Pantheon Report

Generated at 2017-12-20 12:31:53 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

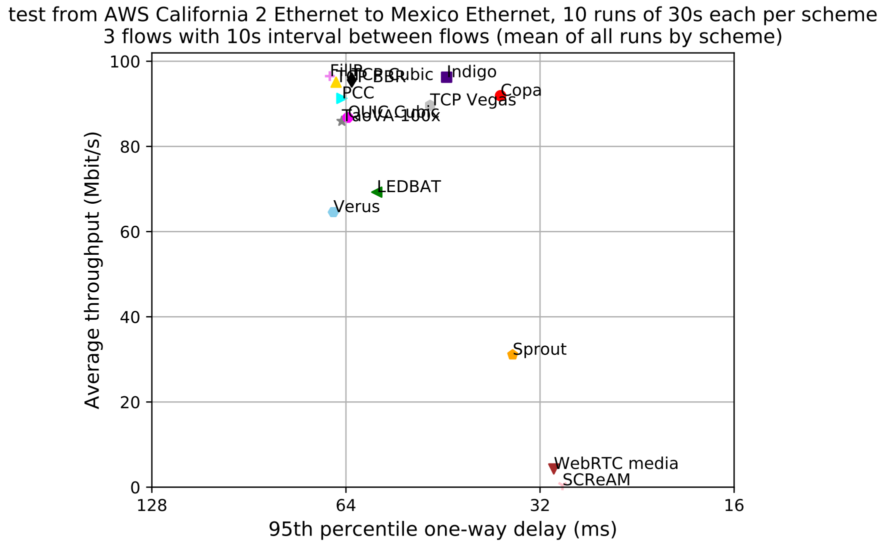
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

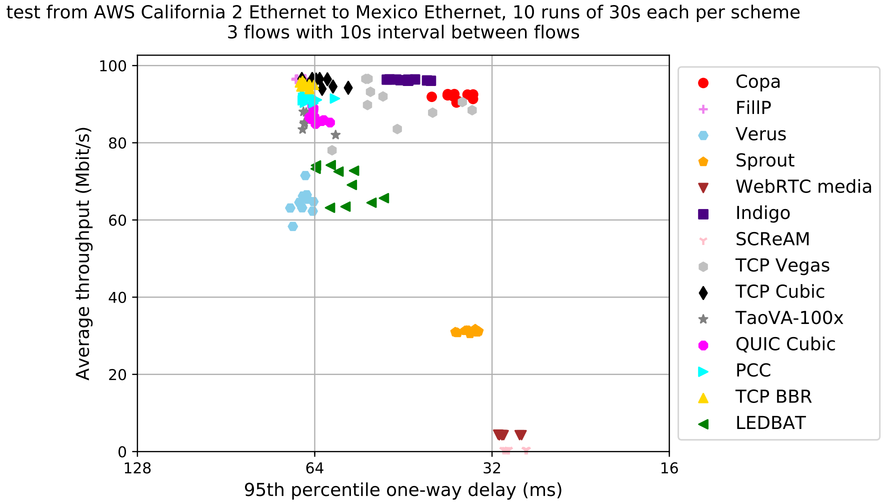
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

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

```
Git summary:
branch: master @ 904a5750834816b1e46a2c86405d707788d27c16
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ dcaef6b00654e660f73f7ed679d2eab61ce08639
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
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/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```


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)
95th percentile one-way delay (ms)
100
80
60
40
20
0
128
64
32
16
FillP
TCP Cubic
TCP BBR
Indigo
Copa
TCP Vegas
PCC
QUIC Cubic
TaoVA-100x
LEDBAT
Verus
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)
95th percentile one-way delay (ms)
100
80
60
40
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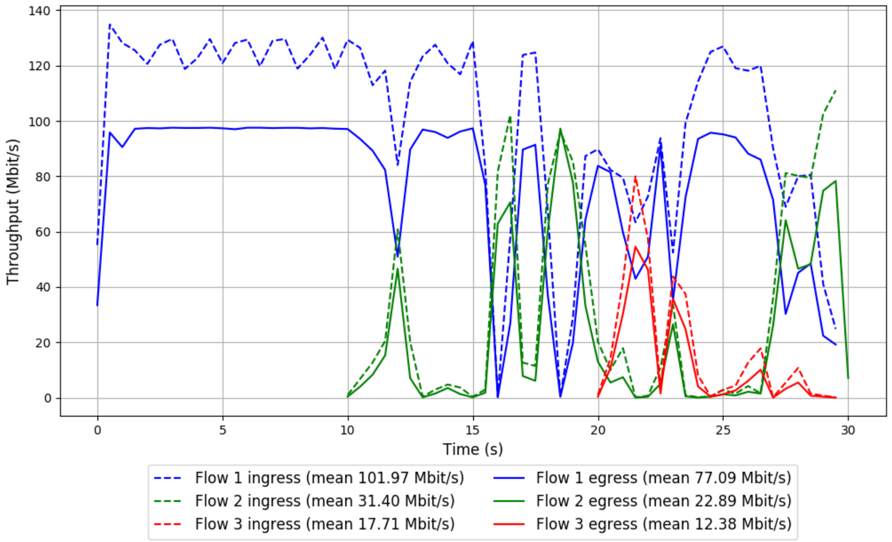
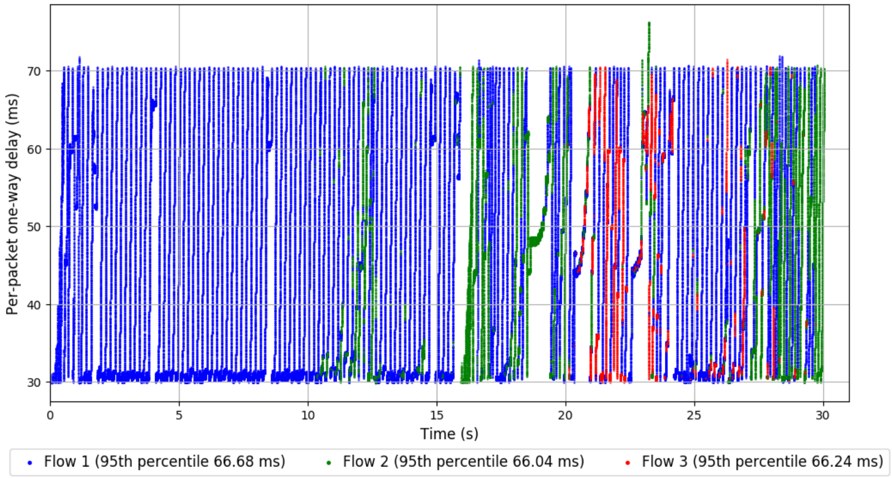
Verus
Sprout
WebRTC media
Indigo
SCReAM
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
PCC
TCP BBR
LEDBAT

scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	70.90	30.07	13.74	66.26	65.85	63.84	24.48	27.87	32.76
TCP Cubic	10	63.26	34.24	28.79	62.69	62.22	62.44	0.48	0.52	0.56
LEDBAT	10	44.38	28.21	18.64	56.15	58.10	58.56	0.07	0.13	0.25
PCC	10	79.05	12.12	12.64	64.57	65.93	65.79	4.23	5.77	9.07
QUIC Cubic	10	59.48	28.34	25.74	63.18	63.66	62.99	1.56	1.27	1.06
SCReAM	10	0.22	0.22	0.22	29.54	29.53	29.53	0.00	0.02	0.05
WebRTC media	10	2.26	1.45	0.58	30.45	30.46	30.63	0.00	0.01	0.01
Sprout	10	15.75	15.53	15.18	34.83	35.66	35.87	0.04	0.03	0.02
TaoVA-100x	10	53.21	39.75	27.68	62.51	65.43	65.46	15.37	27.42	19.42
TCP Vegas	10	58.01	34.80	25.57	46.41	43.70	38.84	0.23	0.02	0.14
Verus	10	44.95	22.91	17.84	67.11	66.34	65.33	43.67	40.04	40.61
Copa	10	63.08	34.16	24.30	37.07	36.41	36.52	0.03	0.03	0.01
FillP	10	53.39	38.89	52.47	67.71	67.87	67.98	26.80	33.80	37.19
Indigo	10	65.36	31.82	29.85	41.29	47.50	51.83	0.16	0.25	0.38

```
Run 1: Statistics of TCP BBR

Start at: 2017-12-20 08:23:49
End at: 2017-12-20 08:24:19
Local clock offset: 1.188 ms
Remote clock offset: -0.477 ms

# Below is generated by plot.py at 2017-12-20 12:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.38 Mbit/s
95th percentile per-packet one-way delay: 66.596 ms
Loss rate: 25.22%
-- Flow 1:
Average throughput: 77.09 Mbit/s
95th percentile per-packet one-way delay: 66.677 ms
Loss rate: 24.54%
-- Flow 2:
Average throughput: 22.89 Mbit/s
95th percentile per-packet one-way delay: 66.042 ms
Loss rate: 27.02%
-- Flow 3:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 66.240 ms
Loss rate: 30.74%
```

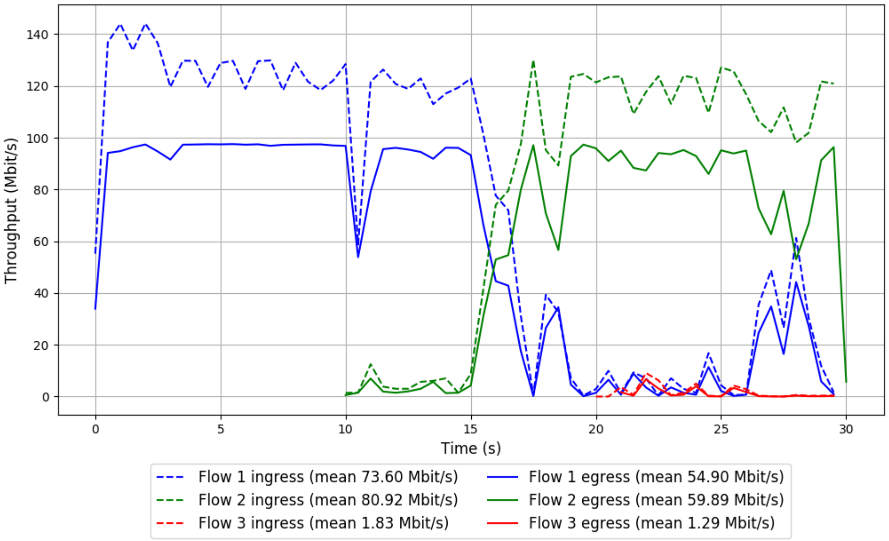
Run 1: Report of TCP BBR — Data Link

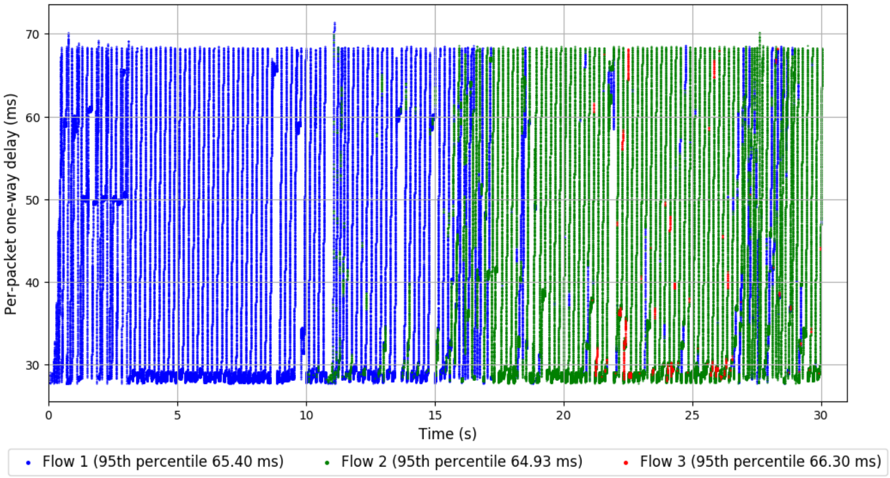




```
Run 2: Statistics of TCP BBR

Start at: 2017-12-20 08:44:19
End at: 2017-12-20 08:44:49
Local clock offset: 1.016 ms
Remote clock offset: -3.39 ms

# Below is generated by plot.py at 2017-12-20 12:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.11 Mbit/s
95th percentile per-packet one-way delay: 65.298 ms
Loss rate: 25.63%
-- Flow 1:
Average throughput: 54.90 Mbit/s
95th percentile per-packet one-way delay: 65.398 ms
Loss rate: 25.36%
-- Flow 2:
Average throughput: 59.89 Mbit/s
95th percentile per-packet one-way delay: 64.931 ms
Loss rate: 25.87%
-- Flow 3:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 66.301 ms
Loss rate: 36.64%
```

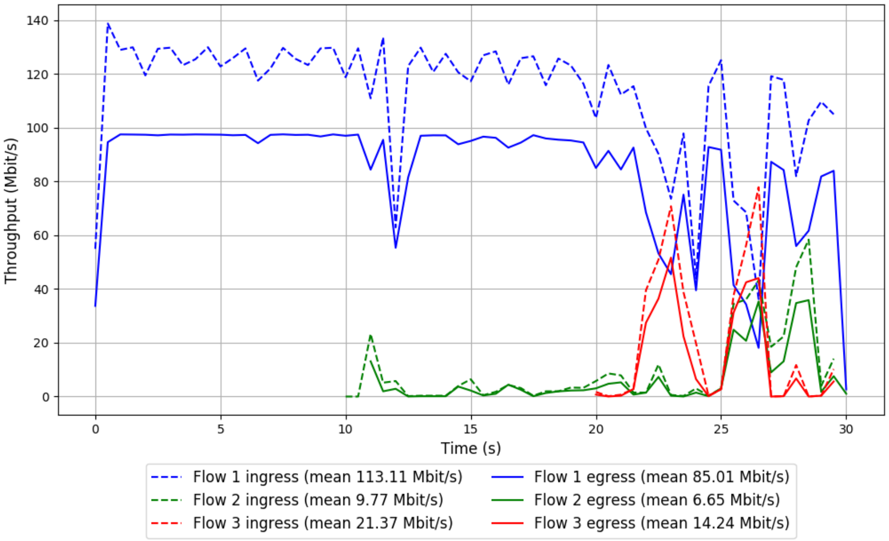
Run 2: Report of TCP BBR — Data Link

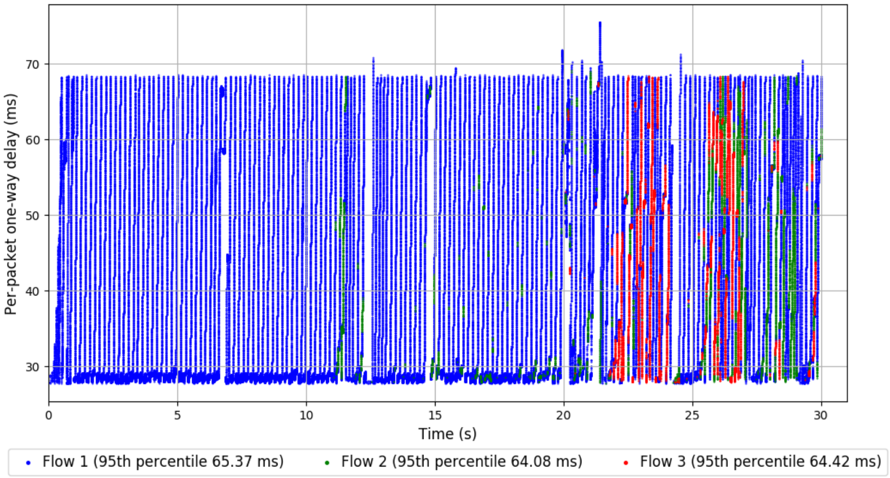




```
Run 3: Statistics of TCP BBR

Start at: 2017-12-20 09:04:48
End at: 2017-12-20 09:05:18
Local clock offset: 1.069 ms
Remote clock offset: -3.858 ms

# Below is generated by plot.py at 2017-12-20 12:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 65.282 ms
Loss rate: 25.80%
-- Flow 1:
Average throughput: 85.01 Mbit/s
95th percentile per-packet one-way delay: 65.367 ms
Loss rate: 24.79%
-- Flow 2:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 64.075 ms
Loss rate: 35.29%
-- Flow 3:
Average throughput: 14.24 Mbit/s
95th percentile per-packet one-way delay: 64.423 ms
Loss rate: 33.31%
```

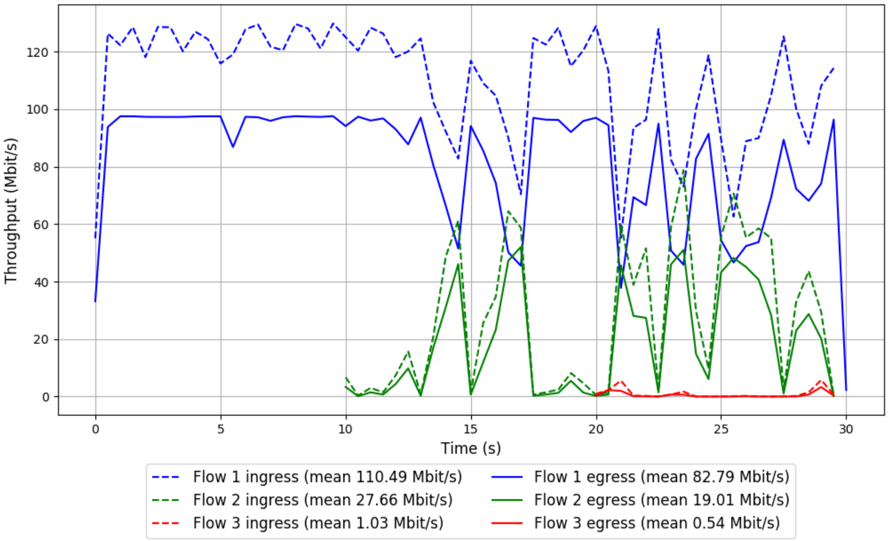
Run 3: Report of TCP BBR — Data Link

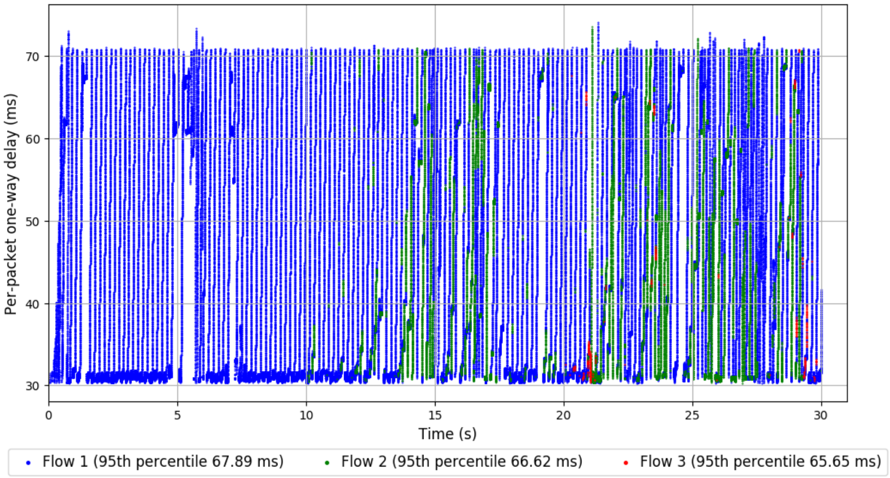




```
Run 4: Statistics of TCP BBR

Start at: 2017-12-20 09:25:14
End at: 2017-12-20 09:25:44
Local clock offset: 1.037 ms
Remote clock offset: -1.481 ms

# Below is generated by plot.py at 2017-12-20 12:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 67.824 ms
Loss rate: 25.99%
-- Flow 1:
Average throughput: 82.79 Mbit/s
95th percentile per-packet one-way delay: 67.890 ms
Loss rate: 25.05%
-- Flow 2:
Average throughput: 19.01 Mbit/s
95th percentile per-packet one-way delay: 66.620 ms
Loss rate: 31.27%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 65.647 ms
Loss rate: 47.92%
```

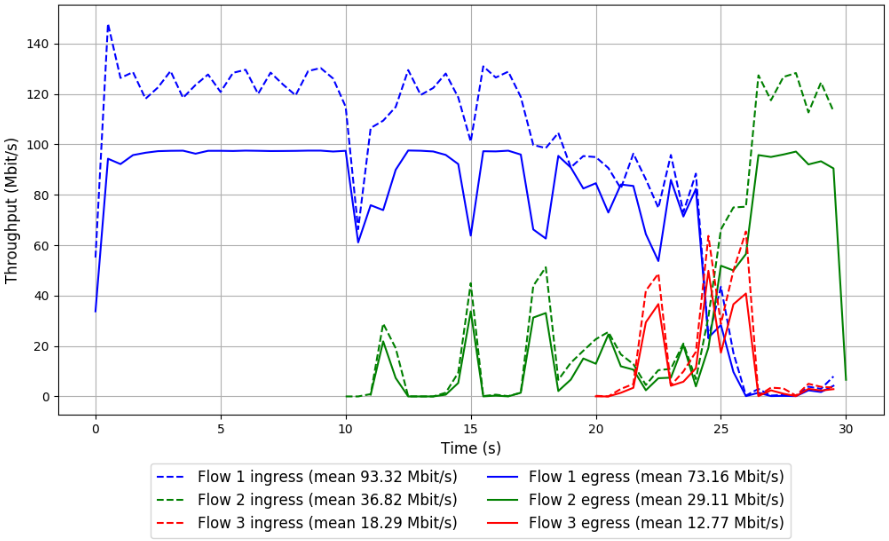
Run 4: Report of TCP BBR — Data Link

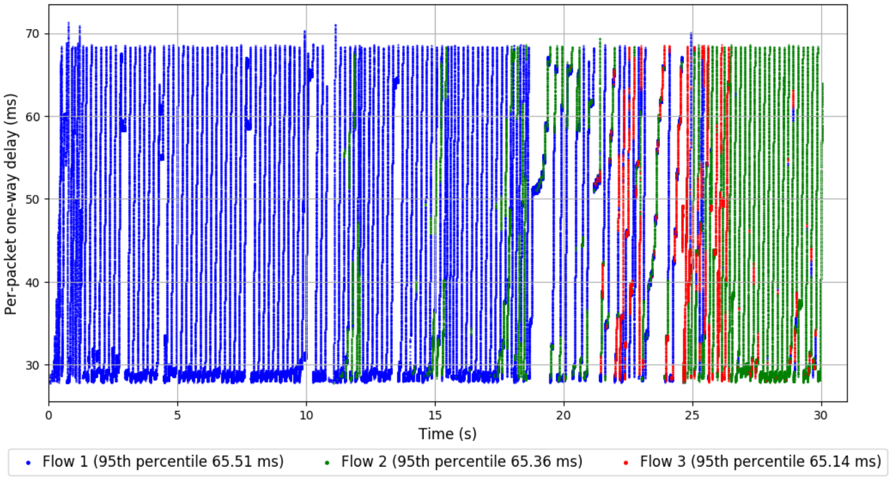




```
Run 5: Statistics of TCP BBR

Start at: 2017-12-20 09:45:41
End at: 2017-12-20 09:46:11
Local clock offset: 0.927 ms
Remote clock offset: -4.05 ms

# Below is generated by plot.py at 2017-12-20 12:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.10 Mbit/s
95th percentile per-packet one-way delay: 65.440 ms
Loss rate: 22.78%
-- Flow 1:
Average throughput: 73.16 Mbit/s
95th percentile per-packet one-way delay: 65.506 ms
Loss rate: 21.73%
-- Flow 2:
Average throughput: 29.11 Mbit/s
95th percentile per-packet one-way delay: 65.358 ms
Loss rate: 24.84%
-- Flow 3:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 65.136 ms
Loss rate: 30.57%
```

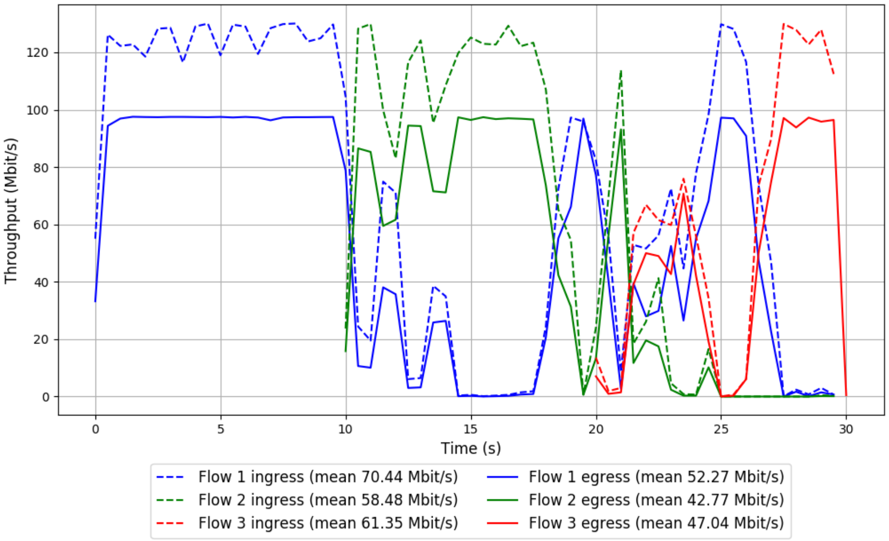
Run 5: Report of TCP BBR — Data Link

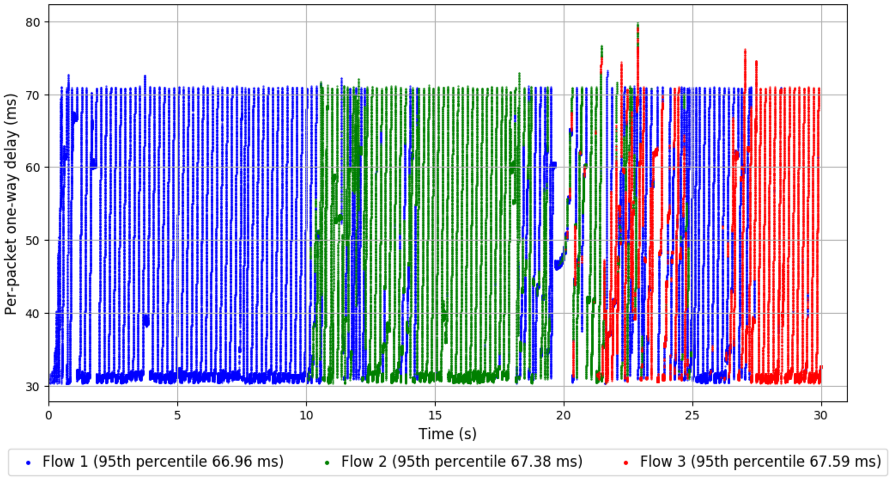




```
Run 6: Statistics of TCP BBR

Start at: 2017-12-20 10:06:08
End at: 2017-12-20 10:06:38
Local clock offset: 0.419 ms
Remote clock offset: -1.52 ms

# Below is generated by plot.py at 2017-12-20 12:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.04 Mbit/s
95th percentile per-packet one-way delay: 67.142 ms
Loss rate: 25.80%
-- Flow 1:
Average throughput: 52.27 Mbit/s
95th percentile per-packet one-way delay: 66.957 ms
Loss rate: 25.79%
-- Flow 2:
Average throughput: 42.77 Mbit/s
95th percentile per-packet one-way delay: 67.380 ms
Loss rate: 27.06%
-- Flow 3:
Average throughput: 47.04 Mbit/s
95th percentile per-packet one-way delay: 67.586 ms
Loss rate: 23.45%
```

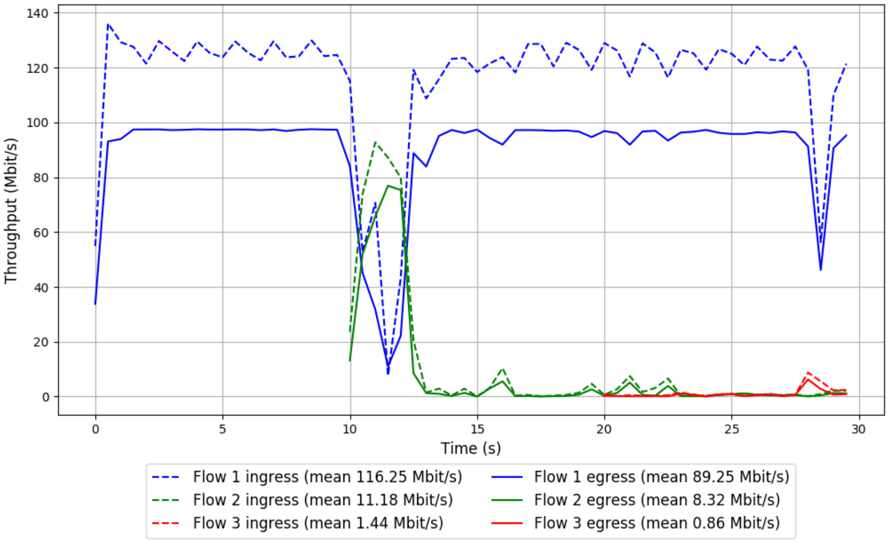
Run 6: Report of TCP BBR — Data Link

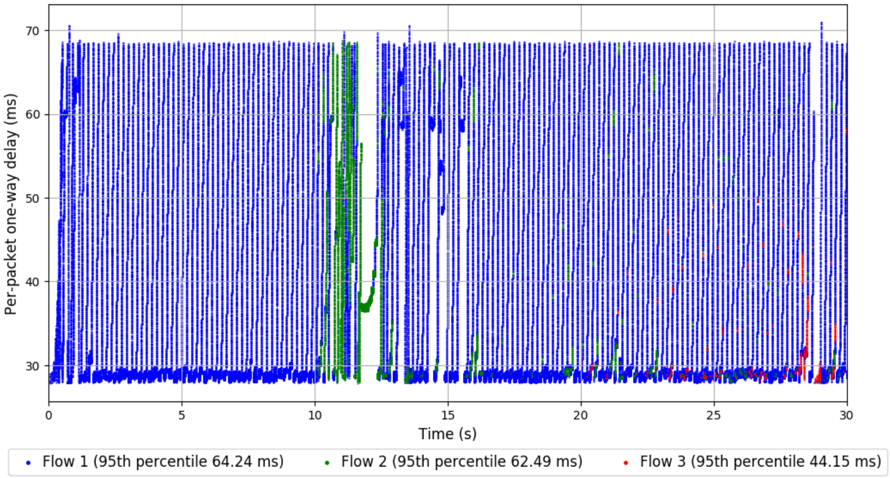




```
Run 7: Statistics of TCP BBR

Start at: 2017-12-20 10:26:42
End at: 2017-12-20 10:27:12
Local clock offset: 0.145 ms
Remote clock offset: -4.236 ms

# Below is generated by plot.py at 2017-12-20 12:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 64.173 ms
Loss rate: 23.44%
-- Flow 1:
Average throughput: 89.25 Mbit/s
95th percentile per-packet one-way delay: 64.244 ms
Loss rate: 23.22%
-- Flow 2:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 62.491 ms
Loss rate: 25.78%
-- Flow 3:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 44.150 ms
Loss rate: 40.25%
```

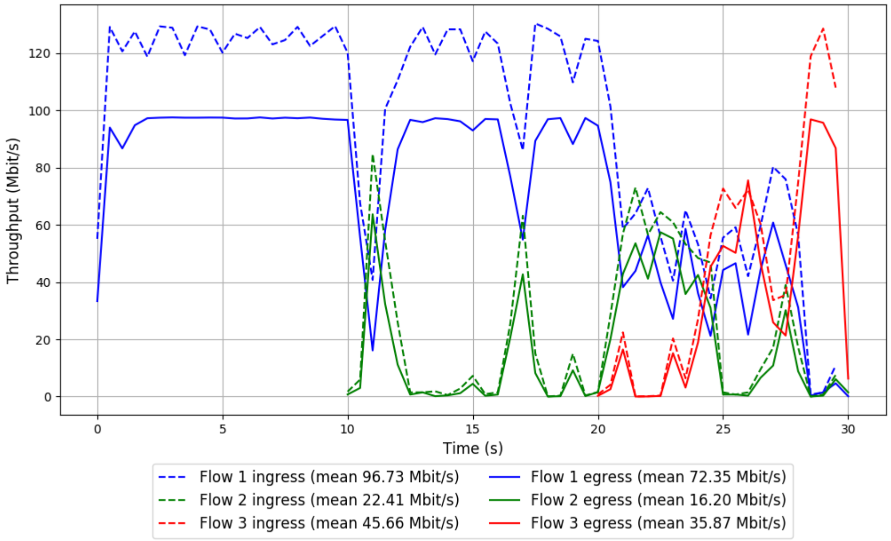
Run 7: Report of TCP BBR — Data Link

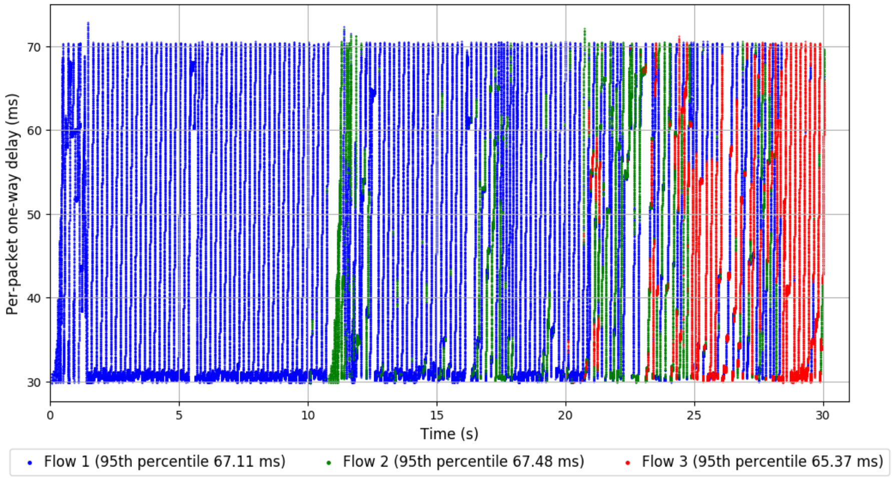




```
Run 8: Statistics of TCP BBR

Start at: 2017-12-20 10:47:10
End at: 2017-12-20 10:47:40
Local clock offset: 0.122 ms
Remote clock offset: -2.454 ms

# Below is generated by plot.py at 2017-12-20 12:11:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.06 Mbit/s
95th percentile per-packet one-way delay: 67.091 ms
Loss rate: 24.93%
-- Flow 1:
Average throughput: 72.35 Mbit/s
95th percentile per-packet one-way delay: 67.105 ms
Loss rate: 25.11%
-- Flow 2:
Average throughput: 16.20 Mbit/s
95th percentile per-packet one-way delay: 67.476 ms
Loss rate: 27.56%
-- Flow 3:
Average throughput: 35.87 Mbit/s
95th percentile per-packet one-way delay: 65.368 ms
Loss rate: 21.16%
```

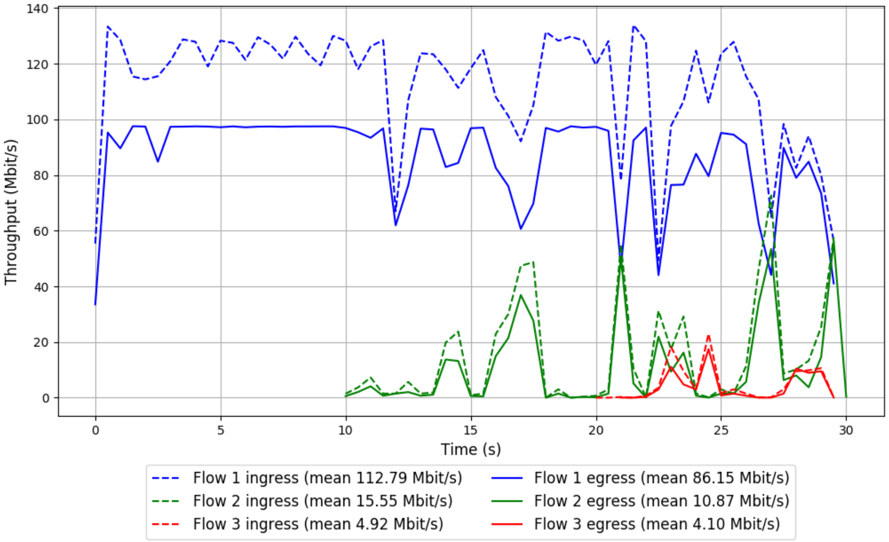
Run 8: Report of TCP BBR — Data Link

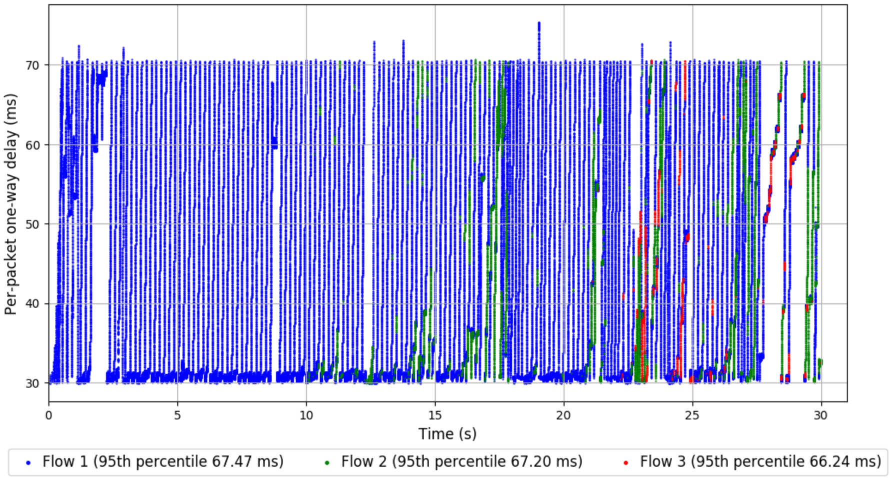




```
Run 9: Statistics of TCP BBR

Start at: 2017-12-20 11:07:38
End at: 2017-12-20 11:08:08
Local clock offset: 0.185 ms
Remote clock offset: -2.825 ms

# Below is generated by plot.py at 2017-12-20 12:12:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 67.436 ms
Loss rate: 24.17%
-- Flow 1:
Average throughput: 86.15 Mbit/s
95th percentile per-packet one-way delay: 67.473 ms
Loss rate: 23.61%
-- Flow 2:
Average throughput: 10.87 Mbit/s
95th percentile per-packet one-way delay: 67.198 ms
Loss rate: 30.10%
-- Flow 3:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 66.244 ms
Loss rate: 25.34%
```

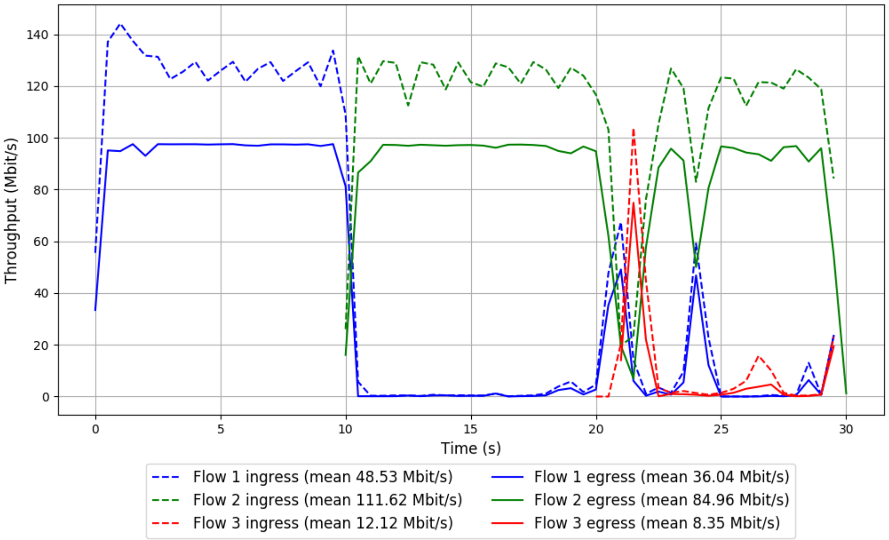
Run 9: Report of TCP BBR — Data Link

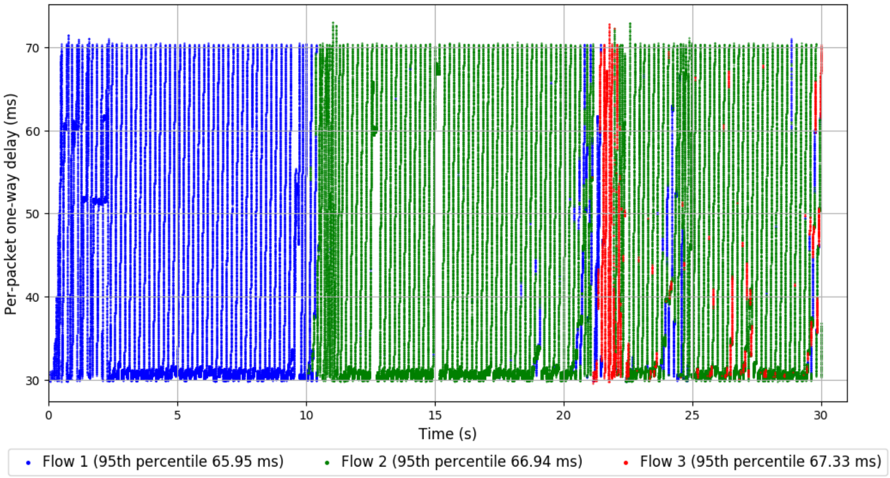




```
Run 10: Statistics of TCP BBR

Start at: 2017-12-20 11:28:04
End at: 2017-12-20 11:28:34
Local clock offset: 0.331 ms
Remote clock offset: -2.971 ms

# Below is generated by plot.py at 2017-12-20 12:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 66.683 ms
Loss rate: 25.00%
-- Flow 1:
Average throughput: 36.04 Mbit/s
95th percentile per-packet one-way delay: 65.953 ms
Loss rate: 25.65%
-- Flow 2:
Average throughput: 84.96 Mbit/s
95th percentile per-packet one-way delay: 66.937 ms
Loss rate: 23.87%
-- Flow 3:
Average throughput: 8.35 Mbit/s
95th percentile per-packet one-way delay: 67.332 ms
Loss rate: 38.23%
```

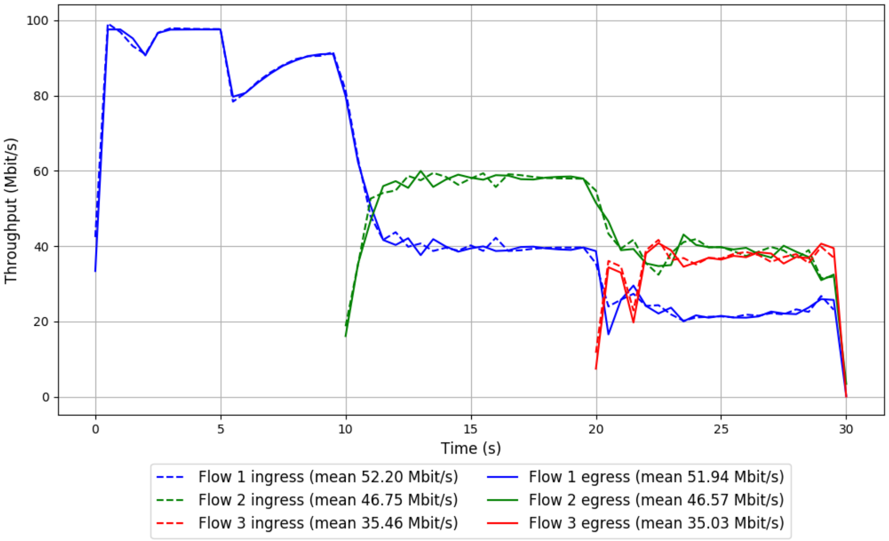
Run 10: Report of TCP BBR — Data Link

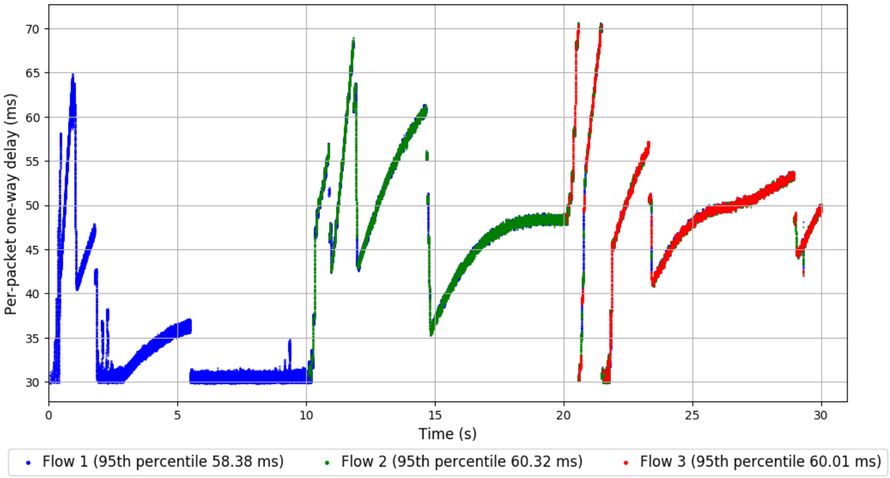




```
Run 1: Statistics of TCP Cubic

Start at: 2017-12-20 08:25:13
End at: 2017-12-20 08:25:43
Local clock offset: 1.28 ms
Remote clock offset: -0.417 ms

# Below is generated by plot.py at 2017-12-20 12:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.56 Mbit/s
95th percentile per-packet one-way delay: 59.589 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 51.94 Mbit/s
95th percentile per-packet one-way delay: 58.385 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 46.57 Mbit/s
95th percentile per-packet one-way delay: 60.321 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 35.03 Mbit/s
95th percentile per-packet one-way delay: 60.006 ms
Loss rate: 1.20%
```

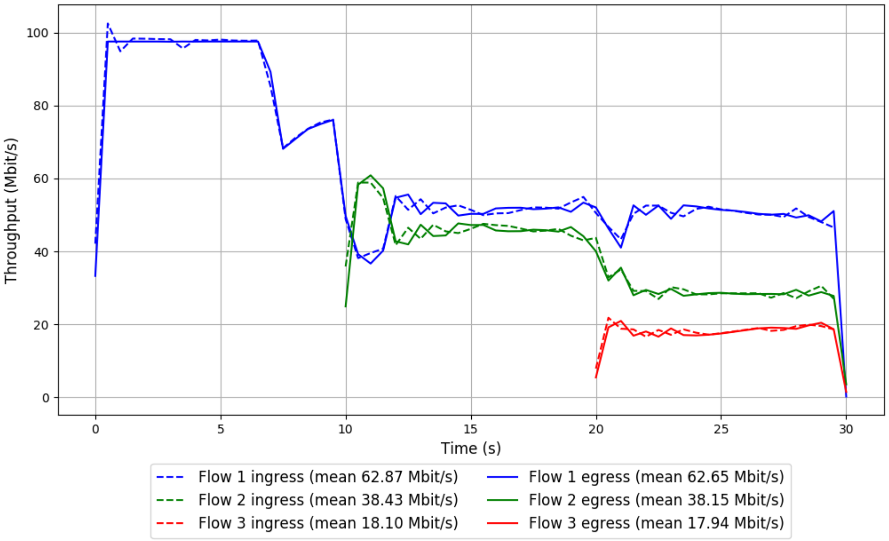
Run 1: Report of TCP Cubic — Data Link

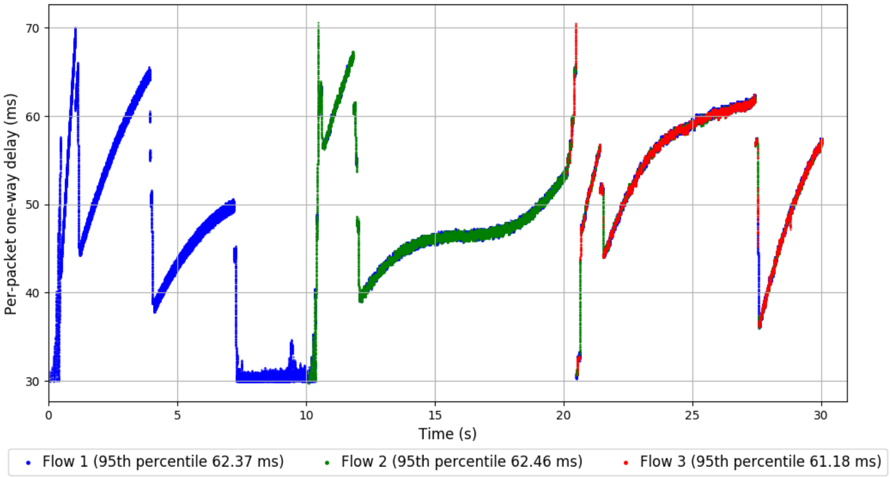




```
Run 2: Statistics of TCP Cubic

Start at: 2017-12-20 08:45:43
End at: 2017-12-20 08:46:13
Local clock offset: 1.017 ms
Remote clock offset: -1.304 ms

# Below is generated by plot.py at 2017-12-20 12:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 62.177 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 62.65 Mbit/s
95th percentile per-packet one-way delay: 62.366 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 38.15 Mbit/s
95th percentile per-packet one-way delay: 62.464 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 17.94 Mbit/s
95th percentile per-packet one-way delay: 61.182 ms
Loss rate: 0.85%
```

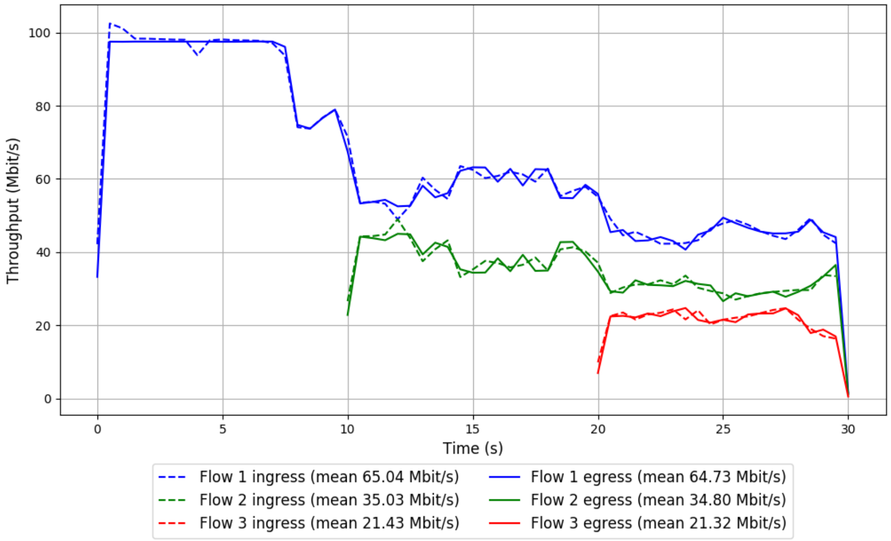
Run 2: Report of TCP Cubic — Data Link

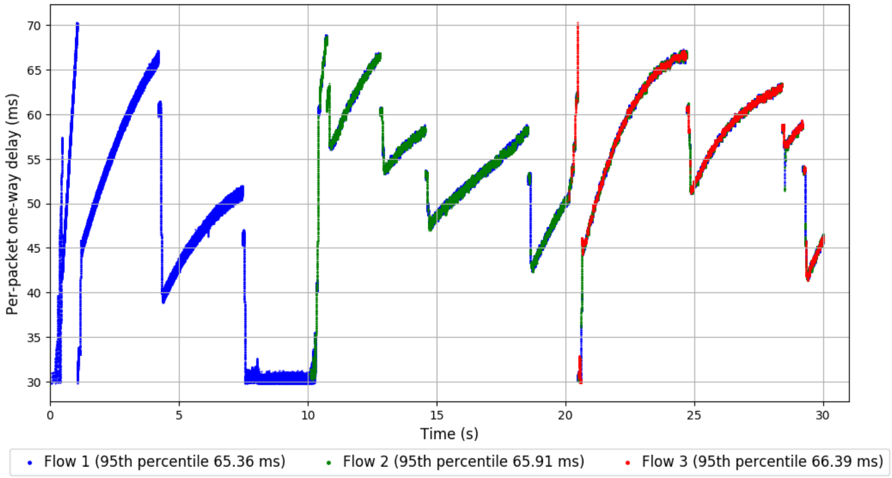




```
Run 3: Statistics of TCP Cubic

Start at: 2017-12-20 09:06:12
End at: 2017-12-20 09:06:42
Local clock offset: 1.048 ms
Remote clock offset: -1.879 ms

# Below is generated by plot.py at 2017-12-20 12:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.97 Mbit/s
95th percentile per-packet one-way delay: 65.628 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 64.73 Mbit/s
95th percentile per-packet one-way delay: 65.363 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 34.80 Mbit/s
95th percentile per-packet one-way delay: 65.910 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 21.32 Mbit/s
95th percentile per-packet one-way delay: 66.393 ms
Loss rate: 0.55%
```

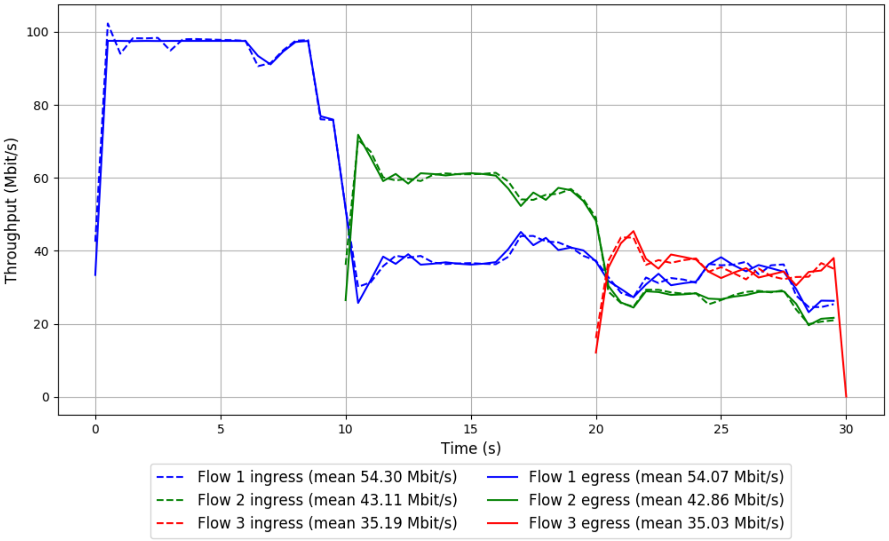
Run 3: Report of TCP Cubic — Data Link

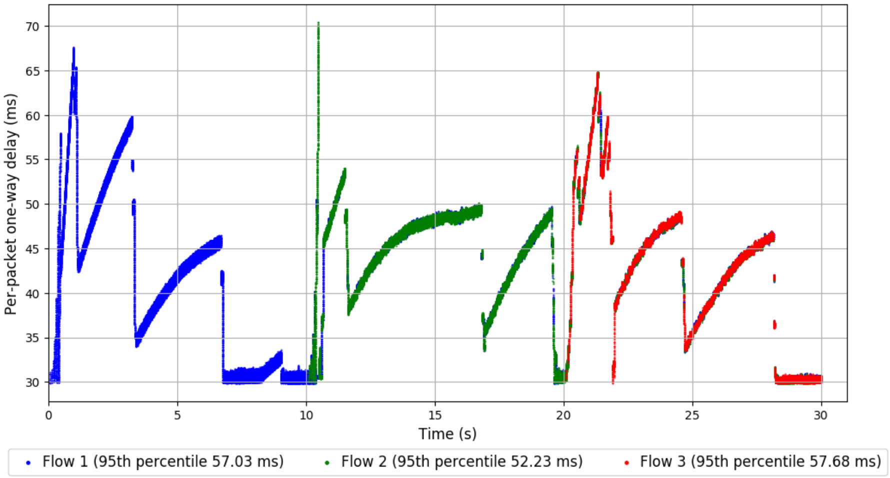




```
Run 4: Statistics of TCP Cubic

Start at: 2017-12-20 09:26:37
End at: 2017-12-20 09:27:07
Local clock offset: 0.987 ms
Remote clock offset: -1.942 ms

# Below is generated by plot.py at 2017-12-20 12:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.24 Mbit/s
95th percentile per-packet one-way delay: 56.136 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 54.07 Mbit/s
95th percentile per-packet one-way delay: 57.034 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 42.86 Mbit/s
95th percentile per-packet one-way delay: 52.234 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 35.03 Mbit/s
95th percentile per-packet one-way delay: 57.684 ms
Loss rate: 0.45%
```

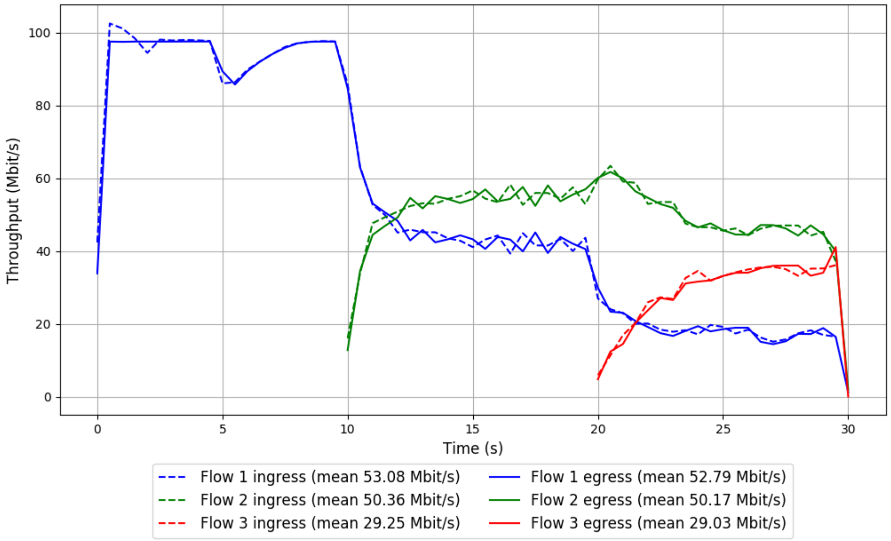
Run 4: Report of TCP Cubic — Data Link

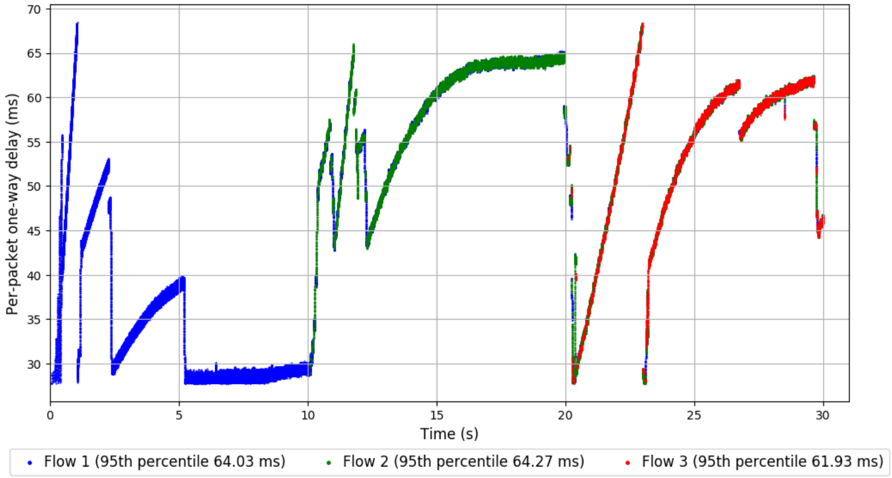




```
Run 5: Statistics of TCP Cubic

Start at: 2017-12-20 09:47:04
End at: 2017-12-20 09:47:34
Local clock offset: 0.924 ms
Remote clock offset: -4.088 ms

# Below is generated by plot.py at 2017-12-20 12:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 64.114 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 52.79 Mbit/s
95th percentile per-packet one-way delay: 64.027 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 50.17 Mbit/s
95th percentile per-packet one-way delay: 64.267 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 29.03 Mbit/s
95th percentile per-packet one-way delay: 61.934 ms
Loss rate: 0.82%
```

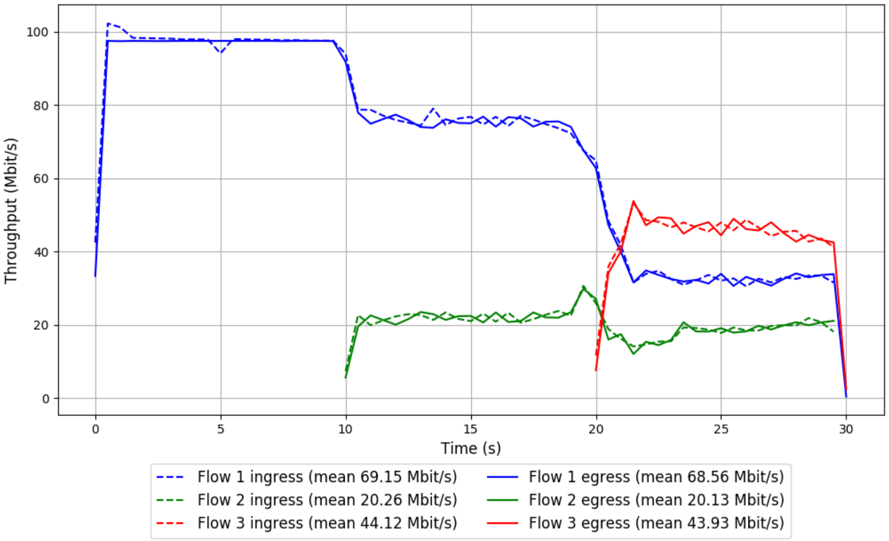
Run 5: Report of TCP Cubic — Data Link

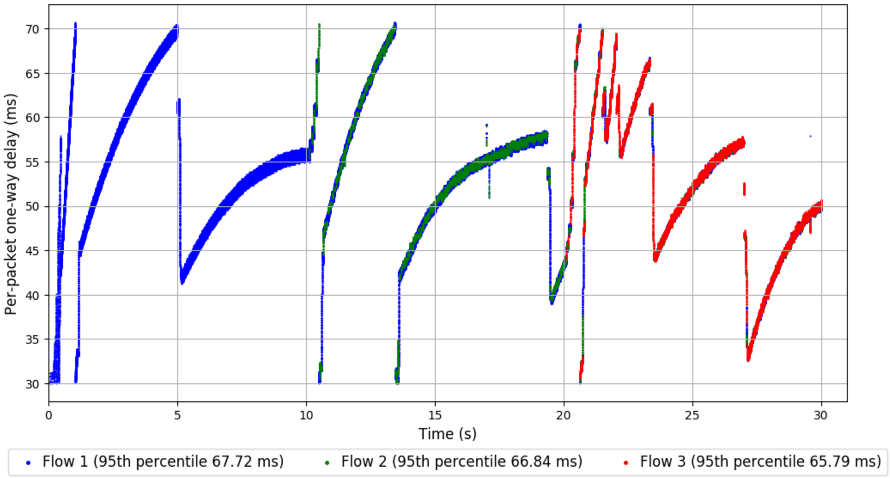




```
Run 6: Statistics of TCP Cubic

Start at: 2017-12-20 10:07:32
End at: 2017-12-20 10:08:02
Local clock offset: 0.393 ms
Remote clock offset: -1.919 ms

# Below is generated by plot.py at 2017-12-20 12:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 67.308 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 68.56 Mbit/s
95th percentile per-packet one-way delay: 67.719 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 20.13 Mbit/s
95th percentile per-packet one-way delay: 66.843 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 65.787 ms
Loss rate: 0.37%
```

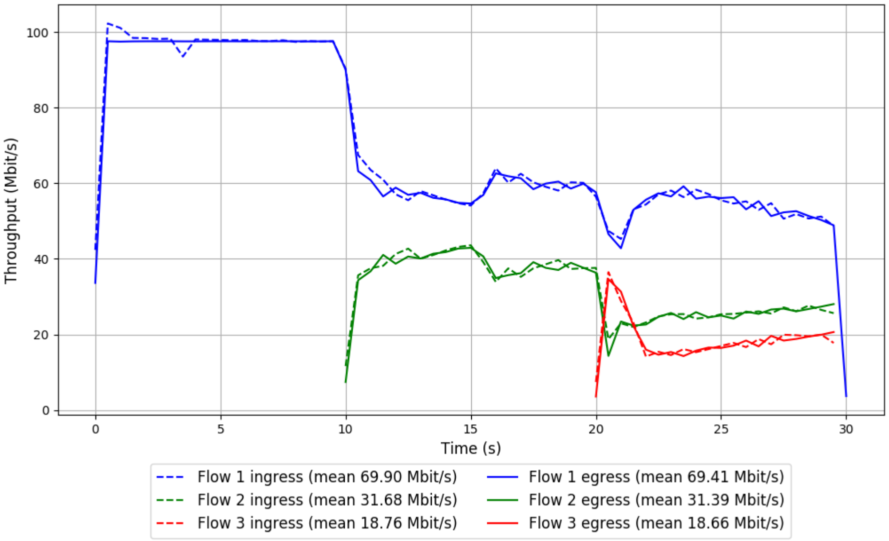
Run 6: Report of TCP Cubic — Data Link

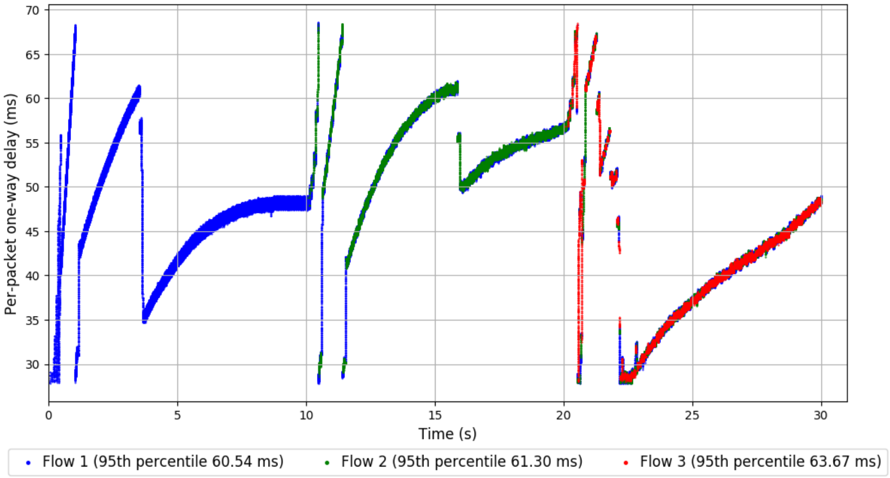




```
Run 7: Statistics of TCP Cubic

Start at: 2017-12-20 10:28:05
End at: 2017-12-20 10:28:35
Local clock offset: 0.226 ms
Remote clock offset: -4.225 ms

# Below is generated by plot.py at 2017-12-20 12:13:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.45 Mbit/s
95th percentile per-packet one-way delay: 60.908 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 69.41 Mbit/s
95th percentile per-packet one-way delay: 60.541 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 61.295 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 18.66 Mbit/s
95th percentile per-packet one-way delay: 63.670 ms
Loss rate: 0.60%
```

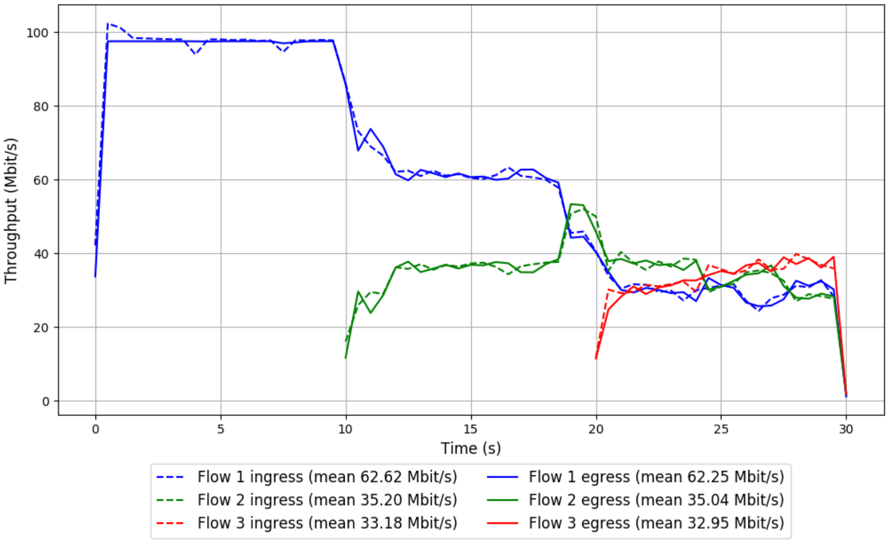
Run 7: Report of TCP Cubic — Data Link

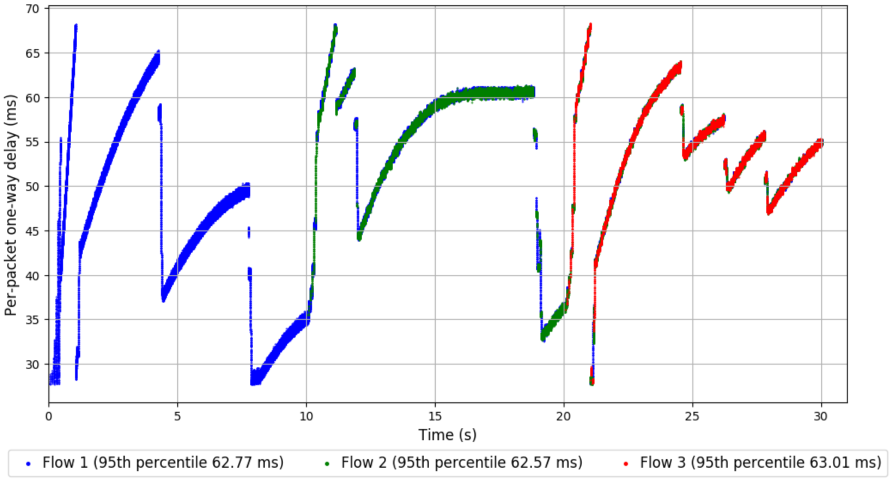




```
Run 8: Statistics of TCP Cubic

Start at: 2017-12-20 10:48:34
End at: 2017-12-20 10:49:04
Local clock offset: 0.195 ms
Remote clock offset: -4.547 ms

# Below is generated by plot.py at 2017-12-20 12:13:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.53 Mbit/s
95th percentile per-packet one-way delay: 62.769 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 62.25 Mbit/s
95th percentile per-packet one-way delay: 62.774 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 35.04 Mbit/s
95th percentile per-packet one-way delay: 62.567 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 32.95 Mbit/s
95th percentile per-packet one-way delay: 63.009 ms
Loss rate: 0.48%
```

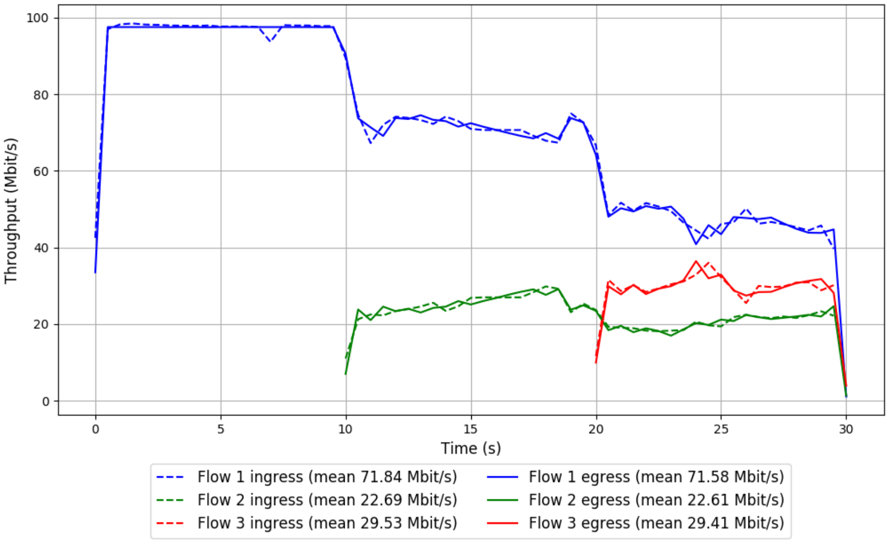
Run 8: Report of TCP Cubic — Data Link

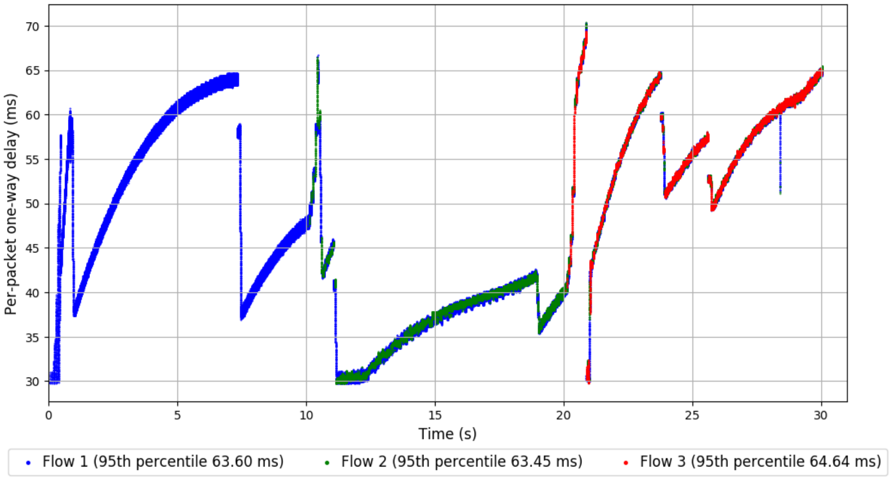




```
Run 9: Statistics of TCP Cubic

Start at: 2017-12-20 11:09:01
End at: 2017-12-20 11:09:31
Local clock offset: 0.314 ms
Remote clock offset: -2.886 ms

# Below is generated by plot.py at 2017-12-20 12:13:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 63.657 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 71.58 Mbit/s
95th percentile per-packet one-way delay: 63.600 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 22.61 Mbit/s
95th percentile per-packet one-way delay: 63.451 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 29.41 Mbit/s
95th percentile per-packet one-way delay: 64.637 ms
Loss rate: 0.17%
```

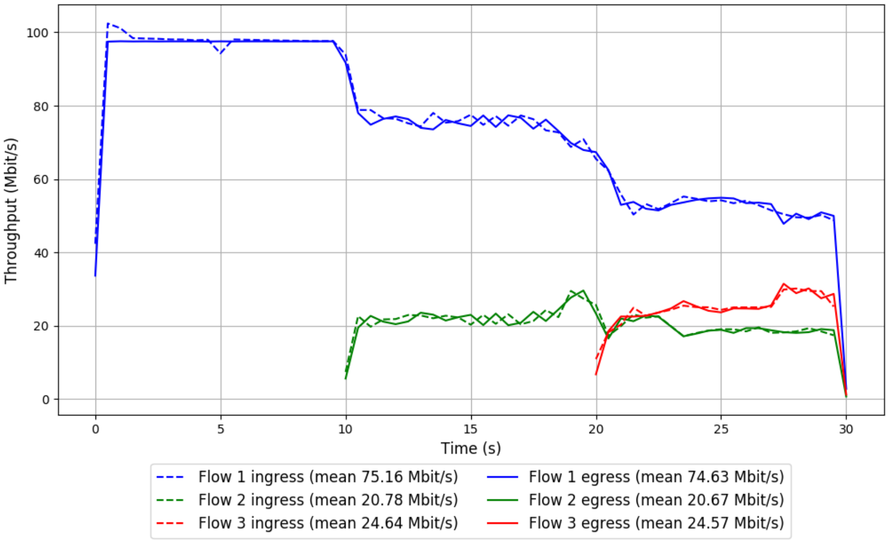
Run 9: Report of TCP Cubic — Data Link

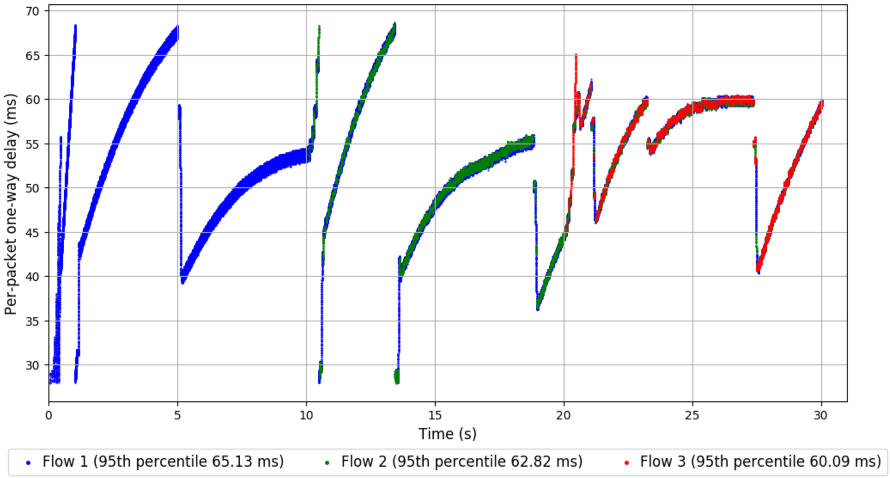




```
Run 10: Statistics of TCP Cubic

Start at: 2017-12-20 11:29:28
End at: 2017-12-20 11:29:58
Local clock offset: 0.193 ms
Remote clock offset: -4.992 ms

# Below is generated by plot.py at 2017-12-20 12:13:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.53 Mbit/s
95th percentile per-packet one-way delay: 64.632 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 74.63 Mbit/s
95th percentile per-packet one-way delay: 65.127 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 20.67 Mbit/s
95th percentile per-packet one-way delay: 62.817 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 24.57 Mbit/s
95th percentile per-packet one-way delay: 60.094 ms
Loss rate: 0.13%
```

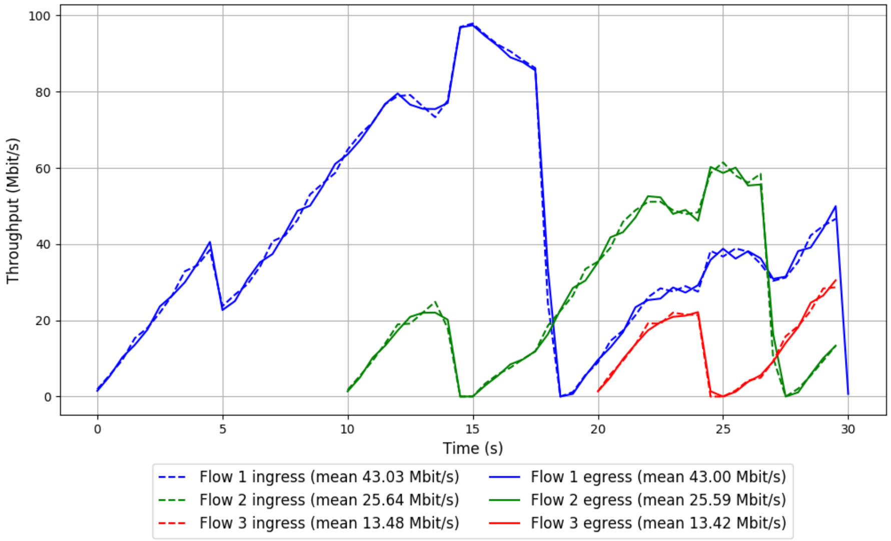
Run 10: Report of TCP Cubic — Data Link

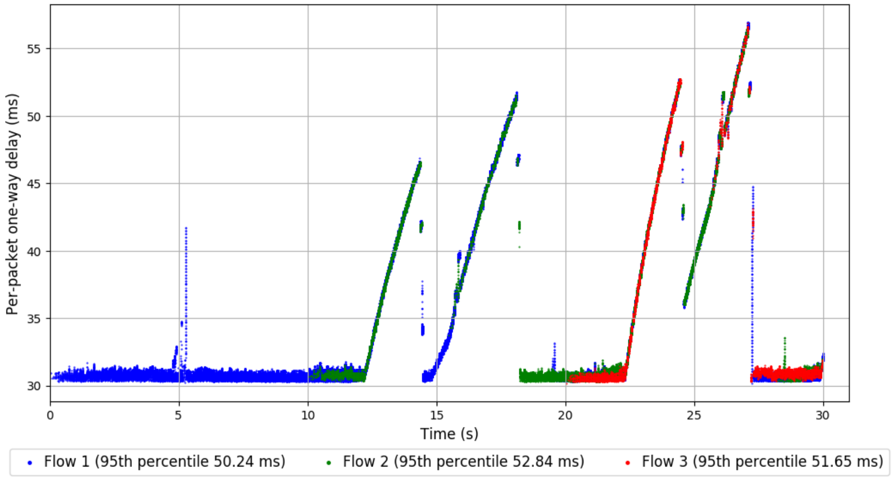




```
Run 1: Statistics of LEDBAT

Start at: 2017-12-20 08:41:38
End at: 2017-12-20 08:42:08
Local clock offset: 1.029 ms
Remote clock offset: -0.727 ms

# Below is generated by plot.py at 2017-12-20 12:13:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.47 Mbit/s
95th percentile per-packet one-way delay: 51.260 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 43.00 Mbit/s
95th percentile per-packet one-way delay: 50.237 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 25.59 Mbit/s
95th percentile per-packet one-way delay: 52.841 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 51.646 ms
Loss rate: 0.39%
```

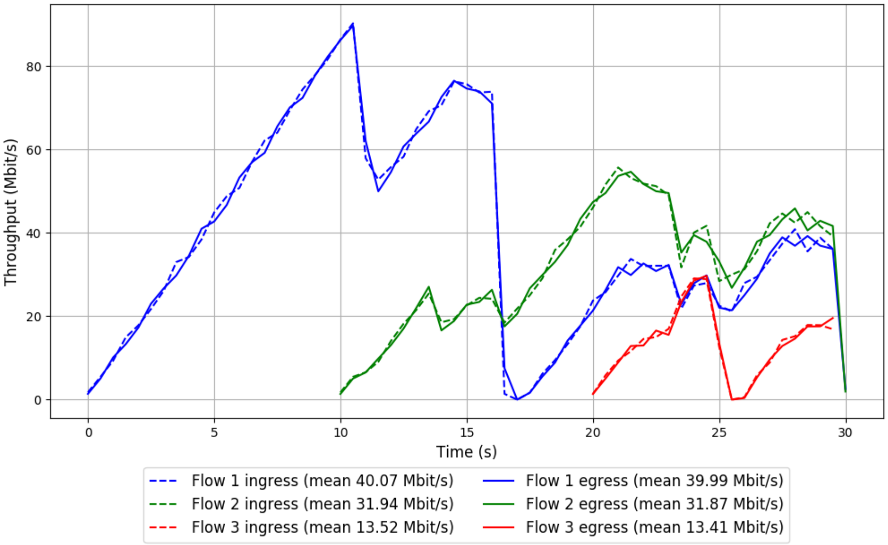
Run 1: Report of LEDBAT — Data Link

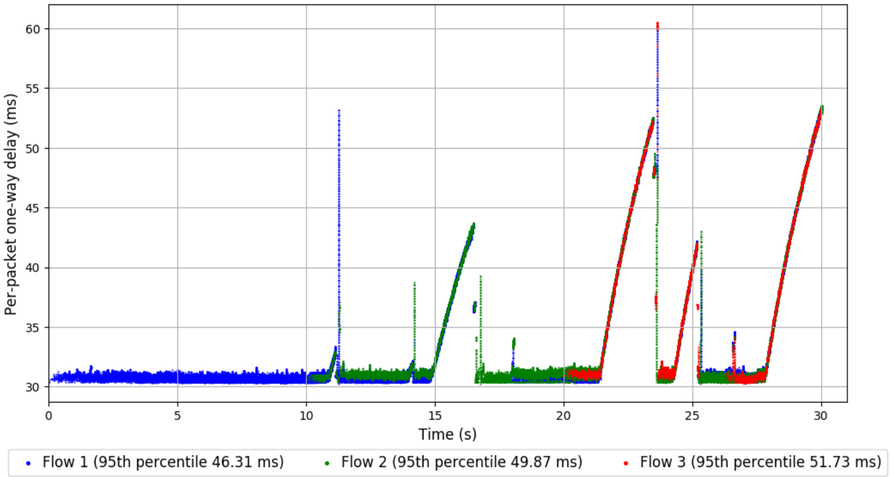




```
Run 2: Statistics of LEDBAT

Start at: 2017-12-20 09:02:09
End at: 2017-12-20 09:02:39
Local clock offset: 1.053 ms
Remote clock offset: -1.274 ms

# Below is generated by plot.py at 2017-12-20 12:13:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.65 Mbit/s
95th percentile per-packet one-way delay: 48.840 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 39.99 Mbit/s
95th percentile per-packet one-way delay: 46.307 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 49.868 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 13.41 Mbit/s
95th percentile per-packet one-way delay: 51.725 ms
Loss rate: 0.60%
```

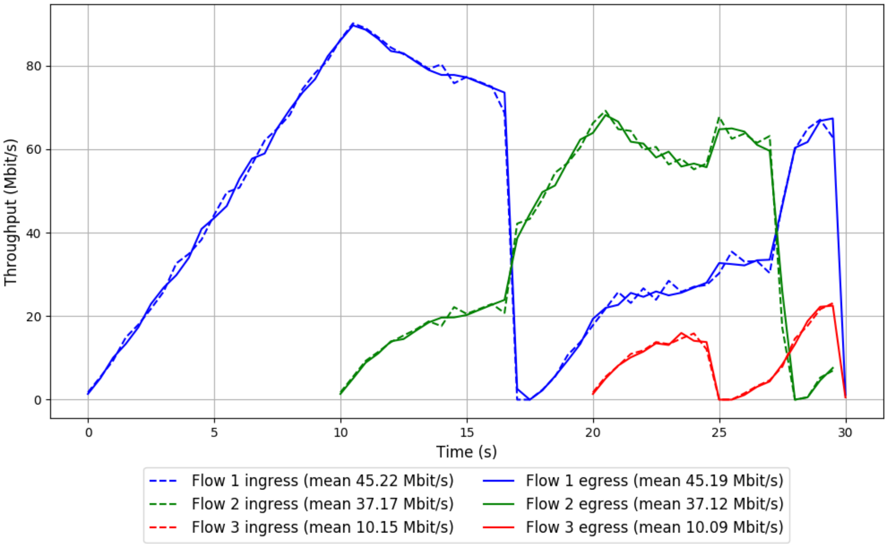
Run 2: Report of LEDBAT — Data Link

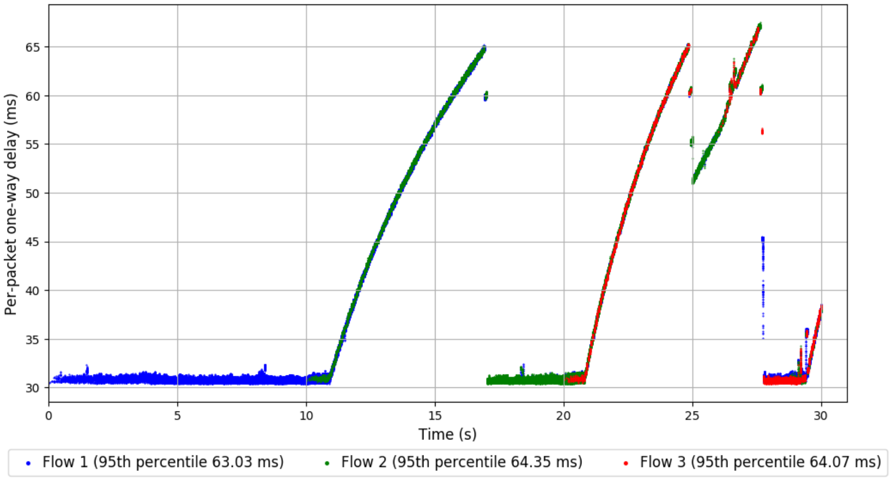




```
Run 3: Statistics of LEDBAT

Start at: 2017-12-20 09:22:34
End at: 2017-12-20 09:23:04
Local clock offset: 0.968 ms
Remote clock offset: -1.436 ms

# Below is generated by plot.py at 2017-12-20 12:13:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.25 Mbit/s
95th percentile per-packet one-way delay: 63.775 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 45.19 Mbit/s
95th percentile per-packet one-way delay: 63.032 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 64.350 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 64.069 ms
Loss rate: 0.51%
```

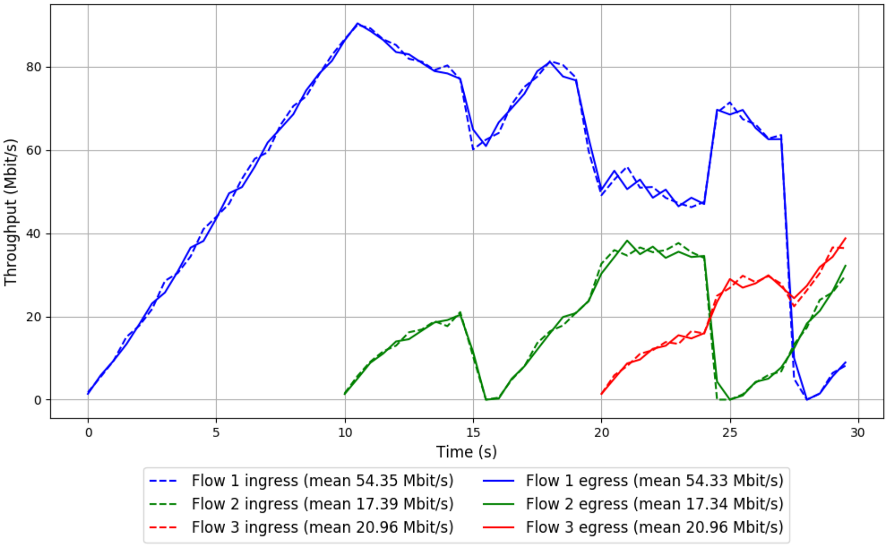
Run 3: Report of LEDBAT — Data Link

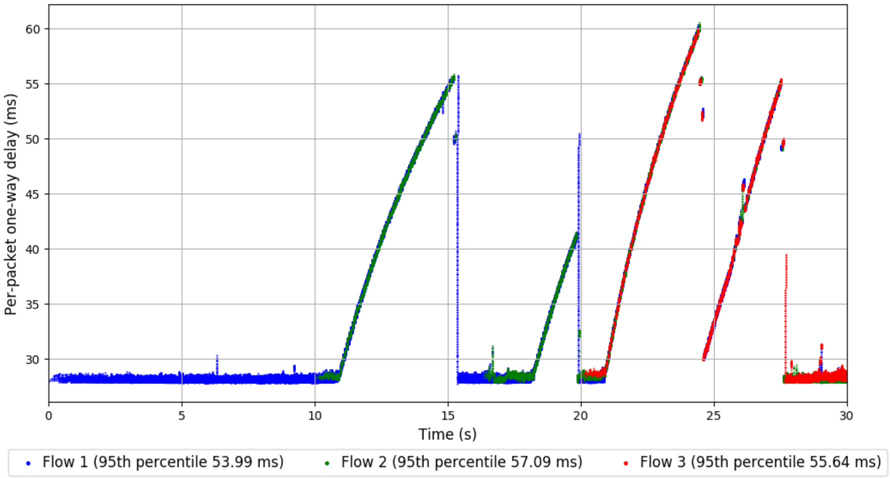




```
Run 4: Statistics of LEDBAT

Start at: 2017-12-20 09:43:01
End at: 2017-12-20 09:43:31
Local clock offset: 0.934 ms
Remote clock offset: -3.963 ms

# Below is generated by plot.py at 2017-12-20 12:13:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.76 Mbit/s
95th percentile per-packet one-way delay: 54.890 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 53.989 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 17.34 Mbit/s
95th percentile per-packet one-way delay: 57.091 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 20.96 Mbit/s
95th percentile per-packet one-way delay: 55.641 ms
Loss rate: 0.01%
```

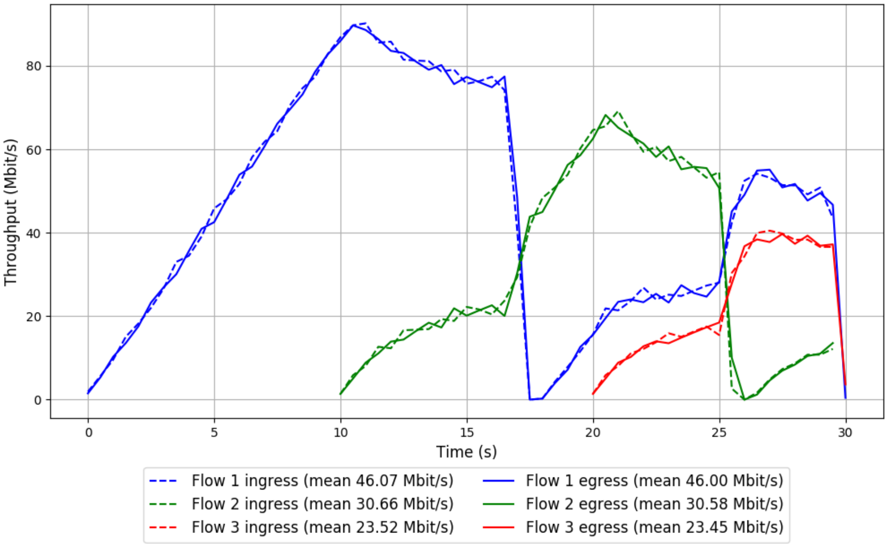
Run 4: Report of LEDBAT — Data Link

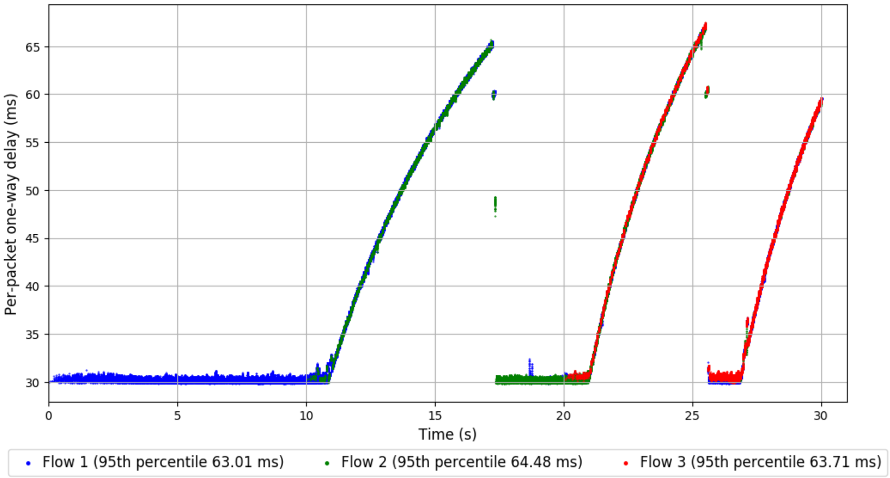




```
Run 5: Statistics of LEDBAT

Start at: 2017-12-20 10:03:28
End at: 2017-12-20 10:03:58
Local clock offset: 0.601 ms
Remote clock offset: -1.91 ms

# Below is generated by plot.py at 2017-12-20 12:14:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.13 Mbit/s
95th percentile per-packet one-way delay: 63.684 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 46.00 Mbit/s
95th percentile per-packet one-way delay: 63.013 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 30.58 Mbit/s
95th percentile per-packet one-way delay: 64.482 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 63.708 ms
Loss rate: 0.00%
```

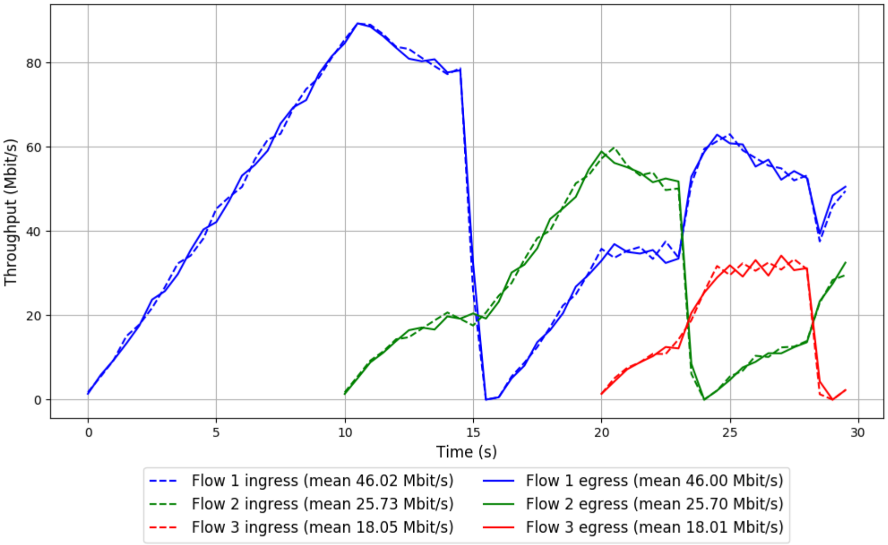
Run 5: Report of LEDBAT — Data Link

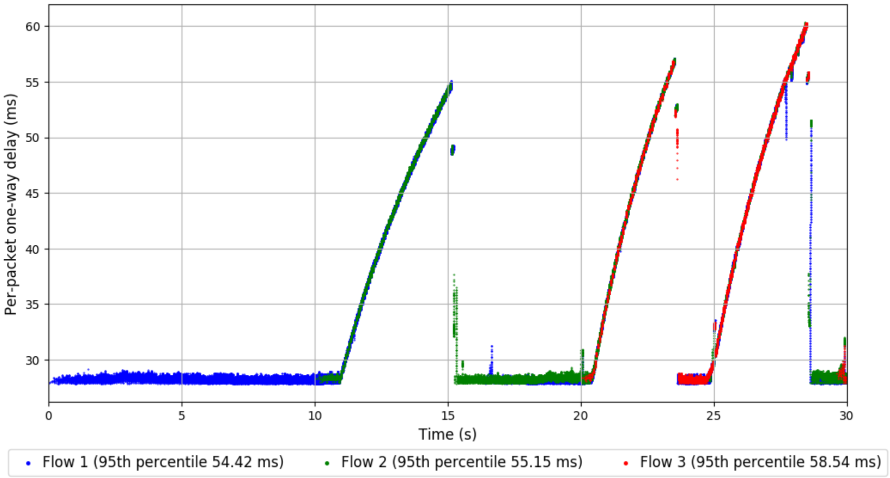




```
Run 6: Statistics of LEDBAT

Start at: 2017-12-20 10:24:02
End at: 2017-12-20 10:24:32
Local clock offset: 0.223 ms
Remote clock offset: -4.177 ms

# Below is generated by plot.py at 2017-12-20 12:14:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.08 Mbit/s
95th percentile per-packet one-way delay: 55.357 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 46.00 Mbit/s
95th percentile per-packet one-way delay: 54.418 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 25.70 Mbit/s
95th percentile per-packet one-way delay: 55.148 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 18.01 Mbit/s
95th percentile per-packet one-way delay: 58.537 ms
Loss rate: 0.22%
```

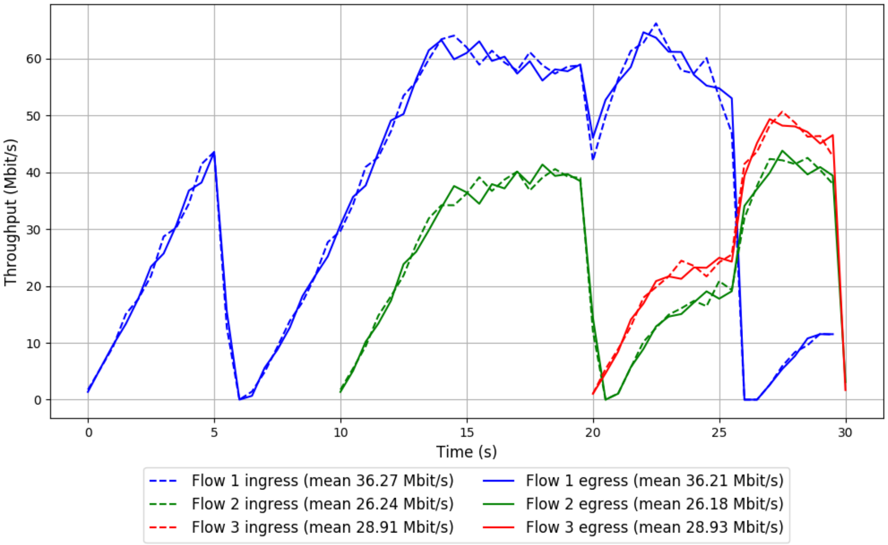
Run 6: Report of LEDBAT — Data Link

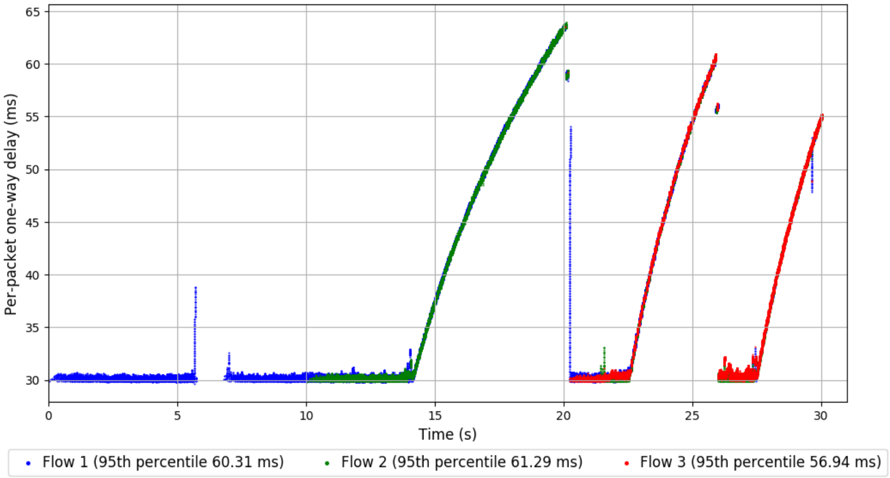




```
Run 7: Statistics of LEDBAT

Start at: 2017-12-20 10:44:30
End at: 2017-12-20 10:45:00
Local clock offset: 0.123 ms
Remote clock offset: -2.428 ms

# Below is generated by plot.py at 2017-12-20 12:14:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.16 Mbit/s
95th percentile per-packet one-way delay: 60.296 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 60.312 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 26.18 Mbit/s
95th percentile per-packet one-way delay: 61.286 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 28.93 Mbit/s
95th percentile per-packet one-way delay: 56.941 ms
Loss rate: 0.00%
```

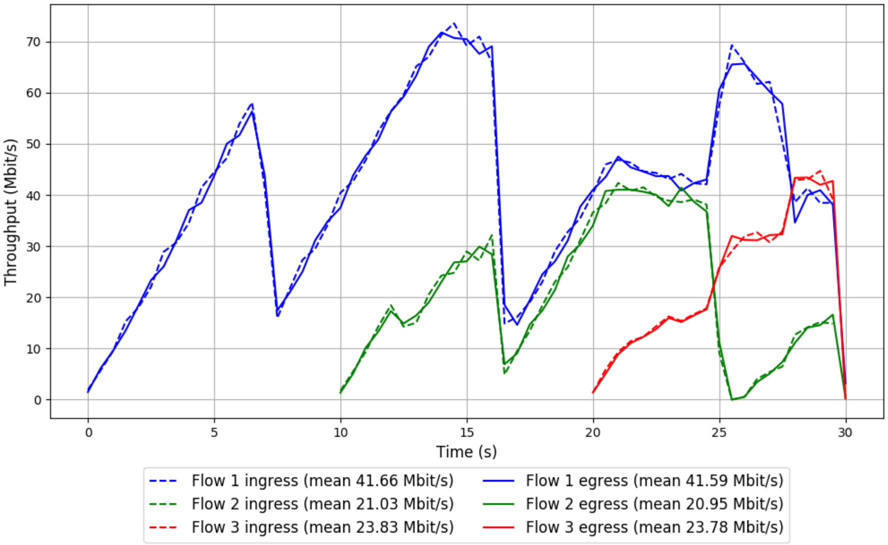
Run 7: Report of LEDBAT — Data Link

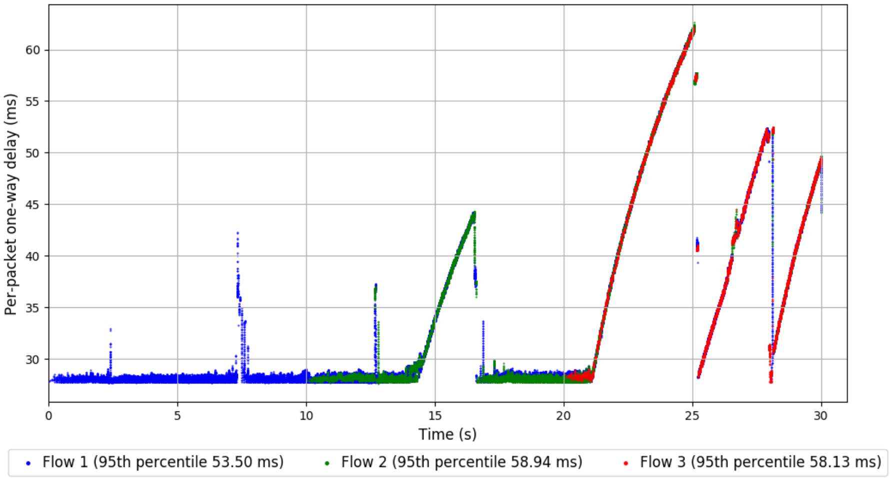




```
Run 8: Statistics of LEDBAT

Start at: 2017-12-20 11:04:59
End at: 2017-12-20 11:05:29
Local clock offset: 0.274 ms
Remote clock offset: -4.881 ms

# Below is generated by plot.py at 2017-12-20 12:14:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.45 Mbit/s
95th percentile per-packet one-way delay: 56.753 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 53.502 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 20.95 Mbit/s
95th percentile per-packet one-way delay: 58.940 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 23.78 Mbit/s
95th percentile per-packet one-way delay: 58.126 ms
Loss rate: 0.00%
```

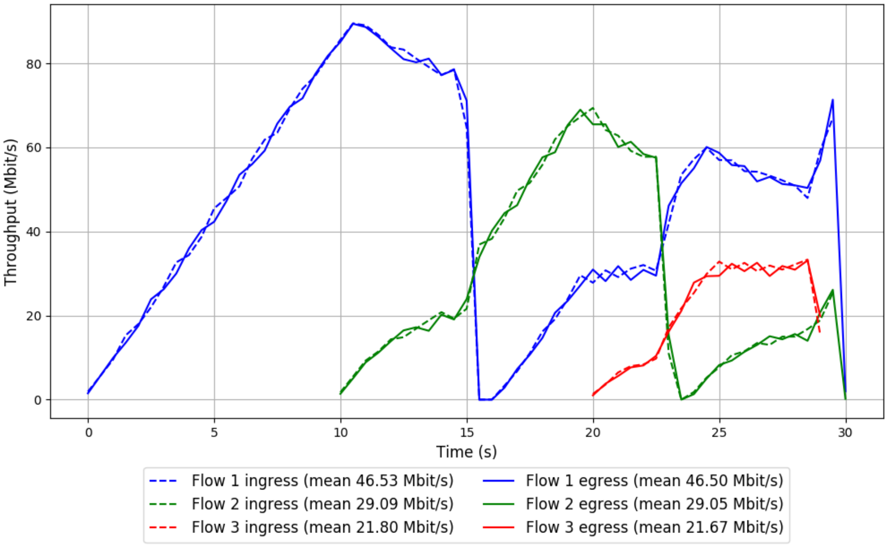
Run 8: Report of LEDBAT — Data Link

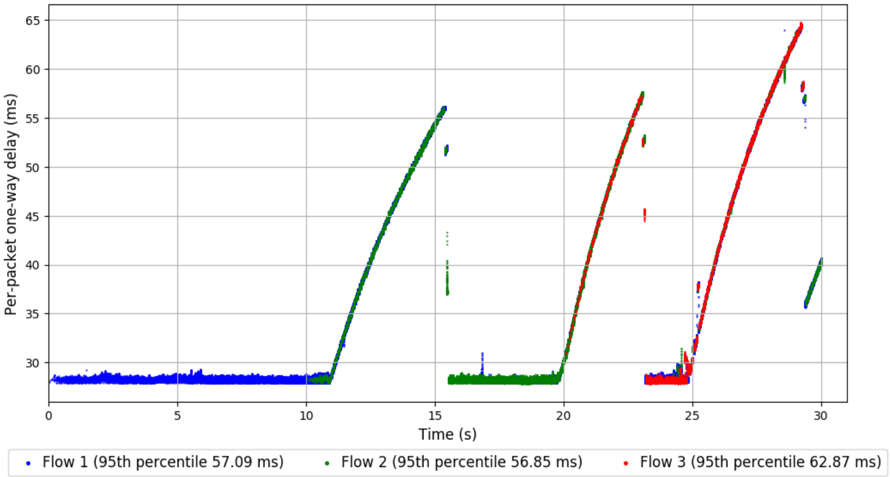




```
Run 9: Statistics of LEDBAT

Start at: 2017-12-20 11:25:24
End at: 2017-12-20 11:25:54
Local clock offset: 0.273 ms
Remote clock offset: -5.045 ms

# Below is generated by plot.py at 2017-12-20 12:14:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.53 Mbit/s
95th percentile per-packet one-way delay: 58.317 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 46.50 Mbit/s
95th percentile per-packet one-way delay: 57.085 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 29.05 Mbit/s
95th percentile per-packet one-way delay: 56.849 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 21.67 Mbit/s
95th percentile per-packet one-way delay: 62.871 ms
Loss rate: 0.31%
```

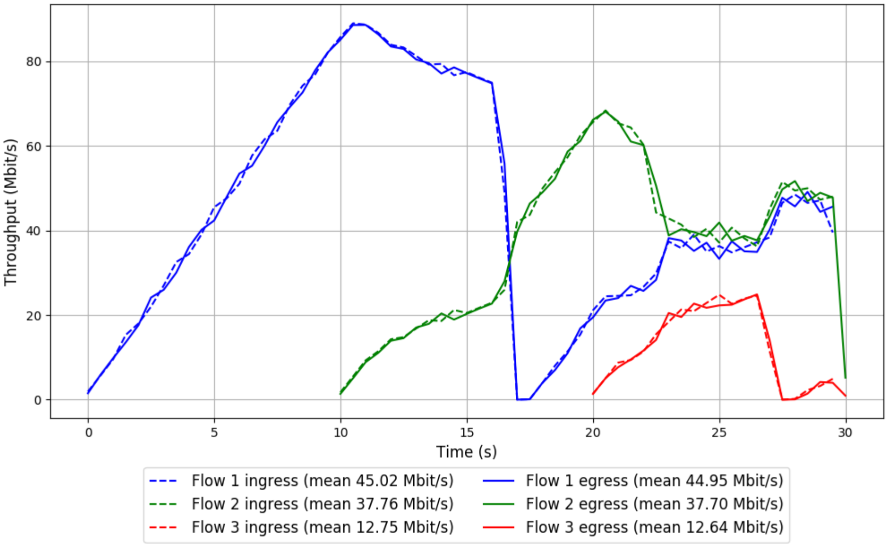
Run 9: Report of LEDBAT — Data Link

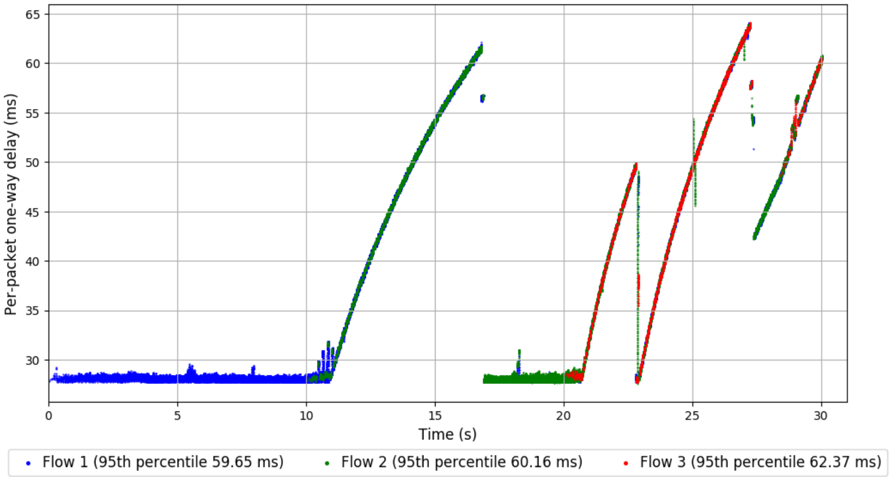




```
Run 10: Statistics of LEDBAT

Start at: 2017-12-20 11:45:50
End at: 2017-12-20 11:46:20
Local clock offset: 0.259 ms
Remote clock offset: -4.807 ms

# Below is generated by plot.py at 2017-12-20 12:15:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.21 Mbit/s
95th percentile per-packet one-way delay: 60.119 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 44.95 Mbit/s
95th percentile per-packet one-way delay: 59.651 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 60.158 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: 62.366 ms
Loss rate: 0.48%
```

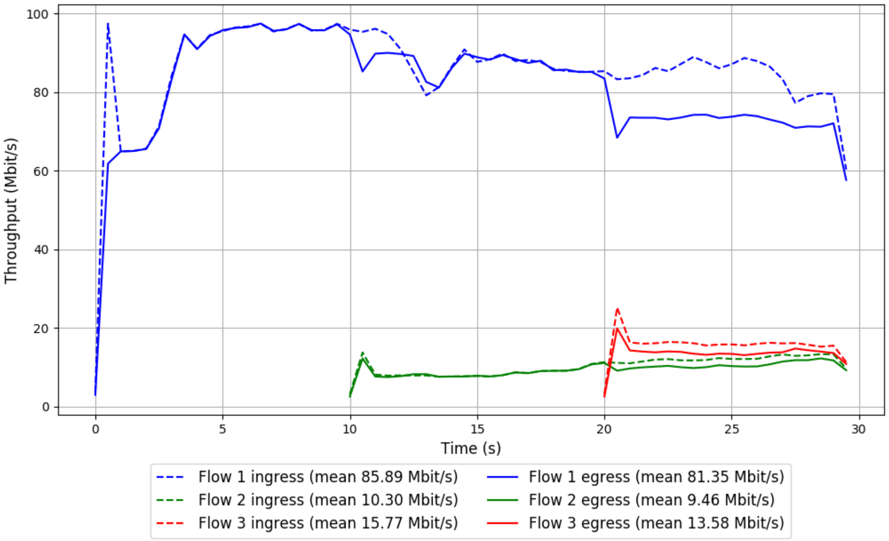
Run 10: Report of LEDBAT — Data Link

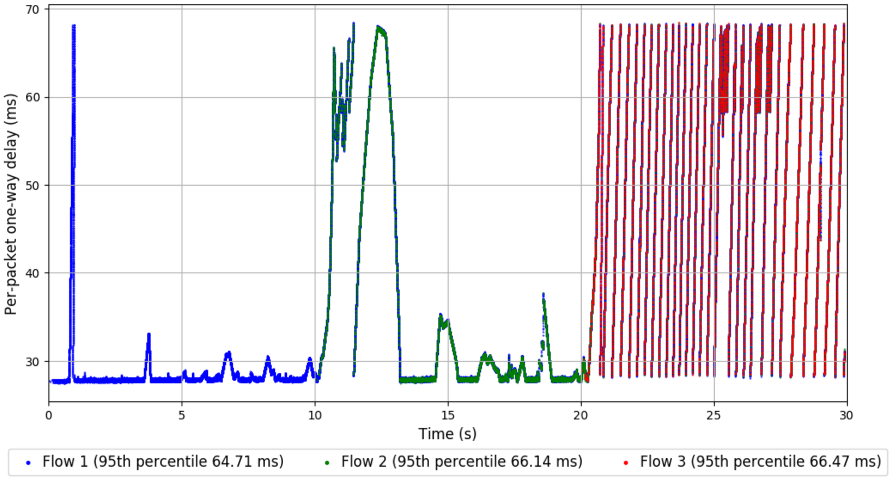




```
Run 1: Statistics of PCC

Start at: 2017-12-20 08:26:36
End at: 2017-12-20 08:27:06
Local clock offset: 1.248 ms
Remote clock offset: -2.684 ms

# Below is generated by plot.py at 2017-12-20 12:15:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 65.047 ms
Loss rate: 5.94%
-- Flow 1:
Average throughput: 81.35 Mbit/s
95th percentile per-packet one-way delay: 64.712 ms
Loss rate: 5.28%
-- Flow 2:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 66.139 ms
Loss rate: 8.20%
-- Flow 3:
Average throughput: 13.58 Mbit/s
95th percentile per-packet one-way delay: 66.466 ms
Loss rate: 13.89%
```

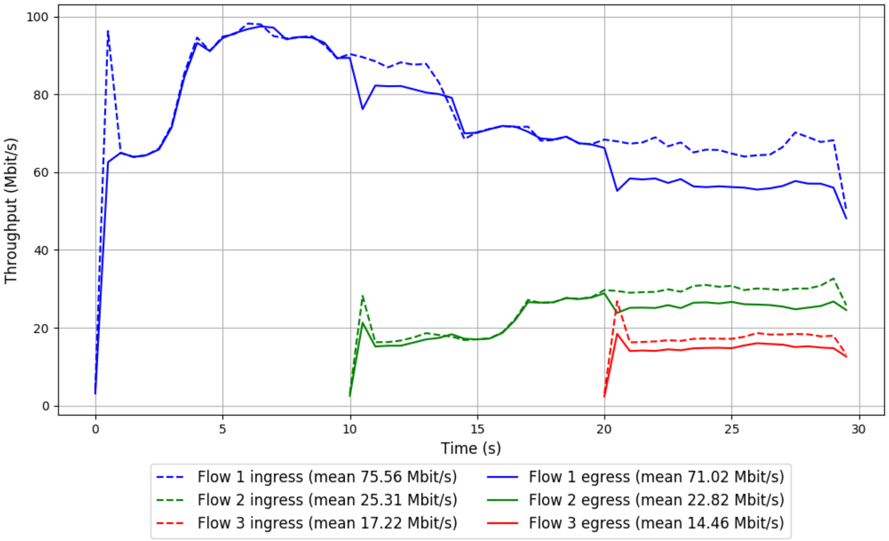
Run 1: Report of PCC — Data Link

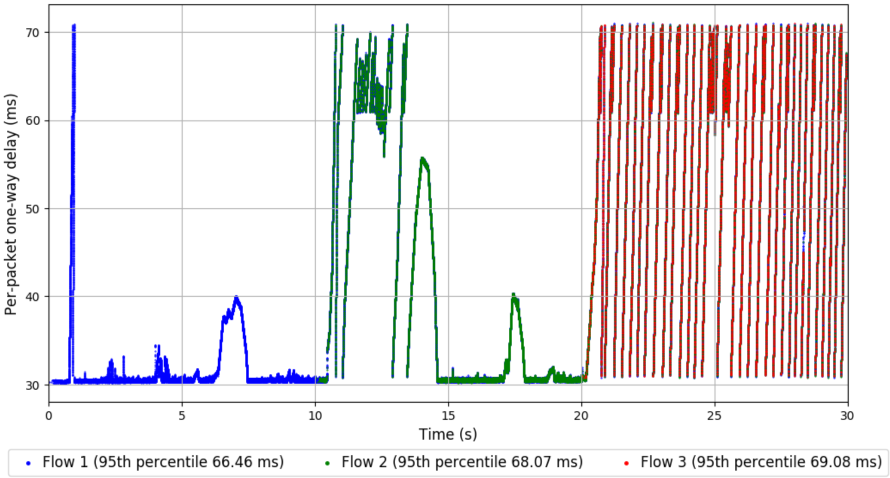




```
Run 2: Statistics of PCC

Start at: 2017-12-20 08:47:05
End at: 2017-12-20 08:47:35
Local clock offset: 1.076 ms
Remote clock offset: -0.944 ms

# Below is generated by plot.py at 2017-12-20 12:15:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.98 Mbit/s
95th percentile per-packet one-way delay: 67.074 ms
Loss rate: 7.11%
-- Flow 1:
Average throughput: 71.02 Mbit/s
95th percentile per-packet one-way delay: 66.462 ms
Loss rate: 5.89%
-- Flow 2:
Average throughput: 22.82 Mbit/s
95th percentile per-packet one-way delay: 68.069 ms
Loss rate: 9.68%
-- Flow 3:
Average throughput: 14.46 Mbit/s
95th percentile per-packet one-way delay: 69.075 ms
Loss rate: 15.71%
```

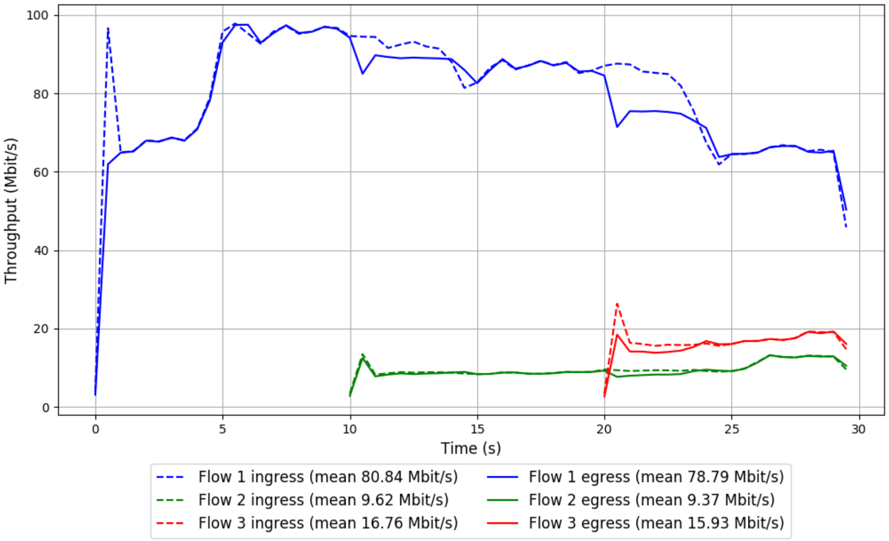
Run 2: Report of PCC — Data Link

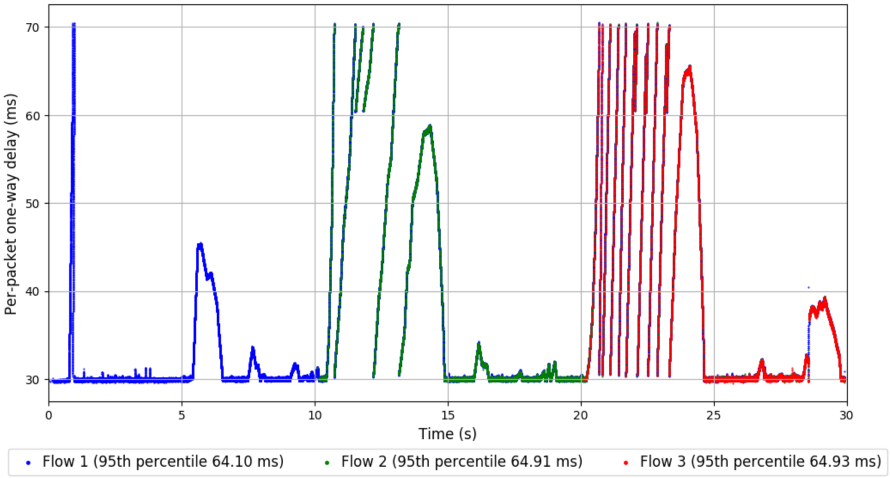




```
Run 3: Statistics of PCC

Start at: 2017-12-20 09:07:34
End at: 2017-12-20 09:08:04
Local clock offset: 1.076 ms
Remote clock offset: -1.908 ms

# Below is generated by plot.py at 2017-12-20 12:15:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.27 Mbit/s
95th percentile per-packet one-way delay: 64.319 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 78.79 Mbit/s
95th percentile per-packet one-way delay: 64.099 ms
Loss rate: 2.54%
-- Flow 2:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 64.910 ms
Loss rate: 2.56%
-- Flow 3:
Average throughput: 15.93 Mbit/s
95th percentile per-packet one-way delay: 64.929 ms
Loss rate: 4.96%
```

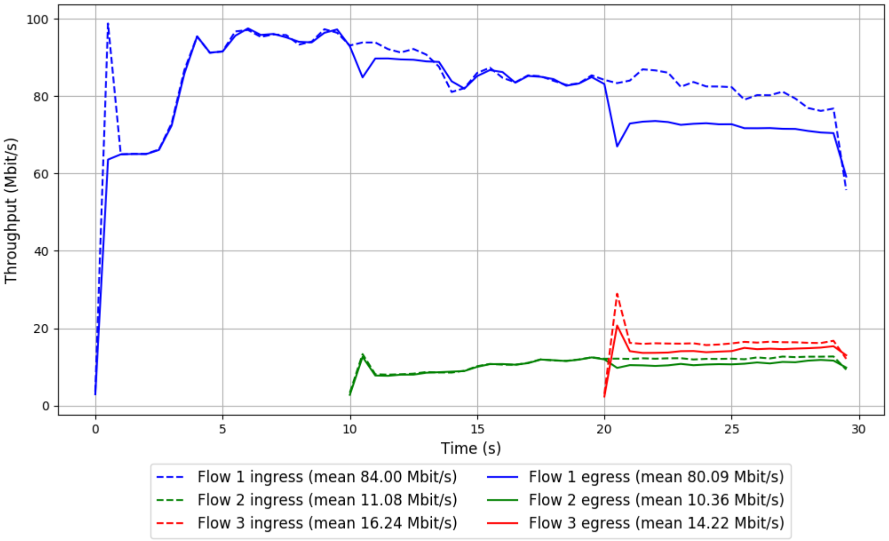
Run 3: Report of PCC — Data Link

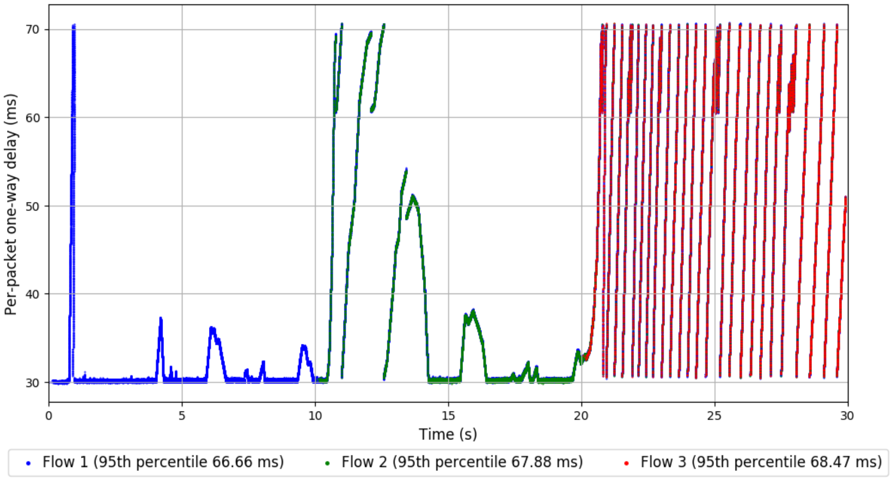




```
Run 4: Statistics of PCC

Start at: 2017-12-20 09:27:59
End at: 2017-12-20 09:28:29
Local clock offset: 0.978 ms
Remote clock offset: -1.871 ms

# Below is generated by plot.py at 2017-12-20 12:15:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.67 Mbit/s
95th percentile per-packet one-way delay: 66.984 ms
Loss rate: 5.15%
-- Flow 1:
Average throughput: 80.09 Mbit/s
95th percentile per-packet one-way delay: 66.660 ms
Loss rate: 4.59%
-- Flow 2:
Average throughput: 10.36 Mbit/s
95th percentile per-packet one-way delay: 67.875 ms
Loss rate: 6.41%
-- Flow 3:
Average throughput: 14.22 Mbit/s
95th percentile per-packet one-way delay: 68.468 ms
Loss rate: 12.31%
```

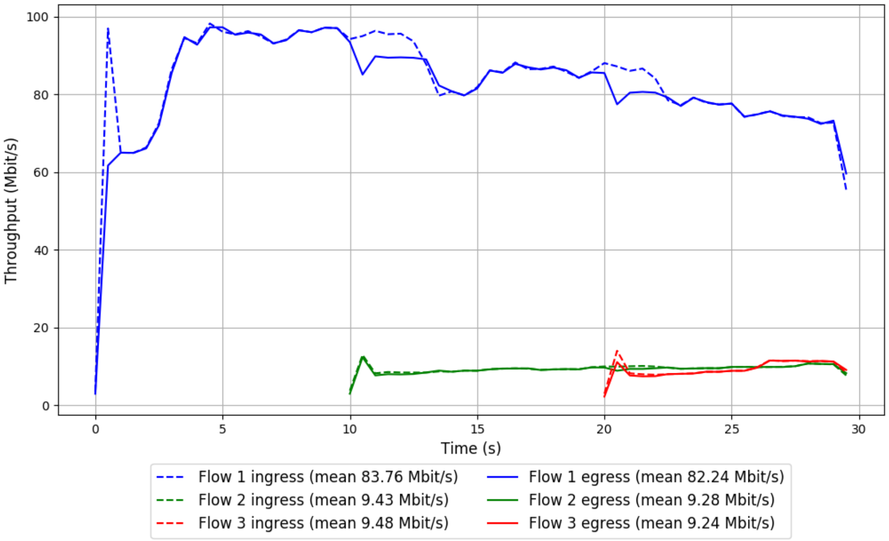
Run 4: Report of PCC — Data Link

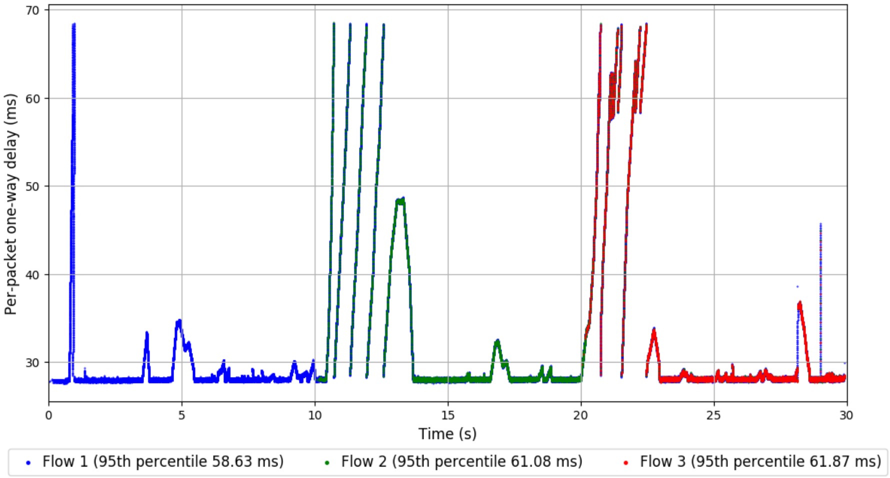




```
Run 5: Statistics of PCC

Start at: 2017-12-20 09:48:26
End at: 2017-12-20 09:48:56
Local clock offset: 0.878 ms
Remote clock offset: -4.077 ms

# Below is generated by plot.py at 2017-12-20 12:16:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.46 Mbit/s
95th percentile per-packet one-way delay: 59.131 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 82.24 Mbit/s
95th percentile per-packet one-way delay: 58.632 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 61.081 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 9.24 Mbit/s
95th percentile per-packet one-way delay: 61.867 ms
Loss rate: 2.46%
```

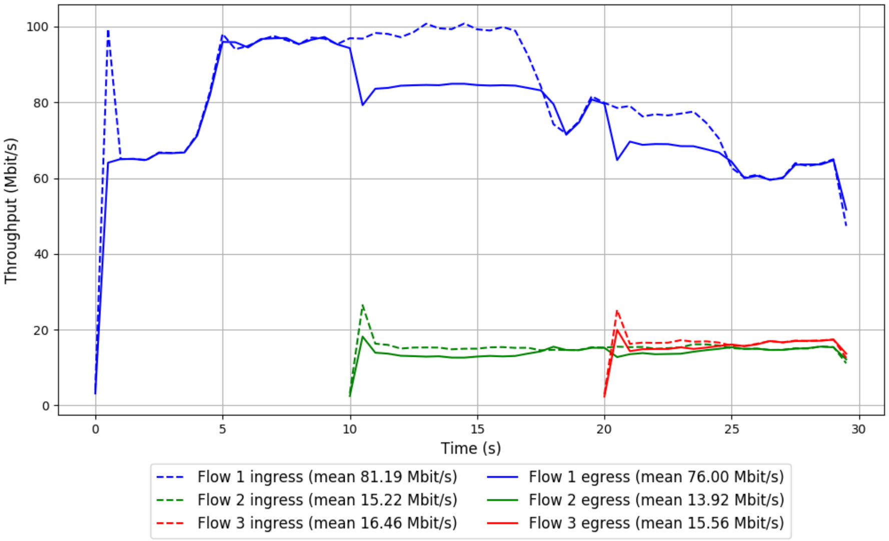
Run 5: Report of PCC — Data Link

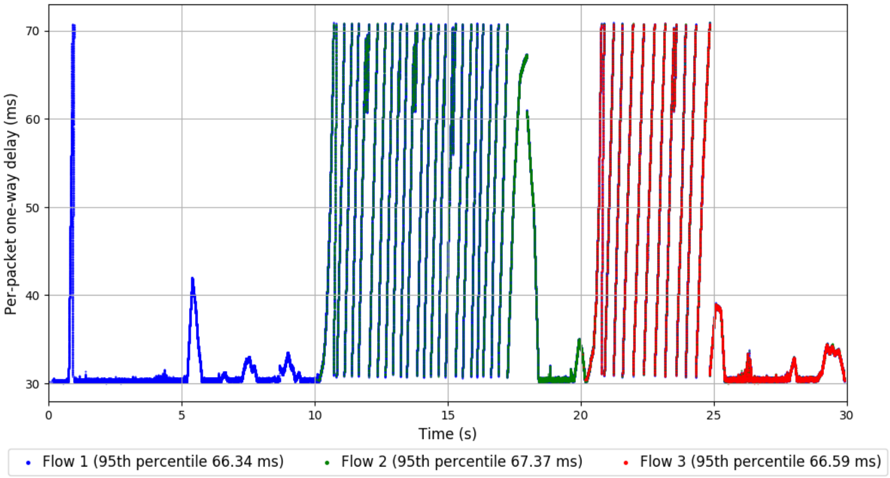




```
Run 6: Statistics of PCC

Start at: 2017-12-20 10:08:54
End at: 2017-12-20 10:09:24
Local clock offset: 0.448 ms
Remote clock offset: -1.61 ms

# Below is generated by plot.py at 2017-12-20 12:16:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.38 Mbit/s
95th percentile per-packet one-way delay: 66.513 ms
Loss rate: 6.57%
-- Flow 1:
Average throughput: 76.00 Mbit/s
95th percentile per-packet one-way delay: 66.344 ms
Loss rate: 6.40%
-- Flow 2:
Average throughput: 13.92 Mbit/s
95th percentile per-packet one-way delay: 67.374 ms
Loss rate: 8.51%
-- Flow 3:
Average throughput: 15.56 Mbit/s
95th percentile per-packet one-way delay: 66.595 ms
Loss rate: 5.54%
```

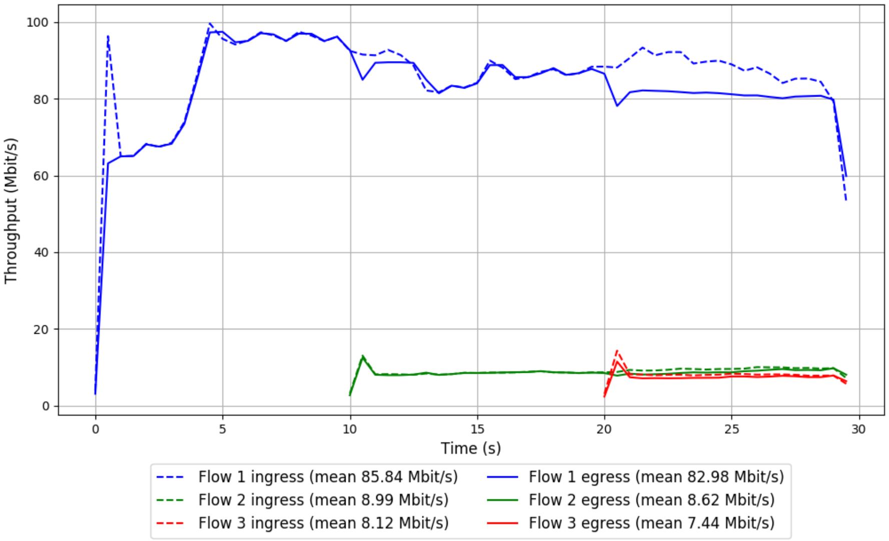
Run 6: Report of PCC — Data Link

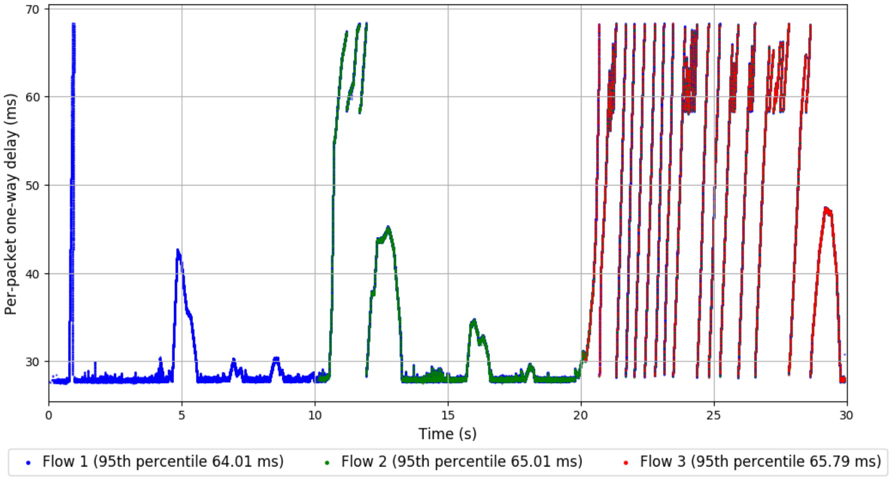




```
Run 7: Statistics of PCC

Start at: 2017-12-20 10:29:27
End at: 2017-12-20 10:29:57
Local clock offset: 0.209 ms
Remote clock offset: -4.378 ms

# Below is generated by plot.py at 2017-12-20 12:16:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.16 Mbit/s
95th percentile per-packet one-way delay: 64.205 ms
Loss rate: 3.51%
-- Flow 1:
Average throughput: 82.98 Mbit/s
95th percentile per-packet one-way delay: 64.006 ms
Loss rate: 3.32%
-- Flow 2:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 65.008 ms
Loss rate: 4.06%
-- Flow 3:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 65.787 ms
Loss rate: 8.38%
```

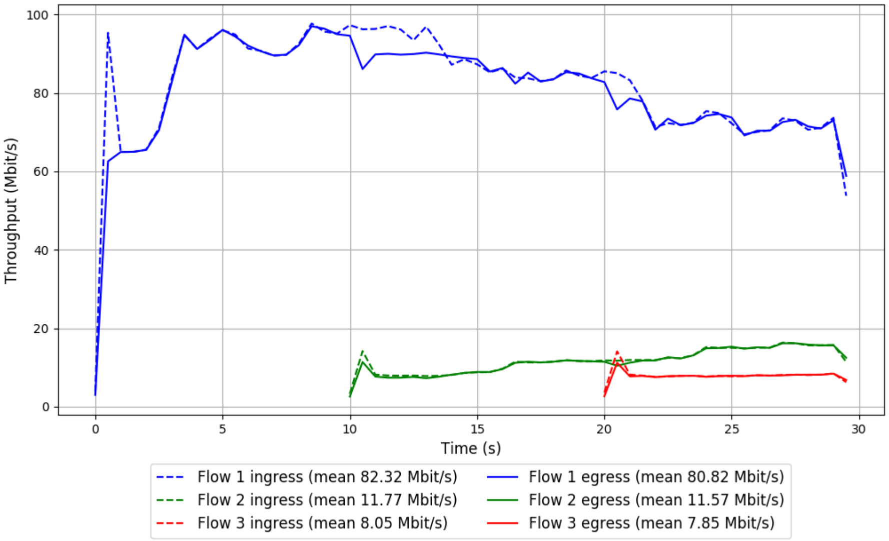
Run 7: Report of PCC — Data Link

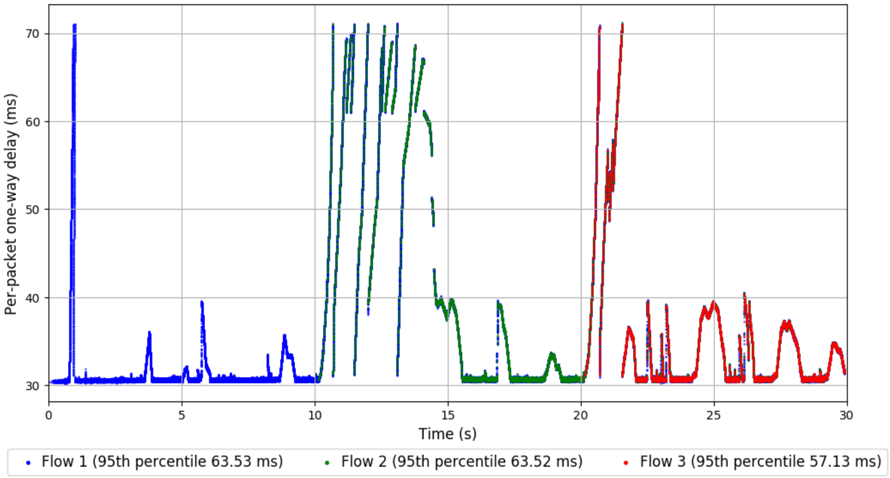




```
Run 8: Statistics of PCC

Start at: 2017-12-20 10:49:56
End at: 2017-12-20 10:50:26
Local clock offset: 0.084 ms
Remote clock offset: -1.937 ms

# Below is generated by plot.py at 2017-12-20 12:16:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.10 Mbit/s
95th percentile per-packet one-way delay: 63.456 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 80.82 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 63.516 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 57.128 ms
Loss rate: 2.46%
```

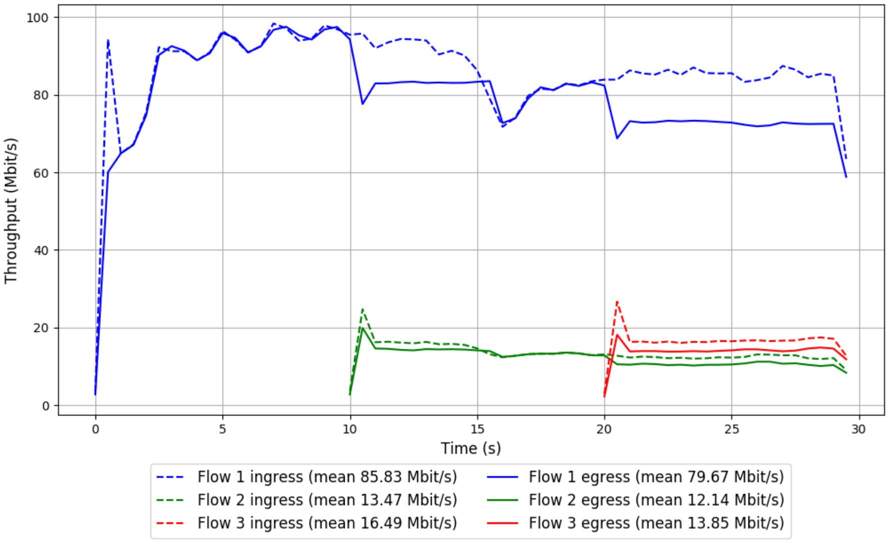
Run 8: Report of PCC — Data Link

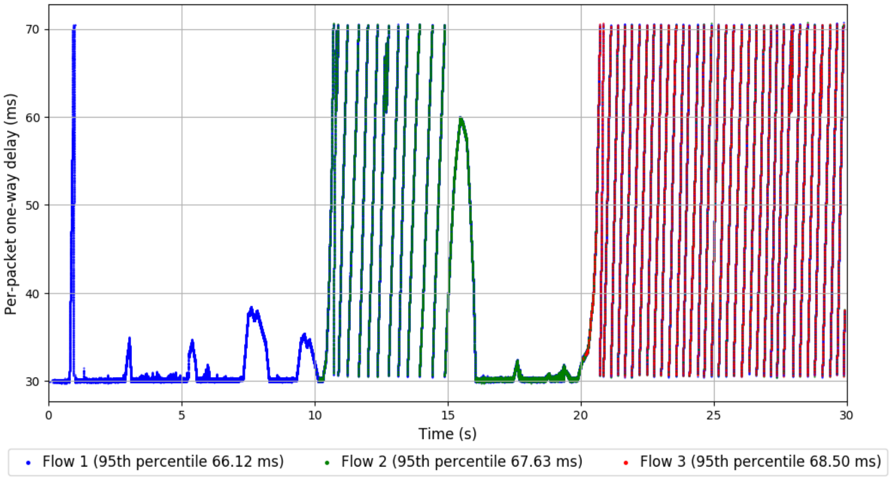




```
Run 9: Statistics of PCC

Start at: 2017-12-20 11:10:23
End at: 2017-12-20 11:10:53
Local clock offset: 0.227 ms
Remote clock offset: -2.839 ms

# Below is generated by plot.py at 2017-12-20 12:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 66.536 ms
Loss rate: 7.87%
-- Flow 1:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 66.119 ms
Loss rate: 7.15%
-- Flow 2:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 67.627 ms
Loss rate: 9.81%
-- Flow 3:
Average throughput: 13.85 Mbit/s
95th percentile per-packet one-way delay: 68.501 ms
Loss rate: 15.97%
```

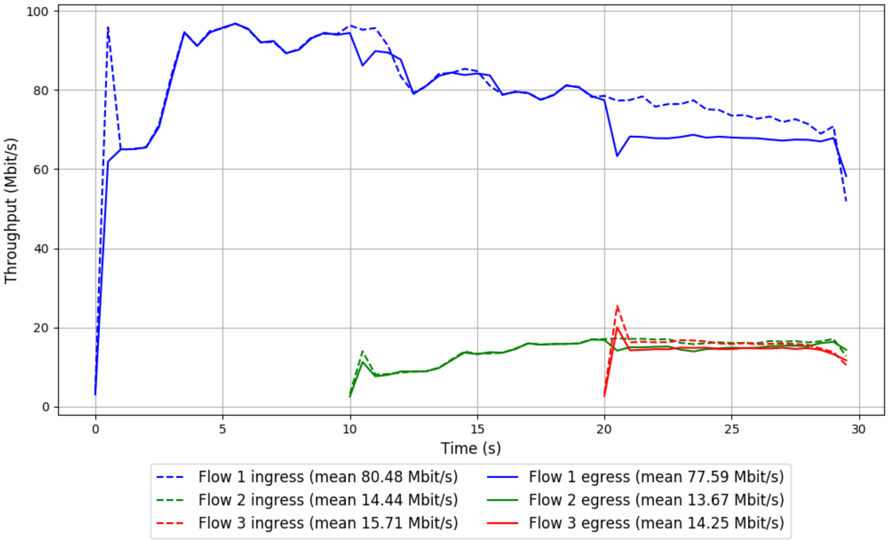
Run 9: Report of PCC — Data Link

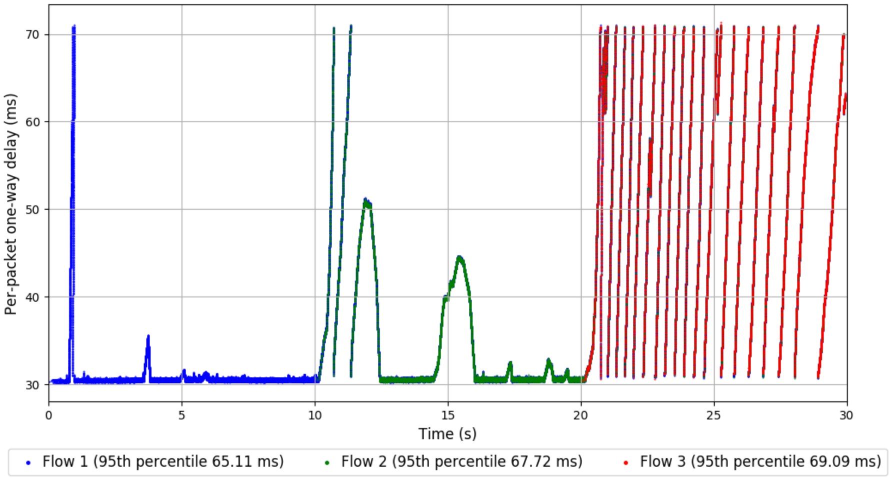




```
Run 10: Statistics of PCC

Start at: 2017-12-20 11:30:50
End at: 2017-12-20 11:31:20
Local clock offset: 0.176 ms
Remote clock offset: -2.555 ms

# Below is generated by plot.py at 2017-12-20 12:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.40 Mbit/s
95th percentile per-packet one-way delay: 66.119 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 77.59 Mbit/s
95th percentile per-packet one-way delay: 65.115 ms
Loss rate: 3.48%
-- Flow 2:
Average throughput: 13.67 Mbit/s
95th percentile per-packet one-way delay: 67.722 ms
Loss rate: 5.19%
-- Flow 3:
Average throughput: 14.25 Mbit/s
95th percentile per-packet one-way delay: 69.095 ms
Loss rate: 8.98%
```

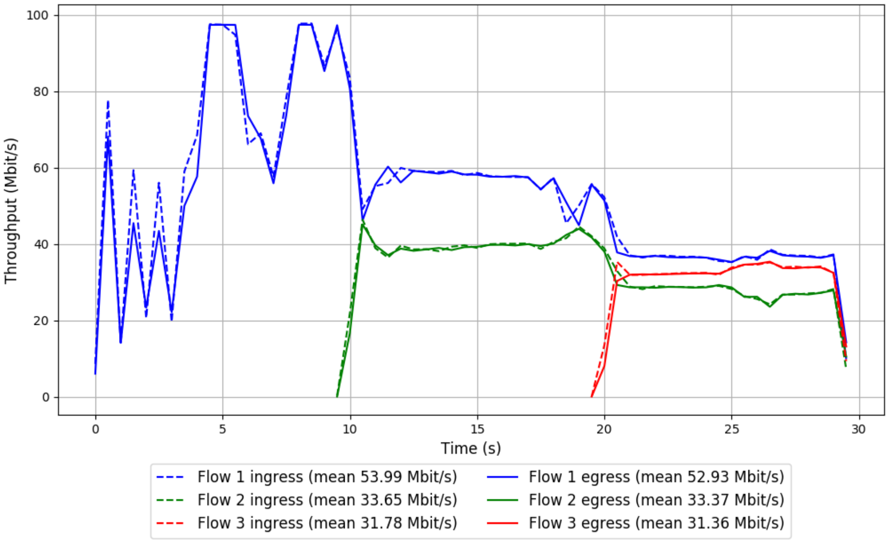
Run 10: Report of PCC — Data Link

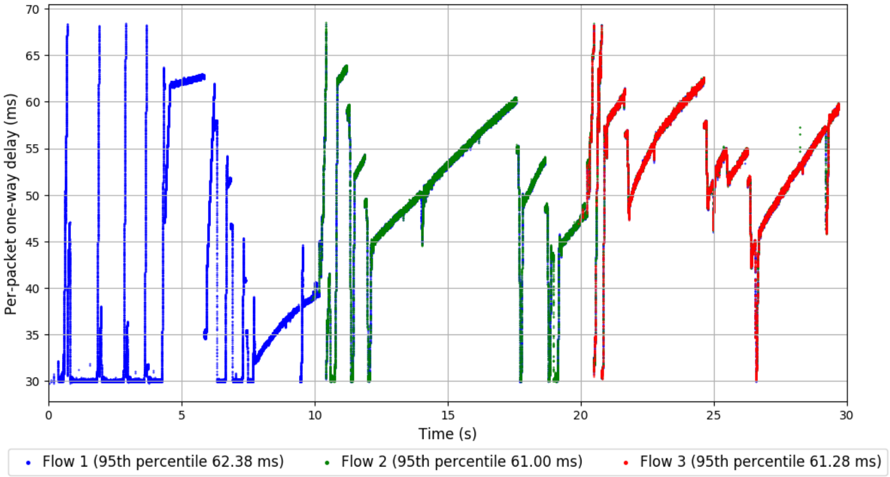




```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-20 08:33:33
End at: 2017-12-20 08:34:03
Local clock offset: 1.072 ms
Remote clock offset: -0.783 ms

# Below is generated by plot.py at 2017-12-20 12:17:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.60 Mbit/s
95th percentile per-packet one-way delay: 62.250 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 52.93 Mbit/s
95th percentile per-packet one-way delay: 62.379 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 33.37 Mbit/s
95th percentile per-packet one-way delay: 61.002 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 61.279 ms
Loss rate: 1.20%
```

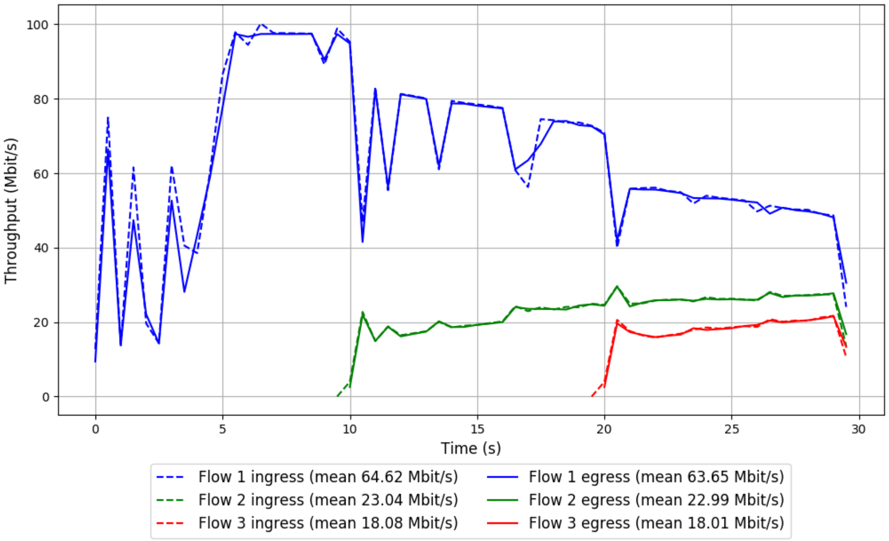
Run 1: Report of QUIC Cubic — Data Link

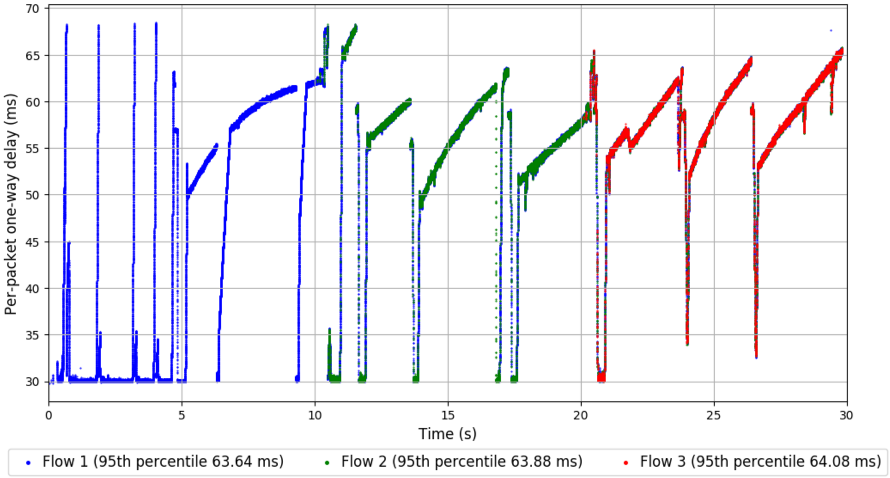




```
Run 2: Statistics of QUIC Cubic

Start at: 2017-12-20 08:54:04
End at: 2017-12-20 08:54:34
Local clock offset: 0.978 ms
Remote clock offset: -1.569 ms

# Below is generated by plot.py at 2017-12-20 12:17:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.86 Mbit/s
95th percentile per-packet one-way delay: 63.786 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 63.65 Mbit/s
95th percentile per-packet one-way delay: 63.644 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 22.99 Mbit/s
95th percentile per-packet one-way delay: 63.878 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 18.01 Mbit/s
95th percentile per-packet one-way delay: 64.077 ms
Loss rate: 0.28%
```

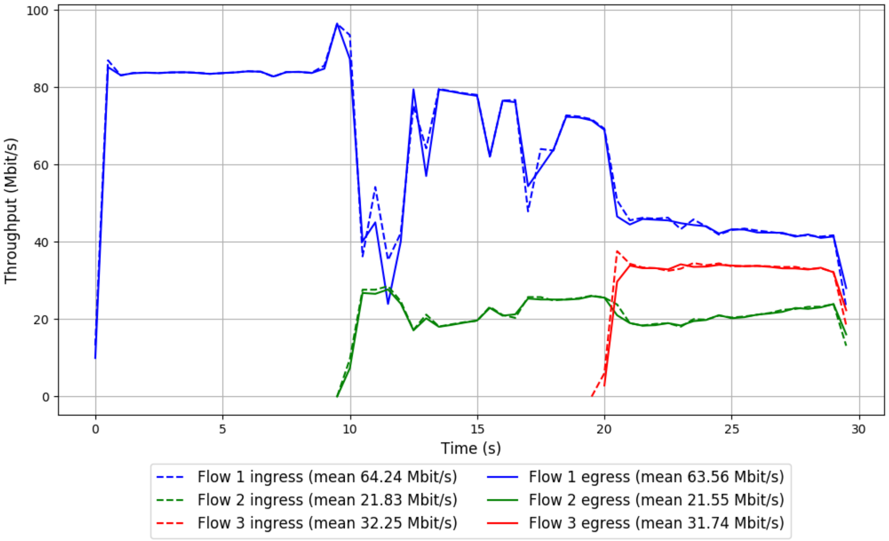
Run 2: Report of QUIC Cubic — Data Link

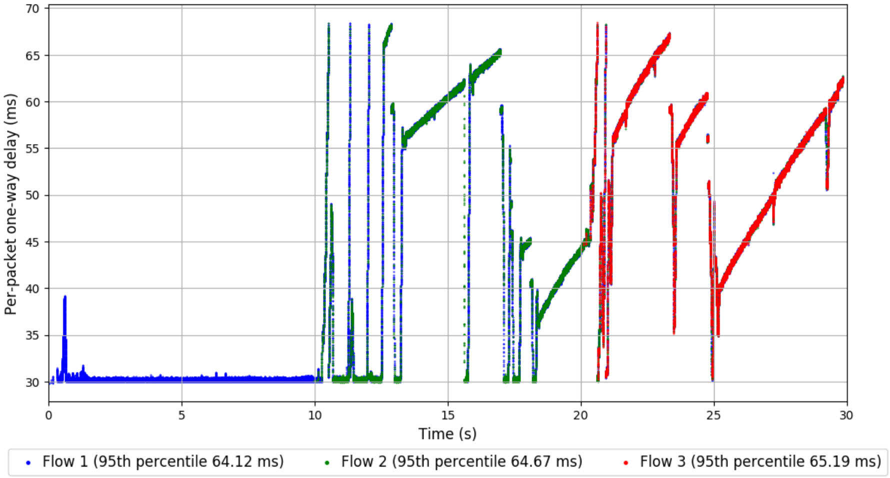




```
Run 3: Statistics of QUIC Cubic

Start at: 2017-12-20 09:14:30
End at: 2017-12-20 09:15:00
Local clock offset: 0.958 ms
Remote clock offset: -1.837 ms

# Below is generated by plot.py at 2017-12-20 12:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.36 Mbit/s
95th percentile per-packet one-way delay: 64.353 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 63.56 Mbit/s
95th percentile per-packet one-way delay: 64.125 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 21.55 Mbit/s
95th percentile per-packet one-way delay: 64.668 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 65.192 ms
Loss rate: 1.40%
```

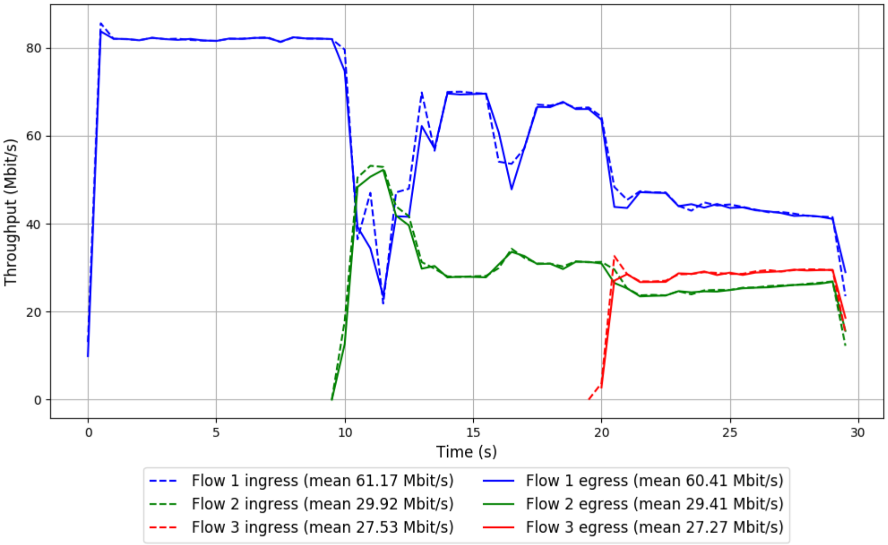
Run 3: Report of QUIC Cubic — Data Link

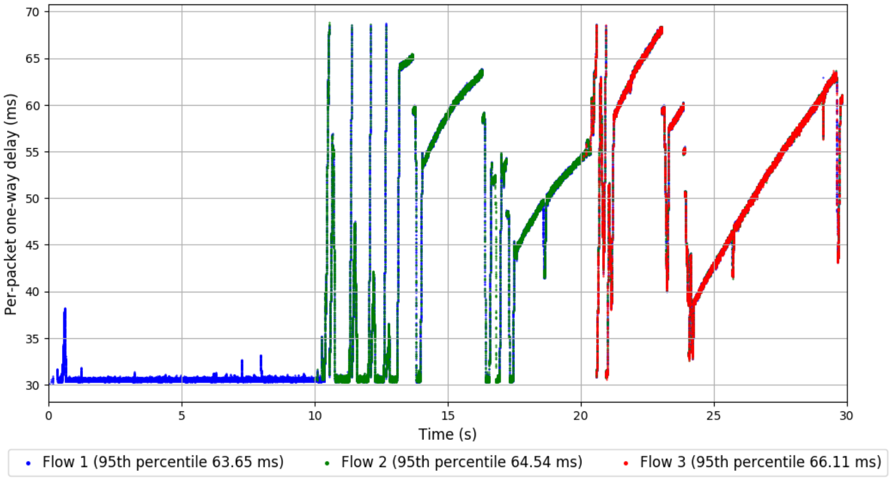




```
Run 4: Statistics of QUIC Cubic

Start at: 2017-12-20 09:34:56
End at: 2017-12-20 09:35:26
Local clock offset: 0.926 ms
Remote clock offset: -1.551 ms

# Below is generated by plot.py at 2017-12-20 12:17:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.97 Mbit/s
95th percentile per-packet one-way delay: 64.290 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 60.41 Mbit/s
95th percentile per-packet one-way delay: 63.647 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 29.41 Mbit/s
95th percentile per-packet one-way delay: 64.537 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 27.27 Mbit/s
95th percentile per-packet one-way delay: 66.113 ms
Loss rate: 0.85%
```

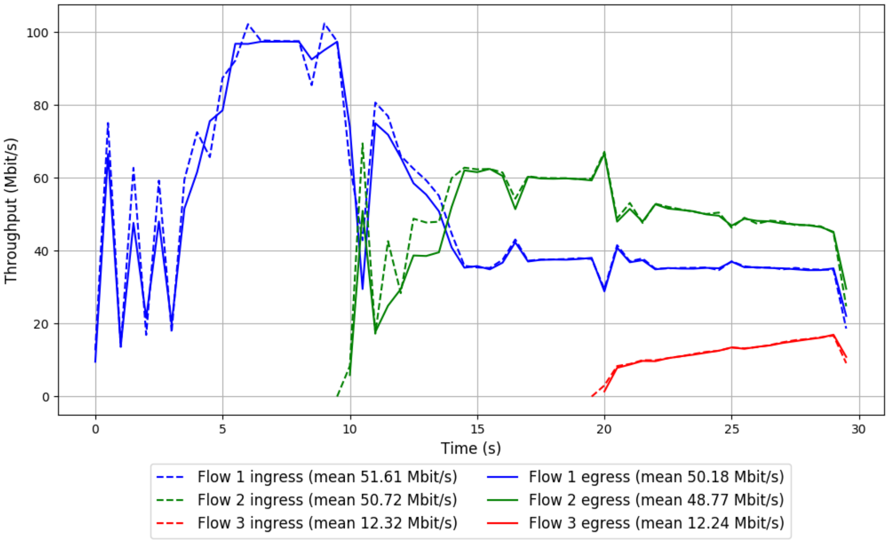
Run 4: Report of QUIC Cubic — Data Link

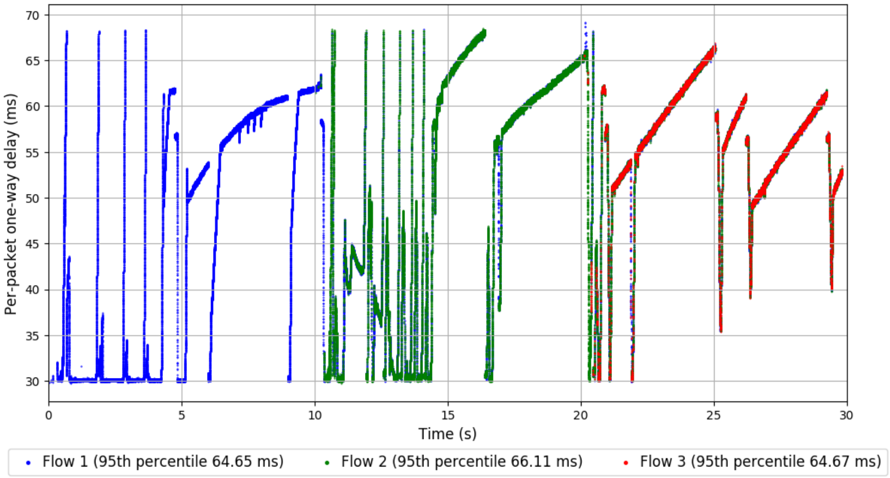




```
Run 5: Statistics of QUIC Cubic

Start at: 2017-12-20 09:55:23
End at: 2017-12-20 09:55:53
Local clock offset: 0.692 ms
Remote clock offset: -1.897 ms

# Below is generated by plot.py at 2017-12-20 12:17:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 65.383 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 50.18 Mbit/s
95th percentile per-packet one-way delay: 64.650 ms
Loss rate: 2.70%
-- Flow 2:
Average throughput: 48.77 Mbit/s
95th percentile per-packet one-way delay: 66.114 ms
Loss rate: 3.88%
-- Flow 3:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 64.675 ms
Loss rate: 0.83%
```

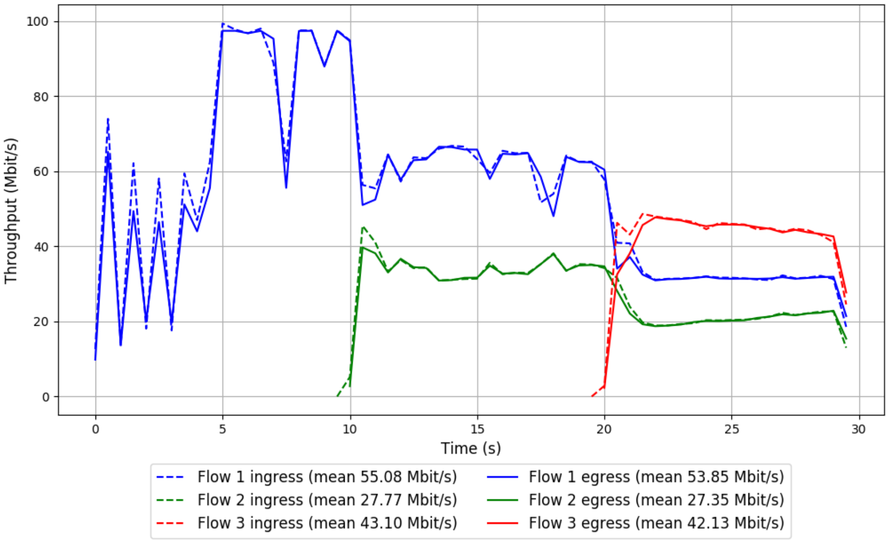
Run 5: Report of QUIC Cubic — Data Link

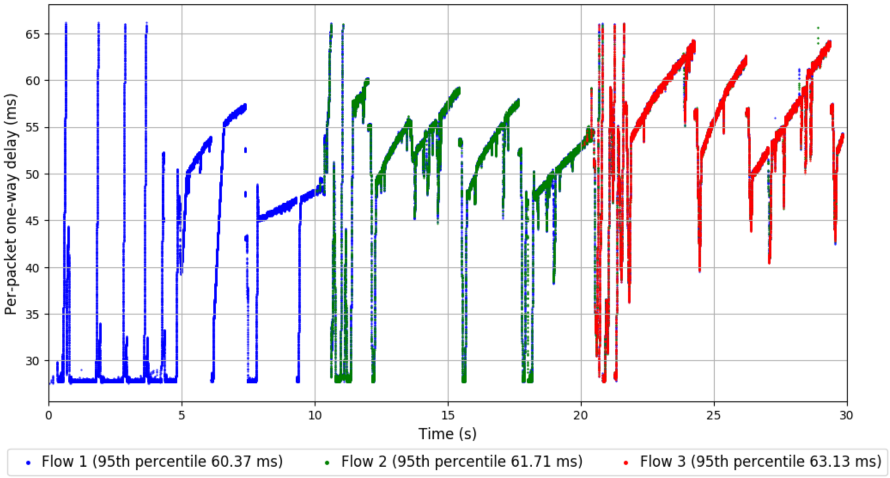




```
Run 6: Statistics of QUIC Cubic

Start at: 2017-12-20 10:15:51
End at: 2017-12-20 10:16:21
Local clock offset: 0.321 ms
Remote clock offset: -4.159 ms

# Below is generated by plot.py at 2017-12-20 12:17:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.86 Mbit/s
95th percentile per-packet one-way delay: 61.762 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 60.370 ms
Loss rate: 2.14%
-- Flow 2:
Average throughput: 27.35 Mbit/s
95th percentile per-packet one-way delay: 61.710 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 42.13 Mbit/s
95th percentile per-packet one-way delay: 63.128 ms
Loss rate: 2.23%
```

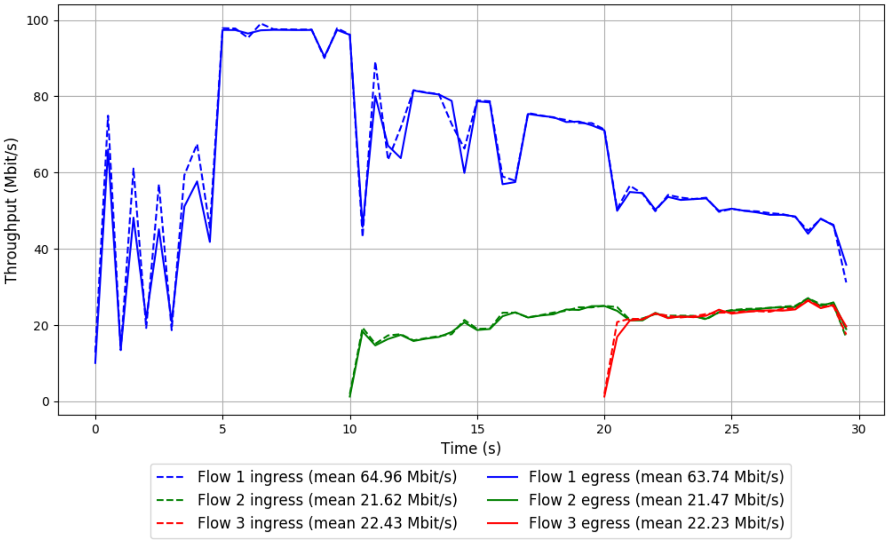
Run 6: Report of QUIC Cubic — Data Link

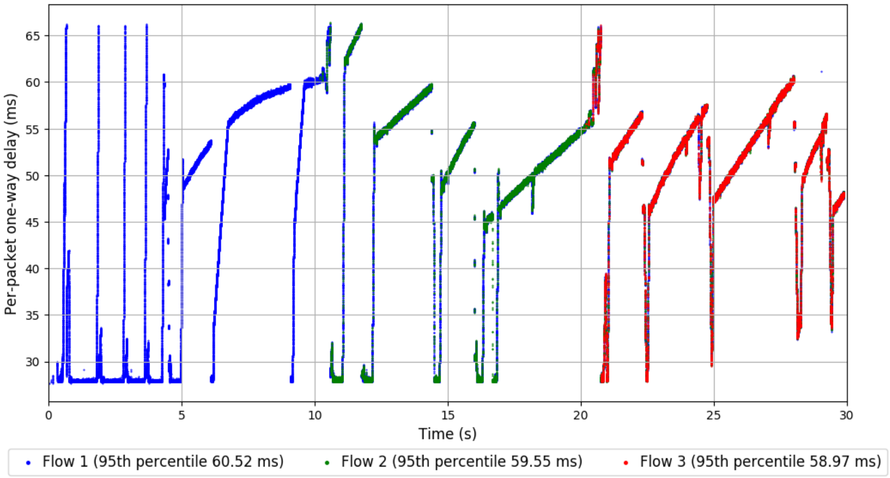




```
Run 7: Statistics of QUIC Cubic

Start at: 2017-12-20 10:36:24
End at: 2017-12-20 10:36:54
Local clock offset: 0.144 ms
Remote clock offset: -4.361 ms

# Below is generated by plot.py at 2017-12-20 12:18:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.24 Mbit/s
95th percentile per-packet one-way delay: 60.281 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 63.74 Mbit/s
95th percentile per-packet one-way delay: 60.522 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 59.548 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 22.23 Mbit/s
95th percentile per-packet one-way delay: 58.971 ms
Loss rate: 0.94%
```

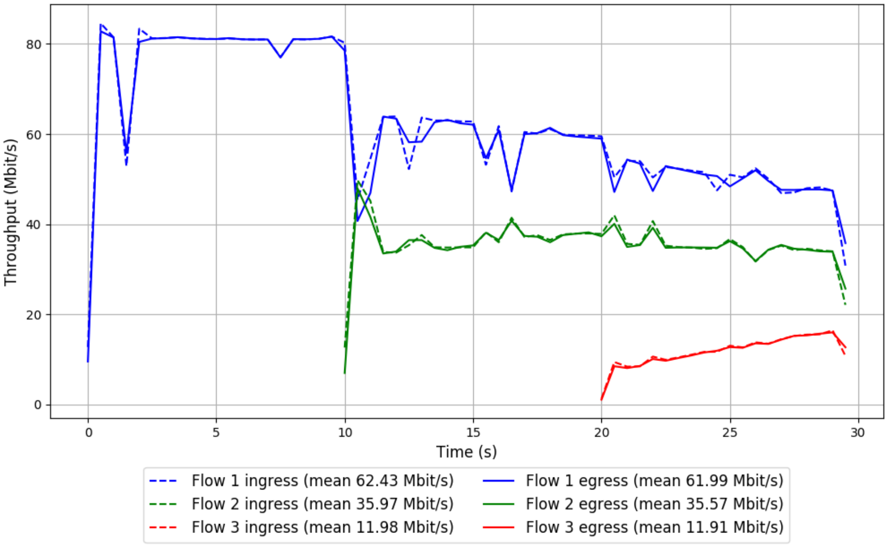
Run 7: Report of QUIC Cubic — Data Link

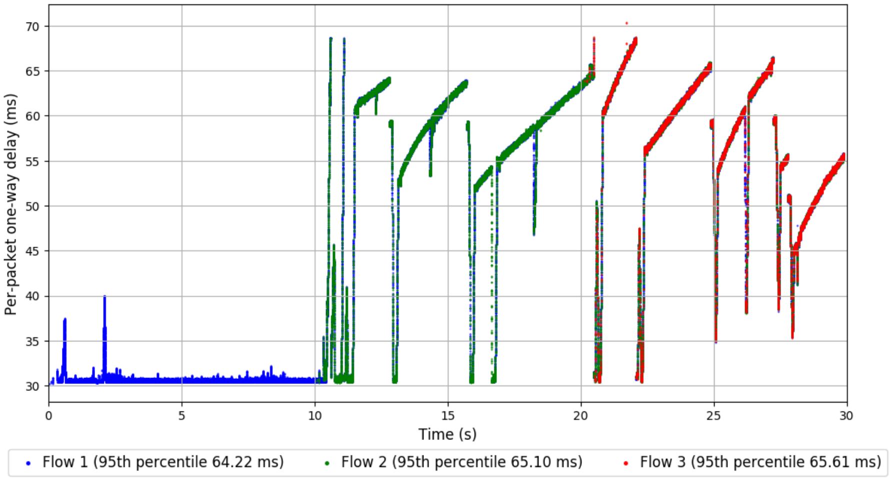




```
Run 8: Statistics of QUIC Cubic

Start at: 2017-12-20 10:56:54
End at: 2017-12-20 10:57:24
Local clock offset: 0.25 ms
Remote clock offset: -1.987 ms

# Below is generated by plot.py at 2017-12-20 12:18:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.52 Mbit/s
95th percentile per-packet one-way delay: 64.621 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 64.218 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 35.57 Mbit/s
95th percentile per-packet one-way delay: 65.099 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 65.609 ms
Loss rate: 0.67%
```

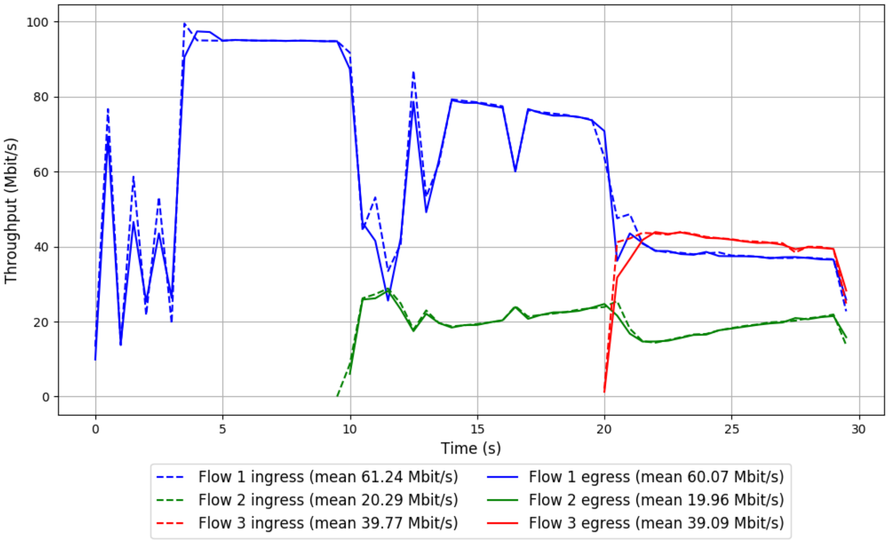
Run 8: Report of QUIC Cubic — Data Link

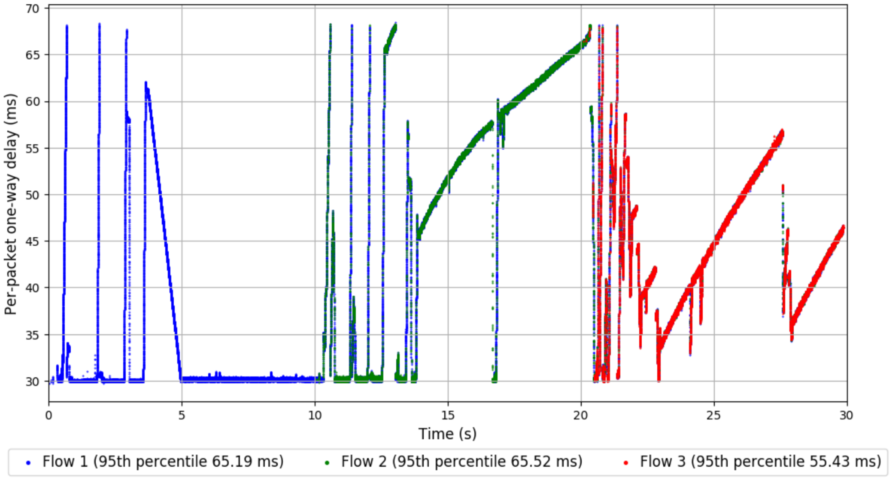




```
Run 9: Statistics of QUIC Cubic

Start at: 2017-12-20 11:17:20
End at: 2017-12-20 11:17:50
Local clock offset: 0.269 ms
Remote clock offset: -2.98 ms

# Below is generated by plot.py at 2017-12-20 12:18:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.11 Mbit/s
95th percentile per-packet one-way delay: 64.905 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 60.07 Mbit/s
95th percentile per-packet one-way delay: 65.192 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 65.521 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 55.429 ms
Loss rate: 1.92%
```

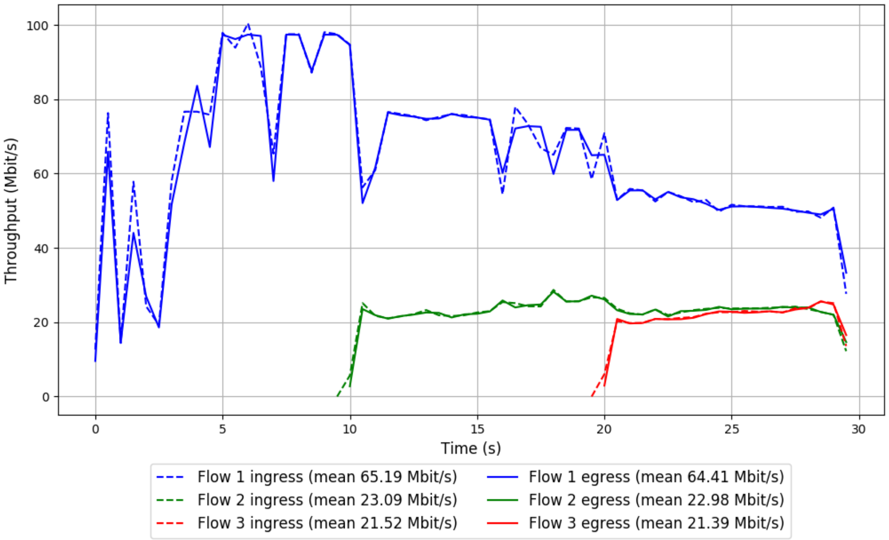
Run 9: Report of QUIC Cubic — Data Link

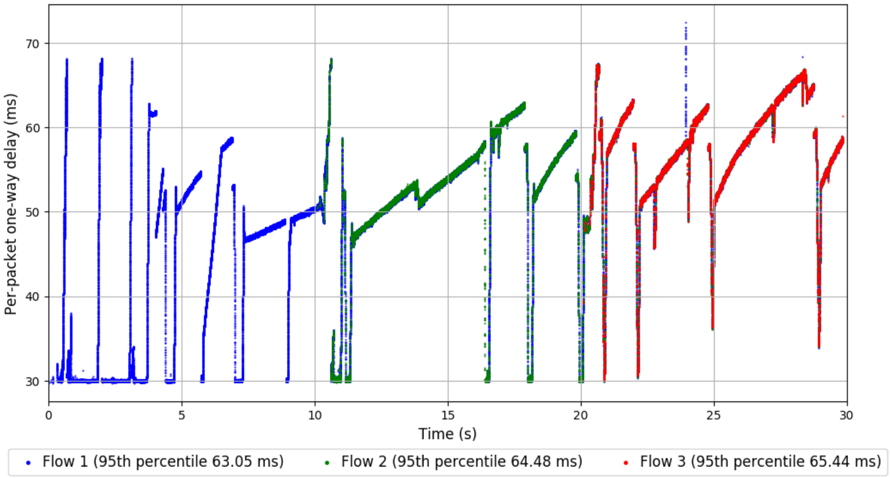




```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-20 11:37:47
End at: 2017-12-20 11:38:17
Local clock offset: 0.15 ms
Remote clock offset: -2.918 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.73 Mbit/s
95th percentile per-packet one-way delay: 64.083 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 64.41 Mbit/s
95th percentile per-packet one-way delay: 63.048 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 22.98 Mbit/s
95th percentile per-packet one-way delay: 64.483 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 21.39 Mbit/s
95th percentile per-packet one-way delay: 65.435 ms
Loss rate: 0.27%
```

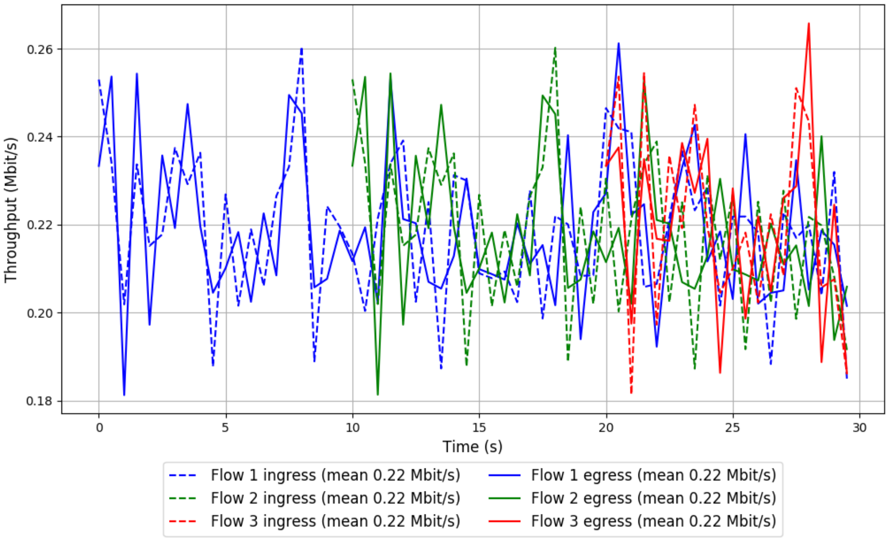
Run 10: Report of QUIC Cubic — Data Link

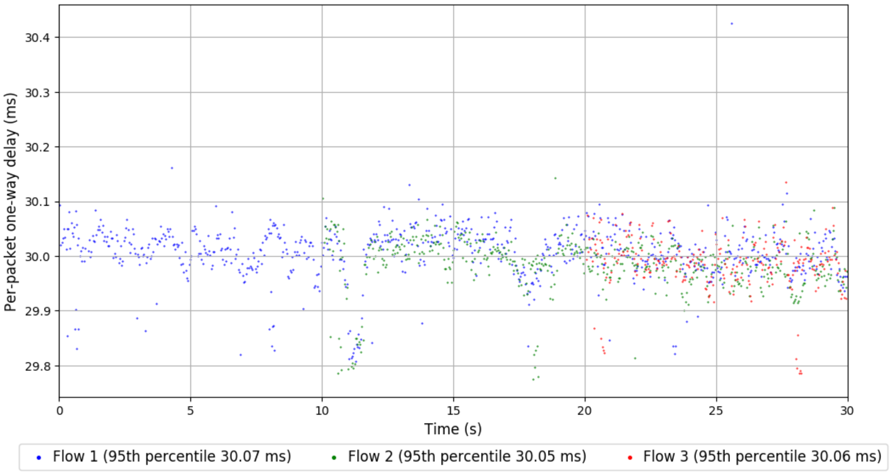




```
Run 1: Statistics of SCReAM

Start at: 2017-12-20 08:37:41
End at: 2017-12-20 08:38:11
Local clock offset: 1.046 ms
Remote clock offset: -1.045 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.061 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.049 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.061 ms
Loss rate: 0.00%
```

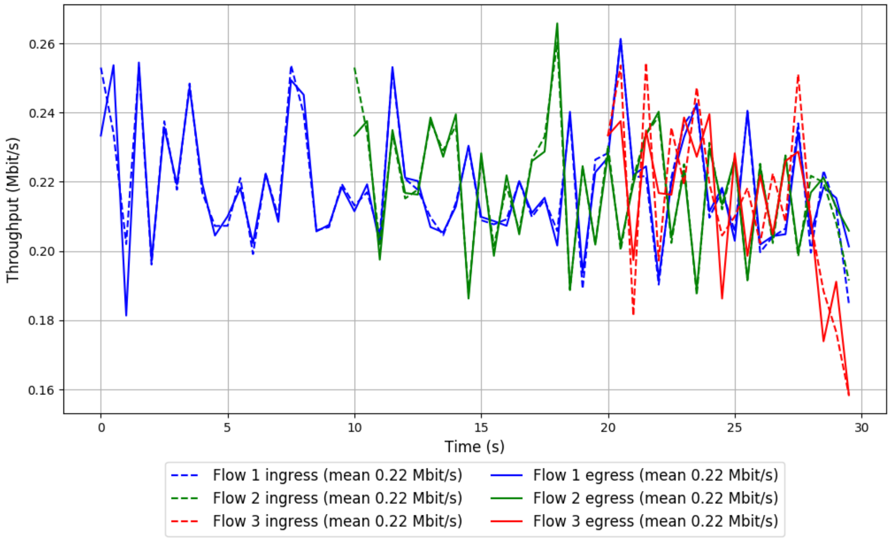
Run 1: Report of SCReAM — Data Link

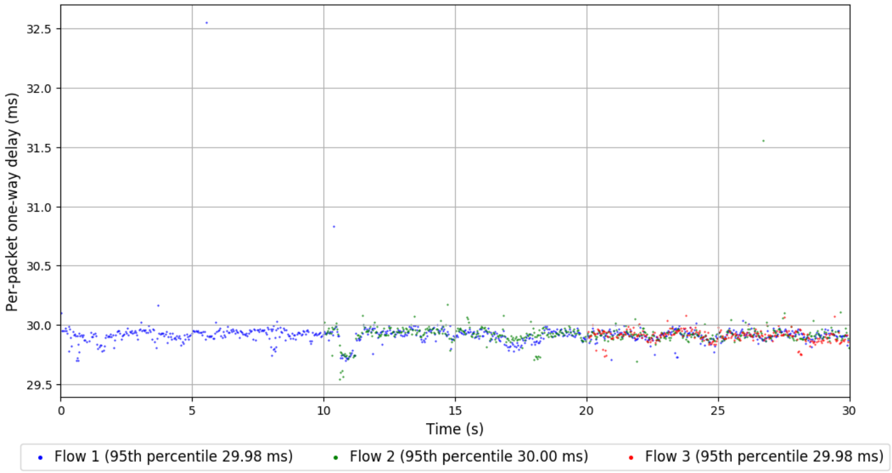




```
Run 2: Statistics of SCReAM

Start at: 2017-12-20 08:58:12
End at: 2017-12-20 08:58:42
Local clock offset: 1.059 ms
Remote clock offset: -1.807 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 29.984 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.975 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.003 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.976 ms
Loss rate: 0.48%
```

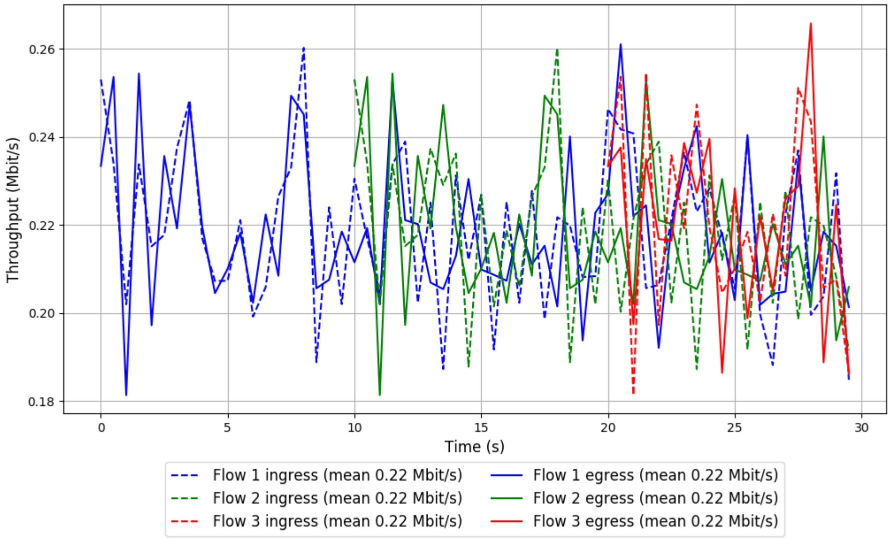
Run 2: Report of SCReAM — Data Link

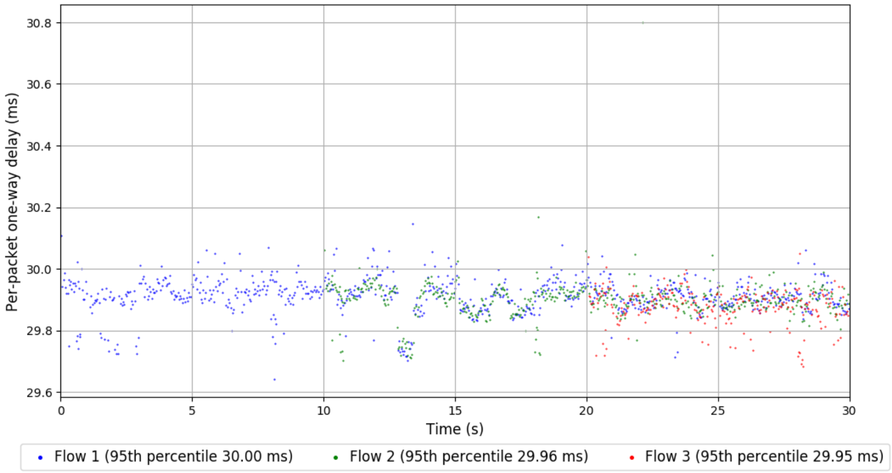




```
Run 3: Statistics of SCReAM

Start at: 2017-12-20 09:18:36
End at: 2017-12-20 09:19:07
Local clock offset: 1.057 ms
Remote clock offset: -1.981 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 29.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.995 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.965 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.953 ms
Loss rate: 0.00%
```

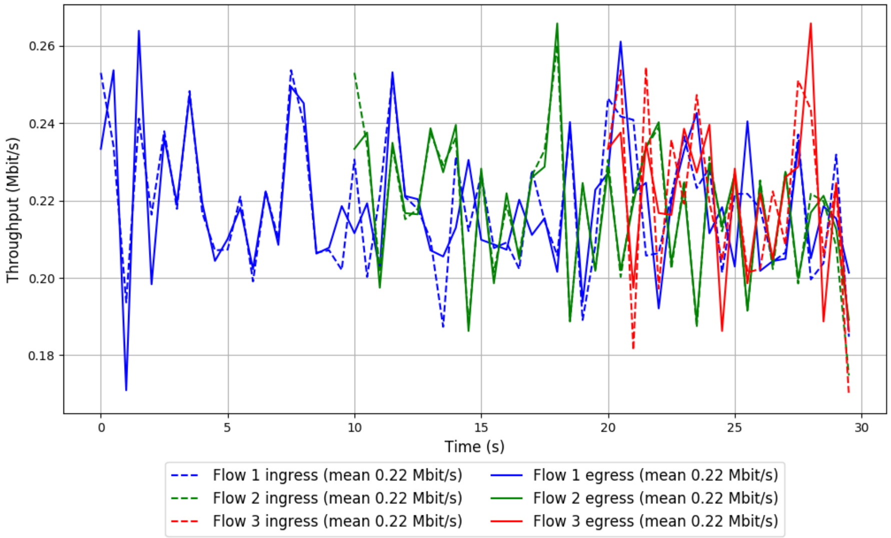
Run 3: Report of SCReAM — Data Link

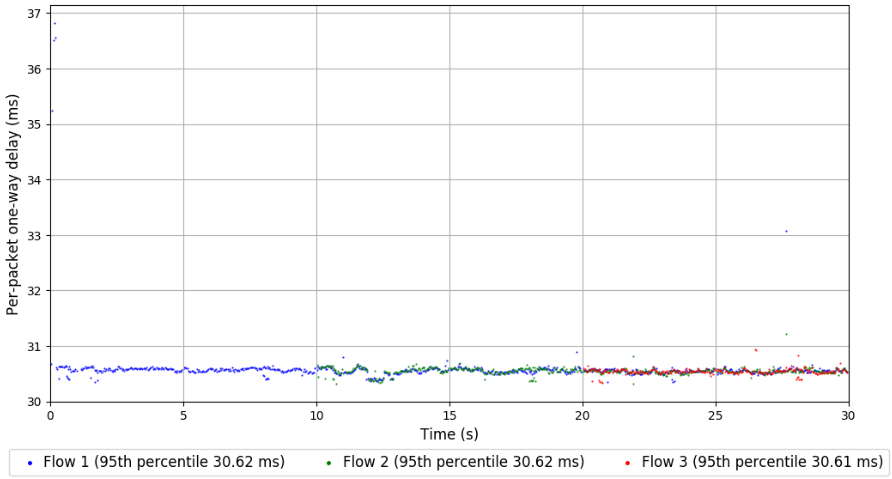




```
Run 4: Statistics of SCReAM

Start at: 2017-12-20 09:39:04
End at: 2017-12-20 09:39:34
Local clock offset: 0.926 ms
Remote clock offset: -1.436 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.622 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.623 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.622 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.607 ms
Loss rate: 0.00%
```

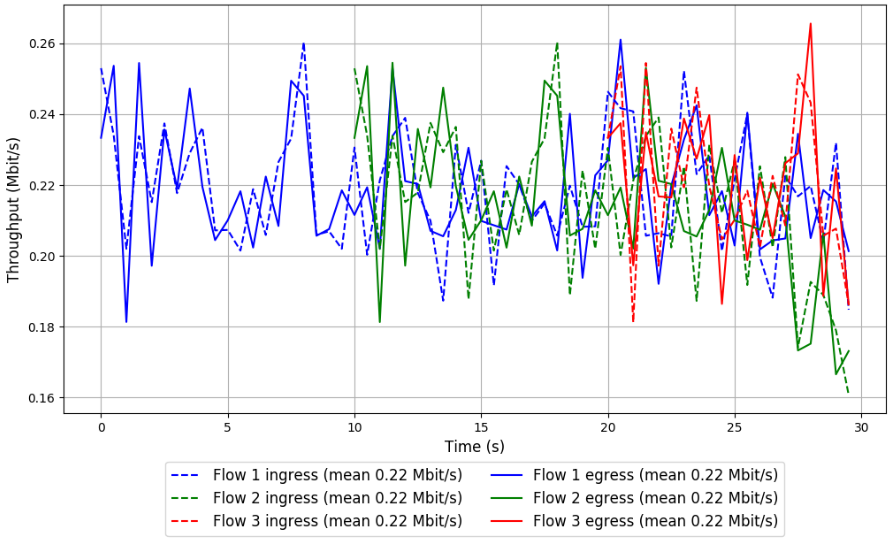
Run 4: Report of SCReAM — Data Link

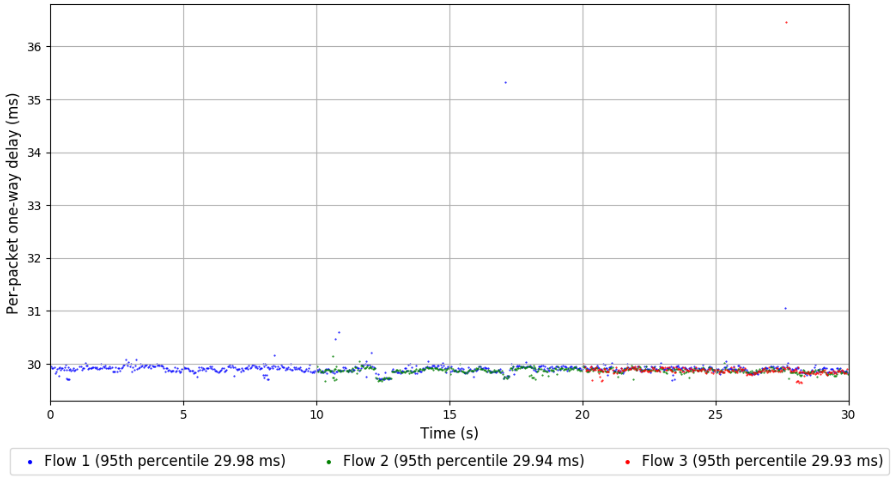




```
Run 5: Statistics of SCReAM

Start at: 2017-12-20 09:59:31
End at: 2017-12-20 10:00:01
Local clock offset: 0.693 ms
Remote clock offset: -2.011 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 29.961 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.980 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.938 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.931 ms
Loss rate: 0.00%
```

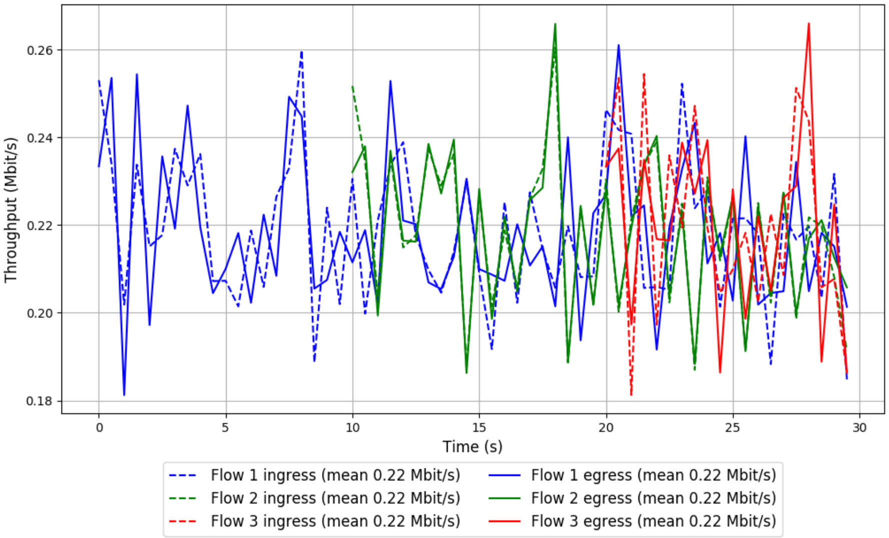
Run 5: Report of SCReAM — Data Link

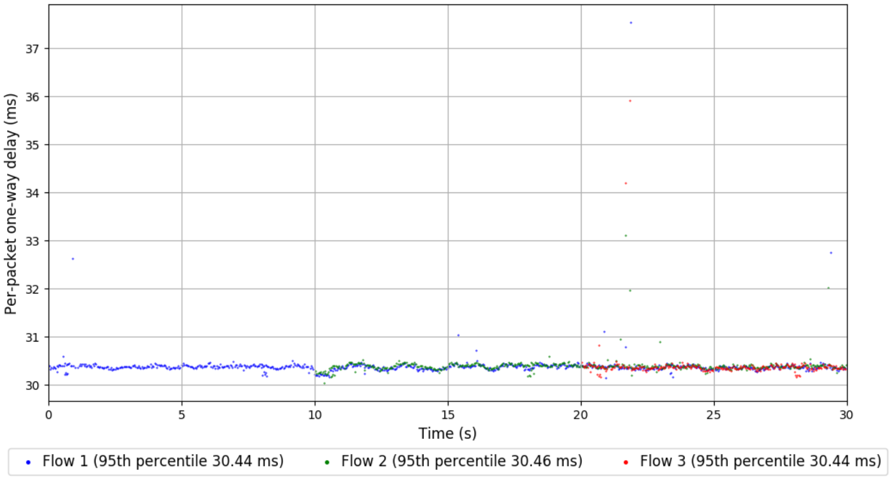




```
Run 6: Statistics of SCReAM

Start at: 2017-12-20 10:20:00
End at: 2017-12-20 10:20:30
Local clock offset: 0.253 ms
Remote clock offset: -1.731 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.447 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.438 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.459 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.437 ms
Loss rate: 0.00%
```

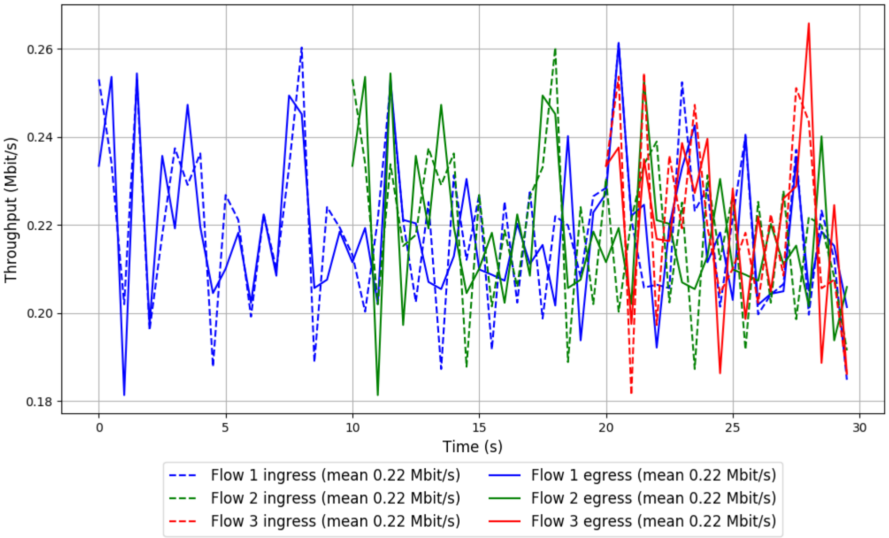
Run 6: Report of SCReAM — Data Link

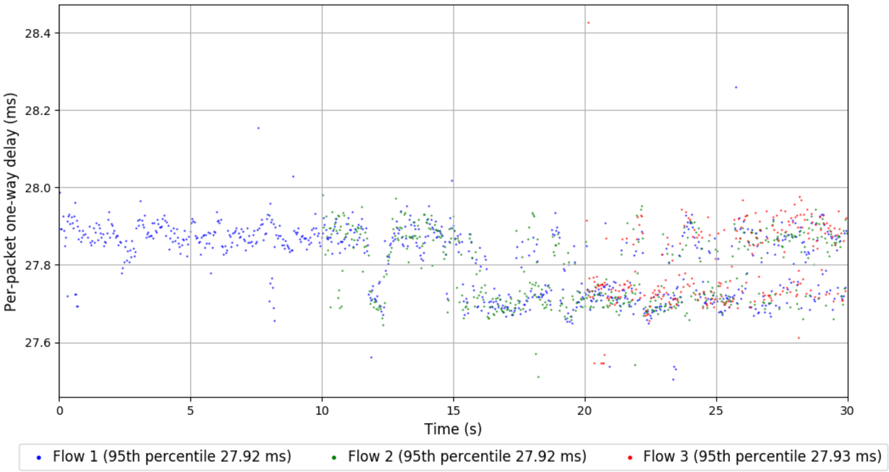




```
Run 7: Statistics of SCReAM

Start at: 2017-12-20 10:40:33
End at: 2017-12-20 10:41:03
Local clock offset: 0.197 ms
Remote clock offset: -4.452 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 27.925 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.919 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.920 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.932 ms
Loss rate: 0.00%
```

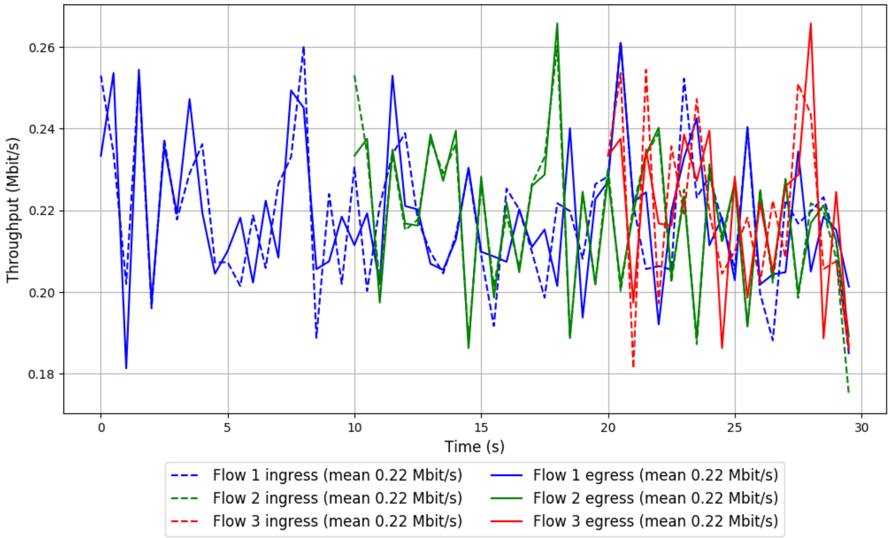
Run 7: Report of SCReAM — Data Link

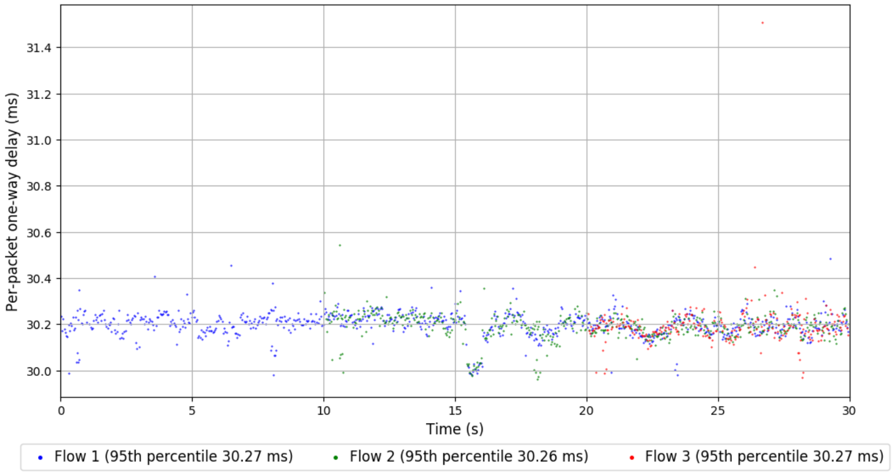




```
Run 8: Statistics of SCReAM

Start at: 2017-12-20 11:01:02
End at: 2017-12-20 11:01:32
Local clock offset: 0.159 ms
Remote clock offset: -2.53 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 30.266 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.267 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.261 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.268 ms
Loss rate: 0.00%
```

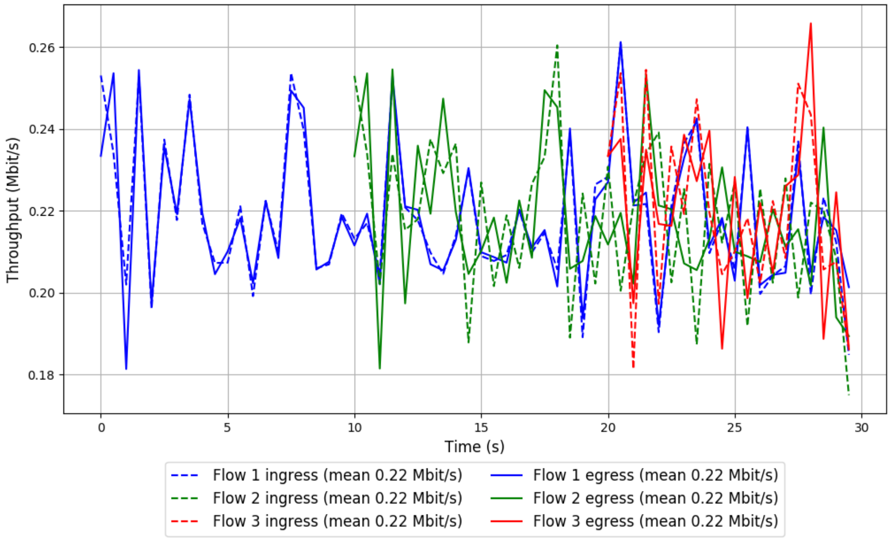
Run 8: Report of SCReAM — Data Link

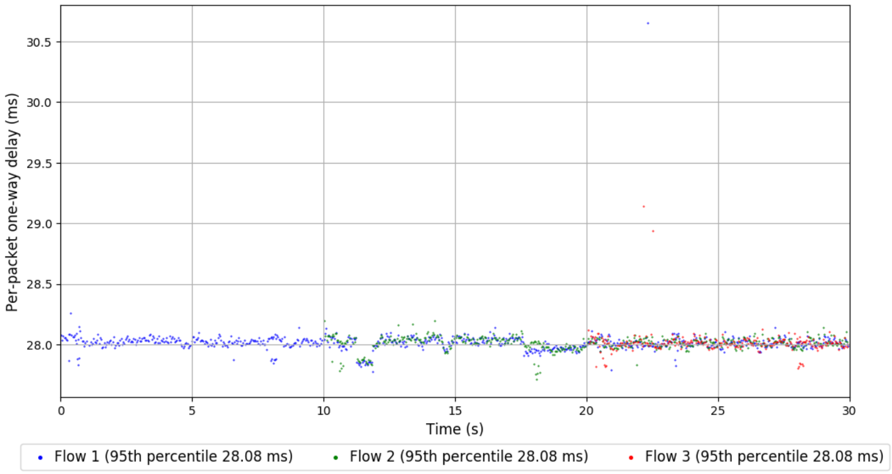




```
Run 9: Statistics of SCReAM

Start at: 2017-12-20 11:21:27
End at: 2017-12-20 11:21:57
Local clock offset: 0.272 ms
Remote clock offset: -5.088 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 28.079 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.079 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.079 ms
Loss rate: 0.00%
```

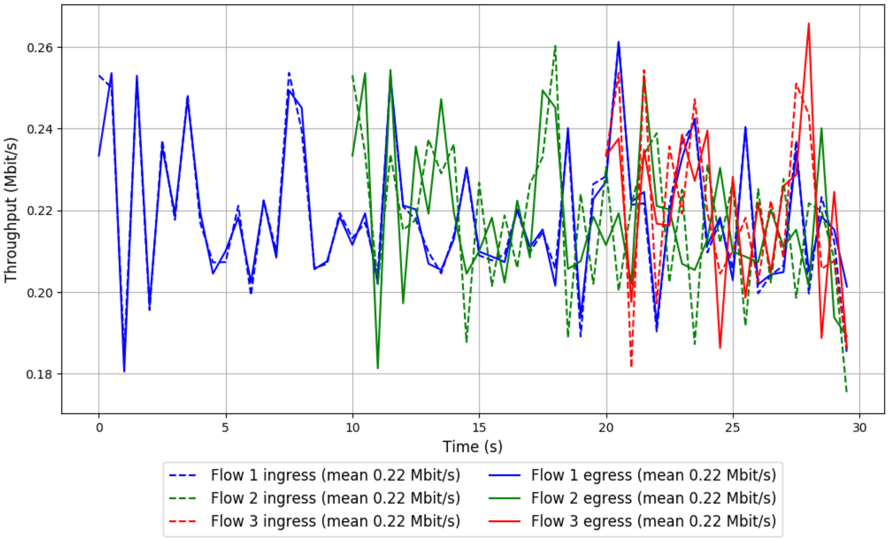
Run 9: Report of SCReAM — Data Link

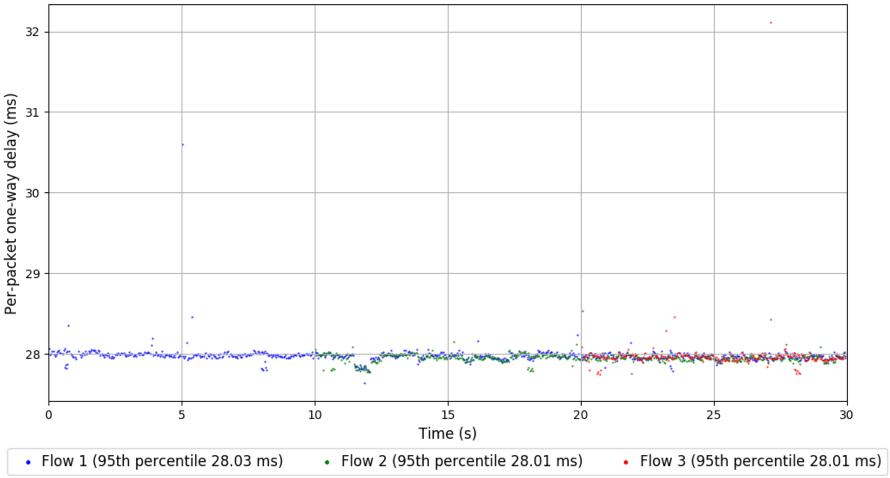




```
Run 10: Statistics of SCReAM

Start at: 2017-12-20 11:41:53
End at: 2017-12-20 11:42:23
Local clock offset: 0.161 ms
Remote clock offset: -4.859 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 28.023 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.028 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.010 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.012 ms
Loss rate: 0.00%
```

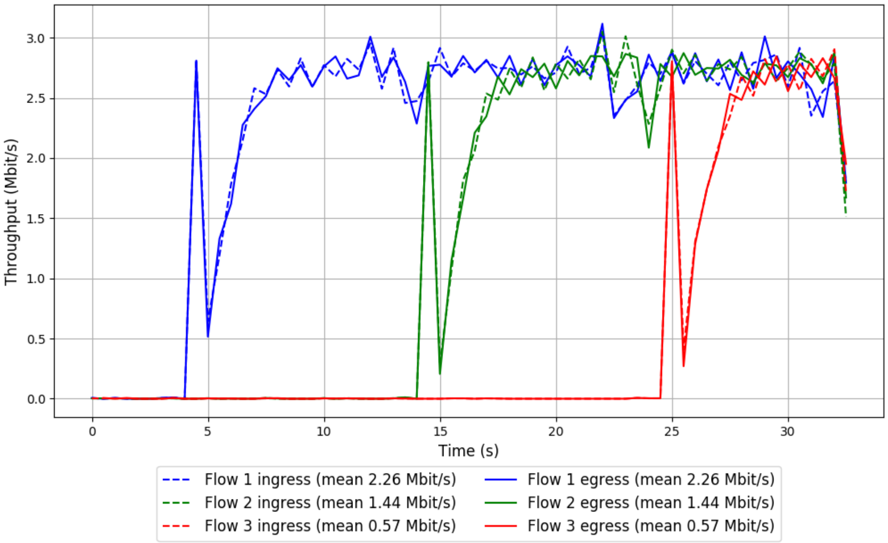
Run 10: Report of SCReAM — Data Link

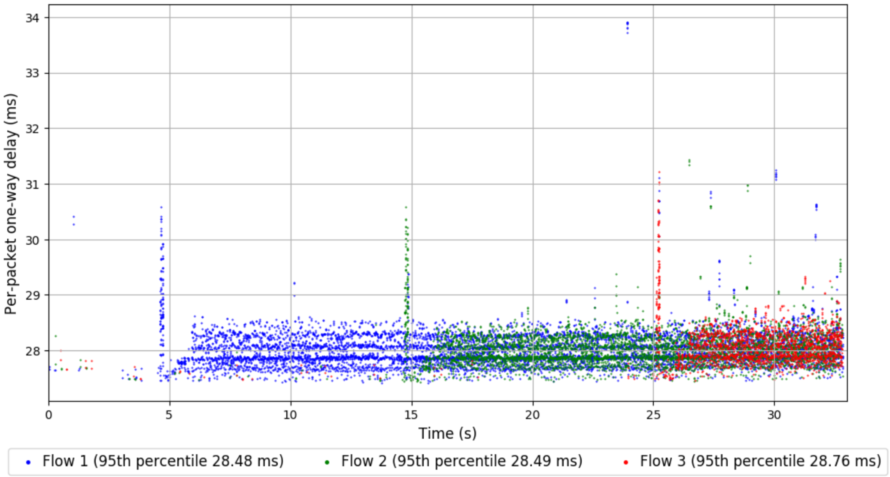




```
Run 1: Statistics of WebRTC media

Start at: 2017-12-20 08:40:21
End at: 2017-12-20 08:40:51
Local clock offset: 1.129 ms
Remote clock offset: -3.232 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 28.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 28.477 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 28.489 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 28.757 ms
Loss rate: 0.00%
```

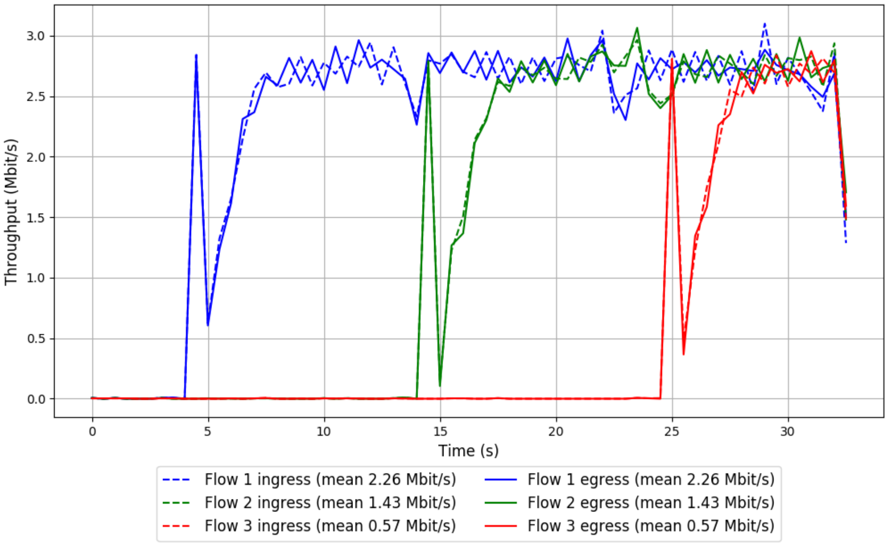
Run 1: Report of WebRTC media — Data Link

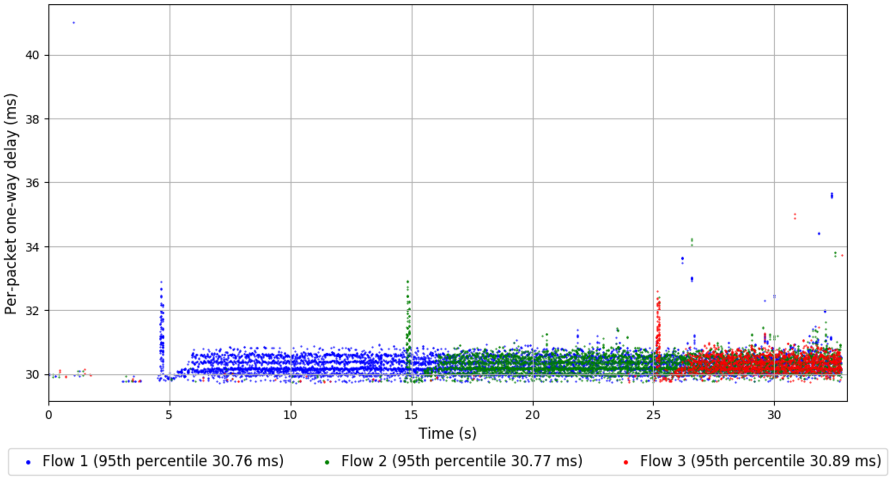




```
Run 2: Statistics of WebRTC media

Start at: 2017-12-20 09:00:51
End at: 2017-12-20 09:01:21
Local clock offset: 0.975 ms
Remote clock offset: -1.74 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 30.778 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 30.756 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 30.775 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 30.892 ms
Loss rate: 0.00%
```

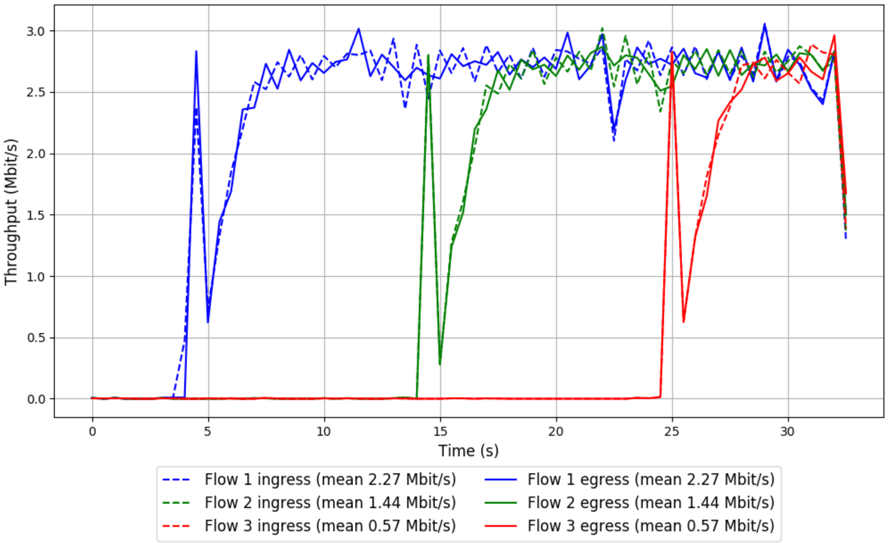
Run 2: Report of WebRTC media — Data Link

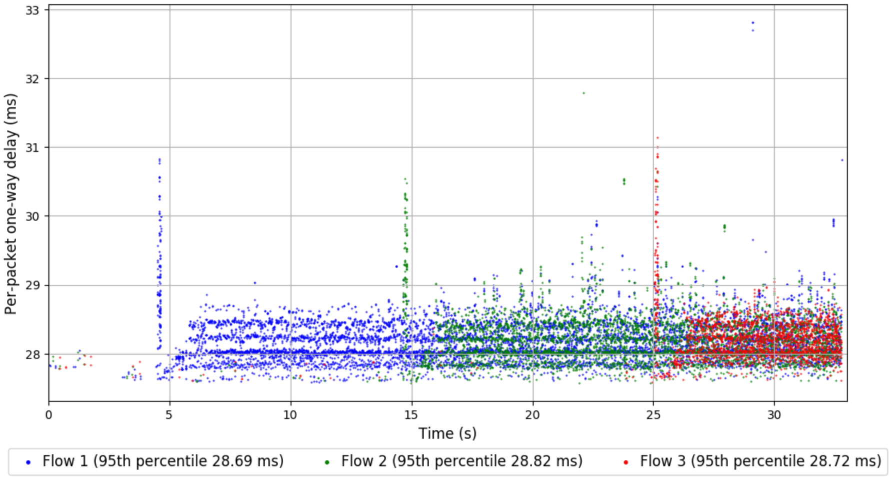




```
Run 3: Statistics of WebRTC media

Start at: 2017-12-20 09:21:17
End at: 2017-12-20 09:21:47
Local clock offset: 1.045 ms
Remote clock offset: -3.962 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 28.726 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 28.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 28.816 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 28.718 ms
Loss rate: 0.00%
```

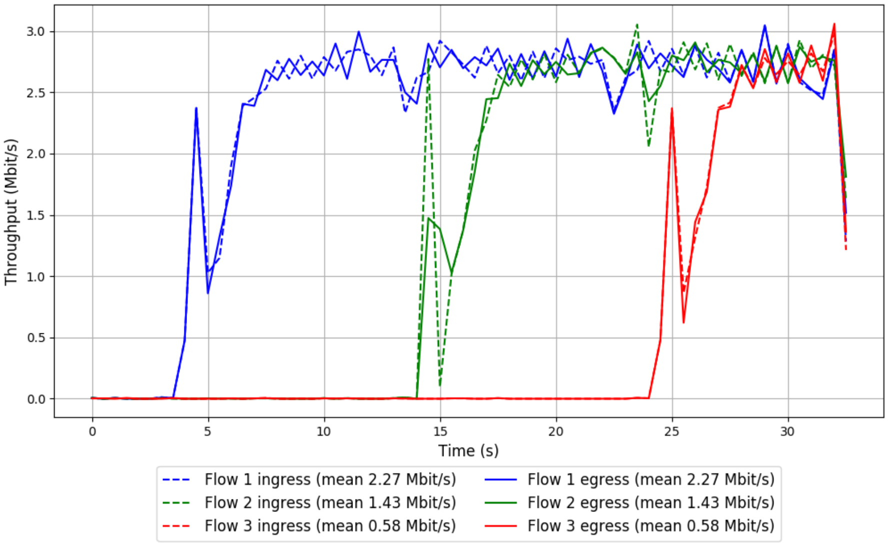
Run 3: Report of WebRTC media — Data Link

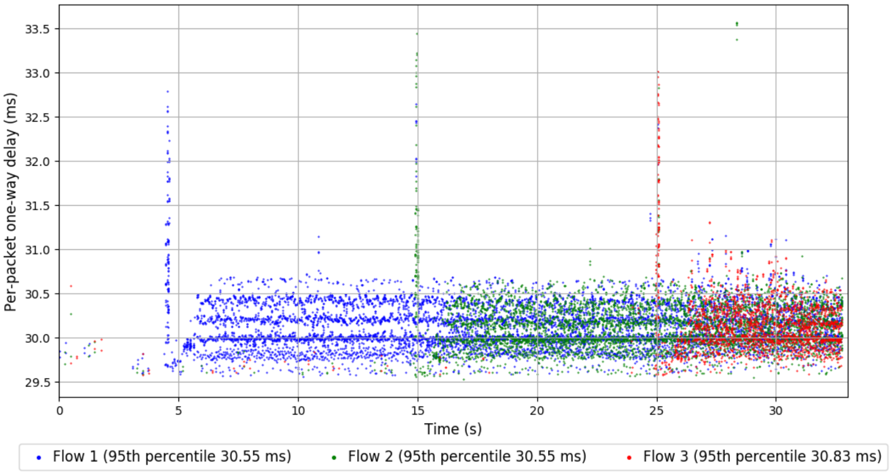




```
Run 4: Statistics of WebRTC media

Start at: 2017-12-20 09:41:44
End at: 2017-12-20 09:42:14
Local clock offset: 1.024 ms
Remote clock offset: -1.97 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 30.574 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 30.550 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 30.552 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 30.827 ms
Loss rate: 0.00%
```

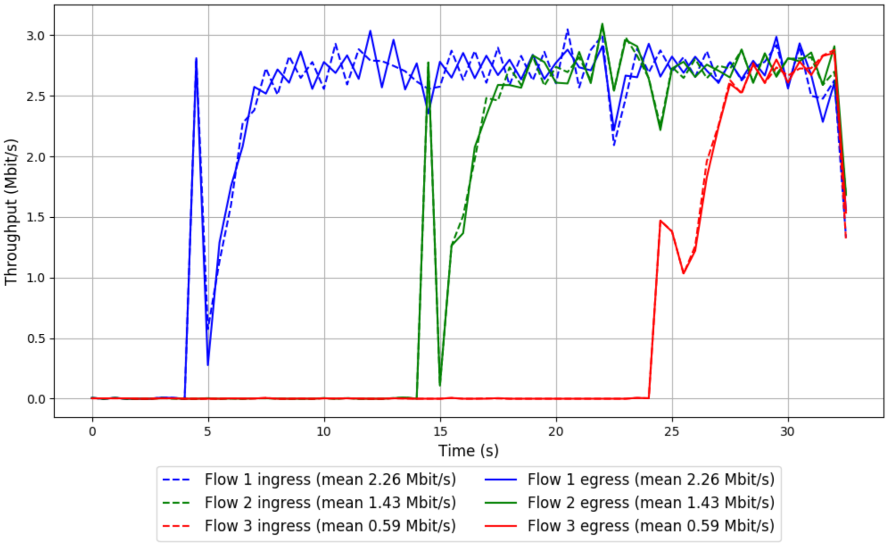
Run 4: Report of WebRTC media — Data Link

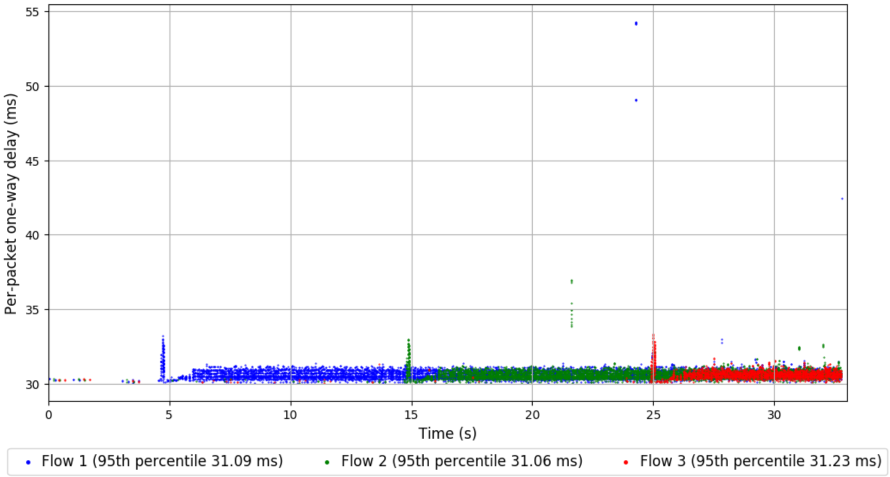




```
Run 5: Statistics of WebRTC media

Start at: 2017-12-20 10:02:10
End at: 2017-12-20 10:02:40
Local clock offset: 0.626 ms
Remote clock offset: -1.451 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 31.090 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 31.089 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 31.058 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 31.229 ms
Loss rate: 0.00%
```

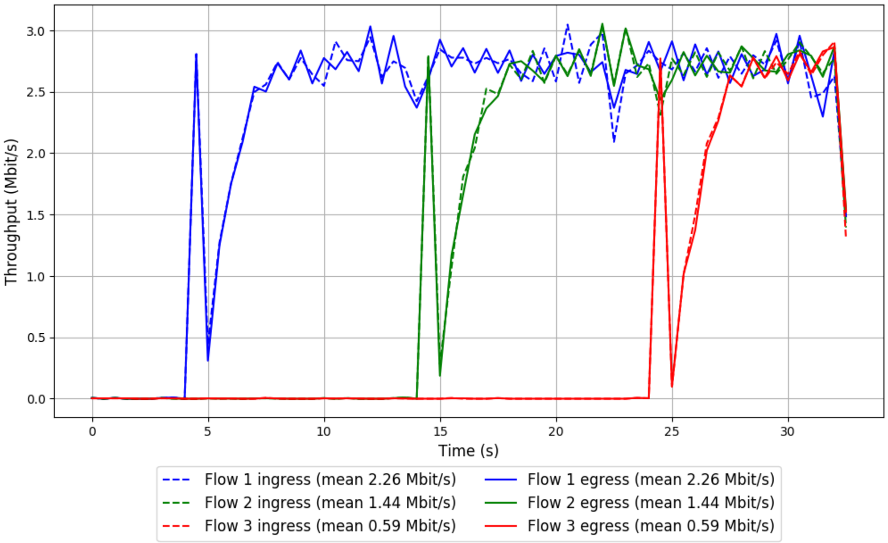
Run 5: Report of WebRTC media — Data Link

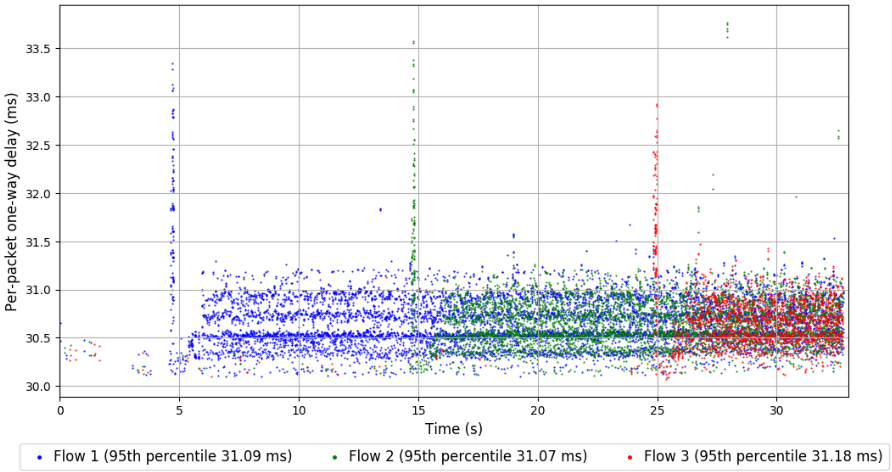




```
Run 6: Statistics of WebRTC media

Start at: 2017-12-20 10:22:45
End at: 2017-12-20 10:23:15
Local clock offset: 0.237 ms
Remote clock offset: -1.69 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 31.093 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 31.090 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 31.068 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 31.178 ms
Loss rate: 0.00%
```

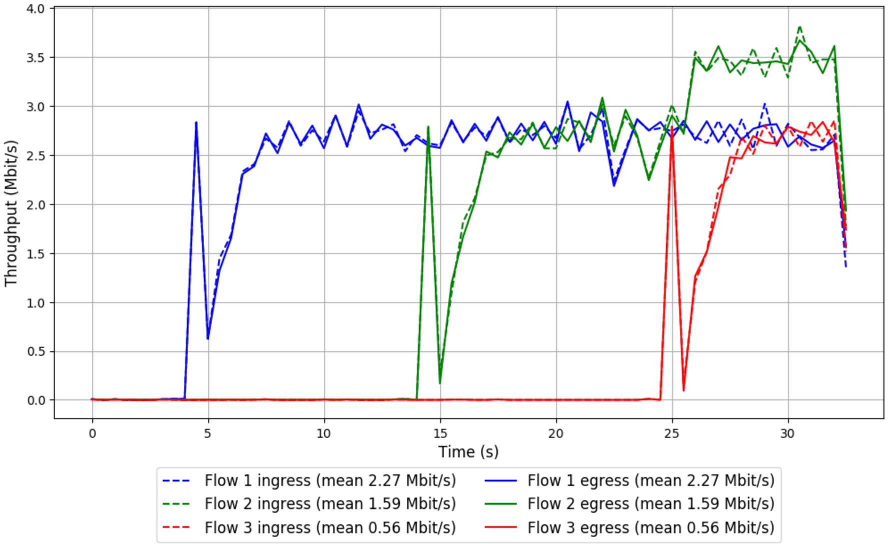
Run 6: Report of WebRTC media — Data Link

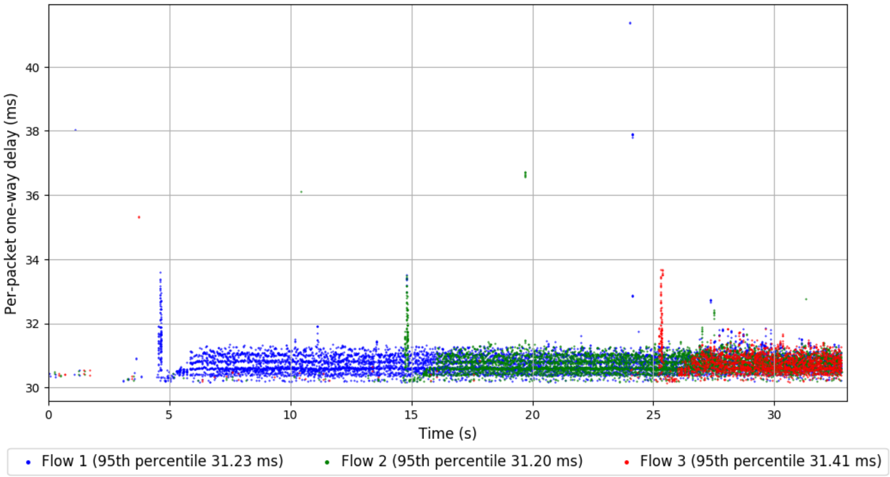




```
Run 7: Statistics of WebRTC media

Start at: 2017-12-20 10:43:12
End at: 2017-12-20 10:43:42
Local clock offset: 0.197 ms
Remote clock offset: -1.822 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 31.242 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.233 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 31.199 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 31.409 ms
Loss rate: 0.00%
```

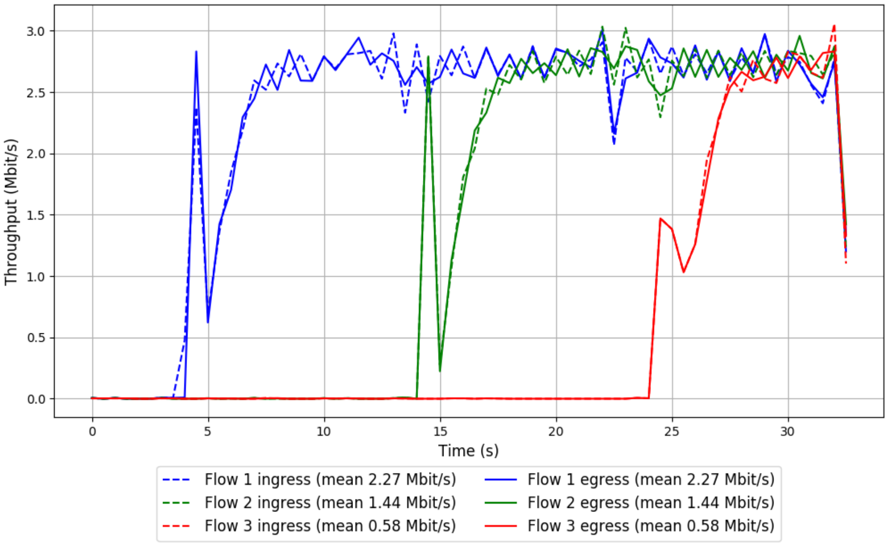
Run 7: Report of WebRTC media — Data Link

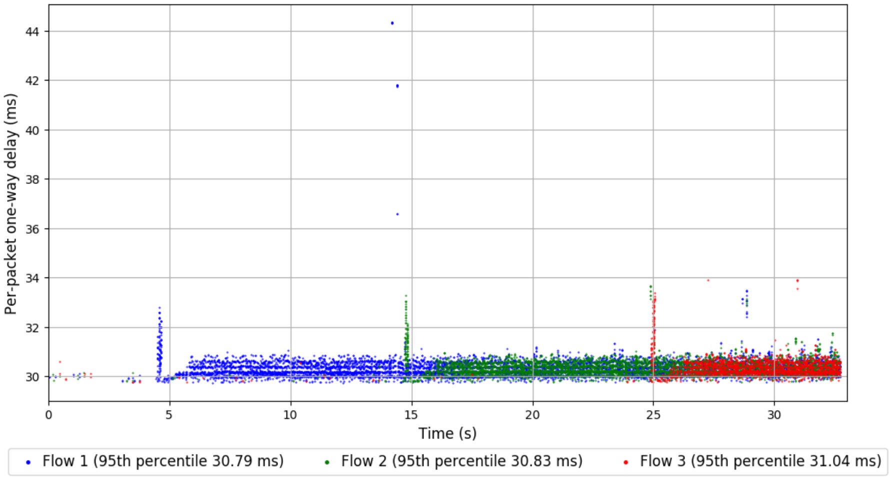




```
Run 8: Statistics of WebRTC media

Start at: 2017-12-20 11:03:41
End at: 2017-12-20 11:04:11
Local clock offset: 0.166 ms
Remote clock offset: -2.687 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 30.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 30.787 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 30.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 31.040 ms
Loss rate: 0.00%
```

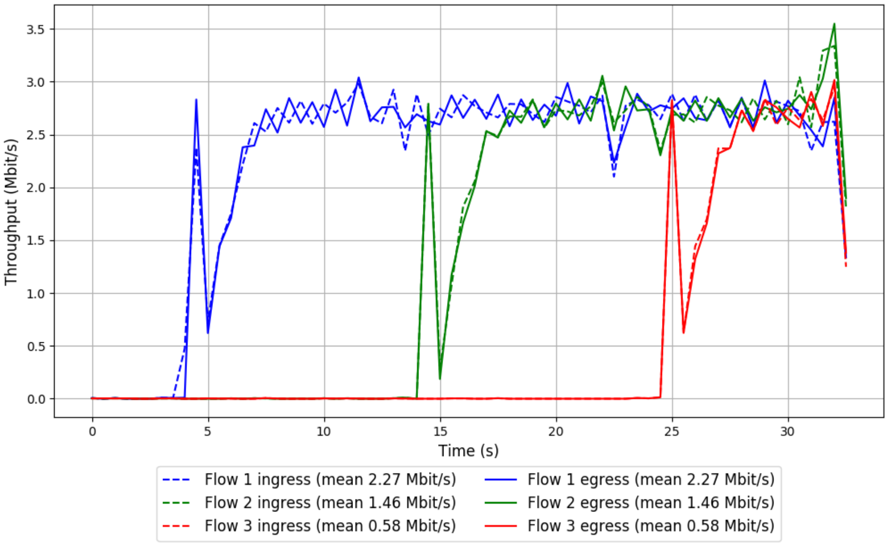
Run 8: Report of WebRTC media — Data Link

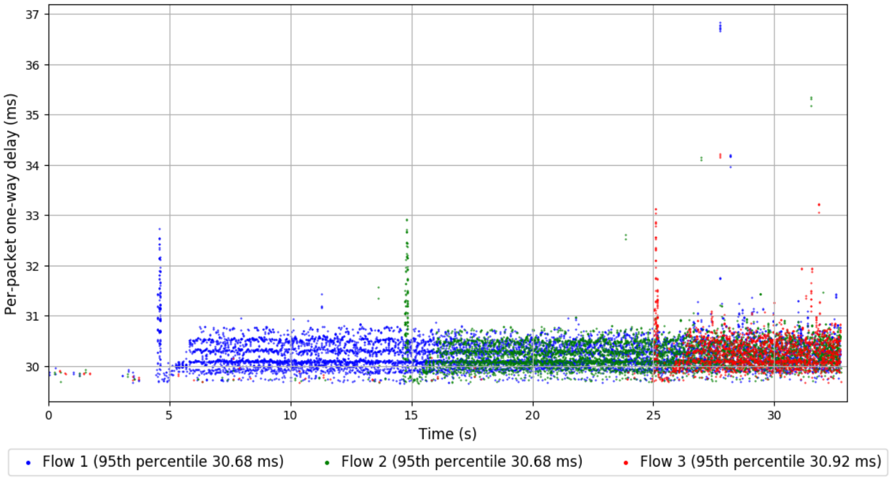




```
Run 9: Statistics of WebRTC media

Start at: 2017-12-20 11:24:07
End at: 2017-12-20 11:24:37
Local clock offset: 0.37 ms
Remote clock offset: -2.984 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 30.702 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 30.684 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 30.683 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 30.917 ms
Loss rate: 0.05%
```

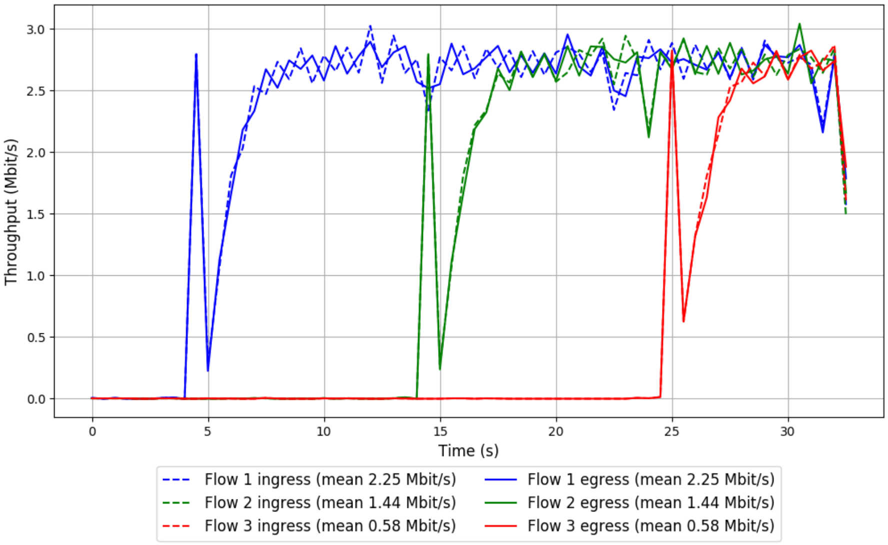
Run 9: Report of WebRTC media — Data Link

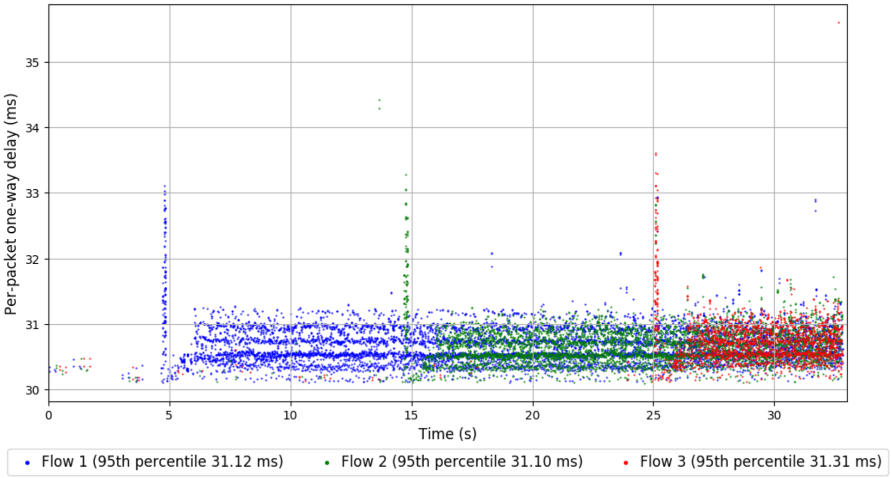




```
Run 10: Statistics of WebRTC media

Start at: 2017-12-20 11:44:33
End at: 2017-12-20 11:45:03
Local clock offset: 0.291 ms
Remote clock offset: -2.193 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 31.126 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 31.117 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 31.100 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 31.309 ms
Loss rate: 0.01%
```

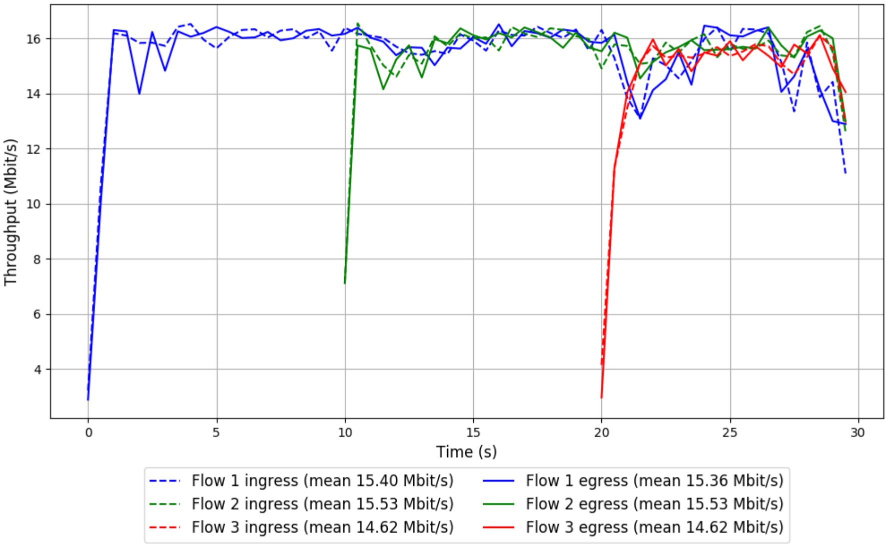
Run 10: Report of WebRTC media — Data Link

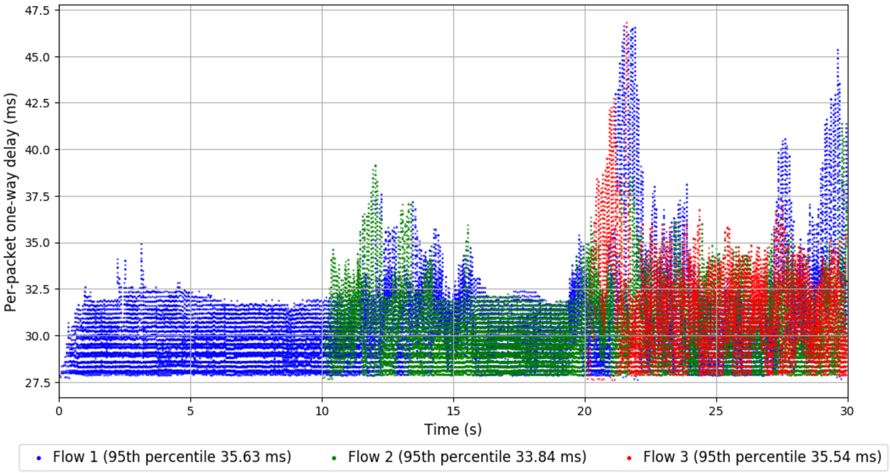




```
Run 1: Statistics of Sprout

Start at: 2017-12-20 08:43:00
End at: 2017-12-20 08:43:30
Local clock offset: 1.012 ms
Remote clock offset: -3.267 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.52 Mbit/s
95th percentile per-packet one-way delay: 34.875 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 15.36 Mbit/s
95th percentile per-packet one-way delay: 35.628 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 15.53 Mbit/s
95th percentile per-packet one-way delay: 33.838 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 35.544 ms
Loss rate: 0.00%
```

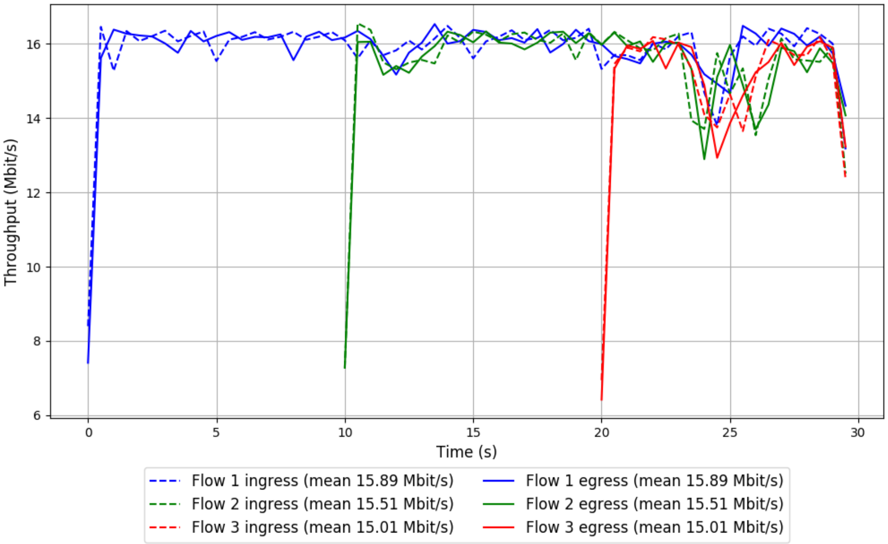
Run 1: Report of Sprout — Data Link

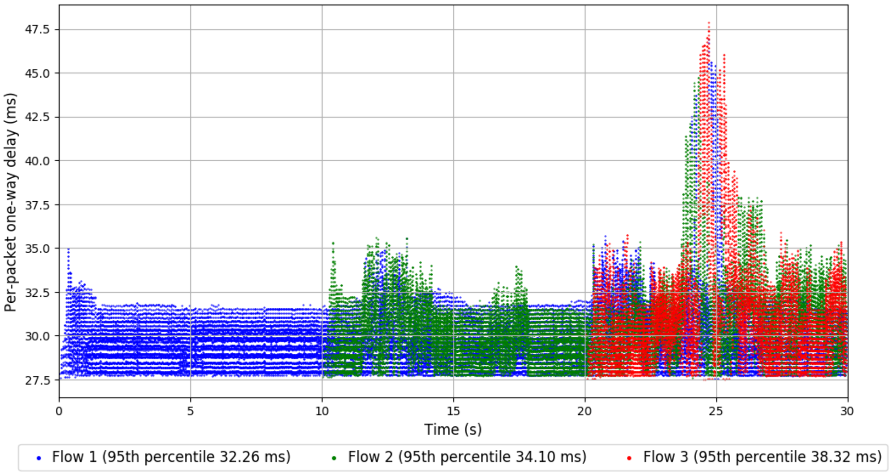




```
Run 2: Statistics of Sprout

Start at: 2017-12-20 09:03:30
End at: 2017-12-20 09:04:00
Local clock offset: 1.052 ms
Remote clock offset: -3.938 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.16 Mbit/s
95th percentile per-packet one-way delay: 33.717 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 32.259 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.51 Mbit/s
95th percentile per-packet one-way delay: 34.101 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 15.01 Mbit/s
95th percentile per-packet one-way delay: 38.323 ms
Loss rate: 0.00%
```

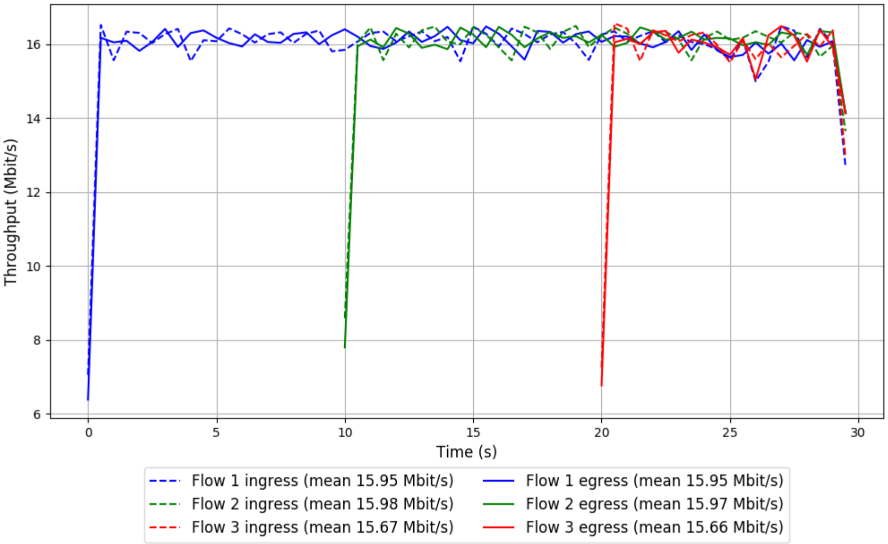
Run 2: Report of Sprout — Data Link

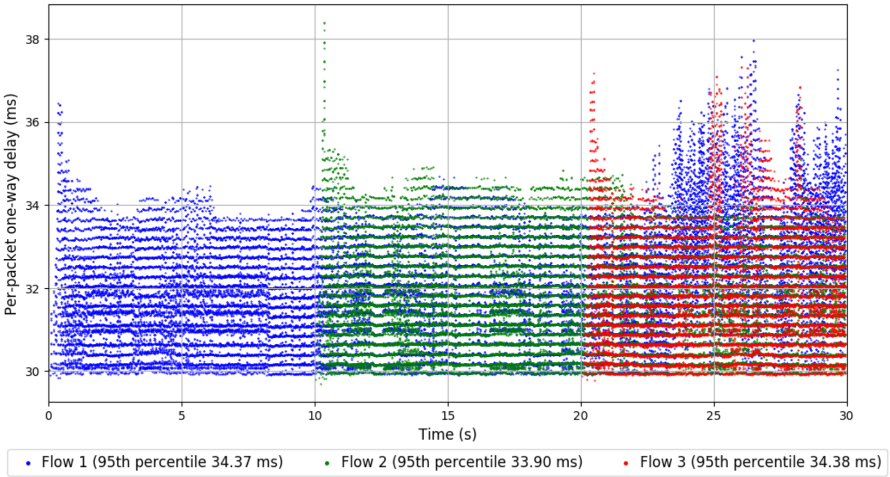




```
Run 3: Statistics of Sprout

Start at: 2017-12-20 09:23:55
End at: 2017-12-20 09:24:25
Local clock offset: 0.98 ms
Remote clock offset: -1.936 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 34.170 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 15.95 Mbit/s
95th percentile per-packet one-way delay: 34.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.97 Mbit/s
95th percentile per-packet one-way delay: 33.899 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 15.66 Mbit/s
95th percentile per-packet one-way delay: 34.377 ms
Loss rate: 0.00%
```

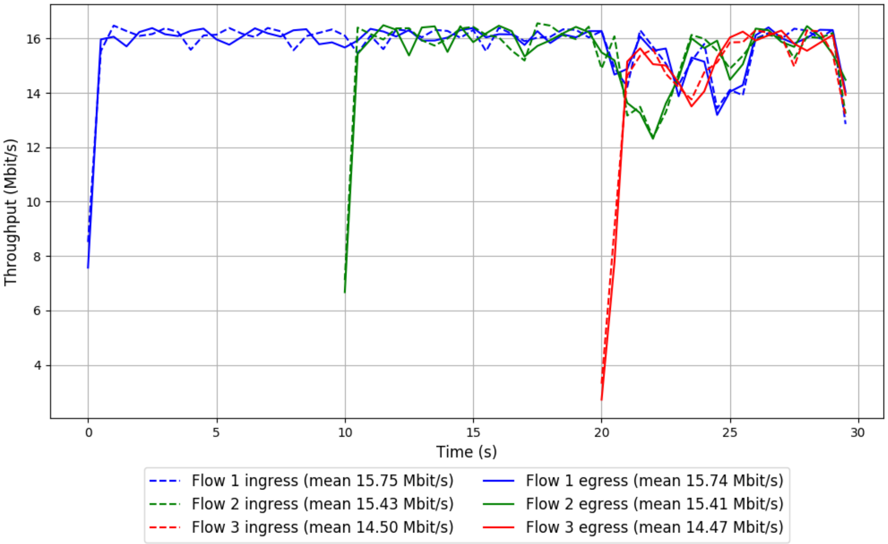
Run 3: Report of Sprout — Data Link

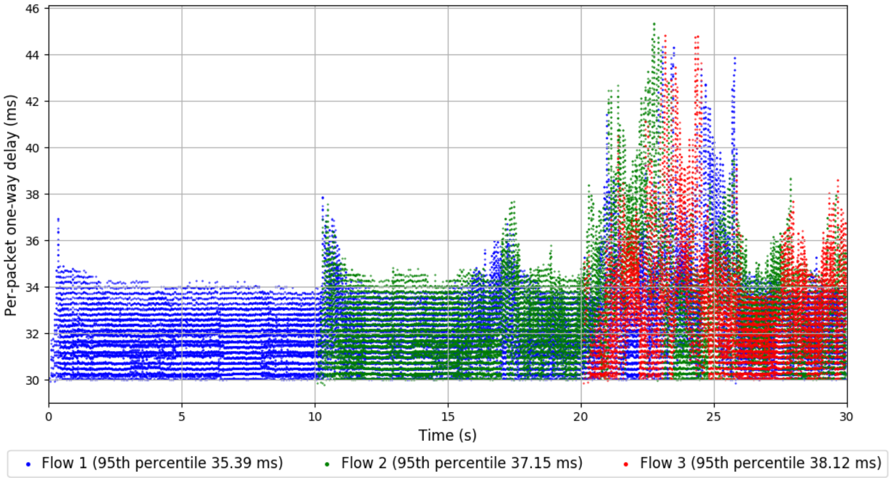




```
Run 4: Statistics of Sprout

Start at: 2017-12-20 09:44:22
End at: 2017-12-20 09:44:52
Local clock offset: 0.929 ms
Remote clock offset: -1.863 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.77 Mbit/s
95th percentile per-packet one-way delay: 36.602 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 15.74 Mbit/s
95th percentile per-packet one-way delay: 35.386 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 37.148 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 14.47 Mbit/s
95th percentile per-packet one-way delay: 38.116 ms
Loss rate: 0.15%
```

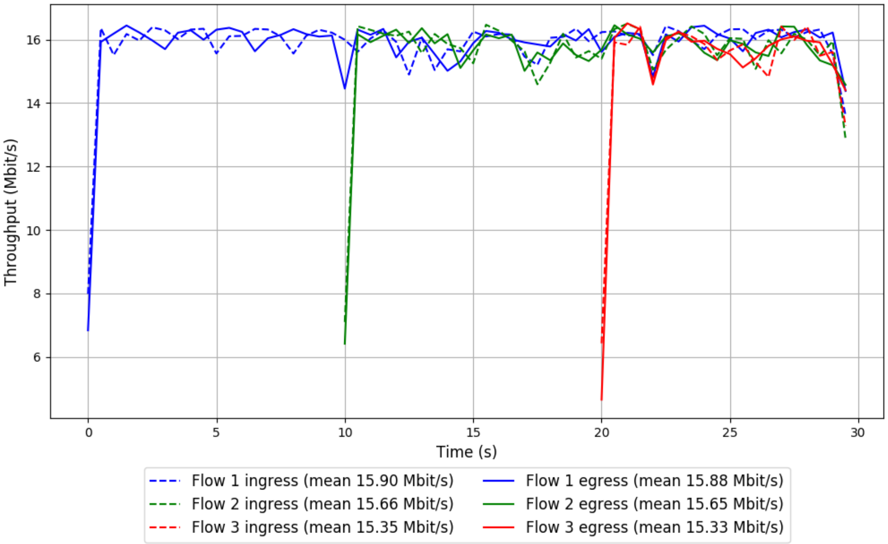
Run 4: Report of Sprout — Data Link

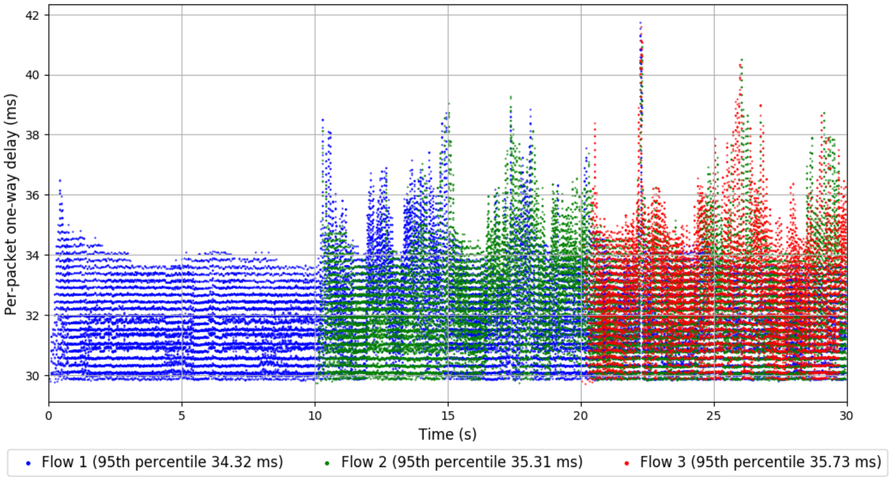




```
Run 5: Statistics of Sprout

Start at: 2017-12-20 10:04:49
End at: 2017-12-20 10:05:20
Local clock offset: 0.55 ms
Remote clock offset: -1.935 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 35.035 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 15.88 Mbit/s
95th percentile per-packet one-way delay: 34.317 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 15.65 Mbit/s
95th percentile per-packet one-way delay: 35.309 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 15.33 Mbit/s
95th percentile per-packet one-way delay: 35.726 ms
Loss rate: 0.07%
```

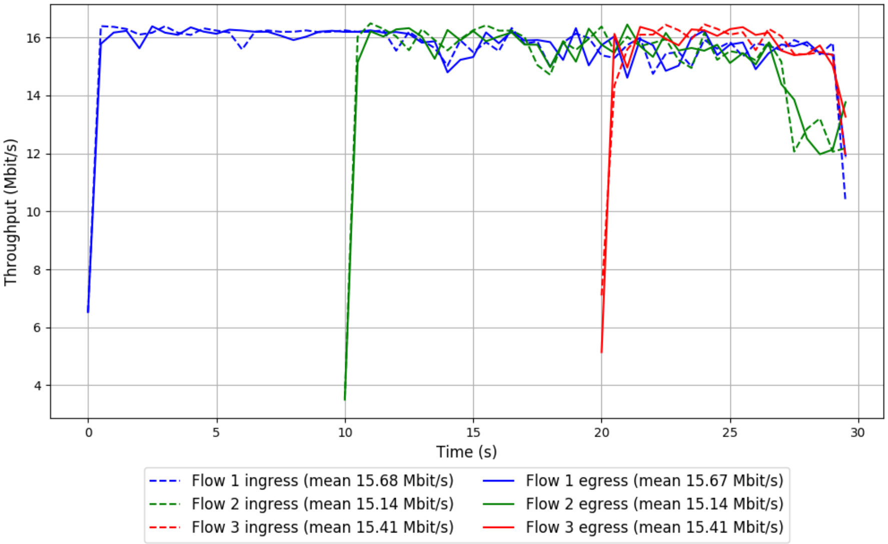
Run 5: Report of Sprout — Data Link

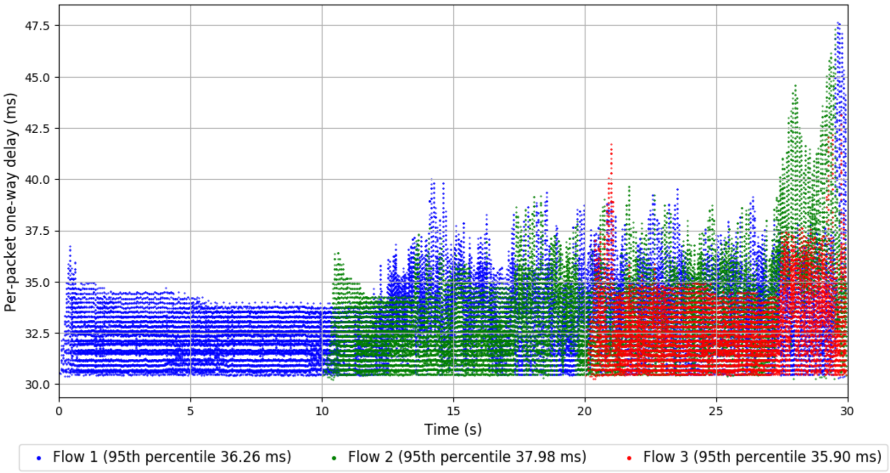




```
Run 6: Statistics of Sprout

Start at: 2017-12-20 10:25:24
End at: 2017-12-20 10:25:54
Local clock offset: 0.133 ms
Remote clock offset: -1.705 ms

# Below is generated by plot.py at 2017-12-20 12:18:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.83 Mbit/s
95th percentile per-packet one-way delay: 36.725 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 36.261 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.14 Mbit/s
95th percentile per-packet one-way delay: 37.975 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 35.897 ms
Loss rate: 0.00%
```

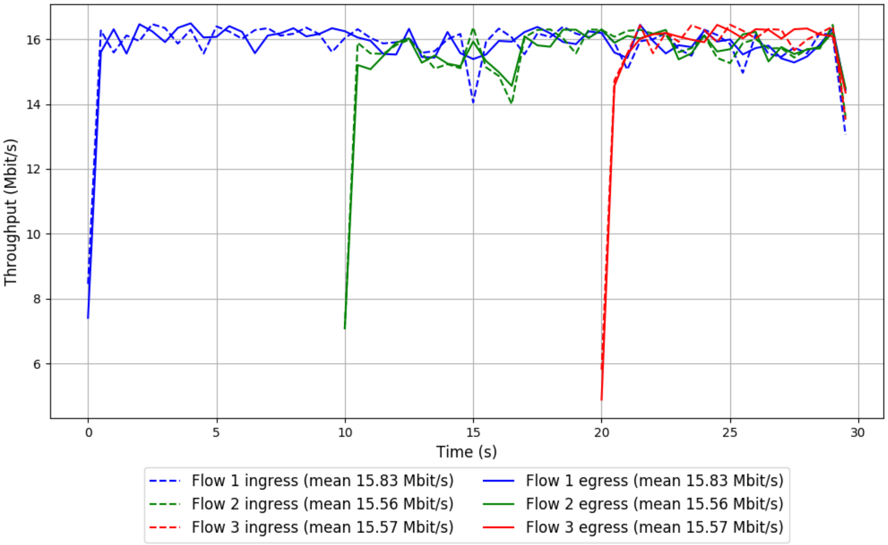
Run 6: Report of Sprout — Data Link

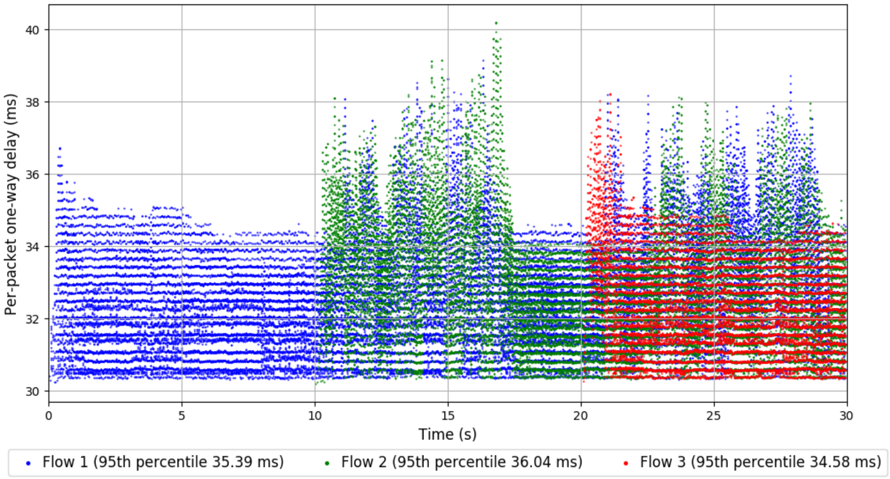




```
Run 7: Statistics of Sprout

Start at: 2017-12-20 10:45:51
End at: 2017-12-20 10:46:21
Local clock offset: 0.223 ms
Remote clock offset: -1.87 ms

# Below is generated by plot.py at 2017-12-20 12:19:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.32 Mbit/s
95th percentile per-packet one-way delay: 35.559 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.83 Mbit/s
95th percentile per-packet one-way delay: 35.388 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.56 Mbit/s
95th percentile per-packet one-way delay: 36.041 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.57 Mbit/s
95th percentile per-packet one-way delay: 34.582 ms
Loss rate: 0.00%
```

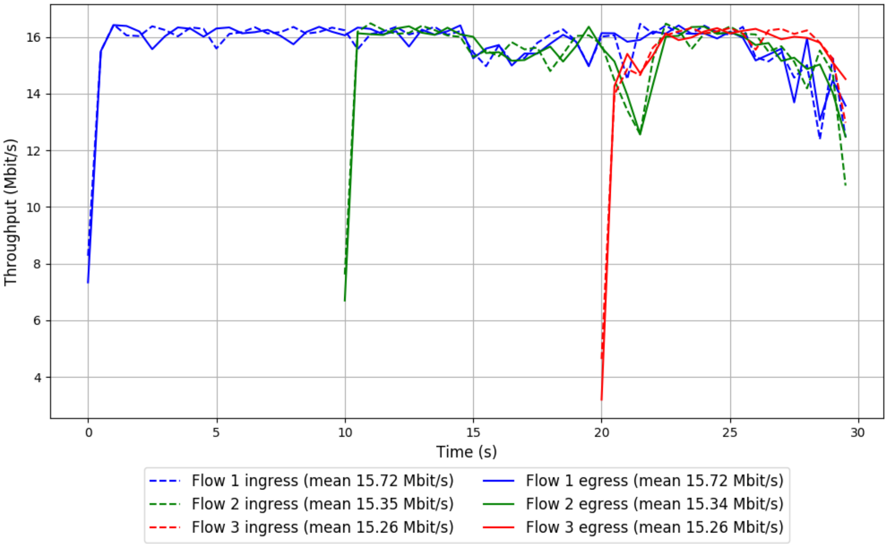
Run 7: Report of Sprout — Data Link

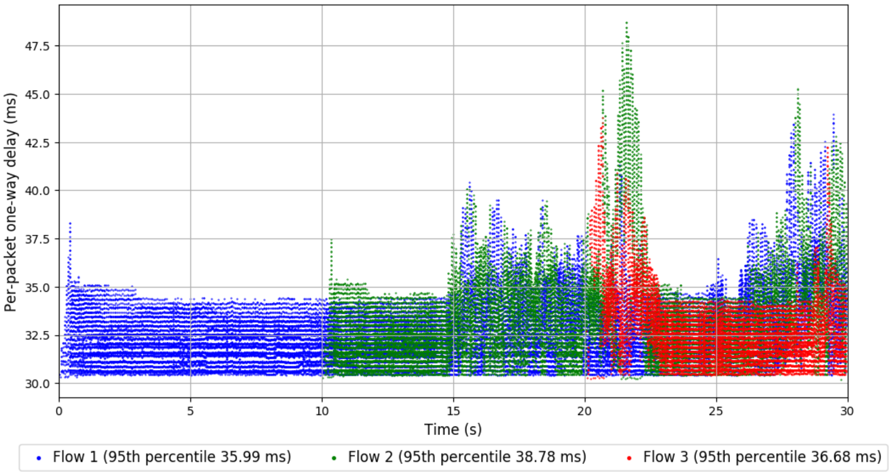




```
Run 8: Statistics of Sprout

Start at: 2017-12-20 11:06:20
End at: 2017-12-20 11:06:50
Local clock offset: 0.176 ms
Remote clock offset: -2.31 ms

# Below is generated by plot.py at 2017-12-20 12:19:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 36.944 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 15.72 Mbit/s
95th percentile per-packet one-way delay: 35.989 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.34 Mbit/s
95th percentile per-packet one-way delay: 38.780 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 15.26 Mbit/s
95th percentile per-packet one-way delay: 36.681 ms
Loss rate: 0.00%
```

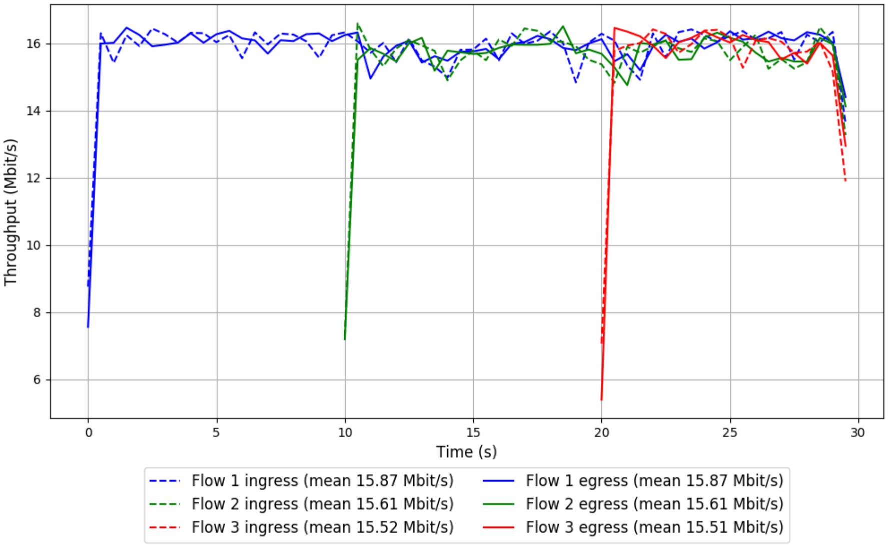
Run 8: Report of Sprout — Data Link

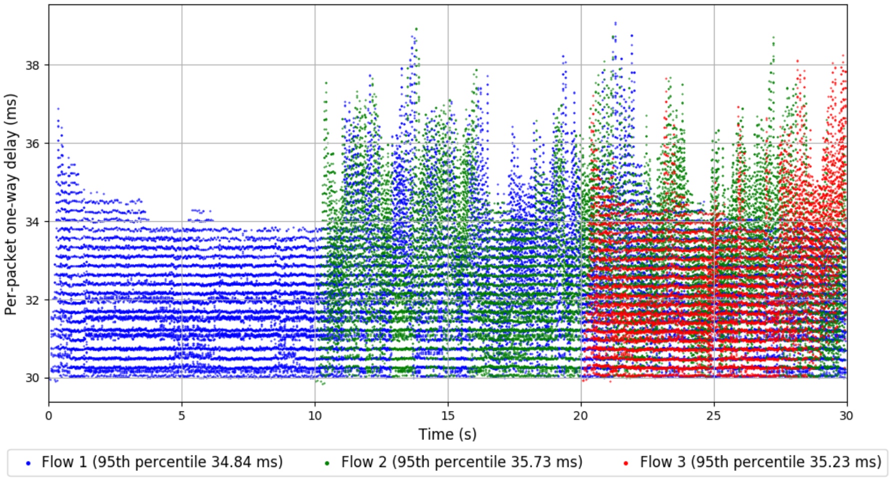




```
Run 9: Statistics of Sprout

Start at: 2017-12-20 11:26:46
End at: 2017-12-20 11:27:16
Local clock offset: 0.268 ms
Remote clock offset: -2.893 ms

# Below is generated by plot.py at 2017-12-20 12:19:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 35.311 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.87 Mbit/s
95th percentile per-packet one-way delay: 34.845 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.61 Mbit/s
95th percentile per-packet one-way delay: 35.725 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.51 Mbit/s
95th percentile per-packet one-way delay: 35.228 ms
Loss rate: 0.00%
```

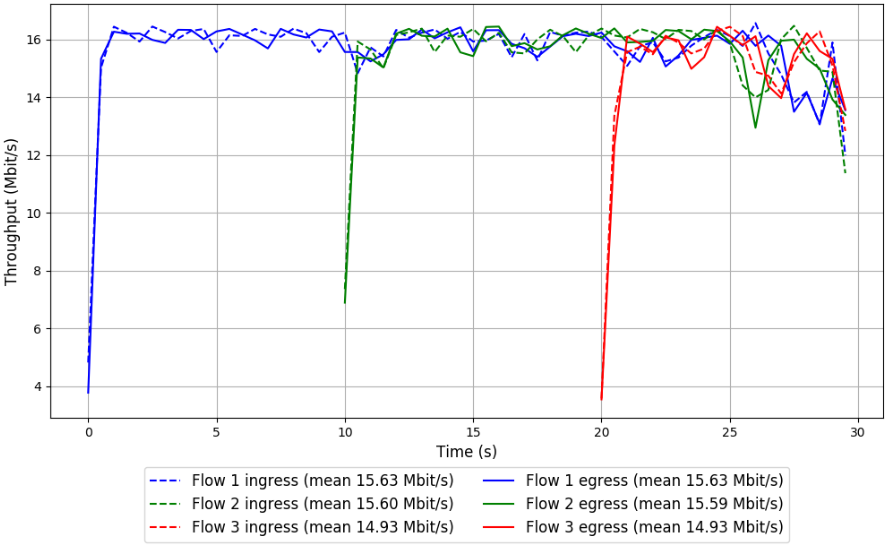
Run 9: Report of Sprout — Data Link

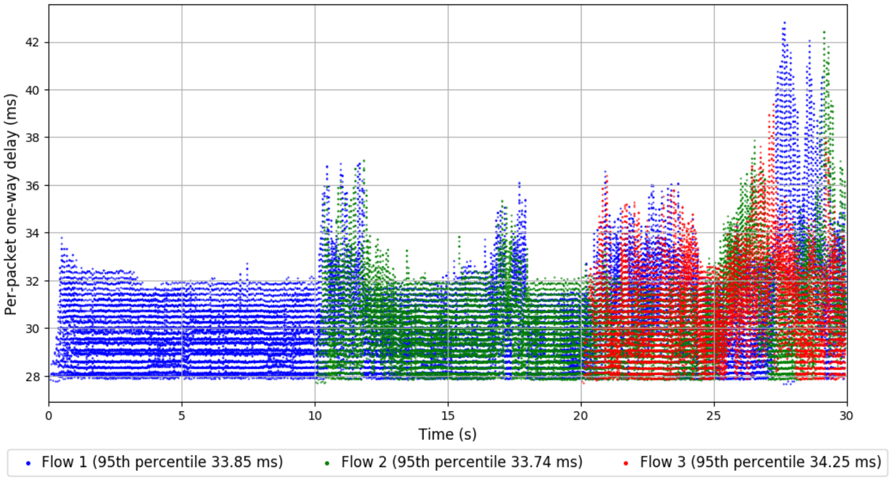




```
Run 10: Statistics of Sprout

Start at: 2017-12-20 11:47:11
End at: 2017-12-20 11:47:41
Local clock offset: 0.225 ms
Remote clock offset: -4.671 ms

# Below is generated by plot.py at 2017-12-20 12:19:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.92 Mbit/s
95th percentile per-packet one-way delay: 33.920 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 15.63 Mbit/s
95th percentile per-packet one-way delay: 33.850 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 15.59 Mbit/s
95th percentile per-packet one-way delay: 33.745 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 34.254 ms
Loss rate: 0.00%
```

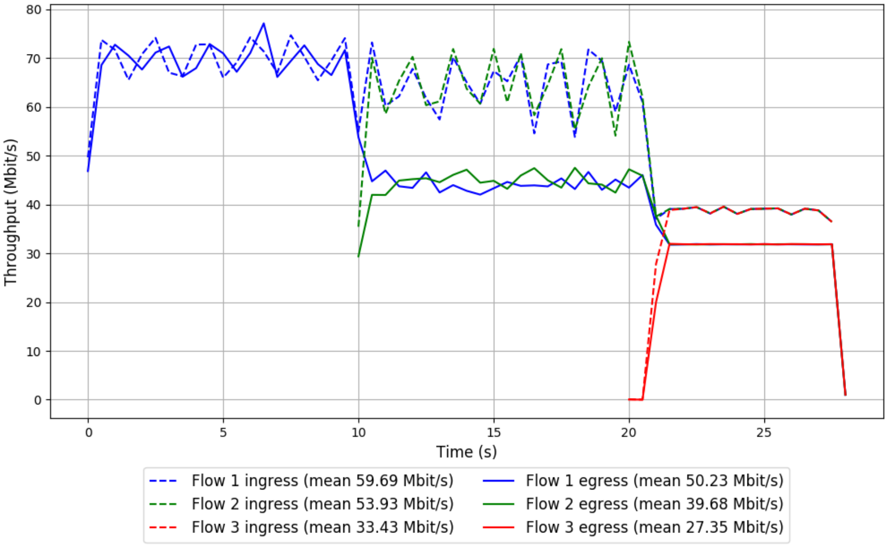
Run 10: Report of Sprout — Data Link

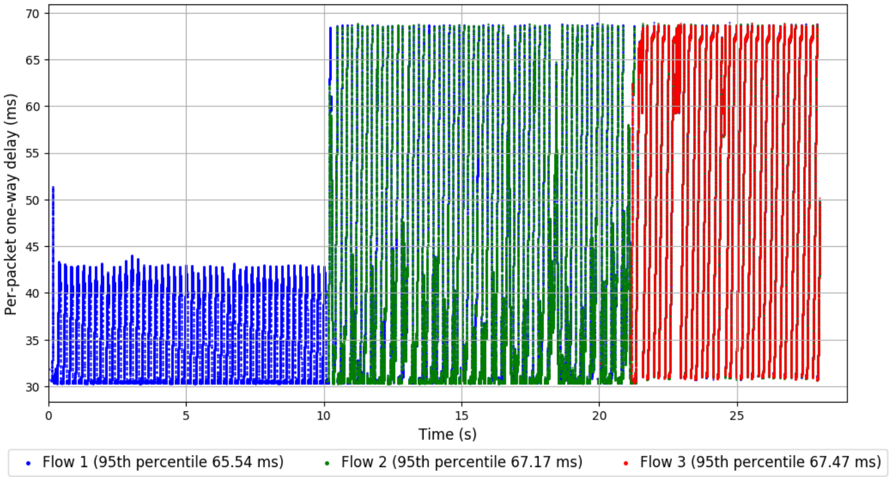




```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-20 08:27:56
End at: 2017-12-20 08:28:26
Local clock offset: 1.21 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2017-12-20 12:21:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.45 Mbit/s
95th percentile per-packet one-way delay: 67.110 ms
Loss rate: 19.53%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 65.538 ms
Loss rate: 15.80%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 67.173 ms
Loss rate: 26.38%
-- Flow 3:
Average throughput: 27.35 Mbit/s
95th percentile per-packet one-way delay: 67.472 ms
Loss rate: 18.01%
```

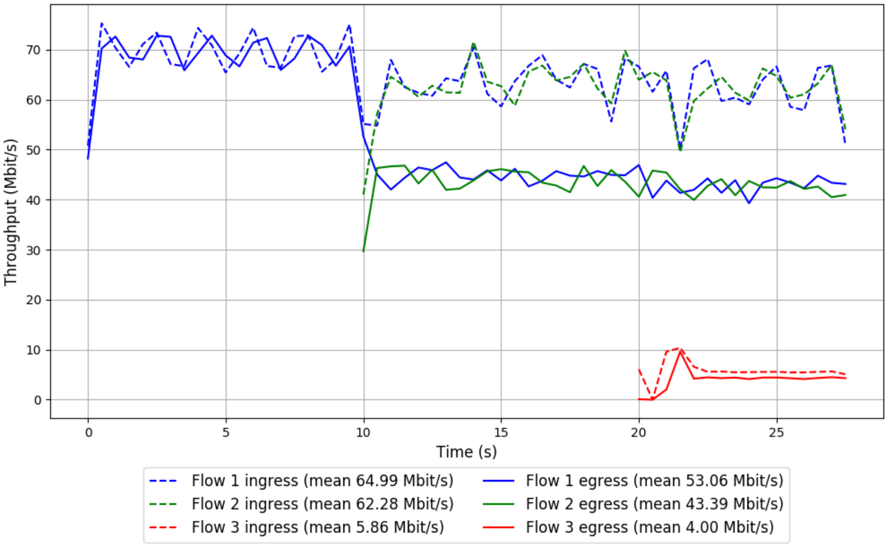
Run 1: Report of TaoVA-100x — Data Link

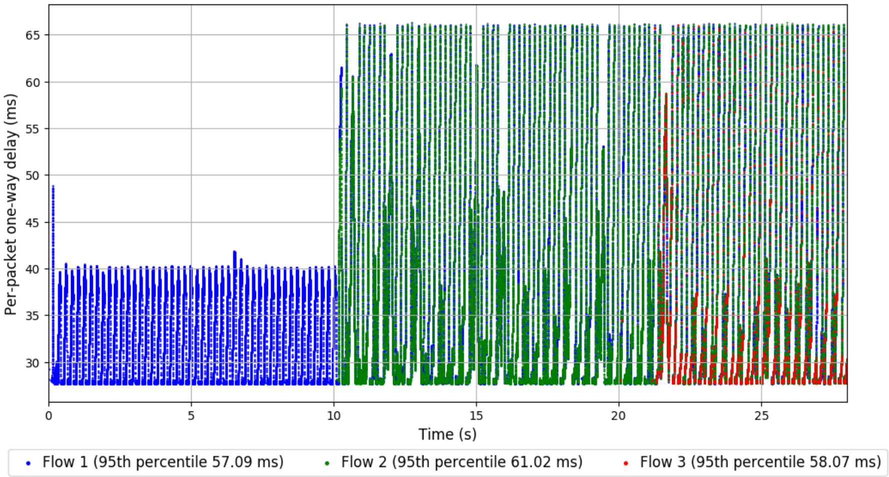




```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-20 08:48:26
End at: 2017-12-20 08:48:56
Local clock offset: 0.997 ms
Remote clock offset: -3.633 ms

# Below is generated by plot.py at 2017-12-20 12:21:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.02 Mbit/s
95th percentile per-packet one-way delay: 58.979 ms
Loss rate: 23.06%
-- Flow 1:
Average throughput: 53.06 Mbit/s
95th percentile per-packet one-way delay: 57.092 ms
Loss rate: 18.34%
-- Flow 2:
Average throughput: 43.39 Mbit/s
95th percentile per-packet one-way delay: 61.021 ms
Loss rate: 30.36%
-- Flow 3:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 58.072 ms
Loss rate: 31.71%
```

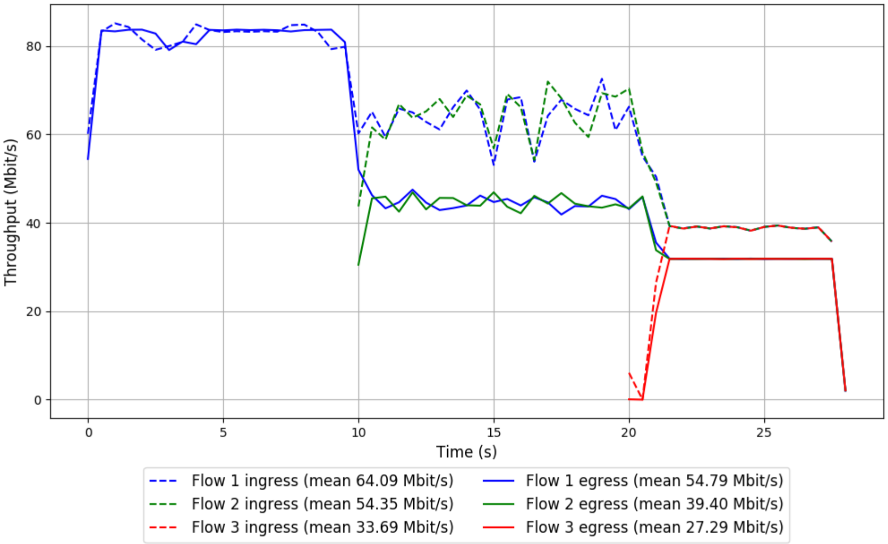
Run 2: Report of TaoVA-100x — Data Link

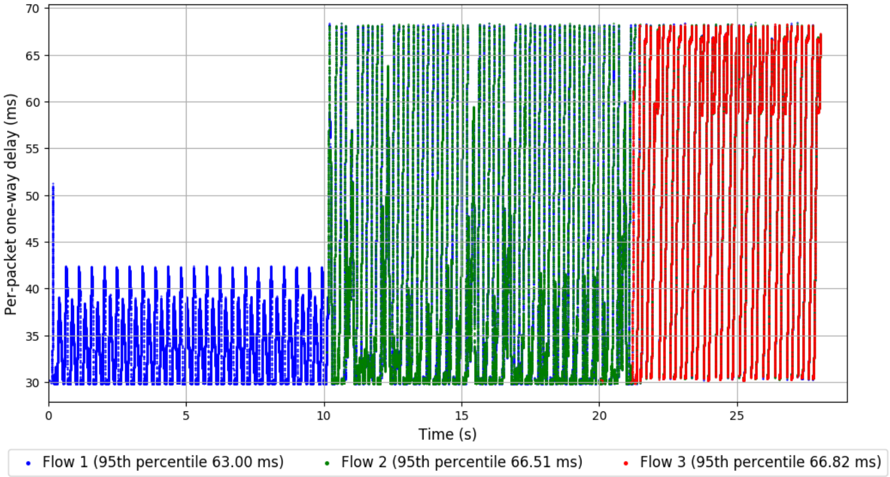




```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-20 09:08:54
End at: 2017-12-20 09:09:24
Local clock offset: 0.974 ms
Remote clock offset: -1.925 ms

# Below is generated by plot.py at 2017-12-20 12:21:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.88 Mbit/s
95th percentile per-packet one-way delay: 66.175 ms
Loss rate: 18.94%
-- Flow 1:
Average throughput: 54.79 Mbit/s
95th percentile per-packet one-way delay: 63.000 ms
Loss rate: 14.41%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 66.513 ms
Loss rate: 27.37%
-- Flow 3:
Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 66.824 ms
Loss rate: 18.61%
```

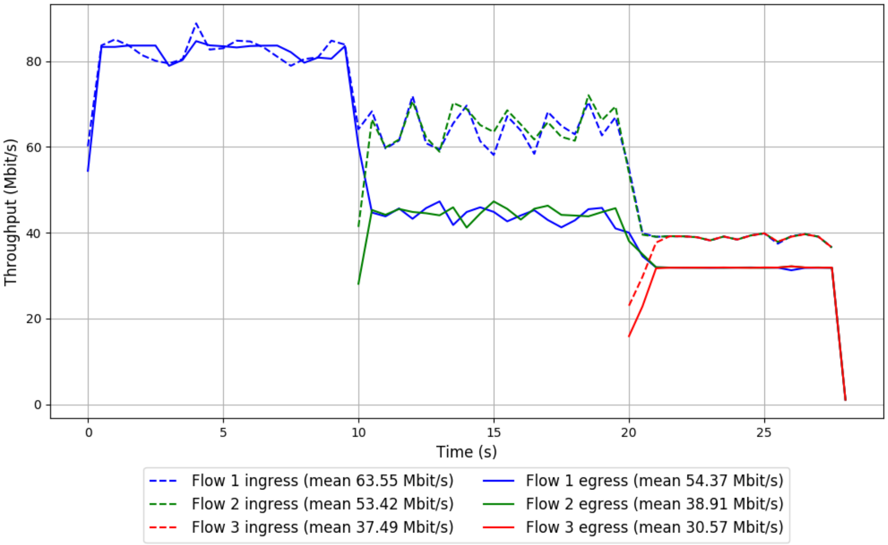
Run 3: Report of TaoVA-100x — Data Link

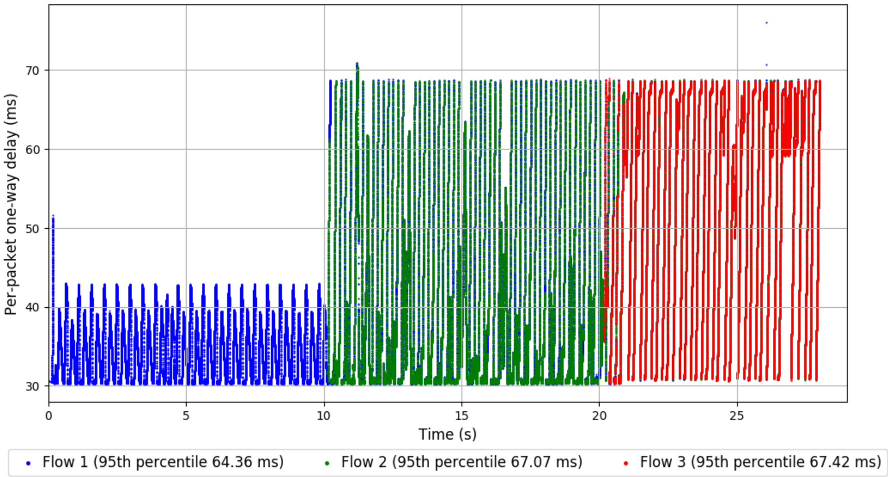




```
Run 4: Statistics of TaoVA-100x

Start at: 2017-12-20 09:29:20
End at: 2017-12-20 09:29:50
Local clock offset: 1.064 ms
Remote clock offset: -1.432 ms

# Below is generated by plot.py at 2017-12-20 12:21:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.03 Mbit/s
95th percentile per-packet one-way delay: 66.887 ms
Loss rate: 18.79%
-- Flow 1:
Average throughput: 54.37 Mbit/s
95th percentile per-packet one-way delay: 64.355 ms
Loss rate: 14.38%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 67.072 ms
Loss rate: 27.10%
-- Flow 3:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 67.417 ms
Loss rate: 18.32%
```

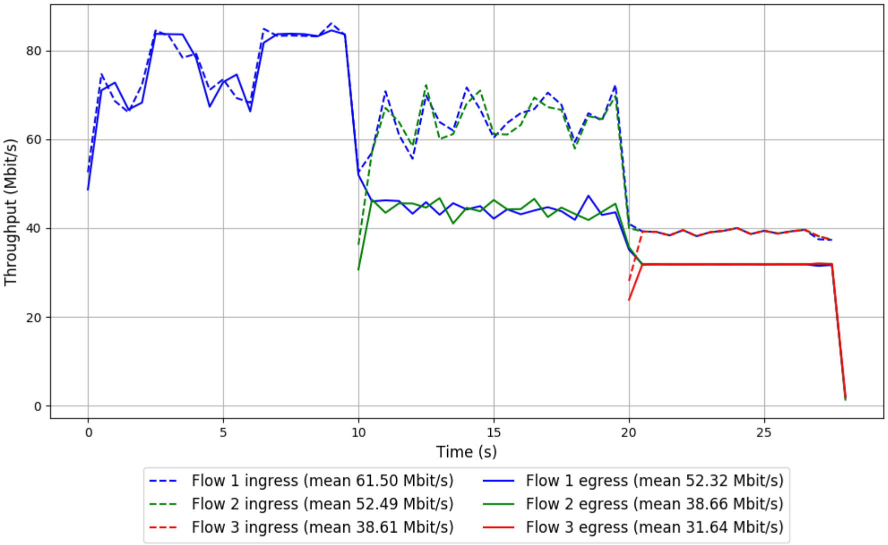
Run 4: Report of TaoVA-100x — Data Link

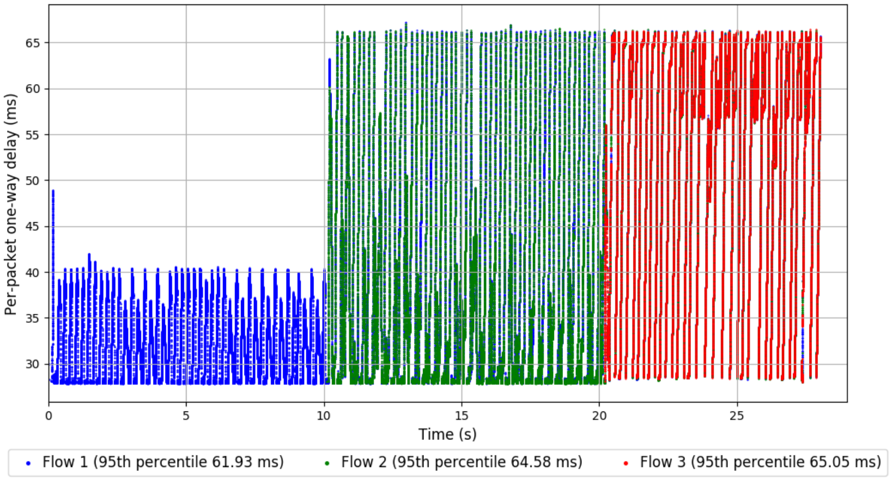




```
Run 5: Statistics of TaoVA-100x

Start at: 2017-12-20 09:49:47
End at: 2017-12-20 09:50:17
Local clock offset: 0.866 ms
Remote clock offset: -4.002 ms

# Below is generated by plot.py at 2017-12-20 12:21:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.13 Mbit/s
95th percentile per-packet one-way delay: 64.057 ms
Loss rate: 18.76%
-- Flow 1:
Average throughput: 52.32 Mbit/s
95th percentile per-packet one-way delay: 61.931 ms
Loss rate: 14.82%
-- Flow 2:
Average throughput: 38.66 Mbit/s
95th percentile per-packet one-way delay: 64.577 ms
Loss rate: 26.27%
-- Flow 3:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 65.045 ms
Loss rate: 17.71%
```

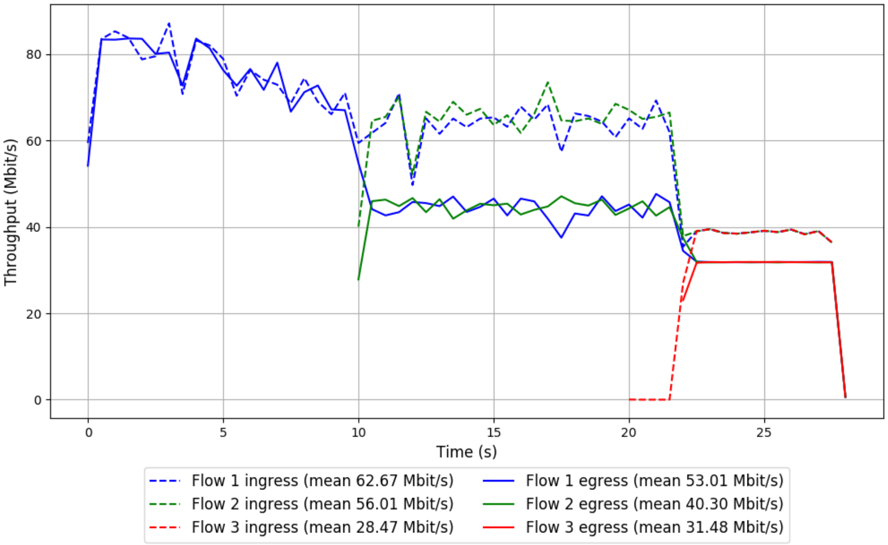
Run 5: Report of TaoVA-100x — Data Link

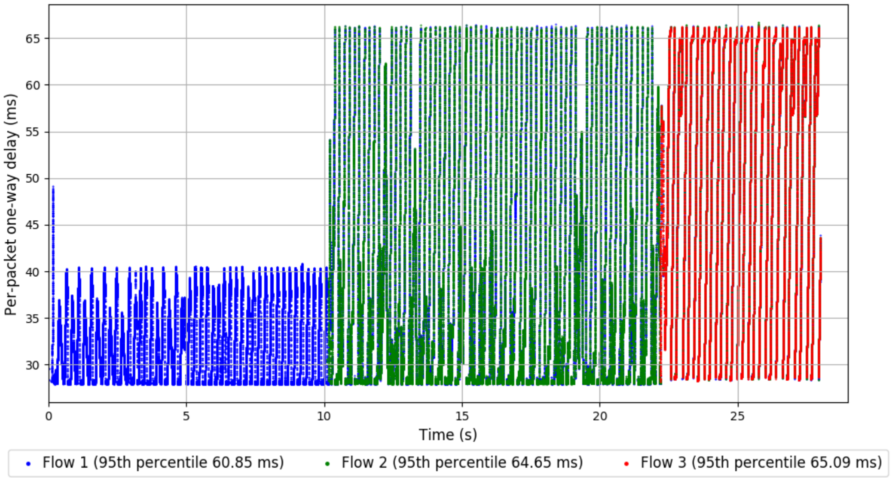




```
Run 6: Statistics of TaoVA-100x

Start at: 2017-12-20 10:10:15
End at: 2017-12-20 10:10:45
Local clock offset: 0.335 ms
Remote clock offset: -4.038 ms

# Below is generated by plot.py at 2017-12-20 12:21:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.54 Mbit/s
95th percentile per-packet one-way delay: 64.108 ms
Loss rate: 19.79%
-- Flow 1:
Average throughput: 53.01 Mbit/s
95th percentile per-packet one-way delay: 60.851 ms
Loss rate: 15.36%
-- Flow 2:
Average throughput: 40.30 Mbit/s
95th percentile per-packet one-way delay: 64.647 ms
Loss rate: 28.04%
-- Flow 3:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 65.091 ms
Loss rate: 17.36%
```

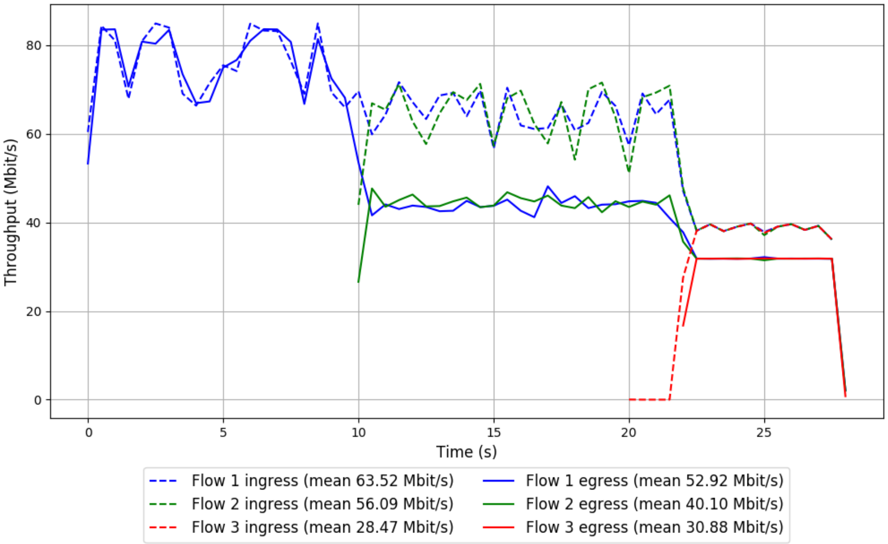
Run 6: Report of TaoVA-100x — Data Link

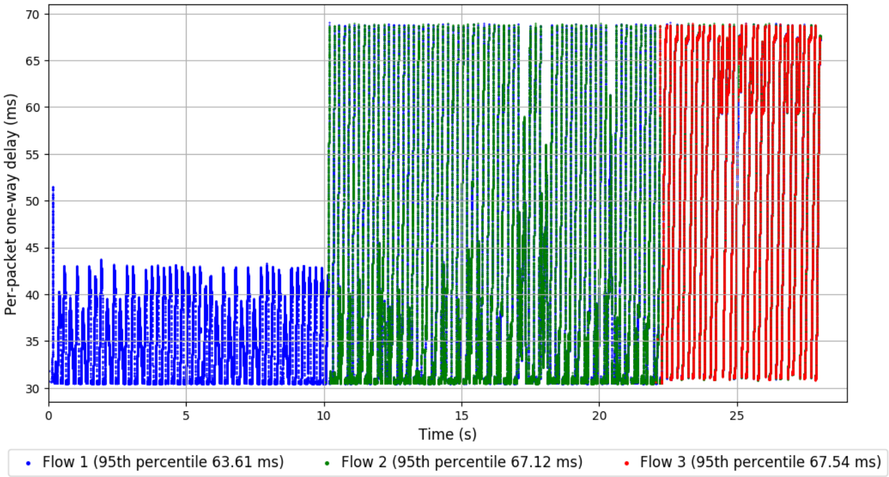




```
Run 7: Statistics of TaoVA-100x

Start at: 2017-12-20 10:30:47
End at: 2017-12-20 10:31:17
Local clock offset: 0.114 ms
Remote clock offset: -1.737 ms

# Below is generated by plot.py at 2017-12-20 12:21:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.26 Mbit/s
95th percentile per-packet one-way delay: 66.575 ms
Loss rate: 20.68%
-- Flow 1:
Average throughput: 52.92 Mbit/s
95th percentile per-packet one-way delay: 63.606 ms
Loss rate: 16.57%
-- Flow 2:
Average throughput: 40.10 Mbit/s
95th percentile per-packet one-way delay: 67.116 ms
Loss rate: 28.36%
-- Flow 3:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 67.539 ms
Loss rate: 18.67%
```

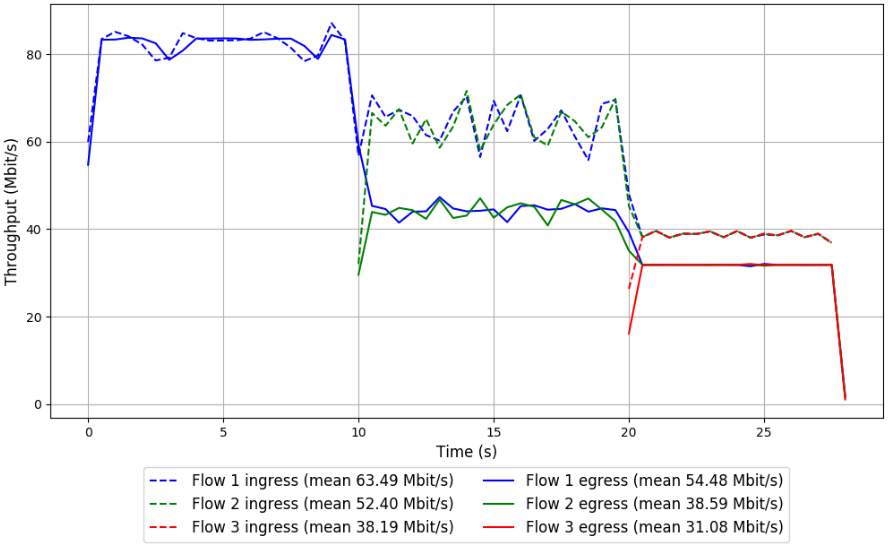
Run 7: Report of TaoVA-100x — Data Link

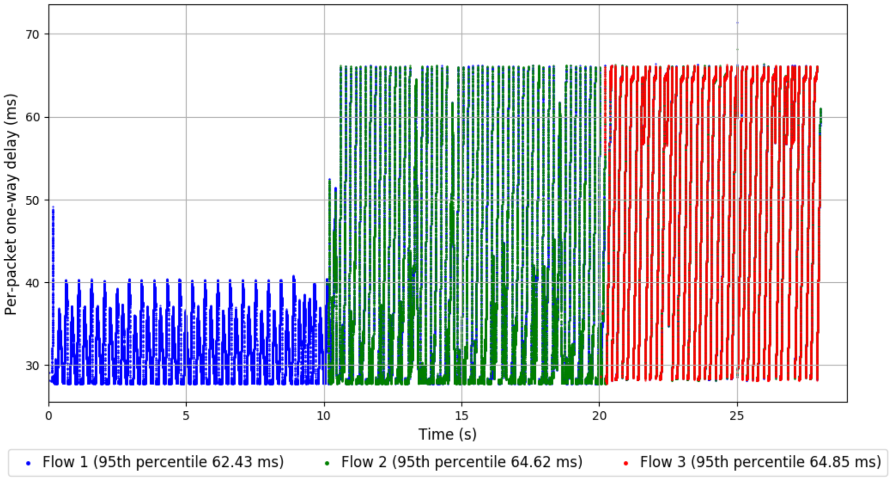




```
Run 8: Statistics of TaoVA-100x

Start at: 2017-12-20 10:51:17
End at: 2017-12-20 10:51:47
Local clock offset: 0.223 ms
Remote clock offset: -4.468 ms

# Below is generated by plot.py at 2017-12-20 12:21:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.10 Mbit/s
95th percentile per-packet one-way delay: 64.510 ms
Loss rate: 18.30%
-- Flow 1:
Average throughput: 54.48 Mbit/s
95th percentile per-packet one-way delay: 62.429 ms
Loss rate: 14.09%
-- Flow 2:
Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 64.616 ms
Loss rate: 26.23%
-- Flow 3:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 64.853 ms
Loss rate: 18.39%
```

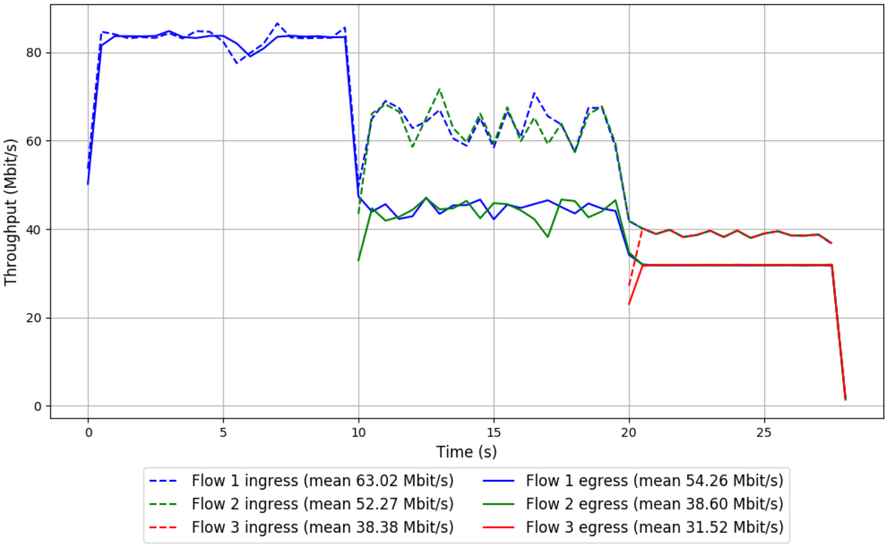
Run 8: Report of TaoVA-100x — Data Link

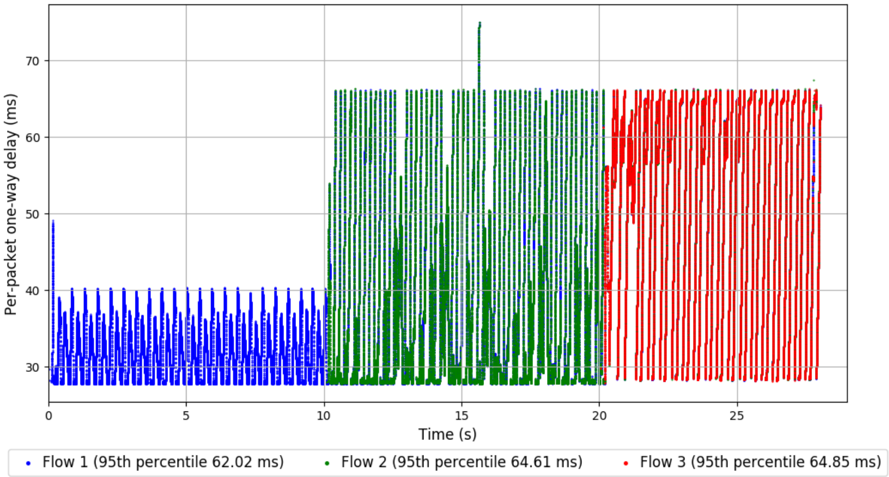




```
Run 9: Statistics of TaoVA-100x

Start at: 2017-12-20 11:11:44
End at: 2017-12-20 11:12:14
Local clock offset: 0.239 ms
Remote clock offset: -5.024 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.01 Mbit/s
95th percentile per-packet one-way delay: 64.448 ms
Loss rate: 18.01%
-- Flow 1:
Average throughput: 54.26 Mbit/s
95th percentile per-packet one-way delay: 62.021 ms
Loss rate: 13.79%
-- Flow 2:
Average throughput: 38.60 Mbit/s
95th percentile per-packet one-way delay: 64.607 ms
Loss rate: 26.08%
-- Flow 3:
Average throughput: 31.52 Mbit/s
95th percentile per-packet one-way delay: 64.846 ms
Loss rate: 17.52%
```

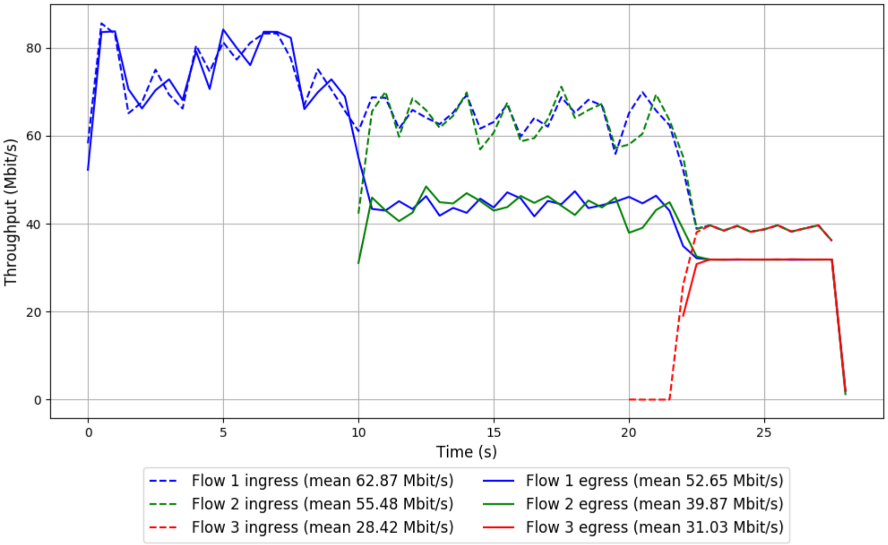
Run 9: Report of TaoVA-100x — Data Link

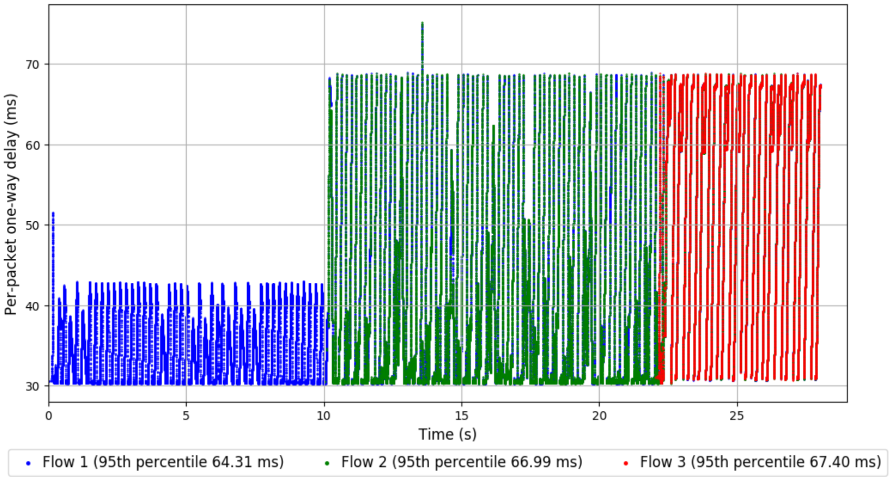




```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-20 11:32:11
End at: 2017-12-20 11:32:41
Local clock offset: 0.238 ms
Remote clock offset: -2.457 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.86 Mbit/s
95th percentile per-packet one-way delay: 66.678 ms
Loss rate: 20.25%
-- Flow 1:
Average throughput: 52.65 Mbit/s
95th percentile per-packet one-way delay: 64.307 ms
Loss rate: 16.15%
-- Flow 2:
Average throughput: 39.87 Mbit/s
95th percentile per-packet one-way delay: 66.987 ms
Loss rate: 28.04%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 67.398 ms
Loss rate: 17.86%
```

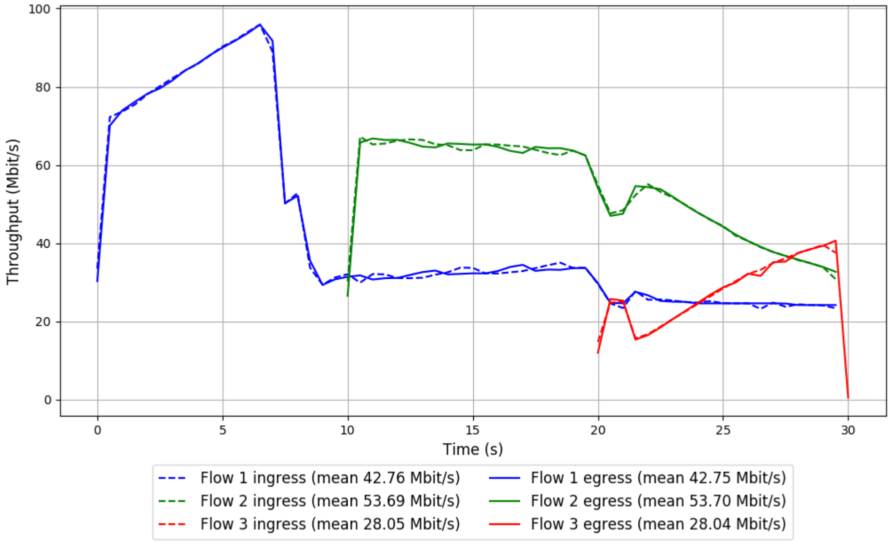
Run 10: Report of TaoVA-100x — Data Link

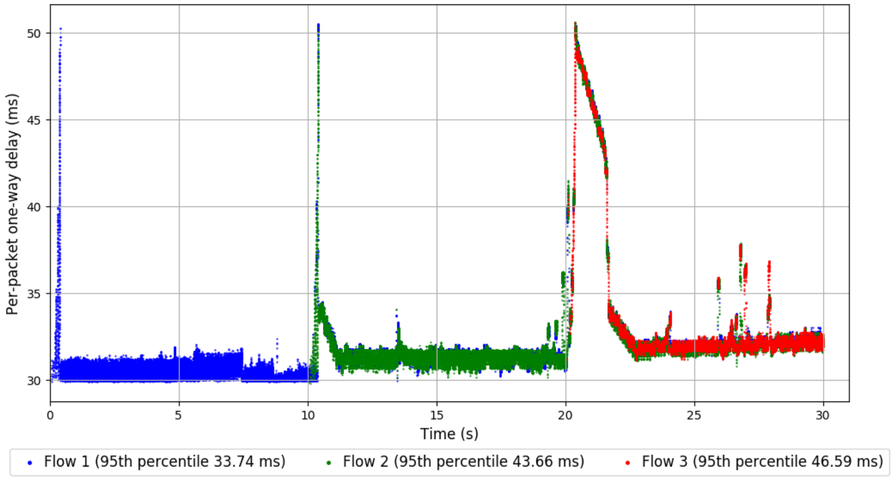




```
Run 1: Statistics of TCP Vegas

Start at: 2017-12-20 08:34:55
End at: 2017-12-20 08:35:25
Local clock offset: 1.075 ms
Remote clock offset: -0.87 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.79 Mbit/s
95th percentile per-packet one-way delay: 40.362 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.75 Mbit/s
95th percentile per-packet one-way delay: 33.745 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 53.70 Mbit/s
95th percentile per-packet one-way delay: 43.658 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 46.592 ms
Loss rate: 0.03%
```

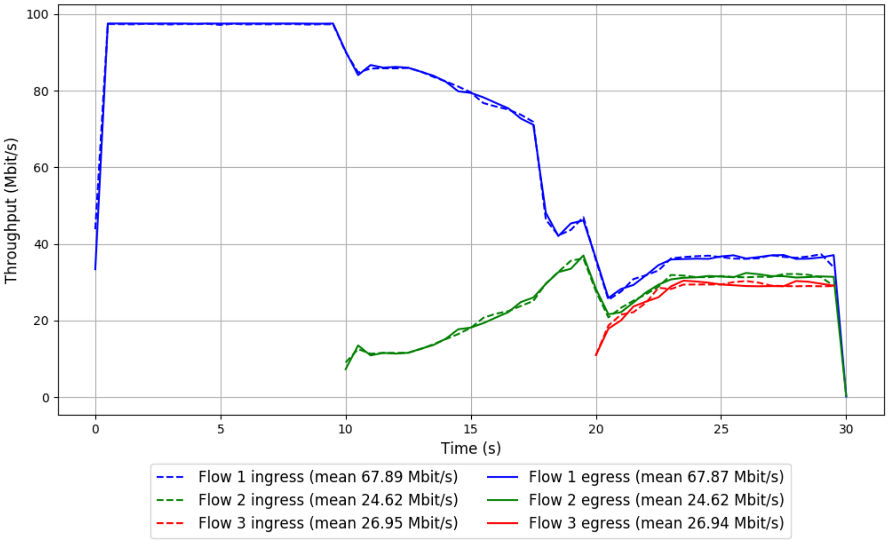
Run 1: Report of TCP Vegas — Data Link

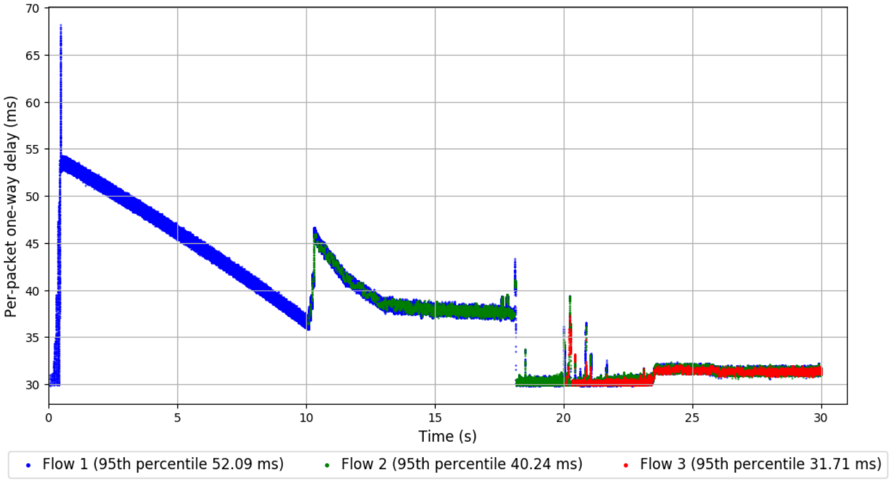




```
Run 2: Statistics of TCP Vegas

Start at: 2017-12-20 08:55:26
End at: 2017-12-20 08:55:56
Local clock offset: 1.093 ms
Remote clock offset: -1.608 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 51.468 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 67.87 Mbit/s
95th percentile per-packet one-way delay: 52.092 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 40.240 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 31.707 ms
Loss rate: 0.00%
```

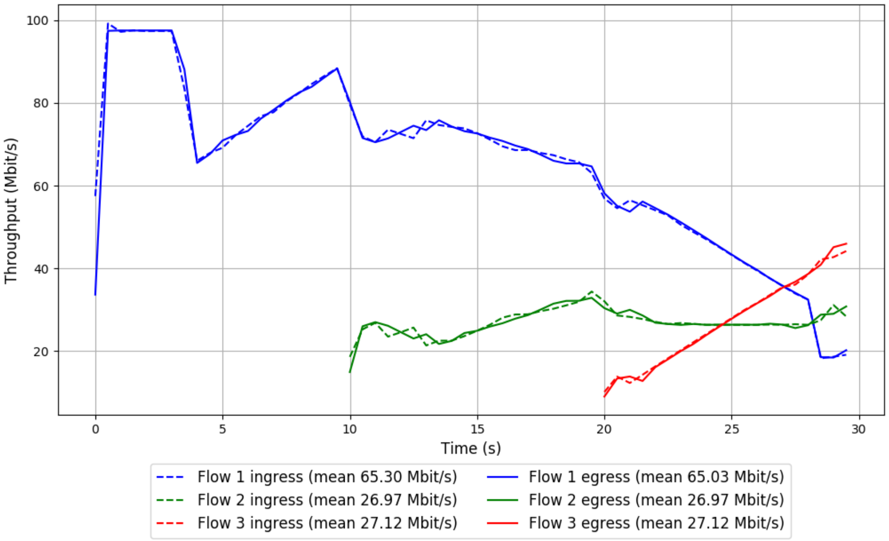
Run 2: Report of TCP Vegas — Data Link

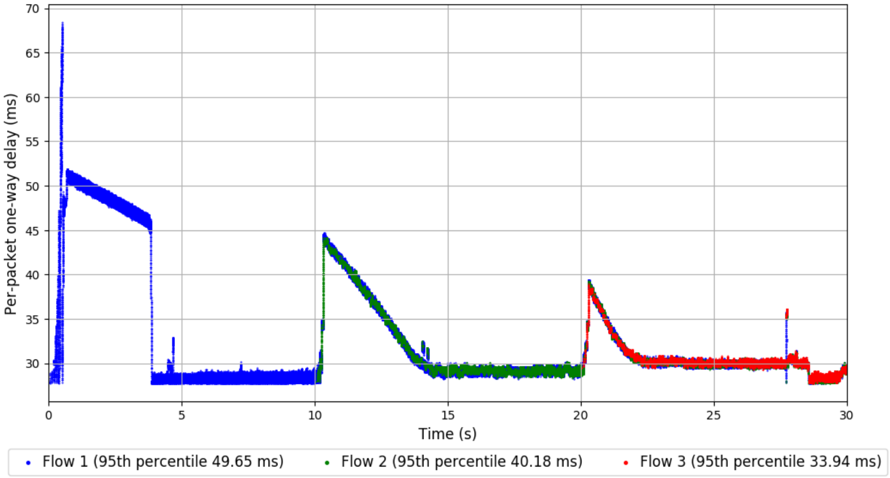




```
Run 3: Statistics of TCP Vegas

Start at: 2017-12-20 09:15:51
End at: 2017-12-20 09:16:21
Local clock offset: 0.947 ms
Remote clock offset: -4.07 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.99 Mbit/s
95th percentile per-packet one-way delay: 49.008 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 65.03 Mbit/s
95th percentile per-packet one-way delay: 49.646 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 26.97 Mbit/s
95th percentile per-packet one-way delay: 40.179 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.12 Mbit/s
95th percentile per-packet one-way delay: 33.941 ms
Loss rate: 0.00%
```

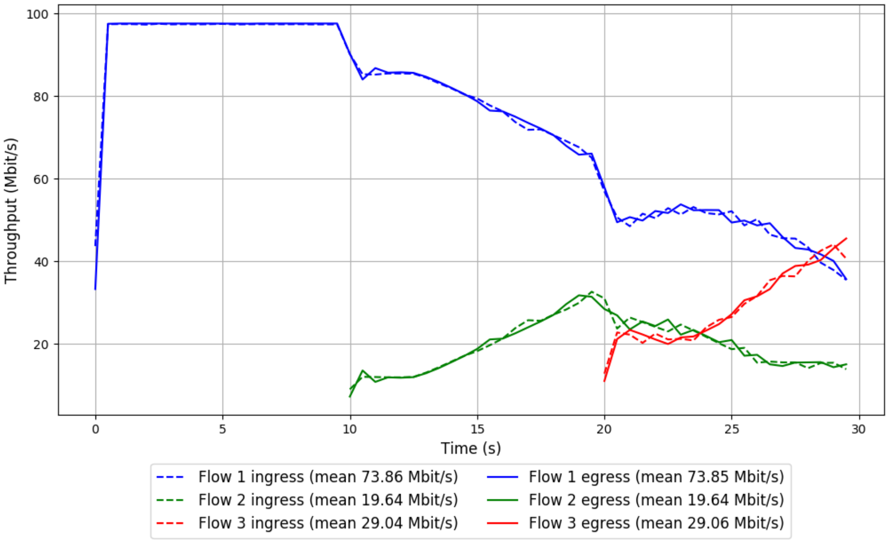
Run 3: Report of TCP Vegas — Data Link

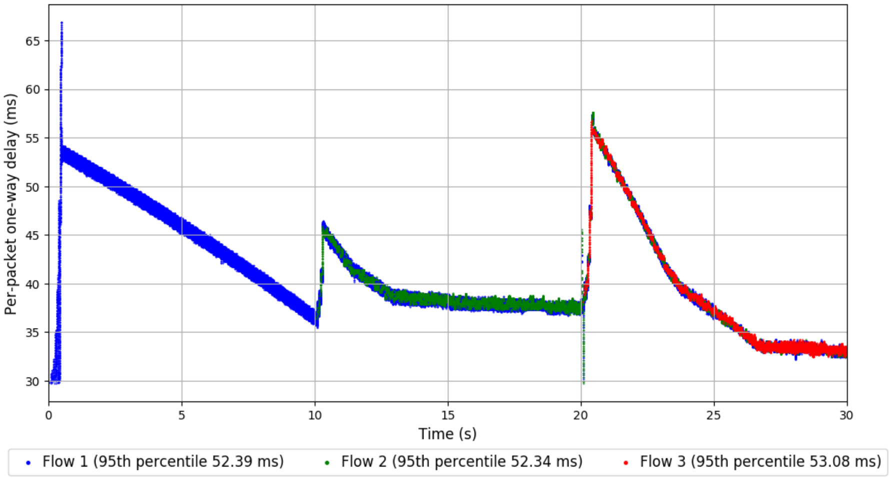




```
Run 4: Statistics of TCP Vegas

Start at: 2017-12-20 09:36:18
End at: 2017-12-20 09:36:48
Local clock offset: 1.039 ms
Remote clock offset: -2.015 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 52.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.85 Mbit/s
95th percentile per-packet one-way delay: 52.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.64 Mbit/s
95th percentile per-packet one-way delay: 52.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.06 Mbit/s
95th percentile per-packet one-way delay: 53.075 ms
Loss rate: 0.00%
```

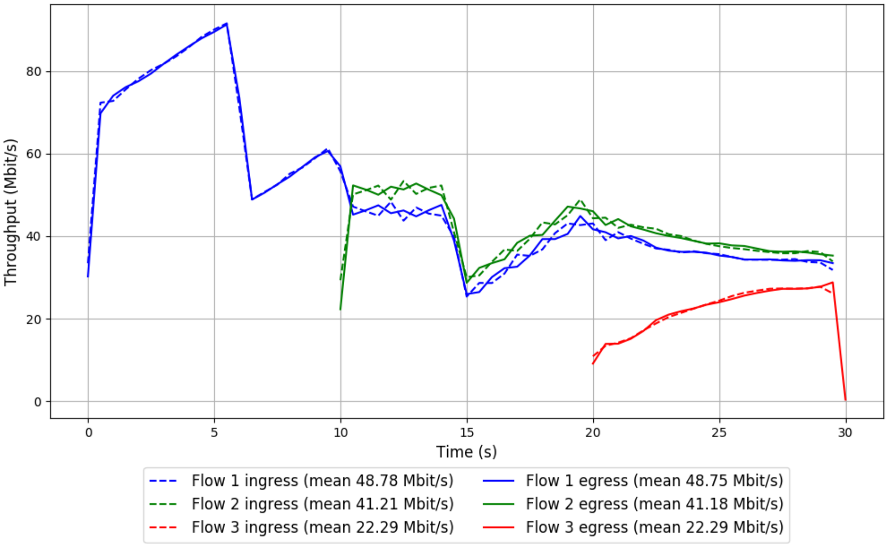
Run 4: Report of TCP Vegas — Data Link

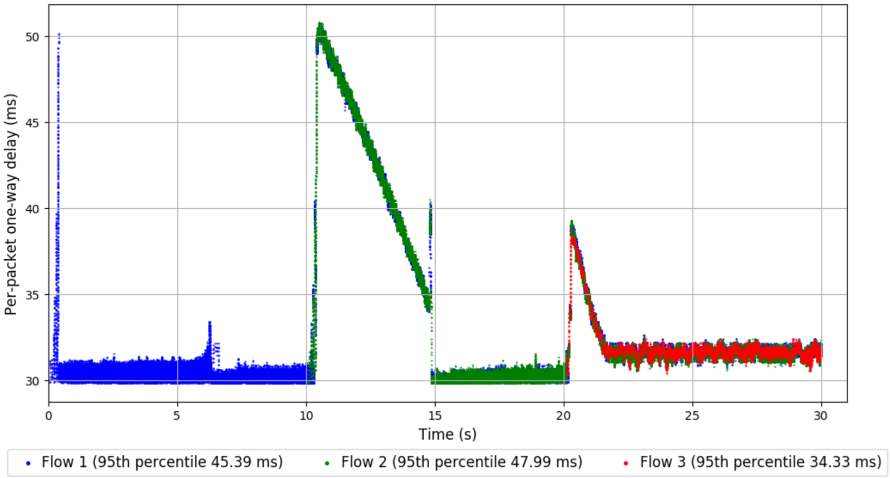




```
Run 5: Statistics of TCP Vegas

Start at: 2017-12-20 09:56:45
End at: 2017-12-20 09:57:15
Local clock offset: 0.731 ms
Remote clock offset: -1.962 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.55 Mbit/s
95th percentile per-packet one-way delay: 46.341 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 45.388 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 41.18 Mbit/s
95th percentile per-packet one-way delay: 47.989 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 22.29 Mbit/s
95th percentile per-packet one-way delay: 34.329 ms
Loss rate: 0.01%
```

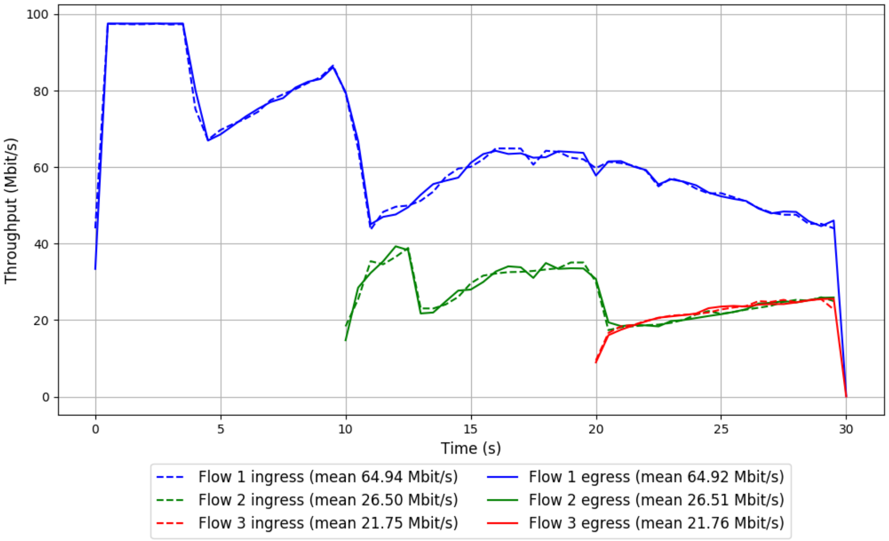
Run 5: Report of TCP Vegas — Data Link

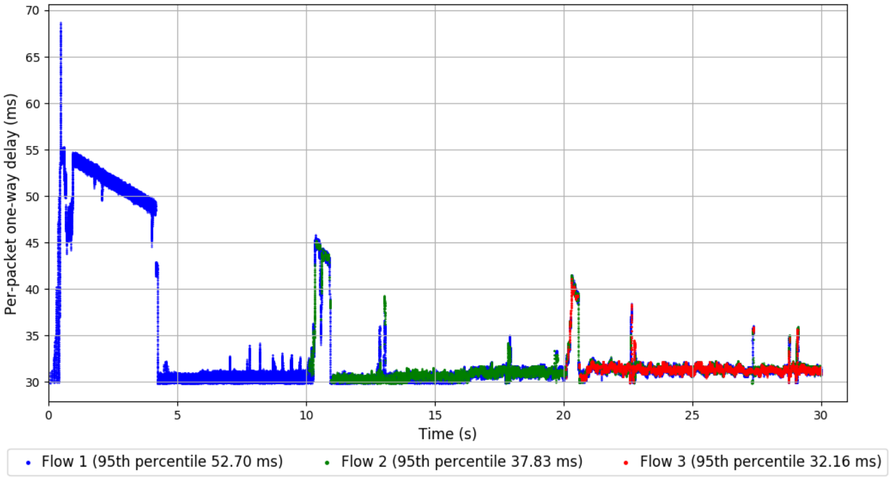




```
Run 6: Statistics of TCP Vegas

Start at: 2017-12-20 10:17:13
End at: 2017-12-20 10:17:43
Local clock offset: 0.299 ms
Remote clock offset: -2.07 ms

# Below is generated by plot.py at 2017-12-20 12:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.78 Mbit/s
95th percentile per-packet one-way delay: 52.072 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 64.92 Mbit/s
95th percentile per-packet one-way delay: 52.703 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 26.51 Mbit/s
95th percentile per-packet one-way delay: 37.828 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 21.76 Mbit/s
95th percentile per-packet one-way delay: 32.155 ms
Loss rate: 0.00%
```

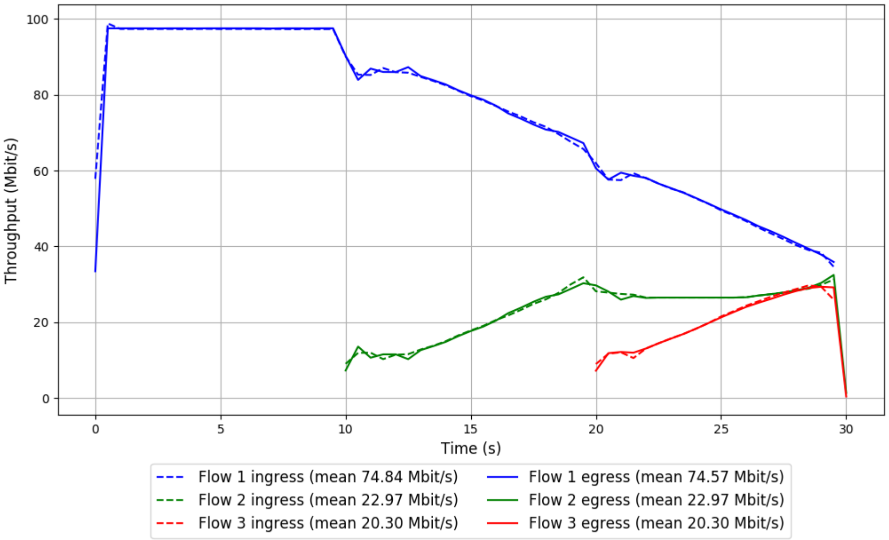
Run 6: Report of TCP Vegas — Data Link

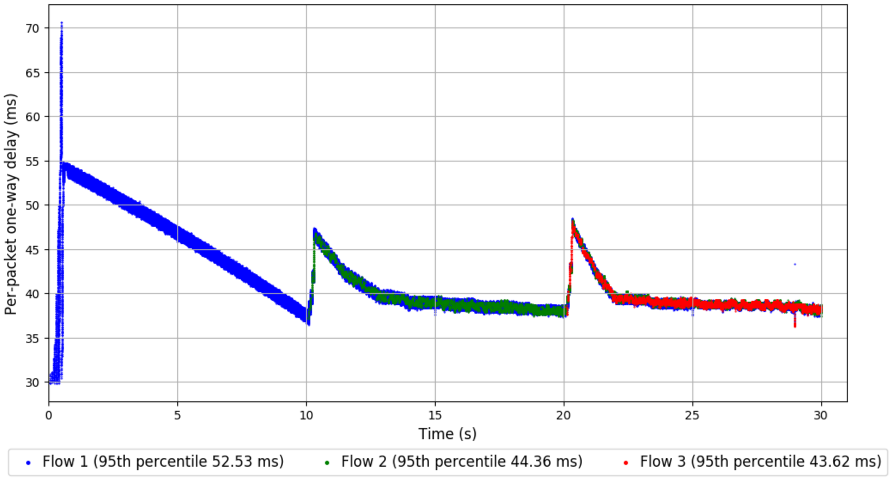




```
Run 7: Statistics of TCP Vegas

Start at: 2017-12-20 10:37:46
End at: 2017-12-20 10:38:16
Local clock offset: 0.237 ms
Remote clock offset: -2.329 ms

# Below is generated by plot.py at 2017-12-20 12:23:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.56 Mbit/s
95th percentile per-packet one-way delay: 51.951 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 74.57 Mbit/s
95th percentile per-packet one-way delay: 52.529 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 22.97 Mbit/s
95th percentile per-packet one-way delay: 44.363 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.30 Mbit/s
95th percentile per-packet one-way delay: 43.615 ms
Loss rate: 0.01%
```

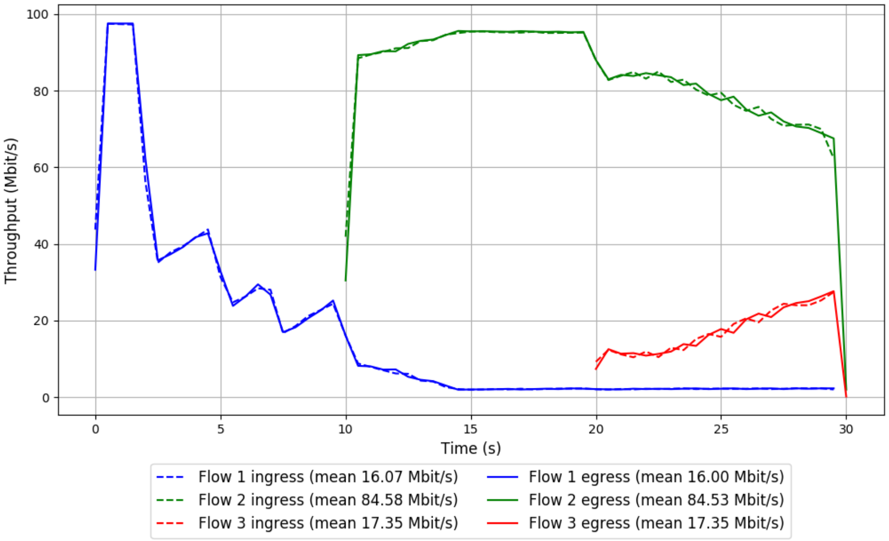
Run 7: Report of TCP Vegas — Data Link

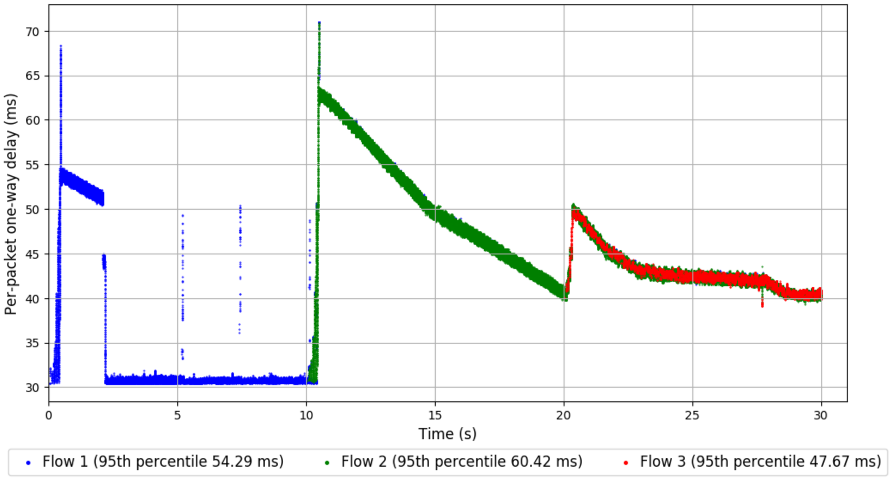




```
Run 8: Statistics of TCP Vegas

Start at: 2017-12-20 10:58:17
End at: 2017-12-20 10:58:47
Local clock offset: 0.12 ms
Remote clock offset: -2.086 ms

# Below is generated by plot.py at 2017-12-20 12:23:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.05 Mbit/s
95th percentile per-packet one-way delay: 59.807 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 54.289 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 84.53 Mbit/s
95th percentile per-packet one-way delay: 60.420 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.35 Mbit/s
95th percentile per-packet one-way delay: 47.670 ms
Loss rate: 0.00%
```

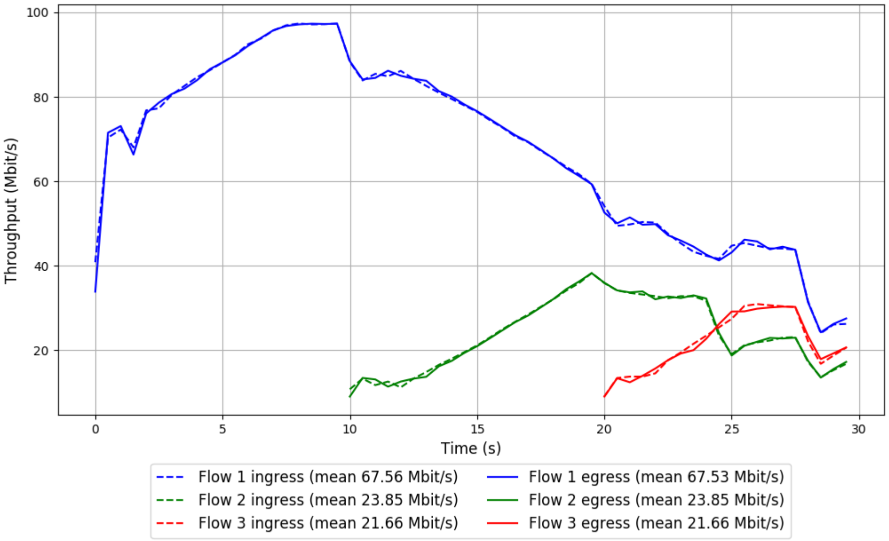
Run 8: Report of TCP Vegas — Data Link

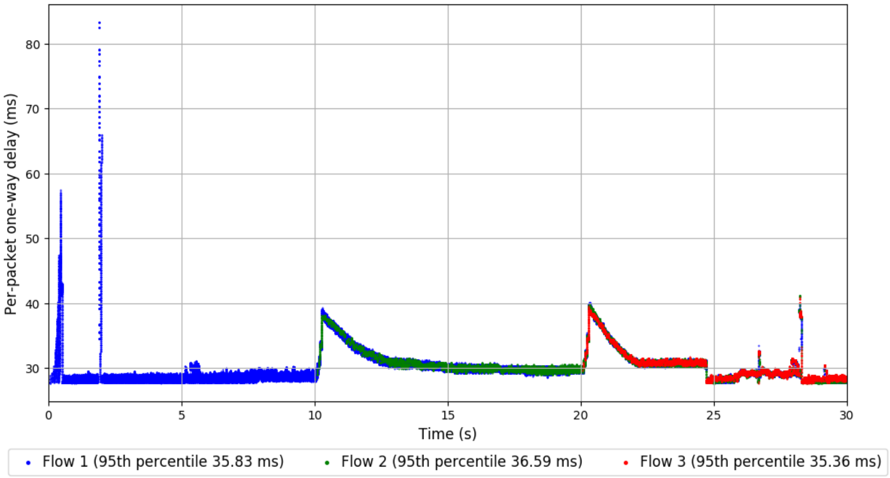




```
Run 9: Statistics of TCP Vegas

Start at: 2017-12-20 11:18:41
End at: 2017-12-20 11:19:11
Local clock offset: 0.344 ms
Remote clock offset: -5.171 ms

# Below is generated by plot.py at 2017-12-20 12:23:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.56 Mbit/s
95th percentile per-packet one-way delay: 35.938 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 67.53 Mbit/s
95th percentile per-packet one-way delay: 35.828 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 23.85 Mbit/s
95th percentile per-packet one-way delay: 36.595 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 21.66 Mbit/s
95th percentile per-packet one-way delay: 35.361 ms
Loss rate: 0.03%
```

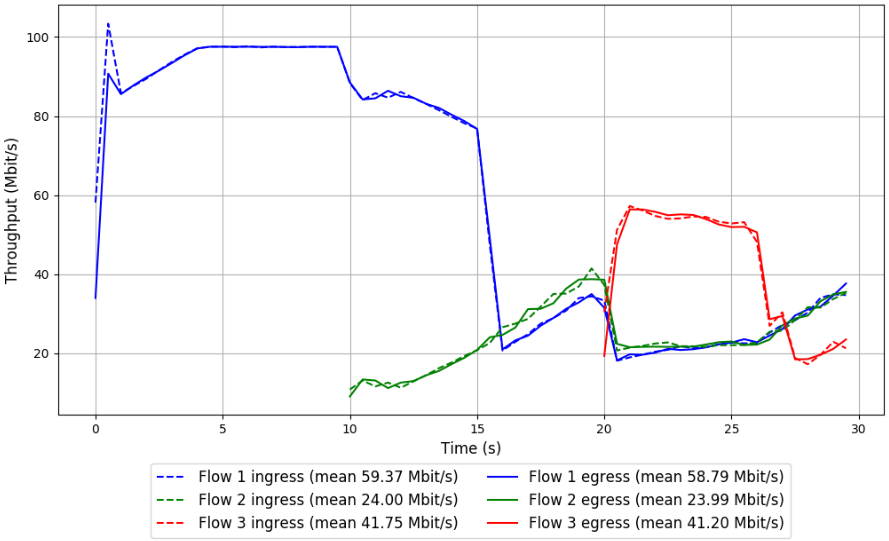
Run 9: Report of TCP Vegas — Data Link

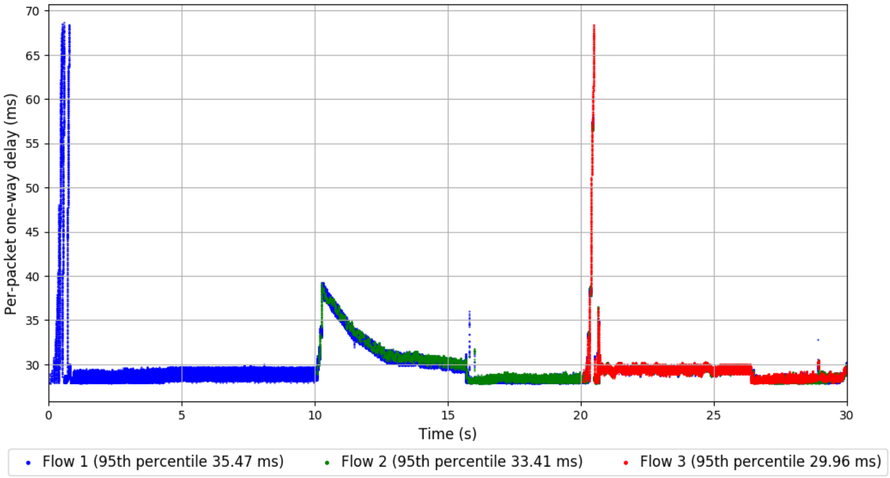




```
Run 10: Statistics of TCP Vegas

Start at: 2017-12-20 11:39:08
End at: 2017-12-20 11:39:38
Local clock offset: 0.178 ms
Remote clock offset: -4.825 ms

# Below is generated by plot.py at 2017-12-20 12:24:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.43 Mbit/s
95th percentile per-packet one-way delay: 34.587 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 58.79 Mbit/s
95th percentile per-packet one-way delay: 35.473 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 23.99 Mbit/s
95th percentile per-packet one-way delay: 33.413 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 41.20 Mbit/s
95th percentile per-packet one-way delay: 29.961 ms
Loss rate: 1.30%
```

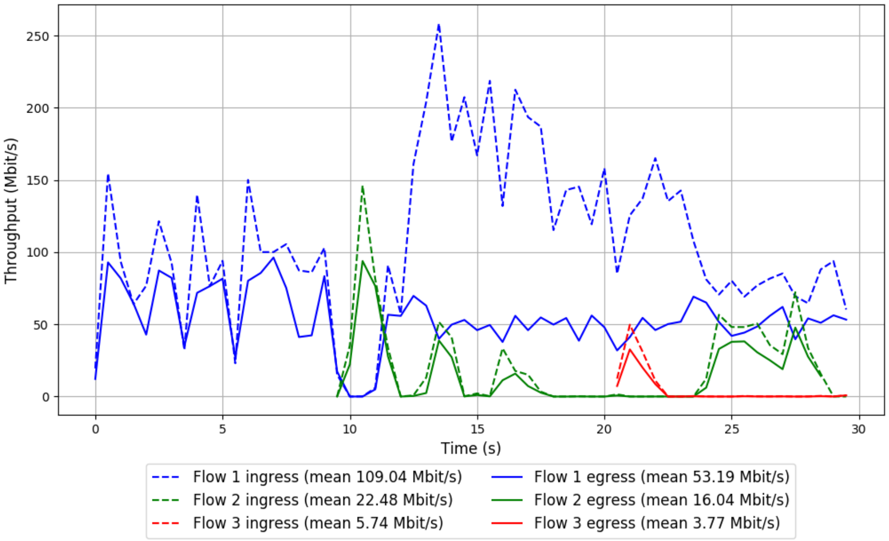
Run 10: Report of TCP Vegas — Data Link

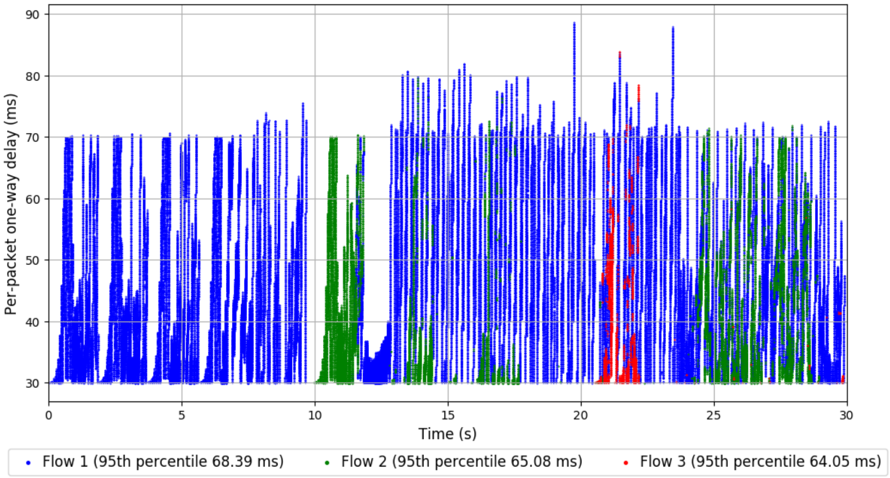




```
Run 1: Statistics of Verus

Start at: 2017-12-20 08:38:58
End at: 2017-12-20 08:39:28
Local clock offset: 1.023 ms
Remote clock offset: -1.002 ms

# Below is generated by plot.py at 2017-12-20 12:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.55 Mbit/s
95th percentile per-packet one-way delay: 67.964 ms
Loss rate: 48.57%
-- Flow 1:
Average throughput: 53.19 Mbit/s
95th percentile per-packet one-way delay: 68.391 ms
Loss rate: 51.19%
-- Flow 2:
Average throughput: 16.04 Mbit/s
95th percentile per-packet one-way delay: 65.082 ms
Loss rate: 30.87%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 64.051 ms
Loss rate: 34.35%
```

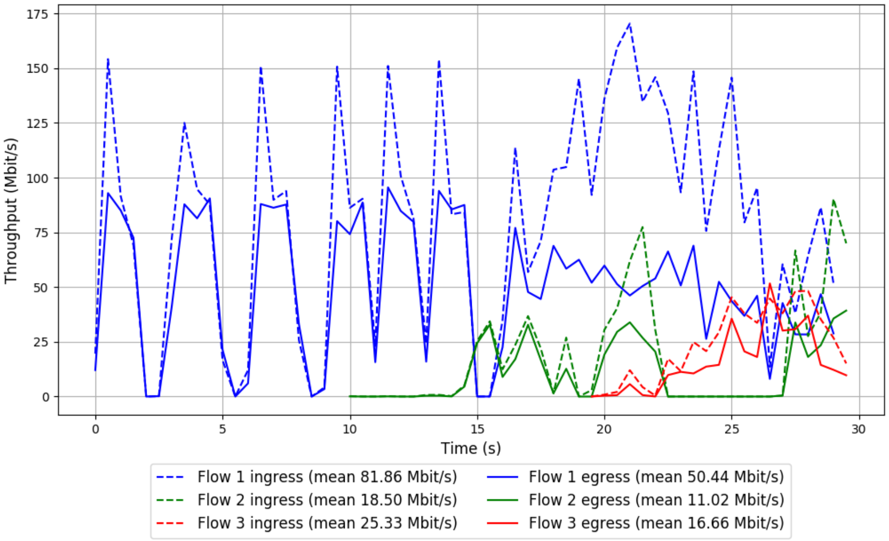
Run 1: Report of Verus — Data Link

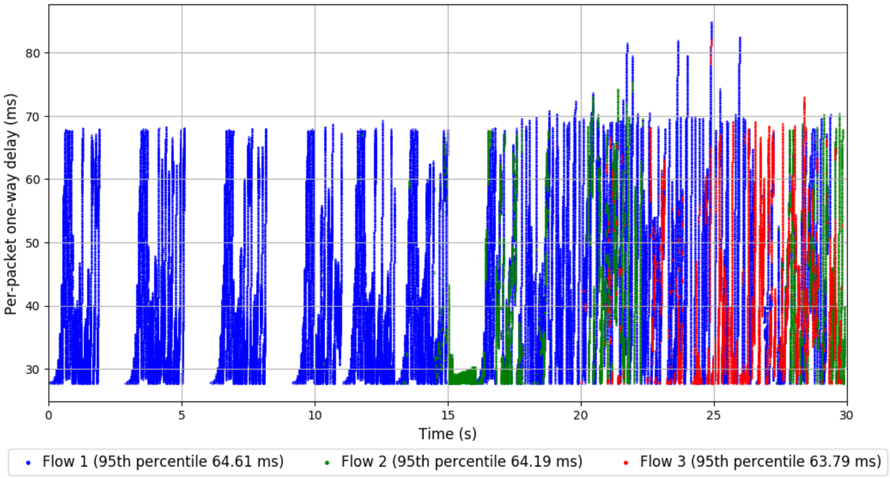




```
Run 2: Statistics of Verus

Start at: 2017-12-20 08:59:30
End at: 2017-12-20 09:00:00
Local clock offset: 0.988 ms
Remote clock offset: -3.913 ms

# Below is generated by plot.py at 2017-12-20 12:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.27 Mbit/s
95th percentile per-packet one-way delay: 64.502 ms
Loss rate: 38.23%
-- Flow 1:
Average throughput: 50.44 Mbit/s
95th percentile per-packet one-way delay: 64.605 ms
Loss rate: 38.32%
-- Flow 2:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 64.194 ms
Loss rate: 40.42%
-- Flow 3:
Average throughput: 16.66 Mbit/s
95th percentile per-packet one-way delay: 63.794 ms
Loss rate: 34.13%
```

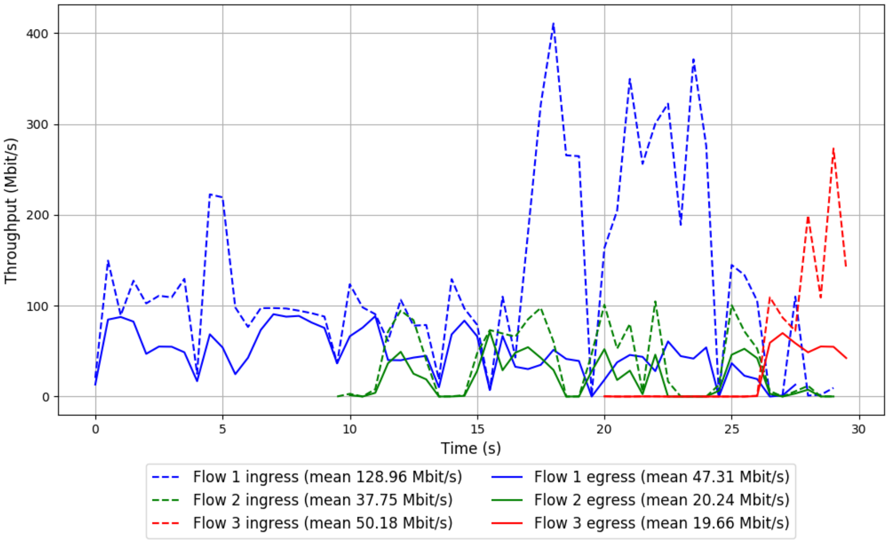
Run 2: Report of Verus — Data Link

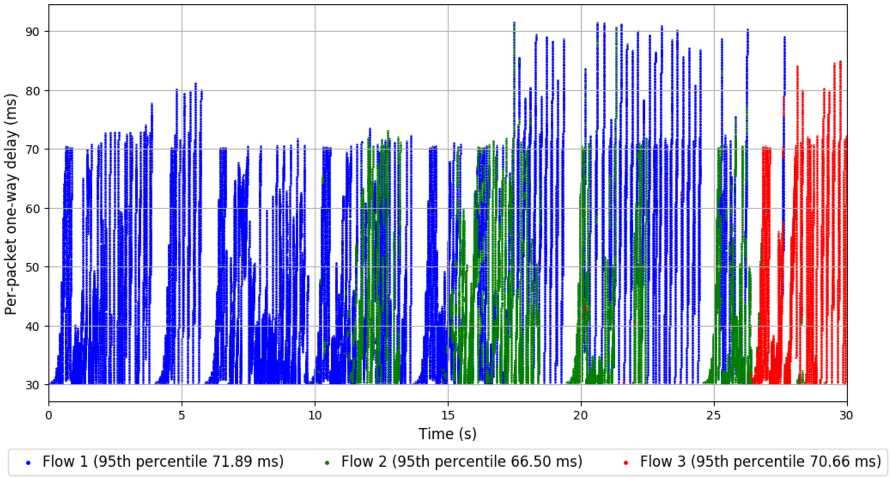




```
Run 3: Statistics of Verus

Start at: 2017-12-20 09:19:53
End at: 2017-12-20 09:20:23
Local clock offset: 1.043 ms
Remote clock offset: -1.495 ms

# Below is generated by plot.py at 2017-12-20 12:24:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.10 Mbit/s
95th percentile per-packet one-way delay: 70.432 ms
Loss rate: 62.42%
-- Flow 1:
Average throughput: 47.31 Mbit/s
95th percentile per-packet one-way delay: 71.887 ms
Loss rate: 65.57%
-- Flow 2:
Average throughput: 20.24 Mbit/s
95th percentile per-packet one-way delay: 66.504 ms
Loss rate: 47.26%
-- Flow 3:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 70.659 ms
Loss rate: 60.73%
```

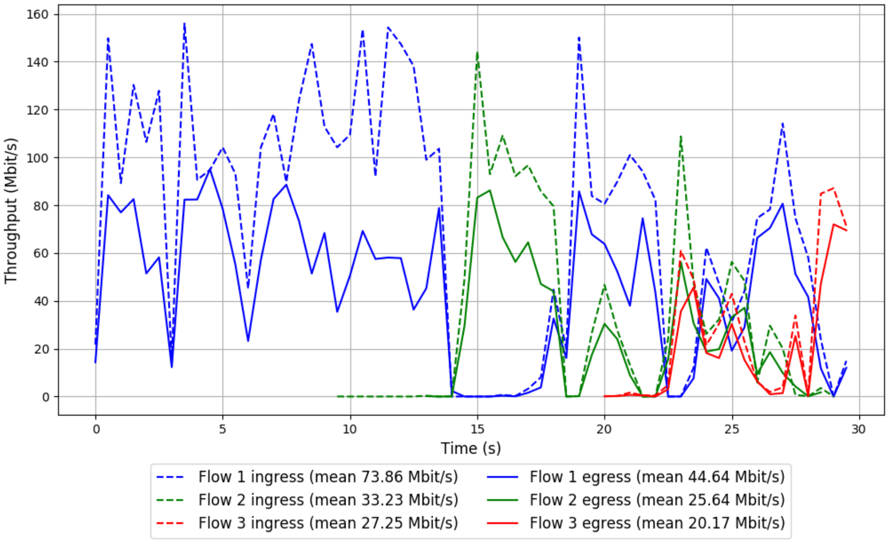
Run 3: Report of Verus — Data Link

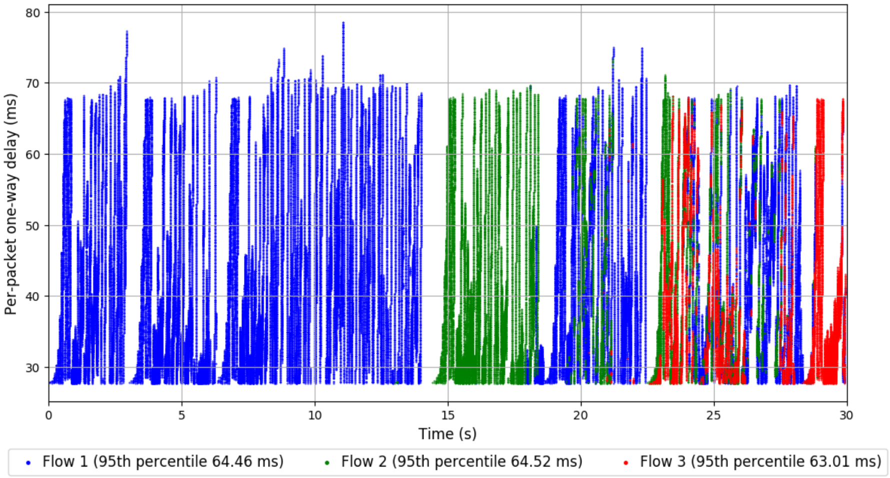




```
Run 4: Statistics of Verus

Start at: 2017-12-20 09:40:21
End at: 2017-12-20 09:40:51
Local clock offset: 1.032 ms
Remote clock offset: -3.964 ms

# Below is generated by plot.py at 2017-12-20 12:24:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.75 Mbit/s
95th percentile per-packet one-way delay: 64.314 ms
Loss rate: 37.62%
-- Flow 1:
Average throughput: 44.64 Mbit/s
95th percentile per-packet one-way delay: 64.458 ms
Loss rate: 39.53%
-- Flow 2:
Average throughput: 25.64 Mbit/s
95th percentile per-packet one-way delay: 64.523 ms
Loss rate: 35.82%
-- Flow 3:
Average throughput: 20.17 Mbit/s
95th percentile per-packet one-way delay: 63.014 ms
Loss rate: 25.91%
```

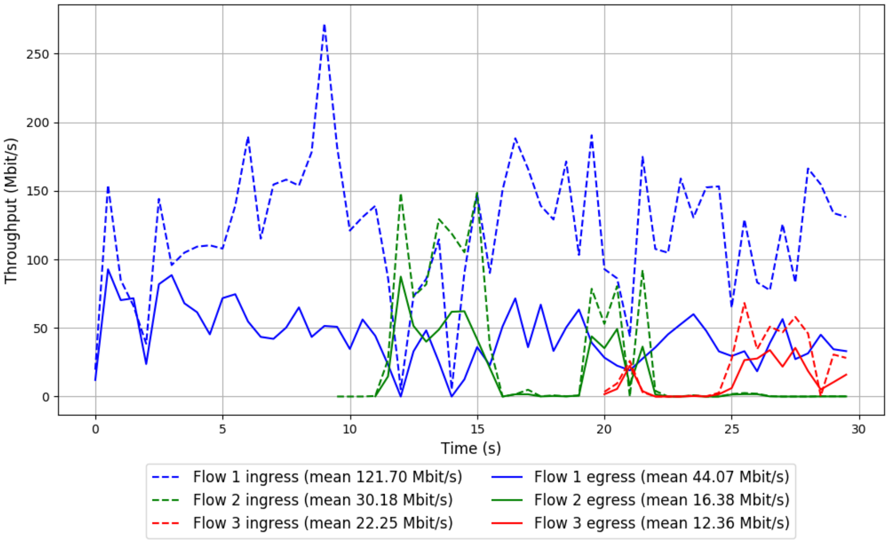
Run 4: Report of Verus — Data Link

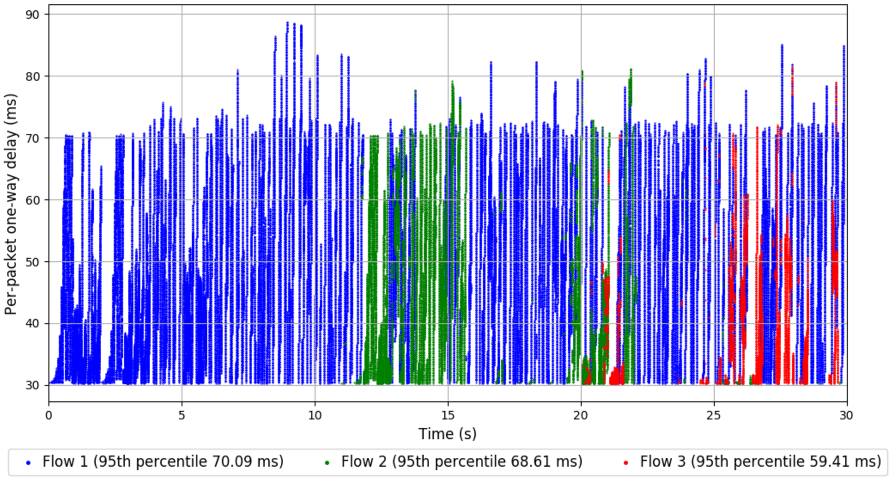




```
Run 5: Statistics of Verus

Start at: 2017-12-20 10:00:48
End at: 2017-12-20 10:01:18
Local clock offset: 0.659 ms
Remote clock offset: -1.474 ms

# Below is generated by plot.py at 2017-12-20 12:25:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.33 Mbit/s
95th percentile per-packet one-way delay: 69.707 ms
Loss rate: 60.83%
-- Flow 1:
Average throughput: 44.07 Mbit/s
95th percentile per-packet one-way delay: 70.091 ms
Loss rate: 63.76%
-- Flow 2:
Average throughput: 16.38 Mbit/s
95th percentile per-packet one-way delay: 68.613 ms
Loss rate: 48.60%
-- Flow 3:
Average throughput: 12.36 Mbit/s
95th percentile per-packet one-way delay: 59.413 ms
Loss rate: 45.64%
```

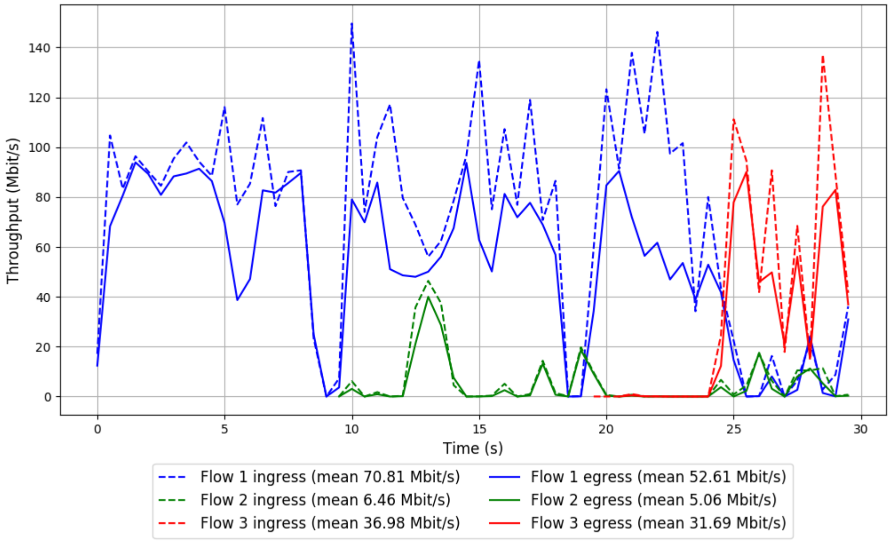
Run 5: Report of Verus — Data Link

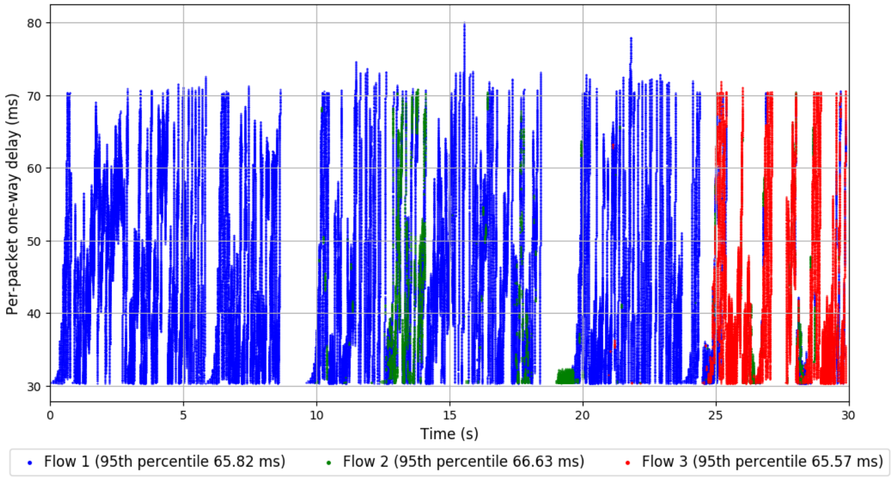




```
Run 6: Statistics of Verus

Start at: 2017-12-20 10:21:17
End at: 2017-12-20 10:21:47
Local clock offset: 0.144 ms
Remote clock offset: -1.673 ms

# Below is generated by plot.py at 2017-12-20 12:25:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.37 Mbit/s
95th percentile per-packet one-way delay: 65.824 ms
Loss rate: 25.14%
-- Flow 1:
Average throughput: 52.61 Mbit/s
95th percentile per-packet one-way delay: 65.822 ms
Loss rate: 25.72%
-- Flow 2:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 66.634 ms
Loss rate: 21.83%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 65.566 ms
Loss rate: 22.91%
```

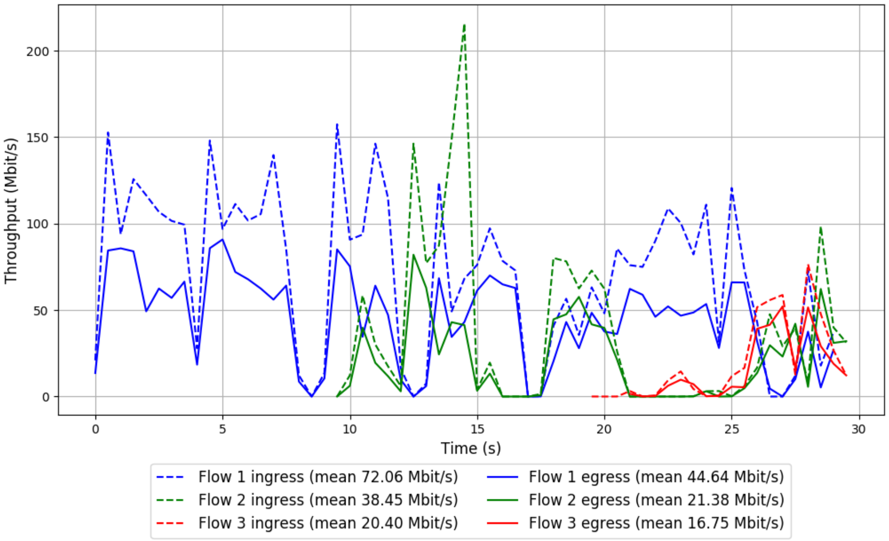
Run 6: Report of Verus — Data Link

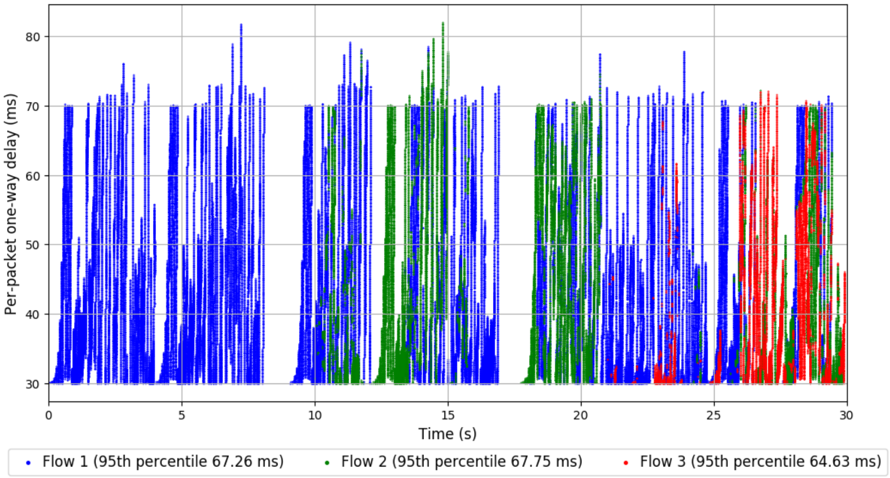




```
Run 7: Statistics of Verus

Start at: 2017-12-20 10:41:50
End at: 2017-12-20 10:42:20
Local clock offset: 0.128 ms
Remote clock offset: -2.24 ms

# Below is generated by plot.py at 2017-12-20 12:25:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.15 Mbit/s
95th percentile per-packet one-way delay: 67.229 ms
Loss rate: 38.80%
-- Flow 1:
Average throughput: 44.64 Mbit/s
95th percentile per-packet one-way delay: 67.258 ms
Loss rate: 38.00%
-- Flow 2:
Average throughput: 21.38 Mbit/s
95th percentile per-packet one-way delay: 67.749 ms
Loss rate: 44.37%
-- Flow 3:
Average throughput: 16.75 Mbit/s
95th percentile per-packet one-way delay: 64.632 ms
Loss rate: 26.09%
```

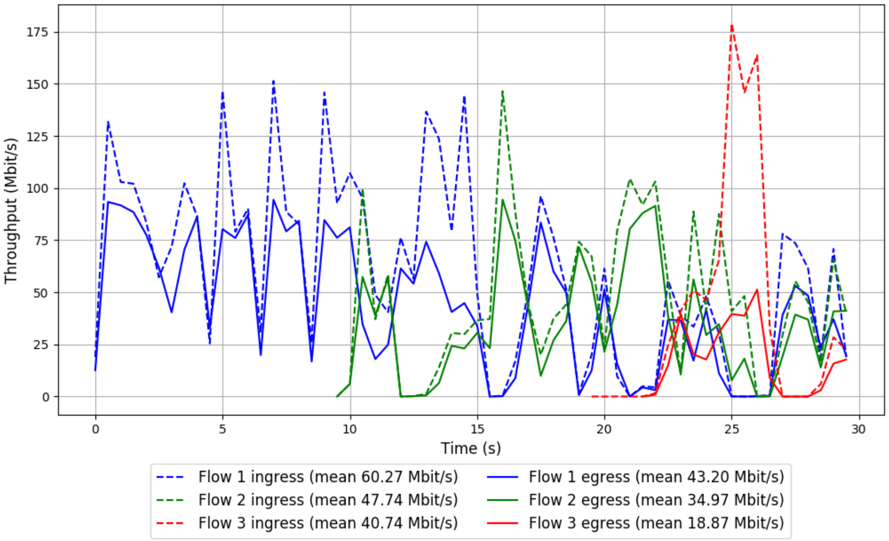
Run 7: Report of Verus — Data Link

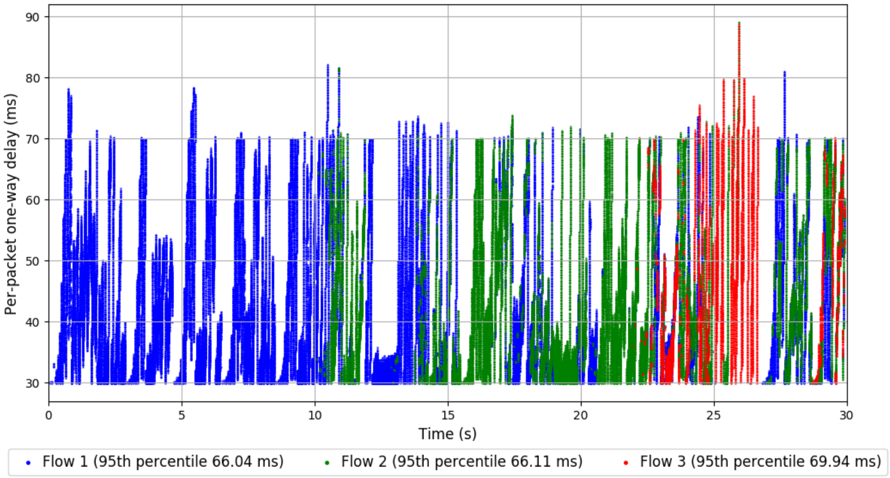




```
Run 8: Statistics of Verus

Start at: 2017-12-20 11:02:19
End at: 2017-12-20 11:02:49
Local clock offset: 0.243 ms
Remote clock offset: -2.626 ms

# Below is generated by plot.py at 2017-12-20 12:25:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.50 Mbit/s
95th percentile per-packet one-way delay: 66.388 ms
Loss rate: 32.24%
-- Flow 1:
Average throughput: 43.20 Mbit/s
95th percentile per-packet one-way delay: 66.040 ms
Loss rate: 28.26%
-- Flow 2:
Average throughput: 34.97 Mbit/s
95th percentile per-packet one-way delay: 66.110 ms
Loss rate: 26.74%
-- Flow 3:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 69.939 ms
Loss rate: 62.97%
```

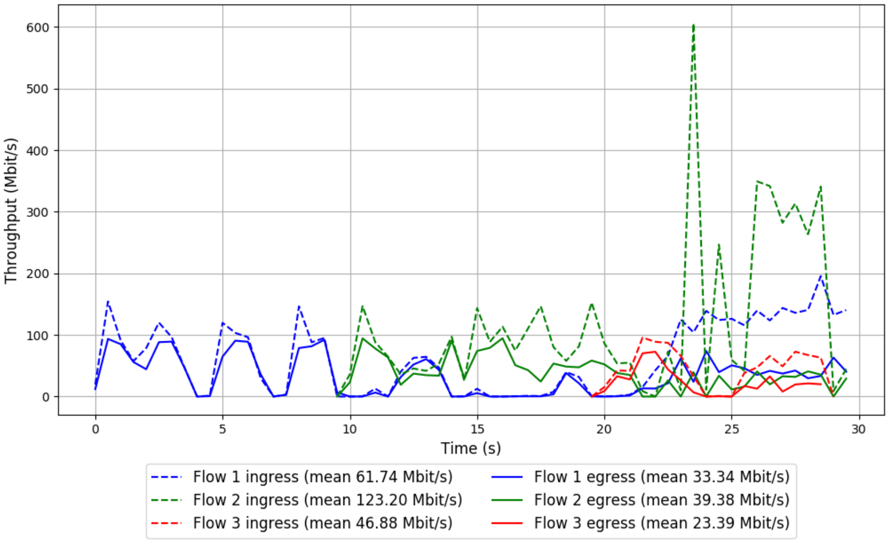
Run 8: Report of Verus — Data Link

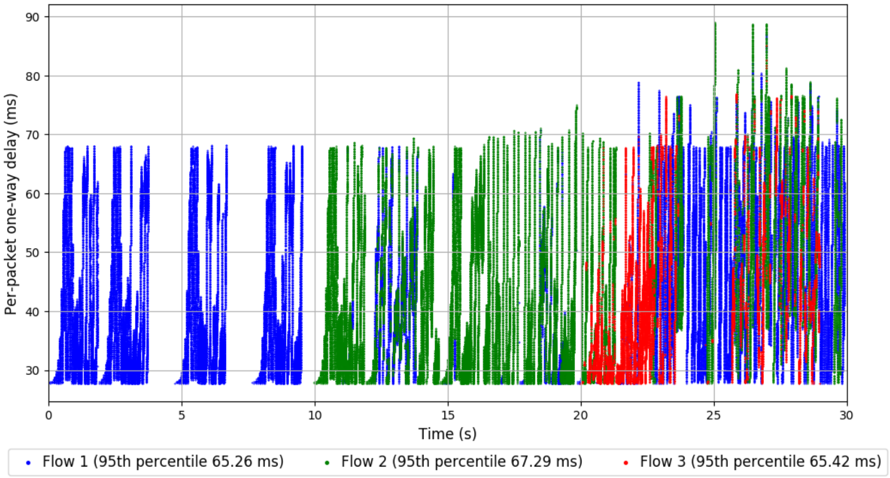




```
Run 9: Statistics of Verus

Start at: 2017-12-20 11:22:43
End at: 2017-12-20 11:23:13
Local clock offset: 0.384 ms
Remote clock offset: -5.055 ms

# Below is generated by plot.py at 2017-12-20 12:25:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.52 Mbit/s
95th percentile per-packet one-way delay: 66.038 ms
Loss rate: 57.89%
-- Flow 1:
Average throughput: 33.34 Mbit/s
95th percentile per-packet one-way delay: 65.258 ms
Loss rate: 45.93%
-- Flow 2:
Average throughput: 39.38 Mbit/s
95th percentile per-packet one-way delay: 67.286 ms
Loss rate: 68.00%
-- Flow 3:
Average throughput: 23.39 Mbit/s
95th percentile per-packet one-way delay: 65.416 ms
Loss rate: 51.82%
```

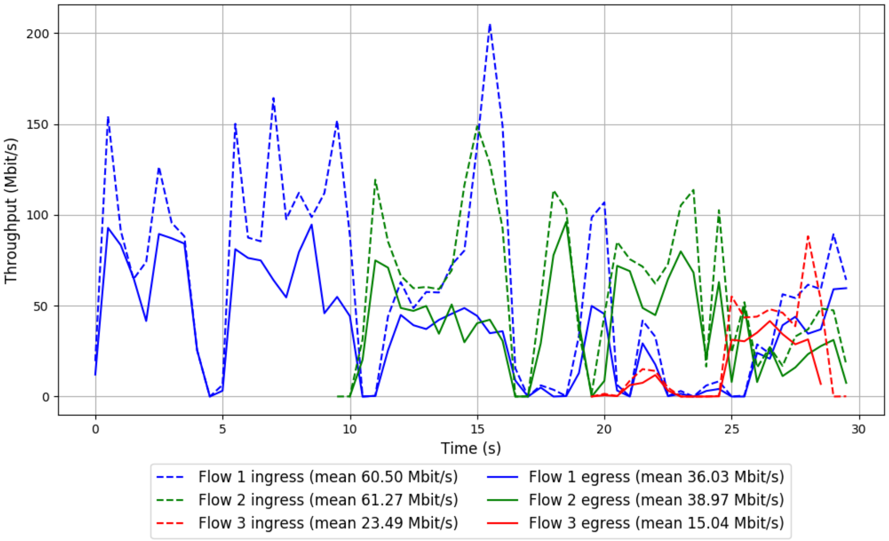
Run 9: Report of Verus — Data Link

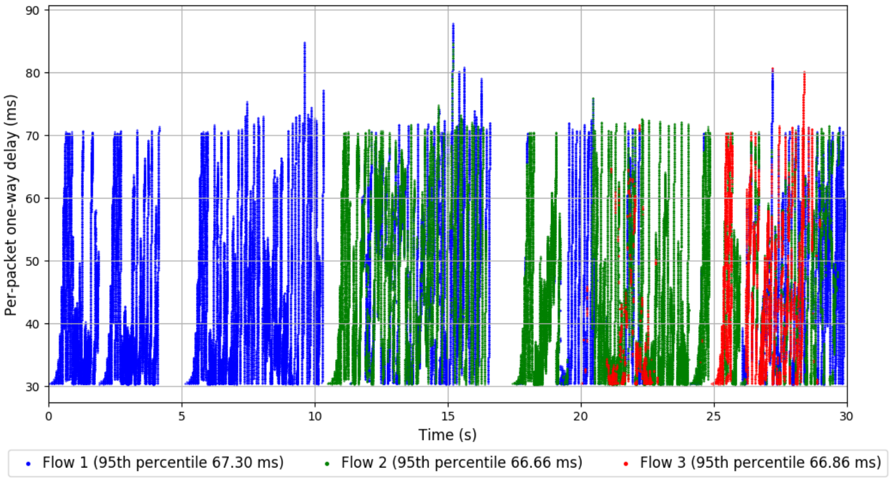




```
Run 10: Statistics of Verus

Start at: 2017-12-20 11:43:10
End at: 2017-12-20 11:43:40
Local clock offset: 0.221 ms
Remote clock offset: -2.266 ms

# Below is generated by plot.py at 2017-12-20 12:25:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.21 Mbit/s
95th percentile per-packet one-way delay: 67.016 ms
Loss rate: 39.01%
-- Flow 1:
Average throughput: 36.03 Mbit/s
95th percentile per-packet one-way delay: 67.302 ms
Loss rate: 40.39%
-- Flow 2:
Average throughput: 38.97 Mbit/s
95th percentile per-packet one-way delay: 66.664 ms
Loss rate: 36.48%
-- Flow 3:
Average throughput: 15.04 Mbit/s
95th percentile per-packet one-way delay: 66.856 ms
Loss rate: 41.56%
```

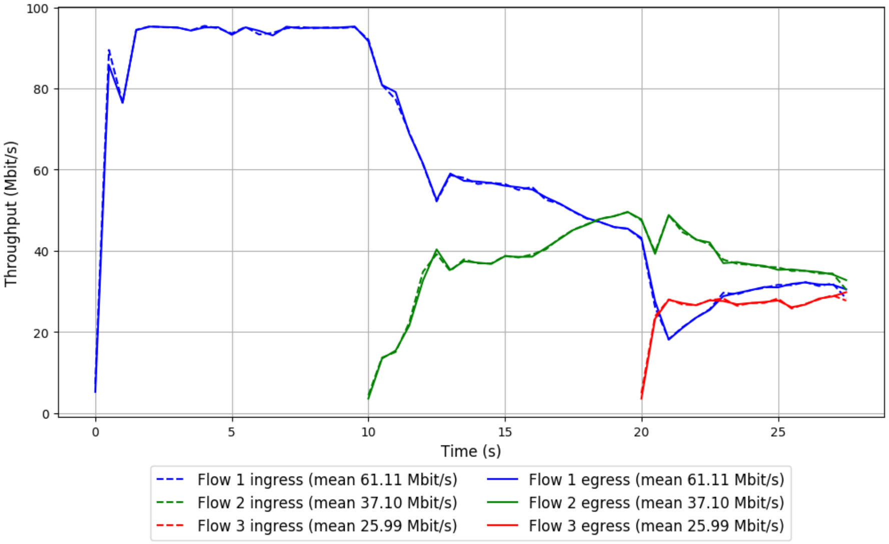
Run 10: Report of Verus — Data Link

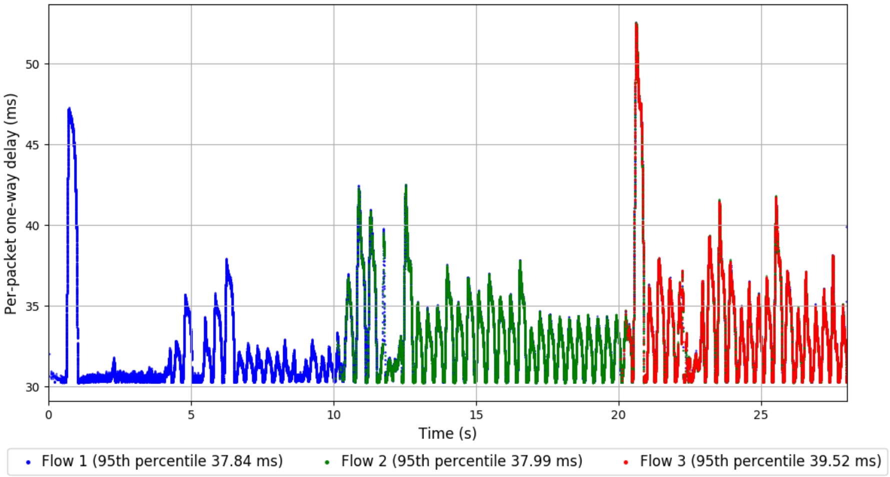




```
Run 1: Statistics of Copa

Start at: 2017-12-20 08:32:07
End at: 2017-12-20 08:32:37
Local clock offset: 1.165 ms
Remote clock offset: -0.385 ms

# Below is generated by plot.py at 2017-12-20 12:26:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.29 Mbit/s
95th percentile per-packet one-way delay: 38.068 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 61.11 Mbit/s
95th percentile per-packet one-way delay: 37.841 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 37.10 Mbit/s
95th percentile per-packet one-way delay: 37.994 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 25.99 Mbit/s
95th percentile per-packet one-way delay: 39.519 ms
Loss rate: 0.02%
```

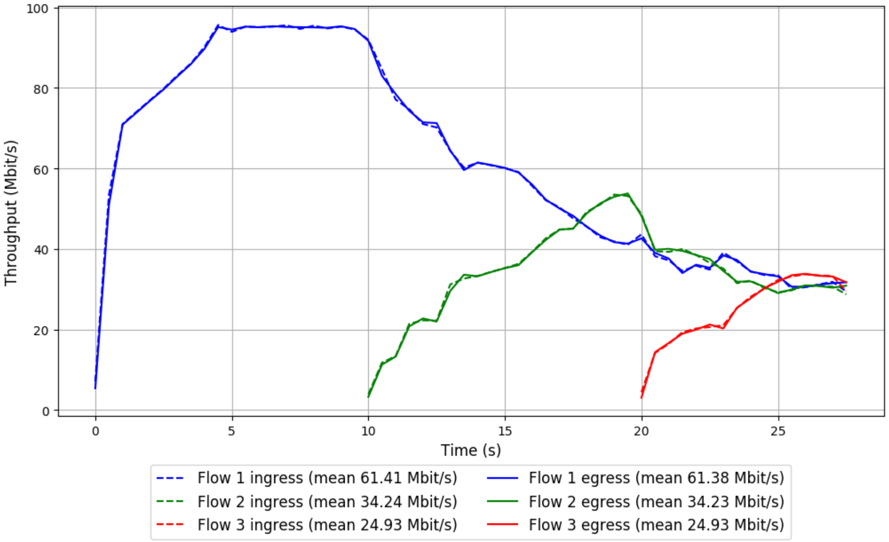
Run 1: Report of Copa — Data Link

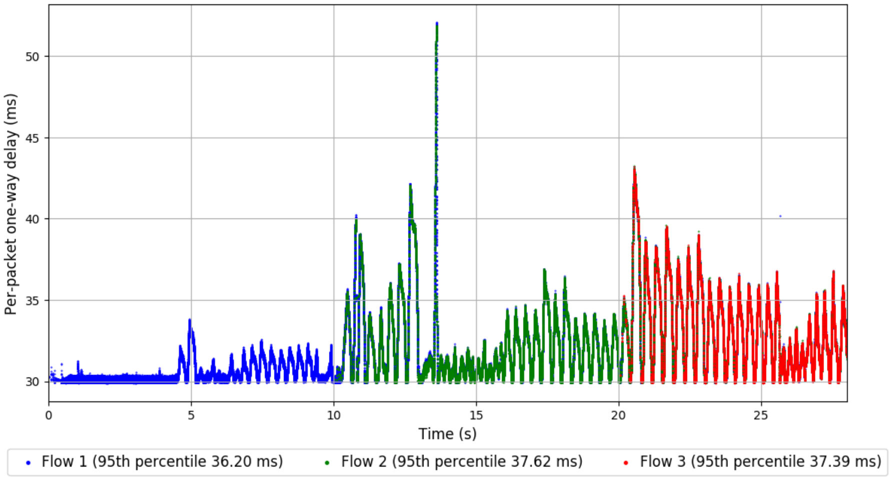




```
Run 2: Statistics of Copa

Start at: 2017-12-20 08:52:39
End at: 2017-12-20 08:53:09
Local clock offset: 1.073 ms
Remote clock offset: -1.497 ms

# Below is generated by plot.py at 2017-12-20 12:27:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.42 Mbit/s
95th percentile per-packet one-way delay: 36.772 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 36.202 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 34.23 Mbit/s
95th percentile per-packet one-way delay: 37.617 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 37.391 ms
Loss rate: 0.00%
```

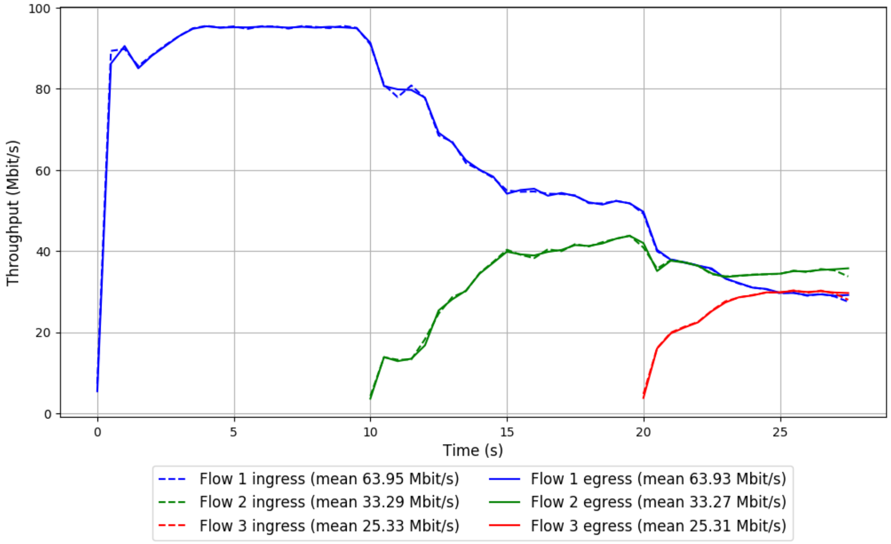
Run 2: Report of Copa — Data Link

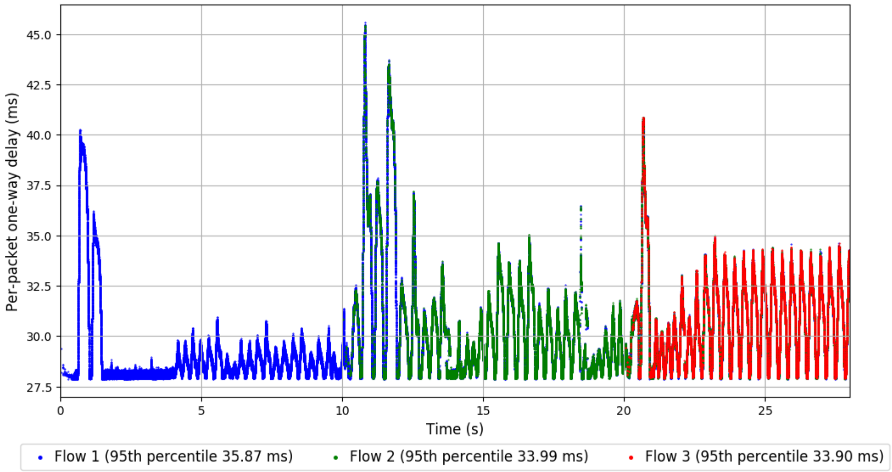




```
Run 3: Statistics of Copa

Start at: 2017-12-20 09:13:04
End at: 2017-12-20 09:13:34
Local clock offset: 0.952 ms
Remote clock offset: -3.938 ms

# Below is generated by plot.py at 2017-12-20 12:27:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.49 Mbit/s
95th percentile per-packet one-way delay: 35.218 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 63.93 Mbit/s
95th percentile per-packet one-way delay: 35.866 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 33.27 Mbit/s
95th percentile per-packet one-way delay: 33.988 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 25.31 Mbit/s
95th percentile per-packet one-way delay: 33.902 ms
Loss rate: 0.03%
```

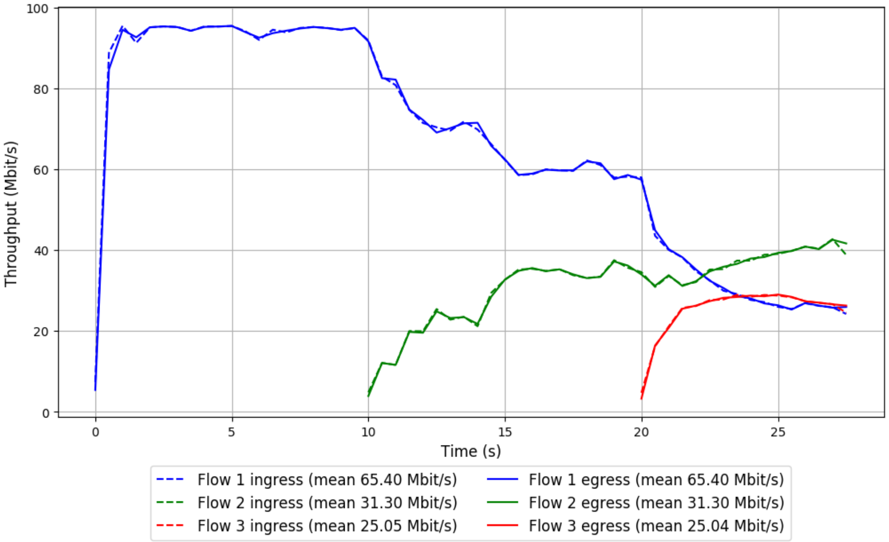
Run 3: Report of Copa — Data Link

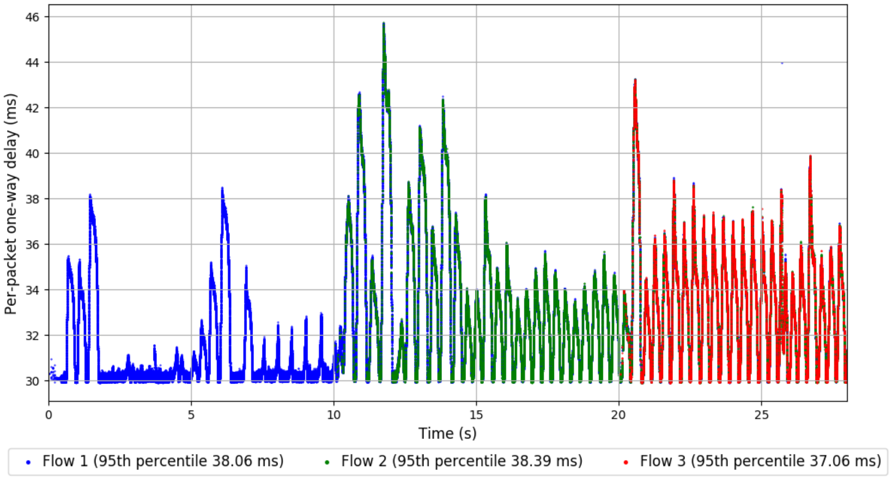




```
Run 4: Statistics of Copa

Start at: 2017-12-20 09:33:31
End at: 2017-12-20 09:34:01
Local clock offset: 0.941 ms
Remote clock offset: -1.925 ms

# Below is generated by plot.py at 2017-12-20 12:27:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.60 Mbit/s
95th percentile per-packet one-way delay: 38.048 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.40 Mbit/s
95th percentile per-packet one-way delay: 38.065 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 38.387 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.04 Mbit/s
95th percentile per-packet one-way delay: 37.058 ms
Loss rate: 0.00%
```

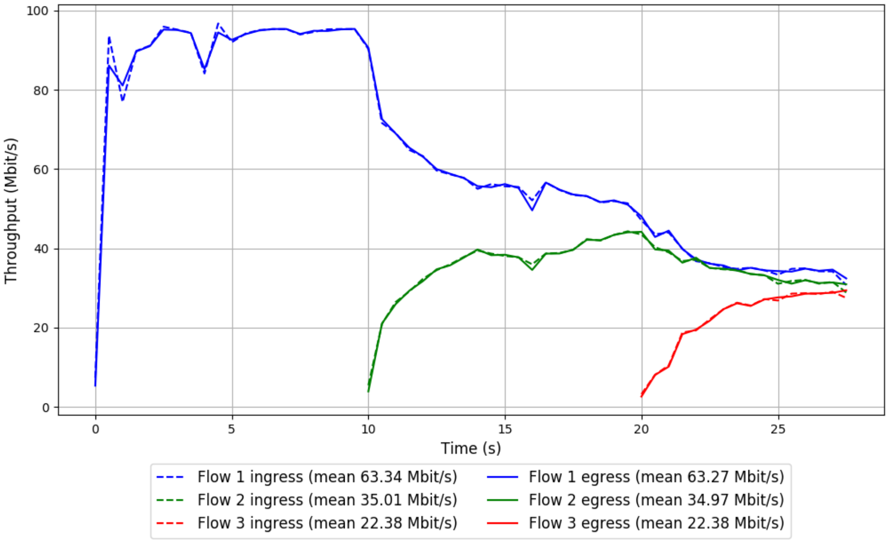
Run 4: Report of Copa — Data Link

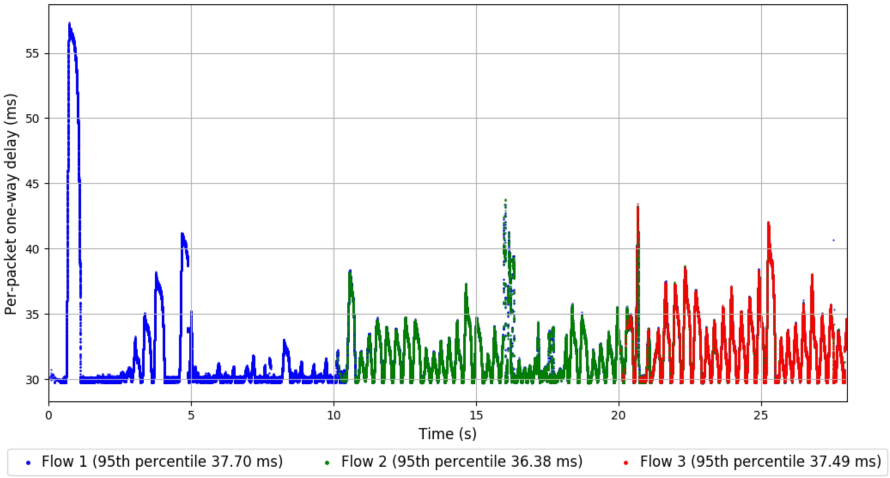




```
Run 5: Statistics of Copa

Start at: 2017-12-20 09:53:58
End at: 2017-12-20 09:54:28
Local clock offset: 0.833 ms
Remote clock offset: -2.052 ms

# Below is generated by plot.py at 2017-12-20 12:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.04 Mbit/s
95th percentile per-packet one-way delay: 37.260 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 63.27 Mbit/s
95th percentile per-packet one-way delay: 37.700 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 34.97 Mbit/s
95th percentile per-packet one-way delay: 36.380 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 22.38 Mbit/s
95th percentile per-packet one-way delay: 37.487 ms
Loss rate: 0.02%
```

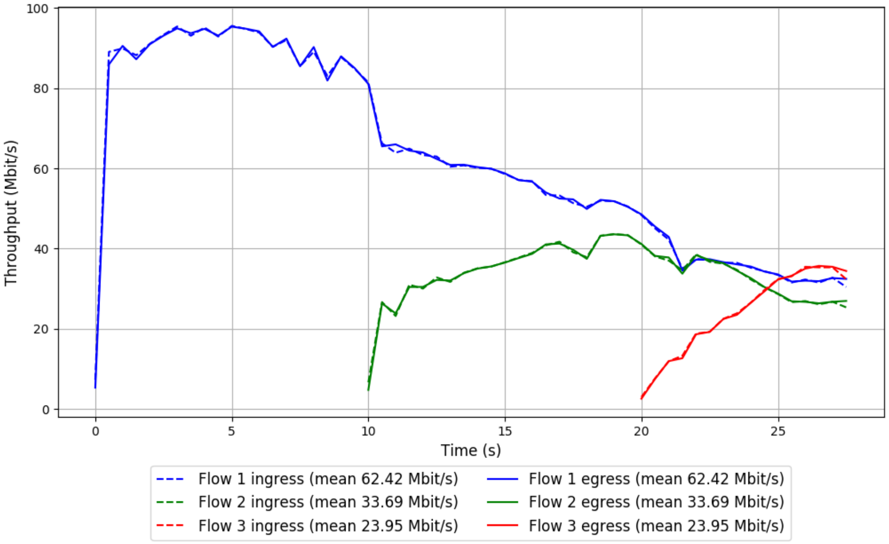
Run 5: Report of Copa — Data Link

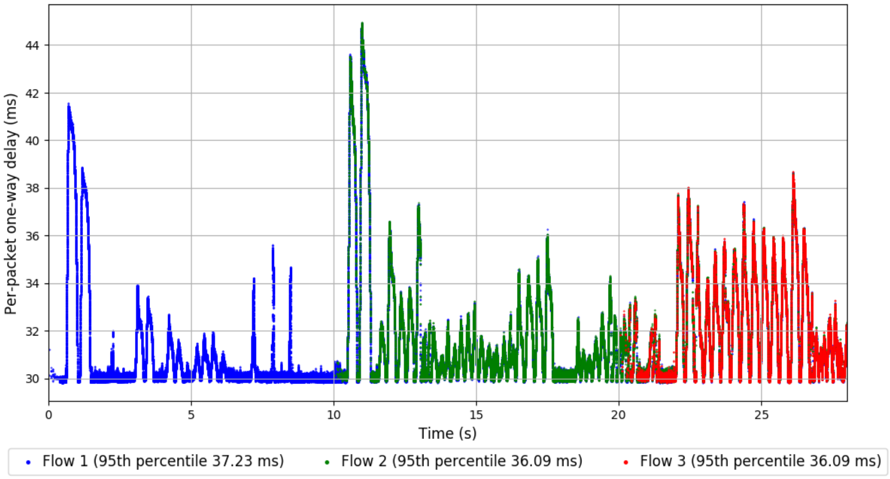




```
Run 6: Statistics of Copa

Start at: 2017-12-20 10:14:26
End at: 2017-12-20 10:14:56
Local clock offset: 0.355 ms
Remote clock offset: -2.03 ms

# Below is generated by plot.py at 2017-12-20 12:27:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.85 Mbit/s
95th percentile per-packet one-way delay: 36.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.42 Mbit/s
95th percentile per-packet one-way delay: 37.234 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.69 Mbit/s
95th percentile per-packet one-way delay: 36.087 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.95 Mbit/s
95th percentile per-packet one-way delay: 36.086 ms
Loss rate: 0.00%
```

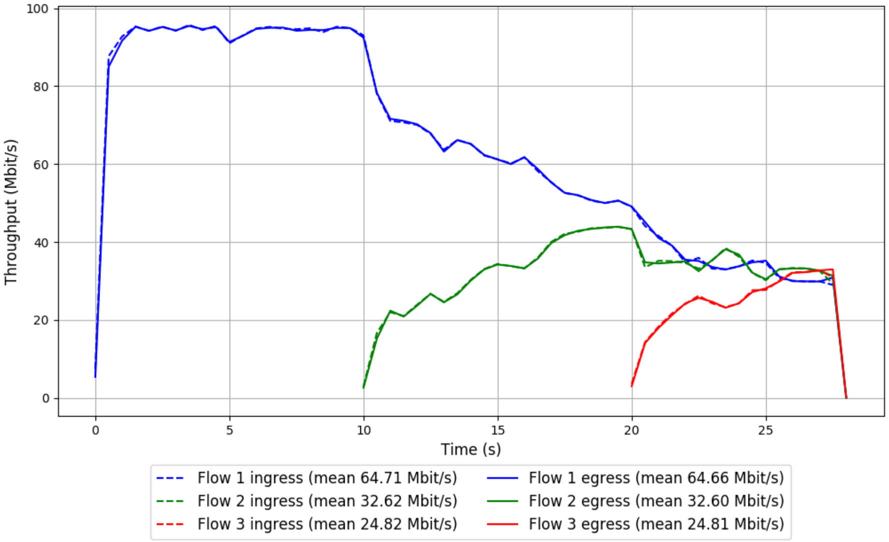
Run 6: Report of Copa — Data Link

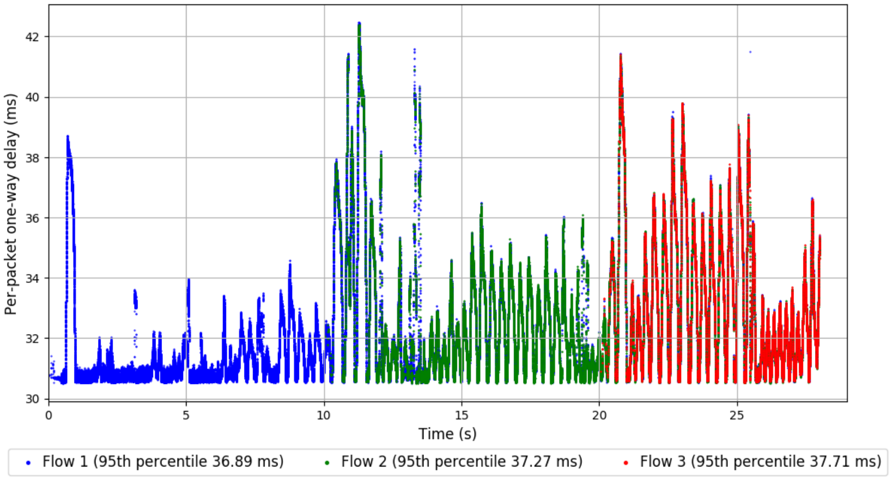




```
Run 7: Statistics of Copa

Start at: 2017-12-20 10:34:59
End at: 2017-12-20 10:35:29
Local clock offset: 0.099 ms
Remote clock offset: -1.736 ms

# Below is generated by plot.py at 2017-12-20 12:27:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.61 Mbit/s
95th percentile per-packet one-way delay: 37.078 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 64.66 Mbit/s
95th percentile per-packet one-way delay: 36.889 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 32.60 Mbit/s
95th percentile per-packet one-way delay: 37.275 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 24.81 Mbit/s
95th percentile per-packet one-way delay: 37.706 ms
Loss rate: 0.01%
```

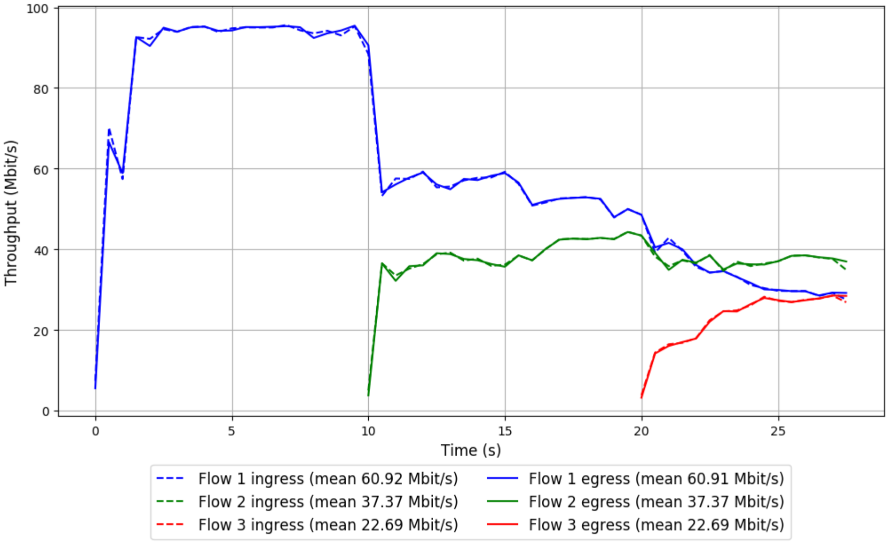
Run 7: Report of Copa — Data Link

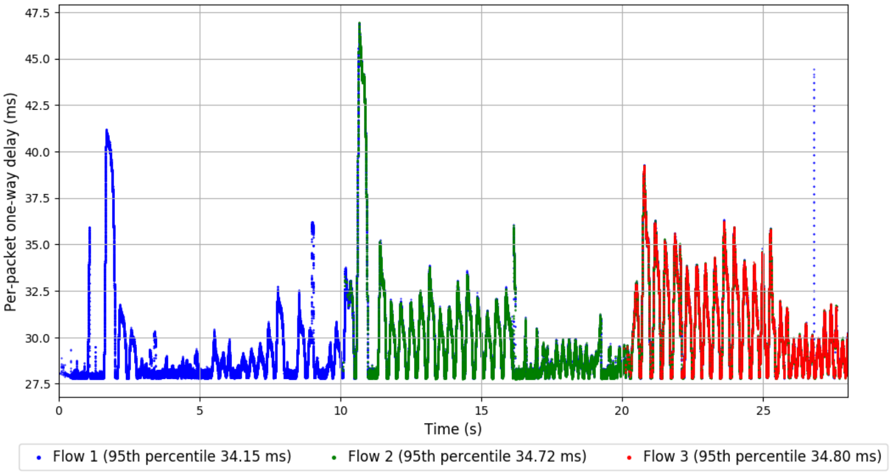




```
Run 8: Statistics of Copa

Start at: 2017-12-20 10:55:29
End at: 2017-12-20 10:55:59
Local clock offset: 0.211 ms
Remote clock offset: -4.567 ms

# Below is generated by plot.py at 2017-12-20 12:27:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.34 Mbit/s
95th percentile per-packet one-way delay: 34.471 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.91 Mbit/s
95th percentile per-packet one-way delay: 34.148 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.37 Mbit/s
95th percentile per-packet one-way delay: 34.719 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.69 Mbit/s
95th percentile per-packet one-way delay: 34.796 ms
Loss rate: 0.00%
```

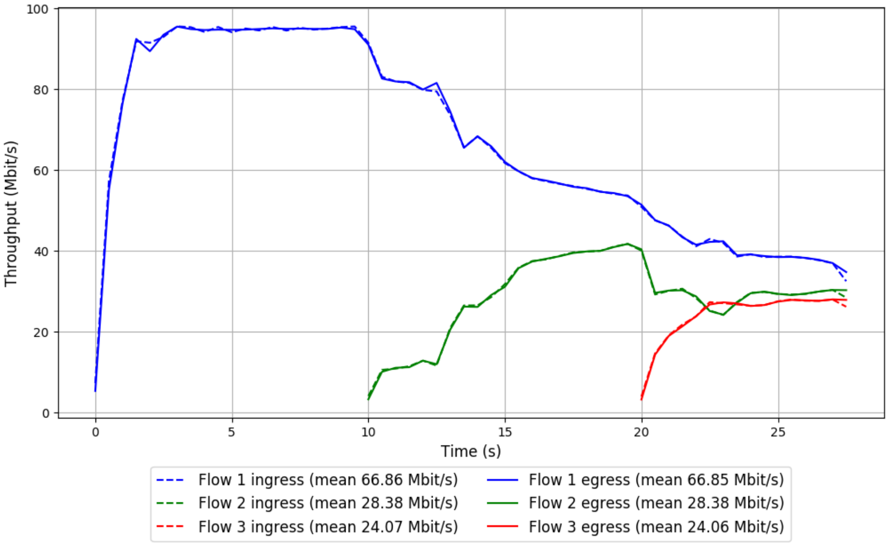
Run 8: Report of Copa — Data Link

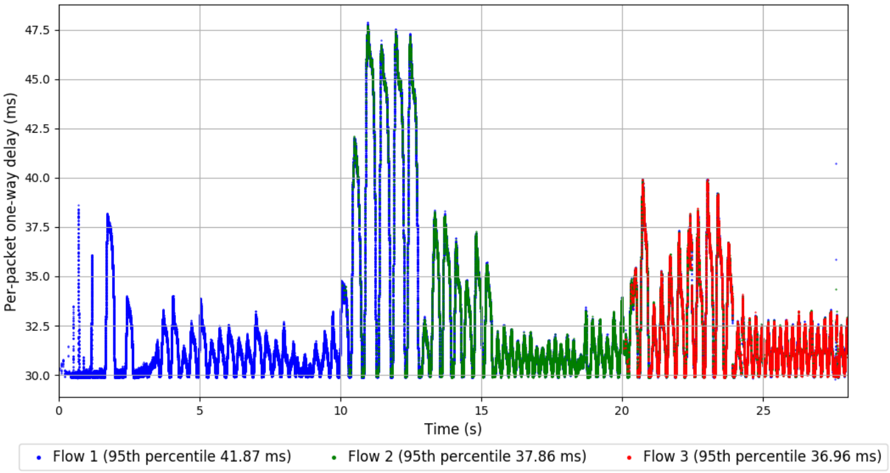




```
Run 9: Statistics of Copa

Start at: 2017-12-20 11:15:55
End at: 2017-12-20 11:16:25
Local clock offset: 0.341 ms
Remote clock offset: -2.954 ms

# Below is generated by plot.py at 2017-12-20 12:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 40.502 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 66.85 Mbit/s
95th percentile per-packet one-way delay: 41.869 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 28.38 Mbit/s
95th percentile per-packet one-way delay: 37.860 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 36.963 ms
Loss rate: 0.03%
```

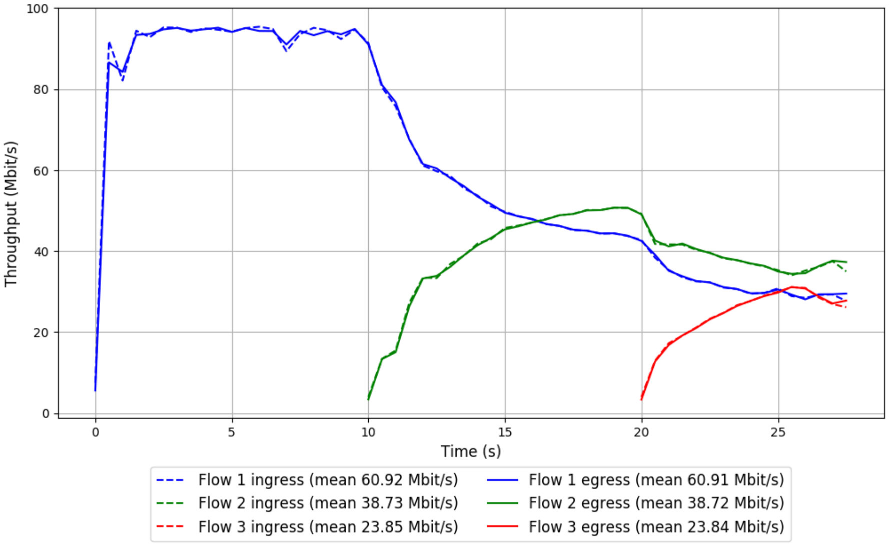
Run 9: Report of Copa — Data Link

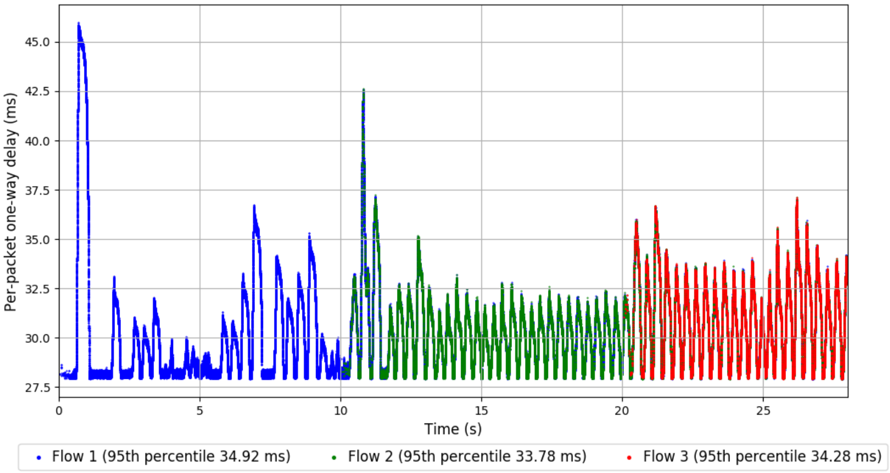




```
Run 10: Statistics of Copa

Start at: 2017-12-20 11:36:22
End at: 2017-12-20 11:36:52
Local clock offset: 0.164 ms
Remote clock offset: -4.896 ms

# Below is generated by plot.py at 2017-12-20 12:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.52 Mbit/s
95th percentile per-packet one-way delay: 34.454 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.91 Mbit/s
95th percentile per-packet one-way delay: 34.920 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 33.783 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 23.84 Mbit/s
95th percentile per-packet one-way delay: 34.285 ms
Loss rate: 0.00%
```

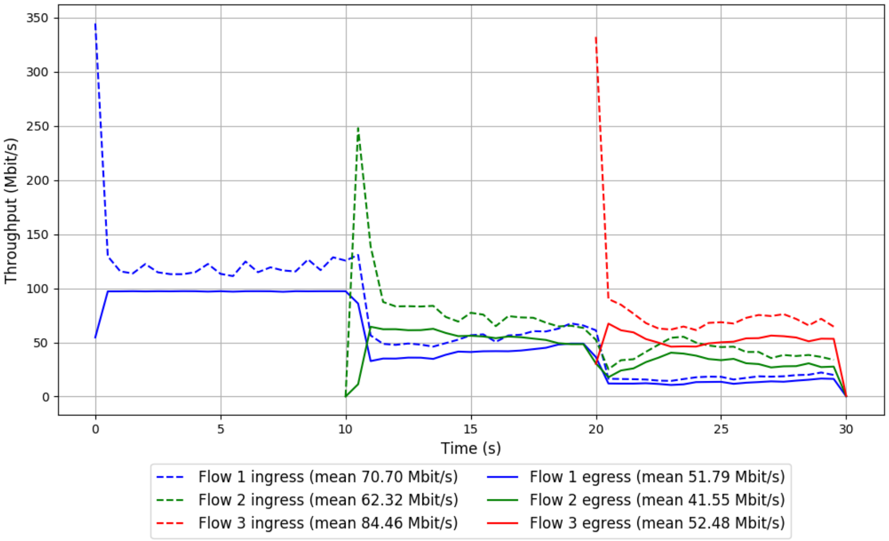
Run 10: Report of Copa — Data Link

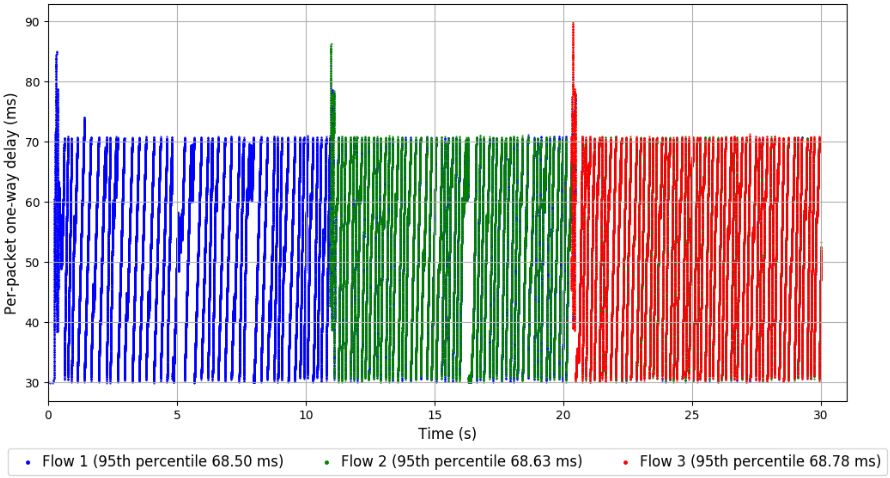




```
Run 1: Statistics of FillP

Start at: 2017-12-20 08:30:45
End at: 2017-12-20 08:31:15
Local clock offset: 1.205 ms
Remote clock offset: -0.57 ms

# Below is generated by plot.py at 2017-12-20 12:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.58 Mbit/s
95th percentile per-packet one-way delay: 68.588 ms
Loss rate: 31.06%
-- Flow 1:
Average throughput: 51.79 Mbit/s
95th percentile per-packet one-way delay: 68.501 ms
Loss rate: 26.70%
-- Flow 2:
Average throughput: 41.55 Mbit/s
95th percentile per-packet one-way delay: 68.628 ms
Loss rate: 33.86%
-- Flow 3:
Average throughput: 52.48 Mbit/s
95th percentile per-packet one-way delay: 68.785 ms
Loss rate: 37.93%
```

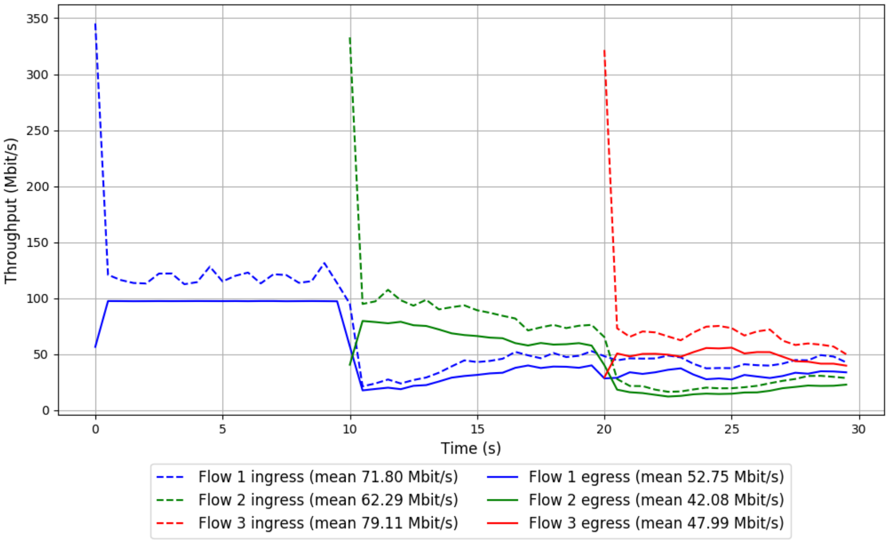
Run 1: Report of FillP — Data Link

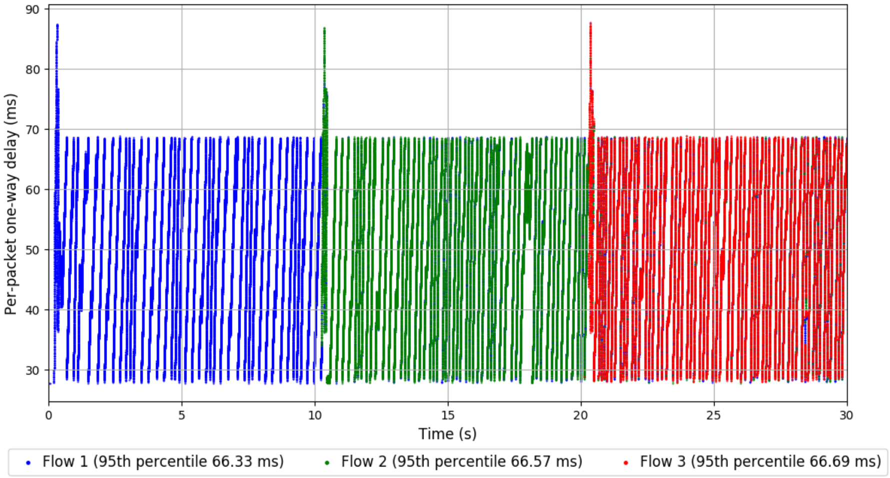




```
Run 2: Statistics of FillP

Start at: 2017-12-20 08:51:16
End at: 2017-12-20 08:51:46
Local clock offset: 1.0 ms
Remote clock offset: -3.638 ms

# Below is generated by plot.py at 2017-12-20 12:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.64 Mbit/s
95th percentile per-packet one-way delay: 66.462 ms
Loss rate: 30.69%
-- Flow 1:
Average throughput: 52.75 Mbit/s
95th percentile per-packet one-way delay: 66.328 ms
Loss rate: 26.50%
-- Flow 2:
Average throughput: 42.08 Mbit/s
95th percentile per-packet one-way delay: 66.574 ms
Loss rate: 32.44%
-- Flow 3:
Average throughput: 47.99 Mbit/s
95th percentile per-packet one-way delay: 66.689 ms
Loss rate: 39.40%
```

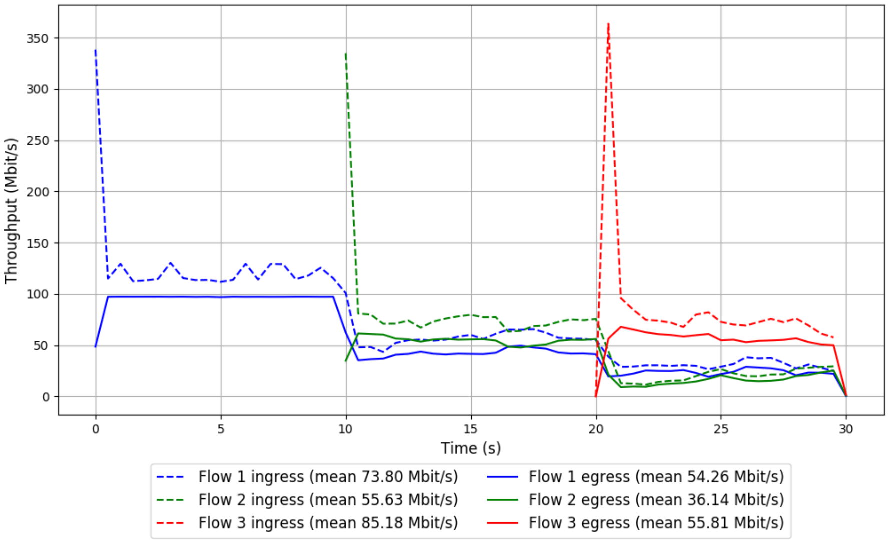
Run 2: Report of FillP — Data Link

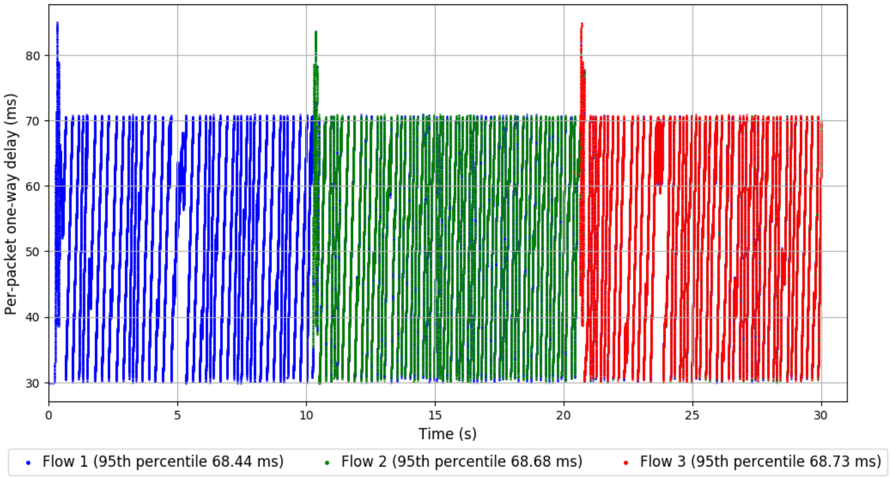




```
Run 3: Statistics of FillP

Start at: 2017-12-20 09:11:43
End at: 2017-12-20 09:12:13
Local clock offset: 1.028 ms
Remote clock offset: -1.856 ms

# Below is generated by plot.py at 2017-12-20 12:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.51 Mbit/s
95th percentile per-packet one-way delay: 68.554 ms
Loss rate: 30.52%
-- Flow 1:
Average throughput: 54.26 Mbit/s
95th percentile per-packet one-way delay: 68.439 ms
Loss rate: 26.40%
-- Flow 2:
Average throughput: 36.14 Mbit/s
95th percentile per-packet one-way delay: 68.683 ms
Loss rate: 34.95%
-- Flow 3:
Average throughput: 55.81 Mbit/s
95th percentile per-packet one-way delay: 68.726 ms
Loss rate: 35.49%
```

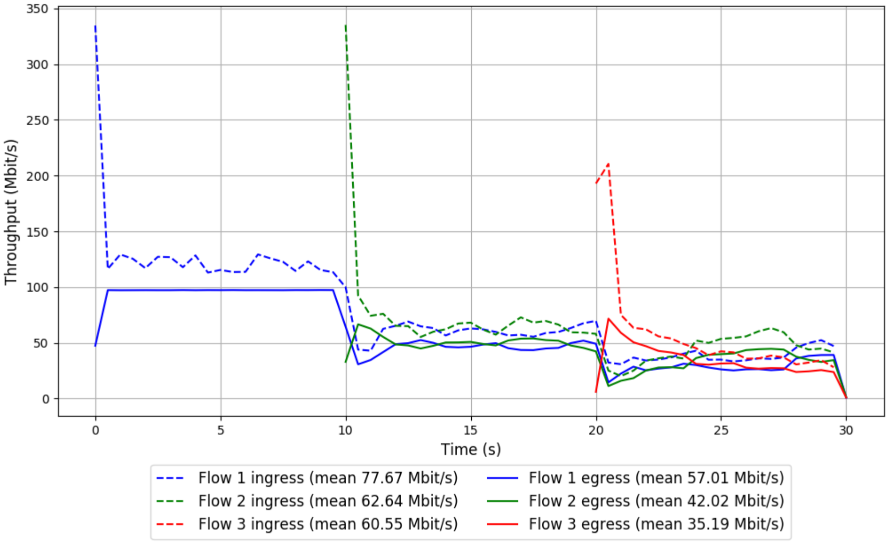
Run 3: Report of FillP — Data Link

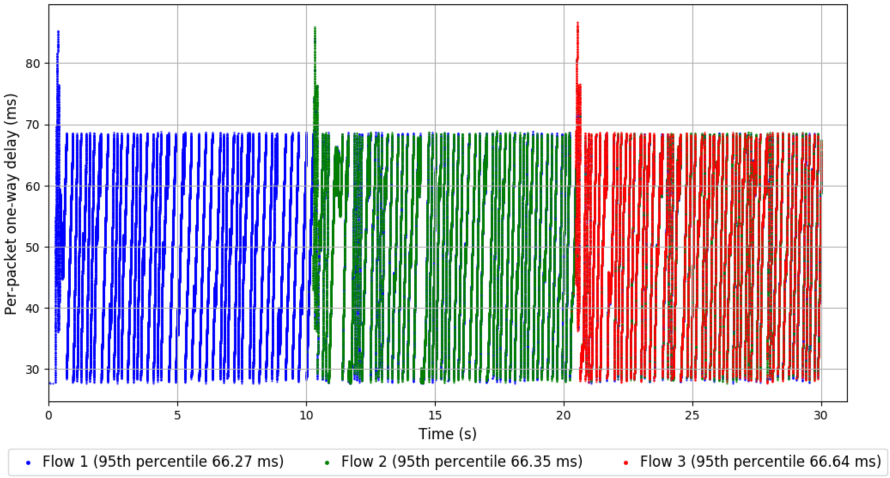




```
Run 4: Statistics of FillP

Start at: 2017-12-20 09:32:09
End at: 2017-12-20 09:32:39
Local clock offset: 0.94 ms
Remote clock offset: -4.124 ms

# Below is generated by plot.py at 2017-12-20 12:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.45 Mbit/s
95th percentile per-packet one-way delay: 66.339 ms
Loss rate: 30.74%
-- Flow 1:
Average throughput: 57.01 Mbit/s
95th percentile per-packet one-way delay: 66.268 ms
Loss rate: 26.52%
-- Flow 2:
Average throughput: 42.02 Mbit/s
95th percentile per-packet one-way delay: 66.348 ms
Loss rate: 32.81%
-- Flow 3:
Average throughput: 35.19 Mbit/s
95th percentile per-packet one-way delay: 66.640 ms
Loss rate: 42.77%
```

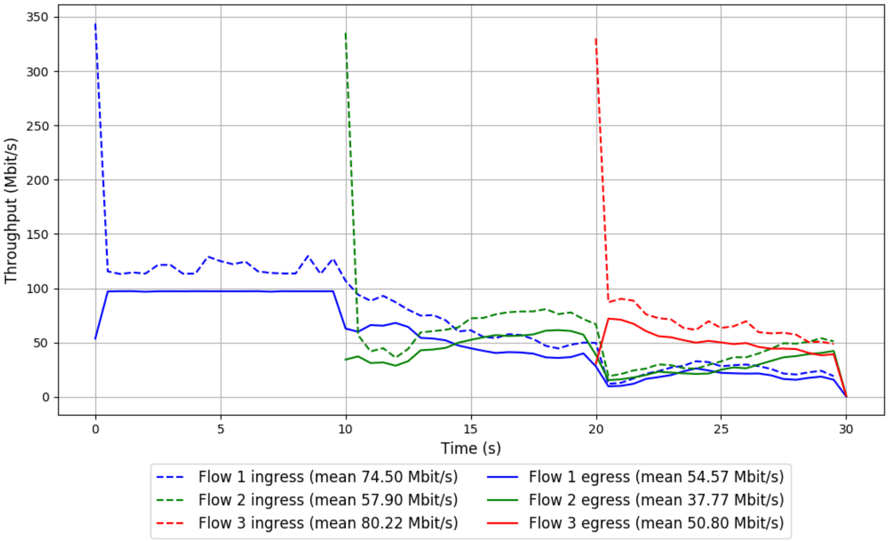
Run 4: Report of FillP — Data Link

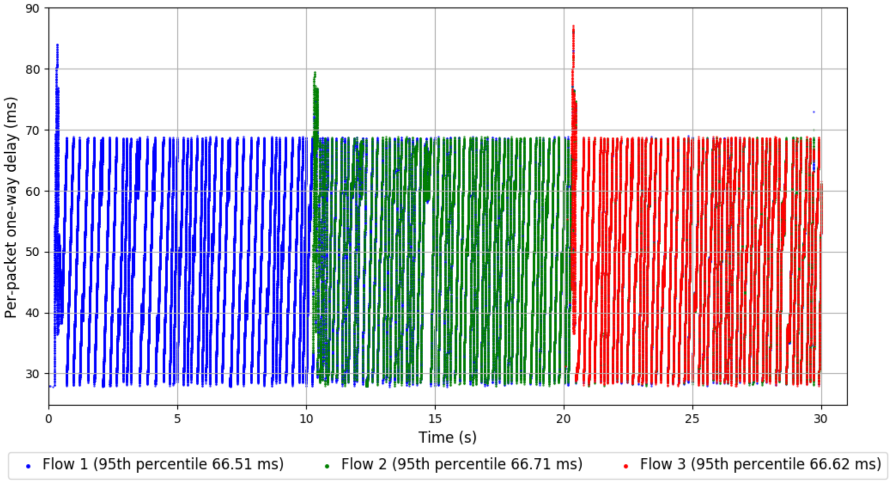




```
Run 5: Statistics of FillP

Start at: 2017-12-20 09:52:36
End at: 2017-12-20 09:53:06
Local clock offset: 0.773 ms
Remote clock offset: -3.985 ms

# Below is generated by plot.py at 2017-12-20 12:29:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.58 Mbit/s
95th percentile per-packet one-way delay: 66.578 ms
Loss rate: 30.75%
-- Flow 1:
Average throughput: 54.57 Mbit/s
95th percentile per-packet one-way delay: 66.510 ms
Loss rate: 26.67%
-- Flow 2:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 66.710 ms
Loss rate: 34.69%
-- Flow 3:
Average throughput: 50.80 Mbit/s
95th percentile per-packet one-way delay: 66.622 ms
Loss rate: 36.48%
```

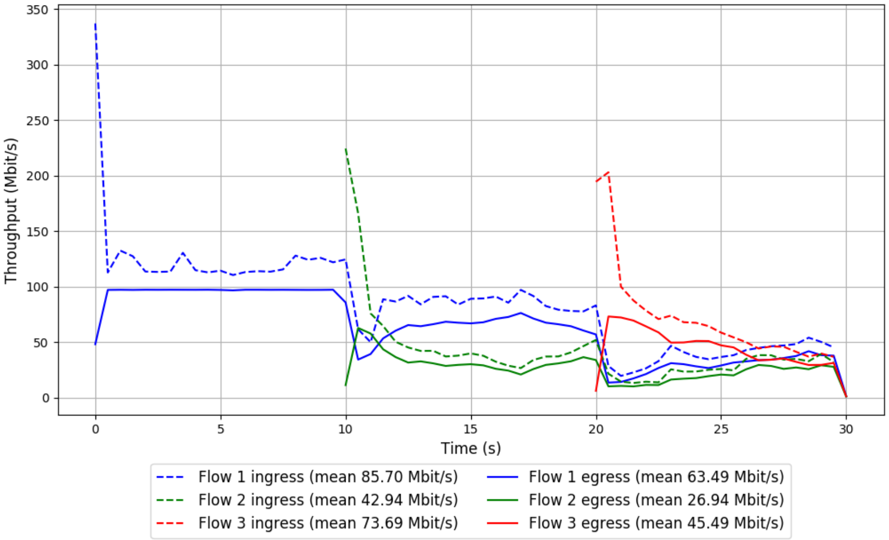
Run 5: Report of FillP — Data Link

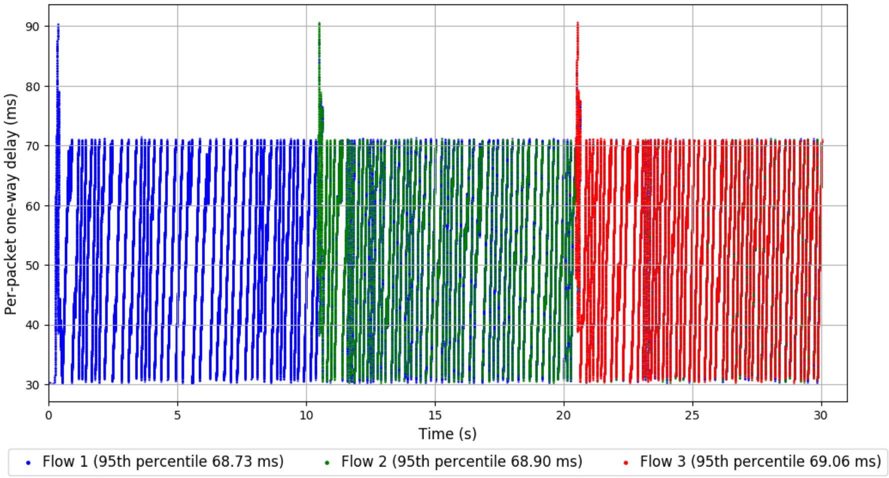




```
Run 6: Statistics of FillP

Start at: 2017-12-20 10:13:03
End at: 2017-12-20 10:13:33
Local clock offset: 0.408 ms
Remote clock offset: -1.639 ms

# Below is generated by plot.py at 2017-12-20 12:29:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 68.804 ms
Loss rate: 30.34%
-- Flow 1:
Average throughput: 63.49 Mbit/s
95th percentile per-packet one-way delay: 68.728 ms
Loss rate: 25.82%
-- Flow 2:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 68.898 ms
Loss rate: 37.24%
-- Flow 3:
Average throughput: 45.49 Mbit/s
95th percentile per-packet one-way delay: 69.058 ms
Loss rate: 38.14%
```

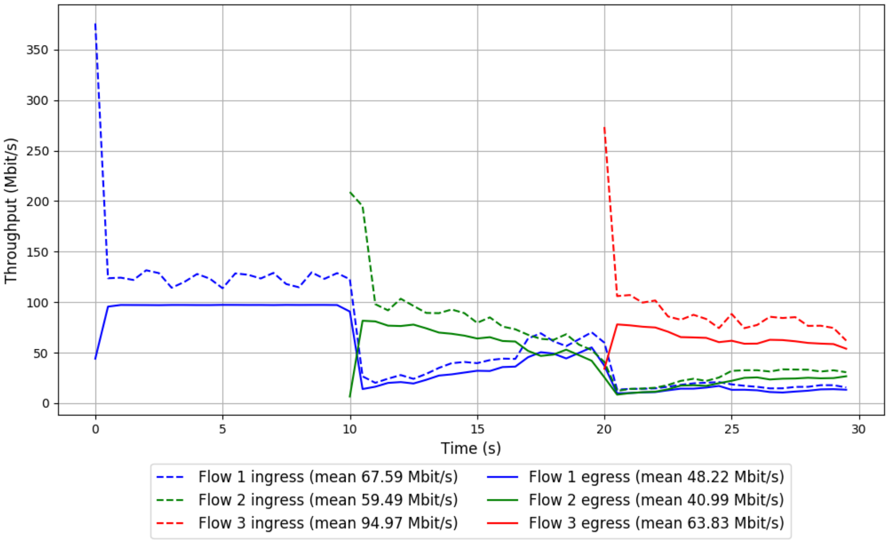
Run 6: Report of FillP — Data Link

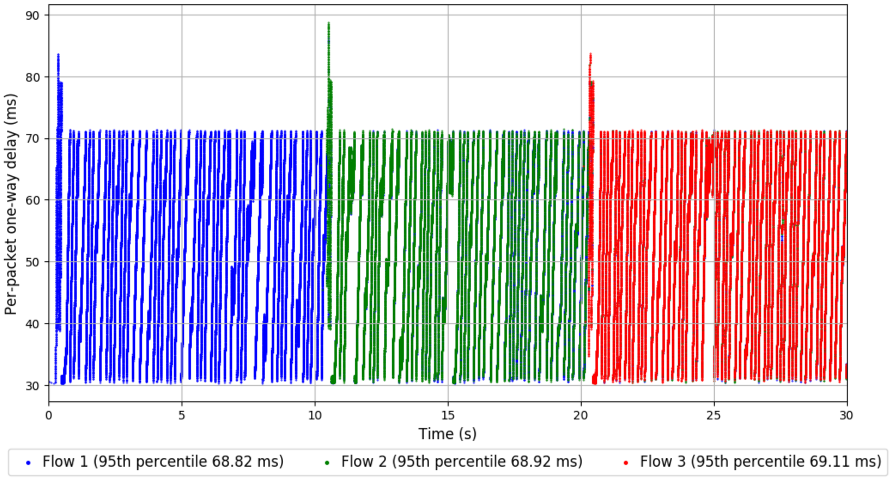




```
Run 7: Statistics of FillP

Start at: 2017-12-20 10:33:37
End at: 2017-12-20 10:34:07
Local clock offset: 0.107 ms
Remote clock offset: -1.893 ms

# Below is generated by plot.py at 2017-12-20 12:30:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 68.913 ms
Loss rate: 30.52%
-- Flow 1:
Average throughput: 48.22 Mbit/s
95th percentile per-packet one-way delay: 68.820 ms
Loss rate: 28.65%
-- Flow 2:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 68.920 ms
Loss rate: 31.73%
-- Flow 3:
Average throughput: 63.83 Mbit/s
95th percentile per-packet one-way delay: 69.107 ms
Loss rate: 33.02%
```

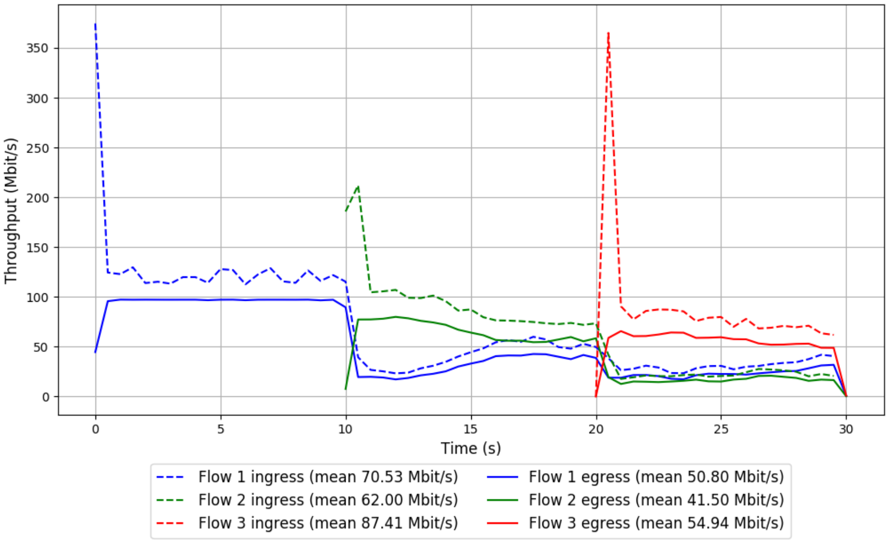
Run 7: Report of FillP — Data Link

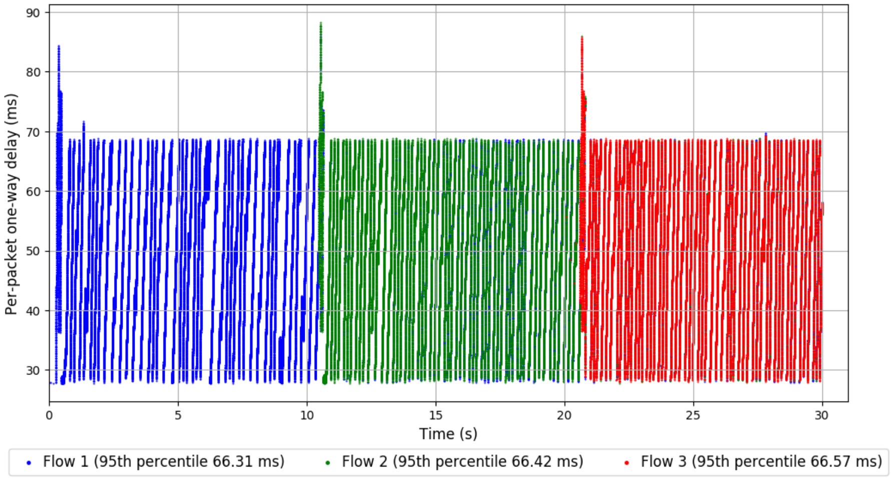




```
Run 8: Statistics of FillP

Start at: 2017-12-20 10:54:07
End at: 2017-12-20 10:54:37
Local clock offset: 0.222 ms
Remote clock offset: -4.532 ms

# Below is generated by plot.py at 2017-12-20 12:30:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.40 Mbit/s
95th percentile per-packet one-way delay: 66.390 ms
Loss rate: 31.46%
-- Flow 1:
Average throughput: 50.80 Mbit/s
95th percentile per-packet one-way delay: 66.314 ms
Loss rate: 27.90%
-- Flow 2:
Average throughput: 41.50 Mbit/s
95th percentile per-packet one-way delay: 66.425 ms
Loss rate: 33.56%
-- Flow 3:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 66.569 ms
Loss rate: 37.14%
```

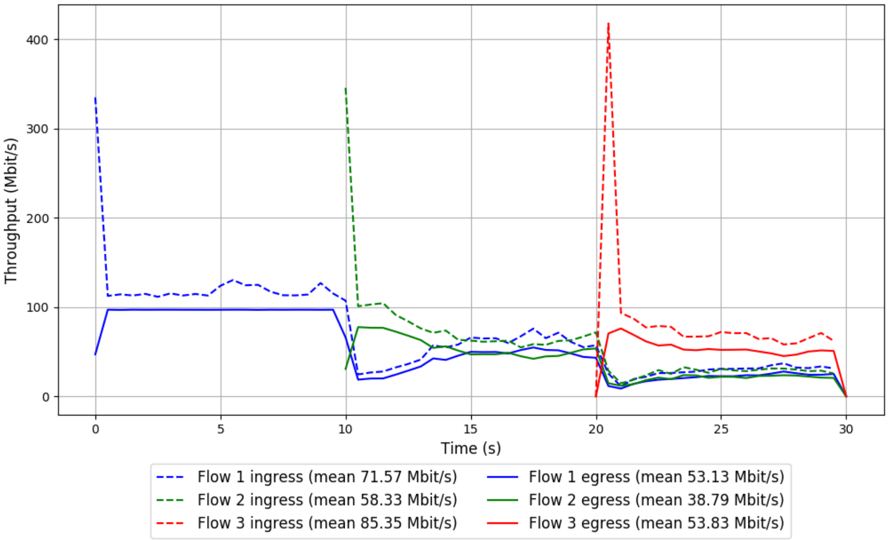
Run 8: Report of FillP — Data Link

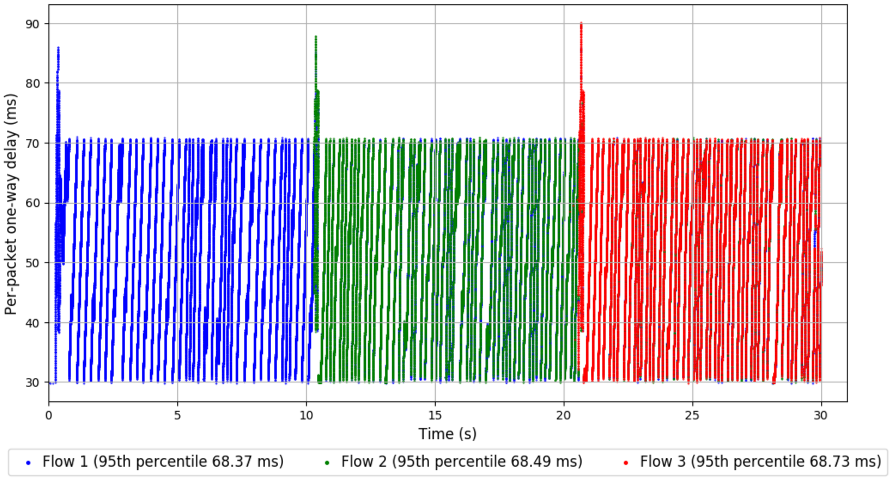




```
Run 9: Statistics of FillP

Start at: 2017-12-20 11:14:33
End at: 2017-12-20 11:15:03
Local clock offset: 0.345 ms
Remote clock offset: -2.935 ms

# Below is generated by plot.py at 2017-12-20 12:30:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.47 Mbit/s
95th percentile per-packet one-way delay: 68.472 ms
Loss rate: 30.40%
-- Flow 1:
Average throughput: 53.13 Mbit/s
95th percentile per-packet one-way delay: 68.371 ms
Loss rate: 25.71%
-- Flow 2:
Average throughput: 38.79 Mbit/s
95th percentile per-packet one-way delay: 68.487 ms
Loss rate: 33.56%
-- Flow 3:
Average throughput: 53.83 Mbit/s
95th percentile per-packet one-way delay: 68.735 ms
Loss rate: 37.93%
```

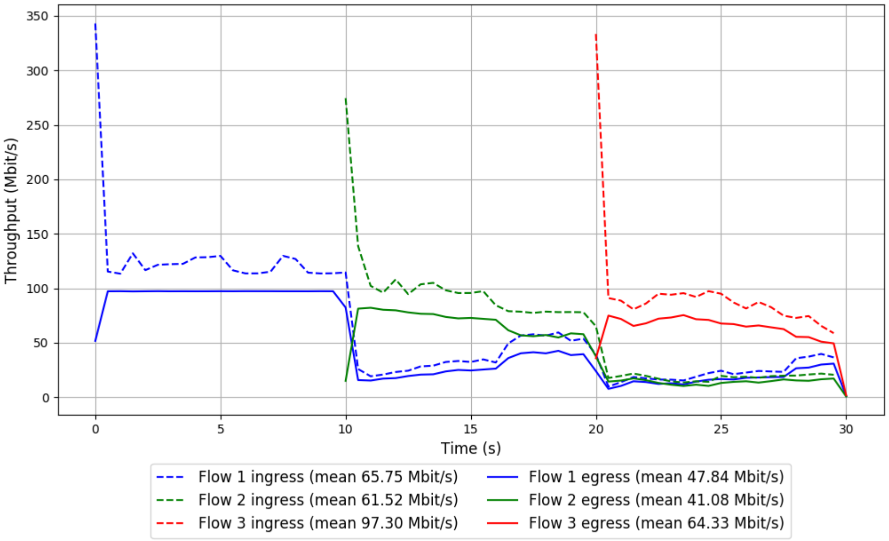
Run 9: Report of FillP — Data Link

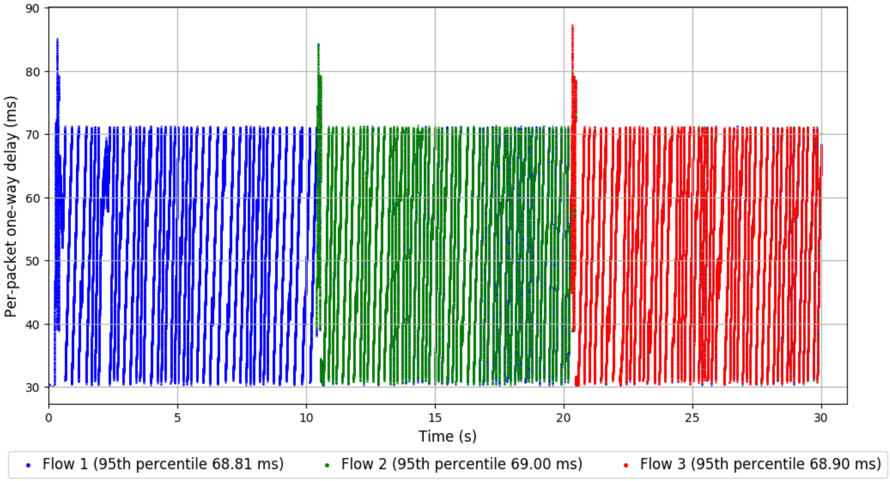




```
Run 10: Statistics of FillP

Start at: 2017-12-20 11:35:00
End at: 2017-12-20 11:35:30
Local clock offset: 0.157 ms
Remote clock offset: -2.533 ms

# Below is generated by plot.py at 2017-12-20 12:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.56 Mbit/s
95th percentile per-packet one-way delay: 68.882 ms
Loss rate: 30.44%
-- Flow 1:
Average throughput: 47.84 Mbit/s
95th percentile per-packet one-way delay: 68.807 ms
Loss rate: 27.16%
-- Flow 2:
Average throughput: 41.08 Mbit/s
95th percentile per-packet one-way delay: 68.995 ms
Loss rate: 33.18%
-- Flow 3:
Average throughput: 64.33 Mbit/s
95th percentile per-packet one-way delay: 68.899 ms
Loss rate: 33.63%
```

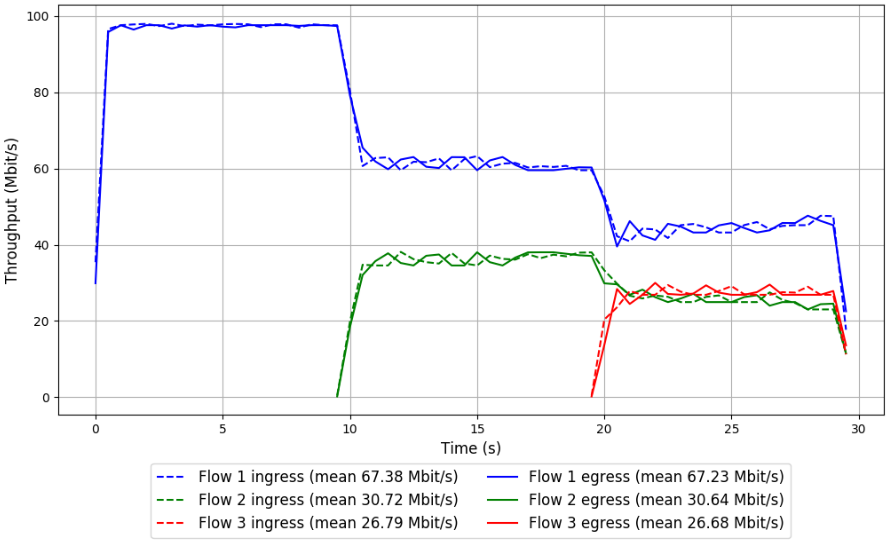
Run 10: Report of FillP — Data Link

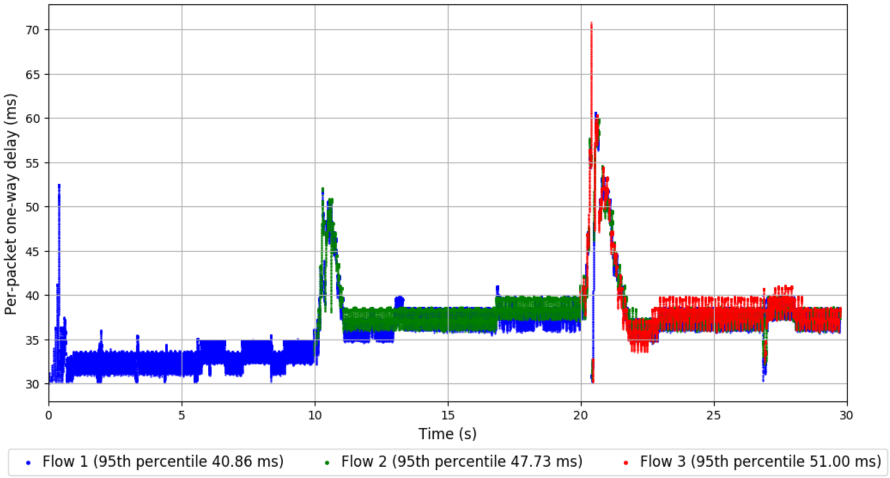




```
Run 1: Statistics of Indigo

Start at: 2017-12-20 08:29:21
End at: 2017-12-20 08:29:51
Local clock offset: 1.236 ms
Remote clock offset: -0.23 ms

# Below is generated by plot.py at 2017-12-20 12:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.36 Mbit/s
95th percentile per-packet one-way delay: 44.405 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 67.23 Mbit/s
95th percentile per-packet one-way delay: 40.864 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 30.64 Mbit/s
95th percentile per-packet one-way delay: 47.729 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 26.68 Mbit/s
95th percentile per-packet one-way delay: 51.004 ms
Loss rate: 0.41%
```

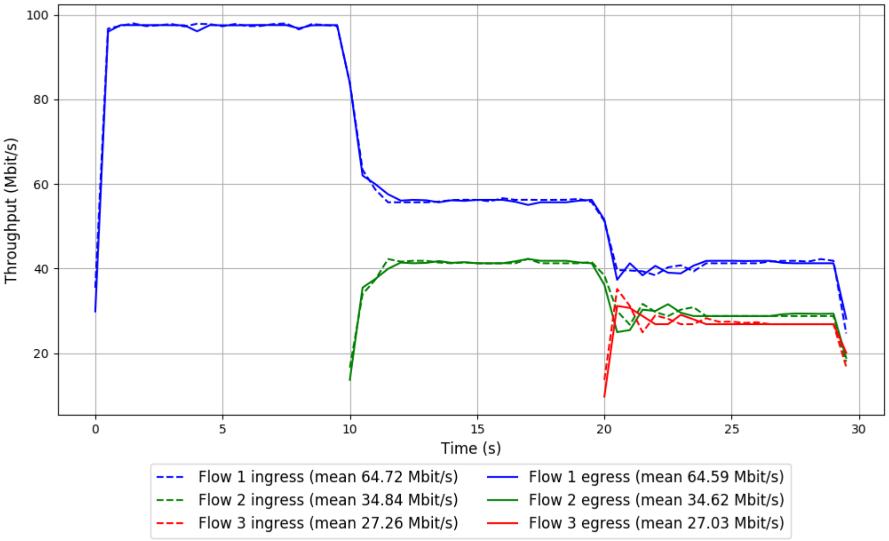
Run 1: Report of Indigo — Data Link

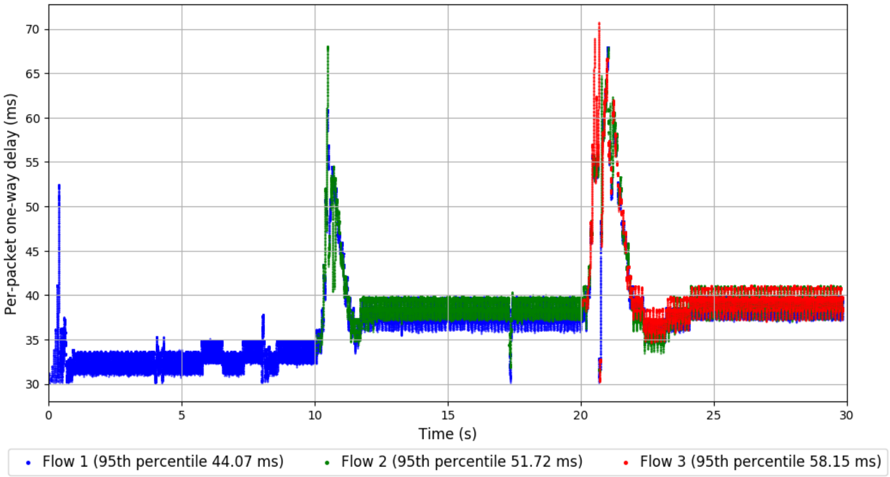




```
Run 2: Statistics of Indigo

Start at: 2017-12-20 08:49:52
End at: 2017-12-20 08:50:22
Local clock offset: 1.106 ms
Remote clock offset: -1.071 ms

# Below is generated by plot.py at 2017-12-20 12:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.36 Mbit/s
95th percentile per-packet one-way delay: 48.285 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 64.59 Mbit/s
95th percentile per-packet one-way delay: 44.072 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 51.719 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 27.03 Mbit/s
95th percentile per-packet one-way delay: 58.149 ms
Loss rate: 0.86%
```

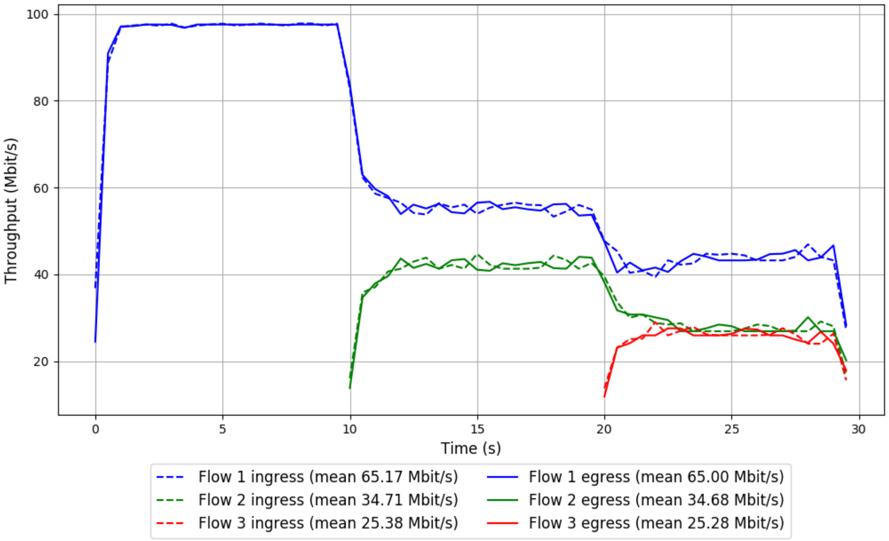
Run 2: Report of Indigo — Data Link

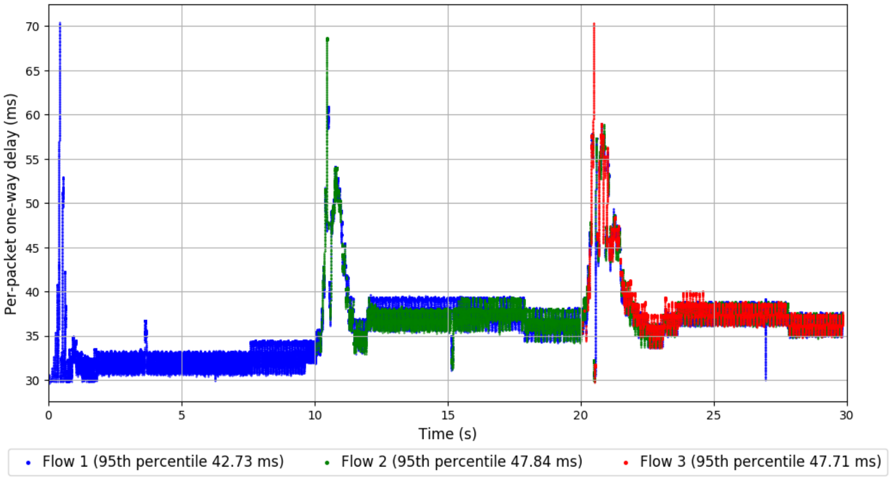




```
Run 3: Statistics of Indigo

Start at: 2017-12-20 09:10:19
End at: 2017-12-20 09:10:49
Local clock offset: 1.059 ms
Remote clock offset: -1.936 ms

# Below is generated by plot.py at 2017-12-20 12:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.22 Mbit/s
95th percentile per-packet one-way delay: 45.766 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 65.00 Mbit/s
95th percentile per-packet one-way delay: 42.730 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 34.68 Mbit/s
95th percentile per-packet one-way delay: 47.843 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 25.28 Mbit/s
95th percentile per-packet one-way delay: 47.708 ms
Loss rate: 0.39%
```

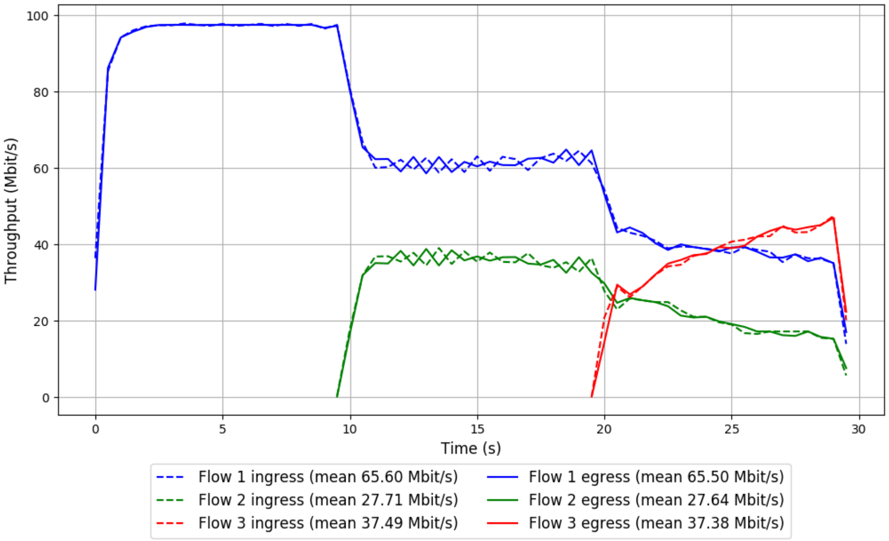
Run 3: Report of Indigo — Data Link

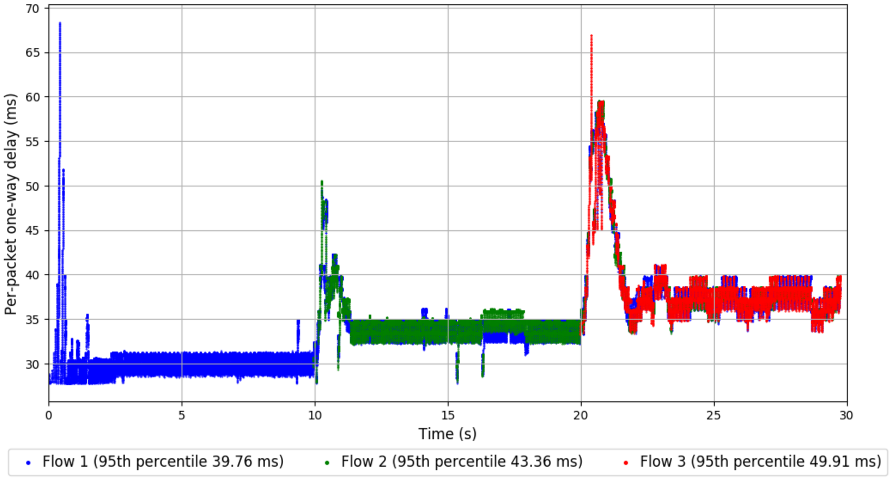




```
Run 4: Statistics of Indigo

Start at: 2017-12-20 09:30:45
End at: 2017-12-20 09:31:15
Local clock offset: 1.035 ms
Remote clock offset: -3.961 ms

# Below is generated by plot.py at 2017-12-20 12:30:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.14 Mbit/s
95th percentile per-packet one-way delay: 41.253 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 65.50 Mbit/s
95th percentile per-packet one-way delay: 39.762 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 27.64 Mbit/s
95th percentile per-packet one-way delay: 43.356 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 37.38 Mbit/s
95th percentile per-packet one-way delay: 49.913 ms
Loss rate: 0.23%
```

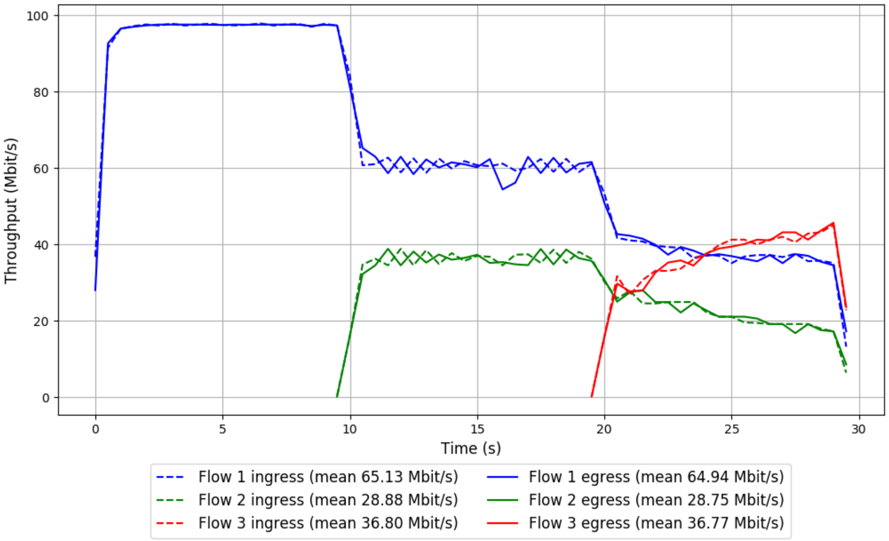
Run 4: Report of Indigo — Data Link

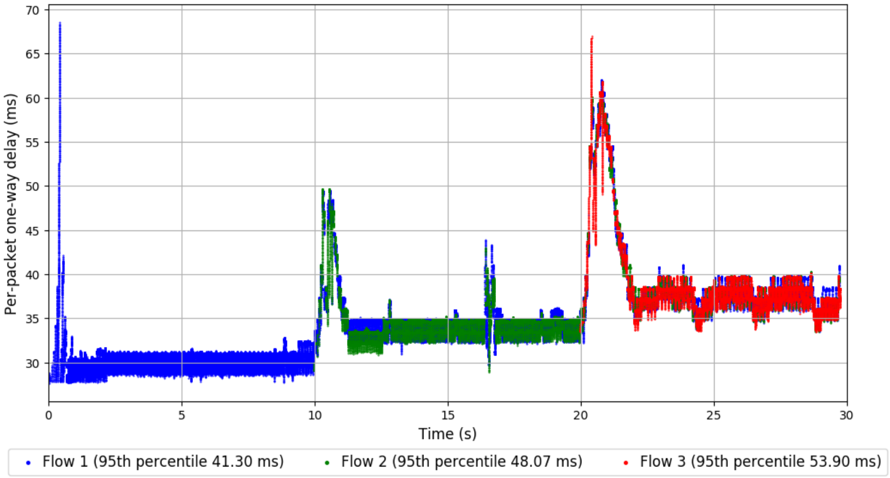




```
Run 5: Statistics of Indigo

Start at: 2017-12-20 09:51:12
End at: 2017-12-20 09:51:42
Local clock offset: 0.917 ms
Remote clock offset: -4.003 ms

# Below is generated by plot.py at 2017-12-20 12:31:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 44.462 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 64.94 Mbit/s
95th percentile per-packet one-way delay: 41.296 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 28.75 Mbit/s
95th percentile per-packet one-way delay: 48.074 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 36.77 Mbit/s
95th percentile per-packet one-way delay: 53.898 ms
Loss rate: 0.04%
```

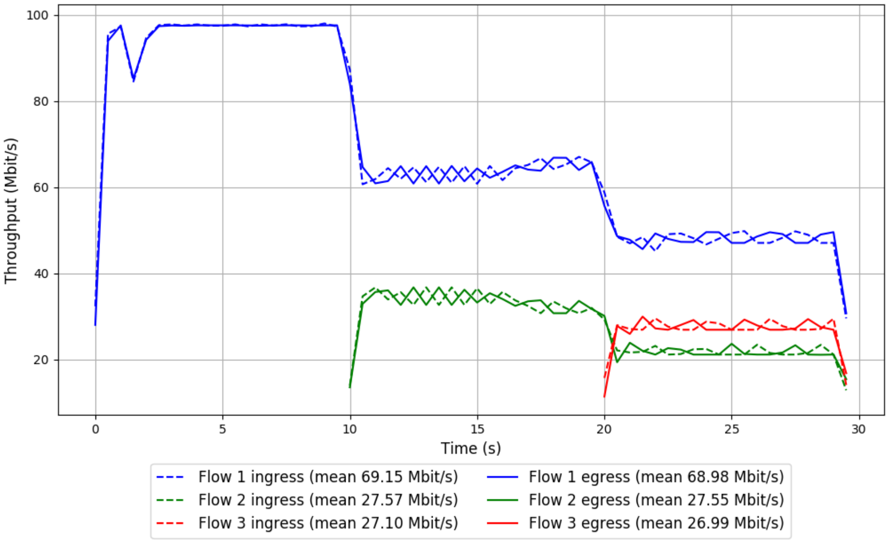
Run 5: Report of Indigo — Data Link

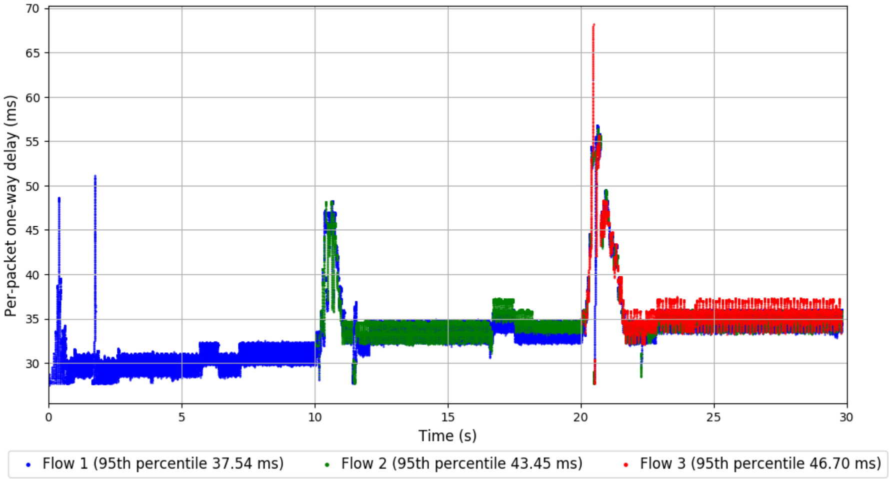




```
Run 6: Statistics of Indigo

Start at: 2017-12-20 10:11:40
End at: 2017-12-20 10:12:10
Local clock offset: 0.412 ms
Remote clock offset: -4.166 ms

# Below is generated by plot.py at 2017-12-20 12:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 40.637 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 68.98 Mbit/s
95th percentile per-packet one-way delay: 37.538 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 27.55 Mbit/s
95th percentile per-packet one-way delay: 43.453 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 46.699 ms
Loss rate: 0.43%
```

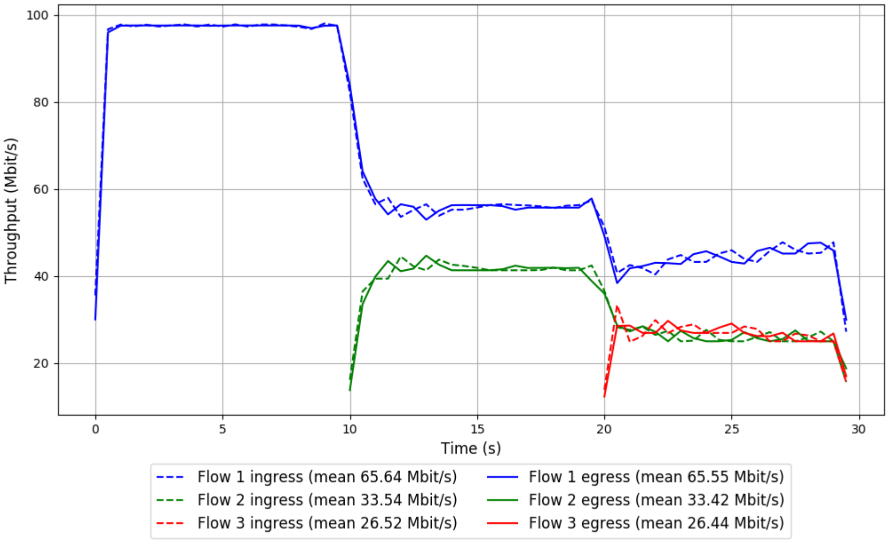
Run 6: Report of Indigo — Data Link

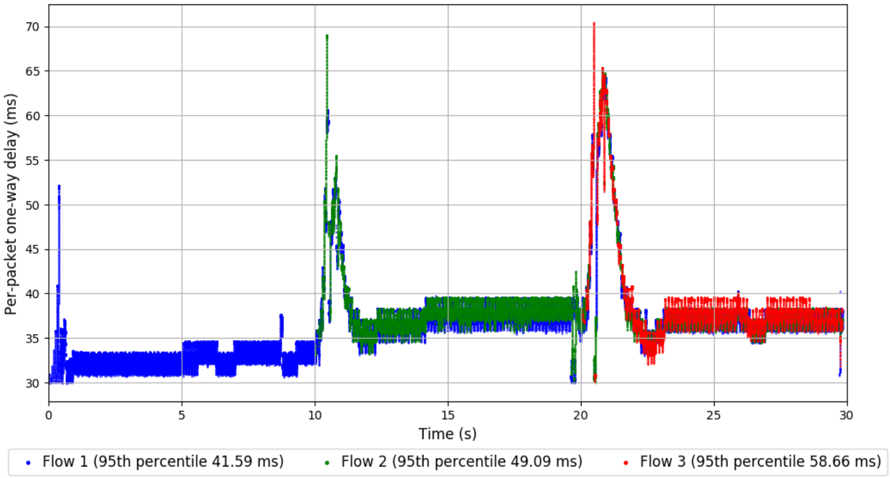




```
Run 7: Statistics of Indigo

Start at: 2017-12-20 10:32:13
End at: 2017-12-20 10:32:43
Local clock offset: 0.145 ms
Remote clock offset: -2.217 ms

# Below is generated by plot.py at 2017-12-20 12:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.38 Mbit/s
95th percentile per-packet one-way delay: 46.538 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 65.55 Mbit/s
95th percentile per-packet one-way delay: 41.585 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 33.42 Mbit/s
95th percentile per-packet one-way delay: 49.085 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 26.44 Mbit/s
95th percentile per-packet one-way delay: 58.663 ms
Loss rate: 0.30%
```

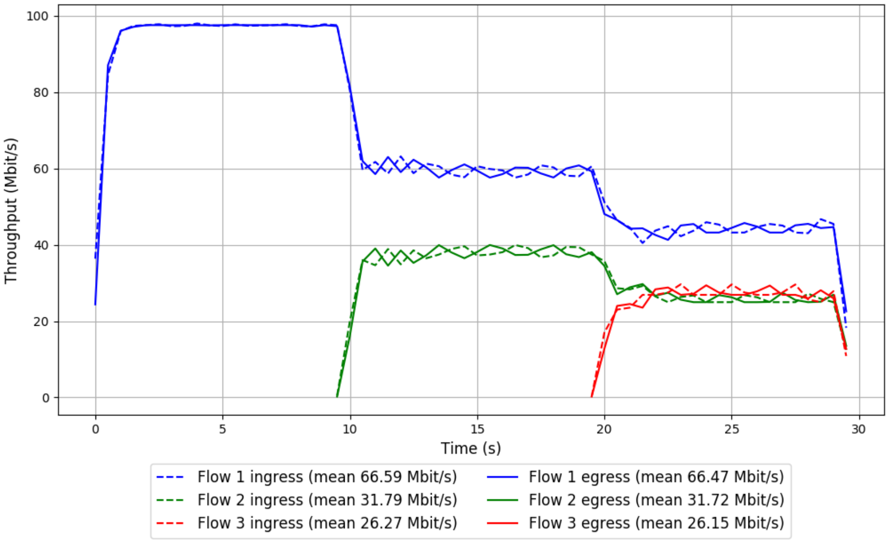
Run 7: Report of Indigo — Data Link

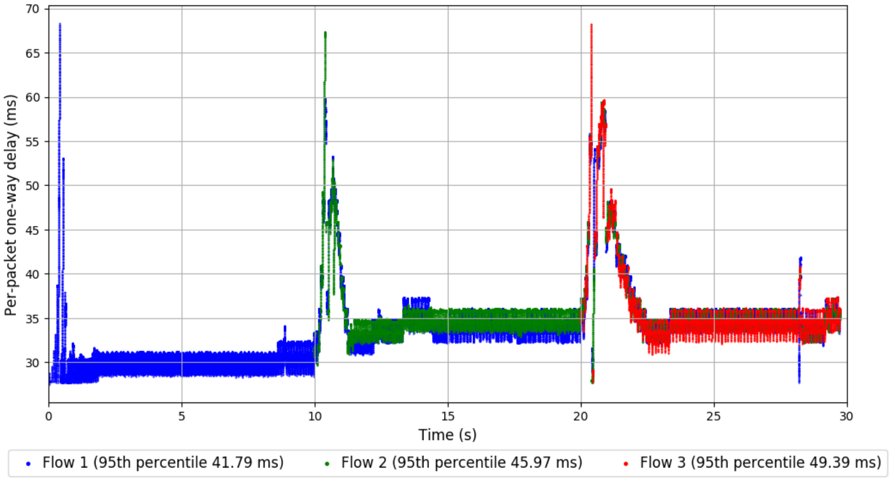




```
Run 8: Statistics of Indigo

Start at: 2017-12-20 10:52:43
End at: 2017-12-20 10:53:13
Local clock offset: 0.201 ms
Remote clock offset: -4.586 ms

# Below is generated by plot.py at 2017-12-20 12:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.12 Mbit/s
95th percentile per-packet one-way delay: 44.374 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 66.47 Mbit/s
95th percentile per-packet one-way delay: 41.790 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 45.974 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 26.15 Mbit/s
95th percentile per-packet one-way delay: 49.388 ms
Loss rate: 0.45%
```

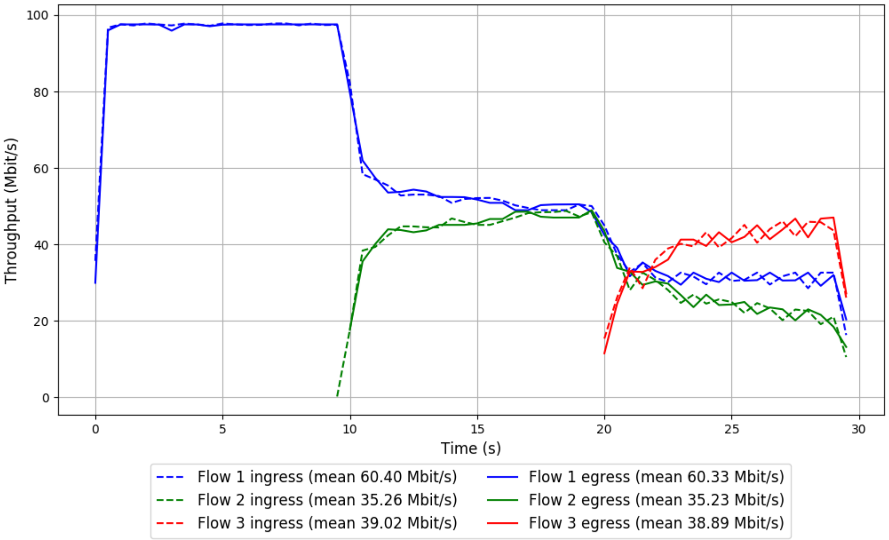
Run 8: Report of Indigo — Data Link

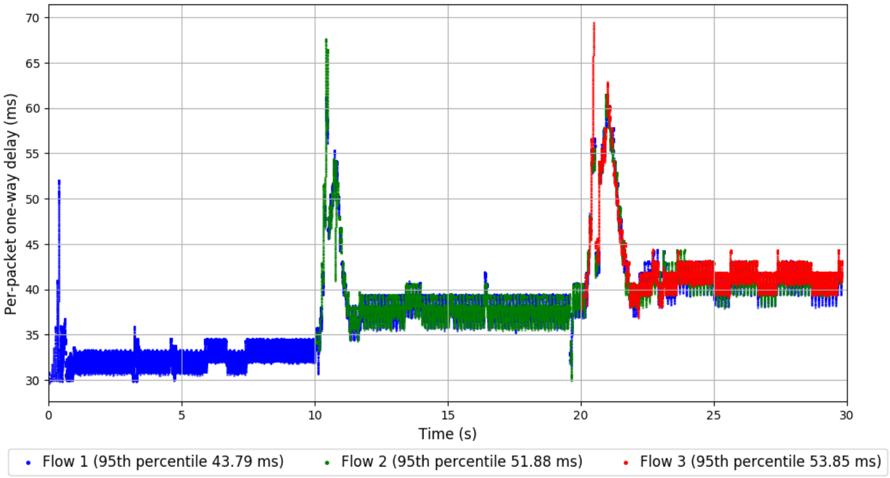




```
Run 9: Statistics of Indigo

Start at: 2017-12-20 11:13:09
End at: 2017-12-20 11:13:39
Local clock offset: 0.328 ms
Remote clock offset: -2.9 ms

# Below is generated by plot.py at 2017-12-20 12:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.42 Mbit/s
95th percentile per-packet one-way delay: 47.776 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 60.33 Mbit/s
95th percentile per-packet one-way delay: 43.786 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 35.23 Mbit/s
95th percentile per-packet one-way delay: 51.885 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 38.89 Mbit/s
95th percentile per-packet one-way delay: 53.846 ms
Loss rate: 0.30%
```

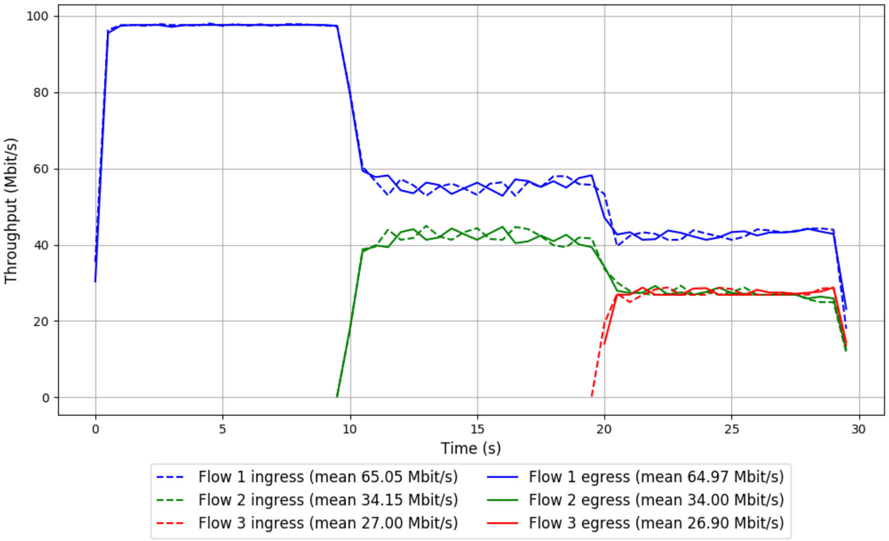
Run 9: Report of Indigo — Data Link



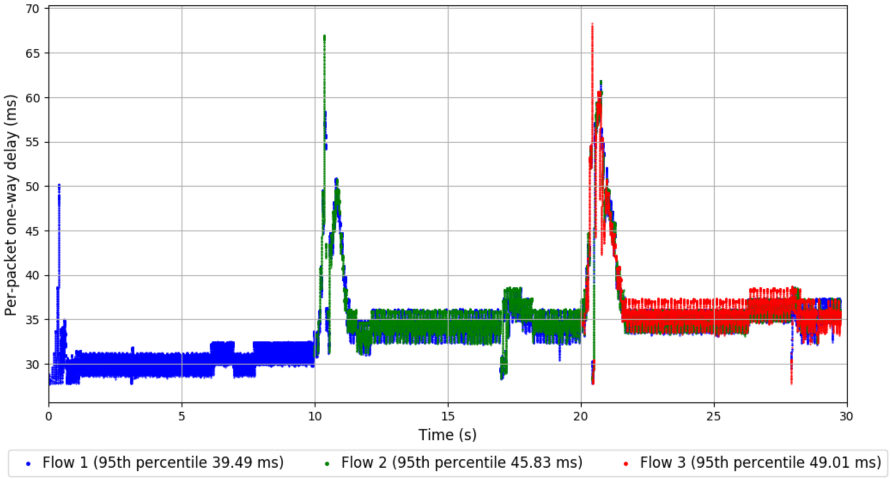


```
Run 10: Statistics of Indigo

Start at: 2017-12-20 11:33:36
End at: 2017-12-20 11:34:06
Local clock offset: 0.262 ms
Remote clock offset: -4.987 ms

# Below is generated by plot.py at 2017-12-20 12:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.41 Mbit/s
95th percentile per-packet one-way delay: 43.239 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 64.97 Mbit/s
95th percentile per-packet one-way delay: 39.489 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 34.00 Mbit/s
95th percentile per-packet one-way delay: 45.834 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 26.90 Mbit/s
95th percentile per-packet one-way delay: 49.013 ms
Loss rate: 0.38%
```

Run 10: Report of Indigo — Data Link



Throughput (Mbit/s)
100
80
60
40
20
0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 65.05 Mbit/s)
Flow 1 egress (mean 64.97 Mbit/s)
Flow 2 ingress (mean 34.15 Mbit/s)
Flow 2 egress (mean 34.00 Mbit/s)
Flow 3 ingress (mean 27.00 Mbit/s)
Flow 3 egress (mean 26.90 Mbit/s)



Per-packet one-way delay (ms)
70
65
60
55
50
45
40
35
30
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 39.49 ms)
Flow 2 (95th percentile 45.83 ms)
Flow 3 (95th percentile 49.01 ms)