Pantheon Report

Generated at 2018-04-11 03:06:52 (UTC).

Data path: AWS Brazil 2 Ethernet (*local*) →Colombia Ethernet (*remote*).

Repeated the test of 17 congestion control schemes 10 times.

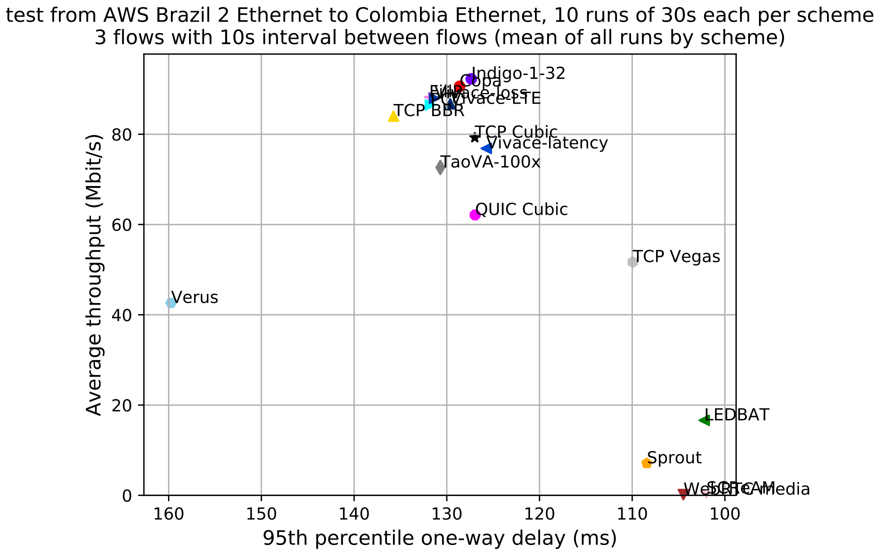
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

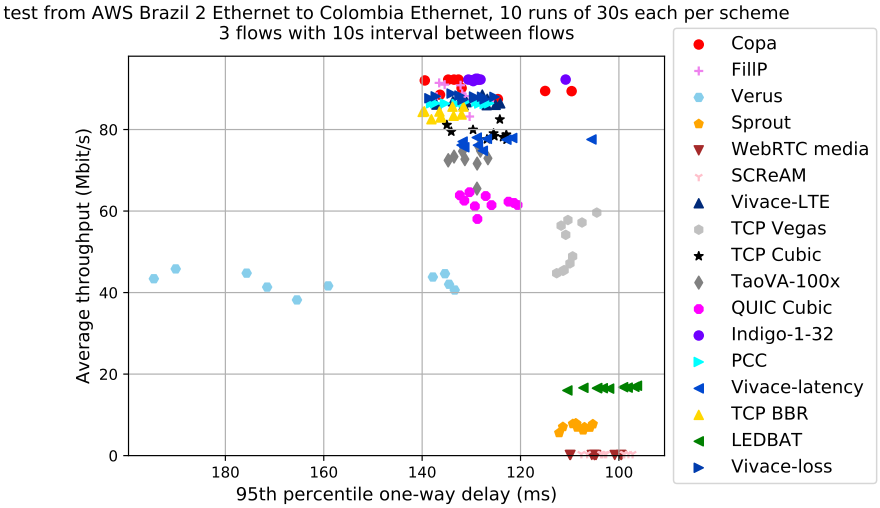
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

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

```
Git summary:
branch: master @ eb420b5be9bafccd22cf68b99ff5a2000462fc59
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ f271183af822eee5d0031620f4bebf38aedc5581
```


test from AWS Brazil 2 Ethernet to Colombia Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
160
150
140
130
120
110
100
Indigo-1-32
Copa
FillP
Vivace-loss
PCC
Vivace-LTE
TCP BBR
TCP Cubic
Vivace-latency
TaoVA-100x
QUIC Cubic
TCP Vegas
Verus
LEDBAT
Sprout
SCReAM
WebRTC media


test from AWS Brazil 2 Ethernet to Colombia Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
180
160
140
120
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Copa
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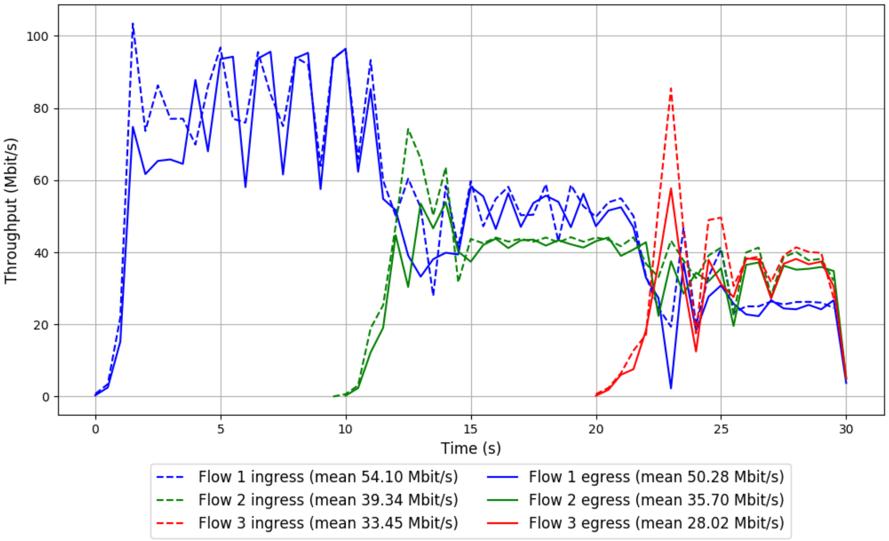
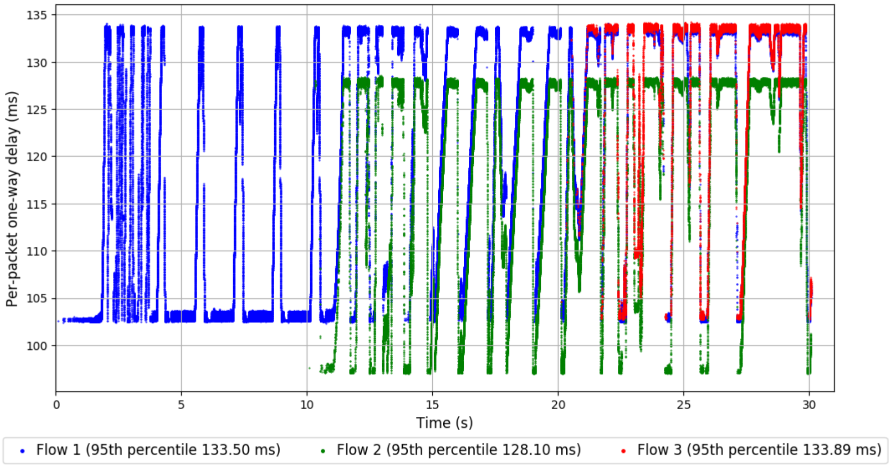
Verus
Sprout
WebRTC media
SCReAM
Vivace-LTE
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Indigo-1-32
PCC
Vivace-latency
TCP BBR
LEDBAT
Vivace-loss

scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	10	52.36	35.82	23.49	134.29	131.18	133.11	7.06	9.75	12.19
TCP Cubic	10	48.15	34.10	25.29	125.45	128.01	127.85	0.34	1.03	1.18
LEDBAT	10	10.77	7.08	3.49	101.66	101.82	100.34	0.00	0.00	0.00
PCC	10	78.69	8.06	7.40	131.73	131.93	130.74	2.93	4.31	5.49
QUIC Cubic	10	40.59	26.11	12.99	127.54	124.42	126.10	0.80	0.96	3.09
SCReAM	10	0.22	0.22	0.22	100.37	101.20	99.97	0.00	0.00	0.00
WebRTC media	10	0.06	0.06	0.05	138.86	122.11	103.12	0.00	0.00	0.00
Sprout	10	3.69	3.46	3.36	107.90	108.19	108.02	0.00	0.00	0.00
TaoVA-100x	10	45.51	31.69	18.38	129.82	129.86	132.92	4.66	8.47	11.58
TCP Vegas	10	23.13	26.71	32.42	108.34	111.73	109.48	0.68	0.78	1.25
Verus	10	21.74	26.02	12.69	137.28	153.39	139.00	37.23	52.76	46.39
Copa	10	82.86	9.65	6.64	128.26	123.65	121.02	62.12	36.71	12.55
FillP	10	40.42	45.98	51.90	129.89	130.75	129.68	13.94	23.71	21.54
Indigo-1-32	10	62.63	24.95	40.96	125.73	127.19	125.62	19.30	40.99	67.69
Vivace-latency	10	65.44	13.24	7.93	125.71	124.37	124.14	0.37	0.74	0.90
Vivace-loss	10	82.28	6.49	4.16	131.30	130.49	130.96	2.89	2.65	3.08
Vivace-LTE	10	75.02	12.61	10.10	129.62	127.42	129.02	3.08	2.04	2.93

```
Run 1: Statistics of TCP BBR

Start at: 2018-04-10 22:16:23
End at: 2018-04-10 22:16:53
Local clock offset: -6.264 ms
Remote clock offset: 2.146 ms

# Below is generated by plot.py at 2018-04-11 02:39:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.38 Mbit/s
95th percentile per-packet one-way delay: 133.607 ms
Loss rate: 8.79%
-- Flow 1:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 133.498 ms
Loss rate: 7.05%
-- Flow 2:
Average throughput: 35.70 Mbit/s
95th percentile per-packet one-way delay: 128.103 ms
Loss rate: 9.22%
-- Flow 3:
Average throughput: 28.02 Mbit/s
95th percentile per-packet one-way delay: 133.888 ms
Loss rate: 16.23%
```

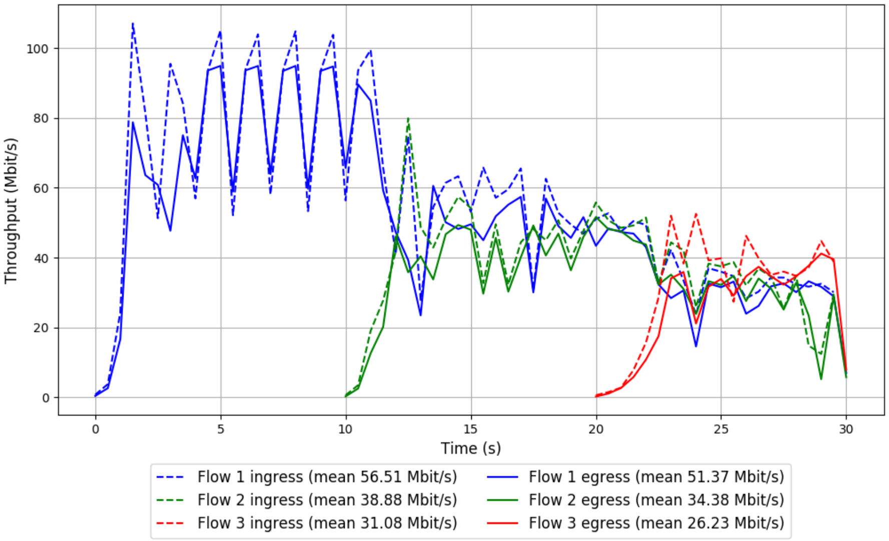
Run 1: Report of TCP BBR — Data Link

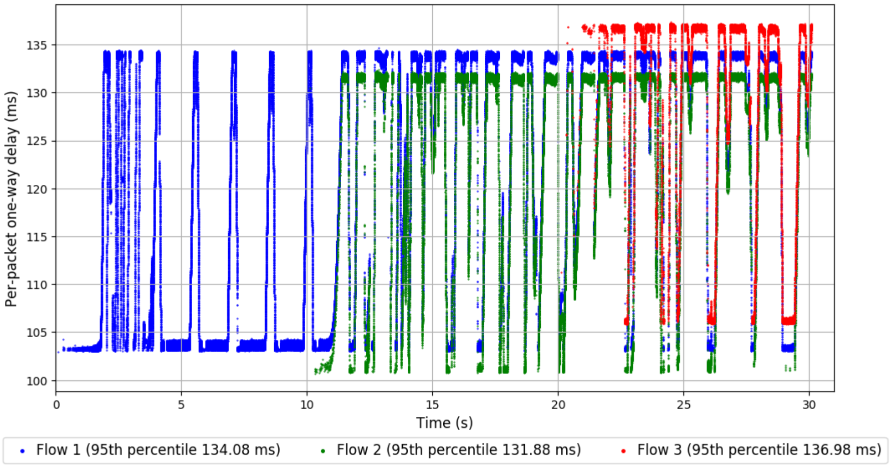




```
Run 2: Statistics of TCP BBR

Start at: 2018-04-10 22:40:34
End at: 2018-04-10 22:41:04
Local clock offset: -4.652 ms
Remote clock offset: 6.953 ms

# Below is generated by plot.py at 2018-04-11 02:39:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.96 Mbit/s
95th percentile per-packet one-way delay: 136.195 ms
Loss rate: 10.43%
-- Flow 1:
Average throughput: 51.37 Mbit/s
95th percentile per-packet one-way delay: 134.083 ms
Loss rate: 9.00%
-- Flow 2:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 131.883 ms
Loss rate: 11.57%
-- Flow 3:
Average throughput: 26.23 Mbit/s
95th percentile per-packet one-way delay: 136.984 ms
Loss rate: 15.38%
```

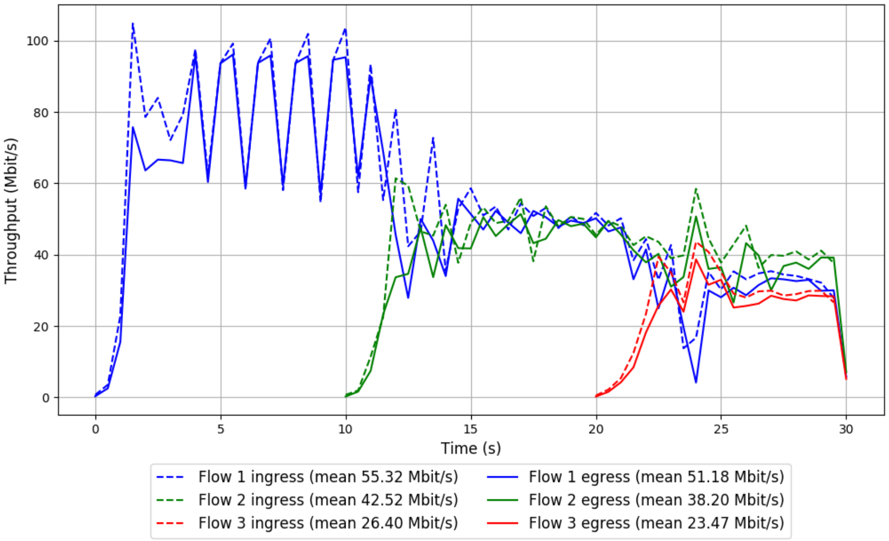
Run 2: Report of TCP BBR — Data Link

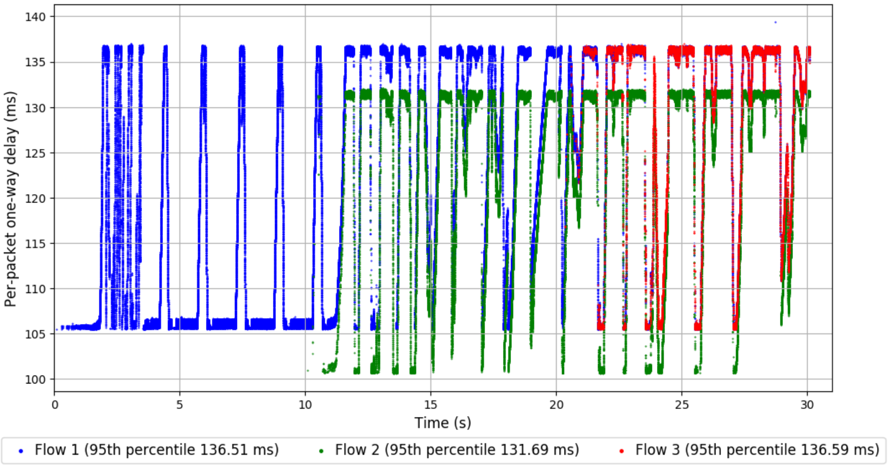




```
Run 3: Statistics of TCP BBR

Start at: 2018-04-10 23:04:41
End at: 2018-04-10 23:05:11
Local clock offset: -5.108 ms
Remote clock offset: 7.943 ms

# Below is generated by plot.py at 2018-04-11 02:39:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.42 Mbit/s
95th percentile per-packet one-way delay: 136.477 ms
Loss rate: 8.56%
-- Flow 1:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 136.508 ms
Loss rate: 7.40%
-- Flow 2:
Average throughput: 38.20 Mbit/s
95th percentile per-packet one-way delay: 131.695 ms
Loss rate: 10.04%
-- Flow 3:
Average throughput: 23.47 Mbit/s
95th percentile per-packet one-way delay: 136.585 ms
Loss rate: 11.11%
```

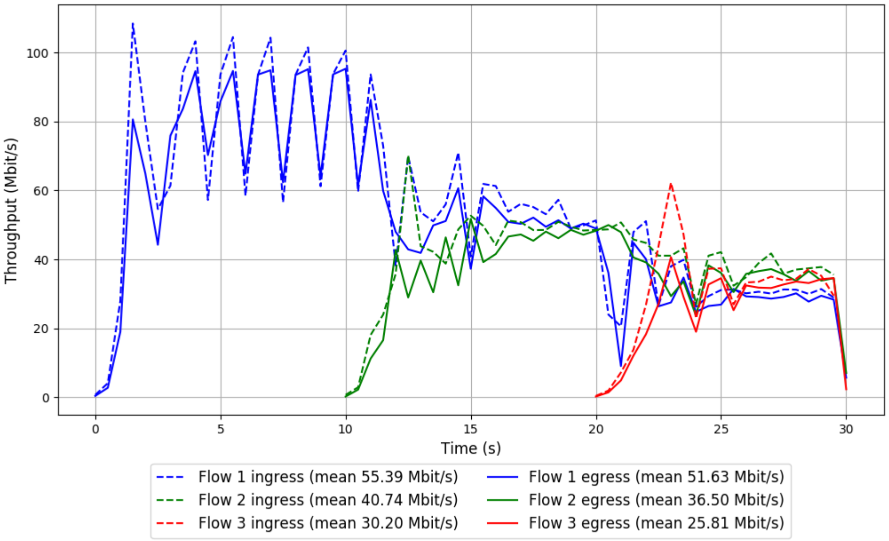
Run 3: Report of TCP BBR — Data Link

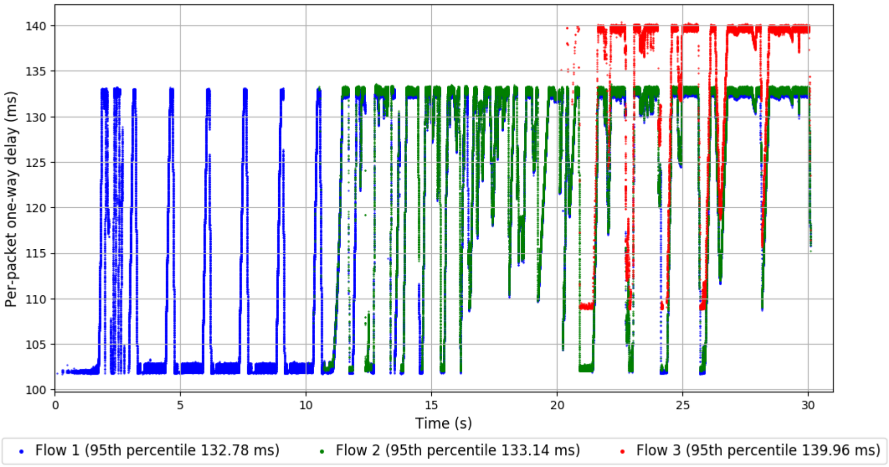




```
Run 4: Statistics of TCP BBR

Start at: 2018-04-10 23:28:32
End at: 2018-04-10 23:29:02
Local clock offset: -6.893 ms
Remote clock offset: 8.59 ms

# Below is generated by plot.py at 2018-04-11 02:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.48 Mbit/s
95th percentile per-packet one-way delay: 139.562 ms
Loss rate: 8.66%
-- Flow 1:
Average throughput: 51.63 Mbit/s
95th percentile per-packet one-way delay: 132.785 ms
Loss rate: 6.74%
-- Flow 2:
Average throughput: 36.50 Mbit/s
95th percentile per-packet one-way delay: 133.137 ms
Loss rate: 10.35%
-- Flow 3:
Average throughput: 25.81 Mbit/s
95th percentile per-packet one-way delay: 139.963 ms
Loss rate: 14.70%
```

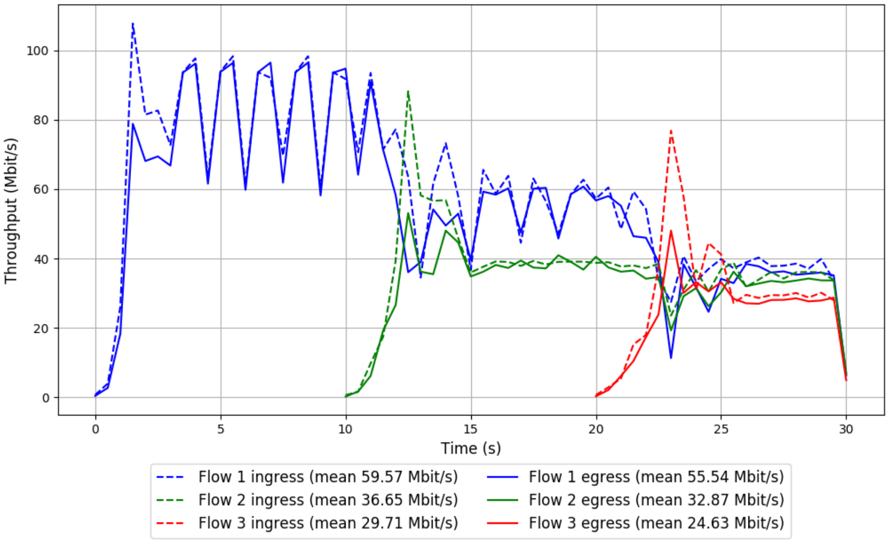
Run 4: Report of TCP BBR — Data Link

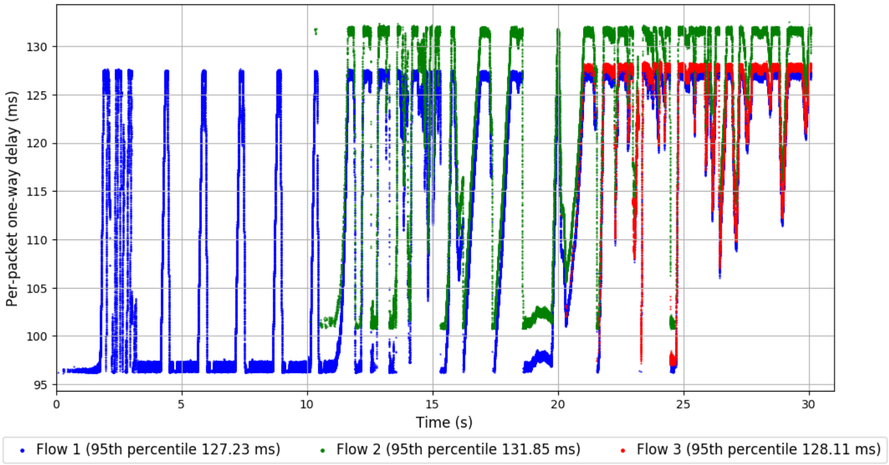




```
Run 5: Statistics of TCP BBR

Start at: 2018-04-10 23:52:43
End at: 2018-04-10 23:53:13
Local clock offset: -5.527 ms
Remote clock offset: 4.244 ms

# Below is generated by plot.py at 2018-04-11 02:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.63 Mbit/s
95th percentile per-packet one-way delay: 131.596 ms
Loss rate: 8.66%
-- Flow 1:
Average throughput: 55.54 Mbit/s
95th percentile per-packet one-way delay: 127.231 ms
Loss rate: 6.66%
-- Flow 2:
Average throughput: 32.87 Mbit/s
95th percentile per-packet one-way delay: 131.854 ms
Loss rate: 10.19%
-- Flow 3:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 128.106 ms
Loss rate: 16.96%
```

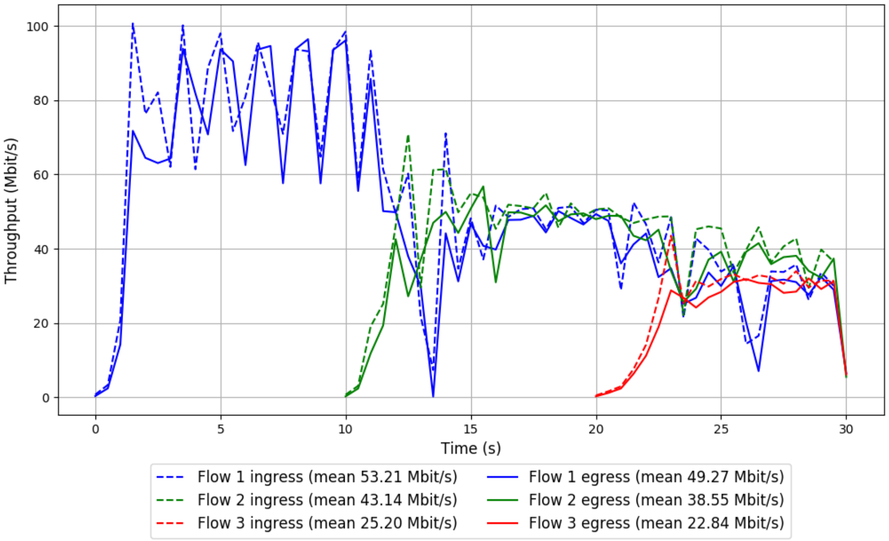
Run 5: Report of TCP BBR — Data Link

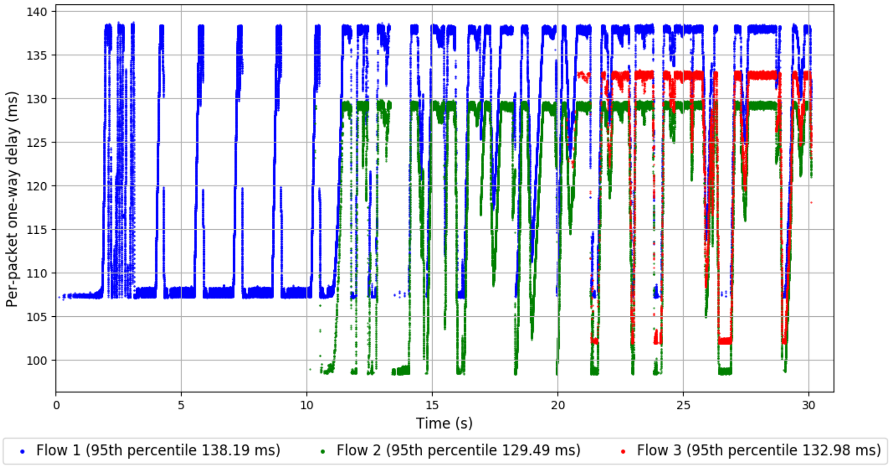




```
Run 6: Statistics of TCP BBR

Start at: 2018-04-11 00:16:35
End at: 2018-04-11 00:17:05
Local clock offset: -5.669 ms
Remote clock offset: 6.391 ms

# Below is generated by plot.py at 2018-04-11 02:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.53 Mbit/s
95th percentile per-packet one-way delay: 138.112 ms
Loss rate: 8.56%
-- Flow 1:
Average throughput: 49.27 Mbit/s
95th percentile per-packet one-way delay: 138.194 ms
Loss rate: 7.35%
-- Flow 2:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 129.486 ms
Loss rate: 10.54%
-- Flow 3:
Average throughput: 22.84 Mbit/s
95th percentile per-packet one-way delay: 132.980 ms
Loss rate: 9.47%
```

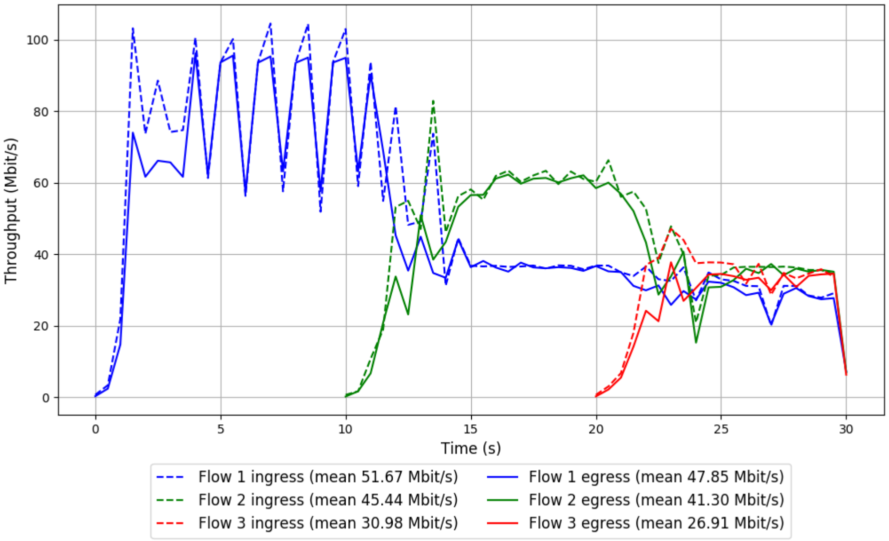
Run 6: Report of TCP BBR — Data Link

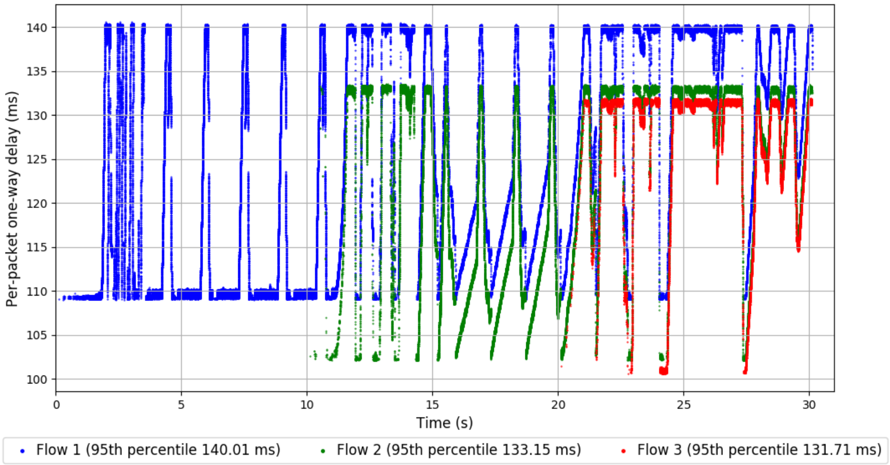




```
Run 7: Statistics of TCP BBR

Start at: 2018-04-11 00:41:05
End at: 2018-04-11 00:41:35
Local clock offset: -8.469 ms
Remote clock offset: 6.908 ms

# Below is generated by plot.py at 2018-04-11 02:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.33 Mbit/s
95th percentile per-packet one-way delay: 139.893 ms
Loss rate: 8.48%
-- Flow 1:
Average throughput: 47.85 Mbit/s
95th percentile per-packet one-way delay: 140.015 ms
Loss rate: 7.31%
-- Flow 2:
Average throughput: 41.30 Mbit/s
95th percentile per-packet one-way delay: 133.150 ms
Loss rate: 8.98%
-- Flow 3:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 131.706 ms
Loss rate: 12.88%
```

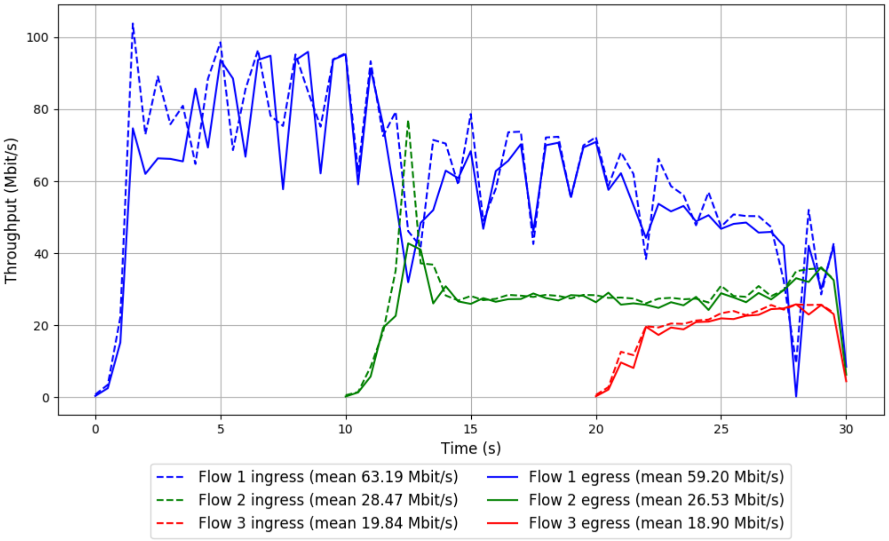
Run 7: Report of TCP BBR — Data Link

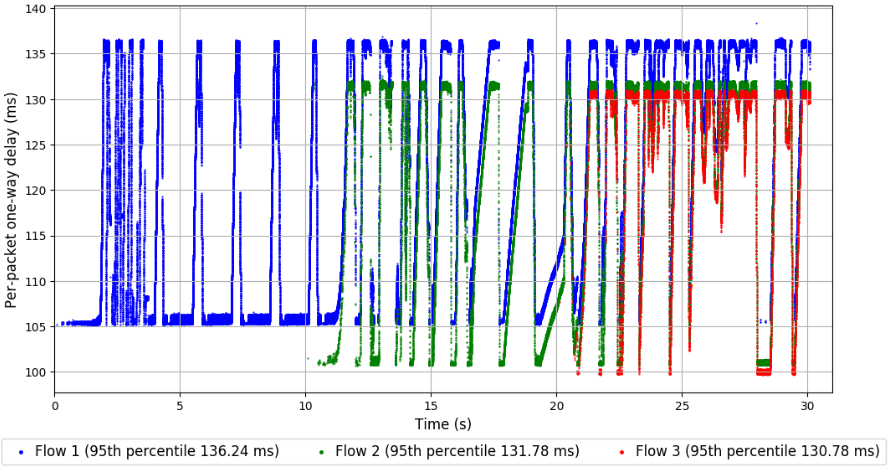




```
Run 8: Statistics of TCP BBR

Start at: 2018-04-11 01:05:13
End at: 2018-04-11 01:05:43
Local clock offset: -5.882 ms
Remote clock offset: 6.098 ms

# Below is generated by plot.py at 2018-04-11 02:39:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.17 Mbit/s
95th percentile per-packet one-way delay: 136.184 ms
Loss rate: 6.20%
-- Flow 1:
Average throughput: 59.20 Mbit/s
95th percentile per-packet one-way delay: 136.244 ms
Loss rate: 6.23%
-- Flow 2:
Average throughput: 26.53 Mbit/s
95th percentile per-packet one-way delay: 131.782 ms
Loss rate: 6.68%
-- Flow 3:
Average throughput: 18.90 Mbit/s
95th percentile per-packet one-way delay: 130.784 ms
Loss rate: 4.53%
```

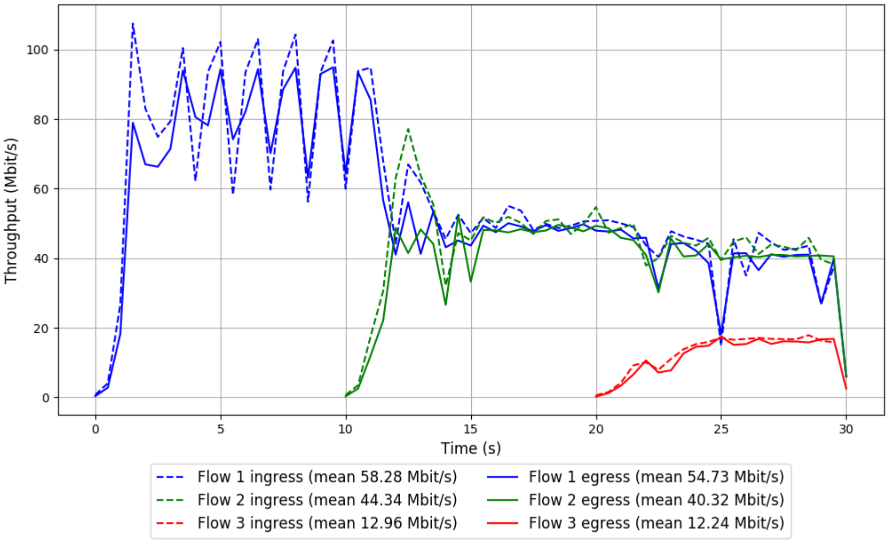
Run 8: Report of TCP BBR — Data Link

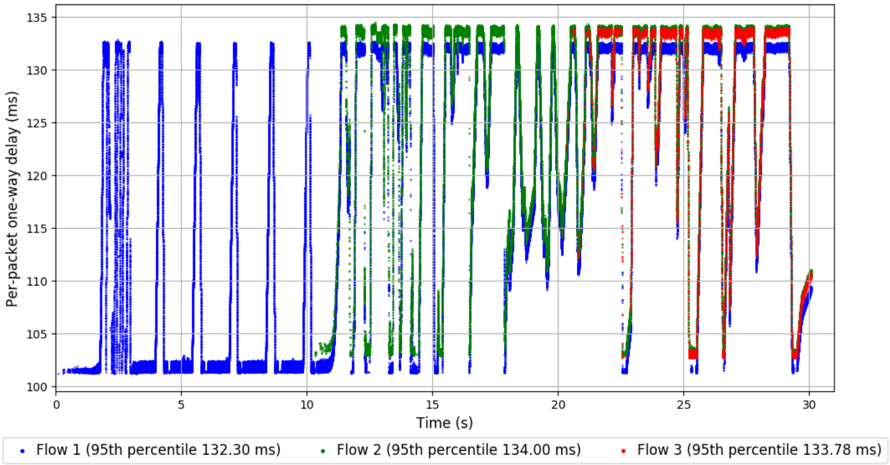




```
Run 9: Statistics of TCP BBR

Start at: 2018-04-11 01:29:20
End at: 2018-04-11 01:29:50
Local clock offset: -4.831 ms
Remote clock offset: 6.275 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.61 Mbit/s
95th percentile per-packet one-way delay: 133.833 ms
Loss rate: 7.02%
-- Flow 1:
Average throughput: 54.73 Mbit/s
95th percentile per-packet one-way delay: 132.298 ms
Loss rate: 6.06%
-- Flow 2:
Average throughput: 40.32 Mbit/s
95th percentile per-packet one-way delay: 134.001 ms
Loss rate: 9.11%
-- Flow 3:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 133.775 ms
Loss rate: 5.59%
```

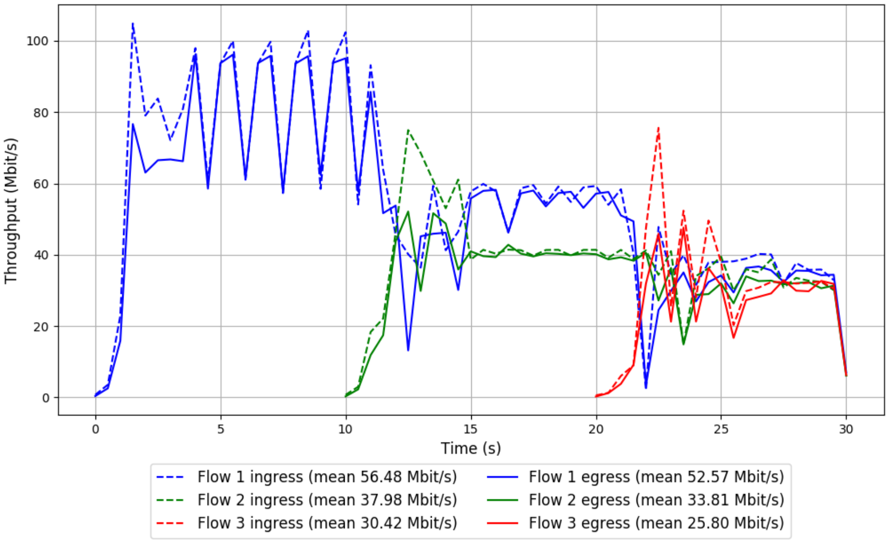
Run 9: Report of TCP BBR — Data Link

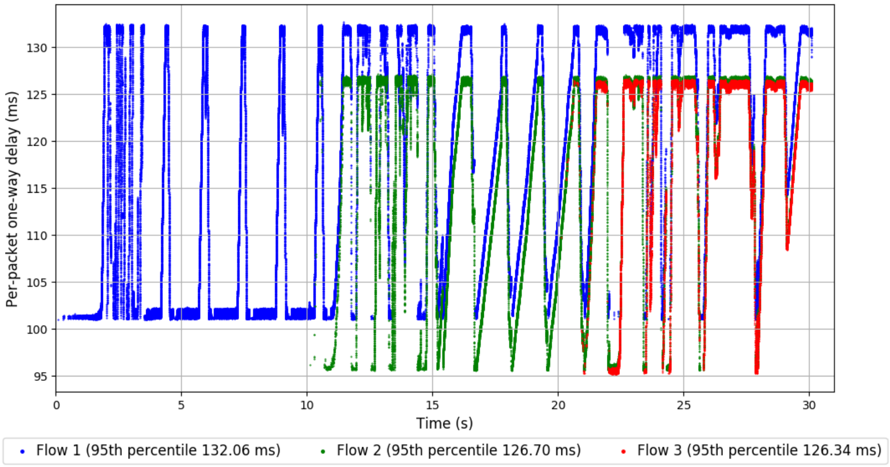




```
Run 10: Statistics of TCP BBR

Start at: 2018-04-11 01:53:13
End at: 2018-04-11 01:53:43
Local clock offset: -4.729 ms
Remote clock offset: 1.998 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.69 Mbit/s
95th percentile per-packet one-way delay: 131.974 ms
Loss rate: 8.83%
-- Flow 1:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 132.060 ms
Loss rate: 6.82%
-- Flow 2:
Average throughput: 33.81 Mbit/s
95th percentile per-packet one-way delay: 126.704 ms
Loss rate: 10.83%
-- Flow 3:
Average throughput: 25.80 Mbit/s
95th percentile per-packet one-way delay: 126.342 ms
Loss rate: 15.05%
```

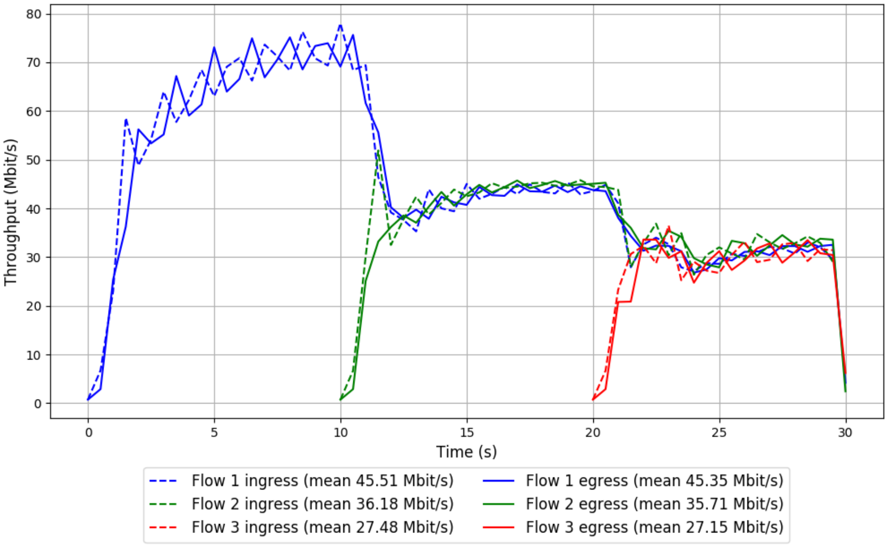
Run 10: Report of TCP BBR — Data Link

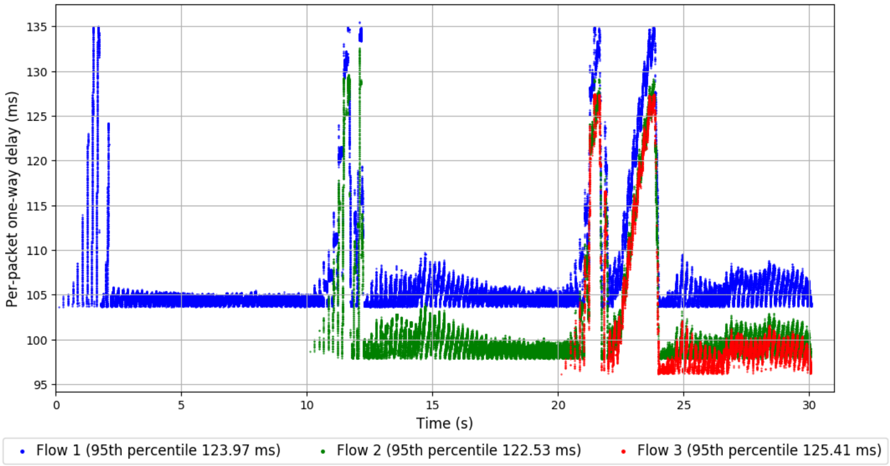




```
Run 1: Statistics of TCP Cubic

Start at: 2018-04-10 22:17:44
End at: 2018-04-10 22:18:14
Local clock offset: -5.555 ms
Remote clock offset: 2.157 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.14 Mbit/s
95th percentile per-packet one-way delay: 123.542 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 45.35 Mbit/s
95th percentile per-packet one-way delay: 123.965 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 35.71 Mbit/s
95th percentile per-packet one-way delay: 122.534 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 27.15 Mbit/s
95th percentile per-packet one-way delay: 125.405 ms
Loss rate: 1.20%
```

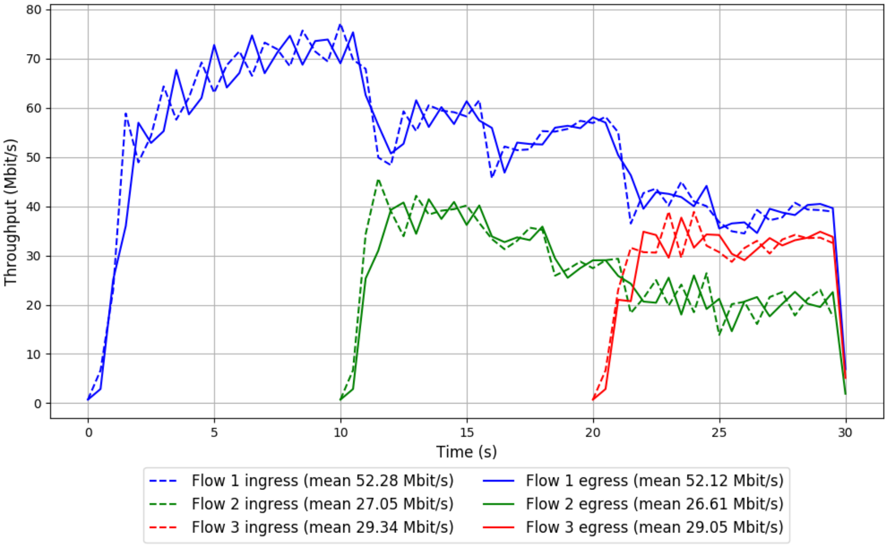
Run 1: Report of TCP Cubic — Data Link

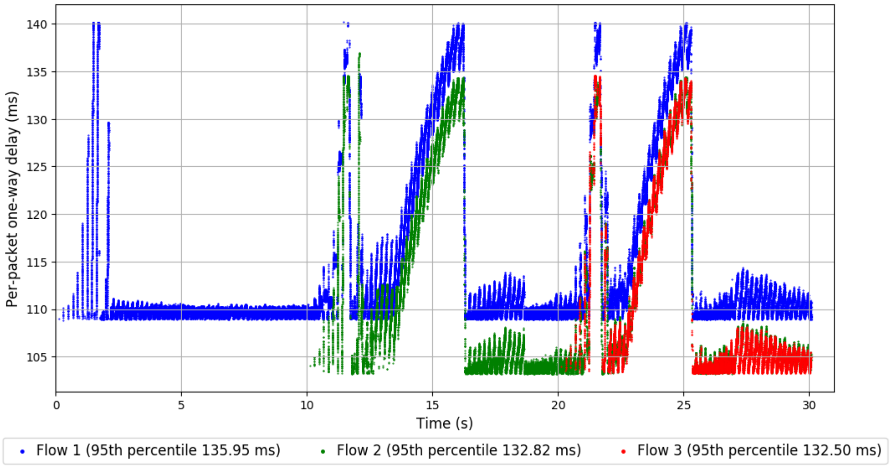




```
Run 2: Statistics of TCP Cubic

Start at: 2018-04-10 22:41:55
End at: 2018-04-10 22:42:25
Local clock offset: -6.126 ms
Remote clock offset: 6.875 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.49 Mbit/s
95th percentile per-packet one-way delay: 134.075 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 52.12 Mbit/s
95th percentile per-packet one-way delay: 135.952 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 26.61 Mbit/s
95th percentile per-packet one-way delay: 132.821 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 29.05 Mbit/s
95th percentile per-packet one-way delay: 132.495 ms
Loss rate: 0.97%
```

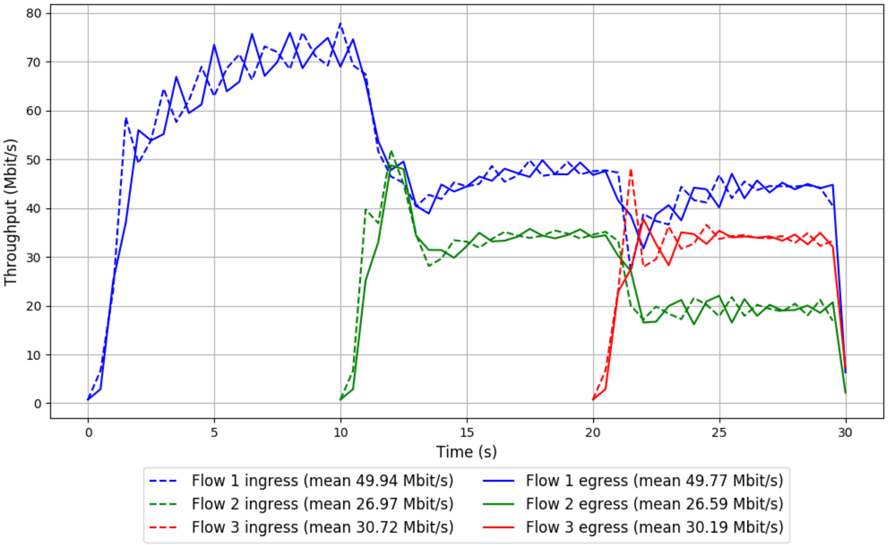
Run 2: Report of TCP Cubic — Data Link

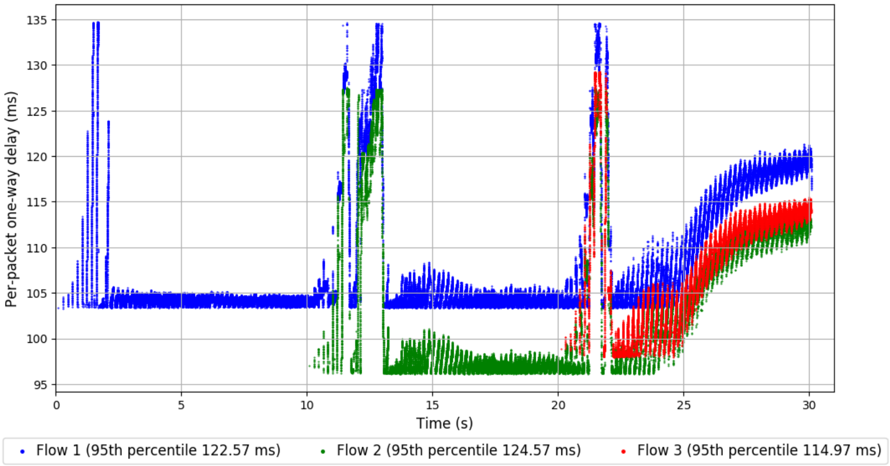




```
Run 3: Statistics of TCP Cubic

Start at: 2018-04-10 23:06:01
End at: 2018-04-10 23:06:31
Local clock offset: -5.842 ms
Remote clock offset: 3.298 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.51 Mbit/s
95th percentile per-packet one-way delay: 122.821 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 49.77 Mbit/s
95th percentile per-packet one-way delay: 122.569 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 26.59 Mbit/s
95th percentile per-packet one-way delay: 124.572 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 114.974 ms
Loss rate: 1.58%
```

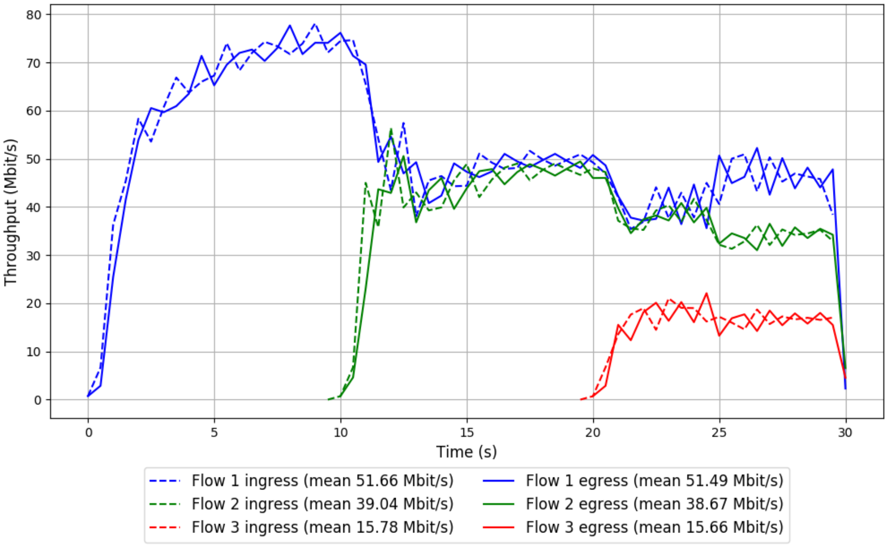
Run 3: Report of TCP Cubic — Data Link

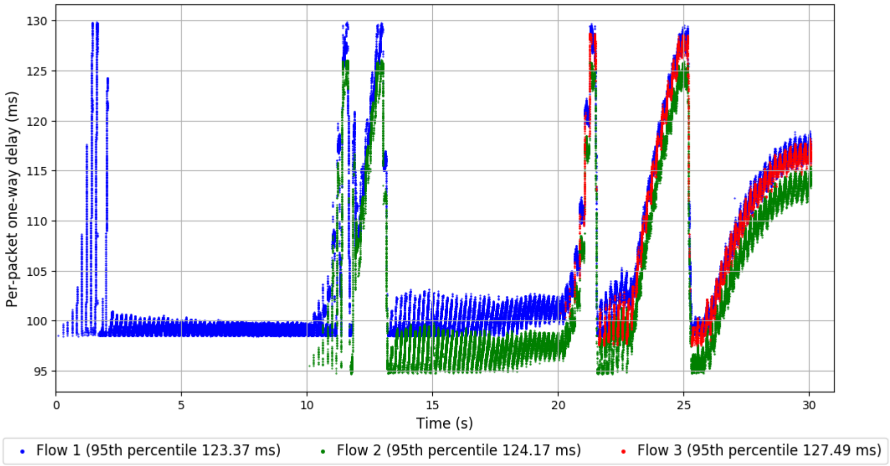




```
Run 4: Statistics of TCP Cubic

Start at: 2018-04-10 23:29:53
End at: 2018-04-10 23:30:23
Local clock offset: -6.09 ms
Remote clock offset: 3.747 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.48 Mbit/s
95th percentile per-packet one-way delay: 124.206 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 51.49 Mbit/s
95th percentile per-packet one-way delay: 123.374 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 38.67 Mbit/s
95th percentile per-packet one-way delay: 124.173 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 15.66 Mbit/s
95th percentile per-packet one-way delay: 127.494 ms
Loss rate: 0.58%
```

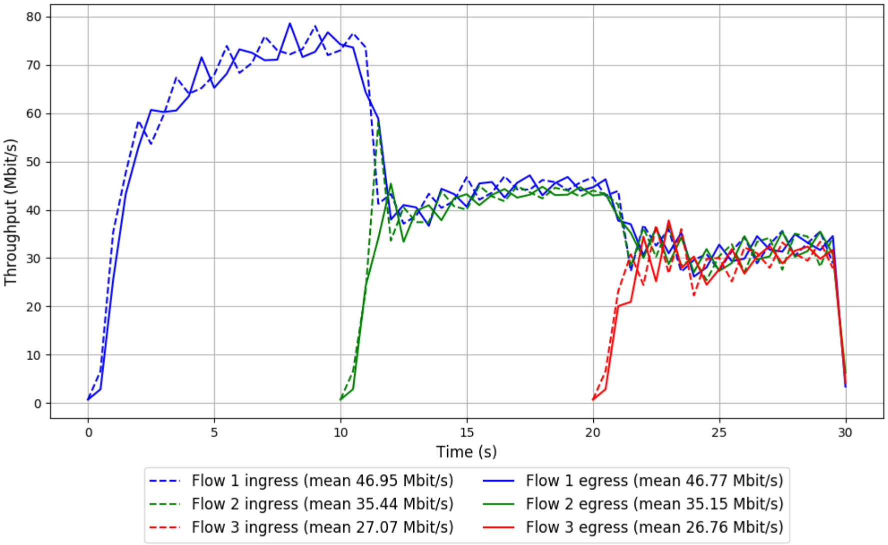
Run 4: Report of TCP Cubic — Data Link

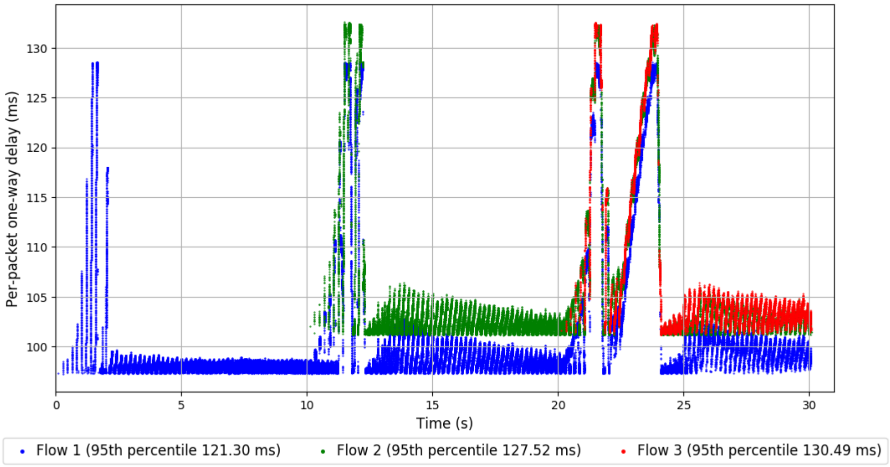




```
Run 5: Statistics of TCP Cubic

Start at: 2018-04-10 23:54:04
End at: 2018-04-10 23:54:34
Local clock offset: -5.509 ms
Remote clock offset: 4.266 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.05 Mbit/s
95th percentile per-packet one-way delay: 125.477 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 46.77 Mbit/s
95th percentile per-packet one-way delay: 121.303 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 127.515 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 26.76 Mbit/s
95th percentile per-packet one-way delay: 130.487 ms
Loss rate: 1.15%
```

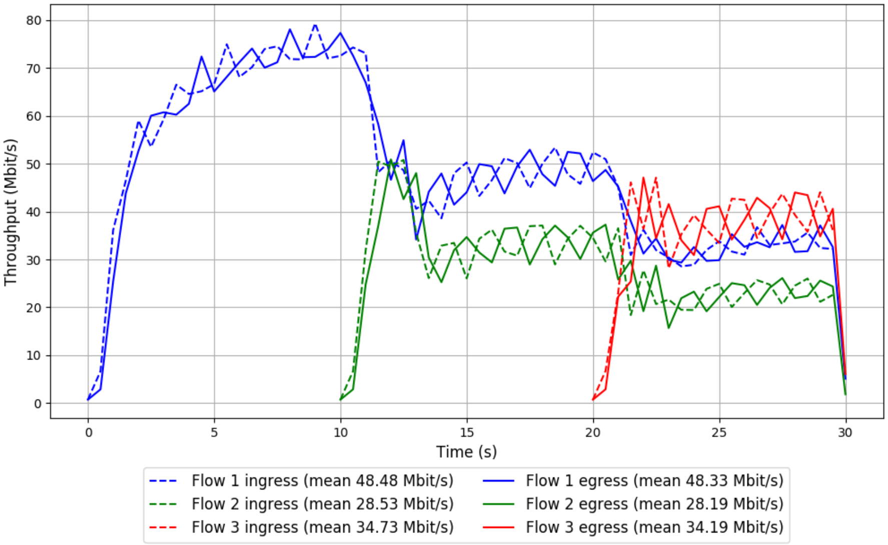
Run 5: Report of TCP Cubic — Data Link

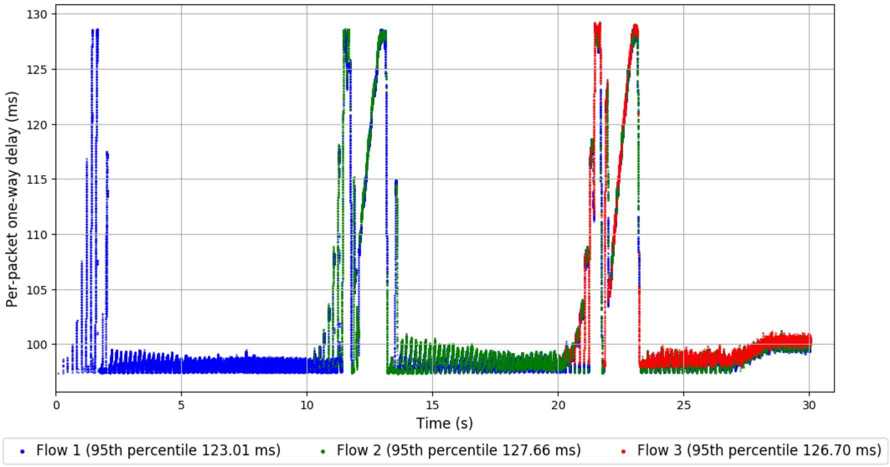




```
Run 6: Statistics of TCP Cubic

Start at: 2018-04-11 00:17:56
End at: 2018-04-11 00:18:26
Local clock offset: -5.692 ms
Remote clock offset: 2.298 ms

# Below is generated by plot.py at 2018-04-11 02:40:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.37 Mbit/s
95th percentile per-packet one-way delay: 125.319 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 48.33 Mbit/s
95th percentile per-packet one-way delay: 123.009 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 127.662 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 34.19 Mbit/s
95th percentile per-packet one-way delay: 126.705 ms
Loss rate: 1.55%
```

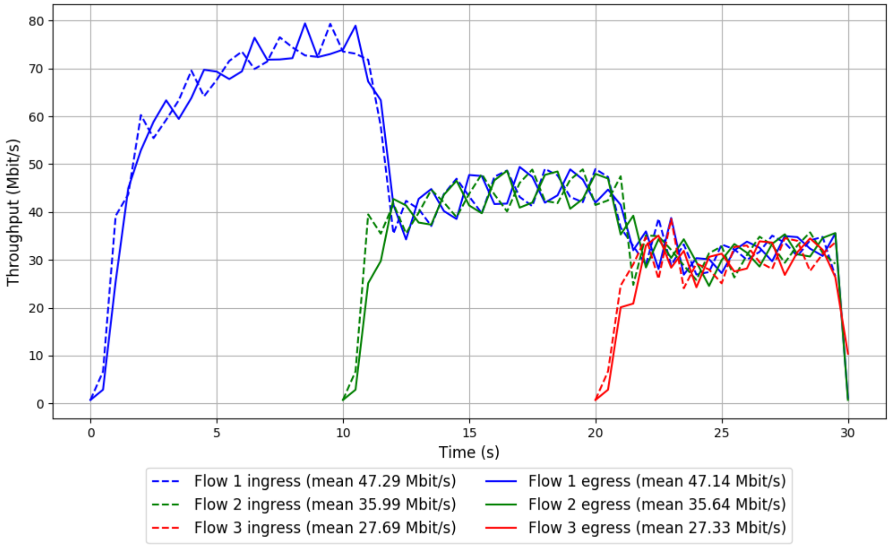
Run 6: Report of TCP Cubic — Data Link

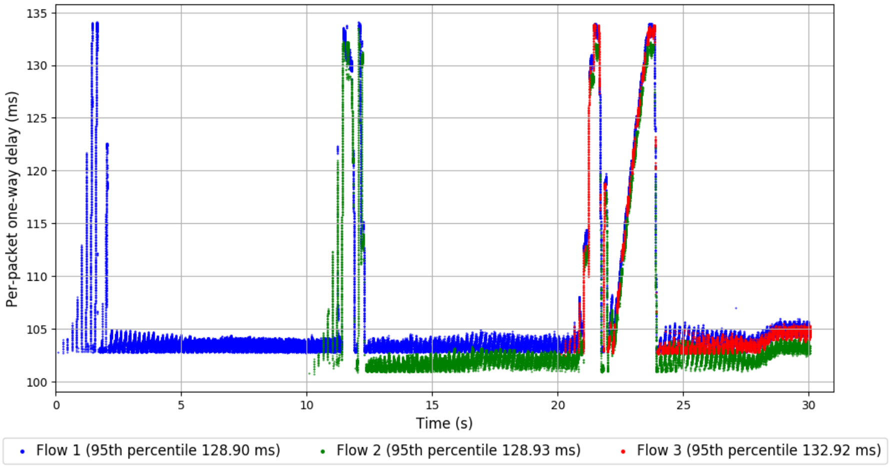




```
Run 7: Statistics of TCP Cubic

Start at: 2018-04-11 00:42:26
End at: 2018-04-11 00:42:56
Local clock offset: -7.701 ms
Remote clock offset: 6.861 ms

# Below is generated by plot.py at 2018-04-11 02:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.94 Mbit/s
95th percentile per-packet one-way delay: 129.658 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 47.14 Mbit/s
95th percentile per-packet one-way delay: 128.897 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 35.64 Mbit/s
95th percentile per-packet one-way delay: 128.930 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 27.33 Mbit/s
95th percentile per-packet one-way delay: 132.916 ms
Loss rate: 1.28%
```

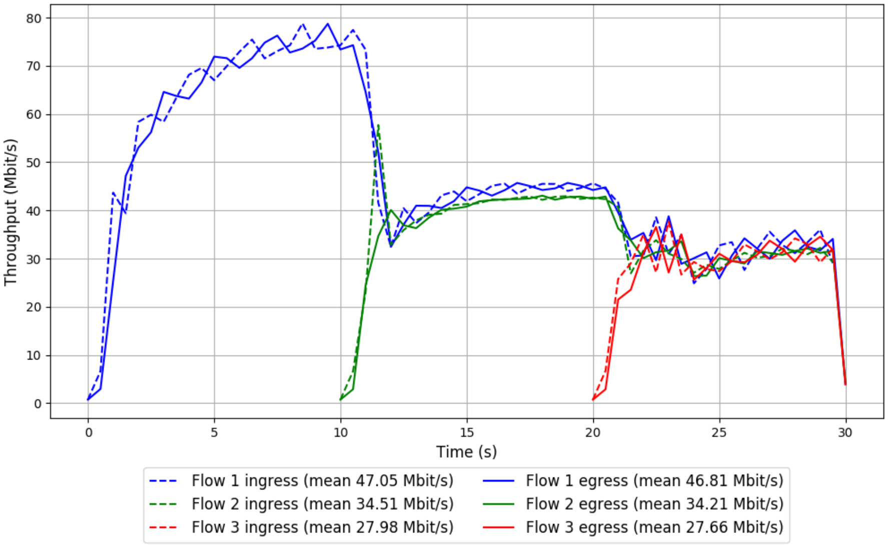
Run 7: Report of TCP Cubic — Data Link

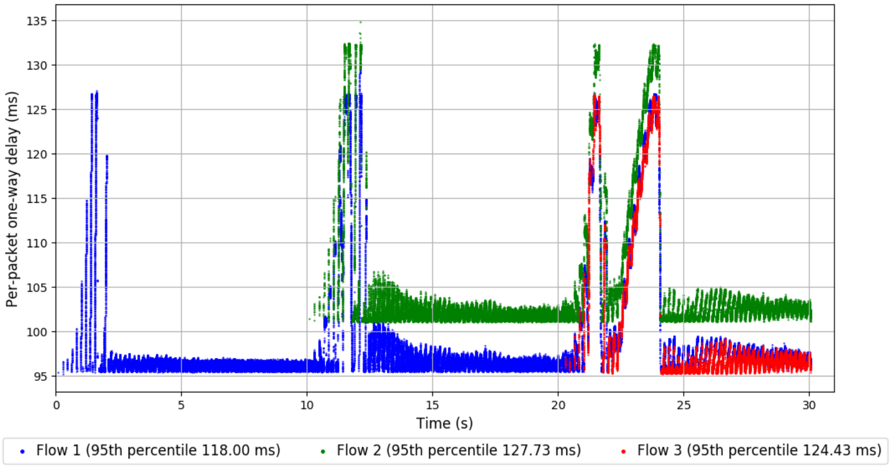




```
Run 8: Statistics of TCP Cubic

Start at: 2018-04-11 01:06:34
End at: 2018-04-11 01:07:04
Local clock offset: -5.625 ms
Remote clock offset: 1.929 ms

# Below is generated by plot.py at 2018-04-11 02:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.77 Mbit/s
95th percentile per-packet one-way delay: 122.887 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 46.81 Mbit/s
95th percentile per-packet one-way delay: 117.997 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 34.21 Mbit/s
95th percentile per-packet one-way delay: 127.732 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 27.66 Mbit/s
95th percentile per-packet one-way delay: 124.426 ms
Loss rate: 1.11%
```

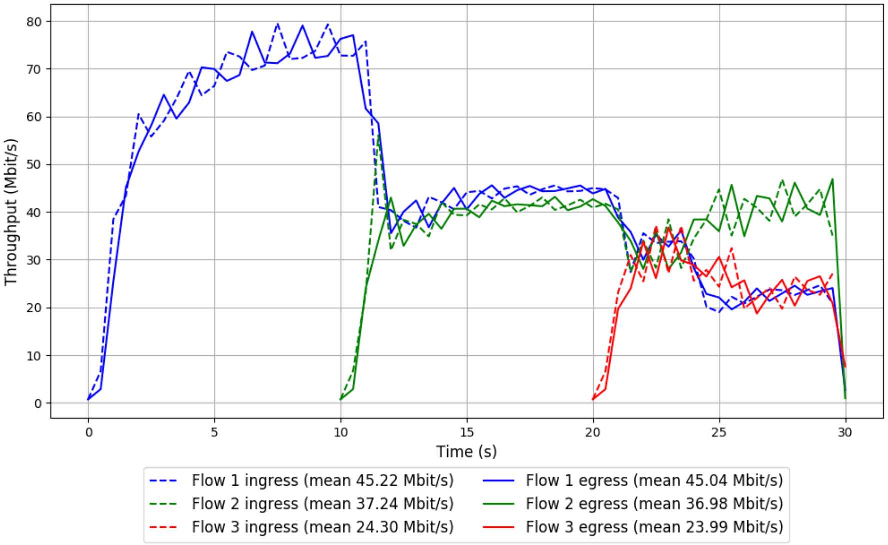
Run 8: Report of TCP Cubic — Data Link

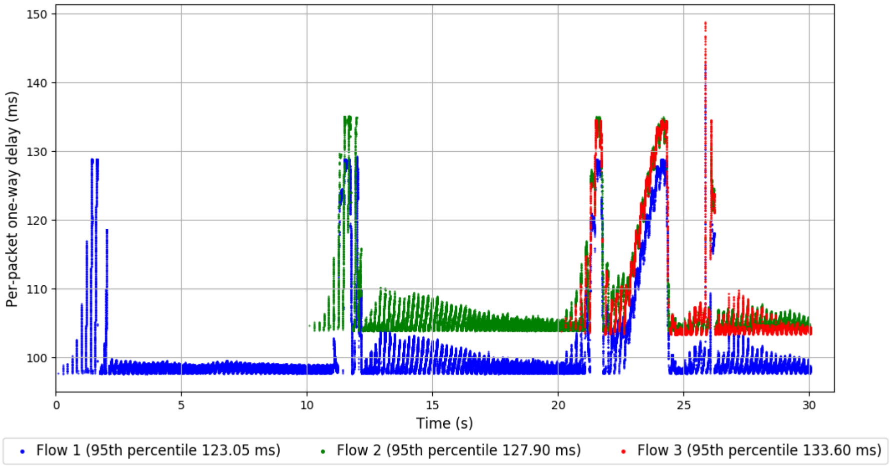




```
Run 9: Statistics of TCP Cubic

Start at: 2018-04-11 01:30:40
End at: 2018-04-11 01:31:10
Local clock offset: -4.709 ms
Remote clock offset: 1.657 ms

# Below is generated by plot.py at 2018-04-11 02:41:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.60 Mbit/s
95th percentile per-packet one-way delay: 126.820 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 45.04 Mbit/s
95th percentile per-packet one-way delay: 123.051 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 127.902 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 23.99 Mbit/s
95th percentile per-packet one-way delay: 133.598 ms
Loss rate: 1.28%
```

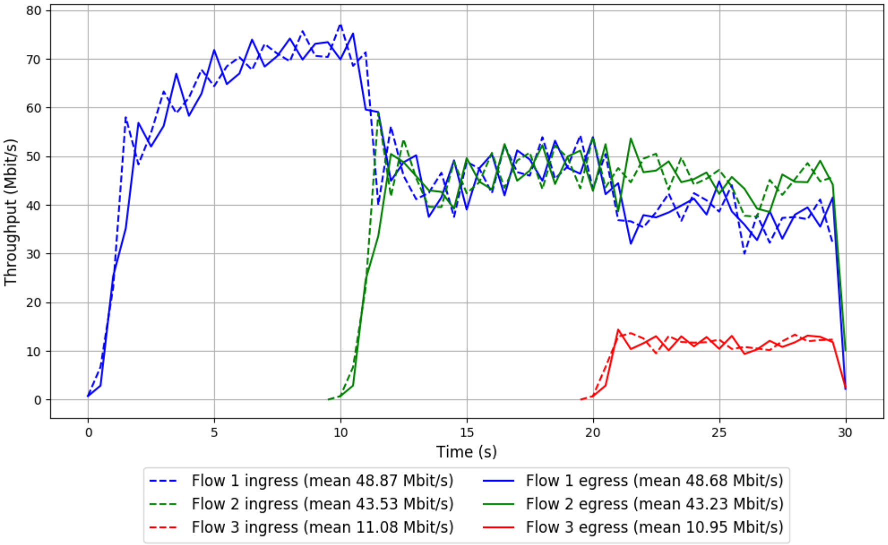
Run 9: Report of TCP Cubic — Data Link

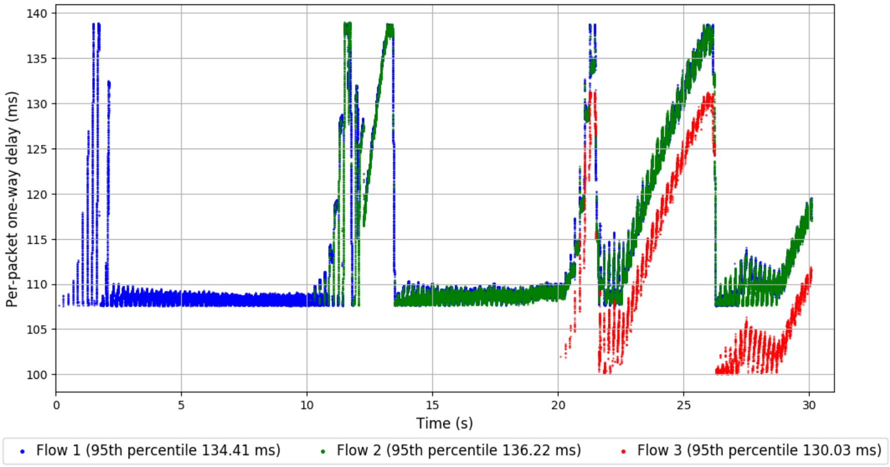




```
Run 10: Statistics of TCP Cubic

Start at: 2018-04-11 01:54:34
End at: 2018-04-11 01:55:04
Local clock offset: -5.548 ms
Remote clock offset: 6.107 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.13 Mbit/s
95th percentile per-packet one-way delay: 134.978 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 48.68 Mbit/s
95th percentile per-packet one-way delay: 134.409 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 43.23 Mbit/s
95th percentile per-packet one-way delay: 136.224 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 10.95 Mbit/s
95th percentile per-packet one-way delay: 130.027 ms
Loss rate: 1.10%
```

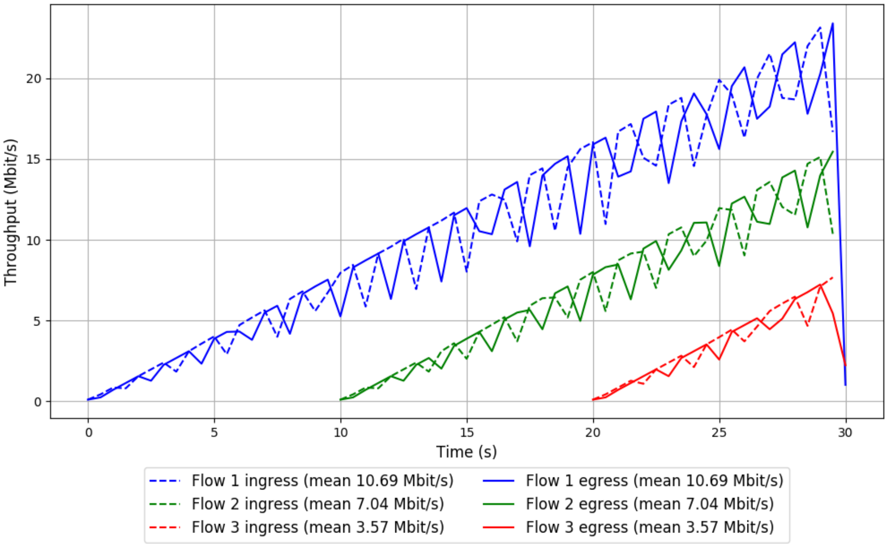
Run 10: Report of TCP Cubic — Data Link

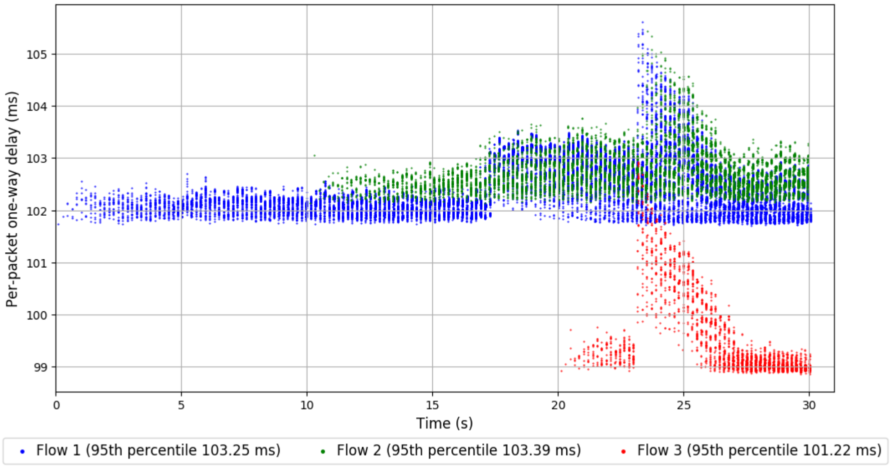




```
Run 1: Statistics of LEDBAT

Start at: 2018-04-10 22:20:44
End at: 2018-04-10 22:21:14
Local clock offset: -4.69 ms
Remote clock offset: 7.047 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.54 Mbit/s
95th percentile per-packet one-way delay: 103.277 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.69 Mbit/s
95th percentile per-packet one-way delay: 103.254 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 103.393 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 101.221 ms
Loss rate: 0.00%
```

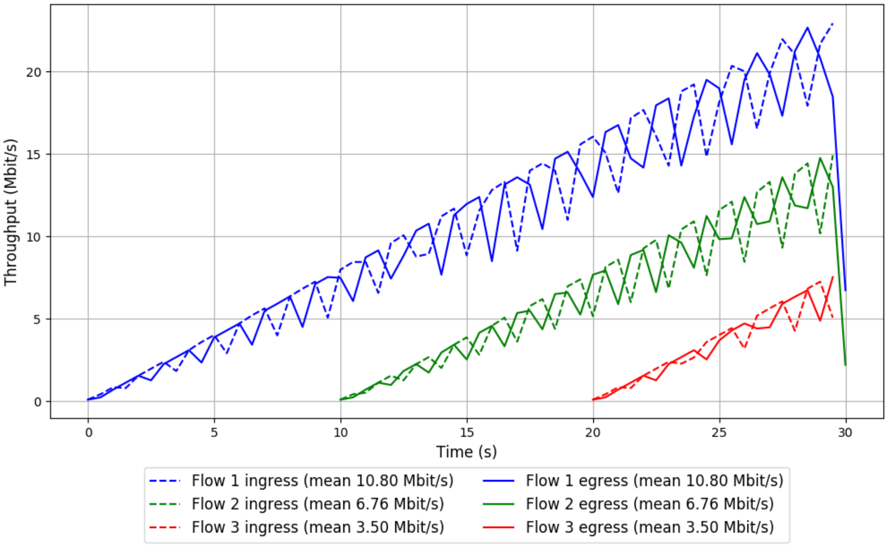
Run 1: Report of LEDBAT — Data Link

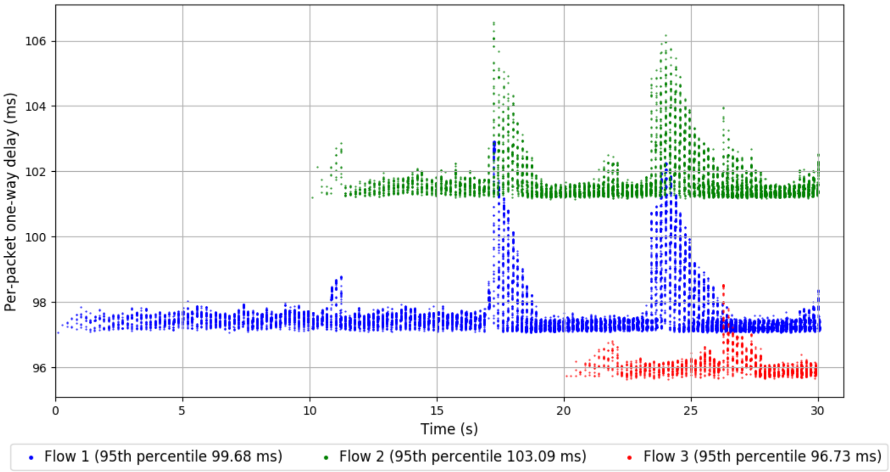




```
Run 2: Statistics of LEDBAT

Start at: 2018-04-10 22:44:52
End at: 2018-04-10 22:45:22
Local clock offset: -4.734 ms
Remote clock offset: 2.032 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.43 Mbit/s
95th percentile per-packet one-way delay: 101.987 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.80 Mbit/s
95th percentile per-packet one-way delay: 99.683 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.76 Mbit/s
95th percentile per-packet one-way delay: 103.089 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 96.731 ms
Loss rate: 0.00%
```

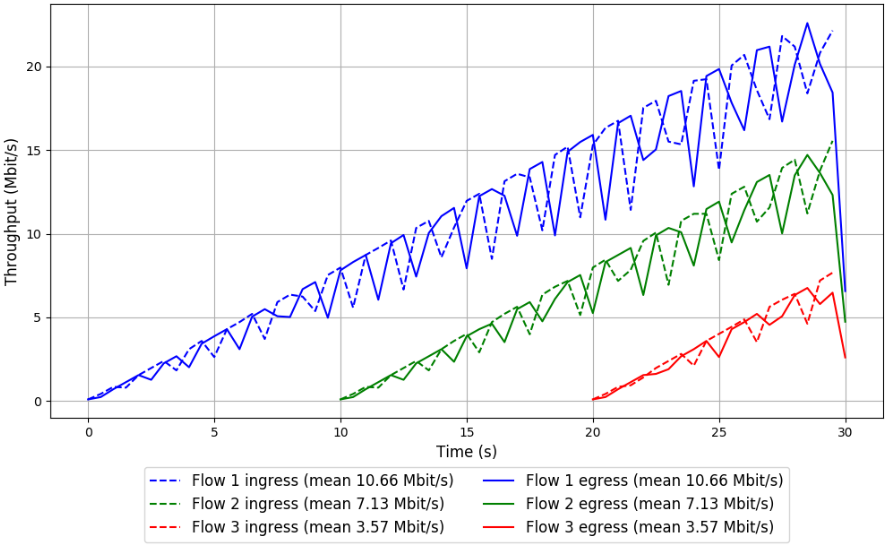
Run 2: Report of LEDBAT — Data Link

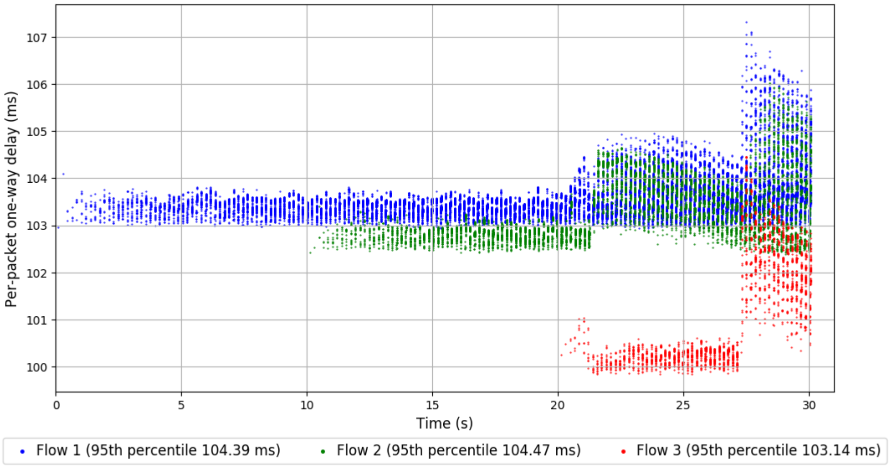




```
Run 3: Statistics of LEDBAT

Start at: 2018-04-10 23:08:44
End at: 2018-04-10 23:09:14
Local clock offset: -5.888 ms
Remote clock offset: 8.131 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.59 Mbit/s
95th percentile per-packet one-way delay: 104.390 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.66 Mbit/s
95th percentile per-packet one-way delay: 104.386 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.13 Mbit/s
95th percentile per-packet one-way delay: 104.468 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 103.144 ms
Loss rate: 0.00%
```

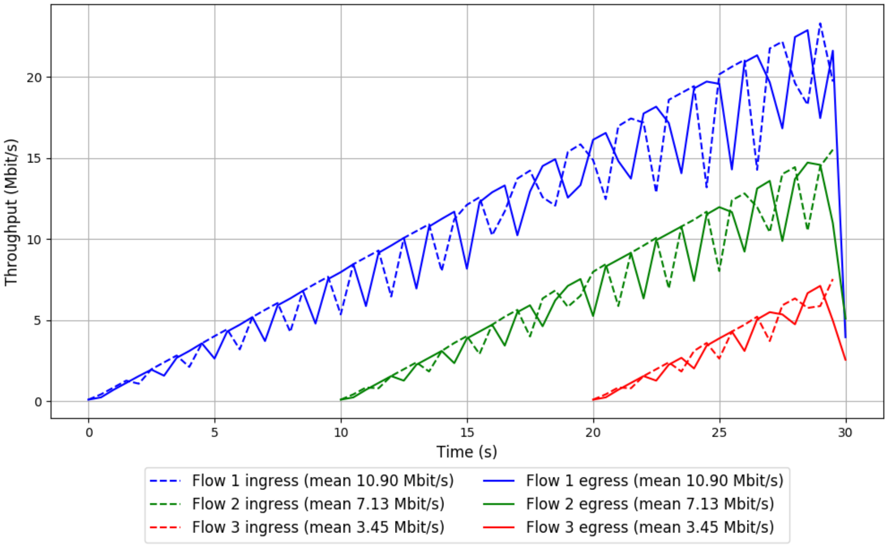
Run 3: Report of LEDBAT — Data Link

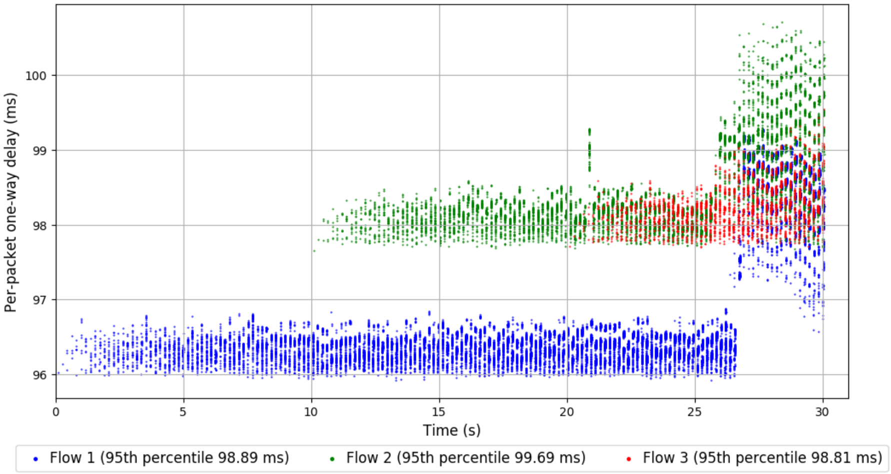




```
Run 4: Statistics of LEDBAT

Start at: 2018-04-10 23:32:52
End at: 2018-04-10 23:33:22
Local clock offset: -6.132 ms
Remote clock offset: 3.853 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.79 Mbit/s
95th percentile per-packet one-way delay: 99.147 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 98.894 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.13 Mbit/s
95th percentile per-packet one-way delay: 99.693 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 98.809 ms
Loss rate: 0.00%
```

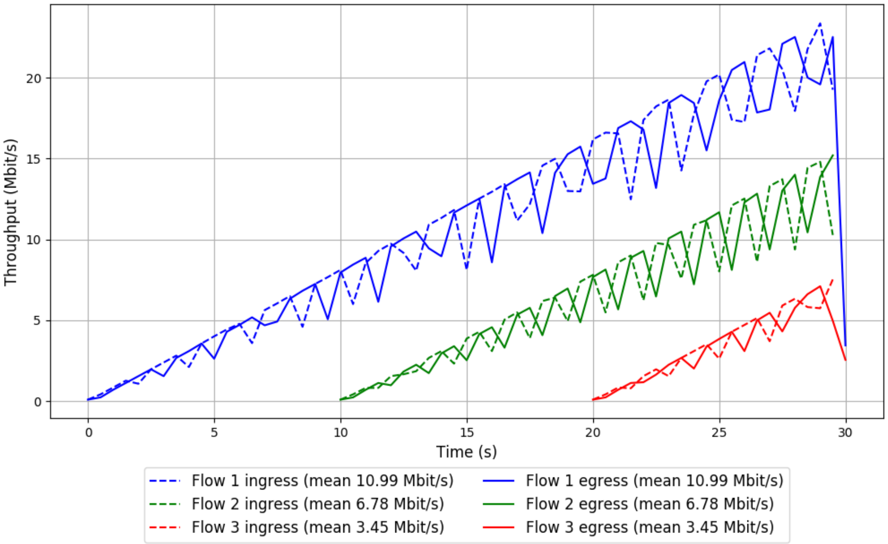
Run 4: Report of LEDBAT — Data Link

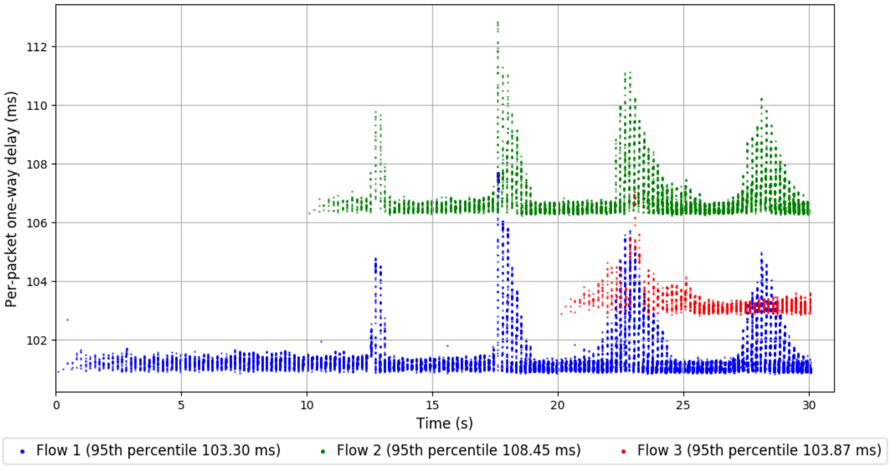




```
Run 5: Statistics of LEDBAT

Start at: 2018-04-10 23:56:47
End at: 2018-04-10 23:57:17
Local clock offset: -6.304 ms
Remote clock offset: 9.029 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.63 Mbit/s
95th percentile per-packet one-way delay: 107.220 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 103.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 108.449 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 103.872 ms
Loss rate: 0.00%
```

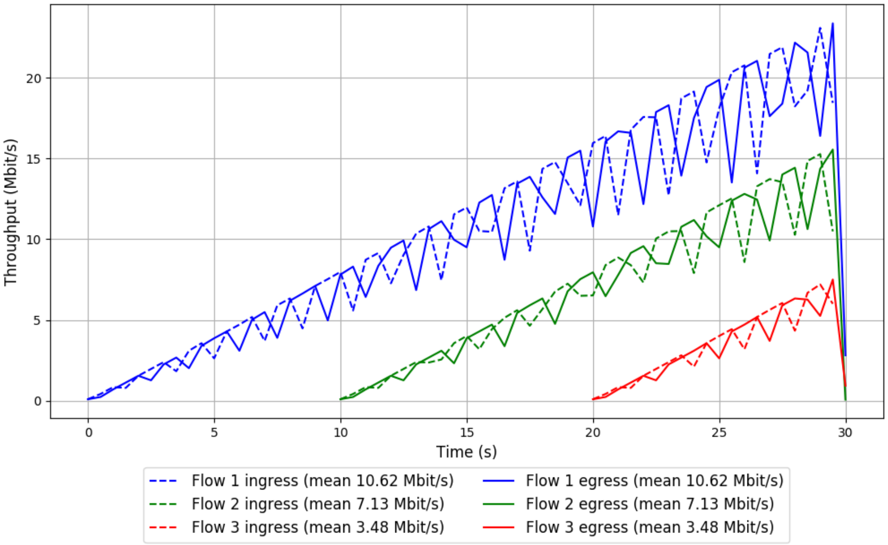
Run 5: Report of LEDBAT — Data Link

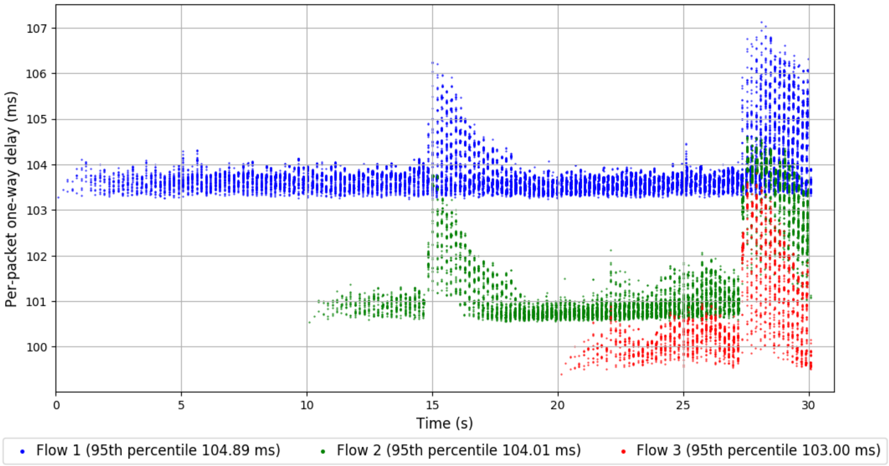




```
Run 6: Statistics of LEDBAT

Start at: 2018-04-11 00:21:05
End at: 2018-04-11 00:21:35
Local clock offset: -6.44 ms
Remote clock offset: 6.789 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 104.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.62 Mbit/s
95th percentile per-packet one-way delay: 104.888 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.13 Mbit/s
95th percentile per-packet one-way delay: 104.007 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 103.004 ms
Loss rate: 0.00%
```

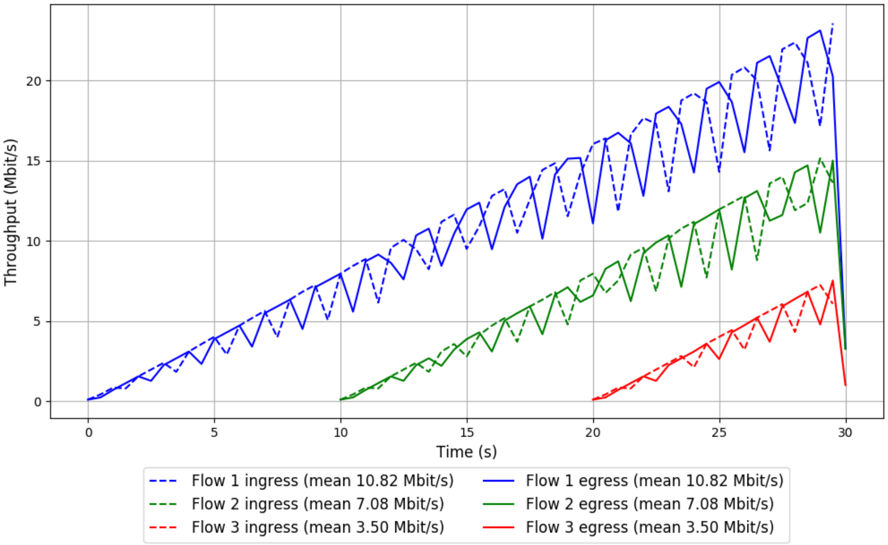
Run 6: Report of LEDBAT — Data Link

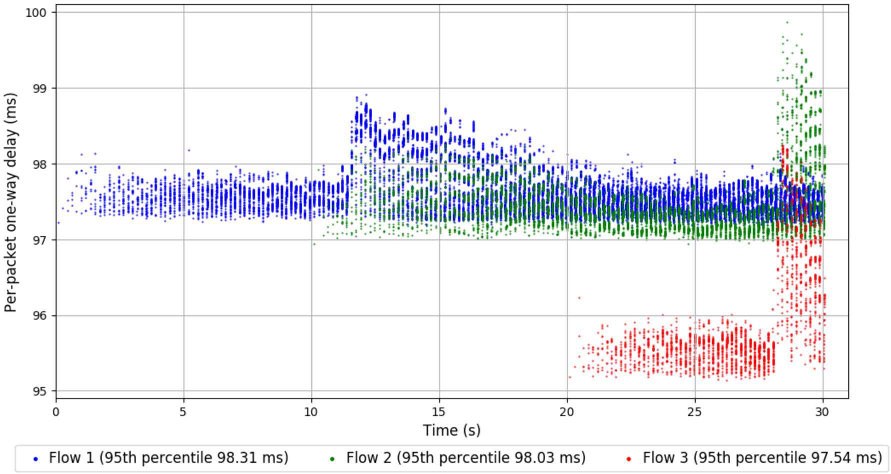




```
Run 7: Statistics of LEDBAT

Start at: 2018-04-11 00:45:18
End at: 2018-04-11 00:45:48
Local clock offset: -7.111 ms
Remote clock offset: 2.155 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.68 Mbit/s
95th percentile per-packet one-way delay: 98.215 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 98.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.08 Mbit/s
95th percentile per-packet one-way delay: 98.027 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 97.544 ms
Loss rate: 0.00%
```

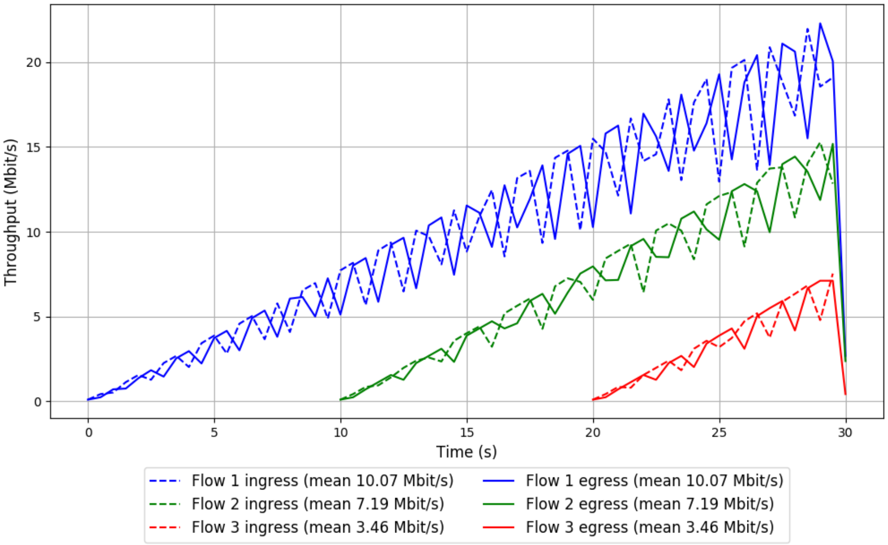
Run 7: Report of LEDBAT — Data Link

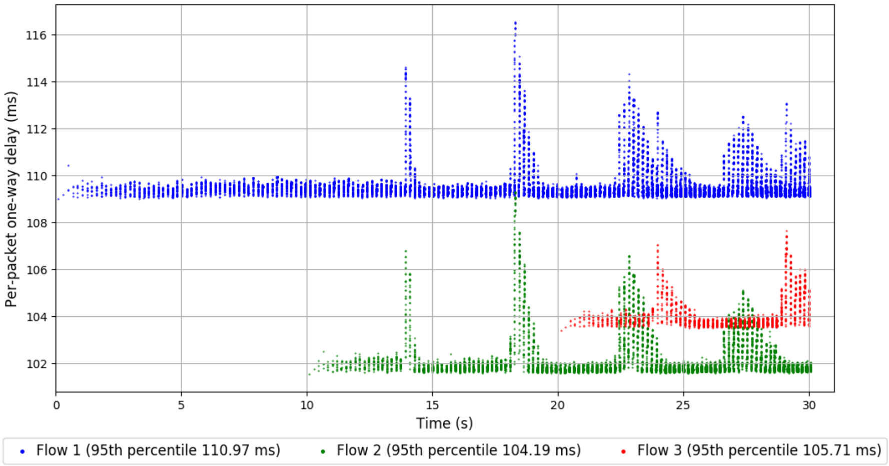




```
Run 8: Statistics of LEDBAT

Start at: 2018-04-11 01:09:31
End at: 2018-04-11 01:10:01
Local clock offset: -6.717 ms
Remote clock offset: 6.66 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.99 Mbit/s
95th percentile per-packet one-way delay: 110.478 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 110.975 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.19 Mbit/s
95th percentile per-packet one-way delay: 104.185 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 105.708 ms
Loss rate: 0.00%
```

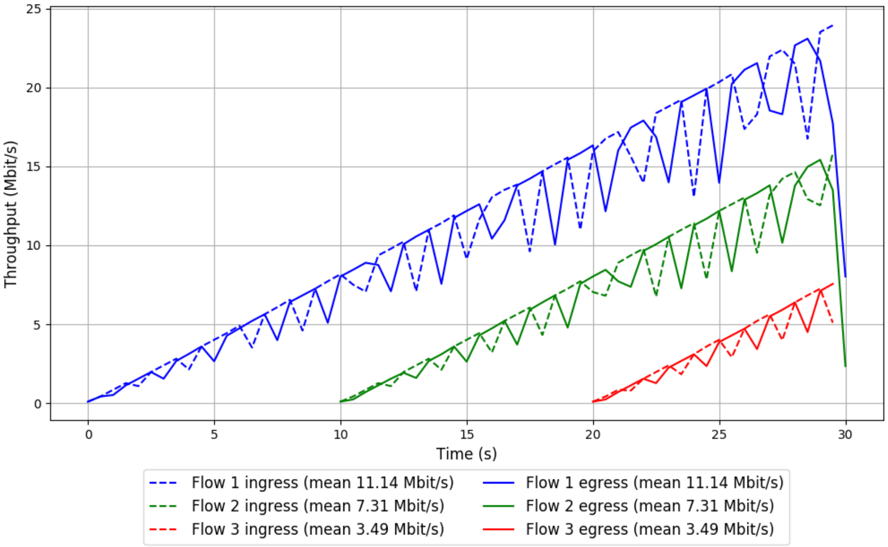
Run 8: Report of LEDBAT — Data Link

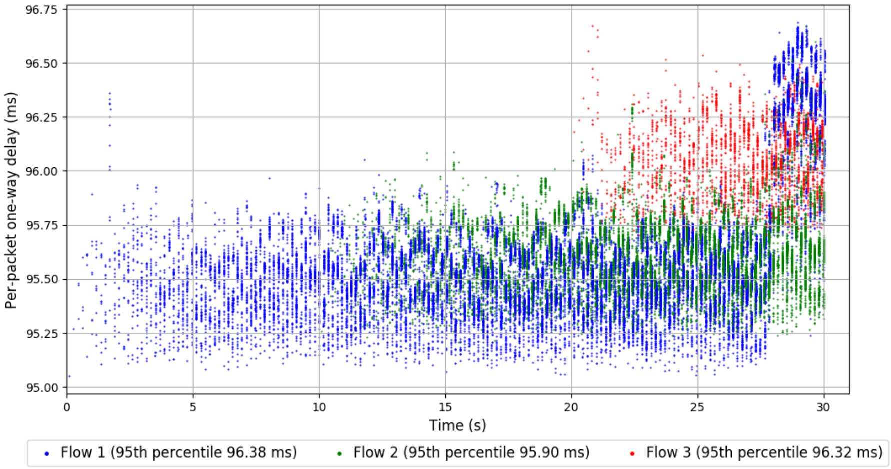




```
Run 9: Statistics of LEDBAT

Start at: 2018-04-11 01:33:24
End at: 2018-04-11 01:33:54
Local clock offset: -3.863 ms
Remote clock offset: 1.573 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.14 Mbit/s
95th percentile per-packet one-way delay: 96.330 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.14 Mbit/s
95th percentile per-packet one-way delay: 96.382 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 95.899 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 96.317 ms
Loss rate: 0.00%
```

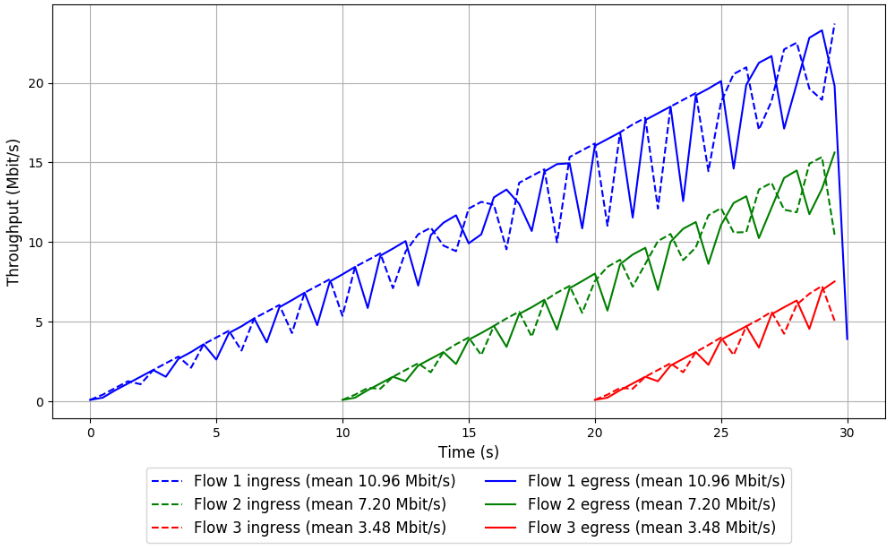
Run 9: Report of LEDBAT — Data Link

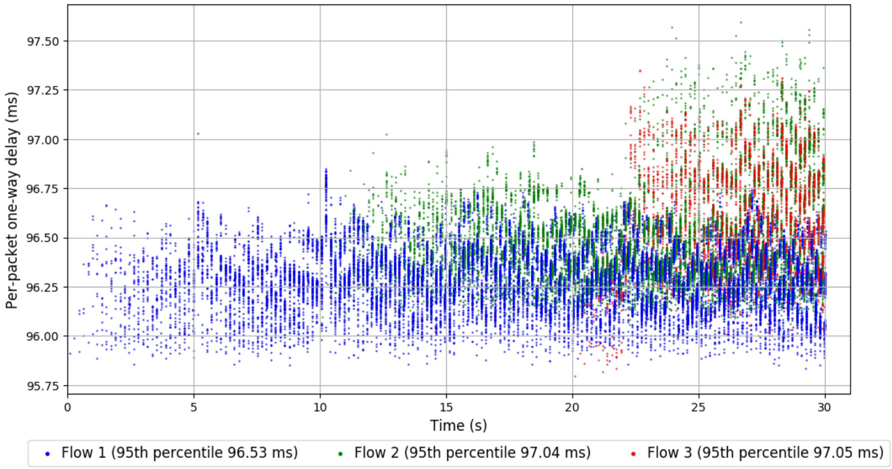




```
Run 10: Statistics of LEDBAT

Start at: 2018-04-11 01:57:32
End at: 2018-04-11 01:58:02
Local clock offset: -5.493 ms
Remote clock offset: 1.979 ms

# Below is generated by plot.py at 2018-04-11 02:41:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.87 Mbit/s
95th percentile per-packet one-way delay: 96.858 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 96.534 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.20 Mbit/s
95th percentile per-packet one-way delay: 97.036 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 97.048 ms
Loss rate: 0.00%
```

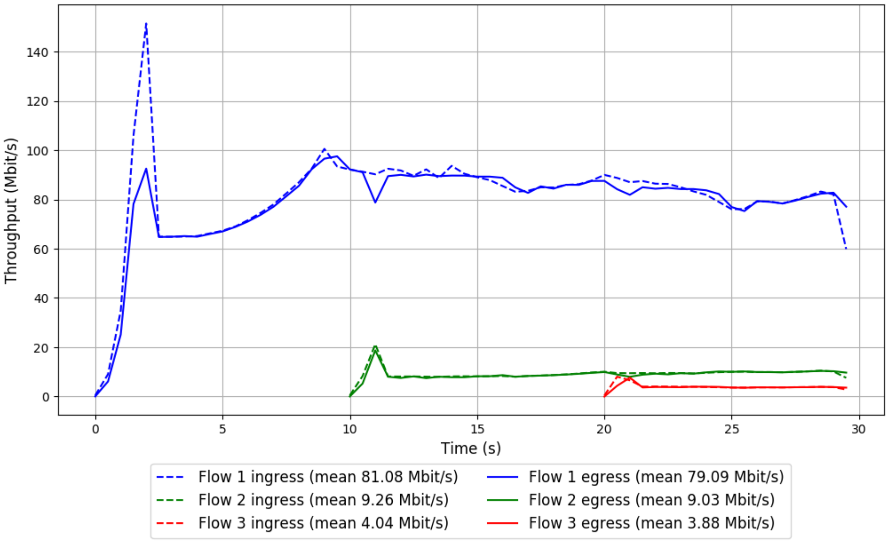
Run 10: Report of LEDBAT — Data Link

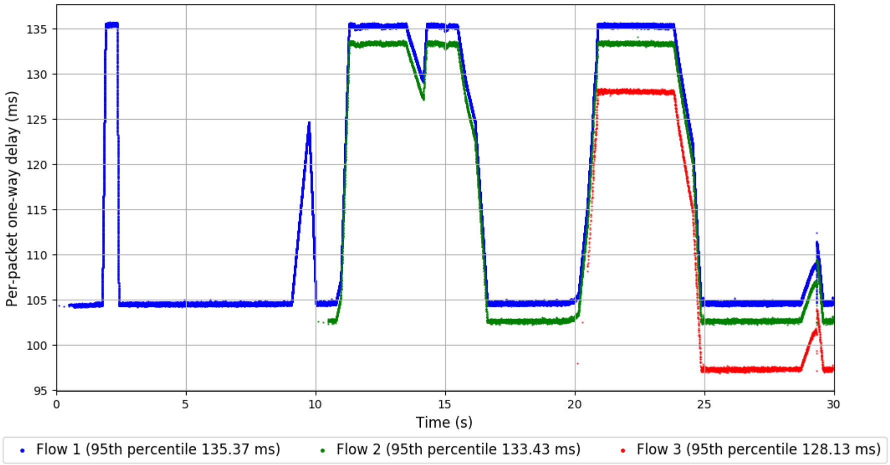




```
Run 1: Statistics of PCC

Start at: 2018-04-10 22:15:04
End at: 2018-04-10 22:15:34
Local clock offset: -6.308 ms
Remote clock offset: 2.15 ms

# Below is generated by plot.py at 2018-04-11 02:42:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.38 Mbit/s
95th percentile per-packet one-way delay: 135.361 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 79.09 Mbit/s
95th percentile per-packet one-way delay: 135.369 ms
Loss rate: 2.46%
-- Flow 2:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 133.434 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 128.131 ms
Loss rate: 3.80%
```

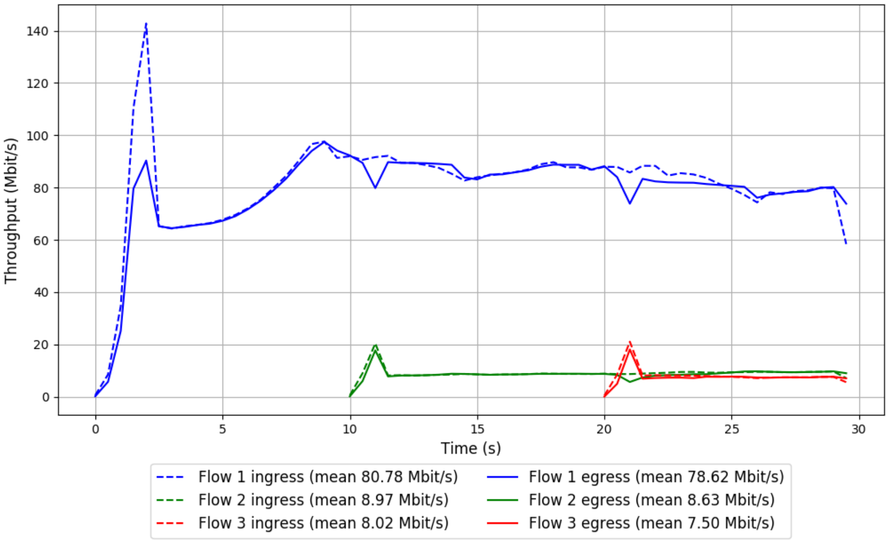
Run 1: Report of PCC — Data Link

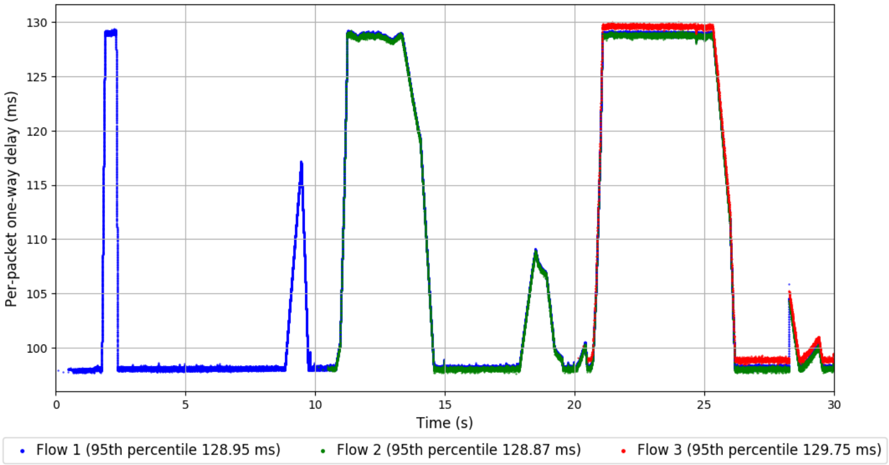




```
Run 2: Statistics of PCC

Start at: 2018-04-10 22:39:14
End at: 2018-04-10 22:39:44
Local clock offset: -5.435 ms
Remote clock offset: 2.116 ms

# Below is generated by plot.py at 2018-04-11 02:42:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.83 Mbit/s
95th percentile per-packet one-way delay: 128.970 ms
Loss rate: 2.86%
-- Flow 1:
Average throughput: 78.62 Mbit/s
95th percentile per-packet one-way delay: 128.951 ms
Loss rate: 2.67%
-- Flow 2:
Average throughput: 8.63 Mbit/s
95th percentile per-packet one-way delay: 128.869 ms
Loss rate: 3.79%
-- Flow 3:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 129.755 ms
Loss rate: 6.46%
```

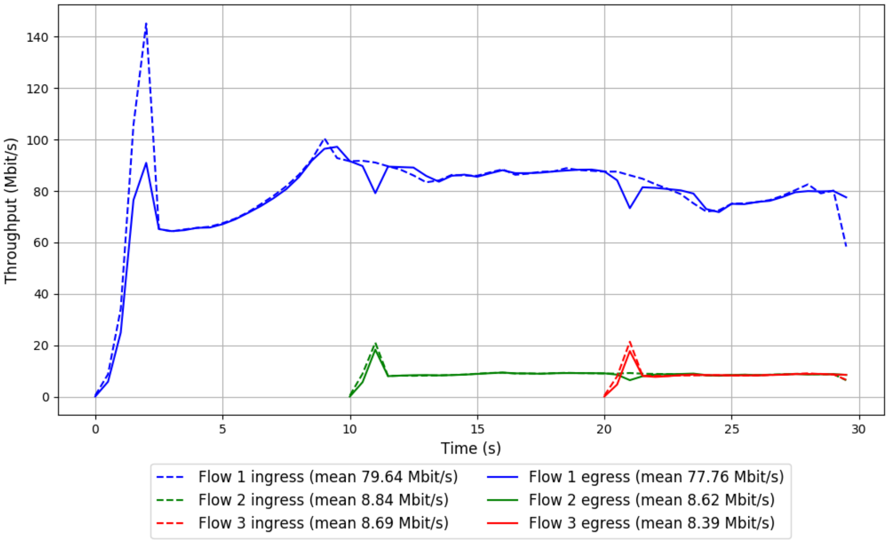
Run 2: Report of PCC — Data Link

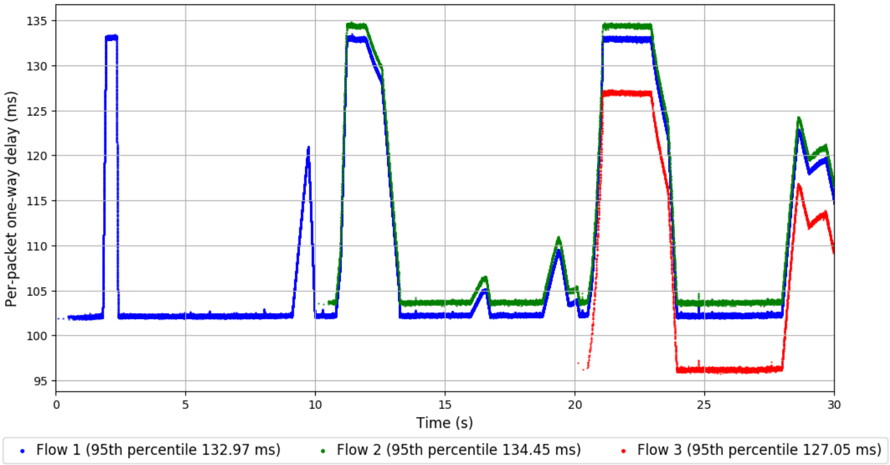




```
Run 3: Statistics of PCC

Start at: 2018-04-10 23:03:22
End at: 2018-04-10 23:03:52
Local clock offset: -5.871 ms
Remote clock offset: 3.186 ms

# Below is generated by plot.py at 2018-04-11 02:42:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.27 Mbit/s
95th percentile per-packet one-way delay: 132.985 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 77.76 Mbit/s
95th percentile per-packet one-way delay: 132.969 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 134.449 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 8.39 Mbit/s
95th percentile per-packet one-way delay: 127.052 ms
Loss rate: 3.33%
```

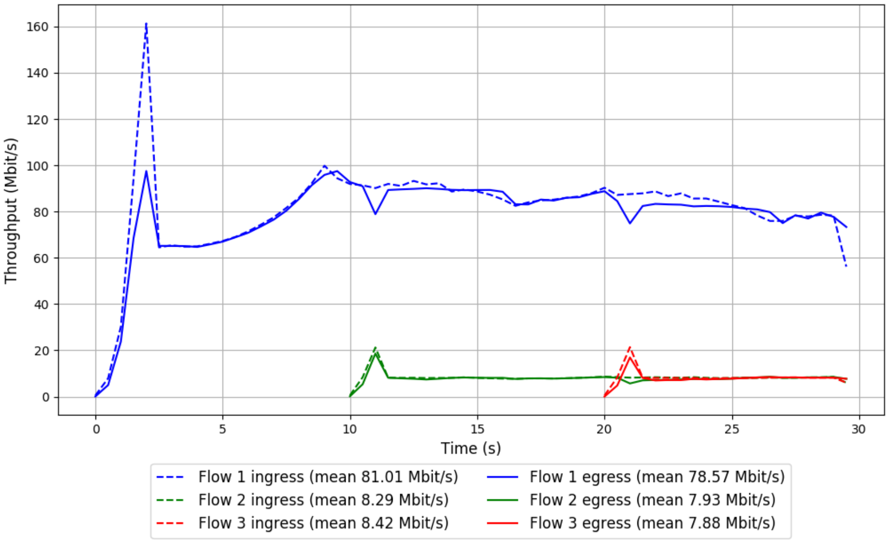
Run 3: Report of PCC — Data Link

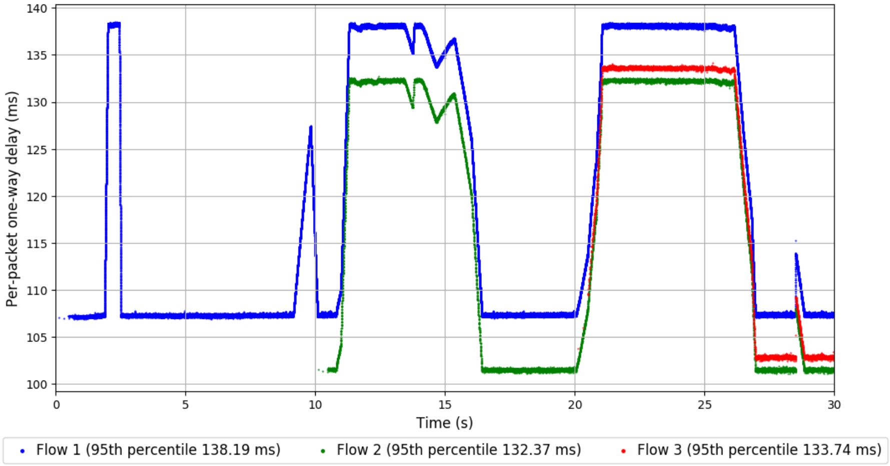




```
Run 4: Statistics of PCC

Start at: 2018-04-10 23:27:13
End at: 2018-04-10 23:27:43
Local clock offset: -6.115 ms
Remote clock offset: 8.567 ms

# Below is generated by plot.py at 2018-04-11 02:43:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 138.177 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 78.57 Mbit/s
95th percentile per-packet one-way delay: 138.185 ms
Loss rate: 3.01%
-- Flow 2:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 132.373 ms
Loss rate: 4.32%
-- Flow 3:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 133.740 ms
Loss rate: 6.47%
```

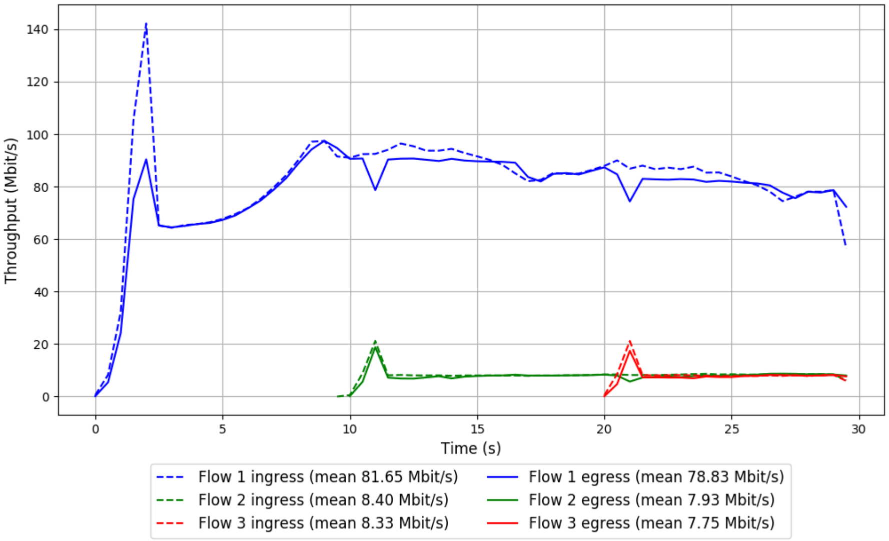
Run 4: Report of PCC — Data Link

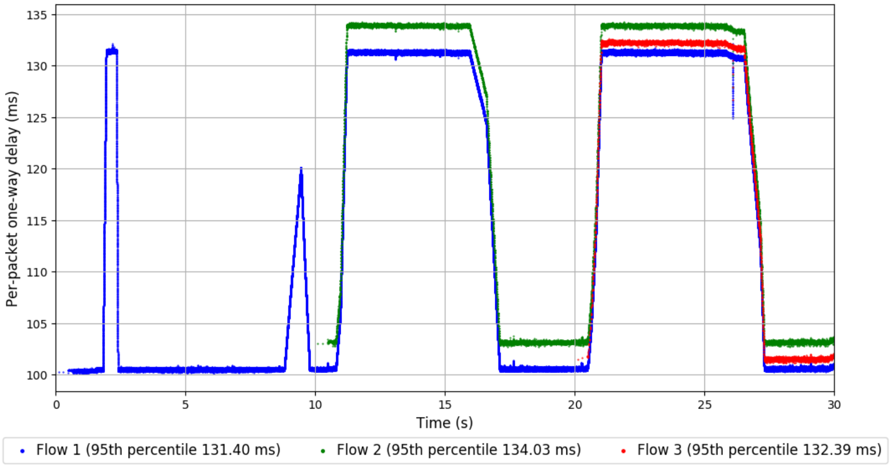




```
Run 5: Statistics of PCC

Start at: 2018-04-10 23:51:24
End at: 2018-04-10 23:51:54
Local clock offset: -5.521 ms
Remote clock offset: 9.009 ms

# Below is generated by plot.py at 2018-04-11 02:43:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.66 Mbit/s
95th percentile per-packet one-way delay: 131.591 ms
Loss rate: 3.68%
-- Flow 1:
Average throughput: 78.83 Mbit/s
95th percentile per-packet one-way delay: 131.403 ms
Loss rate: 3.45%
-- Flow 2:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 134.032 ms
Loss rate: 5.52%
-- Flow 3:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 132.392 ms
Loss rate: 6.87%
```

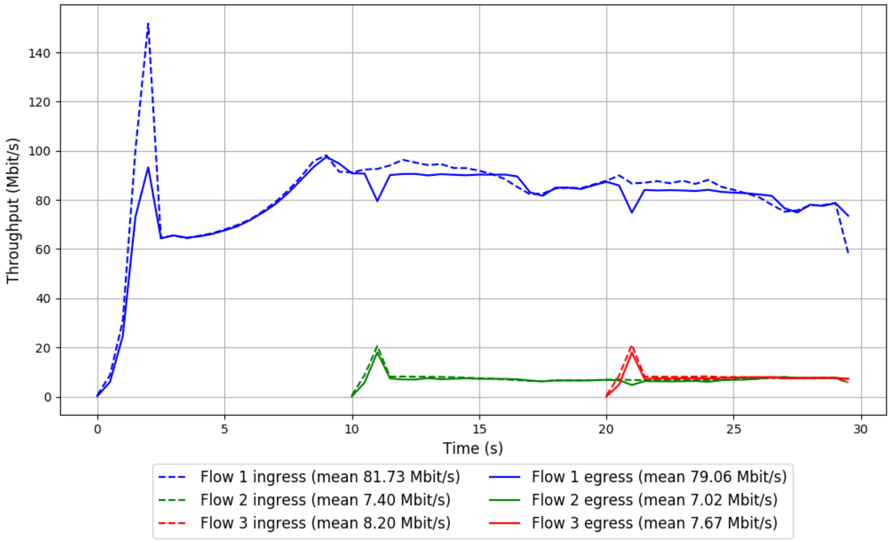
Run 5: Report of PCC — Data Link

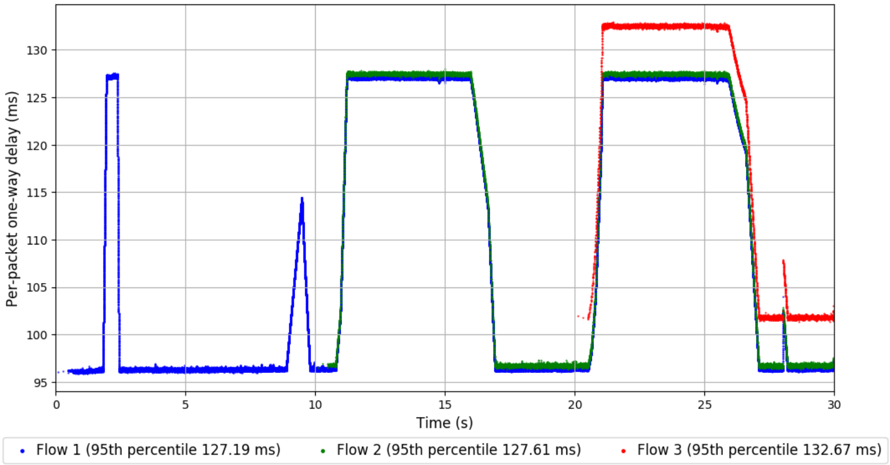




```
Run 6: Statistics of PCC

Start at: 2018-04-11 00:15:16
End at: 2018-04-11 00:15:46
Local clock offset: -6.424 ms
Remote clock offset: 2.352 ms

# Below is generated by plot.py at 2018-04-11 02:43:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.25 Mbit/s
95th percentile per-packet one-way delay: 127.280 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 79.06 Mbit/s
95th percentile per-packet one-way delay: 127.195 ms
Loss rate: 3.26%
-- Flow 2:
Average throughput: 7.02 Mbit/s
95th percentile per-packet one-way delay: 127.611 ms
Loss rate: 5.18%
-- Flow 3:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 132.666 ms
Loss rate: 6.44%
```

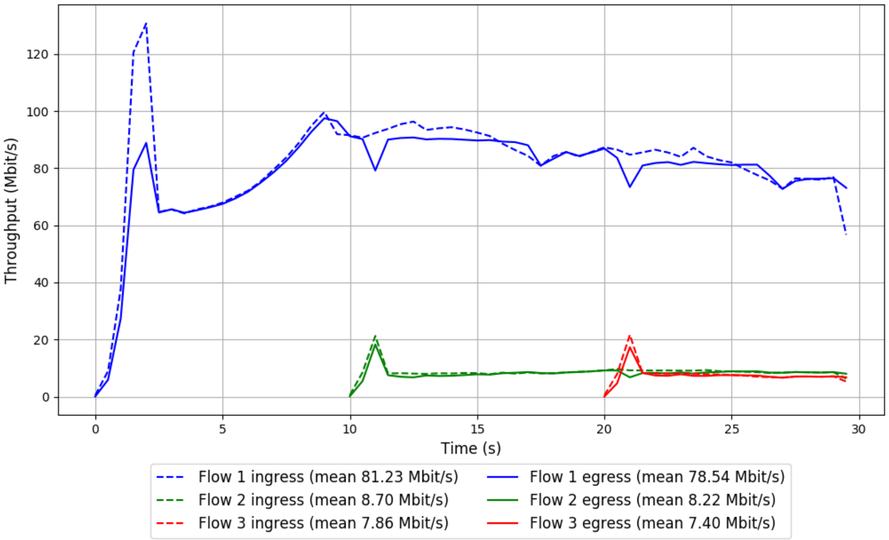
Run 6: Report of PCC — Data Link

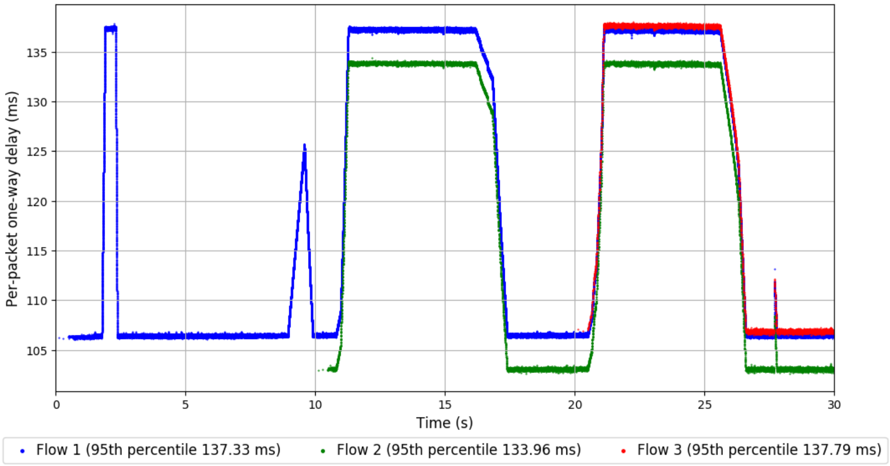




```
Run 7: Statistics of PCC

Start at: 2018-04-11 00:39:46
End at: 2018-04-11 00:40:16
Local clock offset: -7.614 ms
Remote clock offset: 6.829 ms

# Below is generated by plot.py at 2018-04-11 02:43:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 137.345 ms
Loss rate: 3.53%
-- Flow 1:
Average throughput: 78.54 Mbit/s
95th percentile per-packet one-way delay: 137.331 ms
Loss rate: 3.31%
-- Flow 2:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 133.960 ms
Loss rate: 5.60%
-- Flow 3:
Average throughput: 7.40 Mbit/s
95th percentile per-packet one-way delay: 137.786 ms
Loss rate: 5.93%
```

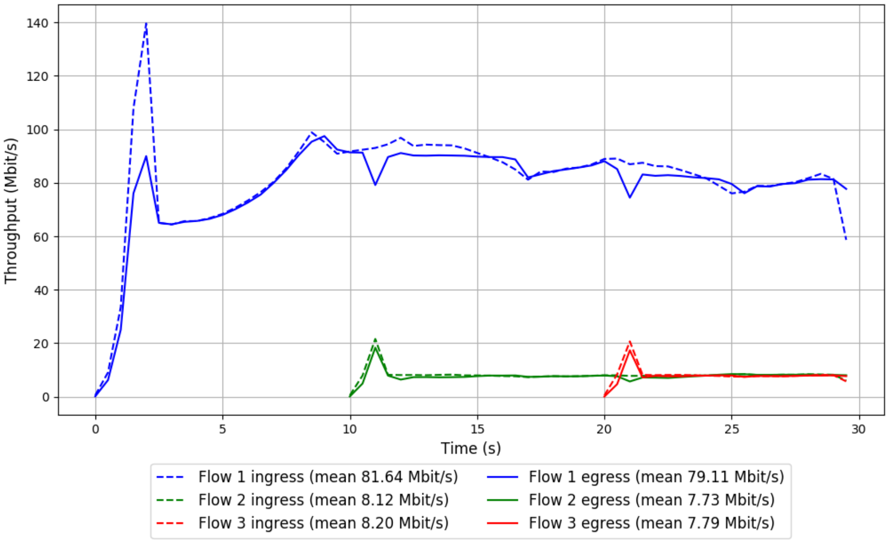
Run 7: Report of PCC — Data Link

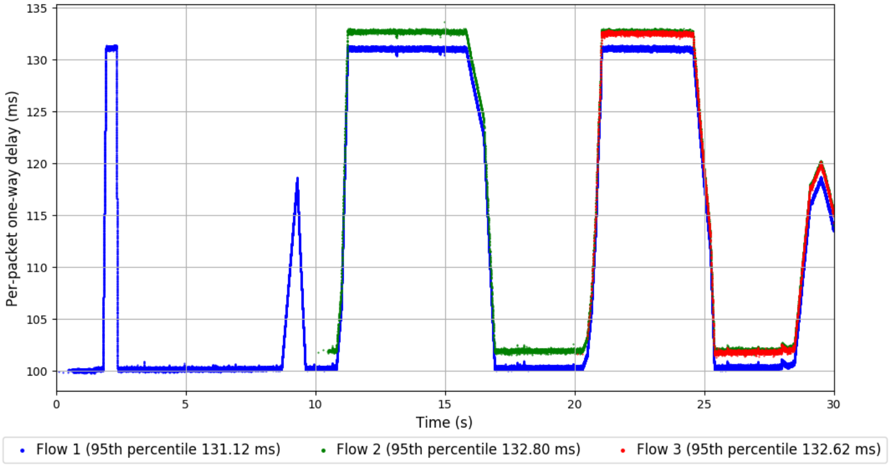




```
Run 8: Statistics of PCC

Start at: 2018-04-11 01:03:53
End at: 2018-04-11 01:04:23
Local clock offset: -6.13 ms
Remote clock offset: 6.454 ms

# Below is generated by plot.py at 2018-04-11 02:43:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.81 Mbit/s
95th percentile per-packet one-way delay: 131.186 ms
Loss rate: 3.21%
-- Flow 1:
Average throughput: 79.11 Mbit/s
95th percentile per-packet one-way delay: 131.122 ms
Loss rate: 3.06%
-- Flow 2:
Average throughput: 7.73 Mbit/s
95th percentile per-packet one-way delay: 132.798 ms
Loss rate: 4.79%
-- Flow 3:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 132.623 ms
Loss rate: 4.88%
```

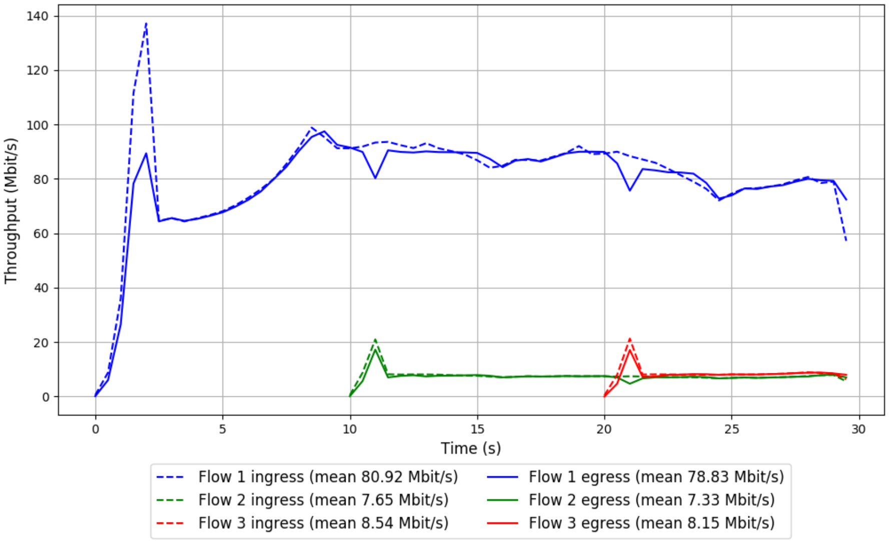
Run 8: Report of PCC — Data Link

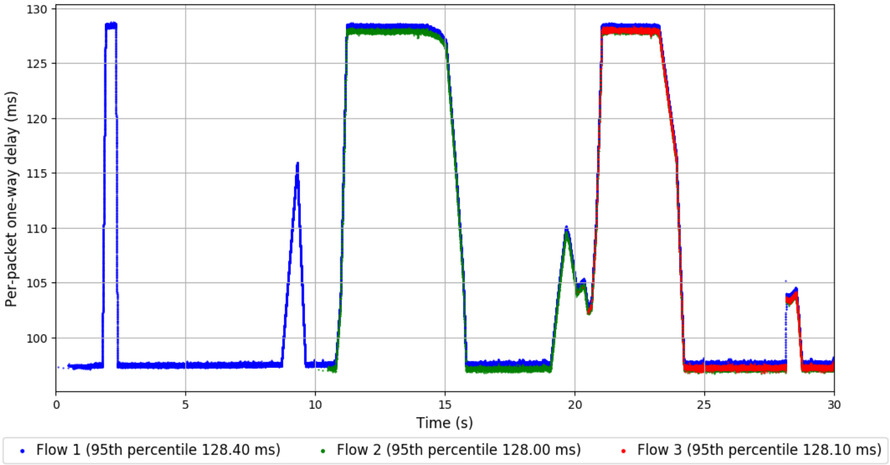




```
Run 9: Statistics of PCC

Start at: 2018-04-11 01:28:00
End at: 2018-04-11 01:28:30
Local clock offset: -4.057 ms
Remote clock offset: 1.67 ms

# Below is generated by plot.py at 2018-04-11 02:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.39 Mbit/s
95th percentile per-packet one-way delay: 128.390 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 78.83 Mbit/s
95th percentile per-packet one-way delay: 128.398 ms
Loss rate: 2.58%
-- Flow 2:
Average throughput: 7.33 Mbit/s
95th percentile per-packet one-way delay: 127.999 ms
Loss rate: 4.11%
-- Flow 3:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 128.096 ms
Loss rate: 4.66%
```

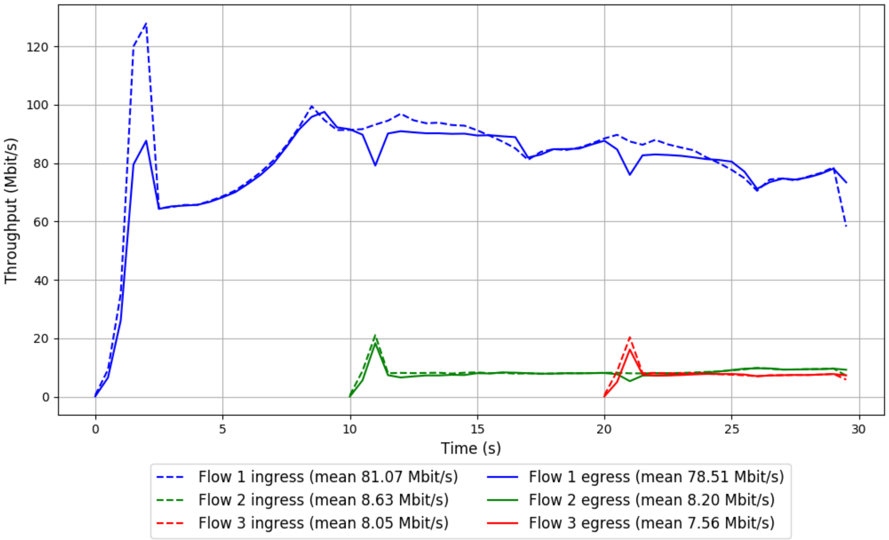
Run 9: Report of PCC — Data Link

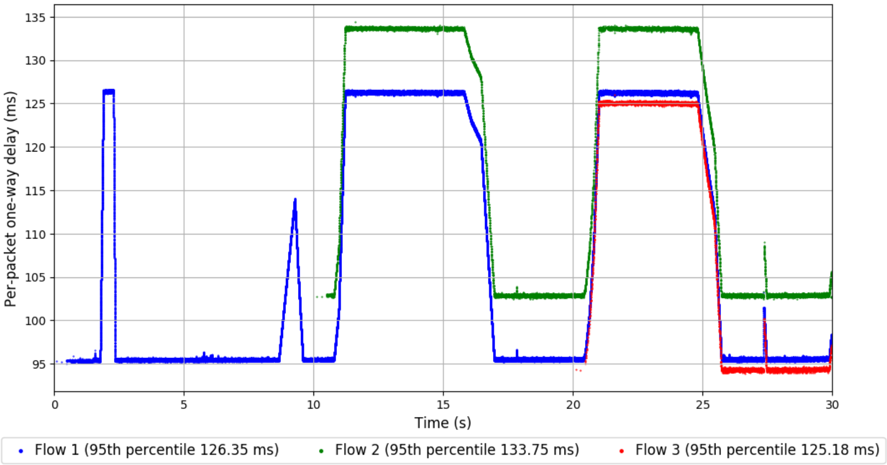




```
Run 10: Statistics of PCC

Start at: 2018-04-11 01:51:55
End at: 2018-04-11 01:52:25
Local clock offset: -4.716 ms
Remote clock offset: 1.925 ms

# Below is generated by plot.py at 2018-04-11 02:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.44 Mbit/s
95th percentile per-packet one-way delay: 126.394 ms
Loss rate: 3.35%
-- Flow 1:
Average throughput: 78.51 Mbit/s
95th percentile per-packet one-way delay: 126.351 ms
Loss rate: 3.15%
-- Flow 2:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 133.754 ms
Loss rate: 4.96%
-- Flow 3:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 125.184 ms
Loss rate: 6.05%
```

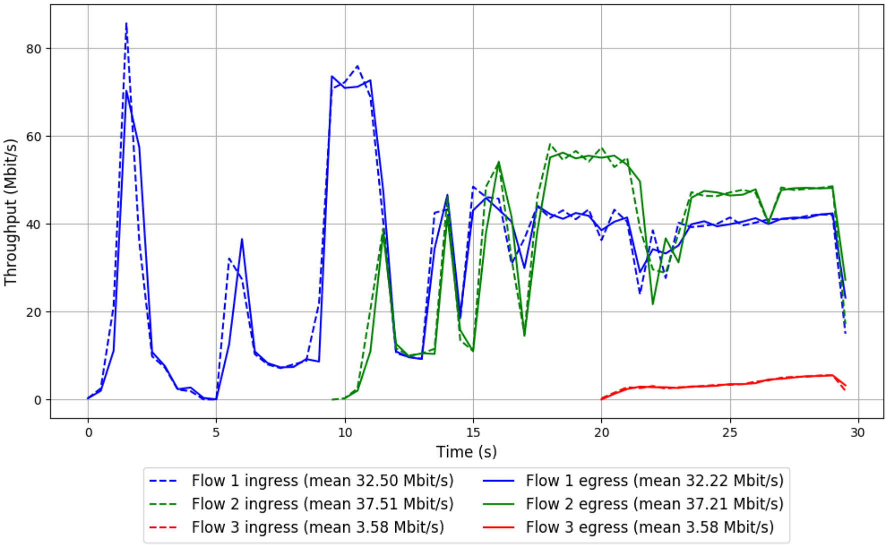
Run 10: Report of PCC — Data Link

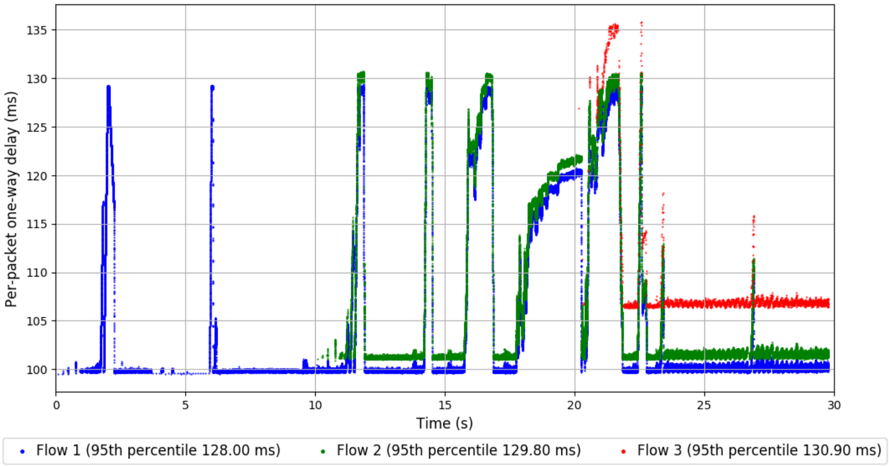




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-10 22:24:44
End at: 2018-04-10 22:25:14
Local clock offset: -5.503 ms
Remote clock offset: 7.011 ms

# Below is generated by plot.py at 2018-04-11 02:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 128.767 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 32.22 Mbit/s
95th percentile per-packet one-way delay: 127.998 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 37.21 Mbit/s
95th percentile per-packet one-way delay: 129.800 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 130.900 ms
Loss rate: 0.07%
```

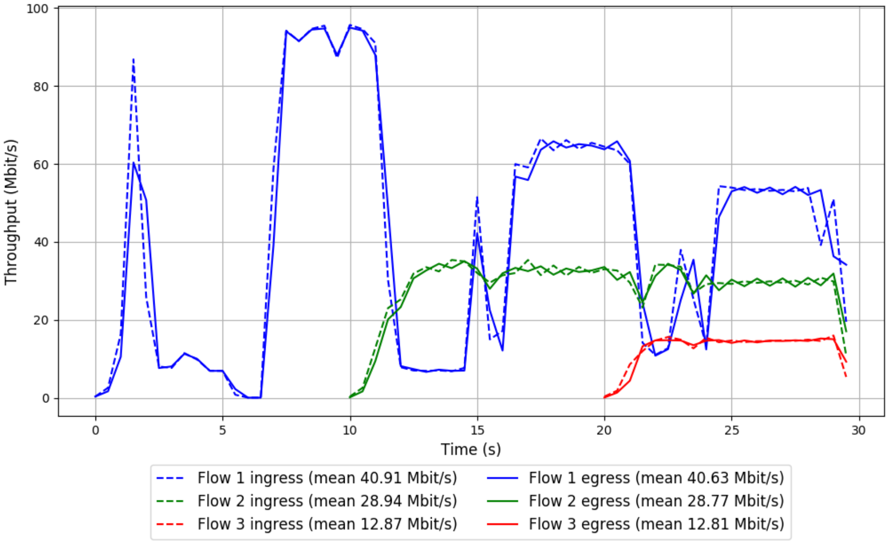
Run 1: Report of QUIC Cubic — Data Link

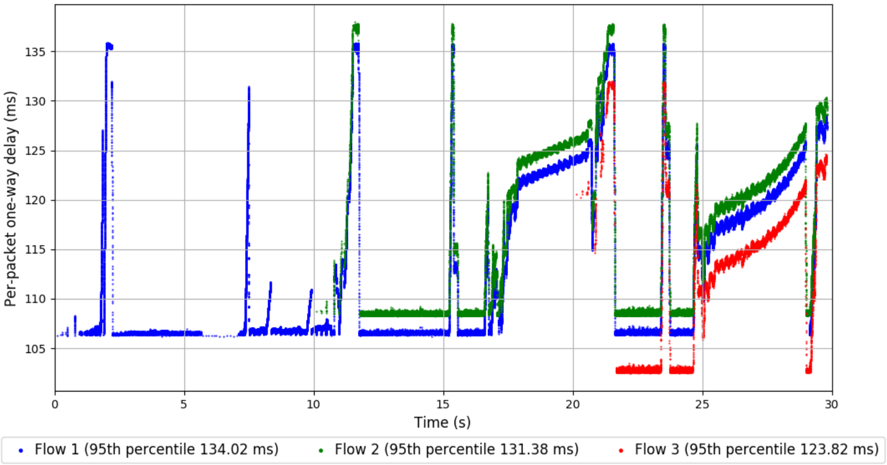




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-10 22:48:52
End at: 2018-04-10 22:49:22
Local clock offset: -5.652 ms
Remote clock offset: 6.794 ms

# Below is generated by plot.py at 2018-04-11 02:44:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.86 Mbit/s
95th percentile per-packet one-way delay: 132.332 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 134.019 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 28.77 Mbit/s
95th percentile per-packet one-way delay: 131.376 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 12.81 Mbit/s
95th percentile per-packet one-way delay: 123.817 ms
Loss rate: 0.49%
```

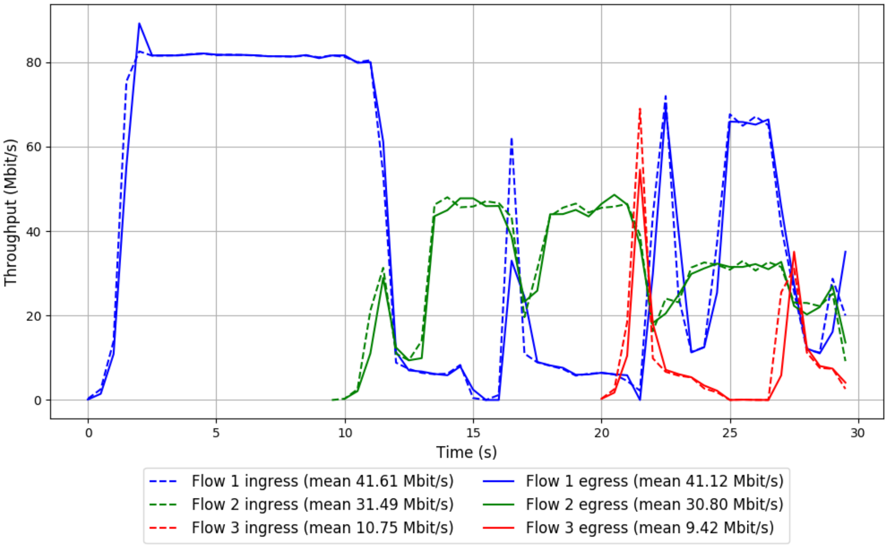
Run 2: Report of QUIC Cubic — Data Link

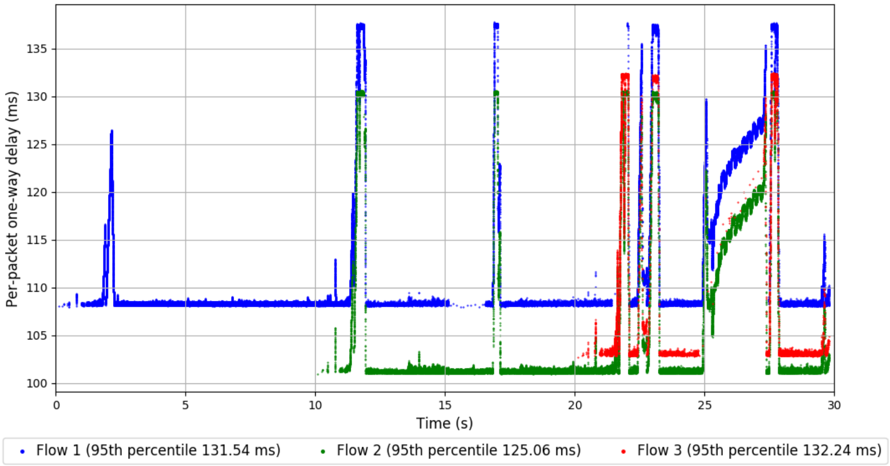




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-10 23:12:43
End at: 2018-04-10 23:13:13
Local clock offset: -5.931 ms
Remote clock offset: 8.275 ms

# Below is generated by plot.py at 2018-04-11 02:44:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.63 Mbit/s
95th percentile per-packet one-way delay: 130.371 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 41.12 Mbit/s
95th percentile per-packet one-way delay: 131.542 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 30.80 Mbit/s
95th percentile per-packet one-way delay: 125.065 ms
Loss rate: 2.18%
-- Flow 3:
Average throughput: 9.42 Mbit/s
95th percentile per-packet one-way delay: 132.236 ms
Loss rate: 12.33%
```

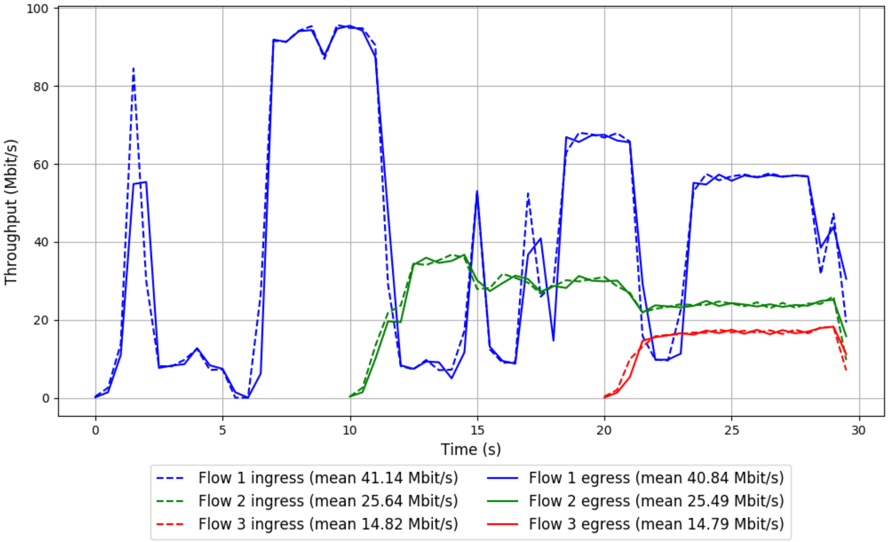
Run 3: Report of QUIC Cubic — Data Link

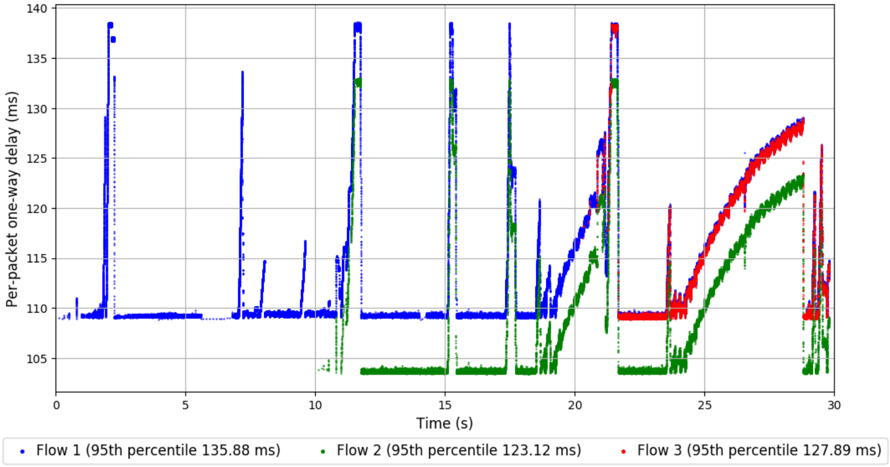




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-10 23:36:53
End at: 2018-04-10 23:37:23
Local clock offset: -7.001 ms
Remote clock offset: 8.793 ms

# Below is generated by plot.py at 2018-04-11 02:44:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.55 Mbit/s
95th percentile per-packet one-way delay: 131.429 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 40.84 Mbit/s
95th percentile per-packet one-way delay: 135.882 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 25.49 Mbit/s
95th percentile per-packet one-way delay: 123.120 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 14.79 Mbit/s
95th percentile per-packet one-way delay: 127.889 ms
Loss rate: 0.28%
```

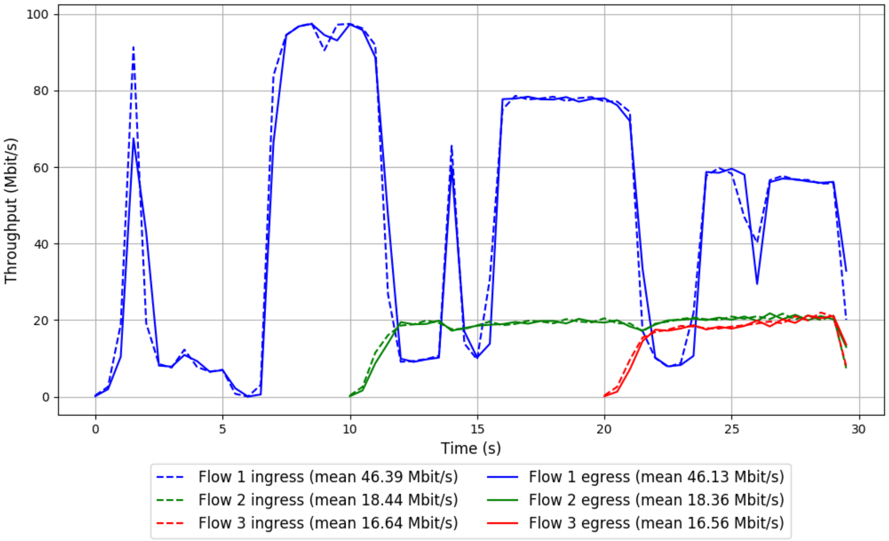
Run 4: Report of QUIC Cubic — Data Link

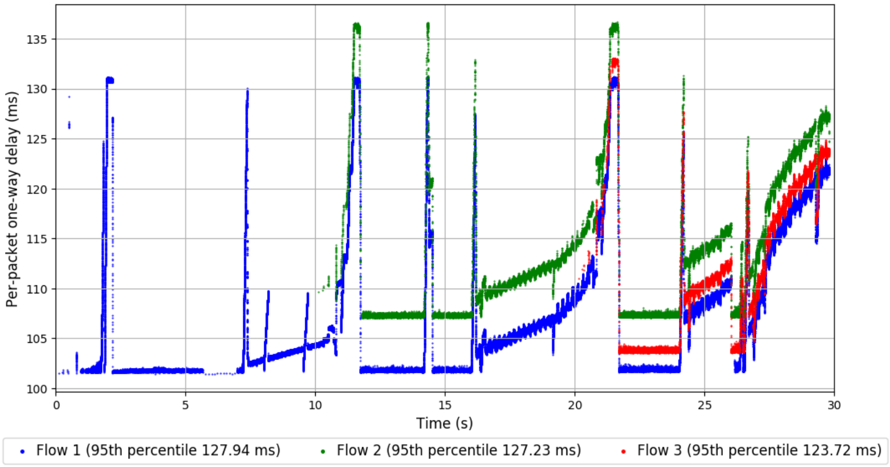




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-11 00:00:46
End at: 2018-04-11 00:01:16
Local clock offset: -7.064 ms
Remote clock offset: 8.632 ms

# Below is generated by plot.py at 2018-04-11 02:44:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.69 Mbit/s
95th percentile per-packet one-way delay: 127.082 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 46.13 Mbit/s
95th percentile per-packet one-way delay: 127.943 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 18.36 Mbit/s
95th percentile per-packet one-way delay: 127.228 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 16.56 Mbit/s
95th percentile per-packet one-way delay: 123.720 ms
Loss rate: 0.35%
```

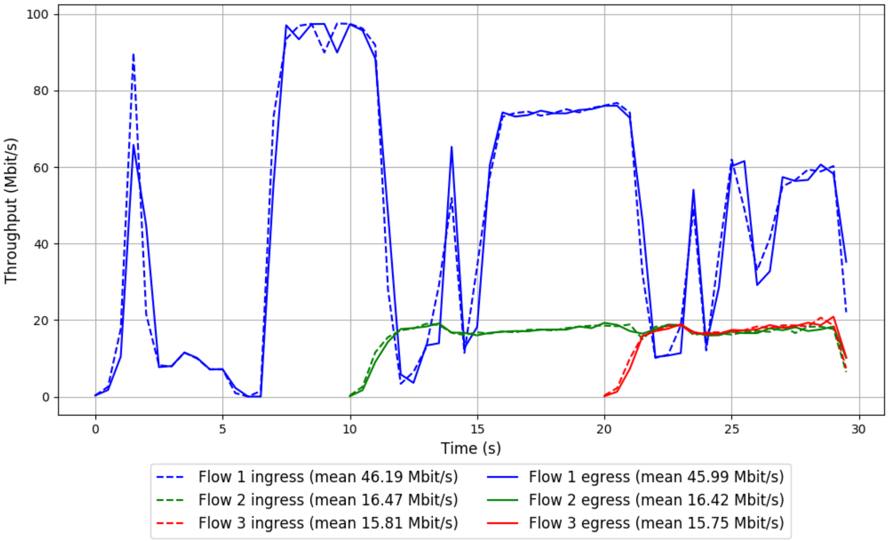
Run 5: Report of QUIC Cubic — Data Link

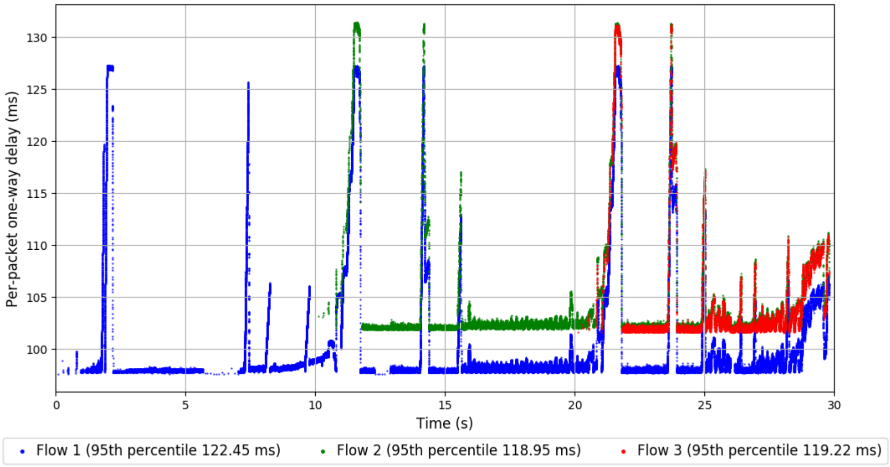




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-11 00:25:04
End at: 2018-04-11 00:25:34
Local clock offset: -6.476 ms
Remote clock offset: 1.97 ms

# Below is generated by plot.py at 2018-04-11 02:44:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 121.307 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 45.99 Mbit/s
95th percentile per-packet one-way delay: 122.451 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 16.42 Mbit/s
95th percentile per-packet one-way delay: 118.947 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 15.75 Mbit/s
95th percentile per-packet one-way delay: 119.220 ms
Loss rate: 0.33%
```

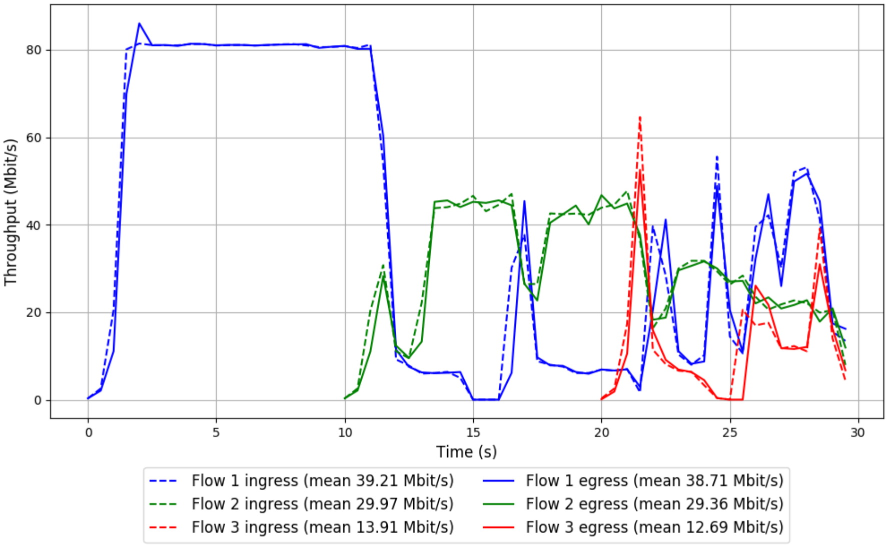
Run 6: Report of QUIC Cubic — Data Link

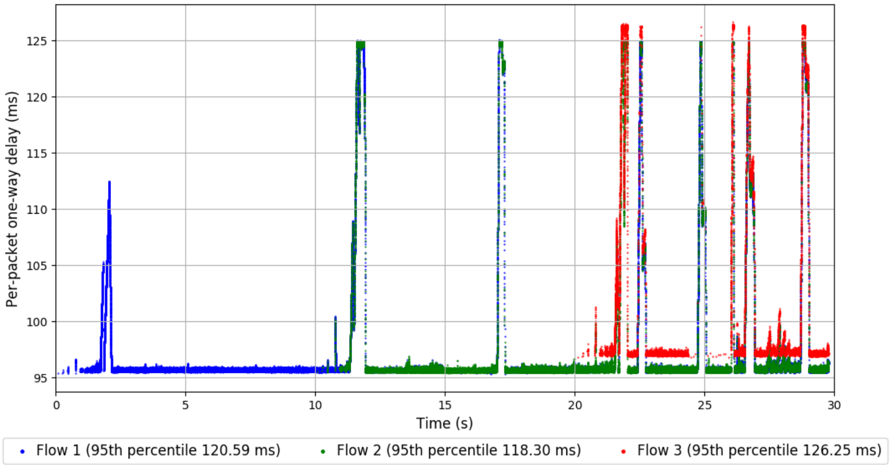




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-11 00:49:17
End at: 2018-04-11 00:49:47
Local clock offset: -7.23 ms
Remote clock offset: 2.126 ms

# Below is generated by plot.py at 2018-04-11 02:45:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.30 Mbit/s
95th percentile per-packet one-way delay: 122.441 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 120.590 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 118.295 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 126.245 ms
Loss rate: 8.73%
```

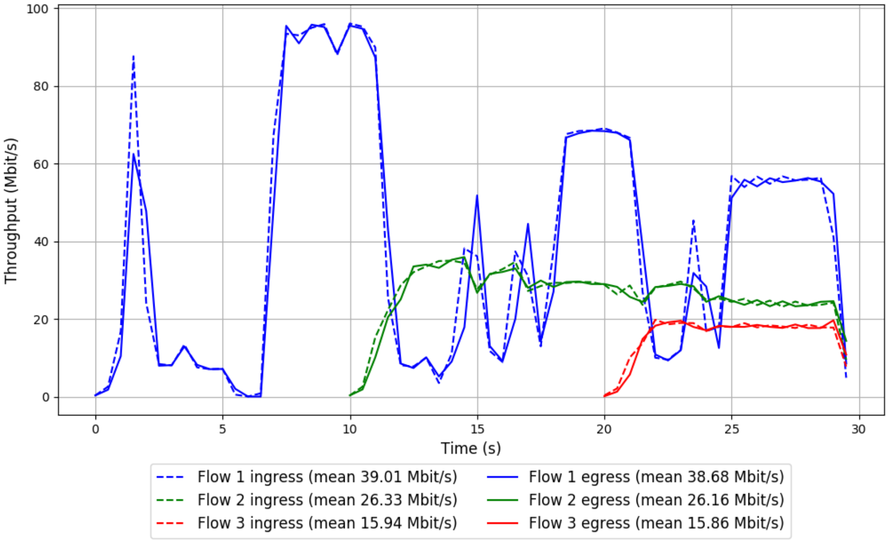
Run 7: Report of QUIC Cubic — Data Link

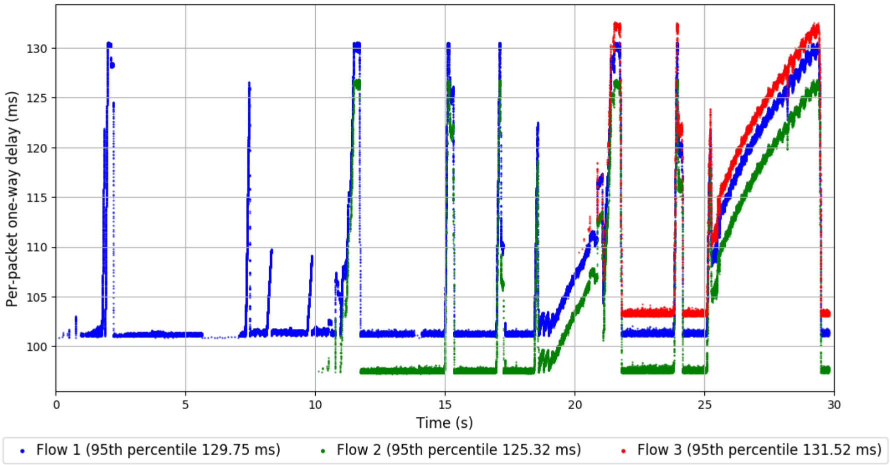




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-11 01:13:30
End at: 2018-04-11 01:14:00
Local clock offset: -4.771 ms
Remote clock offset: 1.847 ms

# Below is generated by plot.py at 2018-04-11 02:45:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.17 Mbit/s
95th percentile per-packet one-way delay: 129.279 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 38.68 Mbit/s
95th percentile per-packet one-way delay: 129.749 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 26.16 Mbit/s
95th percentile per-packet one-way delay: 125.317 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 15.86 Mbit/s
95th percentile per-packet one-way delay: 131.518 ms
Loss rate: 0.56%
```

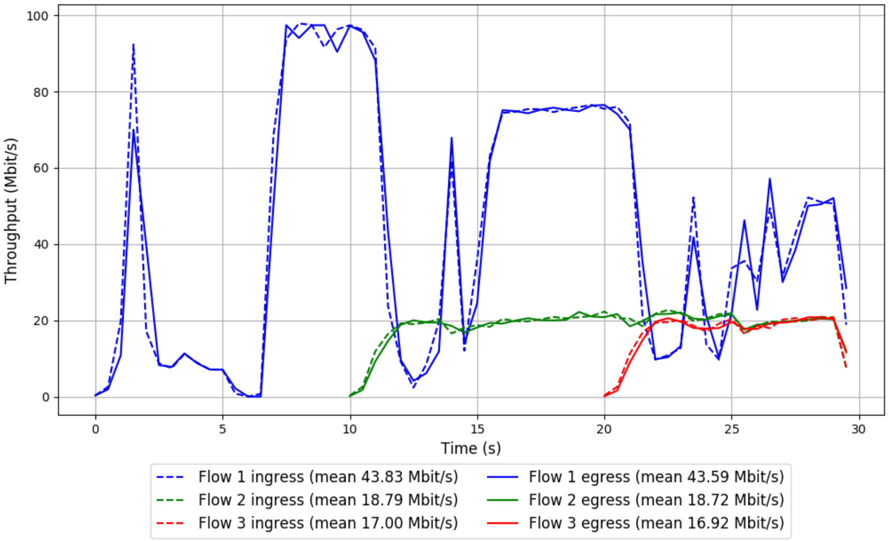
Run 8: Report of QUIC Cubic — Data Link

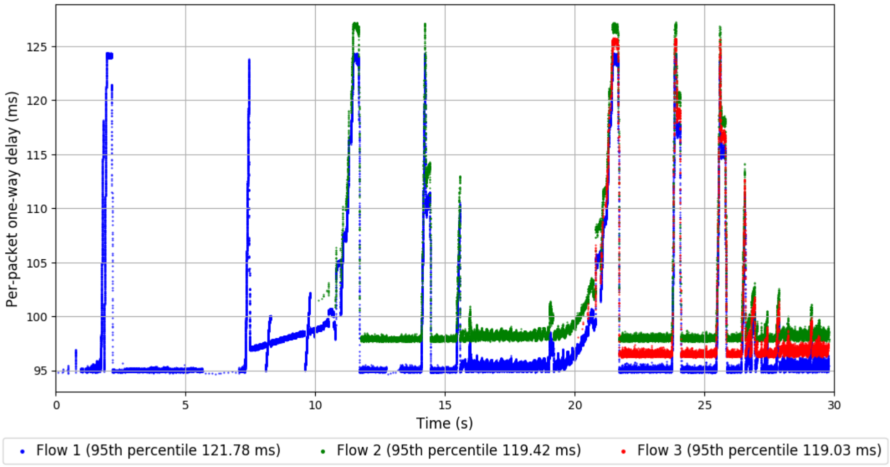




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-11 01:37:23
End at: 2018-04-11 01:37:53
Local clock offset: -5.069 ms
Remote clock offset: 1.489 ms

# Below is generated by plot.py at 2018-04-11 02:45:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.48 Mbit/s
95th percentile per-packet one-way delay: 120.600 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 43.59 Mbit/s
95th percentile per-packet one-way delay: 121.777 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 119.416 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 16.92 Mbit/s
95th percentile per-packet one-way delay: 119.027 ms
Loss rate: 0.47%
```

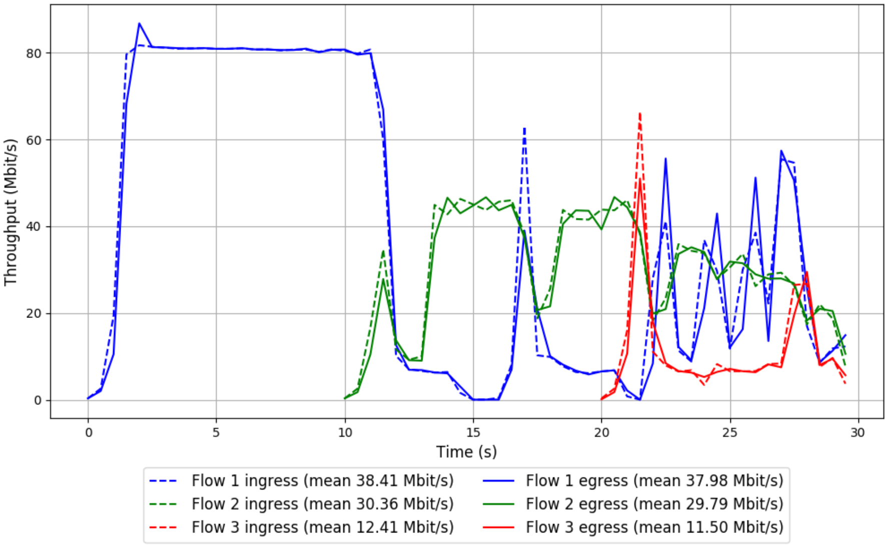
Run 9: Report of QUIC Cubic — Data Link

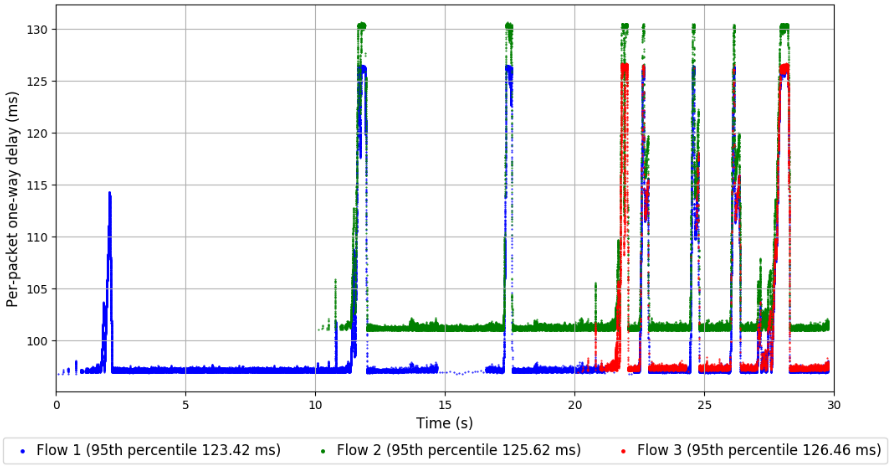




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-11 02:01:31
End at: 2018-04-11 02:02:01
Local clock offset: -4.775 ms
Remote clock offset: 2.033 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.46 Mbit/s
95th percentile per-packet one-way delay: 125.896 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 37.98 Mbit/s
95th percentile per-packet one-way delay: 123.419 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 29.79 Mbit/s
95th percentile per-packet one-way delay: 125.621 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 126.458 ms
Loss rate: 7.33%
```

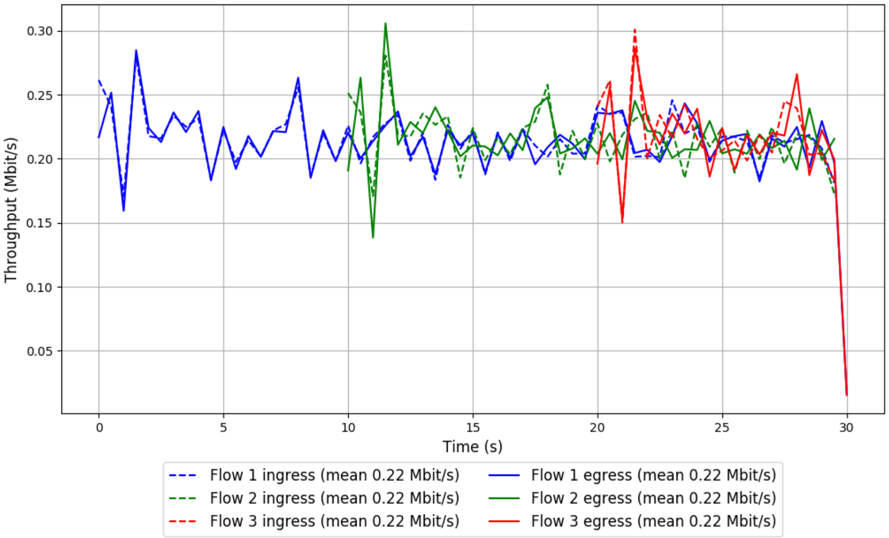
Run 10: Report of QUIC Cubic — Data Link

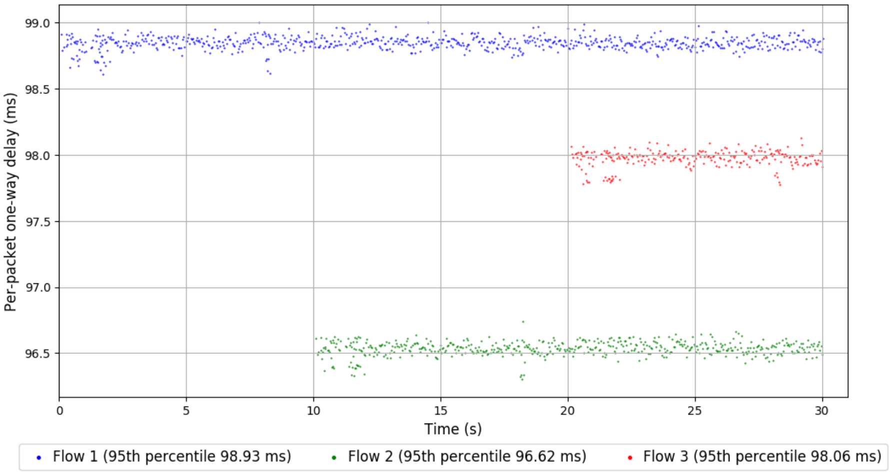




```
Run 1: Statistics of SCReAM

Start at: 2018-04-10 22:32:43
End at: 2018-04-10 22:33:13
Local clock offset: -5.397 ms
Remote clock offset: 2.182 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 98.907 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 98.926 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 98.060 ms
Loss rate: 0.00%
```

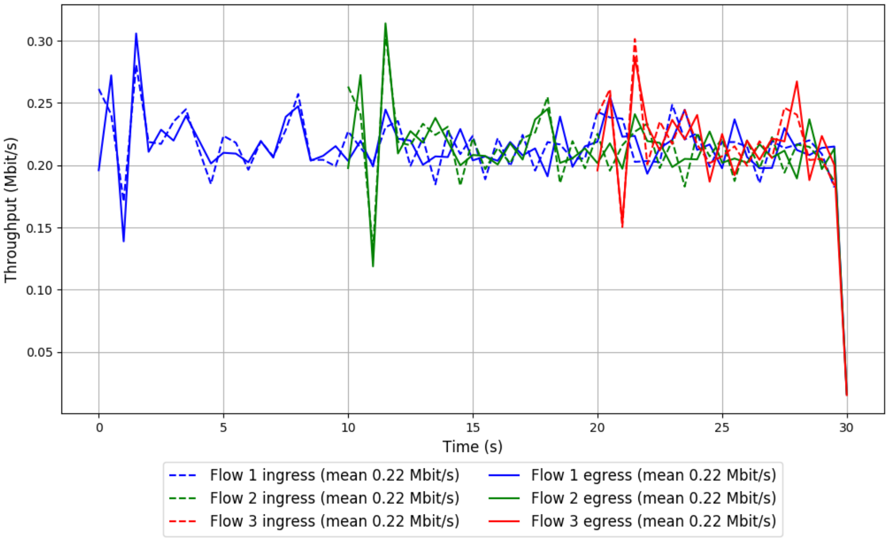
Run 1: Report of SCReAM — Data Link

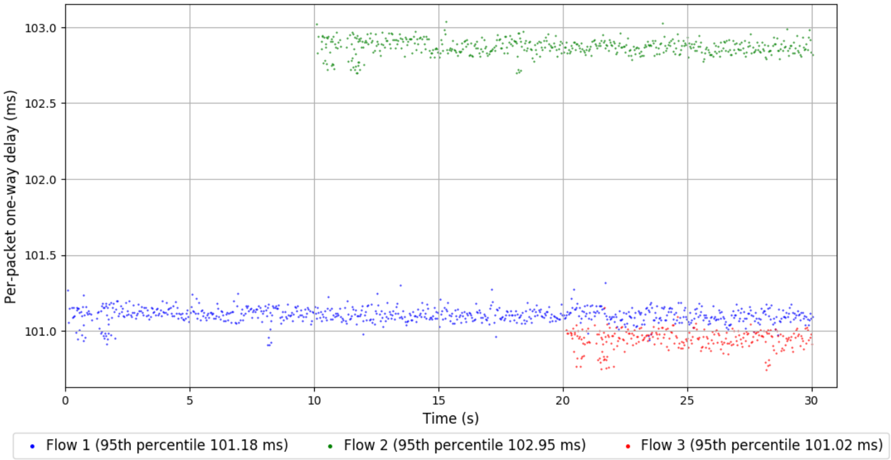




```
Run 2: Statistics of SCReAM

Start at: 2018-04-10 22:56:52
End at: 2018-04-10 22:57:22
Local clock offset: -5.794 ms
Remote clock offset: 7.588 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 102.921 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 101.179 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 102.952 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 101.024 ms
Loss rate: 0.00%
```

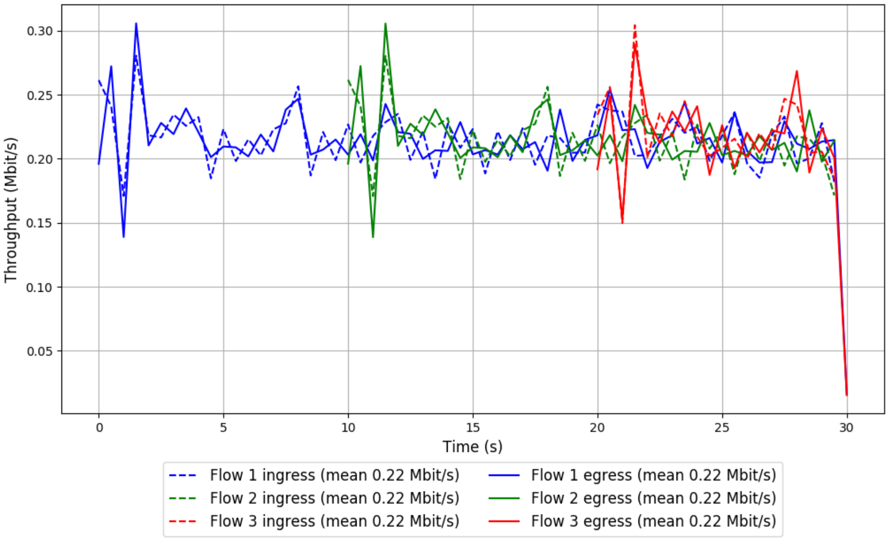
Run 2: Report of SCReAM — Data Link

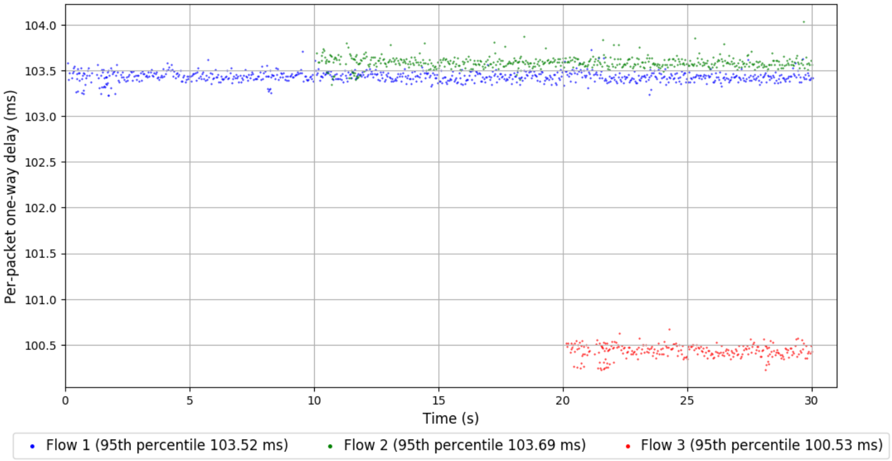




```
Run 3: Statistics of SCReAM

Start at: 2018-04-10 23:20:44
End at: 2018-04-10 23:21:14
Local clock offset: -6.754 ms
Remote clock offset: 8.412 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 103.637 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 103.517 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 103.685 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 100.531 ms
Loss rate: 0.00%
```

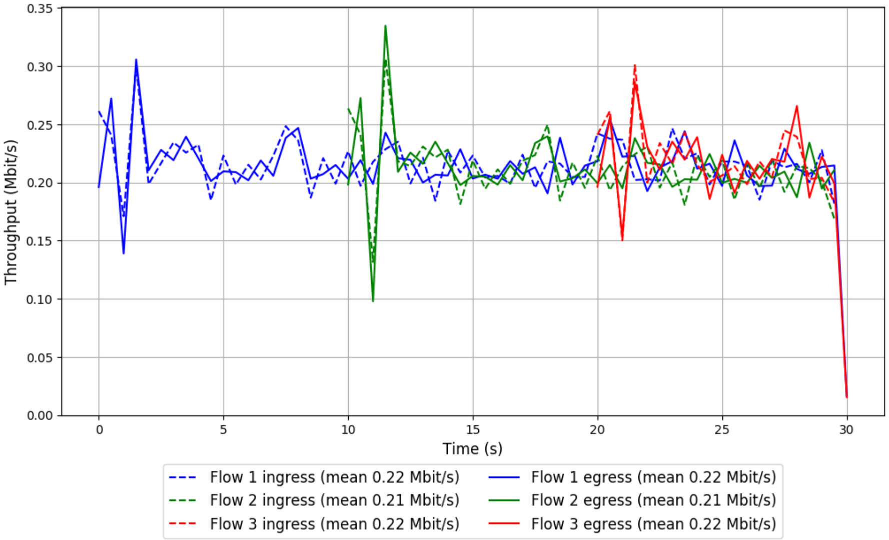
Run 3: Report of SCReAM — Data Link

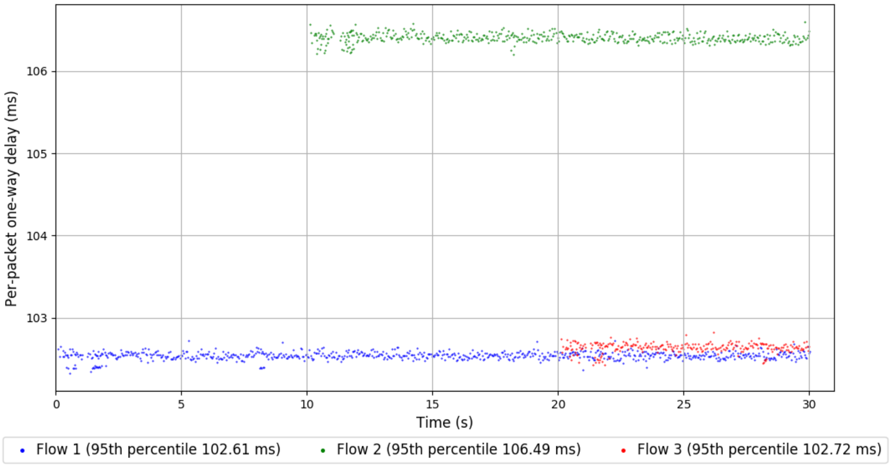




```
Run 4: Statistics of SCReAM

Start at: 2018-04-10 23:44:55
End at: 2018-04-10 23:45:25
Local clock offset: -6.248 ms
Remote clock offset: 8.948 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 106.460 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 102.612 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 106.491 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 102.716 ms
Loss rate: 0.00%
```

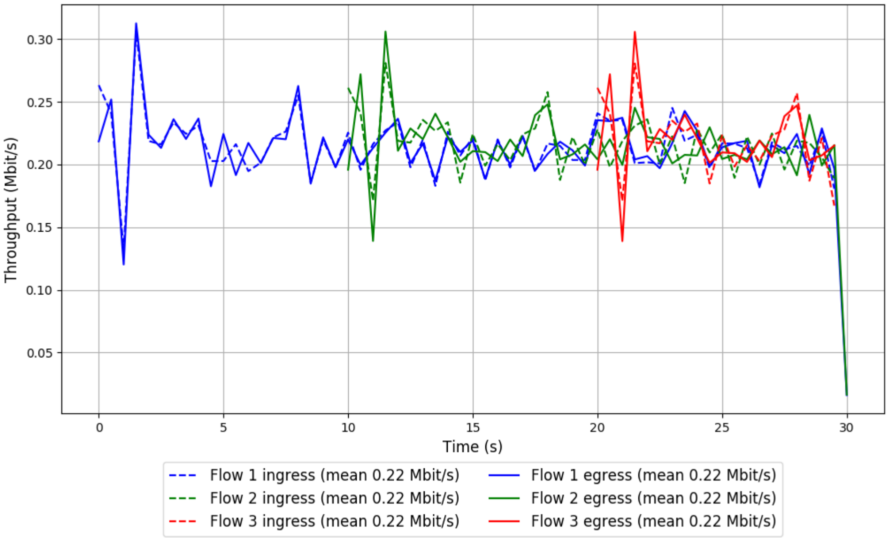
Run 4: Report of SCReAM — Data Link

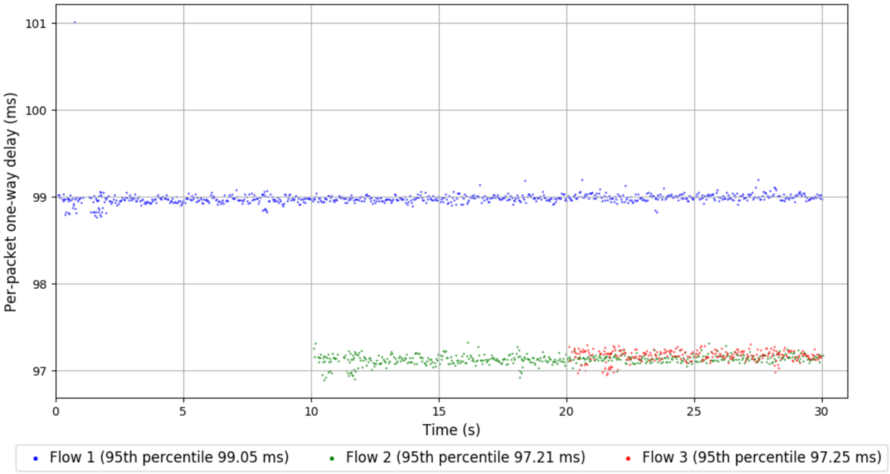




```
Run 5: Statistics of SCReAM

Start at: 2018-04-11 00:08:46
End at: 2018-04-11 00:09:16
Local clock offset: -7.172 ms
Remote clock offset: 2.887 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 99.030 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.045 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.212 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.253 ms
Loss rate: 0.00%
```

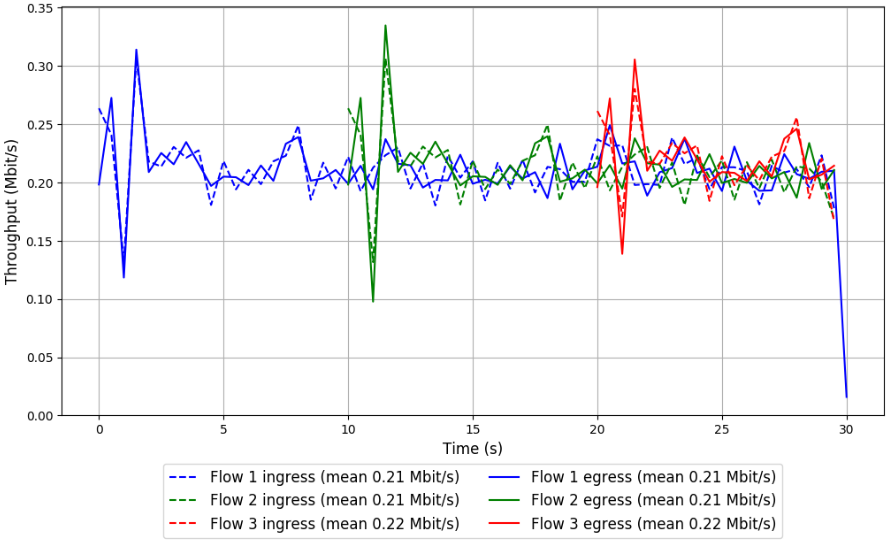
Run 5: Report of SCReAM — Data Link

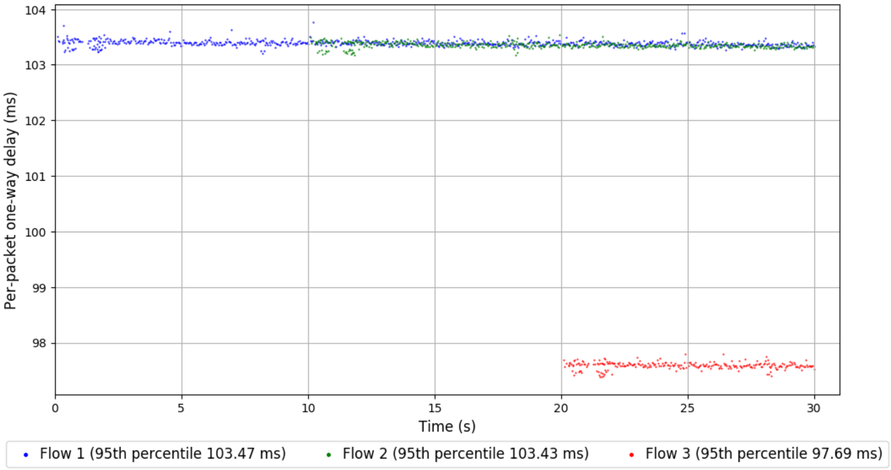




```
Run 6: Statistics of SCReAM

Start at: 2018-04-11 00:33:14
End at: 2018-04-11 00:33:44
Local clock offset: -7.303 ms
Remote clock offset: 1.725 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 103.451 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 103.472 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 103.430 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.692 ms
Loss rate: 0.00%
```

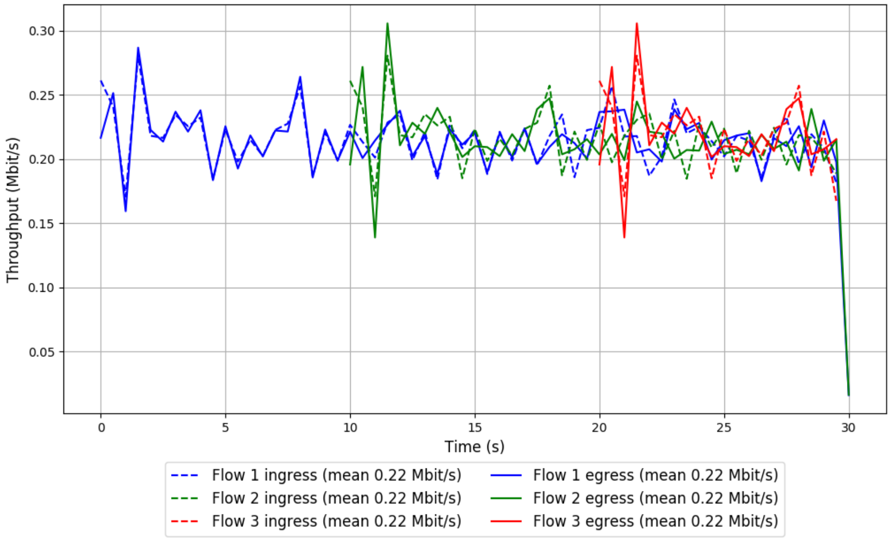
Run 6: Report of SCReAM — Data Link

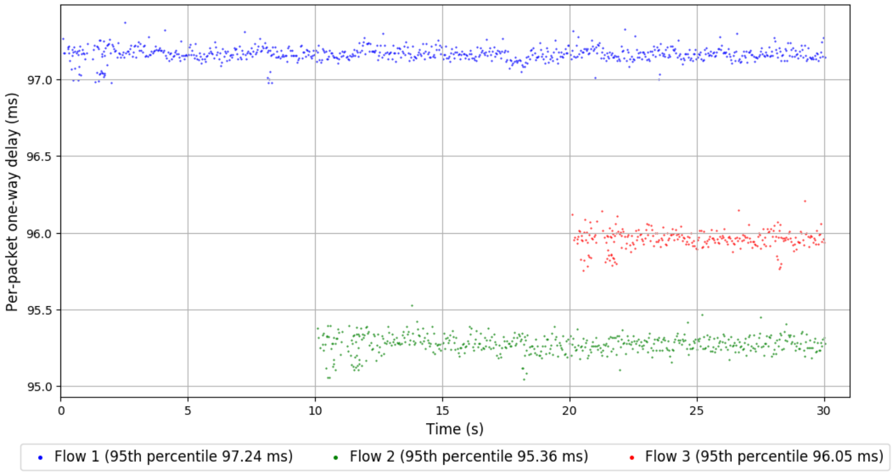




```
Run 7: Statistics of SCReAM

Start at: 2018-04-11 00:57:21
End at: 2018-04-11 00:57:51
Local clock offset: -7.433 ms
Remote clock offset: 2.087 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 97.219 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.237 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 95.363 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.053 ms
Loss rate: 0.00%
```

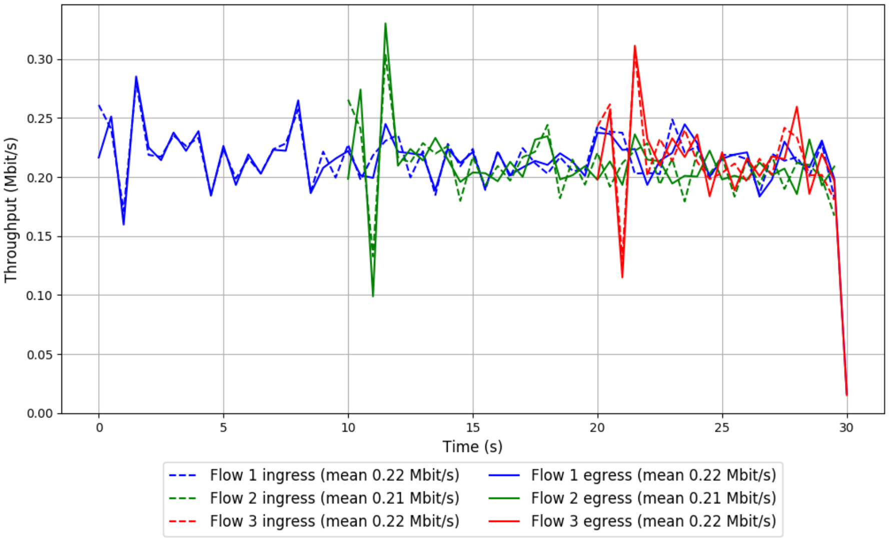
Run 7: Report of SCReAM — Data Link

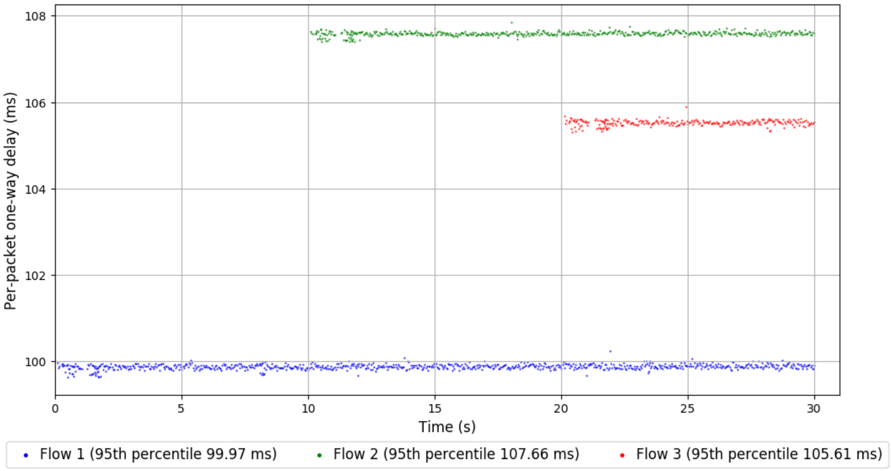




```
Run 8: Statistics of SCReAM

Start at: 2018-04-11 01:21:30
End at: 2018-04-11 01:22:00
Local clock offset: -4.31 ms
Remote clock offset: 6.18 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 107.633 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.966 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 107.660 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 105.611 ms
Loss rate: 0.00%
```

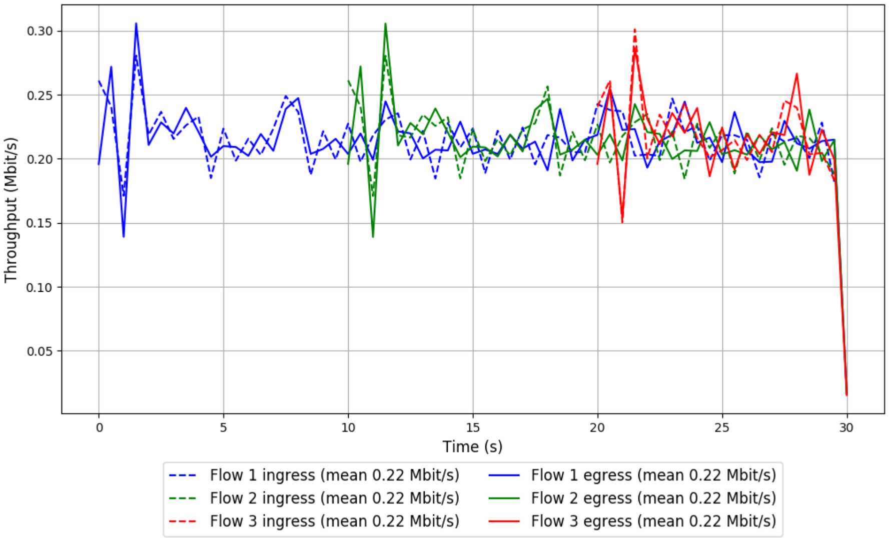
Run 8: Report of SCReAM — Data Link

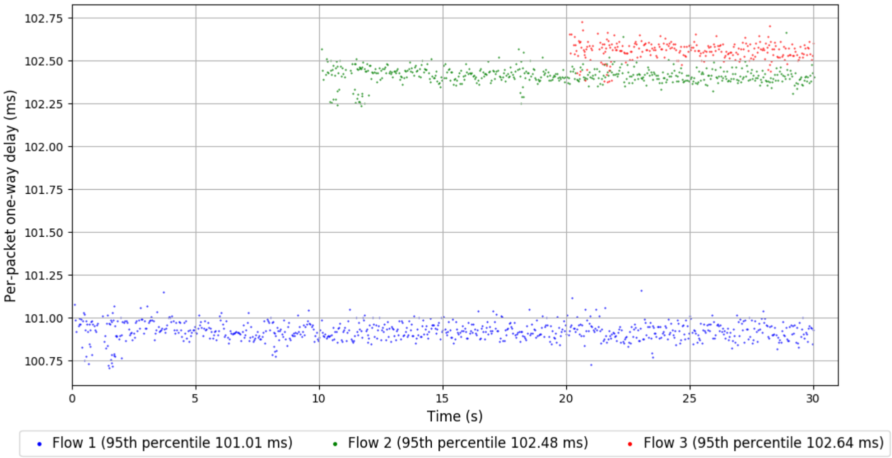




```
Run 9: Statistics of SCReAM

Start at: 2018-04-11 01:45:26
End at: 2018-04-11 01:45:56
Local clock offset: -5.323 ms
Remote clock offset: 6.456 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 102.586 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 101.006 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 102.482 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 102.640 ms
Loss rate: 0.00%
```

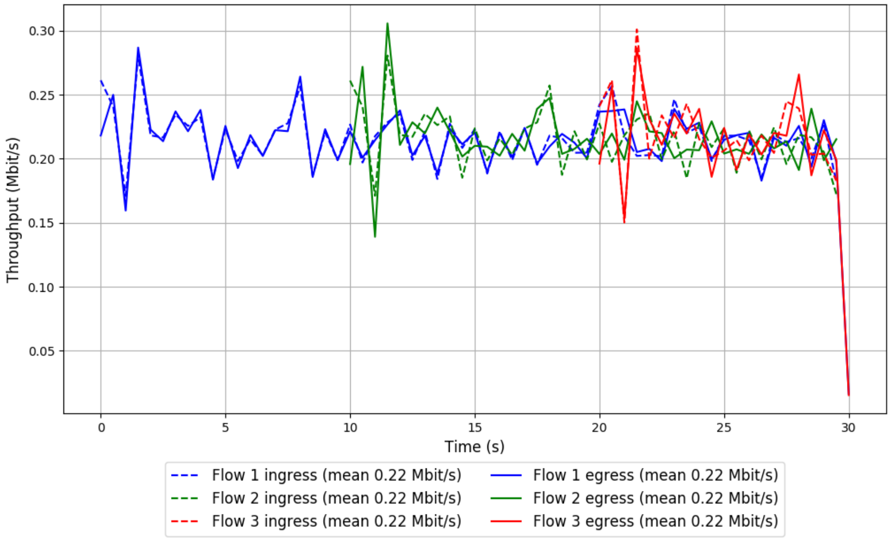
Run 9: Report of SCReAM — Data Link

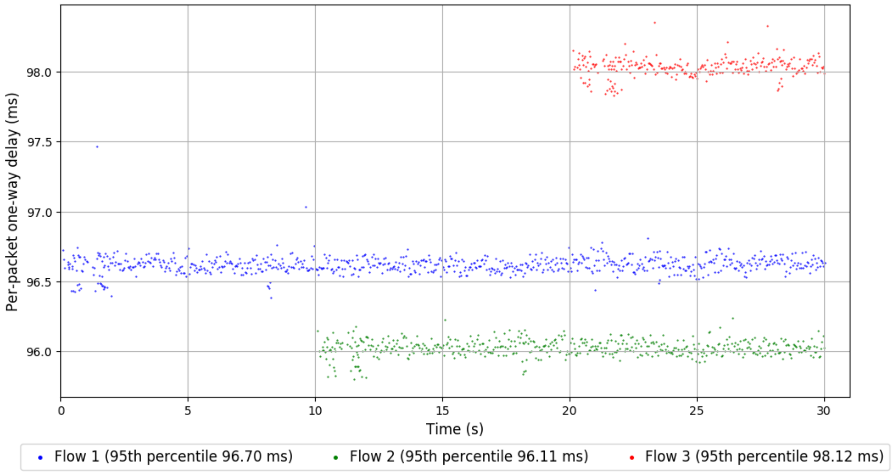




```
Run 10: Statistics of SCReAM

Start at: 2018-04-11 02:09:30
End at: 2018-04-11 02:10:00
Local clock offset: -5.523 ms
Remote clock offset: 2.027 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 98.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.703 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.115 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 98.122 ms
Loss rate: 0.00%
```

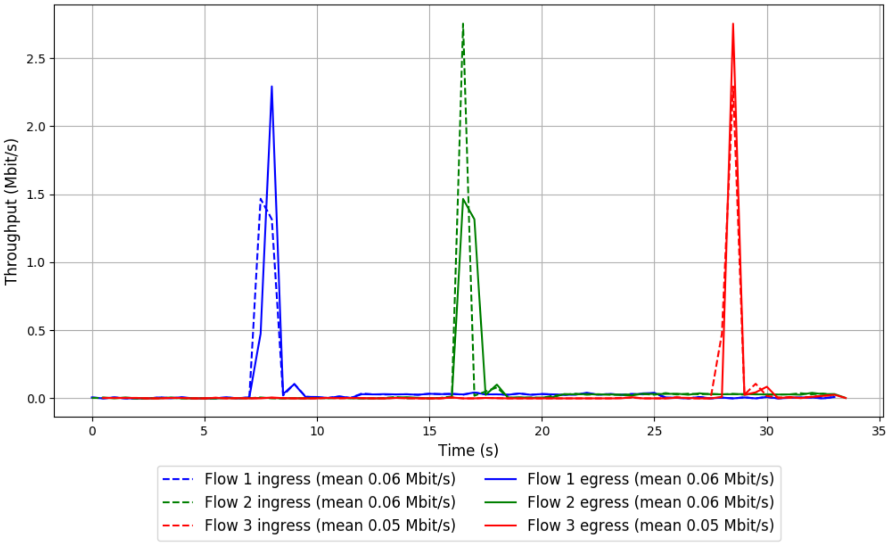
Run 10: Report of SCReAM — Data Link

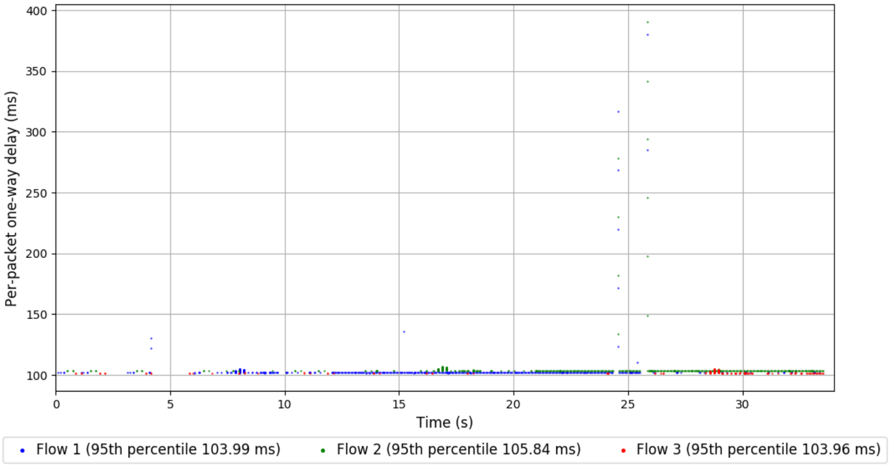




```
Run 1: Statistics of WebRTC media

Start at: 2018-04-10 22:13:49
End at: 2018-04-10 22:14:19
Local clock offset: -6.233 ms
Remote clock offset: 6.965 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 104.978 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 103.993 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 105.836 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 103.959 ms
Loss rate: 0.00%
```

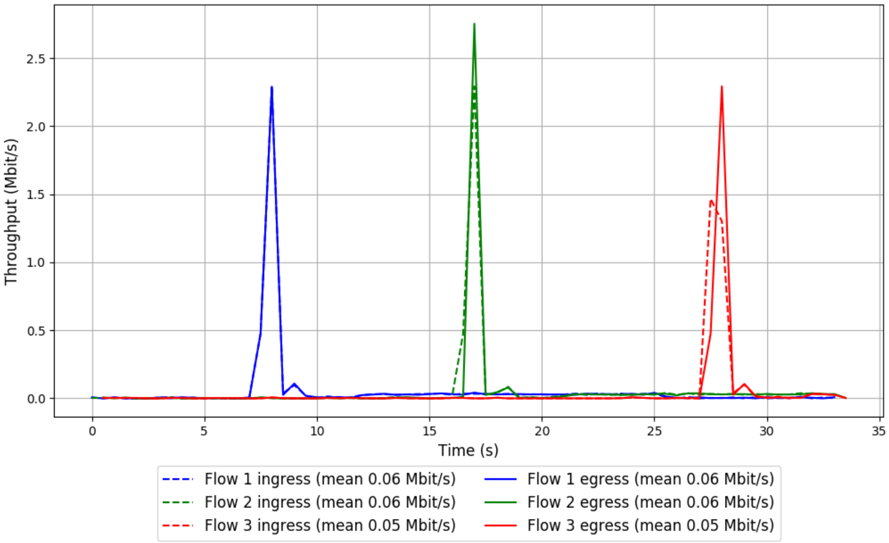
Run 1: Report of WebRTC media — Data Link

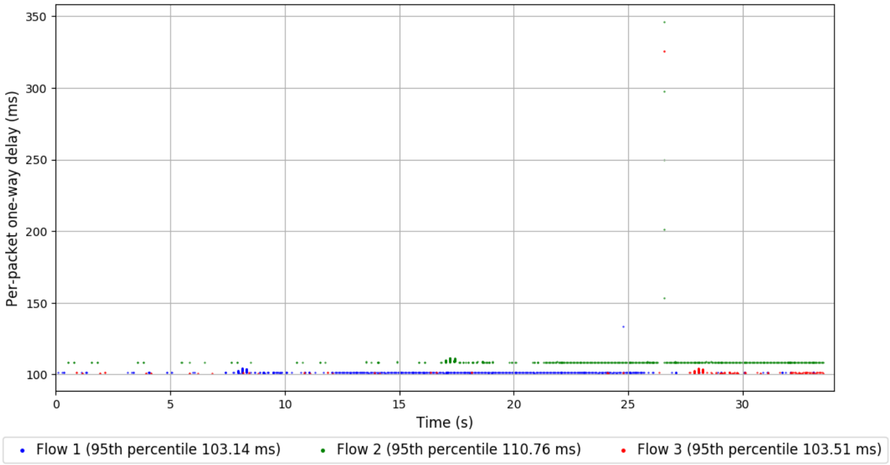




```
Run 2: Statistics of WebRTC media

Start at: 2018-04-10 22:38:00
End at: 2018-04-10 22:38:30
Local clock offset: -5.383 ms
Remote clock offset: 7.018 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 109.858 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 103.144 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 110.764 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 103.509 ms
Loss rate: 0.00%
```

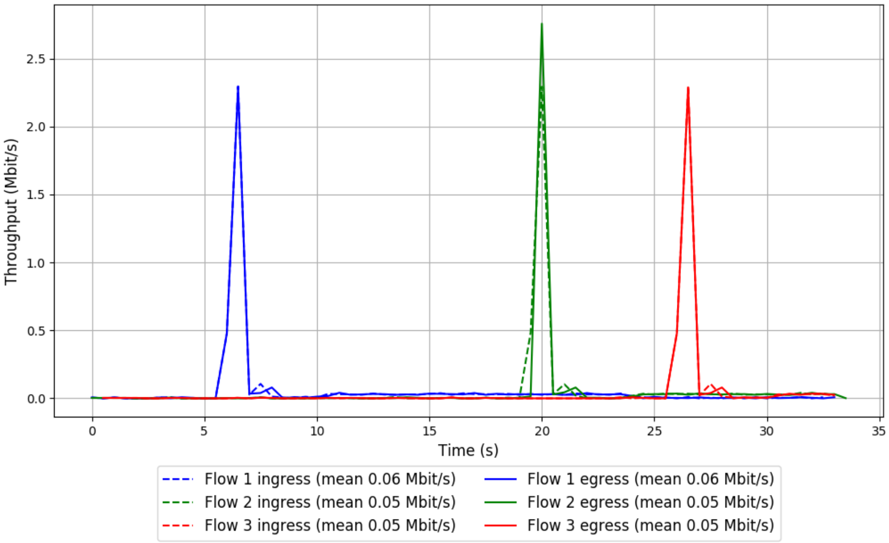
Run 2: Report of WebRTC media — Data Link

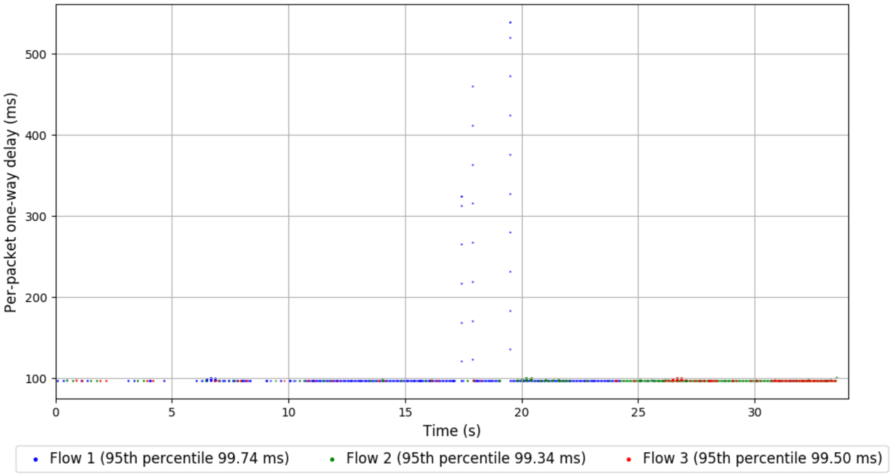




```
Run 3: Statistics of WebRTC media

Start at: 2018-04-10 23:02:07
End at: 2018-04-10 23:02:37
Local clock offset: -5.096 ms
Remote clock offset: 3.111 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 99.489 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 99.743 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 99.343 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 99.499 ms
Loss rate: 0.00%
```

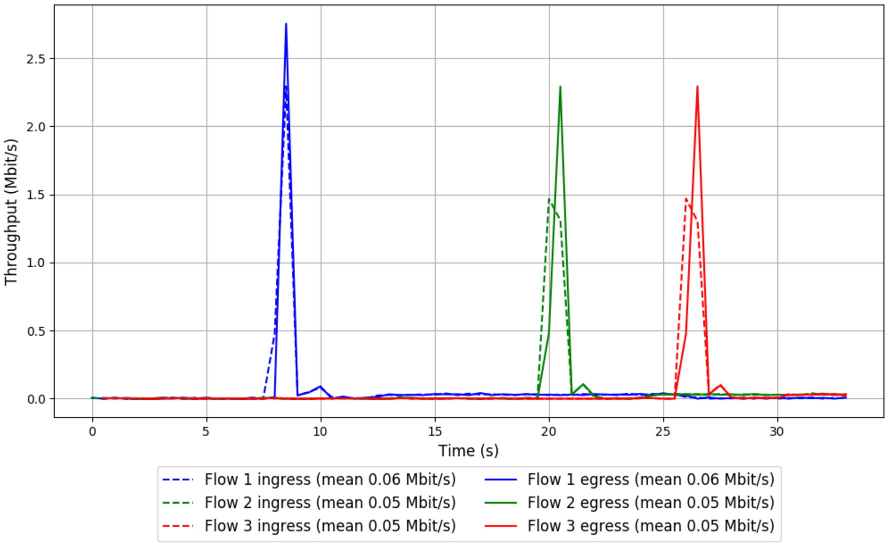
Run 3: Report of WebRTC media — Data Link

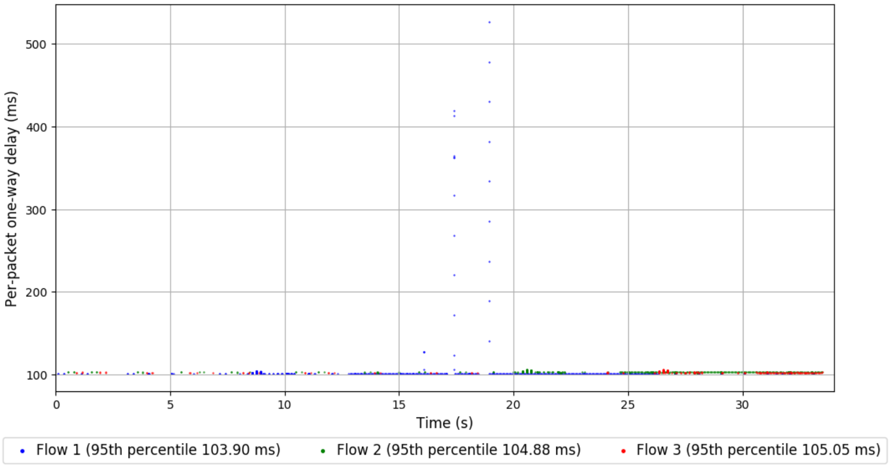




```
Run 4: Statistics of WebRTC media

Start at: 2018-04-10 23:25:58
End at: 2018-04-10 23:26:28
Local clock offset: -6.074 ms
Remote clock offset: 8.504 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 104.906 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 103.900 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 104.876 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 105.052 ms
Loss rate: 0.00%
```

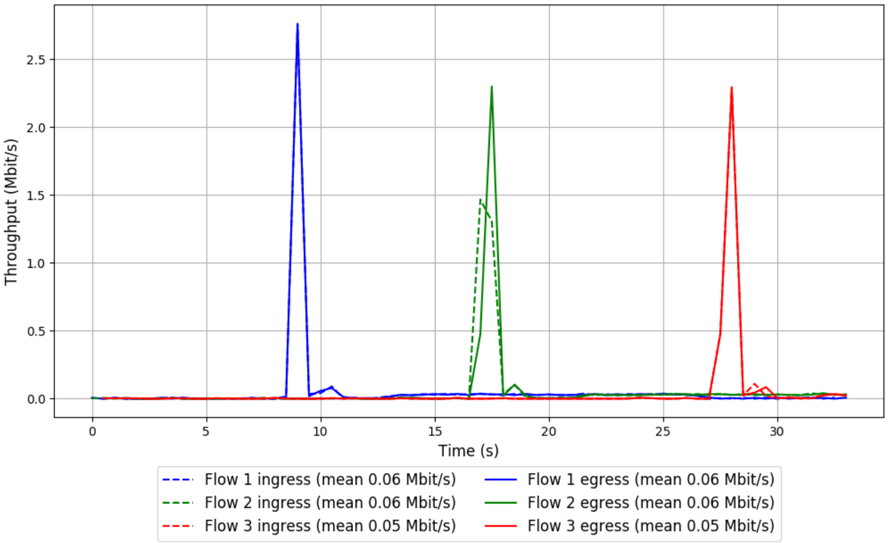
Run 4: Report of WebRTC media — Data Link

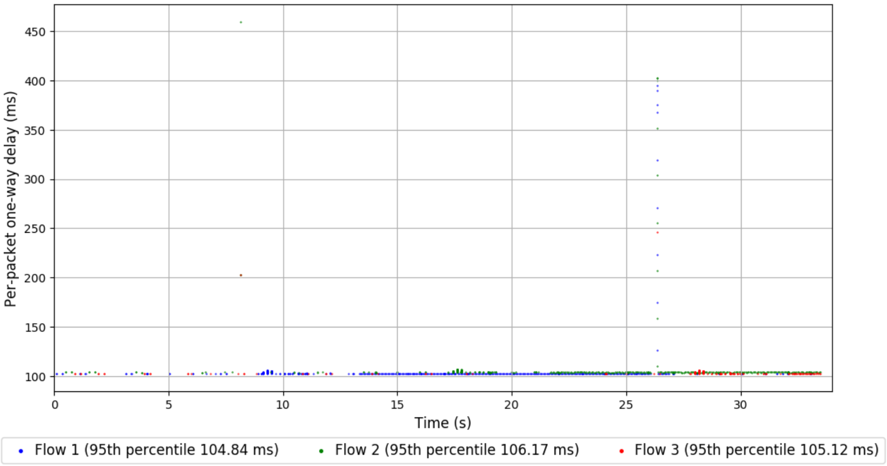




```
Run 5: Statistics of WebRTC media

Start at: 2018-04-10 23:50:10
End at: 2018-04-10 23:50:40
Local clock offset: -6.228 ms
Remote clock offset: 9.08 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 105.509 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 104.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 106.171 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 105.116 ms
Loss rate: 0.00%
```

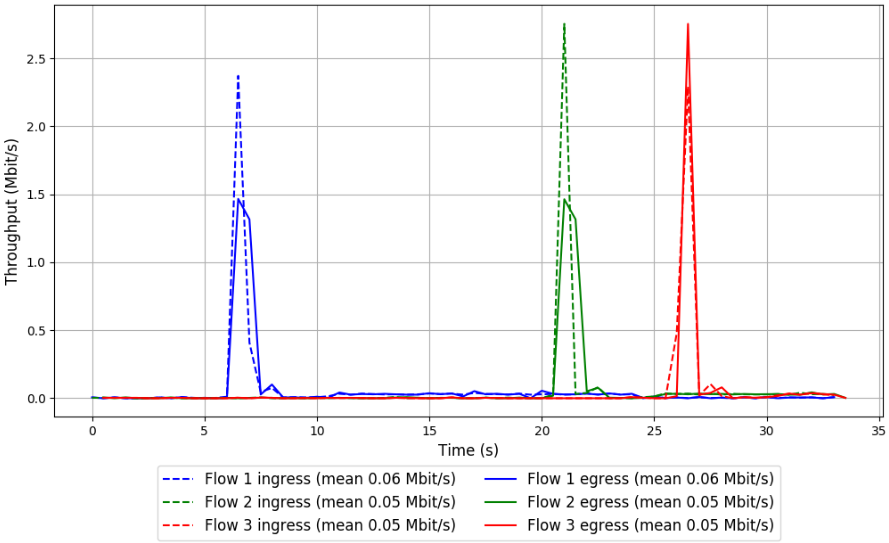
Run 5: Report of WebRTC media — Data Link

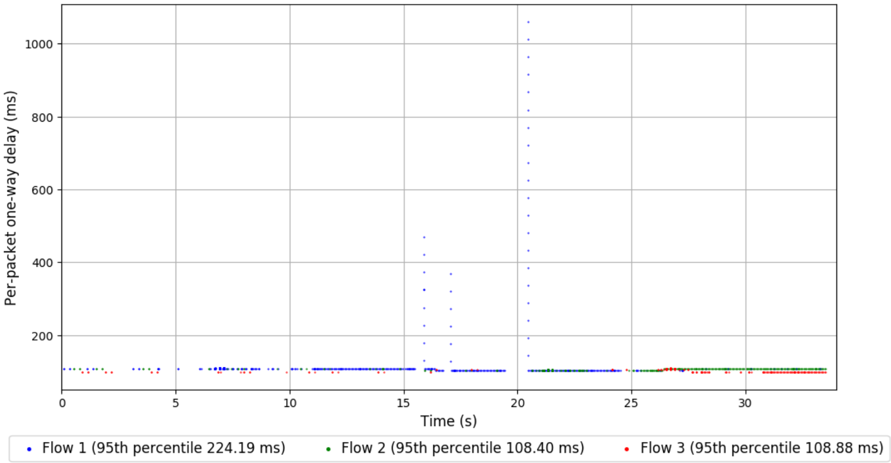




```
Run 6: Statistics of WebRTC media

Start at: 2018-04-11 00:14:02
End at: 2018-04-11 00:14:32
Local clock offset: -6.376 ms
Remote clock offset: 7.136 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 109.960 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 224.192 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.878 ms
Loss rate: 0.00%
```

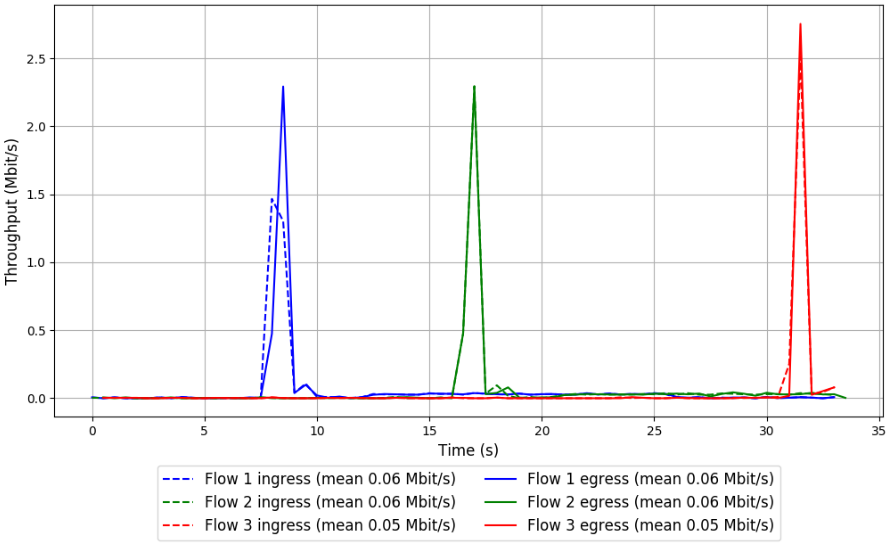
Run 6: Report of WebRTC media — Data Link

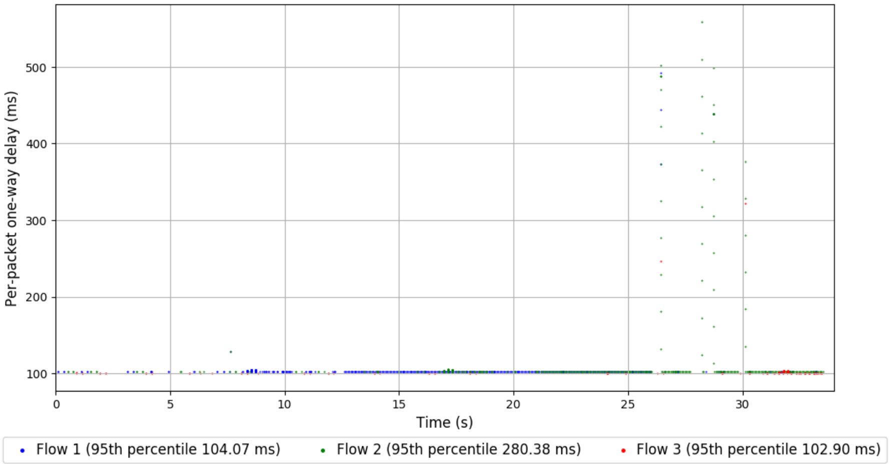




```
Run 7: Statistics of WebRTC media

Start at: 2018-04-11 00:38:32
End at: 2018-04-11 00:39:02
Local clock offset: -7.555 ms
Remote clock offset: 6.377 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 104.639 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 104.074 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 280.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 102.904 ms
Loss rate: 0.00%
```

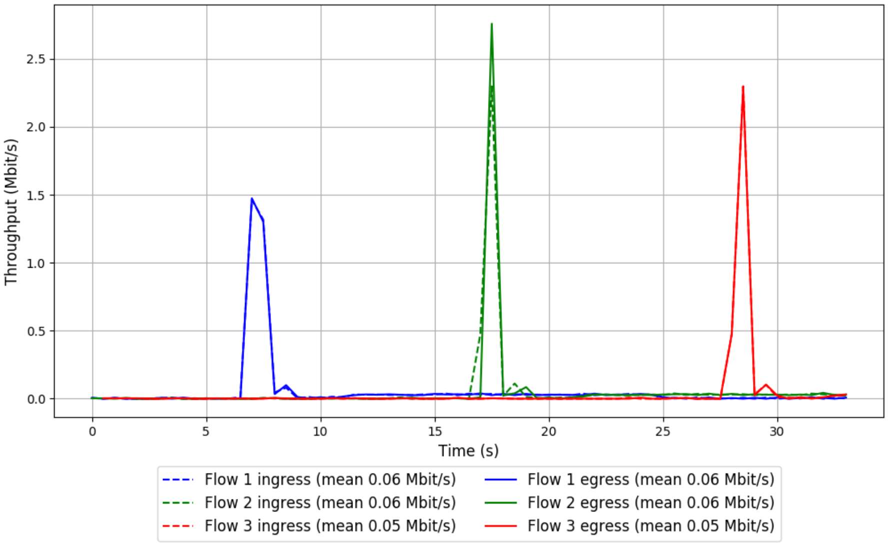
Run 7: Report of WebRTC media — Data Link

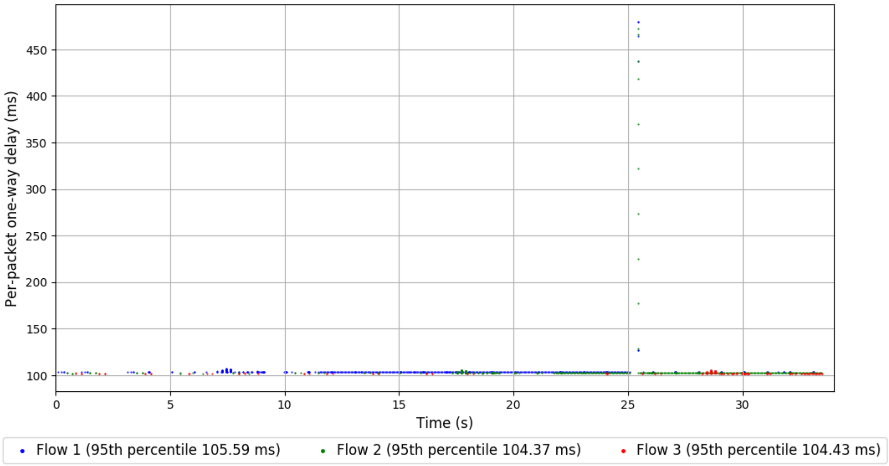




```
Run 8: Statistics of WebRTC media

Start at: 2018-04-11 01:02:39
End at: 2018-04-11 01:03:09
Local clock offset: -7.987 ms
Remote clock offset: 6.792 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 105.024 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 105.590 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 104.368 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 104.429 ms
Loss rate: 0.00%
```

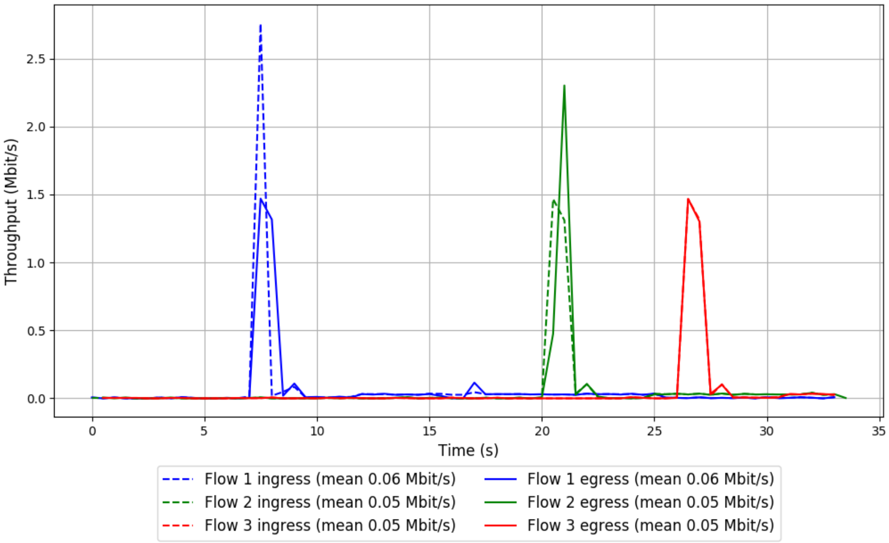
Run 8: Report of WebRTC media — Data Link

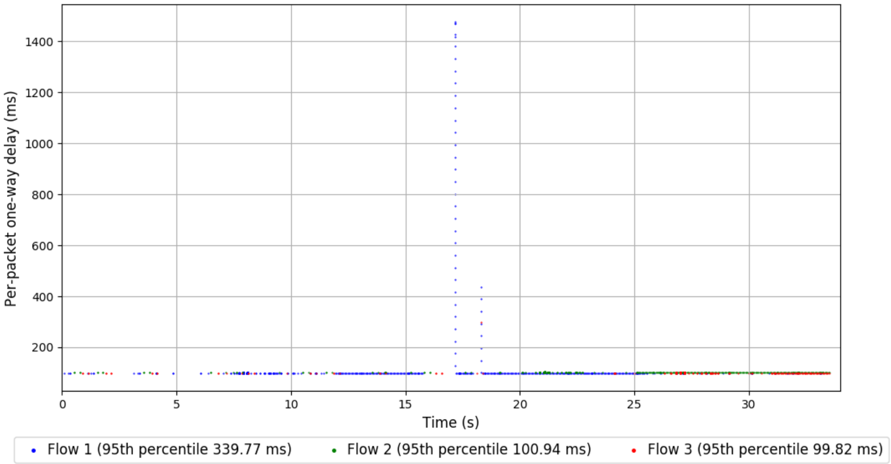




```
Run 9: Statistics of WebRTC media

Start at: 2018-04-11 01:26:46
End at: 2018-04-11 01:27:16
Local clock offset: -5.654 ms
Remote clock offset: 1.677 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 100.847 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 339.769 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 100.935 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 99.823 ms
Loss rate: 0.00%
```

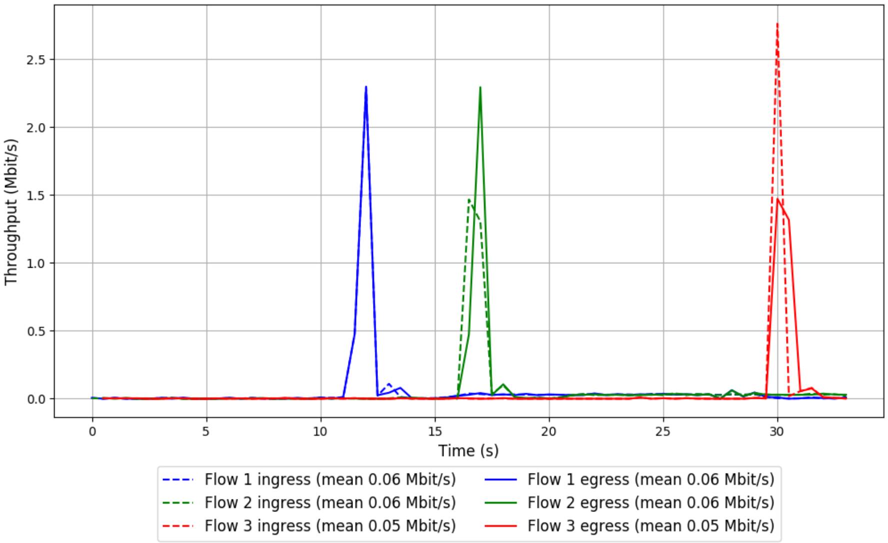
Run 9: Report of WebRTC media — Data Link

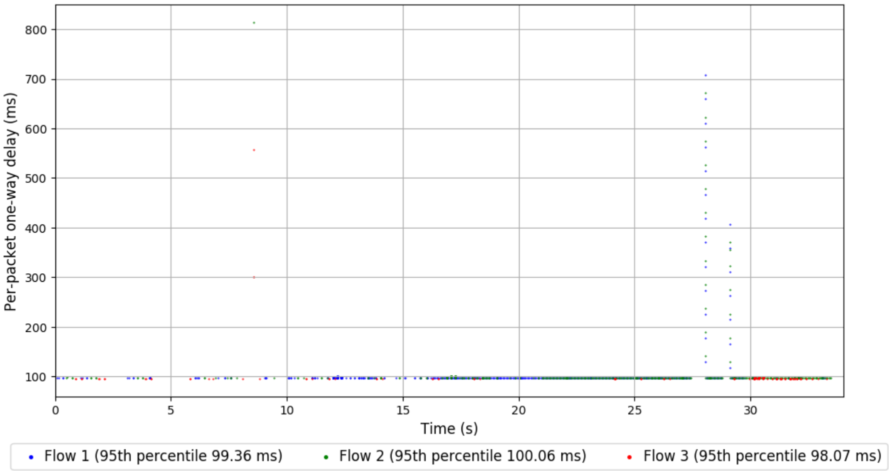




```
Run 10: Statistics of WebRTC media

Start at: 2018-04-11 01:50:40
End at: 2018-04-11 01:51:10
Local clock offset: -6.273 ms
Remote clock offset: 1.884 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 99.577 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 99.361 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 100.056 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 98.068 ms
Loss rate: 0.00%
```

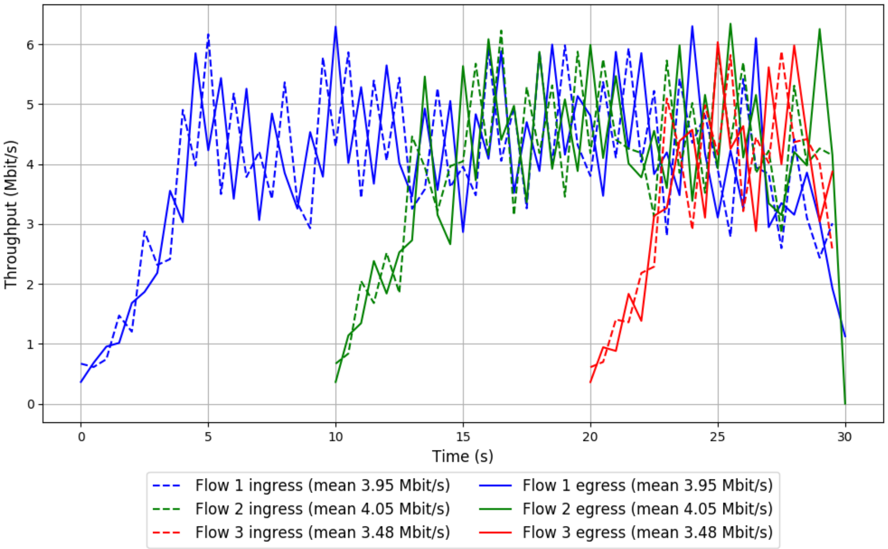
Run 10: Report of WebRTC media — Data Link

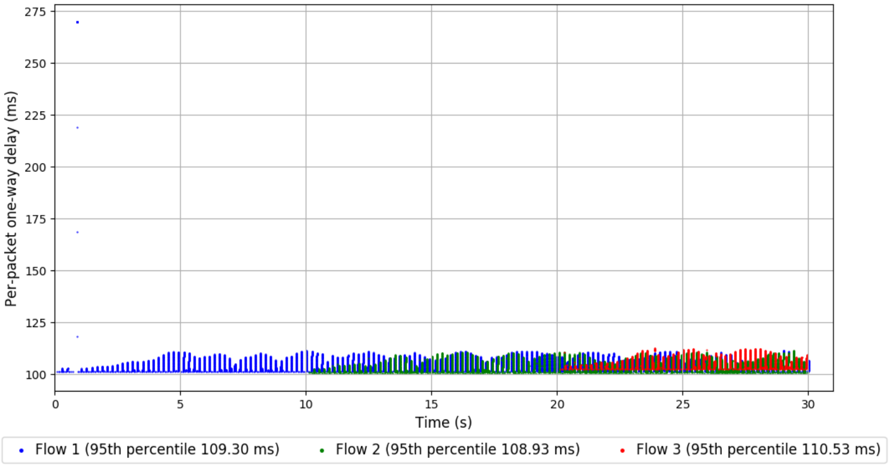




```
Run 1: Statistics of Sprout

Start at: 2018-04-10 22:31:28
End at: 2018-04-10 22:31:58
Local clock offset: -5.425 ms
Remote clock offset: 6.992 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 109.358 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.95 Mbit/s
95th percentile per-packet one-way delay: 109.295 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 108.927 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 110.532 ms
Loss rate: 0.00%
```

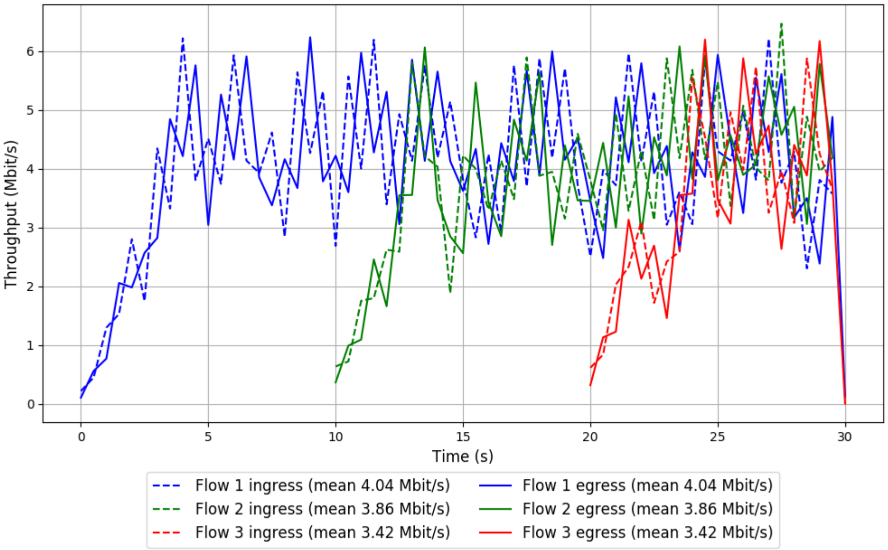
Run 1: Report of Sprout — Data Link

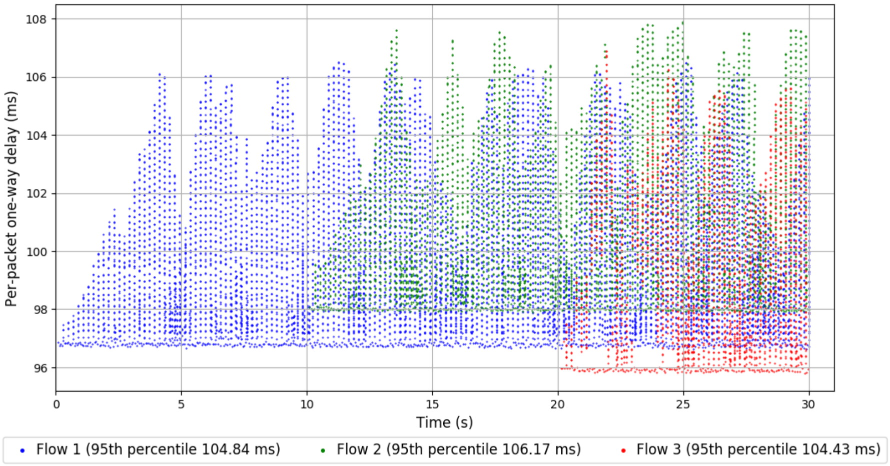




```
Run 2: Statistics of Sprout

Start at: 2018-04-10 22:55:36
End at: 2018-04-10 22:56:06
Local clock offset: -5.746 ms
Remote clock offset: 2.641 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 105.294 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 104.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 106.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 104.431 ms
Loss rate: 0.00%
```

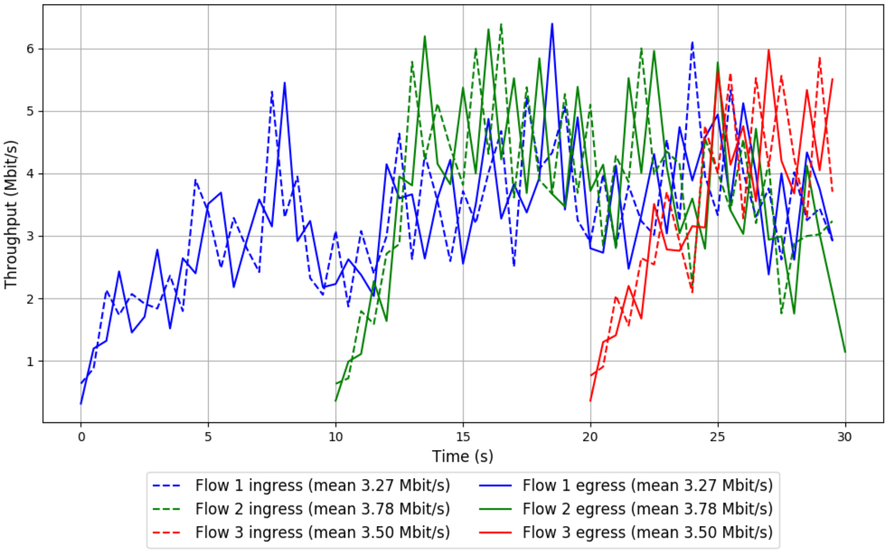
Run 2: Report of Sprout — Data Link

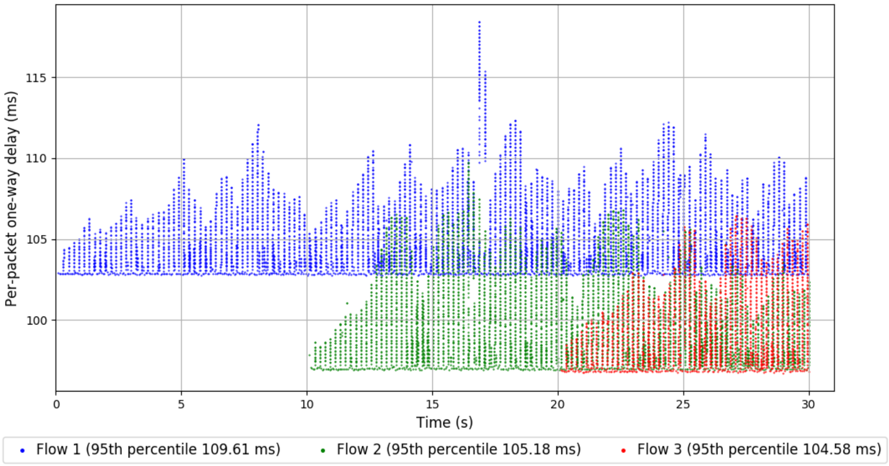




```
Run 3: Statistics of Sprout

Start at: 2018-04-10 23:19:28
End at: 2018-04-10 23:19:58
Local clock offset: -5.229 ms
Remote clock offset: 3.594 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.93 Mbit/s
95th percentile per-packet one-way delay: 108.461 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 109.609 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 105.182 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 104.575 ms
Loss rate: 0.00%
```

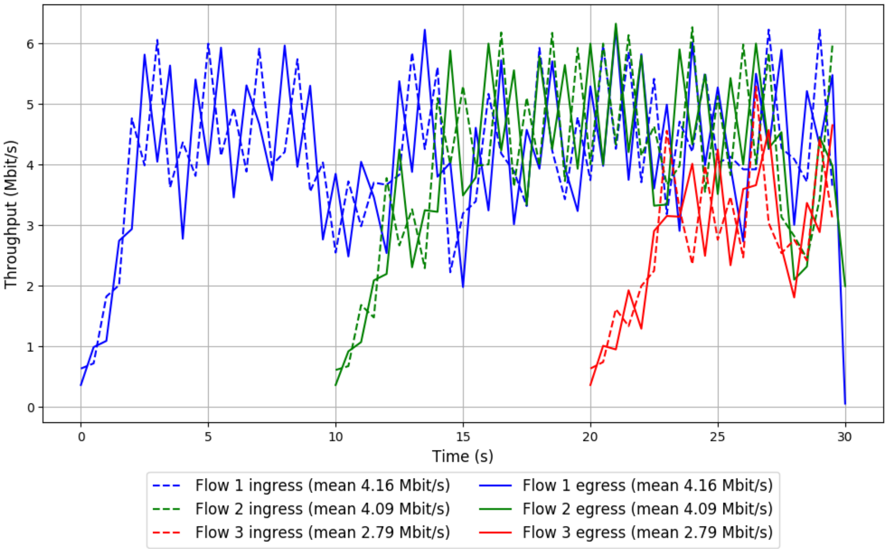
Run 3: Report of Sprout — Data Link

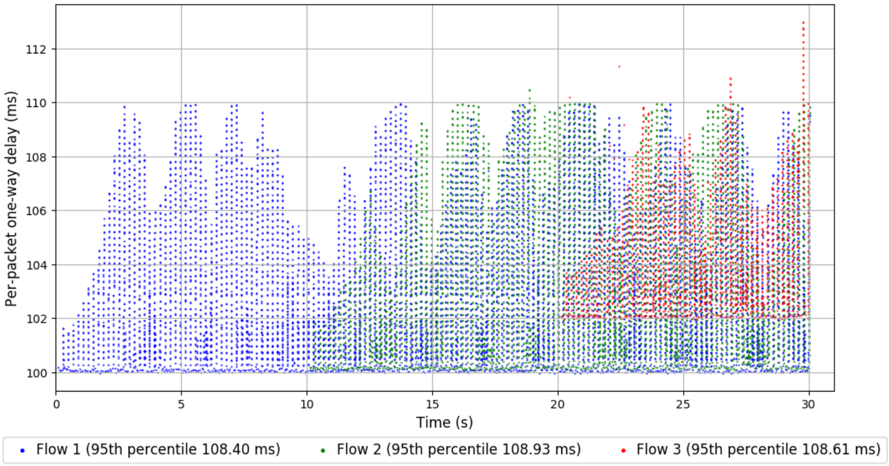




```
Run 4: Statistics of Sprout

Start at: 2018-04-10 23:43:40
End at: 2018-04-10 23:44:10
Local clock offset: -5.469 ms
Remote clock offset: 8.913 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 108.617 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 108.401 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.09 Mbit/s
95th percentile per-packet one-way delay: 108.933 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 108.613 ms
Loss rate: 0.00%
```

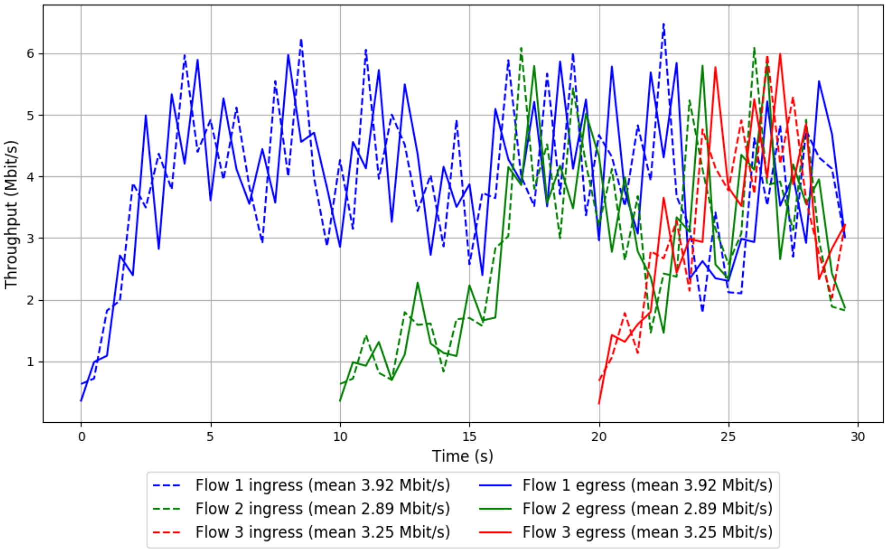
Run 4: Report of Sprout — Data Link

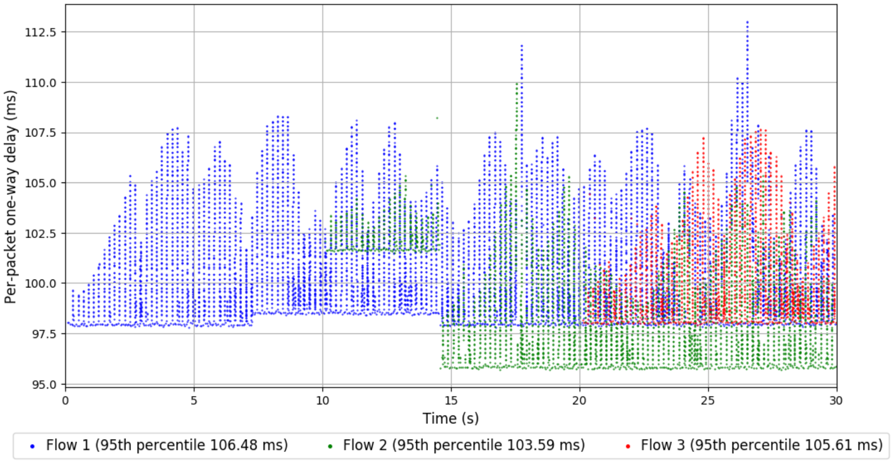




```
Run 5: Statistics of Sprout

Start at: 2018-04-11 00:07:31
End at: 2018-04-11 00:08:01
Local clock offset: -6.369 ms
Remote clock offset: 2.946 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.91 Mbit/s
95th percentile per-packet one-way delay: 105.896 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 106.485 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 103.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 105.608 ms
Loss rate: 0.00%
```

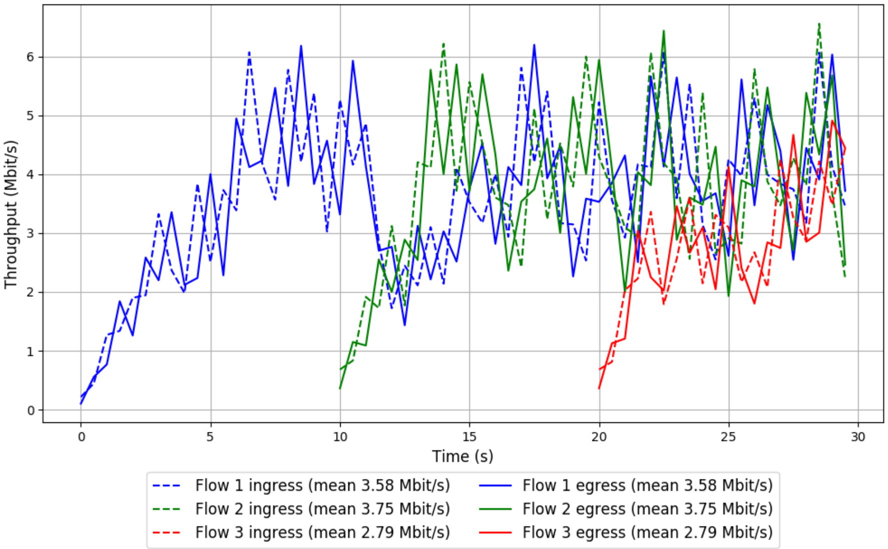
Run 5: Report of Sprout — Data Link

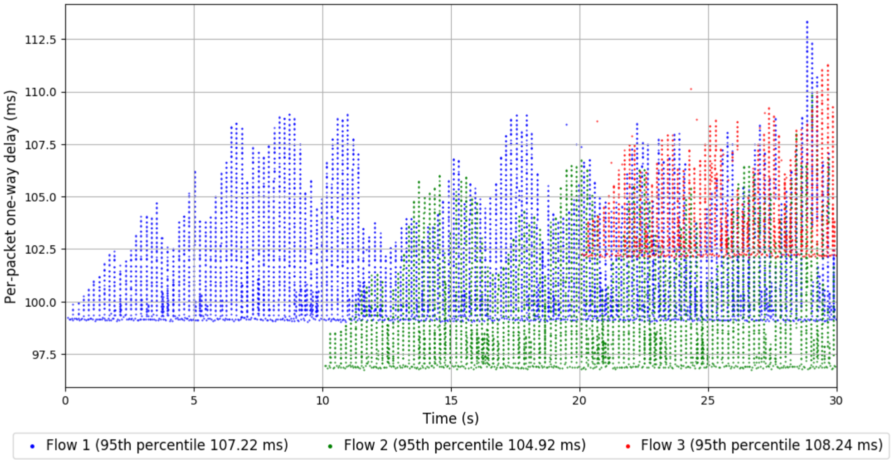




```
Run 6: Statistics of Sprout

Start at: 2018-04-11 00:31:59
End at: 2018-04-11 00:32:29
Local clock offset: -7.997 ms
Remote clock offset: 1.783 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 107.000 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 107.220 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.75 Mbit/s
95th percentile per-packet one-way delay: 104.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 108.240 ms
Loss rate: 0.00%
```

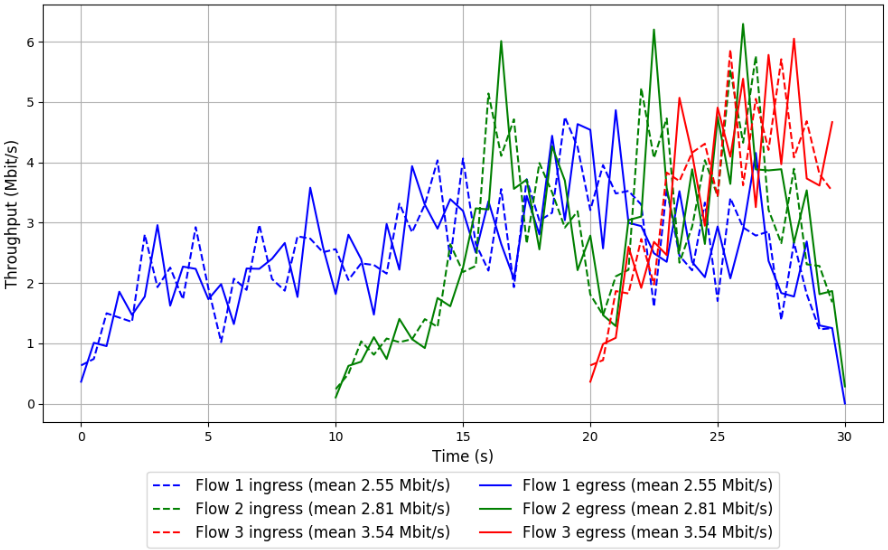
Run 6: Report of Sprout — Data Link

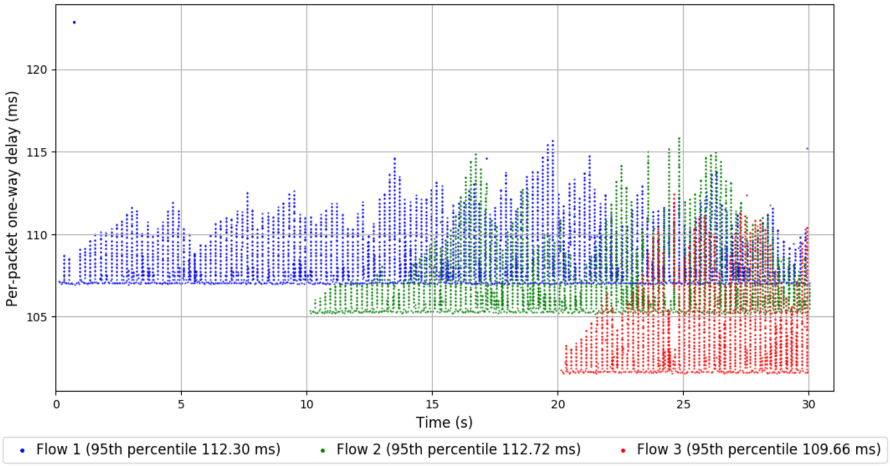




```
Run 7: Statistics of Sprout

Start at: 2018-04-11 00:56:06
End at: 2018-04-11 00:56:36
Local clock offset: -8.229 ms
Remote clock offset: 5.953 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.58 Mbit/s
95th percentile per-packet one-way delay: 112.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 112.302 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 112.724 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 109.656 ms
Loss rate: 0.00%
```

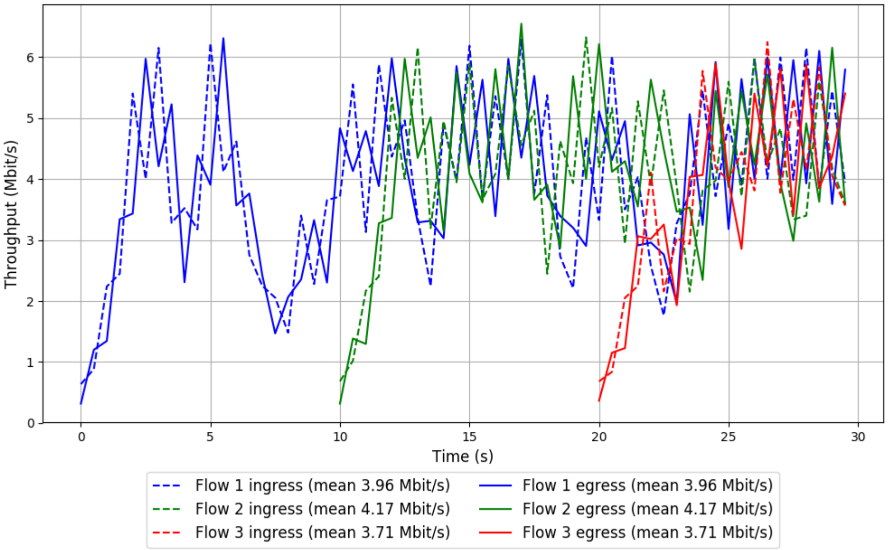
Run 7: Report of Sprout — Data Link

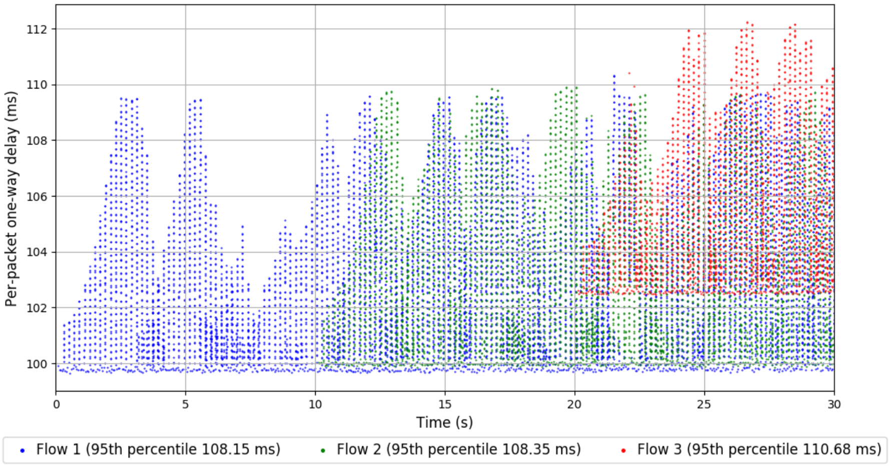




```
Run 8: Statistics of Sprout

Start at: 2018-04-11 01:20:15
End at: 2018-04-11 01:20:45
Local clock offset: -4.352 ms
Remote clock offset: 6.468 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 108.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 108.154 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 108.352 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 110.681 ms
Loss rate: 0.00%
```

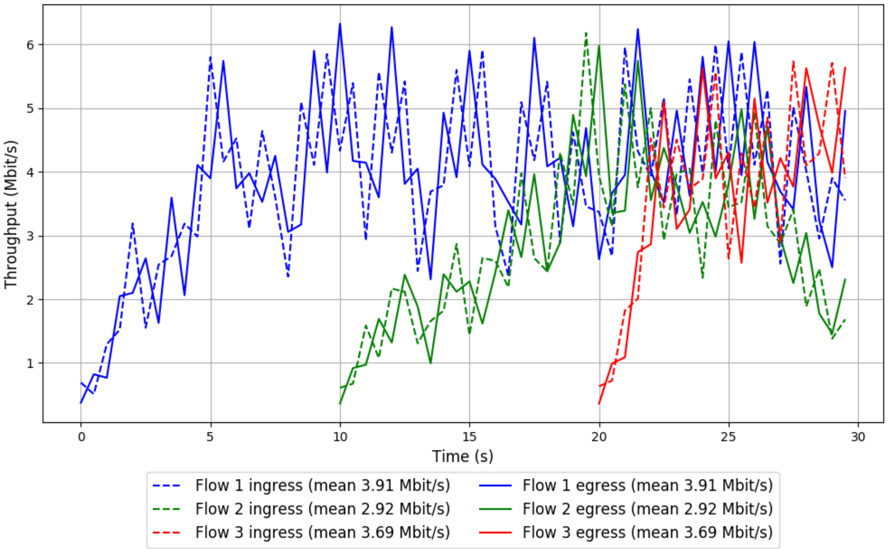
Run 8: Report of Sprout — Data Link

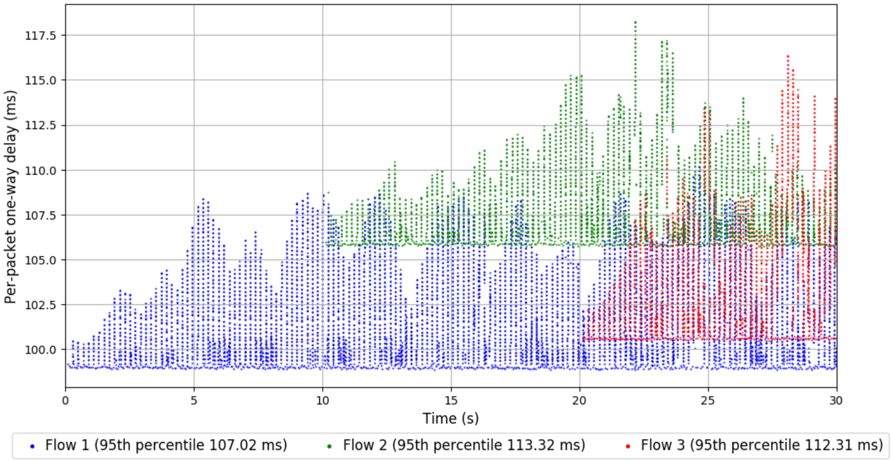




```
Run 9: Statistics of Sprout

Start at: 2018-04-11 01:44:10
End at: 2018-04-11 01:44:40
Local clock offset: -4.553 ms
Remote clock offset: 6.466 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.06 Mbit/s
95th percentile per-packet one-way delay: 111.386 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 107.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 113.318 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.69 Mbit/s
95th percentile per-packet one-way delay: 112.315 ms
Loss rate: 0.00%
```

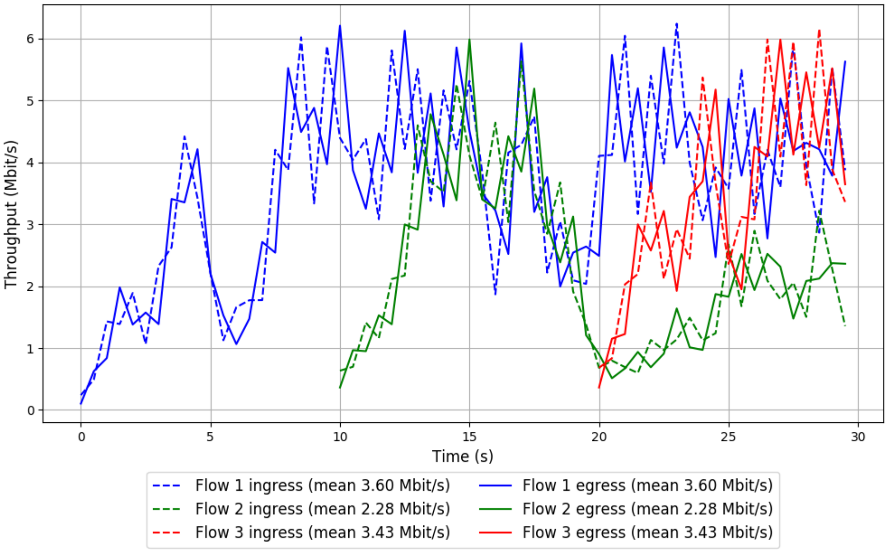
Run 9: Report of Sprout — Data Link

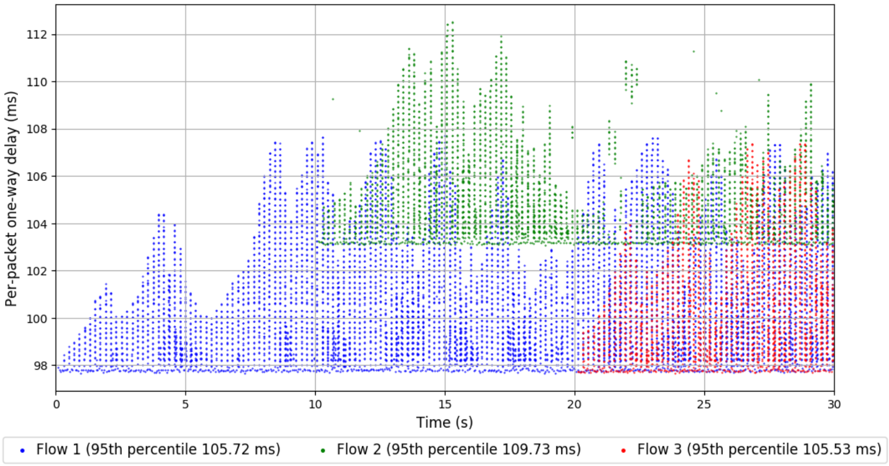




```
Run 10: Statistics of Sprout

Start at: 2018-04-11 02:08:15
End at: 2018-04-11 02:08:45
Local clock offset: -5.501 ms
Remote clock offset: 2.055 ms

# Below is generated by plot.py at 2018-04-11 02:45:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.24 Mbit/s
95th percentile per-packet one-way delay: 107.270 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 105.720 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 109.735 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 105.533 ms
Loss rate: 0.00%
```

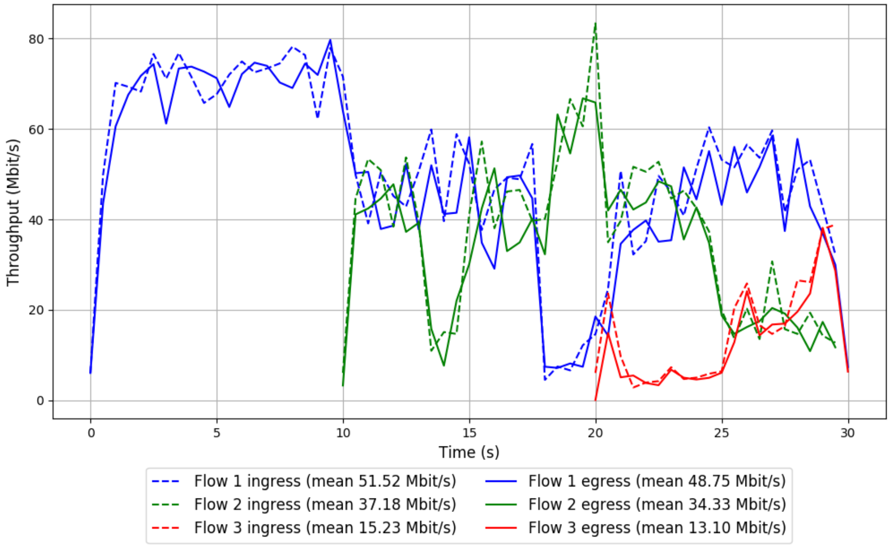
Run 10: Report of Sprout — Data Link

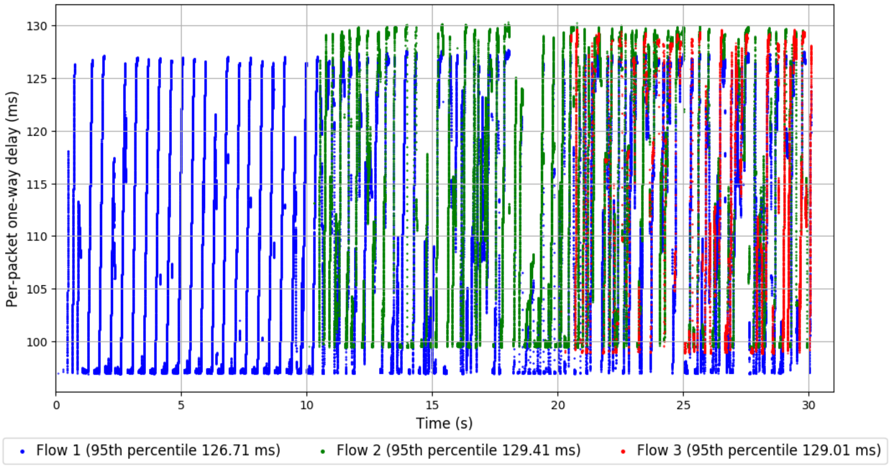




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-10 22:11:07
End at: 2018-04-10 22:11:37
Local clock offset: -6.352 ms
Remote clock offset: 2.203 ms

# Below is generated by plot.py at 2018-04-11 02:47:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.80 Mbit/s
95th percentile per-packet one-way delay: 128.485 ms
Loss rate: 6.53%
-- Flow 1:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 126.709 ms
Loss rate: 5.29%
-- Flow 2:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 129.405 ms
Loss rate: 7.66%
-- Flow 3:
Average throughput: 13.10 Mbit/s
95th percentile per-packet one-way delay: 129.009 ms
Loss rate: 13.71%
```

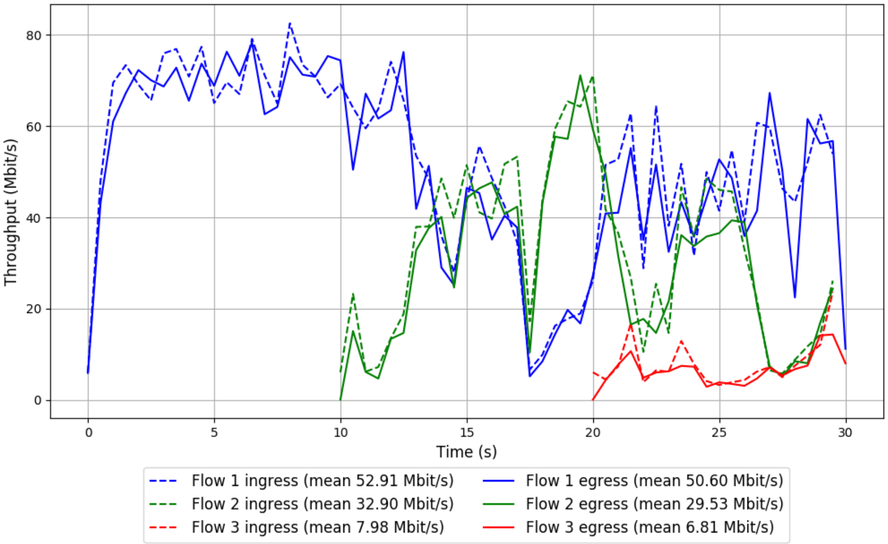
Run 1: Report of TaoVA-100x — Data Link

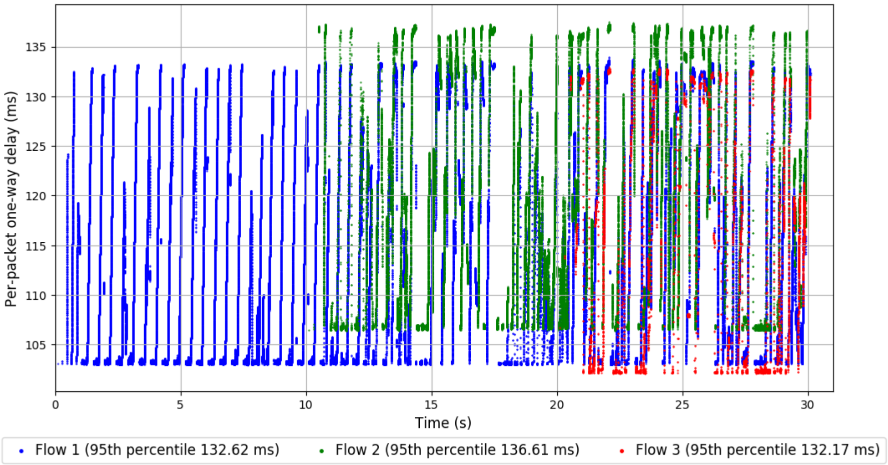




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-10 22:35:17
End at: 2018-04-10 22:35:47
Local clock offset: -5.497 ms
Remote clock offset: 7.001 ms

# Below is generated by plot.py at 2018-04-11 02:47:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.41 Mbit/s
95th percentile per-packet one-way delay: 134.711 ms
Loss rate: 6.26%
-- Flow 1:
Average throughput: 50.60 Mbit/s
95th percentile per-packet one-way delay: 132.617 ms
Loss rate: 4.27%
-- Flow 2:
Average throughput: 29.53 Mbit/s
95th percentile per-packet one-way delay: 136.610 ms
Loss rate: 10.09%
-- Flow 3:
Average throughput: 6.81 Mbit/s
95th percentile per-packet one-way delay: 132.171 ms
Loss rate: 14.47%
```

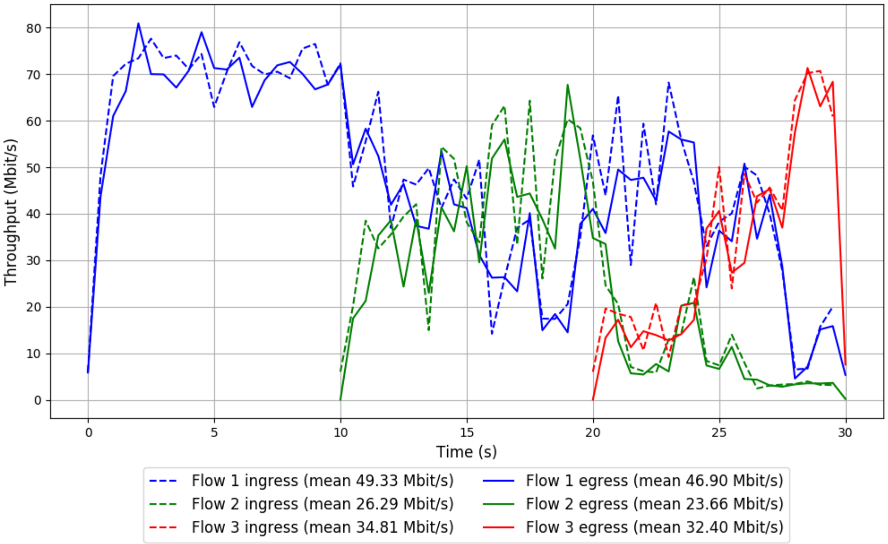
Run 2: Report of TaoVA-100x — Data Link

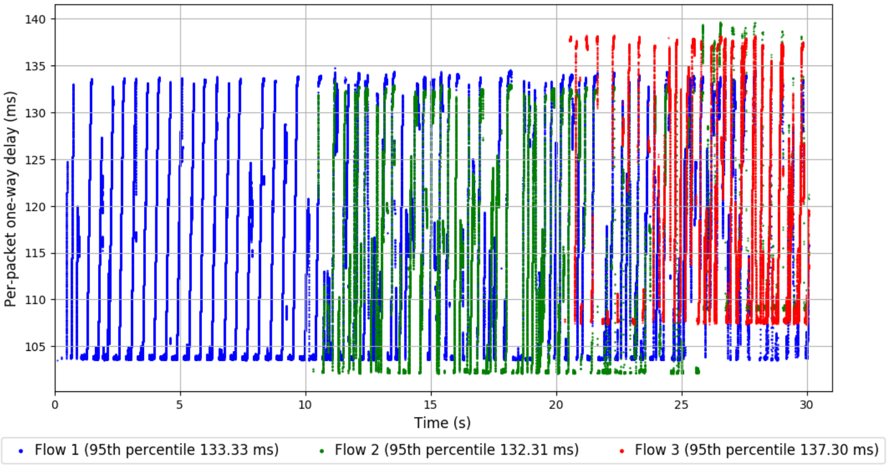




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-10 22:59:25
End at: 2018-04-10 22:59:55
Local clock offset: -6.658 ms
Remote clock offset: 7.697 ms

# Below is generated by plot.py at 2018-04-11 02:47:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.36 Mbit/s
95th percentile per-packet one-way delay: 133.517 ms
Loss rate: 6.35%
-- Flow 1:
Average throughput: 46.90 Mbit/s
95th percentile per-packet one-way delay: 133.334 ms
Loss rate: 4.89%
-- Flow 2:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 132.313 ms
Loss rate: 9.99%
-- Flow 3:
Average throughput: 32.40 Mbit/s
95th percentile per-packet one-way delay: 137.296 ms
Loss rate: 7.04%
```

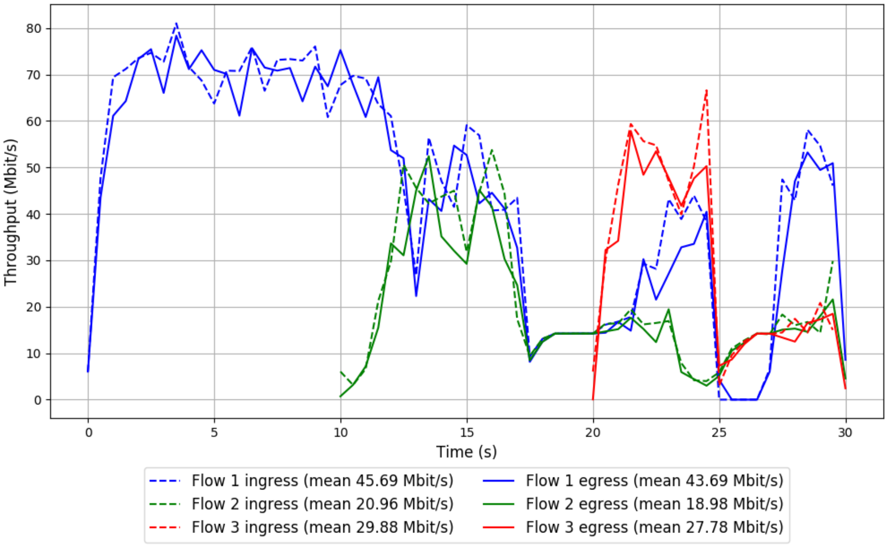
Run 3: Report of TaoVA-100x — Data Link

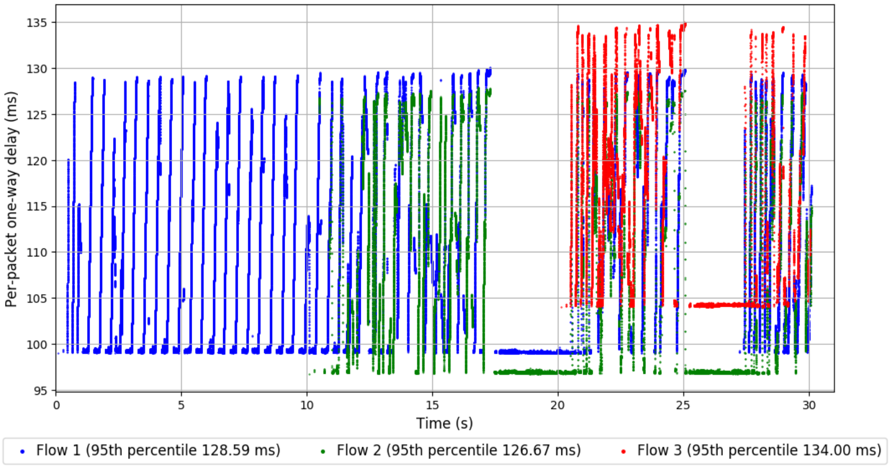




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-10 23:23:17
End at: 2018-04-10 23:23:47
Local clock offset: -6.829 ms
Remote clock offset: 3.661 ms

# Below is generated by plot.py at 2018-04-11 02:47:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.51 Mbit/s
95th percentile per-packet one-way delay: 128.850 ms
Loss rate: 5.71%
-- Flow 1:
Average throughput: 43.69 Mbit/s
95th percentile per-packet one-way delay: 128.586 ms
Loss rate: 4.33%
-- Flow 2:
Average throughput: 18.98 Mbit/s
95th percentile per-packet one-way delay: 126.665 ms
Loss rate: 9.37%
-- Flow 3:
Average throughput: 27.78 Mbit/s
95th percentile per-packet one-way delay: 134.001 ms
Loss rate: 6.95%
```

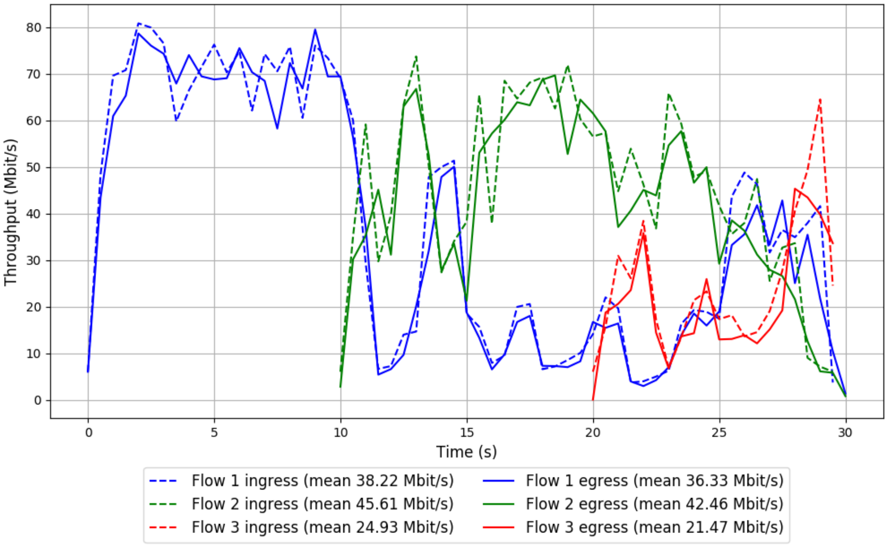
Run 4: Report of TaoVA-100x — Data Link

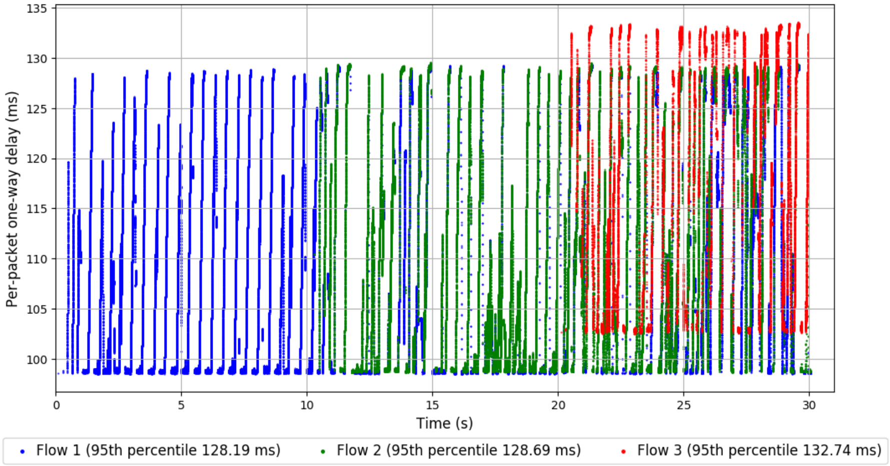




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-10 23:47:28
End at: 2018-04-10 23:47:58
Local clock offset: -7.068 ms
Remote clock offset: 4.126 ms

# Below is generated by plot.py at 2018-04-11 02:47:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.65 Mbit/s
95th percentile per-packet one-way delay: 128.818 ms
Loss rate: 6.64%
-- Flow 1:
Average throughput: 36.33 Mbit/s
95th percentile per-packet one-way delay: 128.187 ms
Loss rate: 4.94%
-- Flow 2:
Average throughput: 42.46 Mbit/s
95th percentile per-packet one-way delay: 128.685 ms
Loss rate: 6.90%
-- Flow 3:
Average throughput: 21.47 Mbit/s
95th percentile per-packet one-way delay: 132.739 ms
Loss rate: 13.59%
```

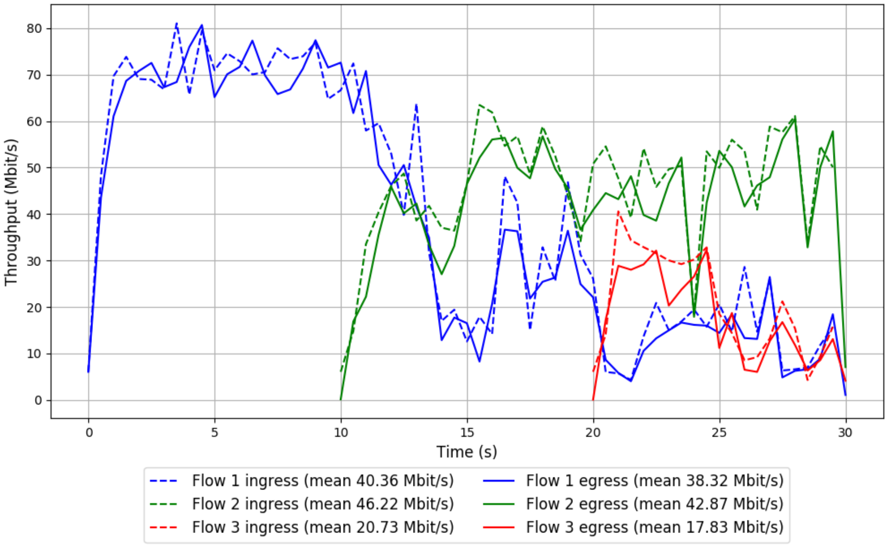
Run 5: Report of TaoVA-100x — Data Link

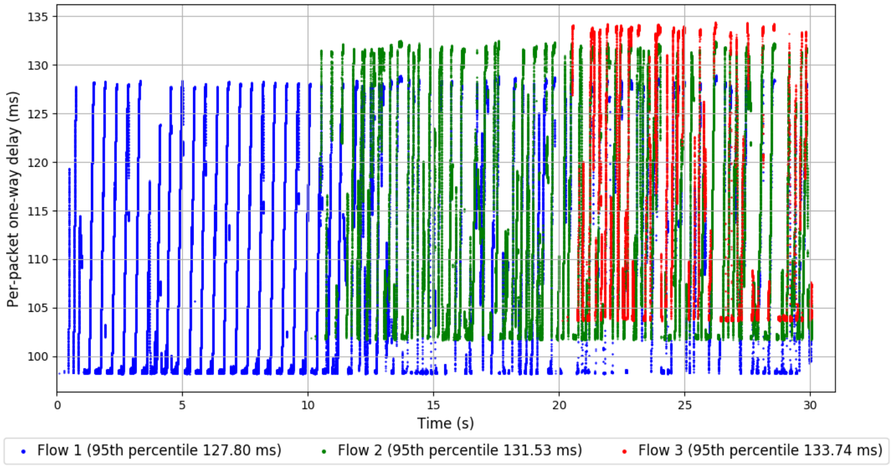




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-04-11 00:11:19
End at: 2018-04-11 00:11:49
Local clock offset: -6.412 ms
Remote clock offset: 2.652 ms

# Below is generated by plot.py at 2018-04-11 02:47:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.73 Mbit/s
95th percentile per-packet one-way delay: 131.312 ms
Loss rate: 6.69%
-- Flow 1:
Average throughput: 38.32 Mbit/s
95th percentile per-packet one-way delay: 127.796 ms
Loss rate: 5.03%
-- Flow 2:
Average throughput: 42.87 Mbit/s
95th percentile per-packet one-way delay: 131.528 ms
Loss rate: 7.24%
-- Flow 3:
Average throughput: 17.83 Mbit/s
95th percentile per-packet one-way delay: 133.740 ms
Loss rate: 13.97%
```

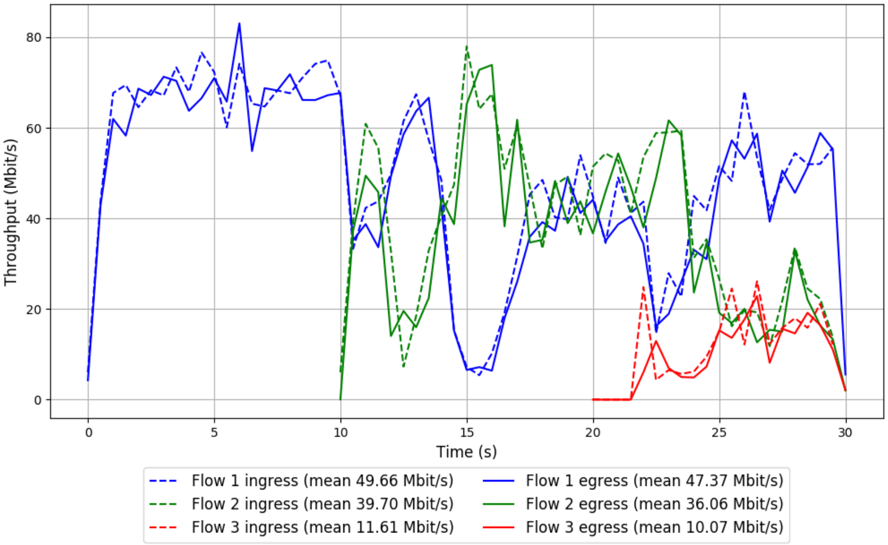
Run 6: Report of TaoVA-100x — Data Link

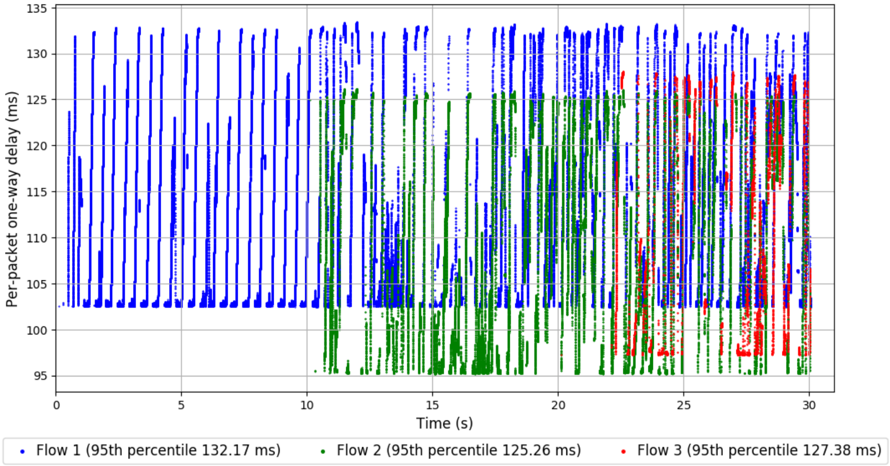




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-11 00:35:48
End at: 2018-04-11 00:36:18
Local clock offset: -6.717 ms
Remote clock offset: 1.889 ms

# Below is generated by plot.py at 2018-04-11 02:47:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.66 Mbit/s
95th percentile per-packet one-way delay: 131.797 ms
Loss rate: 6.57%
-- Flow 1:
Average throughput: 47.37 Mbit/s
95th percentile per-packet one-way delay: 132.168 ms
Loss rate: 4.62%
-- Flow 2:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 125.261 ms
Loss rate: 9.27%
-- Flow 3:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 127.377 ms
Loss rate: 13.24%
```

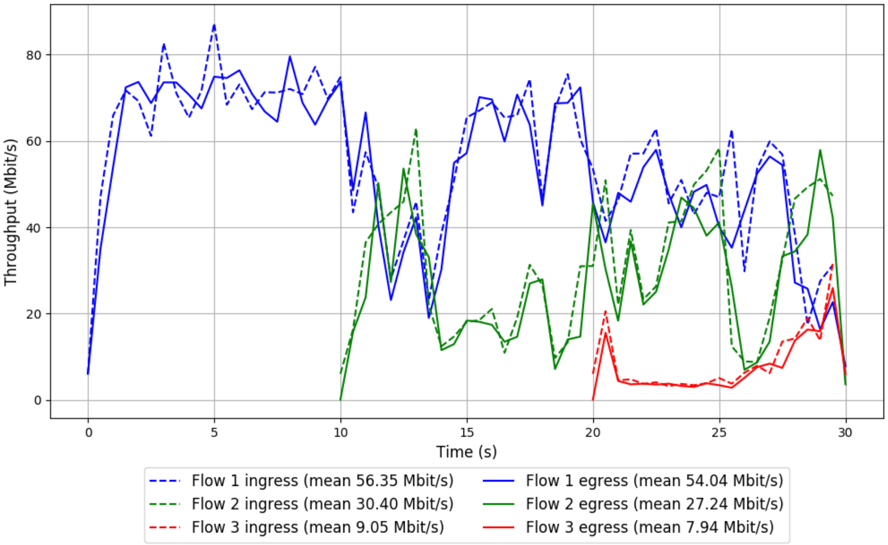
Run 7: Report of TaoVA-100x — Data Link

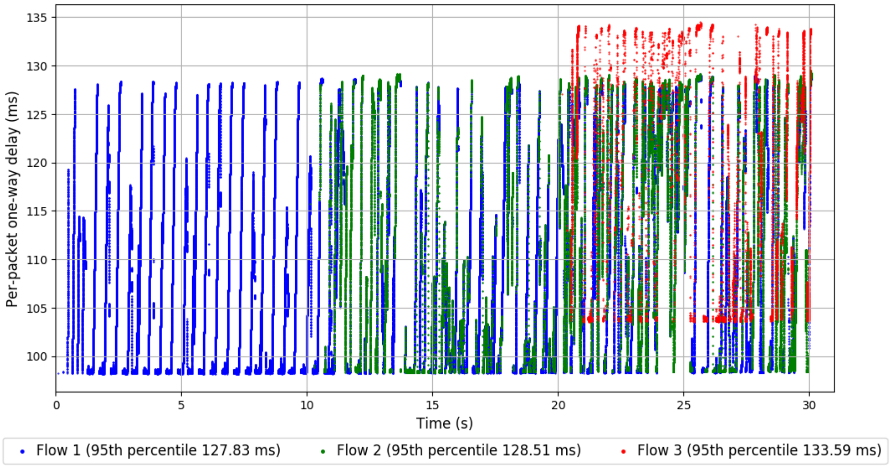




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-11 00:59:55
End at: 2018-04-11 01:00:25
Local clock offset: -7.964 ms
Remote clock offset: 2.012 ms

# Below is generated by plot.py at 2018-04-11 02:47:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.80 Mbit/s
95th percentile per-packet one-way delay: 128.156 ms
Loss rate: 5.92%
-- Flow 1:
Average throughput: 54.04 Mbit/s
95th percentile per-packet one-way delay: 127.831 ms
Loss rate: 3.99%
-- Flow 2:
Average throughput: 27.24 Mbit/s
95th percentile per-packet one-way delay: 128.511 ms
Loss rate: 10.35%
-- Flow 3:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 133.589 ms
Loss rate: 12.21%
```

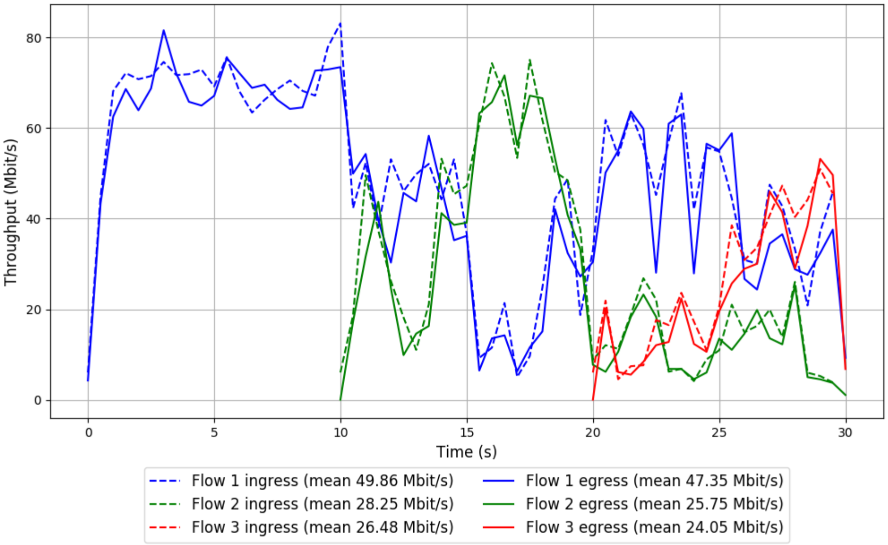
Run 8: Report of TaoVA-100x — Data Link

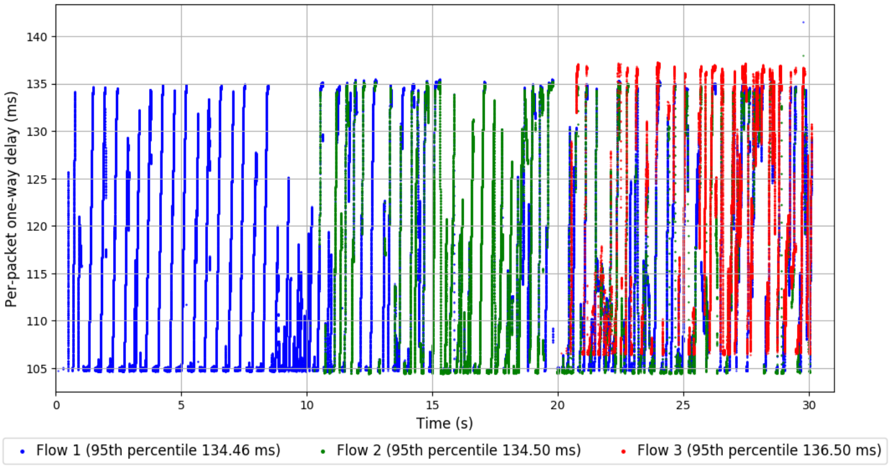




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-11 01:24:03
End at: 2018-04-11 01:24:33
Local clock offset: -4.217 ms
Remote clock offset: 5.323 ms

# Below is generated by plot.py at 2018-04-11 02:49:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.49 Mbit/s
95th percentile per-packet one-way delay: 134.682 ms
Loss rate: 6.33%
-- Flow 1:
Average throughput: 47.35 Mbit/s
95th percentile per-packet one-way delay: 134.463 ms
Loss rate: 4.95%
-- Flow 2:
Average throughput: 25.75 Mbit/s
95th percentile per-packet one-way delay: 134.504 ms
Loss rate: 8.77%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 136.503 ms
Loss rate: 8.95%
```

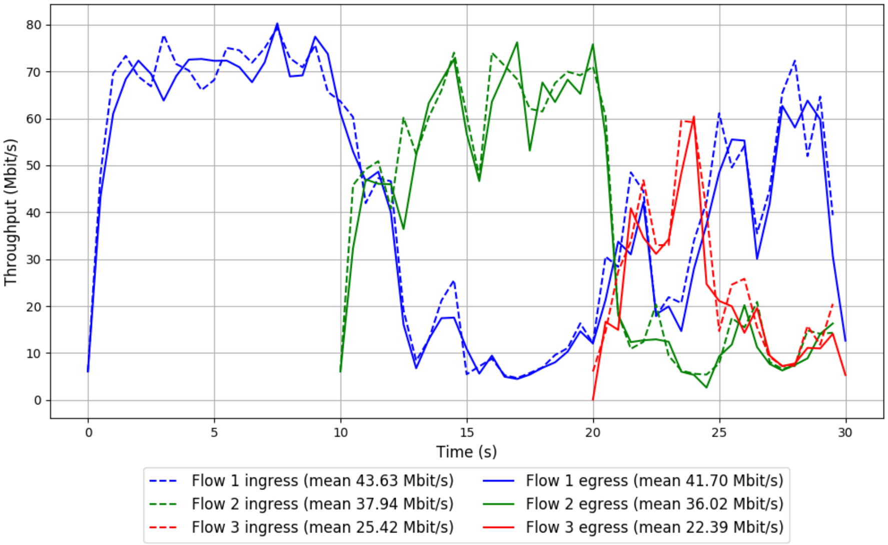
Run 9: Report of TaoVA-100x — Data Link

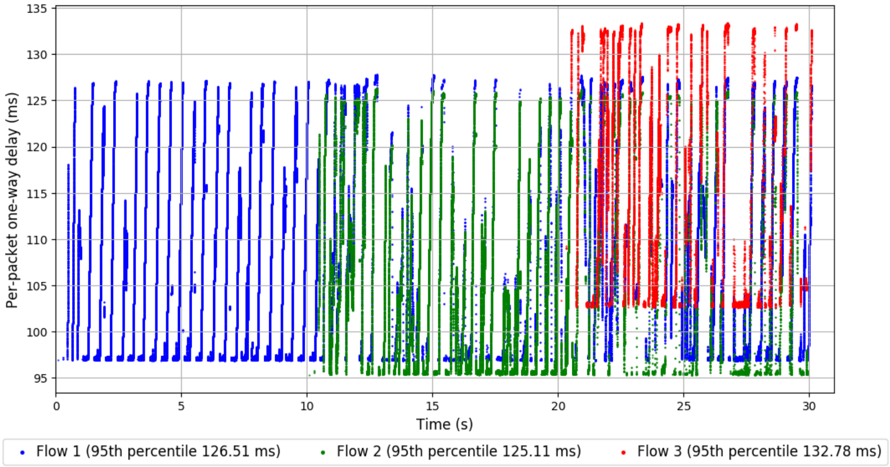




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-11 01:47:58
End at: 2018-04-11 01:48:28
Local clock offset: -4.634 ms
Remote clock offset: 1.819 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.94 Mbit/s
95th percentile per-packet one-way delay: 126.627 ms
Loss rate: 5.37%
-- Flow 1:
Average throughput: 41.70 Mbit/s
95th percentile per-packet one-way delay: 126.507 ms
Loss rate: 4.33%
-- Flow 2:
Average throughput: 36.02 Mbit/s
95th percentile per-packet one-way delay: 125.114 ms
Loss rate: 5.07%
-- Flow 3:
Average throughput: 22.39 Mbit/s
95th percentile per-packet one-way delay: 132.777 ms
Loss rate: 11.69%
```

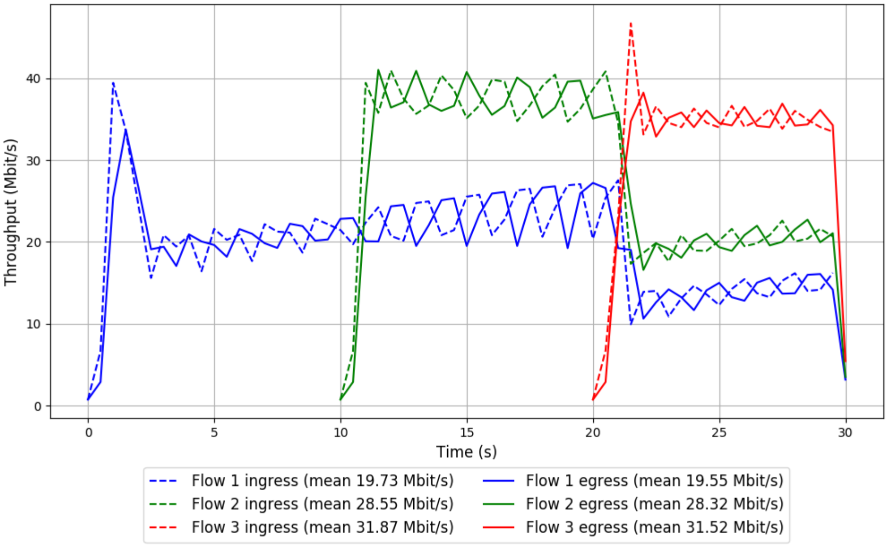
Run 10: Report of TaoVA-100x — Data Link

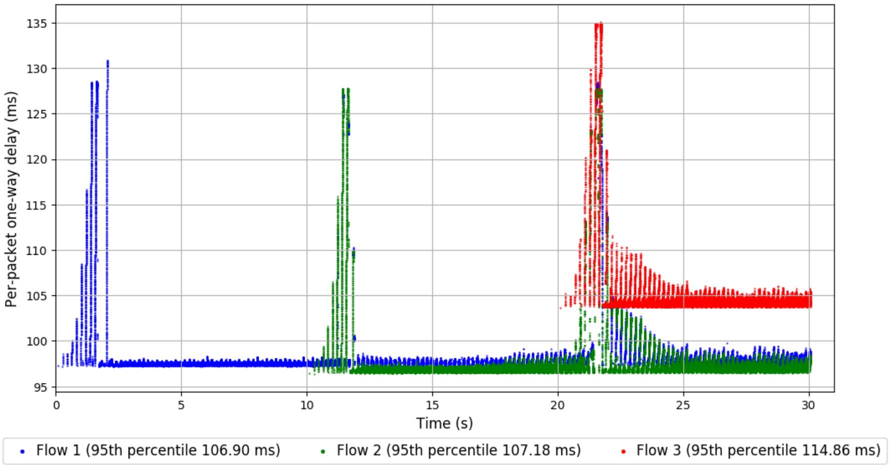




```
Run 1: Statistics of TCP Vegas

Start at: 2018-04-10 22:09:49
End at: 2018-04-10 22:10:19
Local clock offset: -5.596 ms
Remote clock offset: 2.197 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.88 Mbit/s
95th percentile per-packet one-way delay: 109.408 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 19.55 Mbit/s
95th percentile per-packet one-way delay: 106.902 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 28.32 Mbit/s
95th percentile per-packet one-way delay: 107.183 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 31.52 Mbit/s
95th percentile per-packet one-way delay: 114.860 ms
Loss rate: 1.08%
```

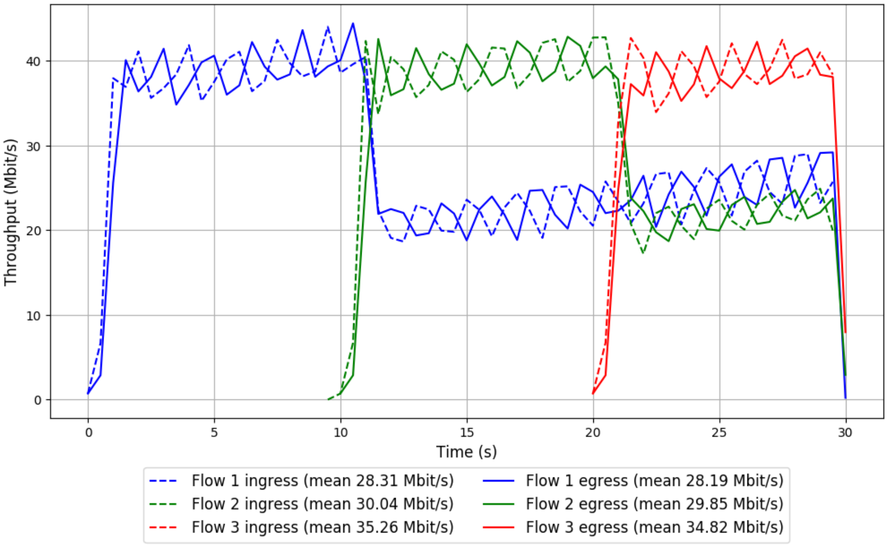
Run 1: Report of TCP Vegas — Data Link

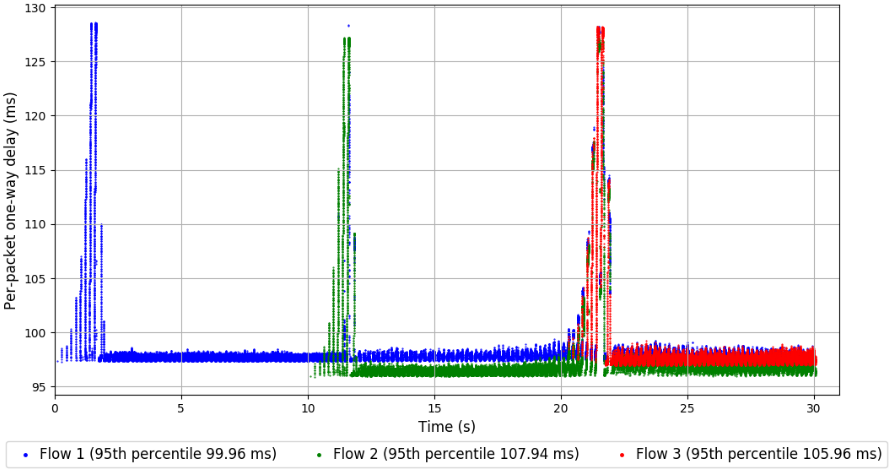




```
Run 2: Statistics of TCP Vegas

Start at: 2018-04-10 22:33:59
End at: 2018-04-10 22:34:29
Local clock offset: -4.682 ms
Remote clock offset: 2.187 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 104.497 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 99.956 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 29.85 Mbit/s
95th percentile per-packet one-way delay: 107.941 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 34.82 Mbit/s
95th percentile per-packet one-way delay: 105.958 ms
Loss rate: 1.27%
```

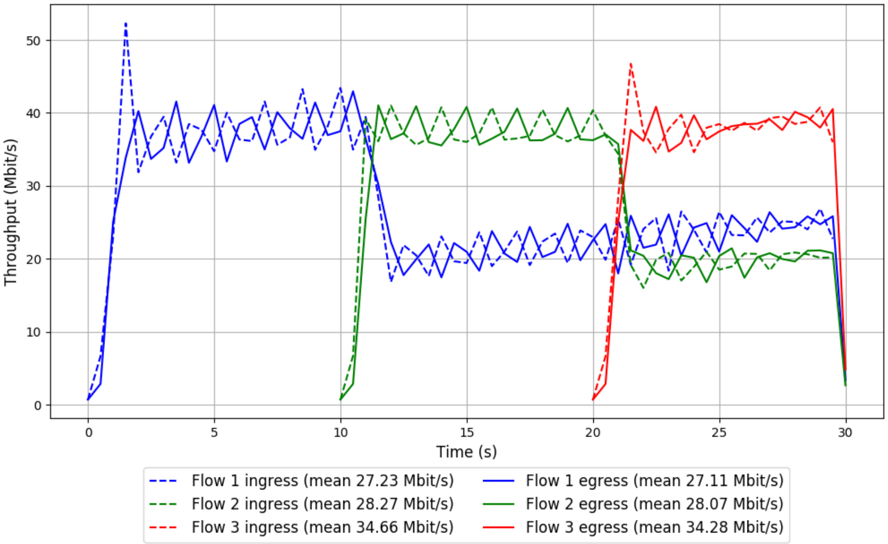
Run 2: Report of TCP Vegas — Data Link

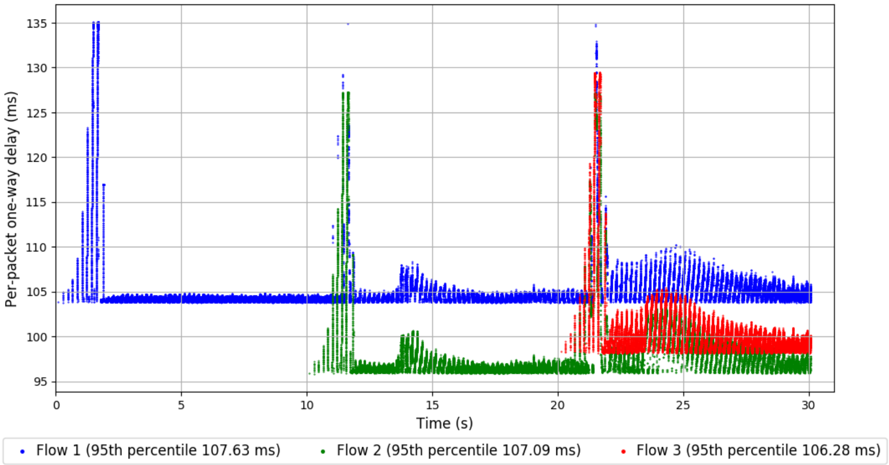




```
Run 3: Statistics of TCP Vegas

Start at: 2018-04-10 22:58:07
End at: 2018-04-10 22:58:37
Local clock offset: -5.831 ms
Remote clock offset: 2.851 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.19 Mbit/s
95th percentile per-packet one-way delay: 107.499 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 27.11 Mbit/s
95th percentile per-packet one-way delay: 107.632 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 28.07 Mbit/s
95th percentile per-packet one-way delay: 107.088 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 34.28 Mbit/s
95th percentile per-packet one-way delay: 106.277 ms
Loss rate: 1.06%
```

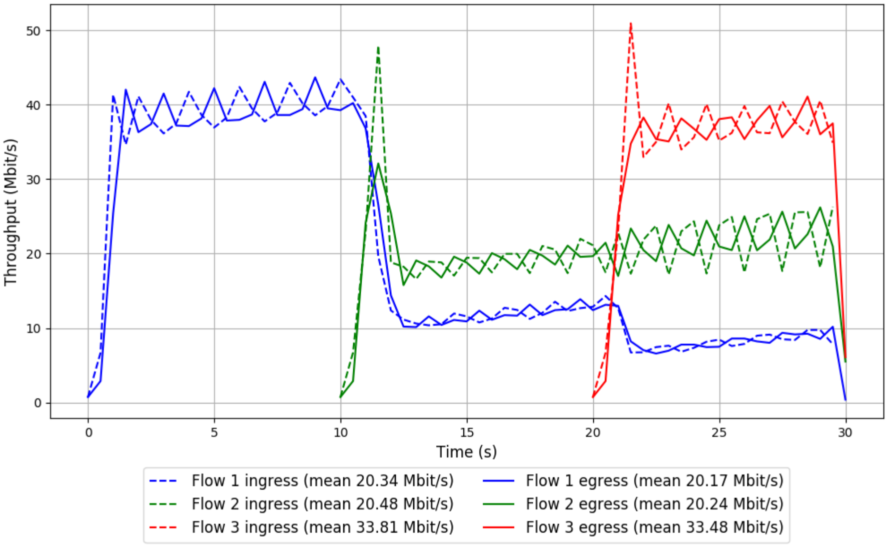
Run 3: Report of TCP Vegas — Data Link

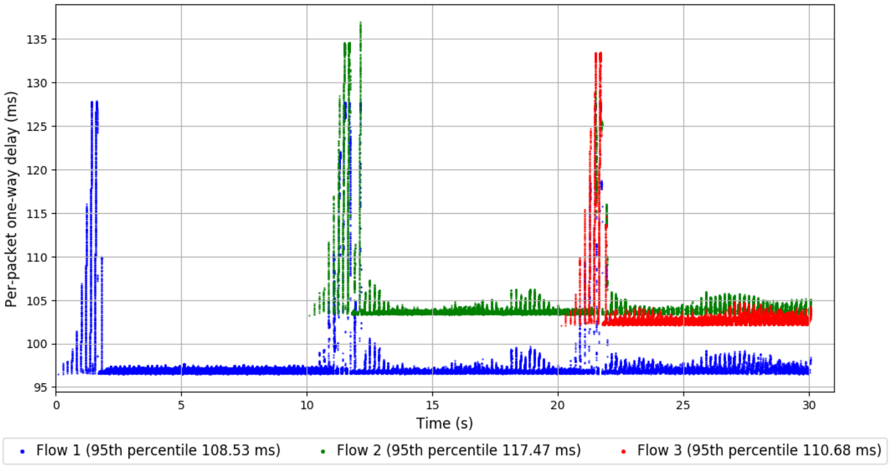




```
Run 4: Statistics of TCP Vegas

Start at: 2018-04-10 23:21:59
End at: 2018-04-10 23:22:29
Local clock offset: -6.021 ms
Remote clock offset: 3.607 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.75 Mbit/s
95th percentile per-packet one-way delay: 112.653 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 20.17 Mbit/s
95th percentile per-packet one-way delay: 108.530 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 20.24 Mbit/s
95th percentile per-packet one-way delay: 117.475 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 110.677 ms
Loss rate: 0.96%
```

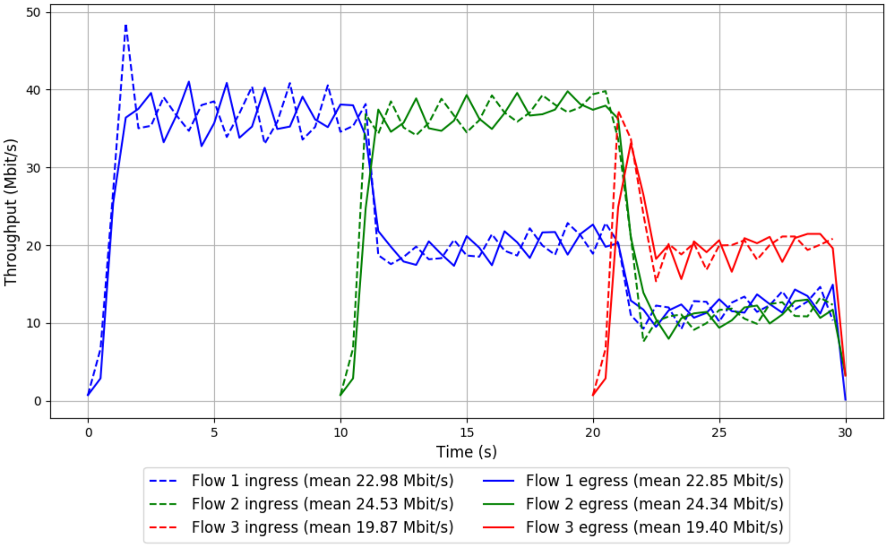
Run 4: Report of TCP Vegas — Data Link

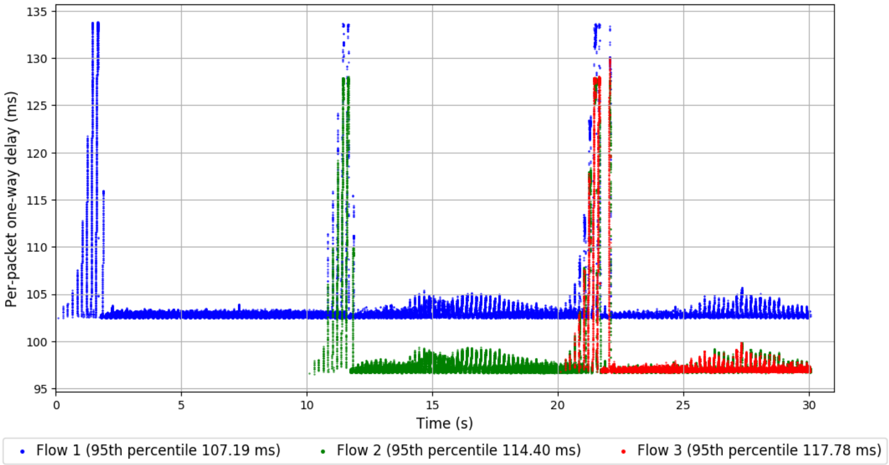




```
Run 5: Statistics of TCP Vegas

Start at: 2018-04-10 23:46:10
End at: 2018-04-10 23:46:40
Local clock offset: -7.02 ms
Remote clock offset: 4.119 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.50 Mbit/s
95th percentile per-packet one-way delay: 111.136 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 107.195 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 24.34 Mbit/s
95th percentile per-packet one-way delay: 114.399 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 19.40 Mbit/s
95th percentile per-packet one-way delay: 117.778 ms
Loss rate: 2.39%
```

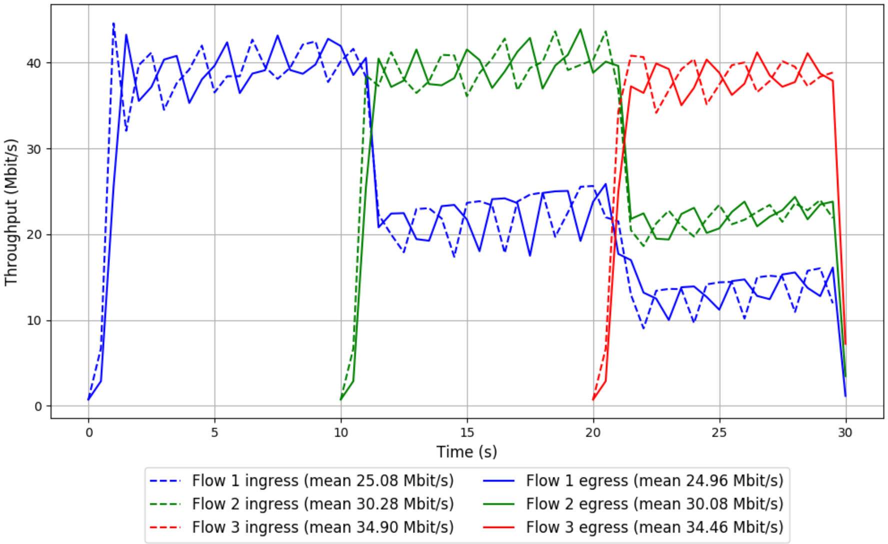
Run 5: Report of TCP Vegas — Data Link

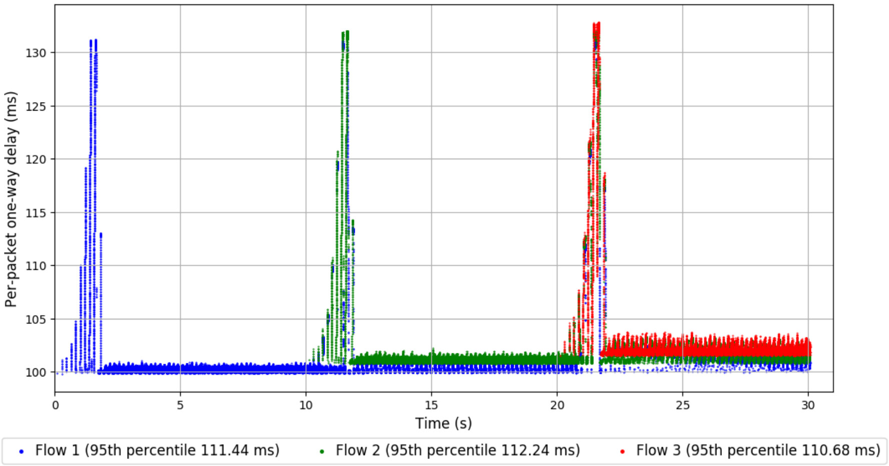




```
Run 6: Statistics of TCP Vegas

Start at: 2018-04-11 00:10:01
End at: 2018-04-11 00:10:31
Local clock offset: -6.393 ms
Remote clock offset: 7.54 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 111.745 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 24.96 Mbit/s
95th percentile per-packet one-way delay: 111.436 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 30.08 Mbit/s
95th percentile per-packet one-way delay: 112.240 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 34.46 Mbit/s
95th percentile per-packet one-way delay: 110.680 ms
Loss rate: 1.24%
```

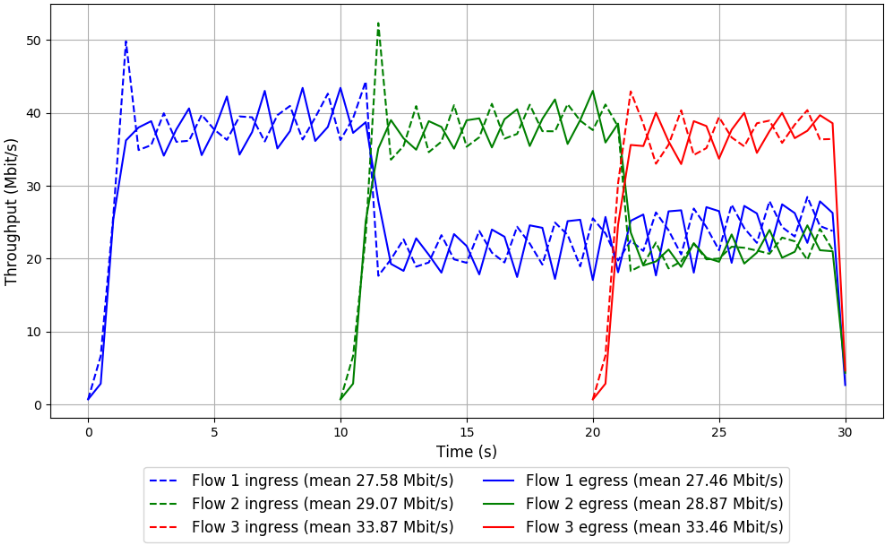
Run 6: Report of TCP Vegas — Data Link

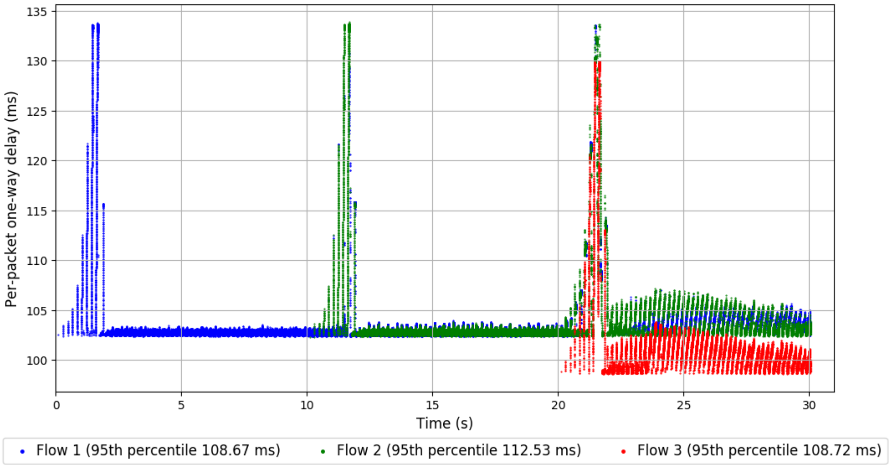




```
Run 7: Statistics of TCP Vegas

Start at: 2018-04-11 00:34:30
End at: 2018-04-11 00:35:00
Local clock offset: -8.104 ms
Remote clock offset: 1.84 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.80 Mbit/s
95th percentile per-packet one-way delay: 110.368 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 108.667 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 28.87 Mbit/s
95th percentile per-packet one-way delay: 112.534 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 33.46 Mbit/s
95th percentile per-packet one-way delay: 108.721 ms
Loss rate: 1.20%
```

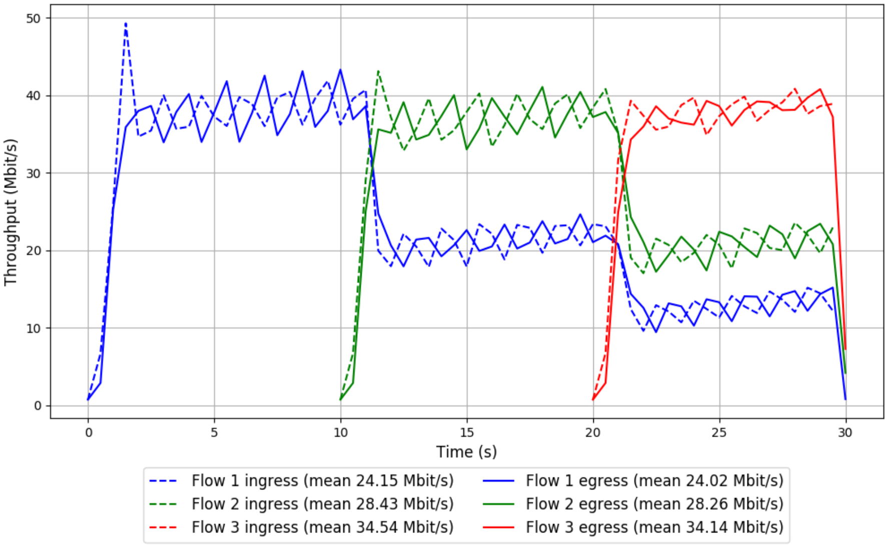
Run 7: Report of TCP Vegas — Data Link

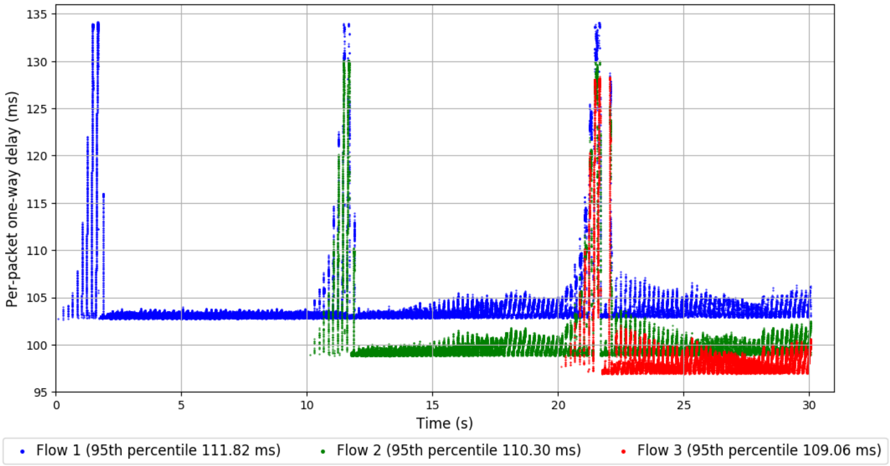




```
Run 8: Statistics of TCP Vegas

Start at: 2018-04-11 00:58:37
End at: 2018-04-11 00:59:07
Local clock offset: -9.043 ms
Remote clock offset: 2.089 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.17 Mbit/s
95th percentile per-packet one-way delay: 110.810 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 24.02 Mbit/s
95th percentile per-packet one-way delay: 111.816 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 28.26 Mbit/s
95th percentile per-packet one-way delay: 110.304 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 34.14 Mbit/s
95th percentile per-packet one-way delay: 109.060 ms
Loss rate: 1.14%
```

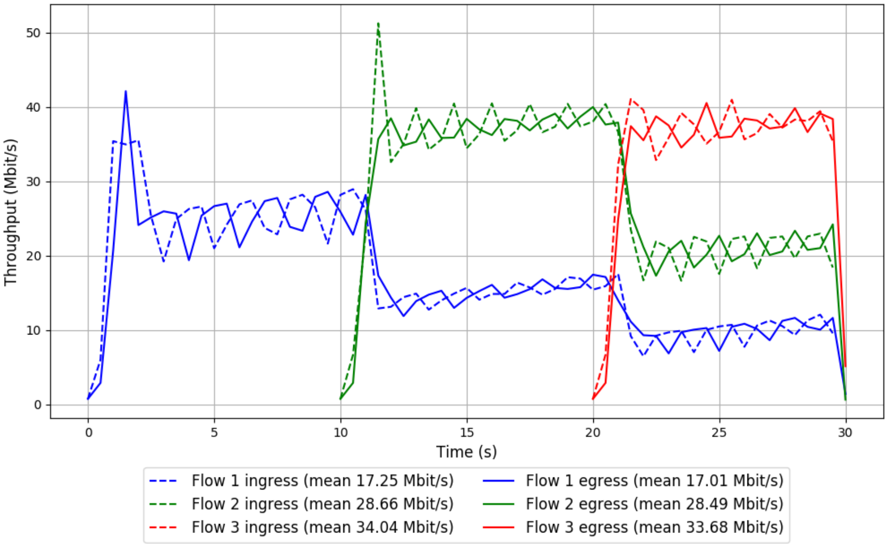
Run 8: Report of TCP Vegas — Data Link

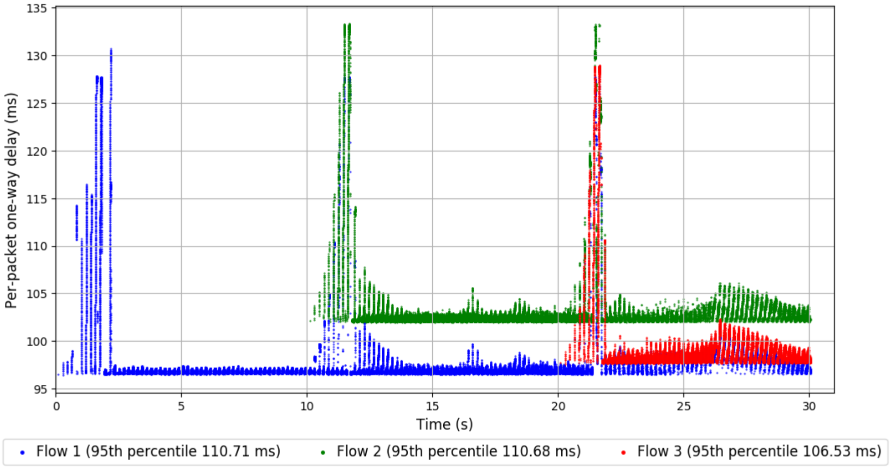




```
Run 9: Statistics of TCP Vegas

Start at: 2018-04-11 01:22:45
End at: 2018-04-11 01:23:15
Local clock offset: -5.003 ms
Remote clock offset: 1.74 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.15 Mbit/s
95th percentile per-packet one-way delay: 109.953 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 17.01 Mbit/s
95th percentile per-packet one-way delay: 110.710 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 28.49 Mbit/s
95th percentile per-packet one-way delay: 110.676 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 33.68 Mbit/s
95th percentile per-packet one-way delay: 106.535 ms
Loss rate: 1.06%
```

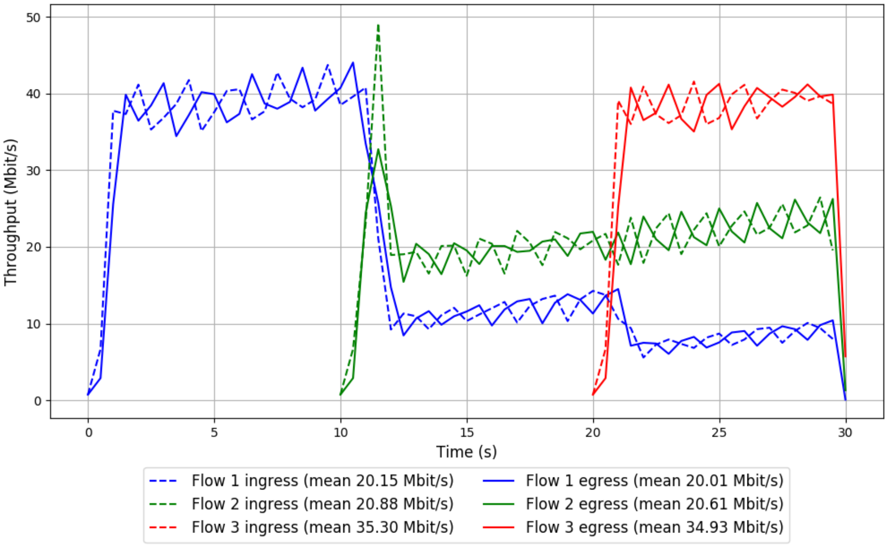
Run 9: Report of TCP Vegas — Data Link

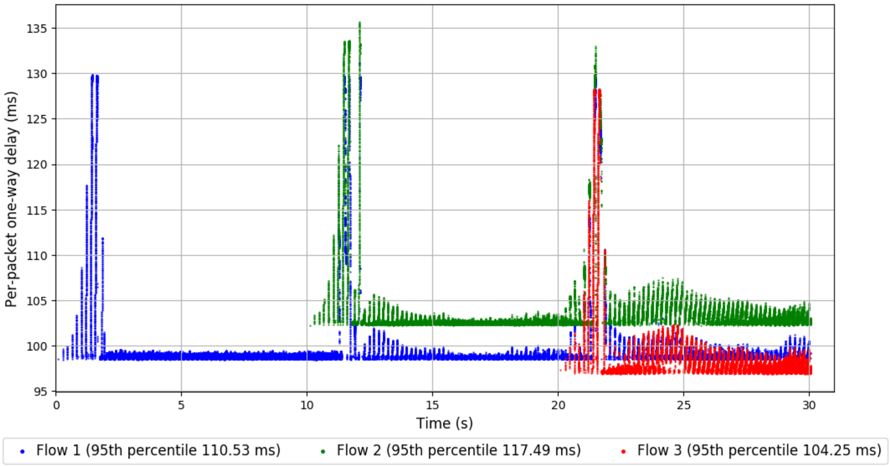




```
Run 10: Statistics of TCP Vegas

Start at: 2018-04-11 01:46:41
End at: 2018-04-11 01:47:11
Local clock offset: -6.162 ms
Remote clock offset: 1.775 ms

# Below is generated by plot.py at 2018-04-11 02:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.34 Mbit/s
95th percentile per-packet one-way delay: 111.361 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 110.533 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 117.494 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 34.93 Mbit/s
95th percentile per-packet one-way delay: 104.251 ms
Loss rate: 1.05%
```

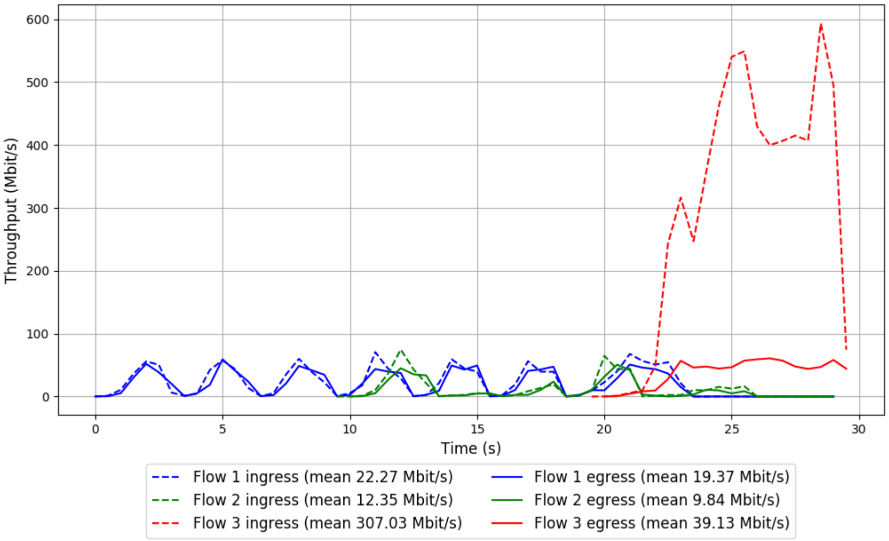
Run 10: Report of TCP Vegas — Data Link

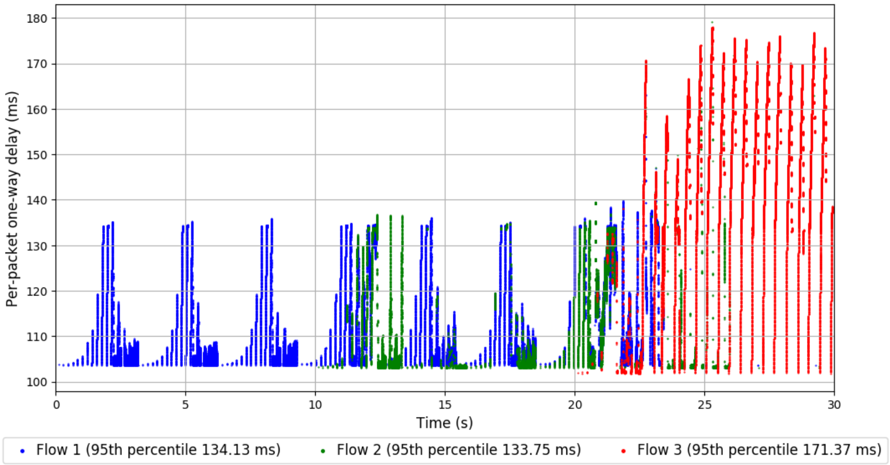




```
Run 1: Statistics of Verus

Start at: 2018-04-10 22:26:02
End at: 2018-04-10 22:26:32
Local clock offset: -6.209 ms
Remote clock offset: 7.047 ms

# Below is generated by plot.py at 2018-04-11 02:49:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.20 Mbit/s
95th percentile per-packet one-way delay: 165.448 ms
Loss rate: 70.77%
-- Flow 1:
Average throughput: 19.37 Mbit/s
95th percentile per-packet one-way delay: 134.128 ms
Loss rate: 13.57%
-- Flow 2:
Average throughput: 9.84 Mbit/s
95th percentile per-packet one-way delay: 133.752 ms
Loss rate: 21.03%
-- Flow 3:
Average throughput: 39.13 Mbit/s
95th percentile per-packet one-way delay: 171.367 ms
Loss rate: 87.21%
```

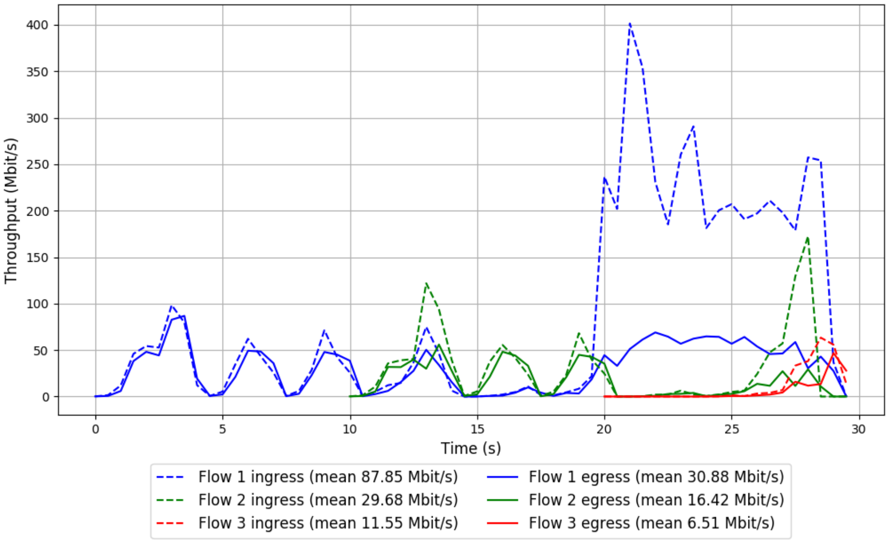
Run 1: Report of Verus — Data Link

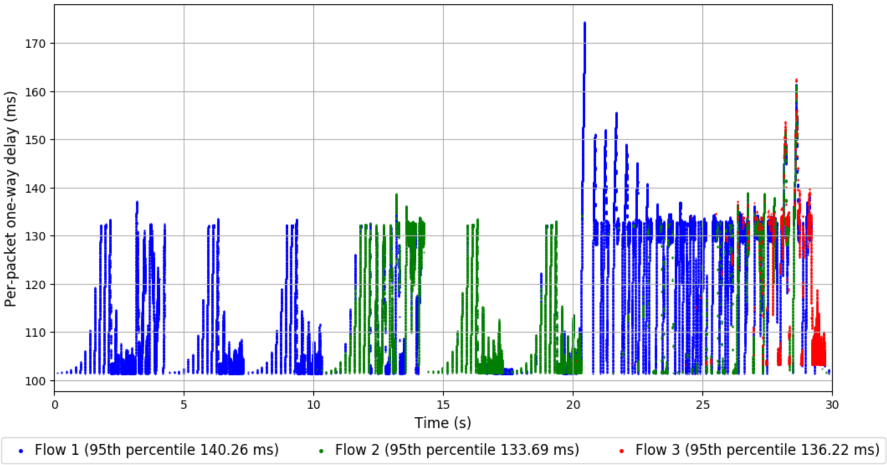




```
Run 2: Statistics of Verus

Start at: 2018-04-10 22:50:10
End at: 2018-04-10 22:50:40
Local clock offset: -6.432 ms
Remote clock offset: 6.772 ms

# Below is generated by plot.py at 2018-04-11 02:49:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.82 Mbit/s
95th percentile per-packet one-way delay: 137.818 ms
Loss rate: 60.58%
-- Flow 1:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 140.259 ms
Loss rate: 64.85%
-- Flow 2:
Average throughput: 16.42 Mbit/s
95th percentile per-packet one-way delay: 133.689 ms
Loss rate: 44.69%
-- Flow 3:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 136.221 ms
Loss rate: 43.58%
```

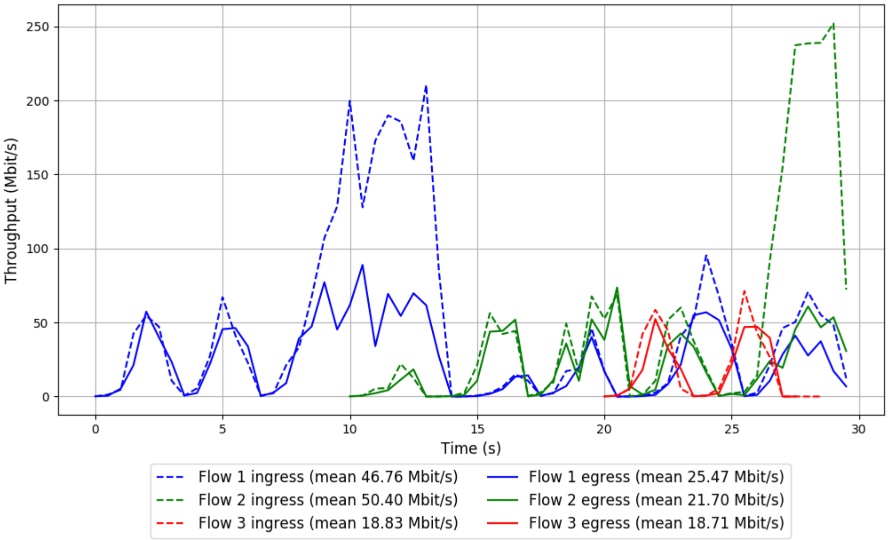
Run 2: Report of Verus — Data Link

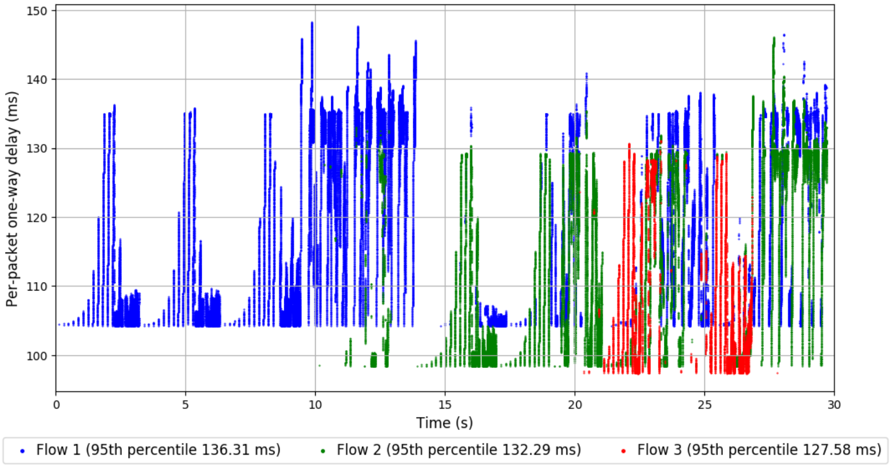




```
Run 3: Statistics of Verus

Start at: 2018-04-10 23:14:02
End at: 2018-04-10 23:14:32
Local clock offset: -6.706 ms
Remote clock offset: 3.509 ms

# Below is generated by plot.py at 2018-04-11 02:49:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.63 Mbit/s
95th percentile per-packet one-way delay: 135.359 ms
Loss rate: 47.82%
-- Flow 1:
Average throughput: 25.47 Mbit/s
95th percentile per-packet one-way delay: 136.311 ms
Loss rate: 45.49%
-- Flow 2:
Average throughput: 21.70 Mbit/s
95th percentile per-packet one-way delay: 132.295 ms
Loss rate: 56.88%
-- Flow 3:
Average throughput: 18.71 Mbit/s
95th percentile per-packet one-way delay: 127.579 ms
Loss rate: 13.31%
```

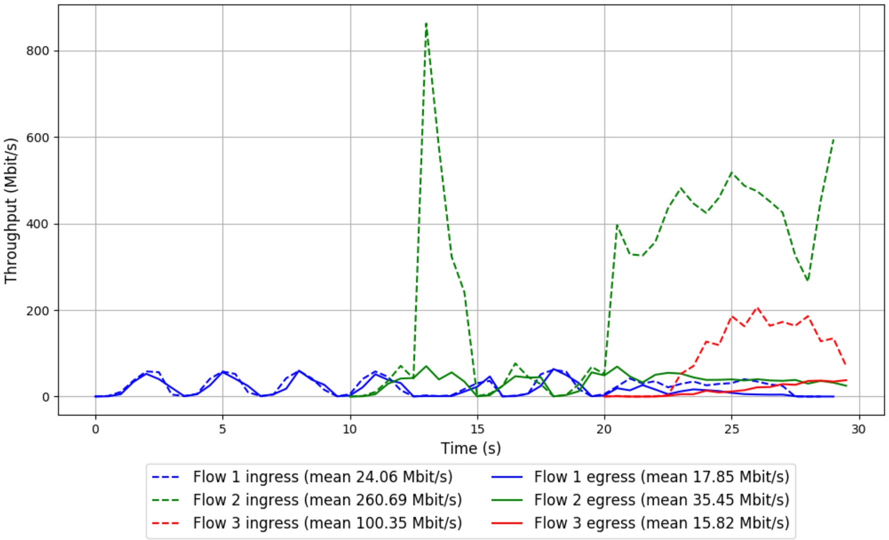
Run 3: Report of Verus — Data Link

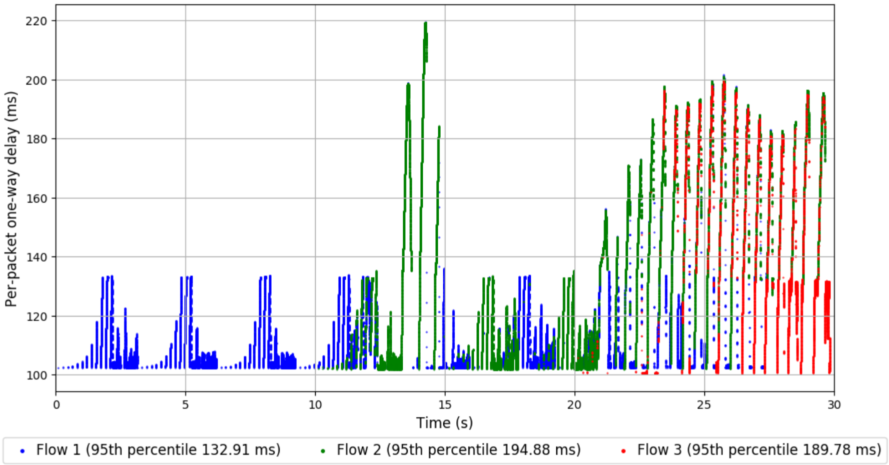




```
Run 4: Statistics of Verus

Start at: 2018-04-10 23:38:12
End at: 2018-04-10 23:38:42
Local clock offset: -7.016 ms
Remote clock offset: 8.741 ms

# Below is generated by plot.py at 2018-04-11 02:50:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.81 Mbit/s
95th percentile per-packet one-way delay: 190.093 ms
Loss rate: 79.79%
-- Flow 1:
Average throughput: 17.85 Mbit/s
95th percentile per-packet one-way delay: 132.907 ms
Loss rate: 25.60%
-- Flow 2:
Average throughput: 35.45 Mbit/s
95th percentile per-packet one-way delay: 194.882 ms
Loss rate: 86.35%
-- Flow 3:
Average throughput: 15.82 Mbit/s
95th percentile per-packet one-way delay: 189.777 ms
Loss rate: 84.22%
```

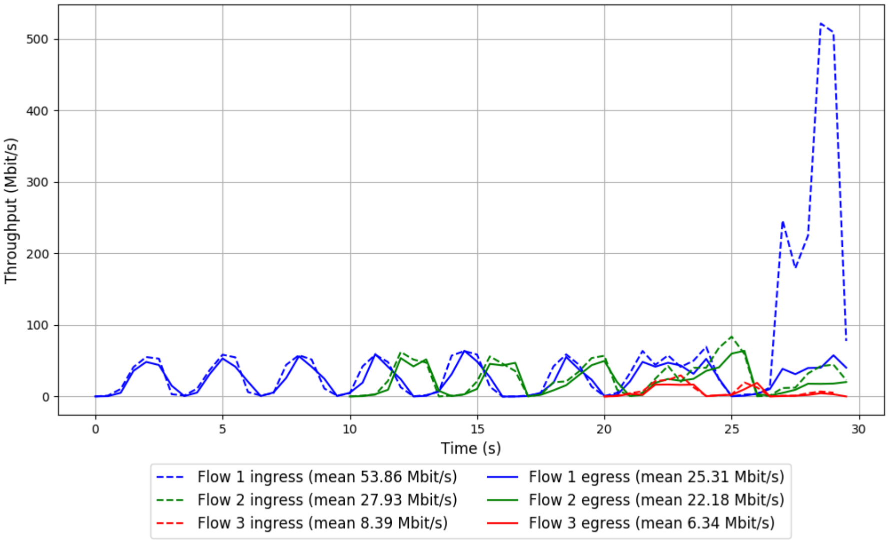
Run 4: Report of Verus — Data Link

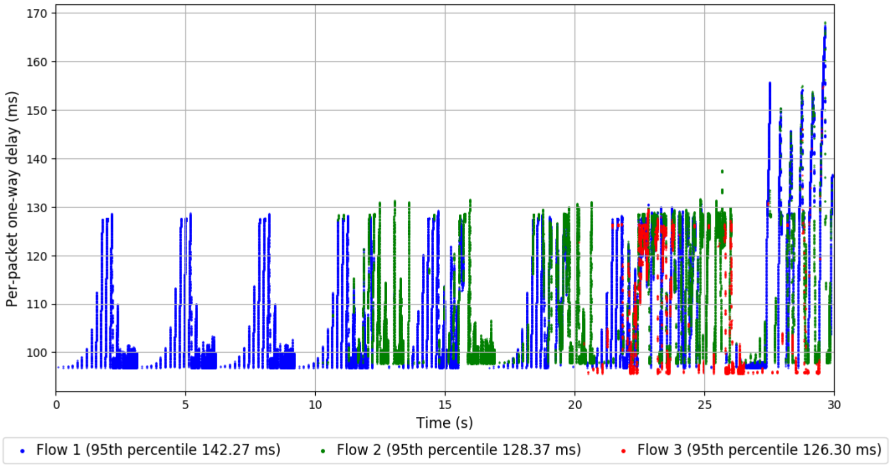




```
Run 5: Statistics of Verus

Start at: 2018-04-11 00:02:06
End at: 2018-04-11 00:02:36
Local clock offset: -7.106 ms
Remote clock offset: 3.605 ms

# Below is generated by plot.py at 2018-04-11 02:50:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.04 Mbit/s
95th percentile per-packet one-way delay: 134.528 ms
Loss rate: 43.91%
-- Flow 1:
Average throughput: 25.31 Mbit/s
95th percentile per-packet one-way delay: 142.273 ms
Loss rate: 52.94%
-- Flow 2:
Average throughput: 22.18 Mbit/s
95th percentile per-packet one-way delay: 128.371 ms
Loss rate: 20.47%
-- Flow 3:
Average throughput: 6.34 Mbit/s
95th percentile per-packet one-way delay: 126.300 ms
Loss rate: 24.38%
```

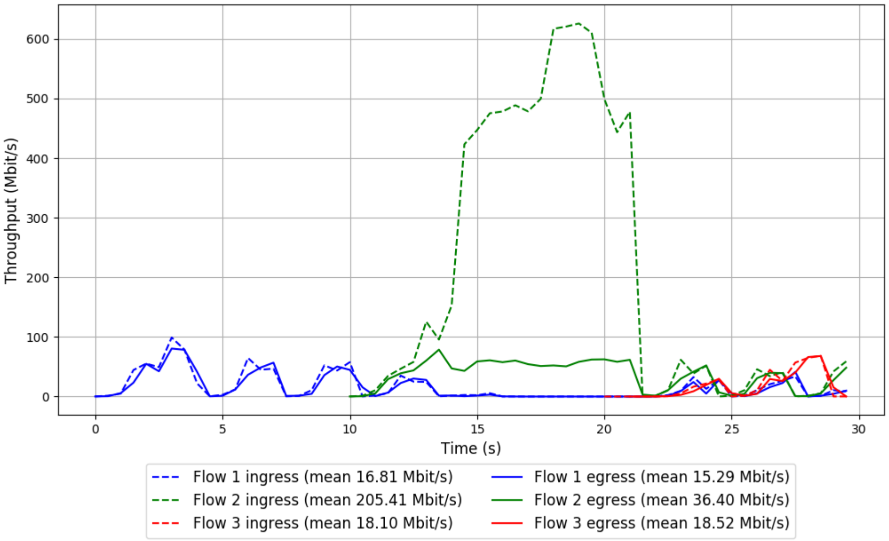
Run 5: Report of Verus — Data Link

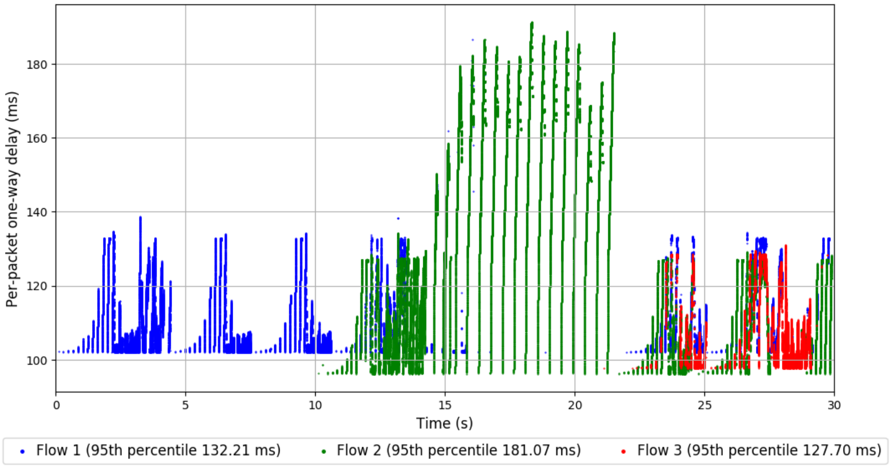




```
Run 6: Statistics of Verus

Start at: 2018-04-11 00:26:23
End at: 2018-04-11 00:26:53
Local clock offset: -6.663 ms
Remote clock offset: 1.939 ms

# Below is generated by plot.py at 2018-04-11 02:50:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.77 Mbit/s
95th percentile per-packet one-way delay: 175.673 ms
Loss rate: 71.80%
-- Flow 1:
Average throughput: 15.29 Mbit/s
95th percentile per-packet one-way delay: 132.207 ms
Loss rate: 8.90%
-- Flow 2:
Average throughput: 36.40 Mbit/s
95th percentile per-packet one-way delay: 181.073 ms
Loss rate: 82.25%
-- Flow 3:
Average throughput: 18.52 Mbit/s
95th percentile per-packet one-way delay: 127.699 ms
Loss rate: 8.01%
```

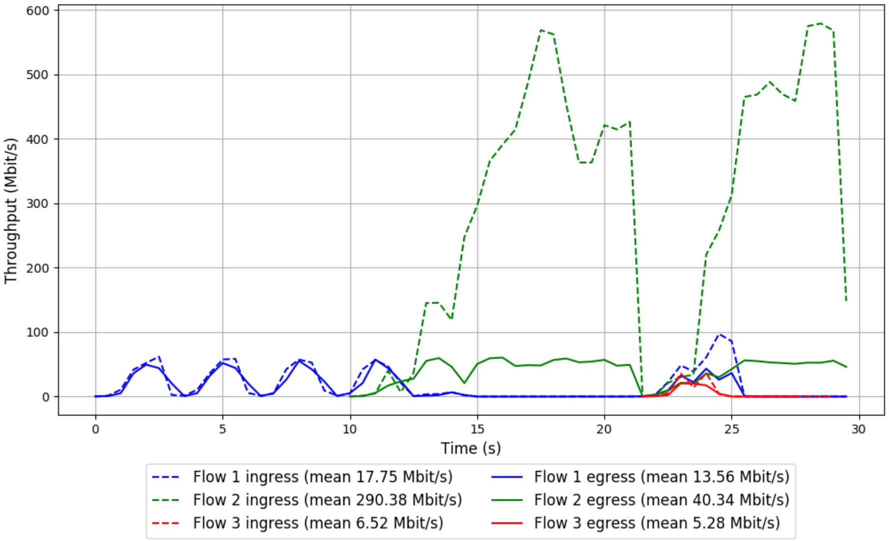
Run 6: Report of Verus — Data Link

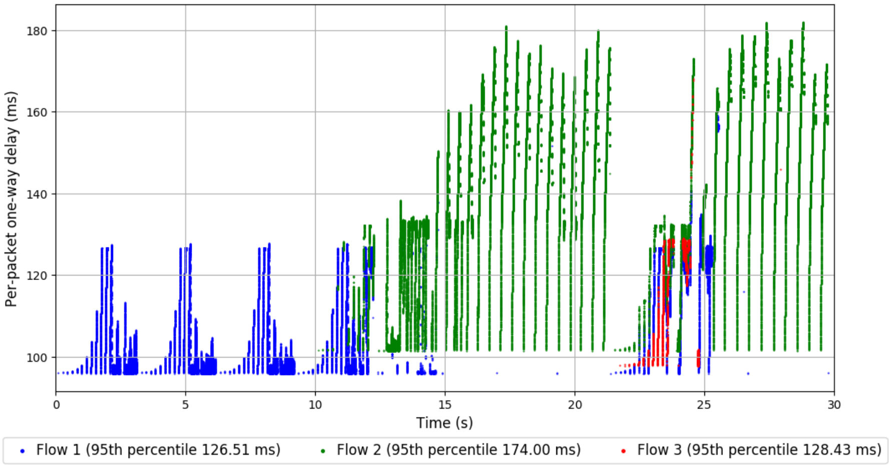




```
Run 7: Statistics of Verus

Start at: 2018-04-11 00:50:36
End at: 2018-04-11 00:51:06
Local clock offset: -7.984 ms
Remote clock offset: 2.082 ms

# Below is generated by plot.py at 2018-04-11 02:50:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.34 Mbit/s
95th percentile per-packet one-way delay: 171.510 ms
Loss rate: 80.40%
-- Flow 1:
Average throughput: 13.56 Mbit/s
95th percentile per-packet one-way delay: 126.507 ms
Loss rate: 23.63%
-- Flow 2:
Average throughput: 40.34 Mbit/s
95th percentile per-packet one-way delay: 174.002 ms
Loss rate: 86.07%
-- Flow 3:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 128.429 ms
Loss rate: 32.01%
```

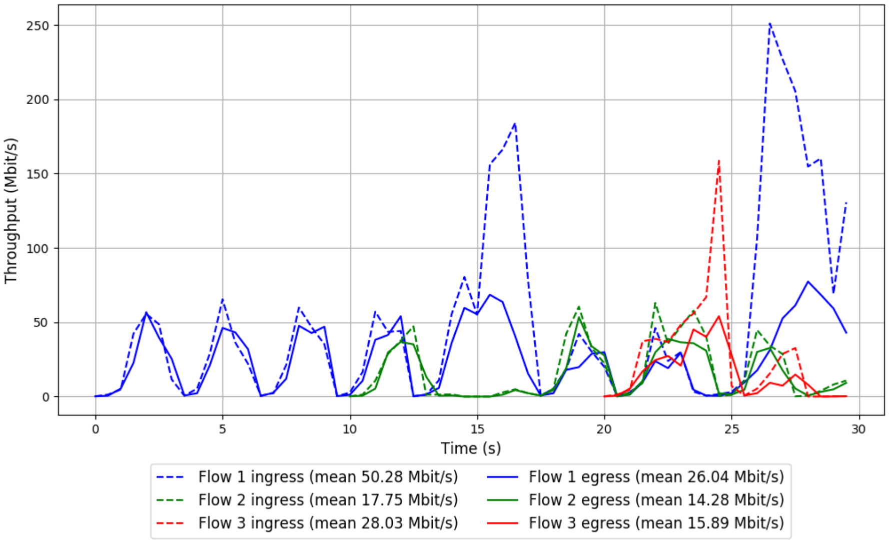
Run 7: Report of Verus — Data Link

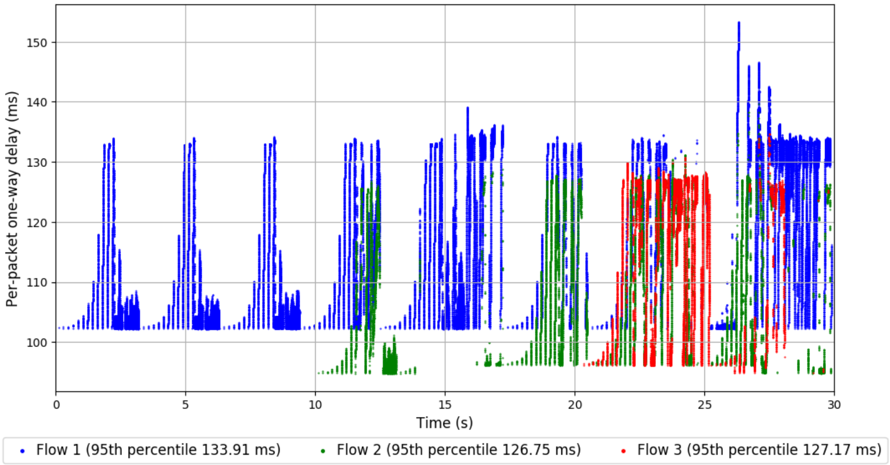




```
Run 8: Statistics of Verus

Start at: 2018-04-11 01:14:49
End at: 2018-04-11 01:15:19
Local clock offset: -5.432 ms
Remote clock offset: 1.764 ms

# Below is generated by plot.py at 2018-04-11 02:50:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 133.380 ms
Loss rate: 42.84%
-- Flow 1:
Average throughput: 26.04 Mbit/s
95th percentile per-packet one-way delay: 133.909 ms
Loss rate: 48.20%
-- Flow 2:
Average throughput: 14.28 Mbit/s
95th percentile per-packet one-way delay: 126.752 ms
Loss rate: 19.59%
-- Flow 3:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 127.172 ms
Loss rate: 43.32%
```

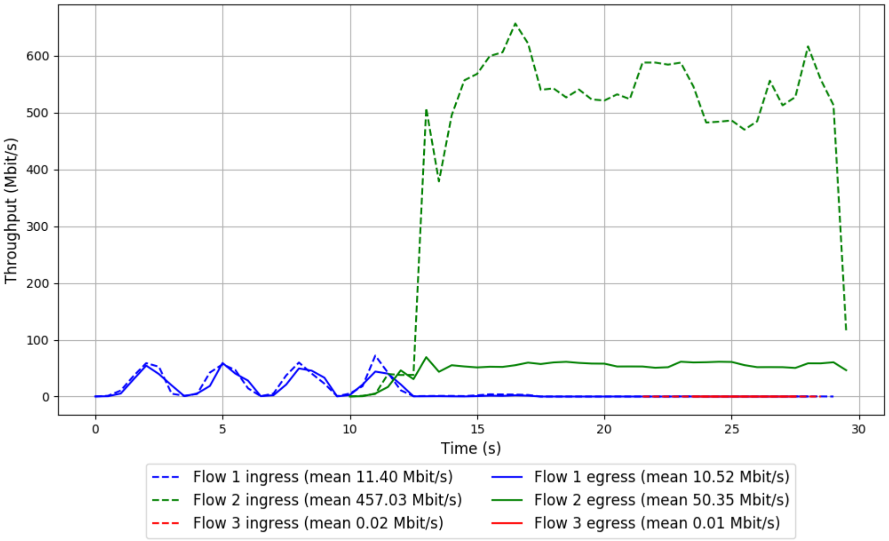
Run 8: Report of Verus — Data Link

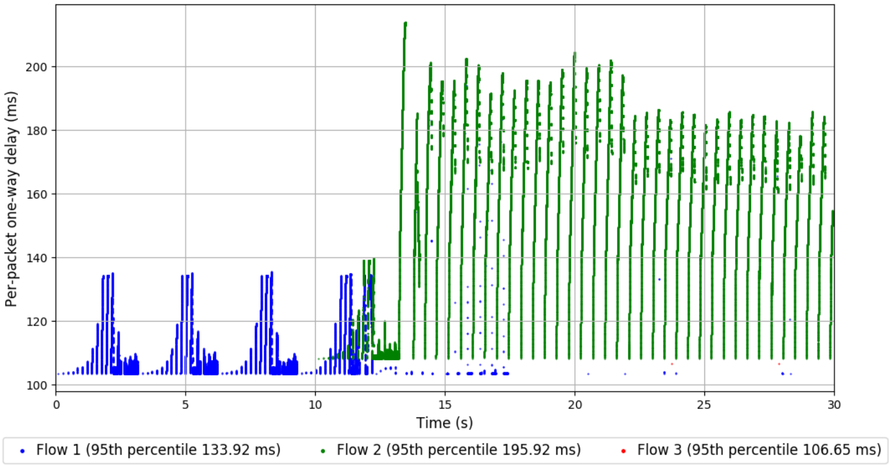




```
Run 9: Statistics of Verus

Start at: 2018-04-11 01:38:42
End at: 2018-04-11 01:39:12
Local clock offset: -5.036 ms
Remote clock offset: 6.264 ms

# Below is generated by plot.py at 2018-04-11 02:51:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.40 Mbit/s
95th percentile per-packet one-way delay: 194.539 ms
Loss rate: 86.18%
-- Flow 1:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 133.924 ms
Loss rate: 11.20%
-- Flow 2:
Average throughput: 50.35 Mbit/s
95th percentile per-packet one-way delay: 195.921 ms
Loss rate: 88.96%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 106.648 ms
Loss rate: 83.33%
```

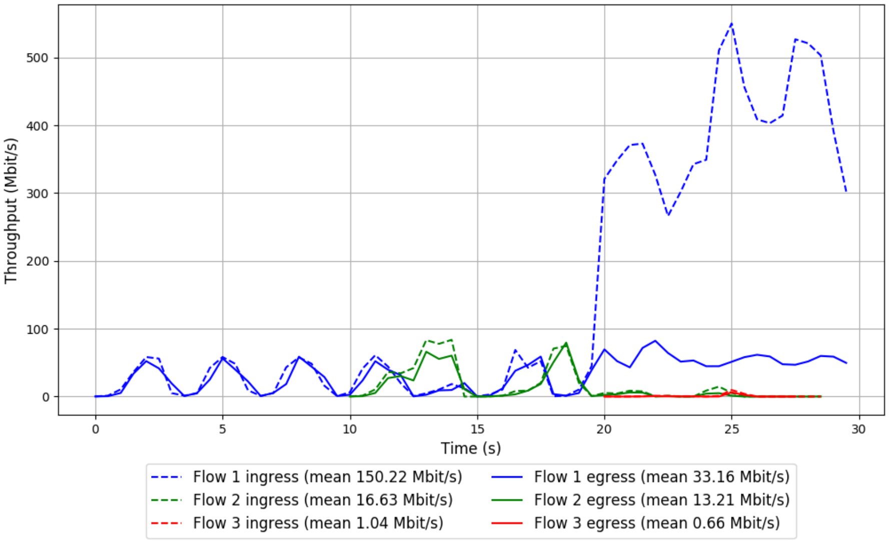
Run 9: Report of Verus — Data Link

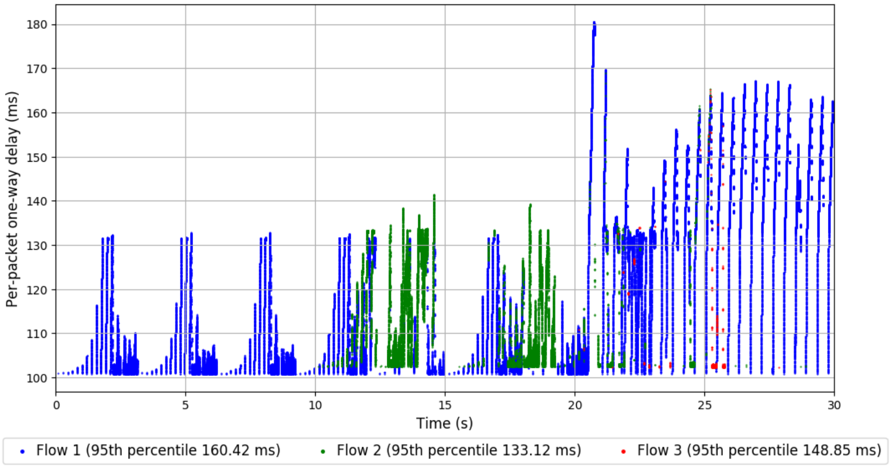




```
Run 10: Statistics of Verus

Start at: 2018-04-11 02:02:49
End at: 2018-04-11 02:03:19
Local clock offset: -5.55 ms
Remote clock offset: 6.386 ms

# Below is generated by plot.py at 2018-04-11 02:51:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.64 Mbit/s
95th percentile per-packet one-way delay: 159.100 ms
Loss rate: 74.10%
-- Flow 1:
Average throughput: 33.16 Mbit/s
95th percentile per-packet one-way delay: 160.420 ms
Loss rate: 77.88%
-- Flow 2:
Average throughput: 13.21 Mbit/s
95th percentile per-packet one-way delay: 133.121 ms
Loss rate: 21.35%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 148.846 ms
Loss rate: 44.54%
```

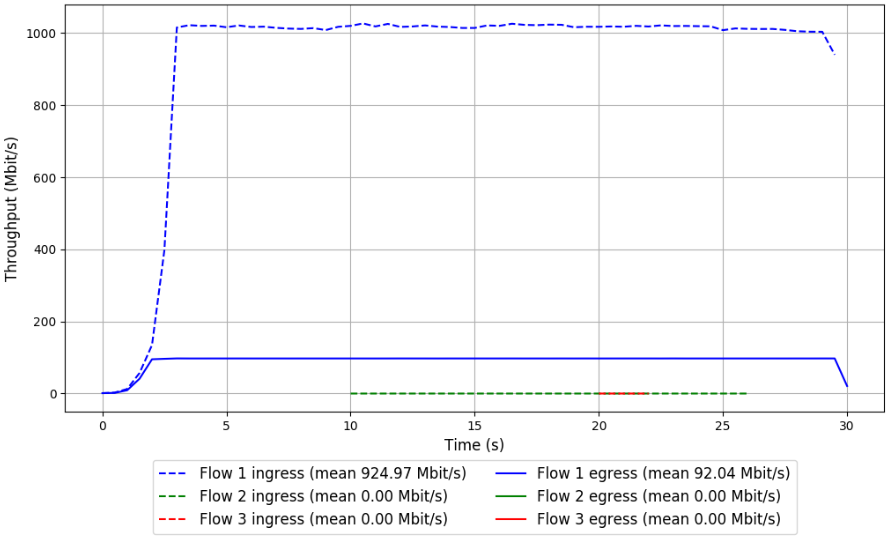
Run 10: Report of Verus — Data Link

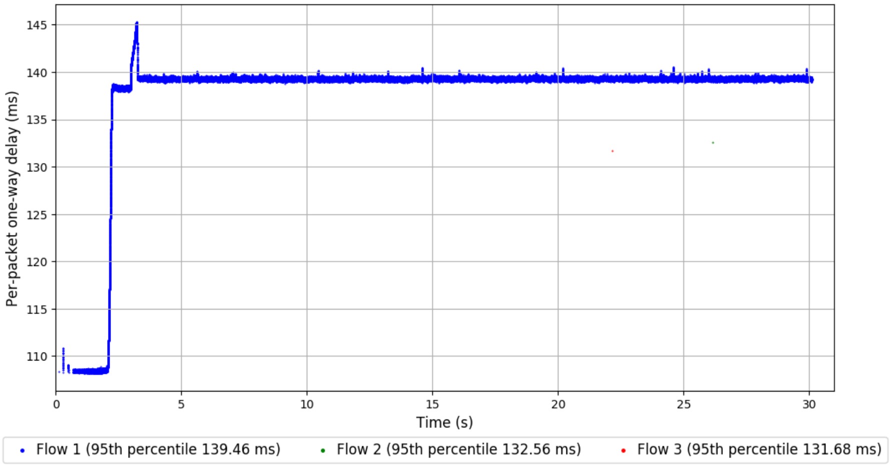




```
Run 1: Statistics of Copa

Start at: 2018-04-10 22:19:03
End at: 2018-04-10 22:19:33
Local clock offset: -5.42 ms
Remote clock offset: 6.994 ms

# Below is generated by plot.py at 2018-04-11 02:57:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.04 Mbit/s
95th percentile per-packet one-way delay: 139.458 ms
Loss rate: 90.04%
-- Flow 1:
Average throughput: 92.04 Mbit/s
95th percentile per-packet one-way delay: 139.458 ms
Loss rate: 90.04%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 132.564 ms
Loss rate: 88.89%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 131.681 ms
Loss rate: 50.00%
```

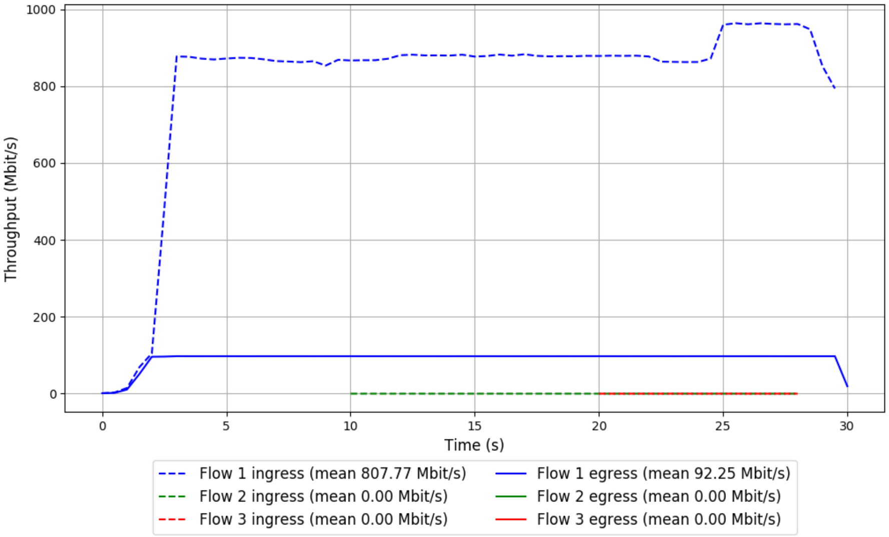
Run 1: Report of Copa — Data Link

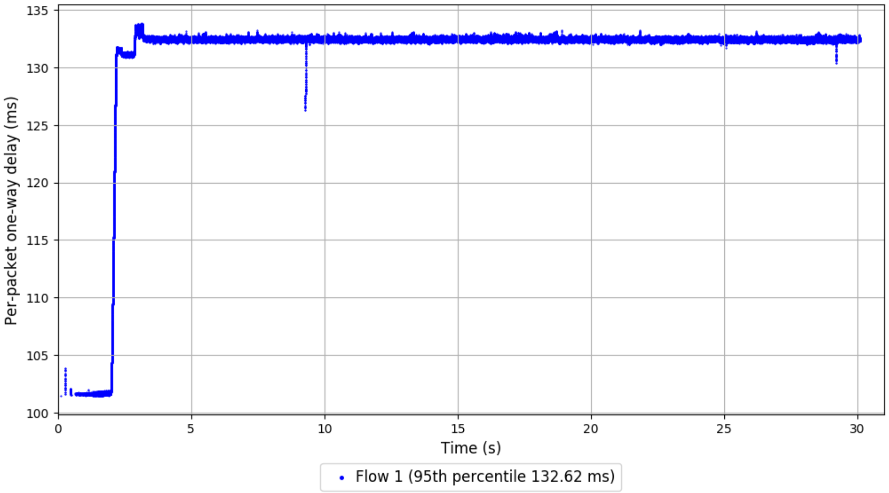




```
Run 2: Statistics of Copa

Start at: 2018-04-10 22:43:14
End at: 2018-04-10 22:43:44
Local clock offset: -5.426 ms
Remote clock offset: 6.877 ms

# Below is generated by plot.py at 2018-04-11 02:57:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 132.618 ms
Loss rate: 88.57%
-- Flow 1:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 132.618 ms
Loss rate: 88.57%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

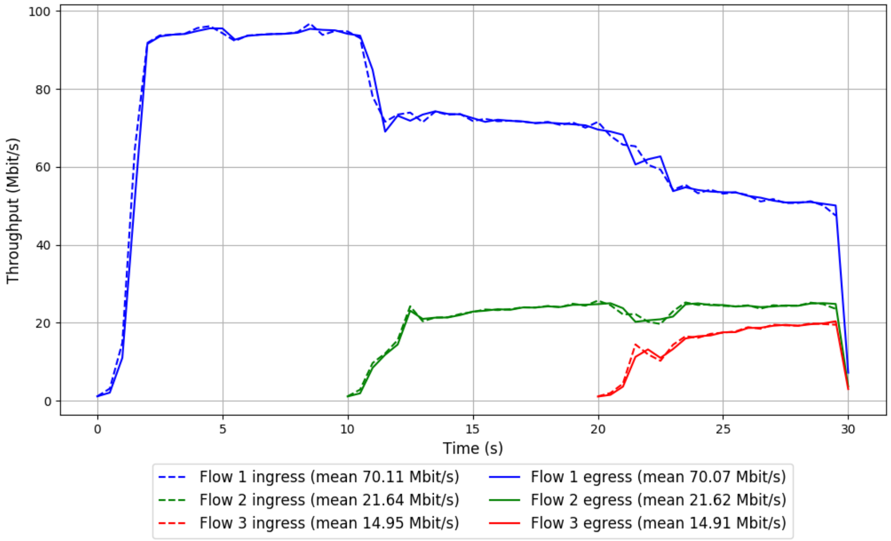
Run 2: Report of Copa — Data Link

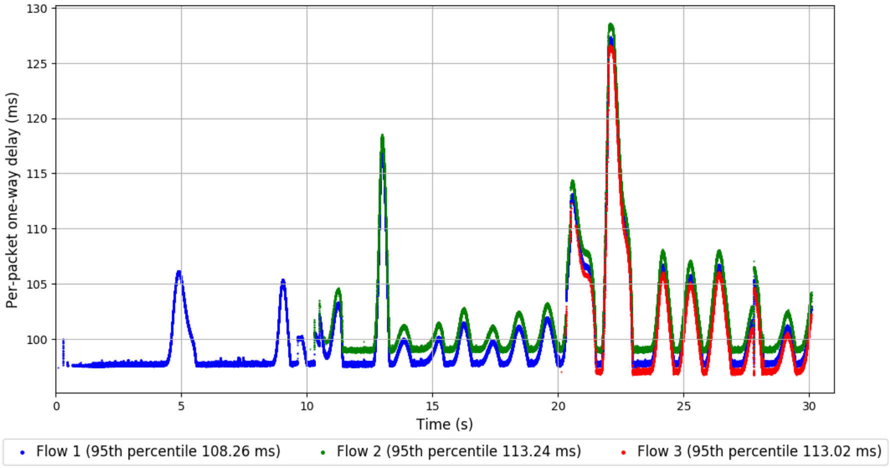




```
Run 3: Statistics of Copa

Start at: 2018-04-10 23:07:21
End at: 2018-04-10 23:07:51
Local clock offset: -6.685 ms
Remote clock offset: 3.282 ms

# Below is generated by plot.py at 2018-04-11 02:57:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.42 Mbit/s
95th percentile per-packet one-way delay: 109.610 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 70.07 Mbit/s
95th percentile per-packet one-way delay: 108.262 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 21.62 Mbit/s
95th percentile per-packet one-way delay: 113.244 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 14.91 Mbit/s
95th percentile per-packet one-way delay: 113.019 ms
Loss rate: 0.20%
```

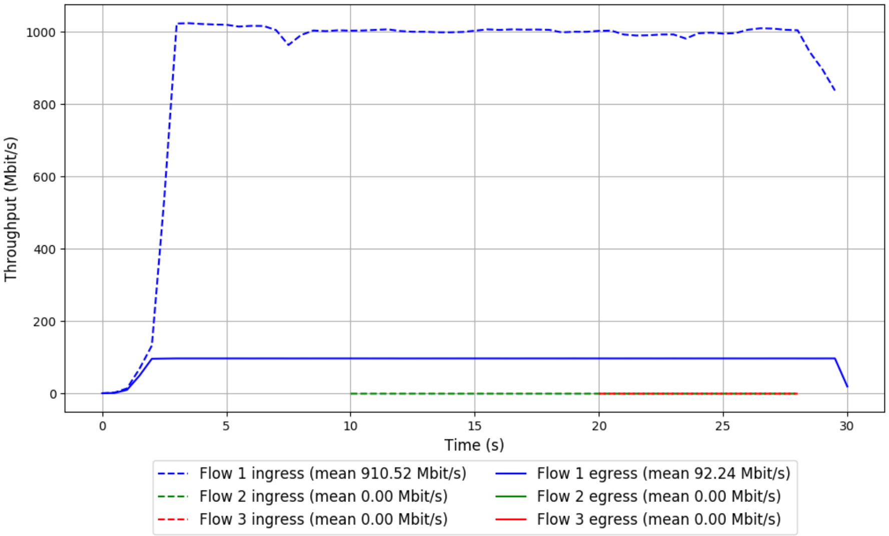
Run 3: Report of Copa — Data Link

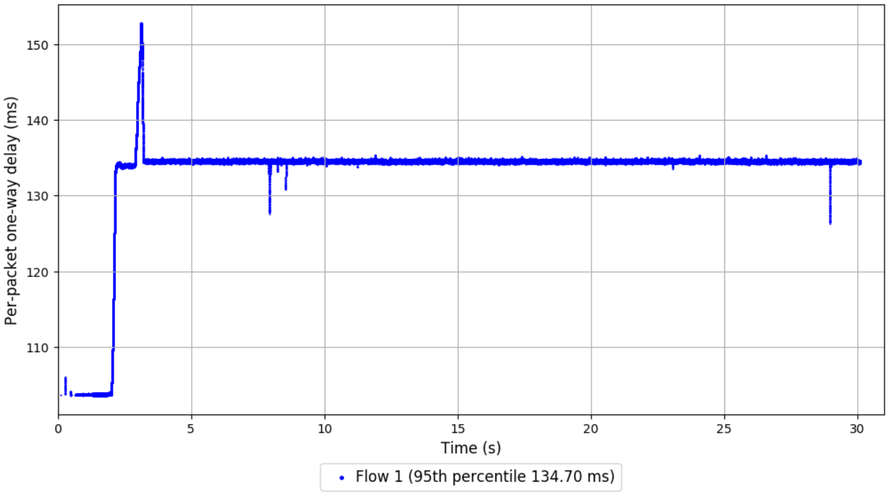




```
Run 4: Statistics of Copa

Start at: 2018-04-10 23:31:13
End at: 2018-04-10 23:31:43
Local clock offset: -6.875 ms
Remote clock offset: 8.63 ms

# Below is generated by plot.py at 2018-04-11 02:57:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.24 Mbit/s
95th percentile per-packet one-way delay: 134.704 ms
Loss rate: 89.86%
-- Flow 1:
Average throughput: 92.24 Mbit/s
95th percentile per-packet one-way delay: 134.704 ms
Loss rate: 89.86%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

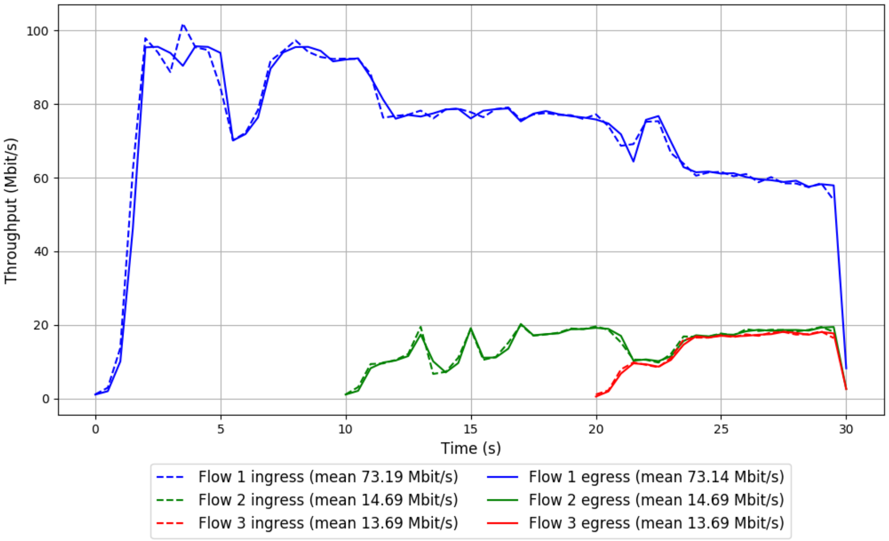
Run 4: Report of Copa — Data Link

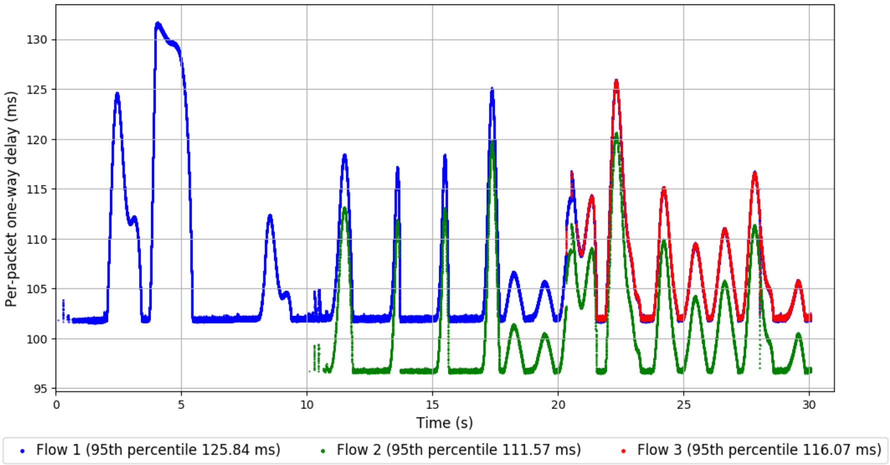




```
Run 5: Statistics of Copa

Start at: 2018-04-10 23:55:23
End at: 2018-04-10 23:55:53
Local clock offset: -6.298 ms
Remote clock offset: 4.267 ms

# Below is generated by plot.py at 2018-04-11 02:57:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.46 Mbit/s
95th percentile per-packet one-way delay: 124.605 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 73.14 Mbit/s
95th percentile per-packet one-way delay: 125.840 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 14.69 Mbit/s
95th percentile per-packet one-way delay: 111.566 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.69 Mbit/s
95th percentile per-packet one-way delay: 116.073 ms
Loss rate: 0.00%
```

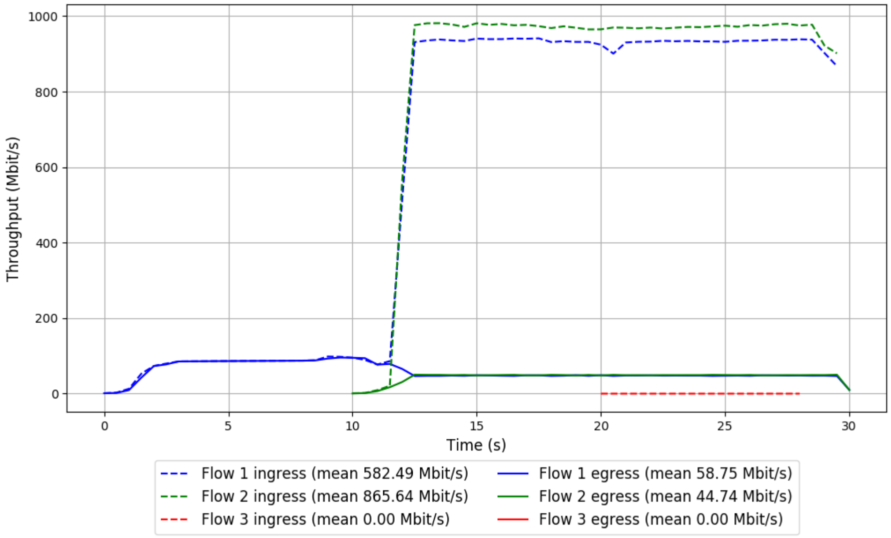
Run 5: Report of Copa — Data Link

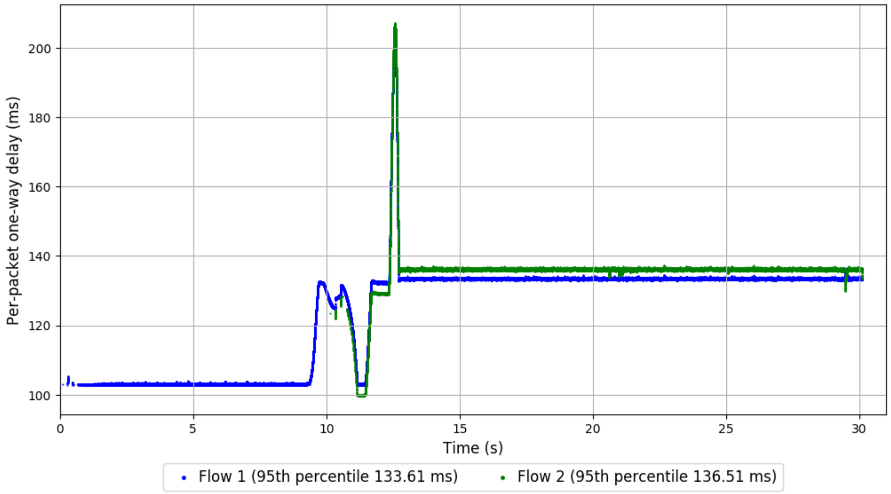




```
Run 6: Statistics of Copa

Start at: 2018-04-11 00:19:16
End at: 2018-04-11 00:19:46
Local clock offset: -7.269 ms
Remote clock offset: 2.252 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.53 Mbit/s
95th percentile per-packet one-way delay: 136.371 ms
Loss rate: 92.35%
-- Flow 1:
Average throughput: 58.75 Mbit/s
95th percentile per-packet one-way delay: 133.612 ms
Loss rate: 89.90%
-- Flow 2:
Average throughput: 44.74 Mbit/s
95th percentile per-packet one-way delay: 136.512 ms
Loss rate: 94.83%
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

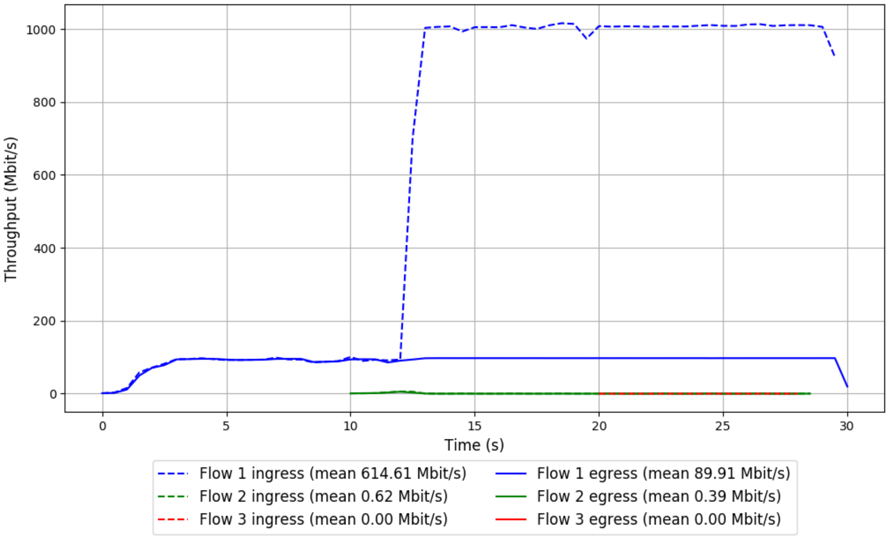
Run 6: Report of Copa — Data Link

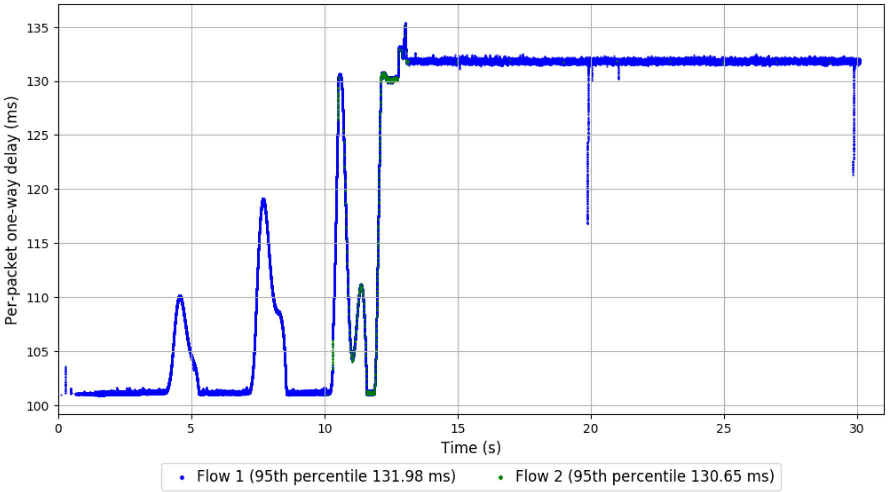




```
Run 7: Statistics of Copa

Start at: 2018-04-11 00:43:45
End at: 2018-04-11 00:44:15
Local clock offset: -7.781 ms
Remote clock offset: 6.881 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.16 Mbit/s
95th percentile per-packet one-way delay: 131.978 ms
Loss rate: 85.33%
-- Flow 1:
Average throughput: 89.91 Mbit/s
95th percentile per-packet one-way delay: 131.979 ms
Loss rate: 85.36%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 130.646 ms
Loss rate: 36.45%
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

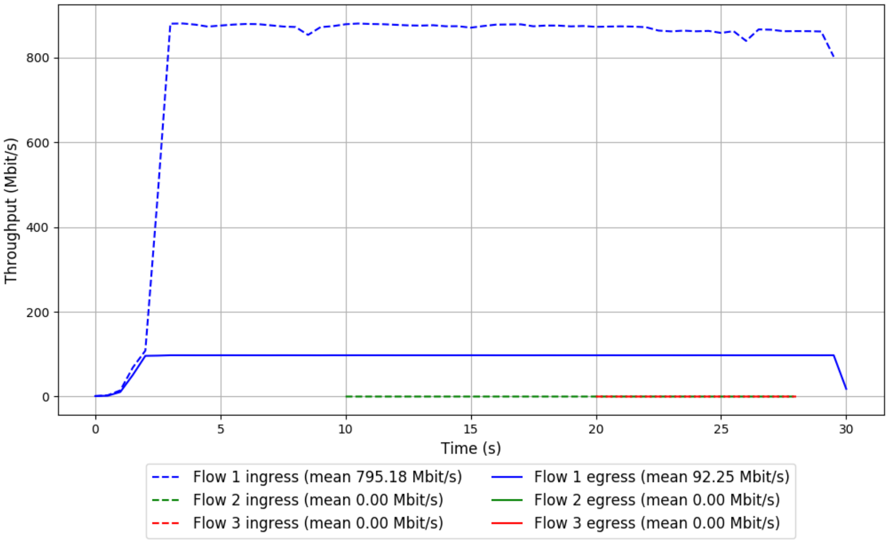
Run 7: Report of Copa — Data Link

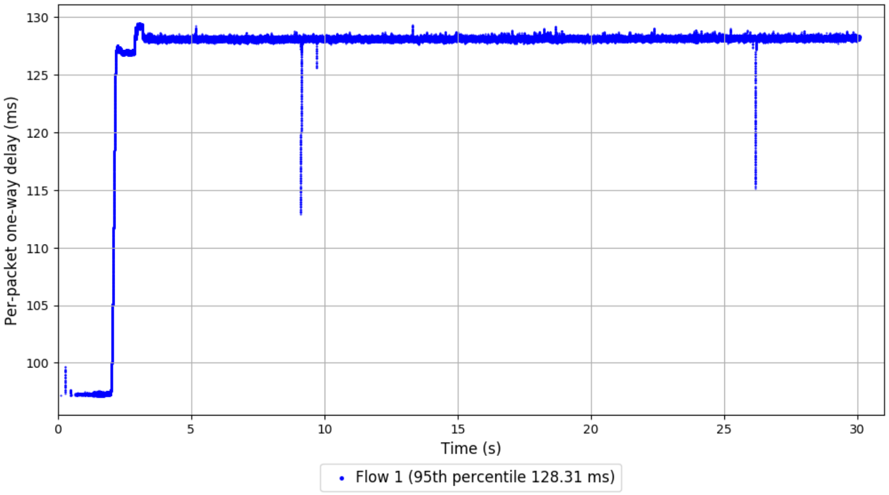




```
Run 8: Statistics of Copa

Start at: 2018-04-11 01:07:53
End at: 2018-04-11 01:08:23
Local clock offset: -6.188 ms
Remote clock offset: 1.966 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 128.306 ms
Loss rate: 88.39%
-- Flow 1:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 128.306 ms
Loss rate: 88.39%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

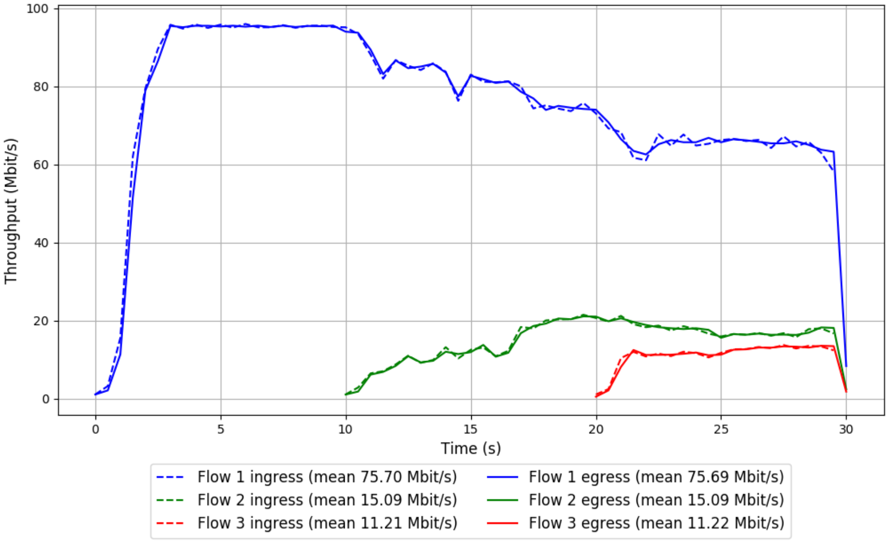
Run 8: Report of Copa — Data Link

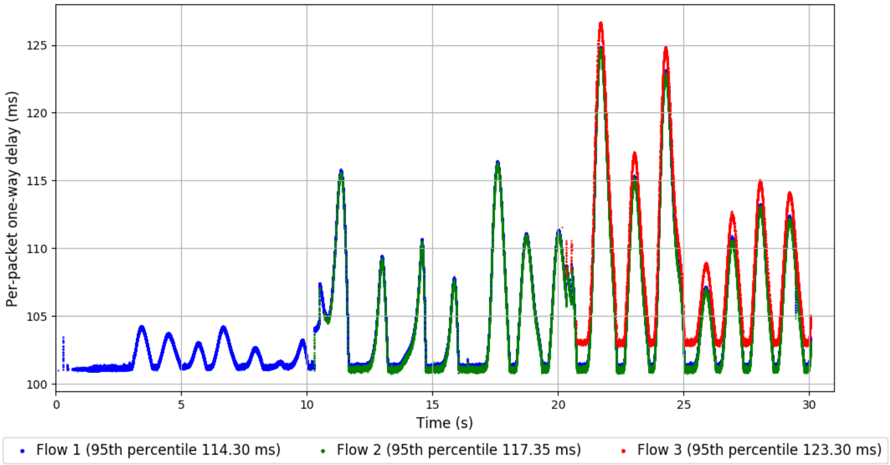




```
Run 9: Statistics of Copa

Start at: 2018-04-11 01:32:00
End at: 2018-04-11 01:32:30
Local clock offset: -4.634 ms
Remote clock offset: 6.462 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.46 Mbit/s
95th percentile per-packet one-way delay: 114.991 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.69 Mbit/s
95th percentile per-packet one-way delay: 114.304 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.09 Mbit/s
95th percentile per-packet one-way delay: 117.347 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 123.297 ms
Loss rate: 0.00%
```

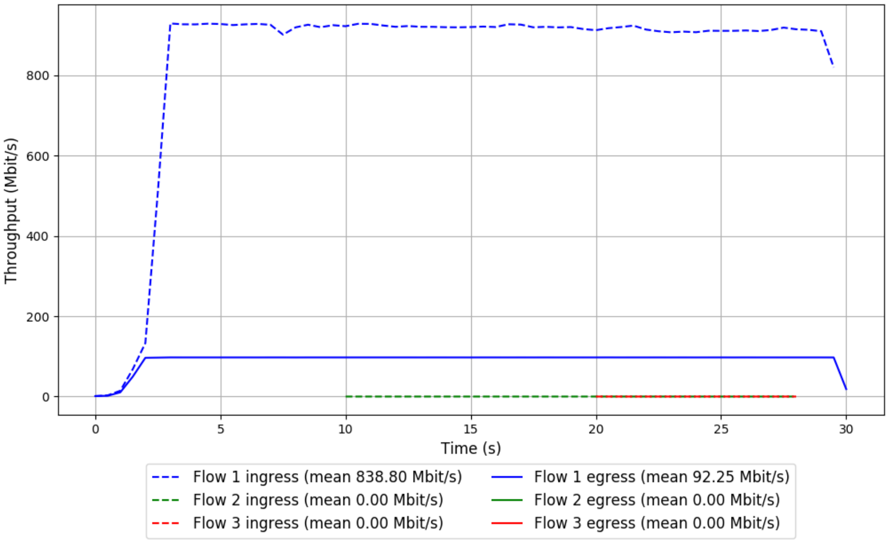
Run 9: Report of Copa — Data Link

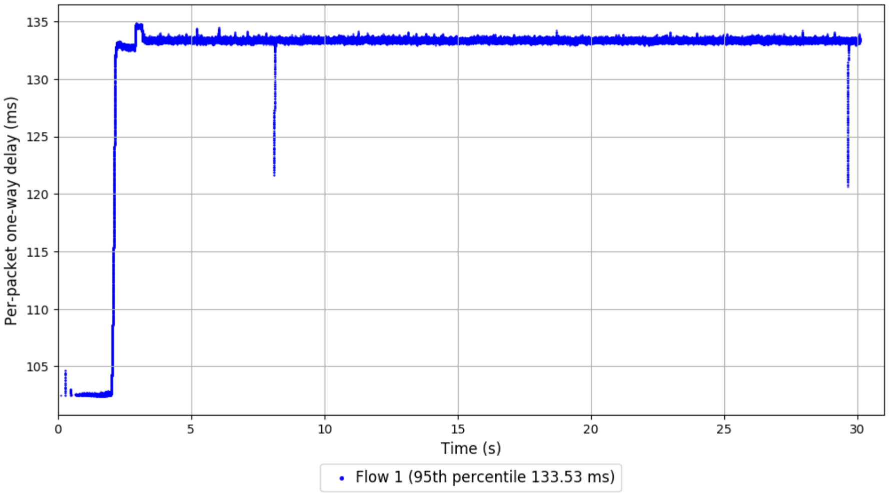




```
Run 10: Statistics of Copa

Start at: 2018-04-11 01:55:53
End at: 2018-04-11 01:56:23
Local clock offset: -5.497 ms
Remote clock offset: 6.82 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 133.529 ms
Loss rate: 88.99%
-- Flow 1:
Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 133.529 ms
Loss rate: 88.99%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

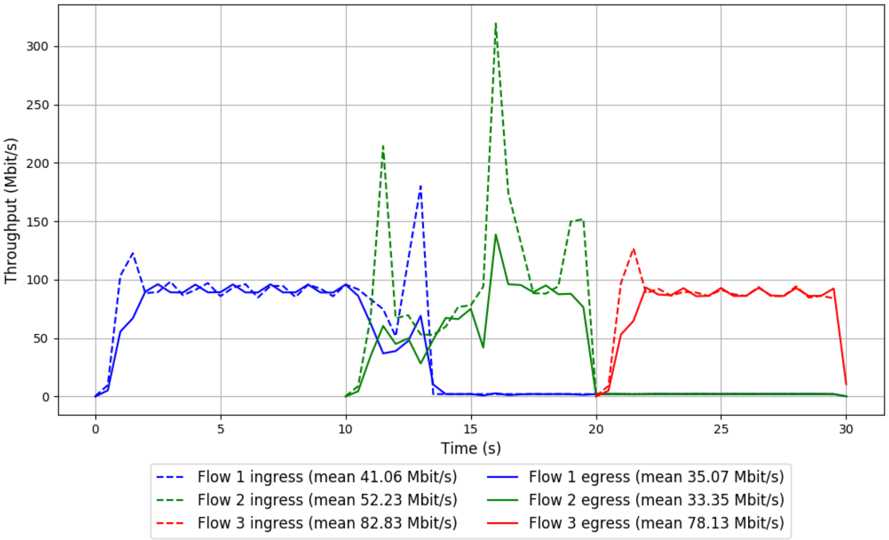
Run 10: Report of Copa — Data Link

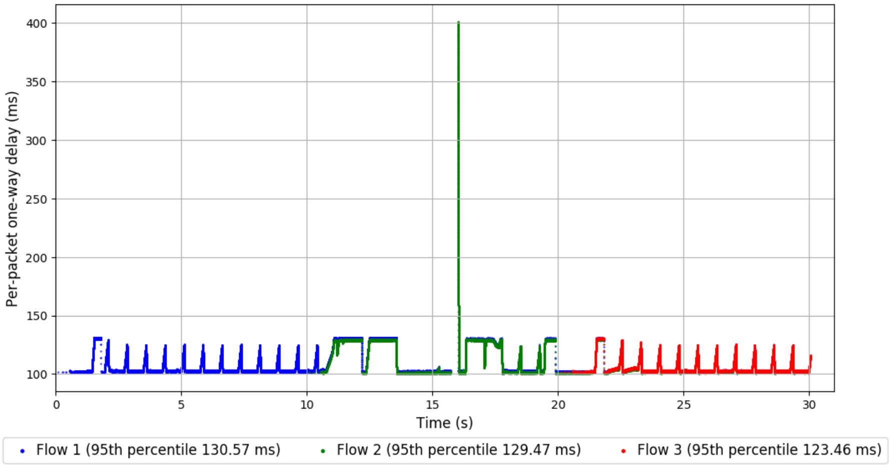




```
Run 1: Statistics of FillP

Start at: 2018-04-10 22:12:29
End at: 2018-04-10 22:12:59
Local clock offset: -4.767 ms
Remote clock offset: 7.01 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.19 Mbit/s
95th percentile per-packet one-way delay: 130.351 ms
Loss rate: 19.41%
-- Flow 1:
Average throughput: 35.07 Mbit/s
95th percentile per-packet one-way delay: 130.566 ms
Loss rate: 14.56%
-- Flow 2:
Average throughput: 33.35 Mbit/s
95th percentile per-packet one-way delay: 129.471 ms
Loss rate: 36.10%
-- Flow 3:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 123.464 ms
Loss rate: 5.55%
```

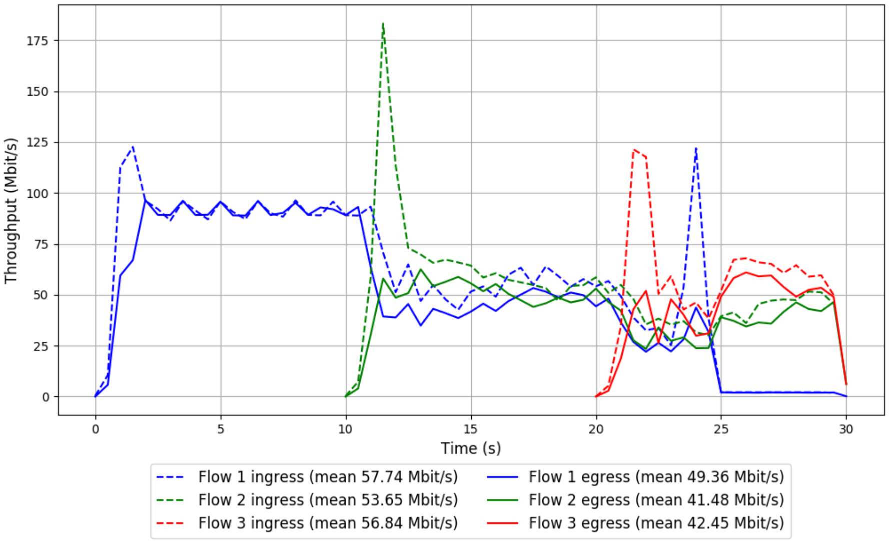
Run 1: Report of FillP — Data Link

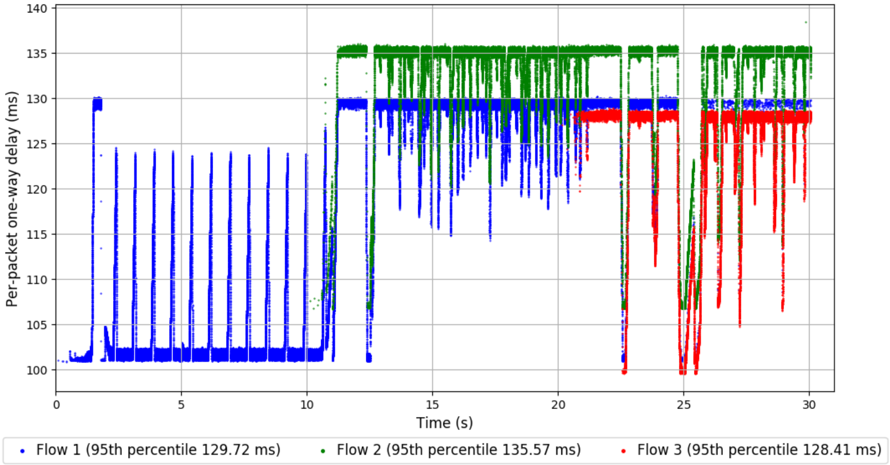




```
Run 2: Statistics of FillP

Start at: 2018-04-10 22:36:39
End at: 2018-04-10 22:37:09
Local clock offset: -5.431 ms
Remote clock offset: 6.905 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.01 Mbit/s
95th percentile per-packet one-way delay: 135.424 ms
Loss rate: 18.86%
-- Flow 1:
Average throughput: 49.36 Mbit/s
95th percentile per-packet one-way delay: 129.719 ms
Loss rate: 14.43%
-- Flow 2:
Average throughput: 41.48 Mbit/s
95th percentile per-packet one-way delay: 135.569 ms
Loss rate: 22.59%
-- Flow 3:
Average throughput: 42.45 Mbit/s
95th percentile per-packet one-way delay: 128.412 ms
Loss rate: 25.32%
```

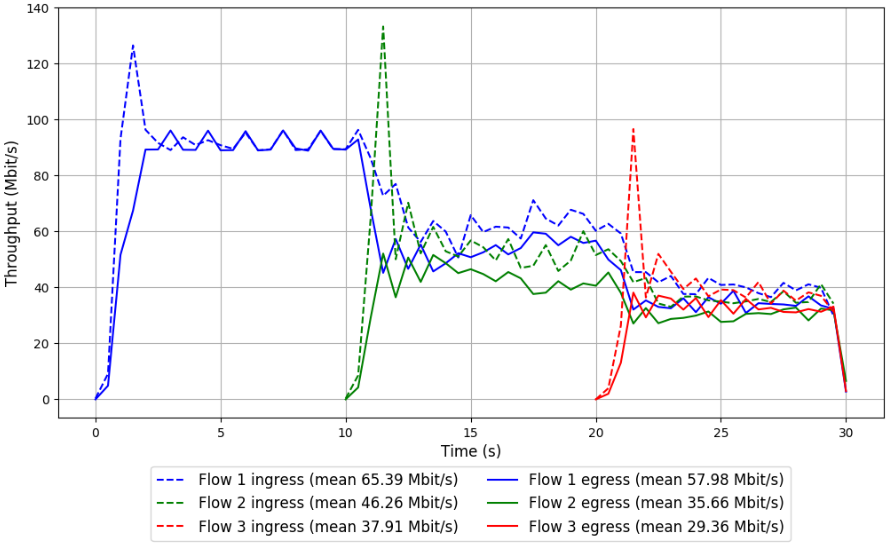
Run 2: Report of FillP — Data Link

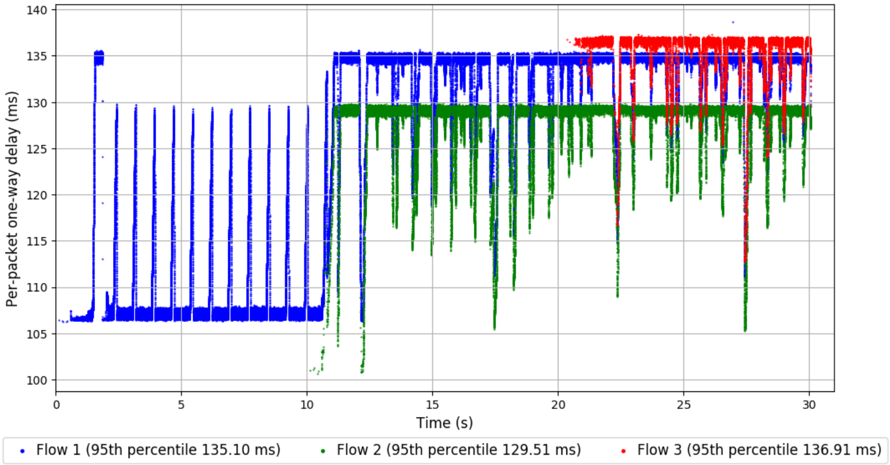




```
Run 3: Statistics of FillP

Start at: 2018-04-10 23:00:47
End at: 2018-04-10 23:01:17
Local clock offset: -5.912 ms
Remote clock offset: 7.825 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.45 Mbit/s
95th percentile per-packet one-way delay: 136.541 ms
Loss rate: 15.84%
-- Flow 1:
Average throughput: 57.98 Mbit/s
95th percentile per-packet one-way delay: 135.096 ms
Loss rate: 11.26%
-- Flow 2:
Average throughput: 35.66 Mbit/s
95th percentile per-packet one-way delay: 129.514 ms
Loss rate: 22.81%
-- Flow 3:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 136.912 ms
Loss rate: 22.57%
```

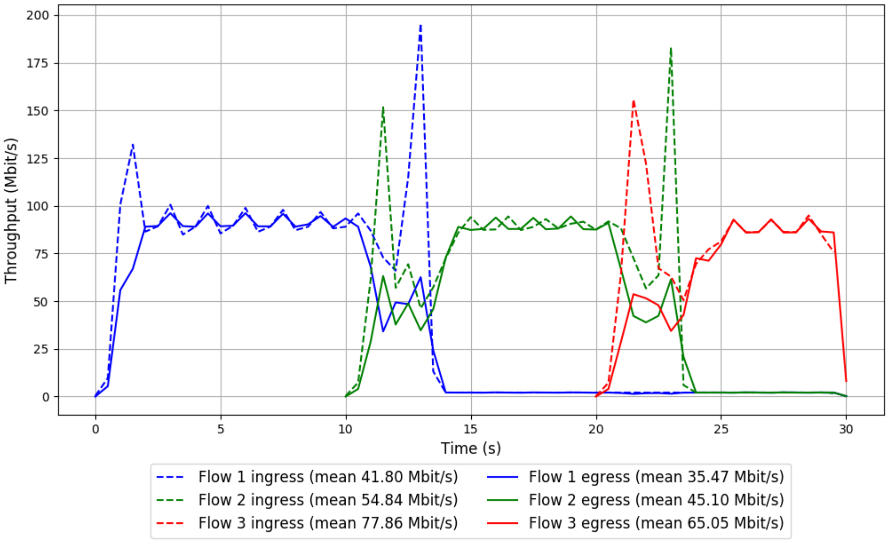
Run 3: Report of FillP — Data Link

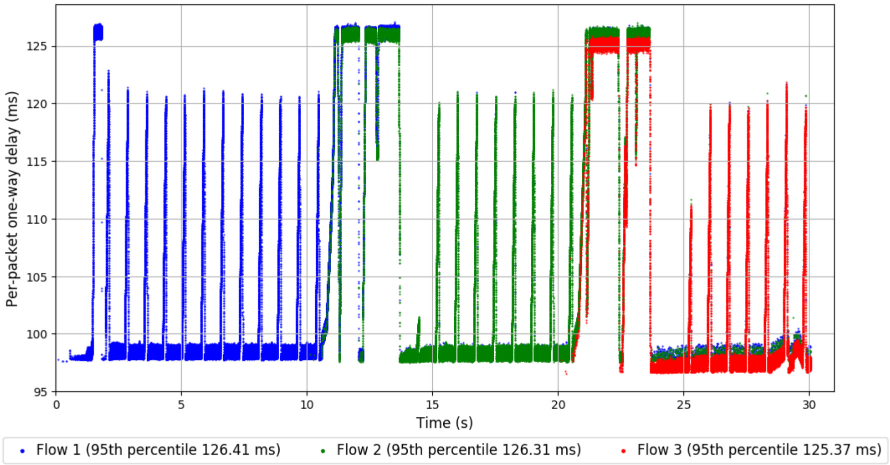




```
Run 4: Statistics of FillP

Start at: 2018-04-10 23:24:38
End at: 2018-04-10 23:25:08
Local clock offset: -6.05 ms
Remote clock offset: 3.657 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 126.287 ms
Loss rate: 16.39%
-- Flow 1:
Average throughput: 35.47 Mbit/s
95th percentile per-packet one-way delay: 126.406 ms
Loss rate: 15.14%
-- Flow 2:
Average throughput: 45.10 Mbit/s
95th percentile per-packet one-way delay: 126.315 ms
Loss rate: 17.77%
-- Flow 3:
Average throughput: 65.05 Mbit/s
95th percentile per-packet one-way delay: 125.368 ms
Loss rate: 16.45%
```

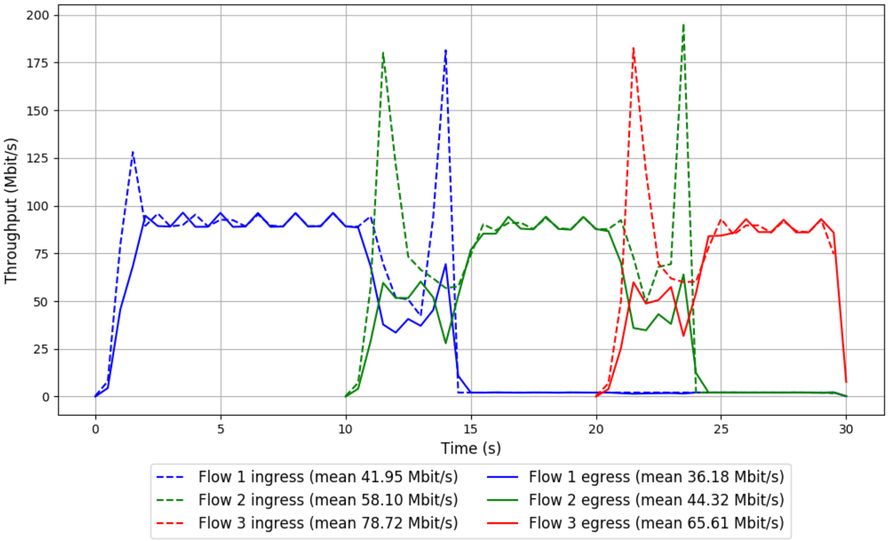
Run 4: Report of FillP — Data Link

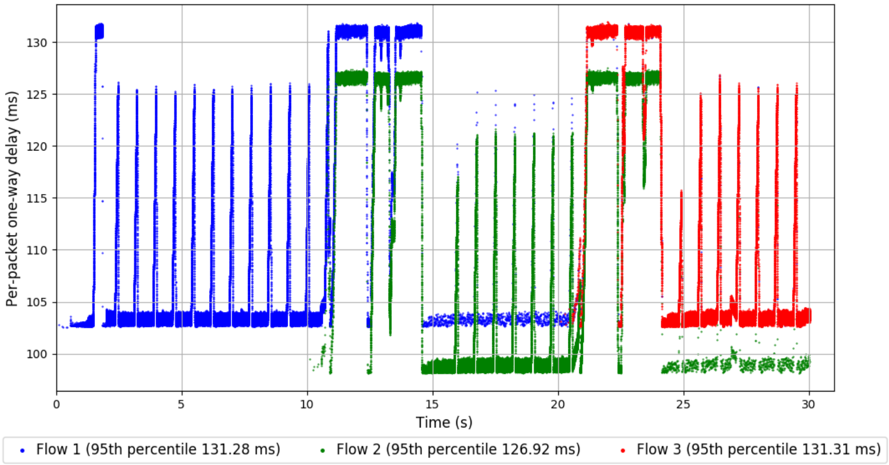




```
Run 5: Statistics of FillP

Start at: 2018-04-10 23:48:50
End at: 2018-04-10 23:49:20
Local clock offset: -5.496 ms
Remote clock offset: 4.171 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.43 Mbit/s
95th percentile per-packet one-way delay: 131.199 ms
Loss rate: 18.07%
-- Flow 1:
Average throughput: 36.18 Mbit/s
95th percentile per-packet one-way delay: 131.285 ms
Loss rate: 13.74%
-- Flow 2:
Average throughput: 44.32 Mbit/s
95th percentile per-packet one-way delay: 126.918 ms
Loss rate: 23.73%
-- Flow 3:
Average throughput: 65.61 Mbit/s
95th percentile per-packet one-way delay: 131.308 ms
Loss rate: 16.64%
```

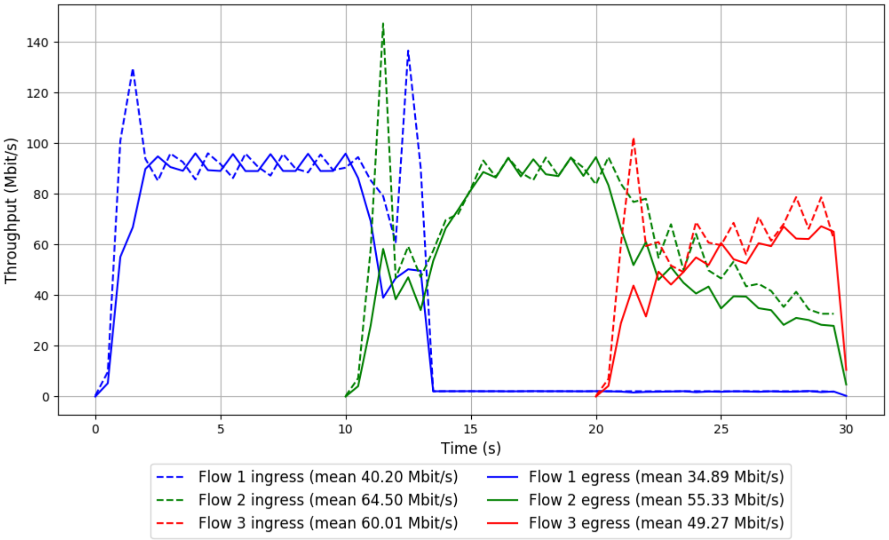
Run 5: Report of FillP — Data Link

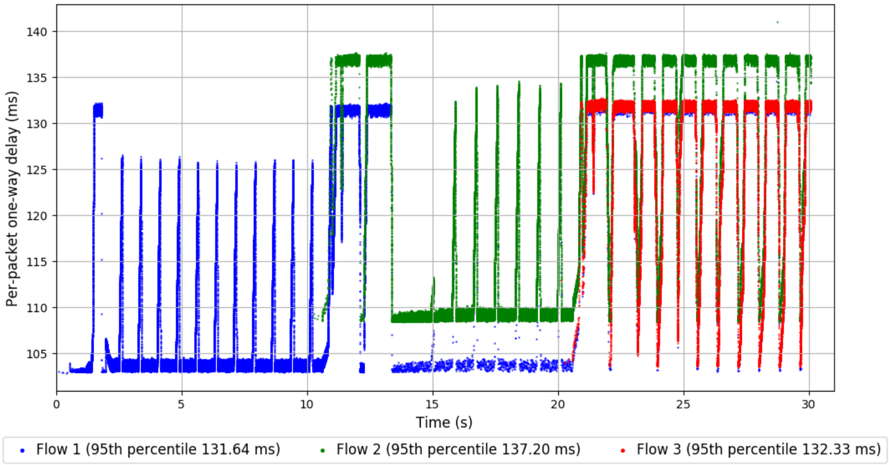




```
Run 6: Statistics of FillP

Start at: 2018-04-11 00:12:42
End at: 2018-04-11 00:13:12
Local clock offset: -6.42 ms
Remote clock offset: 7.364 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.06 Mbit/s
95th percentile per-packet one-way delay: 137.041 ms
Loss rate: 14.44%
-- Flow 1:
Average throughput: 34.89 Mbit/s
95th percentile per-packet one-way delay: 131.643 ms
Loss rate: 13.13%
-- Flow 2:
Average throughput: 55.33 Mbit/s
95th percentile per-packet one-way delay: 137.202 ms
Loss rate: 14.13%
-- Flow 3:
Average throughput: 49.27 Mbit/s
95th percentile per-packet one-way delay: 132.328 ms
Loss rate: 17.74%
```

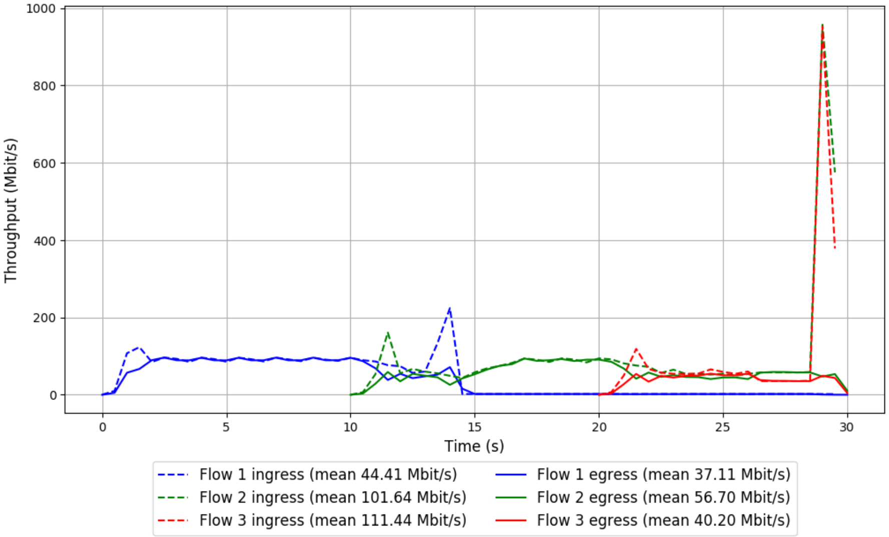
Run 6: Report of FillP — Data Link

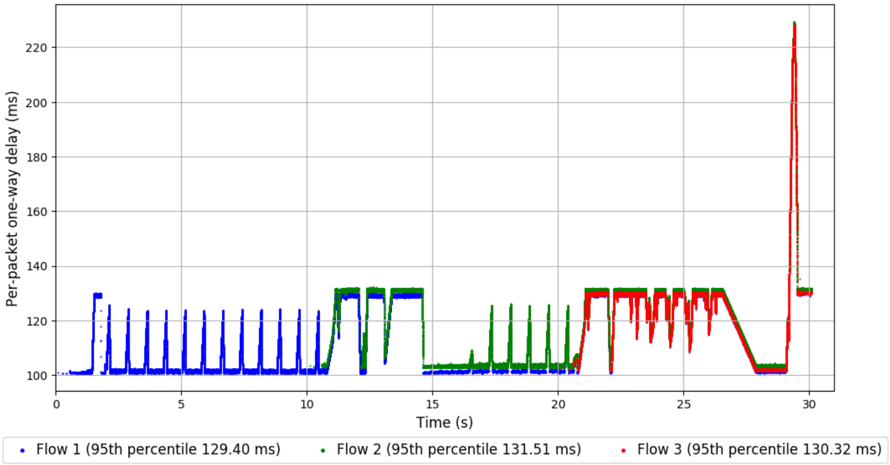




```
Run 7: Statistics of FillP

Start at: 2018-04-11 00:37:11
End at: 2018-04-11 00:37:41
Local clock offset: -7.48 ms
Remote clock offset: 6.798 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.19 Mbit/s
95th percentile per-packet one-way delay: 131.385 ms
Loss rate: 40.75%
-- Flow 1:
Average throughput: 37.11 Mbit/s
95th percentile per-packet one-way delay: 129.396 ms
Loss rate: 16.40%
-- Flow 2:
Average throughput: 56.70 Mbit/s
95th percentile per-packet one-way delay: 131.510 ms
Loss rate: 44.14%
-- Flow 3:
Average throughput: 40.20 Mbit/s
95th percentile per-packet one-way delay: 130.318 ms
Loss rate: 63.83%
```

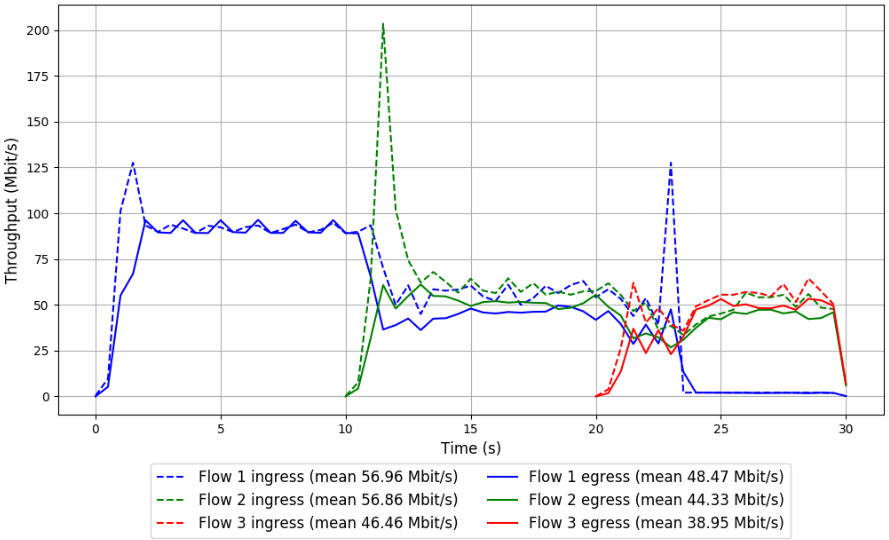
Run 7: Report of FillP — Data Link

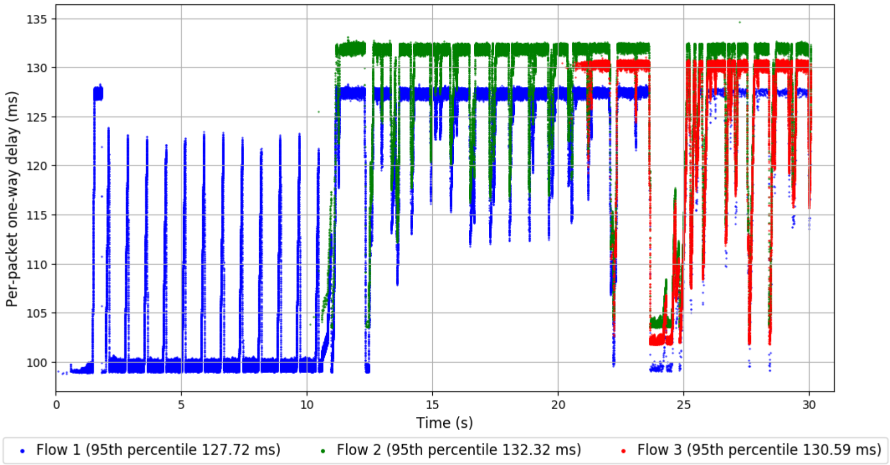




```
Run 8: Statistics of FillP

Start at: 2018-04-11 01:01:18
End at: 2018-04-11 01:01:48
Local clock offset: -7.618 ms
Remote clock offset: 1.992 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.86 Mbit/s
95th percentile per-packet one-way delay: 132.187 ms
Loss rate: 17.46%
-- Flow 1:
Average throughput: 48.47 Mbit/s
95th percentile per-packet one-way delay: 127.720 ms
Loss rate: 14.83%
-- Flow 2:
Average throughput: 44.33 Mbit/s
95th percentile per-packet one-way delay: 132.316 ms
Loss rate: 21.94%
-- Flow 3:
Average throughput: 38.95 Mbit/s
95th percentile per-packet one-way delay: 130.591 ms
Loss rate: 16.16%
```

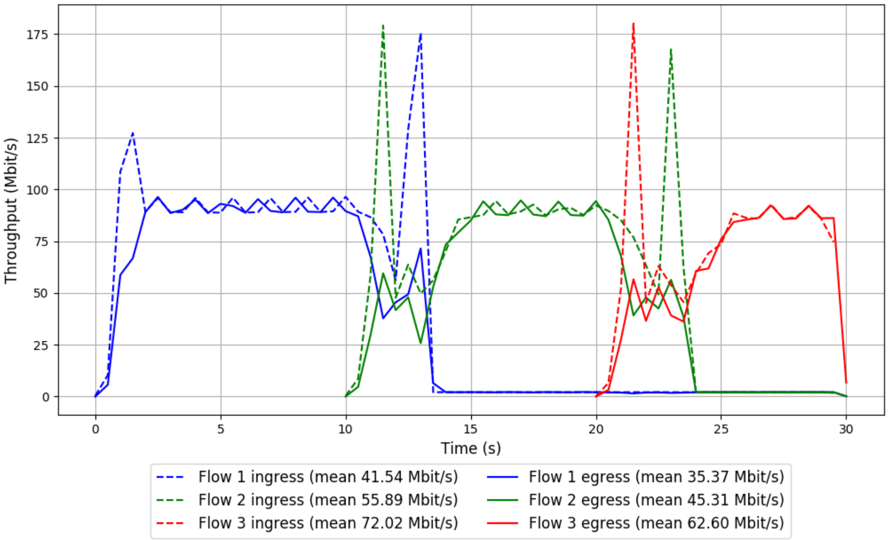
Run 8: Report of FillP — Data Link

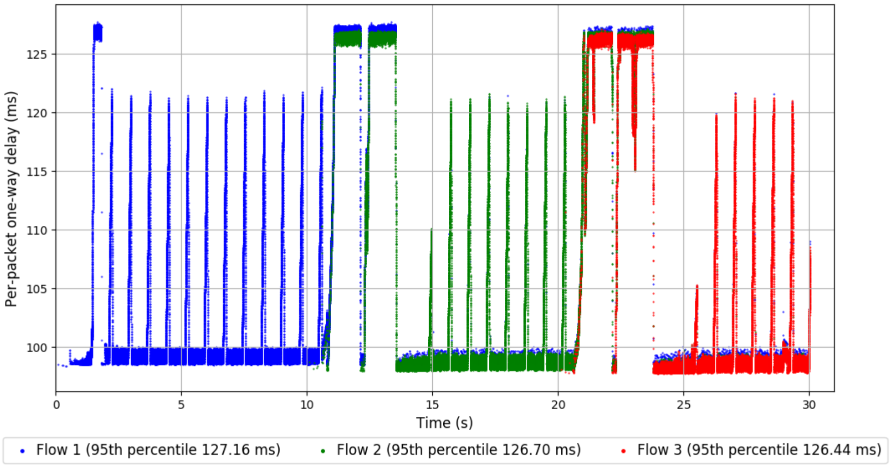




```
Run 9: Statistics of FillP

Start at: 2018-04-11 01:25:26
End at: 2018-04-11 01:25:56
Local clock offset: -4.93 ms
Remote clock offset: 1.676 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.28 Mbit/s
95th percentile per-packet one-way delay: 126.781 ms
Loss rate: 15.87%
-- Flow 1:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 127.158 ms
Loss rate: 14.82%
-- Flow 2:
Average throughput: 45.31 Mbit/s
95th percentile per-packet one-way delay: 126.703 ms
Loss rate: 18.89%
-- Flow 3:
Average throughput: 62.60 Mbit/s
95th percentile per-packet one-way delay: 126.435 ms
Loss rate: 12.98%
```

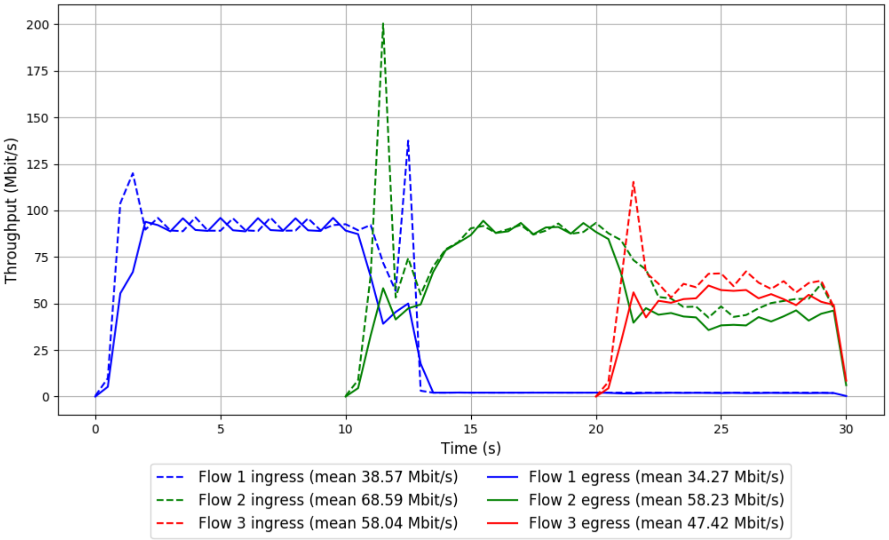
Run 9: Report of FillP — Data Link

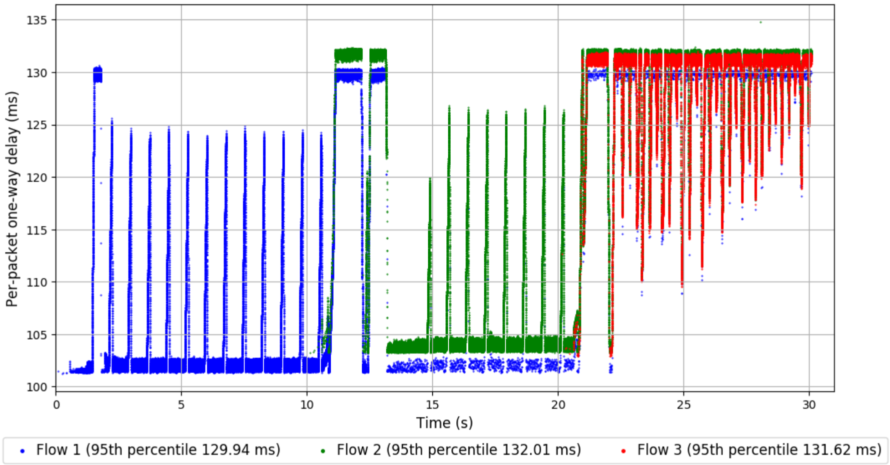




```
Run 10: Statistics of FillP

Start at: 2018-04-11 01:49:20
End at: 2018-04-11 01:49:50
Local clock offset: -6.255 ms
Remote clock offset: 6.304 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 131.855 ms
Loss rate: 14.11%
-- Flow 1:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 129.945 ms
Loss rate: 11.09%
-- Flow 2:
Average throughput: 58.23 Mbit/s
95th percentile per-packet one-way delay: 132.006 ms
Loss rate: 14.98%
-- Flow 3:
Average throughput: 47.42 Mbit/s
95th percentile per-packet one-way delay: 131.617 ms
Loss rate: 18.14%
```

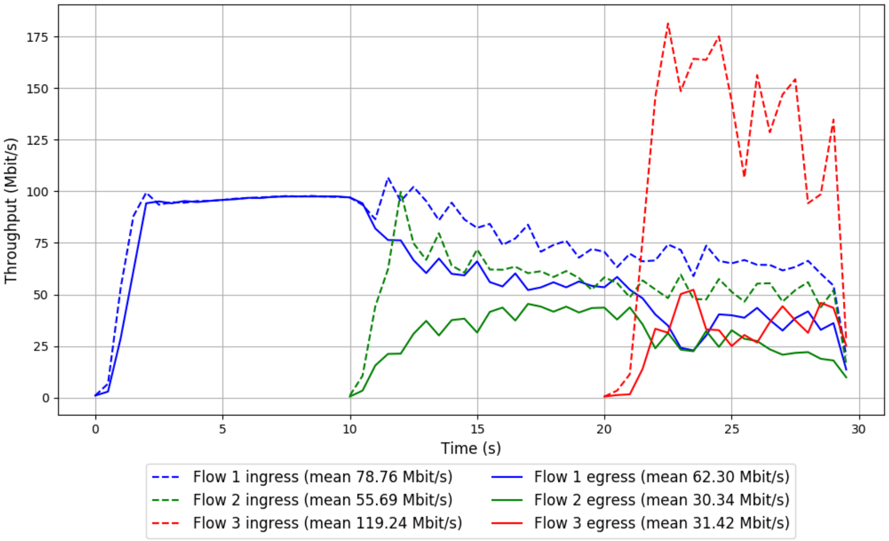
Run 10: Report of FillP — Data Link

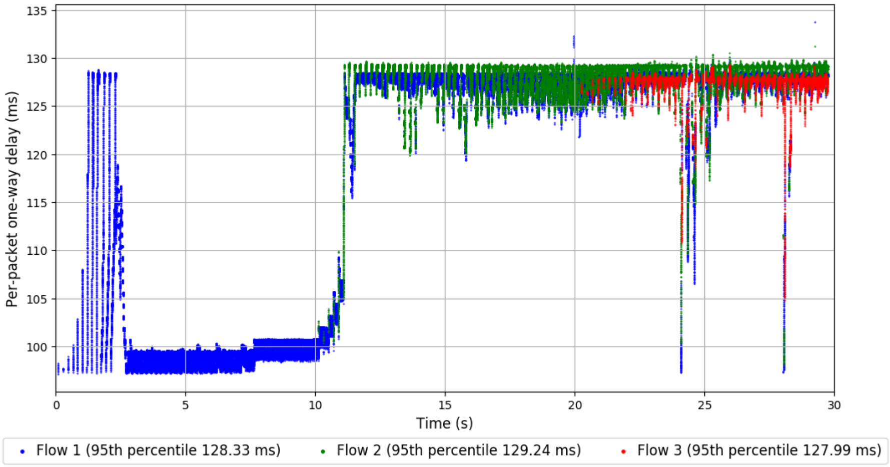




```
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-10 22:30:05
End at: 2018-04-10 22:30:35
Local clock offset: -5.429 ms
Remote clock offset: 2.212 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 129.094 ms
Loss rate: 39.83%
-- Flow 1:
Average throughput: 62.30 Mbit/s
95th percentile per-packet one-way delay: 128.328 ms
Loss rate: 20.81%
-- Flow 2:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 129.242 ms
Loss rate: 45.44%
-- Flow 3:
Average throughput: 31.42 Mbit/s
95th percentile per-packet one-way delay: 127.993 ms
Loss rate: 73.65%
```

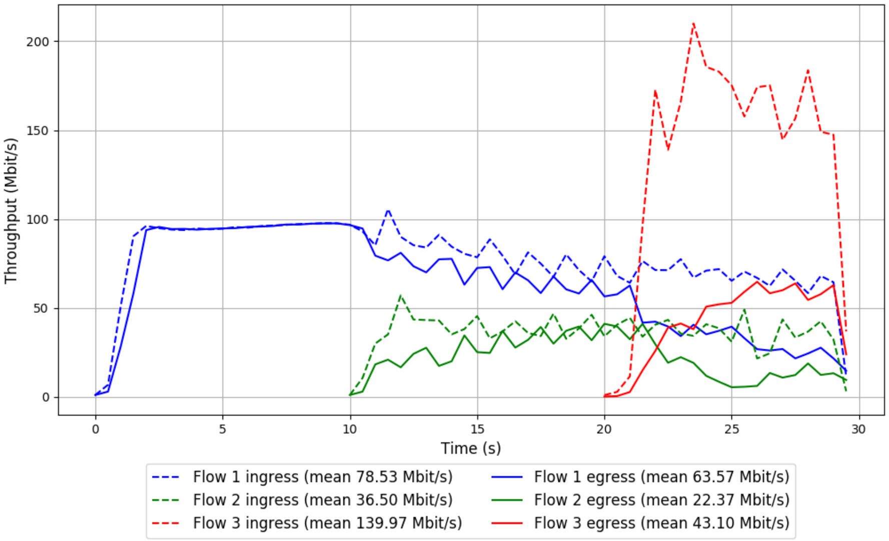
Run 1: Report of Indigo-1-32 — Data Link

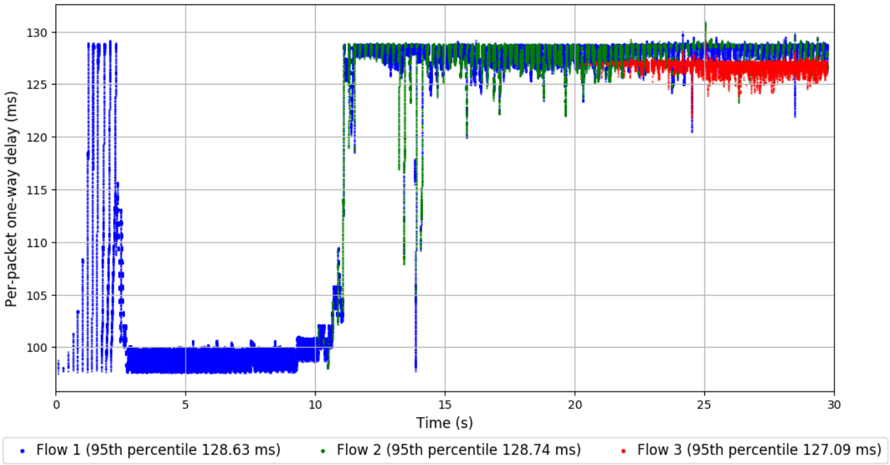




```
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-10 22:54:14
End at: 2018-04-10 22:54:44
Local clock offset: -5.724 ms
Remote clock offset: 2.45 ms

# Below is generated by plot.py at 2018-04-11 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.23 Mbit/s
95th percentile per-packet one-way delay: 128.665 ms
Loss rate: 37.50%
-- Flow 1:
Average throughput: 63.57 Mbit/s
95th percentile per-packet one-way delay: 128.635 ms
Loss rate: 18.97%
-- Flow 2:
Average throughput: 22.37 Mbit/s
95th percentile per-packet one-way delay: 128.736 ms
Loss rate: 38.63%
-- Flow 3:
Average throughput: 43.10 Mbit/s
95th percentile per-packet one-way delay: 127.087 ms
Loss rate: 69.20%
```

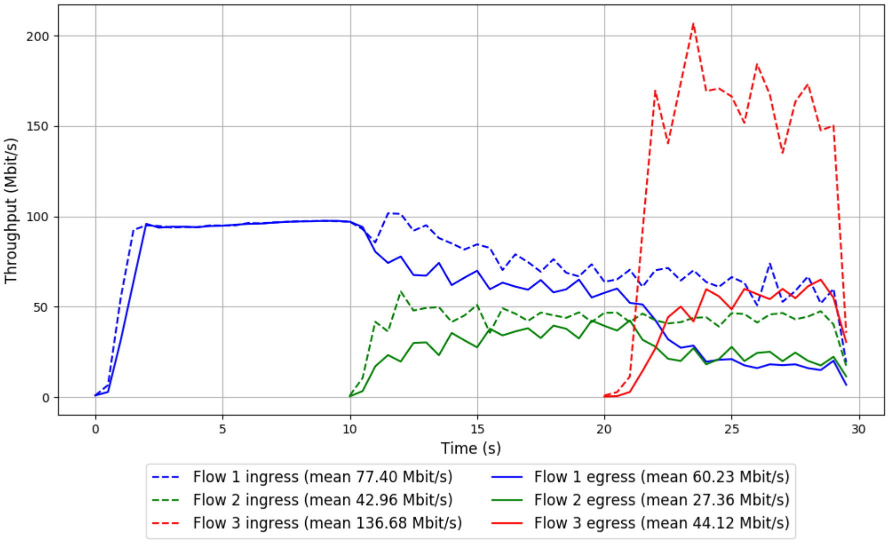
Run 2: Report of Indigo-1-32 — Data Link

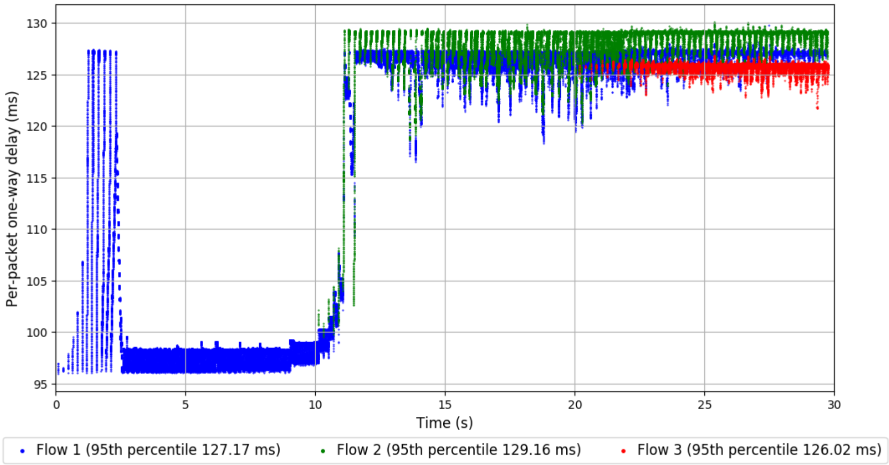




```
Run 3: Statistics of Indigo-1-32

Start at: 2018-04-10 23:18:06
End at: 2018-04-10 23:18:36
Local clock offset: -5.949 ms
Remote clock offset: 3.553 ms

# Below is generated by plot.py at 2018-04-11 03:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.46 Mbit/s
95th percentile per-packet one-way delay: 128.933 ms
Loss rate: 38.21%
-- Flow 1:
Average throughput: 60.23 Mbit/s
95th percentile per-packet one-way delay: 127.172 ms
Loss rate: 22.10%
-- Flow 2:
Average throughput: 27.36 Mbit/s
95th percentile per-packet one-way delay: 129.161 ms
Loss rate: 36.22%
-- Flow 3:
Average throughput: 44.12 Mbit/s
95th percentile per-packet one-way delay: 126.020 ms
Loss rate: 67.72%
```

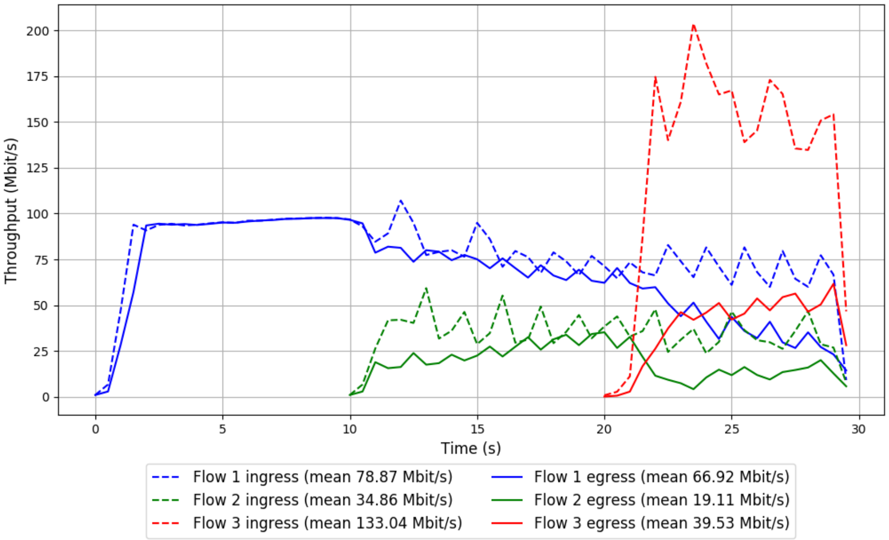
Run 3: Report of Indigo-1-32 — Data Link

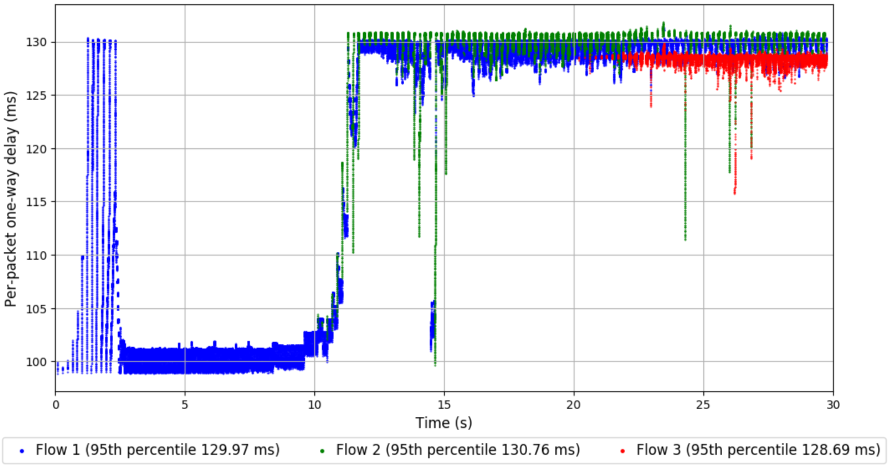




```
Run 4: Statistics of Indigo-1-32

Start at: 2018-04-10 23:42:17
End at: 2018-04-10 23:42:47
Local clock offset: -7.019 ms
Remote clock offset: 4.046 ms

# Below is generated by plot.py at 2018-04-11 03:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.26 Mbit/s
95th percentile per-packet one-way delay: 130.604 ms
Loss rate: 36.20%
-- Flow 1:
Average throughput: 66.92 Mbit/s
95th percentile per-packet one-way delay: 129.966 ms
Loss rate: 15.06%
-- Flow 2:
Average throughput: 19.11 Mbit/s
95th percentile per-packet one-way delay: 130.765 ms
Loss rate: 45.10%
-- Flow 3:
Average throughput: 39.53 Mbit/s
95th percentile per-packet one-way delay: 128.692 ms
Loss rate: 70.29%
```

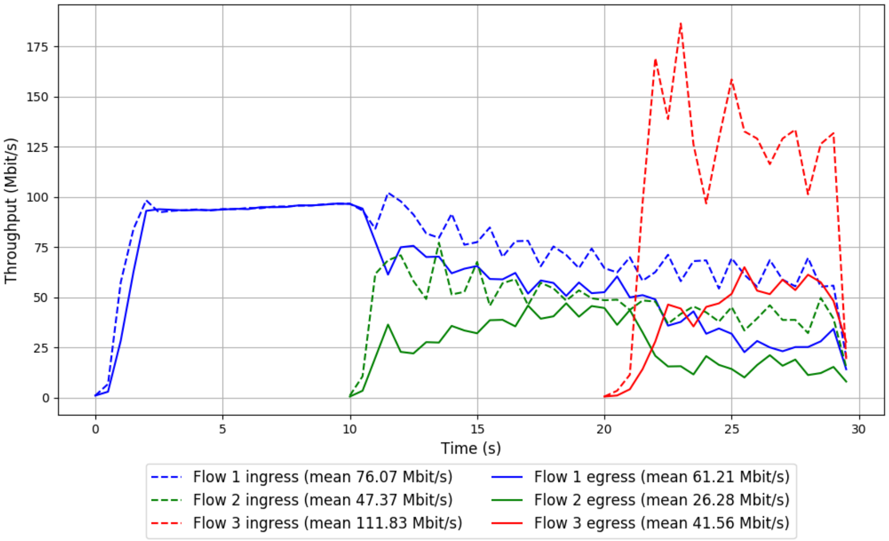
Run 4: Report of Indigo-1-32 — Data Link

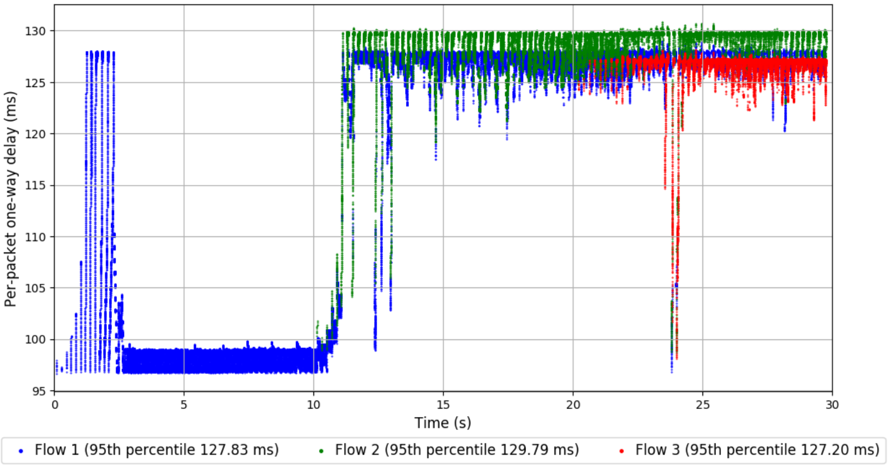




```
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-11 00:06:08
End at: 2018-04-11 00:06:38
Local clock offset: -7.218 ms
Remote clock offset: 3.095 ms

# Below is generated by plot.py at 2018-04-11 03:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.88 Mbit/s
95th percentile per-packet one-way delay: 129.610 ms
Loss rate: 35.82%
-- Flow 1:
Average throughput: 61.21 Mbit/s
95th percentile per-packet one-way delay: 127.831 ms
Loss rate: 19.44%
-- Flow 2:
Average throughput: 26.28 Mbit/s
95th percentile per-packet one-way delay: 129.786 ms
Loss rate: 44.45%
-- Flow 3:
Average throughput: 41.56 Mbit/s
95th percentile per-packet one-way delay: 127.199 ms
Loss rate: 62.83%
```

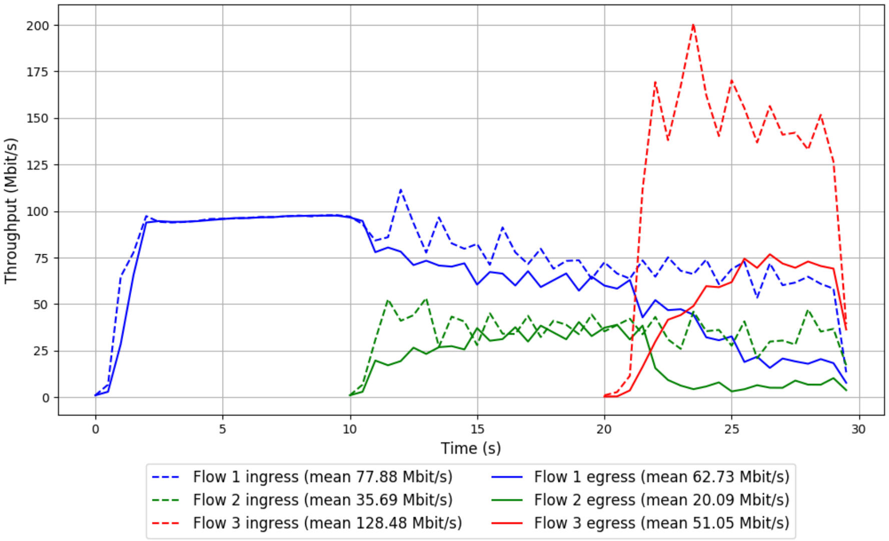
Run 5: Report of Indigo-1-32 — Data Link

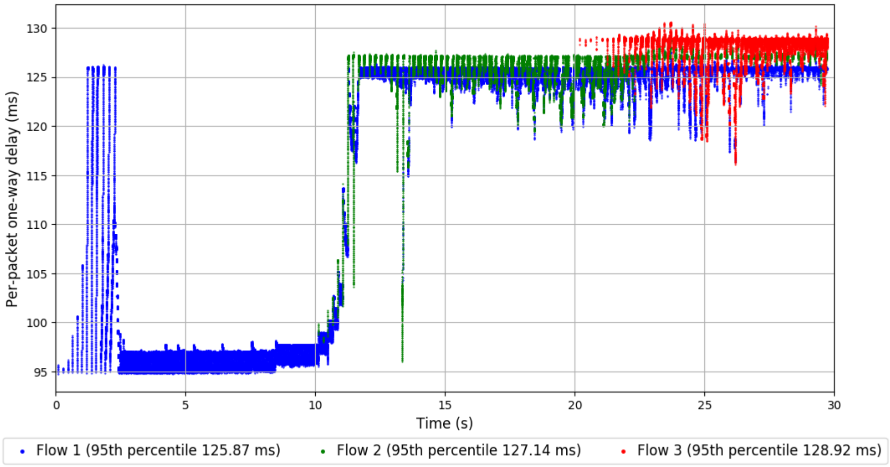




```
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-11 00:30:36
End at: 2018-04-11 00:31:06
Local clock offset: -7.137 ms
Remote clock offset: 1.726 ms

# Below is generated by plot.py at 2018-04-11 03:01:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.47 Mbit/s
95th percentile per-packet one-way delay: 128.798 ms
Loss rate: 35.24%
-- Flow 1:
Average throughput: 62.73 Mbit/s
95th percentile per-packet one-way delay: 125.874 ms
Loss rate: 19.37%
-- Flow 2:
Average throughput: 20.09 Mbit/s
95th percentile per-packet one-way delay: 127.137 ms
Loss rate: 43.61%
-- Flow 3:
Average throughput: 51.05 Mbit/s
95th percentile per-packet one-way delay: 128.923 ms
Loss rate: 60.27%
```

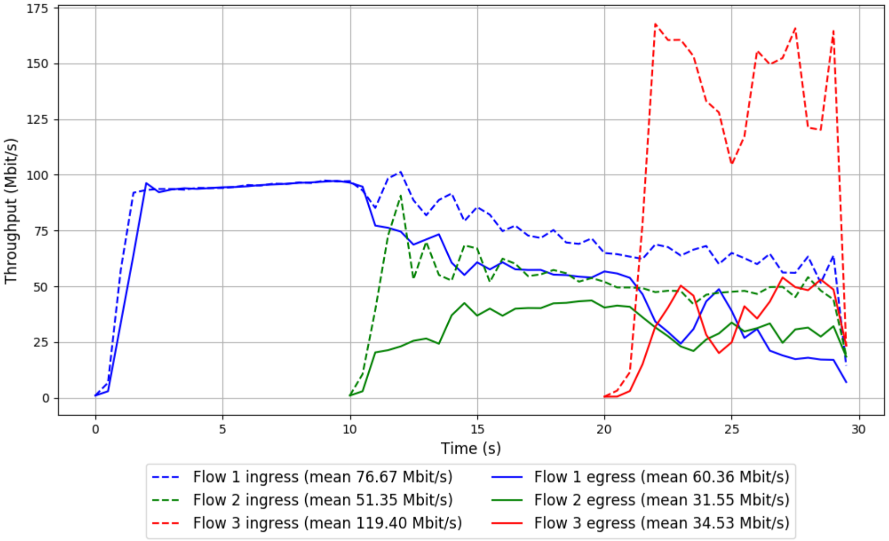
Run 6: Report of Indigo-1-32 — Data Link

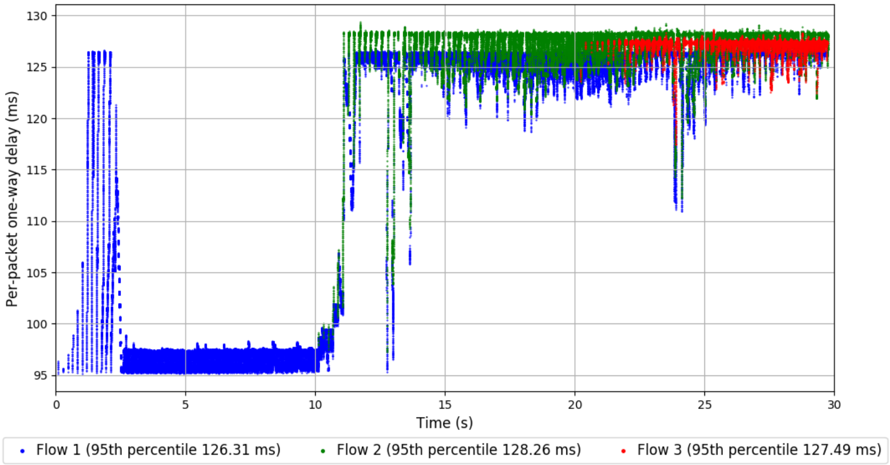




```
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-11 00:54:43
End at: 2018-04-11 00:55:13
Local clock offset: -7.371 ms
Remote clock offset: 2.192 ms

# Below is generated by plot.py at 2018-04-11 03:01:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.26 Mbit/s
95th percentile per-packet one-way delay: 128.130 ms
Loss rate: 37.97%
-- Flow 1:
Average throughput: 60.36 Mbit/s
95th percentile per-packet one-way delay: 126.312 ms
Loss rate: 21.19%
-- Flow 2:
Average throughput: 31.55 Mbit/s
95th percentile per-packet one-way delay: 128.262 ms
Loss rate: 38.46%
-- Flow 3:
Average throughput: 34.53 Mbit/s
95th percentile per-packet one-way delay: 127.489 ms
Loss rate: 71.07%
```

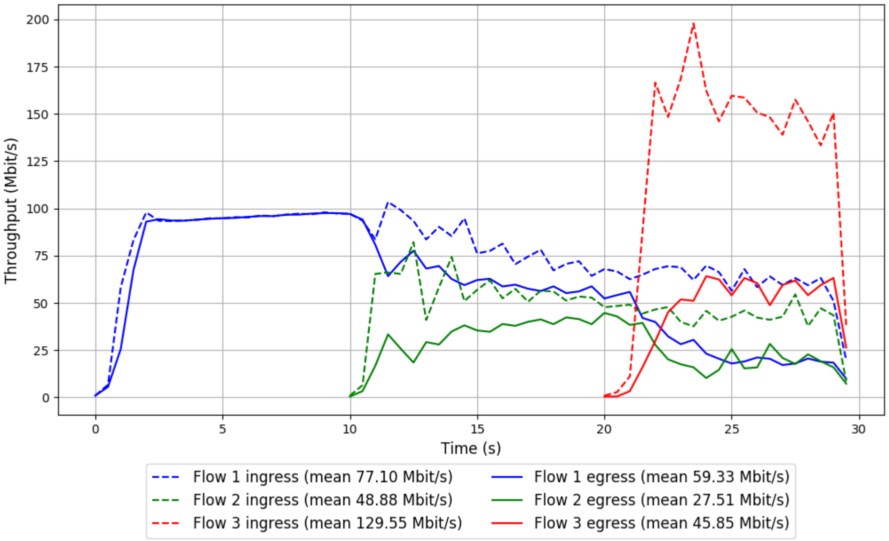
Run 7: Report of Indigo-1-32 — Data Link

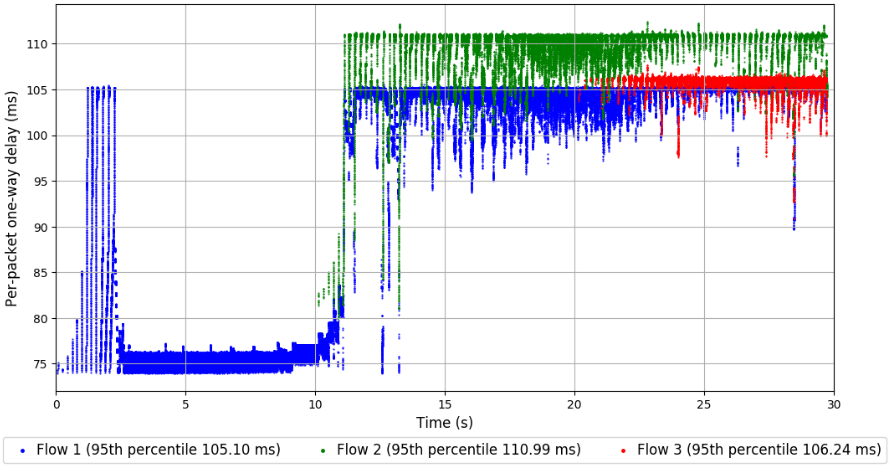




```
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-11 01:18:52
End at: 2018-04-11 01:19:22
Local clock offset: -5.923 ms
Remote clock offset: -20.963 ms

# Below is generated by plot.py at 2018-04-11 03:01:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.26 Mbit/s
95th percentile per-packet one-way delay: 110.826 ms
Loss rate: 38.90%
-- Flow 1:
Average throughput: 59.33 Mbit/s
95th percentile per-packet one-way delay: 105.102 ms
Loss rate: 22.97%
-- Flow 2:
Average throughput: 27.51 Mbit/s
95th percentile per-packet one-way delay: 110.990 ms
Loss rate: 43.65%
-- Flow 3:
Average throughput: 45.85 Mbit/s
95th percentile per-packet one-way delay: 106.244 ms
Loss rate: 64.61%
```

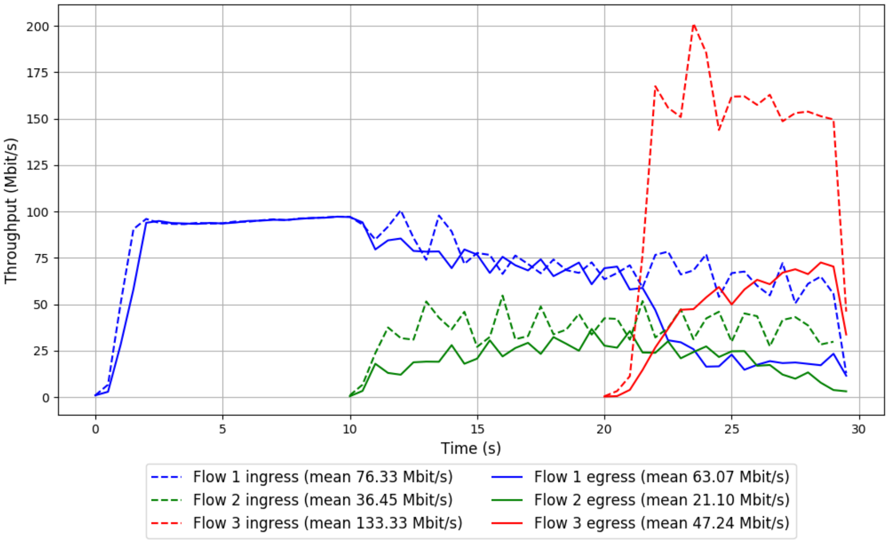
Run 8: Report of Indigo-1-32 — Data Link

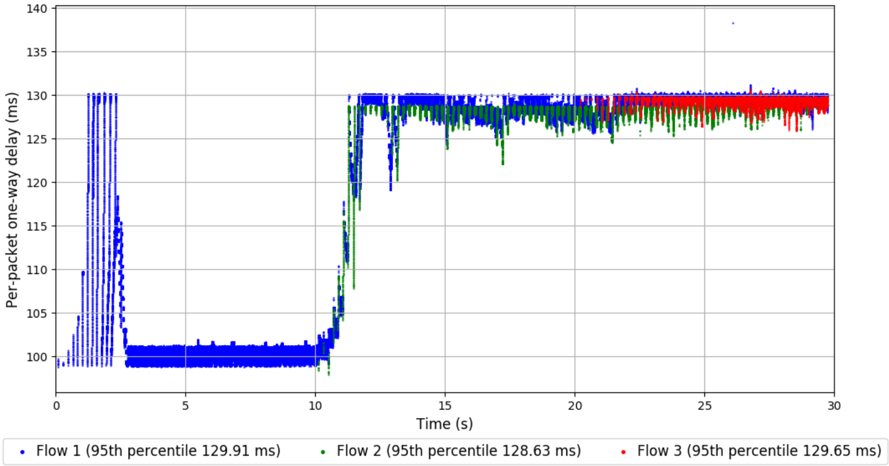




```
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-11 01:42:48
End at: 2018-04-11 01:43:18
Local clock offset: -6.085 ms
Remote clock offset: 1.566 ms

# Below is generated by plot.py at 2018-04-11 03:02:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.09 Mbit/s
95th percentile per-packet one-way delay: 129.877 ms
Loss rate: 35.60%
-- Flow 1:
Average throughput: 63.07 Mbit/s
95th percentile per-packet one-way delay: 129.905 ms
Loss rate: 17.29%
-- Flow 2:
Average throughput: 21.10 Mbit/s
95th percentile per-packet one-way delay: 128.631 ms
Loss rate: 42.01%
-- Flow 3:
Average throughput: 47.24 Mbit/s
95th percentile per-packet one-way delay: 129.653 ms
Loss rate: 64.57%
```

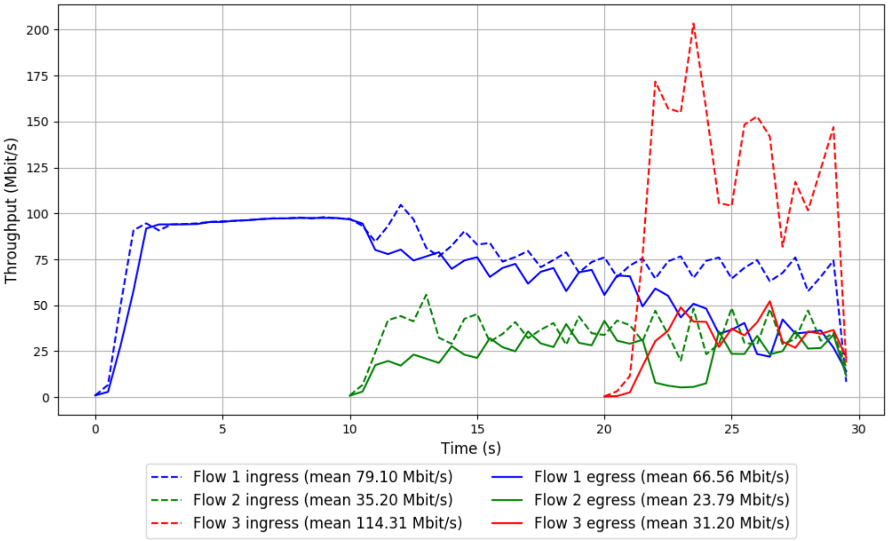
Run 9: Report of Indigo-1-32 — Data Link

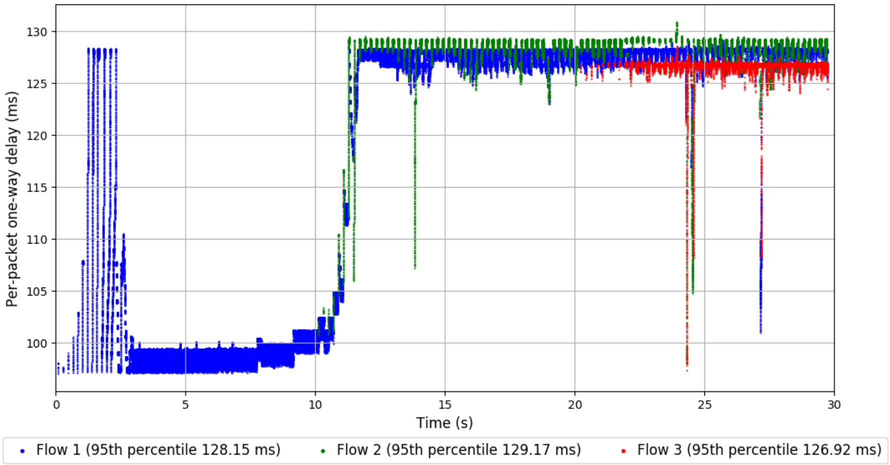




```
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-11 02:06:53
End at: 2018-04-11 02:07:23
Local clock offset: -4.815 ms
Remote clock offset: 1.971 ms

# Below is generated by plot.py at 2018-04-11 03:02:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 129.059 ms
Loss rate: 33.59%
-- Flow 1:
Average throughput: 66.56 Mbit/s
95th percentile per-packet one-way delay: 128.145 ms
Loss rate: 15.77%
-- Flow 2:
Average throughput: 23.79 Mbit/s
95th percentile per-packet one-way delay: 129.172 ms
Loss rate: 32.34%
-- Flow 3:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 126.919 ms
Loss rate: 72.71%
```

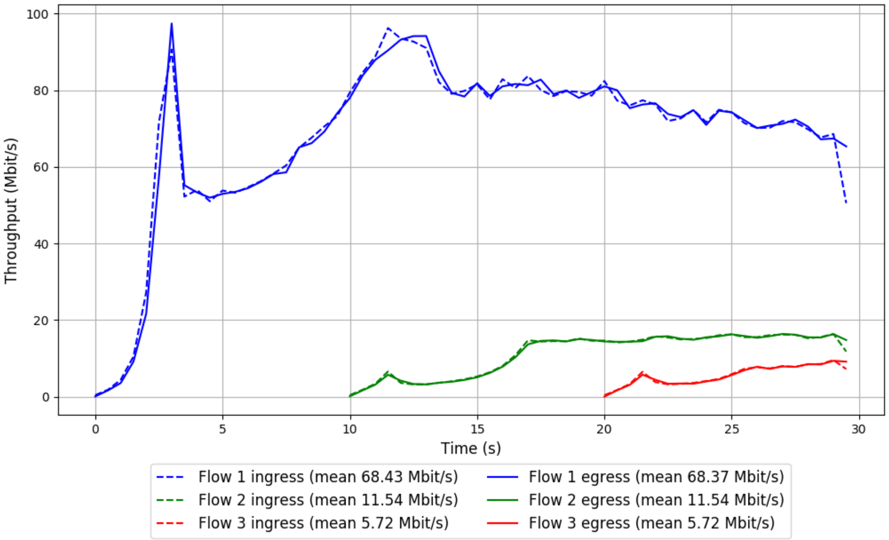
Run 10: Report of Indigo-1-32 — Data Link

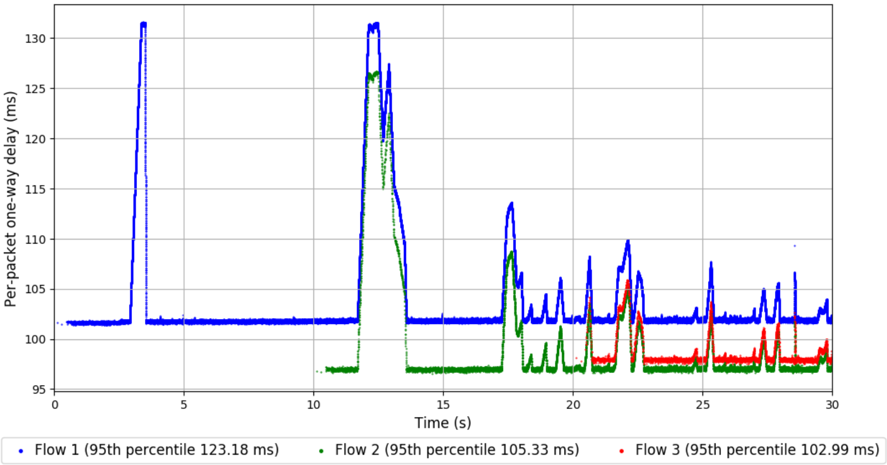




```
Run 1: Statistics of Vivace-latency

Start at: 2018-04-10 22:22:00
End at: 2018-04-10 22:22:30
Local clock offset: -5.465 ms
Remote clock offset: 2.259 ms

# Below is generated by plot.py at 2018-04-11 03:02:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.93 Mbit/s
95th percentile per-packet one-way delay: 121.689 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 68.37 Mbit/s
95th percentile per-packet one-way delay: 123.178 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 105.326 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 5.72 Mbit/s
95th percentile per-packet one-way delay: 102.994 ms
Loss rate: 0.00%
```

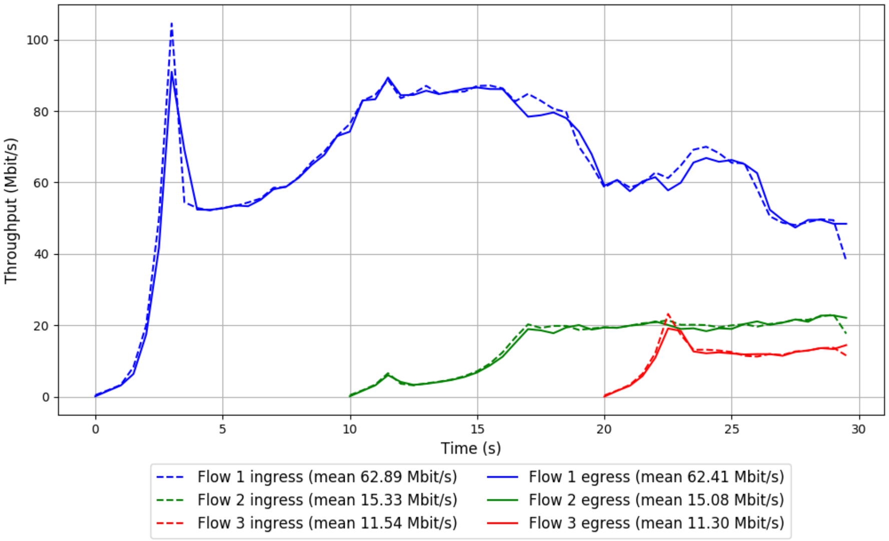
Run 1: Report of Vivace-latency — Data Link

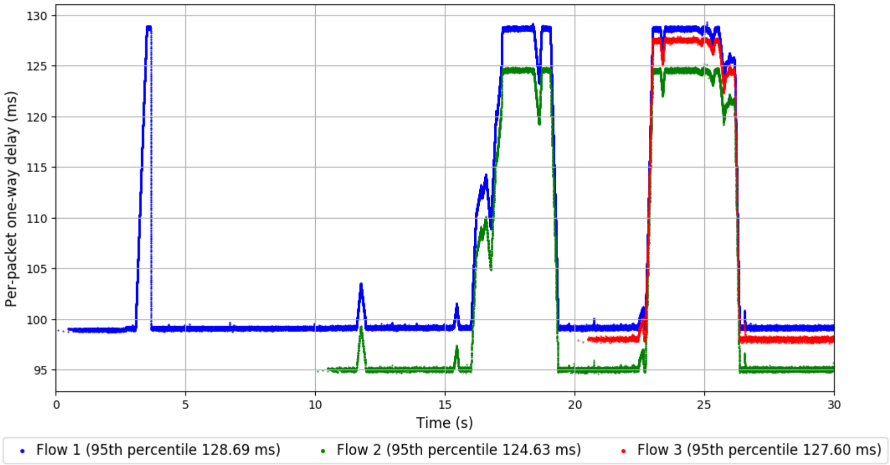




```
Run 2: Statistics of Vivace-latency

Start at: 2018-04-10 22:46:08
End at: 2018-04-10 22:46:38
Local clock offset: -5.563 ms
Remote clock offset: 2.026 ms

# Below is generated by plot.py at 2018-04-11 03:02:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.16 Mbit/s
95th percentile per-packet one-way delay: 128.667 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 62.41 Mbit/s
95th percentile per-packet one-way delay: 128.687 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 15.08 Mbit/s
95th percentile per-packet one-way delay: 124.626 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 127.601 ms
Loss rate: 2.10%
```

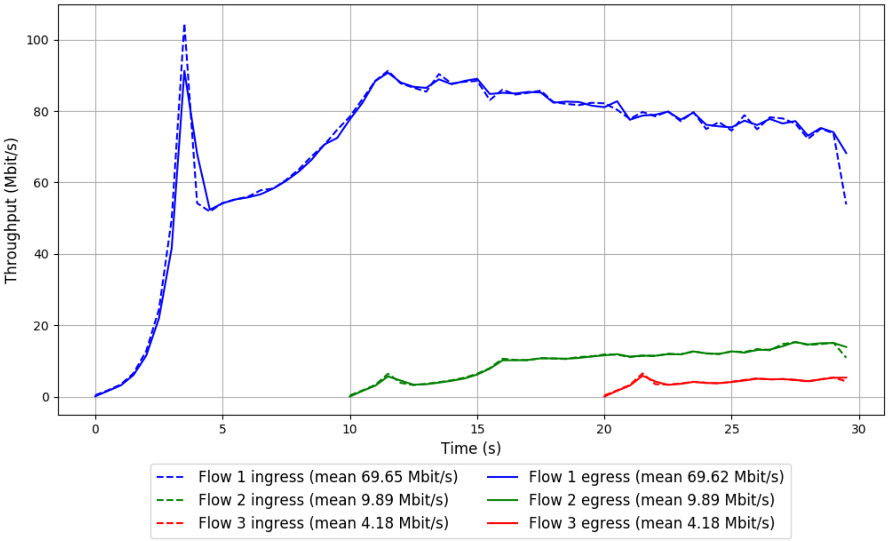
Run 2: Report of Vivace-latency — Data Link

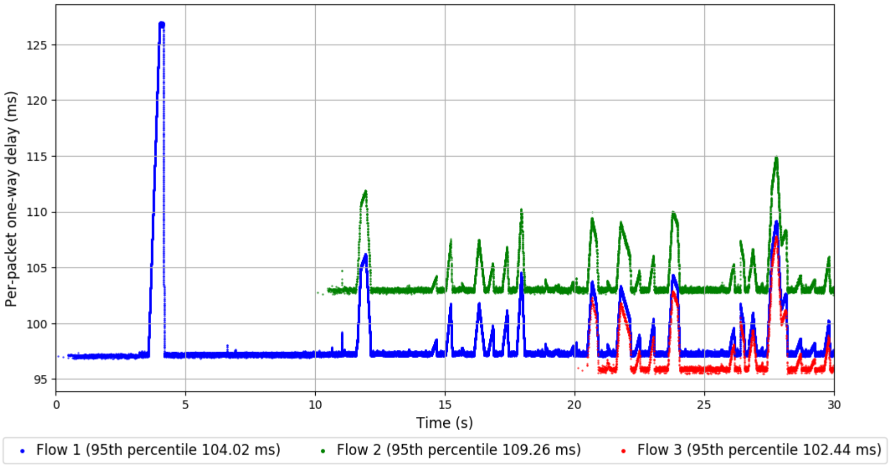




```
Run 3: Statistics of Vivace-latency

Start at: 2018-04-10 23:10:01
End at: 2018-04-10 23:10:31
Local clock offset: -6.743 ms
Remote clock offset: 3.35 ms

# Below is generated by plot.py at 2018-04-11 03:02:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.56 Mbit/s
95th percentile per-packet one-way delay: 105.581 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 69.62 Mbit/s
95th percentile per-packet one-way delay: 104.021 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 9.89 Mbit/s
95th percentile per-packet one-way delay: 109.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 102.440 ms
Loss rate: 0.00%
```

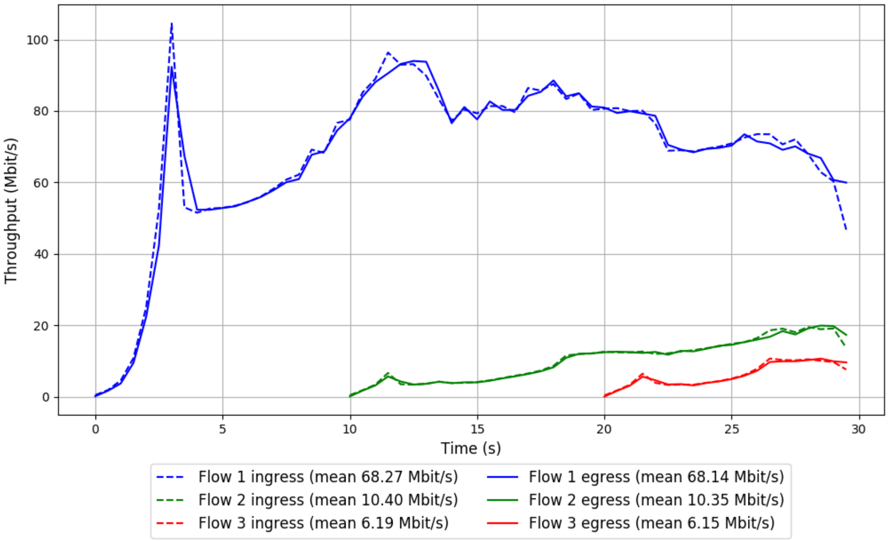
Run 3: Report of Vivace-latency — Data Link

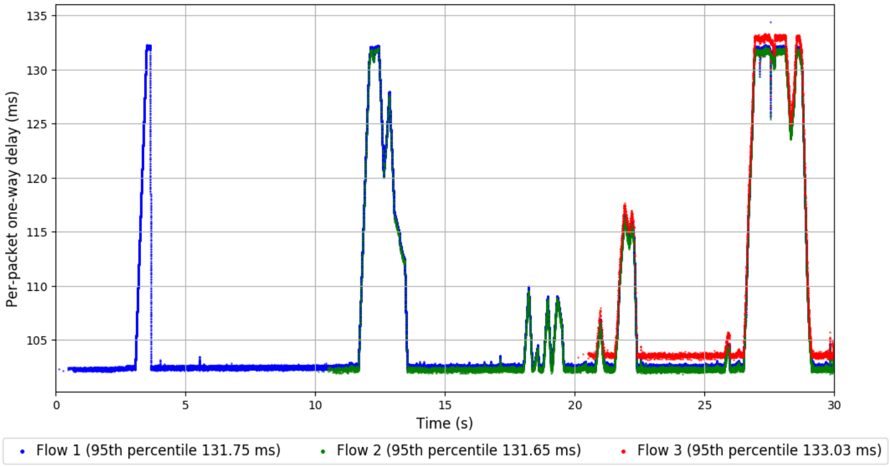




```
Run 4: Statistics of Vivace-latency

Start at: 2018-04-10 23:34:09
End at: 2018-04-10 23:34:39
Local clock offset: -6.949 ms
Remote clock offset: 8.656 ms

# Below is generated by plot.py at 2018-04-11 03:02:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.05 Mbit/s
95th percentile per-packet one-way delay: 131.771 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 68.14 Mbit/s
95th percentile per-packet one-way delay: 131.748 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 10.35 Mbit/s
95th percentile per-packet one-way delay: 131.650 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 6.15 Mbit/s
95th percentile per-packet one-way delay: 133.025 ms
Loss rate: 0.66%
```

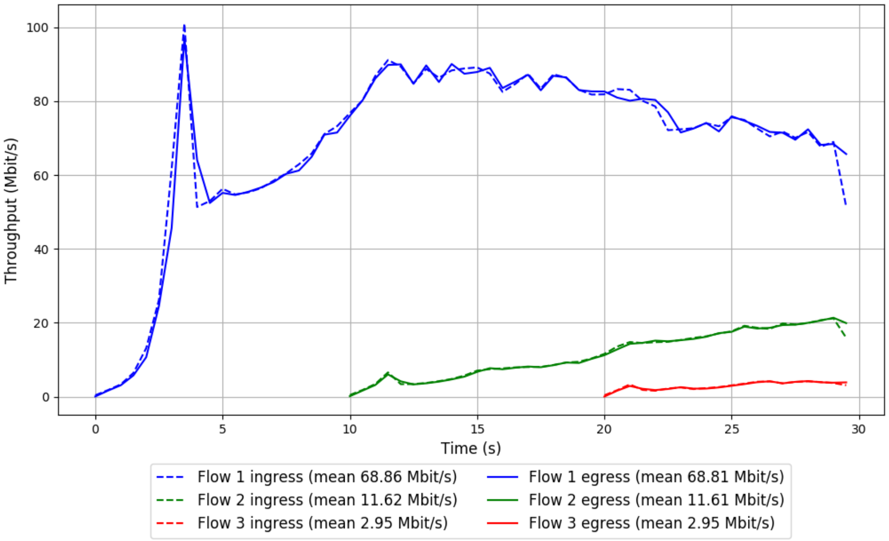
Run 4: Report of Vivace-latency — Data Link

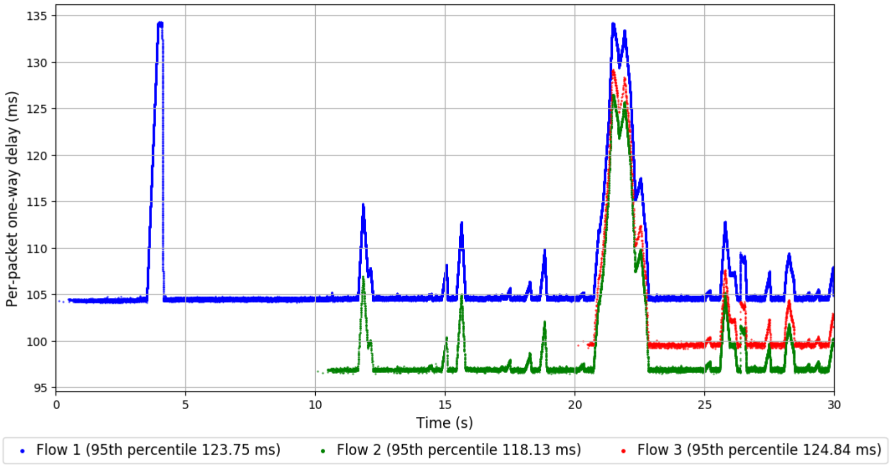




```
Run 5: Statistics of Vivace-latency

Start at: 2018-04-10 23:58:03
End at: 2018-04-10 23:58:33
Local clock offset: -7.072 ms
Remote clock offset: 4.275 ms

# Below is generated by plot.py at 2018-04-11 03:02:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.51 Mbit/s
95th percentile per-packet one-way delay: 122.868 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 68.81 Mbit/s
95th percentile per-packet one-way delay: 123.750 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 118.134 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 2.95 Mbit/s
95th percentile per-packet one-way delay: 124.842 ms
Loss rate: 0.04%
```

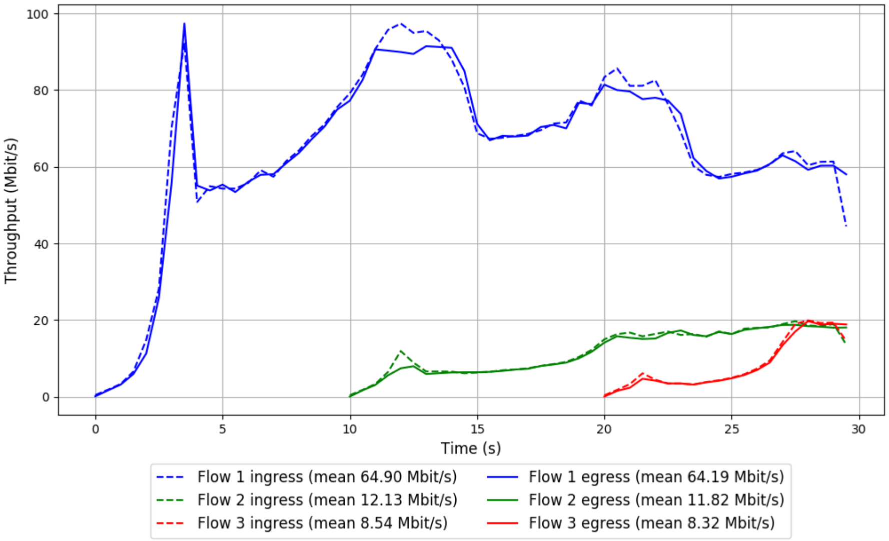
Run 5: Report of Vivace-latency — Data Link

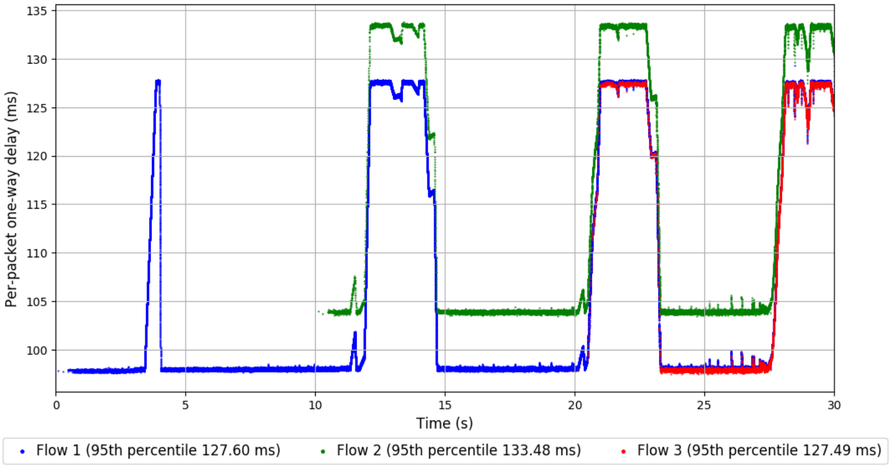




```
Run 6: Statistics of Vivace-latency

Start at: 2018-04-11 00:22:21
End at: 2018-04-11 00:22:51
Local clock offset: -6.431 ms
Remote clock offset: 2.06 ms

# Below is generated by plot.py at 2018-04-11 03:02:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.80 Mbit/s
95th percentile per-packet one-way delay: 127.667 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 64.19 Mbit/s
95th percentile per-packet one-way delay: 127.596 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 133.477 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 127.493 ms
Loss rate: 2.36%
```

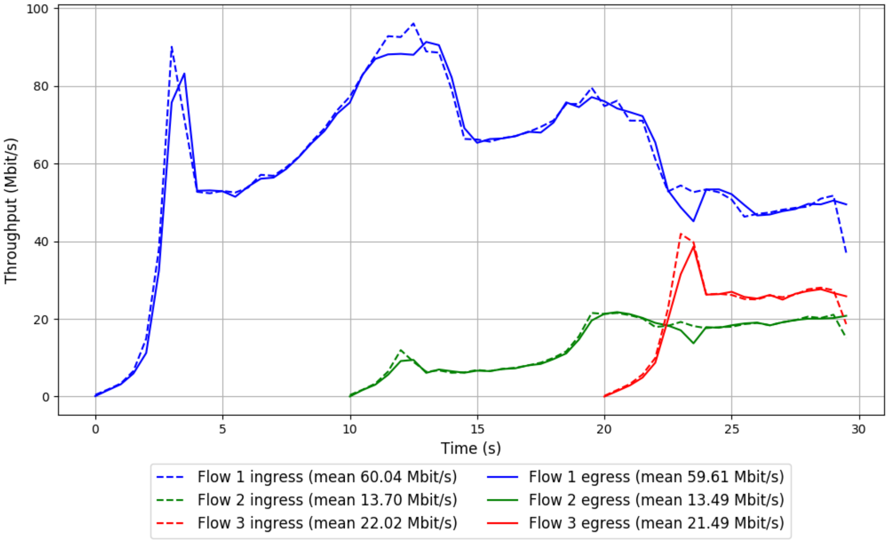
Run 6: Report of Vivace-latency — Data Link

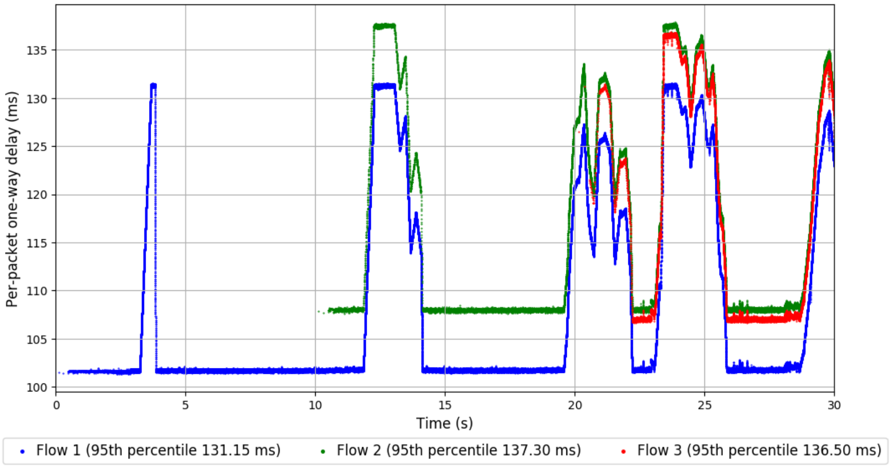




```
Run 7: Statistics of Vivace-latency

Start at: 2018-04-11 00:46:35
End at: 2018-04-11 00:47:05
Local clock offset: -7.967 ms
Remote clock offset: 6.615 ms

# Below is generated by plot.py at 2018-04-11 03:03:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.65 Mbit/s
95th percentile per-packet one-way delay: 131.428 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 131.147 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 13.49 Mbit/s
95th percentile per-packet one-way delay: 137.301 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 21.49 Mbit/s
95th percentile per-packet one-way delay: 136.500 ms
Loss rate: 2.39%
```

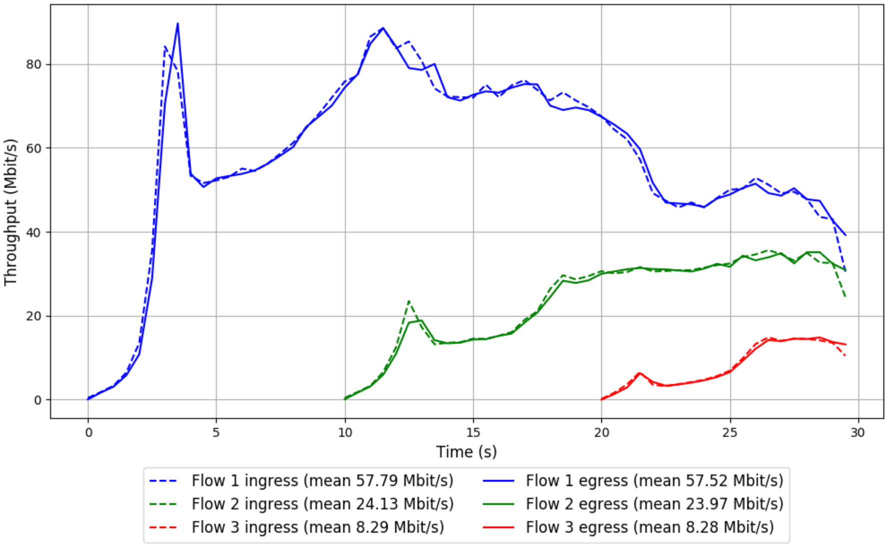
Run 7: Report of Vivace-latency — Data Link

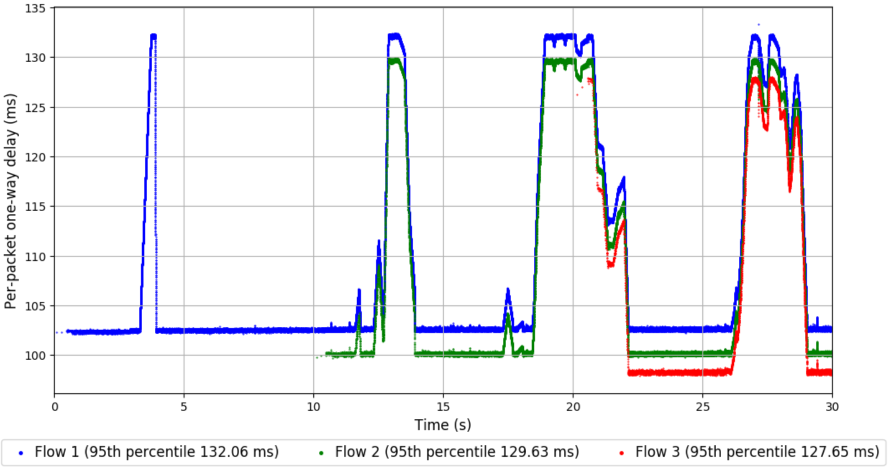




```
Run 8: Statistics of Vivace-latency

Start at: 2018-04-11 01:10:47
End at: 2018-04-11 01:11:17
Local clock offset: -6.547 ms
Remote clock offset: 1.91 ms

# Below is generated by plot.py at 2018-04-11 03:03:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.18 Mbit/s
95th percentile per-packet one-way delay: 131.998 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 132.057 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 129.627 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 127.646 ms
Loss rate: 0.34%
```

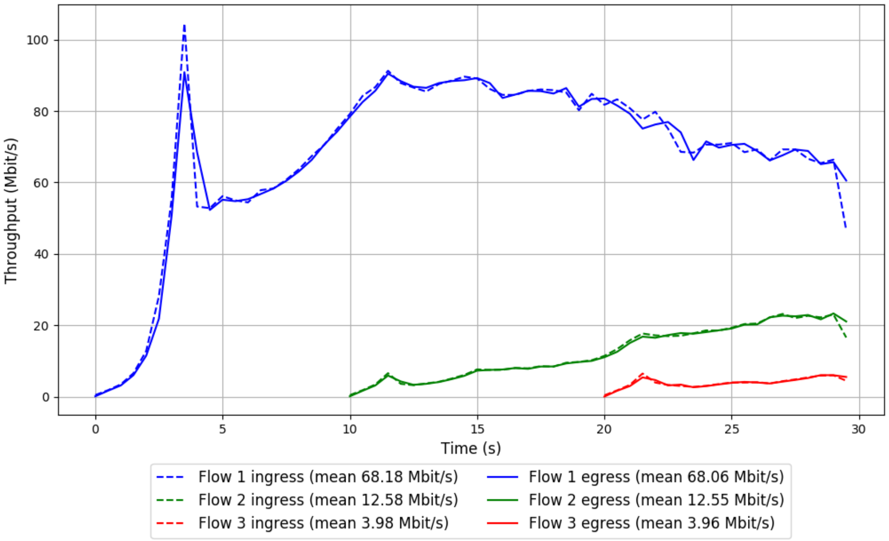
Run 8: Report of Vivace-latency — Data Link

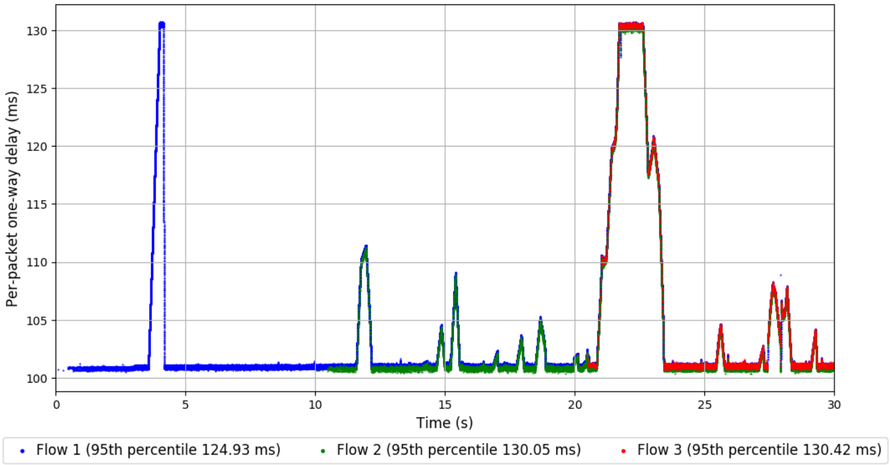




```
Run 9: Statistics of Vivace-latency

Start at: 2018-04-11 01:34:40
End at: 2018-04-11 01:35:10
Local clock offset: -5.539 ms
Remote clock offset: 5.483 ms

# Below is generated by plot.py at 2018-04-11 03:03:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.71 Mbit/s
95th percentile per-packet one-way delay: 126.840 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 68.06 Mbit/s
95th percentile per-packet one-way delay: 124.930 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 130.051 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 130.423 ms
Loss rate: 0.58%
```

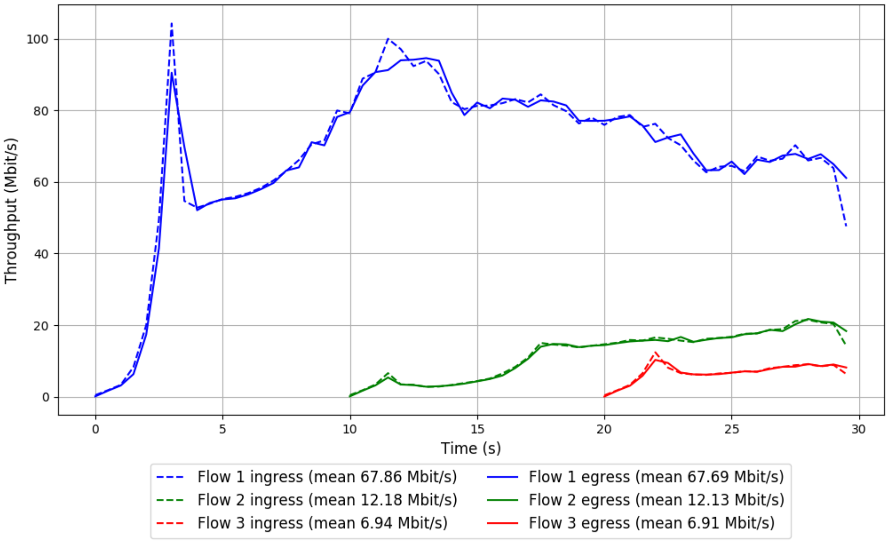
Run 9: Report of Vivace-latency — Data Link

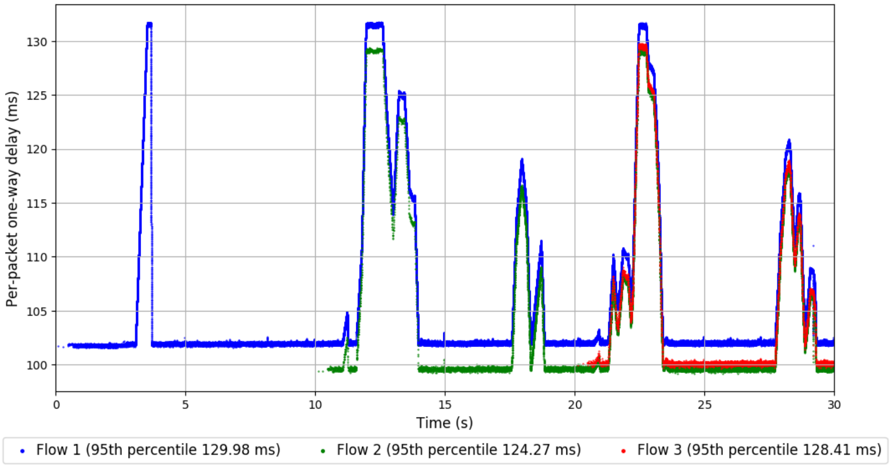




```
Run 10: Statistics of Vivace-latency

Start at: 2018-04-11 01:58:48
End at: 2018-04-11 01:59:18
Local clock offset: -6.368 ms
Remote clock offset: 4.311 ms

# Below is generated by plot.py at 2018-04-11 03:03:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.03 Mbit/s
95th percentile per-packet one-way delay: 128.900 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 67.69 Mbit/s
95th percentile per-packet one-way delay: 129.976 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 12.13 Mbit/s
95th percentile per-packet one-way delay: 124.265 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 6.91 Mbit/s
95th percentile per-packet one-way delay: 128.405 ms
Loss rate: 0.49%
```

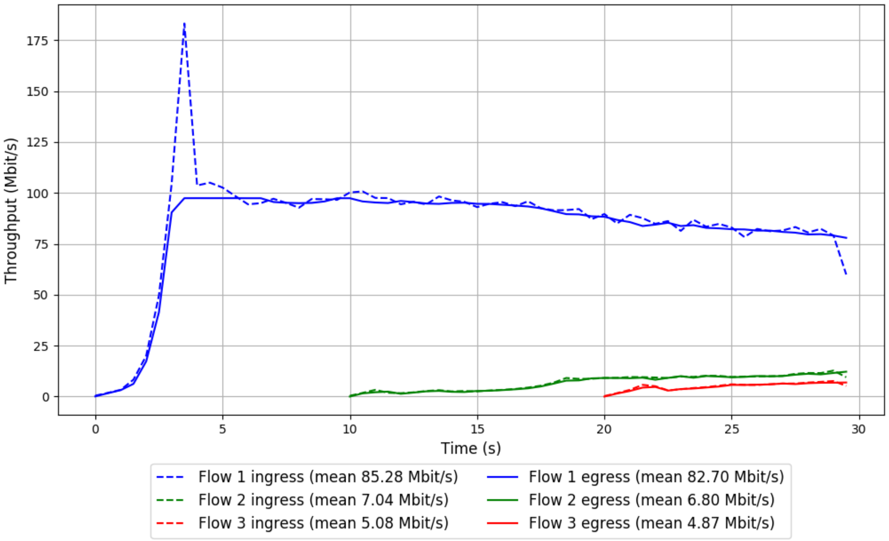
Run 10: Report of Vivace-latency — Data Link

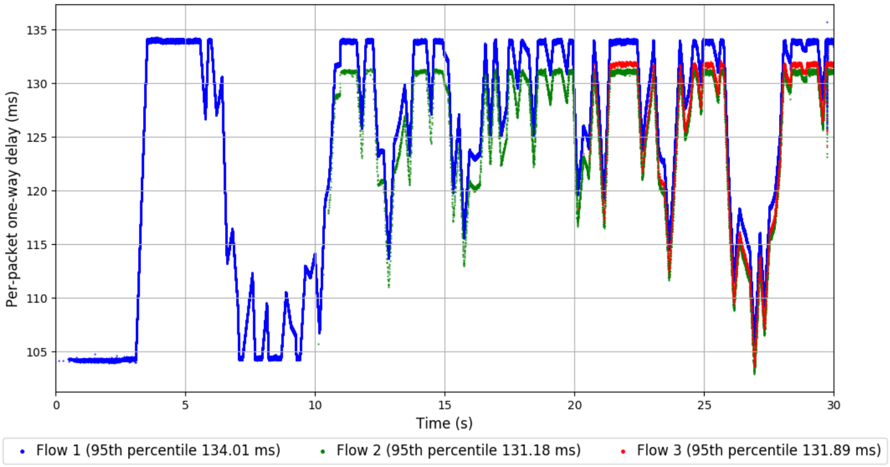




```
Run 1: Statistics of Vivace-loss

Start at: 2018-04-10 22:27:21
End at: 2018-04-10 22:27:51
Local clock offset: -6.148 ms
Remote clock offset: 7.013 ms

# Below is generated by plot.py at 2018-04-11 03:03:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.83 Mbit/s
95th percentile per-packet one-way delay: 134.007 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 82.70 Mbit/s
95th percentile per-packet one-way delay: 134.012 ms
Loss rate: 2.93%
-- Flow 2:
Average throughput: 6.80 Mbit/s
95th percentile per-packet one-way delay: 131.183 ms
Loss rate: 3.22%
-- Flow 3:
Average throughput: 4.87 Mbit/s
95th percentile per-packet one-way delay: 131.893 ms
Loss rate: 3.95%
```

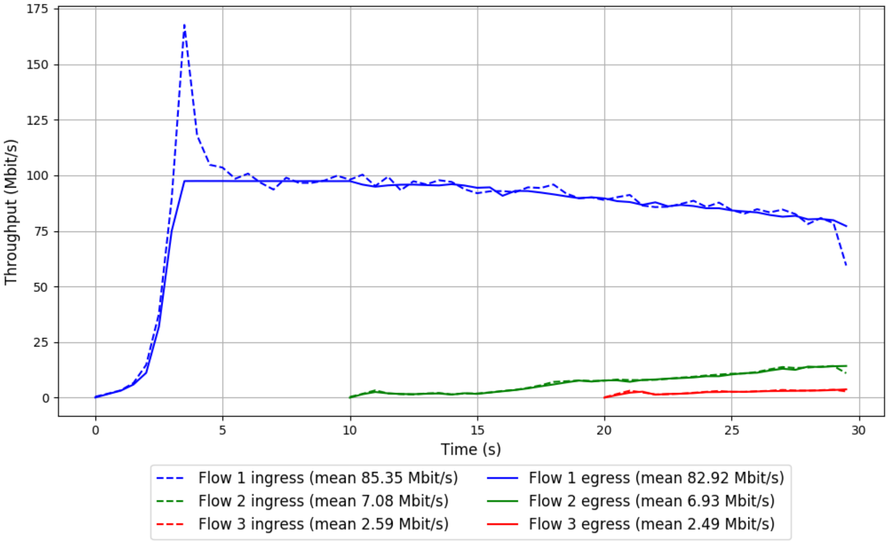
Run 1: Report of Vivace-loss — Data Link

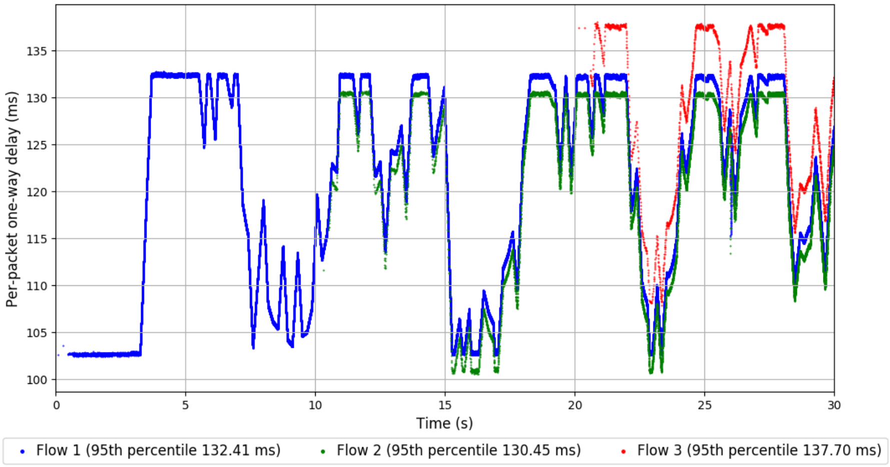




```
Run 2: Statistics of Vivace-loss

Start at: 2018-04-10 22:51:30
End at: 2018-04-10 22:52:00
Local clock offset: -5.679 ms
Remote clock offset: 6.901 ms

# Below is generated by plot.py at 2018-04-11 03:03:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.34 Mbit/s
95th percentile per-packet one-way delay: 132.411 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 82.92 Mbit/s
95th percentile per-packet one-way delay: 132.408 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 6.93 Mbit/s
95th percentile per-packet one-way delay: 130.449 ms
Loss rate: 2.15%
-- Flow 3:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 137.704 ms
Loss rate: 3.99%
```

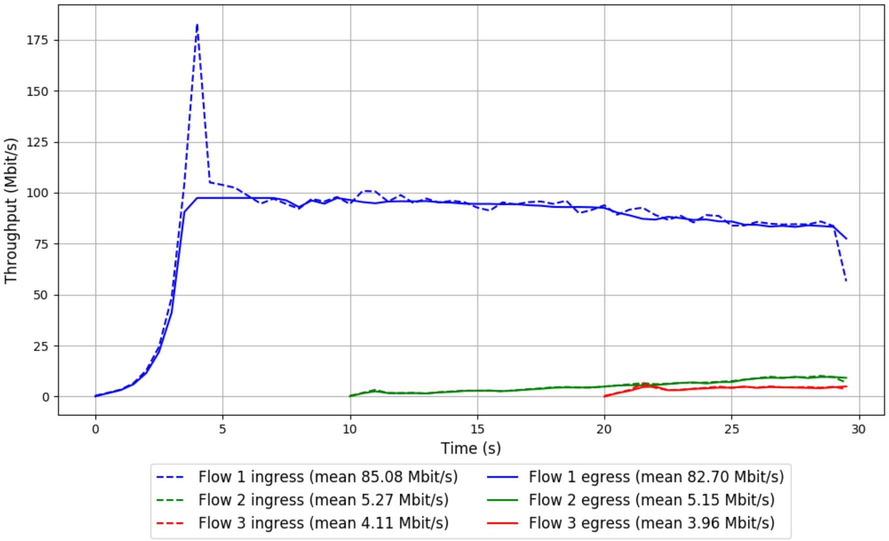
Run 2: Report of Vivace-loss — Data Link

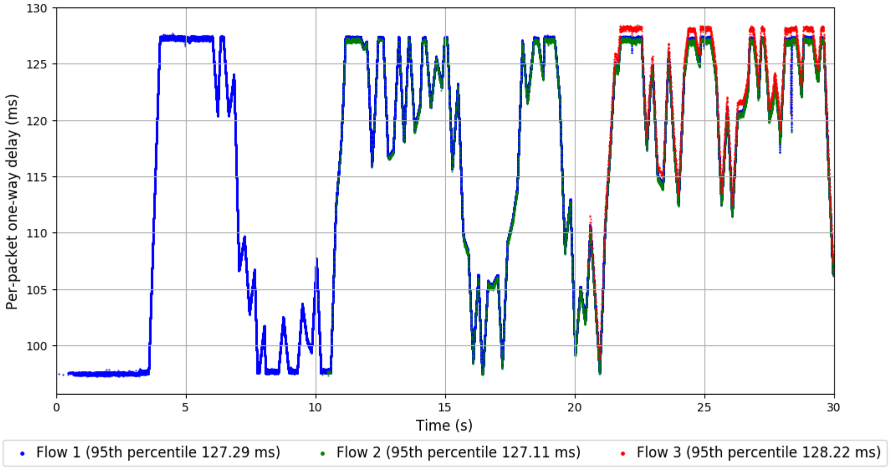




```
Run 3: Statistics of Vivace-loss

Start at: 2018-04-10 23:15:21
End at: 2018-04-10 23:15:51
Local clock offset: -6.767 ms
Remote clock offset: 3.455 ms

# Below is generated by plot.py at 2018-04-11 03:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.42 Mbit/s
95th percentile per-packet one-way delay: 127.292 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 82.70 Mbit/s
95th percentile per-packet one-way delay: 127.288 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 127.115 ms
Loss rate: 2.36%
-- Flow 3:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 128.217 ms
Loss rate: 3.59%
```

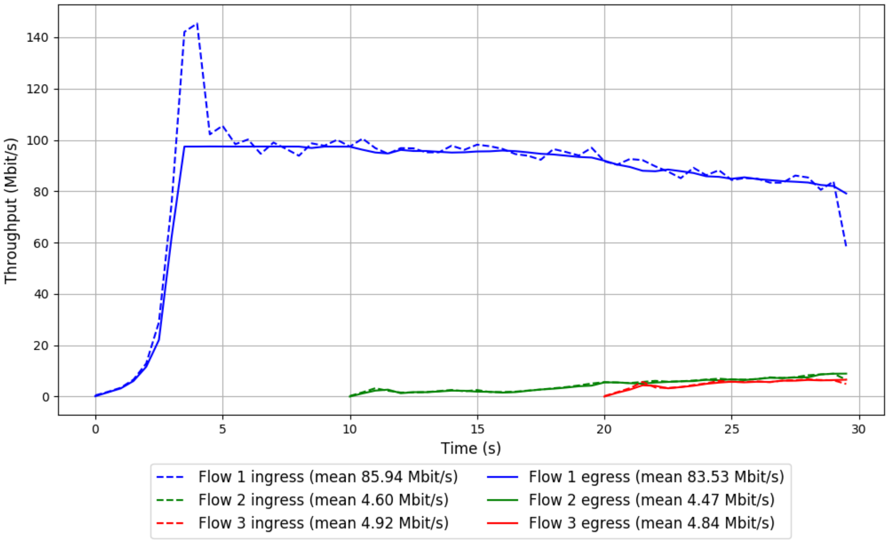
Run 3: Report of Vivace-loss — Data Link

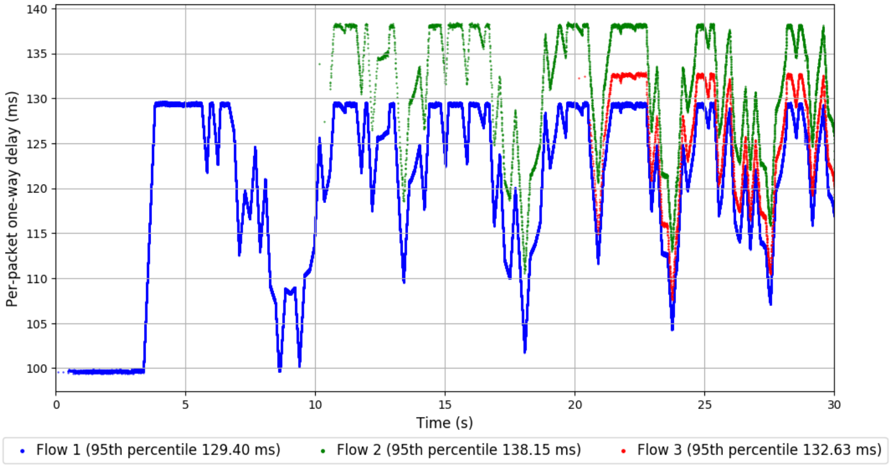




```
Run 4: Statistics of Vivace-loss

Start at: 2018-04-10 23:39:34
End at: 2018-04-10 23:40:04
Local clock offset: -6.16 ms
Remote clock offset: 8.815 ms

# Below is generated by plot.py at 2018-04-11 03:04:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.08 Mbit/s
95th percentile per-packet one-way delay: 129.448 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 83.53 Mbit/s
95th percentile per-packet one-way delay: 129.400 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 138.153 ms
Loss rate: 2.94%
-- Flow 3:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 132.633 ms
Loss rate: 1.93%
```

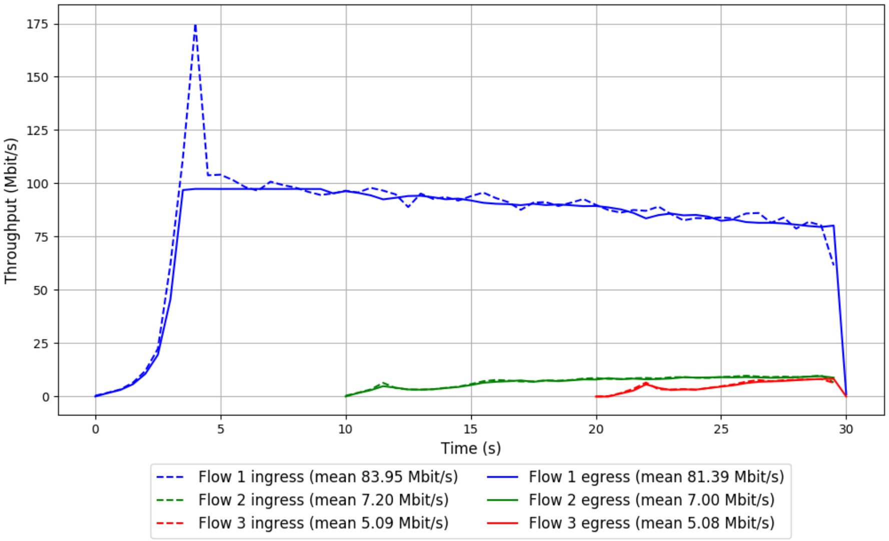
Run 4: Report of Vivace-loss — Data Link

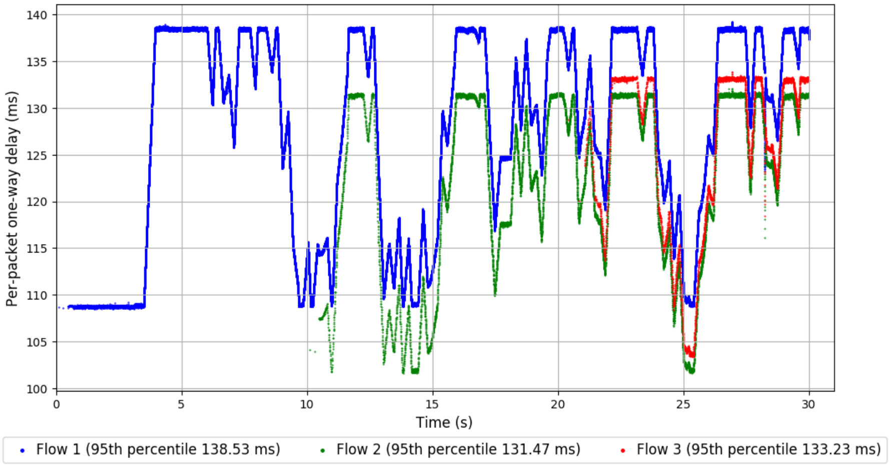




```
Run 5: Statistics of Vivace-loss

Start at: 2018-04-11 00:03:24
End at: 2018-04-11 00:03:54
Local clock offset: -7.095 ms
Remote clock offset: 8.102 ms

# Below is generated by plot.py at 2018-04-11 03:05:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.68 Mbit/s
95th percentile per-packet one-way delay: 138.521 ms
Loss rate: 2.94%
-- Flow 1:
Average throughput: 81.39 Mbit/s
95th percentile per-packet one-way delay: 138.526 ms
Loss rate: 2.96%
-- Flow 2:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 131.473 ms
Loss rate: 2.65%
-- Flow 3:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 133.231 ms
Loss rate: 2.70%
```

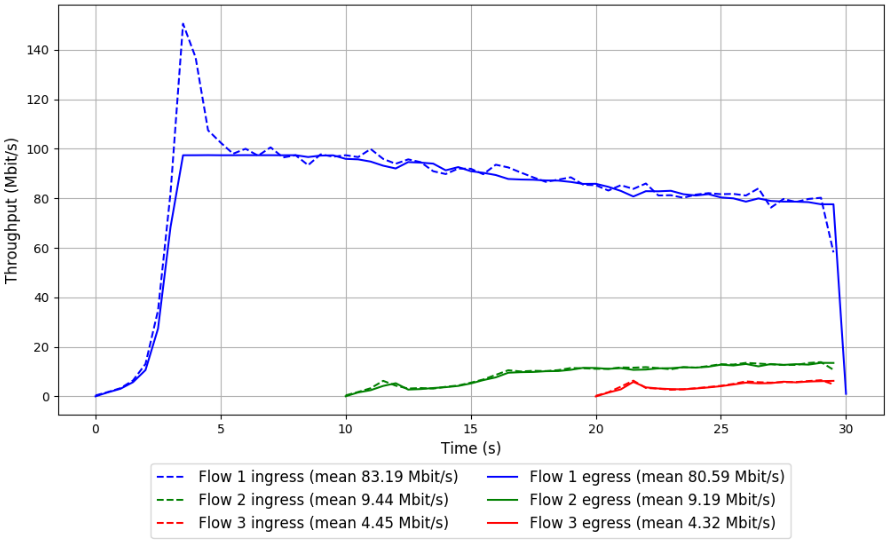
Run 5: Report of Vivace-loss — Data Link

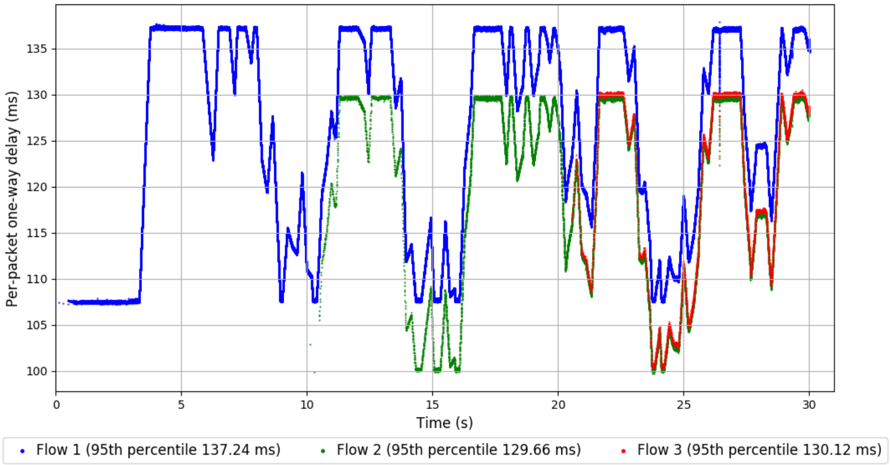




```
Run 6: Statistics of Vivace-loss

Start at: 2018-04-11 00:27:51
End at: 2018-04-11 00:28:21
Local clock offset: -6.061 ms
Remote clock offset: 6.627 ms

# Below is generated by plot.py at 2018-04-11 03:05:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.13 Mbit/s
95th percentile per-packet one-way delay: 137.238 ms
Loss rate: 2.99%
-- Flow 1:
Average throughput: 80.59 Mbit/s
95th percentile per-packet one-way delay: 137.244 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 129.664 ms
Loss rate: 2.47%
-- Flow 3:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 130.115 ms
Loss rate: 2.77%
```

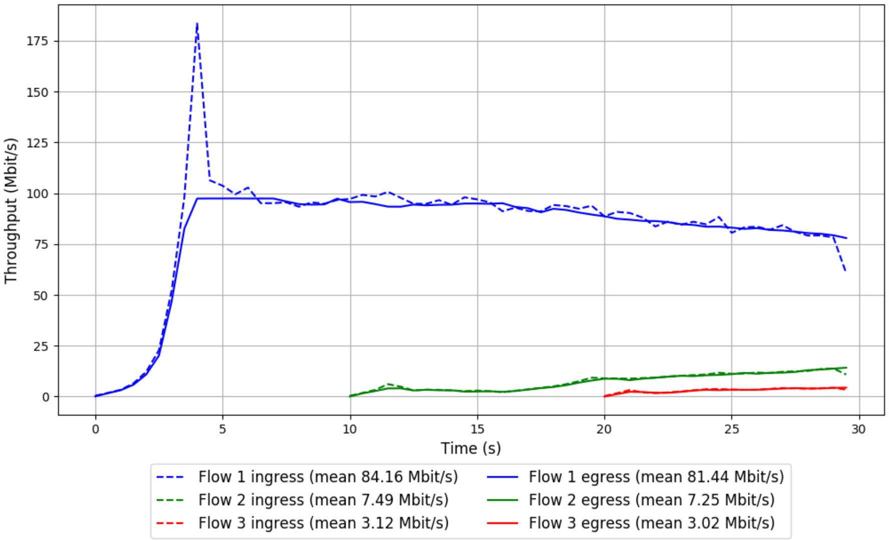
Run 6: Report of Vivace-loss — Data Link

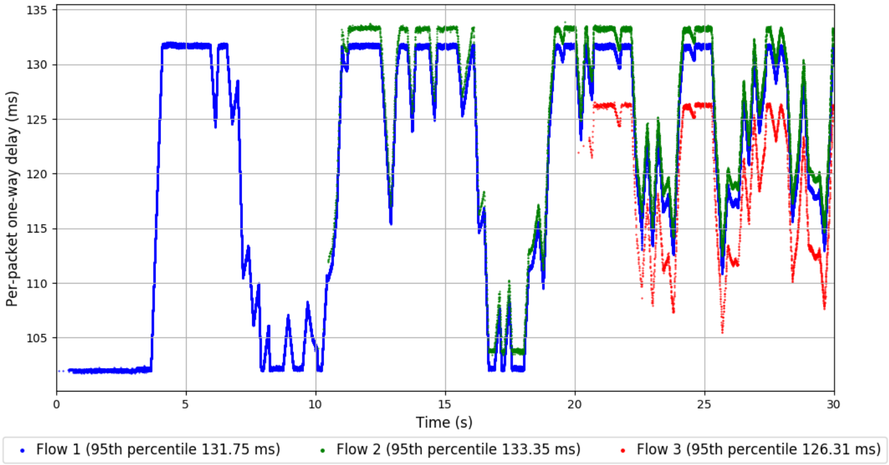




```
Run 7: Statistics of Vivace-loss

Start at: 2018-04-11 00:51:57
End at: 2018-04-11 00:52:27
Local clock offset: -8.047 ms
Remote clock offset: 2.144 ms

# Below is generated by plot.py at 2018-04-11 03:05:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.26 Mbit/s
95th percentile per-packet one-way delay: 131.777 ms
Loss rate: 3.14%
-- Flow 1:
Average throughput: 81.44 Mbit/s
95th percentile per-packet one-way delay: 131.754 ms
Loss rate: 3.14%
-- Flow 2:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 133.346 ms
Loss rate: 3.14%
-- Flow 3:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 126.312 ms
Loss rate: 3.15%
```

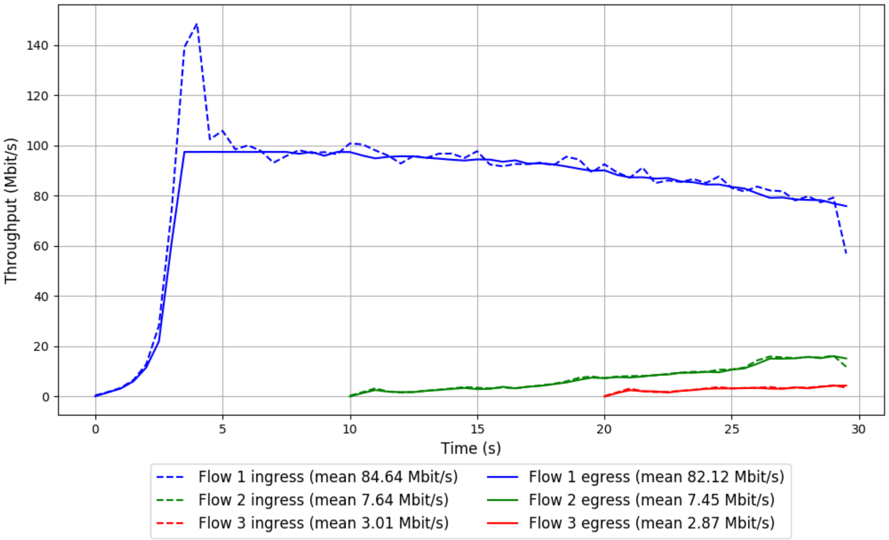
Run 7: Report of Vivace-loss — Data Link

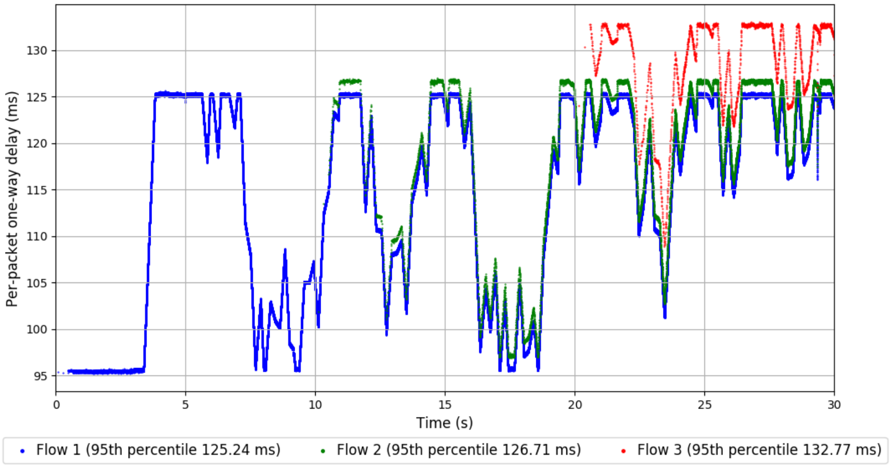




```
Run 8: Statistics of Vivace-loss

Start at: 2018-04-11 01:16:07
End at: 2018-04-11 01:16:37
Local clock offset: -4.584 ms
Remote clock offset: 1.808 ms

# Below is generated by plot.py at 2018-04-11 03:05:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.01 Mbit/s
95th percentile per-packet one-way delay: 125.296 ms
Loss rate: 2.88%
-- Flow 1:
Average throughput: 82.12 Mbit/s
95th percentile per-packet one-way delay: 125.241 ms
Loss rate: 2.89%
-- Flow 2:
Average throughput: 7.45 Mbit/s
95th percentile per-packet one-way delay: 126.711 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 132.773 ms
Loss rate: 4.57%
```

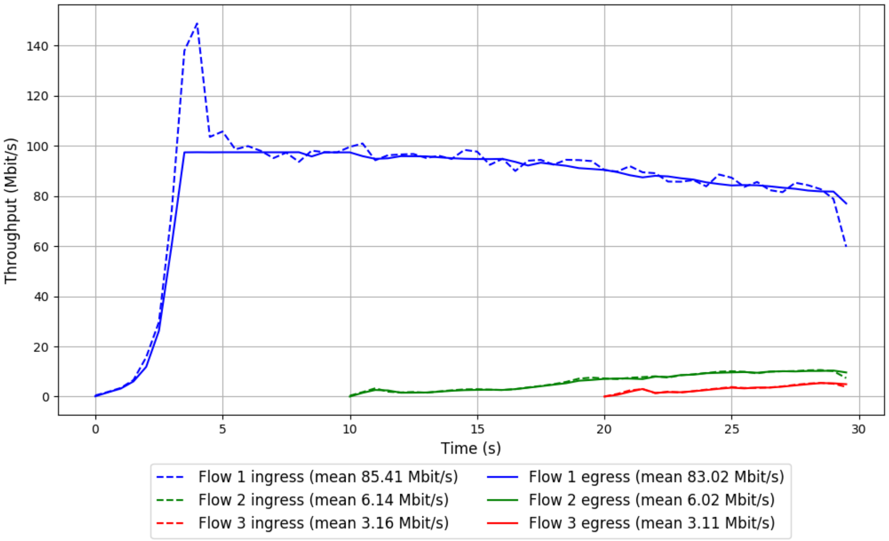
Run 8: Report of Vivace-loss — Data Link

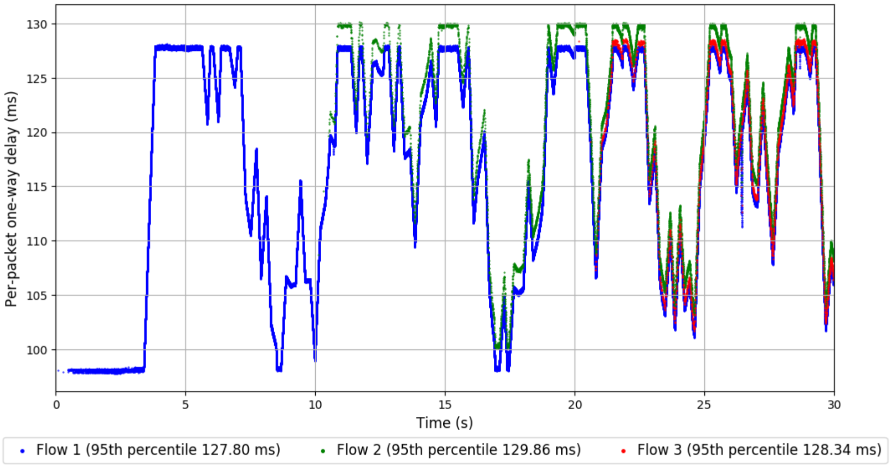




```
Run 9: Statistics of Vivace-loss

Start at: 2018-04-11 01:40:04
End at: 2018-04-11 01:40:34
Local clock offset: -5.12 ms
Remote clock offset: 3.652 ms

# Below is generated by plot.py at 2018-04-11 03:05:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.05 Mbit/s
95th percentile per-packet one-way delay: 127.817 ms
Loss rate: 2.72%
-- Flow 1:
Average throughput: 83.02 Mbit/s
95th percentile per-packet one-way delay: 127.795 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 6.02 Mbit/s
95th percentile per-packet one-way delay: 129.864 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 128.345 ms
Loss rate: 1.73%
```

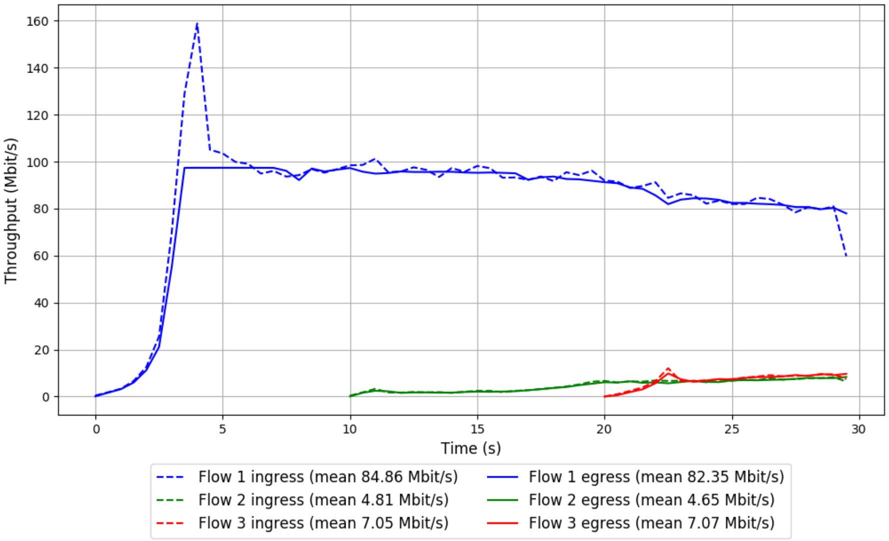
Run 9: Report of Vivace-loss — Data Link

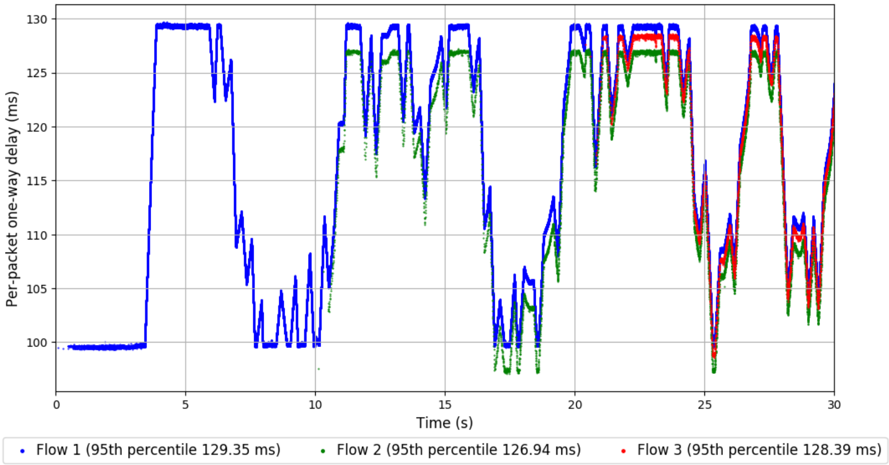




```
Run 10: Statistics of Vivace-loss

Start at: 2018-04-11 02:04:09
End at: 2018-04-11 02:04:39
Local clock offset: -6.351 ms
Remote clock offset: 2.022 ms

# Below is generated by plot.py at 2018-04-11 03:05:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.72 Mbit/s
95th percentile per-packet one-way delay: 129.341 ms
Loss rate: 2.87%
-- Flow 1:
Average throughput: 82.35 Mbit/s
95th percentile per-packet one-way delay: 129.346 ms
Loss rate: 2.87%
-- Flow 2:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 126.944 ms
Loss rate: 3.17%
-- Flow 3:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 128.390 ms
Loss rate: 2.40%
```

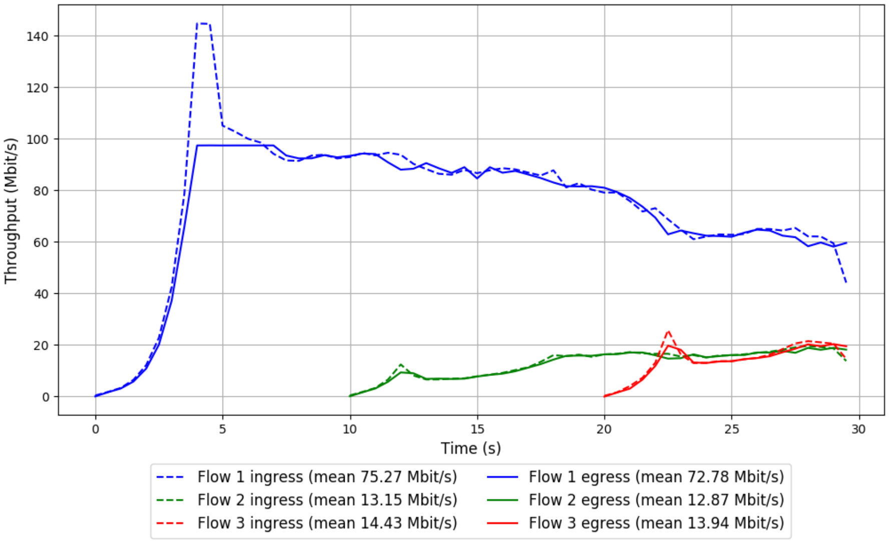
Run 10: Report of Vivace-loss — Data Link

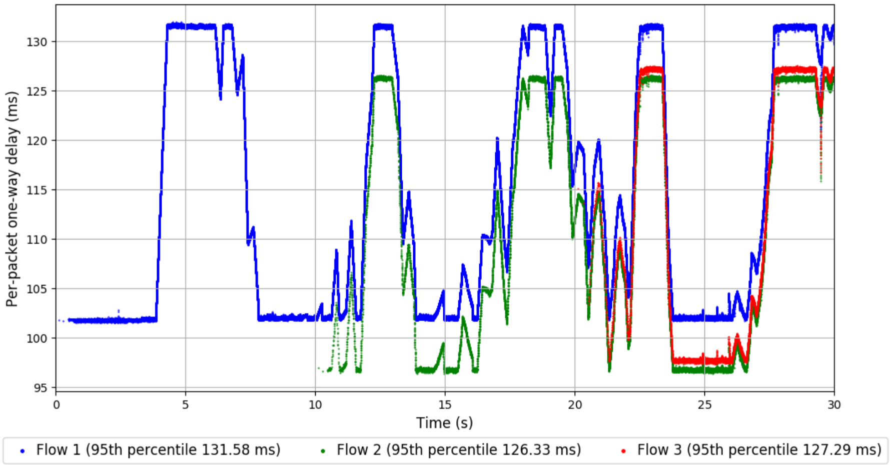




```
Run 1: Statistics of Vivace-LTE

Start at: 2018-04-10 22:28:44
End at: 2018-04-10 22:29:14
Local clock offset: -5.444 ms
Remote clock offset: 2.218 ms

# Below is generated by plot.py at 2018-04-11 03:05:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.95 Mbit/s
95th percentile per-packet one-way delay: 131.568 ms
Loss rate: 3.09%
-- Flow 1:
Average throughput: 72.78 Mbit/s
95th percentile per-packet one-way delay: 131.580 ms
Loss rate: 3.21%
-- Flow 2:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 126.329 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 13.94 Mbit/s
95th percentile per-packet one-way delay: 127.289 ms
Loss rate: 3.28%
```

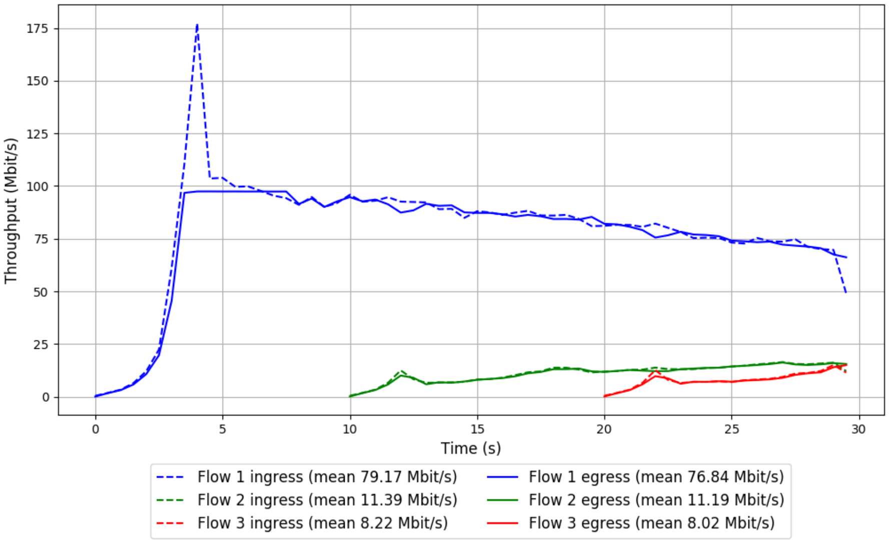
Run 1: Report of Vivace-LTE — Data Link

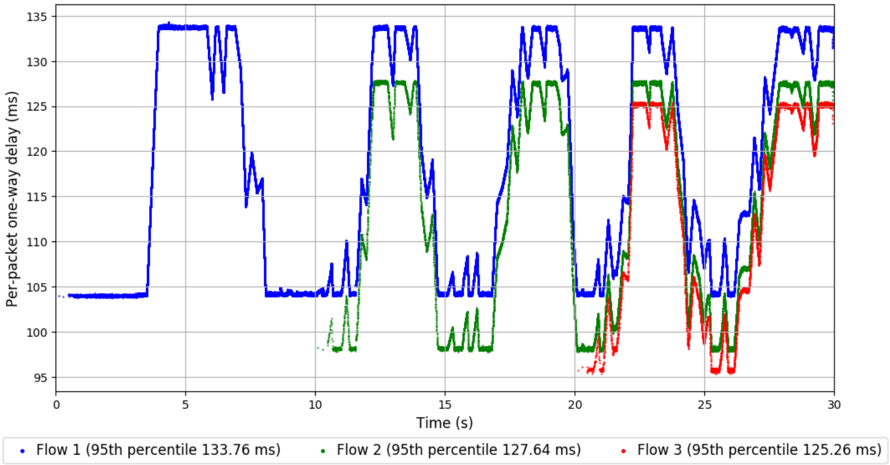




```
Run 2: Statistics of Vivace-LTE

Start at: 2018-04-10 22:52:52
End at: 2018-04-10 22:53:22
Local clock offset: -6.536 ms
Remote clock offset: 2.274 ms

# Below is generated by plot.py at 2018-04-11 03:05:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.93 Mbit/s
95th percentile per-packet one-way delay: 133.750 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 76.84 Mbit/s
95th percentile per-packet one-way delay: 133.760 ms
Loss rate: 2.86%
-- Flow 2:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 127.639 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 125.261 ms
Loss rate: 2.23%
```

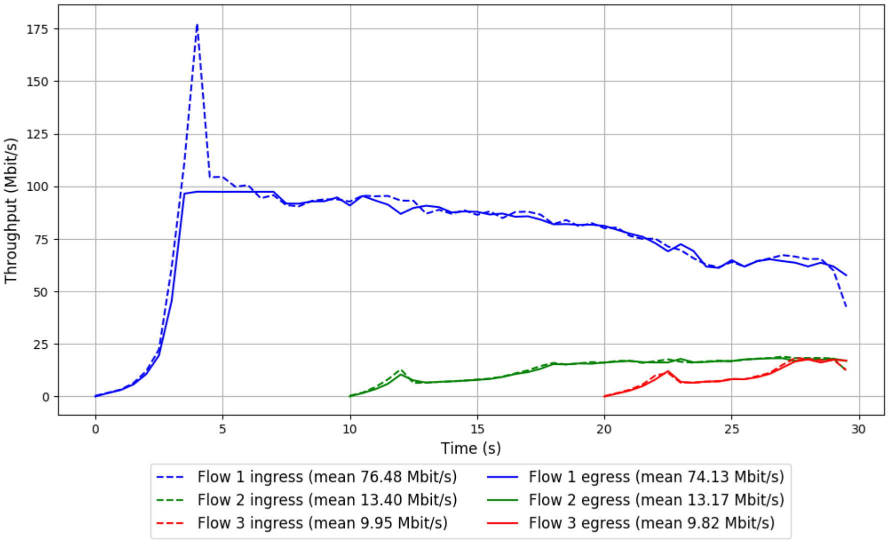
Run 2: Report of Vivace-LTE — Data Link

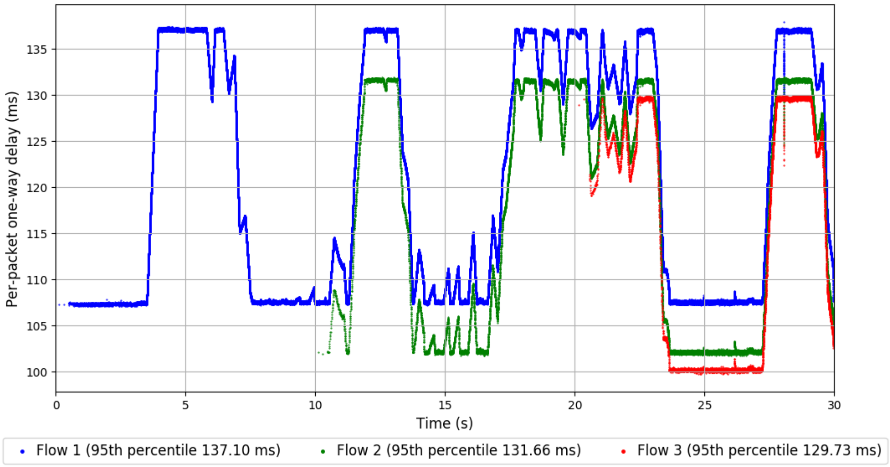




```
Run 3: Statistics of Vivace-LTE

Start at: 2018-04-10 23:16:43
End at: 2018-04-10 23:17:13
Local clock offset: -5.187 ms
Remote clock offset: 8.34 ms

# Below is generated by plot.py at 2018-04-11 03:06:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.12 Mbit/s
95th percentile per-packet one-way delay: 137.092 ms
Loss rate: 2.88%
-- Flow 1:
Average throughput: 74.13 Mbit/s
95th percentile per-packet one-way delay: 137.103 ms
Loss rate: 3.07%
-- Flow 2:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 131.658 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 129.728 ms
Loss rate: 1.58%
```

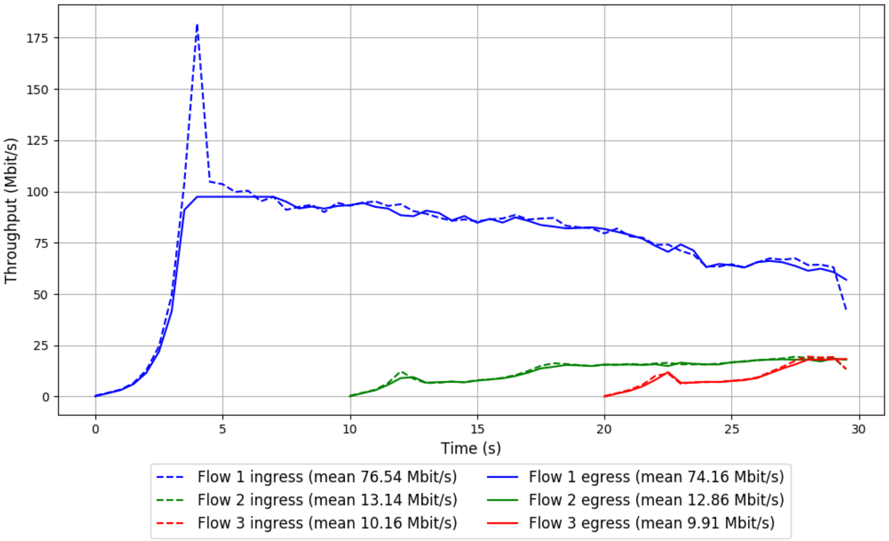
Run 3: Report of Vivace-LTE — Data Link

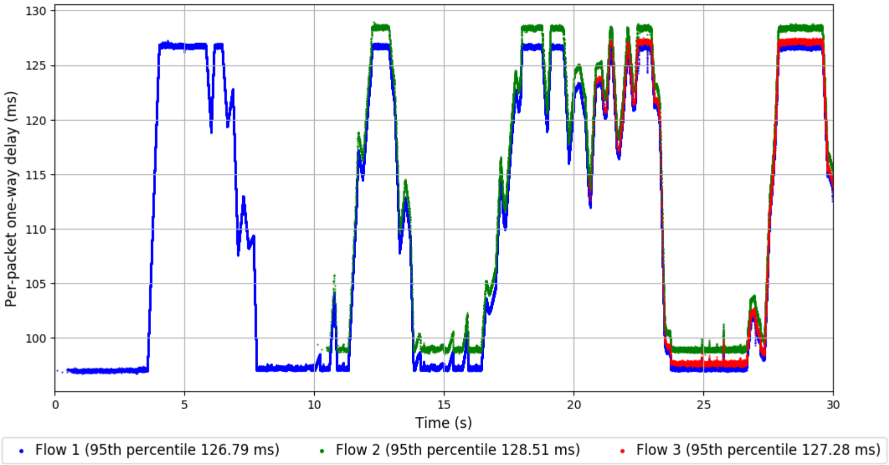




```
Run 4: Statistics of Vivace-LTE

Start at: 2018-04-10 23:40:55
End at: 2018-04-10 23:41:25
Local clock offset: -6.942 ms
Remote clock offset: 4.087 ms

# Below is generated by plot.py at 2018-04-11 03:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.98 Mbit/s
95th percentile per-packet one-way delay: 126.877 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 74.16 Mbit/s
95th percentile per-packet one-way delay: 126.788 ms
Loss rate: 3.05%
-- Flow 2:
Average throughput: 12.86 Mbit/s
95th percentile per-packet one-way delay: 128.509 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 9.91 Mbit/s
95th percentile per-packet one-way delay: 127.278 ms
Loss rate: 2.50%
```

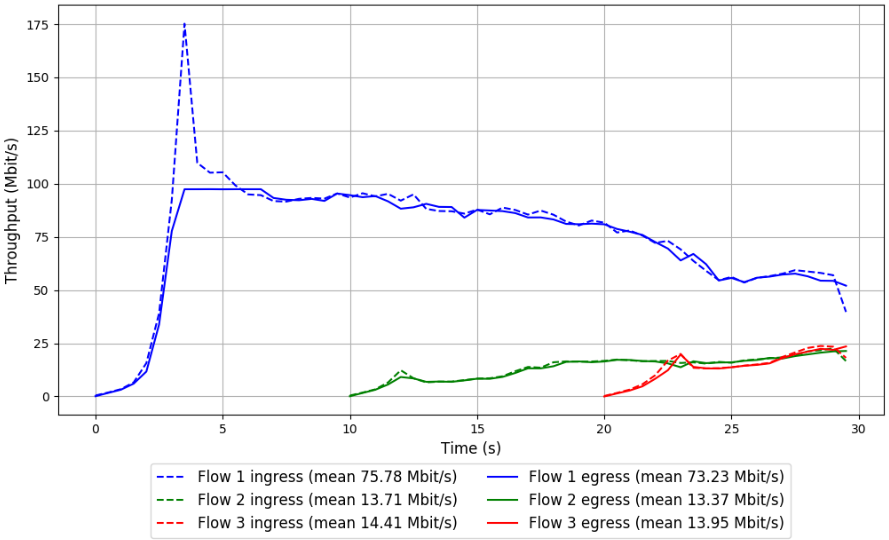
Run 4: Report of Vivace-LTE — Data Link

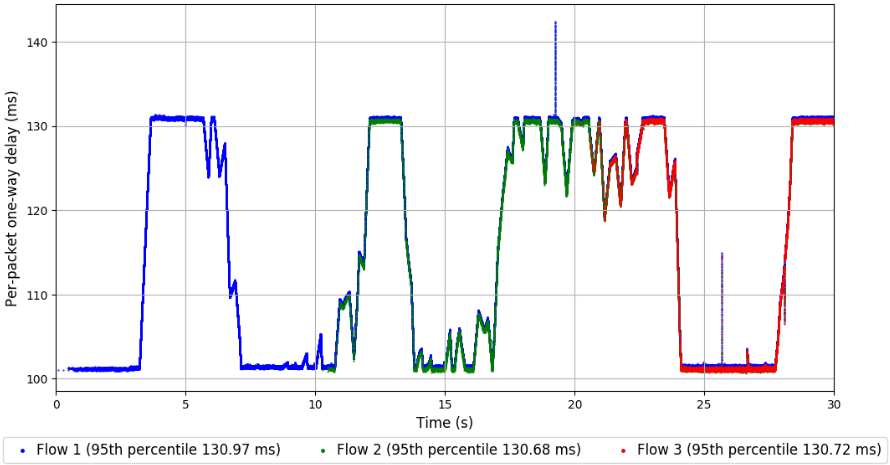




```
Run 5: Statistics of Vivace-LTE

Start at: 2018-04-11 00:04:46
End at: 2018-04-11 00:05:16
Local clock offset: -6.43 ms
Remote clock offset: 8.098 ms

# Below is generated by plot.py at 2018-04-11 03:06:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.72 Mbit/s
95th percentile per-packet one-way delay: 130.958 ms
Loss rate: 3.17%
-- Flow 1:
Average throughput: 73.23 Mbit/s
95th percentile per-packet one-way delay: 130.970 ms
Loss rate: 3.27%
-- Flow 2:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 130.679 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 13.95 Mbit/s
95th percentile per-packet one-way delay: 130.723 ms
Loss rate: 3.19%
```

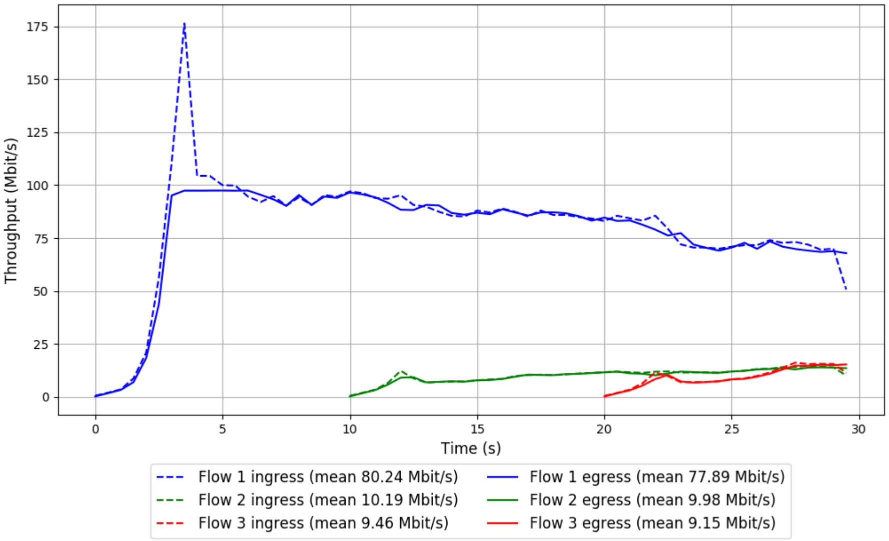
Run 5: Report of Vivace-LTE — Data Link

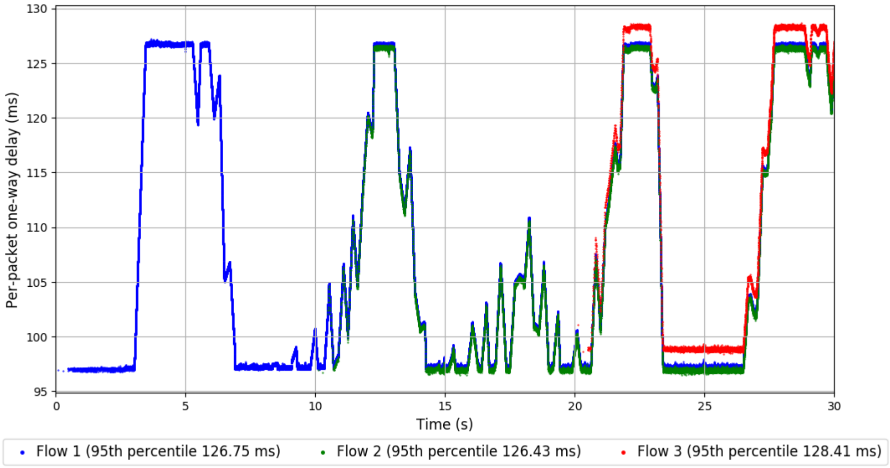




```
Run 6: Statistics of Vivace-LTE

Start at: 2018-04-11 00:29:14
End at: 2018-04-11 00:29:44
Local clock offset: -7.75 ms
Remote clock offset: 1.815 ms

# Below is generated by plot.py at 2018-04-11 03:06:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.55 Mbit/s
95th percentile per-packet one-way delay: 126.766 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 77.89 Mbit/s
95th percentile per-packet one-way delay: 126.749 ms
Loss rate: 2.84%
-- Flow 2:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 126.432 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 9.15 Mbit/s
95th percentile per-packet one-way delay: 128.413 ms
Loss rate: 3.08%
```

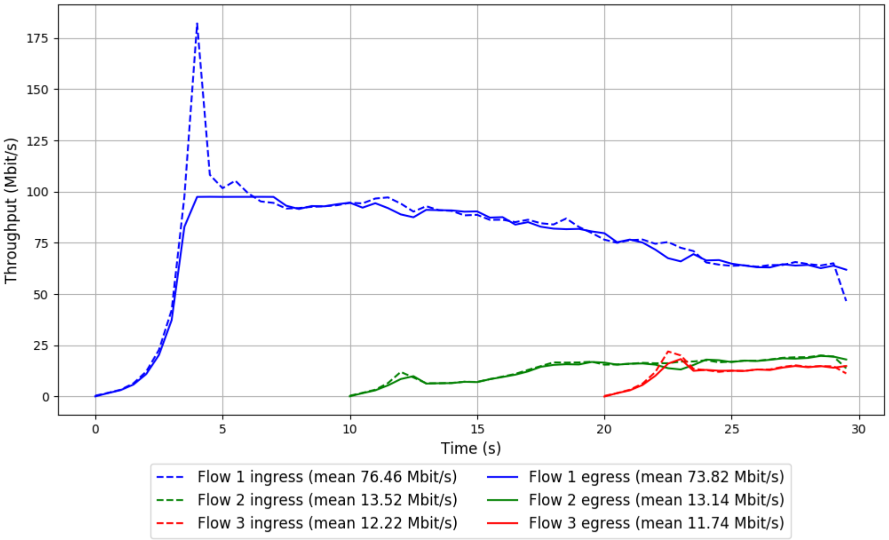
Run 6: Report of Vivace-LTE — Data Link

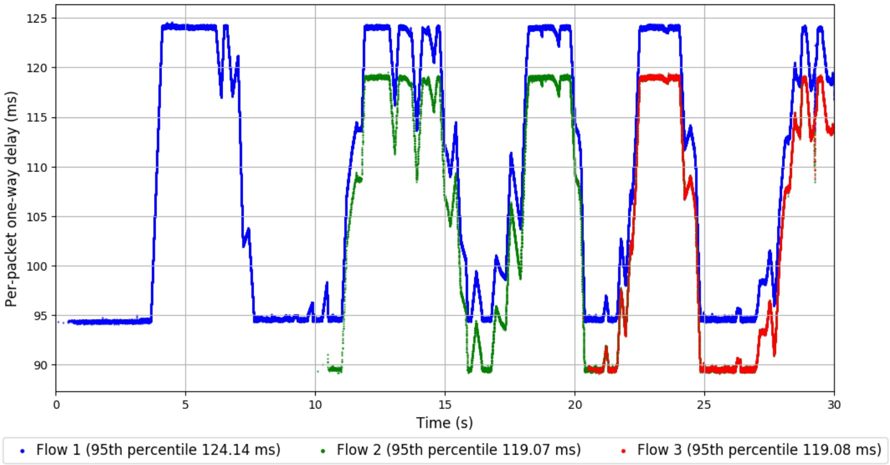




```
Run 7: Statistics of Vivace-LTE

Start at: 2018-04-11 00:53:20
End at: 2018-04-11 00:53:50
Local clock offset: -8.081 ms
Remote clock offset: -5.266 ms

# Below is generated by plot.py at 2018-04-11 03:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.43 Mbit/s
95th percentile per-packet one-way delay: 124.129 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 73.82 Mbit/s
95th percentile per-packet one-way delay: 124.140 ms
Loss rate: 3.38%
-- Flow 2:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 119.067 ms
Loss rate: 2.68%
-- Flow 3:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 119.078 ms
Loss rate: 3.88%
```

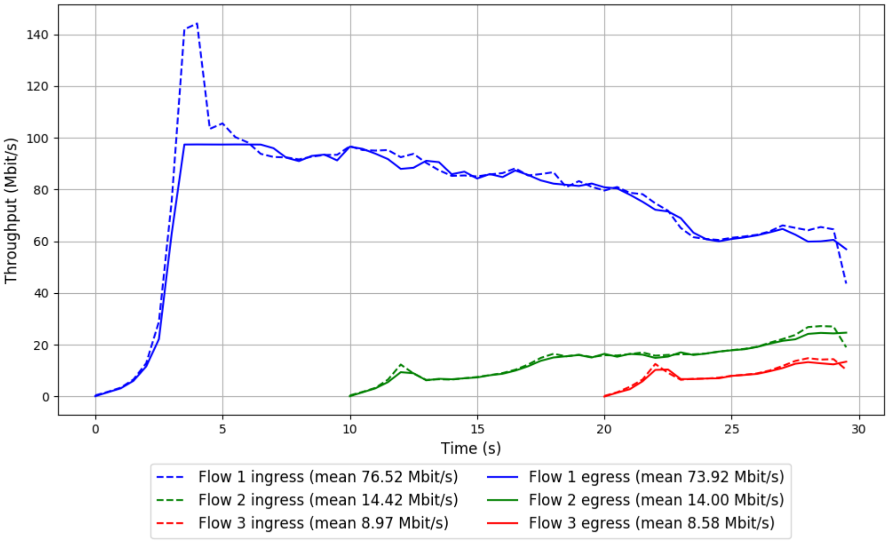
Run 7: Report of Vivace-LTE — Data Link

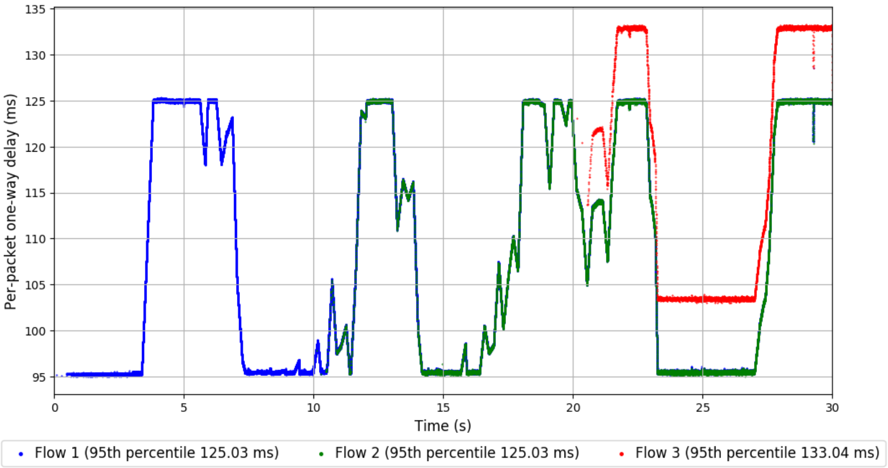




```
Run 8: Statistics of Vivace-LTE

Start at: 2018-04-11 01:17:29
End at: 2018-04-11 01:17:59
Local clock offset: -4.52 ms
Remote clock offset: 1.814 ms

# Below is generated by plot.py at 2018-04-11 03:06:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.06 Mbit/s
95th percentile per-packet one-way delay: 125.057 ms
Loss rate: 3.27%
-- Flow 1:
Average throughput: 73.92 Mbit/s
95th percentile per-packet one-way delay: 125.032 ms
Loss rate: 3.30%
-- Flow 2:
Average throughput: 14.00 Mbit/s
95th percentile per-packet one-way delay: 125.035 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 133.045 ms
Loss rate: 4.23%
```

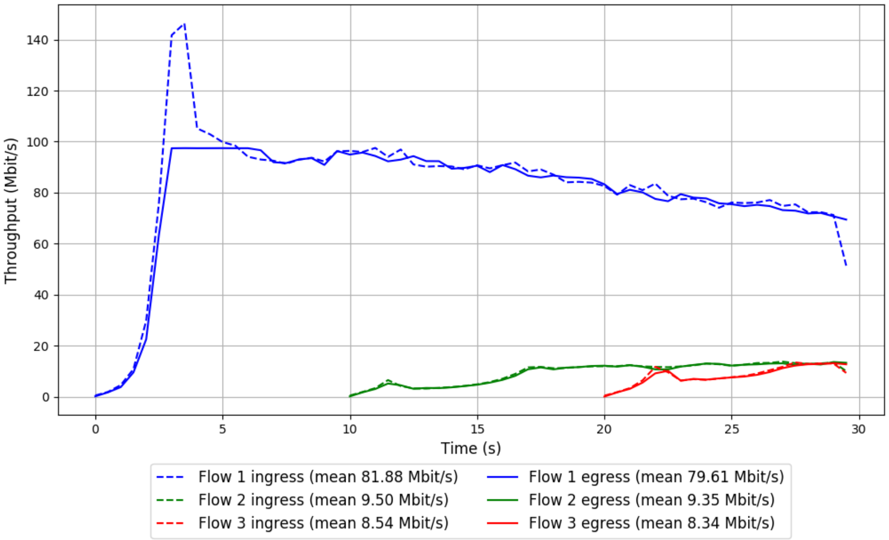
Run 8: Report of Vivace-LTE — Data Link

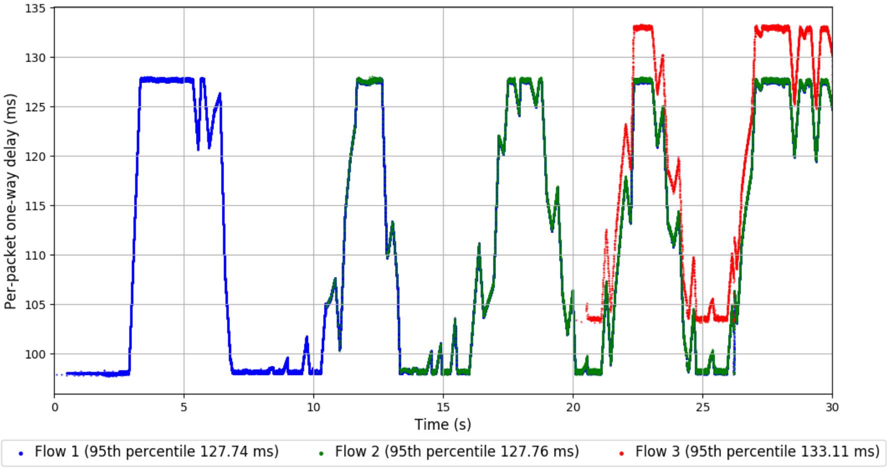




```
Run 9: Statistics of Vivace-LTE

Start at: 2018-04-11 01:41:26
End at: 2018-04-11 01:41:56
Local clock offset: -5.195 ms
Remote clock offset: 1.495 ms

# Below is generated by plot.py at 2018-04-11 03:06:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.58 Mbit/s
95th percentile per-packet one-way delay: 127.772 ms
Loss rate: 2.59%
-- Flow 1:
Average throughput: 79.61 Mbit/s
95th percentile per-packet one-way delay: 127.740 ms
Loss rate: 2.69%
-- Flow 2:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 127.763 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 133.112 ms
Loss rate: 2.09%
```

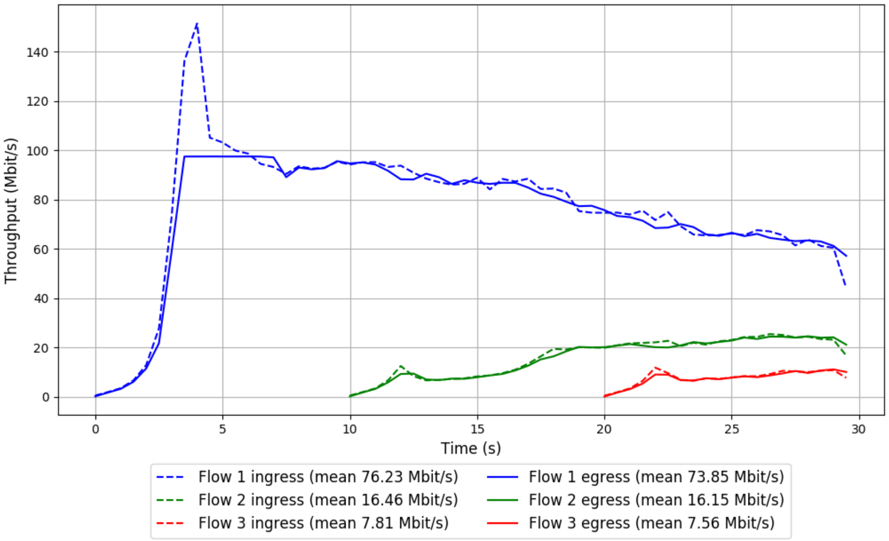
Run 9: Report of Vivace-LTE — Data Link



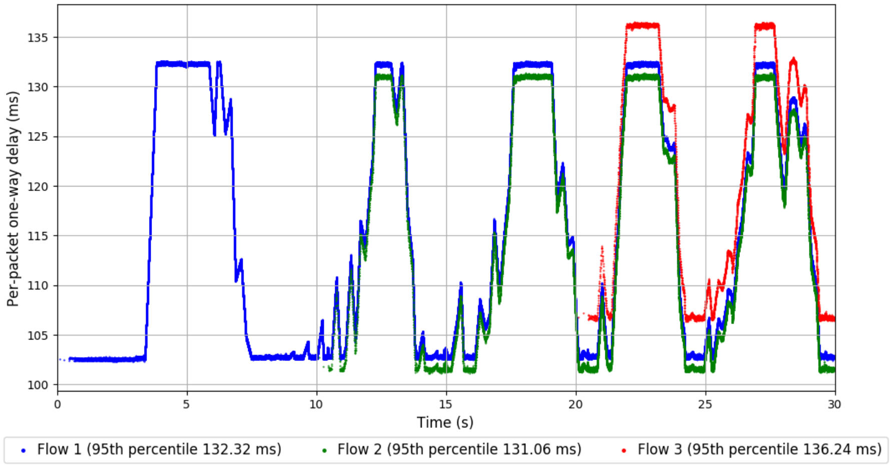


```
Run 10: Statistics of Vivace-LTE

Start at: 2018-04-11 02:05:31
End at: 2018-04-11 02:06:01
Local clock offset: -5.518 ms
Remote clock offset: 6.759 ms

# Below is generated by plot.py at 2018-04-11 03:06:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.08 Mbit/s
95th percentile per-packet one-way delay: 132.325 ms
Loss rate: 2.97%
-- Flow 1:
Average throughput: 73.85 Mbit/s
95th percentile per-packet one-way delay: 132.325 ms
Loss rate: 3.12%
-- Flow 2:
Average throughput: 16.15 Mbit/s
95th percentile per-packet one-way delay: 131.055 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 136.236 ms
Loss rate: 3.21%
```

Run 10: Report of Vivace-LTE — Data Link



Throughput (Mbit/s)
0
20
40
60
80
100
120
140
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 76.23 Mbit/s)
Flow 1 egress (mean 73.85 Mbit/s)
Flow 2 ingress (mean 16.46 Mbit/s)
Flow 2 egress (mean 16.15 Mbit/s)
Flow 3 ingress (mean 7.81 Mbit/s)
Flow 3 egress (mean 7.56 Mbit/s)



Per-packet one-way delay (ms)
100
105
110
115
120
125
130
135
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 132.32 ms)
Flow 2 (95th percentile 131.06 ms)
Flow 3 (95th percentile 136.24 ms)