Pantheon Report

Generated at 2018-04-04 01:38:12 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

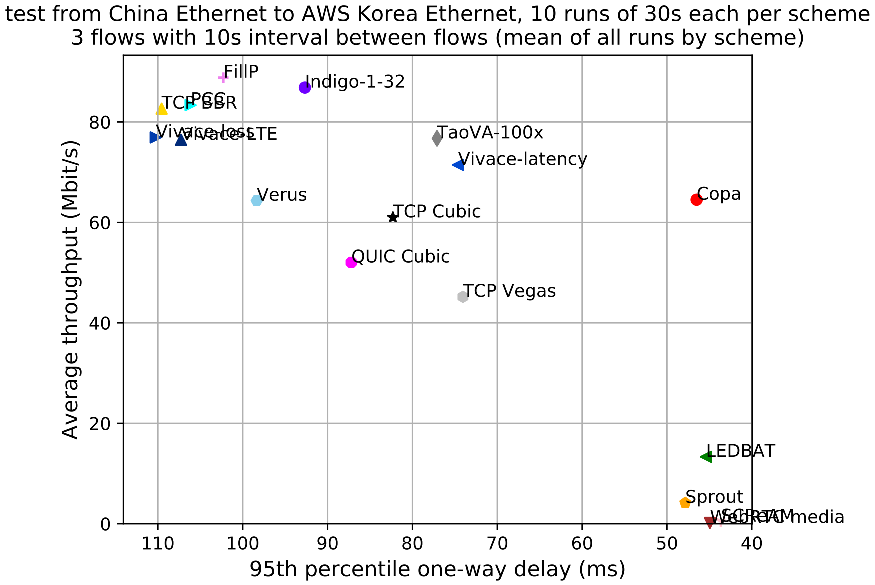
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

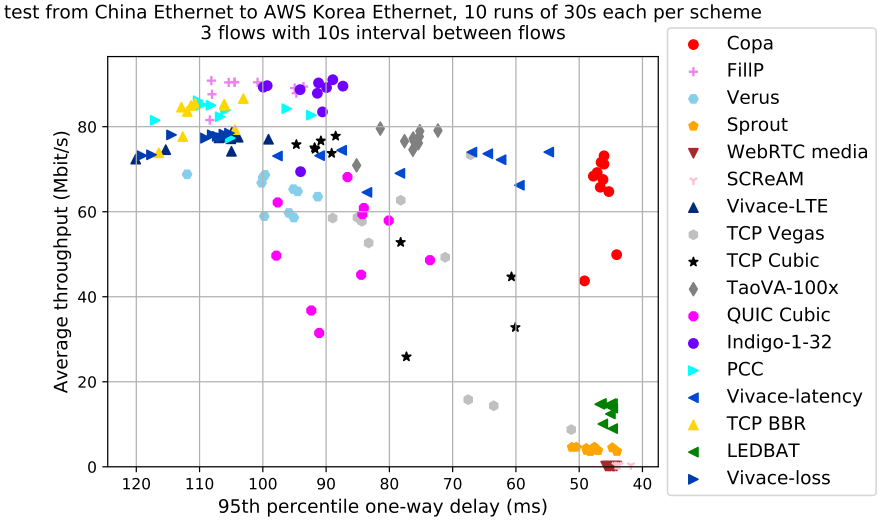
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

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

```
Git summary:
branch: master @ 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
```

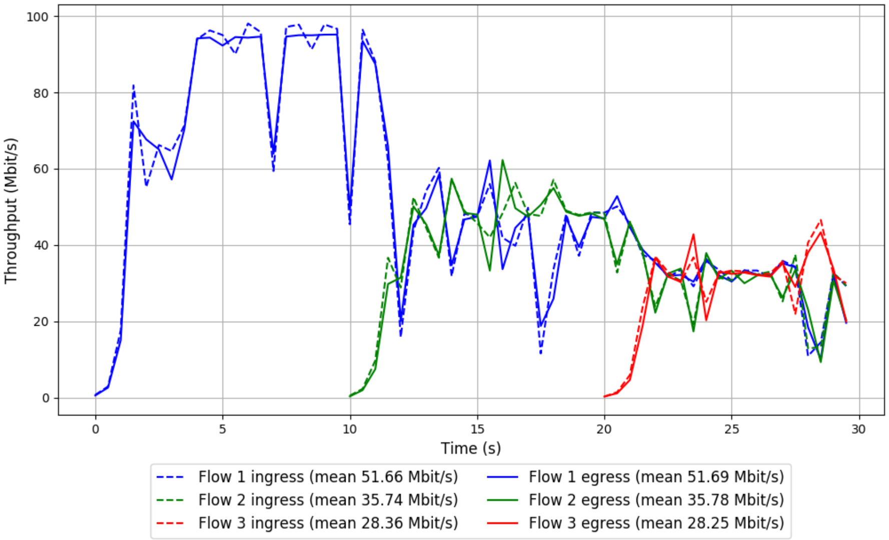

test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
110
100
90
80
70
60
50
40
FillP
Indigo-1-32
PCC
TCP BBR
Vivace-loss
Vivace-LTE
TaoVA-100x
Vivace-latency
Verus
TCP Cubic
Copa
QUIC Cubic
TCP Vegas
LEDBAT
Sprout
SCReAM
WebRTC media

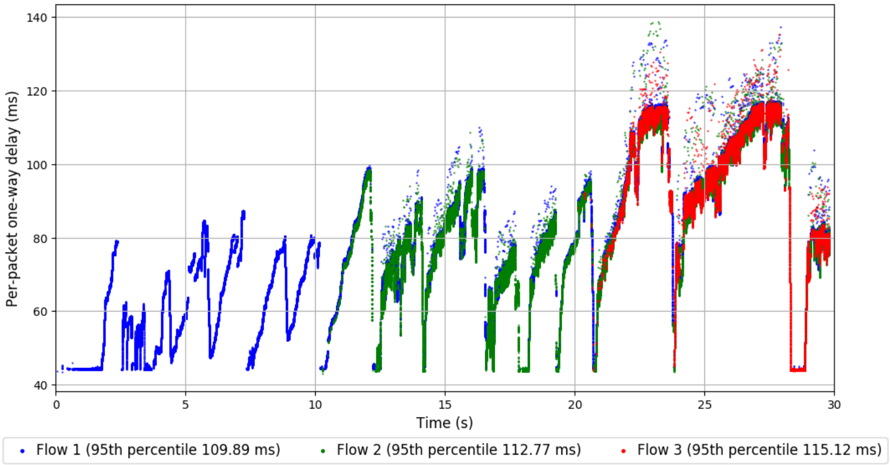

test from China Ethernet to AWS Korea Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
120
110
100
90
80
70
60
50
40
Copa
FillP
Verus
Sprout
WebRTC media
SCReAM
Vivace-LTE
TCP Vegas
TCP Cubic
TaoVA-100x
QUIC Cubic
Indigo-1-32
PCC
Vivace-latency
TCP BBR
LEDBAT
Vivace-loss

		mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
scheme	# runs	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	49.84	36.15	27.23	105.97	110.12	113.10	0.68	1.24	3.42
TCP Cubic	10	35.53	24.55	28.09	76.25	85.08	84.54	0.39	0.77	1.81
LEDBAT	10	8.61	5.77	2.77	45.31	45.49	45.79	1.27	1.96	4.21
PCC	10	59.80	22.88	25.94	105.32	106.97	107.90	2.87	3.82	4.27
QUIC Cubic	10	26.05	28.60	21.62	76.15	88.07	88.10	0.66	1.28	2.12
SCReAM	10	0.21	0.22	0.22	43.47	43.59	43.47	0.63	1.03	1.86
WebRTC media	10	0.06	0.07	0.06	45.17	44.77	44.94	0.01	0.04	0.51
Sprout	10	2.26	2.01	1.79	47.55	47.62	48.20	0.74	1.38	3.20
TaoVA-100x	10	46.69	37.37	16.30	75.16	78.16	82.11	0.98	1.82	2.90
TCP Vegas	10	23.67	21.35	22.51	66.21	73.05	78.07	0.46	0.80	1.74
Verus	10	36.26	32.94	19.97	94.01	98.80	104.30	0.75	1.23	3.21
Copa	10	43.52	24.00	15.56	45.81	47.50	48.85	0.43	1.20	2.96
FillP	10	47.87	44.75	34.78	100.40	102.73	103.93	0.57	3.88	8.24
Indigo-1-32	10	66.60	21.63	18.41	90.50	95.68	96.46	0.69	1.27	2.74
Vivace-latency	10	62.25	10.92	6.06	74.58	73.59	70.37	0.77	1.55	2.96
Vivace-loss	10	49.91	30.41	21.18	109.27	110.57	111.25	2.25	4.86	6.27
Vivace-LTE	10	50.72	28.94	20.24	105.60	107.80	108.80	0.95	2.10	4.05

```
Run 1: Statistics of TCP BBR

Start at: 2018-04-03 17:00:33
End at: 2018-04-03 17:01:03
Local clock offset: 5.846 ms
Remote clock offset: 43.099 ms

# Below is generated by plot.py at 2018-04-04 01:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.59 Mbit/s
95th percentile per-packet one-way delay: 112.868 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 51.69 Mbit/s
95th percentile per-packet one-way delay: 109.895 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 35.78 Mbit/s
95th percentile per-packet one-way delay: 112.774 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 28.25 Mbit/s
95th percentile per-packet one-way delay: 115.122 ms
Loss rate: 2.84%
```

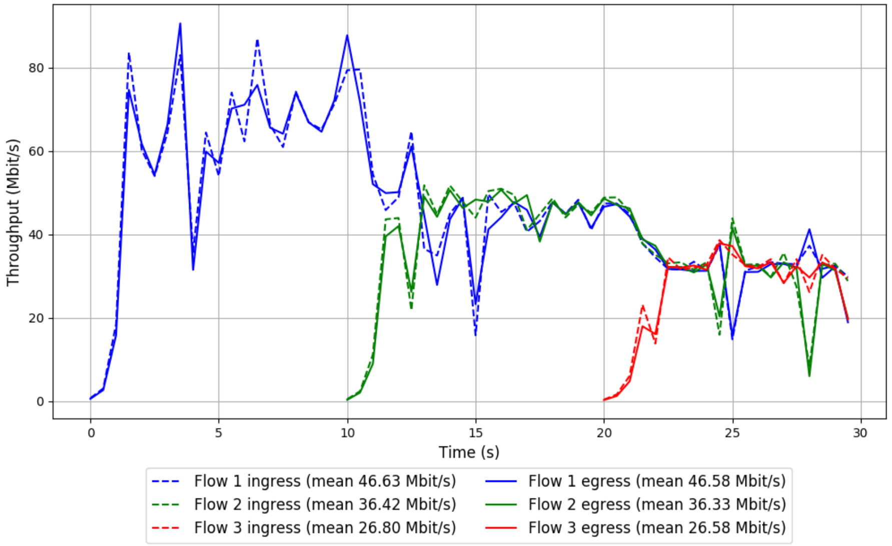
Run 1: Report of TCP BBR — Data Link

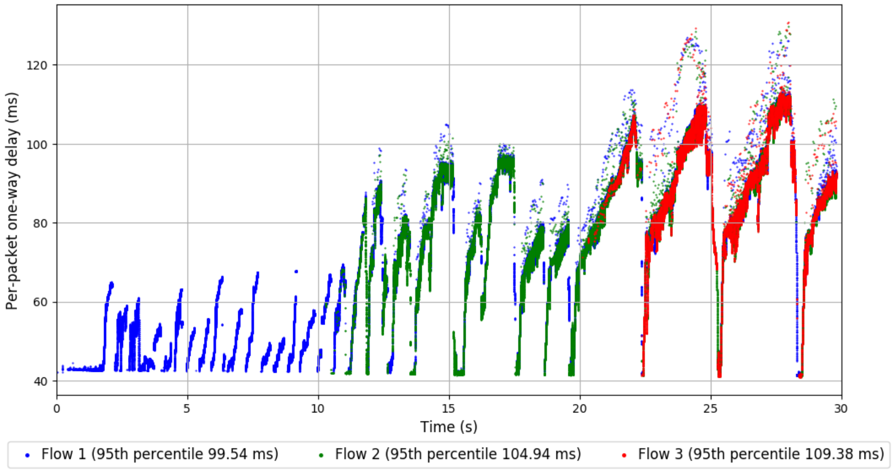




```
Run 2: Statistics of TCP BBR

Start at: 2018-04-03 17:26:31
End at: 2018-04-03 17:27:01
Local clock offset: 8.523 ms
Remote clock offset: 43.937 ms

# Below is generated by plot.py at 2018-04-04 01:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.31 Mbit/s
95th percentile per-packet one-way delay: 104.402 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 99.544 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 36.33 Mbit/s
95th percentile per-packet one-way delay: 104.941 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 26.58 Mbit/s
95th percentile per-packet one-way delay: 109.378 ms
Loss rate: 3.22%
```

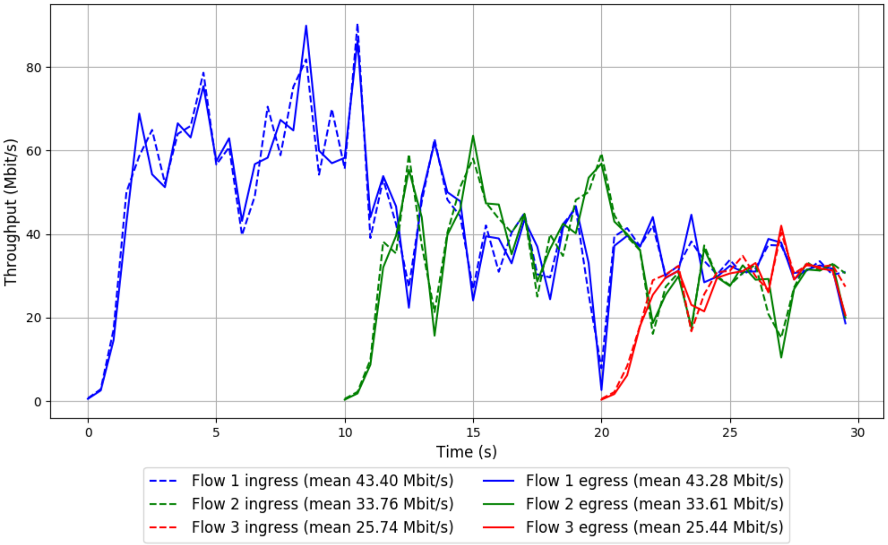
Run 2: Report of TCP BBR — Data Link

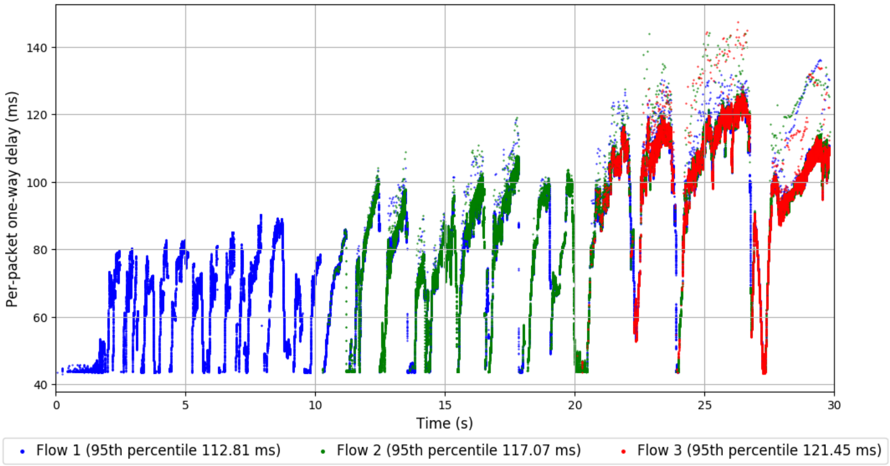




```
Run 3: Statistics of TCP BBR

Start at: 2018-04-03 17:52:36
End at: 2018-04-03 17:53:06
Local clock offset: 9.582 ms
Remote clock offset: 21.15 ms

# Below is generated by plot.py at 2018-04-04 01:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.86 Mbit/s
95th percentile per-packet one-way delay: 116.448 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 43.28 Mbit/s
95th percentile per-packet one-way delay: 112.806 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 33.61 Mbit/s
95th percentile per-packet one-way delay: 117.068 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 25.44 Mbit/s
95th percentile per-packet one-way delay: 121.446 ms
Loss rate: 3.30%
```

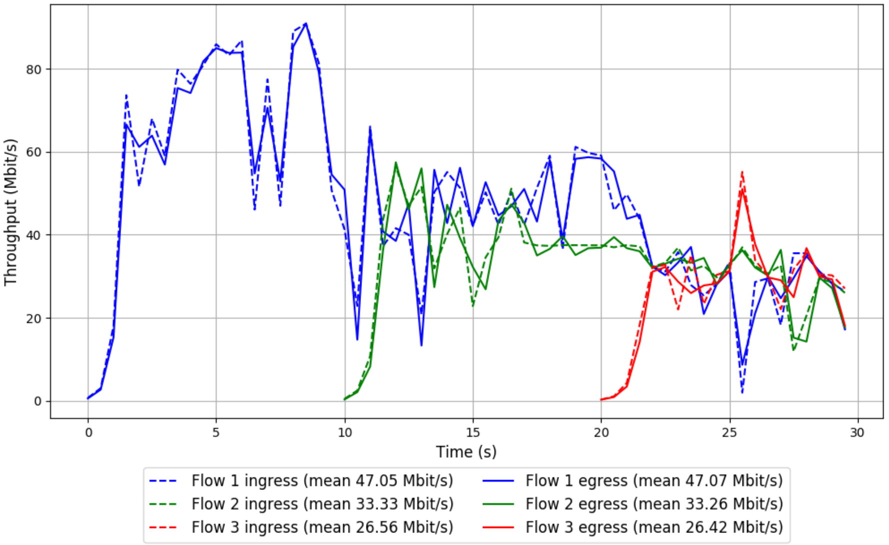
Run 3: Report of TCP BBR — Data Link

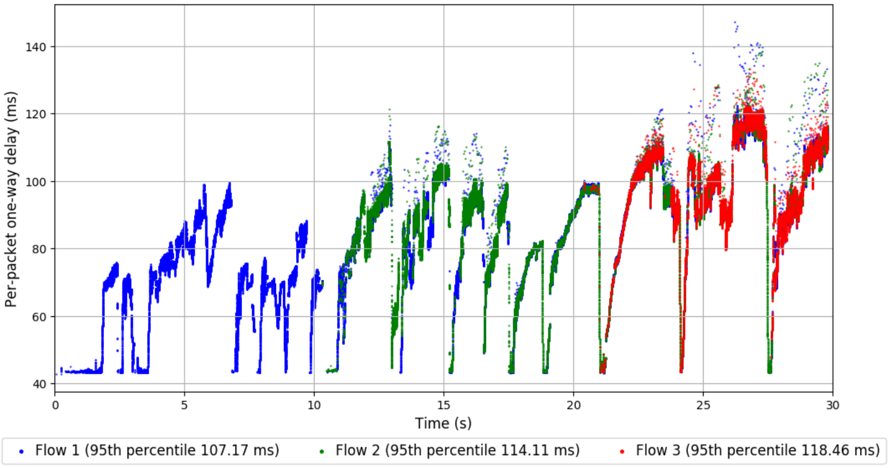




```
Run 4: Statistics of TCP BBR

Start at: 2018-04-03 18:17:18
End at: 2018-04-03 18:17:48
Local clock offset: 9.475 ms
Remote clock offset: -9.683 ms

# Below is generated by plot.py at 2018-04-04 01:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.66 Mbit/s
95th percentile per-packet one-way delay: 112.654 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 47.07 Mbit/s
95th percentile per-packet one-way delay: 107.165 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 33.26 Mbit/s
95th percentile per-packet one-way delay: 114.112 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 26.42 Mbit/s
95th percentile per-packet one-way delay: 118.462 ms
Loss rate: 3.17%
```

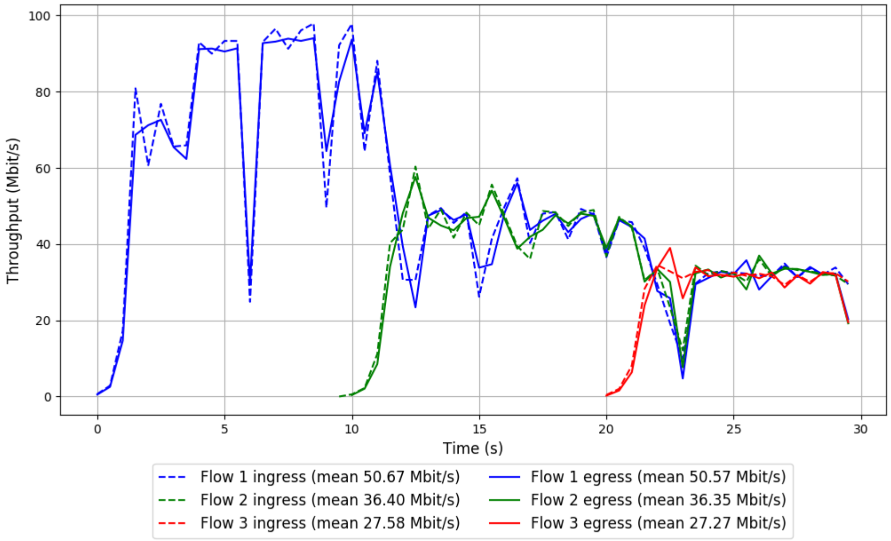
Run 4: Report of TCP BBR — Data Link

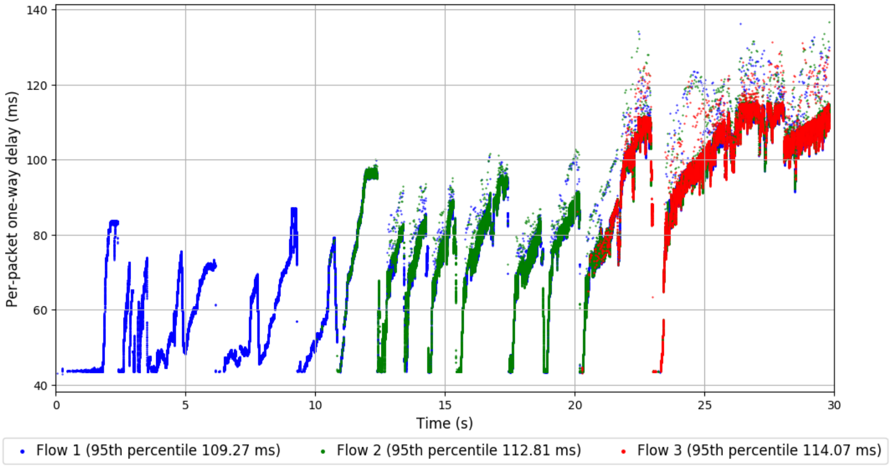




```
Run 5: Statistics of TCP BBR

Start at: 2018-04-03 18:41:36
End at: 2018-04-03 18:42:06
Local clock offset: 9.077 ms
Remote clock offset: -21.319 ms

# Below is generated by plot.py at 2018-04-04 01:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.59 Mbit/s
95th percentile per-packet one-way delay: 111.944 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 109.274 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 36.35 Mbit/s
95th percentile per-packet one-way delay: 112.808 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 27.27 Mbit/s
95th percentile per-packet one-way delay: 114.067 ms
Loss rate: 3.52%
```

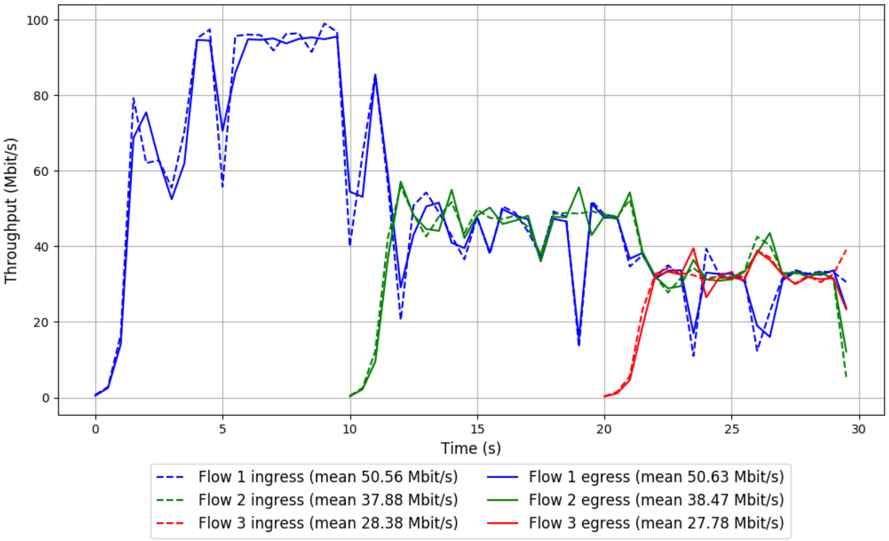
Run 5: Report of TCP BBR — Data Link

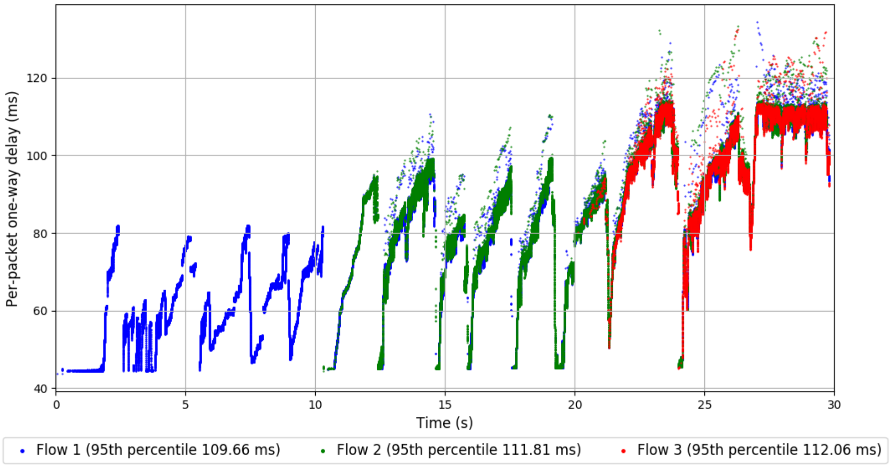




```
Run 6: Statistics of TCP BBR

Start at: 2018-04-03 19:05:58
End at: 2018-04-03 19:06:28
Local clock offset: 8.782 ms
Remote clock offset: -23.788 ms

# Below is generated by plot.py at 2018-04-04 01:17:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.00 Mbit/s
95th percentile per-packet one-way delay: 111.346 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 109.656 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 38.47 Mbit/s
95th percentile per-packet one-way delay: 111.815 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 27.78 Mbit/s
95th percentile per-packet one-way delay: 112.062 ms
Loss rate: 4.47%
```

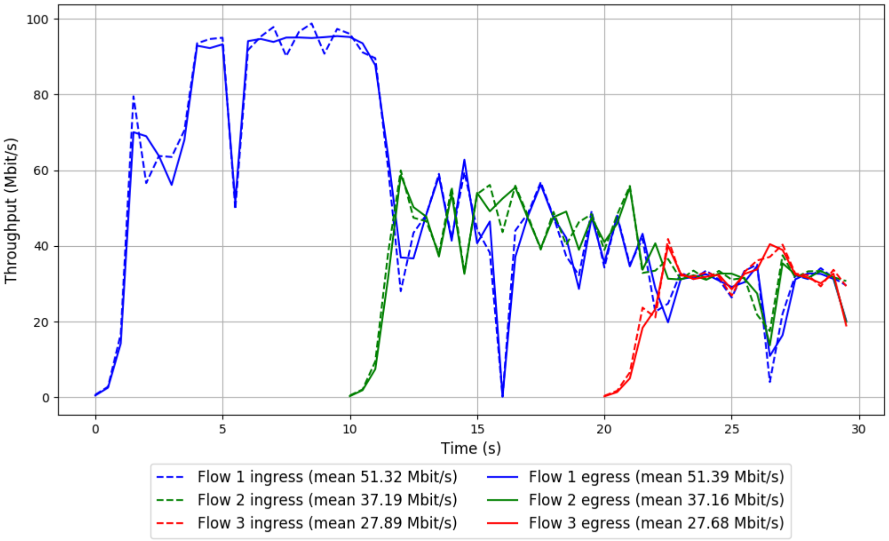
Run 6: Report of TCP BBR — Data Link

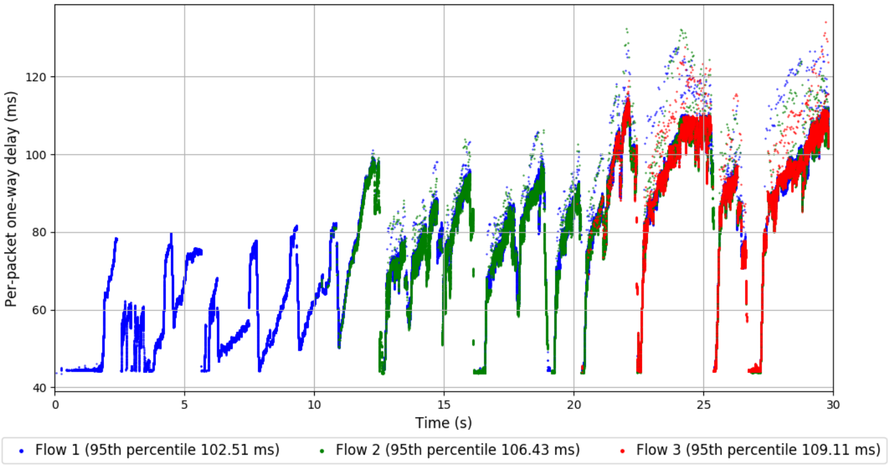




```
Run 7: Statistics of TCP BBR

Start at: 2018-04-03 19:30:28
End at: 2018-04-03 19:30:58
Local clock offset: 8.623 ms
Remote clock offset: 3.439 ms

# Below is generated by plot.py at 2018-04-04 01:17:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.03 Mbit/s
95th percentile per-packet one-way delay: 106.057 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 51.39 Mbit/s
95th percentile per-packet one-way delay: 102.506 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 37.16 Mbit/s
95th percentile per-packet one-way delay: 106.431 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 27.68 Mbit/s
95th percentile per-packet one-way delay: 109.113 ms
Loss rate: 3.36%
```

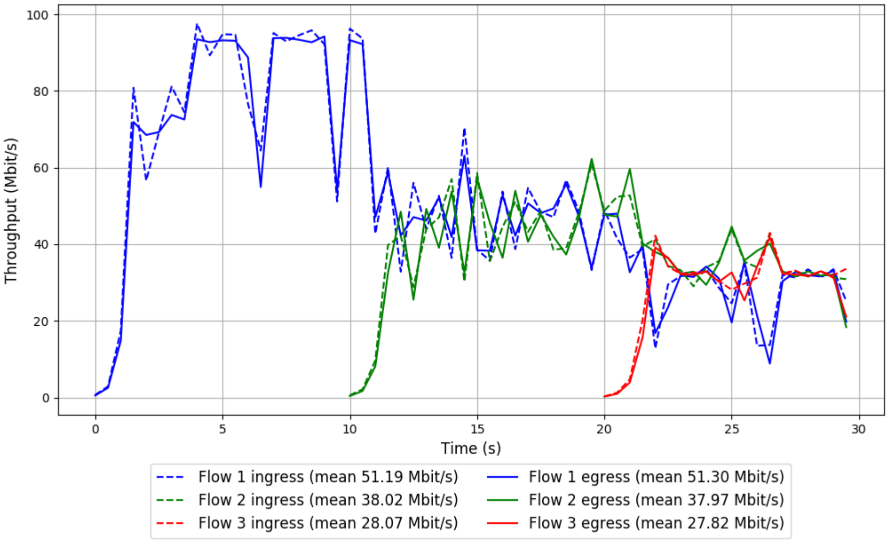
Run 7: Report of TCP BBR — Data Link

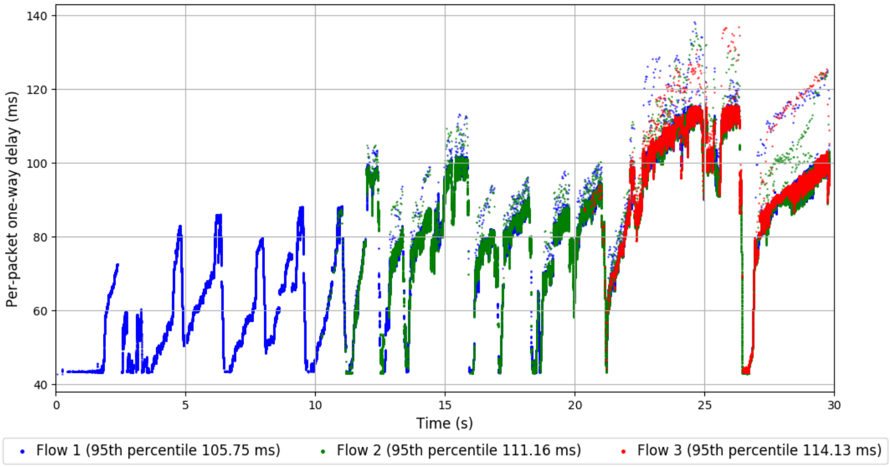




```
Run 8: Statistics of TCP BBR

Start at: 2018-04-03 19:54:47
End at: 2018-04-03 19:55:17
Local clock offset: 4.613 ms
Remote clock offset: -1.483 ms

# Below is generated by plot.py at 2018-04-04 01:17:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.52 Mbit/s
95th percentile per-packet one-way delay: 110.711 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 51.30 Mbit/s
95th percentile per-packet one-way delay: 105.745 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 37.97 Mbit/s
95th percentile per-packet one-way delay: 111.160 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 27.82 Mbit/s
95th percentile per-packet one-way delay: 114.131 ms
Loss rate: 3.52%
```

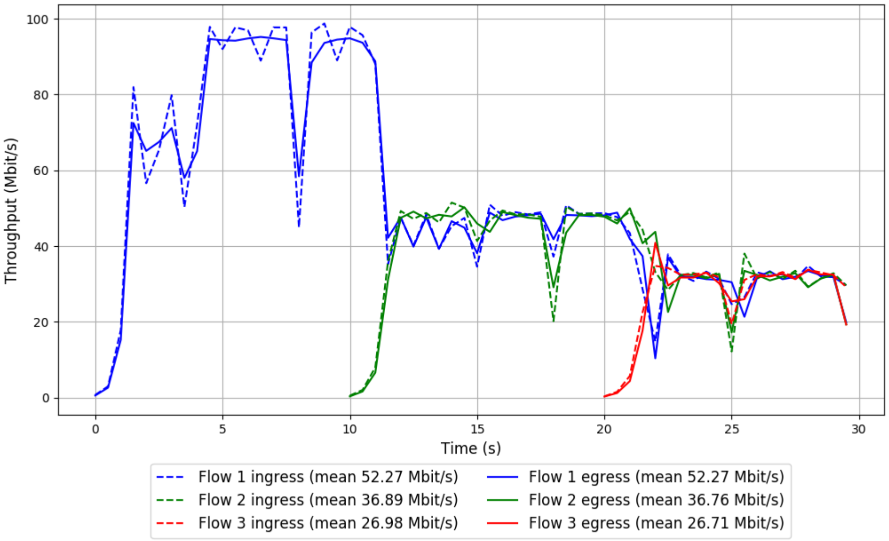
Run 8: Report of TCP BBR — Data Link

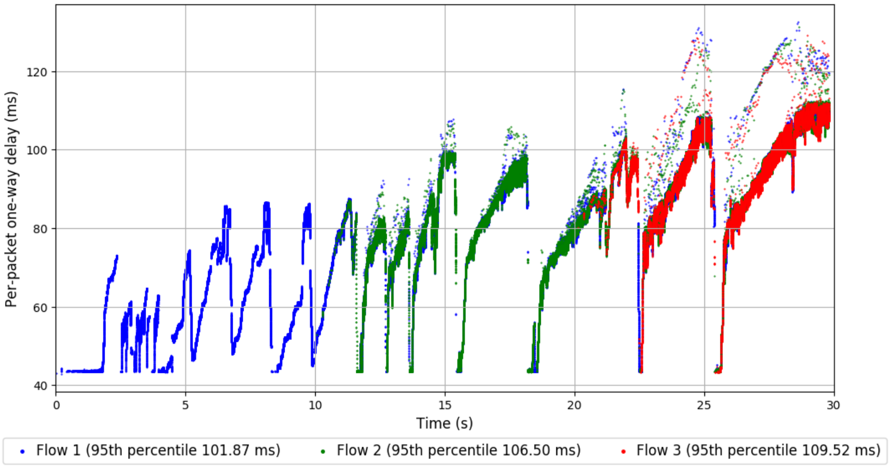




```
Run 9: Statistics of TCP BBR

Start at: 2018-04-03 20:19:09
End at: 2018-04-03 20:19:39
Local clock offset: 5.369 ms
Remote clock offset: -2.764 ms

# Below is generated by plot.py at 2018-04-04 01:18:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.33 Mbit/s
95th percentile per-packet one-way delay: 106.101 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 52.27 Mbit/s
95th percentile per-packet one-way delay: 101.869 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 36.76 Mbit/s
95th percentile per-packet one-way delay: 106.497 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 26.71 Mbit/s
95th percentile per-packet one-way delay: 109.517 ms
Loss rate: 3.53%
```

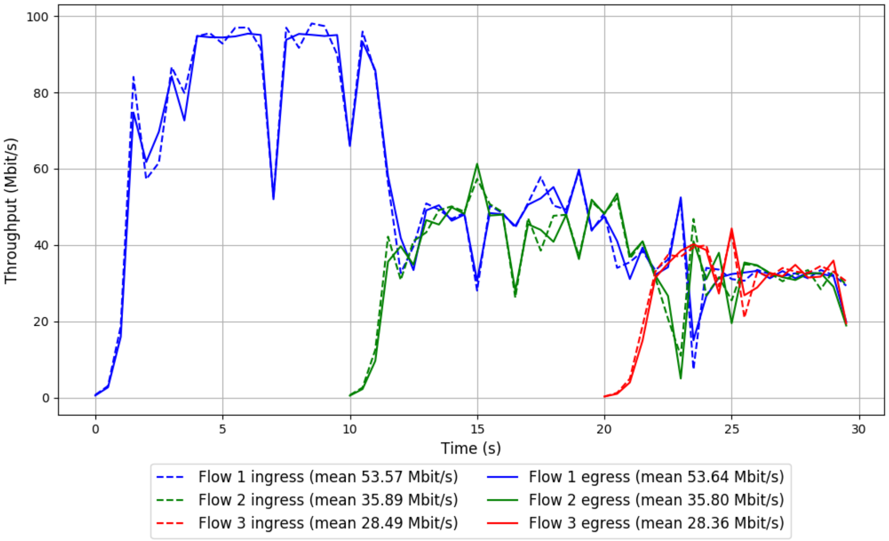
Run 9: Report of TCP BBR — Data Link

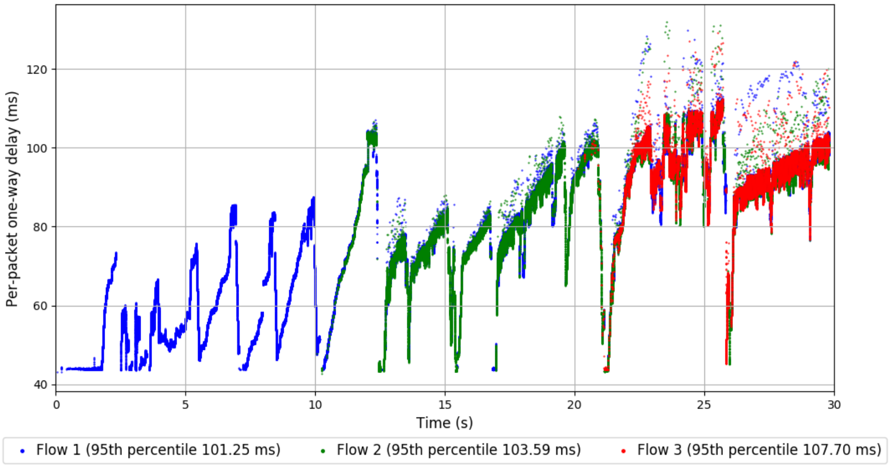




```
Run 10: Statistics of TCP BBR

Start at: 2018-04-03 20:43:30
End at: 2018-04-03 20:44:00
Local clock offset: 5.638 ms
Remote clock offset: -2.983 ms

# Below is generated by plot.py at 2018-04-04 01:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.61 Mbit/s
95th percentile per-packet one-way delay: 103.081 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 53.64 Mbit/s
95th percentile per-packet one-way delay: 101.245 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 35.80 Mbit/s
95th percentile per-packet one-way delay: 103.589 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 28.36 Mbit/s
95th percentile per-packet one-way delay: 107.701 ms
Loss rate: 3.26%
```

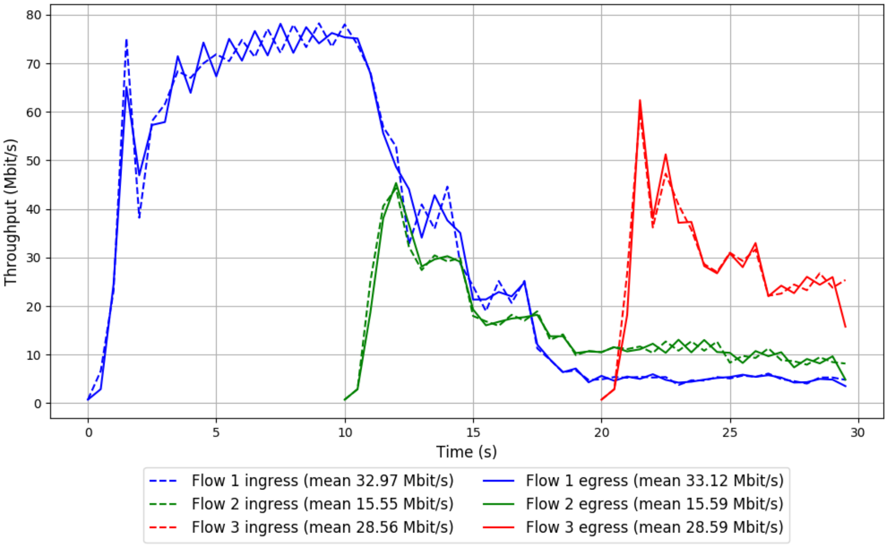
Run 10: Report of TCP BBR — Data Link

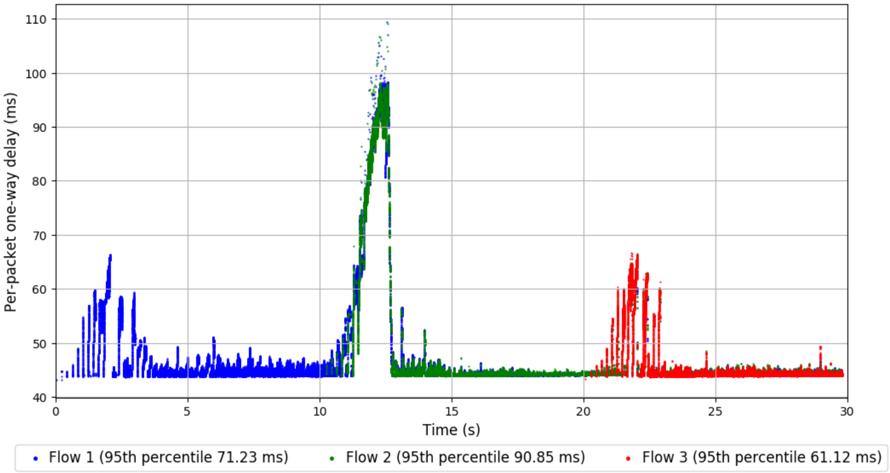




```
Run 1: Statistics of TCP Cubic

Start at: 2018-04-03 17:17:56
End at: 2018-04-03 17:18:26
Local clock offset: 7.471 ms
Remote clock offset: 59.407 ms

# Below is generated by plot.py at 2018-04-04 01:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.80 Mbit/s
95th percentile per-packet one-way delay: 78.220 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 33.12 Mbit/s
95th percentile per-packet one-way delay: 71.226 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 15.59 Mbit/s
95th percentile per-packet one-way delay: 90.847 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 28.59 Mbit/s
95th percentile per-packet one-way delay: 61.123 ms
Loss rate: 1.86%
```

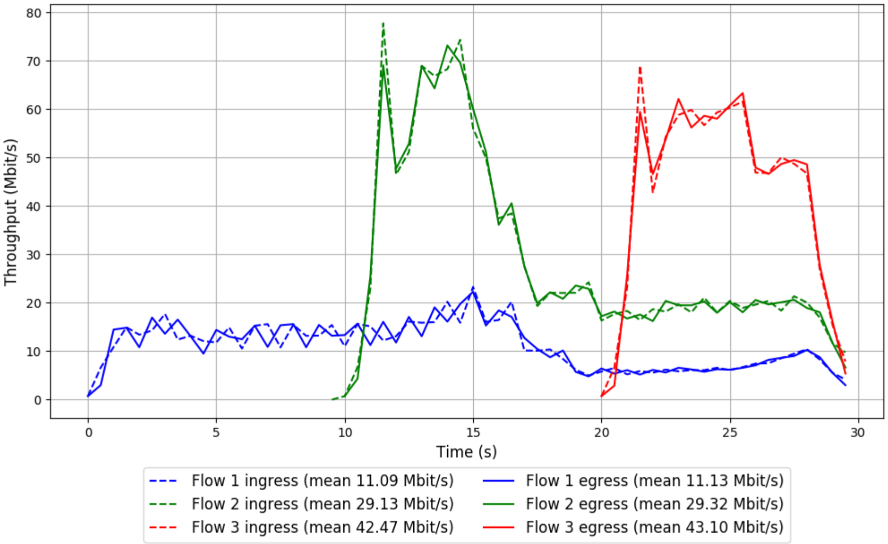
Run 1: Report of TCP Cubic — Data Link

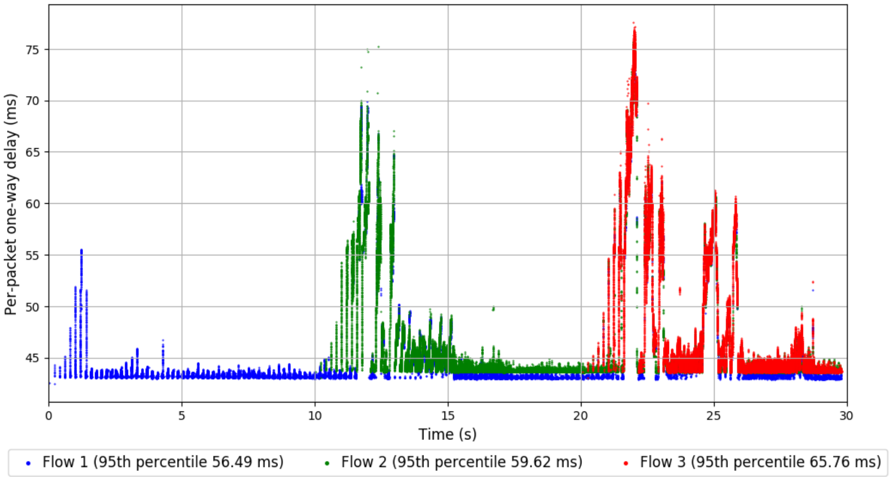




```
Run 2: Statistics of TCP Cubic

Start at: 2018-04-03 17:43:39
End at: 2018-04-03 17:44:09
Local clock offset: 9.699 ms
Remote clock offset: 22.62 ms

# Below is generated by plot.py at 2018-04-04 01:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.70 Mbit/s
95th percentile per-packet one-way delay: 60.699 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 56.487 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 29.32 Mbit/s
95th percentile per-packet one-way delay: 59.623 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 43.10 Mbit/s
95th percentile per-packet one-way delay: 65.758 ms
Loss rate: 0.46%
```

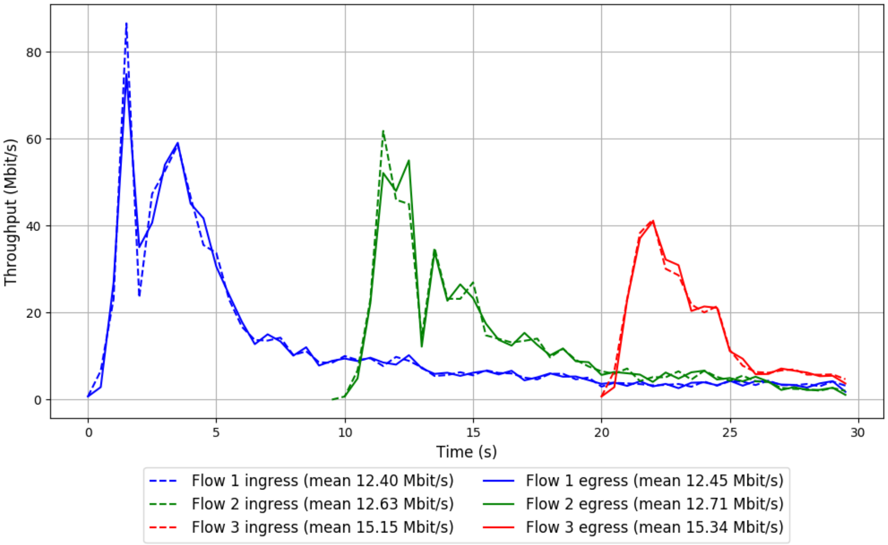
Run 2: Report of TCP Cubic — Data Link

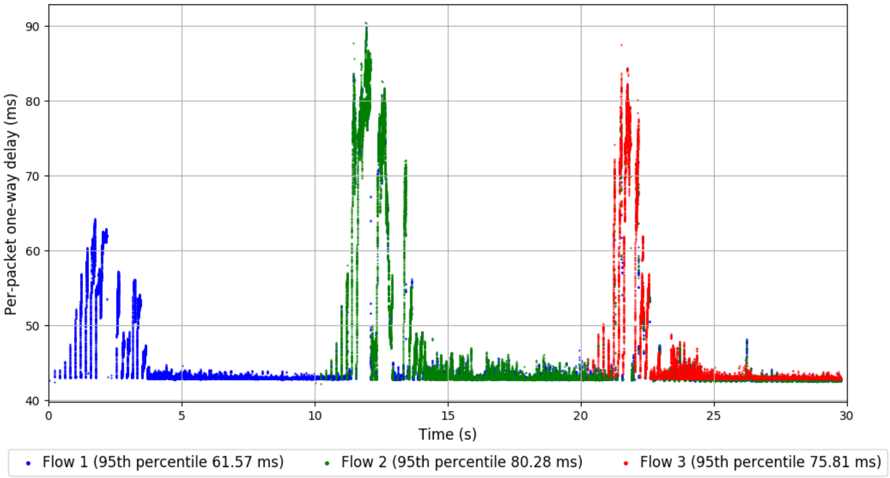




```
Run 3: Statistics of TCP Cubic

Start at: 2018-04-03 18:09:07
End at: 2018-04-03 18:09:37
Local clock offset: 9.462 ms
Remote clock offset: -3.648 ms

# Below is generated by plot.py at 2018-04-04 01:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.89 Mbit/s
95th percentile per-packet one-way delay: 77.302 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 61.570 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 80.279 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 15.34 Mbit/s
95th percentile per-packet one-way delay: 75.807 ms
Loss rate: 0.70%
```

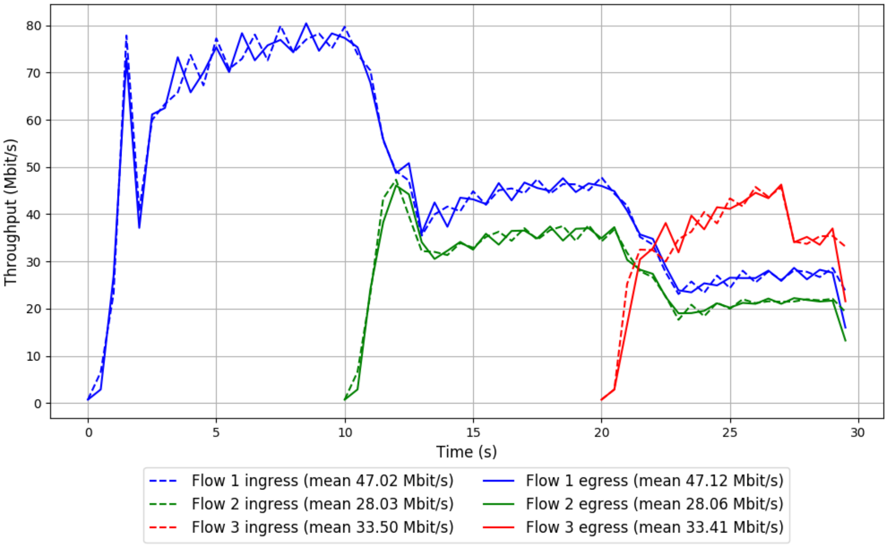
Run 3: Report of TCP Cubic — Data Link

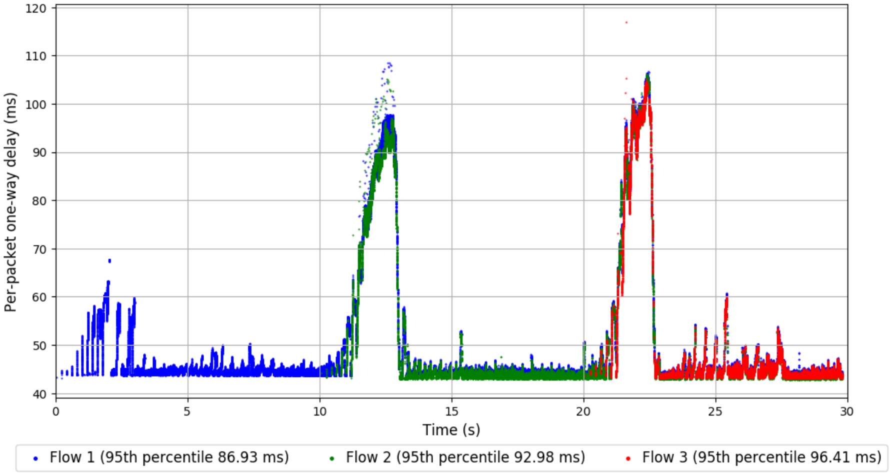




```
Run 4: Statistics of TCP Cubic

Start at: 2018-04-03 18:33:33
End at: 2018-04-03 18:34:03
Local clock offset: 9.041 ms
Remote clock offset: -17.228 ms

# Below is generated by plot.py at 2018-04-04 01:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.67 Mbit/s
95th percentile per-packet one-way delay: 90.821 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 47.12 Mbit/s
95th percentile per-packet one-way delay: 86.934 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 28.06 Mbit/s
95th percentile per-packet one-way delay: 92.977 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 33.41 Mbit/s
95th percentile per-packet one-way delay: 96.410 ms
Loss rate: 2.17%
```

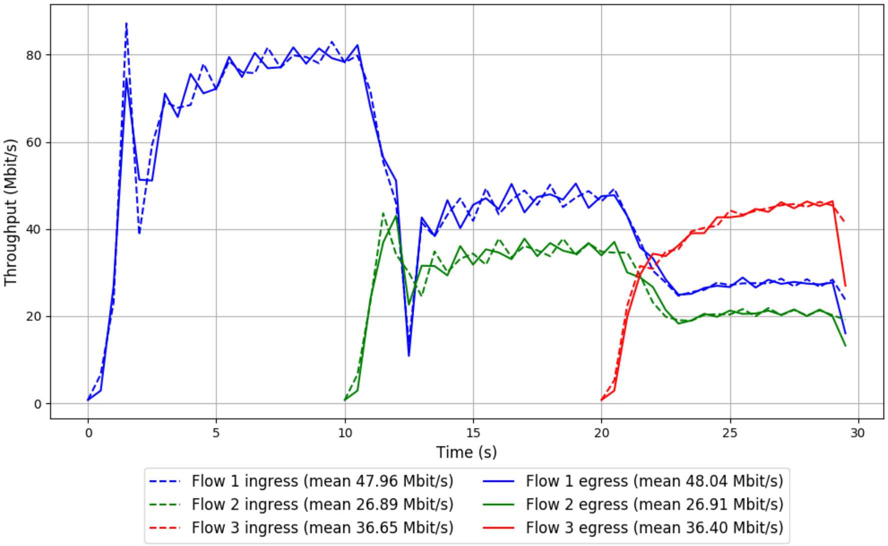
Run 4: Report of TCP Cubic — Data Link

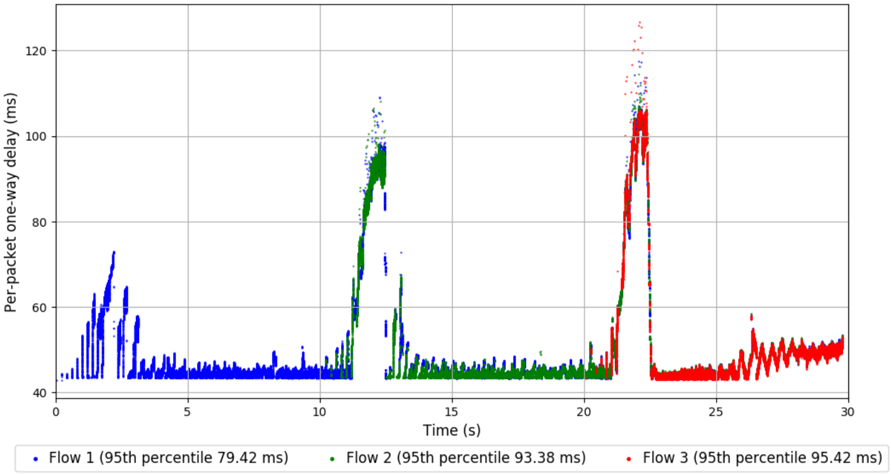




```
Run 5: Statistics of TCP Cubic

Start at: 2018-04-03 18:57:55
End at: 2018-04-03 18:58:25
Local clock offset: 8.879 ms
Remote clock offset: -27.754 ms

# Below is generated by plot.py at 2018-04-04 01:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.80 Mbit/s
95th percentile per-packet one-way delay: 88.491 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 48.04 Mbit/s
95th percentile per-packet one-way delay: 79.424 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 26.91 Mbit/s
95th percentile per-packet one-way delay: 93.384 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 36.40 Mbit/s
95th percentile per-packet one-way delay: 95.416 ms
Loss rate: 2.59%
```

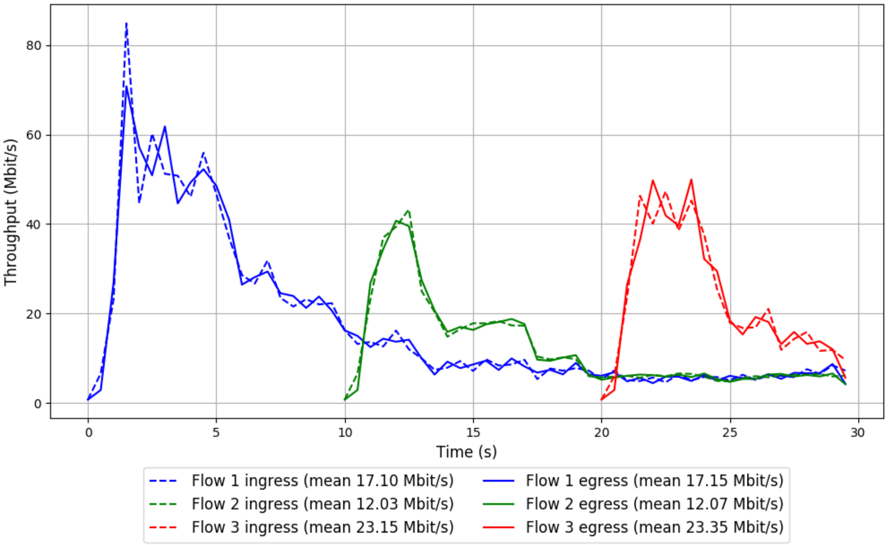
Run 5: Report of TCP Cubic — Data Link

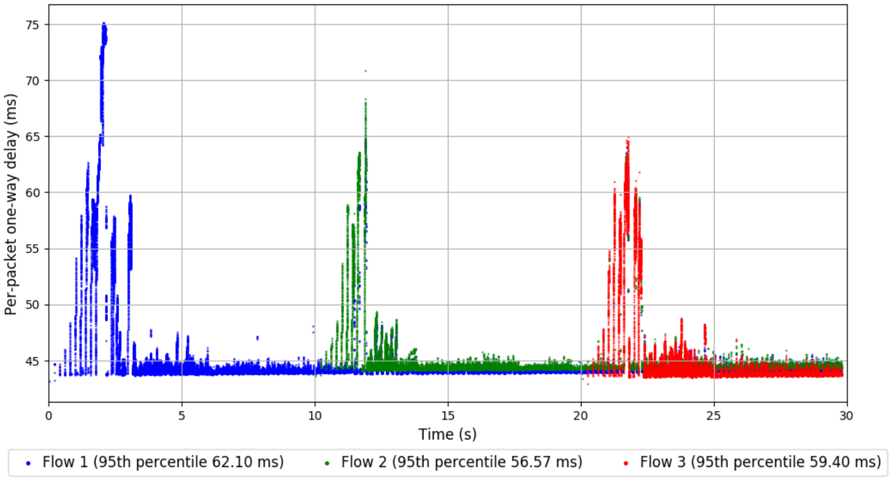




```
Run 6: Statistics of TCP Cubic

Start at: 2018-04-03 19:22:19
End at: 2018-04-03 19:22:49
Local clock offset: 8.856 ms
Remote clock offset: 0.224 ms

# Below is generated by plot.py at 2018-04-04 01:18:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 60.087 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 17.15 Mbit/s
95th percentile per-packet one-way delay: 62.102 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 56.572 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 23.35 Mbit/s
95th percentile per-packet one-way delay: 59.402 ms
Loss rate: 1.01%
```

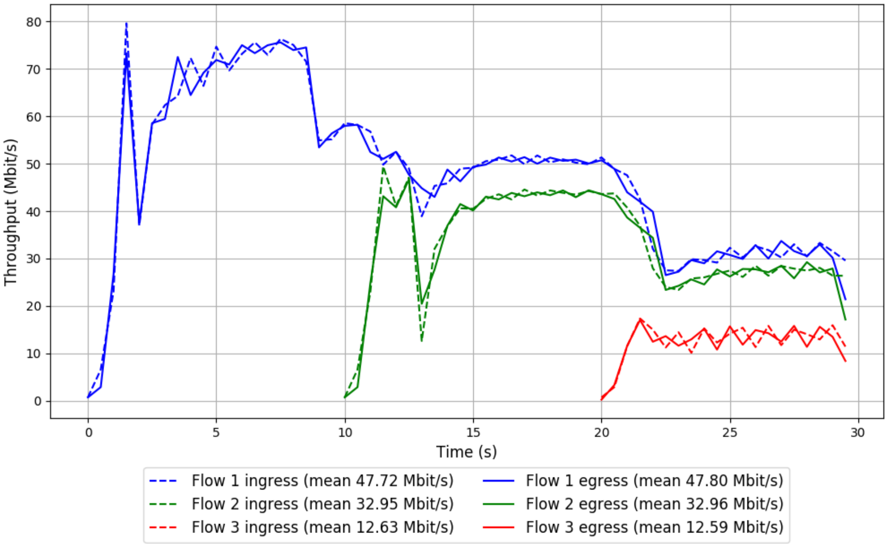
Run 6: Report of TCP Cubic — Data Link

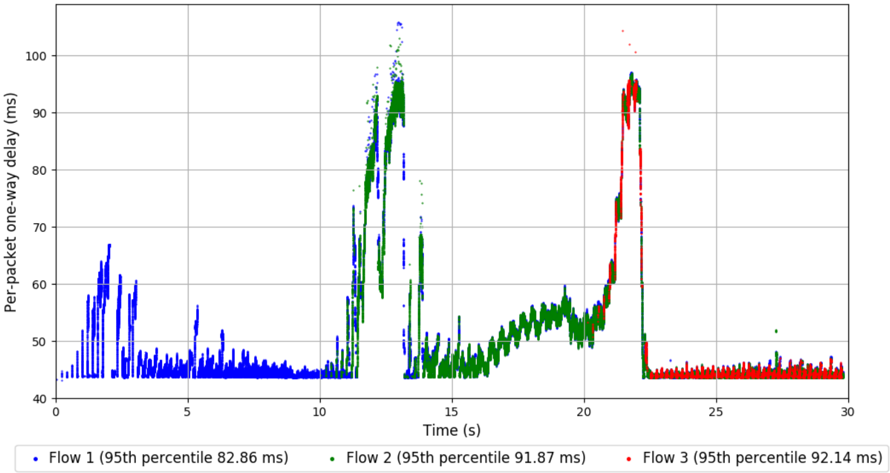




```
Run 7: Statistics of TCP Cubic

Start at: 2018-04-03 19:46:44
End at: 2018-04-03 19:47:14
Local clock offset: 5.243 ms
Remote clock offset: 0.391 ms

# Below is generated by plot.py at 2018-04-04 01:19:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.76 Mbit/s
95th percentile per-packet one-way delay: 89.124 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 47.80 Mbit/s
95th percentile per-packet one-way delay: 82.857 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 91.869 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 92.145 ms
Loss rate: 2.40%
```

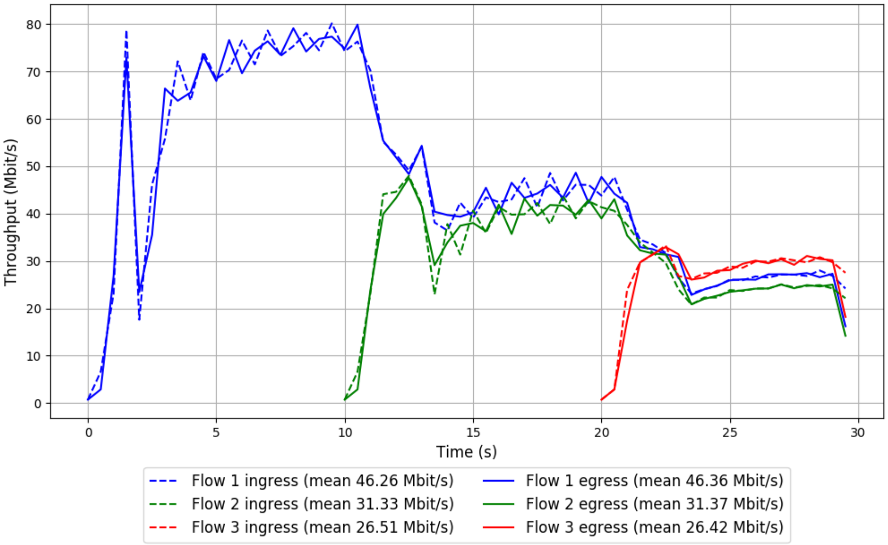
Run 7: Report of TCP Cubic — Data Link

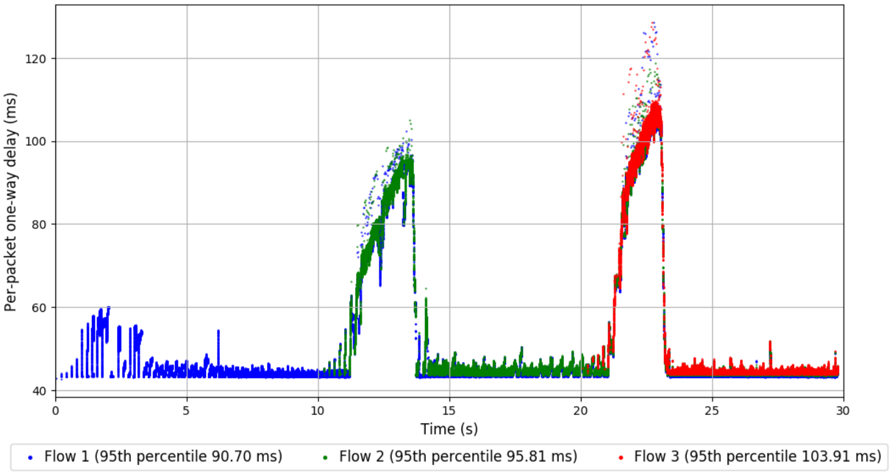




```
Run 8: Statistics of TCP Cubic

Start at: 2018-04-03 20:11:06
End at: 2018-04-03 20:11:36
Local clock offset: 5.085 ms
Remote clock offset: -3.172 ms

# Below is generated by plot.py at 2018-04-04 01:19:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.81 Mbit/s
95th percentile per-packet one-way delay: 94.699 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 46.36 Mbit/s
95th percentile per-packet one-way delay: 90.705 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 95.808 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 26.42 Mbit/s
95th percentile per-packet one-way delay: 103.907 ms
Loss rate: 2.28%
```

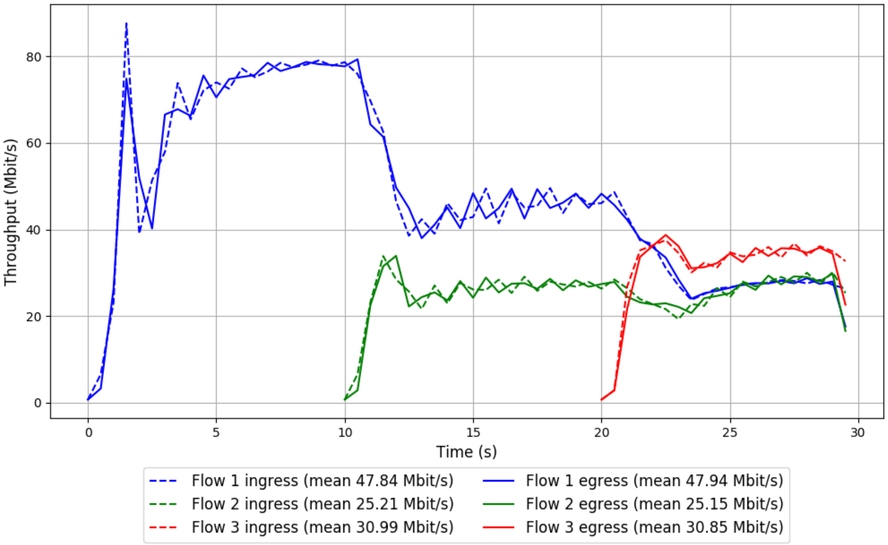
Run 8: Report of TCP Cubic — Data Link

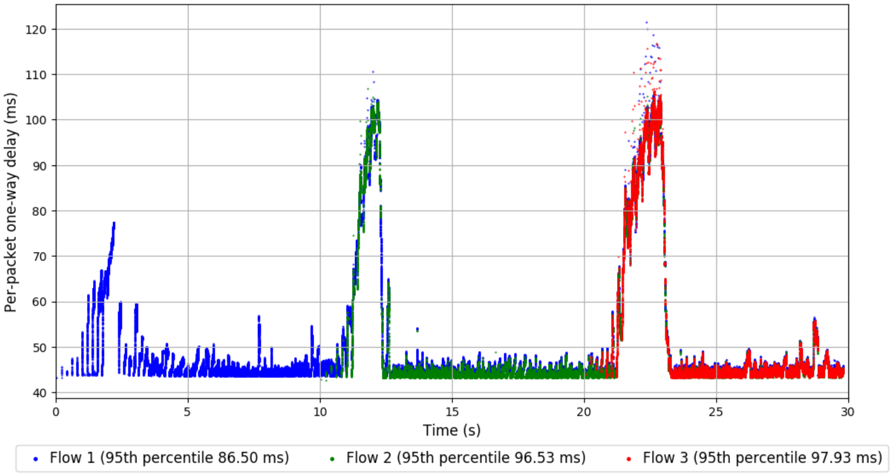




```
Run 9: Statistics of TCP Cubic

Start at: 2018-04-03 20:35:27
End at: 2018-04-03 20:35:57
Local clock offset: 5.286 ms
Remote clock offset: -2.76 ms

# Below is generated by plot.py at 2018-04-04 01:19:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.71 Mbit/s
95th percentile per-packet one-way delay: 91.727 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 47.94 Mbit/s
95th percentile per-packet one-way delay: 86.496 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 25.15 Mbit/s
95th percentile per-packet one-way delay: 96.532 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 30.85 Mbit/s
95th percentile per-packet one-way delay: 97.927 ms
Loss rate: 2.35%
```

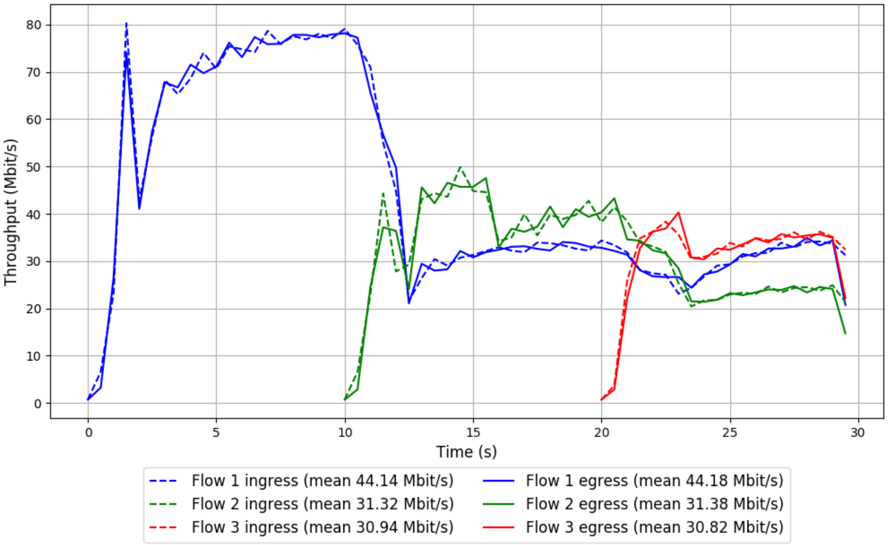
Run 9: Report of TCP Cubic — Data Link

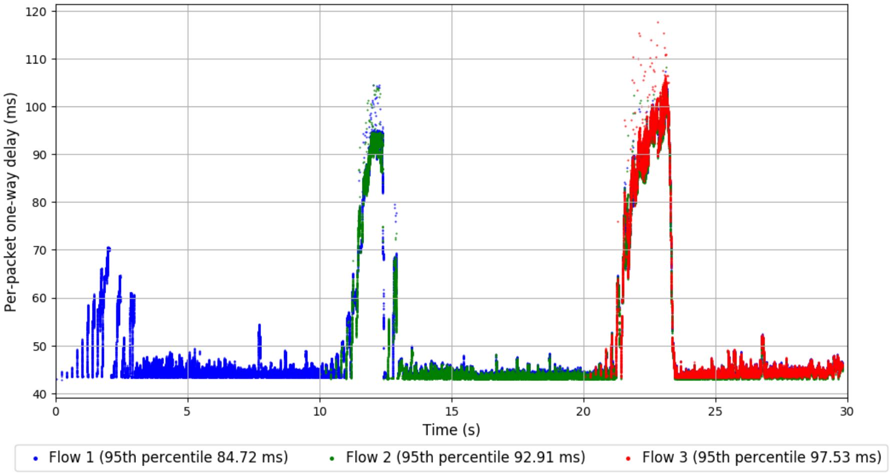




```
Run 10: Statistics of TCP Cubic

Start at: 2018-04-03 20:59:50
End at: 2018-04-03 21:00:20
Local clock offset: 5.692 ms
Remote clock offset: -7.776 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.07 Mbit/s
95th percentile per-packet one-way delay: 91.828 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 44.18 Mbit/s
95th percentile per-packet one-way delay: 84.717 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 92.905 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 97.534 ms
Loss rate: 2.32%
```

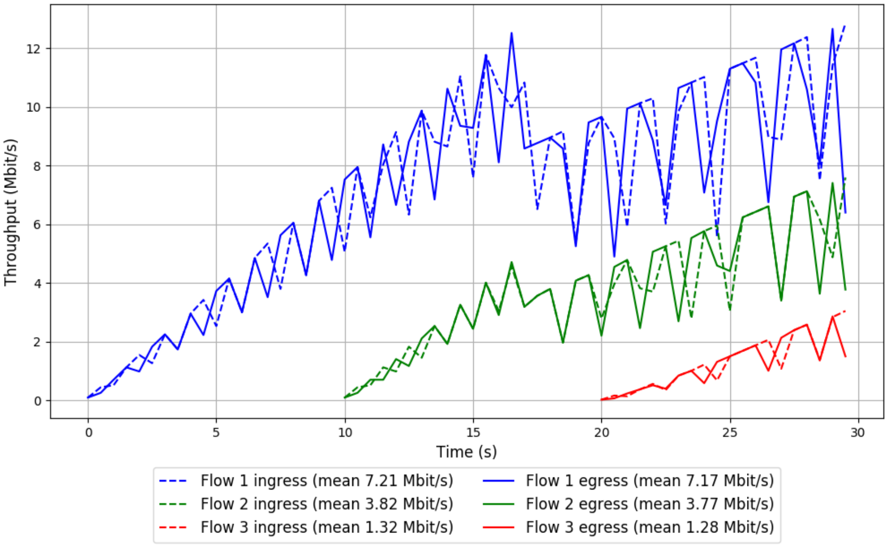
Run 10: Report of TCP Cubic — Data Link

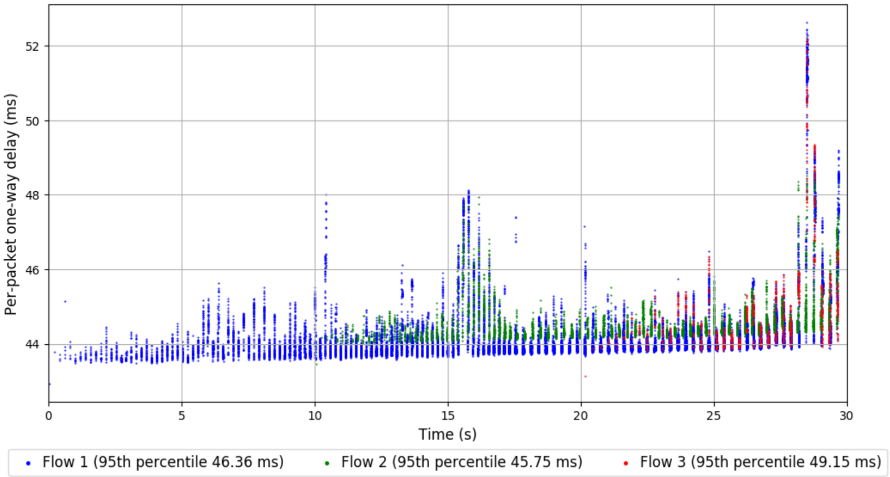




```
Run 1: Statistics of LEDBAT

Start at: 2018-04-03 17:04:54
End at: 2018-04-03 17:05:24
Local clock offset: 6.017 ms
Remote clock offset: 47.183 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 46.270 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 46.359 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 45.751 ms
Loss rate: 2.52%
-- Flow 3:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 49.146 ms
Loss rate: 5.99%
```

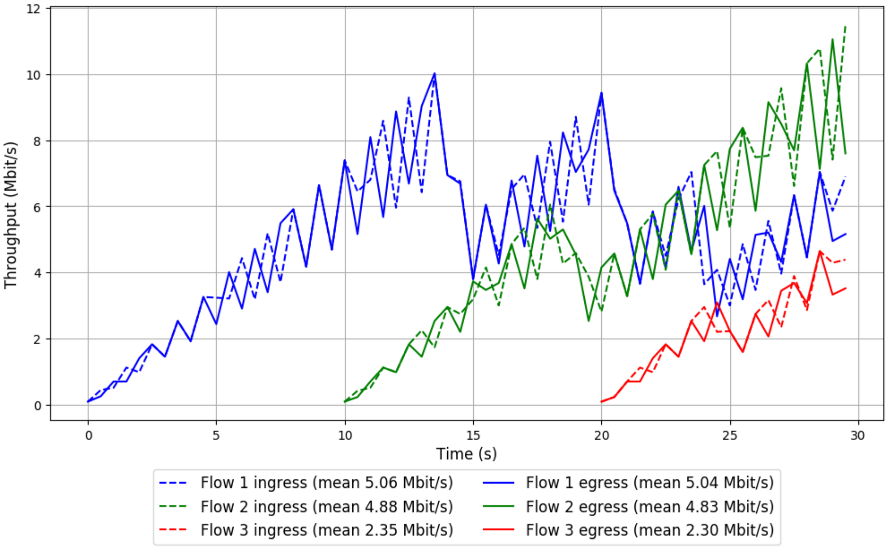
Run 1: Report of LEDBAT — Data Link

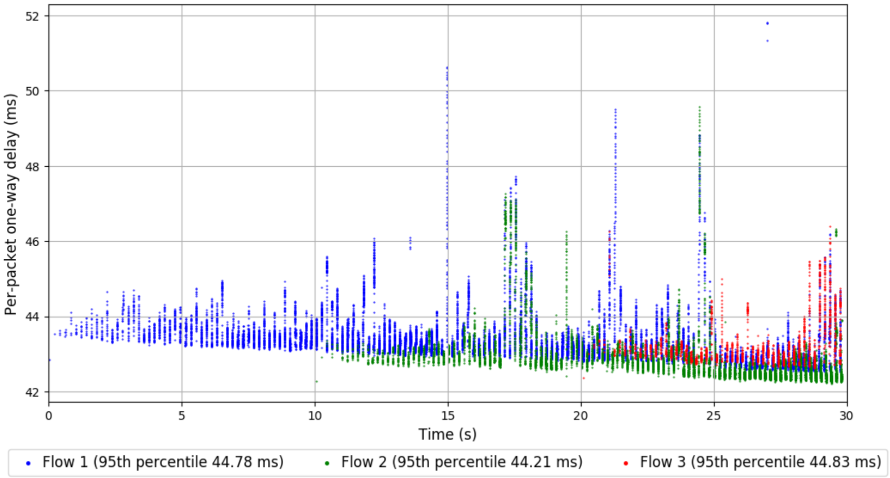




```
Run 2: Statistics of LEDBAT

Start at: 2018-04-03 17:31:06
End at: 2018-04-03 17:31:36
Local clock offset: 9.141 ms
Remote clock offset: 33.128 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.98 Mbit/s
95th percentile per-packet one-way delay: 44.711 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 44.784 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 4.83 Mbit/s
95th percentile per-packet one-way delay: 44.208 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 44.825 ms
Loss rate: 4.26%
```

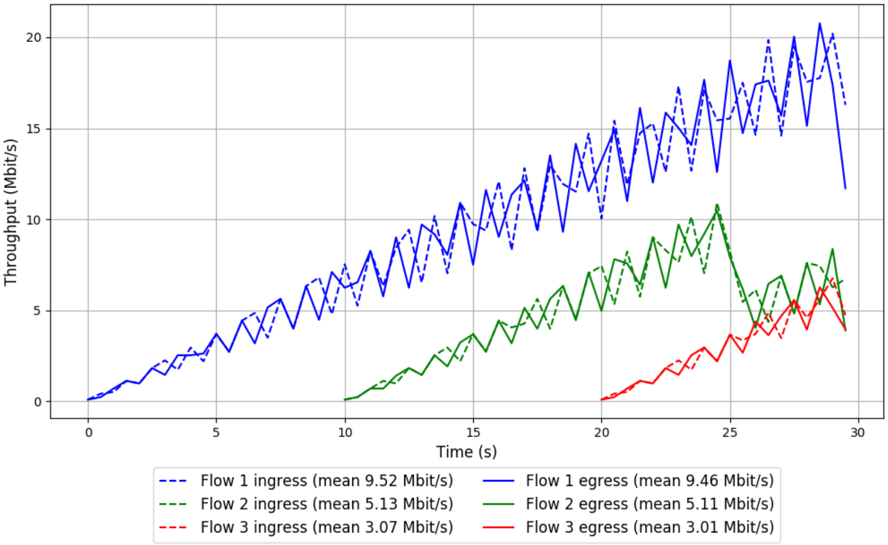
Run 2: Report of LEDBAT — Data Link

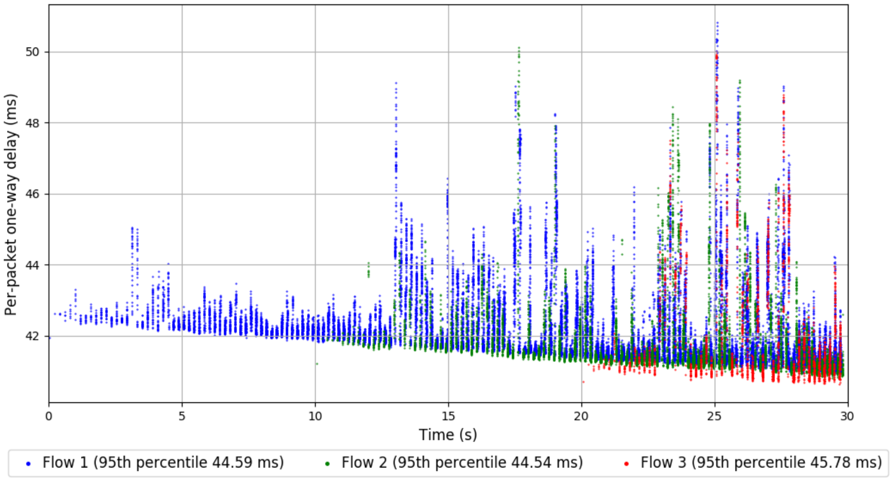




```
Run 3: Statistics of LEDBAT

Start at: 2018-04-03 17:56:58
End at: 2018-04-03 17:57:28
Local clock offset: 9.302 ms
Remote clock offset: 18.24 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.80 Mbit/s
95th percentile per-packet one-way delay: 44.692 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 44.586 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 44.541 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 45.785 ms
Loss rate: 3.96%
```

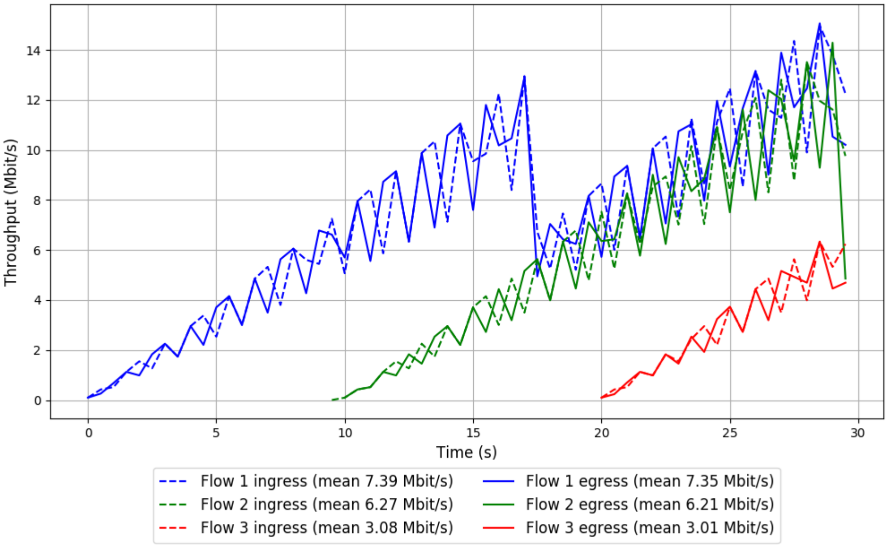
Run 3: Report of LEDBAT — Data Link

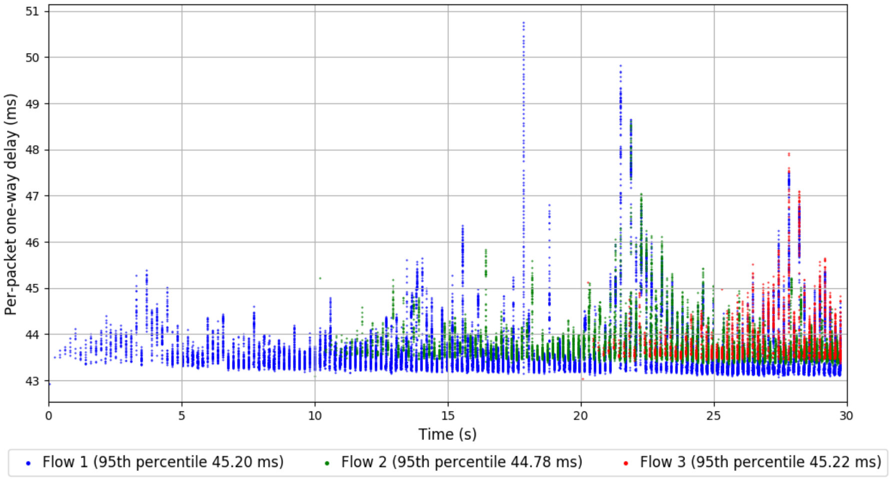




```
Run 4: Statistics of LEDBAT

Start at: 2018-04-03 18:21:24
End at: 2018-04-03 18:21:54
Local clock offset: 9.832 ms
Remote clock offset: -11.705 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 45.067 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 7.35 Mbit/s
95th percentile per-packet one-way delay: 45.196 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 44.777 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 45.222 ms
Loss rate: 3.97%
```

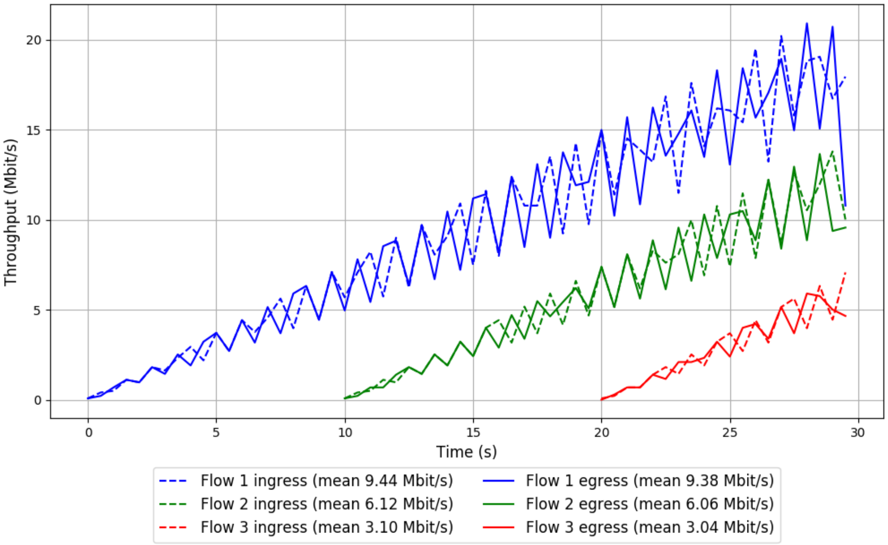
Run 4: Report of LEDBAT — Data Link

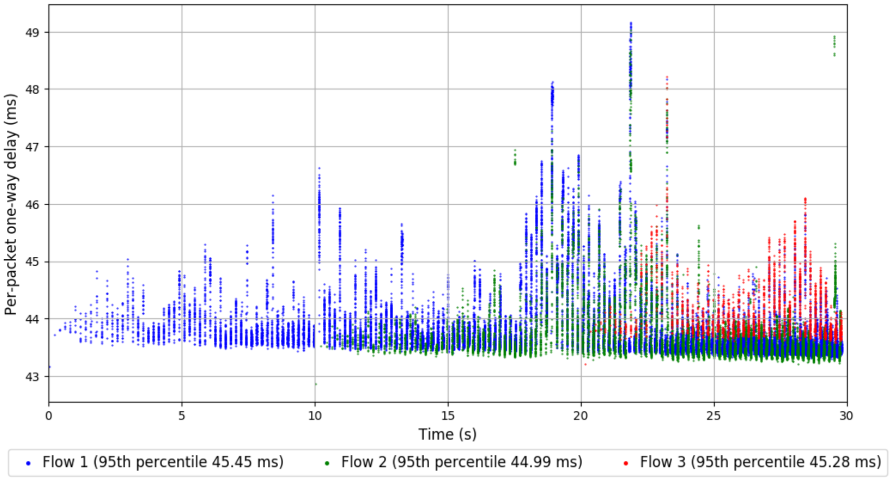




```
Run 5: Statistics of LEDBAT

Start at: 2018-04-03 18:45:46
End at: 2018-04-03 18:46:16
Local clock offset: 8.913 ms
Remote clock offset: -23.182 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.37 Mbit/s
95th percentile per-packet one-way delay: 45.337 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 45.445 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 44.986 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 45.277 ms
Loss rate: 3.97%
```

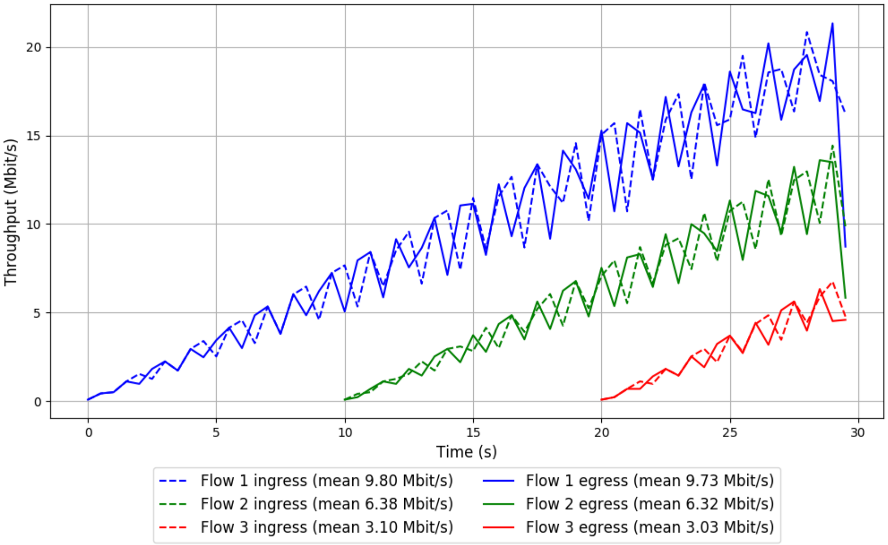
Run 5: Report of LEDBAT — Data Link

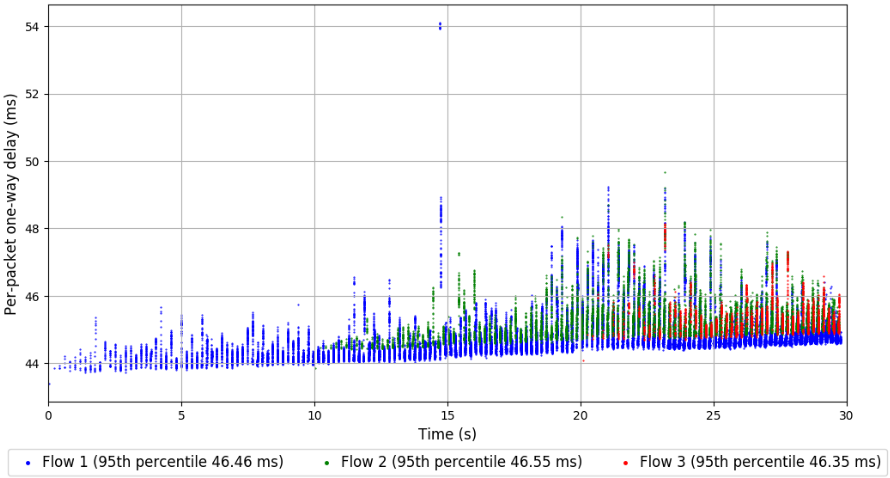




```
Run 6: Statistics of LEDBAT

Start at: 2018-04-03 19:10:08
End at: 2018-04-03 19:10:38
Local clock offset: 8.989 ms
Remote clock offset: -13.298 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.90 Mbit/s
95th percentile per-packet one-way delay: 46.482 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 46.459 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 46.546 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 46.351 ms
Loss rate: 3.97%
```

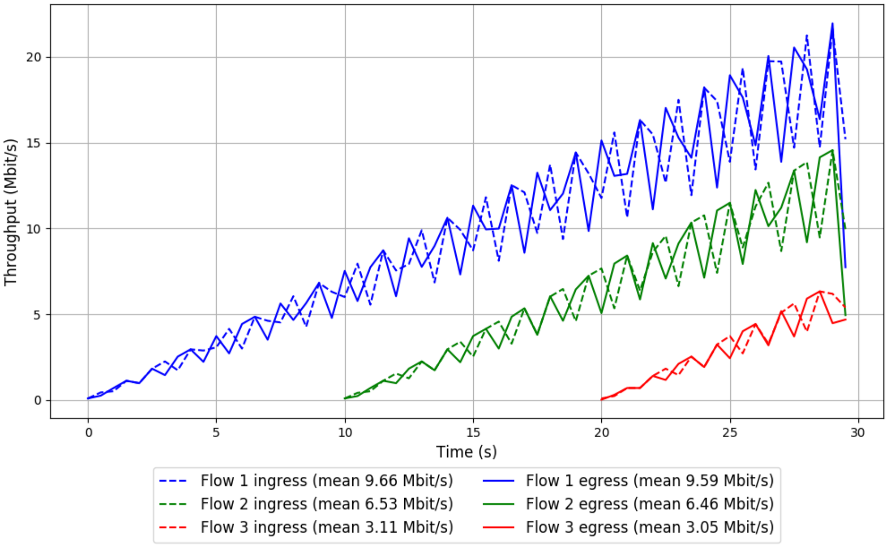
Run 6: Report of LEDBAT — Data Link

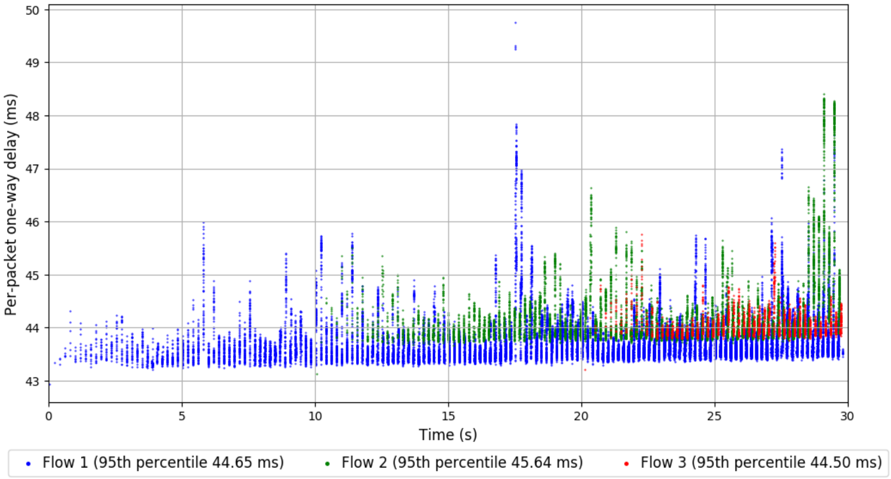




```
Run 7: Statistics of LEDBAT

Start at: 2018-04-03 19:34:38
End at: 2018-04-03 19:35:08
Local clock offset: 7.268 ms
Remote clock offset: 4.619 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.84 Mbit/s
95th percentile per-packet one-way delay: 44.992 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 44.654 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 45.644 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 44.501 ms
Loss rate: 3.97%
```

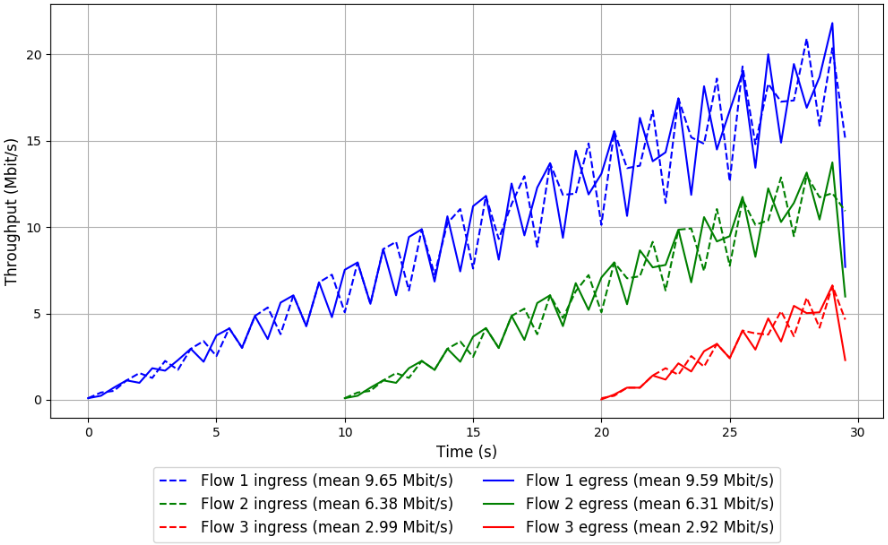
Run 7: Report of LEDBAT — Data Link

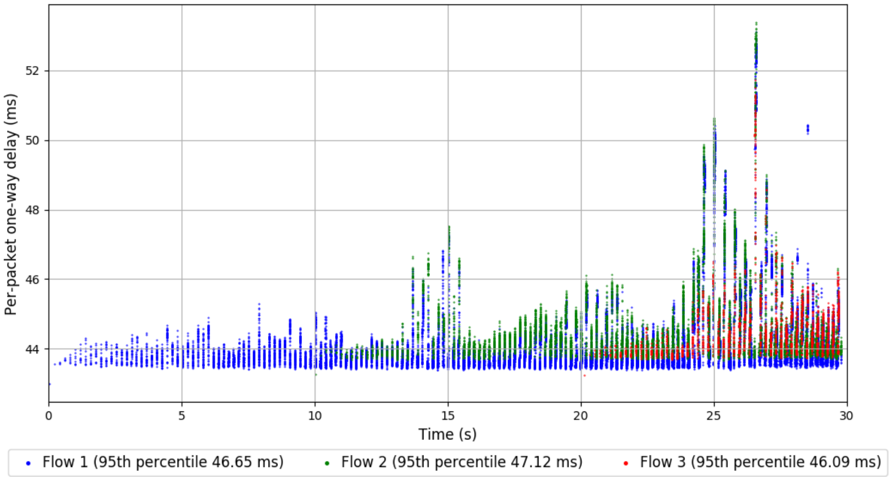




```
Run 8: Statistics of LEDBAT

Start at: 2018-04-03 19:58:56
End at: 2018-04-03 19:59:26
Local clock offset: 4.406 ms
Remote clock offset: -2.219 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.72 Mbit/s
95th percentile per-packet one-way delay: 46.757 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 46.651 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 6.31 Mbit/s
95th percentile per-packet one-way delay: 47.122 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 46.089 ms
Loss rate: 4.02%
```

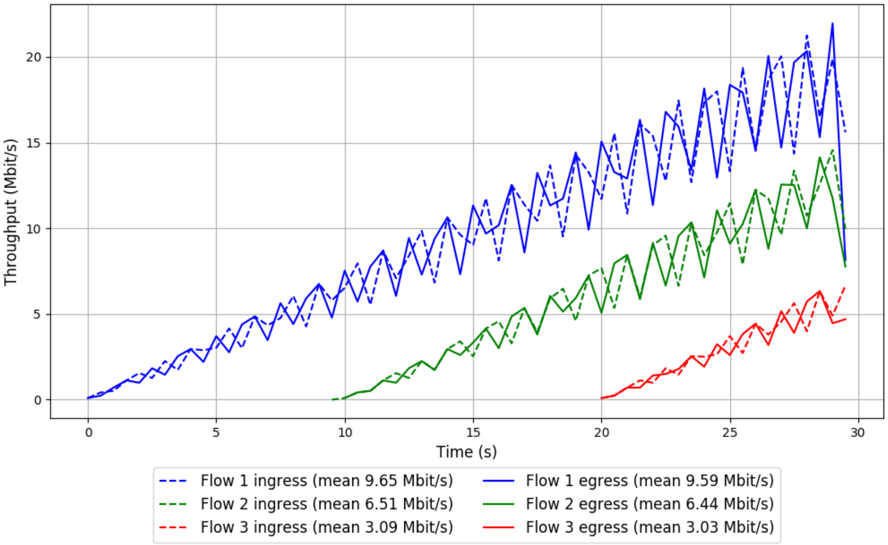
Run 8: Report of LEDBAT — Data Link

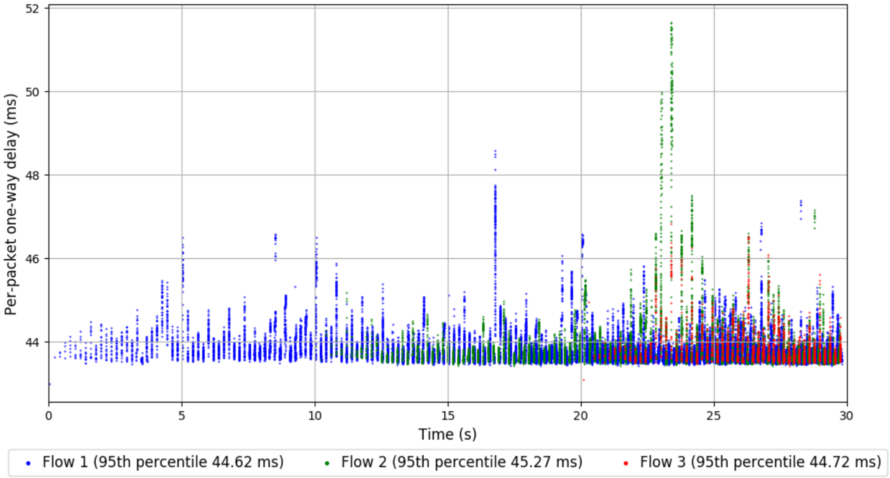




```
Run 9: Statistics of LEDBAT

Start at: 2018-04-03 20:23:18
End at: 2018-04-03 20:23:48
Local clock offset: 5.359 ms
Remote clock offset: -2.744 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.84 Mbit/s
95th percentile per-packet one-way delay: 44.741 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 44.617 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 45.265 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 44.717 ms
Loss rate: 3.97%
```

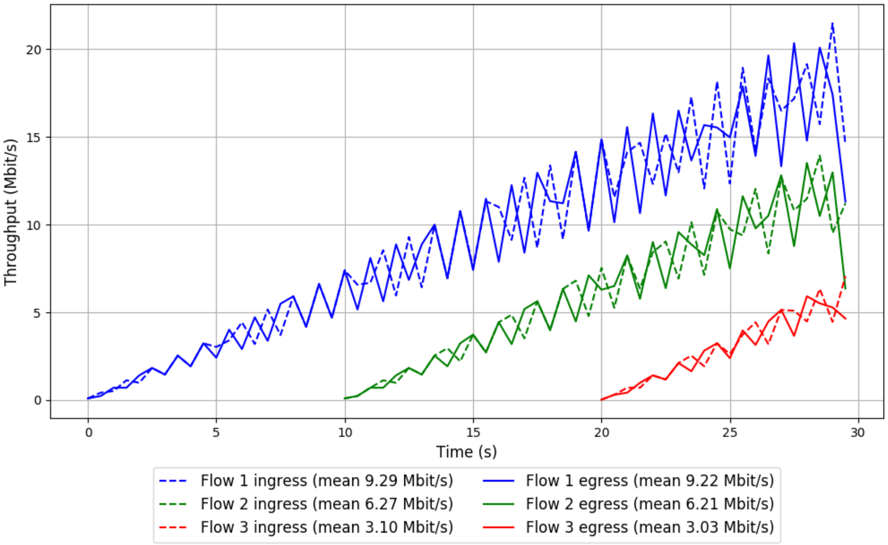
Run 9: Report of LEDBAT — Data Link

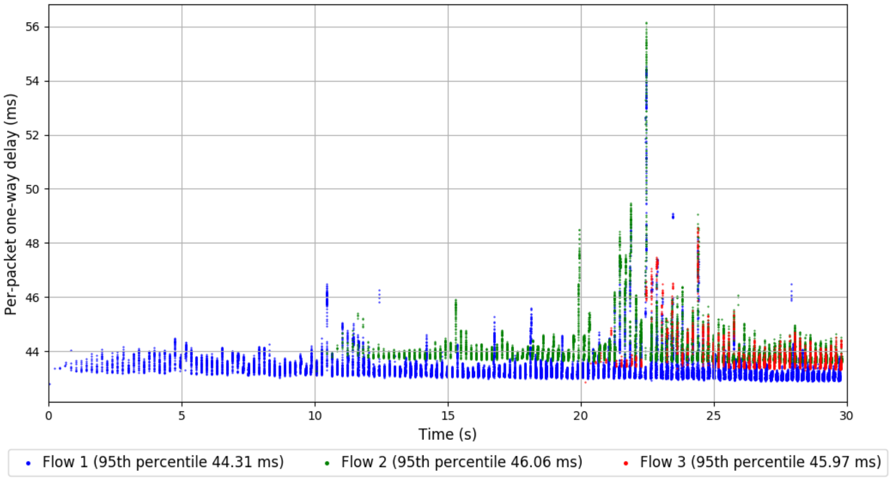




```
Run 10: Statistics of LEDBAT

Start at: 2018-04-03 20:47:39
End at: 2018-04-03 20:48:09
Local clock offset: 5.707 ms
Remote clock offset: -3.713 ms

# Below is generated by plot.py at 2018-04-04 01:19:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.30 Mbit/s
95th percentile per-packet one-way delay: 44.991 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 9.22 Mbit/s
95th percentile per-packet one-way delay: 44.313 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 46.065 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 45.972 ms
Loss rate: 3.98%
```

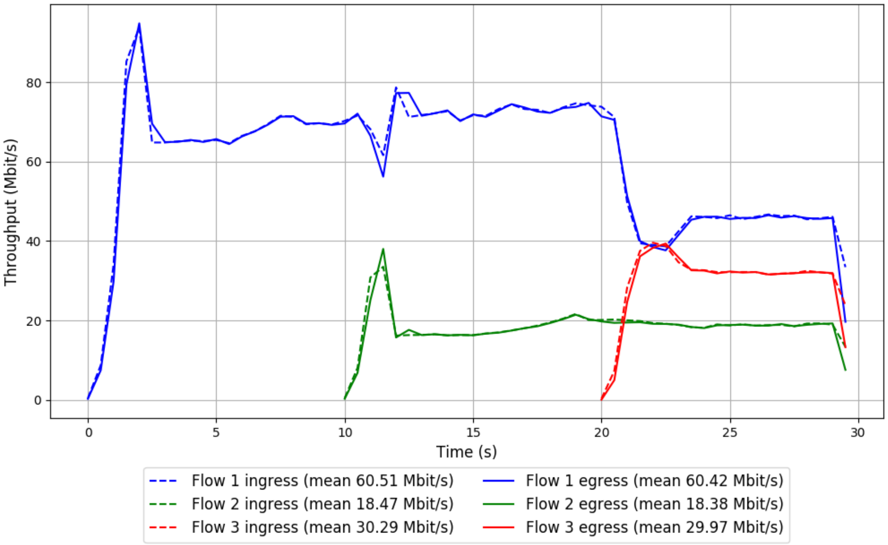
Run 10: Report of LEDBAT — Data Link

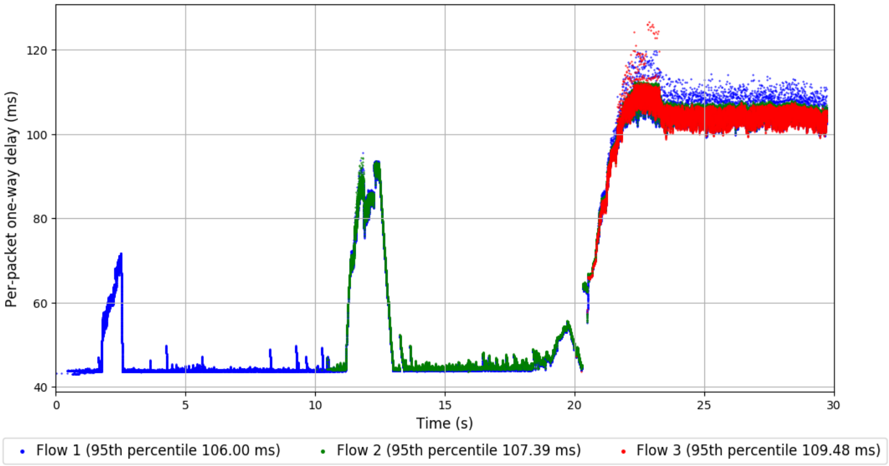




```
Run 1: Statistics of PCC

Start at: 2018-04-03 17:06:21
End at: 2018-04-03 17:06:51
Local clock offset: 6.039 ms
Remote clock offset: 48.594 ms

# Below is generated by plot.py at 2018-04-04 01:20:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.34 Mbit/s
95th percentile per-packet one-way delay: 106.740 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 60.42 Mbit/s
95th percentile per-packet one-way delay: 105.998 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 18.38 Mbit/s
95th percentile per-packet one-way delay: 107.392 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 29.97 Mbit/s
95th percentile per-packet one-way delay: 109.477 ms
Loss rate: 3.10%
```

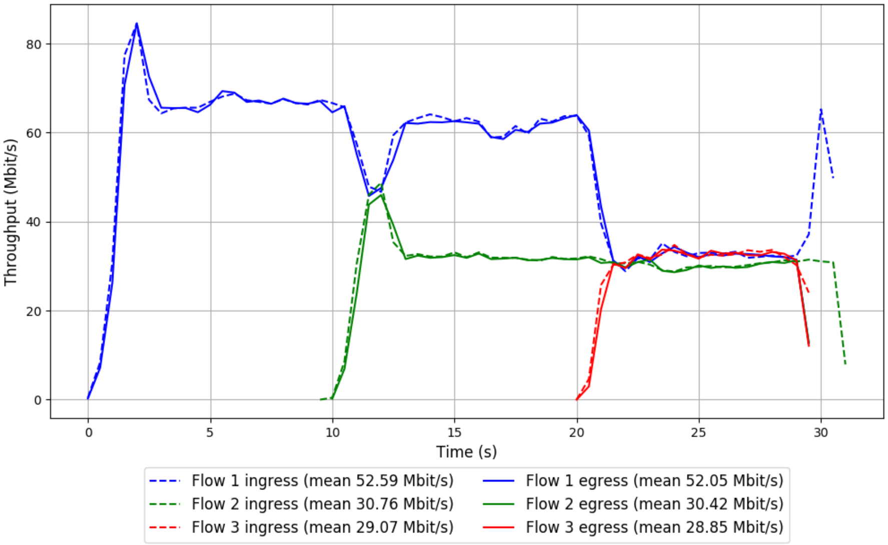
Run 1: Report of PCC — Data Link

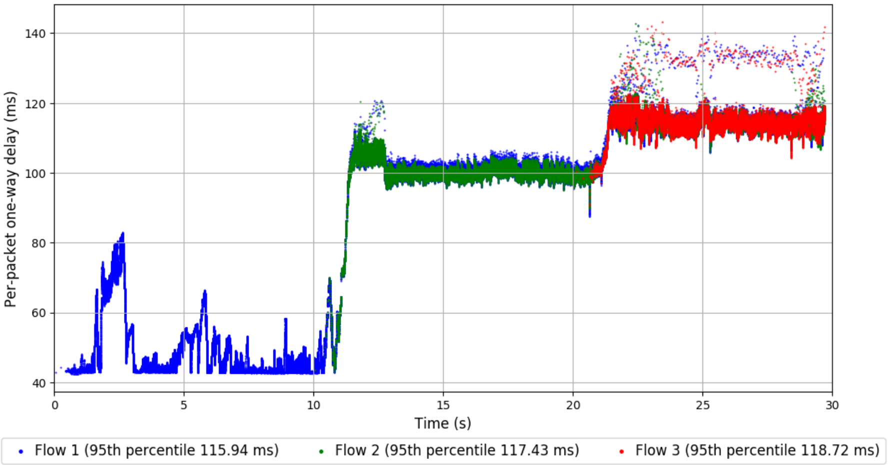




```
Run 2: Statistics of PCC

Start at: 2018-04-03 17:32:24
End at: 2018-04-03 17:32:54
Local clock offset: 9.17 ms
Remote clock offset: 31.33 ms

# Below is generated by plot.py at 2018-04-04 01:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.51 Mbit/s
95th percentile per-packet one-way delay: 117.012 ms
Loss rate: 5.58%
-- Flow 1:
Average throughput: 52.05 Mbit/s
95th percentile per-packet one-way delay: 115.936 ms
Loss rate: 4.98%
-- Flow 2:
Average throughput: 30.42 Mbit/s
95th percentile per-packet one-way delay: 117.427 ms
Loss rate: 8.01%
-- Flow 3:
Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 118.721 ms
Loss rate: 3.45%
```

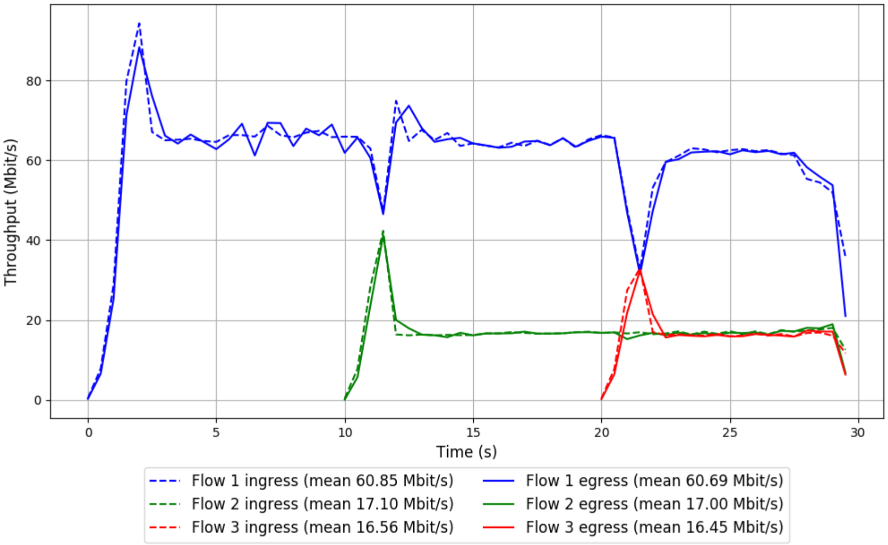
Run 2: Report of PCC — Data Link

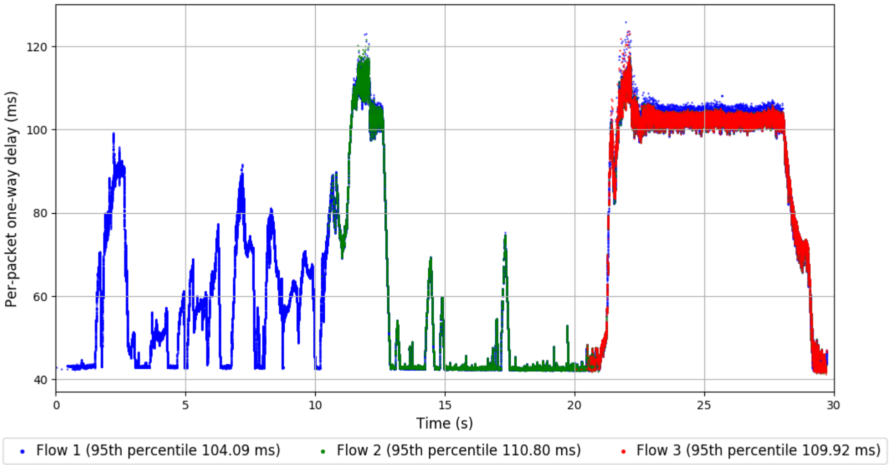




```
Run 3: Statistics of PCC

Start at: 2018-04-03 17:58:16
End at: 2018-04-03 17:58:46
Local clock offset: 9.39 ms
Remote clock offset: 13.861 ms

# Below is generated by plot.py at 2018-04-04 01:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.30 Mbit/s
95th percentile per-packet one-way delay: 105.147 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 60.69 Mbit/s
95th percentile per-packet one-way delay: 104.092 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 17.00 Mbit/s
95th percentile per-packet one-way delay: 110.799 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 16.45 Mbit/s
95th percentile per-packet one-way delay: 109.915 ms
Loss rate: 2.63%
```

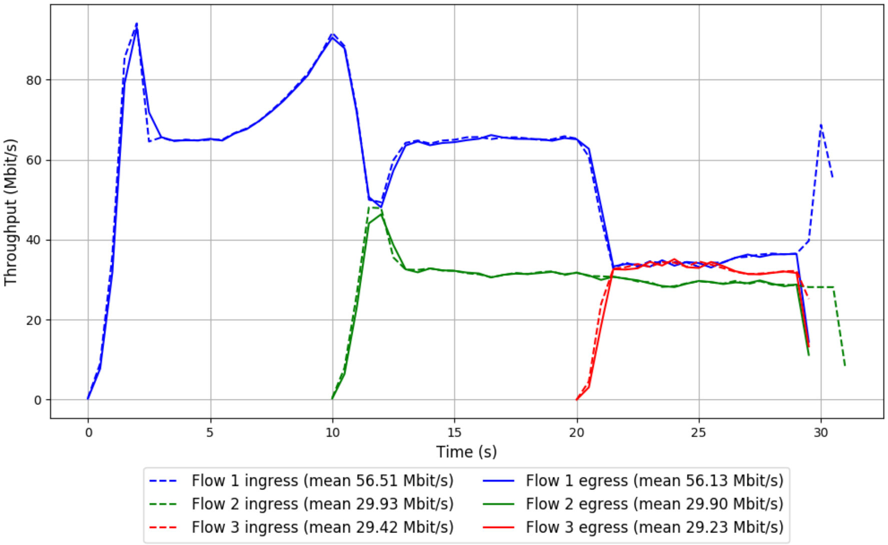
Run 3: Report of PCC — Data Link

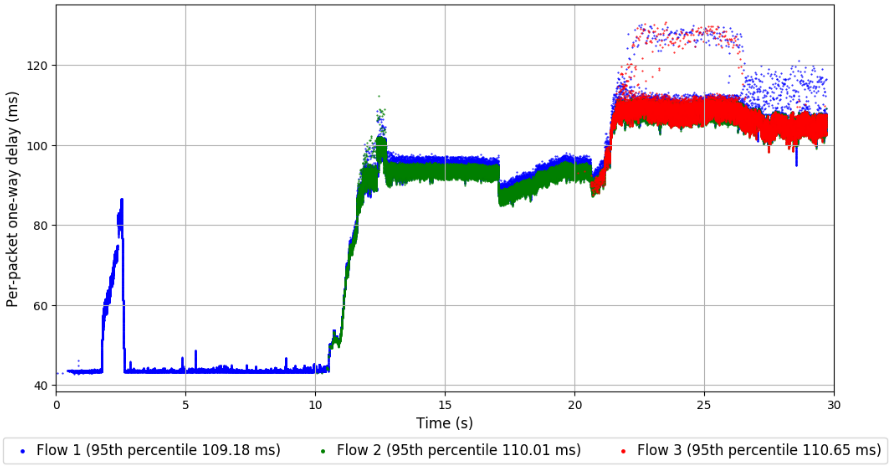




```
Run 4: Statistics of PCC

Start at: 2018-04-03 18:22:42
End at: 2018-04-03 18:23:12
Local clock offset: 9.475 ms
Remote clock offset: -12.328 ms

# Below is generated by plot.py at 2018-04-04 01:20:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.39 Mbit/s
95th percentile per-packet one-way delay: 109.914 ms
Loss rate: 5.11%
-- Flow 1:
Average throughput: 56.13 Mbit/s
95th percentile per-packet one-way delay: 109.179 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 29.90 Mbit/s
95th percentile per-packet one-way delay: 110.011 ms
Loss rate: 7.09%
-- Flow 3:
Average throughput: 29.23 Mbit/s
95th percentile per-packet one-way delay: 110.651 ms
Loss rate: 3.52%
```

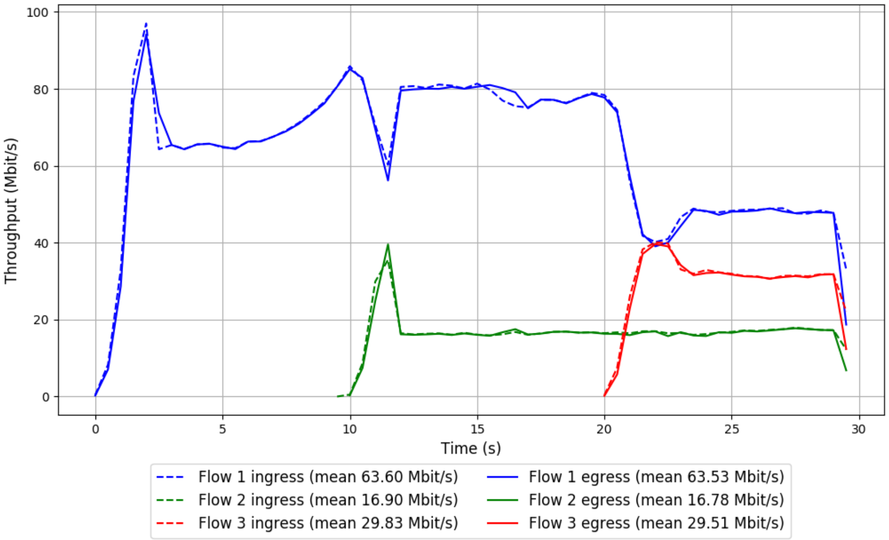
Run 4: Report of PCC — Data Link

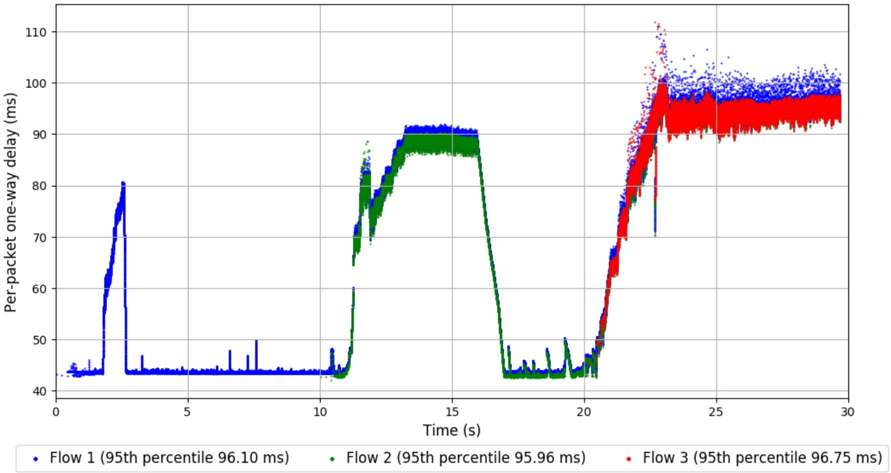




```
Run 5: Statistics of PCC

Start at: 2018-04-03 18:47:04
End at: 2018-04-03 18:47:34
Local clock offset: 8.666 ms
Remote clock offset: -23.644 ms

# Below is generated by plot.py at 2018-04-04 01:20:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.24 Mbit/s
95th percentile per-packet one-way delay: 96.212 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 63.53 Mbit/s
95th percentile per-packet one-way delay: 96.098 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 16.78 Mbit/s
95th percentile per-packet one-way delay: 95.960 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 96.750 ms
Loss rate: 3.17%
```

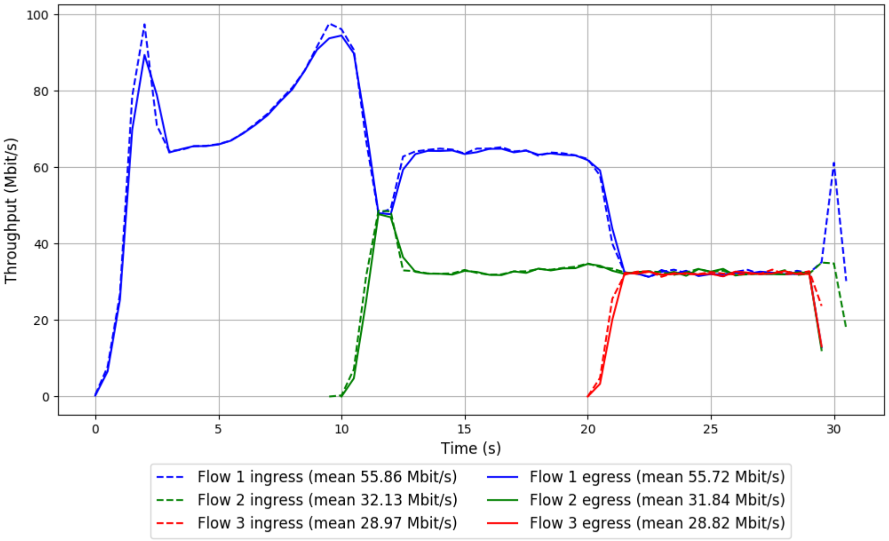
Run 5: Report of PCC — Data Link

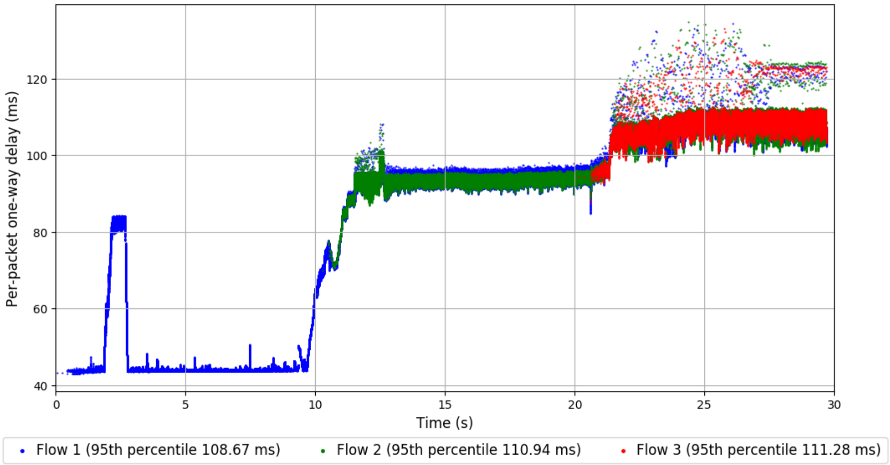




```
Run 6: Statistics of PCC

Start at: 2018-04-03 19:11:26
End at: 2018-04-03 19:11:56
Local clock offset: 8.823 ms
Remote clock offset: -11.027 ms

# Below is generated by plot.py at 2018-04-04 01:20:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.10 Mbit/s
95th percentile per-packet one-way delay: 110.226 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 55.72 Mbit/s
95th percentile per-packet one-way delay: 108.671 ms
Loss rate: 3.96%
-- Flow 2:
Average throughput: 31.84 Mbit/s
95th percentile per-packet one-way delay: 110.941 ms
Loss rate: 6.48%
-- Flow 3:
Average throughput: 28.82 Mbit/s
95th percentile per-packet one-way delay: 111.277 ms
Loss rate: 3.25%
```

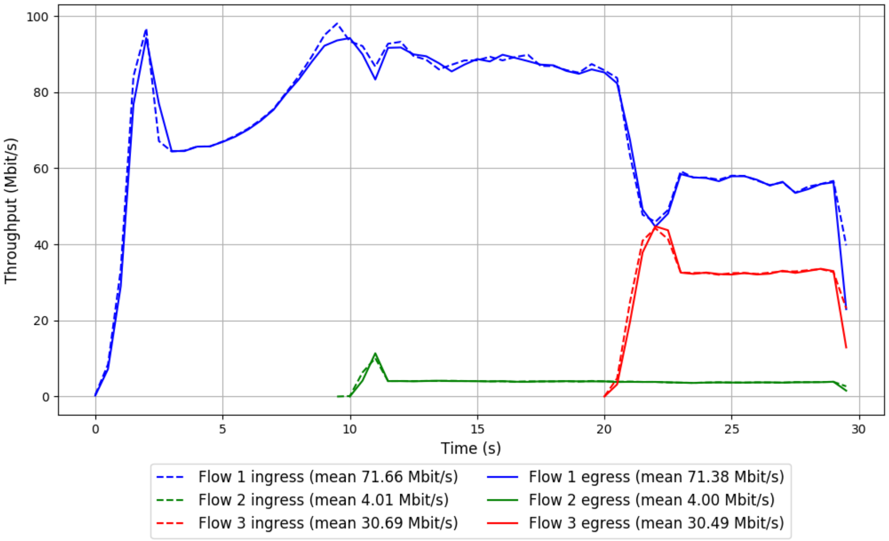
Run 6: Report of PCC — Data Link

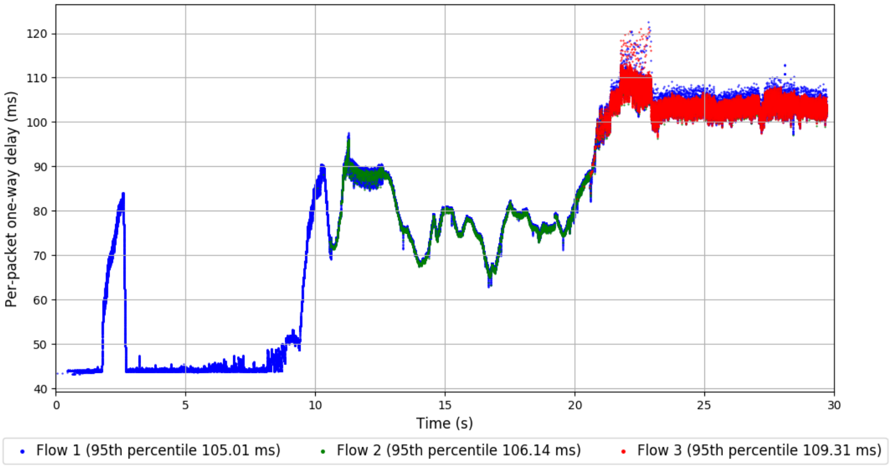




```
Run 7: Statistics of PCC

Start at: 2018-04-03 19:35:56
End at: 2018-04-03 19:36:26
Local clock offset: 6.864 ms
Remote clock offset: 4.811 ms

# Below is generated by plot.py at 2018-04-04 01:20:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.89 Mbit/s
95th percentile per-packet one-way delay: 105.895 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 71.38 Mbit/s
95th percentile per-packet one-way delay: 105.009 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 106.141 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 109.308 ms
Loss rate: 3.03%
```

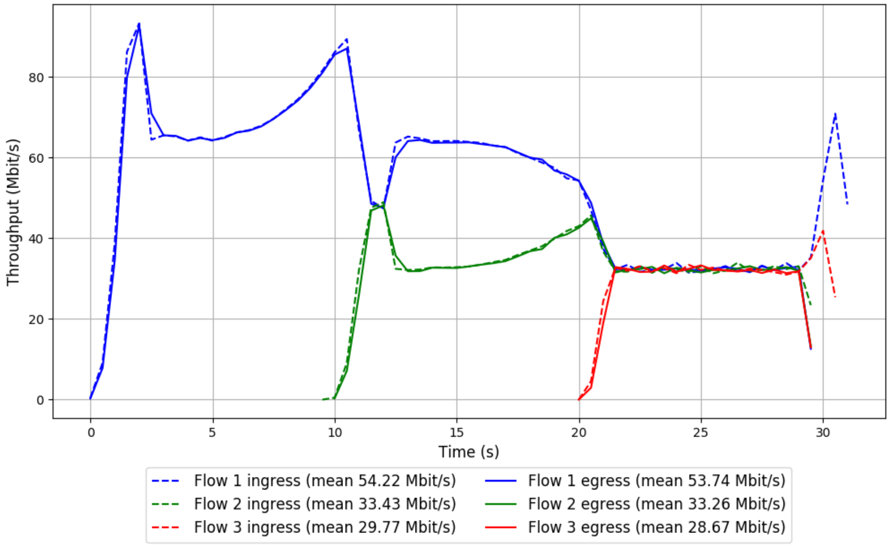
Run 7: Report of PCC — Data Link

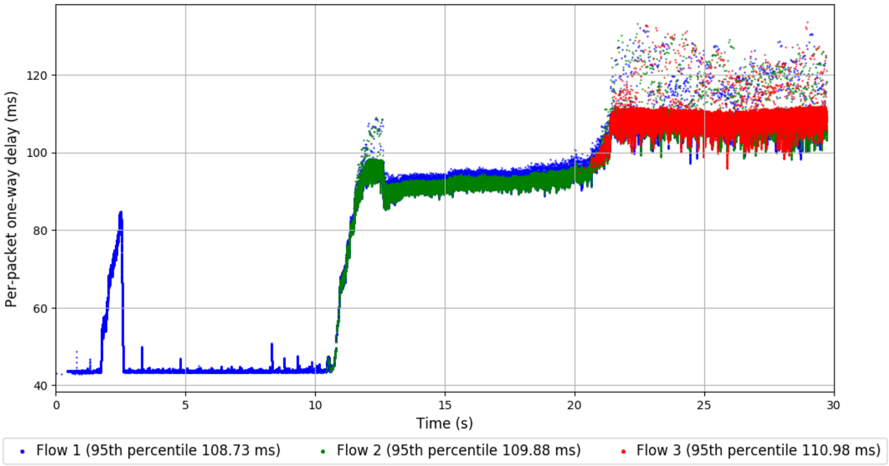




```
Run 8: Statistics of PCC

Start at: 2018-04-03 20:00:14
End at: 2018-04-03 20:00:44
Local clock offset: 4.529 ms
Remote clock offset: -2.325 ms

# Below is generated by plot.py at 2018-04-04 01:20:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 109.771 ms
Loss rate: 6.09%
-- Flow 1:
Average throughput: 53.74 Mbit/s
95th percentile per-packet one-way delay: 108.731 ms
Loss rate: 6.15%
-- Flow 2:
Average throughput: 33.26 Mbit/s
95th percentile per-packet one-way delay: 109.883 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 28.67 Mbit/s
95th percentile per-packet one-way delay: 110.983 ms
Loss rate: 14.99%
```

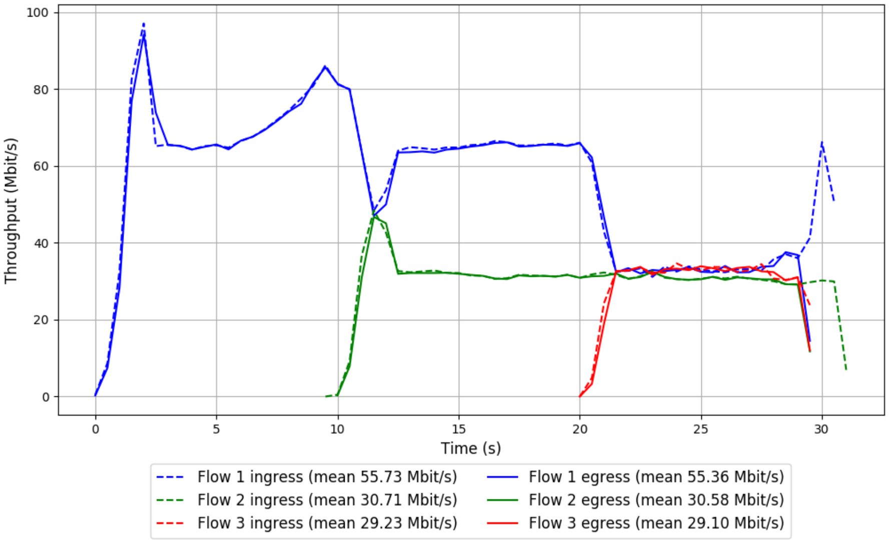
Run 8: Report of PCC — Data Link

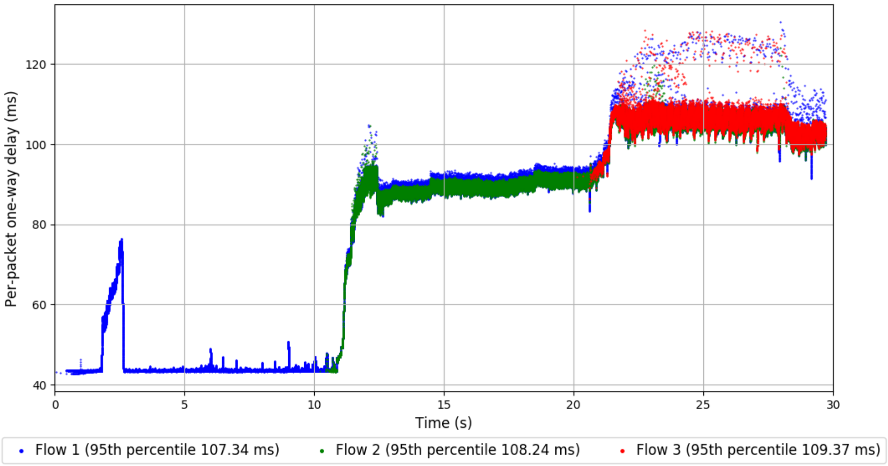




```
Run 9: Statistics of PCC

Start at: 2018-04-03 20:24:37
End at: 2018-04-03 20:25:07
Local clock offset: 5.51 ms
Remote clock offset: -2.686 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.03 Mbit/s
95th percentile per-packet one-way delay: 108.187 ms
Loss rate: 5.12%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 107.341 ms
Loss rate: 4.60%
-- Flow 2:
Average throughput: 30.58 Mbit/s
95th percentile per-packet one-way delay: 108.243 ms
Loss rate: 7.35%
-- Flow 3:
Average throughput: 29.10 Mbit/s
95th percentile per-packet one-way delay: 109.367 ms
Loss rate: 3.19%
```

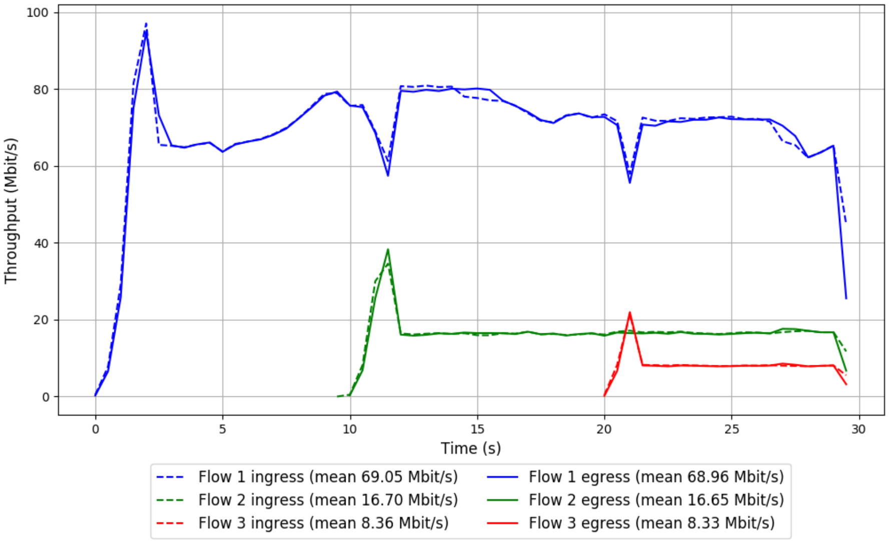
Run 9: Report of PCC — Data Link

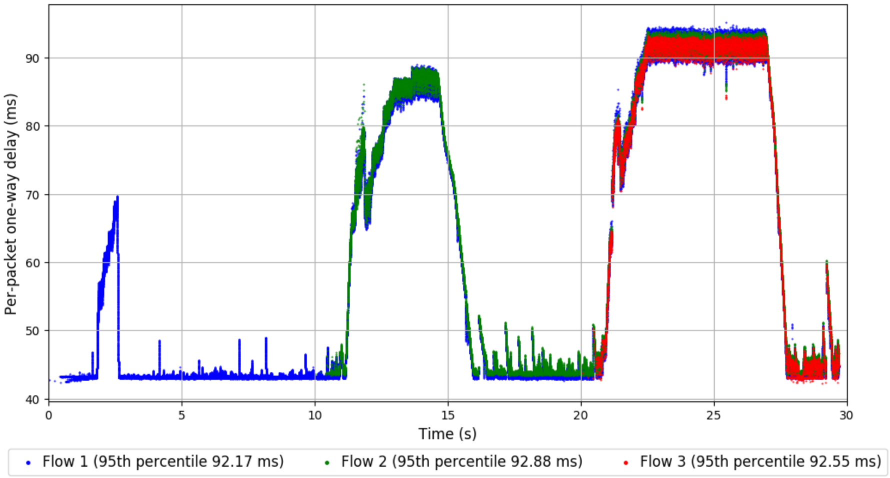




```
Run 10: Statistics of PCC

Start at: 2018-04-03 20:48:57
End at: 2018-04-03 20:49:27
Local clock offset: 5.669 ms
Remote clock offset: -4.331 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.70 Mbit/s
95th percentile per-packet one-way delay: 92.322 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 68.96 Mbit/s
95th percentile per-packet one-way delay: 92.173 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 16.65 Mbit/s
95th percentile per-packet one-way delay: 92.881 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 92.551 ms
Loss rate: 2.34%
```

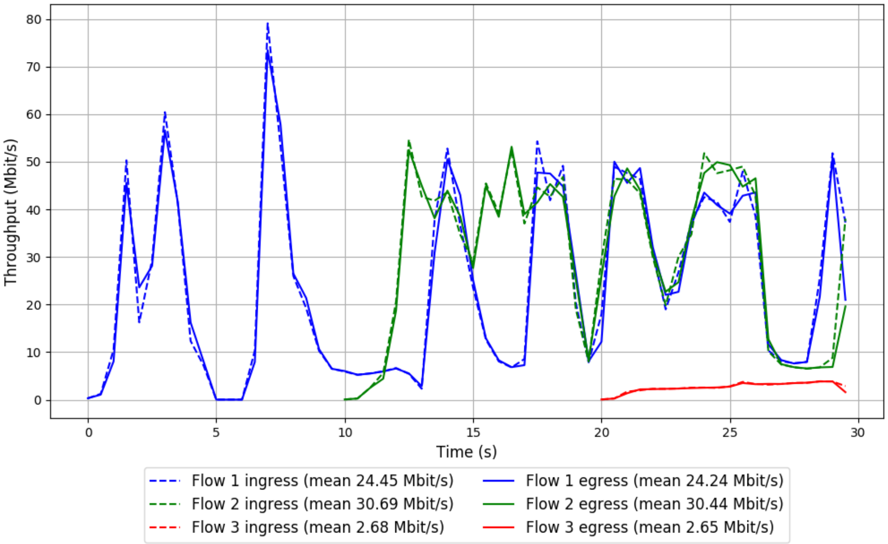
Run 10: Report of PCC — Data Link

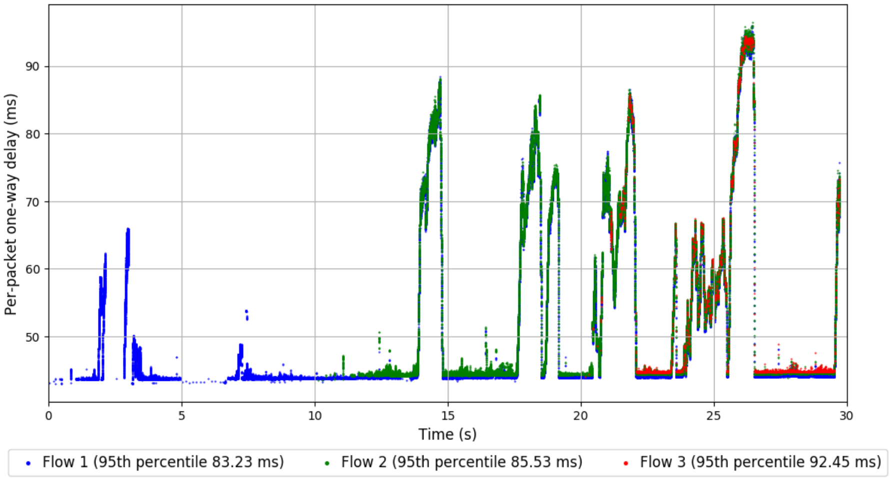




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-03 17:10:34
End at: 2018-04-03 17:11:04
Local clock offset: 6.192 ms
Remote clock offset: 52.393 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.17 Mbit/s
95th percentile per-packet one-way delay: 84.455 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 24.24 Mbit/s
95th percentile per-packet one-way delay: 83.233 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 30.44 Mbit/s
95th percentile per-packet one-way delay: 85.529 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 92.447 ms
Loss rate: 3.28%
```

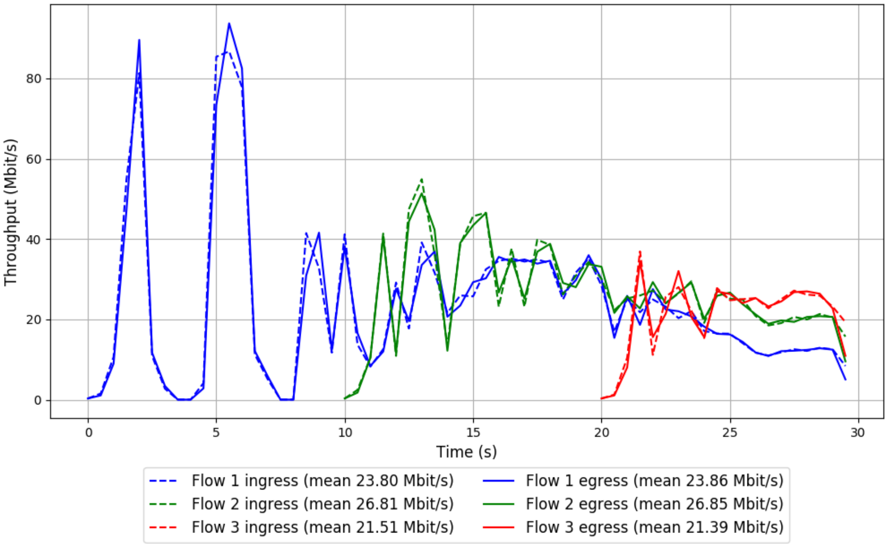
Run 1: Report of QUIC Cubic — Data Link

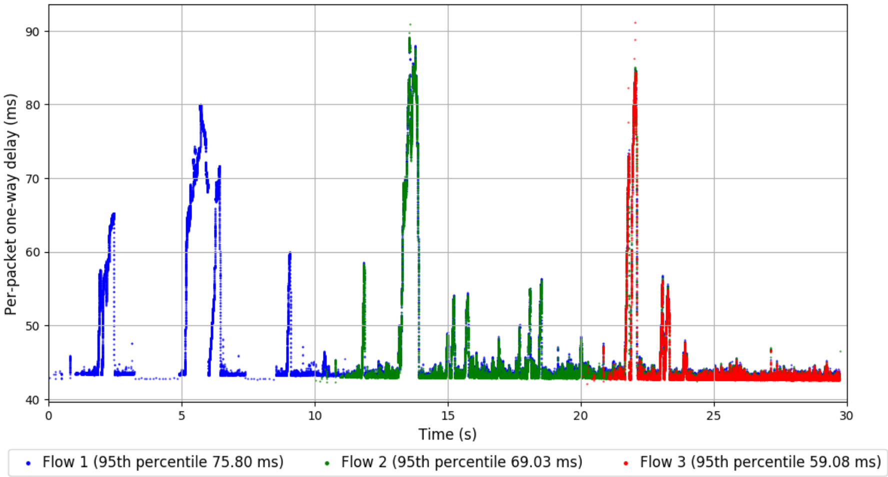




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-03 17:36:32
End at: 2018-04-03 17:37:02
Local clock offset: 9.297 ms
Remote clock offset: 26.63 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.61 Mbit/s
95th percentile per-packet one-way delay: 73.582 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 23.86 Mbit/s
95th percentile per-packet one-way delay: 75.797 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 26.85 Mbit/s
95th percentile per-packet one-way delay: 69.032 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 21.39 Mbit/s
95th percentile per-packet one-way delay: 59.082 ms
Loss rate: 2.49%
```

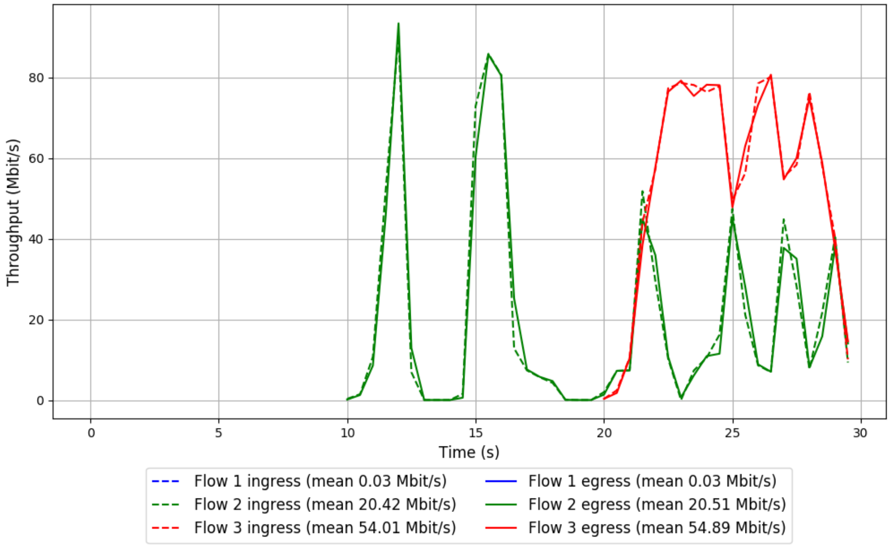
Run 2: Report of QUIC Cubic — Data Link

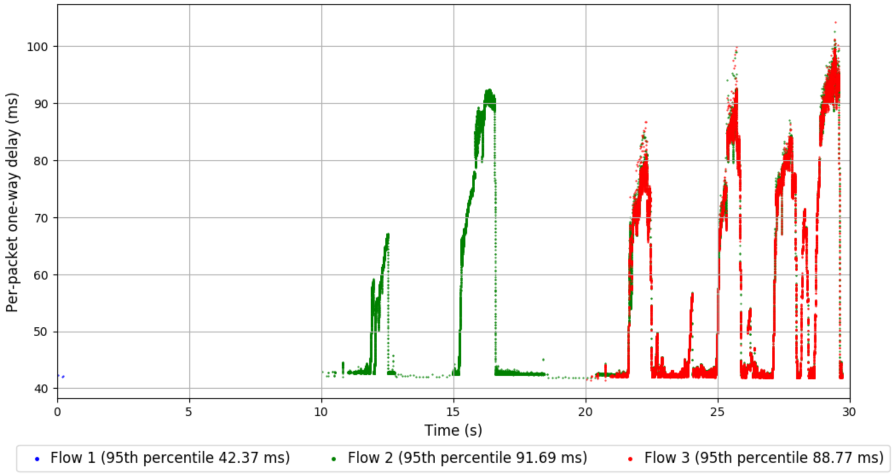




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-04-03 18:02:17
End at: 2018-04-03 18:02:47
Local clock offset: 9.331 ms
Remote clock offset: 5.322 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.48 Mbit/s
95th percentile per-packet one-way delay: 91.088 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 42.374 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.51 Mbit/s
95th percentile per-packet one-way delay: 91.694 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 88.767 ms
Loss rate: 0.43%
```

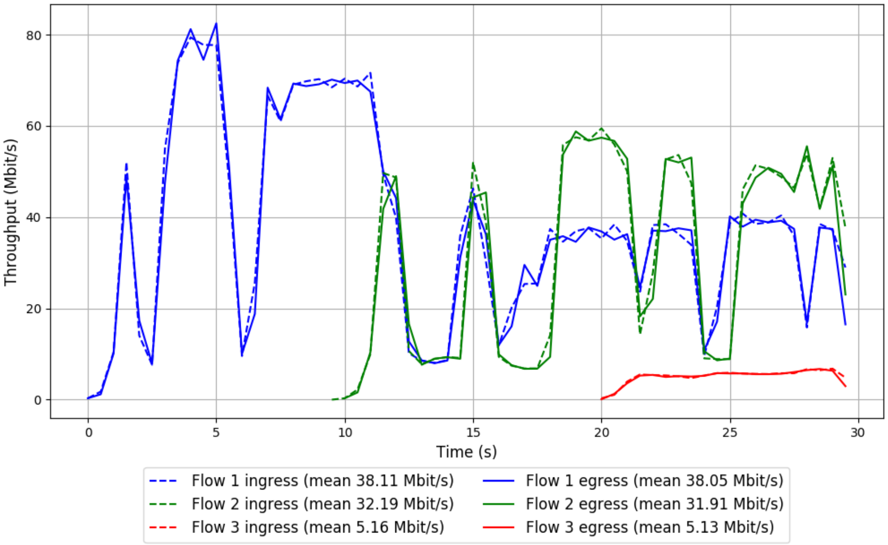
Run 3: Report of QUIC Cubic — Data Link

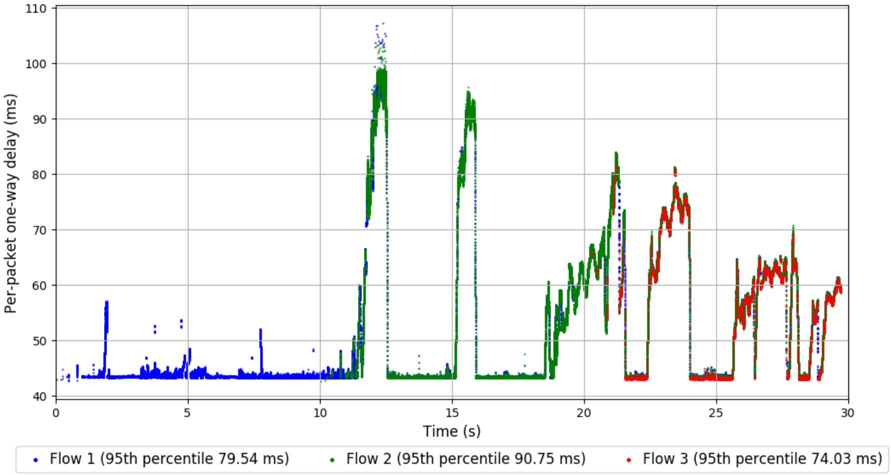




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-04-03 18:26:44
End at: 2018-04-03 18:27:14
Local clock offset: 9.217 ms
Remote clock offset: -13.855 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.88 Mbit/s
95th percentile per-packet one-way delay: 84.038 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 38.05 Mbit/s
95th percentile per-packet one-way delay: 79.543 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 90.754 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 5.13 Mbit/s
95th percentile per-packet one-way delay: 74.034 ms
Loss rate: 2.83%
```

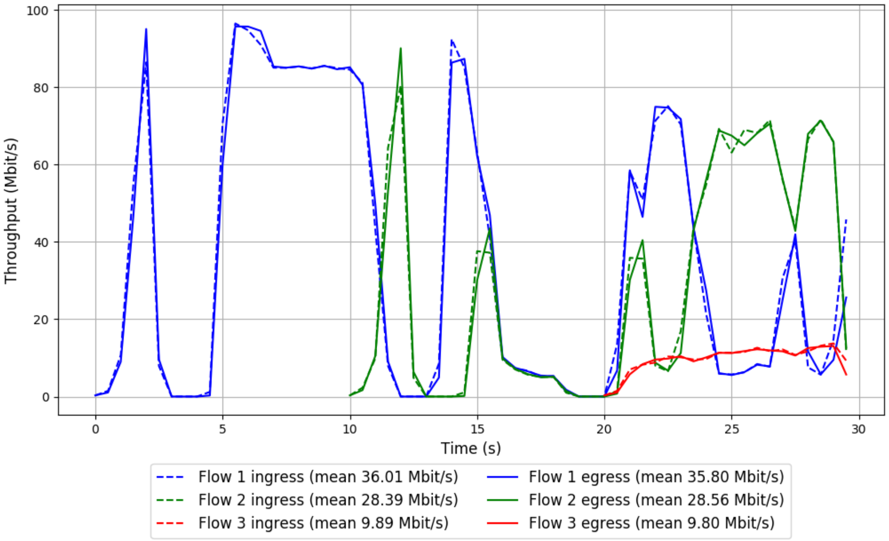
Run 4: Report of QUIC Cubic — Data Link

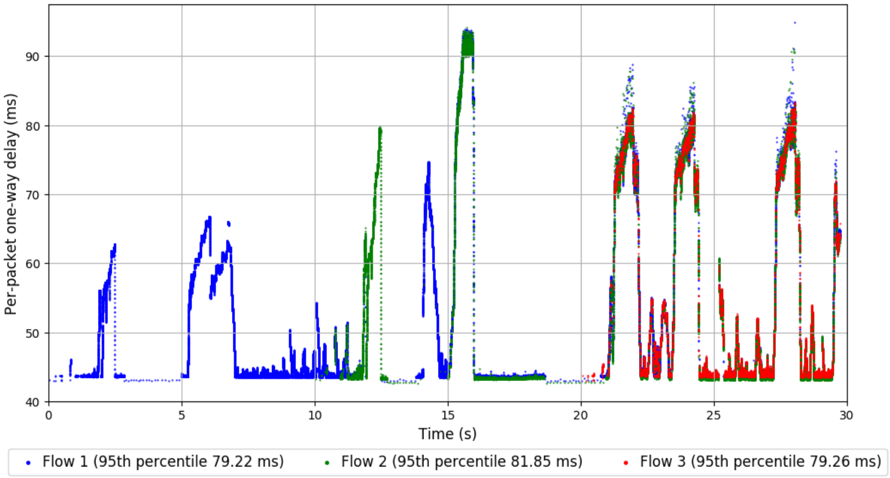




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-04-03 18:51:04
End at: 2018-04-03 18:51:34
Local clock offset: 9.032 ms
Remote clock offset: -25.342 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.92 Mbit/s
95th percentile per-packet one-way delay: 80.104 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 35.80 Mbit/s
95th percentile per-packet one-way delay: 79.218 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 28.56 Mbit/s
95th percentile per-packet one-way delay: 81.852 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 79.262 ms
Loss rate: 2.77%
```

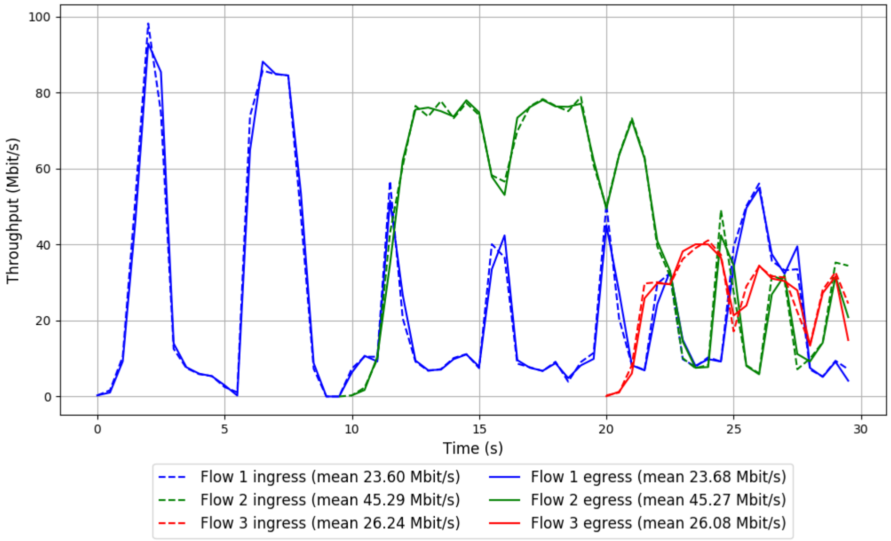
Run 5: Report of QUIC Cubic — Data Link

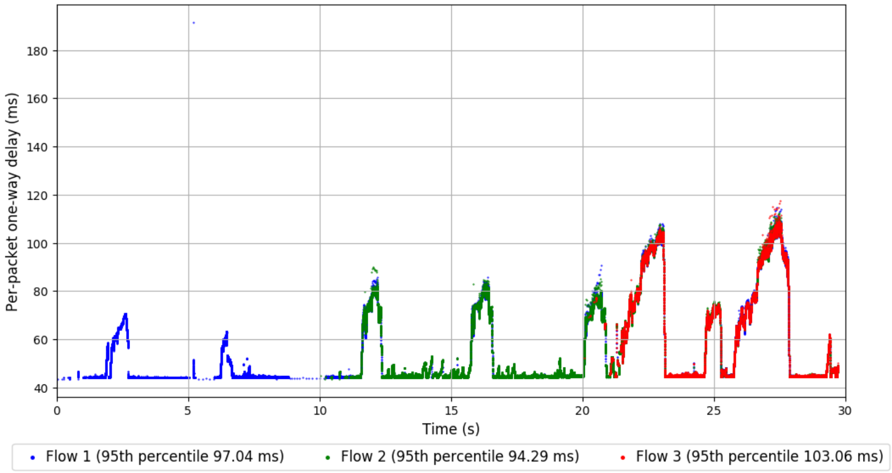




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-04-03 19:15:28
End at: 2018-04-03 19:15:58
Local clock offset: 9.025 ms
Remote clock offset: -5.463 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.18 Mbit/s
95th percentile per-packet one-way delay: 97.652 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 97.037 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 45.27 Mbit/s
95th percentile per-packet one-way delay: 94.287 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 26.08 Mbit/s
95th percentile per-packet one-way delay: 103.060 ms
Loss rate: 2.59%
```

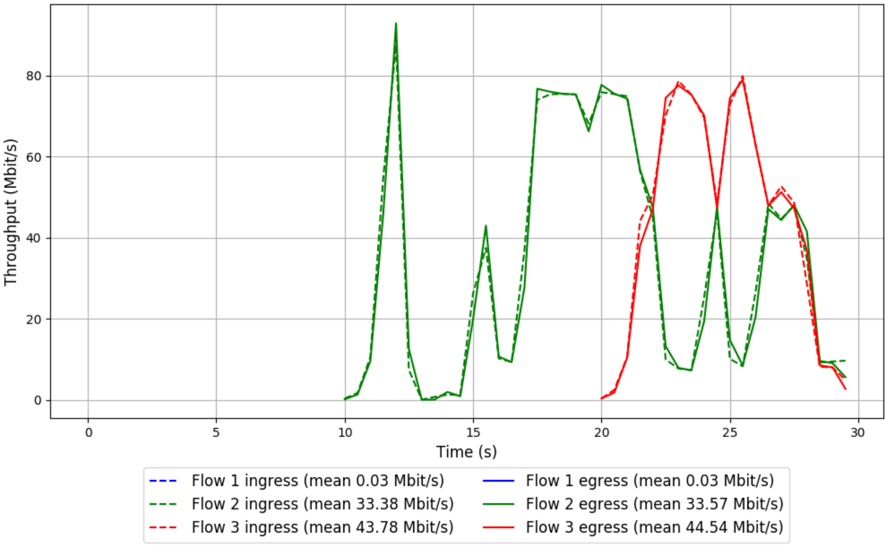
Run 6: Report of QUIC Cubic — Data Link

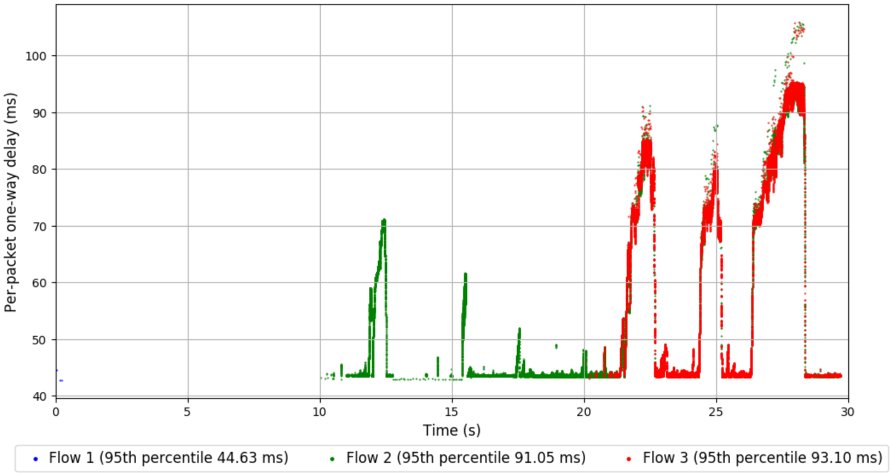




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-04-03 19:39:56
End at: 2018-04-03 19:40:26
Local clock offset: 6.364 ms
Remote clock offset: 3.944 ms

# Below is generated by plot.py at 2018-04-04 01:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.77 Mbit/s
95th percentile per-packet one-way delay: 92.344 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 44.630 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.57 Mbit/s
95th percentile per-packet one-way delay: 91.053 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 44.54 Mbit/s
95th percentile per-packet one-way delay: 93.099 ms
Loss rate: 0.40%
```

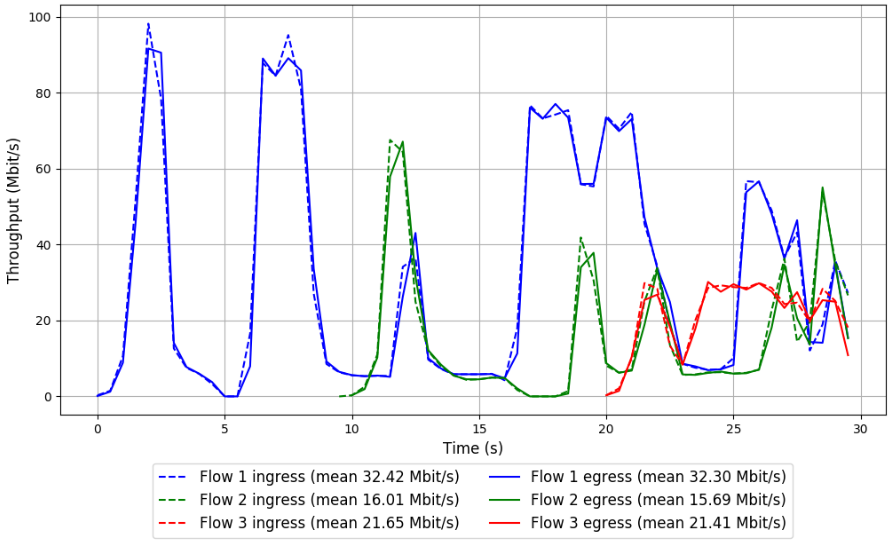
Run 7: Report of QUIC Cubic — Data Link

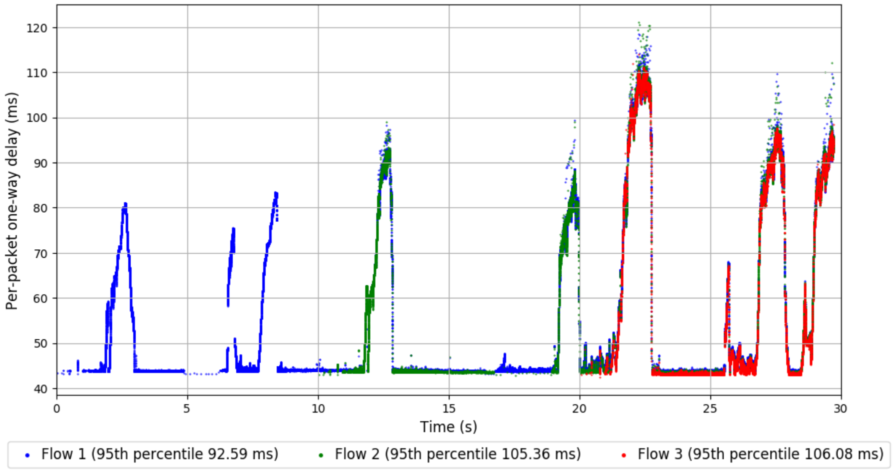




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-04-03 20:04:16
End at: 2018-04-03 20:04:46
Local clock offset: 4.488 ms
Remote clock offset: -2.675 ms

# Below is generated by plot.py at 2018-04-04 01:22:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.67 Mbit/s
95th percentile per-packet one-way delay: 97.868 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 32.30 Mbit/s
95th percentile per-packet one-way delay: 92.588 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 15.69 Mbit/s
95th percentile per-packet one-way delay: 105.362 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 21.41 Mbit/s
95th percentile per-packet one-way delay: 106.075 ms
Loss rate: 2.99%
```

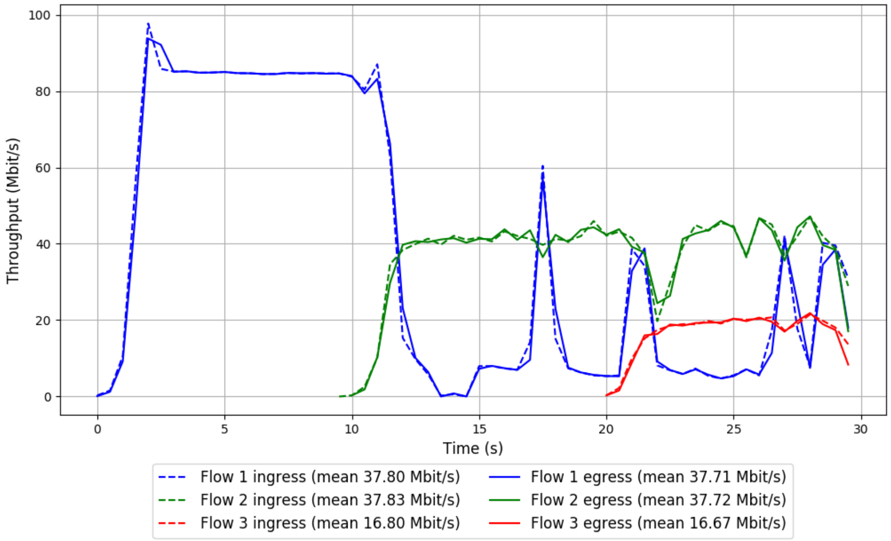
Run 8: Report of QUIC Cubic — Data Link

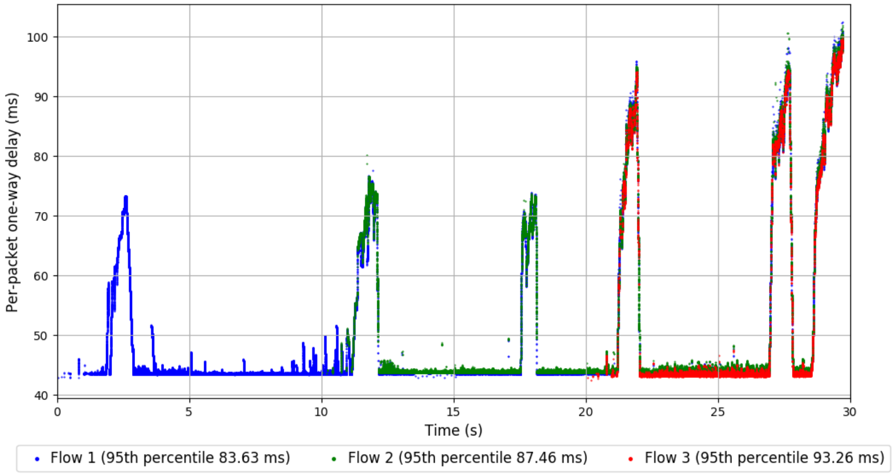




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-04-03 20:28:38
End at: 2018-04-03 20:29:08
Local clock offset: 5.242 ms
Remote clock offset: -2.773 ms

# Below is generated by plot.py at 2018-04-04 01:23:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.15 Mbit/s
95th percentile per-packet one-way delay: 86.623 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 83.630 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 37.72 Mbit/s
95th percentile per-packet one-way delay: 87.462 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 16.67 Mbit/s
95th percentile per-packet one-way delay: 93.258 ms
Loss rate: 2.70%
```

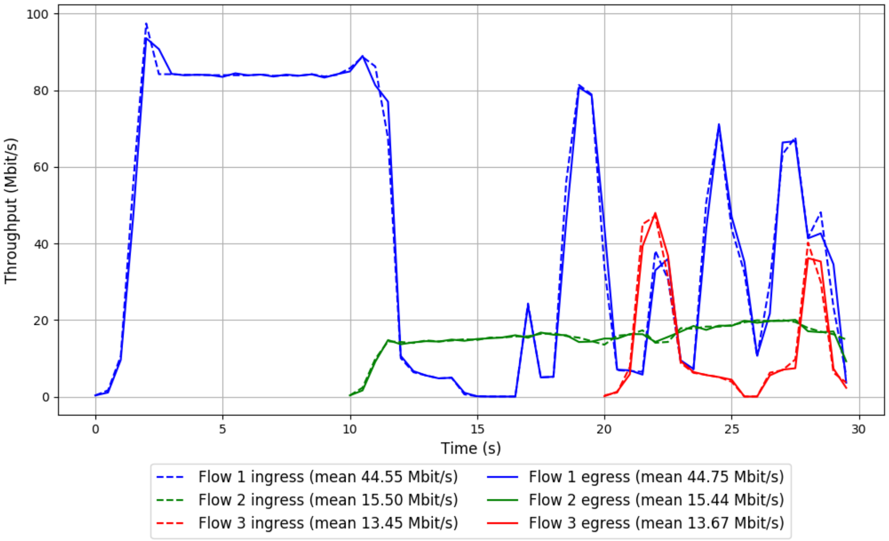
Run 9: Report of QUIC Cubic — Data Link

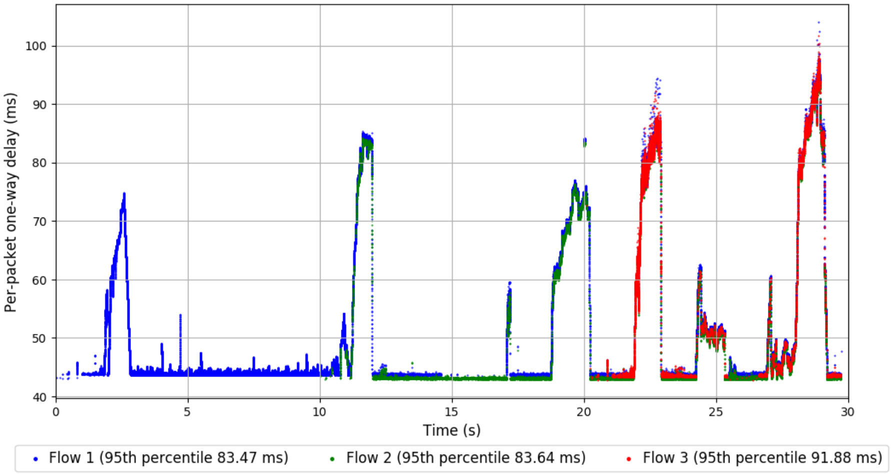




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-03 20:52:58
End at: 2018-04-03 20:53:28
Local clock offset: 5.666 ms
Remote clock offset: -5.966 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.41 Mbit/s
95th percentile per-packet one-way delay: 84.264 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 44.75 Mbit/s
95th percentile per-packet one-way delay: 83.468 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 15.44 Mbit/s
95th percentile per-packet one-way delay: 83.638 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 13.67 Mbit/s
95th percentile per-packet one-way delay: 91.879 ms
Loss rate: 0.72%
```

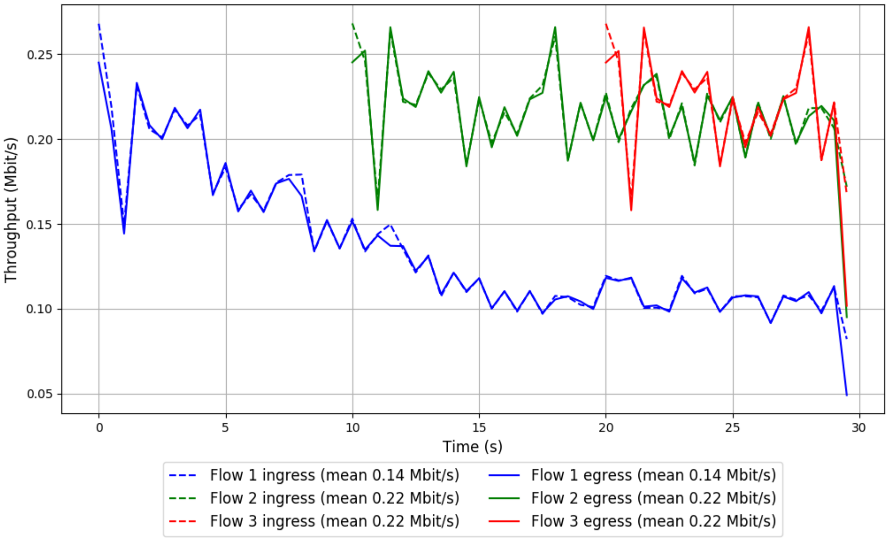
Run 10: Report of QUIC Cubic — Data Link

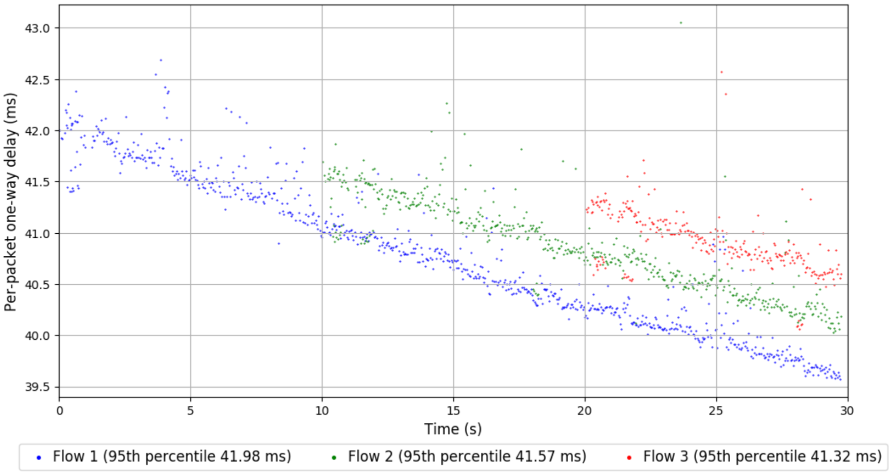




```
Run 1: Statistics of SCReAM

Start at: 2018-04-03 17:23:31
End at: 2018-04-03 17:24:01
Local clock offset: 8.486 ms
Remote clock offset: 55.262 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 41.824 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 41.978 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.574 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 41.319 ms
Loss rate: 1.86%
```

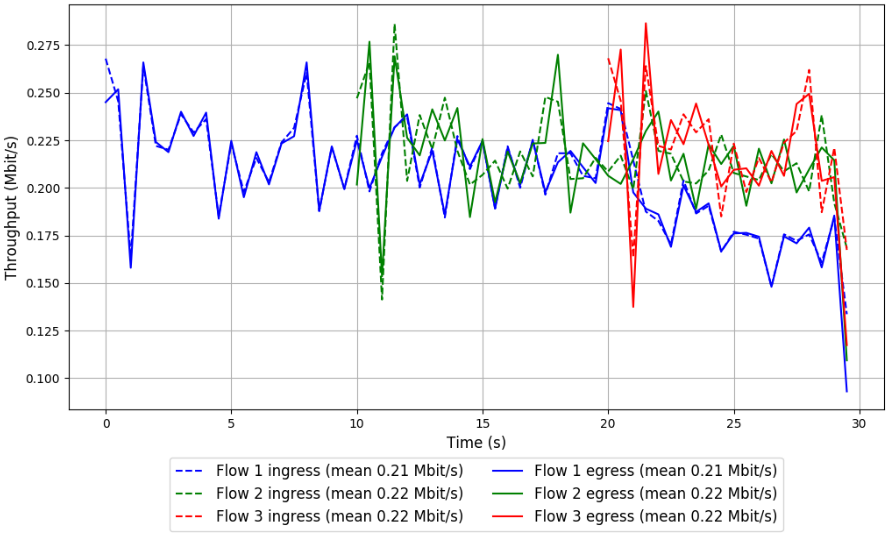
Run 1: Report of SCReAM — Data Link

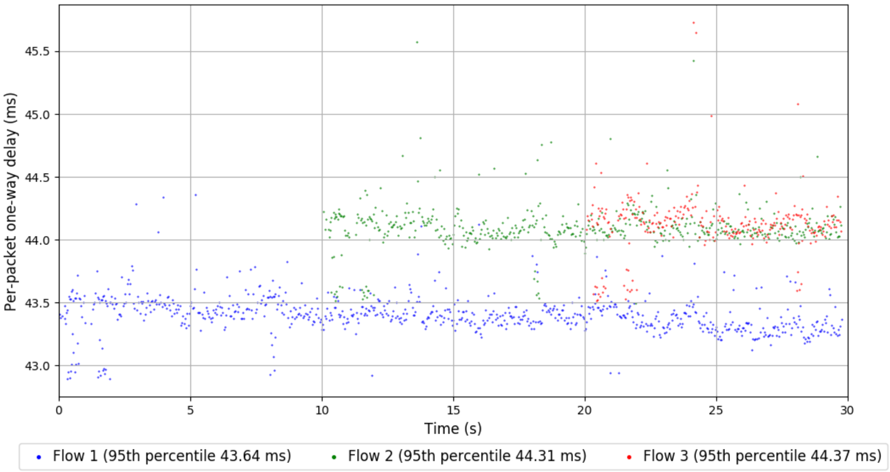




```
Run 2: Statistics of SCReAM

Start at: 2018-04-03 17:49:32
End at: 2018-04-03 17:50:02
Local clock offset: 9.859 ms
Remote clock offset: 21.338 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 44.257 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 43.643 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 44.307 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 44.370 ms
Loss rate: 1.86%
```

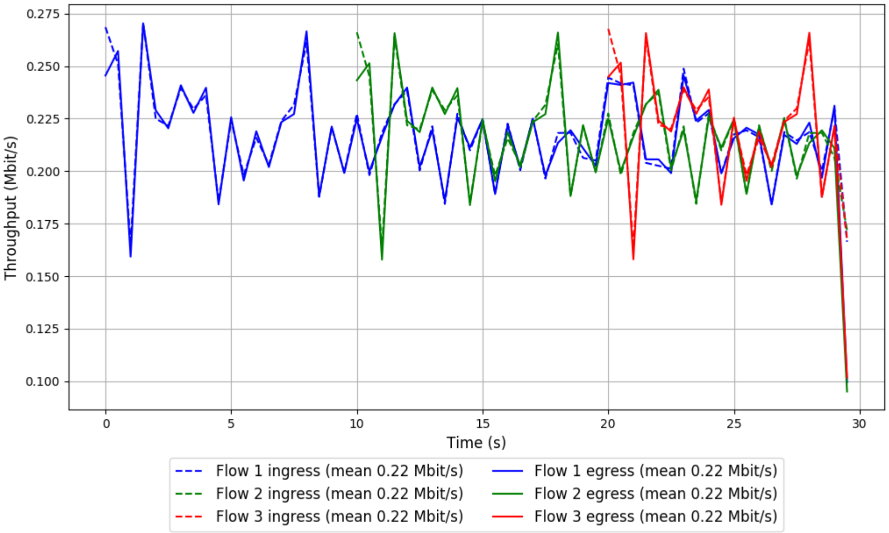
Run 2: Report of SCReAM — Data Link

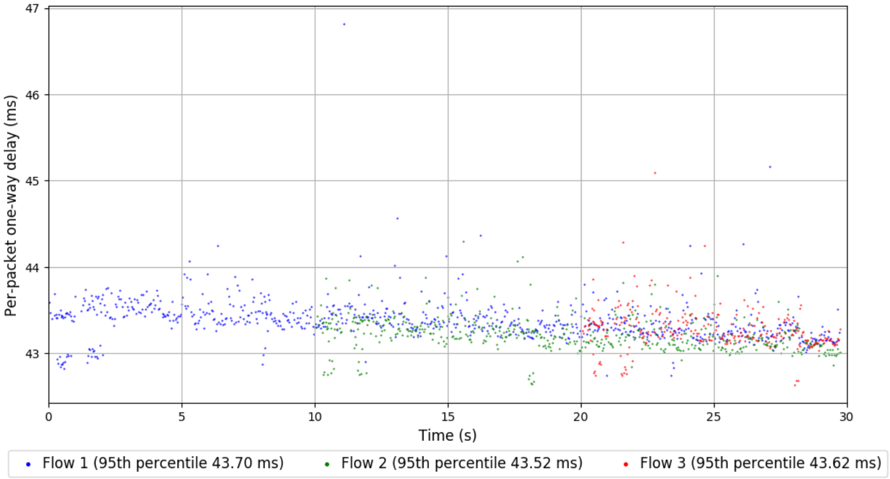




```
Run 3: Statistics of SCReAM

Start at: 2018-04-03 18:14:36
End at: 2018-04-03 18:15:06
Local clock offset: 9.578 ms
Remote clock offset: -8.059 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 43.672 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.702 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.523 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.618 ms
Loss rate: 1.86%
```

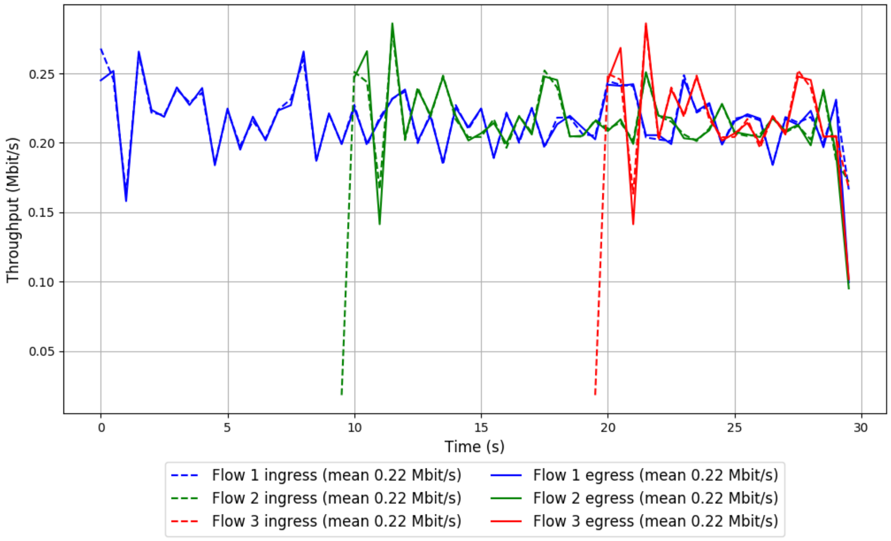
Run 3: Report of SCReAM — Data Link

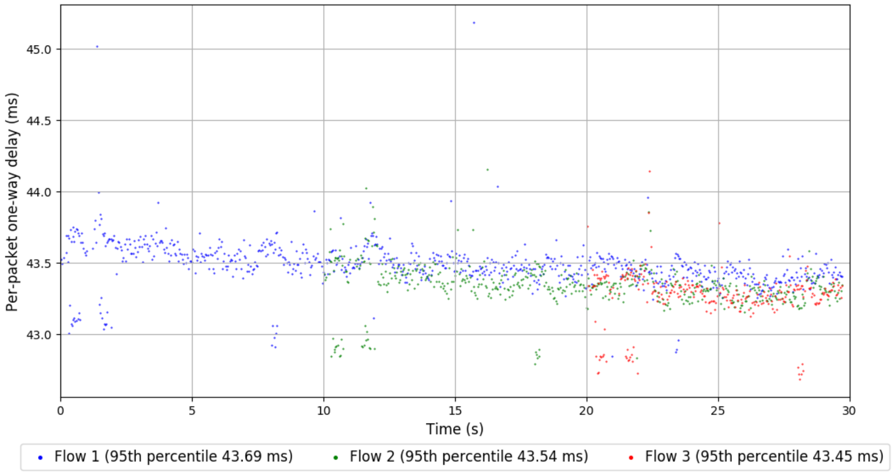




```
Run 4: Statistics of SCReAM

Start at: 2018-04-03 18:38:54
End at: 2018-04-03 18:39:24
Local clock offset: 8.947 ms
Remote clock offset: -20.159 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 43.659 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.691 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.540 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.449 ms
Loss rate: 1.86%
```

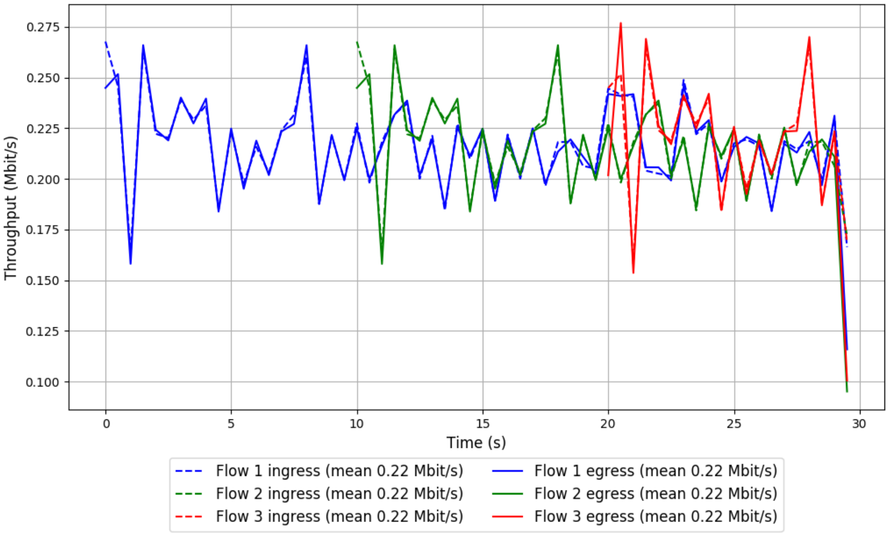
Run 4: Report of SCReAM — Data Link

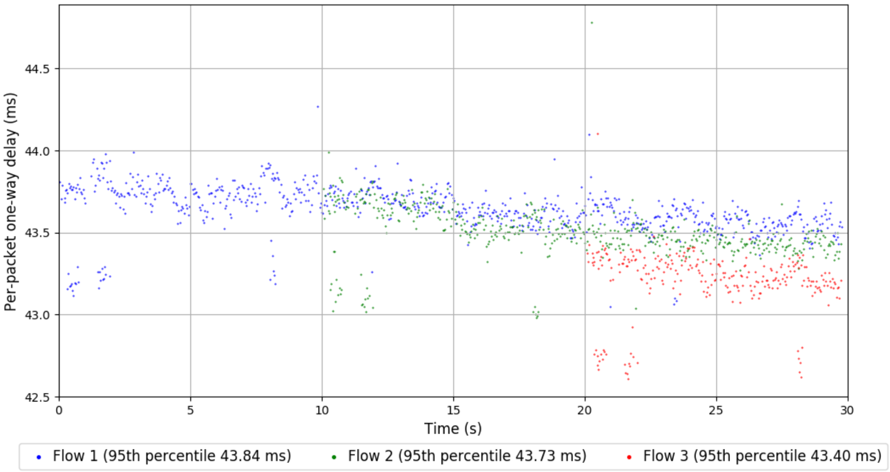




```
Run 5: Statistics of SCReAM

Start at: 2018-04-03 19:03:16
End at: 2018-04-03 19:03:46
Local clock offset: 8.993 ms
Remote clock offset: -29.812 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 43.806 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.841 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.730 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.395 ms
Loss rate: 1.91%
```

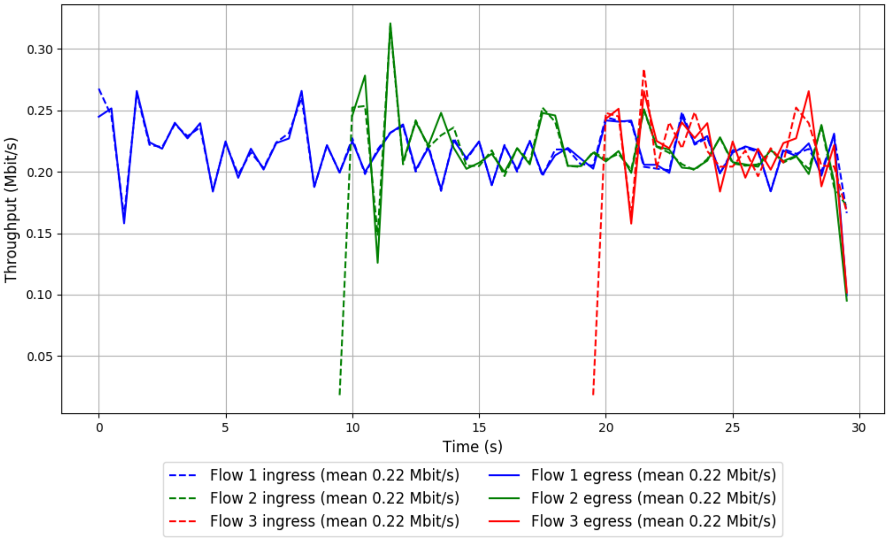
Run 5: Report of SCReAM — Data Link

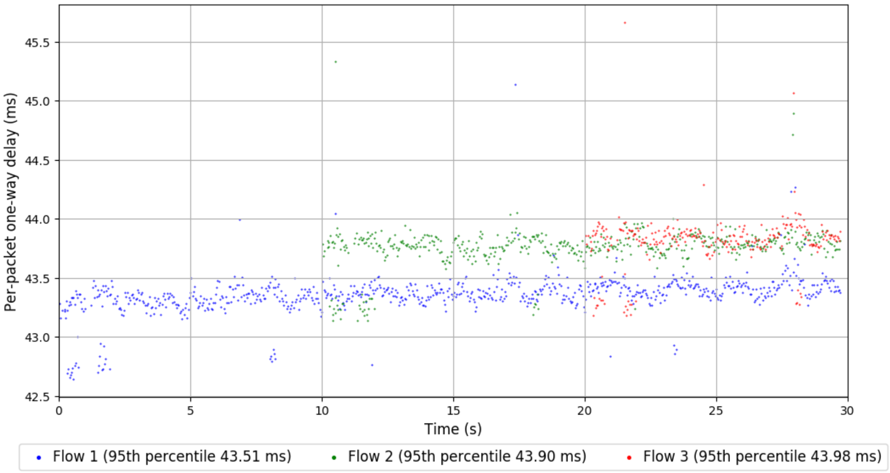




```
Run 6: Statistics of SCReAM

Start at: 2018-04-03 19:27:45
End at: 2018-04-03 19:28:15
Local clock offset: 8.917 ms
Remote clock offset: 2.642 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 43.911 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.513 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.902 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.976 ms
Loss rate: 1.86%
```

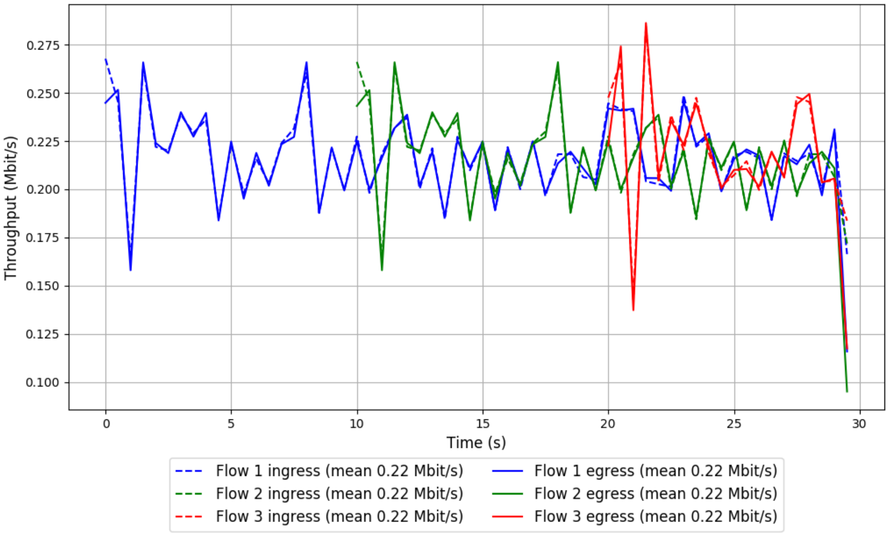
Run 6: Report of SCReAM — Data Link

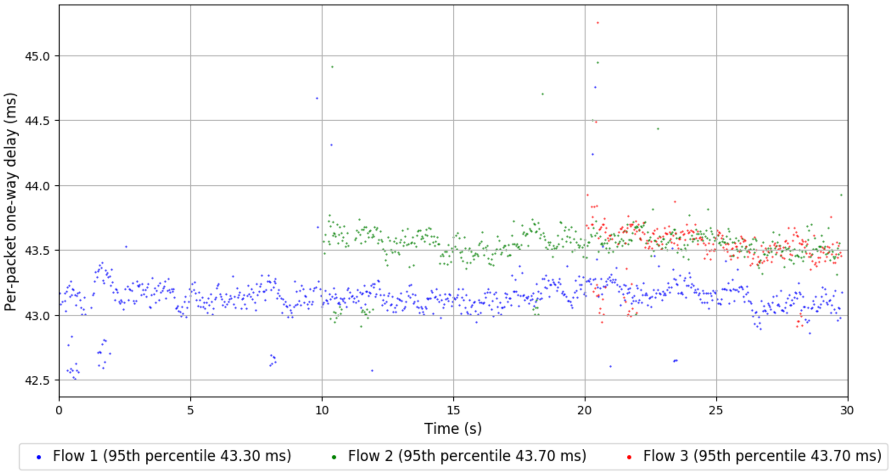




```
Run 7: Statistics of SCReAM

Start at: 2018-04-03 19:52:05
End at: 2018-04-03 19:52:35
Local clock offset: 4.887 ms
Remote clock offset: -1.116 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 43.675 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.295 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.698 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.702 ms
Loss rate: 1.86%
```

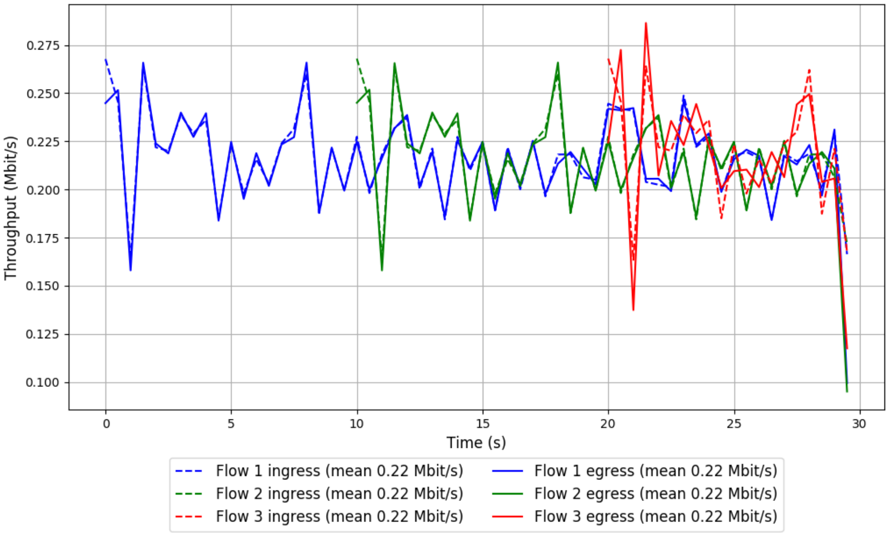
Run 7: Report of SCReAM — Data Link

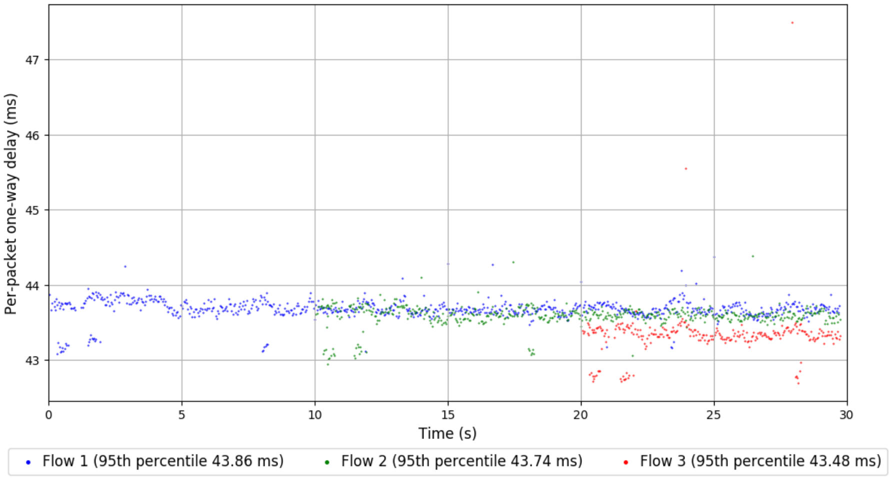




```
Run 8: Statistics of SCReAM

Start at: 2018-04-03 20:16:27
End at: 2018-04-03 20:16:57
Local clock offset: 5.358 ms
Remote clock offset: -2.986 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 43.816 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.857 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.738 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.480 ms
Loss rate: 1.86%
```

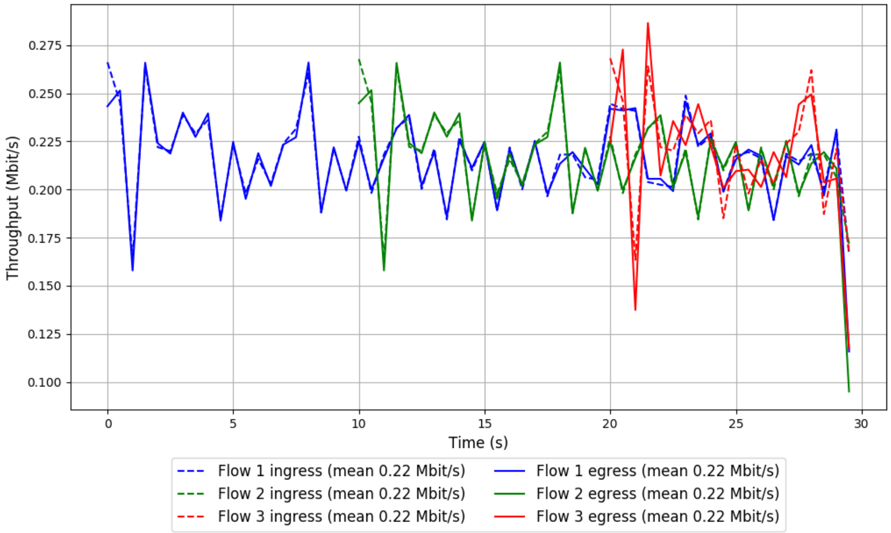
Run 8: Report of SCReAM — Data Link

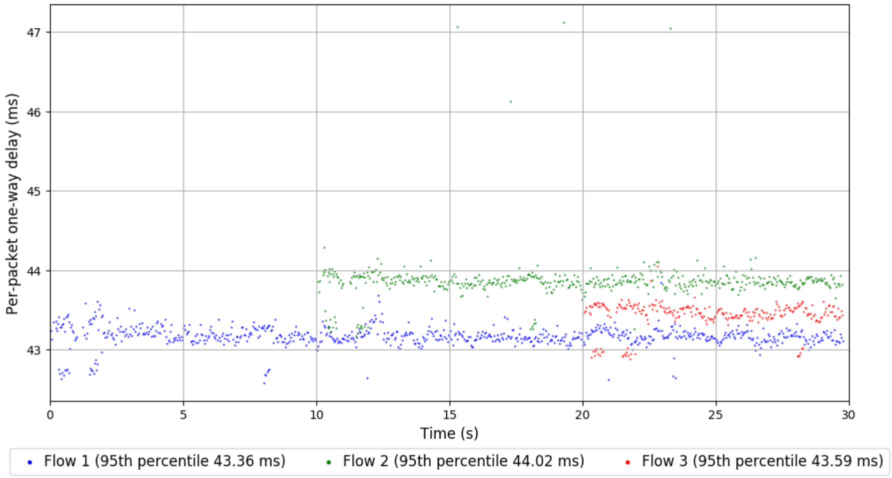




```
Run 9: Statistics of SCReAM

Start at: 2018-04-03 20:40:48
End at: 2018-04-03 20:41:18
Local clock offset: 5.44 ms
Remote clock offset: -2.895 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 43.936 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.357 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 44.018 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.593 ms
Loss rate: 1.86%
```

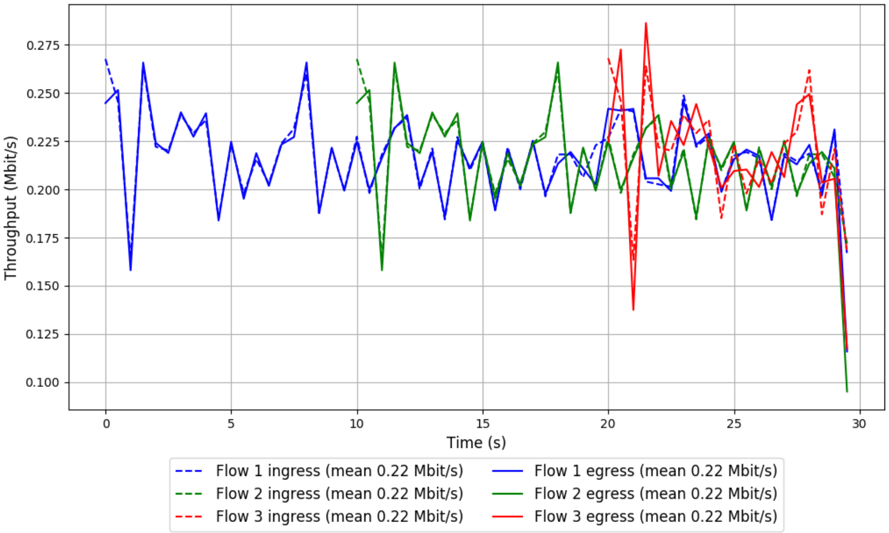
Run 9: Report of SCReAM — Data Link

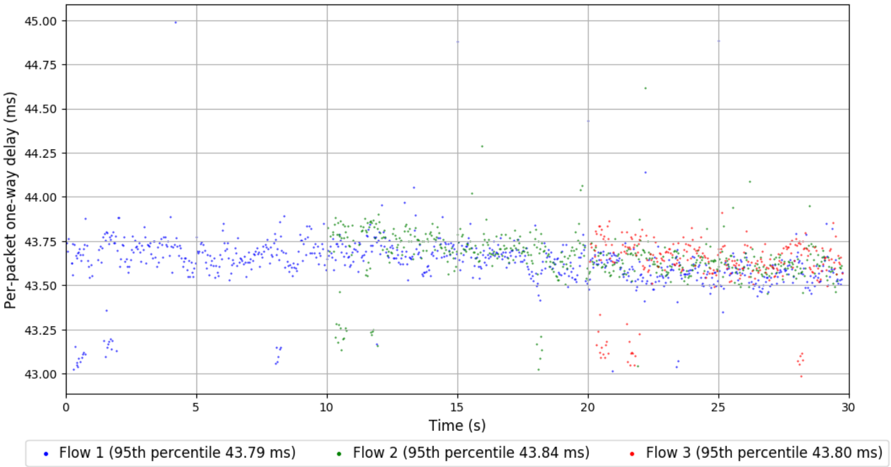




```
Run 10: Statistics of SCReAM

Start at: 2018-04-03 21:05:15
End at: 2018-04-03 21:05:45
Local clock offset: 5.909 ms
Remote clock offset: -8.886 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 43.817 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.789 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.843 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 43.799 ms
Loss rate: 1.86%
```

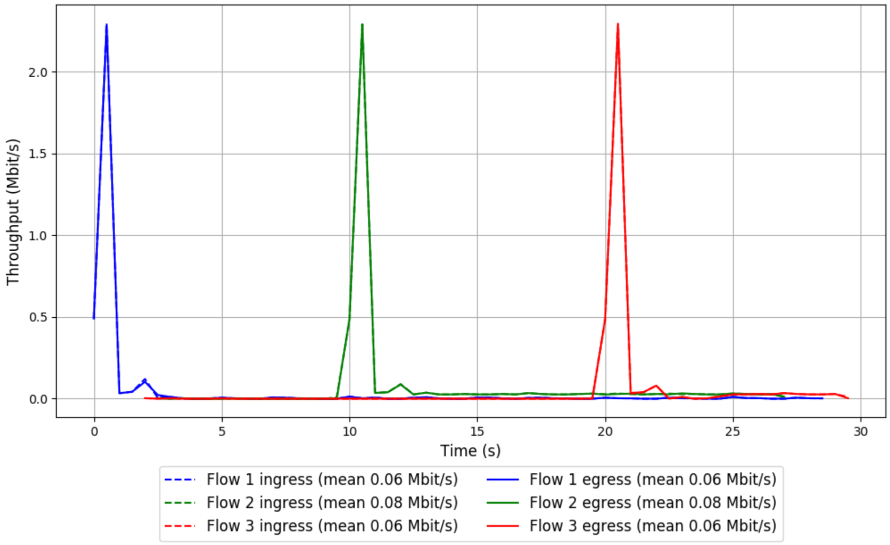
Run 10: Report of SCReAM — Data Link

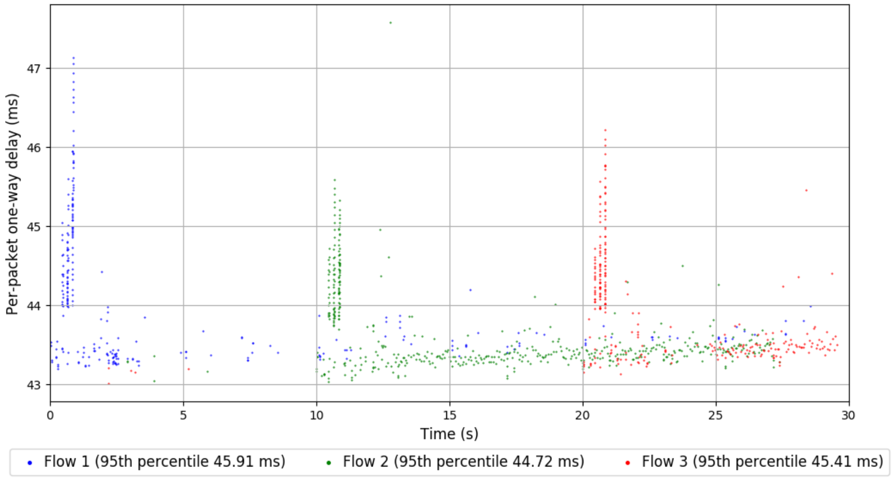




```
Run 1: Statistics of WebRTC media

Start at: 2018-04-03 17:20:42
End at: 2018-04-03 17:21:12
Local clock offset: 7.819 ms
Remote clock offset: 62.133 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 45.286 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.909 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 44.716 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.413 ms
Loss rate: 0.32%
```

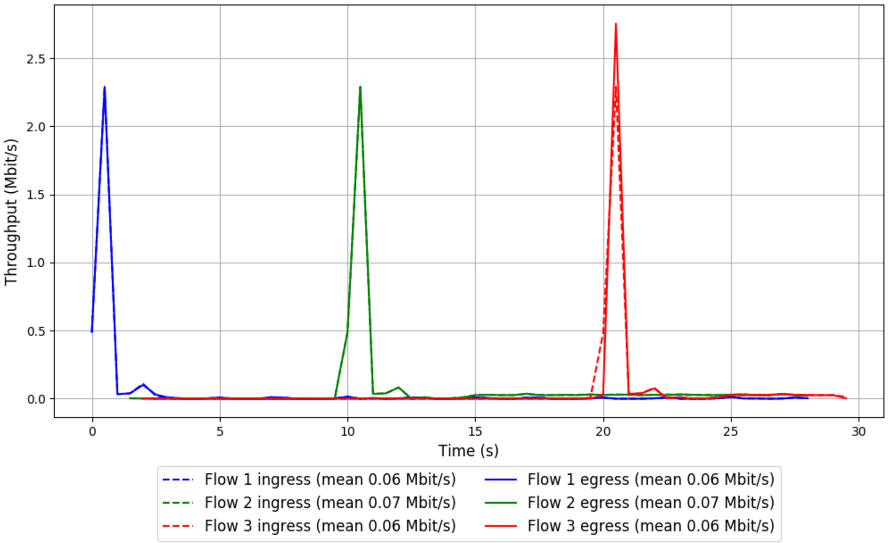
Run 1: Report of WebRTC media — Data Link

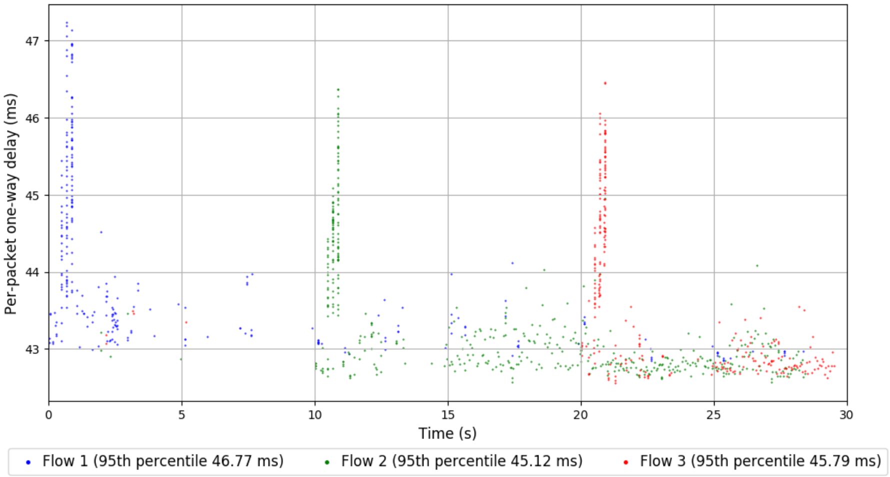




```
Run 2: Statistics of WebRTC media

Start at: 2018-04-03 17:46:19
End at: 2018-04-03 17:46:49
Local clock offset: 9.747 ms
Remote clock offset: 21.962 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 45.809 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 46.768 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 45.122 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.786 ms
Loss rate: 0.41%
```

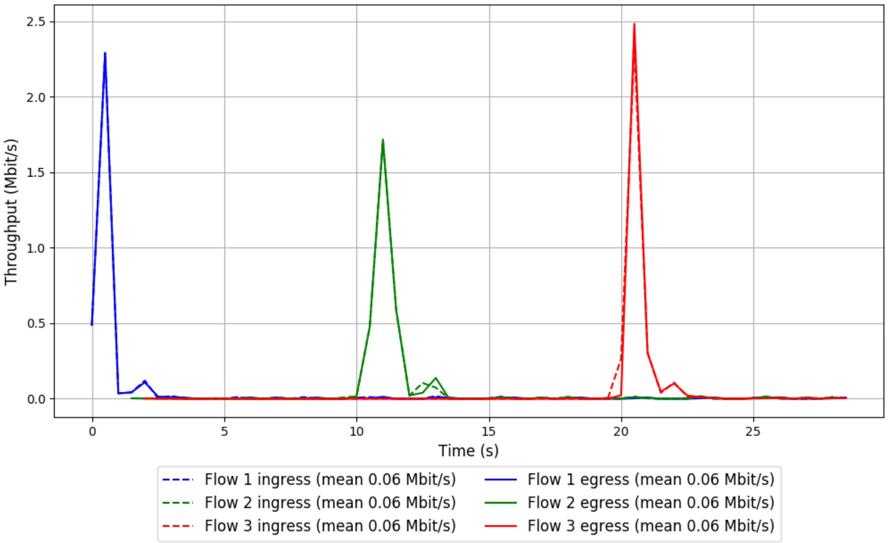
Run 2: Report of WebRTC media — Data Link

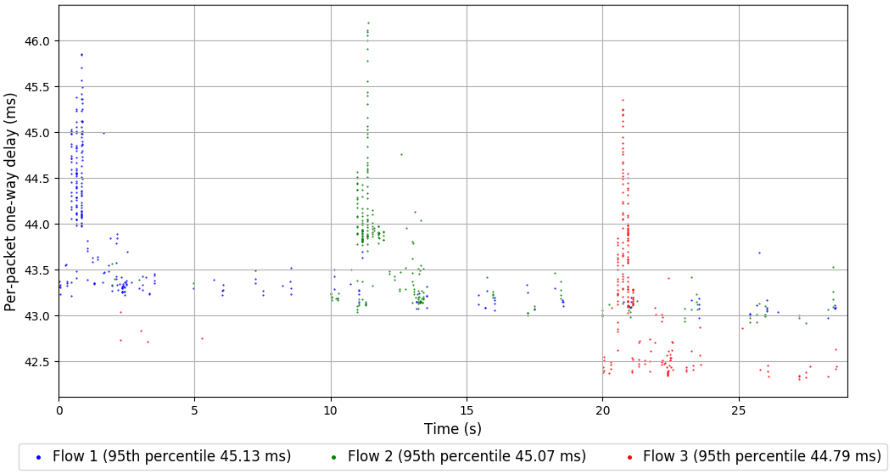




```
Run 3: Statistics of WebRTC media

Start at: 2018-04-03 18:11:48
End at: 2018-04-03 18:12:18
Local clock offset: 9.457 ms
Remote clock offset: -6.352 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 45.071 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.128 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.071 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 44.794 ms
Loss rate: 3.07%
```

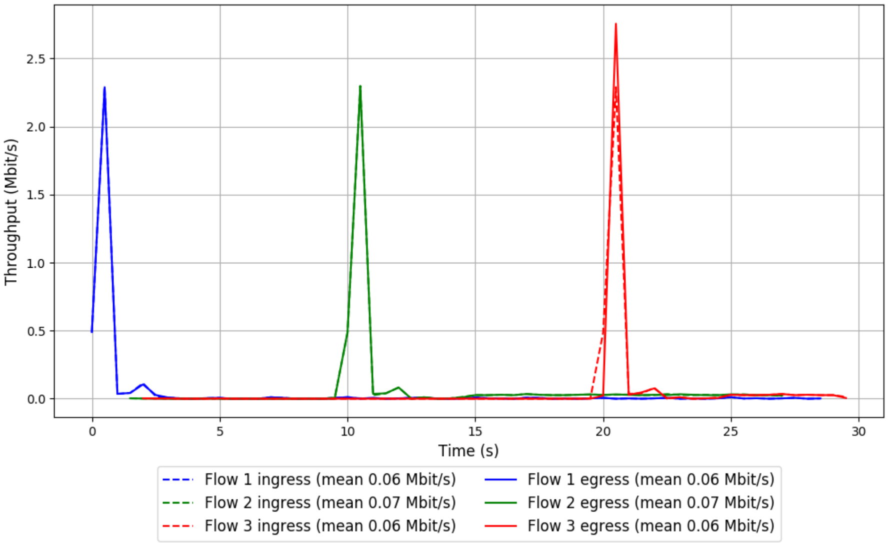
Run 3: Report of WebRTC media — Data Link

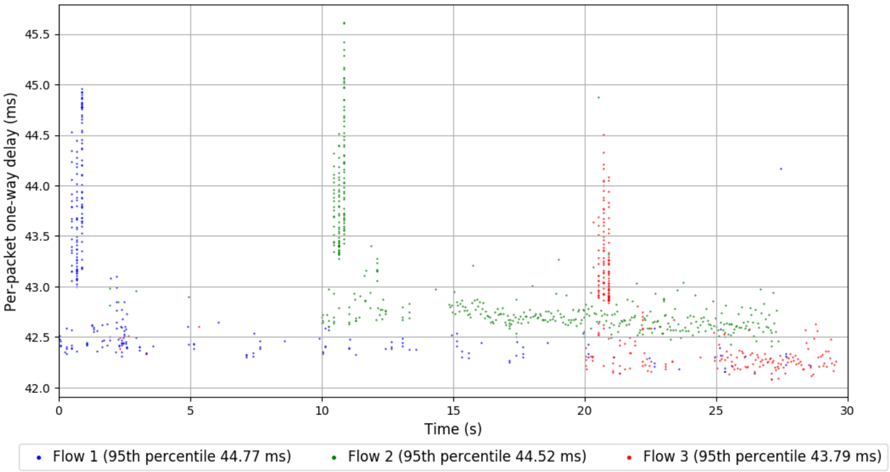




```
Run 4: Statistics of WebRTC media

Start at: 2018-04-03 18:36:14
End at: 2018-04-03 18:36:44
Local clock offset: 8.833 ms
Remote clock offset: -18.759 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 44.489 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 44.774 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 44.516 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 43.792 ms
Loss rate: 0.33%
```

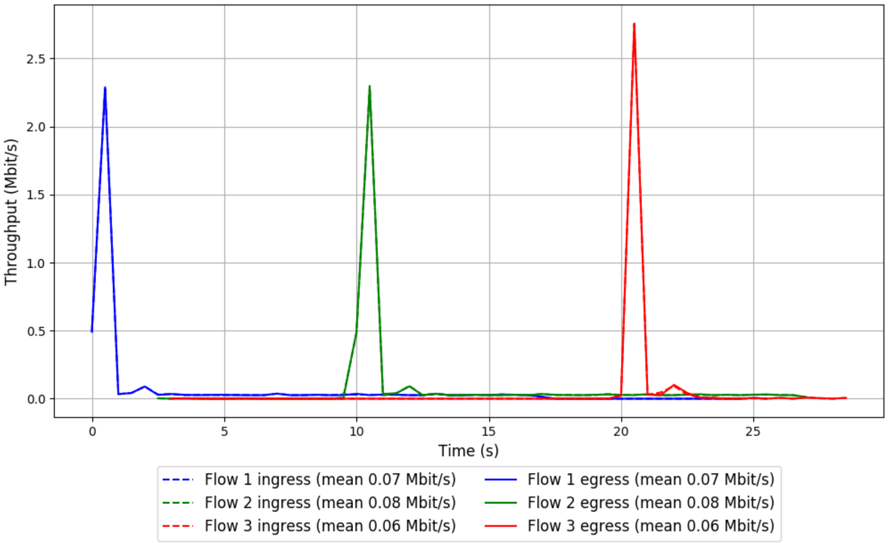
Run 4: Report of WebRTC media — Data Link

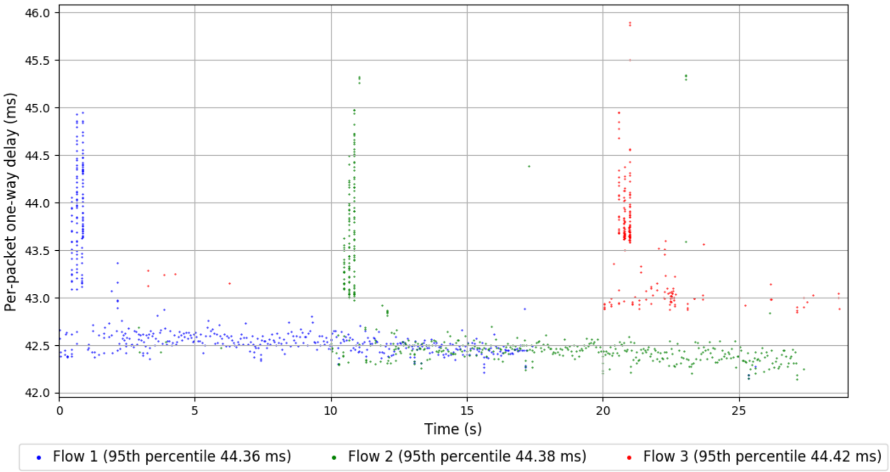




```
Run 5: Statistics of WebRTC media

Start at: 2018-04-03 19:00:36
End at: 2018-04-03 19:01:06
Local clock offset: 8.761 ms
Remote clock offset: -28.766 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 44.378 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 44.362 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 44.378 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 44.425 ms
Loss rate: 0.00%
```

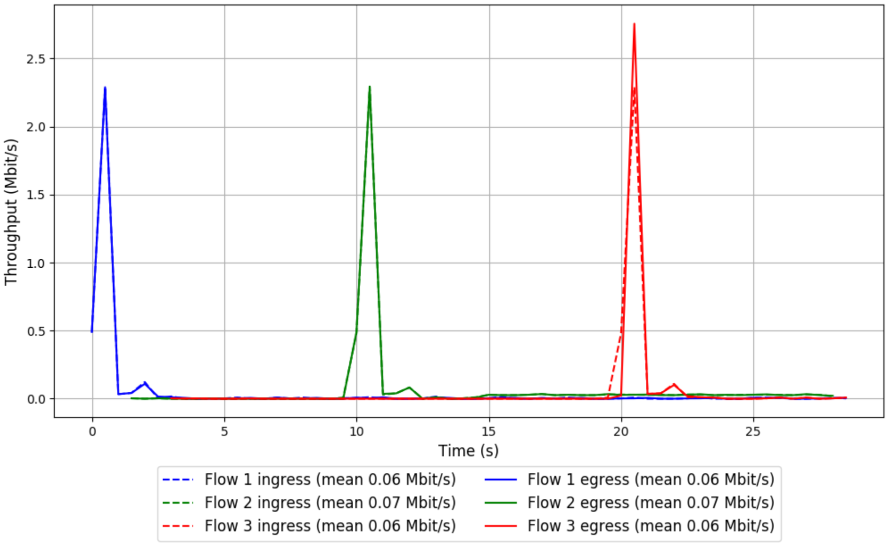
Run 5: Report of WebRTC media — Data Link

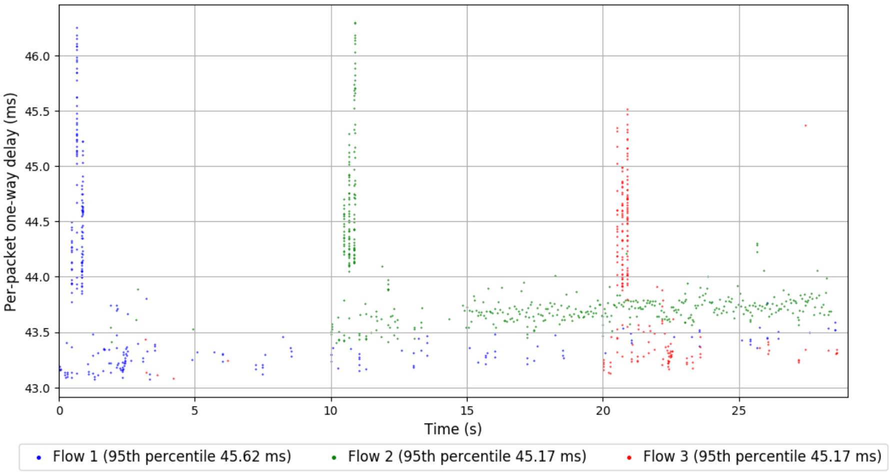




```
Run 6: Statistics of WebRTC media

Start at: 2018-04-03 19:25:02
End at: 2018-04-03 19:25:32
Local clock offset: 8.93 ms
Remote clock offset: 1.557 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 45.329 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.625 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 45.171 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.174 ms
Loss rate: 0.00%
```

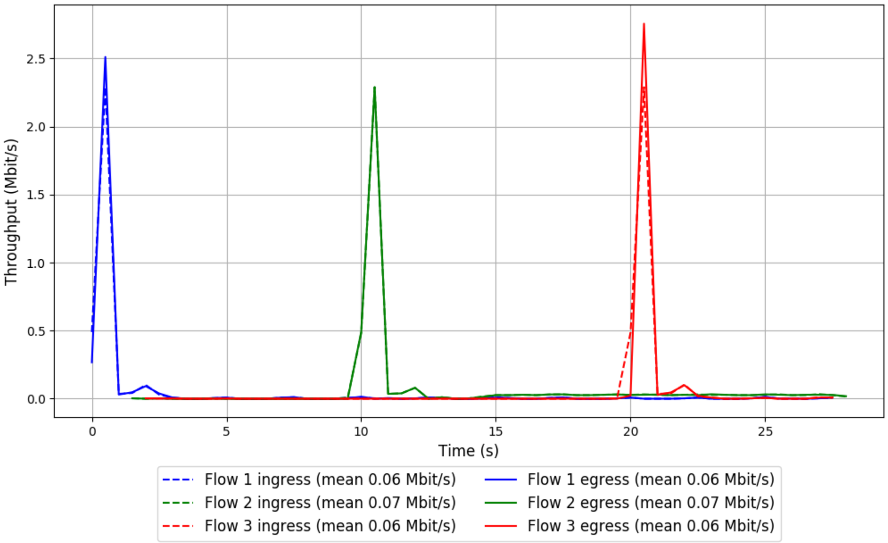
Run 6: Report of WebRTC media — Data Link

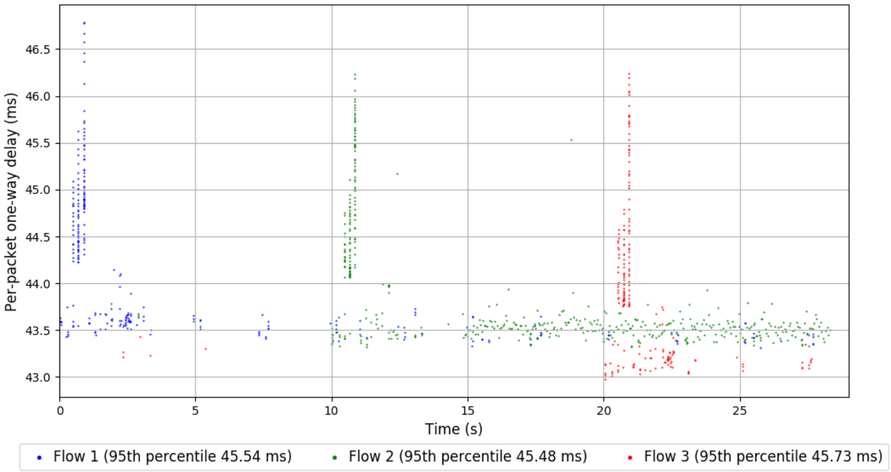




```
Run 7: Statistics of WebRTC media

Start at: 2018-04-03 19:49:25
End at: 2018-04-03 19:49:55
Local clock offset: 5.332 ms
Remote clock offset: -0.499 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 45.570 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.540 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 45.477 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.734 ms
Loss rate: 0.00%
```

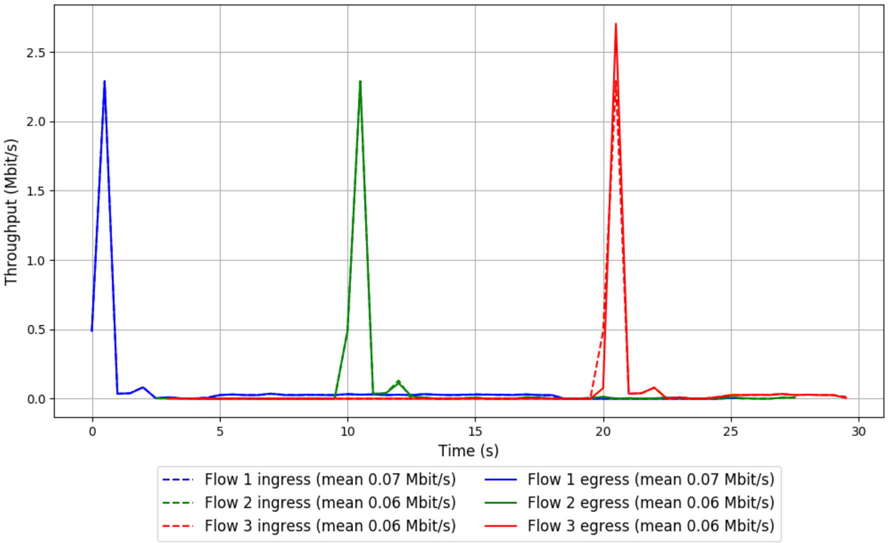
Run 7: Report of WebRTC media — Data Link

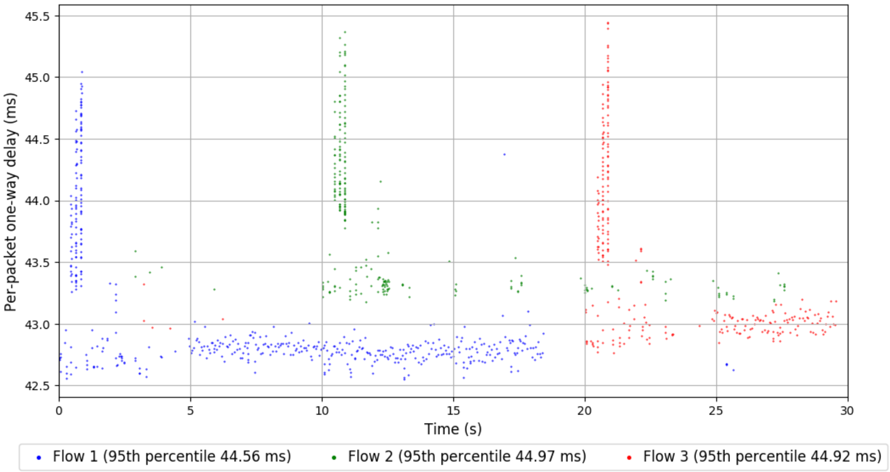




```
Run 8: Statistics of WebRTC media

Start at: 2018-04-03 20:13:48
End at: 2018-04-03 20:14:18
Local clock offset: 5.257 ms
Remote clock offset: -3.116 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 44.793 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 44.559 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 44.968 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 44.921 ms
Loss rate: 0.32%
```

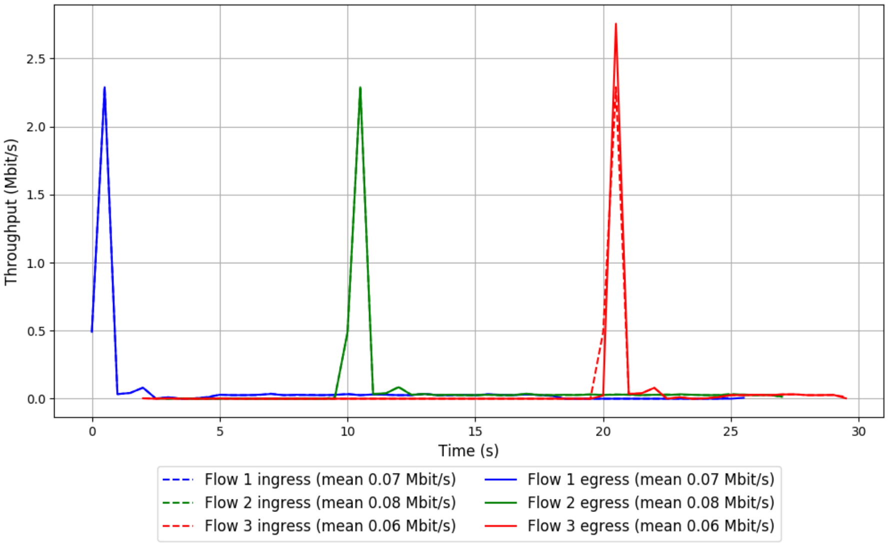
Run 8: Report of WebRTC media — Data Link

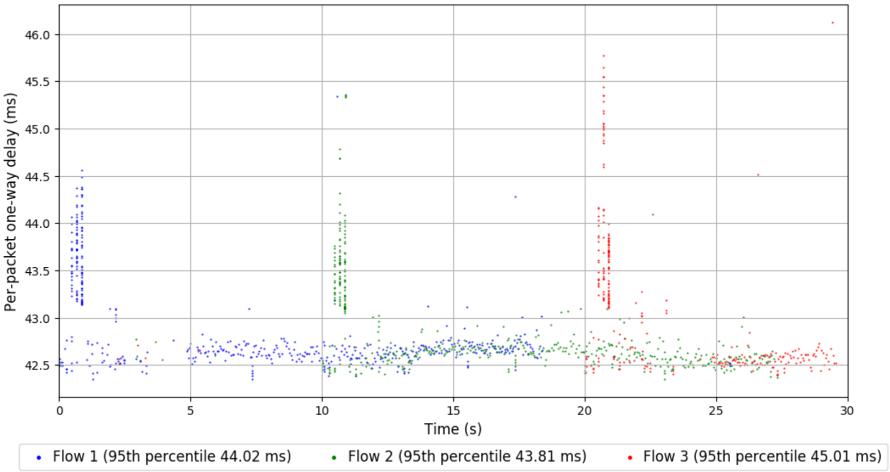




```
Run 9: Statistics of WebRTC media

Start at: 2018-04-03 20:38:08
End at: 2018-04-03 20:38:38
Local clock offset: 5.138 ms
Remote clock offset: -2.833 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 44.064 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 44.020 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 43.810 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 45.012 ms
Loss rate: 0.32%
```

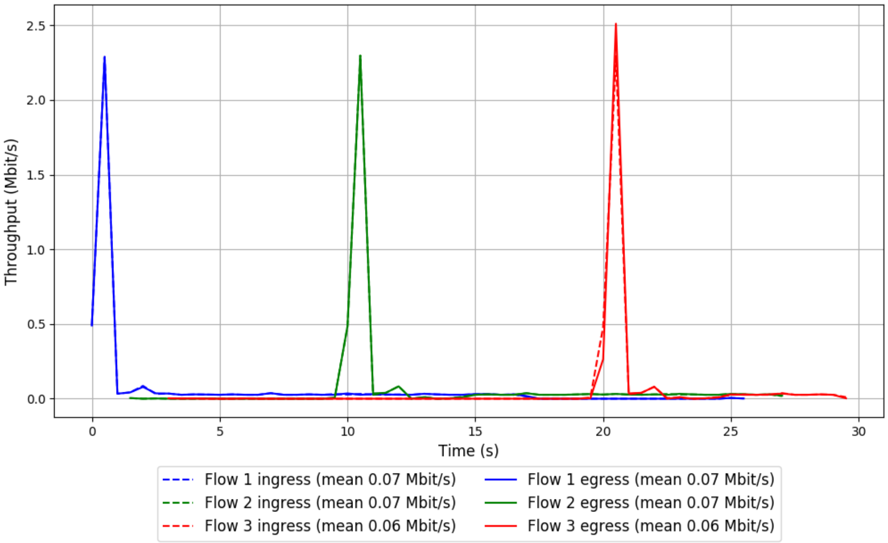
Run 9: Report of WebRTC media — Data Link

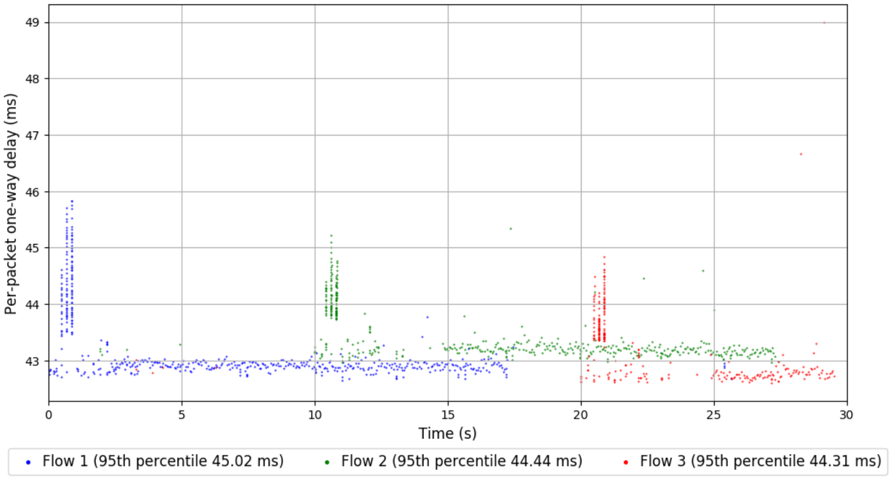




```
Run 10: Statistics of WebRTC media

Start at: 2018-04-03 21:02:34
End at: 2018-04-03 21:03:04
Local clock offset: 5.693 ms
Remote clock offset: -8.363 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 44.594 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 45.022 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 44.438 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 44.314 ms
Loss rate: 0.33%
```

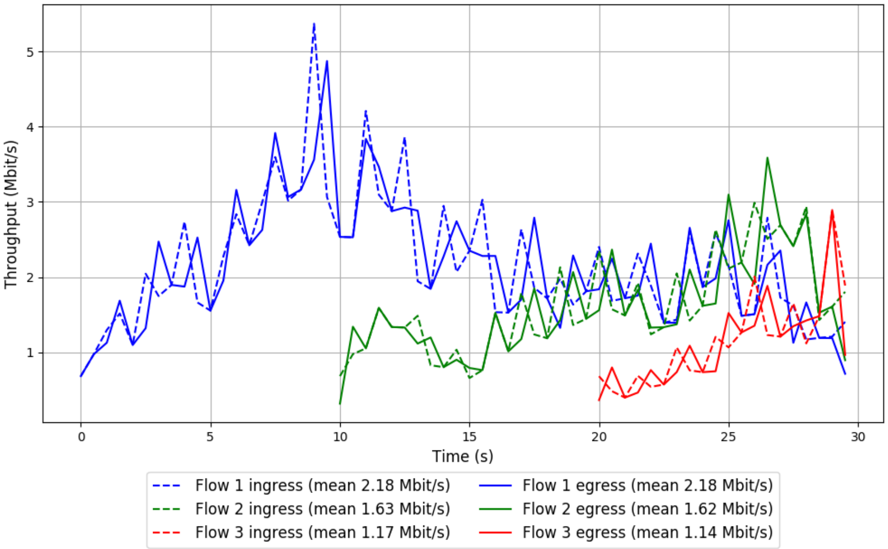
Run 10: Report of WebRTC media — Data Link

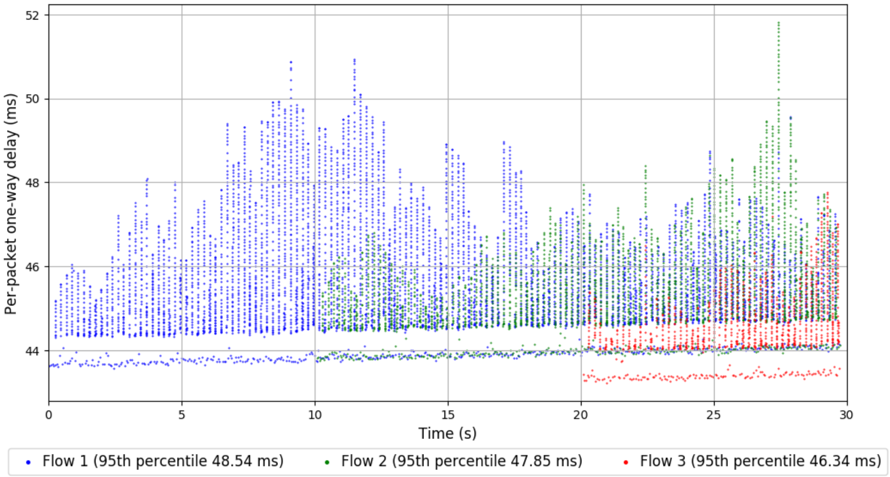




```
Run 1: Statistics of Sprout

Start at: 2018-04-03 17:07:46
End at: 2018-04-03 17:08:16
Local clock offset: 6.015 ms
Remote clock offset: 49.756 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 48.239 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 48.543 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 47.849 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 46.340 ms
Loss rate: 4.03%
```

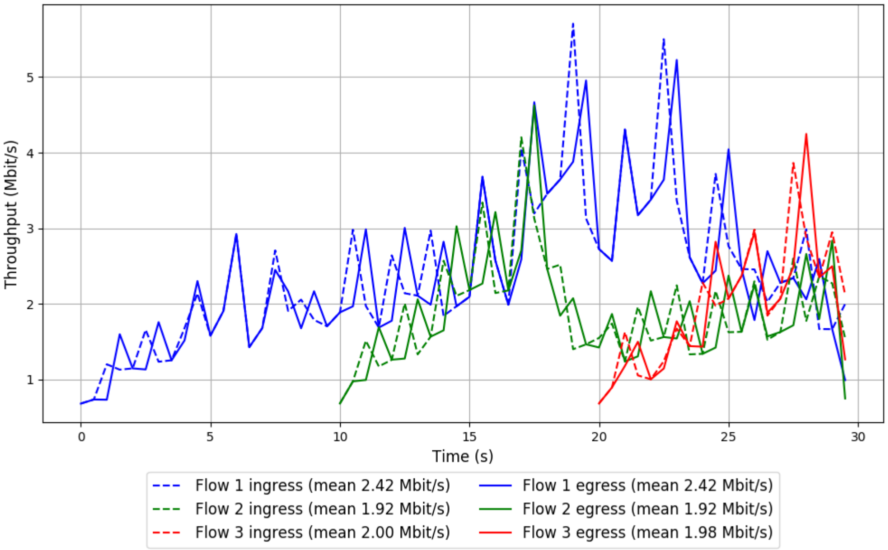
Run 1: Report of Sprout — Data Link

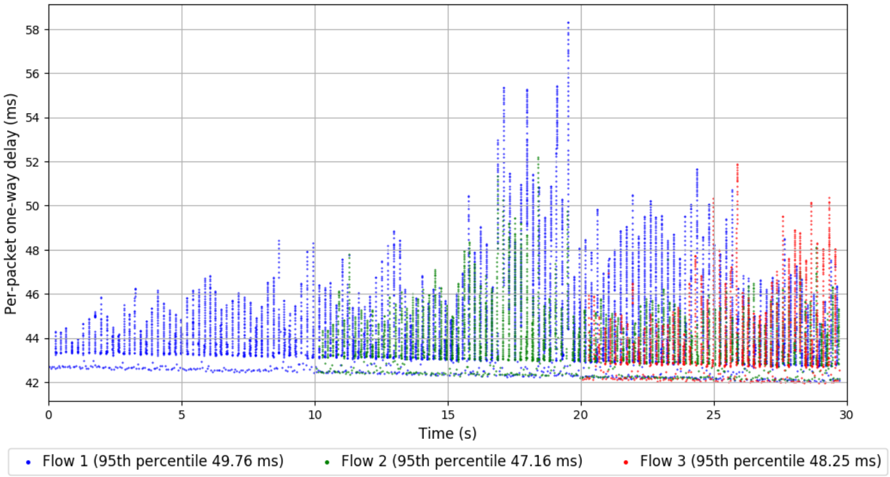




```
Run 2: Statistics of Sprout

Start at: 2018-04-03 17:33:50
End at: 2018-04-03 17:34:20
Local clock offset: 9.143 ms
Remote clock offset: 29.254 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.33 Mbit/s
95th percentile per-packet one-way delay: 48.900 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 49.760 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 47.163 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 48.252 ms
Loss rate: 3.32%
```

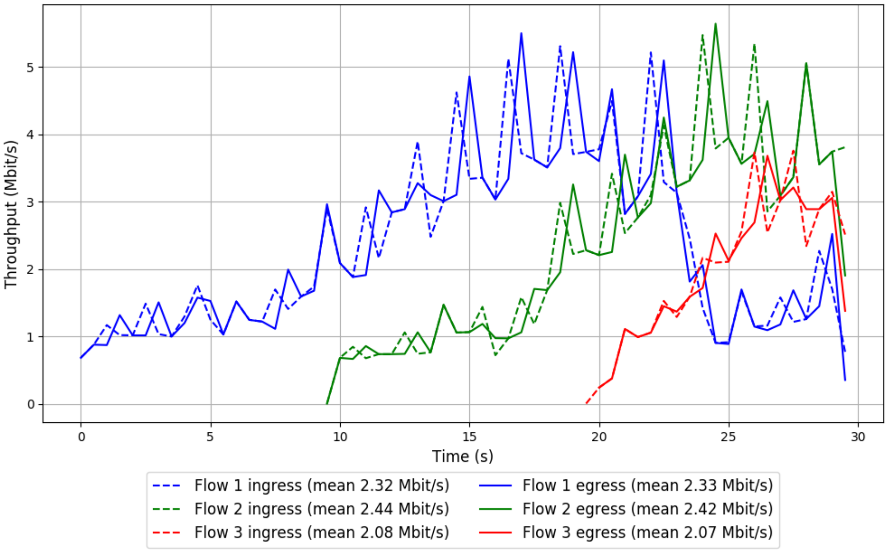
Run 2: Report of Sprout — Data Link

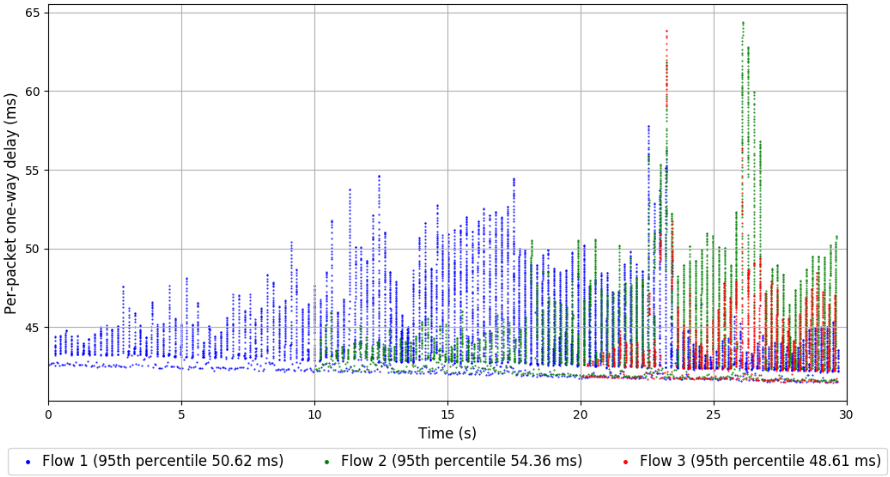




```
Run 3: Statistics of Sprout

Start at: 2018-04-03 17:59:37
End at: 2018-04-03 18:00:07
Local clock offset: 9.335 ms
Remote clock offset: 10.439 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 51.139 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 50.622 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 54.361 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 48.607 ms
Loss rate: 2.98%
```

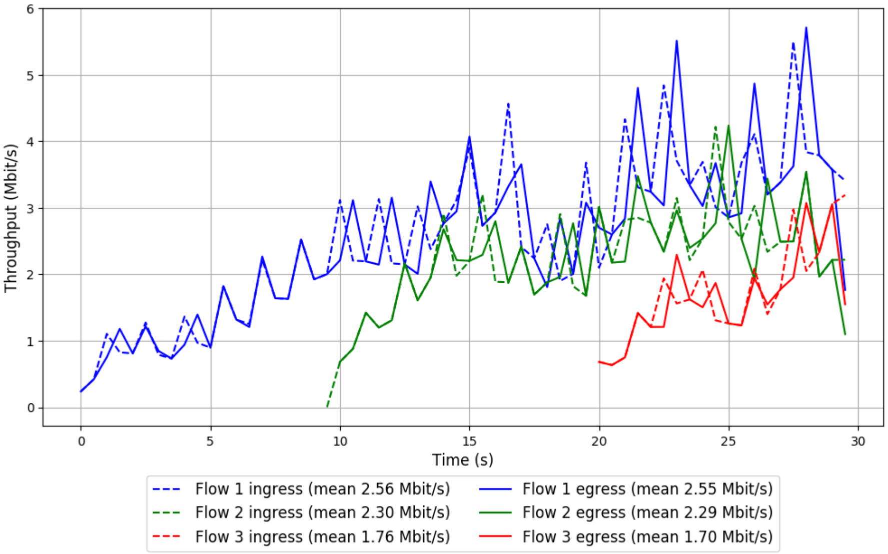
Run 3: Report of Sprout — Data Link

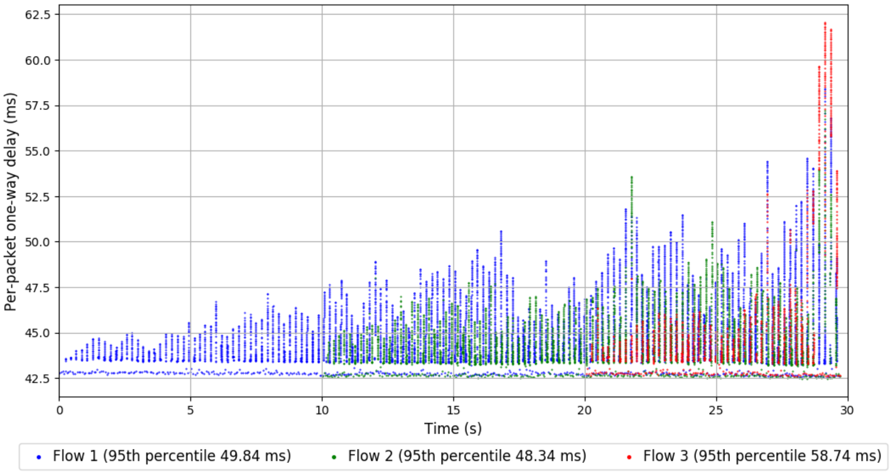




```
Run 4: Statistics of Sprout

Start at: 2018-04-03 18:24:04
End at: 2018-04-03 18:24:34
Local clock offset: 9.306 ms
Remote clock offset: -12.796 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 50.450 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 49.842 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 48.335 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 58.740 ms
Loss rate: 4.76%
```

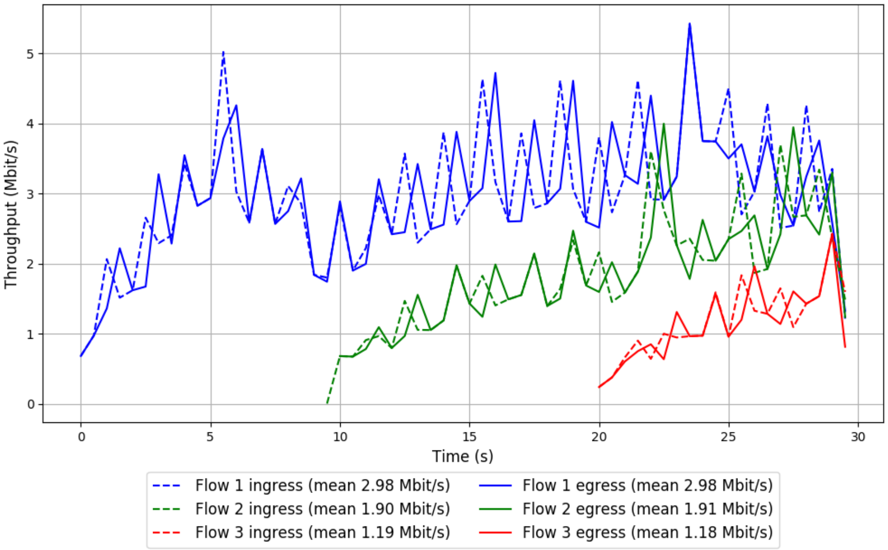
Run 4: Report of Sprout — Data Link

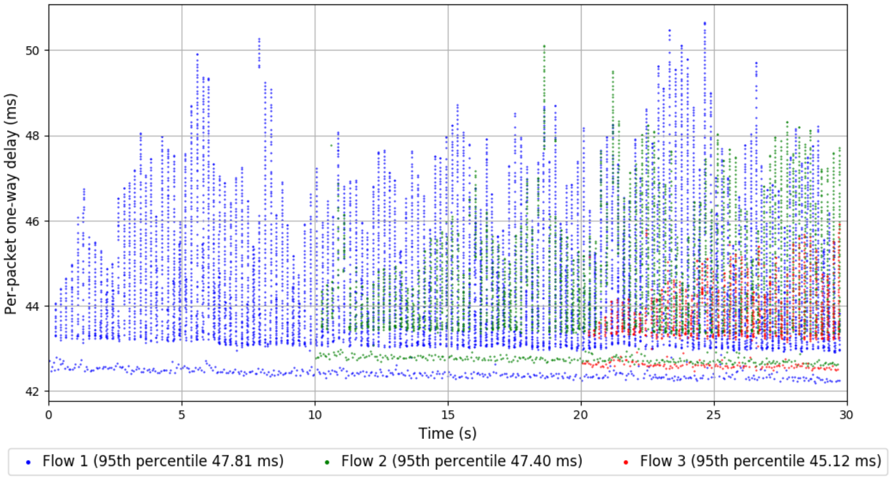




```
Run 5: Statistics of Sprout

Start at: 2018-04-03 18:48:24
End at: 2018-04-03 18:48:54
Local clock offset: 8.765 ms
Remote clock offset: -24.203 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 47.591 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 47.807 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 47.398 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 45.120 ms
Loss rate: 3.46%
```

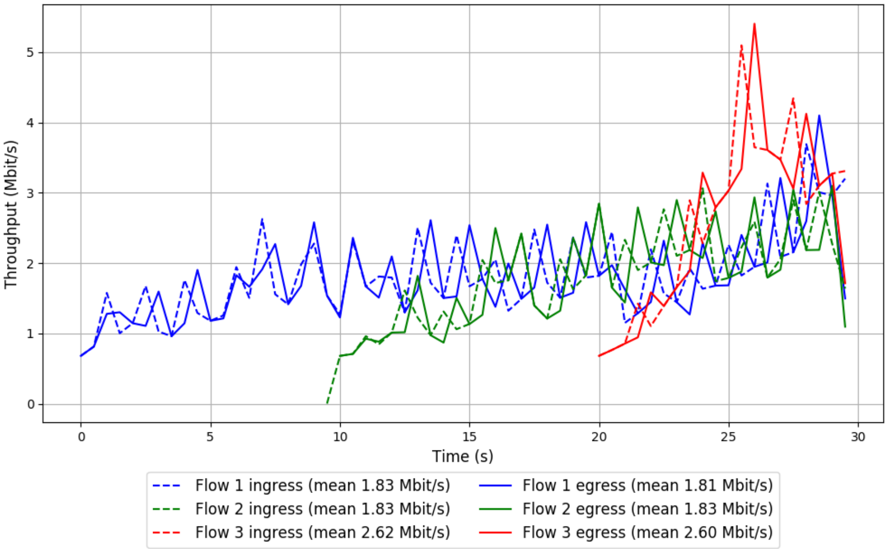
Run 5: Report of Sprout — Data Link

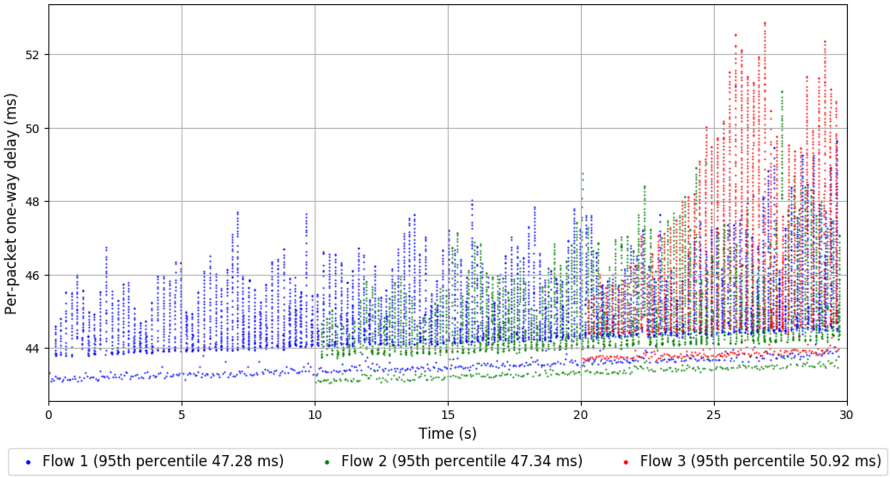




```
Run 6: Statistics of Sprout

Start at: 2018-04-03 19:12:48
End at: 2018-04-03 19:13:18
Local clock offset: 8.868 ms
Remote clock offset: -8.65 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 48.814 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 47.285 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 47.345 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 50.919 ms
Loss rate: 3.10%
```

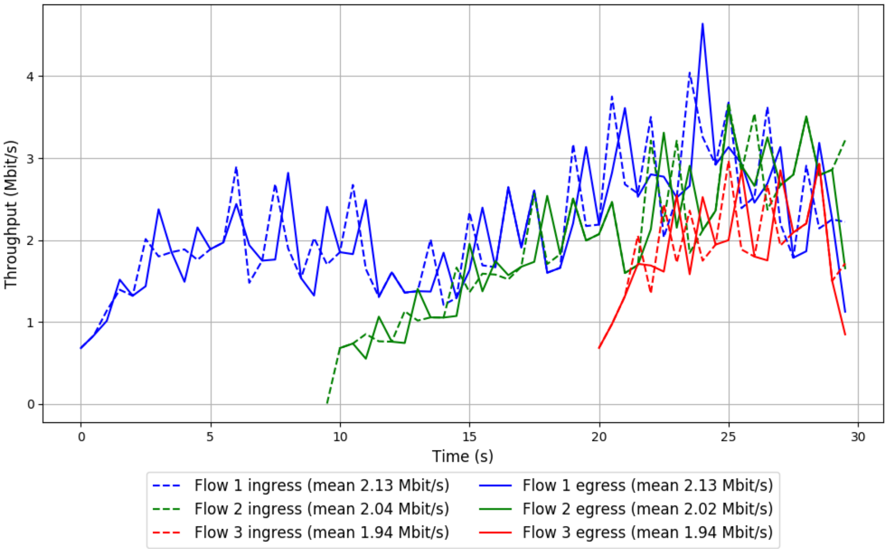
Run 6: Report of Sprout — Data Link

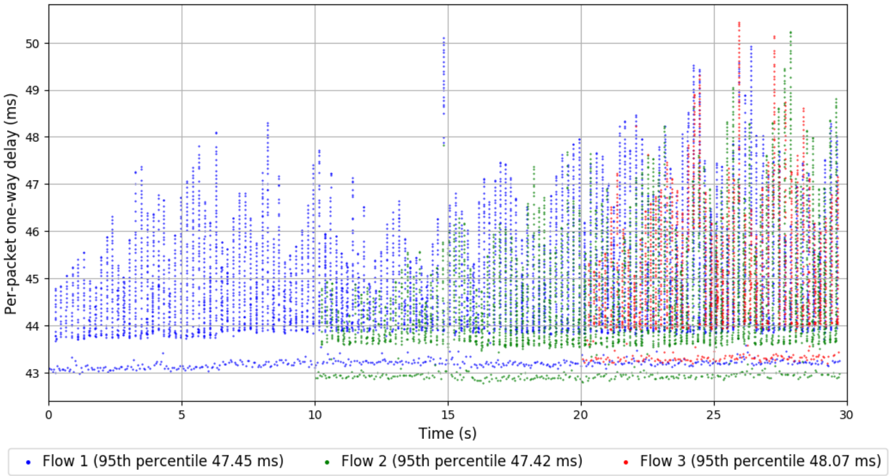




```
Run 7: Statistics of Sprout

Start at: 2018-04-03 19:37:16
End at: 2018-04-03 19:37:46
Local clock offset: 6.678 ms
Remote clock offset: 5.033 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 47.515 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 47.448 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 47.424 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 48.066 ms
Loss rate: 2.27%
```

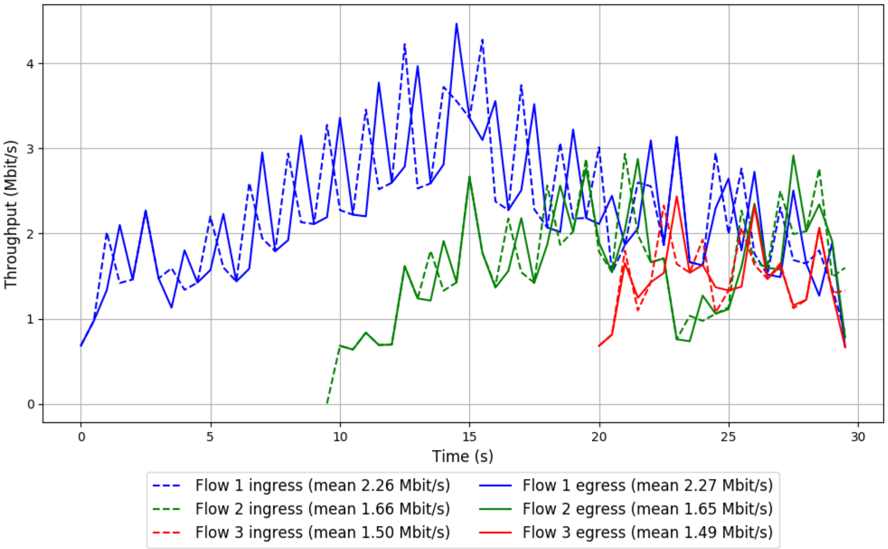
Run 7: Report of Sprout — Data Link

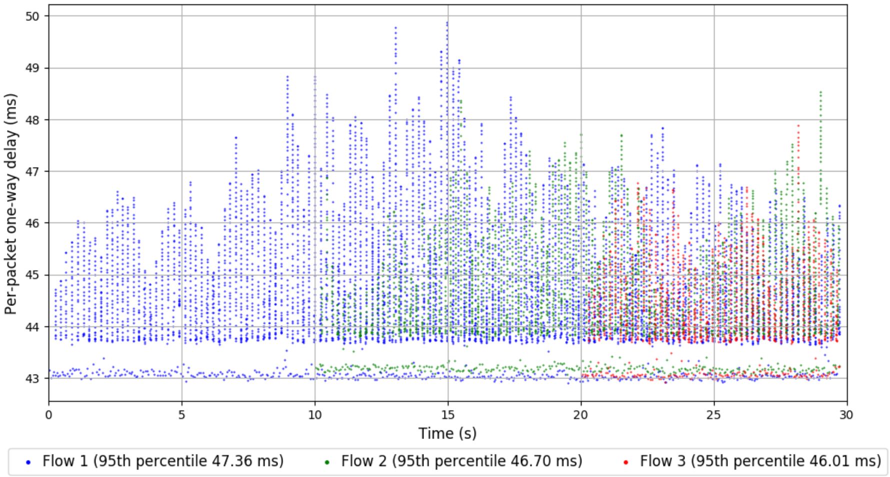




```
Run 8: Statistics of Sprout

Start at: 2018-04-03 20:01:36
End at: 2018-04-03 20:02:06
Local clock offset: 4.511 ms
Remote clock offset: -2.502 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.84 Mbit/s
95th percentile per-packet one-way delay: 47.022 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 47.358 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 46.701 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 46.007 ms
Loss rate: 2.25%
```

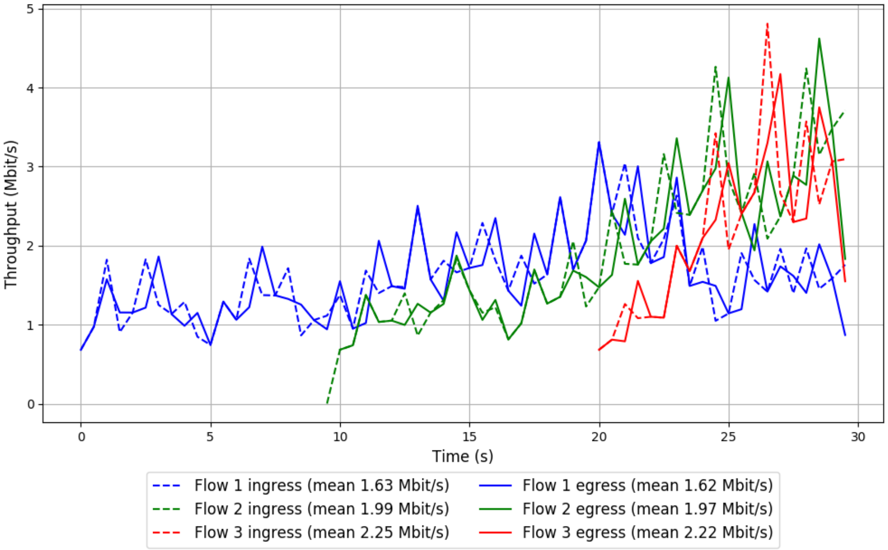
Run 8: Report of Sprout — Data Link

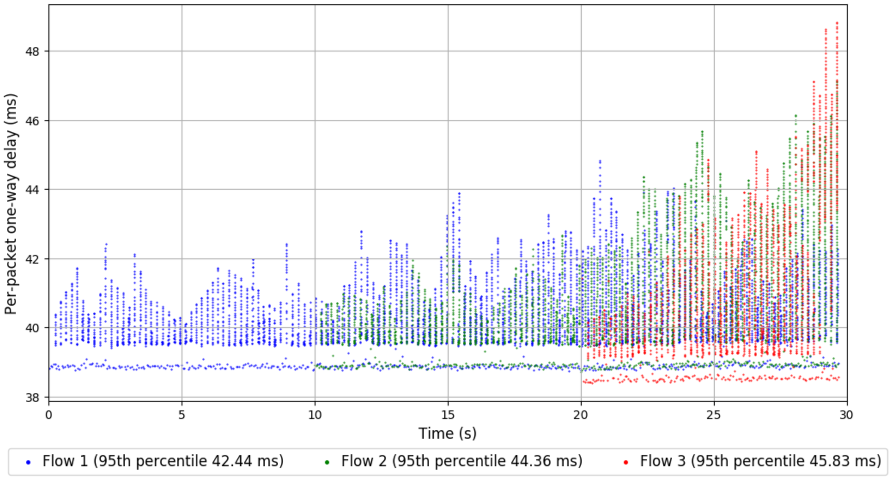




```
Run 9: Statistics of Sprout

Start at: 2018-04-03 20:25:58
End at: 2018-04-03 20:26:28
Local clock offset: 5.378 ms
Remote clock offset: 1.494 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 44.039 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 42.438 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 44.356 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 45.831 ms
Loss rate: 3.49%
```

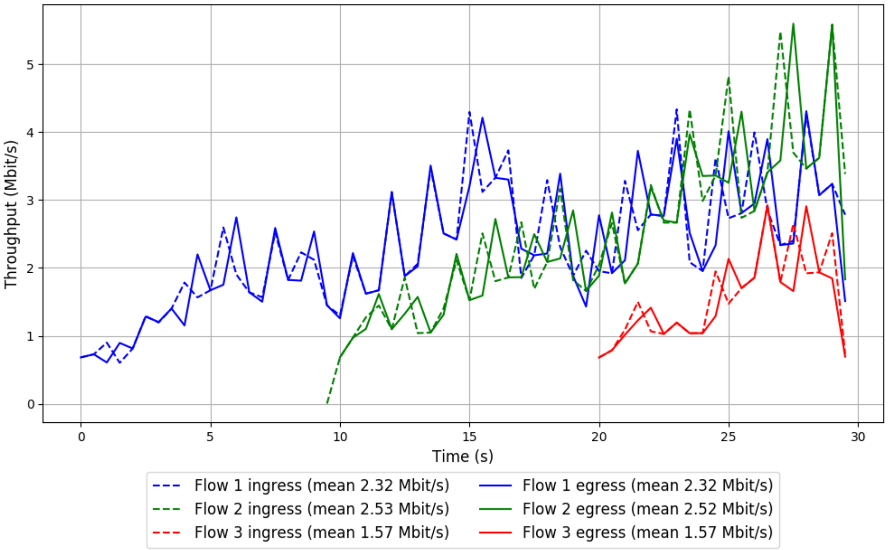
Run 9: Report of Sprout — Data Link

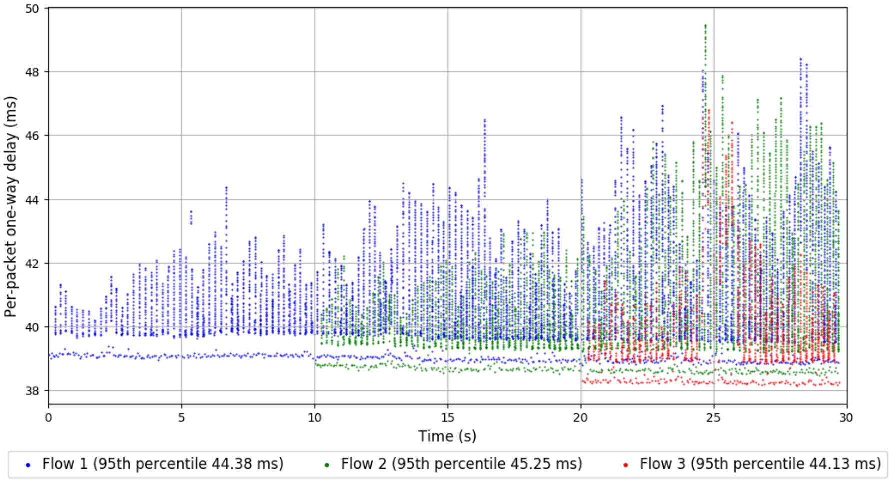




```
Run 10: Statistics of Sprout

Start at: 2018-04-03 20:50:18
End at: 2018-04-03 20:50:48
Local clock offset: 5.686 ms
Remote clock offset: -0.756 ms

# Below is generated by plot.py at 2018-04-04 01:23:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 44.756 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 44.383 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 45.247 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 44.131 ms
Loss rate: 2.30%
```

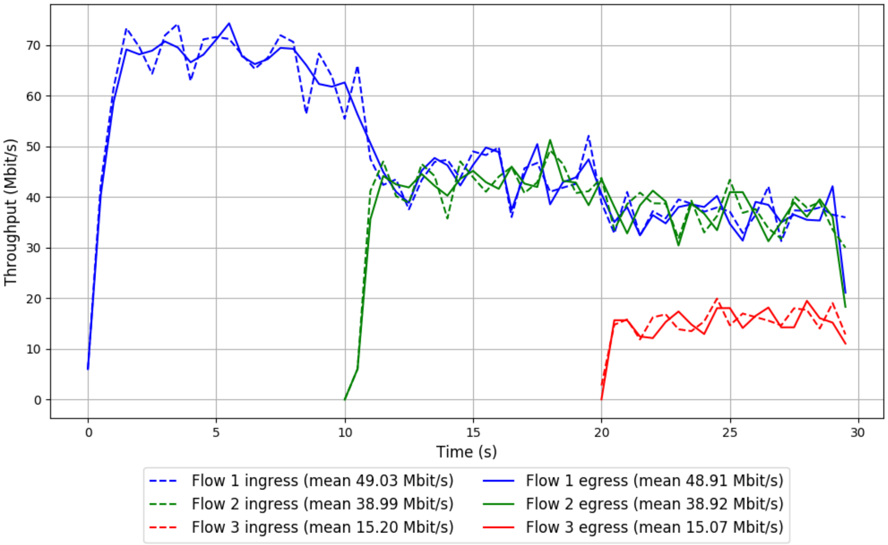
Run 10: Report of Sprout — Data Link

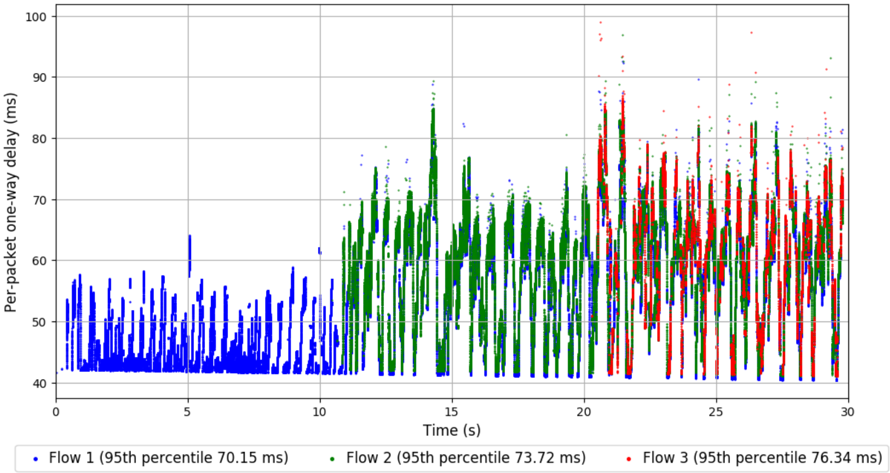




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-03 17:24:52
End at: 2018-04-03 17:25:22
Local clock offset: 8.667 ms
Remote clock offset: 49.833 ms

# Below is generated by plot.py at 2018-04-04 01:24:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.09 Mbit/s
95th percentile per-packet one-way delay: 72.322 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 48.91 Mbit/s
95th percentile per-packet one-way delay: 70.154 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 38.92 Mbit/s
95th percentile per-packet one-way delay: 73.725 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 15.07 Mbit/s
95th percentile per-packet one-way delay: 76.341 ms
Loss rate: 3.04%
```

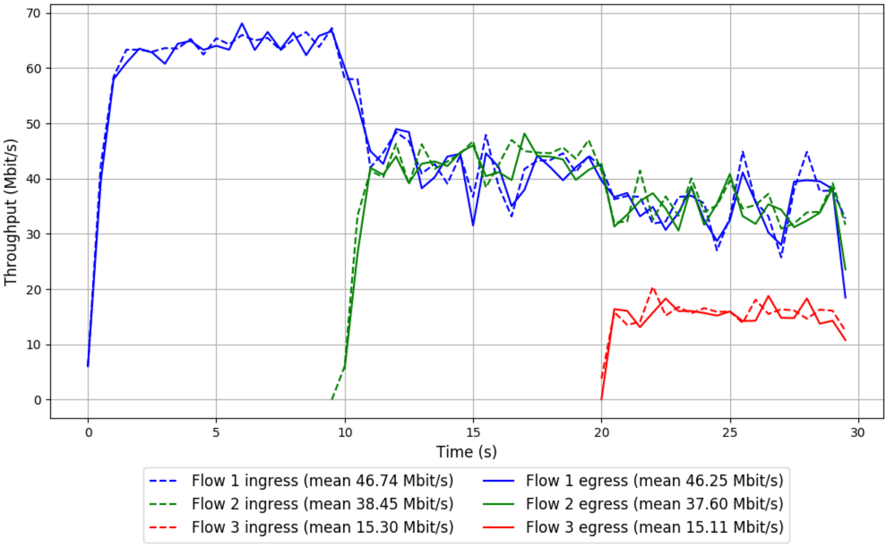
Run 1: Report of TaoVA-100x — Data Link

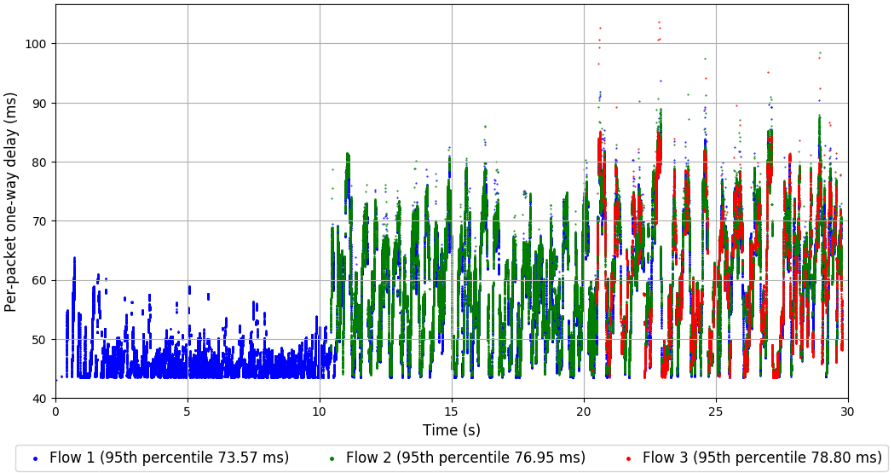




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-03 17:50:49
End at: 2018-04-03 17:51:19
Local clock offset: 9.57 ms
Remote clock offset: 21.215 ms

# Below is generated by plot.py at 2018-04-04 01:24:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.14 Mbit/s
95th percentile per-packet one-way delay: 75.403 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 46.25 Mbit/s
95th percentile per-packet one-way delay: 73.566 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 37.60 Mbit/s
95th percentile per-packet one-way delay: 76.952 ms
Loss rate: 3.16%
-- Flow 3:
Average throughput: 15.11 Mbit/s
95th percentile per-packet one-way delay: 78.804 ms
Loss rate: 3.47%
```

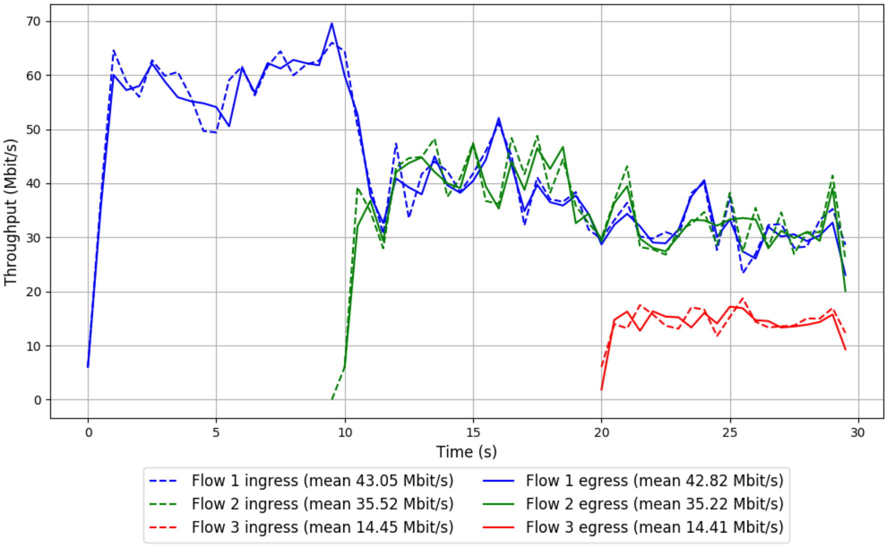
Run 2: Report of TaoVA-100x — Data Link

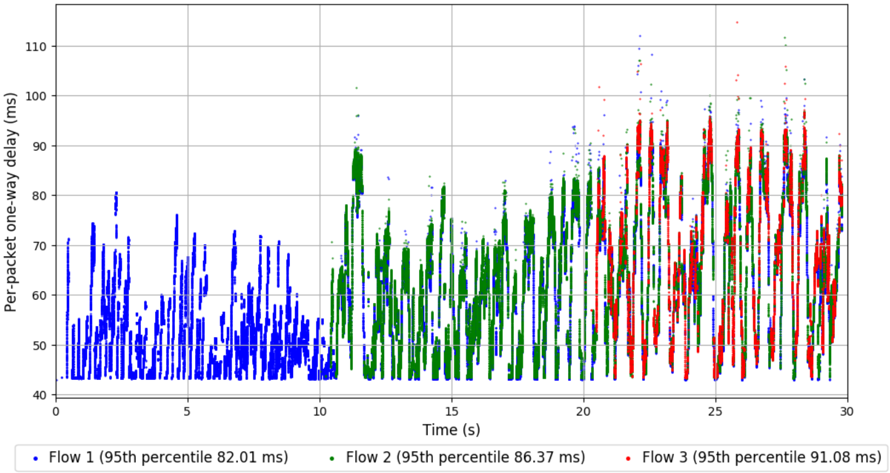




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-03 18:15:52
End at: 2018-04-03 18:16:22
Local clock offset: 9.495 ms
Remote clock offset: -8.901 ms

# Below is generated by plot.py at 2018-04-04 01:24:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.90 Mbit/s
95th percentile per-packet one-way delay: 85.177 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 42.82 Mbit/s
95th percentile per-packet one-way delay: 82.014 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 35.22 Mbit/s
95th percentile per-packet one-way delay: 86.368 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 14.41 Mbit/s
95th percentile per-packet one-way delay: 91.075 ms
Loss rate: 2.63%
```

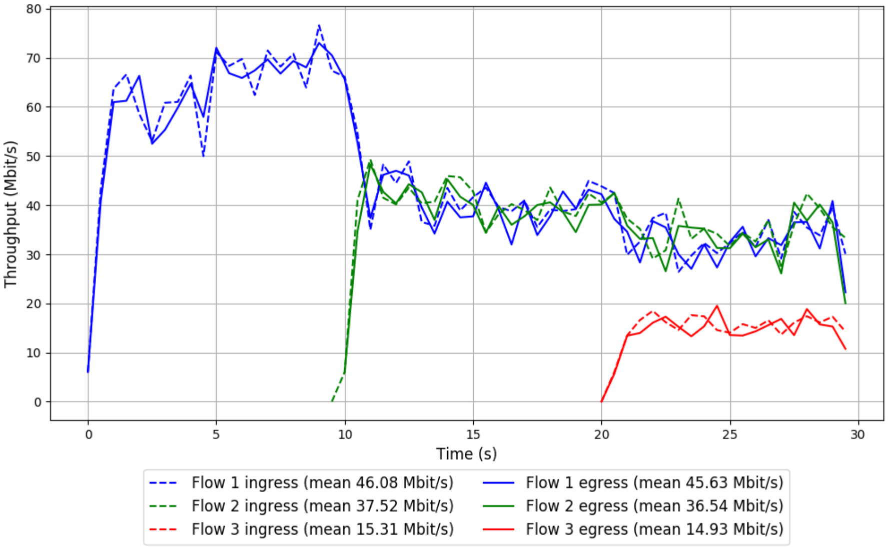
Run 3: Report of TaoVA-100x — Data Link

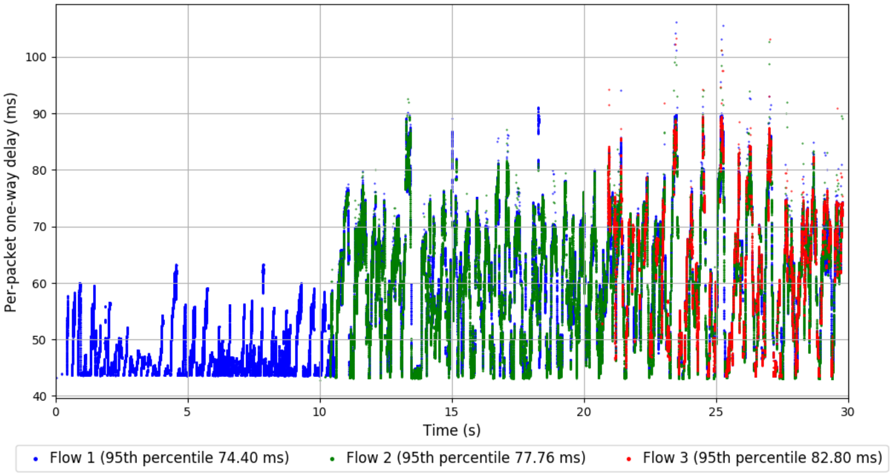




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-04-03 18:40:11
End at: 2018-04-03 18:40:41
Local clock offset: 8.879 ms
Remote clock offset: -20.674 ms

# Below is generated by plot.py at 2018-04-04 01:24:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.57 Mbit/s
95th percentile per-packet one-way delay: 76.283 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 45.63 Mbit/s
95th percentile per-packet one-way delay: 74.404 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 36.54 Mbit/s
95th percentile per-packet one-way delay: 77.760 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 82.795 ms
Loss rate: 4.60%
```

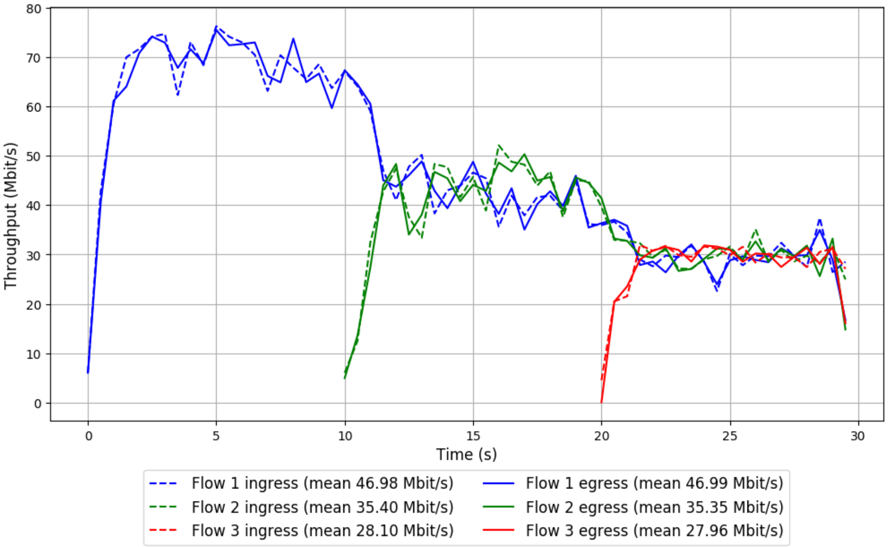
Run 4: Report of TaoVA-100x — Data Link

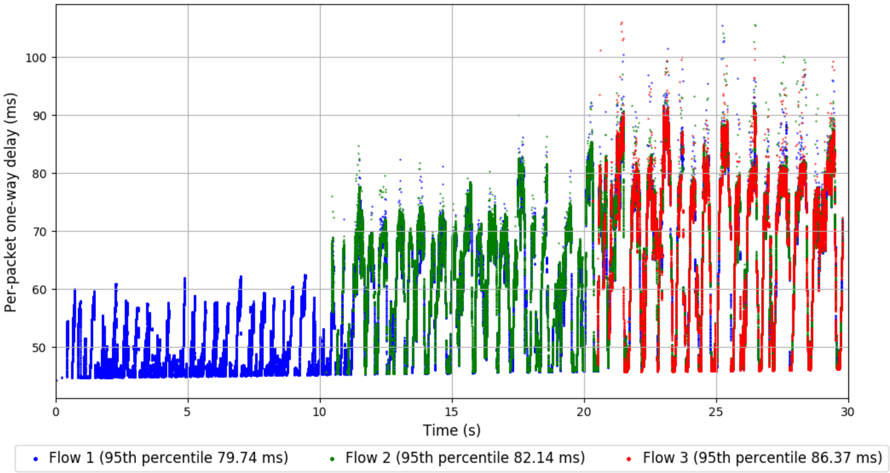




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-04-03 19:04:32
End at: 2018-04-03 19:05:02
Local clock offset: 9.025 ms
Remote clock offset: -29.067 ms

# Below is generated by plot.py at 2018-04-04 01:24:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.55 Mbit/s
95th percentile per-packet one-way delay: 81.439 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 46.99 Mbit/s
95th percentile per-packet one-way delay: 79.736 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 35.35 Mbit/s
95th percentile per-packet one-way delay: 82.144 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 27.96 Mbit/s
95th percentile per-packet one-way delay: 86.368 ms
Loss rate: 2.90%
```

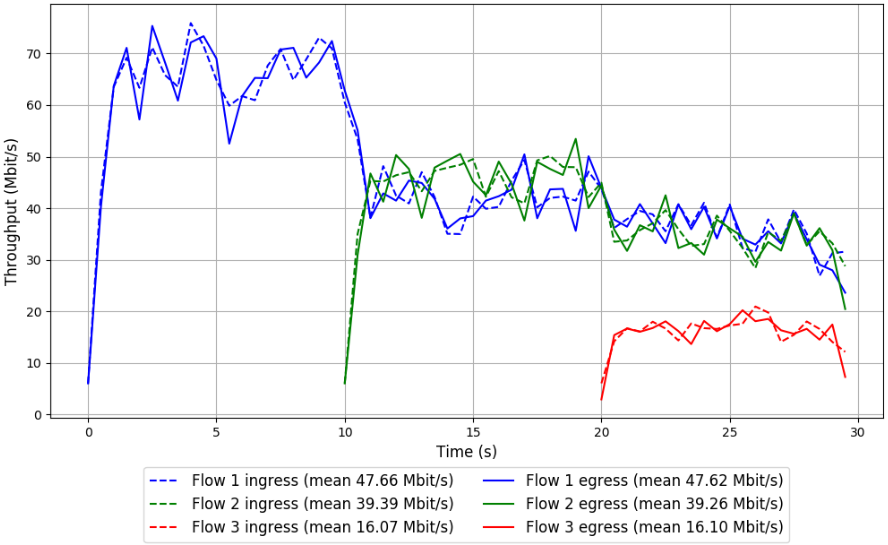
Run 5: Report of TaoVA-100x — Data Link

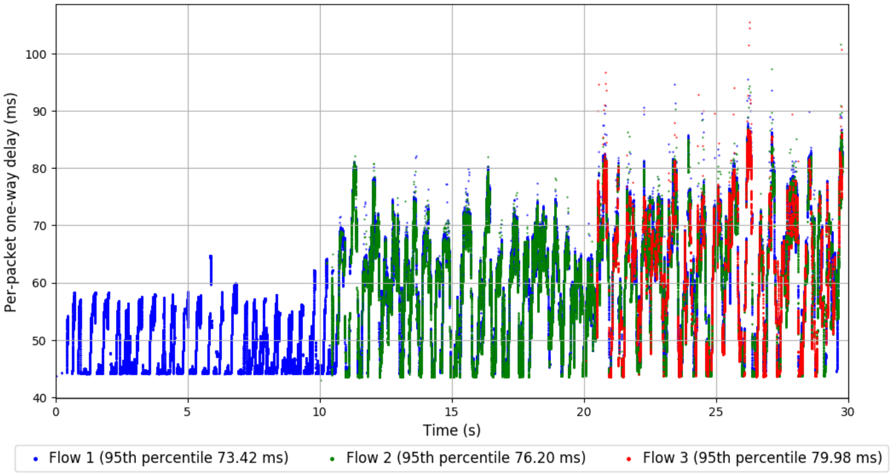




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-04-03 19:29:01
End at: 2018-04-03 19:29:31
Local clock offset: 9.051 ms
Remote clock offset: 3.006 ms

# Below is generated by plot.py at 2018-04-04 01:24:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.93 Mbit/s
95th percentile per-packet one-way delay: 75.193 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 47.62 Mbit/s
95th percentile per-packet one-way delay: 73.417 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 39.26 Mbit/s
95th percentile per-packet one-way delay: 76.205 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 16.10 Mbit/s
95th percentile per-packet one-way delay: 79.985 ms
Loss rate: 2.14%
```

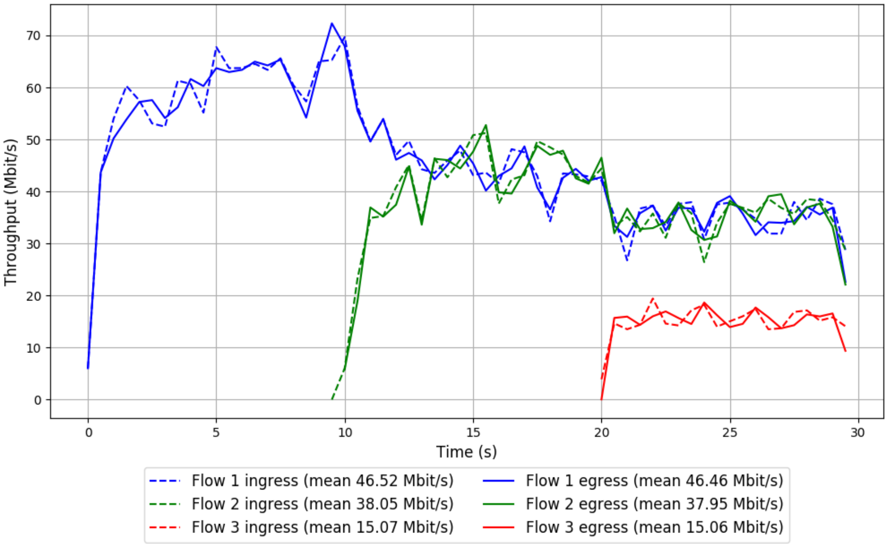
Run 6: Report of TaoVA-100x — Data Link

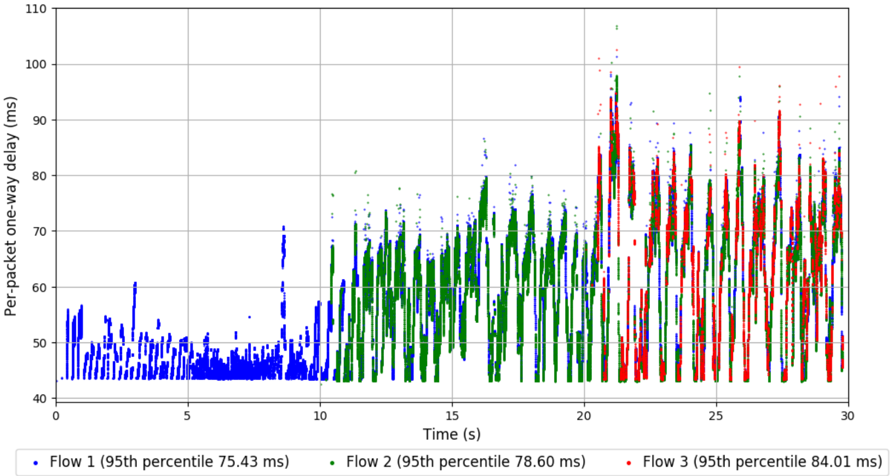




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-03 19:53:21
End at: 2018-04-03 19:53:51
Local clock offset: 4.85 ms
Remote clock offset: -1.322 ms

# Below is generated by plot.py at 2018-04-04 01:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.58 Mbit/s
95th percentile per-packet one-way delay: 77.602 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 46.46 Mbit/s
95th percentile per-packet one-way delay: 75.428 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 37.95 Mbit/s
95th percentile per-packet one-way delay: 78.603 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 15.06 Mbit/s
95th percentile per-packet one-way delay: 84.006 ms
Loss rate: 2.19%
```

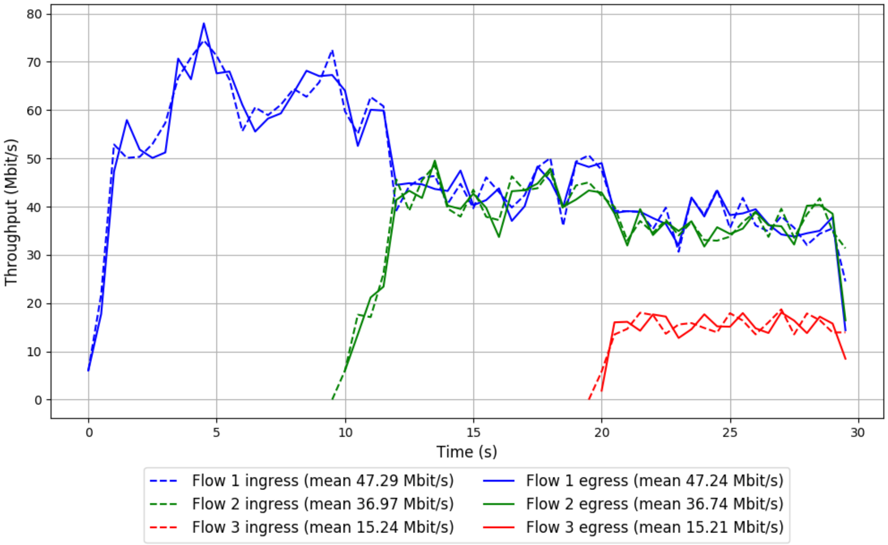
Run 7: Report of TaoVA-100x — Data Link

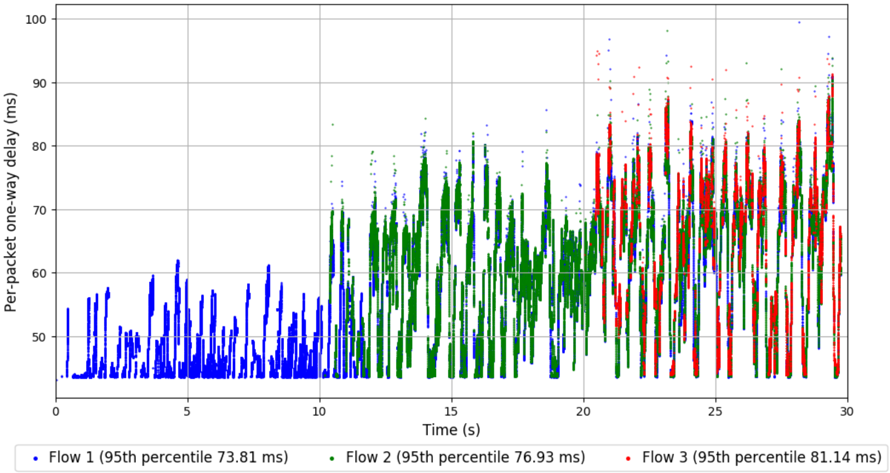




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-04-03 20:17:44
End at: 2018-04-03 20:18:14
Local clock offset: 5.465 ms
Remote clock offset: -2.896 ms

# Below is generated by plot.py at 2018-04-04 01:25:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.62 Mbit/s
95th percentile per-packet one-way delay: 76.113 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 47.24 Mbit/s
95th percentile per-packet one-way delay: 73.815 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 36.74 Mbit/s
95th percentile per-packet one-way delay: 76.934 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 15.21 Mbit/s
95th percentile per-packet one-way delay: 81.145 ms
Loss rate: 2.34%
```

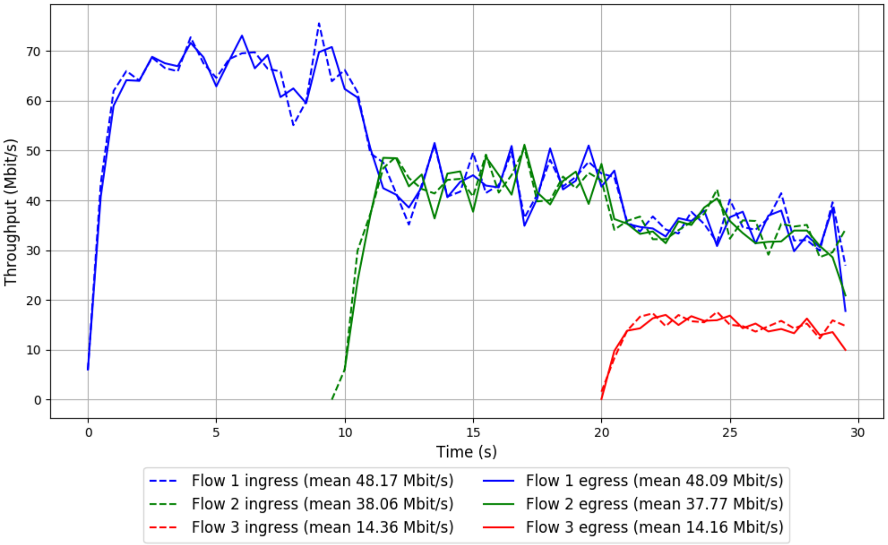
Run 8: Report of TaoVA-100x — Data Link

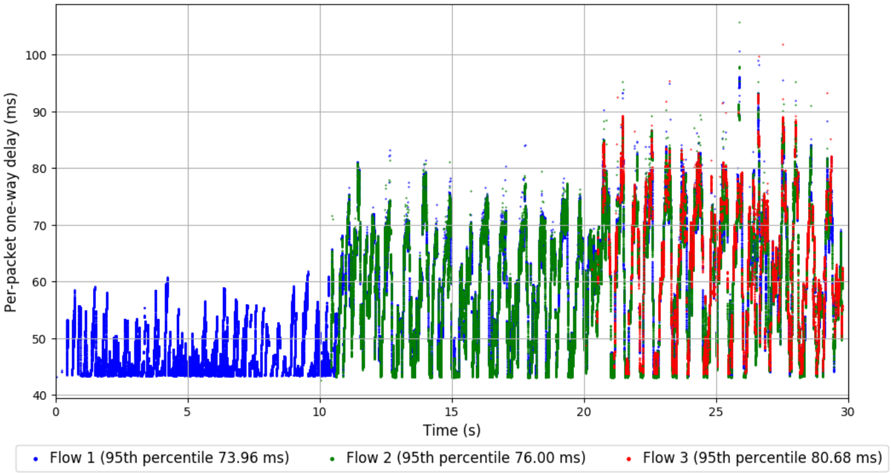




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-03 20:42:04
End at: 2018-04-03 20:42:34
Local clock offset: 5.39 ms
Remote clock offset: -3.015 ms

# Below is generated by plot.py at 2018-04-04 01:26:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 75.263 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 48.09 Mbit/s
95th percentile per-packet one-way delay: 73.957 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 76.000 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 14.16 Mbit/s
95th percentile per-packet one-way delay: 80.678 ms
Loss rate: 3.36%
```

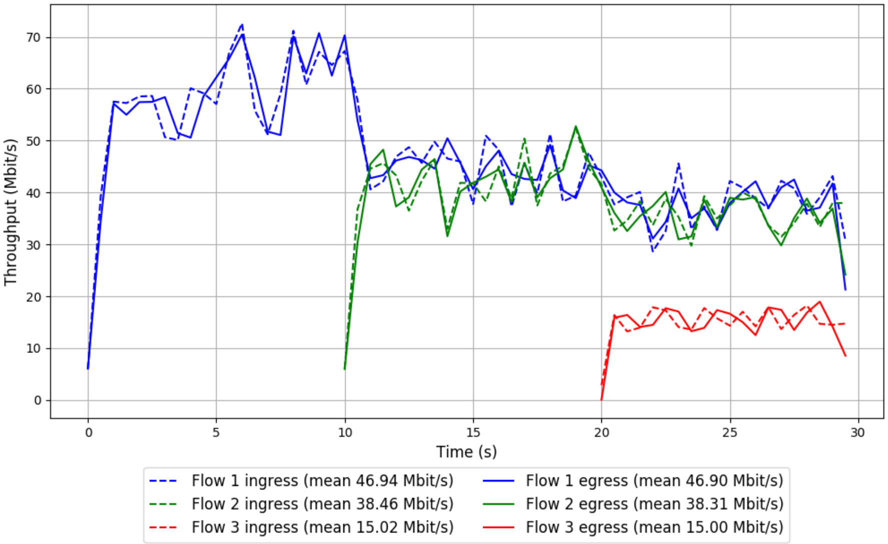
Run 9: Report of TaoVA-100x — Data Link

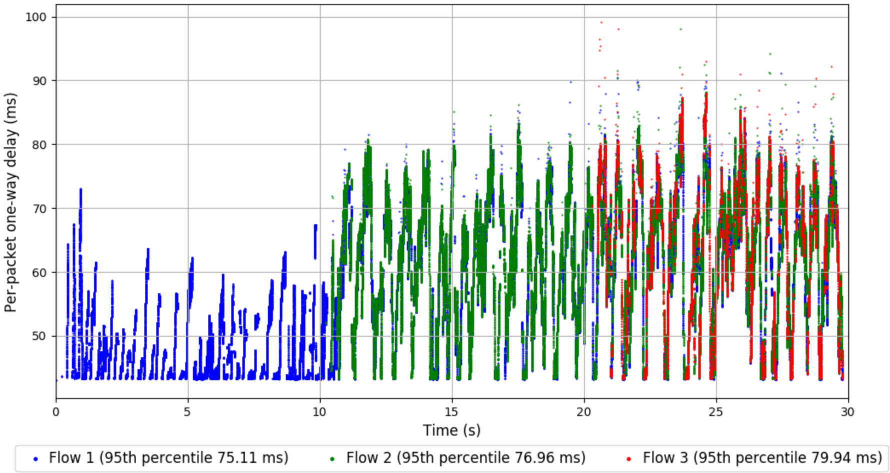




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-03 21:06:32
End at: 2018-04-03 21:07:02
Local clock offset: 5.76 ms
Remote clock offset: -8.957 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.22 Mbit/s
95th percentile per-packet one-way delay: 76.241 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 46.90 Mbit/s
95th percentile per-packet one-way delay: 75.113 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 38.31 Mbit/s
95th percentile per-packet one-way delay: 76.958 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 15.00 Mbit/s
95th percentile per-packet one-way delay: 79.942 ms
Loss rate: 2.30%
```

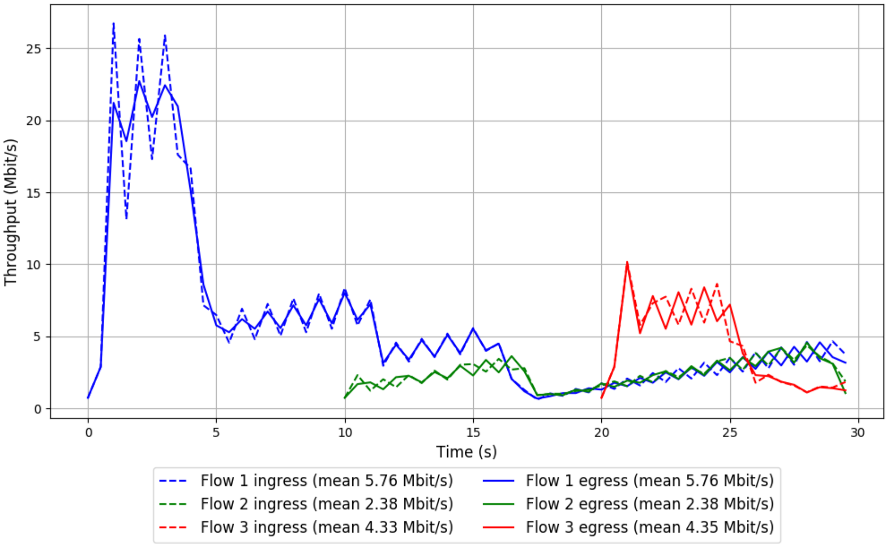
Run 10: Report of TaoVA-100x — Data Link

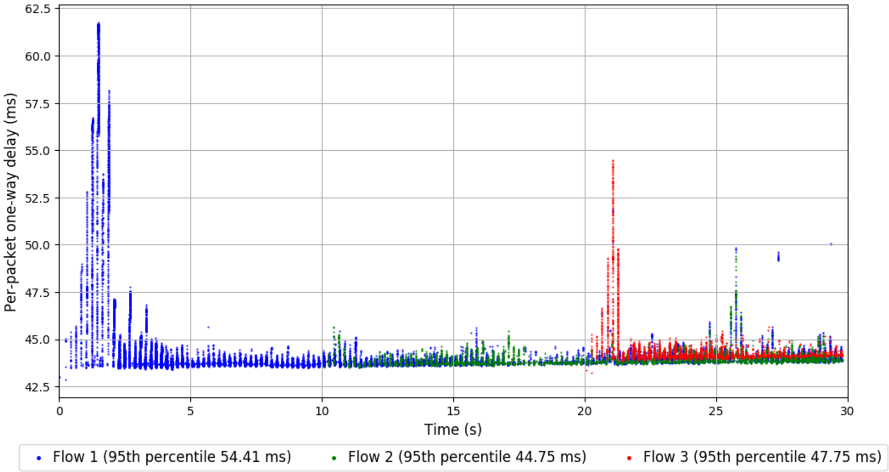




```
Run 1: Statistics of TCP Vegas

Start at: 2018-04-03 17:19:20
End at: 2018-04-03 17:19:50
Local clock offset: 7.757 ms
Remote clock offset: 60.841 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 51.250 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 5.76 Mbit/s
95th percentile per-packet one-way delay: 54.415 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 44.754 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 4.35 Mbit/s
95th percentile per-packet one-way delay: 47.753 ms
Loss rate: 1.06%
```

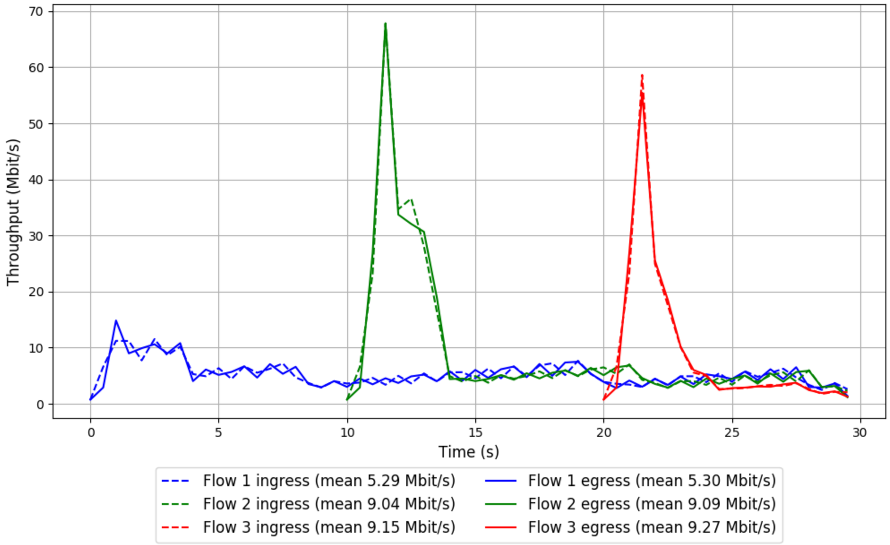
Run 1: Report of TCP Vegas — Data Link

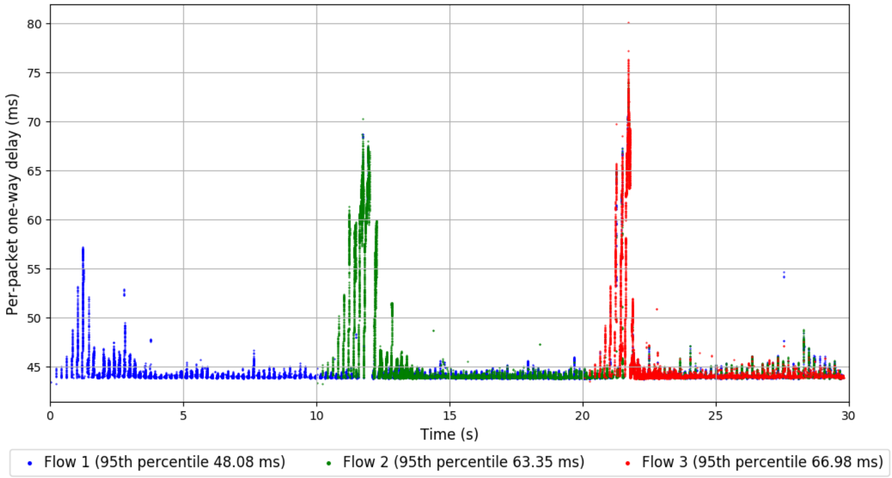




```
Run 2: Statistics of TCP Vegas

Start at: 2018-04-03 17:45:01
End at: 2018-04-03 17:45:31
Local clock offset: 9.756 ms
Remote clock offset: 22.103 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.36 Mbit/s
95th percentile per-packet one-way delay: 63.506 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 48.081 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 63.353 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 66.976 ms
Loss rate: 0.88%
```

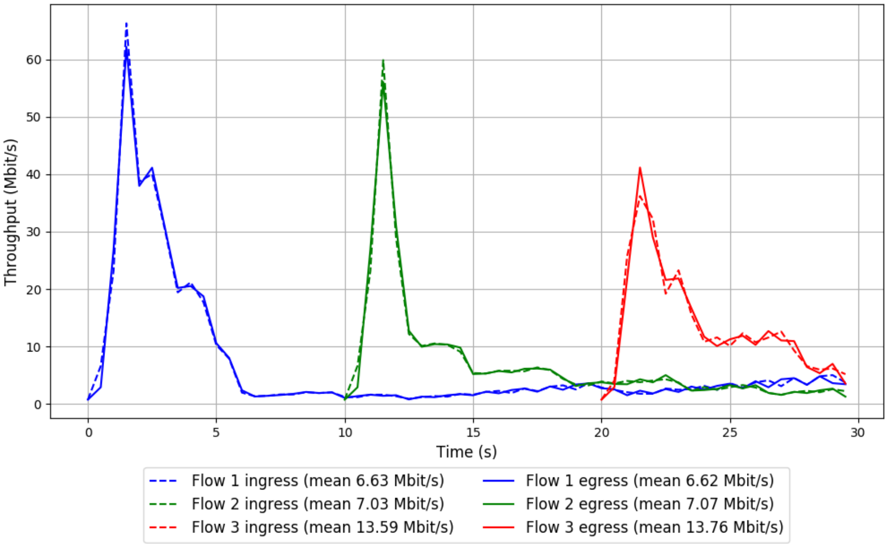
Run 2: Report of TCP Vegas — Data Link

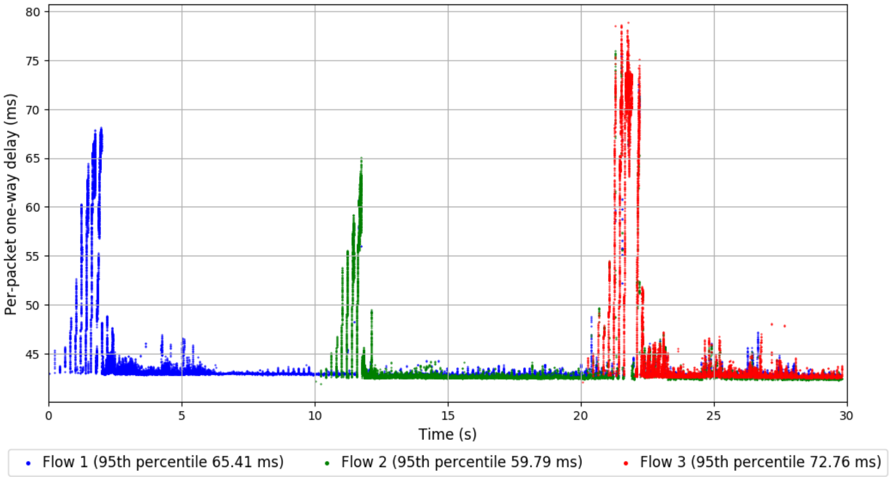




```
Run 3: Statistics of TCP Vegas

Start at: 2018-04-03 18:10:28
End at: 2018-04-03 18:10:58
Local clock offset: 9.271 ms
Remote clock offset: -4.796 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.80 Mbit/s
95th percentile per-packet one-way delay: 67.537 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 65.411 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 59.790 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 13.76 Mbit/s
95th percentile per-packet one-way delay: 72.756 ms
Loss rate: 0.74%
```

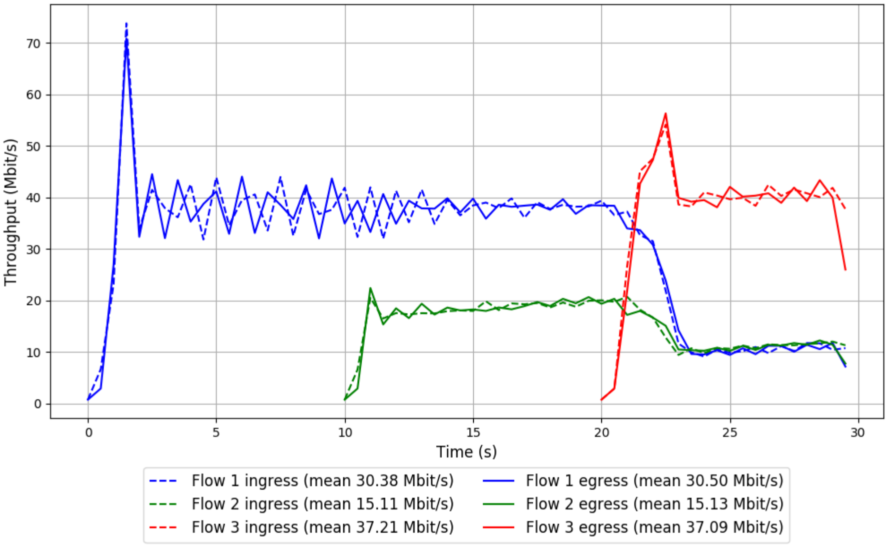
Run 3: Report of TCP Vegas — Data Link

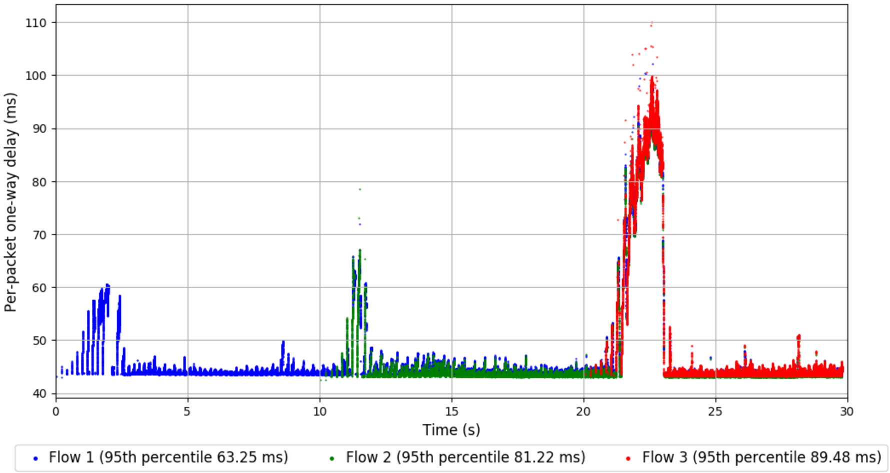




```
Run 4: Statistics of TCP Vegas

Start at: 2018-04-03 18:34:54
End at: 2018-04-03 18:35:24
Local clock offset: 9.104 ms
Remote clock offset: -18.01 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.65 Mbit/s
95th percentile per-packet one-way delay: 83.277 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 30.50 Mbit/s
95th percentile per-packet one-way delay: 63.250 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 15.13 Mbit/s
95th percentile per-packet one-way delay: 81.218 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 37.09 Mbit/s
95th percentile per-packet one-way delay: 89.482 ms
Loss rate: 2.27%
```

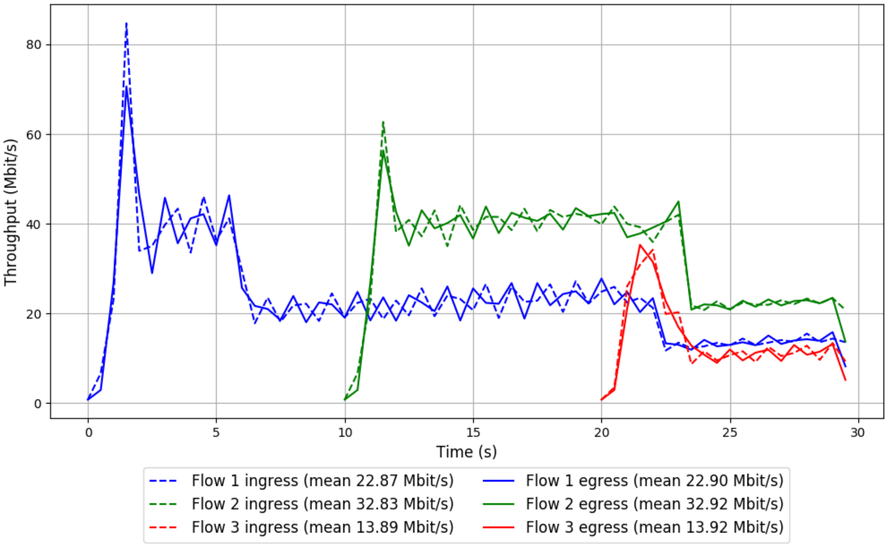
Run 4: Report of TCP Vegas — Data Link

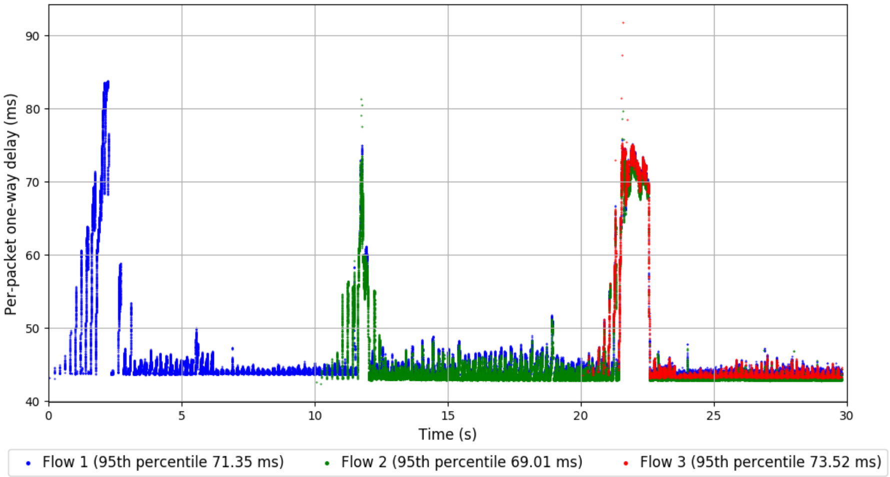




```
Run 5: Statistics of TCP Vegas

Start at: 2018-04-03 18:59:16
End at: 2018-04-03 18:59:46
Local clock offset: 8.731 ms
Remote clock offset: -28.246 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.29 Mbit/s
95th percentile per-packet one-way delay: 71.176 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 22.90 Mbit/s
95th percentile per-packet one-way delay: 71.352 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 32.92 Mbit/s
95th percentile per-packet one-way delay: 69.010 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 13.92 Mbit/s
95th percentile per-packet one-way delay: 73.517 ms
Loss rate: 1.70%
```

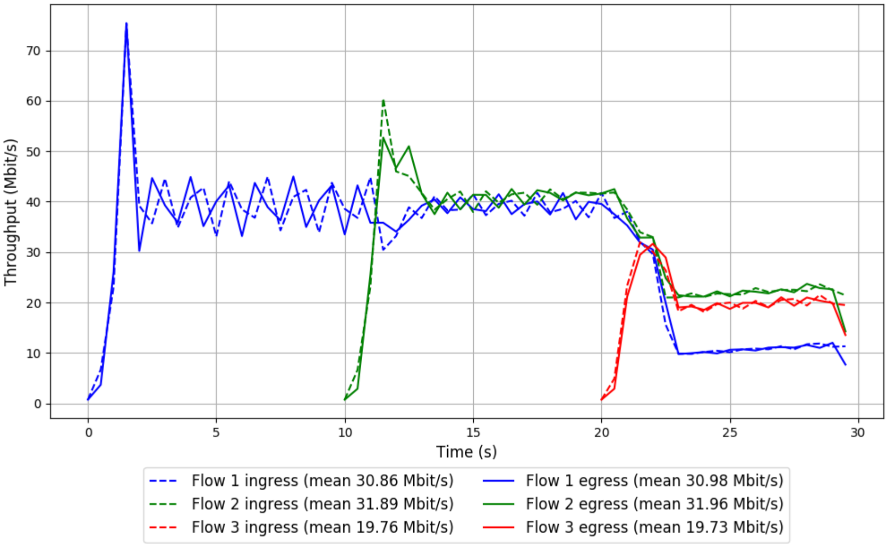
Run 5: Report of TCP Vegas — Data Link

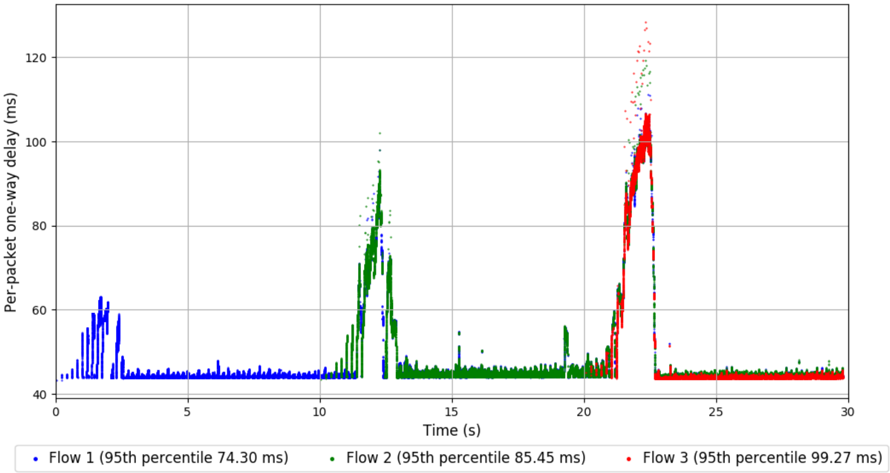




```
Run 6: Statistics of TCP Vegas

Start at: 2018-04-03 19:23:39
End at: 2018-04-03 19:24:09
Local clock offset: 8.763 ms
Remote clock offset: 1.005 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.63 Mbit/s
95th percentile per-packet one-way delay: 85.049 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 30.98 Mbit/s
95th percentile per-packet one-way delay: 74.301 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 85.450 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 19.73 Mbit/s
95th percentile per-packet one-way delay: 99.273 ms
Loss rate: 2.10%
```

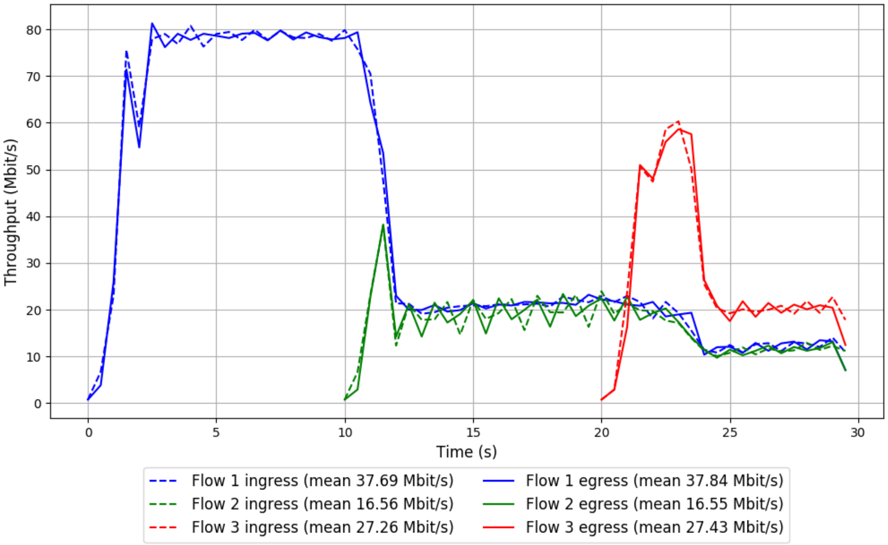
Run 6: Report of TCP Vegas — Data Link

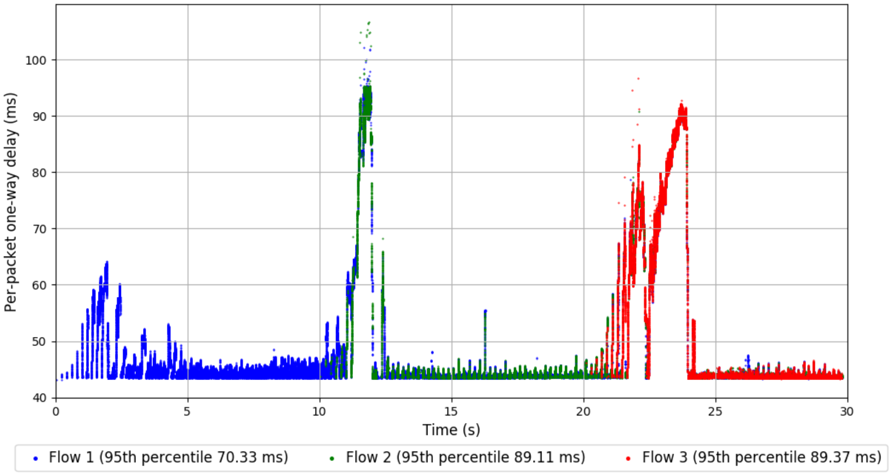




```
Run 7: Statistics of TCP Vegas

Start at: 2018-04-03 19:48:05
End at: 2018-04-03 19:48:35
Local clock offset: 5.247 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.76 Mbit/s
95th percentile per-packet one-way delay: 84.338 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 37.84 Mbit/s
95th percentile per-packet one-way delay: 70.325 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 16.55 Mbit/s
95th percentile per-packet one-way delay: 89.111 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 27.43 Mbit/s
95th percentile per-packet one-way delay: 89.370 ms
Loss rate: 1.65%
```

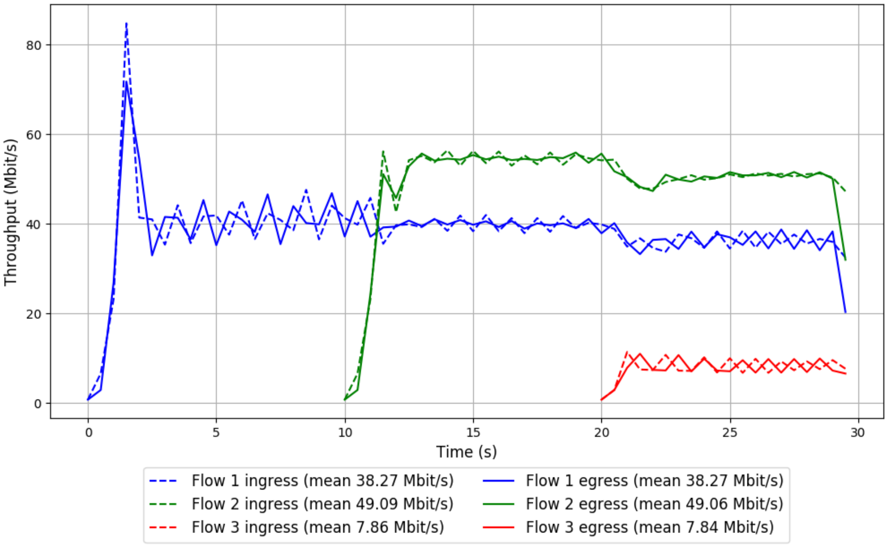
Run 7: Report of TCP Vegas — Data Link

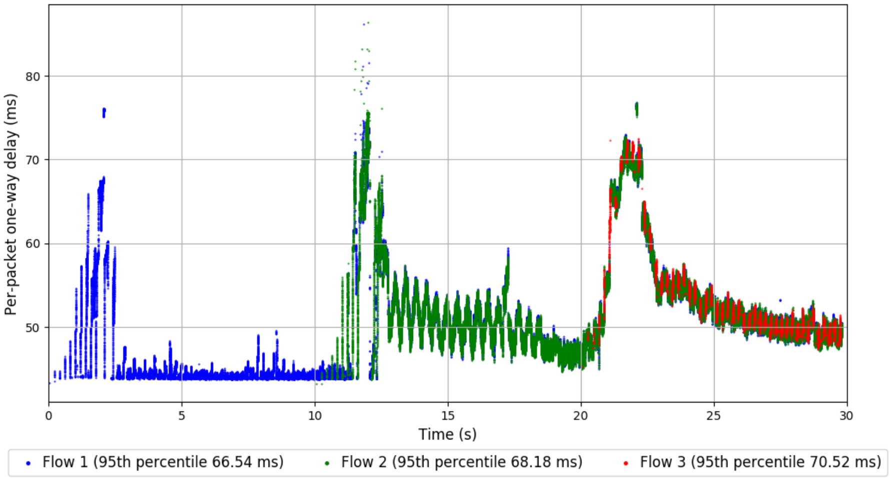




```
Run 8: Statistics of TCP Vegas

Start at: 2018-04-03 20:12:27
End at: 2018-04-03 20:12:57
Local clock offset: 5.305 ms
Remote clock offset: -3.261 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.39 Mbit/s
95th percentile per-packet one-way delay: 67.153 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 38.27 Mbit/s
95th percentile per-packet one-way delay: 66.539 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 49.06 Mbit/s
95th percentile per-packet one-way delay: 68.178 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 70.515 ms
Loss rate: 2.25%
```

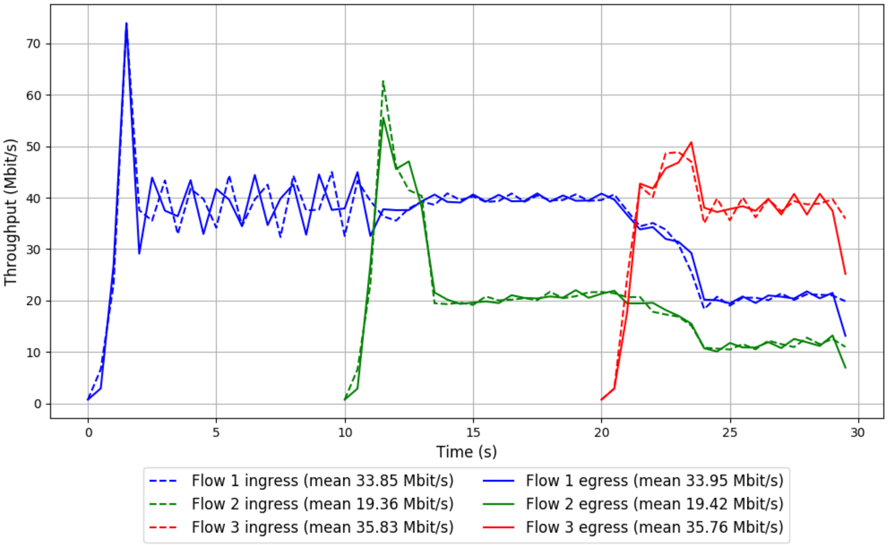
Run 8: Report of TCP Vegas — Data Link

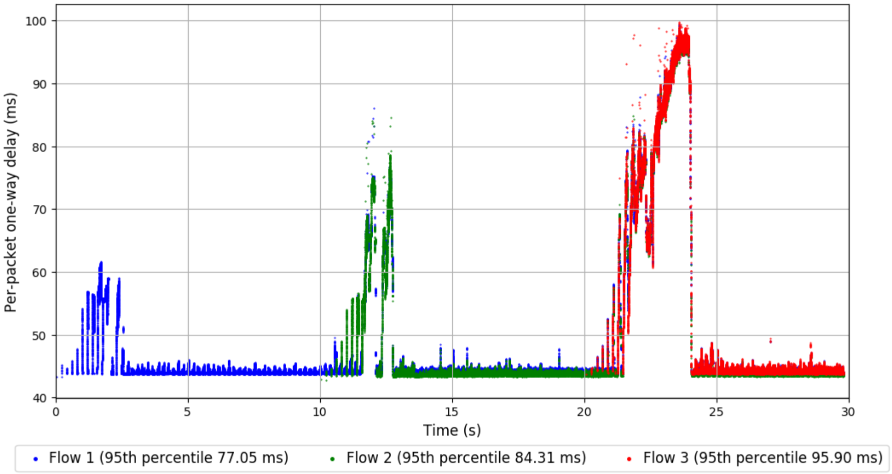




```
Run 9: Statistics of TCP Vegas

Start at: 2018-04-03 20:36:48
End at: 2018-04-03 20:37:18
Local clock offset: 5.38 ms
Remote clock offset: -2.796 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 88.971 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 77.049 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 19.42 Mbit/s
95th percentile per-packet one-way delay: 84.307 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 35.76 Mbit/s
95th percentile per-packet one-way delay: 95.902 ms
Loss rate: 2.21%
```

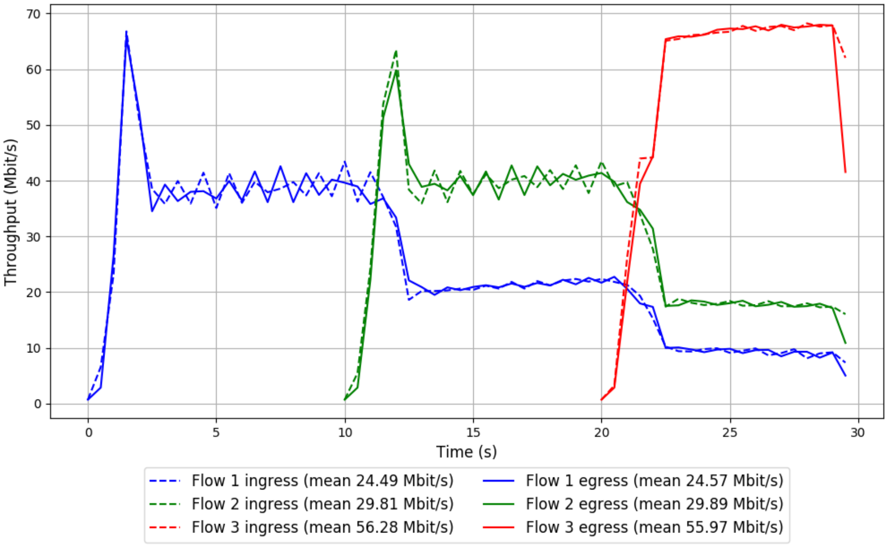
Run 9: Report of TCP Vegas — Data Link

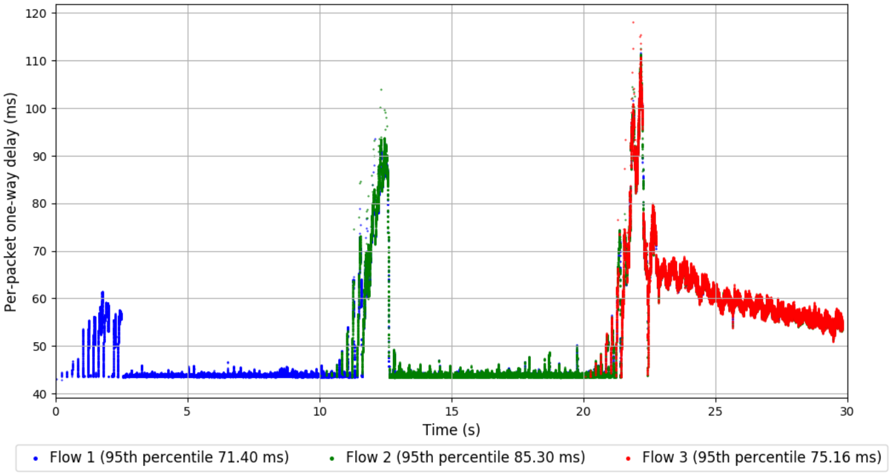




```
Run 10: Statistics of TCP Vegas

Start at: 2018-04-03 21:01:13
End at: 2018-04-03 21:01:43
Local clock offset: 5.793 ms
Remote clock offset: -8.053 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.70 Mbit/s
95th percentile per-packet one-way delay: 78.202 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 24.57 Mbit/s
95th percentile per-packet one-way delay: 71.398 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 85.301 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 75.159 ms
Loss rate: 2.51%
```

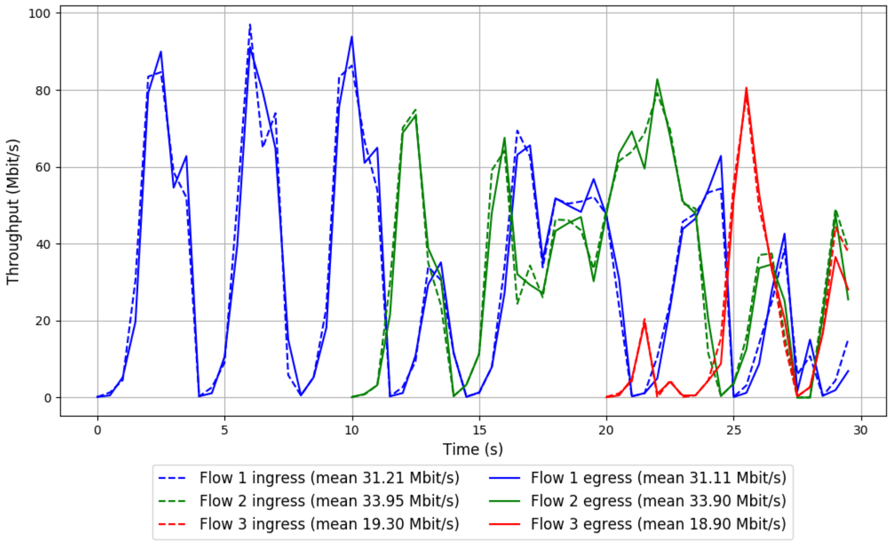
Run 10: Report of TCP Vegas — Data Link

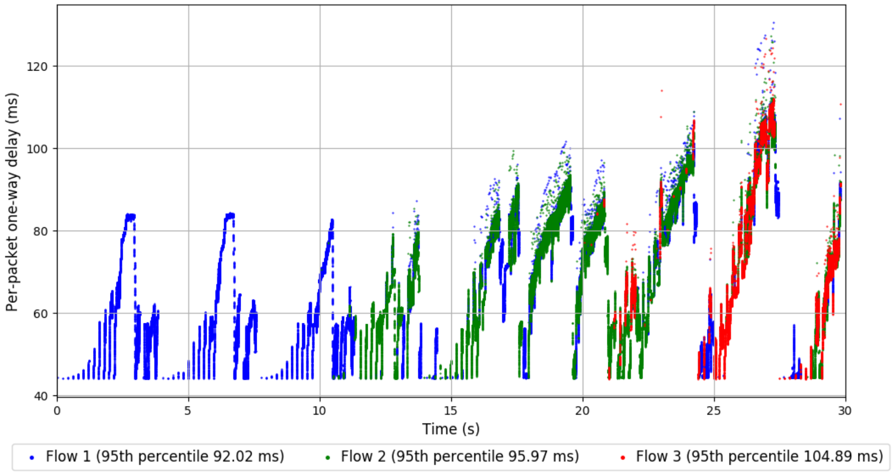




```
Run 1: Statistics of Verus

Start at: 2018-04-03 17:13:35
End at: 2018-04-03 17:14:05
Local clock offset: 6.261 ms
Remote clock offset: 55.319 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.73 Mbit/s
95th percentile per-packet one-way delay: 95.883 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 31.11 Mbit/s
95th percentile per-packet one-way delay: 92.022 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 33.90 Mbit/s
95th percentile per-packet one-way delay: 95.965 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 18.90 Mbit/s
95th percentile per-packet one-way delay: 104.890 ms
Loss rate: 4.55%
```

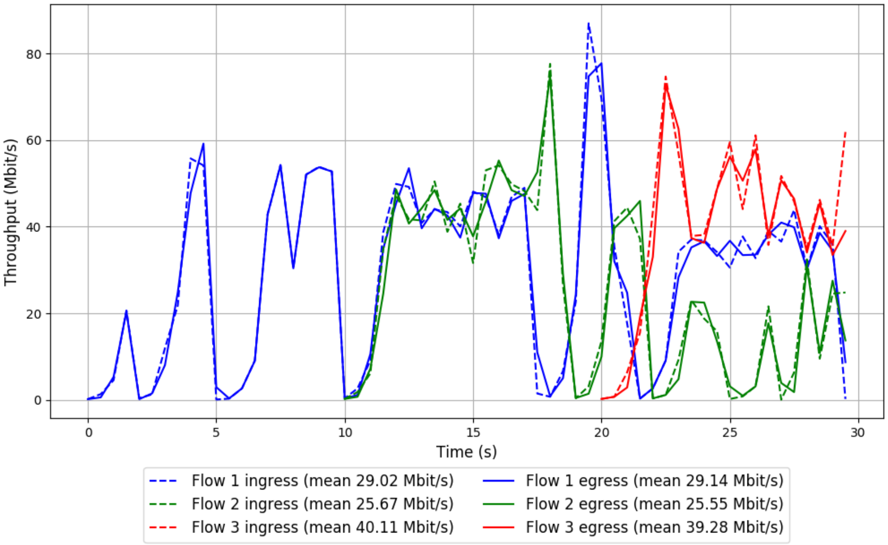
Run 1: Report of Verus — Data Link

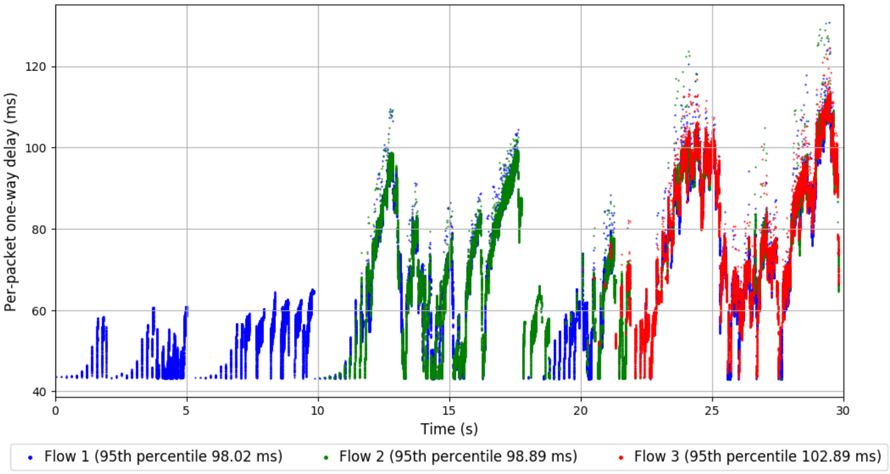




```
Run 2: Statistics of Verus

Start at: 2018-04-03 17:39:23
End at: 2018-04-03 17:39:53
Local clock offset: 9.582 ms
Remote clock offset: 24.596 ms

# Below is generated by plot.py at 2018-04-04 01:26:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 99.788 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 29.14 Mbit/s
95th percentile per-packet one-way delay: 98.016 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 25.55 Mbit/s
95th percentile per-packet one-way delay: 98.893 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 39.28 Mbit/s
95th percentile per-packet one-way delay: 102.892 ms
Loss rate: 4.27%
```

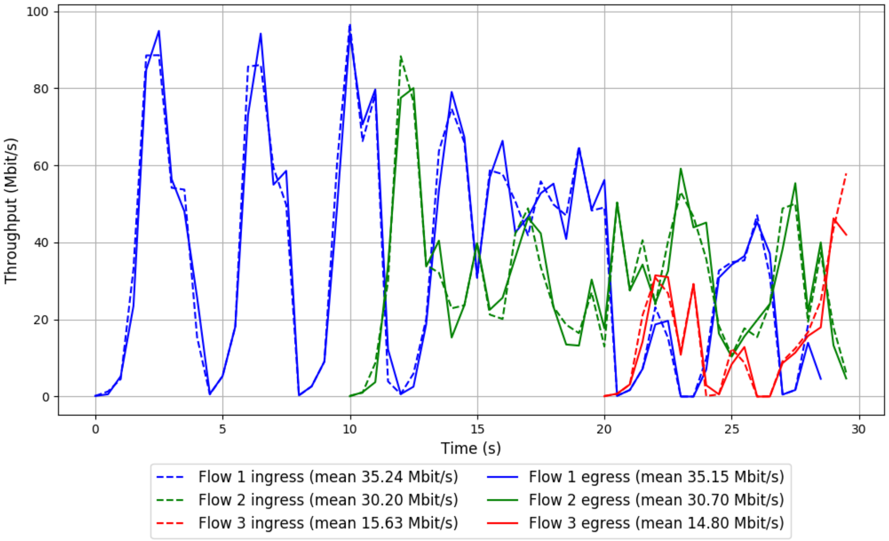
Run 2: Report of Verus — Data Link

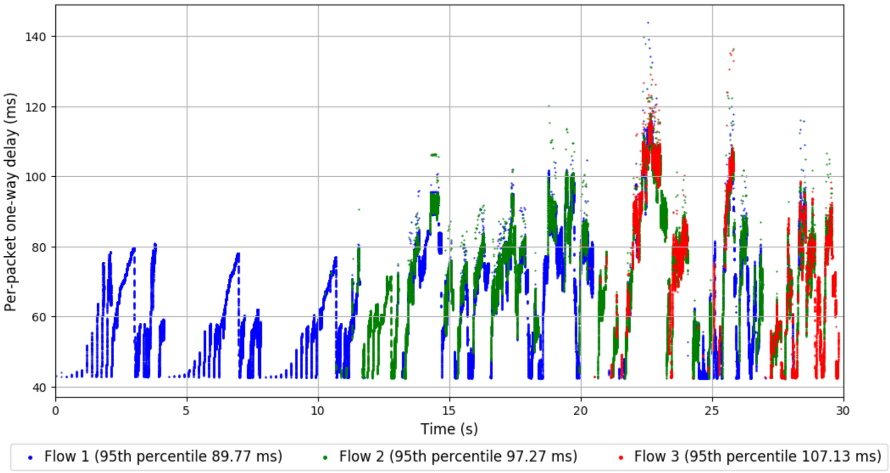




```
Run 3: Statistics of Verus

Start at: 2018-04-03 18:04:59
End at: 2018-04-03 18:05:29
Local clock offset: 9.322 ms
Remote clock offset: 1.061 ms

# Below is generated by plot.py at 2018-04-04 01:26:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.62 Mbit/s
95th percentile per-packet one-way delay: 95.101 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 89.765 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 97.274 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 14.80 Mbit/s
95th percentile per-packet one-way delay: 107.131 ms
Loss rate: 7.38%
```

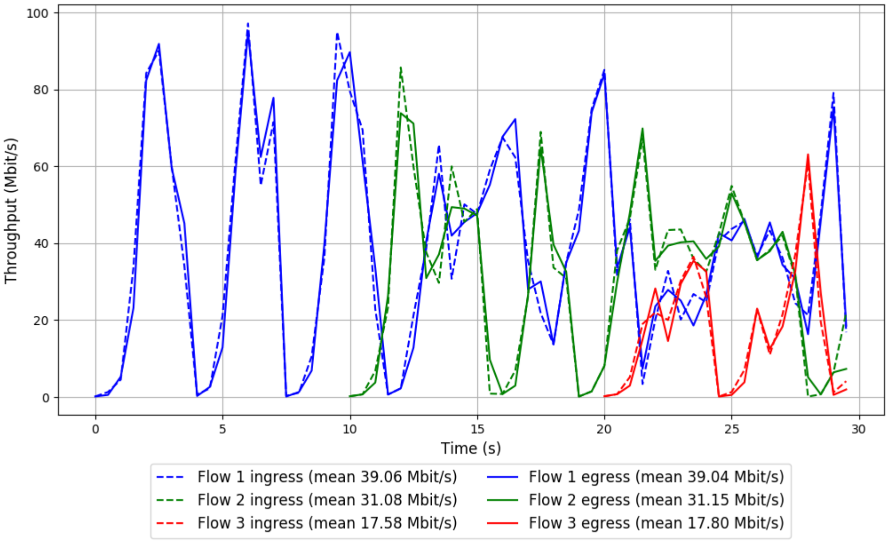
Run 3: Report of Verus — Data Link

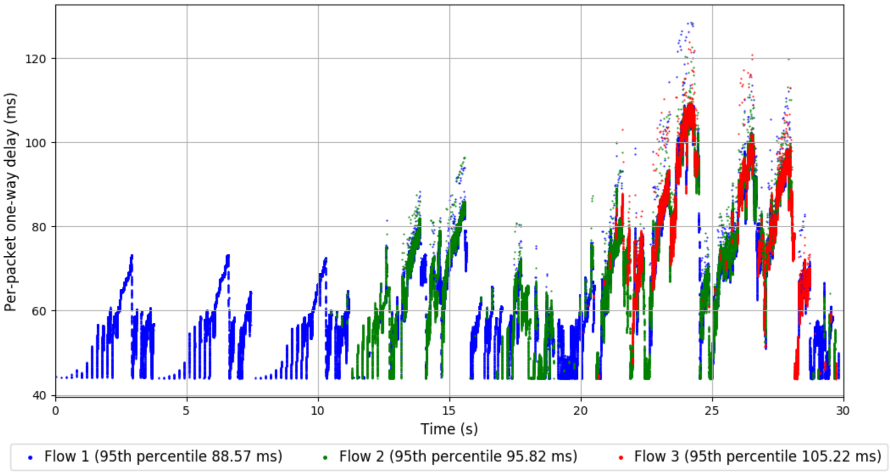




```
Run 4: Statistics of Verus

Start at: 2018-04-03 18:29:27
End at: 2018-04-03 18:29:57
Local clock offset: 9.303 ms
Remote clock offset: -14.869 ms

# Below is generated by plot.py at 2018-04-04 01:27:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.31 Mbit/s
95th percentile per-packet one-way delay: 95.152 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 39.04 Mbit/s
95th percentile per-packet one-way delay: 88.568 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 31.15 Mbit/s
95th percentile per-packet one-way delay: 95.824 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 17.80 Mbit/s
95th percentile per-packet one-way delay: 105.217 ms
Loss rate: 1.00%
```

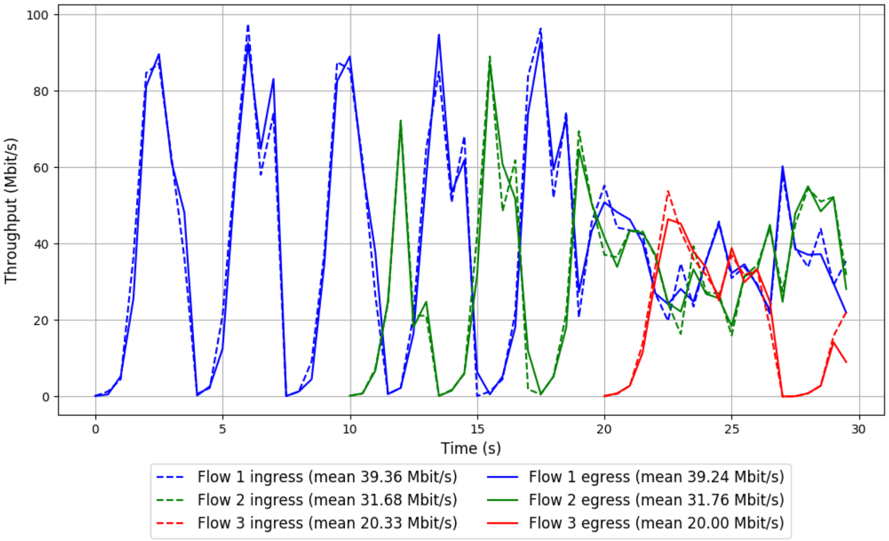
Run 4: Report of Verus — Data Link

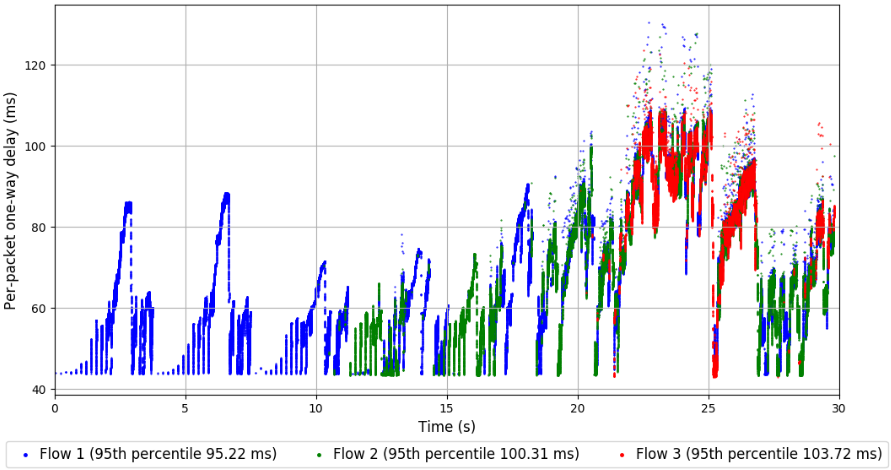




```
Run 5: Statistics of Verus

Start at: 2018-04-03 18:53:49
End at: 2018-04-03 18:54:19
Local clock offset: 8.943 ms
Remote clock offset: -26.252 ms

# Below is generated by plot.py at 2018-04-04 01:27:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.80 Mbit/s
95th percentile per-packet one-way delay: 100.185 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 39.24 Mbit/s
95th percentile per-packet one-way delay: 95.217 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 100.311 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 103.725 ms
Loss rate: 4.06%
```

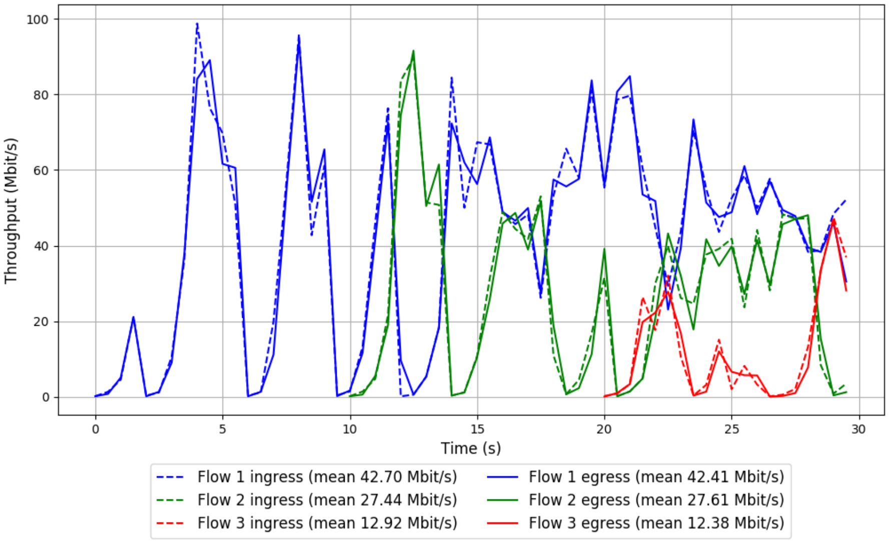
Run 5: Report of Verus — Data Link

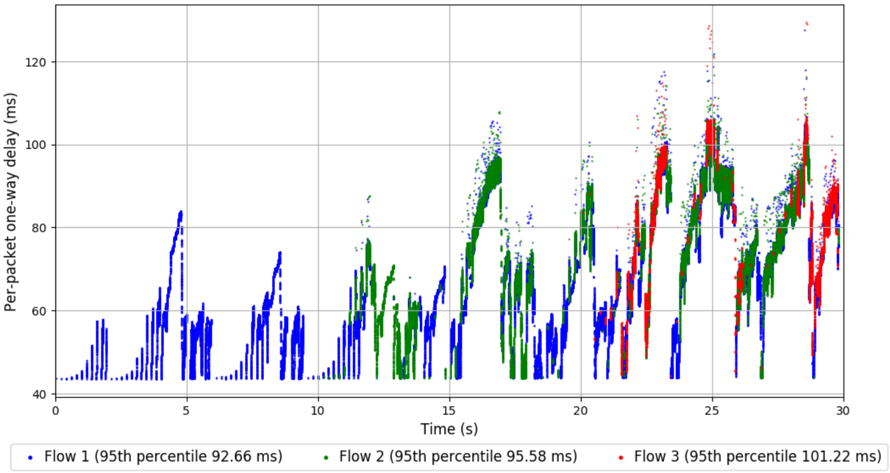




```
Run 6: Statistics of Verus

Start at: 2018-04-03 19:18:12
End at: 2018-04-03 19:18:42
Local clock offset: 8.865 ms
Remote clock offset: -2.689 ms

# Below is generated by plot.py at 2018-04-04 01:27:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.77 Mbit/s
95th percentile per-packet one-way delay: 94.493 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 42.41 Mbit/s
95th percentile per-packet one-way delay: 92.659 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 27.61 Mbit/s
95th percentile per-packet one-way delay: 95.581 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 101.224 ms
Loss rate: 6.43%
```

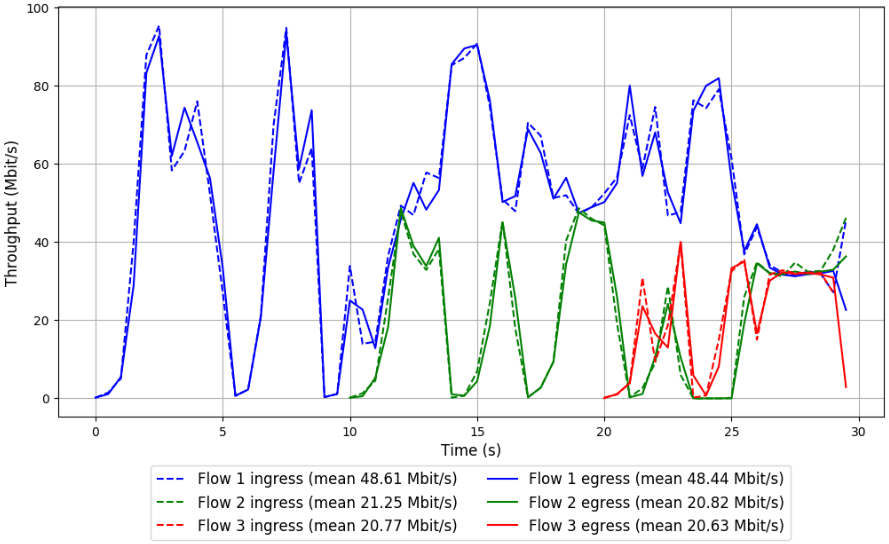
Run 6: Report of Verus — Data Link

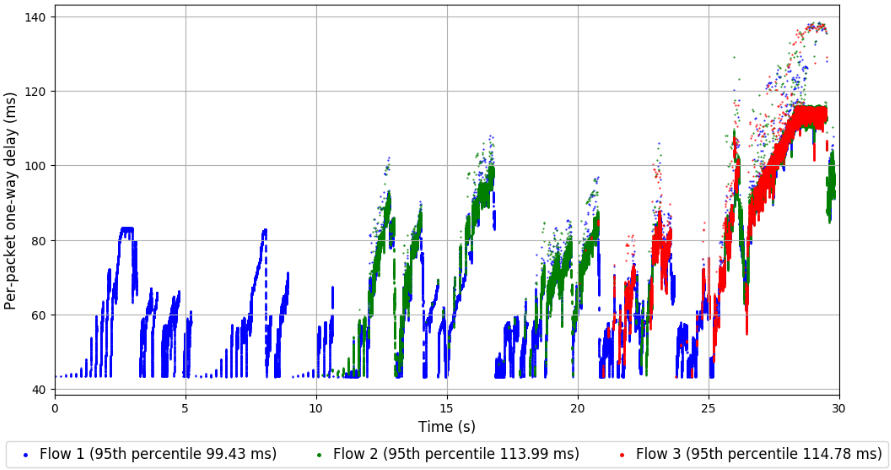




```
Run 7: Statistics of Verus

Start at: 2018-04-03 19:42:39
End at: 2018-04-03 19:43:09
Local clock offset: 5.864 ms
Remote clock offset: 2.335 ms

# Below is generated by plot.py at 2018-04-04 01:27:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.80 Mbit/s
95th percentile per-packet one-way delay: 111.973 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 48.44 Mbit/s
95th percentile per-packet one-way delay: 99.430 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 20.82 Mbit/s
95th percentile per-packet one-way delay: 113.991 ms
Loss rate: 3.02%
-- Flow 3:
Average throughput: 20.63 Mbit/s
95th percentile per-packet one-way delay: 114.780 ms
Loss rate: 0.30%
```

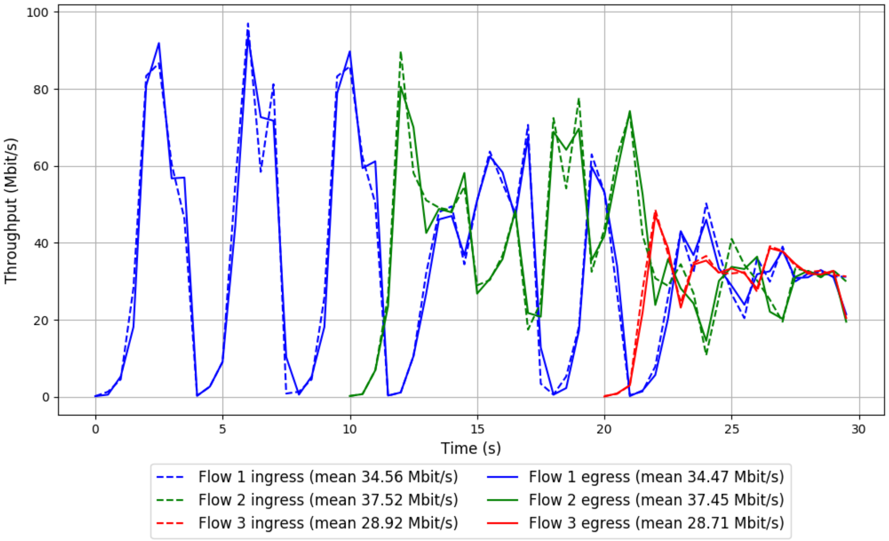
Run 7: Report of Verus — Data Link

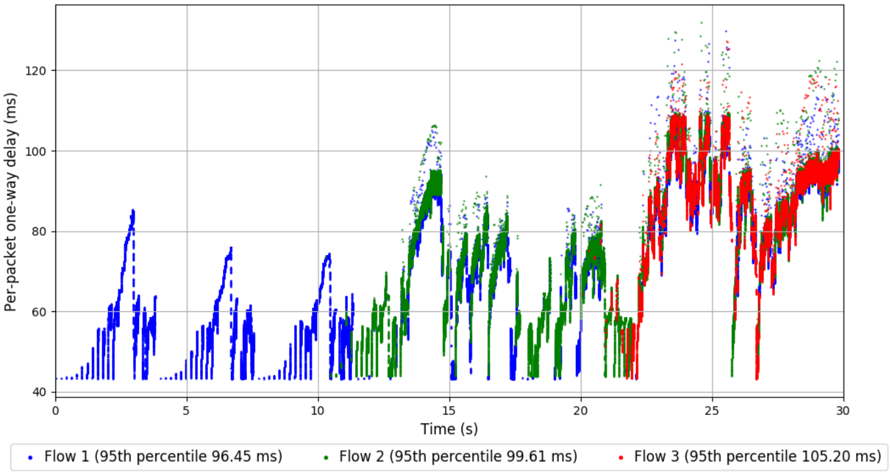




```
Run 8: Statistics of Verus

Start at: 2018-04-03 20:07:00
End at: 2018-04-03 20:07:30
Local clock offset: 4.705 ms
Remote clock offset: -3.003 ms

# Below is generated by plot.py at 2018-04-04 01:27:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.69 Mbit/s
95th percentile per-packet one-way delay: 99.664 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 34.47 Mbit/s
95th percentile per-packet one-way delay: 96.447 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 37.45 Mbit/s
95th percentile per-packet one-way delay: 99.613 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 28.71 Mbit/s
95th percentile per-packet one-way delay: 105.198 ms
Loss rate: 3.13%
```

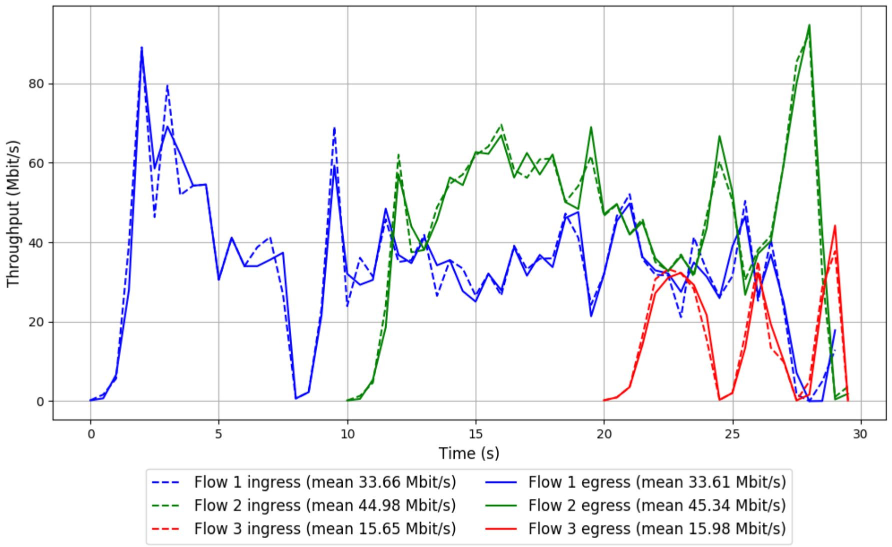
Run 8: Report of Verus — Data Link

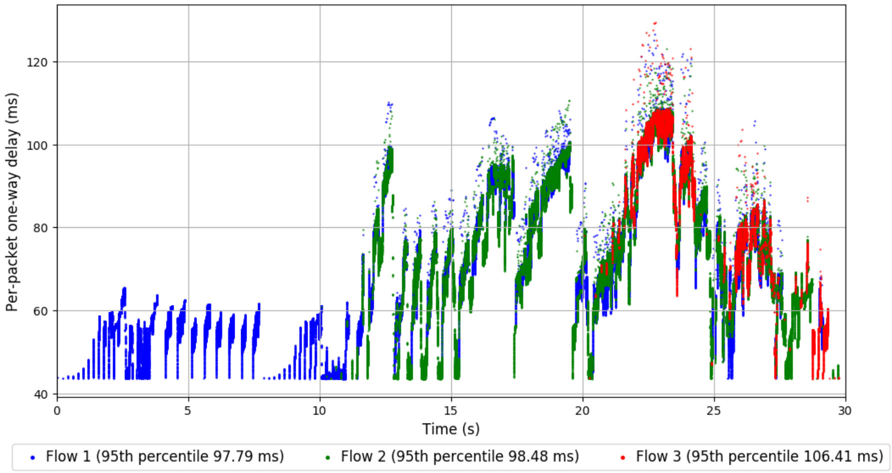




```
Run 9: Statistics of Verus

Start at: 2018-04-03 20:31:22
End at: 2018-04-03 20:31:52
Local clock offset: 5.315 ms
Remote clock offset: -2.7 ms

# Below is generated by plot.py at 2018-04-04 01:28:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.10 Mbit/s
95th percentile per-packet one-way delay: 99.977 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 33.61 Mbit/s
95th percentile per-packet one-way delay: 97.791 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 45.34 Mbit/s
95th percentile per-packet one-way delay: 98.477 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 15.98 Mbit/s
95th percentile per-packet one-way delay: 106.411 ms
Loss rate: 0.24%
```

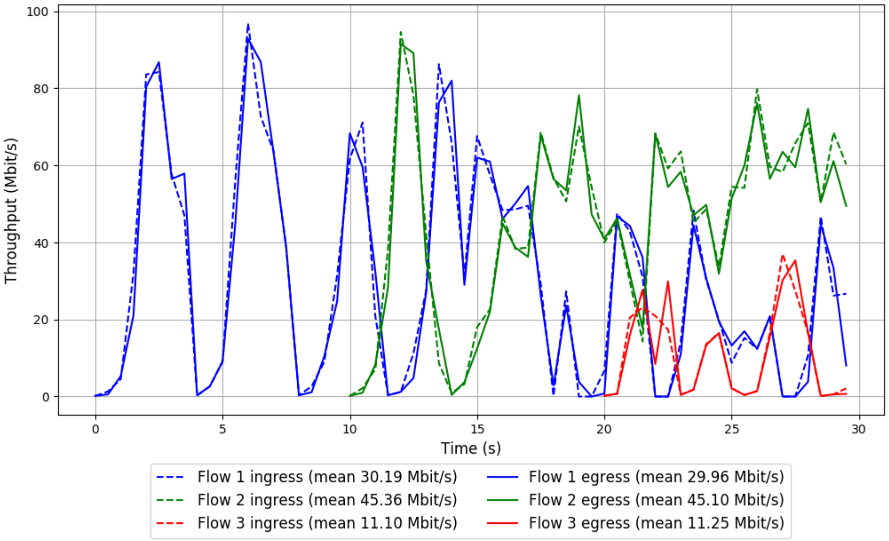
Run 9: Report of Verus — Data Link

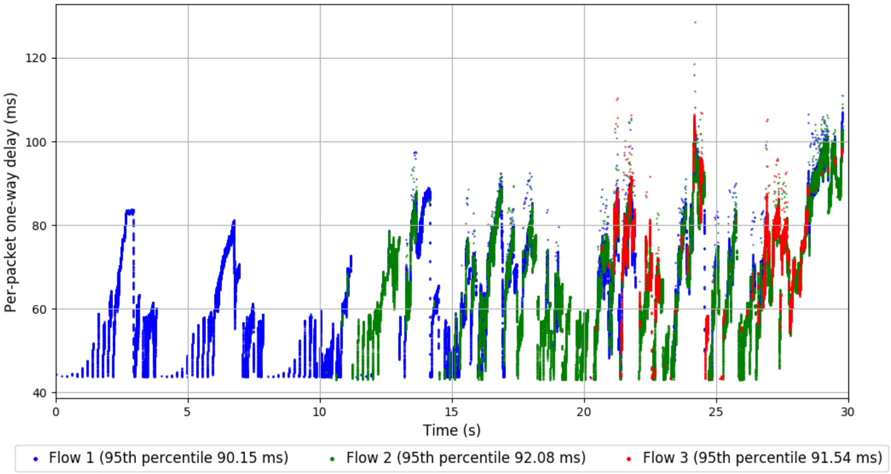




```
Run 10: Statistics of Verus

Start at: 2018-04-03 20:55:41
End at: 2018-04-03 20:56:11
Local clock offset: 5.65 ms
Remote clock offset: -6.826 ms

# Below is generated by plot.py at 2018-04-04 01:28:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.55 Mbit/s
95th percentile per-packet one-way delay: 91.328 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 90.150 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 45.10 Mbit/s
95th percentile per-packet one-way delay: 92.080 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 11.25 Mbit/s
95th percentile per-packet one-way delay: 91.538 ms
Loss rate: 0.78%
```

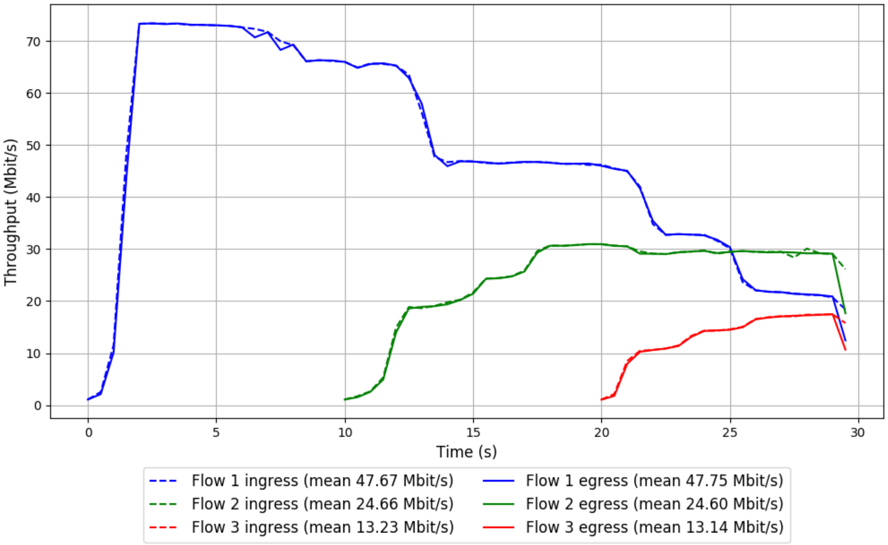
Run 10: Report of Verus — Data Link

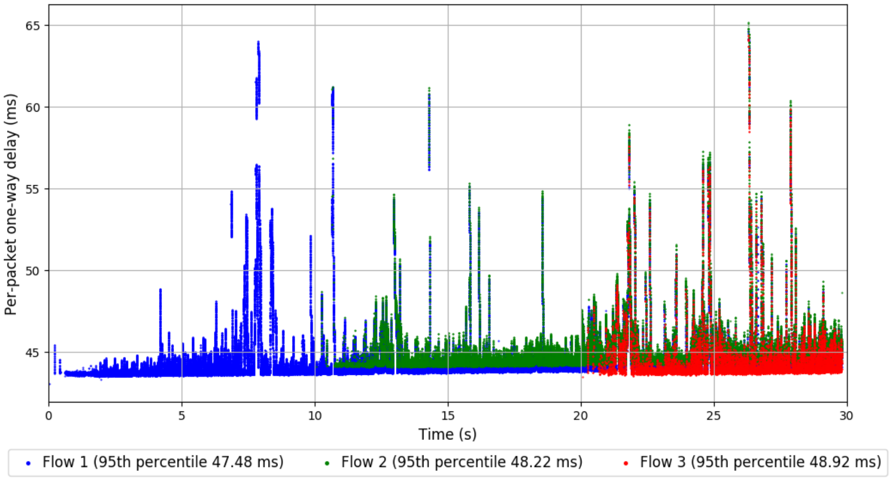




```
Run 1: Statistics of Copa

Start at: 2018-04-03 17:01:59
End at: 2018-04-03 17:02:29
Local clock offset: 5.964 ms
Remote clock offset: 44.629 ms

# Below is generated by plot.py at 2018-04-04 01:28:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.36 Mbit/s
95th percentile per-packet one-way delay: 47.764 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 47.75 Mbit/s
95th percentile per-packet one-way delay: 47.475 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 24.60 Mbit/s
95th percentile per-packet one-way delay: 48.223 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 48.925 ms
Loss rate: 2.63%
```

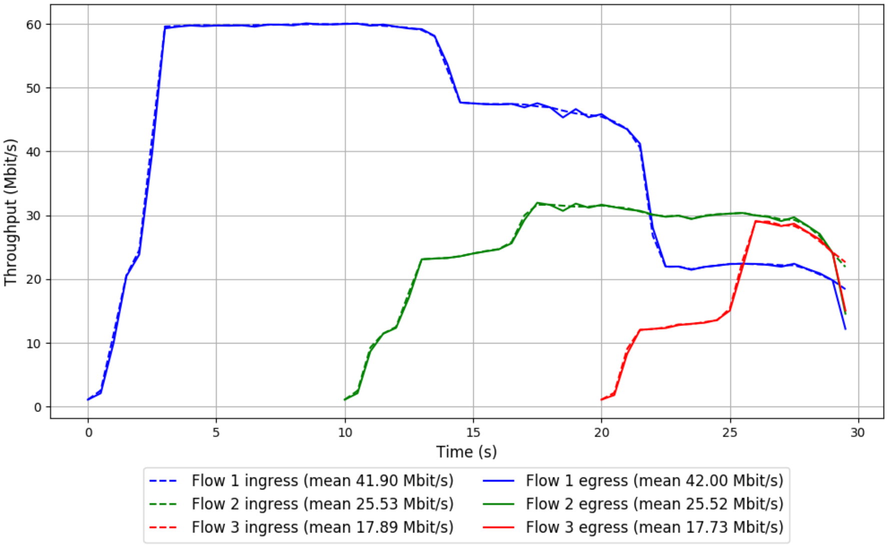
Run 1: Report of Copa — Data Link

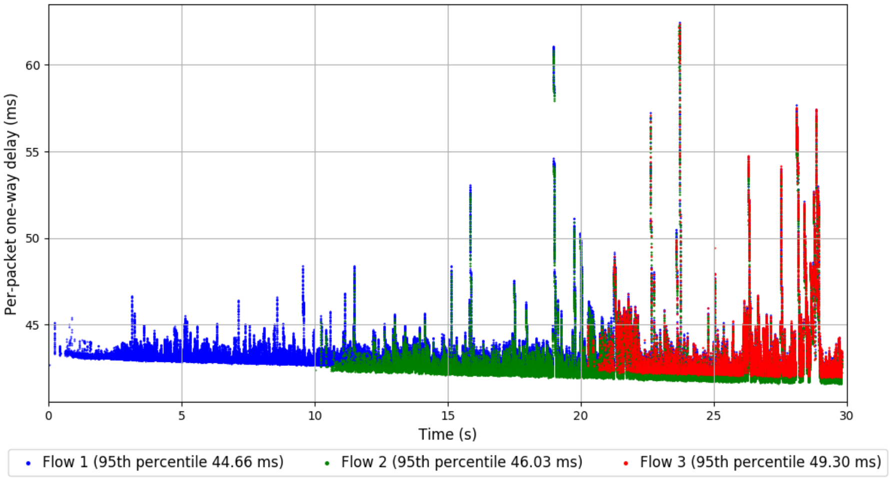




```
Run 2: Statistics of Copa

Start at: 2018-04-03 17:28:00
End at: 2018-04-03 17:28:30
Local clock offset: 8.731 ms
Remote clock offset: 39.577 ms

# Below is generated by plot.py at 2018-04-04 01:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.73 Mbit/s
95th percentile per-packet one-way delay: 45.312 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 42.00 Mbit/s
95th percentile per-packet one-way delay: 44.664 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 25.52 Mbit/s
95th percentile per-packet one-way delay: 46.035 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 17.73 Mbit/s
95th percentile per-packet one-way delay: 49.305 ms
Loss rate: 2.80%
```

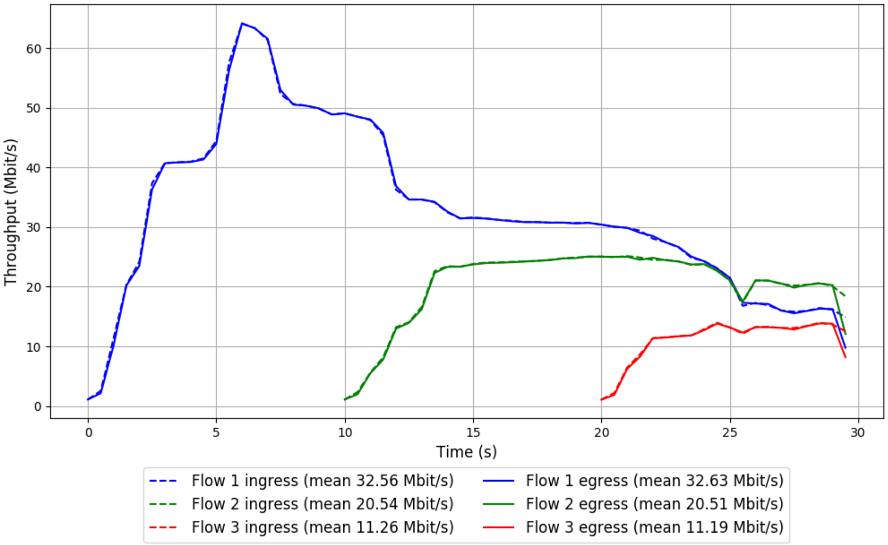
Run 2: Report of Copa — Data Link

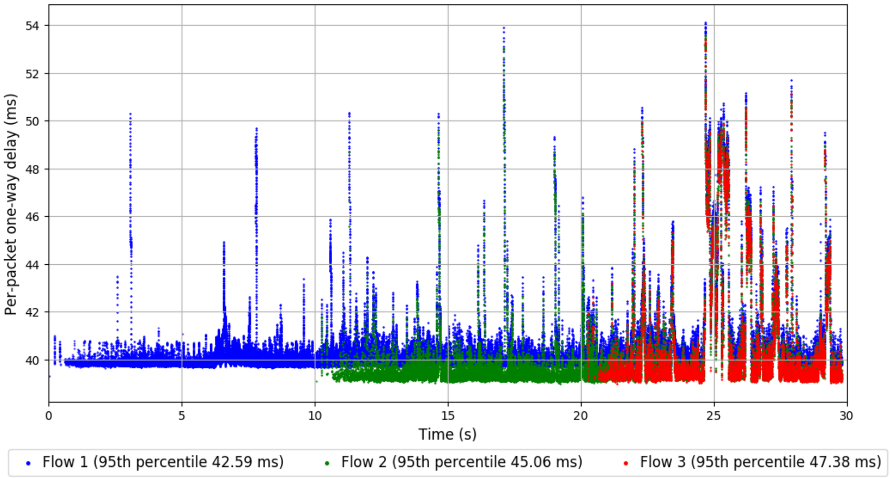




```
Run 3: Statistics of Copa

Start at: 2018-04-03 17:54:05
End at: 2018-04-03 17:54:35
Local clock offset: 9.44 ms
Remote clock offset: 25.195 ms

# Below is generated by plot.py at 2018-04-04 01:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.89 Mbit/s
95th percentile per-packet one-way delay: 44.079 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 32.63 Mbit/s
95th percentile per-packet one-way delay: 42.591 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 20.51 Mbit/s
95th percentile per-packet one-way delay: 45.062 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 47.375 ms
Loss rate: 2.57%
```

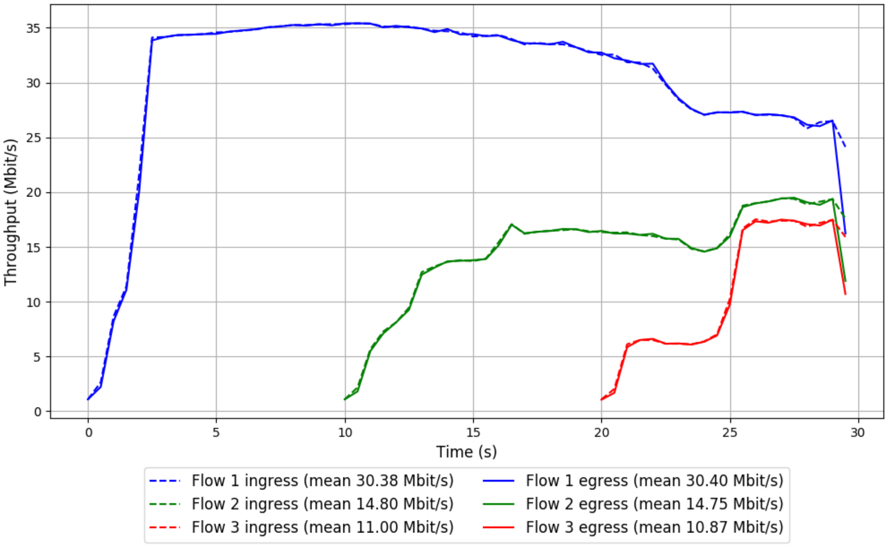
Run 3: Report of Copa — Data Link

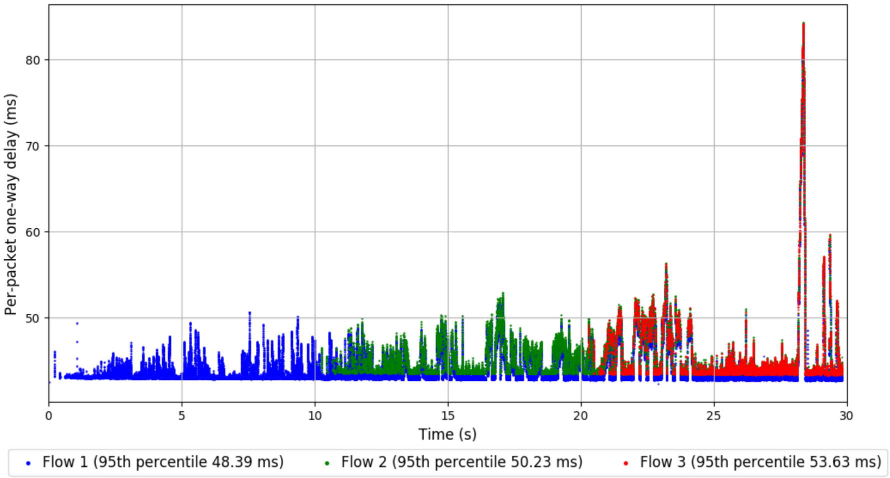




```
Run 4: Statistics of Copa

Start at: 2018-04-03 18:18:40
End at: 2018-04-03 18:19:10
Local clock offset: 9.632 ms
Remote clock offset: -10.285 ms

# Below is generated by plot.py at 2018-04-04 01:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.73 Mbit/s
95th percentile per-packet one-way delay: 49.156 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 30.40 Mbit/s
95th percentile per-packet one-way delay: 48.391 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 14.75 Mbit/s
95th percentile per-packet one-way delay: 50.229 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 10.87 Mbit/s
95th percentile per-packet one-way delay: 53.632 ms
Loss rate: 3.08%
```

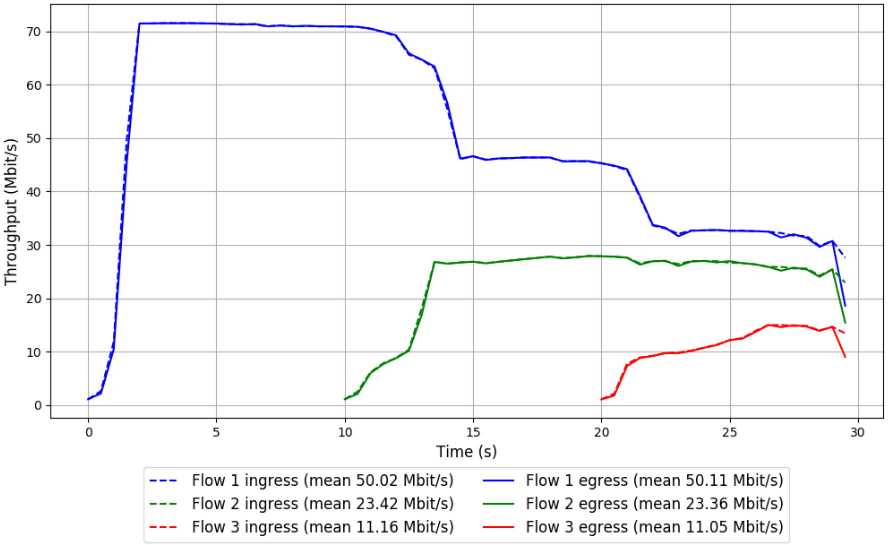
Run 4: Report of Copa — Data Link

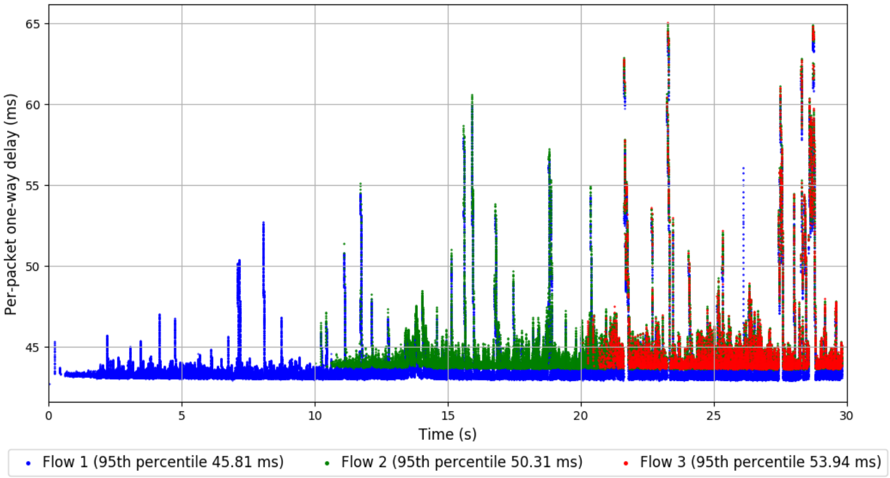




```
Run 5: Statistics of Copa

Start at: 2018-04-03 18:42:58
End at: 2018-04-03 18:43:28
Local clock offset: 8.928 ms
Remote clock offset: -22.023 ms

# Below is generated by plot.py at 2018-04-04 01:29:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.22 Mbit/s
95th percentile per-packet one-way delay: 47.159 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 50.11 Mbit/s
95th percentile per-packet one-way delay: 45.812 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 23.36 Mbit/s
95th percentile per-packet one-way delay: 50.311 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 53.942 ms
Loss rate: 2.94%
```

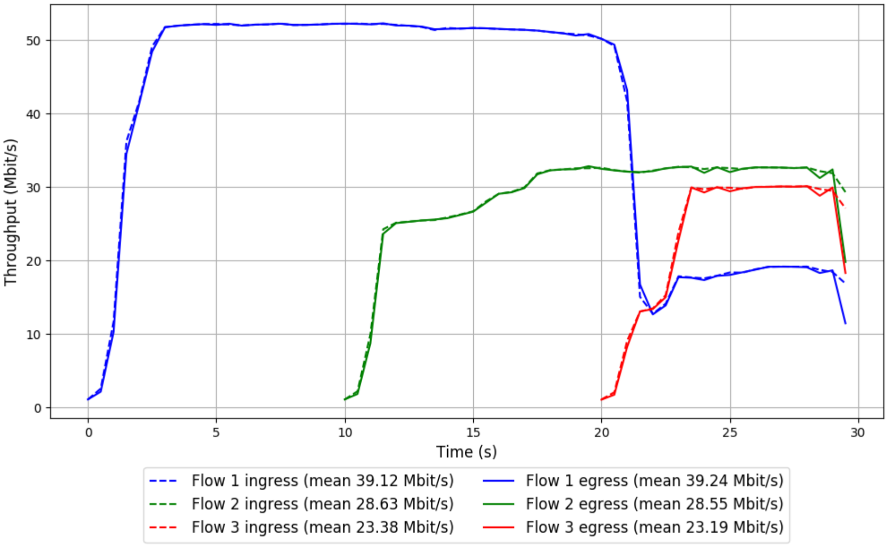
Run 5: Report of Copa — Data Link

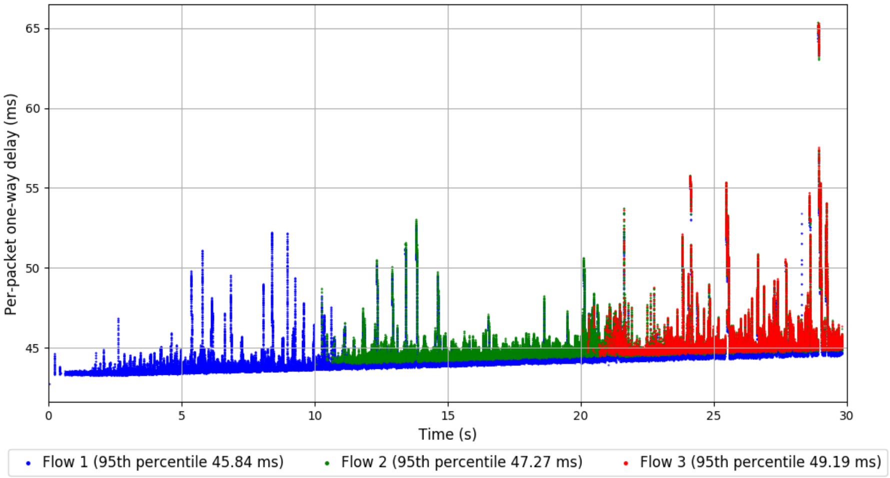




```
Run 6: Statistics of Copa

Start at: 2018-04-03 19:07:21
End at: 2018-04-03 19:07:51
Local clock offset: 8.767 ms
Remote clock offset: -19.502 ms

# Below is generated by plot.py at 2018-04-04 01:29:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.76 Mbit/s
95th percentile per-packet one-way delay: 46.669 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 39.24 Mbit/s
95th percentile per-packet one-way delay: 45.840 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 28.55 Mbit/s
95th percentile per-packet one-way delay: 47.272 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 23.19 Mbit/s
95th percentile per-packet one-way delay: 49.190 ms
Loss rate: 2.75%
```

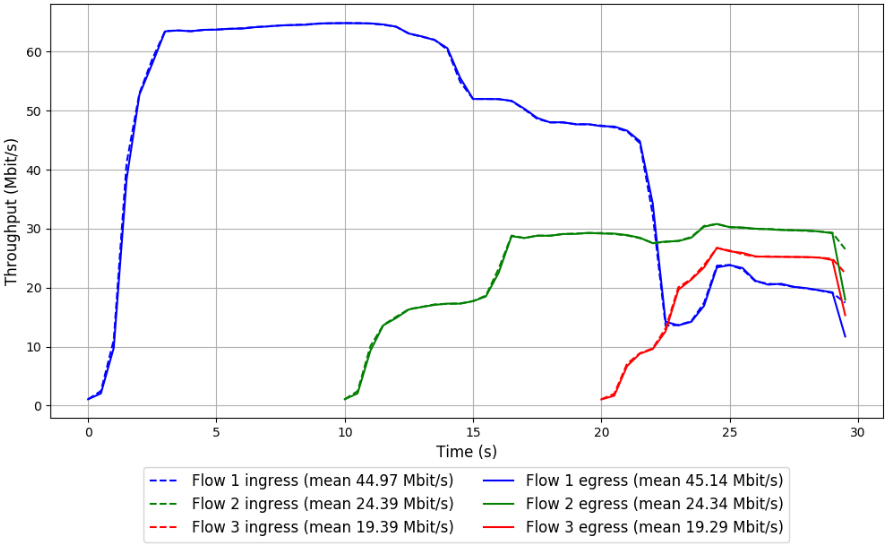
Run 6: Report of Copa — Data Link

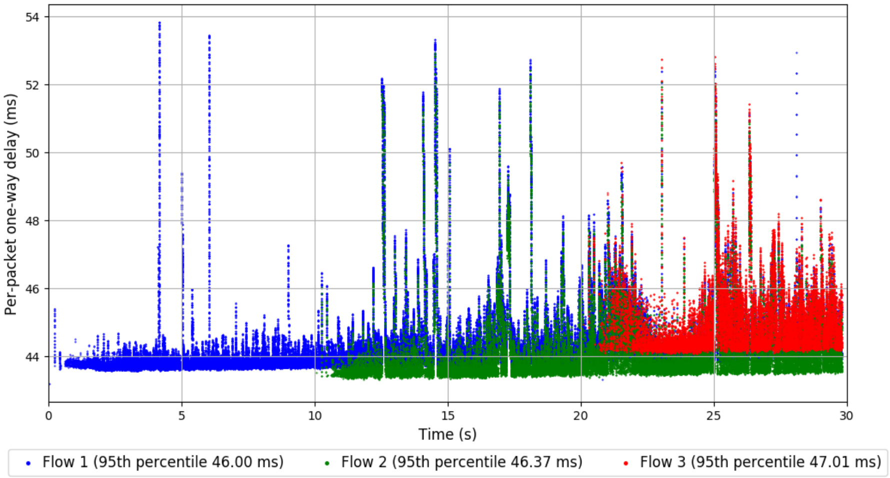




```
Run 7: Statistics of Copa

Start at: 2018-04-03 19:31:50
End at: 2018-04-03 19:32:20
Local clock offset: 7.971 ms
Remote clock offset: 3.833 ms

# Below is generated by plot.py at 2018-04-04 01:29:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.58 Mbit/s
95th percentile per-packet one-way delay: 46.235 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 45.14 Mbit/s
95th percentile per-packet one-way delay: 45.996 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 24.34 Mbit/s
95th percentile per-packet one-way delay: 46.367 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 19.29 Mbit/s
95th percentile per-packet one-way delay: 47.005 ms
Loss rate: 2.49%
```

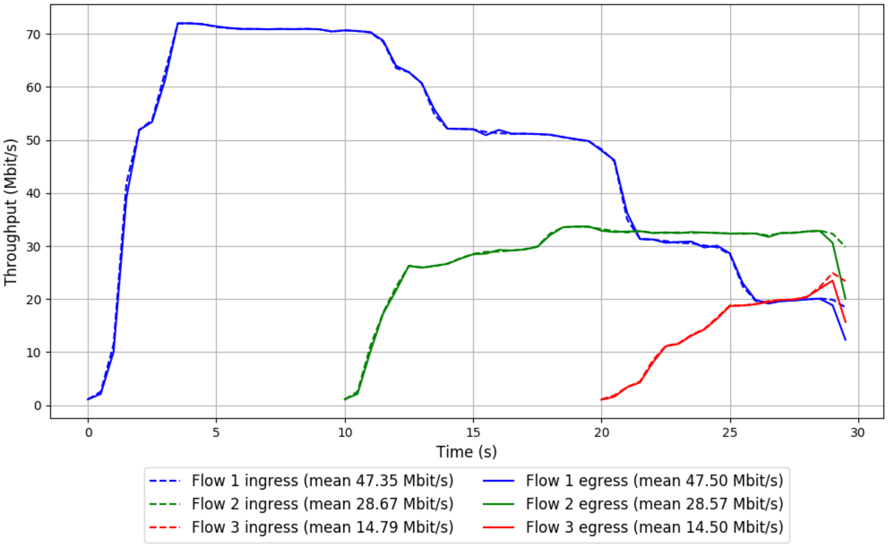
Run 7: Report of Copa — Data Link

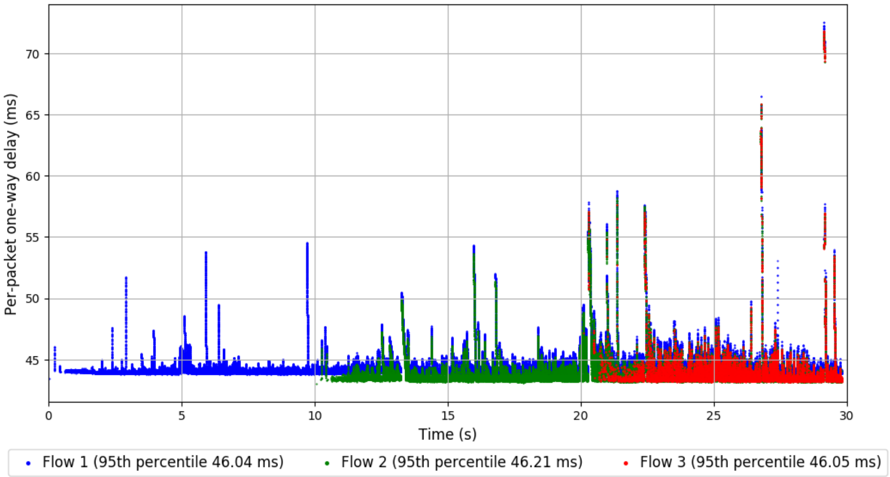




```
Run 8: Statistics of Copa

Start at: 2018-04-03 19:56:09
End at: 2018-04-03 19:56:39
Local clock offset: 4.83 ms
Remote clock offset: -1.789 ms

# Below is generated by plot.py at 2018-04-04 01:29:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.19 Mbit/s
95th percentile per-packet one-way delay: 46.078 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 47.50 Mbit/s
95th percentile per-packet one-way delay: 46.036 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 28.57 Mbit/s
95th percentile per-packet one-way delay: 46.211 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 14.50 Mbit/s
95th percentile per-packet one-way delay: 46.047 ms
Loss rate: 3.89%
```

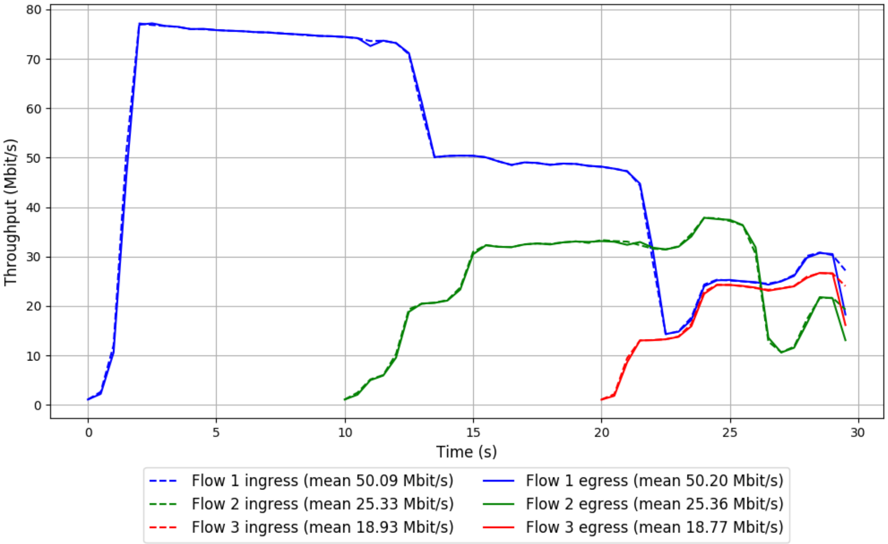
Run 8: Report of Copa — Data Link

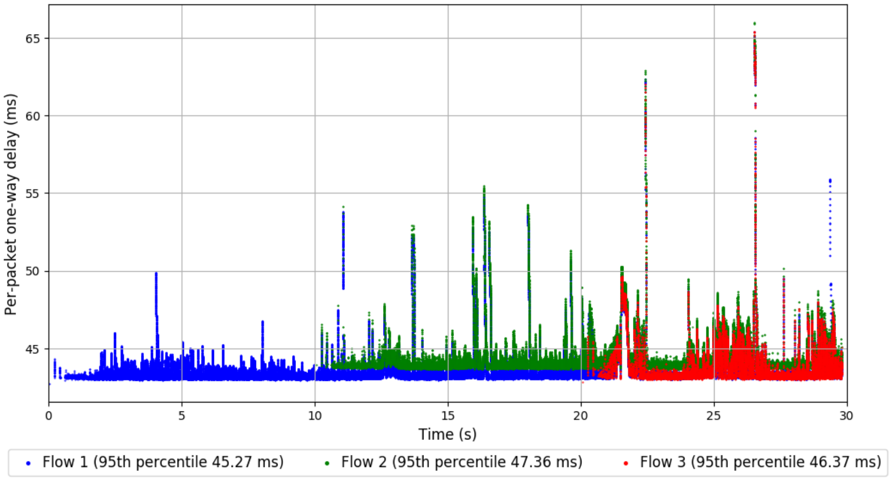




```
Run 9: Statistics of Copa

Start at: 2018-04-03 20:20:31
End at: 2018-04-03 20:21:01
Local clock offset: 5.192 ms
Remote clock offset: -2.82 ms

# Below is generated by plot.py at 2018-04-04 01:30:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.15 Mbit/s
95th percentile per-packet one-way delay: 46.069 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 50.20 Mbit/s
95th percentile per-packet one-way delay: 45.272 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 25.36 Mbit/s
95th percentile per-packet one-way delay: 47.364 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 18.77 Mbit/s
95th percentile per-packet one-way delay: 46.369 ms
Loss rate: 2.76%
```

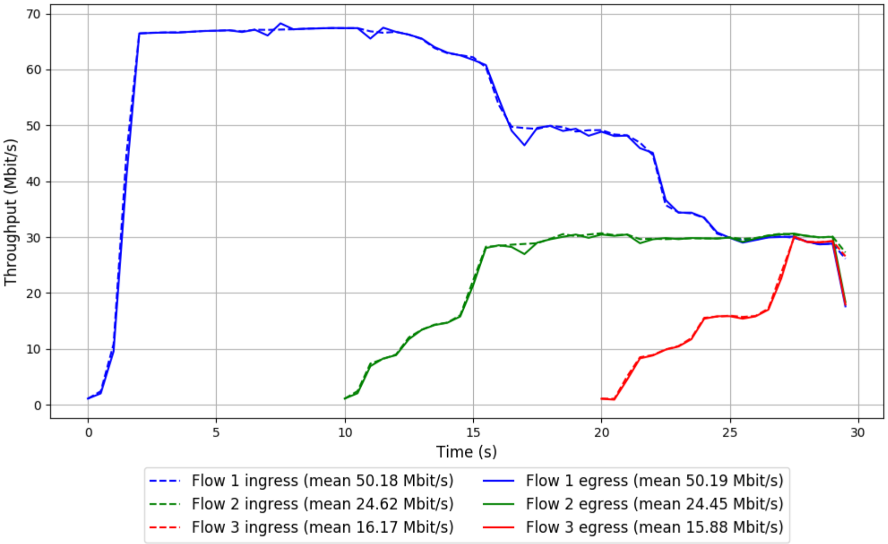
Run 9: Report of Copa — Data Link

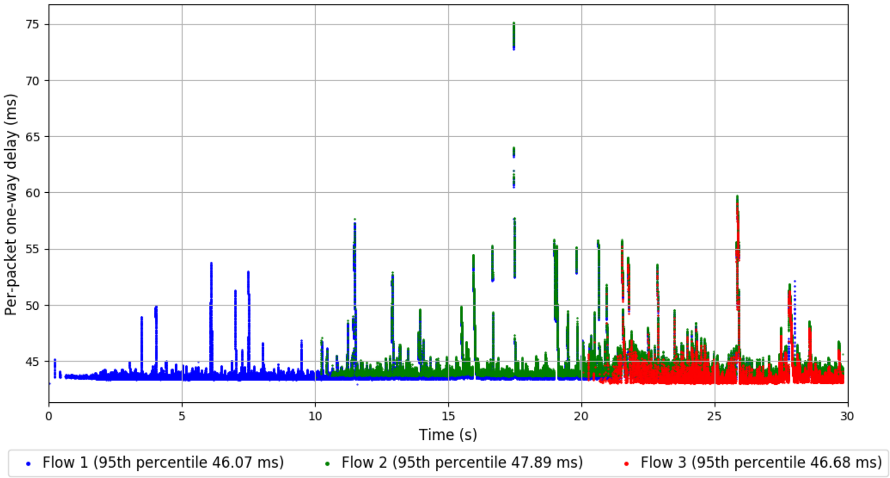




```
Run 10: Statistics of Copa

Start at: 2018-04-03 20:44:52
End at: 2018-04-03 20:45:22
Local clock offset: 5.454 ms
Remote clock offset: -3.031 ms

# Below is generated by plot.py at 2018-04-04 01:30:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.61 Mbit/s
95th percentile per-packet one-way delay: 46.542 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 46.068 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 47.890 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 15.88 Mbit/s
95th percentile per-packet one-way delay: 46.680 ms
Loss rate: 3.68%
```

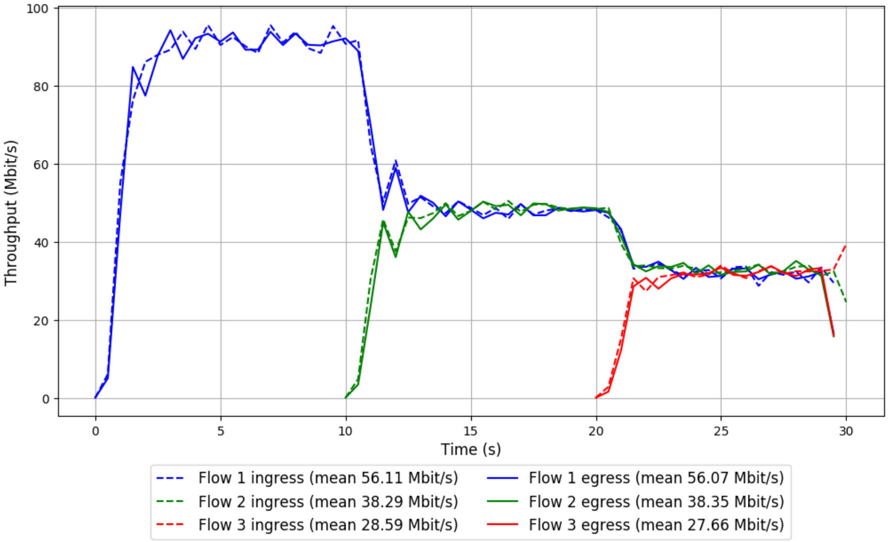
Run 10: Report of Copa — Data Link

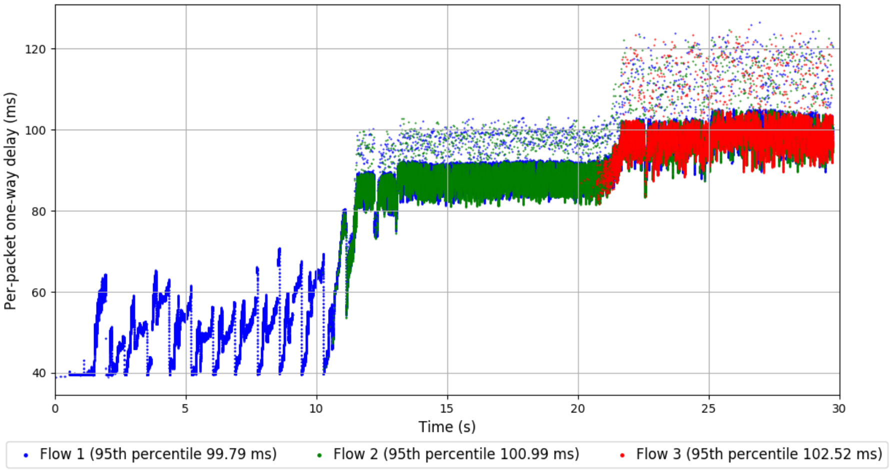




```
Run 1: Statistics of FillP

Start at: 2018-04-03 17:16:30
End at: 2018-04-03 17:17:00
Local clock offset: 7.043 ms
Remote clock offset: 62.379 ms

# Below is generated by plot.py at 2018-04-04 01:30:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.44 Mbit/s
95th percentile per-packet one-way delay: 100.835 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 56.07 Mbit/s
95th percentile per-packet one-way delay: 99.793 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 38.35 Mbit/s
95th percentile per-packet one-way delay: 100.986 ms
Loss rate: 3.57%
-- Flow 3:
Average throughput: 27.66 Mbit/s
95th percentile per-packet one-way delay: 102.519 ms
Loss rate: 10.50%
```

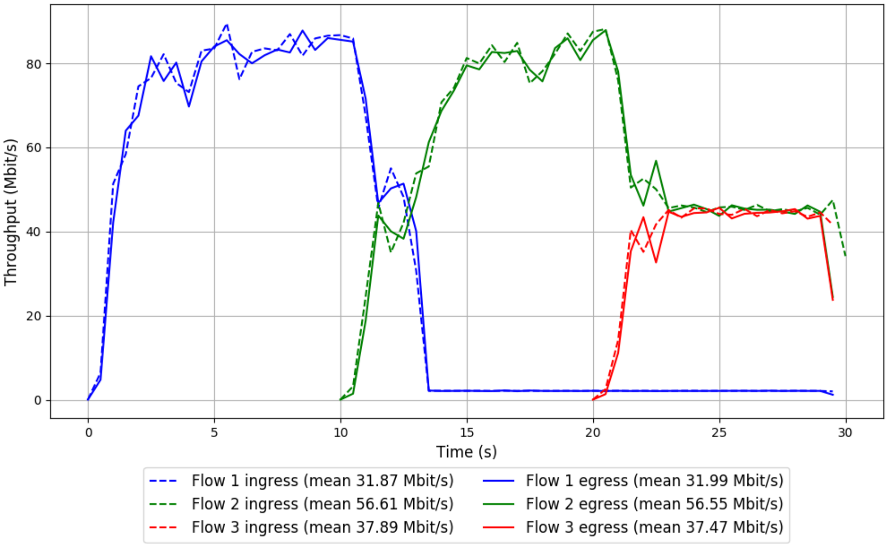
Run 1: Report of FillP — Data Link

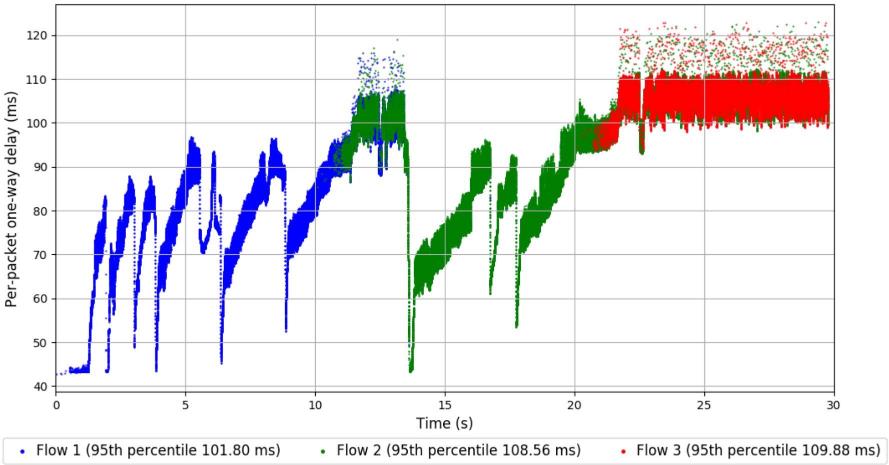




```
Run 2: Statistics of FillP

Start at: 2018-04-03 17:42:16
End at: 2018-04-03 17:42:46
Local clock offset: 9.737 ms
Remote clock offset: 23.103 ms

# Below is generated by plot.py at 2018-04-04 01:30:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.57 Mbit/s
95th percentile per-packet one-way delay: 108.382 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 31.99 Mbit/s
95th percentile per-packet one-way delay: 101.801 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 56.55 Mbit/s
95th percentile per-packet one-way delay: 108.560 ms
Loss rate: 3.21%
-- Flow 3:
Average throughput: 37.47 Mbit/s
95th percentile per-packet one-way delay: 109.876 ms
Loss rate: 4.09%
```

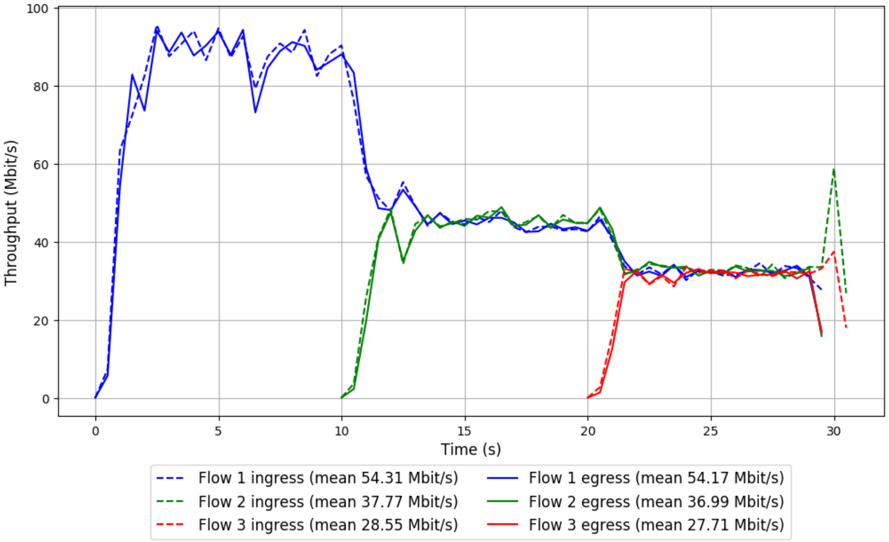
Run 2: Report of FillP — Data Link

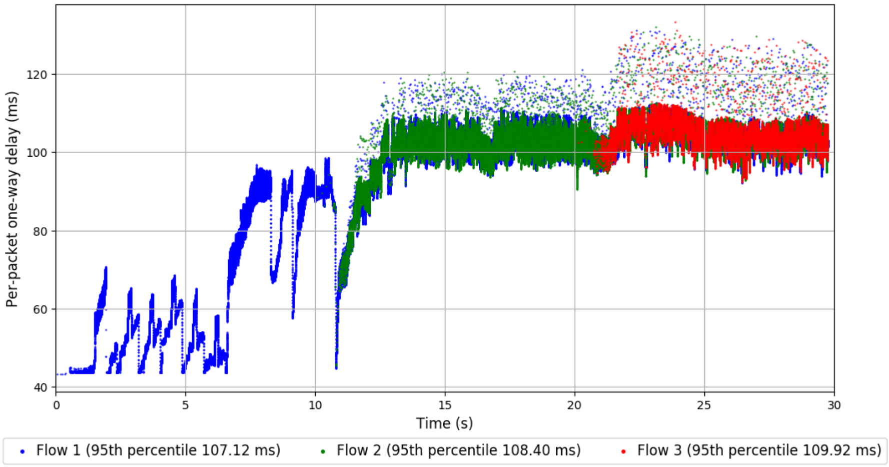




```
Run 3: Statistics of FillP

Start at: 2018-04-03 18:07:43
End at: 2018-04-03 18:08:13
Local clock offset: 9.466 ms
Remote clock offset: -2.439 ms

# Below is generated by plot.py at 2018-04-04 01:31:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.62 Mbit/s
95th percentile per-packet one-way delay: 108.037 ms
Loss rate: 4.15%
-- Flow 1:
Average throughput: 54.17 Mbit/s
95th percentile per-packet one-way delay: 107.122 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 108.401 ms
Loss rate: 7.32%
-- Flow 3:
Average throughput: 27.71 Mbit/s
95th percentile per-packet one-way delay: 109.920 ms
Loss rate: 13.17%
```

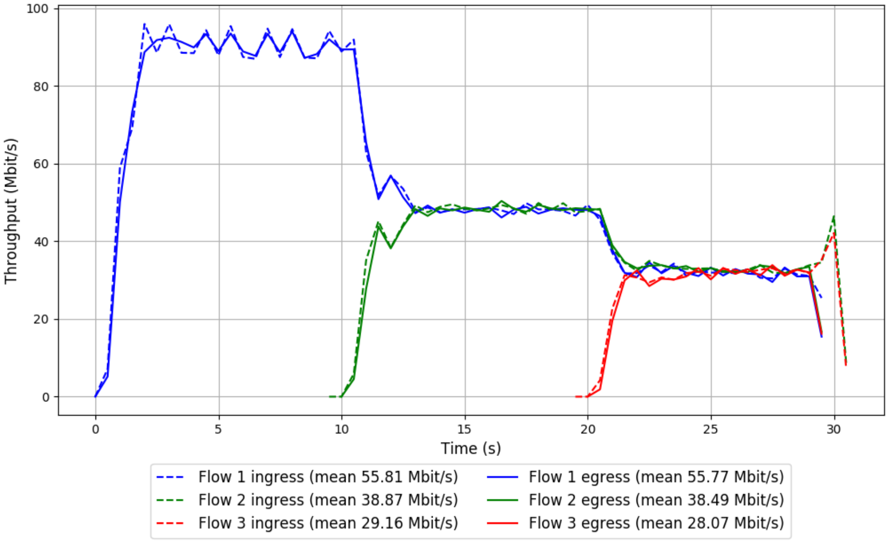
Run 3: Report of FillP — Data Link

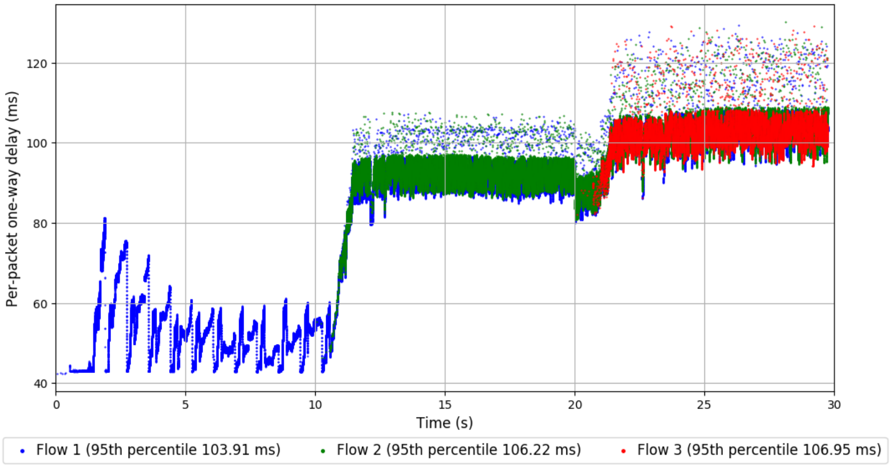




```
Run 4: Statistics of FillP

Start at: 2018-04-03 18:32:12
End at: 2018-04-03 18:32:42
Local clock offset: 8.823 ms
Remote clock offset: -16.463 ms

# Below is generated by plot.py at 2018-04-04 01:31:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.41 Mbit/s
95th percentile per-packet one-way delay: 105.395 ms
Loss rate: 3.39%
-- Flow 1:
Average throughput: 55.77 Mbit/s
95th percentile per-packet one-way delay: 103.910 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 38.49 Mbit/s
95th percentile per-packet one-way delay: 106.224 ms
Loss rate: 5.38%
-- Flow 3:
Average throughput: 28.07 Mbit/s
95th percentile per-packet one-way delay: 106.955 ms
Loss rate: 12.37%
```

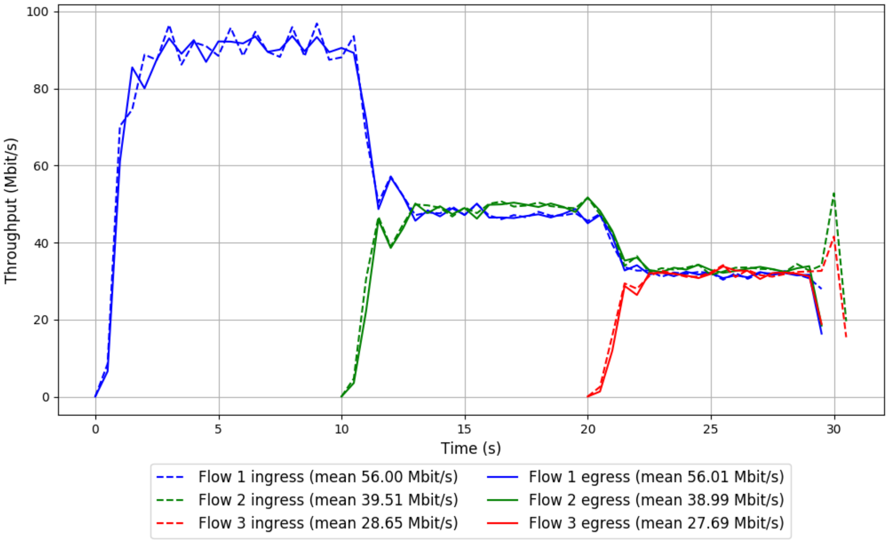
Run 4: Report of FillP — Data Link

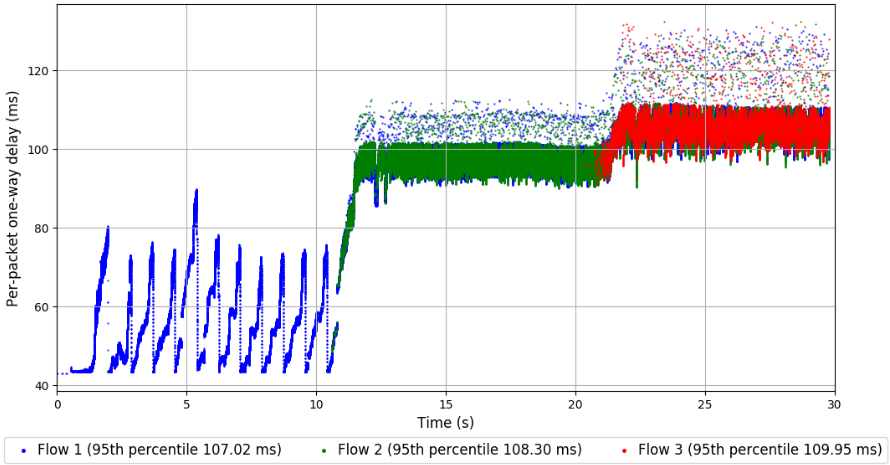




```
Run 5: Statistics of FillP

Start at: 2018-04-03 18:56:33
End at: 2018-04-03 18:57:03
Local clock offset: 8.946 ms
Remote clock offset: -27.268 ms

# Below is generated by plot.py at 2018-04-04 01:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.83 Mbit/s
95th percentile per-packet one-way delay: 108.138 ms
Loss rate: 3.63%
-- Flow 1:
Average throughput: 56.01 Mbit/s
95th percentile per-packet one-way delay: 107.020 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 108.299 ms
Loss rate: 6.15%
-- Flow 3:
Average throughput: 27.69 Mbit/s
95th percentile per-packet one-way delay: 109.947 ms
Loss rate: 12.84%
```

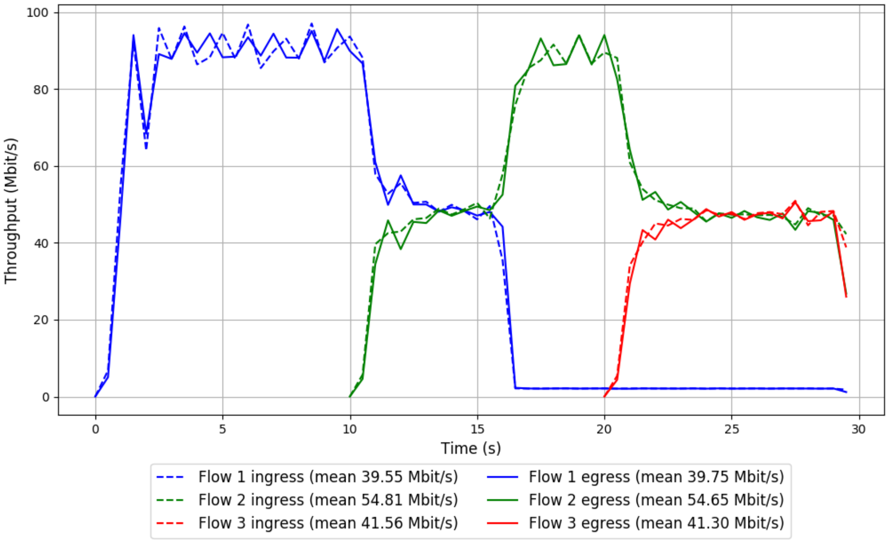
Run 5: Report of FillP — Data Link

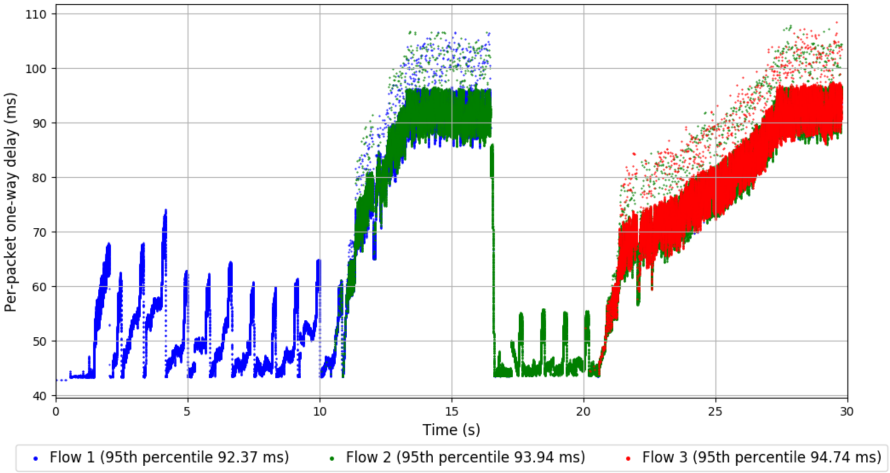




```
Run 6: Statistics of FillP

Start at: 2018-04-03 19:20:58
End at: 2018-04-03 19:21:28
Local clock offset: 8.941 ms
Remote clock offset: -0.542 ms

# Below is generated by plot.py at 2018-04-04 01:31:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.43 Mbit/s
95th percentile per-packet one-way delay: 93.575 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 92.370 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 54.65 Mbit/s
95th percentile per-packet one-way delay: 93.945 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 41.30 Mbit/s
95th percentile per-packet one-way delay: 94.741 ms
Loss rate: 2.86%
```

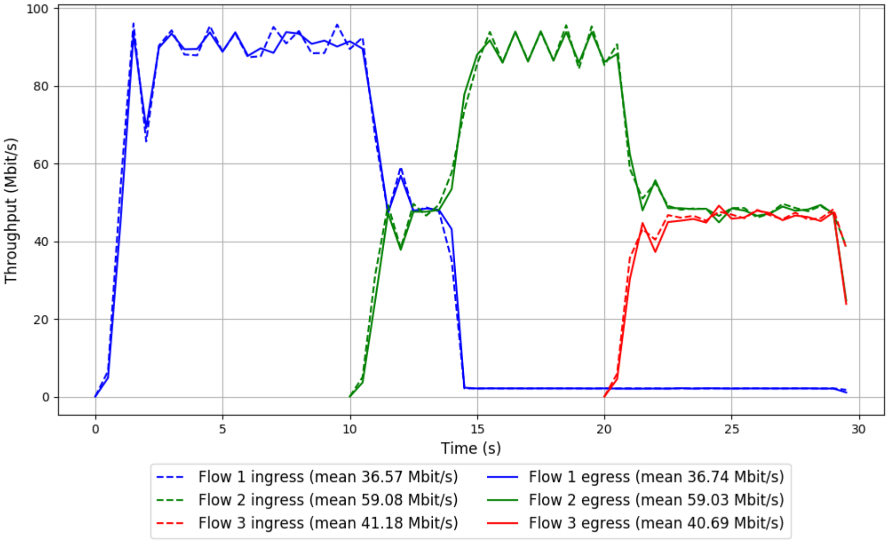
Run 6: Report of FillP — Data Link

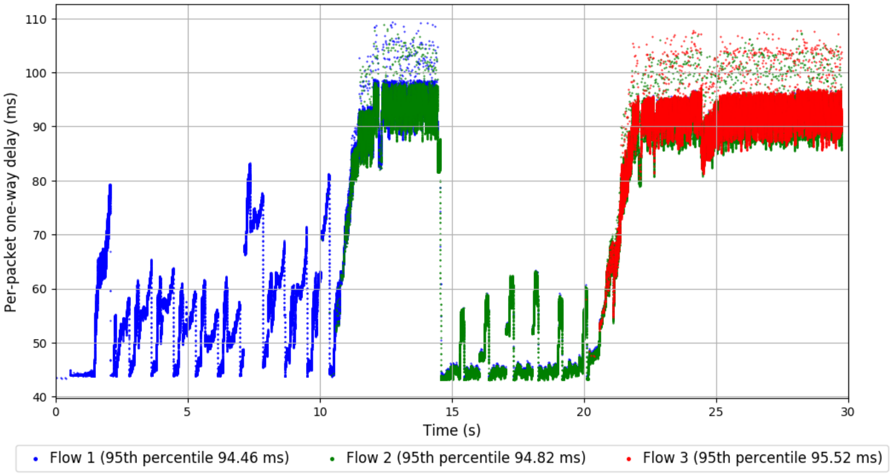




```
Run 7: Statistics of FillP

Start at: 2018-04-03 19:45:23
End at: 2018-04-03 19:45:53
Local clock offset: 5.542 ms
Remote clock offset: 0.915 ms

# Below is generated by plot.py at 2018-04-04 01:31:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.08 Mbit/s
95th percentile per-packet one-way delay: 94.964 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 36.74 Mbit/s
95th percentile per-packet one-way delay: 94.462 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 59.03 Mbit/s
95th percentile per-packet one-way delay: 94.816 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 95.519 ms
Loss rate: 3.36%
```

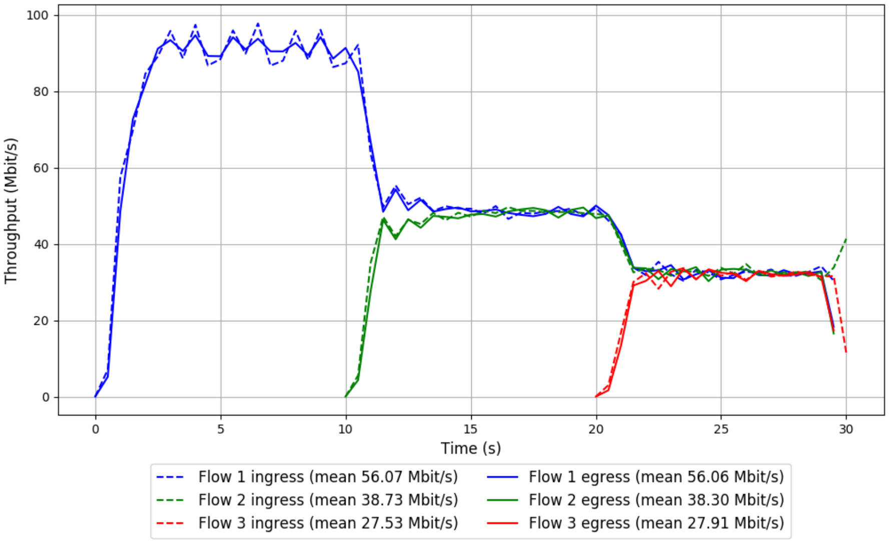
Run 7: Report of FillP — Data Link

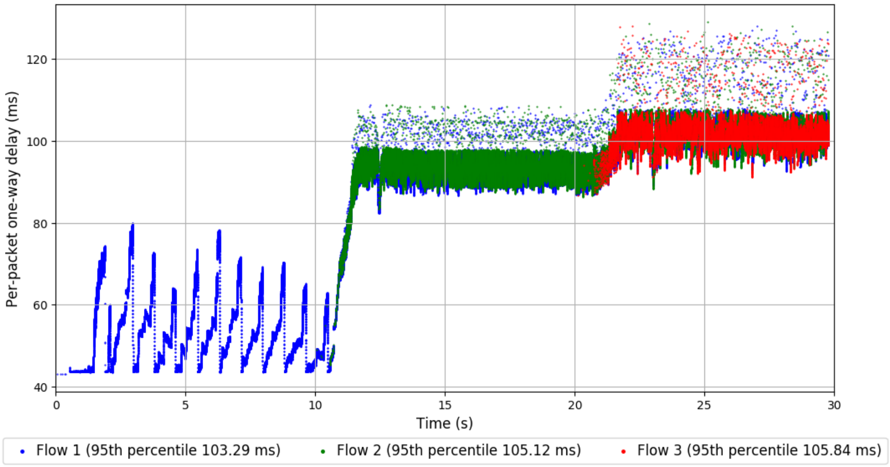




```
Run 8: Statistics of FillP

Start at: 2018-04-03 20:09:44
End at: 2018-04-03 20:10:14
Local clock offset: 5.002 ms
Remote clock offset: -3.138 ms

# Below is generated by plot.py at 2018-04-04 01:31:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.49 Mbit/s
95th percentile per-packet one-way delay: 104.494 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 56.06 Mbit/s
95th percentile per-packet one-way delay: 103.292 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 38.30 Mbit/s
95th percentile per-packet one-way delay: 105.124 ms
Loss rate: 4.42%
-- Flow 3:
Average throughput: 27.91 Mbit/s
95th percentile per-packet one-way delay: 105.845 ms
Loss rate: 5.70%
```

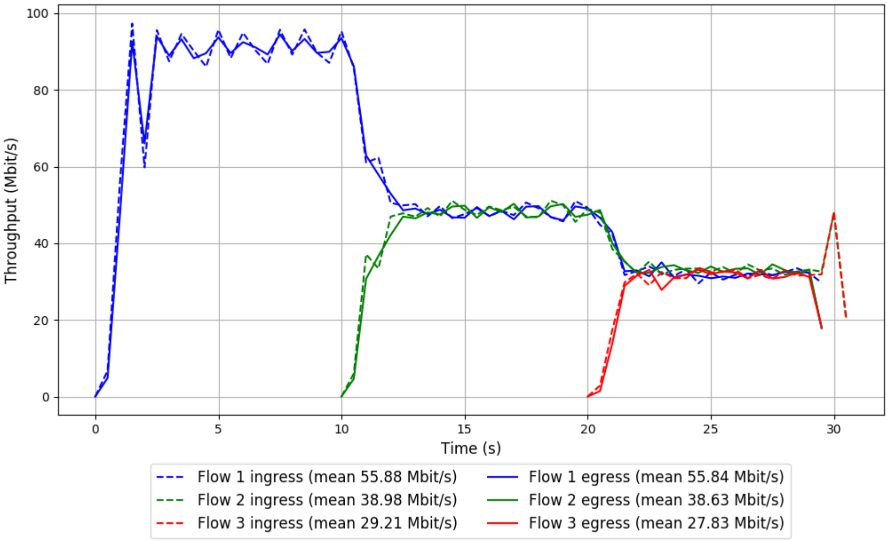
Run 8: Report of FillP — Data Link

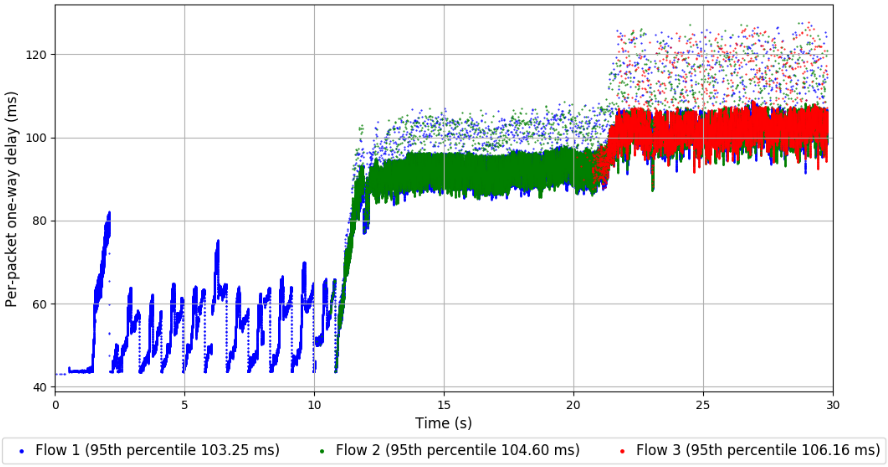




```
Run 9: Statistics of FillP

Start at: 2018-04-03 20:34:06
End at: 2018-04-03 20:34:36
Local clock offset: 5.165 ms
Remote clock offset: -2.809 ms

# Below is generated by plot.py at 2018-04-04 01:32:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.45 Mbit/s
95th percentile per-packet one-way delay: 104.432 ms
Loss rate: 3.78%
-- Flow 1:
Average throughput: 55.84 Mbit/s
95th percentile per-packet one-way delay: 103.249 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 38.63 Mbit/s
95th percentile per-packet one-way delay: 104.599 ms
Loss rate: 5.86%
-- Flow 3:
Average throughput: 27.83 Mbit/s
95th percentile per-packet one-way delay: 106.164 ms
Loss rate: 14.40%
```

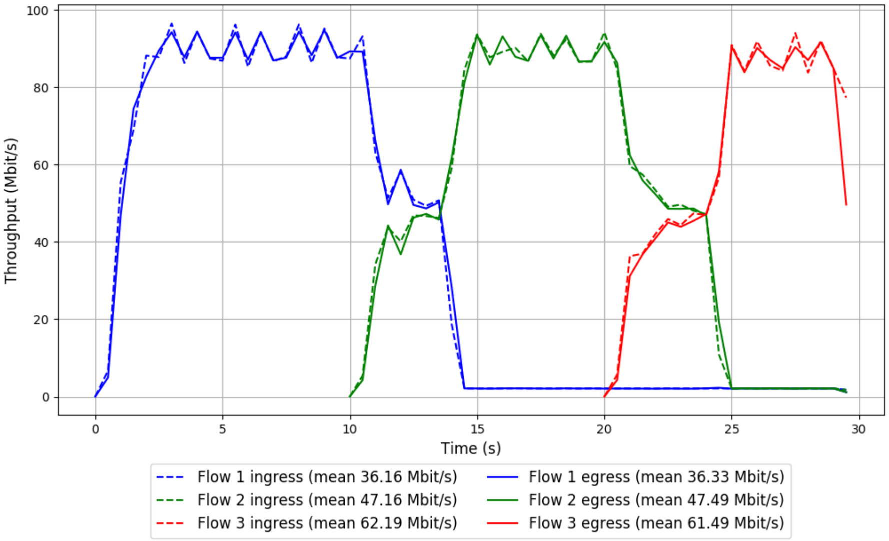
Run 9: Report of FillP — Data Link

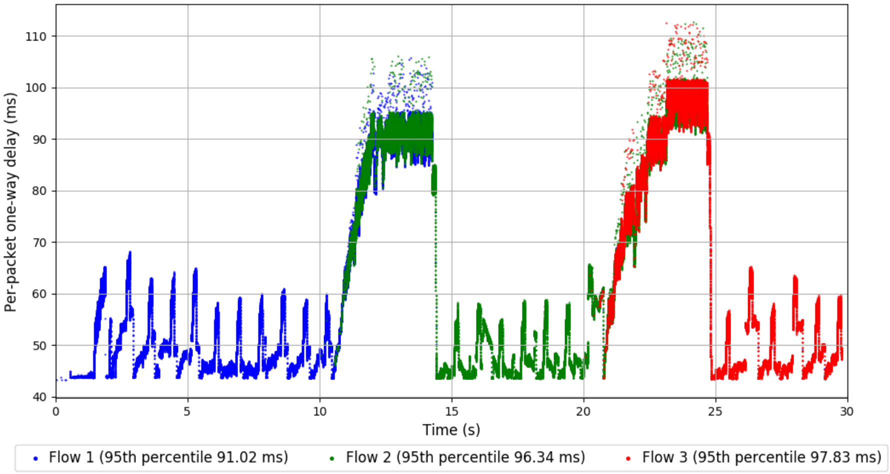




```
Run 10: Statistics of FillP

Start at: 2018-04-03 20:58:27
End at: 2018-04-03 20:58:57
Local clock offset: 5.913 ms
Remote clock offset: -7.468 ms

# Below is generated by plot.py at 2018-04-04 01:32:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 94.705 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 36.33 Mbit/s
95th percentile per-packet one-way delay: 91.024 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 47.49 Mbit/s
95th percentile per-packet one-way delay: 96.338 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 61.49 Mbit/s
95th percentile per-packet one-way delay: 97.834 ms
Loss rate: 3.09%
```

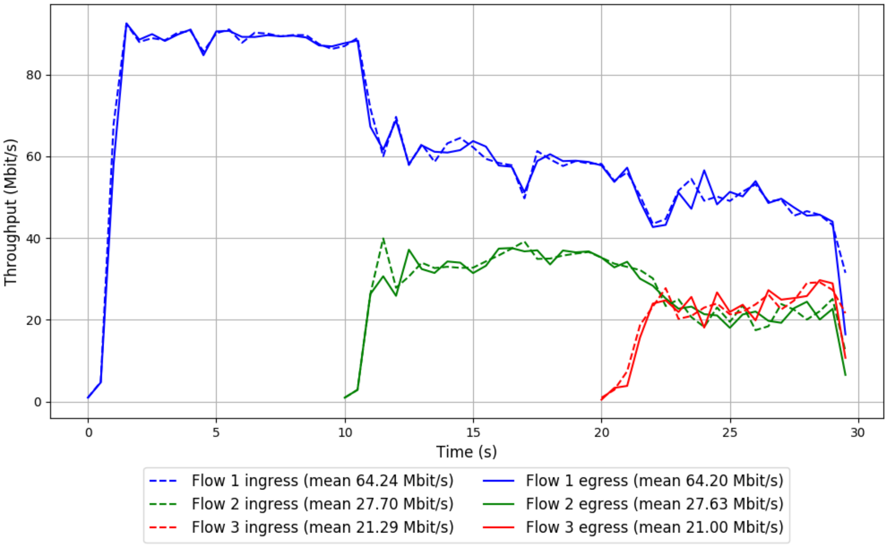
Run 10: Report of FillP — Data Link

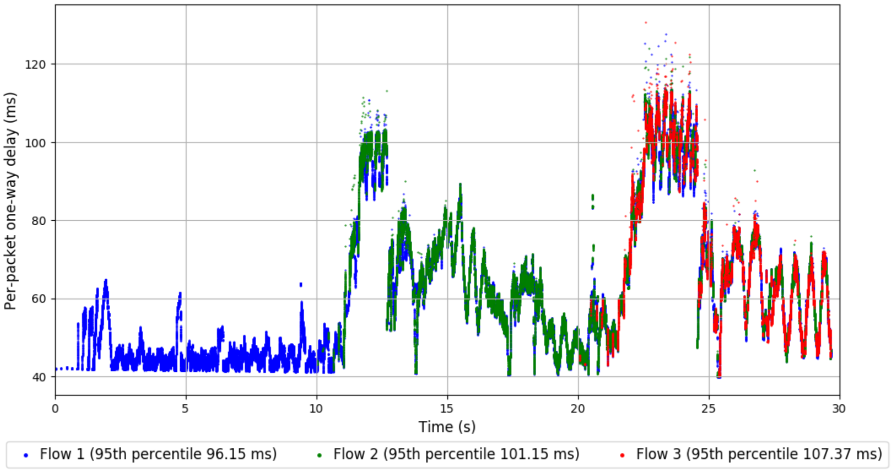




```
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-03 17:22:02
End at: 2018-04-03 17:22:32
Local clock offset: 8.131 ms
Remote clock offset: 62.391 ms

# Below is generated by plot.py at 2018-04-04 01:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.29 Mbit/s
95th percentile per-packet one-way delay: 99.927 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 64.20 Mbit/s
95th percentile per-packet one-way delay: 96.154 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 27.63 Mbit/s
95th percentile per-packet one-way delay: 101.148 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 21.00 Mbit/s
95th percentile per-packet one-way delay: 107.367 ms
Loss rate: 3.40%
```

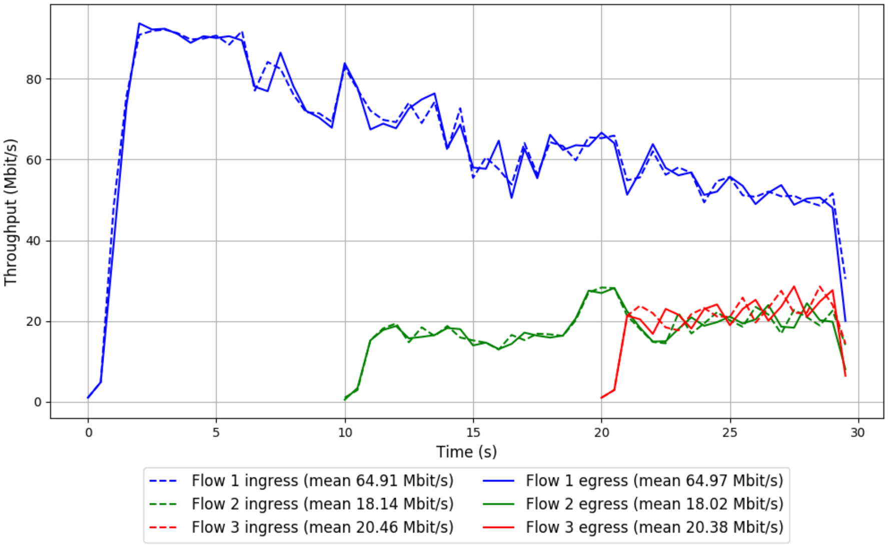
Run 1: Report of Indigo-1-32 — Data Link

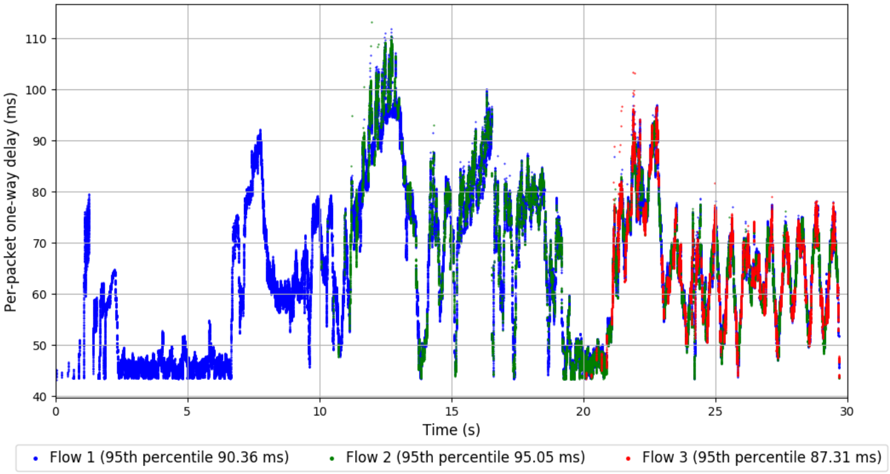




```
Run 2: Statistics of Indigo-1-32

Start at: 2018-04-03 17:47:35
End at: 2018-04-03 17:48:05
Local clock offset: 9.861 ms
Remote clock offset: 21.74 ms

# Below is generated by plot.py at 2018-04-04 01:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.48 Mbit/s
95th percentile per-packet one-way delay: 90.574 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 64.97 Mbit/s
95th percentile per-packet one-way delay: 90.363 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 18.02 Mbit/s
95th percentile per-packet one-way delay: 95.050 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 20.38 Mbit/s
95th percentile per-packet one-way delay: 87.312 ms
Loss rate: 2.43%
```

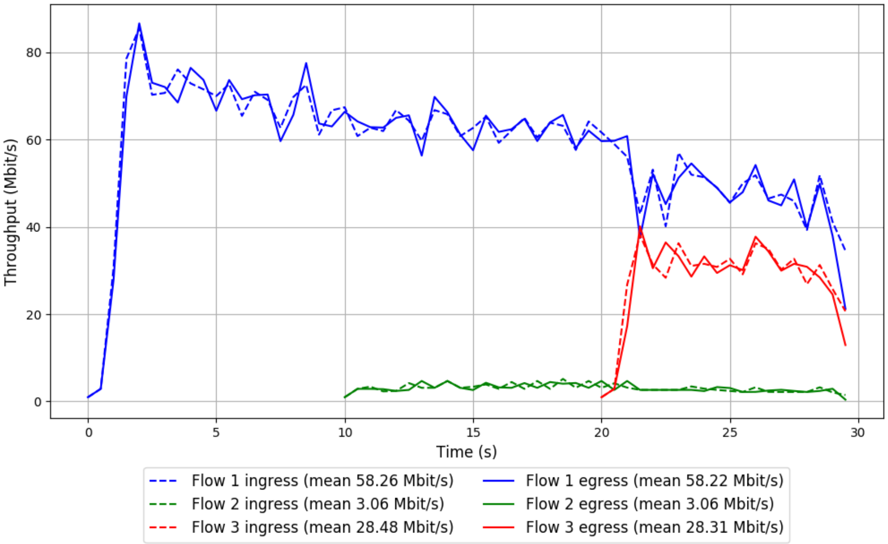
Run 2: Report of Indigo-1-32 — Data Link

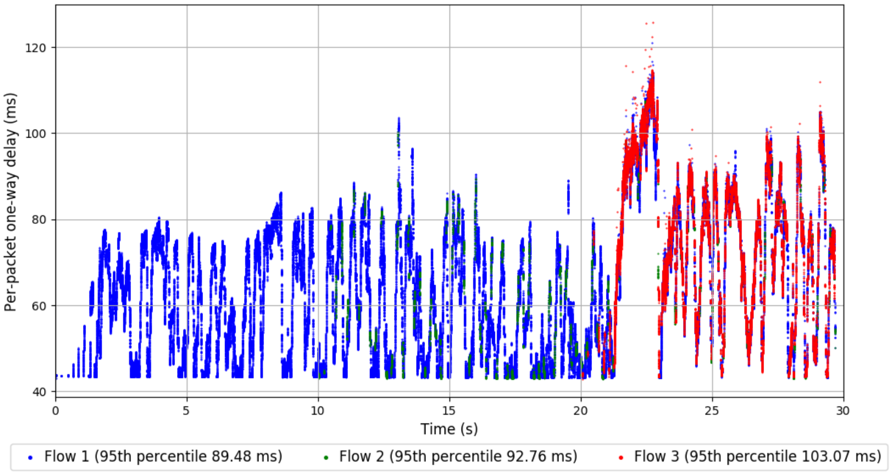




```
Run 3: Statistics of Indigo-1-32

Start at: 2018-04-03 18:13:04
End at: 2018-04-03 18:13:34
Local clock offset: 9.527 ms
Remote clock offset: -7.069 ms

# Below is generated by plot.py at 2018-04-04 01:32:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.42 Mbit/s
95th percentile per-packet one-way delay: 94.035 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 58.22 Mbit/s
95th percentile per-packet one-way delay: 89.476 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 92.760 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 28.31 Mbit/s
95th percentile per-packet one-way delay: 103.071 ms
Loss rate: 2.55%
```

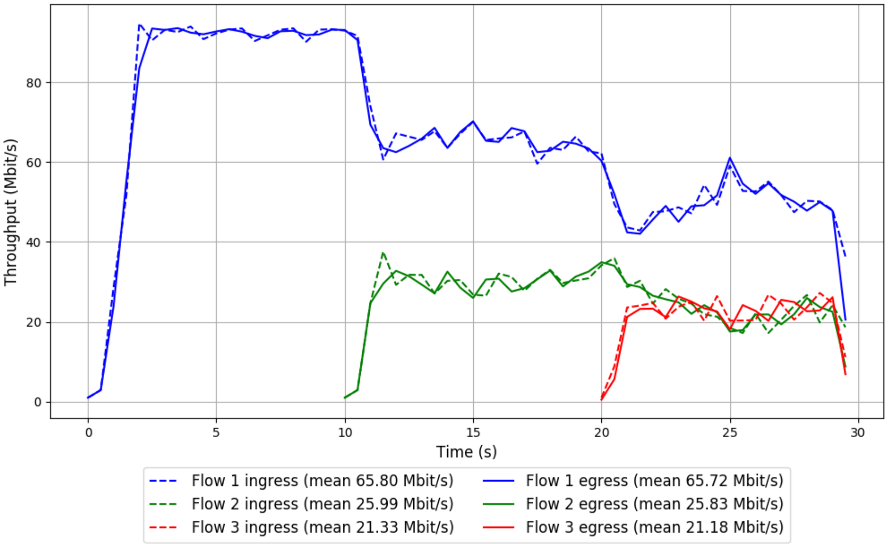
Run 3: Report of Indigo-1-32 — Data Link

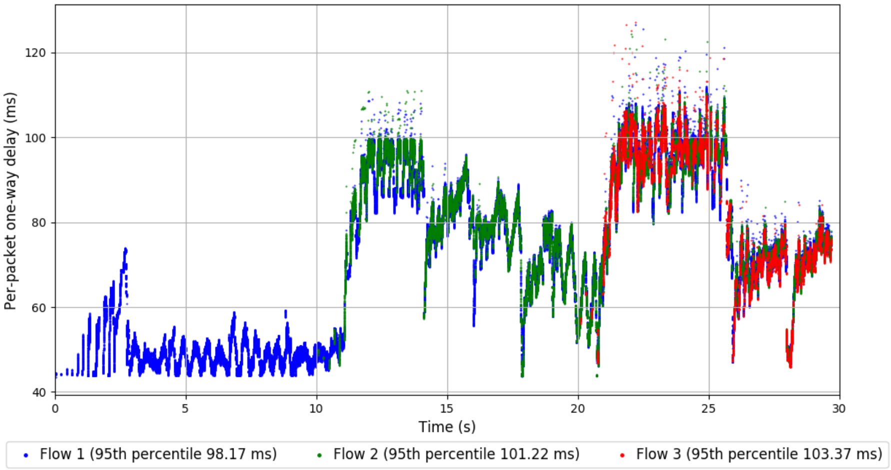




```
Run 4: Statistics of Indigo-1-32

Start at: 2018-04-03 18:37:31
End at: 2018-04-03 18:38:01
Local clock offset: 9.132 ms
Remote clock offset: -19.383 ms

# Below is generated by plot.py at 2018-04-04 01:32:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.65 Mbit/s
95th percentile per-packet one-way delay: 99.313 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 65.72 Mbit/s
95th percentile per-packet one-way delay: 98.172 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 25.83 Mbit/s
95th percentile per-packet one-way delay: 101.217 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 21.18 Mbit/s
95th percentile per-packet one-way delay: 103.367 ms
Loss rate: 2.73%
```

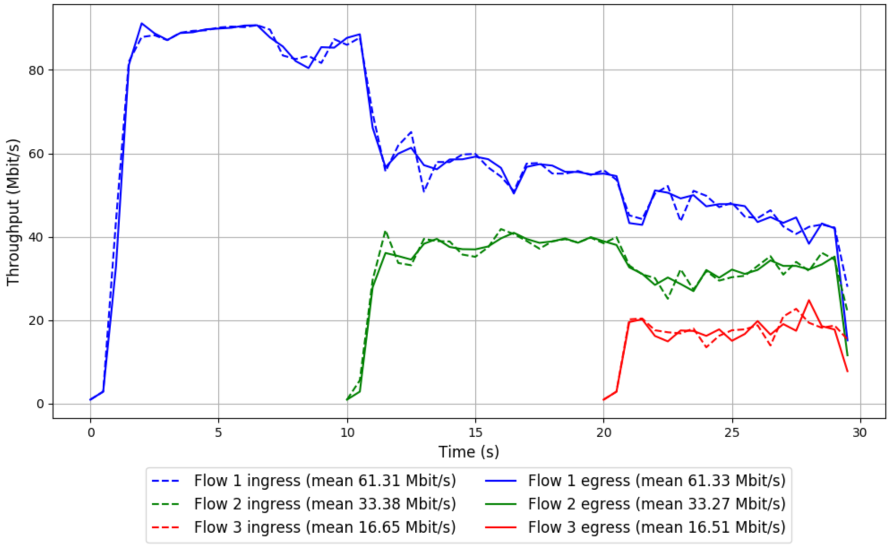
Run 4: Report of Indigo-1-32 — Data Link

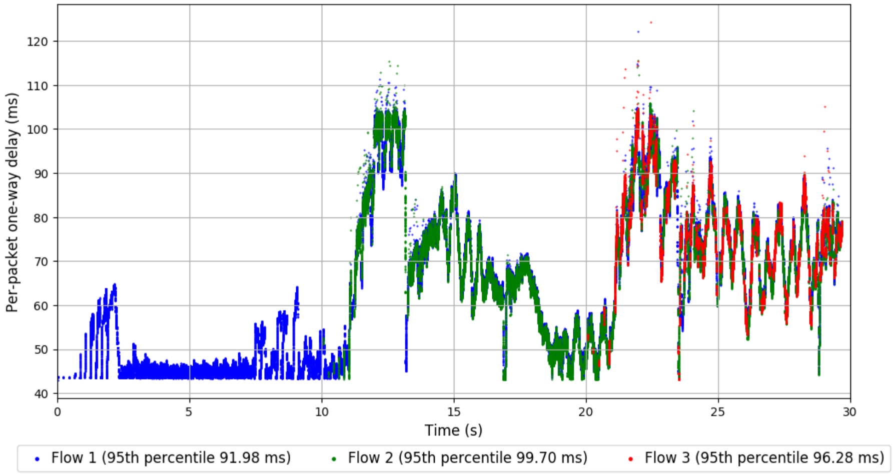




```
Run 5: Statistics of Indigo-1-32

Start at: 2018-04-03 19:01:52
End at: 2018-04-03 19:02:22
Local clock offset: 8.869 ms
Remote clock offset: -29.327 ms

# Below is generated by plot.py at 2018-04-04 01:33:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.71 Mbit/s
95th percentile per-packet one-way delay: 94.108 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 61.33 Mbit/s
95th percentile per-packet one-way delay: 91.985 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 33.27 Mbit/s
95th percentile per-packet one-way delay: 99.703 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 16.51 Mbit/s
95th percentile per-packet one-way delay: 96.278 ms
Loss rate: 3.01%
```

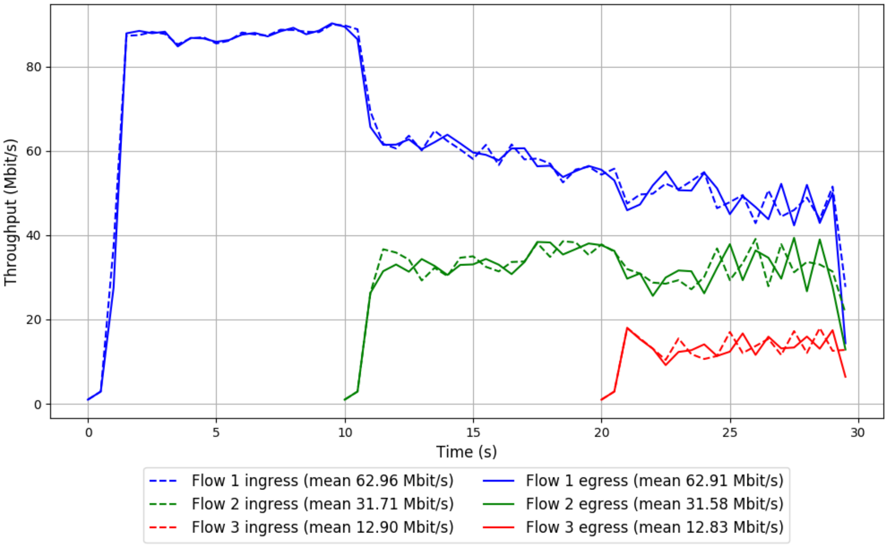
Run 5: Report of Indigo-1-32 — Data Link

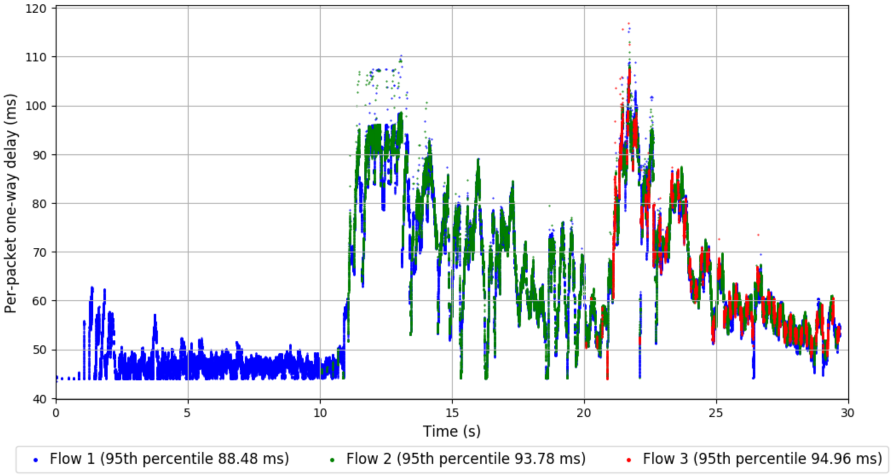




```
Run 6: Statistics of Indigo-1-32

Start at: 2018-04-03 19:26:18
End at: 2018-04-03 19:26:48
Local clock offset: 8.976 ms
Remote clock offset: 2.17 ms

# Below is generated by plot.py at 2018-04-04 01:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.86 Mbit/s
95th percentile per-packet one-way delay: 91.384 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 62.91 Mbit/s
95th percentile per-packet one-way delay: 88.478 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 93.779 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 12.83 Mbit/s
95th percentile per-packet one-way delay: 94.959 ms
Loss rate: 2.61%
```

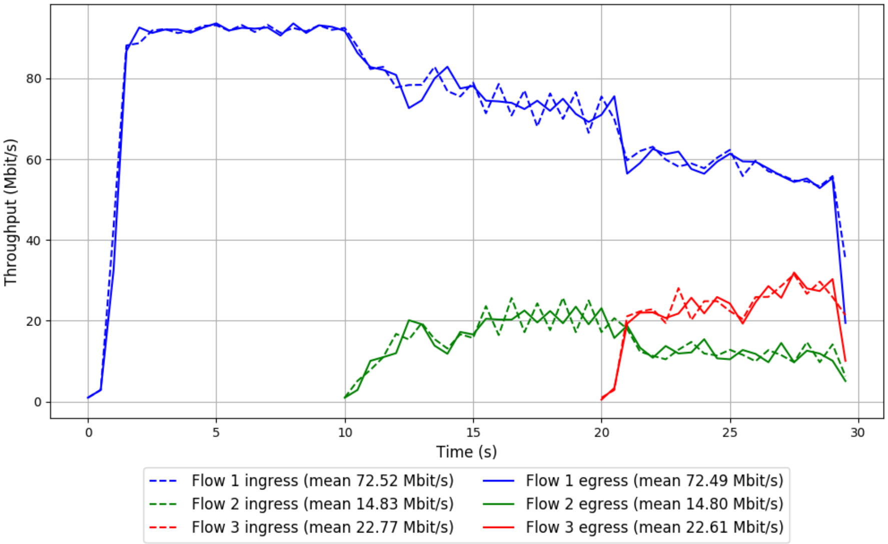
Run 6: Report of Indigo-1-32 — Data Link

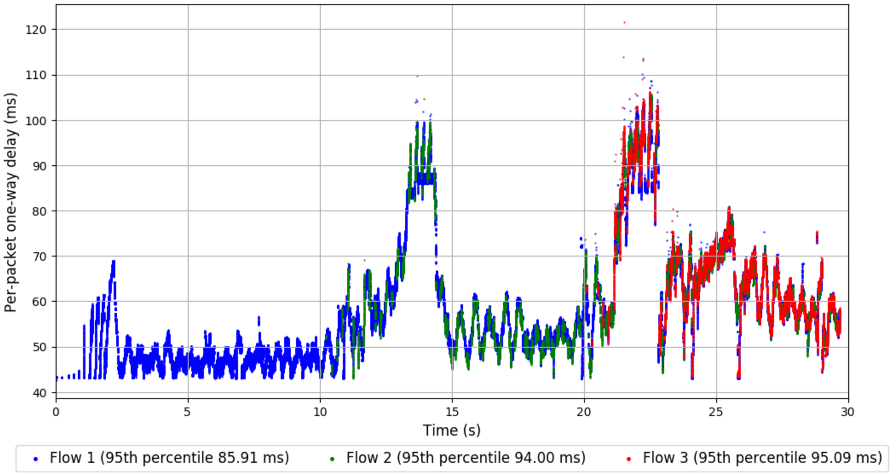




```
Run 7: Statistics of Indigo-1-32

Start at: 2018-04-03 19:50:41
End at: 2018-04-03 19:51:11
Local clock offset: 4.971 ms
Remote clock offset: -0.769 ms

# Below is generated by plot.py at 2018-04-04 01:33:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.54 Mbit/s
95th percentile per-packet one-way delay: 87.340 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 72.49 Mbit/s
95th percentile per-packet one-way delay: 85.910 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 14.80 Mbit/s
95th percentile per-packet one-way delay: 93.995 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 22.61 Mbit/s
95th percentile per-packet one-way delay: 95.095 ms
Loss rate: 2.83%
```

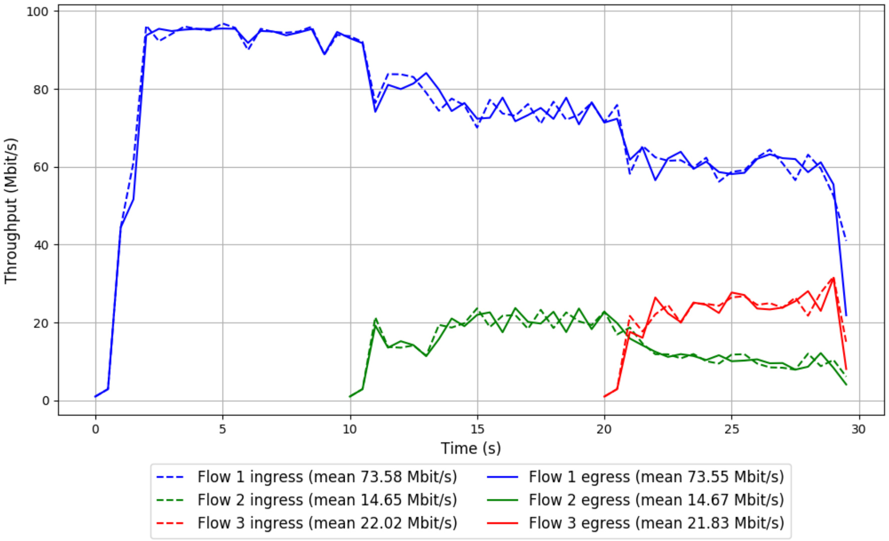
Run 7: Report of Indigo-1-32 — Data Link

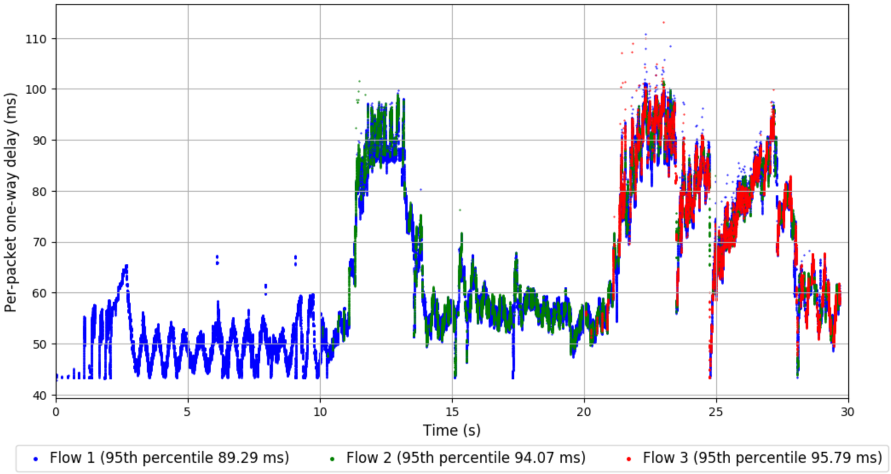




```
Run 8: Statistics of Indigo-1-32

Start at: 2018-04-03 20:15:04
End at: 2018-04-03 20:15:34
Local clock offset: 5.315 ms
Remote clock offset: -3.056 ms

# Below is generated by plot.py at 2018-04-04 01:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.29 Mbit/s
95th percentile per-packet one-way delay: 91.198 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 73.55 Mbit/s
95th percentile per-packet one-way delay: 89.291 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 14.67 Mbit/s
95th percentile per-packet one-way delay: 94.067 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 21.83 Mbit/s
95th percentile per-packet one-way delay: 95.793 ms
Loss rate: 2.93%
```

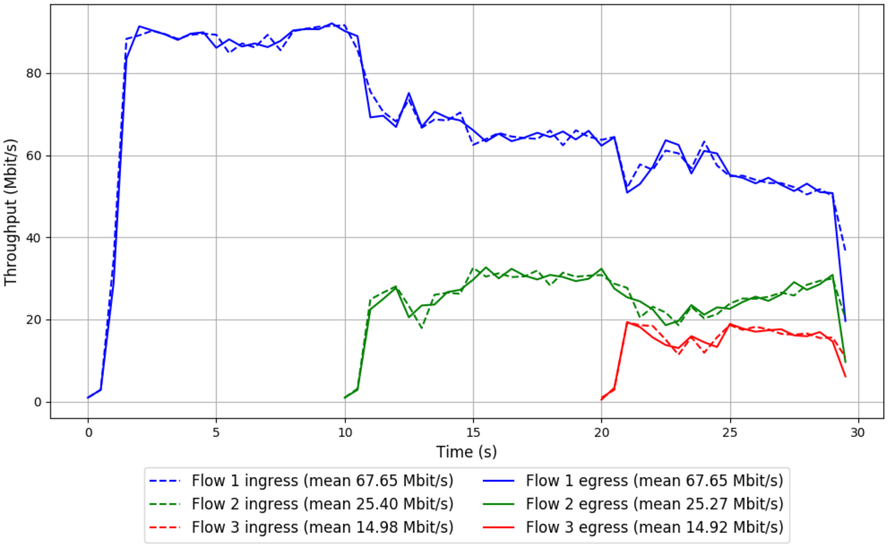
Run 8: Report of Indigo-1-32 — Data Link

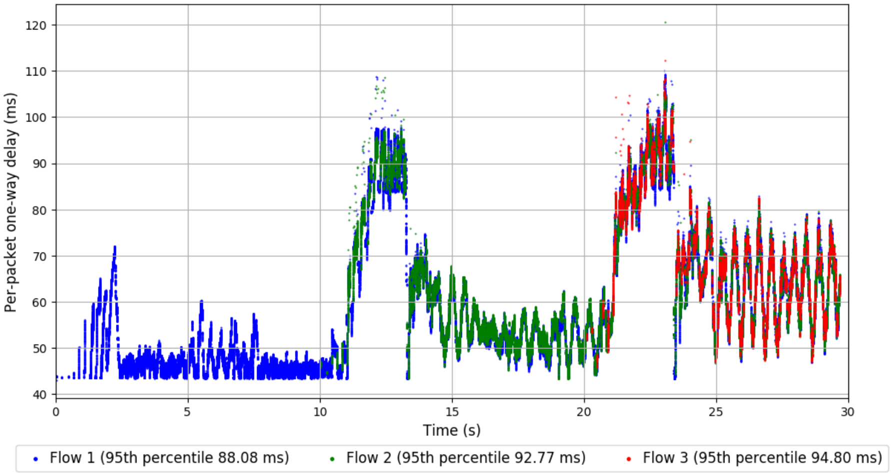




```
Run 9: Statistics of Indigo-1-32

Start at: 2018-04-03 20:39:25
End at: 2018-04-03 20:39:55
Local clock offset: 5.164 ms
Remote clock offset: -2.9 ms

# Below is generated by plot.py at 2018-04-04 01:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.20 Mbit/s
95th percentile per-packet one-way delay: 89.928 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 67.65 Mbit/s
95th percentile per-packet one-way delay: 88.075 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 25.27 Mbit/s
95th percentile per-packet one-way delay: 92.768 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 14.92 Mbit/s
95th percentile per-packet one-way delay: 94.795 ms
Loss rate: 2.46%
```

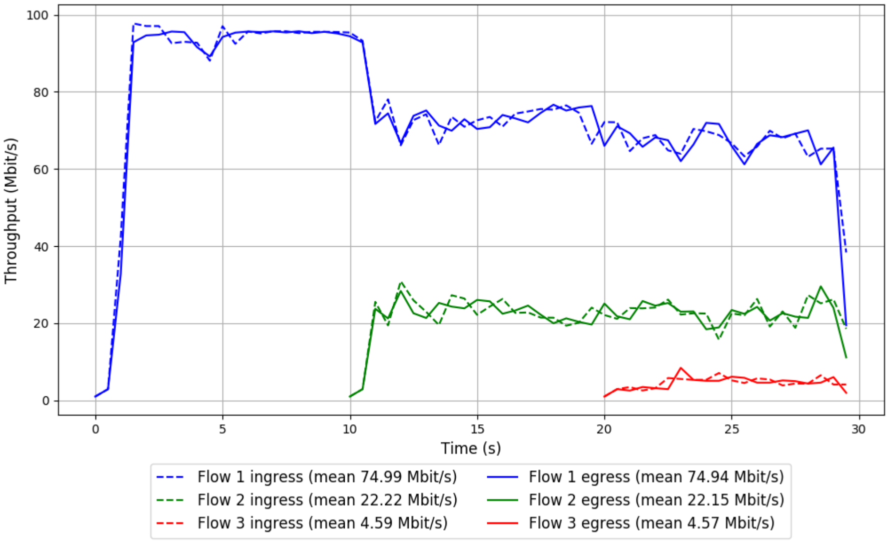
Run 9: Report of Indigo-1-32 — Data Link

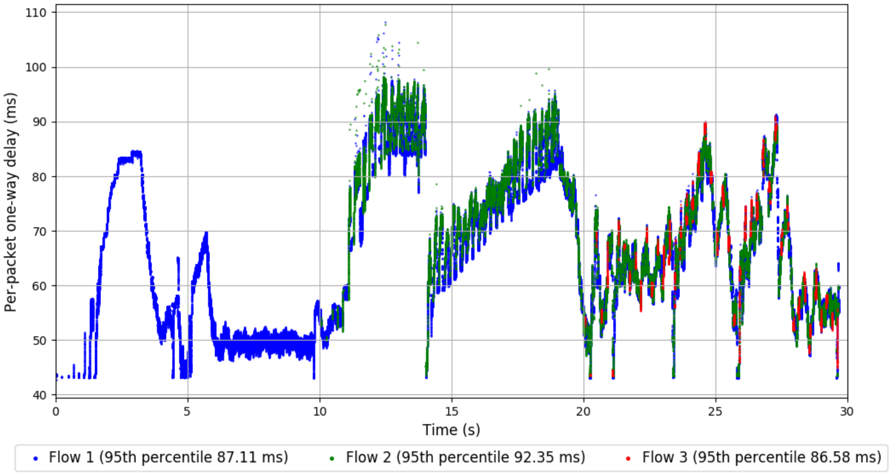




```
Run 10: Statistics of Indigo-1-32

Start at: 2018-04-03 21:03:51
End at: 2018-04-03 21:04:21
Local clock offset: 5.644 ms
Remote clock offset: -8.643 ms

# Below is generated by plot.py at 2018-04-04 01:34:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.05 Mbit/s
95th percentile per-packet one-way delay: 88.940 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 74.94 Mbit/s
95th percentile per-packet one-way delay: 87.115 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 22.15 Mbit/s
95th percentile per-packet one-way delay: 92.352 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 86.577 ms
Loss rate: 2.41%
```

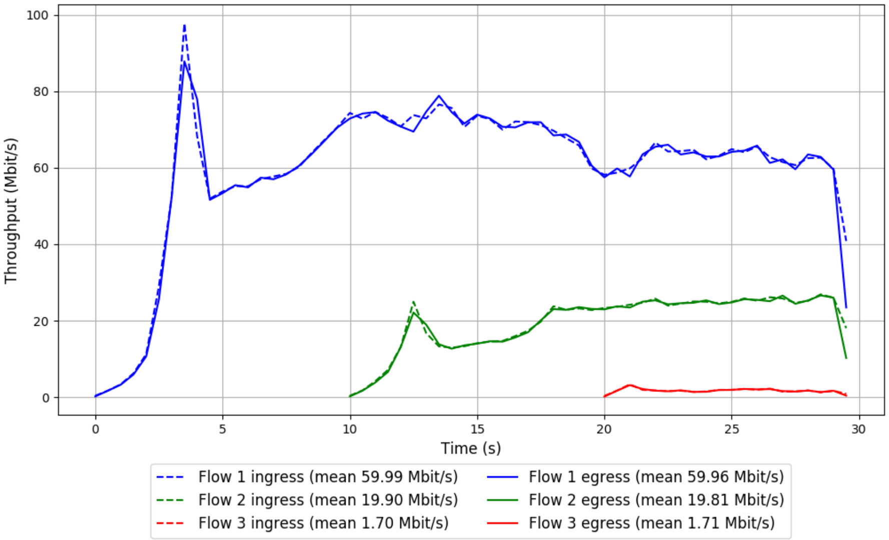
Run 10: Report of Indigo-1-32 — Data Link

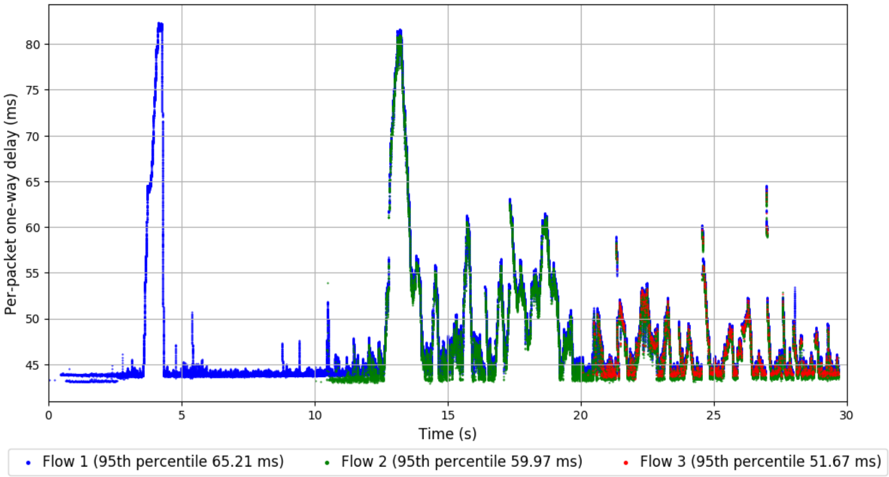




```
Run 1: Statistics of Vivace-latency

Start at: 2018-04-03 17:15:02
End at: 2018-04-03 17:15:32
Local clock offset: 6.542 ms
Remote clock offset: 56.754 ms

# Below is generated by plot.py at 2018-04-04 01:34:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.63 Mbit/s
95th percentile per-packet one-way delay: 64.450 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 59.96 Mbit/s
95th percentile per-packet one-way delay: 65.210 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 19.81 Mbit/s
95th percentile per-packet one-way delay: 59.969 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 51.667 ms
Loss rate: 1.90%
```

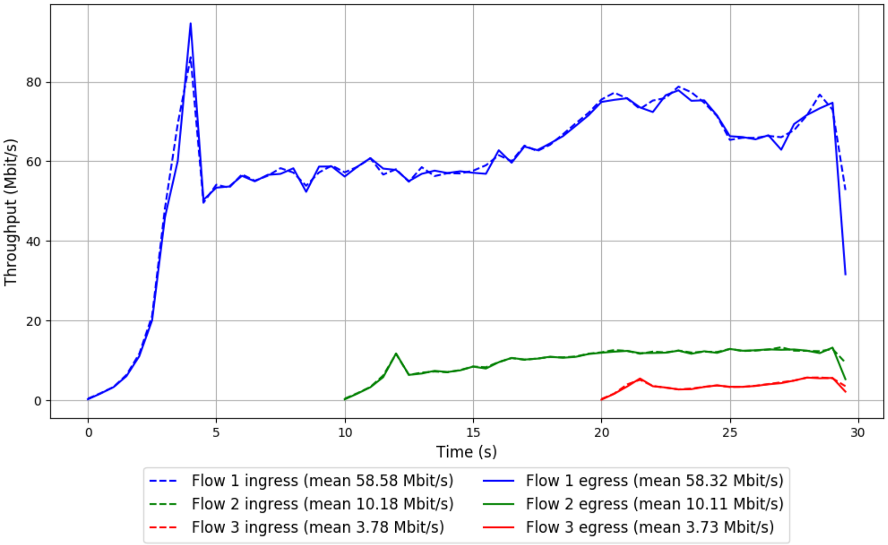
Run 1: Report of Vivace-latency — Data Link

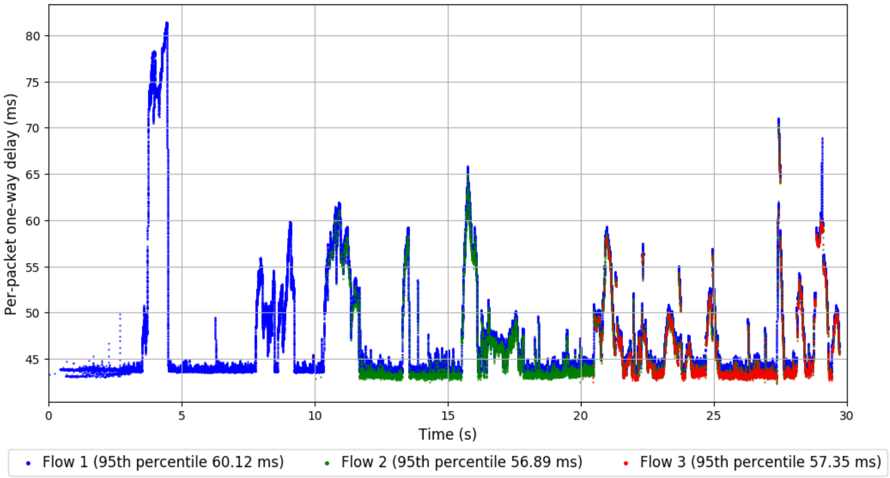




```
Run 2: Statistics of Vivace-latency

Start at: 2018-04-03 17:40:49
End at: 2018-04-03 17:41:19
Local clock offset: 9.66 ms
Remote clock offset: 23.68 ms

# Below is generated by plot.py at 2018-04-04 01:34:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.23 Mbit/s
95th percentile per-packet one-way delay: 59.457 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 58.32 Mbit/s
95th percentile per-packet one-way delay: 60.117 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 10.11 Mbit/s
95th percentile per-packet one-way delay: 56.891 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 57.352 ms
Loss rate: 3.15%
```

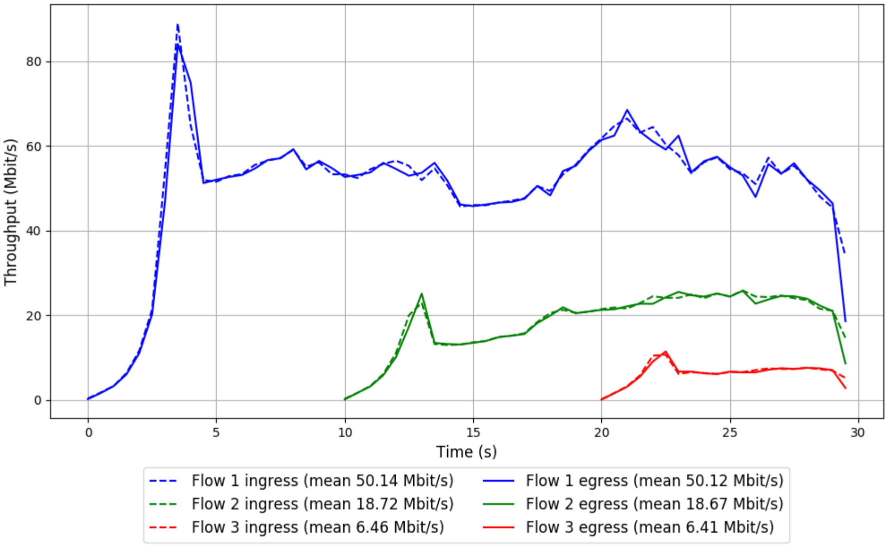
Run 2: Report of Vivace-latency — Data Link

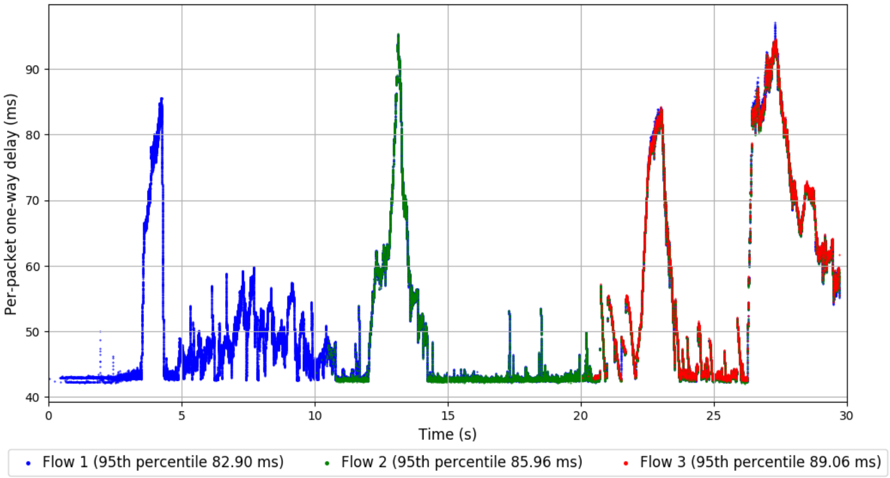




```
Run 3: Statistics of Vivace-latency

Start at: 2018-04-03 18:06:21
End at: 2018-04-03 18:06:51
Local clock offset: 9.399 ms
Remote clock offset: -0.717 ms

# Below is generated by plot.py at 2018-04-04 01:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.56 Mbit/s
95th percentile per-packet one-way delay: 83.549 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 50.12 Mbit/s
95th percentile per-packet one-way delay: 82.902 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 18.67 Mbit/s
95th percentile per-packet one-way delay: 85.960 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 89.057 ms
Loss rate: 2.66%
```

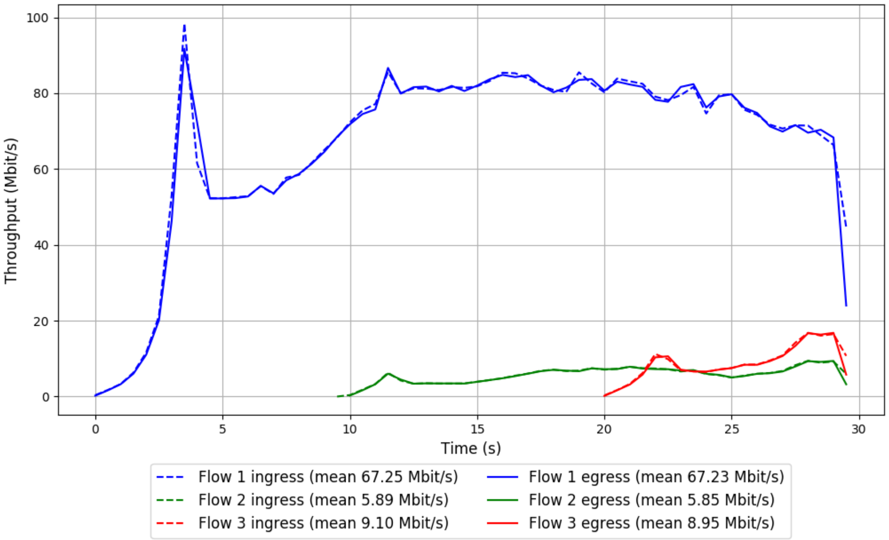
Run 3: Report of Vivace-latency — Data Link

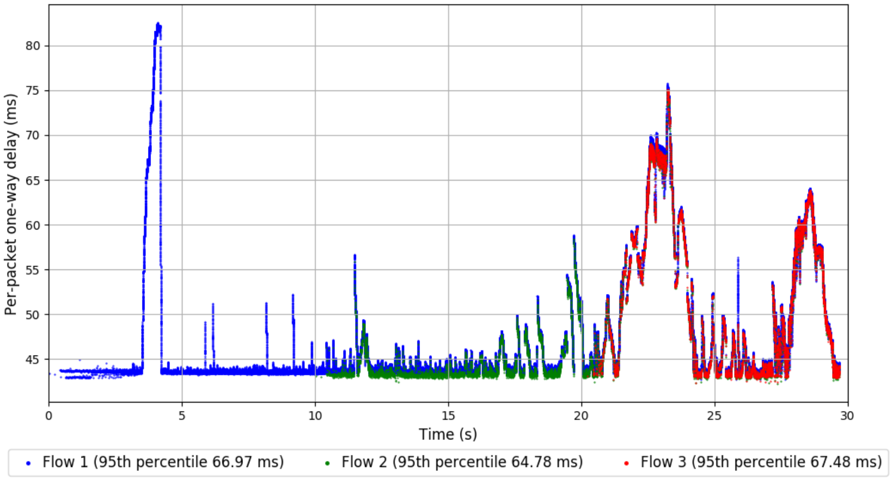




```
Run 4: Statistics of Vivace-latency

Start at: 2018-04-03 18:30:49
End at: 2018-04-03 18:31:19
Local clock offset: 8.943 ms
Remote clock offset: -15.558 ms

# Below is generated by plot.py at 2018-04-04 01:34:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.01 Mbit/s
95th percentile per-packet one-way delay: 66.961 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 67.23 Mbit/s
95th percentile per-packet one-way delay: 66.973 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 64.779 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 8.95 Mbit/s
95th percentile per-packet one-way delay: 67.481 ms
Loss rate: 3.58%
```

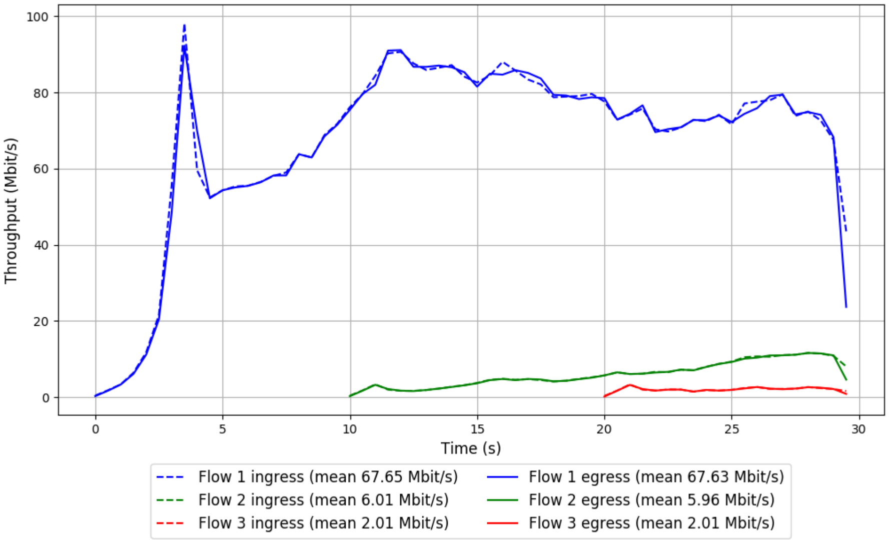
Run 4: Report of Vivace-latency — Data Link

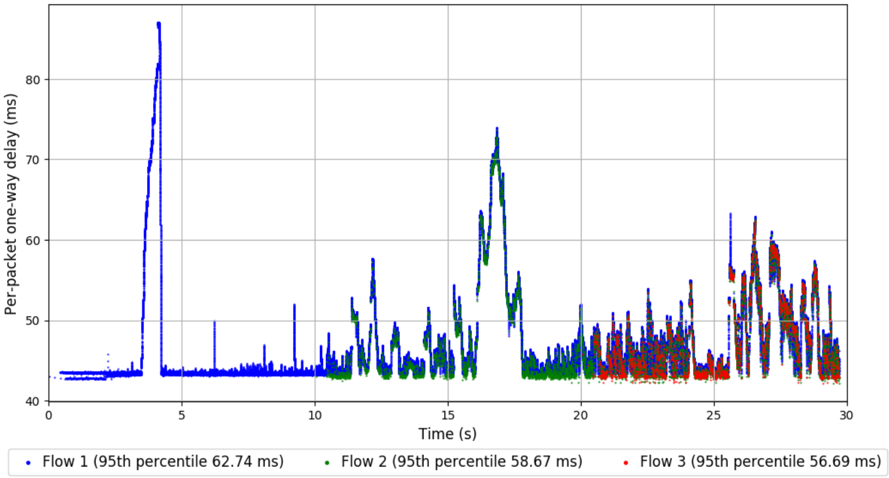




```
Run 5: Statistics of Vivace-latency

Start at: 2018-04-03 18:55:11
End at: 2018-04-03 18:55:41
Local clock offset: 8.81 ms
Remote clock offset: -26.763 ms

# Below is generated by plot.py at 2018-04-04 01:35:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.22 Mbit/s
95th percentile per-packet one-way delay: 62.346 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 67.63 Mbit/s
95th percentile per-packet one-way delay: 62.739 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 58.673 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 56.693 ms
Loss rate: 2.26%
```

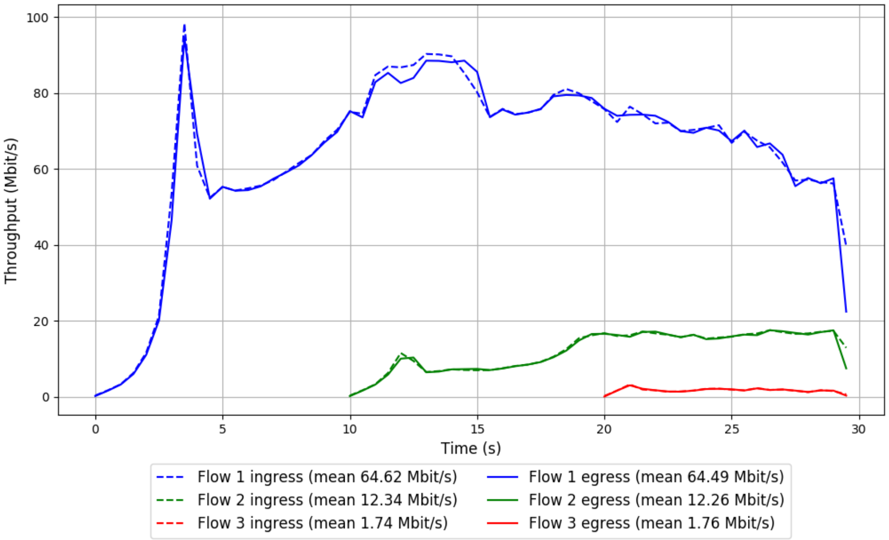
Run 5: Report of Vivace-latency — Data Link

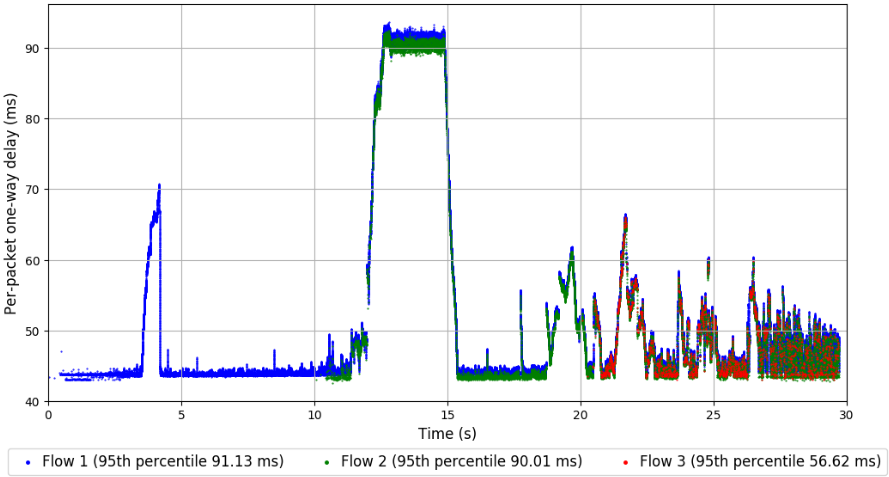




```
Run 6: Statistics of Vivace-latency

Start at: 2018-04-03 19:19:35
End at: 2018-04-03 19:20:05
Local clock offset: 8.624 ms
Remote clock offset: -1.562 ms

# Below is generated by plot.py at 2018-04-04 01:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.18 Mbit/s
95th percentile per-packet one-way delay: 91.030 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 64.49 Mbit/s
95th percentile per-packet one-way delay: 91.129 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 12.26 Mbit/s
95th percentile per-packet one-way delay: 90.009 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 56.616 ms
Loss rate: 1.33%
```

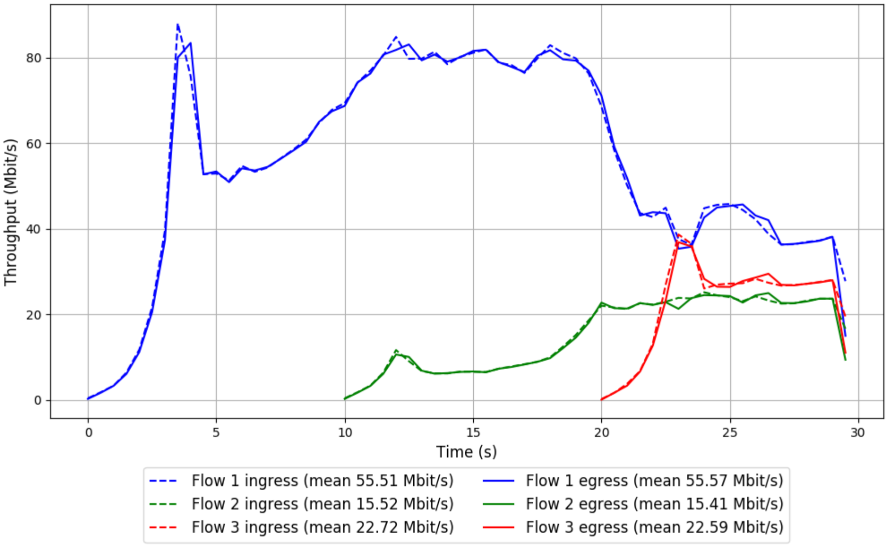
Run 6: Report of Vivace-latency — Data Link

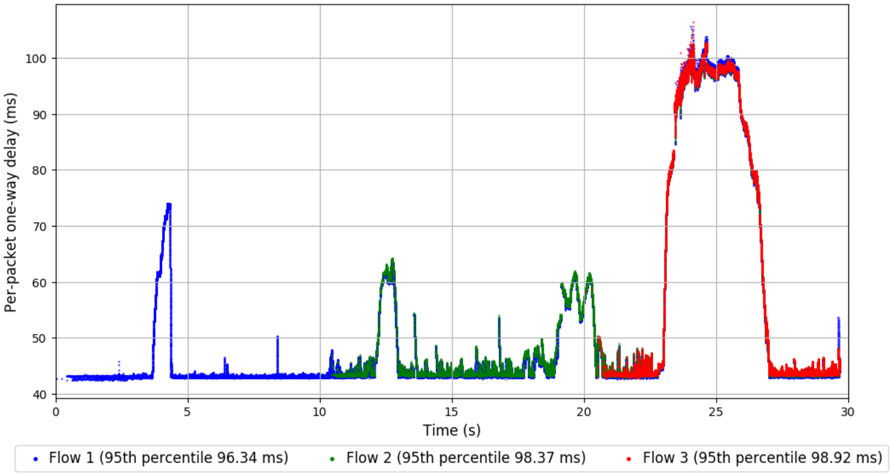




```
Run 7: Statistics of Vivace-latency

Start at: 2018-04-03 19:44:01
End at: 2018-04-03 19:44:31
Local clock offset: 5.659 ms
Remote clock offset: 1.567 ms

# Below is generated by plot.py at 2018-04-04 01:35:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.10 Mbit/s
95th percentile per-packet one-way delay: 97.690 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 55.57 Mbit/s
95th percentile per-packet one-way delay: 96.342 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 98.367 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 22.59 Mbit/s
95th percentile per-packet one-way delay: 98.920 ms
Loss rate: 2.65%
```

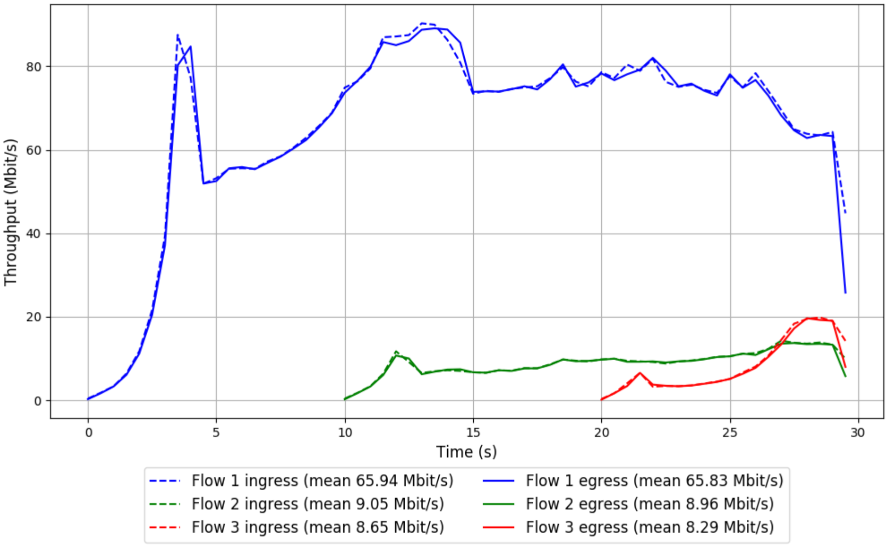
Run 7: Report of Vivace-latency — Data Link

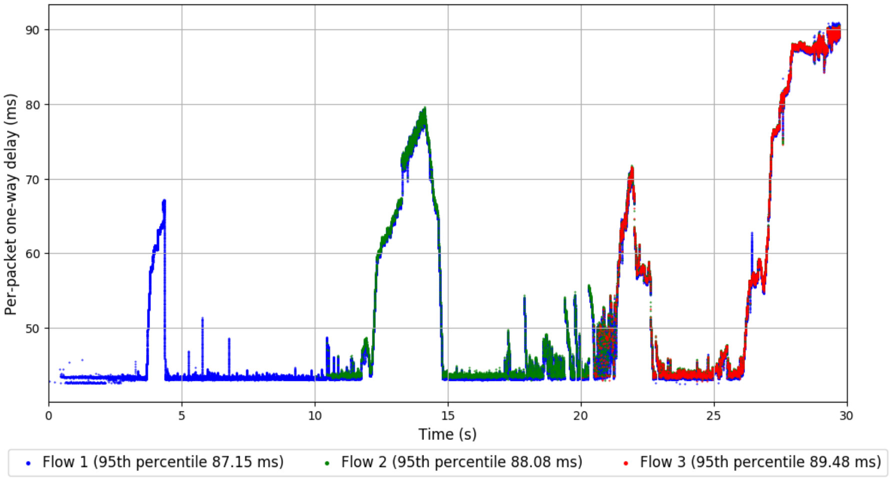




```
Run 8: Statistics of Vivace-latency

Start at: 2018-04-03 20:08:22
End at: 2018-04-03 20:08:52
Local clock offset: 5.009 ms
Remote clock offset: -3.001 ms

# Below is generated by plot.py at 2018-04-04 01:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.46 Mbit/s
95th percentile per-packet one-way delay: 87.548 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 65.83 Mbit/s
95th percentile per-packet one-way delay: 87.146 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 88.084 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 89.481 ms
Loss rate: 6.00%
```

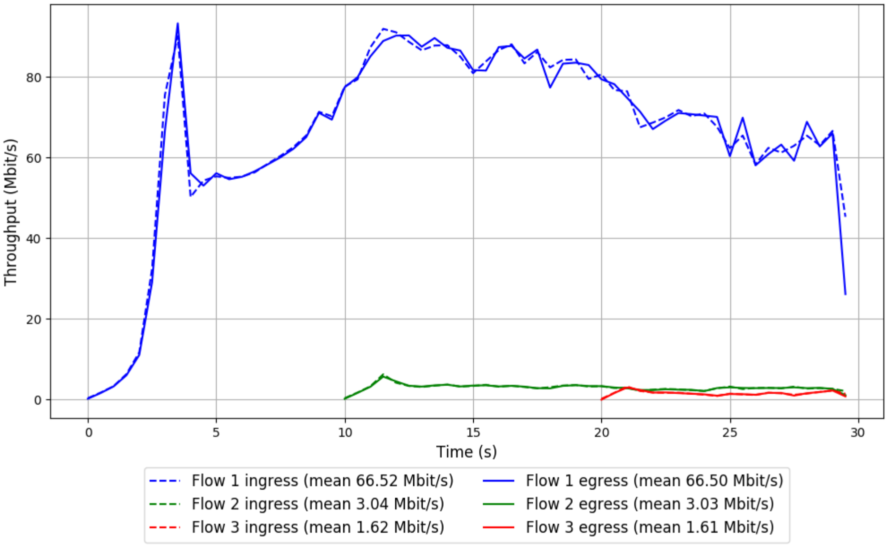
Run 8: Report of Vivace-latency — Data Link

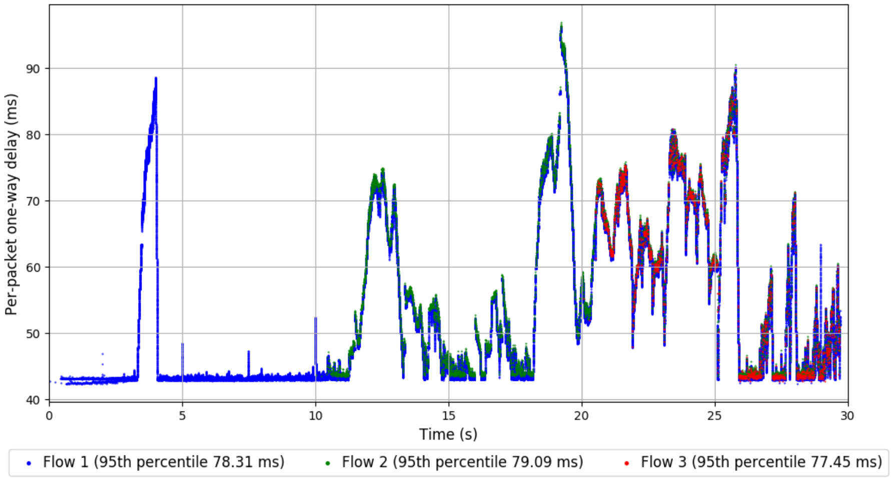




```
Run 9: Statistics of Vivace-latency

Start at: 2018-04-03 20:32:44
End at: 2018-04-03 20:33:14
Local clock offset: 5.223 ms
Remote clock offset: -2.739 ms

# Below is generated by plot.py at 2018-04-04 01:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.03 Mbit/s
95th percentile per-packet one-way delay: 78.342 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 66.50 Mbit/s
95th percentile per-packet one-way delay: 78.315 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 79.088 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 77.452 ms
Loss rate: 2.65%
```

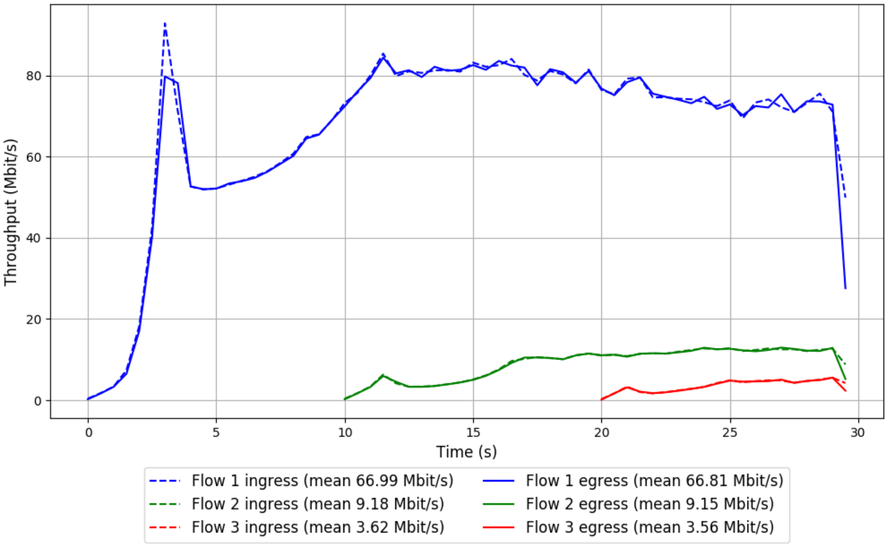
Run 9: Report of Vivace-latency — Data Link

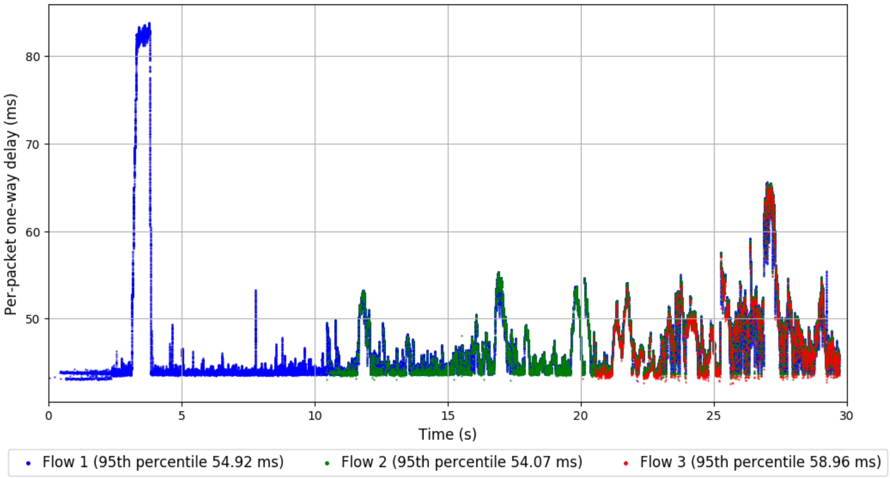




```
Run 10: Statistics of Vivace-latency

Start at: 2018-04-03 20:57:03
End at: 2018-04-03 20:57:33
Local clock offset: 5.754 ms
Remote clock offset: -7.156 ms

# Below is generated by plot.py at 2018-04-04 01:35:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.03 Mbit/s
95th percentile per-packet one-way delay: 54.811 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 66.81 Mbit/s
95th percentile per-packet one-way delay: 54.925 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 9.15 Mbit/s
95th percentile per-packet one-way delay: 54.072 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 58.961 ms
Loss rate: 3.44%
```

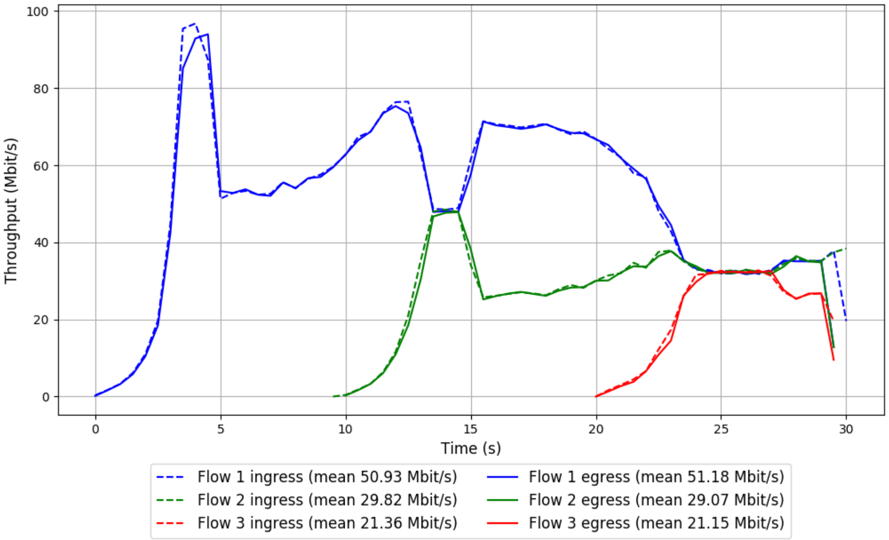
Run 10: Report of Vivace-latency — Data Link

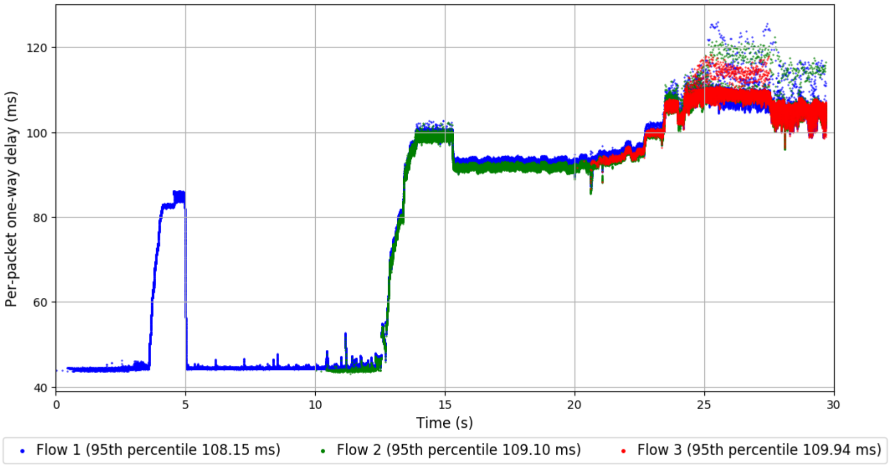




```
Run 1: Statistics of Vivace-loss

Start at: 2018-04-03 17:12:02
End at: 2018-04-03 17:12:33
Local clock offset: 6.219 ms
Remote clock offset: 53.806 ms

# Below is generated by plot.py at 2018-04-04 01:35:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.29 Mbit/s
95th percentile per-packet one-way delay: 109.058 ms
Loss rate: 3.24%
-- Flow 1:
Average throughput: 51.18 Mbit/s
95th percentile per-packet one-way delay: 108.149 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 29.07 Mbit/s
95th percentile per-packet one-way delay: 109.096 ms
Loss rate: 6.16%
-- Flow 3:
Average throughput: 21.15 Mbit/s
95th percentile per-packet one-way delay: 109.945 ms
Loss rate: 3.77%
```

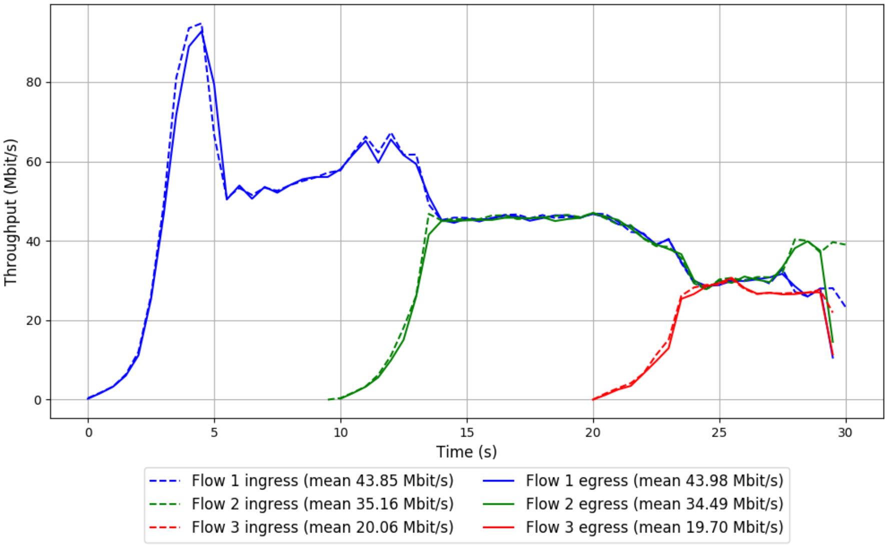
Run 1: Report of Vivace-loss — Data Link

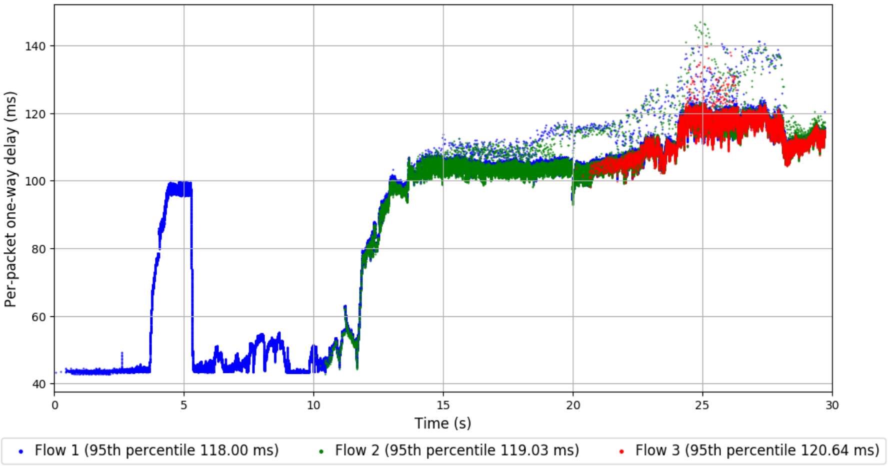




```
Run 2: Statistics of Vivace-loss

Start at: 2018-04-03 17:37:52
End at: 2018-04-03 17:38:22
Local clock offset: 9.5 ms
Remote clock offset: 25.507 ms

# Below is generated by plot.py at 2018-04-04 01:35:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.19 Mbit/s
95th percentile per-packet one-way delay: 119.102 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 43.98 Mbit/s
95th percentile per-packet one-way delay: 118.005 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 34.49 Mbit/s
95th percentile per-packet one-way delay: 119.031 ms
Loss rate: 5.56%
-- Flow 3:
Average throughput: 19.70 Mbit/s
95th percentile per-packet one-way delay: 120.636 ms
Loss rate: 4.66%
```

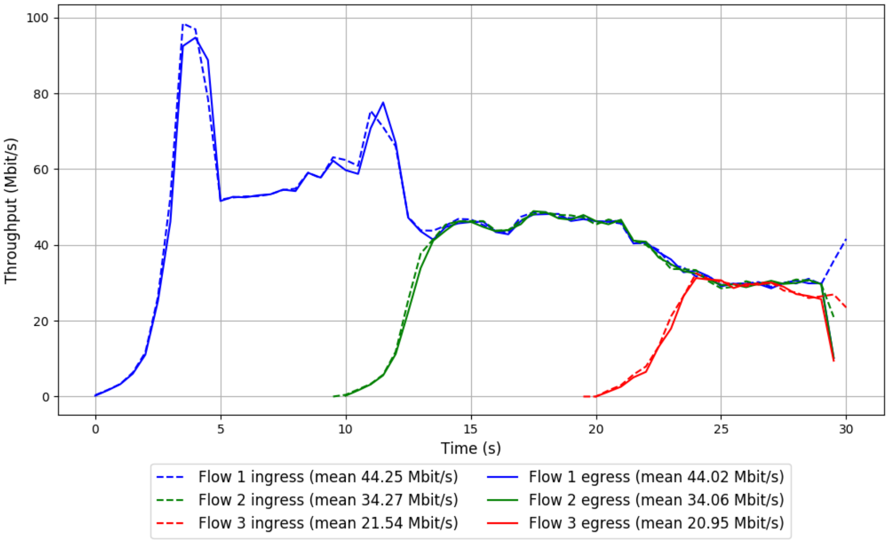
Run 2: Report of Vivace-loss — Data Link

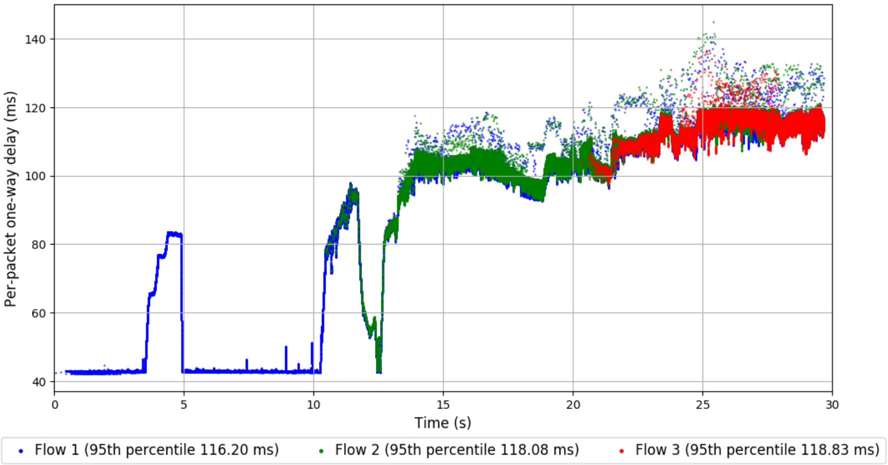




```
Run 3: Statistics of Vivace-loss

Start at: 2018-04-03 18:03:36
End at: 2018-04-03 18:04:06
Local clock offset: 9.514 ms
Remote clock offset: 3.284 ms

# Below is generated by plot.py at 2018-04-04 01:36:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.38 Mbit/s
95th percentile per-packet one-way delay: 117.595 ms
Loss rate: 3.49%
-- Flow 1:
Average throughput: 44.02 Mbit/s
95th percentile per-packet one-way delay: 116.202 ms
Loss rate: 3.16%
-- Flow 2:
Average throughput: 34.06 Mbit/s
95th percentile per-packet one-way delay: 118.083 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 20.95 Mbit/s
95th percentile per-packet one-way delay: 118.825 ms
Loss rate: 10.82%
```

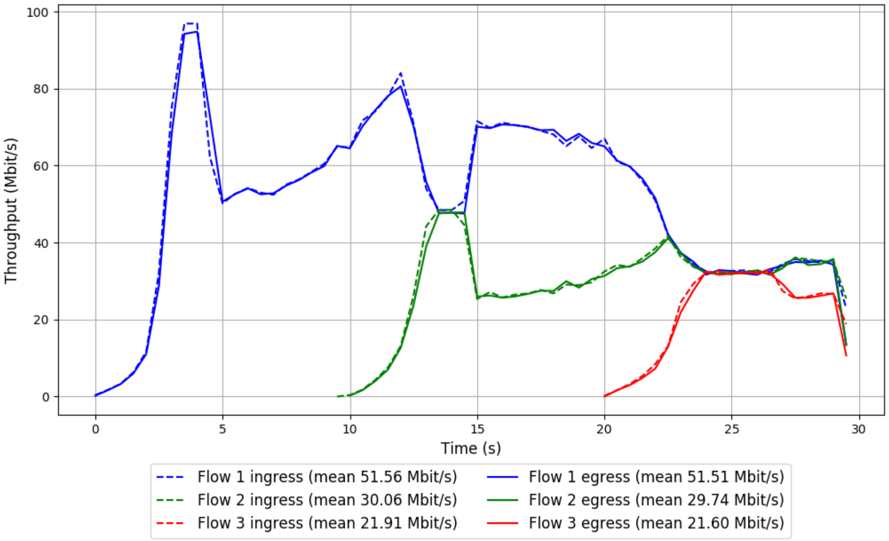
Run 3: Report of Vivace-loss — Data Link

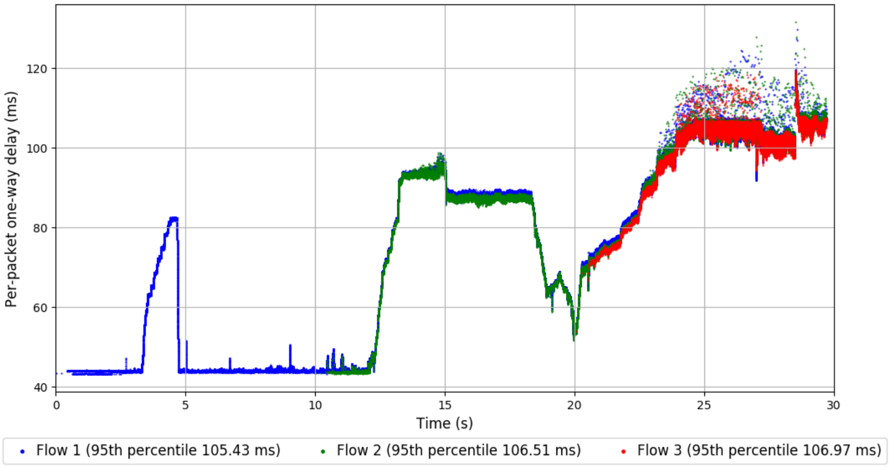




```
Run 4: Statistics of Vivace-loss

Start at: 2018-04-03 18:28:04
End at: 2018-04-03 18:28:34
Local clock offset: 9.218 ms
Remote clock offset: -14.431 ms

# Below is generated by plot.py at 2018-04-04 01:36:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.24 Mbit/s
95th percentile per-packet one-way delay: 106.154 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 51.51 Mbit/s
95th percentile per-packet one-way delay: 105.433 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 29.74 Mbit/s
95th percentile per-packet one-way delay: 106.511 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 21.60 Mbit/s
95th percentile per-packet one-way delay: 106.969 ms
Loss rate: 3.52%
```

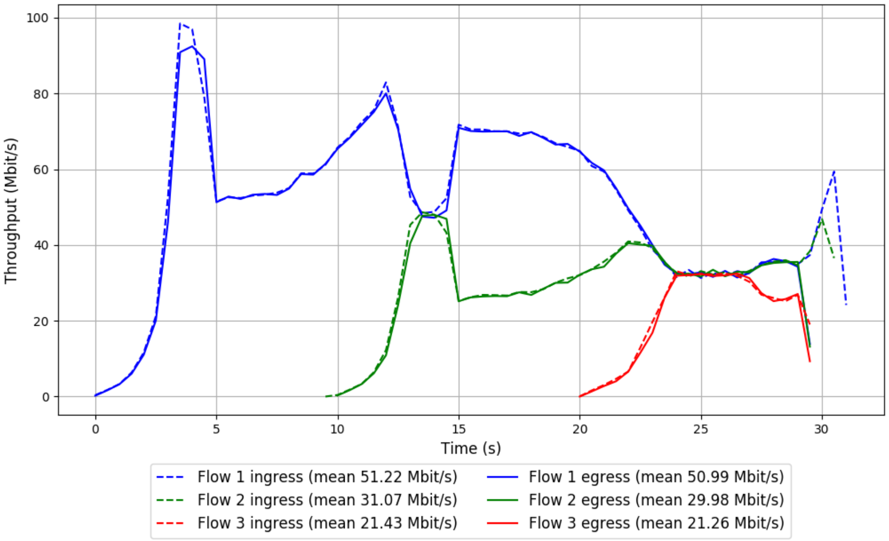
Run 4: Report of Vivace-loss — Data Link

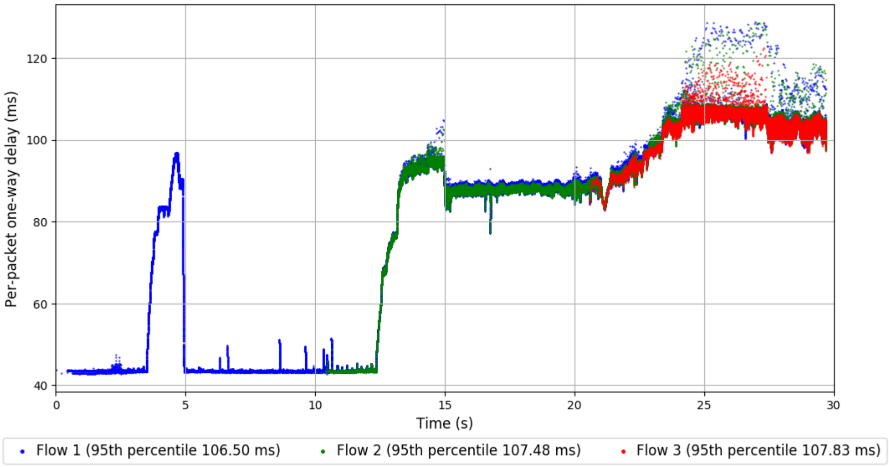




```
Run 5: Statistics of Vivace-loss

Start at: 2018-04-03 18:52:25
End at: 2018-04-03 18:52:55
Local clock offset: 8.861 ms
Remote clock offset: -25.858 ms

# Below is generated by plot.py at 2018-04-04 01:36:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.74 Mbit/s
95th percentile per-packet one-way delay: 107.200 ms
Loss rate: 6.33%
-- Flow 1:
Average throughput: 50.99 Mbit/s
95th percentile per-packet one-way delay: 106.497 ms
Loss rate: 5.52%
-- Flow 2:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 107.480 ms
Loss rate: 9.20%
-- Flow 3:
Average throughput: 21.26 Mbit/s
95th percentile per-packet one-way delay: 107.827 ms
Loss rate: 3.61%
```

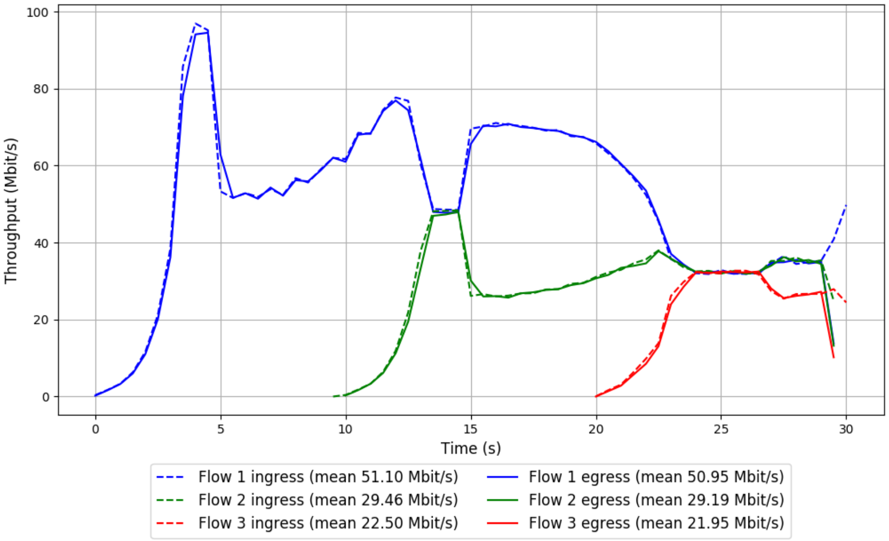
Run 5: Report of Vivace-loss — Data Link

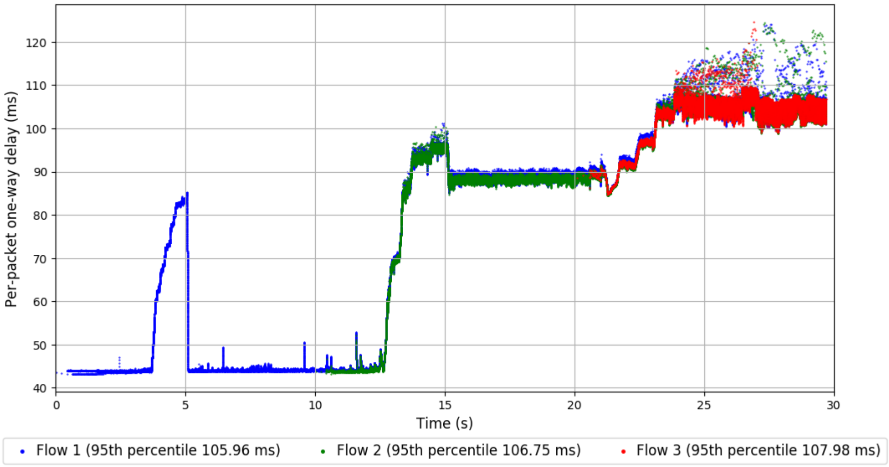




```
Run 6: Statistics of Vivace-loss

Start at: 2018-04-03 19:16:49
End at: 2018-04-03 19:17:19
Local clock offset: 8.764 ms
Remote clock offset: -3.84 ms

# Below is generated by plot.py at 2018-04-04 01:36:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.40 Mbit/s
95th percentile per-packet one-way delay: 106.591 ms
Loss rate: 3.40%
-- Flow 1:
Average throughput: 50.95 Mbit/s
95th percentile per-packet one-way delay: 105.963 ms
Loss rate: 2.89%
-- Flow 2:
Average throughput: 29.19 Mbit/s
95th percentile per-packet one-way delay: 106.746 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 21.95 Mbit/s
95th percentile per-packet one-way delay: 107.979 ms
Loss rate: 10.24%
```

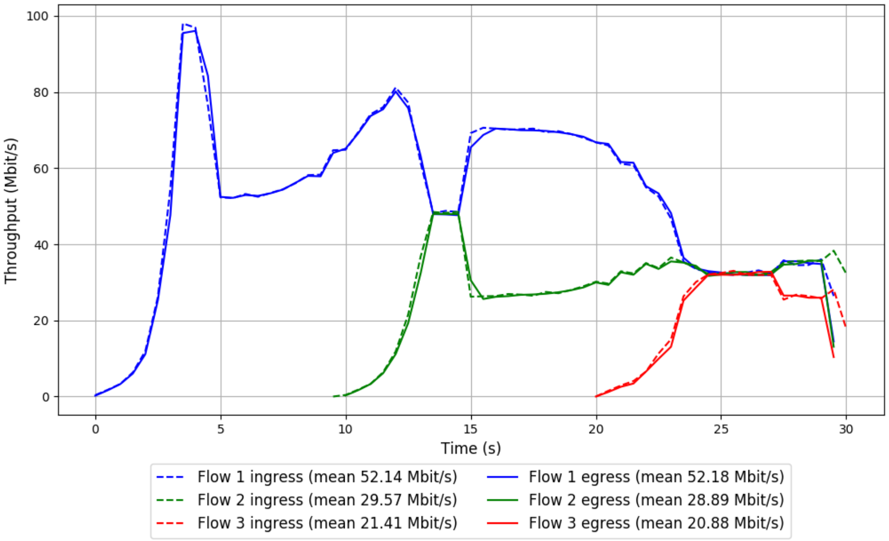
Run 6: Report of Vivace-loss — Data Link

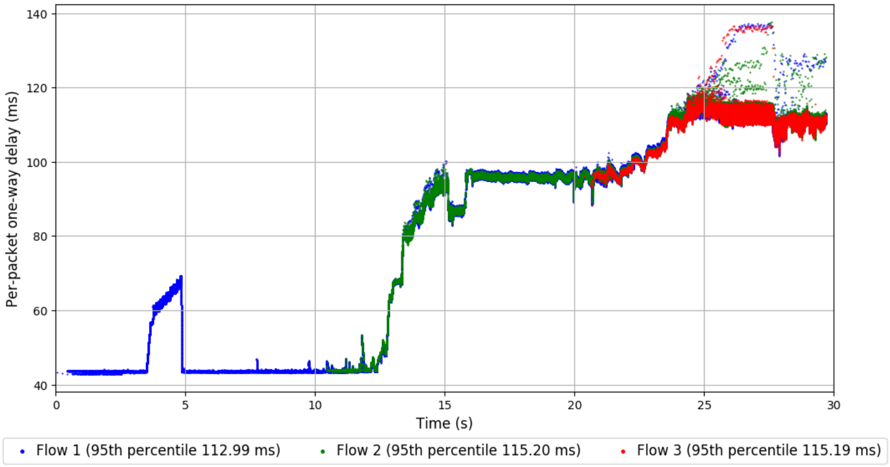




```
Run 7: Statistics of Vivace-loss

Start at: 2018-04-03 19:41:15
End at: 2018-04-03 19:41:45
Local clock offset: 6.194 ms
Remote clock offset: 3.096 ms

# Below is generated by plot.py at 2018-04-04 01:36:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.07 Mbit/s
95th percentile per-packet one-way delay: 114.434 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 52.18 Mbit/s
95th percentile per-packet one-way delay: 112.990 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 28.89 Mbit/s
95th percentile per-packet one-way delay: 115.203 ms
Loss rate: 5.62%
-- Flow 3:
Average throughput: 20.88 Mbit/s
95th percentile per-packet one-way delay: 115.193 ms
Loss rate: 9.51%
```

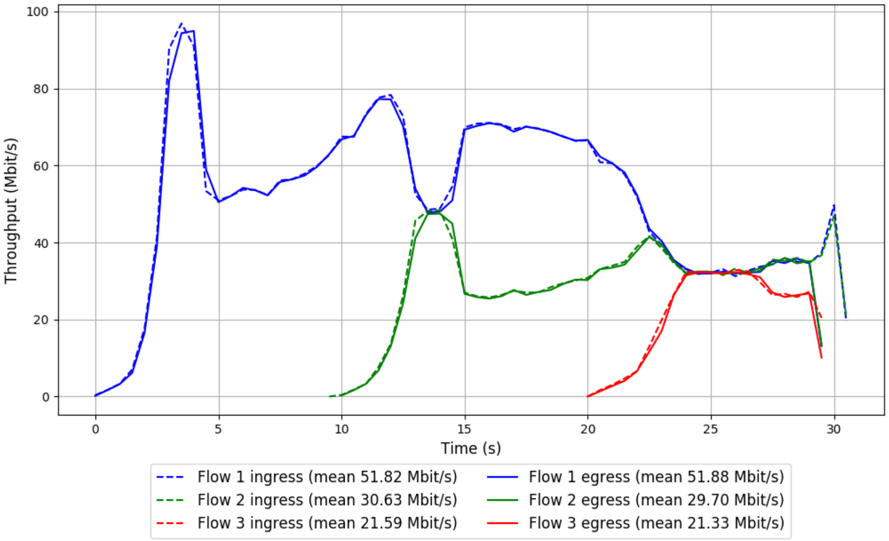
Run 7: Report of Vivace-loss — Data Link

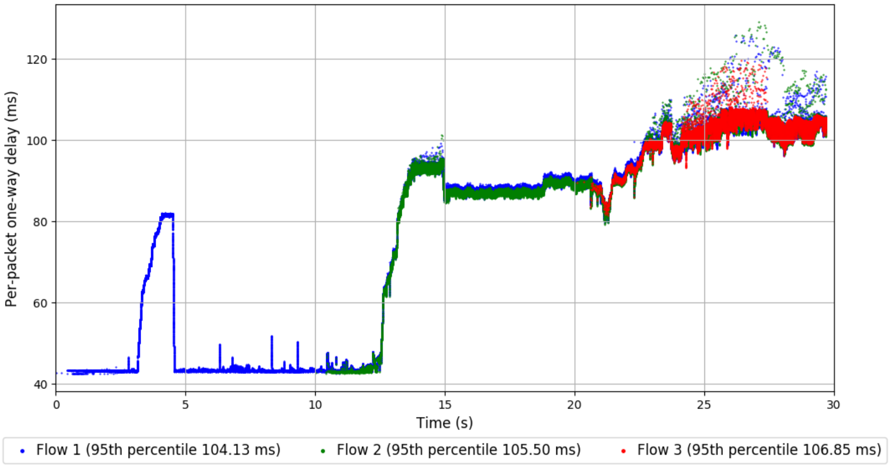




```
Run 8: Statistics of Vivace-loss

Start at: 2018-04-03 20:05:36
End at: 2018-04-03 20:06:06
Local clock offset: 4.427 ms
Remote clock offset: -2.791 ms

# Below is generated by plot.py at 2018-04-04 01:36:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.46 Mbit/s
95th percentile per-packet one-way delay: 105.274 ms
Loss rate: 4.64%
-- Flow 1:
Average throughput: 51.88 Mbit/s
95th percentile per-packet one-way delay: 104.127 ms
Loss rate: 3.37%
-- Flow 2:
Average throughput: 29.70 Mbit/s
95th percentile per-packet one-way delay: 105.496 ms
Loss rate: 8.05%
-- Flow 3:
Average throughput: 21.33 Mbit/s
95th percentile per-packet one-way delay: 106.846 ms
Loss rate: 3.98%
```

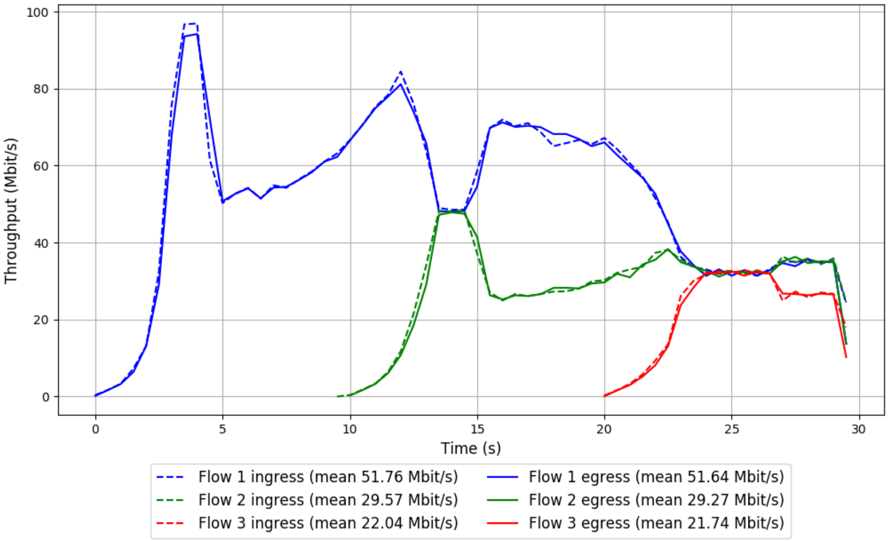
Run 8: Report of Vivace-loss — Data Link

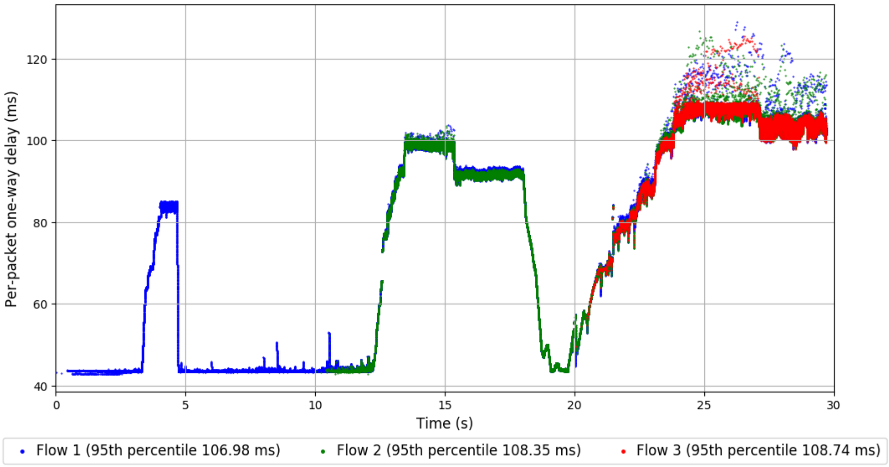




```
Run 9: Statistics of Vivace-loss

Start at: 2018-04-03 20:29:59
End at: 2018-04-03 20:30:29
Local clock offset: 5.324 ms
Remote clock offset: -2.774 ms

# Below is generated by plot.py at 2018-04-04 01:37:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.10 Mbit/s
95th percentile per-packet one-way delay: 107.996 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 51.64 Mbit/s
95th percentile per-packet one-way delay: 106.976 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 29.27 Mbit/s
95th percentile per-packet one-way delay: 108.354 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 21.74 Mbit/s
95th percentile per-packet one-way delay: 108.736 ms
Loss rate: 3.31%
```

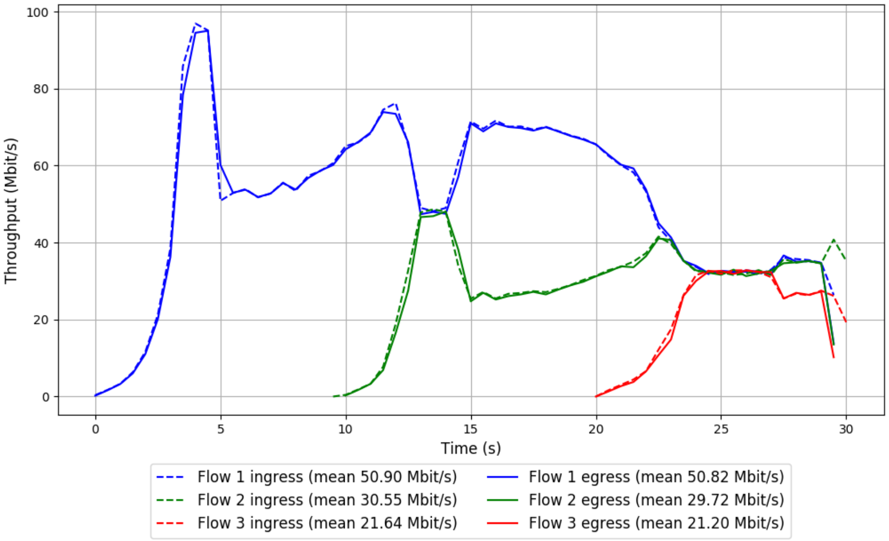
Run 9: Report of Vivace-loss — Data Link

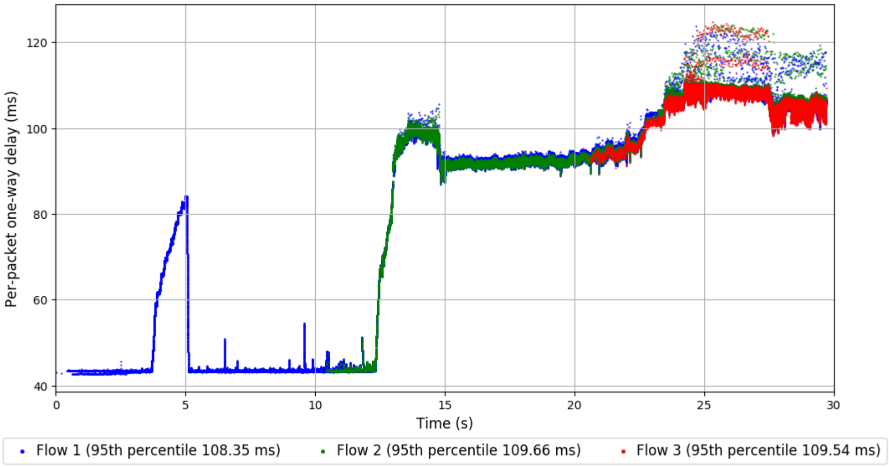




```
Run 10: Statistics of Vivace-loss

Start at: 2018-04-03 20:54:18
End at: 2018-04-03 20:54:48
Local clock offset: 5.686 ms
Remote clock offset: -6.413 ms

# Below is generated by plot.py at 2018-04-04 01:37:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.37 Mbit/s
95th percentile per-packet one-way delay: 109.144 ms
Loss rate: 3.10%
-- Flow 1:
Average throughput: 50.82 Mbit/s
95th percentile per-packet one-way delay: 108.352 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 29.72 Mbit/s
95th percentile per-packet one-way delay: 109.656 ms
Loss rate: 6.15%
-- Flow 3:
Average throughput: 21.20 Mbit/s
95th percentile per-packet one-way delay: 109.536 ms
Loss rate: 9.23%
```

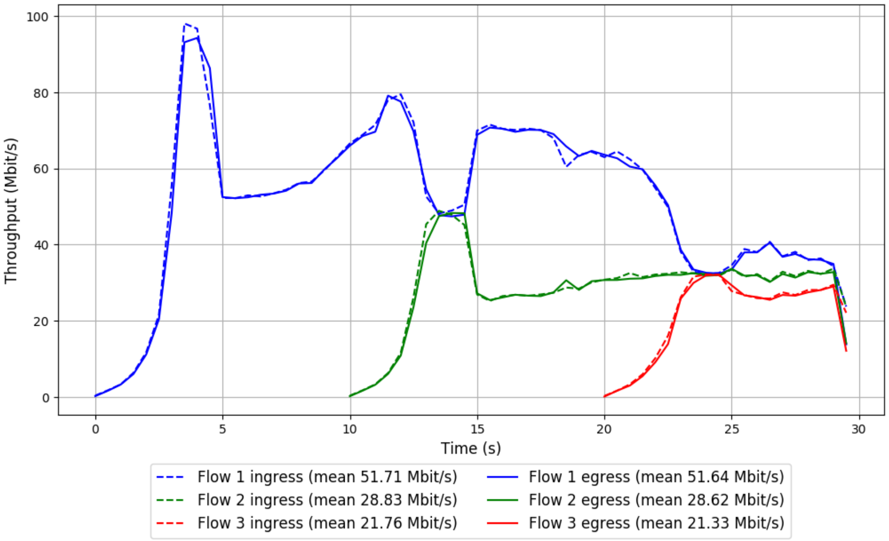
Run 10: Report of Vivace-loss — Data Link

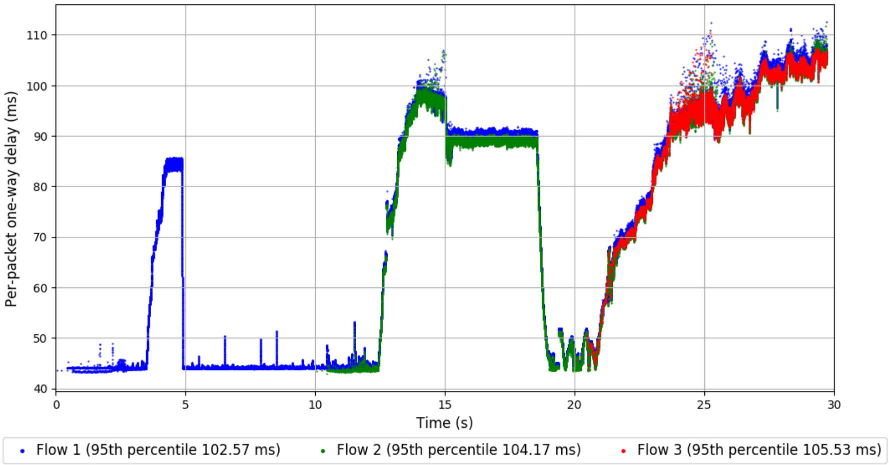




```
Run 1: Statistics of Vivace-LTE

Start at: 2018-04-03 17:09:07
End at: 2018-04-03 17:09:37
Local clock offset: 5.905 ms
Remote clock offset: 51.074 ms

# Below is generated by plot.py at 2018-04-04 01:37:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.53 Mbit/s
95th percentile per-packet one-way delay: 103.896 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 51.64 Mbit/s
95th percentile per-packet one-way delay: 102.570 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 28.62 Mbit/s
95th percentile per-packet one-way delay: 104.166 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 21.33 Mbit/s
95th percentile per-packet one-way delay: 105.525 ms
Loss rate: 3.97%
```

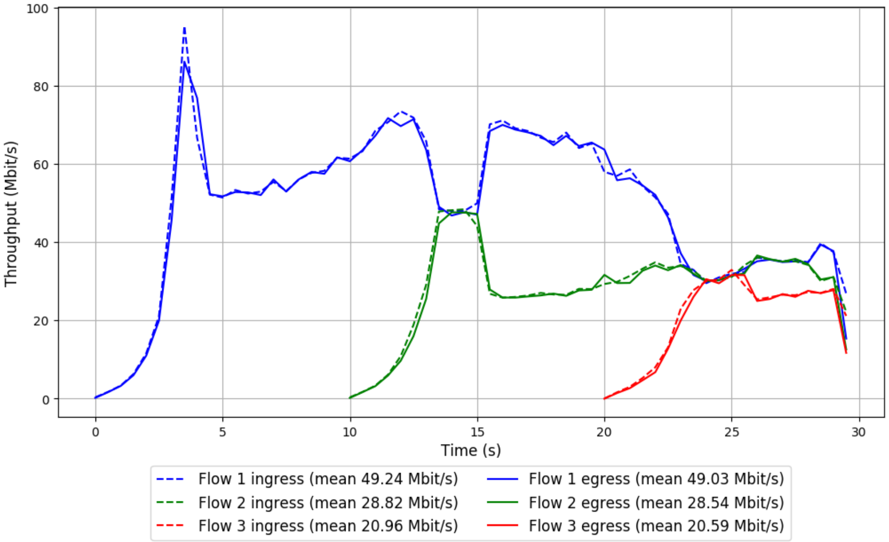
Run 1: Report of Vivace-LTE — Data Link

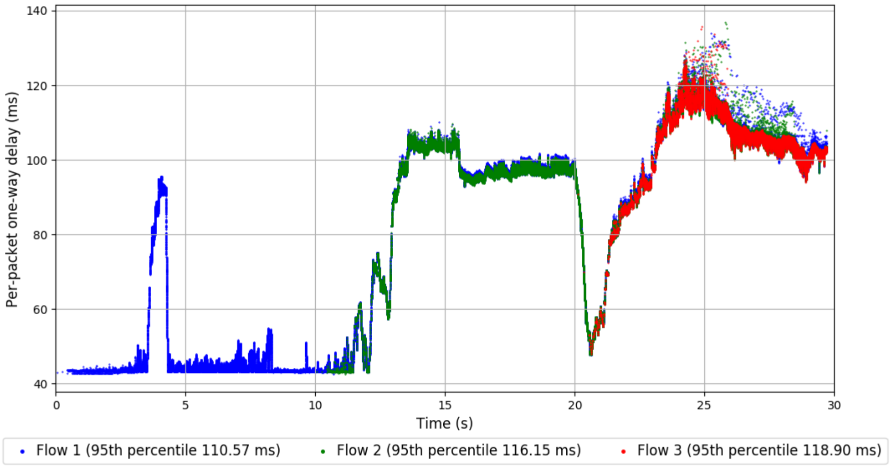




```
Run 2: Statistics of Vivace-LTE

Start at: 2018-04-03 17:35:07
End at: 2018-04-03 17:35:37
Local clock offset: 9.196 ms
Remote clock offset: 27.72 ms

# Below is generated by plot.py at 2018-04-04 01:37:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.59 Mbit/s
95th percentile per-packet one-way delay: 115.341 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 49.03 Mbit/s
95th percentile per-packet one-way delay: 110.570 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 28.54 Mbit/s
95th percentile per-packet one-way delay: 116.151 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 20.59 Mbit/s
95th percentile per-packet one-way delay: 118.899 ms
Loss rate: 4.18%
```

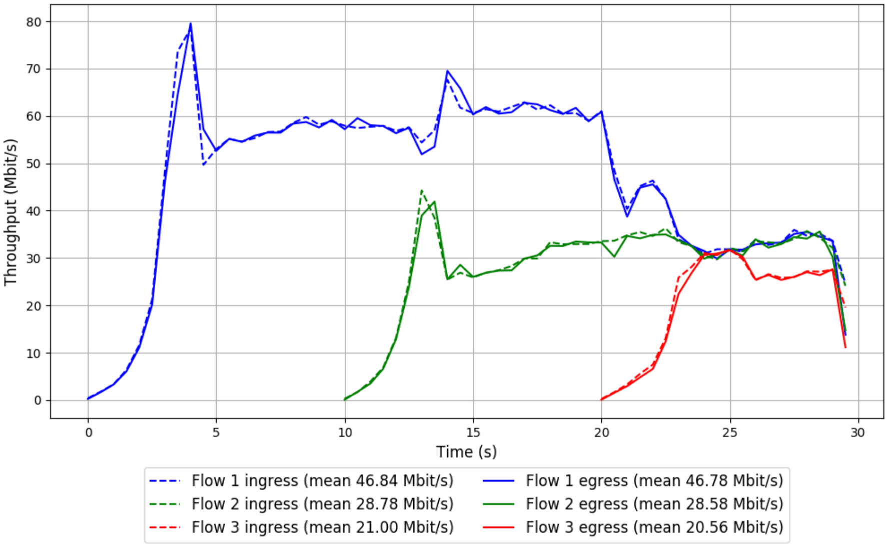
Run 2: Report of Vivace-LTE — Data Link

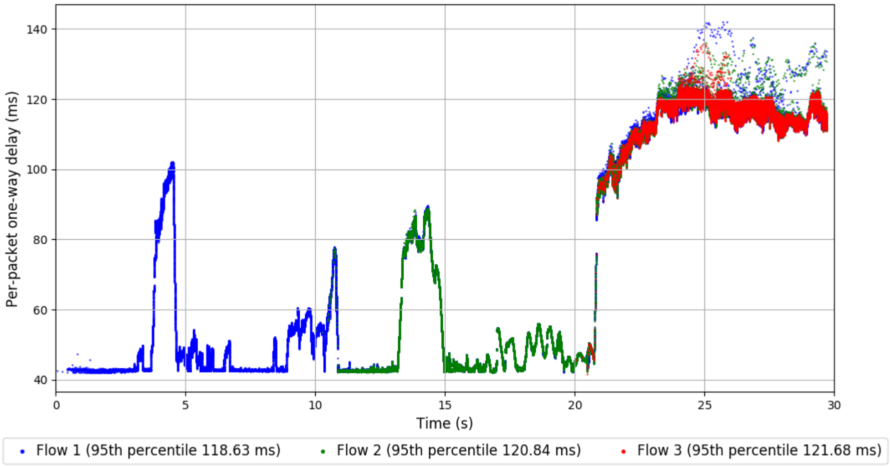




```
Run 3: Statistics of Vivace-LTE

Start at: 2018-04-03 18:00:54
End at: 2018-04-03 18:01:24
Local clock offset: 9.398 ms
Remote clock offset: 8.1 ms

# Below is generated by plot.py at 2018-04-04 01:37:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.37 Mbit/s
95th percentile per-packet one-way delay: 120.088 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 46.78 Mbit/s
95th percentile per-packet one-way delay: 118.633 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 28.58 Mbit/s
95th percentile per-packet one-way delay: 120.842 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 20.56 Mbit/s
95th percentile per-packet one-way delay: 121.679 ms
Loss rate: 4.15%
```

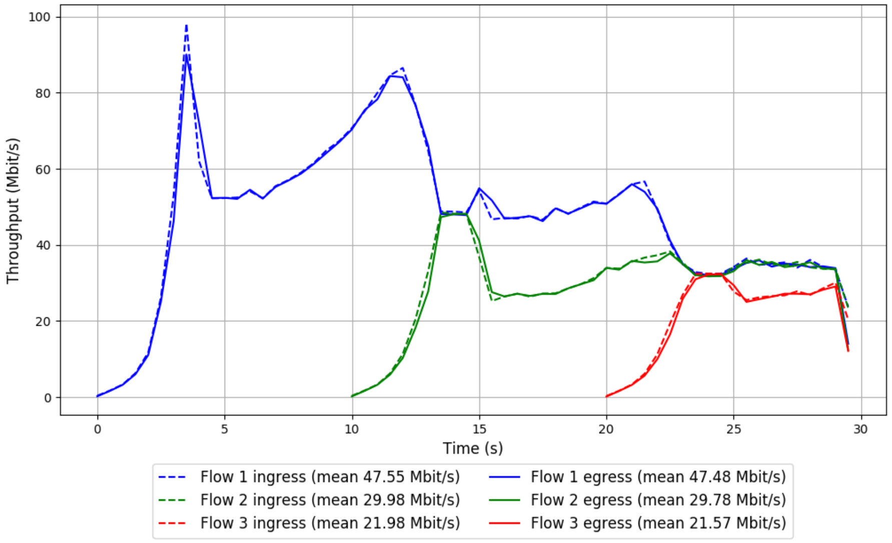
Run 3: Report of Vivace-LTE — Data Link

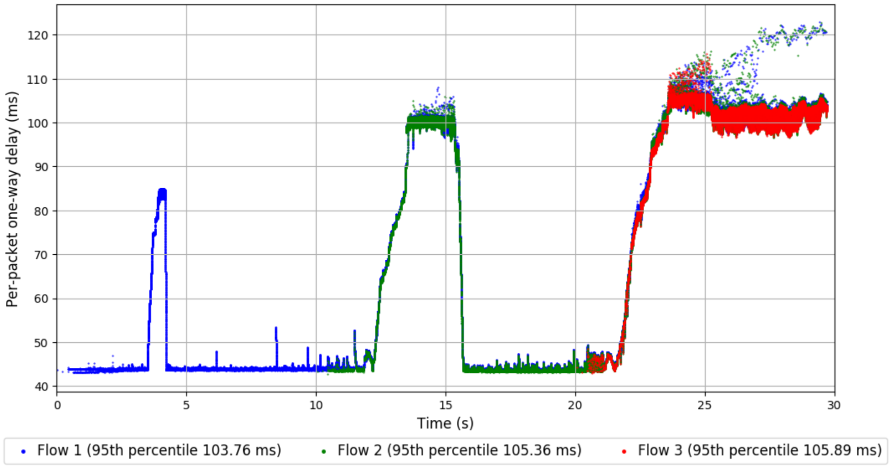




```
Run 4: Statistics of Vivace-LTE

Start at: 2018-04-03 18:25:21
End at: 2018-04-03 18:25:51
Local clock offset: 9.264 ms
Remote clock offset: -13.434 ms

# Below is generated by plot.py at 2018-04-04 01:37:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.21 Mbit/s
95th percentile per-packet one-way delay: 104.963 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 47.48 Mbit/s
95th percentile per-packet one-way delay: 103.762 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 29.78 Mbit/s
95th percentile per-packet one-way delay: 105.355 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 21.57 Mbit/s
95th percentile per-packet one-way delay: 105.894 ms
Loss rate: 3.89%
```

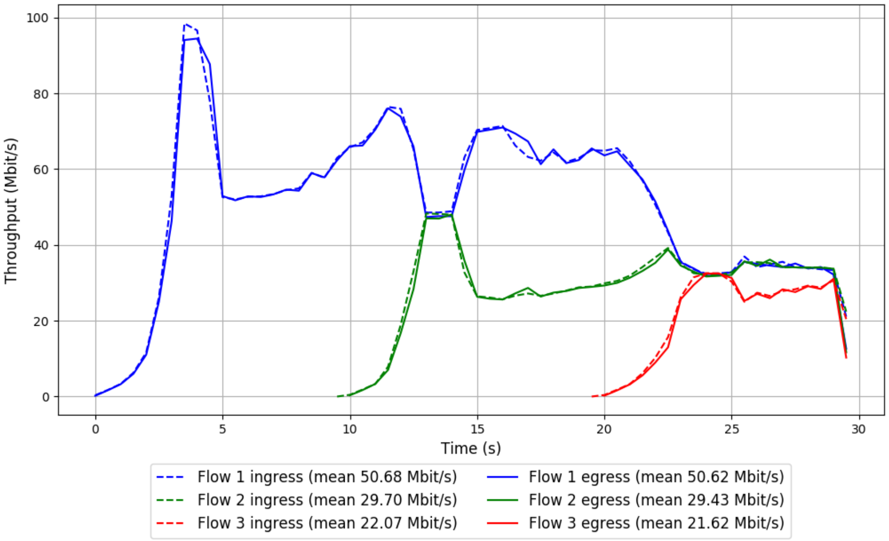
Run 4: Report of Vivace-LTE — Data Link

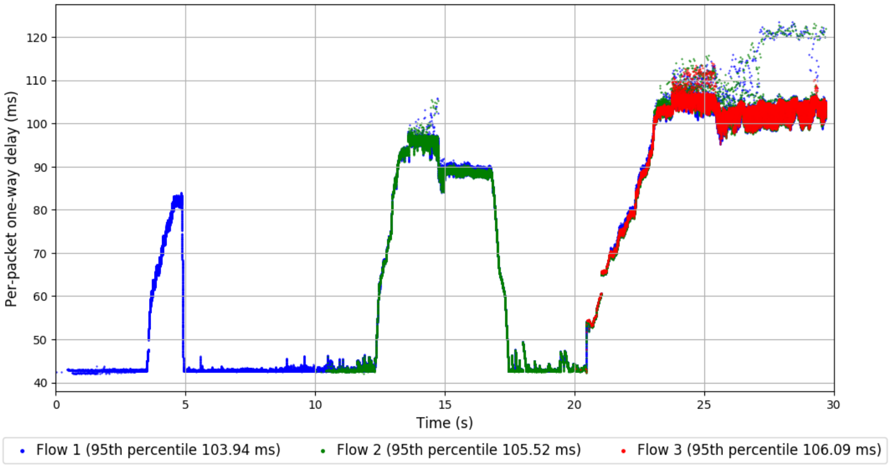




```
Run 5: Statistics of Vivace-LTE

Start at: 2018-04-03 18:49:41
End at: 2018-04-03 18:50:11
Local clock offset: 8.611 ms
Remote clock offset: -24.681 ms

# Below is generated by plot.py at 2018-04-04 01:37:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.16 Mbit/s
95th percentile per-packet one-way delay: 105.071 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 50.62 Mbit/s
95th percentile per-packet one-way delay: 103.940 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 105.516 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 21.62 Mbit/s
95th percentile per-packet one-way delay: 106.088 ms
Loss rate: 4.14%
```

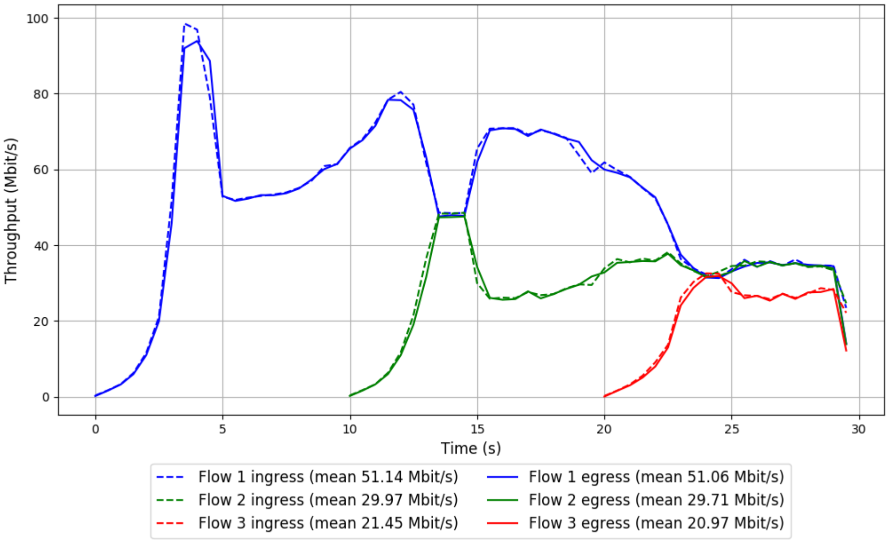
Run 5: Report of Vivace-LTE — Data Link

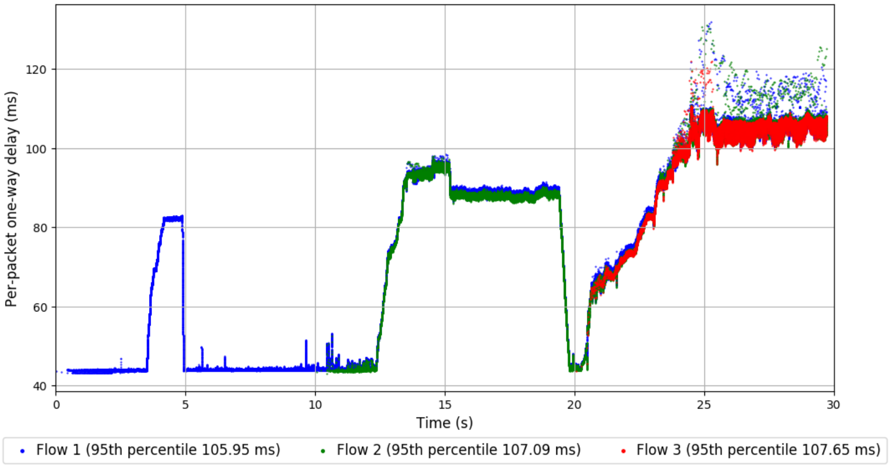




```
Run 6: Statistics of Vivace-LTE

Start at: 2018-04-03 19:14:05
End at: 2018-04-03 19:14:35
Local clock offset: 8.718 ms
Remote clock offset: -6.881 ms

# Below is generated by plot.py at 2018-04-04 01:37:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.54 Mbit/s
95th percentile per-packet one-way delay: 106.727 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 51.06 Mbit/s
95th percentile per-packet one-way delay: 105.946 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 107.091 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 20.97 Mbit/s
95th percentile per-packet one-way delay: 107.647 ms
Loss rate: 4.15%
```

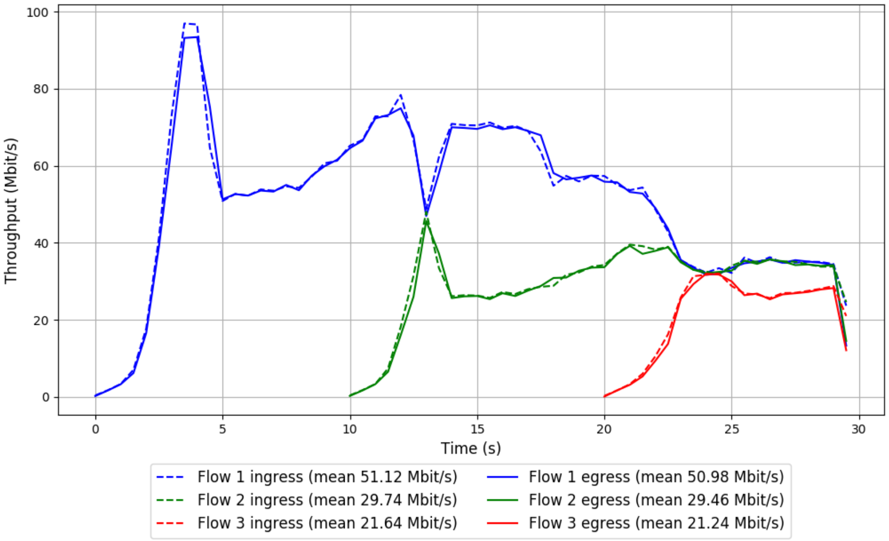
Run 6: Report of Vivace-LTE — Data Link

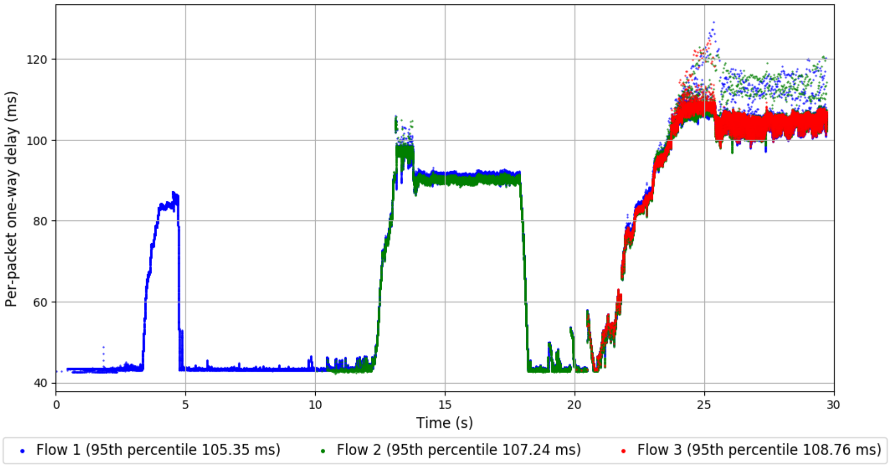




```
Run 7: Statistics of Vivace-LTE

Start at: 2018-04-03 19:38:33
End at: 2018-04-03 19:39:03
Local clock offset: 6.491 ms
Remote clock offset: 5.152 ms

# Below is generated by plot.py at 2018-04-04 01:38:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.37 Mbit/s
95th percentile per-packet one-way delay: 106.934 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 50.98 Mbit/s
95th percentile per-packet one-way delay: 105.348 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 29.46 Mbit/s
95th percentile per-packet one-way delay: 107.243 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 21.24 Mbit/s
95th percentile per-packet one-way delay: 108.761 ms
Loss rate: 3.94%
```

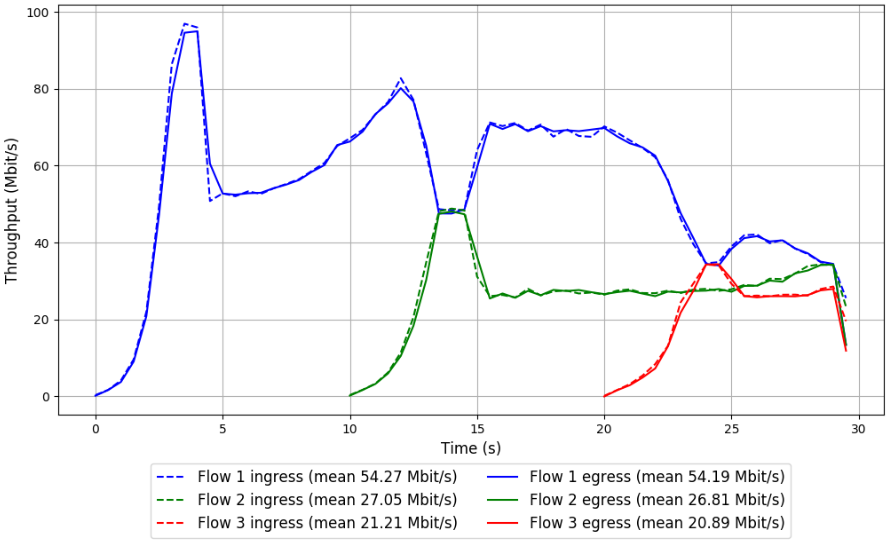
Run 7: Report of Vivace-LTE — Data Link

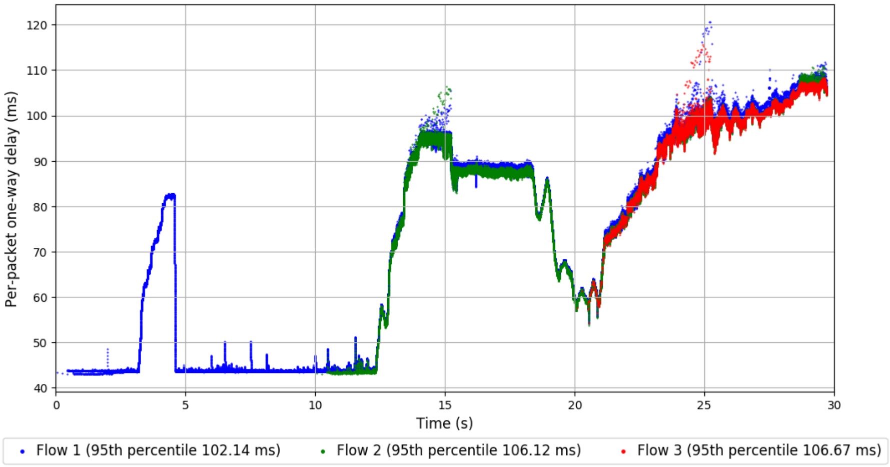




```
Run 8: Statistics of Vivace-LTE

Start at: 2018-04-03 20:02:53
End at: 2018-04-03 20:03:23
Local clock offset: 4.22 ms
Remote clock offset: -2.574 ms

# Below is generated by plot.py at 2018-04-04 01:38:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.73 Mbit/s
95th percentile per-packet one-way delay: 104.887 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 54.19 Mbit/s
95th percentile per-packet one-way delay: 102.142 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 26.81 Mbit/s
95th percentile per-packet one-way delay: 106.116 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 20.89 Mbit/s
95th percentile per-packet one-way delay: 106.671 ms
Loss rate: 3.61%
```

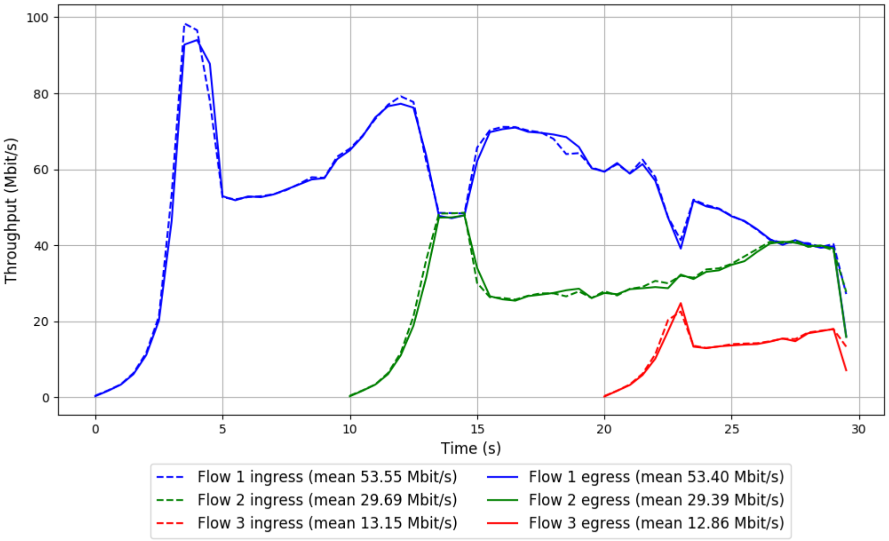
Run 8: Report of Vivace-LTE — Data Link

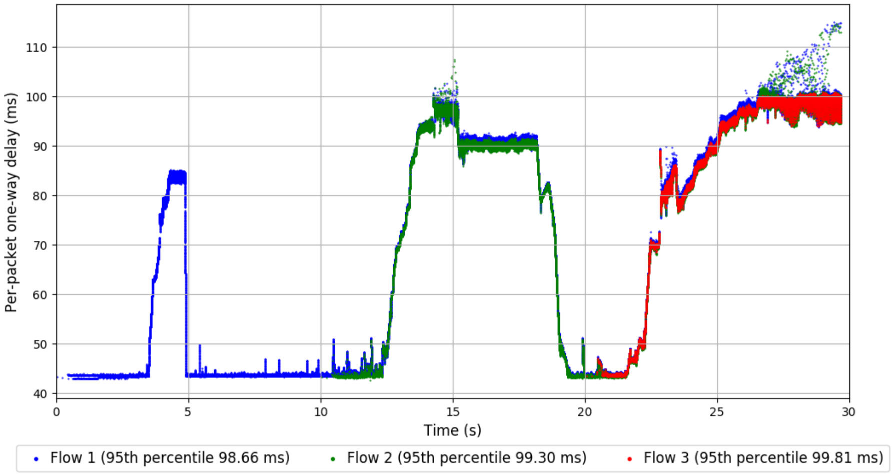




```
Run 9: Statistics of Vivace-LTE

Start at: 2018-04-03 20:27:15
End at: 2018-04-03 20:27:45
Local clock offset: 5.498 ms
Remote clock offset: -2.686 ms

# Below is generated by plot.py at 2018-04-04 01:38:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.05 Mbit/s
95th percentile per-packet one-way delay: 99.105 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 53.40 Mbit/s
95th percentile per-packet one-way delay: 98.658 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 29.39 Mbit/s
95th percentile per-packet one-way delay: 99.303 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 12.86 Mbit/s
95th percentile per-packet one-way delay: 99.808 ms
Loss rate: 4.18%
```

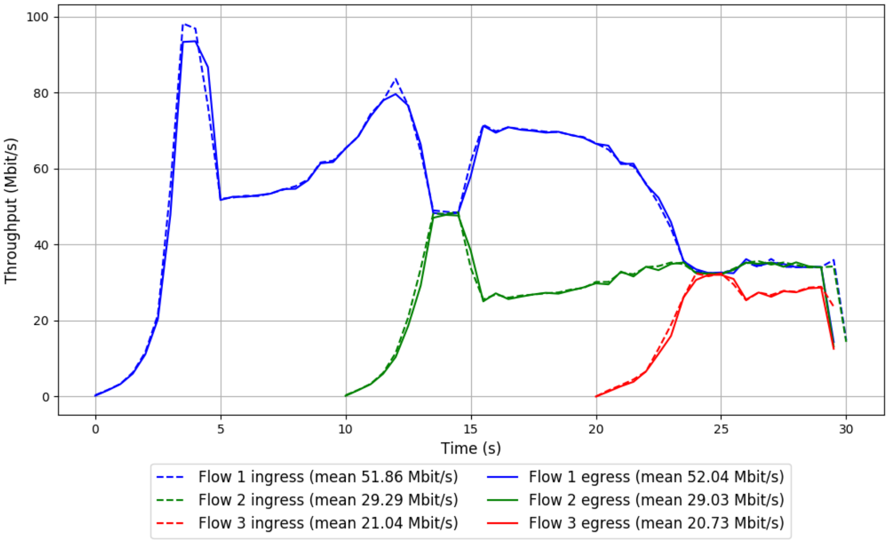
Run 9: Report of Vivace-LTE — Data Link



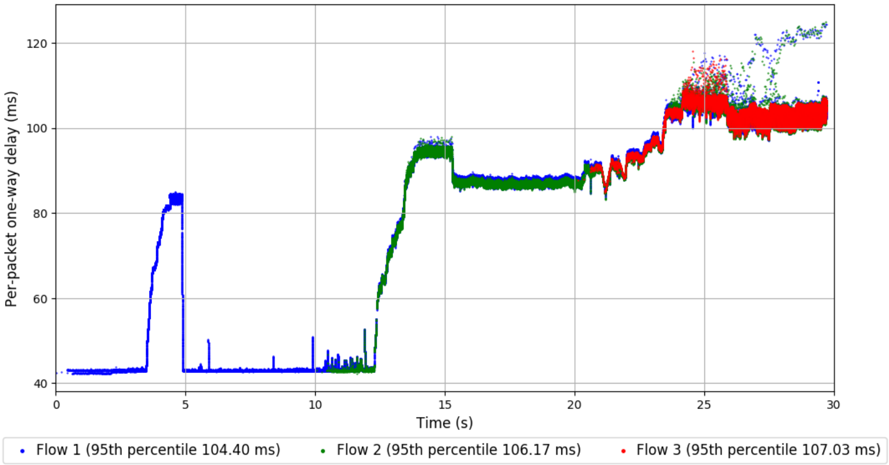


```
Run 10: Statistics of Vivace-LTE

Start at: 2018-04-03 20:51:35
End at: 2018-04-03 20:52:05
Local clock offset: 5.645 ms
Remote clock offset: -5.426 ms

# Below is generated by plot.py at 2018-04-04 01:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.96 Mbit/s
95th percentile per-packet one-way delay: 105.748 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 52.04 Mbit/s
95th percentile per-packet one-way delay: 104.400 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 29.03 Mbit/s
95th percentile per-packet one-way delay: 106.175 ms
Loss rate: 3.83%
-- Flow 3:
Average throughput: 20.73 Mbit/s
95th percentile per-packet one-way delay: 107.035 ms
Loss rate: 4.29%
```

Run 10: Report of Vivace-LTE — Data Link



Throughput (Mbit/s)
100
80
60
40
20
0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 51.86 Mbit/s)
Flow 2 ingress (mean 29.29 Mbit/s)
Flow 3 ingress (mean 21.04 Mbit/s)
Flow 1 egress (mean 52.04 Mbit/s)
Flow 2 egress (mean 29.03 Mbit/s)
Flow 3 egress (mean 20.73 Mbit/s)



Per-packet one-way delay (ms)
120
100
80
60
40
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 104.40 ms)
Flow 2 (95th percentile 106.17 ms)
Flow 3 (95th percentile 107.03 ms)