 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 56.106 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 55.329 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 58.158 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 35.35 Mbit/s
95th percentile per-packet one-way delay: 56.121 ms
Loss rate: 2.05%
```

Run 7: Report of TCP Vegas — Data Link



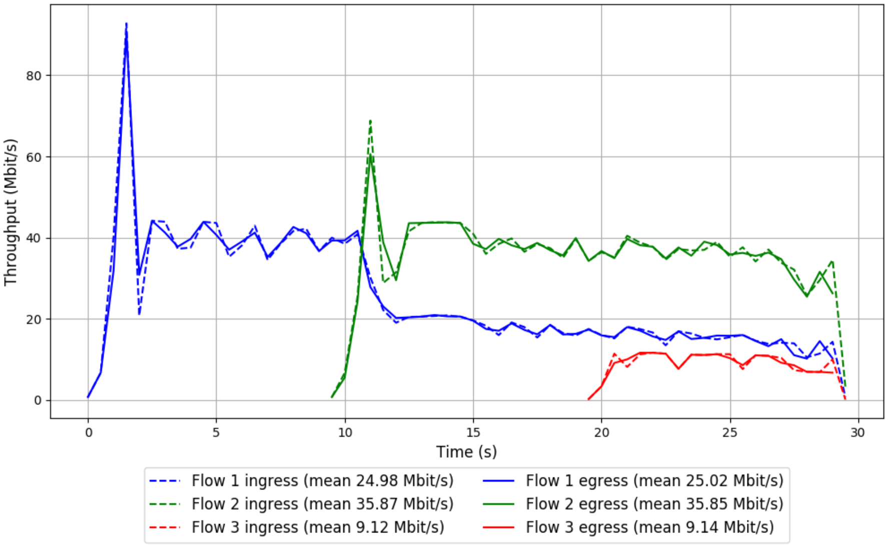


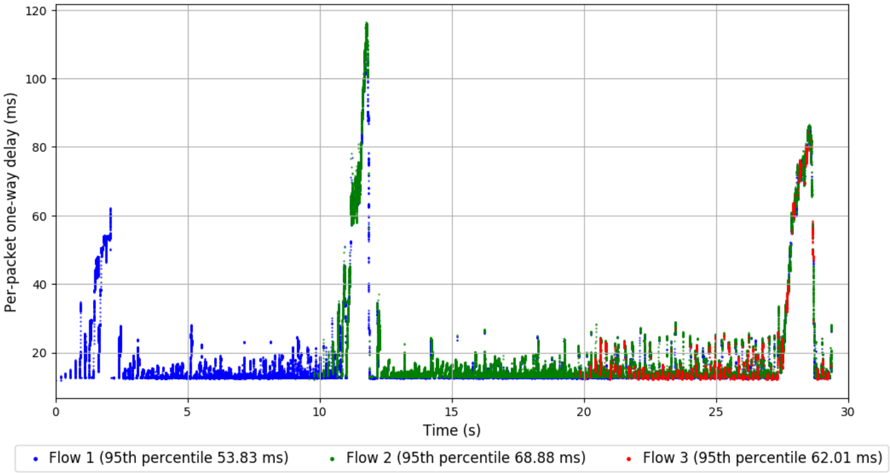
```
Run 8: Statistics of TCP Vegas

Start at: 2017-09-23 10:43:12
End at: 2017-09-23 10:43:42
Local clock offset: 0.743 ms
Remote clock offset: 29.664 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.18 Mbit/s
95th percentile per-packet one-way delay: 62.999 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 25.02 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 35.85 Mbit/s
95th percentile per-packet one-way delay: 68.880 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 9.14 Mbit/s
95th percentile per-packet one-way delay: 62.007 ms
Loss rate: 1.84%
```

Run 8: Report of TCP Vegas — Data Link



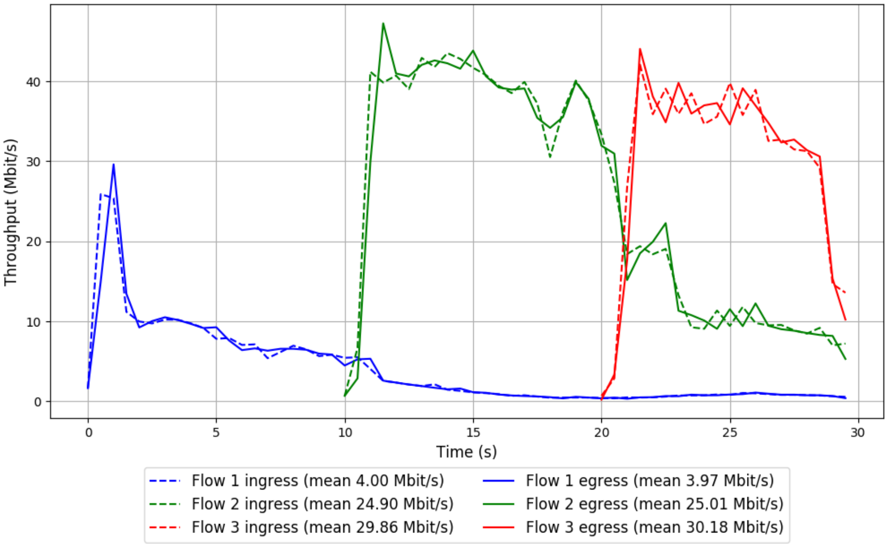


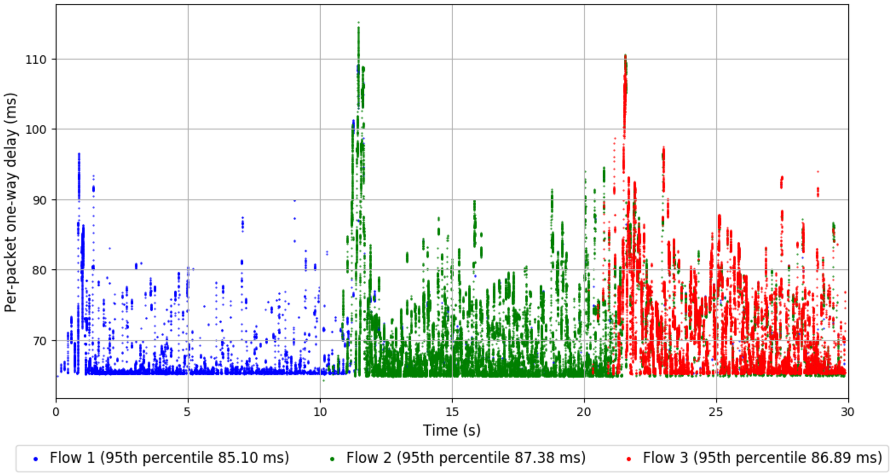
```
Run 9: Statistics of TCP Vegas

Start at: 2017-09-23 11:03:23
End at: 2017-09-23 11:03:53
Local clock offset: -2.08 ms
Remote clock offset: -25.904 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 86.926 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 85.097 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 25.01 Mbit/s
95th percentile per-packet one-way delay: 87.380 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 86.895 ms
Loss rate: 0.96%
```

Run 9: Report of TCP Vegas — Data Link



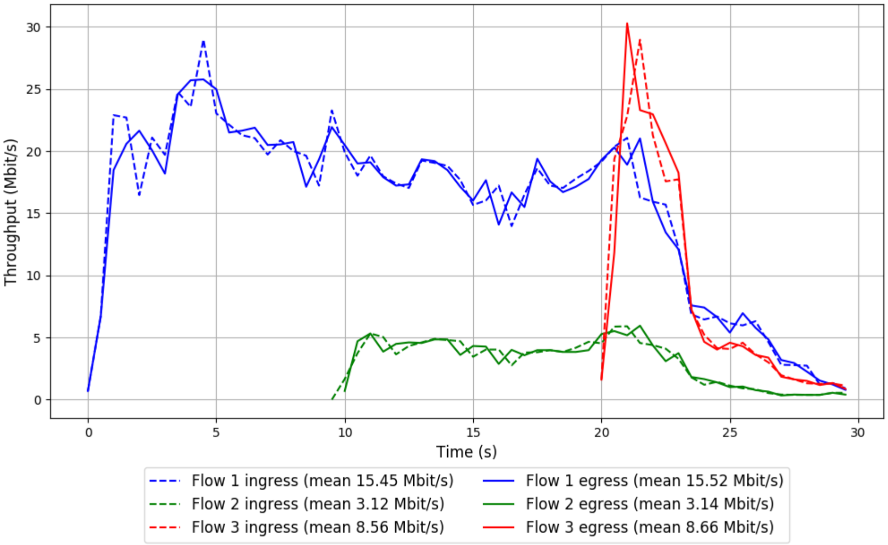


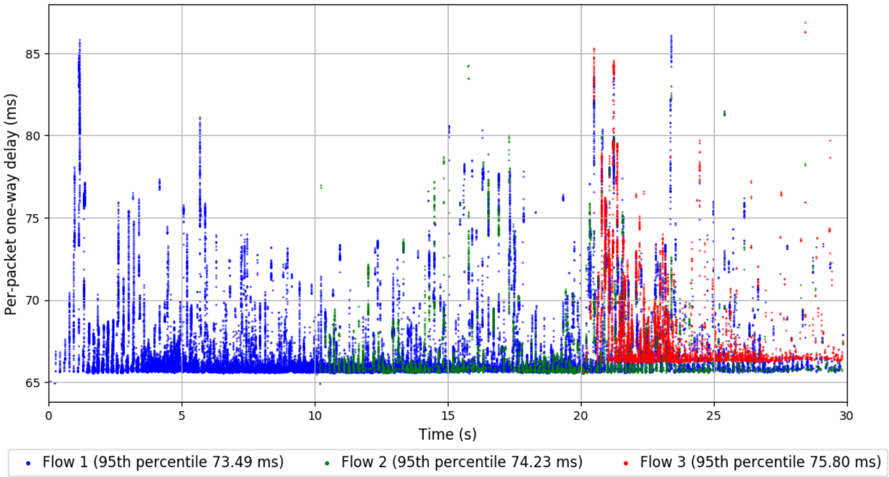
```
Run 10: Statistics of TCP Vegas

Start at: 2017-09-23 11:23:02
End at: 2017-09-23 11:23:32
Local clock offset: -2.028 ms
Remote clock offset: -26.379 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.45 Mbit/s
95th percentile per-packet one-way delay: 74.156 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 73.486 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 74.231 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 75.800 ms
Loss rate: 0.48%
```

Run 10: Report of TCP Vegas — Data Link



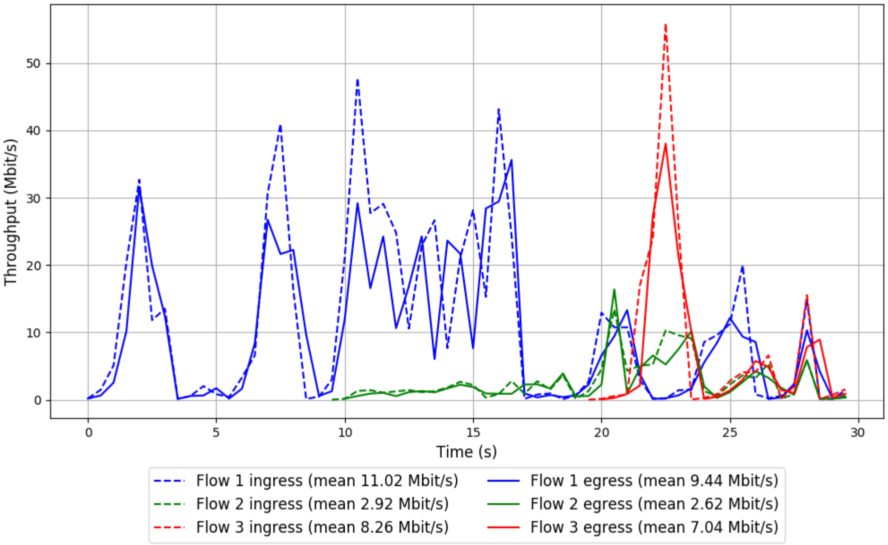


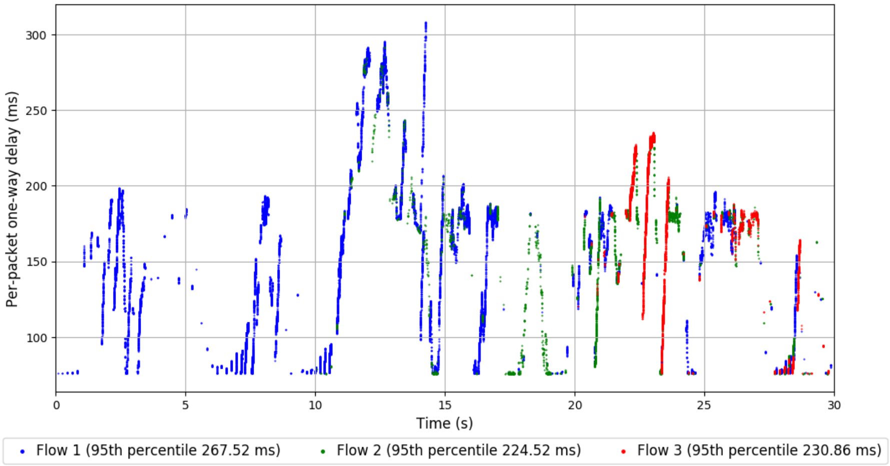
```
Run 1: Statistics of Verus

Start at: 2017-09-23 08:13:33
End at: 2017-09-23 08:14:03
Local clock offset: -1.505 ms
Remote clock offset: -38.683 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.46 Mbit/s
95th percentile per-packet one-way delay: 253.304 ms
Loss rate: 14.32%
-- Flow 1:
Average throughput: 9.44 Mbit/s
95th percentile per-packet one-way delay: 267.521 ms
Loss rate: 14.34%
-- Flow 2:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 224.519 ms
Loss rate: 10.98%
-- Flow 3:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 230.863 ms
Loss rate: 16.61%
```

Run 1: Report of Verus — Data Link



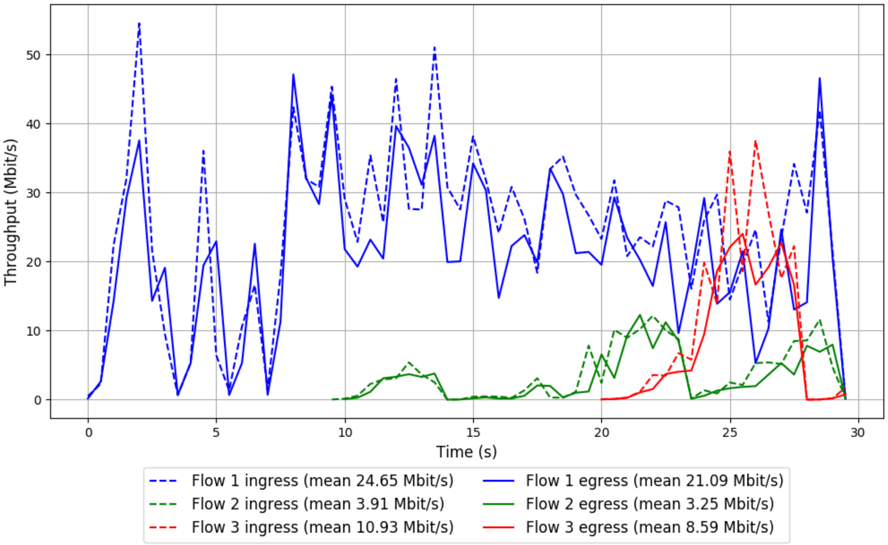


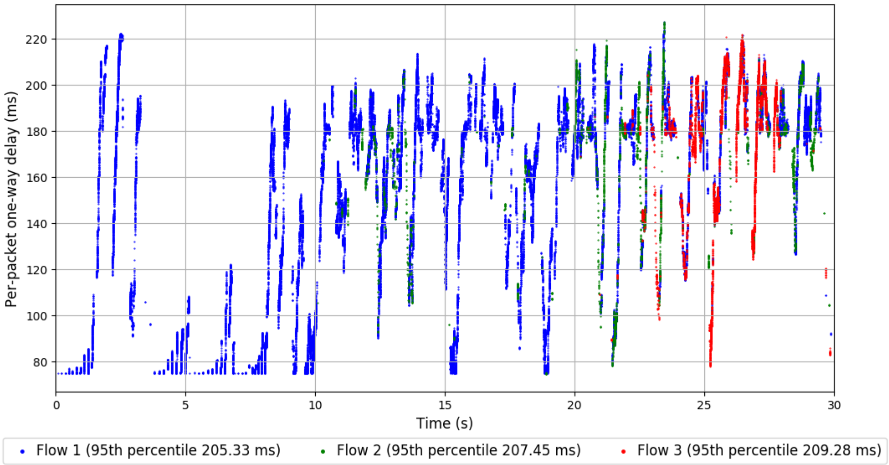
```
Run 2: Statistics of Verus

Start at: 2017-09-23 08:33:36
End at: 2017-09-23 08:34:06
Local clock offset: -1.414 ms
Remote clock offset: -36.638 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.01 Mbit/s
95th percentile per-packet one-way delay: 206.392 ms
Loss rate: 16.14%
-- Flow 1:
Average throughput: 21.09 Mbit/s
95th percentile per-packet one-way delay: 205.326 ms
Loss rate: 14.91%
-- Flow 2:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 207.450 ms
Loss rate: 17.67%
-- Flow 3:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 209.278 ms
Loss rate: 23.45%
```

Run 2: Report of Verus — Data Link



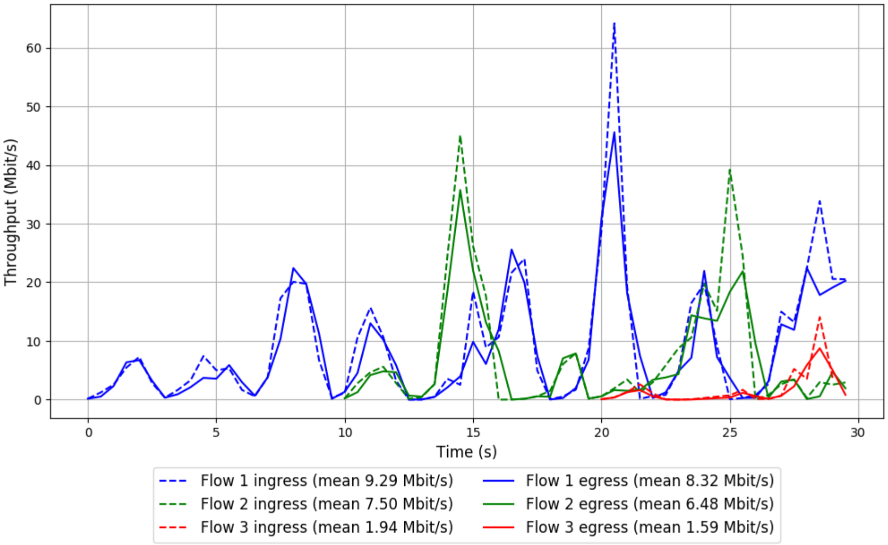


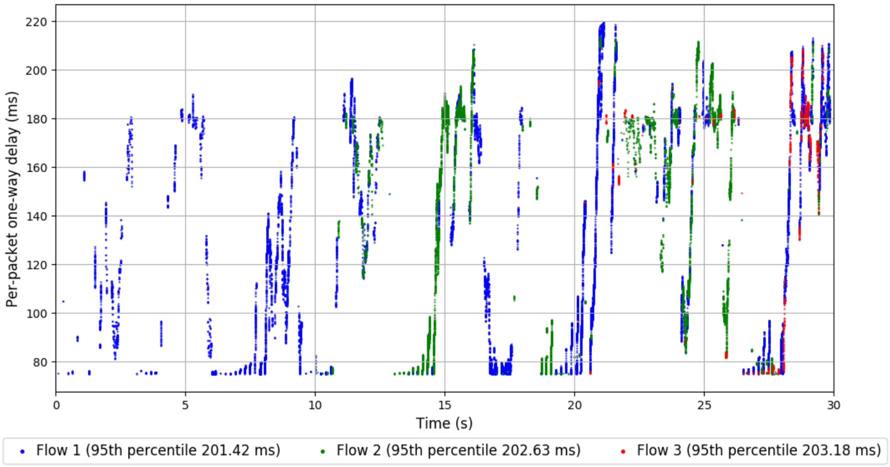
```
Run 3: Statistics of Verus

Start at: 2017-09-23 08:54:06
End at: 2017-09-23 08:54:36
Local clock offset: -1.673 ms
Remote clock offset: -35.953 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 202.044 ms
Loss rate: 12.14%
-- Flow 1:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 201.423 ms
Loss rate: 10.58%
-- Flow 2:
Average throughput: 6.48 Mbit/s
95th percentile per-packet one-way delay: 202.634 ms
Loss rate: 14.43%
-- Flow 3:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 203.179 ms
Loss rate: 16.97%
```

Run 3: Report of Verus — Data Link



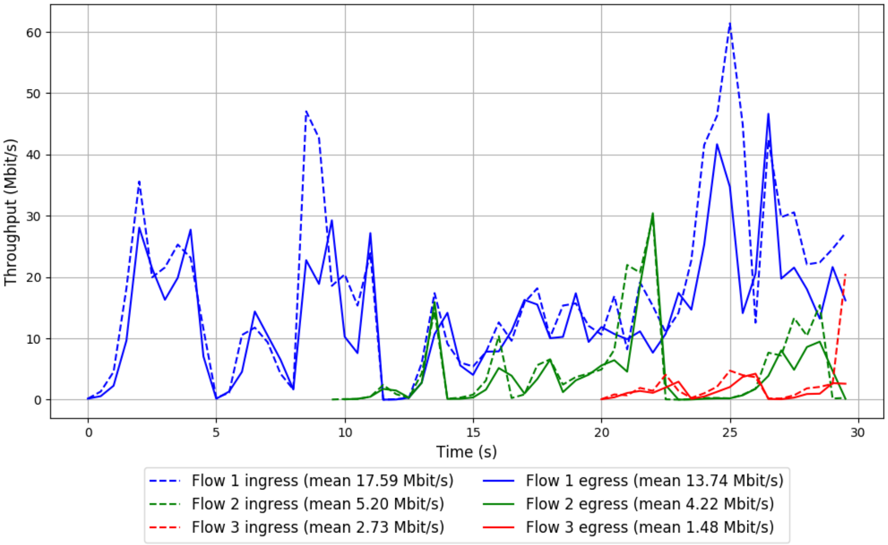


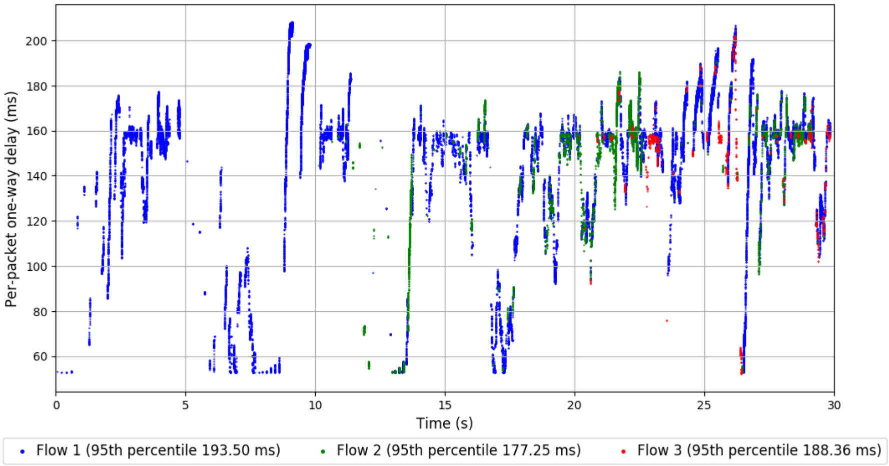
```
Run 4: Statistics of Verus

Start at: 2017-09-23 09:17:06
End at: 2017-09-23 09:17:36
Local clock offset: 11.793 ms
Remote clock offset: 0.983 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.98 Mbit/s
95th percentile per-packet one-way delay: 191.843 ms
Loss rate: 22.94%
-- Flow 1:
Average throughput: 13.74 Mbit/s
95th percentile per-packet one-way delay: 193.500 ms
Loss rate: 22.28%
-- Flow 2:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 177.251 ms
Loss rate: 19.85%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 188.364 ms
Loss rate: 47.39%
```

Run 4: Report of Verus — Data Link



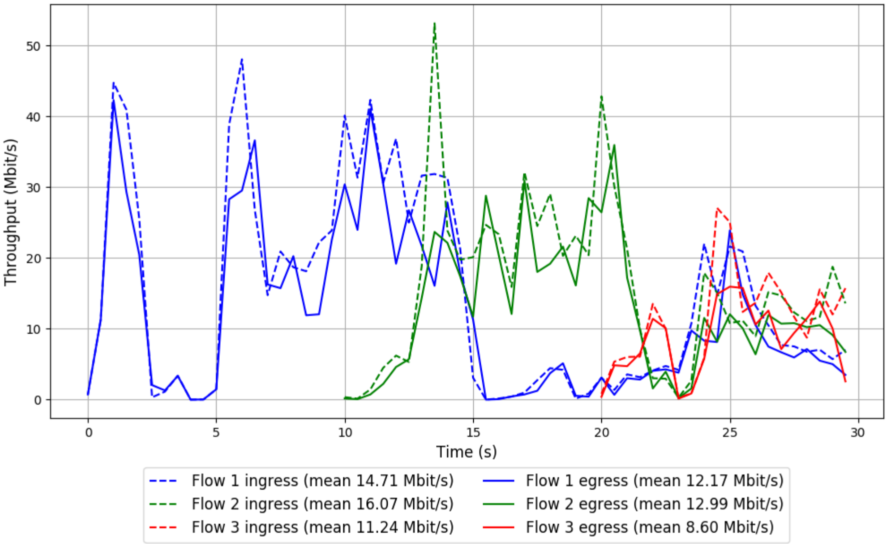


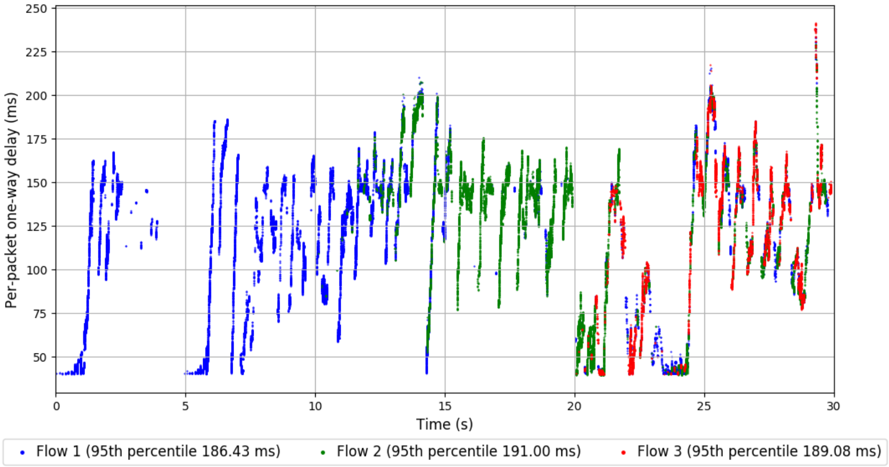
```
Run 5: Statistics of Verus

Start at: 2017-09-23 09:38:32
End at: 2017-09-23 09:39:02
Local clock offset: -0.49 ms
Remote clock offset: 1.257 ms

# Below is generated by plot.py at 2017-09-23 15:00:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.56 Mbit/s
95th percentile per-packet one-way delay: 188.817 ms
Loss rate: 19.52%
-- Flow 1:
Average throughput: 12.17 Mbit/s
95th percentile per-packet one-way delay: 186.429 ms
Loss rate: 17.94%
-- Flow 2:
Average throughput: 12.99 Mbit/s
95th percentile per-packet one-way delay: 191.002 ms
Loss rate: 19.95%
-- Flow 3:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 189.081 ms
Loss rate: 24.49%
```

Run 5: Report of Verus — Data Link



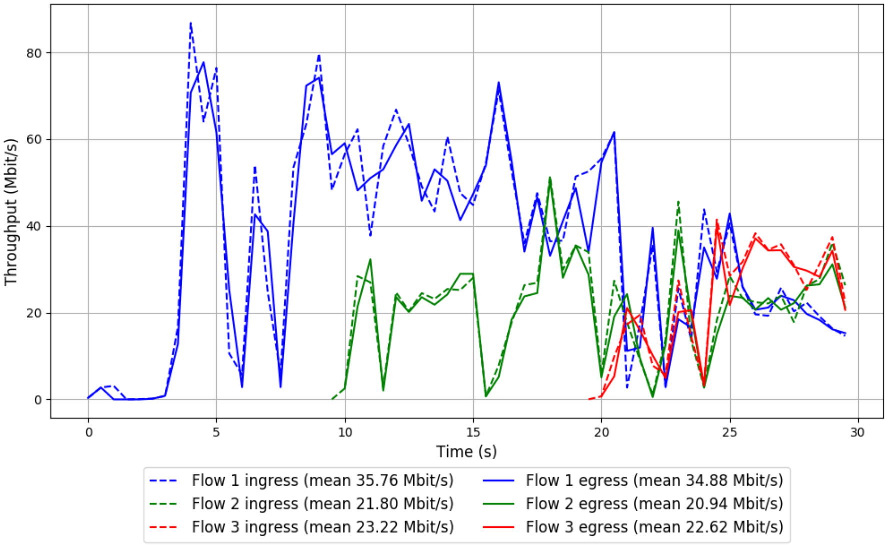


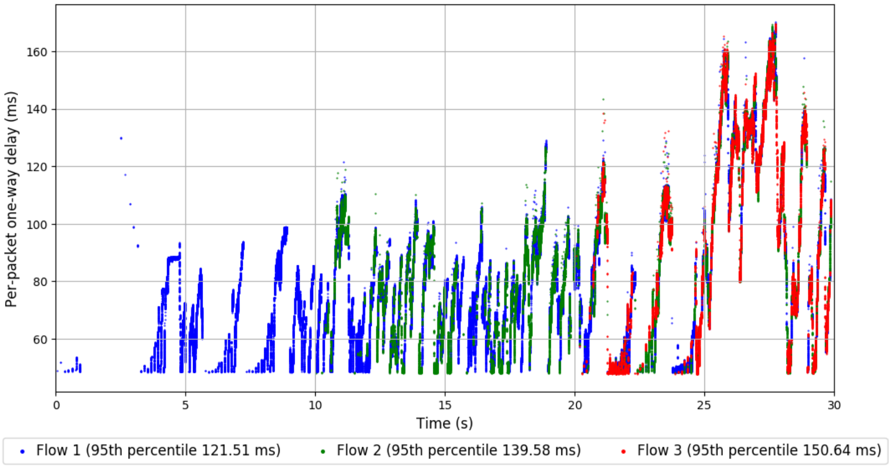
```
Run 6: Statistics of Verus

Start at: 2017-09-23 10:02:02
End at: 2017-09-23 10:02:32
Local clock offset: -1.584 ms
Remote clock offset: -8.442 ms

# Below is generated by plot.py at 2017-09-23 15:00:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.25 Mbit/s
95th percentile per-packet one-way delay: 136.442 ms
Loss rate: 3.31%
-- Flow 1:
Average throughput: 34.88 Mbit/s
95th percentile per-packet one-way delay: 121.514 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 20.94 Mbit/s
95th percentile per-packet one-way delay: 139.581 ms
Loss rate: 4.63%
-- Flow 3:
Average throughput: 22.62 Mbit/s
95th percentile per-packet one-way delay: 150.640 ms
Loss rate: 4.43%
```

Run 6: Report of Verus — Data Link



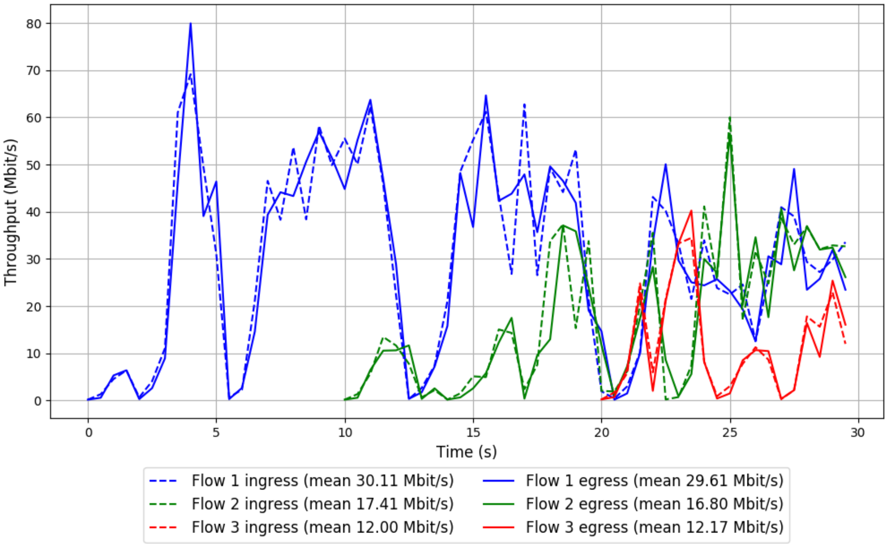


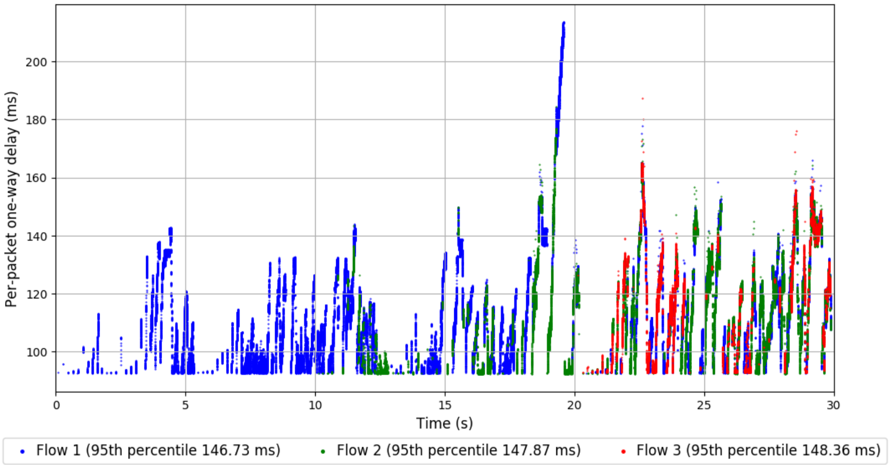
```
Run 7: Statistics of Verus

Start at: 2017-09-23 10:21:09
End at: 2017-09-23 10:21:39
Local clock offset: 17.678 ms
Remote clock offset: -33.517 ms

# Below is generated by plot.py at 2017-09-23 15:00:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.72 Mbit/s
95th percentile per-packet one-way delay: 147.283 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 146.731 ms
Loss rate: 2.29%
-- Flow 2:
Average throughput: 16.80 Mbit/s
95th percentile per-packet one-way delay: 147.868 ms
Loss rate: 4.40%
-- Flow 3:
Average throughput: 12.17 Mbit/s
95th percentile per-packet one-way delay: 148.359 ms
Loss rate: 0.75%
```

Run 7: Report of Verus — Data Link



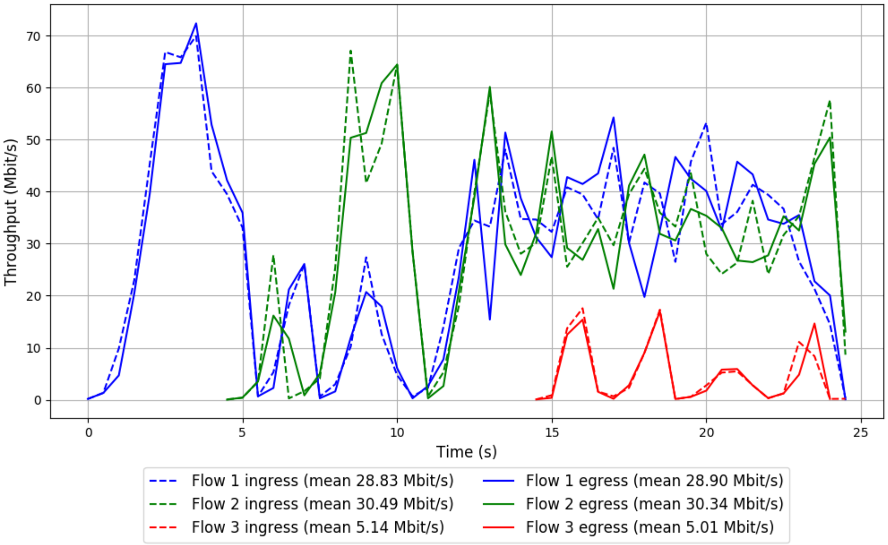


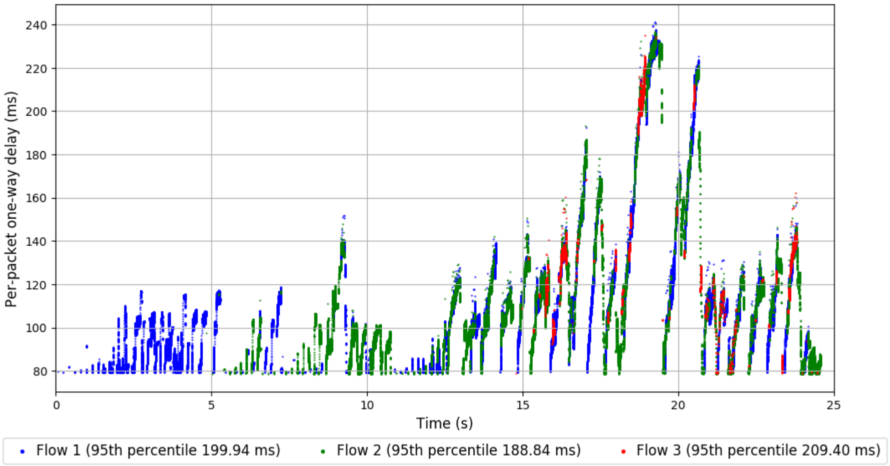
```
Run 8: Statistics of Verus

Start at: 2017-09-23 10:40:33
End at: 2017-09-23 10:41:03
Local clock offset: -1.809 ms
Remote clock offset: -39.272 ms

# Below is generated by plot.py at 2017-09-23 15:00:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 202.680 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 28.90 Mbit/s
95th percentile per-packet one-way delay: 199.944 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 188.839 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 209.397 ms
Loss rate: 4.33%
```

Run 8: Report of Verus — Data Link



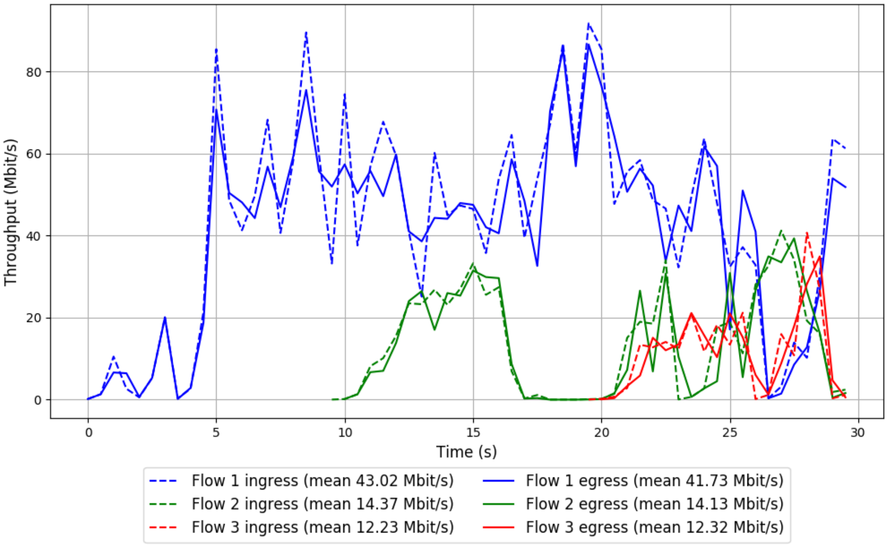


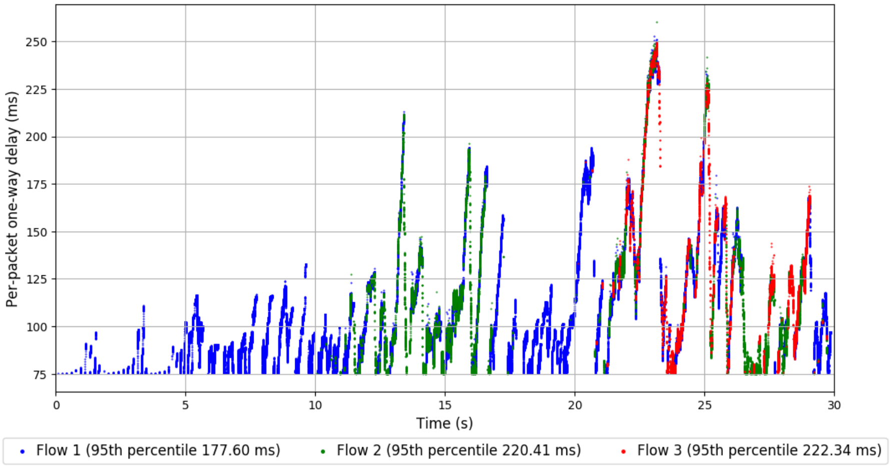
```
Run 9: Statistics of Verus

Start at: 2017-09-23 11:00:28
End at: 2017-09-23 11:00:58
Local clock offset: -2.09 ms
Remote clock offset: -36.054 ms

# Below is generated by plot.py at 2017-09-23 15:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.02 Mbit/s
95th percentile per-packet one-way delay: 184.429 ms
Loss rate: 3.13%
-- Flow 1:
Average throughput: 41.73 Mbit/s
95th percentile per-packet one-way delay: 177.604 ms
Loss rate: 3.46%
-- Flow 2:
Average throughput: 14.13 Mbit/s
95th percentile per-packet one-way delay: 220.407 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 12.32 Mbit/s
95th percentile per-packet one-way delay: 222.338 ms
Loss rate: 1.30%
```

Run 9: Report of Verus — Data Link



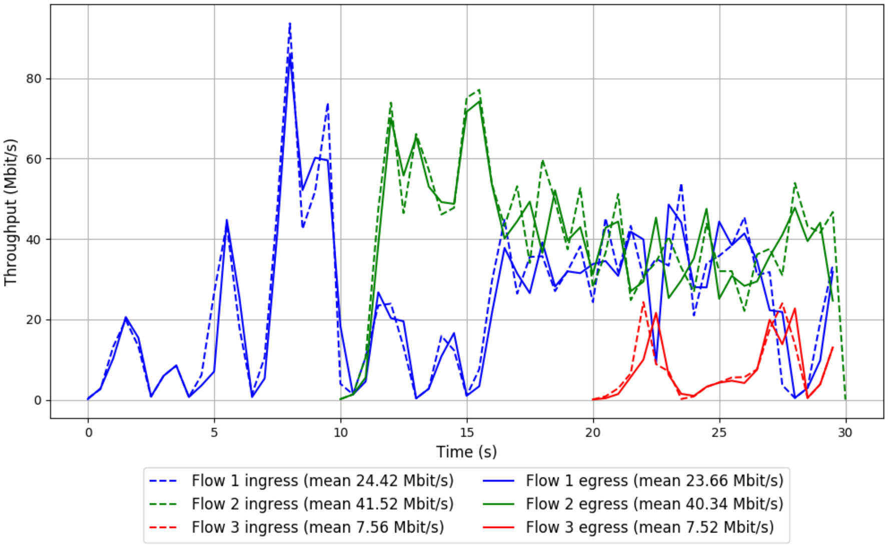


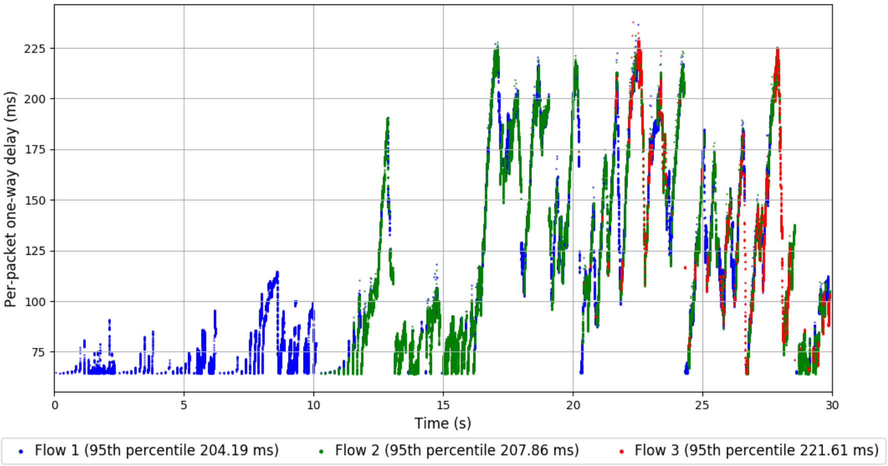
```
Run 10: Statistics of Verus

Start at: 2017-09-23 11:20:23
End at: 2017-09-23 11:20:53
Local clock offset: -0.917 ms
Remote clock offset: -23.63 ms

# Below is generated by plot.py at 2017-09-23 15:01:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.87 Mbit/s
95th percentile per-packet one-way delay: 207.838 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 204.194 ms
Loss rate: 3.41%
-- Flow 2:
Average throughput: 40.34 Mbit/s
95th percentile per-packet one-way delay: 207.860 ms
Loss rate: 3.75%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 221.607 ms
Loss rate: 3.44%
```

Run 10: Report of Verus — Data Link



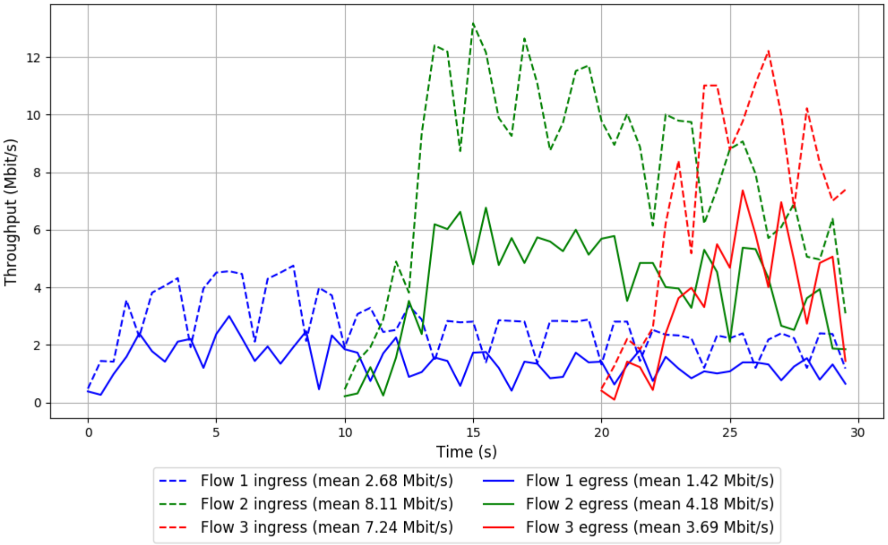


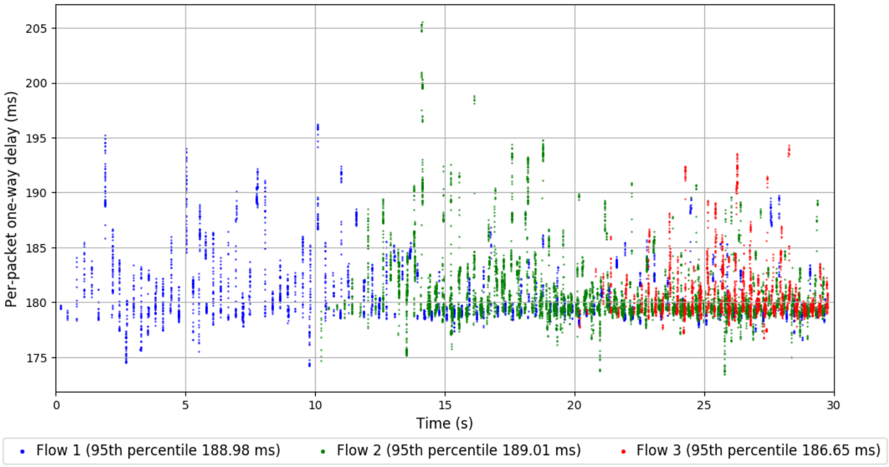
```
Run 1: Statistics of Indigo

Start at: 2017-09-23 07:47:25
End at: 2017-09-23 07:47:55
Local clock offset: -1.276 ms
Remote clock offset: -37.096 ms

# Below is generated by plot.py at 2017-09-23 15:01:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.35 Mbit/s
95th percentile per-packet one-way delay: 188.694 ms
Loss rate: 49.05%
-- Flow 1:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 188.984 ms
Loss rate: 47.66%
-- Flow 2:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 189.008 ms
Loss rate: 49.13%
-- Flow 3:
Average throughput: 3.69 Mbit/s
95th percentile per-packet one-way delay: 186.645 ms
Loss rate: 50.45%
```

Run 1: Report of Indigo — Data Link



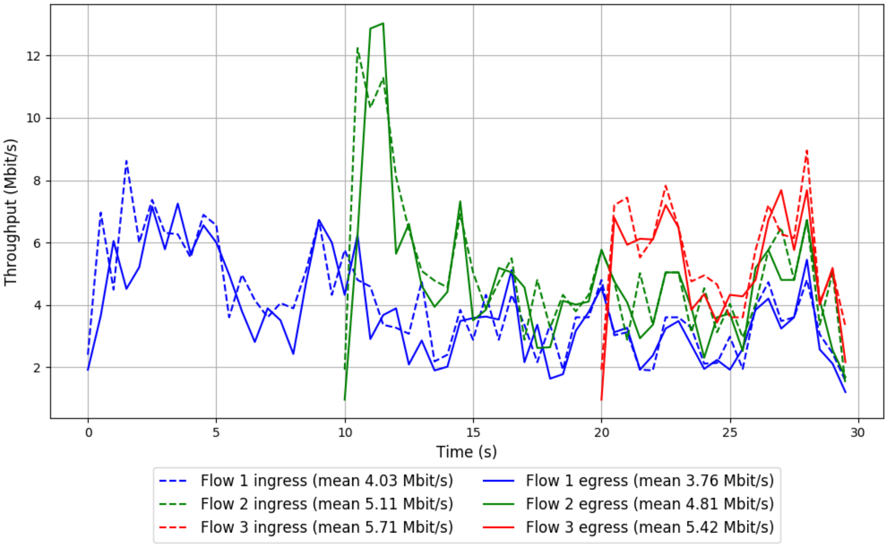


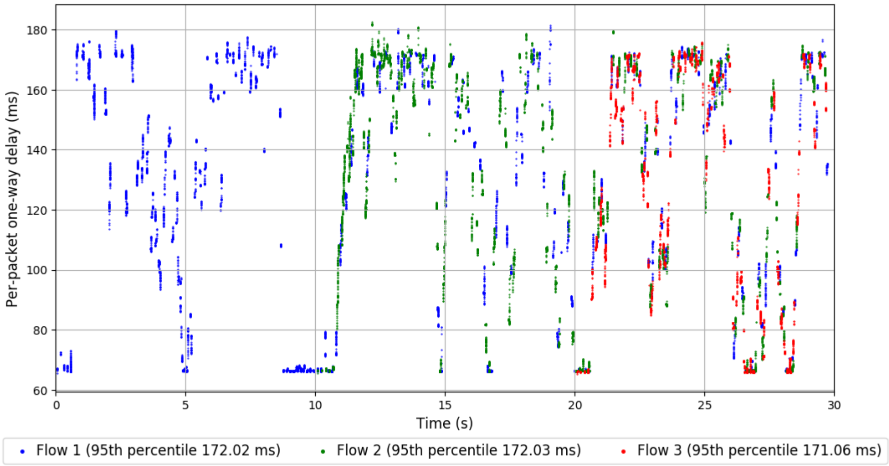
```
Run 2: Statistics of Indigo

Start at: 2017-09-23 08:22:16
End at: 2017-09-23 08:22:46
Local clock offset: -1.36 ms
Remote clock offset: -28.54 ms

# Below is generated by plot.py at 2017-09-23 15:01:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 171.826 ms
Loss rate: 6.80%
-- Flow 1:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 172.023 ms
Loss rate: 7.08%
-- Flow 2:
Average throughput: 4.81 Mbit/s
95th percentile per-packet one-way delay: 172.033 ms
Loss rate: 6.69%
-- Flow 3:
Average throughput: 5.42 Mbit/s
95th percentile per-packet one-way delay: 171.063 ms
Loss rate: 6.39%
```

Run 2: Report of Indigo — Data Link



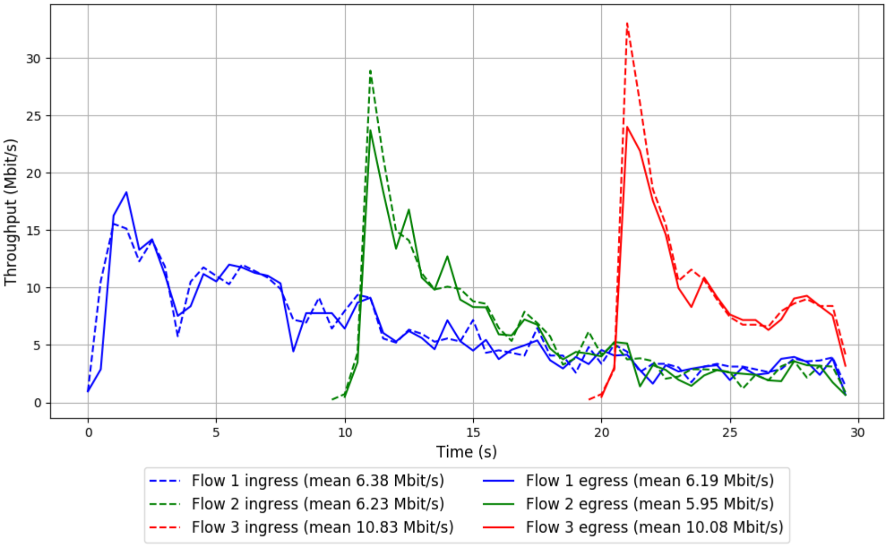


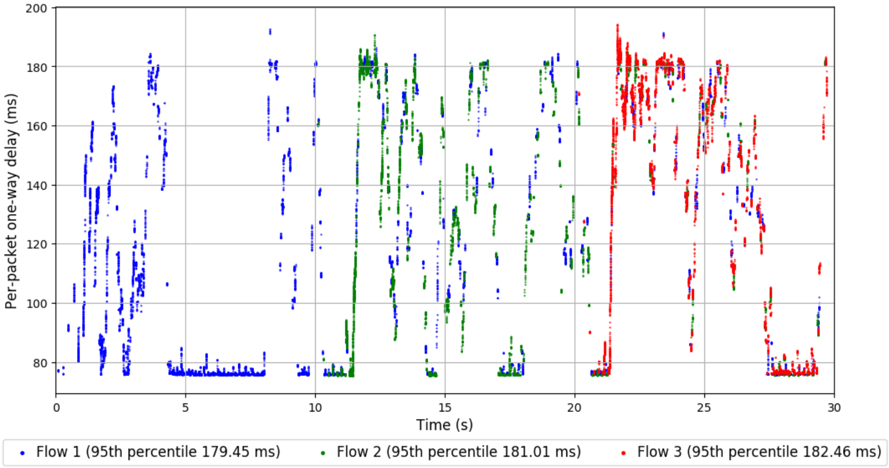
```
Run 3: Statistics of Indigo

Start at: 2017-09-23 08:42:35
End at: 2017-09-23 08:43:05
Local clock offset: -1.544 ms
Remote clock offset: -37.459 ms

# Below is generated by plot.py at 2017-09-23 15:01:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 181.064 ms
Loss rate: 5.72%
-- Flow 1:
Average throughput: 6.19 Mbit/s
95th percentile per-packet one-way delay: 179.446 ms
Loss rate: 3.63%
-- Flow 2:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 181.012 ms
Loss rate: 5.81%
-- Flow 3:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 182.463 ms
Loss rate: 9.37%
```

Run 3: Report of Indigo — Data Link

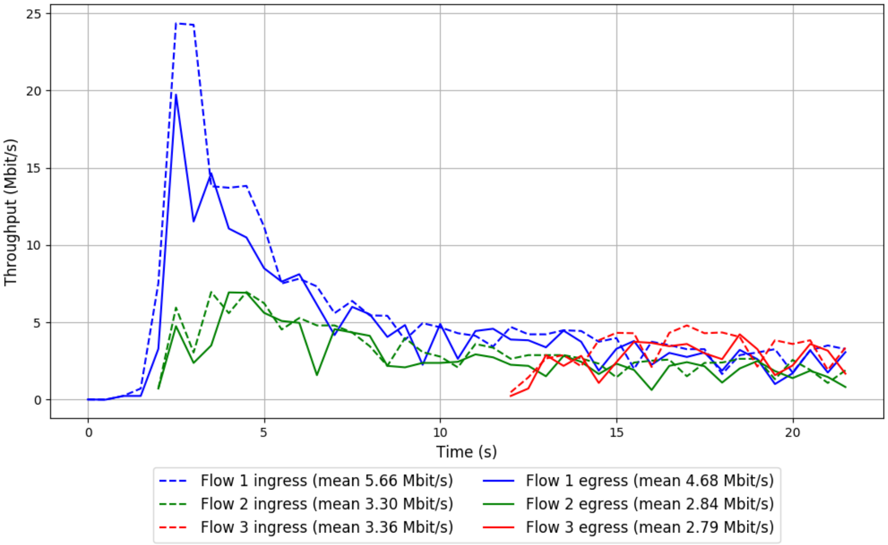


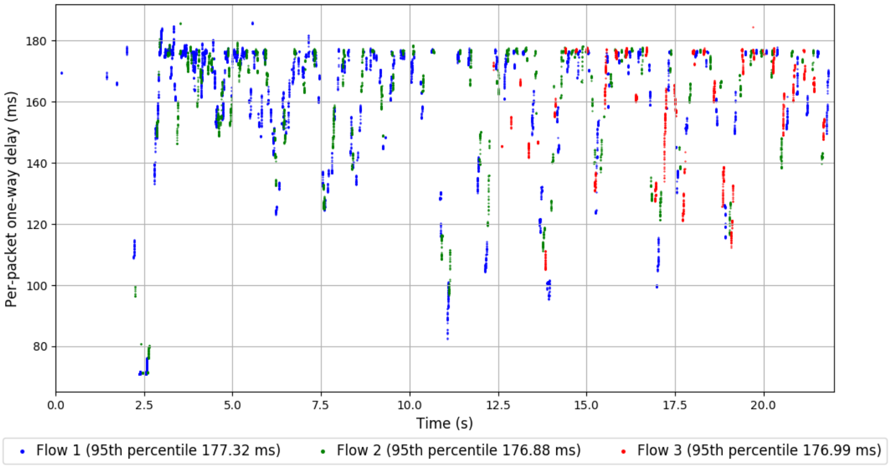


```
Run 4: Statistics of Indigo

Start at: 2017-09-23 09:04:32
End at: 2017-09-23 09:05:02
Local clock offset: -1.719 ms
Remote clock offset: -31.745 ms
```

Run 4: Report of Indigo — Data Link



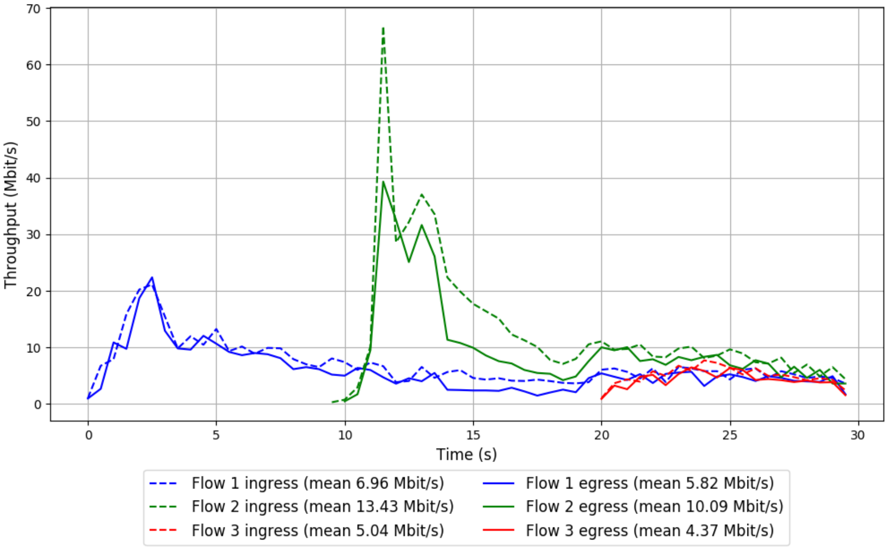


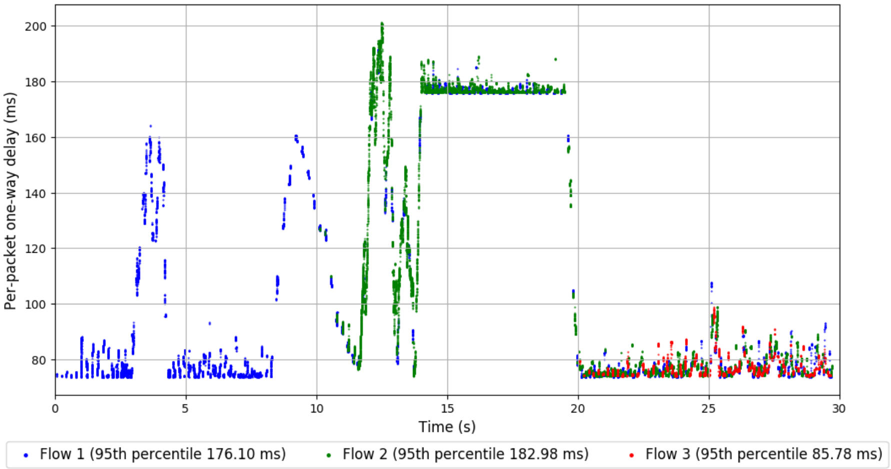
```
Run 5: Statistics of Indigo

Start at: 2017-09-23 09:26:50
End at: 2017-09-23 09:27:20
Local clock offset: -1.465 ms
Remote clock offset: -33.214 ms

# Below is generated by plot.py at 2017-09-23 15:01:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.89 Mbit/s
95th percentile per-packet one-way delay: 178.842 ms
Loss rate: 21.24%
-- Flow 1:
Average throughput: 5.82 Mbit/s
95th percentile per-packet one-way delay: 176.100 ms
Loss rate: 16.90%
-- Flow 2:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 182.982 ms
Loss rate: 25.77%
-- Flow 3:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 85.782 ms
Loss rate: 15.03%
```

Run 5: Report of Indigo — Data Link



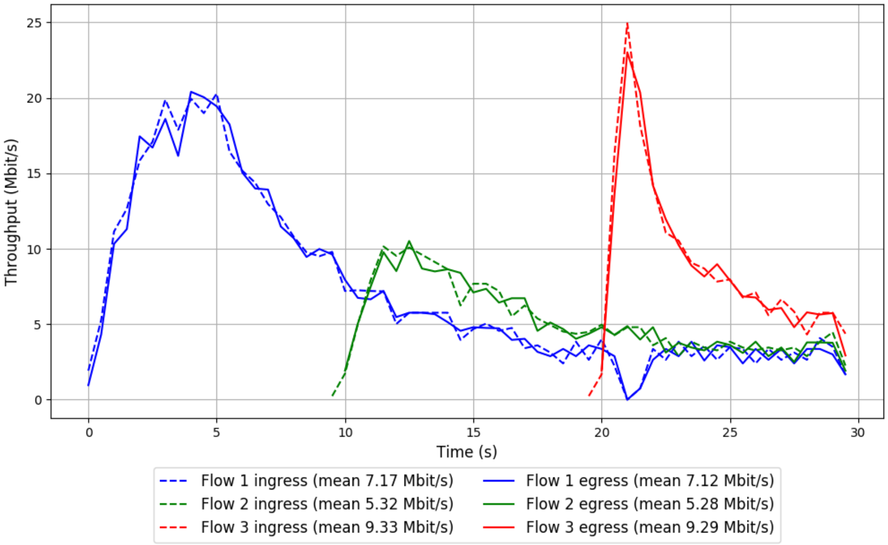


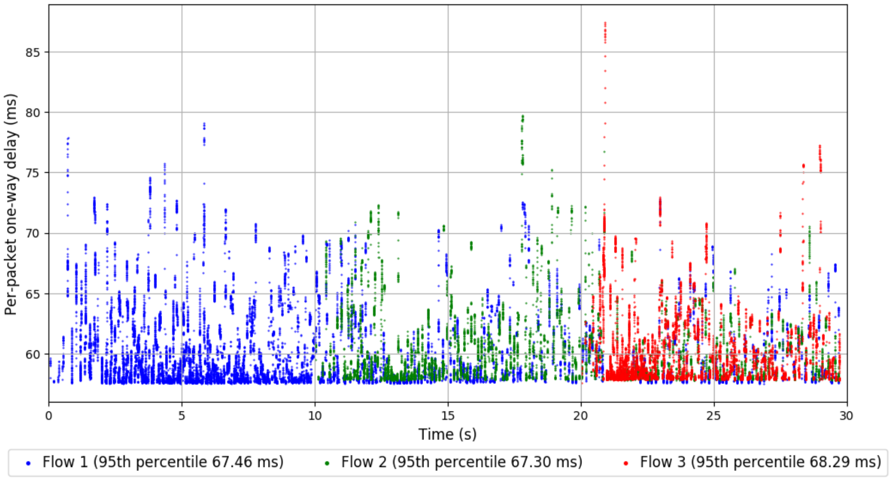
```
Run 6: Statistics of Indigo

Start at: 2017-09-23 09:48:36
End at: 2017-09-23 09:49:06
Local clock offset: -1.58 ms
Remote clock offset: -17.958 ms

# Below is generated by plot.py at 2017-09-23 15:01:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.64 Mbit/s
95th percentile per-packet one-way delay: 67.665 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 67.457 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 67.304 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 9.29 Mbit/s
95th percentile per-packet one-way delay: 68.287 ms
Loss rate: 1.73%
```

Run 6: Report of Indigo — Data Link



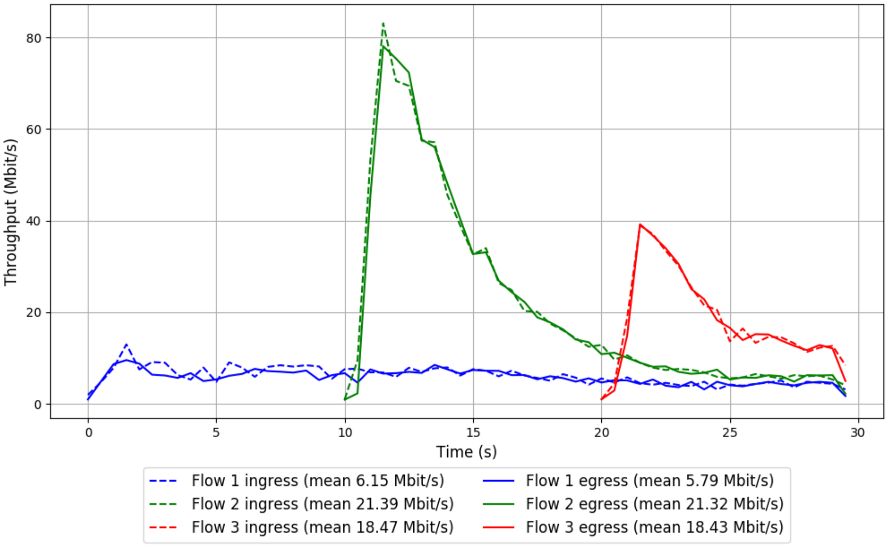


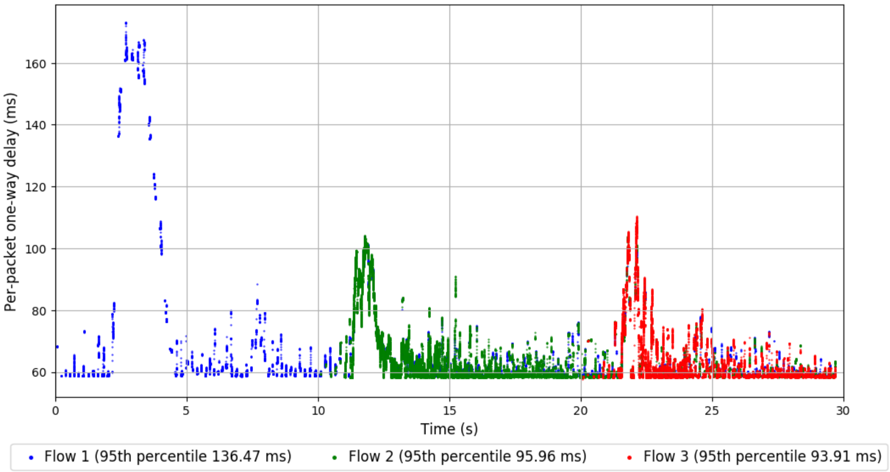
```
Run 7: Statistics of Indigo

Start at: 2017-09-23 10:10:27
End at: 2017-09-23 10:10:57
Local clock offset: -1.642 ms
Remote clock offset: -18.718 ms

# Below is generated by plot.py at 2017-09-23 15:01:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.86 Mbit/s
95th percentile per-packet one-way delay: 96.921 ms
Loss rate: 2.62%
-- Flow 1:
Average throughput: 5.79 Mbit/s
95th percentile per-packet one-way delay: 136.470 ms
Loss rate: 6.40%
-- Flow 2:
Average throughput: 21.32 Mbit/s
95th percentile per-packet one-way delay: 95.959 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 18.43 Mbit/s
95th percentile per-packet one-way delay: 93.911 ms
Loss rate: 2.01%
```

Run 7: Report of Indigo — Data Link



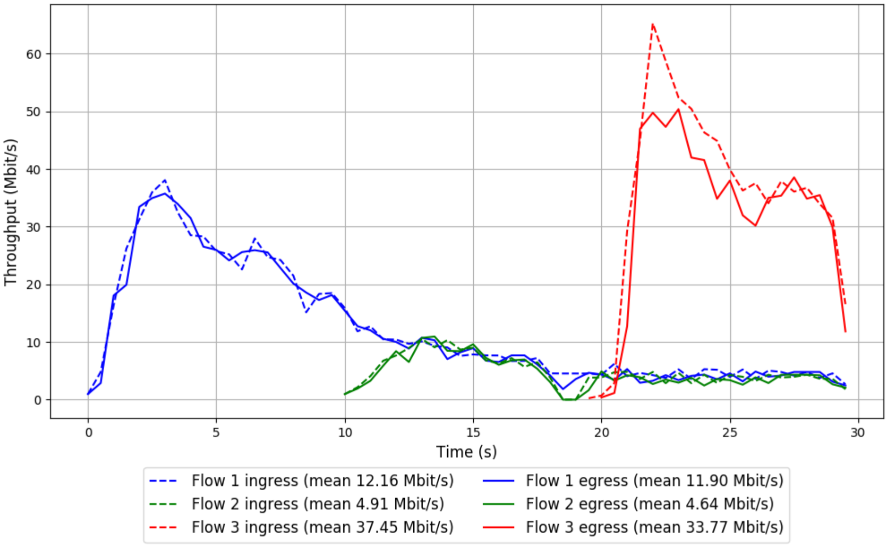


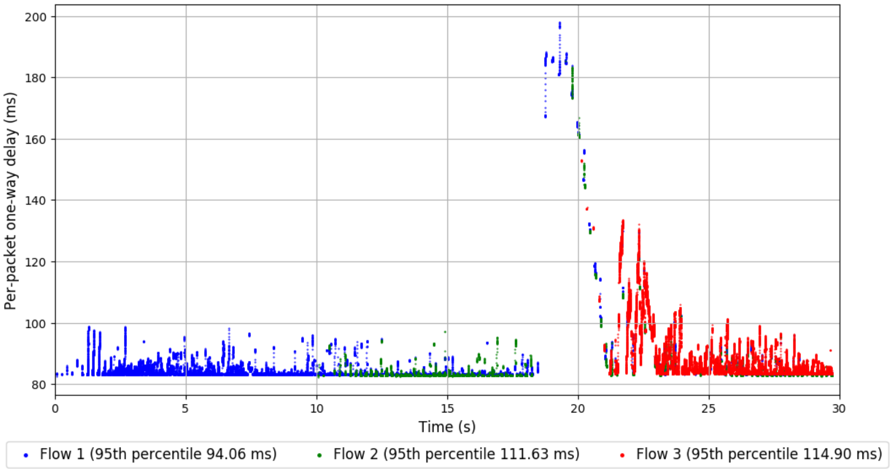
```
Run 8: Statistics of Indigo

Start at: 2017-09-23 10:29:51
End at: 2017-09-23 10:30:21
Local clock offset: -1.887 ms
Remote clock offset: -43.43 ms

# Below is generated by plot.py at 2017-09-23 15:01:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.90 Mbit/s
95th percentile per-packet one-way delay: 108.928 ms
Loss rate: 7.27%
-- Flow 1:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 94.065 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 4.64 Mbit/s
95th percentile per-packet one-way delay: 111.627 ms
Loss rate: 6.43%
-- Flow 3:
Average throughput: 33.77 Mbit/s
95th percentile per-packet one-way delay: 114.899 ms
Loss rate: 12.01%
```

Run 8: Report of Indigo — Data Link



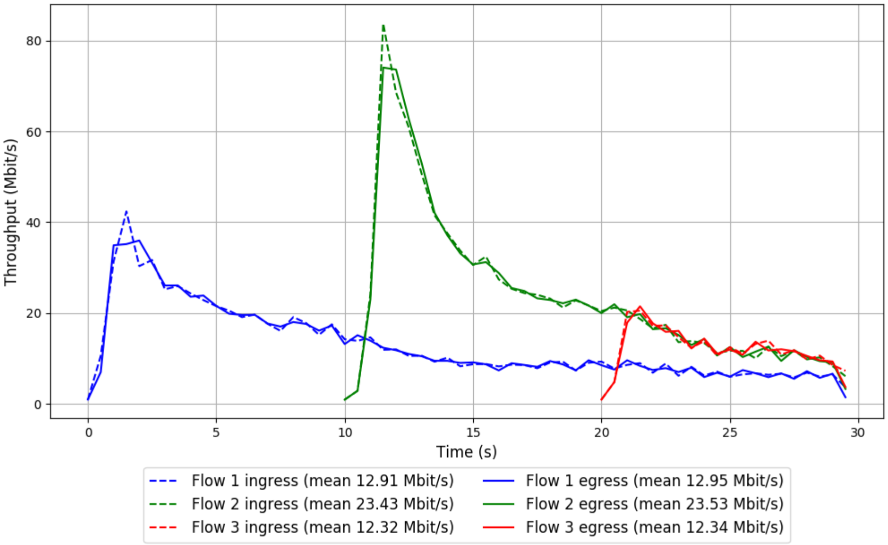


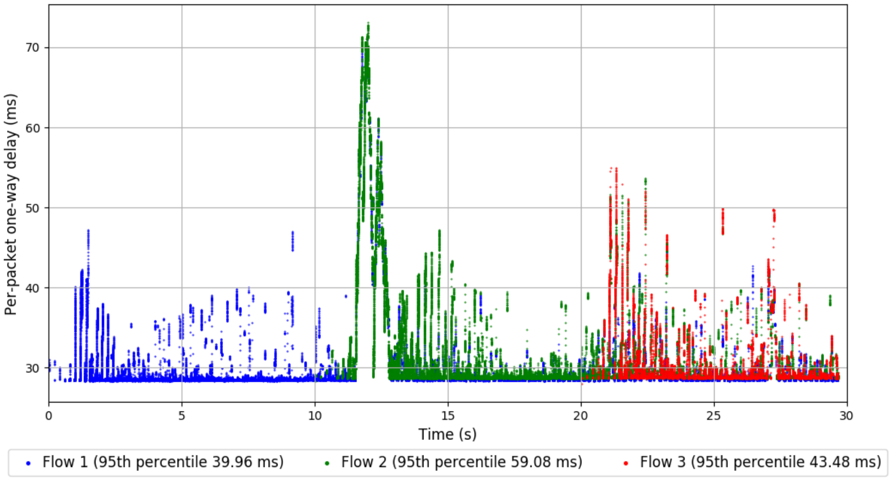
```
Run 9: Statistics of Indigo

Start at: 2017-09-23 10:49:13
End at: 2017-09-23 10:49:43
Local clock offset: 16.298 ms
Remote clock offset: 29.387 ms

# Below is generated by plot.py at 2017-09-23 15:01:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.53 Mbit/s
95th percentile per-packet one-way delay: 51.686 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 39.958 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 59.083 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 12.34 Mbit/s
95th percentile per-packet one-way delay: 43.482 ms
Loss rate: 1.89%
```

Run 9: Report of Indigo — Data Link



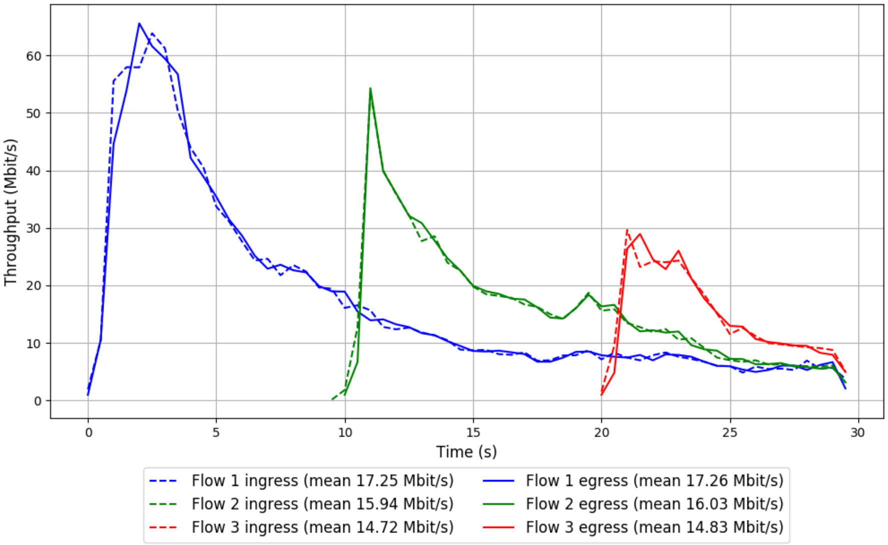


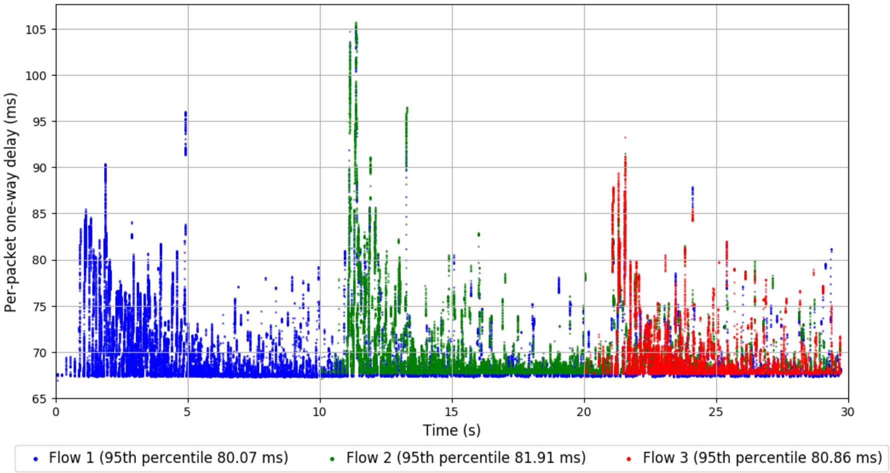
```
Run 10: Statistics of Indigo

Start at: 2017-09-23 11:08:54
End at: 2017-09-23 11:09:24
Local clock offset: -1.894 ms
Remote clock offset: -28.34 ms

# Below is generated by plot.py at 2017-09-23 15:01:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.67 Mbit/s
95th percentile per-packet one-way delay: 80.704 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 17.26 Mbit/s
95th percentile per-packet one-way delay: 80.066 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 16.03 Mbit/s
95th percentile per-packet one-way delay: 81.908 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 14.83 Mbit/s
95th percentile per-packet one-way delay: 80.864 ms
Loss rate: 0.88%
```

Run 10: Report of Indigo — Data Link



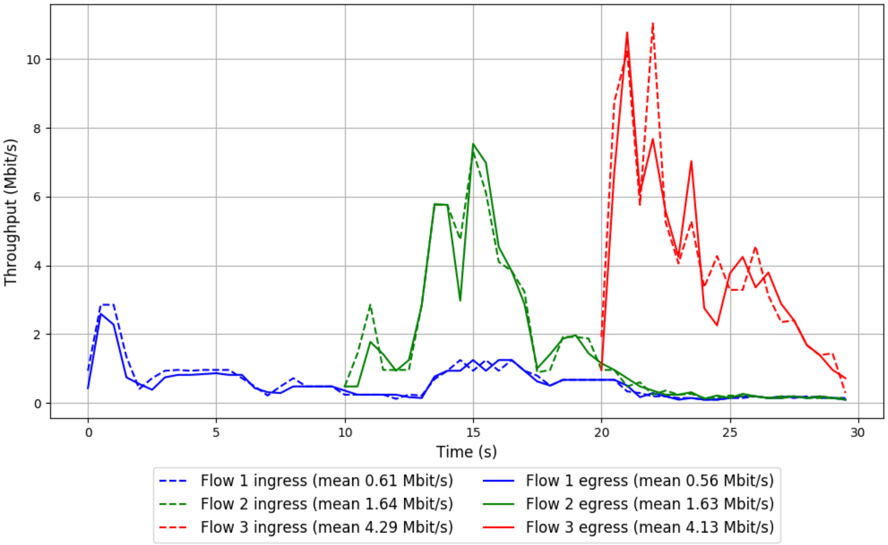


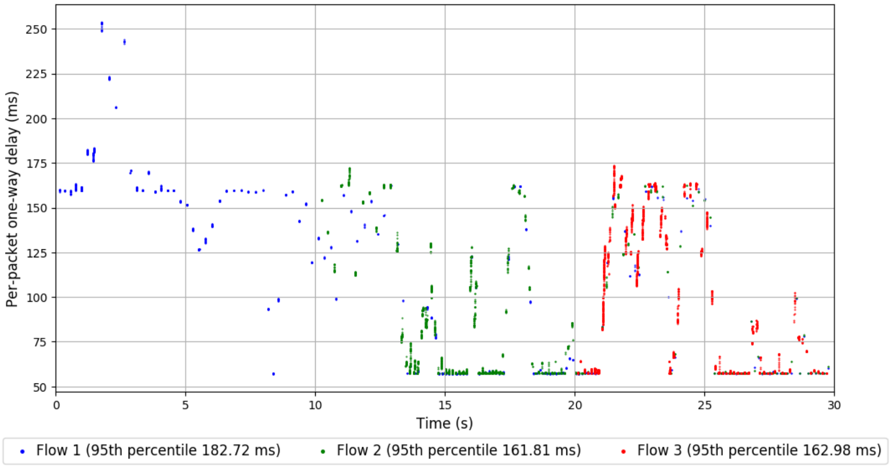
```
Run 1: Statistics of Indigo-calib

Start at: 2017-09-23 08:17:38
End at: 2017-09-23 08:18:08
Local clock offset: -0.318 ms
Remote clock offset: -18.54 ms

# Below is generated by plot.py at 2017-09-23 15:01:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 163.160 ms
Loss rate: 4.86%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 182.718 ms
Loss rate: 8.65%
-- Flow 2:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 161.812 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 162.976 ms
Loss rate: 5.27%
```

Run 1: Report of Indigo-calib — Data Link



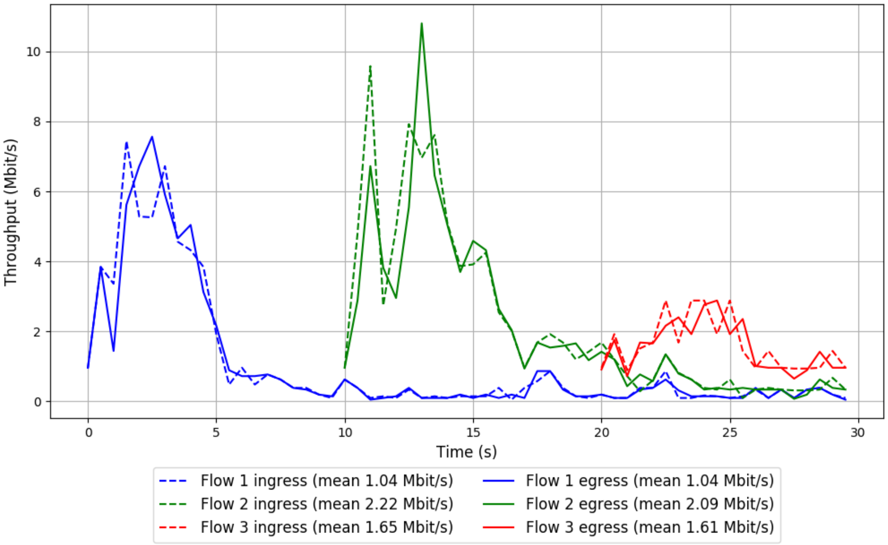


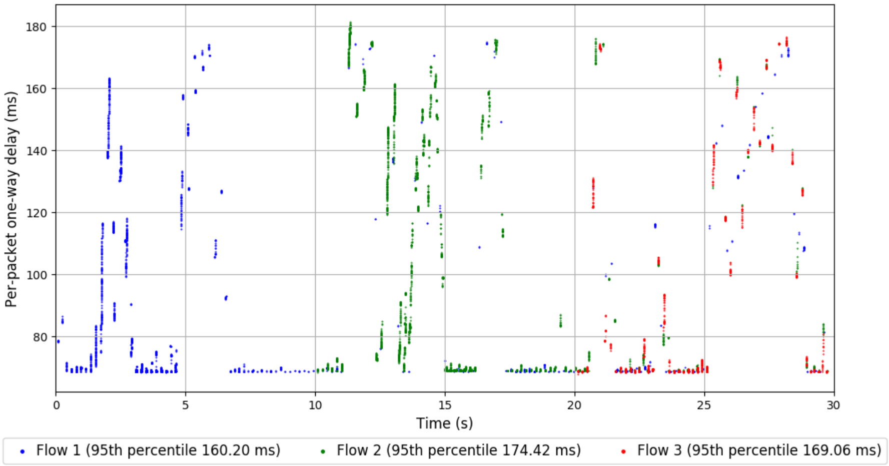
```
Run 2: Statistics of Indigo-calib

Start at: 2017-09-23 08:37:46
End at: 2017-09-23 08:38:16
Local clock offset: -1.562 ms
Remote clock offset: -30.486 ms

# Below is generated by plot.py at 2017-09-23 15:01:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.94 Mbit/s
95th percentile per-packet one-way delay: 170.884 ms
Loss rate: 3.88%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 160.202 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 174.420 ms
Loss rate: 6.32%
-- Flow 3:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 169.055 ms
Loss rate: 3.74%
```

Run 2: Report of Indigo-calib — Data Link



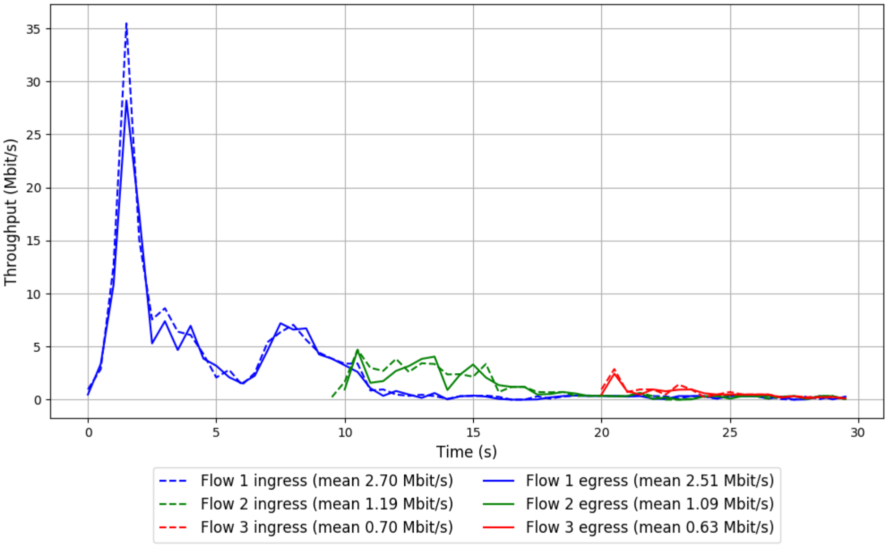


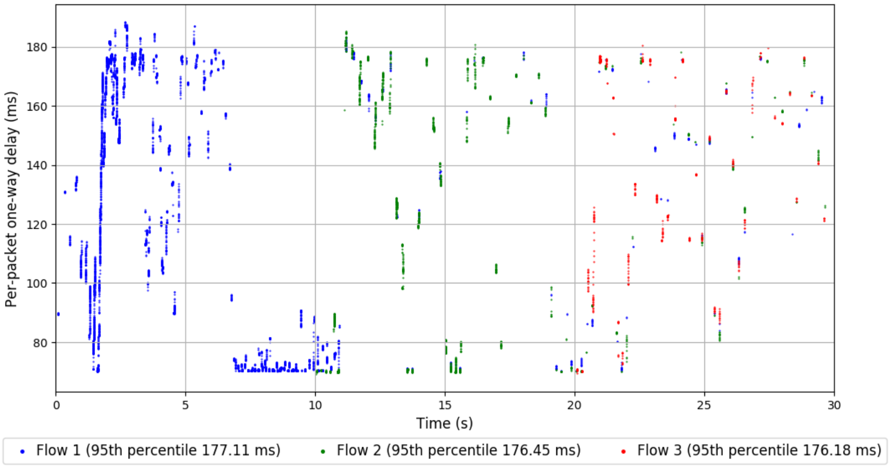
```
Run 3: Statistics of Indigo-calib

Start at: 2017-09-23 08:58:49
End at: 2017-09-23 08:59:19
Local clock offset: -1.83 ms
Remote clock offset: -30.857 ms

# Below is generated by plot.py at 2017-09-23 15:01:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 176.912 ms
Loss rate: 8.21%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 177.114 ms
Loss rate: 7.70%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 176.449 ms
Loss rate: 9.02%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 176.179 ms
Loss rate: 11.45%
```

Run 3: Report of Indigo-calib — Data Link



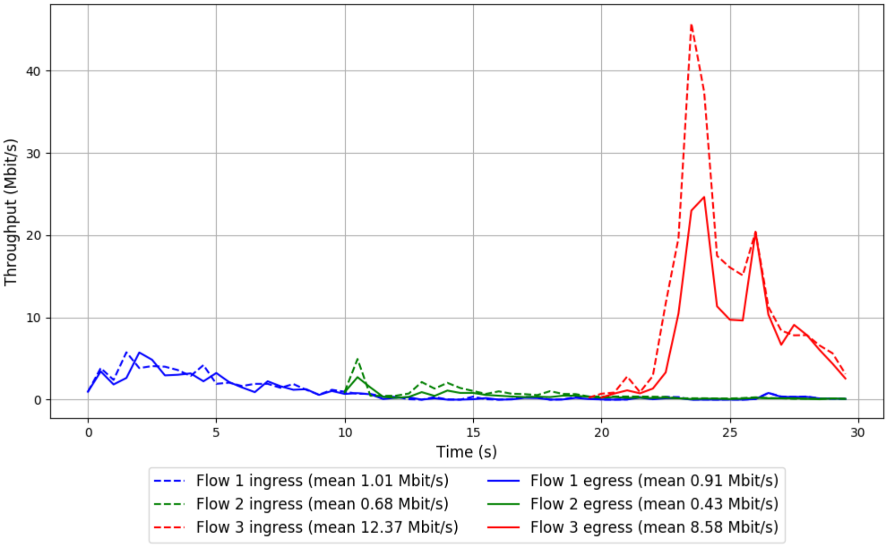


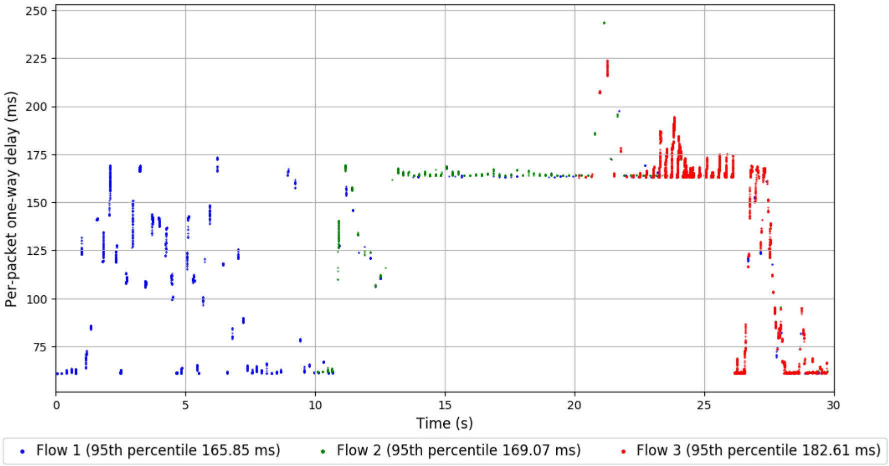
```
Run 4: Statistics of Indigo-calib

Start at: 2017-09-23 09:21:59
End at: 2017-09-23 09:22:29
Local clock offset: -1.55 ms
Remote clock offset: -21.144 ms

# Below is generated by plot.py at 2017-09-23 15:01:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.95 Mbit/s
95th percentile per-packet one-way delay: 179.099 ms
Loss rate: 28.99%
-- Flow 1:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 165.847 ms
Loss rate: 11.17%
-- Flow 2:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 169.068 ms
Loss rate: 36.63%
-- Flow 3:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 182.614 ms
Loss rate: 32.56%
```

Run 4: Report of Indigo-calib — Data Link



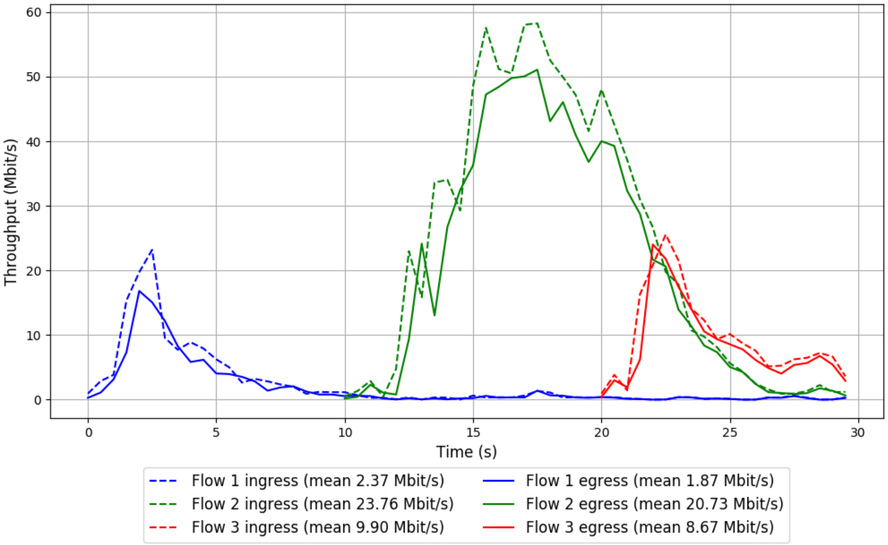


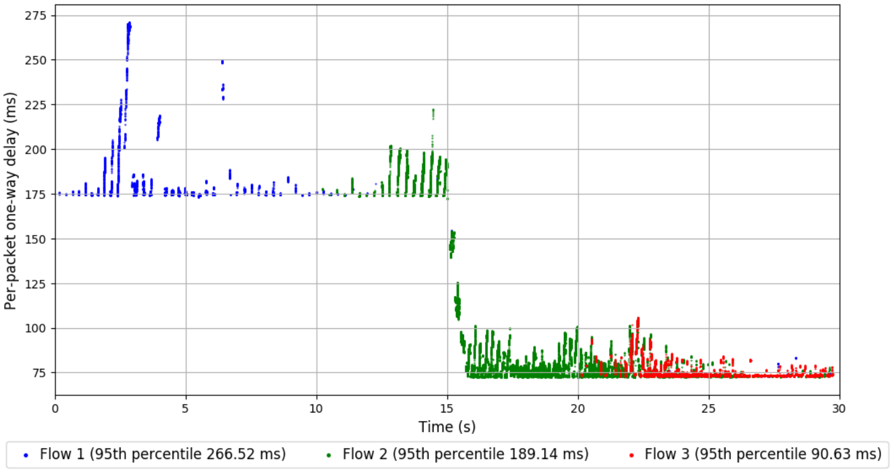
```
Run 5: Statistics of Indigo-calib

Start at: 2017-09-23 09:43:47
End at: 2017-09-23 09:44:17
Local clock offset: -1.504 ms
Remote clock offset: -32.759 ms

# Below is generated by plot.py at 2017-09-23 15:01:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.27 Mbit/s
95th percentile per-packet one-way delay: 192.392 ms
Loss rate: 14.87%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 266.516 ms
Loss rate: 21.87%
-- Flow 2:
Average throughput: 20.73 Mbit/s
95th percentile per-packet one-way delay: 189.139 ms
Loss rate: 14.00%
-- Flow 3:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 90.627 ms
Loss rate: 13.95%
```

Run 5: Report of Indigo-calib — Data Link



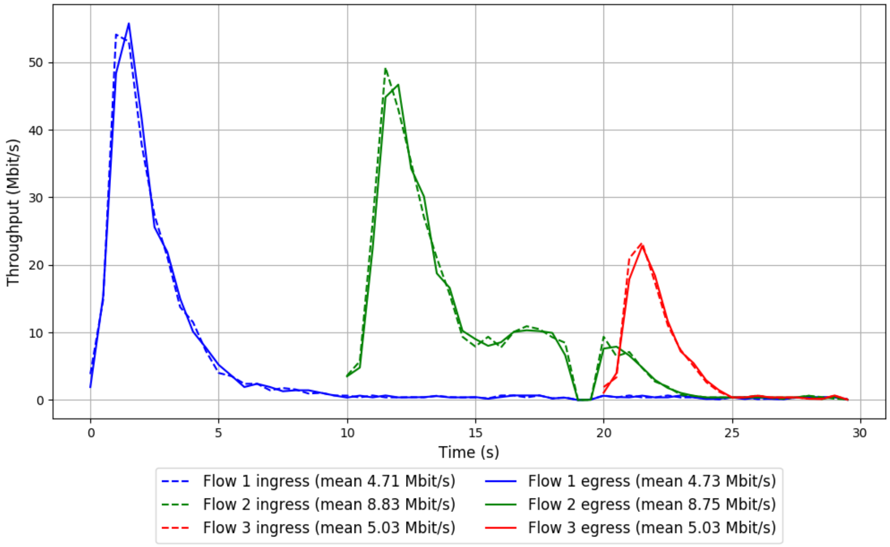


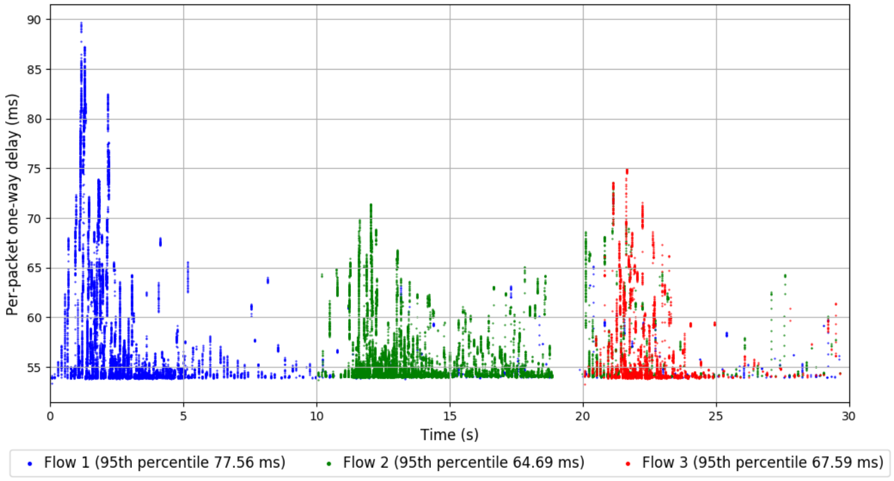
```
Run 6: Statistics of Indigo-calib

Start at: 2017-09-23 10:06:18
End at: 2017-09-23 10:06:48
Local clock offset: -1.611 ms
Remote clock offset: -14.229 ms

# Below is generated by plot.py at 2017-09-23 15:01:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 70.632 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 4.73 Mbit/s
95th percentile per-packet one-way delay: 77.558 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 64.692 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 67.594 ms
Loss rate: 1.59%
```

Run 6: Report of Indigo-calib — Data Link



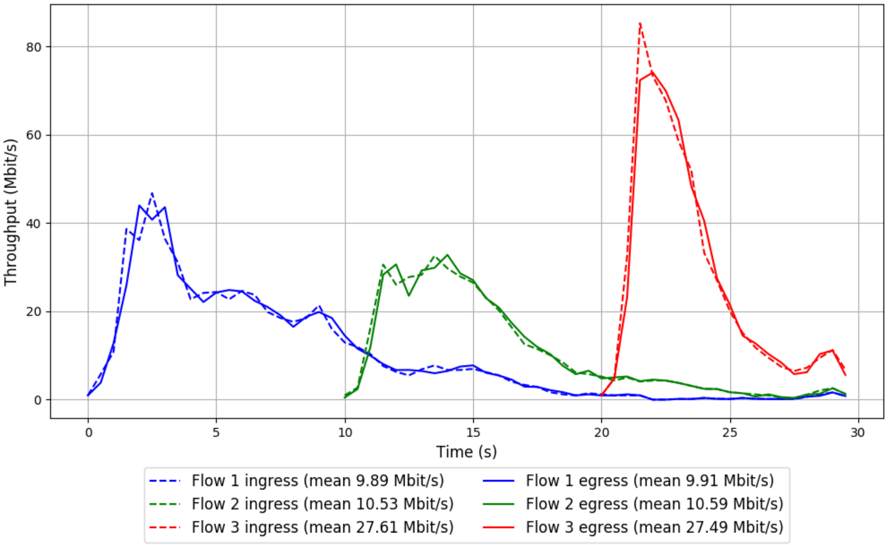


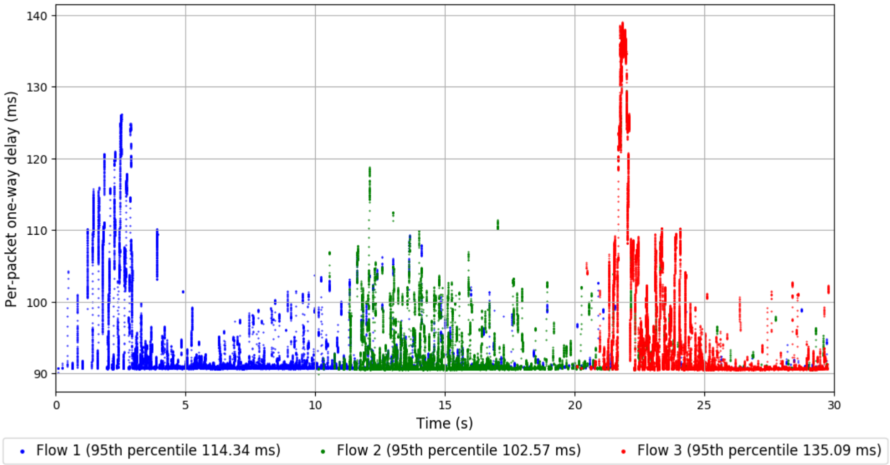
```
Run 7: Statistics of Indigo-calib

Start at: 2017-09-23 10:25:35
End at: 2017-09-23 10:26:05
Local clock offset: 14.896 ms
Remote clock offset: -34.2 ms

# Below is generated by plot.py at 2017-09-23 15:01:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.82 Mbit/s
95th percentile per-packet one-way delay: 120.487 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 9.91 Mbit/s
95th percentile per-packet one-way delay: 114.342 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 10.59 Mbit/s
95th percentile per-packet one-way delay: 102.573 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 27.49 Mbit/s
95th percentile per-packet one-way delay: 135.086 ms
Loss rate: 1.67%
```

Run 7: Report of Indigo-calib — Data Link



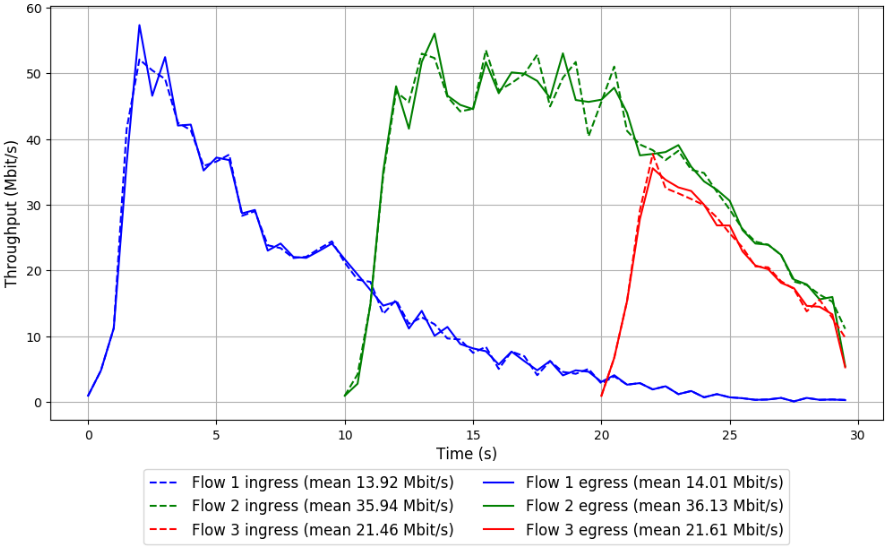


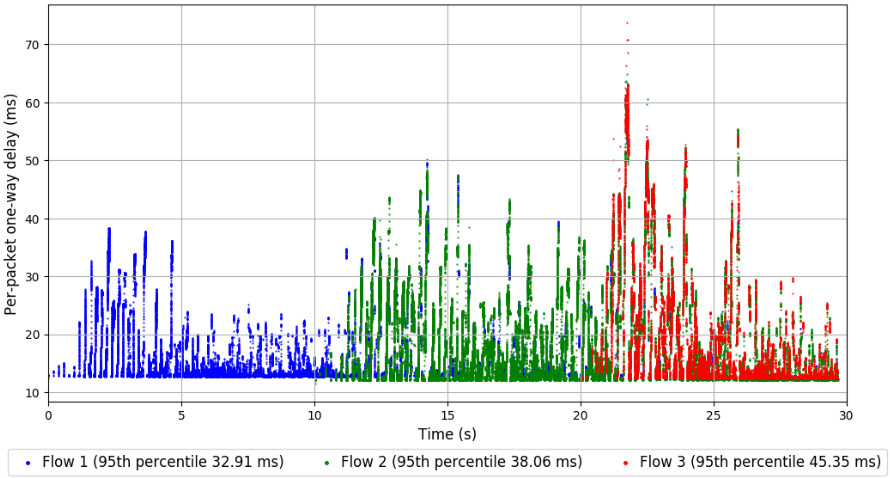
```
Run 8: Statistics of Indigo-calib

Start at: 2017-09-23 10:44:33
End at: 2017-09-23 10:45:03
Local clock offset: -0.912 ms
Remote clock offset: 28.162 ms

# Below is generated by plot.py at 2017-09-23 15:01:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.92 Mbit/s
95th percentile per-packet one-way delay: 37.607 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 14.01 Mbit/s
95th percentile per-packet one-way delay: 32.912 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 36.13 Mbit/s
95th percentile per-packet one-way delay: 38.062 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 21.61 Mbit/s
95th percentile per-packet one-way delay: 45.355 ms
Loss rate: 1.20%
```

Run 8: Report of Indigo-calib — Data Link



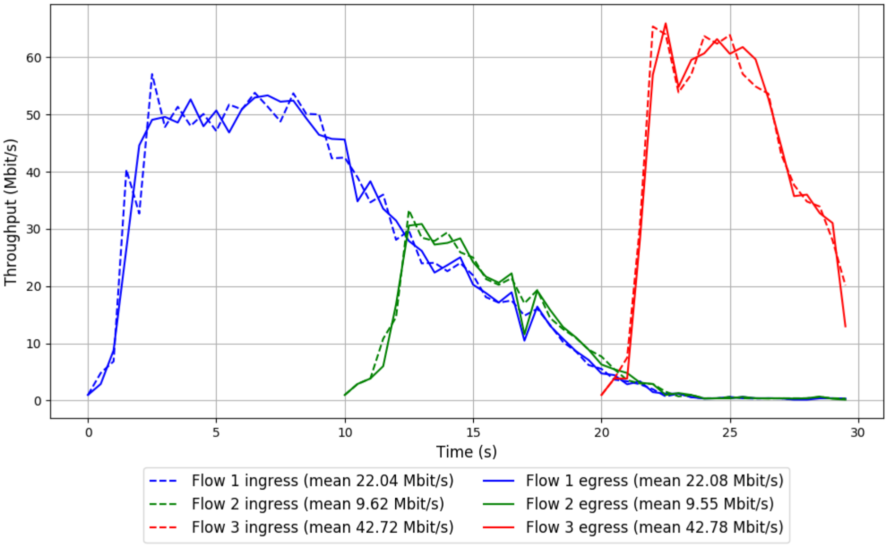


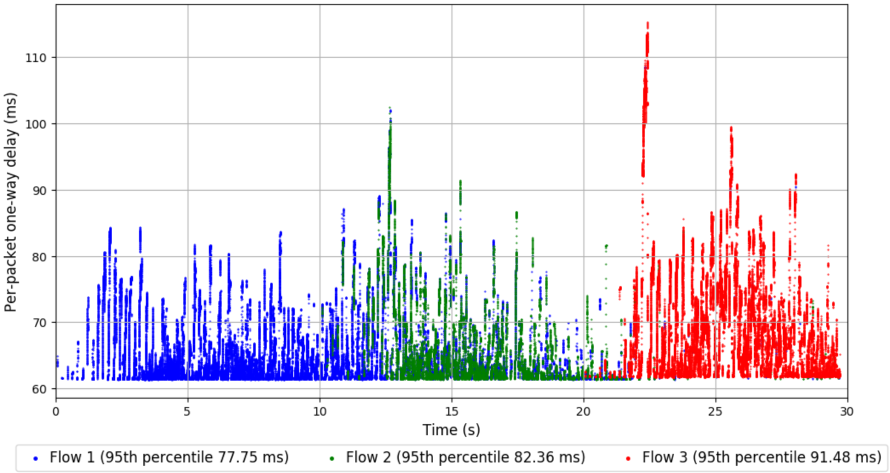
```
Run 9: Statistics of Indigo-calib

Start at: 2017-09-23 11:04:41
End at: 2017-09-23 11:05:11
Local clock offset: -1.941 ms
Remote clock offset: -22.107 ms

# Below is generated by plot.py at 2017-09-23 15:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.26 Mbit/s
95th percentile per-packet one-way delay: 82.041 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 22.08 Mbit/s
95th percentile per-packet one-way delay: 77.754 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 82.355 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 42.78 Mbit/s
95th percentile per-packet one-way delay: 91.479 ms
Loss rate: 1.28%
```

Run 9: Report of Indigo-calib — Data Link



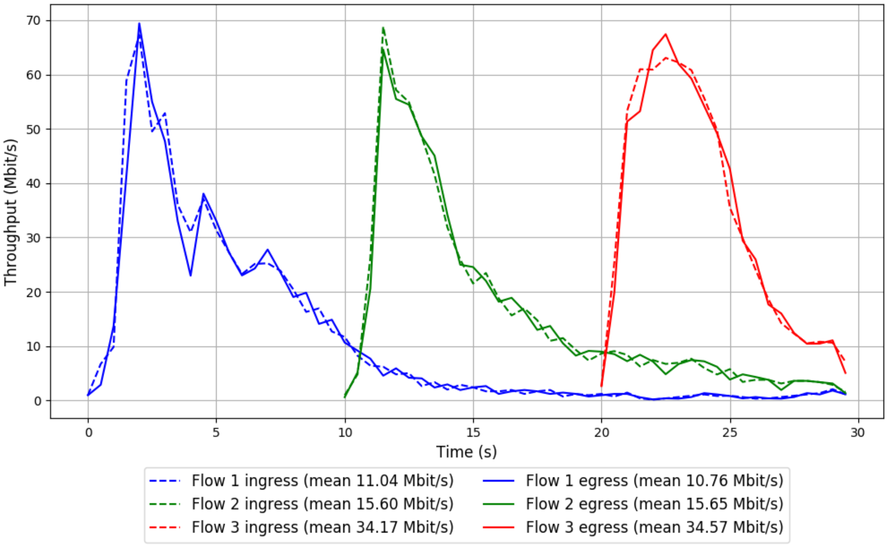


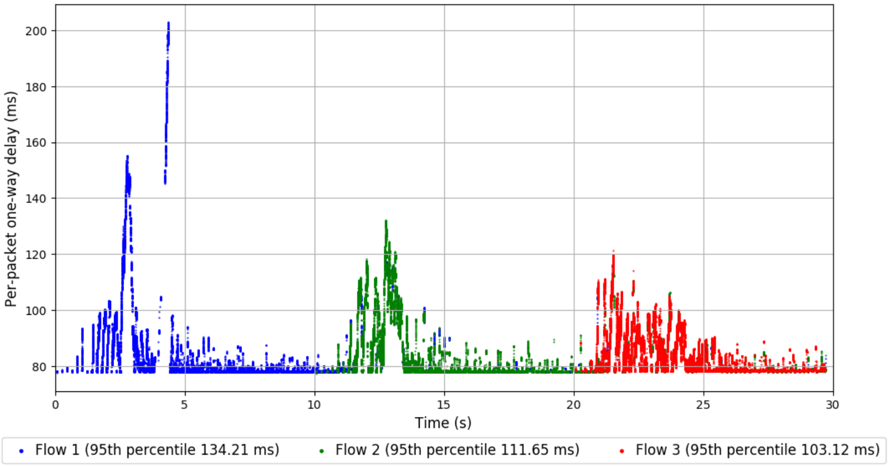
```
Run 10: Statistics of Indigo-calib

Start at: 2017-09-23 11:24:27
End at: 2017-09-23 11:24:57
Local clock offset: -2.219 ms
Remote clock offset: -38.91 ms

# Below is generated by plot.py at 2017-09-23 15:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.34 Mbit/s
95th percentile per-packet one-way delay: 111.176 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 10.76 Mbit/s
95th percentile per-packet one-way delay: 134.213 ms
Loss rate: 3.10%
-- Flow 2:
Average throughput: 15.65 Mbit/s
95th percentile per-packet one-way delay: 111.653 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 34.57 Mbit/s
95th percentile per-packet one-way delay: 103.123 ms
Loss rate: 0.54%
```

Run 10: Report of Indigo-calib — Data Link



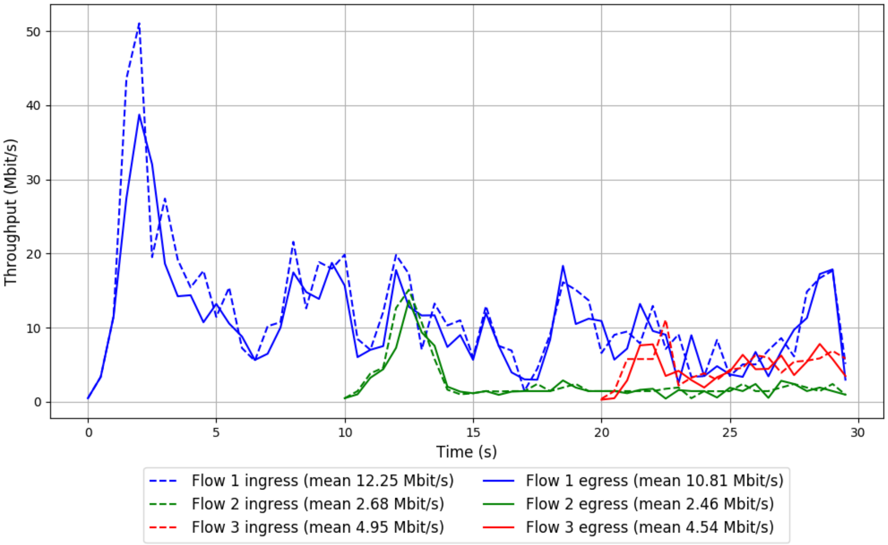


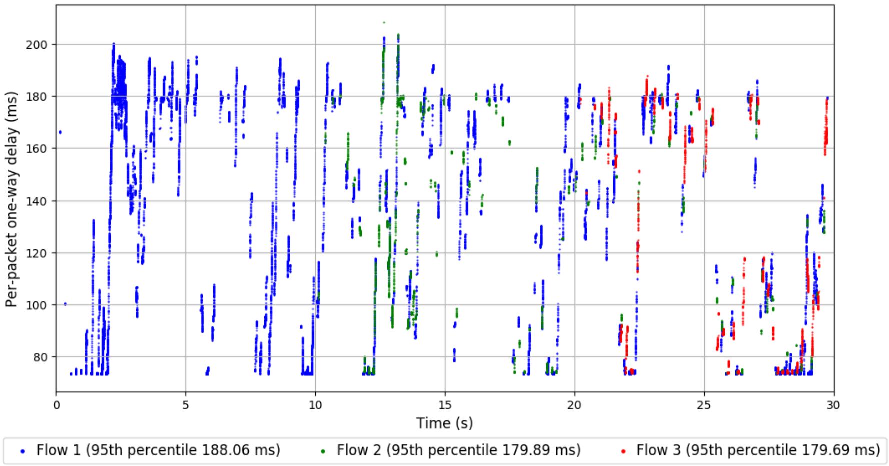
```
Run 1: Statistics of Indigo-delay

Start at: 2017-09-23 08:10:33
End at: 2017-09-23 08:11:03
Local clock offset: -0.26 ms
Remote clock offset: -35.359 ms

# Below is generated by plot.py at 2017-09-23 15:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.89 Mbit/s
95th percentile per-packet one-way delay: 186.470 ms
Loss rate: 11.58%
-- Flow 1:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 188.062 ms
Loss rate: 12.02%
-- Flow 2:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 179.888 ms
Loss rate: 9.13%
-- Flow 3:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 179.688 ms
Loss rate: 10.94%
```

Run 1: Report of Indigo-delay — Data Link

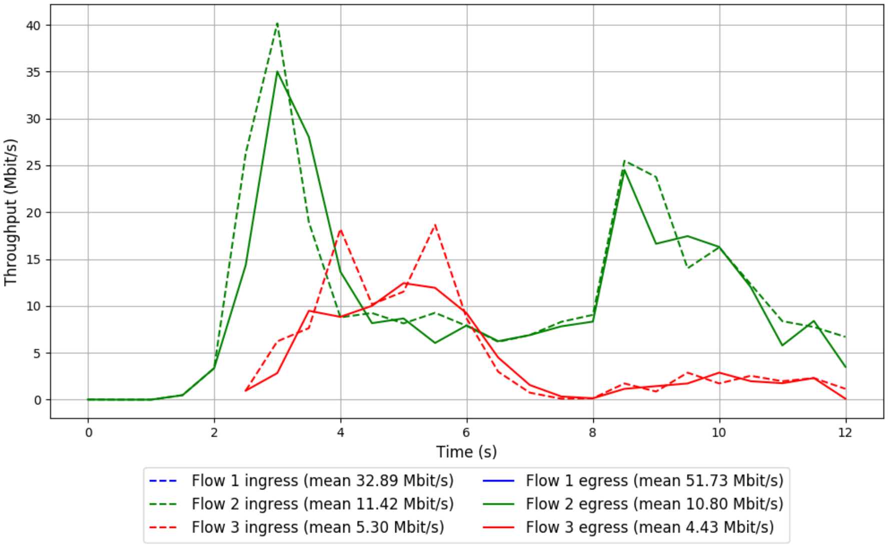


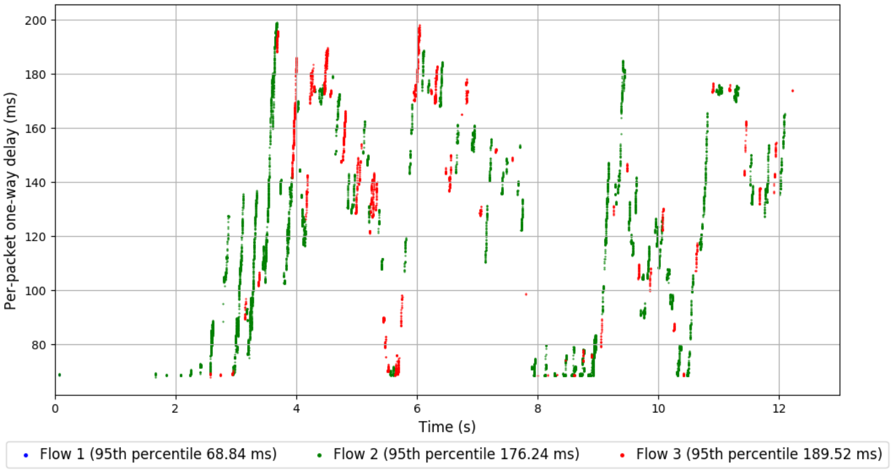


```
Run 2: Statistics of Indigo-delay

Start at: 2017-09-23 08:30:37
End at: 2017-09-23 08:31:07
Local clock offset: -1.389 ms
Remote clock offset: -30.929 ms
```

Run 2: Report of Indigo-delay — Data Link



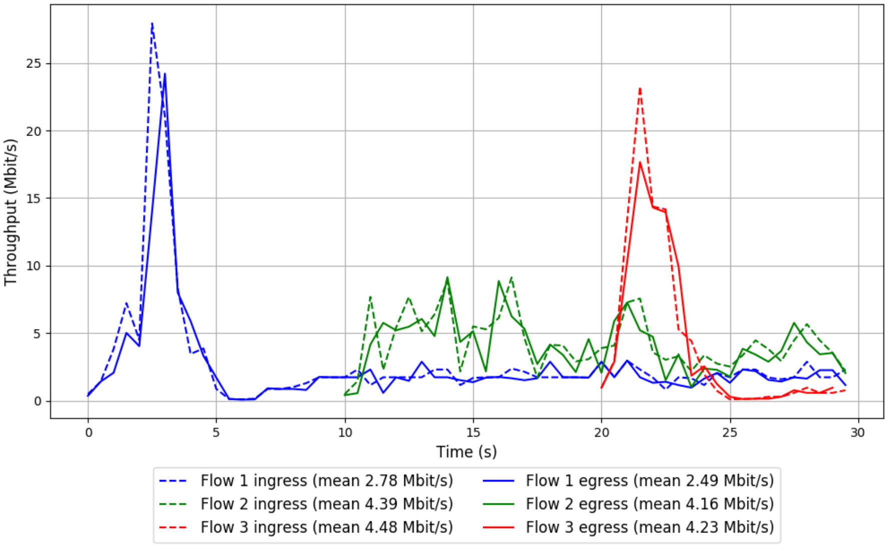


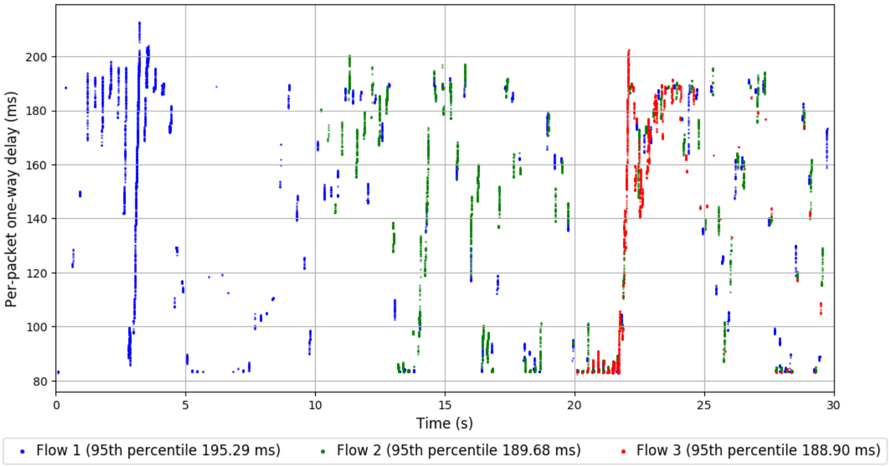
```
Run 3: Statistics of Indigo-delay

Start at: 2017-09-23 08:50:53
End at: 2017-09-23 08:51:23
Local clock offset: -1.696 ms
Remote clock offset: -44.585 ms

# Below is generated by plot.py at 2017-09-23 15:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.55 Mbit/s
95th percentile per-packet one-way delay: 191.669 ms
Loss rate: 8.44%
-- Flow 1:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 195.292 ms
Loss rate: 10.84%
-- Flow 2:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 189.683 ms
Loss rate: 6.65%
-- Flow 3:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 188.902 ms
Loss rate: 7.41%
```

Run 3: Report of Indigo-delay — Data Link



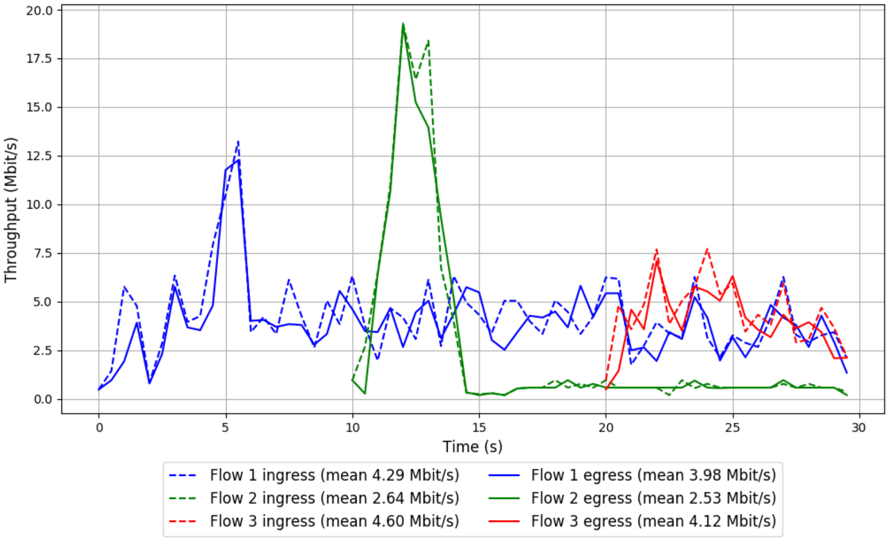


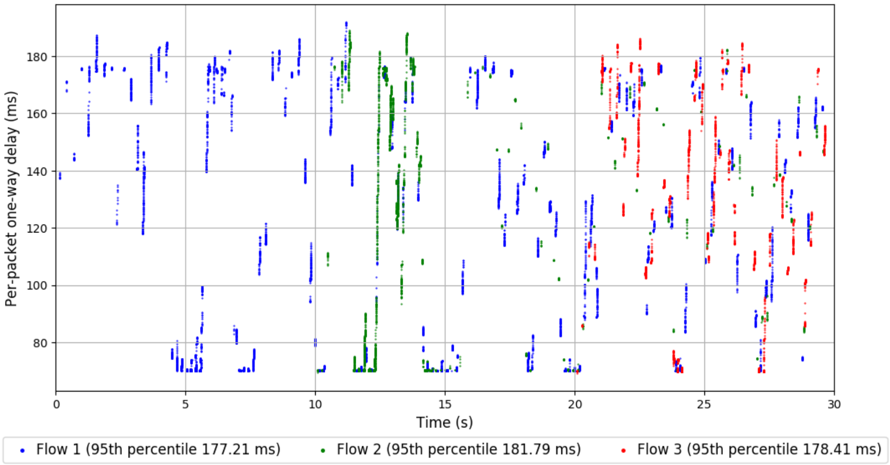
```
Run 4: Statistics of Indigo-delay

Start at: 2017-09-23 09:14:11
End at: 2017-09-23 09:14:41
Local clock offset: -1.602 ms
Remote clock offset: -30.19 ms

# Below is generated by plot.py at 2017-09-23 15:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.97 Mbit/s
95th percentile per-packet one-way delay: 178.223 ms
Loss rate: 8.15%
-- Flow 1:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 177.209 ms
Loss rate: 8.02%
-- Flow 2:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 181.795 ms
Loss rate: 4.97%
-- Flow 3:
Average throughput: 4.12 Mbit/s
95th percentile per-packet one-way delay: 178.411 ms
Loss rate: 12.21%
```

Run 4: Report of Indigo-delay — Data Link



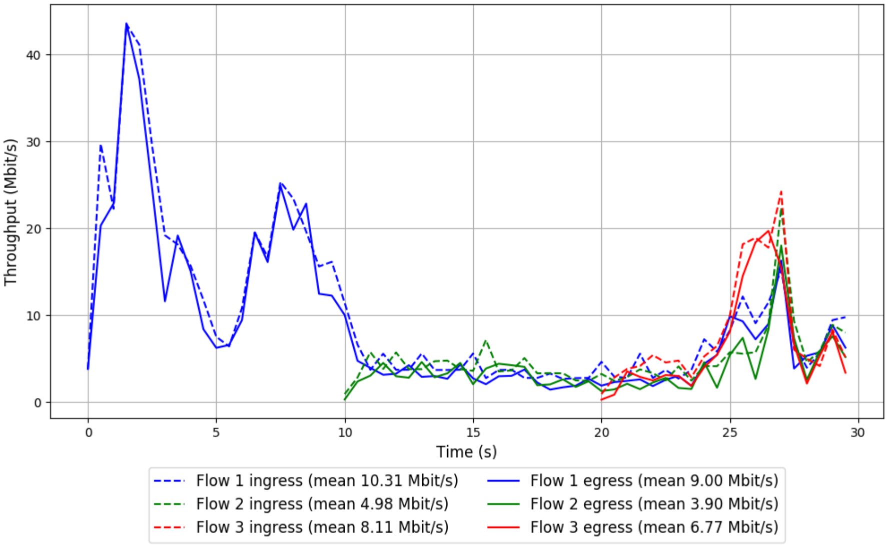


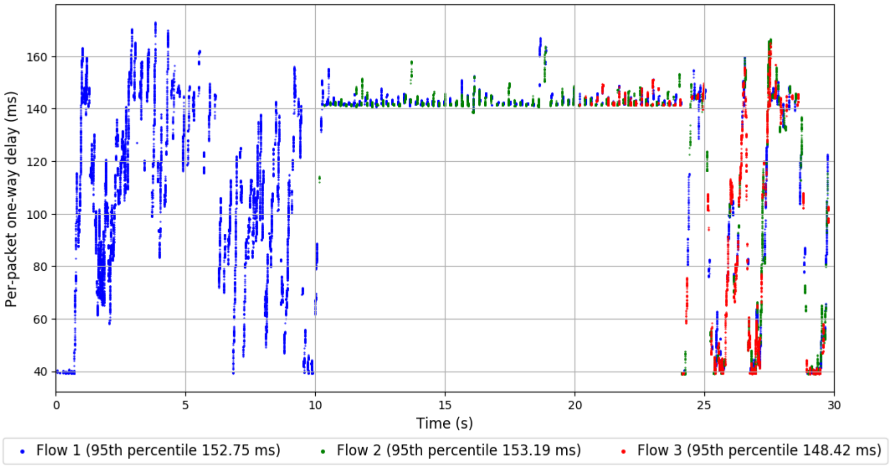
```
Run 5: Statistics of Indigo-delay

Start at: 2017-09-23 09:35:45
End at: 2017-09-23 09:36:15
Local clock offset: -1.471 ms
Remote clock offset: 1.292 ms

# Below is generated by plot.py at 2017-09-23 15:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.75 Mbit/s
95th percentile per-packet one-way delay: 152.037 ms
Loss rate: 15.77%
-- Flow 1:
Average throughput: 9.00 Mbit/s
95th percentile per-packet one-way delay: 152.750 ms
Loss rate: 12.97%
-- Flow 2:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 153.189 ms
Loss rate: 22.31%
-- Flow 3:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 148.420 ms
Loss rate: 18.46%
```

Run 5: Report of Indigo-delay — Data Link



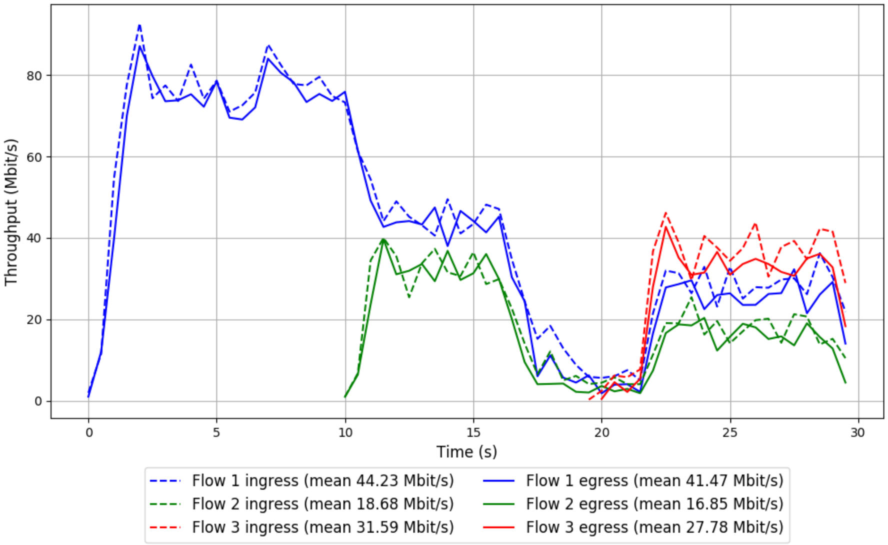


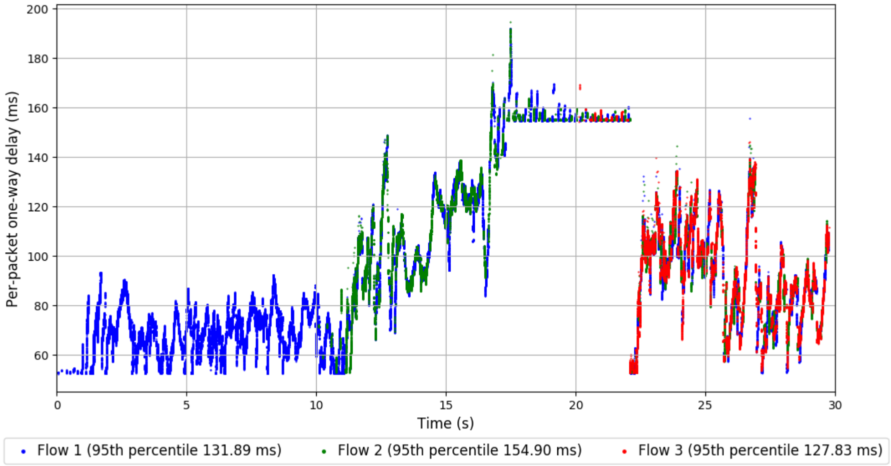
```
Run 6: Statistics of Indigo-delay

Start at: 2017-09-23 09:58:55
End at: 2017-09-23 09:59:25
Local clock offset: -1.482 ms
Remote clock offset: -13.088 ms

# Below is generated by plot.py at 2017-09-23 15:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.57 Mbit/s
95th percentile per-packet one-way delay: 135.255 ms
Loss rate: 8.52%
-- Flow 1:
Average throughput: 41.47 Mbit/s
95th percentile per-packet one-way delay: 131.886 ms
Loss rate: 6.66%
-- Flow 2:
Average throughput: 16.85 Mbit/s
95th percentile per-packet one-way delay: 154.896 ms
Loss rate: 10.49%
-- Flow 3:
Average throughput: 27.78 Mbit/s
95th percentile per-packet one-way delay: 127.825 ms
Loss rate: 14.07%
```

Run 6: Report of Indigo-delay — Data Link

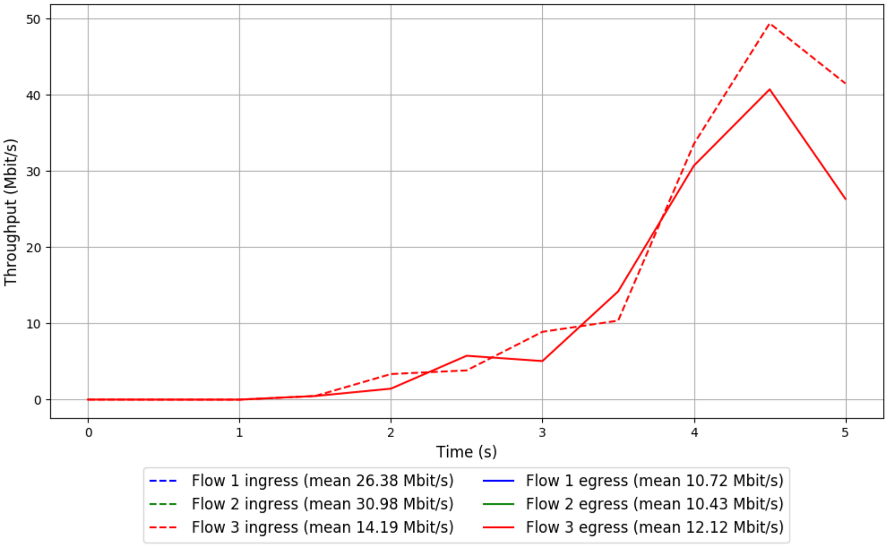


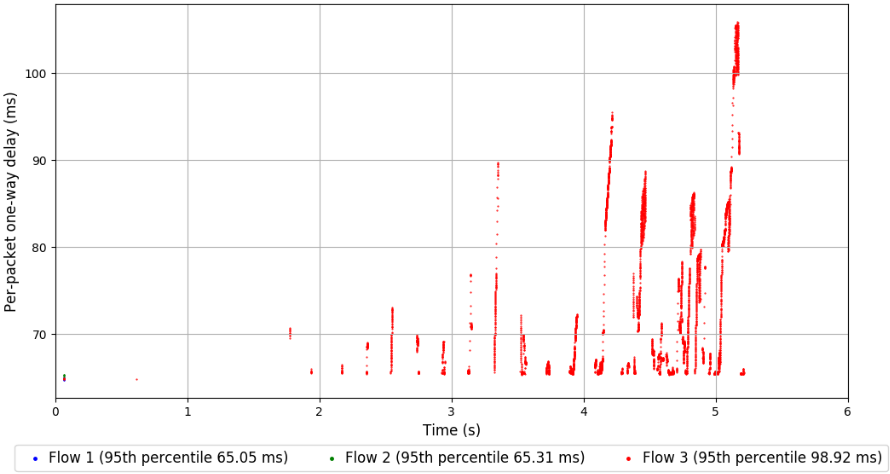


```
Run 7: Statistics of Indigo-delay

Start at: 2017-09-23 10:18:30
End at: 2017-09-23 10:19:00
Local clock offset: -1.796 ms
Remote clock offset: -25.768 ms
```

Run 7: Report of Indigo-delay — Data Link



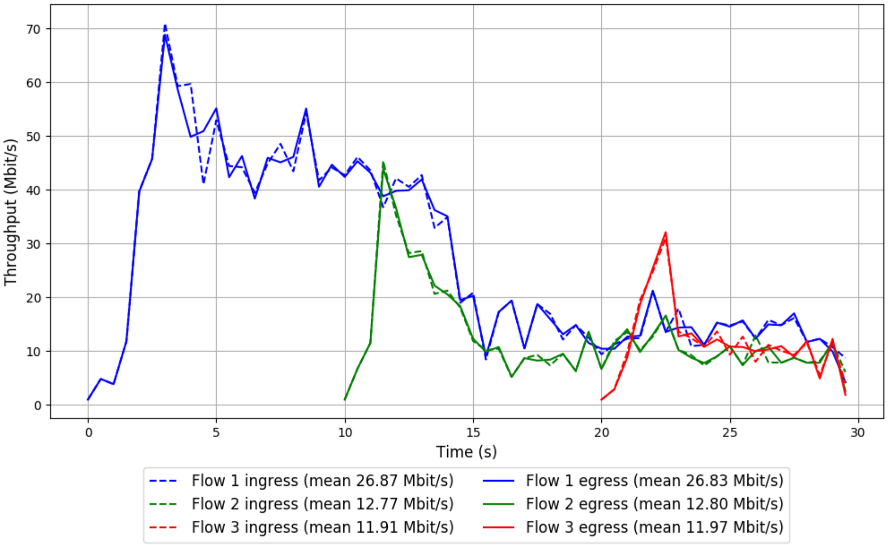


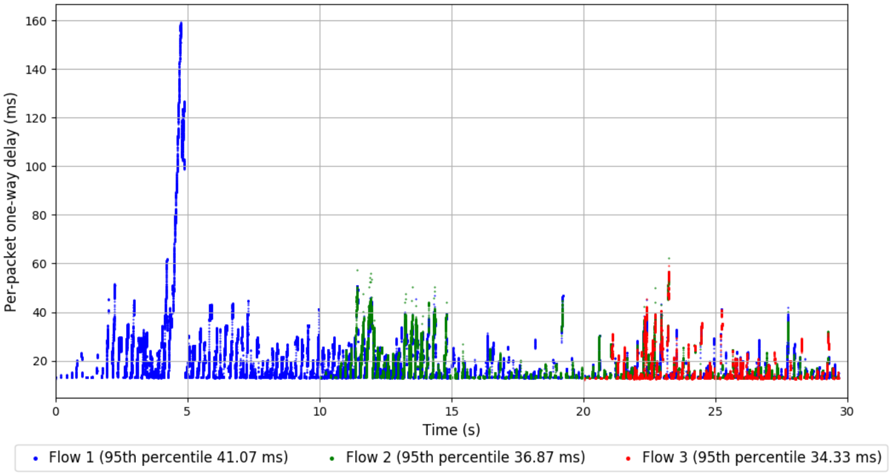
```
Run 8: Statistics of Indigo-delay

Start at: 2017-09-23 10:37:52
End at: 2017-09-23 10:38:22
Local clock offset: -1.777 ms
Remote clock offset: 27.038 ms

# Below is generated by plot.py at 2017-09-23 15:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 39.141 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 26.83 Mbit/s
95th percentile per-packet one-way delay: 41.066 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 36.872 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 34.325 ms
Loss rate: 0.95%
```

Run 8: Report of Indigo-delay — Data Link



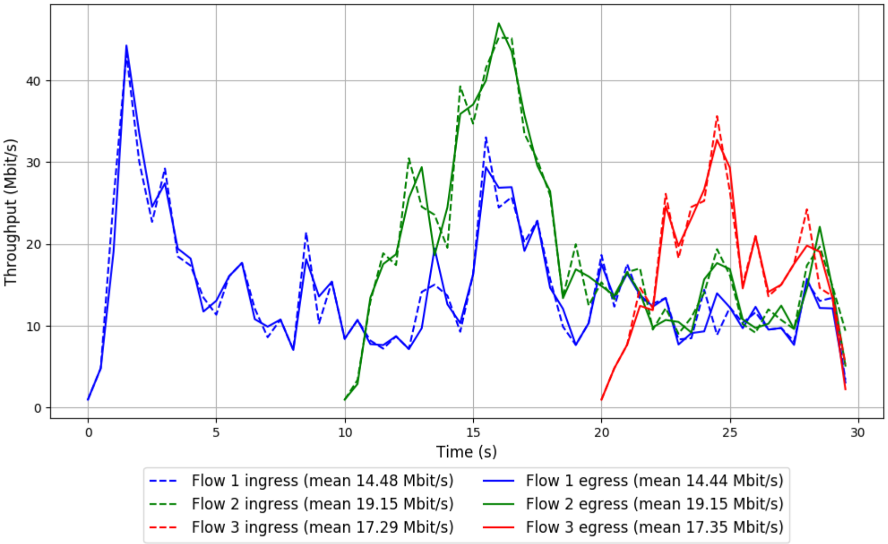


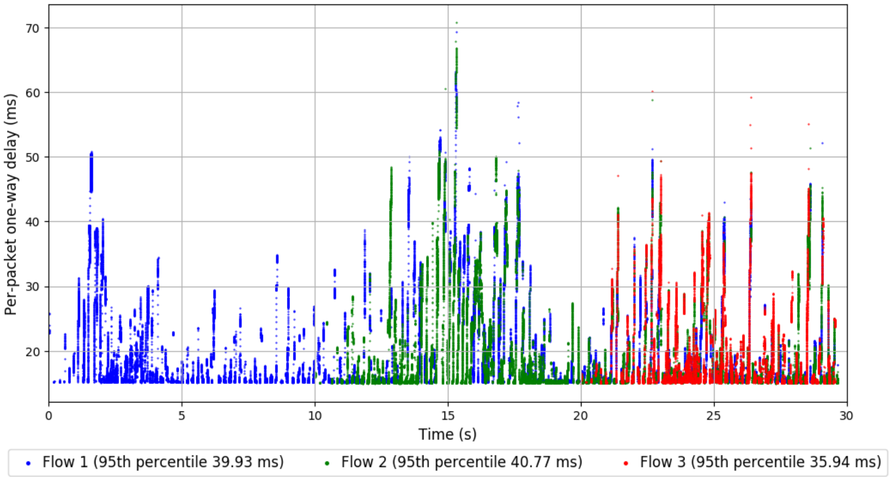
```
Run 9: Statistics of Indigo-delay

Start at: 2017-09-23 10:57:32
End at: 2017-09-23 10:58:02
Local clock offset: -2.003 ms
Remote clock offset: 24.224 ms

# Below is generated by plot.py at 2017-09-23 15:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.71 Mbit/s
95th percentile per-packet one-way delay: 39.505 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 14.44 Mbit/s
95th percentile per-packet one-way delay: 39.928 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 40.772 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 17.35 Mbit/s
95th percentile per-packet one-way delay: 35.944 ms
Loss rate: 1.73%
```

Run 9: Report of Indigo-delay — Data Link



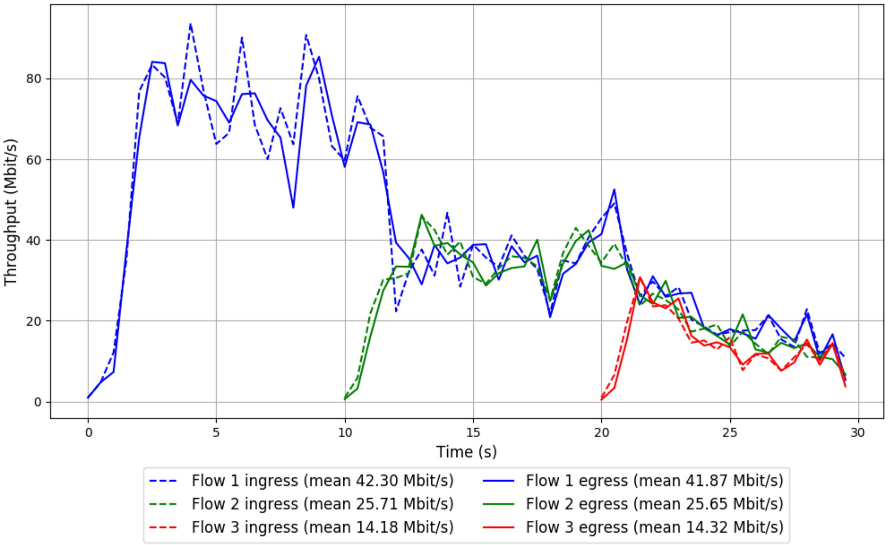


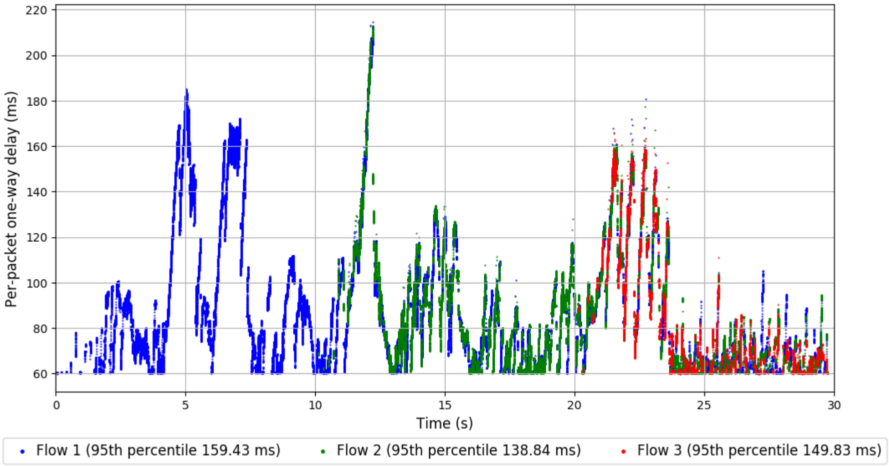
```
Run 10: Statistics of Indigo-delay

Start at: 2017-09-23 11:17:06
End at: 2017-09-23 11:17:36
Local clock offset: -1.036 ms
Remote clock offset: -19.885 ms

# Below is generated by plot.py at 2017-09-23 15:02:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.41 Mbit/s
95th percentile per-packet one-way delay: 154.815 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 41.87 Mbit/s
95th percentile per-packet one-way delay: 159.432 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 25.65 Mbit/s
95th percentile per-packet one-way delay: 138.840 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 14.32 Mbit/s
95th percentile per-packet one-way delay: 149.832 ms
Loss rate: 1.27%
```

Run 10: Report of Indigo-delay — Data Link


Throughput (Mbit/s)
0
20
40
60
80
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 42.30 Mbit/s)
Flow 2 ingress (mean 25.71 Mbit/s)
Flow 3 ingress (mean 14.18 Mbit/s)
Flow 1 egress (mean 41.87 Mbit/s)
Flow 2 egress (mean 25.65 Mbit/s)
Flow 3 egress (mean 14.32 Mbit/s)


Per-packet one-way delay (ms)
60
80
100
120
140
160
180
200
220
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 159.43 ms)
Flow 2 (95th percentile 138.84 ms)
Flow 3 (95th percentile 149.83 ms)