Pantheon Report

Generated at 2018-02-05 01:58:45 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

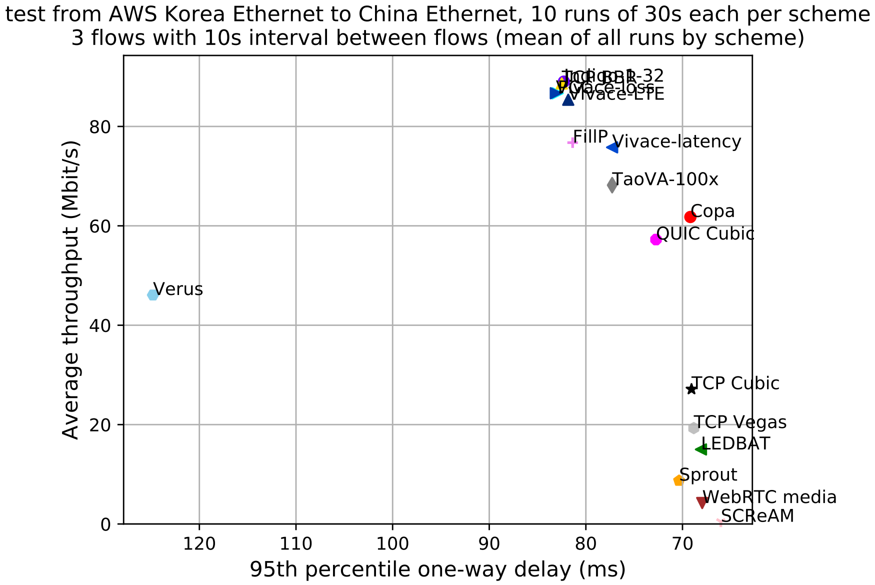
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

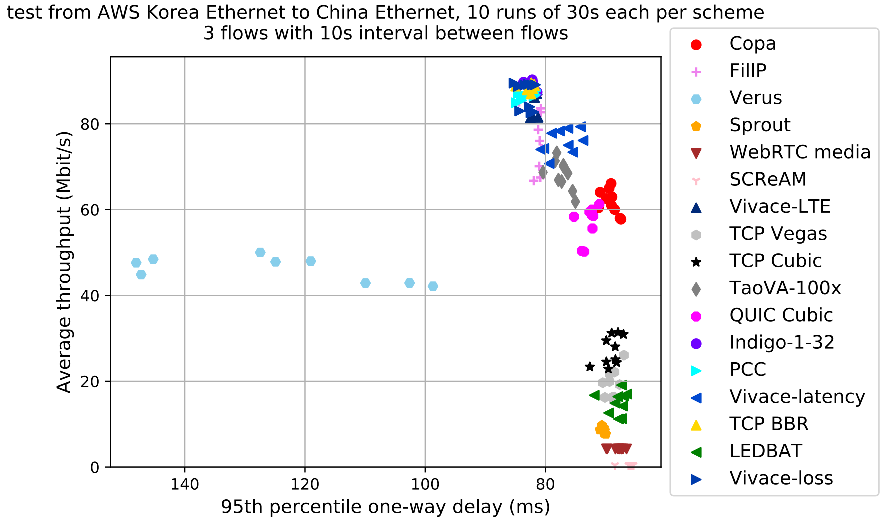
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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: master @ 70217998b3c9a7166a95460a70c0854d1326e100
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ fb9c9ab842e5614ad52911a76fb9bd1c1b0dca86
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

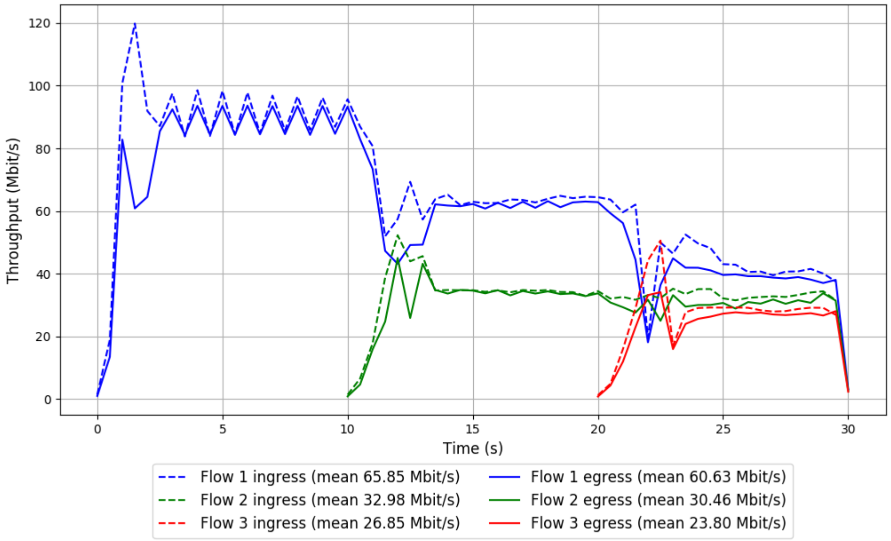

test from AWS Korea Ethernet to China Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
120
110
100
90
80
70
Indigo-1-32
TCP BBR
PCC
Vivace-loss
Vivace-LTE
FillP
Vivace-latency
TaoVA-100x
Copa
QUIC Cubic
Verus
TCP Cubic
TCP Vegas
LEDBAT
Sprout
WebRTC media
SCReAM

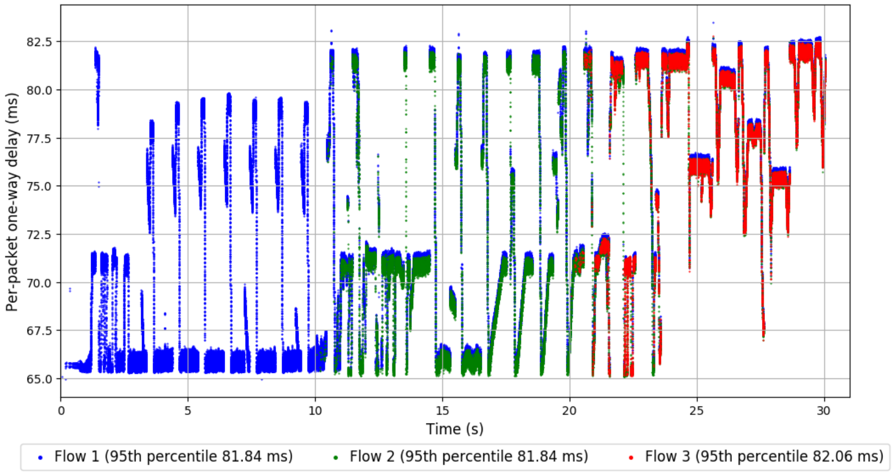

test from AWS Korea Ethernet to China Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
140
120
100
80
Copa
FillP
Verus
Sprout
WebRTC media
SCReAM
Vivace-LTE
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Indigo-1-32
PCC
Vivace-latency
TCP BBR
LEDBAT
Vivace-loss

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	57.74	34.70	23.80	82.24	82.62	82.91	7.44	8.91	10.79
TCP Cubic	10	14.17	12.63	13.73	68.84	69.41	69.22	0.50	0.71	1.02
LEDBAT	10	8.32	7.45	5.44	67.94	68.39	68.95	0.51	0.66	0.46
PCC	10	80.65	6.03	6.11	82.79	83.10	83.44	1.62	2.17	2.48
QUIC Cubic	10	35.10	24.78	17.59	72.12	72.98	73.62	0.97	0.43	0.49
SCReAM	10	0.22	0.22	0.22	65.95	65.90	66.01	0.00	0.00	0.00
WebRTC media	10	2.23	1.43	0.59	67.76	67.92	68.89	0.00	0.00	0.03
Sprout	10	4.69	4.38	3.39	70.37	70.35	70.05	1.60	1.70	1.84
TaoVA-100x	10	52.62	14.26	18.30	77.16	76.41	76.72	6.67	11.62	13.63
TCP Vegas	10	9.26	9.92	10.38	68.36	68.75	69.78	0.54	0.60	1.09
Verus	9	34.33	14.33	9.89	124.21	99.78	90.32	84.06	66.50	61.75
Copa	10	35.24	29.29	21.20	67.54	69.84	72.17	0.02	0.03	0.07
FillP	10	39.71	38.61	34.27	80.44	81.33	83.13	17.34	19.86	25.14
Indigo-1-32	10	53.61	36.47	35.72	81.94	82.41	82.49	40.02	57.48	67.83
Vivace-latency	10	62.36	17.61	5.30	76.90	78.13	78.73	0.35	0.48	0.72
Vivace-loss	10	79.08	8.88	5.21	83.09	83.09	82.58	2.04	2.69	3.66
Vivace-LTE	10	74.47	13.27	6.36	81.78	81.82	81.54	1.97	1.31	1.41

```
Run 1: Statistics of TCP BBR

Start at: 2018-02-04 21:21:07
End at: 2018-02-04 21:21:37
Local clock offset: -2.328 ms
Remote clock offset: 4.648 ms

# Below is generated by plot.py at 2018-02-05 01:37:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.83 Mbit/s
95th percentile per-packet one-way delay: 81.874 ms
Loss rate: 8.12%
-- Flow 1:
Average throughput: 60.63 Mbit/s
95th percentile per-packet one-way delay: 81.844 ms
Loss rate: 7.88%
-- Flow 2:
Average throughput: 30.46 Mbit/s
95th percentile per-packet one-way delay: 81.843 ms
Loss rate: 7.56%
-- Flow 3:
Average throughput: 23.80 Mbit/s
95th percentile per-packet one-way delay: 82.057 ms
Loss rate: 11.25%
```

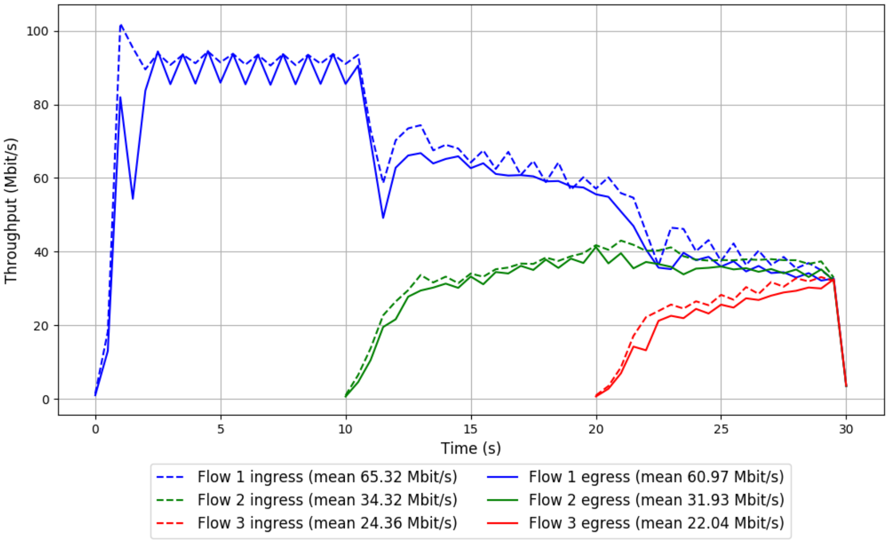
Run 1: Report of TCP BBR — Data Link

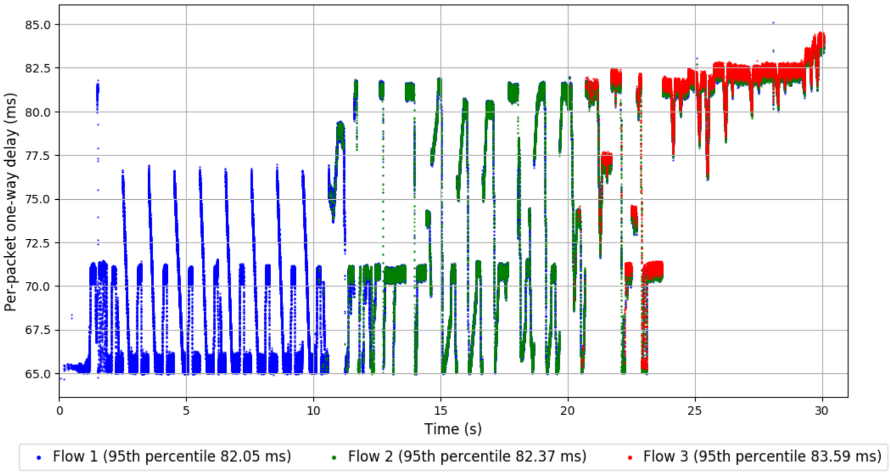




```
Run 2: Statistics of TCP BBR

Start at: 2018-02-04 21:44:29
End at: 2018-02-04 21:44:59
Local clock offset: -1.897 ms
Remote clock offset: 3.291 ms

# Below is generated by plot.py at 2018-02-05 01:37:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.55 Mbit/s
95th percentile per-packet one-way delay: 82.353 ms
Loss rate: 6.91%
-- Flow 1:
Average throughput: 60.97 Mbit/s
95th percentile per-packet one-way delay: 82.046 ms
Loss rate: 6.60%
-- Flow 2:
Average throughput: 31.93 Mbit/s
95th percentile per-packet one-way delay: 82.369 ms
Loss rate: 6.88%
-- Flow 3:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 83.590 ms
Loss rate: 9.50%
```

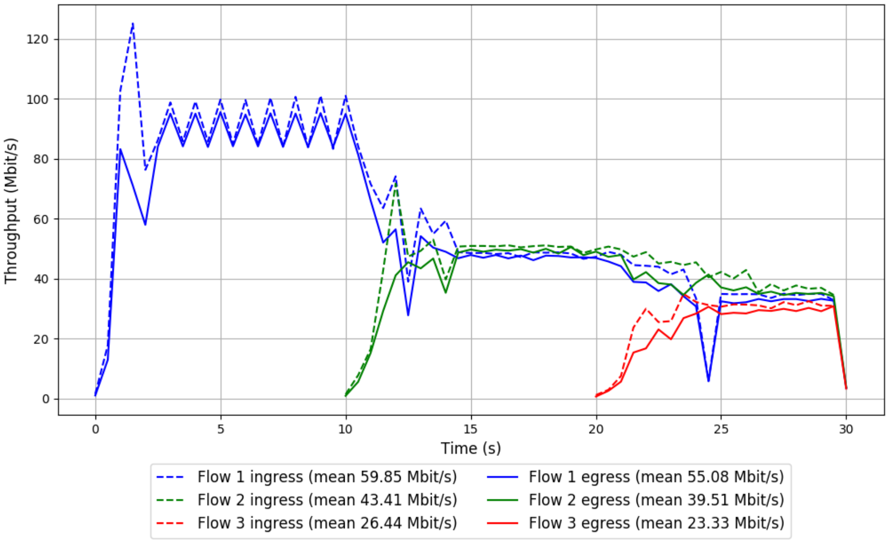
Run 2: Report of TCP BBR — Data Link

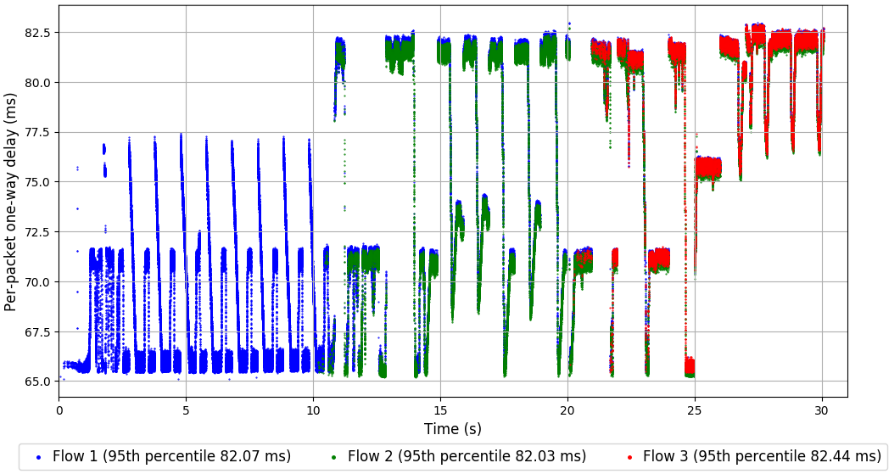




```
Run 3: Statistics of TCP BBR

Start at: 2018-02-04 22:07:55
End at: 2018-02-04 22:08:25
Local clock offset: -1.784 ms
Remote clock offset: 2.169 ms

# Below is generated by plot.py at 2018-02-05 01:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.16 Mbit/s
95th percentile per-packet one-way delay: 82.132 ms
Loss rate: 8.54%
-- Flow 1:
Average throughput: 55.08 Mbit/s
95th percentile per-packet one-way delay: 82.069 ms
Loss rate: 7.91%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 82.035 ms
Loss rate: 8.90%
-- Flow 3:
Average throughput: 23.33 Mbit/s
95th percentile per-packet one-way delay: 82.440 ms
Loss rate: 11.62%
```

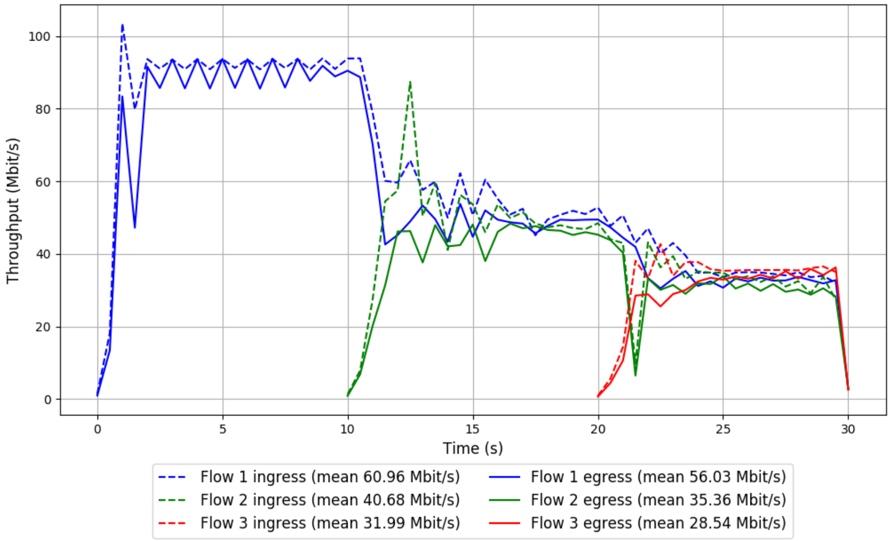
Run 3: Report of TCP BBR — Data Link

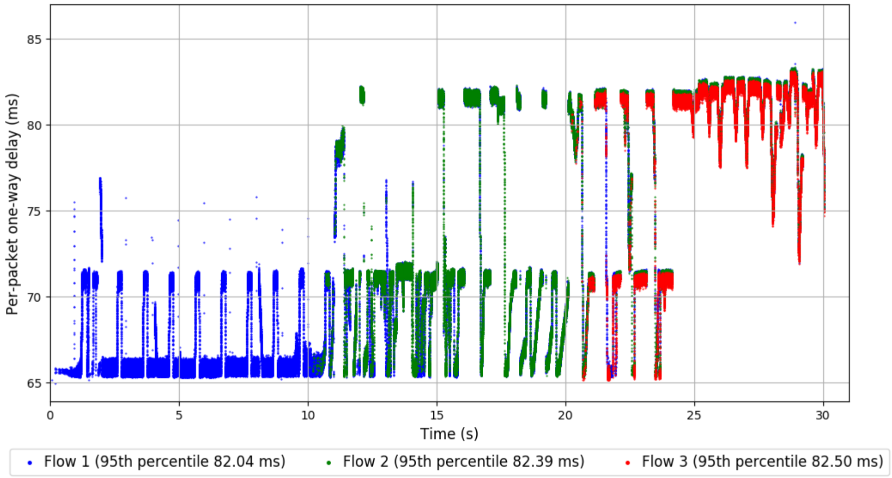




```
Run 4: Statistics of TCP BBR

Start at: 2018-02-04 22:31:19
End at: 2018-02-04 22:31:49
Local clock offset: -1.527 ms
Remote clock offset: 0.985 ms

# Below is generated by plot.py at 2018-02-05 01:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.06 Mbit/s
95th percentile per-packet one-way delay: 82.282 ms
Loss rate: 9.71%
-- Flow 1:
Average throughput: 56.03 Mbit/s
95th percentile per-packet one-way delay: 82.041 ms
Loss rate: 8.06%
-- Flow 2:
Average throughput: 35.36 Mbit/s
95th percentile per-packet one-way delay: 82.394 ms
Loss rate: 13.02%
-- Flow 3:
Average throughput: 28.54 Mbit/s
95th percentile per-packet one-way delay: 82.502 ms
Loss rate: 10.71%
```

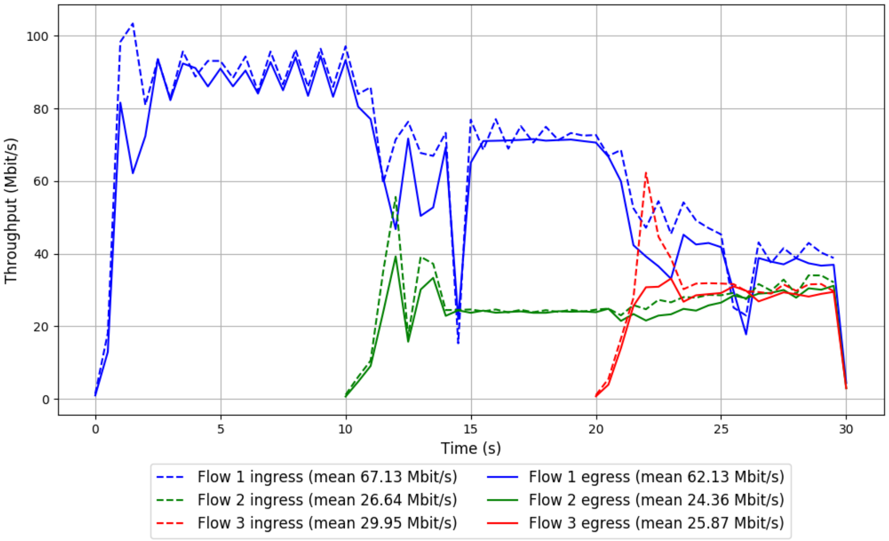
Run 4: Report of TCP BBR — Data Link

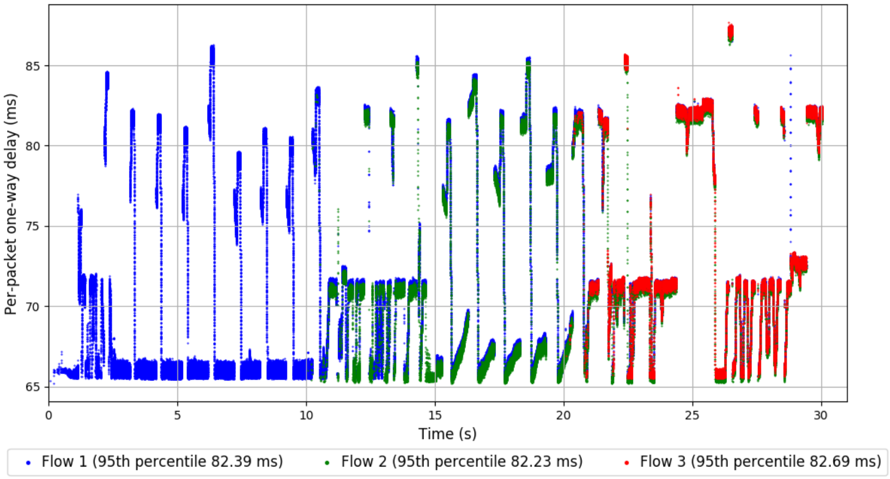




```
Run 5: Statistics of TCP BBR

Start at: 2018-02-04 22:54:35
End at: 2018-02-04 22:55:05
Local clock offset: -1.577 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-02-05 01:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.96 Mbit/s
95th percentile per-packet one-way delay: 82.411 ms
Loss rate: 8.23%
-- Flow 1:
Average throughput: 62.13 Mbit/s
95th percentile per-packet one-way delay: 82.385 ms
Loss rate: 7.39%
-- Flow 2:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 82.228 ms
Loss rate: 8.49%
-- Flow 3:
Average throughput: 25.87 Mbit/s
95th percentile per-packet one-way delay: 82.689 ms
Loss rate: 13.48%
```

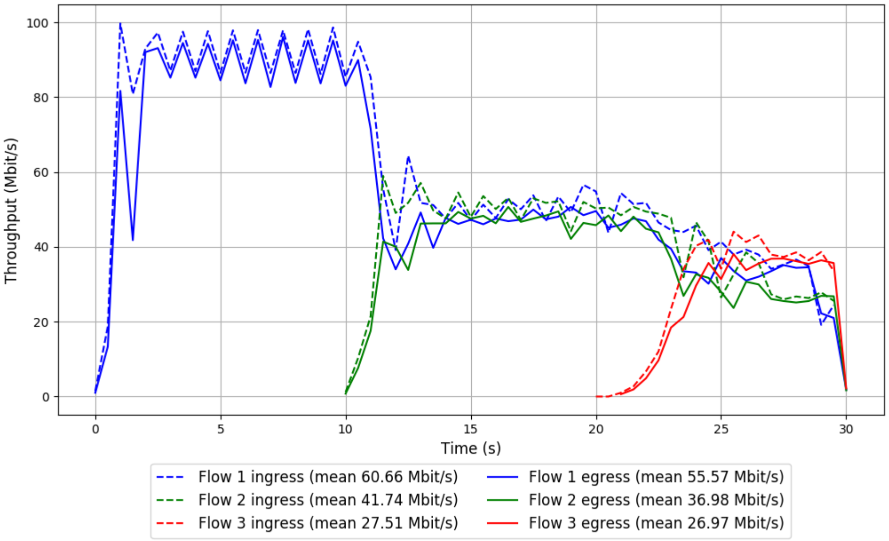
Run 5: Report of TCP BBR — Data Link

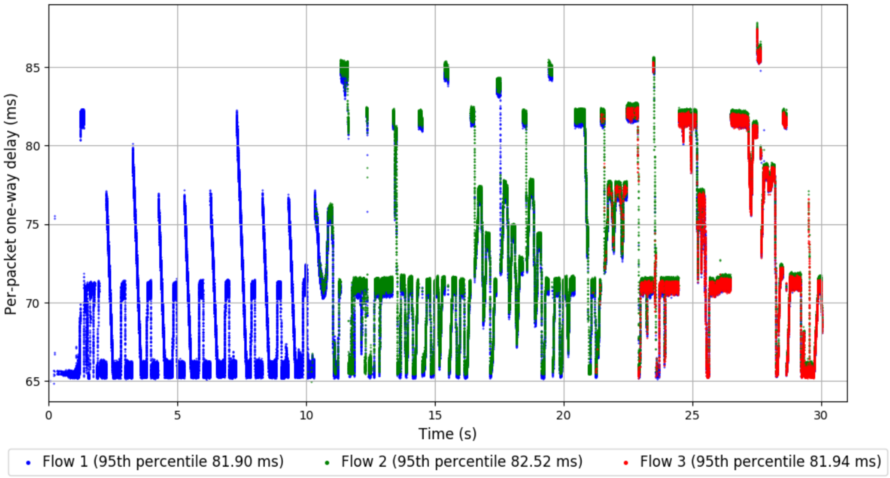




```
Run 6: Statistics of TCP BBR

Start at: 2018-02-04 23:17:48
End at: 2018-02-04 23:18:18
Local clock offset: -1.471 ms
Remote clock offset: -1.194 ms

# Below is generated by plot.py at 2018-02-05 01:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.21 Mbit/s
95th percentile per-packet one-way delay: 82.144 ms
Loss rate: 9.59%
-- Flow 1:
Average throughput: 55.57 Mbit/s
95th percentile per-packet one-way delay: 81.904 ms
Loss rate: 8.37%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 82.521 ms
Loss rate: 11.39%
-- Flow 3:
Average throughput: 26.97 Mbit/s
95th percentile per-packet one-way delay: 81.938 ms
Loss rate: 12.17%
```

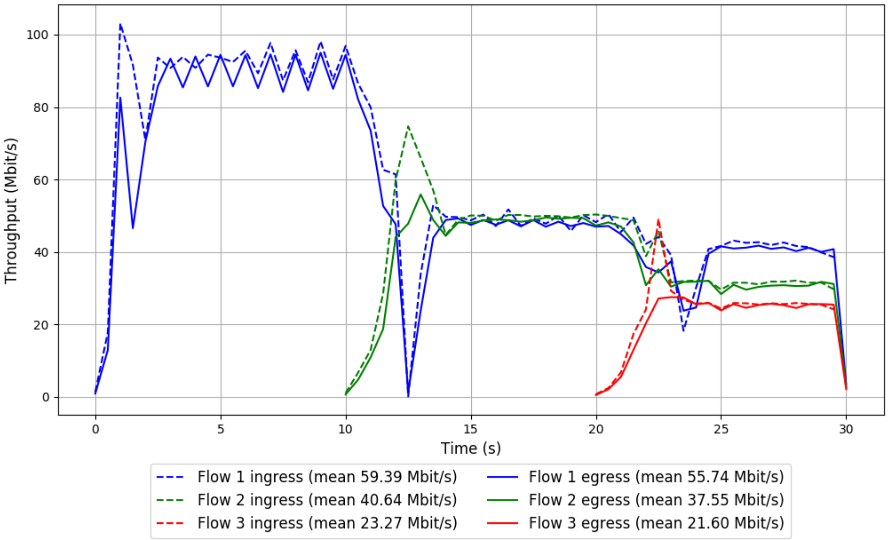
Run 6: Report of TCP BBR — Data Link

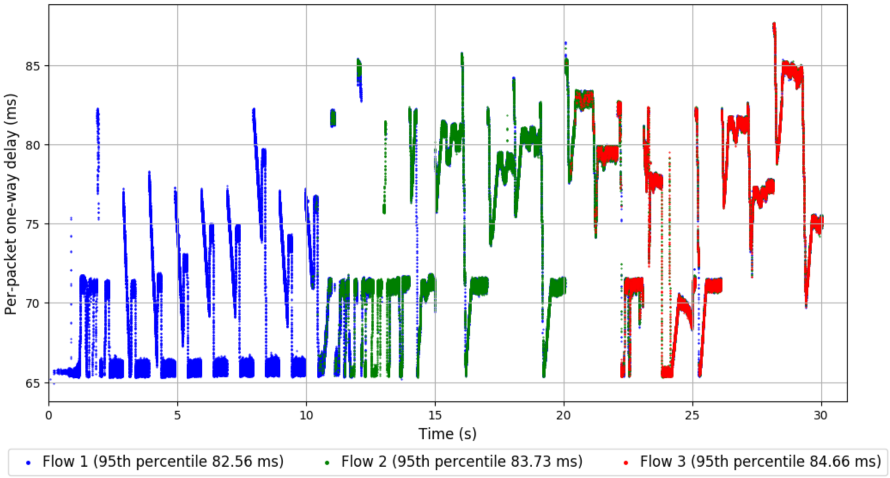




```
Run 7: Statistics of TCP BBR

Start at: 2018-02-04 23:41:01
End at: 2018-02-04 23:41:31
Local clock offset: -1.306 ms
Remote clock offset: -2.168 ms

# Below is generated by plot.py at 2018-02-05 01:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 83.055 ms
Loss rate: 6.64%
-- Flow 1:
Average throughput: 55.74 Mbit/s
95th percentile per-packet one-way delay: 82.564 ms
Loss rate: 6.12%
-- Flow 2:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 83.727 ms
Loss rate: 7.61%
-- Flow 3:
Average throughput: 21.60 Mbit/s
95th percentile per-packet one-way delay: 84.663 ms
Loss rate: 7.30%
```

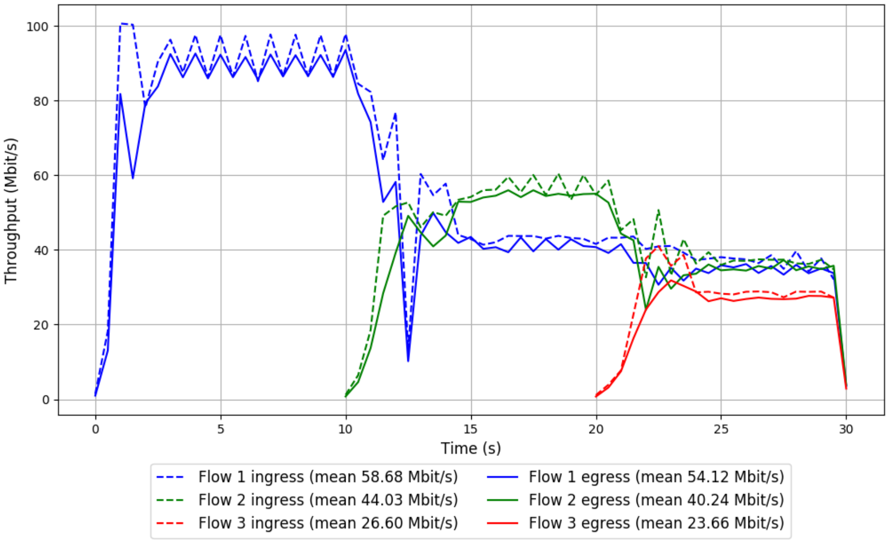
Run 7: Report of TCP BBR — Data Link

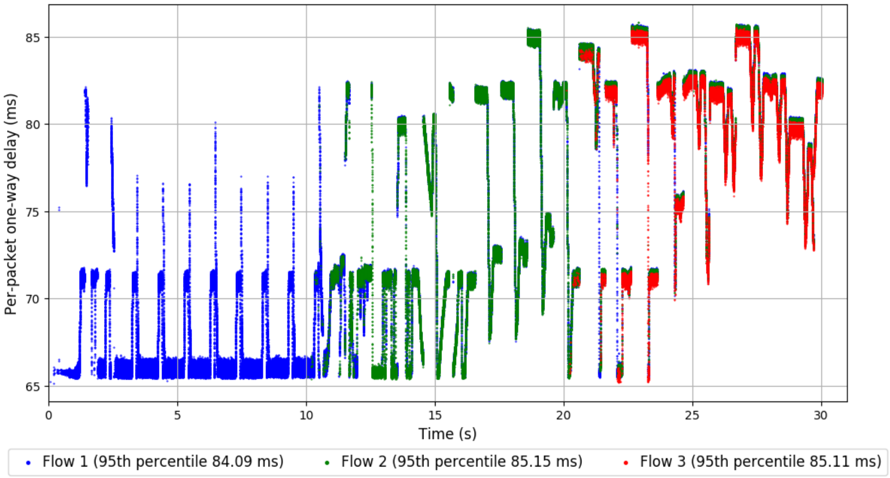




```
Run 8: Statistics of TCP BBR

Start at: 2018-02-05 00:04:12
End at: 2018-02-05 00:04:42
Local clock offset: -1.374 ms
Remote clock offset: -2.805 ms

# Below is generated by plot.py at 2018-02-05 01:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.79 Mbit/s
95th percentile per-packet one-way delay: 84.944 ms
Loss rate: 8.27%
-- Flow 1:
Average throughput: 54.12 Mbit/s
95th percentile per-packet one-way delay: 84.094 ms
Loss rate: 7.72%
-- Flow 2:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 85.147 ms
Loss rate: 8.53%
-- Flow 3:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 85.106 ms
Loss rate: 11.04%
```

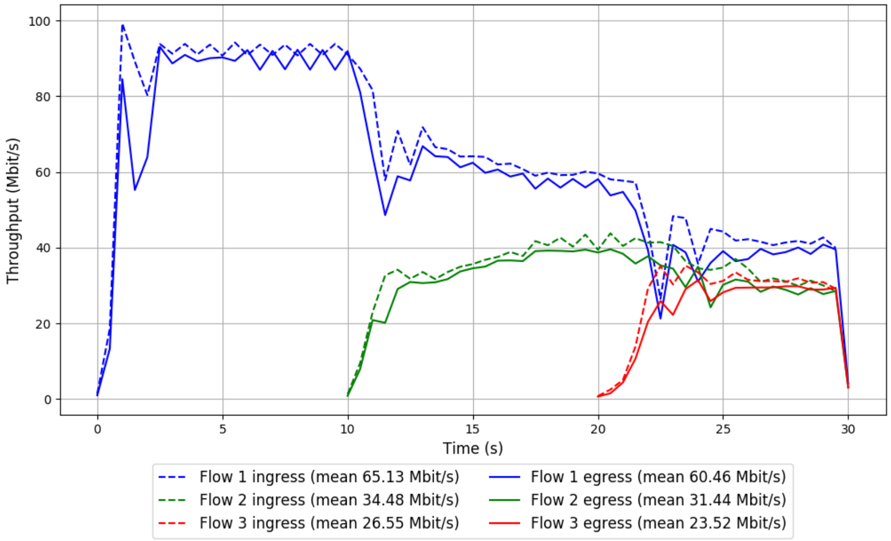
Run 8: Report of TCP BBR — Data Link

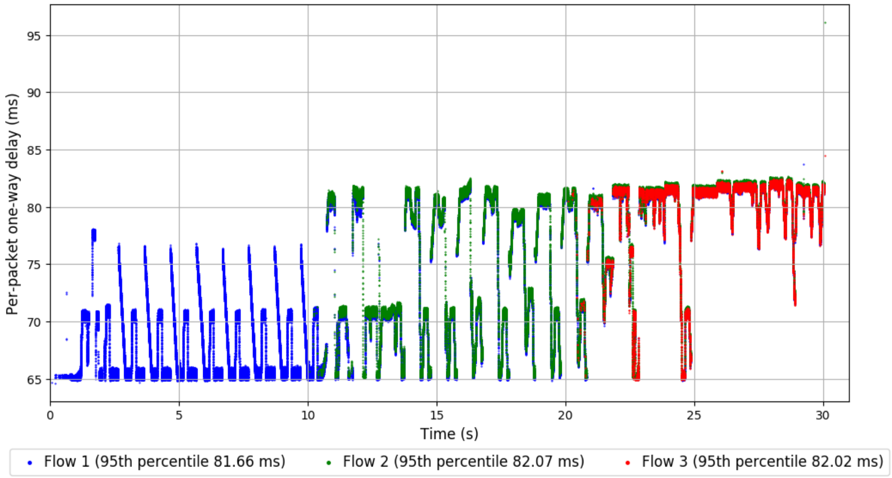




```
Run 9: Statistics of TCP BBR

Start at: 2018-02-05 00:27:24
End at: 2018-02-05 00:27:54
Local clock offset: -1.159 ms
Remote clock offset: -3.627 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.19 Mbit/s
95th percentile per-packet one-way delay: 81.874 ms
Loss rate: 7.87%
-- Flow 1:
Average throughput: 60.46 Mbit/s
95th percentile per-packet one-way delay: 81.658 ms
Loss rate: 7.11%
-- Flow 2:
Average throughput: 31.44 Mbit/s
95th percentile per-packet one-way delay: 82.070 ms
Loss rate: 8.67%
-- Flow 3:
Average throughput: 23.52 Mbit/s
95th percentile per-packet one-way delay: 82.021 ms
Loss rate: 11.36%
```

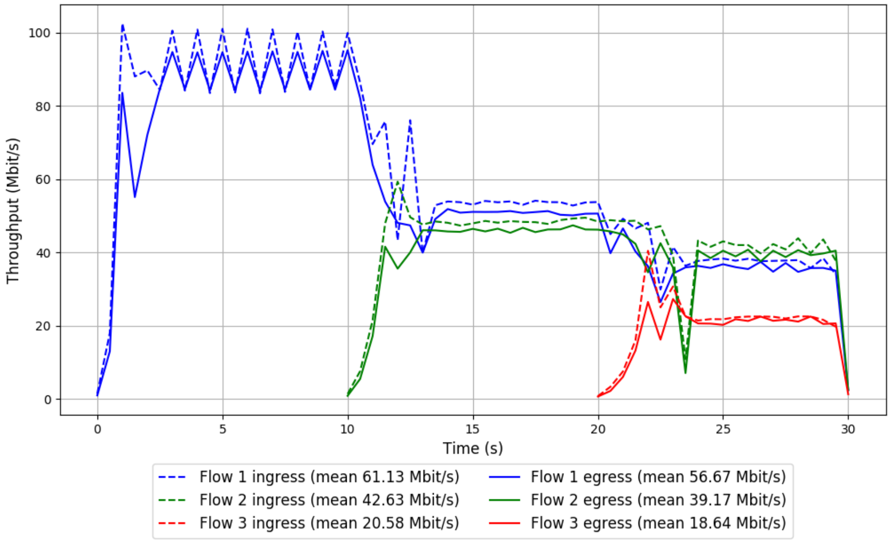
Run 9: Report of TCP BBR — Data Link

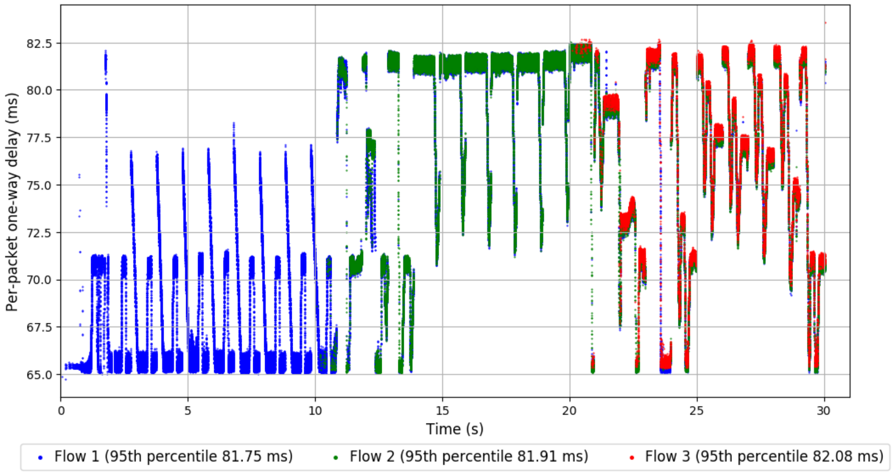




```
Run 10: Statistics of TCP BBR

Start at: 2018-02-05 00:50:49
End at: 2018-02-05 00:51:19
Local clock offset: -1.43 ms
Remote clock offset: -4.289 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.95 Mbit/s
95th percentile per-packet one-way delay: 81.840 ms
Loss rate: 7.64%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 81.751 ms
Loss rate: 7.24%
-- Flow 2:
Average throughput: 39.17 Mbit/s
95th percentile per-packet one-way delay: 81.908 ms
Loss rate: 8.06%
-- Flow 3:
Average throughput: 18.64 Mbit/s
95th percentile per-packet one-way delay: 82.079 ms
Loss rate: 9.42%
```

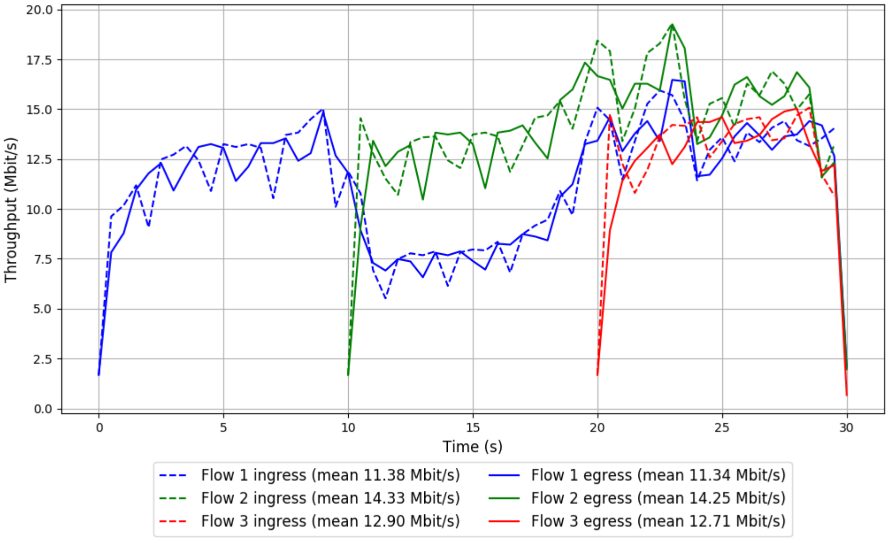
Run 10: Report of TCP BBR — Data Link

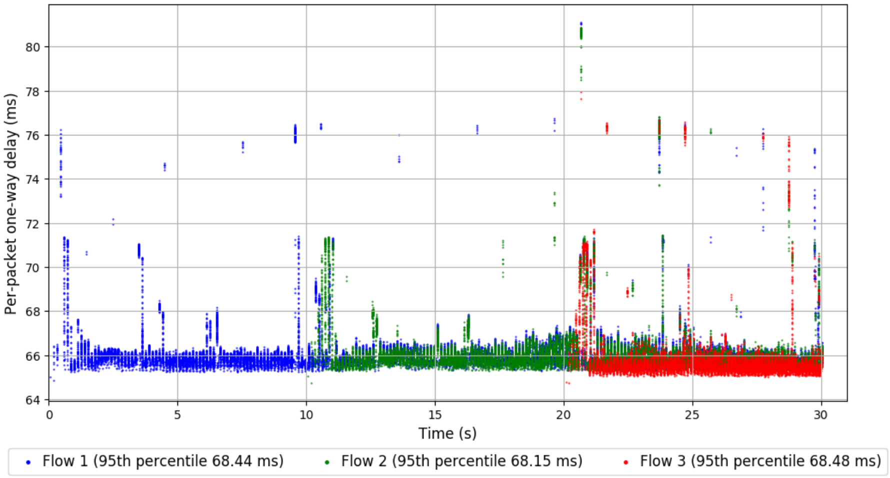




```
Run 1: Statistics of TCP Cubic

Start at: 2018-02-04 21:15:49
End at: 2018-02-04 21:16:19
Local clock offset: -2.339 ms
Remote clock offset: 4.985 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.05 Mbit/s
95th percentile per-packet one-way delay: 68.356 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 11.34 Mbit/s
95th percentile per-packet one-way delay: 68.443 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 14.25 Mbit/s
95th percentile per-packet one-way delay: 68.150 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 68.479 ms
Loss rate: 1.48%
```

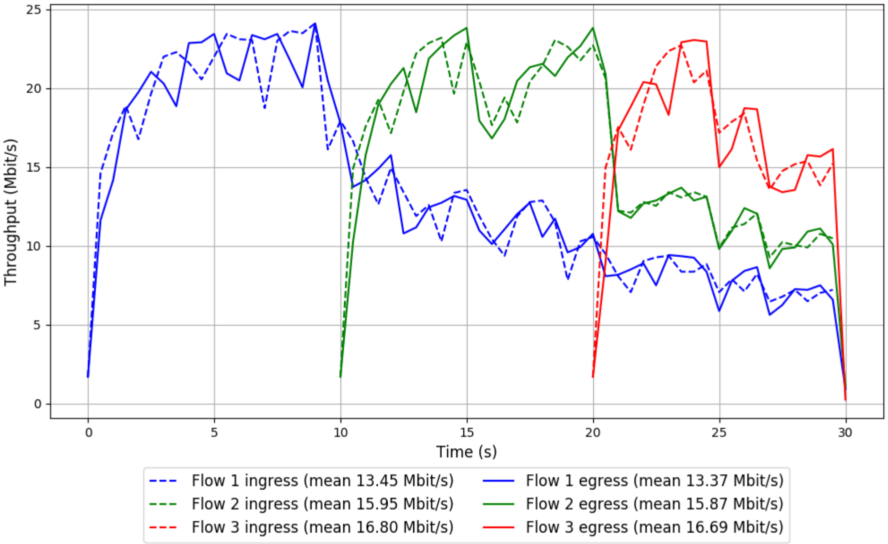
Run 1: Report of TCP Cubic — Data Link

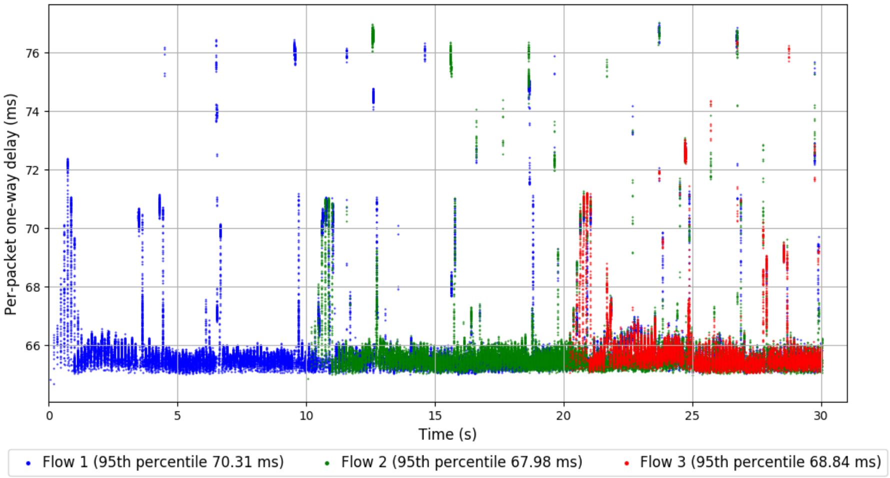




```
Run 2: Statistics of TCP Cubic

Start at: 2018-02-04 21:39:12
End at: 2018-02-04 21:39:42
Local clock offset: -2.07 ms
Remote clock offset: 3.596 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.47 Mbit/s
95th percentile per-packet one-way delay: 69.874 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 70.307 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 15.87 Mbit/s
95th percentile per-packet one-way delay: 67.981 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 16.69 Mbit/s
95th percentile per-packet one-way delay: 68.837 ms
Loss rate: 0.68%
```

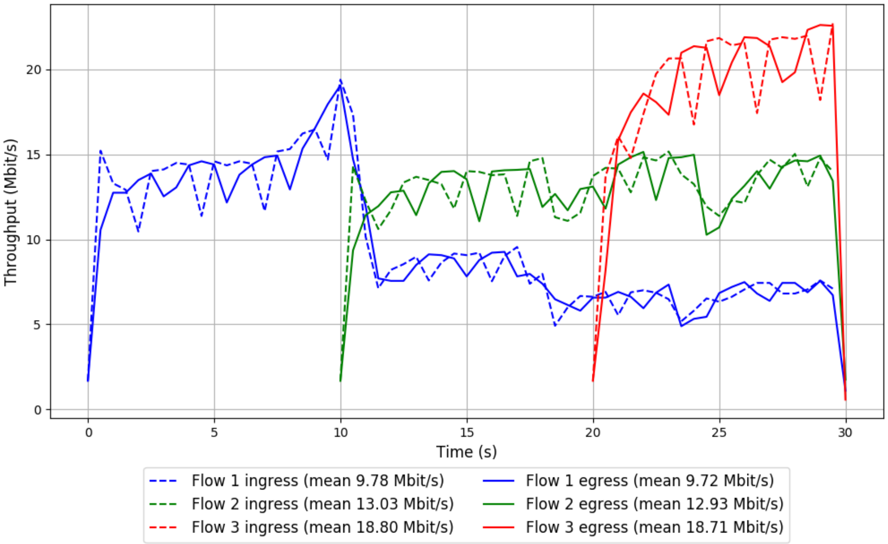
Run 2: Report of TCP Cubic — Data Link

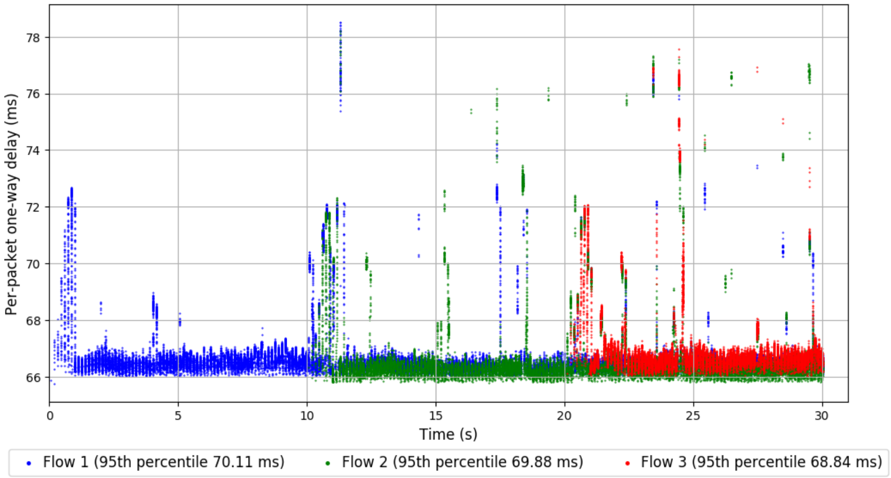




```
Run 3: Statistics of TCP Cubic

Start at: 2018-02-04 22:02:37
End at: 2018-02-04 22:03:07
Local clock offset: -2.444 ms
Remote clock offset: 2.409 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 69.860 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 9.72 Mbit/s
95th percentile per-packet one-way delay: 70.111 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 69.882 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 18.71 Mbit/s
95th percentile per-packet one-way delay: 68.837 ms
Loss rate: 0.45%
```

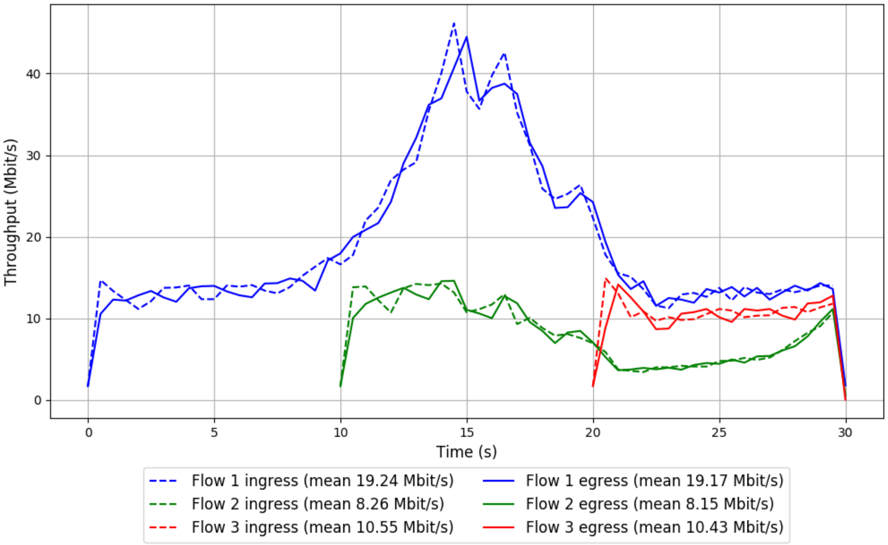
Run 3: Report of TCP Cubic — Data Link

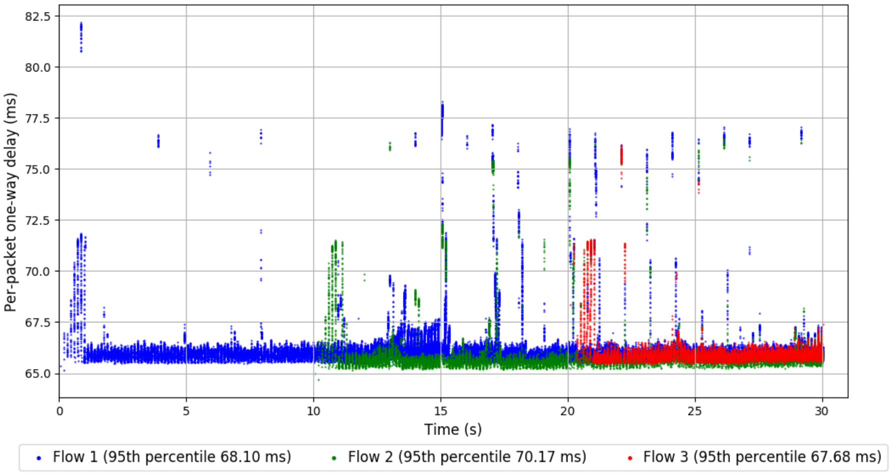




```
Run 4: Statistics of TCP Cubic

Start at: 2018-02-04 22:26:03
End at: 2018-02-04 22:26:33
Local clock offset: -1.683 ms
Remote clock offset: 1.277 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.05 Mbit/s
95th percentile per-packet one-way delay: 68.395 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 19.17 Mbit/s
95th percentile per-packet one-way delay: 68.100 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 70.166 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 10.43 Mbit/s
95th percentile per-packet one-way delay: 67.678 ms
Loss rate: 1.20%
```

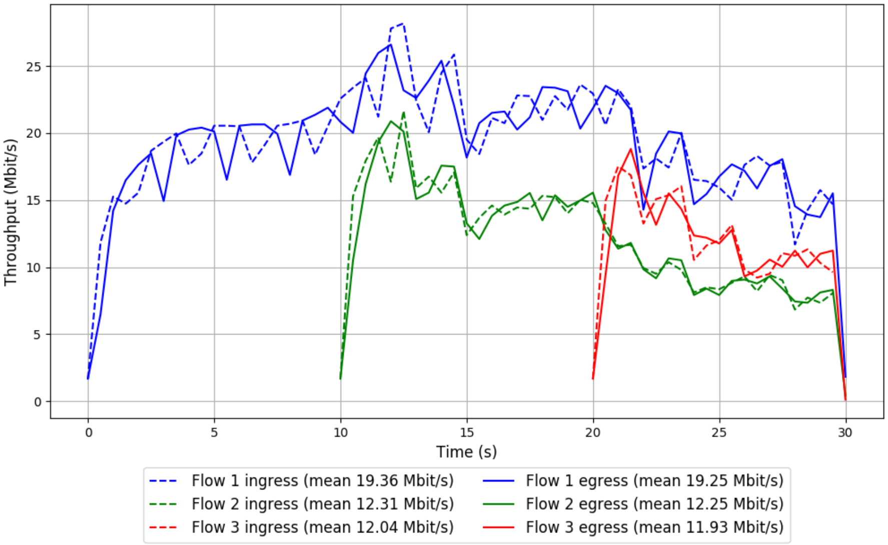
Run 4: Report of TCP Cubic — Data Link

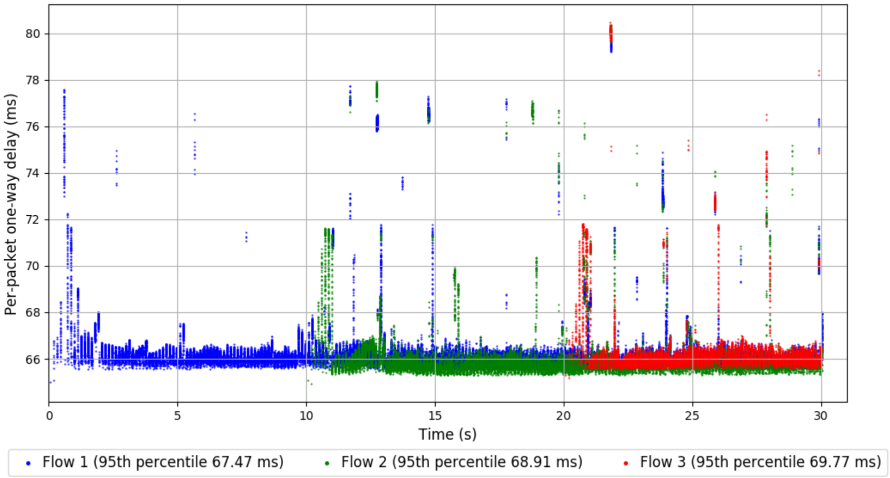




```
Run 5: Statistics of TCP Cubic

Start at: 2018-02-04 22:49:25
End at: 2018-02-04 22:49:55
Local clock offset: -1.65 ms
Remote clock offset: 0.219 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 67.925 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 19.25 Mbit/s
95th percentile per-packet one-way delay: 67.468 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 12.25 Mbit/s
95th percentile per-packet one-way delay: 68.905 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 69.765 ms
Loss rate: 0.90%
```

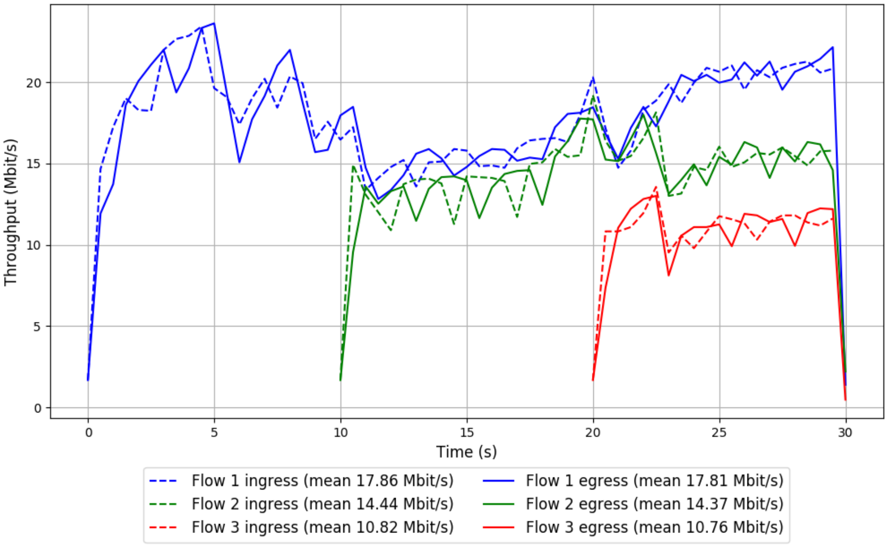
Run 5: Report of TCP Cubic — Data Link

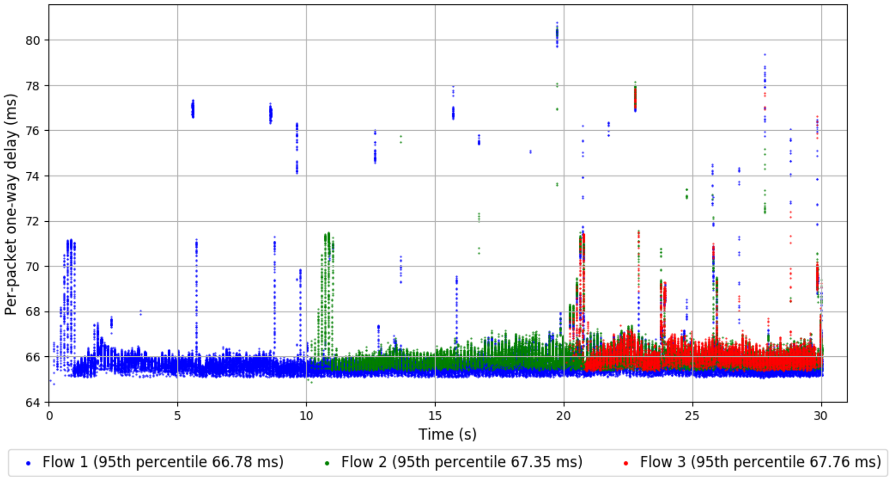




```
Run 6: Statistics of TCP Cubic

Start at: 2018-02-04 23:12:40
End at: 2018-02-04 23:13:10
Local clock offset: -1.345 ms
Remote clock offset: -0.821 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 67.010 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 17.81 Mbit/s
95th percentile per-packet one-way delay: 66.775 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 14.37 Mbit/s
95th percentile per-packet one-way delay: 67.350 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 10.76 Mbit/s
95th percentile per-packet one-way delay: 67.761 ms
Loss rate: 0.54%
```

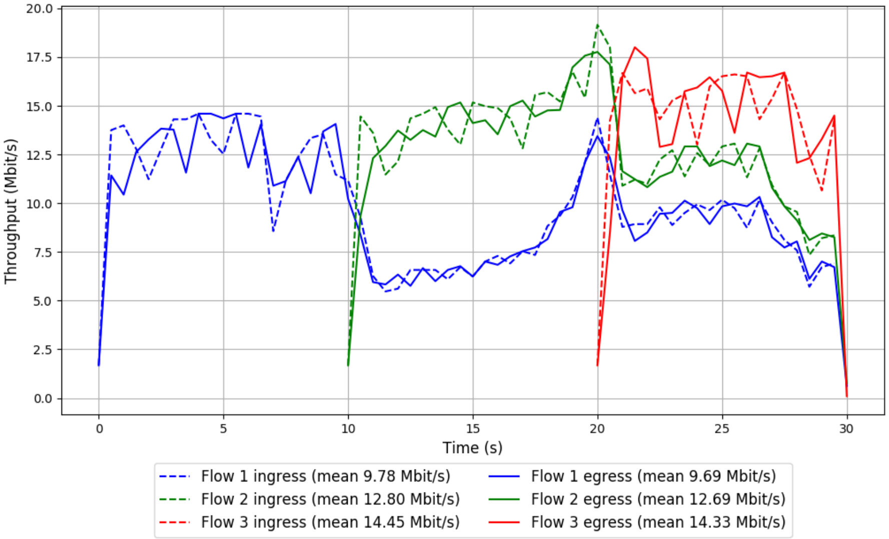
Run 6: Report of TCP Cubic — Data Link

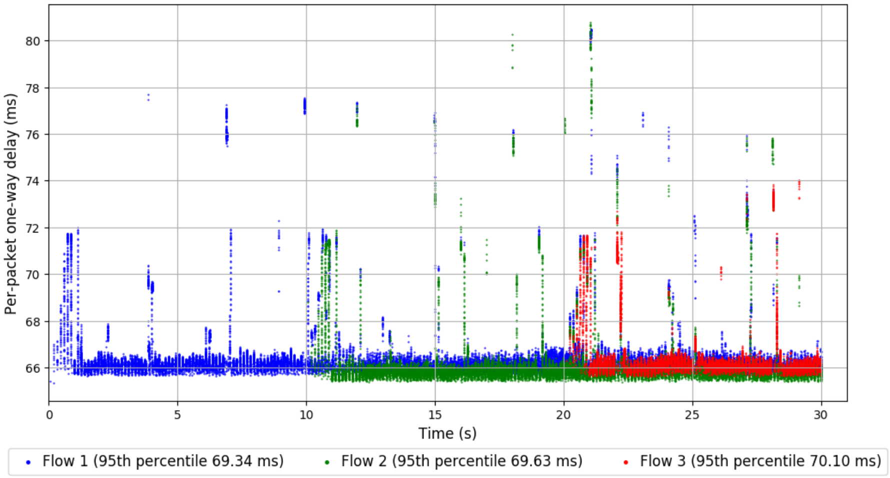




```
Run 7: Statistics of TCP Cubic

Start at: 2018-02-04 23:35:52
End at: 2018-02-04 23:36:22
Local clock offset: -1.645 ms
Remote clock offset: -2.041 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.88 Mbit/s
95th percentile per-packet one-way delay: 69.529 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 69.343 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 69.628 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 14.33 Mbit/s
95th percentile per-packet one-way delay: 70.099 ms
Loss rate: 0.83%
```

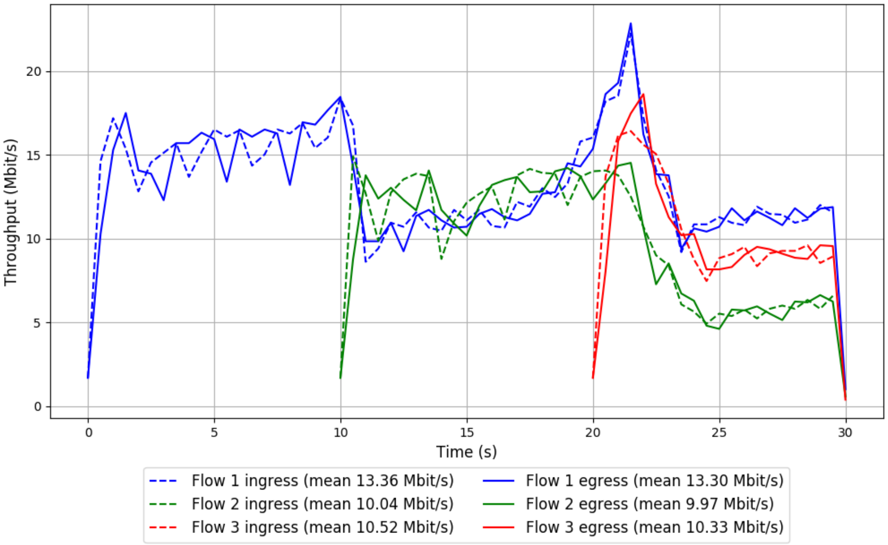
Run 7: Report of TCP Cubic — Data Link

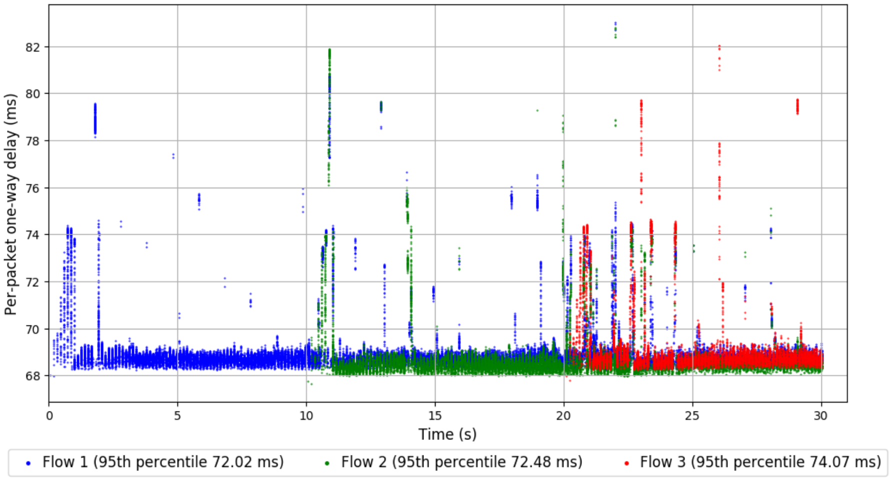




```
Run 8: Statistics of TCP Cubic

Start at: 2018-02-04 23:59:06
End at: 2018-02-04 23:59:36
Local clock offset: -4.226 ms
Remote clock offset: -2.611 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.36 Mbit/s
95th percentile per-packet one-way delay: 72.610 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 72.020 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 72.478 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 10.33 Mbit/s
95th percentile per-packet one-way delay: 74.067 ms
Loss rate: 1.77%
```

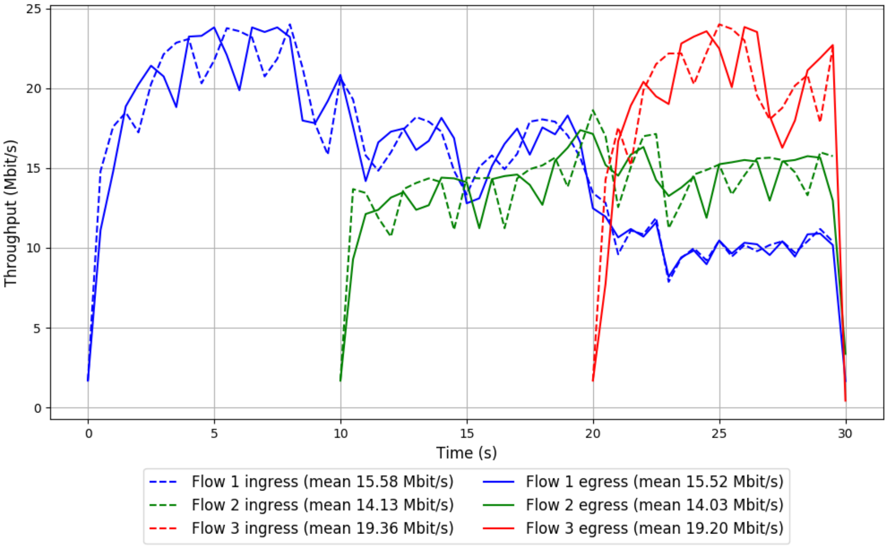
Run 8: Report of TCP Cubic — Data Link

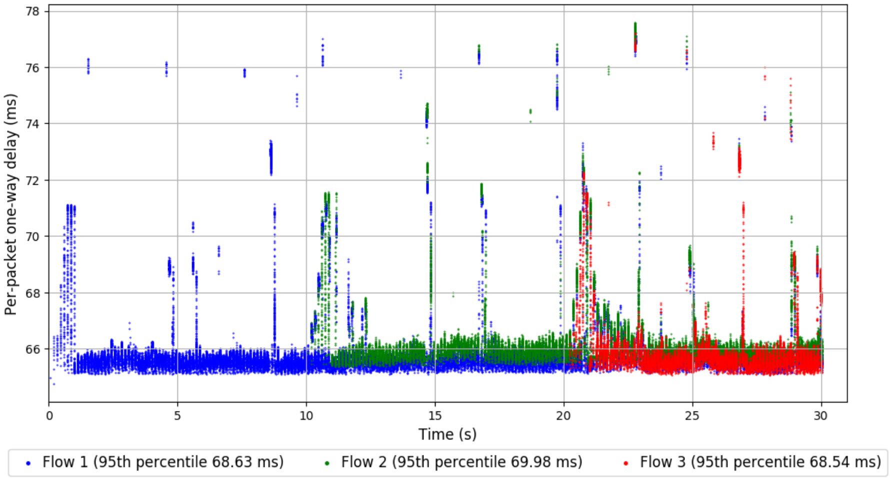




```
Run 9: Statistics of TCP Cubic

Start at: 2018-02-05 00:22:16
End at: 2018-02-05 00:22:46
Local clock offset: -1.342 ms
Remote clock offset: -3.37 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 68.984 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 68.632 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 14.03 Mbit/s
95th percentile per-packet one-way delay: 69.984 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 19.20 Mbit/s
95th percentile per-packet one-way delay: 68.539 ms
Loss rate: 0.85%
```

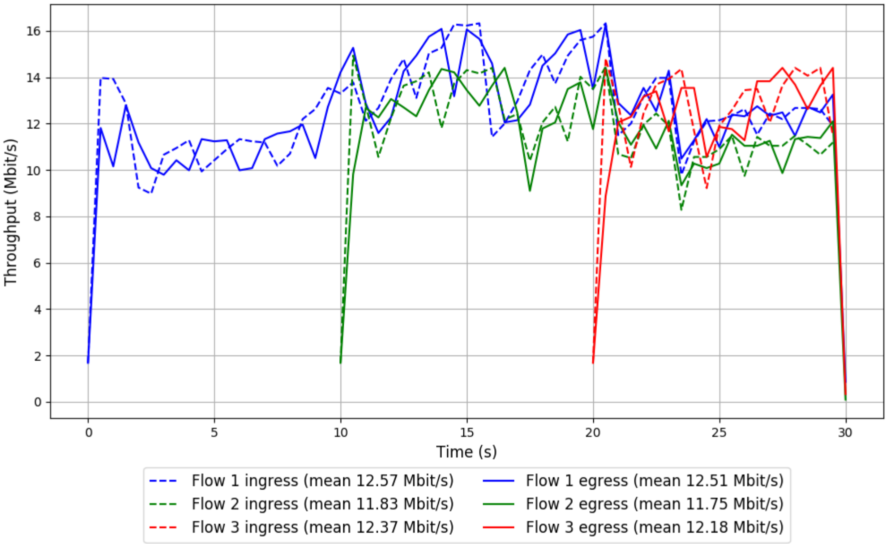
Run 9: Report of TCP Cubic — Data Link

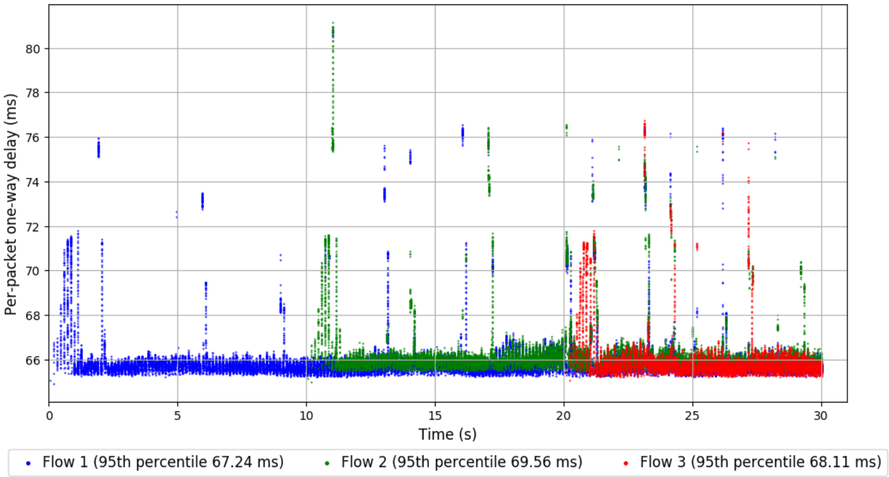




```
Run 10: Statistics of TCP Cubic

Start at: 2018-02-05 00:45:31
End at: 2018-02-05 00:46:01
Local clock offset: -1.531 ms
Remote clock offset: -4.185 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.37 Mbit/s
95th percentile per-packet one-way delay: 68.145 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 12.51 Mbit/s
95th percentile per-packet one-way delay: 67.239 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 69.557 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 12.18 Mbit/s
95th percentile per-packet one-way delay: 68.115 ms
Loss rate: 1.54%
```

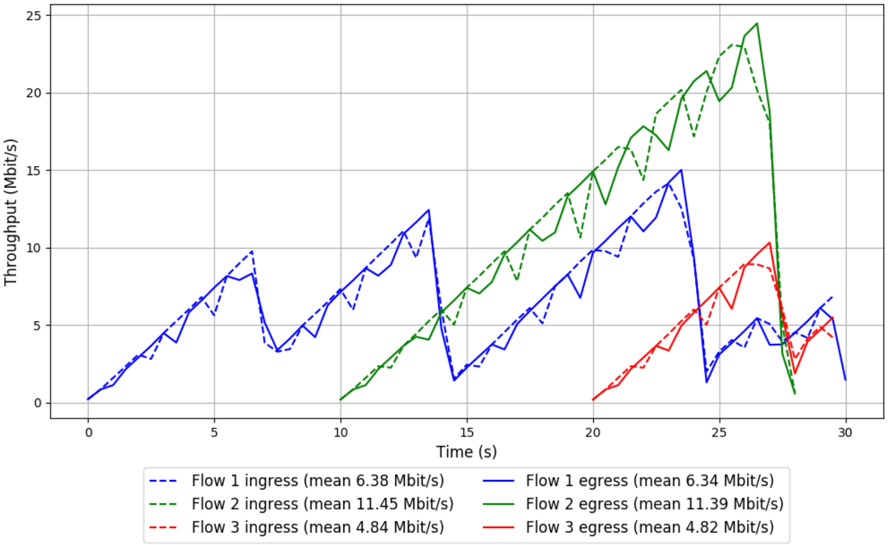
Run 10: Report of TCP Cubic — Data Link

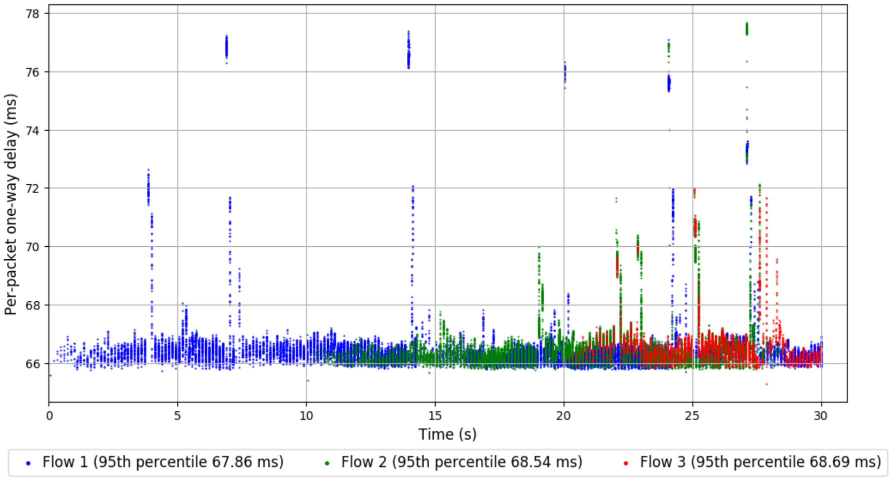




```
Run 1: Statistics of LEDBAT

Start at: 2018-02-04 21:31:21
End at: 2018-02-04 21:31:51
Local clock offset: -2.655 ms
Remote clock offset: 4.101 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.90 Mbit/s
95th percentile per-packet one-way delay: 68.408 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 6.34 Mbit/s
95th percentile per-packet one-way delay: 67.860 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 68.543 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 68.695 ms
Loss rate: 0.42%
```

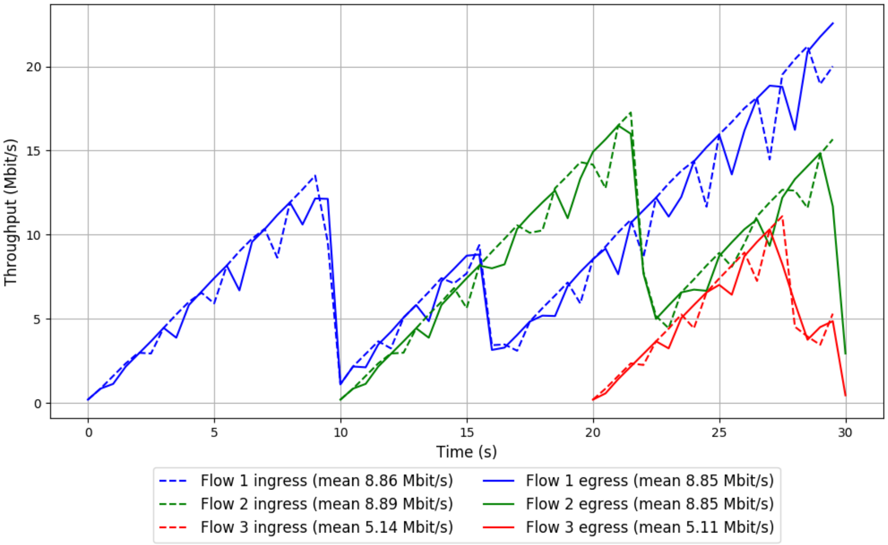
Run 1: Report of LEDBAT — Data Link

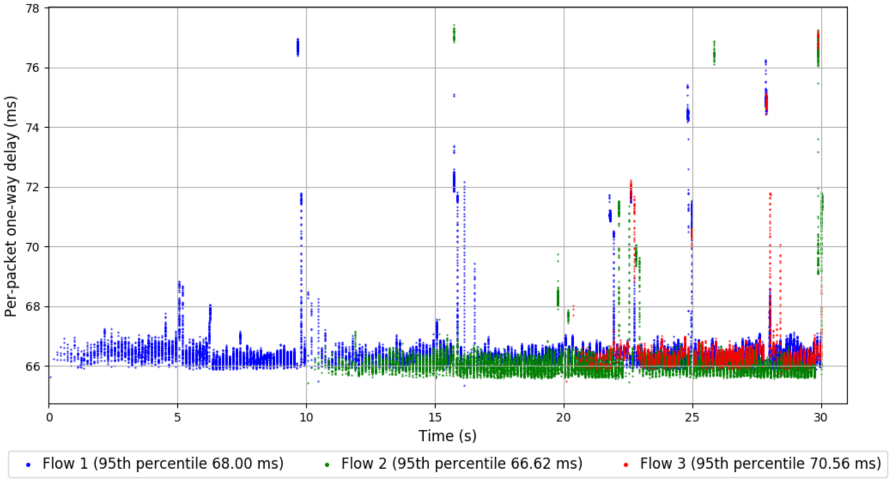




```
Run 2: Statistics of LEDBAT

Start at: 2018-02-04 21:54:43
End at: 2018-02-04 21:55:13
Local clock offset: -2.361 ms
Remote clock offset: 2.813 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.42 Mbit/s
95th percentile per-packet one-way delay: 67.959 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 8.85 Mbit/s
95th percentile per-packet one-way delay: 67.997 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 8.85 Mbit/s
95th percentile per-packet one-way delay: 66.618 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 70.563 ms
Loss rate: 0.55%
```

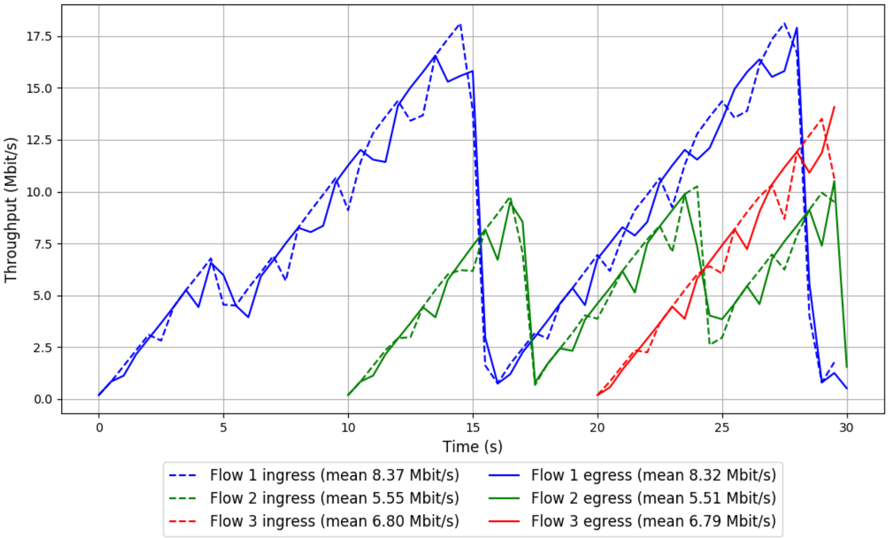
Run 2: Report of LEDBAT — Data Link

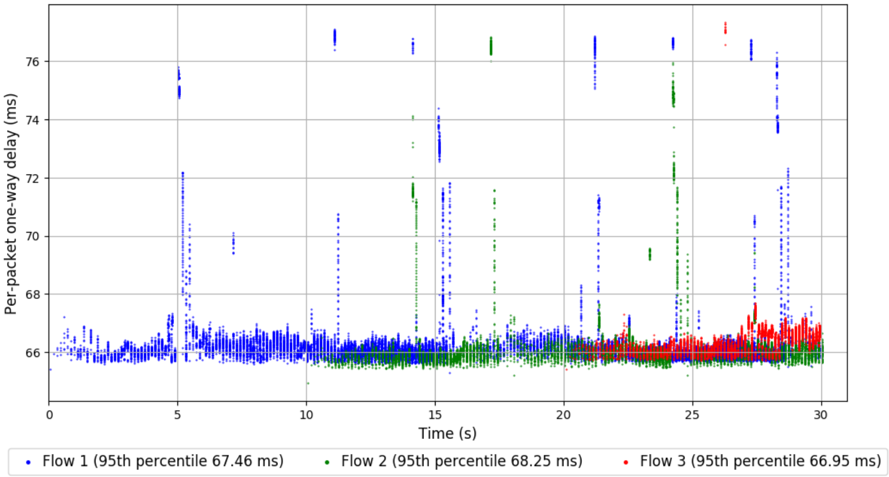




```
Run 3: Statistics of LEDBAT

Start at: 2018-02-04 22:18:09
End at: 2018-02-04 22:18:39
Local clock offset: -1.912 ms
Remote clock offset: 1.692 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 67.176 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 67.456 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 68.245 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 6.79 Mbit/s
95th percentile per-packet one-way delay: 66.954 ms
Loss rate: 0.00%
```

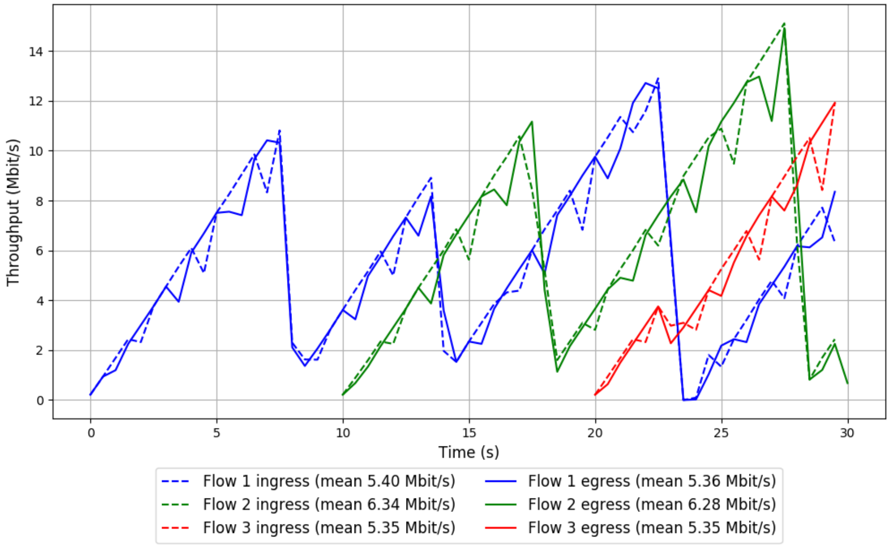
Run 3: Report of LEDBAT — Data Link

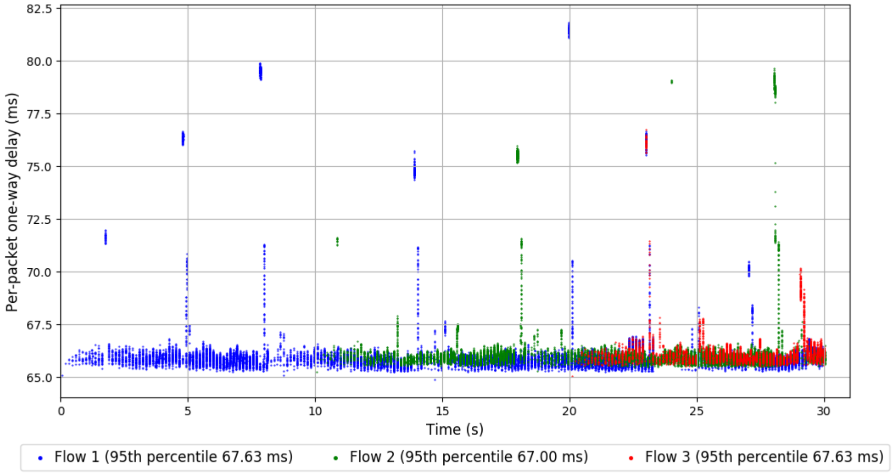




```
Run 4: Statistics of LEDBAT

Start at: 2018-02-04 22:41:34
End at: 2018-02-04 22:42:04
Local clock offset: -1.716 ms
Remote clock offset: 0.513 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 67.347 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 67.629 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 66.999 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 5.35 Mbit/s
95th percentile per-packet one-way delay: 67.630 ms
Loss rate: 0.04%
```

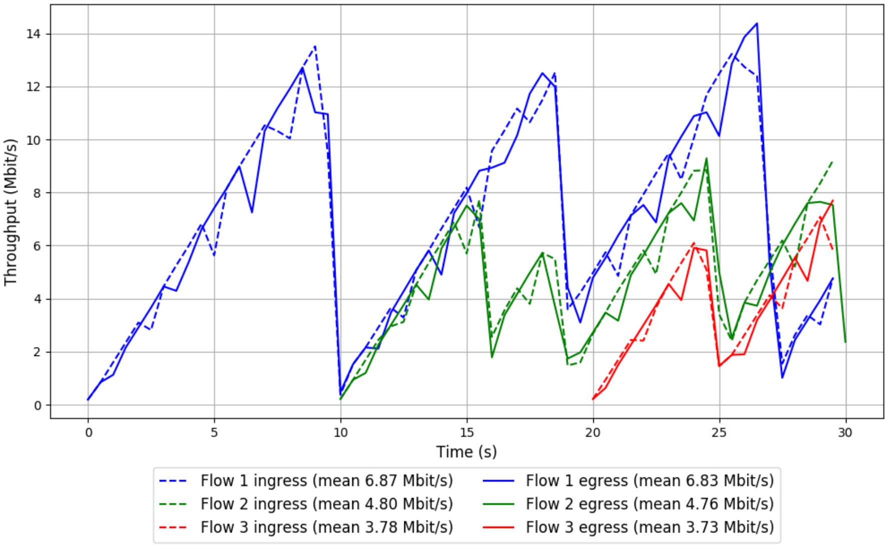
Run 4: Report of LEDBAT — Data Link

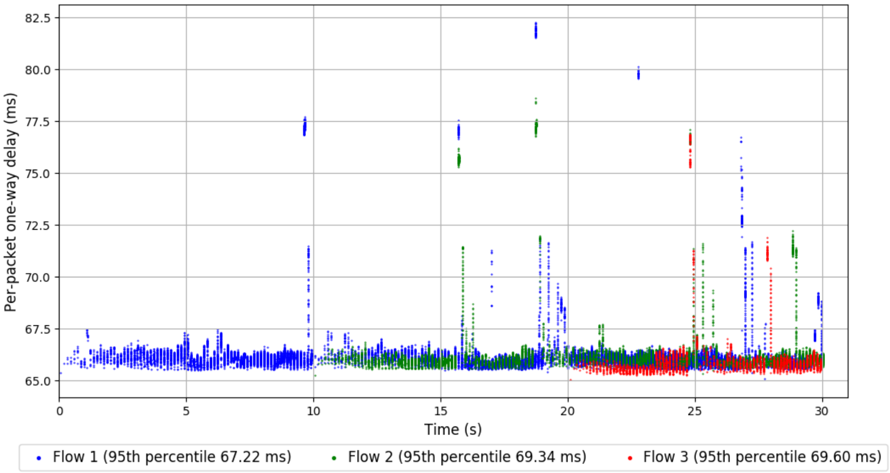




```
Run 5: Statistics of LEDBAT

Start at: 2018-02-04 23:04:49
End at: 2018-02-04 23:05:19
Local clock offset: -1.604 ms
Remote clock offset: -0.451 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 67.848 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 67.215 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 69.337 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 69.599 ms
Loss rate: 1.17%
```

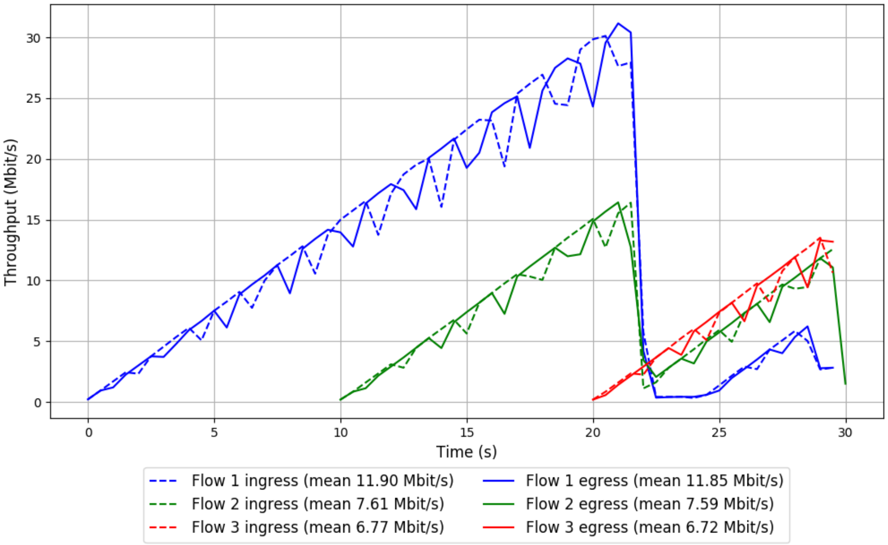
Run 5: Report of LEDBAT — Data Link

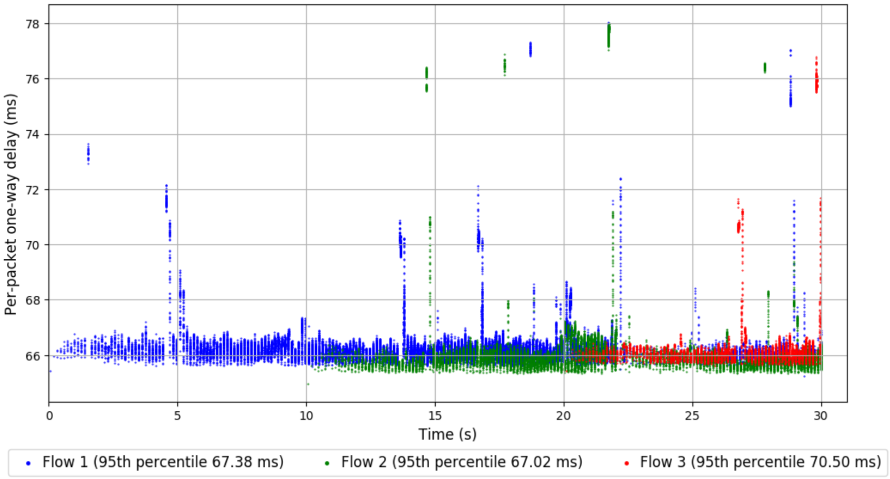




```
Run 6: Statistics of LEDBAT

Start at: 2018-02-04 23:28:00
End at: 2018-02-04 23:28:30
Local clock offset: -1.589 ms
Remote clock offset: -1.635 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.11 Mbit/s
95th percentile per-packet one-way delay: 67.327 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 67.379 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 67.019 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 6.72 Mbit/s
95th percentile per-packet one-way delay: 70.497 ms
Loss rate: 0.67%
```

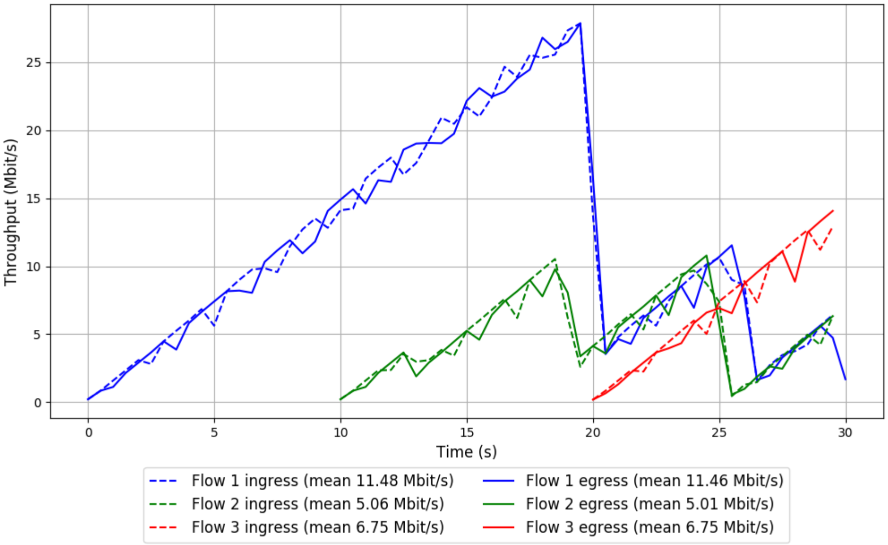
Run 6: Report of LEDBAT — Data Link

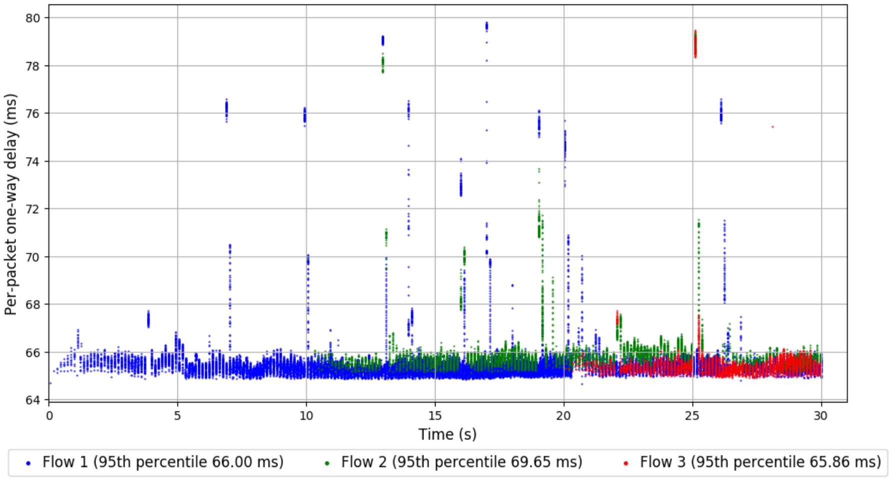




```
Run 7: Statistics of LEDBAT

Start at: 2018-02-04 23:51:14
End at: 2018-02-04 23:51:44
Local clock offset: -1.14 ms
Remote clock offset: -2.418 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.02 Mbit/s
95th percentile per-packet one-way delay: 66.463 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 11.46 Mbit/s
95th percentile per-packet one-way delay: 65.996 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 69.646 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 65.860 ms
Loss rate: 0.00%
```

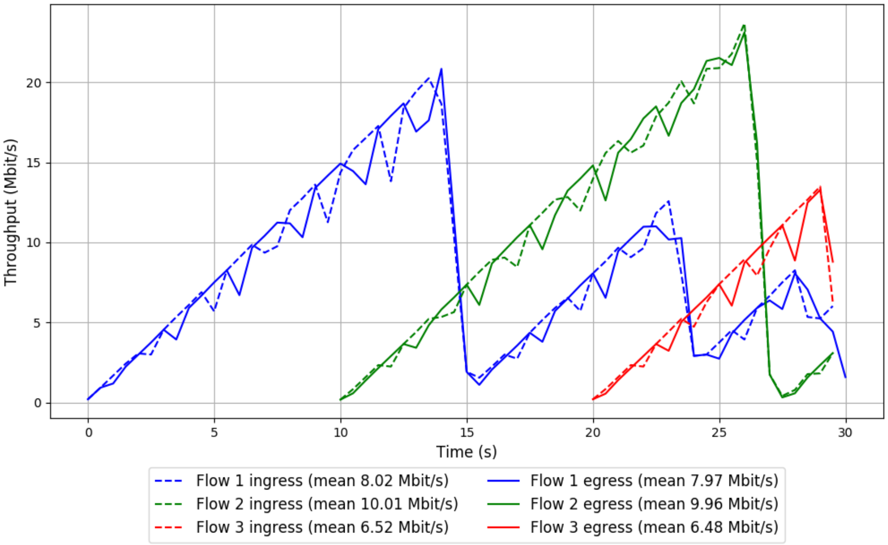
Run 7: Report of LEDBAT — Data Link

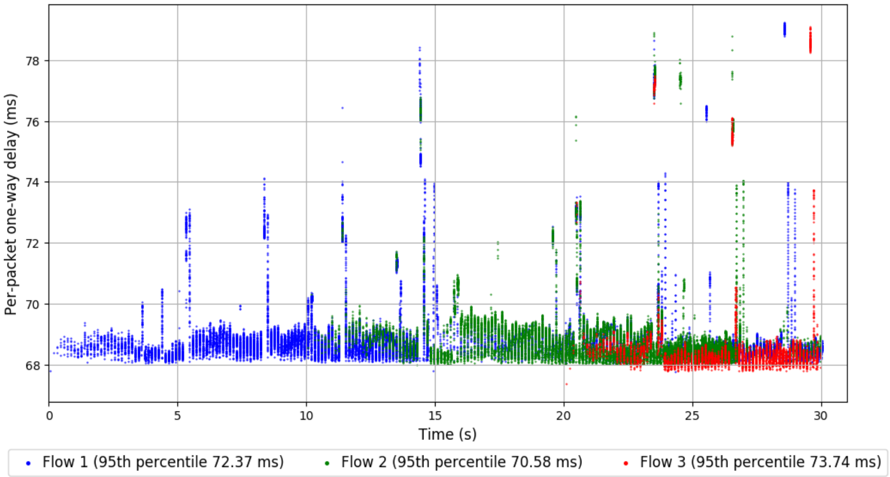




```
Run 8: Statistics of LEDBAT

Start at: 2018-02-05 00:14:25
End at: 2018-02-05 00:14:55
Local clock offset: -3.983 ms
Remote clock offset: -3.017 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.73 Mbit/s
95th percentile per-packet one-way delay: 71.879 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 7.97 Mbit/s
95th percentile per-packet one-way delay: 72.374 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 70.581 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 6.48 Mbit/s
95th percentile per-packet one-way delay: 73.742 ms
Loss rate: 0.71%
```

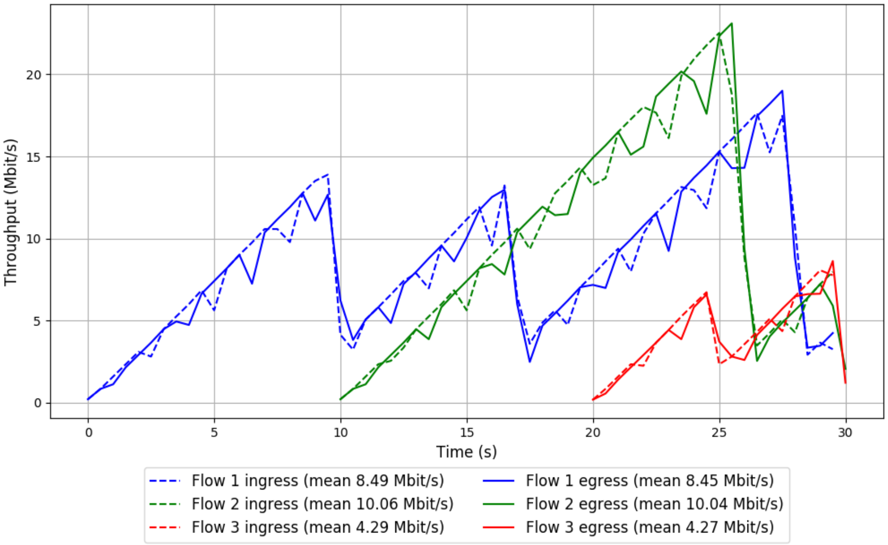
Run 8: Report of LEDBAT — Data Link

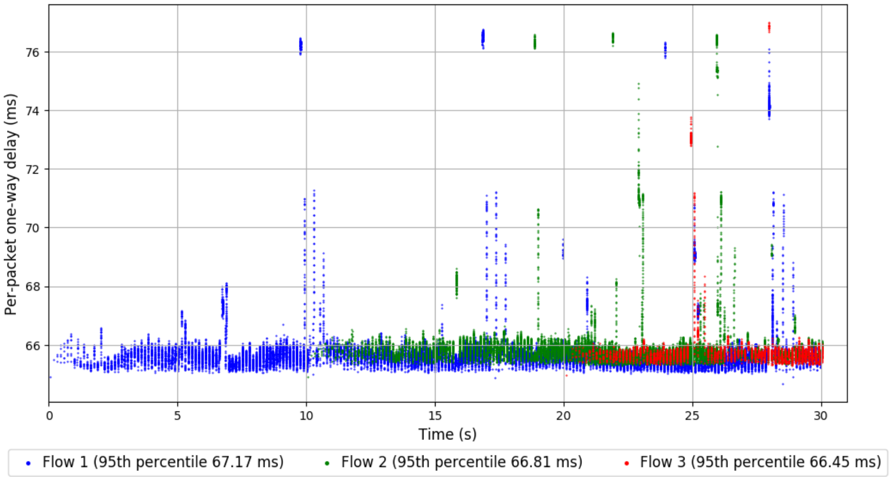




```
Run 9: Statistics of LEDBAT

Start at: 2018-02-05 00:37:38
End at: 2018-02-05 00:38:08
Local clock offset: -1.336 ms
Remote clock offset: -3.87 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.53 Mbit/s
95th percentile per-packet one-way delay: 67.037 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 67.173 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 10.04 Mbit/s
95th percentile per-packet one-way delay: 66.813 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 66.452 ms
Loss rate: 0.38%
```

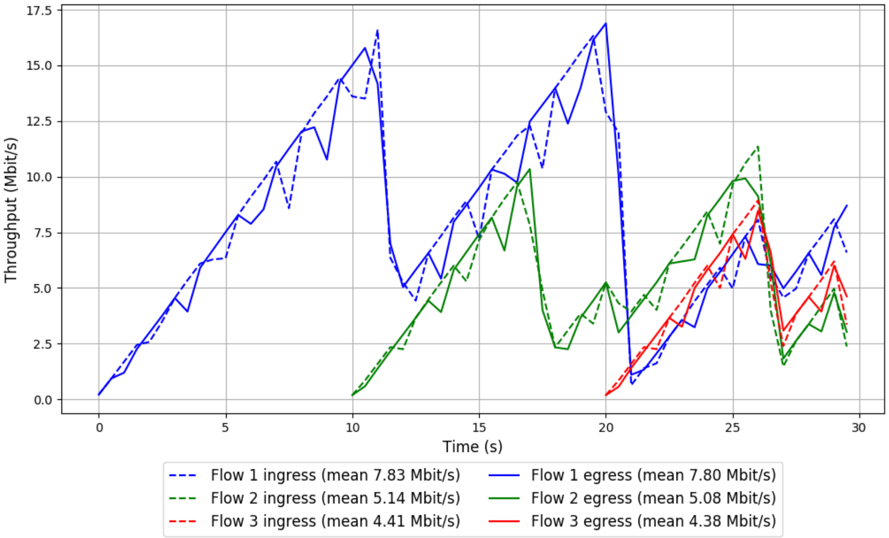
Run 9: Report of LEDBAT — Data Link

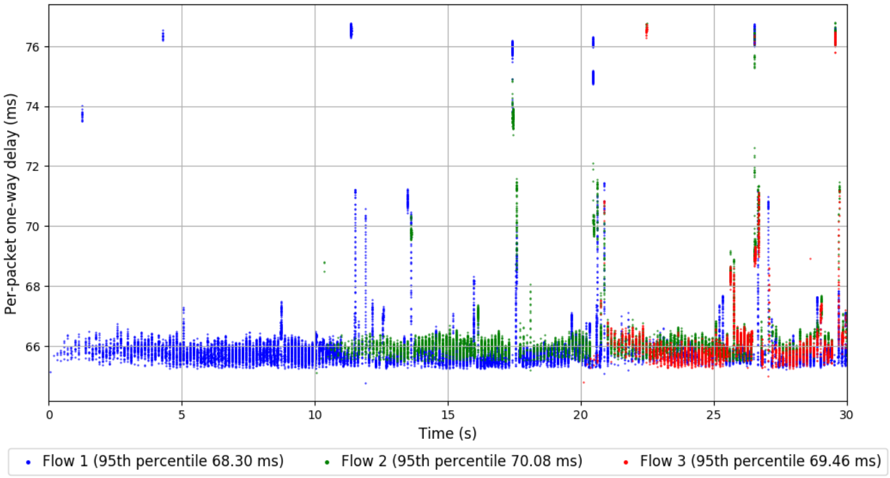




```
Run 10: Statistics of LEDBAT

Start at: 2018-02-05 01:01:03
End at: 2018-02-05 01:01:33
Local clock offset: -1.6 ms
Remote clock offset: -4.17 ms

# Below is generated by plot.py at 2018-02-05 01:38:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.62 Mbit/s
95th percentile per-packet one-way delay: 69.486 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 68.298 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 70.077 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 69.464 ms
Loss rate: 0.70%
```

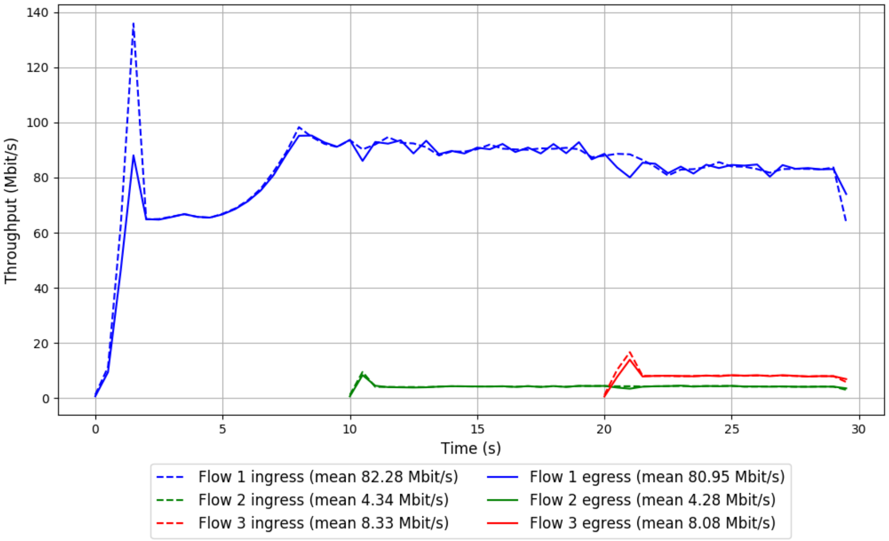
Run 10: Report of LEDBAT — Data Link

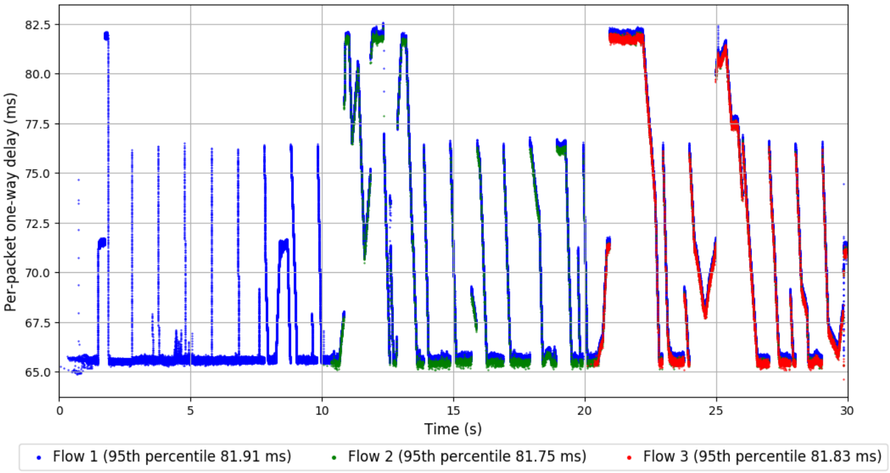




```
Run 1: Statistics of PCC

Start at: 2018-02-04 21:35:15
End at: 2018-02-04 21:35:45
Local clock offset: -2.327 ms
Remote clock offset: 3.816 ms

# Below is generated by plot.py at 2018-02-05 01:39:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 81.898 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 80.95 Mbit/s
95th percentile per-packet one-way delay: 81.909 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 81.752 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 8.08 Mbit/s
95th percentile per-packet one-way delay: 81.825 ms
Loss rate: 2.93%
```

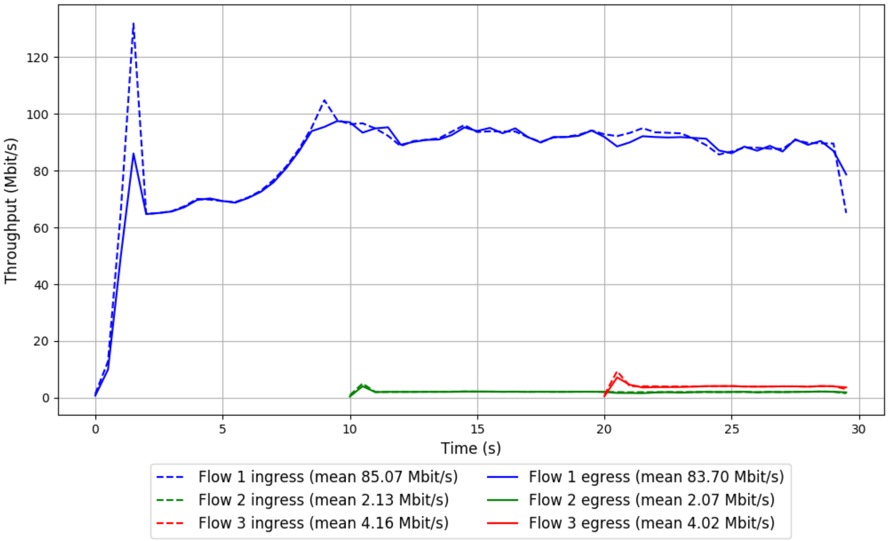
Run 1: Report of PCC — Data Link

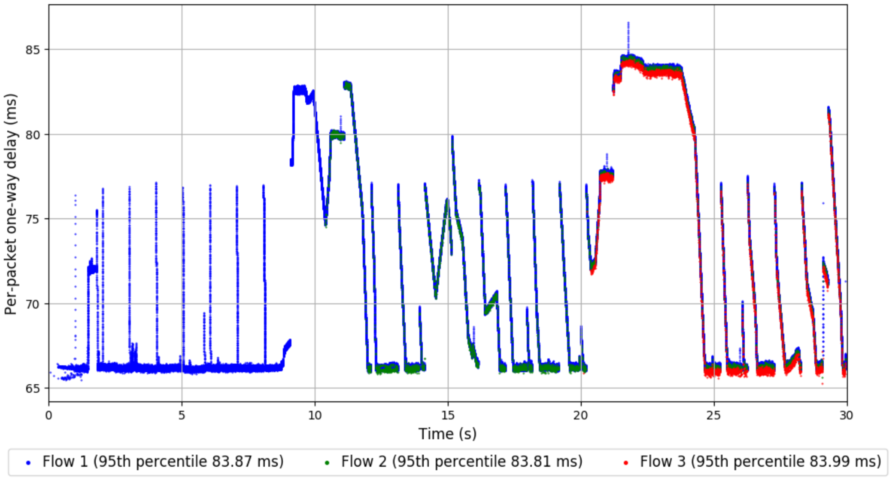




```
Run 2: Statistics of PCC

Start at: 2018-02-04 21:58:38
End at: 2018-02-04 21:59:08
Local clock offset: -2.433 ms
Remote clock offset: 2.626 ms

# Below is generated by plot.py at 2018-02-05 01:39:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.40 Mbit/s
95th percentile per-packet one-way delay: 83.875 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 83.70 Mbit/s
95th percentile per-packet one-way delay: 83.874 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 83.811 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 83.991 ms
Loss rate: 3.31%
```

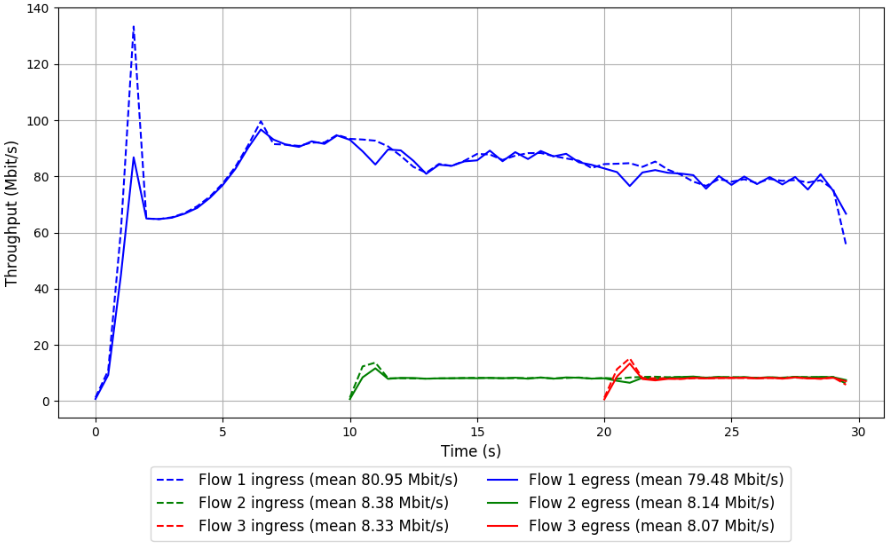
Run 2: Report of PCC — Data Link

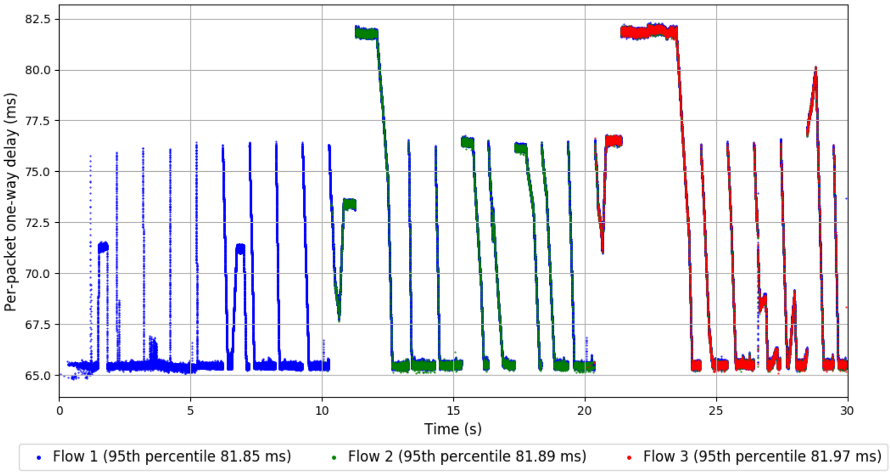




```
Run 3: Statistics of PCC

Start at: 2018-02-04 22:22:04
End at: 2018-02-04 22:22:34
Local clock offset: -1.784 ms
Remote clock offset: 1.468 ms

# Below is generated by plot.py at 2018-02-05 01:39:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.55 Mbit/s
95th percentile per-packet one-way delay: 81.859 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 79.48 Mbit/s
95th percentile per-packet one-way delay: 81.851 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: 81.885 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 8.07 Mbit/s
95th percentile per-packet one-way delay: 81.970 ms
Loss rate: 3.02%
```

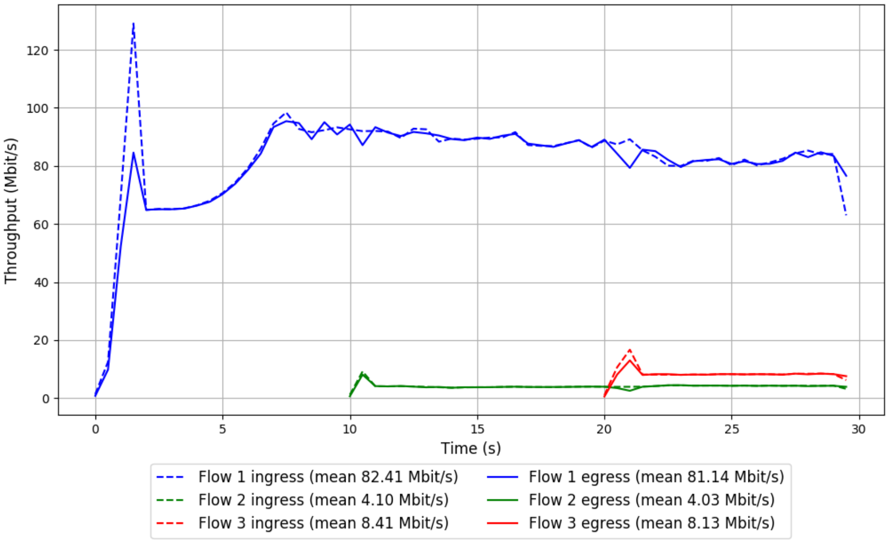
Run 3: Report of PCC — Data Link

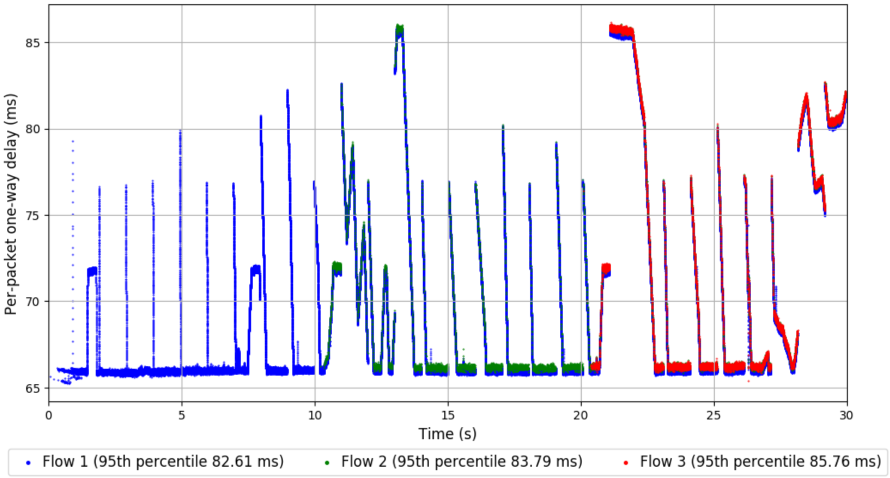




```
Run 4: Statistics of PCC

Start at: 2018-02-04 22:45:27
End at: 2018-02-04 22:45:57
Local clock offset: -2.116 ms
Remote clock offset: 0.418 ms

# Below is generated by plot.py at 2018-02-05 01:39:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.50 Mbit/s
95th percentile per-packet one-way delay: 83.310 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 81.14 Mbit/s
95th percentile per-packet one-way delay: 82.607 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 83.786 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 85.764 ms
Loss rate: 3.28%
```

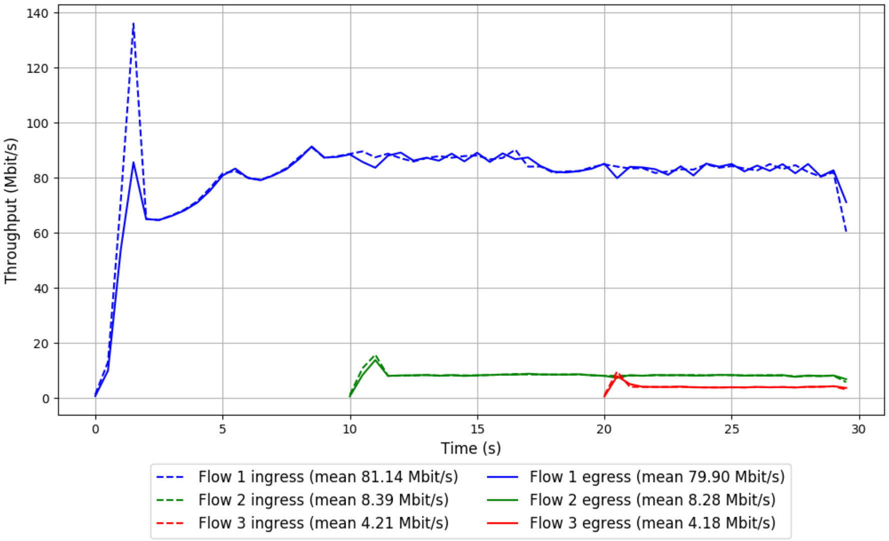
Run 4: Report of PCC — Data Link

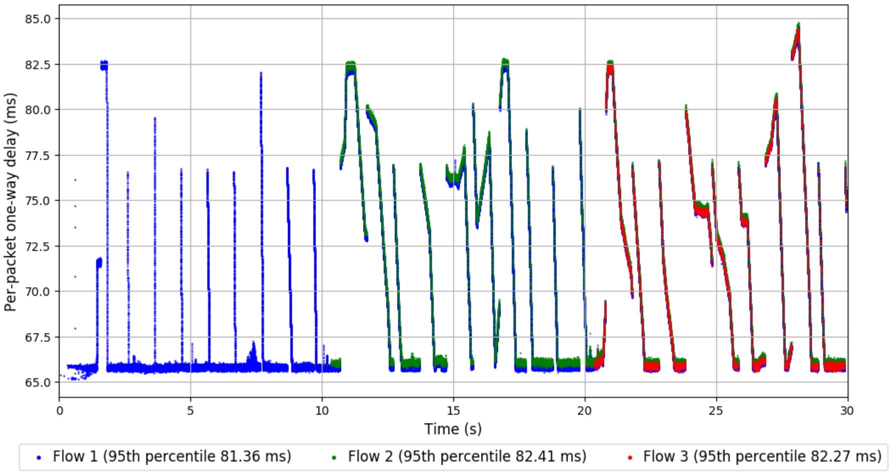




```
Run 5: Statistics of PCC

Start at: 2018-02-04 23:08:42
End at: 2018-02-04 23:09:12
Local clock offset: -1.95 ms
Remote clock offset: -0.667 ms

# Below is generated by plot.py at 2018-02-05 01:39:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.79 Mbit/s
95th percentile per-packet one-way delay: 81.675 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 79.90 Mbit/s
95th percentile per-packet one-way delay: 81.360 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 82.405 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 82.270 ms
Loss rate: 0.62%
```

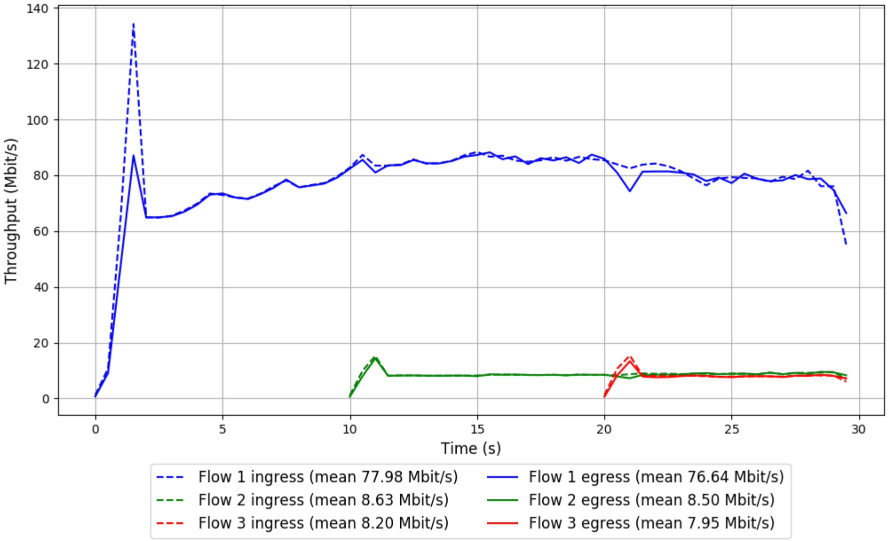
Run 5: Report of PCC — Data Link

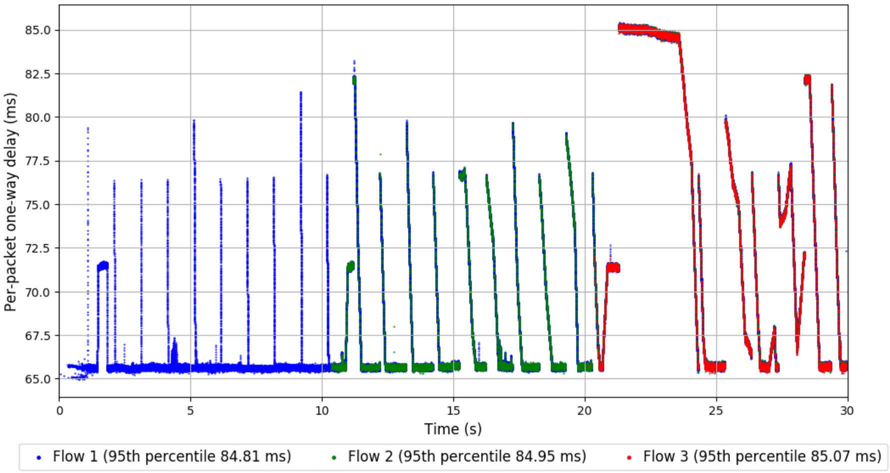




```
Run 6: Statistics of PCC

Start at: 2018-02-04 23:31:54
End at: 2018-02-04 23:32:24
Local clock offset: -1.462 ms
Remote clock offset: -1.815 ms

# Below is generated by plot.py at 2018-02-05 01:39:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.90 Mbit/s
95th percentile per-packet one-way delay: 84.856 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 76.64 Mbit/s
95th percentile per-packet one-way delay: 84.813 ms
Loss rate: 1.71%
-- Flow 2:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 84.953 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 85.066 ms
Loss rate: 3.08%
```

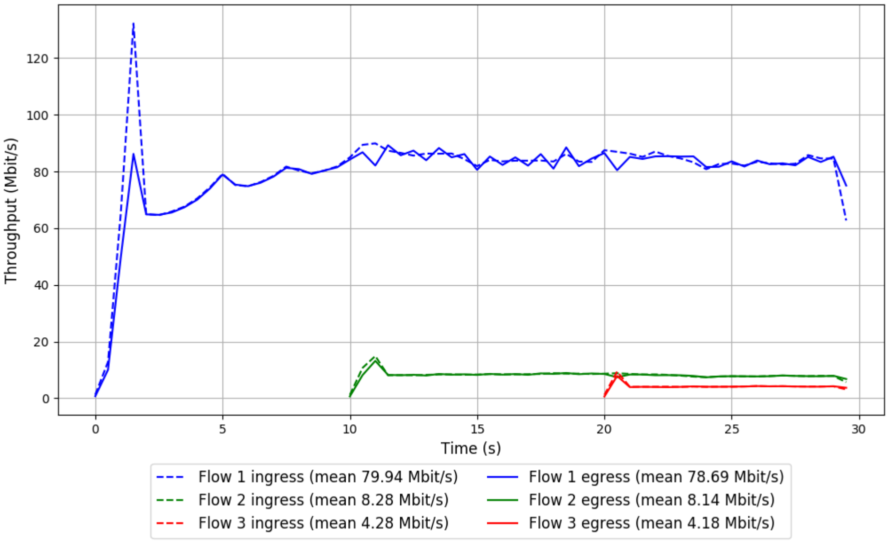
Run 6: Report of PCC — Data Link

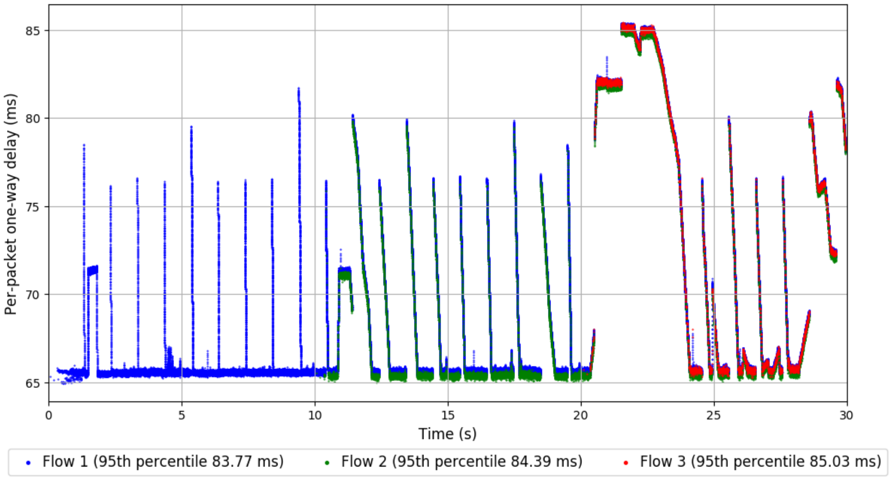




```
Run 7: Statistics of PCC

Start at: 2018-02-04 23:55:08
End at: 2018-02-04 23:55:38
Local clock offset: -1.387 ms
Remote clock offset: -2.519 ms

# Below is generated by plot.py at 2018-02-05 01:40:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.48 Mbit/s
95th percentile per-packet one-way delay: 83.969 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 78.69 Mbit/s
95th percentile per-packet one-way delay: 83.772 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: 84.385 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 85.027 ms
Loss rate: 2.19%
```

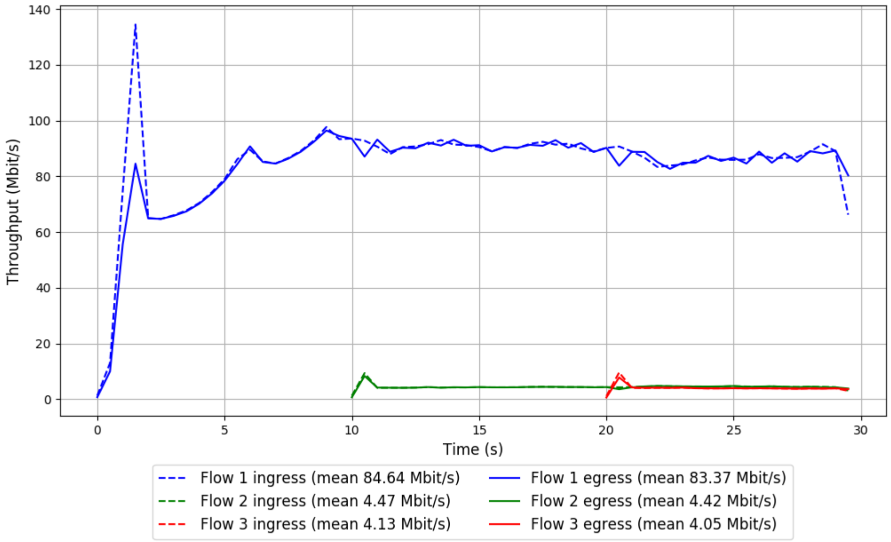
Run 7: Report of PCC — Data Link

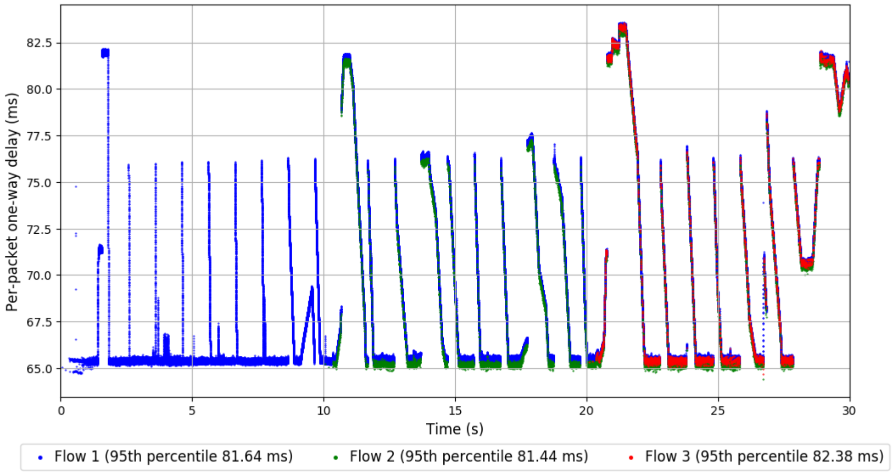




```
Run 8: Statistics of PCC

Start at: 2018-02-05 00:18:19
End at: 2018-02-05 00:18:49
Local clock offset: -1.18 ms
Remote clock offset: -3.183 ms

# Below is generated by plot.py at 2018-02-05 01:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.64 Mbit/s
95th percentile per-packet one-way delay: 81.643 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 83.37 Mbit/s
95th percentile per-packet one-way delay: 81.642 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 81.436 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 82.379 ms
Loss rate: 1.88%
```

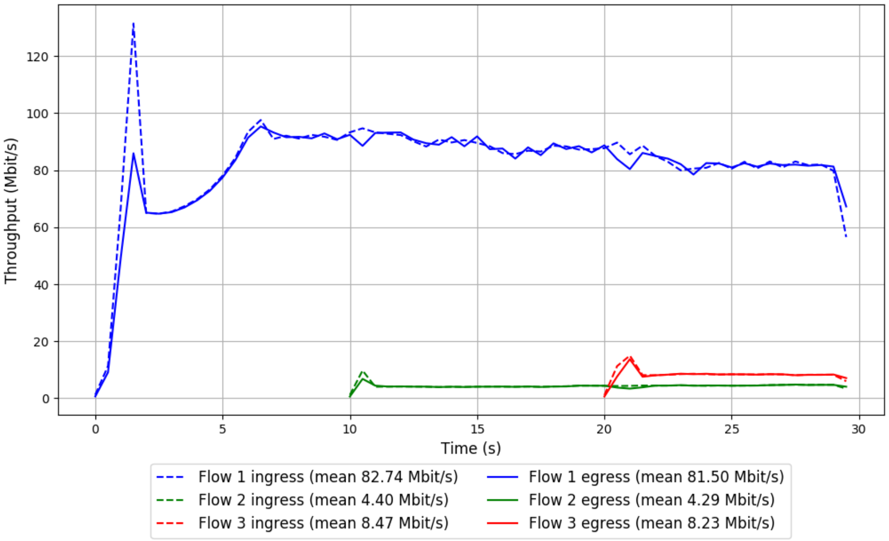
Run 8: Report of PCC — Data Link

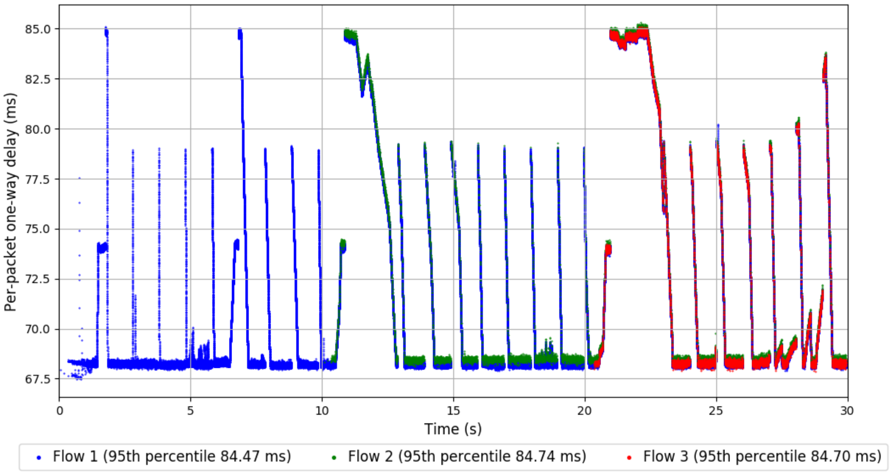




```
Run 9: Statistics of PCC

Start at: 2018-02-05 00:41:34
End at: 2018-02-05 00:42:04
Local clock offset: -4.298 ms
Remote clock offset: -3.997 ms

# Below is generated by plot.py at 2018-02-05 01:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.07 Mbit/s
95th percentile per-packet one-way delay: 84.494 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 81.50 Mbit/s
95th percentile per-packet one-way delay: 84.465 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 84.744 ms
Loss rate: 2.54%
-- Flow 3:
Average throughput: 8.23 Mbit/s
95th percentile per-packet one-way delay: 84.699 ms
Loss rate: 2.78%
```

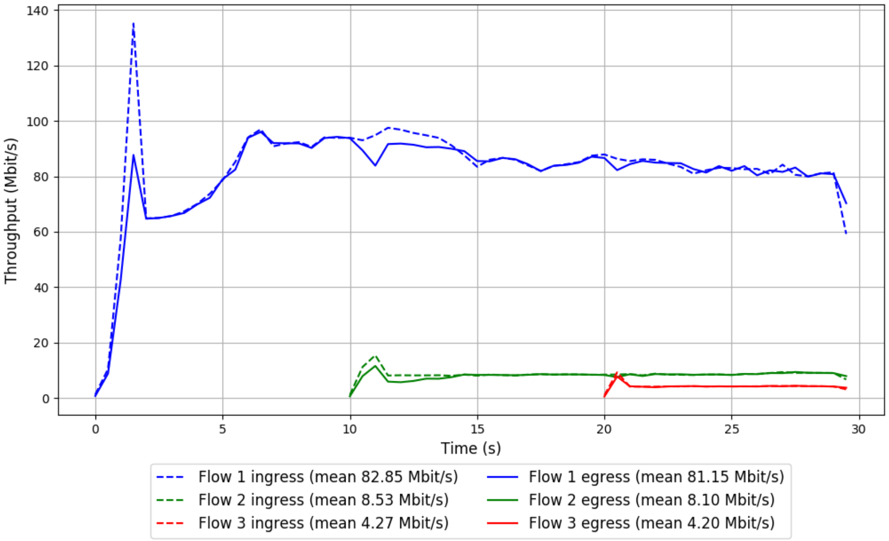
Run 9: Report of PCC — Data Link

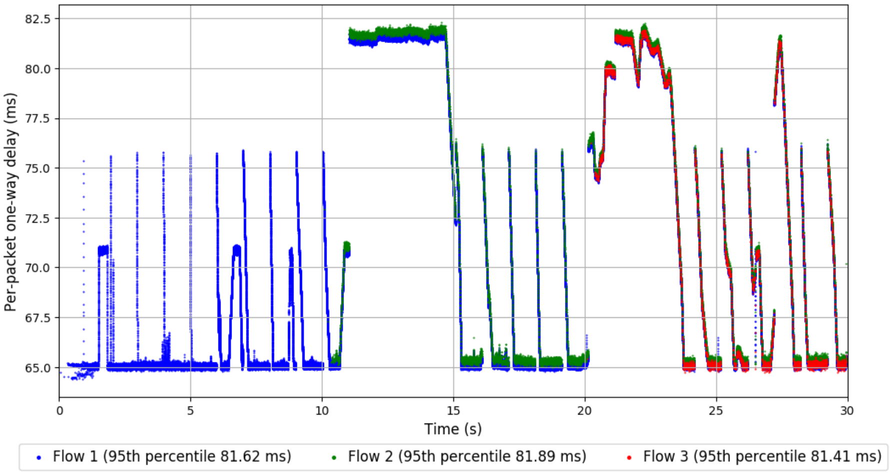




```
Run 10: Statistics of PCC

Start at: 2018-02-05 01:04:56
End at: 2018-02-05 01:05:26
Local clock offset: -1.246 ms
Remote clock offset: -4.206 ms

# Below is generated by plot.py at 2018-02-05 01:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.90 Mbit/s
95th percentile per-packet one-way delay: 81.638 ms
Loss rate: 2.23%
-- Flow 1:
Average throughput: 81.15 Mbit/s
95th percentile per-packet one-way delay: 81.619 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 81.888 ms
Loss rate: 5.06%
-- Flow 3:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 81.409 ms
Loss rate: 1.75%
```

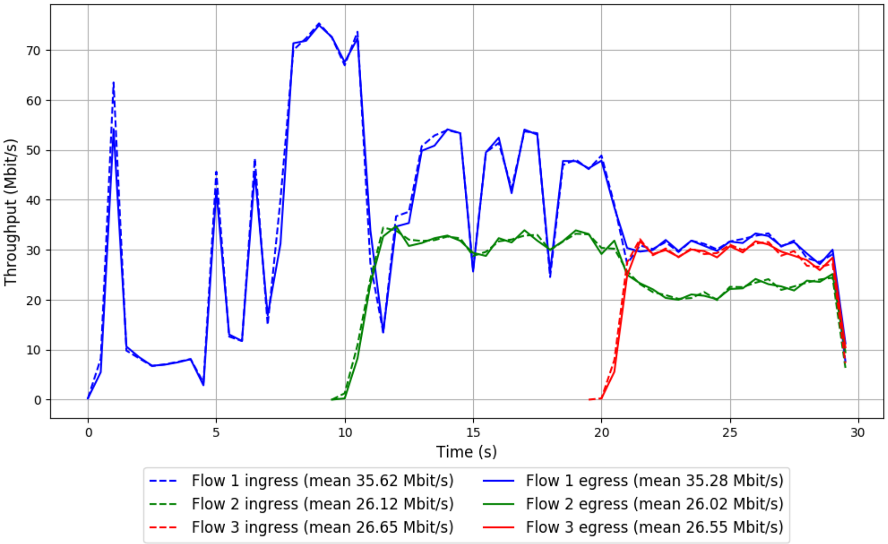
Run 10: Report of PCC — Data Link

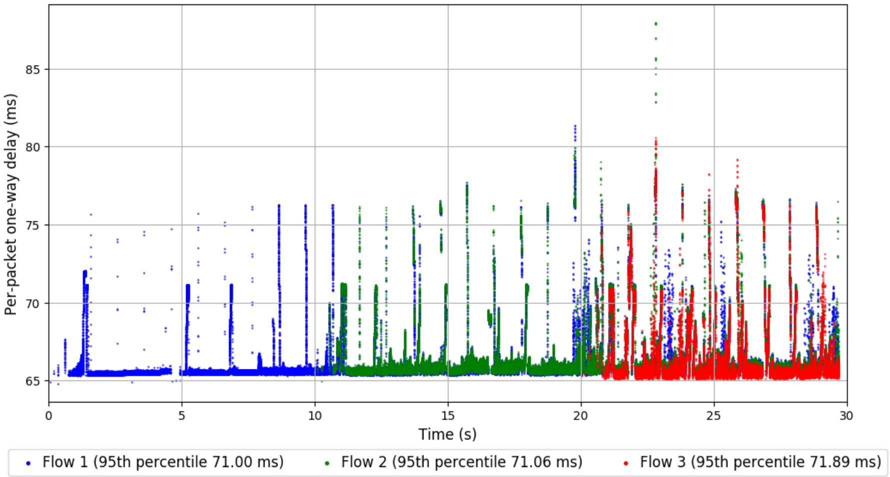




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-04 21:22:26
End at: 2018-02-04 21:22:56
Local clock offset: -2.418 ms
Remote clock offset: 4.558 ms

# Below is generated by plot.py at 2018-02-05 01:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.26 Mbit/s
95th percentile per-packet one-way delay: 71.030 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 35.28 Mbit/s
95th percentile per-packet one-way delay: 70.998 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 26.02 Mbit/s
95th percentile per-packet one-way delay: 71.056 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 26.55 Mbit/s
95th percentile per-packet one-way delay: 71.890 ms
Loss rate: 0.39%
```

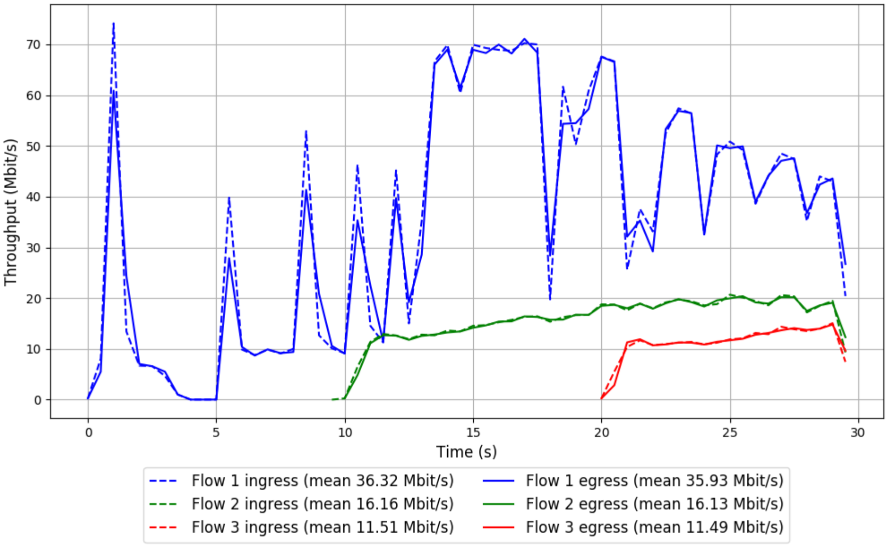
Run 1: Report of QUIC Cubic — Data Link

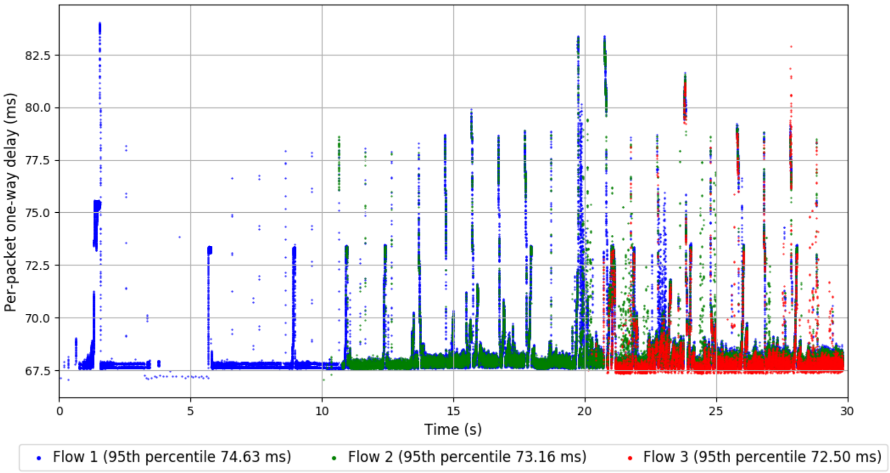




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-04 21:45:49
End at: 2018-02-04 21:46:19
Local clock offset: -2.149 ms
Remote clock offset: 5.368 ms

# Below is generated by plot.py at 2018-02-05 01:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.38 Mbit/s
95th percentile per-packet one-way delay: 73.932 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 35.93 Mbit/s
95th percentile per-packet one-way delay: 74.631 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 16.13 Mbit/s
95th percentile per-packet one-way delay: 73.159 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 72.505 ms
Loss rate: 0.15%
```

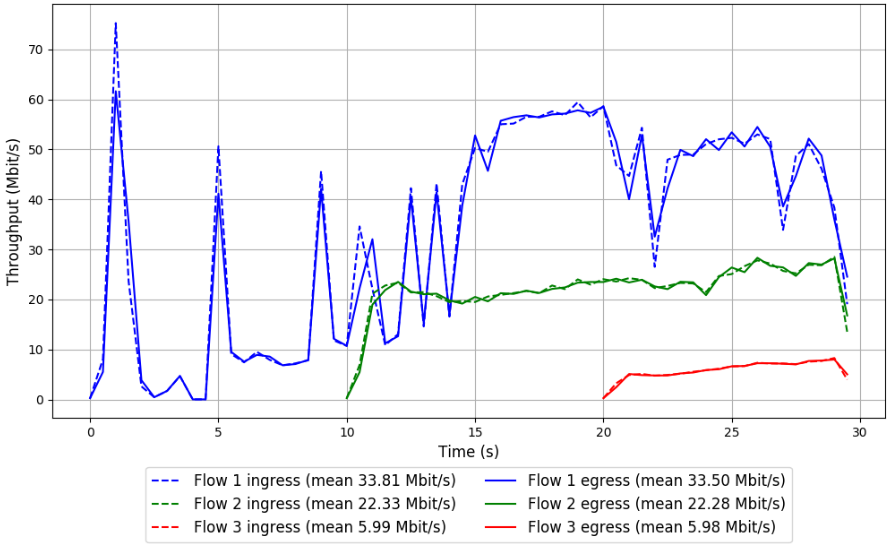
Run 2: Report of QUIC Cubic — Data Link

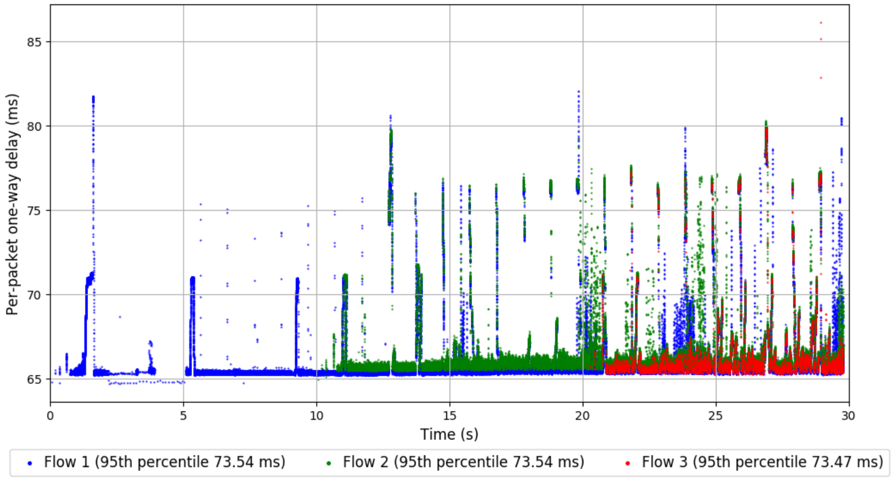




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-04 22:09:14
End at: 2018-02-04 22:09:44
Local clock offset: -1.909 ms
Remote clock offset: 2.087 ms

# Below is generated by plot.py at 2018-02-05 01:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.21 Mbit/s
95th percentile per-packet one-way delay: 73.538 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 33.50 Mbit/s
95th percentile per-packet one-way delay: 73.538 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 22.28 Mbit/s
95th percentile per-packet one-way delay: 73.538 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 73.470 ms
Loss rate: 0.14%
```

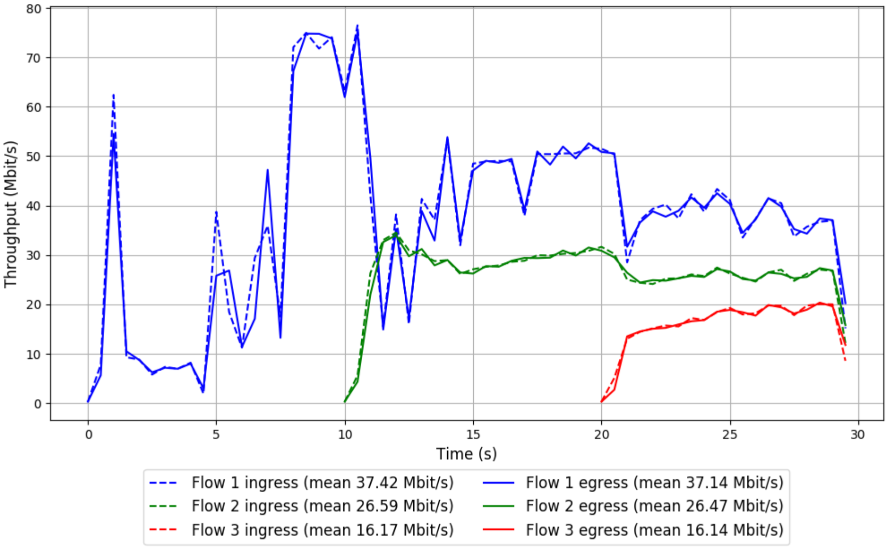
Run 3: Report of QUIC Cubic — Data Link

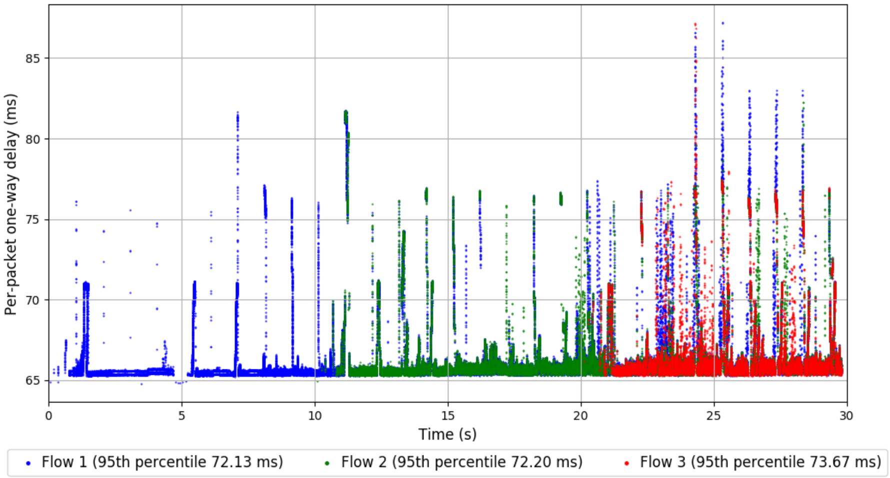




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-04 22:32:39
End at: 2018-02-04 22:33:09
Local clock offset: -1.508 ms
Remote clock offset: 0.922 ms

# Below is generated by plot.py at 2018-02-05 01:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.90 Mbit/s
95th percentile per-packet one-way delay: 72.282 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 37.14 Mbit/s
95th percentile per-packet one-way delay: 72.128 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 26.47 Mbit/s
95th percentile per-packet one-way delay: 72.199 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 16.14 Mbit/s
95th percentile per-packet one-way delay: 73.669 ms
Loss rate: 0.22%
```

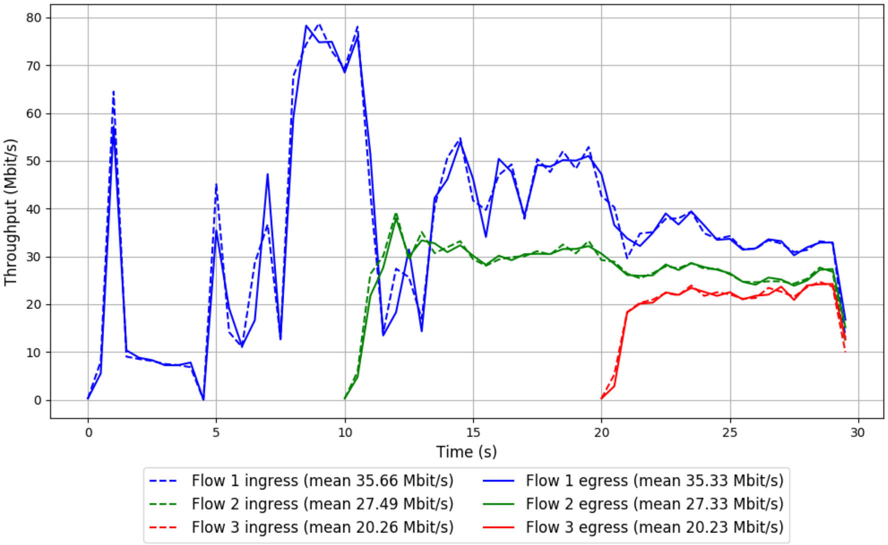
Run 4: Report of QUIC Cubic — Data Link

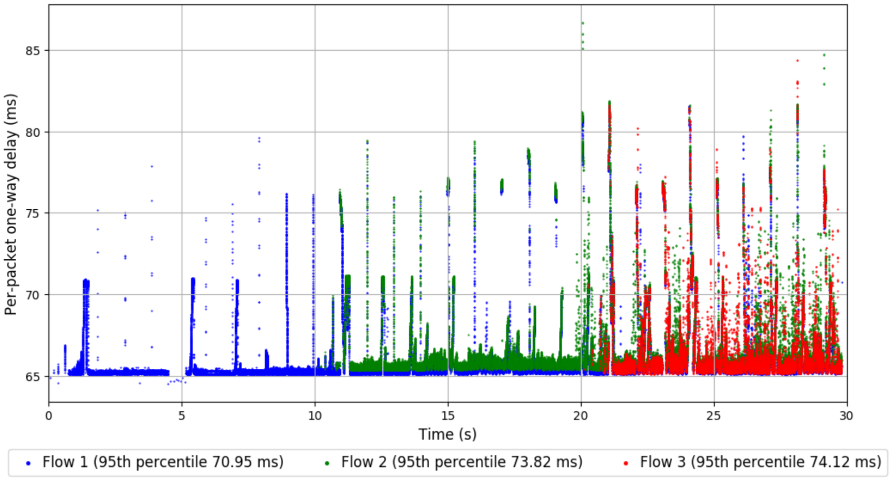




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-04 22:55:54
End at: 2018-02-04 22:56:24
Local clock offset: -1.52 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-02-05 01:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 72.220 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 70.950 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 27.33 Mbit/s
95th percentile per-packet one-way delay: 73.819 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 20.23 Mbit/s
95th percentile per-packet one-way delay: 74.121 ms
Loss rate: 0.17%
```

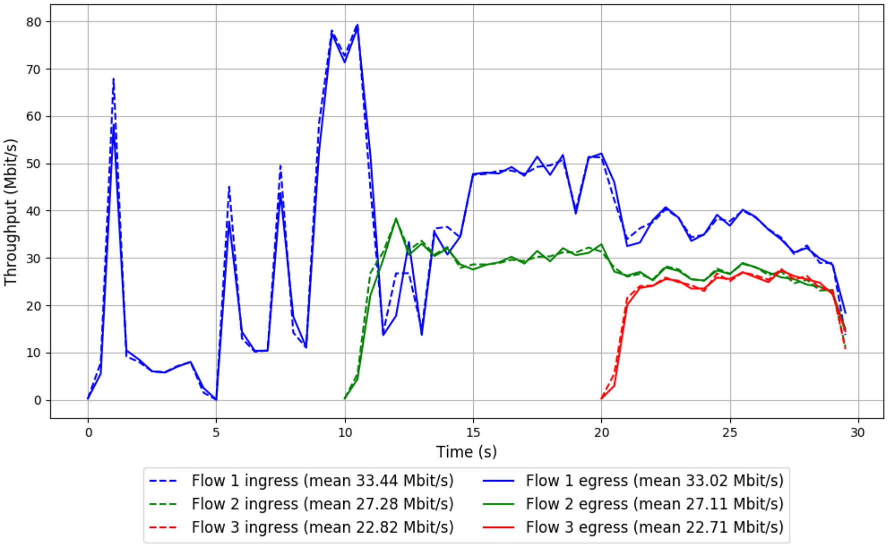
Run 5: Report of QUIC Cubic — Data Link

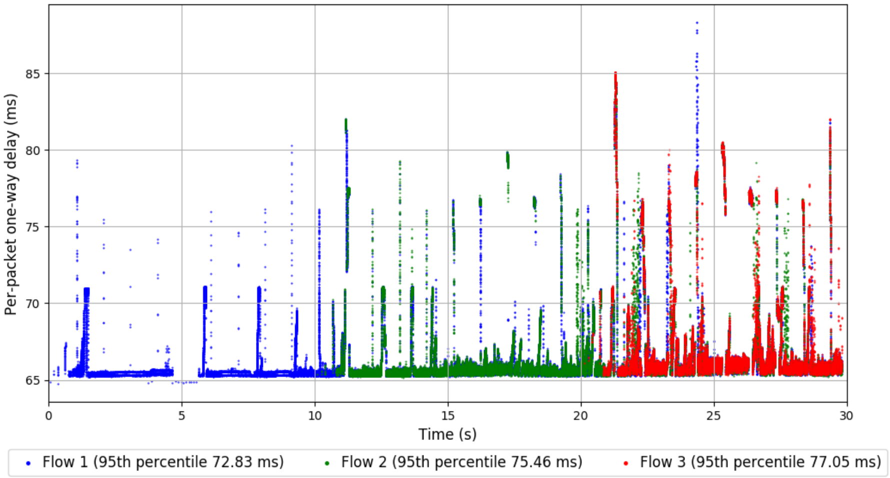




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-04 23:19:06
End at: 2018-02-04 23:19:36
Local clock offset: -1.61 ms
Remote clock offset: -1.252 ms

# Below is generated by plot.py at 2018-02-05 01:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.34 Mbit/s
95th percentile per-packet one-way delay: 75.250 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 33.02 Mbit/s
95th percentile per-packet one-way delay: 72.825 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 27.11 Mbit/s
95th percentile per-packet one-way delay: 75.462 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 22.71 Mbit/s
95th percentile per-packet one-way delay: 77.053 ms
Loss rate: 0.49%
```

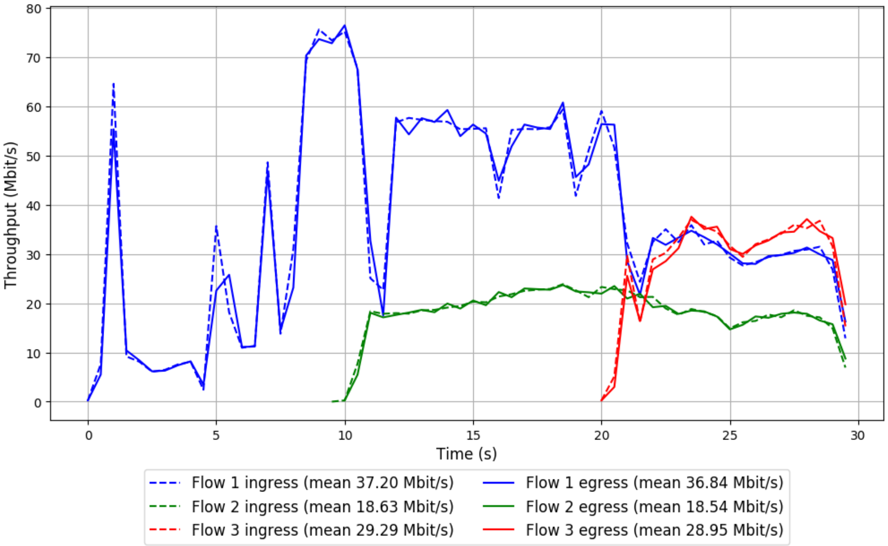
Run 6: Report of QUIC Cubic — Data Link

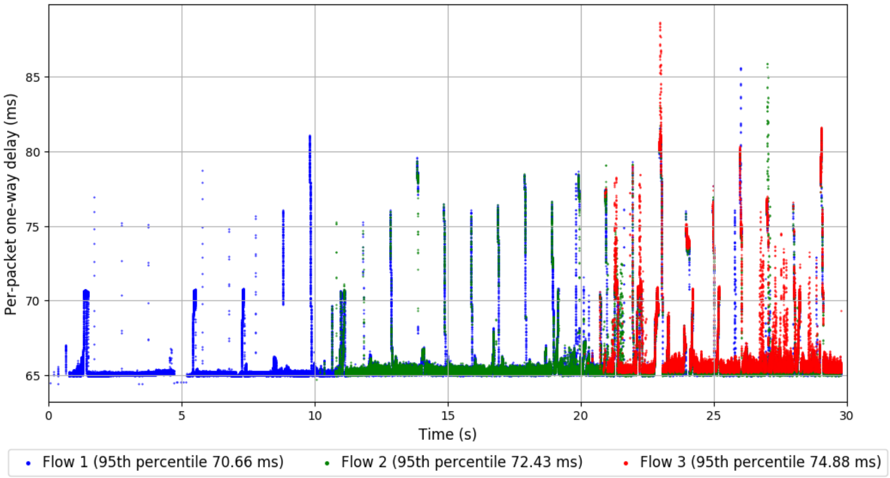




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-04 23:42:20
End at: 2018-02-04 23:42:50
Local clock offset: -1.264 ms
Remote clock offset: -2.265 ms

# Below is generated by plot.py at 2018-02-05 01:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.53 Mbit/s
95th percentile per-packet one-way delay: 72.041 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 36.84 Mbit/s
95th percentile per-packet one-way delay: 70.655 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 18.54 Mbit/s
95th percentile per-packet one-way delay: 72.434 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 28.95 Mbit/s
95th percentile per-packet one-way delay: 74.879 ms
Loss rate: 1.14%
```

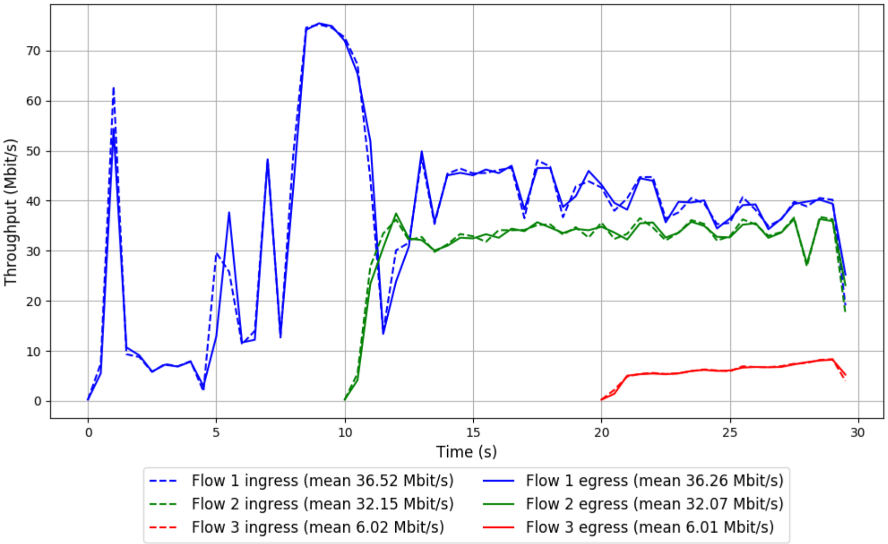
Run 7: Report of QUIC Cubic — Data Link

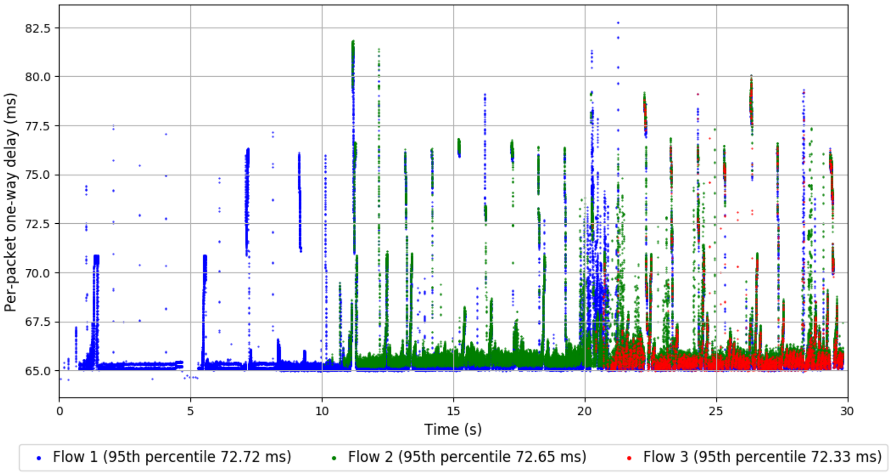




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-05 00:05:31
End at: 2018-02-05 00:06:01
Local clock offset: -1.241 ms
Remote clock offset: -2.856 ms

# Below is generated by plot.py at 2018-02-05 01:41:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.46 Mbit/s
95th percentile per-packet one-way delay: 72.676 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 72.717 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 32.07 Mbit/s
95th percentile per-packet one-way delay: 72.648 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 6.01 Mbit/s
95th percentile per-packet one-way delay: 72.332 ms
Loss rate: 0.17%
```

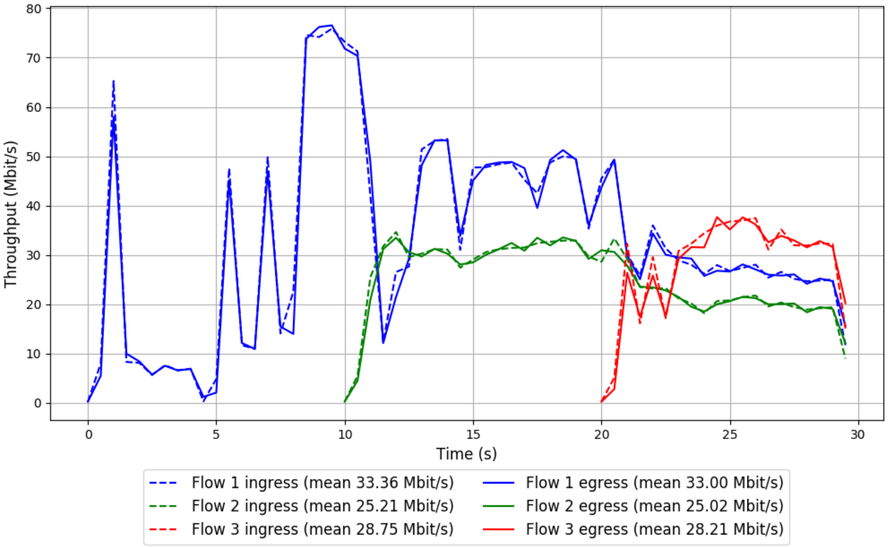
Run 8: Report of QUIC Cubic — Data Link

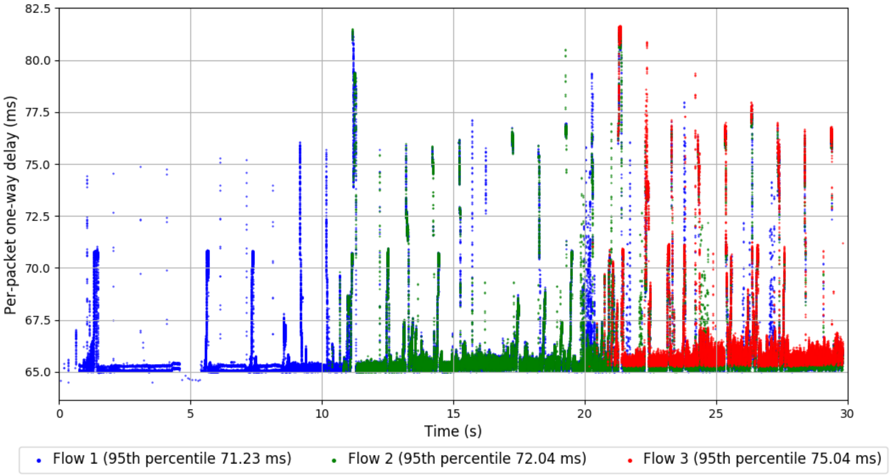




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-05 00:28:44
End at: 2018-02-05 00:29:14
Local clock offset: -1.35 ms
Remote clock offset: -3.612 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.71 Mbit/s
95th percentile per-packet one-way delay: 72.268 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 71.228 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 25.02 Mbit/s
95th percentile per-packet one-way delay: 72.041 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 28.21 Mbit/s
95th percentile per-packet one-way delay: 75.040 ms
Loss rate: 1.81%
```

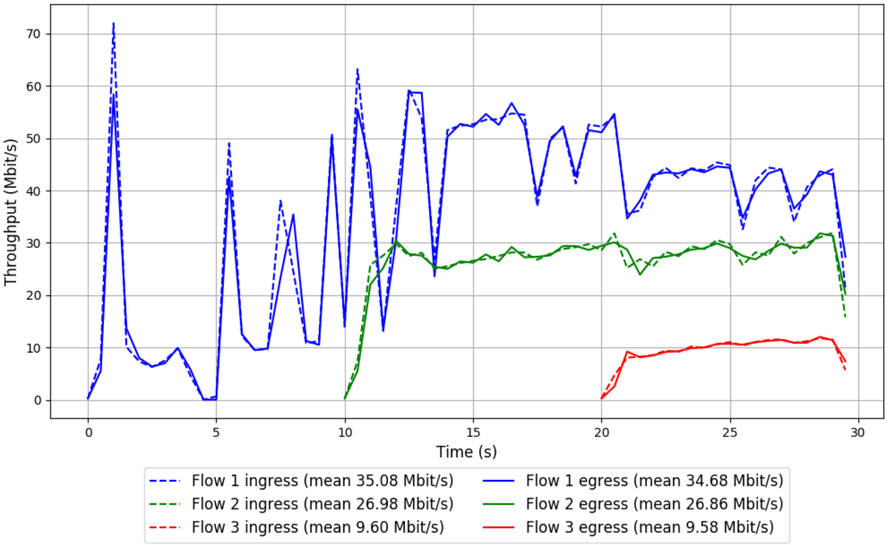
Run 9: Report of QUIC Cubic — Data Link

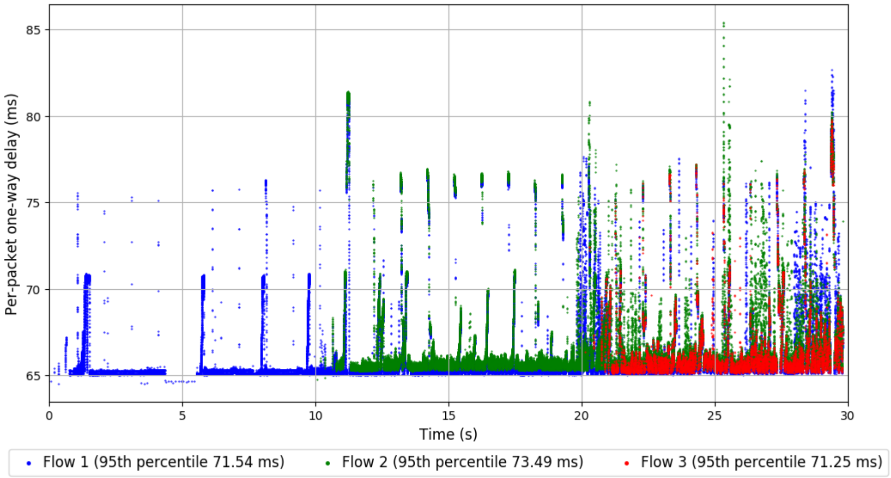




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-05 00:52:08
End at: 2018-02-05 00:52:38
Local clock offset: -1.476 ms
Remote clock offset: -4.294 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.60 Mbit/s
95th percentile per-packet one-way delay: 72.171 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 34.68 Mbit/s
95th percentile per-packet one-way delay: 71.540 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 26.86 Mbit/s
95th percentile per-packet one-way delay: 73.486 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 71.247 ms
Loss rate: 0.21%
```

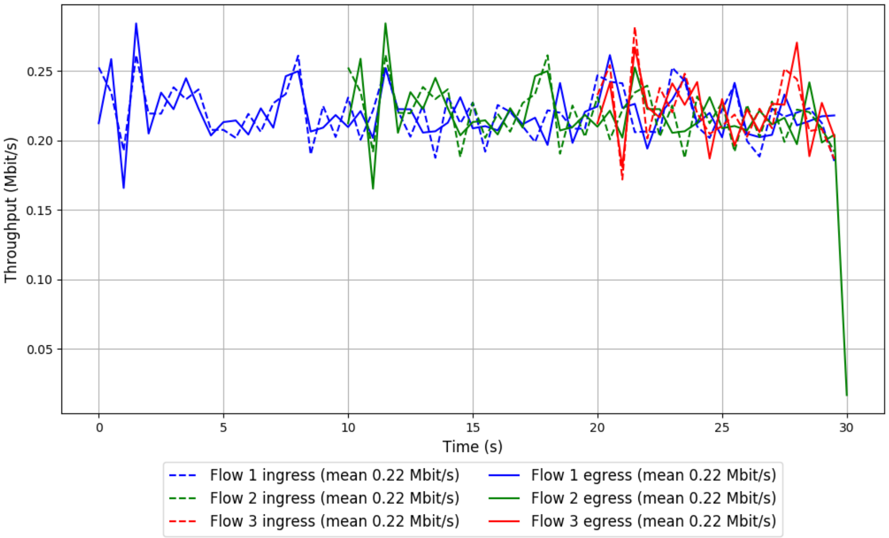
Run 10: Report of QUIC Cubic — Data Link

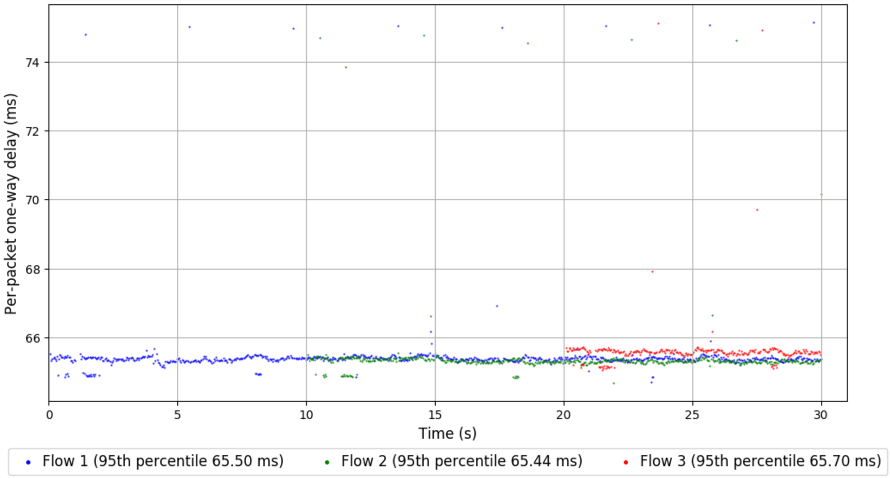




```
Run 1: Statistics of SCReAM

Start at: 2018-02-04 21:26:22
End at: 2018-02-04 21:26:52
Local clock offset: -2.397 ms
Remote clock offset: 4.381 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.651 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.504 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.441 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.703 ms
Loss rate: 0.00%
```

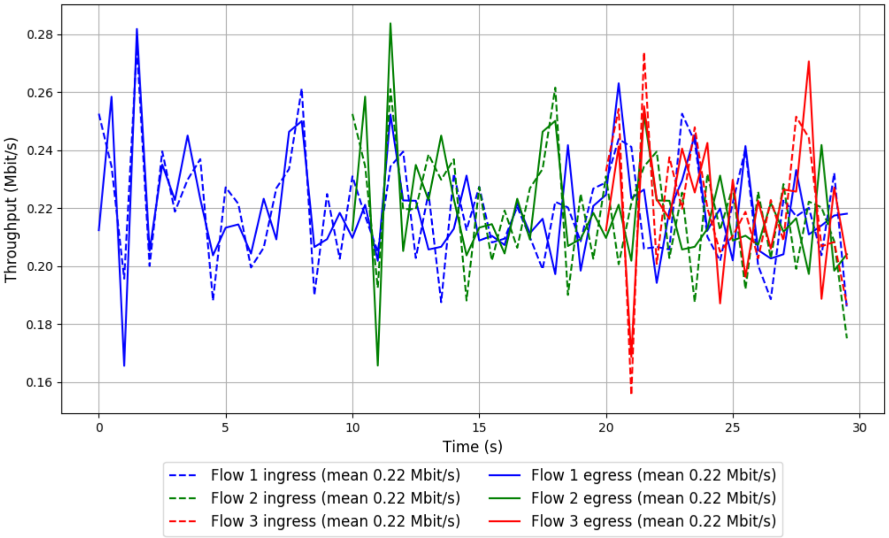
Run 1: Report of SCReAM — Data Link

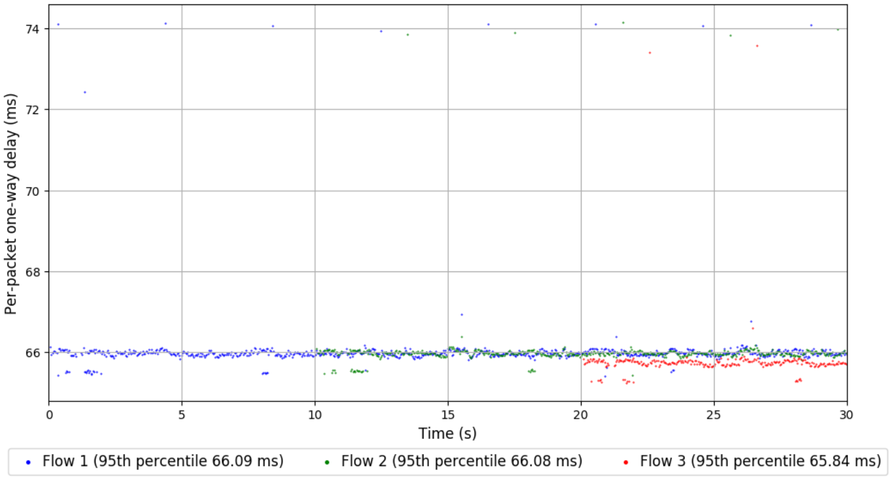




```
Run 2: Statistics of SCReAM

Start at: 2018-02-04 21:49:44
End at: 2018-02-04 21:50:14
Local clock offset: -2.423 ms
Remote clock offset: 3.073 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 66.086 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.094 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.075 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.843 ms
Loss rate: 0.00%
```

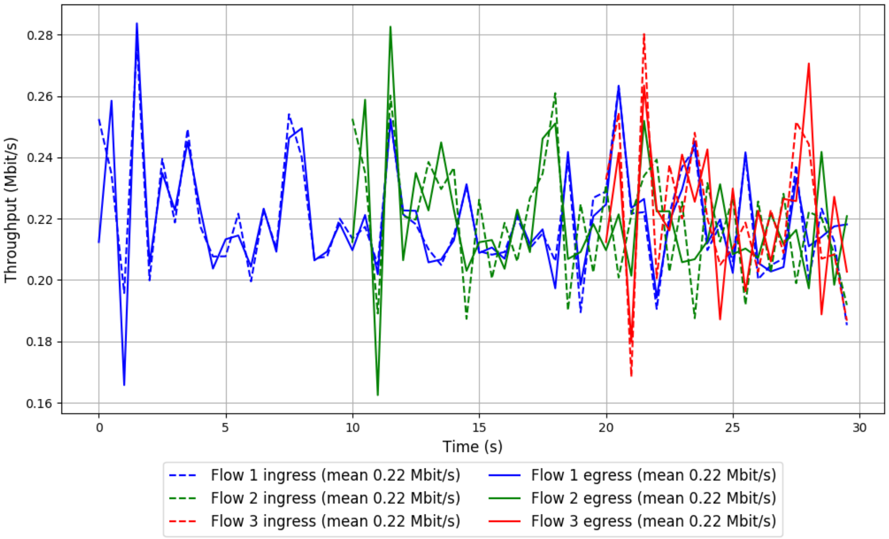
Run 2: Report of SCReAM — Data Link

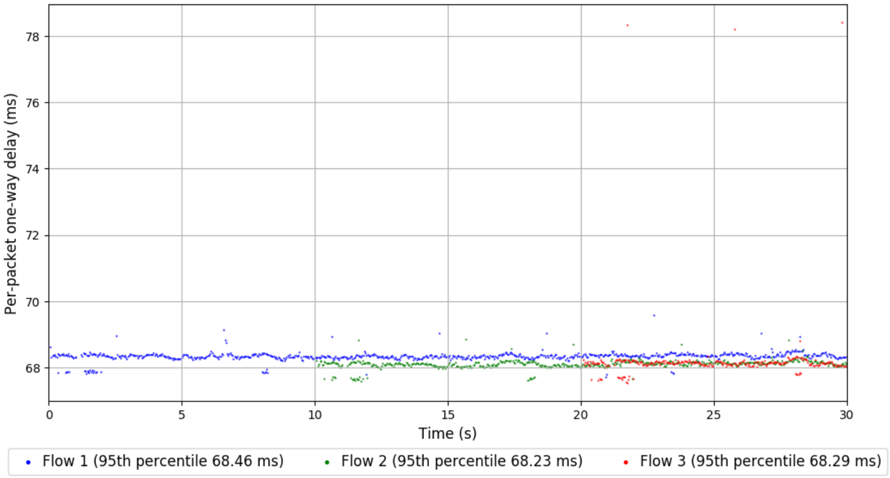




```
Run 3: Statistics of SCReAM

Start at: 2018-02-04 22:13:09
End at: 2018-02-04 22:13:39
Local clock offset: -4.552 ms
Remote clock offset: 1.938 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 68.431 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 68.463 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 68.229 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 68.289 ms
Loss rate: 0.00%
```

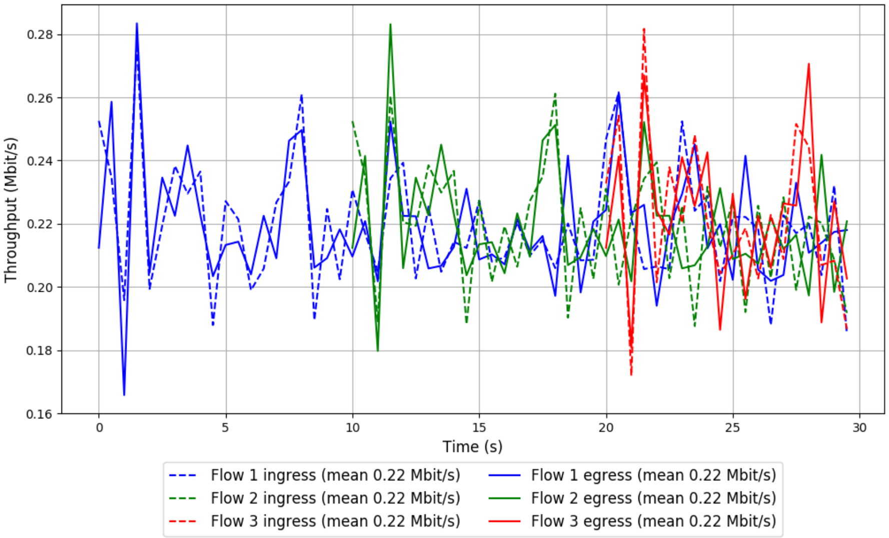
Run 3: Report of SCReAM — Data Link

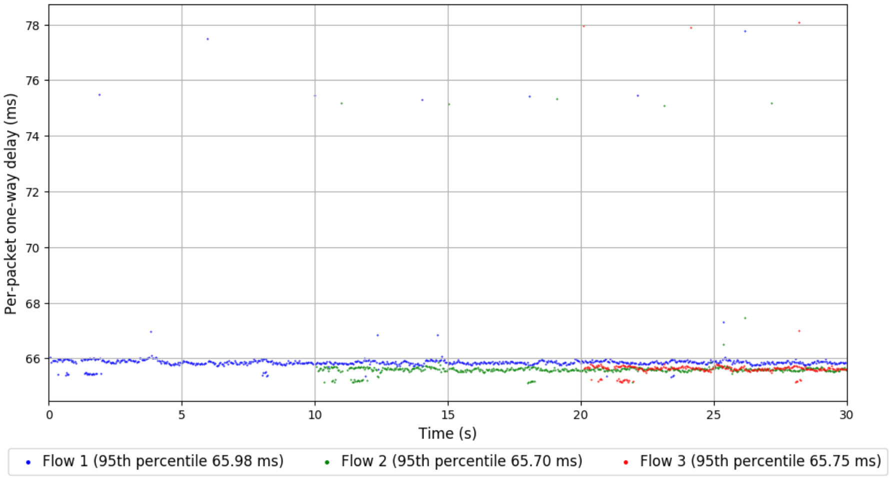




```
Run 4: Statistics of SCReAM

Start at: 2018-02-04 22:36:35
End at: 2018-02-04 22:37:05
Local clock offset: -1.941 ms
Remote clock offset: 0.76 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.960 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.700 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.754 ms
Loss rate: 0.00%
```

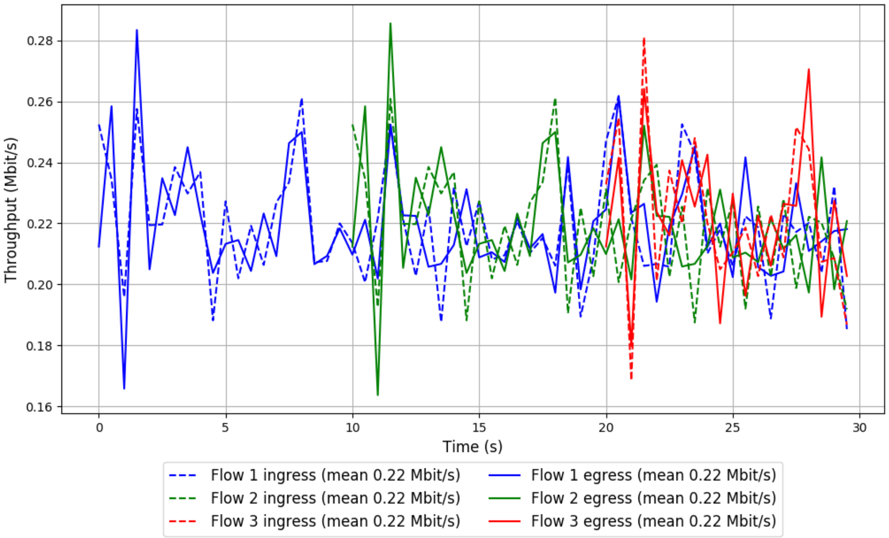
Run 4: Report of SCReAM — Data Link

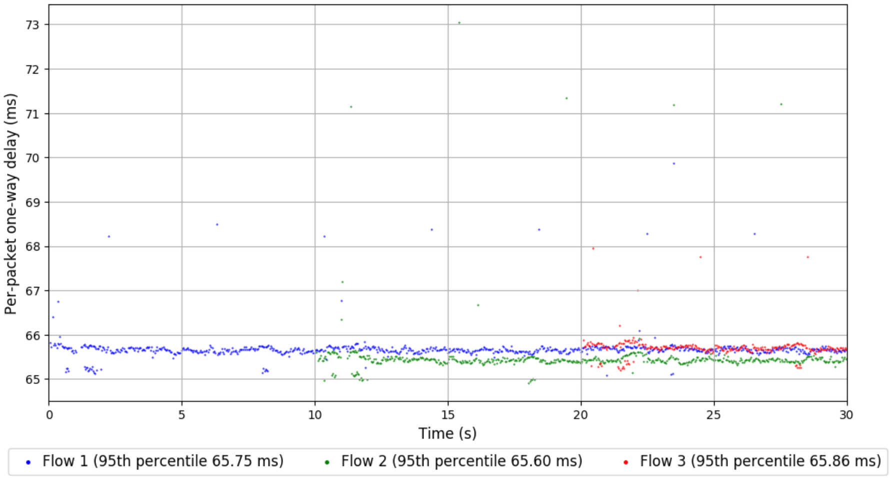




```
Run 5: Statistics of SCReAM

Start at: 2018-02-04 22:59:49
End at: 2018-02-04 23:00:19
Local clock offset: -1.673 ms
Remote clock offset: -0.232 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.781 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.753 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.602 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.857 ms
Loss rate: 0.00%
```

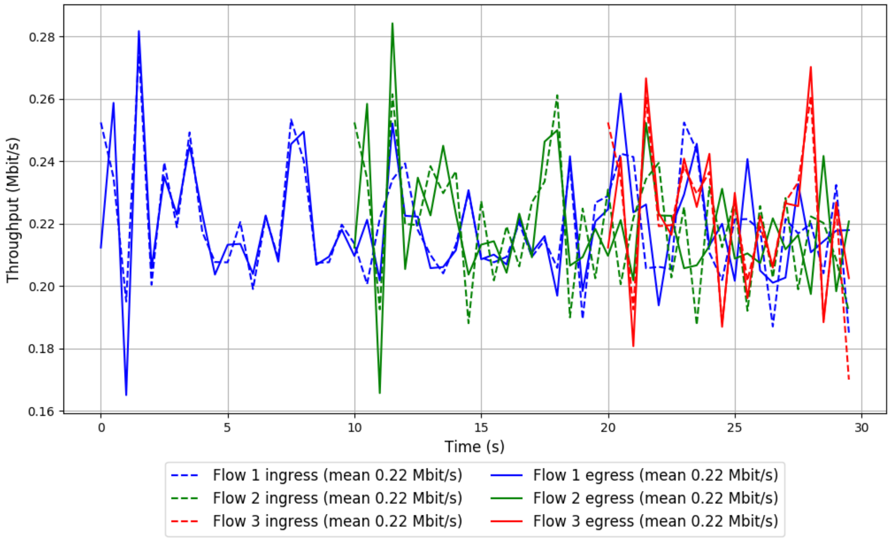
Run 5: Report of SCReAM — Data Link

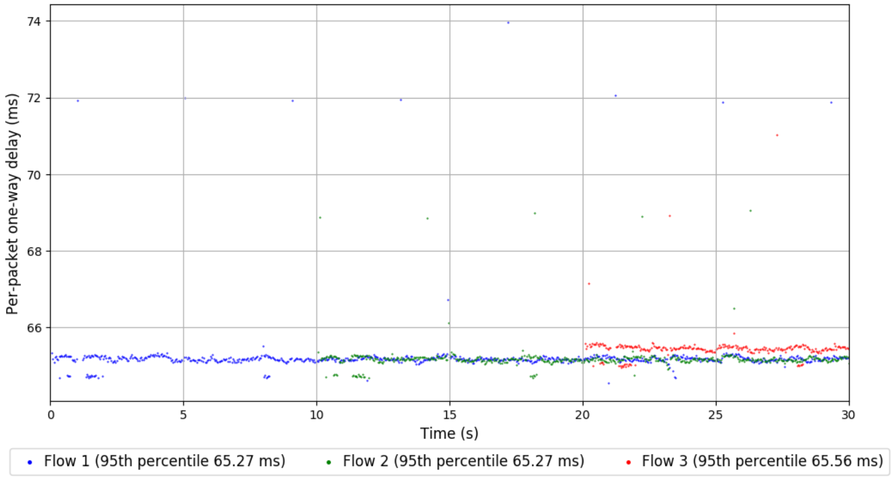




```
Run 6: Statistics of SCReAM

Start at: 2018-02-04 23:23:01
End at: 2018-02-04 23:23:31
Local clock offset: -1.288 ms
Remote clock offset: -1.371 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.274 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.268 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.562 ms
Loss rate: 0.00%
```

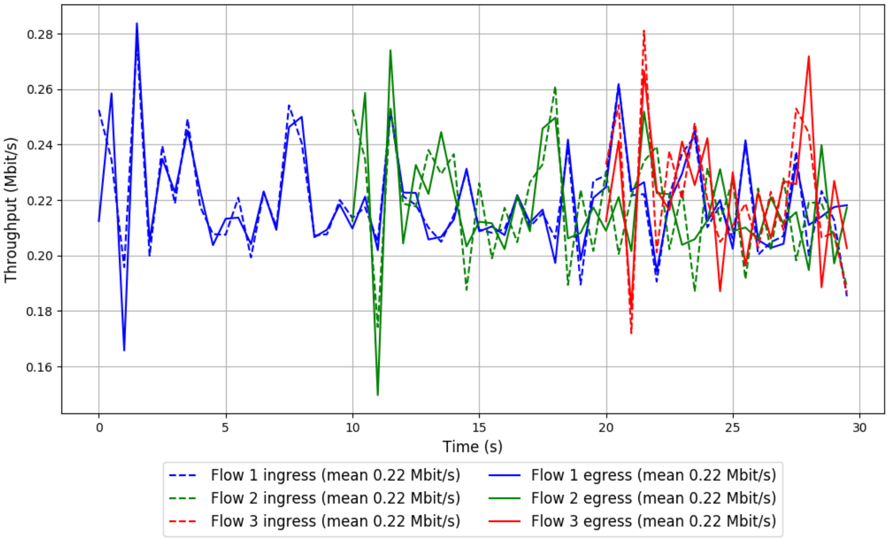
Run 6: Report of SCReAM — Data Link

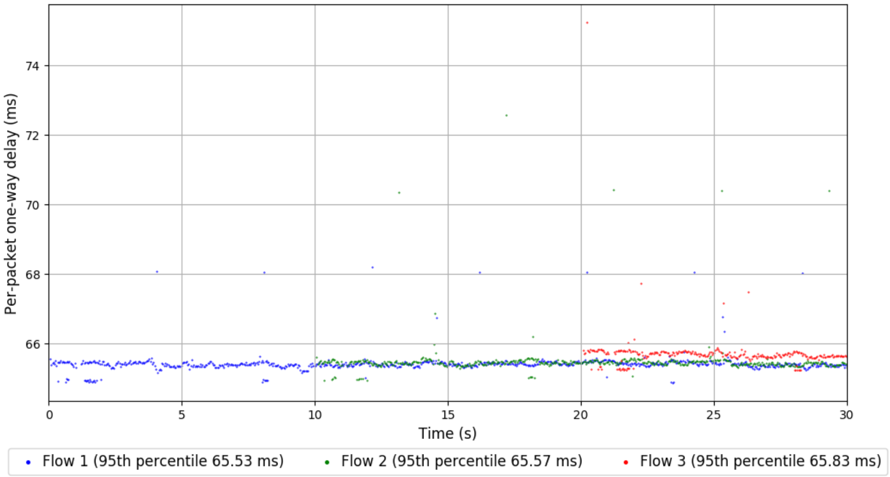




```
Run 7: Statistics of SCReAM

Start at: 2018-02-04 23:46:15
End at: 2018-02-04 23:46:45
Local clock offset: -1.538 ms
Remote clock offset: -2.29 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.771 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.528 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.571 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.831 ms
Loss rate: 0.00%
```

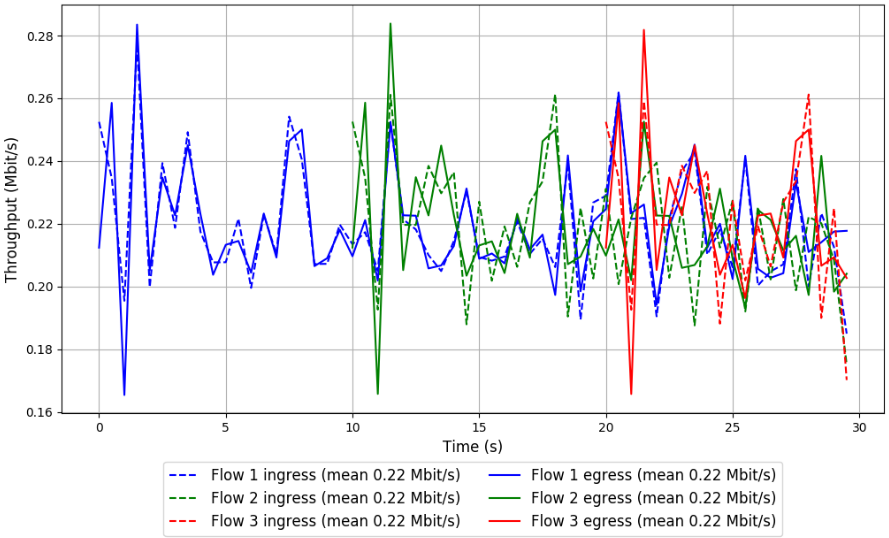
Run 7: Report of SCReAM — Data Link

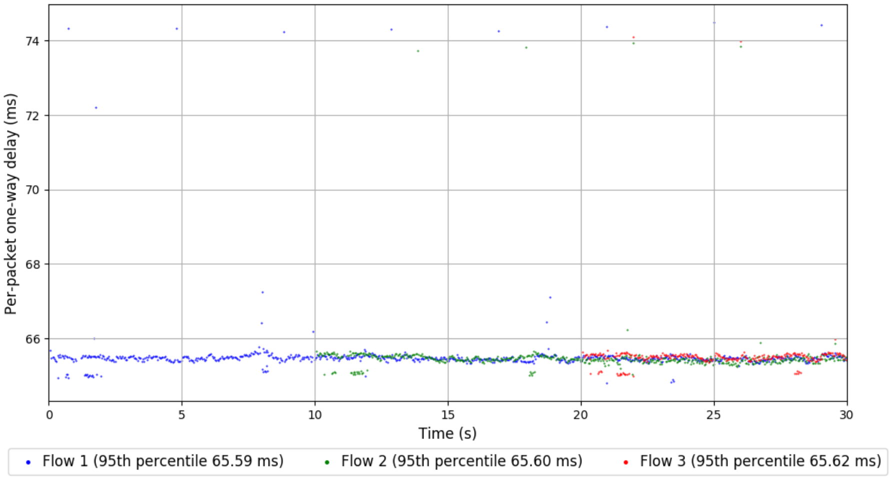




```
Run 8: Statistics of SCReAM

Start at: 2018-02-05 00:09:26
End at: 2018-02-05 00:09:56
Local clock offset: -1.308 ms
Remote clock offset: -2.897 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.605 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.588 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.601 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.618 ms
Loss rate: 0.00%
```

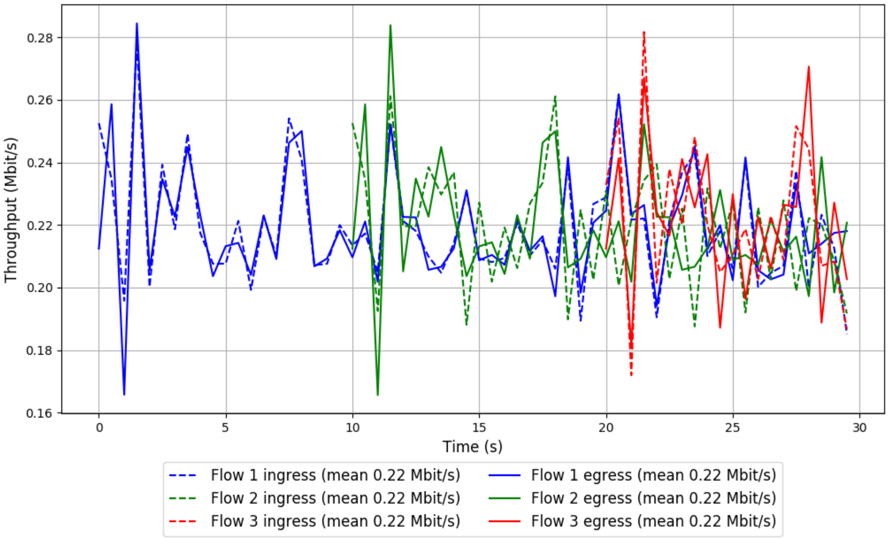
Run 8: Report of SCReAM — Data Link

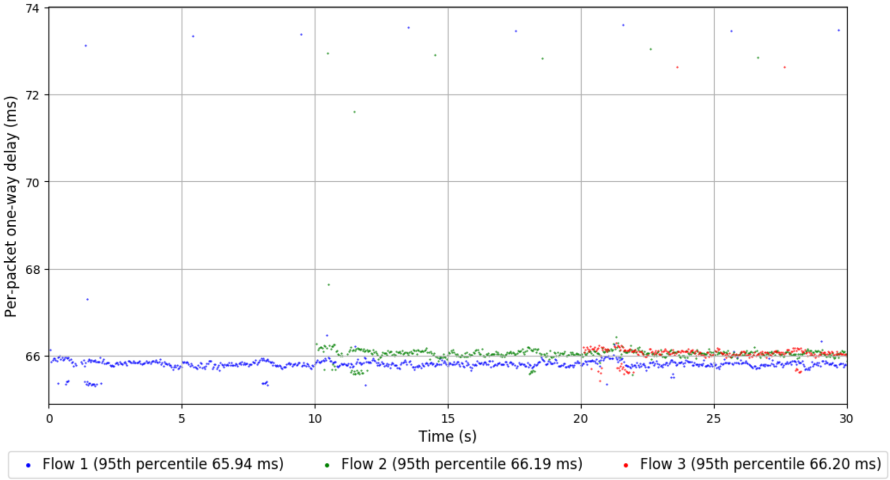




```
Run 9: Statistics of SCReAM

Start at: 2018-02-05 00:32:39
End at: 2018-02-05 00:33:09
Local clock offset: -1.995 ms
Remote clock offset: -3.722 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 66.159 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.944 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.186 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.196 ms
Loss rate: 0.00%
```

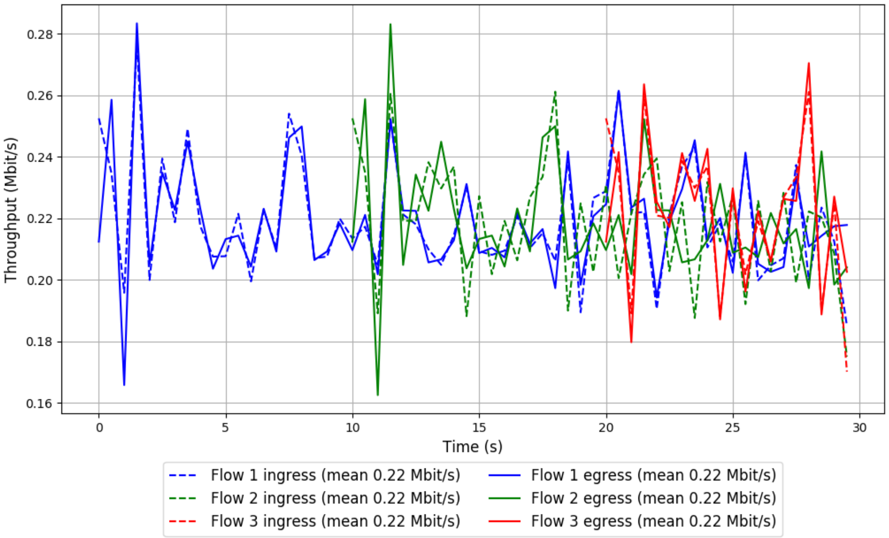
Run 9: Report of SCReAM — Data Link

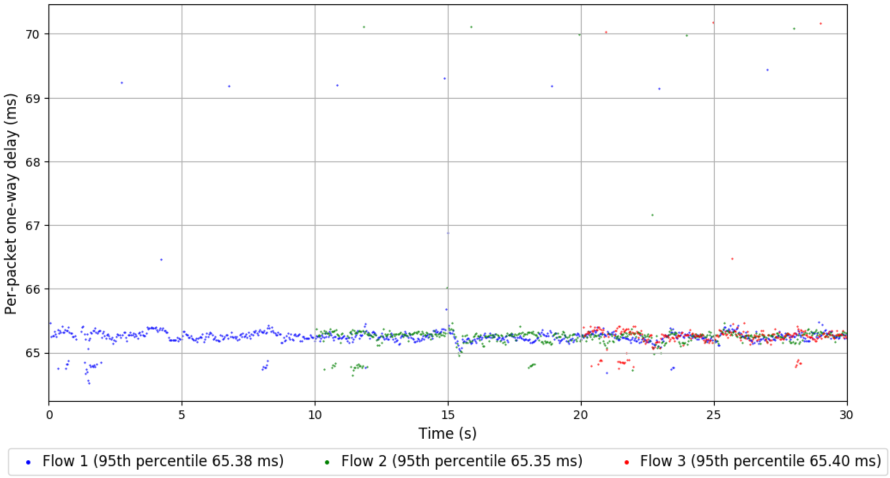




```
Run 10: Statistics of SCReAM

Start at: 2018-02-05 00:56:03
End at: 2018-02-05 00:56:33
Local clock offset: -1.492 ms
Remote clock offset: -4.232 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 65.371 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.380 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.399 ms
Loss rate: 0.00%
```

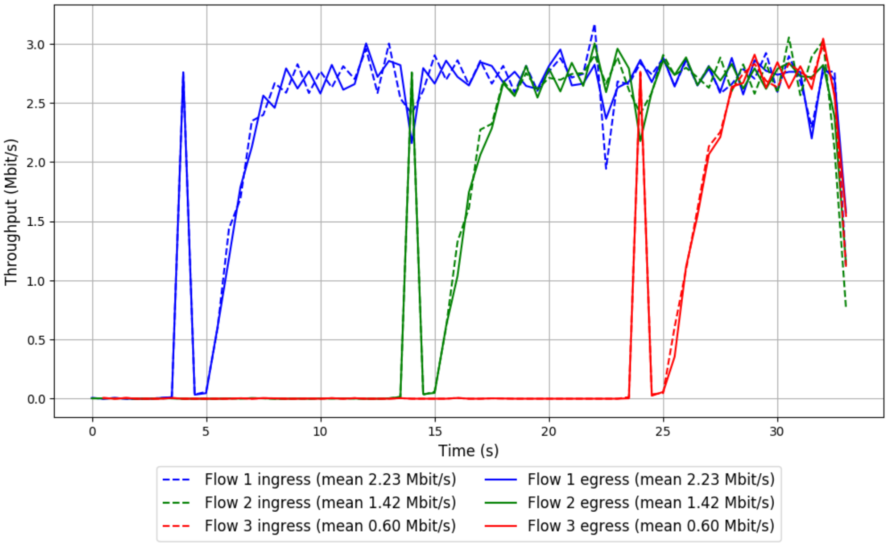
Run 10: Report of SCReAM — Data Link

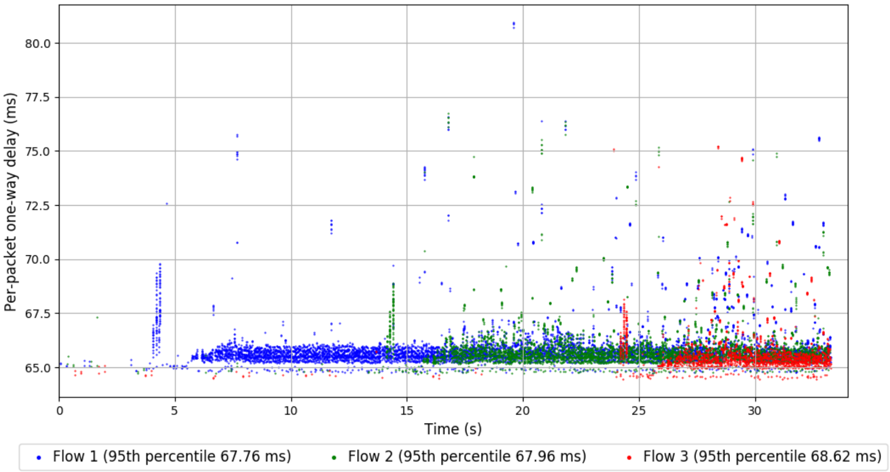




```
Run 1: Statistics of WebRTC media

Start at: 2018-02-04 21:28:54
End at: 2018-02-04 21:29:24
Local clock offset: -2.243 ms
Remote clock offset: 4.23 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 67.920 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 67.759 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 67.957 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 68.622 ms
Loss rate: 0.00%
```

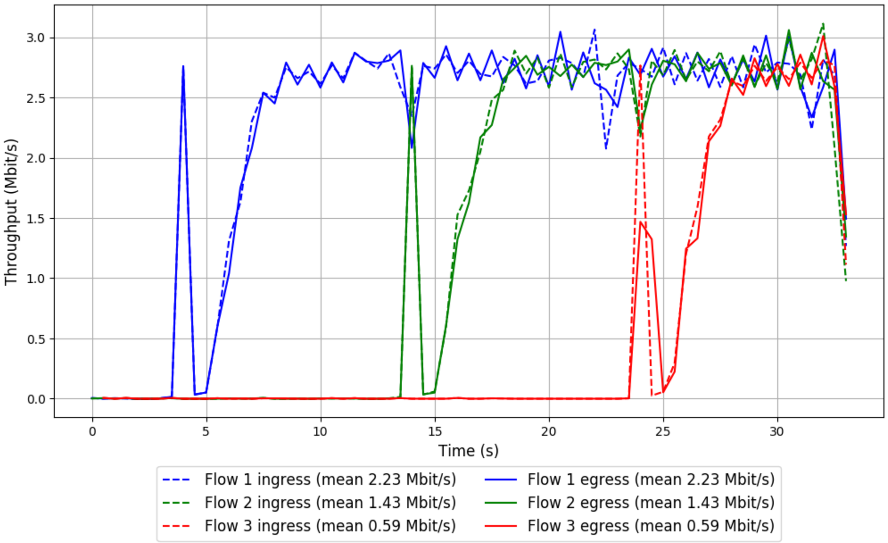
Run 1: Report of WebRTC media — Data Link

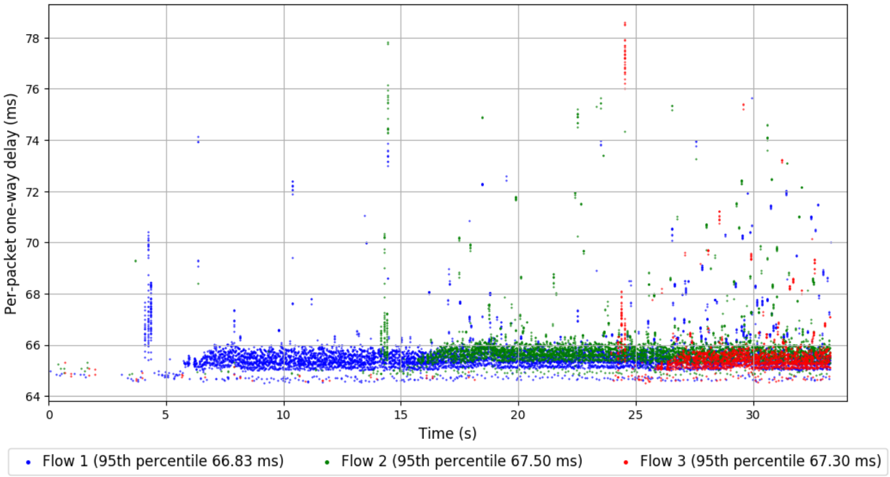




```
Run 2: Statistics of WebRTC media

Start at: 2018-02-04 21:52:16
End at: 2018-02-04 21:52:46
Local clock offset: -1.935 ms
Remote clock offset: 2.934 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 67.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 66.829 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 67.505 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 67.296 ms
Loss rate: 0.00%
```

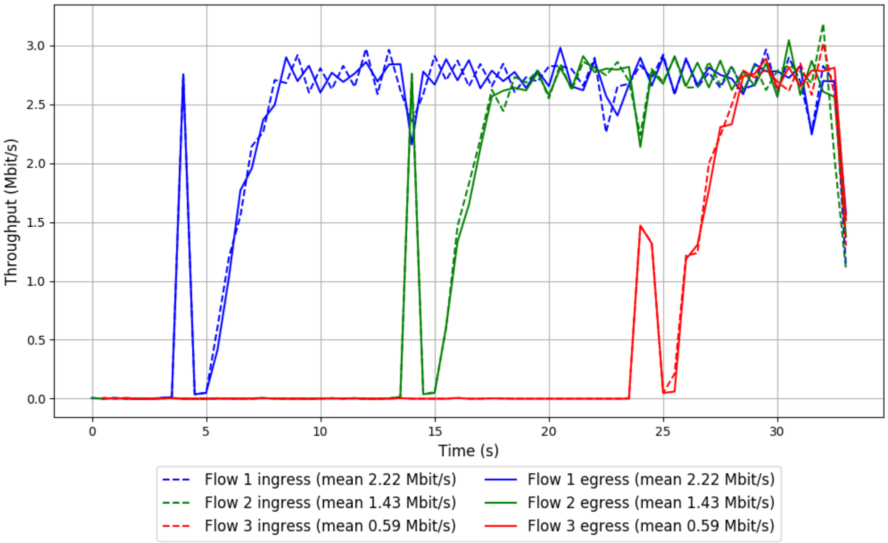
Run 2: Report of WebRTC media — Data Link

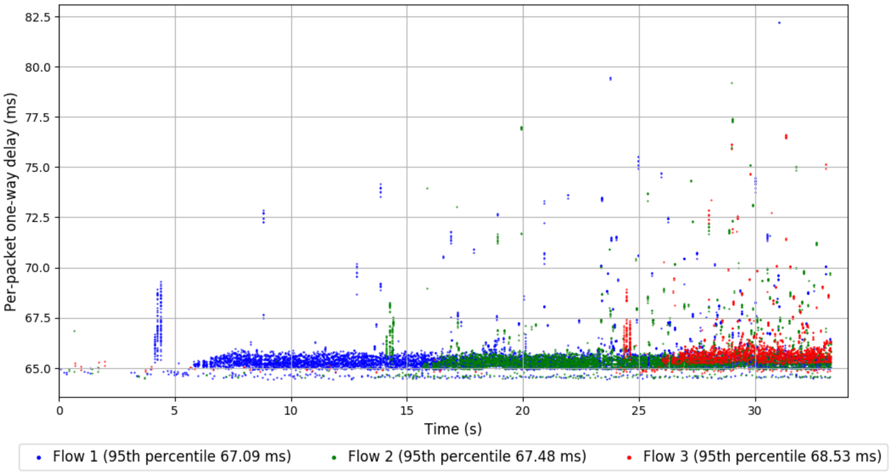




```
Run 3: Statistics of WebRTC media

Start at: 2018-02-04 22:15:42
End at: 2018-02-04 22:16:12
Local clock offset: -1.598 ms
Remote clock offset: 1.837 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 67.387 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 67.092 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 67.477 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 68.532 ms
Loss rate: 0.00%
```

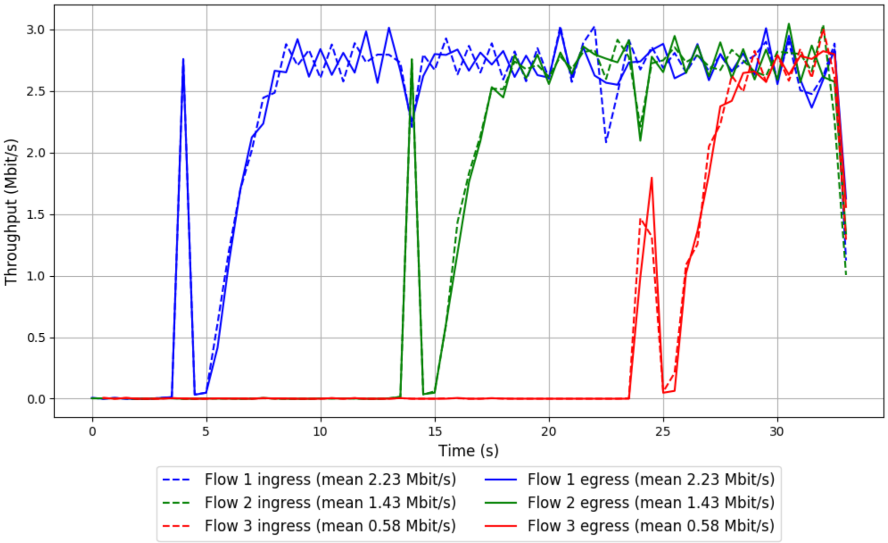
Run 3: Report of WebRTC media — Data Link

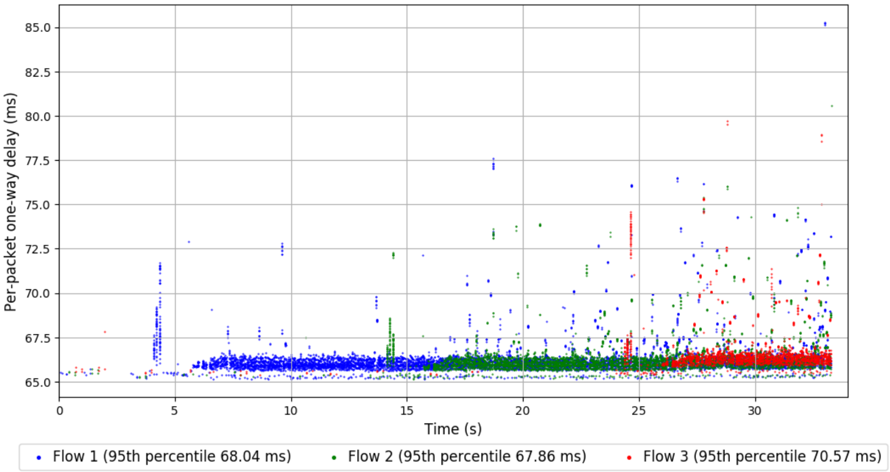




```
Run 4: Statistics of WebRTC media

Start at: 2018-02-04 22:39:07
End at: 2018-02-04 22:39:37
Local clock offset: -2.142 ms
Remote clock offset: 0.691 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 68.354 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 68.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 67.859 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 70.566 ms
Loss rate: 0.00%
```

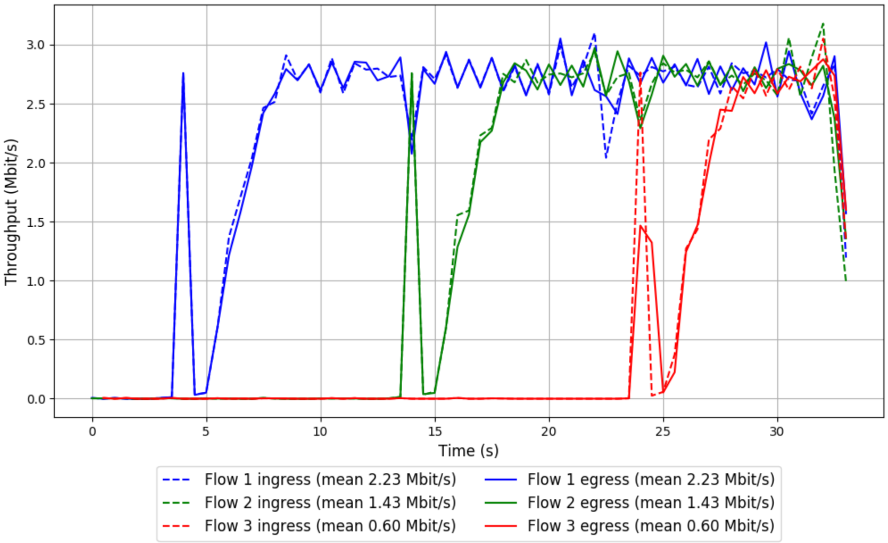
Run 4: Report of WebRTC media — Data Link

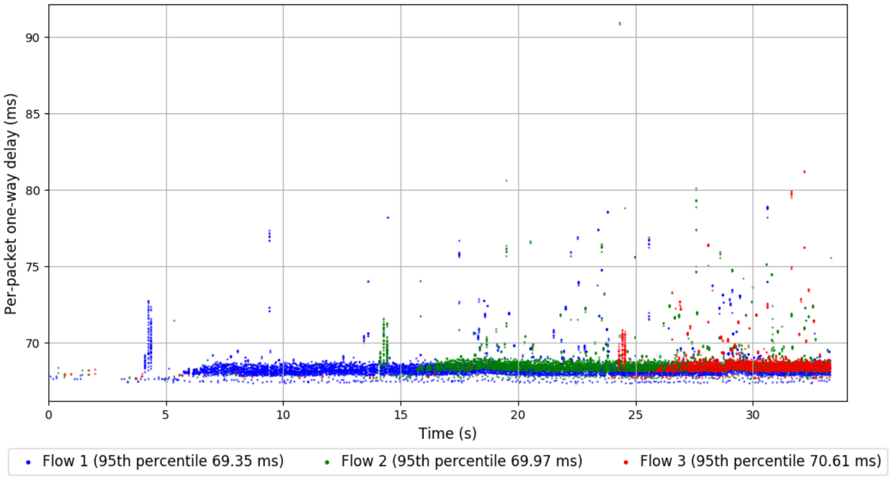




```
Run 5: Statistics of WebRTC media

Start at: 2018-02-04 23:02:22
End at: 2018-02-04 23:02:52
Local clock offset: -4.276 ms
Remote clock offset: -0.316 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 69.847 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 69.354 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 69.971 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 70.608 ms
Loss rate: 0.00%
```

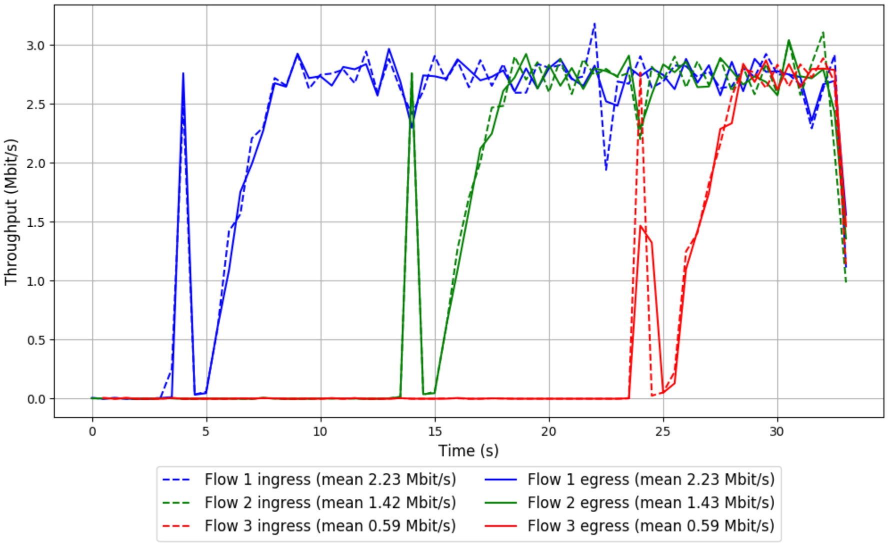
Run 5: Report of WebRTC media — Data Link

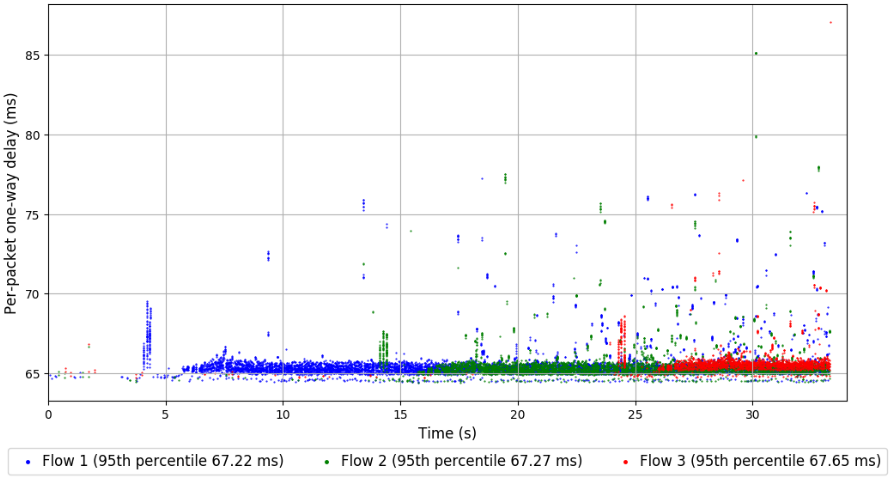




```
Run 6: Statistics of WebRTC media

Start at: 2018-02-04 23:25:33
End at: 2018-02-04 23:26:03
Local clock offset: -1.293 ms
Remote clock offset: -1.52 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 67.309 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 67.219 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 67.273 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 67.652 ms
Loss rate: 0.00%
```

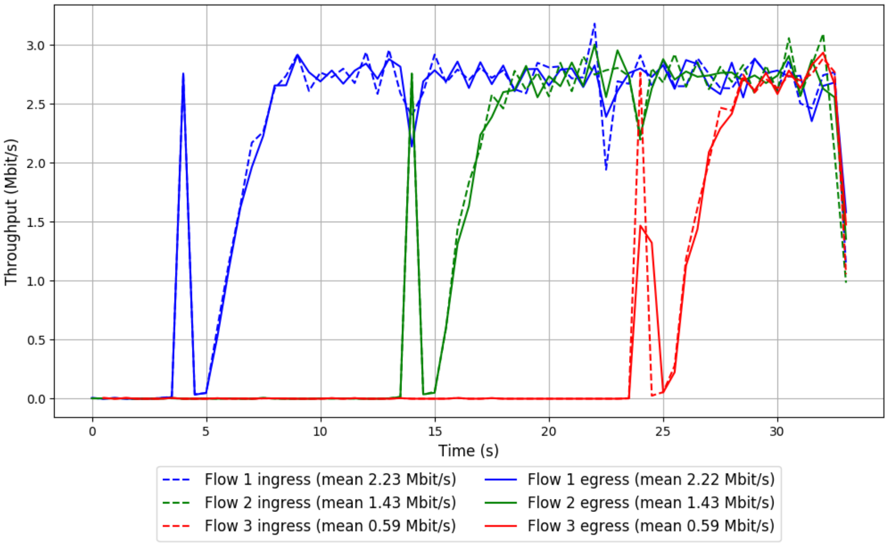
Run 6: Report of WebRTC media — Data Link

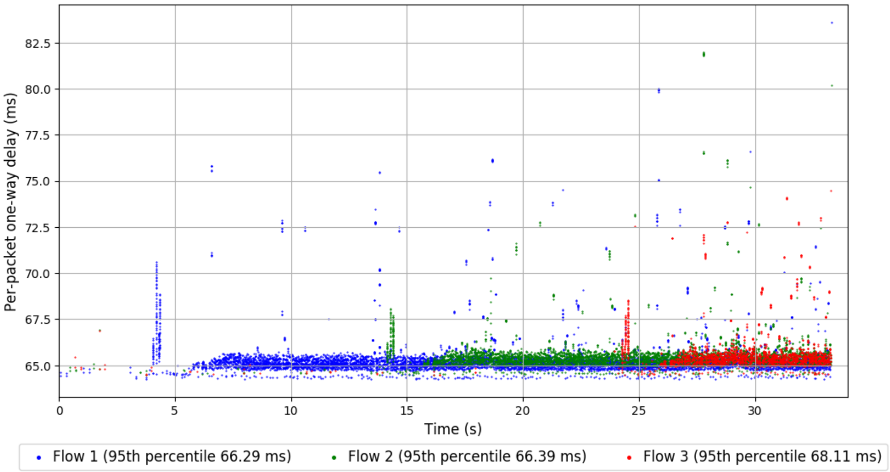




```
Run 7: Statistics of WebRTC media

Start at: 2018-02-04 23:48:47
End at: 2018-02-04 23:49:17
Local clock offset: -1.066 ms
Remote clock offset: -2.338 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 66.508 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 66.294 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 66.392 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 68.105 ms
Loss rate: 0.00%
```

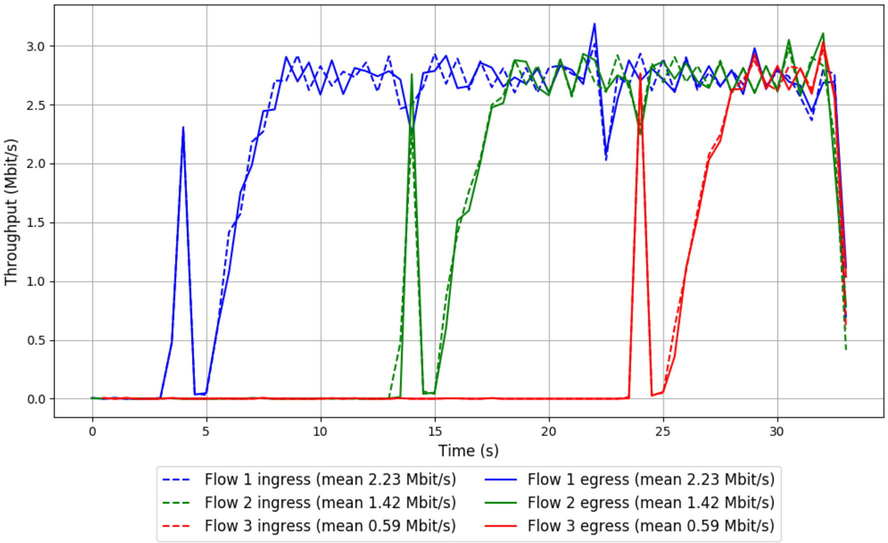
Run 7: Report of WebRTC media — Data Link

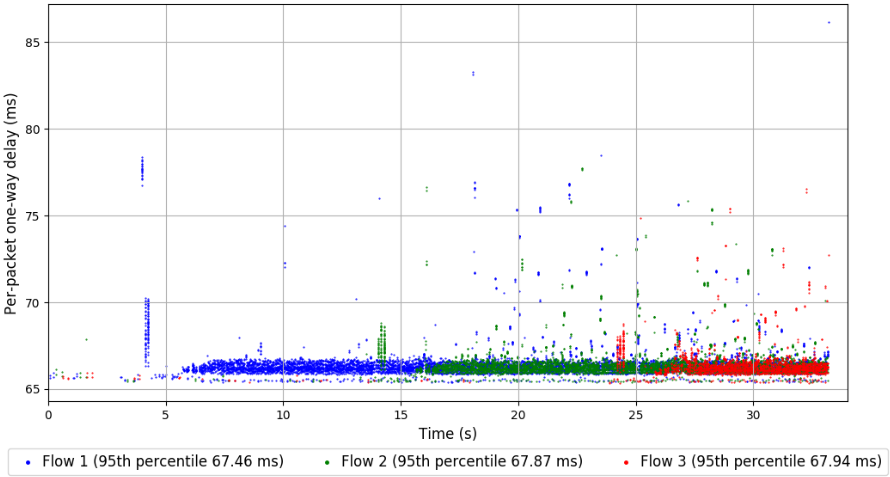




```
Run 8: Statistics of WebRTC media

Start at: 2018-02-05 00:11:58
End at: 2018-02-05 00:12:28
Local clock offset: -1.941 ms
Remote clock offset: -2.988 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 67.683 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 67.462 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 67.869 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 67.941 ms
Loss rate: 0.00%
```

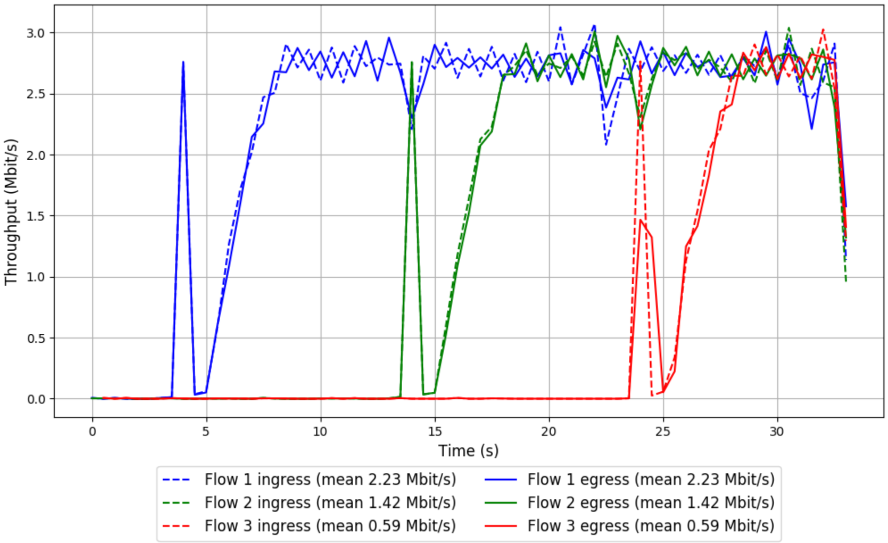
Run 8: Report of WebRTC media — Data Link

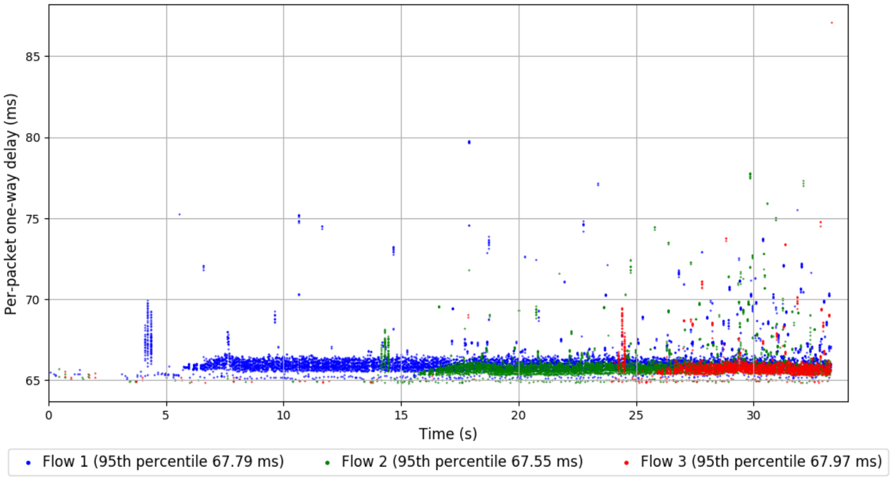




```
Run 9: Statistics of WebRTC media

Start at: 2018-02-05 00:35:11
End at: 2018-02-05 00:35:41
Local clock offset: -1.733 ms
Remote clock offset: -3.813 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 67.761 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 67.793 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 67.549 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 67.973 ms
Loss rate: 0.25%
```

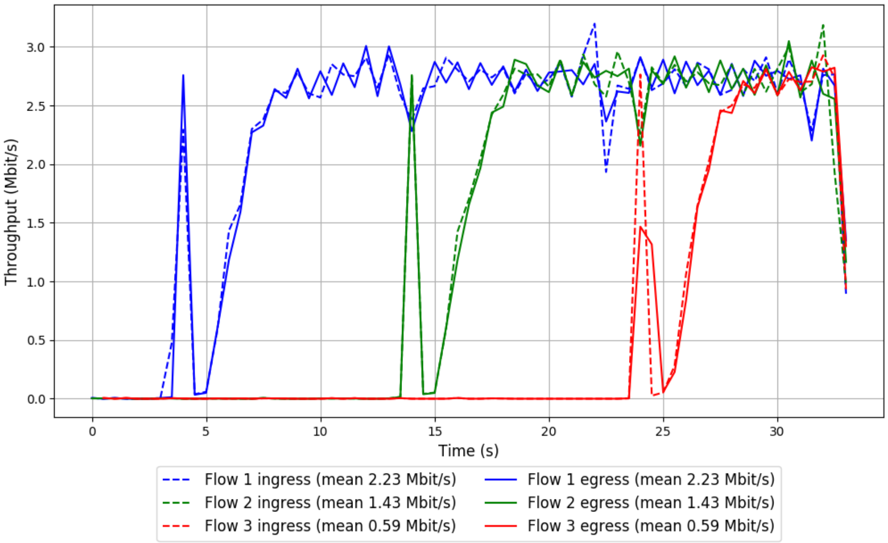
Run 9: Report of WebRTC media — Data Link

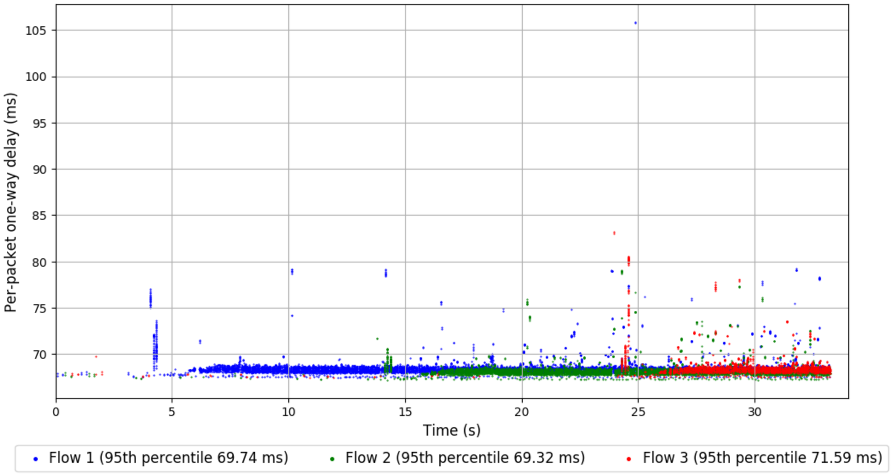




```
Run 10: Statistics of WebRTC media

Start at: 2018-02-05 00:58:36
End at: 2018-02-05 00:59:06
Local clock offset: -4.166 ms
Remote clock offset: -4.188 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 69.713 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 69.738 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 69.316 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 71.594 ms
Loss rate: 0.00%
```

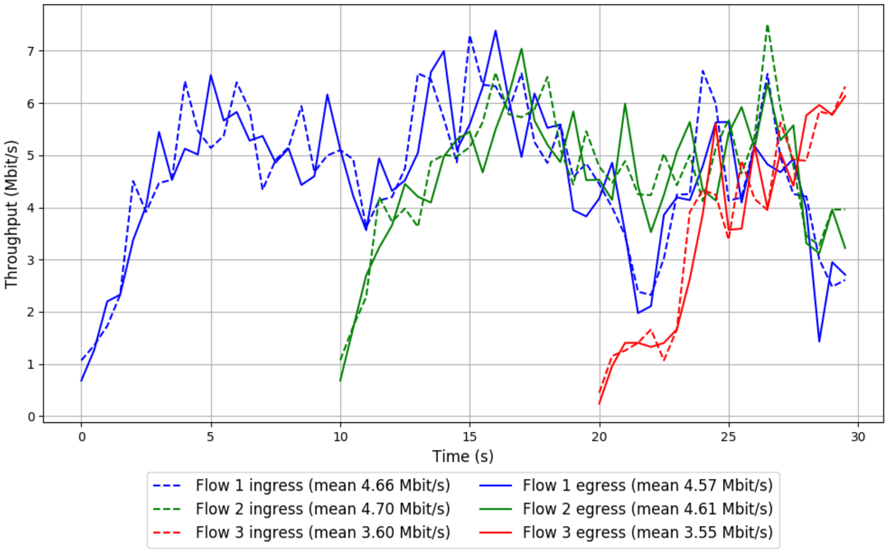
Run 10: Report of WebRTC media — Data Link

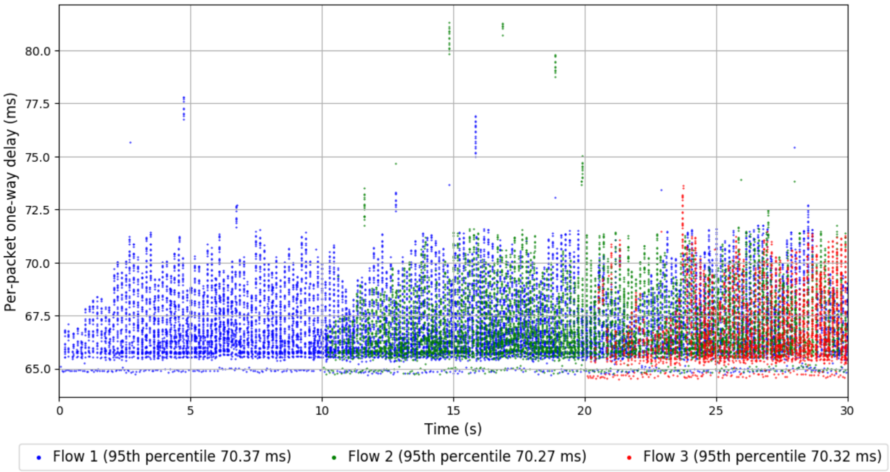




```
Run 1: Statistics of Sprout

Start at: 2018-02-04 21:30:08
End at: 2018-02-04 21:30:38
Local clock offset: -2.252 ms
Remote clock offset: 4.125 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.81 Mbit/s
95th percentile per-packet one-way delay: 70.327 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 70.366 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 70.270 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 70.316 ms
Loss rate: 1.37%
```

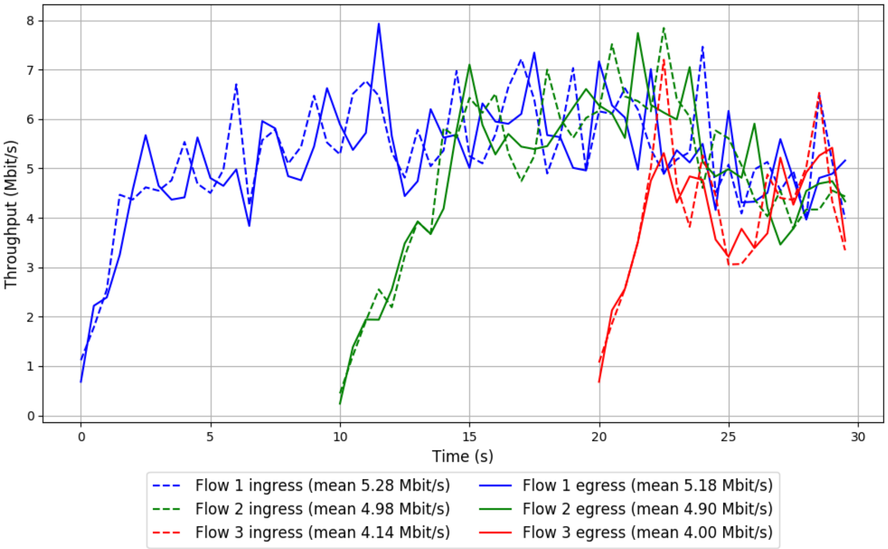
Run 1: Report of Sprout — Data Link

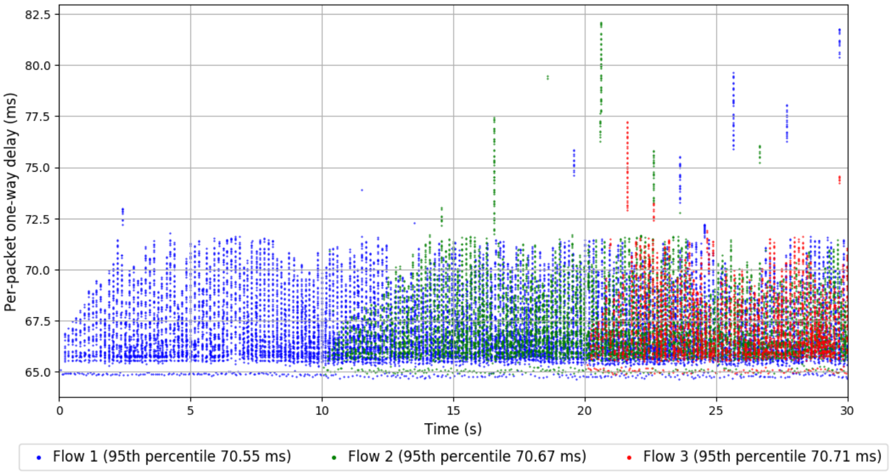




```
Run 2: Statistics of Sprout

Start at: 2018-02-04 21:53:30
End at: 2018-02-04 21:54:00
Local clock offset: -1.989 ms
Remote clock offset: 2.866 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.75 Mbit/s
95th percentile per-packet one-way delay: 70.607 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 70.546 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 4.90 Mbit/s
95th percentile per-packet one-way delay: 70.674 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 70.713 ms
Loss rate: 3.29%
```

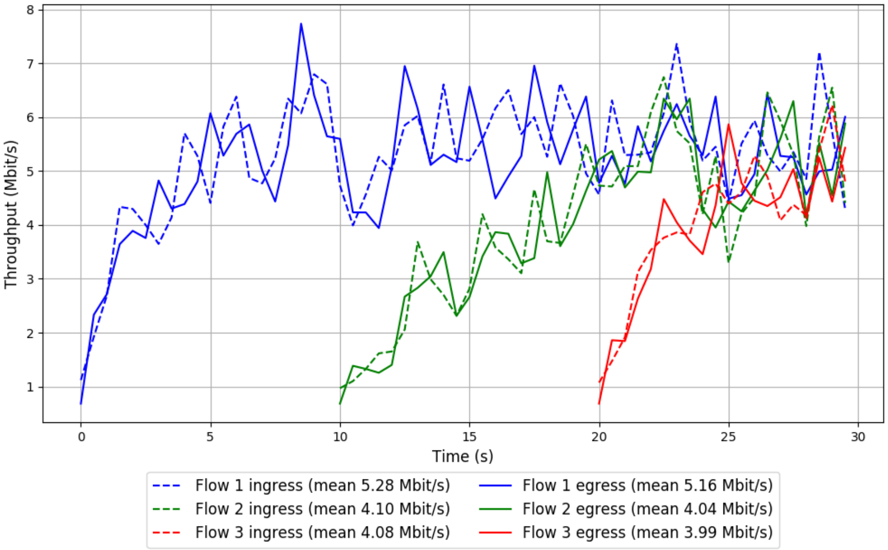
Run 2: Report of Sprout — Data Link

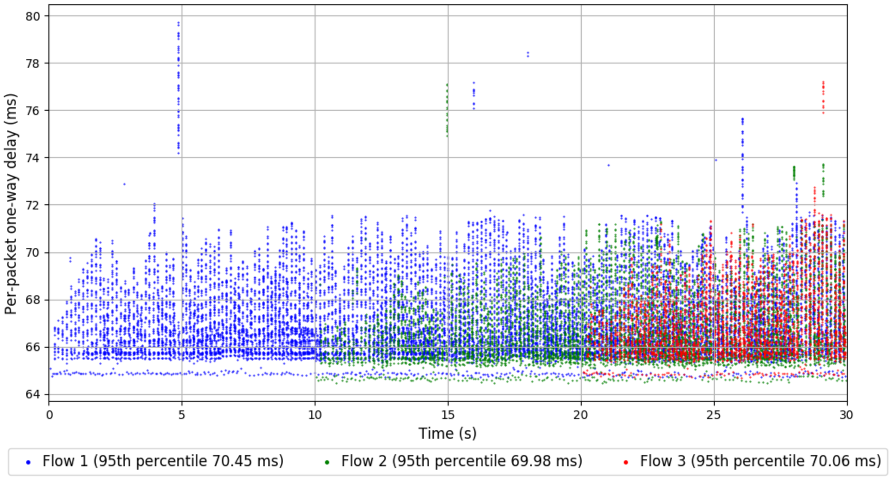




```
Run 3: Statistics of Sprout

Start at: 2018-02-04 22:16:55
End at: 2018-02-04 22:17:25
Local clock offset: -1.565 ms
Remote clock offset: 1.751 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.16 Mbit/s
95th percentile per-packet one-way delay: 70.306 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 70.448 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 69.982 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 70.062 ms
Loss rate: 2.11%
```

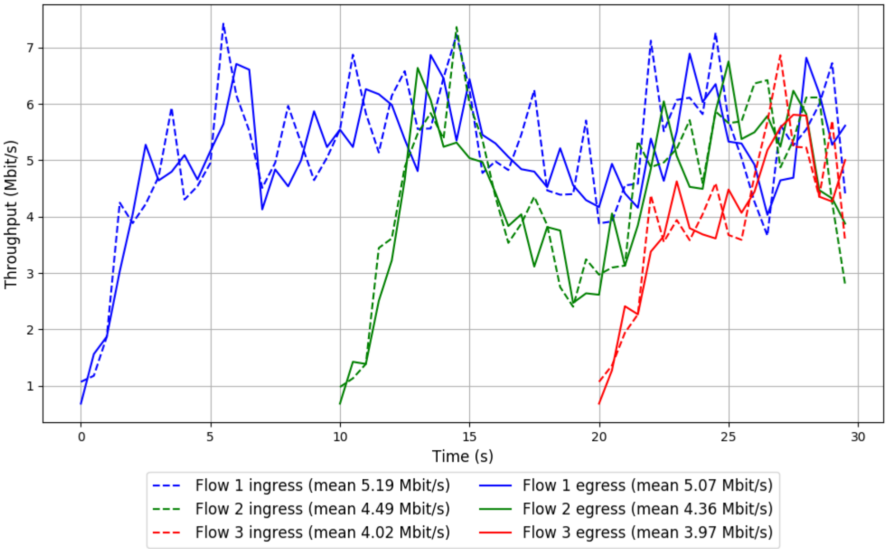
Run 3: Report of Sprout — Data Link

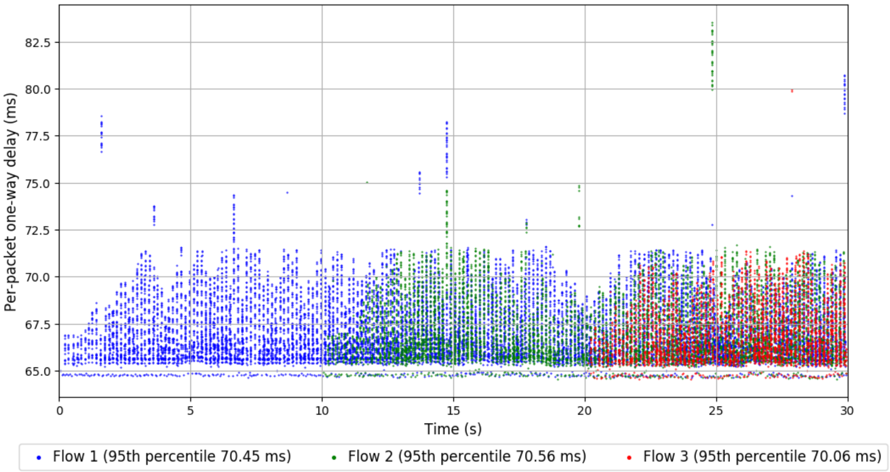




```
Run 4: Statistics of Sprout

Start at: 2018-02-04 22:40:20
End at: 2018-02-04 22:40:50
Local clock offset: -1.337 ms
Remote clock offset: 0.622 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 70.410 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 70.452 ms
Loss rate: 2.17%
-- Flow 2:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 70.557 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 70.060 ms
Loss rate: 1.25%
```

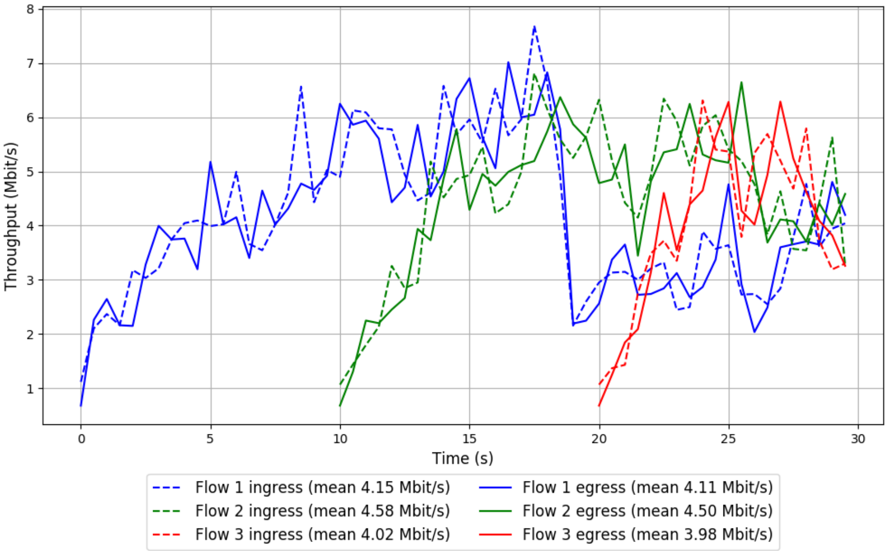
Run 4: Report of Sprout — Data Link

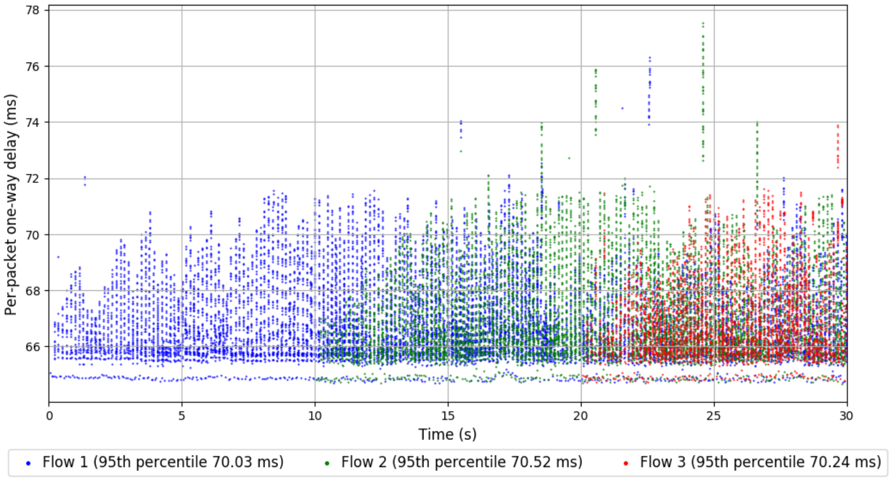




```
Run 5: Statistics of Sprout

Start at: 2018-02-04 23:03:35
End at: 2018-02-04 23:04:05
Local clock offset: -1.336 ms
Remote clock offset: -0.368 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 70.257 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 70.027 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 70.519 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 70.240 ms
Loss rate: 0.89%
```

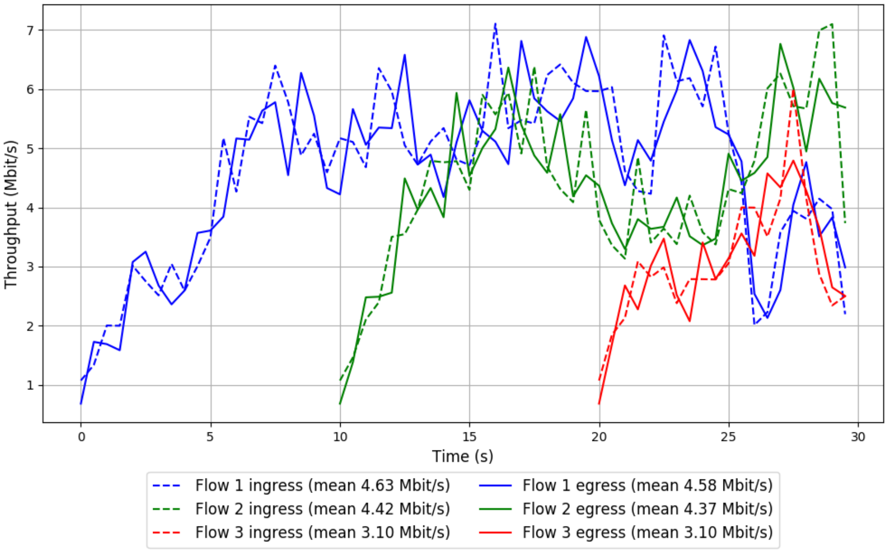
Run 5: Report of Sprout — Data Link

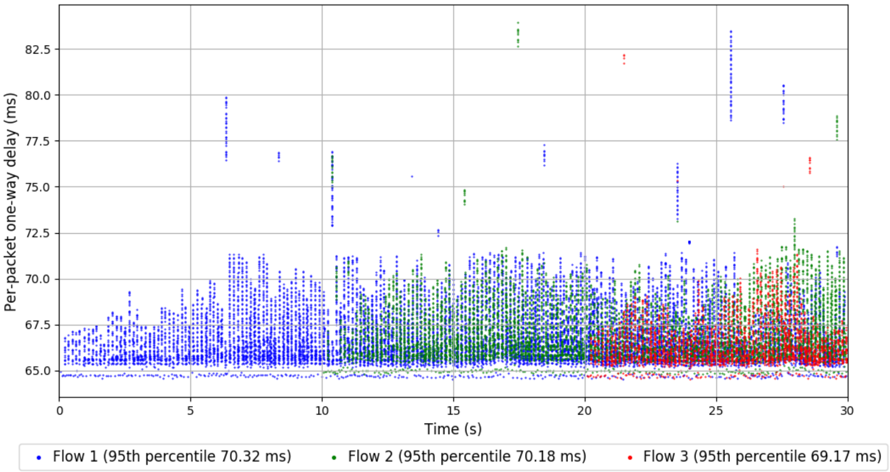




```
Run 6: Statistics of Sprout

Start at: 2018-02-04 23:26:47
End at: 2018-02-04 23:27:17
Local clock offset: -1.373 ms
Remote clock offset: -1.564 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 70.147 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 70.316 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 70.181 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 69.167 ms
Loss rate: 0.00%
```

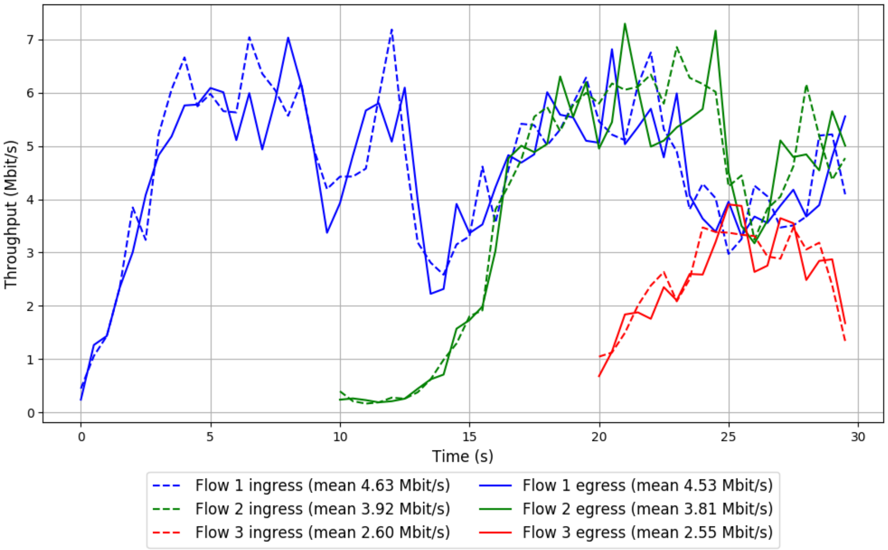
Run 6: Report of Sprout — Data Link

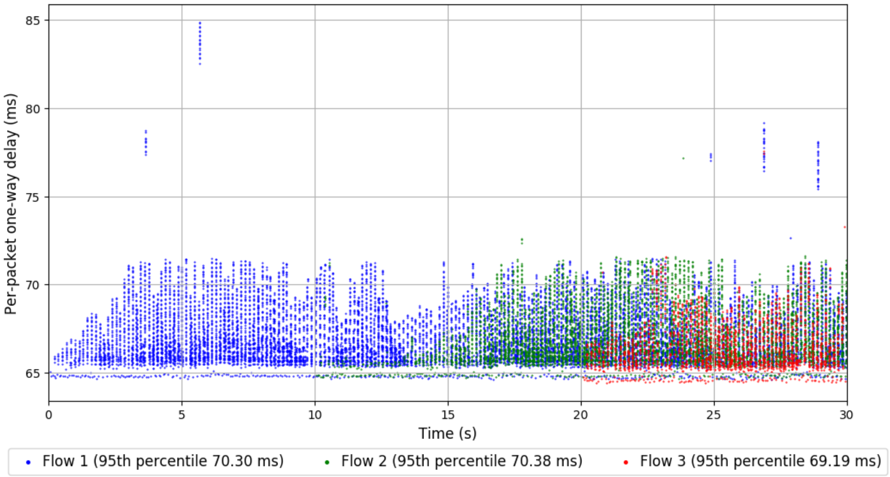




```
Run 7: Statistics of Sprout

Start at: 2018-02-04 23:50:00
End at: 2018-02-04 23:50:30
Local clock offset: -1.205 ms
Remote clock offset: -2.375 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 70.260 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 4.53 Mbit/s
95th percentile per-packet one-way delay: 70.299 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 70.375 ms
Loss rate: 2.93%
-- Flow 3:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 69.188 ms
Loss rate: 1.98%
```

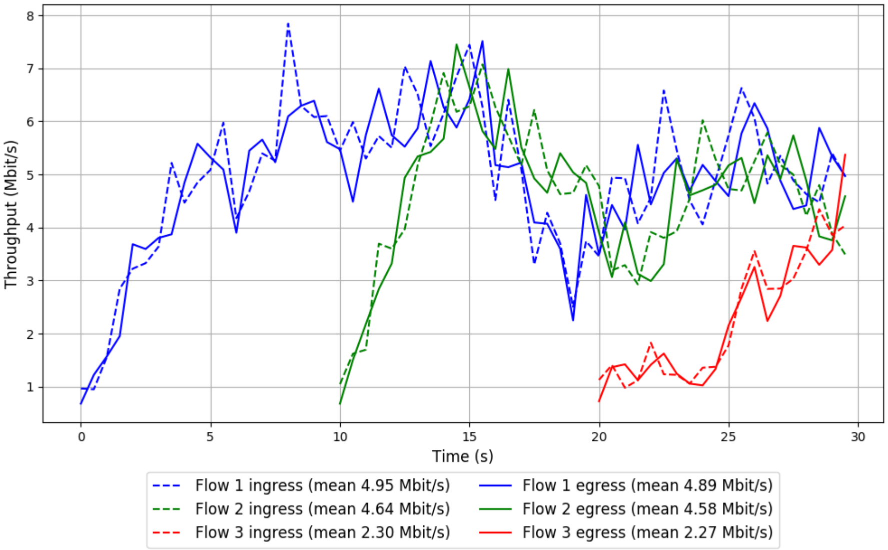
Run 7: Report of Sprout — Data Link

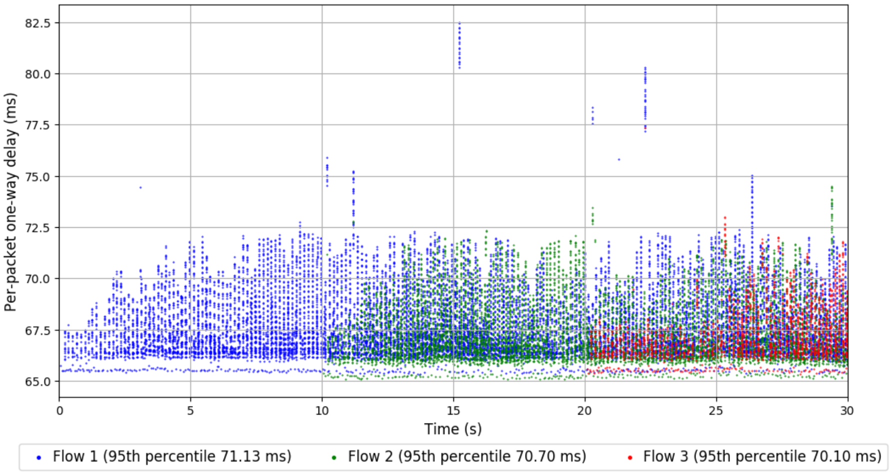




```
Run 8: Statistics of Sprout

Start at: 2018-02-05 00:13:11
End at: 2018-02-05 00:13:41
Local clock offset: -1.894 ms
Remote clock offset: -3.004 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 70.938 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 71.129 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 70.698 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 70.102 ms
Loss rate: 1.15%
```

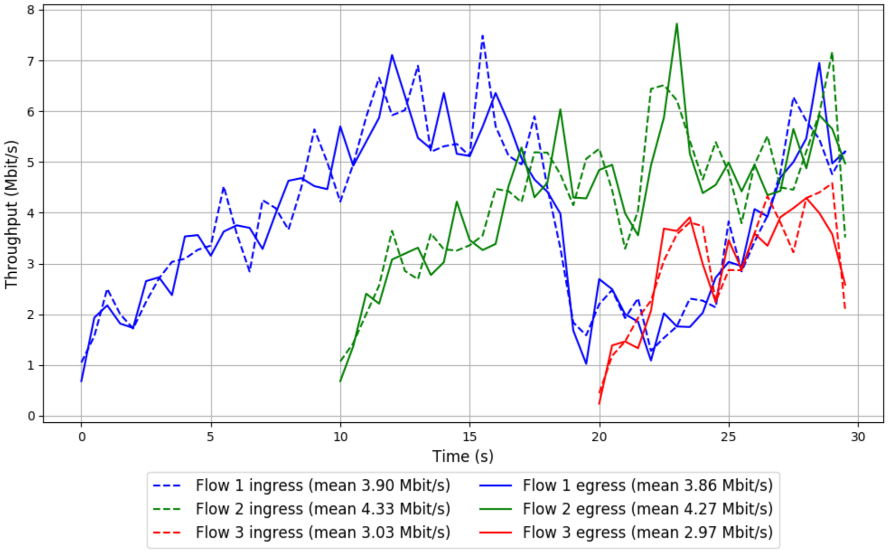
Run 8: Report of Sprout — Data Link

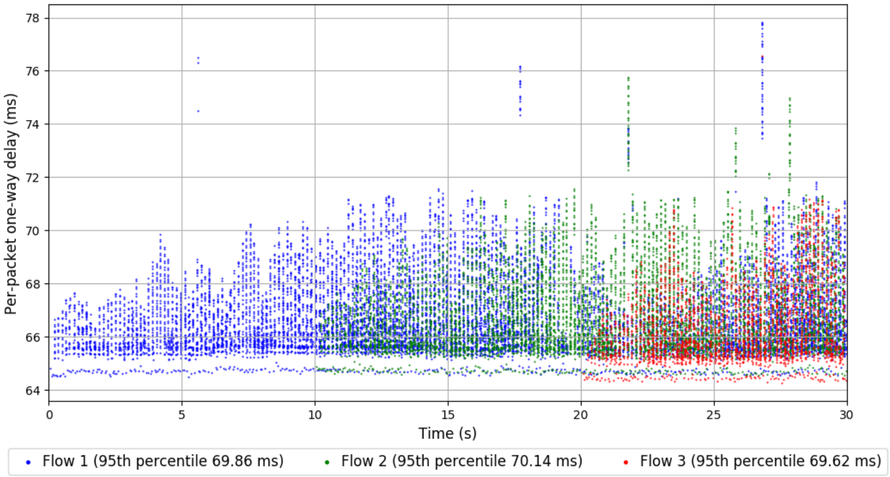




```
Run 9: Statistics of Sprout

Start at: 2018-02-05 00:36:25
End at: 2018-02-05 00:36:55
Local clock offset: -1.105 ms
Remote clock offset: -3.81 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.68 Mbit/s
95th percentile per-packet one-way delay: 69.951 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 69.856 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 70.142 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 69.616 ms
Loss rate: 1.76%
```

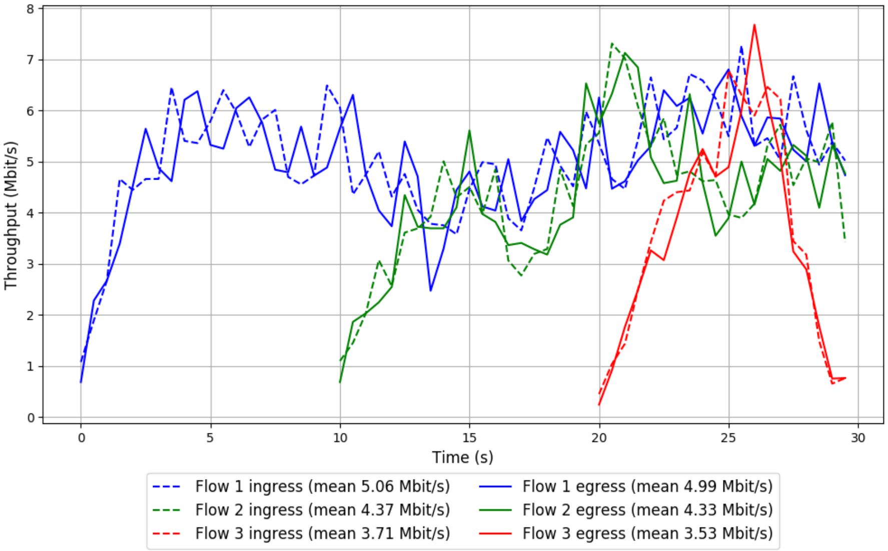
Run 9: Report of Sprout — Data Link

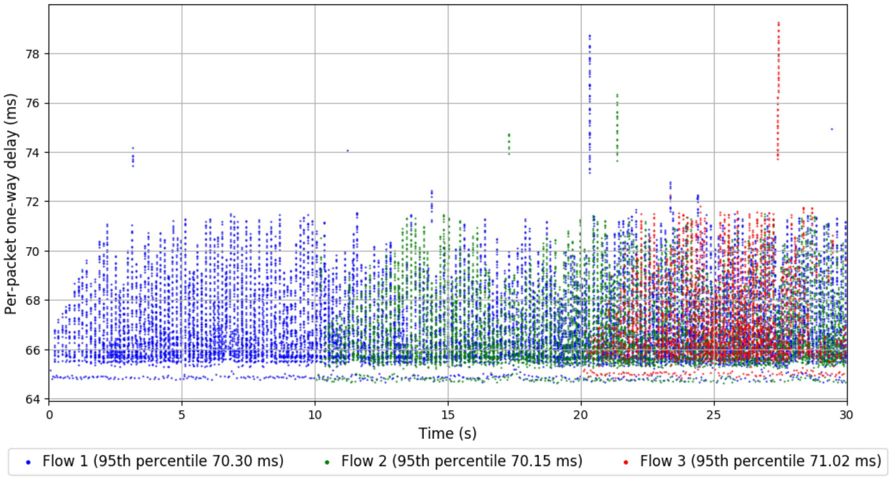




```
Run 10: Statistics of Sprout

Start at: 2018-02-05 00:59:49
End at: 2018-02-05 01:00:19
Local clock offset: -1.58 ms
Remote clock offset: -4.212 ms

# Below is generated by plot.py at 2018-02-05 01:42:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.04 Mbit/s
95th percentile per-packet one-way delay: 70.350 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 70.297 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 4.33 Mbit/s
95th percentile per-packet one-way delay: 70.146 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 3.53 Mbit/s
95th percentile per-packet one-way delay: 71.019 ms
Loss rate: 4.62%
```

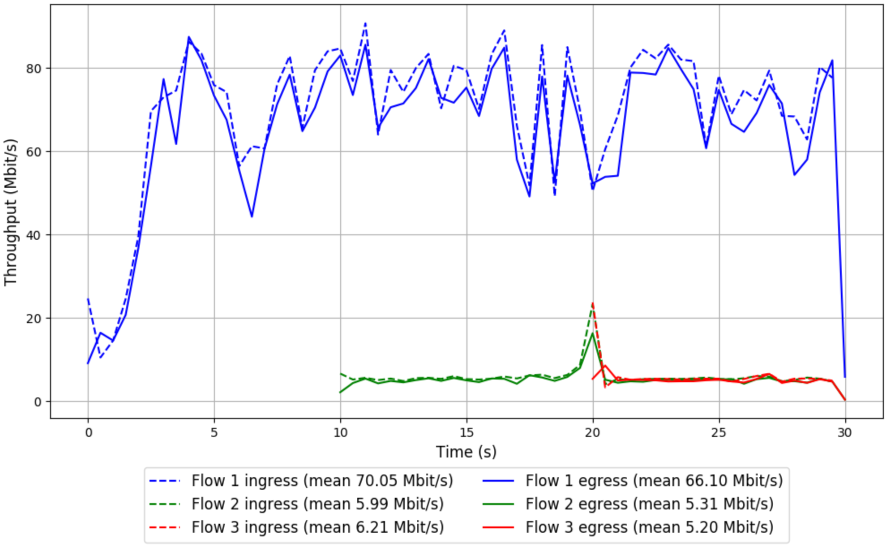
Run 10: Report of Sprout — Data Link

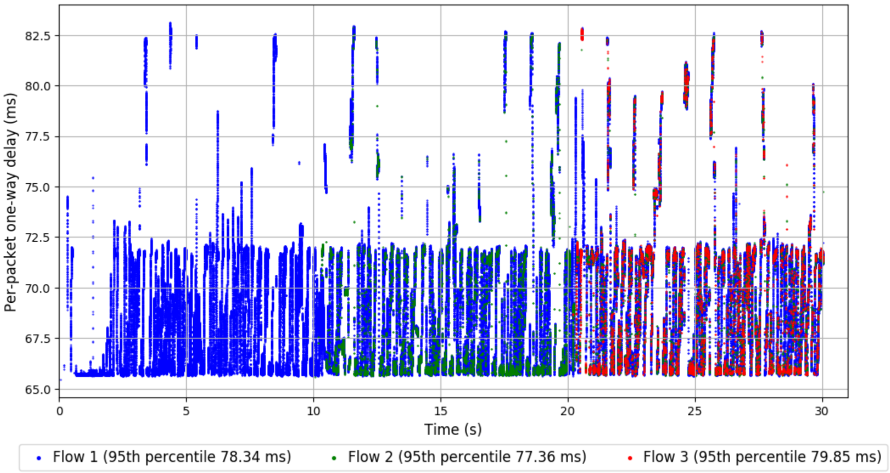




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-04 21:19:46
End at: 2018-02-04 21:20:16
Local clock offset: -2.902 ms
Remote clock offset: 4.759 ms

# Below is generated by plot.py at 2018-02-05 01:43:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.36 Mbit/s
95th percentile per-packet one-way delay: 78.382 ms
Loss rate: 6.19%
-- Flow 1:
Average throughput: 66.10 Mbit/s
95th percentile per-packet one-way delay: 78.340 ms
Loss rate: 5.61%
-- Flow 2:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 77.360 ms
Loss rate: 11.22%
-- Flow 3:
Average throughput: 5.20 Mbit/s
95th percentile per-packet one-way delay: 79.847 ms
Loss rate: 16.20%
```

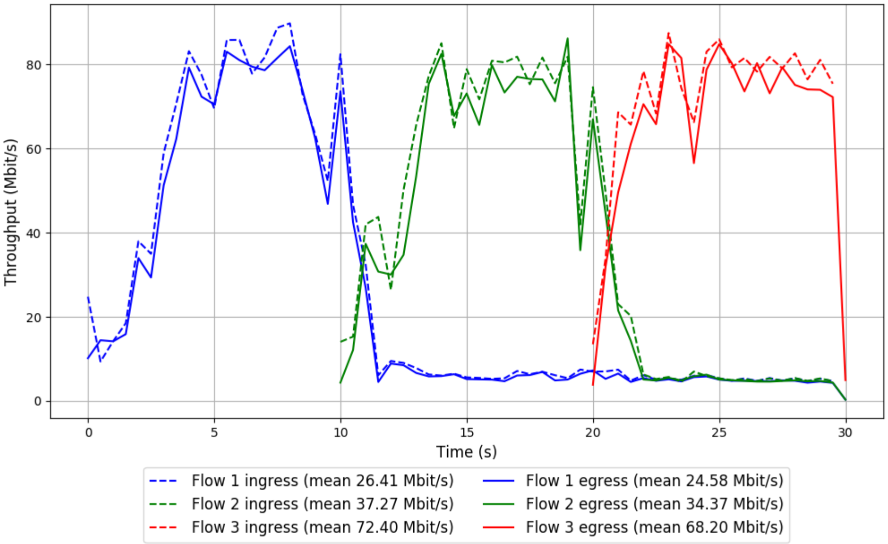
Run 1: Report of TaoVA-100x — Data Link

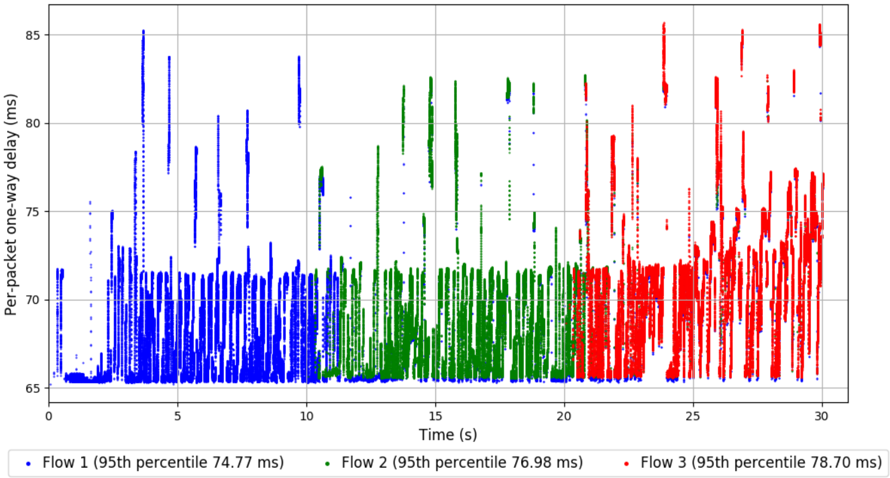




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-04 21:43:09
End at: 2018-02-04 21:43:39
Local clock offset: -2.251 ms
Remote clock offset: 3.387 ms

# Below is generated by plot.py at 2018-02-05 01:43:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.10 Mbit/s
95th percentile per-packet one-way delay: 77.016 ms
Loss rate: 6.89%
-- Flow 1:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 74.770 ms
Loss rate: 6.95%
-- Flow 2:
Average throughput: 34.37 Mbit/s
95th percentile per-packet one-way delay: 76.978 ms
Loss rate: 7.80%
-- Flow 3:
Average throughput: 68.20 Mbit/s
95th percentile per-packet one-way delay: 78.702 ms
Loss rate: 5.88%
```

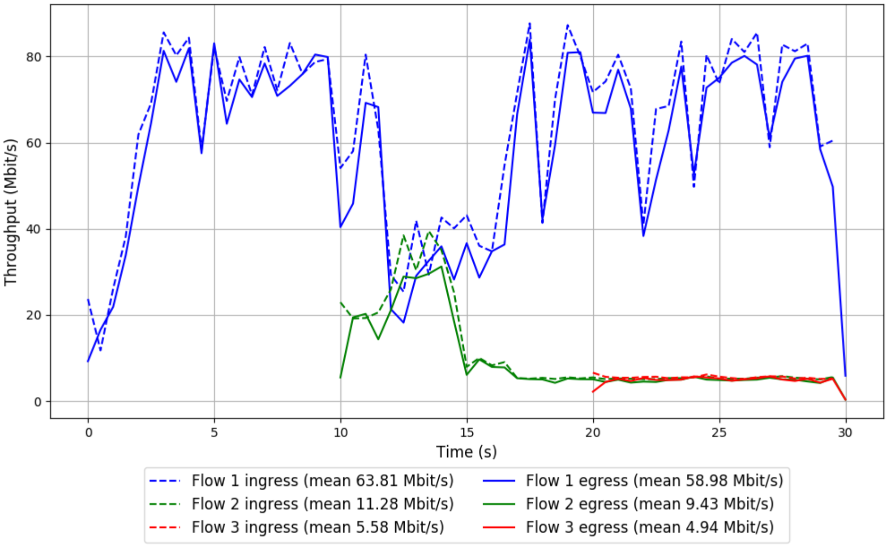
Run 2: Report of TaoVA-100x — Data Link

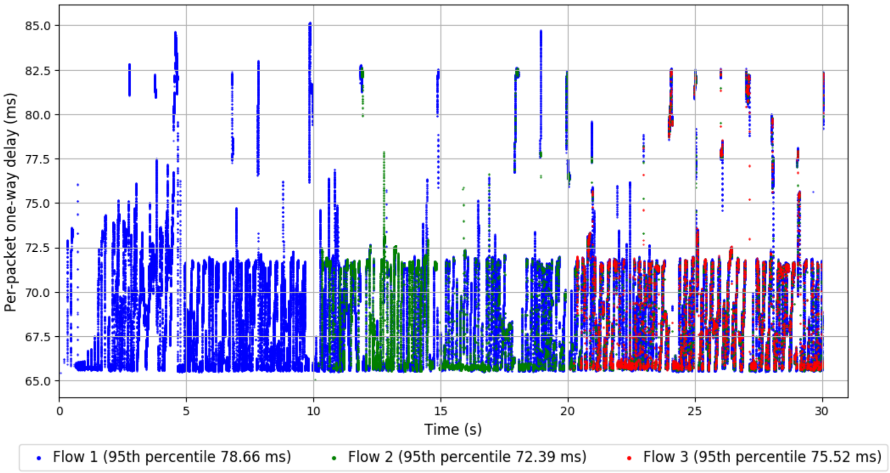




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-04 22:06:34
End at: 2018-02-04 22:07:04
Local clock offset: -1.925 ms
Remote clock offset: 2.221 ms

# Below is generated by plot.py at 2018-02-05 01:43:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.91 Mbit/s
95th percentile per-packet one-way delay: 77.832 ms
Loss rate: 8.51%
-- Flow 1:
Average throughput: 58.98 Mbit/s
95th percentile per-packet one-way delay: 78.660 ms
Loss rate: 7.51%
-- Flow 2:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 72.388 ms
Loss rate: 16.35%
-- Flow 3:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 75.524 ms
Loss rate: 11.17%
```

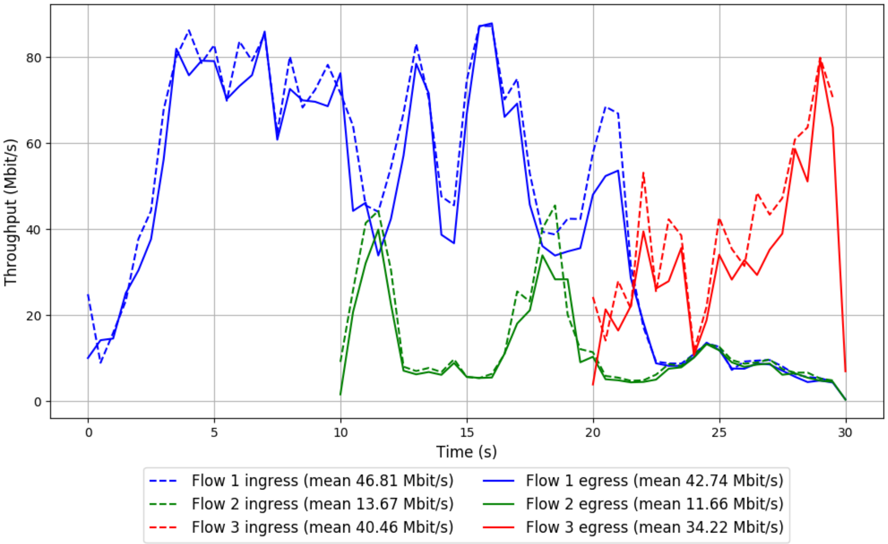
Run 3: Report of TaoVA-100x — Data Link

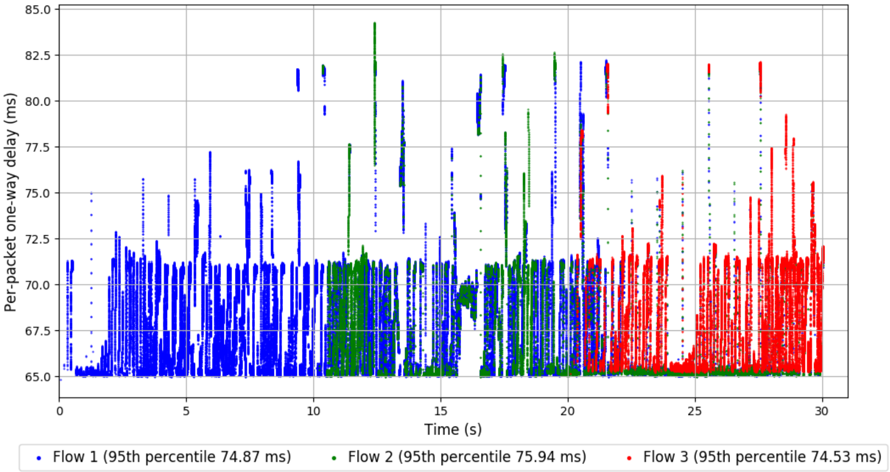




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-04 22:29:59
End at: 2018-02-04 22:30:29
Local clock offset: -1.48 ms
Remote clock offset: 1.039 ms

# Below is generated by plot.py at 2018-02-05 01:43:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.86 Mbit/s
95th percentile per-packet one-way delay: 75.009 ms
Loss rate: 10.76%
-- Flow 1:
Average throughput: 42.74 Mbit/s
95th percentile per-packet one-way delay: 74.867 ms
Loss rate: 8.68%
-- Flow 2:
Average throughput: 11.66 Mbit/s
95th percentile per-packet one-way delay: 75.936 ms
Loss rate: 14.71%
-- Flow 3:
Average throughput: 34.22 Mbit/s
95th percentile per-packet one-way delay: 74.534 ms
Loss rate: 15.36%
```

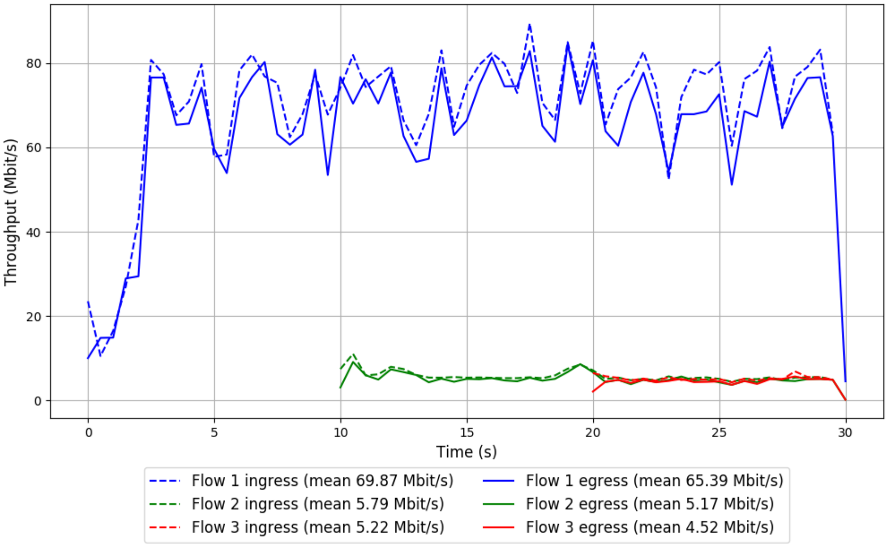
Run 4: Report of TaoVA-100x — Data Link

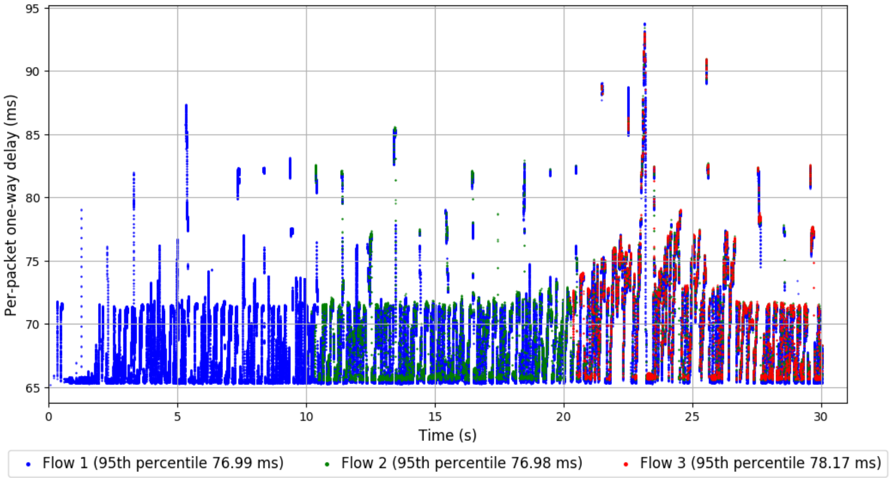




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-02-04 22:53:15
End at: 2018-02-04 22:53:45
Local clock offset: -1.685 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2018-02-05 01:43:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.33 Mbit/s
95th percentile per-packet one-way delay: 77.009 ms
Loss rate: 6.79%
-- Flow 1:
Average throughput: 65.39 Mbit/s
95th percentile per-packet one-way delay: 76.987 ms
Loss rate: 6.41%
-- Flow 2:
Average throughput: 5.17 Mbit/s
95th percentile per-packet one-way delay: 76.978 ms
Loss rate: 10.74%
-- Flow 3:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 78.172 ms
Loss rate: 13.36%
```

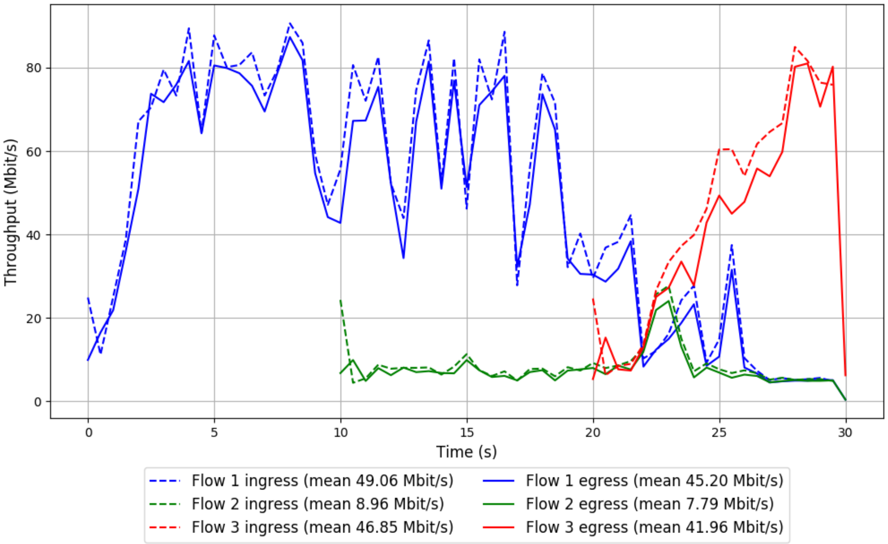
Run 5: Report of TaoVA-100x — Data Link

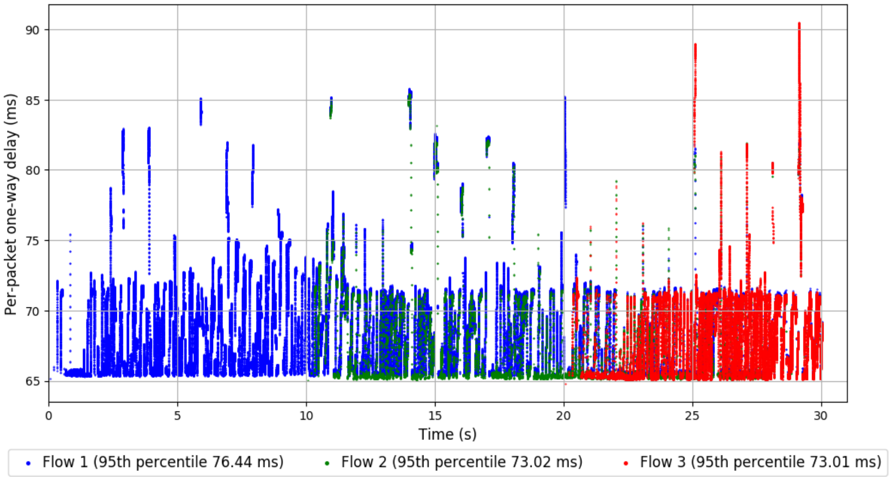




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-02-04 23:16:28
End at: 2018-02-04 23:16:58
Local clock offset: -1.392 ms
Remote clock offset: -1.109 ms

# Below is generated by plot.py at 2018-02-05 01:43:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.32 Mbit/s
95th percentile per-packet one-way delay: 75.478 ms
Loss rate: 8.85%
-- Flow 1:
Average throughput: 45.20 Mbit/s
95th percentile per-packet one-way delay: 76.435 ms
Loss rate: 7.86%
-- Flow 2:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 73.022 ms
Loss rate: 12.96%
-- Flow 3:
Average throughput: 41.96 Mbit/s
95th percentile per-packet one-way delay: 73.012 ms
Loss rate: 10.39%
```

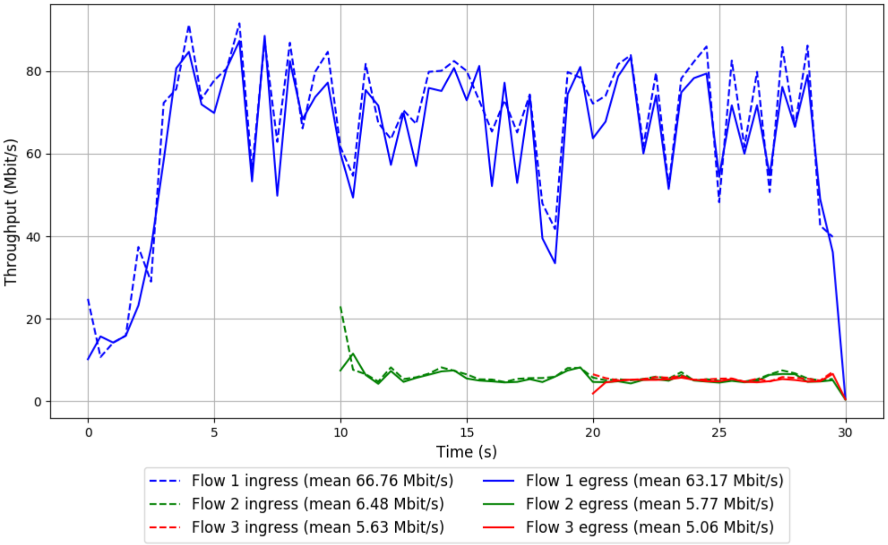
Run 6: Report of TaoVA-100x — Data Link

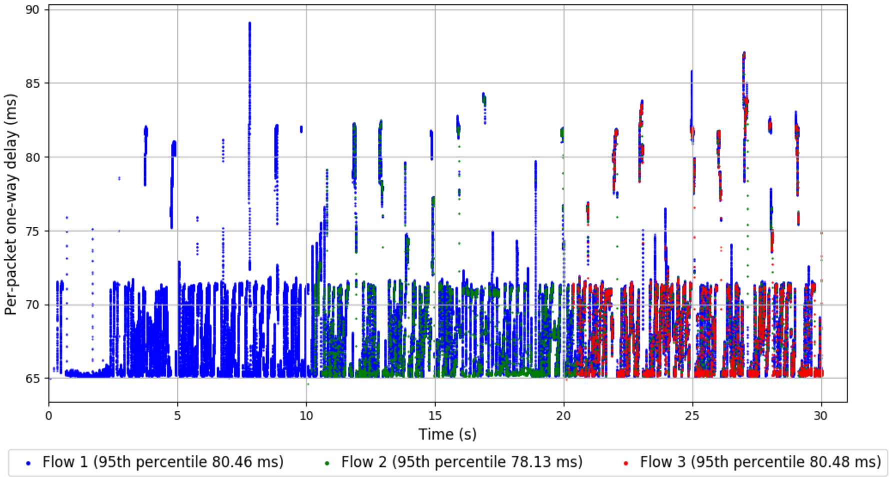




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-04 23:39:41
End at: 2018-02-04 23:40:11
Local clock offset: -1.386 ms
Remote clock offset: -2.17 ms

# Below is generated by plot.py at 2018-02-05 01:43:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.69 Mbit/s
95th percentile per-packet one-way delay: 80.393 ms
Loss rate: 5.83%
-- Flow 1:
Average throughput: 63.17 Mbit/s
95th percentile per-packet one-way delay: 80.458 ms
Loss rate: 5.37%
-- Flow 2:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 78.133 ms
Loss rate: 10.96%
-- Flow 3:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 80.481 ms
Loss rate: 10.14%
```

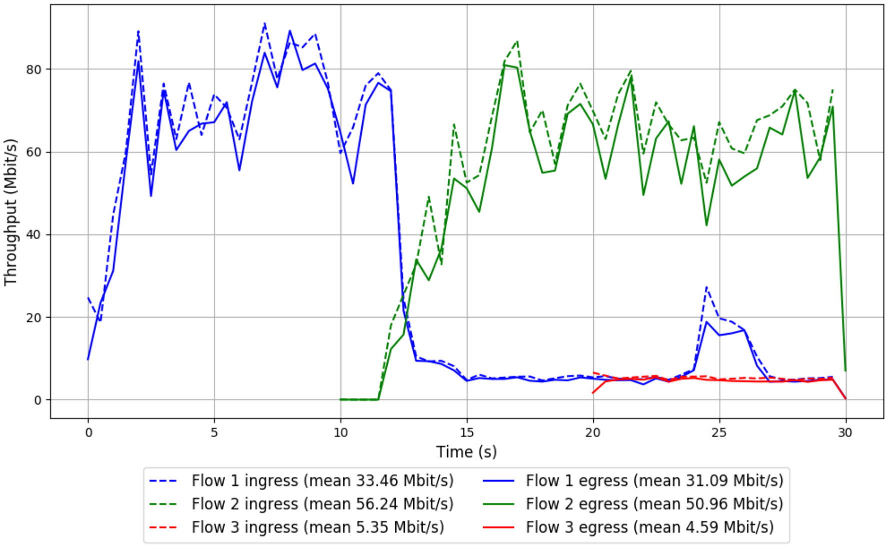
Run 7: Report of TaoVA-100x — Data Link

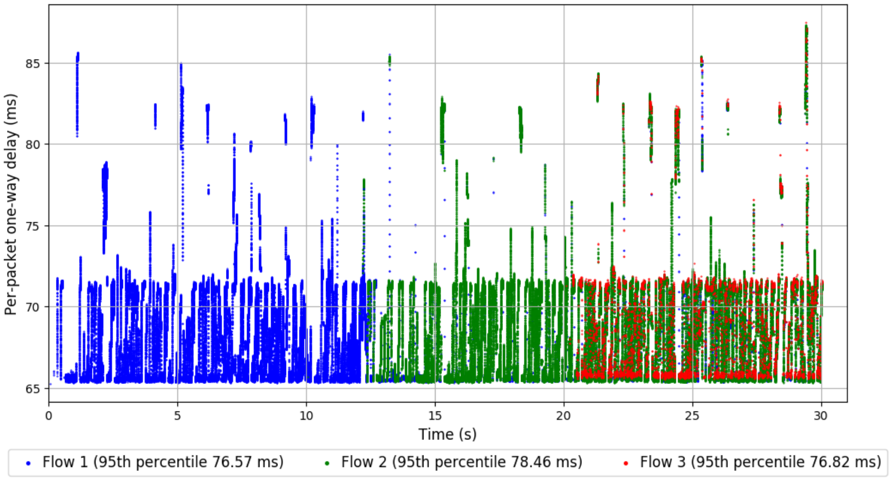




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-02-05 00:02:53
End at: 2018-02-05 00:03:23
Local clock offset: -1.536 ms
Remote clock offset: -2.748 ms

# Below is generated by plot.py at 2018-02-05 01:43:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.55 Mbit/s
95th percentile per-packet one-way delay: 77.293 ms
Loss rate: 8.42%
-- Flow 1:
Average throughput: 31.09 Mbit/s
95th percentile per-packet one-way delay: 76.566 ms
Loss rate: 7.07%
-- Flow 2:
Average throughput: 50.96 Mbit/s
95th percentile per-packet one-way delay: 78.456 ms
Loss rate: 9.36%
-- Flow 3:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 76.818 ms
Loss rate: 14.22%
```

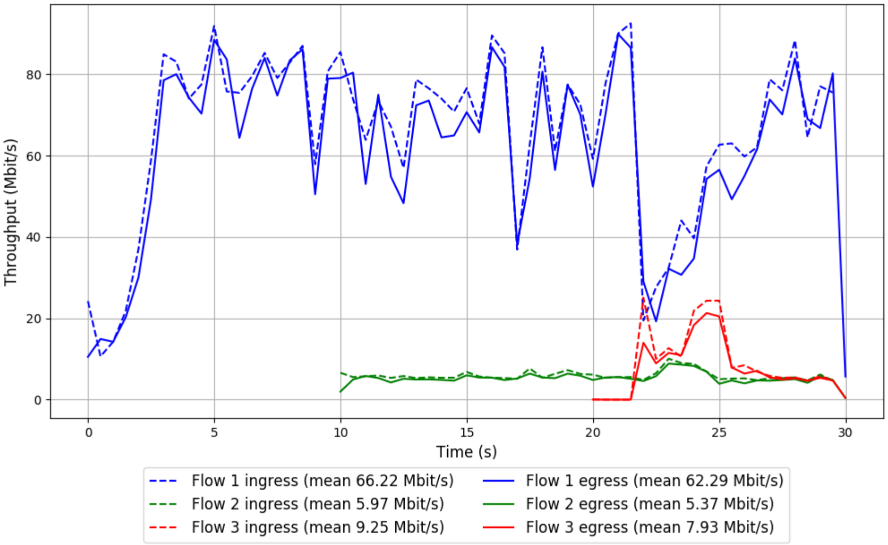
Run 8: Report of TaoVA-100x — Data Link

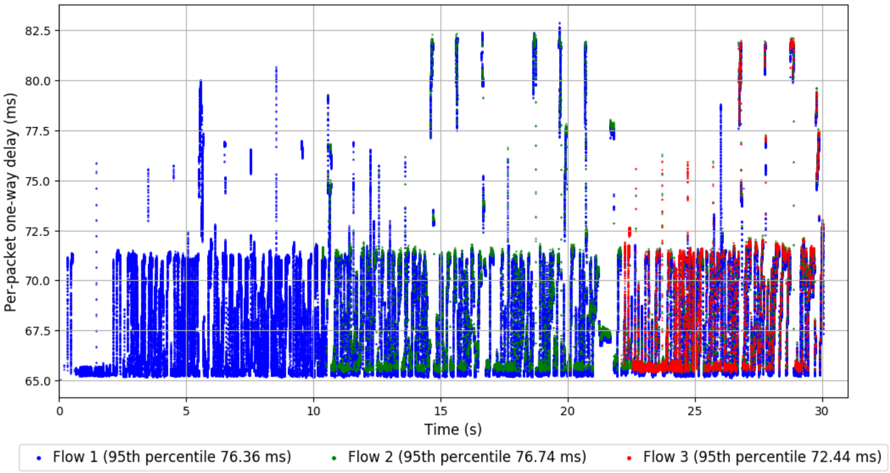




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-05 00:26:05
End at: 2018-02-05 00:26:35
Local clock offset: -1.445 ms
Remote clock offset: -3.482 ms

# Below is generated by plot.py at 2018-02-05 01:45:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.50 Mbit/s
95th percentile per-packet one-way delay: 76.275 ms
Loss rate: 6.50%
-- Flow 1:
Average throughput: 62.29 Mbit/s
95th percentile per-packet one-way delay: 76.361 ms
Loss rate: 5.92%
-- Flow 2:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 76.741 ms
Loss rate: 10.15%
-- Flow 3:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 72.444 ms
Loss rate: 14.32%
```

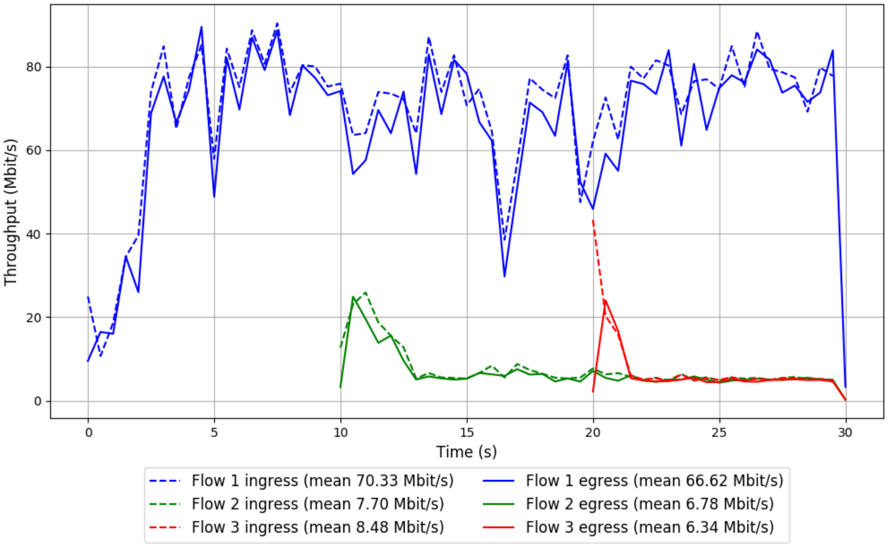
Run 9: Report of TaoVA-100x — Data Link

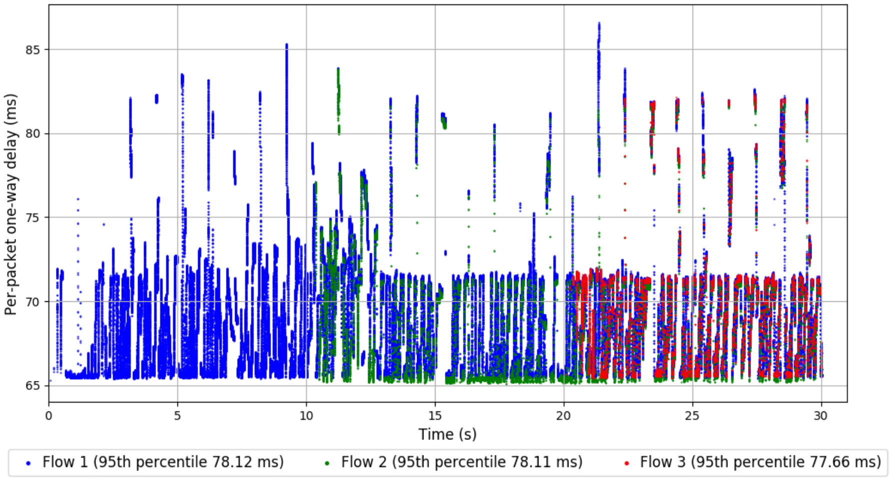




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-05 00:49:28
End at: 2018-02-05 00:49:58
Local clock offset: -1.501 ms
Remote clock offset: -4.275 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.23 Mbit/s
95th percentile per-packet one-way delay: 78.112 ms
Loss rate: 6.43%
-- Flow 1:
Average throughput: 66.62 Mbit/s
95th percentile per-packet one-way delay: 78.120 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 78.114 ms
Loss rate: 11.94%
-- Flow 3:
Average throughput: 6.34 Mbit/s
95th percentile per-packet one-way delay: 77.662 ms
Loss rate: 25.24%
```

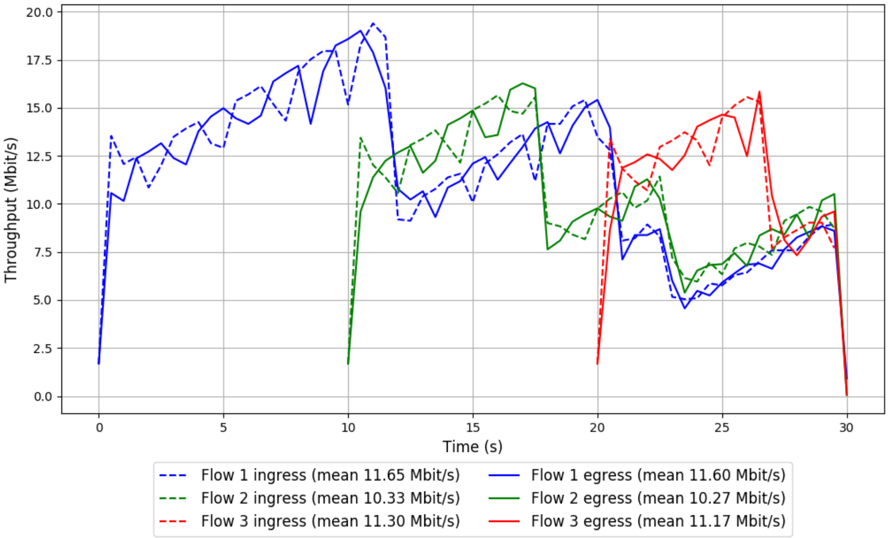
Run 10: Report of TaoVA-100x — Data Link

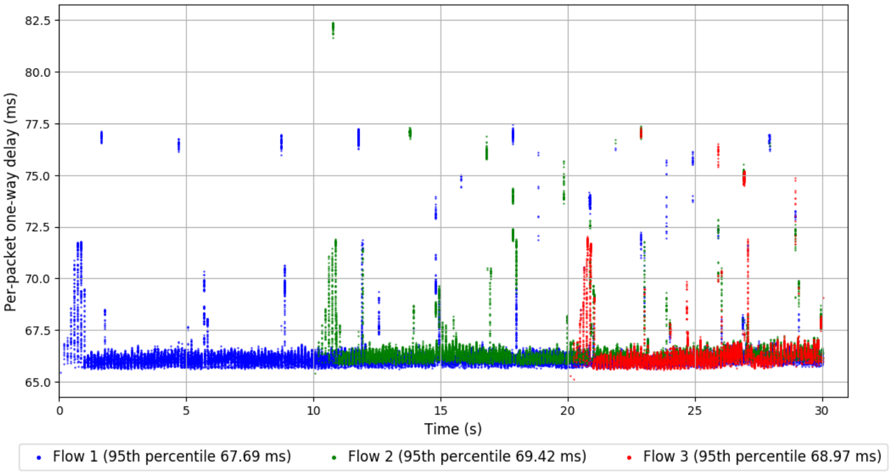




```
Run 1: Statistics of TCP Vegas

Start at: 2018-02-04 21:17:03
End at: 2018-02-04 21:17:33
Local clock offset: -2.911 ms
Remote clock offset: 4.913 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.14 Mbit/s
95th percentile per-packet one-way delay: 68.502 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 11.60 Mbit/s
95th percentile per-packet one-way delay: 67.686 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 69.416 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 11.17 Mbit/s
95th percentile per-packet one-way delay: 68.972 ms
Loss rate: 1.07%
```

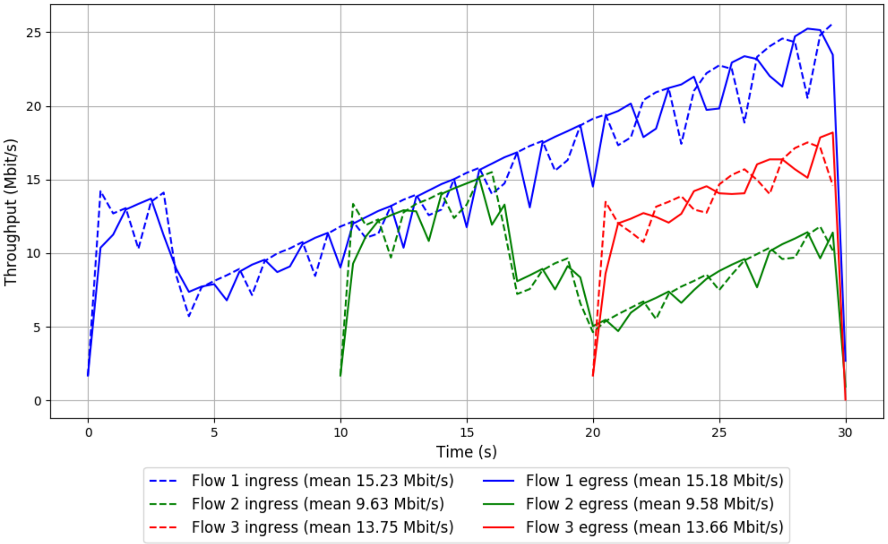
Run 1: Report of TCP Vegas — Data Link

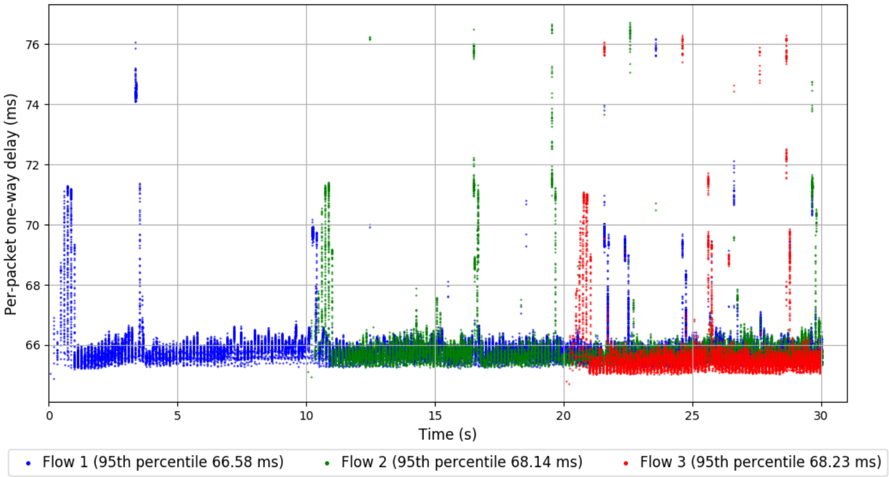




```
Run 2: Statistics of TCP Vegas

Start at: 2018-02-04 21:40:27
End at: 2018-02-04 21:40:57
Local clock offset: -1.967 ms
Remote clock offset: 3.547 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.08 Mbit/s
95th percentile per-packet one-way delay: 66.939 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 15.18 Mbit/s
95th percentile per-packet one-way delay: 66.583 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 68.145 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 13.66 Mbit/s
95th percentile per-packet one-way delay: 68.230 ms
Loss rate: 0.69%
```

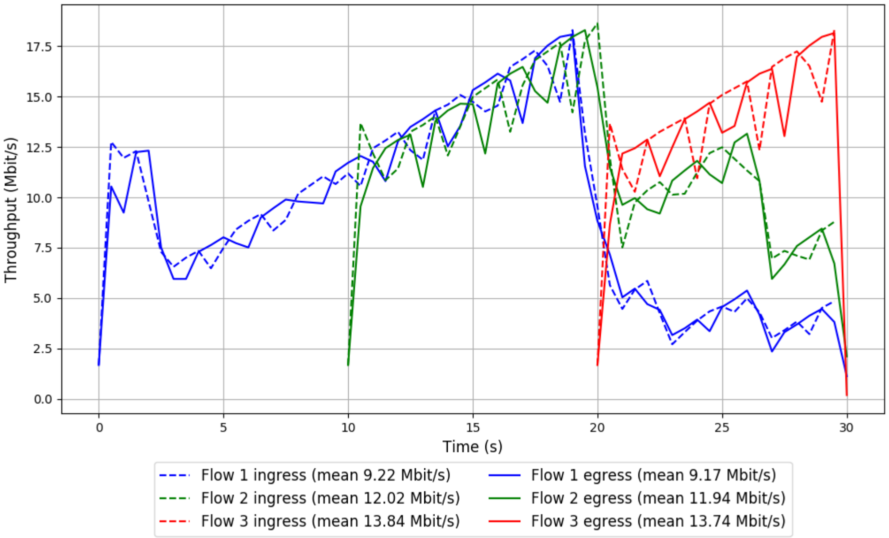
Run 2: Report of TCP Vegas — Data Link

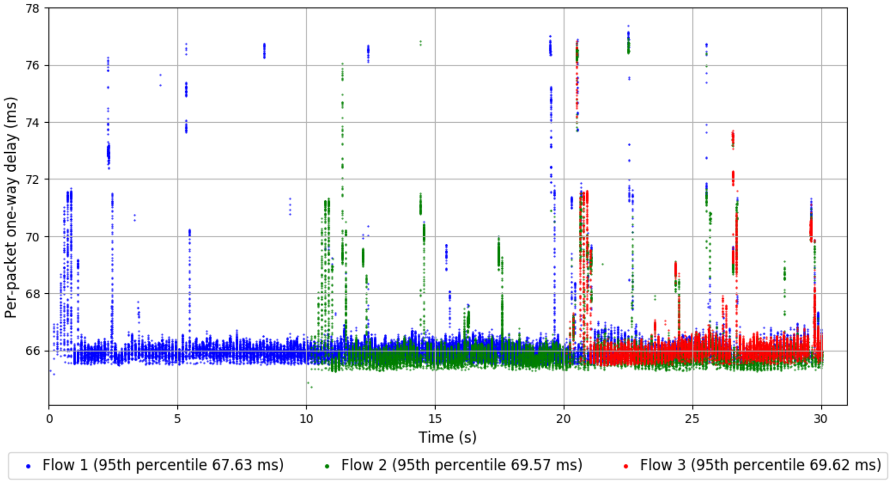




```
Run 3: Statistics of TCP Vegas

Start at: 2018-02-04 22:03:51
End at: 2018-02-04 22:04:21
Local clock offset: -1.84 ms
Remote clock offset: 2.409 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.66 Mbit/s
95th percentile per-packet one-way delay: 69.326 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 67.628 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 69.574 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 13.74 Mbit/s
95th percentile per-packet one-way delay: 69.620 ms
Loss rate: 0.72%
```

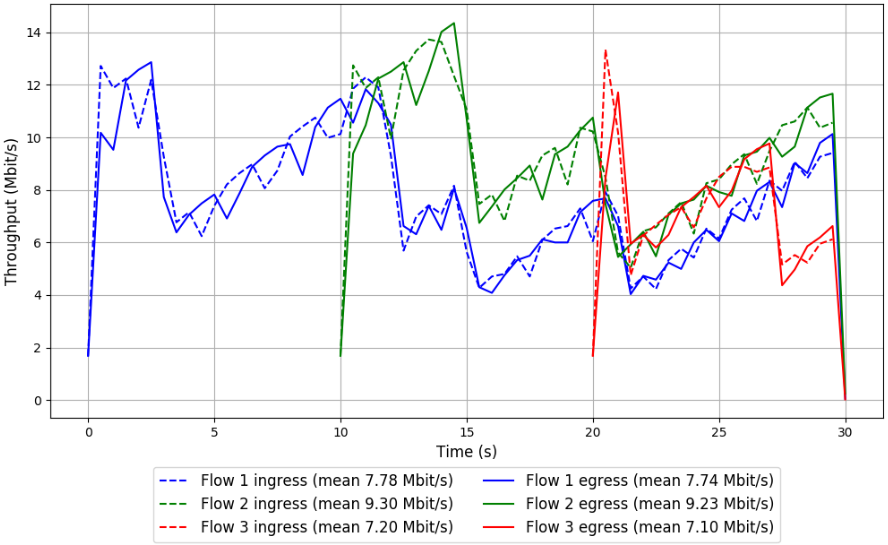
Run 3: Report of TCP Vegas — Data Link

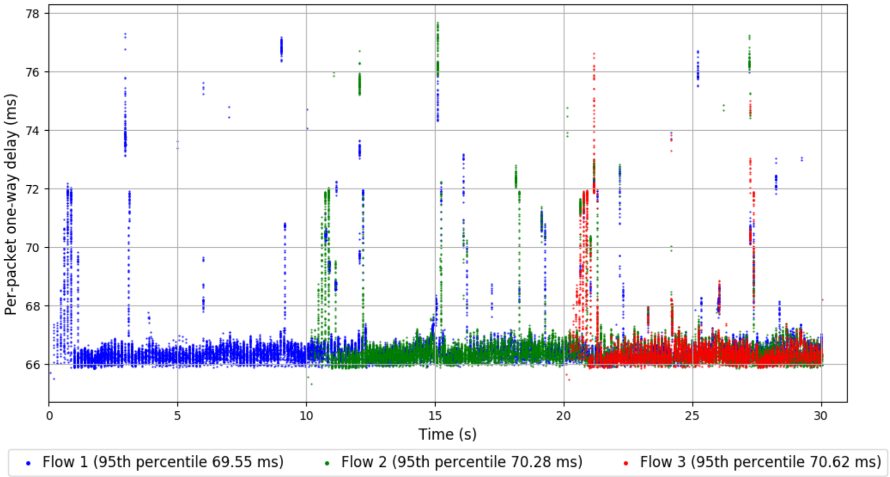




```
Run 4: Statistics of TCP Vegas

Start at: 2018-02-04 22:27:18
End at: 2018-02-04 22:27:48
Local clock offset: -2.073 ms
Remote clock offset: 1.207 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.23 Mbit/s
95th percentile per-packet one-way delay: 70.095 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 69.548 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 70.283 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 7.10 Mbit/s
95th percentile per-packet one-way delay: 70.617 ms
Loss rate: 1.46%
```

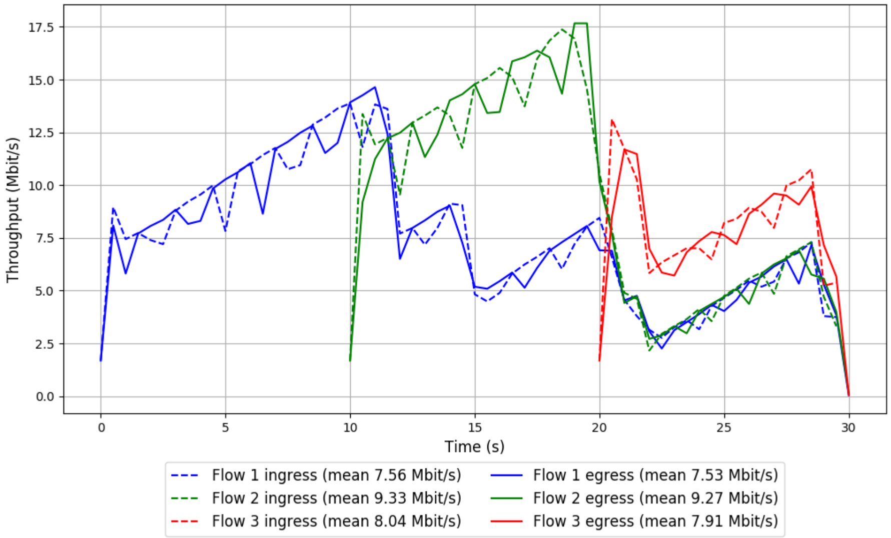
Run 4: Report of TCP Vegas — Data Link

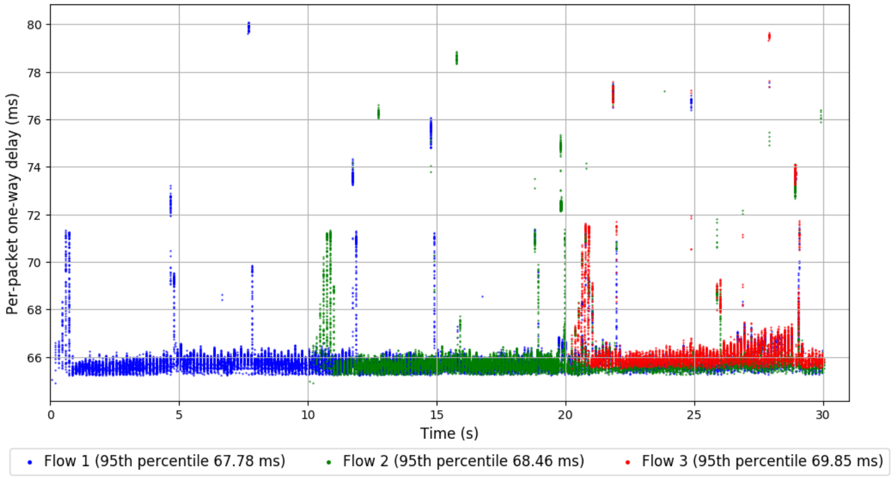




```
Run 5: Statistics of TCP Vegas

Start at: 2018-02-04 22:50:39
End at: 2018-02-04 22:51:09
Local clock offset: -1.589 ms
Remote clock offset: 0.179 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.32 Mbit/s
95th percentile per-packet one-way delay: 68.533 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 67.779 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 68.463 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 69.850 ms
Loss rate: 1.62%
```

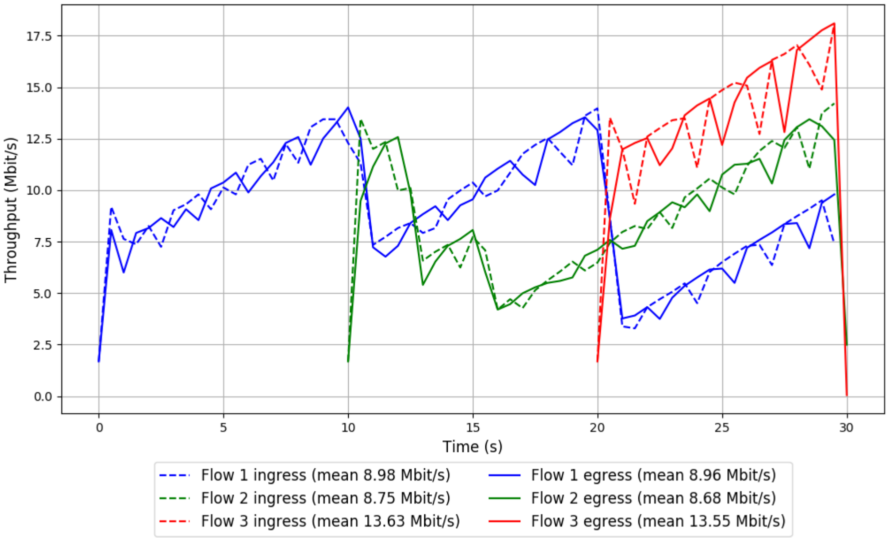
Run 5: Report of TCP Vegas — Data Link

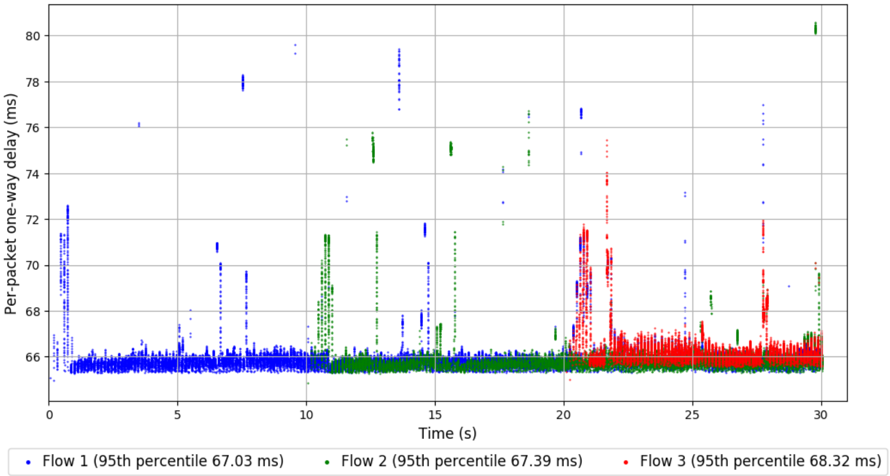




```
Run 6: Statistics of TCP Vegas

Start at: 2018-02-04 23:13:55
End at: 2018-02-04 23:14:25
Local clock offset: -1.634 ms
Remote clock offset: -0.974 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.22 Mbit/s
95th percentile per-packet one-way delay: 67.661 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 67.032 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 67.395 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 13.55 Mbit/s
95th percentile per-packet one-way delay: 68.320 ms
Loss rate: 0.72%
```

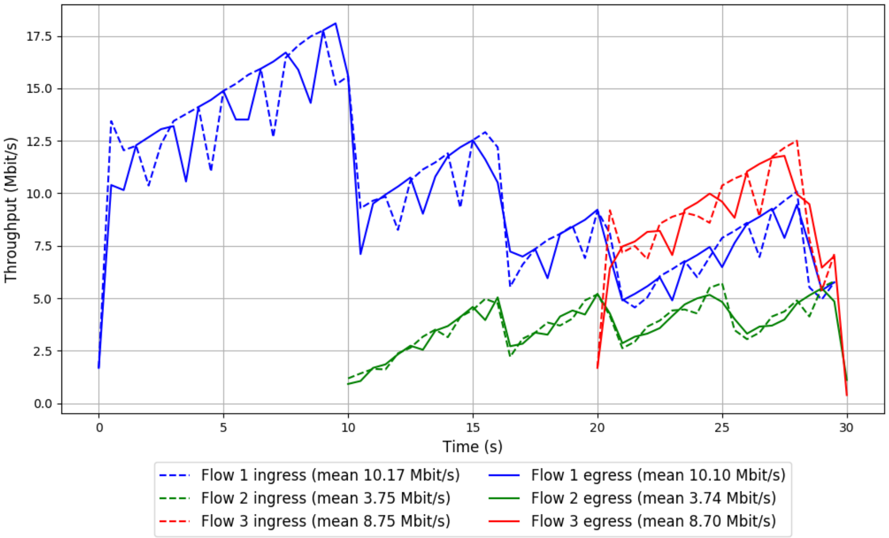
Run 6: Report of TCP Vegas — Data Link

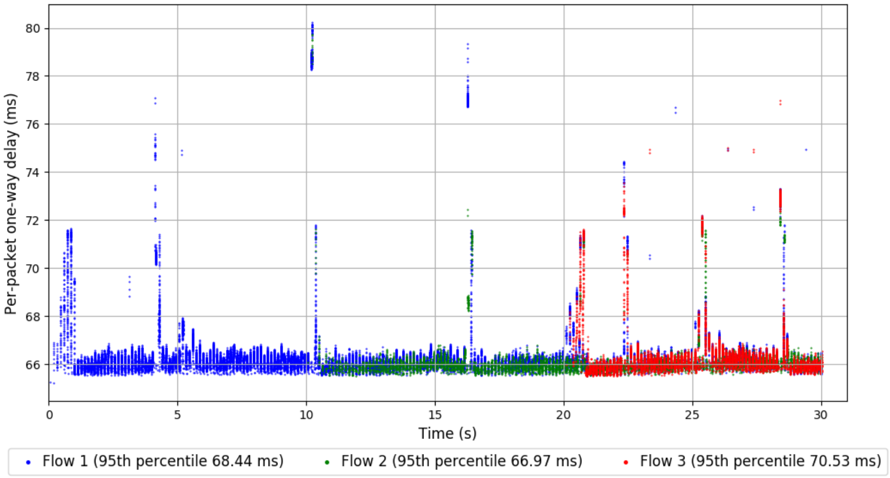




```
Run 7: Statistics of TCP Vegas

Start at: 2018-02-04 23:37:06
End at: 2018-02-04 23:37:36
Local clock offset: -1.493 ms
Remote clock offset: -2.036 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.46 Mbit/s
95th percentile per-packet one-way delay: 68.621 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 68.443 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 3.74 Mbit/s
95th percentile per-packet one-way delay: 66.965 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 8.70 Mbit/s
95th percentile per-packet one-way delay: 70.527 ms
Loss rate: 0.55%
```

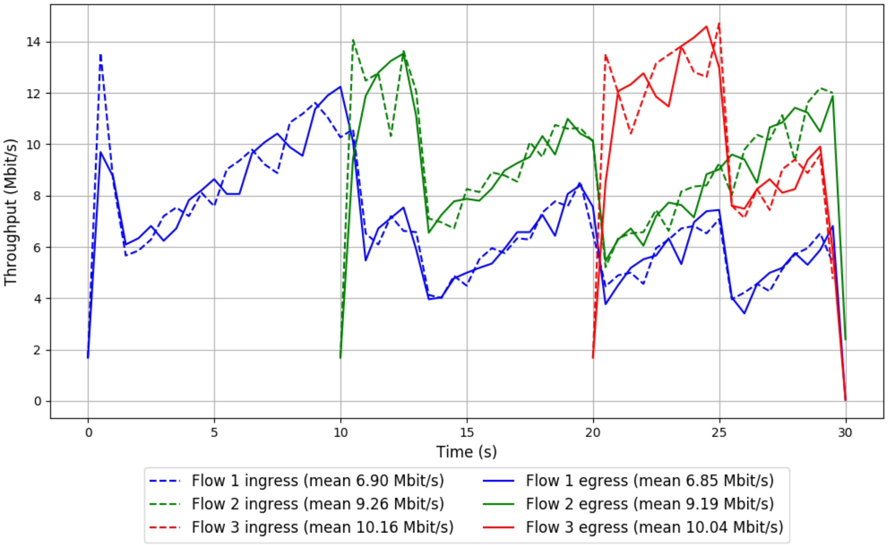
Run 7: Report of TCP Vegas — Data Link

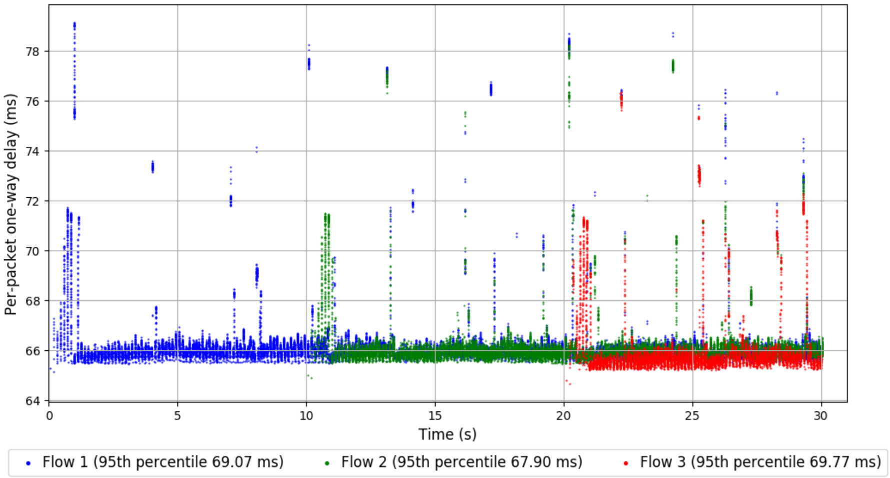




```
Run 8: Statistics of TCP Vegas

Start at: 2018-02-05 00:00:20
End at: 2018-02-05 00:00:50
Local clock offset: -1.456 ms
Remote clock offset: -2.698 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.30 Mbit/s
95th percentile per-packet one-way delay: 68.854 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 6.85 Mbit/s
95th percentile per-packet one-way delay: 69.074 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 67.896 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 10.04 Mbit/s
95th percentile per-packet one-way delay: 69.773 ms
Loss rate: 1.16%
```

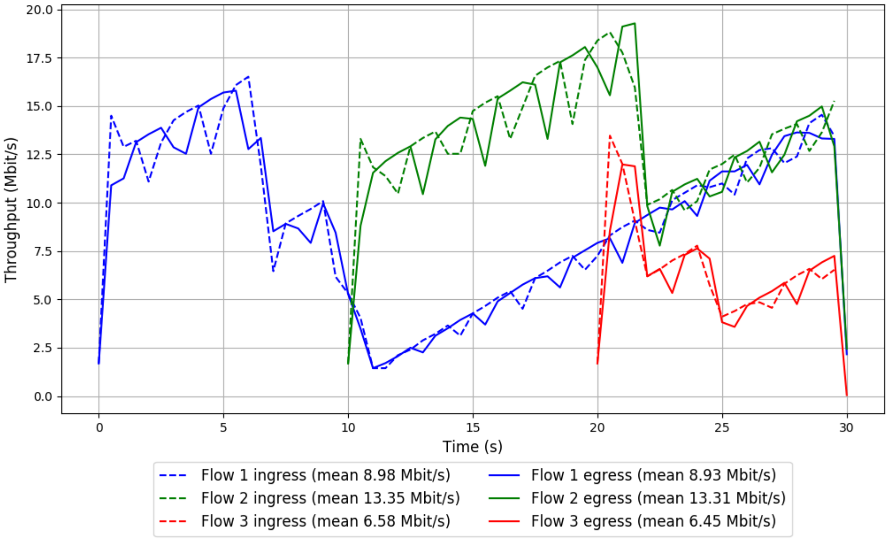
Run 8: Report of TCP Vegas — Data Link

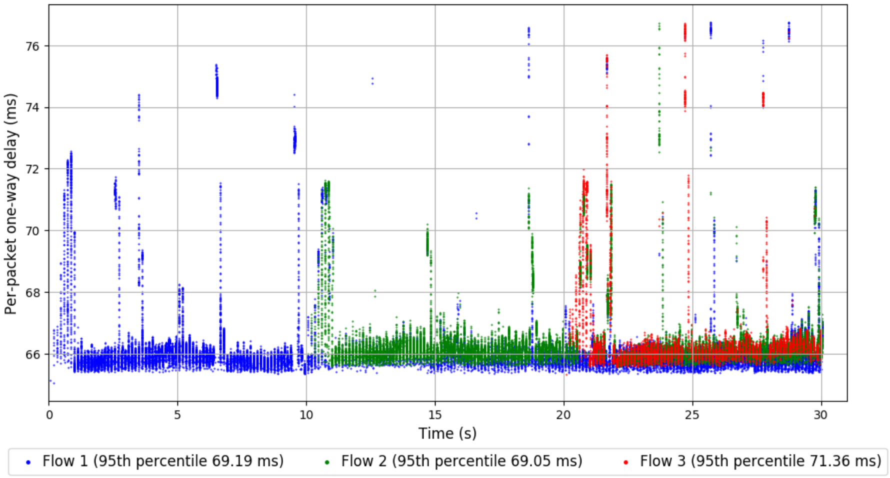




```
Run 9: Statistics of TCP Vegas

Start at: 2018-02-05 00:23:31
End at: 2018-02-05 00:24:01
Local clock offset: -1.571 ms
Remote clock offset: -3.365 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.93 Mbit/s
95th percentile per-packet one-way delay: 69.338 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 8.93 Mbit/s
95th percentile per-packet one-way delay: 69.190 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 13.31 Mbit/s
95th percentile per-packet one-way delay: 69.049 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 71.363 ms
Loss rate: 1.98%
```

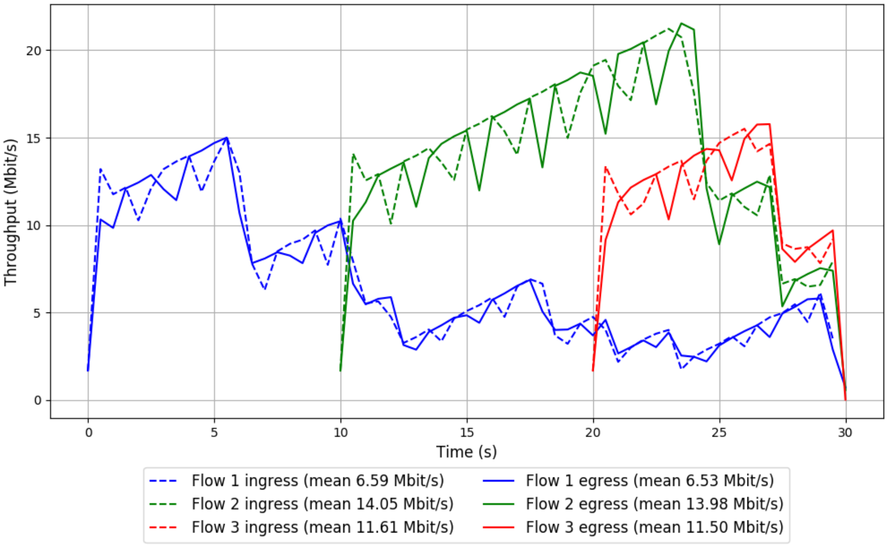
Run 9: Report of TCP Vegas — Data Link

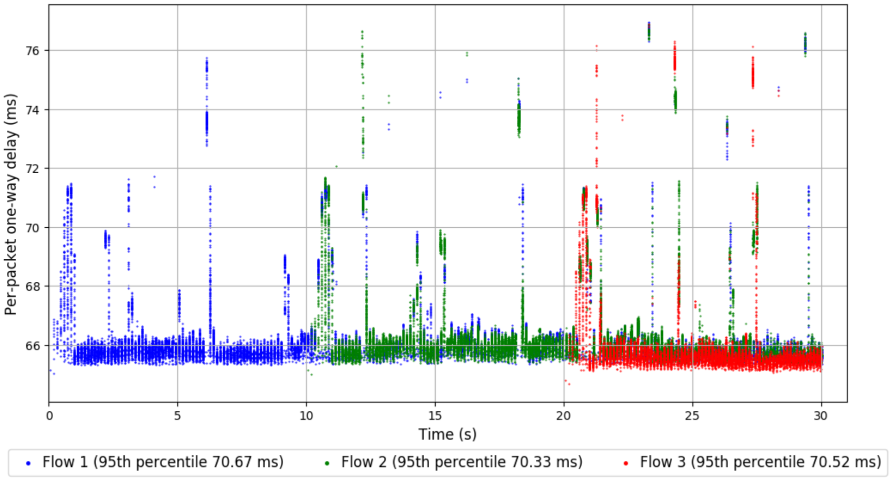




```
Run 10: Statistics of TCP Vegas

Start at: 2018-02-05 00:46:45
End at: 2018-02-05 00:47:15
Local clock offset: -1.467 ms
Remote clock offset: -4.281 ms

# Below is generated by plot.py at 2018-02-05 01:45:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 70.454 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 6.53 Mbit/s
95th percentile per-packet one-way delay: 70.673 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 13.98 Mbit/s
95th percentile per-packet one-way delay: 70.327 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 70.521 ms
Loss rate: 0.93%
```

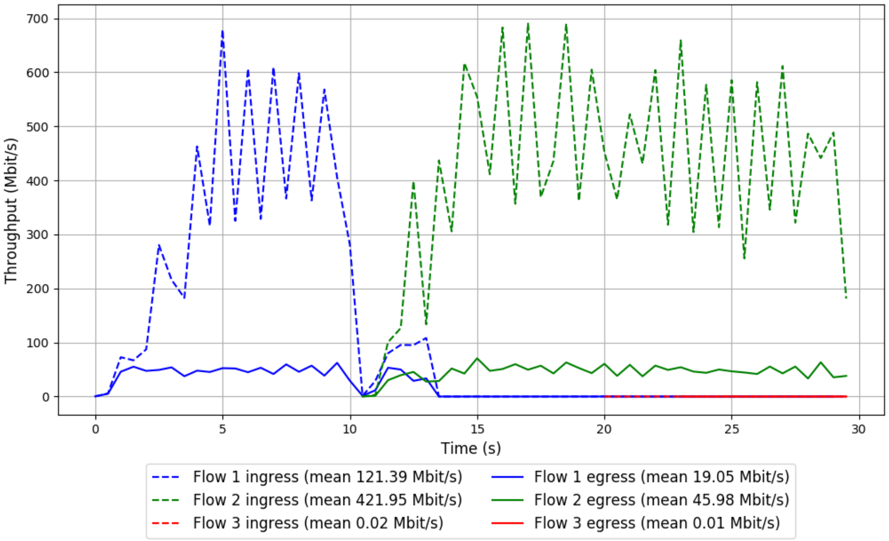
Run 10: Report of TCP Vegas — Data Link

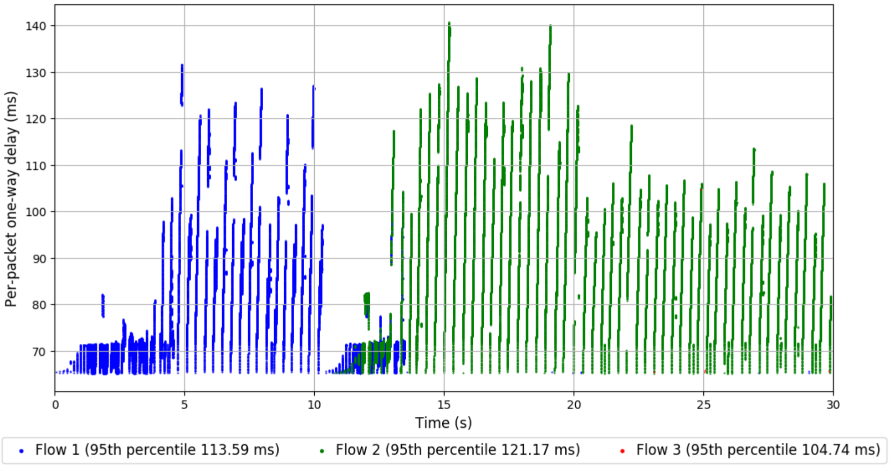




```
Run 1: Statistics of Verus

Start at: 2018-02-04 21:18:17
End at: 2018-02-04 21:18:47
Local clock offset: -2.409 ms
Remote clock offset: 4.856 ms

# Below is generated by plot.py at 2018-02-05 01:46:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.00 Mbit/s
95th percentile per-packet one-way delay: 119.040 ms
Loss rate: 87.74%
-- Flow 1:
Average throughput: 19.05 Mbit/s
95th percentile per-packet one-way delay: 113.586 ms
Loss rate: 84.72%
-- Flow 2:
Average throughput: 45.98 Mbit/s
95th percentile per-packet one-way delay: 121.165 ms
Loss rate: 89.09%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 104.738 ms
Loss rate: 73.68%
```

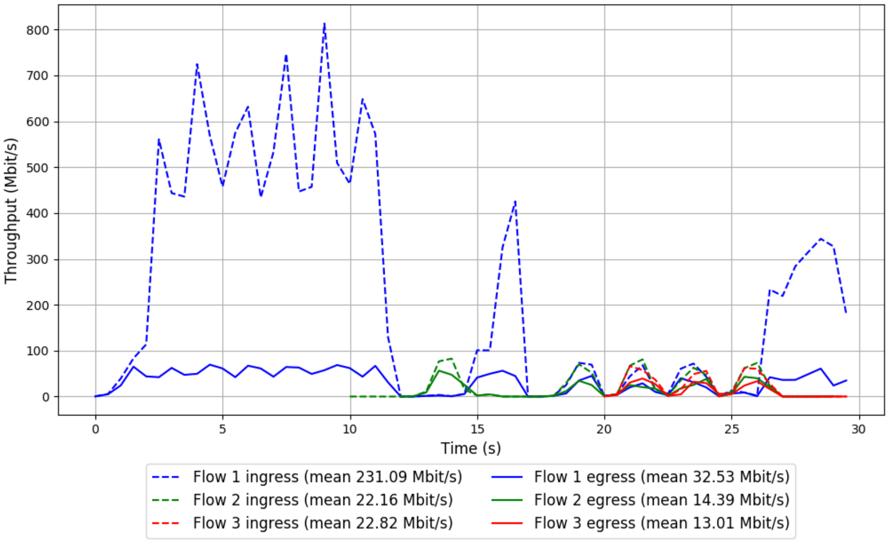
Run 1: Report of Verus — Data Link

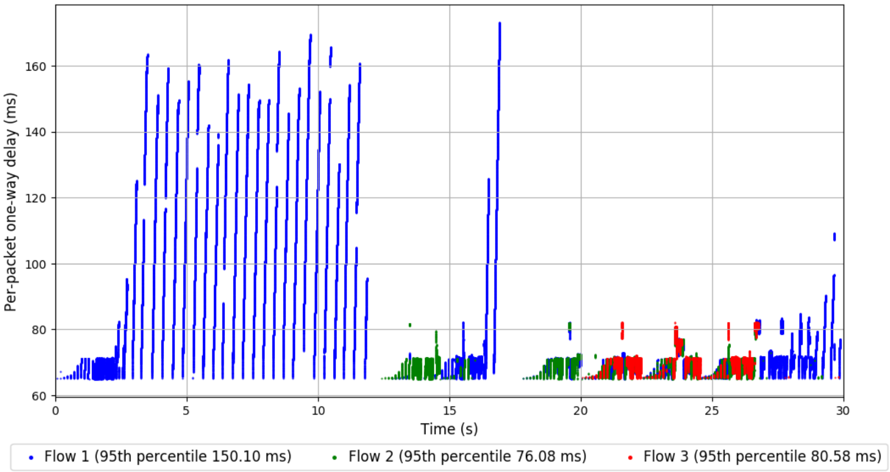




```
Run 2: Statistics of Verus

Start at: 2018-02-04 21:41:42
End at: 2018-02-04 21:42:12
Local clock offset: -1.98 ms
Remote clock offset: 3.48 ms

# Below is generated by plot.py at 2018-02-05 01:46:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.86 Mbit/s
95th percentile per-packet one-way delay: 147.254 ms
Loss rate: 82.23%
-- Flow 1:
Average throughput: 32.53 Mbit/s
95th percentile per-packet one-way delay: 150.099 ms
Loss rate: 85.92%
-- Flow 2:
Average throughput: 14.39 Mbit/s
95th percentile per-packet one-way delay: 76.076 ms
Loss rate: 42.41%
-- Flow 3:
Average throughput: 13.01 Mbit/s
95th percentile per-packet one-way delay: 80.580 ms
Loss rate: 43.00%
```

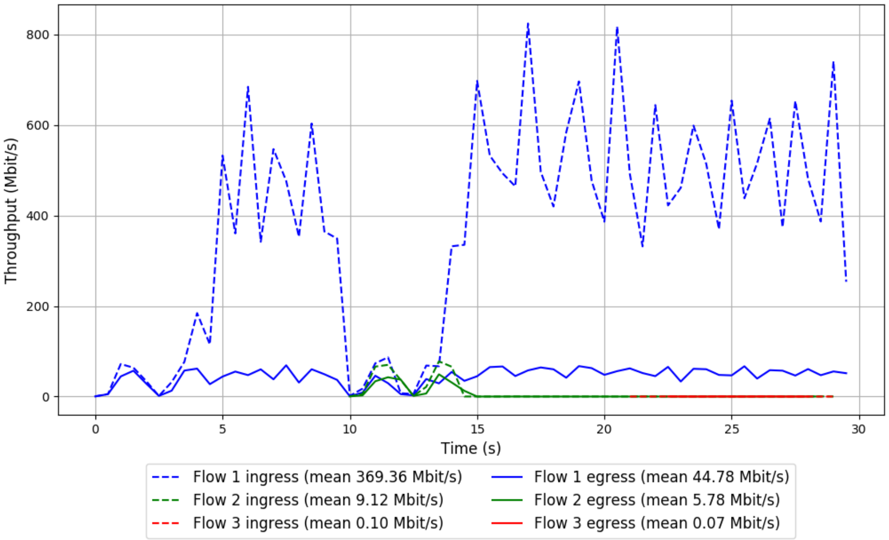
Run 2: Report of Verus — Data Link

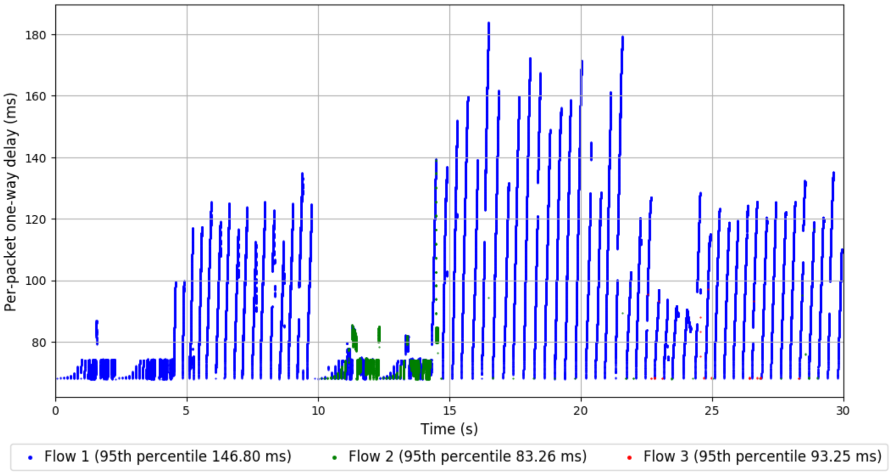




```
Run 3: Statistics of Verus

Start at: 2018-02-04 22:05:05
End at: 2018-02-04 22:05:35
Local clock offset: -4.494 ms
Remote clock offset: 2.332 ms

# Below is generated by plot.py at 2018-02-05 01:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.45 Mbit/s
95th percentile per-packet one-way delay: 145.249 ms
Loss rate: 87.07%
-- Flow 1:
Average throughput: 44.78 Mbit/s
95th percentile per-packet one-way delay: 146.798 ms
Loss rate: 87.86%
-- Flow 2:
Average throughput: 5.78 Mbit/s
95th percentile per-packet one-way delay: 83.258 ms
Loss rate: 37.11%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 93.254 ms
Loss rate: 47.54%
```

Run 3: Report of Verus — Data Link





```
Run 4: Statistics of Verus

Start at: 2018-02-04 22:28:32
End at: 2018-02-04 22:29:02
Local clock offset: -1.751 ms
Remote clock offset: 1.171 ms
```

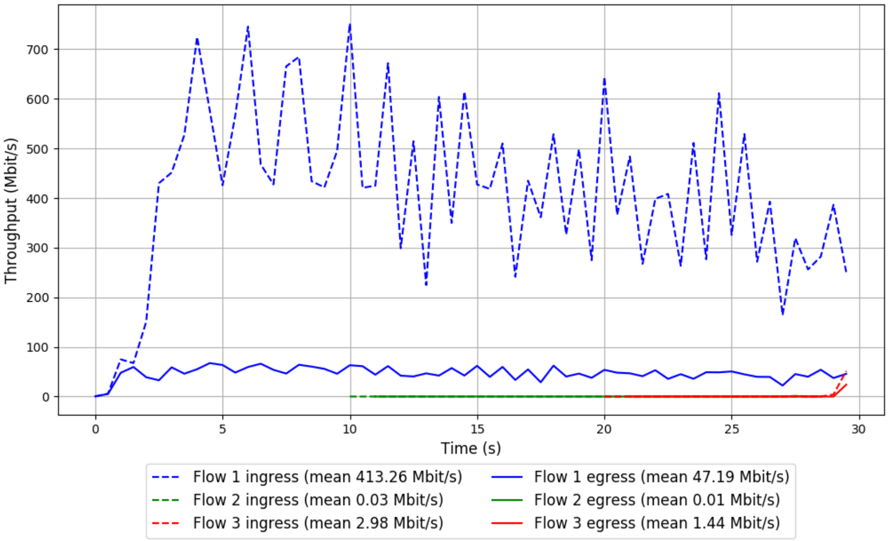
Run 4: Report of Verus — Data Link

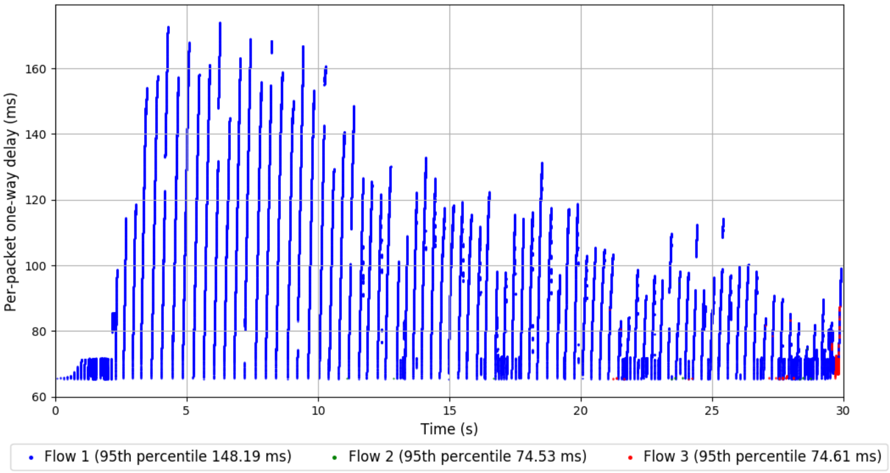
Figure is missing

Figure is missing

```
Run 5: Statistics of Verus

Start at: 2018-02-04 22:51:53
End at: 2018-02-04 22:52:23
Local clock offset: -1.471 ms
Remote clock offset: 0.109 ms

# Below is generated by plot.py at 2018-02-05 01:46:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.61 Mbit/s
95th percentile per-packet one-way delay: 148.085 ms
Loss rate: 88.49%
-- Flow 1:
Average throughput: 47.19 Mbit/s
95th percentile per-packet one-way delay: 148.190 ms
Loss rate: 88.57%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 74.525 ms
Loss rate: 70.00%
-- Flow 3:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 74.612 ms
Loss rate: 56.68%
```

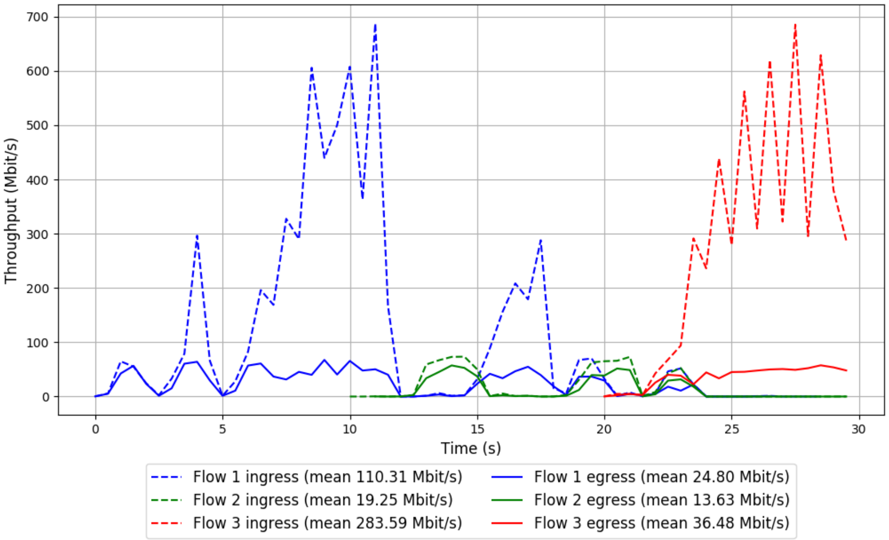
Run 5: Report of Verus — Data Link

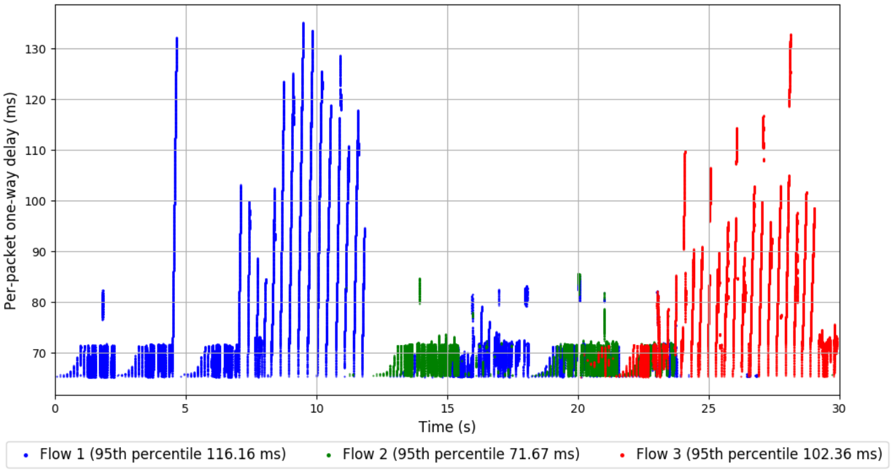




```
Run 6: Statistics of Verus

Start at: 2018-02-04 23:15:09
End at: 2018-02-04 23:15:39
Local clock offset: -1.565 ms
Remote clock offset: -1.036 ms

# Below is generated by plot.py at 2018-02-05 01:46:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.89 Mbit/s
95th percentile per-packet one-way delay: 109.936 ms
Loss rate: 79.85%
-- Flow 1:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 116.155 ms
Loss rate: 79.12%
-- Flow 2:
Average throughput: 13.63 Mbit/s
95th percentile per-packet one-way delay: 71.675 ms
Loss rate: 32.80%
-- Flow 3:
Average throughput: 36.48 Mbit/s
95th percentile per-packet one-way delay: 102.363 ms
Loss rate: 87.13%
```

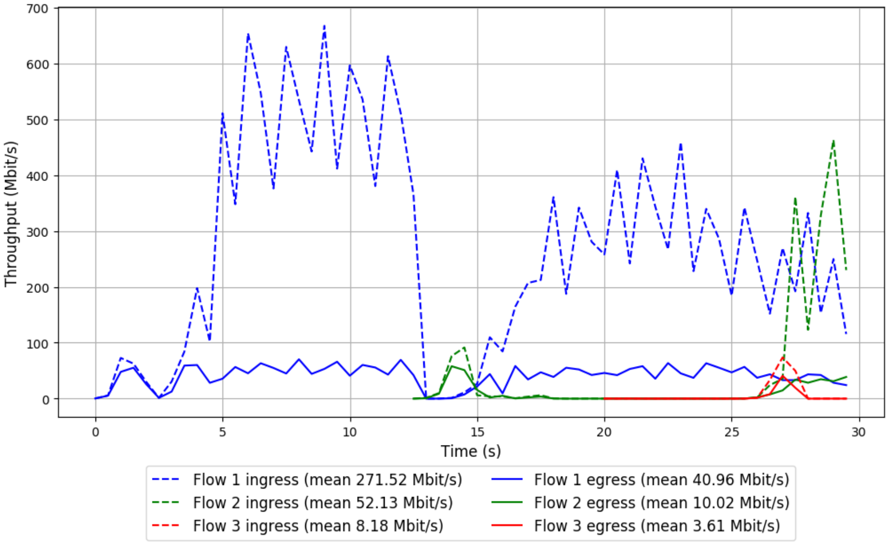
Run 6: Report of Verus — Data Link

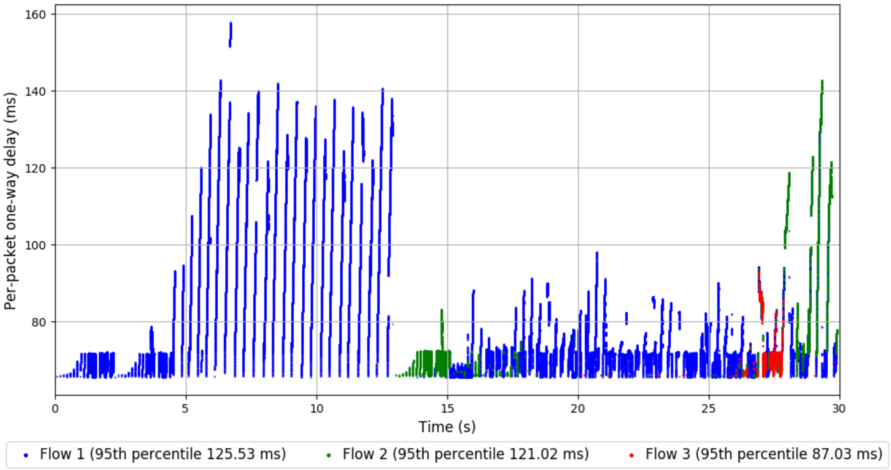




```
Run 7: Statistics of Verus

Start at: 2018-02-04 23:38:20
End at: 2018-02-04 23:38:50
Local clock offset: -1.724 ms
Remote clock offset: -2.085 ms

# Below is generated by plot.py at 2018-02-05 01:46:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.84 Mbit/s
95th percentile per-packet one-way delay: 124.897 ms
Loss rate: 84.25%
-- Flow 1:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 125.531 ms
Loss rate: 84.91%
-- Flow 2:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 121.018 ms
Loss rate: 80.79%
-- Flow 3:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 87.033 ms
Loss rate: 55.89%
```

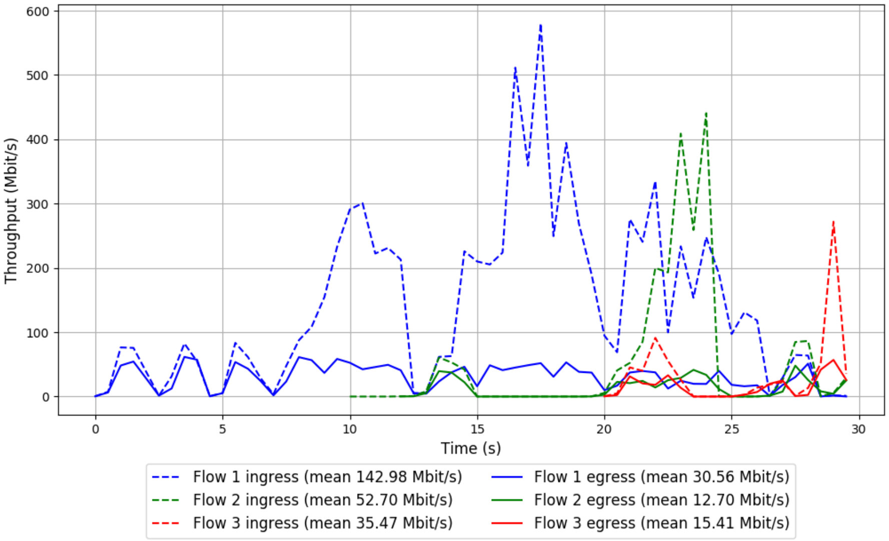
Run 7: Report of Verus — Data Link

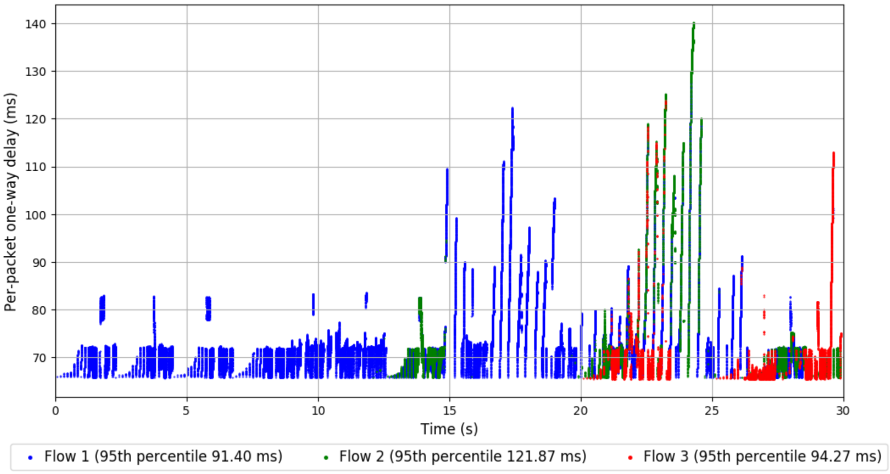




```
Run 8: Statistics of Verus

Start at: 2018-02-05 00:01:34
End at: 2018-02-05 00:02:04
Local clock offset: -1.706 ms
Remote clock offset: -2.709 ms

# Below is generated by plot.py at 2018-02-05 01:46:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.91 Mbit/s
95th percentile per-packet one-way delay: 102.596 ms
Loss rate: 77.18%
-- Flow 1:
Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 91.398 ms
Loss rate: 78.60%
-- Flow 2:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 121.870 ms
Loss rate: 78.32%
-- Flow 3:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 94.267 ms
Loss rate: 56.51%
```

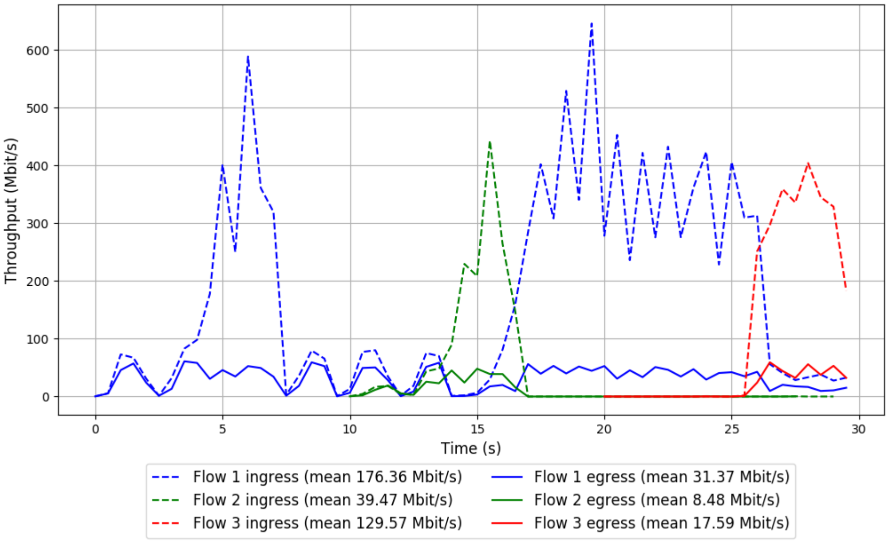
Run 8: Report of Verus — Data Link

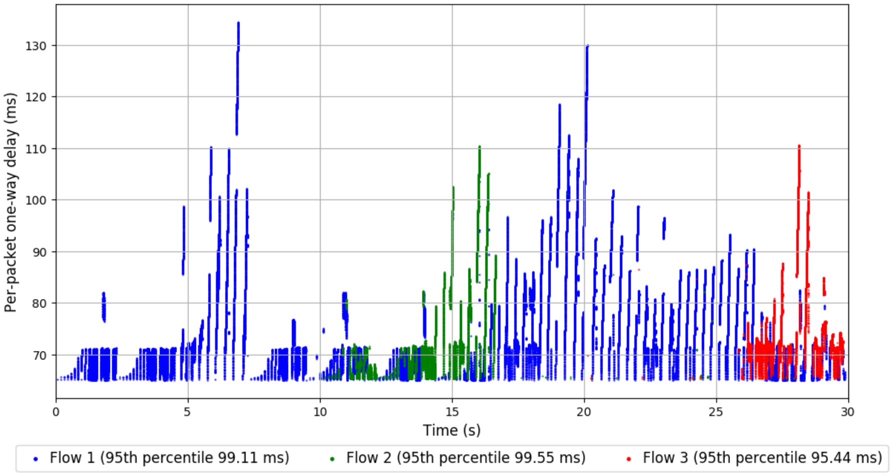




```
Run 9: Statistics of Verus

Start at: 2018-02-05 00:24:46
End at: 2018-02-05 00:25:16
Local clock offset: -1.34 ms
Remote clock offset: -3.484 ms

# Below is generated by plot.py at 2018-02-05 01:47:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.16 Mbit/s
95th percentile per-packet one-way delay: 98.707 ms
Loss rate: 82.72%
-- Flow 1:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 99.107 ms
Loss rate: 82.21%
-- Flow 2:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 99.553 ms
Loss rate: 80.14%
-- Flow 3:
Average throughput: 17.59 Mbit/s
95th percentile per-packet one-way delay: 95.441 ms
Loss rate: 86.42%
```

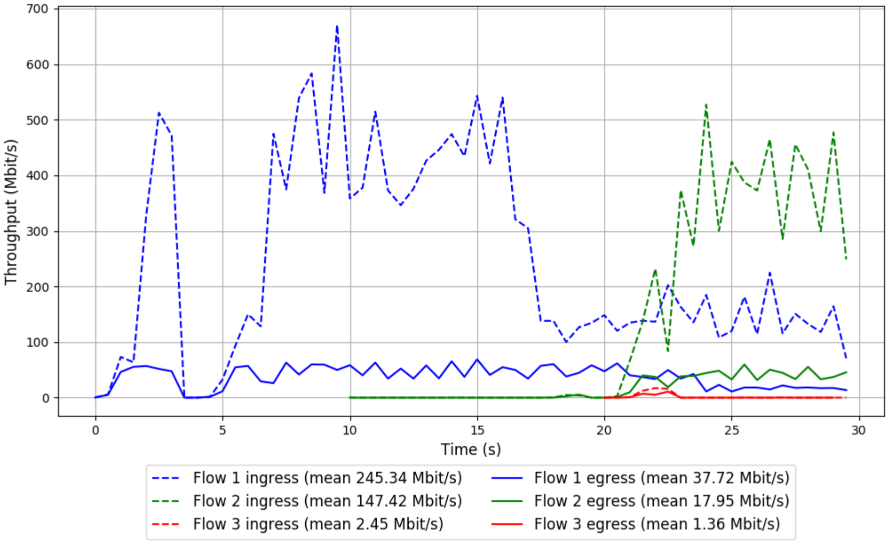
Run 9: Report of Verus — Data Link

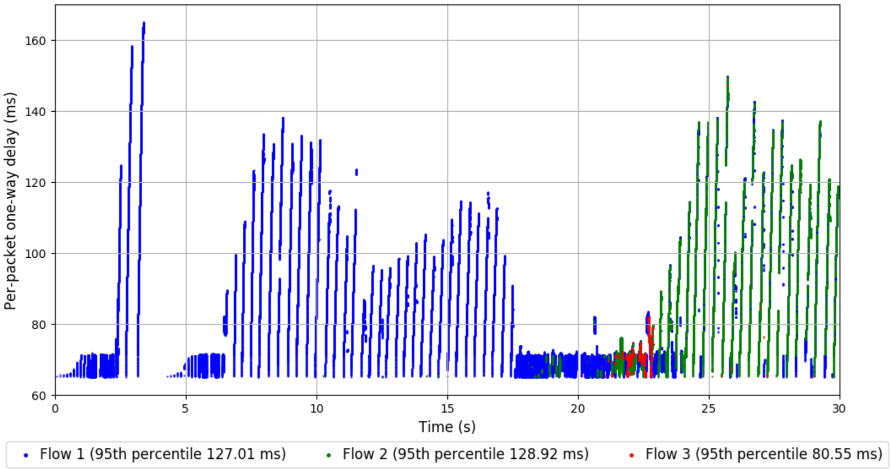




```
Run 10: Statistics of Verus

Start at: 2018-02-05 00:48:00
End at: 2018-02-05 00:48:30
Local clock offset: -1.322 ms
Remote clock offset: -4.312 ms

# Below is generated by plot.py at 2018-02-05 01:47:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.02 Mbit/s
95th percentile per-packet one-way delay: 127.437 ms
Loss rate: 85.43%
-- Flow 1:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 127.008 ms
Loss rate: 84.60%
-- Flow 2:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 128.917 ms
Loss rate: 87.82%
-- Flow 3:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 80.550 ms
Loss rate: 48.86%
```

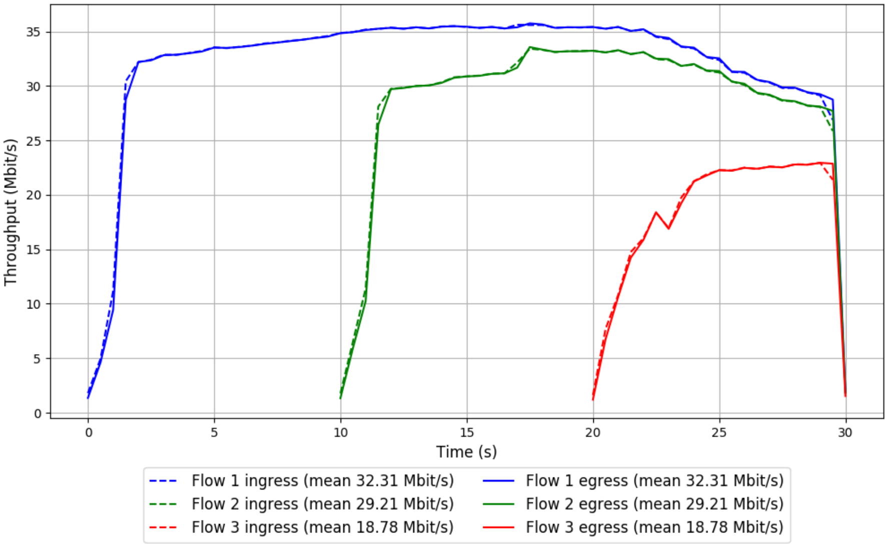
Run 10: Report of Verus — Data Link

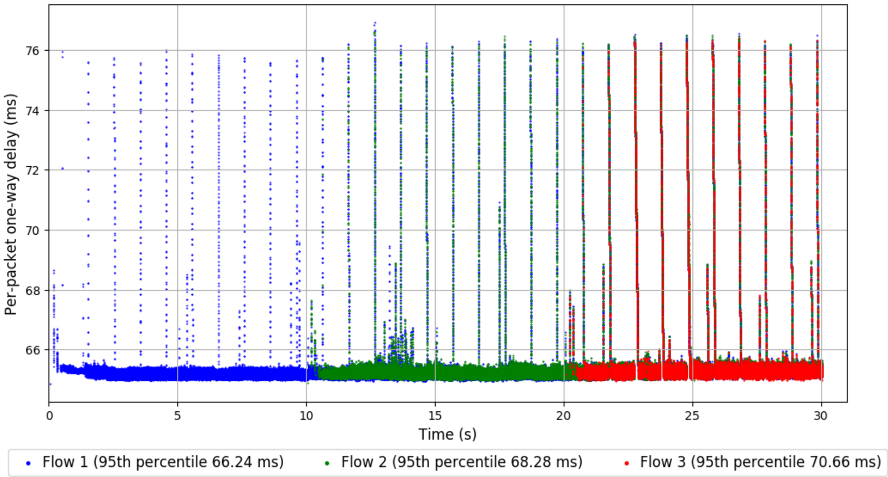




```
Run 1: Statistics of Copa

Start at: 2018-02-04 21:32:35
End at: 2018-02-04 21:33:05
Local clock offset: -2.118 ms
Remote clock offset: 4.03 ms

# Below is generated by plot.py at 2018-02-05 01:47:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 67.587 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.31 Mbit/s
95th percentile per-packet one-way delay: 66.236 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.21 Mbit/s
95th percentile per-packet one-way delay: 68.282 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.78 Mbit/s
95th percentile per-packet one-way delay: 70.663 ms
Loss rate: 0.00%
```

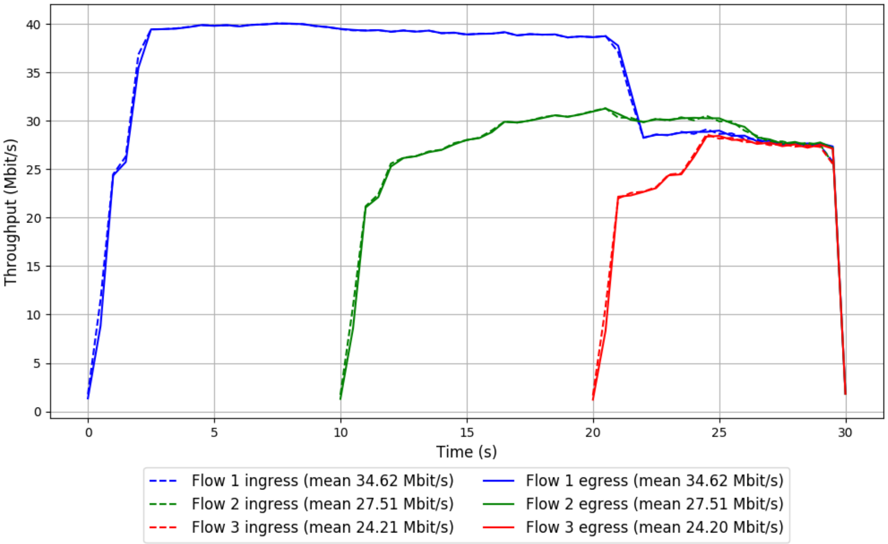
Run 1: Report of Copa — Data Link

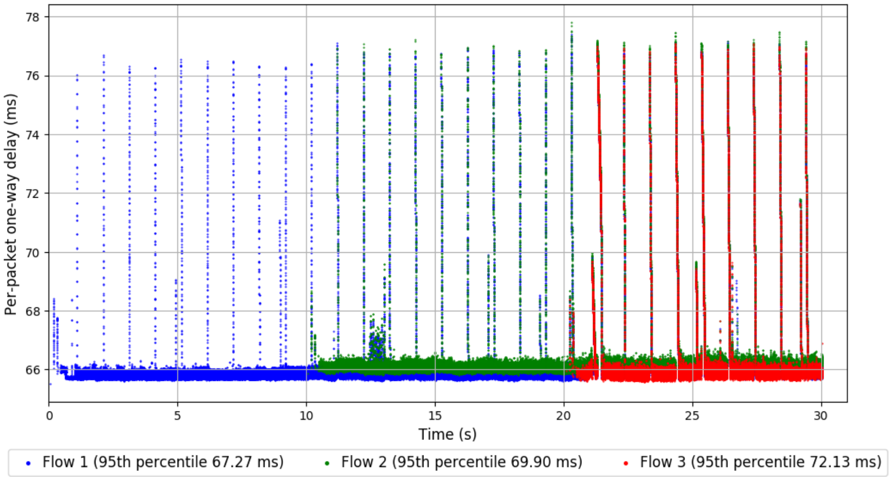




```
Run 2: Statistics of Copa

Start at: 2018-02-04 21:55:58
End at: 2018-02-04 21:56:28
Local clock offset: -2.371 ms
Remote clock offset: 2.761 ms

# Below is generated by plot.py at 2018-02-05 01:47:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.97 Mbit/s
95th percentile per-packet one-way delay: 69.000 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 67.265 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.51 Mbit/s
95th percentile per-packet one-way delay: 69.896 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 72.131 ms
Loss rate: 0.00%
```

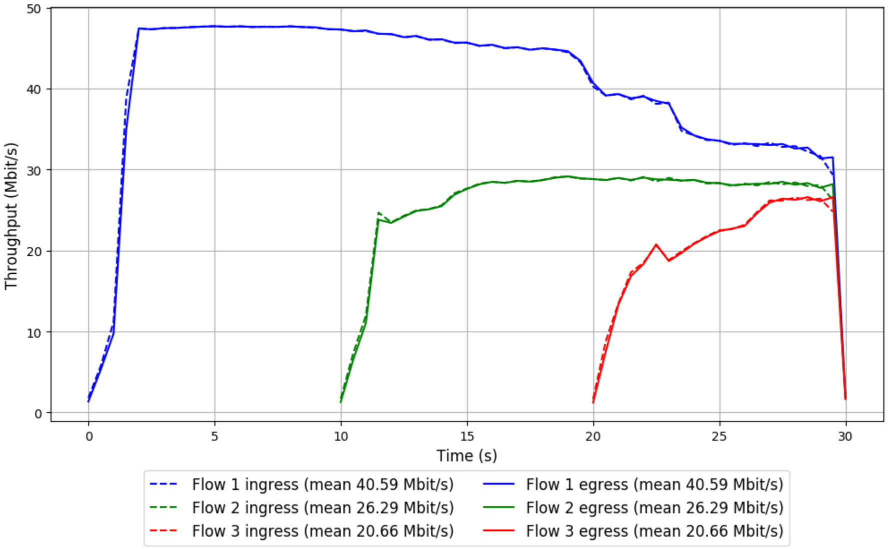
Run 2: Report of Copa — Data Link

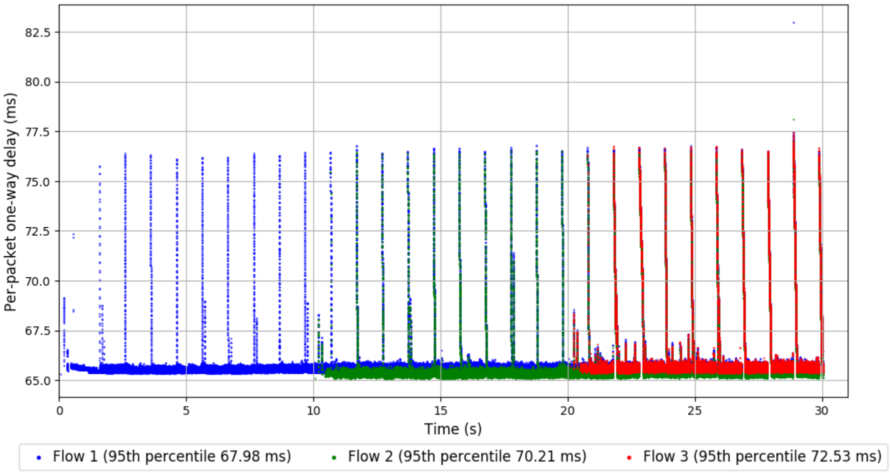




```
Run 3: Statistics of Copa

Start at: 2018-02-04 22:19:23
End at: 2018-02-04 22:19:53
Local clock offset: -1.606 ms
Remote clock offset: 1.675 ms

# Below is generated by plot.py at 2018-02-05 01:48:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.96 Mbit/s
95th percentile per-packet one-way delay: 69.408 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 67.984 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.29 Mbit/s
95th percentile per-packet one-way delay: 70.212 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.66 Mbit/s
95th percentile per-packet one-way delay: 72.529 ms
Loss rate: 0.01%
```

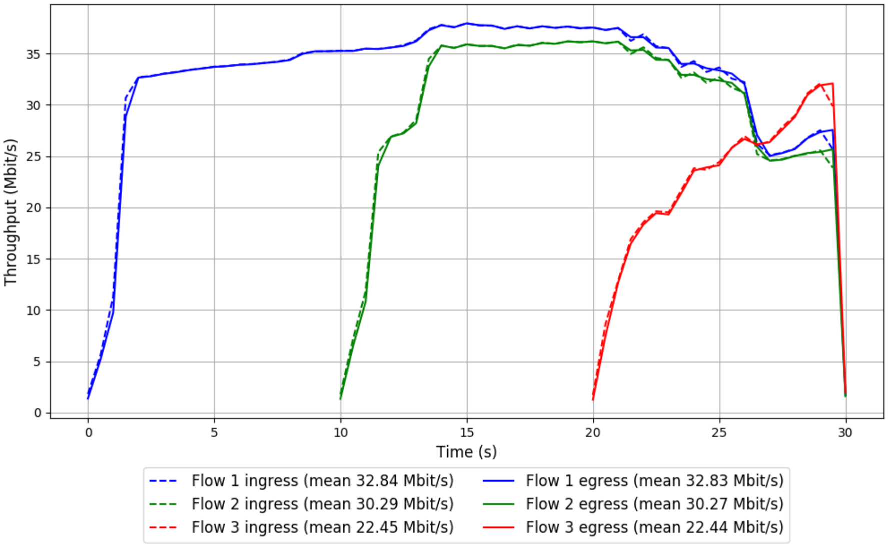
Run 3: Report of Copa — Data Link

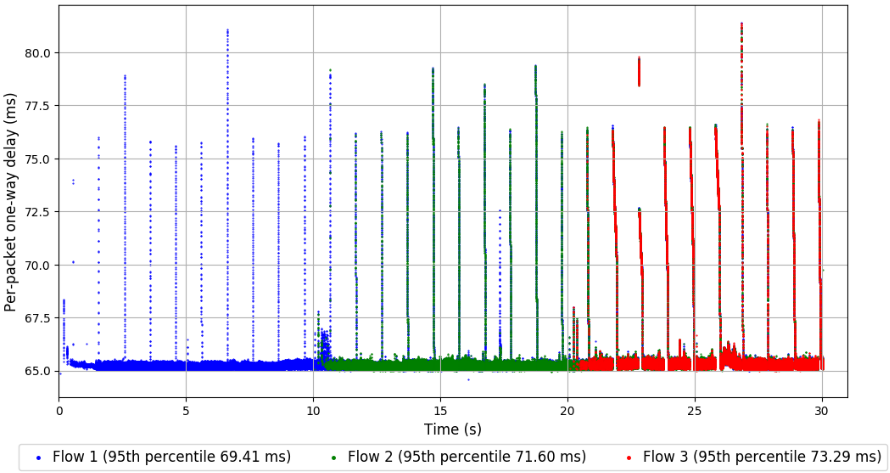




```
Run 4: Statistics of Copa

Start at: 2018-02-04 22:42:48
End at: 2018-02-04 22:43:18
Local clock offset: -1.381 ms
Remote clock offset: 0.55 ms

# Below is generated by plot.py at 2018-02-05 01:48:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.43 Mbit/s
95th percentile per-packet one-way delay: 71.158 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 32.83 Mbit/s
95th percentile per-packet one-way delay: 69.410 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 30.27 Mbit/s
95th percentile per-packet one-way delay: 71.597 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 22.44 Mbit/s
95th percentile per-packet one-way delay: 73.293 ms
Loss rate: 0.05%
```

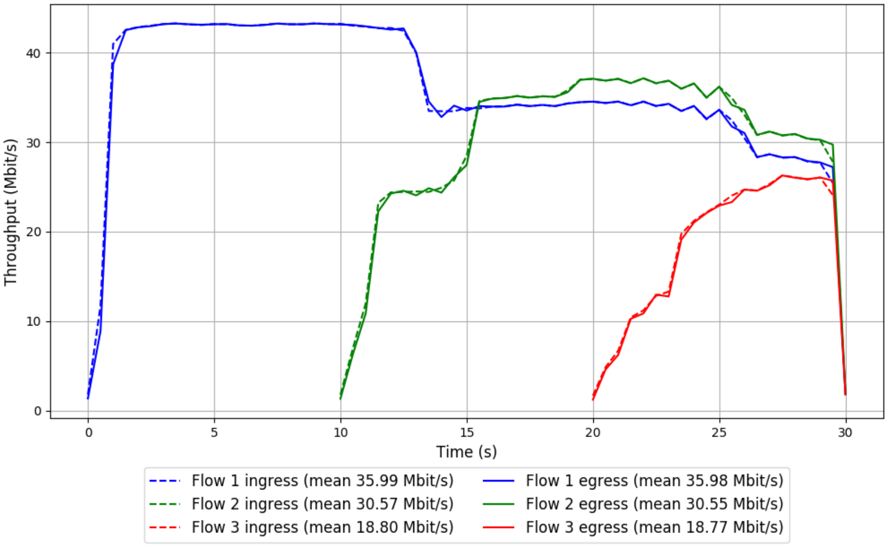
Run 4: Report of Copa — Data Link

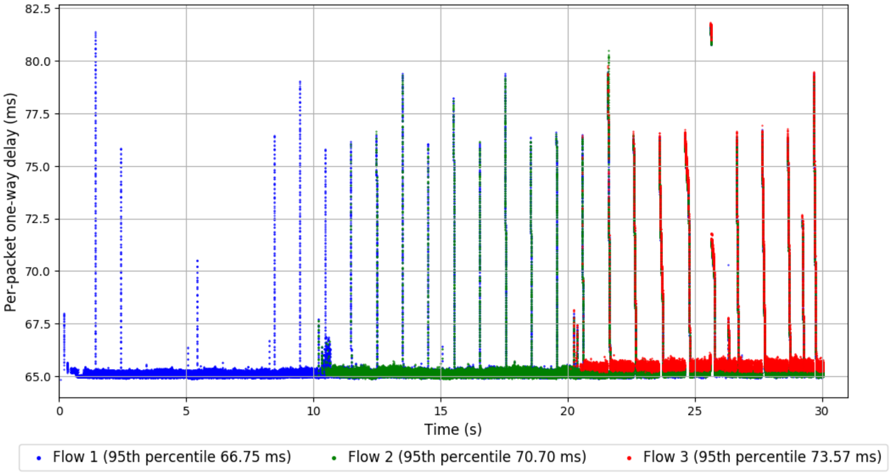




```
Run 5: Statistics of Copa

Start at: 2018-02-04 23:06:03
End at: 2018-02-04 23:06:33
Local clock offset: -1.293 ms
Remote clock offset: -0.52 ms

# Below is generated by plot.py at 2018-02-05 01:48:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.56 Mbit/s
95th percentile per-packet one-way delay: 69.858 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 35.98 Mbit/s
95th percentile per-packet one-way delay: 66.755 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 30.55 Mbit/s
95th percentile per-packet one-way delay: 70.696 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 18.77 Mbit/s
95th percentile per-packet one-way delay: 73.567 ms
Loss rate: 0.15%
```

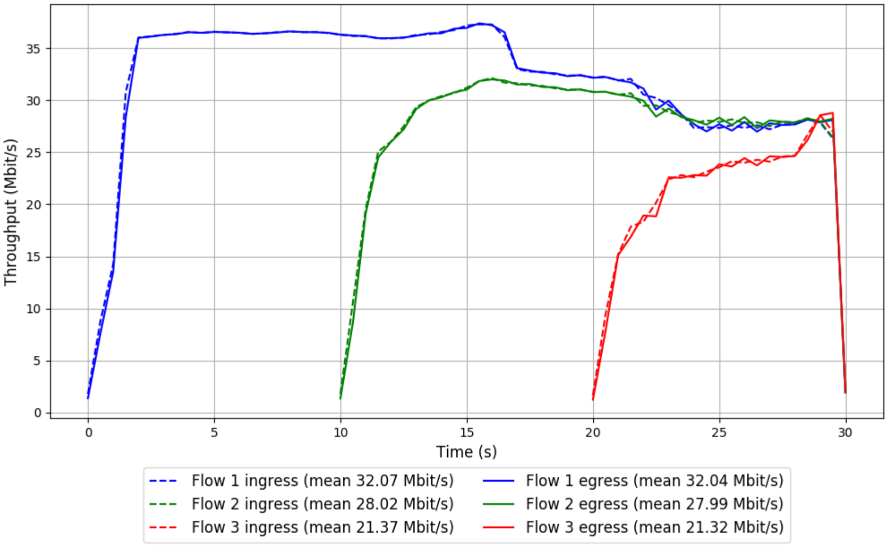
Run 5: Report of Copa — Data Link

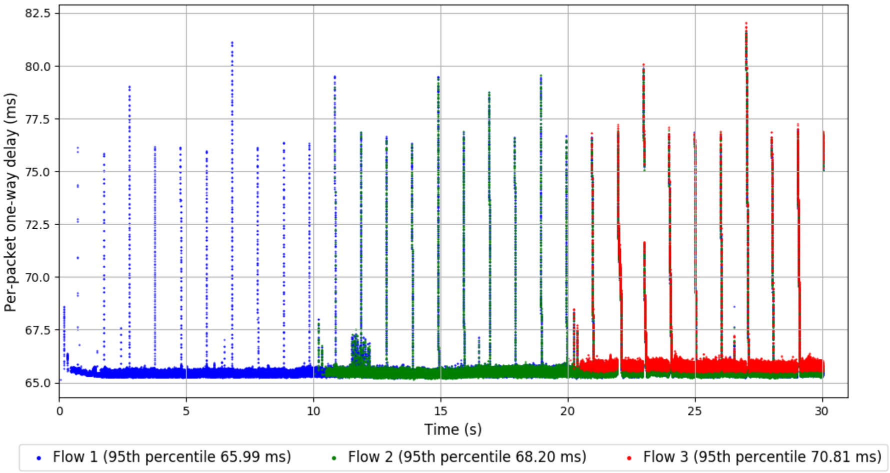




```
Run 6: Statistics of Copa

Start at: 2018-02-04 23:29:15
End at: 2018-02-04 23:29:45
Local clock offset: -1.55 ms
Remote clock offset: -1.711 ms

# Below is generated by plot.py at 2018-02-05 01:48:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.77 Mbit/s
95th percentile per-packet one-way delay: 67.438 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 32.04 Mbit/s
95th percentile per-packet one-way delay: 65.986 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 27.99 Mbit/s
95th percentile per-packet one-way delay: 68.200 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 21.32 Mbit/s
95th percentile per-packet one-way delay: 70.808 ms
Loss rate: 0.14%
```

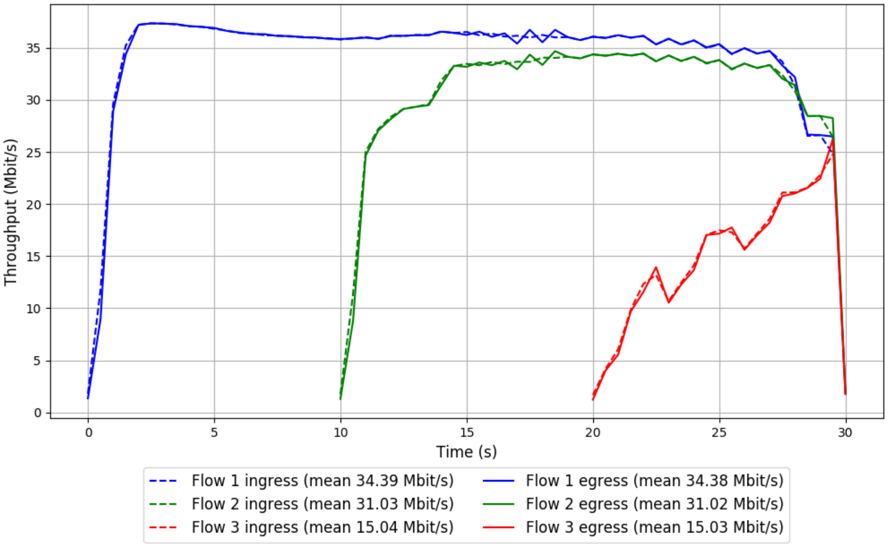
Run 6: Report of Copa — Data Link

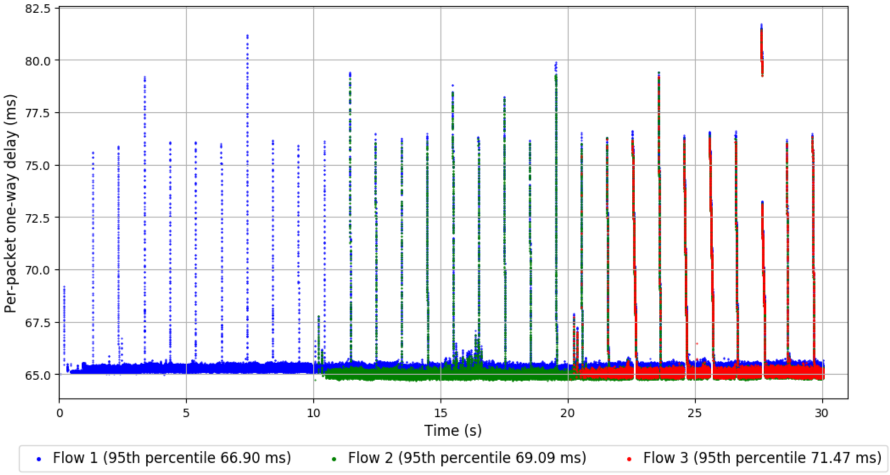




```
Run 7: Statistics of Copa

Start at: 2018-02-04 23:52:28
End at: 2018-02-04 23:52:58
Local clock offset: -1.069 ms
Remote clock offset: -2.478 ms

# Below is generated by plot.py at 2018-02-05 01:48:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 68.480 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 66.899 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 69.088 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 15.03 Mbit/s
95th percentile per-packet one-way delay: 71.472 ms
Loss rate: 0.10%
```

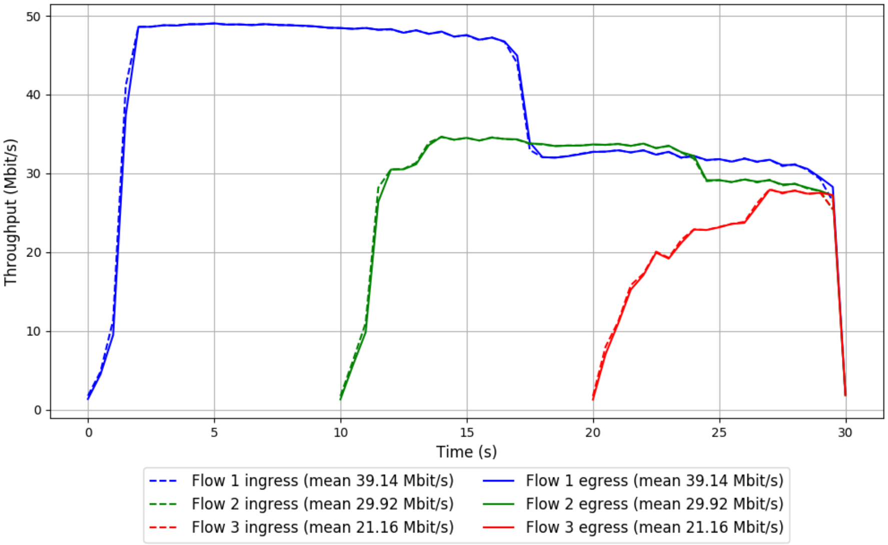
Run 7: Report of Copa — Data Link

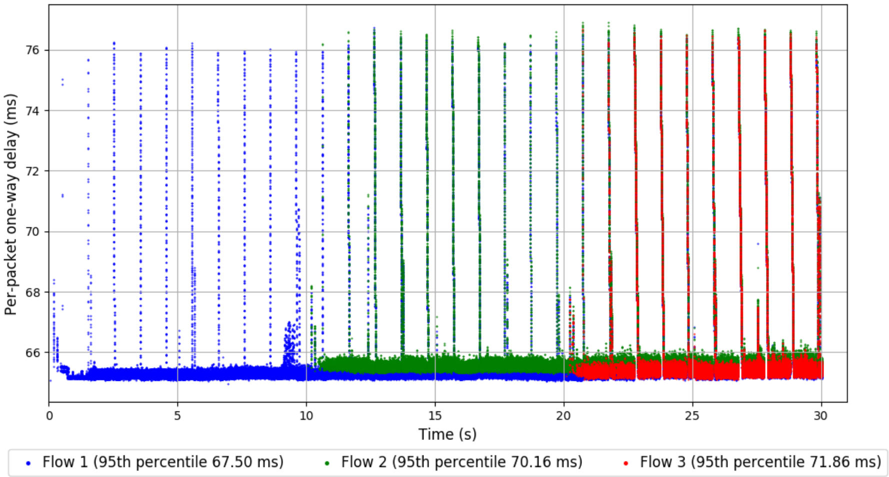




```
Run 8: Statistics of Copa

Start at: 2018-02-05 00:15:40
End at: 2018-02-05 00:16:10
Local clock offset: -1.383 ms
Remote clock offset: -3.121 ms

# Below is generated by plot.py at 2018-02-05 01:48:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.09 Mbit/s
95th percentile per-packet one-way delay: 69.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 67.495 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.92 Mbit/s
95th percentile per-packet one-way delay: 70.155 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.16 Mbit/s
95th percentile per-packet one-way delay: 71.858 ms
Loss rate: 0.00%
```

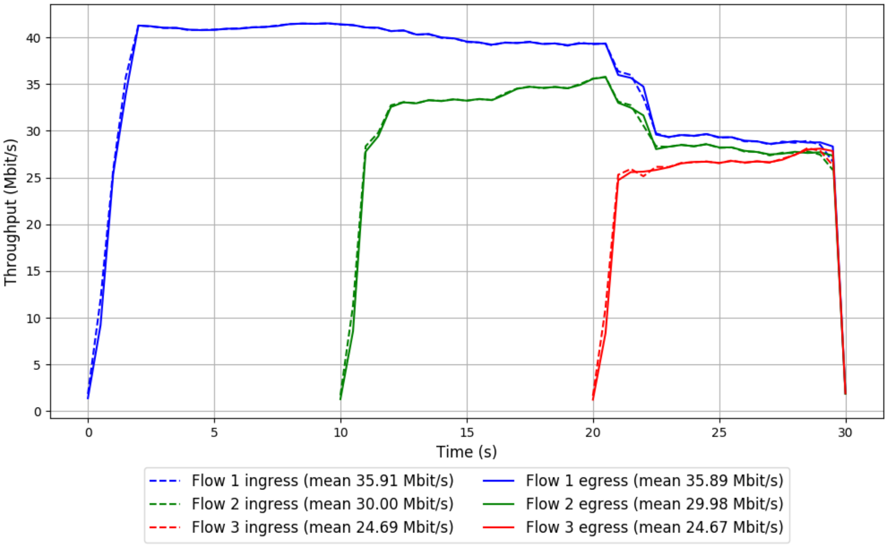
Run 8: Report of Copa — Data Link

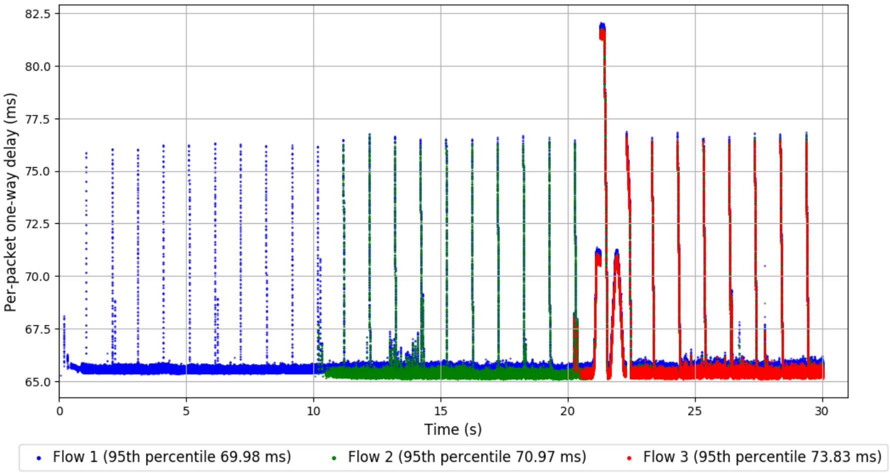




```
Run 9: Statistics of Copa

Start at: 2018-02-05 00:38:53
End at: 2018-02-05 00:39:23
Local clock offset: -1.47 ms
Remote clock offset: -3.959 ms

# Below is generated by plot.py at 2018-02-05 01:49:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.05 Mbit/s
95th percentile per-packet one-way delay: 70.892 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 35.89 Mbit/s
95th percentile per-packet one-way delay: 69.985 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 70.967 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 73.834 ms
Loss rate: 0.09%
```

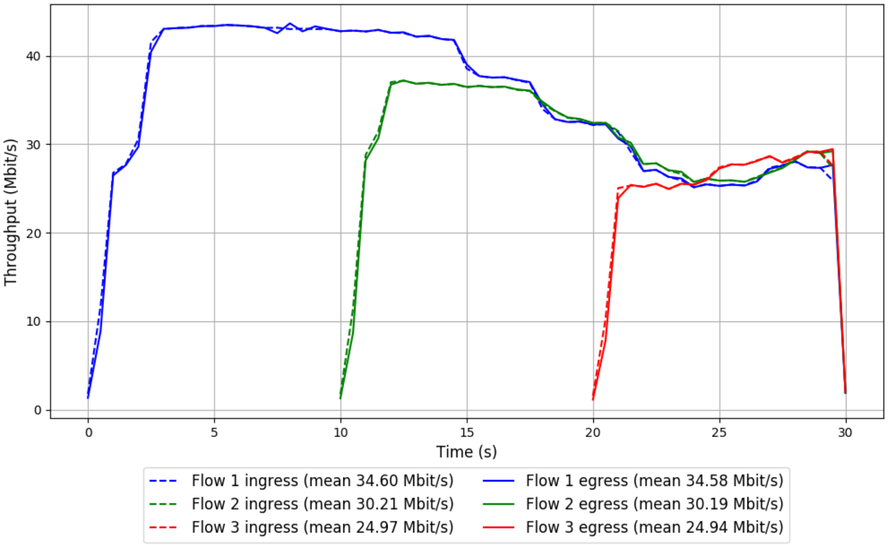
Run 9: Report of Copa — Data Link

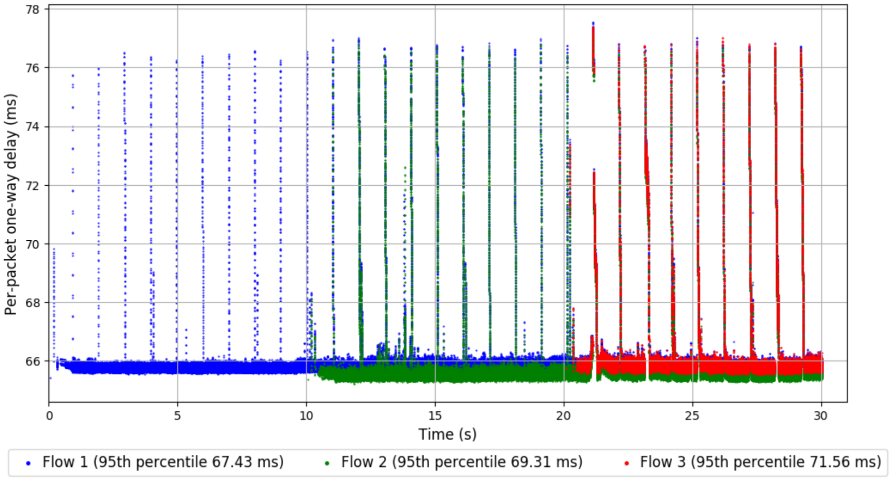




```
Run 10: Statistics of Copa

Start at: 2018-02-05 01:02:17
End at: 2018-02-05 01:02:47
Local clock offset: -1.69 ms
Remote clock offset: -4.189 ms

# Below is generated by plot.py at 2018-02-05 01:49:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.97 Mbit/s
95th percentile per-packet one-way delay: 68.930 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 34.58 Mbit/s
95th percentile per-packet one-way delay: 67.426 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 69.315 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 24.94 Mbit/s
95th percentile per-packet one-way delay: 71.556 ms
Loss rate: 0.13%
```

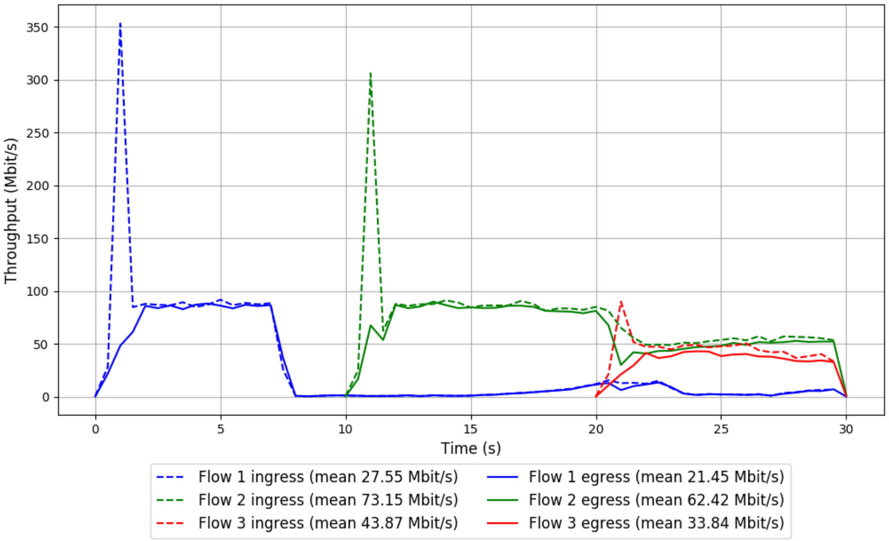
Run 10: Report of Copa — Data Link

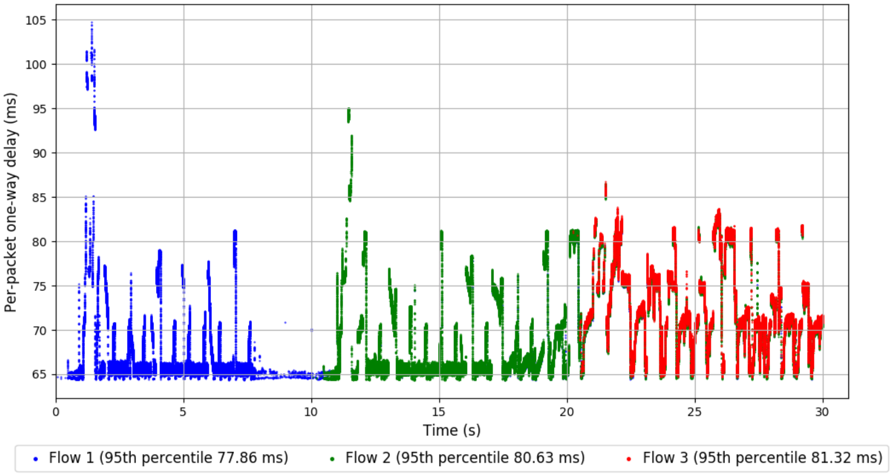




```
Run 1: Statistics of FillP

Start at: 2018-02-04 21:36:31
End at: 2018-02-04 21:37:01
Local clock offset: -1.946 ms
Remote clock offset: 3.817 ms

# Below is generated by plot.py at 2018-02-05 01:50:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.23 Mbit/s
95th percentile per-packet one-way delay: 80.643 ms
Loss rate: 18.23%
-- Flow 1:
Average throughput: 21.45 Mbit/s
95th percentile per-packet one-way delay: 77.858 ms
Loss rate: 22.14%
-- Flow 2:
Average throughput: 62.42 Mbit/s
95th percentile per-packet one-way delay: 80.634 ms
Loss rate: 14.64%
-- Flow 3:
Average throughput: 33.84 Mbit/s
95th percentile per-packet one-way delay: 81.321 ms
Loss rate: 22.83%
```

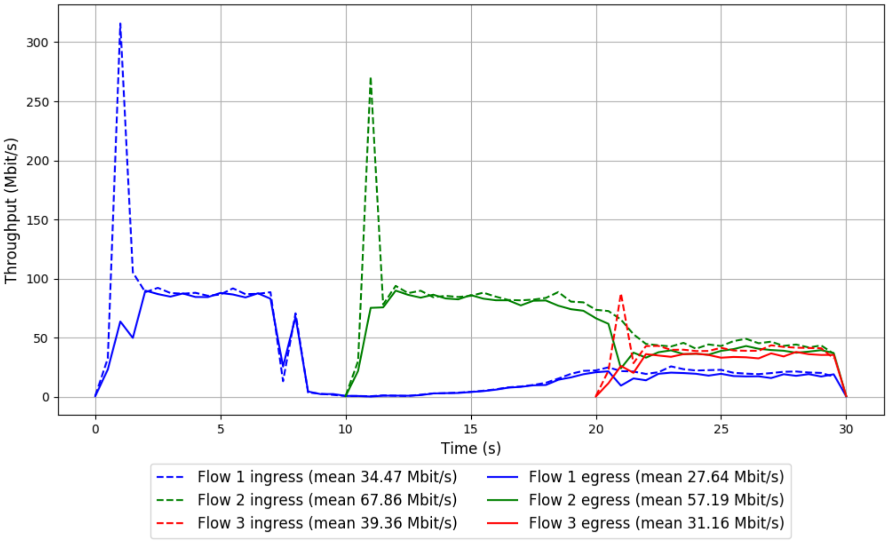
Run 1: Report of FillP — Data Link

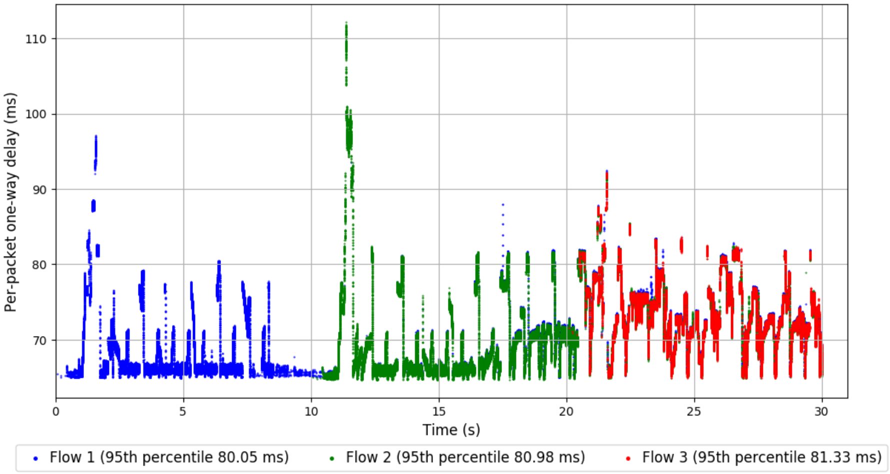




```
Run 2: Statistics of FillP

Start at: 2018-02-04 21:59:55
End at: 2018-02-04 22:00:25
Local clock offset: -1.986 ms
Remote clock offset: 2.555 ms

# Below is generated by plot.py at 2018-02-05 01:50:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.03 Mbit/s
95th percentile per-packet one-way delay: 80.957 ms
Loss rate: 17.96%
-- Flow 1:
Average throughput: 27.64 Mbit/s
95th percentile per-packet one-way delay: 80.045 ms
Loss rate: 19.82%
-- Flow 2:
Average throughput: 57.19 Mbit/s
95th percentile per-packet one-way delay: 80.976 ms
Loss rate: 15.71%
-- Flow 3:
Average throughput: 31.16 Mbit/s
95th percentile per-packet one-way delay: 81.335 ms
Loss rate: 20.84%
```

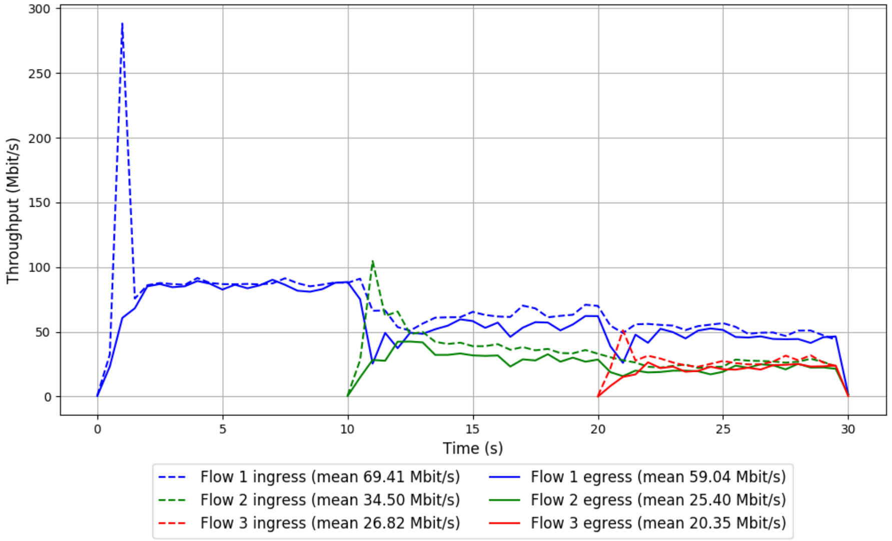
Run 2: Report of FillP — Data Link

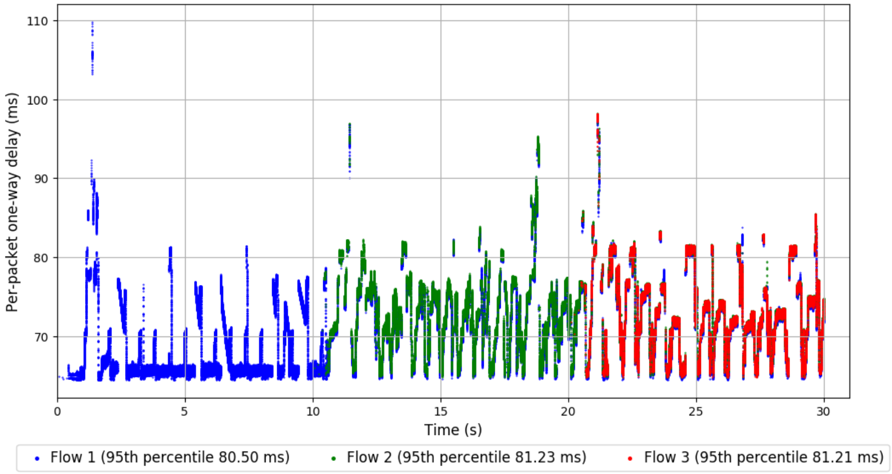




```
Run 3: Statistics of FillP

Start at: 2018-02-04 22:23:20
End at: 2018-02-04 22:23:50
Local clock offset: -1.563 ms
Remote clock offset: 1.403 ms

# Below is generated by plot.py at 2018-02-05 01:50:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.69 Mbit/s
95th percentile per-packet one-way delay: 80.792 ms
Loss rate: 18.32%
-- Flow 1:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 80.497 ms
Loss rate: 14.91%
-- Flow 2:
Average throughput: 25.40 Mbit/s
95th percentile per-packet one-way delay: 81.229 ms
Loss rate: 26.36%
-- Flow 3:
Average throughput: 20.35 Mbit/s
95th percentile per-packet one-way delay: 81.214 ms
Loss rate: 24.12%
```

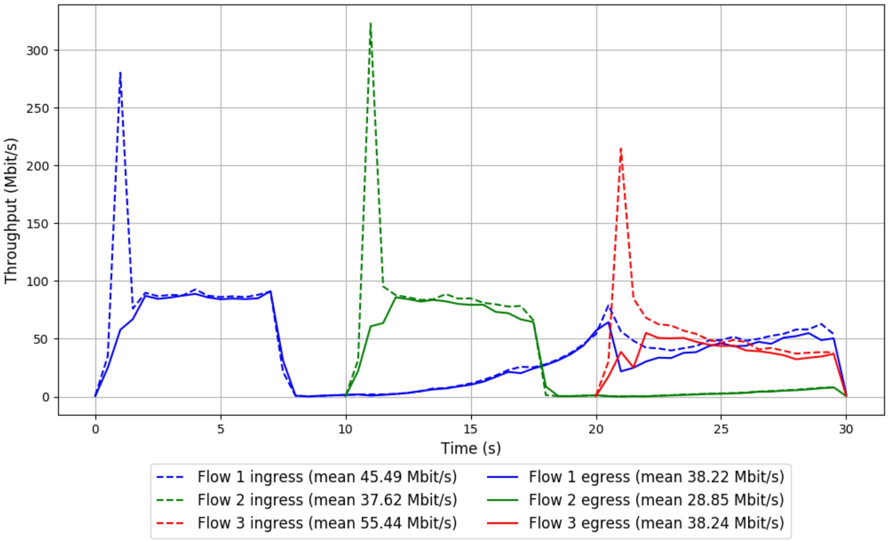
Run 3: Report of FillP — Data Link

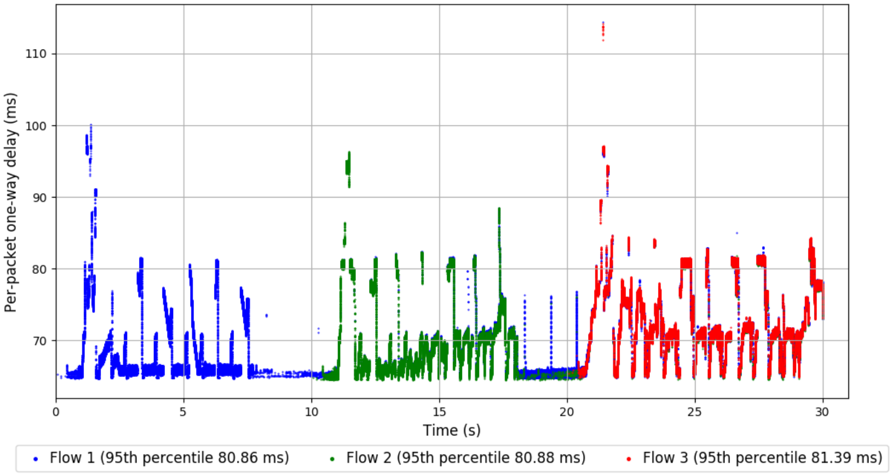




```
Run 4: Statistics of FillP

Start at: 2018-02-04 22:46:43
End at: 2018-02-04 22:47:13
Local clock offset: -1.426 ms
Remote clock offset: 0.334 ms

# Below is generated by plot.py at 2018-02-05 01:50:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 81.031 ms
Loss rate: 21.13%
-- Flow 1:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 80.864 ms
Loss rate: 15.97%
-- Flow 2:
Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 80.884 ms
Loss rate: 23.28%
-- Flow 3:
Average throughput: 38.24 Mbit/s
95th percentile per-packet one-way delay: 81.394 ms
Loss rate: 30.97%
```

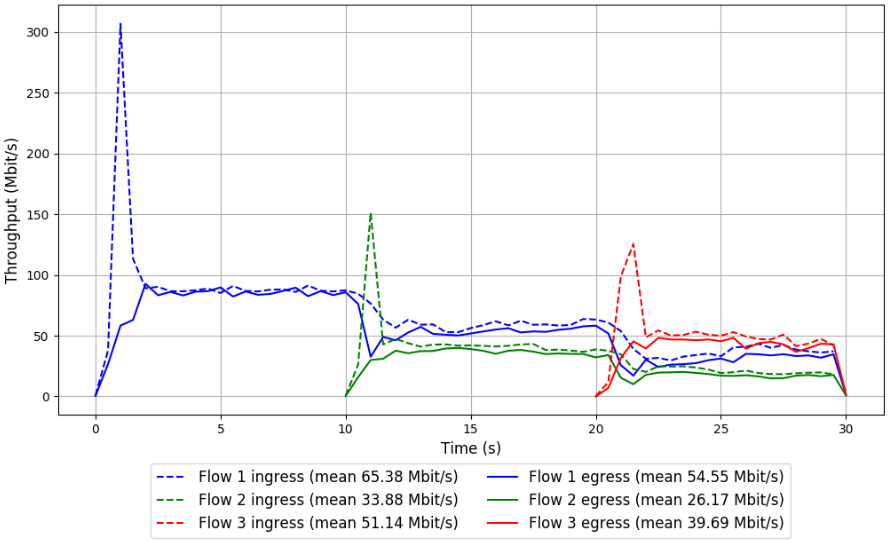
Run 4: Report of FillP — Data Link

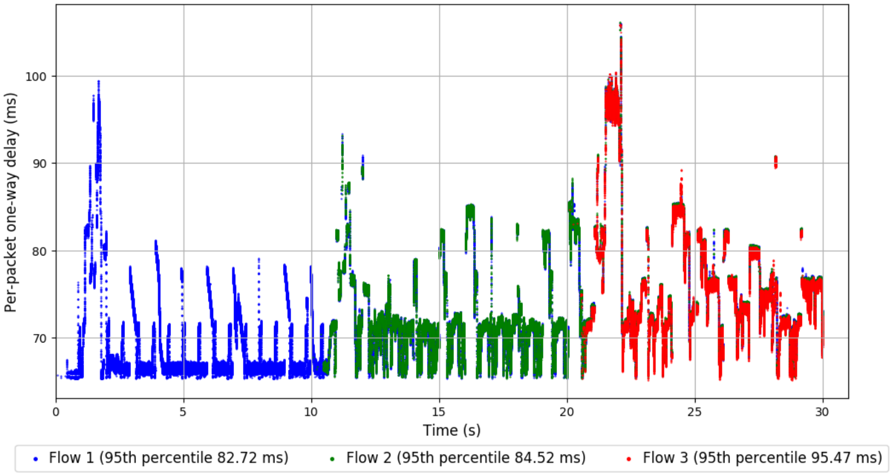




```
Run 5: Statistics of FillP

Start at: 2018-02-04 23:09:58
End at: 2018-02-04 23:10:28
Local clock offset: -2.034 ms
Remote clock offset: -0.768 ms

# Below is generated by plot.py at 2018-02-05 01:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.11 Mbit/s
95th percentile per-packet one-way delay: 84.355 ms
Loss rate: 18.84%
-- Flow 1:
Average throughput: 54.55 Mbit/s
95th percentile per-packet one-way delay: 82.723 ms
Loss rate: 16.55%
-- Flow 2:
Average throughput: 26.17 Mbit/s
95th percentile per-packet one-way delay: 84.517 ms
Loss rate: 22.74%
-- Flow 3:
Average throughput: 39.69 Mbit/s
95th percentile per-packet one-way delay: 95.472 ms
Loss rate: 22.49%
```

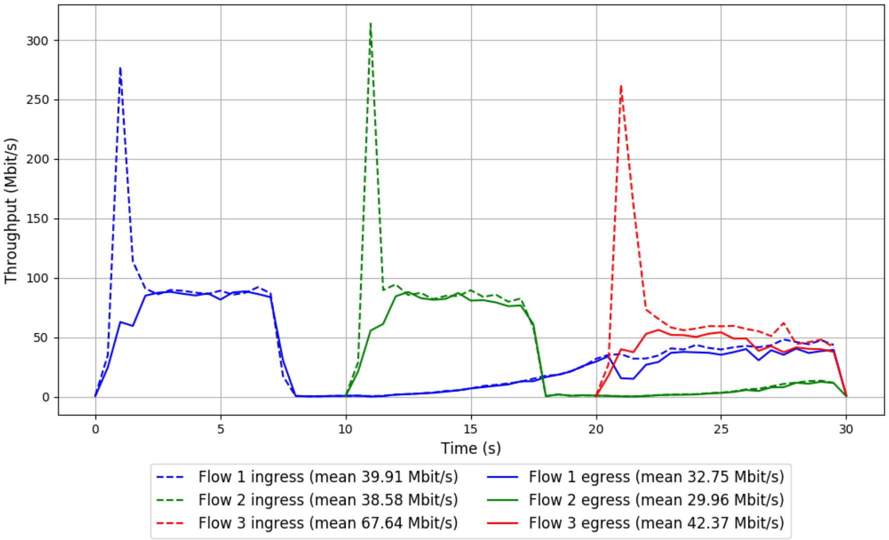
Run 5: Report of FillP — Data Link

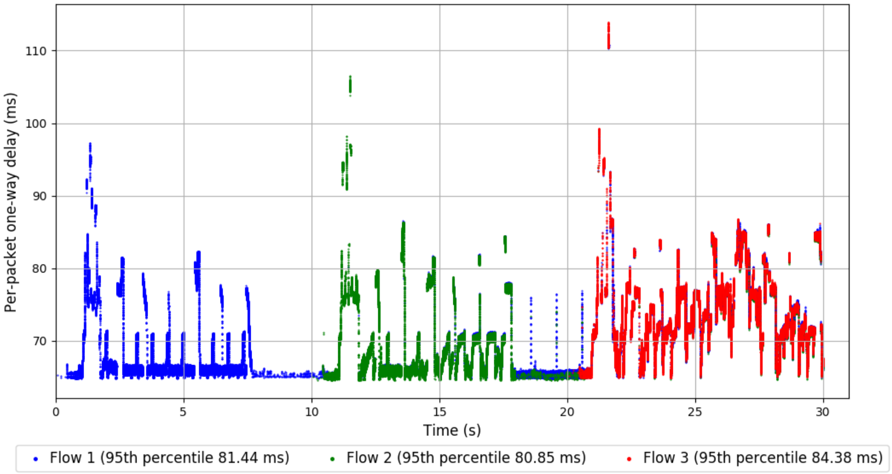




```
Run 6: Statistics of FillP

Start at: 2018-02-04 23:33:11
End at: 2018-02-04 23:33:41
Local clock offset: -1.436 ms
Remote clock offset: -1.939 ms

# Below is generated by plot.py at 2018-02-05 01:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.74 Mbit/s
95th percentile per-packet one-way delay: 81.940 ms
Loss rate: 24.16%
-- Flow 1:
Average throughput: 32.75 Mbit/s
95th percentile per-packet one-way delay: 81.437 ms
Loss rate: 17.94%
-- Flow 2:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 80.850 ms
Loss rate: 22.34%
-- Flow 3:
Average throughput: 42.37 Mbit/s
95th percentile per-packet one-way delay: 84.377 ms
Loss rate: 37.34%
```

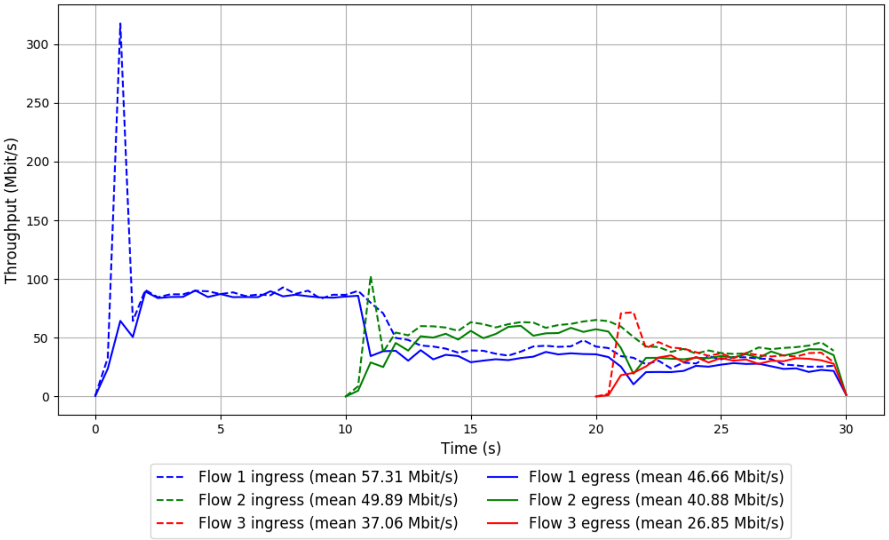
Run 6: Report of FillP — Data Link

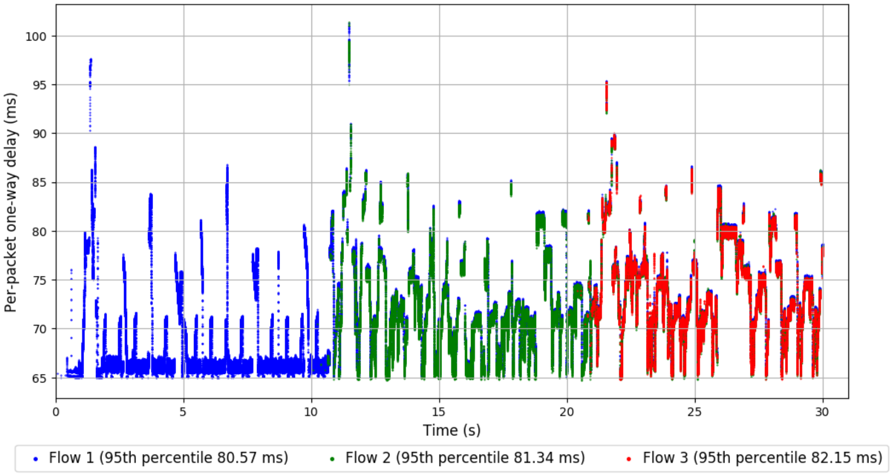




```
Run 7: Statistics of FillP

Start at: 2018-02-04 23:56:24
End at: 2018-02-04 23:56:54
Local clock offset: -1.539 ms
Remote clock offset: -2.563 ms

# Below is generated by plot.py at 2018-02-05 01:51:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.78 Mbit/s
95th percentile per-packet one-way delay: 81.167 ms
Loss rate: 19.44%
-- Flow 1:
Average throughput: 46.66 Mbit/s
95th percentile per-packet one-way delay: 80.567 ms
Loss rate: 18.55%
-- Flow 2:
Average throughput: 40.88 Mbit/s
95th percentile per-packet one-way delay: 81.344 ms
Loss rate: 18.01%
-- Flow 3:
Average throughput: 26.85 Mbit/s
95th percentile per-packet one-way delay: 82.154 ms
Loss rate: 27.50%
```

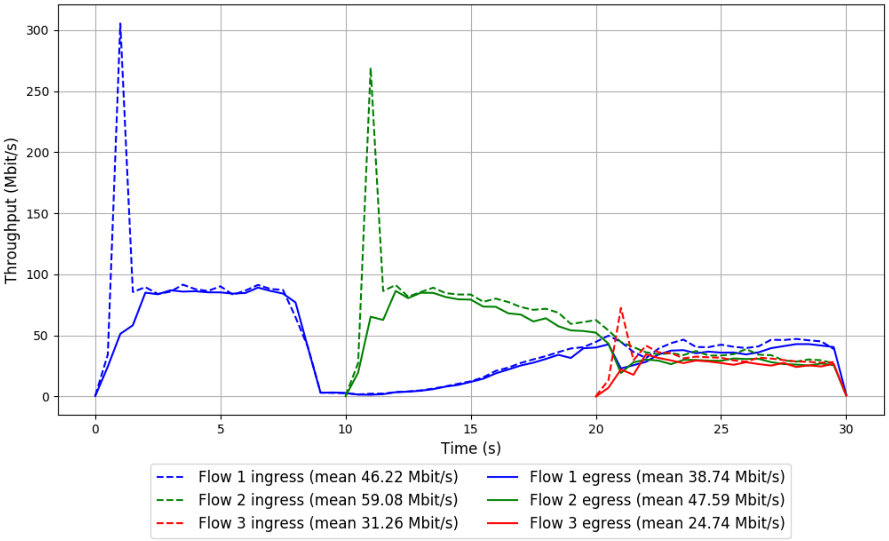
Run 7: Report of FillP — Data Link

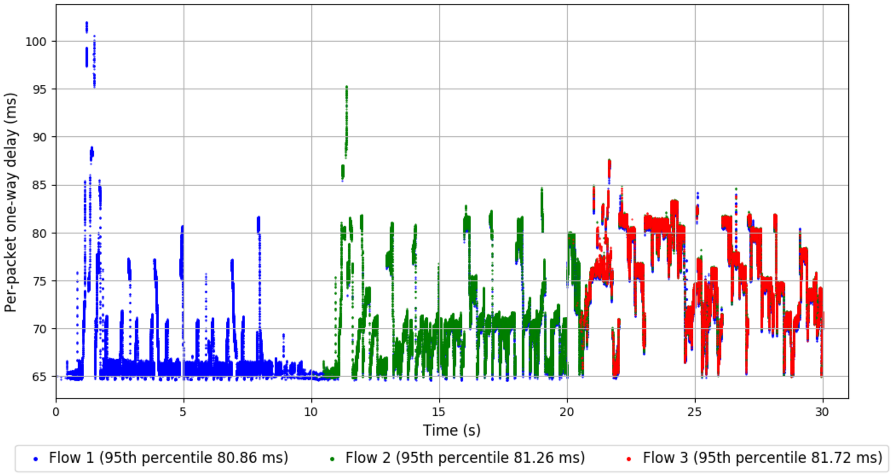




```
Run 8: Statistics of FillP

Start at: 2018-02-05 00:19:36
End at: 2018-02-05 00:20:06
Local clock offset: -1.445 ms
Remote clock offset: -3.259 ms

# Below is generated by plot.py at 2018-02-05 01:51:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.63 Mbit/s
95th percentile per-packet one-way delay: 81.200 ms
Loss rate: 18.02%
-- Flow 1:
Average throughput: 38.74 Mbit/s
95th percentile per-packet one-way delay: 80.859 ms
Loss rate: 16.16%
-- Flow 2:
Average throughput: 47.59 Mbit/s
95th percentile per-packet one-way delay: 81.257 ms
Loss rate: 19.43%
-- Flow 3:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 81.721 ms
Loss rate: 20.93%
```

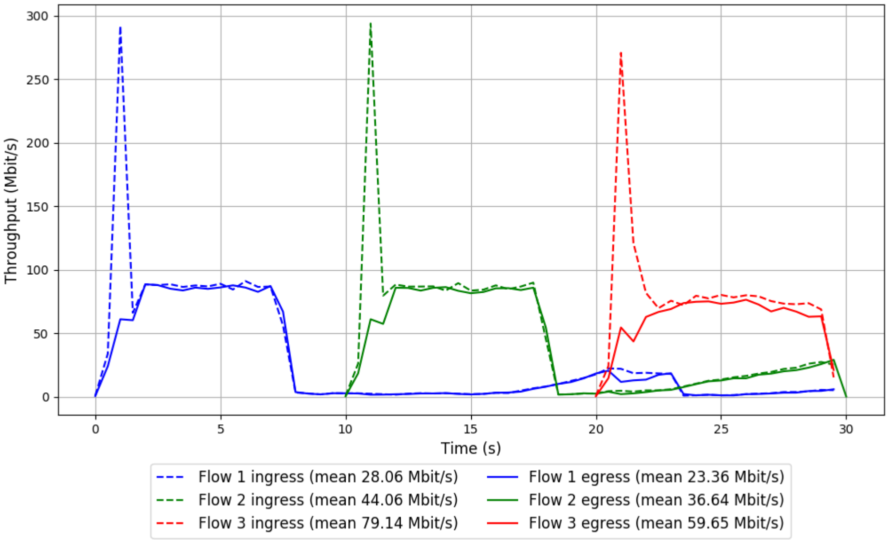
Run 8: Report of FillP — Data Link

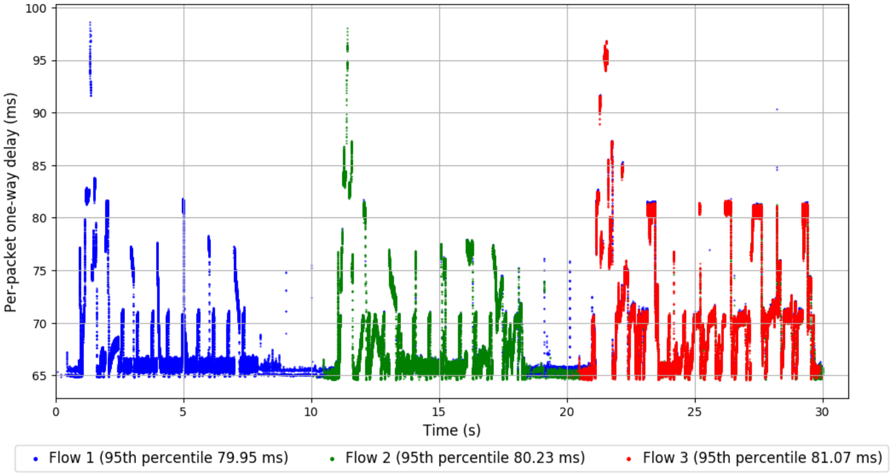




```
Run 9: Statistics of FillP

Start at: 2018-02-05 00:42:50
End at: 2018-02-05 00:43:20
Local clock offset: -1.524 ms
Remote clock offset: -4.107 ms

# Below is generated by plot.py at 2018-02-05 01:52:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.49 Mbit/s
95th percentile per-packet one-way delay: 80.844 ms
Loss rate: 19.24%
-- Flow 1:
Average throughput: 23.36 Mbit/s
95th percentile per-packet one-way delay: 79.949 ms
Loss rate: 16.73%
-- Flow 2:
Average throughput: 36.64 Mbit/s
95th percentile per-packet one-way delay: 80.234 ms
Loss rate: 16.83%
-- Flow 3:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 81.073 ms
Loss rate: 24.62%
```

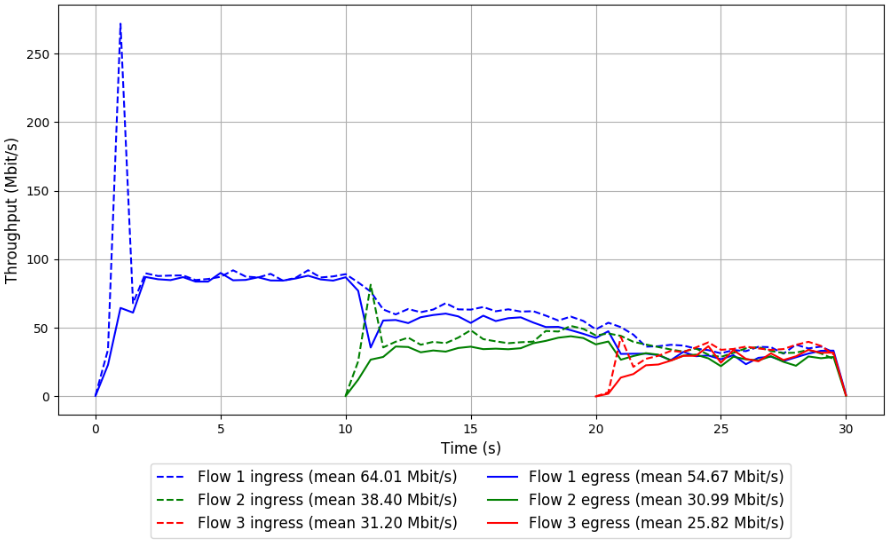
Run 9: Report of FillP — Data Link

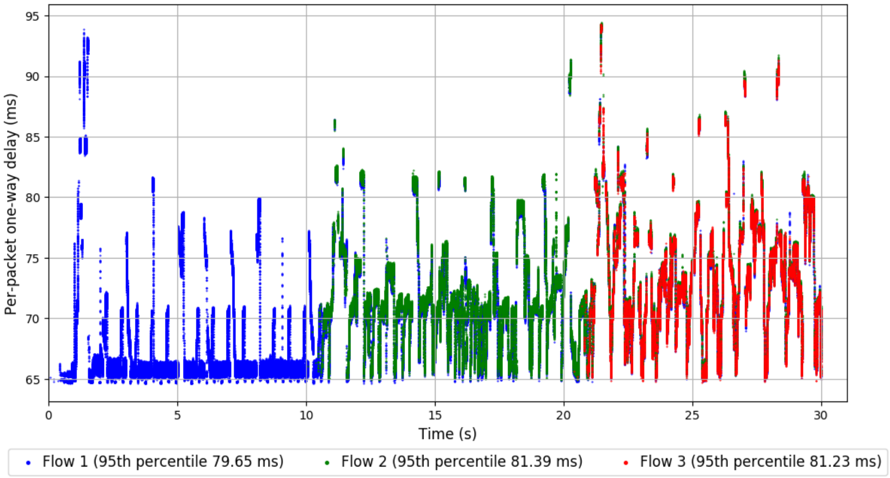




```
Run 10: Statistics of FillP

Start at: 2018-02-05 01:06:13
End at: 2018-02-05 01:06:43
Local clock offset: -1.566 ms
Remote clock offset: -4.21 ms

# Below is generated by plot.py at 2018-02-05 01:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.59 Mbit/s
95th percentile per-packet one-way delay: 80.759 ms
Loss rate: 16.32%
-- Flow 1:
Average throughput: 54.67 Mbit/s
95th percentile per-packet one-way delay: 79.651 ms
Loss rate: 14.58%
-- Flow 2:
Average throughput: 30.99 Mbit/s
95th percentile per-packet one-way delay: 81.389 ms
Loss rate: 19.27%
-- Flow 3:
Average throughput: 25.82 Mbit/s
95th percentile per-packet one-way delay: 81.230 ms
Loss rate: 19.72%
```

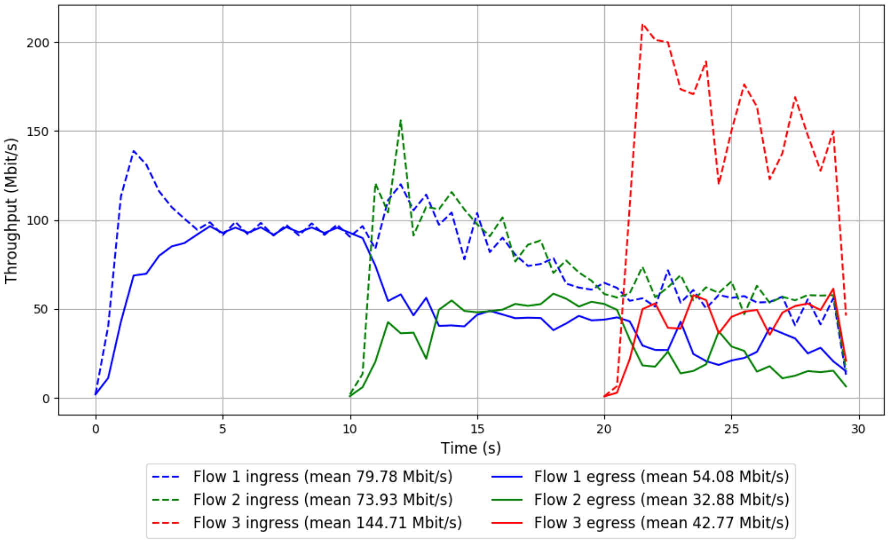
Run 10: Report of FillP — Data Link

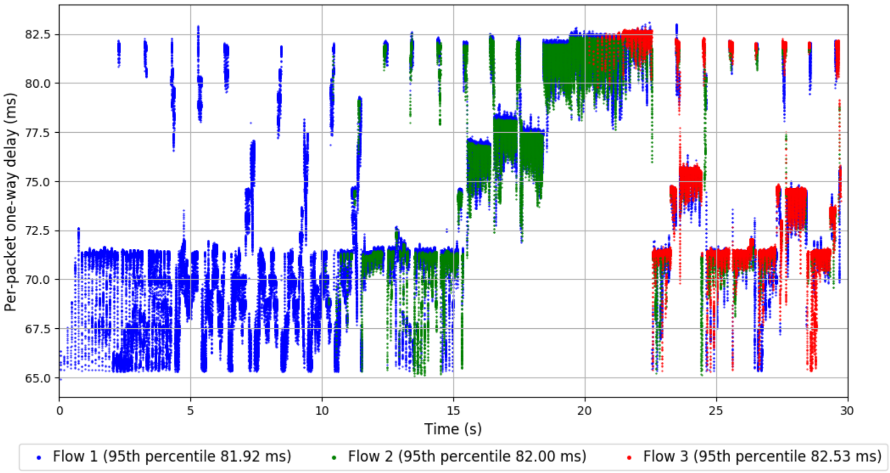




```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-04 21:33:54
End at: 2018-02-04 21:34:24
Local clock offset: -2.095 ms
Remote clock offset: 3.993 ms

# Below is generated by plot.py at 2018-02-05 01:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.50 Mbit/s
95th percentile per-packet one-way delay: 82.094 ms
Loss rate: 48.88%
-- Flow 1:
Average throughput: 54.08 Mbit/s
95th percentile per-packet one-way delay: 81.923 ms
Loss rate: 32.20%
-- Flow 2:
Average throughput: 32.88 Mbit/s
95th percentile per-packet one-way delay: 82.003 ms
Loss rate: 55.50%
-- Flow 3:
Average throughput: 42.77 Mbit/s
95th percentile per-packet one-way delay: 82.525 ms
Loss rate: 70.47%
```

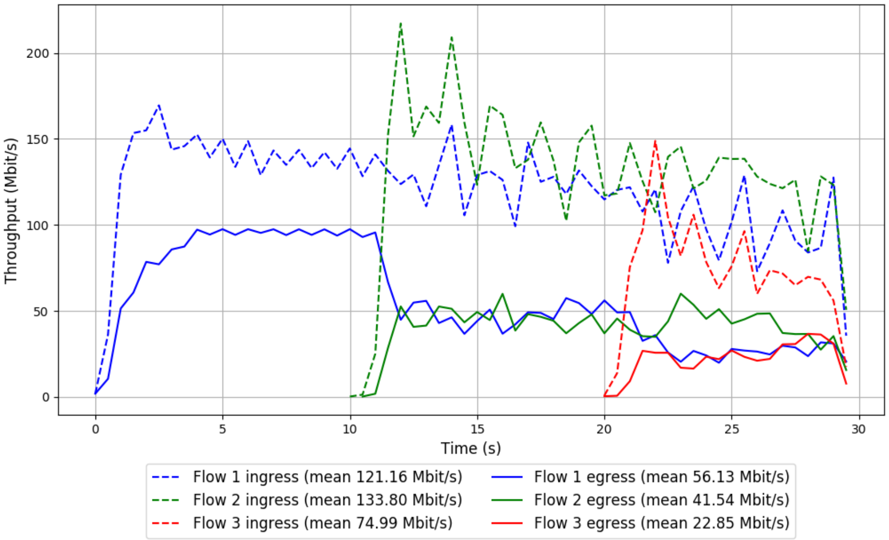
Run 1: Report of Indigo-1-32 — Data Link

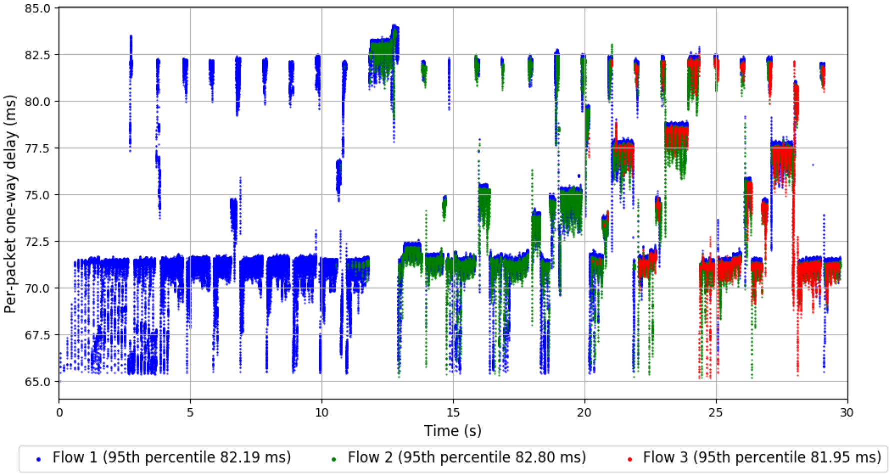




```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-04 21:57:17
End at: 2018-02-04 21:57:47
Local clock offset: -1.848 ms
Remote clock offset: 2.687 ms

# Below is generated by plot.py at 2018-02-05 01:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.26 Mbit/s
95th percentile per-packet one-way delay: 82.197 ms
Loss rate: 61.02%
-- Flow 1:
Average throughput: 56.13 Mbit/s
95th percentile per-packet one-way delay: 82.188 ms
Loss rate: 53.66%
-- Flow 2:
Average throughput: 41.54 Mbit/s
95th percentile per-packet one-way delay: 82.801 ms
Loss rate: 68.96%
-- Flow 3:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 81.954 ms
Loss rate: 69.55%
```

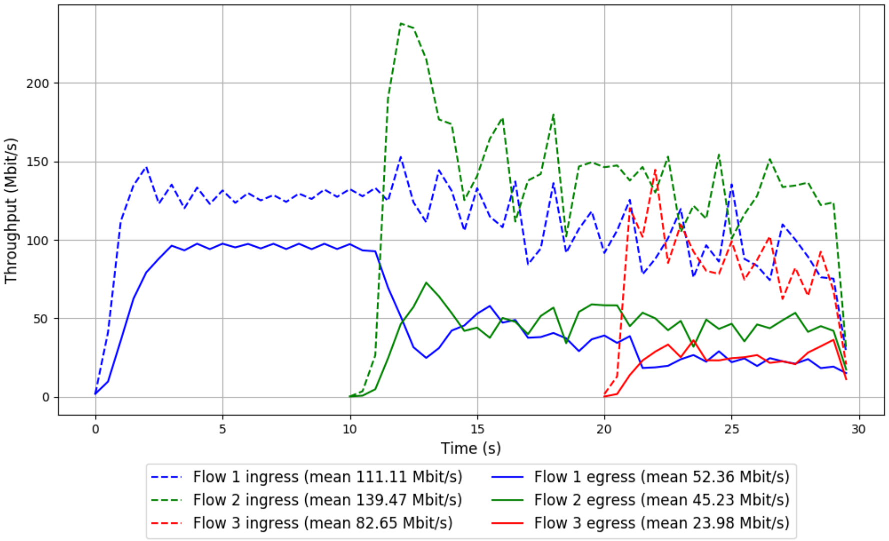
Run 2: Report of Indigo-1-32 — Data Link

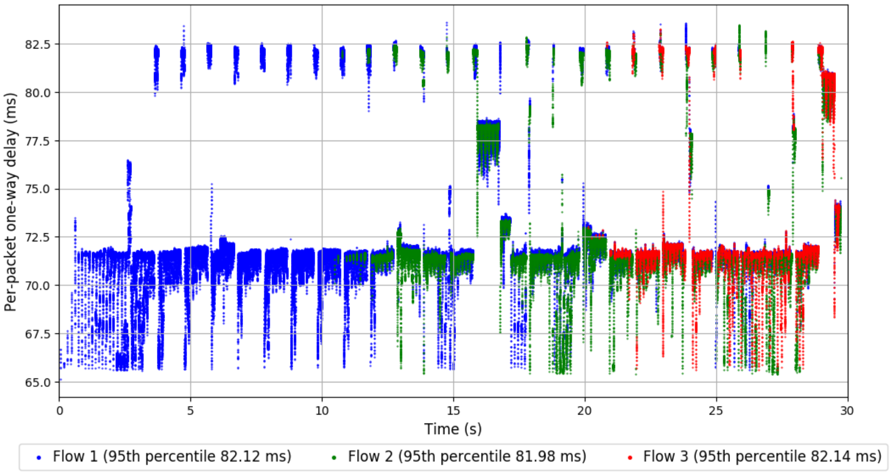




```
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-04 22:20:42
End at: 2018-02-04 22:21:12
Local clock offset: -1.832 ms
Remote clock offset: 1.547 ms

# Below is generated by plot.py at 2018-02-05 01:52:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.41 Mbit/s
95th percentile per-packet one-way delay: 82.079 ms
Loss rate: 60.81%
-- Flow 1:
Average throughput: 52.36 Mbit/s
95th percentile per-packet one-way delay: 82.117 ms
Loss rate: 52.86%
-- Flow 2:
Average throughput: 45.23 Mbit/s
95th percentile per-packet one-way delay: 81.977 ms
Loss rate: 67.56%
-- Flow 3:
Average throughput: 23.98 Mbit/s
95th percentile per-packet one-way delay: 82.142 ms
Loss rate: 70.99%
```

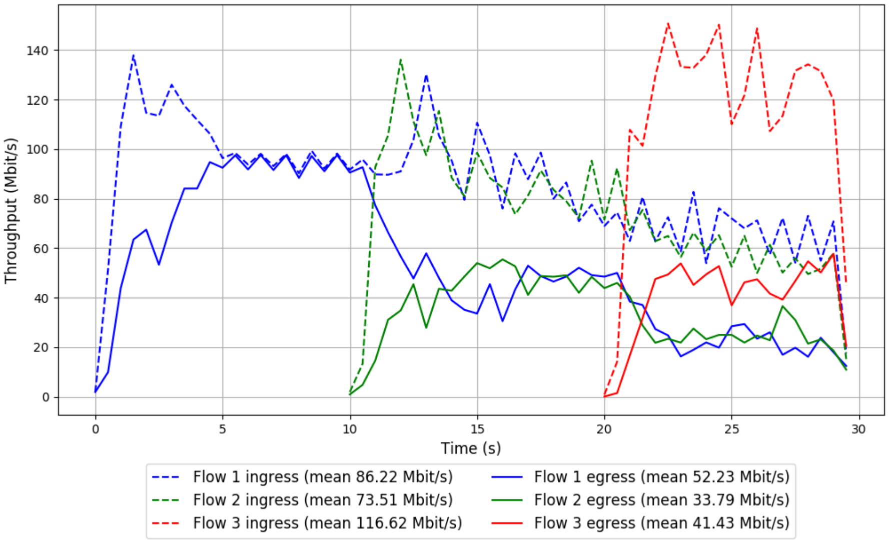
Run 3: Report of Indigo-1-32 — Data Link

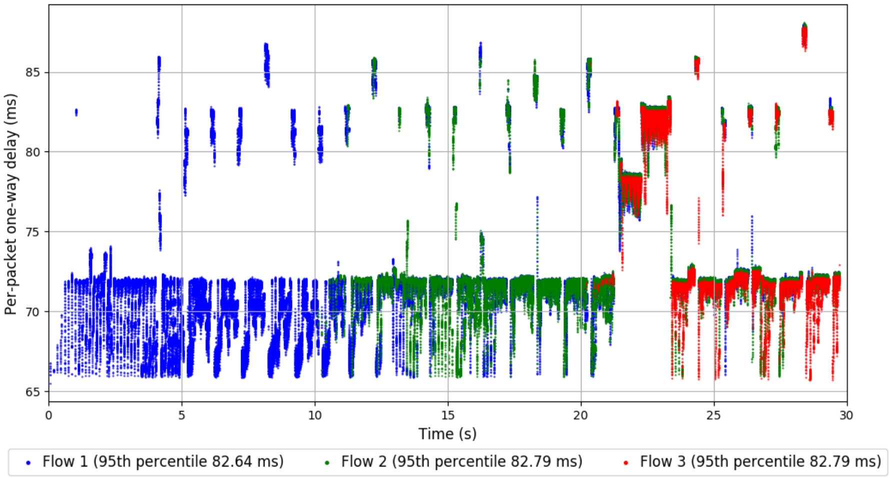




```
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-04 22:44:07
End at: 2018-02-04 22:44:37
Local clock offset: -2.035 ms
Remote clock offset: 0.431 ms

# Below is generated by plot.py at 2018-02-05 01:52:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.79 Mbit/s
95th percentile per-packet one-way delay: 82.707 ms
Loss rate: 48.98%
-- Flow 1:
Average throughput: 52.23 Mbit/s
95th percentile per-packet one-way delay: 82.643 ms
Loss rate: 39.40%
-- Flow 2:
Average throughput: 33.79 Mbit/s
95th percentile per-packet one-way delay: 82.789 ms
Loss rate: 54.03%
-- Flow 3:
Average throughput: 41.43 Mbit/s
95th percentile per-packet one-way delay: 82.788 ms
Loss rate: 64.47%
```

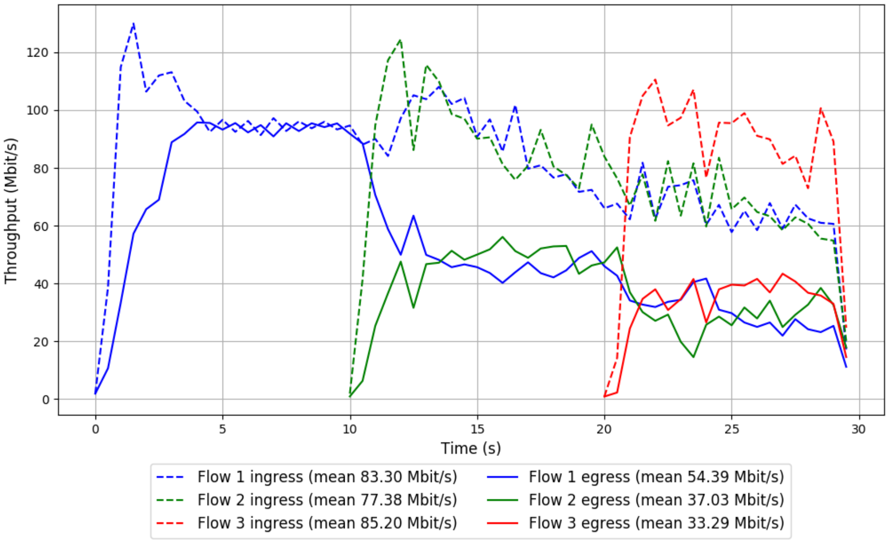
Run 4: Report of Indigo-1-32 — Data Link

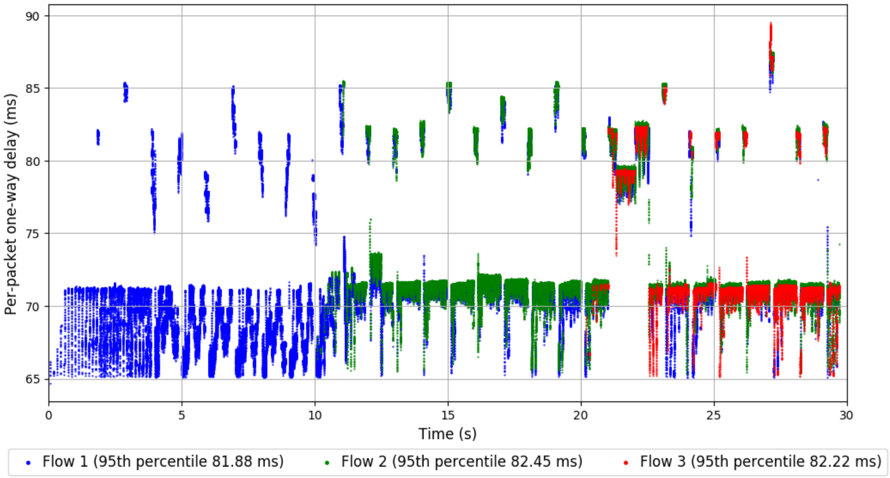




```
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-04 23:07:22
End at: 2018-02-04 23:07:52
Local clock offset: -1.405 ms
Remote clock offset: -0.589 ms

# Below is generated by plot.py at 2018-02-05 01:53:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.52 Mbit/s
95th percentile per-packet one-way delay: 82.167 ms
Loss rate: 44.64%
-- Flow 1:
Average throughput: 54.39 Mbit/s
95th percentile per-packet one-way delay: 81.880 ms
Loss rate: 34.69%
-- Flow 2:
Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 82.455 ms
Loss rate: 52.12%
-- Flow 3:
Average throughput: 33.29 Mbit/s
95th percentile per-packet one-way delay: 82.220 ms
Loss rate: 60.91%
```

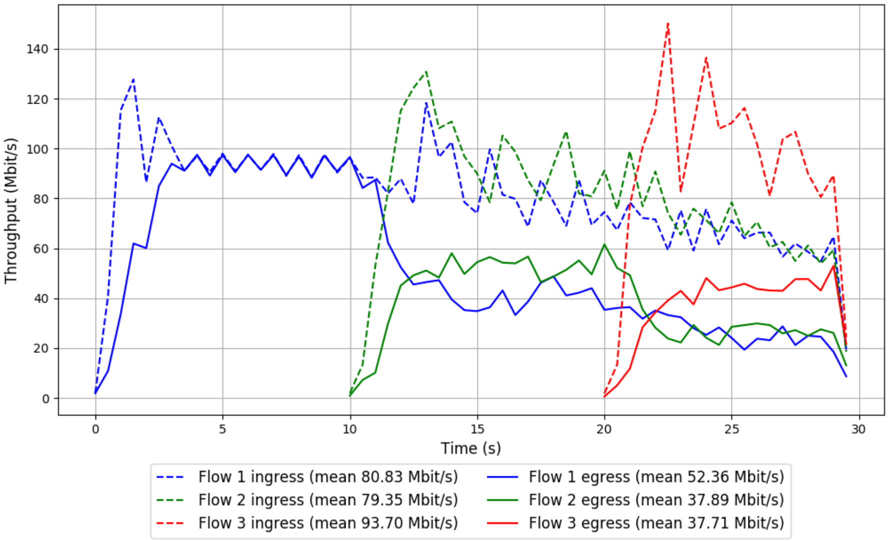
Run 5: Report of Indigo-1-32 — Data Link

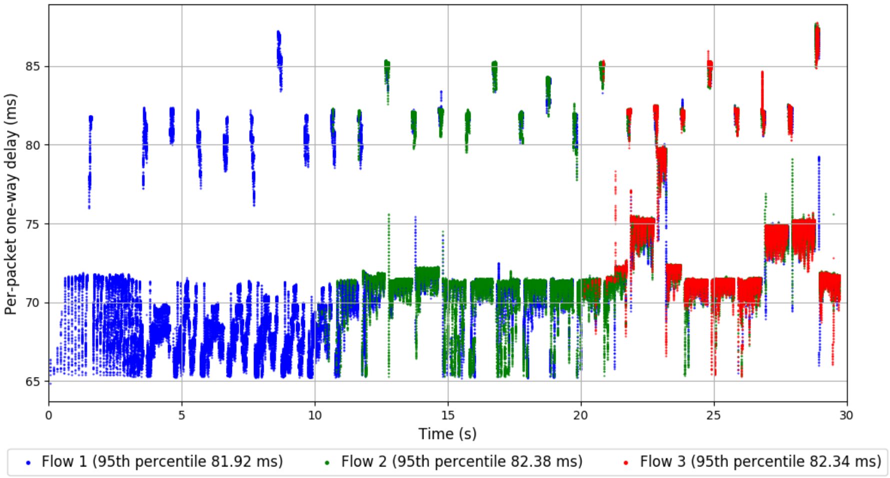




```
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-04 23:30:34
End at: 2018-02-04 23:31:04
Local clock offset: -1.276 ms
Remote clock offset: -1.804 ms

# Below is generated by plot.py at 2018-02-05 01:53:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.58 Mbit/s
95th percentile per-packet one-way delay: 82.103 ms
Loss rate: 45.23%
-- Flow 1:
Average throughput: 52.36 Mbit/s
95th percentile per-packet one-way delay: 81.925 ms
Loss rate: 35.23%
-- Flow 2:
Average throughput: 37.89 Mbit/s
95th percentile per-packet one-way delay: 82.377 ms
Loss rate: 52.24%
-- Flow 3:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 82.342 ms
Loss rate: 59.75%
```

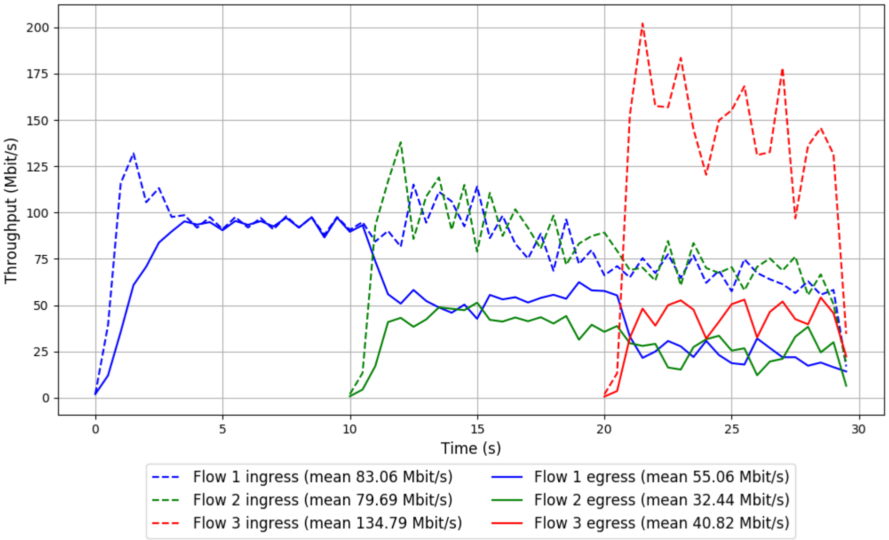
Run 6: Report of Indigo-1-32 — Data Link

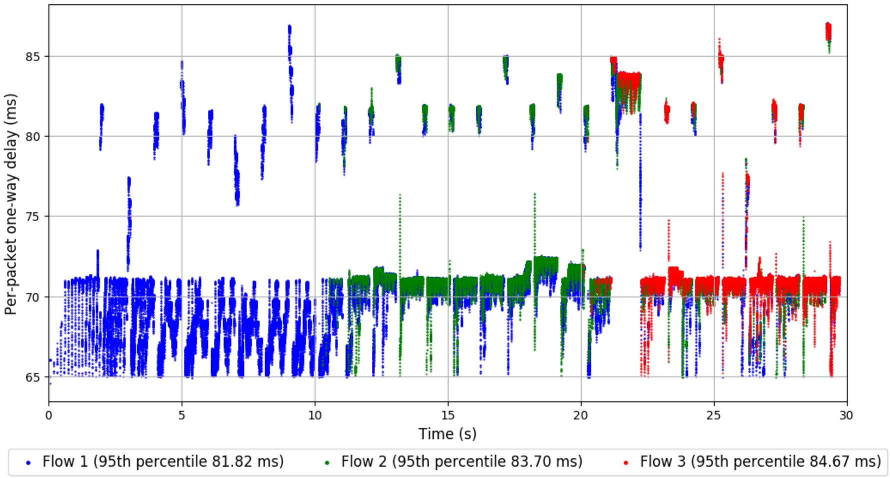




```
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-04 23:53:47
End at: 2018-02-04 23:54:17
Local clock offset: -1.183 ms
Remote clock offset: -2.473 ms

# Below is generated by plot.py at 2018-02-05 01:53:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.69 Mbit/s
95th percentile per-packet one-way delay: 83.645 ms
Loss rate: 49.99%
-- Flow 1:
Average throughput: 55.06 Mbit/s
95th percentile per-packet one-way delay: 81.818 ms
Loss rate: 33.70%
-- Flow 2:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 83.703 ms
Loss rate: 59.31%
-- Flow 3:
Average throughput: 40.82 Mbit/s
95th percentile per-packet one-way delay: 84.674 ms
Loss rate: 69.72%
```

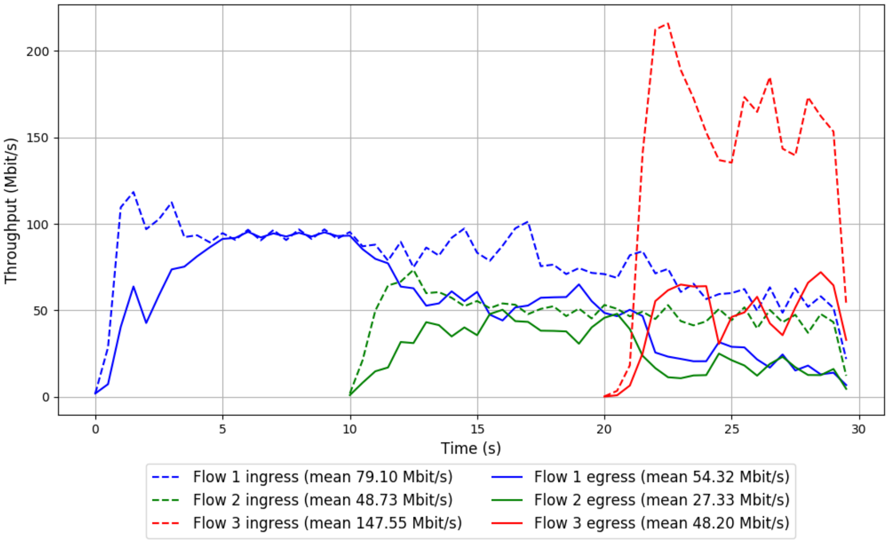
Run 7: Report of Indigo-1-32 — Data Link

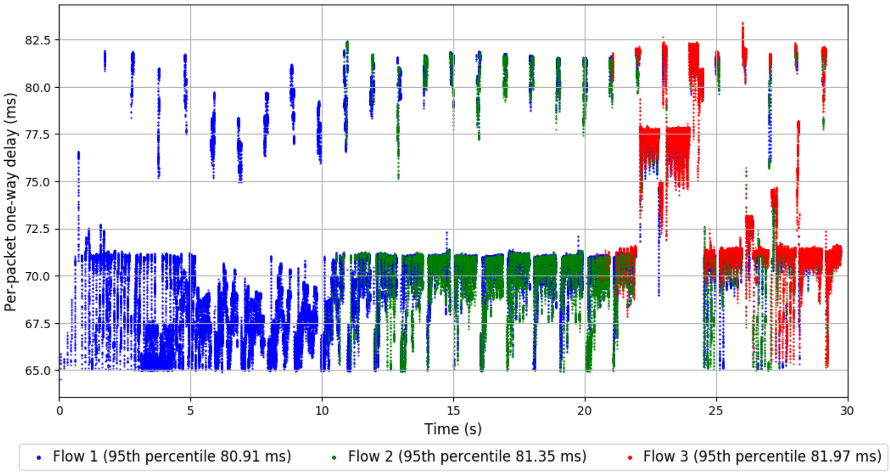




```
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-05 00:16:59
End at: 2018-02-05 00:17:29
Local clock offset: -1.139 ms
Remote clock offset: -3.137 ms

# Below is generated by plot.py at 2018-02-05 01:53:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.37 Mbit/s
95th percentile per-packet one-way delay: 81.383 ms
Loss rate: 44.42%
-- Flow 1:
Average throughput: 54.32 Mbit/s
95th percentile per-packet one-way delay: 80.913 ms
Loss rate: 31.32%
-- Flow 2:
Average throughput: 27.33 Mbit/s
95th percentile per-packet one-way delay: 81.347 ms
Loss rate: 43.92%
-- Flow 3:
Average throughput: 48.20 Mbit/s
95th percentile per-packet one-way delay: 81.973 ms
Loss rate: 67.33%
```

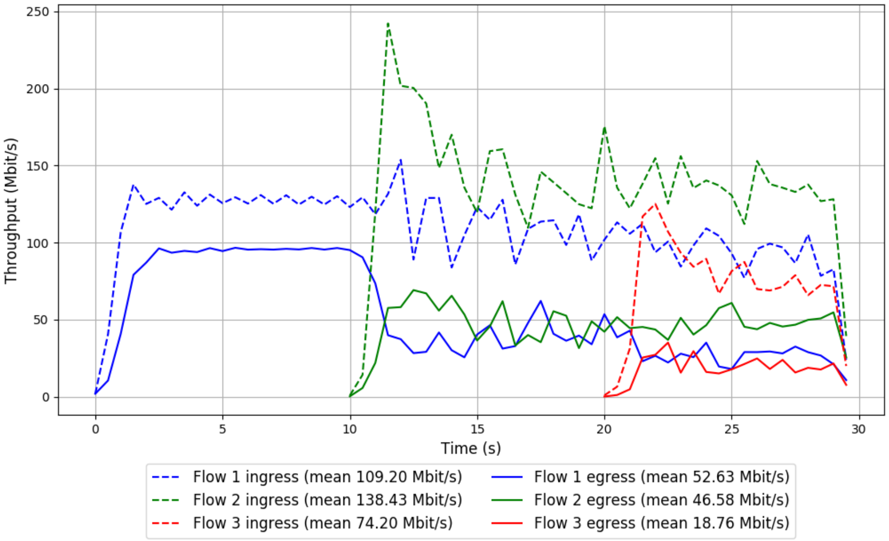
Run 8: Report of Indigo-1-32 — Data Link

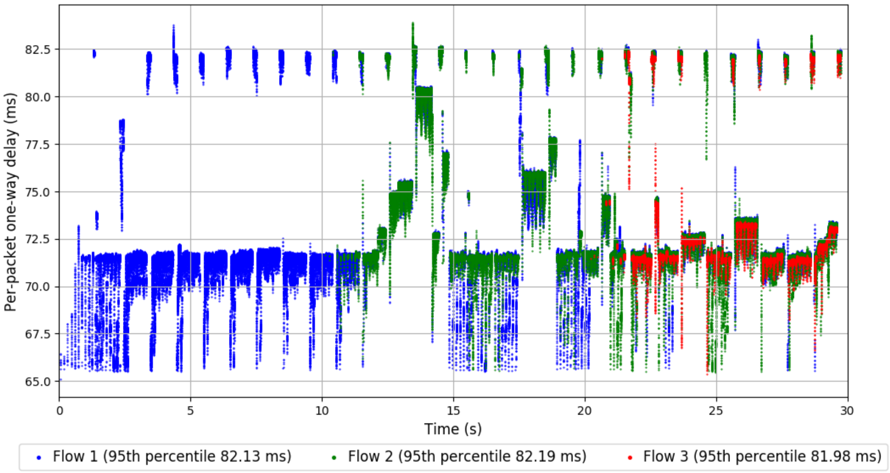




```
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-05 00:40:12
End at: 2018-02-05 00:40:42
Local clock offset: -1.548 ms
Remote clock offset: -4.002 ms

# Below is generated by plot.py at 2018-02-05 01:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.40 Mbit/s
95th percentile per-packet one-way delay: 82.146 ms
Loss rate: 60.14%
-- Flow 1:
Average throughput: 52.63 Mbit/s
95th percentile per-packet one-way delay: 82.134 ms
Loss rate: 51.78%
-- Flow 2:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 82.186 ms
Loss rate: 66.33%
-- Flow 3:
Average throughput: 18.76 Mbit/s
95th percentile per-packet one-way delay: 81.985 ms
Loss rate: 74.69%
```

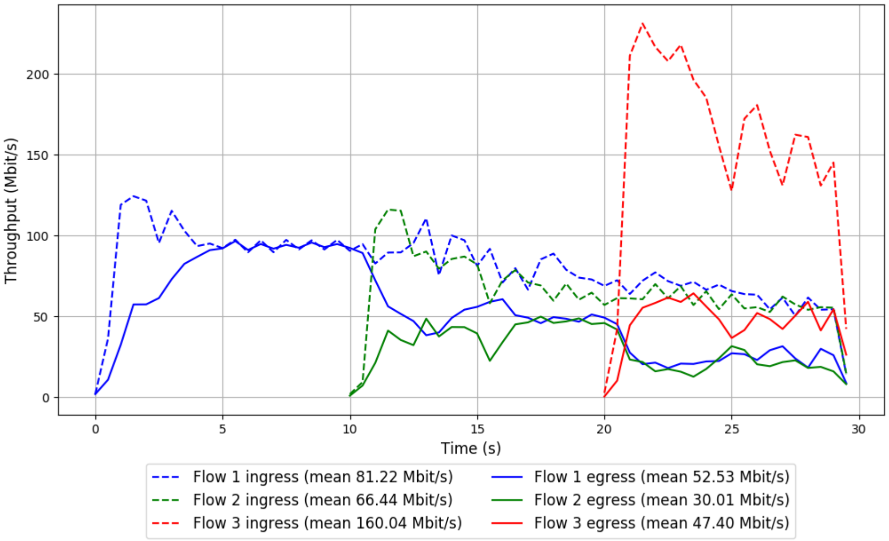
Run 9: Report of Indigo-1-32 — Data Link

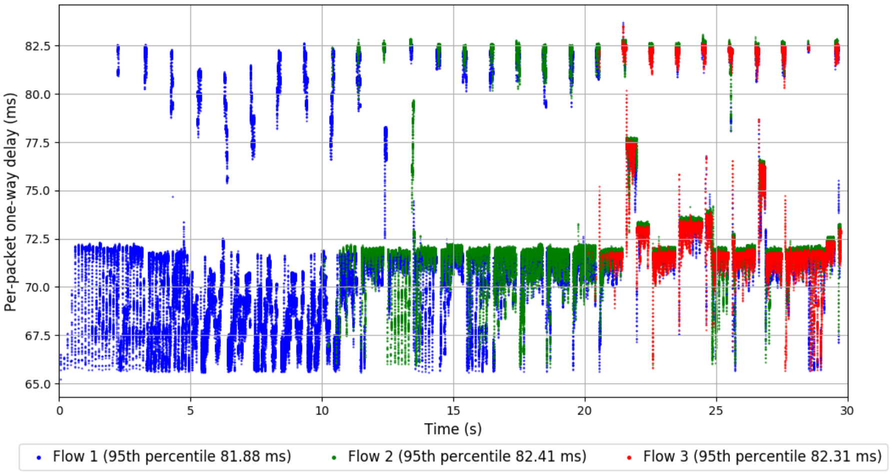




```
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-05 01:03:36
End at: 2018-02-05 01:04:06
Local clock offset: -1.978 ms
Remote clock offset: -4.217 ms

# Below is generated by plot.py at 2018-02-05 01:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.62 Mbit/s
95th percentile per-packet one-way delay: 82.188 ms
Loss rate: 50.44%
-- Flow 1:
Average throughput: 52.53 Mbit/s
95th percentile per-packet one-way delay: 81.882 ms
Loss rate: 35.31%
-- Flow 2:
Average throughput: 30.01 Mbit/s
95th percentile per-packet one-way delay: 82.413 ms
Loss rate: 54.82%
-- Flow 3:
Average throughput: 47.40 Mbit/s
95th percentile per-packet one-way delay: 82.308 ms
Loss rate: 70.38%
```

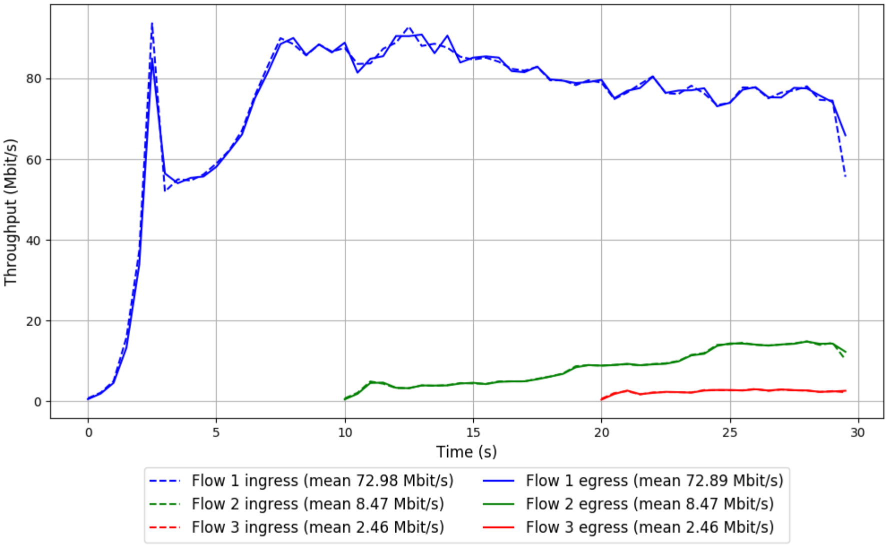
Run 10: Report of Indigo-1-32 — Data Link

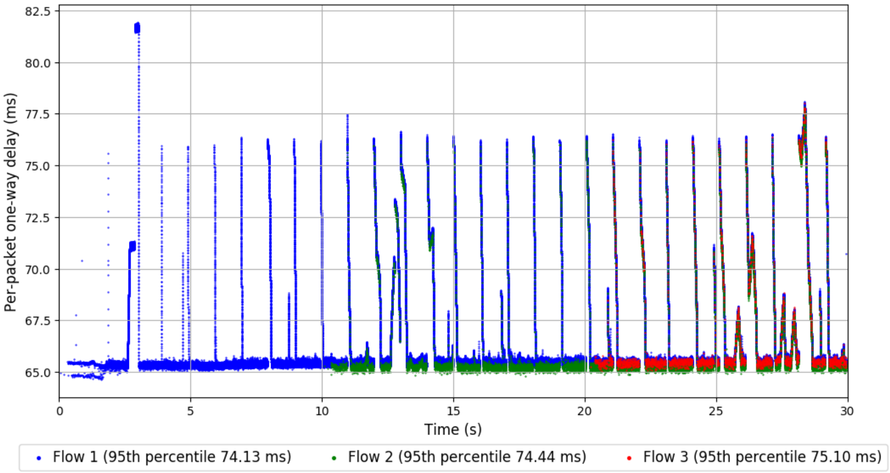




```
Run 1: Statistics of Vivace-latency

Start at: 2018-02-04 21:23:43
End at: 2018-02-04 21:24:13
Local clock offset: -2.239 ms
Remote clock offset: 4.493 ms

# Below is generated by plot.py at 2018-02-05 01:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.33 Mbit/s
95th percentile per-packet one-way delay: 74.170 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 72.89 Mbit/s
95th percentile per-packet one-way delay: 74.128 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 74.444 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 75.104 ms
Loss rate: 0.00%
```

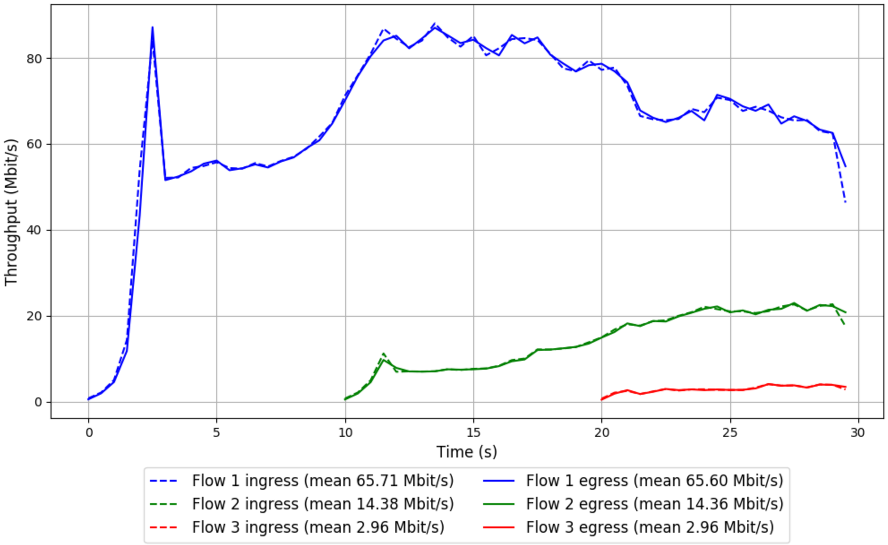
Run 1: Report of Vivace-latency — Data Link

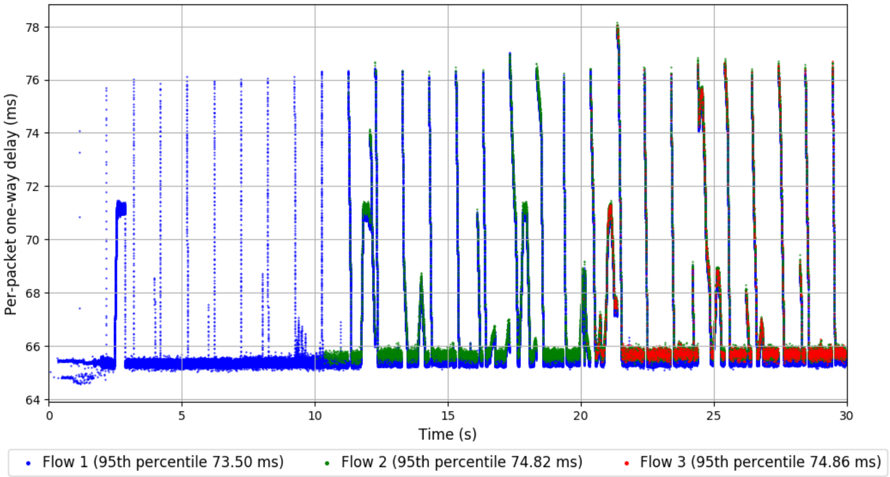




```
Run 2: Statistics of Vivace-latency

Start at: 2018-02-04 21:47:05
End at: 2018-02-04 21:47:35
Local clock offset: -2.103 ms
Remote clock offset: 3.167 ms

# Below is generated by plot.py at 2018-02-05 01:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.12 Mbit/s
95th percentile per-packet one-way delay: 73.746 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 65.60 Mbit/s
95th percentile per-packet one-way delay: 73.500 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 14.36 Mbit/s
95th percentile per-packet one-way delay: 74.818 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 74.859 ms
Loss rate: 0.00%
```

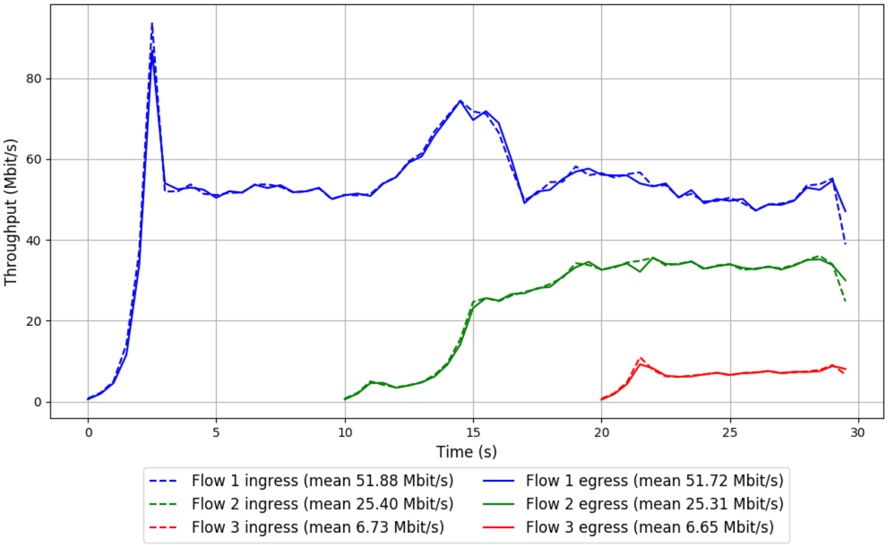
Run 2: Report of Vivace-latency — Data Link

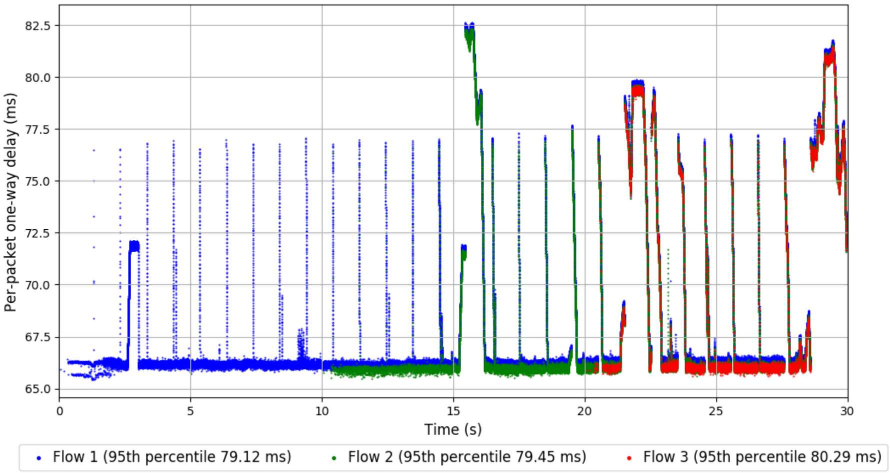




```
Run 3: Statistics of Vivace-latency

Start at: 2018-02-04 22:10:31
End at: 2018-02-04 22:11:01
Local clock offset: -2.303 ms
Remote clock offset: 2.076 ms

# Below is generated by plot.py at 2018-02-05 01:54:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.74 Mbit/s
95th percentile per-packet one-way delay: 79.383 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 51.72 Mbit/s
95th percentile per-packet one-way delay: 79.117 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 25.31 Mbit/s
95th percentile per-packet one-way delay: 79.451 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 80.292 ms
Loss rate: 1.12%
```

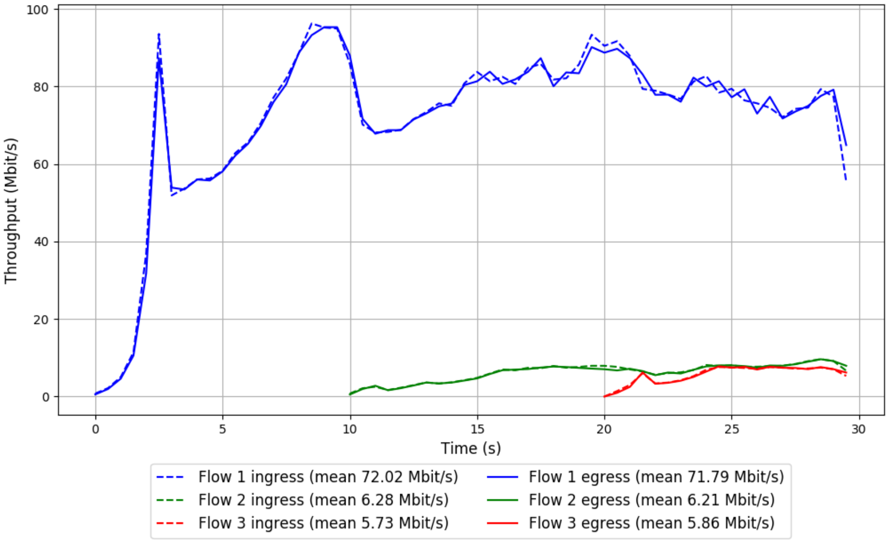
Run 3: Report of Vivace-latency — Data Link

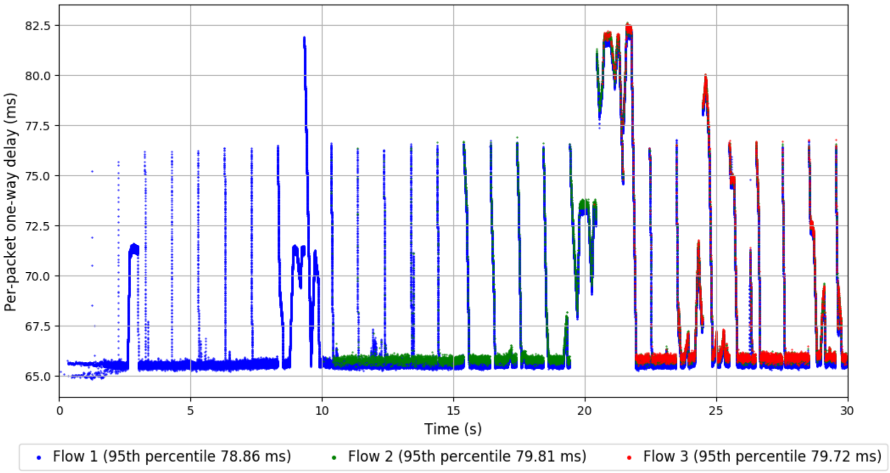




```
Run 4: Statistics of Vivace-latency

Start at: 2018-02-04 22:33:56
End at: 2018-02-04 22:34:26
Local clock offset: -1.849 ms
Remote clock offset: 0.892 ms

# Below is generated by plot.py at 2018-02-05 01:54:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.80 Mbit/s
95th percentile per-packet one-way delay: 78.962 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 71.79 Mbit/s
95th percentile per-packet one-way delay: 78.858 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 79.805 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 79.723 ms
Loss rate: 0.36%
```

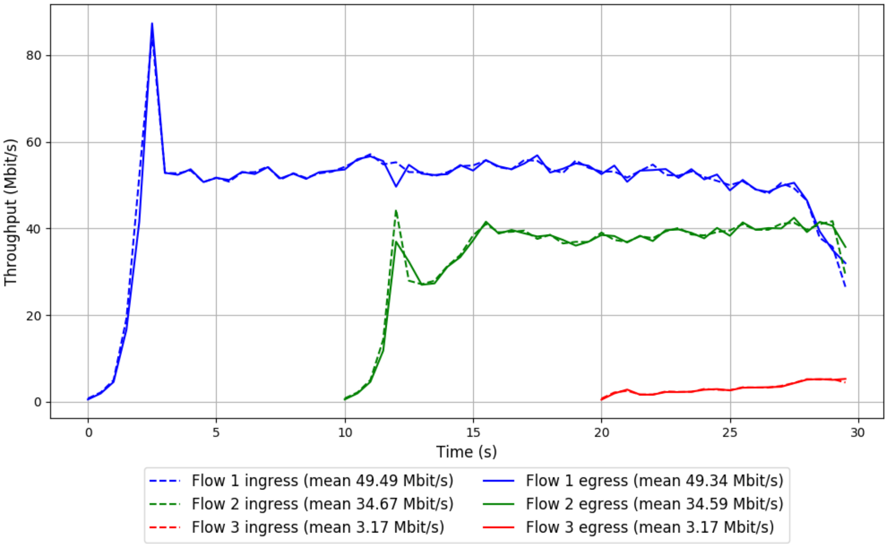
Run 4: Report of Vivace-latency — Data Link

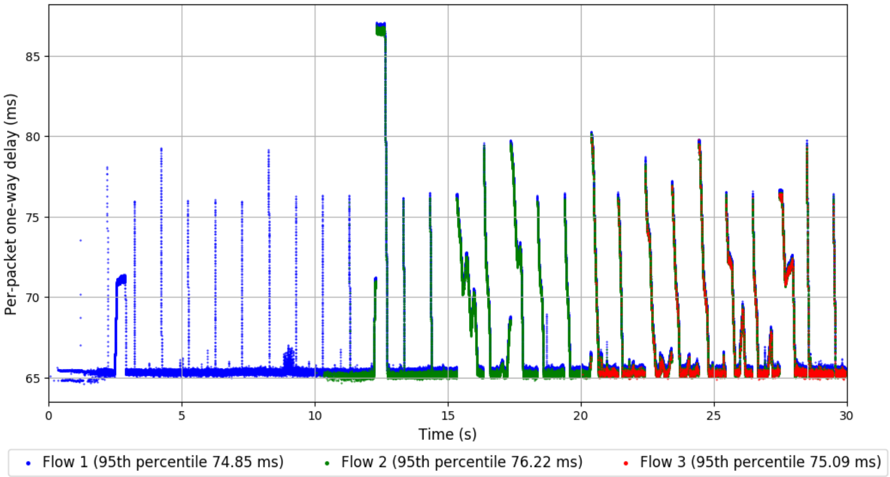




```
Run 5: Statistics of Vivace-latency

Start at: 2018-02-04 22:57:10
End at: 2018-02-04 22:57:40
Local clock offset: -1.401 ms
Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2018-02-05 01:54:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.39 Mbit/s
95th percentile per-packet one-way delay: 75.450 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 74.849 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 34.59 Mbit/s
95th percentile per-packet one-way delay: 76.216 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 75.090 ms
Loss rate: 0.00%
```

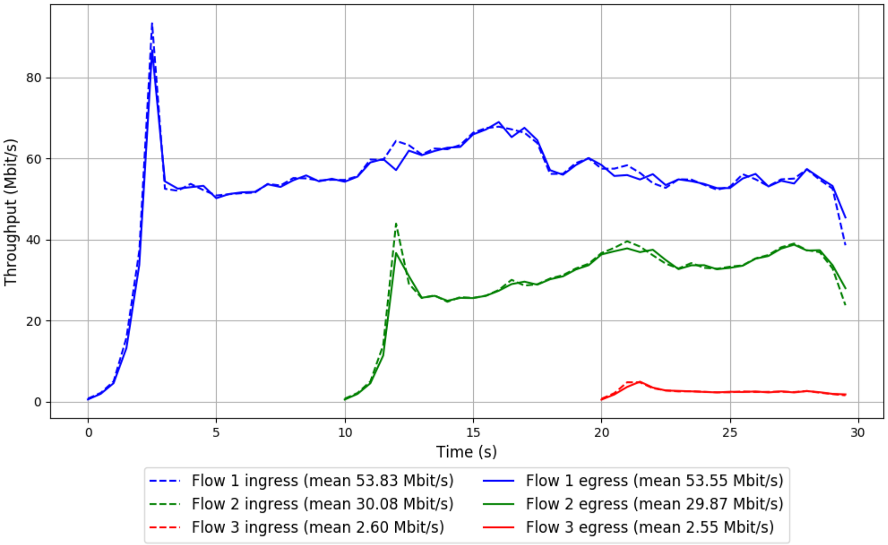
Run 5: Report of Vivace-latency — Data Link

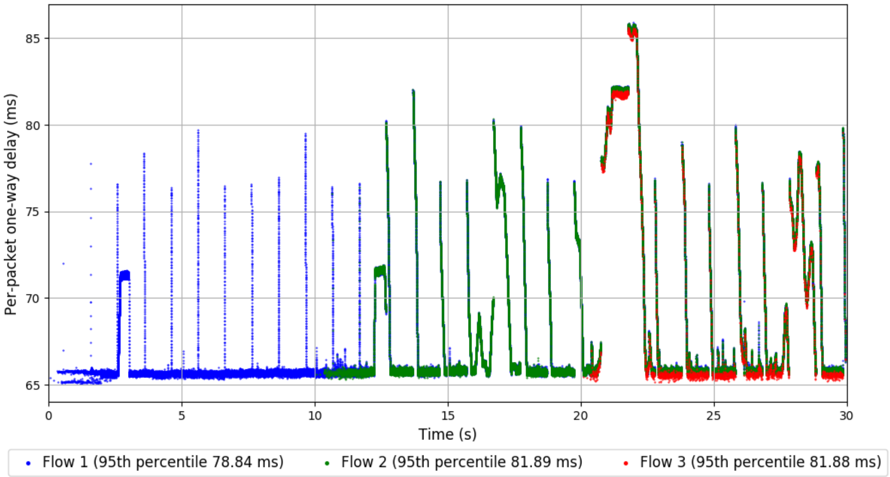




```
Run 6: Statistics of Vivace-latency

Start at: 2018-02-04 23:20:23
End at: 2018-02-04 23:20:53
Local clock offset: -1.556 ms
Remote clock offset: -1.273 ms

# Below is generated by plot.py at 2018-02-05 01:55:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.25 Mbit/s
95th percentile per-packet one-way delay: 80.251 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 53.55 Mbit/s
95th percentile per-packet one-way delay: 78.838 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 29.87 Mbit/s
95th percentile per-packet one-way delay: 81.892 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 81.876 ms
Loss rate: 1.82%
```

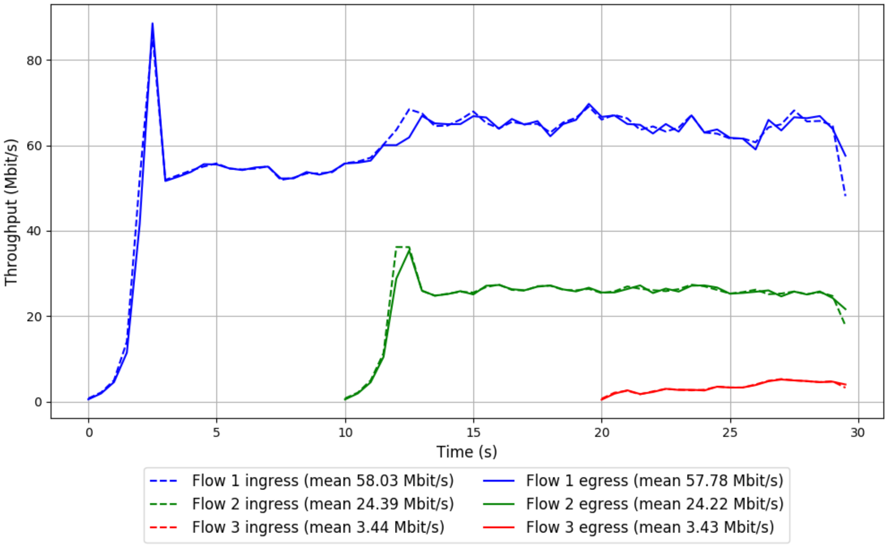
Run 6: Report of Vivace-latency — Data Link

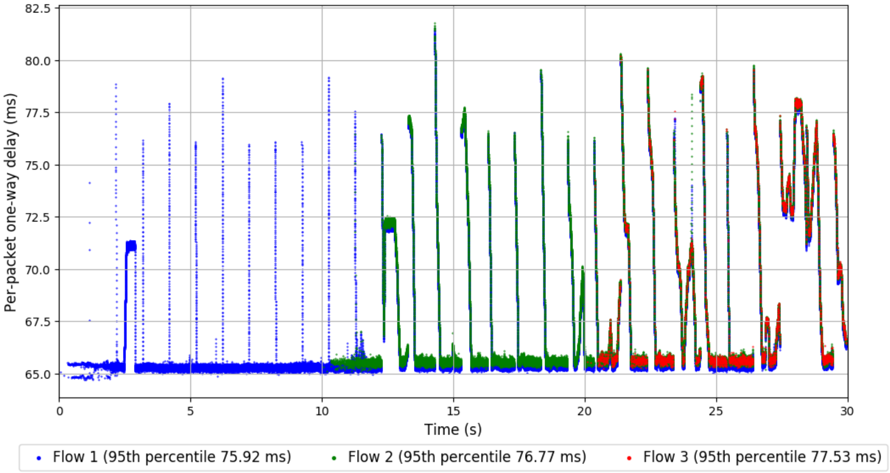




```
Run 7: Statistics of Vivace-latency

Start at: 2018-02-04 23:43:36
End at: 2018-02-04 23:44:06
Local clock offset: -1.443 ms
Remote clock offset: -2.294 ms

# Below is generated by plot.py at 2018-02-05 01:55:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.01 Mbit/s
95th percentile per-packet one-way delay: 76.211 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 75.917 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 76.770 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 77.534 ms
Loss rate: 0.28%
```

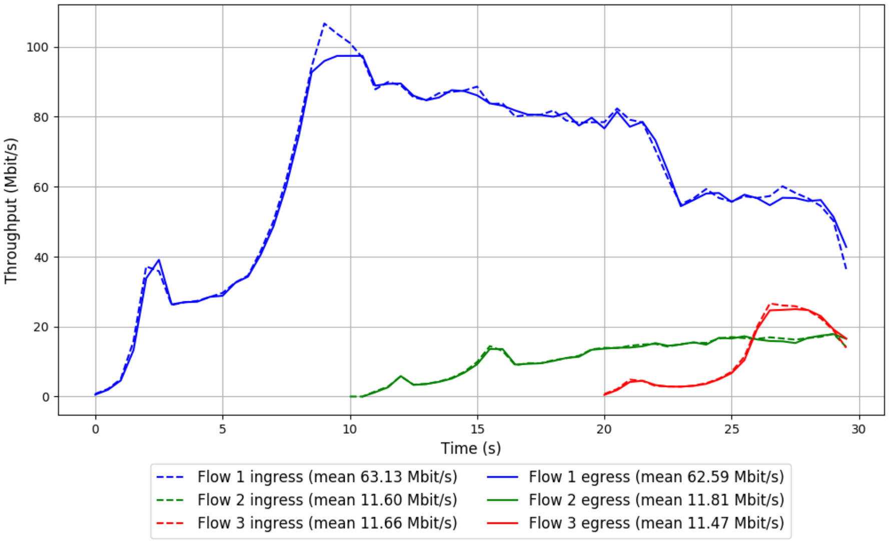
Run 7: Report of Vivace-latency — Data Link

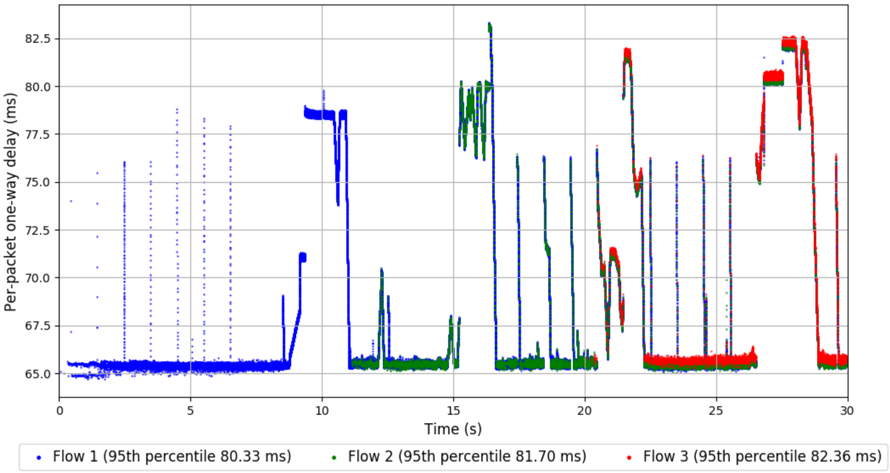




```
Run 8: Statistics of Vivace-latency

Start at: 2018-02-05 00:06:47
End at: 2018-02-05 00:07:17
Local clock offset: -1.461 ms
Remote clock offset: -2.83 ms

# Below is generated by plot.py at 2018-02-05 01:55:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.02 Mbit/s
95th percentile per-packet one-way delay: 80.780 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 62.59 Mbit/s
95th percentile per-packet one-way delay: 80.327 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 81.696 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 11.47 Mbit/s
95th percentile per-packet one-way delay: 82.357 ms
Loss rate: 1.69%
```

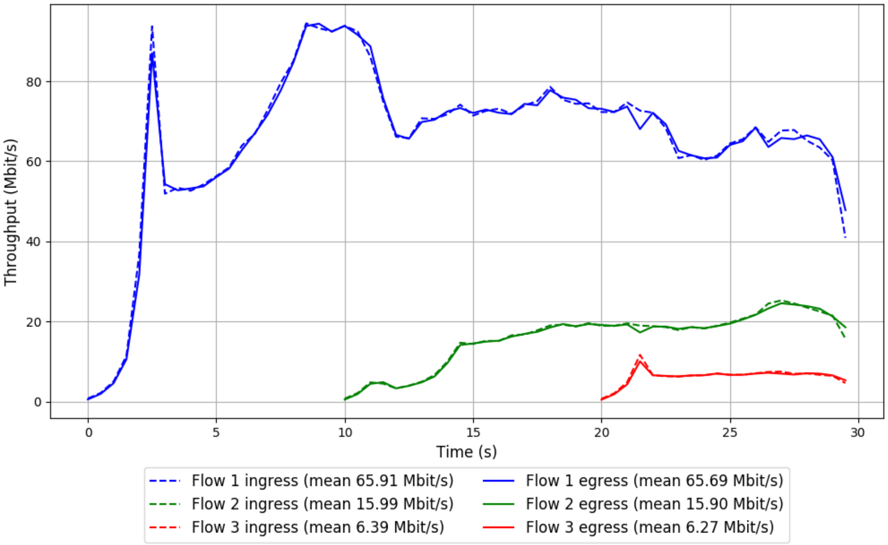
Run 8: Report of Vivace-latency — Data Link

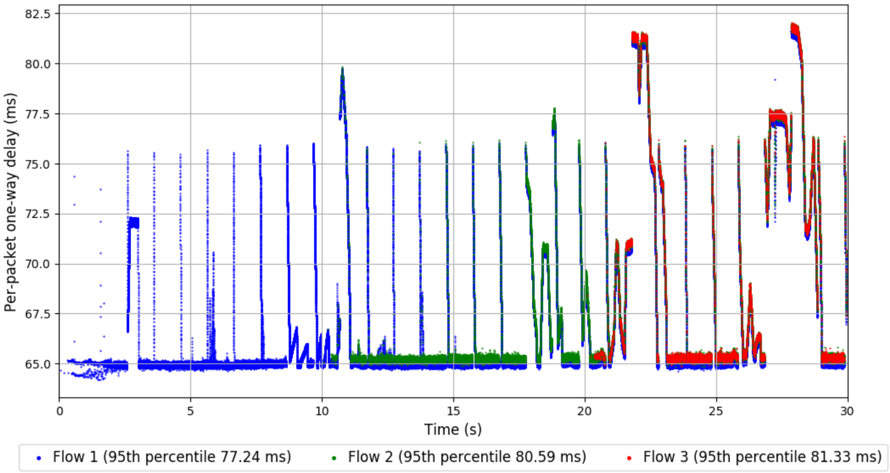




```
Run 9: Statistics of Vivace-latency

Start at: 2018-02-05 00:30:00
End at: 2018-02-05 00:30:30
Local clock offset: -1.129 ms
Remote clock offset: -3.662 ms

# Below is generated by plot.py at 2018-02-05 01:55:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.33 Mbit/s
95th percentile per-packet one-way delay: 77.653 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 65.69 Mbit/s
95th percentile per-packet one-way delay: 77.243 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 15.90 Mbit/s
95th percentile per-packet one-way delay: 80.589 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 6.27 Mbit/s
95th percentile per-packet one-way delay: 81.334 ms
Loss rate: 1.86%
```

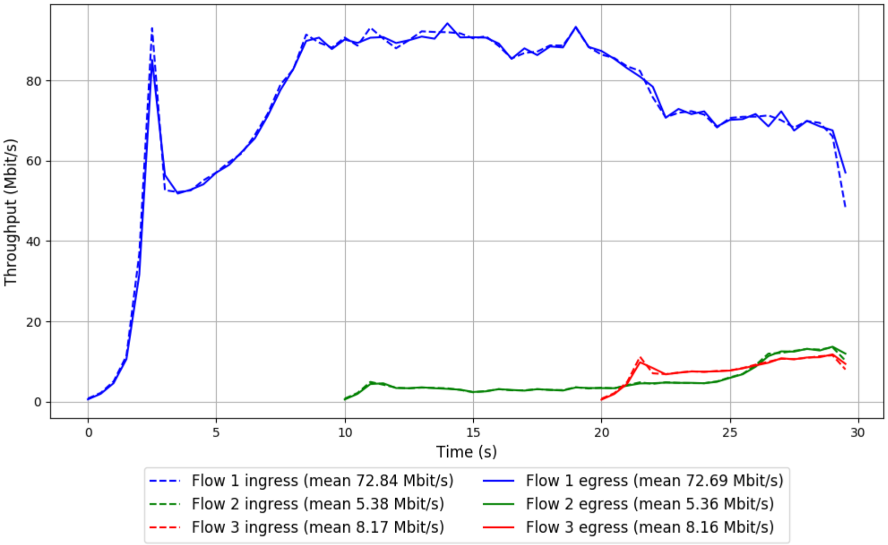
Run 9: Report of Vivace-latency — Data Link

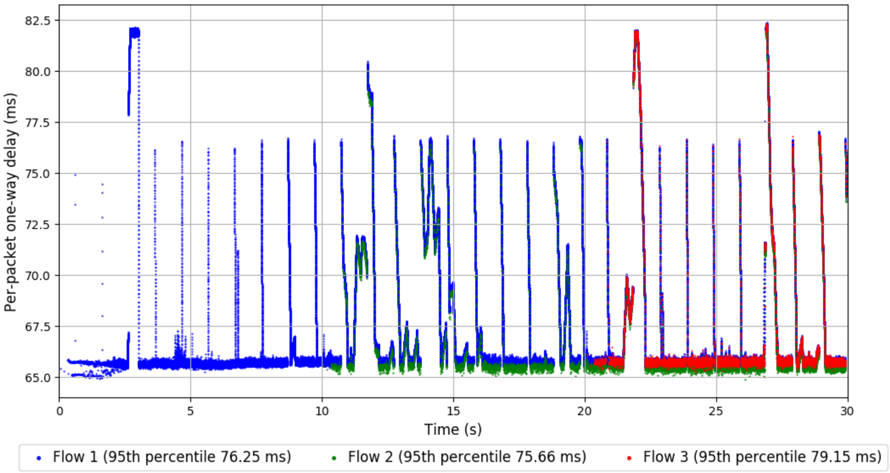




```
Run 10: Statistics of Vivace-latency

Start at: 2018-02-05 00:53:25
End at: 2018-02-05 00:53:55
Local clock offset: -1.623 ms
Remote clock offset: -4.278 ms

# Below is generated by plot.py at 2018-02-05 01:55:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.95 Mbit/s
95th percentile per-packet one-way delay: 76.252 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 72.69 Mbit/s
95th percentile per-packet one-way delay: 76.246 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 75.656 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 79.146 ms
Loss rate: 0.10%
```

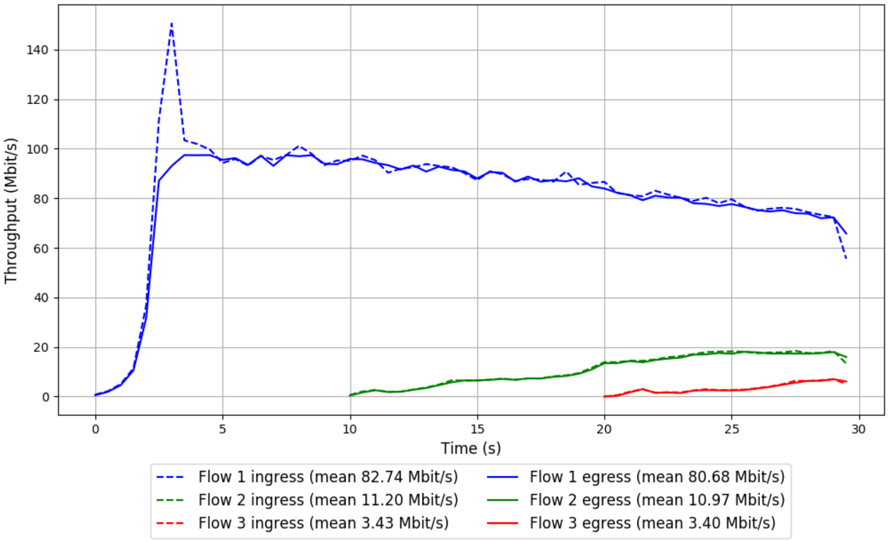
Run 10: Report of Vivace-latency — Data Link

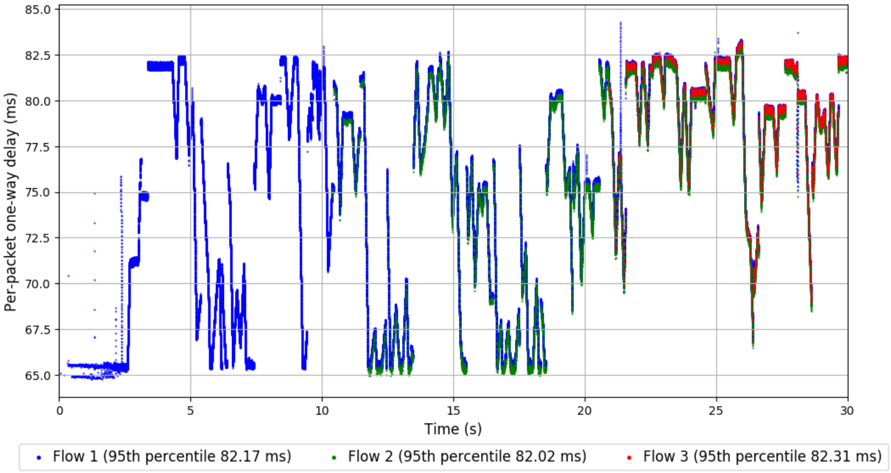




```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-04 21:25:02
End at: 2018-02-04 21:25:32
Local clock offset: -2.295 ms
Remote clock offset: 4.432 ms

# Below is generated by plot.py at 2018-02-05 01:56:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.06 Mbit/s
95th percentile per-packet one-way delay: 82.167 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 80.68 Mbit/s
95th percentile per-packet one-way delay: 82.174 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 82.016 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 82.315 ms
Loss rate: 3.21%
```

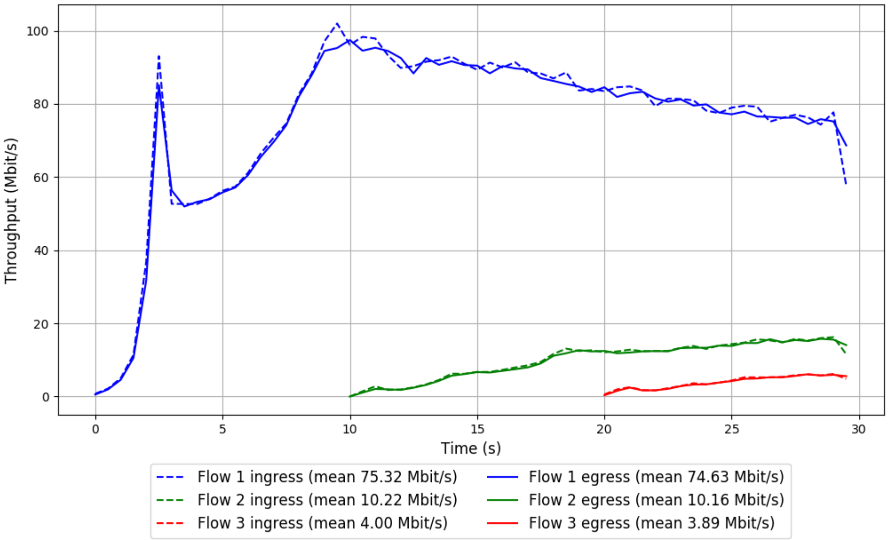
Run 1: Report of Vivace-loss — Data Link

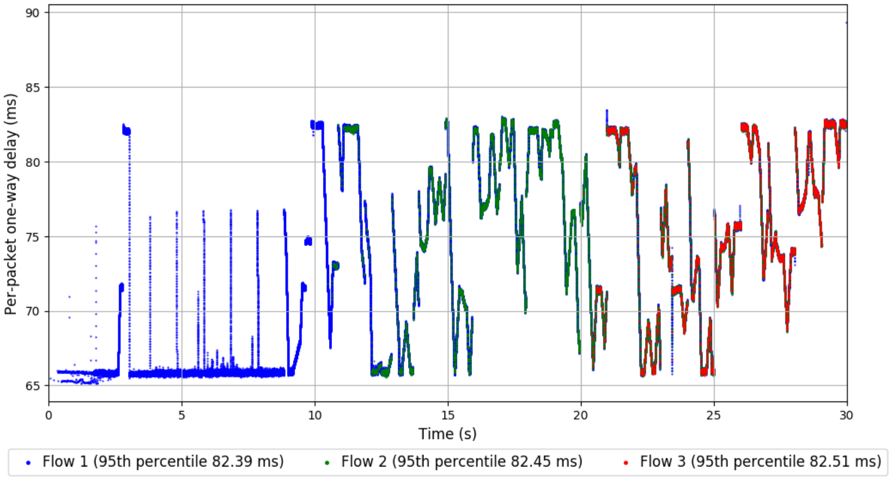




```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-04 21:48:24
End at: 2018-02-04 21:48:54
Local clock offset: -2.323 ms
Remote clock offset: 3.1 ms

# Below is generated by plot.py at 2018-02-05 01:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.58 Mbit/s
95th percentile per-packet one-way delay: 82.405 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 74.63 Mbit/s
95th percentile per-packet one-way delay: 82.395 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 10.16 Mbit/s
95th percentile per-packet one-way delay: 82.453 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 82.506 ms
Loss rate: 2.56%
```

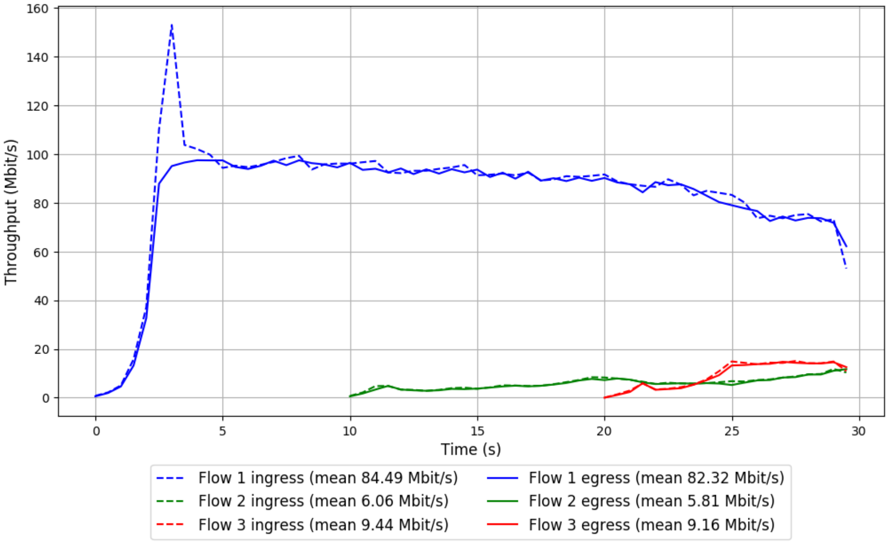
Run 2: Report of Vivace-loss — Data Link

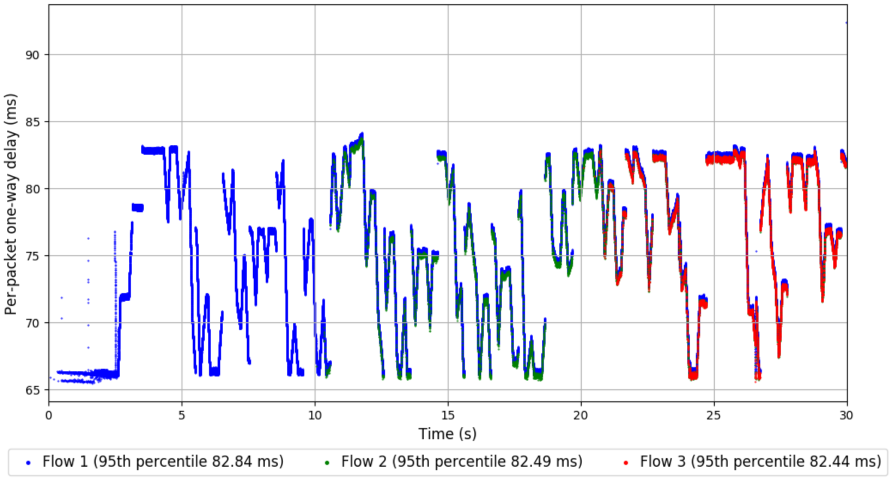




```
Run 3: Statistics of Vivace-loss

Start at: 2018-02-04 22:11:49
End at: 2018-02-04 22:12:19
Local clock offset: -2.283 ms
Remote clock offset: 2.061 ms

# Below is generated by plot.py at 2018-02-05 01:56:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.19 Mbit/s
95th percentile per-packet one-way delay: 82.828 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 82.32 Mbit/s
95th percentile per-packet one-way delay: 82.842 ms
Loss rate: 2.49%
-- Flow 2:
Average throughput: 5.81 Mbit/s
95th percentile per-packet one-way delay: 82.488 ms
Loss rate: 4.08%
-- Flow 3:
Average throughput: 9.16 Mbit/s
95th percentile per-packet one-way delay: 82.439 ms
Loss rate: 3.01%
```

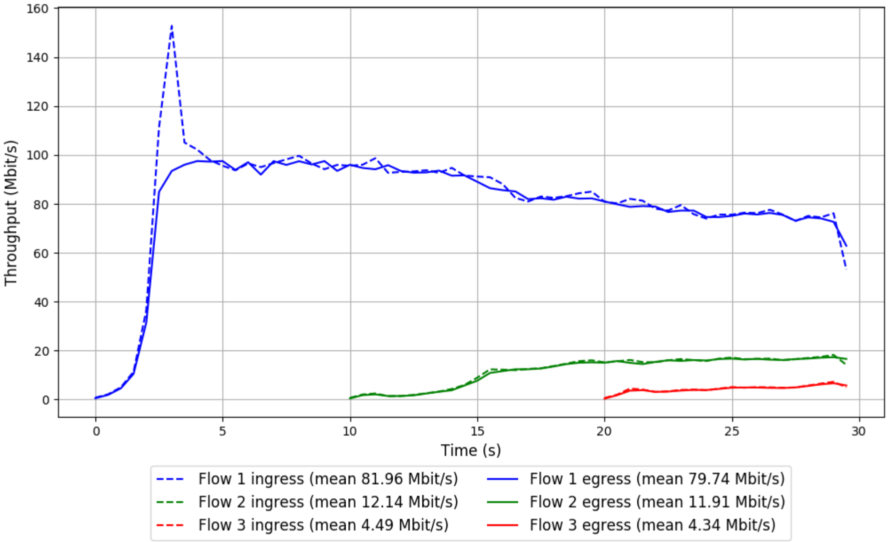
Run 3: Report of Vivace-loss — Data Link

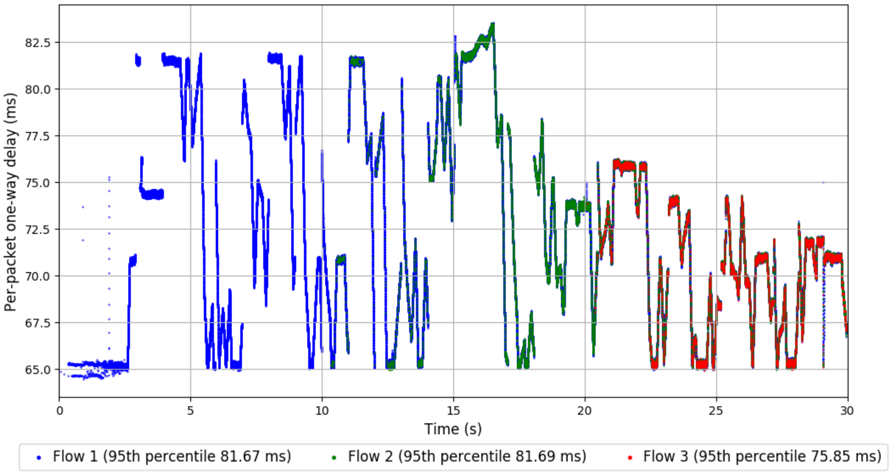




```
Run 4: Statistics of Vivace-loss

Start at: 2018-02-04 22:35:15
End at: 2018-02-04 22:35:45
Local clock offset: -1.486 ms
Remote clock offset: 0.841 ms

# Below is generated by plot.py at 2018-02-05 01:56:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.09 Mbit/s
95th percentile per-packet one-way delay: 81.668 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 81.673 ms
Loss rate: 2.70%
-- Flow 2:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 81.695 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 75.846 ms
Loss rate: 3.34%
```

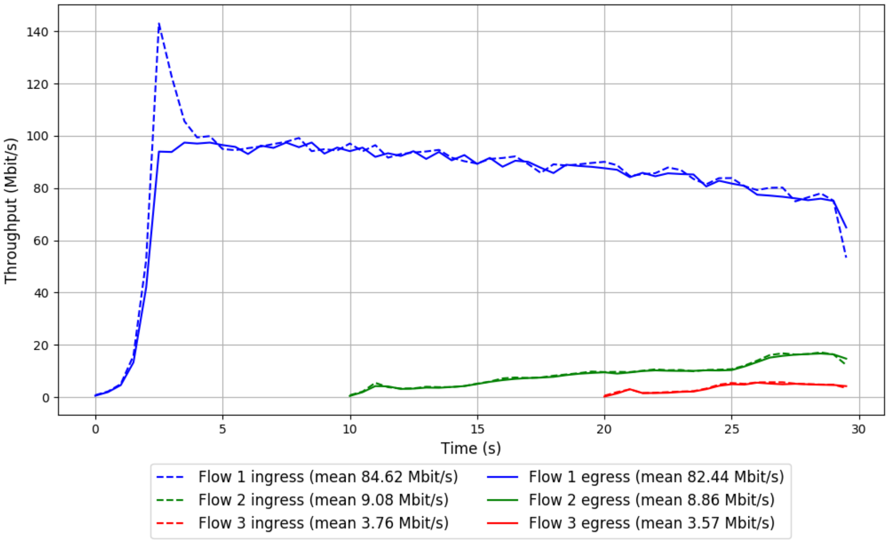
Run 4: Report of Vivace-loss — Data Link

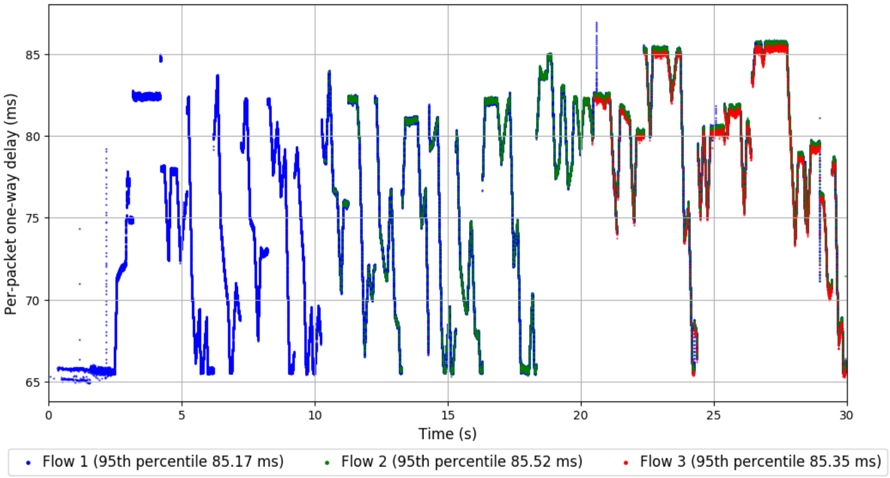




```
Run 5: Statistics of Vivace-loss

Start at: 2018-02-04 22:58:29
End at: 2018-02-04 22:58:59
Local clock offset: -1.583 ms
Remote clock offset: -0.163 ms

# Below is generated by plot.py at 2018-02-05 01:56:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.49 Mbit/s
95th percentile per-packet one-way delay: 85.224 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 82.44 Mbit/s
95th percentile per-packet one-way delay: 85.172 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 85.522 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 85.351 ms
Loss rate: 5.23%
```

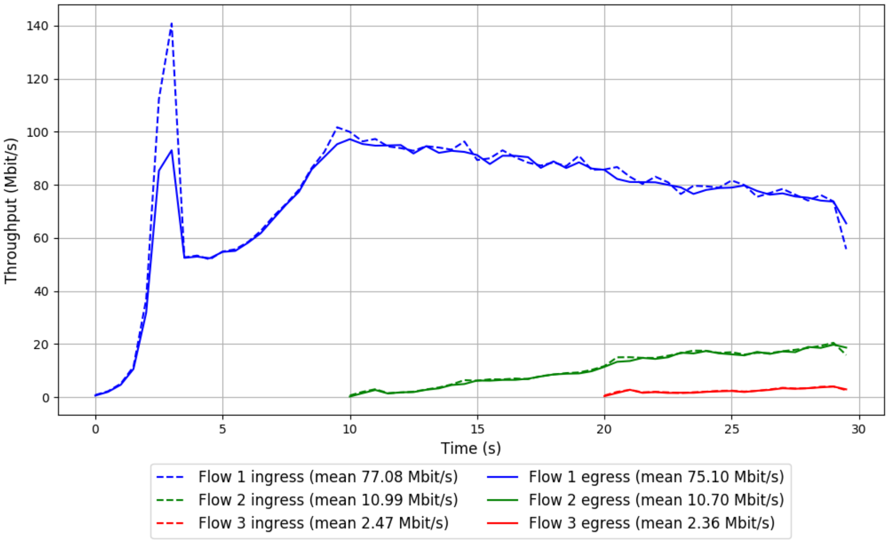
Run 5: Report of Vivace-loss — Data Link

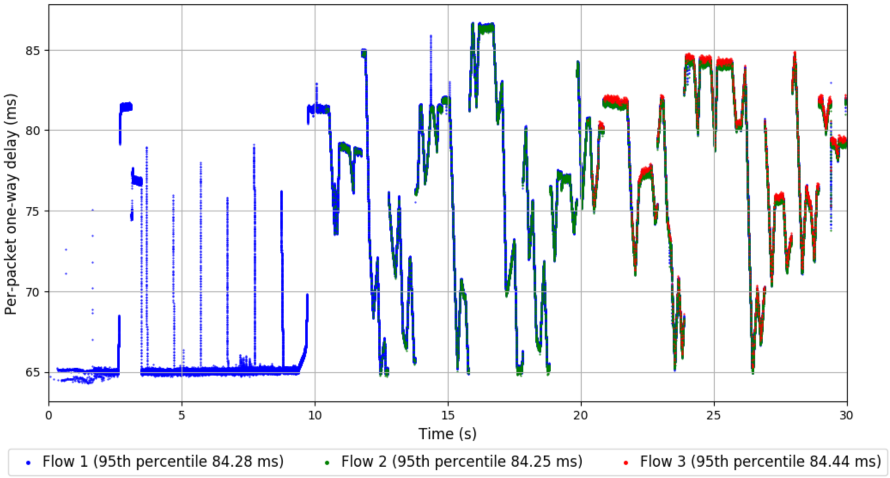




```
Run 6: Statistics of Vivace-loss

Start at: 2018-02-04 23:21:41
End at: 2018-02-04 23:22:12
Local clock offset: -1.143 ms
Remote clock offset: -1.346 ms

# Below is generated by plot.py at 2018-02-05 01:56:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.99 Mbit/s
95th percentile per-packet one-way delay: 84.276 ms
Loss rate: 2.54%
-- Flow 1:
Average throughput: 75.10 Mbit/s
95th percentile per-packet one-way delay: 84.277 ms
Loss rate: 2.50%
-- Flow 2:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 84.252 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 84.438 ms
Loss rate: 4.33%
```

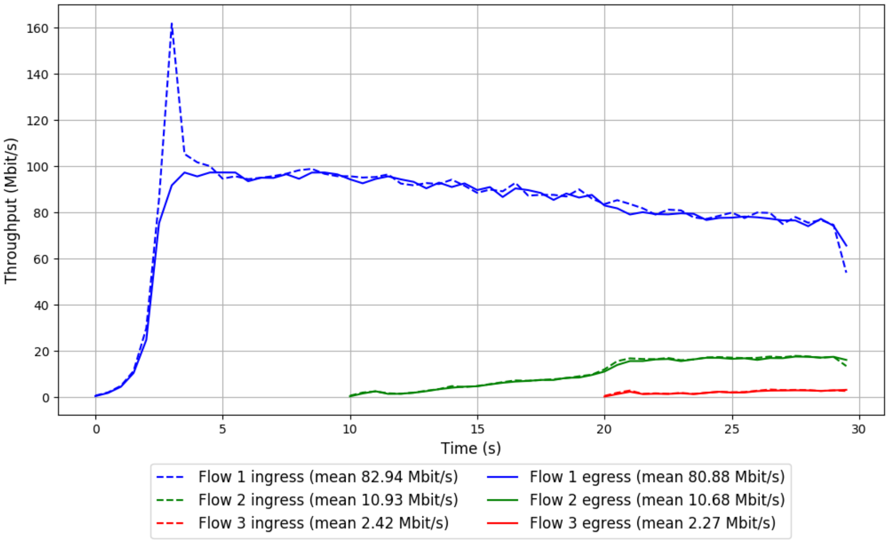
Run 6: Report of Vivace-loss — Data Link

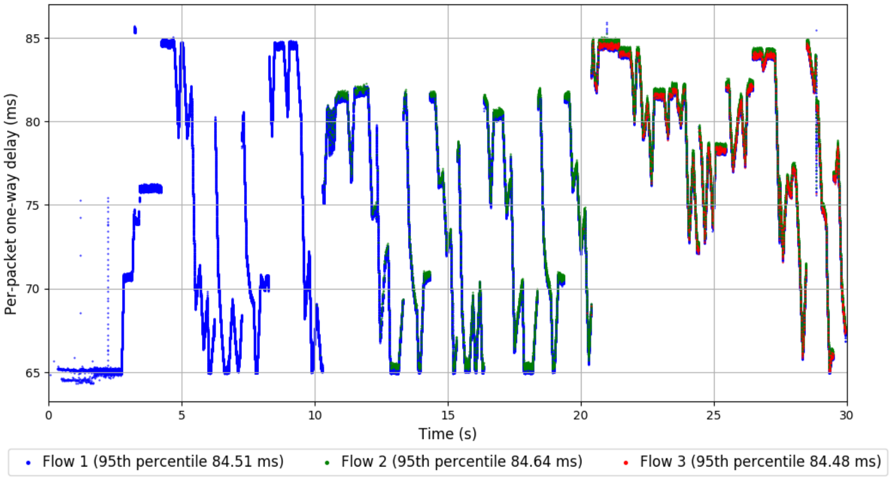




```
Run 7: Statistics of Vivace-loss

Start at: 2018-02-04 23:44:55
End at: 2018-02-04 23:45:25
Local clock offset: -1.119 ms
Remote clock offset: -2.23 ms

# Below is generated by plot.py at 2018-02-05 01:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.73 Mbit/s
95th percentile per-packet one-way delay: 84.516 ms
Loss rate: 2.49%
-- Flow 1:
Average throughput: 80.88 Mbit/s
95th percentile per-packet one-way delay: 84.513 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 10.68 Mbit/s
95th percentile per-packet one-way delay: 84.635 ms
Loss rate: 2.26%
-- Flow 3:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 84.481 ms
Loss rate: 6.32%
```

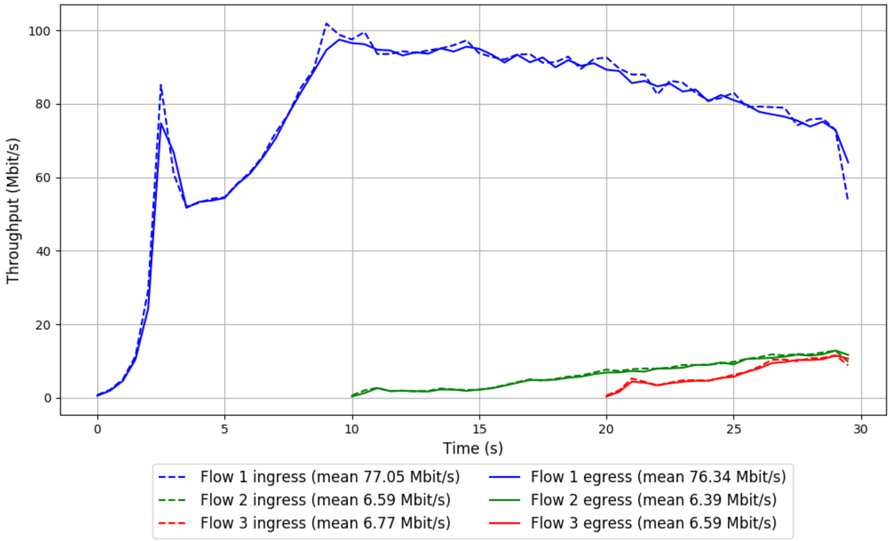
Run 7: Report of Vivace-loss — Data Link

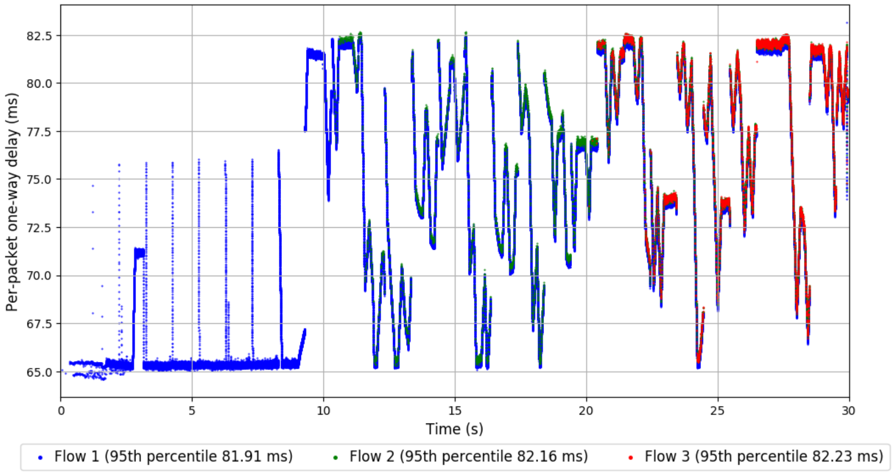




```
Run 8: Statistics of Vivace-loss

Start at: 2018-02-05 00:08:06
End at: 2018-02-05 00:08:36
Local clock offset: -1.405 ms
Remote clock offset: -2.871 ms

# Below is generated by plot.py at 2018-02-05 01:57:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.76 Mbit/s
95th percentile per-packet one-way delay: 81.948 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 76.34 Mbit/s
95th percentile per-packet one-way delay: 81.911 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 82.164 ms
Loss rate: 3.05%
-- Flow 3:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 82.232 ms
Loss rate: 2.68%
```

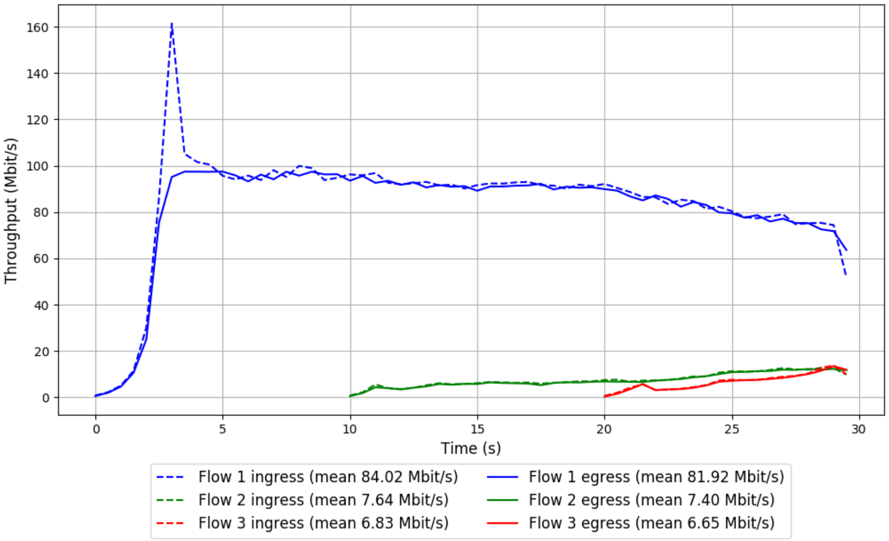
Run 8: Report of Vivace-loss — Data Link

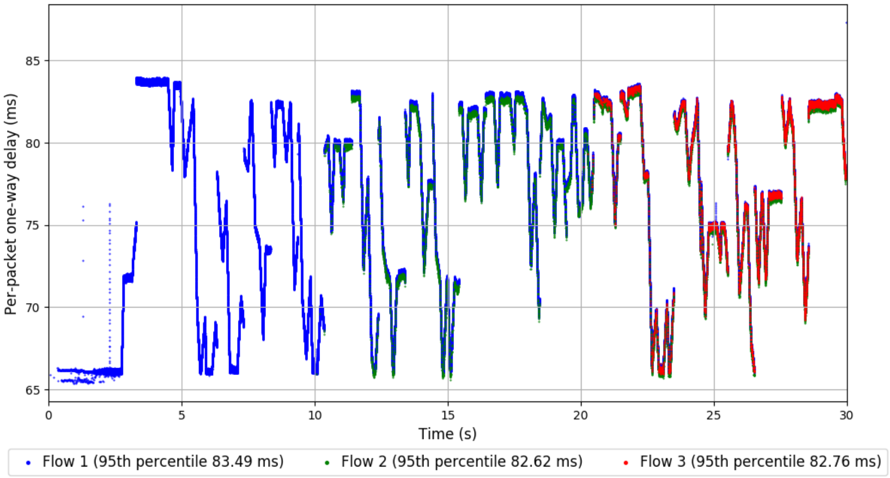




```
Run 9: Statistics of Vivace-loss

Start at: 2018-02-05 00:31:19
End at: 2018-02-05 00:31:49
Local clock offset: -1.998 ms
Remote clock offset: -3.682 ms

# Below is generated by plot.py at 2018-02-05 01:57:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.03 Mbit/s
95th percentile per-packet one-way delay: 83.416 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 81.92 Mbit/s
95th percentile per-packet one-way delay: 83.493 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 7.40 Mbit/s
95th percentile per-packet one-way delay: 82.616 ms
Loss rate: 3.17%
-- Flow 3:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 82.760 ms
Loss rate: 2.68%
```

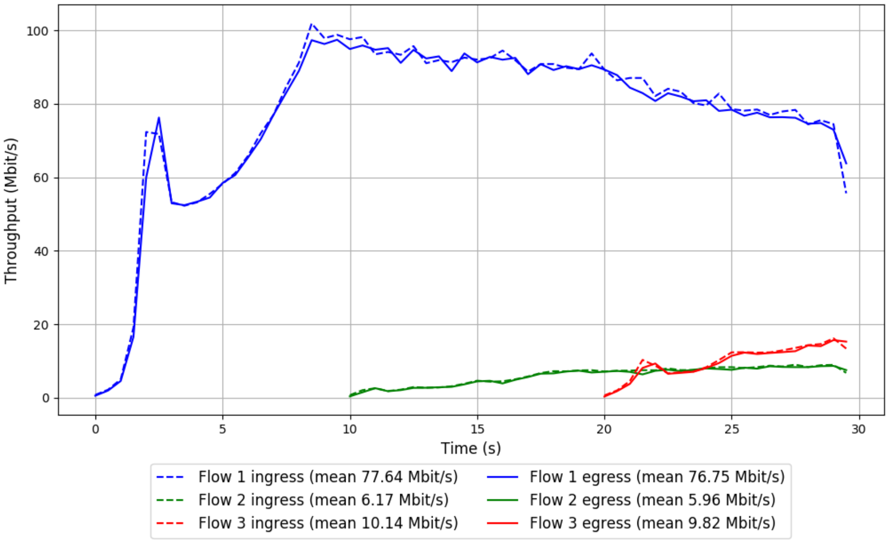
Run 9: Report of Vivace-loss — Data Link

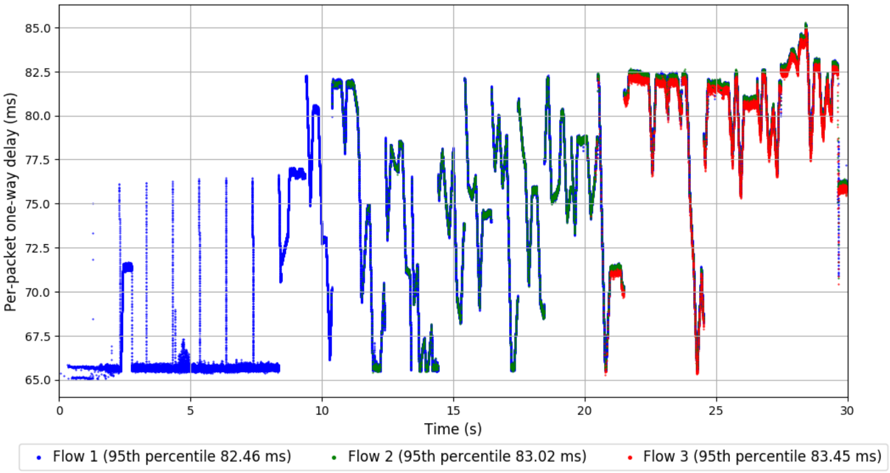




```
Run 10: Statistics of Vivace-loss

Start at: 2018-02-05 00:54:44
End at: 2018-02-05 00:55:14
Local clock offset: -1.622 ms
Remote clock offset: -4.225 ms

# Below is generated by plot.py at 2018-02-05 01:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.95 Mbit/s
95th percentile per-packet one-way delay: 82.634 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 76.75 Mbit/s
95th percentile per-packet one-way delay: 82.462 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 83.021 ms
Loss rate: 3.49%
-- Flow 3:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 83.454 ms
Loss rate: 3.23%
```

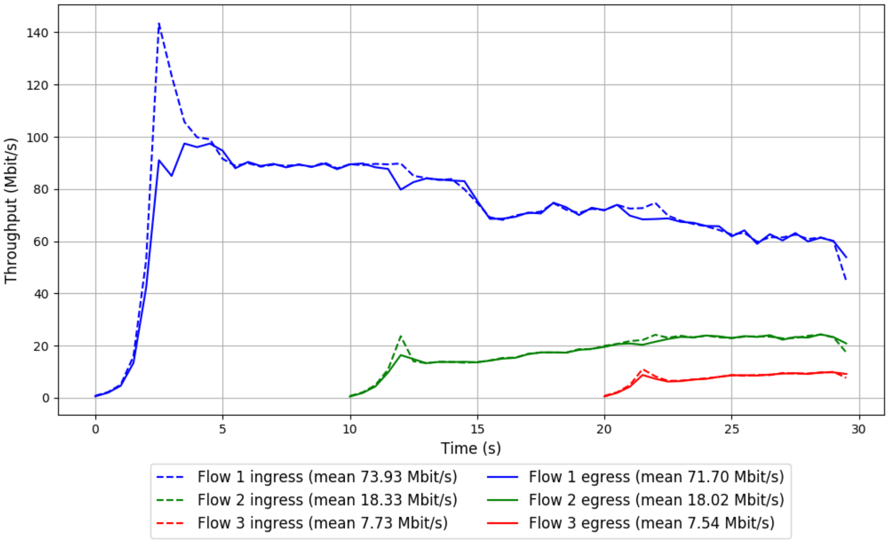
Run 10: Report of Vivace-loss — Data Link

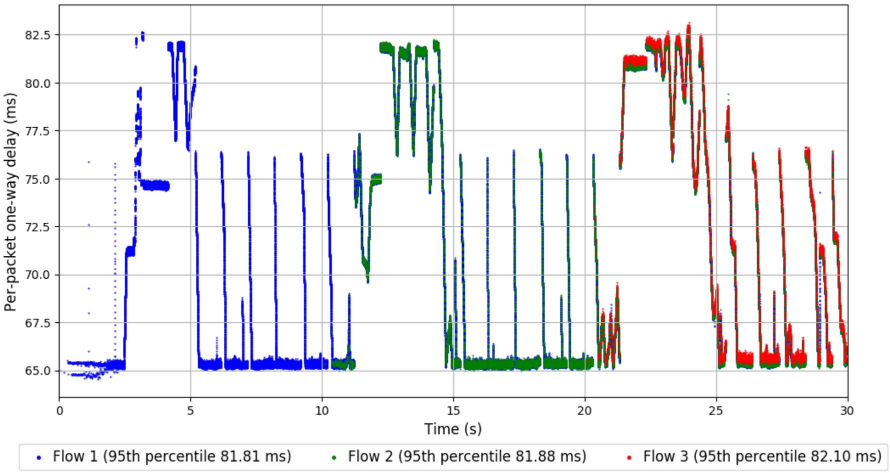




```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-04 21:27:35
End at: 2018-02-04 21:28:05
Local clock offset: -2.317 ms
Remote clock offset: 4.3 ms

# Below is generated by plot.py at 2018-02-05 01:57:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.16 Mbit/s
95th percentile per-packet one-way delay: 81.826 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 71.70 Mbit/s
95th percentile per-packet one-way delay: 81.812 ms
Loss rate: 3.01%
-- Flow 2:
Average throughput: 18.02 Mbit/s
95th percentile per-packet one-way delay: 81.878 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 7.54 Mbit/s
95th percentile per-packet one-way delay: 82.096 ms
Loss rate: 2.47%
```

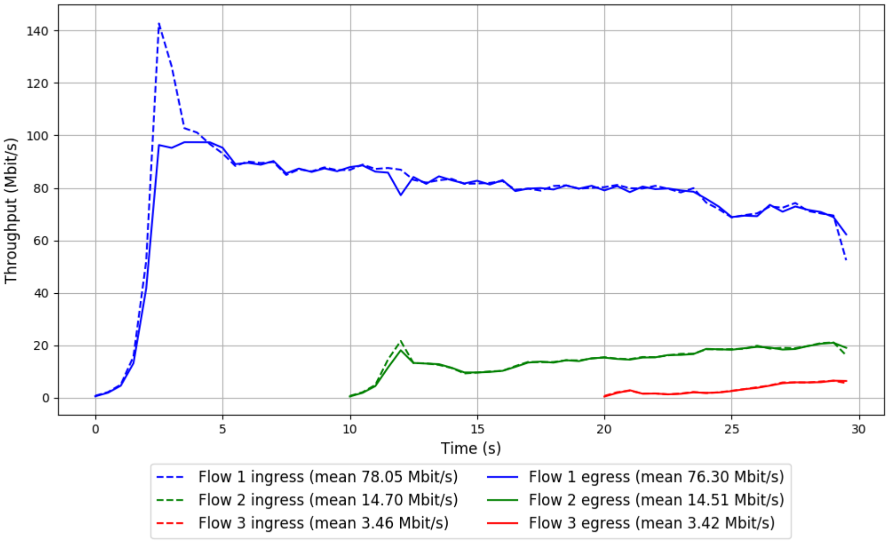
Run 1: Report of Vivace-LTE — Data Link

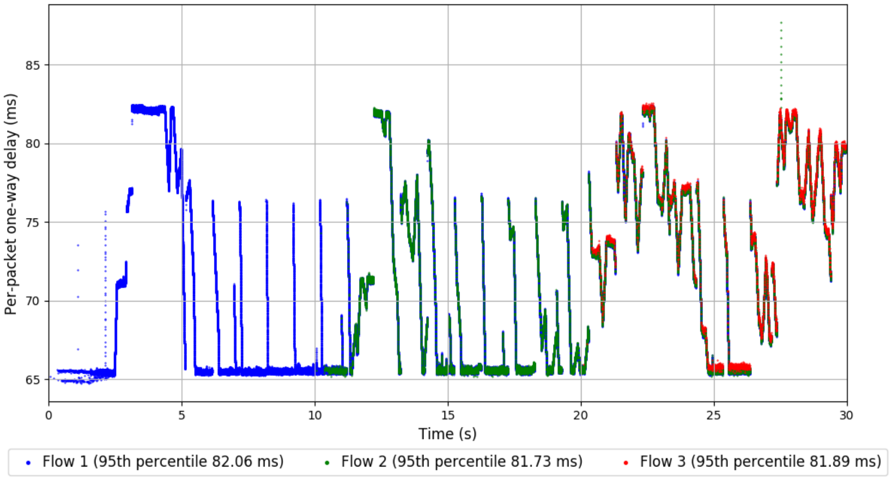




```
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-04 21:50:57
End at: 2018-02-04 21:51:27
Local clock offset: -2.143 ms
Remote clock offset: 2.985 ms

# Below is generated by plot.py at 2018-02-05 01:57:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.08 Mbit/s
95th percentile per-packet one-way delay: 82.035 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 76.30 Mbit/s
95th percentile per-packet one-way delay: 82.056 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 14.51 Mbit/s
95th percentile per-packet one-way delay: 81.733 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 81.889 ms
Loss rate: 1.16%
```

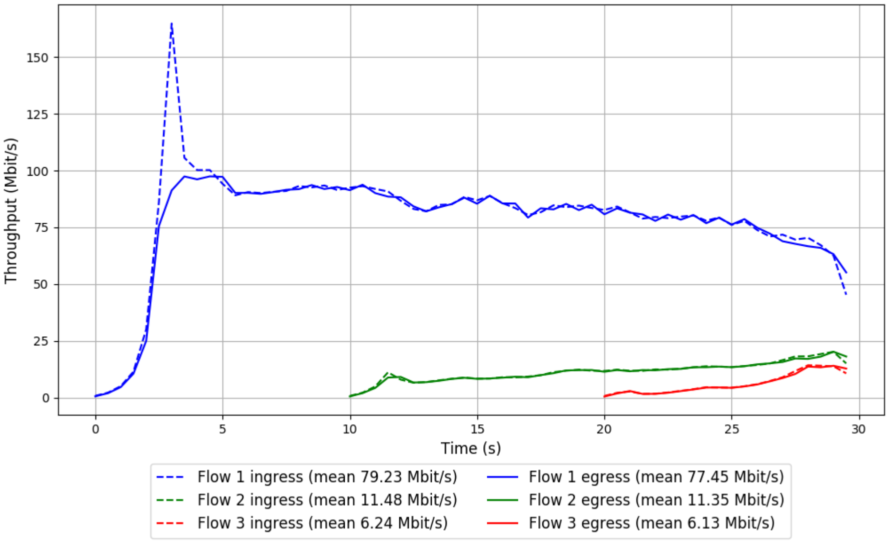
Run 2: Report of Vivace-LTE — Data Link

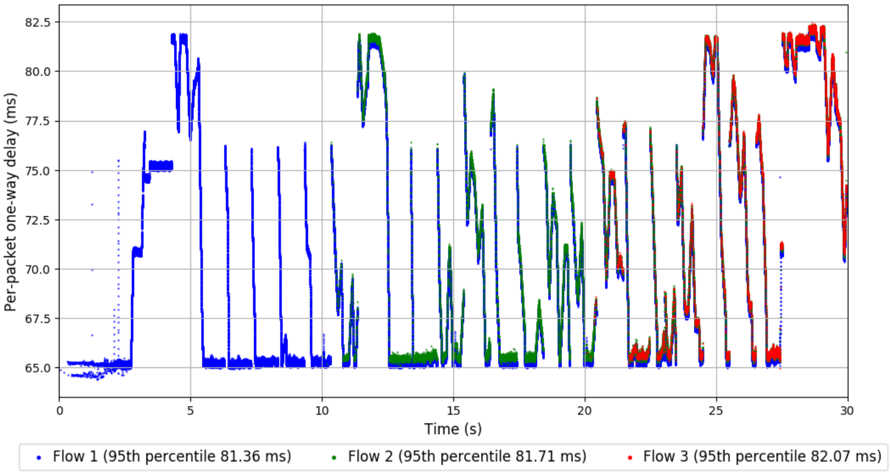




```
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-04 22:14:22
End at: 2018-02-04 22:14:52
Local clock offset: -1.587 ms
Remote clock offset: 1.89 ms

# Below is generated by plot.py at 2018-02-05 01:58:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.00 Mbit/s
95th percentile per-packet one-way delay: 81.439 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 77.45 Mbit/s
95th percentile per-packet one-way delay: 81.357 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 11.35 Mbit/s
95th percentile per-packet one-way delay: 81.707 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 6.13 Mbit/s
95th percentile per-packet one-way delay: 82.071 ms
Loss rate: 1.53%
```

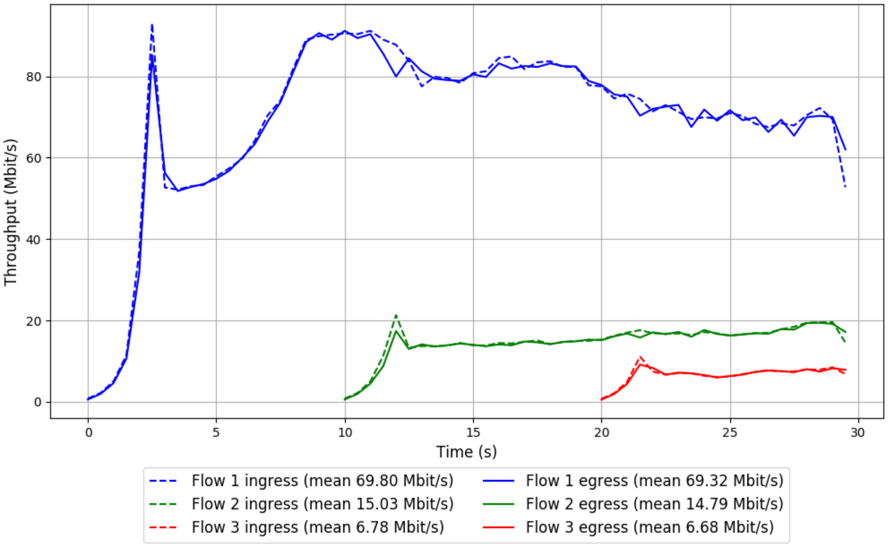
Run 3: Report of Vivace-LTE — Data Link

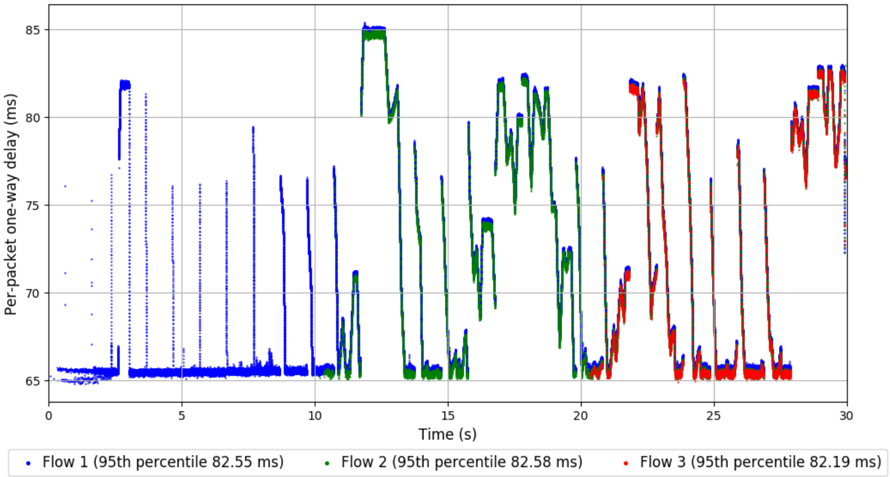




```
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-04 22:37:47
End at: 2018-02-04 22:38:18
Local clock offset: -1.585 ms
Remote clock offset: 0.707 ms

# Below is generated by plot.py at 2018-02-05 01:58:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.34 Mbit/s
95th percentile per-packet one-way delay: 82.523 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 69.32 Mbit/s
95th percentile per-packet one-way delay: 82.548 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 14.79 Mbit/s
95th percentile per-packet one-way delay: 82.577 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 82.191 ms
Loss rate: 1.32%
```

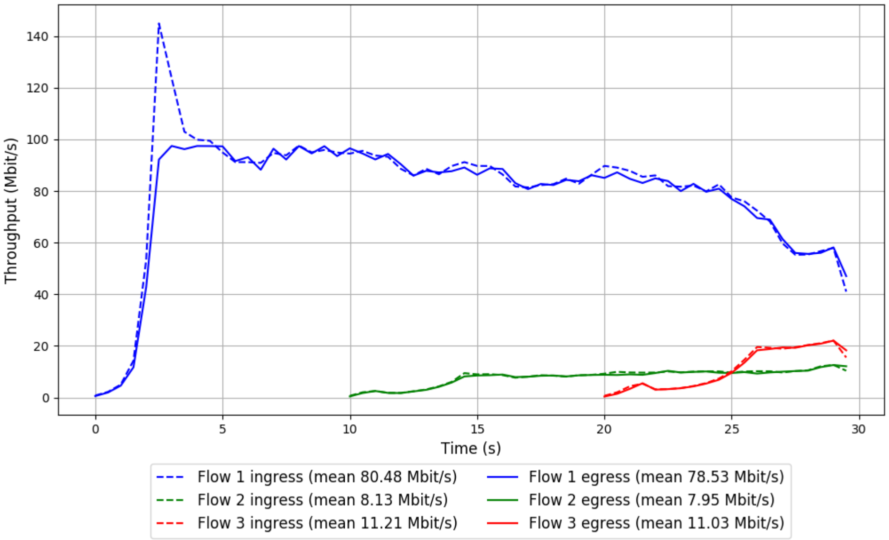
Run 4: Report of Vivace-LTE — Data Link

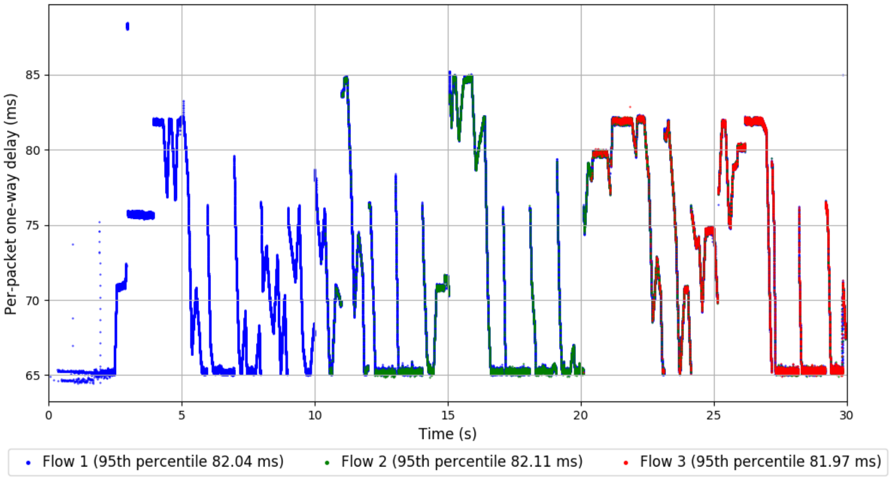




```
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-04 23:01:02
End at: 2018-02-04 23:01:32
Local clock offset: -1.448 ms
Remote clock offset: -0.323 ms

# Below is generated by plot.py at 2018-02-05 01:58:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 82.040 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 78.53 Mbit/s
95th percentile per-packet one-way delay: 82.043 ms
Loss rate: 2.41%
-- Flow 2:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 82.112 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 81.974 ms
Loss rate: 1.54%
```

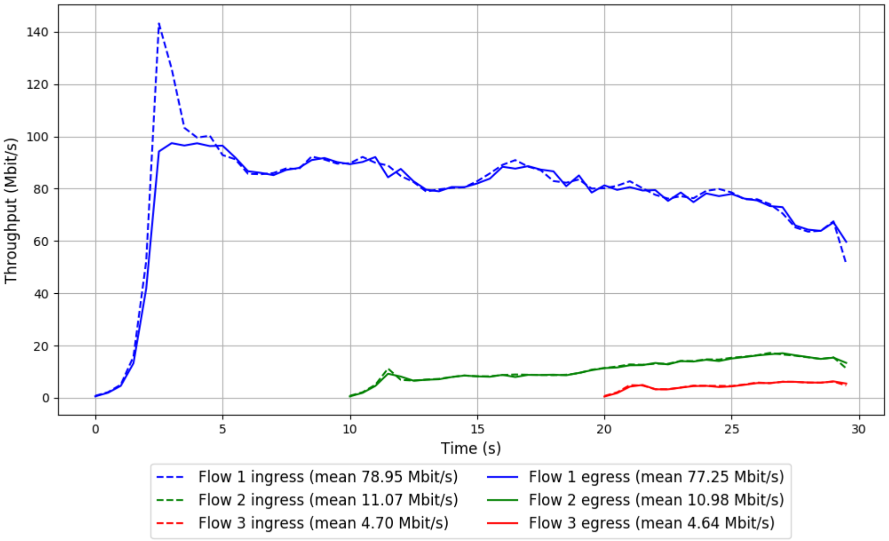
Run 5: Report of Vivace-LTE — Data Link

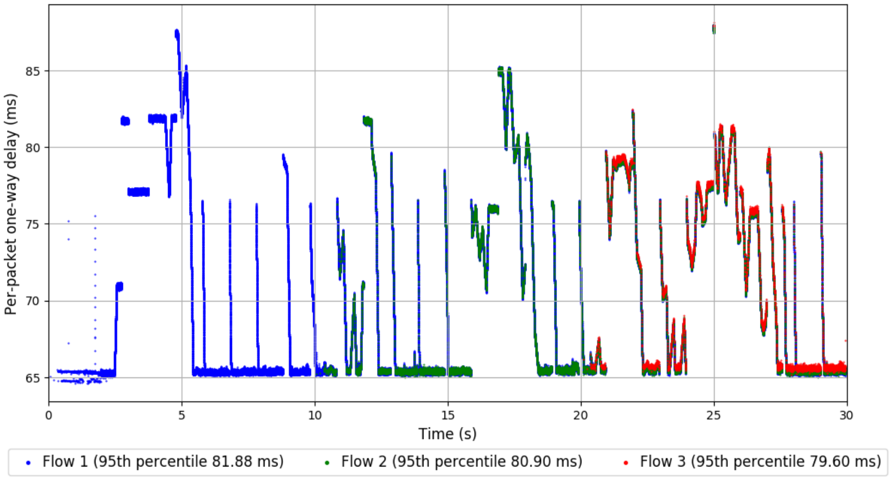




```
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-04 23:24:14
End at: 2018-02-04 23:24:44
Local clock offset: -1.435 ms
Remote clock offset: -1.469 ms

# Below is generated by plot.py at 2018-02-05 01:58:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.08 Mbit/s
95th percentile per-packet one-way delay: 81.850 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 77.25 Mbit/s
95th percentile per-packet one-way delay: 81.876 ms
Loss rate: 2.14%
-- Flow 2:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 80.898 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 4.64 Mbit/s
95th percentile per-packet one-way delay: 79.603 ms
Loss rate: 1.34%
```

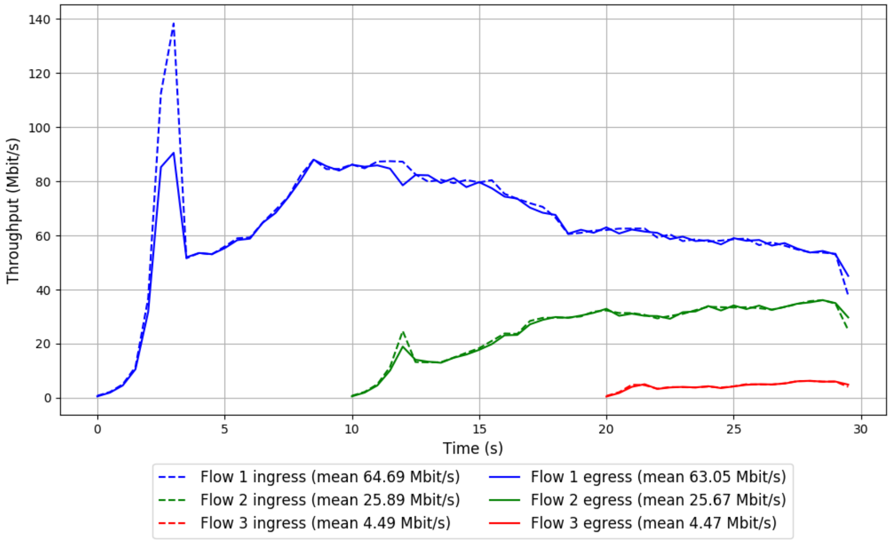
Run 6: Report of Vivace-LTE — Data Link

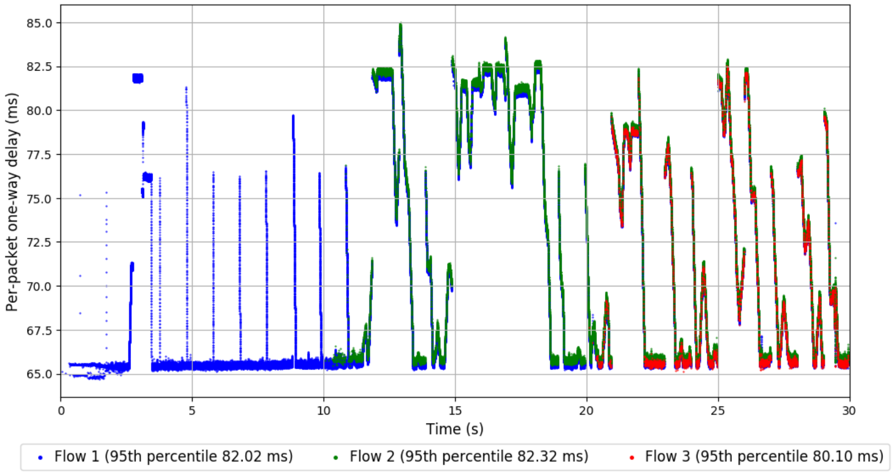




```
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-04 23:47:28
End at: 2018-02-04 23:47:58
Local clock offset: -1.562 ms
Remote clock offset: -2.322 ms

# Below is generated by plot.py at 2018-02-05 01:58:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.59 Mbit/s
95th percentile per-packet one-way delay: 82.077 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 63.05 Mbit/s
95th percentile per-packet one-way delay: 82.020 ms
Loss rate: 2.52%
-- Flow 2:
Average throughput: 25.67 Mbit/s
95th percentile per-packet one-way delay: 82.320 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 80.096 ms
Loss rate: 0.61%
```

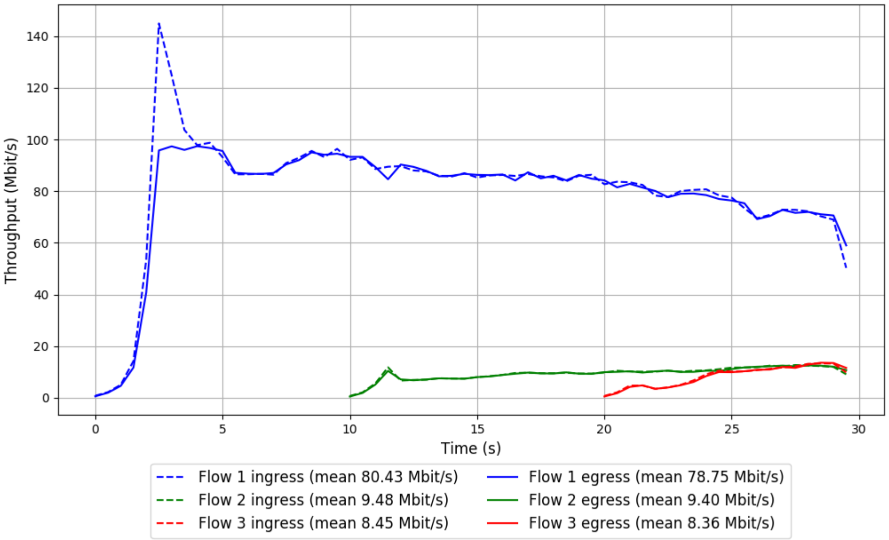
Run 7: Report of Vivace-LTE — Data Link

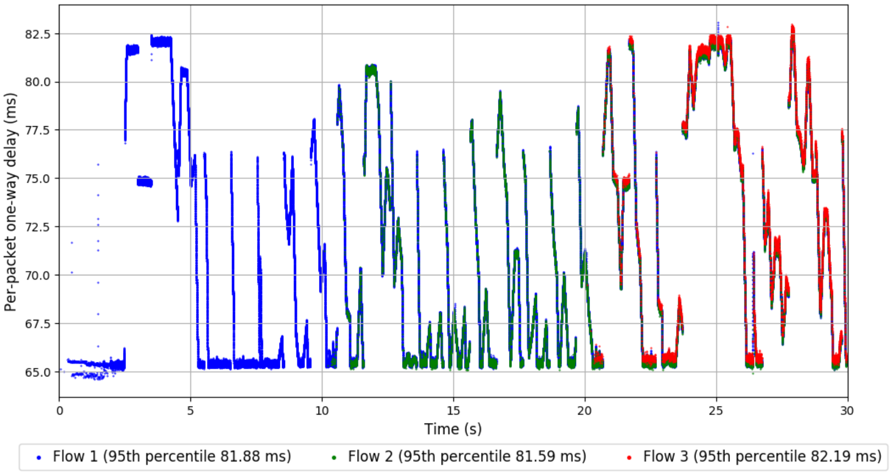




```
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-05 00:10:39
End at: 2018-02-05 00:11:09
Local clock offset: -1.417 ms
Remote clock offset: -2.925 ms

# Below is generated by plot.py at 2018-02-05 01:58:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.75 Mbit/s
95th percentile per-packet one-way delay: 81.877 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 78.75 Mbit/s
95th percentile per-packet one-way delay: 81.876 ms
Loss rate: 2.09%
-- Flow 2:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 81.594 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 8.36 Mbit/s
95th percentile per-packet one-way delay: 82.189 ms
Loss rate: 1.07%
```

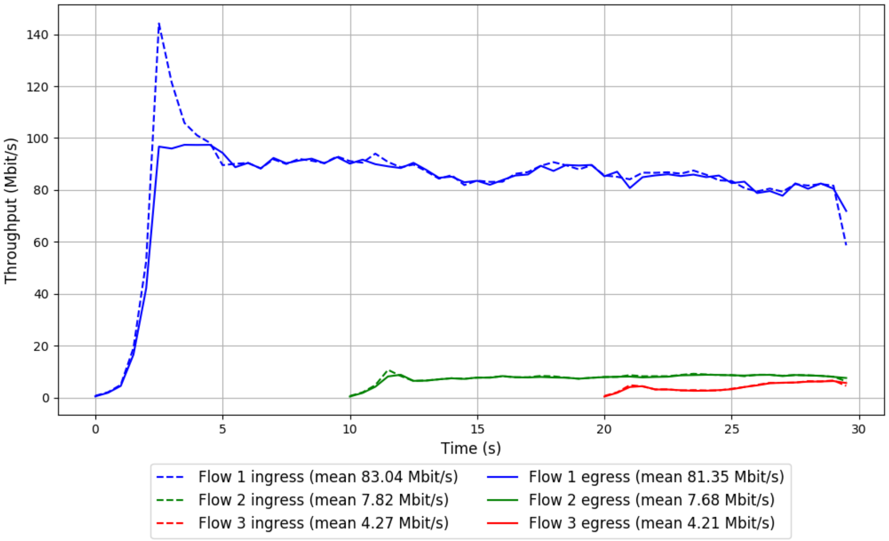
Run 8: Report of Vivace-LTE — Data Link

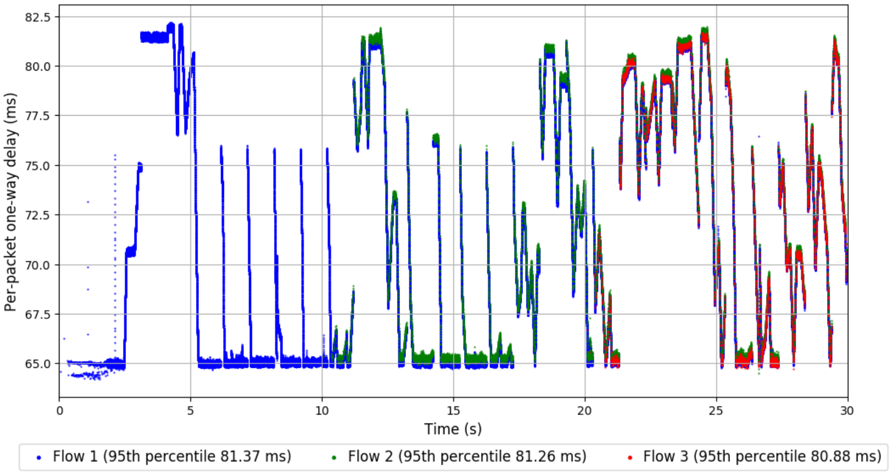




```
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-05 00:33:52
End at: 2018-02-05 00:34:22
Local clock offset: -1.135 ms
Remote clock offset: -3.779 ms

# Below is generated by plot.py at 2018-02-05 01:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.85 Mbit/s
95th percentile per-packet one-way delay: 81.360 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 81.35 Mbit/s
95th percentile per-packet one-way delay: 81.373 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 7.68 Mbit/s
95th percentile per-packet one-way delay: 81.264 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 80.878 ms
Loss rate: 1.25%
```

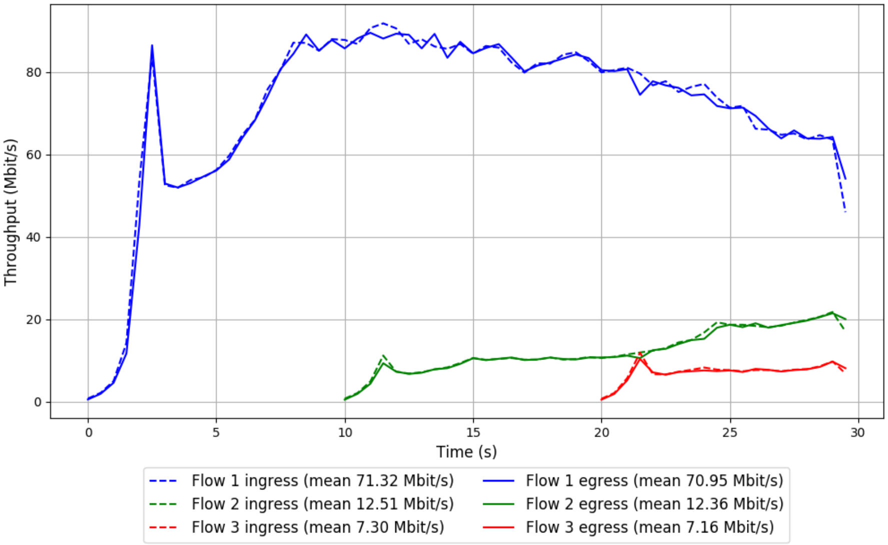
Run 9: Report of Vivace-LTE — Data Link



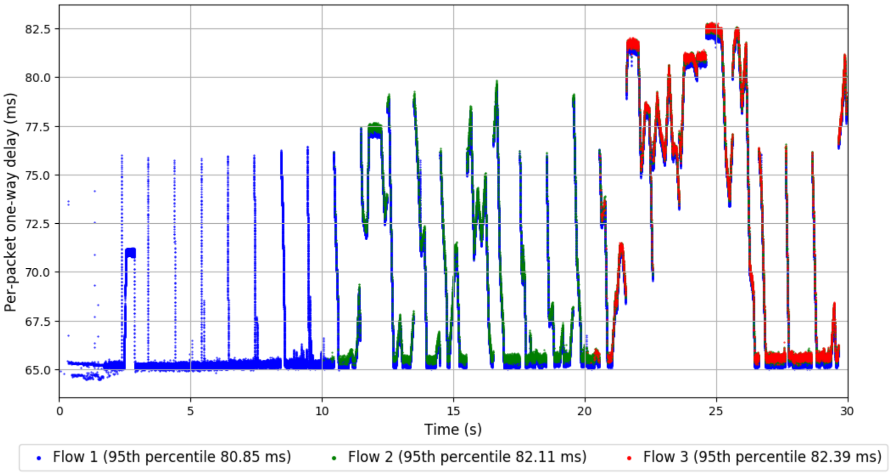


```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-05 00:57:16
End at: 2018-02-05 00:57:46
Local clock offset: -1.443 ms
Remote clock offset: -4.215 ms

# Below is generated by plot.py at 2018-02-05 01:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.52 Mbit/s
95th percentile per-packet one-way delay: 81.218 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 70.95 Mbit/s
95th percentile per-packet one-way delay: 80.849 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 12.36 Mbit/s
95th percentile per-packet one-way delay: 82.110 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 82.388 ms
Loss rate: 1.81%
```

Run 10: Report of Vivace-LTE — Data Link



Throughput (Mbit/s)
0
20
40
60
80
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 71.32 Mbit/s)
Flow 2 ingress (mean 12.51 Mbit/s)
Flow 3 ingress (mean 7.30 Mbit/s)
Flow 1 egress (mean 70.95 Mbit/s)
Flow 2 egress (mean 12.36 Mbit/s)
Flow 3 egress (mean 7.16 Mbit/s)



Per-packet one-way delay (ms)
65.0
67.5
70.0
72.5
75.0
77.5
80.0
82.5
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 80.85 ms)
Flow 2 (95th percentile 82.11 ms)
Flow 3 (95th percentile 82.39 ms)