Pantheon Report

Generated at 2018-03-28 00:20:43 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

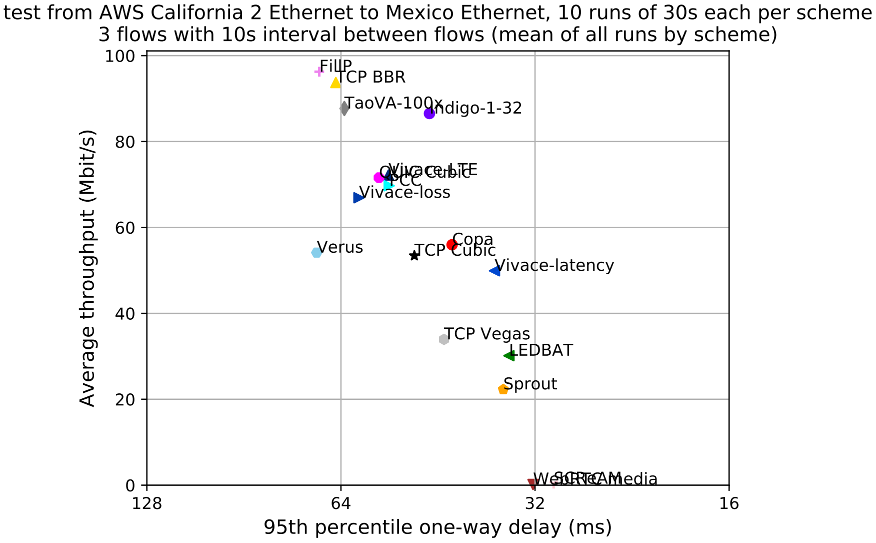
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

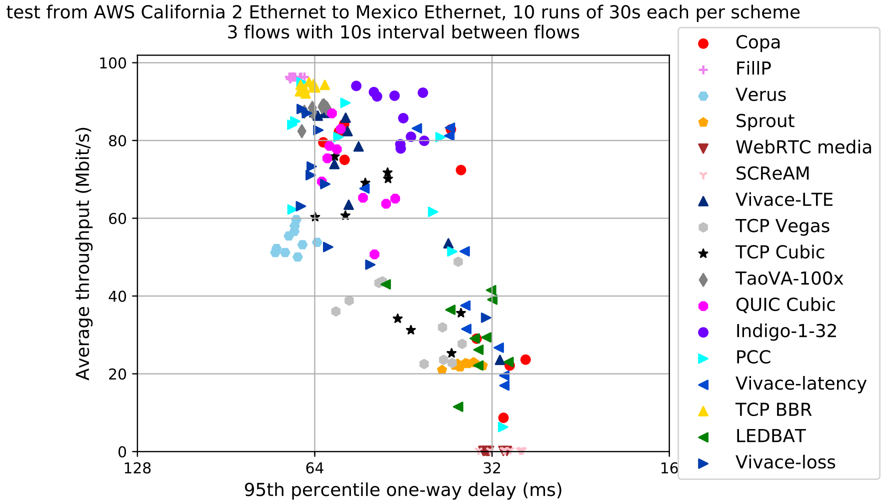
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

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

```
Git summary:
branch: master @ 503f51fe03f703a4c0a826a0792a4fead3e7d1b0
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
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 @ f271183af822eee5d0031620f4bebf38aedc5581
```


test from AWS California 2 Ethernet to Mexico Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
100
80
60
40
20
0
128
64
32
16
95th percentile one-way delay (ms)
FillP
TCP BBR
TaoVA-100x
Indigo-1-32
Vivace-LTE
QUIC Cubic
PCC
Vivace-loss
Copa
Verus
TCP Cubic
Vivace-latency
TCP Vegas
LEDBAT
Sprout
WebRTC media
SCReAM


test from AWS California 2 Ethernet to Mexico Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
100
80
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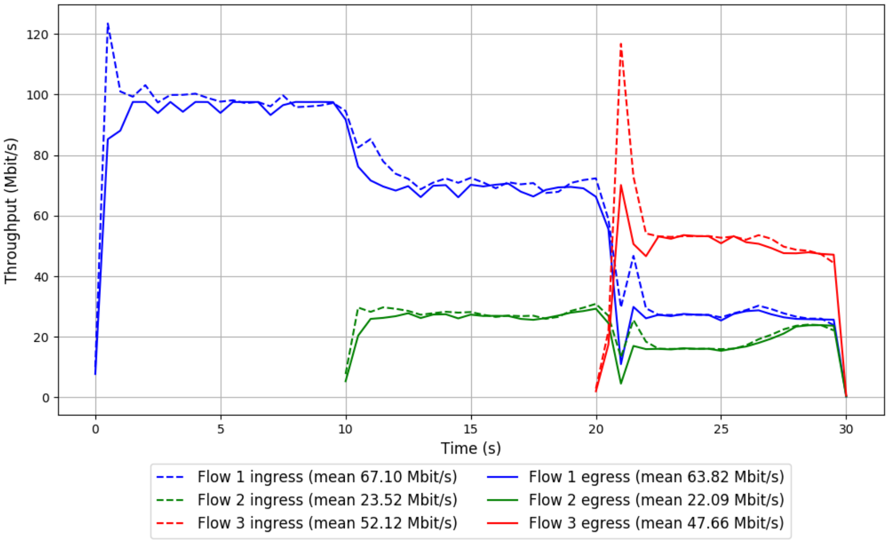
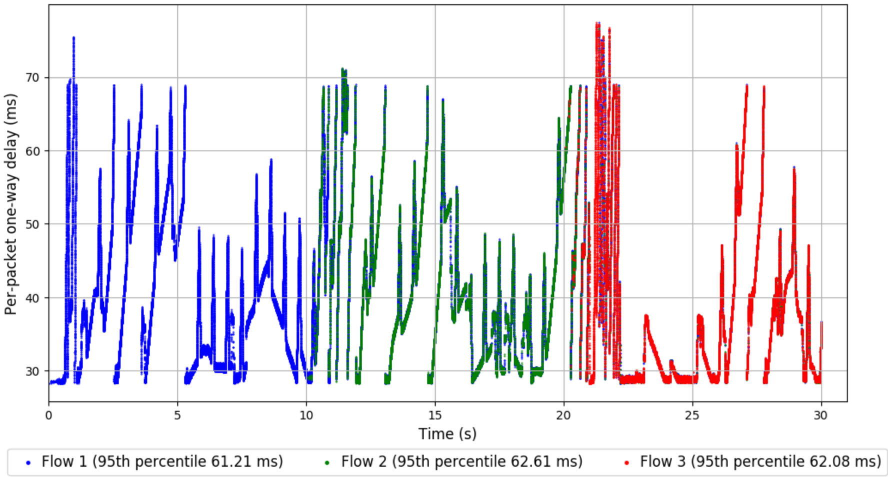
95th percentile one-way delay (ms)
Copa
FillP
Verus
Sprout
WebRTC media
SCReAM
Vivace-LTE
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Indigo-1-32
PCC
Vivace-latency
TCP BBR
LEDBAT
Vivace-loss

scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	60.24	33.35	34.02	63.80	66.18	66.53	5.59	8.00	9.66
TCP Cubic	10	31.32	21.54	23.41	51.07	46.25	40.05	0.68	1.04	0.90
LEDBAT	10	17.69	13.64	10.19	34.60	35.53	36.31	0.38	0.60	0.70
PCC	10	43.87	33.85	10.09	52.94	54.19	55.40	8.97	10.85	11.06
QUIC Cubic	10	41.90	29.62	30.49	53.74	54.30	56.50	1.03	1.06	1.63
SCReAM	10	0.17	0.19	0.19	29.47	29.92	29.77	0.33	0.16	0.36
WebRTC media	10	0.06	0.06	0.05	31.84	32.44	31.99	0.06	0.07	0.02
Sprout	10	11.29	11.16	10.85	35.51	35.76	36.47	0.48	0.41	0.48
TaoVA-100x	10	52.74	39.51	26.06	60.61	64.48	65.63	11.92	20.97	18.45
TCP Vegas	10	14.94	15.86	25.46	38.66	42.74	42.61	0.89	0.80	1.07
Verus	10	35.75	23.32	11.10	69.29	69.10	67.96	52.90	46.02	41.23
Copa	10	36.92	24.59	9.17	38.87	41.84	39.83	19.96	29.14	28.14
FillP	10	53.73	40.31	47.98	68.91	69.27	69.66	27.78	34.40	40.00
Indigo-1-32	10	53.66	34.61	30.73	43.30	47.90	52.09	0.92	1.05	2.24
Vivace-latency	10	32.32	20.71	11.60	36.46	37.71	37.17	0.31	0.31	0.38
Vivace-loss	10	44.15	25.95	16.74	59.22	60.01	61.75	3.93	4.35	5.46
Vivace-LTE	10	53.00	23.64	10.57	52.21	55.39	55.64	1.61	1.78	1.90

```
Run 1: Statistics of TCP BBR

Start at: 2018-03-27 18:47:17
End at: 2018-03-27 18:47:47
Local clock offset: 2.559 ms
Remote clock offset: -7.521 ms

# Below is generated by plot.py at 2018-03-27 23:58:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.31 Mbit/s
95th percentile per-packet one-way delay: 61.518 ms
Loss rate: 5.73%
-- Flow 1:
Average throughput: 63.82 Mbit/s
95th percentile per-packet one-way delay: 61.208 ms
Loss rate: 4.87%
-- Flow 2:
Average throughput: 22.09 Mbit/s
95th percentile per-packet one-way delay: 62.606 ms
Loss rate: 6.02%
-- Flow 3:
Average throughput: 47.66 Mbit/s
95th percentile per-packet one-way delay: 62.079 ms
Loss rate: 8.76%
```

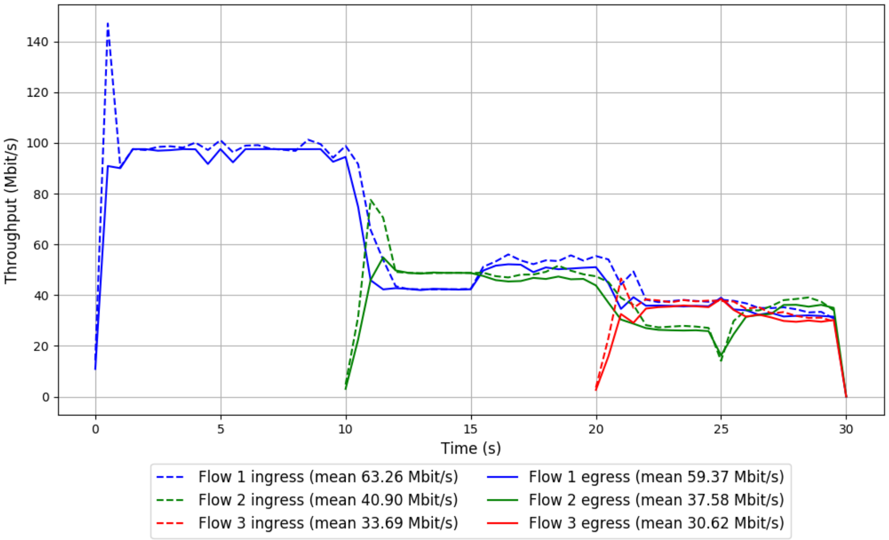
Run 1: Report of TCP BBR — Data Link

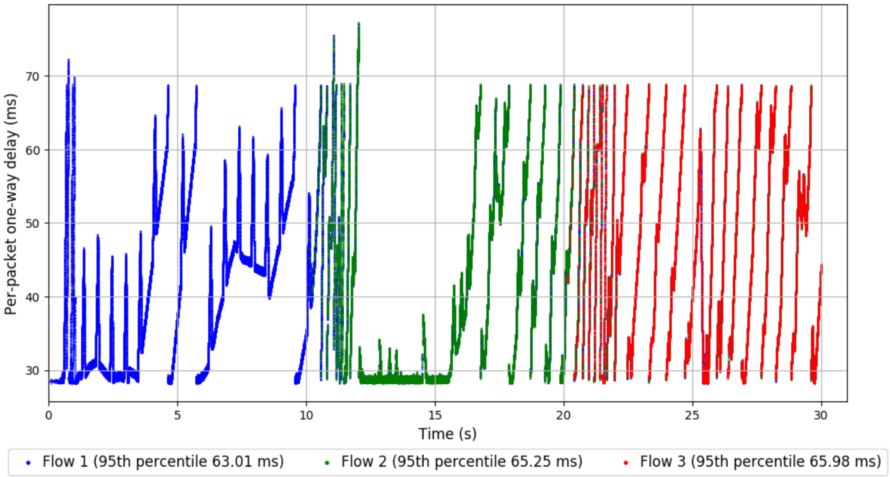




```
Run 2: Statistics of TCP BBR

Start at: 2018-03-27 19:19:01
End at: 2018-03-27 19:19:31
Local clock offset: -0.071 ms
Remote clock offset: -7.285 ms

# Below is generated by plot.py at 2018-03-27 23:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.56 Mbit/s
95th percentile per-packet one-way delay: 64.259 ms
Loss rate: 6.96%
-- Flow 1:
Average throughput: 59.37 Mbit/s
95th percentile per-packet one-way delay: 63.009 ms
Loss rate: 6.10%
-- Flow 2:
Average throughput: 37.58 Mbit/s
95th percentile per-packet one-way delay: 65.254 ms
Loss rate: 8.10%
-- Flow 3:
Average throughput: 30.62 Mbit/s
95th percentile per-packet one-way delay: 65.977 ms
Loss rate: 9.05%
```

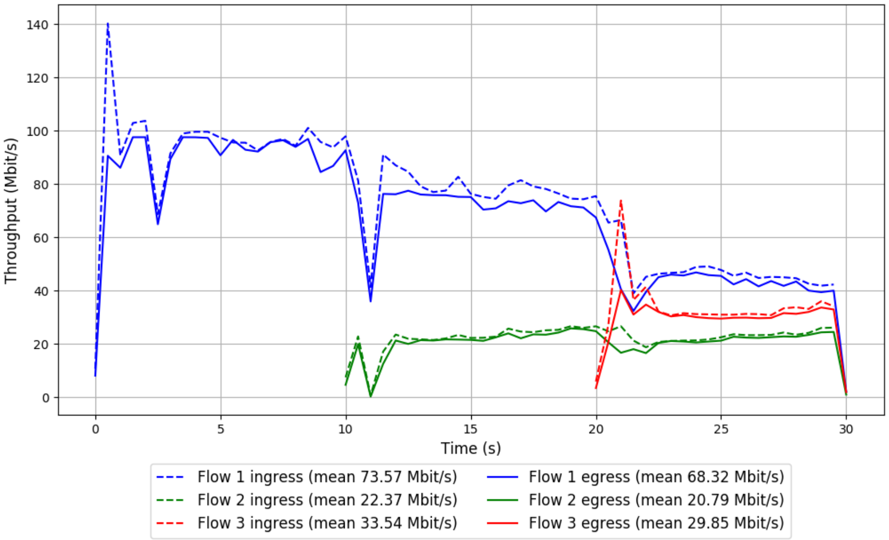
Run 2: Report of TCP BBR — Data Link

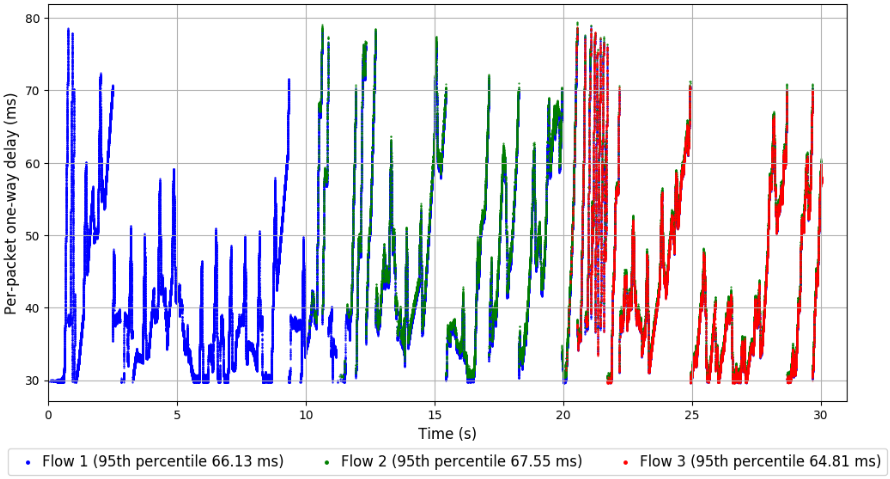




```
Run 3: Statistics of TCP BBR

Start at: 2018-03-27 19:50:10
End at: 2018-03-27 19:50:41
Local clock offset: -0.119 ms
Remote clock offset: -3.627 ms

# Below is generated by plot.py at 2018-03-27 23:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.09 Mbit/s
95th percentile per-packet one-way delay: 66.323 ms
Loss rate: 7.46%
-- Flow 1:
Average throughput: 68.32 Mbit/s
95th percentile per-packet one-way delay: 66.127 ms
Loss rate: 7.05%
-- Flow 2:
Average throughput: 20.79 Mbit/s
95th percentile per-packet one-way delay: 67.550 ms
Loss rate: 7.00%
-- Flow 3:
Average throughput: 29.85 Mbit/s
95th percentile per-packet one-way delay: 64.814 ms
Loss rate: 10.76%
```

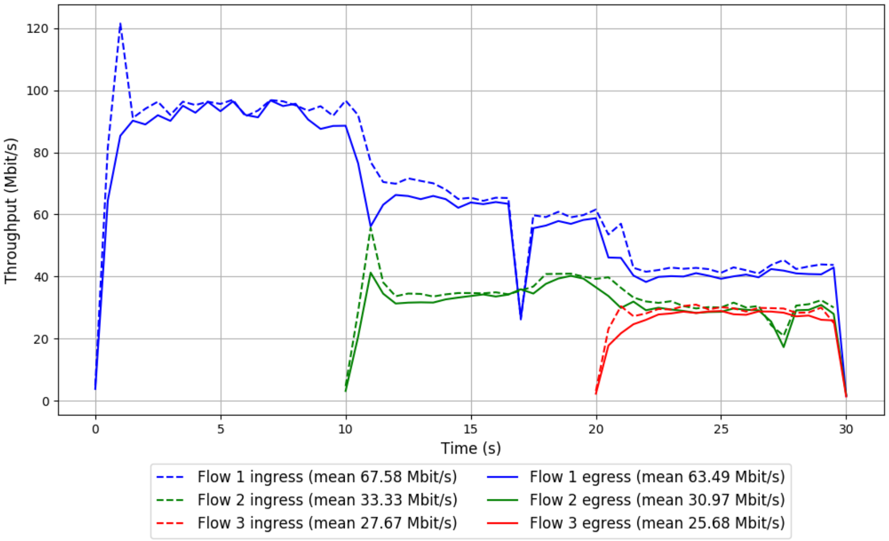
Run 3: Report of TCP BBR — Data Link

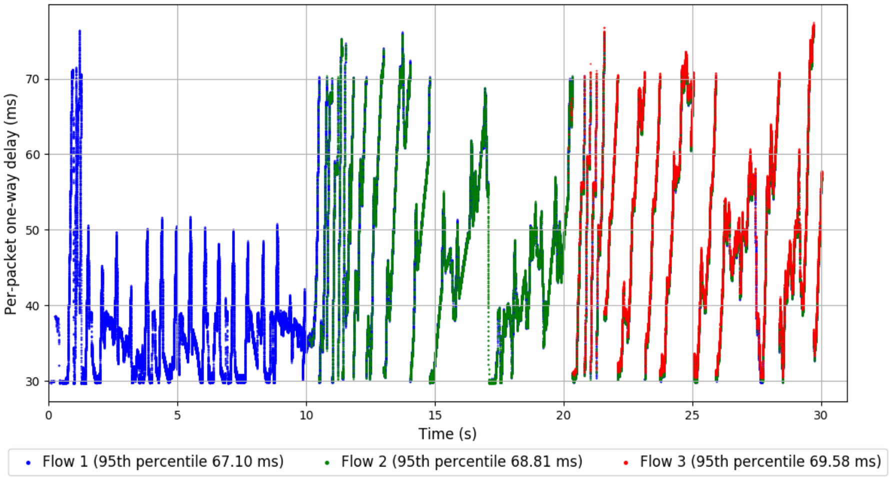




```
Run 4: Statistics of TCP BBR

Start at: 2018-03-27 20:21:23
End at: 2018-03-27 20:21:53
Local clock offset: 1.981 ms
Remote clock offset: -4.409 ms

# Below is generated by plot.py at 2018-03-27 23:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.63 Mbit/s
95th percentile per-packet one-way delay: 67.816 ms
Loss rate: 6.31%
-- Flow 1:
Average throughput: 63.49 Mbit/s
95th percentile per-packet one-way delay: 67.099 ms
Loss rate: 5.98%
-- Flow 2:
Average throughput: 30.97 Mbit/s
95th percentile per-packet one-way delay: 68.805 ms
Loss rate: 6.96%
-- Flow 3:
Average throughput: 25.68 Mbit/s
95th percentile per-packet one-way delay: 69.578 ms
Loss rate: 7.17%
```

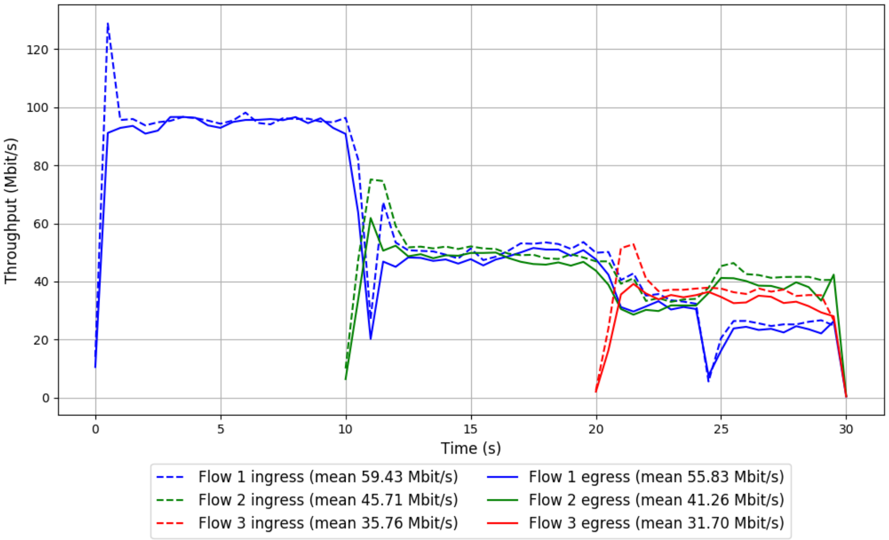
Run 4: Report of TCP BBR — Data Link

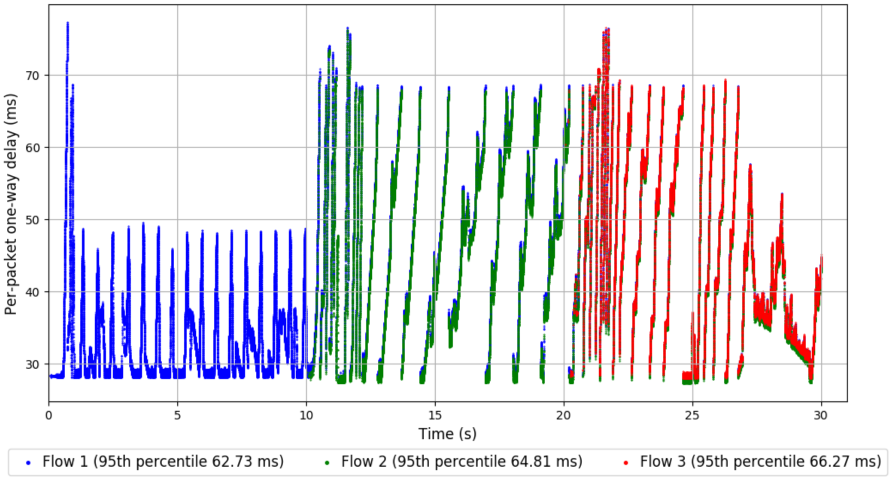




```
Run 5: Statistics of TCP BBR

Start at: 2018-03-27 20:50:36
End at: 2018-03-27 20:51:06
Local clock offset: 1.198 ms
Remote clock offset: -4.79 ms

# Below is generated by plot.py at 2018-03-27 23:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 64.266 ms
Loss rate: 7.74%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 62.733 ms
Loss rate: 6.00%
-- Flow 2:
Average throughput: 41.26 Mbit/s
95th percentile per-packet one-way delay: 64.807 ms
Loss rate: 9.66%
-- Flow 3:
Average throughput: 31.70 Mbit/s
95th percentile per-packet one-way delay: 66.267 ms
Loss rate: 11.53%
```

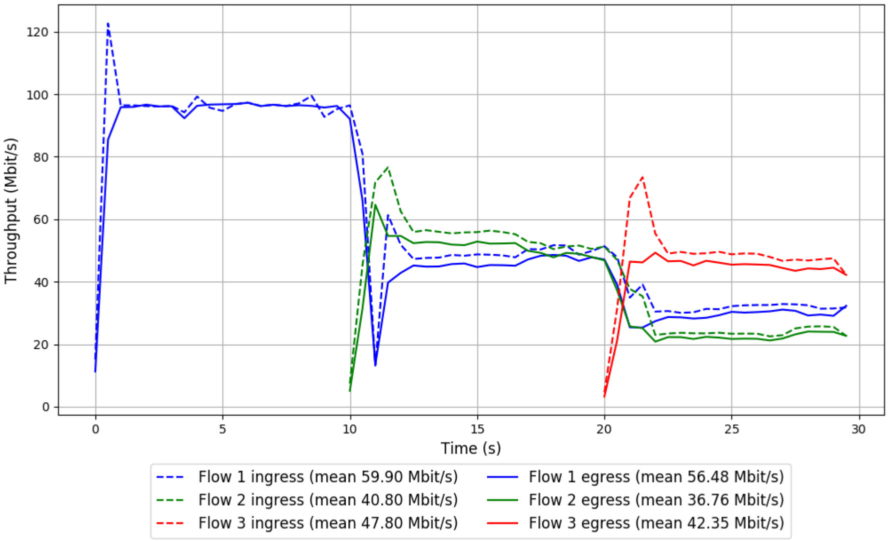
Run 5: Report of TCP BBR — Data Link

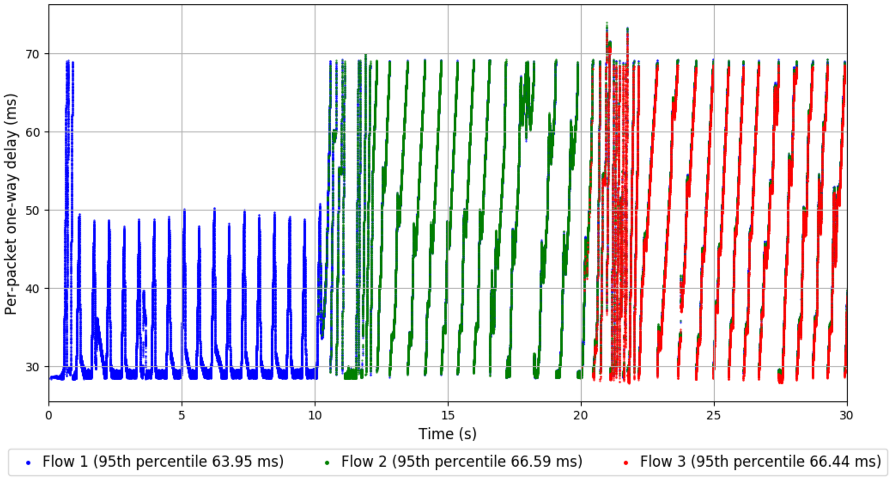




```
Run 6: Statistics of TCP BBR

Start at: 2018-03-27 21:16:35
End at: 2018-03-27 21:17:05
Local clock offset: 0.814 ms
Remote clock offset: -2.391 ms

# Below is generated by plot.py at 2018-03-27 23:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.02 Mbit/s
95th percentile per-packet one-way delay: 65.457 ms
Loss rate: 7.65%
-- Flow 1:
Average throughput: 56.48 Mbit/s
95th percentile per-packet one-way delay: 63.953 ms
Loss rate: 5.67%
-- Flow 2:
Average throughput: 36.76 Mbit/s
95th percentile per-packet one-way delay: 66.590 ms
Loss rate: 9.86%
-- Flow 3:
Average throughput: 42.35 Mbit/s
95th percentile per-packet one-way delay: 66.442 ms
Loss rate: 11.32%
```

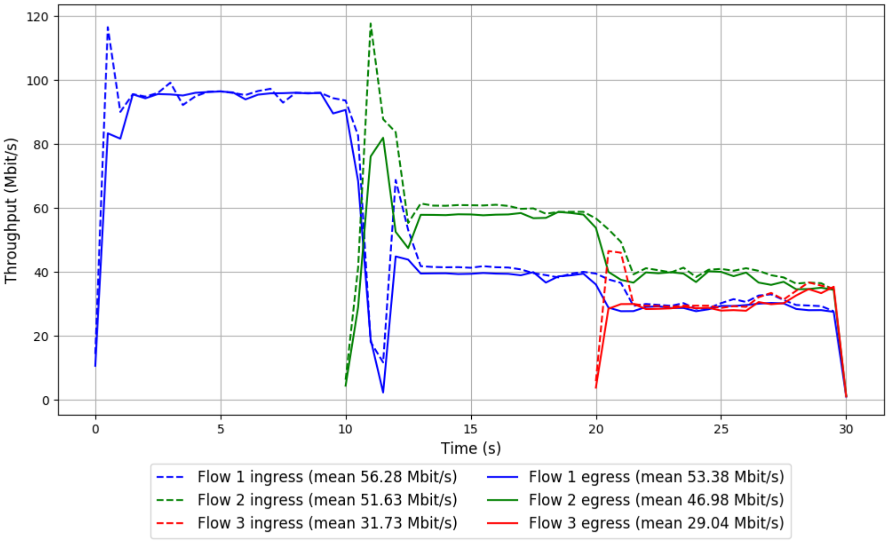
Run 6: Report of TCP BBR — Data Link

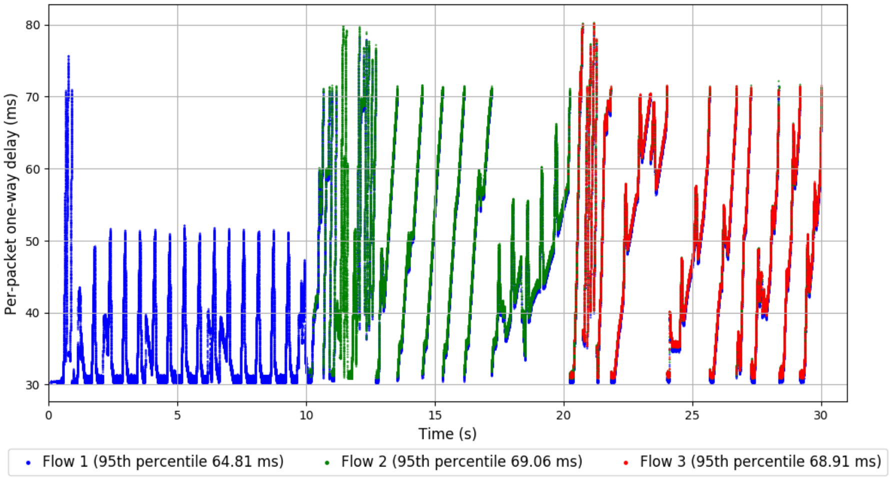




```
Run 7: Statistics of TCP BBR

Start at: 2018-03-27 21:42:44
End at: 2018-03-27 21:43:14
Local clock offset: 4.634 ms
Remote clock offset: -1.058 ms

# Below is generated by plot.py at 2018-03-27 23:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.30 Mbit/s
95th percentile per-packet one-way delay: 67.632 ms
Loss rate: 6.76%
-- Flow 1:
Average throughput: 53.38 Mbit/s
95th percentile per-packet one-way delay: 64.806 ms
Loss rate: 5.10%
-- Flow 2:
Average throughput: 46.98 Mbit/s
95th percentile per-packet one-way delay: 69.057 ms
Loss rate: 8.94%
-- Flow 3:
Average throughput: 29.04 Mbit/s
95th percentile per-packet one-way delay: 68.906 ms
Loss rate: 8.56%
```

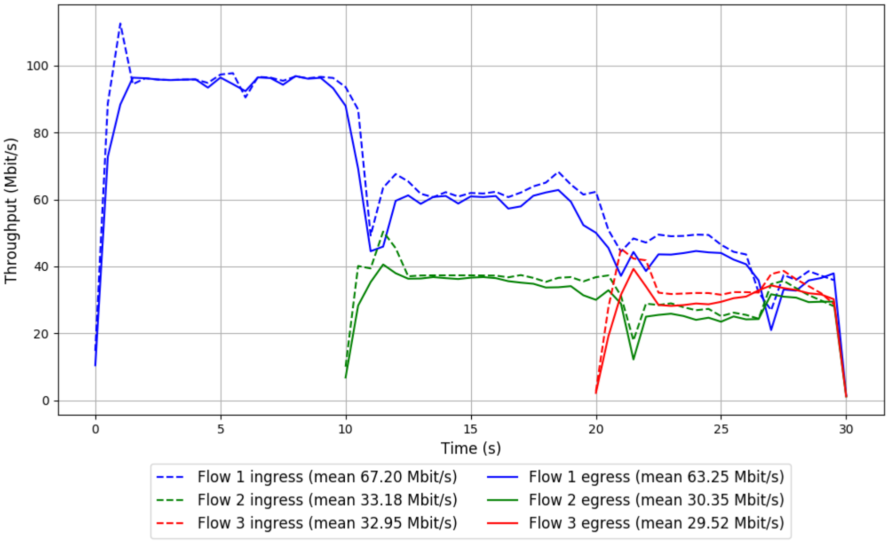
Run 7: Report of TCP BBR — Data Link

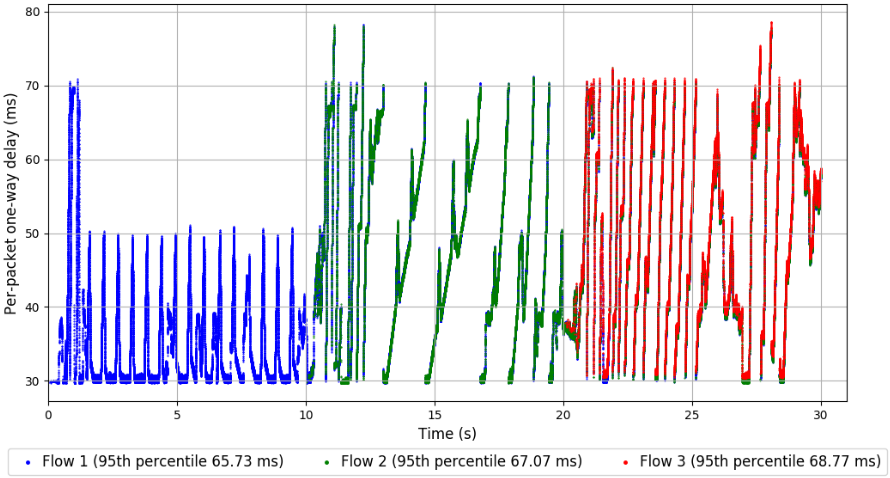




```
Run 8: Statistics of TCP BBR

Start at: 2018-03-27 22:09:34
End at: 2018-03-27 22:10:04
Local clock offset: 5.943 ms
Remote clock offset: -0.364 ms

# Below is generated by plot.py at 2018-03-27 23:58:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.27 Mbit/s
95th percentile per-packet one-way delay: 66.585 ms
Loss rate: 6.85%
-- Flow 1:
Average throughput: 63.25 Mbit/s
95th percentile per-packet one-way delay: 65.726 ms
Loss rate: 5.79%
-- Flow 2:
Average throughput: 30.35 Mbit/s
95th percentile per-packet one-way delay: 67.069 ms
Loss rate: 8.40%
-- Flow 3:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 68.774 ms
Loss rate: 10.26%
```

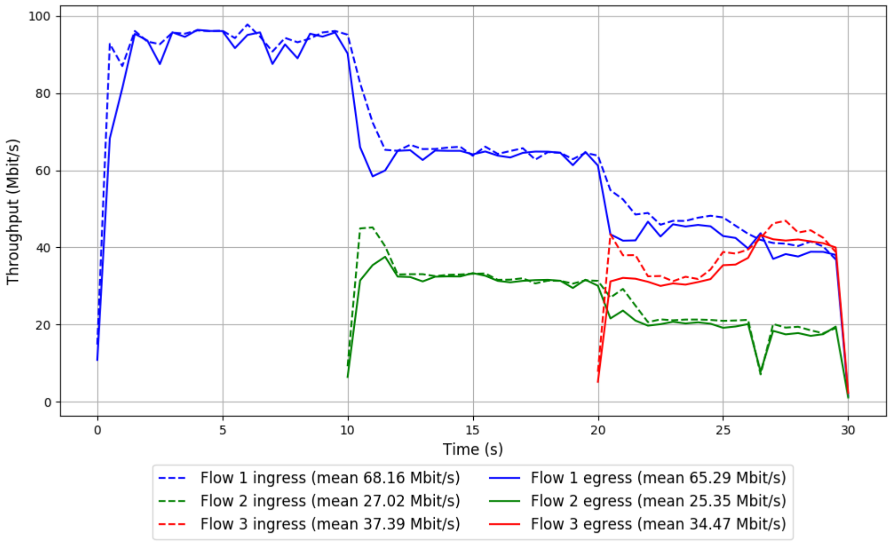
Run 8: Report of TCP BBR — Data Link

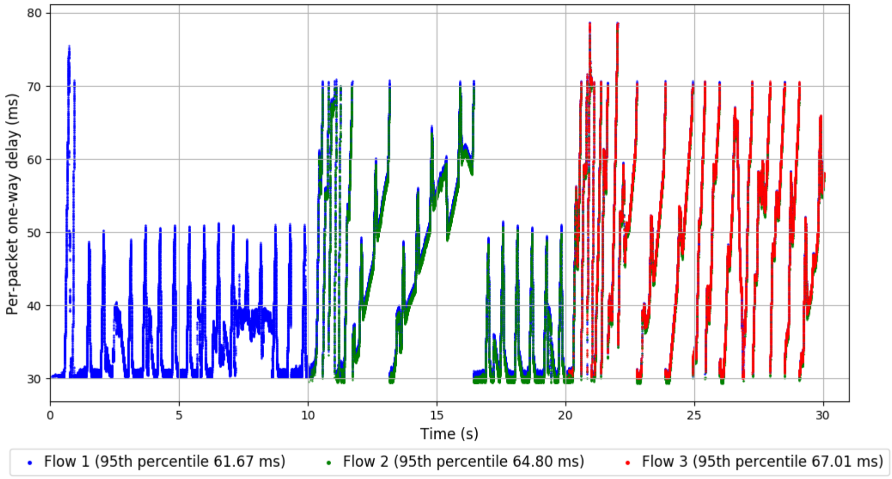




```
Run 9: Statistics of TCP BBR

Start at: 2018-03-27 22:37:13
End at: 2018-03-27 22:37:43
Local clock offset: 1.13 ms
Remote clock offset: 2.572 ms

# Below is generated by plot.py at 2018-03-28 00:00:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 63.873 ms
Loss rate: 4.92%
-- Flow 1:
Average throughput: 65.29 Mbit/s
95th percentile per-packet one-way delay: 61.672 ms
Loss rate: 4.14%
-- Flow 2:
Average throughput: 25.35 Mbit/s
95th percentile per-packet one-way delay: 64.795 ms
Loss rate: 6.07%
-- Flow 3:
Average throughput: 34.47 Mbit/s
95th percentile per-packet one-way delay: 67.014 ms
Loss rate: 7.55%
```

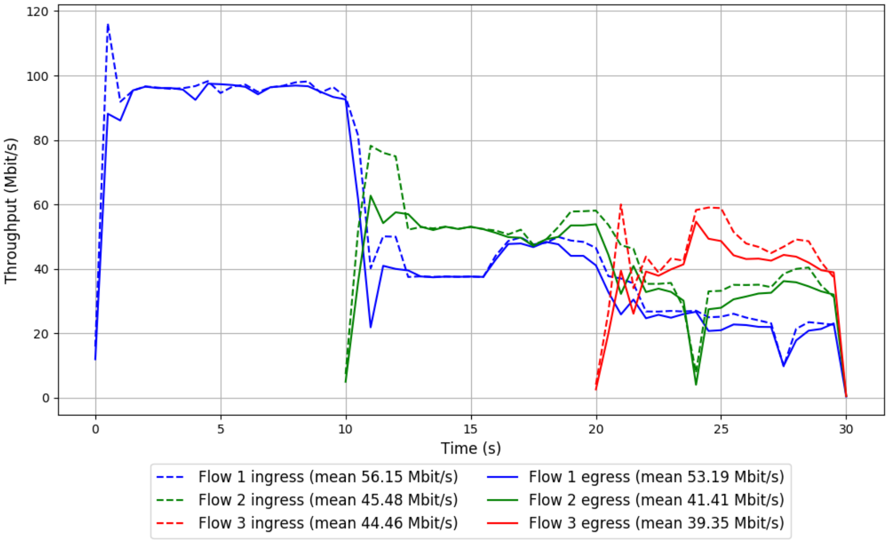
Run 9: Report of TCP BBR — Data Link

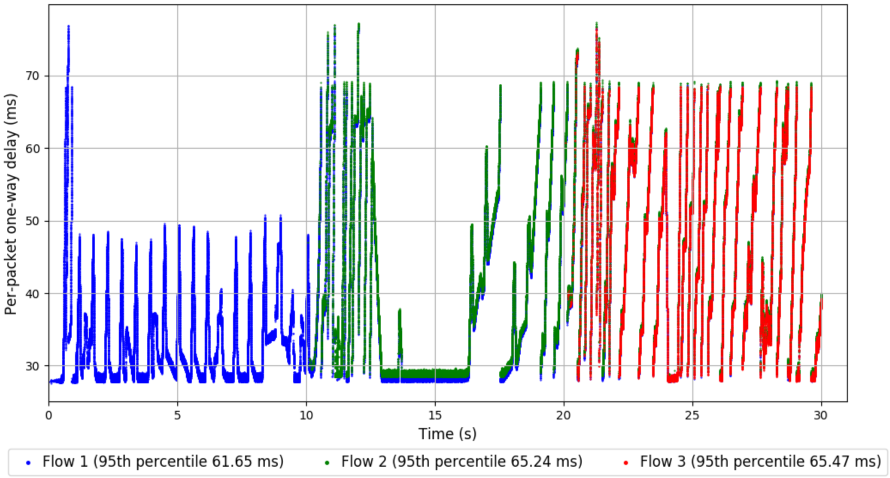




```
Run 10: Statistics of TCP BBR

Start at: 2018-03-27 23:06:22
End at: 2018-03-27 23:06:52
Local clock offset: 0.989 ms
Remote clock offset: 0.727 ms

# Below is generated by plot.py at 2018-03-28 00:00:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.76 Mbit/s
95th percentile per-packet one-way delay: 64.080 ms
Loss rate: 7.30%
-- Flow 1:
Average throughput: 53.19 Mbit/s
95th percentile per-packet one-way delay: 61.652 ms
Loss rate: 5.23%
-- Flow 2:
Average throughput: 41.41 Mbit/s
95th percentile per-packet one-way delay: 65.242 ms
Loss rate: 9.00%
-- Flow 3:
Average throughput: 39.35 Mbit/s
95th percentile per-packet one-way delay: 65.475 ms
Loss rate: 11.67%
```

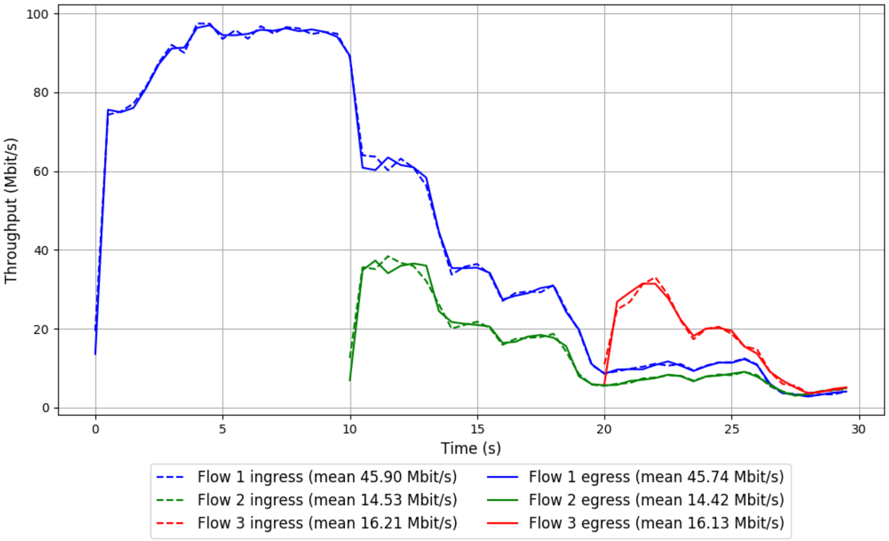
Run 10: Report of TCP BBR — Data Link

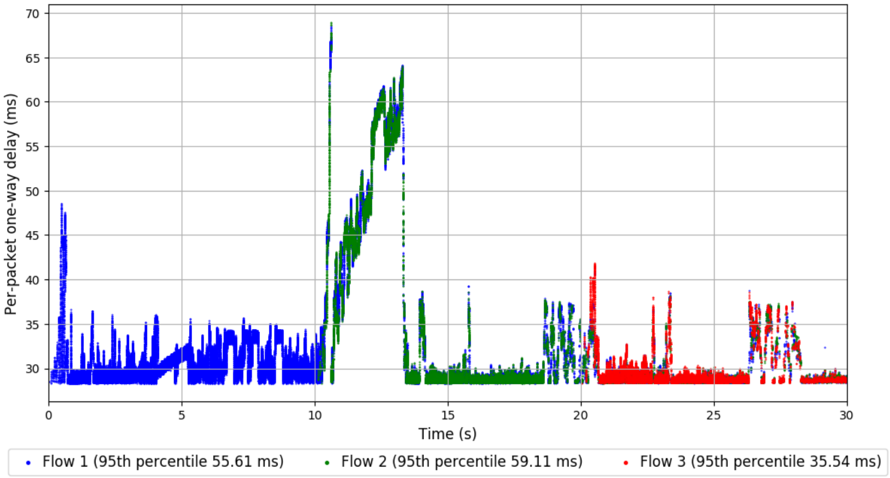




```
Run 1: Statistics of TCP Cubic

Start at: 2018-03-27 18:39:47
End at: 2018-03-27 18:40:17
Local clock offset: 2.465 ms
Remote clock offset: -7.049 ms

# Below is generated by plot.py at 2018-03-28 00:00:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.69 Mbit/s
95th percentile per-packet one-way delay: 56.766 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 45.74 Mbit/s
95th percentile per-packet one-way delay: 55.611 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 14.42 Mbit/s
95th percentile per-packet one-way delay: 59.107 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 16.13 Mbit/s
95th percentile per-packet one-way delay: 35.543 ms
Loss rate: 0.48%
```

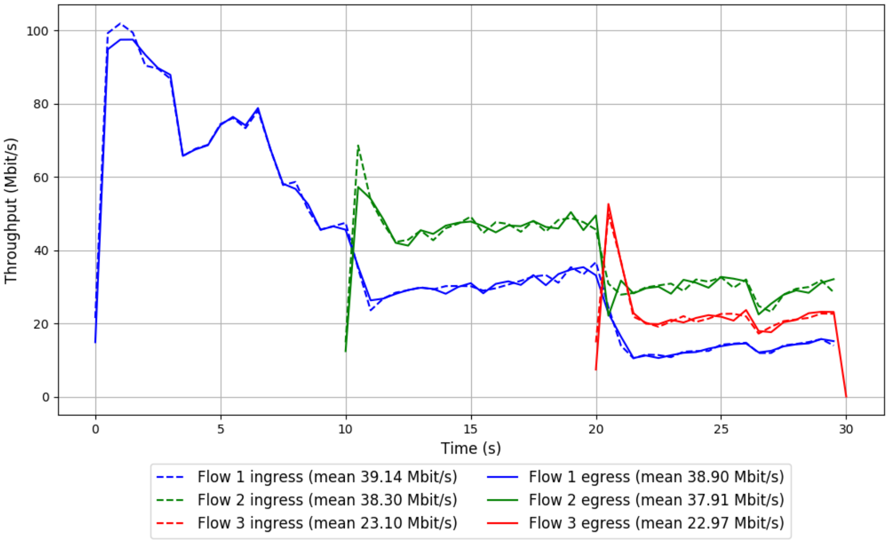
Run 1: Report of TCP Cubic — Data Link

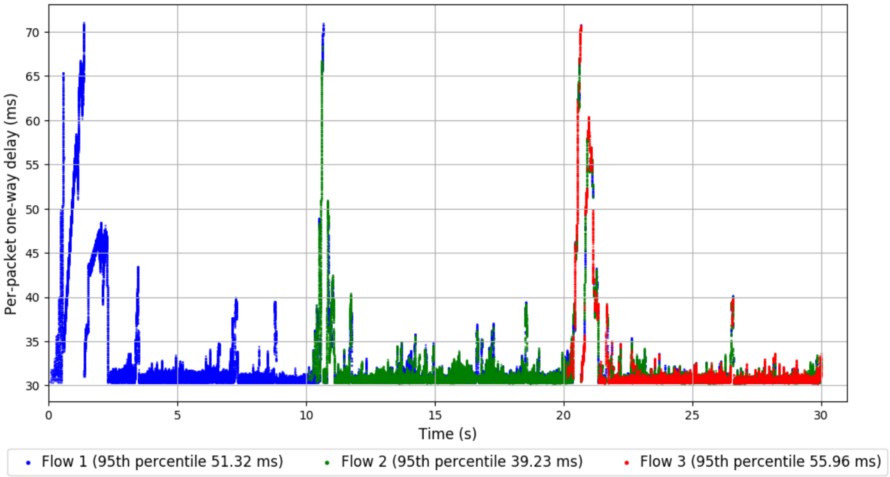




```
Run 2: Statistics of TCP Cubic

Start at: 2018-03-27 19:12:20
End at: 2018-03-27 19:12:50
Local clock offset: 0.317 ms
Remote clock offset: -5.33 ms

# Below is generated by plot.py at 2018-03-28 00:00:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.75 Mbit/s
95th percentile per-packet one-way delay: 48.138 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 38.90 Mbit/s
95th percentile per-packet one-way delay: 51.316 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 37.91 Mbit/s
95th percentile per-packet one-way delay: 39.225 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 22.97 Mbit/s
95th percentile per-packet one-way delay: 55.961 ms
Loss rate: 0.54%
```

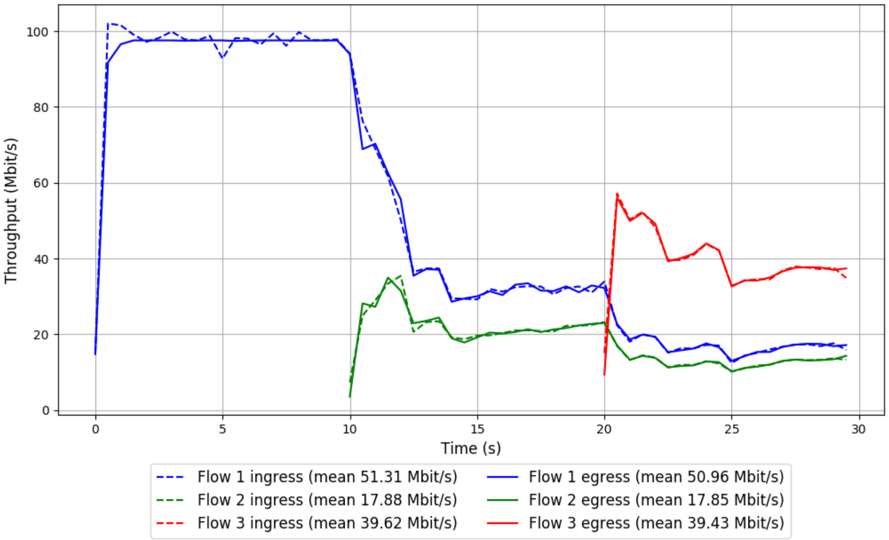
Run 2: Report of TCP Cubic — Data Link

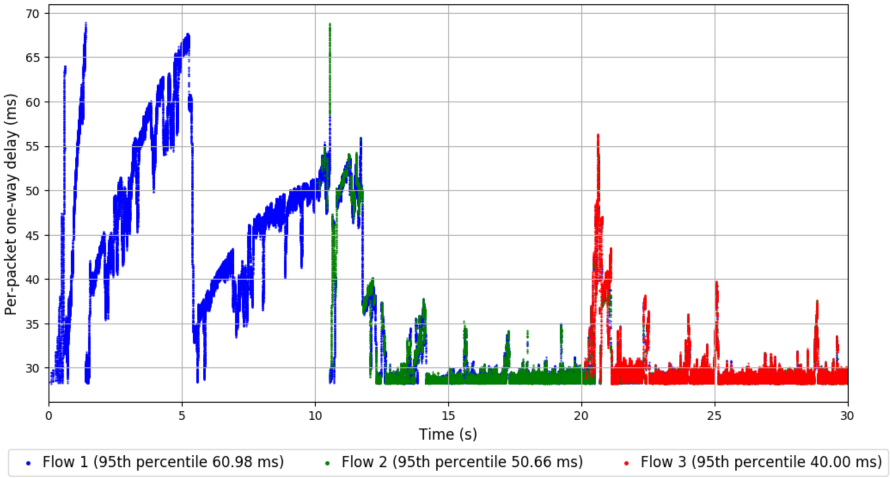




```
Run 3: Statistics of TCP Cubic

Start at: 2018-03-27 19:42:51
End at: 2018-03-27 19:43:21
Local clock offset: -0.215 ms
Remote clock offset: -6.237 ms

# Below is generated by plot.py at 2018-03-28 00:00:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.90 Mbit/s
95th percentile per-packet one-way delay: 59.178 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 50.96 Mbit/s
95th percentile per-packet one-way delay: 60.977 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 17.85 Mbit/s
95th percentile per-packet one-way delay: 50.660 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 39.43 Mbit/s
95th percentile per-packet one-way delay: 40.001 ms
Loss rate: 0.48%
```

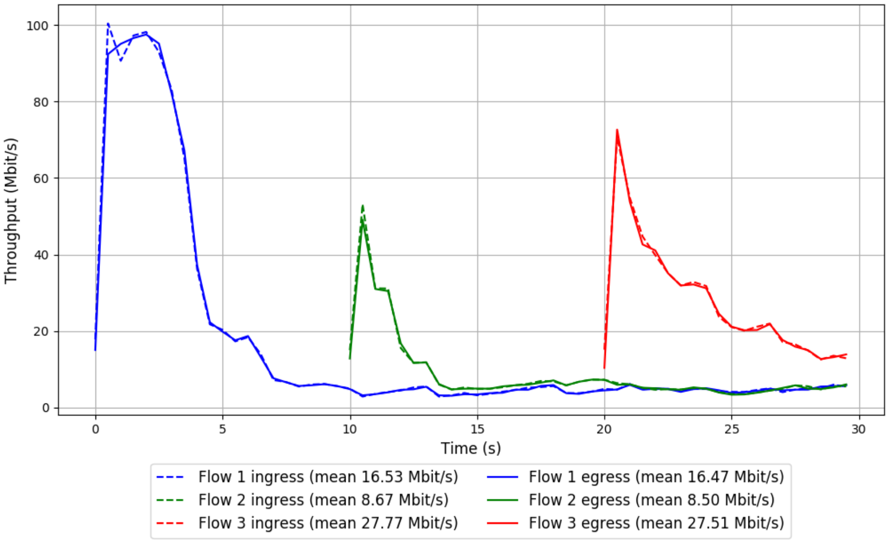
Run 3: Report of TCP Cubic — Data Link

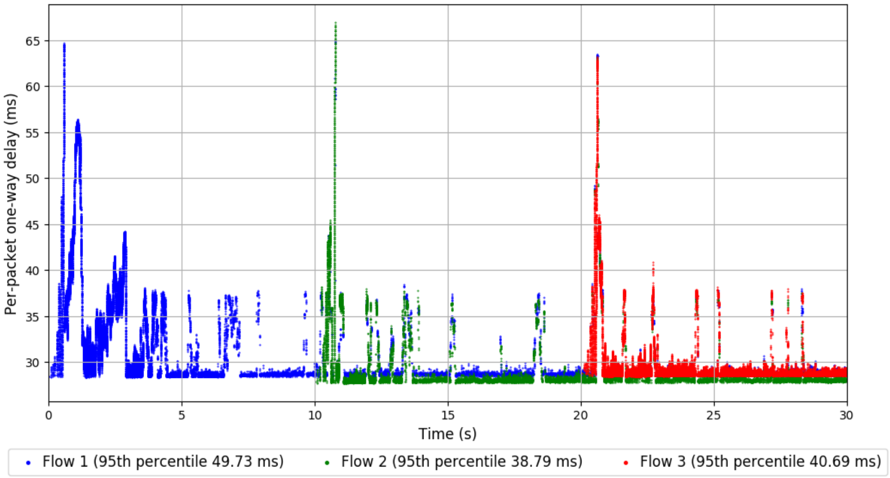




```
Run 4: Statistics of TCP Cubic

Start at: 2018-03-27 20:14:56
End at: 2018-03-27 20:15:26
Local clock offset: 1.302 ms
Remote clock offset: -5.881 ms

# Below is generated by plot.py at 2018-03-28 00:00:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.23 Mbit/s
95th percentile per-packet one-way delay: 43.943 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 16.47 Mbit/s
95th percentile per-packet one-way delay: 49.731 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 38.787 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 27.51 Mbit/s
95th percentile per-packet one-way delay: 40.687 ms
Loss rate: 0.93%
```

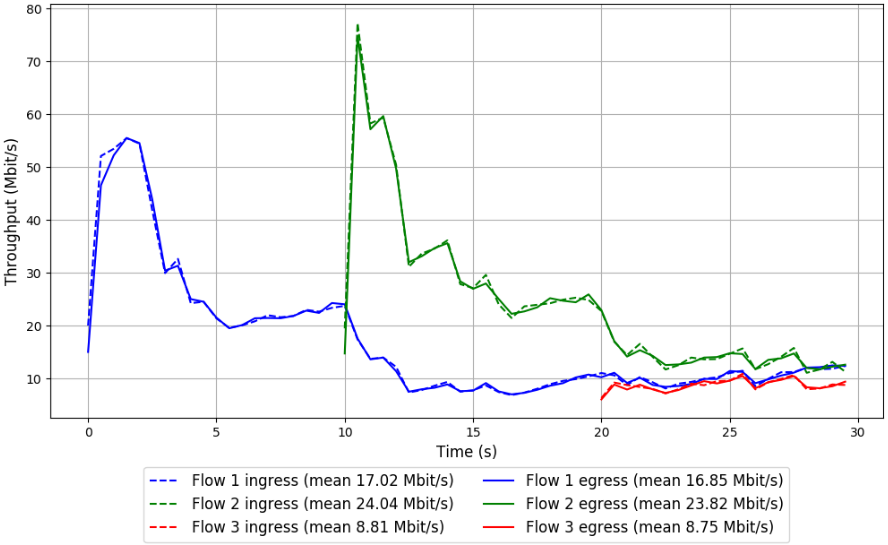
Run 4: Report of TCP Cubic — Data Link

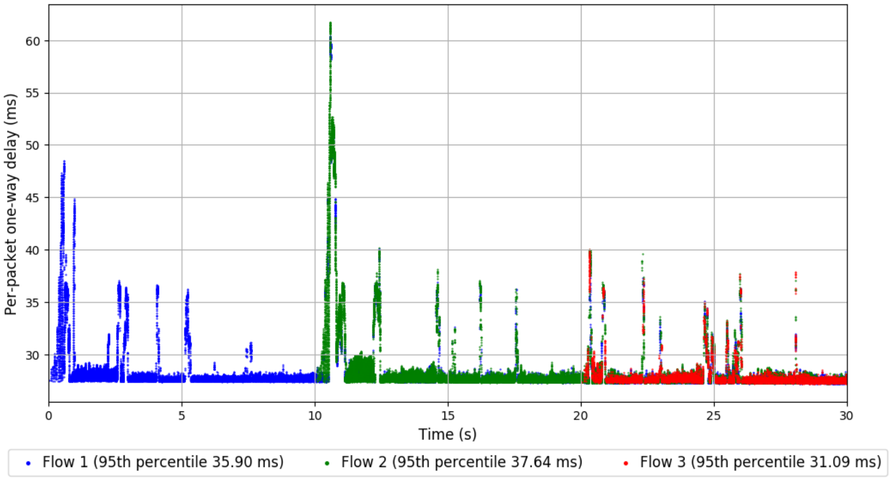




```
Run 5: Statistics of TCP Cubic

Start at: 2018-03-27 20:45:07
End at: 2018-03-27 20:45:37
Local clock offset: 1.941 ms
Remote clock offset: -6.179 ms

# Below is generated by plot.py at 2018-03-28 00:00:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.61 Mbit/s
95th percentile per-packet one-way delay: 36.134 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 16.85 Mbit/s
95th percentile per-packet one-way delay: 35.902 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 23.82 Mbit/s
95th percentile per-packet one-way delay: 37.643 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 31.087 ms
Loss rate: 0.58%
```

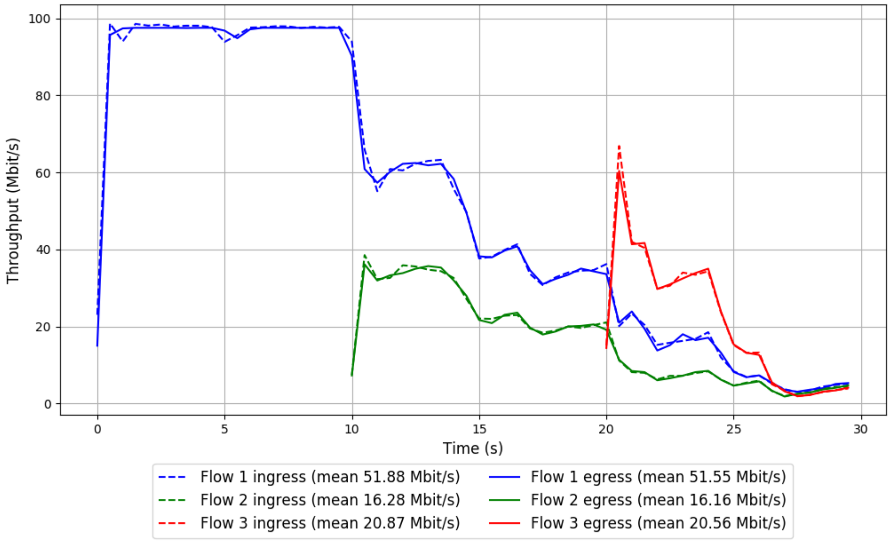
Run 5: Report of TCP Cubic — Data Link

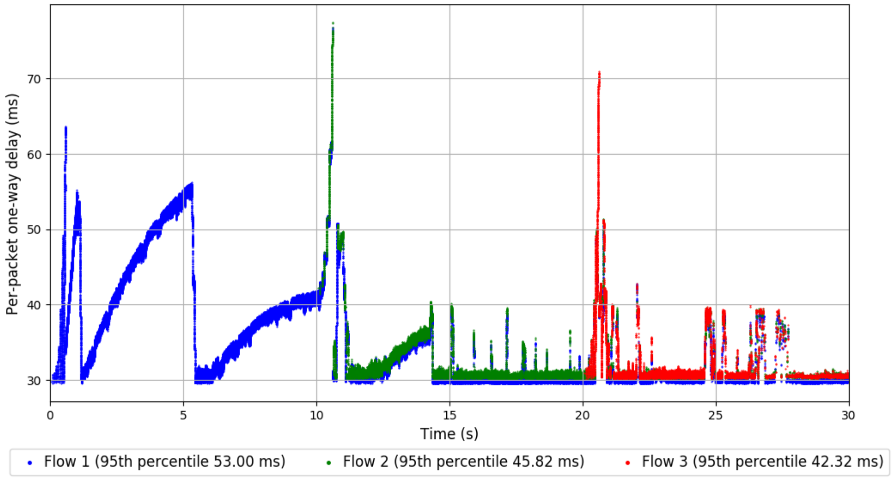




```
Run 6: Statistics of TCP Cubic

Start at: 2018-03-27 21:10:52
End at: 2018-03-27 21:11:22
Local clock offset: 0.355 ms
Remote clock offset: -0.591 ms

# Below is generated by plot.py at 2018-03-28 00:00:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.10 Mbit/s
95th percentile per-packet one-way delay: 52.521 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 51.55 Mbit/s
95th percentile per-packet one-way delay: 53.002 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 16.16 Mbit/s
95th percentile per-packet one-way delay: 45.820 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 20.56 Mbit/s
95th percentile per-packet one-way delay: 42.324 ms
Loss rate: 1.51%
```

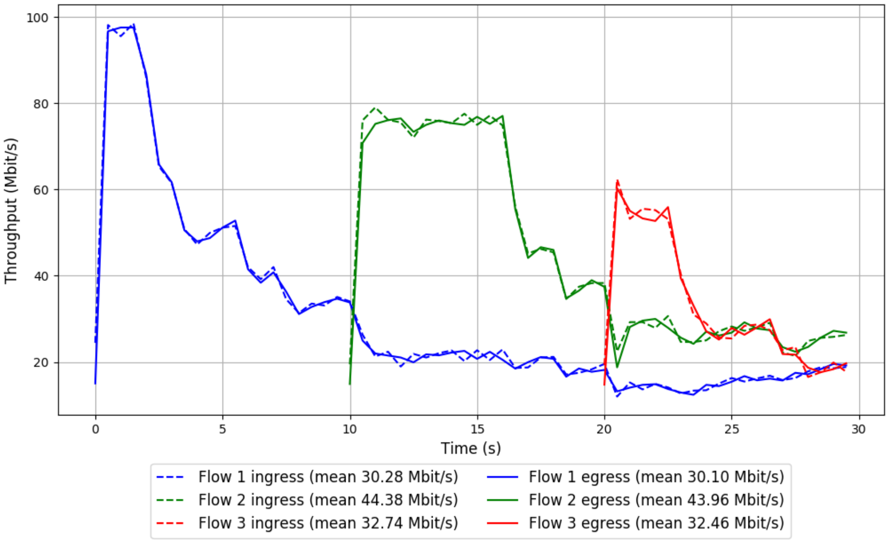
Run 6: Report of TCP Cubic — Data Link

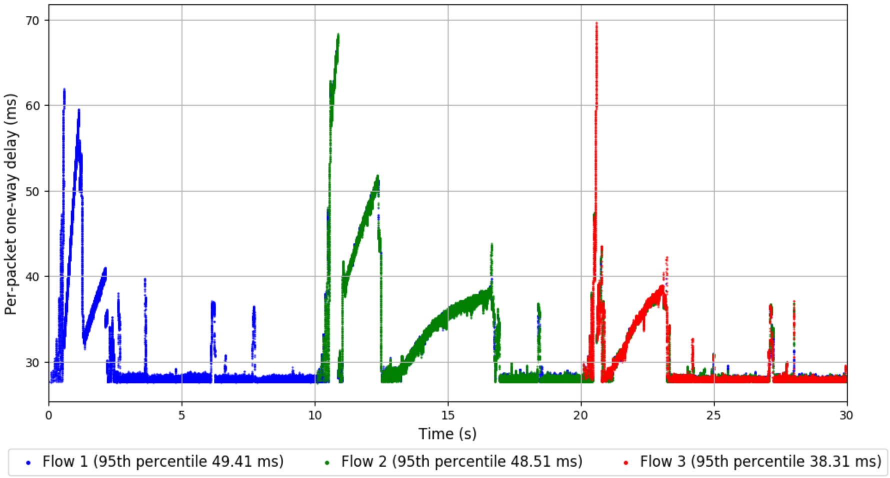




```
Run 7: Statistics of TCP Cubic

Start at: 2018-03-27 21:36:58
End at: 2018-03-27 21:37:28
Local clock offset: 4.332 ms
Remote clock offset: -3.511 ms

# Below is generated by plot.py at 2018-03-28 00:00:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.14 Mbit/s
95th percentile per-packet one-way delay: 48.054 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 30.10 Mbit/s
95th percentile per-packet one-way delay: 49.408 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 43.96 Mbit/s
95th percentile per-packet one-way delay: 48.507 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 38.312 ms
Loss rate: 0.86%
```

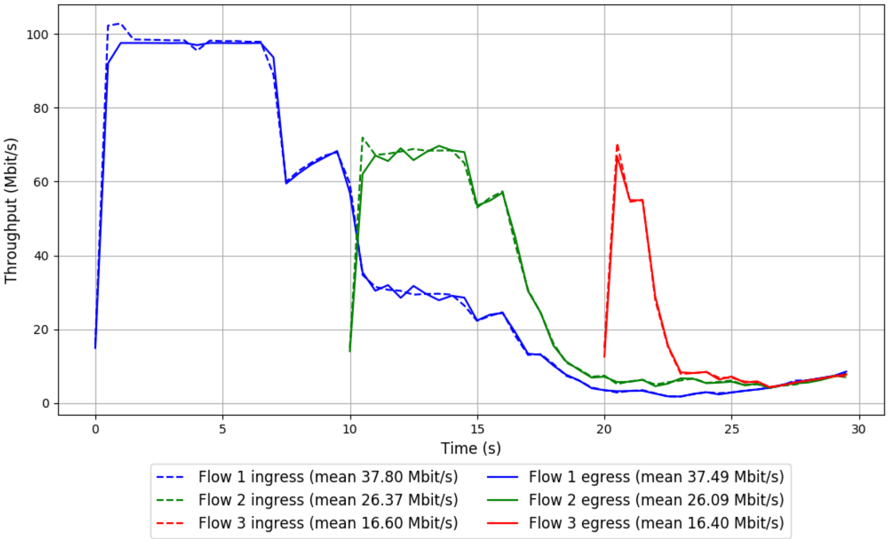
Run 7: Report of TCP Cubic — Data Link

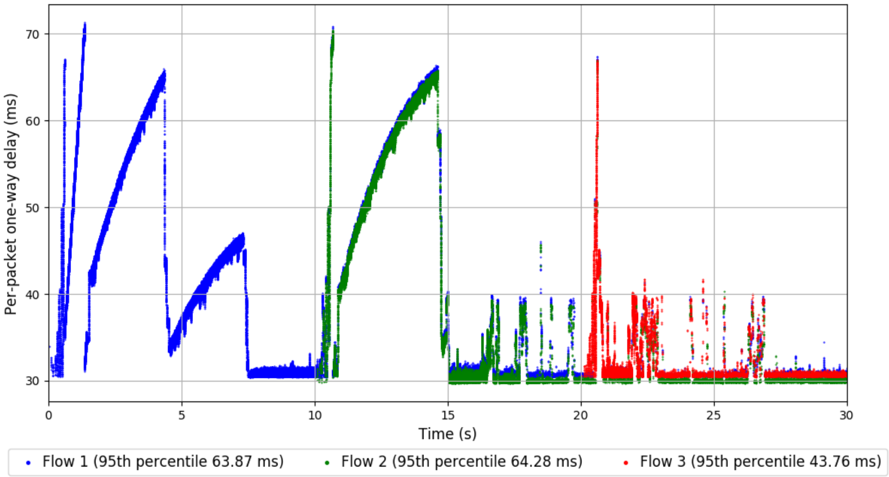




```
Run 8: Statistics of TCP Cubic

Start at: 2018-03-27 22:03:38
End at: 2018-03-27 22:04:08
Local clock offset: 5.668 ms
Remote clock offset: -0.592 ms

# Below is generated by plot.py at 2018-03-28 00:00:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.31 Mbit/s
95th percentile per-packet one-way delay: 63.893 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 37.49 Mbit/s
95th percentile per-packet one-way delay: 63.866 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 26.09 Mbit/s
95th percentile per-packet one-way delay: 64.275 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 16.40 Mbit/s
95th percentile per-packet one-way delay: 43.760 ms
Loss rate: 1.19%
```

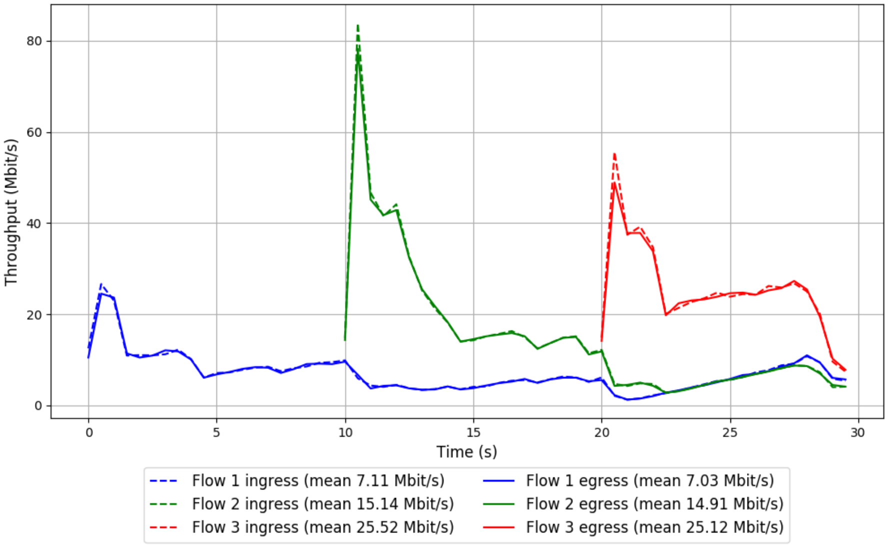
Run 8: Report of TCP Cubic — Data Link

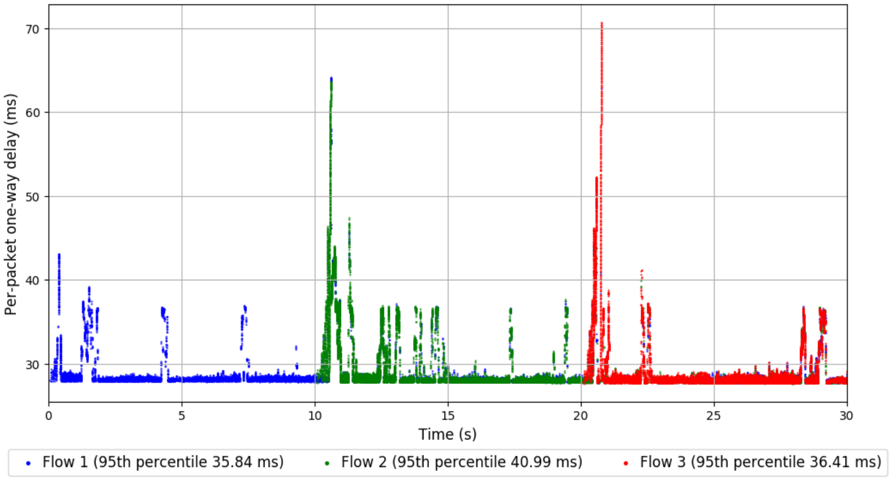




```
Run 9: Statistics of TCP Cubic

Start at: 2018-03-27 22:31:04
End at: 2018-03-27 22:31:34
Local clock offset: 2.74 ms
Remote clock offset: -0.659 ms

# Below is generated by plot.py at 2018-03-28 00:00:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.29 Mbit/s
95th percentile per-packet one-way delay: 37.483 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 35.843 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 14.91 Mbit/s
95th percentile per-packet one-way delay: 40.995 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 25.12 Mbit/s
95th percentile per-packet one-way delay: 36.409 ms
Loss rate: 1.57%
```

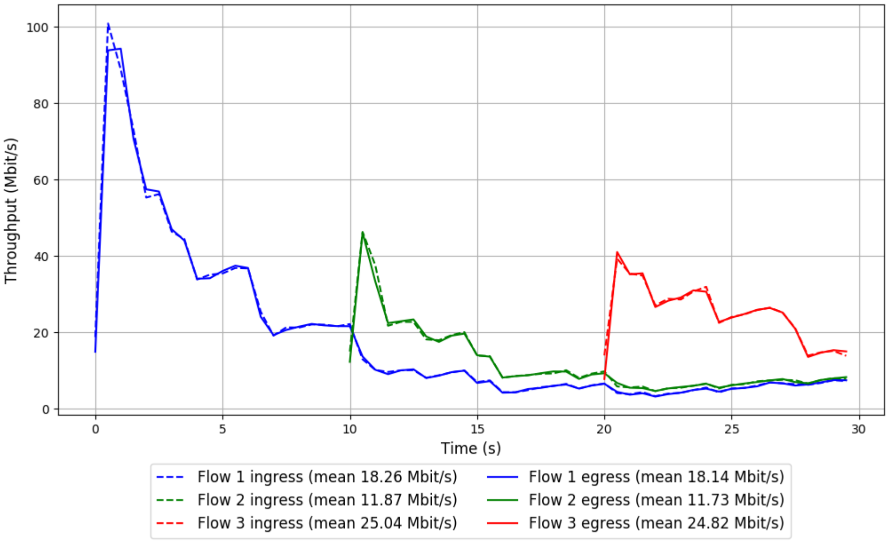
Run 9: Report of TCP Cubic — Data Link

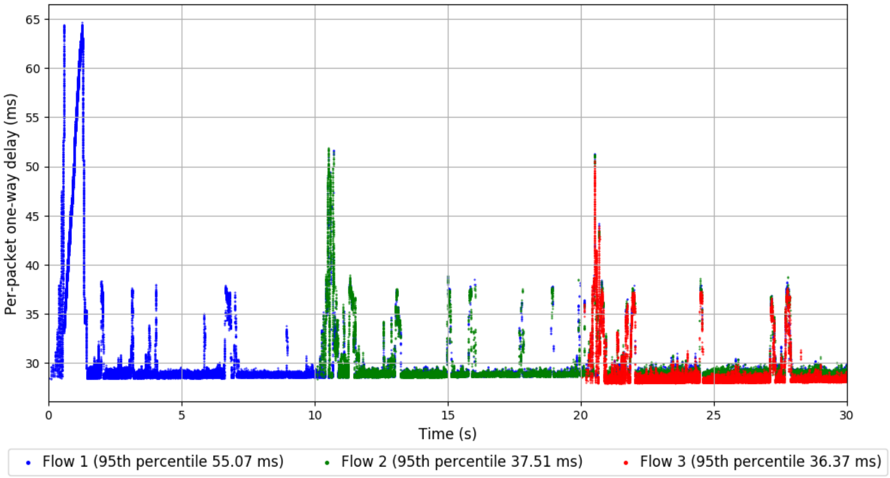




```
Run 10: Statistics of TCP Cubic

Start at: 2018-03-27 22:59:49
End at: 2018-03-27 23:00:19
Local clock offset: -0.423 ms
Remote clock offset: 2.183 ms

# Below is generated by plot.py at 2018-03-28 00:00:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.18 Mbit/s
95th percentile per-packet one-way delay: 46.271 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 18.14 Mbit/s
95th percentile per-packet one-way delay: 55.073 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 37.510 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 24.82 Mbit/s
95th percentile per-packet one-way delay: 36.373 ms
Loss rate: 0.90%
```

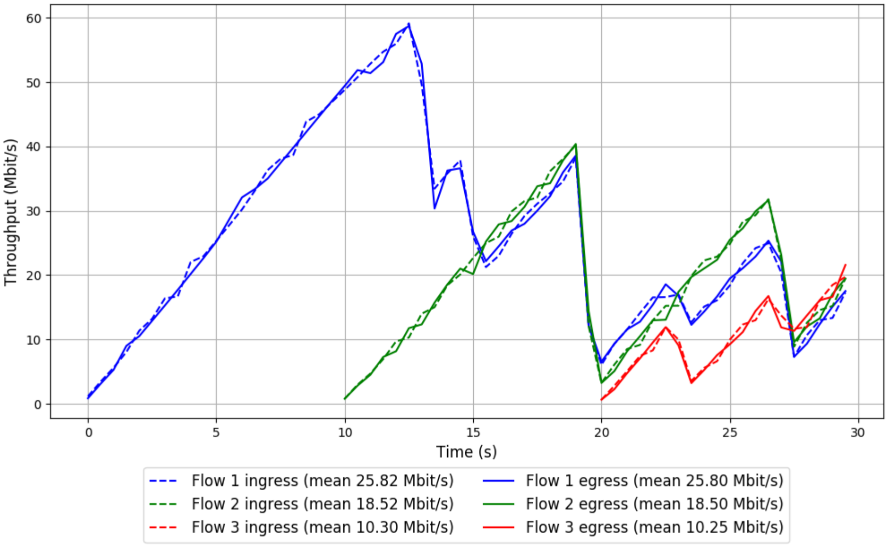
Run 10: Report of TCP Cubic — Data Link

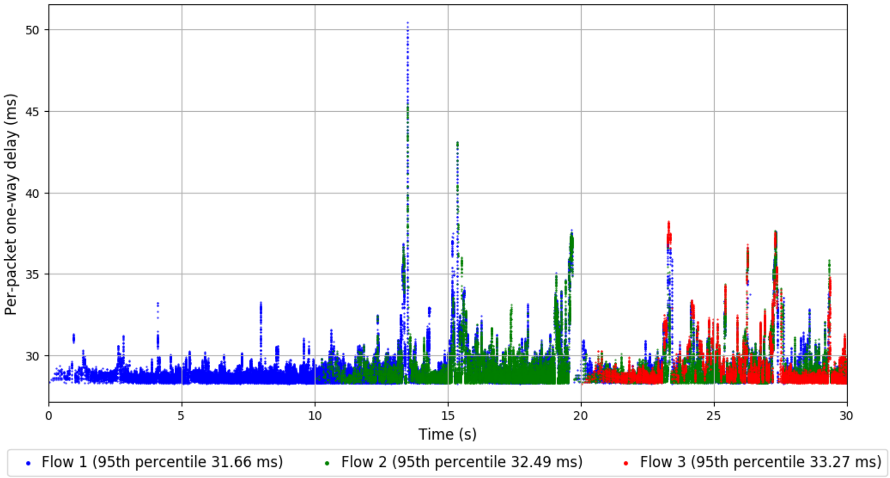




```
Run 1: Statistics of LEDBAT

Start at: 2018-03-27 18:45:33
End at: 2018-03-27 18:46:03
Local clock offset: 2.552 ms
Remote clock offset: -7.402 ms

# Below is generated by plot.py at 2018-03-28 00:00:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.51 Mbit/s
95th percentile per-packet one-way delay: 32.119 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 25.80 Mbit/s
95th percentile per-packet one-way delay: 31.655 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 18.50 Mbit/s
95th percentile per-packet one-way delay: 32.494 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 33.275 ms
Loss rate: 0.48%
```

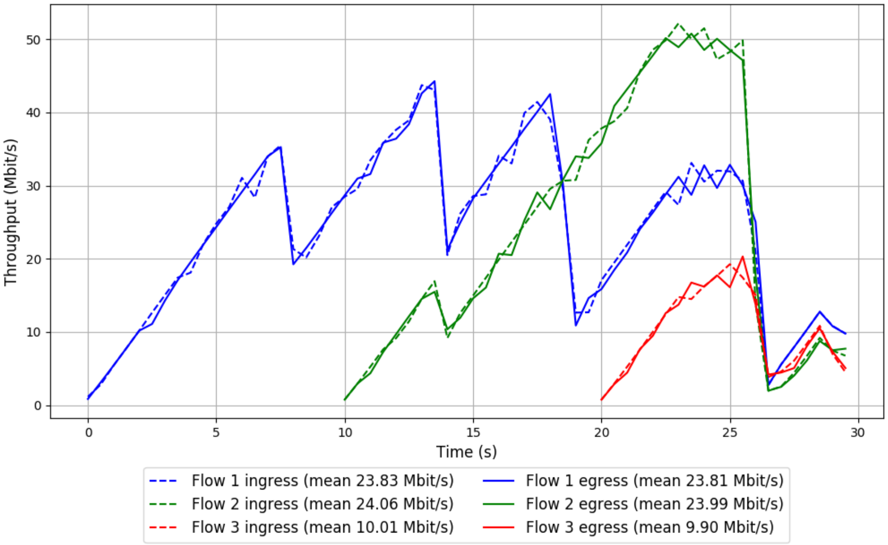
Run 1: Report of LEDBAT — Data Link

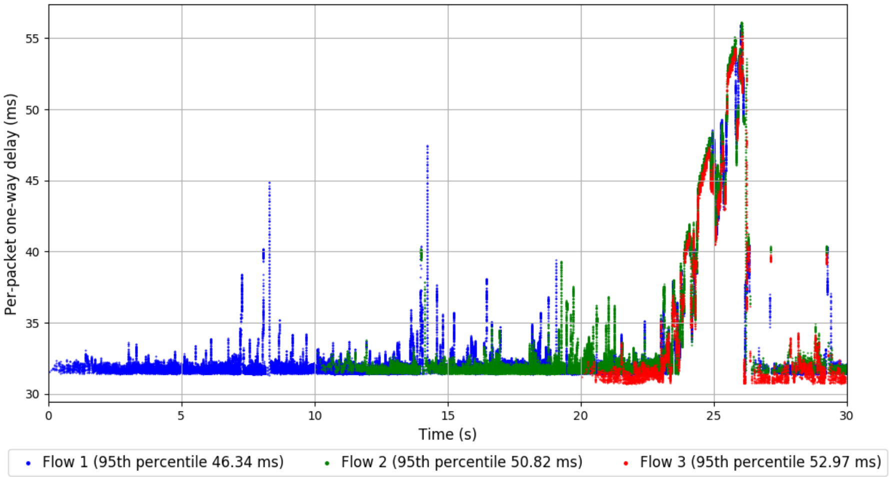




```
Run 2: Statistics of LEDBAT

Start at: 2018-03-27 19:17:28
End at: 2018-03-27 19:17:58
Local clock offset: 0.031 ms
Remote clock offset: -4.765 ms

# Below is generated by plot.py at 2018-03-28 00:00:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.00 Mbit/s
95th percentile per-packet one-way delay: 48.493 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 23.81 Mbit/s
95th percentile per-packet one-way delay: 46.343 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 23.99 Mbit/s
95th percentile per-packet one-way delay: 50.822 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 9.90 Mbit/s
95th percentile per-packet one-way delay: 52.973 ms
Loss rate: 1.08%
```

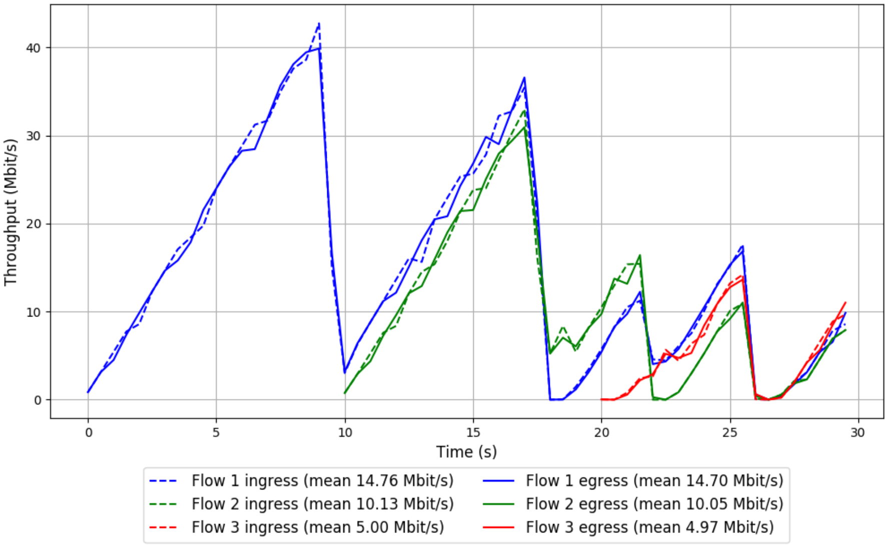
Run 2: Report of LEDBAT — Data Link

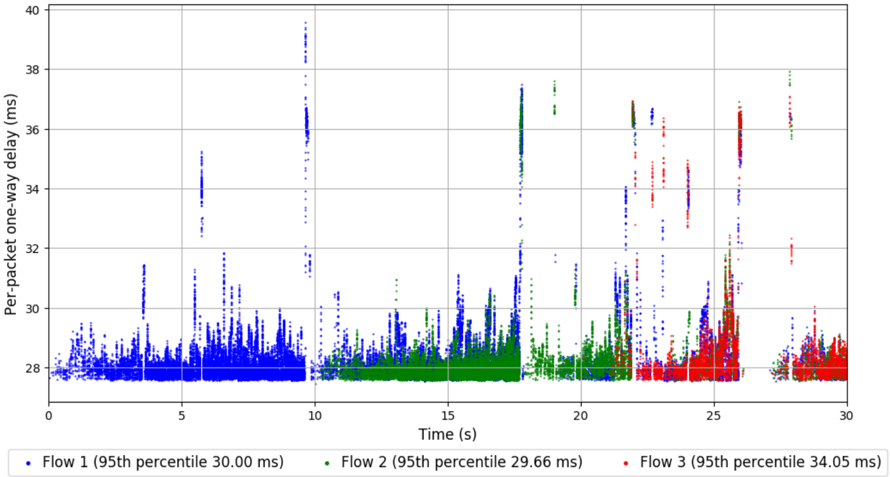




```
Run 3: Statistics of LEDBAT

Start at: 2018-03-27 19:48:41
End at: 2018-03-27 19:49:11
Local clock offset: -0.128 ms
Remote clock offset: -5.771 ms

# Below is generated by plot.py at 2018-03-28 00:00:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.03 Mbit/s
95th percentile per-packet one-way delay: 30.000 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 14.70 Mbit/s
95th percentile per-packet one-way delay: 30.001 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 29.659 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 4.97 Mbit/s
95th percentile per-packet one-way delay: 34.054 ms
Loss rate: 0.77%
```

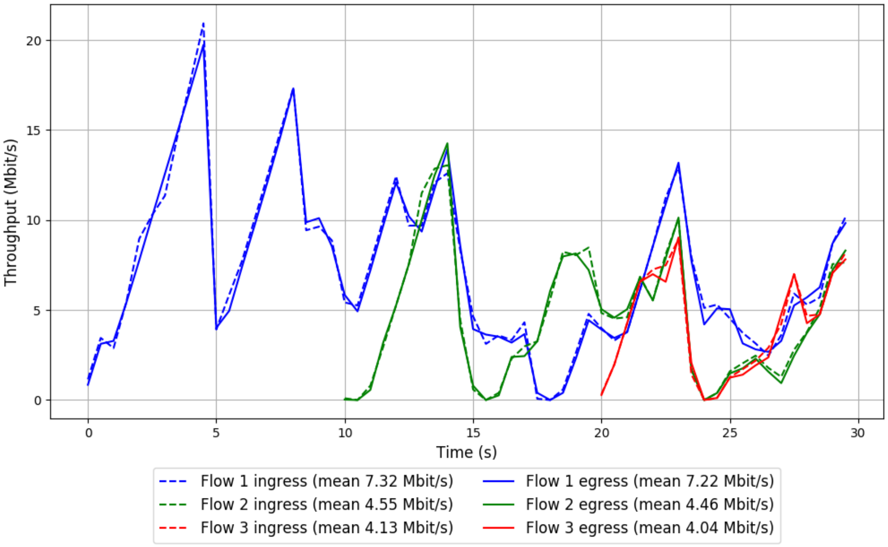
Run 3: Report of LEDBAT — Data Link

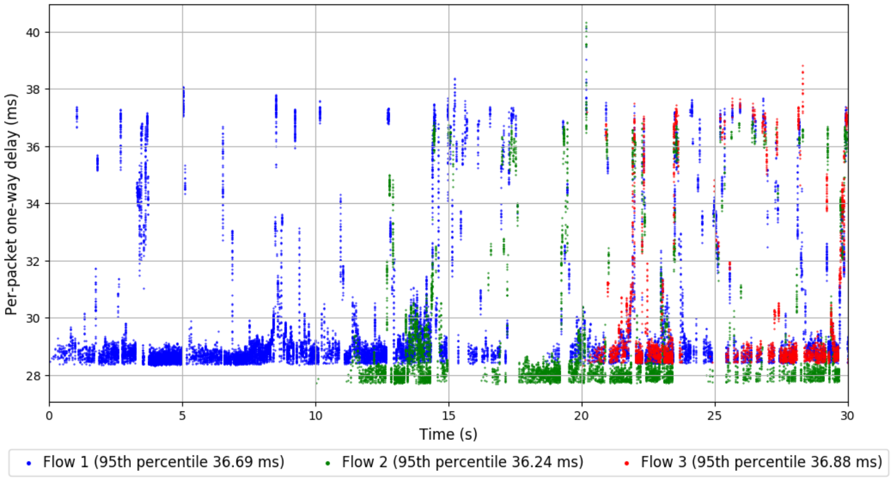




```
Run 4: Statistics of LEDBAT

Start at: 2018-03-27 20:20:03
End at: 2018-03-27 20:20:33
Local clock offset: 1.768 ms
Remote clock offset: -6.42 ms

# Below is generated by plot.py at 2018-03-28 00:00:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 36.542 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 7.22 Mbit/s
95th percentile per-packet one-way delay: 36.692 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 36.245 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 36.877 ms
Loss rate: 2.22%
```

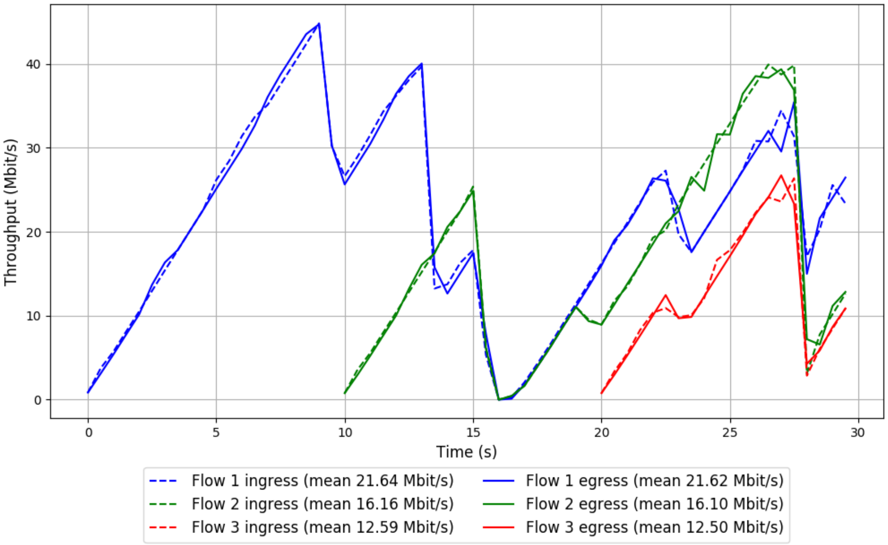
Run 4: Report of LEDBAT — Data Link

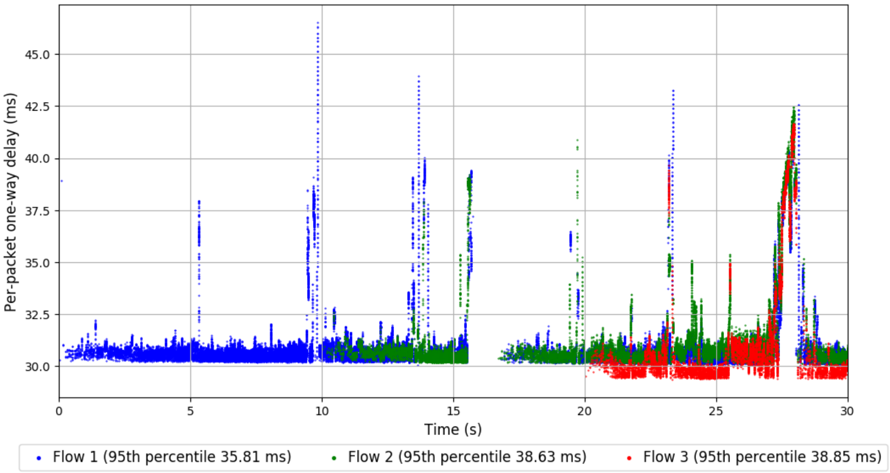




```
Run 5: Statistics of LEDBAT

Start at: 2018-03-27 20:49:15
End at: 2018-03-27 20:49:45
Local clock offset: 1.282 ms
Remote clock offset: -3.017 ms

# Below is generated by plot.py at 2018-03-28 00:00:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.46 Mbit/s
95th percentile per-packet one-way delay: 37.664 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 21.62 Mbit/s
95th percentile per-packet one-way delay: 35.807 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 16.10 Mbit/s
95th percentile per-packet one-way delay: 38.632 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 38.855 ms
Loss rate: 0.73%
```

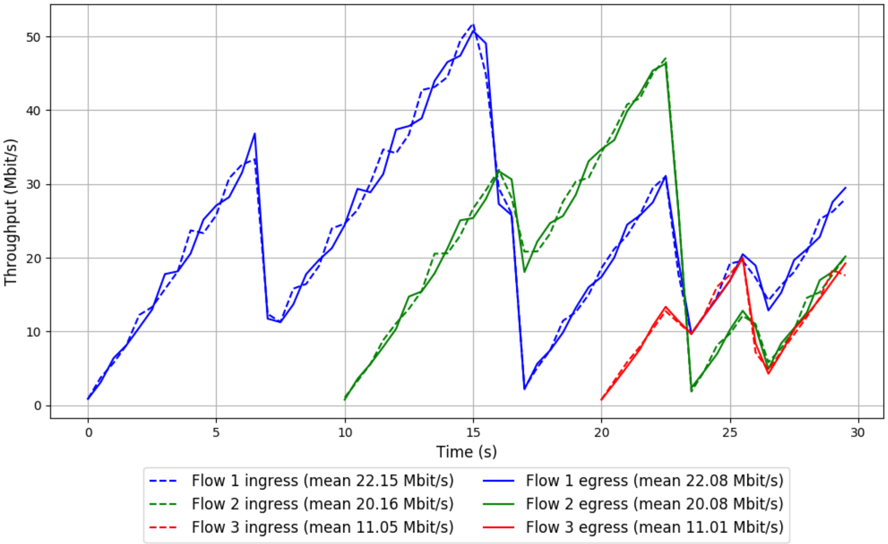
Run 5: Report of LEDBAT — Data Link

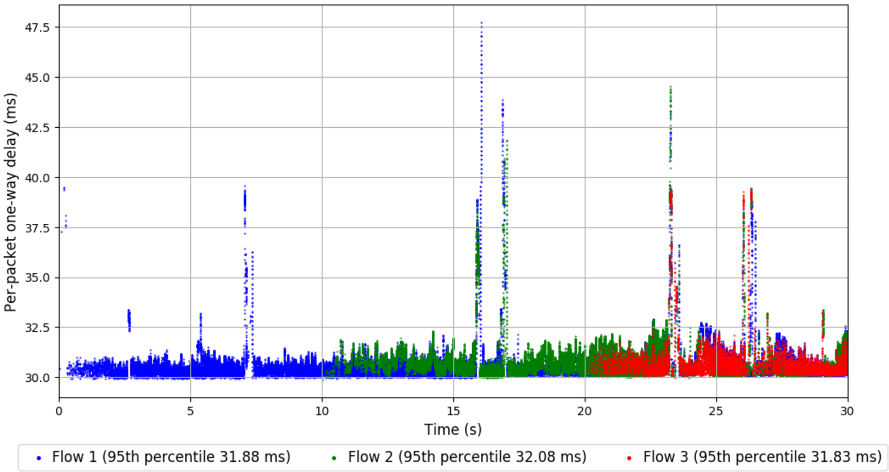




```
Run 6: Statistics of LEDBAT

Start at: 2018-03-27 21:15:10
End at: 2018-03-27 21:15:40
Local clock offset: 0.187 ms
Remote clock offset: -0.356 ms

# Below is generated by plot.py at 2018-03-28 00:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 31.965 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 22.08 Mbit/s
95th percentile per-packet one-way delay: 31.877 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 20.08 Mbit/s
95th percentile per-packet one-way delay: 32.081 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 11.01 Mbit/s
95th percentile per-packet one-way delay: 31.830 ms
Loss rate: 0.37%
```

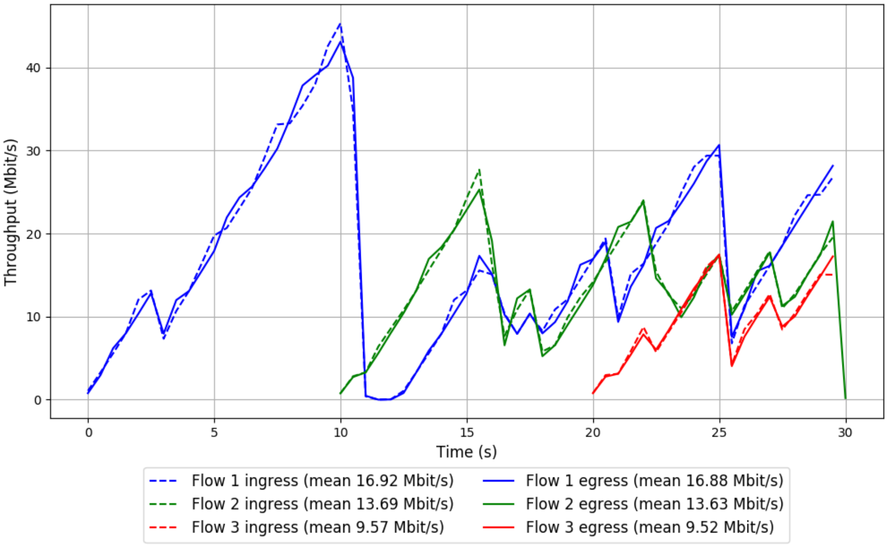
Run 6: Report of LEDBAT — Data Link

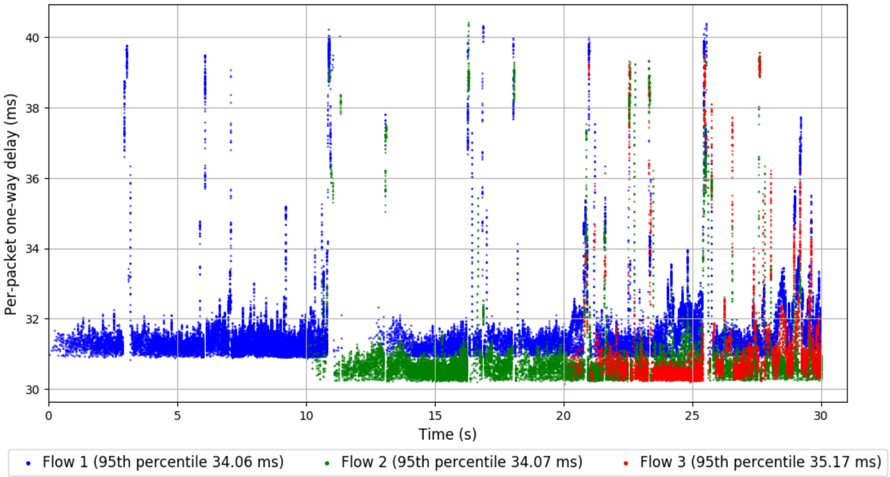




```
Run 7: Statistics of LEDBAT

Start at: 2018-03-27 21:41:22
End at: 2018-03-27 21:41:52
Local clock offset: 4.528 ms
Remote clock offset: -1.05 ms

# Below is generated by plot.py at 2018-03-28 00:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 34.245 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 16.88 Mbit/s
95th percentile per-packet one-way delay: 34.058 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 13.63 Mbit/s
95th percentile per-packet one-way delay: 34.069 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 35.173 ms
Loss rate: 0.45%
```

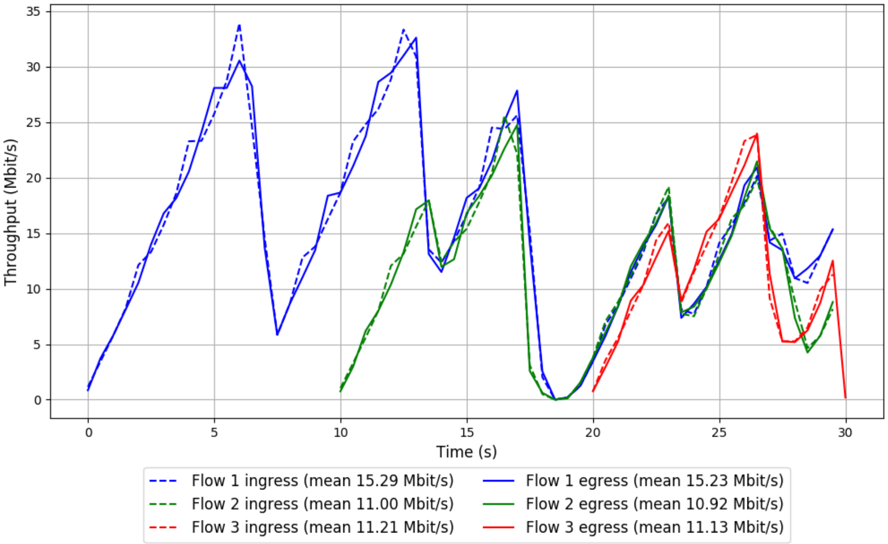
Run 7: Report of LEDBAT — Data Link

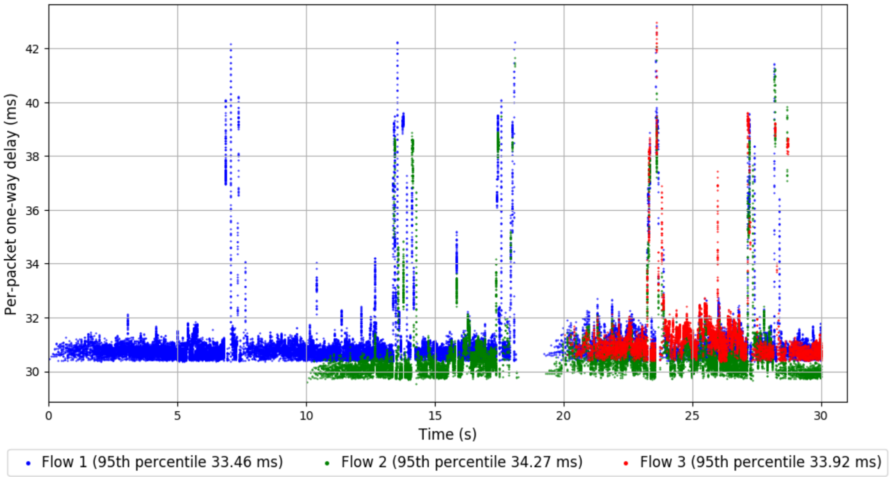




```
Run 8: Statistics of LEDBAT

Start at: 2018-03-27 22:08:13
End at: 2018-03-27 22:08:43
Local clock offset: 5.892 ms
Remote clock offset: -0.416 ms

# Below is generated by plot.py at 2018-03-28 00:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.18 Mbit/s
95th percentile per-packet one-way delay: 33.753 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 15.23 Mbit/s
95th percentile per-packet one-way delay: 33.463 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 34.266 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 33.925 ms
Loss rate: 0.73%
```

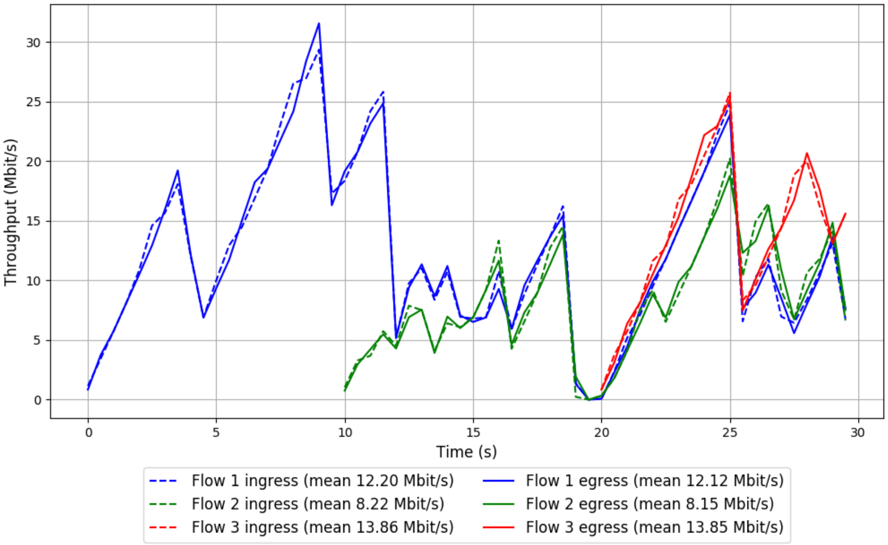
Run 8: Report of LEDBAT — Data Link

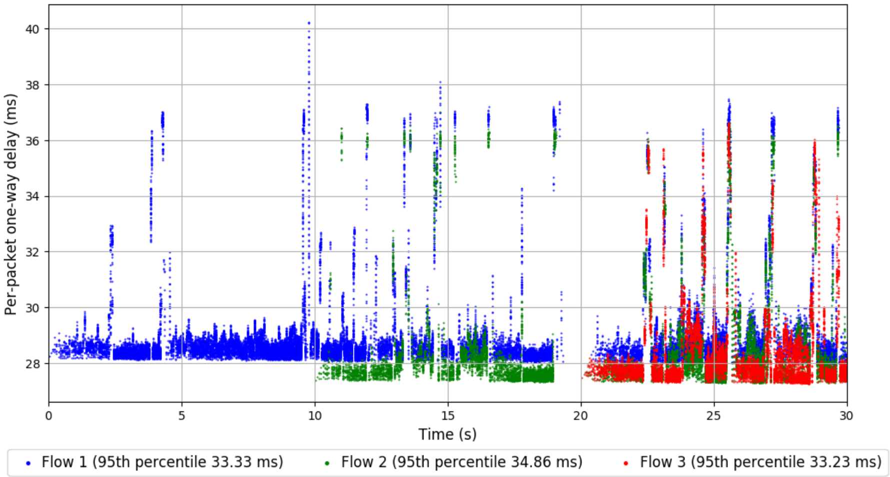




```
Run 9: Statistics of LEDBAT

Start at: 2018-03-27 22:35:47
End at: 2018-03-27 22:36:17
Local clock offset: 1.347 ms
Remote clock offset: 0.267 ms

# Below is generated by plot.py at 2018-03-28 00:00:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.13 Mbit/s
95th percentile per-packet one-way delay: 33.760 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 33.334 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 34.862 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 13.85 Mbit/s
95th percentile per-packet one-way delay: 33.230 ms
Loss rate: 0.10%
```

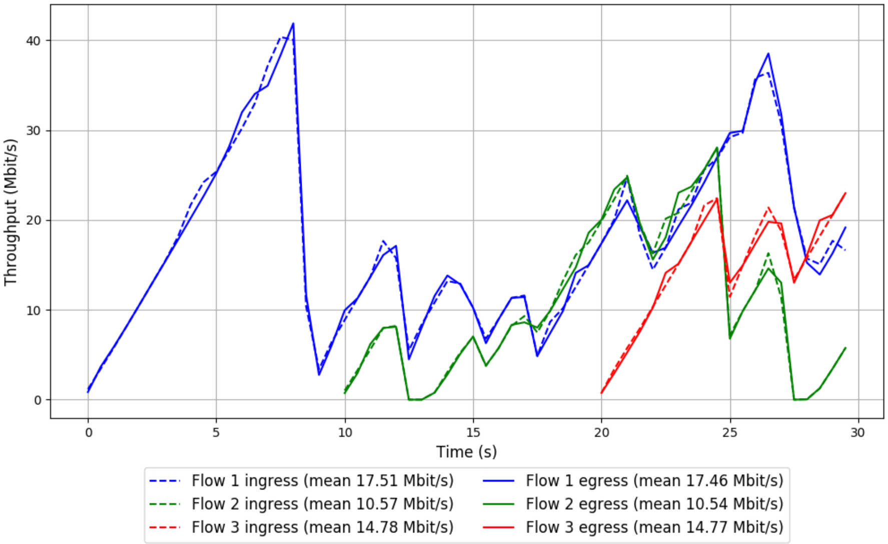
Run 9: Report of LEDBAT — Data Link

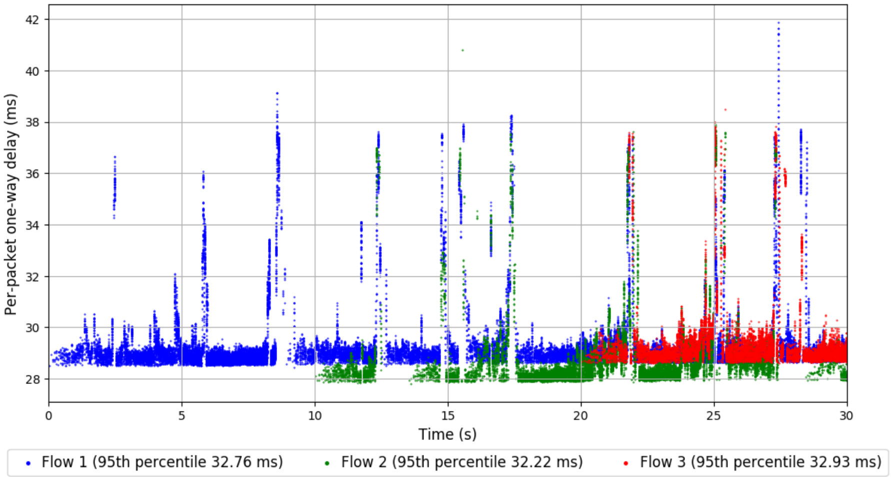




```
Run 10: Statistics of LEDBAT

Start at: 2018-03-27 23:04:52
End at: 2018-03-27 23:05:22
Local clock offset: 0.683 ms
Remote clock offset: 0.96 ms

# Below is generated by plot.py at 2018-03-28 00:00:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 32.729 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 17.46 Mbit/s
95th percentile per-packet one-way delay: 32.758 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 10.54 Mbit/s
95th percentile per-packet one-way delay: 32.217 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 14.77 Mbit/s
95th percentile per-packet one-way delay: 32.931 ms
Loss rate: 0.07%
```

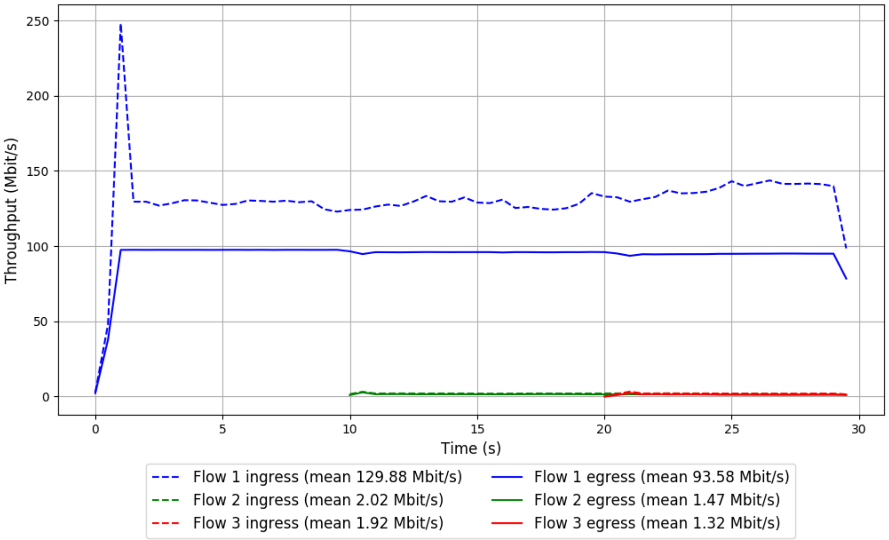
Run 10: Report of LEDBAT — Data Link

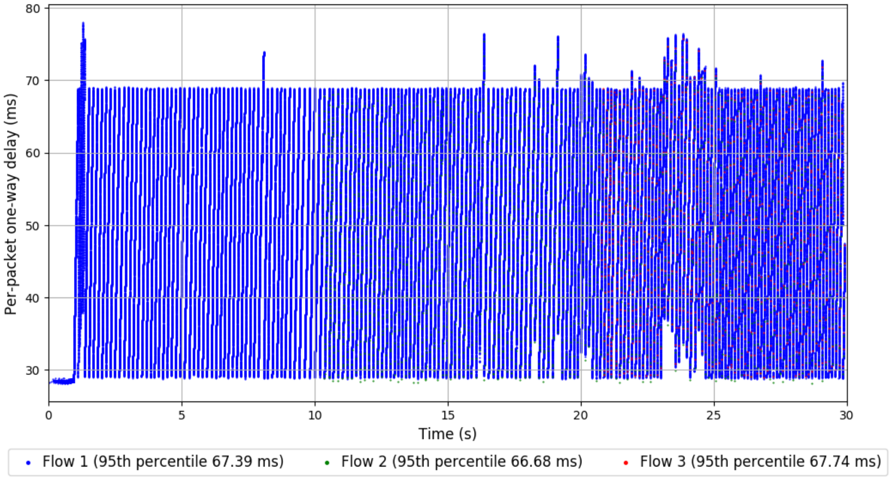




```
Run 1: Statistics of PCC

Start at: 2018-03-27 19:05:33
End at: 2018-03-27 19:06:03
Local clock offset: 1.069 ms
Remote clock offset: -7.539 ms

# Below is generated by plot.py at 2018-03-28 00:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.99 Mbit/s
95th percentile per-packet one-way delay: 67.386 ms
Loss rate: 27.91%
-- Flow 1:
Average throughput: 93.58 Mbit/s
95th percentile per-packet one-way delay: 67.393 ms
Loss rate: 27.90%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 66.677 ms
Loss rate: 27.49%
-- Flow 3:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 67.744 ms
Loss rate: 31.08%
```

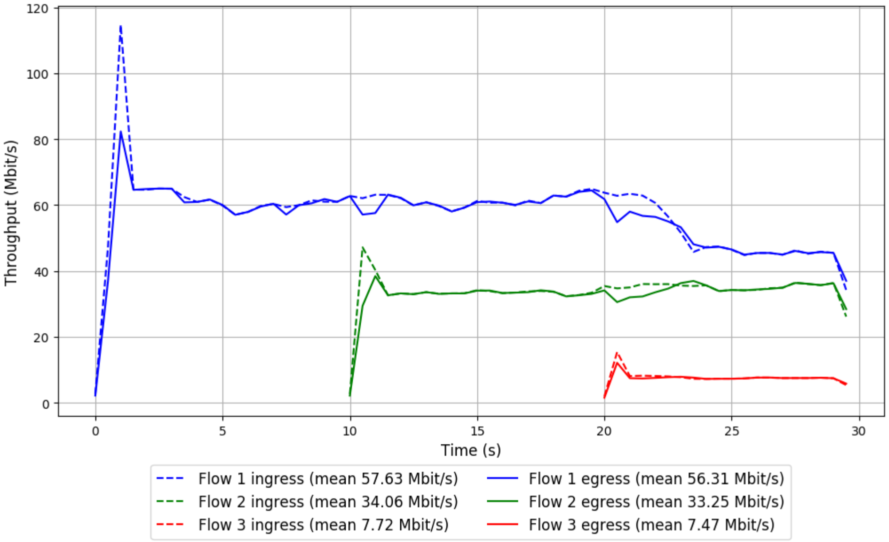
Run 1: Report of PCC — Data Link

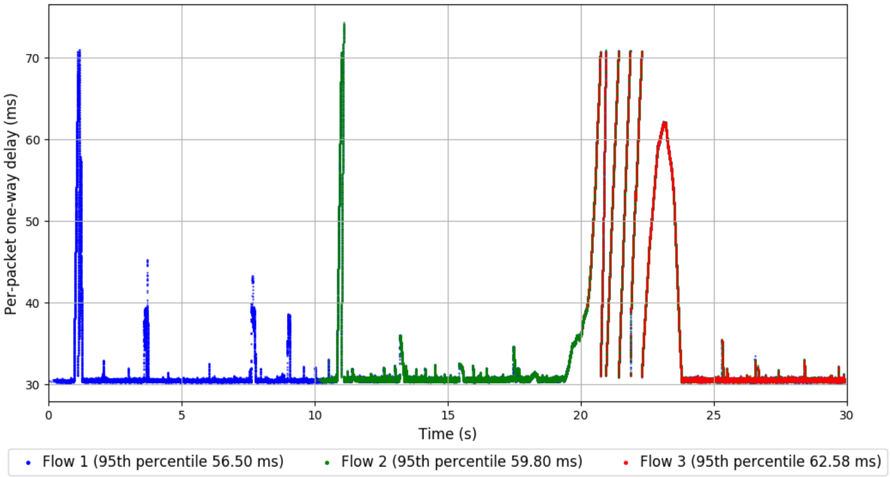




```
Run 2: Statistics of PCC

Start at: 2018-03-27 19:36:26
End at: 2018-03-27 19:36:56
Local clock offset: -0.352 ms
Remote clock offset: -5.012 ms

# Below is generated by plot.py at 2018-03-28 00:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.88 Mbit/s
95th percentile per-packet one-way delay: 58.340 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 56.31 Mbit/s
95th percentile per-packet one-way delay: 56.497 ms
Loss rate: 2.29%
-- Flow 2:
Average throughput: 33.25 Mbit/s
95th percentile per-packet one-way delay: 59.804 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 62.584 ms
Loss rate: 3.32%
```

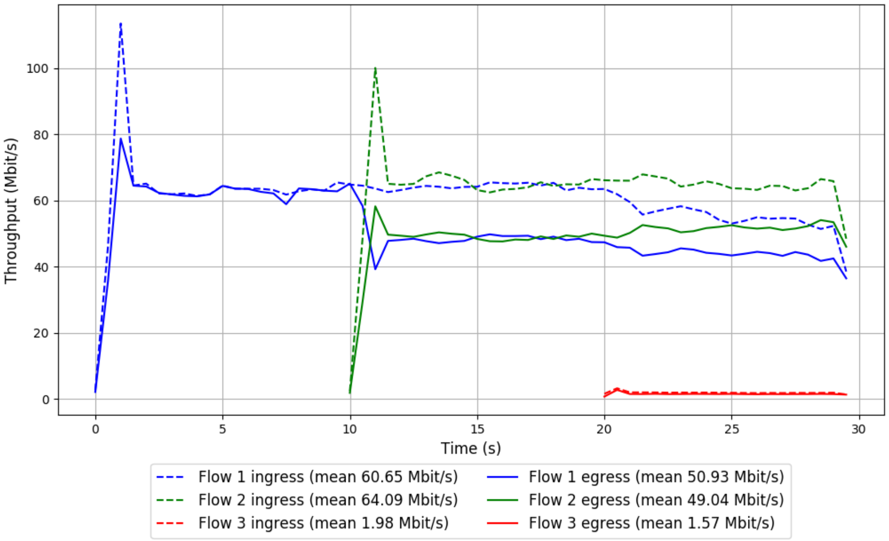
Run 2: Report of PCC — Data Link

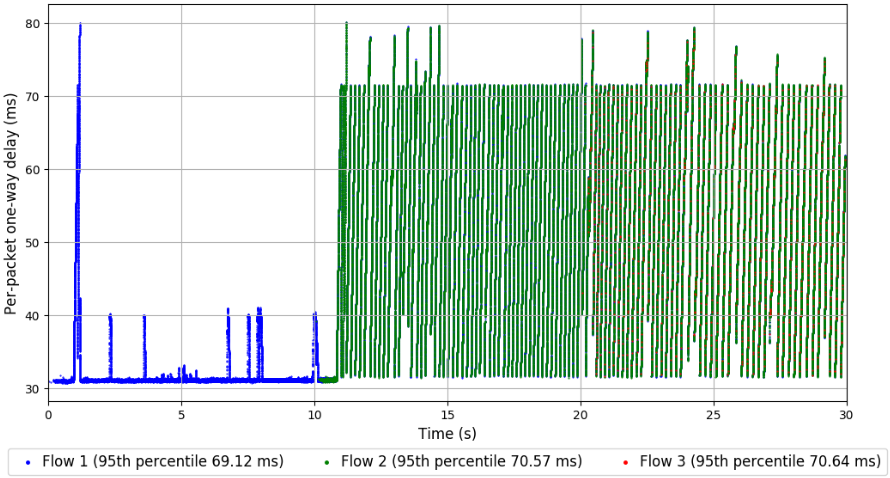




```
Run 3: Statistics of PCC

Start at: 2018-03-27 20:07:40
End at: 2018-03-27 20:08:10
Local clock offset: -0.082 ms
Remote clock offset: -2.389 ms

# Below is generated by plot.py at 2018-03-28 00:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.05 Mbit/s
95th percentile per-packet one-way delay: 69.870 ms
Loss rate: 19.04%
-- Flow 1:
Average throughput: 50.93 Mbit/s
95th percentile per-packet one-way delay: 69.123 ms
Loss rate: 15.95%
-- Flow 2:
Average throughput: 49.04 Mbit/s
95th percentile per-packet one-way delay: 70.572 ms
Loss rate: 23.40%
-- Flow 3:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 70.636 ms
Loss rate: 20.71%
```

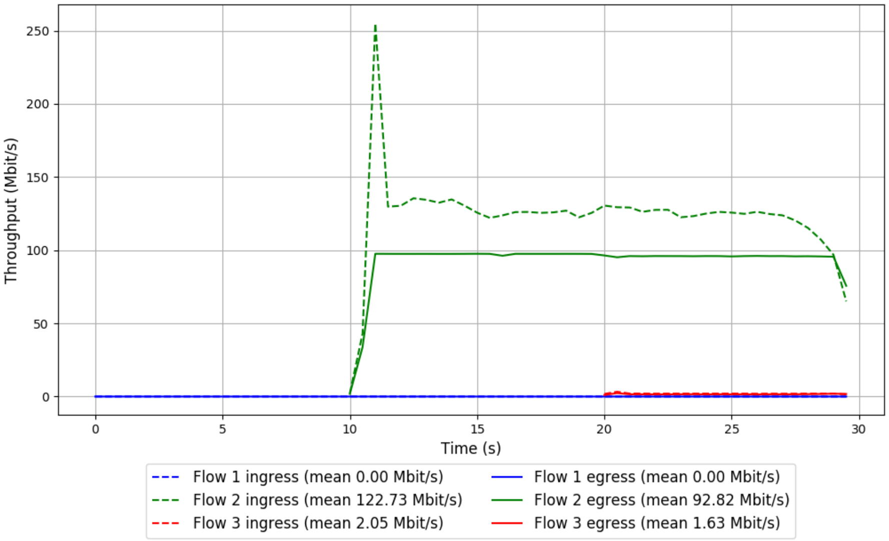
Run 3: Report of PCC — Data Link

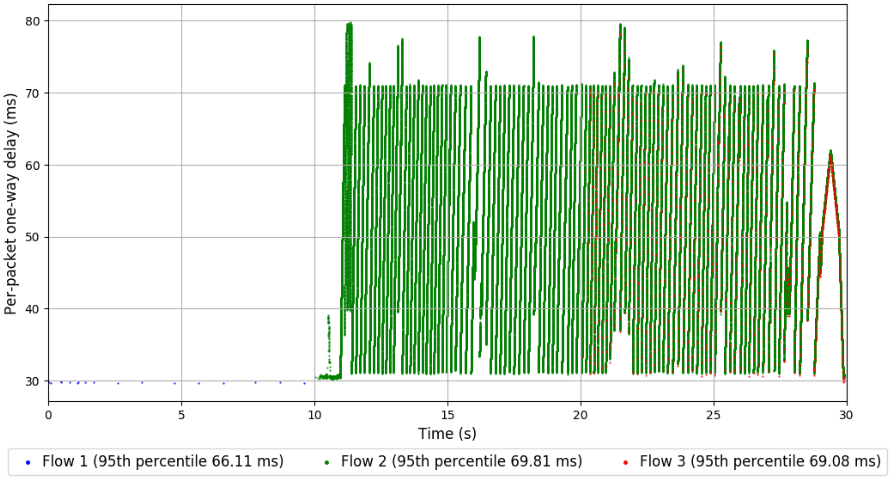




```
Run 4: Statistics of PCC

Start at: 2018-03-27 20:39:05
End at: 2018-03-27 20:39:35
Local clock offset: 2.832 ms
Remote clock offset: -4.758 ms

# Below is generated by plot.py at 2018-03-28 00:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.24 Mbit/s
95th percentile per-packet one-way delay: 69.803 ms
Loss rate: 24.34%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 66.107 ms
Loss rate: 21.84%
-- Flow 2:
Average throughput: 92.82 Mbit/s
95th percentile per-packet one-way delay: 69.812 ms
Loss rate: 24.37%
-- Flow 3:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 69.078 ms
Loss rate: 20.91%
```

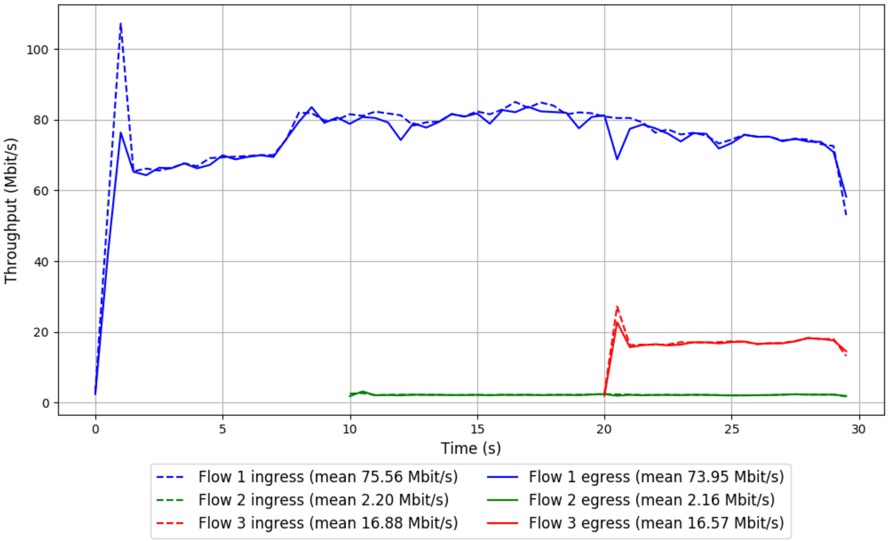
Run 4: Report of PCC — Data Link

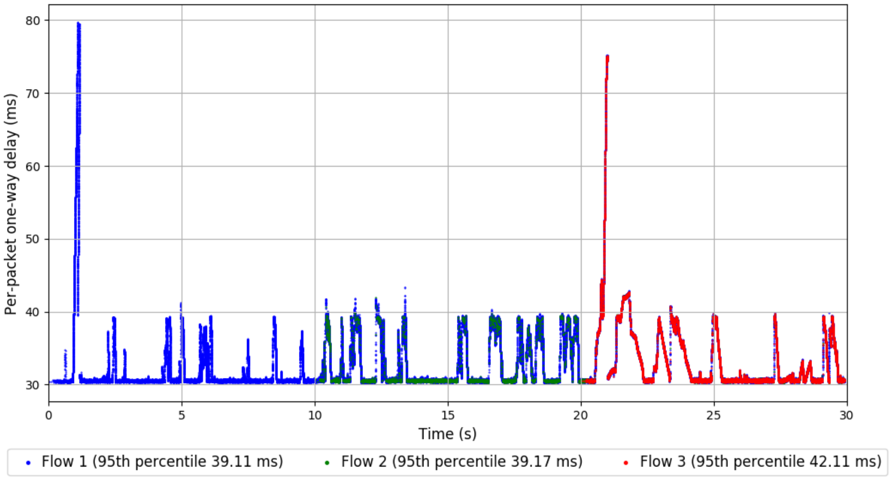




```
Run 5: Statistics of PCC

Start at: 2018-03-27 21:05:15
End at: 2018-03-27 21:05:45
Local clock offset: 0.463 ms
Remote clock offset: -0.857 ms

# Below is generated by plot.py at 2018-03-28 00:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.85 Mbit/s
95th percentile per-packet one-way delay: 39.143 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 73.95 Mbit/s
95th percentile per-packet one-way delay: 39.107 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 39.170 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 16.57 Mbit/s
95th percentile per-packet one-way delay: 42.107 ms
Loss rate: 1.84%
```

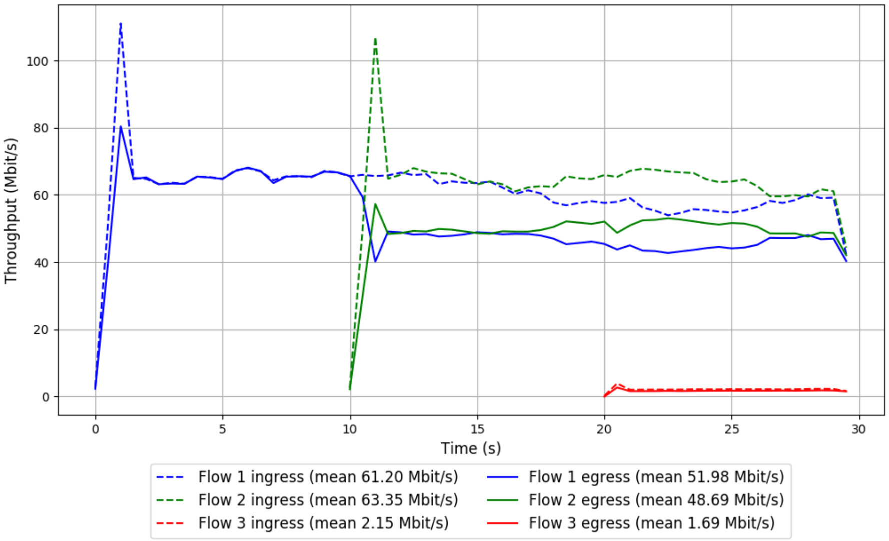
Run 5: Report of PCC — Data Link

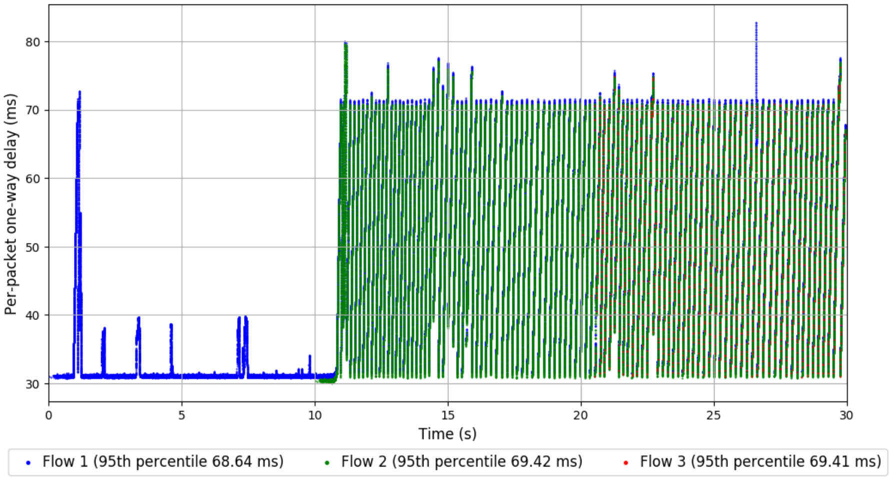




```
Run 6: Statistics of PCC

Start at: 2018-03-27 21:31:09
End at: 2018-03-27 21:31:39
Local clock offset: 3.816 ms
Remote clock offset: -0.855 ms

# Below is generated by plot.py at 2018-03-28 00:02:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.93 Mbit/s
95th percentile per-packet one-way delay: 69.051 ms
Loss rate: 18.26%
-- Flow 1:
Average throughput: 51.98 Mbit/s
95th percentile per-packet one-way delay: 68.637 ms
Loss rate: 14.96%
-- Flow 2:
Average throughput: 48.69 Mbit/s
95th percentile per-packet one-way delay: 69.422 ms
Loss rate: 23.00%
-- Flow 3:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 69.413 ms
Loss rate: 21.32%
```

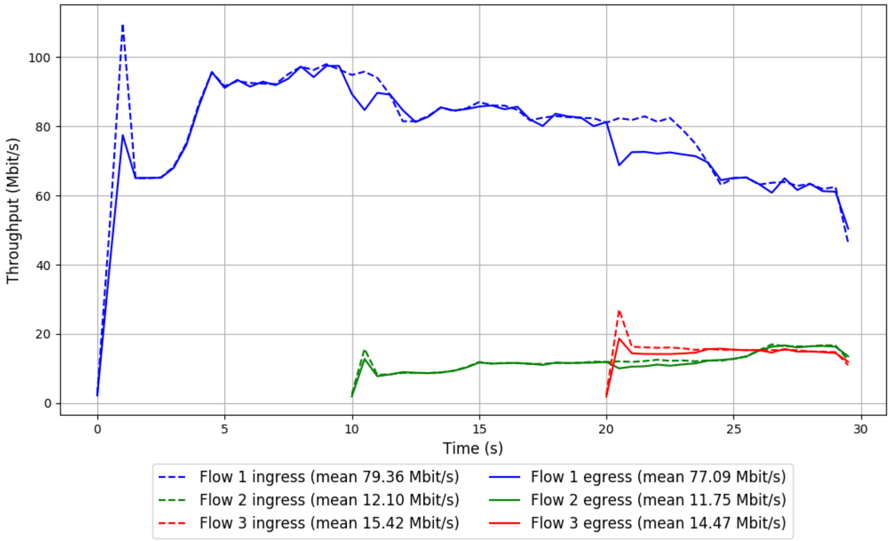
Run 6: Report of PCC — Data Link

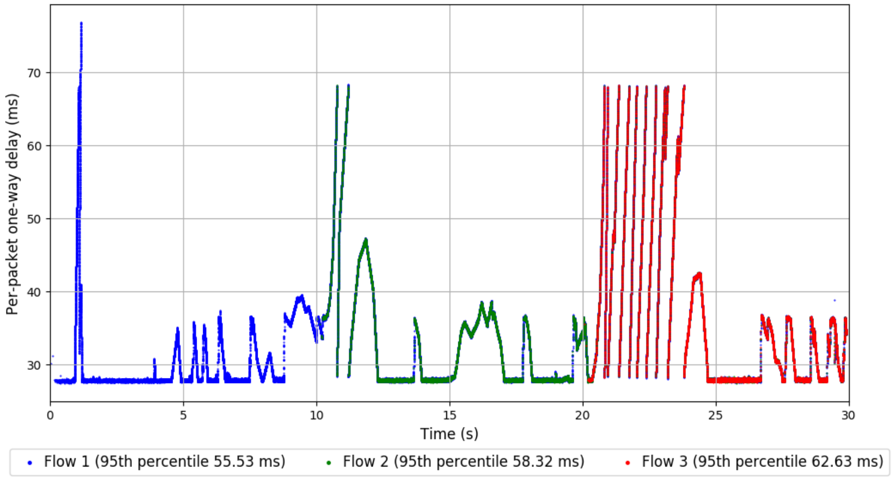




```
Run 7: Statistics of PCC

Start at: 2018-03-27 21:57:39
End at: 2018-03-27 21:58:09
Local clock offset: 5.494 ms
Remote clock offset: -2.957 ms

# Below is generated by plot.py at 2018-03-28 00:02:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 56.757 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 77.09 Mbit/s
95th percentile per-packet one-way delay: 55.526 ms
Loss rate: 2.84%
-- Flow 2:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 58.317 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 14.47 Mbit/s
95th percentile per-packet one-way delay: 62.635 ms
Loss rate: 6.14%
```

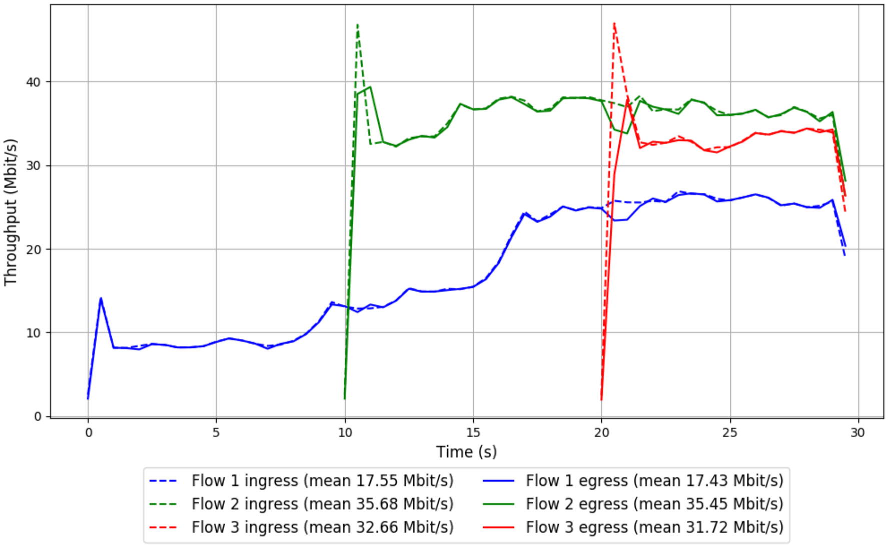
Run 7: Report of PCC — Data Link

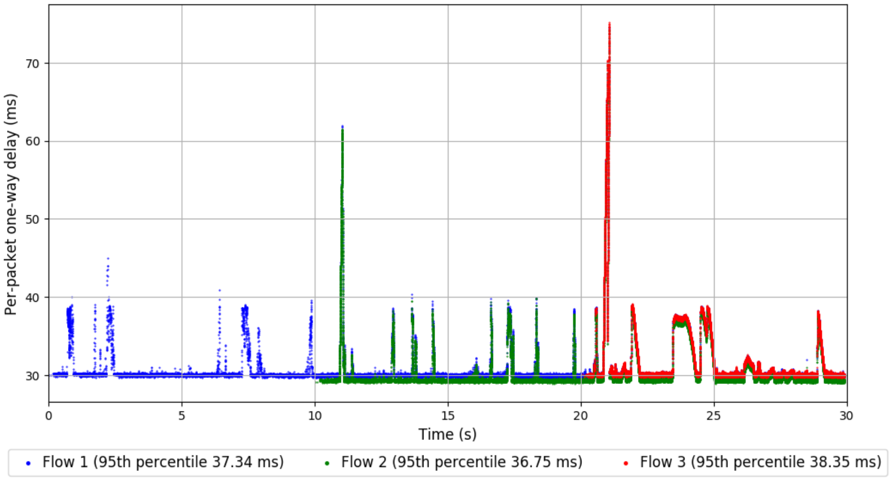




```
Run 8: Statistics of PCC

Start at: 2018-03-27 22:25:05
End at: 2018-03-27 22:25:35
Local clock offset: 5.585 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2018-03-28 00:02:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.45 Mbit/s
95th percentile per-packet one-way delay: 37.380 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 17.43 Mbit/s
95th percentile per-packet one-way delay: 37.340 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 35.45 Mbit/s
95th percentile per-packet one-way delay: 36.750 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 38.355 ms
Loss rate: 2.87%
```

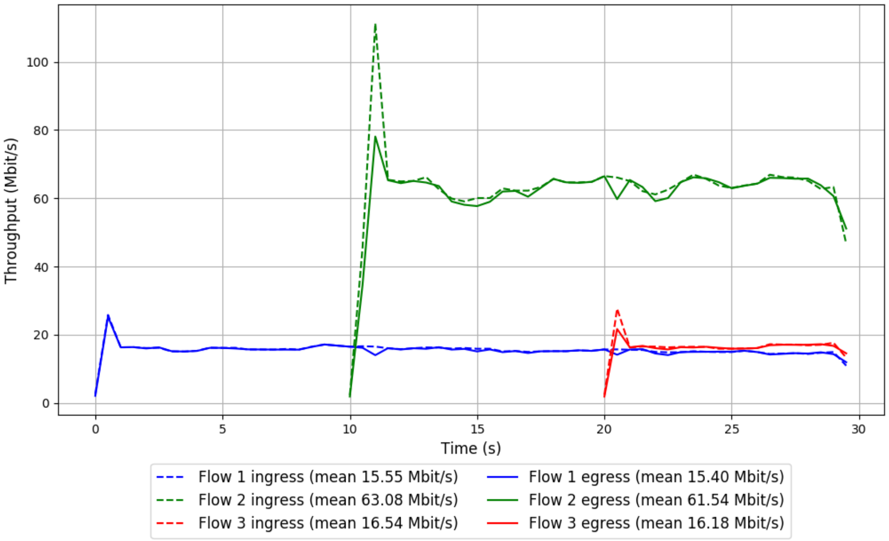
Run 8: Report of PCC — Data Link

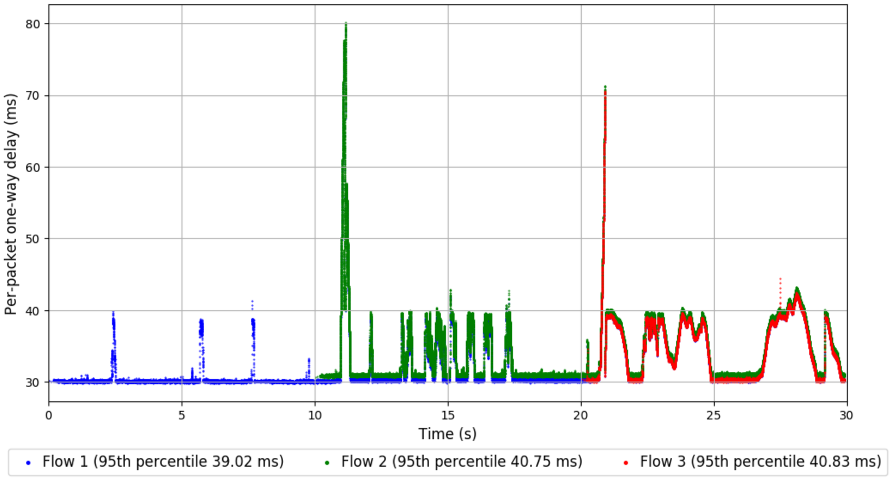




```
Run 9: Statistics of PCC

Start at: 2018-03-27 22:53:19
End at: 2018-03-27 22:53:49
Local clock offset: -0.896 ms
Remote clock offset: 4.398 ms

# Below is generated by plot.py at 2018-03-28 00:02:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.65 Mbit/s
95th percentile per-packet one-way delay: 40.288 ms
Loss rate: 2.06%
-- Flow 1:
Average throughput: 15.40 Mbit/s
95th percentile per-packet one-way delay: 39.022 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 61.54 Mbit/s
95th percentile per-packet one-way delay: 40.750 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 16.18 Mbit/s
95th percentile per-packet one-way delay: 40.833 ms
Loss rate: 2.19%
```

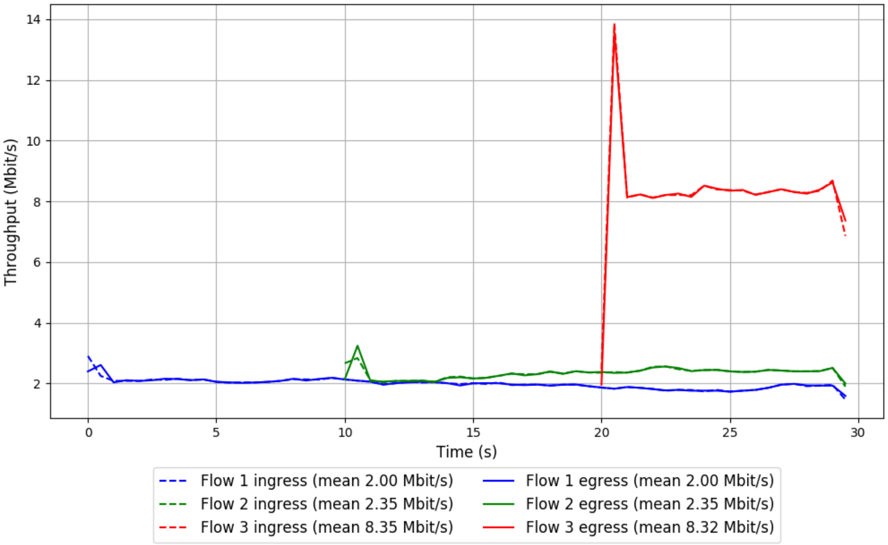
Run 9: Report of PCC — Data Link

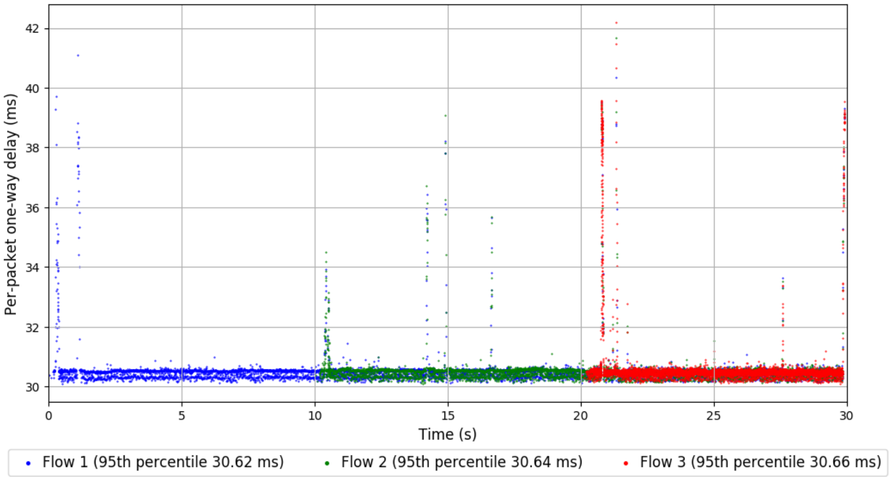




```
Run 10: Statistics of PCC

Start at: 2018-03-27 23:23:55
End at: 2018-03-27 23:24:25
Local clock offset: 1.976 ms
Remote clock offset: 1.599 ms

# Below is generated by plot.py at 2018-03-28 00:02:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.30 Mbit/s
95th percentile per-packet one-way delay: 30.635 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 30.619 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 30.639 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 30.657 ms
Loss rate: 0.21%
```

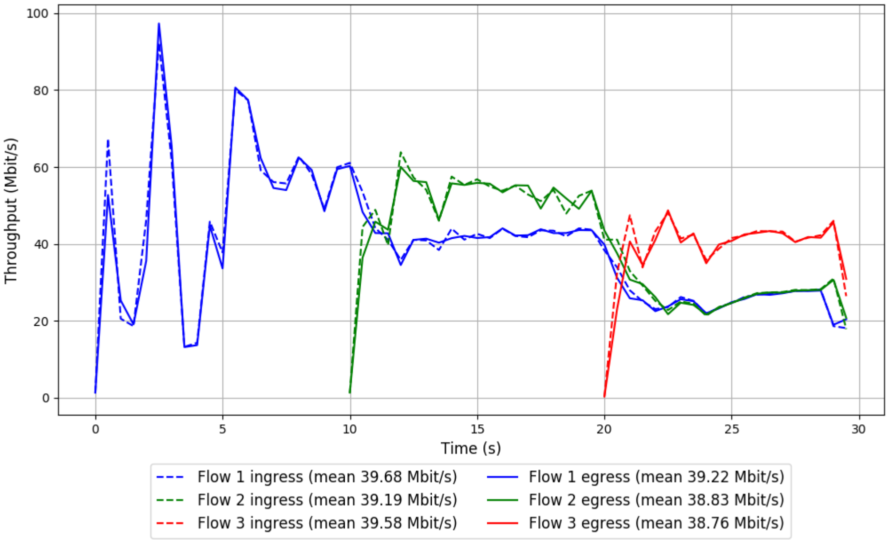
Run 10: Report of PCC — Data Link

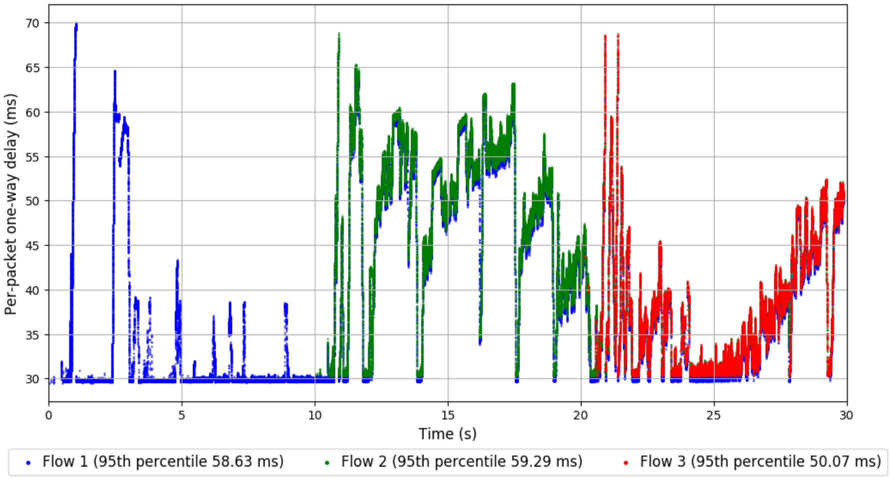




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-27 18:41:26
End at: 2018-03-27 18:41:56
Local clock offset: 2.495 ms
Remote clock offset: -5.168 ms

# Below is generated by plot.py at 2018-03-28 00:03:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.73 Mbit/s
95th percentile per-packet one-way delay: 58.678 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 39.22 Mbit/s
95th percentile per-packet one-way delay: 58.632 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 59.287 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 38.76 Mbit/s
95th percentile per-packet one-way delay: 50.073 ms
Loss rate: 2.01%
```

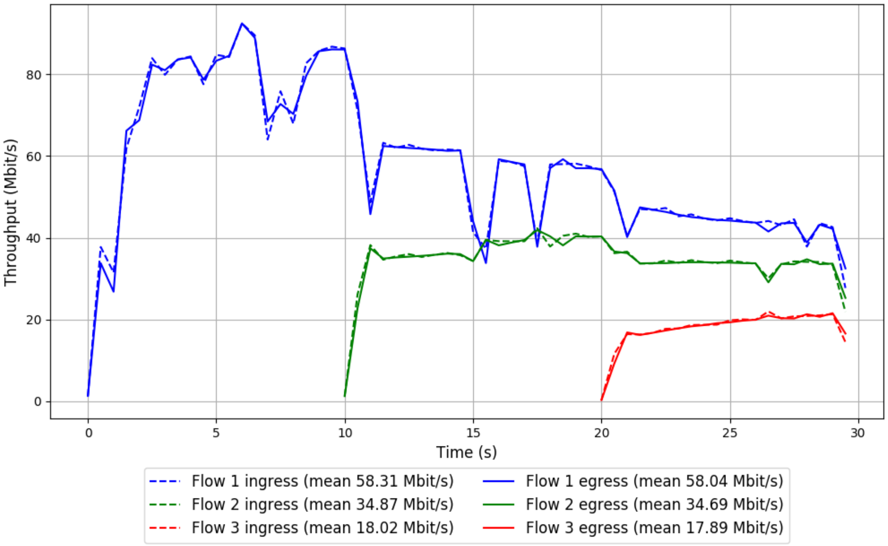
Run 1: Report of QUIC Cubic — Data Link

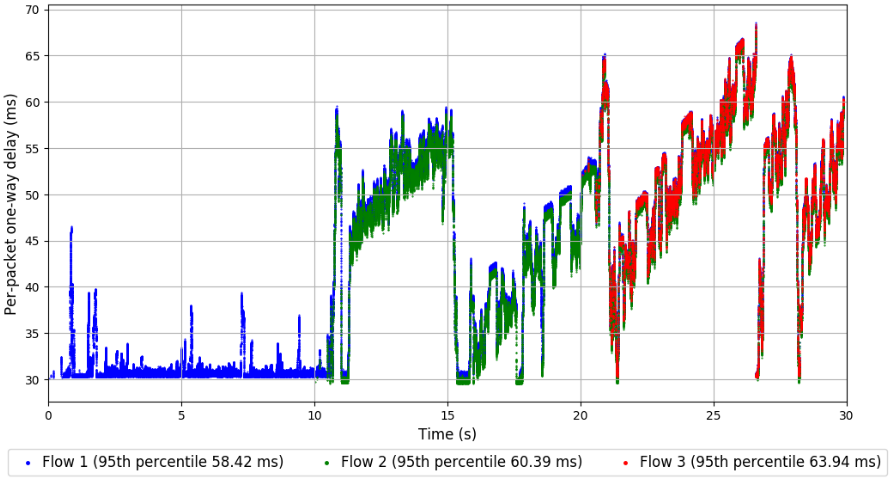




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-27 19:14:05
End at: 2018-03-27 19:14:35
Local clock offset: 0.171 ms
Remote clock offset: -5.322 ms

# Below is generated by plot.py at 2018-03-28 00:03:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.97 Mbit/s
95th percentile per-packet one-way delay: 59.827 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 58.416 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 34.69 Mbit/s
95th percentile per-packet one-way delay: 60.394 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 17.89 Mbit/s
95th percentile per-packet one-way delay: 63.936 ms
Loss rate: 0.65%
```

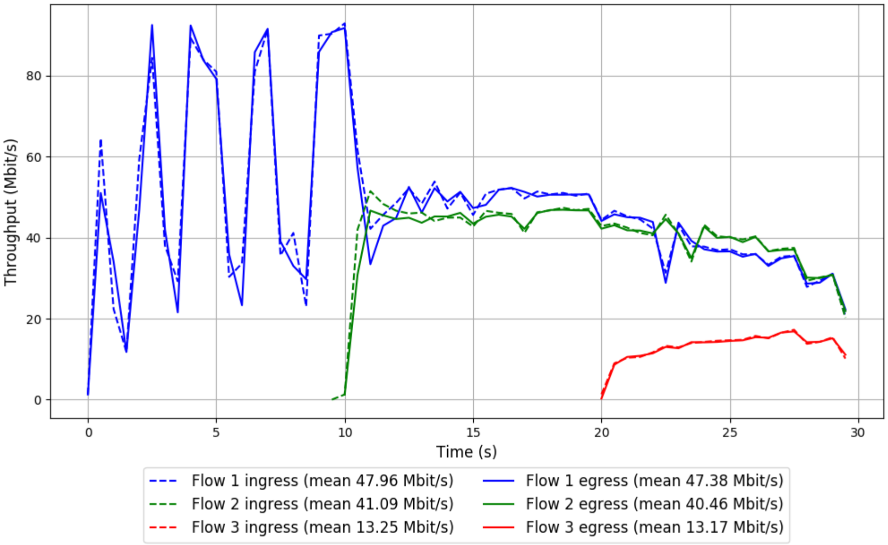
Run 2: Report of QUIC Cubic — Data Link

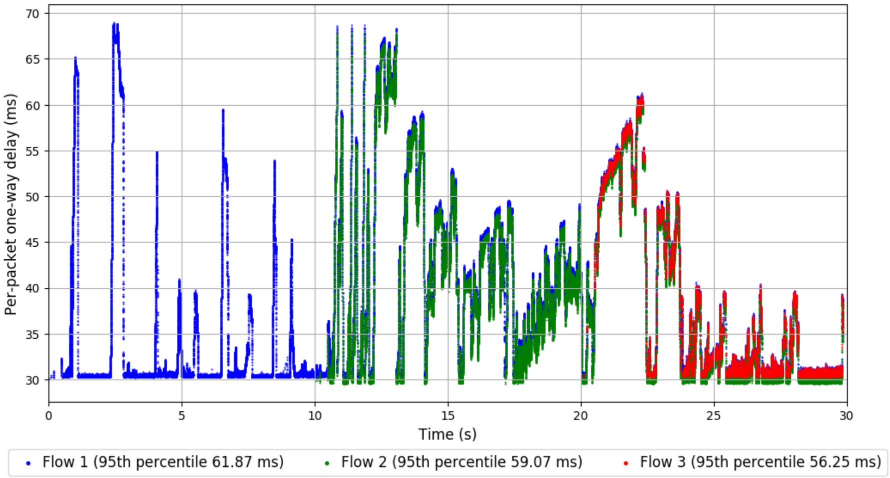




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-27 19:44:33
End at: 2018-03-27 19:45:03
Local clock offset: -0.129 ms
Remote clock offset: -3.999 ms

# Below is generated by plot.py at 2018-03-28 00:03:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.60 Mbit/s
95th percentile per-packet one-way delay: 60.431 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 47.38 Mbit/s
95th percentile per-packet one-way delay: 61.869 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 59.072 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 56.247 ms
Loss rate: 0.61%
```

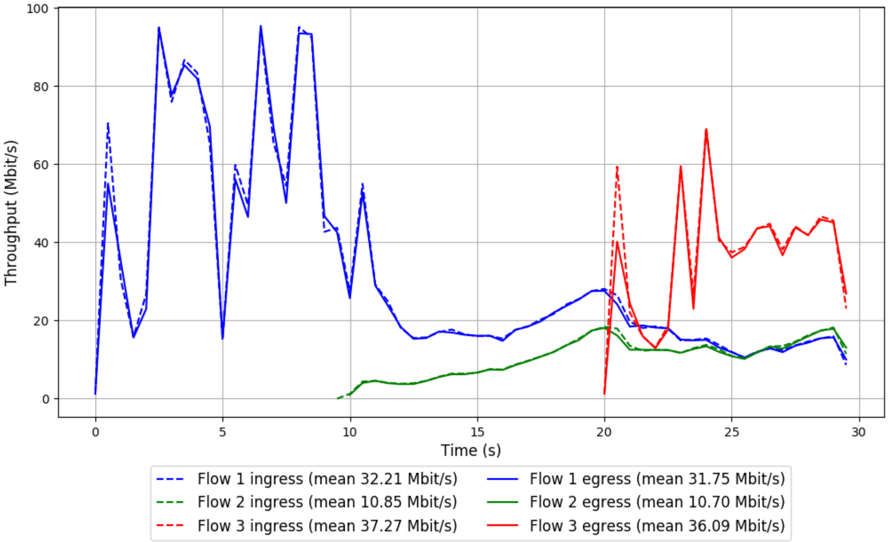
Run 3: Report of QUIC Cubic — Data Link

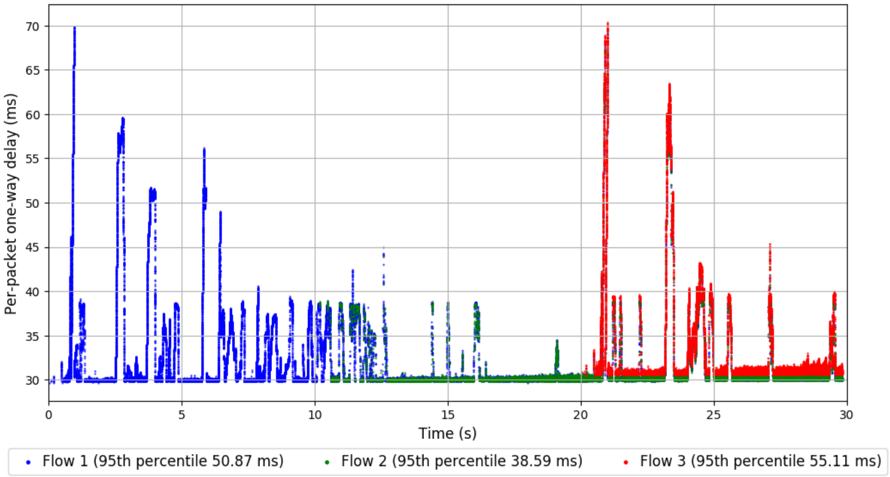




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-27 20:16:30
End at: 2018-03-27 20:17:00
Local clock offset: 1.399 ms
Remote clock offset: -4.01 ms

# Below is generated by plot.py at 2018-03-28 00:03:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.72 Mbit/s
95th percentile per-packet one-way delay: 50.660 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 50.872 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 38.589 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 36.09 Mbit/s
95th percentile per-packet one-way delay: 55.110 ms
Loss rate: 3.15%
```

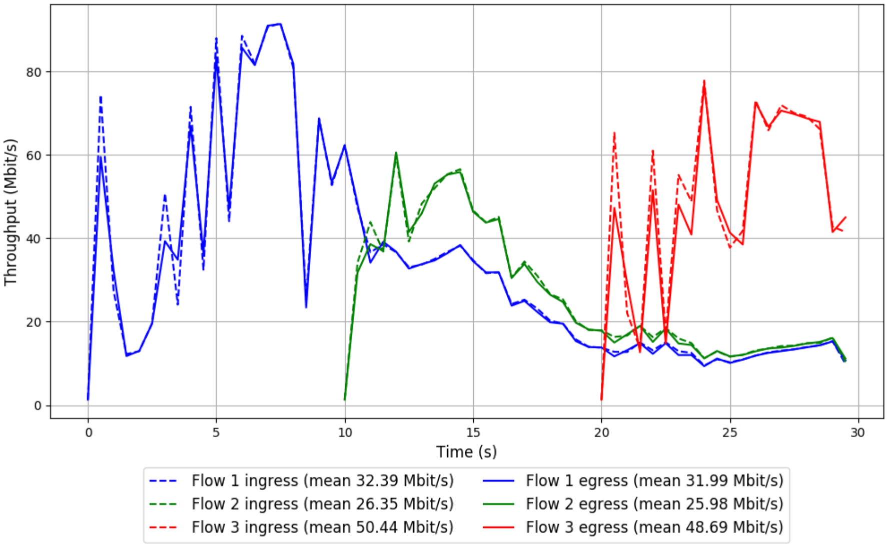
Run 4: Report of QUIC Cubic — Data Link

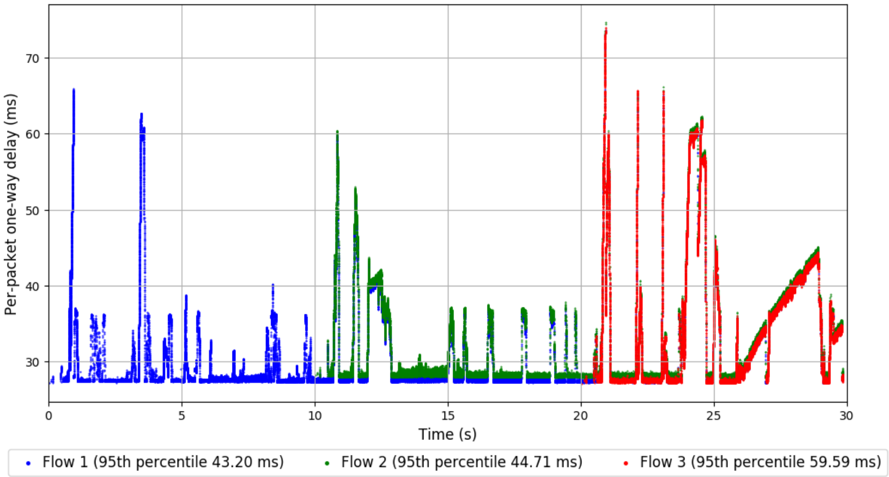




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-27 20:46:27
End at: 2018-03-27 20:46:57
Local clock offset: 1.741 ms
Remote clock offset: -5.758 ms

# Below is generated by plot.py at 2018-03-28 00:03:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.26 Mbit/s
95th percentile per-packet one-way delay: 52.996 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 31.99 Mbit/s
95th percentile per-packet one-way delay: 43.197 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 25.98 Mbit/s
95th percentile per-packet one-way delay: 44.708 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 48.69 Mbit/s
95th percentile per-packet one-way delay: 59.594 ms
Loss rate: 3.46%
```

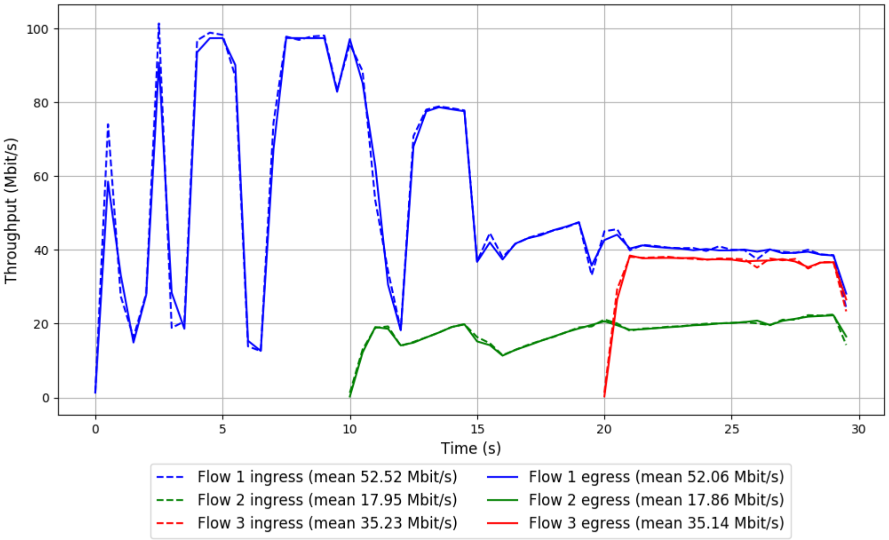
Run 5: Report of QUIC Cubic — Data Link

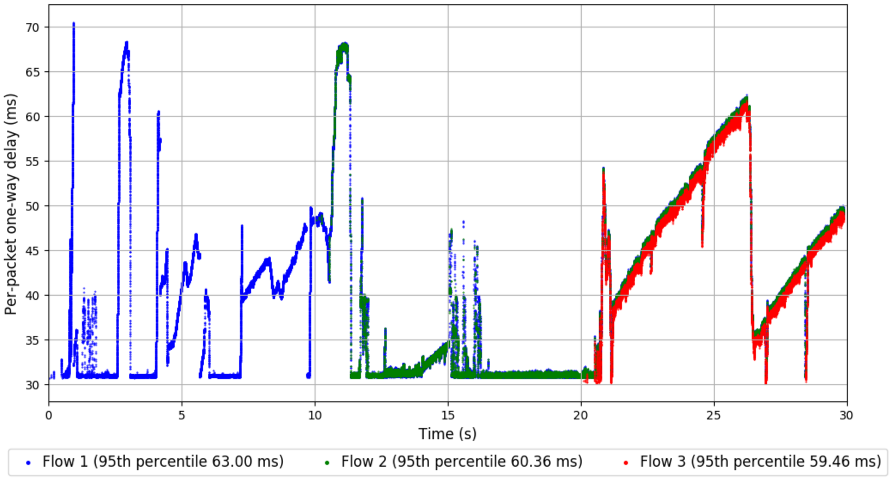




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-27 21:12:15
End at: 2018-03-27 21:12:45
Local clock offset: 0.242 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-03-28 00:03:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.42 Mbit/s
95th percentile per-packet one-way delay: 60.928 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 52.06 Mbit/s
95th percentile per-packet one-way delay: 62.997 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 17.86 Mbit/s
95th percentile per-packet one-way delay: 60.358 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 35.14 Mbit/s
95th percentile per-packet one-way delay: 59.457 ms
Loss rate: 0.07%
```

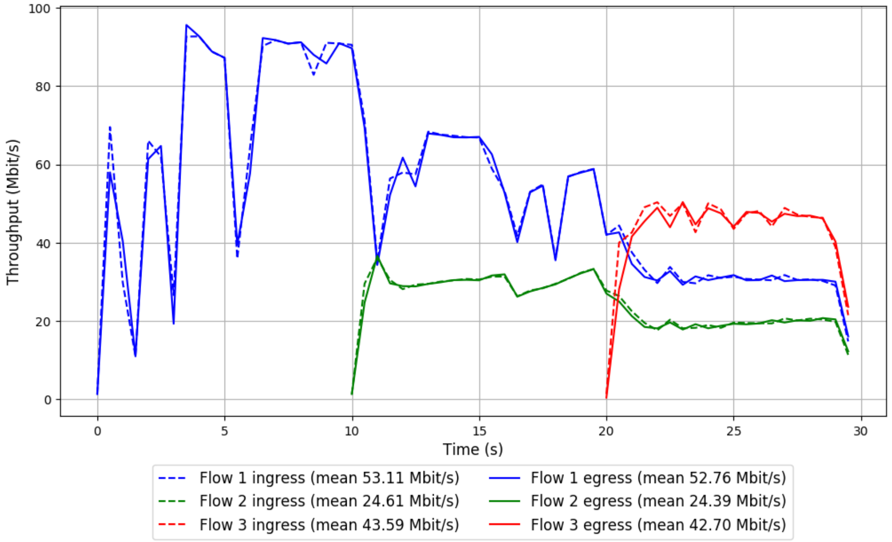
Run 6: Report of QUIC Cubic — Data Link

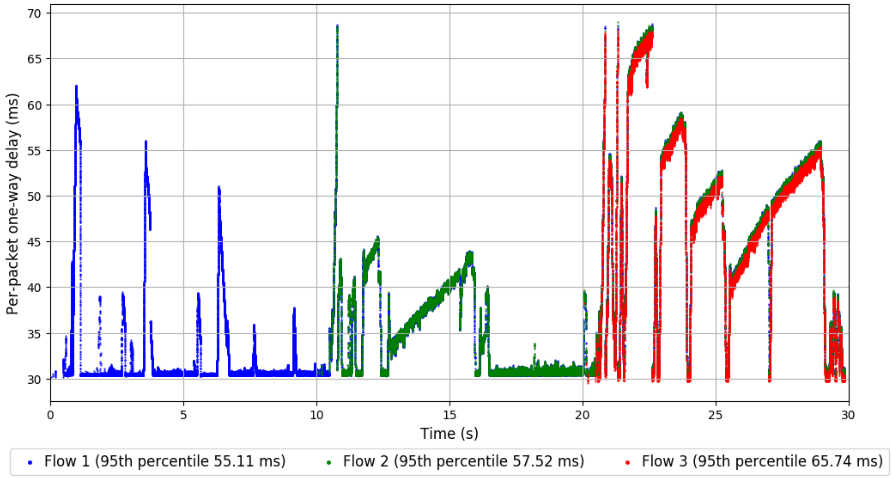




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-27 21:38:25
End at: 2018-03-27 21:38:55
Local clock offset: 4.429 ms
Remote clock offset: -1.499 ms

# Below is generated by plot.py at 2018-03-28 00:03:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.98 Mbit/s
95th percentile per-packet one-way delay: 57.794 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 52.76 Mbit/s
95th percentile per-packet one-way delay: 55.113 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 57.519 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 65.741 ms
Loss rate: 2.12%
```

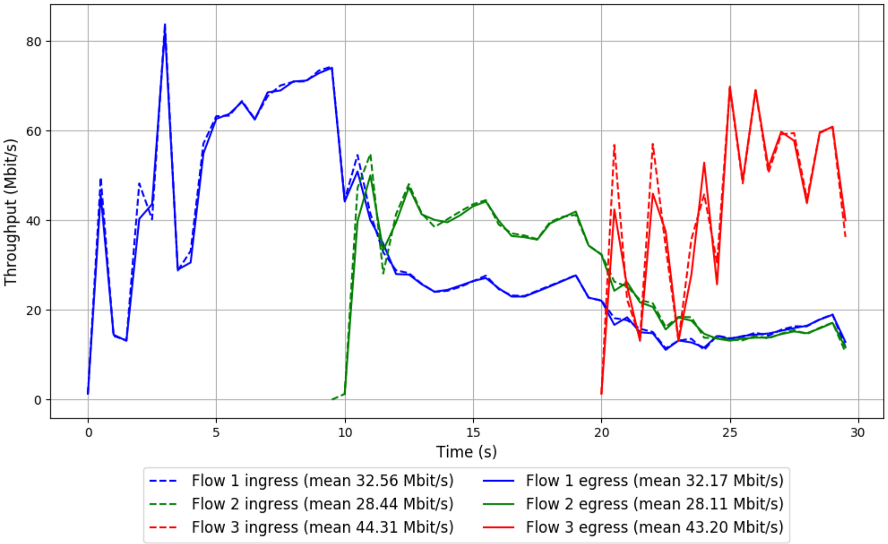
Run 7: Report of QUIC Cubic — Data Link

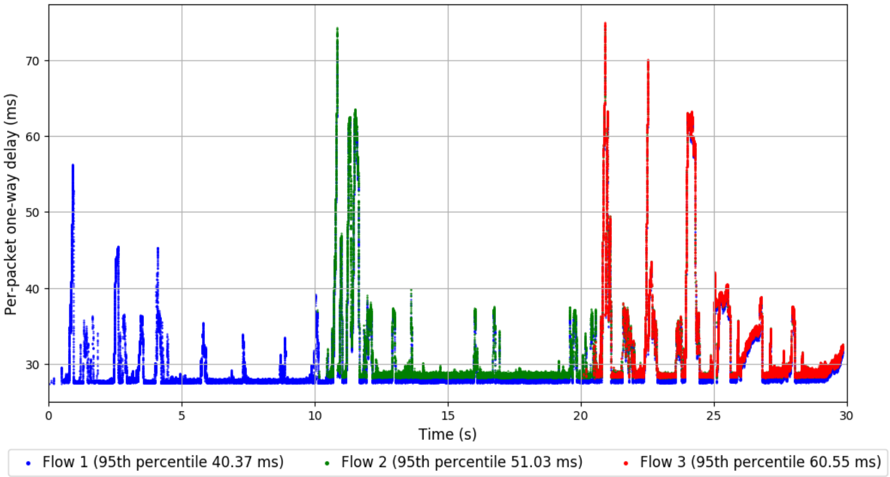




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-27 22:05:06
End at: 2018-03-27 22:05:36
Local clock offset: 5.839 ms
Remote clock offset: -2.56 ms

# Below is generated by plot.py at 2018-03-28 00:03:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.05 Mbit/s
95th percentile per-packet one-way delay: 46.724 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 40.367 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 28.11 Mbit/s
95th percentile per-packet one-way delay: 51.026 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 43.20 Mbit/s
95th percentile per-packet one-way delay: 60.554 ms
Loss rate: 2.46%
```

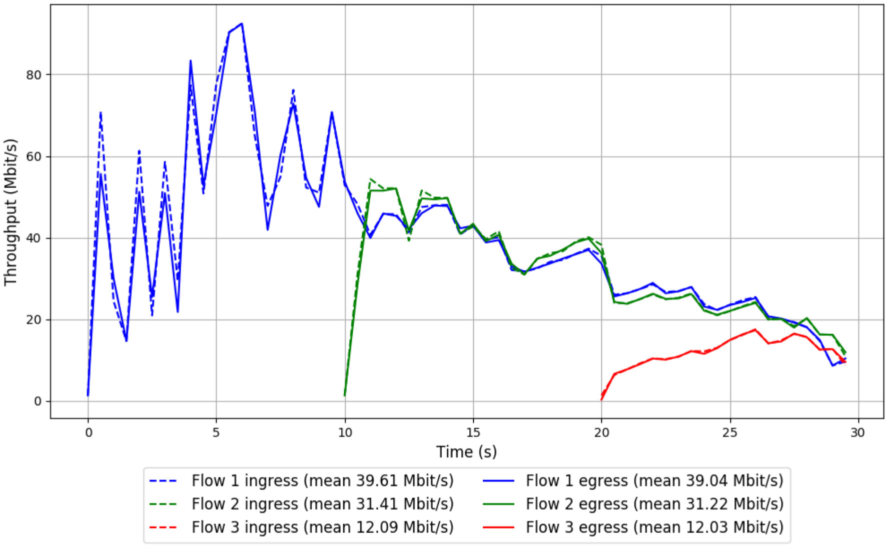
Run 8: Report of QUIC Cubic — Data Link

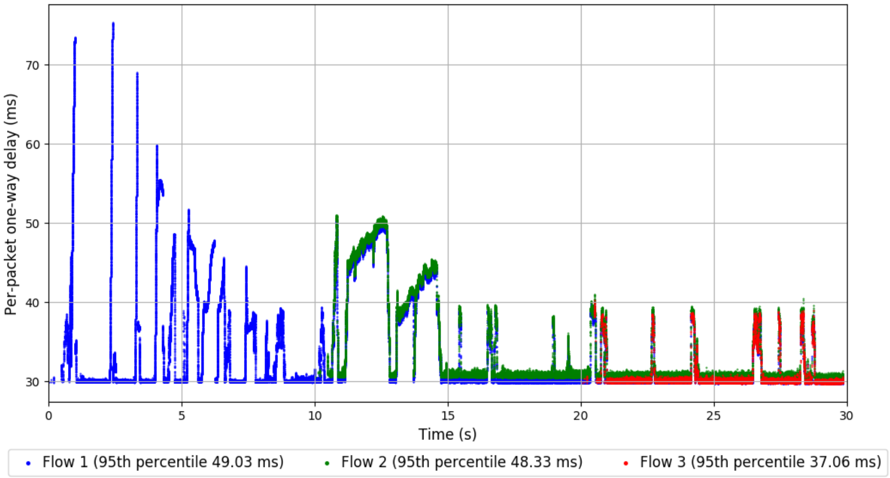




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-27 22:32:28
End at: 2018-03-27 22:32:58
Local clock offset: 2.271 ms
Remote clock offset: 2.278 ms

# Below is generated by plot.py at 2018-03-28 00:04:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.72 Mbit/s
95th percentile per-packet one-way delay: 48.417 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 39.04 Mbit/s
95th percentile per-packet one-way delay: 49.035 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 48.329 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 12.03 Mbit/s
95th percentile per-packet one-way delay: 37.062 ms
Loss rate: 0.52%
```

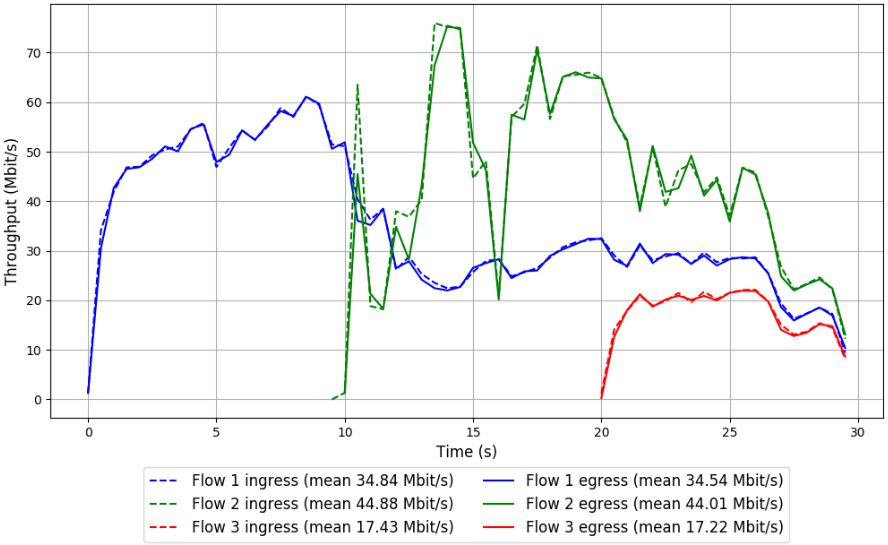
Run 9: Report of QUIC Cubic — Data Link

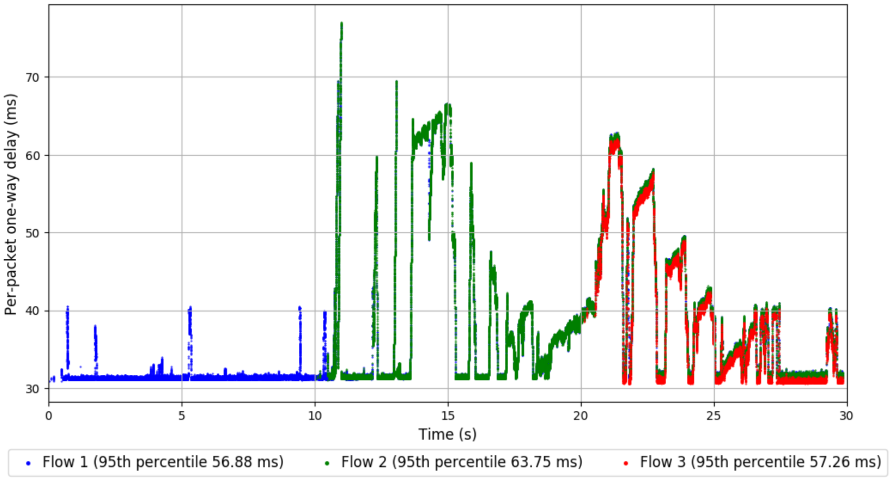




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-27 23:01:20
End at: 2018-03-27 23:01:50
Local clock offset: -0.109 ms
Remote clock offset: 4.274 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.45 Mbit/s
95th percentile per-packet one-way delay: 62.242 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 34.54 Mbit/s
95th percentile per-packet one-way delay: 56.883 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 44.01 Mbit/s
95th percentile per-packet one-way delay: 63.752 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 17.22 Mbit/s
95th percentile per-packet one-way delay: 57.264 ms
Loss rate: 1.30%
```

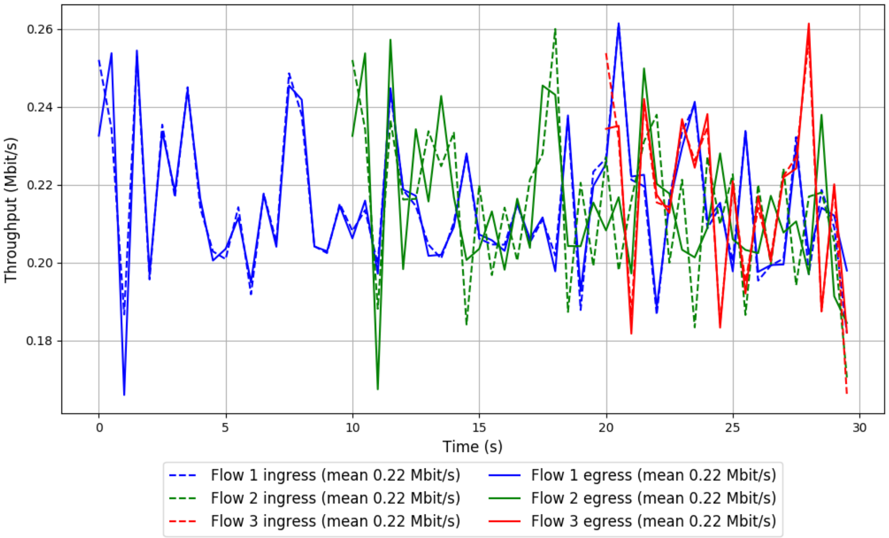
Run 10: Report of QUIC Cubic — Data Link

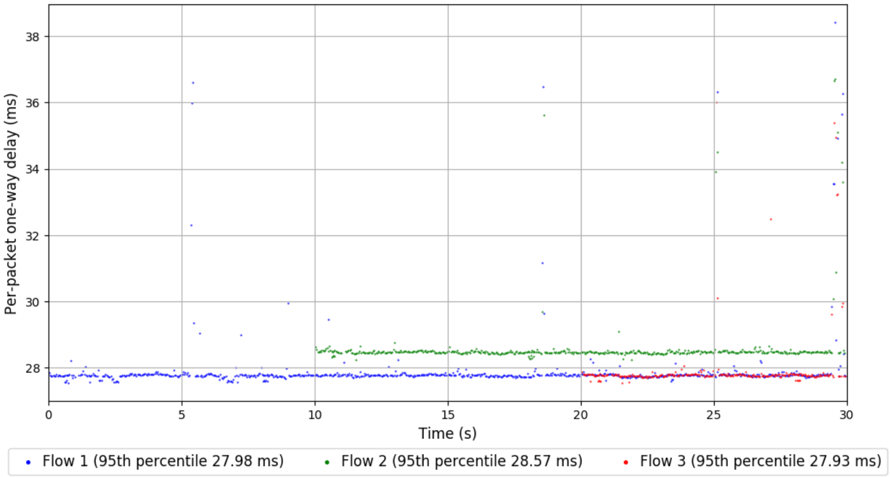




```
Run 1: Statistics of SCReAM

Start at: 2018-03-27 18:51:57
End at: 2018-03-27 18:52:27
Local clock offset: 2.626 ms
Remote clock offset: -7.651 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 28.524 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.565 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.933 ms
Loss rate: 0.00%
```

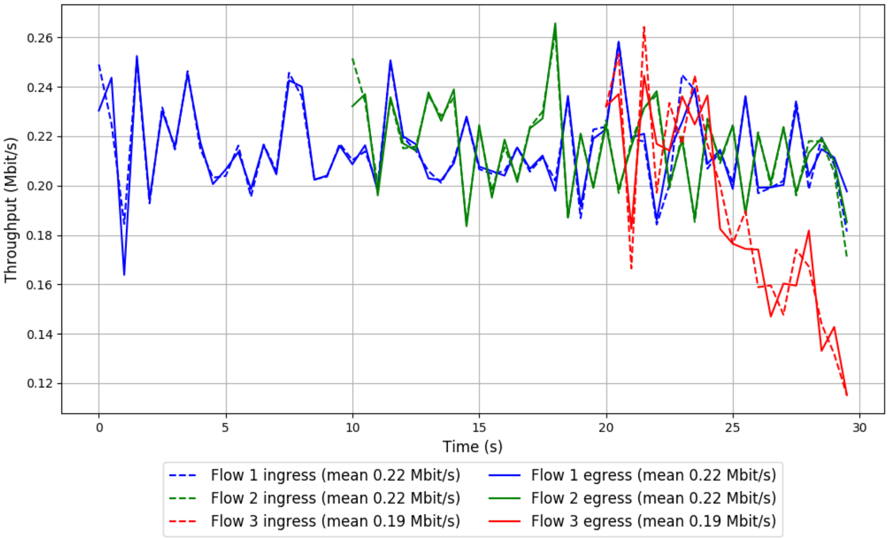
Run 1: Report of SCReAM — Data Link

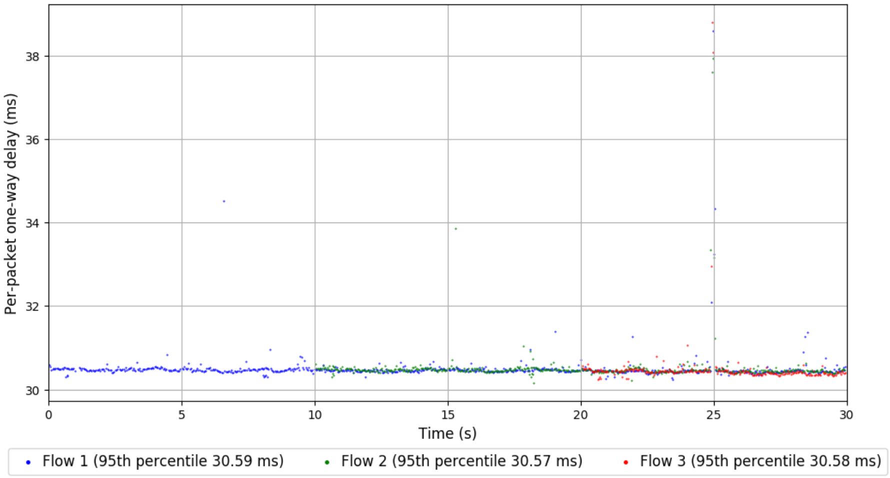




```
Run 2: Statistics of SCReAM

Start at: 2018-03-27 19:23:24
End at: 2018-03-27 19:23:54
Local clock offset: -0.26 ms
Remote clock offset: -5.152 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 30.578 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.591 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.570 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 30.581 ms
Loss rate: 0.47%
```

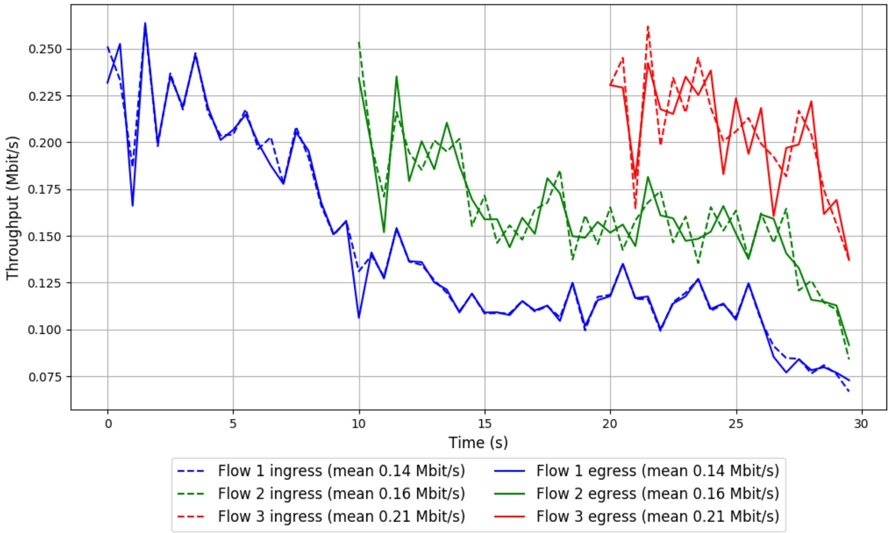
Run 2: Report of SCReAM — Data Link

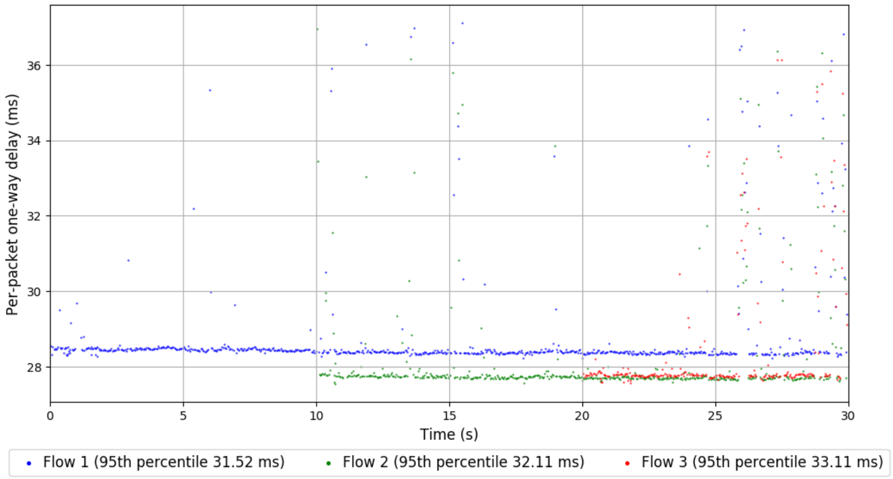




```
Run 3: Statistics of SCReAM

Start at: 2018-03-27 19:54:54
End at: 2018-03-27 19:55:24
Local clock offset: -0.22 ms
Remote clock offset: -5.46 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 32.251 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 31.525 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 32.108 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.114 ms
Loss rate: 0.40%
```

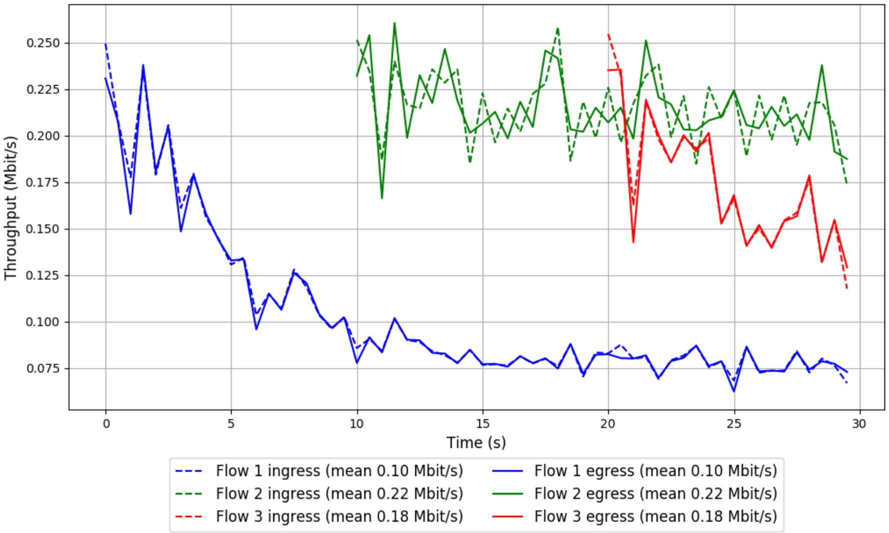
Run 3: Report of SCReAM — Data Link

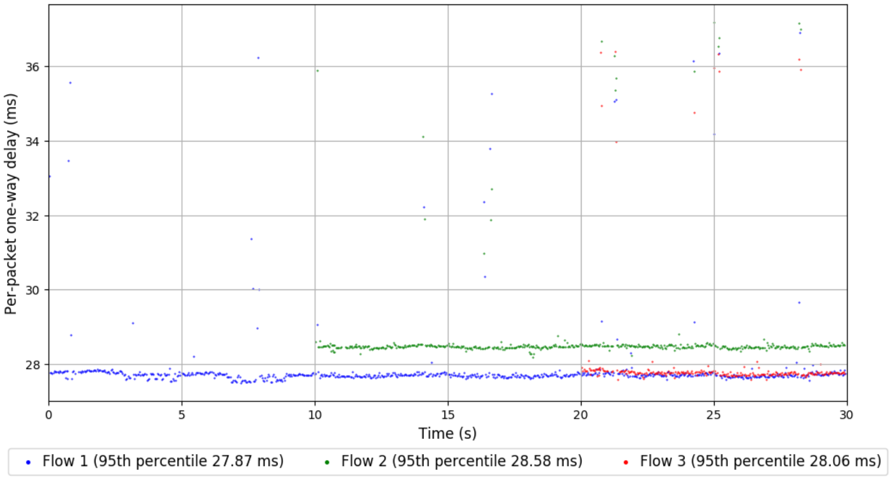




```
Run 4: Statistics of SCReAM

Start at: 2018-03-27 20:25:41
End at: 2018-03-27 20:26:11
Local clock offset: 2.259 ms
Remote clock offset: -6.597 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 28.544 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 27.870 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.576 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 28.062 ms
Loss rate: 0.49%
```

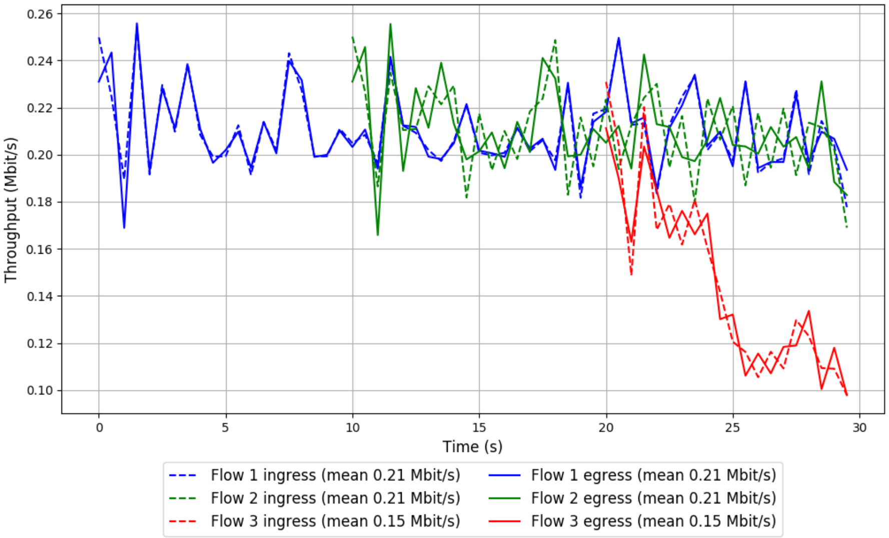
Run 4: Report of SCReAM — Data Link

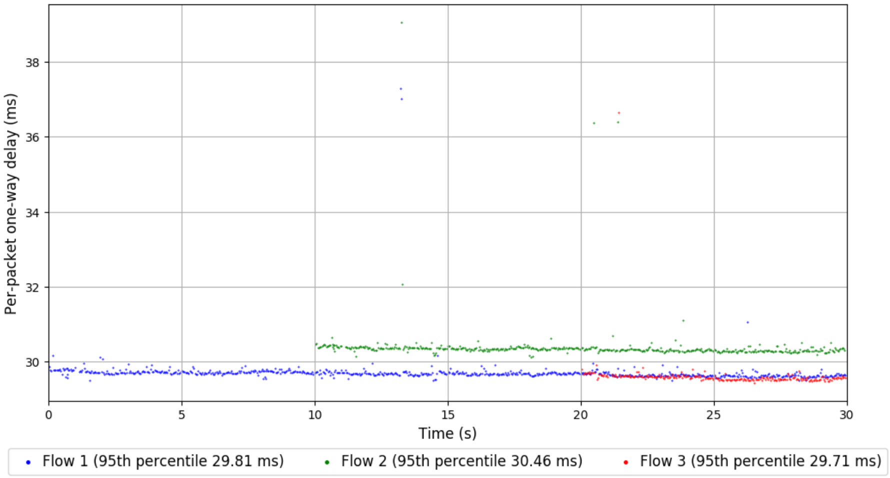




```
Run 5: Statistics of SCReAM

Start at: 2018-03-27 20:53:38
End at: 2018-03-27 20:54:08
Local clock offset: 0.95 ms
Remote clock offset: -2.106 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 30.391 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 29.810 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.457 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 29.715 ms
Loss rate: 0.67%
```

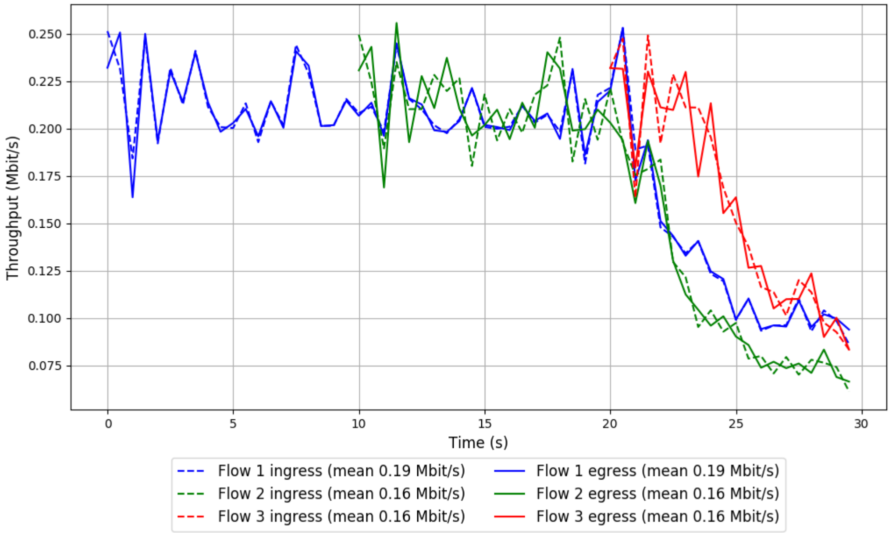
Run 5: Report of SCReAM — Data Link

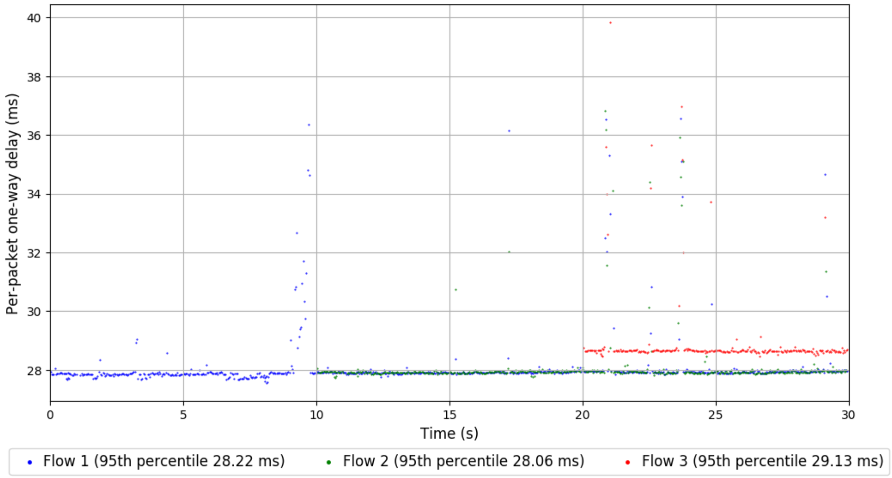




```
Run 6: Statistics of SCReAM

Start at: 2018-03-27 21:19:36
End at: 2018-03-27 21:20:06
Local clock offset: 1.795 ms
Remote clock offset: -2.659 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 28.712 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 28.219 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 28.058 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 29.126 ms
Loss rate: 0.57%
```

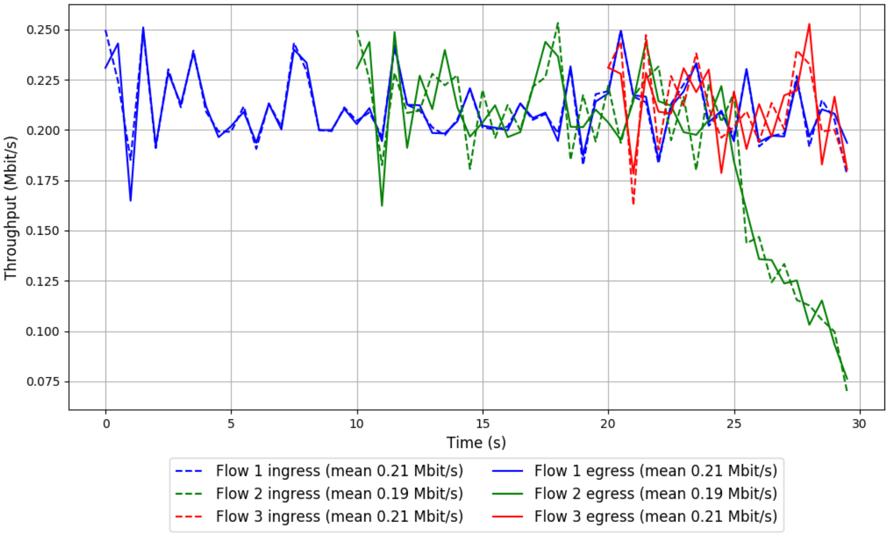
Run 6: Report of SCReAM — Data Link

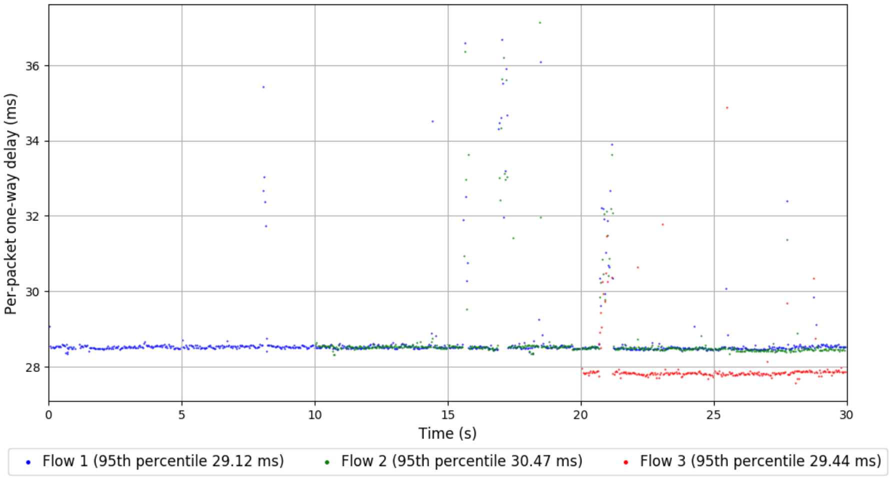




```
Run 7: Statistics of SCReAM

Start at: 2018-03-27 21:45:47
End at: 2018-03-27 21:46:17
Local clock offset: 4.82 ms
Remote clock offset: -3.572 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 29.787 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 29.119 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 30.472 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 29.443 ms
Loss rate: 0.00%
```

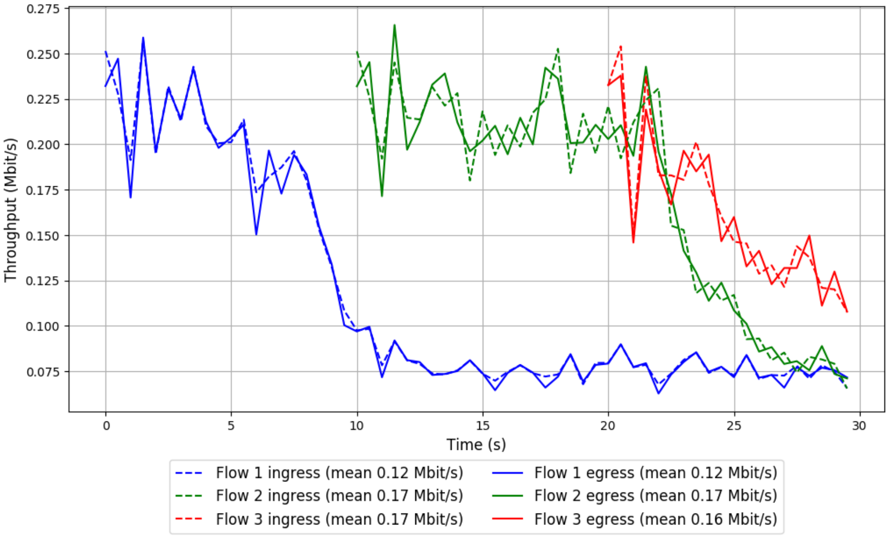
Run 7: Report of SCReAM — Data Link

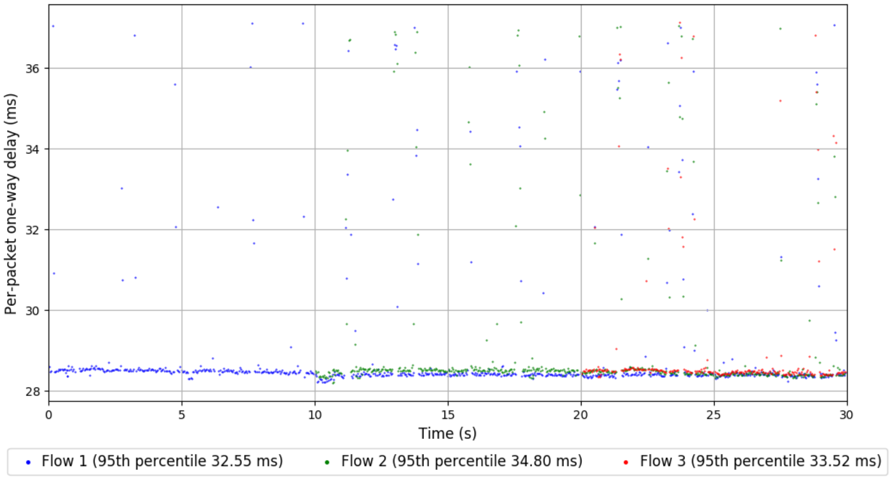




```
Run 8: Statistics of SCReAM

Start at: 2018-03-27 22:12:49
End at: 2018-03-27 22:13:19
Local clock offset: 6.107 ms
Remote clock offset: -2.322 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 33.725 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 32.553 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 34.801 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 33.519 ms
Loss rate: 1.04%
```

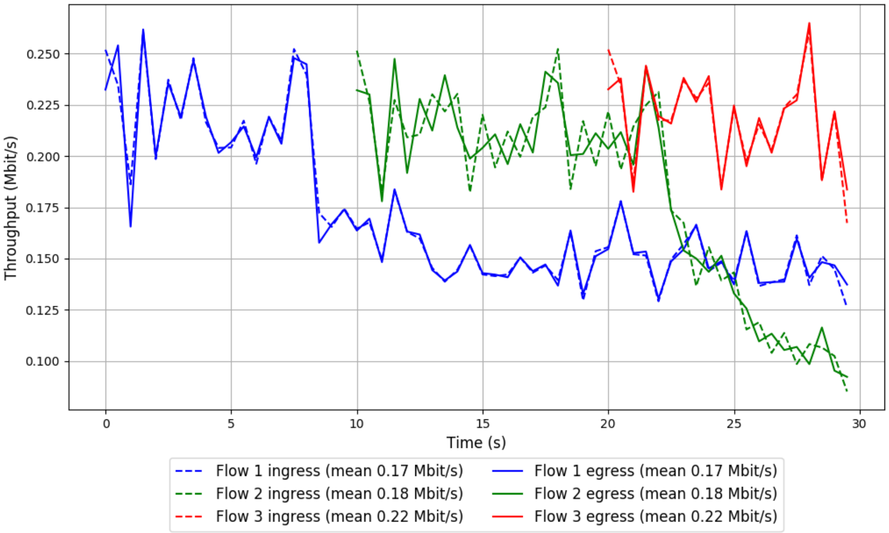
Run 8: Report of SCReAM — Data Link

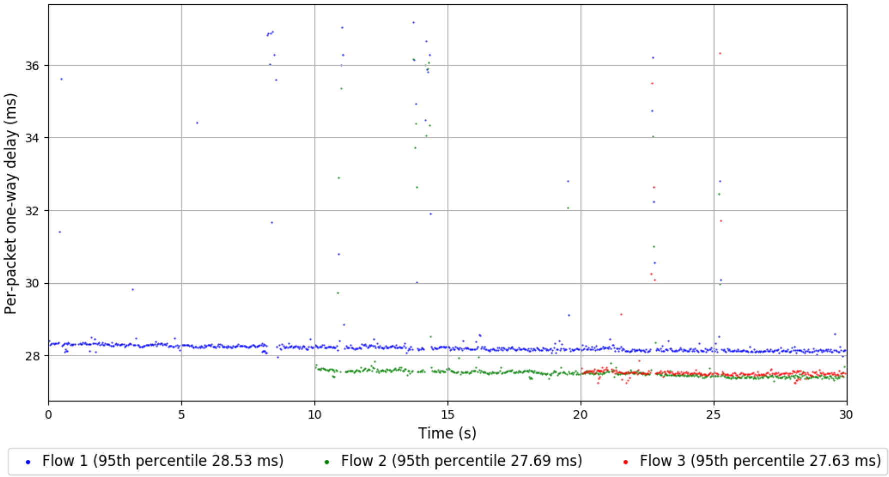




```
Run 9: Statistics of SCReAM

Start at: 2018-03-27 22:40:45
End at: 2018-03-27 22:41:16
Local clock offset: 0.415 ms
Remote clock offset: 0.863 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 28.384 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 28.529 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 27.691 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.626 ms
Loss rate: 0.00%
```

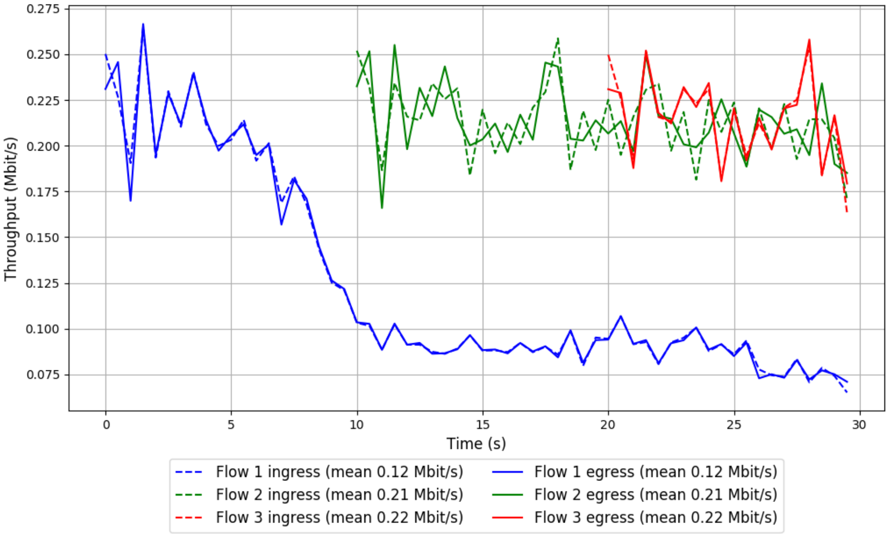
Run 9: Report of SCReAM — Data Link

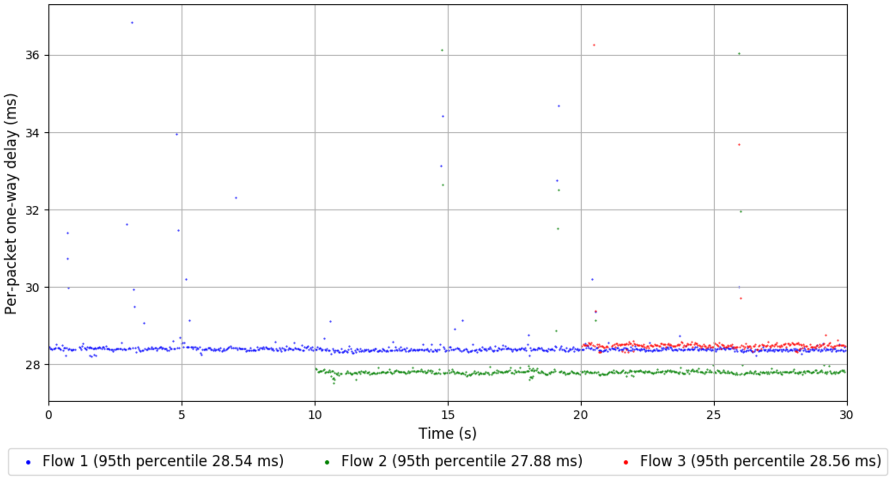




```
Run 10: Statistics of SCReAM

Start at: 2018-03-27 23:10:06
End at: 2018-03-27 23:10:36
Local clock offset: 1.408 ms
Remote clock offset: 0.144 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 28.532 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 28.535 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 27.875 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.557 ms
Loss rate: 0.00%
```

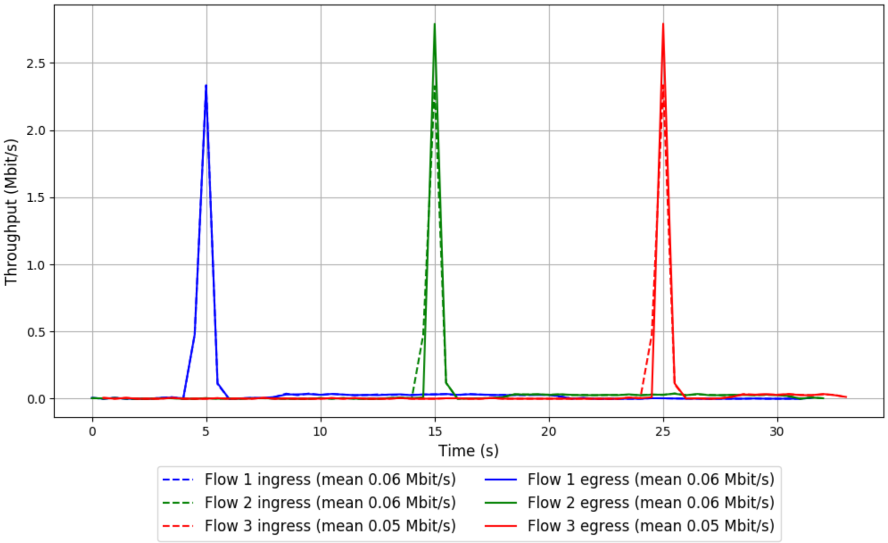
Run 10: Report of SCReAM — Data Link

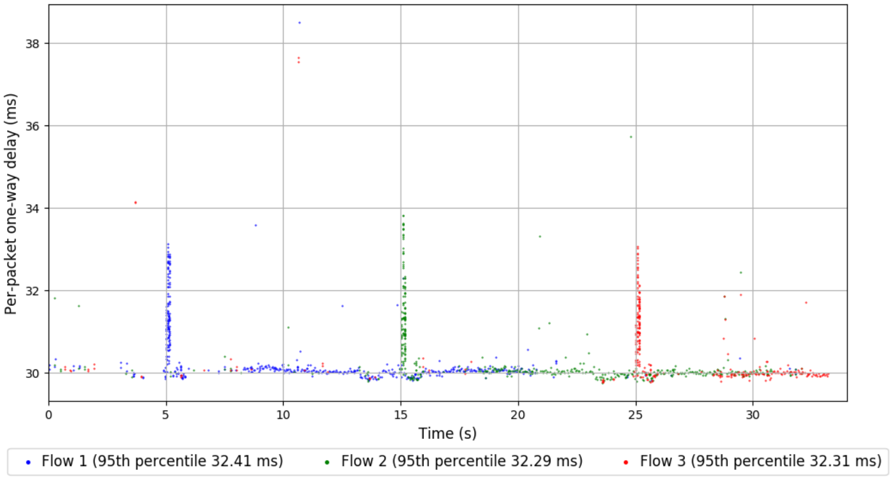




```
Run 1: Statistics of WebRTC media

Start at: 2018-03-27 18:58:47
End at: 2018-03-27 18:59:17
Local clock offset: 2.565 ms
Remote clock offset: -5.391 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 32.376 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.409 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.292 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.309 ms
Loss rate: 0.00%
```

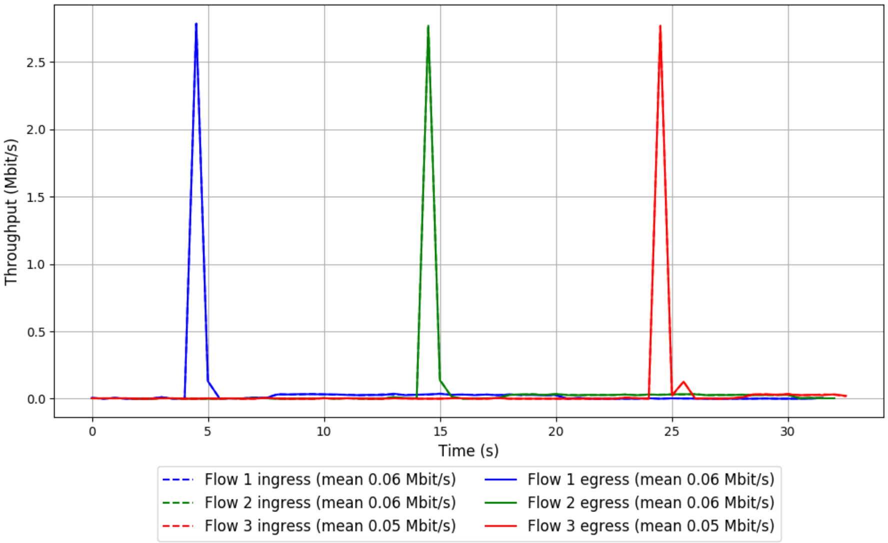
Run 1: Report of WebRTC media — Data Link

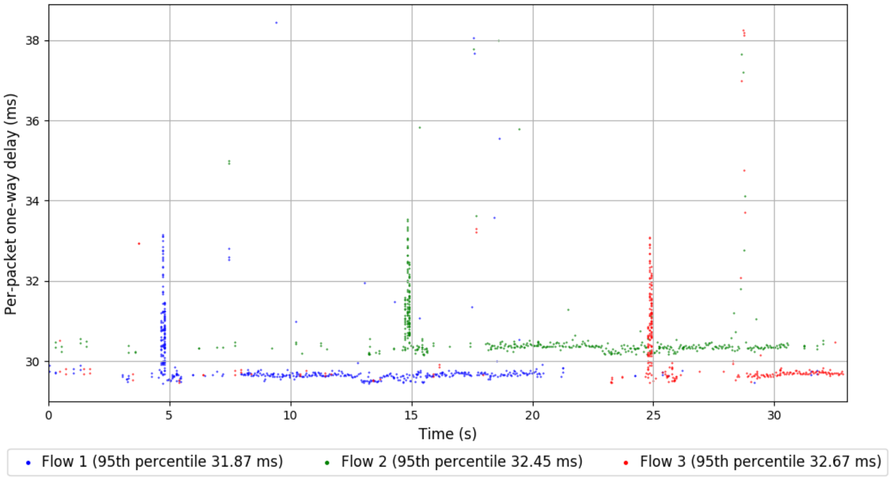




```
Run 2: Statistics of WebRTC media

Start at: 2018-03-27 19:29:45
End at: 2018-03-27 19:30:15
Local clock offset: -0.506 ms
Remote clock offset: -5.151 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 32.448 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 31.870 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.455 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.671 ms
Loss rate: 0.00%
```

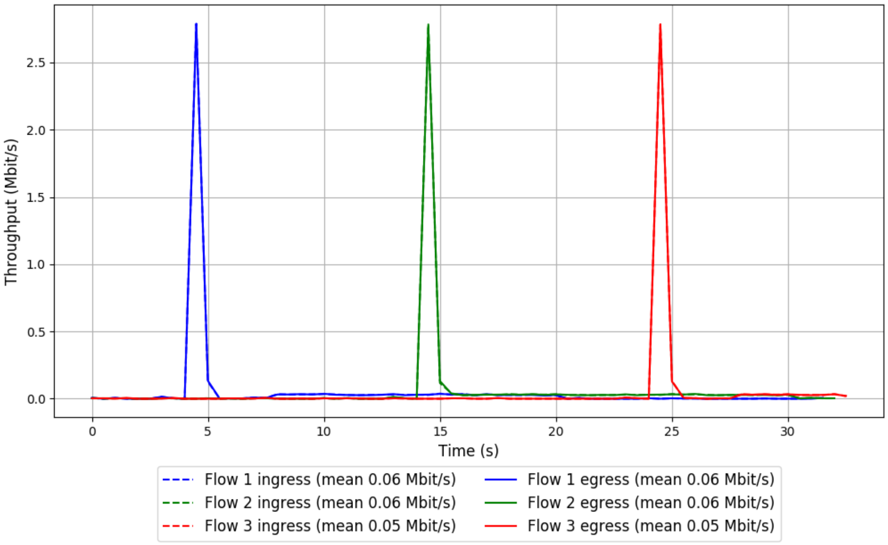
Run 2: Report of WebRTC media — Data Link

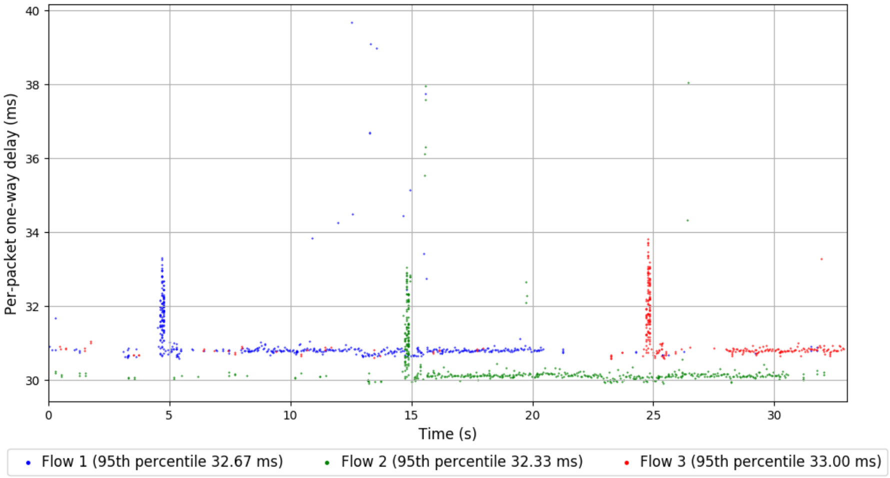




```
Run 3: Statistics of WebRTC media

Start at: 2018-03-27 20:01:26
End at: 2018-03-27 20:01:56
Local clock offset: -0.18 ms
Remote clock offset: -2.528 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 32.709 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.672 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.330 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.996 ms
Loss rate: 0.00%
```

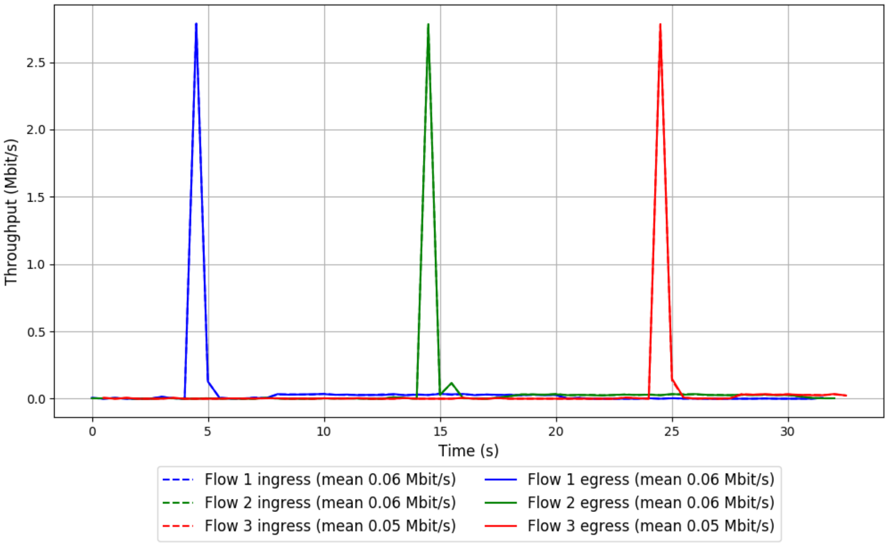
Run 3: Report of WebRTC media — Data Link

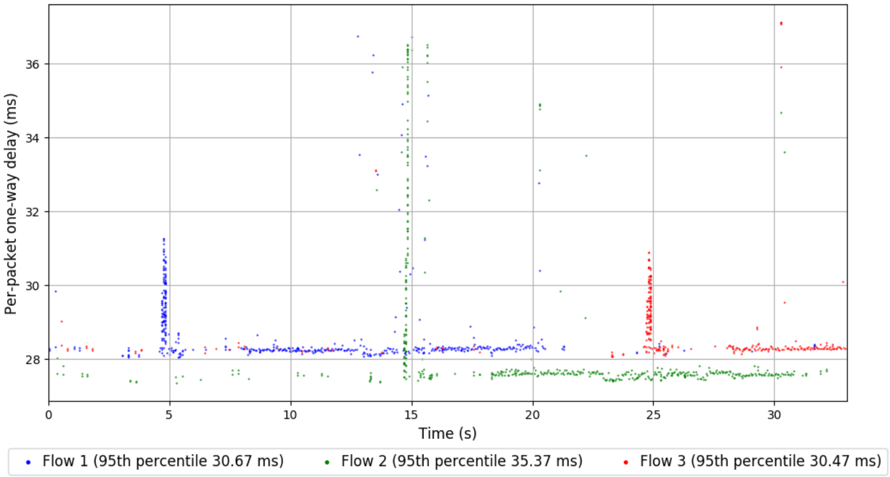




```
Run 4: Statistics of WebRTC media

Start at: 2018-03-27 20:32:38
End at: 2018-03-27 20:33:08
Local clock offset: 2.656 ms
Remote clock offset: -6.765 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 33.115 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 30.667 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 35.370 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.472 ms
Loss rate: 0.00%
```

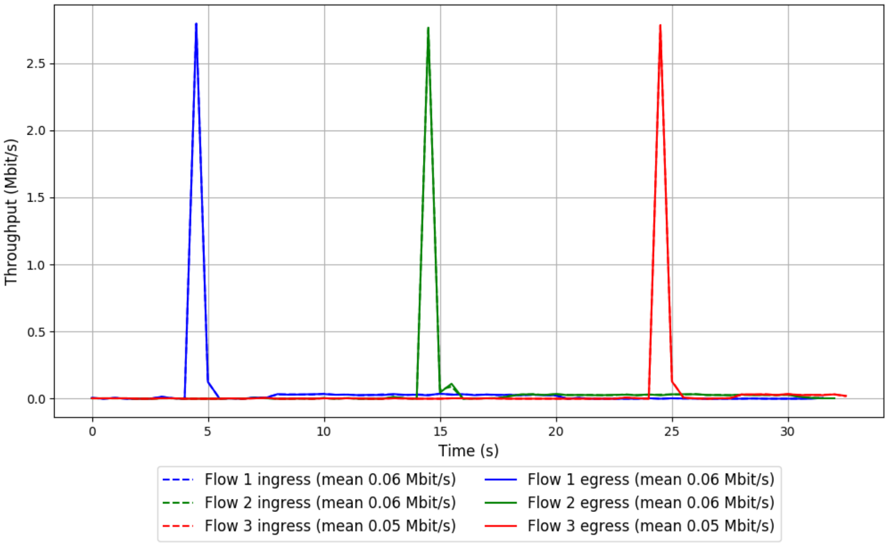
Run 4: Report of WebRTC media — Data Link

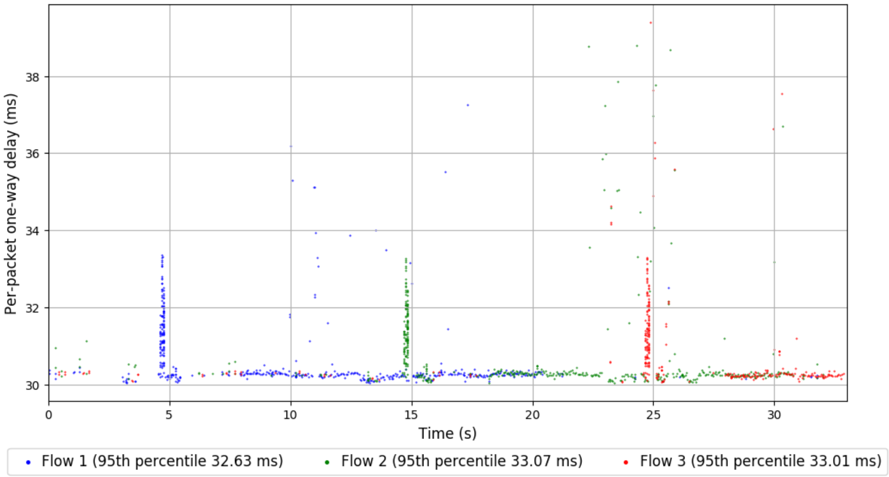




```
Run 5: Statistics of WebRTC media

Start at: 2018-03-27 20:59:47
End at: 2018-03-27 21:00:17
Local clock offset: 0.612 ms
Remote clock offset: -1.382 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 32.957 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.626 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 33.068 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 33.006 ms
Loss rate: 0.00%
```

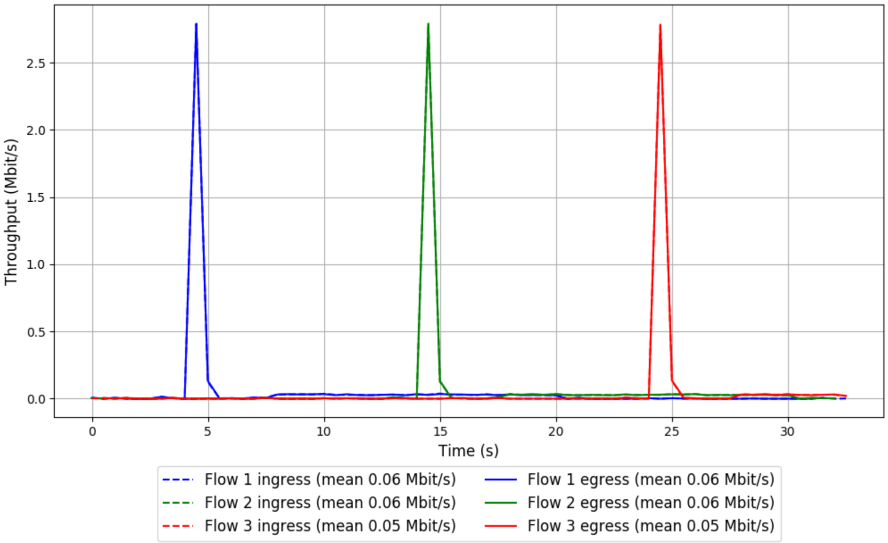
Run 5: Report of WebRTC media — Data Link

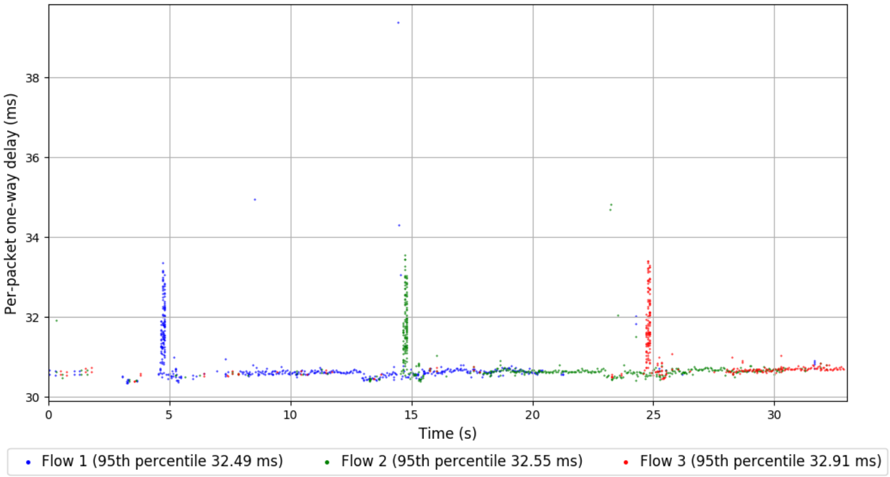




```
Run 6: Statistics of WebRTC media

Start at: 2018-03-27 21:25:31
End at: 2018-03-27 21:26:01
Local clock offset: 2.965 ms
Remote clock offset: -1.056 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 32.681 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.491 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.547 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.907 ms
Loss rate: 0.00%
```

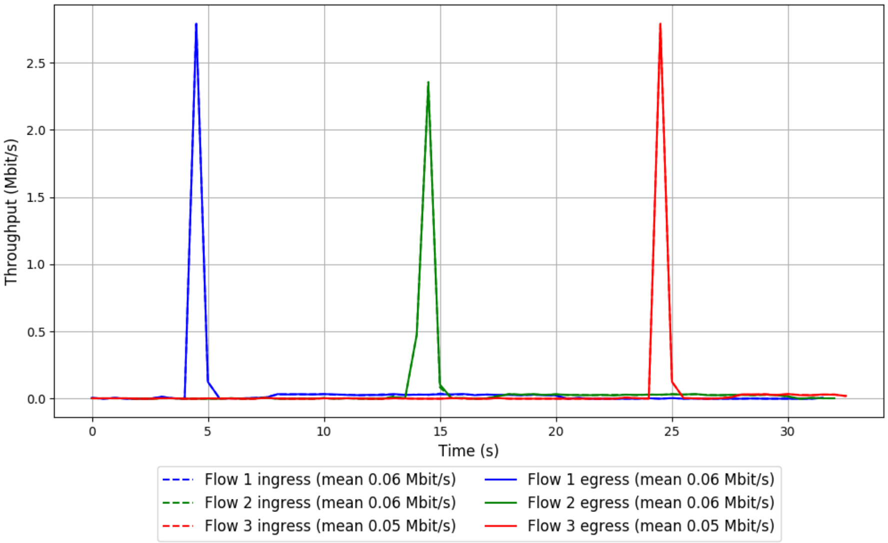
Run 6: Report of WebRTC media — Data Link

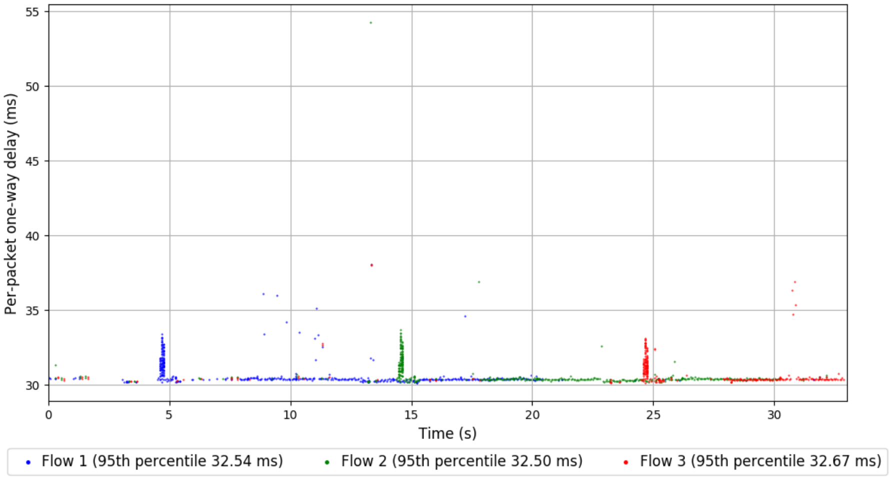




```
Run 7: Statistics of WebRTC media

Start at: 2018-03-27 21:51:51
End at: 2018-03-27 21:52:21
Local clock offset: 5.114 ms
Remote clock offset: -1.55 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 32.576 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.543 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.497 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.673 ms
Loss rate: 0.00%
```

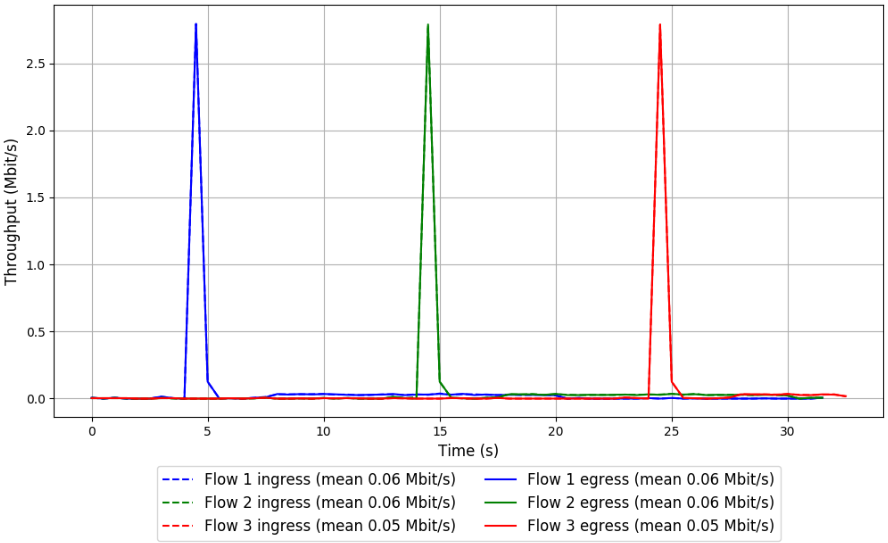
Run 7: Report of WebRTC media — Data Link

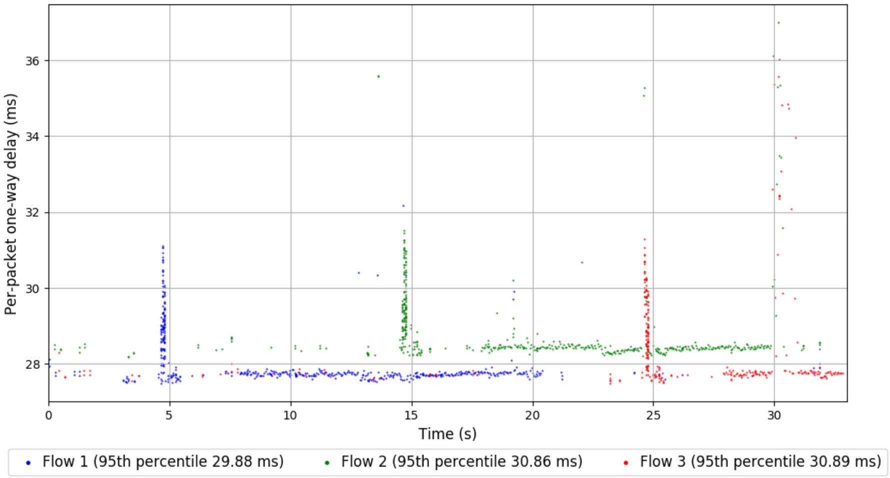




```
Run 8: Statistics of WebRTC media

Start at: 2018-03-27 22:19:16
End at: 2018-03-27 22:19:46
Local clock offset: 6.381 ms
Remote clock offset: -2.188 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 30.616 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 29.878 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 30.860 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.890 ms
Loss rate: 0.00%
```

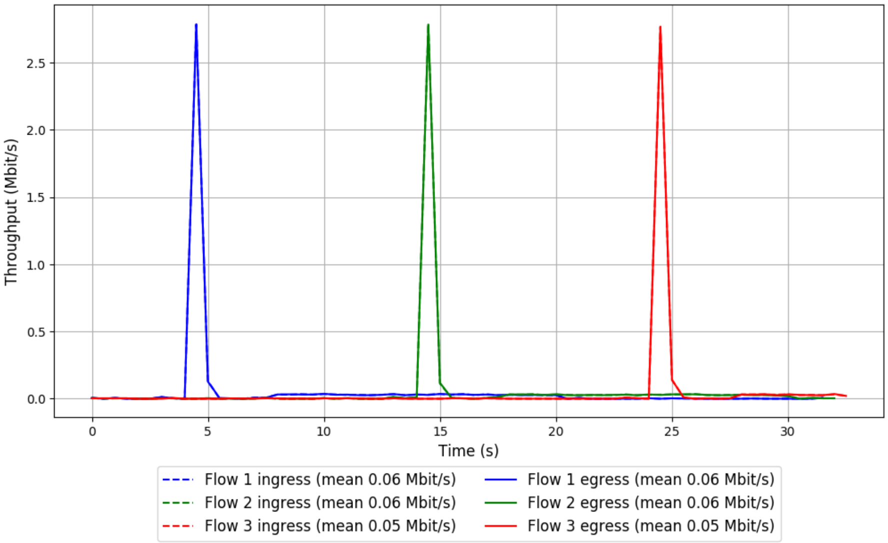
Run 8: Report of WebRTC media — Data Link

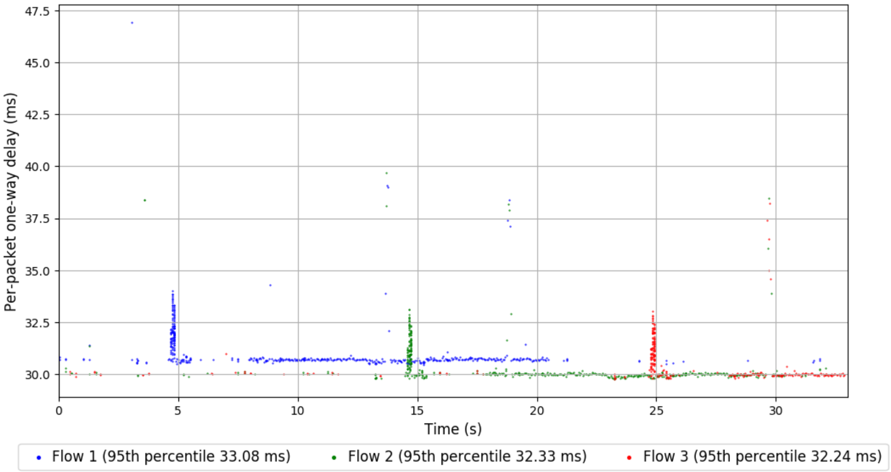




```
Run 9: Statistics of WebRTC media

Start at: 2018-03-27 22:47:20
End at: 2018-03-27 22:47:50
Local clock offset: -0.369 ms
Remote clock offset: 3.995 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 32.633 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 33.080 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 32.326 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.240 ms
Loss rate: 0.13%
```

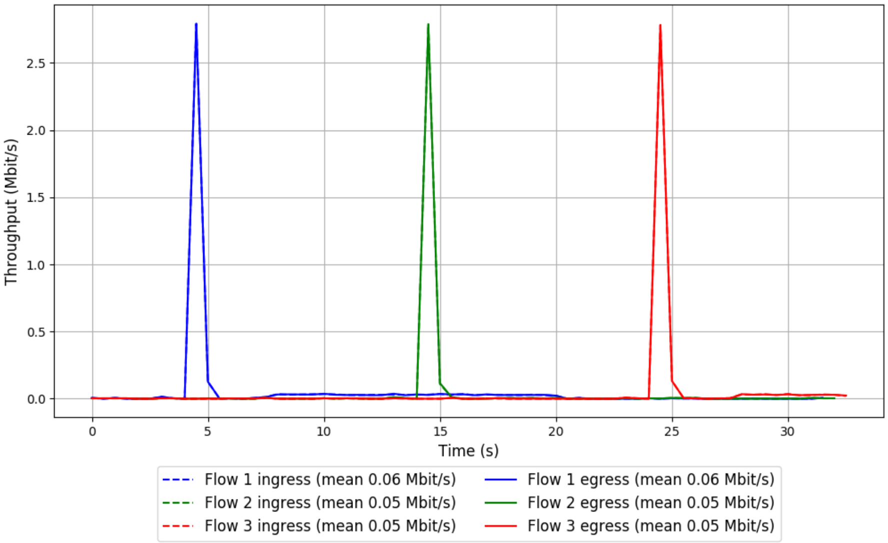
Run 9: Report of WebRTC media — Data Link

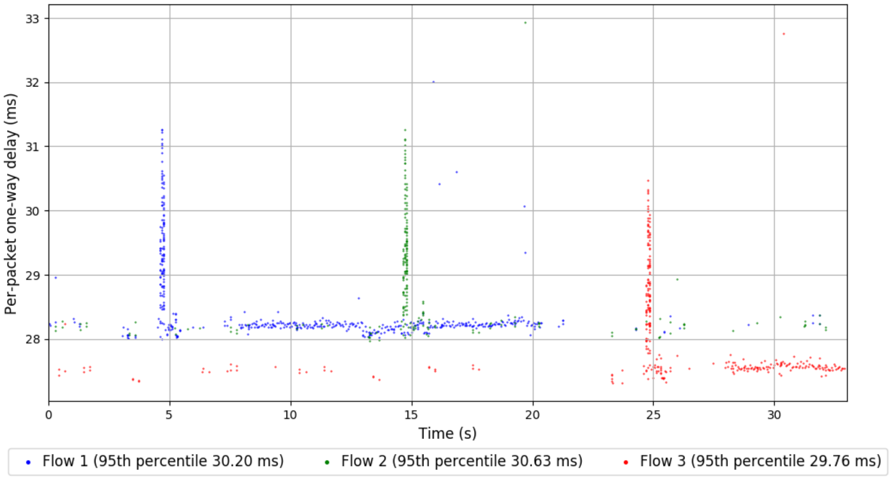




```
Run 10: Statistics of WebRTC media

Start at: 2018-03-27 23:17:30
End at: 2018-03-27 23:18:00
Local clock offset: 1.84 ms
Remote clock offset: -0.362 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 30.190 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 30.195 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 30.630 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 29.761 ms
Loss rate: 0.08%
```

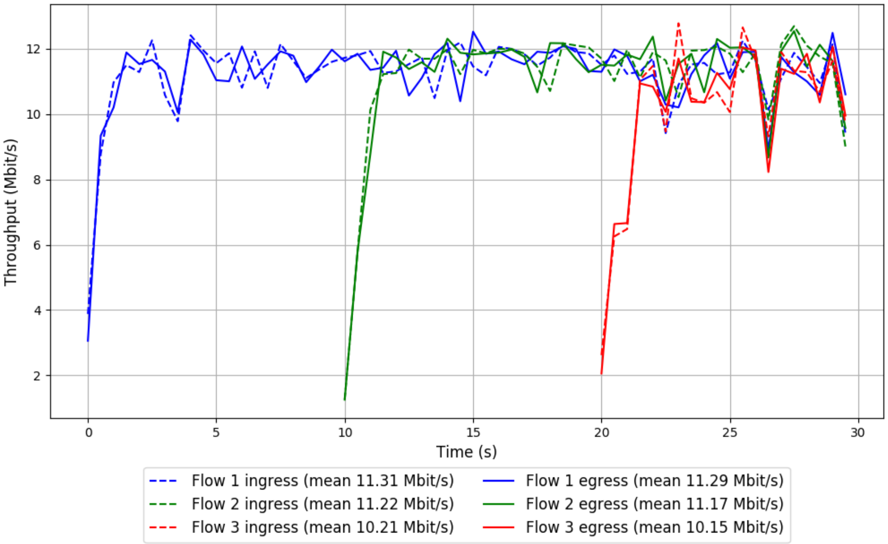
Run 10: Report of WebRTC media — Data Link

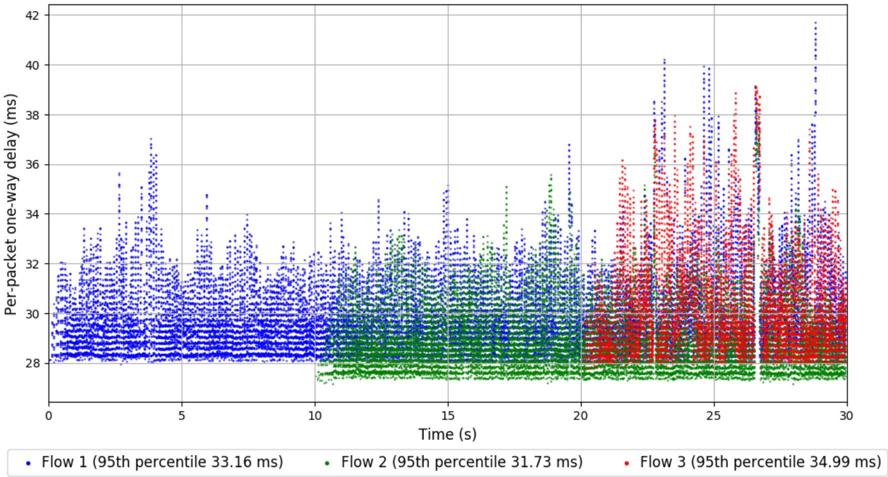




```
Run 1: Statistics of Sprout

Start at: 2018-03-27 19:04:09
End at: 2018-03-27 19:04:39
Local clock offset: 1.443 ms
Remote clock offset: -7.721 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.08 Mbit/s
95th percentile per-packet one-way delay: 33.178 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 33.157 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 11.17 Mbit/s
95th percentile per-packet one-way delay: 31.731 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 34.995 ms
Loss rate: 0.56%
```

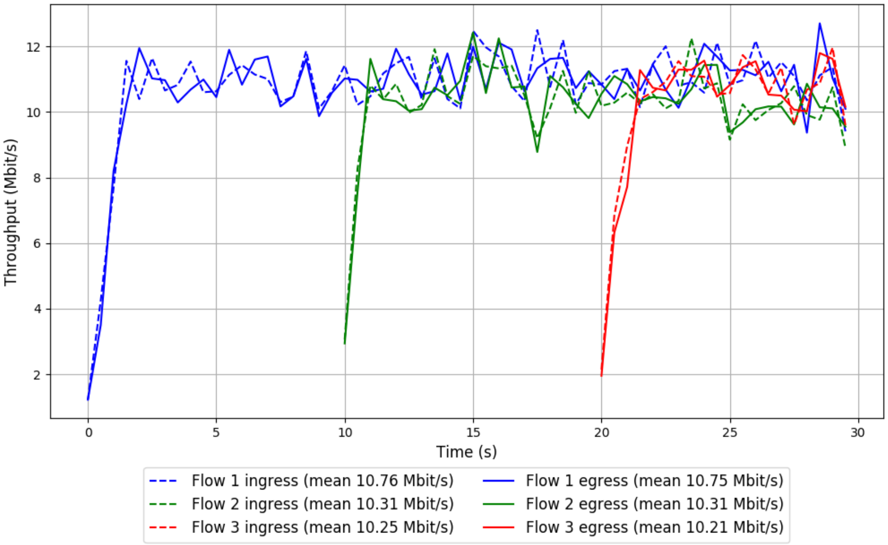
Run 1: Report of Sprout — Data Link

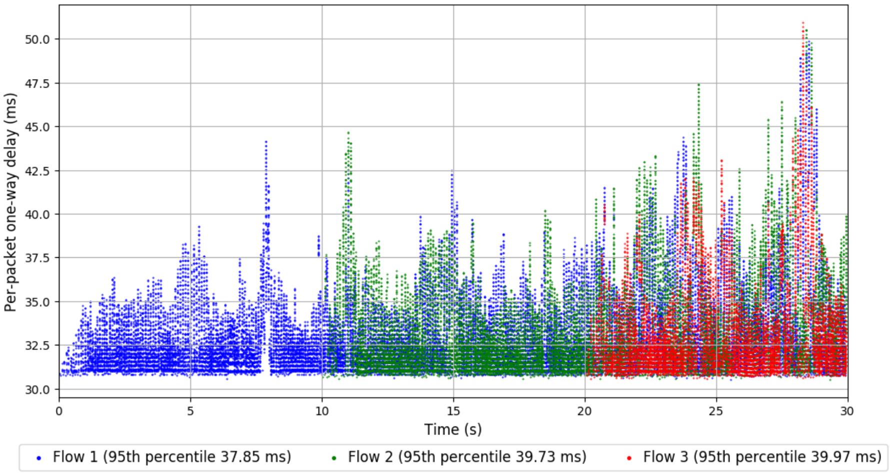




```
Run 2: Statistics of Sprout

Start at: 2018-03-27 19:35:02
End at: 2018-03-27 19:35:32
Local clock offset: -0.452 ms
Remote clock offset: -4.773 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.98 Mbit/s
95th percentile per-packet one-way delay: 38.908 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 10.75 Mbit/s
95th percentile per-packet one-way delay: 37.847 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 39.726 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 10.21 Mbit/s
95th percentile per-packet one-way delay: 39.972 ms
Loss rate: 0.33%
```

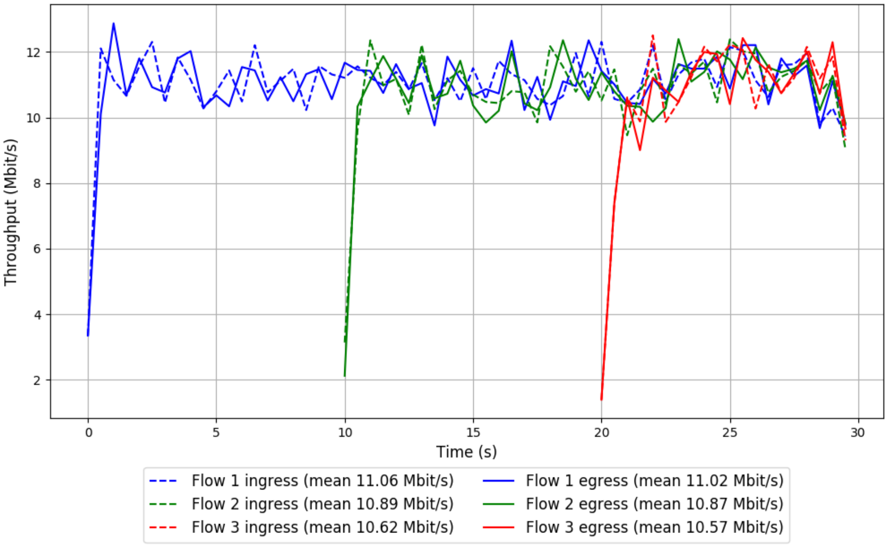
Run 2: Report of Sprout — Data Link

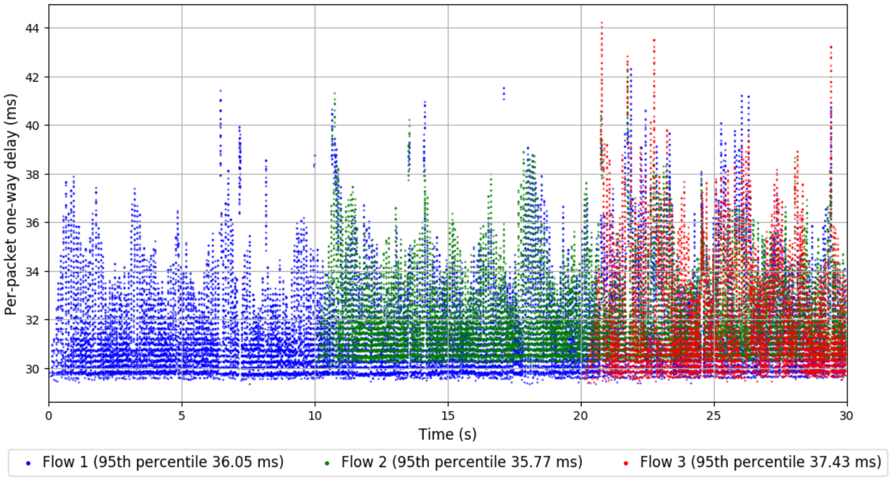




```
Run 3: Statistics of Sprout

Start at: 2018-03-27 20:06:12
End at: 2018-03-27 20:06:42
Local clock offset: -0.258 ms
Remote clock offset: -2.905 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.74 Mbit/s
95th percentile per-packet one-way delay: 36.258 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 36.052 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 10.87 Mbit/s
95th percentile per-packet one-way delay: 35.766 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 10.57 Mbit/s
95th percentile per-packet one-way delay: 37.434 ms
Loss rate: 0.43%
```

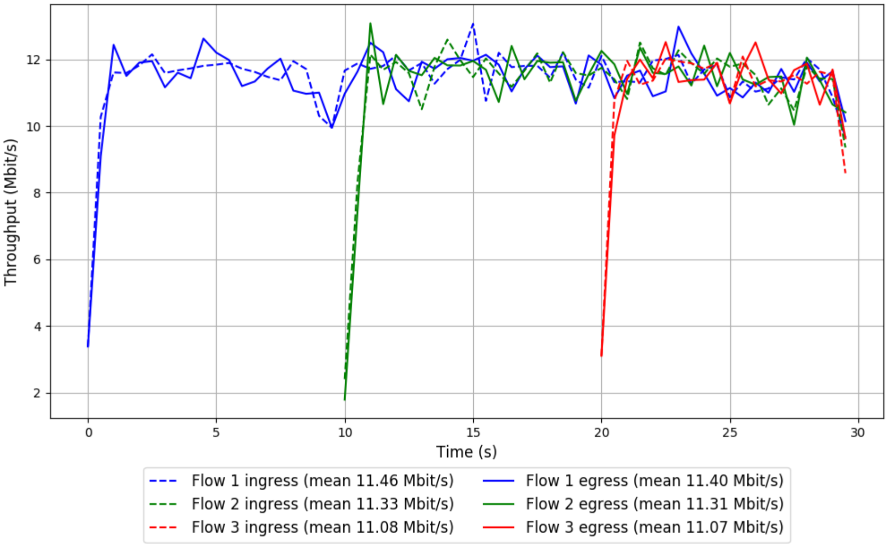
Run 3: Report of Sprout — Data Link

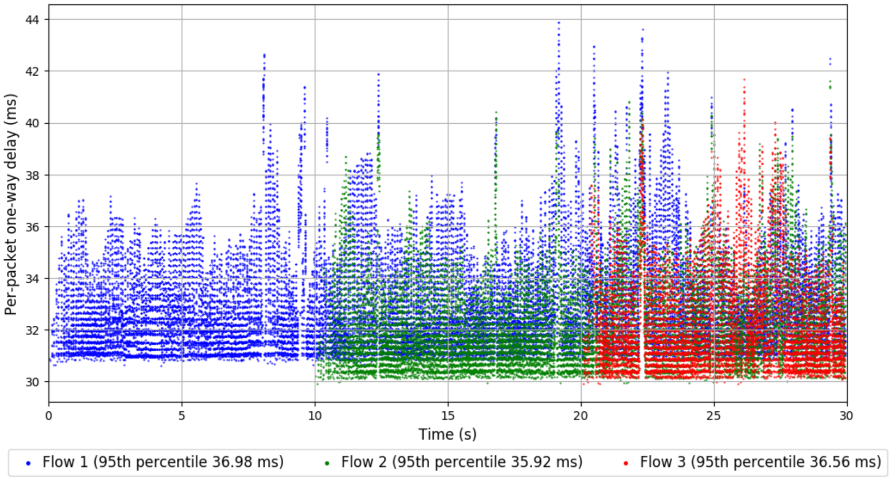




```
Run 4: Statistics of Sprout

Start at: 2018-03-27 20:37:37
End at: 2018-03-27 20:38:07
Local clock offset: 2.848 ms
Remote clock offset: -4.273 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.58 Mbit/s
95th percentile per-packet one-way delay: 36.622 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 11.40 Mbit/s
95th percentile per-packet one-way delay: 36.983 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 11.31 Mbit/s
95th percentile per-packet one-way delay: 35.923 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 11.07 Mbit/s
95th percentile per-packet one-way delay: 36.556 ms
Loss rate: 0.05%
```

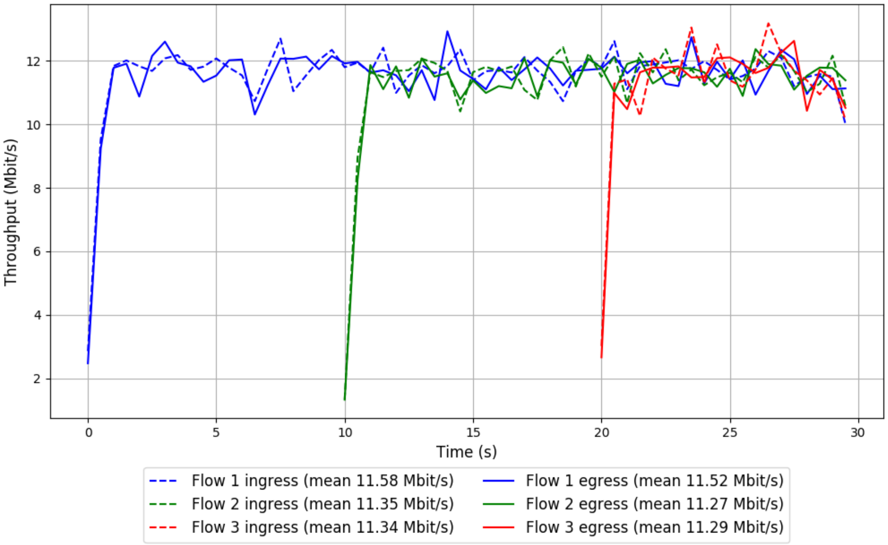
Run 4: Report of Sprout — Data Link

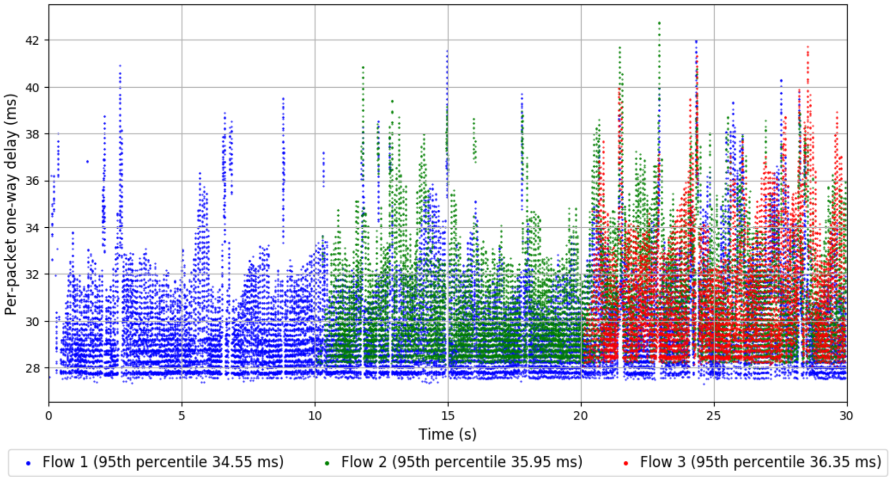




```
Run 5: Statistics of Sprout

Start at: 2018-03-27 21:03:55
End at: 2018-03-27 21:04:25
Local clock offset: 0.386 ms
Remote clock offset: -3.16 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.74 Mbit/s
95th percentile per-packet one-way delay: 35.497 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 34.551 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 11.27 Mbit/s
95th percentile per-packet one-way delay: 35.945 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 36.346 ms
Loss rate: 0.44%
```

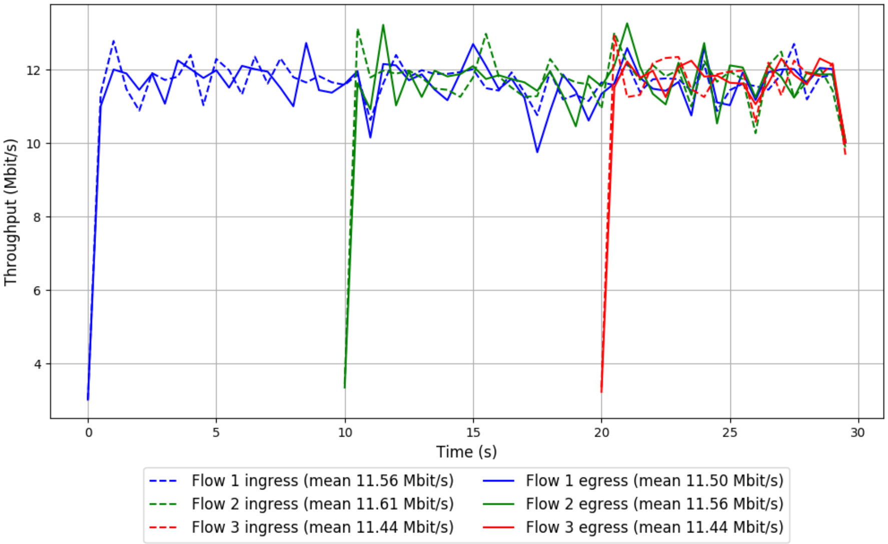
Run 5: Report of Sprout — Data Link

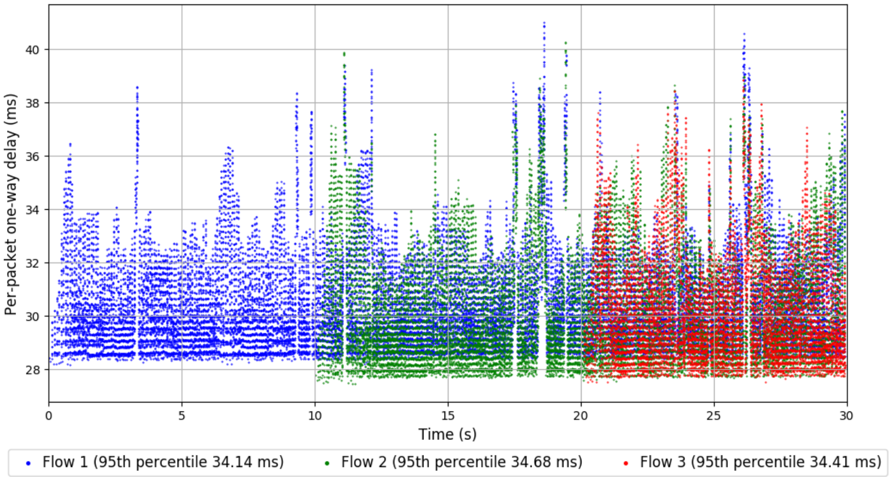




```
Run 6: Statistics of Sprout

Start at: 2018-03-27 21:29:49
End at: 2018-03-27 21:30:19
Local clock offset: 3.687 ms
Remote clock offset: -3.317 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.96 Mbit/s
95th percentile per-packet one-way delay: 34.426 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 34.138 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 11.56 Mbit/s
95th percentile per-packet one-way delay: 34.679 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 11.44 Mbit/s
95th percentile per-packet one-way delay: 34.414 ms
Loss rate: 0.00%
```

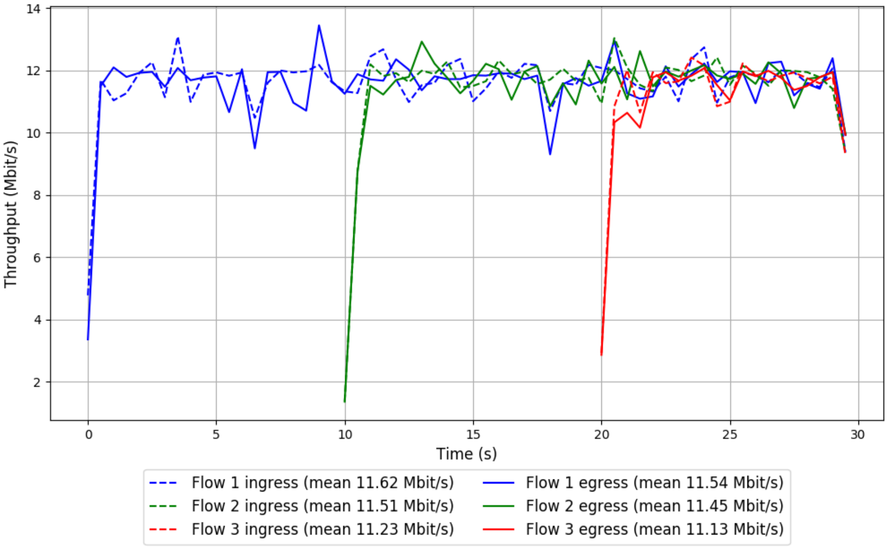
Run 6: Report of Sprout — Data Link

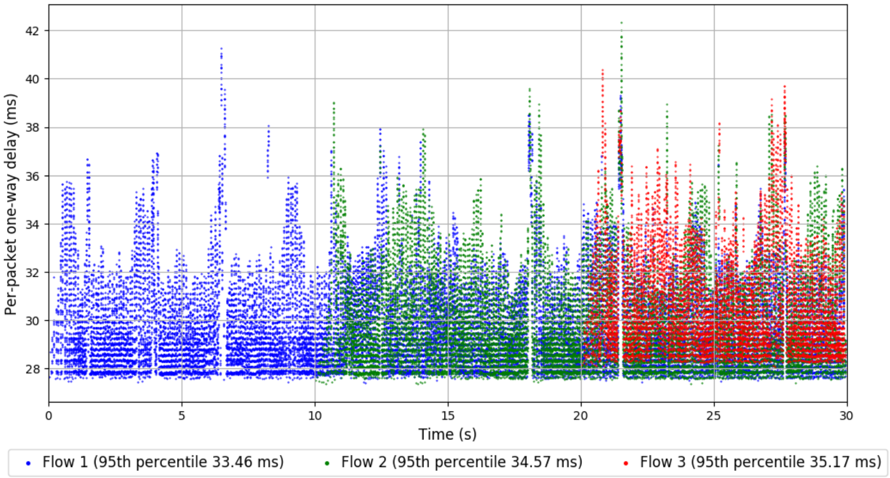




```
Run 7: Statistics of Sprout

Start at: 2018-03-27 21:56:18
End at: 2018-03-27 21:56:48
Local clock offset: 5.35 ms
Remote clock offset: -3.147 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.83 Mbit/s
95th percentile per-packet one-way delay: 34.257 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 33.457 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 34.566 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 35.174 ms
Loss rate: 0.91%
```

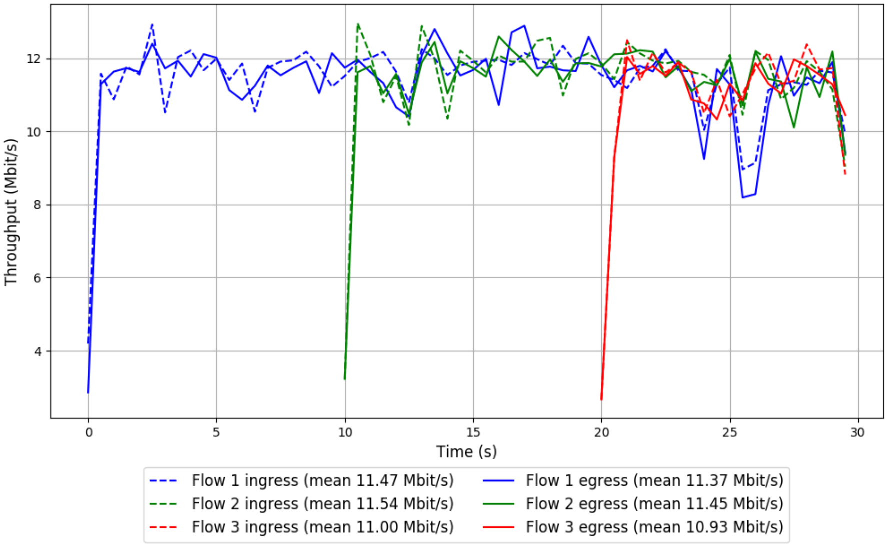
Run 7: Report of Sprout — Data Link

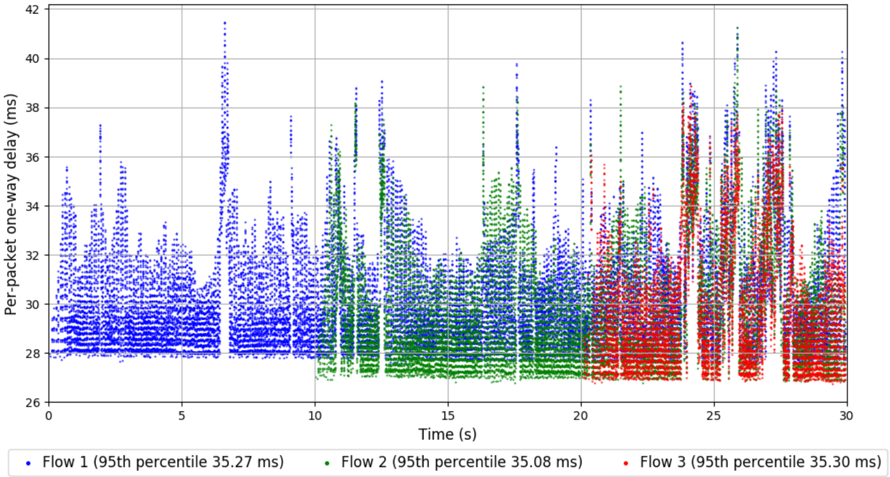




```
Run 8: Statistics of Sprout

Start at: 2018-03-27 22:23:44
End at: 2018-03-27 22:24:14
Local clock offset: 6.524 ms
Remote clock offset: -2.159 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.59 Mbit/s
95th percentile per-packet one-way delay: 35.210 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 11.37 Mbit/s
95th percentile per-packet one-way delay: 35.273 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 35.077 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 35.303 ms
Loss rate: 0.69%
```

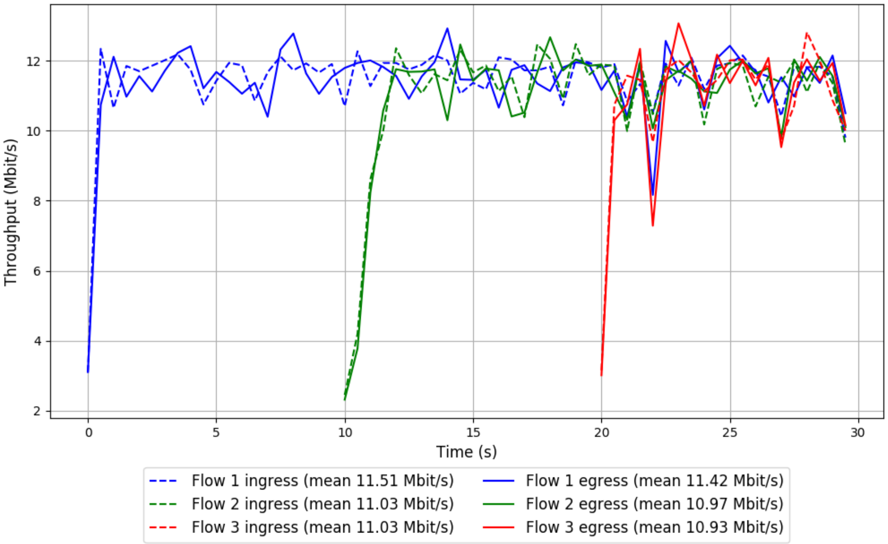
Run 8: Report of Sprout — Data Link

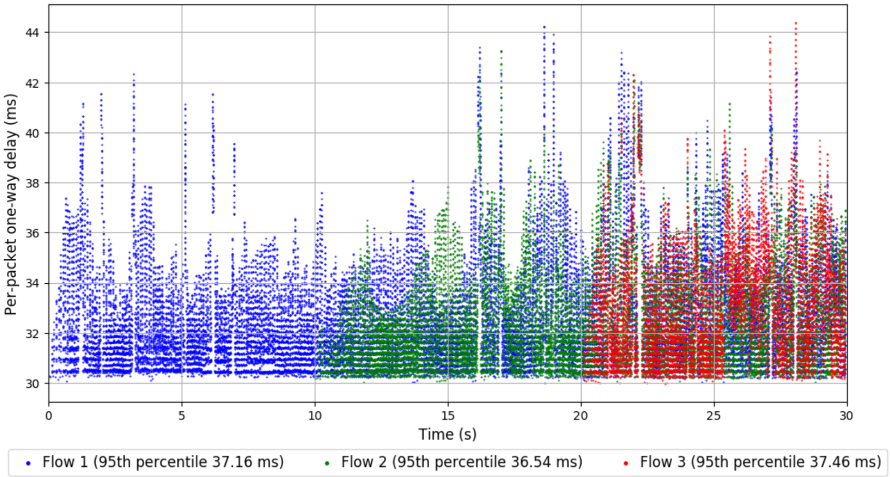




```
Run 9: Statistics of Sprout

Start at: 2018-03-27 22:51:57
End at: 2018-03-27 22:52:27
Local clock offset: -0.753 ms
Remote clock offset: 3.84 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.34 Mbit/s
95th percentile per-packet one-way delay: 37.010 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 11.42 Mbit/s
95th percentile per-packet one-way delay: 37.158 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 36.538 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 37.462 ms
Loss rate: 0.89%
```

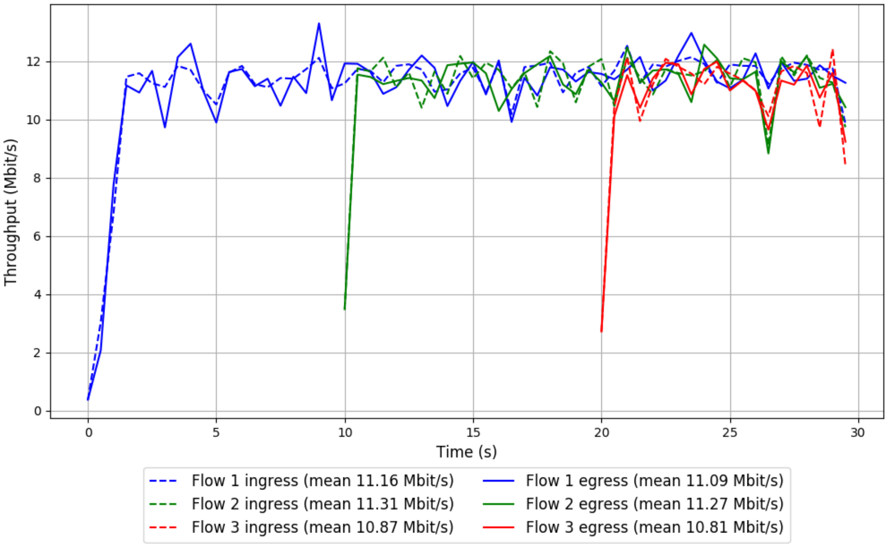
Run 9: Report of Sprout — Data Link

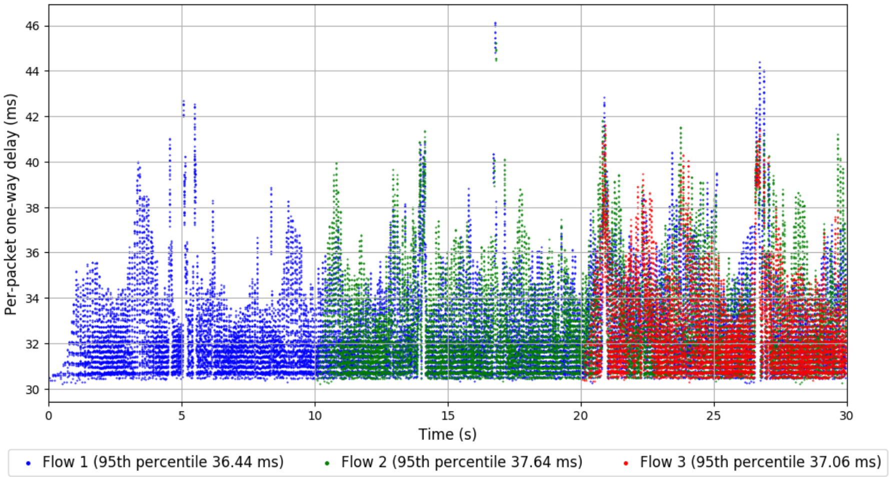




```
Run 10: Statistics of Sprout

Start at: 2018-03-27 23:22:30
End at: 2018-03-27 23:23:00
Local clock offset: 1.844 ms
Remote clock offset: 1.613 ms

# Below is generated by plot.py at 2018-03-28 00:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.16 Mbit/s
95th percentile per-packet one-way delay: 37.005 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 11.09 Mbit/s
95th percentile per-packet one-way delay: 36.442 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 11.27 Mbit/s
95th percentile per-packet one-way delay: 37.642 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 37.056 ms
Loss rate: 0.52%
```

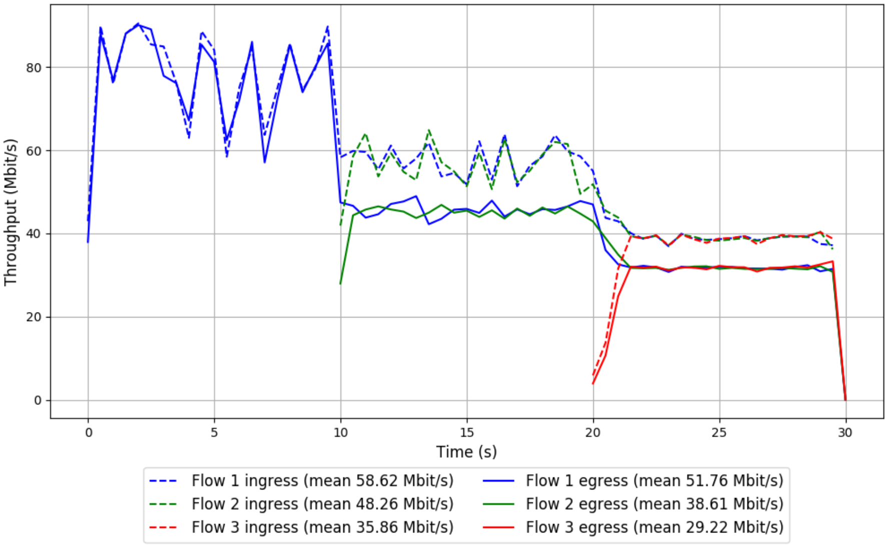
Run 10: Report of Sprout — Data Link

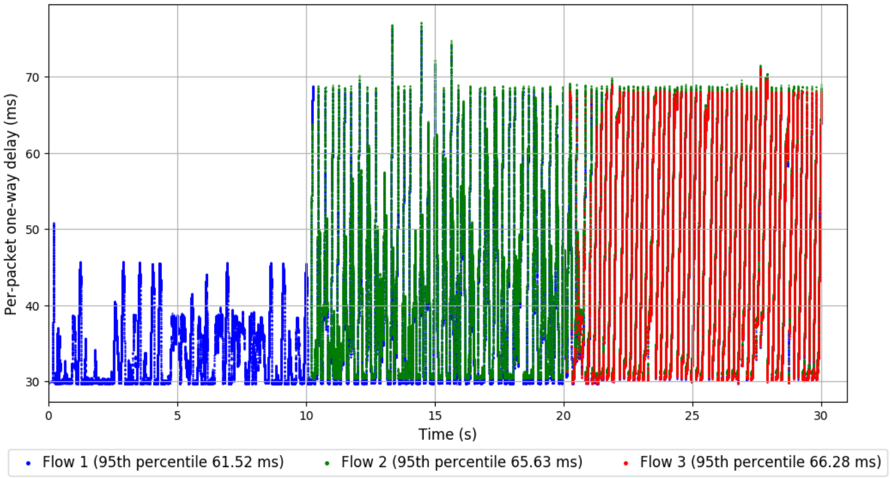




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-27 18:49:21
End at: 2018-03-27 18:49:51
Local clock offset: 2.502 ms
Remote clock offset: -5.534 ms

# Below is generated by plot.py at 2018-03-28 00:06:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.15 Mbit/s
95th percentile per-packet one-way delay: 64.507 ms
Loss rate: 15.04%
-- Flow 1:
Average throughput: 51.76 Mbit/s
95th percentile per-packet one-way delay: 61.520 ms
Loss rate: 11.65%
-- Flow 2:
Average throughput: 38.61 Mbit/s
95th percentile per-packet one-way delay: 65.634 ms
Loss rate: 19.98%
-- Flow 3:
Average throughput: 29.22 Mbit/s
95th percentile per-packet one-way delay: 66.284 ms
Loss rate: 18.41%
```

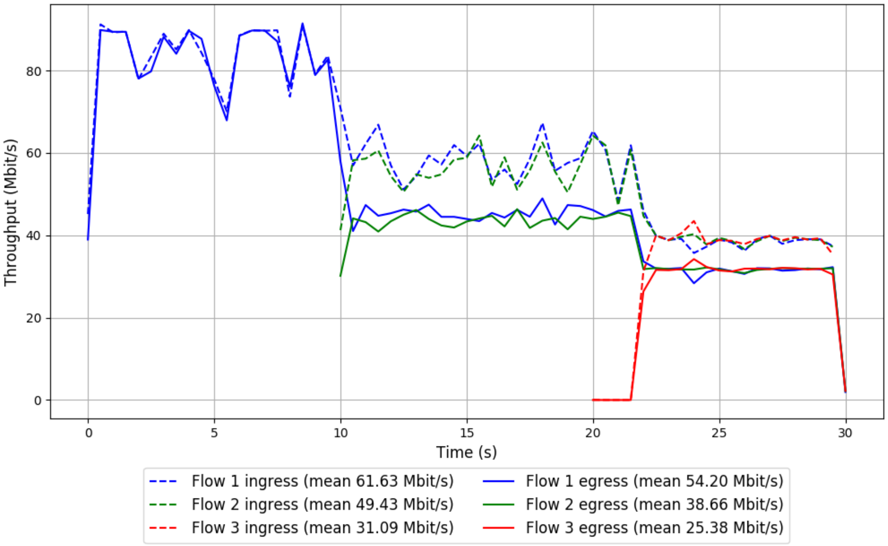
Run 1: Report of TaoVA-100x — Data Link

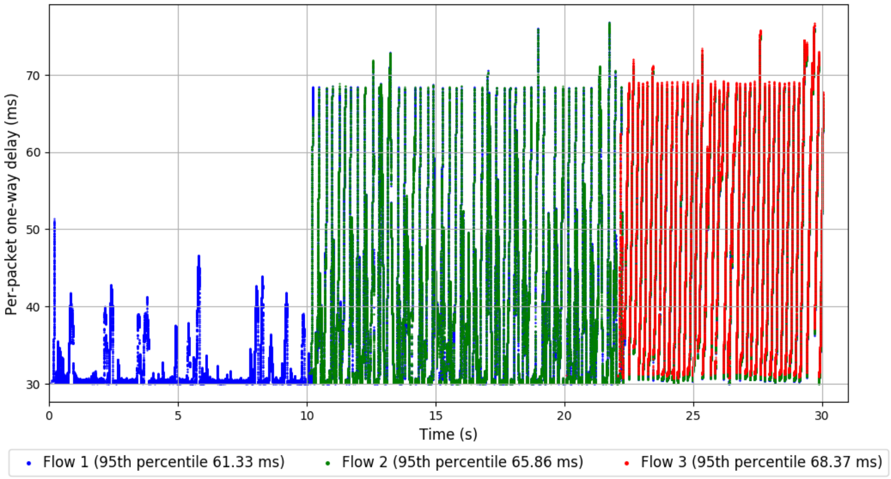




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-27 19:21:00
End at: 2018-03-27 19:21:30
Local clock offset: -0.151 ms
Remote clock offset: -4.75 ms

# Below is generated by plot.py at 2018-03-28 00:06:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.39 Mbit/s
95th percentile per-packet one-way delay: 64.604 ms
Loss rate: 15.60%
-- Flow 1:
Average throughput: 54.20 Mbit/s
95th percentile per-packet one-way delay: 61.326 ms
Loss rate: 11.97%
-- Flow 2:
Average throughput: 38.66 Mbit/s
95th percentile per-packet one-way delay: 65.865 ms
Loss rate: 21.64%
-- Flow 3:
Average throughput: 25.38 Mbit/s
95th percentile per-packet one-way delay: 68.366 ms
Loss rate: 18.08%
```

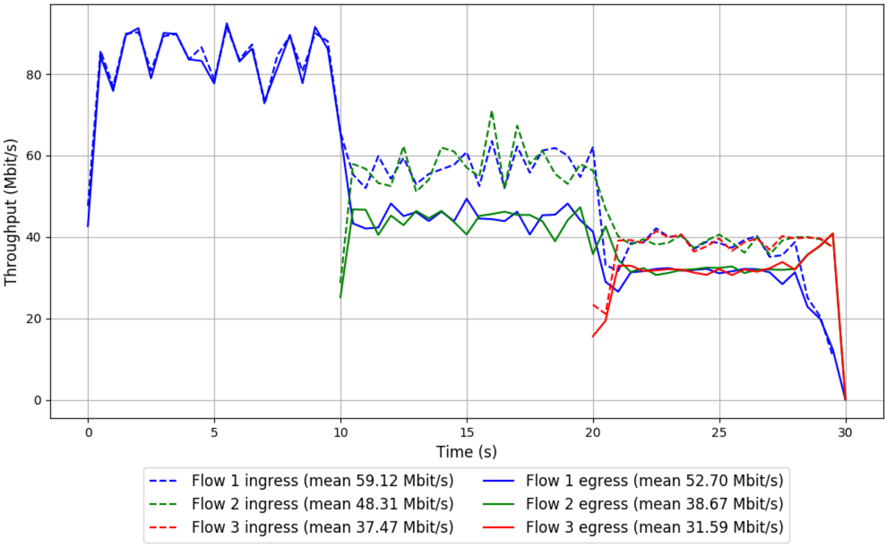
Run 2: Report of TaoVA-100x — Data Link

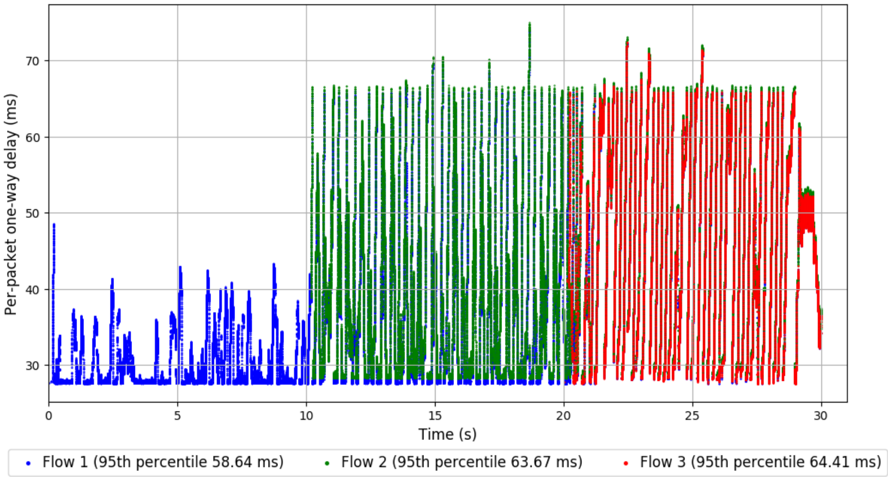




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-27 19:52:11
End at: 2018-03-27 19:52:41
Local clock offset: -0.097 ms
Remote clock offset: -5.583 ms

# Below is generated by plot.py at 2018-03-28 00:06:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.94 Mbit/s
95th percentile per-packet one-way delay: 62.061 ms
Loss rate: 14.22%
-- Flow 1:
Average throughput: 52.70 Mbit/s
95th percentile per-packet one-way delay: 58.637 ms
Loss rate: 10.83%
-- Flow 2:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 63.674 ms
Loss rate: 19.92%
-- Flow 3:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 64.408 ms
Loss rate: 15.62%
```

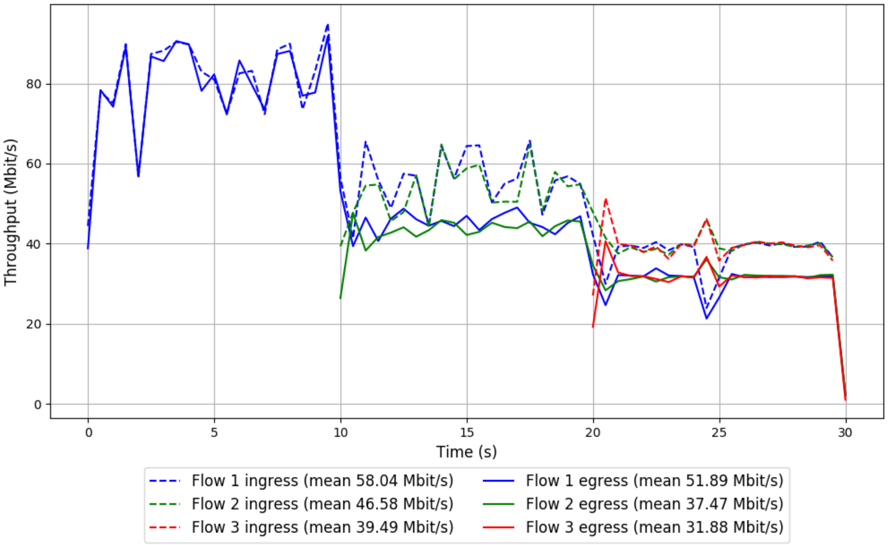
Run 3: Report of TaoVA-100x — Data Link

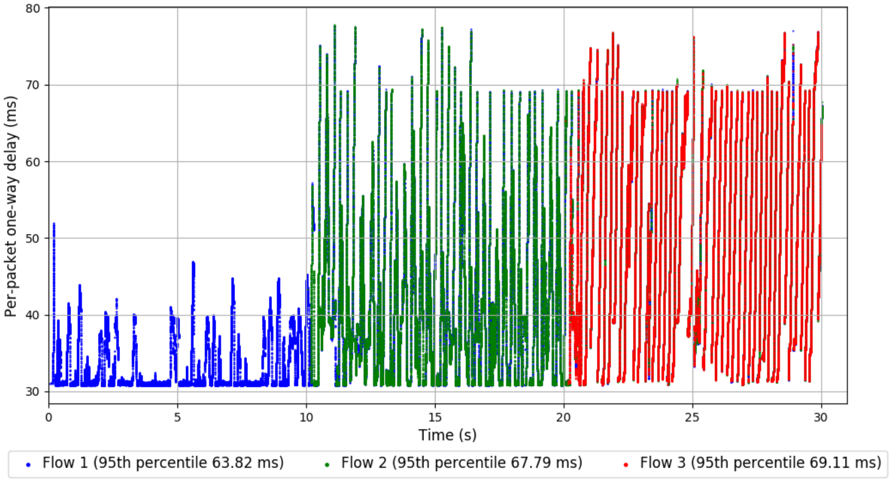




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-27 20:23:30
End at: 2018-03-27 20:24:00
Local clock offset: 2.143 ms
Remote clock offset: -4.032 ms

# Below is generated by plot.py at 2018-03-28 00:06:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 66.631 ms
Loss rate: 14.37%
-- Flow 1:
Average throughput: 51.89 Mbit/s
95th percentile per-packet one-way delay: 63.818 ms
Loss rate: 10.50%
-- Flow 2:
Average throughput: 37.47 Mbit/s
95th percentile per-packet one-way delay: 67.788 ms
Loss rate: 19.48%
-- Flow 3:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: 69.105 ms
Loss rate: 19.41%
```

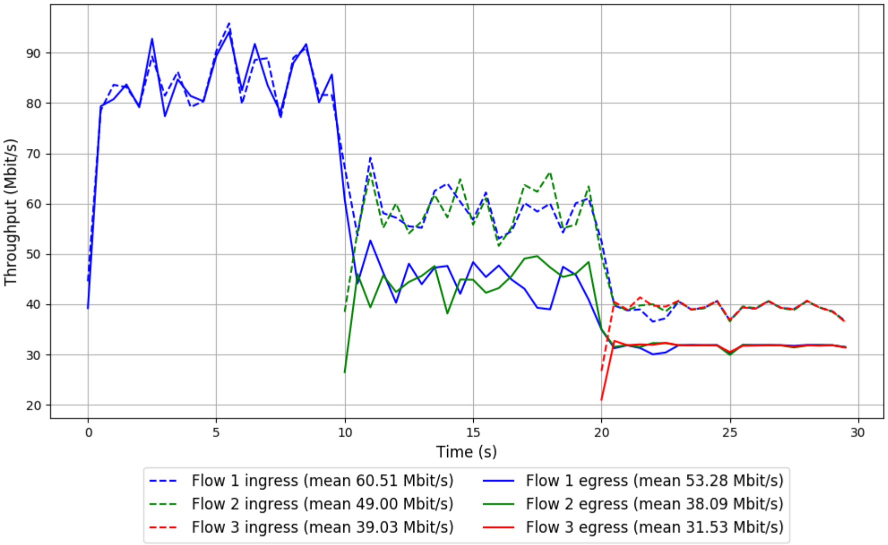
Run 4: Report of TaoVA-100x — Data Link

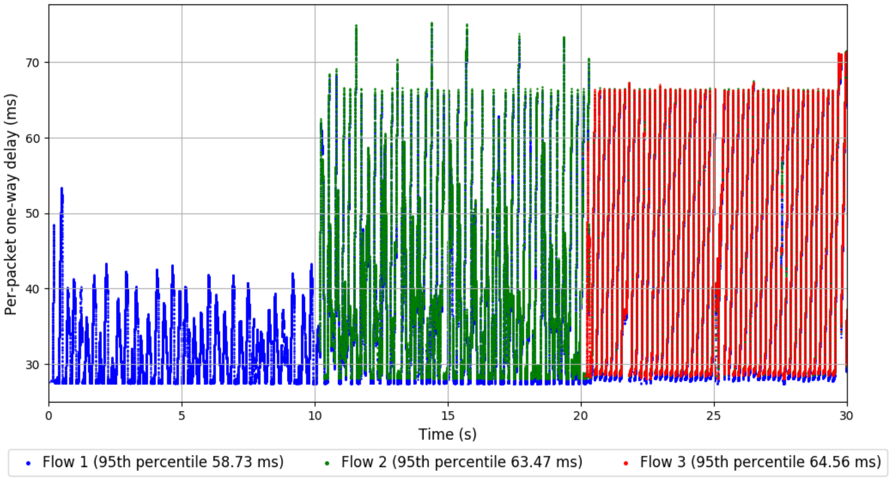




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-03-27 20:52:03
End at: 2018-03-27 20:52:33
Local clock offset: 1.075 ms
Remote clock offset: -4.484 ms

# Below is generated by plot.py at 2018-03-28 00:06:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.07 Mbit/s
95th percentile per-packet one-way delay: 61.729 ms
Loss rate: 16.01%
-- Flow 1:
Average throughput: 53.28 Mbit/s
95th percentile per-packet one-way delay: 58.726 ms
Loss rate: 11.93%
-- Flow 2:
Average throughput: 38.09 Mbit/s
95th percentile per-packet one-way delay: 63.473 ms
Loss rate: 22.22%
-- Flow 3:
Average throughput: 31.53 Mbit/s
95th percentile per-packet one-way delay: 64.564 ms
Loss rate: 19.40%
```

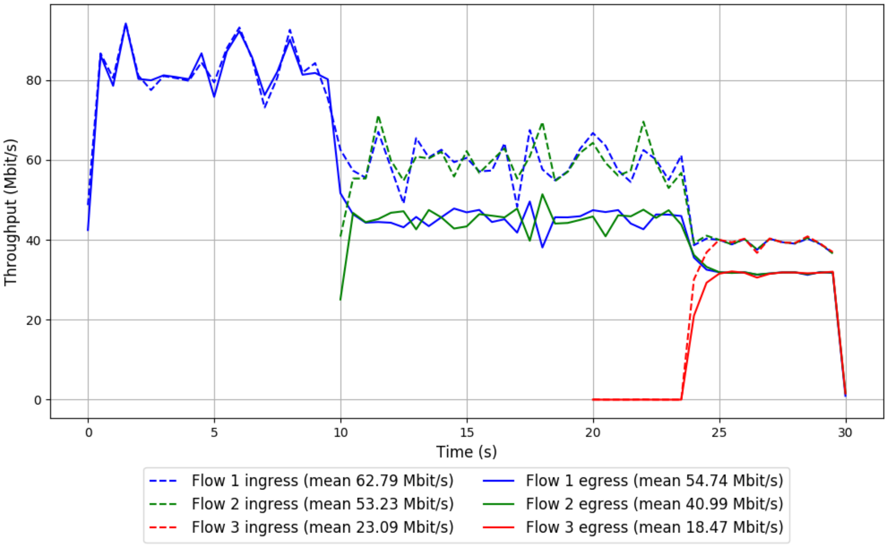
Run 5: Report of TaoVA-100x — Data Link

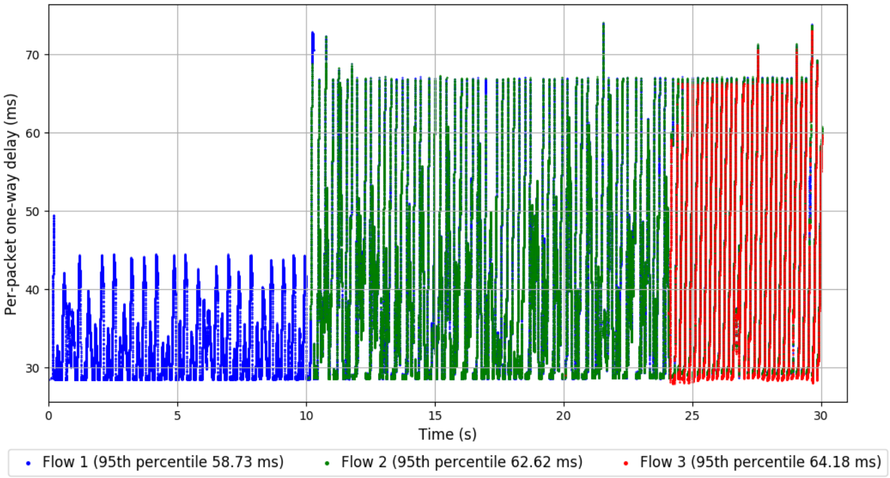




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-03-27 21:18:06
End at: 2018-03-27 21:18:36
Local clock offset: 1.34 ms
Remote clock offset: -2.445 ms

# Below is generated by plot.py at 2018-03-28 00:06:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.17 Mbit/s
95th percentile per-packet one-way delay: 61.059 ms
Loss rate: 16.65%
-- Flow 1:
Average throughput: 54.74 Mbit/s
95th percentile per-packet one-way delay: 58.727 ms
Loss rate: 12.76%
-- Flow 2:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 62.618 ms
Loss rate: 22.87%
-- Flow 3:
Average throughput: 18.47 Mbit/s
95th percentile per-packet one-way delay: 64.177 ms
Loss rate: 19.79%
```

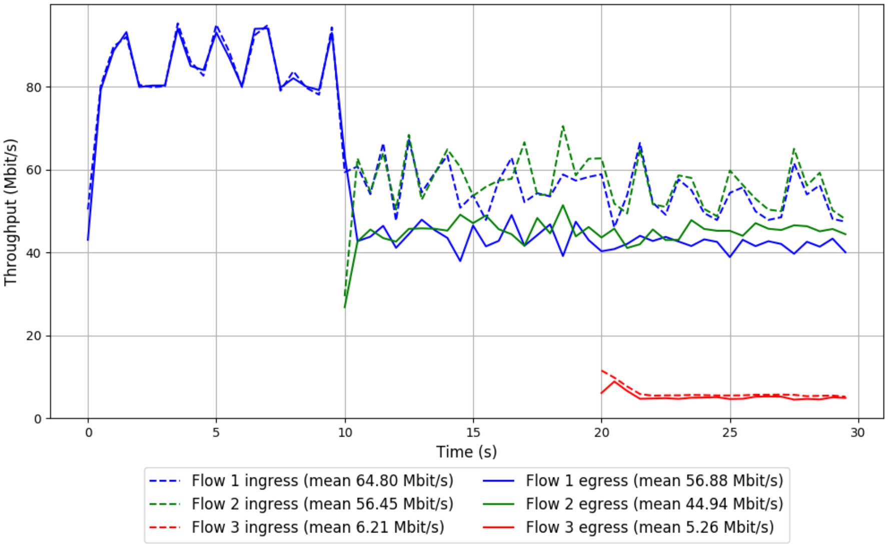
Run 6: Report of TaoVA-100x — Data Link

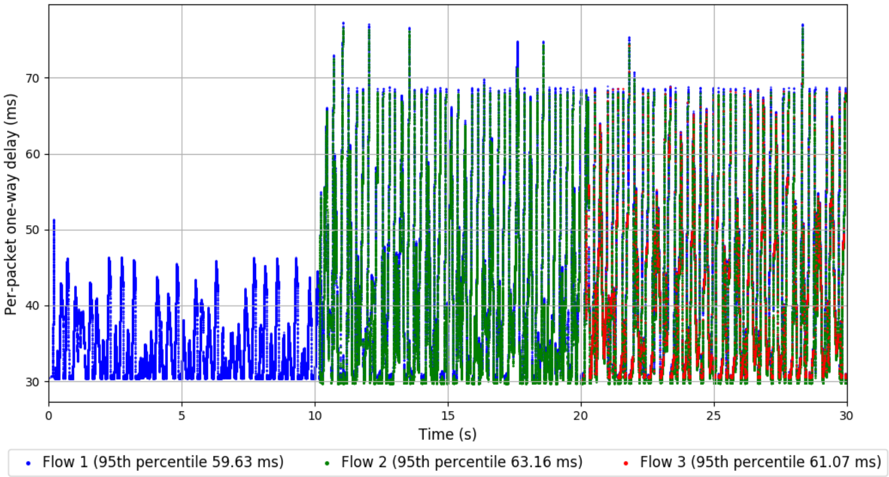




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-27 21:44:13
End at: 2018-03-27 21:44:43
Local clock offset: 4.821 ms
Remote clock offset: -1.516 ms

# Below is generated by plot.py at 2018-03-28 00:06:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.56 Mbit/s
95th percentile per-packet one-way delay: 61.278 ms
Loss rate: 15.22%
-- Flow 1:
Average throughput: 56.88 Mbit/s
95th percentile per-packet one-way delay: 59.628 ms
Loss rate: 12.21%
-- Flow 2:
Average throughput: 44.94 Mbit/s
95th percentile per-packet one-way delay: 63.160 ms
Loss rate: 20.40%
-- Flow 3:
Average throughput: 5.26 Mbit/s
95th percentile per-packet one-way delay: 61.073 ms
Loss rate: 15.31%
```

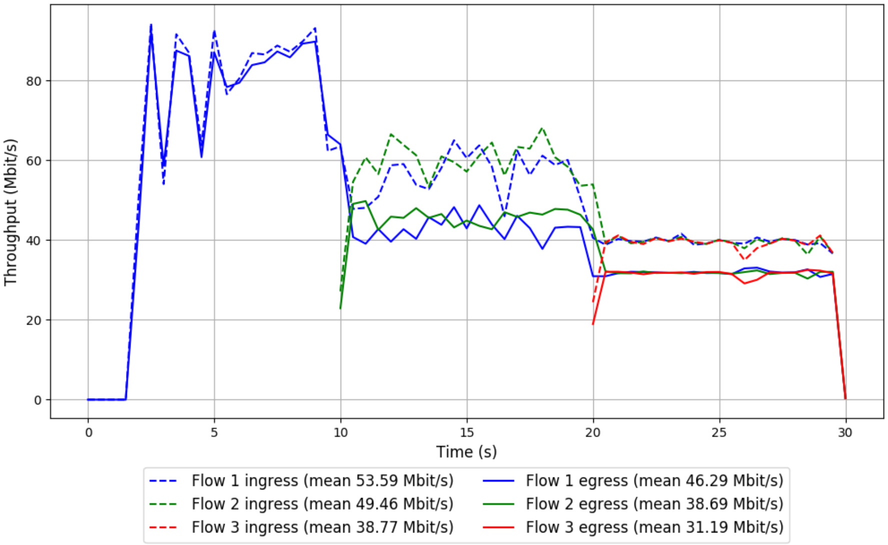
Run 7: Report of TaoVA-100x — Data Link

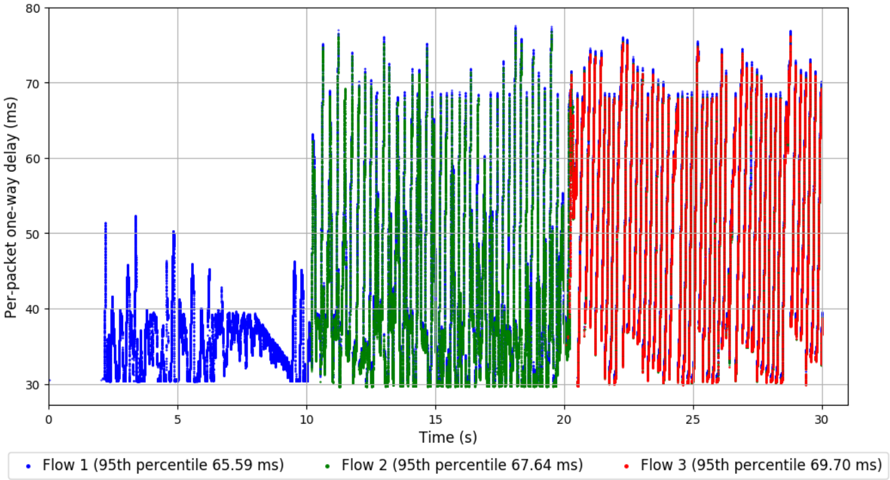




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-27 22:11:07
End at: 2018-03-27 22:11:37
Local clock offset: 6.086 ms
Remote clock offset: -0.308 ms

# Below is generated by plot.py at 2018-03-28 00:06:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.39 Mbit/s
95th percentile per-packet one-way delay: 67.307 ms
Loss rate: 17.06%
-- Flow 1:
Average throughput: 46.29 Mbit/s
95th percentile per-packet one-way delay: 65.594 ms
Loss rate: 13.59%
-- Flow 2:
Average throughput: 38.69 Mbit/s
95th percentile per-packet one-way delay: 67.640 ms
Loss rate: 21.76%
-- Flow 3:
Average throughput: 31.19 Mbit/s
95th percentile per-packet one-way delay: 69.704 ms
Loss rate: 19.53%
```

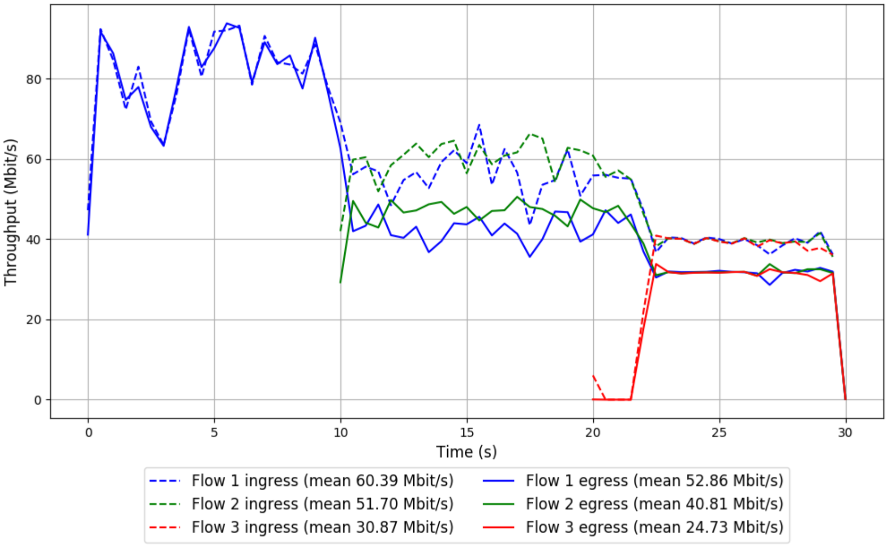
Run 8: Report of TaoVA-100x — Data Link

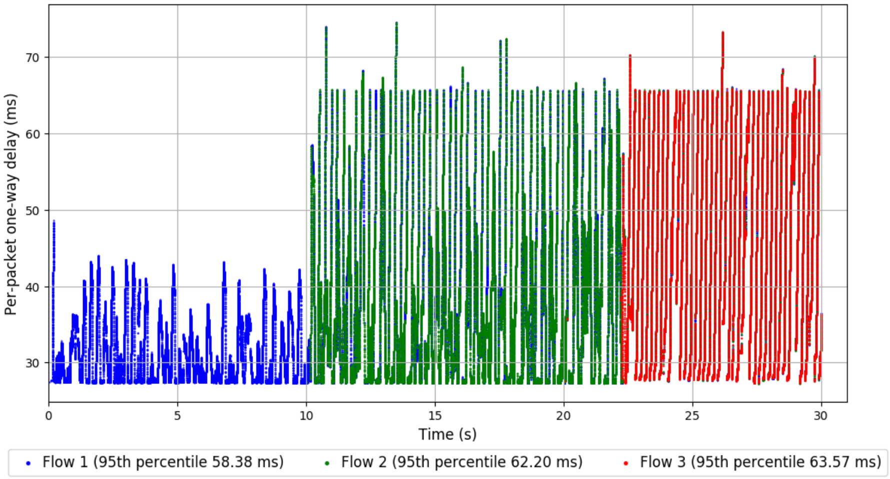




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-27 22:38:51
End at: 2018-03-27 22:39:21
Local clock offset: 0.841 ms
Remote clock offset: 0.694 ms

# Below is generated by plot.py at 2018-03-28 00:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 60.973 ms
Loss rate: 15.98%
-- Flow 1:
Average throughput: 52.86 Mbit/s
95th percentile per-packet one-way delay: 58.383 ms
Loss rate: 12.44%
-- Flow 2:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 62.197 ms
Loss rate: 21.03%
-- Flow 3:
Average throughput: 24.73 Mbit/s
95th percentile per-packet one-way delay: 63.571 ms
Loss rate: 19.83%
```

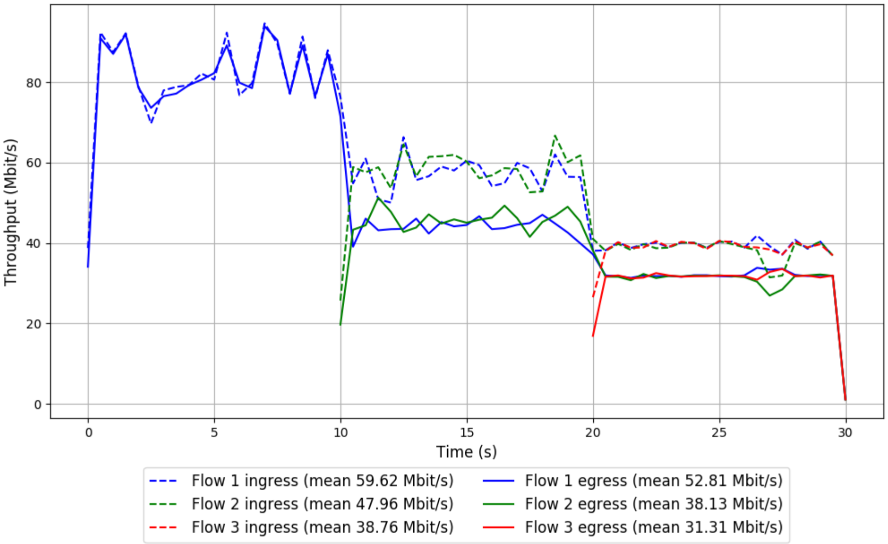
Run 9: Report of TaoVA-100x — Data Link

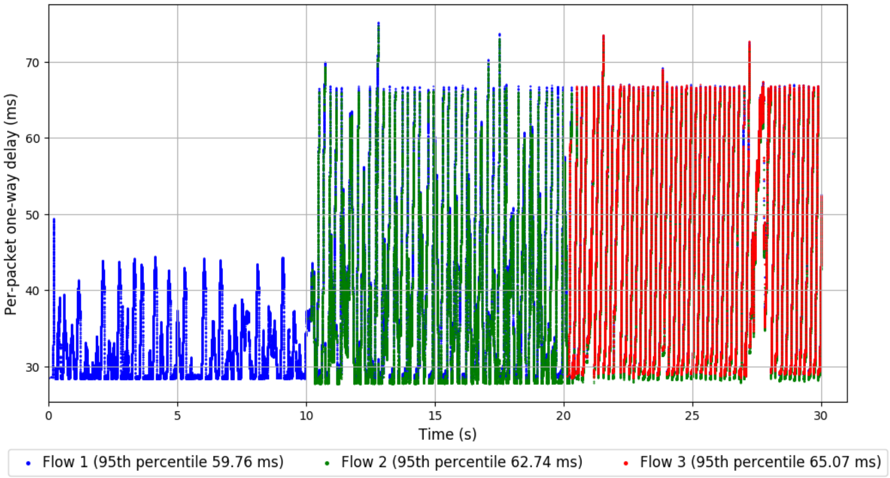




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-27 23:08:06
End at: 2018-03-27 23:08:36
Local clock offset: 1.203 ms
Remote clock offset: 0.466 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.58 Mbit/s
95th percentile per-packet one-way delay: 62.146 ms
Loss rate: 15.10%
-- Flow 1:
Average throughput: 52.81 Mbit/s
95th percentile per-packet one-way delay: 59.759 ms
Loss rate: 11.36%
-- Flow 2:
Average throughput: 38.13 Mbit/s
95th percentile per-packet one-way delay: 62.739 ms
Loss rate: 20.43%
-- Flow 3:
Average throughput: 31.31 Mbit/s
95th percentile per-packet one-way delay: 65.068 ms
Loss rate: 19.15%
```

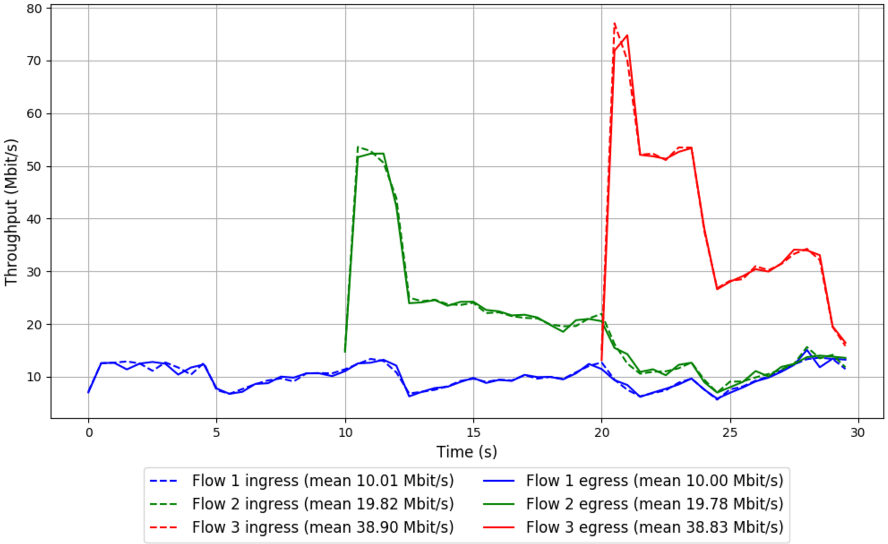
Run 10: Report of TaoVA-100x — Data Link

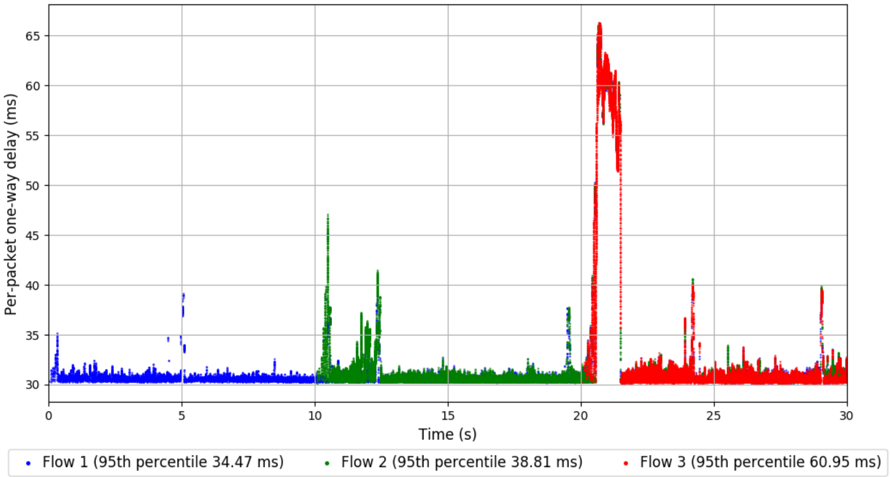




```
Run 1: Statistics of TCP Vegas

Start at: 2018-03-27 19:07:20
End at: 2018-03-27 19:07:50
Local clock offset: 0.916 ms
Remote clock offset: -5.459 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 58.921 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 34.468 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 19.78 Mbit/s
95th percentile per-packet one-way delay: 38.806 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 60.953 ms
Loss rate: 0.19%
```

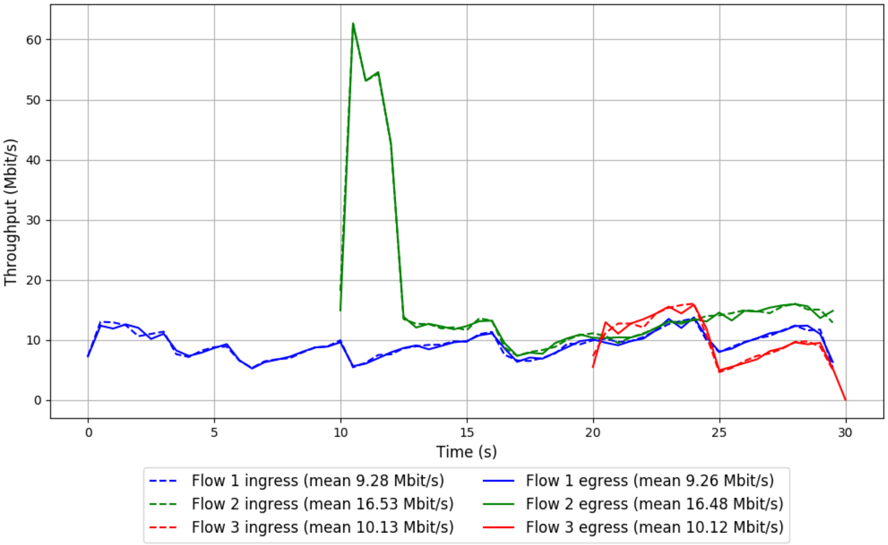
Run 1: Report of TCP Vegas — Data Link

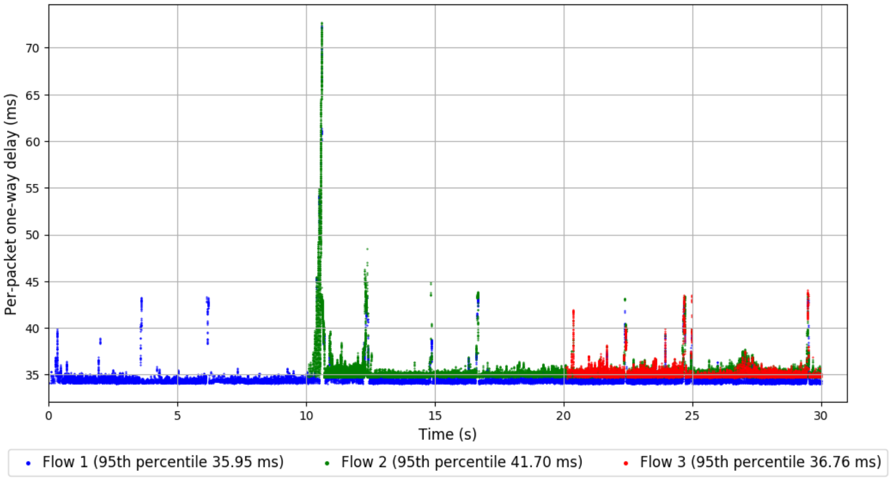




```
Run 2: Statistics of TCP Vegas

Start at: 2018-03-27 19:37:48
End at: 2018-03-27 19:38:18
Remote clock offset: -4.796 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.59 Mbit/s
95th percentile per-packet one-way delay: 38.670 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 9.26 Mbit/s
95th percentile per-packet one-way delay: 35.948 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 16.48 Mbit/s
95th percentile per-packet one-way delay: 41.695 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 10.12 Mbit/s
95th percentile per-packet one-way delay: 36.757 ms
Loss rate: 0.07%
```

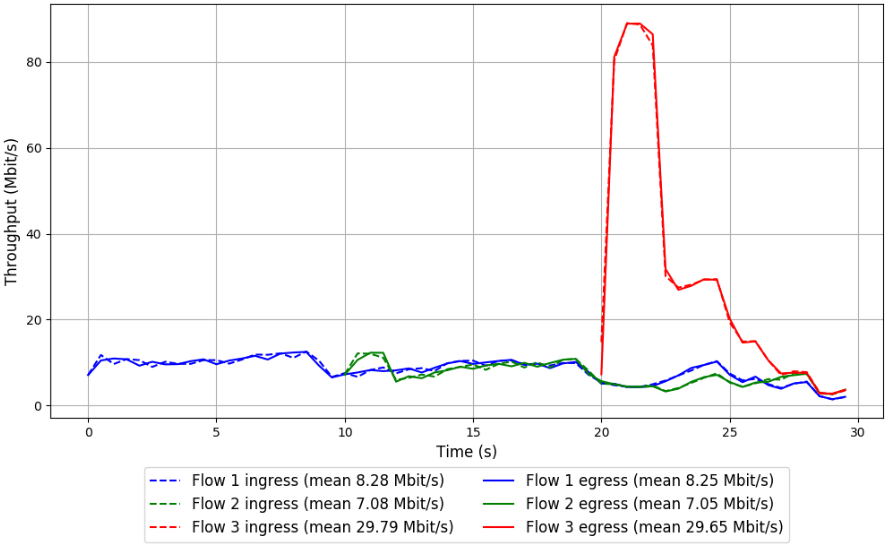
Run 2: Report of TCP Vegas — Data Link

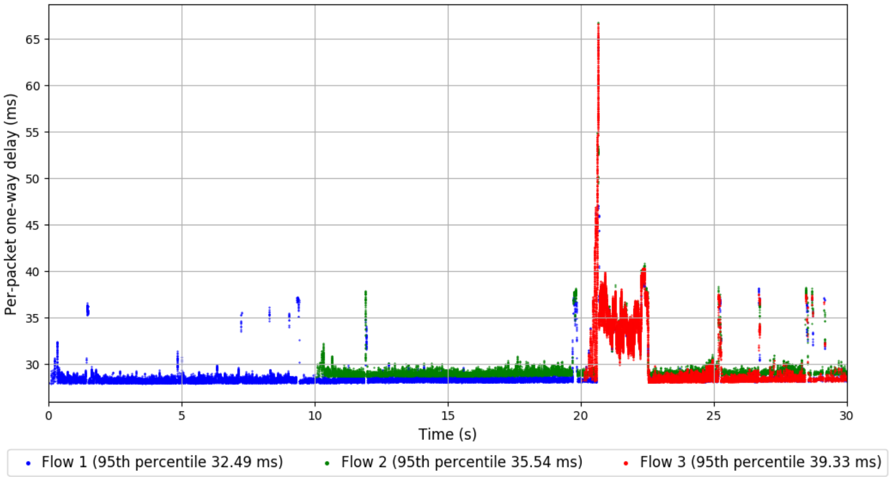




```
Run 3: Statistics of TCP Vegas

Start at: 2018-03-27 20:09:26
End at: 2018-03-27 20:09:56
Local clock offset: 0.34 ms
Remote clock offset: -4.701 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.79 Mbit/s
95th percentile per-packet one-way delay: 37.399 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 32.490 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 35.541 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 29.65 Mbit/s
95th percentile per-packet one-way delay: 39.330 ms
Loss rate: 0.45%
```

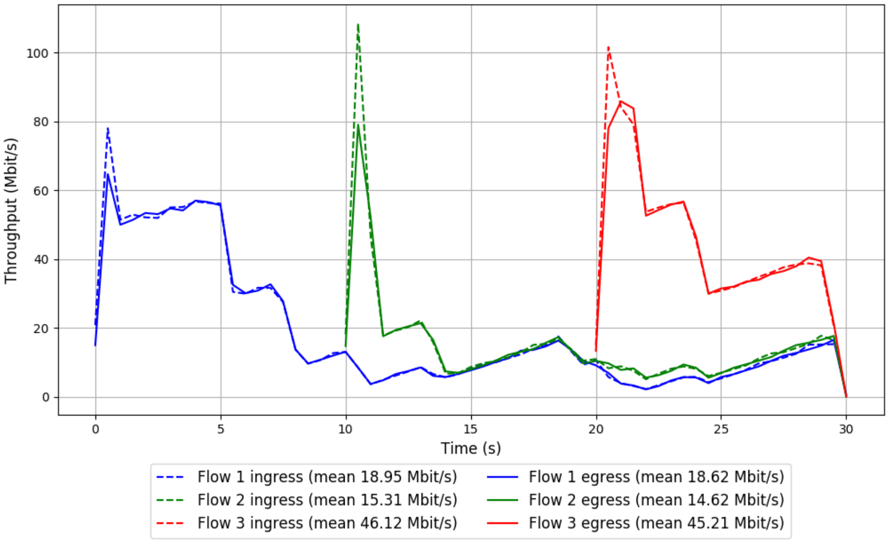
Run 3: Report of TCP Vegas — Data Link

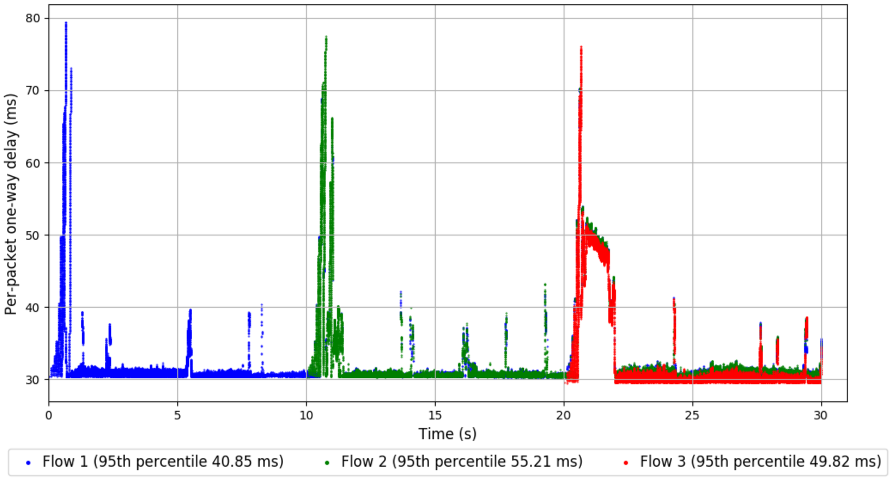




```
Run 4: Statistics of TCP Vegas

Start at: 2018-03-27 20:40:44
End at: 2018-03-27 20:41:14
Local clock offset: 2.873 ms
Remote clock offset: -4.766 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.37 Mbit/s
95th percentile per-packet one-way delay: 49.787 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 18.62 Mbit/s
95th percentile per-packet one-way delay: 40.849 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 55.209 ms
Loss rate: 4.44%
-- Flow 3:
Average throughput: 45.21 Mbit/s
95th percentile per-packet one-way delay: 49.823 ms
Loss rate: 1.94%
```

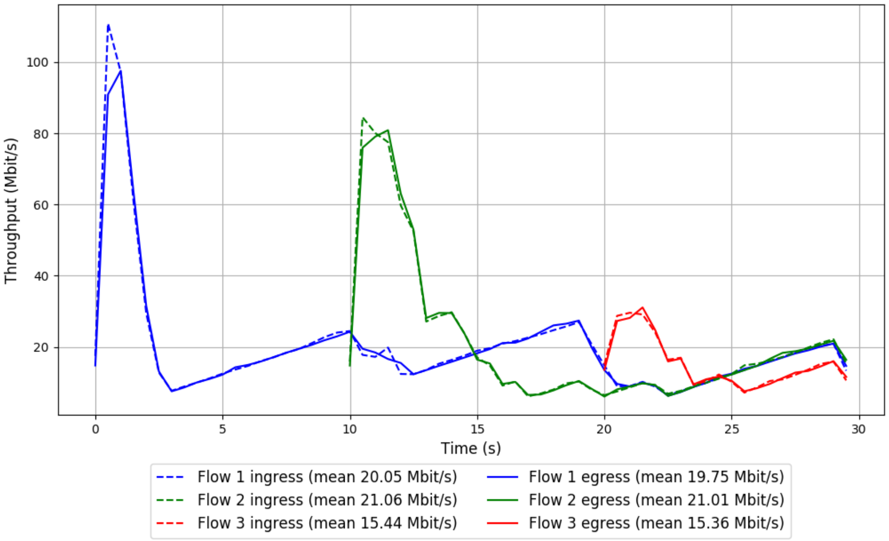
Run 4: Report of TCP Vegas — Data Link

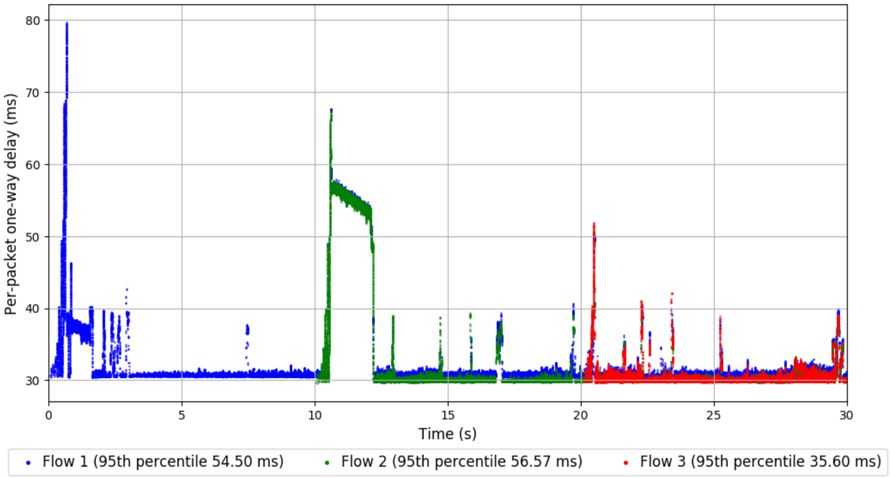




```
Run 5: Statistics of TCP Vegas

Start at: 2018-03-27 21:06:37
End at: 2018-03-27 21:07:07
Local clock offset: 0.328 ms
Remote clock offset: -0.735 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 55.930 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 19.75 Mbit/s
95th percentile per-packet one-way delay: 54.501 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 21.01 Mbit/s
95th percentile per-packet one-way delay: 56.571 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 15.36 Mbit/s
95th percentile per-packet one-way delay: 35.603 ms
Loss rate: 0.55%
```

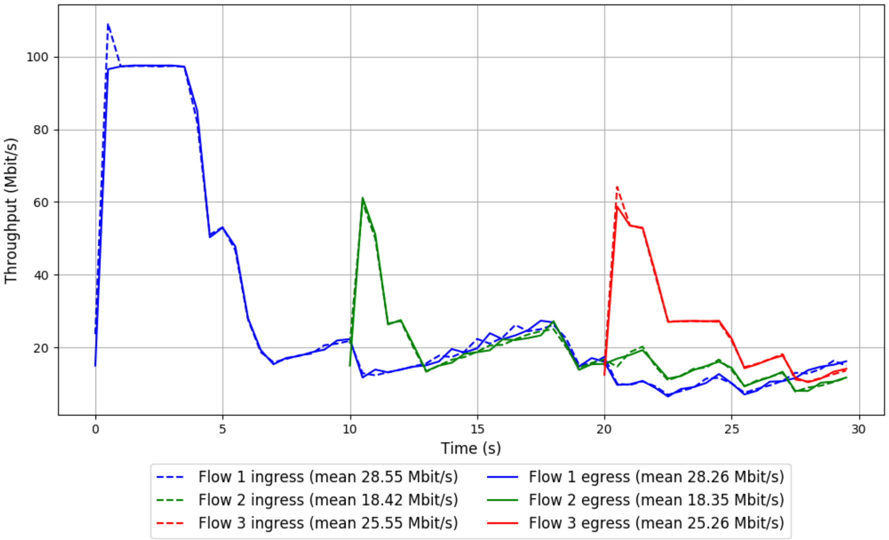
Run 5: Report of TCP Vegas — Data Link

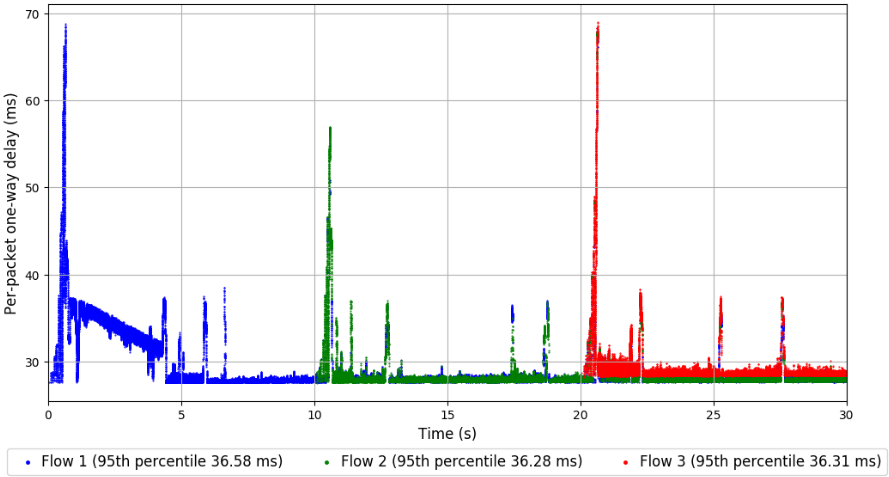




```
Run 6: Statistics of TCP Vegas

Start at: 2018-03-27 21:32:31
End at: 2018-03-27 21:33:01
Local clock offset: 3.955 ms
Remote clock offset: -3.422 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 36.523 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 28.26 Mbit/s
95th percentile per-packet one-way delay: 36.575 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 36.280 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 25.26 Mbit/s
95th percentile per-packet one-way delay: 36.306 ms
Loss rate: 1.15%
```

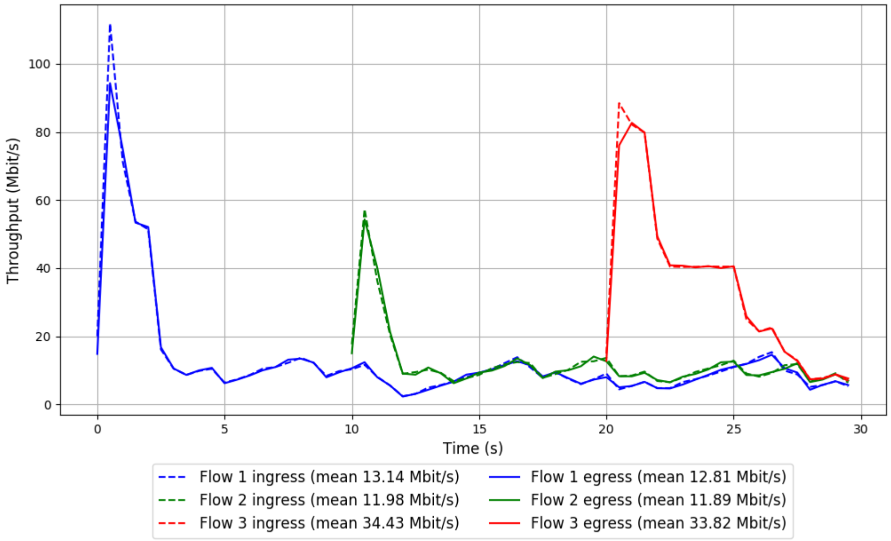
Run 6: Report of TCP Vegas — Data Link

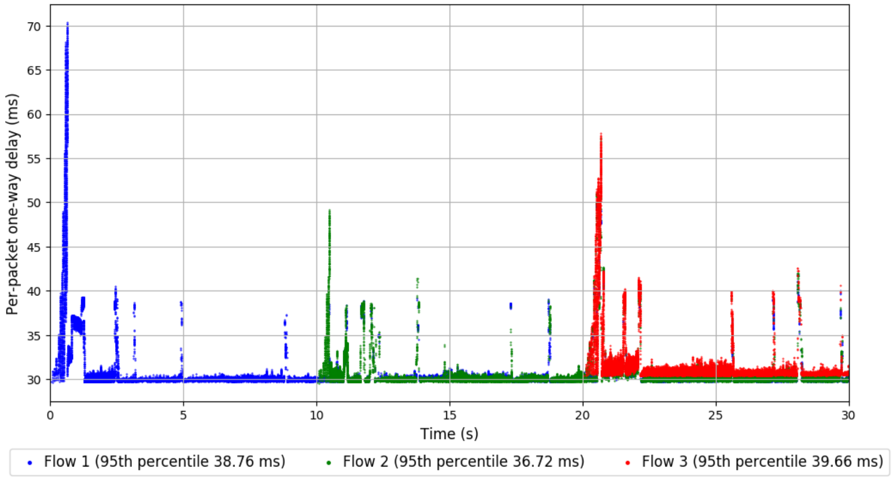




```
Run 7: Statistics of TCP Vegas

Start at: 2018-03-27 21:59:07
End at: 2018-03-27 21:59:37
Local clock offset: 5.495 ms
Remote clock offset: -0.788 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.94 Mbit/s
95th percentile per-packet one-way delay: 38.837 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 12.81 Mbit/s
95th percentile per-packet one-way delay: 38.761 ms
Loss rate: 2.50%
-- Flow 2:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 36.720 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 33.82 Mbit/s
95th percentile per-packet one-way delay: 39.661 ms
Loss rate: 1.77%
```

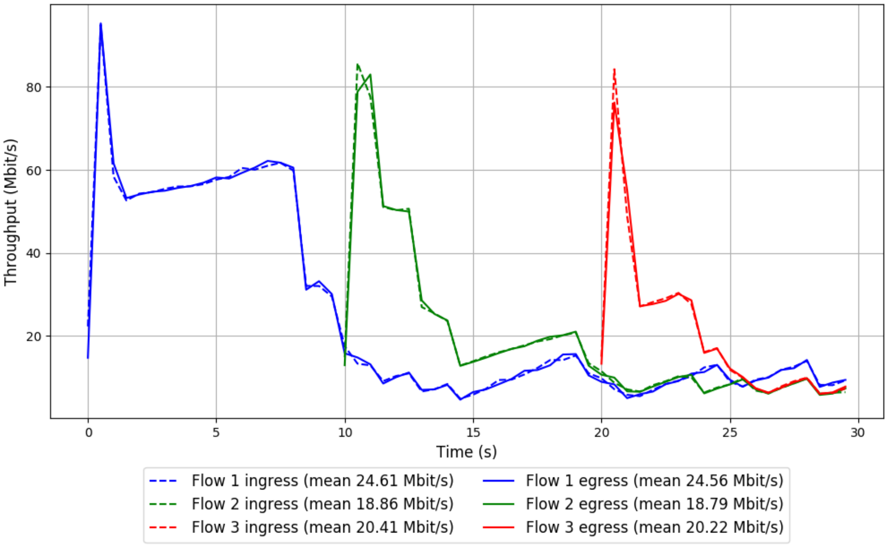
Run 7: Report of TCP Vegas — Data Link

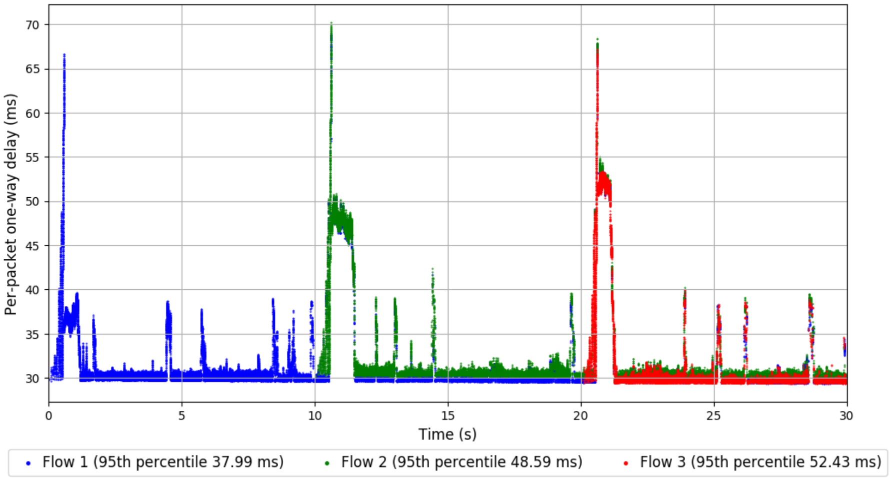




```
Run 8: Statistics of TCP Vegas

Start at: 2018-03-27 22:26:30
End at: 2018-03-27 22:27:00
Local clock offset: 4.753 ms
Remote clock offset: 0.68 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.77 Mbit/s
95th percentile per-packet one-way delay: 49.128 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 24.56 Mbit/s
95th percentile per-packet one-way delay: 37.990 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 18.79 Mbit/s
95th percentile per-packet one-way delay: 48.585 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 20.22 Mbit/s
95th percentile per-packet one-way delay: 52.427 ms
Loss rate: 0.92%
```

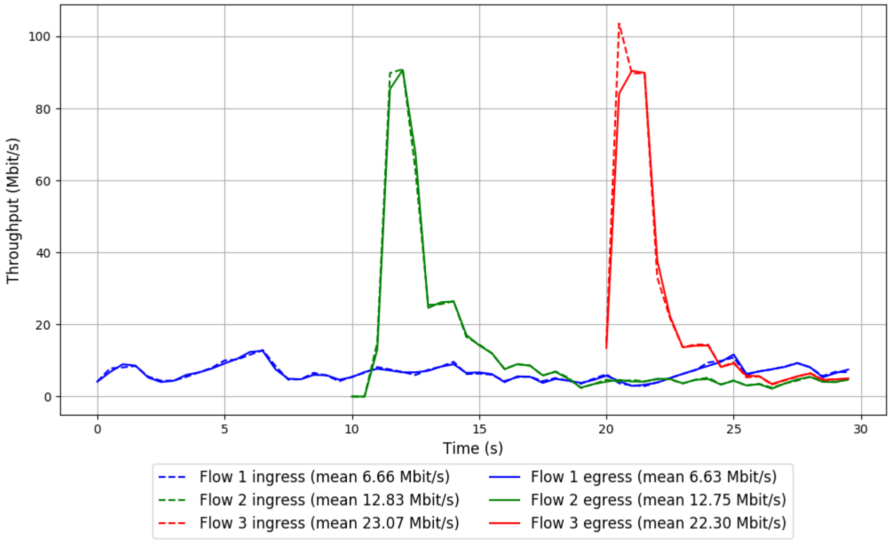
Run 8: Report of TCP Vegas — Data Link

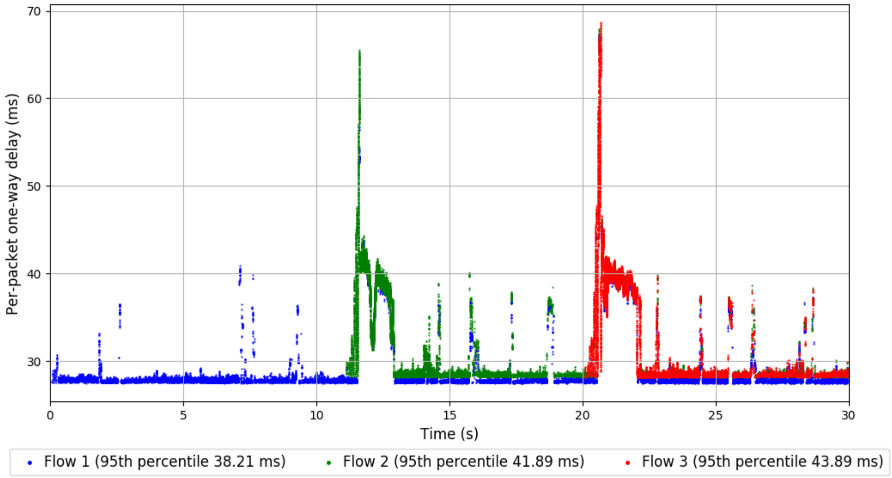




```
Run 9: Statistics of TCP Vegas

Start at: 2018-03-27 22:54:53
End at: 2018-03-27 22:55:23
Local clock offset: -1.007 ms
Remote clock offset: 1.968 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.52 Mbit/s
95th percentile per-packet one-way delay: 41.731 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 38.209 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 12.75 Mbit/s
95th percentile per-packet one-way delay: 41.886 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 22.30 Mbit/s
95th percentile per-packet one-way delay: 43.892 ms
Loss rate: 3.31%
```

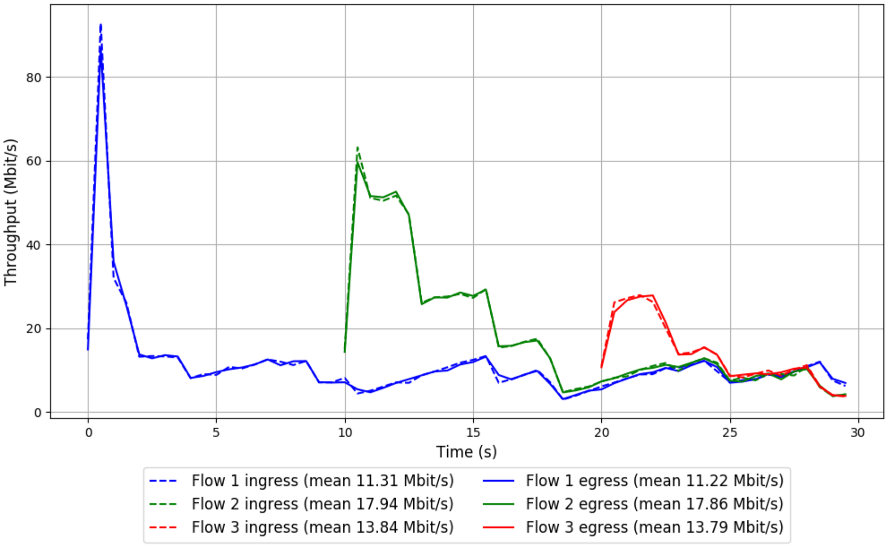
Run 9: Report of TCP Vegas — Data Link

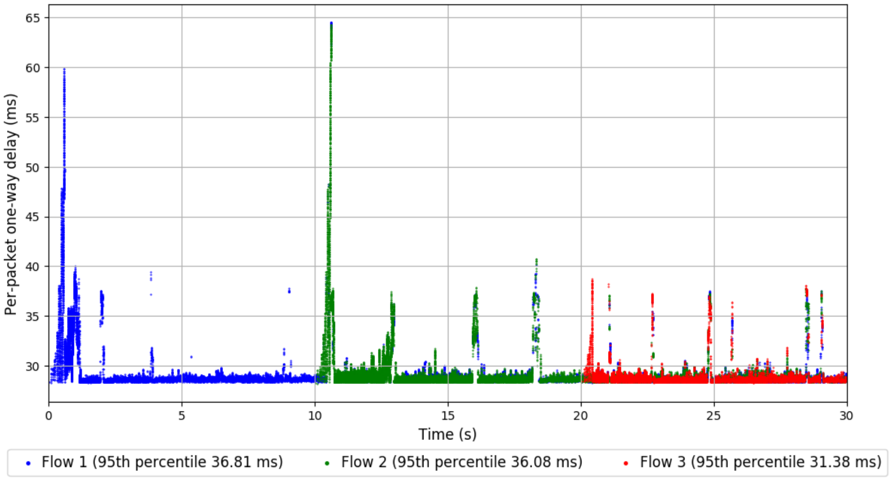




```
Run 10: Statistics of TCP Vegas

Start at: 2018-03-27 23:25:19
End at: 2018-03-27 23:25:49
Local clock offset: 1.976 ms
Remote clock offset: -0.424 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.69 Mbit/s
95th percentile per-packet one-way delay: 35.965 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 36.807 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 17.86 Mbit/s
95th percentile per-packet one-way delay: 36.084 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 13.79 Mbit/s
95th percentile per-packet one-way delay: 31.382 ms
Loss rate: 0.33%
```

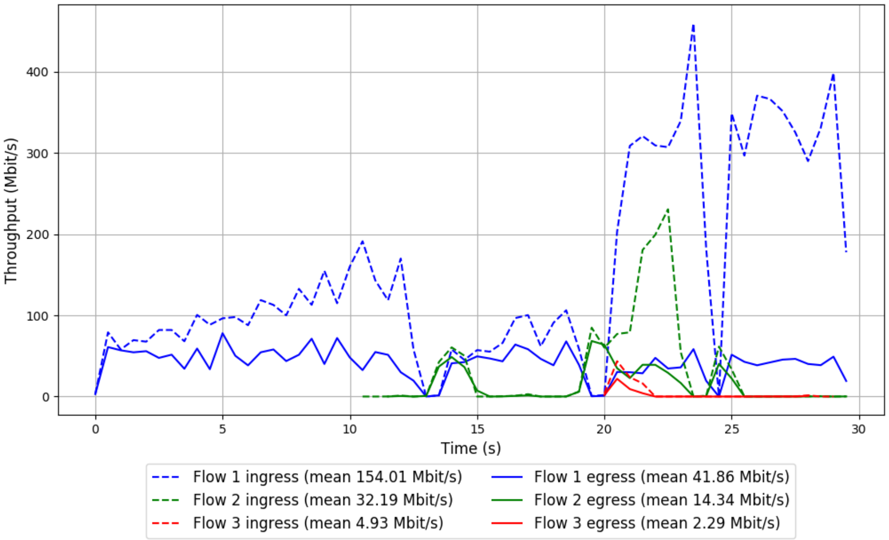
Run 10: Report of TCP Vegas — Data Link

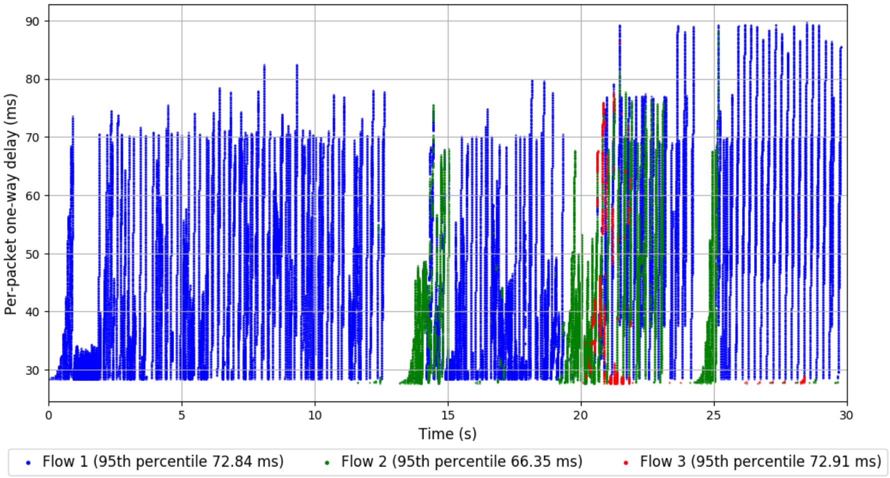




```
Run 1: Statistics of Verus

Start at: 2018-03-27 18:54:53
End at: 2018-03-27 18:55:23
Local clock offset: 2.561 ms
Remote clock offset: -7.776 ms

# Below is generated by plot.py at 2018-03-28 00:09:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.19 Mbit/s
95th percentile per-packet one-way delay: 71.844 ms
Loss rate: 70.93%
-- Flow 1:
Average throughput: 41.86 Mbit/s
95th percentile per-packet one-way delay: 72.836 ms
Loss rate: 72.81%
-- Flow 2:
Average throughput: 14.34 Mbit/s
95th percentile per-packet one-way delay: 66.353 ms
Loss rate: 57.97%
-- Flow 3:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 72.911 ms
Loss rate: 57.53%
```

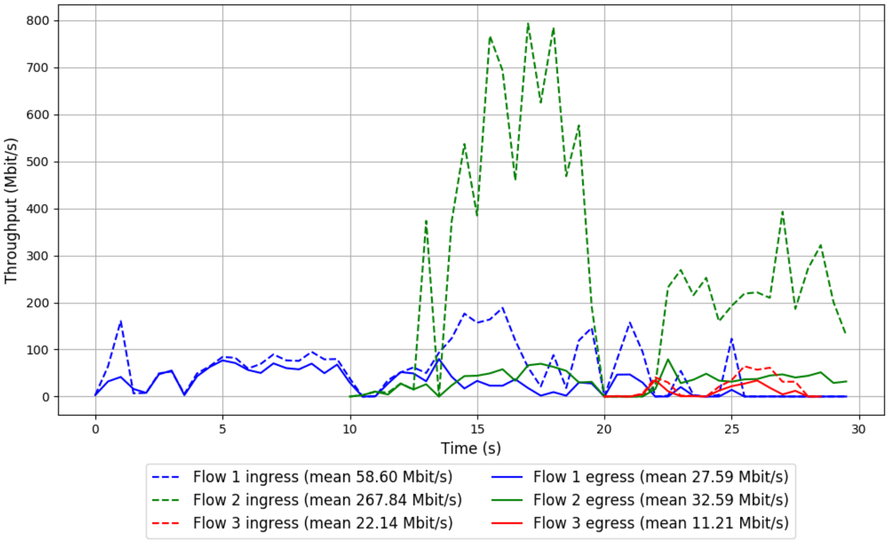
Run 1: Report of Verus — Data Link

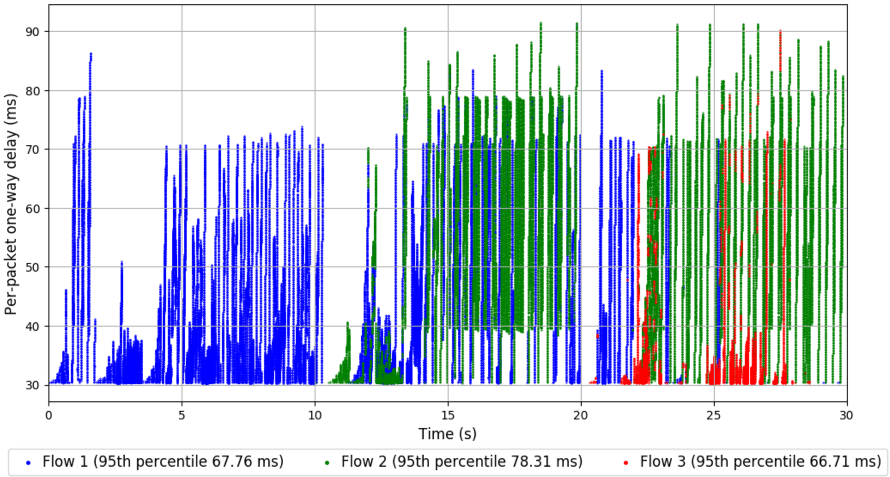




```
Run 2: Statistics of Verus

Start at: 2018-03-27 19:26:09
End at: 2018-03-27 19:26:39
Local clock offset: -0.378 ms
Remote clock offset: -5.186 ms

# Below is generated by plot.py at 2018-03-28 00:09:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.22 Mbit/s
95th percentile per-packet one-way delay: 74.302 ms
Loss rate: 78.47%
-- Flow 1:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 67.760 ms
Loss rate: 53.02%
-- Flow 2:
Average throughput: 32.59 Mbit/s
95th percentile per-packet one-way delay: 78.313 ms
Loss rate: 87.82%
-- Flow 3:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 66.706 ms
Loss rate: 51.79%
```

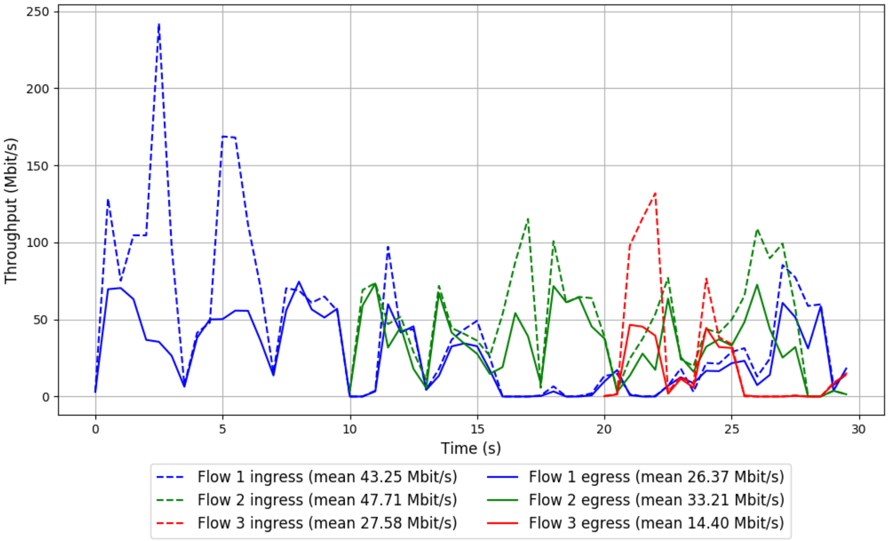
Run 2: Report of Verus — Data Link

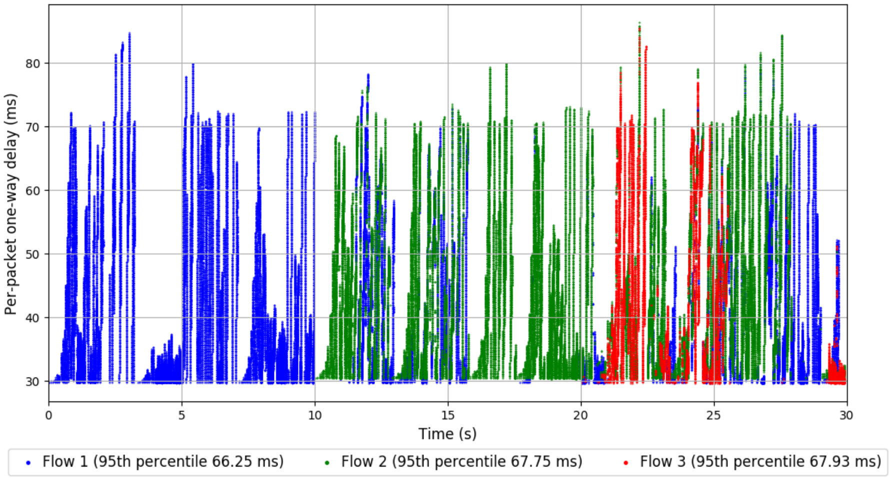




```
Run 3: Statistics of Verus

Start at: 2018-03-27 19:57:52
End at: 2018-03-27 19:58:22
Local clock offset: -0.246 ms
Remote clock offset: -3.219 ms

# Below is generated by plot.py at 2018-03-28 00:09:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.20 Mbit/s
95th percentile per-packet one-way delay: 67.138 ms
Loss rate: 36.73%
-- Flow 1:
Average throughput: 26.37 Mbit/s
95th percentile per-packet one-way delay: 66.249 ms
Loss rate: 39.04%
-- Flow 2:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 67.750 ms
Loss rate: 30.40%
-- Flow 3:
Average throughput: 14.40 Mbit/s
95th percentile per-packet one-way delay: 67.926 ms
Loss rate: 47.78%
```

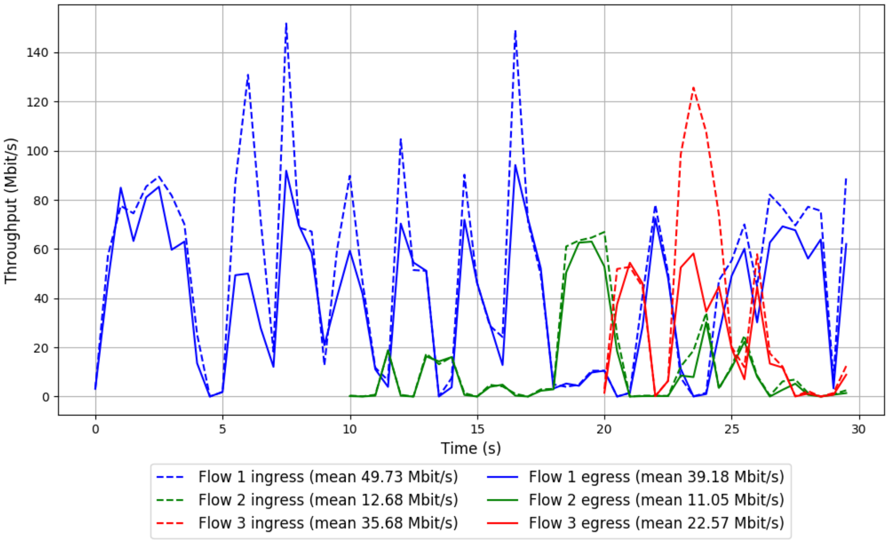
Run 3: Report of Verus — Data Link

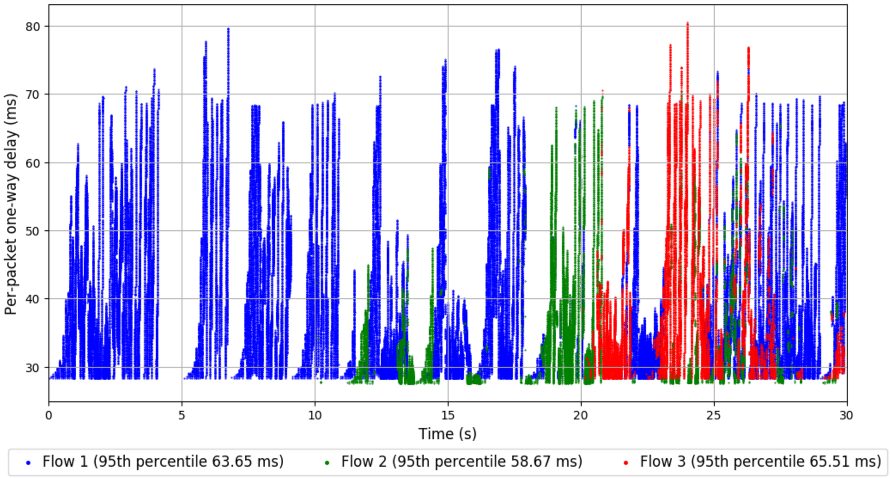




```
Run 4: Statistics of Verus

Start at: 2018-03-27 20:28:39
End at: 2018-03-27 20:29:09
Local clock offset: 2.457 ms
Remote clock offset: -6.642 ms

# Below is generated by plot.py at 2018-03-28 00:09:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.81 Mbit/s
95th percentile per-packet one-way delay: 63.413 ms
Loss rate: 22.82%
-- Flow 1:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 63.651 ms
Loss rate: 21.15%
-- Flow 2:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 58.675 ms
Loss rate: 13.24%
-- Flow 3:
Average throughput: 22.57 Mbit/s
95th percentile per-packet one-way delay: 65.507 ms
Loss rate: 36.74%
```

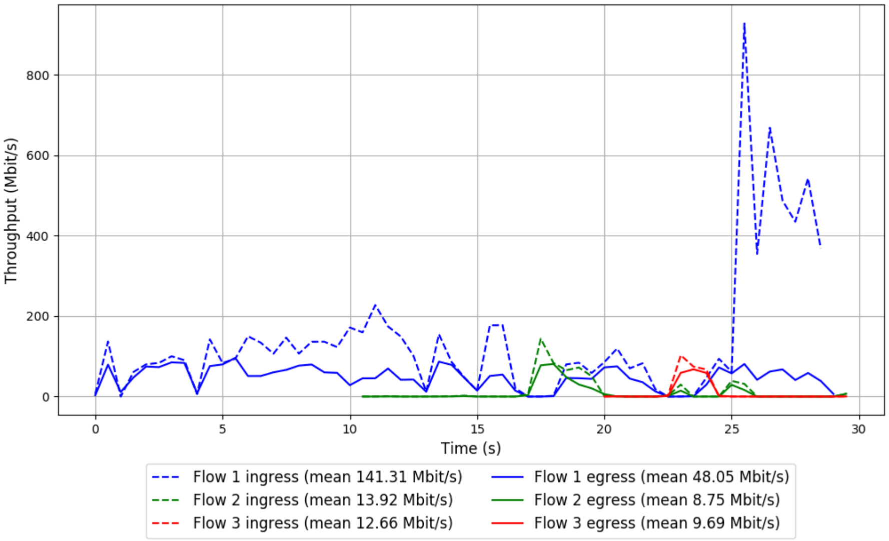
Run 4: Report of Verus — Data Link

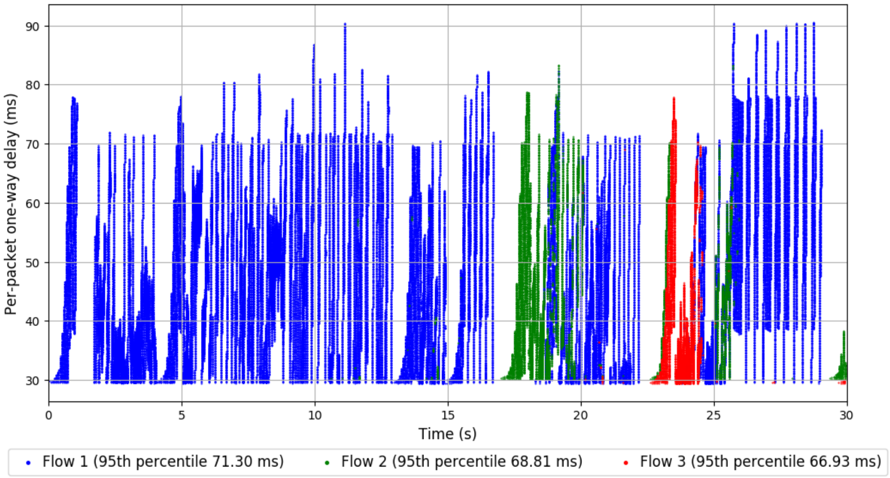




```
Run 5: Statistics of Verus

Start at: 2018-03-27 20:56:45
End at: 2018-03-27 20:57:15
Local clock offset: 0.769 ms
Remote clock offset: -1.736 ms

# Below is generated by plot.py at 2018-03-28 00:09:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.45 Mbit/s
95th percentile per-packet one-way delay: 70.821 ms
Loss rate: 63.05%
-- Flow 1:
Average throughput: 48.05 Mbit/s
95th percentile per-packet one-way delay: 71.299 ms
Loss rate: 65.95%
-- Flow 2:
Average throughput: 8.75 Mbit/s
95th percentile per-packet one-way delay: 68.809 ms
Loss rate: 37.18%
-- Flow 3:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 66.932 ms
Loss rate: 23.73%
```

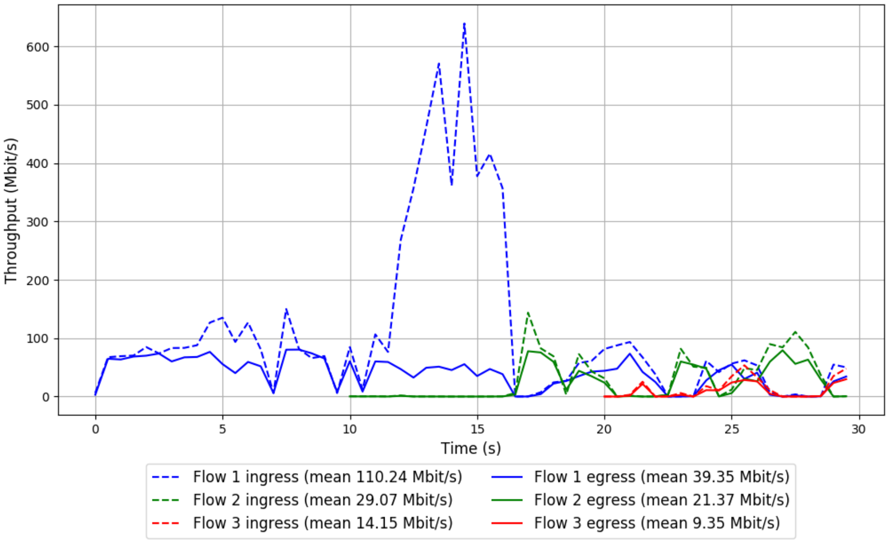
Run 5: Report of Verus — Data Link

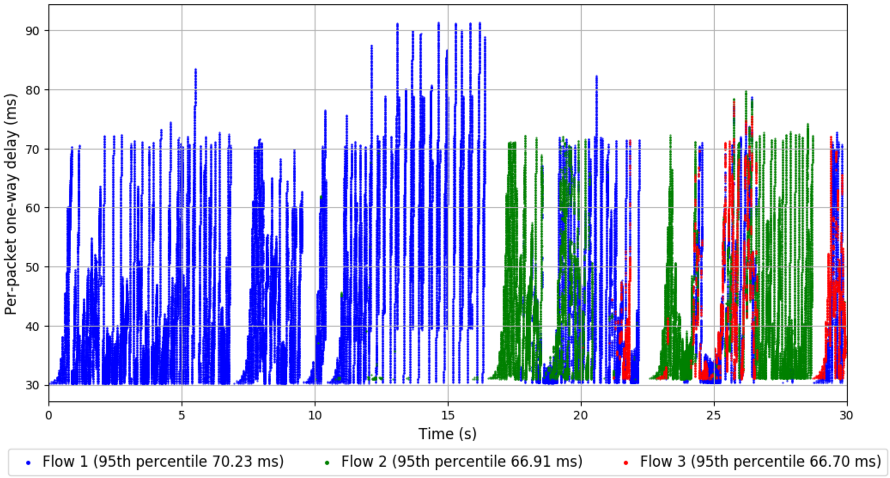




```
Run 6: Statistics of Verus

Start at: 2018-03-27 21:22:24
End at: 2018-03-27 21:22:54
Local clock offset: 2.506 ms
Remote clock offset: -0.372 ms

# Below is generated by plot.py at 2018-03-28 00:09:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.63 Mbit/s
95th percentile per-packet one-way delay: 69.295 ms
Loss rate: 57.79%
-- Flow 1:
Average throughput: 39.35 Mbit/s
95th percentile per-packet one-way delay: 70.231 ms
Loss rate: 64.30%
-- Flow 2:
Average throughput: 21.37 Mbit/s
95th percentile per-packet one-way delay: 66.908 ms
Loss rate: 26.45%
-- Flow 3:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 66.704 ms
Loss rate: 33.88%
```

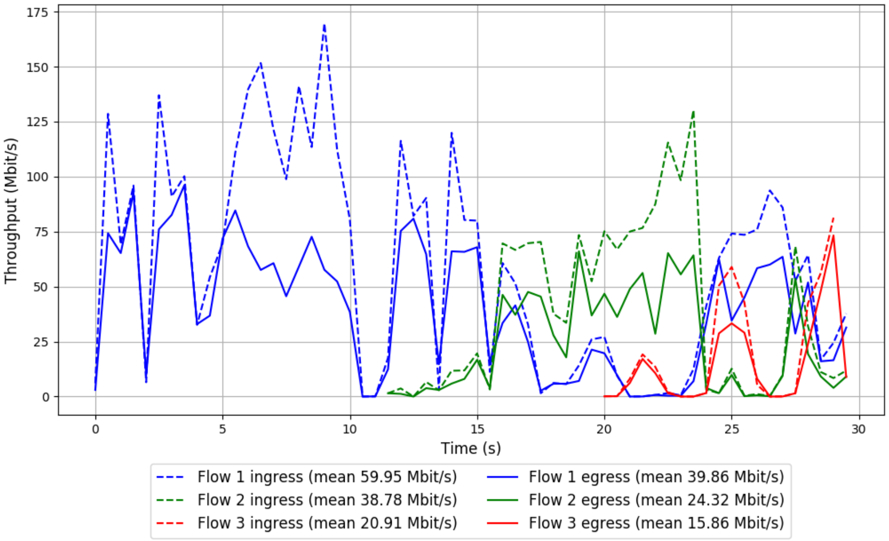
Run 6: Report of Verus — Data Link

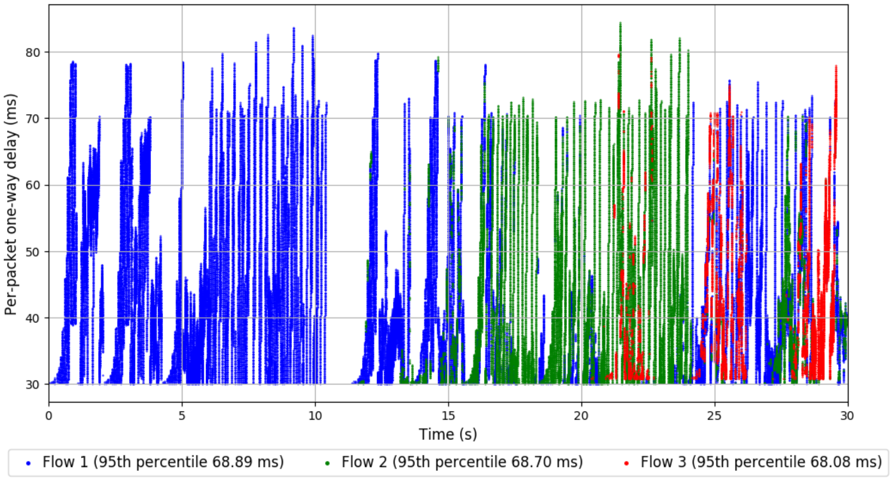




```
Run 7: Statistics of Verus

Start at: 2018-03-27 21:48:40
End at: 2018-03-27 21:49:10
Local clock offset: 5.043 ms
Remote clock offset: -1.091 ms

# Below is generated by plot.py at 2018-03-28 00:09:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 68.780 ms
Loss rate: 33.80%
-- Flow 1:
Average throughput: 39.86 Mbit/s
95th percentile per-packet one-way delay: 68.890 ms
Loss rate: 33.50%
-- Flow 2:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 68.704 ms
Loss rate: 37.24%
-- Flow 3:
Average throughput: 15.86 Mbit/s
95th percentile per-packet one-way delay: 68.082 ms
Loss rate: 23.91%
```

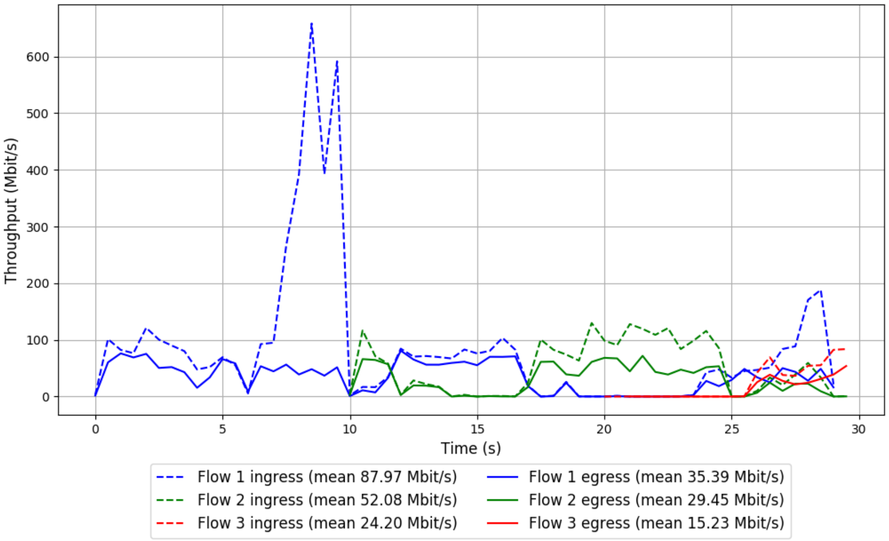
Run 7: Report of Verus — Data Link

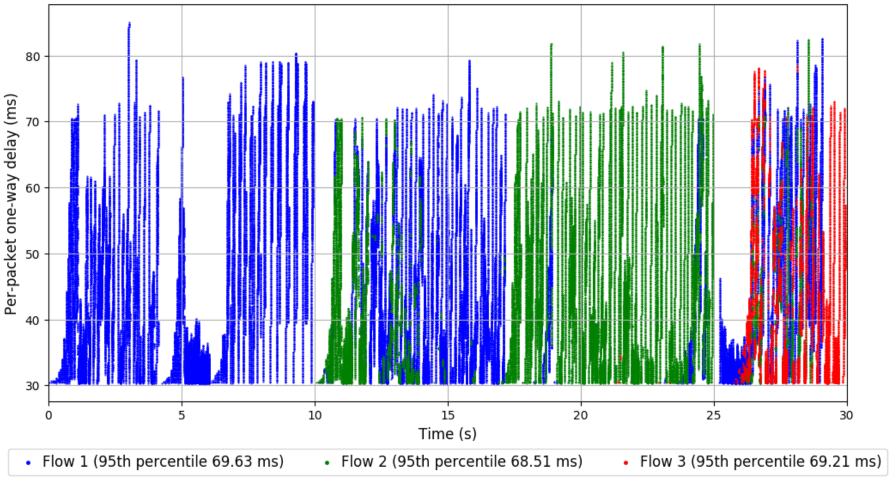




```
Run 8: Statistics of Verus

Start at: 2018-03-27 22:16:08
End at: 2018-03-27 22:16:38
Local clock offset: 6.339 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2018-03-28 00:09:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.03 Mbit/s
95th percentile per-packet one-way delay: 69.217 ms
Loss rate: 54.41%
-- Flow 1:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 69.628 ms
Loss rate: 59.72%
-- Flow 2:
Average throughput: 29.45 Mbit/s
95th percentile per-packet one-way delay: 68.510 ms
Loss rate: 43.65%
-- Flow 3:
Average throughput: 15.23 Mbit/s
95th percentile per-packet one-way delay: 69.209 ms
Loss rate: 43.43%
```

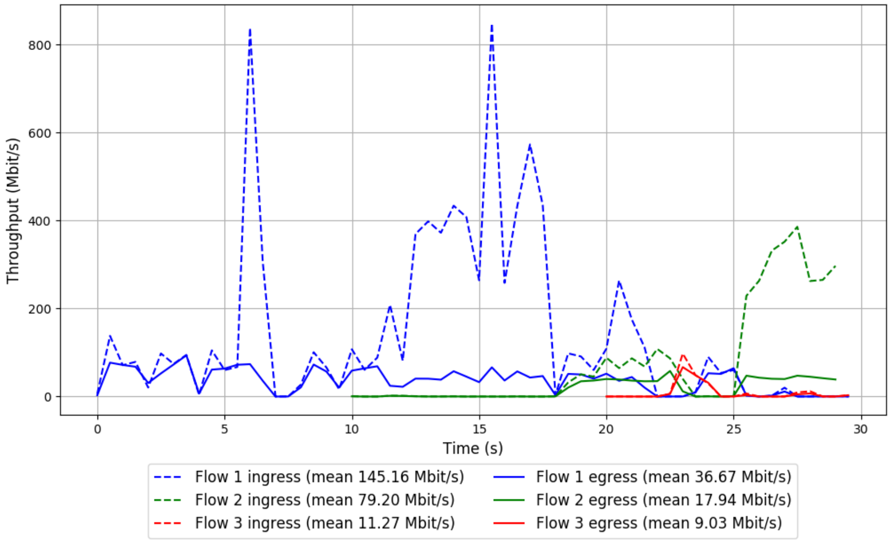
Run 8: Report of Verus — Data Link

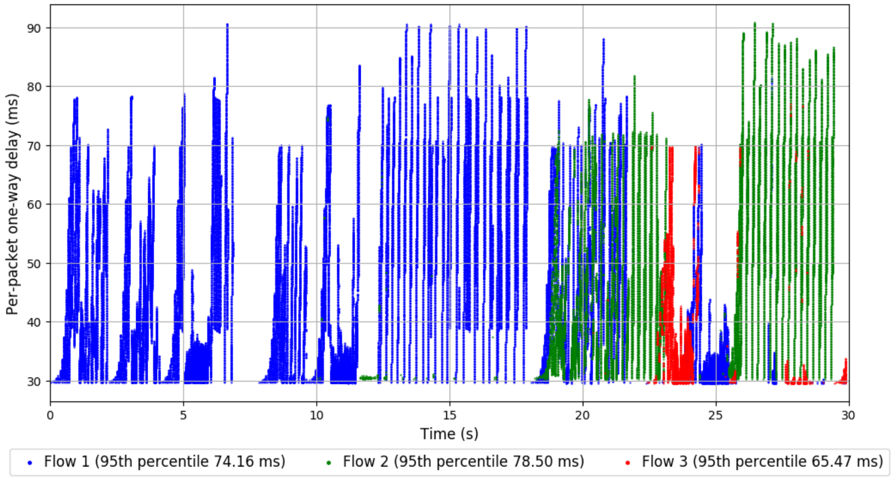




```
Run 9: Statistics of Verus

Start at: 2018-03-27 22:44:04
End at: 2018-03-27 22:44:34
Local clock offset: -0.067 ms
Remote clock offset: 3.33 ms

# Below is generated by plot.py at 2018-03-28 00:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 74.660 ms
Loss rate: 74.42%
-- Flow 1:
Average throughput: 36.67 Mbit/s
95th percentile per-packet one-way delay: 74.157 ms
Loss rate: 74.74%
-- Flow 2:
Average throughput: 17.94 Mbit/s
95th percentile per-packet one-way delay: 78.501 ms
Loss rate: 77.32%
-- Flow 3:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 65.470 ms
Loss rate: 19.92%
```

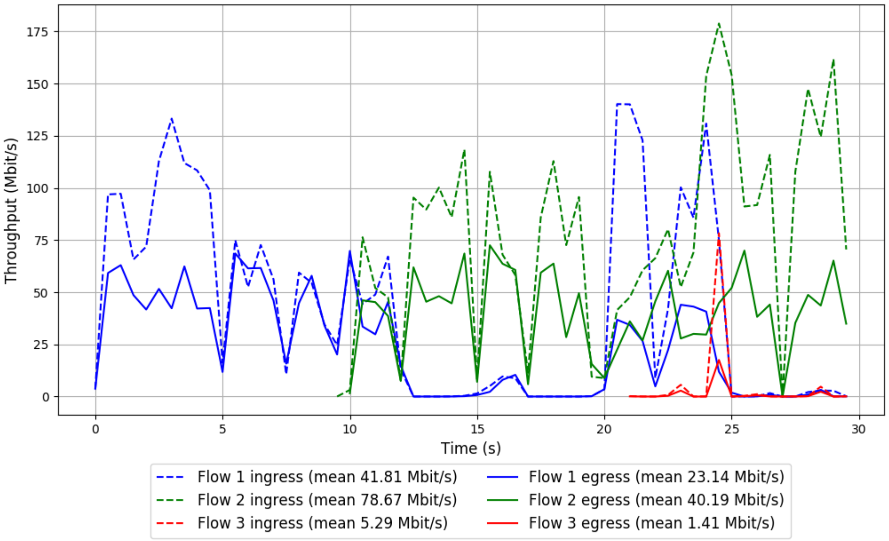
Run 9: Report of Verus — Data Link

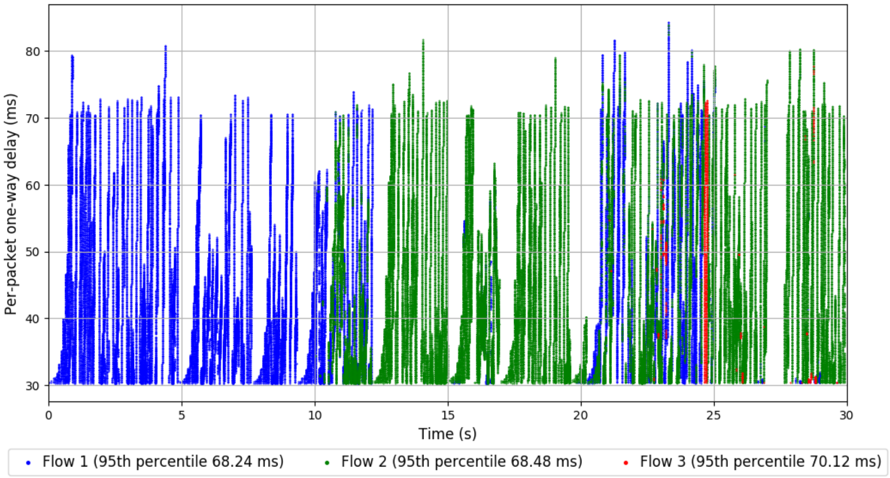




```
Run 10: Statistics of Verus

Start at: 2018-03-27 23:13:58
End at: 2018-03-27 23:14:28
Local clock offset: 1.707 ms
Remote clock offset: 1.945 ms

# Below is generated by plot.py at 2018-03-28 00:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.05 Mbit/s
95th percentile per-packet one-way delay: 68.412 ms
Loss rate: 47.52%
-- Flow 1:
Average throughput: 23.14 Mbit/s
95th percentile per-packet one-way delay: 68.242 ms
Loss rate: 44.80%
-- Flow 2:
Average throughput: 40.19 Mbit/s
95th percentile per-packet one-way delay: 68.484 ms
Loss rate: 48.92%
-- Flow 3:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 70.118 ms
Loss rate: 73.61%
```

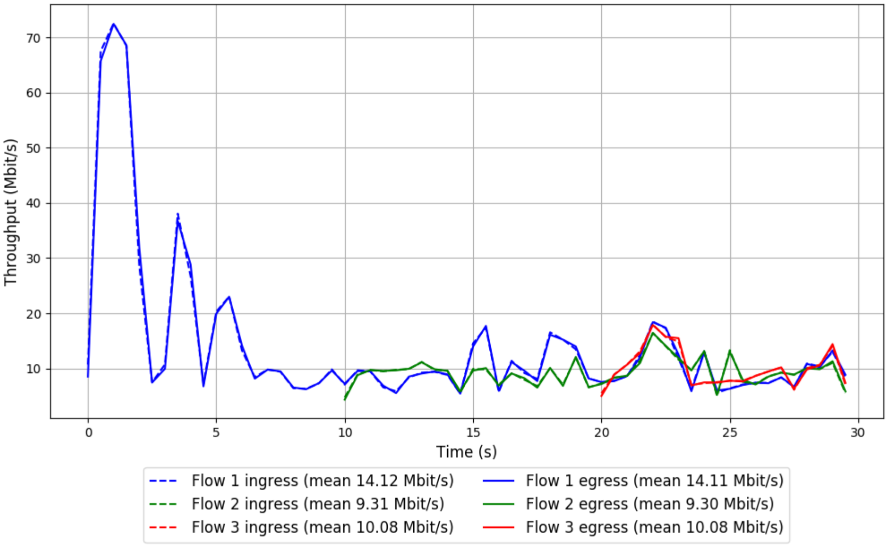
Run 10: Report of Verus — Data Link

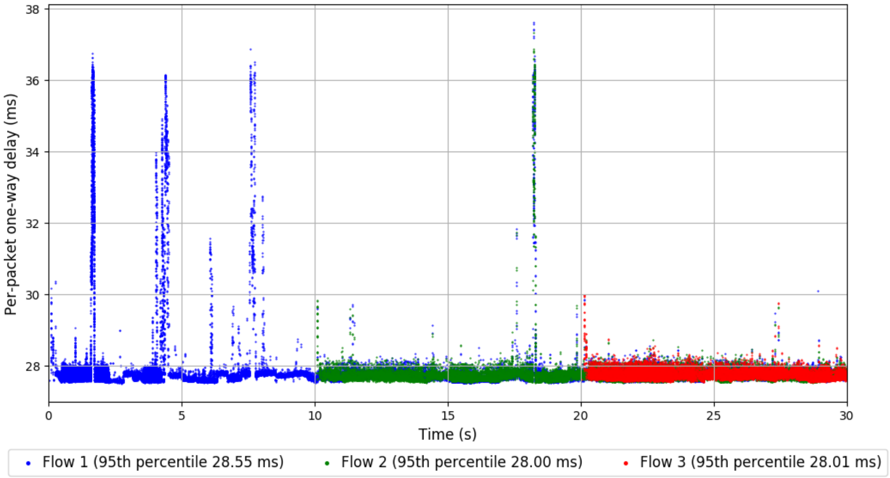




```
Run 1: Statistics of Copa

Start at: 2018-03-27 18:53:16
End at: 2018-03-27 18:53:46
Local clock offset: 2.616 ms
Remote clock offset: -7.787 ms

# Below is generated by plot.py at 2018-03-28 00:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.65 Mbit/s
95th percentile per-packet one-way delay: 28.064 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 14.11 Mbit/s
95th percentile per-packet one-way delay: 28.552 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 9.30 Mbit/s
95th percentile per-packet one-way delay: 27.999 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 28.008 ms
Loss rate: 0.00%
```

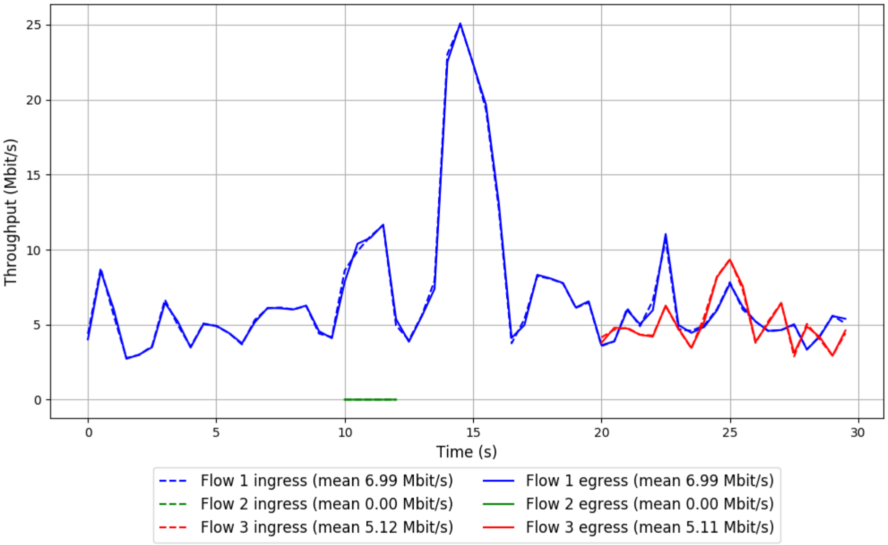
Run 1: Report of Copa — Data Link

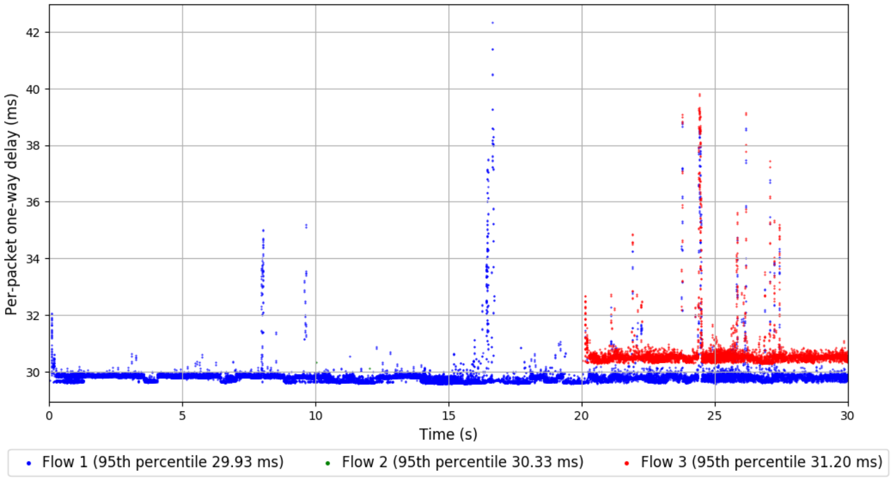




```
Run 2: Statistics of Copa

Start at: 2018-03-27 19:24:43
End at: 2018-03-27 19:25:13
Local clock offset: -0.308 ms
Remote clock offset: -5.196 ms

# Below is generated by plot.py at 2018-03-28 00:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.69 Mbit/s
95th percentile per-packet one-way delay: 30.598 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 29.933 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.332 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 31.204 ms
Loss rate: 0.10%
```

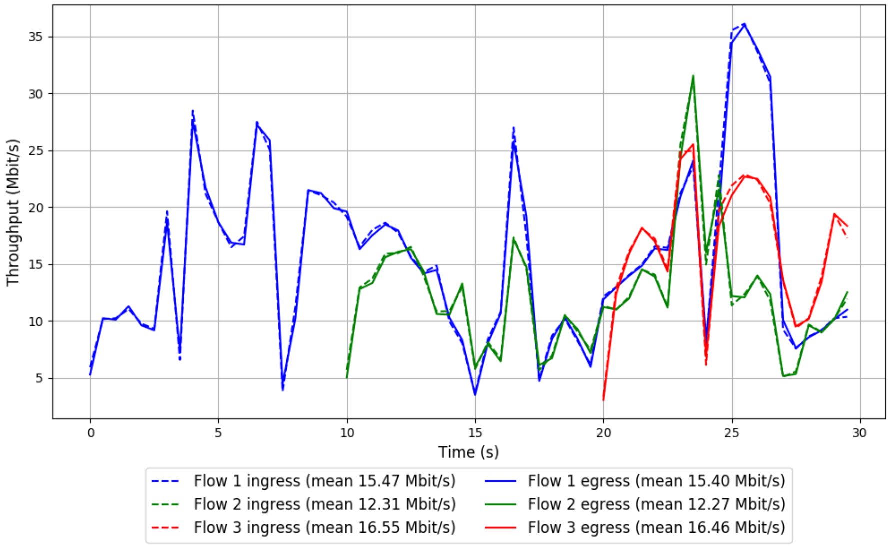
Run 2: Report of Copa — Data Link

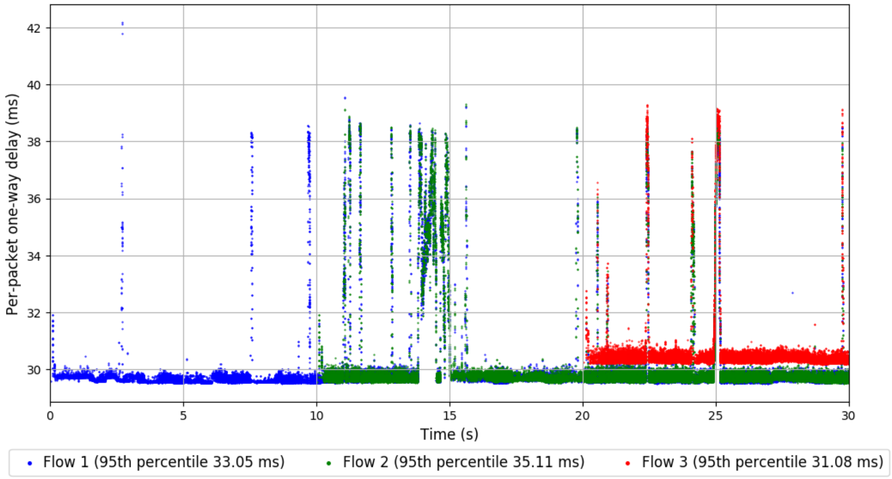




```
Run 3: Statistics of Copa

Start at: 2018-03-27 19:56:12
End at: 2018-03-27 19:56:42
Local clock offset: -0.114 ms
Remote clock offset: -3.378 ms

# Below is generated by plot.py at 2018-03-28 00:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.04 Mbit/s
95th percentile per-packet one-way delay: 33.989 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 15.40 Mbit/s
95th percentile per-packet one-way delay: 33.048 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 12.27 Mbit/s
95th percentile per-packet one-way delay: 35.113 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 16.46 Mbit/s
95th percentile per-packet one-way delay: 31.076 ms
Loss rate: 0.55%
```

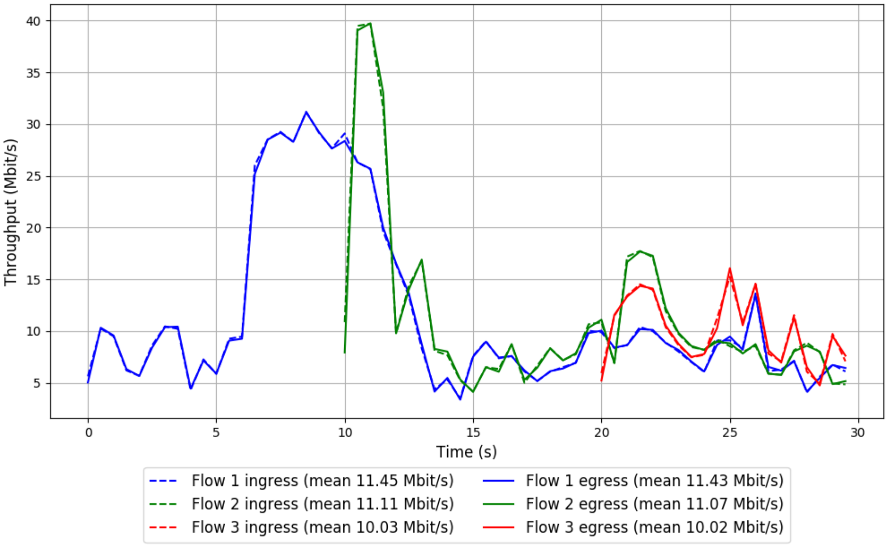
Run 3: Report of Copa — Data Link

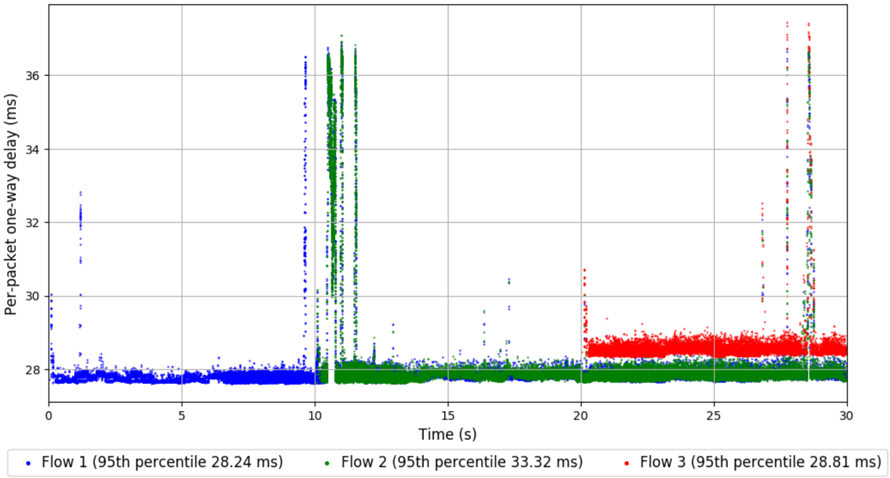




```
Run 4: Statistics of Copa

Start at: 2018-03-27 20:27:01
End at: 2018-03-27 20:27:31
Local clock offset: 2.342 ms
Remote clock offset: -6.63 ms

# Below is generated by plot.py at 2018-03-28 00:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.13 Mbit/s
95th percentile per-packet one-way delay: 29.863 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 28.241 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 11.07 Mbit/s
95th percentile per-packet one-way delay: 33.324 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 28.806 ms
Loss rate: 0.08%
```

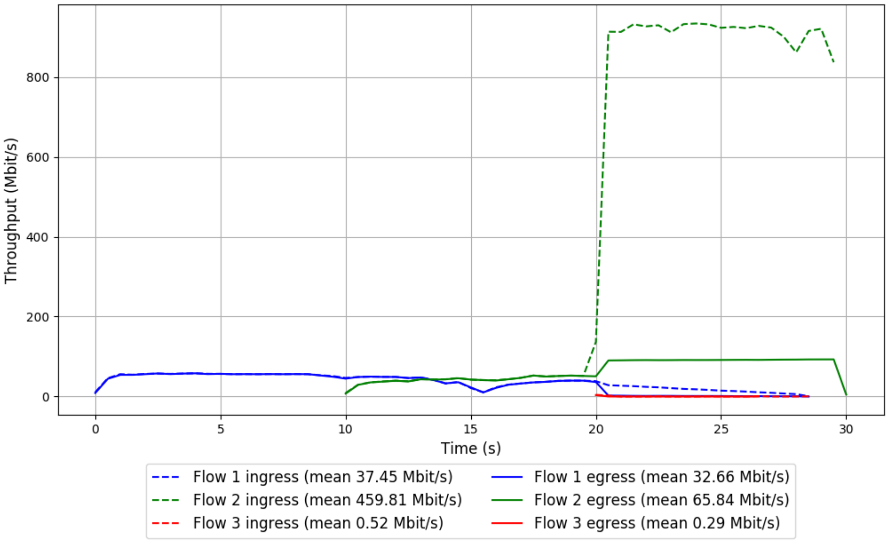
Run 4: Report of Copa — Data Link

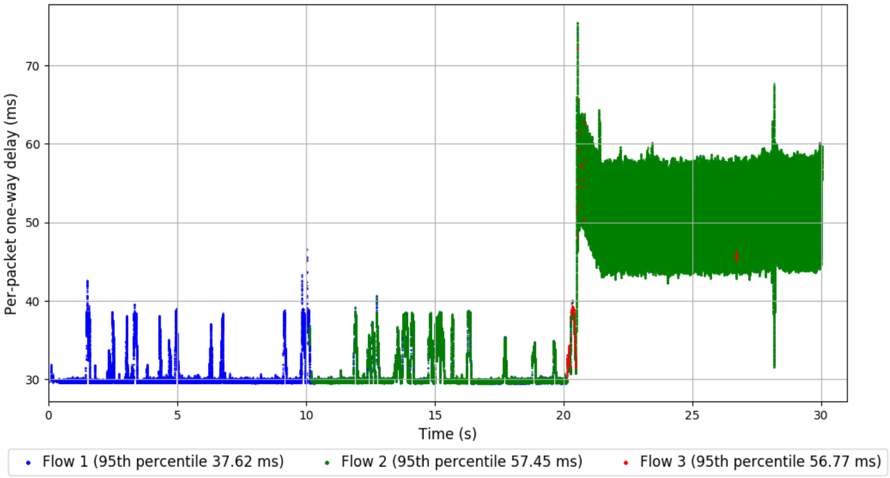




```
Run 5: Statistics of Copa

Start at: 2018-03-27 20:54:57
End at: 2018-03-27 20:55:27
Local clock offset: 0.842 ms
Remote clock offset: -1.994 ms

# Below is generated by plot.py at 2018-03-28 00:13:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.02 Mbit/s
95th percentile per-packet one-way delay: 56.951 ms
Loss rate: 78.04%
-- Flow 1:
Average throughput: 32.66 Mbit/s
95th percentile per-packet one-way delay: 37.620 ms
Loss rate: 12.75%
-- Flow 2:
Average throughput: 65.84 Mbit/s
95th percentile per-packet one-way delay: 57.452 ms
Loss rate: 85.67%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 56.765 ms
Loss rate: 57.85%
```

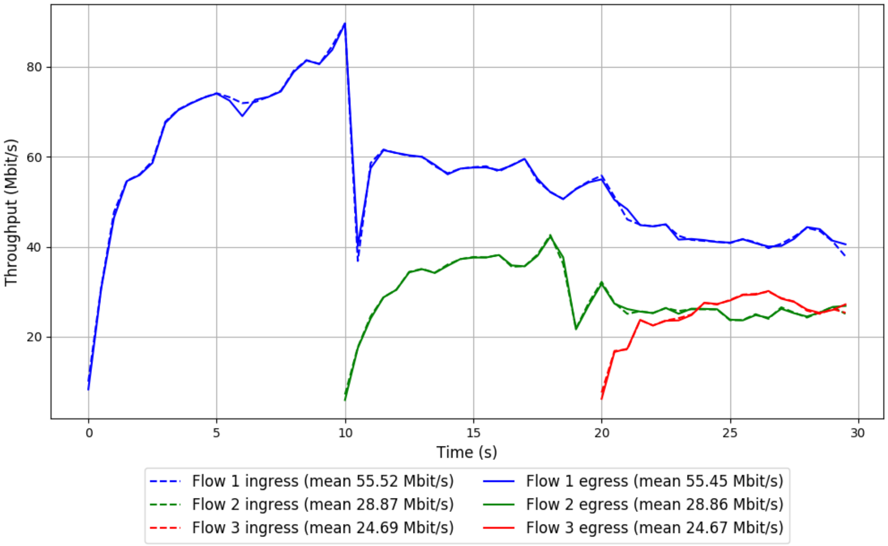
Run 5: Report of Copa — Data Link

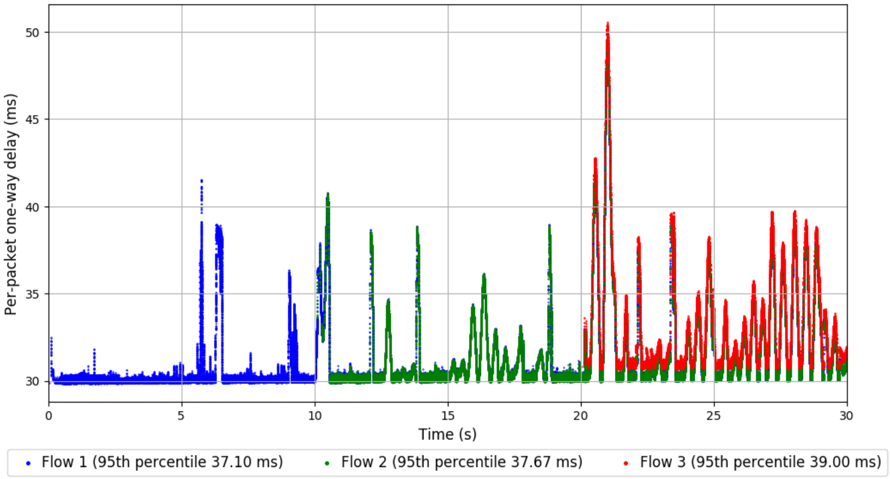




```
Run 6: Statistics of Copa

Start at: 2018-03-27 21:20:55
End at: 2018-03-27 21:21:25
Local clock offset: 2.11 ms
Remote clock offset: -0.689 ms

# Below is generated by plot.py at 2018-03-28 00:13:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.85 Mbit/s
95th percentile per-packet one-way delay: 37.579 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 55.45 Mbit/s
95th percentile per-packet one-way delay: 37.097 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 28.86 Mbit/s
95th percentile per-packet one-way delay: 37.675 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 38.997 ms
Loss rate: 0.07%
```

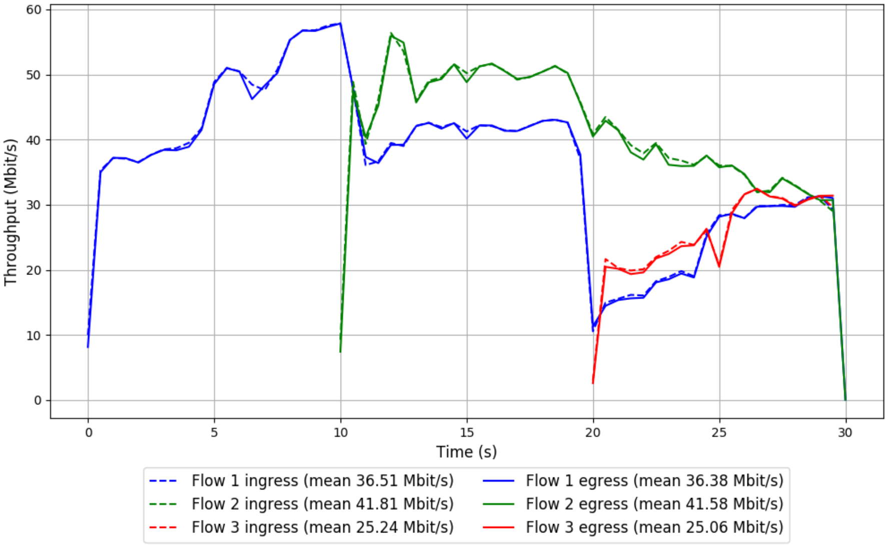
Run 6: Report of Copa — Data Link

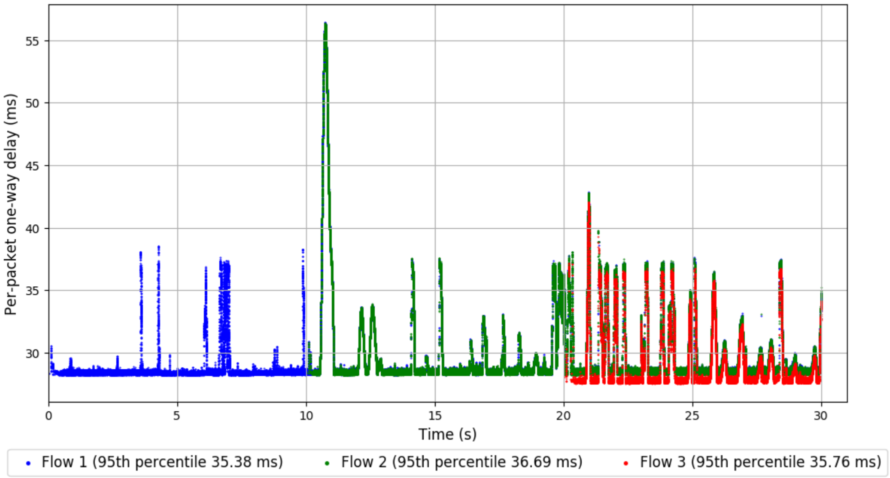




```
Run 7: Statistics of Copa

Start at: 2018-03-27 21:47:05
End at: 2018-03-27 21:47:35
Local clock offset: 4.934 ms
Remote clock offset: -3.657 ms

# Below is generated by plot.py at 2018-03-28 00:13:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.40 Mbit/s
95th percentile per-packet one-way delay: 36.128 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 36.38 Mbit/s
95th percentile per-packet one-way delay: 35.380 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 36.690 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 25.06 Mbit/s
95th percentile per-packet one-way delay: 35.755 ms
Loss rate: 0.66%
```

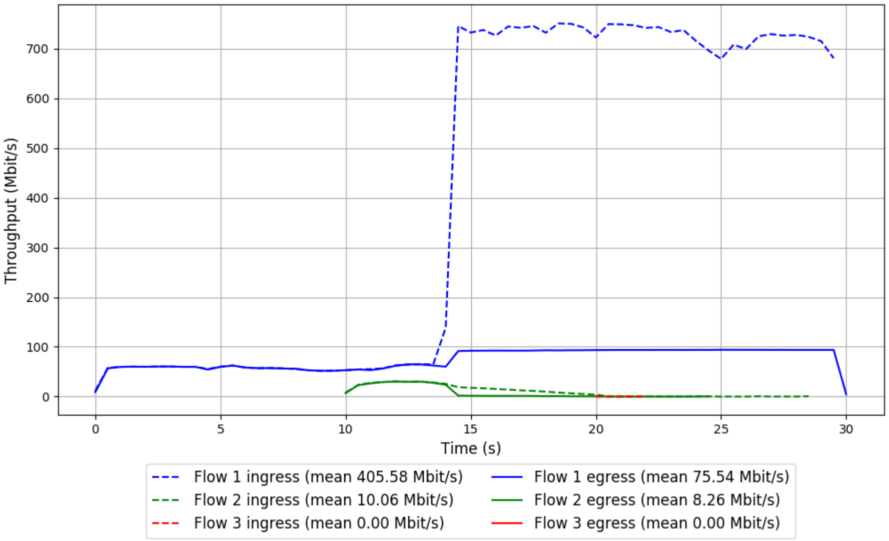
Run 7: Report of Copa — Data Link

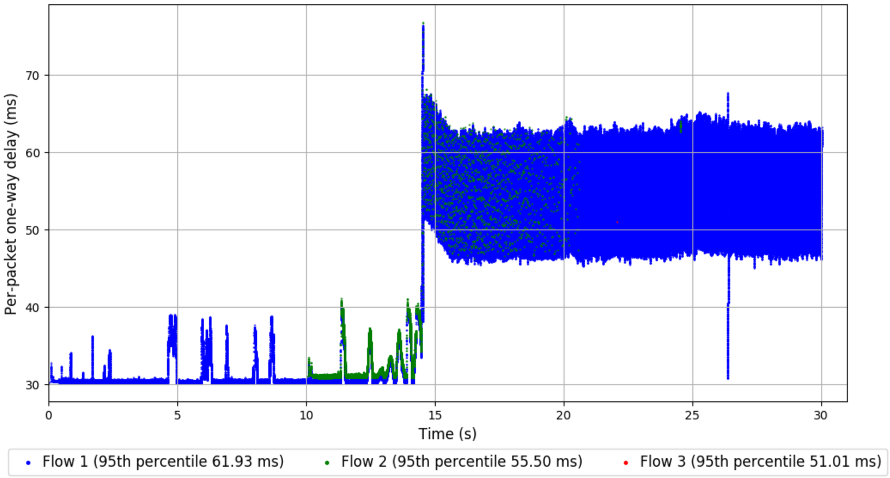




```
Run 8: Statistics of Copa

Start at: 2018-03-27 22:14:07
End at: 2018-03-27 22:14:37
Local clock offset: 6.168 ms
Remote clock offset: 0.217 ms

# Below is generated by plot.py at 2018-03-28 00:14:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.53 Mbit/s
95th percentile per-packet one-way delay: 61.894 ms
Loss rate: 80.67%
-- Flow 1:
Average throughput: 75.54 Mbit/s
95th percentile per-packet one-way delay: 61.930 ms
Loss rate: 81.36%
-- Flow 2:
Average throughput: 8.26 Mbit/s
95th percentile per-packet one-way delay: 55.501 ms
Loss rate: 35.94%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 51.012 ms
Loss rate: 50.00%
```

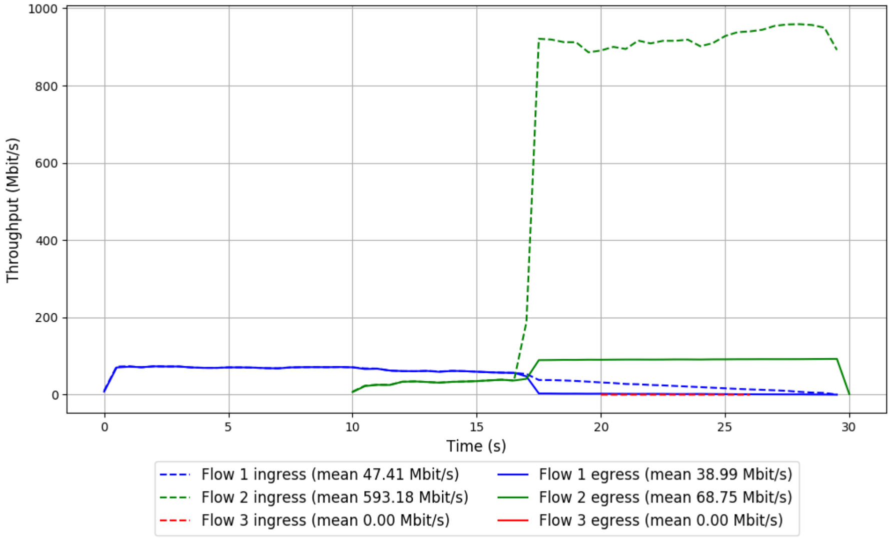
Run 8: Report of Copa — Data Link

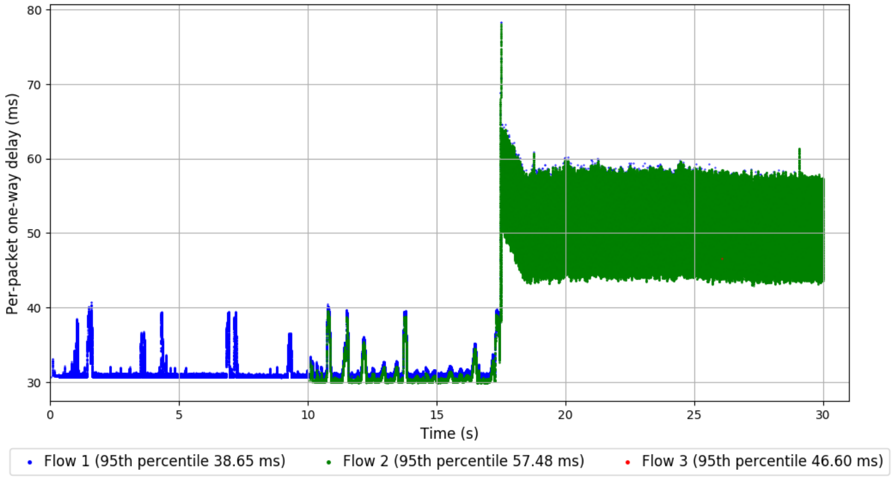




```
Run 9: Statistics of Copa

Start at: 2018-03-27 22:42:04
End at: 2018-03-27 22:42:34
Local clock offset: 0.306 ms
Remote clock offset: 3.545 ms

# Below is generated by plot.py at 2018-03-28 00:15:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.19 Mbit/s
95th percentile per-packet one-way delay: 57.044 ms
Loss rate: 80.92%
-- Flow 1:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 38.653 ms
Loss rate: 17.72%
-- Flow 2:
Average throughput: 68.75 Mbit/s
95th percentile per-packet one-way delay: 57.477 ms
Loss rate: 88.40%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 46.602 ms
Loss rate: 75.00%
```

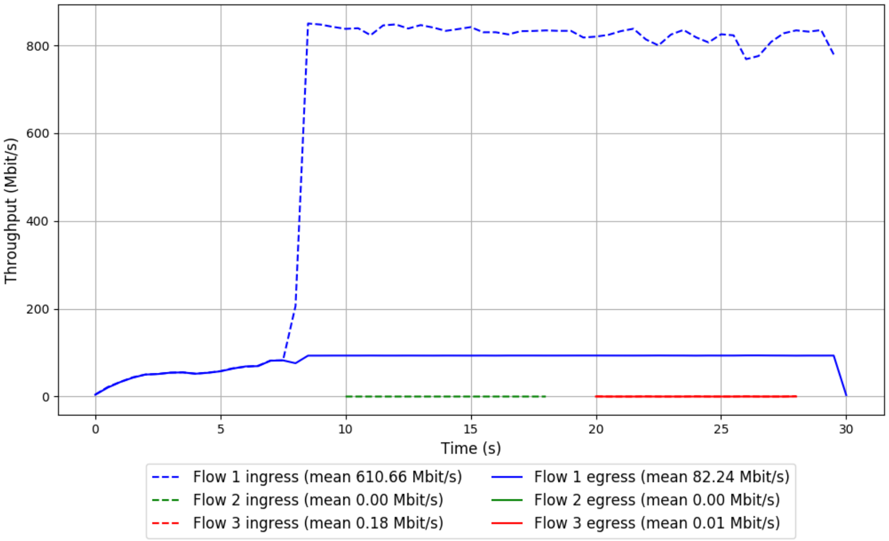
Run 9: Report of Copa — Data Link

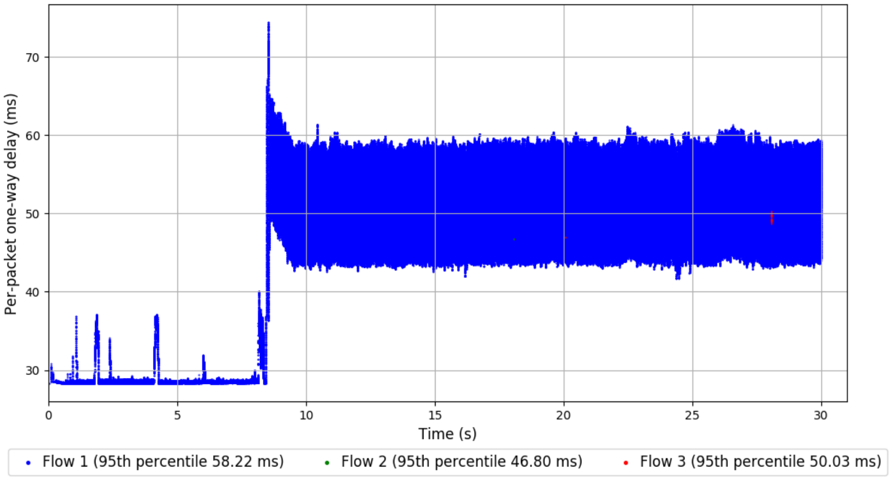




```
Run 10: Statistics of Copa

Start at: 2018-03-27 23:11:25
End at: 2018-03-27 23:11:55
Local clock offset: 1.525 ms
Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.24 Mbit/s
95th percentile per-packet one-way delay: 58.221 ms
Loss rate: 86.52%
-- Flow 1:
Average throughput: 82.24 Mbit/s
95th percentile per-packet one-way delay: 58.221 ms
Loss rate: 86.52%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 46.797 ms
Loss rate: 80.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 50.033 ms
Loss rate: 97.08%
```

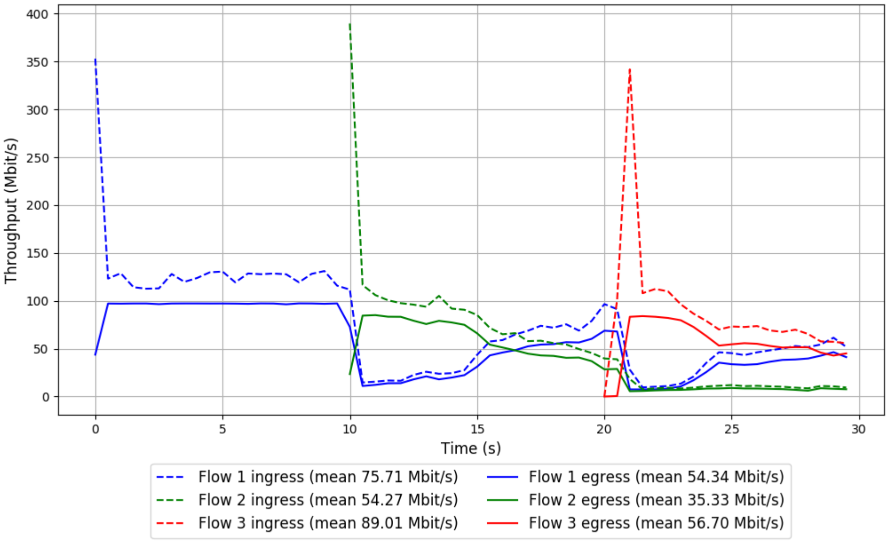
Run 10: Report of Copa — Data Link

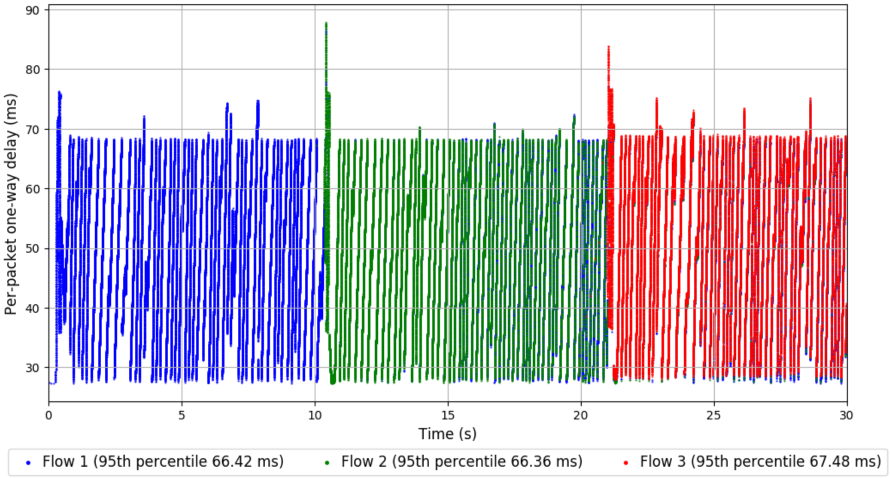




```
Run 1: Statistics of FillP

Start at: 2018-03-27 19:02:02
End at: 2018-03-27 19:02:32
Local clock offset: 1.822 ms
Remote clock offset: -7.893 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.32 Mbit/s
95th percentile per-packet one-way delay: 66.628 ms
Loss rate: 31.83%
-- Flow 1:
Average throughput: 54.34 Mbit/s
95th percentile per-packet one-way delay: 66.417 ms
Loss rate: 28.20%
-- Flow 2:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 66.365 ms
Loss rate: 34.99%
-- Flow 3:
Average throughput: 56.70 Mbit/s
95th percentile per-packet one-way delay: 67.476 ms
Loss rate: 37.27%
```

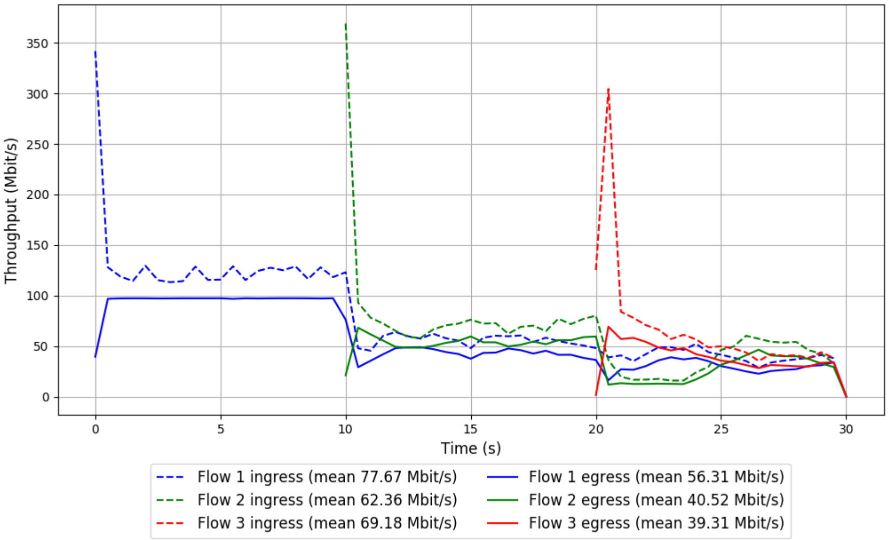
Run 1: Report of FillP — Data Link

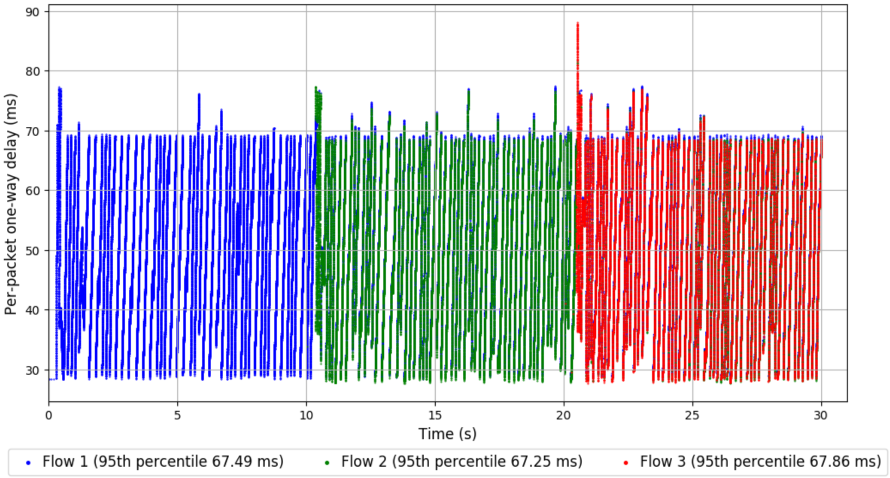




```
Run 2: Statistics of FillP

Start at: 2018-03-27 19:32:52
End at: 2018-03-27 19:33:22
Local clock offset: -0.596 ms
Remote clock offset: -7.25 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.33 Mbit/s
95th percentile per-packet one-way delay: 67.469 ms
Loss rate: 32.12%
-- Flow 1:
Average throughput: 56.31 Mbit/s
95th percentile per-packet one-way delay: 67.490 ms
Loss rate: 27.41%
-- Flow 2:
Average throughput: 40.52 Mbit/s
95th percentile per-packet one-way delay: 67.252 ms
Loss rate: 34.92%
-- Flow 3:
Average throughput: 39.31 Mbit/s
95th percentile per-packet one-way delay: 67.861 ms
Loss rate: 43.02%
```

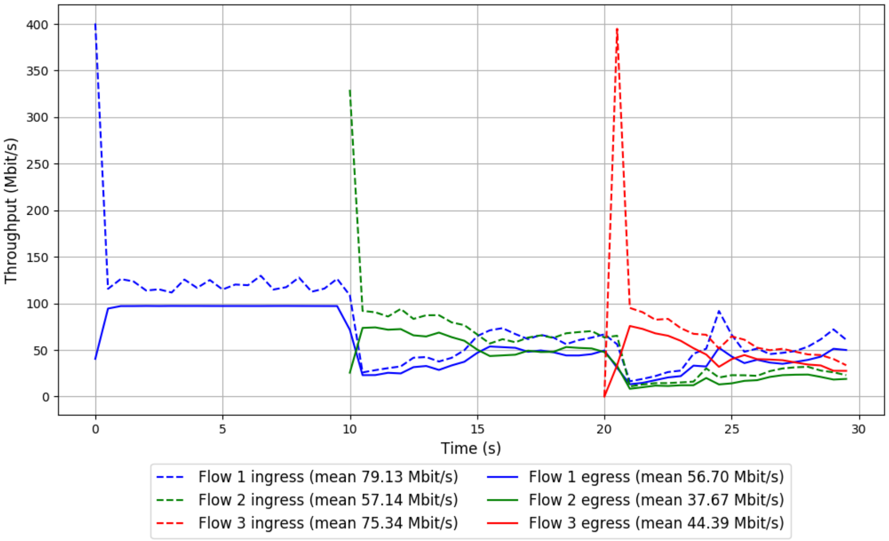
Run 2: Report of FillP — Data Link

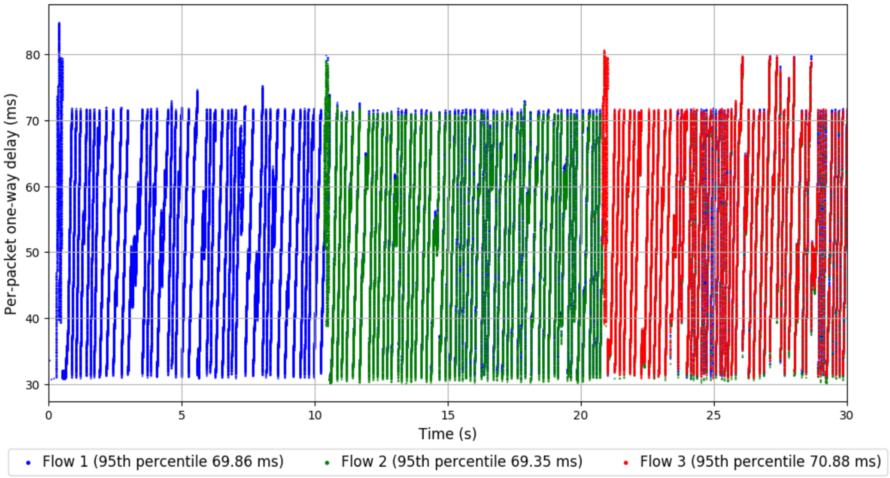




```
Run 3: Statistics of FillP

Start at: 2018-03-27 20:04:33
End at: 2018-03-27 20:05:03
Local clock offset: -0.324 ms
Remote clock offset: -2.449 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 69.885 ms
Loss rate: 32.25%
-- Flow 1:
Average throughput: 56.70 Mbit/s
95th percentile per-packet one-way delay: 69.857 ms
Loss rate: 28.30%
-- Flow 2:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 69.354 ms
Loss rate: 34.04%
-- Flow 3:
Average throughput: 44.39 Mbit/s
95th percentile per-packet one-way delay: 70.882 ms
Loss rate: 42.03%
```

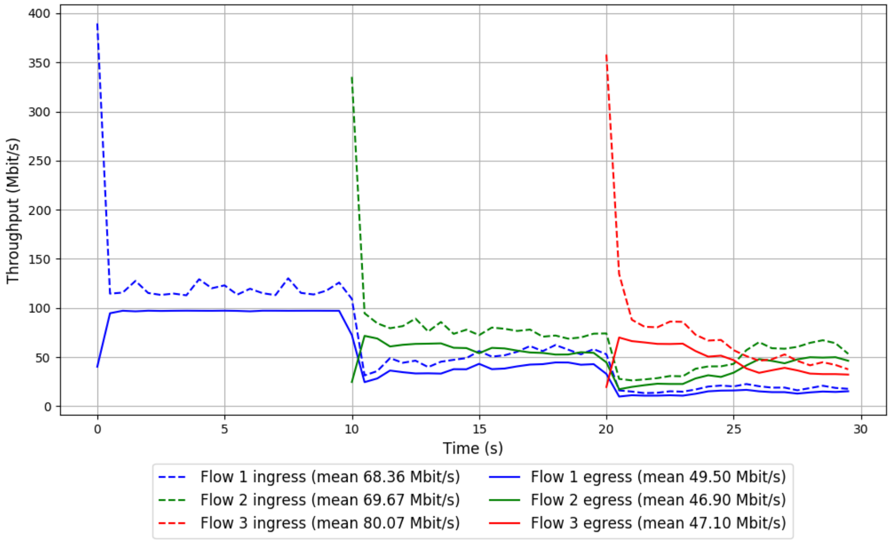
Run 3: Report of FillP — Data Link

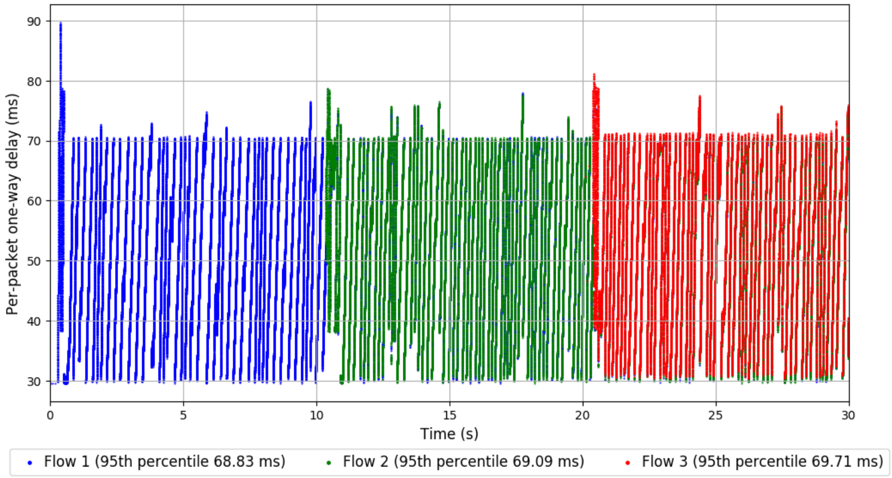




```
Run 4: Statistics of FillP

Start at: 2018-03-27 20:36:01
End at: 2018-03-27 20:36:31
Local clock offset: 2.785 ms
Remote clock offset: -4.736 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 69.078 ms
Loss rate: 31.83%
-- Flow 1:
Average throughput: 49.50 Mbit/s
95th percentile per-packet one-way delay: 68.829 ms
Loss rate: 27.56%
-- Flow 2:
Average throughput: 46.90 Mbit/s
95th percentile per-packet one-way delay: 69.088 ms
Loss rate: 32.68%
-- Flow 3:
Average throughput: 47.10 Mbit/s
95th percentile per-packet one-way delay: 69.712 ms
Loss rate: 41.32%
```

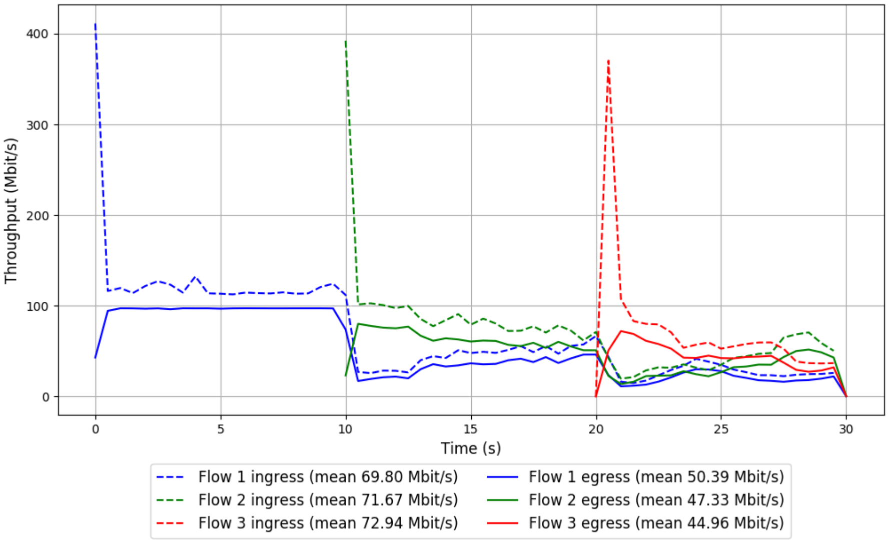
Run 4: Report of FillP — Data Link

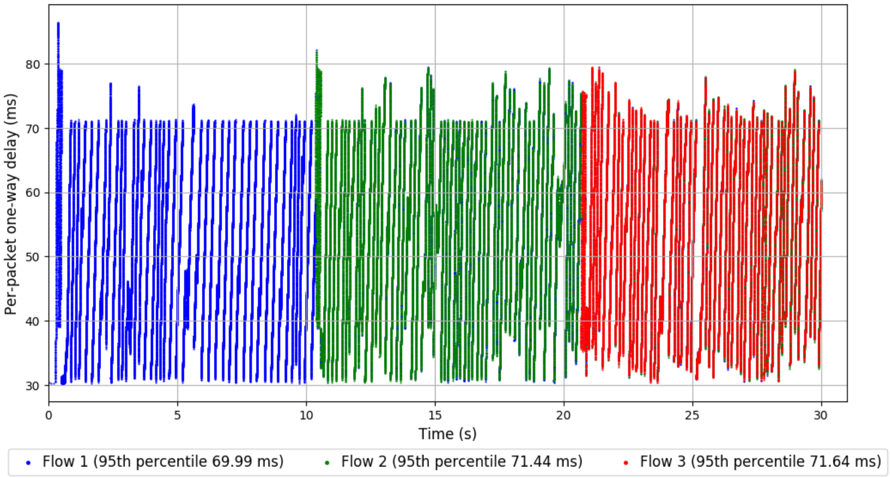




```
Run 5: Statistics of FillP

Start at: 2018-03-27 21:02:32
End at: 2018-03-27 21:03:02
Local clock offset: 0.537 ms
Remote clock offset: -1.085 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.35 Mbit/s
95th percentile per-packet one-way delay: 70.657 ms
Loss rate: 31.94%
-- Flow 1:
Average throughput: 50.39 Mbit/s
95th percentile per-packet one-way delay: 69.992 ms
Loss rate: 27.73%
-- Flow 2:
Average throughput: 47.33 Mbit/s
95th percentile per-packet one-way delay: 71.445 ms
Loss rate: 33.92%
-- Flow 3:
Average throughput: 44.96 Mbit/s
95th percentile per-packet one-way delay: 71.643 ms
Loss rate: 40.15%
```

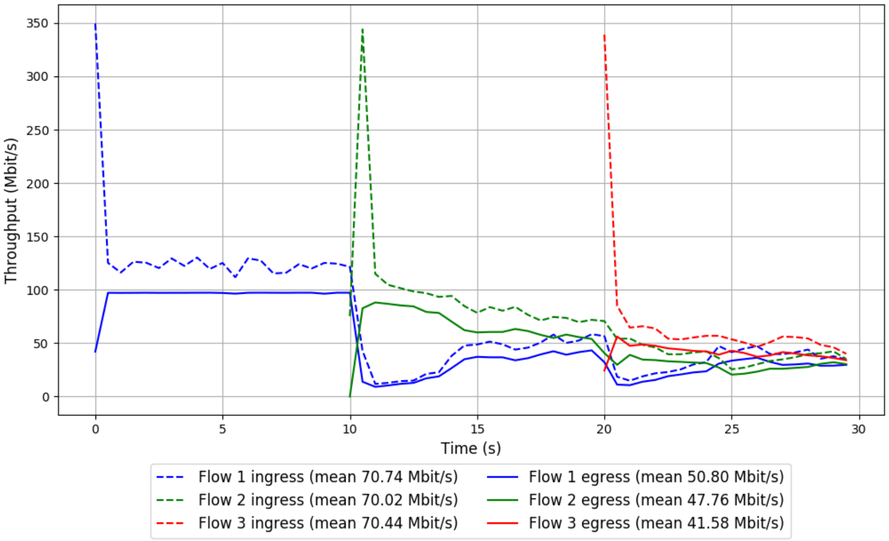
Run 5: Report of FillP — Data Link

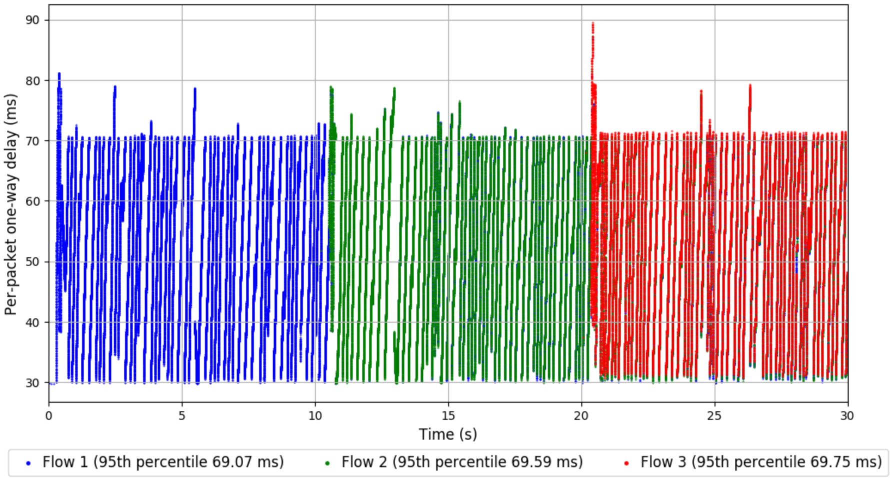




```
Run 6: Statistics of FillP

Start at: 2018-03-27 21:28:23
End at: 2018-03-27 21:28:53
Local clock offset: 3.499 ms
Remote clock offset: -1.142 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 69.325 ms
Loss rate: 31.48%
-- Flow 1:
Average throughput: 50.80 Mbit/s
95th percentile per-packet one-way delay: 69.070 ms
Loss rate: 28.15%
-- Flow 2:
Average throughput: 47.76 Mbit/s
95th percentile per-packet one-way delay: 69.586 ms
Loss rate: 31.80%
-- Flow 3:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 69.753 ms
Loss rate: 40.90%
```

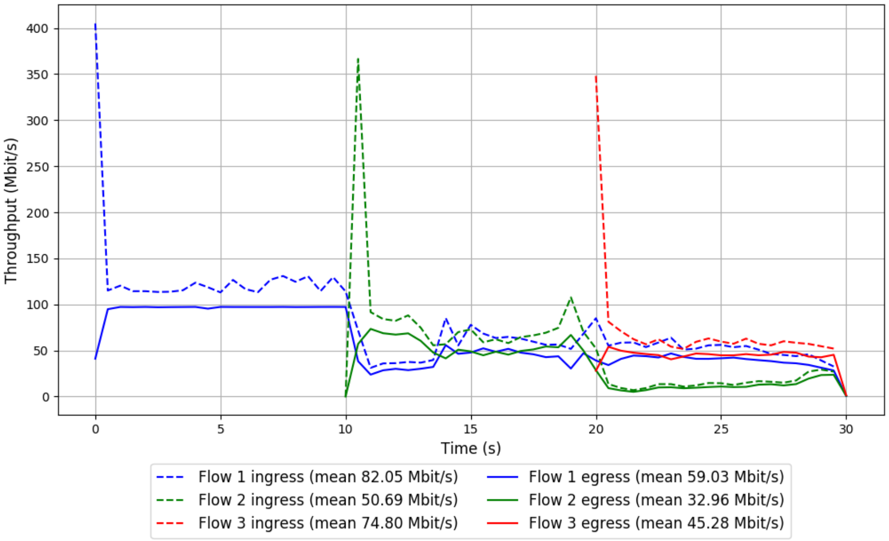
Run 6: Report of FillP — Data Link

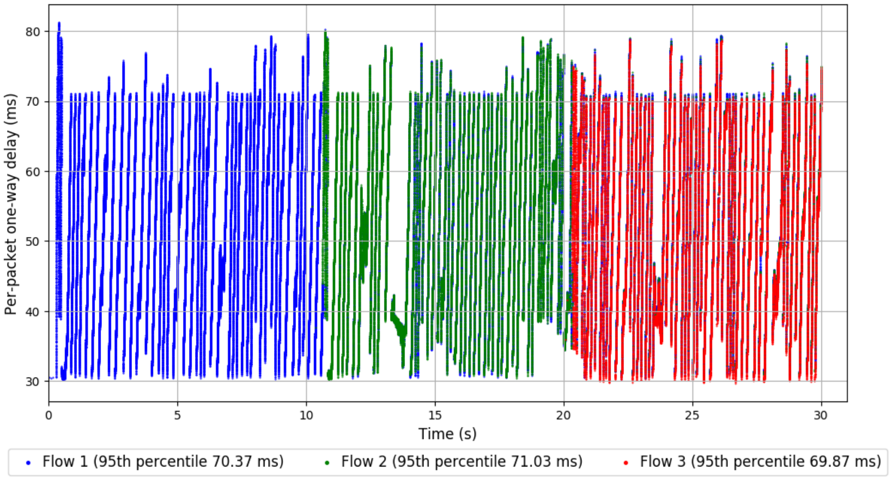




```
Run 7: Statistics of FillP

Start at: 2018-03-27 21:54:47
End at: 2018-03-27 21:55:17
Local clock offset: 5.343 ms
Remote clock offset: -1.189 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 70.438 ms
Loss rate: 31.75%
-- Flow 1:
Average throughput: 59.03 Mbit/s
95th percentile per-packet one-way delay: 70.370 ms
Loss rate: 27.98%
-- Flow 2:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 71.032 ms
Loss rate: 35.42%
-- Flow 3:
Average throughput: 45.28 Mbit/s
95th percentile per-packet one-way delay: 69.867 ms
Loss rate: 39.25%
```

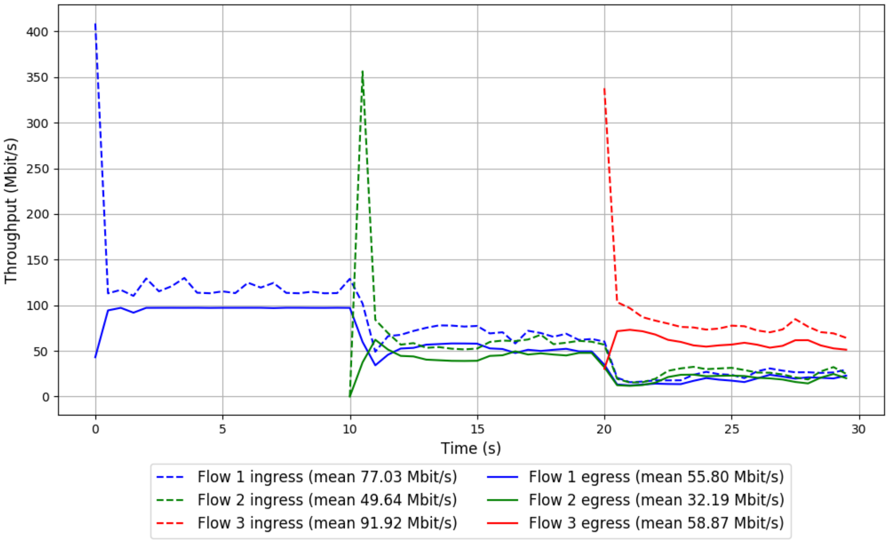
Run 7: Report of FillP — Data Link

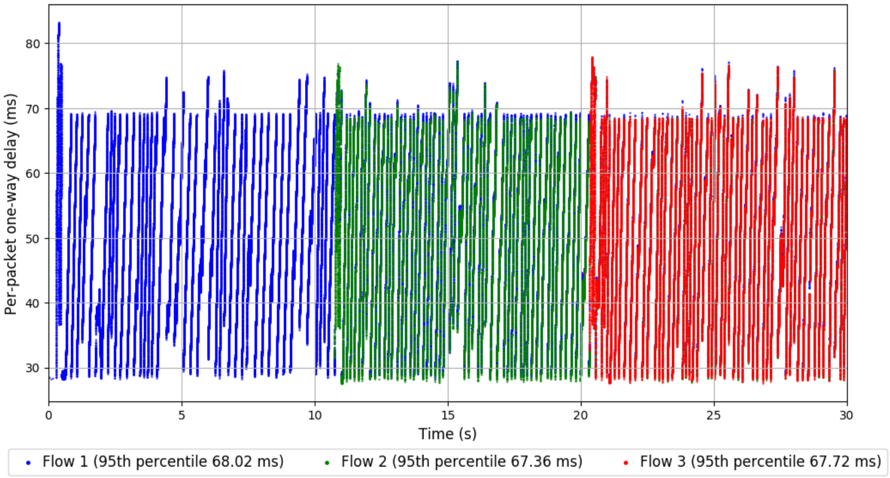




```
Run 8: Statistics of FillP

Start at: 2018-03-27 22:22:11
End at: 2018-03-27 22:22:41
Local clock offset: 6.62 ms
Remote clock offset: -2.137 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 67.817 ms
Loss rate: 31.49%
-- Flow 1:
Average throughput: 55.80 Mbit/s
95th percentile per-packet one-way delay: 68.024 ms
Loss rate: 27.53%
-- Flow 2:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 67.362 ms
Loss rate: 36.60%
-- Flow 3:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 67.717 ms
Loss rate: 35.94%
```

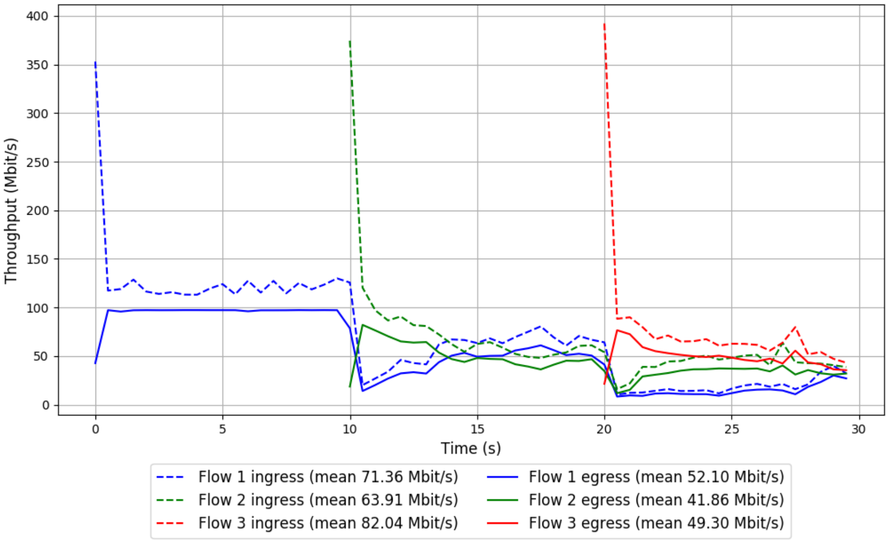
Run 8: Report of FillP — Data Link

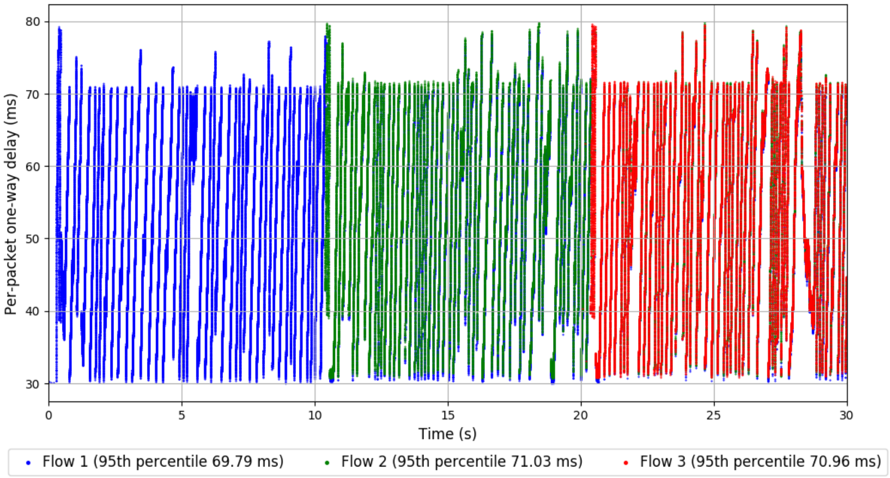




```
Run 9: Statistics of FillP

Start at: 2018-03-27 22:50:17
End at: 2018-03-27 22:50:47
Local clock offset: -0.701 ms
Remote clock offset: 4.189 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 70.379 ms
Loss rate: 31.73%
-- Flow 1:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 69.788 ms
Loss rate: 26.96%
-- Flow 2:
Average throughput: 41.86 Mbit/s
95th percentile per-packet one-way delay: 71.026 ms
Loss rate: 34.52%
-- Flow 3:
Average throughput: 49.30 Mbit/s
95th percentile per-packet one-way delay: 70.962 ms
Loss rate: 39.89%
```

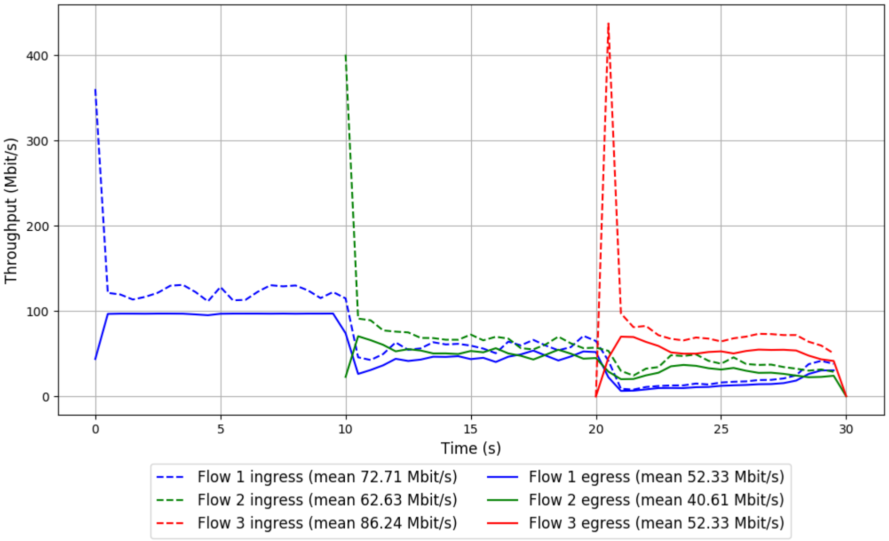
Run 9: Report of FillP — Data Link

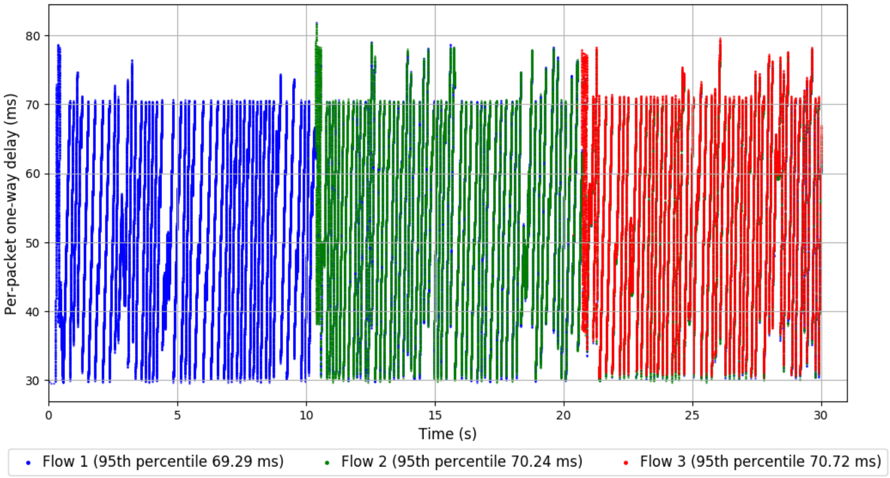




```
Run 10: Statistics of FillP

Start at: 2018-03-27 23:20:40
End at: 2018-03-27 23:21:10
Local clock offset: 1.91 ms
Remote clock offset: 1.661 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 69.816 ms
Loss rate: 32.51%
-- Flow 1:
Average throughput: 52.33 Mbit/s
95th percentile per-packet one-way delay: 69.292 ms
Loss rate: 27.97%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 70.237 ms
Loss rate: 35.15%
-- Flow 3:
Average throughput: 52.33 Mbit/s
95th percentile per-packet one-way delay: 70.718 ms
Loss rate: 40.21%
```

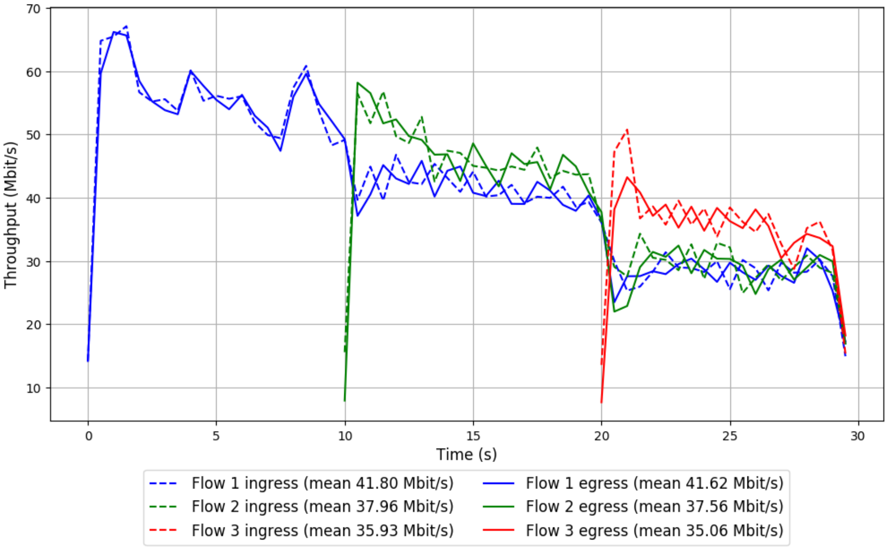
Run 10: Report of FillP — Data Link

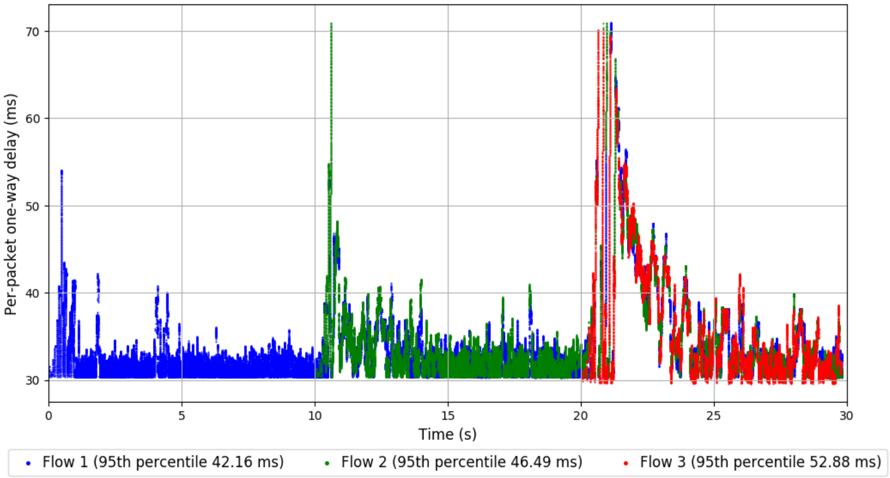




```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-27 19:10:20
End at: 2018-03-27 19:10:50
Local clock offset: 0.471 ms
Remote clock offset: -5.365 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.94 Mbit/s
95th percentile per-packet one-way delay: 45.727 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 41.62 Mbit/s
95th percentile per-packet one-way delay: 42.163 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 37.56 Mbit/s
95th percentile per-packet one-way delay: 46.486 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 52.877 ms
Loss rate: 2.40%
```

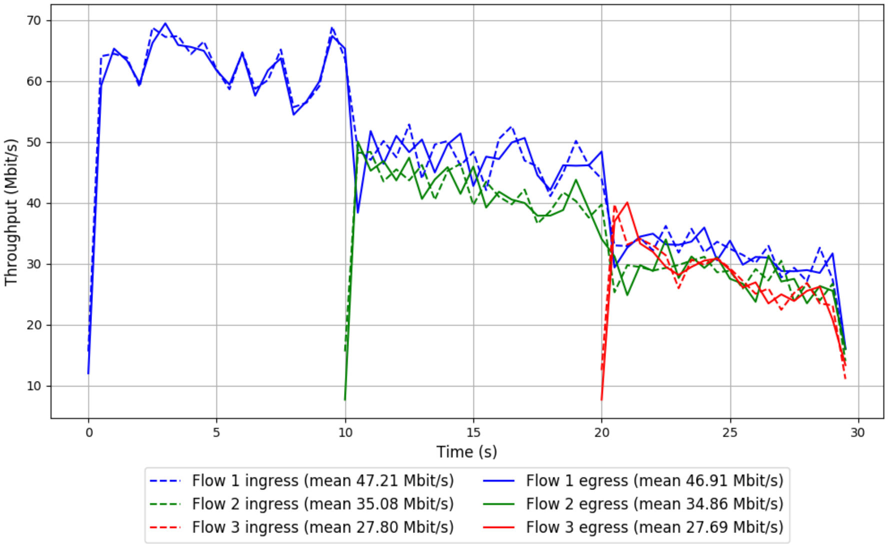
Run 1: Report of Indigo-1-32 — Data Link

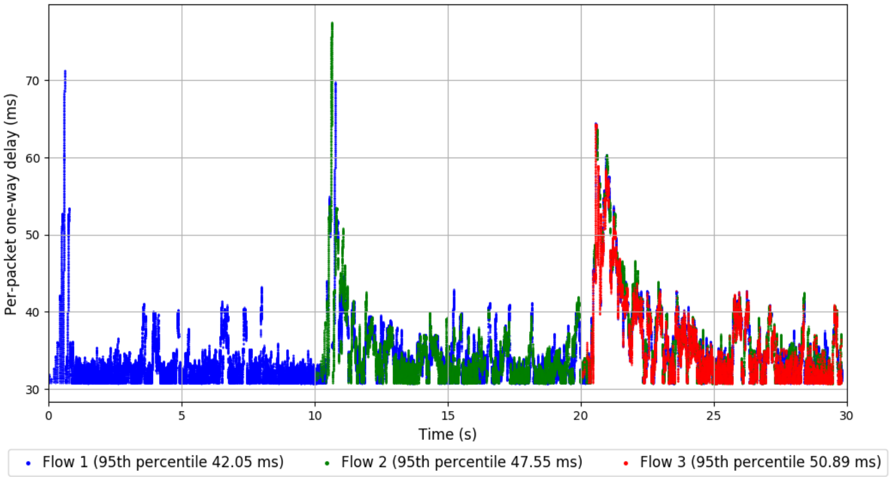




```
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-27 19:40:48
End at: 2018-03-27 19:41:18
Local clock offset: -0.177 ms
Remote clock offset: -3.892 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.04 Mbit/s
95th percentile per-packet one-way delay: 45.803 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 46.91 Mbit/s
95th percentile per-packet one-way delay: 42.046 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 47.554 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 27.69 Mbit/s
95th percentile per-packet one-way delay: 50.891 ms
Loss rate: 0.40%
```

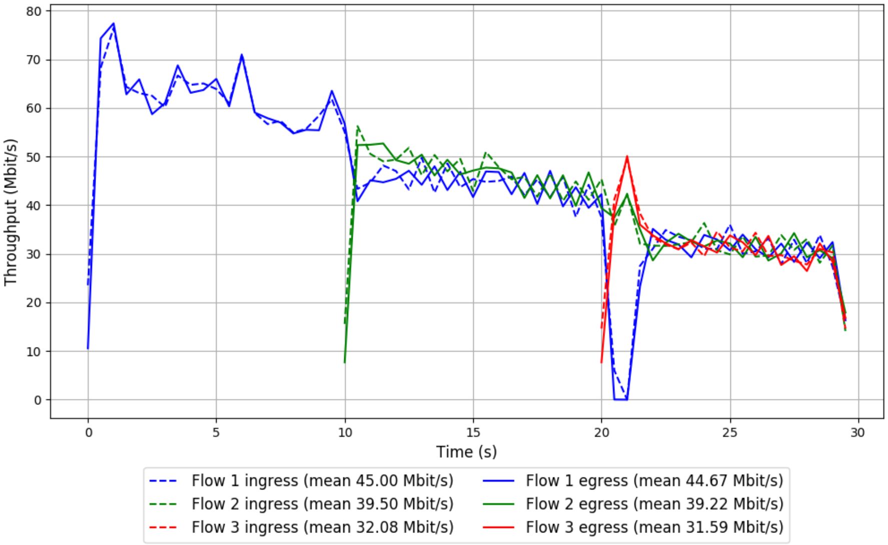
Run 2: Report of Indigo-1-32 — Data Link

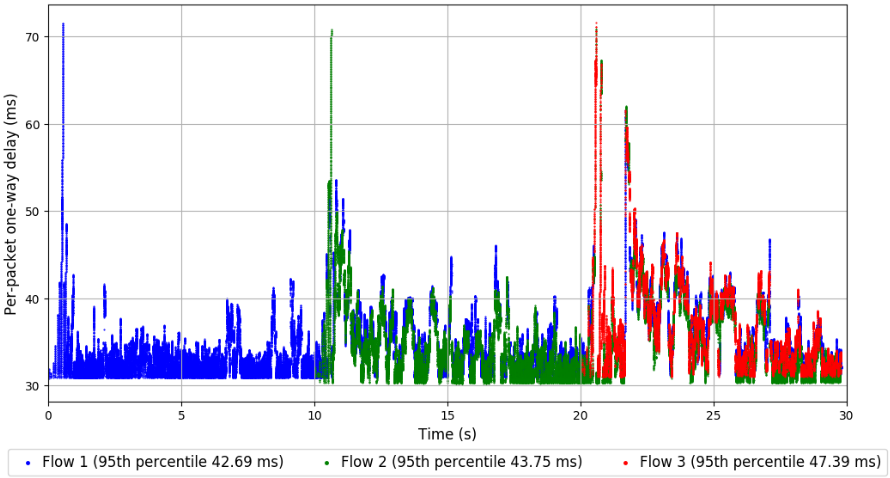




```
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-27 20:12:43
End at: 2018-03-27 20:13:13
Local clock offset: 0.979 ms
Remote clock offset: -3.049 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.96 Mbit/s
95th percentile per-packet one-way delay: 43.931 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 44.67 Mbit/s
95th percentile per-packet one-way delay: 42.692 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 39.22 Mbit/s
95th percentile per-packet one-way delay: 43.749 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 47.391 ms
Loss rate: 1.52%
```

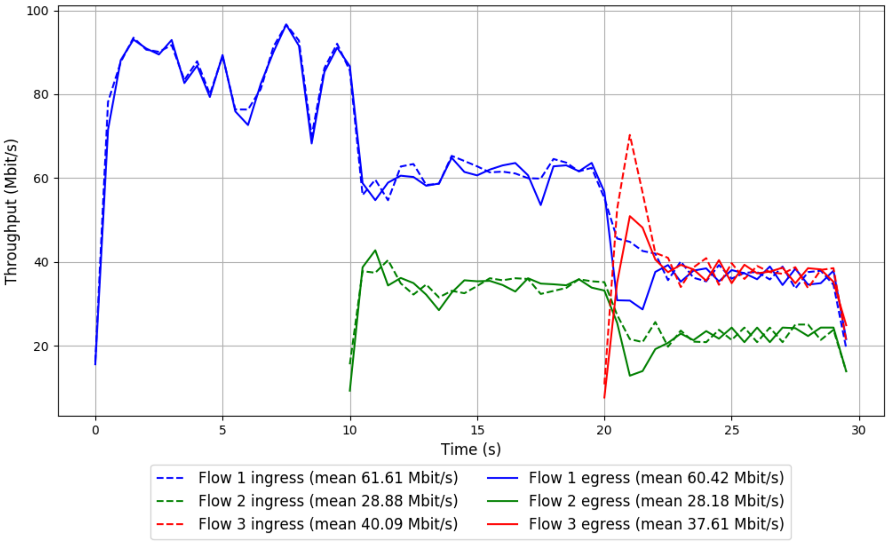
Run 3: Report of Indigo-1-32 — Data Link

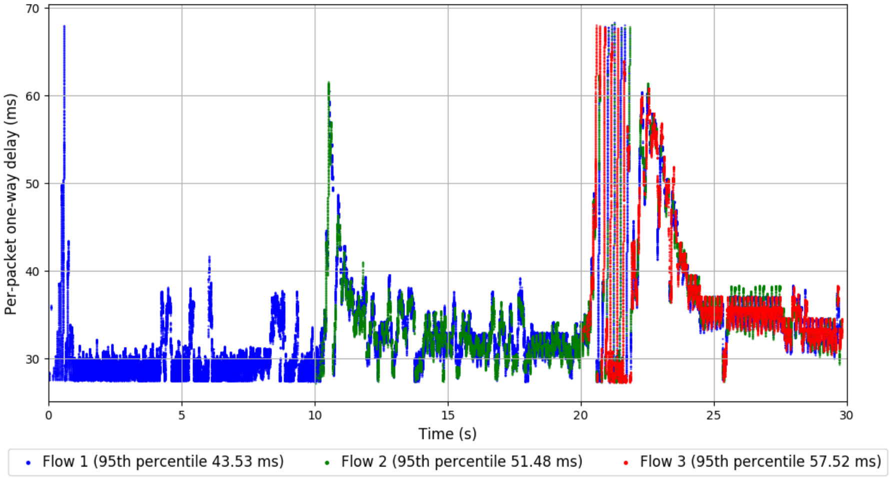




```
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-27 20:43:41
End at: 2018-03-27 20:44:11
Local clock offset: 2.187 ms
Remote clock offset: -6.706 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.33 Mbit/s
95th percentile per-packet one-way delay: 50.162 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 60.42 Mbit/s
95th percentile per-packet one-way delay: 43.531 ms
Loss rate: 1.91%
-- Flow 2:
Average throughput: 28.18 Mbit/s
95th percentile per-packet one-way delay: 51.485 ms
Loss rate: 2.39%
-- Flow 3:
Average throughput: 37.61 Mbit/s
95th percentile per-packet one-way delay: 57.524 ms
Loss rate: 6.16%
```

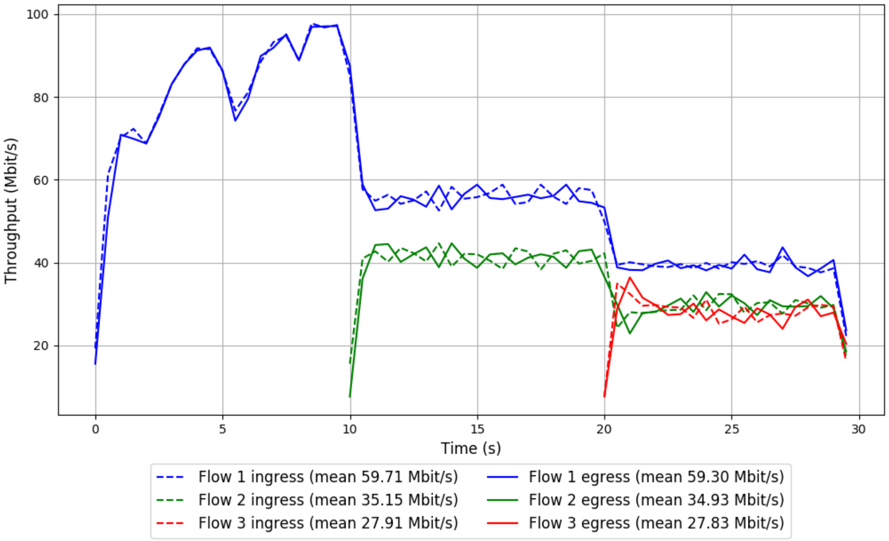
Run 4: Report of Indigo-1-32 — Data Link

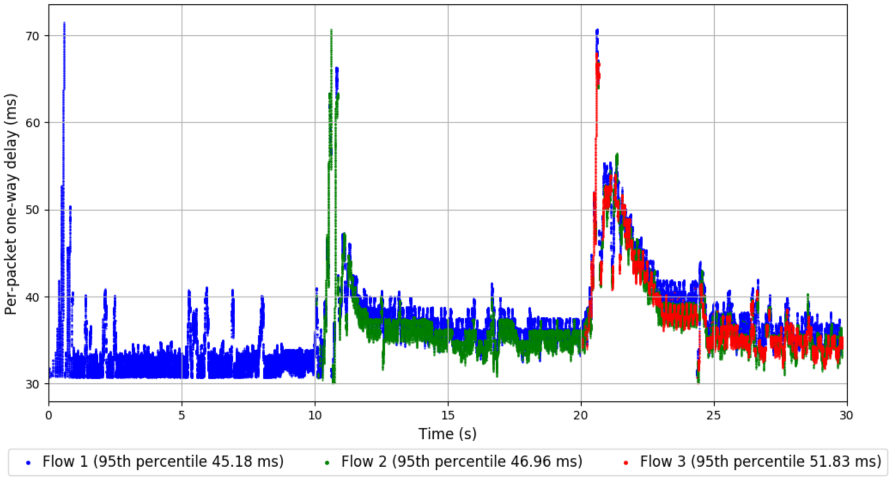




```
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-27 21:09:25
End at: 2018-03-27 21:09:55
Local clock offset: 0.375 ms
Remote clock offset: -0.199 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.51 Mbit/s
95th percentile per-packet one-way delay: 46.844 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 59.30 Mbit/s
95th percentile per-packet one-way delay: 45.180 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 34.93 Mbit/s
95th percentile per-packet one-way delay: 46.959 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 27.83 Mbit/s
95th percentile per-packet one-way delay: 51.830 ms
Loss rate: 0.26%
```

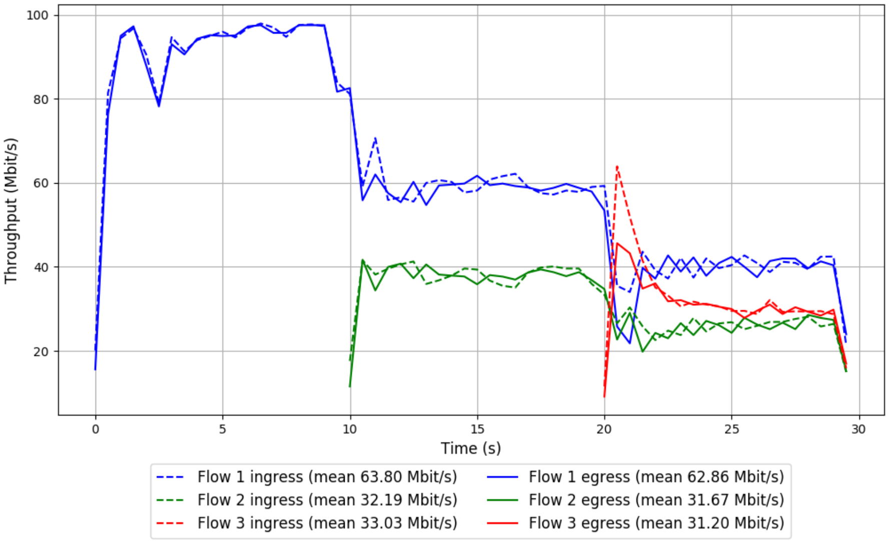
Run 5: Report of Indigo-1-32 — Data Link

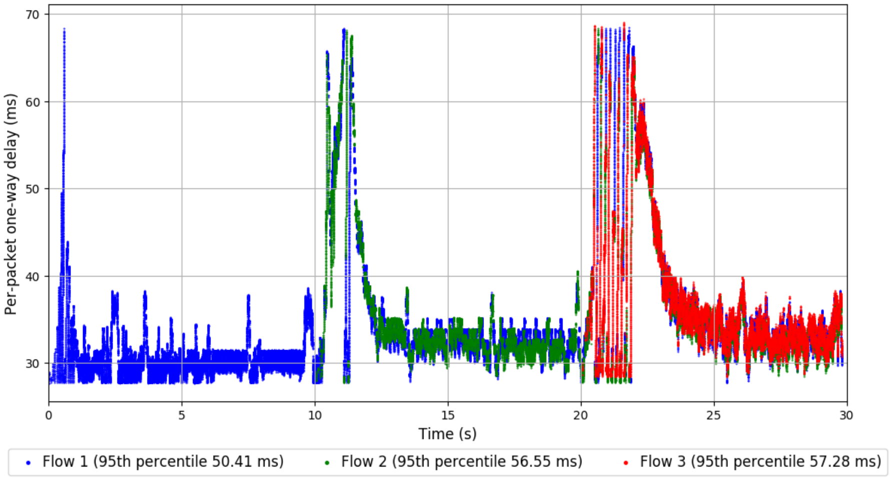




```
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-27 21:35:25
End at: 2018-03-27 21:35:55
Local clock offset: 4.199 ms
Remote clock offset: -3.418 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.03 Mbit/s
95th percentile per-packet one-way delay: 54.405 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 62.86 Mbit/s
95th percentile per-packet one-way delay: 50.414 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 56.553 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 57.281 ms
Loss rate: 5.52%
```

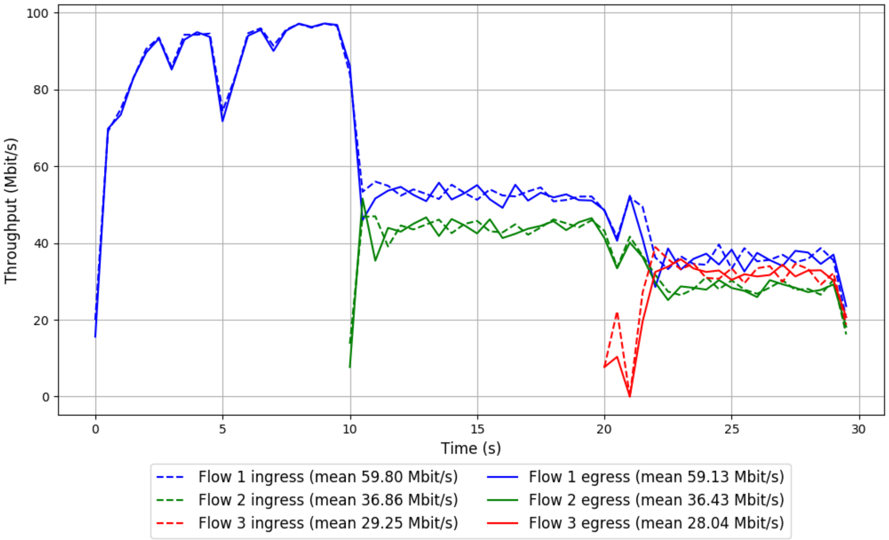
Run 6: Report of Indigo-1-32 — Data Link

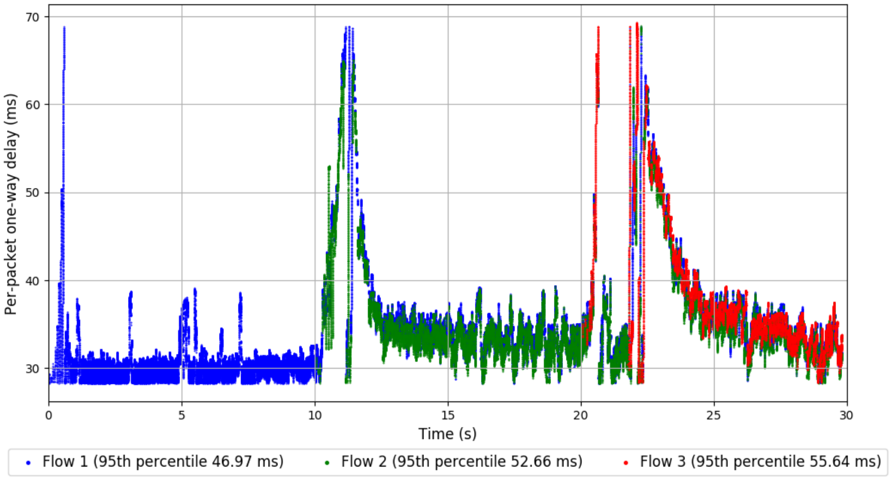




```
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-27 22:02:00
End at: 2018-03-27 22:02:30
Local clock offset: 5.699 ms
Remote clock offset: -2.647 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.45 Mbit/s
95th percentile per-packet one-way delay: 50.784 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 59.13 Mbit/s
95th percentile per-packet one-way delay: 46.971 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 36.43 Mbit/s
95th percentile per-packet one-way delay: 52.657 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 55.642 ms
Loss rate: 4.12%
```

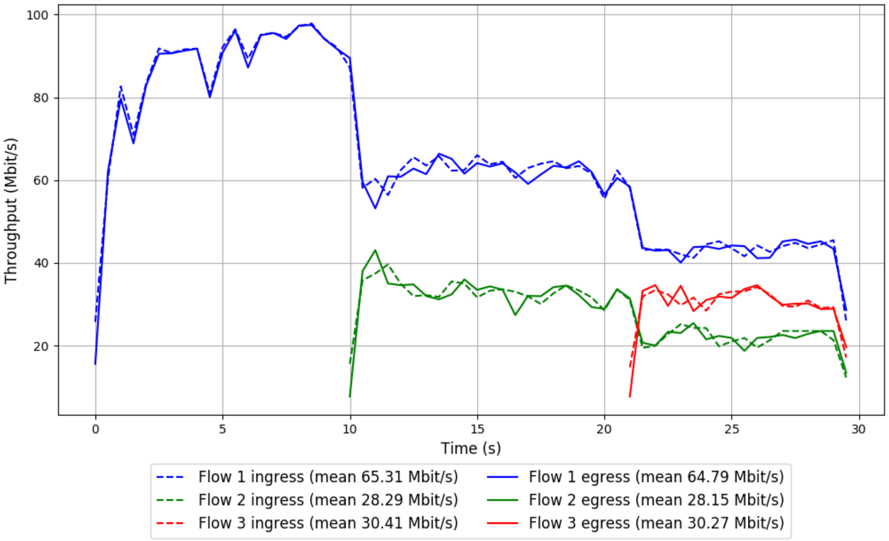
Run 7: Report of Indigo-1-32 — Data Link

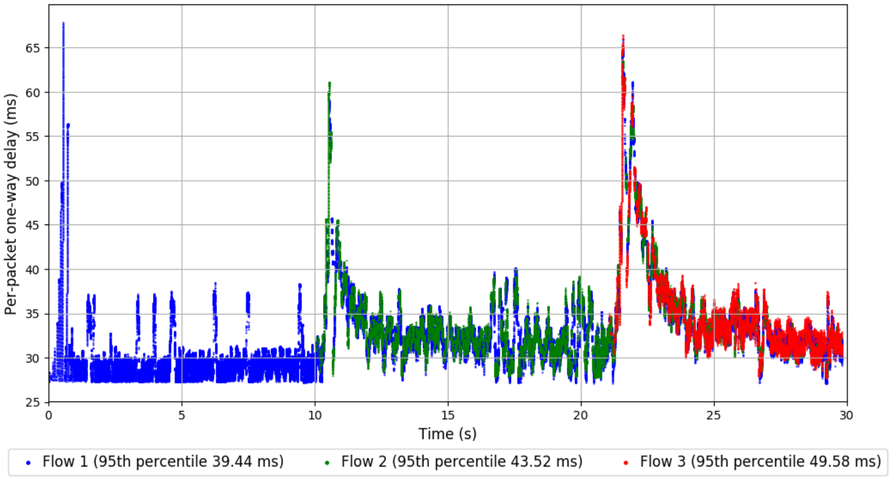




```
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-27 22:29:24
End at: 2018-03-27 22:29:54
Local clock offset: 3.32 ms
Remote clock offset: -1.007 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 41.929 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 64.79 Mbit/s
95th percentile per-packet one-way delay: 39.439 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 43.520 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 30.27 Mbit/s
95th percentile per-packet one-way delay: 49.580 ms
Loss rate: 0.49%
```

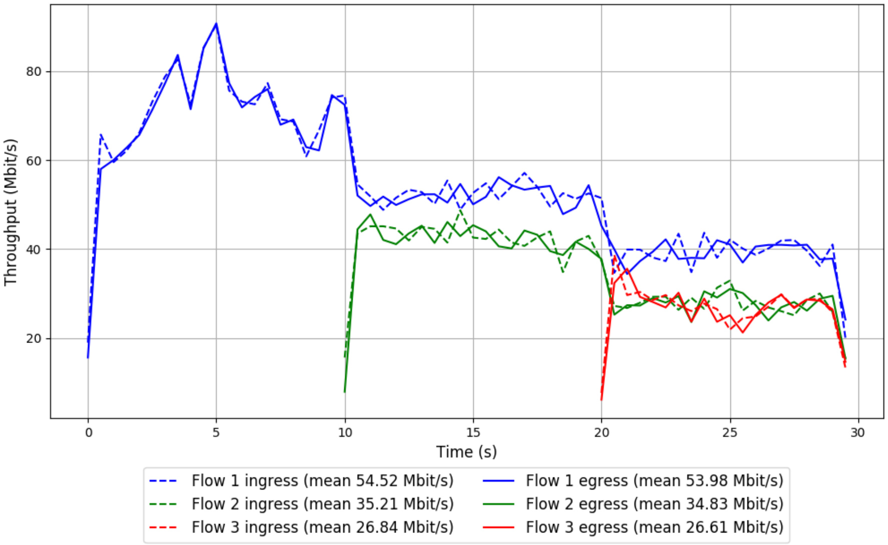
Run 8: Report of Indigo-1-32 — Data Link

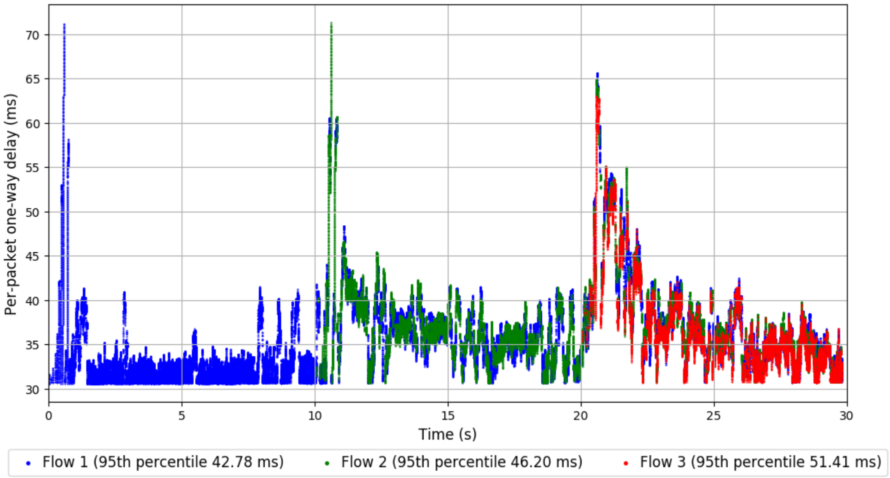




```
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-27 22:57:52
End at: 2018-03-27 22:58:22
Local clock offset: -1.164 ms
Remote clock offset: 4.167 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.74 Mbit/s
95th percentile per-packet one-way delay: 45.270 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 53.98 Mbit/s
95th percentile per-packet one-way delay: 42.780 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 34.83 Mbit/s
95th percentile per-packet one-way delay: 46.199 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 26.61 Mbit/s
95th percentile per-packet one-way delay: 51.414 ms
Loss rate: 0.92%
```

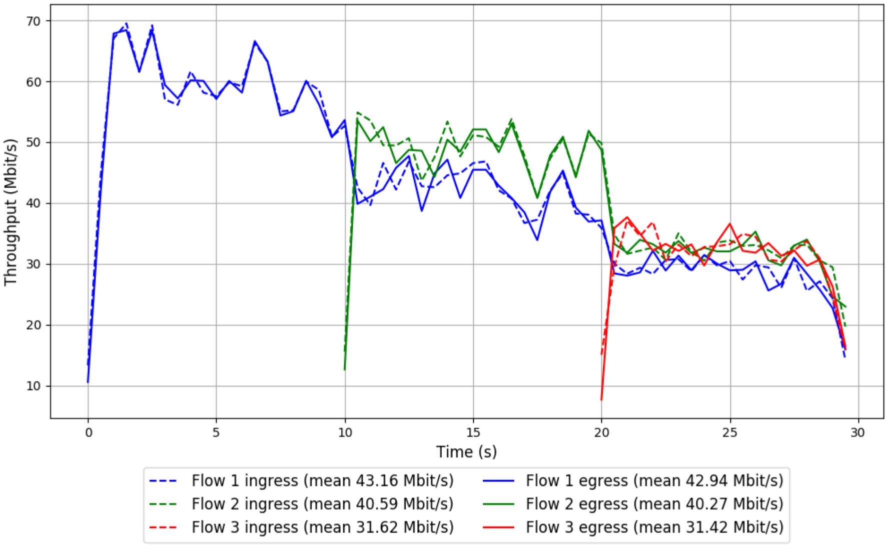
Run 9: Report of Indigo-1-32 — Data Link

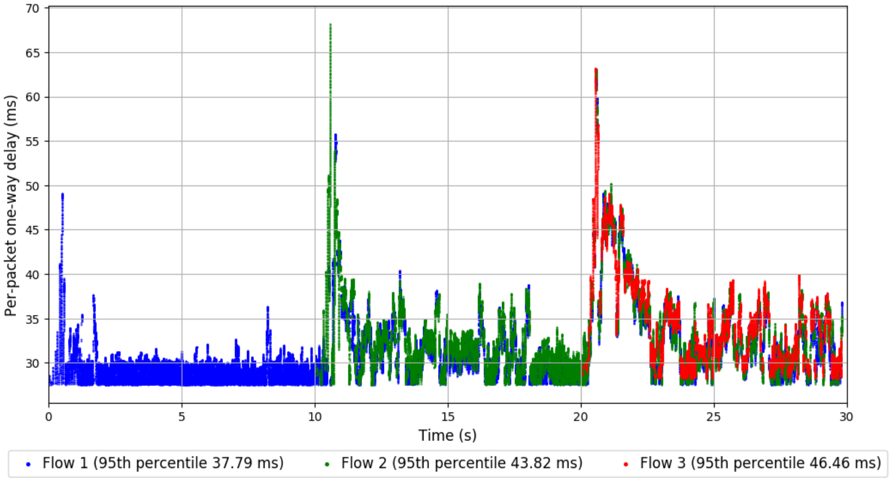




```
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-27 23:28:26
End at: 2018-03-27 23:28:56
Local clock offset: 1.98 ms
Remote clock offset: -0.493 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.92 Mbit/s
95th percentile per-packet one-way delay: 41.718 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 42.94 Mbit/s
95th percentile per-packet one-way delay: 37.794 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 43.818 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 46.458 ms
Loss rate: 0.60%
```

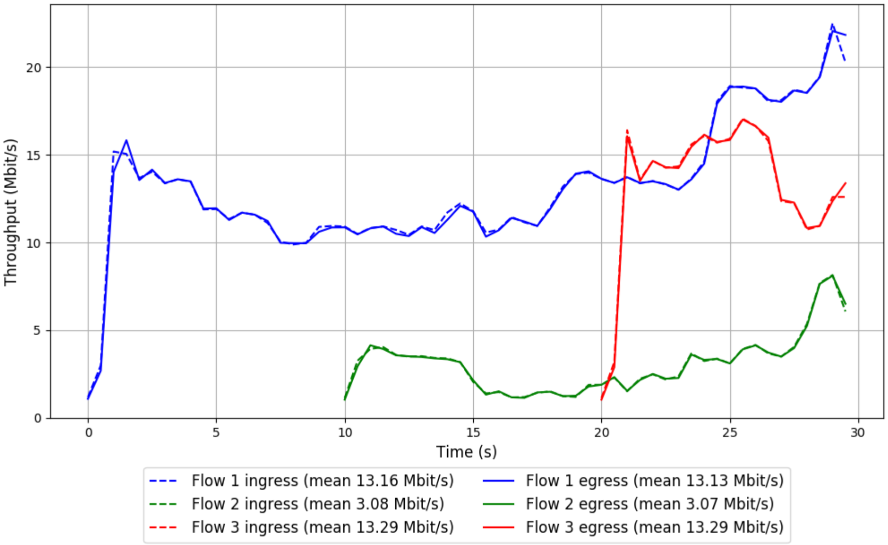
Run 10: Report of Indigo-1-32 — Data Link

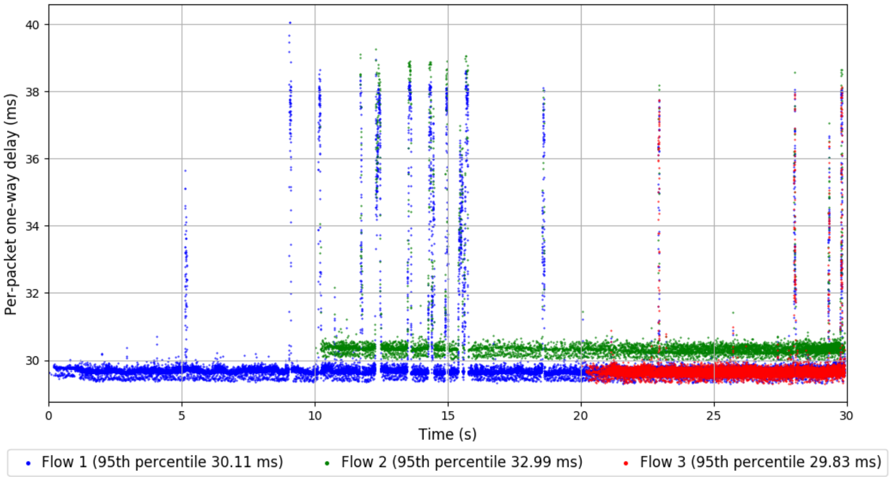




```
Run 1: Statistics of Vivace-latency

Start at: 2018-03-27 19:08:48
End at: 2018-03-27 19:09:18
Local clock offset: 0.725 ms
Remote clock offset: -5.375 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.55 Mbit/s
95th percentile per-packet one-way delay: 30.507 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 13.13 Mbit/s
95th percentile per-packet one-way delay: 30.111 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 32.987 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 29.828 ms
Loss rate: 0.04%
```

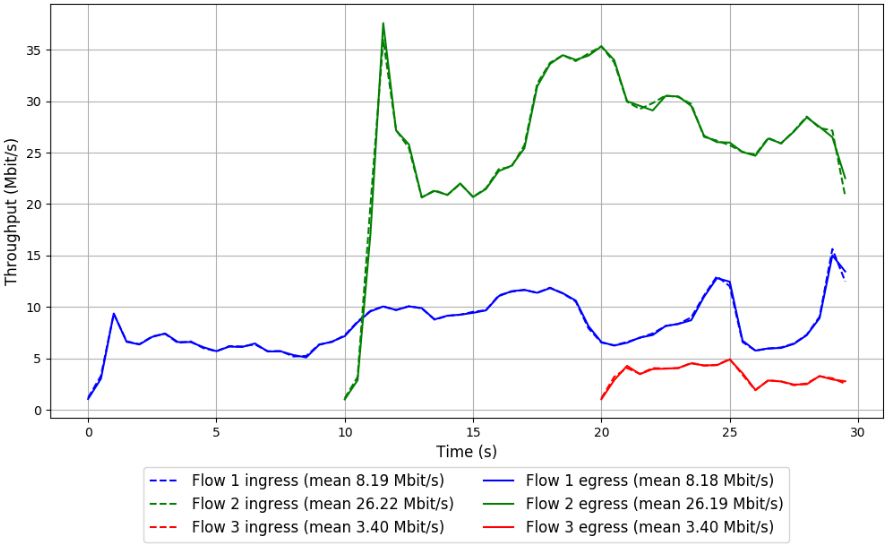
Run 1: Report of Vivace-latency — Data Link

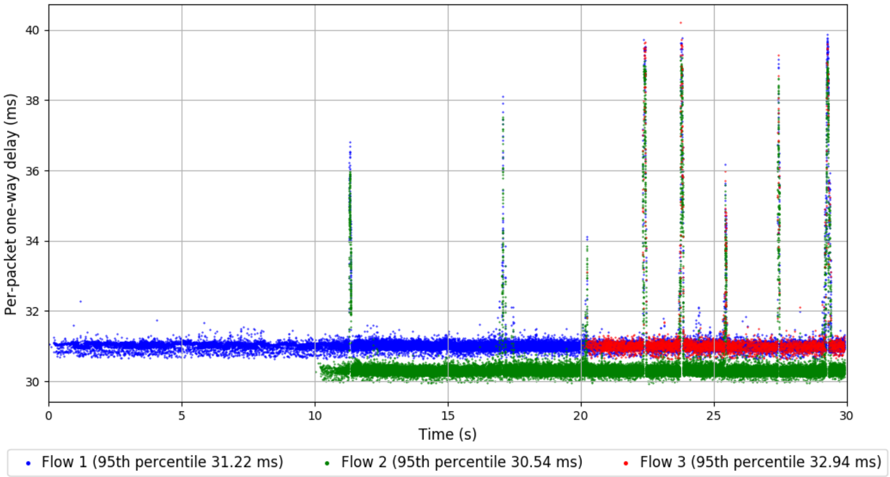




```
Run 2: Statistics of Vivace-latency

Start at: 2018-03-27 19:39:15
End at: 2018-03-27 19:39:45
Local clock offset: -0.238 ms
Remote clock offset: -3.962 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.71 Mbit/s
95th percentile per-packet one-way delay: 31.173 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 8.18 Mbit/s
95th percentile per-packet one-way delay: 31.220 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 26.19 Mbit/s
95th percentile per-packet one-way delay: 30.544 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 32.942 ms
Loss rate: 0.22%
```

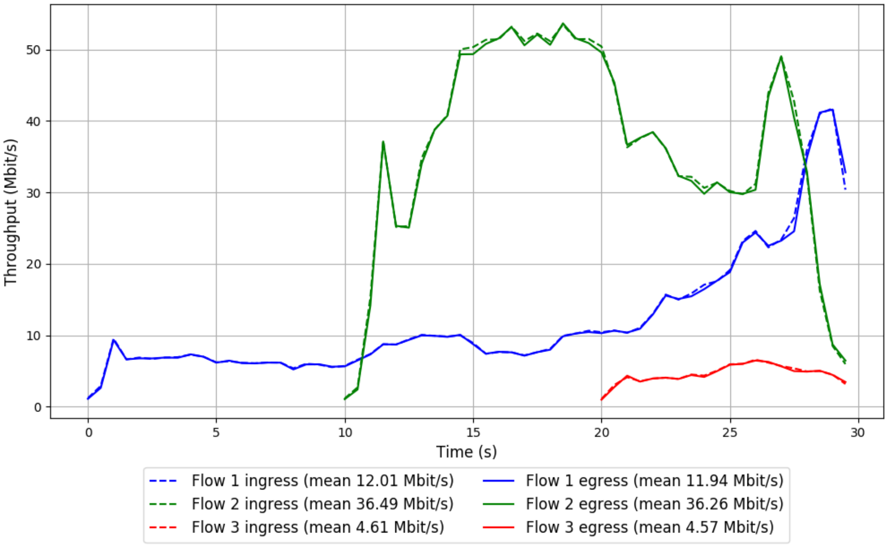
Run 2: Report of Vivace-latency — Data Link

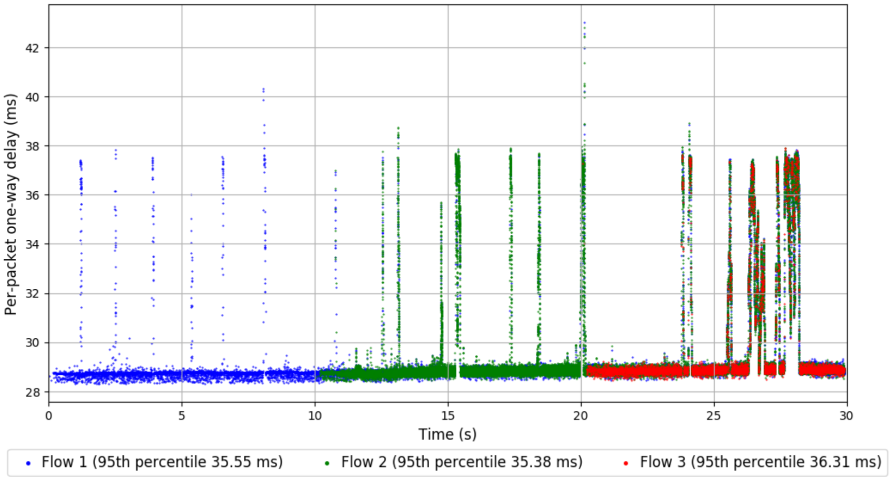




```
Run 3: Statistics of Vivace-latency

Start at: 2018-03-27 20:10:55
End at: 2018-03-27 20:11:25
Local clock offset: 0.573 ms
Remote clock offset: -5.183 ms

# Below is generated by plot.py at 2018-03-28 00:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 35.521 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 35.550 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 36.26 Mbit/s
95th percentile per-packet one-way delay: 35.384 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 36.314 ms
Loss rate: 0.87%
```

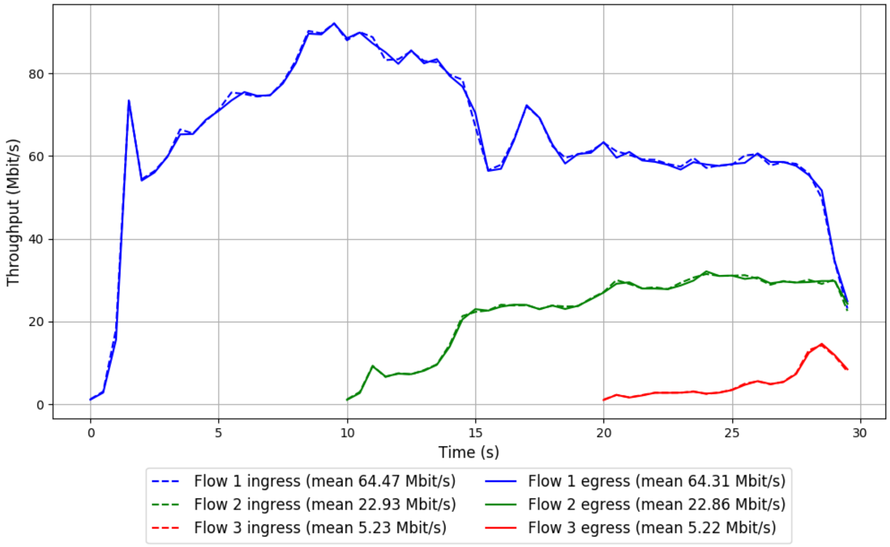
Run 3: Report of Vivace-latency — Data Link

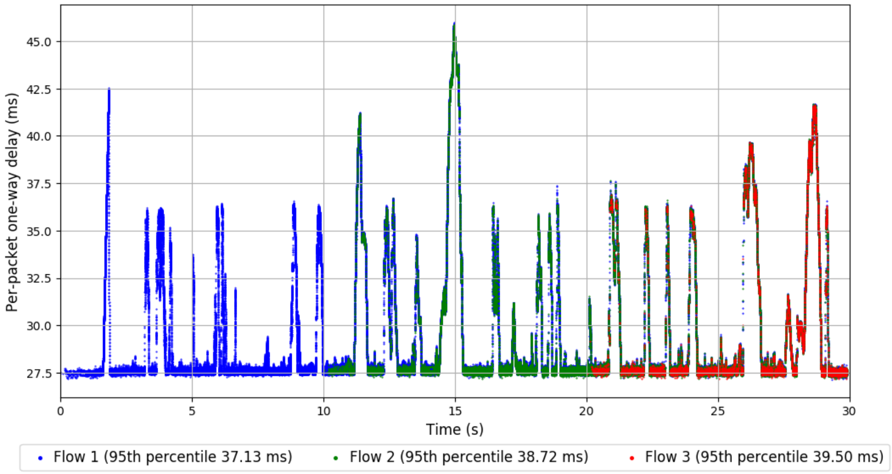




```
Run 4: Statistics of Vivace-latency

Start at: 2018-03-27 20:42:11
End at: 2018-03-27 20:42:41
Local clock offset: 2.697 ms
Remote clock offset: -6.795 ms

# Below is generated by plot.py at 2018-03-28 00:17:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.23 Mbit/s
95th percentile per-packet one-way delay: 37.815 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 64.31 Mbit/s
95th percentile per-packet one-way delay: 37.128 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 22.86 Mbit/s
95th percentile per-packet one-way delay: 38.724 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 5.22 Mbit/s
95th percentile per-packet one-way delay: 39.499 ms
Loss rate: 0.23%
```

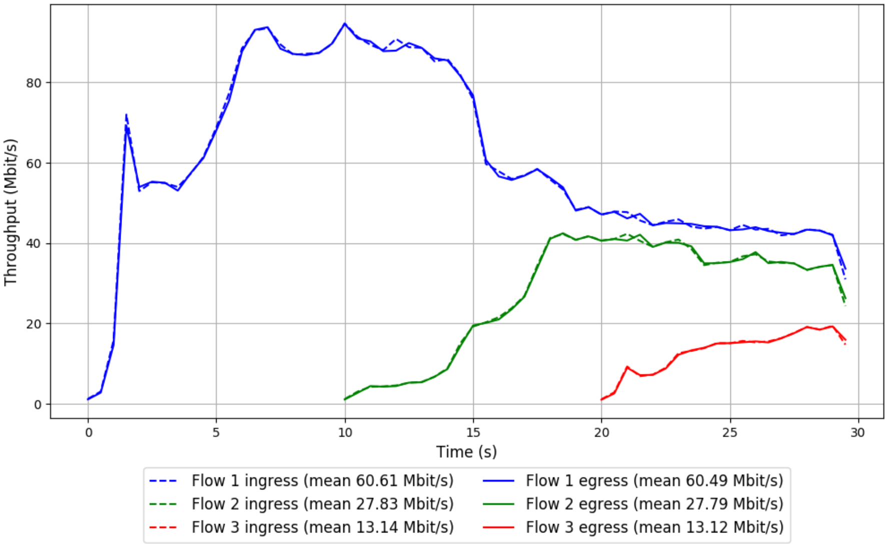
Run 4: Report of Vivace-latency — Data Link

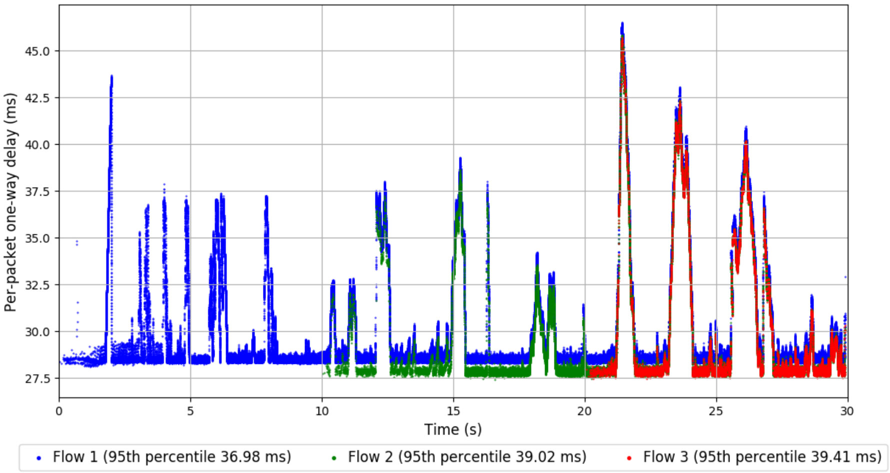




```
Run 5: Statistics of Vivace-latency

Start at: 2018-03-27 21:07:58
End at: 2018-03-27 21:08:28
Local clock offset: 0.301 ms
Remote clock offset: -2.823 ms

# Below is generated by plot.py at 2018-03-28 00:18:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.29 Mbit/s
95th percentile per-packet one-way delay: 37.727 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 60.49 Mbit/s
95th percentile per-packet one-way delay: 36.977 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 27.79 Mbit/s
95th percentile per-packet one-way delay: 39.015 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 39.407 ms
Loss rate: 0.09%
```

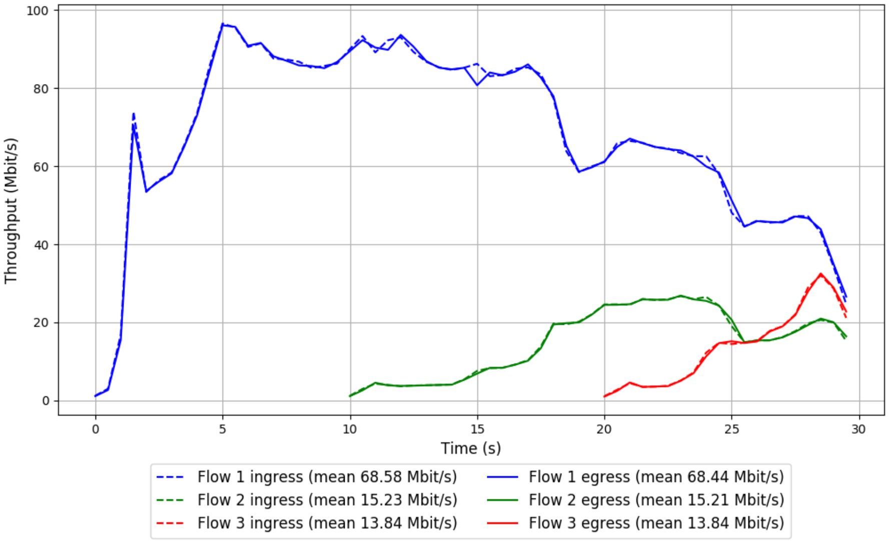
Run 5: Report of Vivace-latency — Data Link

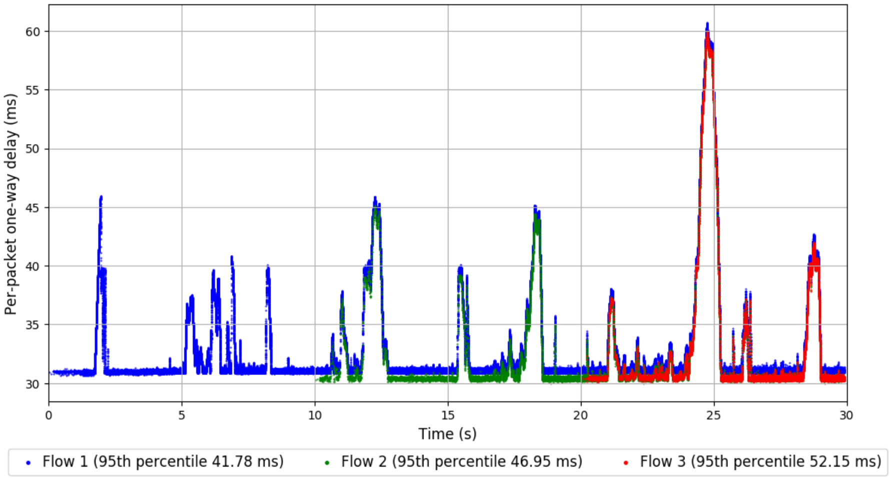




```
Run 6: Statistics of Vivace-latency

Start at: 2018-03-27 21:33:53
End at: 2018-03-27 21:34:23
Local clock offset: 4.062 ms
Remote clock offset: -0.969 ms

# Below is generated by plot.py at 2018-03-28 00:18:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.12 Mbit/s
95th percentile per-packet one-way delay: 42.931 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 68.44 Mbit/s
95th percentile per-packet one-way delay: 41.778 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 15.21 Mbit/s
95th percentile per-packet one-way delay: 46.955 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 13.84 Mbit/s
95th percentile per-packet one-way delay: 52.145 ms
Loss rate: 0.00%
```

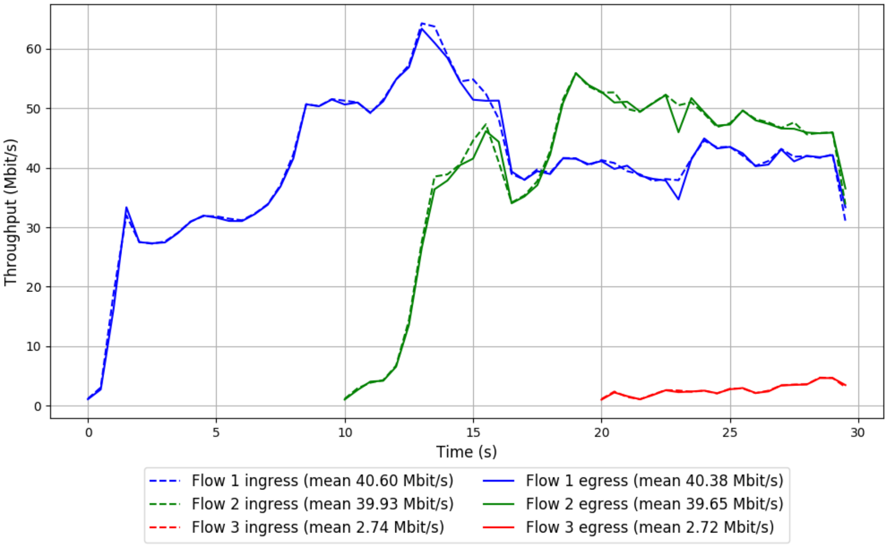
Run 6: Report of Vivace-latency — Data Link

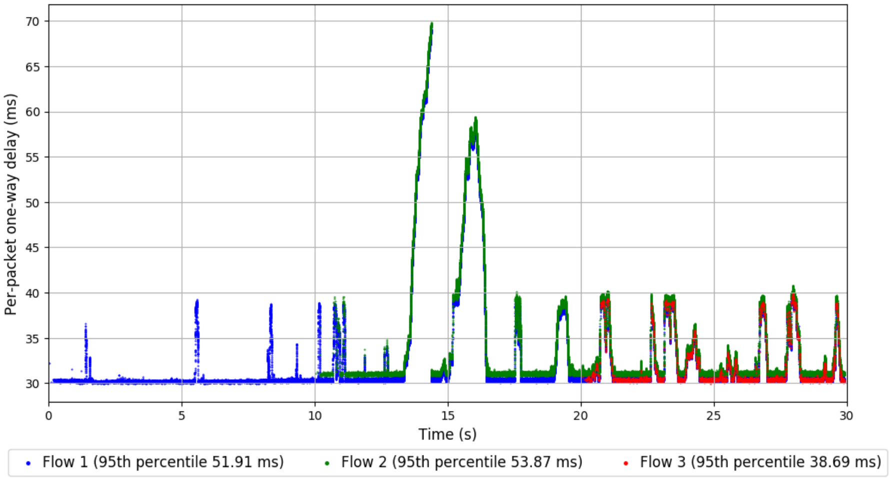




```
Run 7: Statistics of Vivace-latency

Start at: 2018-03-27 22:00:29
End at: 2018-03-27 22:00:59
Local clock offset: 5.543 ms
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2018-03-28 00:18:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.64 Mbit/s
95th percentile per-packet one-way delay: 52.692 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 40.38 Mbit/s
95th percentile per-packet one-way delay: 51.913 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 39.65 Mbit/s
95th percentile per-packet one-way delay: 53.871 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 38.685 ms
Loss rate: 0.73%
```

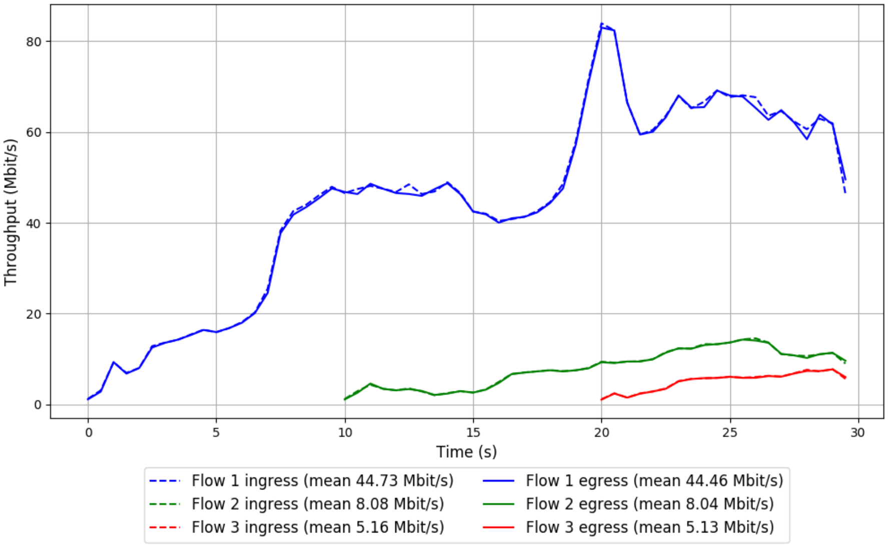
Run 7: Report of Vivace-latency — Data Link

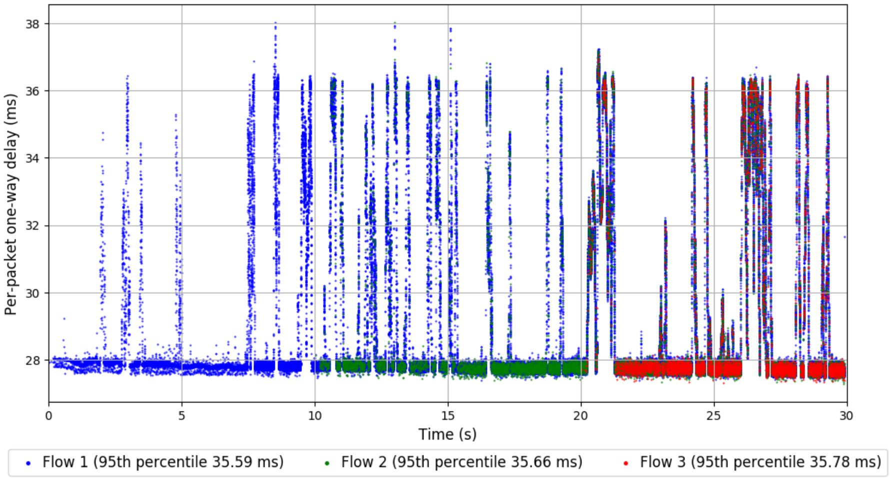




```
Run 8: Statistics of Vivace-latency

Start at: 2018-03-27 22:27:57
End at: 2018-03-27 22:28:27
Local clock offset: 4.075 ms
Remote clock offset: -1.464 ms

# Below is generated by plot.py at 2018-03-28 00:18:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.49 Mbit/s
95th percentile per-packet one-way delay: 35.613 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 44.46 Mbit/s
95th percentile per-packet one-way delay: 35.592 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 8.04 Mbit/s
95th percentile per-packet one-way delay: 35.662 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 5.13 Mbit/s
95th percentile per-packet one-way delay: 35.782 ms
Loss rate: 0.58%
```

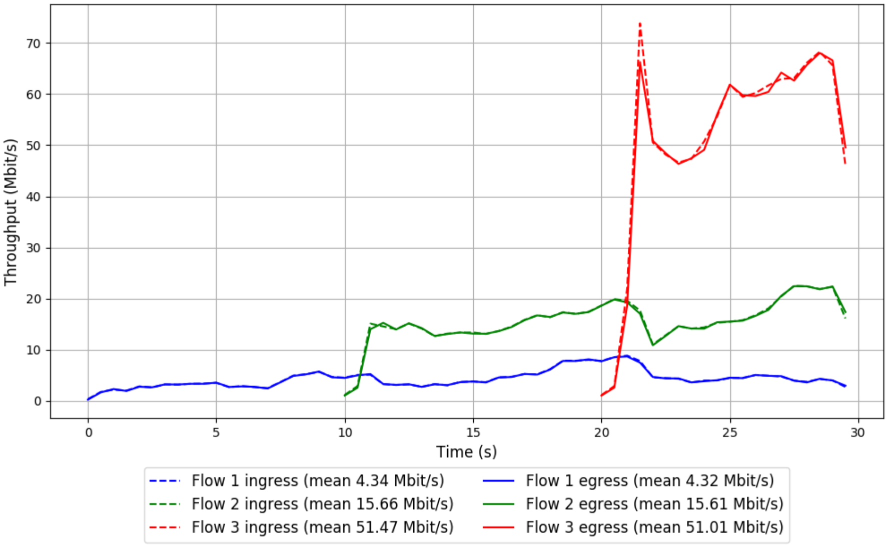
Run 8: Report of Vivace-latency — Data Link

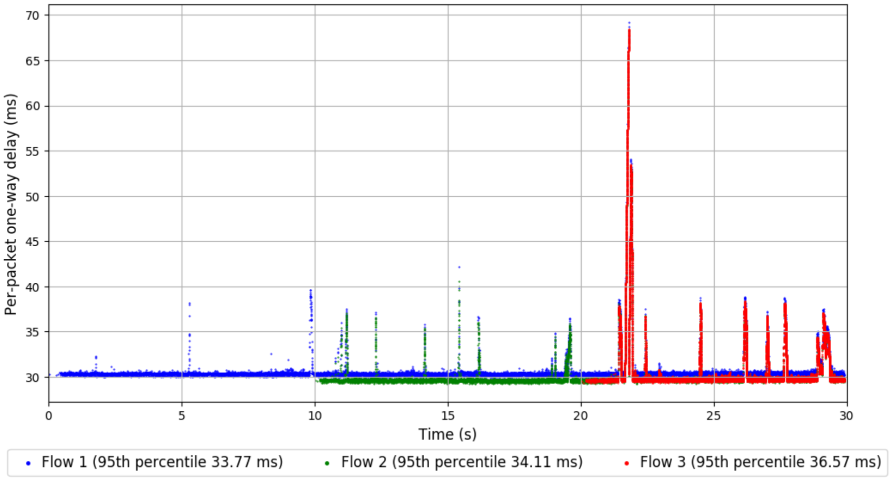




```
Run 9: Statistics of Vivace-latency

Start at: 2018-03-27 22:56:20
End at: 2018-03-27 22:56:50
Local clock offset: -1.126 ms
Remote clock offset: 4.029 ms

# Below is generated by plot.py at 2018-03-28 00:18:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.52 Mbit/s
95th percentile per-packet one-way delay: 35.392 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 33.774 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 15.61 Mbit/s
95th percentile per-packet one-way delay: 34.113 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 51.01 Mbit/s
95th percentile per-packet one-way delay: 36.566 ms
Loss rate: 0.89%
```

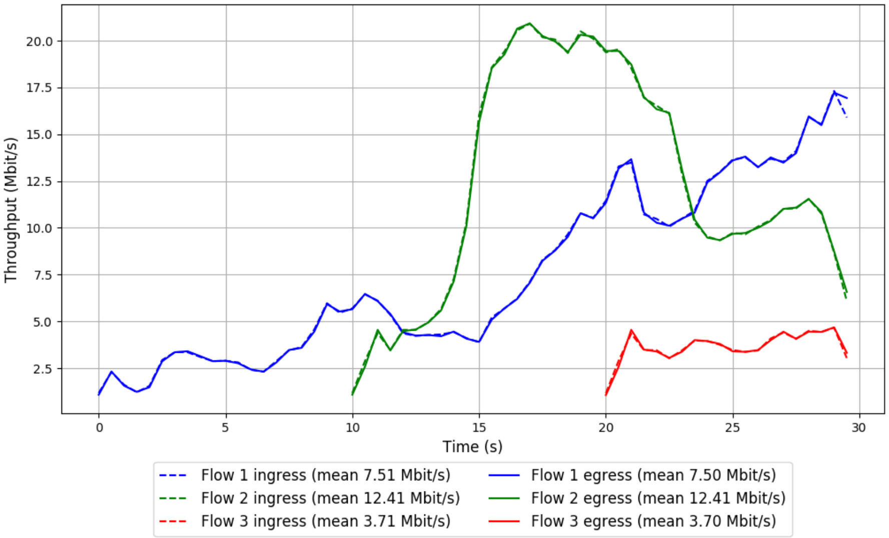
Run 9: Report of Vivace-latency — Data Link

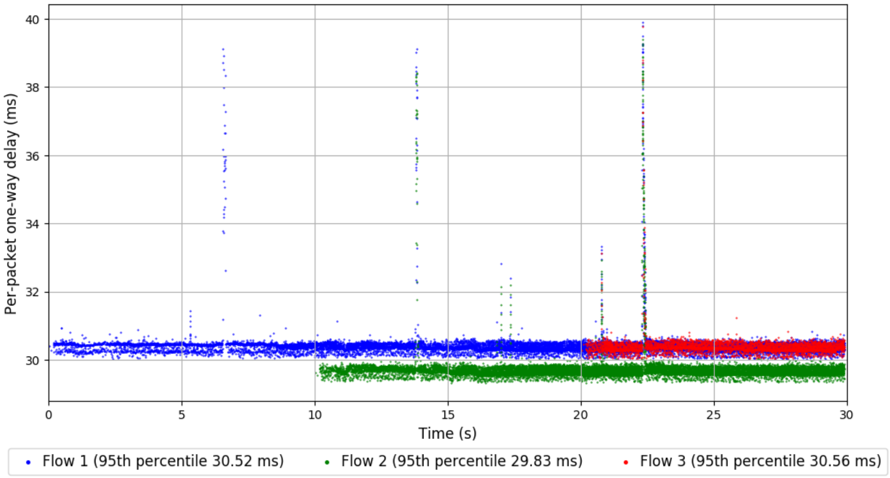




```
Run 10: Statistics of Vivace-latency

Start at: 2018-03-27 23:26:54
End at: 2018-03-27 23:27:24
Local clock offset: 2.006 ms
Remote clock offset: 1.55 ms

# Below is generated by plot.py at 2018-03-28 00:18:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.97 Mbit/s
95th percentile per-packet one-way delay: 30.498 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 30.520 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 29.826 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 30.557 ms
Loss rate: 0.10%
```

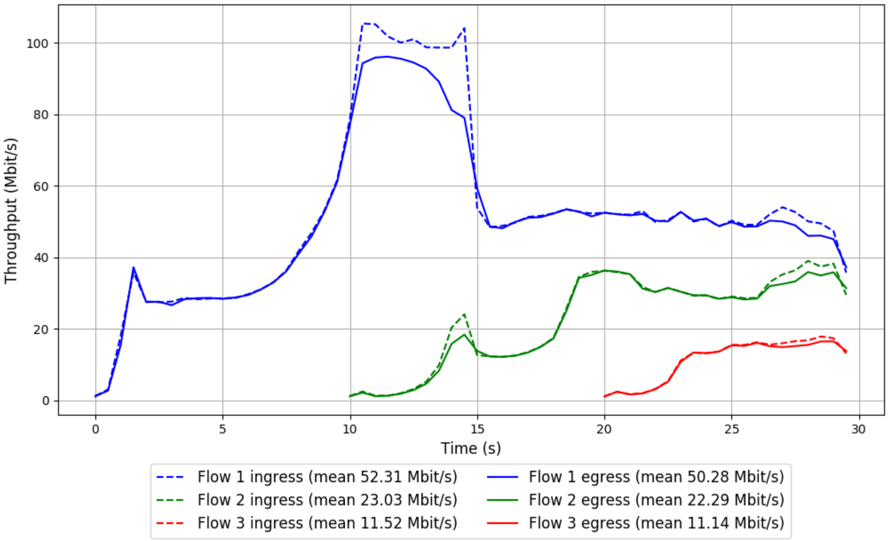
Run 10: Report of Vivace-latency — Data Link

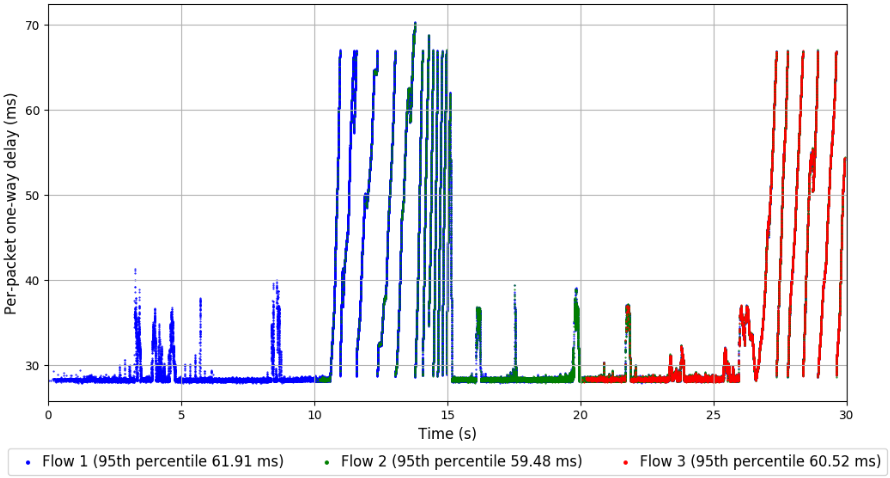




```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-27 19:00:06
End at: 2018-03-27 19:00:36
Local clock offset: 2.265 ms
Remote clock offset: -8.015 ms

# Below is generated by plot.py at 2018-03-28 00:18:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.79 Mbit/s
95th percentile per-packet one-way delay: 61.416 ms
Loss rate: 3.61%
-- Flow 1:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 61.914 ms
Loss rate: 3.79%
-- Flow 2:
Average throughput: 22.29 Mbit/s
95th percentile per-packet one-way delay: 59.484 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 11.14 Mbit/s
95th percentile per-packet one-way delay: 60.524 ms
Loss rate: 3.12%
```

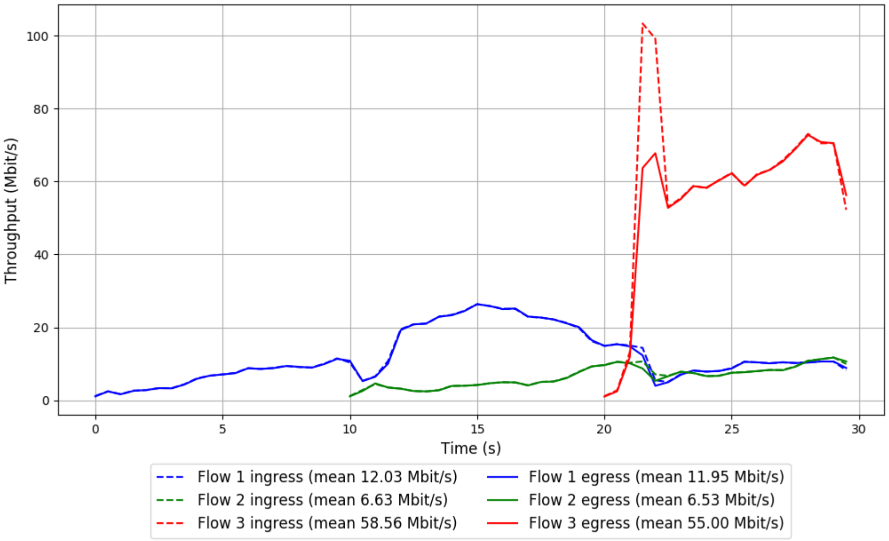
Run 1: Report of Vivace-loss — Data Link

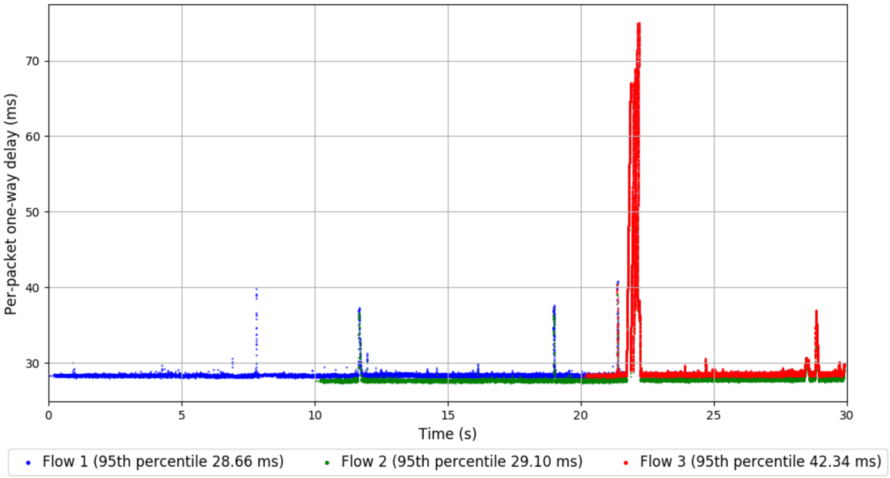




```
Run 2: Statistics of Vivace-loss

Start at: 2018-03-27 19:31:04
End at: 2018-03-27 19:31:34
Local clock offset: -0.548 ms
Remote clock offset: -7.242 ms

# Below is generated by plot.py at 2018-03-28 00:18:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.42 Mbit/s
95th percentile per-packet one-way delay: 32.748 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 11.95 Mbit/s
95th percentile per-packet one-way delay: 28.663 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 6.53 Mbit/s
95th percentile per-packet one-way delay: 29.099 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 42.338 ms
Loss rate: 6.07%
```

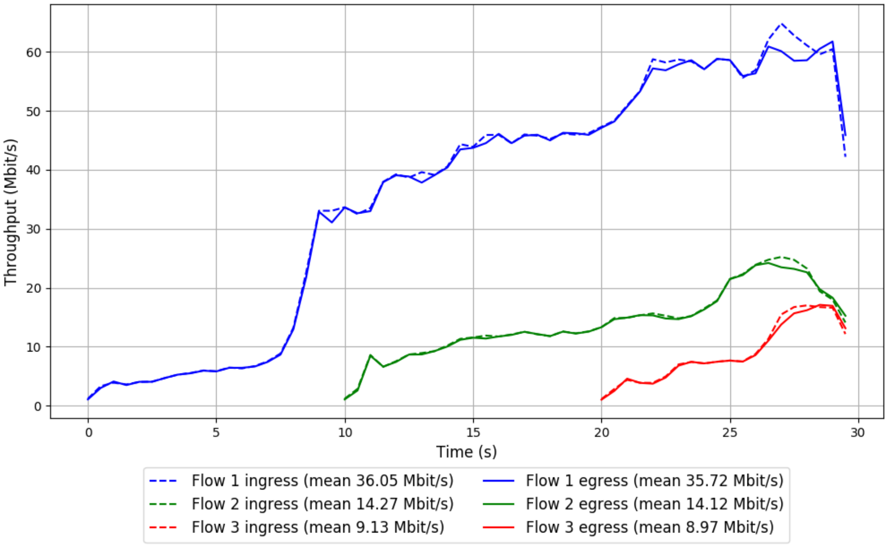
Run 2: Report of Vivace-loss — Data Link

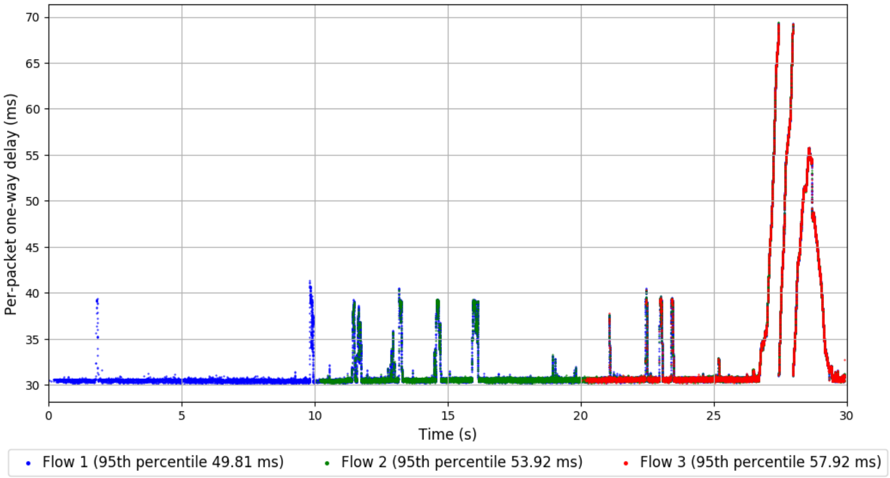




```
Run 3: Statistics of Vivace-loss

Start at: 2018-03-27 20:02:44
End at: 2018-03-27 20:03:14
Local clock offset: -0.285 ms
Remote clock offset: -2.999 ms

# Below is generated by plot.py at 2018-03-28 00:18:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.06 Mbit/s
95th percentile per-packet one-way delay: 51.490 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 35.72 Mbit/s
95th percentile per-packet one-way delay: 49.814 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 14.12 Mbit/s
95th percentile per-packet one-way delay: 53.924 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 8.97 Mbit/s
95th percentile per-packet one-way delay: 57.924 ms
Loss rate: 1.74%
```

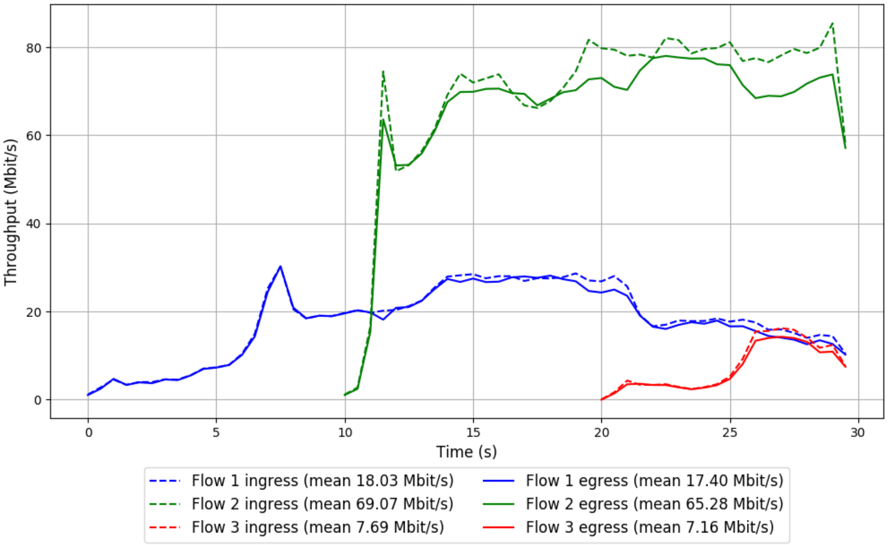
Run 3: Report of Vivace-loss — Data Link

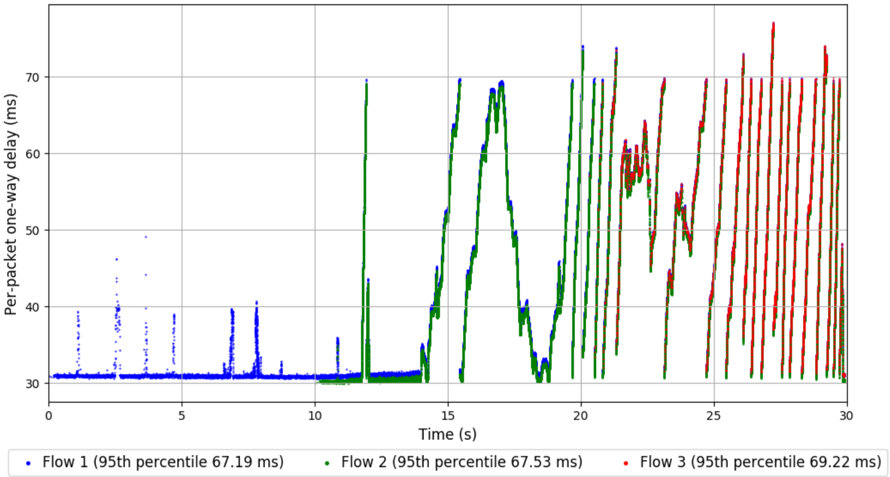




```
Run 4: Statistics of Vivace-loss

Start at: 2018-03-27 20:33:57
End at: 2018-03-27 20:34:27
Local clock offset: 2.697 ms
Remote clock offset: -4.21 ms

# Below is generated by plot.py at 2018-03-28 00:18:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.10 Mbit/s
95th percentile per-packet one-way delay: 67.545 ms
Loss rate: 5.11%
-- Flow 1:
Average throughput: 17.40 Mbit/s
95th percentile per-packet one-way delay: 67.190 ms
Loss rate: 3.52%
-- Flow 2:
Average throughput: 65.28 Mbit/s
95th percentile per-packet one-way delay: 67.534 ms
Loss rate: 5.49%
-- Flow 3:
Average throughput: 7.16 Mbit/s
95th percentile per-packet one-way delay: 69.225 ms
Loss rate: 9.53%
```

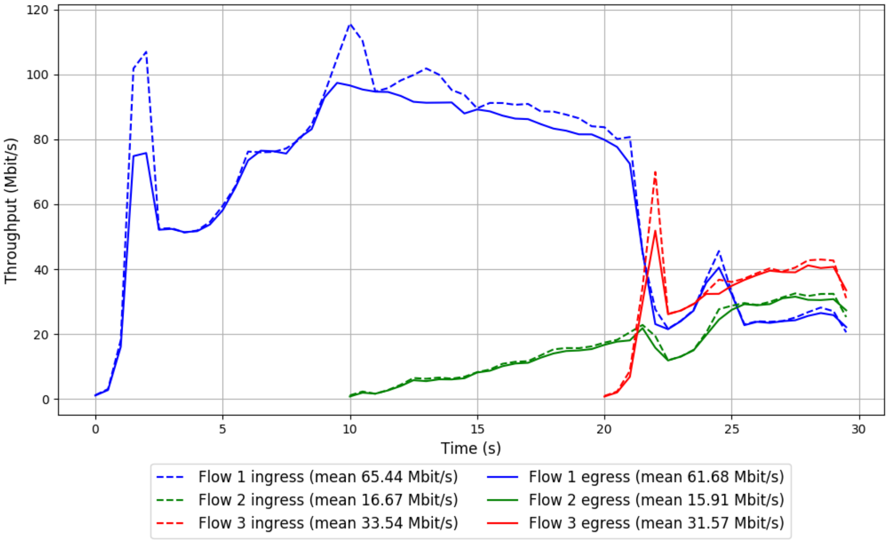
Run 4: Report of Vivace-loss — Data Link

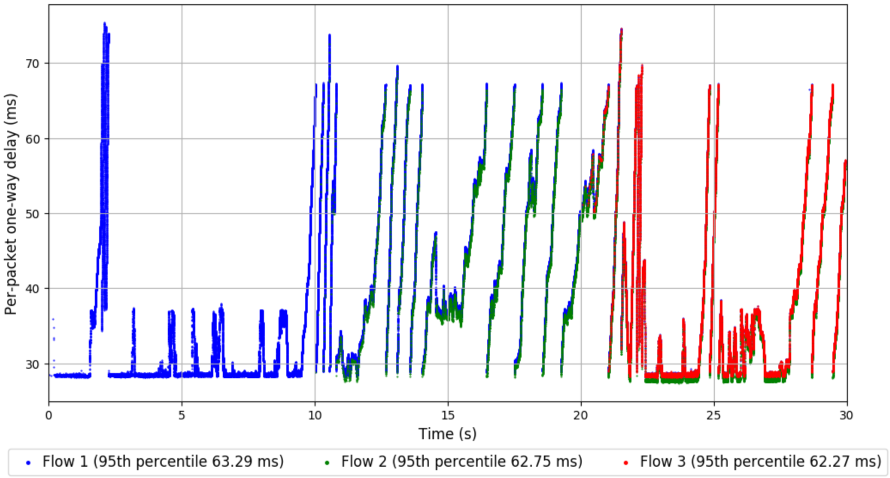




```
Run 5: Statistics of Vivace-loss

Start at: 2018-03-27 21:01:05
End at: 2018-03-27 21:01:35
Local clock offset: 0.559 ms
Remote clock offset: -3.252 ms

# Below is generated by plot.py at 2018-03-28 00:19:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.66 Mbit/s
95th percentile per-packet one-way delay: 63.093 ms
Loss rate: 5.53%
-- Flow 1:
Average throughput: 61.68 Mbit/s
95th percentile per-packet one-way delay: 63.291 ms
Loss rate: 5.66%
-- Flow 2:
Average throughput: 15.91 Mbit/s
95th percentile per-packet one-way delay: 62.750 ms
Loss rate: 4.43%
-- Flow 3:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 62.270 ms
Loss rate: 5.82%
```

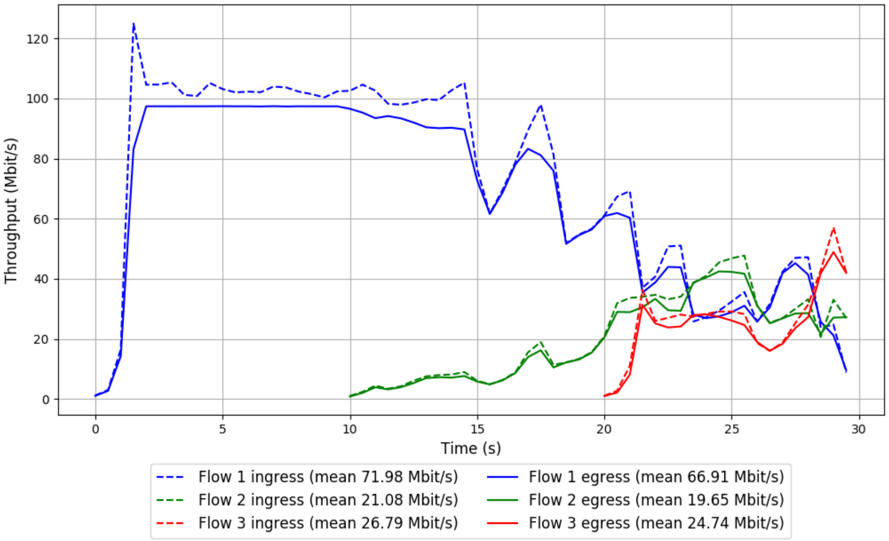
Run 5: Report of Vivace-loss — Data Link

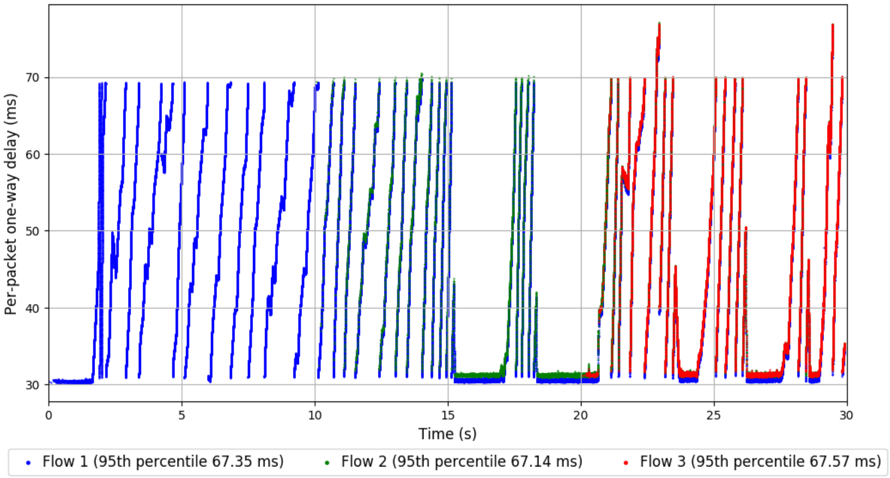




```
Run 6: Statistics of Vivace-loss

Start at: 2018-03-27 21:26:50
End at: 2018-03-27 21:27:20
Local clock offset: 3.225 ms
Remote clock offset: -0.626 ms

# Below is generated by plot.py at 2018-03-28 00:19:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.10 Mbit/s
95th percentile per-packet one-way delay: 67.337 ms
Loss rate: 7.07%
-- Flow 1:
Average throughput: 66.91 Mbit/s
95th percentile per-packet one-way delay: 67.349 ms
Loss rate: 7.03%
-- Flow 2:
Average throughput: 19.65 Mbit/s
95th percentile per-packet one-way delay: 67.137 ms
Loss rate: 6.94%
-- Flow 3:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 67.567 ms
Loss rate: 7.60%
```

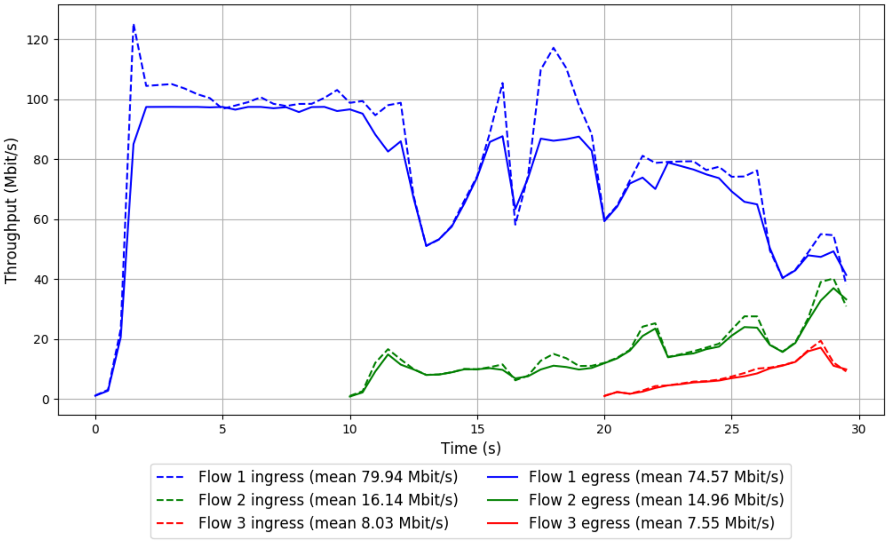
Run 6: Report of Vivace-loss — Data Link

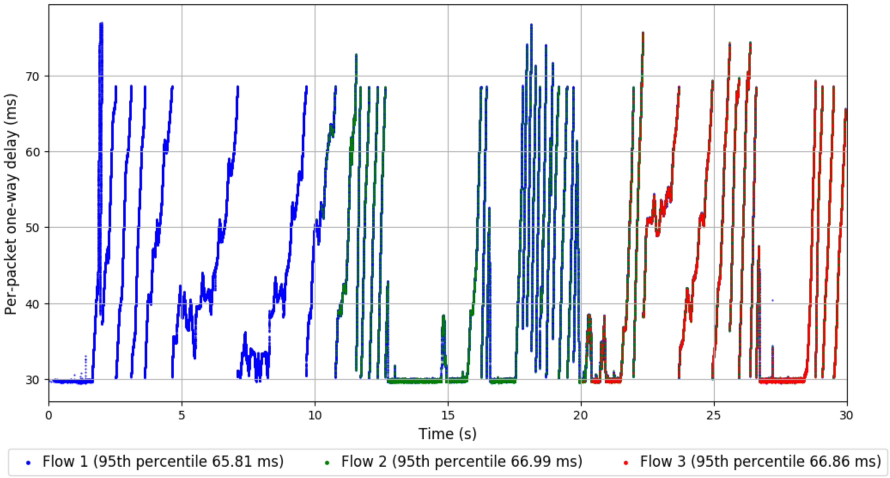




```
Run 7: Statistics of Vivace-loss

Start at: 2018-03-27 21:53:09
End at: 2018-03-27 21:53:39
Local clock offset: 5.25 ms
Remote clock offset: -1.343 ms

# Below is generated by plot.py at 2018-03-28 00:19:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.01 Mbit/s
95th percentile per-packet one-way delay: 65.981 ms
Loss rate: 6.65%
-- Flow 1:
Average throughput: 74.57 Mbit/s
95th percentile per-packet one-way delay: 65.811 ms
Loss rate: 6.61%
-- Flow 2:
Average throughput: 14.96 Mbit/s
95th percentile per-packet one-way delay: 66.987 ms
Loss rate: 7.23%
-- Flow 3:
Average throughput: 7.55 Mbit/s
95th percentile per-packet one-way delay: 66.858 ms
Loss rate: 5.55%
```

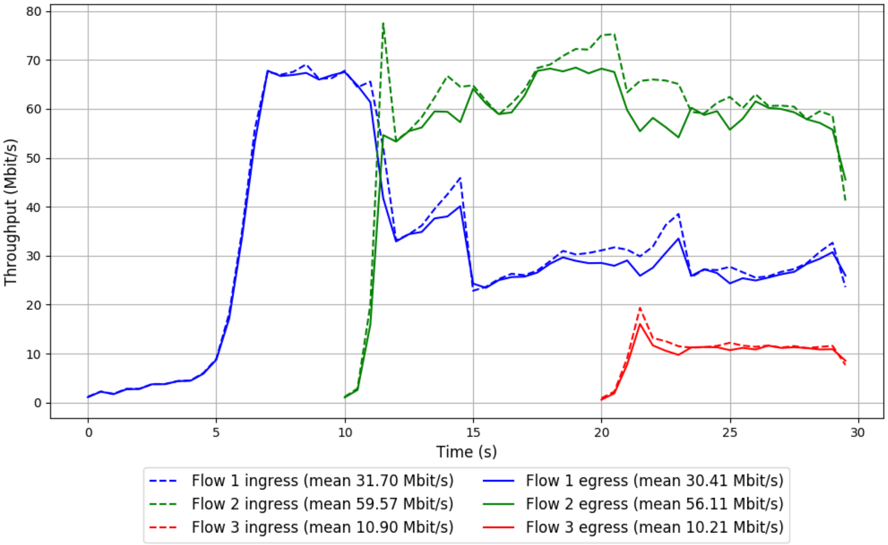
Run 7: Report of Vivace-loss — Data Link

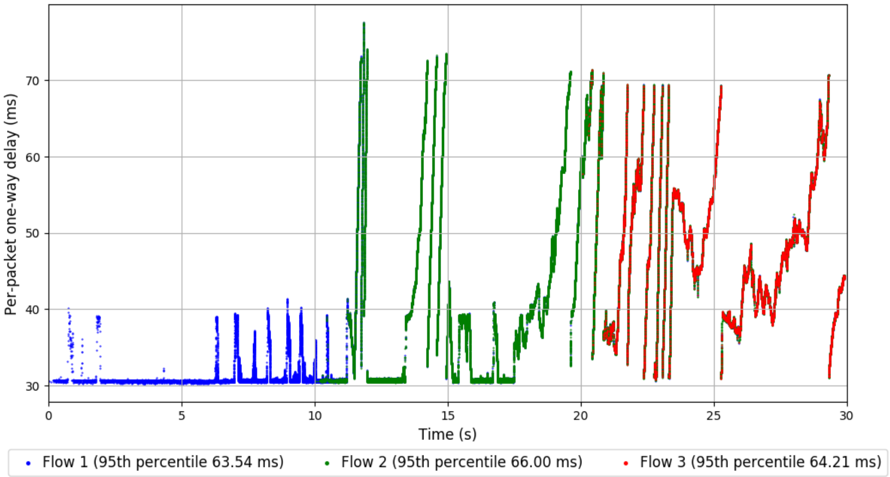




```
Run 8: Statistics of Vivace-loss

Start at: 2018-03-27 22:20:34
End at: 2018-03-27 22:21:04
Local clock offset: 6.543 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-03-28 00:19:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.07 Mbit/s
95th percentile per-packet one-way delay: 65.010 ms
Loss rate: 5.06%
-- Flow 1:
Average throughput: 30.41 Mbit/s
95th percentile per-packet one-way delay: 63.538 ms
Loss rate: 4.05%
-- Flow 2:
Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 66.002 ms
Loss rate: 5.75%
-- Flow 3:
Average throughput: 10.21 Mbit/s
95th percentile per-packet one-way delay: 64.214 ms
Loss rate: 6.44%
```

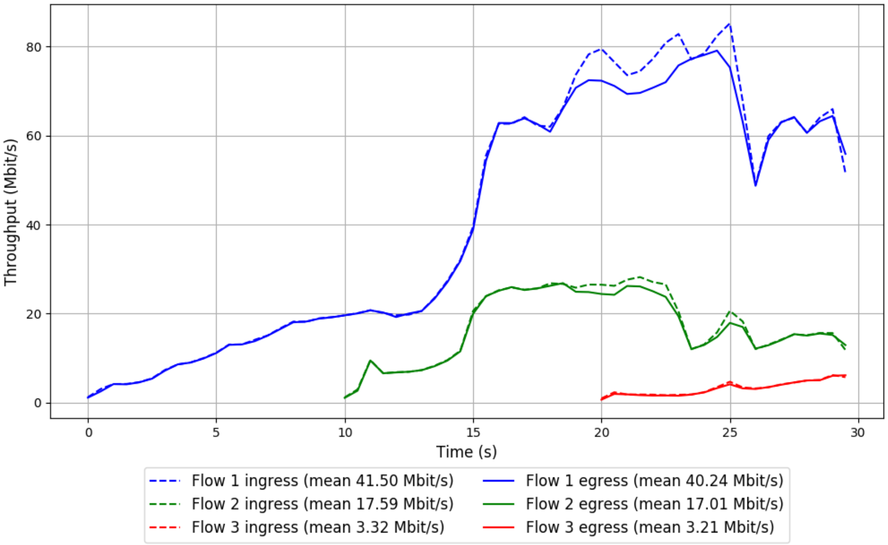
Run 8: Report of Vivace-loss — Data Link

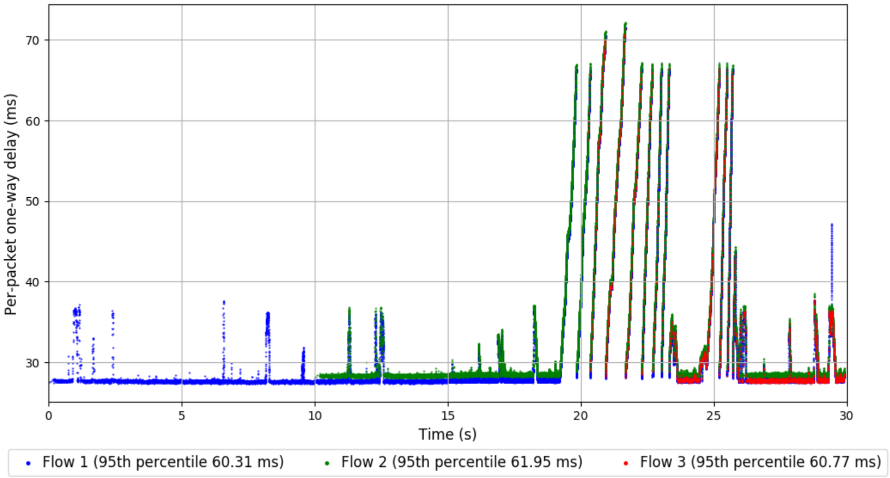




```
Run 9: Statistics of Vivace-loss

Start at: 2018-03-27 22:48:39
End at: 2018-03-27 22:49:09
Local clock offset: -0.47 ms
Remote clock offset: 1.638 ms

# Below is generated by plot.py at 2018-03-28 00:19:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.60 Mbit/s
95th percentile per-packet one-way delay: 60.720 ms
Loss rate: 3.09%
-- Flow 1:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 60.313 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 17.01 Mbit/s
95th percentile per-packet one-way delay: 61.949 ms
Loss rate: 3.25%
-- Flow 3:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 60.768 ms
Loss rate: 3.47%
```

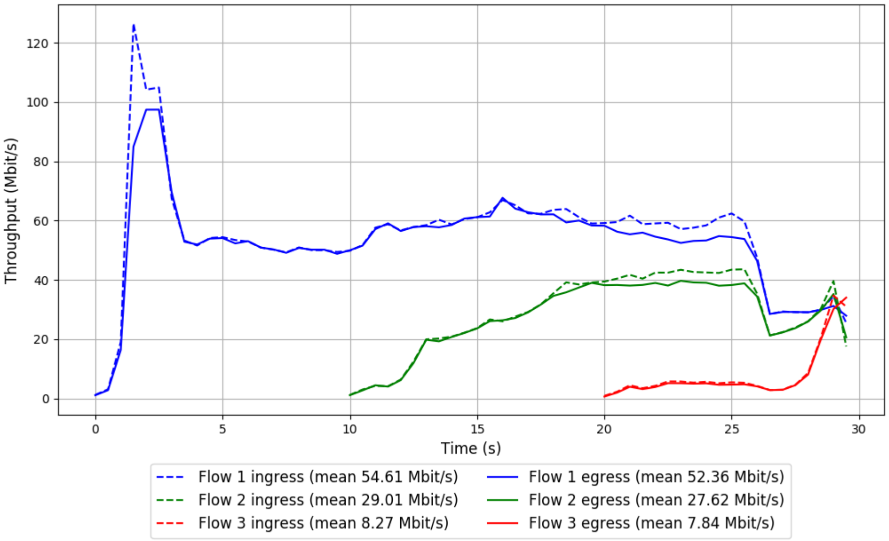
Run 9: Report of Vivace-loss — Data Link

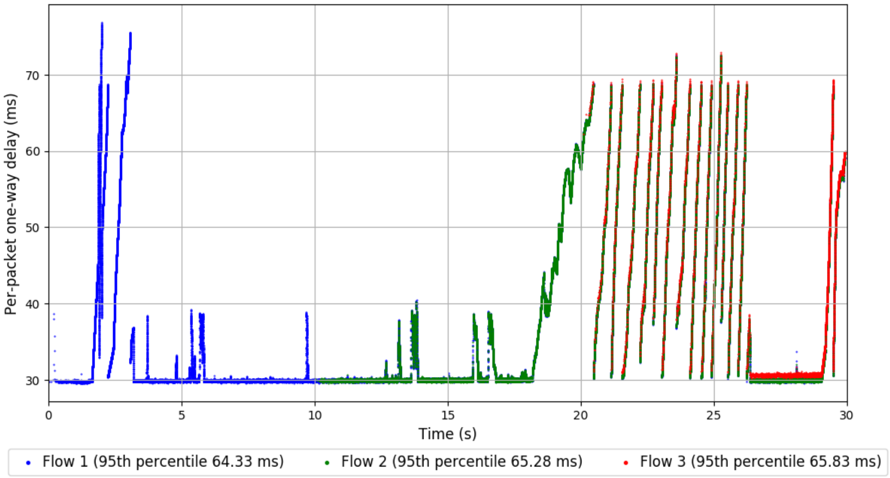




```
Run 10: Statistics of Vivace-loss

Start at: 2018-03-27 23:18:49
End at: 2018-03-27 23:19:19
Local clock offset: 1.853 ms
Remote clock offset: 1.778 ms

# Below is generated by plot.py at 2018-03-28 00:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.31 Mbit/s
95th percentile per-packet one-way delay: 64.753 ms
Loss rate: 4.24%
-- Flow 1:
Average throughput: 52.36 Mbit/s
95th percentile per-packet one-way delay: 64.330 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 27.62 Mbit/s
95th percentile per-packet one-way delay: 65.283 ms
Loss rate: 4.67%
-- Flow 3:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 65.832 ms
Loss rate: 5.27%
```

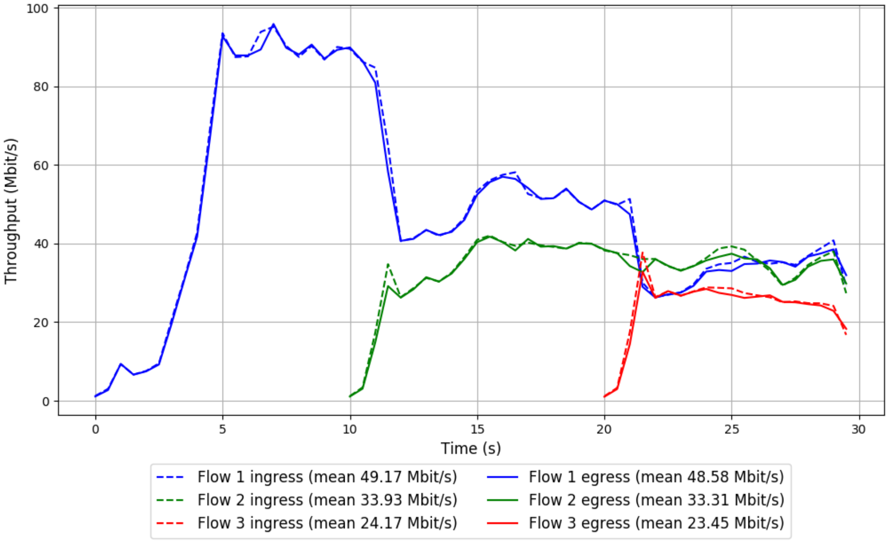
Run 10: Report of Vivace-loss — Data Link

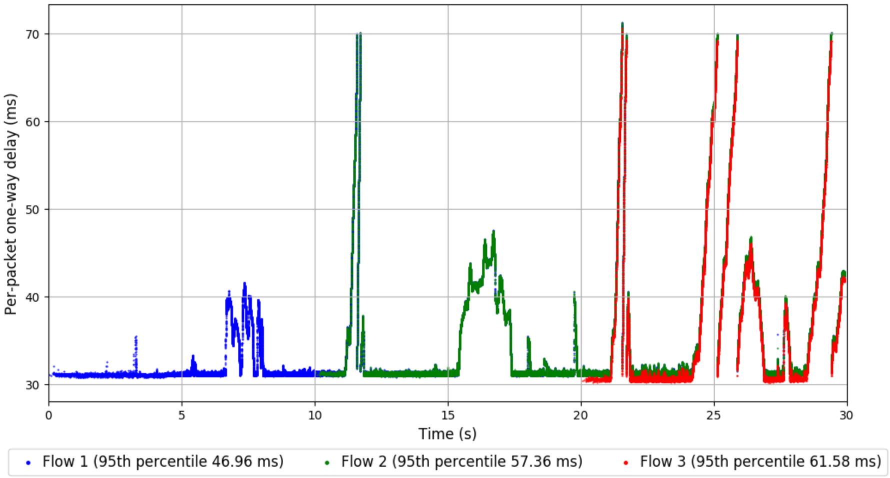




```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-27 18:56:38
End at: 2018-03-27 18:57:08
Local clock offset: 2.542 ms
Remote clock offset: -5.239 ms

# Below is generated by plot.py at 2018-03-28 00:19:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.47 Mbit/s
95th percentile per-packet one-way delay: 53.914 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 48.58 Mbit/s
95th percentile per-packet one-way delay: 46.960 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 33.31 Mbit/s
95th percentile per-packet one-way delay: 57.363 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 61.583 ms
Loss rate: 2.88%
```

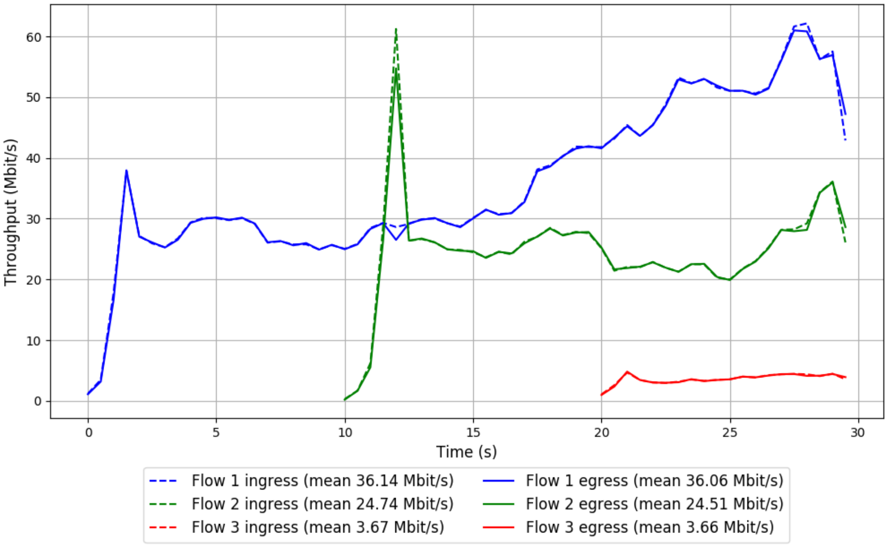
Run 1: Report of Vivace-LTE — Data Link

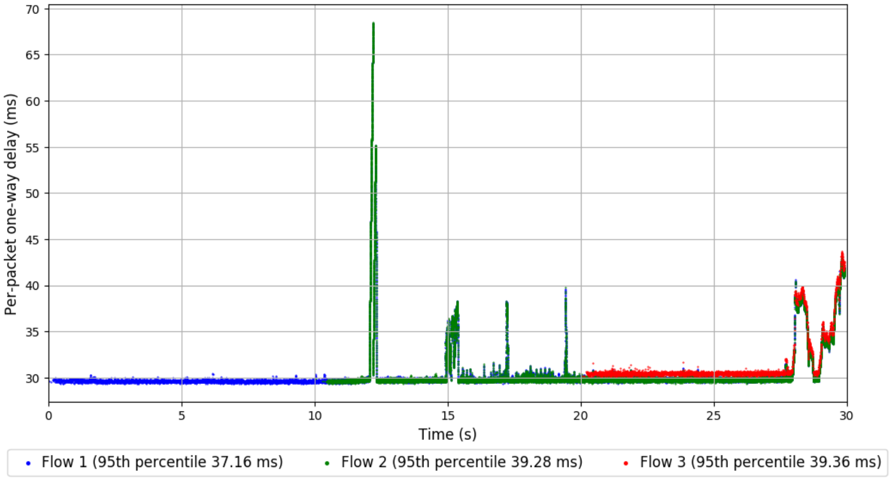




```
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-27 19:27:55
End at: 2018-03-27 19:28:25
Local clock offset: -0.43 ms
Remote clock offset: -5.216 ms

# Below is generated by plot.py at 2018-03-28 00:19:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.56 Mbit/s
95th percentile per-packet one-way delay: 37.952 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 37.160 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 39.284 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 39.360 ms
Loss rate: 0.19%
```

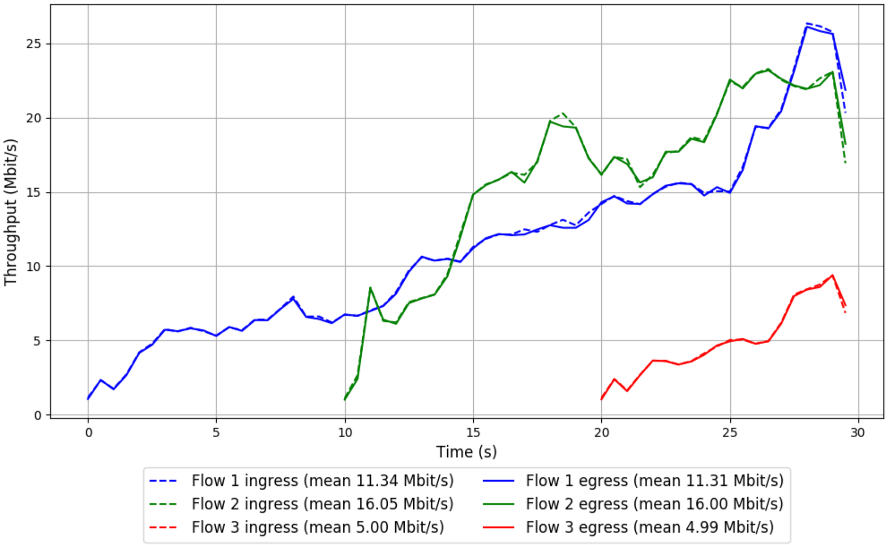
Run 2: Report of Vivace-LTE — Data Link

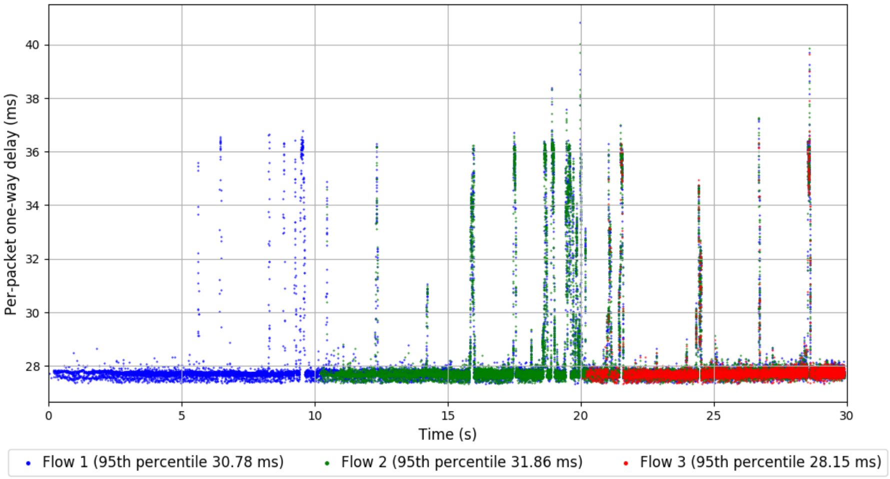




```
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-27 19:59:51
End at: 2018-03-27 20:00:21
Local clock offset: -0.184 ms
Remote clock offset: -5.184 ms

# Below is generated by plot.py at 2018-03-28 00:19:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.59 Mbit/s
95th percentile per-packet one-way delay: 31.022 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 11.31 Mbit/s
95th percentile per-packet one-way delay: 30.776 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 31.858 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 28.147 ms
Loss rate: 0.12%
```

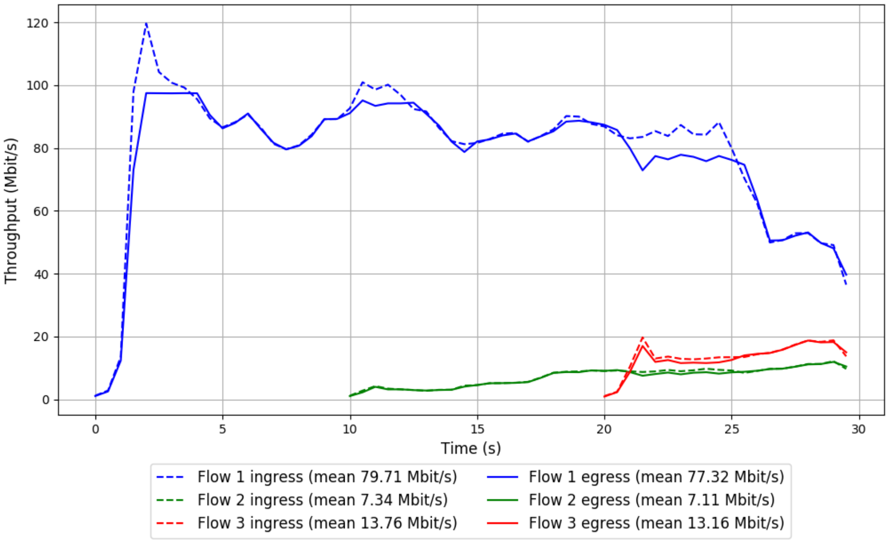
Run 3: Report of Vivace-LTE — Data Link

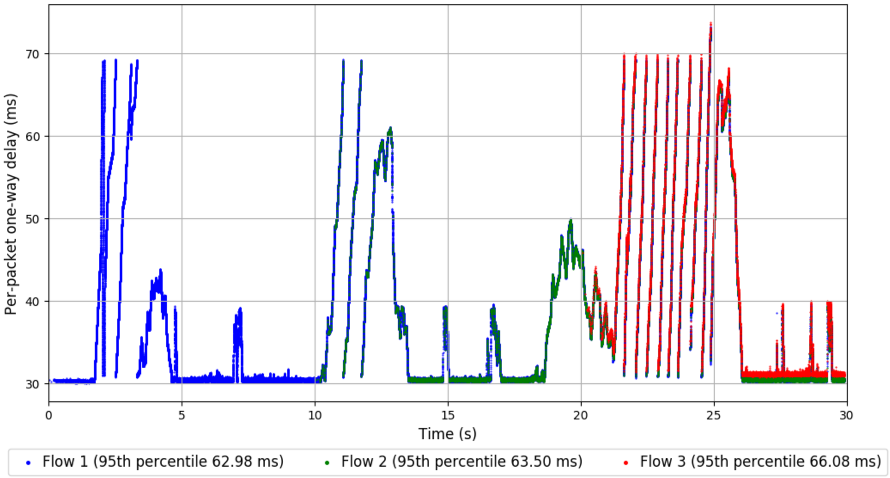




```
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-27 20:30:32
End at: 2018-03-27 20:31:02
Local clock offset: 2.464 ms
Remote clock offset: -4.196 ms

# Below is generated by plot.py at 2018-03-28 00:20:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.38 Mbit/s
95th percentile per-packet one-way delay: 63.226 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 77.32 Mbit/s
95th percentile per-packet one-way delay: 62.980 ms
Loss rate: 2.99%
-- Flow 2:
Average throughput: 7.11 Mbit/s
95th percentile per-packet one-way delay: 63.504 ms
Loss rate: 3.08%
-- Flow 3:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 66.079 ms
Loss rate: 4.50%
```

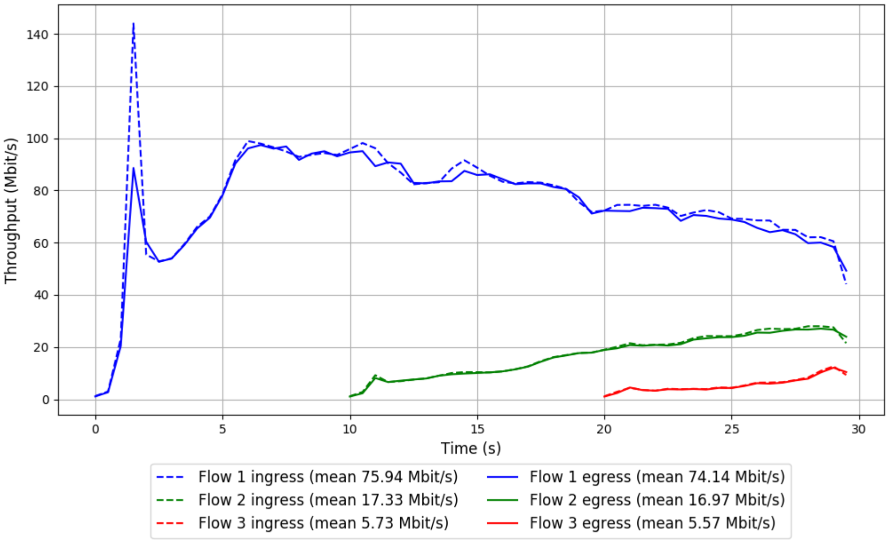
Run 4: Report of Vivace-LTE — Data Link

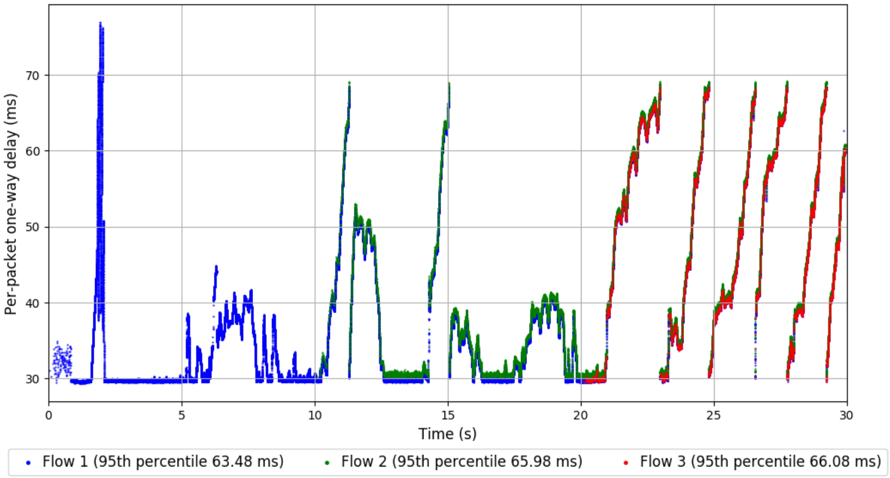




```
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-27 20:58:14
End at: 2018-03-27 20:58:44
Local clock offset: 0.699 ms
Remote clock offset: -1.566 ms

# Below is generated by plot.py at 2018-03-28 00:20:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.27 Mbit/s
95th percentile per-packet one-way delay: 64.133 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 74.14 Mbit/s
95th percentile per-packet one-way delay: 63.483 ms
Loss rate: 2.28%
-- Flow 2:
Average throughput: 16.97 Mbit/s
95th percentile per-packet one-way delay: 65.984 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 66.085 ms
Loss rate: 2.57%
```

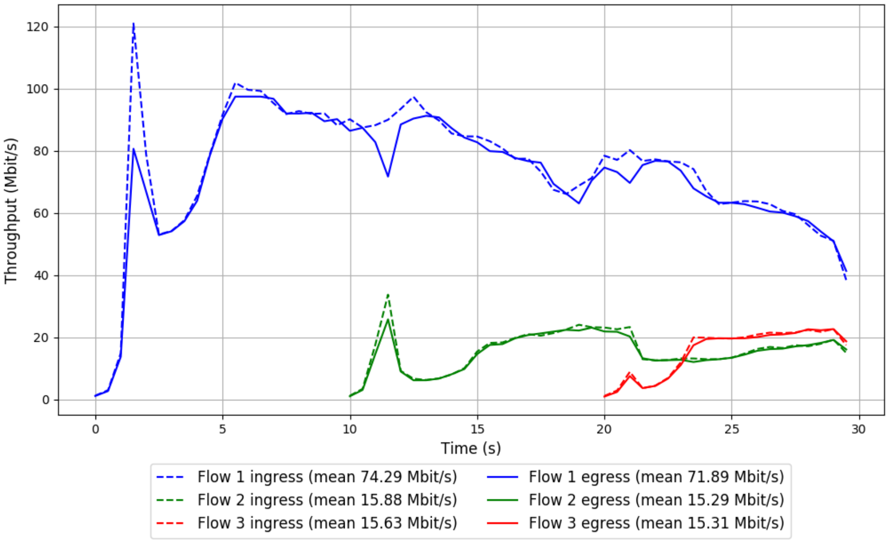
Run 5: Report of Vivace-LTE — Data Link

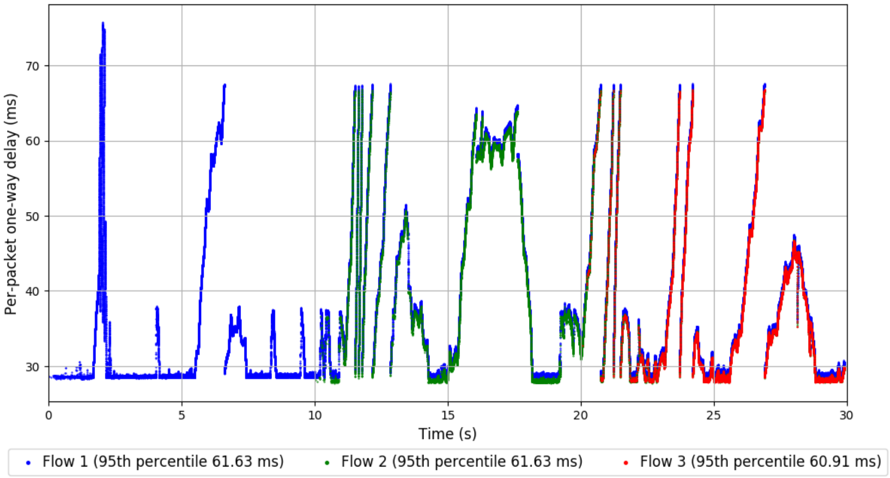




```
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-27 21:23:56
End at: 2018-03-27 21:24:26
Local clock offset: 2.718 ms
Remote clock offset: -3.051 ms

# Below is generated by plot.py at 2018-03-28 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.10 Mbit/s
95th percentile per-packet one-way delay: 61.606 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 71.89 Mbit/s
95th percentile per-packet one-way delay: 61.631 ms
Loss rate: 3.23%
-- Flow 2:
Average throughput: 15.29 Mbit/s
95th percentile per-packet one-way delay: 61.631 ms
Loss rate: 3.67%
-- Flow 3:
Average throughput: 15.31 Mbit/s
95th percentile per-packet one-way delay: 60.912 ms
Loss rate: 2.12%
```

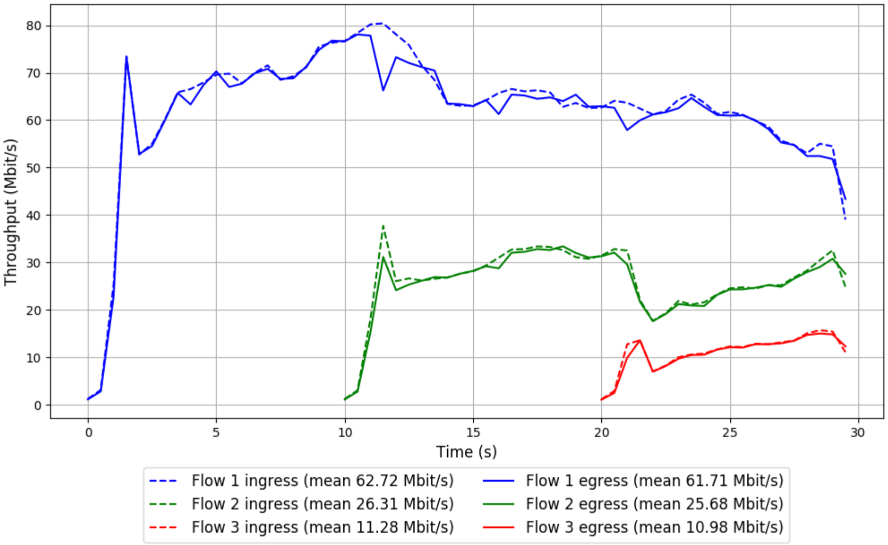
Run 6: Report of Vivace-LTE — Data Link

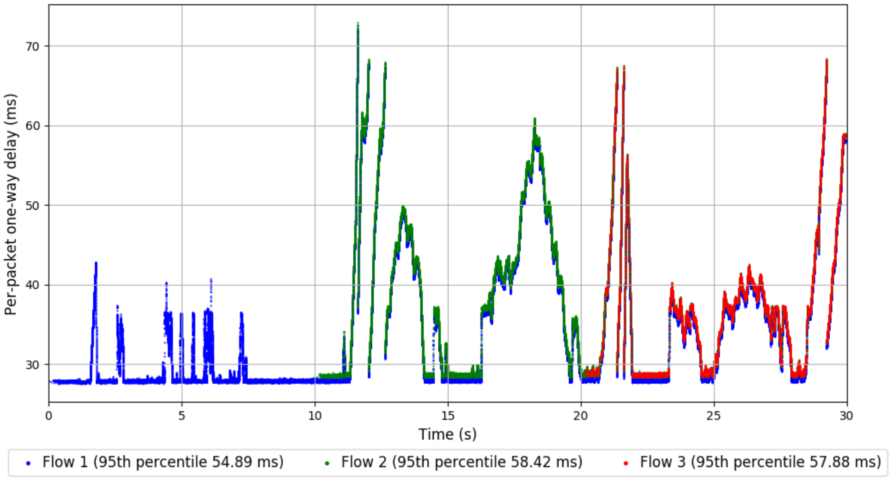




```
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-27 21:50:08
End at: 2018-03-27 21:50:38
Local clock offset: 5.053 ms
Remote clock offset: -3.595 ms

# Below is generated by plot.py at 2018-03-28 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.41 Mbit/s
95th percentile per-packet one-way delay: 56.290 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 61.71 Mbit/s
95th percentile per-packet one-way delay: 54.887 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 25.68 Mbit/s
95th percentile per-packet one-way delay: 58.421 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 57.879 ms
Loss rate: 2.38%
```

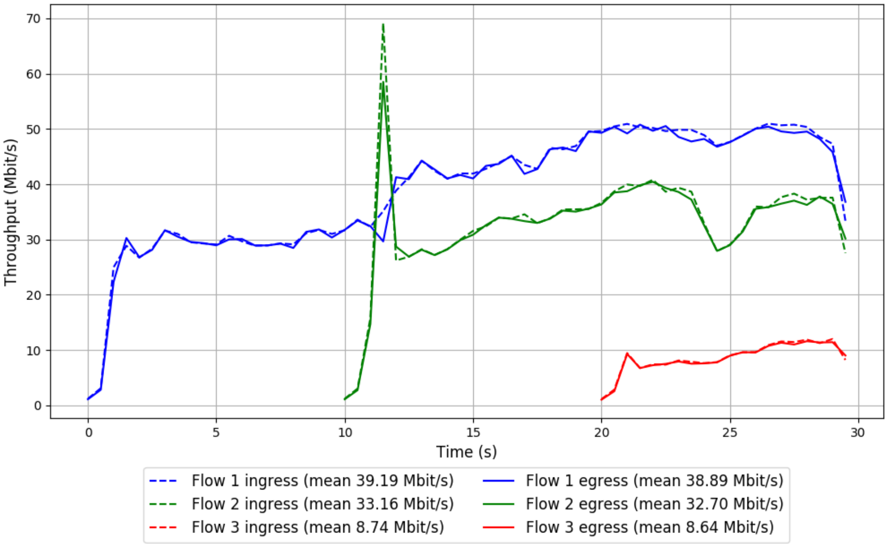
Run 7: Report of Vivace-LTE — Data Link

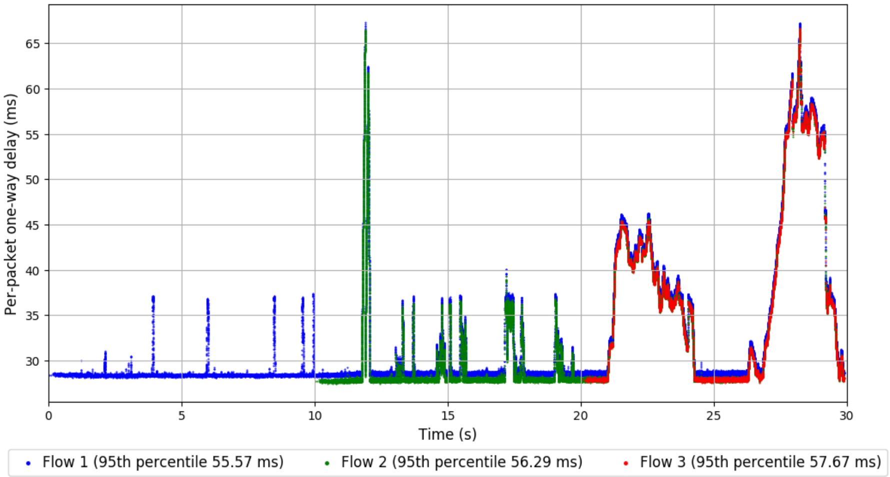




```
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-27 22:17:42
End at: 2018-03-27 22:18:12
Local clock offset: 6.398 ms
Remote clock offset: -2.171 ms

# Below is generated by plot.py at 2018-03-28 00:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.48 Mbit/s
95th percentile per-packet one-way delay: 56.038 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 38.89 Mbit/s
95th percentile per-packet one-way delay: 55.568 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 56.290 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 57.673 ms
Loss rate: 1.18%
```

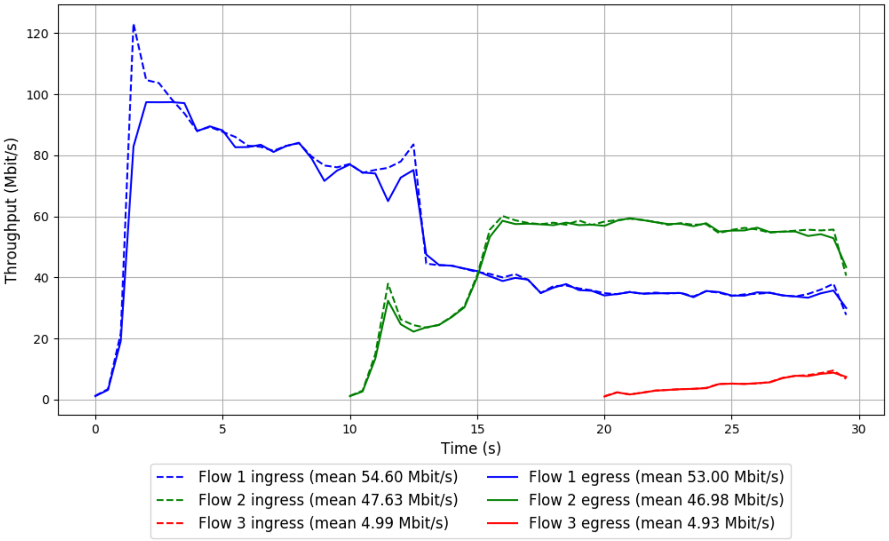
Run 8: Report of Vivace-LTE — Data Link

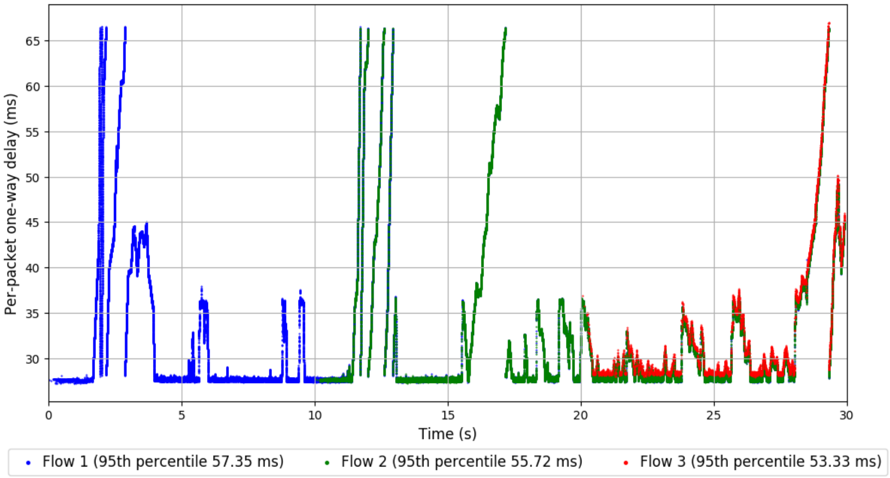




```
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-27 22:45:35
End at: 2018-03-27 22:46:05
Local clock offset: -0.173 ms
Remote clock offset: 1.323 ms

# Below is generated by plot.py at 2018-03-28 00:20:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.87 Mbit/s
95th percentile per-packet one-way delay: 56.712 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 53.00 Mbit/s
95th percentile per-packet one-way delay: 57.351 ms
Loss rate: 2.86%
-- Flow 2:
Average throughput: 46.98 Mbit/s
95th percentile per-packet one-way delay: 55.719 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 4.93 Mbit/s
95th percentile per-packet one-way delay: 53.330 ms
Loss rate: 1.06%
```

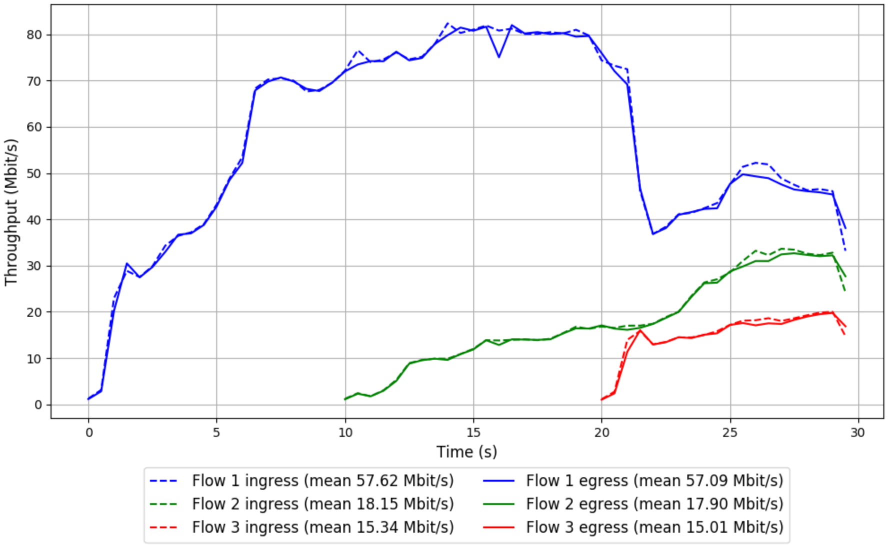
Run 9: Report of Vivace-LTE — Data Link



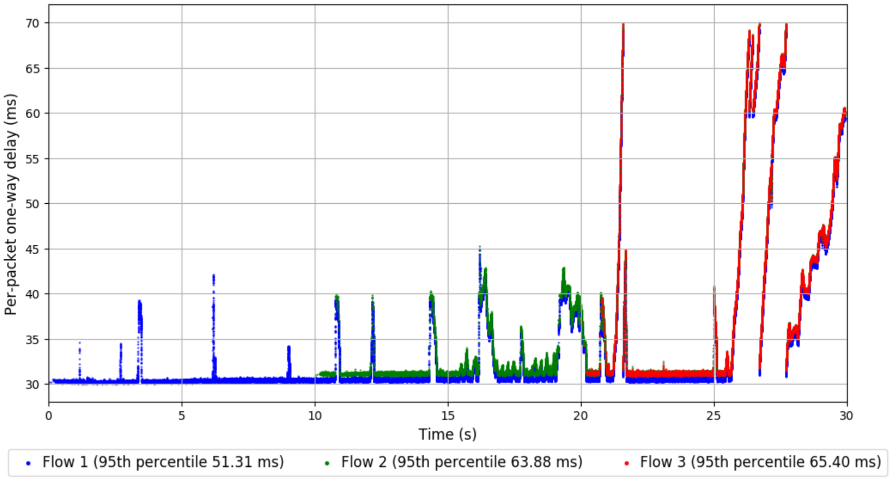


```
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-27 23:15:40
End at: 2018-03-27 23:16:10
Local clock offset: 1.677 ms
Remote clock offset: 2.353 ms

# Below is generated by plot.py at 2018-03-28 00:20:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.94 Mbit/s
95th percentile per-packet one-way delay: 59.262 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 57.09 Mbit/s
95th percentile per-packet one-way delay: 51.315 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 17.90 Mbit/s
95th percentile per-packet one-way delay: 63.877 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 15.01 Mbit/s
95th percentile per-packet one-way delay: 65.402 ms
Loss rate: 1.95%
```

Run 10: Report of Vivace-LTE — Data Link



Throughput (Mbit/s)
0
10
20
30
40
50
60
70
80
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 57.62 Mbit/s)
Flow 2 ingress (mean 18.15 Mbit/s)
Flow 3 ingress (mean 15.34 Mbit/s)
Flow 1 egress (mean 57.09 Mbit/s)
Flow 2 egress (mean 17.90 Mbit/s)
Flow 3 egress (mean 15.01 Mbit/s)



Per-packet one-way delay (ms)
30
35
40
45
50
55
60
65
70
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 51.31 ms)
Flow 2 (95th percentile 63.88 ms)
Flow 3 (95th percentile 65.40 ms)