Pantheon Report

Generated at 2019-01-25 03:30:28 (UTC).

Data path: AWS Brazil 2 on `ens5` (*local*) →Colombia on `p4p1` (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

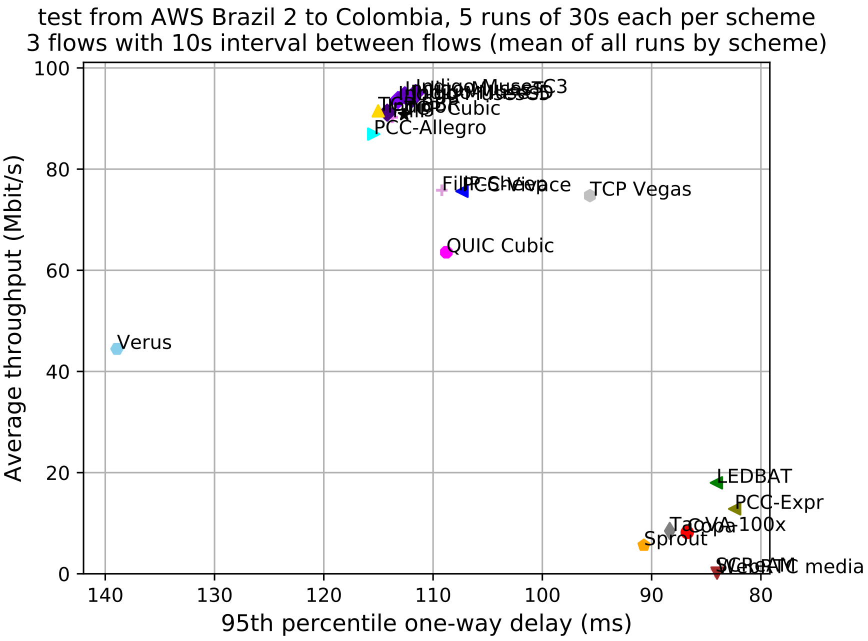
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

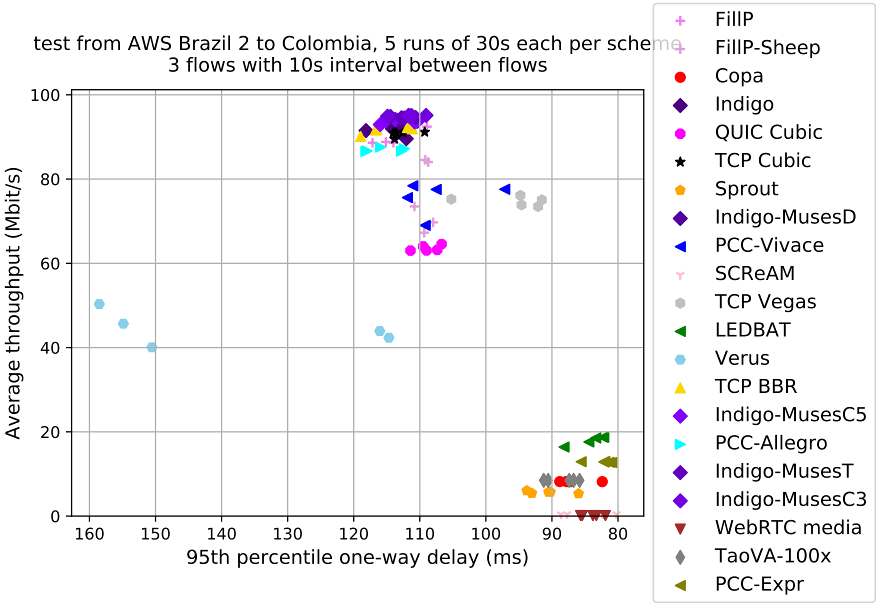
NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

```
Git summary:
branch: muses @ 0b8e9a949603c3842368430acf469eec3b941f9f
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ d9c5ea33091330aca25ecd105ab2db6d34d5c40d
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 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 @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

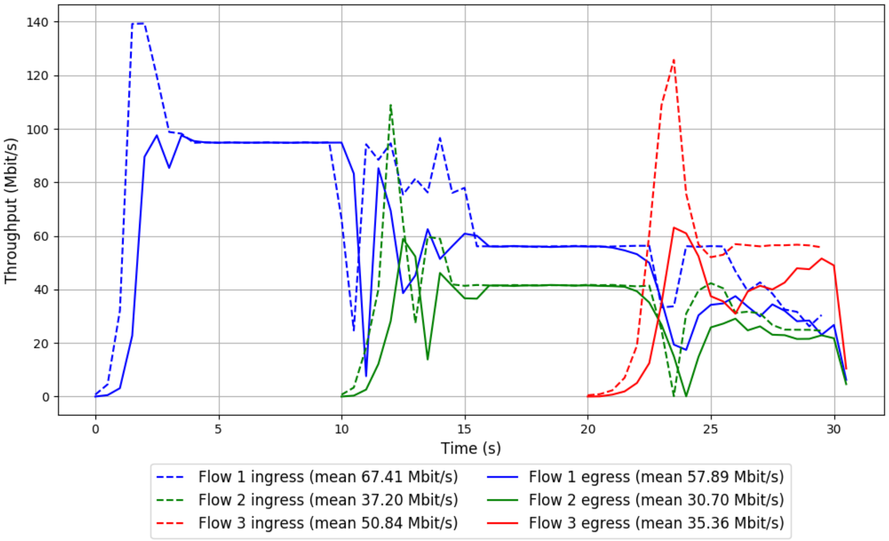

test from AWS Brazil 2 to Colombia, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
100
140
130
120
110
100
90
80
Indigo-MusesC3
Indigo-MusesD
TCP BBR
Indigo
TCP Cubic
PCC-Allegro
FillP-Sheep
PCC-Vivace
TCP Vegas
QUIC Cubic
Verus
LEDBAT
PCC-Expr
TaoVA-100x
Copa
Sprout
SCReAM
WebRTC media

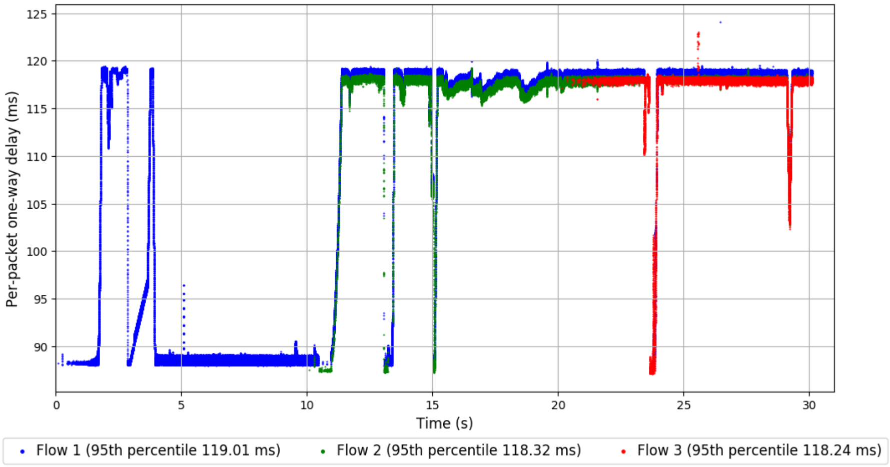

test from AWS Brazil 2 to Colombia, 5 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
20
40
60
80
100
160
150
140
130
120
110
100
90
80
FillP
FillP-Sheep
Copa
Indigo
QUIC Cubic
TCP Cubic
Sprout
Indigo-MusesD
PCC-Vivace
SCReAM
TCP Vegas
LEDBAT
Verus
TCP BBR
Indigo-MusesC5
PCC-Allegro
Indigo-MusesT
Indigo-MusesC3
WebRTC media
TaoVA-100x
PCC-Expr

scheme	# runs	mean avg tput (Mbit/s) flow 1	flow 2	flow 3	mean 95th-%ile delay (ms) flow 1	flow 2	flow 3	mean loss rate (%) flow 1	flow 2	flow 3
TCP BBR	5	56.05	38.32	29.92	114.47	114.64	114.27	13.00	19.48	28.84
Copa	5	0.00	9.57	5.49	85.21	86.96	84.73	98.55	75.09	80.65
TCP Cubic	5	73.70	17.51	16.20	112.85	112.47	110.98	0.77	0.18	0.16
FillP	5	43.99	56.04	27.03	109.53	113.56	112.54	10.12	19.18	28.54
FillP-Sheep	5	18.13	68.69	36.16	108.87	109.28	109.76	9.61	7.66	7.06
Indigo	5	64.29	25.64	31.01	113.02	112.81	114.11	10.18	29.34	66.38
Indigo-MusesC3	5	48.51	49.59	47.58	110.32	111.00	111.70	1.25	2.43	4.36
Indigo-MusesC5	5	56.47	52.07	11.06	110.56	113.63	114.42	1.20	3.51	6.66
Indigo-MusesD	5	55.48	46.65	26.99	111.17	111.25	112.48	1.33	1.54	5.36
Indigo-MusesT	5	52.03	49.63	34.00	112.15	112.36	112.04	6.64	5.41	9.96
LEDBAT	5	11.42	7.98	3.81	83.75	84.09	83.52	0.00	0.01	0.00
PCC-Allegro	5	77.93	9.91	7.28	115.41	115.35	115.11	2.91	4.50	5.26
PCC-Expr	5	8.18	5.42	3.17	81.73	81.74	82.10	48.87	37.99	49.55
QUIC Cubic	5	45.97	22.65	7.85	109.22	107.79	100.57	0.76	0.49	0.30
SCReAM	5	0.21	0.22	0.22	83.38	82.87	83.77	0.04	0.00	0.00
Sprout	5	3.16	2.71	2.09	90.00	89.67	87.57	0.00	0.00	0.00
TaoVA-100x	5	0.00	9.76	5.93	82.72	91.94	82.07	95.92	33.11	28.64
TCP Vegas	5	49.88	18.50	37.76	95.25	96.58	93.82	1.00	0.49	1.11
Verus	5	29.85	15.19	14.34	130.45	114.27	130.36	40.59	24.12	46.24
PCC-Vivace	5	63.80	14.86	5.90	108.38	102.66	97.64	0.16	0.22	0.10
WebRTC media	5	0.05	0.04	0.04	83.51	83.16	83.45	0.01	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-01-25 01:08:20
End at: 2019-01-25 01:08:50
Local clock offset: -6.27 ms
Remote clock offset: 7.489 ms

# Below is generated by plot.py at 2019-01-25 03:21:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.09 Mbit/s
95th percentile per-packet one-way delay: 118.955 ms
Loss rate: 17.34%
-- Flow 1:
Average throughput: 57.89 Mbit/s
95th percentile per-packet one-way delay: 119.007 ms
Loss rate: 14.04%
-- Flow 2:
Average throughput: 30.70 Mbit/s
95th percentile per-packet one-way delay: 118.318 ms
Loss rate: 17.36%
-- Flow 3:
Average throughput: 35.36 Mbit/s
95th percentile per-packet one-way delay: 118.238 ms
Loss rate: 30.46%
```

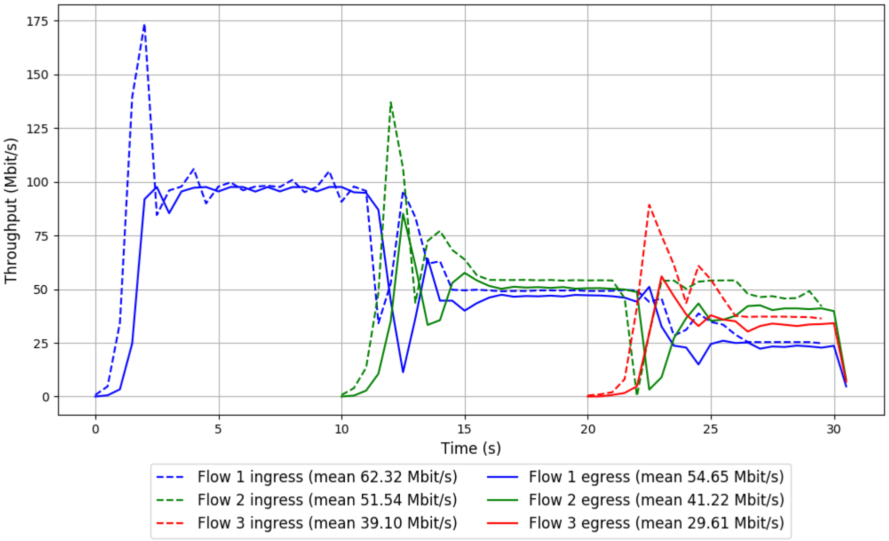
Run 1: Report of TCP BBR — Data Link

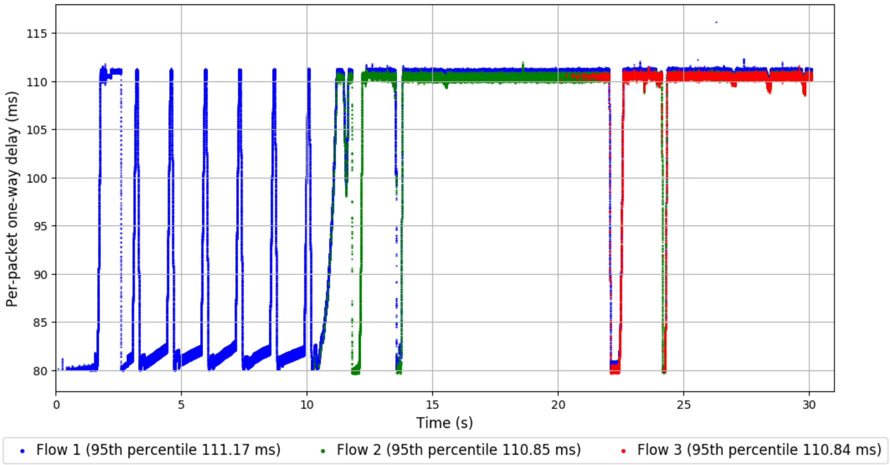




```
Run 2: Statistics of TCP BBR

Start at: 2019-01-25 01:35:03
End at: 2019-01-25 01:35:33
Local clock offset: -5.091 ms
Remote clock offset: 1.309 ms

# Below is generated by plot.py at 2019-01-25 03:21:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.93 Mbit/s
95th percentile per-packet one-way delay: 111.115 ms
Loss rate: 16.08%
-- Flow 1:
Average throughput: 54.65 Mbit/s
95th percentile per-packet one-way delay: 111.166 ms
Loss rate: 12.22%
-- Flow 2:
Average throughput: 41.22 Mbit/s
95th percentile per-packet one-way delay: 110.850 ms
Loss rate: 19.98%
-- Flow 3:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 110.842 ms
Loss rate: 24.27%
```

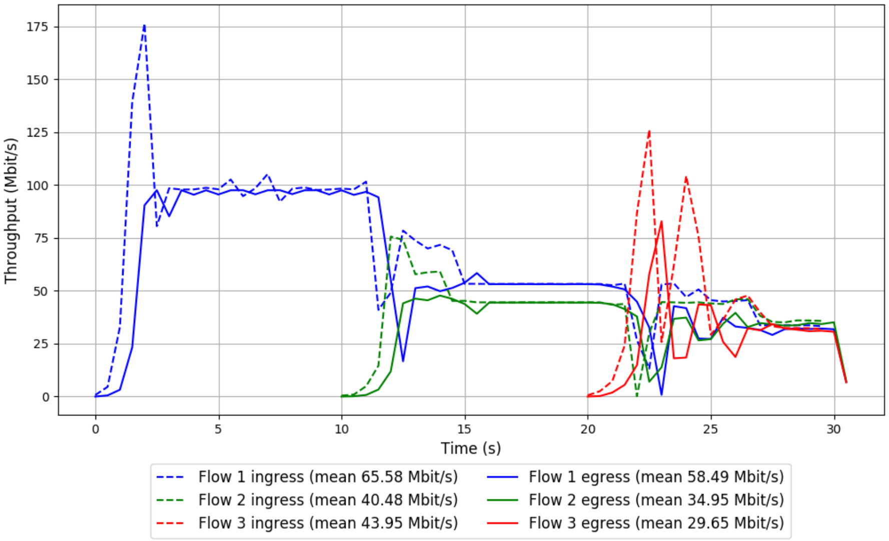
Run 2: Report of TCP BBR — Data Link

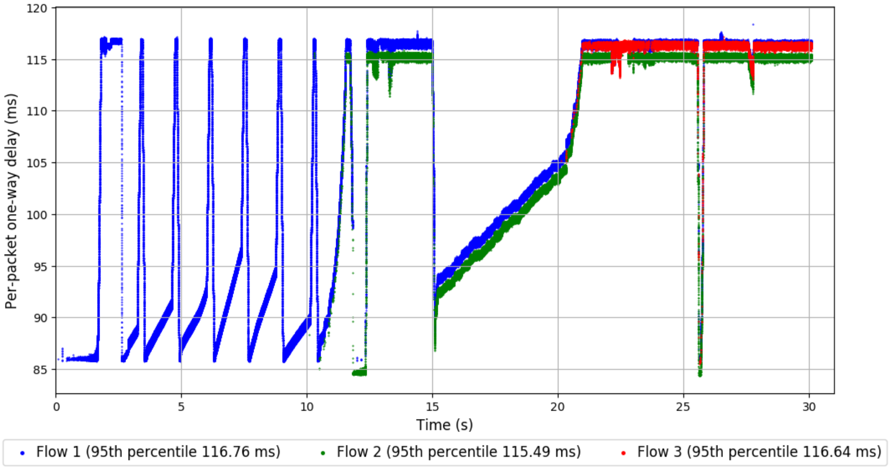




```
Run 3: Statistics of TCP BBR

Start at: 2019-01-25 02:01:49
End at: 2019-01-25 02:02:19
Local clock offset: -0.733 ms
Remote clock offset: 6.27 ms

# Below is generated by plot.py at 2019-01-25 03:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.64 Mbit/s
95th percentile per-packet one-way delay: 116.709 ms
Loss rate: 14.40%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 116.763 ms
Loss rate: 10.72%
-- Flow 2:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 115.487 ms
Loss rate: 13.55%
-- Flow 3:
Average throughput: 29.65 Mbit/s
95th percentile per-packet one-way delay: 116.636 ms
Loss rate: 32.48%
```

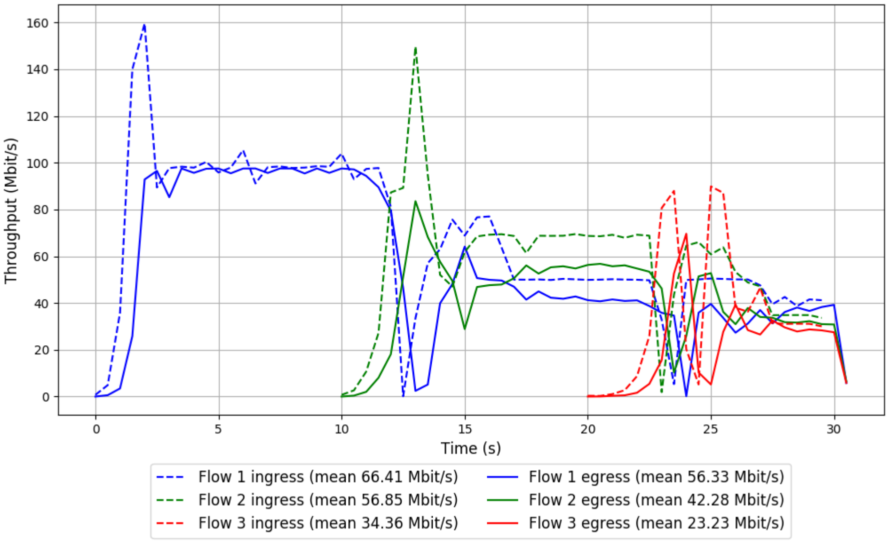
Run 3: Report of TCP BBR — Data Link

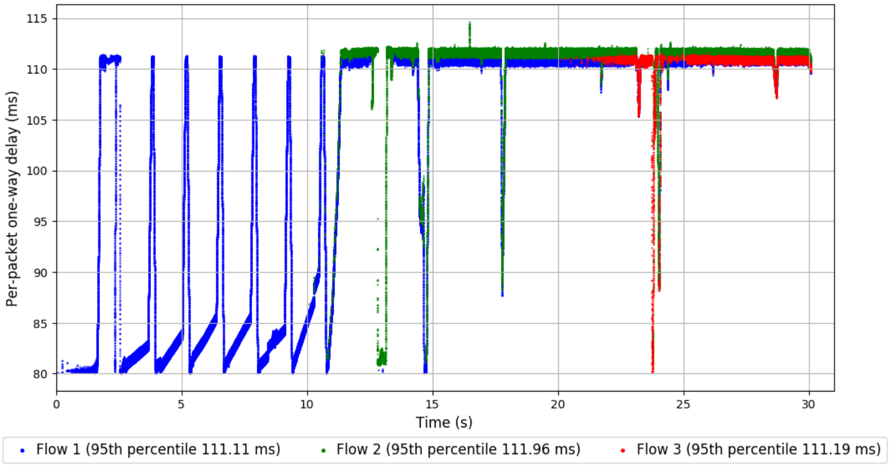




```
Run 4: Statistics of TCP BBR

Start at: 2019-01-25 02:28:34
End at: 2019-01-25 02:29:04
Local clock offset: -2.616 ms
Remote clock offset: 3.576 ms

# Below is generated by plot.py at 2019-01-25 03:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.22 Mbit/s
95th percentile per-packet one-way delay: 111.874 ms
Loss rate: 20.22%
-- Flow 1:
Average throughput: 56.33 Mbit/s
95th percentile per-packet one-way delay: 111.113 ms
Loss rate: 15.09%
-- Flow 2:
Average throughput: 42.28 Mbit/s
95th percentile per-packet one-way delay: 111.964 ms
Loss rate: 25.54%
-- Flow 3:
Average throughput: 23.23 Mbit/s
95th percentile per-packet one-way delay: 111.195 ms
Loss rate: 32.40%
```

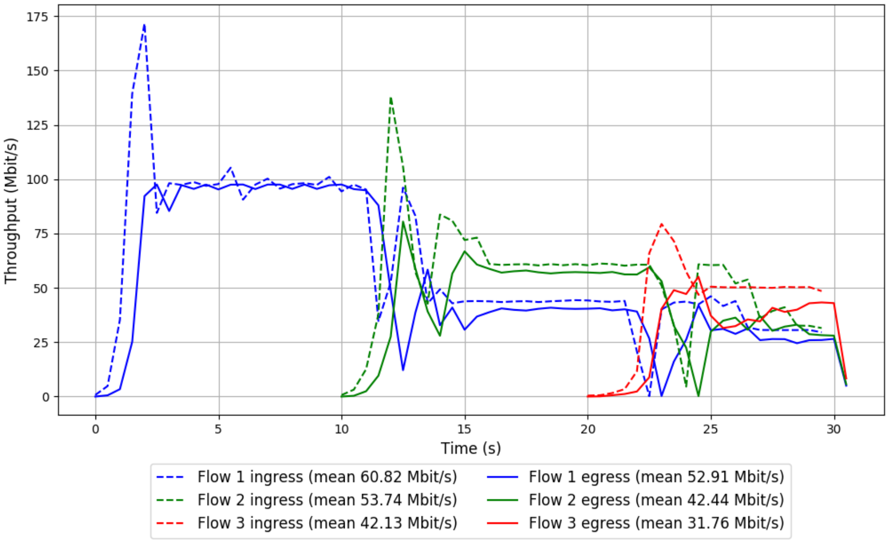
Run 4: Report of TCP BBR — Data Link

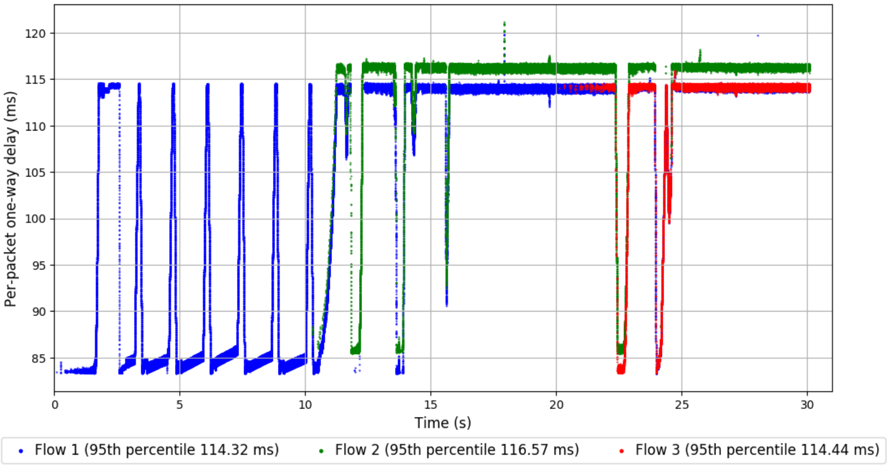




```
Run 5: Statistics of TCP BBR

Start at: 2019-01-25 02:55:17
End at: 2019-01-25 02:55:47
Local clock offset: -9.13 ms
Remote clock offset: 6.908 ms

# Below is generated by plot.py at 2019-01-25 03:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.71 Mbit/s
95th percentile per-packet one-way delay: 116.489 ms
Loss rate: 17.01%
-- Flow 1:
Average throughput: 52.91 Mbit/s
95th percentile per-packet one-way delay: 114.321 ms
Loss rate: 12.91%
-- Flow 2:
Average throughput: 42.44 Mbit/s
95th percentile per-packet one-way delay: 116.573 ms
Loss rate: 20.99%
-- Flow 3:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 114.439 ms
Loss rate: 24.61%
```

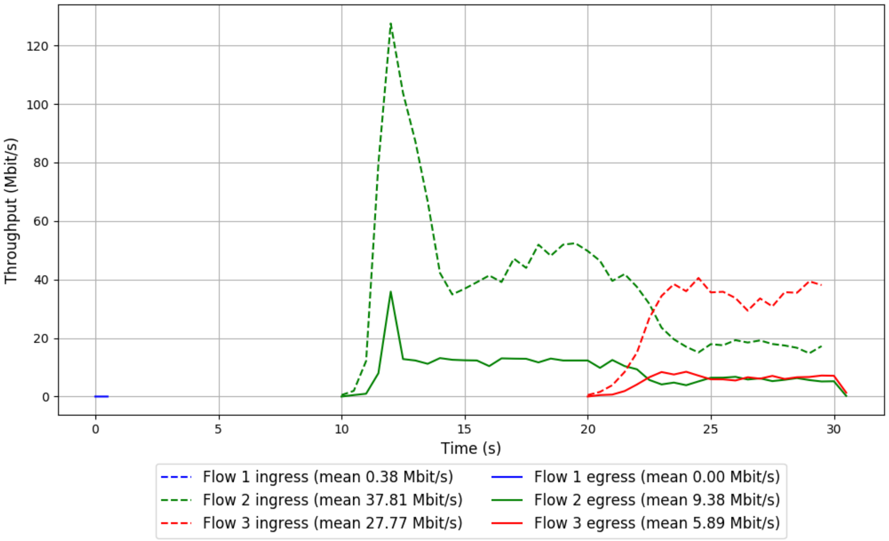
Run 5: Report of TCP BBR — Data Link

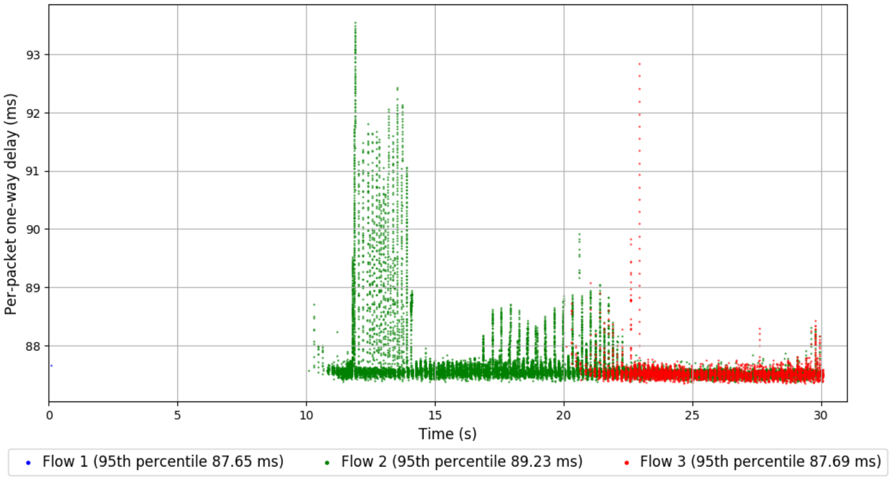




```
Run 1: Statistics of Copa

Start at: 2019-01-25 01:23:29
End at: 2019-01-25 01:23:59
Local clock offset: -8.916 ms
Remote clock offset: 7.5 ms

# Below is generated by plot.py at 2019-01-25 03:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 88.817 ms
Loss rate: 76.16%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 87.654 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 89.226 ms
Loss rate: 75.19%
-- Flow 3:
Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 87.685 ms
Loss rate: 78.80%
```

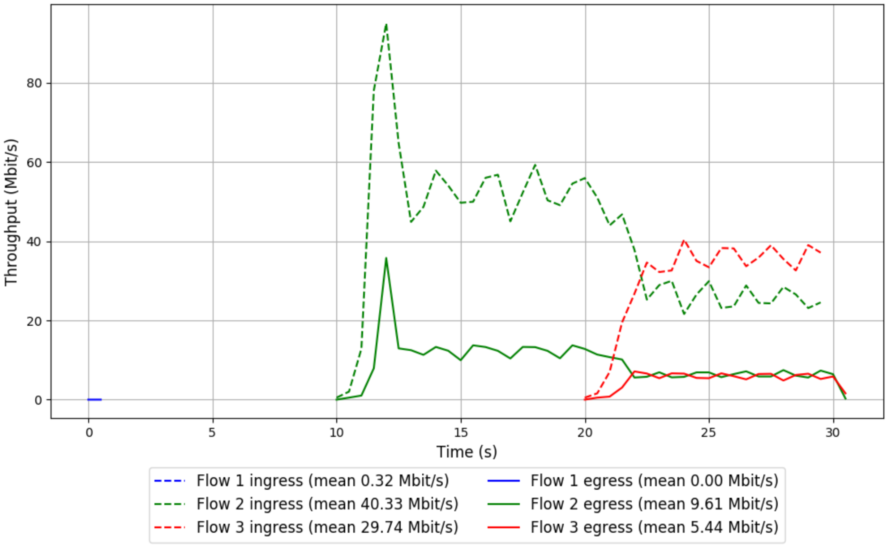
Run 1: Report of Copa — Data Link

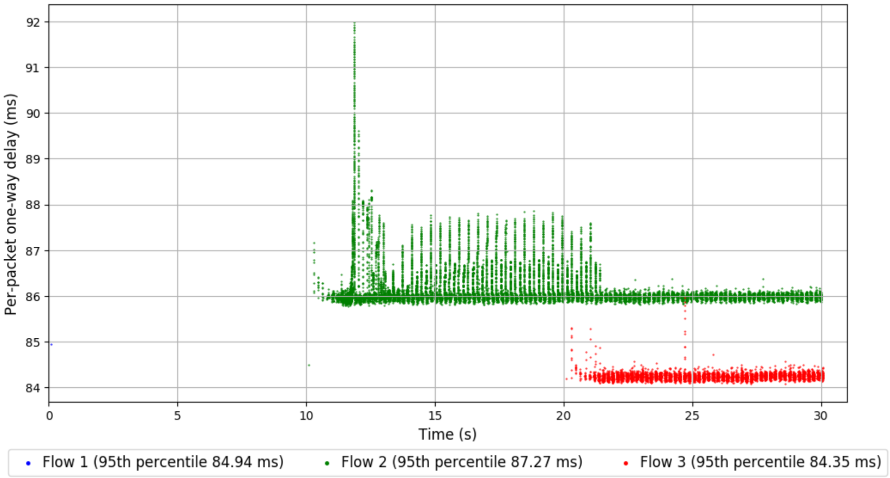




```
Run 2: Statistics of Copa

Start at: 2019-01-25 01:50:12
End at: 2019-01-25 01:50:42
Local clock offset: -1.134 ms
Remote clock offset: 6.303 ms

# Below is generated by plot.py at 2019-01-25 03:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 87.113 ms
Loss rate: 77.66%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 84.945 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 9.61 Mbit/s
95th percentile per-packet one-way delay: 87.274 ms
Loss rate: 76.16%
-- Flow 3:
Average throughput: 5.44 Mbit/s
95th percentile per-packet one-way delay: 84.348 ms
Loss rate: 81.70%
```

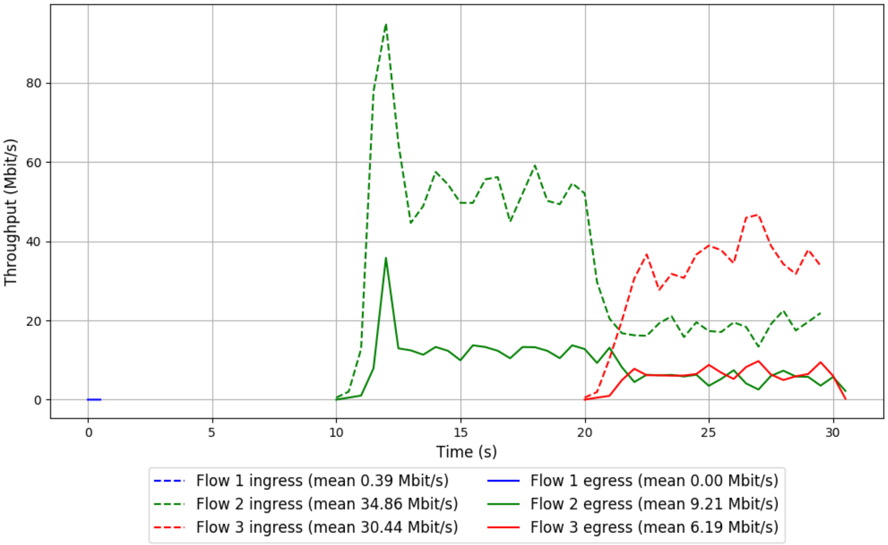
Run 2: Report of Copa — Data Link

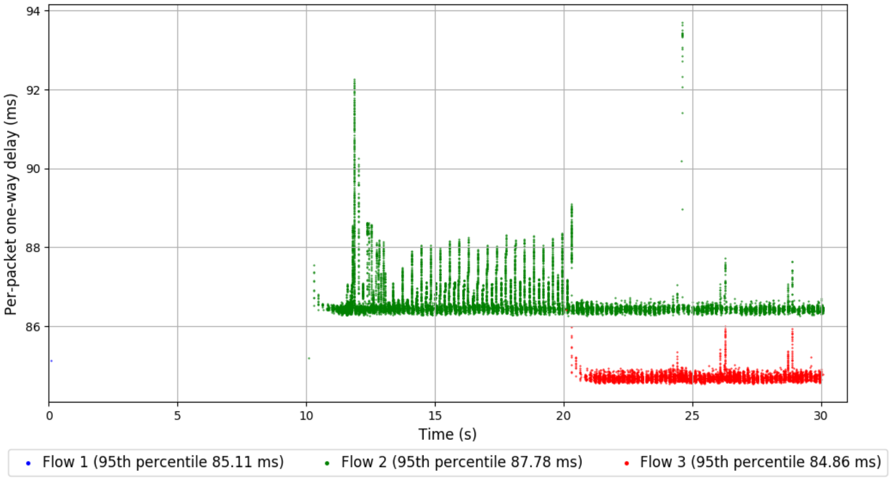




```
Run 3: Statistics of Copa

Start at: 2019-01-25 02:17:00
End at: 2019-01-25 02:17:30
Local clock offset: -3.159 ms
Remote clock offset: 5.961 ms

# Below is generated by plot.py at 2019-01-25 03:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 87.582 ms
Loss rate: 75.43%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 85.111 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 87.784 ms
Loss rate: 73.57%
-- Flow 3:
Average throughput: 6.19 Mbit/s
95th percentile per-packet one-way delay: 84.862 ms
Loss rate: 79.69%
```

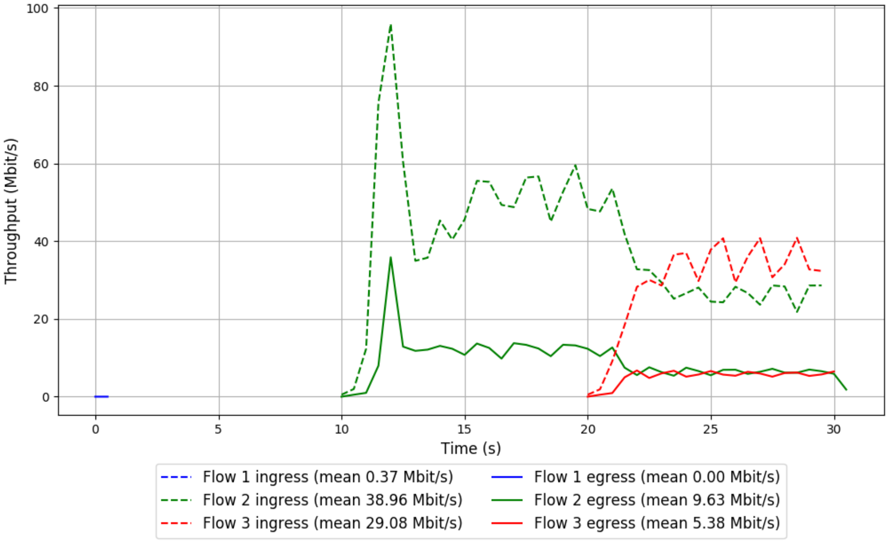
Run 3: Report of Copa — Data Link

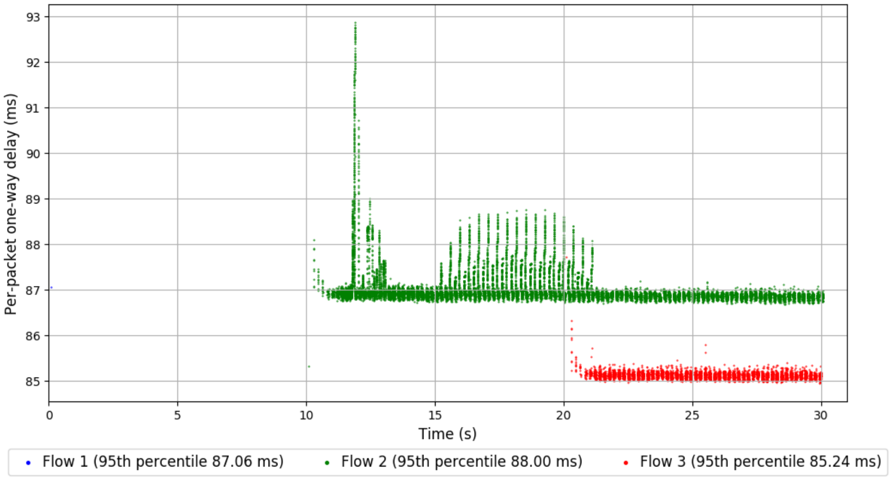




```
Run 4: Statistics of Copa

Start at: 2019-01-25 02:43:43
End at: 2019-01-25 02:44:13
Local clock offset: -6.995 ms
Remote clock offset: 9.324 ms

# Below is generated by plot.py at 2019-01-25 03:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.19 Mbit/s
95th percentile per-packet one-way delay: 87.812 ms
Loss rate: 76.96%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 87.056 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 9.63 Mbit/s
95th percentile per-packet one-way delay: 87.999 ms
Loss rate: 75.29%
-- Flow 3:
Average throughput: 5.38 Mbit/s
95th percentile per-packet one-way delay: 85.238 ms
Loss rate: 81.49%
```

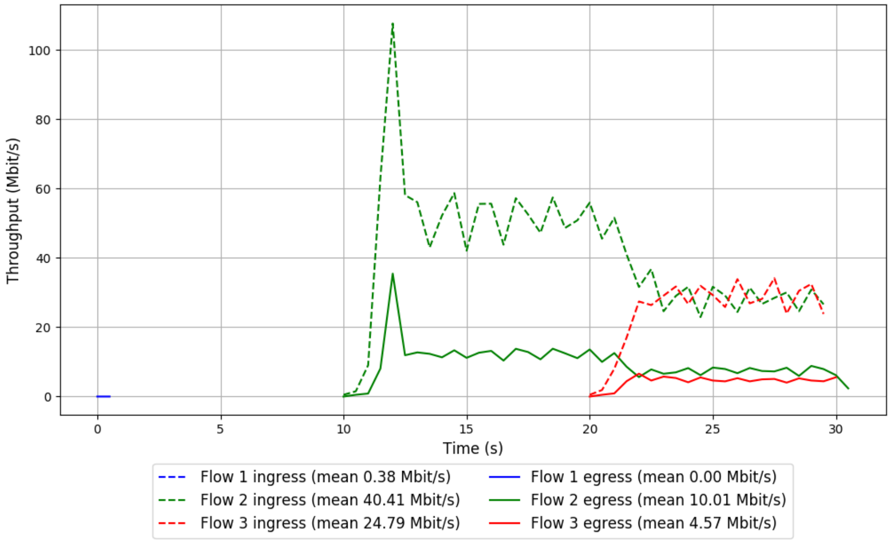
Run 4: Report of Copa — Data Link

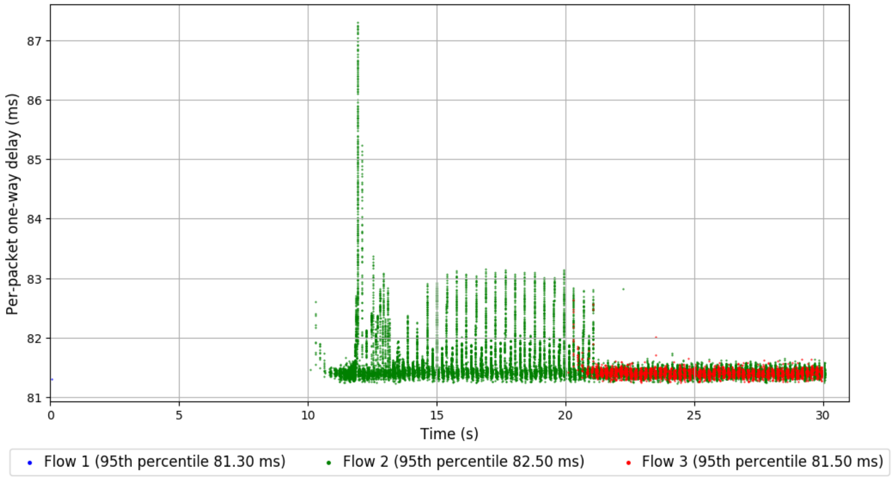




```
Run 5: Statistics of Copa

Start at: 2019-01-25 03:10:38
End at: 2019-01-25 03:11:08
Local clock offset: -8.291 ms
Remote clock offset: 3.106 ms

# Below is generated by plot.py at 2019-01-25 03:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.17 Mbit/s
95th percentile per-packet one-way delay: 82.379 ms
Loss rate: 76.71%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 81.299 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 10.01 Mbit/s
95th percentile per-packet one-way delay: 82.502 ms
Loss rate: 75.24%
-- Flow 3:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 81.496 ms
Loss rate: 81.55%
```

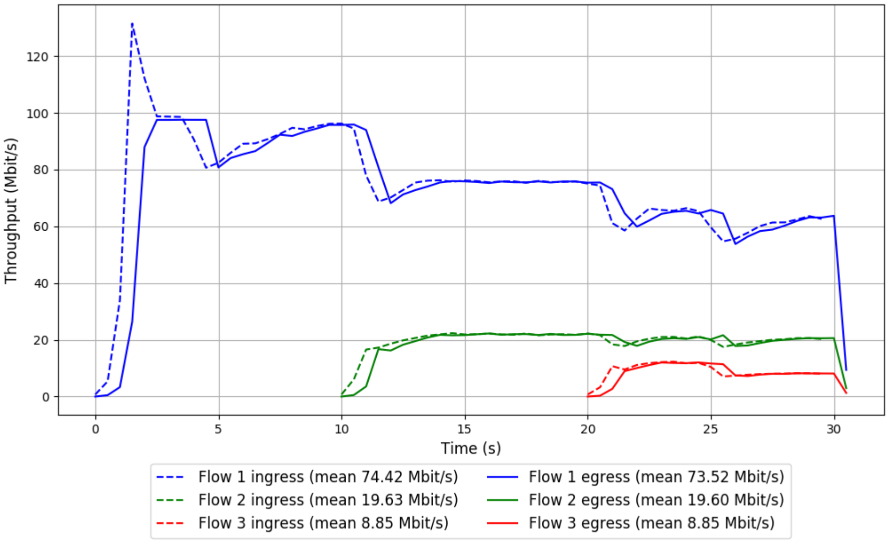
Run 5: Report of Copa — Data Link

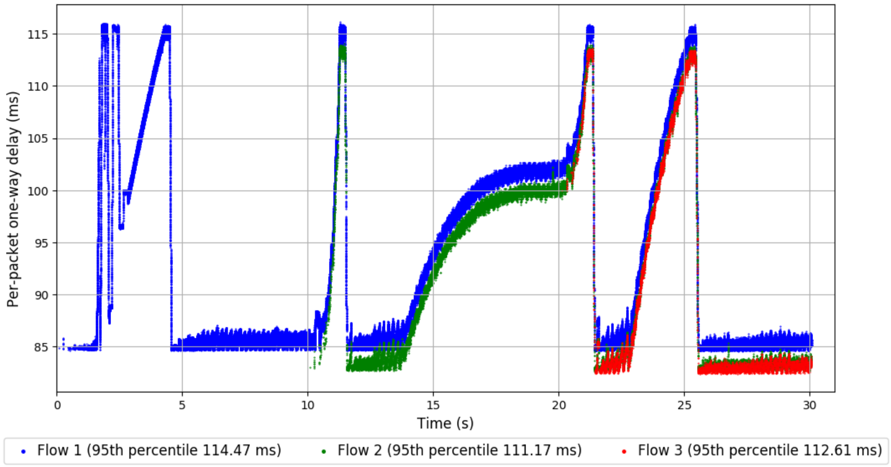




```
Run 1: Statistics of TCP Cubic

Start at: 2019-01-25 01:20:59
End at: 2019-01-25 01:21:29
Local clock offset: -7.833 ms
Remote clock offset: 5.153 ms

# Below is generated by plot.py at 2019-01-25 03:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.52 Mbit/s
95th percentile per-packet one-way delay: 113.824 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 73.52 Mbit/s
95th percentile per-packet one-way delay: 114.465 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 19.60 Mbit/s
95th percentile per-packet one-way delay: 111.170 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 8.85 Mbit/s
95th percentile per-packet one-way delay: 112.613 ms
Loss rate: 0.14%
```

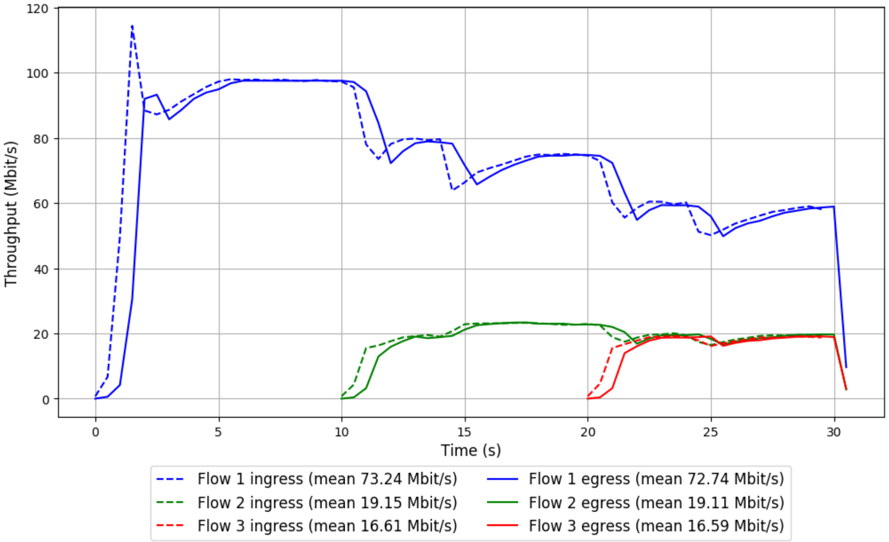
Run 1: Report of TCP Cubic — Data Link

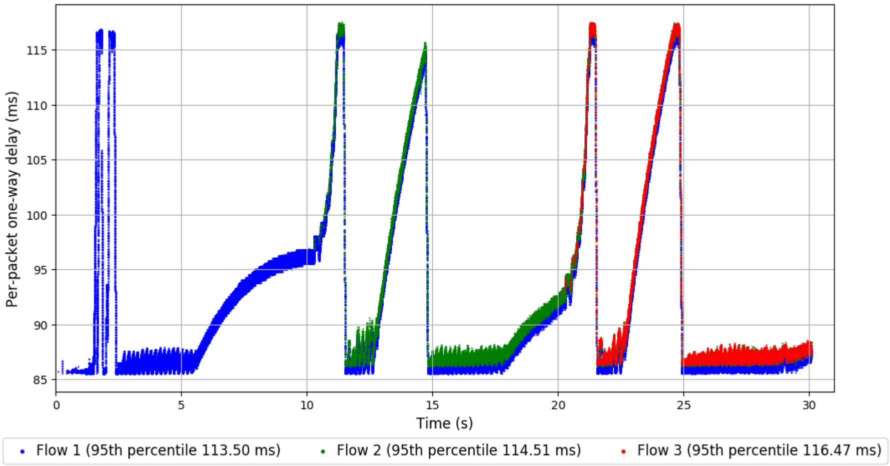




```
Run 2: Statistics of TCP Cubic

Start at: 2019-01-25 01:47:41
End at: 2019-01-25 01:48:11
Local clock offset: -2.237 ms
Remote clock offset: 5.912 ms

# Below is generated by plot.py at 2019-01-25 03:21:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.98 Mbit/s
95th percentile per-packet one-way delay: 113.998 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 72.74 Mbit/s
95th percentile per-packet one-way delay: 113.500 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 19.11 Mbit/s
95th percentile per-packet one-way delay: 114.510 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 16.59 Mbit/s
95th percentile per-packet one-way delay: 116.470 ms
Loss rate: 0.17%
```

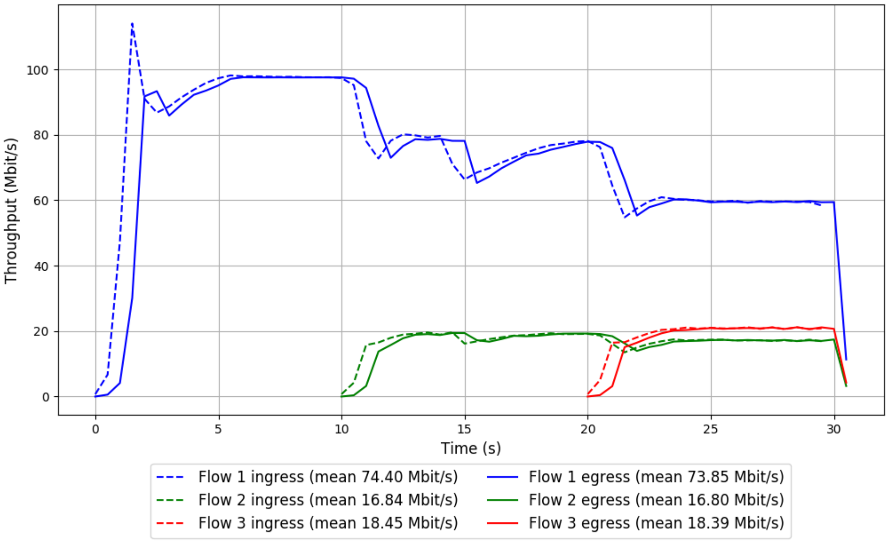
Run 2: Report of TCP Cubic — Data Link

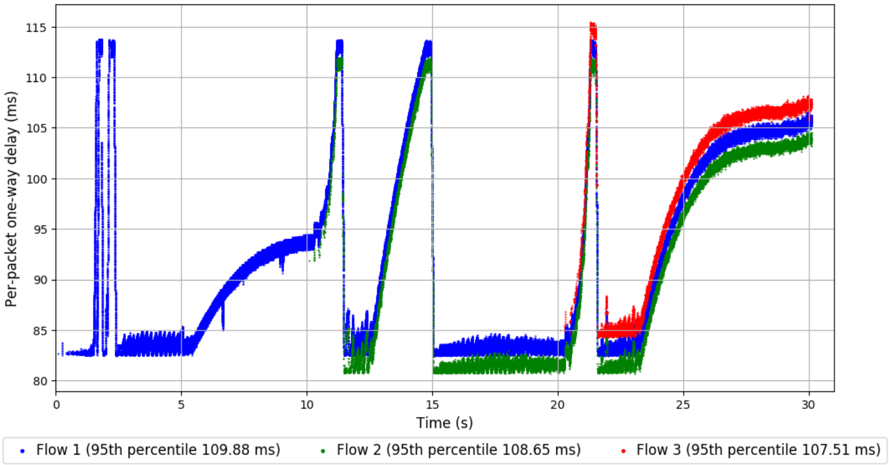




```
Run 3: Statistics of TCP Cubic

Start at: 2019-01-25 02:14:30
End at: 2019-01-25 02:15:00
Local clock offset: -3.011 ms
Remote clock offset: 2.135 ms

# Below is generated by plot.py at 2019-01-25 03:21:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.16 Mbit/s
95th percentile per-packet one-way delay: 109.259 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 73.85 Mbit/s
95th percentile per-packet one-way delay: 109.880 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 16.80 Mbit/s
95th percentile per-packet one-way delay: 108.652 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 18.39 Mbit/s
95th percentile per-packet one-way delay: 107.508 ms
Loss rate: 0.16%
```

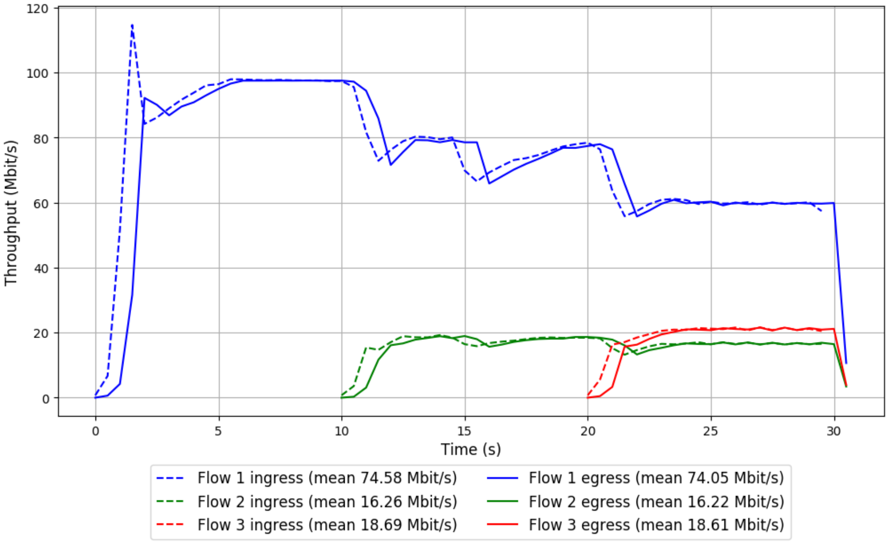
Run 3: Report of TCP Cubic — Data Link

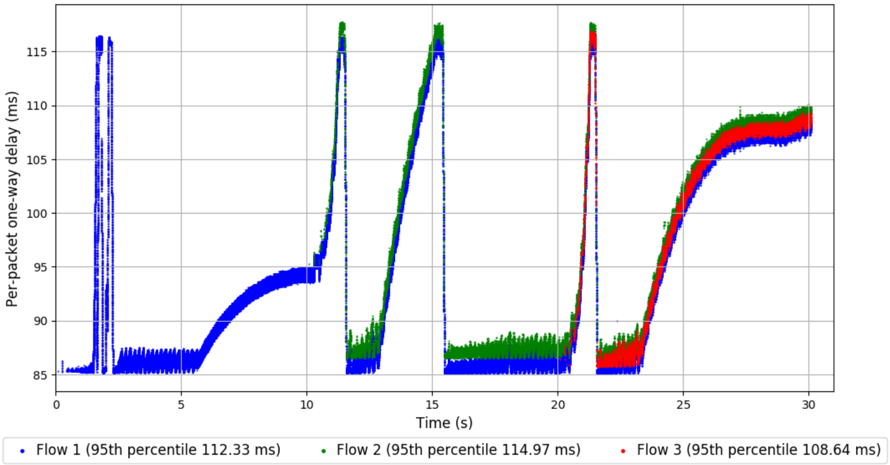




```
Run 4: Statistics of TCP Cubic

Start at: 2019-01-25 02:41:12
End at: 2019-01-25 02:41:42
Local clock offset: -6.626 ms
Remote clock offset: 8.925 ms

# Below is generated by plot.py at 2019-01-25 03:22:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.04 Mbit/s
95th percentile per-packet one-way delay: 112.562 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 74.05 Mbit/s
95th percentile per-packet one-way delay: 112.335 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 16.22 Mbit/s
95th percentile per-packet one-way delay: 114.973 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 18.61 Mbit/s
95th percentile per-packet one-way delay: 108.639 ms
Loss rate: 0.20%
```

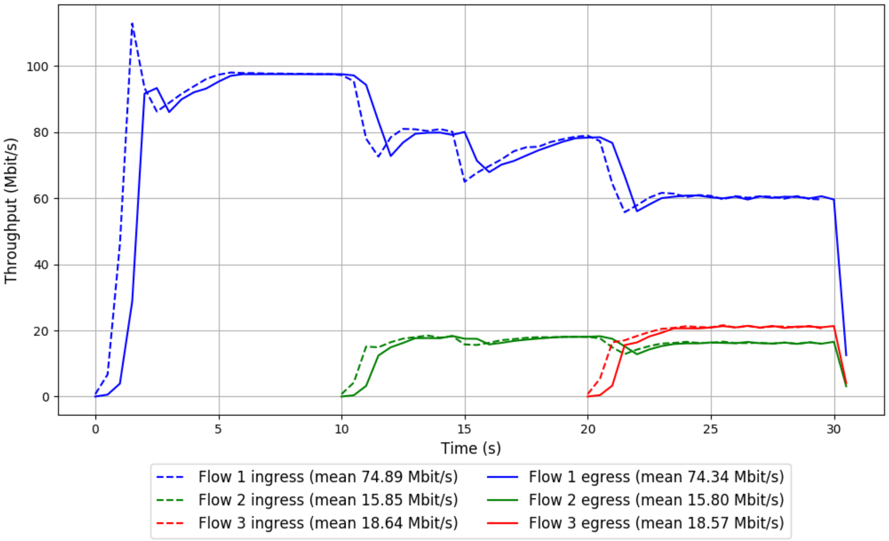
Run 4: Report of TCP Cubic — Data Link

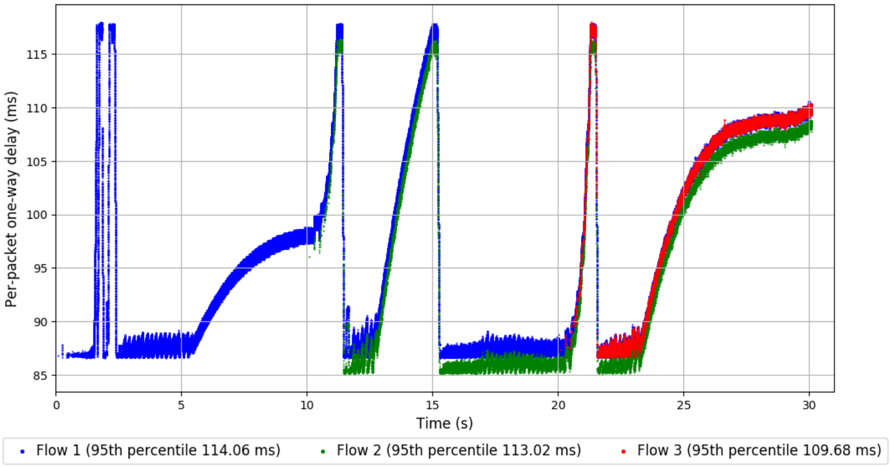




```
Run 5: Statistics of TCP Cubic

Start at: 2019-01-25 03:08:07
End at: 2019-01-25 03:08:37
Local clock offset: -7.666 ms
Remote clock offset: 9.178 ms

# Below is generated by plot.py at 2019-01-25 03:22:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.05 Mbit/s
95th percentile per-packet one-way delay: 113.561 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 74.34 Mbit/s
95th percentile per-packet one-way delay: 114.060 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 15.80 Mbit/s
95th percentile per-packet one-way delay: 113.023 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 18.57 Mbit/s
95th percentile per-packet one-way delay: 109.677 ms
Loss rate: 0.15%
```

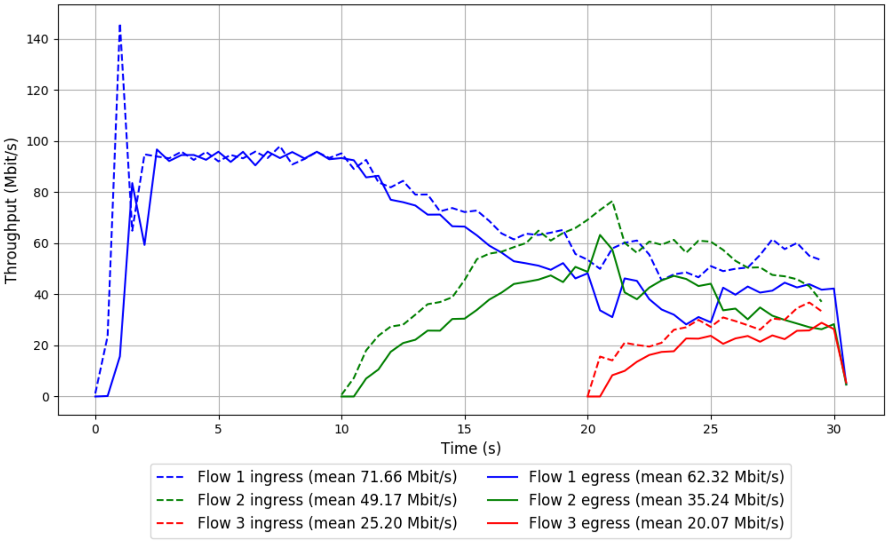
Run 5: Report of TCP Cubic — Data Link

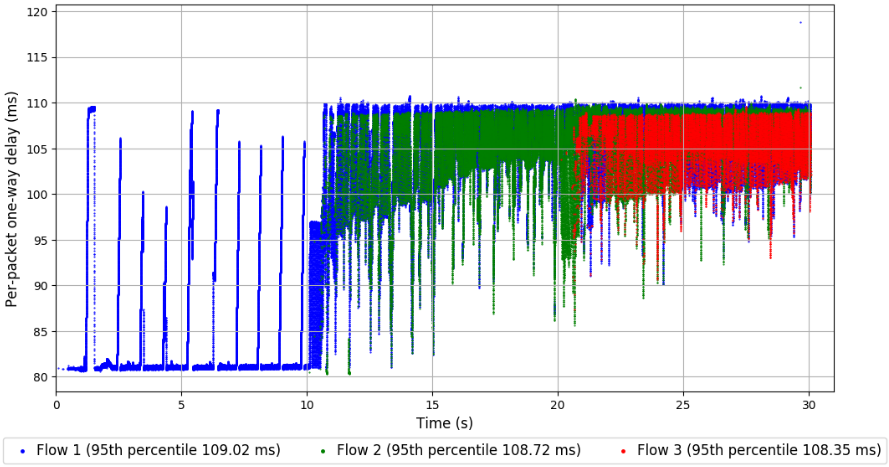




```
Run 1: Statistics of FillP

Start at: 2019-01-25 01:29:52
End at: 2019-01-25 01:30:22
Local clock offset: -9.384 ms
Remote clock offset: 1.302 ms

# Below is generated by plot.py at 2019-01-25 03:22:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 108.920 ms
Loss rate: 17.94%
-- Flow 1:
Average throughput: 62.32 Mbit/s
95th percentile per-packet one-way delay: 109.015 ms
Loss rate: 12.94%
-- Flow 2:
Average throughput: 35.24 Mbit/s
95th percentile per-packet one-way delay: 108.715 ms
Loss rate: 28.26%
-- Flow 3:
Average throughput: 20.07 Mbit/s
95th percentile per-packet one-way delay: 108.354 ms
Loss rate: 20.38%
```

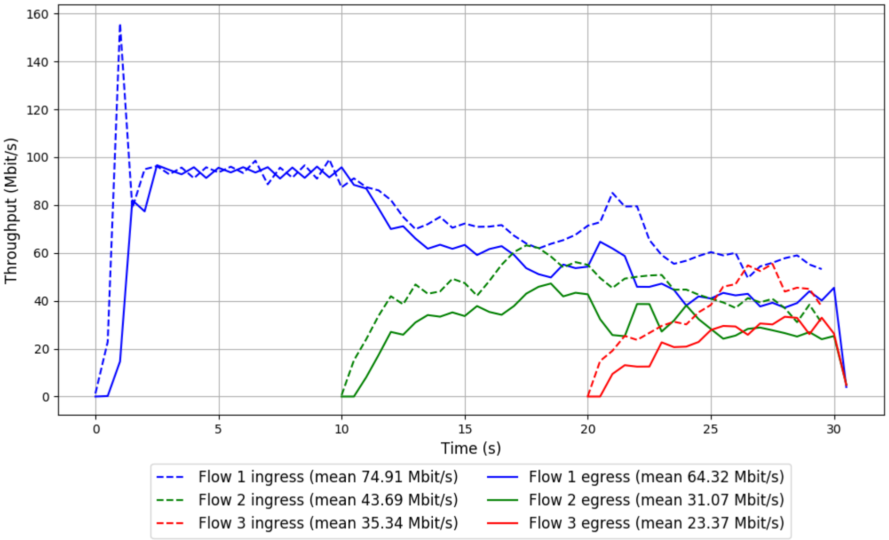
Run 1: Report of FillP — Data Link

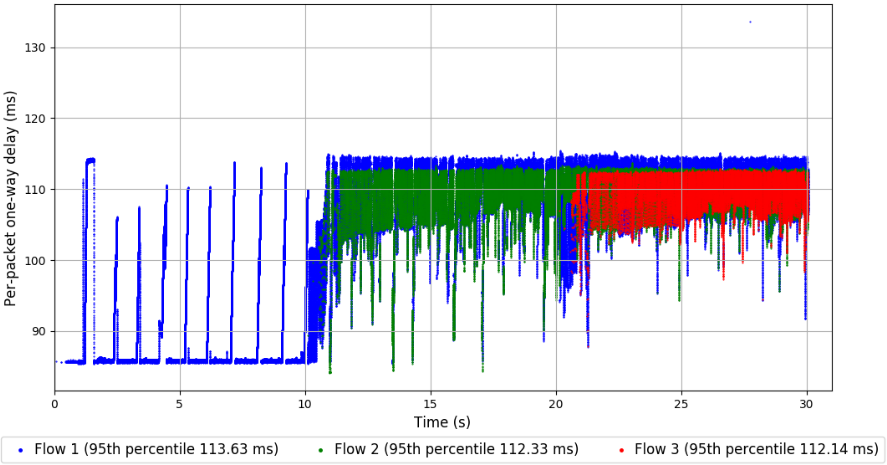




```
Run 2: Statistics of FillP

Start at: 2019-01-25 01:56:37
End at: 2019-01-25 01:57:07
Local clock offset: -0.403 ms
Remote clock offset: 6.149 ms

# Below is generated by plot.py at 2019-01-25 03:23:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.72 Mbit/s
95th percentile per-packet one-way delay: 113.472 ms
Loss rate: 19.79%
-- Flow 1:
Average throughput: 64.32 Mbit/s
95th percentile per-packet one-way delay: 113.627 ms
Loss rate: 14.08%
-- Flow 2:
Average throughput: 31.07 Mbit/s
95th percentile per-packet one-way delay: 112.331 ms
Loss rate: 28.83%
-- Flow 3:
Average throughput: 23.37 Mbit/s
95th percentile per-packet one-way delay: 112.138 ms
Loss rate: 33.89%
```

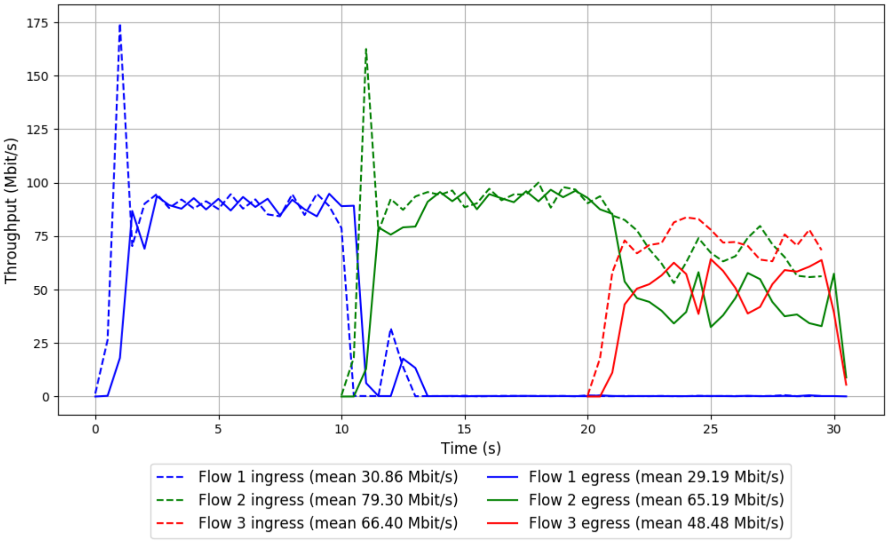
Run 2: Report of FillP — Data Link

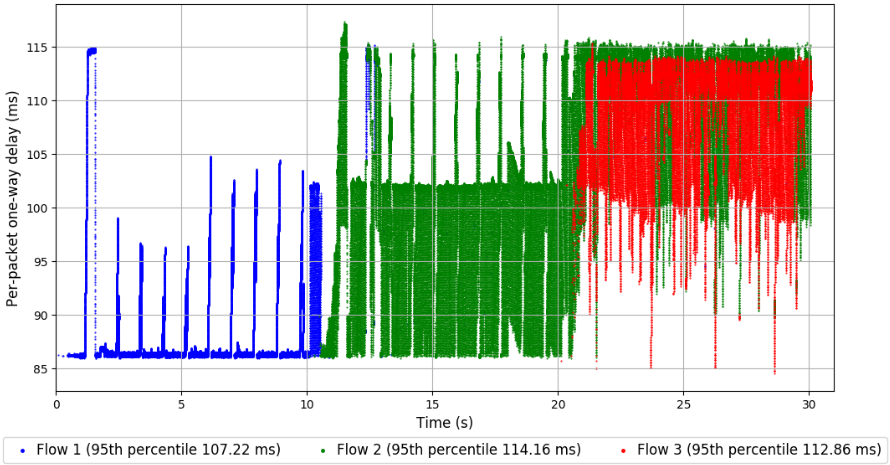




```
Run 3: Statistics of FillP

Start at: 2019-01-25 02:23:24
End at: 2019-01-25 02:23:54
Local clock offset: -3.28 ms
Remote clock offset: 6.724 ms

# Below is generated by plot.py at 2019-01-25 03:23:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.64 Mbit/s
95th percentile per-packet one-way delay: 113.987 ms
Loss rate: 15.98%
-- Flow 1:
Average throughput: 29.19 Mbit/s
95th percentile per-packet one-way delay: 107.224 ms
Loss rate: 5.34%
-- Flow 2:
Average throughput: 65.19 Mbit/s
95th percentile per-packet one-way delay: 114.155 ms
Loss rate: 17.67%
-- Flow 3:
Average throughput: 48.48 Mbit/s
95th percentile per-packet one-way delay: 112.857 ms
Loss rate: 26.80%
```

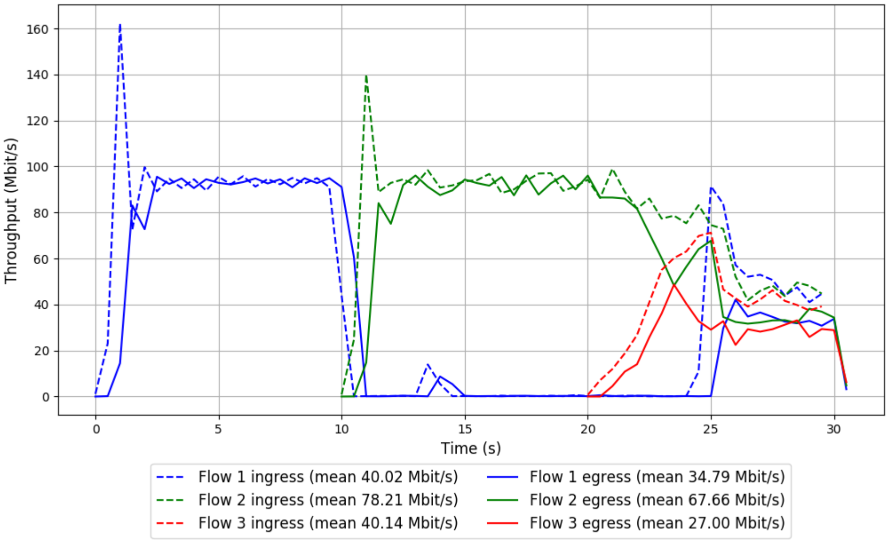
Run 3: Report of FillP — Data Link

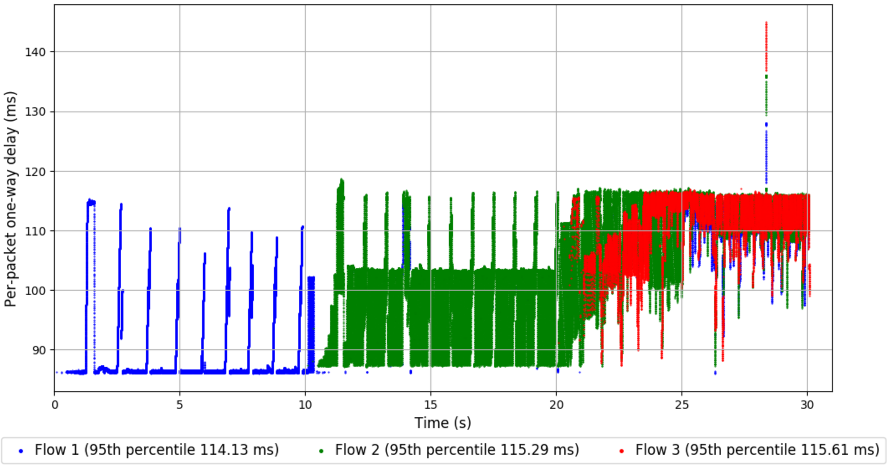




```
Run 4: Statistics of FillP

Start at: 2019-01-25 02:50:07
End at: 2019-01-25 02:50:37
Local clock offset: -8.617 ms
Remote clock offset: 9.116 ms

# Below is generated by plot.py at 2019-01-25 03:23:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.81 Mbit/s
95th percentile per-packet one-way delay: 115.130 ms
Loss rate: 15.67%
-- Flow 1:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 114.128 ms
Loss rate: 12.98%
-- Flow 2:
Average throughput: 67.66 Mbit/s
95th percentile per-packet one-way delay: 115.290 ms
Loss rate: 13.37%
-- Flow 3:
Average throughput: 27.00 Mbit/s
95th percentile per-packet one-way delay: 115.613 ms
Loss rate: 32.68%
```

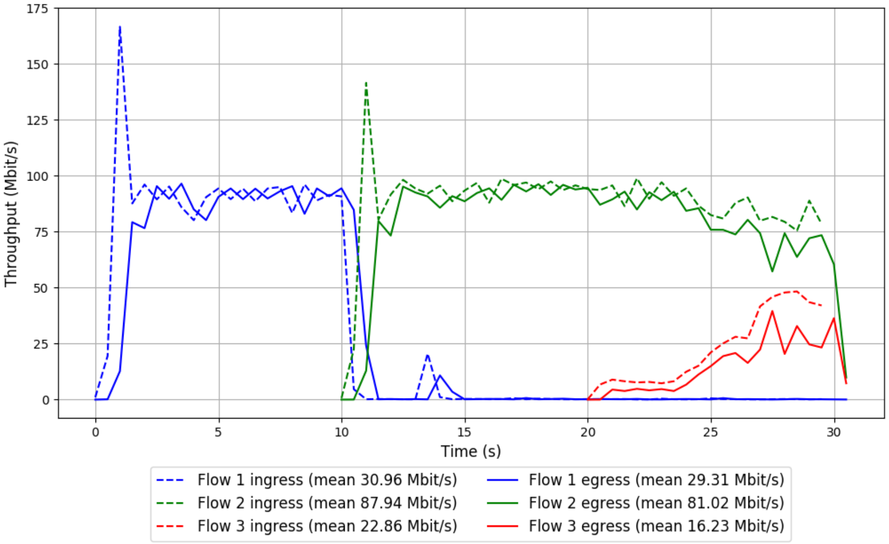
Run 4: Report of FillP — Data Link

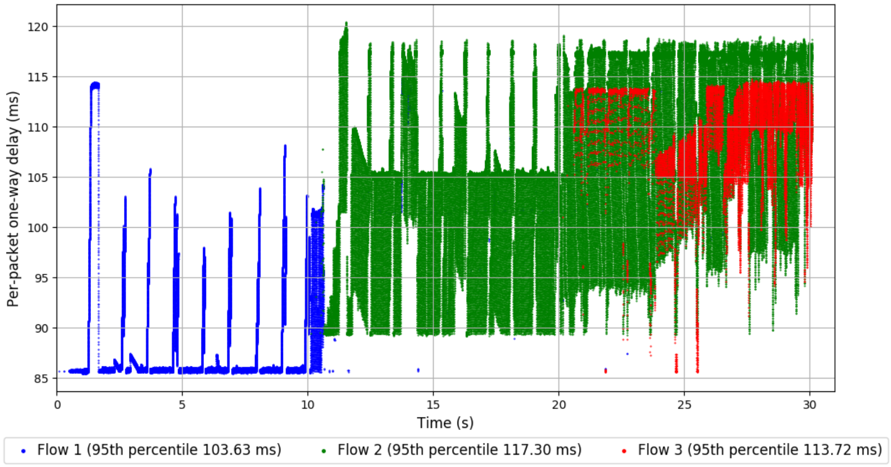




```
Run 5: Statistics of FillP

Start at: 2019-01-25 03:17:03
End at: 2019-01-25 03:17:33
Local clock offset: -8.239 ms
Remote clock offset: 9.23 ms

# Below is generated by plot.py at 2019-01-25 03:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.62 Mbit/s
95th percentile per-packet one-way delay: 117.157 ms
Loss rate: 8.61%
-- Flow 1:
Average throughput: 29.31 Mbit/s
95th percentile per-packet one-way delay: 103.632 ms
Loss rate: 5.26%
-- Flow 2:
Average throughput: 81.02 Mbit/s
95th percentile per-packet one-way delay: 117.299 ms
Loss rate: 7.75%
-- Flow 3:
Average throughput: 16.23 Mbit/s
95th percentile per-packet one-way delay: 113.723 ms
Loss rate: 28.96%
```

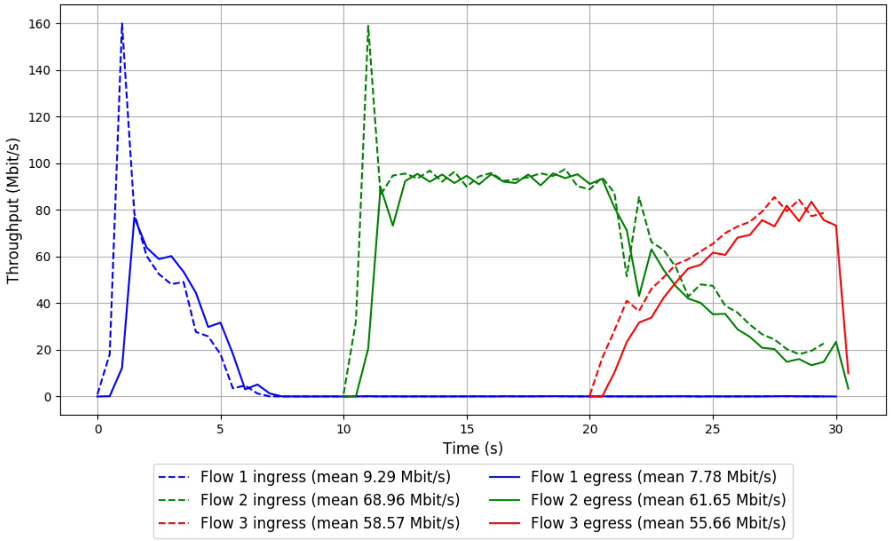
Run 5: Report of FillP — Data Link

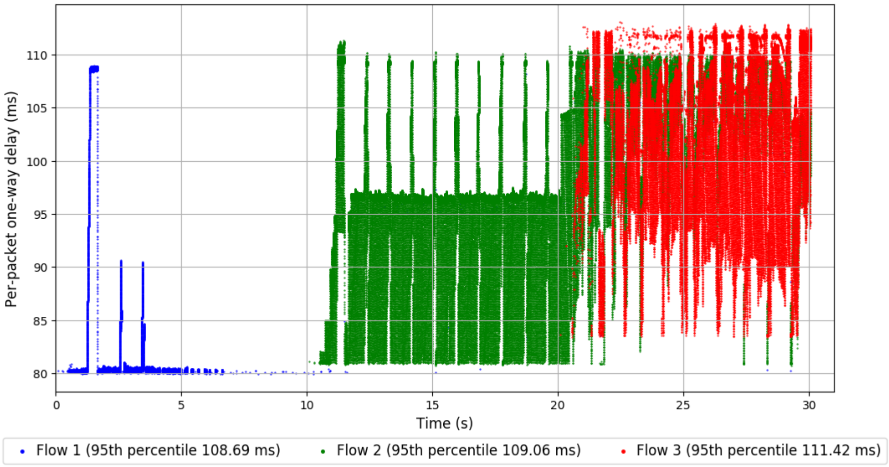




```
Run 1: Statistics of FillP-Sheep

Start at: 2019-01-25 01:09:39
End at: 2019-01-25 01:10:09
Local clock offset: -5.948 ms
Remote clock offset: 2.61 ms

# Below is generated by plot.py at 2019-01-25 03:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.27 Mbit/s
95th percentile per-packet one-way delay: 109.327 ms
Loss rate: 9.72%
-- Flow 1:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 108.687 ms
Loss rate: 16.17%
-- Flow 2:
Average throughput: 61.65 Mbit/s
95th percentile per-packet one-way delay: 109.062 ms
Loss rate: 10.50%
-- Flow 3:
Average throughput: 55.66 Mbit/s
95th percentile per-packet one-way delay: 111.419 ms
Loss rate: 4.84%
```

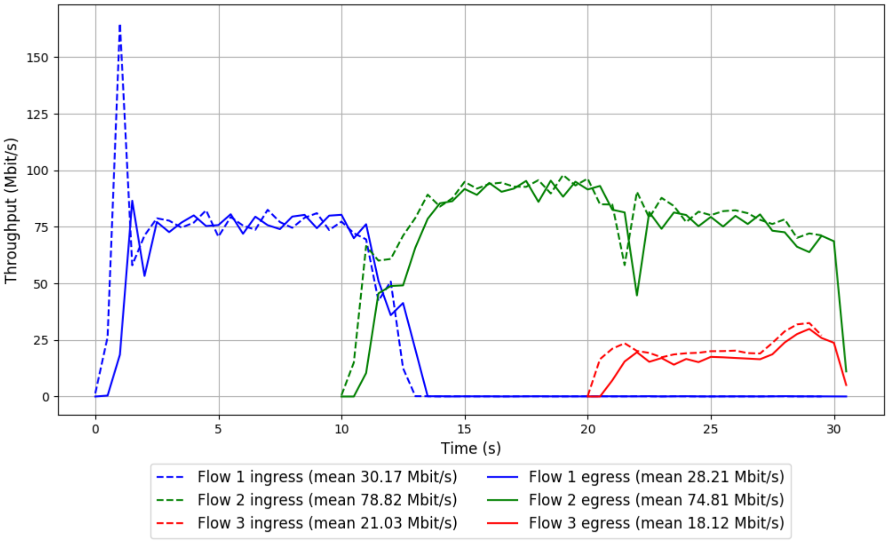
Run 1: Report of FillP-Sheep — Data Link

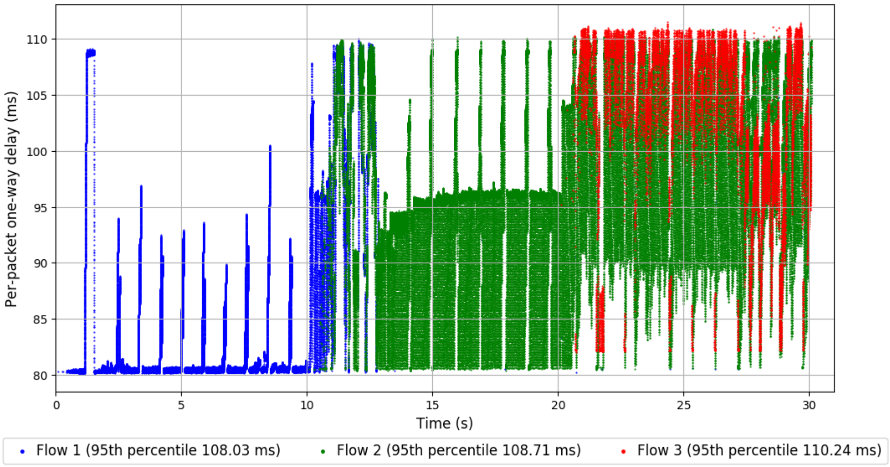




```
Run 2: Statistics of FillP-Sheep

Start at: 2019-01-25 01:36:22
End at: 2019-01-25 01:36:52
Local clock offset: -4.456 ms
Remote clock offset: 2.397 ms

# Below is generated by plot.py at 2019-01-25 03:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.04 Mbit/s
95th percentile per-packet one-way delay: 108.727 ms
Loss rate: 6.12%
-- Flow 1:
Average throughput: 28.21 Mbit/s
95th percentile per-packet one-way delay: 108.025 ms
Loss rate: 6.40%
-- Flow 2:
Average throughput: 74.81 Mbit/s
95th percentile per-packet one-way delay: 108.714 ms
Loss rate: 4.96%
-- Flow 3:
Average throughput: 18.12 Mbit/s
95th percentile per-packet one-way delay: 110.243 ms
Loss rate: 13.74%
```

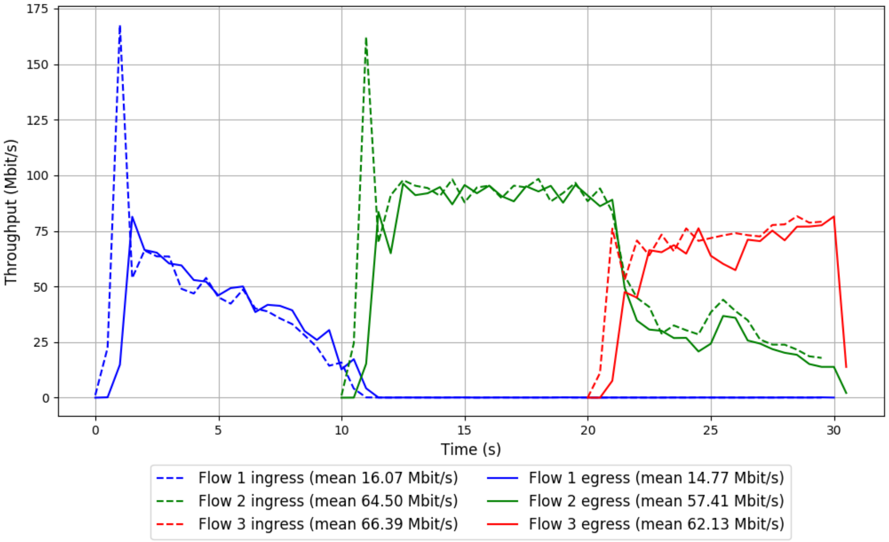
Run 2: Report of FillP-Sheep — Data Link

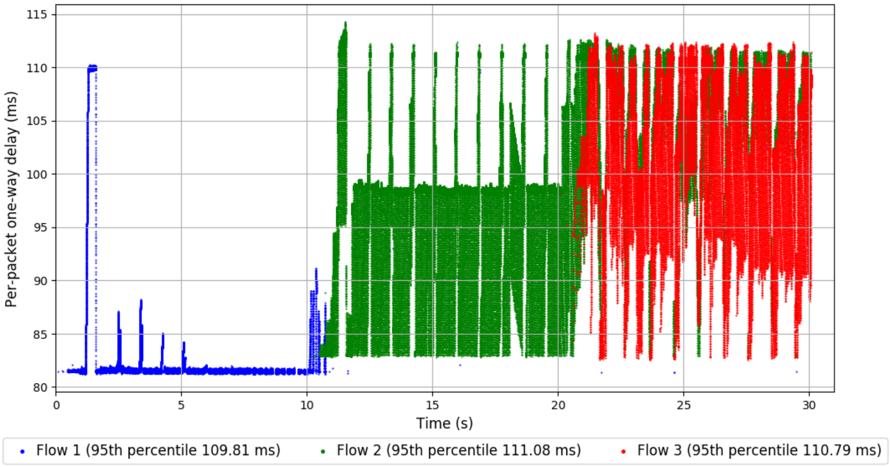




```
Run 3: Statistics of FillP-Sheep

Start at: 2019-01-25 02:03:09
End at: 2019-01-25 02:03:39
Local clock offset: -1.741 ms
Remote clock offset: 2.252 ms

# Below is generated by plot.py at 2019-01-25 03:23:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.50 Mbit/s
95th percentile per-packet one-way delay: 110.807 ms
Loss rate: 9.09%
-- Flow 1:
Average throughput: 14.77 Mbit/s
95th percentile per-packet one-way delay: 109.809 ms
Loss rate: 8.02%
-- Flow 2:
Average throughput: 57.41 Mbit/s
95th percentile per-packet one-way delay: 111.077 ms
Loss rate: 10.91%
-- Flow 3:
Average throughput: 62.13 Mbit/s
95th percentile per-packet one-way delay: 110.788 ms
Loss rate: 6.31%
```

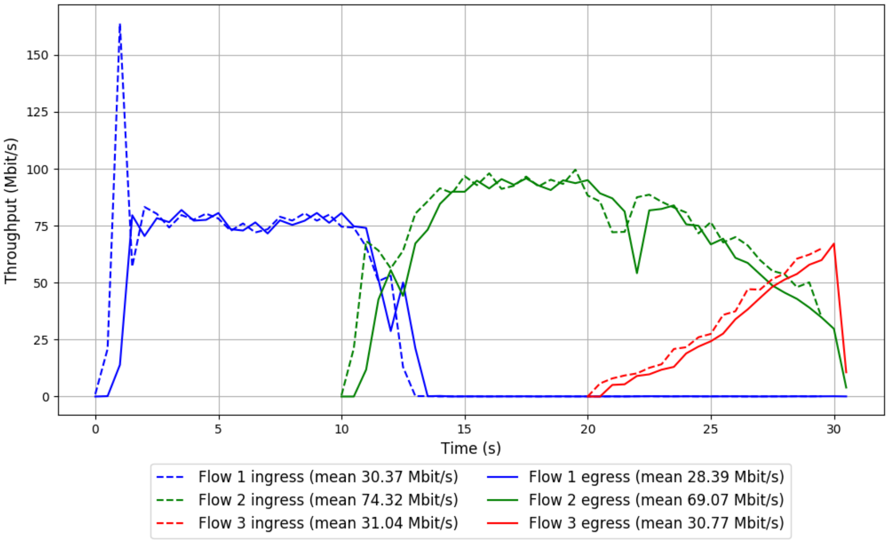
Run 3: Report of FillP-Sheep — Data Link

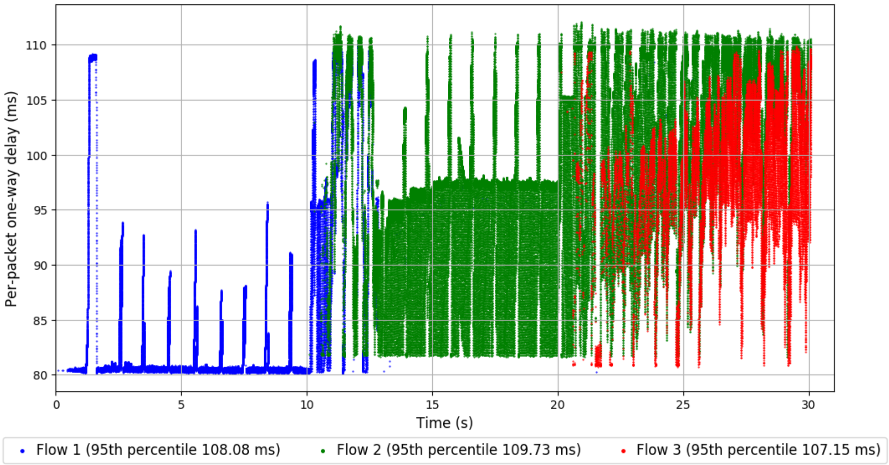




```
Run 4: Statistics of FillP-Sheep

Start at: 2019-01-25 02:29:53
End at: 2019-01-25 02:30:23
Local clock offset: -3.396 ms
Remote clock offset: 2.449 ms

# Below is generated by plot.py at 2019-01-25 03:24:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 109.160 ms
Loss rate: 6.09%
-- Flow 1:
Average throughput: 28.39 Mbit/s
95th percentile per-packet one-way delay: 108.078 ms
Loss rate: 6.45%
-- Flow 2:
Average throughput: 69.07 Mbit/s
95th percentile per-packet one-way delay: 109.735 ms
Loss rate: 6.96%
-- Flow 3:
Average throughput: 30.77 Mbit/s
95th percentile per-packet one-way delay: 107.152 ms
Loss rate: 0.87%
```

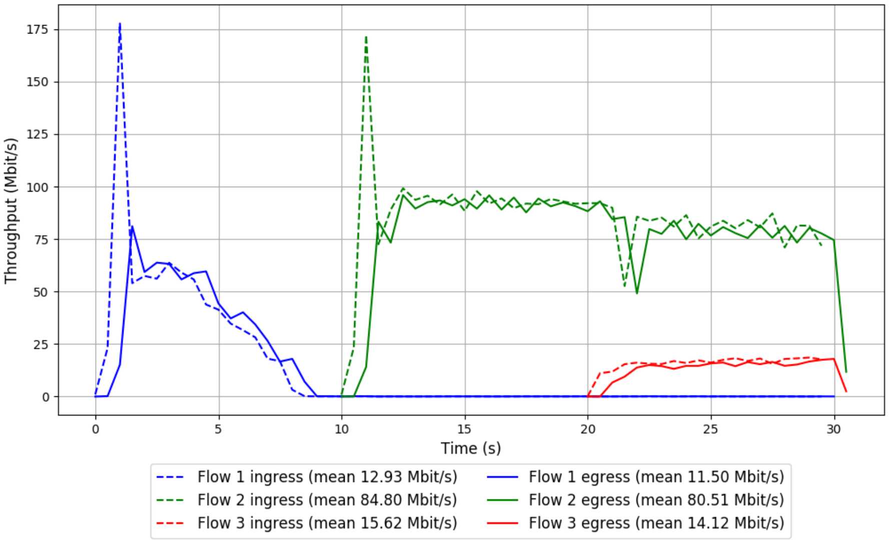
Run 4: Report of FillP-Sheep — Data Link

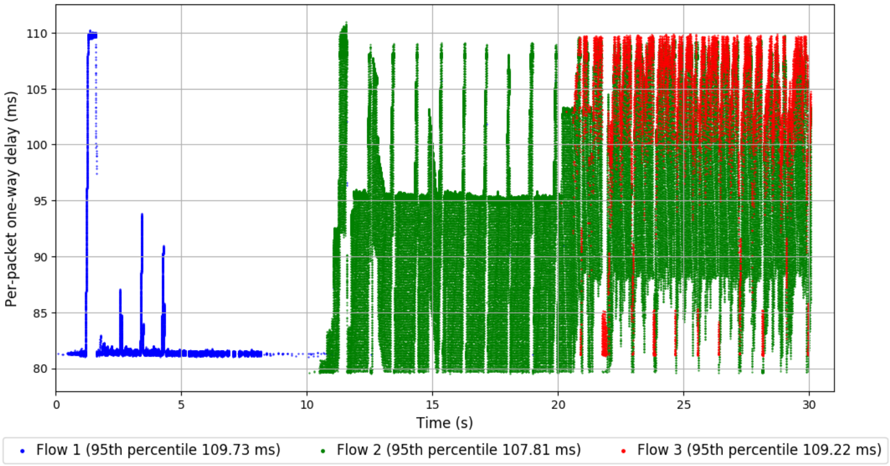




```
Run 5: Statistics of FillP-Sheep

Start at: 2019-01-25 02:56:36
End at: 2019-01-25 02:57:06
Local clock offset: -9.227 ms
Remote clock offset: 3.071 ms

# Below is generated by plot.py at 2019-01-25 03:24:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.72 Mbit/s
95th percentile per-packet one-way delay: 107.973 ms
Loss rate: 6.31%
-- Flow 1:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 109.729 ms
Loss rate: 11.01%
-- Flow 2:
Average throughput: 80.51 Mbit/s
95th percentile per-packet one-way delay: 107.805 ms
Loss rate: 4.95%
-- Flow 3:
Average throughput: 14.12 Mbit/s
95th percentile per-packet one-way delay: 109.222 ms
Loss rate: 9.54%
```

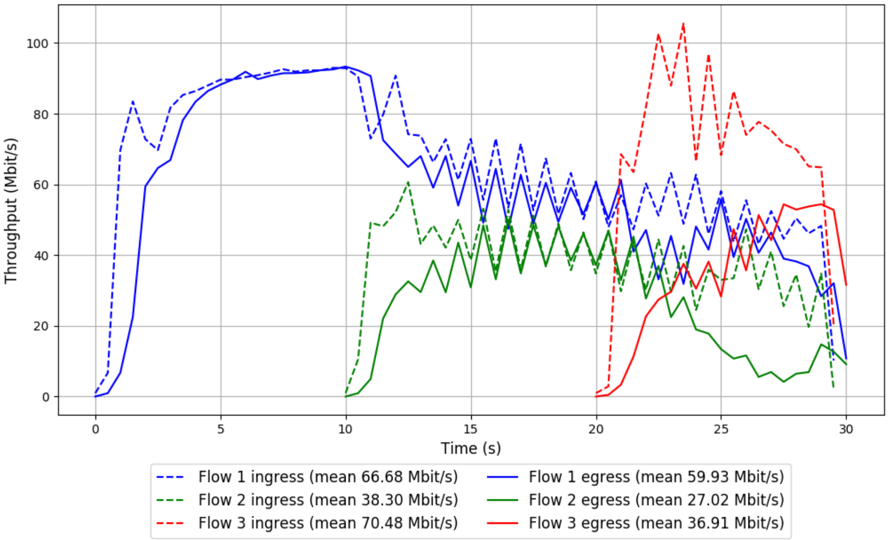
Run 5: Report of FillP-Sheep — Data Link

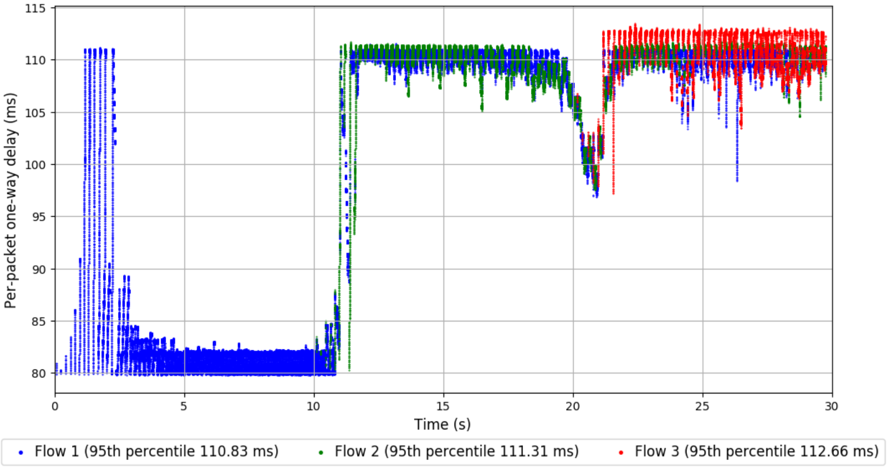




```
Run 1: Statistics of Indigo

Start at: 2019-01-25 01:24:43
End at: 2019-01-25 01:25:13
Local clock offset: -8.249 ms
Remote clock offset: 2.418 ms

# Below is generated by plot.py at 2019-01-25 03:24:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.58 Mbit/s
95th percentile per-packet one-way delay: 112.043 ms
Loss rate: 21.77%
-- Flow 1:
Average throughput: 59.93 Mbit/s
95th percentile per-packet one-way delay: 110.833 ms
Loss rate: 10.03%
-- Flow 2:
Average throughput: 27.02 Mbit/s
95th percentile per-packet one-way delay: 111.311 ms
Loss rate: 29.35%
-- Flow 3:
Average throughput: 36.91 Mbit/s
95th percentile per-packet one-way delay: 112.664 ms
Loss rate: 47.60%
```

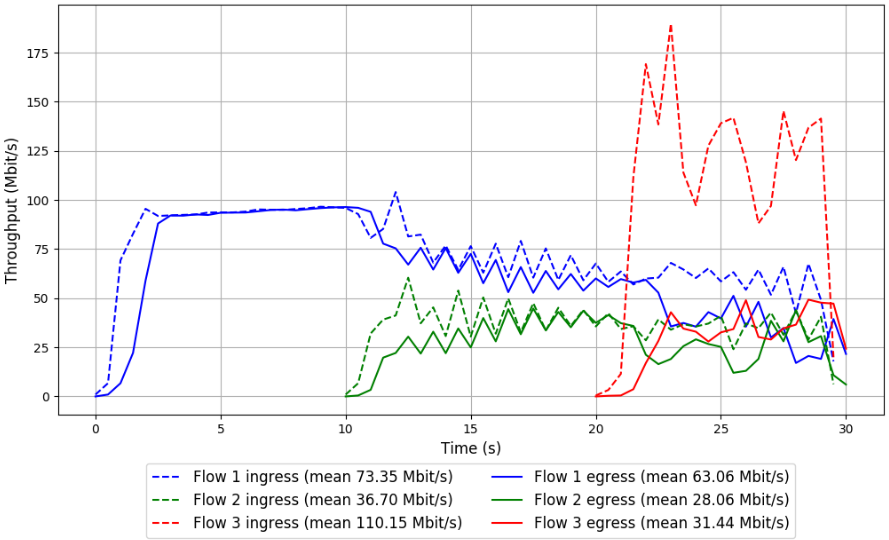
Run 1: Report of Indigo — Data Link

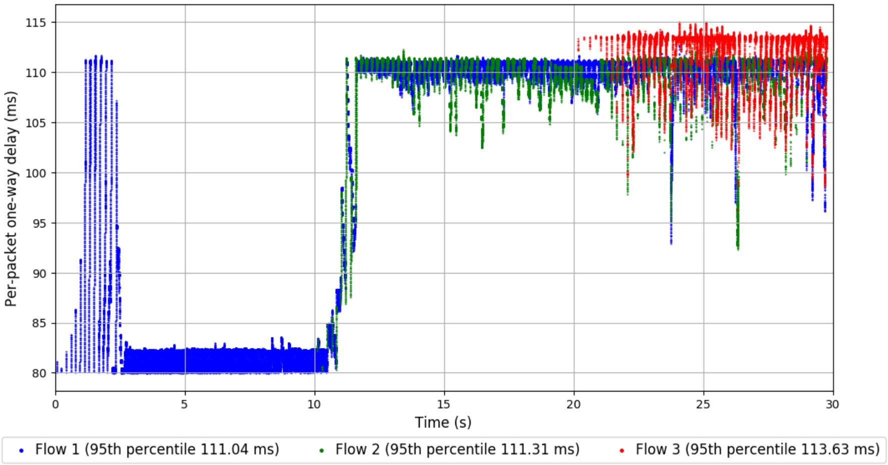




```
Run 2: Statistics of Indigo

Start at: 2019-01-25 01:51:26
End at: 2019-01-25 01:51:56
Local clock offset: -0.898 ms
Remote clock offset: 2.297 ms

# Below is generated by plot.py at 2019-01-25 03:24:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.69 Mbit/s
95th percentile per-packet one-way delay: 113.350 ms
Loss rate: 31.06%
-- Flow 1:
Average throughput: 63.06 Mbit/s
95th percentile per-packet one-way delay: 111.036 ms
Loss rate: 13.94%
-- Flow 2:
Average throughput: 28.06 Mbit/s
95th percentile per-packet one-way delay: 111.313 ms
Loss rate: 23.43%
-- Flow 3:
Average throughput: 31.44 Mbit/s
95th percentile per-packet one-way delay: 113.633 ms
Loss rate: 71.46%
```

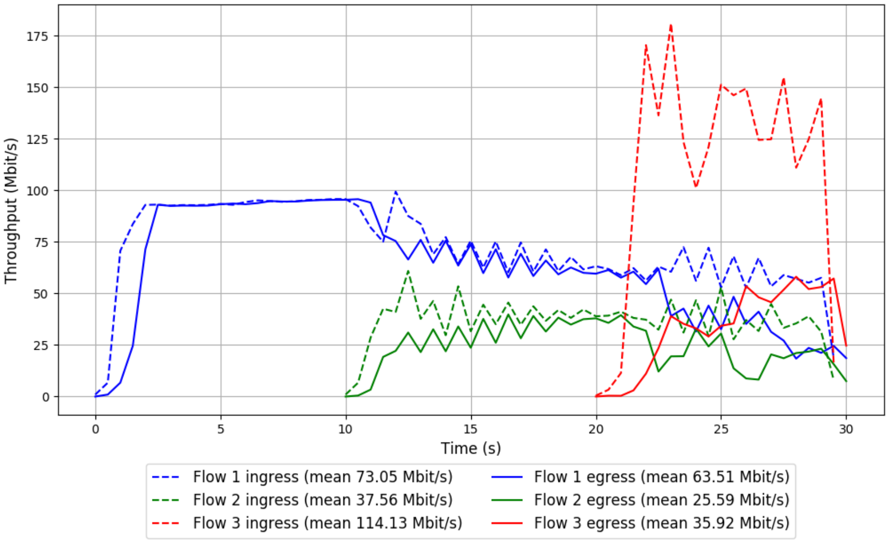
Run 2: Report of Indigo — Data Link

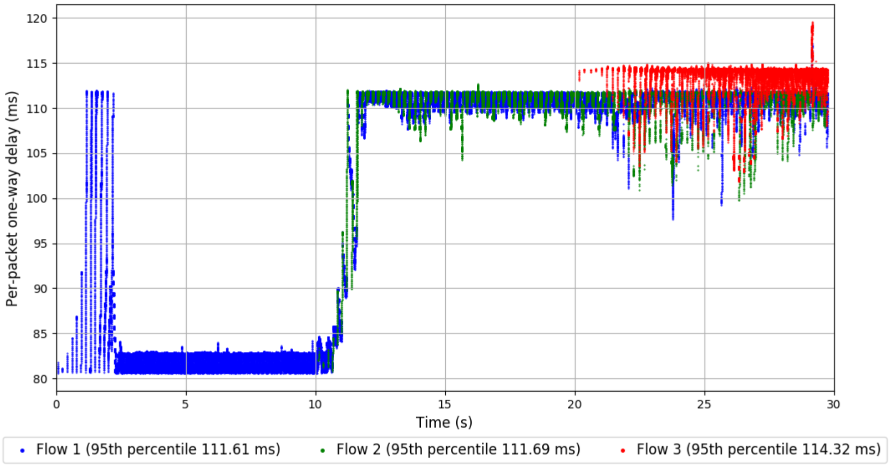




```
Run 3: Statistics of Indigo

Start at: 2019-01-25 02:18:14
End at: 2019-01-25 02:18:44
Local clock offset: -3.152 ms
Remote clock offset: 2.232 ms

# Below is generated by plot.py at 2019-01-25 03:24:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 114.142 ms
Loss rate: 31.65%
-- Flow 1:
Average throughput: 63.51 Mbit/s
95th percentile per-packet one-way delay: 111.606 ms
Loss rate: 12.97%
-- Flow 2:
Average throughput: 25.59 Mbit/s
95th percentile per-packet one-way delay: 111.693 ms
Loss rate: 31.76%
-- Flow 3:
Average throughput: 35.92 Mbit/s
95th percentile per-packet one-way delay: 114.321 ms
Loss rate: 68.53%
```

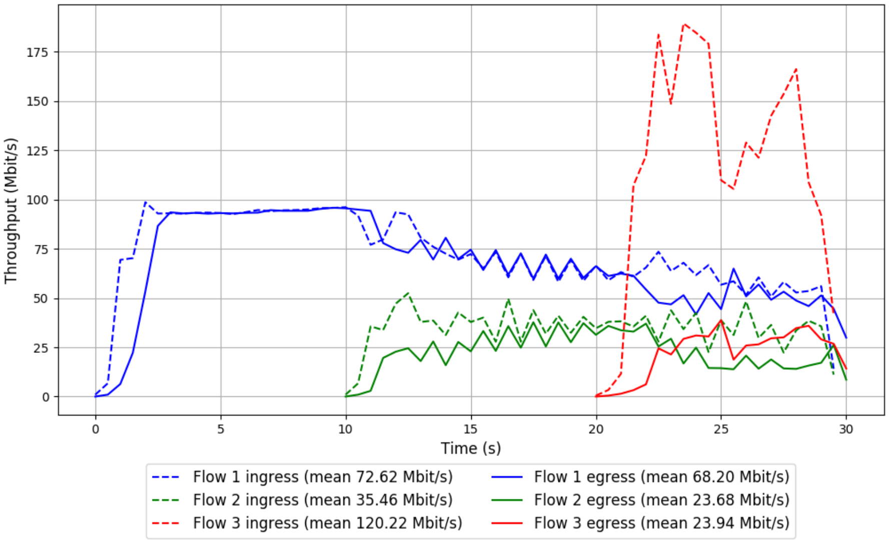
Run 3: Report of Indigo — Data Link

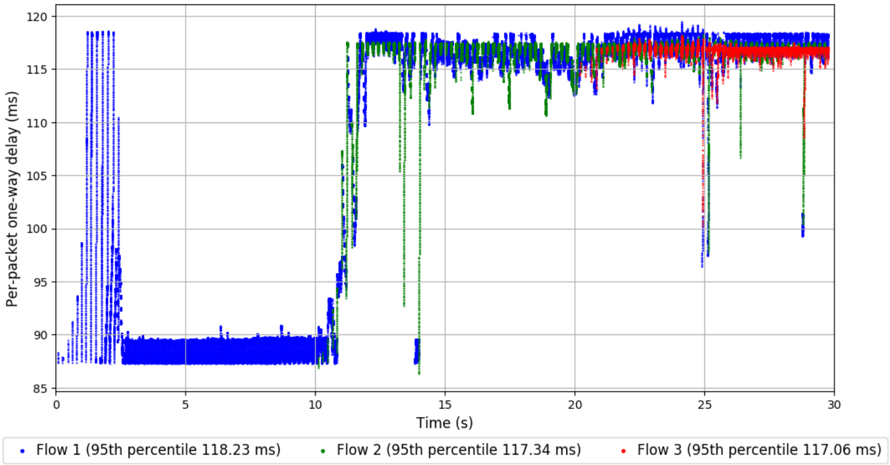




```
Run 4: Statistics of Indigo

Start at: 2019-01-25 02:44:57
End at: 2019-01-25 02:45:27
Local clock offset: -7.955 ms
Remote clock offset: 9.055 ms

# Below is generated by plot.py at 2019-01-25 03:24:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.50 Mbit/s
95th percentile per-packet one-way delay: 118.139 ms
Loss rate: 32.02%
-- Flow 1:
Average throughput: 68.20 Mbit/s
95th percentile per-packet one-way delay: 118.230 ms
Loss rate: 6.00%
-- Flow 2:
Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 117.344 ms
Loss rate: 33.13%
-- Flow 3:
Average throughput: 23.94 Mbit/s
95th percentile per-packet one-way delay: 117.064 ms
Loss rate: 80.08%
```

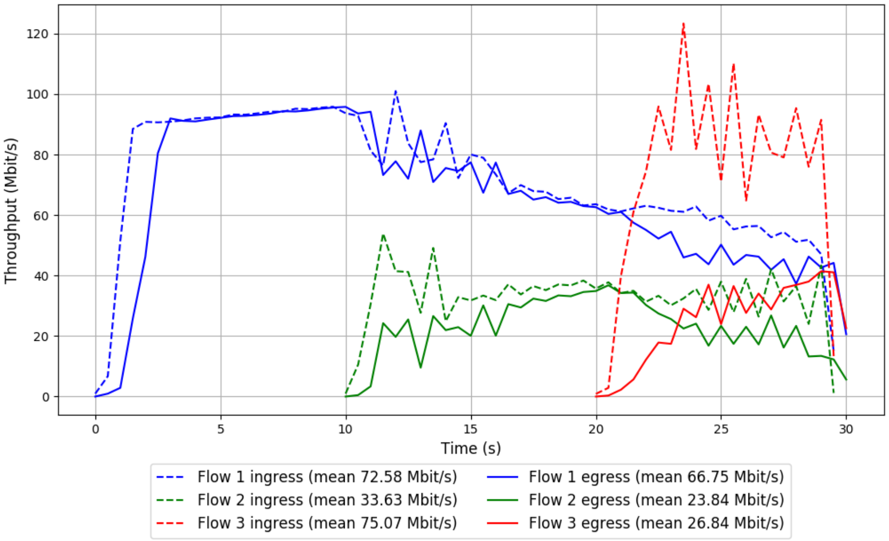
Run 4: Report of Indigo — Data Link

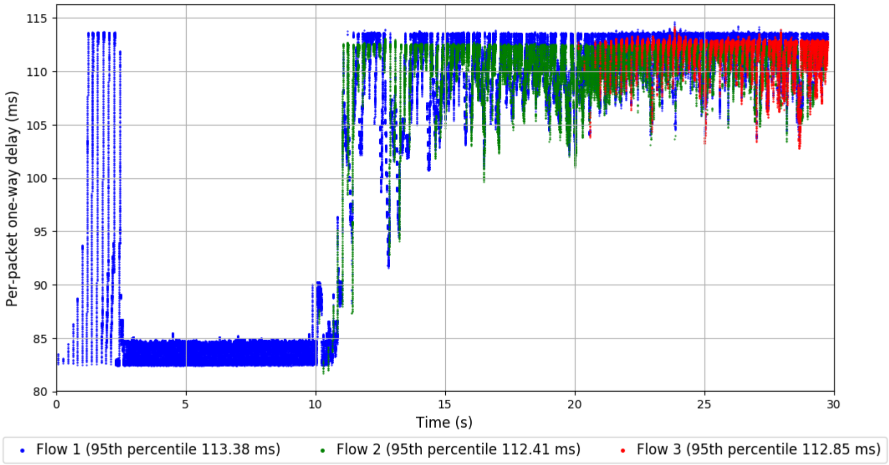




```
Run 5: Statistics of Indigo

Start at: 2019-01-25 03:11:52
End at: 2019-01-25 03:12:22
Local clock offset: -8.244 ms
Remote clock offset: 4.293 ms

# Below is generated by plot.py at 2019-01-25 03:24:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.08 Mbit/s
95th percentile per-packet one-way delay: 113.321 ms
Loss rate: 23.35%
-- Flow 1:
Average throughput: 66.75 Mbit/s
95th percentile per-packet one-way delay: 113.380 ms
Loss rate: 7.94%
-- Flow 2:
Average throughput: 23.84 Mbit/s
95th percentile per-packet one-way delay: 112.409 ms
Loss rate: 29.03%
-- Flow 3:
Average throughput: 26.84 Mbit/s
95th percentile per-packet one-way delay: 112.848 ms
Loss rate: 64.25%
```

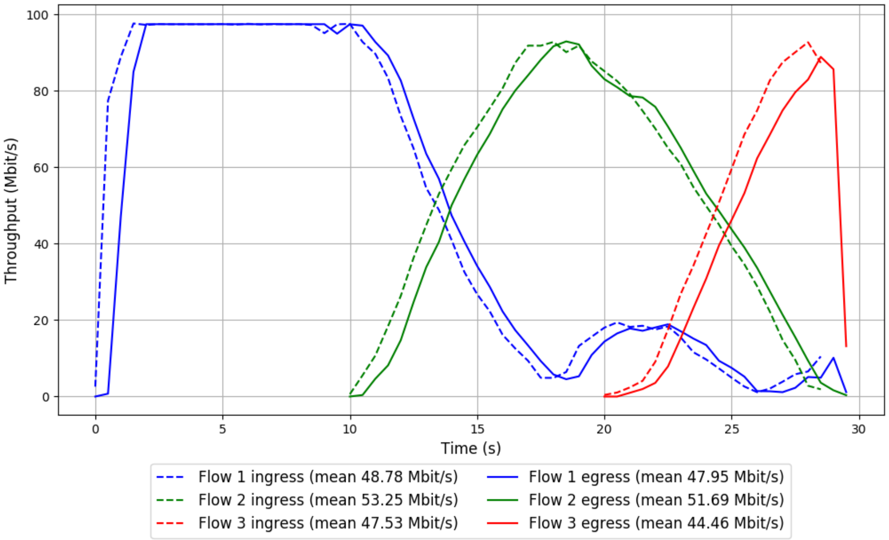
Run 5: Report of Indigo — Data Link

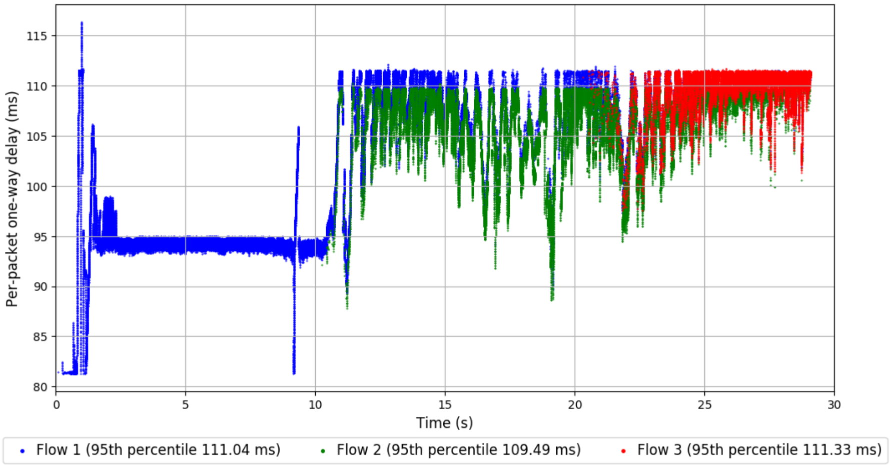




```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-25 01:06:57
End at: 2019-01-25 01:07:27
Local clock offset: -5.983 ms
Remote clock offset: 1.434 ms

# Below is generated by plot.py at 2019-01-25 03:24:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.94 Mbit/s
95th percentile per-packet one-way delay: 111.132 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 47.95 Mbit/s
95th percentile per-packet one-way delay: 111.036 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 51.69 Mbit/s
95th percentile per-packet one-way delay: 109.491 ms
Loss rate: 2.84%
-- Flow 3:
Average throughput: 44.46 Mbit/s
95th percentile per-packet one-way delay: 111.333 ms
Loss rate: 6.46%
```

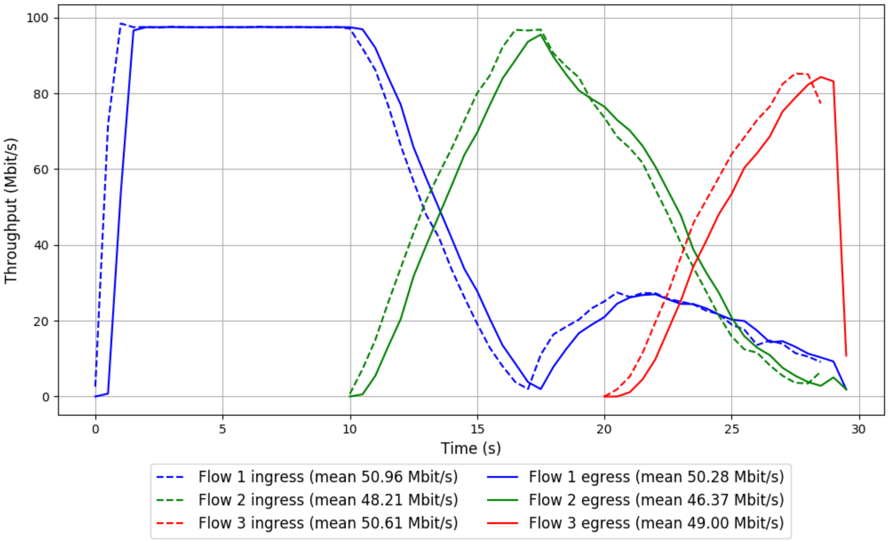
Run 1: Report of Indigo-MusesC3 — Data Link

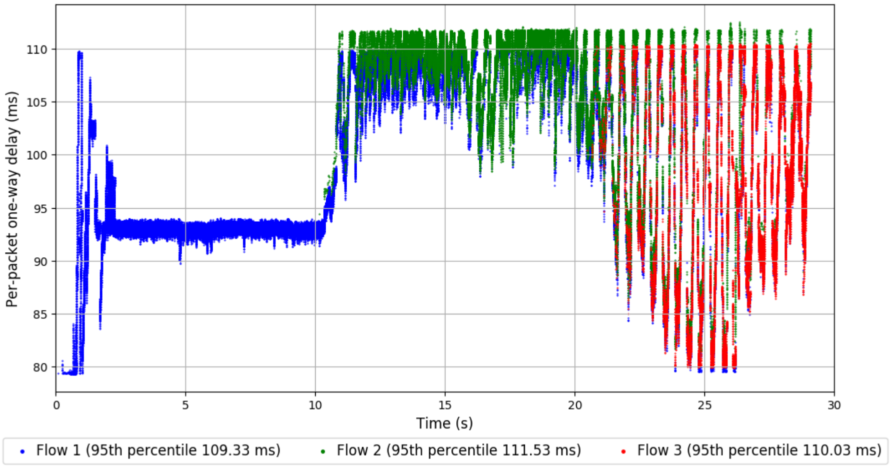




```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-25 01:33:45
End at: 2019-01-25 01:34:15
Local clock offset: -5.803 ms
Remote clock offset: 1.229 ms

# Below is generated by plot.py at 2019-01-25 03:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.08 Mbit/s
95th percentile per-packet one-way delay: 111.295 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 109.329 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 46.37 Mbit/s
95th percentile per-packet one-way delay: 111.534 ms
Loss rate: 3.72%
-- Flow 3:
Average throughput: 49.00 Mbit/s
95th percentile per-packet one-way delay: 110.031 ms
Loss rate: 3.06%
```

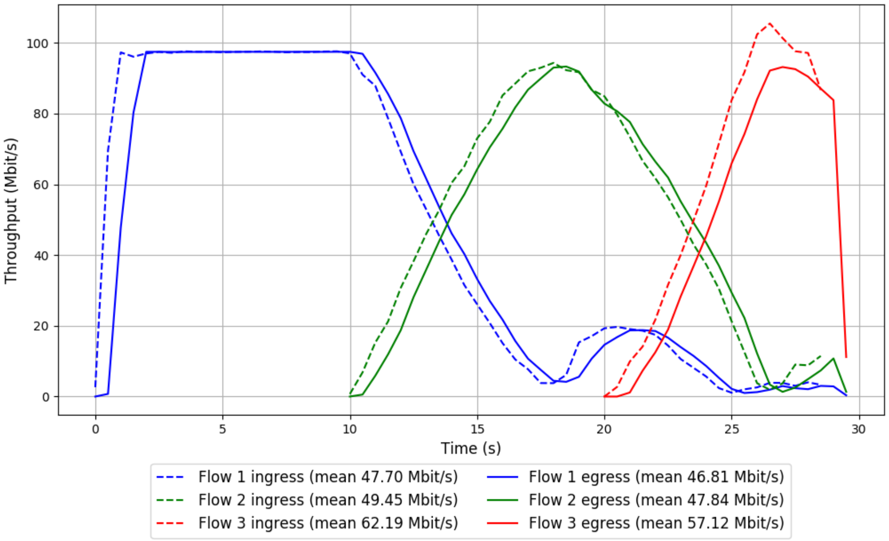
Run 2: Report of Indigo-MusesC3 — Data Link

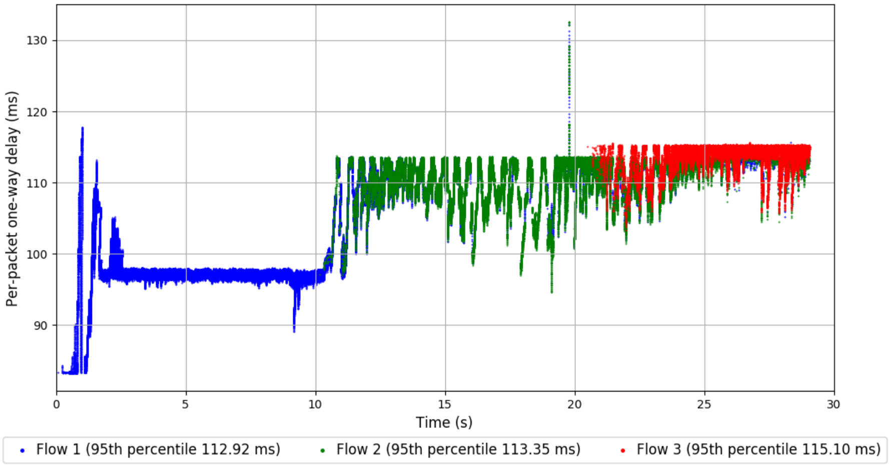




```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-25 02:00:31
End at: 2019-01-25 02:01:01
Local clock offset: -1.157 ms
Remote clock offset: 4.914 ms

# Below is generated by plot.py at 2019-01-25 03:25:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.91 Mbit/s
95th percentile per-packet one-way delay: 114.879 ms
Loss rate: 3.42%
-- Flow 1:
Average throughput: 46.81 Mbit/s
95th percentile per-packet one-way delay: 112.924 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 47.84 Mbit/s
95th percentile per-packet one-way delay: 113.352 ms
Loss rate: 3.17%
-- Flow 3:
Average throughput: 57.12 Mbit/s
95th percentile per-packet one-way delay: 115.098 ms
Loss rate: 8.16%
```

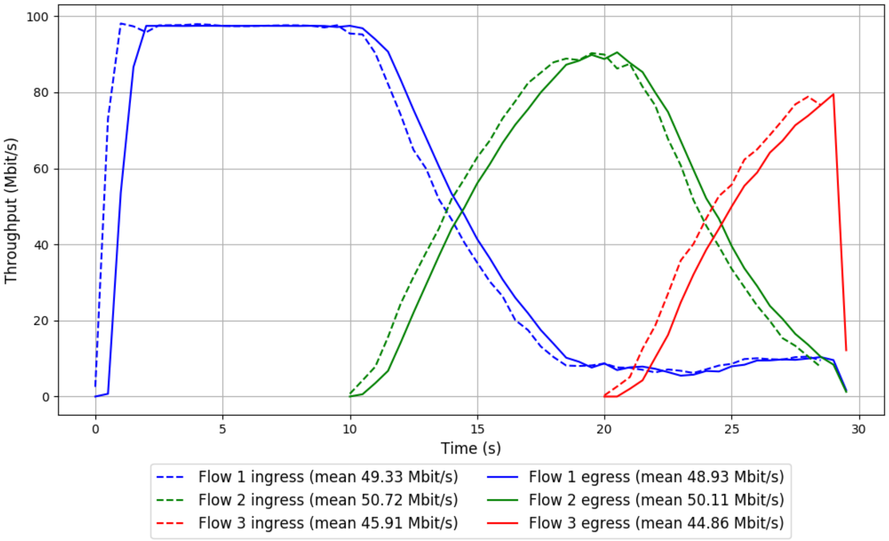
Run 3: Report of Indigo-MusesC3 — Data Link

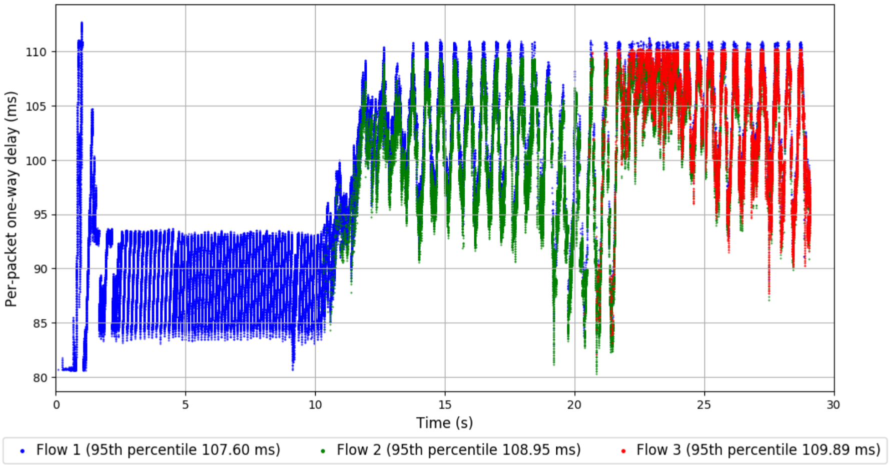




```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-25 02:27:16
End at: 2019-01-25 02:27:46
Local clock offset: -2.579 ms
Remote clock offset: 2.257 ms

# Below is generated by plot.py at 2019-01-25 03:25:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.11 Mbit/s
95th percentile per-packet one-way delay: 109.049 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 48.93 Mbit/s
95th percentile per-packet one-way delay: 107.598 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 50.11 Mbit/s
95th percentile per-packet one-way delay: 108.949 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 44.86 Mbit/s
95th percentile per-packet one-way delay: 109.885 ms
Loss rate: 2.14%
```

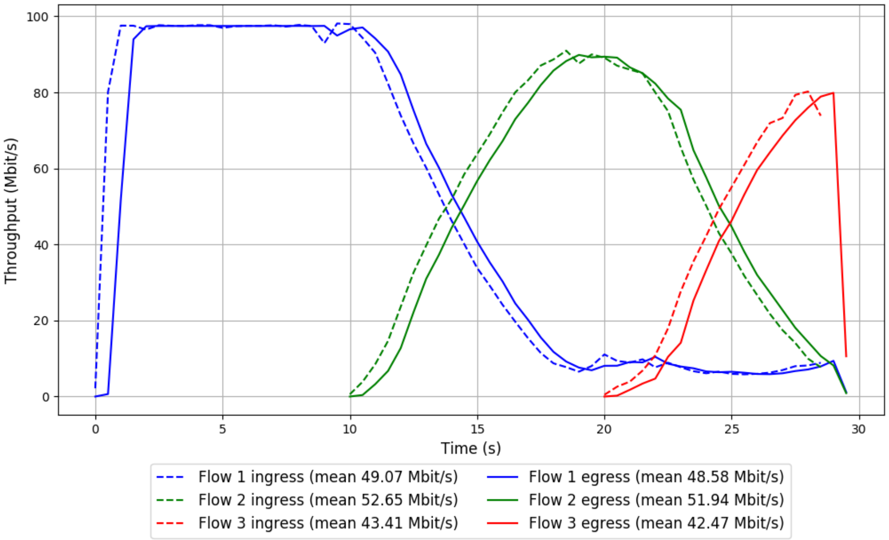
Run 4: Report of Indigo-MusesC3 — Data Link

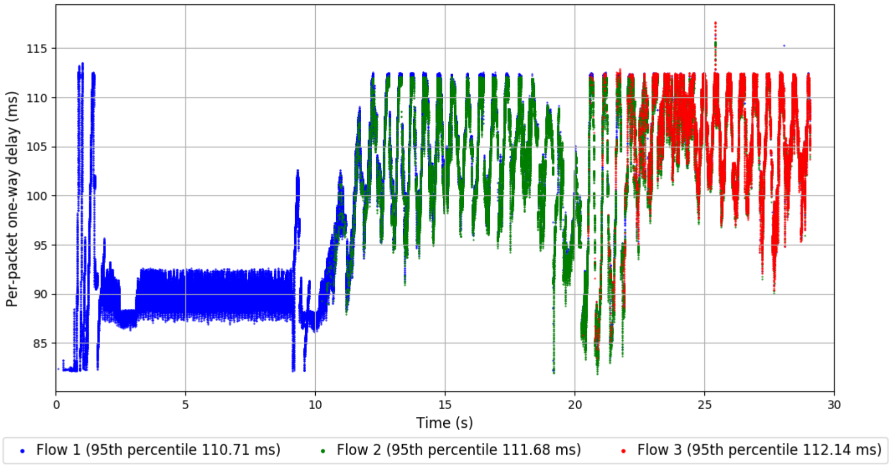




```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-25 02:53:59
End at: 2019-01-25 02:54:29
Local clock offset: -8.305 ms
Remote clock offset: 4.261 ms

# Below is generated by plot.py at 2019-01-25 03:25:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.13 Mbit/s
95th percentile per-packet one-way delay: 111.687 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 48.58 Mbit/s
95th percentile per-packet one-way delay: 110.706 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 51.94 Mbit/s
95th percentile per-packet one-way delay: 111.684 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 42.47 Mbit/s
95th percentile per-packet one-way delay: 112.141 ms
Loss rate: 1.97%
```

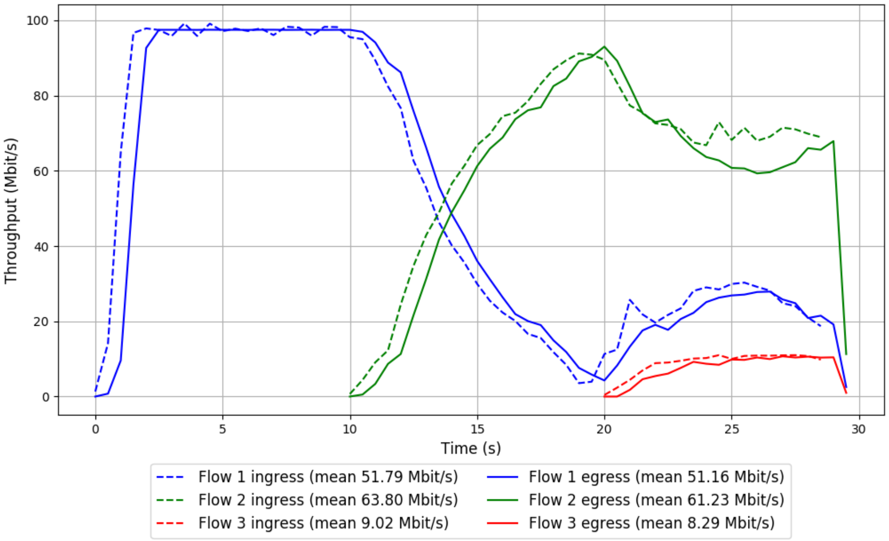
Run 5: Report of Indigo-MusesC3 — Data Link

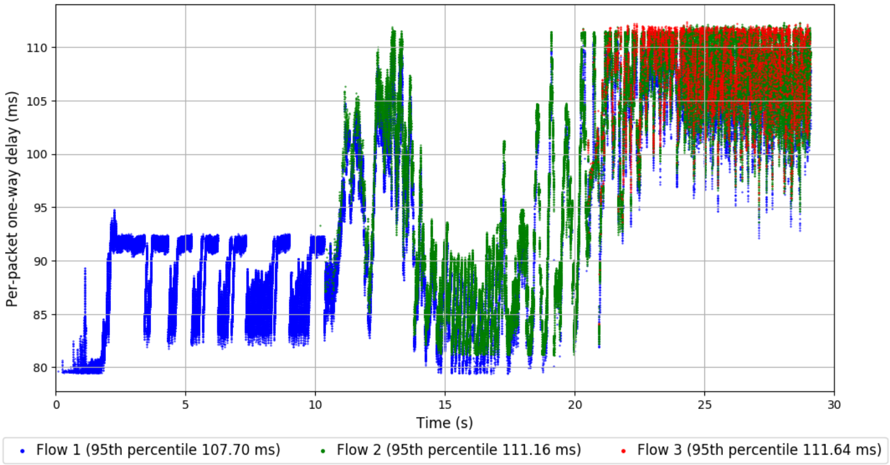




```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-25 01:10:56
End at: 2019-01-25 01:11:26
Local clock offset: -7.008 ms
Remote clock offset: 1.365 ms

# Below is generated by plot.py at 2019-01-25 03:25:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 110.768 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 51.16 Mbit/s
95th percentile per-packet one-way delay: 107.701 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 61.23 Mbit/s
95th percentile per-packet one-way delay: 111.156 ms
Loss rate: 3.94%
-- Flow 3:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 111.639 ms
Loss rate: 8.07%
```

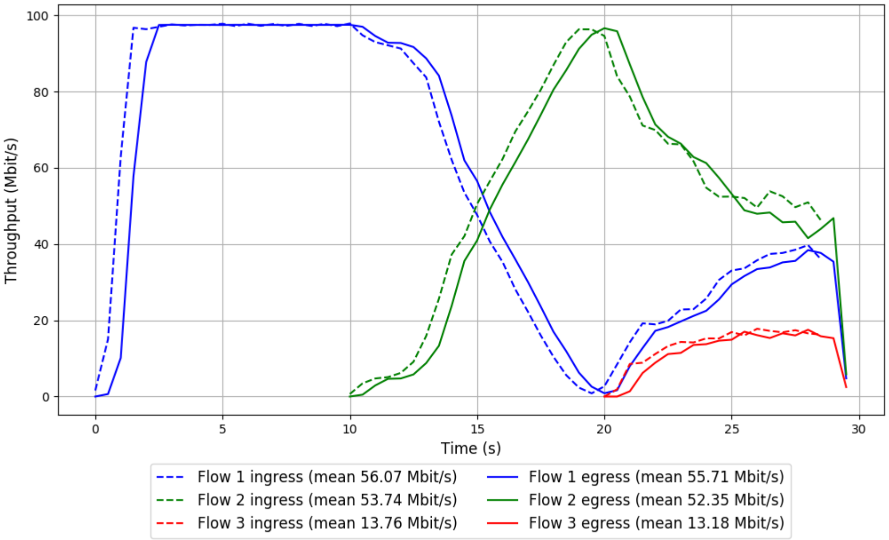
Run 1: Report of Indigo-MusesC5 — Data Link

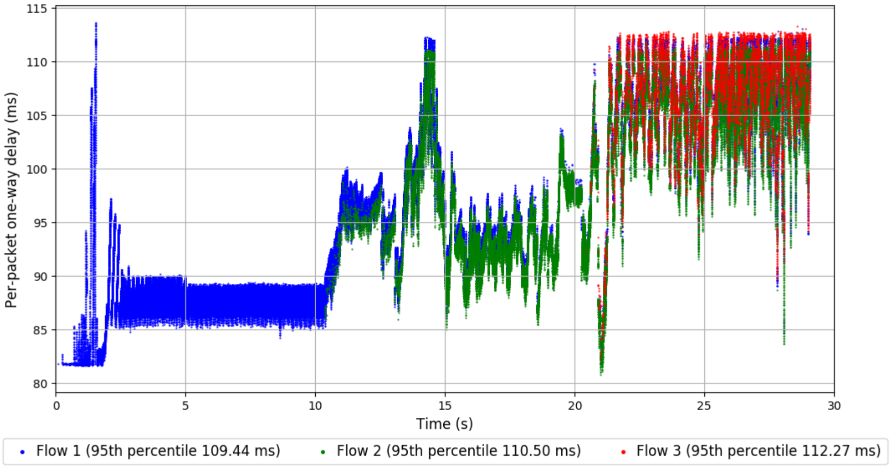




```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-25 01:37:39
End at: 2019-01-25 01:38:09
Local clock offset: -4.664 ms
Remote clock offset: 1.17 ms

# Below is generated by plot.py at 2019-01-25 03:25:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 110.450 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 55.71 Mbit/s
95th percentile per-packet one-way delay: 109.440 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 52.35 Mbit/s
95th percentile per-packet one-way delay: 110.502 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 13.18 Mbit/s
95th percentile per-packet one-way delay: 112.269 ms
Loss rate: 4.08%
```

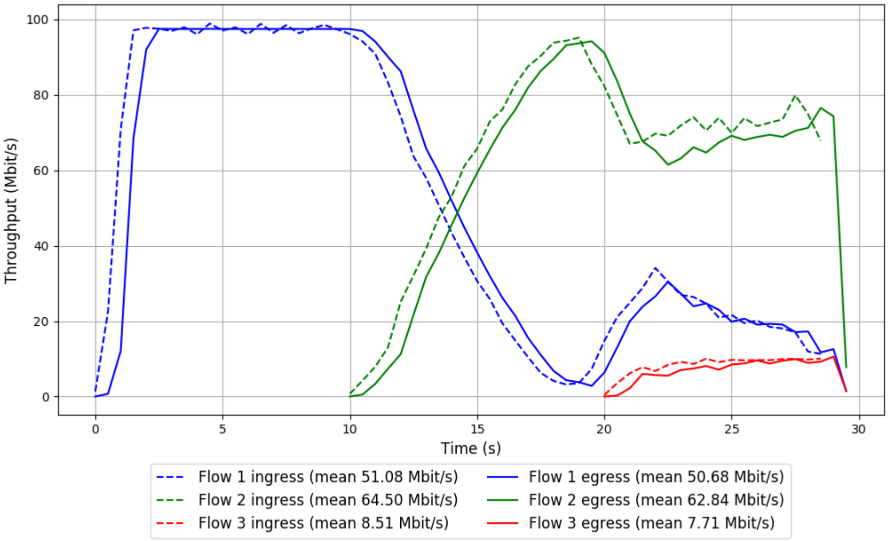
Run 2: Report of Indigo-MusesC5 — Data Link

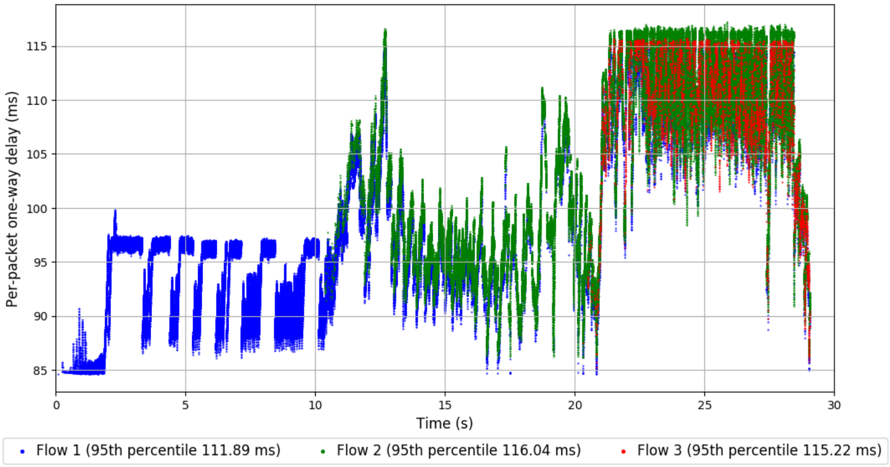




```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-25 02:04:25
End at: 2019-01-25 02:04:55
Local clock offset: -1.978 ms
Remote clock offset: 6.02 ms

# Below is generated by plot.py at 2019-01-25 03:25:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 115.115 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 50.68 Mbit/s
95th percentile per-packet one-way delay: 111.886 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 62.84 Mbit/s
95th percentile per-packet one-way delay: 116.040 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 7.71 Mbit/s
95th percentile per-packet one-way delay: 115.221 ms
Loss rate: 9.33%
```

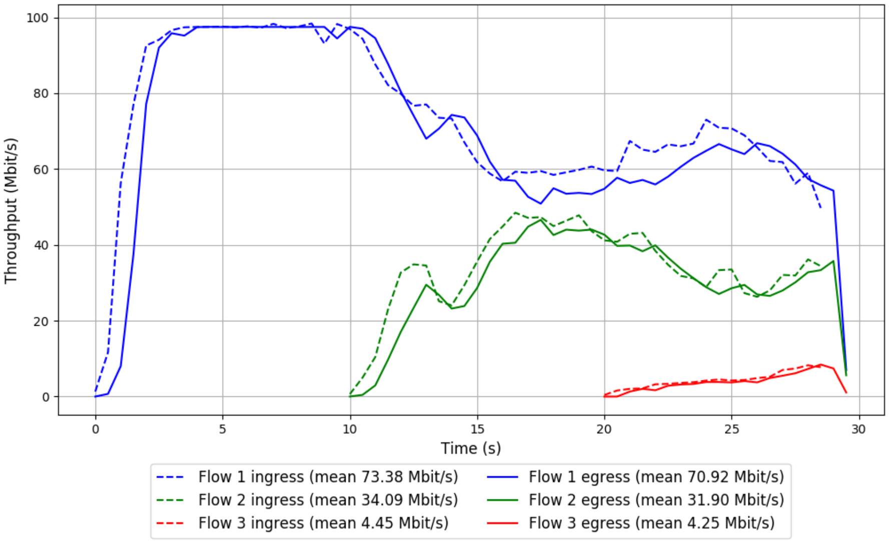
Run 3: Report of Indigo-MusesC5 — Data Link

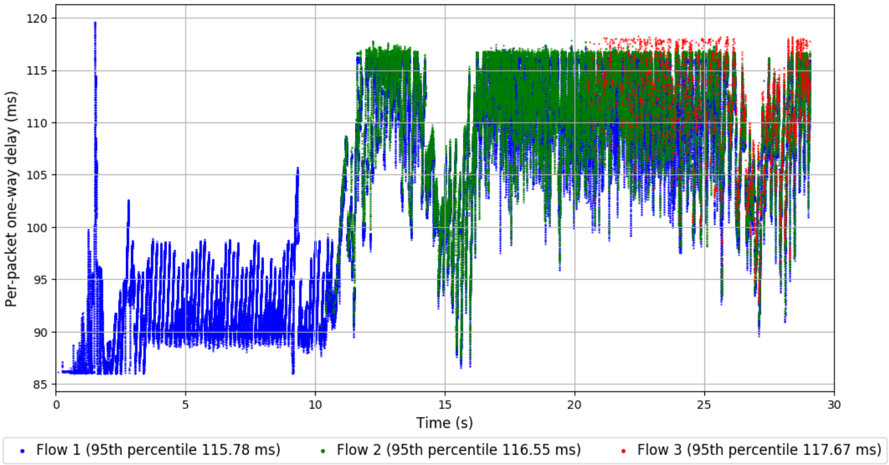




```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-25 02:31:10
End at: 2019-01-25 02:31:40
Local clock offset: -4.132 ms
Remote clock offset: 7.374 ms

# Below is generated by plot.py at 2019-01-25 03:26:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.94 Mbit/s
95th percentile per-packet one-way delay: 115.983 ms
Loss rate: 3.97%
-- Flow 1:
Average throughput: 70.92 Mbit/s
95th percentile per-packet one-way delay: 115.784 ms
Loss rate: 3.25%
-- Flow 2:
Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 116.554 ms
Loss rate: 6.30%
-- Flow 3:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 117.675 ms
Loss rate: 4.65%
```

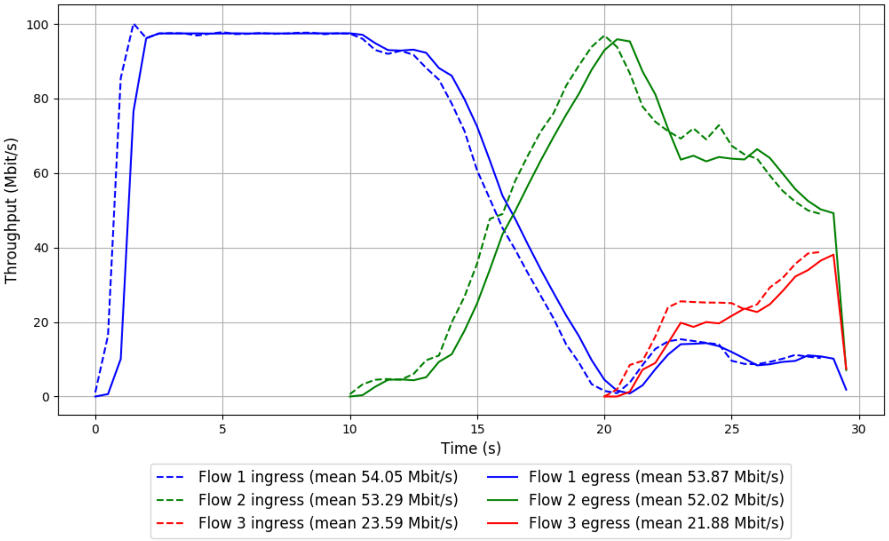
Run 4: Report of Indigo-MusesC5 — Data Link

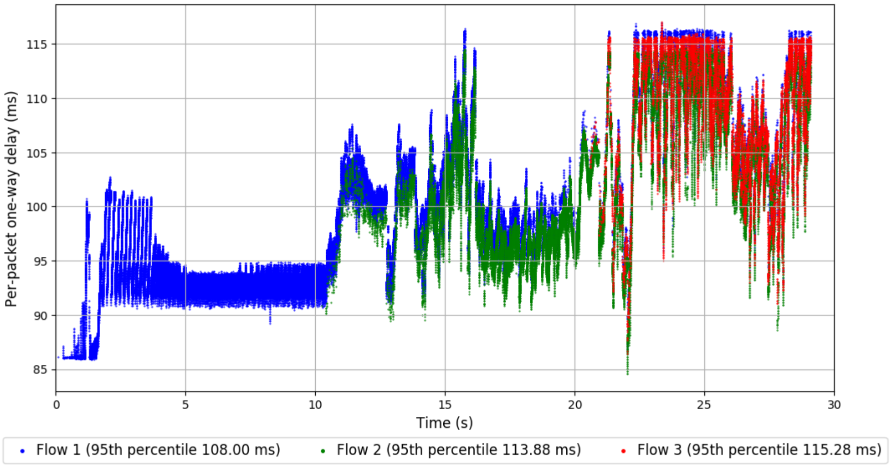




```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-25 02:57:52
End at: 2019-01-25 02:58:22
Local clock offset: -9.323 ms
Remote clock offset: 6.97 ms

# Below is generated by plot.py at 2019-01-25 03:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.19 Mbit/s
95th percentile per-packet one-way delay: 113.725 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 108.004 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 52.02 Mbit/s
95th percentile per-packet one-way delay: 113.884 ms
Loss rate: 2.26%
-- Flow 3:
Average throughput: 21.88 Mbit/s
95th percentile per-packet one-way delay: 115.278 ms
Loss rate: 7.17%
```

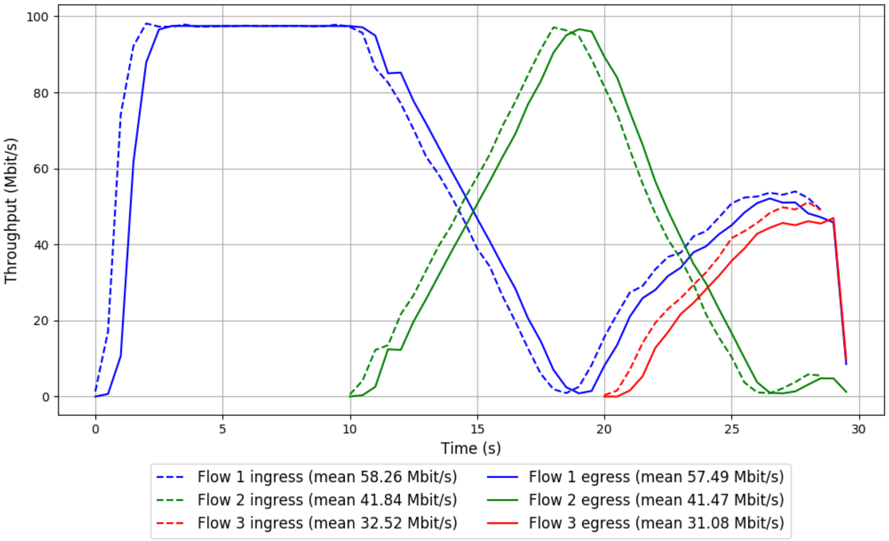
Run 5: Report of Indigo-MusesC5 — Data Link

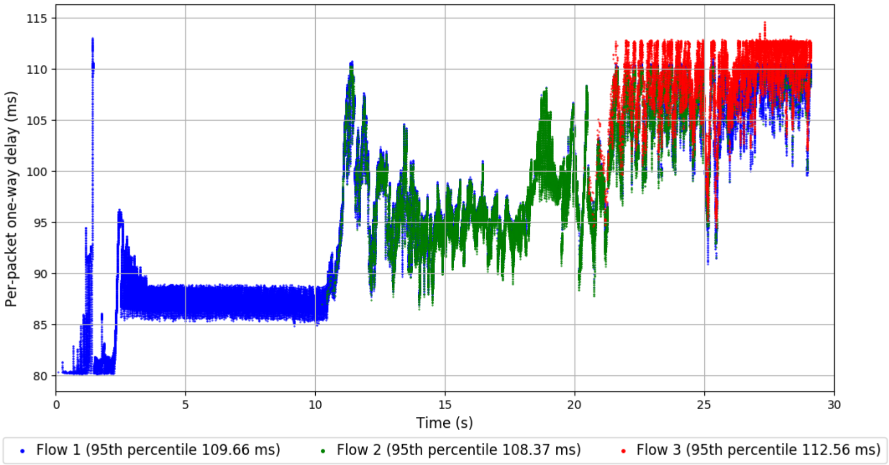




```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-25 01:17:11
End at: 2019-01-25 01:17:41
Local clock offset: -7.334 ms
Remote clock offset: 2.595 ms

# Below is generated by plot.py at 2019-01-25 03:26:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.76 Mbit/s
95th percentile per-packet one-way delay: 110.328 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 57.49 Mbit/s
95th percentile per-packet one-way delay: 109.657 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 41.47 Mbit/s
95th percentile per-packet one-way delay: 108.370 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 112.557 ms
Loss rate: 4.34%
```

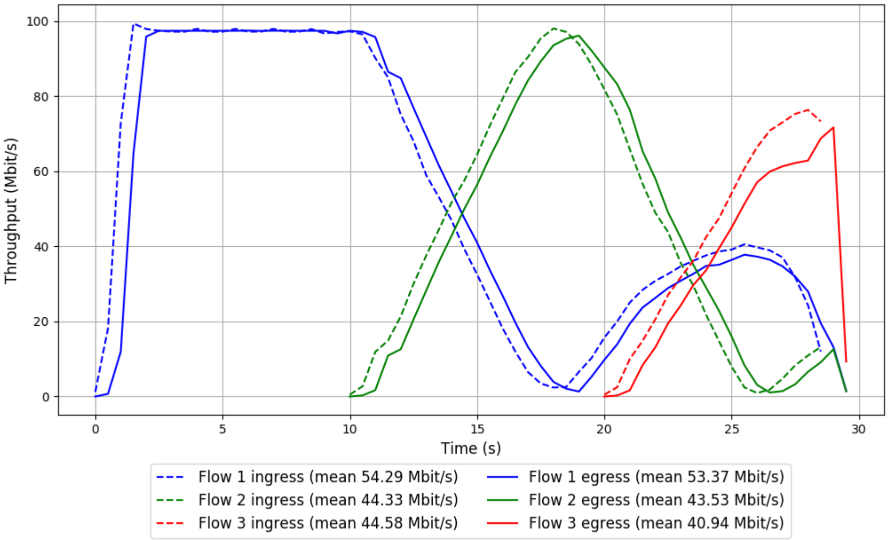
Run 1: Report of Indigo-MusesD — Data Link

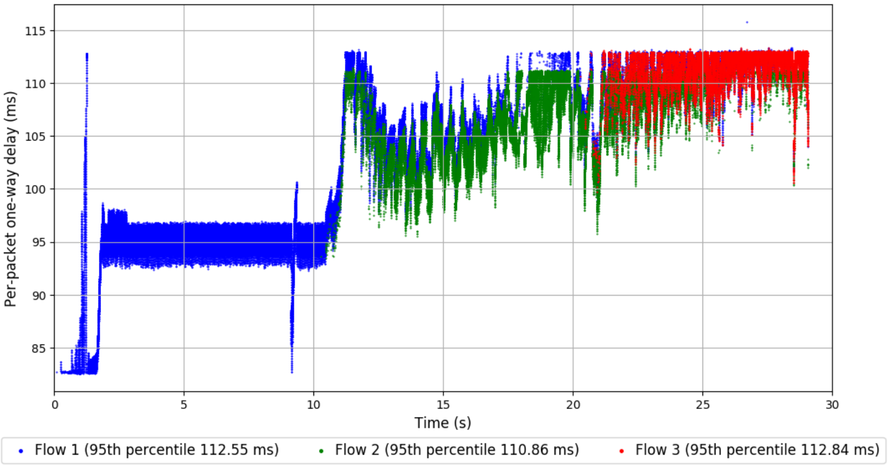




```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-25 01:43:54
End at: 2019-01-25 01:44:24
Local clock offset: -2.837 ms
Remote clock offset: 2.254 ms

# Below is generated by plot.py at 2019-01-25 03:26:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.99 Mbit/s
95th percentile per-packet one-way delay: 112.624 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 112.546 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 43.53 Mbit/s
95th percentile per-packet one-way delay: 110.855 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 40.94 Mbit/s
95th percentile per-packet one-way delay: 112.840 ms
Loss rate: 8.19%
```

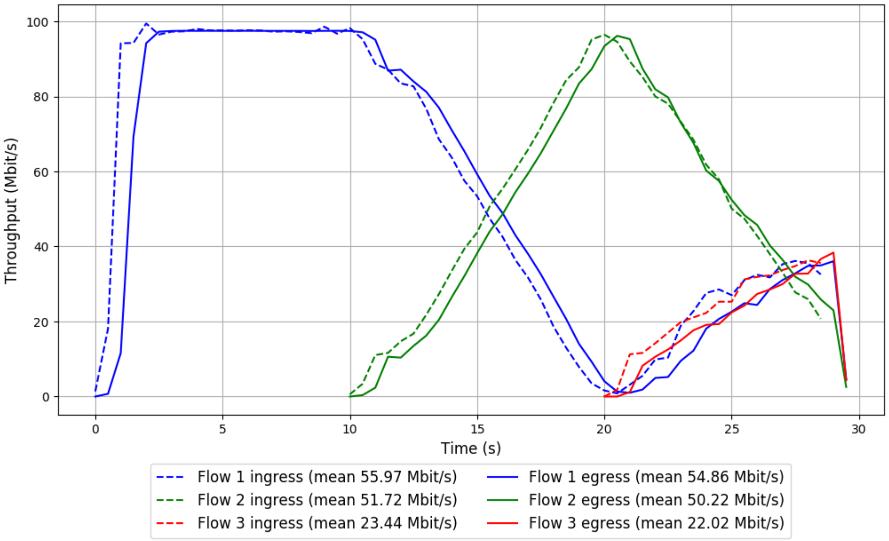
Run 2: Report of Indigo-MusesD — Data Link

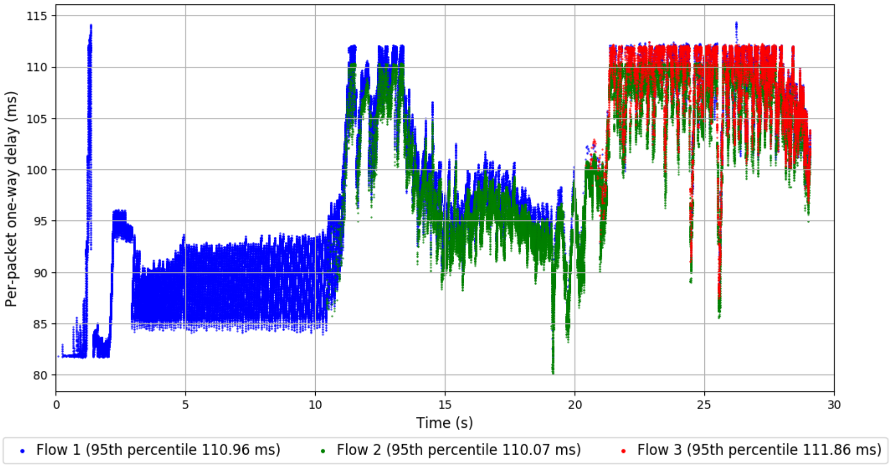




```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-25 02:10:41
End at: 2019-01-25 02:11:11
Local clock offset: -1.995 ms
Remote clock offset: 2.266 ms

# Below is generated by plot.py at 2019-01-25 03:26:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.02 Mbit/s
95th percentile per-packet one-way delay: 110.908 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 54.86 Mbit/s
95th percentile per-packet one-way delay: 110.963 ms
Loss rate: 1.91%
-- Flow 2:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 110.066 ms
Loss rate: 2.84%
-- Flow 3:
Average throughput: 22.02 Mbit/s
95th percentile per-packet one-way delay: 111.861 ms
Loss rate: 6.05%
```

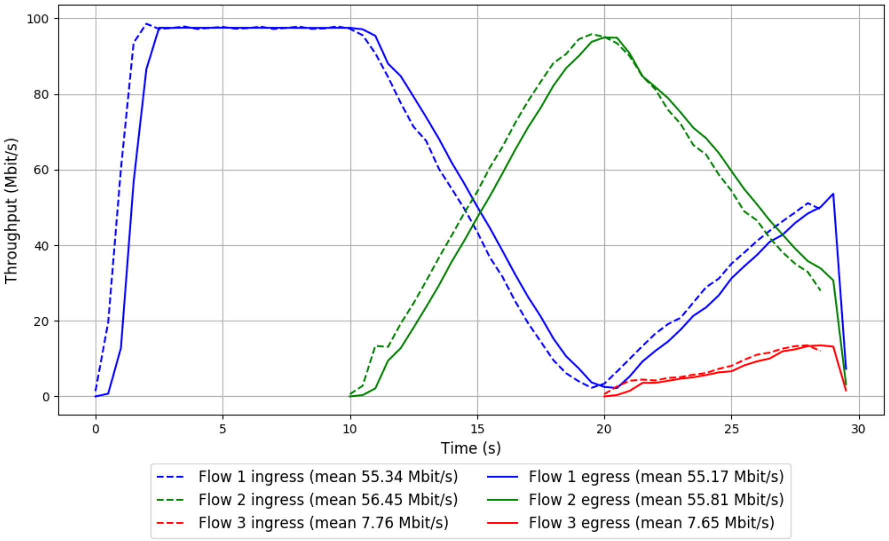
Run 3: Report of Indigo-MusesD — Data Link

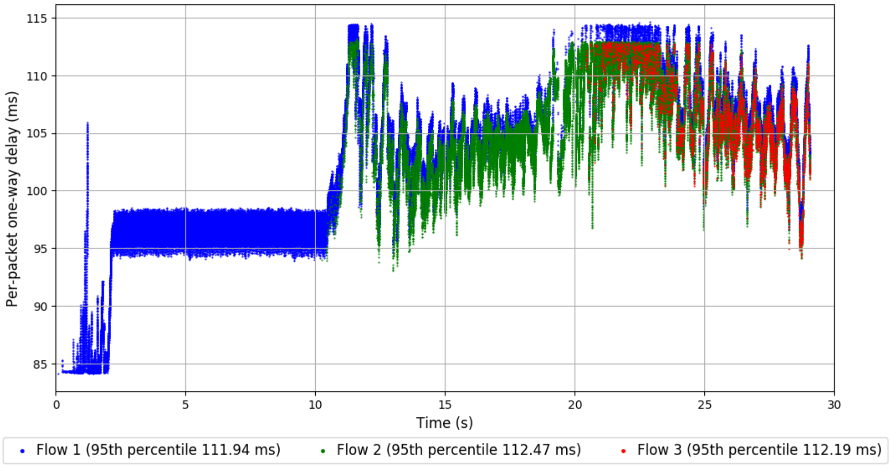




```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-25 02:37:26
End at: 2019-01-25 02:37:56
Local clock offset: -5.632 ms
Remote clock offset: 6.542 ms

# Below is generated by plot.py at 2019-01-25 03:26:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.72 Mbit/s
95th percentile per-packet one-way delay: 112.385 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 55.17 Mbit/s
95th percentile per-packet one-way delay: 111.941 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 55.81 Mbit/s
95th percentile per-packet one-way delay: 112.465 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 112.189 ms
Loss rate: 1.52%
```

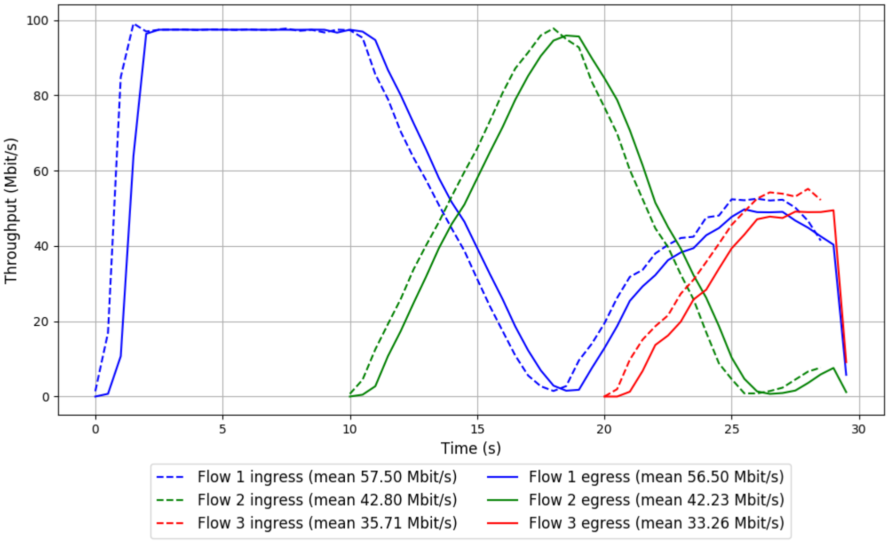
Run 4: Report of Indigo-MusesD — Data Link

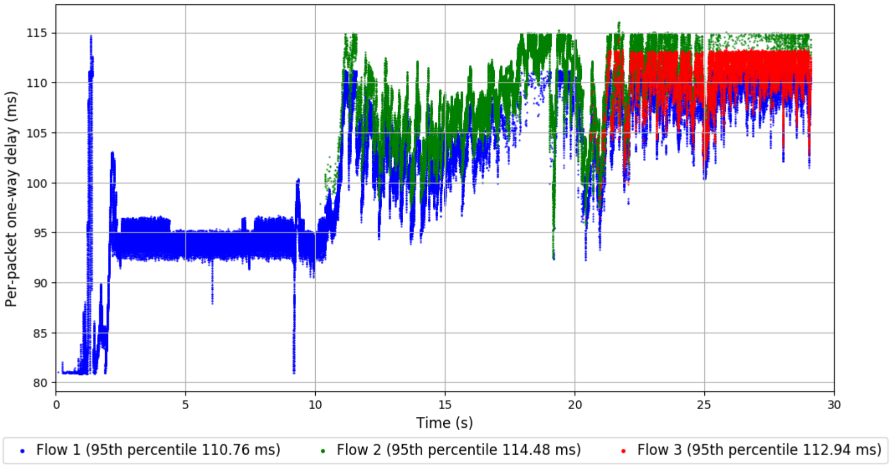




```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-25 03:04:08
End at: 2019-01-25 03:04:38
Local clock offset: -8.789 ms
Remote clock offset: 4.345 ms

# Below is generated by plot.py at 2019-01-25 03:26:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.94 Mbit/s
95th percentile per-packet one-way delay: 113.417 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 110.760 ms
Loss rate: 1.65%
-- Flow 2:
Average throughput: 42.23 Mbit/s
95th percentile per-packet one-way delay: 114.477 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 33.26 Mbit/s
95th percentile per-packet one-way delay: 112.943 ms
Loss rate: 6.69%
```

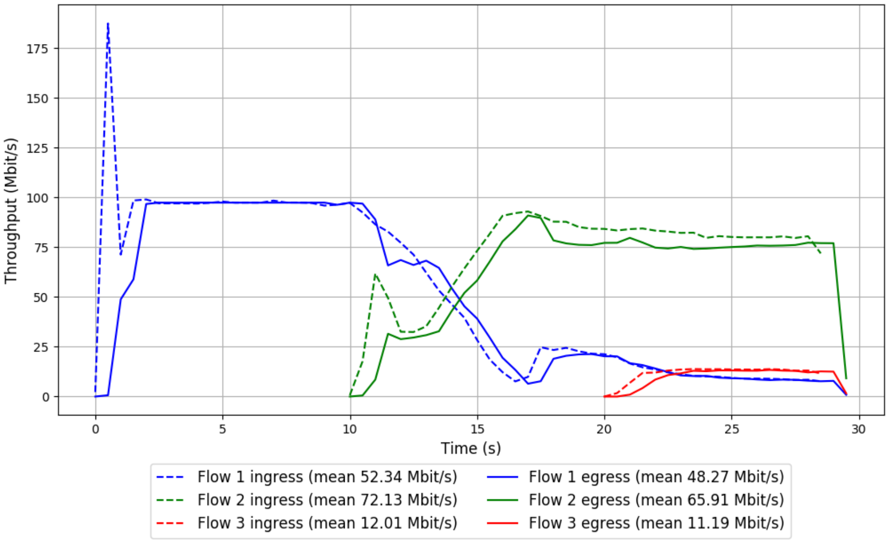
Run 5: Report of Indigo-MusesD — Data Link

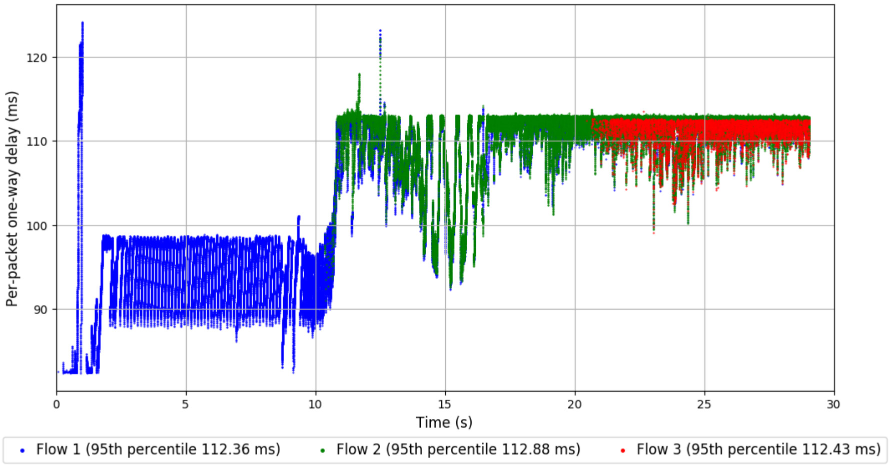




```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-25 01:05:39
End at: 2019-01-25 01:06:09
Local clock offset: -5.578 ms
Remote clock offset: 2.552 ms

# Below is generated by plot.py at 2019-01-25 03:27:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.52 Mbit/s
95th percentile per-packet one-way delay: 112.795 ms
Loss rate: 8.05%
-- Flow 1:
Average throughput: 48.27 Mbit/s
95th percentile per-packet one-way delay: 112.361 ms
Loss rate: 7.69%
-- Flow 2:
Average throughput: 65.91 Mbit/s
95th percentile per-packet one-way delay: 112.879 ms
Loss rate: 8.55%
-- Flow 3:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 112.432 ms
Loss rate: 6.82%
```

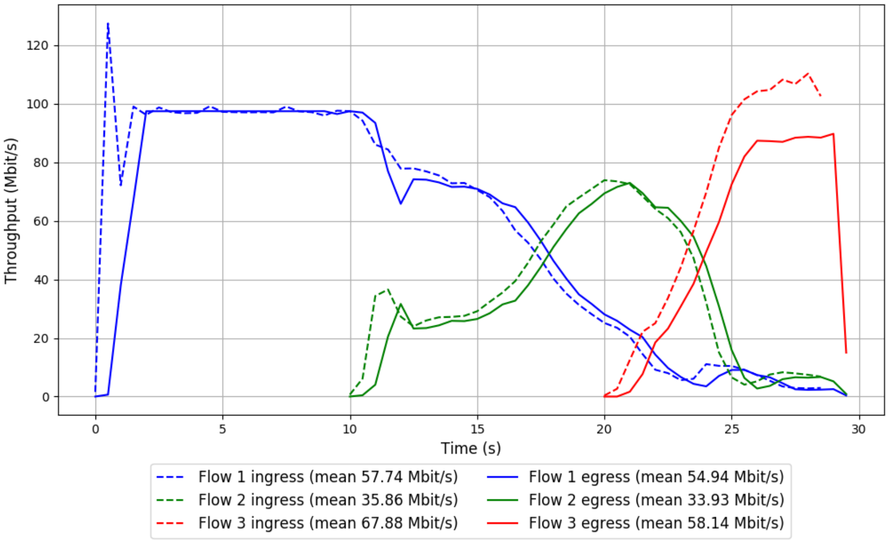
Run 1: Report of Indigo-MusesT — Data Link

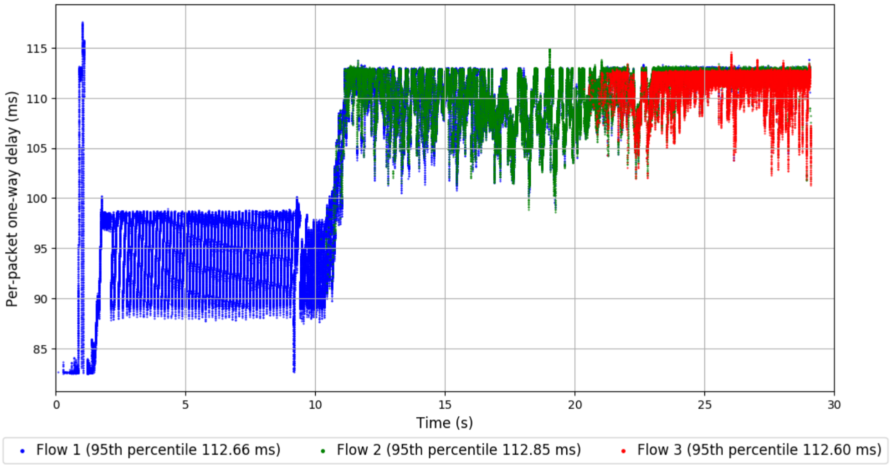




```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-25 01:32:27
End at: 2019-01-25 01:32:57
Local clock offset: -6.657 ms
Remote clock offset: 2.391 ms

# Below is generated by plot.py at 2019-01-25 03:27:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.50 Mbit/s
95th percentile per-packet one-way delay: 112.721 ms
Loss rate: 6.85%
-- Flow 1:
Average throughput: 54.94 Mbit/s
95th percentile per-packet one-way delay: 112.664 ms
Loss rate: 4.79%
-- Flow 2:
Average throughput: 33.93 Mbit/s
95th percentile per-packet one-way delay: 112.854 ms
Loss rate: 5.34%
-- Flow 3:
Average throughput: 58.14 Mbit/s
95th percentile per-packet one-way delay: 112.604 ms
Loss rate: 14.39%
```

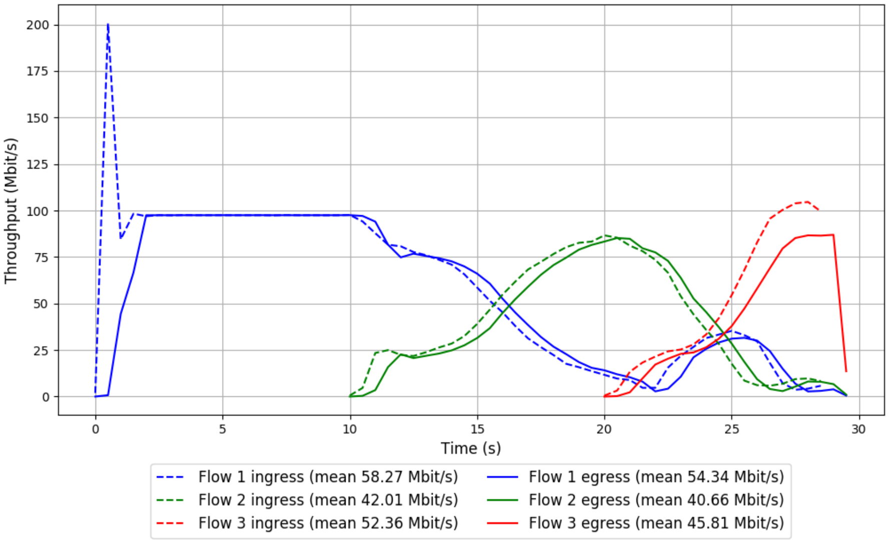
Run 2: Report of Indigo-MusesT — Data Link

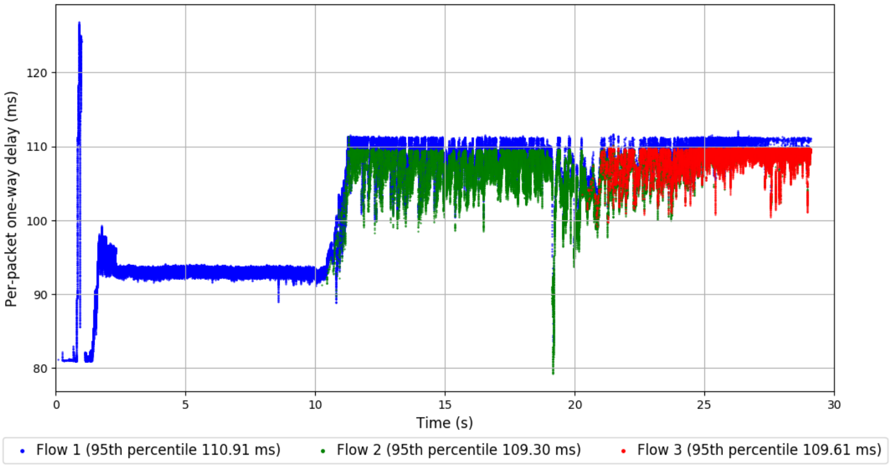




```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-25 01:59:12
End at: 2019-01-25 01:59:42
Local clock offset: -0.228 ms
Remote clock offset: 1.105 ms

# Below is generated by plot.py at 2019-01-25 03:27:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.61 Mbit/s
95th percentile per-packet one-way delay: 110.645 ms
Loss rate: 6.61%
-- Flow 1:
Average throughput: 54.34 Mbit/s
95th percentile per-packet one-way delay: 110.909 ms
Loss rate: 6.64%
-- Flow 2:
Average throughput: 40.66 Mbit/s
95th percentile per-packet one-way delay: 109.297 ms
Loss rate: 3.14%
-- Flow 3:
Average throughput: 45.81 Mbit/s
95th percentile per-packet one-way delay: 109.605 ms
Loss rate: 12.46%
```

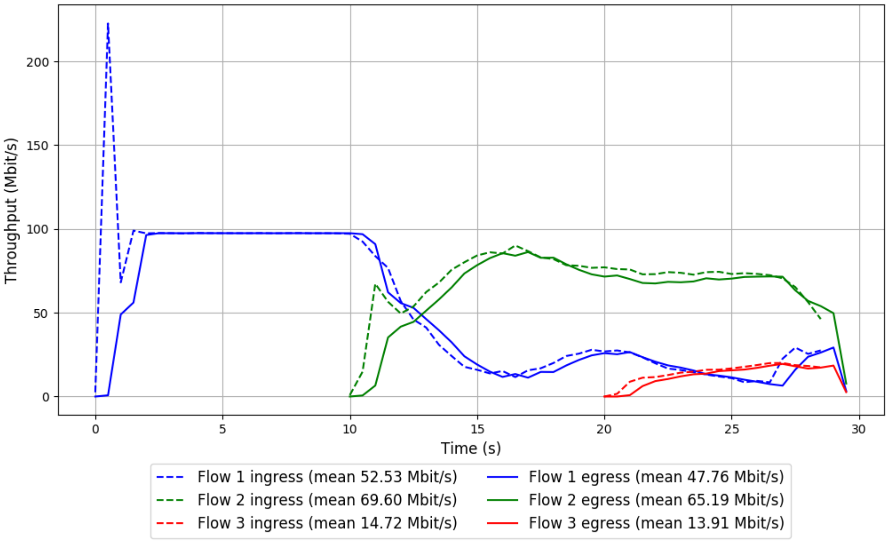
Run 3: Report of Indigo-MusesT — Data Link

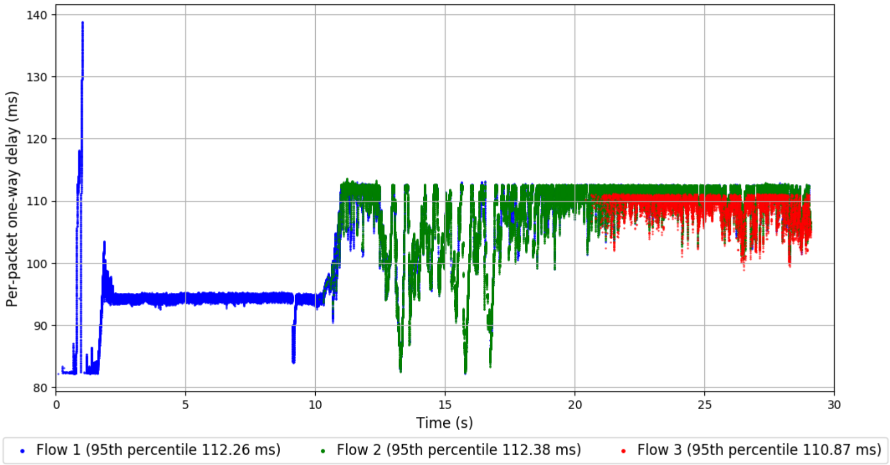




```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-25 02:25:58
End at: 2019-01-25 02:26:28
Local clock offset: -3.315 ms
Remote clock offset: 3.062 ms

# Below is generated by plot.py at 2019-01-25 03:27:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.49 Mbit/s
95th percentile per-packet one-way delay: 112.341 ms
Loss rate: 7.65%
-- Flow 1:
Average throughput: 47.76 Mbit/s
95th percentile per-packet one-way delay: 112.262 ms
Loss rate: 9.02%
-- Flow 2:
Average throughput: 65.19 Mbit/s
95th percentile per-packet one-way delay: 112.382 ms
Loss rate: 6.28%
-- Flow 3:
Average throughput: 13.91 Mbit/s
95th percentile per-packet one-way delay: 110.874 ms
Loss rate: 5.56%
```

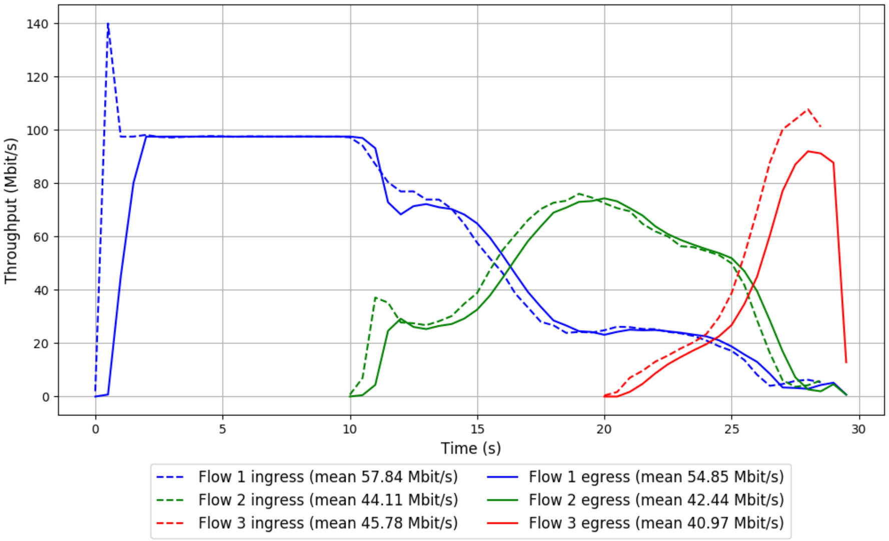
Run 4: Report of Indigo-MusesT — Data Link

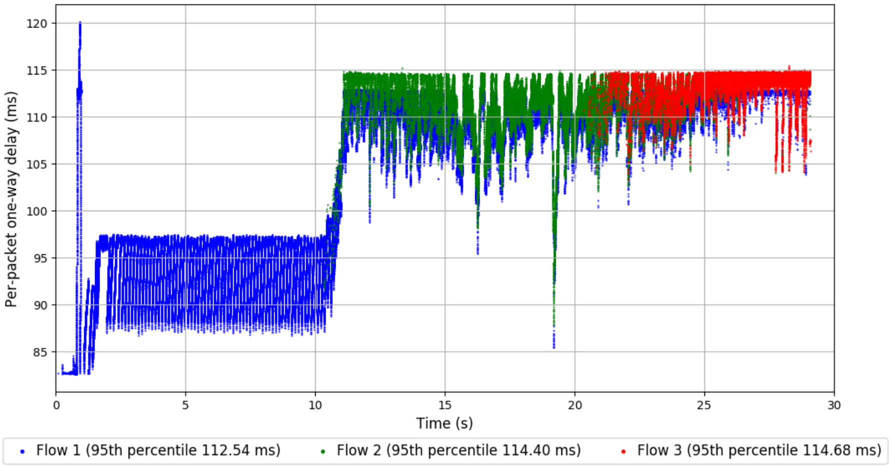




```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-25 02:52:41
End at: 2019-01-25 02:53:11
Local clock offset: -8.113 ms
Remote clock offset: 6.9 ms

# Below is generated by plot.py at 2019-01-25 03:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.86 Mbit/s
95th percentile per-packet one-way delay: 114.444 ms
Loss rate: 5.43%
-- Flow 1:
Average throughput: 54.85 Mbit/s
95th percentile per-packet one-way delay: 112.542 ms
Loss rate: 5.06%
-- Flow 2:
Average throughput: 42.44 Mbit/s
95th percentile per-packet one-way delay: 114.396 ms
Loss rate: 3.72%
-- Flow 3:
Average throughput: 40.97 Mbit/s
95th percentile per-packet one-way delay: 114.677 ms
Loss rate: 10.55%
```

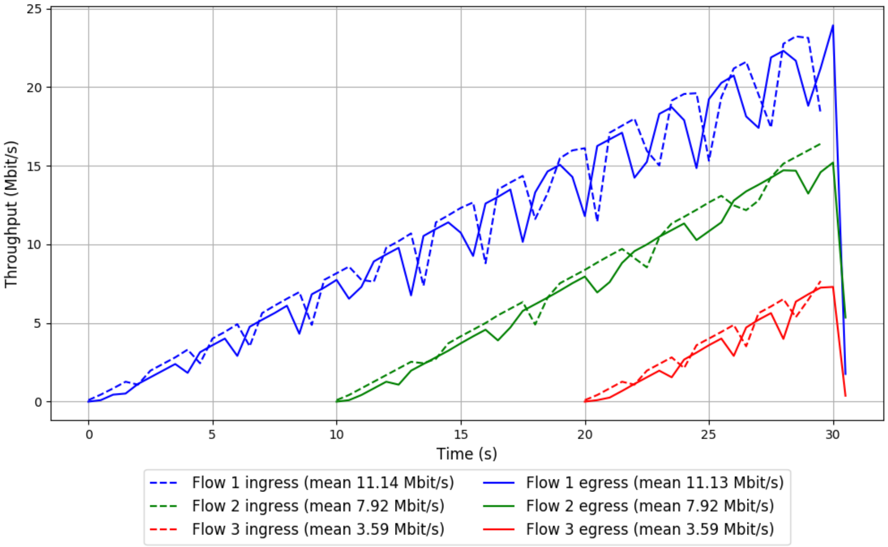
Run 5: Report of Indigo-MusesT — Data Link

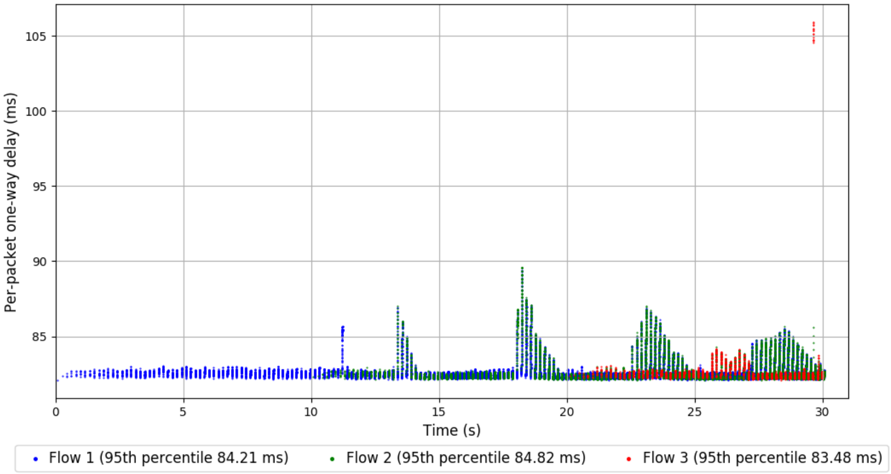




```
Run 1: Statistics of LEDBAT

Start at: 2019-01-25 01:26:02
End at: 2019-01-25 01:26:32
Local clock offset: -9.099 ms
Remote clock offset: 2.289 ms

# Below is generated by plot.py at 2019-01-25 03:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.60 Mbit/s
95th percentile per-packet one-way delay: 84.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 84.214 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 84.820 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 83.479 ms
Loss rate: 0.00%
```

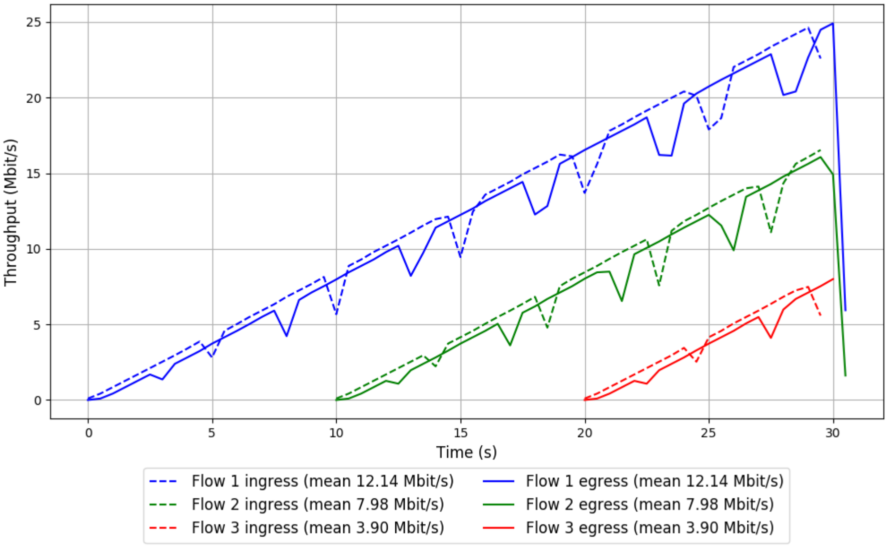
Run 1: Report of LEDBAT — Data Link

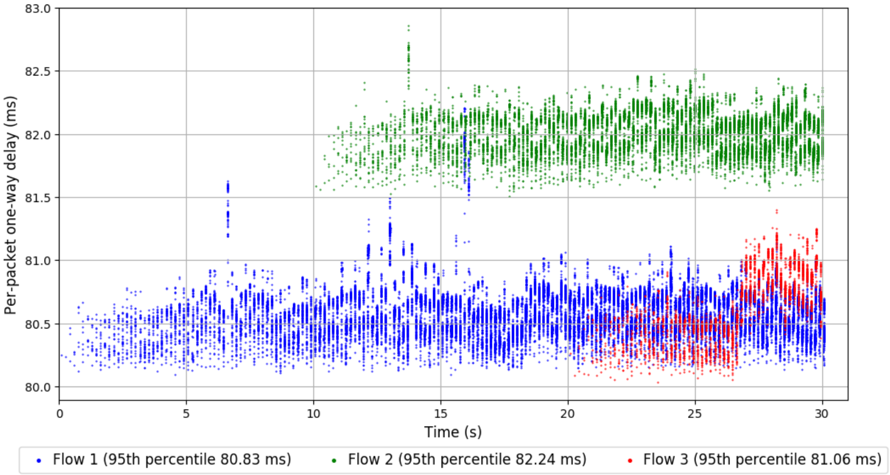




```
Run 2: Statistics of LEDBAT

Start at: 2019-01-25 01:52:47
End at: 2019-01-25 01:53:17
Local clock offset: -1.611 ms
Remote clock offset: 1.221 ms

# Below is generated by plot.py at 2019-01-25 03:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 82.154 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 80.832 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 82.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 81.064 ms
Loss rate: 0.00%
```

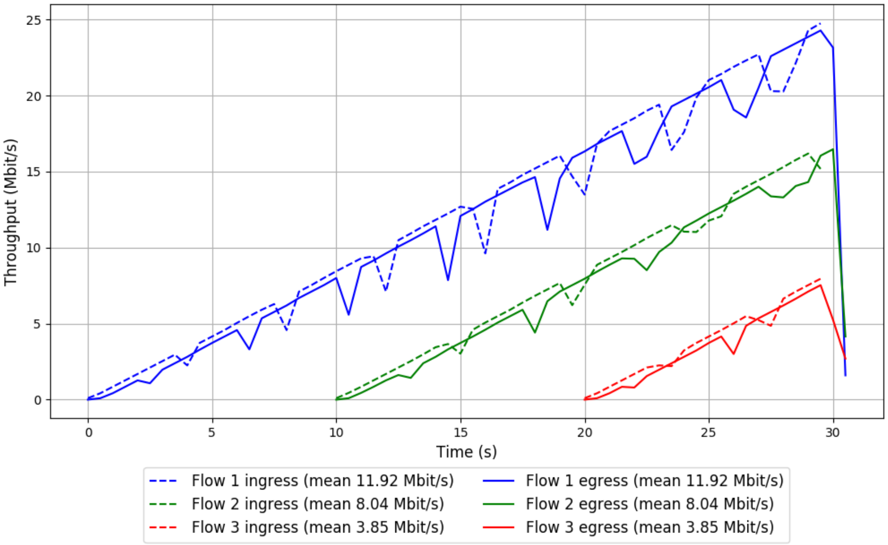
Run 2: Report of LEDBAT — Data Link

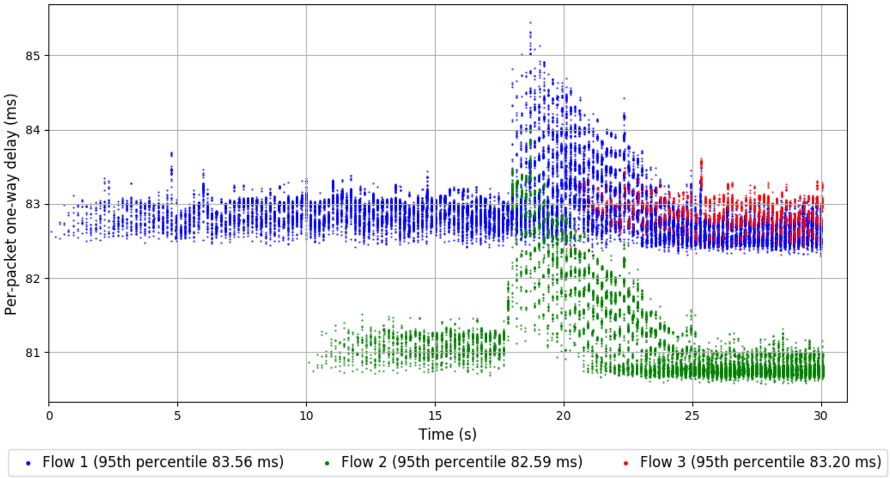




```
Run 3: Statistics of LEDBAT

Start at: 2019-01-25 02:19:34
End at: 2019-01-25 02:20:04
Local clock offset: -3.196 ms
Remote clock offset: 2.387 ms

# Below is generated by plot.py at 2019-01-25 03:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.53 Mbit/s
95th percentile per-packet one-way delay: 83.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 83.562 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.04 Mbit/s
95th percentile per-packet one-way delay: 82.595 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 83.201 ms
Loss rate: 0.00%
```

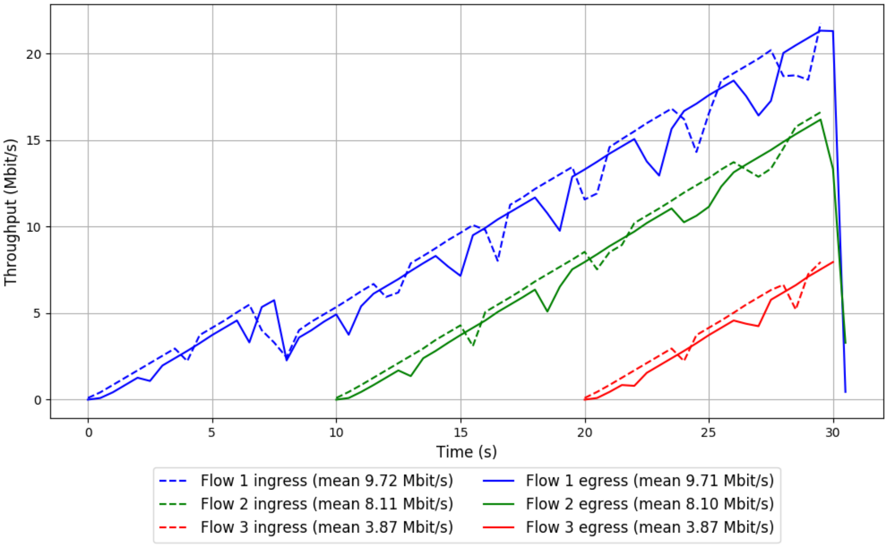
Run 3: Report of LEDBAT — Data Link

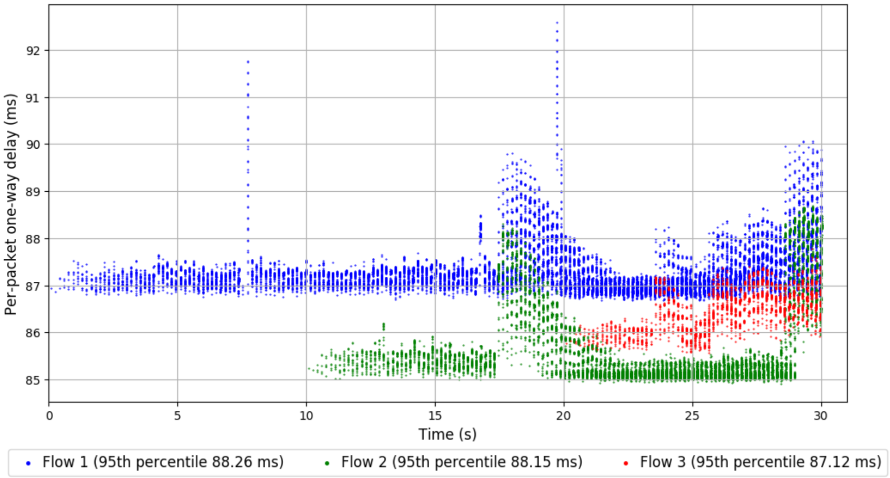




```
Run 4: Statistics of LEDBAT

Start at: 2019-01-25 02:46:17
End at: 2019-01-25 02:46:47
Local clock offset: -7.448 ms
Remote clock offset: 9.247 ms

# Below is generated by plot.py at 2019-01-25 03:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.38 Mbit/s
95th percentile per-packet one-way delay: 88.168 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.71 Mbit/s
95th percentile per-packet one-way delay: 88.263 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 88.152 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 87.121 ms
Loss rate: 0.00%
```

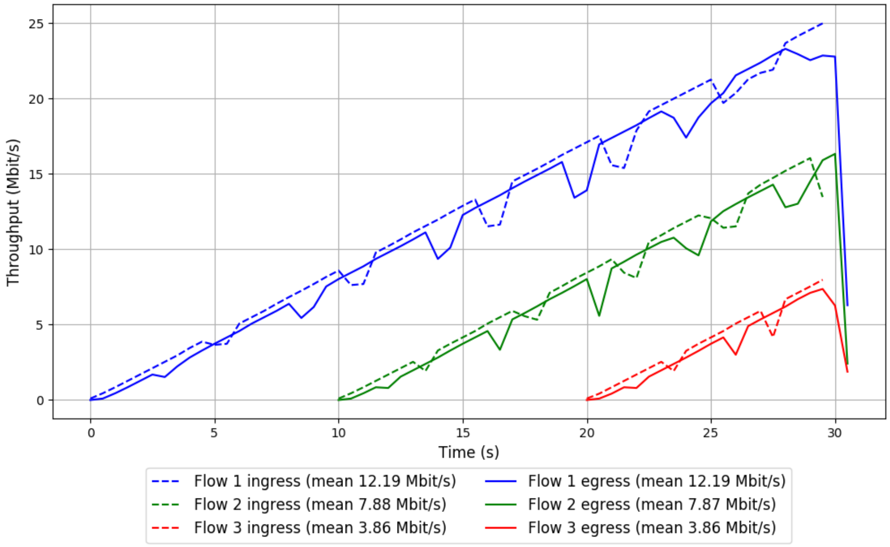
Run 4: Report of LEDBAT — Data Link

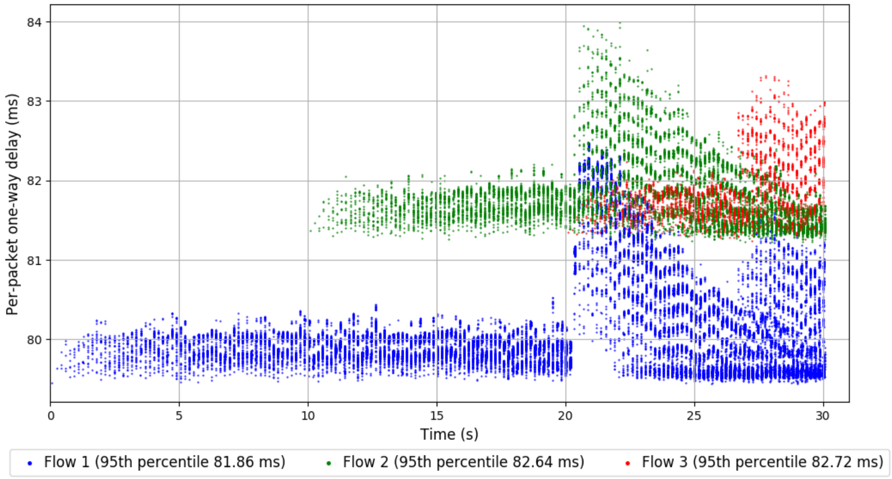




```
Run 5: Statistics of LEDBAT

Start at: 2019-01-25 03:13:13
End at: 2019-01-25 03:13:43
Local clock offset: -8.21 ms
Remote clock offset: 3.131 ms

# Below is generated by plot.py at 2019-01-25 03:27:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.70 Mbit/s
95th percentile per-packet one-way delay: 82.270 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.19 Mbit/s
95th percentile per-packet one-way delay: 81.863 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 82.642 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 82.722 ms
Loss rate: 0.00%
```

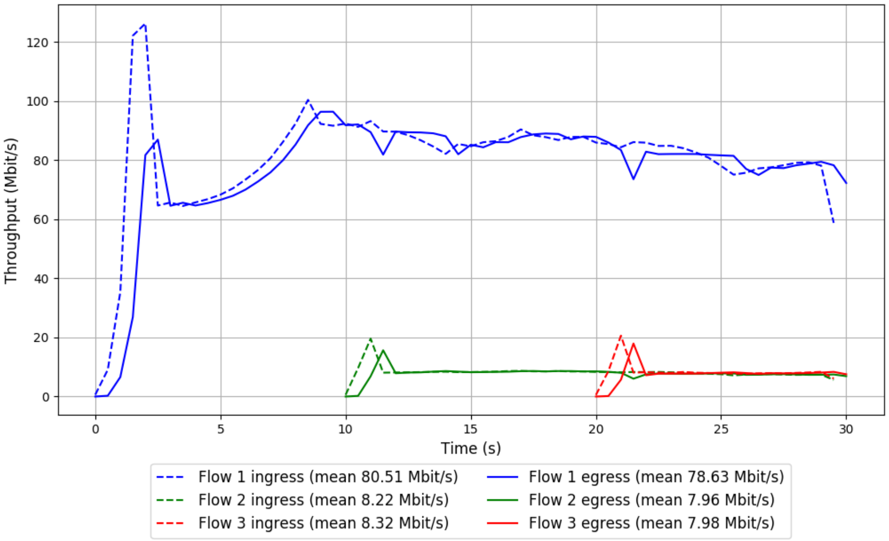
Run 5: Report of LEDBAT — Data Link

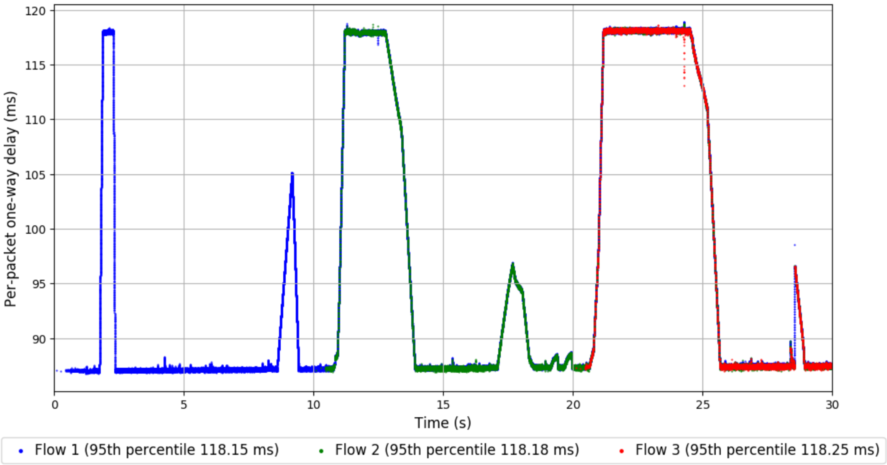




```
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-25 01:31:10
End at: 2019-01-25 01:31:40
Local clock offset: -7.474 ms
Remote clock offset: 7.335 ms

# Below is generated by plot.py at 2019-01-25 03:27:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.55 Mbit/s
95th percentile per-packet one-way delay: 118.156 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 78.63 Mbit/s
95th percentile per-packet one-way delay: 118.148 ms
Loss rate: 2.34%
-- Flow 2:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 118.184 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 118.245 ms
Loss rate: 4.09%
```

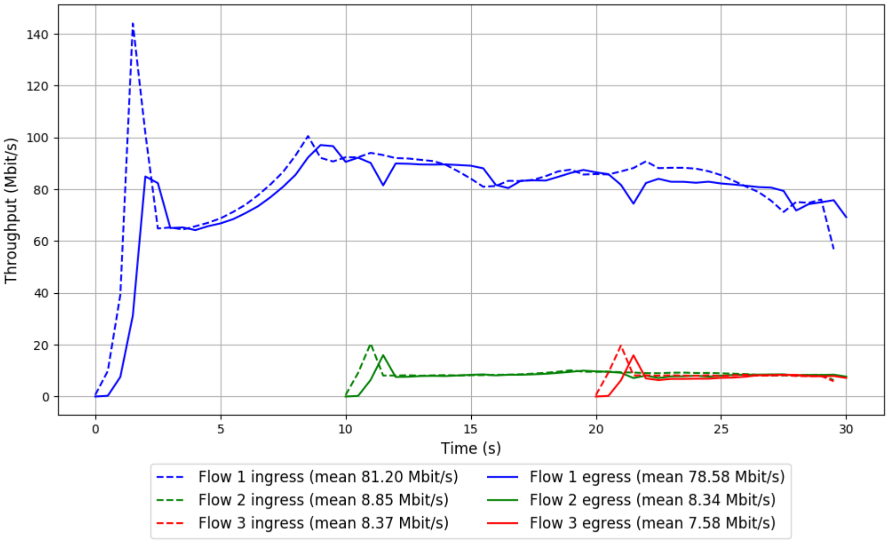
Run 1: Report of PCC-Allegro — Data Link

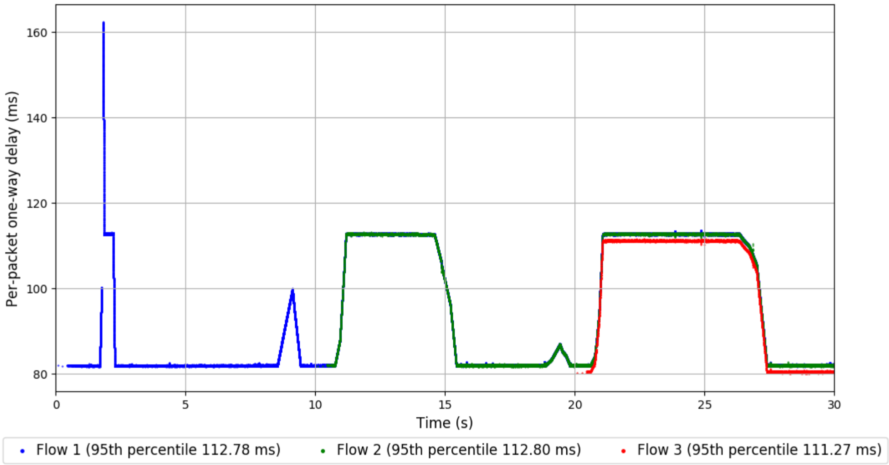




```
Run 2: Statistics of PCC-Allegro

Start at: 2019-01-25 01:57:56
End at: 2019-01-25 01:58:26
Local clock offset: -0.324 ms
Remote clock offset: 2.225 ms

# Below is generated by plot.py at 2019-01-25 03:27:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.63 Mbit/s
95th percentile per-packet one-way delay: 112.775 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 78.58 Mbit/s
95th percentile per-packet one-way delay: 112.775 ms
Loss rate: 3.22%
-- Flow 2:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 112.799 ms
Loss rate: 5.76%
-- Flow 3:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 111.272 ms
Loss rate: 9.40%
```

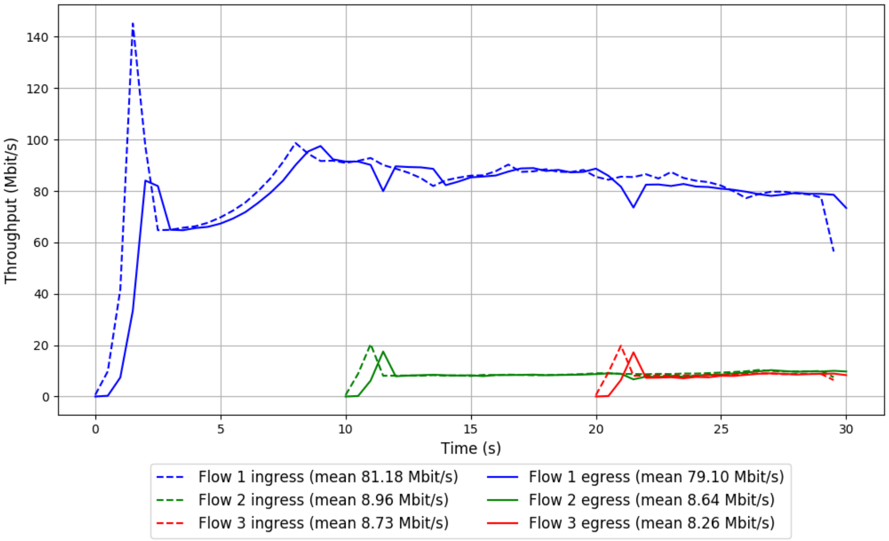
Run 2: Report of PCC-Allegro — Data Link

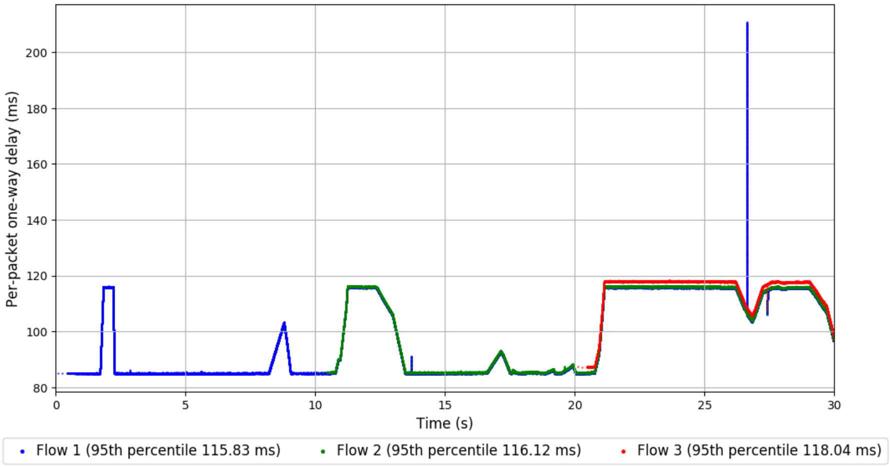




```
Run 3: Statistics of PCC-Allegro

Start at: 2019-01-25 02:24:42
End at: 2019-01-25 02:25:12
Local clock offset: -2.531 ms
Remote clock offset: 8.059 ms

# Below is generated by plot.py at 2019-01-25 03:28:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.57 Mbit/s
95th percentile per-packet one-way delay: 115.933 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 79.10 Mbit/s
95th percentile per-packet one-way delay: 115.835 ms
Loss rate: 2.53%
-- Flow 2:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 116.117 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 8.26 Mbit/s
95th percentile per-packet one-way delay: 118.036 ms
Loss rate: 5.31%
```

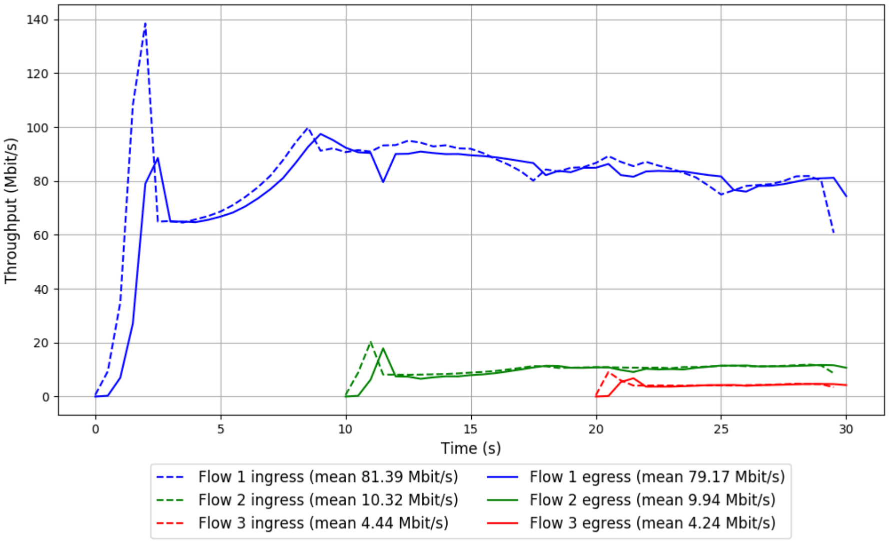
Run 3: Report of PCC-Allegro — Data Link

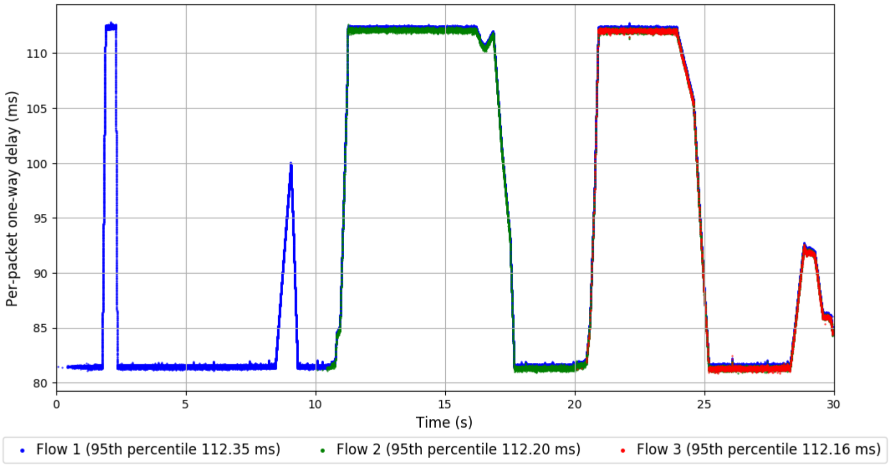




```
Run 4: Statistics of PCC-Allegro

Start at: 2019-01-25 02:51:24
End at: 2019-01-25 02:51:54
Local clock offset: -8.027 ms
Remote clock offset: 3.075 ms

# Below is generated by plot.py at 2019-01-25 03:28:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.18 Mbit/s
95th percentile per-packet one-way delay: 112.339 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 79.17 Mbit/s
95th percentile per-packet one-way delay: 112.346 ms
Loss rate: 2.71%
-- Flow 2:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 112.199 ms
Loss rate: 3.65%
-- Flow 3:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 112.157 ms
Loss rate: 4.36%
```

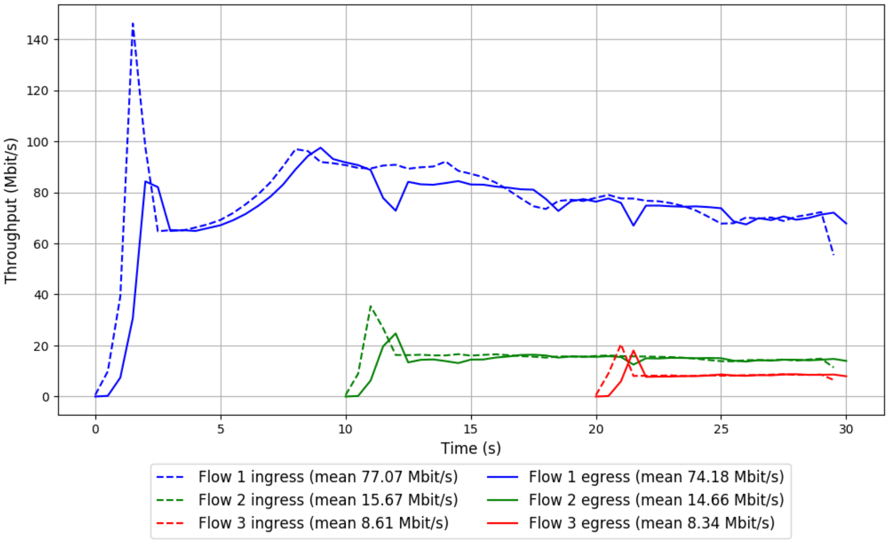
Run 4: Report of PCC-Allegro — Data Link

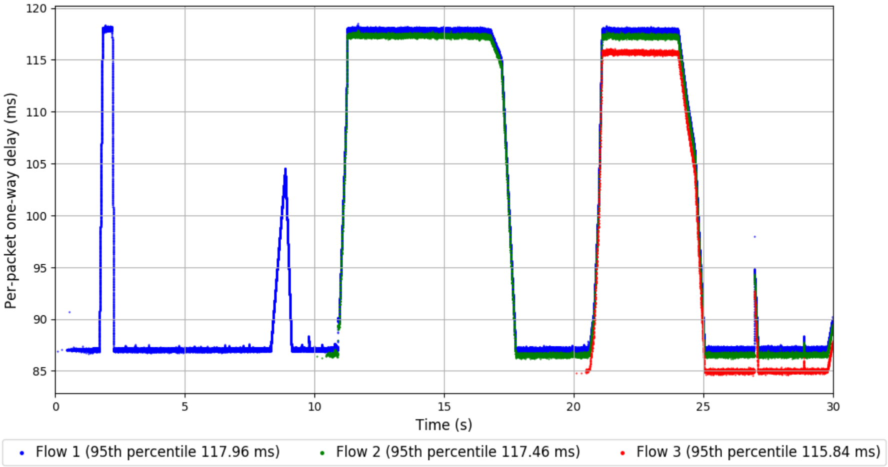




```
Run 5: Statistics of PCC-Allegro

Start at: 2019-01-25 03:18:20
End at: 2019-01-25 03:18:50
Local clock offset: -8.24 ms
Remote clock offset: 8.14 ms

# Below is generated by plot.py at 2019-01-25 03:28:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.68 Mbit/s
95th percentile per-packet one-way delay: 117.951 ms
Loss rate: 4.03%
-- Flow 1:
Average throughput: 74.18 Mbit/s
95th percentile per-packet one-way delay: 117.962 ms
Loss rate: 3.74%
-- Flow 2:
Average throughput: 14.66 Mbit/s
95th percentile per-packet one-way delay: 117.456 ms
Loss rate: 6.45%
-- Flow 3:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 115.845 ms
Loss rate: 3.15%
```

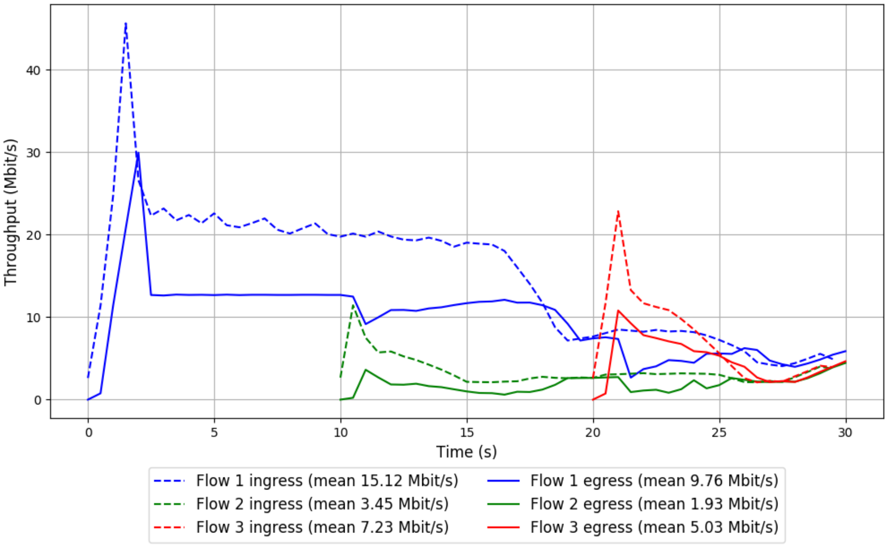
Run 5: Report of PCC-Allegro — Data Link

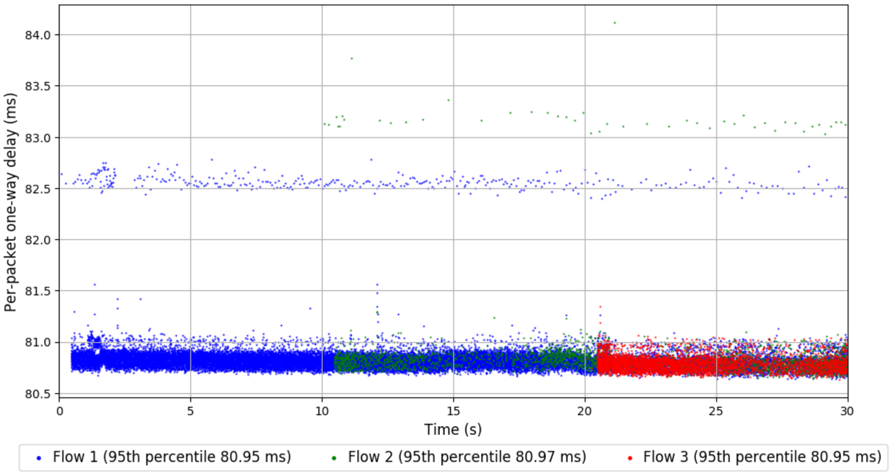




```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-25 01:14:40
End at: 2019-01-25 01:15:10
Local clock offset: -7.742 ms
Remote clock offset: 2.622 ms

# Below is generated by plot.py at 2019-01-25 03:28:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 80.952 ms
Loss rate: 35.84%
-- Flow 1:
Average throughput: 9.76 Mbit/s
95th percentile per-packet one-way delay: 80.952 ms
Loss rate: 35.45%
-- Flow 2:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 80.967 ms
Loss rate: 44.08%
-- Flow 3:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 80.946 ms
Loss rate: 30.42%
```

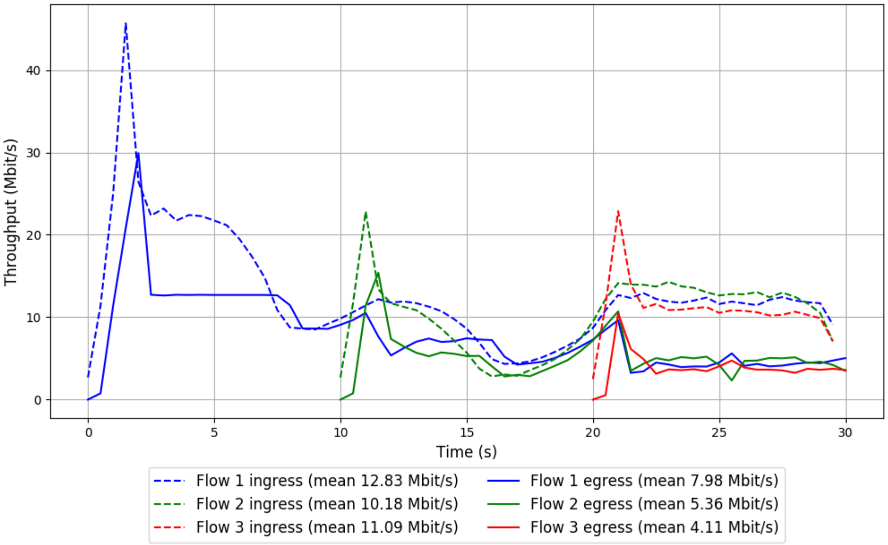
Run 1: Report of PCC-Expr — Data Link

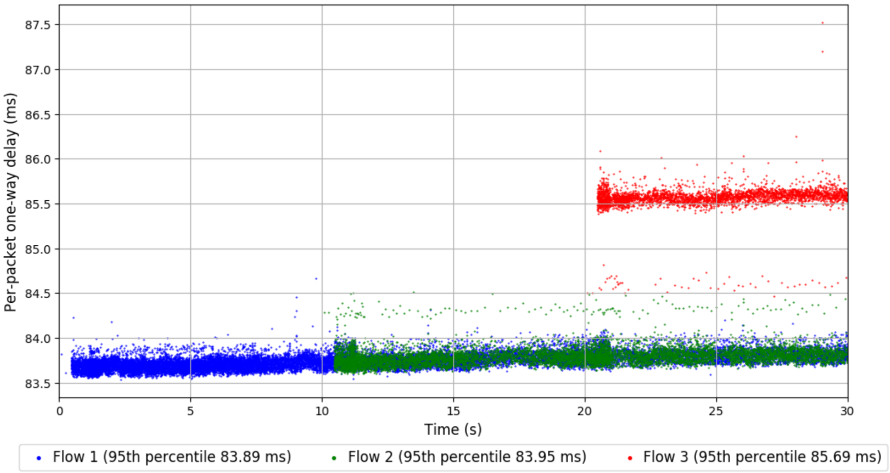




```
Run 2: Statistics of PCC-Expr

Start at: 2019-01-25 01:41:23
End at: 2019-01-25 01:41:54
Local clock offset: -3.485 ms
Remote clock offset: 4.976 ms

# Below is generated by plot.py at 2019-01-25 03:28:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 85.577 ms
Loss rate: 44.55%
-- Flow 1:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 83.888 ms
Loss rate: 37.80%
-- Flow 2:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 83.950 ms
Loss rate: 47.39%
-- Flow 3:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 85.691 ms
Loss rate: 62.95%
```

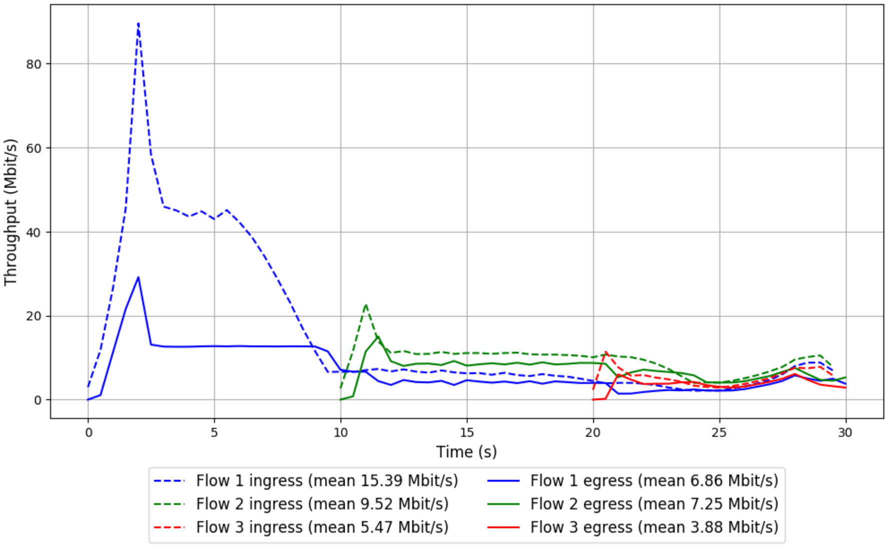
Run 2: Report of PCC-Expr — Data Link

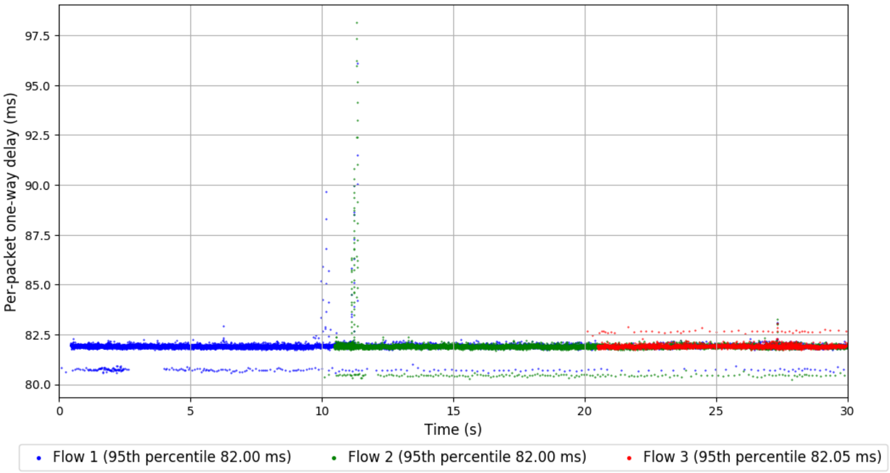




```
Run 3: Statistics of PCC-Expr

Start at: 2019-01-25 02:08:10
End at: 2019-01-25 02:08:40
Local clock offset: -1.85 ms
Remote clock offset: 2.272 ms

# Below is generated by plot.py at 2019-01-25 03:28:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.96 Mbit/s
95th percentile per-packet one-way delay: 82.002 ms
Loss rate: 44.94%
-- Flow 1:
Average throughput: 6.86 Mbit/s
95th percentile per-packet one-way delay: 82.000 ms
Loss rate: 55.45%
-- Flow 2:
Average throughput: 7.25 Mbit/s
95th percentile per-packet one-way delay: 81.996 ms
Loss rate: 23.93%
-- Flow 3:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 82.050 ms
Loss rate: 29.09%
```

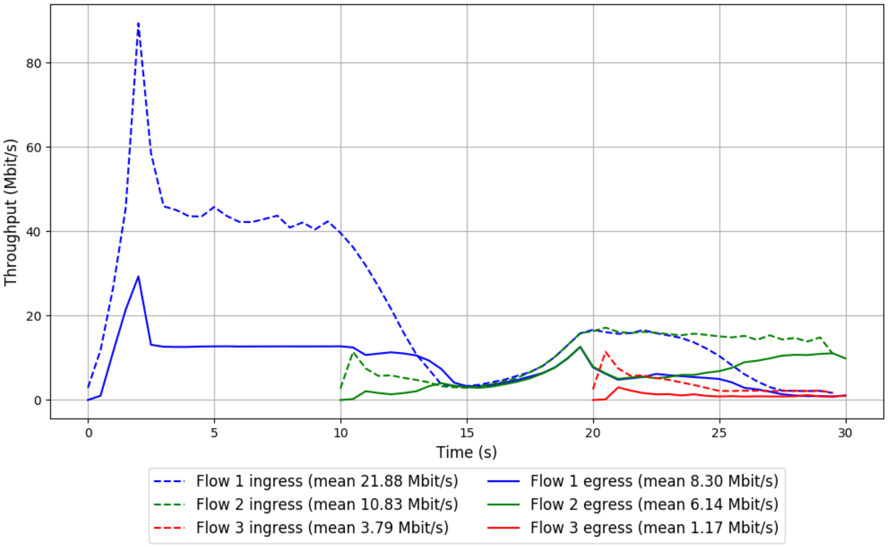
Run 3: Report of PCC-Expr — Data Link

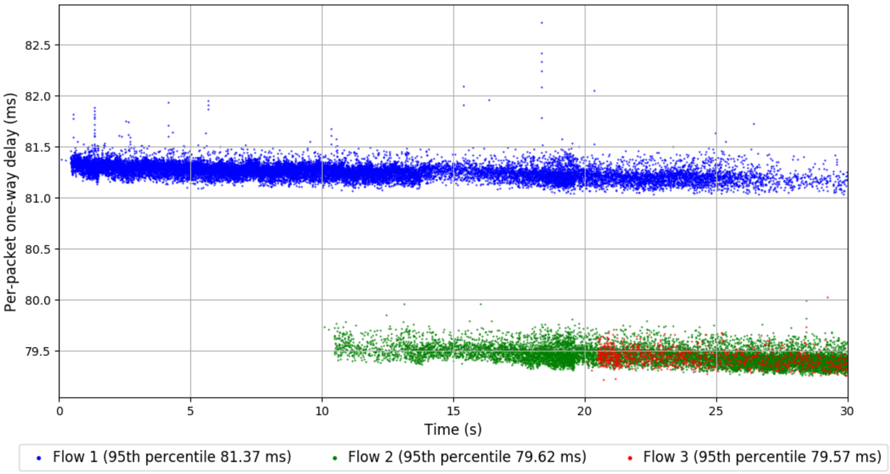




```
Run 4: Statistics of PCC-Expr

Start at: 2019-01-25 02:34:55
End at: 2019-01-25 02:35:25
Local clock offset: -5.653 ms
Remote clock offset: 2.734 ms

# Below is generated by plot.py at 2019-01-25 03:28:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.77 Mbit/s
95th percentile per-packet one-way delay: 81.353 ms
Loss rate: 57.90%
-- Flow 1:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 81.370 ms
Loss rate: 62.05%
-- Flow 2:
Average throughput: 6.14 Mbit/s
95th percentile per-packet one-way delay: 79.617 ms
Loss rate: 43.31%
-- Flow 3:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 79.571 ms
Loss rate: 69.27%
```

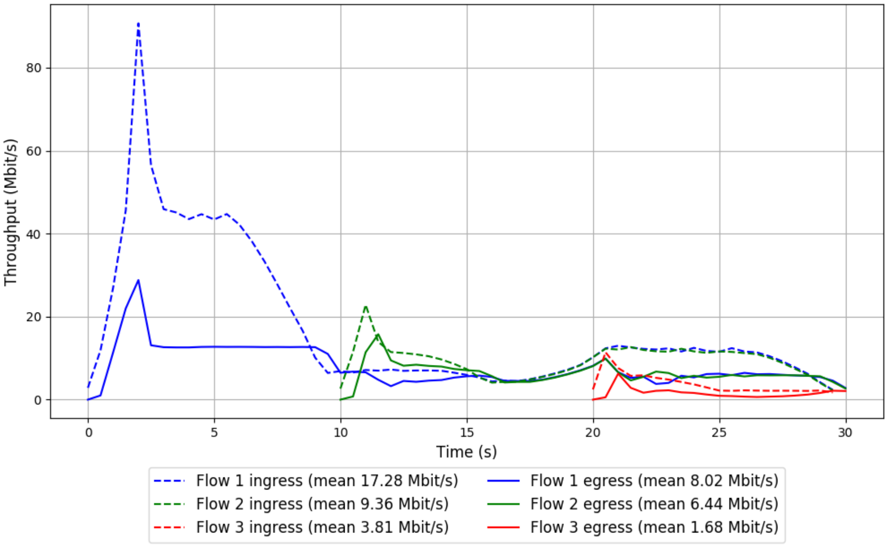
Run 4: Report of PCC-Expr — Data Link

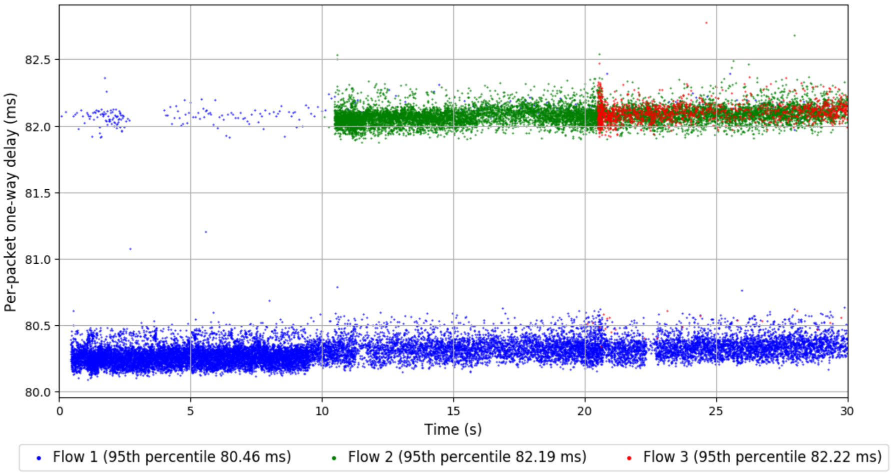




```
Run 5: Statistics of PCC-Expr

Start at: 2019-01-25 03:01:37
End at: 2019-01-25 03:02:07
Local clock offset: -8.405 ms
Remote clock offset: 4.34 ms

# Below is generated by plot.py at 2019-01-25 03:28:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.85 Mbit/s
95th percentile per-packet one-way delay: 82.147 ms
Loss rate: 48.10%
-- Flow 1:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 80.458 ms
Loss rate: 53.61%
-- Flow 2:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 82.185 ms
Loss rate: 31.23%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 82.223 ms
Loss rate: 56.00%
```

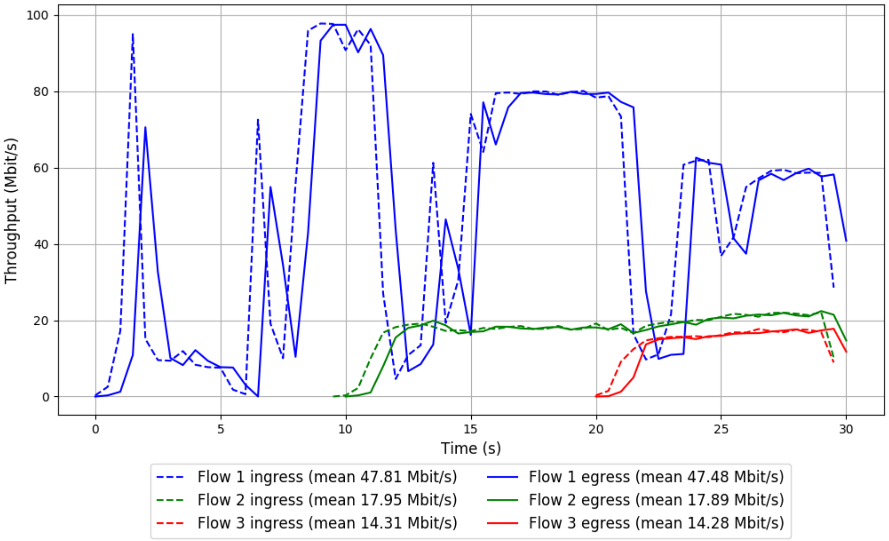
Run 5: Report of PCC-Expr — Data Link

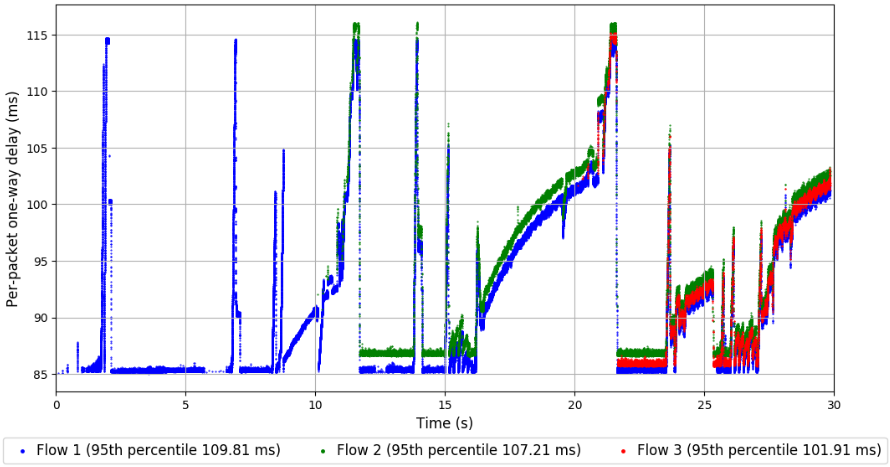




```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-25 01:15:55
End at: 2019-01-25 01:16:25
Local clock offset: -7.169 ms
Remote clock offset: 7.564 ms

# Below is generated by plot.py at 2019-01-25 03:28:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.02 Mbit/s
95th percentile per-packet one-way delay: 109.492 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 47.48 Mbit/s
95th percentile per-packet one-way delay: 109.814 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 17.89 Mbit/s
95th percentile per-packet one-way delay: 107.210 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 14.28 Mbit/s
95th percentile per-packet one-way delay: 101.905 ms
Loss rate: 0.21%
```

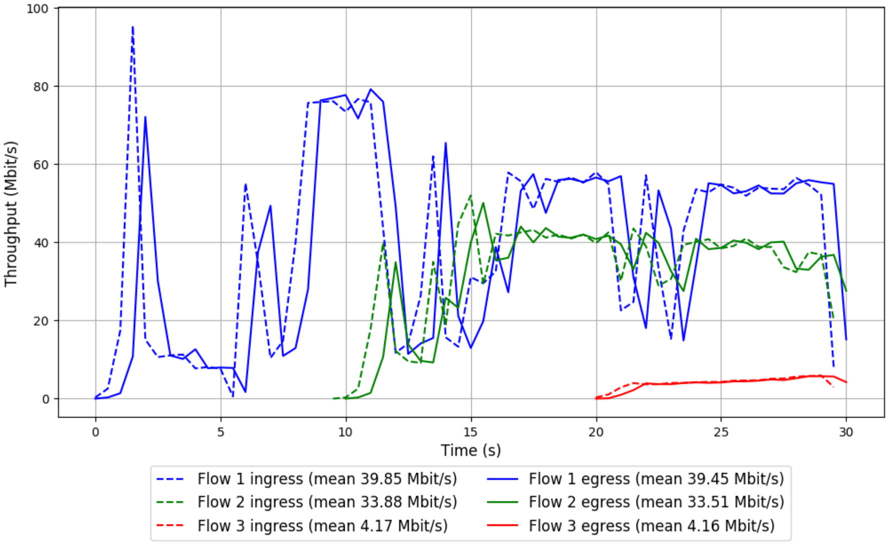
Run 1: Report of QUIC Cubic — Data Link

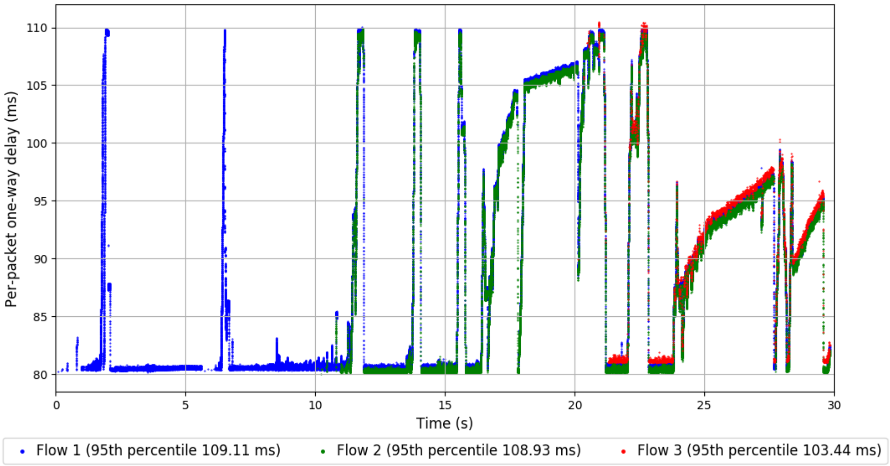




```
Run 2: Statistics of QUIC Cubic

Start at: 2019-01-25 01:42:38
End at: 2019-01-25 01:43:08
Local clock offset: -2.359 ms
Remote clock offset: 2.342 ms

# Below is generated by plot.py at 2019-01-25 03:28:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.06 Mbit/s
95th percentile per-packet one-way delay: 108.977 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 109.115 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 33.51 Mbit/s
95th percentile per-packet one-way delay: 108.933 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 103.440 ms
Loss rate: 0.39%
```

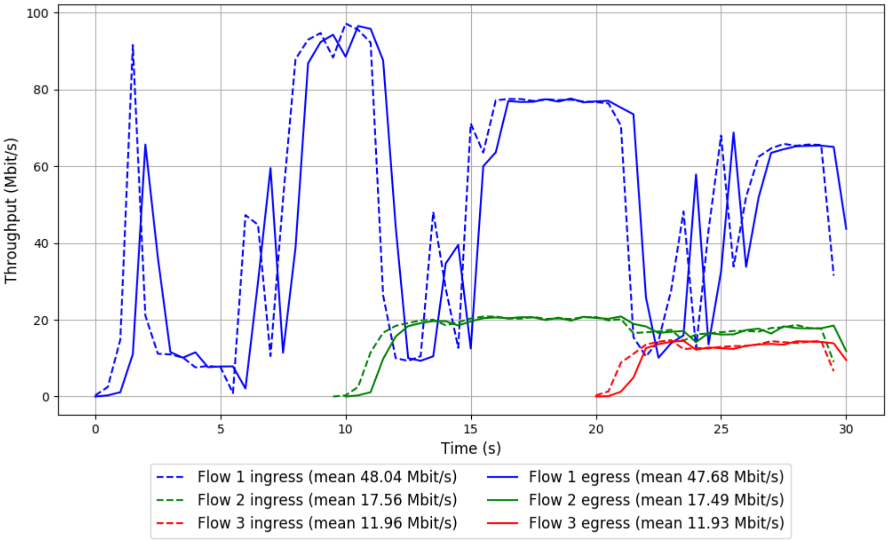
Run 2: Report of QUIC Cubic — Data Link

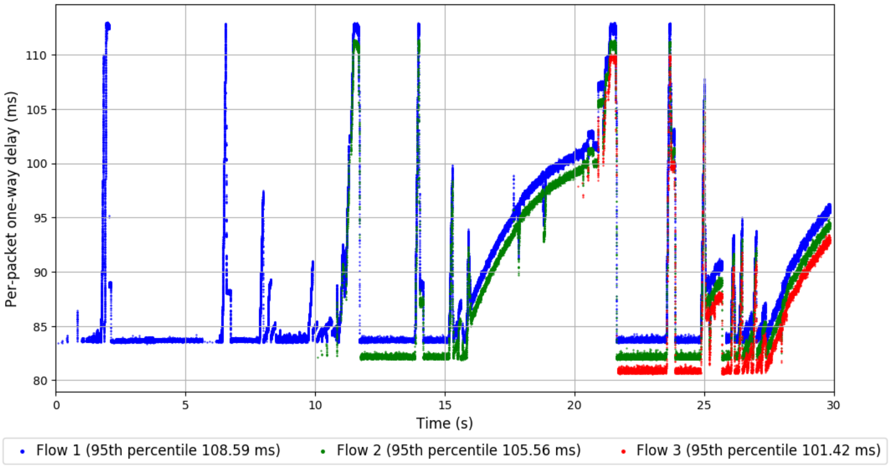




```
Run 3: Statistics of QUIC Cubic

Start at: 2019-01-25 02:09:24
End at: 2019-01-25 02:09:54
Local clock offset: -1.87 ms
Remote clock offset: 2.187 ms

# Below is generated by plot.py at 2019-01-25 03:28:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.18 Mbit/s
95th percentile per-packet one-way delay: 107.360 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 47.68 Mbit/s
95th percentile per-packet one-way delay: 108.588 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 17.49 Mbit/s
95th percentile per-packet one-way delay: 105.563 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 101.424 ms
Loss rate: 0.32%
```

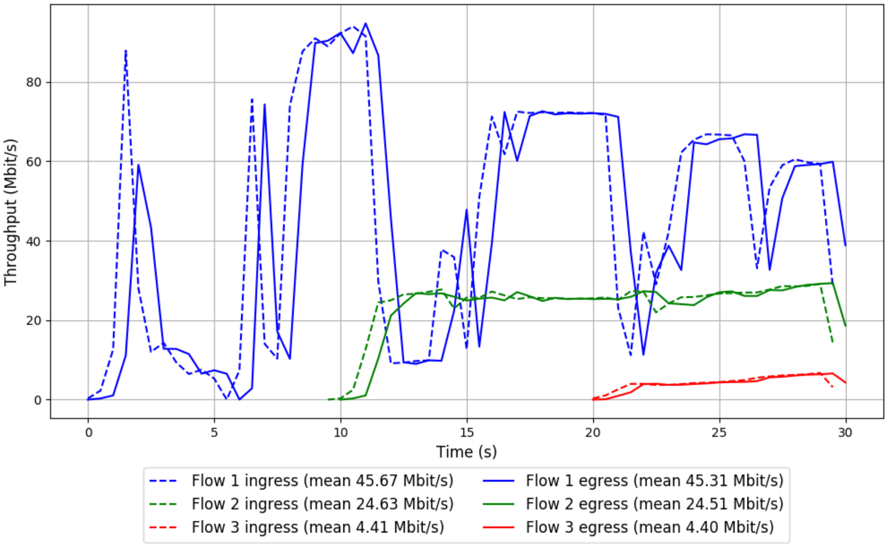
Run 3: Report of QUIC Cubic — Data Link

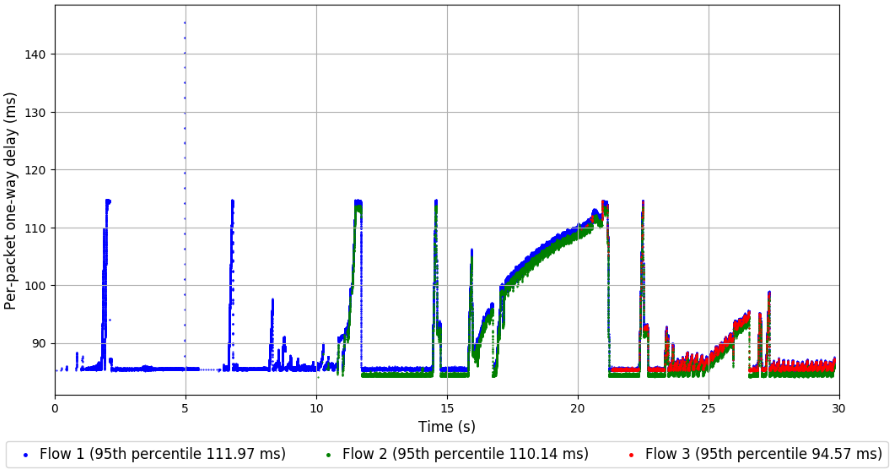




```
Run 4: Statistics of QUIC Cubic

Start at: 2019-01-25 02:36:09
End at: 2019-01-25 02:36:39
Local clock offset: -5.372 ms
Remote clock offset: 7.599 ms

# Below is generated by plot.py at 2019-01-25 03:28:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 111.407 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 45.31 Mbit/s
95th percentile per-packet one-way delay: 111.967 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 110.136 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 4.40 Mbit/s
95th percentile per-packet one-way delay: 94.573 ms
Loss rate: 0.42%
```

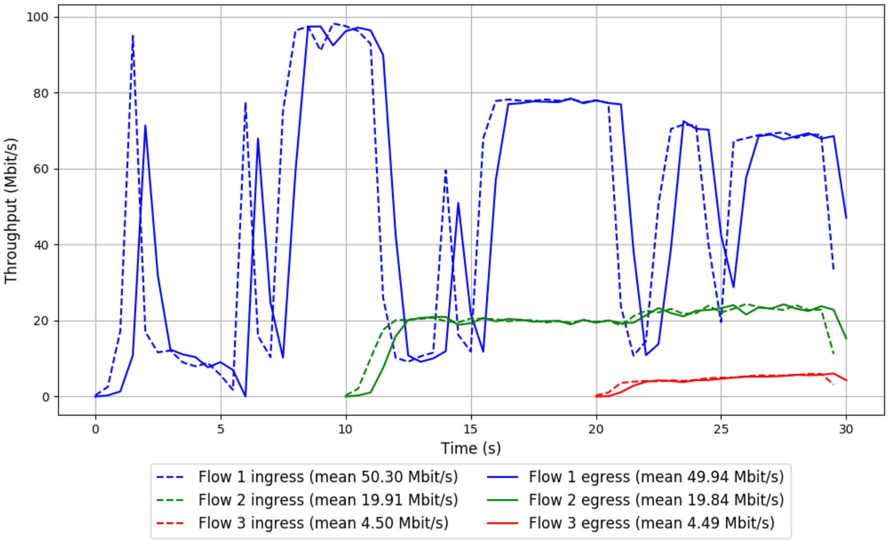
Run 4: Report of QUIC Cubic — Data Link

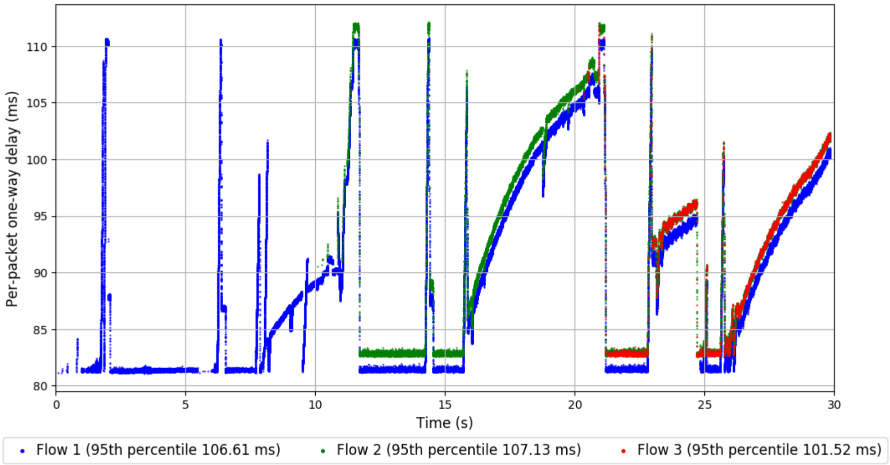




```
Run 5: Statistics of QUIC Cubic

Start at: 2019-01-25 03:02:51
End at: 2019-01-25 03:03:21
Local clock offset: -8.948 ms
Remote clock offset: 4.322 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.57 Mbit/s
95th percentile per-packet one-way delay: 106.698 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 49.94 Mbit/s
95th percentile per-packet one-way delay: 106.607 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 19.84 Mbit/s
95th percentile per-packet one-way delay: 107.129 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 101.515 ms
Loss rate: 0.16%
```

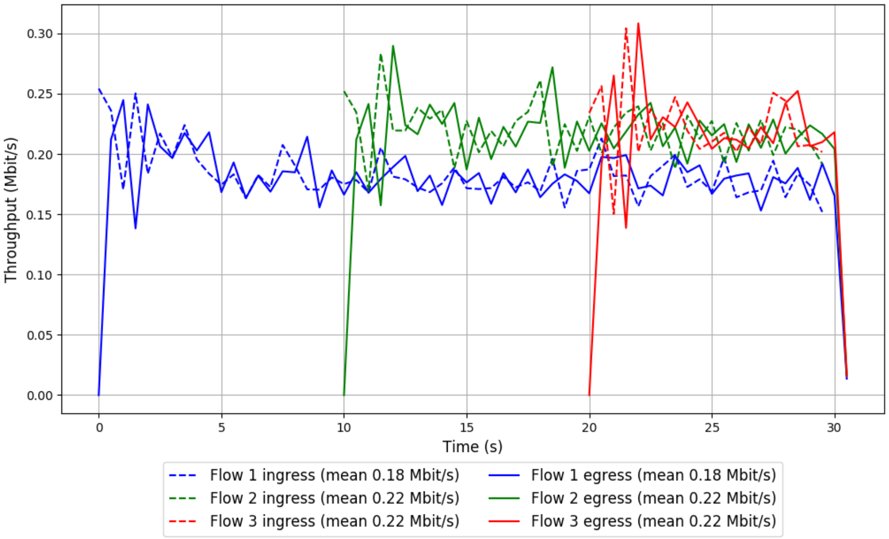
Run 5: Report of QUIC Cubic — Data Link

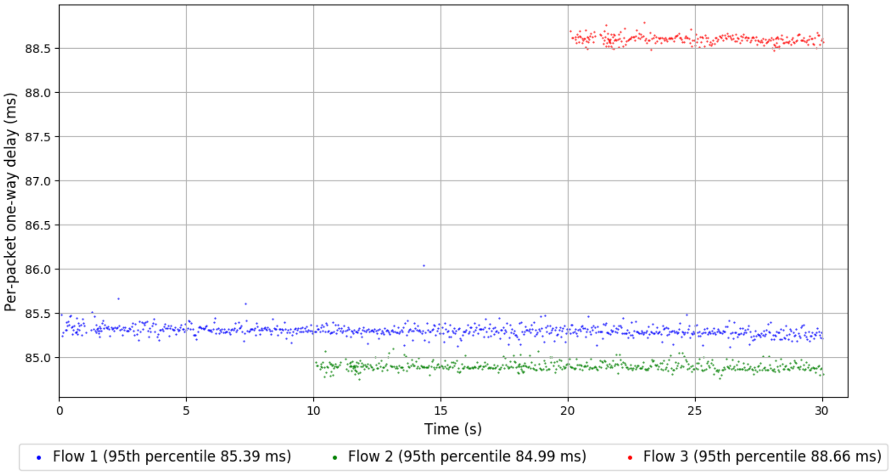




```
Run 1: Statistics of SCReAM

Start at: 2019-01-25 01:18:29
End at: 2019-01-25 01:18:59
Local clock offset: -7.547 ms
Remote clock offset: 7.493 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 88.618 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 85.394 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.986 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.663 ms
Loss rate: 0.00%
```

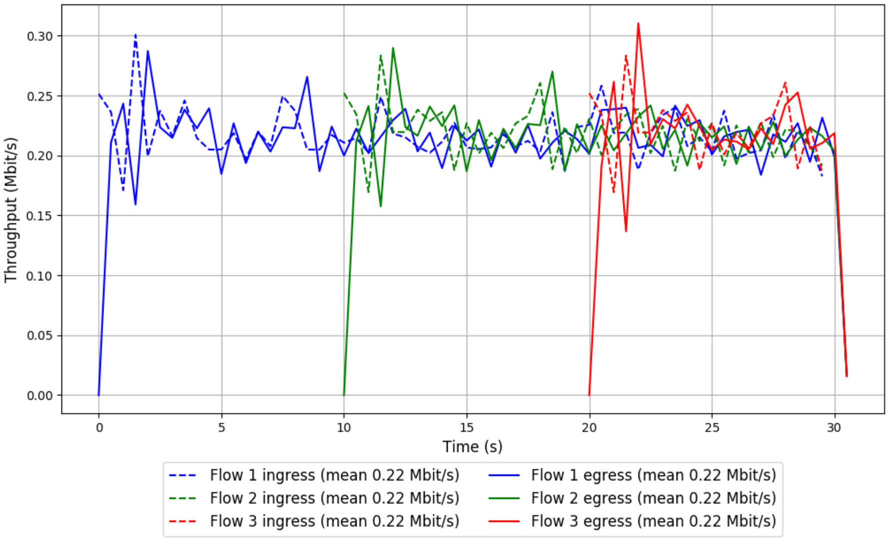
Run 1: Report of SCReAM — Data Link

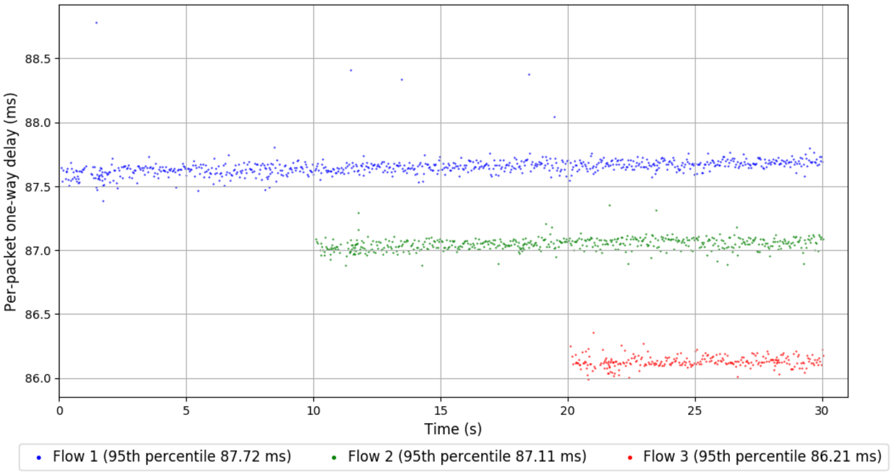




```
Run 2: Statistics of SCReAM

Start at: 2019-01-25 01:45:12
End at: 2019-01-25 01:45:42
Local clock offset: -1.779 ms
Remote clock offset: 7.419 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.722 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.107 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.207 ms
Loss rate: 0.00%
```

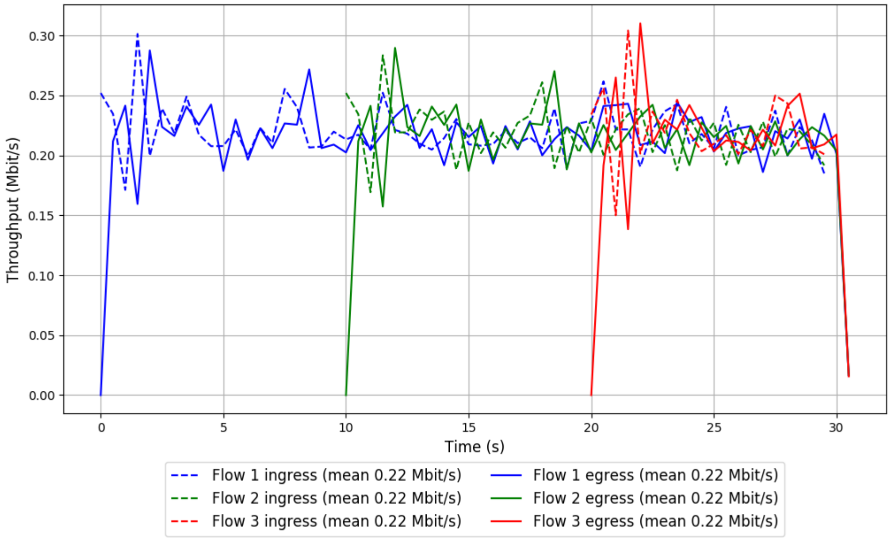
Run 2: Report of SCReAM — Data Link

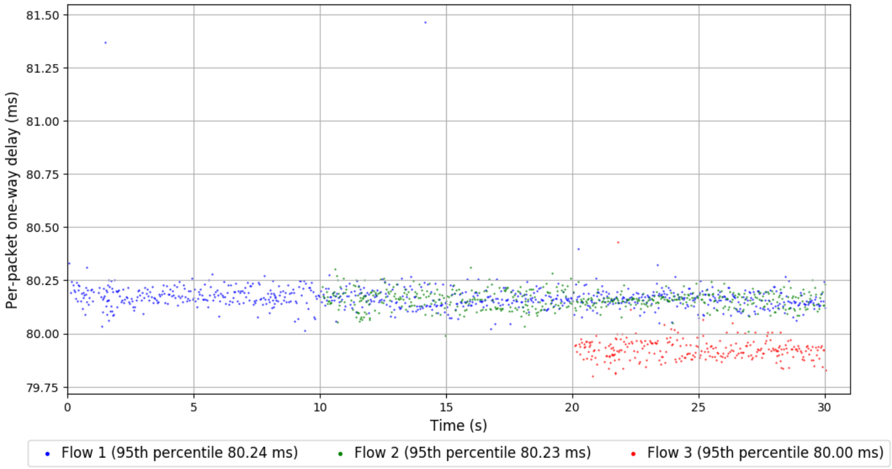




```
Run 3: Statistics of SCReAM

Start at: 2019-01-25 02:11:59
End at: 2019-01-25 02:12:29
Local clock offset: -2.09 ms
Remote clock offset: 2.097 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 80.230 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.238 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.229 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.001 ms
Loss rate: 0.00%
```

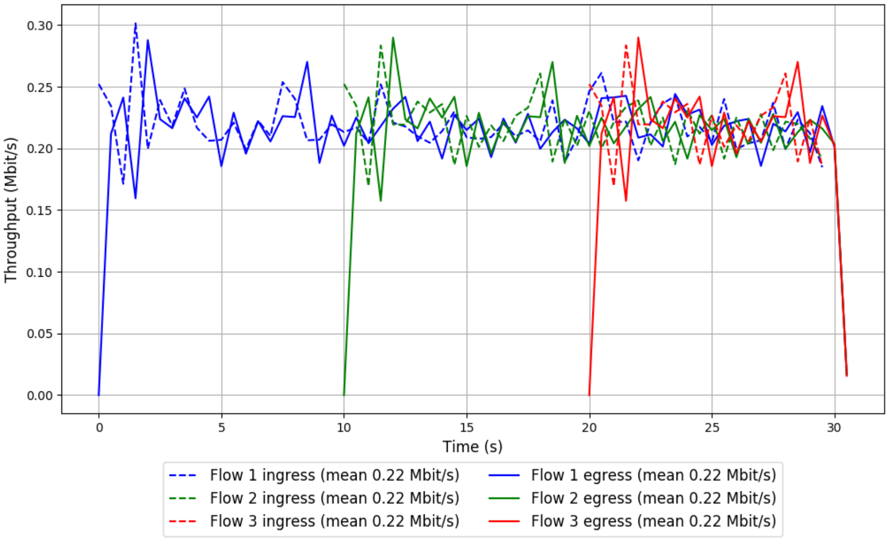
Run 3: Report of SCReAM — Data Link

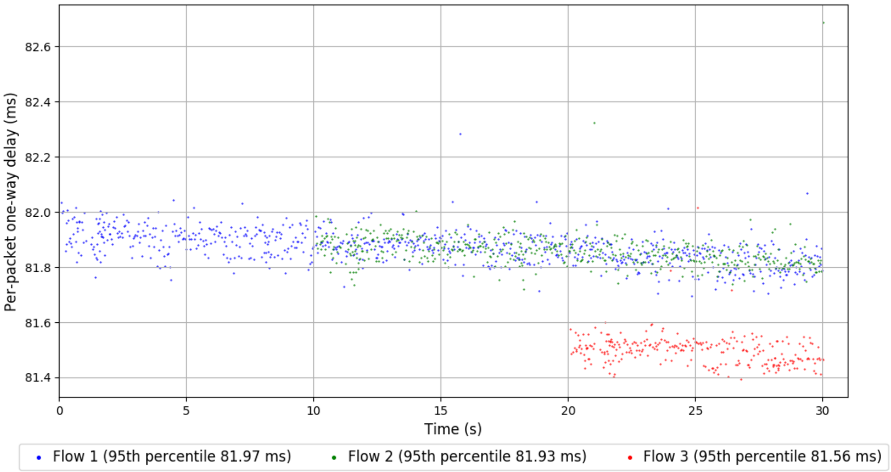




```
Run 4: Statistics of SCReAM

Start at: 2019-01-25 02:38:44
End at: 2019-01-25 02:39:14
Local clock offset: -5.987 ms
Remote clock offset: 3.819 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 81.950 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.965 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.932 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.562 ms
Loss rate: 0.00%
```

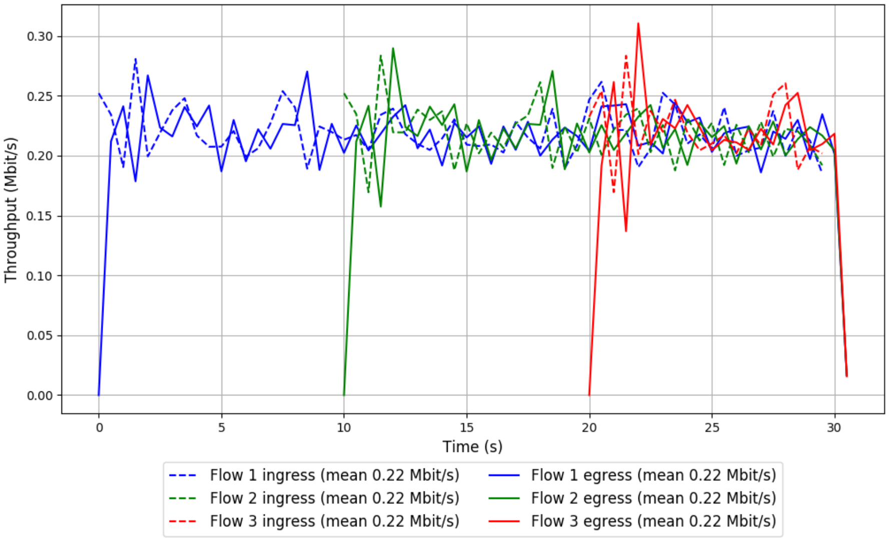
Run 4: Report of SCReAM — Data Link

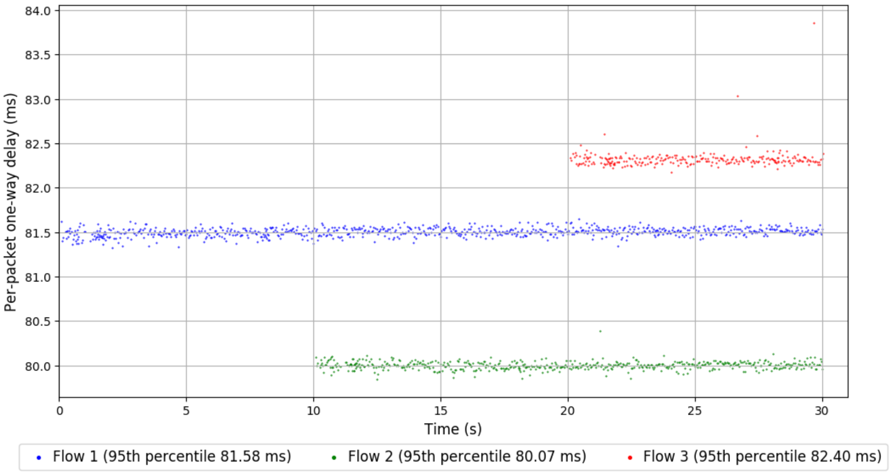




```
Run 5: Statistics of SCReAM

Start at: 2019-01-25 03:05:26
End at: 2019-01-25 03:05:56
Local clock offset: -8.649 ms
Remote clock offset: 3.115 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 82.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.583 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.072 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.397 ms
Loss rate: 0.00%
```

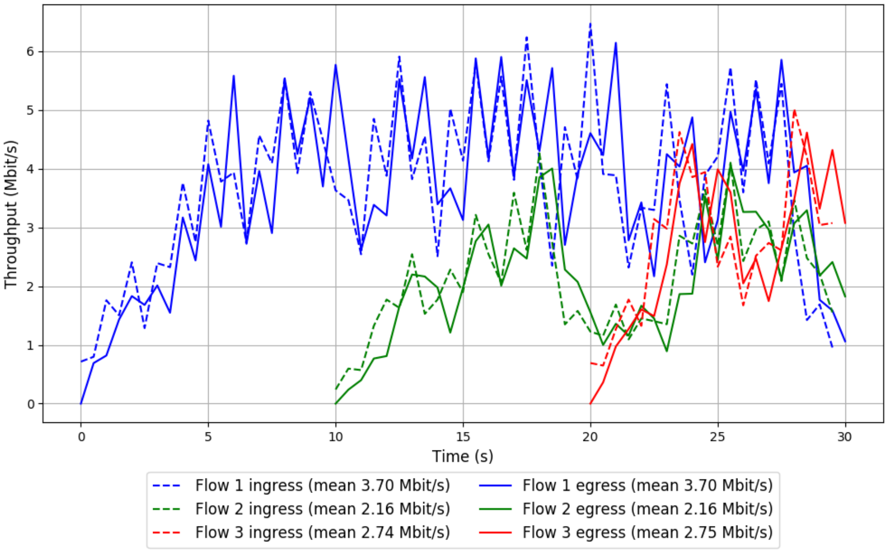
Run 5: Report of SCReAM — Data Link

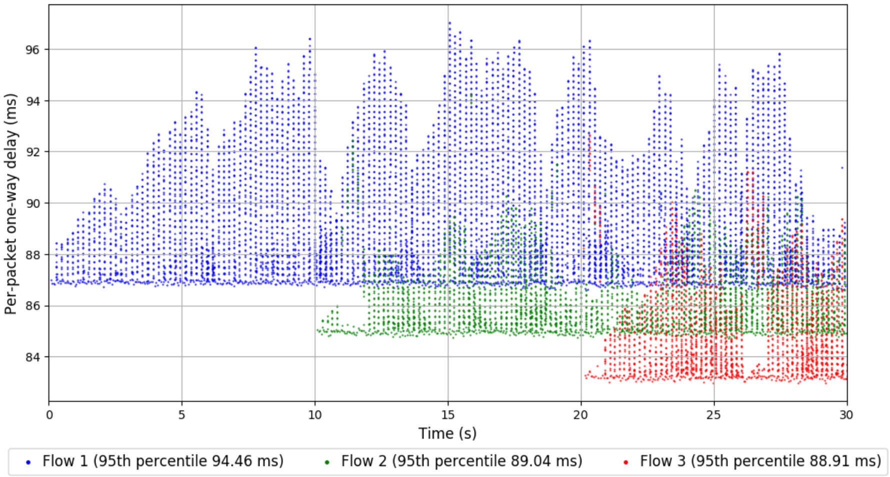




```
Run 1: Statistics of Sprout

Start at: 2019-01-25 01:12:13
End at: 2019-01-25 01:12:43
Local clock offset: -7.262 ms
Remote clock offset: 5.151 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.04 Mbit/s
95th percentile per-packet one-way delay: 93.807 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 94.457 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 89.043 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 88.905 ms
Loss rate: 0.00%
```

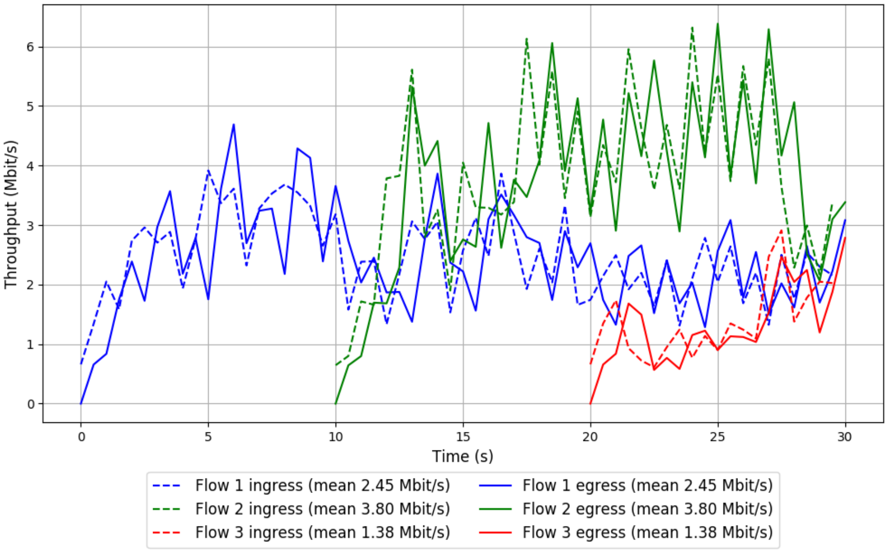
Run 1: Report of Sprout — Data Link

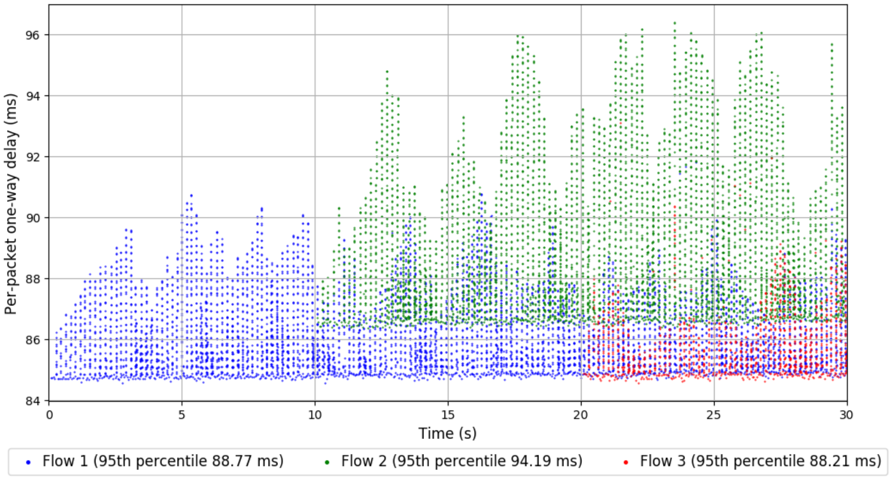




```
Run 2: Statistics of Sprout

Start at: 2019-01-25 01:38:57
End at: 2019-01-25 01:39:27
Local clock offset: -4.25 ms
Remote clock offset: 6.101 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.43 Mbit/s
95th percentile per-packet one-way delay: 93.035 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 88.767 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 94.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 88.206 ms
Loss rate: 0.00%
```

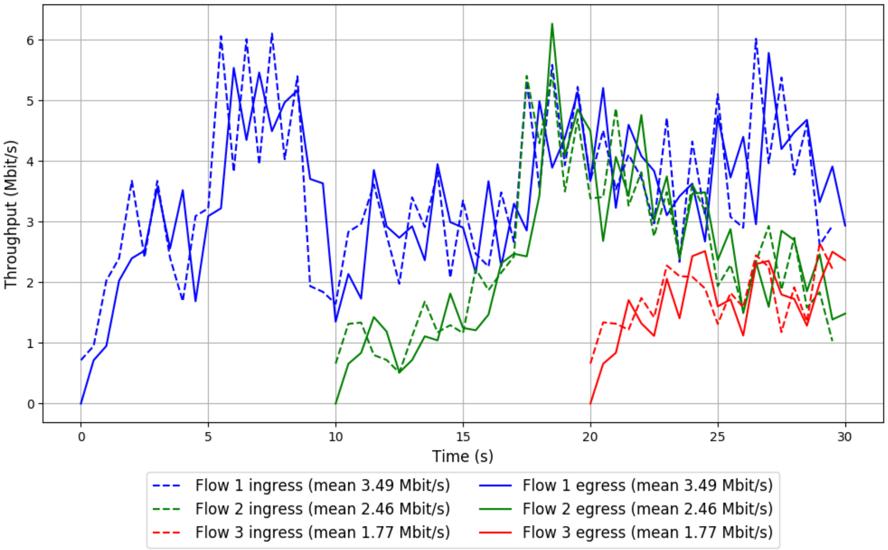
Run 2: Report of Sprout — Data Link

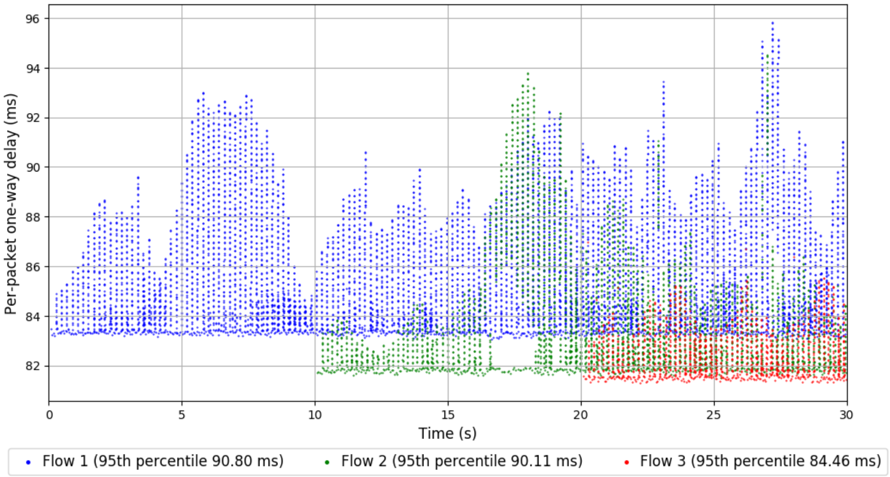




```
Run 3: Statistics of Sprout

Start at: 2019-01-25 02:05:43
End at: 2019-01-25 02:06:13
Local clock offset: -1.484 ms
Remote clock offset: 1.979 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 90.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 90.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 90.105 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 84.457 ms
Loss rate: 0.00%
```

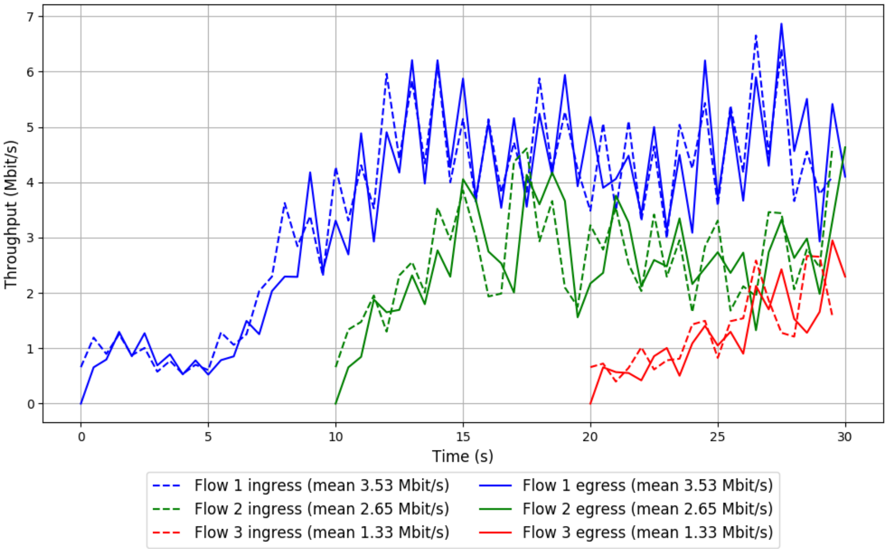
Run 3: Report of Sprout — Data Link

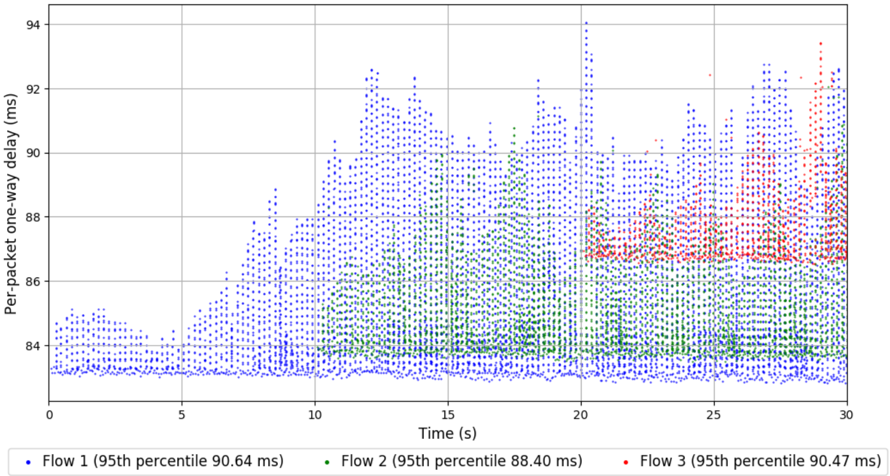




```
Run 4: Statistics of Sprout

Start at: 2019-01-25 02:32:28
End at: 2019-01-25 02:32:58
Local clock offset: -4.692 ms
Remote clock offset: 6.442 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.73 Mbit/s
95th percentile per-packet one-way delay: 90.225 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.53 Mbit/s
95th percentile per-packet one-way delay: 90.641 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 88.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 90.472 ms
Loss rate: 0.00%
```

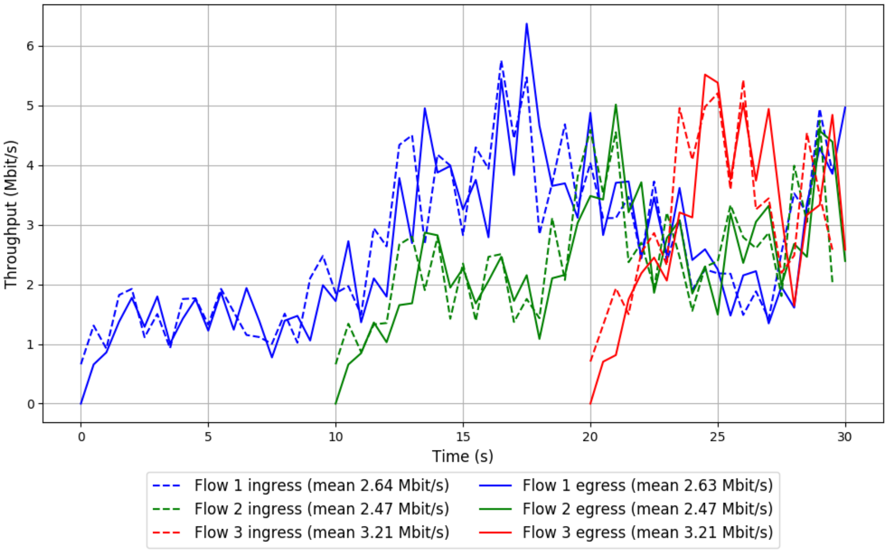
Run 4: Report of Sprout — Data Link

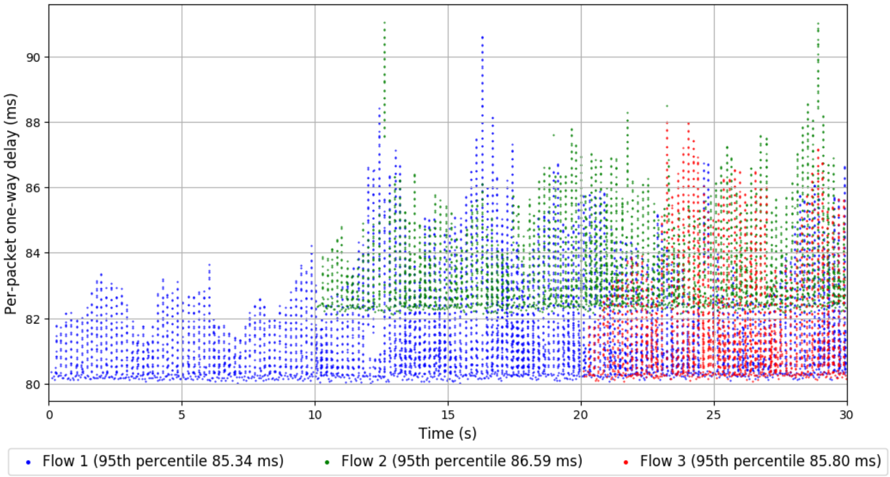




```
Run 5: Statistics of Sprout

Start at: 2019-01-25 02:59:10
End at: 2019-01-25 02:59:40
Local clock offset: -8.673 ms
Remote clock offset: 4.287 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 85.970 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 85.341 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 86.591 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 85.803 ms
Loss rate: 0.00%
```

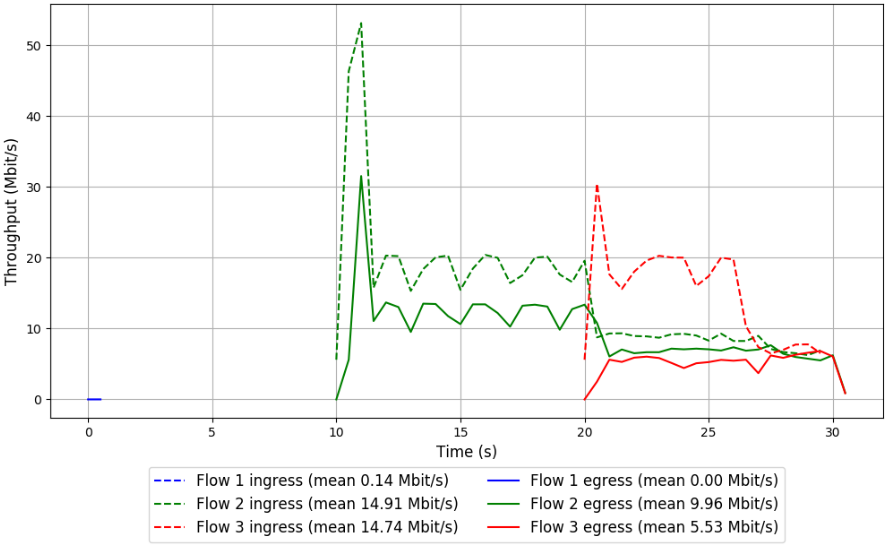
Run 5: Report of Sprout — Data Link

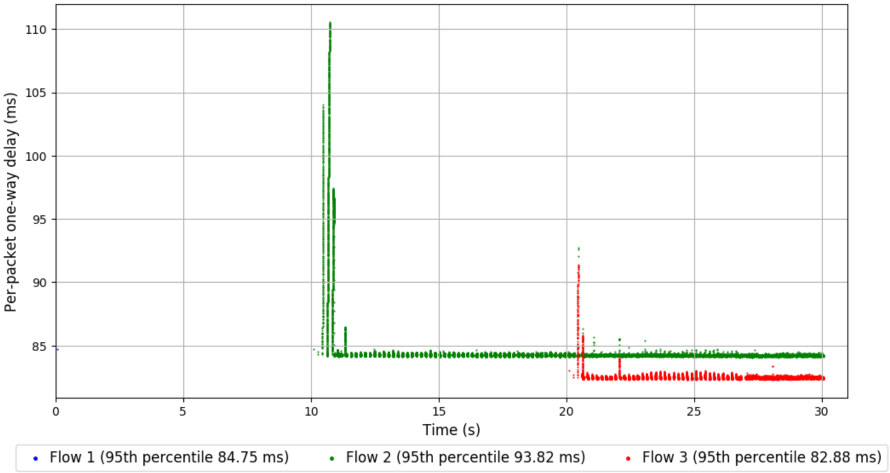




```
Run 1: Statistics of TaoVA-100x

Start at: 2019-01-25 01:13:27
End at: 2019-01-25 01:13:57
Local clock offset: -6.721 ms
Remote clock offset: 5.094 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 90.563 ms
Loss rate: 42.89%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 84.747 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 93.824 ms
Loss rate: 33.23%
-- Flow 3:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 82.884 ms
Loss rate: 62.48%
```

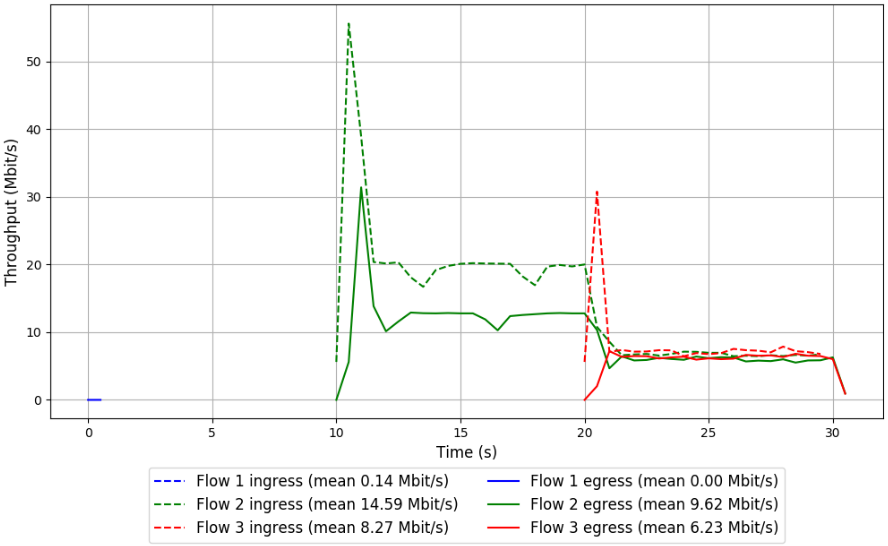
Run 1: Report of TaoVA-100x — Data Link

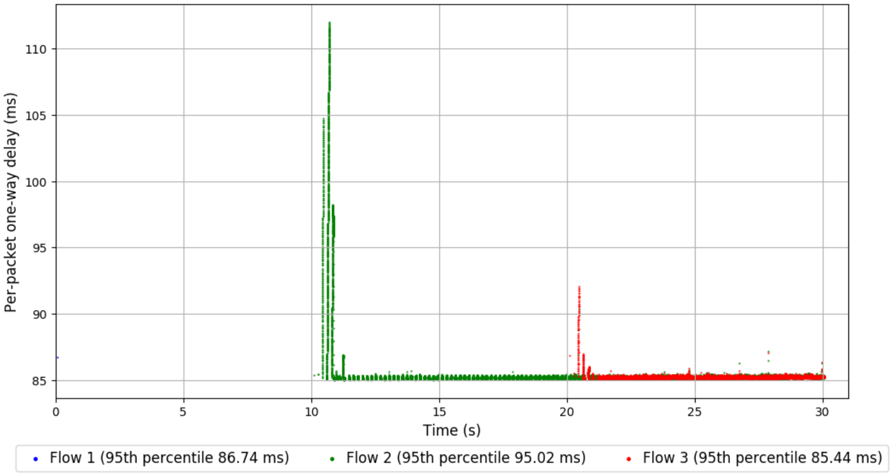




```
Run 2: Statistics of TaoVA-100x

Start at: 2019-01-25 01:40:10
End at: 2019-01-25 01:40:40
Local clock offset: -3.036 ms
Remote clock offset: 7.162 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 91.244 ms
Loss rate: 32.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.743 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.62 Mbit/s
95th percentile per-packet one-way delay: 95.021 ms
Loss rate: 34.08%
-- Flow 3:
Average throughput: 6.23 Mbit/s
95th percentile per-packet one-way delay: 85.437 ms
Loss rate: 24.63%
```

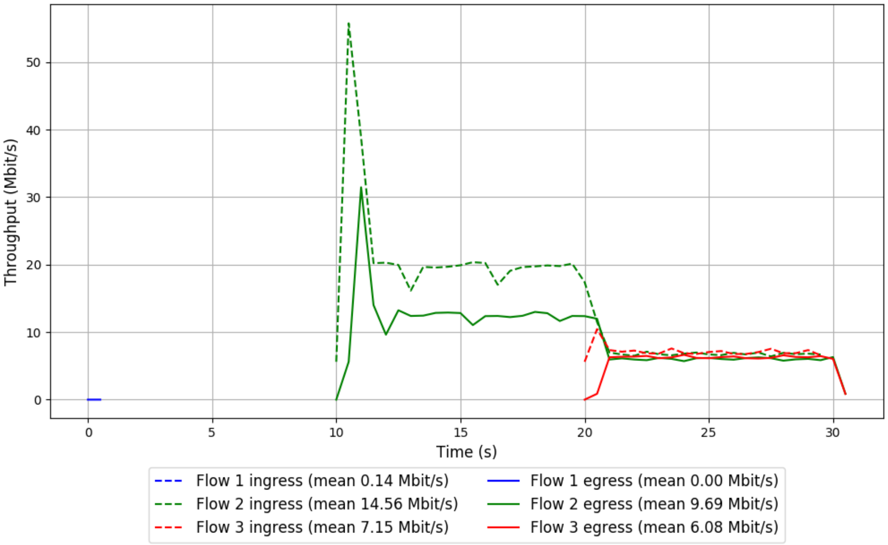
Run 2: Report of TaoVA-100x — Data Link

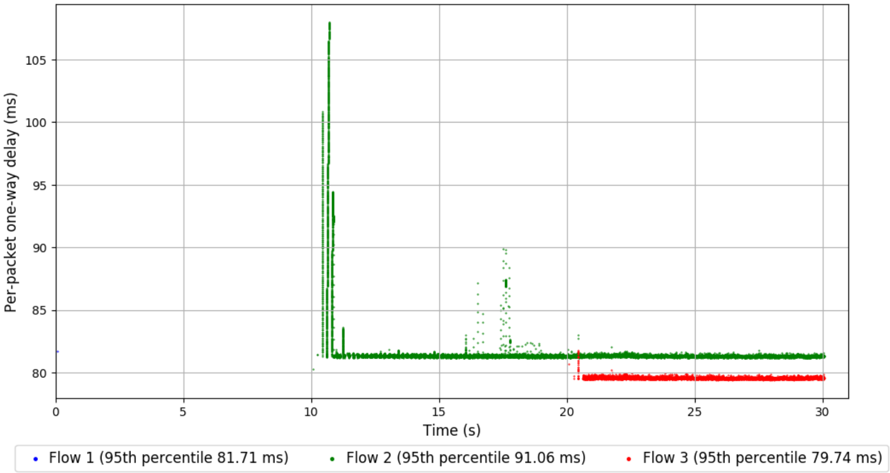




```
Run 3: Statistics of TaoVA-100x

Start at: 2019-01-25 02:06:57
End at: 2019-01-25 02:07:27
Local clock offset: -2.358 ms
Remote clock offset: 1.07 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 87.383 ms
Loss rate: 29.82%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 81.713 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 91.065 ms
Loss rate: 33.45%
-- Flow 3:
Average throughput: 6.08 Mbit/s
95th percentile per-packet one-way delay: 79.739 ms
Loss rate: 14.97%
```

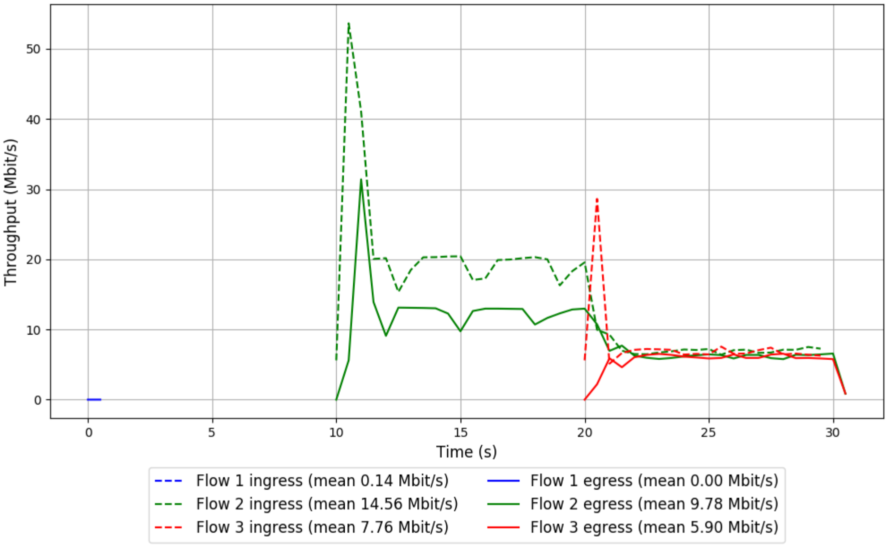
Run 3: Report of TaoVA-100x — Data Link

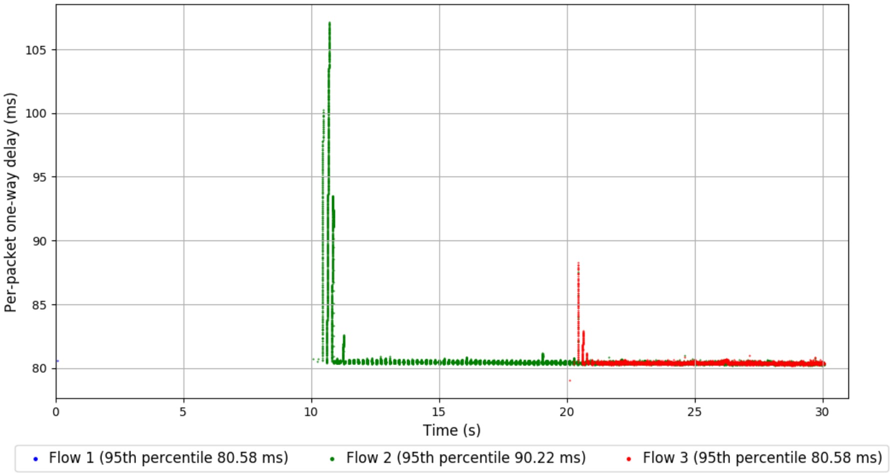




```
Run 4: Statistics of TaoVA-100x

Start at: 2019-01-25 02:33:42
End at: 2019-01-25 02:34:12
Local clock offset: -4.424 ms
Remote clock offset: 2.686 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.48 Mbit/s
95th percentile per-packet one-way delay: 86.720 ms
Loss rate: 30.97%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 80.583 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 90.218 ms
Loss rate: 32.83%
-- Flow 3:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 80.581 ms
Loss rate: 23.99%
```

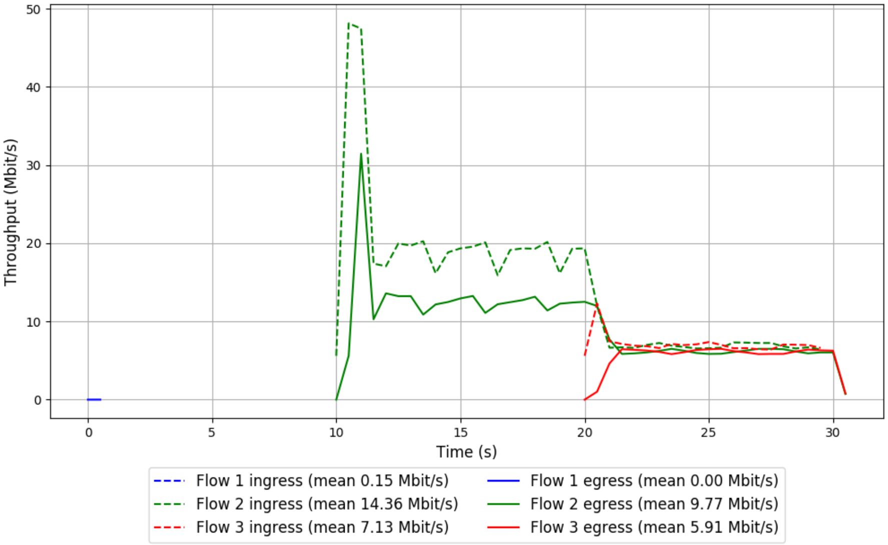
Run 4: Report of TaoVA-100x — Data Link

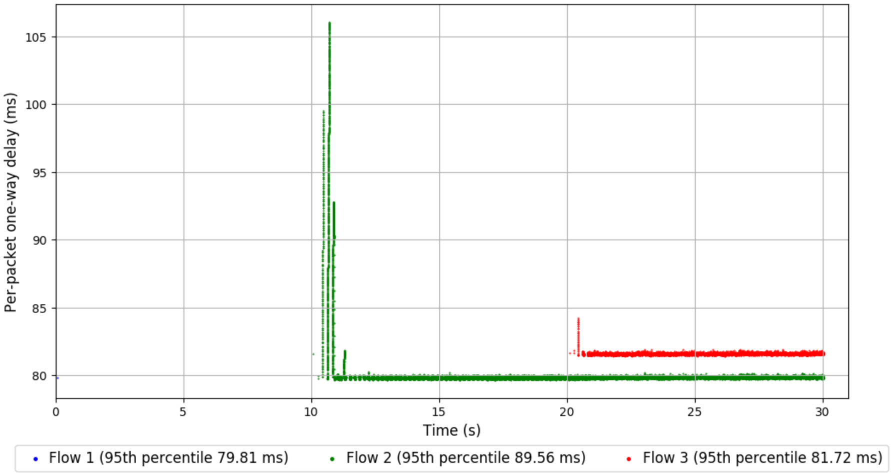




```
Run 5: Statistics of TaoVA-100x

Start at: 2019-01-25 03:00:24
End at: 2019-01-25 03:00:54
Local clock offset: -9.455 ms
Remote clock offset: 2.989 ms

# Below is generated by plot.py at 2019-01-25 03:28:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.47 Mbit/s
95th percentile per-packet one-way delay: 85.806 ms
Loss rate: 29.01%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 79.811 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.77 Mbit/s
95th percentile per-packet one-way delay: 89.559 ms
Loss rate: 31.95%
-- Flow 3:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 81.724 ms
Loss rate: 17.13%
```

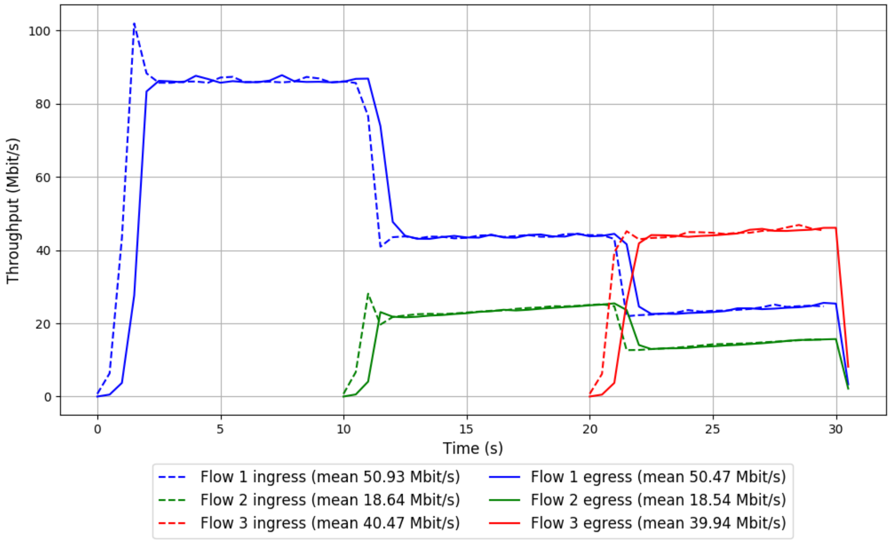
Run 5: Report of TaoVA-100x — Data Link

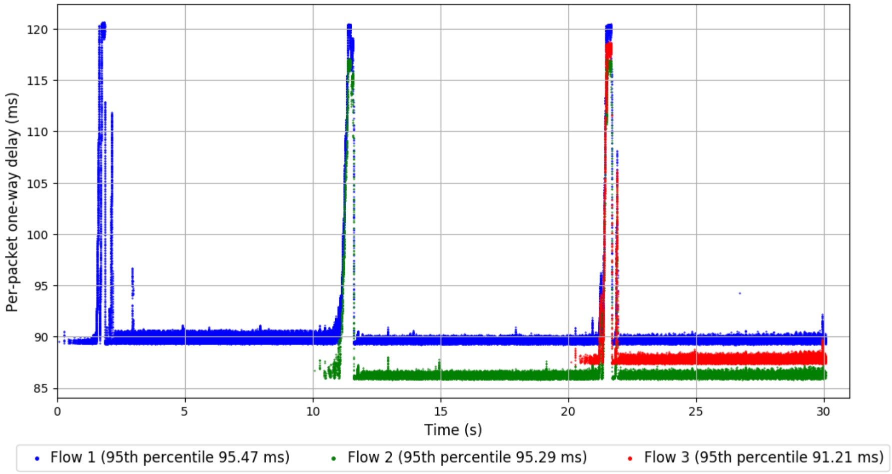




```
Run 1: Statistics of TCP Vegas

Start at: 2019-01-25 01:27:17
End at: 2019-01-25 01:27:47
Local clock offset: -9.3 ms
Remote clock offset: 7.385 ms

# Below is generated by plot.py at 2019-01-25 03:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.12 Mbit/s
95th percentile per-packet one-way delay: 94.774 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 50.47 Mbit/s
95th percentile per-packet one-way delay: 95.467 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 18.54 Mbit/s
95th percentile per-packet one-way delay: 95.290 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 39.94 Mbit/s
95th percentile per-packet one-way delay: 91.210 ms
Loss rate: 1.34%
```

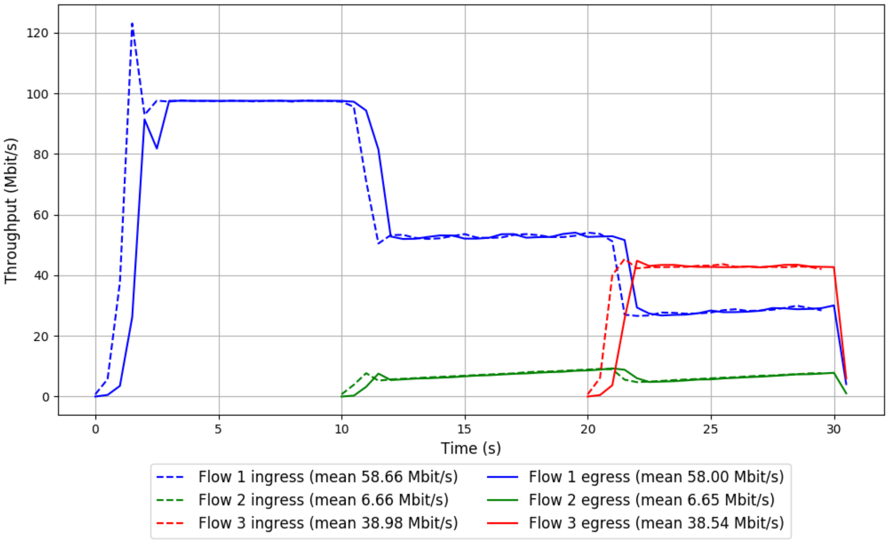
Run 1: Report of TCP Vegas — Data Link

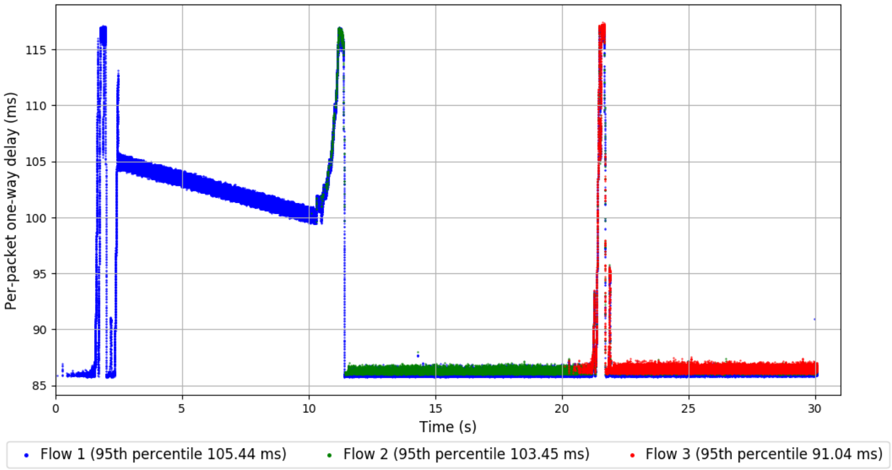




```
Run 2: Statistics of TCP Vegas

Start at: 2019-01-25 01:54:01
End at: 2019-01-25 01:54:31
Local clock offset: -1.431 ms
Remote clock offset: 7.248 ms

# Below is generated by plot.py at 2019-01-25 03:29:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.23 Mbit/s
95th percentile per-packet one-way delay: 105.231 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 105.441 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 103.447 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 91.041 ms
Loss rate: 1.11%
```

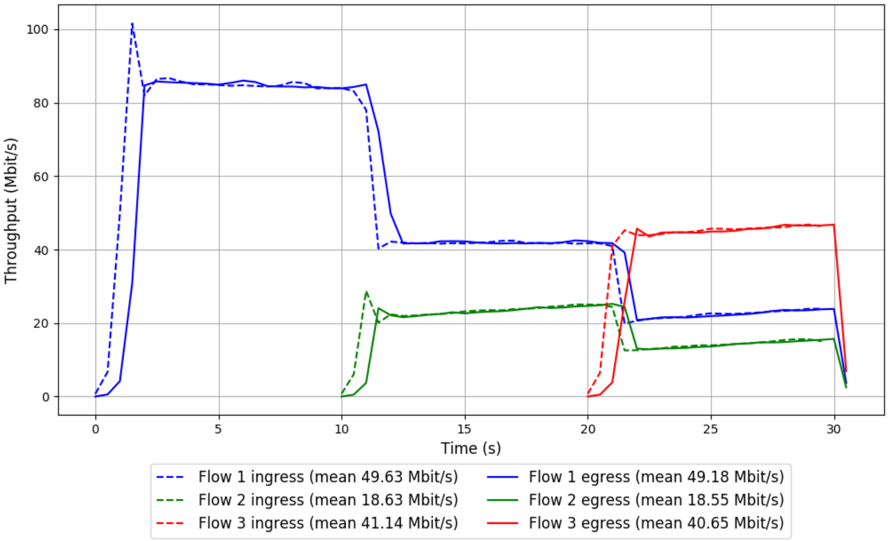
Run 2: Report of TCP Vegas — Data Link

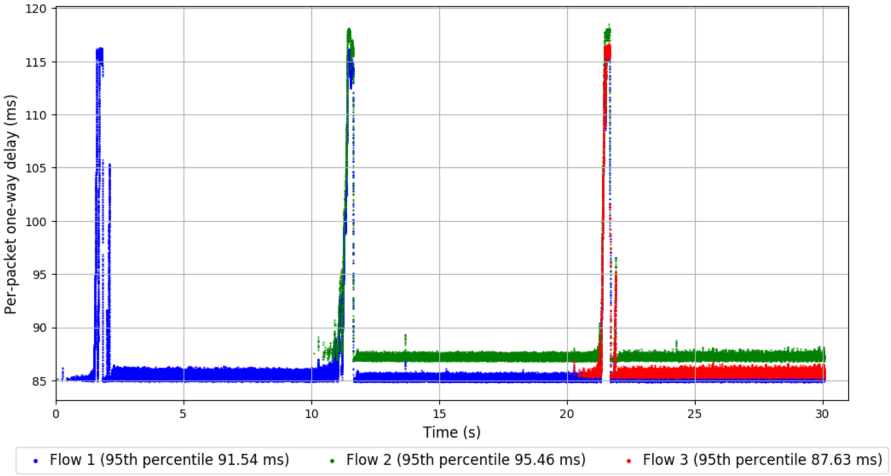




```
Run 3: Statistics of TCP Vegas

Start at: 2019-01-25 02:20:48
End at: 2019-01-25 02:21:18
Local clock offset: -2.466 ms
Remote clock offset: 7.473 ms

# Below is generated by plot.py at 2019-01-25 03:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.06 Mbit/s
95th percentile per-packet one-way delay: 91.534 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 49.18 Mbit/s
95th percentile per-packet one-way delay: 91.538 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 18.55 Mbit/s
95th percentile per-packet one-way delay: 95.460 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 87.633 ms
Loss rate: 1.18%
```

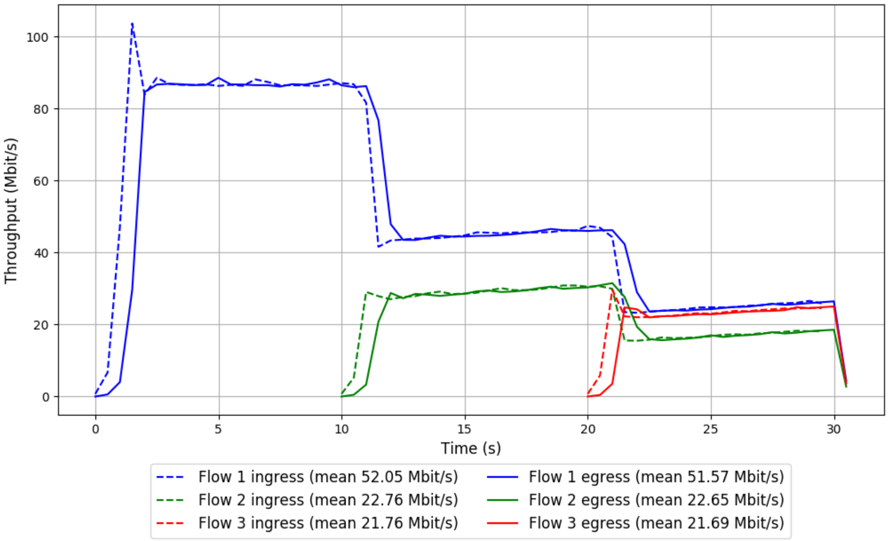
Run 3: Report of TCP Vegas — Data Link

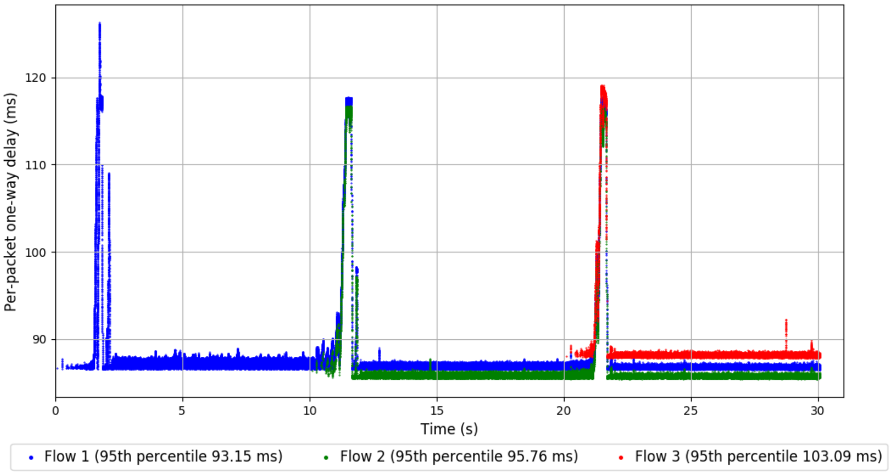




```
Run 4: Statistics of TCP Vegas

Start at: 2019-01-25 02:47:31
End at: 2019-01-25 02:48:01
Local clock offset: -8.31 ms
Remote clock offset: 9.076 ms

# Below is generated by plot.py at 2019-01-25 03:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.87 Mbit/s
95th percentile per-packet one-way delay: 94.605 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 51.57 Mbit/s
95th percentile per-packet one-way delay: 93.146 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 22.65 Mbit/s
95th percentile per-packet one-way delay: 95.760 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 21.69 Mbit/s
95th percentile per-packet one-way delay: 103.091 ms
Loss rate: 0.31%
```

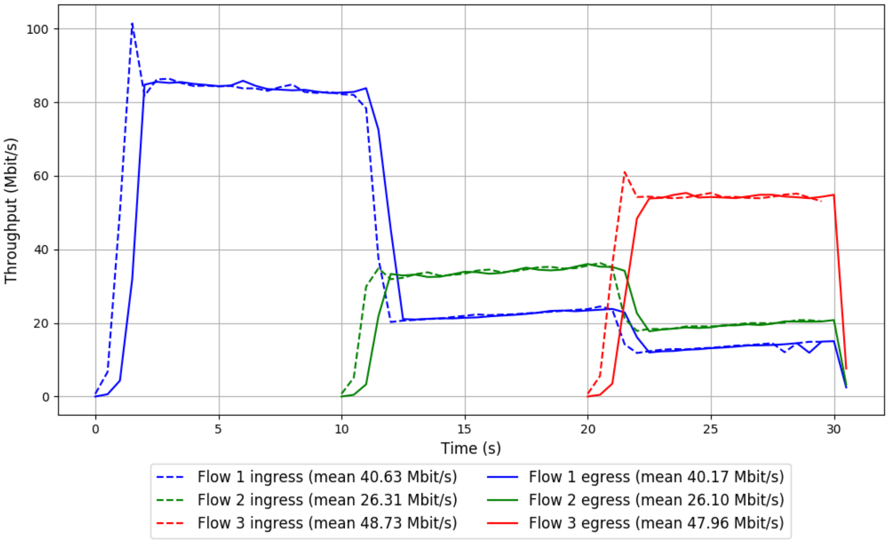
Run 4: Report of TCP Vegas — Data Link

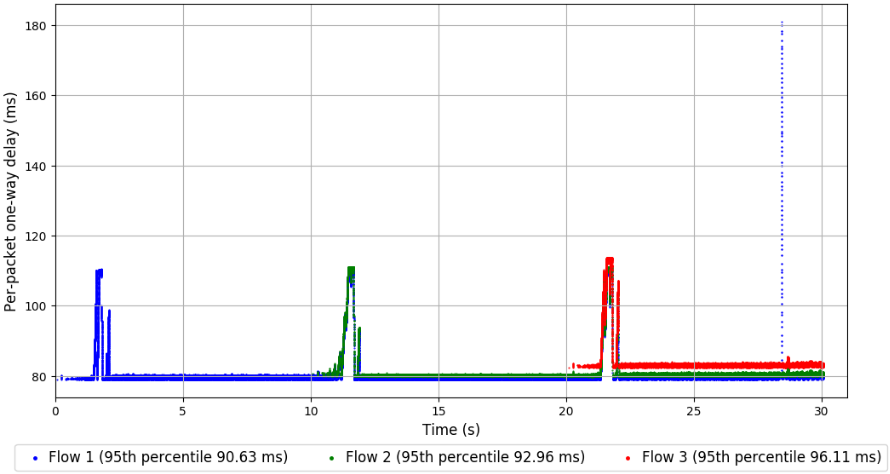




```
Run 5: Statistics of TCP Vegas

Start at: 2019-01-25 03:14:27
End at: 2019-01-25 03:14:57
Local clock offset: -7.506 ms
Remote clock offset: 3.11 ms

# Below is generated by plot.py at 2019-01-25 03:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.49 Mbit/s
95th percentile per-packet one-way delay: 92.092 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 90.634 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 26.10 Mbit/s
95th percentile per-packet one-way delay: 92.959 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 47.96 Mbit/s
95th percentile per-packet one-way delay: 96.114 ms
Loss rate: 1.61%
```

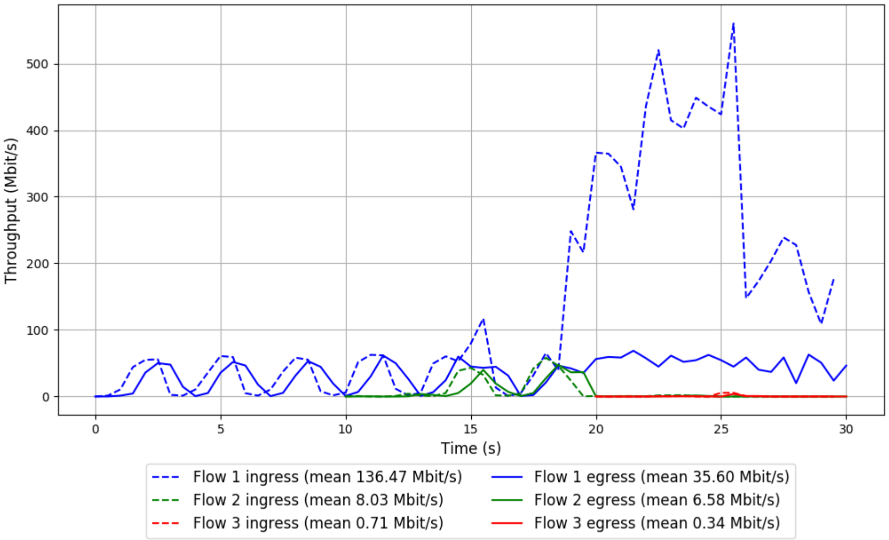
Run 5: Report of TCP Vegas — Data Link

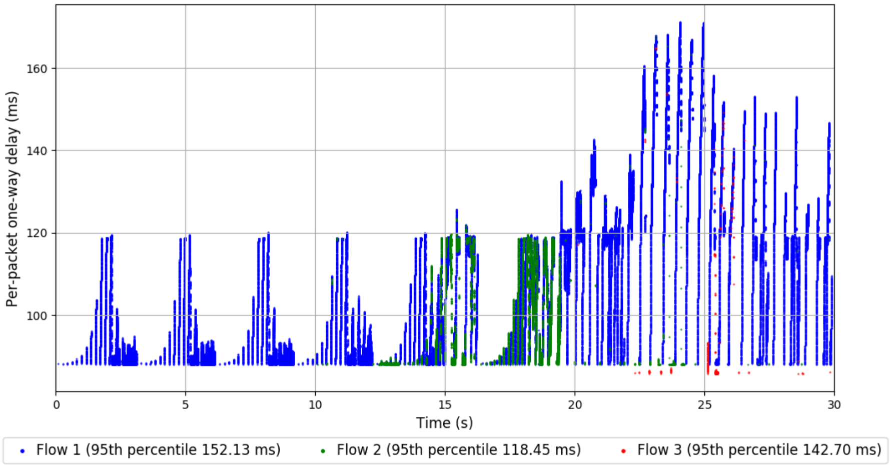




```
Run 1: Statistics of Verus

Start at: 2019-01-25 01:19:42
End at: 2019-01-25 01:20:12
Local clock offset: -8.457 ms
Remote clock offset: 7.429 ms

# Below is generated by plot.py at 2019-01-25 03:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.06 Mbit/s
95th percentile per-packet one-way delay: 150.550 ms
Loss rate: 71.77%
-- Flow 1:
Average throughput: 35.60 Mbit/s
95th percentile per-packet one-way delay: 152.134 ms
Loss rate: 73.89%
-- Flow 2:
Average throughput: 6.58 Mbit/s
95th percentile per-packet one-way delay: 118.449 ms
Loss rate: 17.95%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 142.701 ms
Loss rate: 52.13%
```

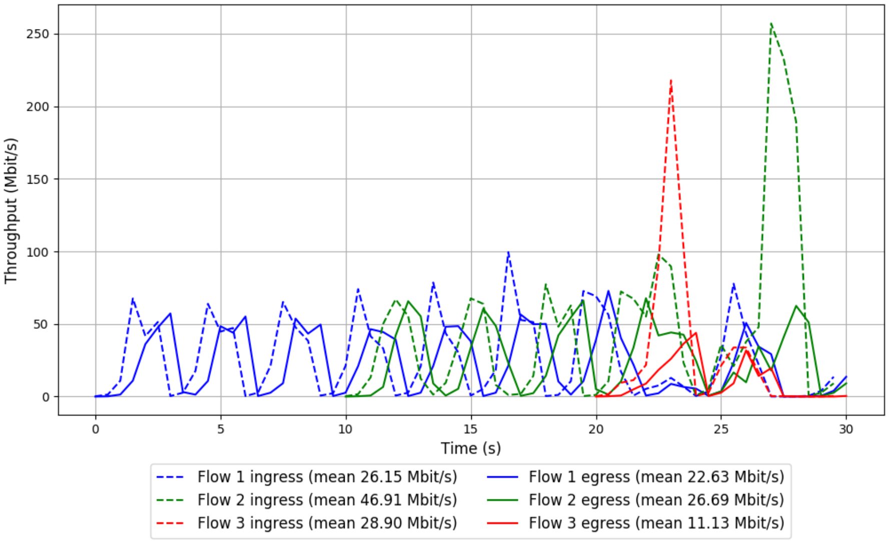
Run 1: Report of Verus — Data Link

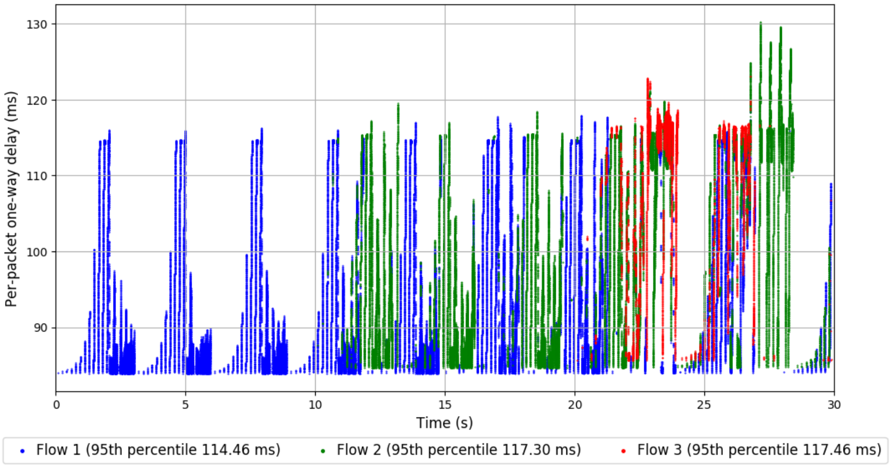




```
Run 2: Statistics of Verus

Start at: 2019-01-25 01:46:25
End at: 2019-01-25 01:46:55
Local clock offset: -1.572 ms
Remote clock offset: 6.117 ms

# Below is generated by plot.py at 2019-01-25 03:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 116.055 ms
Loss rate: 34.06%
-- Flow 1:
Average throughput: 22.63 Mbit/s
95th percentile per-packet one-way delay: 114.459 ms
Loss rate: 13.39%
-- Flow 2:
Average throughput: 26.69 Mbit/s
95th percentile per-packet one-way delay: 117.301 ms
Loss rate: 43.06%
-- Flow 3:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 117.461 ms
Loss rate: 61.50%
```

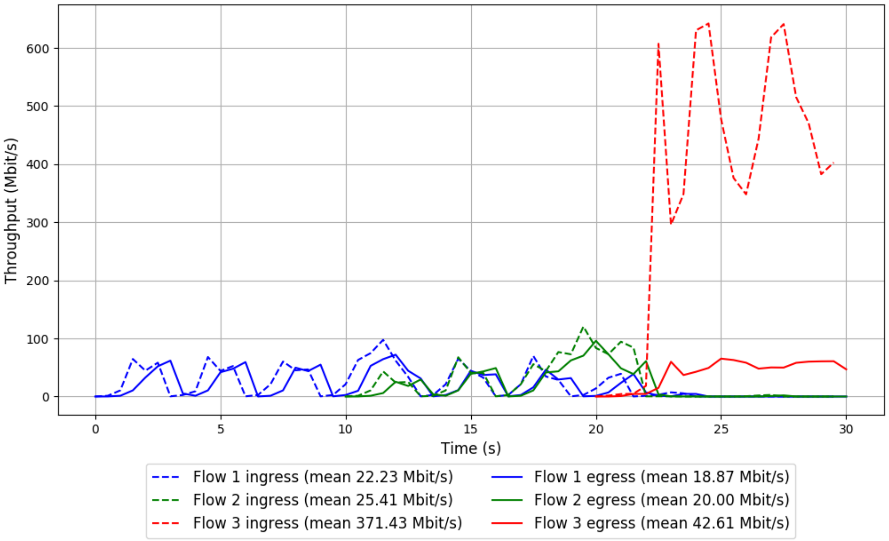
Run 2: Report of Verus — Data Link

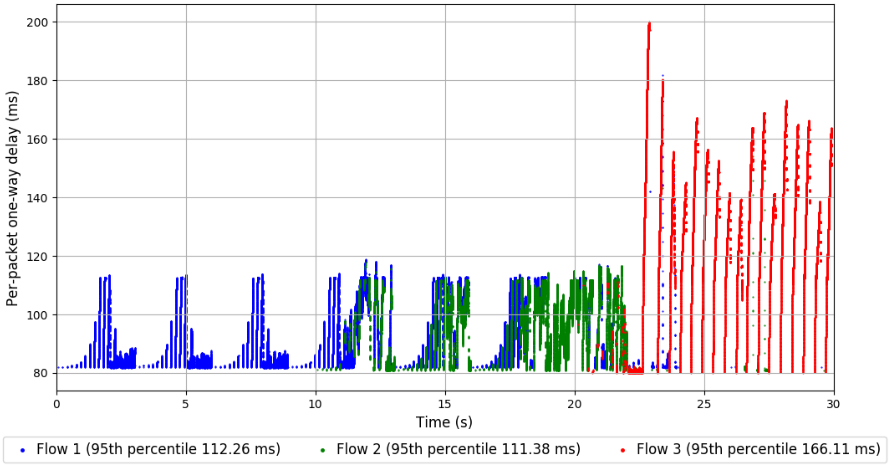




```
Run 3: Statistics of Verus

Start at: 2019-01-25 02:13:12
End at: 2019-01-25 02:13:42
Local clock offset: -2.16 ms
Remote clock offset: 2.287 ms

# Below is generated by plot.py at 2019-01-25 03:29:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.67 Mbit/s
95th percentile per-packet one-way delay: 154.864 ms
Loss rate: 71.45%
-- Flow 1:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 112.259 ms
Loss rate: 15.61%
-- Flow 2:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 111.381 ms
Loss rate: 21.99%
-- Flow 3:
Average throughput: 42.61 Mbit/s
95th percentile per-packet one-way delay: 166.110 ms
Loss rate: 88.46%
```

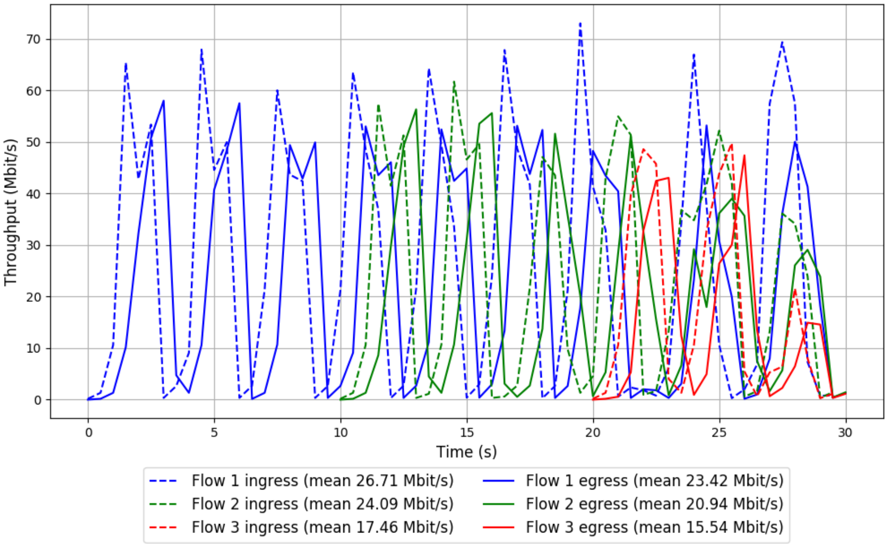
Run 3: Report of Verus — Data Link

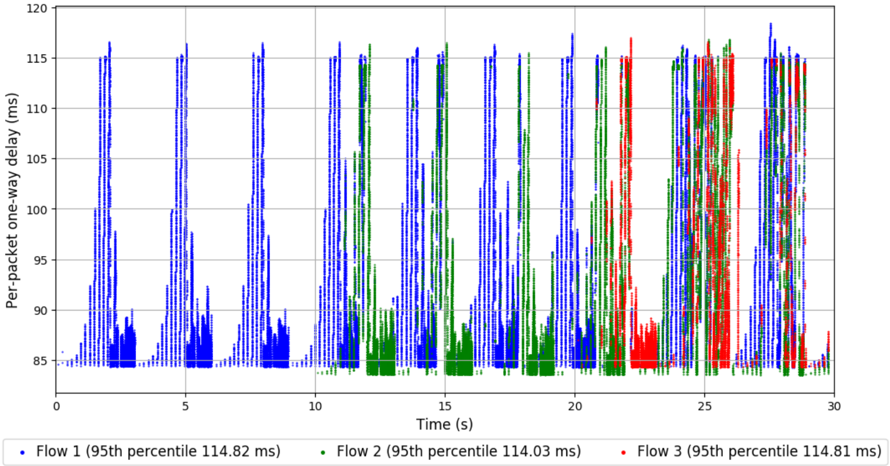




```
Run 4: Statistics of Verus

Start at: 2019-01-25 02:39:56
End at: 2019-01-25 02:40:26
Local clock offset: -6.343 ms
Remote clock offset: 6.759 ms

# Below is generated by plot.py at 2019-01-25 03:29:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.33 Mbit/s
95th percentile per-packet one-way delay: 114.673 ms
Loss rate: 12.38%
-- Flow 1:
Average throughput: 23.42 Mbit/s
95th percentile per-packet one-way delay: 114.819 ms
Loss rate: 12.29%
-- Flow 2:
Average throughput: 20.94 Mbit/s
95th percentile per-packet one-way delay: 114.028 ms
Loss rate: 13.04%
-- Flow 3:
Average throughput: 15.54 Mbit/s
95th percentile per-packet one-way delay: 114.814 ms
Loss rate: 10.97%
```

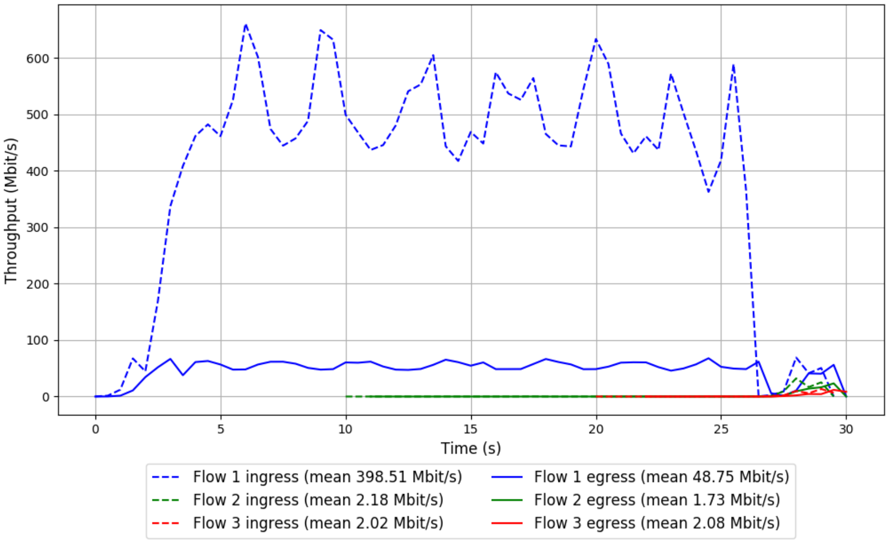
Run 4: Report of Verus — Data Link

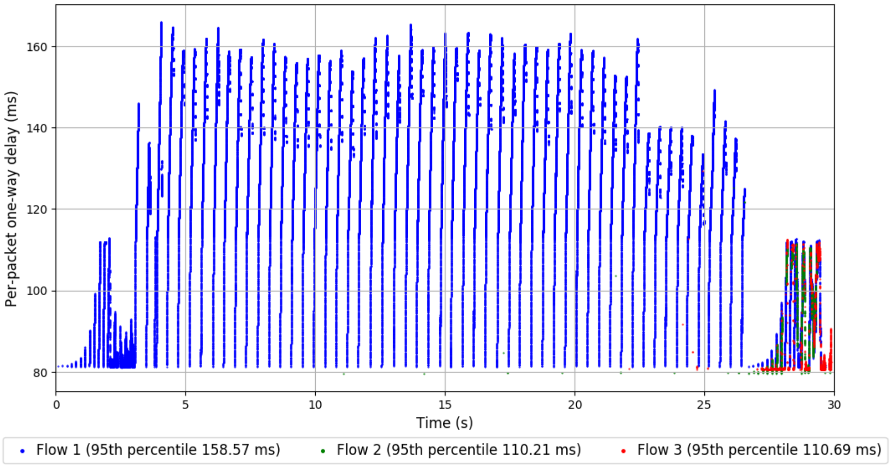




```
Run 5: Statistics of Verus

Start at: 2019-01-25 03:06:39
End at: 2019-01-25 03:07:09
Local clock offset: -7.778 ms
Remote clock offset: 3.09 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.32 Mbit/s
95th percentile per-packet one-way delay: 158.509 ms
Loss rate: 87.42%
-- Flow 1:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 158.567 ms
Loss rate: 87.77%
-- Flow 2:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 110.214 ms
Loss rate: 24.56%
-- Flow 3:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 110.692 ms
Loss rate: 18.13%
```

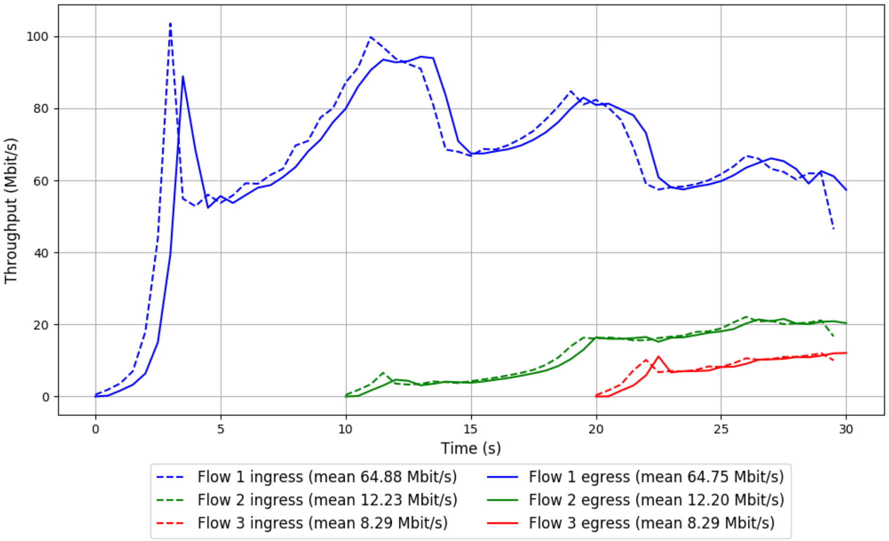
Run 5: Report of Verus — Data Link

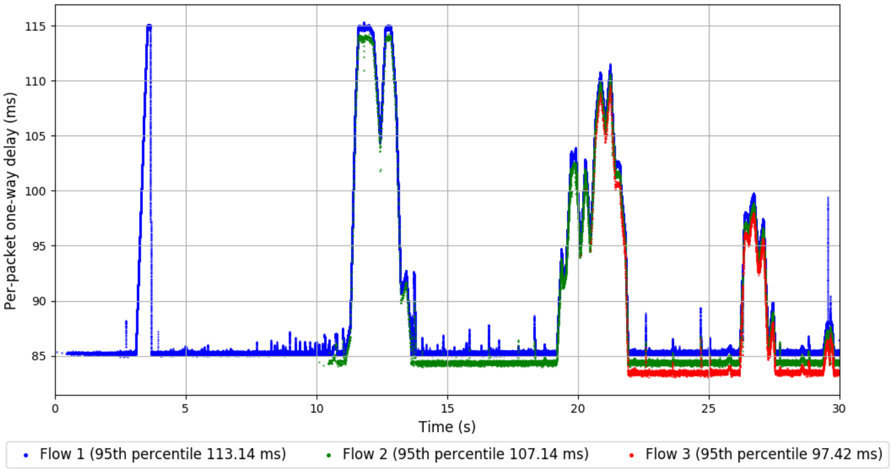




```
Run 1: Statistics of PCC-Vivace

Start at: 2019-01-25 01:28:34
End at: 2019-01-25 01:29:04
Local clock offset: -9.398 ms
Remote clock offset: 5.101 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.60 Mbit/s
95th percentile per-packet one-way delay: 111.882 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 64.75 Mbit/s
95th percentile per-packet one-way delay: 113.144 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 107.136 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 97.425 ms
Loss rate: 0.00%
```

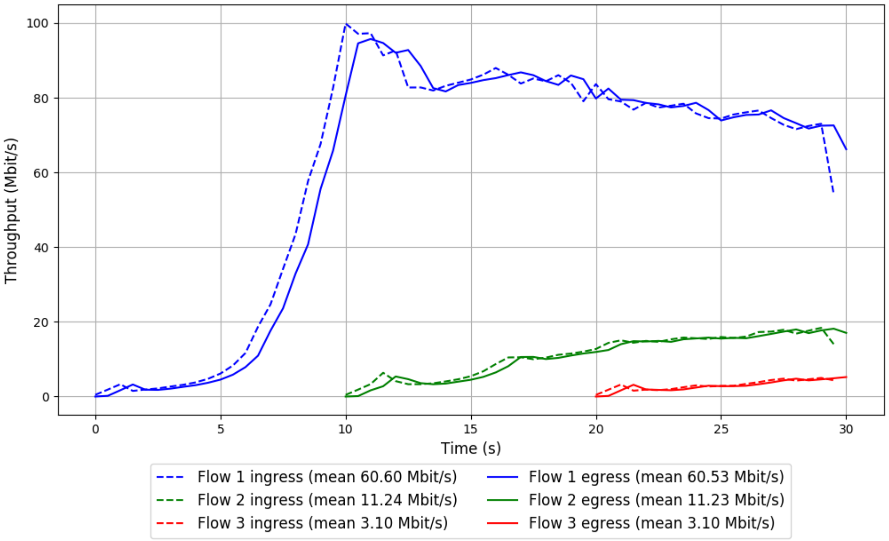
Run 1: Report of PCC-Vivace — Data Link

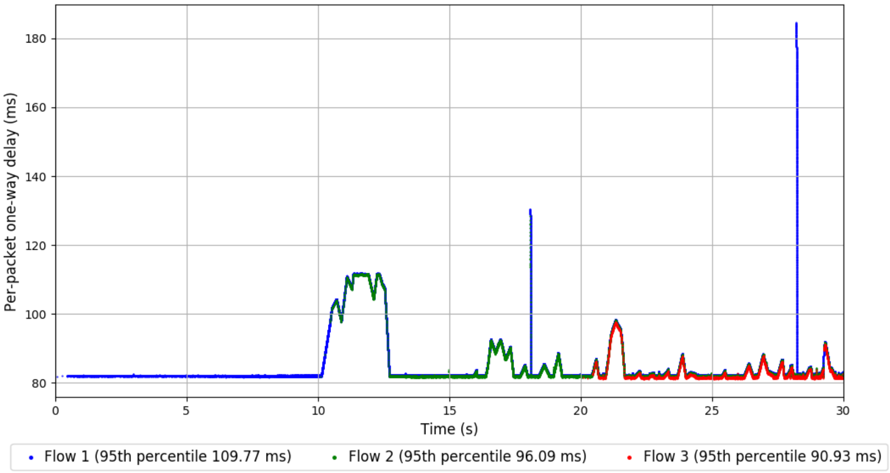




```
Run 2: Statistics of PCC-Vivace

Start at: 2019-01-25 01:55:19
End at: 2019-01-25 01:55:49
Local clock offset: -1.263 ms
Remote clock offset: 0.971 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.01 Mbit/s
95th percentile per-packet one-way delay: 109.182 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 60.53 Mbit/s
95th percentile per-packet one-way delay: 109.770 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 96.086 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 90.929 ms
Loss rate: 0.00%
```

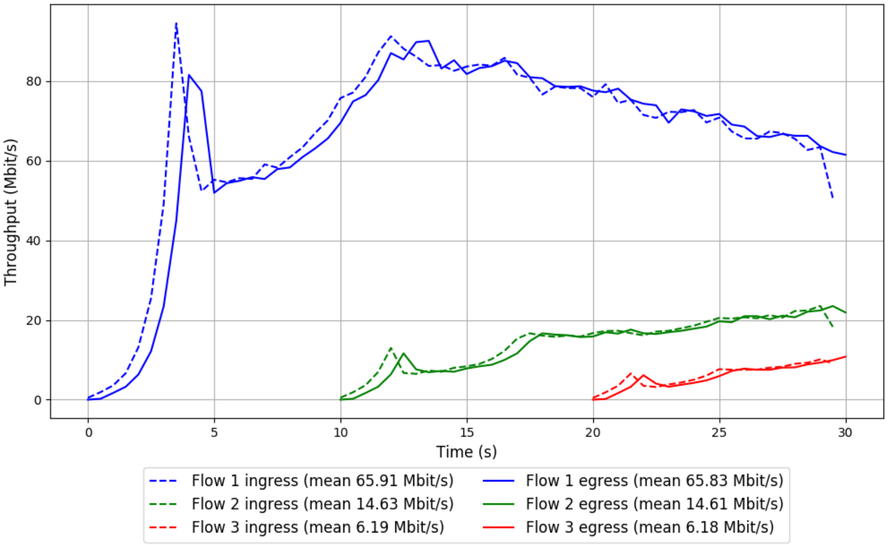
Run 2: Report of PCC-Vivace — Data Link

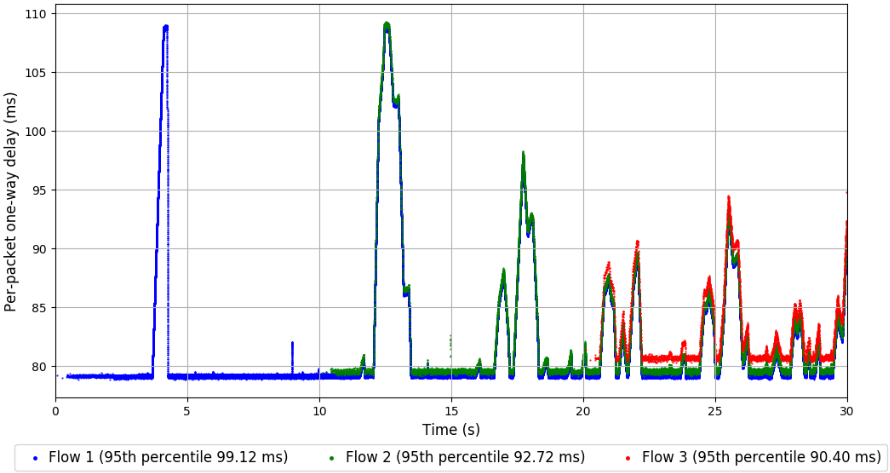




```
Run 3: Statistics of PCC-Vivace

Start at: 2019-01-25 02:22:06
End at: 2019-01-25 02:22:36
Local clock offset: -2.481 ms
Remote clock offset: 1.716 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.58 Mbit/s
95th percentile per-packet one-way delay: 97.142 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 65.83 Mbit/s
95th percentile per-packet one-way delay: 99.118 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 14.61 Mbit/s
95th percentile per-packet one-way delay: 92.721 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 90.397 ms
Loss rate: 0.00%
```

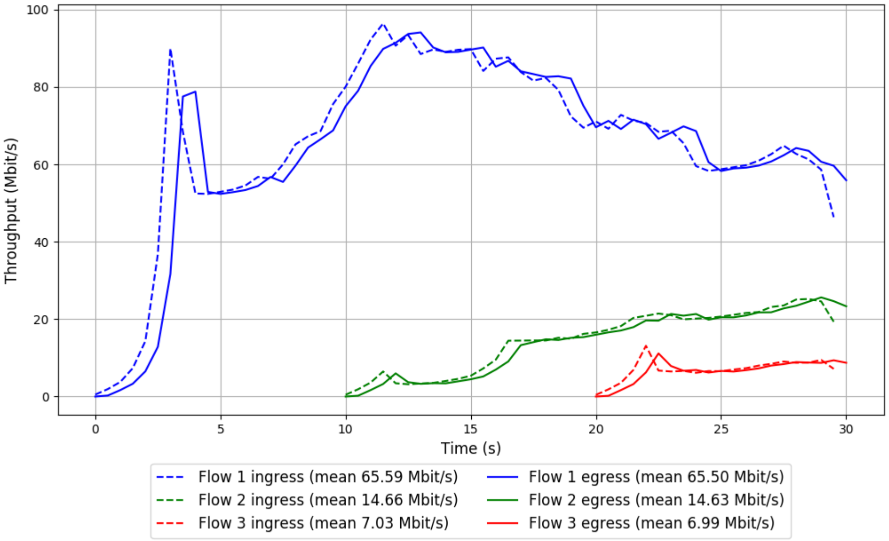
Run 3: Report of PCC-Vivace — Data Link

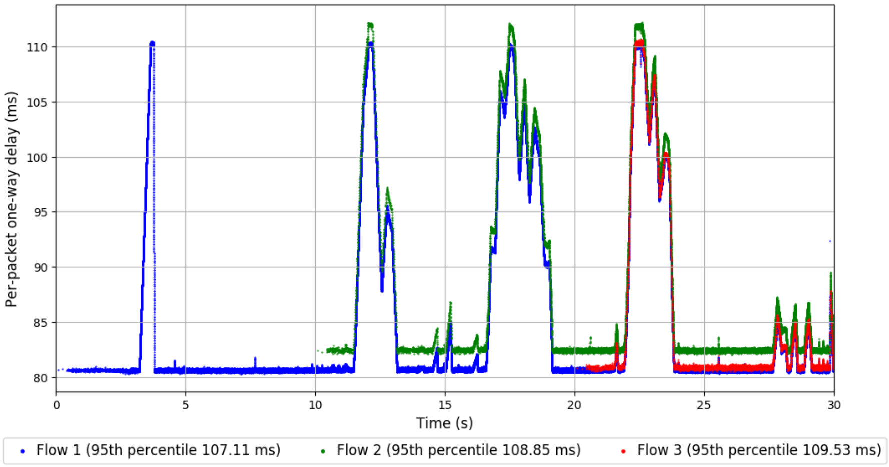




```
Run 4: Statistics of PCC-Vivace

Start at: 2019-01-25 02:48:48
End at: 2019-01-25 02:49:18
Local clock offset: -8.445 ms
Remote clock offset: 4.121 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.54 Mbit/s
95th percentile per-packet one-way delay: 107.519 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 65.50 Mbit/s
95th percentile per-packet one-way delay: 107.110 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 14.63 Mbit/s
95th percentile per-packet one-way delay: 108.854 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 109.532 ms
Loss rate: 0.50%
```

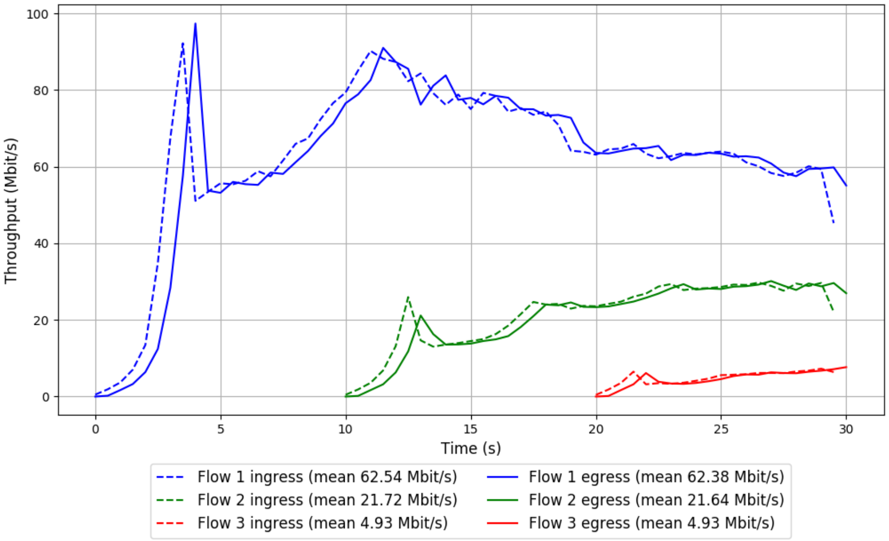
Run 4: Report of PCC-Vivace — Data Link

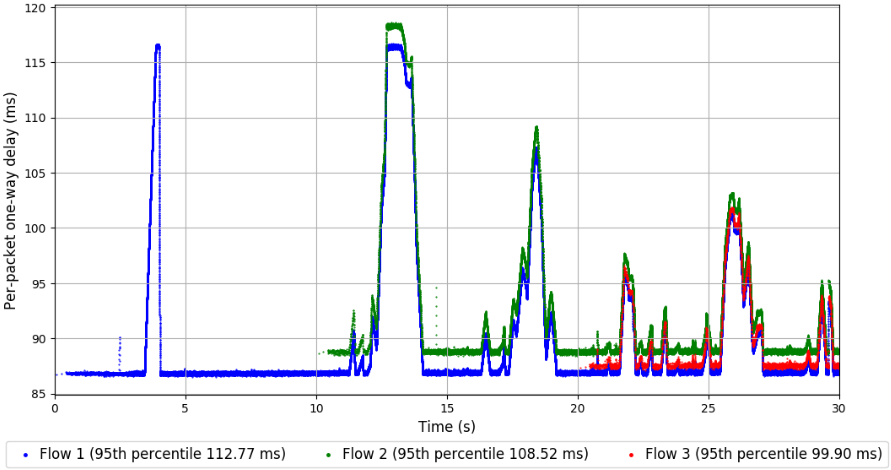




```
Run 5: Statistics of PCC-Vivace

Start at: 2019-01-25 03:15:44
End at: 2019-01-25 03:16:14
Local clock offset: -7.49 ms
Remote clock offset: 9.285 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.40 Mbit/s
95th percentile per-packet one-way delay: 111.057 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 62.38 Mbit/s
95th percentile per-packet one-way delay: 112.773 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 21.64 Mbit/s
95th percentile per-packet one-way delay: 108.518 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 4.93 Mbit/s
95th percentile per-packet one-way delay: 99.900 ms
Loss rate: 0.02%
```

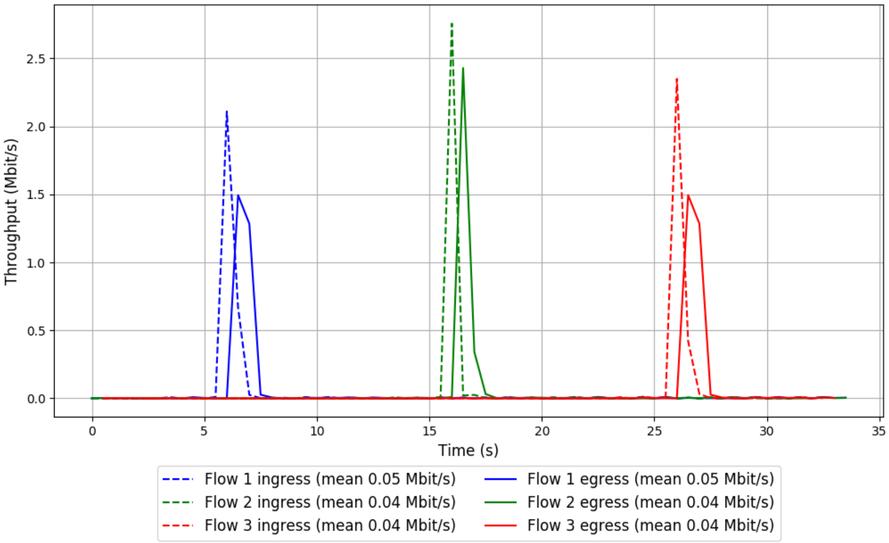
Run 5: Report of PCC-Vivace — Data Link

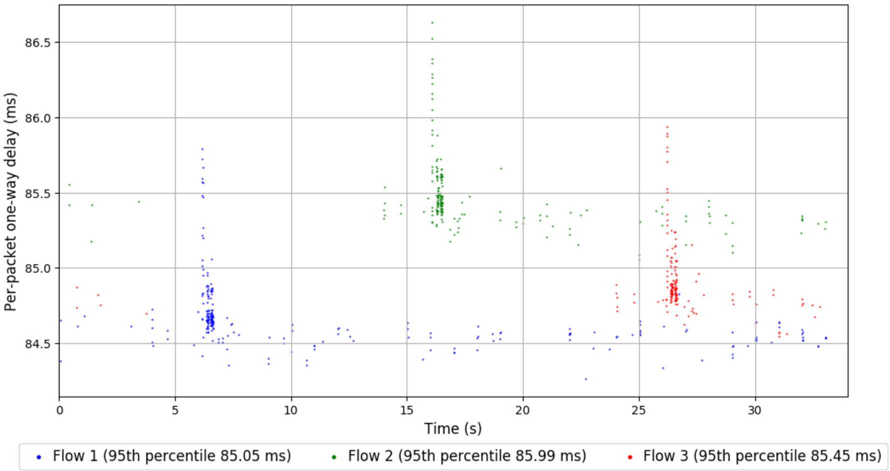




```
Run 1: Statistics of WebRTC media

Start at: 2019-01-25 01:22:17
End at: 2019-01-25 01:22:47
Local clock offset: -8.796 ms
Remote clock offset: 6.297 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 85.661 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.053 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.986 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.454 ms
Loss rate: 0.00%
```

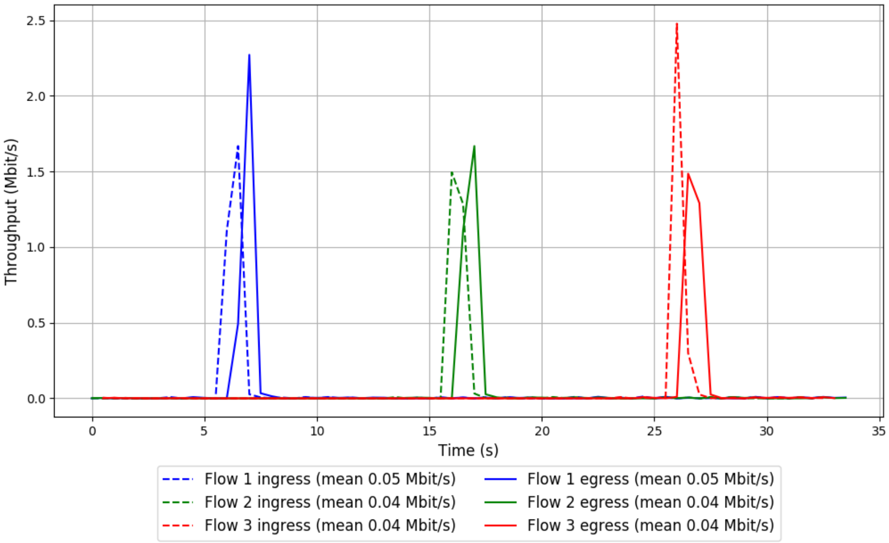
Run 1: Report of WebRTC media — Data Link

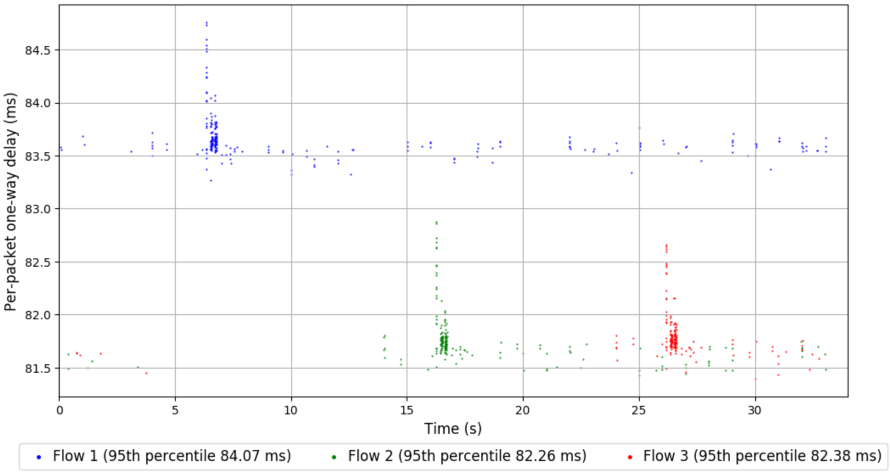




```
Run 2: Statistics of WebRTC media

Start at: 2019-01-25 01:49:00
End at: 2019-01-25 01:49:30
Local clock offset: -2.018 ms
Remote clock offset: 1.293 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 83.794 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 84.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 82.262 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 82.384 ms
Loss rate: 0.00%
```

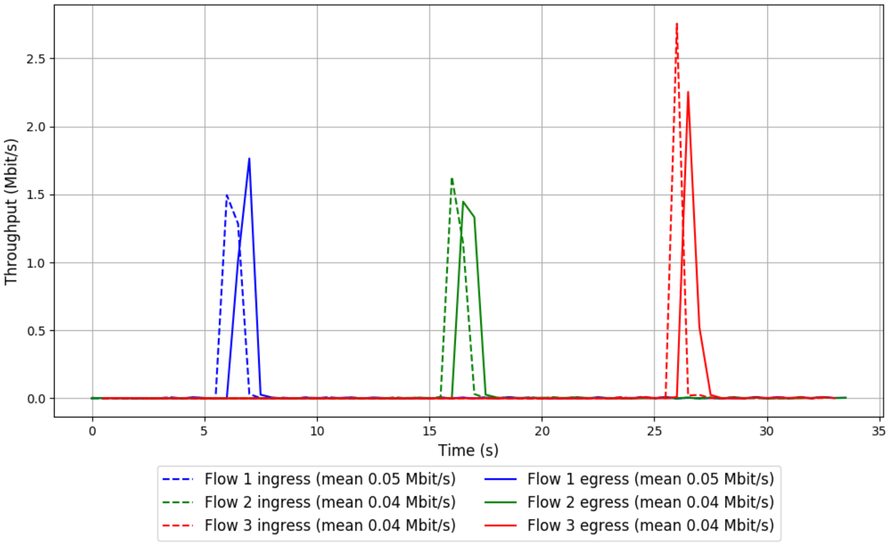
Run 2: Report of WebRTC media — Data Link

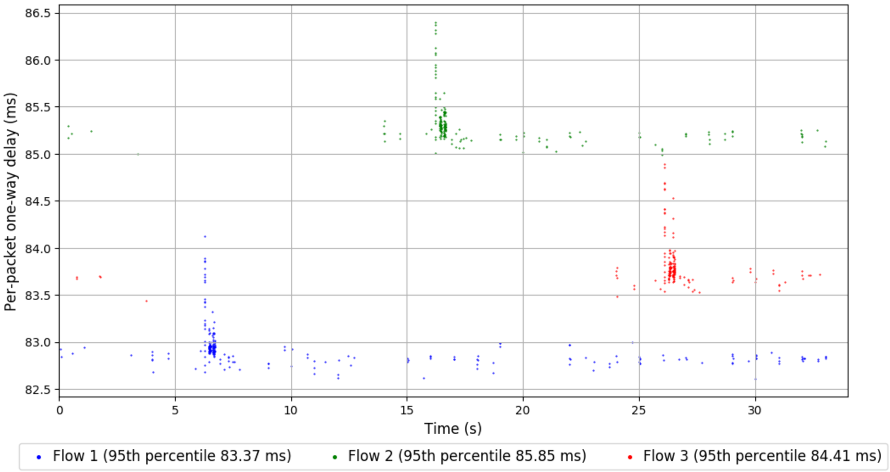




```
Run 3: Statistics of WebRTC media

Start at: 2019-01-25 02:15:48
End at: 2019-01-25 02:16:18
Local clock offset: -2.316 ms
Remote clock offset: 4.758 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 85.421 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 83.374 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.851 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 84.411 ms
Loss rate: 0.00%
```

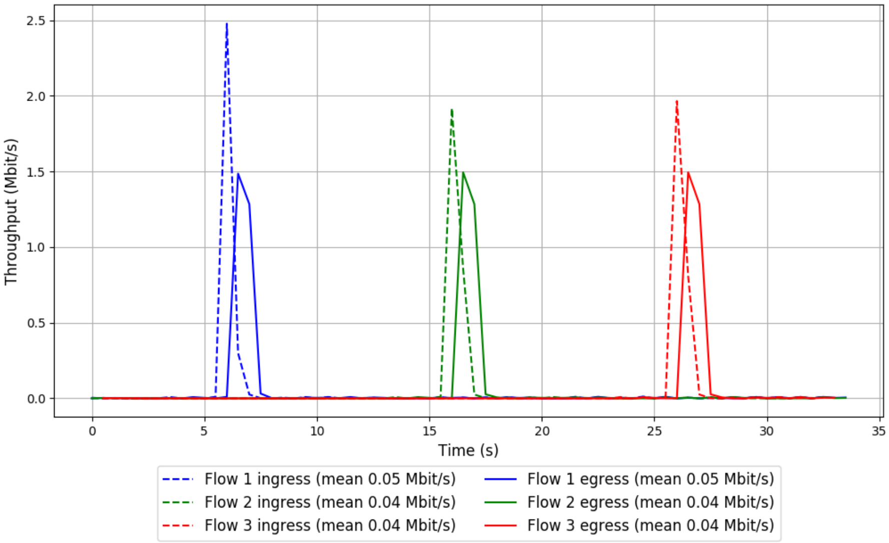
Run 3: Report of WebRTC media — Data Link

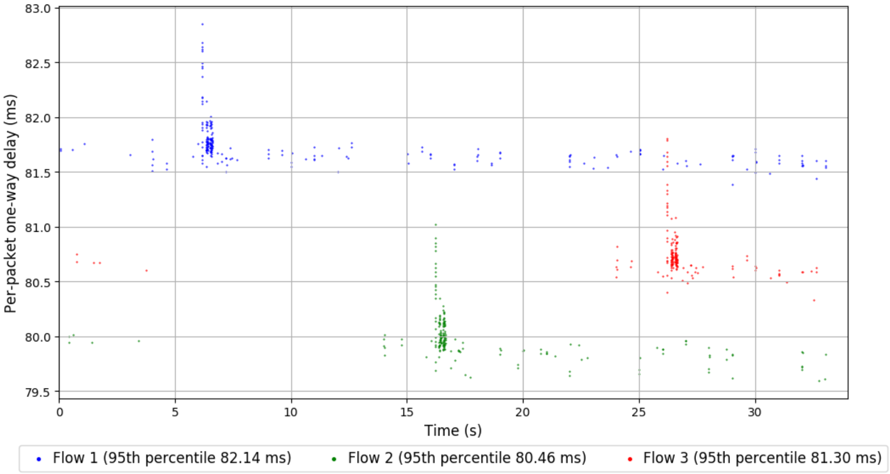




```
Run 4: Statistics of WebRTC media

Start at: 2019-01-25 02:42:30
End at: 2019-01-25 02:43:00
Local clock offset: -6.796 ms
Remote clock offset: 4.056 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 81.907 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 82.144 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 80.458 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 81.298 ms
Loss rate: 0.00%
```

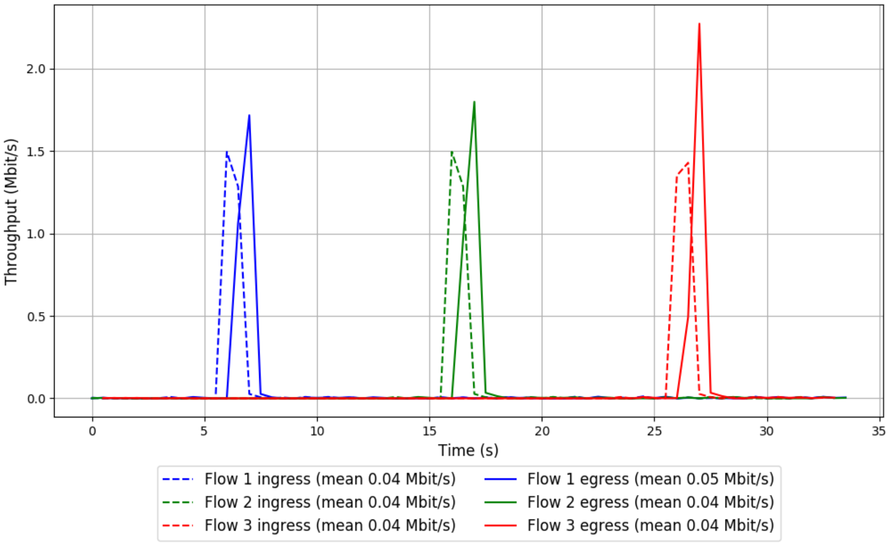
Run 4: Report of WebRTC media — Data Link



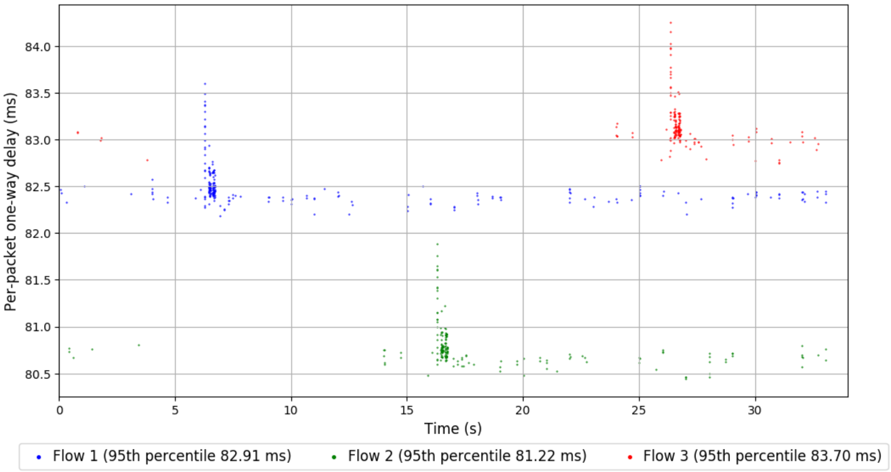


```
Run 5: Statistics of WebRTC media

Start at: 2019-01-25 03:09:26
End at: 2019-01-25 03:09:56
Local clock offset: -8.358 ms
Remote clock offset: 4.099 ms

# Below is generated by plot.py at 2019-01-25 03:30:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 83.281 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 82.914 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 81.223 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 83.699 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link



Throughput (Mbit/s)
2.0
1.5
1.0
0.5
0.0
0
5
10
15
20
25
30
35
Time (s)
Flow 1 ingress (mean 0.04 Mbit/s)
Flow 2 ingress (mean 0.04 Mbit/s)
Flow 3 ingress (mean 0.04 Mbit/s)
Flow 1 egress (mean 0.05 Mbit/s)
Flow 2 egress (mean 0.04 Mbit/s)
Flow 3 egress (mean 0.04 Mbit/s)



Per-packet one-way delay (ms)
84.0
83.5
83.0
82.5
82.0
81.5
81.0
80.5
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 82.91 ms)
Flow 2 (95th percentile 81.22 ms)
Flow 3 (95th percentile 83.70 ms)