Pantheon Report

Generated at 2019-02-20 15:51:46 (UTC).

Data path: China on `eno1` (*remote*) →AWS Korea on `ens5` (*local*).

Repeated the test of 21 congestion control schemes 5 times.

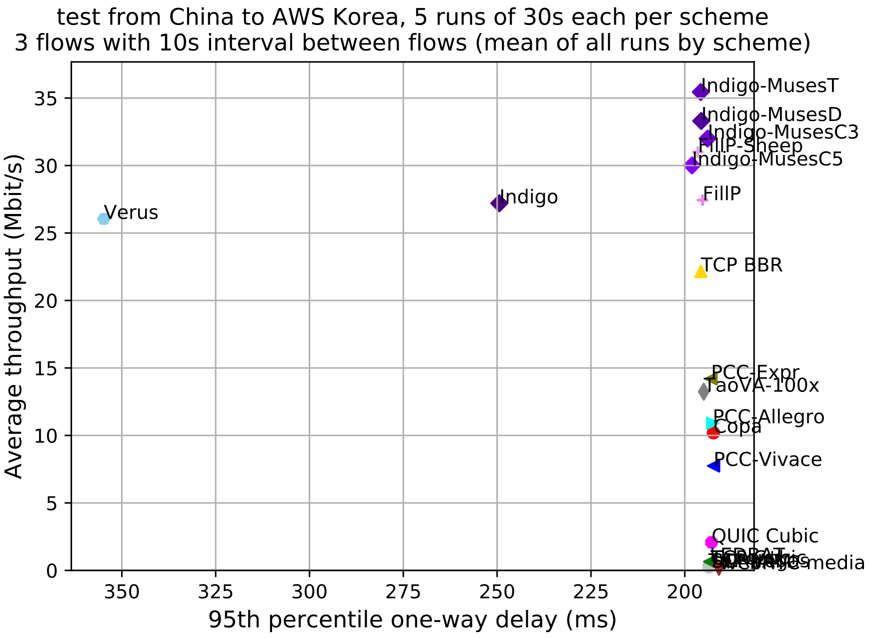
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

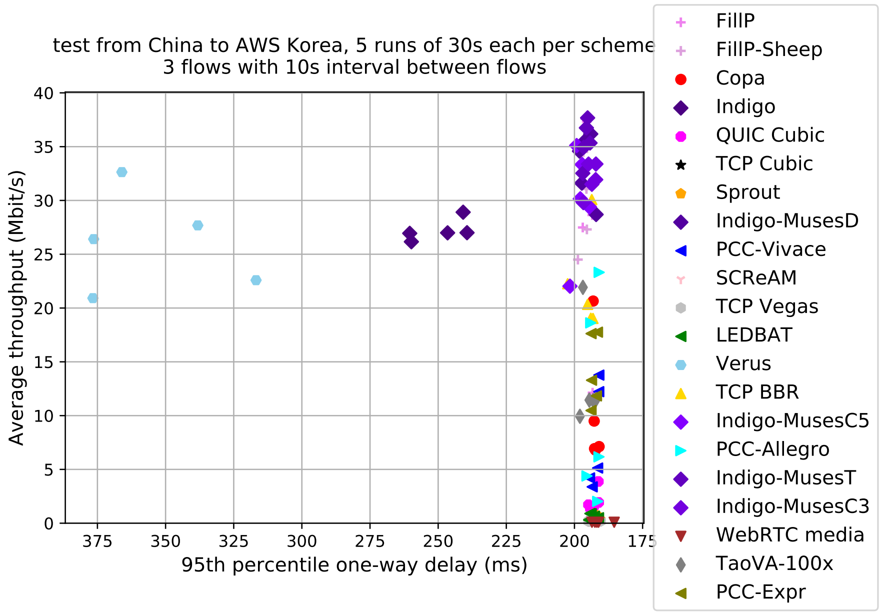
NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

```
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 @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
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
```

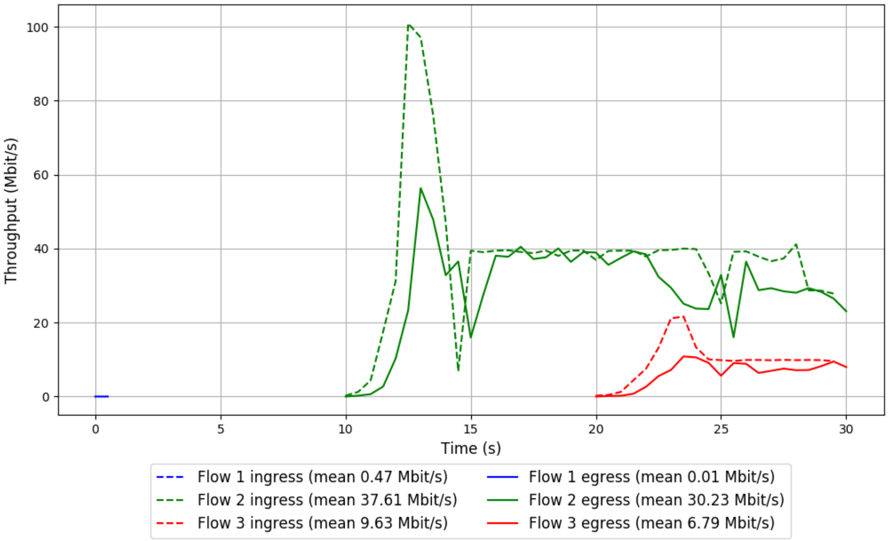

test from China to AWS Korea, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
5
10
15
20
25
30
35
350
325
300
275
250
225
200
Indigo-MusesT
Indigo-MusesD
Indigo-MusesC3
FillP-Sheep
Indigo-MusesC5
FillP
Verus
Indigo
TCP BBR
PCC-Expr
TaoVA-100x
PCC-Allegro
Copa
PCC-Vivace
QUIC Cubic
LEDBAT
WebRTC media

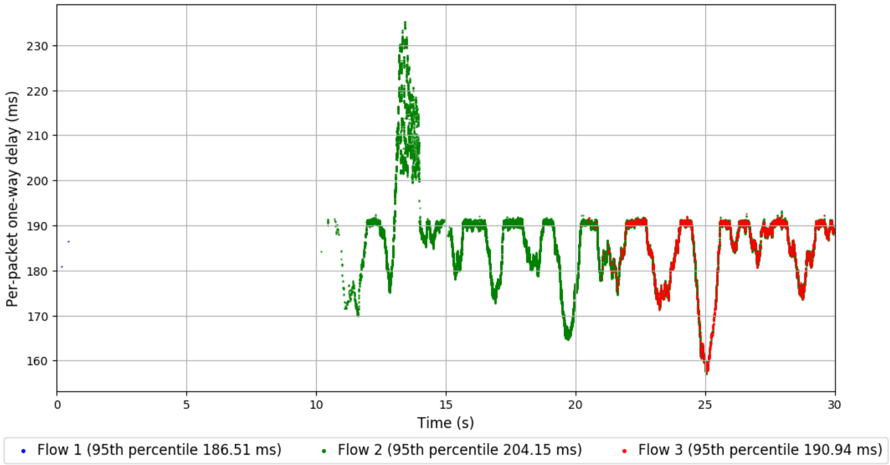

test from China to AWS Korea, 5 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
0
5
10
15
20
25
30
35
40
375
350
325
300
275
250
225
200
175
FillP
FillP-Sheep
Copa
Indigo
QUIC Cubic
TCP Cubic
Sprout
Indigo-MusesD
PCC-Vivace
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)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	4.47	23.60	6.25	191.02	197.36	192.42	84.38	25.84	28.91
Copa	5	5.05	4.94	5.82	192.40	192.30	192.22	6.81	6.86	8.65
TCP Cubic	5	0.11	0.36	0.36	192.86	193.07	193.06	45.66	8.73	10.90
FillP	5	19.40	8.74	6.89	195.52	193.83	192.91	19.73	24.24	24.56
FillP-Sheep	5	23.44	8.81	5.19	196.80	194.15	193.41	11.11	14.34	16.22
Indigo	5	21.62	7.97	1.07	248.19	248.56	224.31	65.07	68.87	66.07
Indigo-MusesC3	5	23.43	11.29	5.51	194.16	193.26	192.65	11.85	8.46	9.87
Indigo-MusesC5	5	22.07	9.83	6.52	198.52	195.51	196.60	15.28	14.39	16.43
Indigo-MusesD	5	20.29	14.92	11.97	195.33	195.55	197.50	9.73	9.71	9.58
Indigo-MusesT	5	23.83	14.51	9.73	196.10	194.53	195.19	12.95	7.35	8.26
LEDBAT	5	0.26	0.40	0.40	193.16	193.09	193.16	5.13	6.27	7.21
PCC-Allegro	5	4.25	8.45	3.29	192.45	192.59	192.48	19.67	8.37	8.71
PCC-Expr	5	7.73	5.26	9.35	193.06	192.91	192.97	5.80	6.26	7.62
QUIC Cubic	5	0.88	0.90	1.84	192.77	192.77	192.77	3.96	4.63	5.25
SCReAM	5	0.10	0.11	0.13	192.87	192.87	192.59	4.50	4.56	4.60
Sprout	5	0.27	0.31	0.34	191.88	192.29	192.19	12.52	5.58	5.09
TaoVA-100x	5	0.01	13.70	13.07	191.08	193.92	196.25	88.74	9.73	10.37
TCP Vegas	5	0.01	0.22	0.27	189.92	193.70	193.64	98.91	7.76	8.92
Verus	5	14.54	16.13	2.83	313.81	372.77	281.35	25.15	43.29	35.96
PCC-Vivace	5	2.55	6.00	3.75	192.25	192.32	192.37	4.30	5.13	7.22
WebRTC media	5	0.00	0.05	0.05	190.35	190.74	190.87	90.46	3.11	3.62

```
Run 1: Statistics of TCP BBR

Start at: 2019-02-20 09:53:57
End at: 2019-02-20 09:54:27
Local clock offset: 11.864 ms
Remote clock offset: -17.815 ms

# Below is generated by plot.py at 2019-02-20 15:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.26 Mbit/s
95th percentile per-packet one-way delay: 202.484 ms
Loss rate: 21.82%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 186.515 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 30.23 Mbit/s
95th percentile per-packet one-way delay: 204.146 ms
Loss rate: 20.60%
-- Flow 3:
Average throughput: 6.79 Mbit/s
95th percentile per-packet one-way delay: 190.940 ms
Loss rate: 31.30%
```

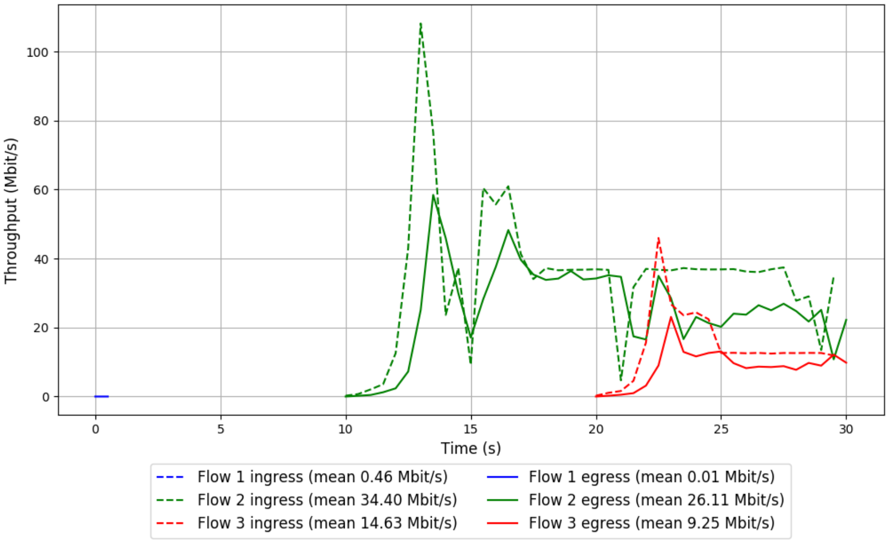
Run 1: Report of TCP BBR — Data Link

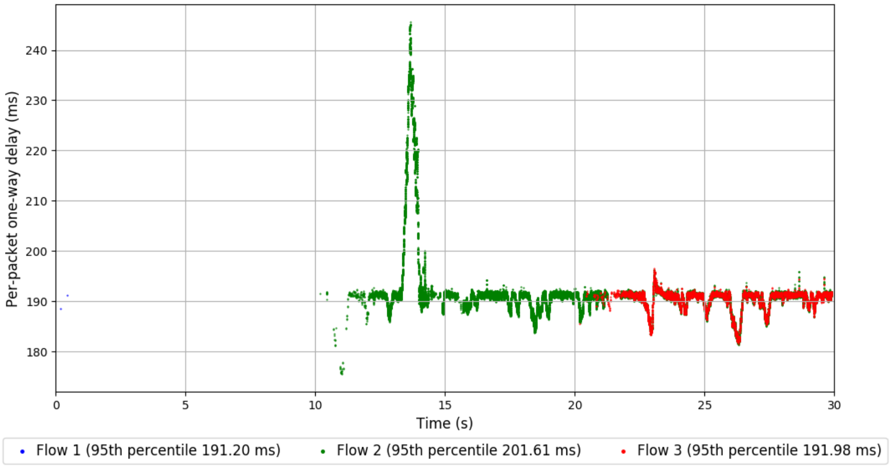




```
Run 2: Statistics of TCP BBR

Start at: 2019-02-20 10:53:14
End at: 2019-02-20 10:53:44
Local clock offset: 4.594 ms
Remote clock offset: -13.075 ms

# Below is generated by plot.py at 2019-02-20 15:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.34 Mbit/s
95th percentile per-packet one-way delay: 195.176 ms
Loss rate: 27.42%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 191.200 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 26.11 Mbit/s
95th percentile per-packet one-way delay: 201.611 ms
Loss rate: 25.08%
-- Flow 3:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 191.976 ms
Loss rate: 38.39%
```

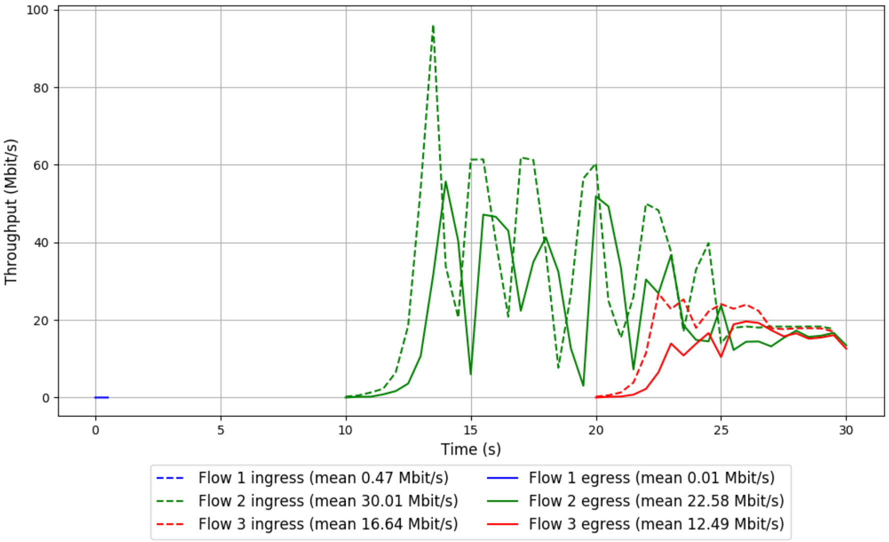
Run 2: Report of TCP BBR — Data Link

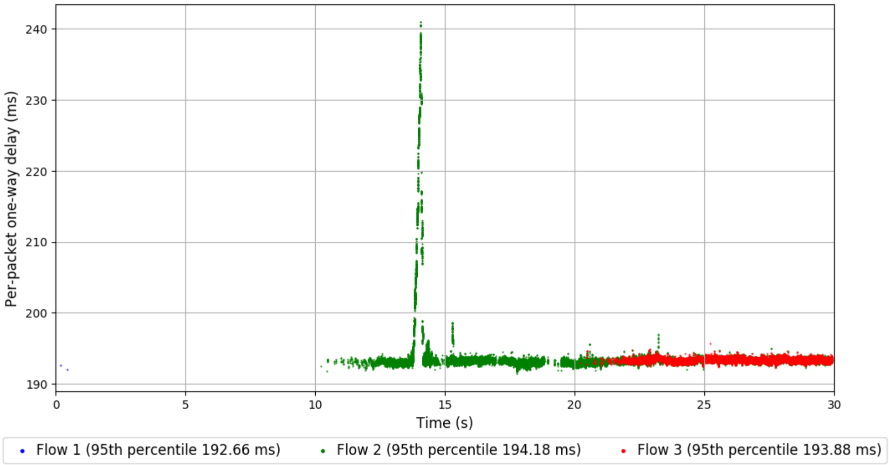




```
Run 3: Statistics of TCP BBR

Start at: 2019-02-20 12:08:50
End at: 2019-02-20 12:09:20
Local clock offset: -1.58 ms
Remote clock offset: -14.906 ms

# Below is generated by plot.py at 2019-02-20 15:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.05 Mbit/s
95th percentile per-packet one-way delay: 193.999 ms
Loss rate: 26.00%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 192.658 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 22.58 Mbit/s
95th percentile per-packet one-way delay: 194.178 ms
Loss rate: 25.73%
-- Flow 3:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 193.880 ms
Loss rate: 26.93%
```

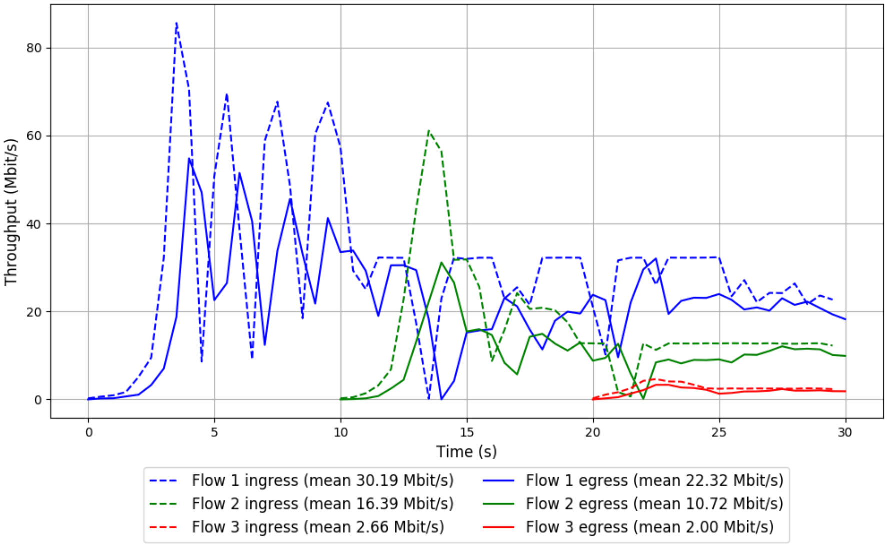
Run 3: Report of TCP BBR — Data Link

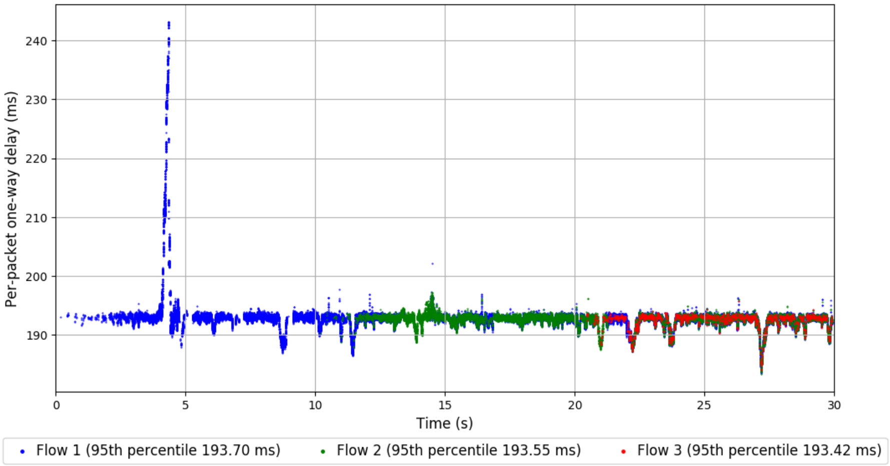




```
Run 4: Statistics of TCP BBR

Start at: 2019-02-20 13:25:29
End at: 2019-02-20 13:25:59
Local clock offset: 7.168 ms
Remote clock offset: -15.231 ms

# Below is generated by plot.py at 2019-02-20 15:48:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.08 Mbit/s
95th percentile per-packet one-way delay: 193.647 ms
Loss rate: 29.00%
-- Flow 1:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 193.703 ms
Loss rate: 26.72%
-- Flow 2:
Average throughput: 10.72 Mbit/s
95th percentile per-packet one-way delay: 193.549 ms
Loss rate: 35.46%
-- Flow 3:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 193.422 ms
Loss rate: 26.72%
```

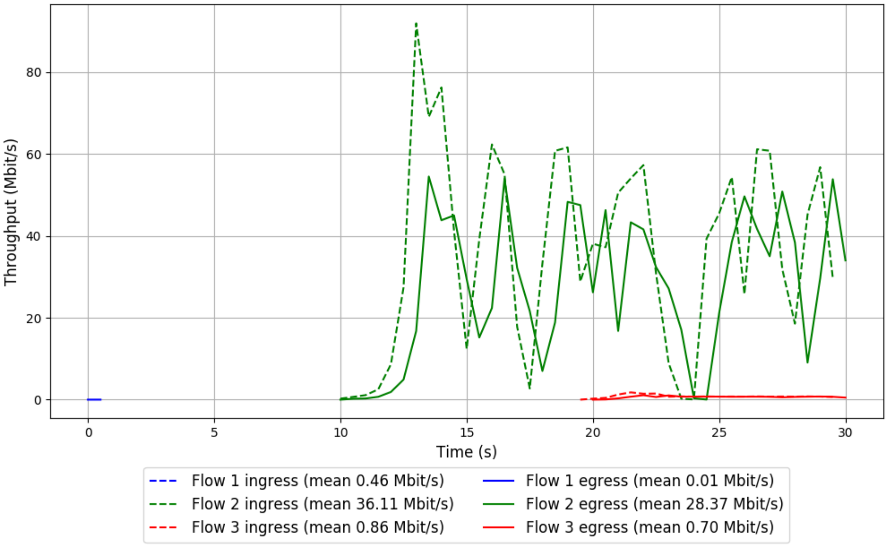
Run 4: Report of TCP BBR — Data Link

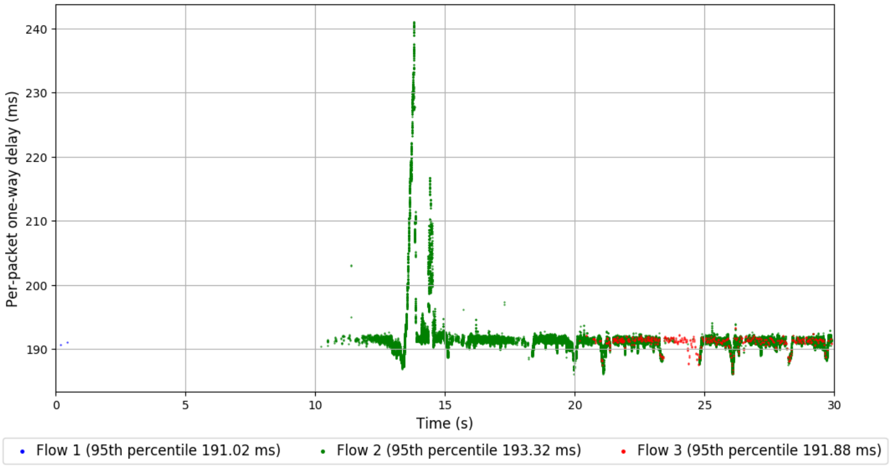




```
Run 5: Statistics of TCP BBR

Start at: 2019-02-20 14:40:04
End at: 2019-02-20 14:40:34
Local clock offset: 6.202 ms
Remote clock offset: -14.168 ms

# Below is generated by plot.py at 2019-02-20 15:48:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.03 Mbit/s
95th percentile per-packet one-way delay: 193.204 ms
Loss rate: 22.35%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 191.020 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 28.37 Mbit/s
95th percentile per-packet one-way delay: 193.318 ms
Loss rate: 22.35%
-- Flow 3:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 191.880 ms
Loss rate: 21.23%
```

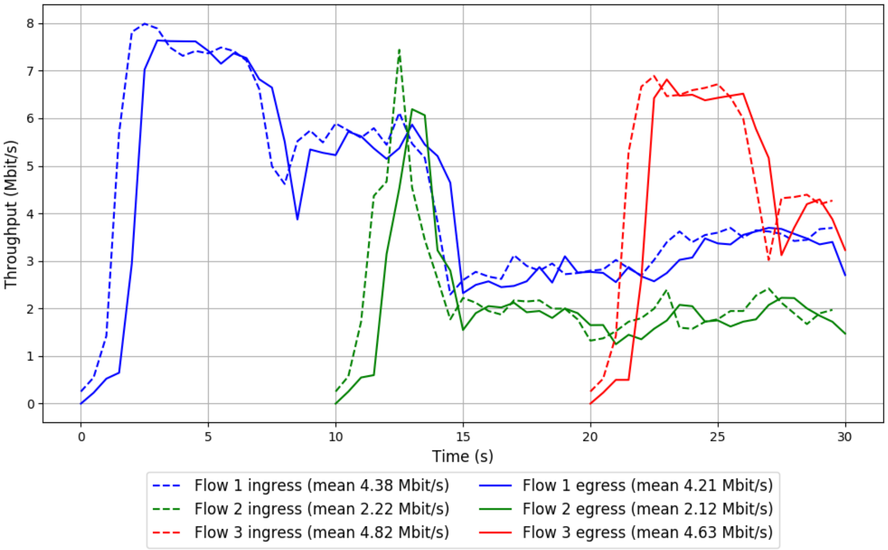
Run 5: Report of TCP BBR — Data Link

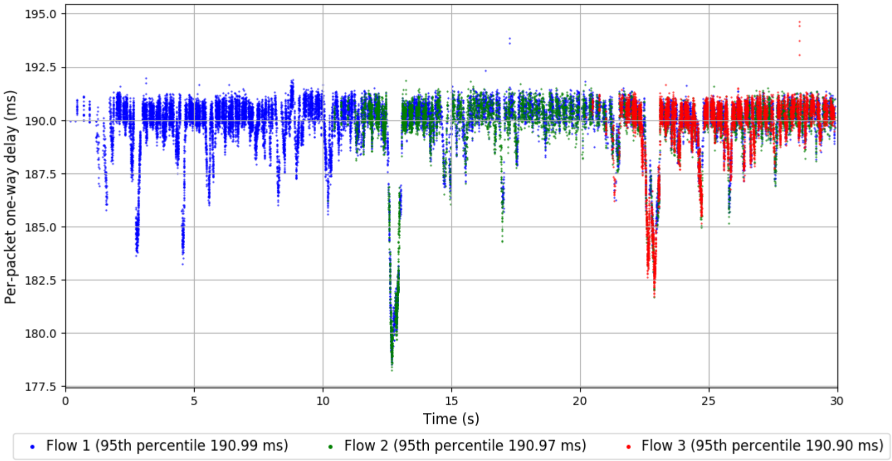




```
Run 1: Statistics of Copa

Start at: 2019-02-20 10:47:23
End at: 2019-02-20 10:47:53
Local clock offset: 3.82 ms
Remote clock offset: -11.863 ms

# Below is generated by plot.py at 2019-02-20 15:48:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 190.968 ms
Loss rate: 5.25%
-- Flow 1:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 190.987 ms
Loss rate: 4.55%
-- Flow 2:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 190.975 ms
Loss rate: 5.92%
-- Flow 3:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 190.898 ms
Loss rate: 6.57%
```

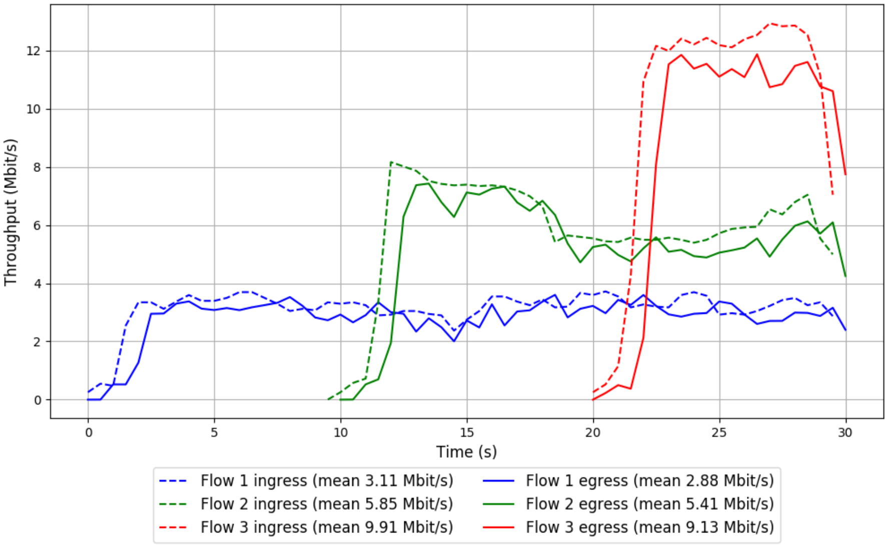
Run 1: Report of Copa — Data Link

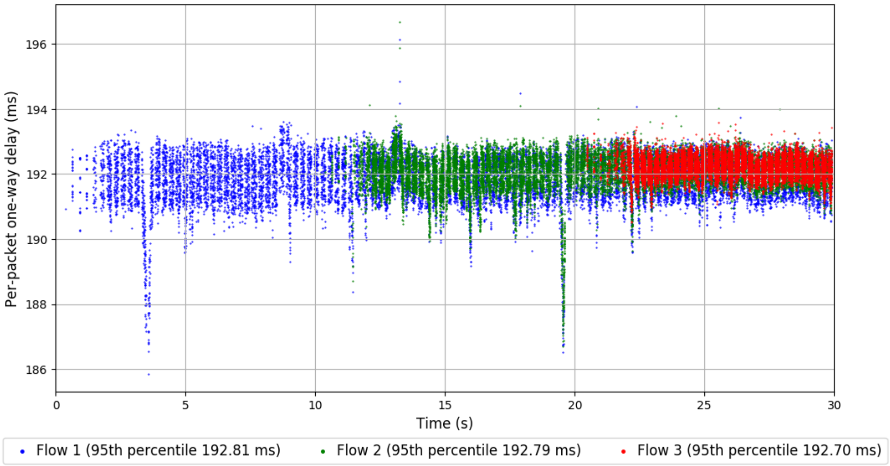




```
Run 2: Statistics of Copa

Start at: 2019-02-20 11:58:12
End at: 2019-02-20 11:58:42
Local clock offset: 3.847 ms
Remote clock offset: -14.554 ms

# Below is generated by plot.py at 2019-02-20 15:48:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 192.763 ms
Loss rate: 9.22%
-- Flow 1:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 192.806 ms
Loss rate: 8.76%
-- Flow 2:
Average throughput: 5.41 Mbit/s
95th percentile per-packet one-way delay: 192.788 ms
Loss rate: 8.77%
-- Flow 3:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 192.703 ms
Loss rate: 10.21%
```

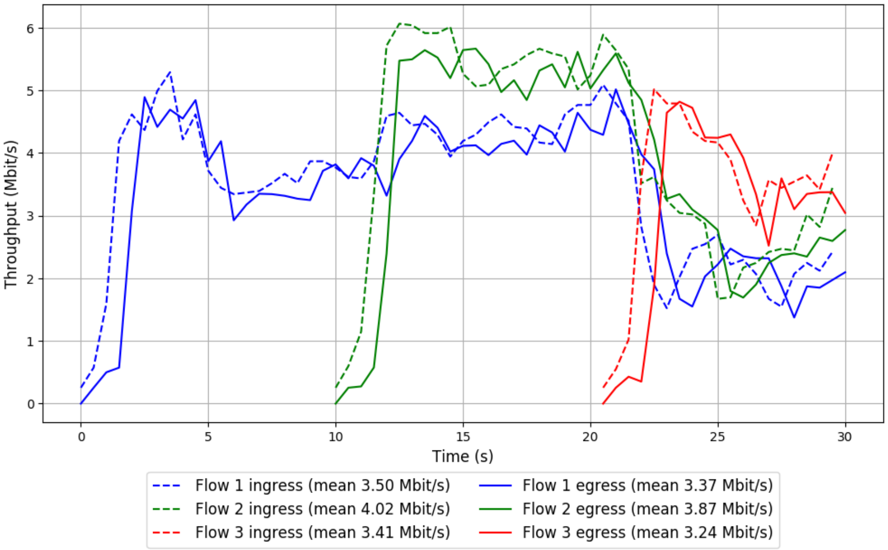
Run 2: Report of Copa — Data Link

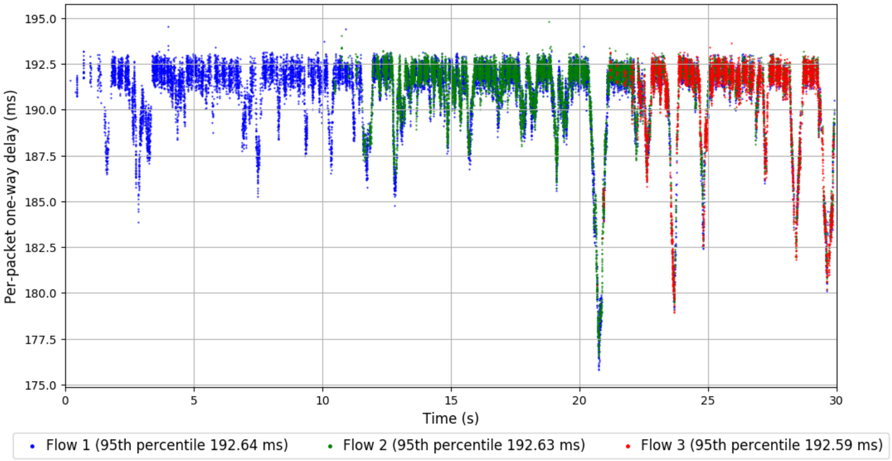




```
Run 3: Statistics of Copa

Start at: 2019-02-20 13:18:19
End at: 2019-02-20 13:18:49
Local clock offset: 5.863 ms
Remote clock offset: -14.758 ms

# Below is generated by plot.py at 2019-02-20 15:48:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.93 Mbit/s
95th percentile per-packet one-way delay: 192.630 ms
Loss rate: 5.19%
-- Flow 1:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 192.644 ms
Loss rate: 4.58%
-- Flow 2:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 192.633 ms
Loss rate: 5.07%
-- Flow 3:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 192.586 ms
Loss rate: 7.51%
```

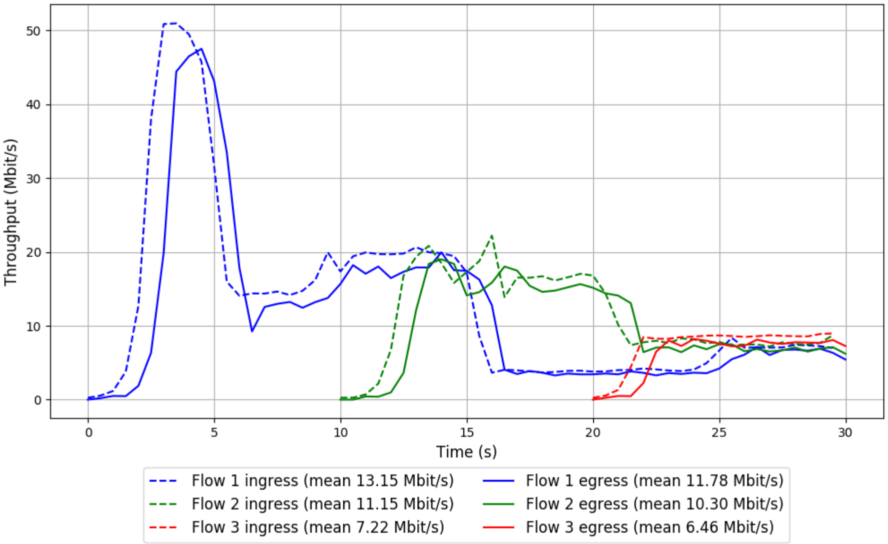
Run 3: Report of Copa — Data Link

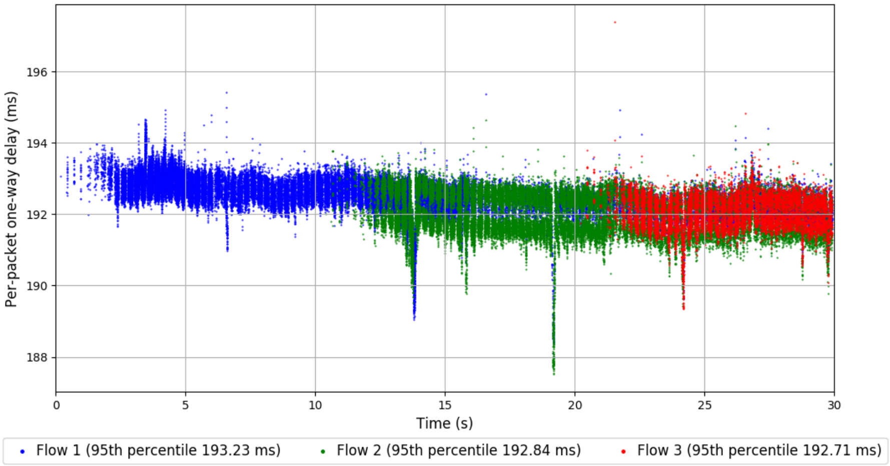




```
Run 4: Statistics of Copa

Start at: 2019-02-20 14:30:53
End at: 2019-02-20 14:31:23
Local clock offset: -1.937 ms
Remote clock offset: -16.74 ms

# Below is generated by plot.py at 2019-02-20 15:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.65 Mbit/s
95th percentile per-packet one-way delay: 193.141 ms
Loss rate: 10.90%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 193.228 ms
Loss rate: 11.20%
-- Flow 2:
Average throughput: 10.30 Mbit/s
95th percentile per-packet one-way delay: 192.835 ms
Loss rate: 9.74%
-- Flow 3:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 192.714 ms
Loss rate: 12.85%
```

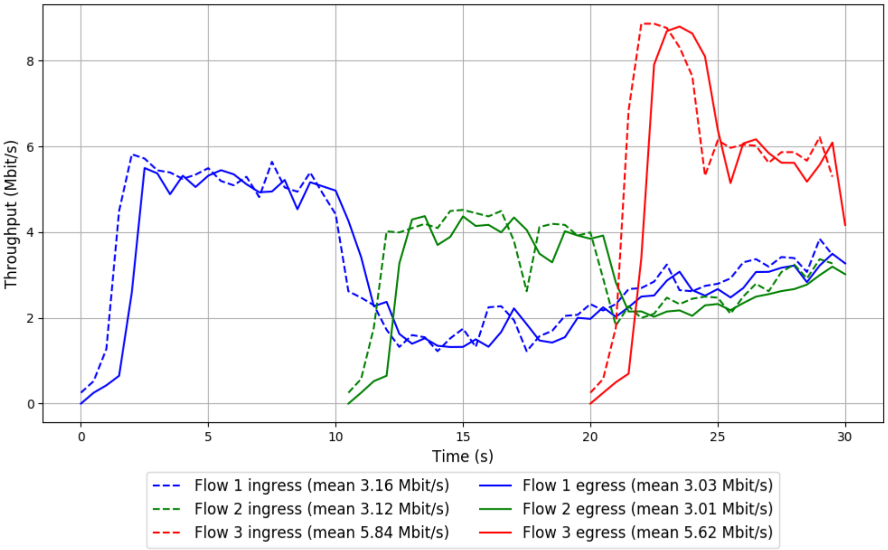
Run 4: Report of Copa — Data Link

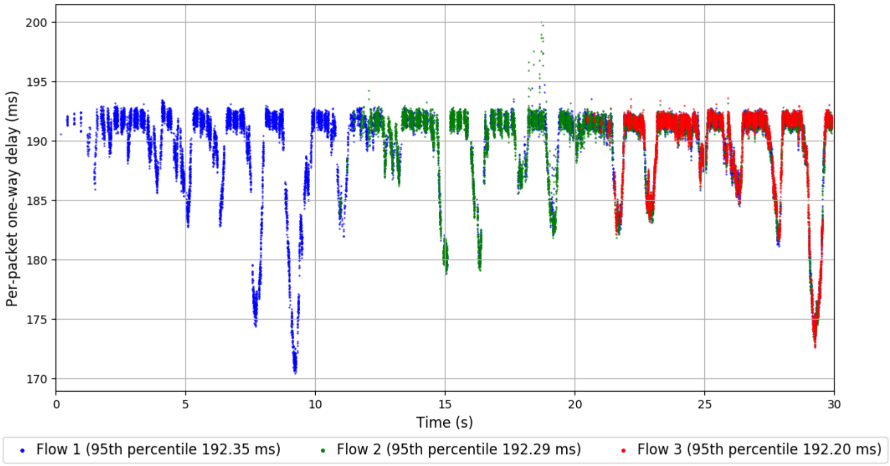




```
Run 5: Statistics of Copa

Start at: 2019-02-20 15:41:09
End at: 2019-02-20 15:41:39
Local clock offset: 3.929 ms
Remote clock offset: -15.955 ms

# Below is generated by plot.py at 2019-02-20 15:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.80 Mbit/s
95th percentile per-packet one-way delay: 192.290 ms
Loss rate: 5.23%
-- Flow 1:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 192.348 ms
Loss rate: 4.98%
-- Flow 2:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 192.292 ms
Loss rate: 4.79%
-- Flow 3:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 192.198 ms
Loss rate: 6.09%
```

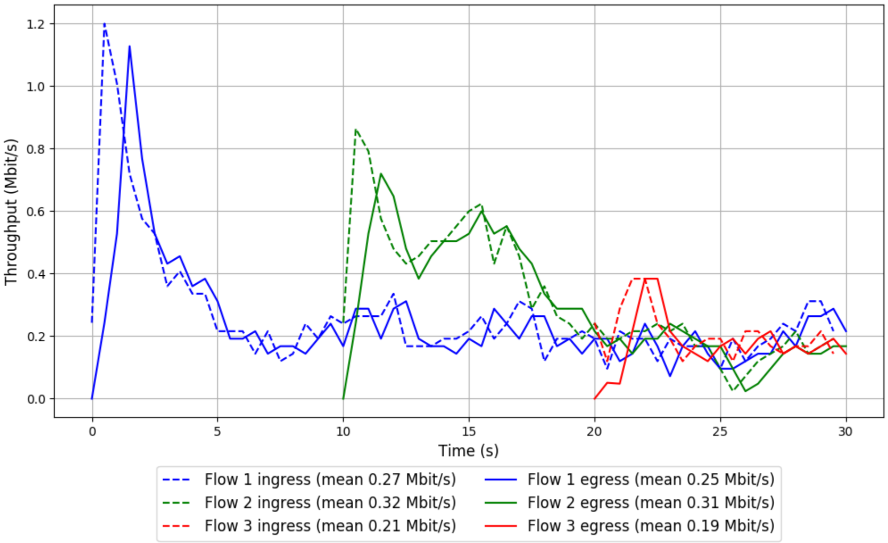
Run 5: Report of Copa — Data Link

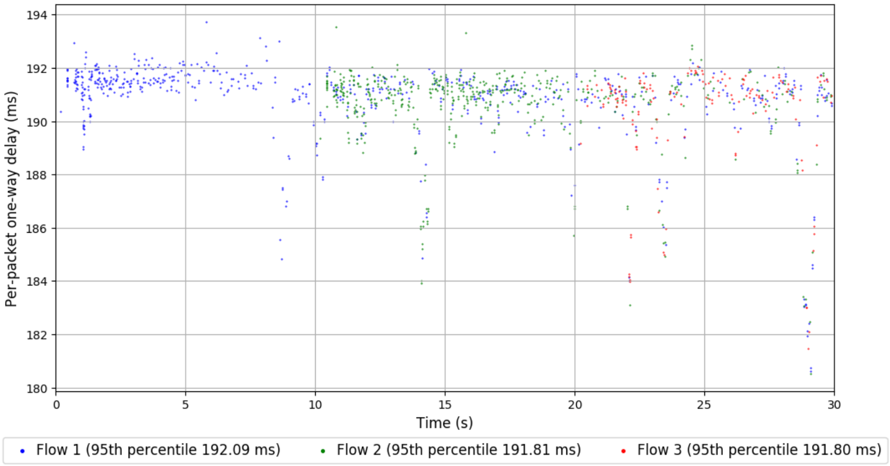




```
Run 1: Statistics of TCP Cubic

Start at: 2019-02-20 10:45:58
End at: 2019-02-20 10:46:28
Local clock offset: 3.279 ms
Remote clock offset: -12.594 ms

# Below is generated by plot.py at 2019-02-20 15:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 191.960 ms
Loss rate: 7.30%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 192.095 ms
Loss rate: 7.23%
-- Flow 2:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 191.805 ms
Loss rate: 5.98%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 191.799 ms
Loss rate: 11.76%
```

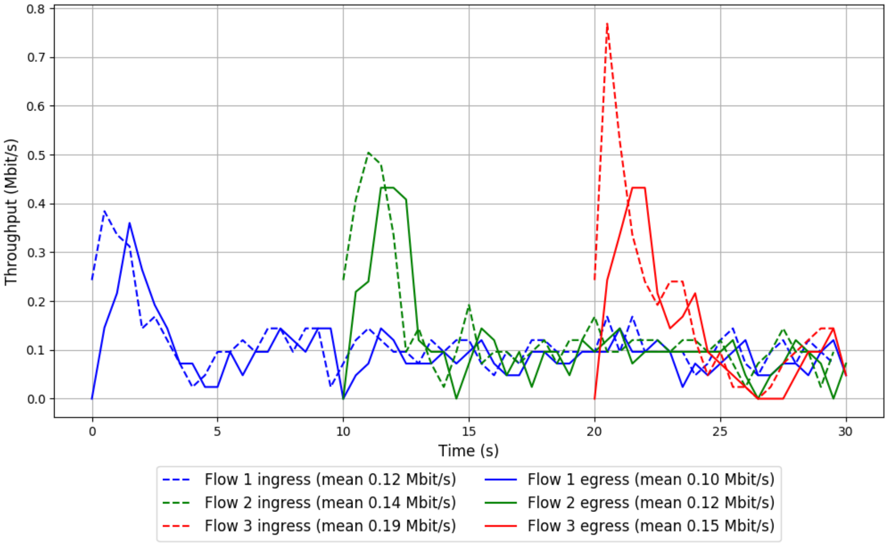
Run 1: Report of TCP Cubic — Data Link

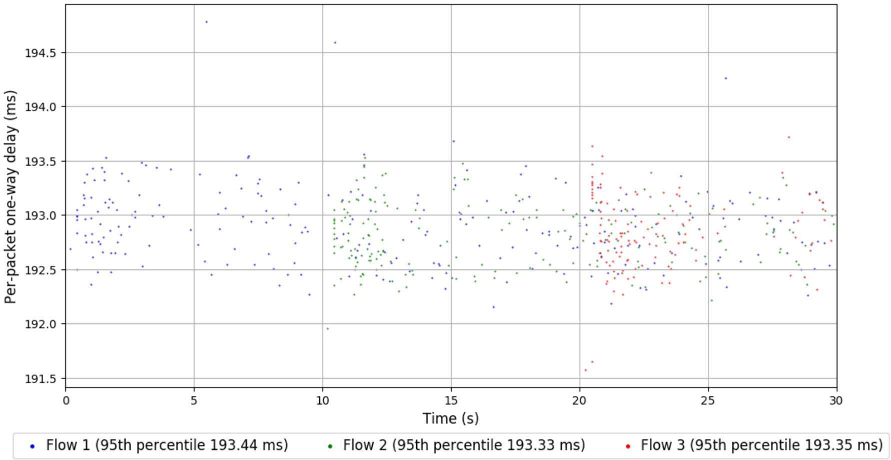




```
Run 2: Statistics of TCP Cubic

Start at: 2019-02-20 11:56:43
End at: 2019-02-20 11:57:13
Local clock offset: 3.752 ms
Remote clock offset: -15.434 ms

# Below is generated by plot.py at 2019-02-20 15:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 193.384 ms
Loss rate: 17.16%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 193.440 ms
Loss rate: 16.28%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 193.327 ms
Loss rate: 14.53%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 193.355 ms
Loss rate: 22.71%
```

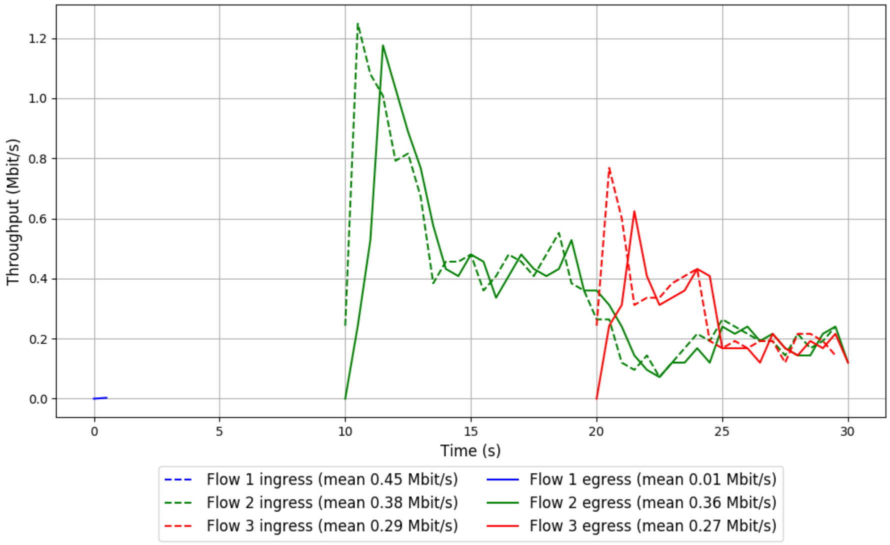
Run 2: Report of TCP Cubic — Data Link

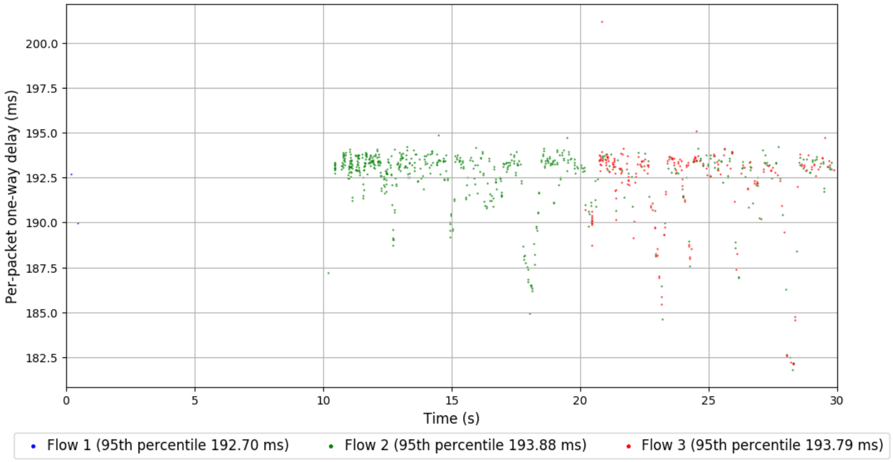




```
Run 3: Statistics of TCP Cubic

Start at: 2019-02-20 13:16:52
End at: 2019-02-20 13:17:22
Local clock offset: 5.415 ms
Remote clock offset: -15.874 ms

# Below is generated by plot.py at 2019-02-20 15:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 193.872 ms
Loss rate: 8.23%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 192.699 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 193.881 ms
Loss rate: 6.46%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 193.792 ms
Loss rate: 9.09%
```

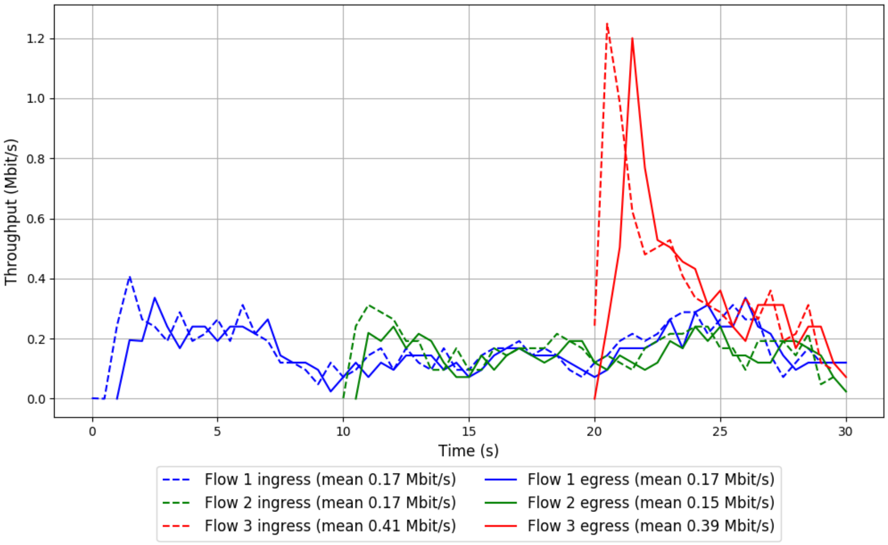
Run 3: Report of TCP Cubic — Data Link

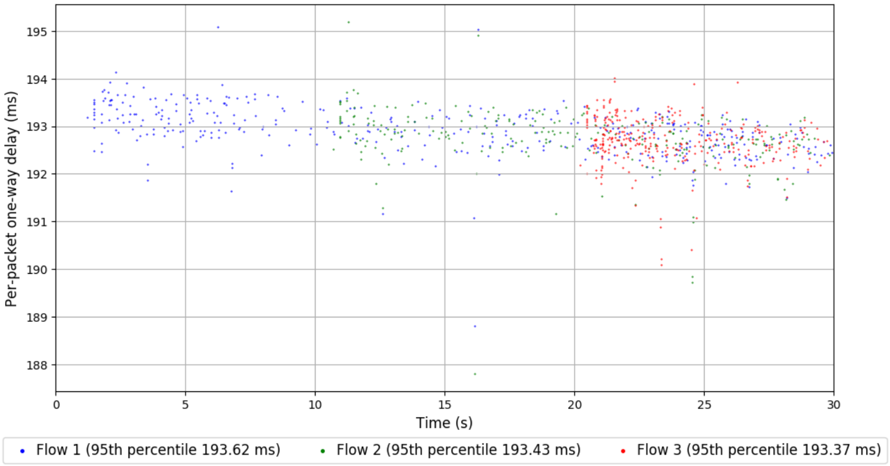




```
Run 4: Statistics of TCP Cubic

Start at: 2019-02-20 14:29:28
End at: 2019-02-20 14:29:58
Local clock offset: -3.046 ms
Remote clock offset: -15.965 ms

# Below is generated by plot.py at 2019-02-20 15:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 193.542 ms
Loss rate: 8.42%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 193.622 ms
Loss rate: 7.22%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 193.432 ms
Loss rate: 11.87%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 193.373 ms
Loss rate: 7.12%
```

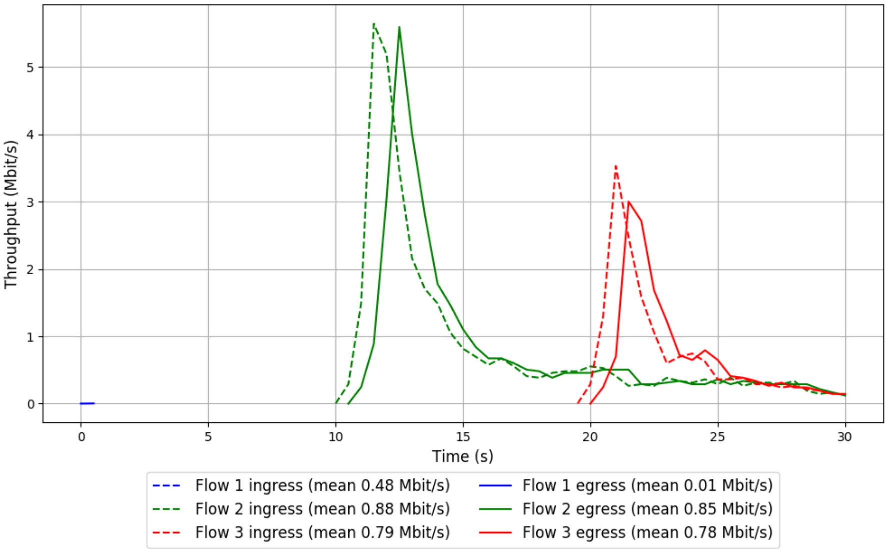
Run 4: Report of TCP Cubic — Data Link

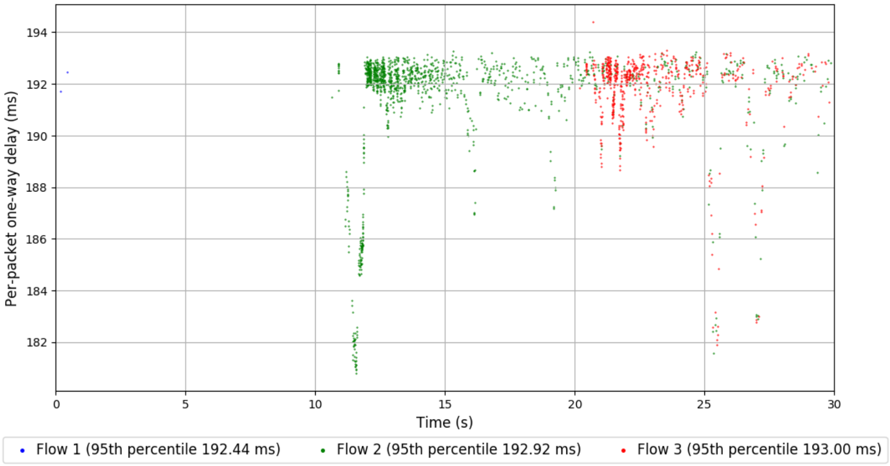




```
Run 5: Statistics of TCP Cubic

Start at: 2019-02-20 15:39:39
End at: 2019-02-20 15:40:09
Local clock offset: 3.308 ms
Remote clock offset: -16.428 ms

# Below is generated by plot.py at 2019-02-20 15:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 192.943 ms
Loss rate: 4.97%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 192.444 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 192.921 ms
Loss rate: 4.82%
-- Flow 3:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 193.002 ms
Loss rate: 3.84%
```

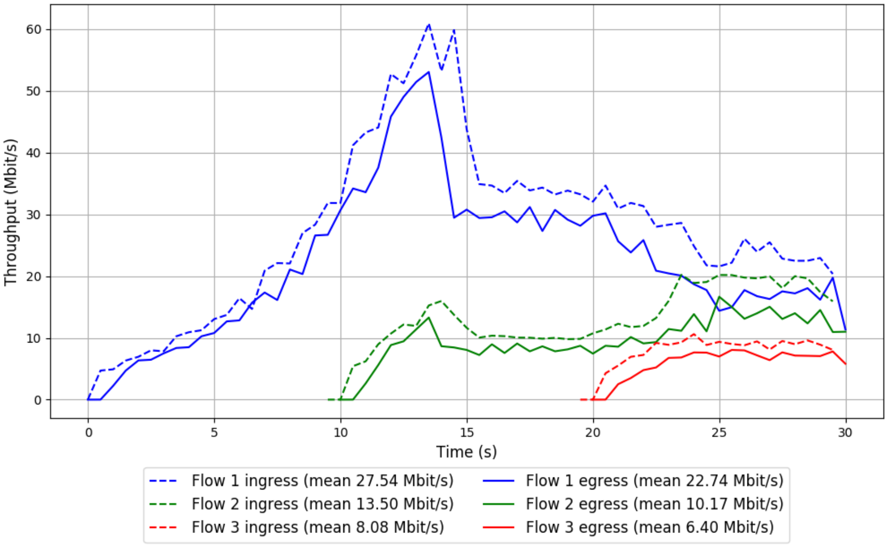
Run 5: Report of TCP Cubic — Data Link

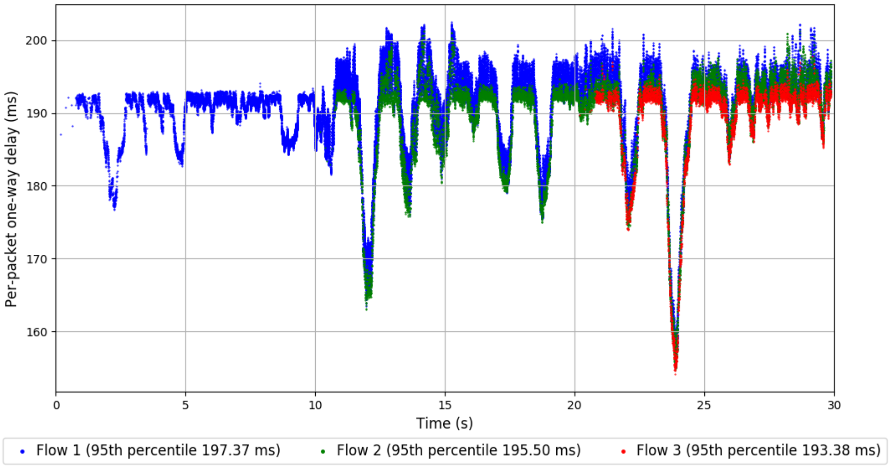




```
Run 1: Statistics of FillP

Start at: 2019-02-20 10:00:50
End at: 2019-02-20 10:01:20
Local clock offset: 11.262 ms
Remote clock offset: -18.424 ms

# Below is generated by plot.py at 2019-02-20 15:48:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 196.959 ms
Loss rate: 20.13%
-- Flow 1:
Average throughput: 22.74 Mbit/s
95th percentile per-packet one-way delay: 197.373 ms
Loss rate: 18.09%
-- Flow 2:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 195.504 ms
Loss rate: 25.58%
-- Flow 3:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 193.381 ms
Loss rate: 22.77%
```

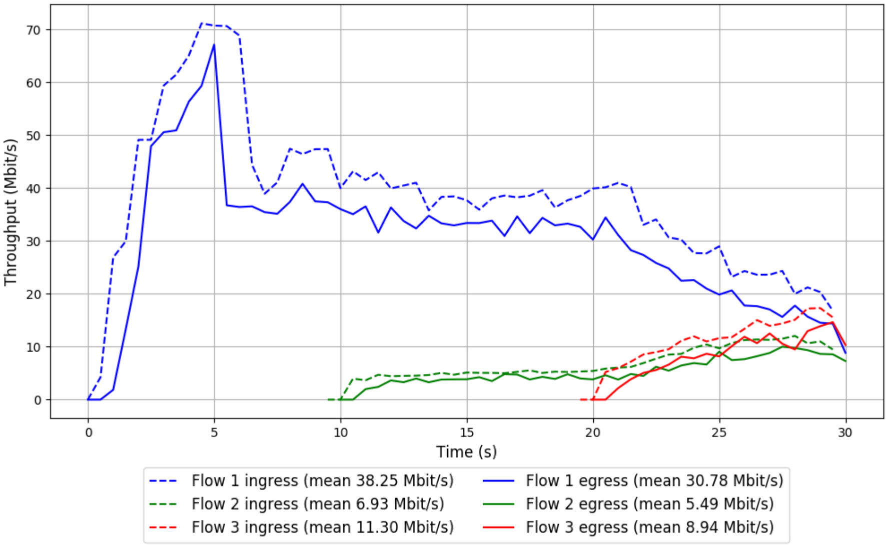
Run 1: Report of FillP — Data Link

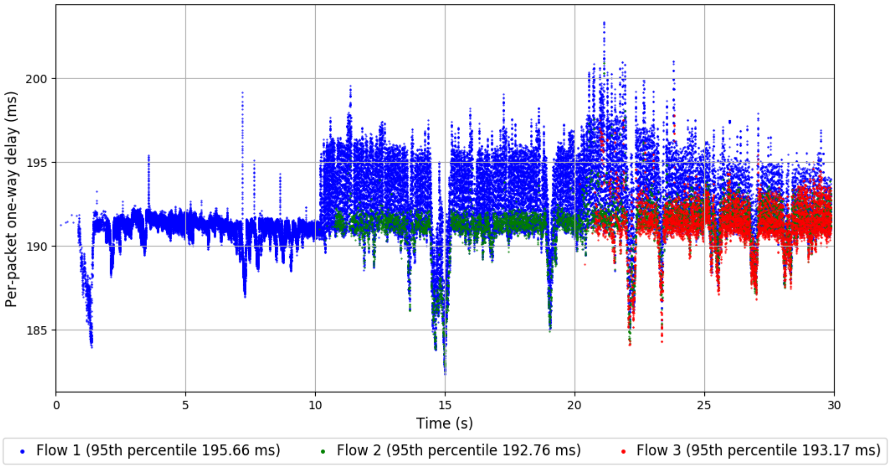




```
Run 2: Statistics of FillP

Start at: 2019-02-20 11:05:19
End at: 2019-02-20 11:05:49
Local clock offset: 6.162 ms
Remote clock offset: -13.791 ms

# Below is generated by plot.py at 2019-02-20 15:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 195.496 ms
Loss rate: 20.62%
-- Flow 1:
Average throughput: 30.78 Mbit/s
95th percentile per-packet one-way delay: 195.660 ms
Loss rate: 20.24%
-- Flow 2:
Average throughput: 5.49 Mbit/s
95th percentile per-packet one-way delay: 192.757 ms
Loss rate: 21.79%
-- Flow 3:
Average throughput: 8.94 Mbit/s
95th percentile per-packet one-way delay: 193.168 ms
Loss rate: 22.99%
```

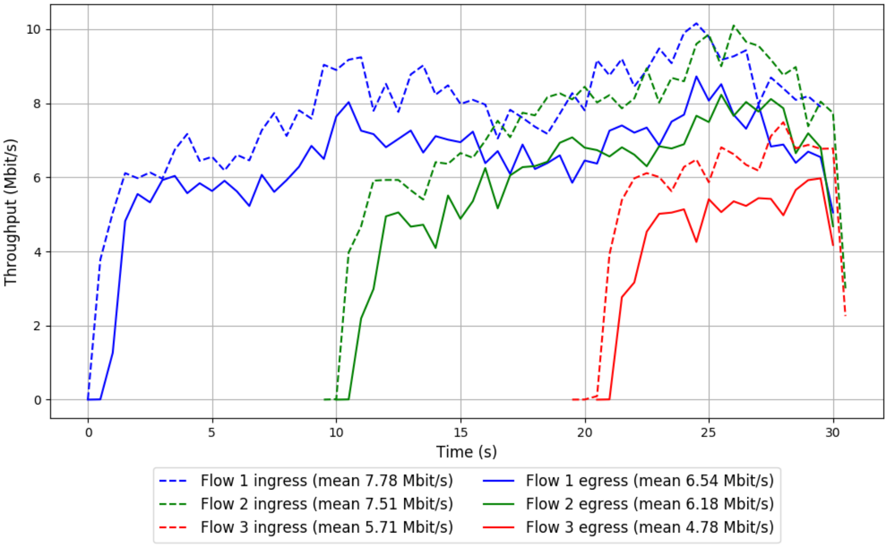
Run 2: Report of FillP — Data Link

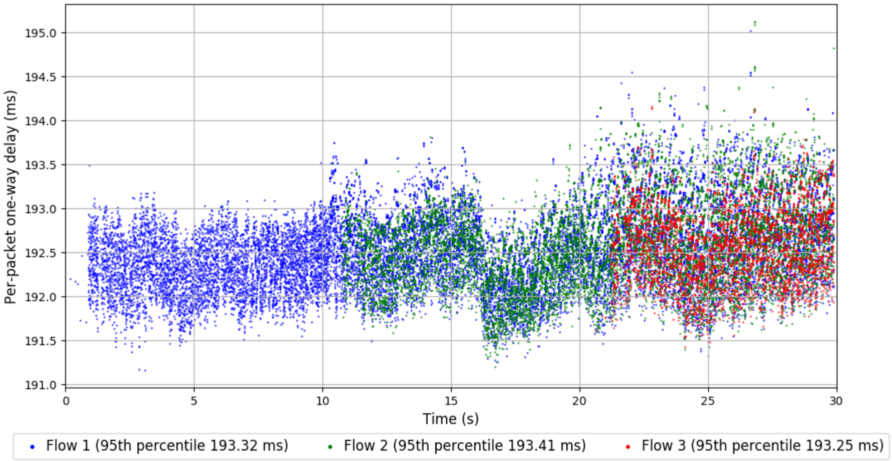




```
Run 3: Statistics of FillP

Start at: 2019-02-20 12:24:44
End at: 2019-02-20 12:25:14
Local clock offset: -5.467 ms
Remote clock offset: -15.062 ms

# Below is generated by plot.py at 2019-02-20 15:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.13 Mbit/s
95th percentile per-packet one-way delay: 193.348 ms
Loss rate: 19.92%
-- Flow 1:
Average throughput: 6.54 Mbit/s
95th percentile per-packet one-way delay: 193.323 ms
Loss rate: 16.82%
-- Flow 2:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 193.405 ms
Loss rate: 21.68%
-- Flow 3:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 193.245 ms
Loss rate: 27.29%
```

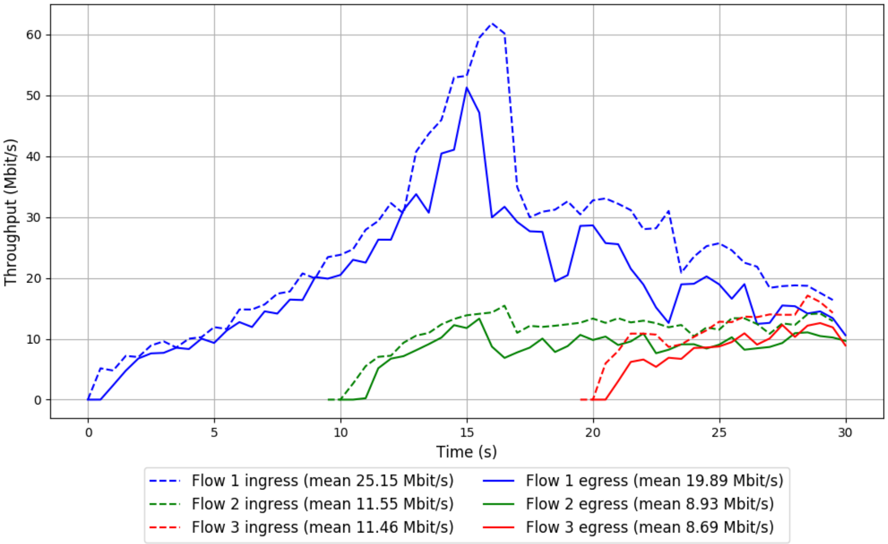
Run 3: Report of FillP — Data Link

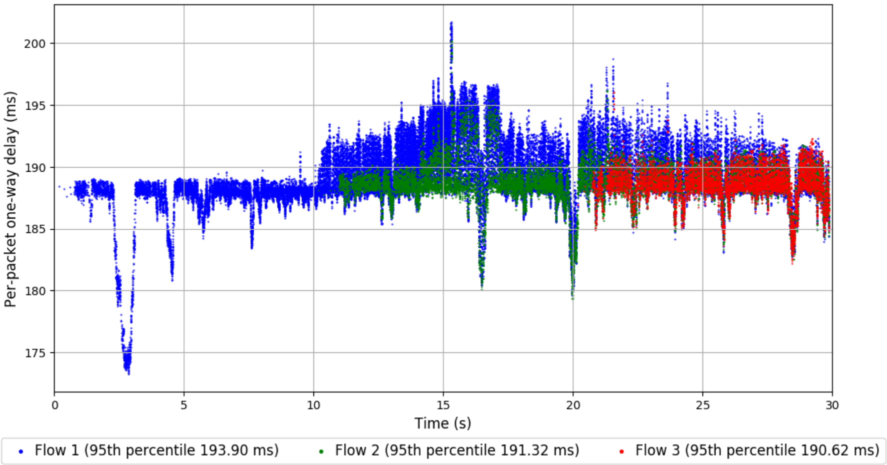




```
Run 4: Statistics of FillP

Start at: 2019-02-20 13:38:12
End at: 2019-02-20 13:38:42
Local clock offset: 5.193 ms
Remote clock offset: -11.044 ms

# Below is generated by plot.py at 2019-02-20 15:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.65 Mbit/s
95th percentile per-packet one-way delay: 193.476 ms
Loss rate: 22.47%
-- Flow 1:
Average throughput: 19.89 Mbit/s
95th percentile per-packet one-way delay: 193.899 ms
Loss rate: 21.54%
-- Flow 2:
Average throughput: 8.93 Mbit/s
95th percentile per-packet one-way delay: 191.324 ms
Loss rate: 23.63%
-- Flow 3:
Average throughput: 8.69 Mbit/s
95th percentile per-packet one-way delay: 190.625 ms
Loss rate: 26.19%
```

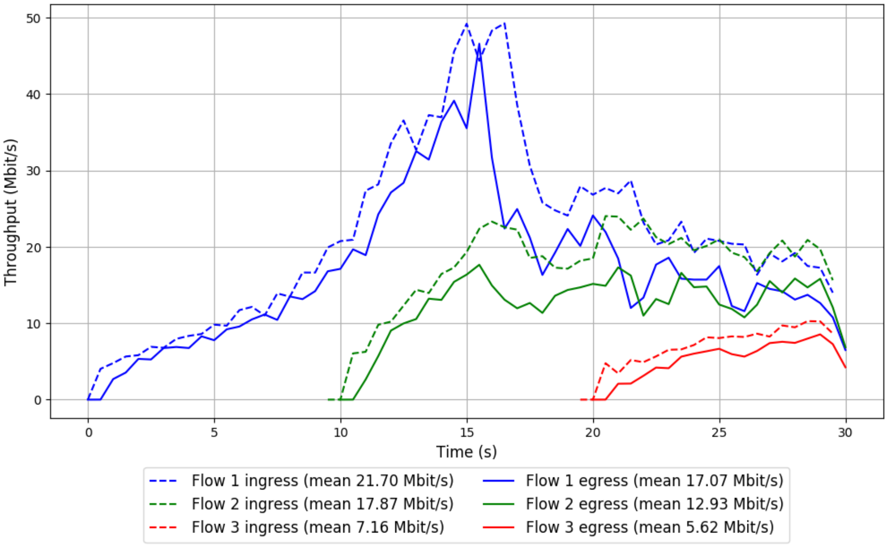
Run 4: Report of FillP — Data Link

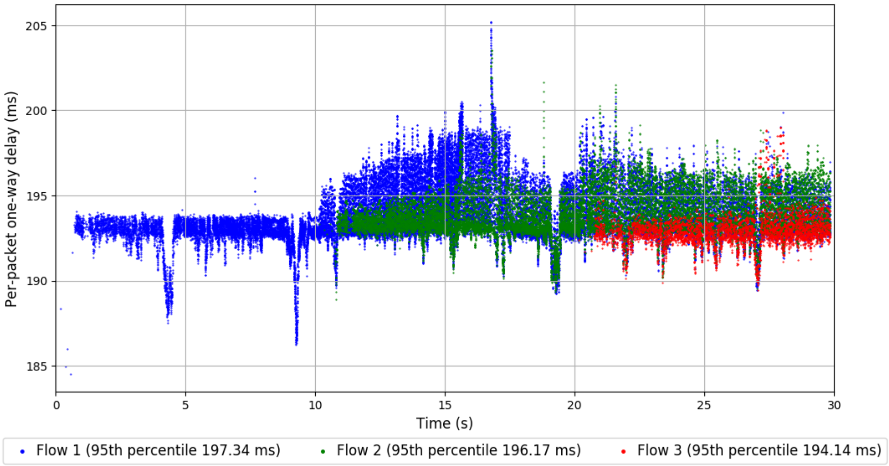




```
Run 5: Statistics of FillP

Start at: 2019-02-20 14:54:09
End at: 2019-02-20 14:54:39
Local clock offset: 10.838 ms
Remote clock offset: -15.284 ms

# Below is generated by plot.py at 2019-02-20 15:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.49 Mbit/s
95th percentile per-packet one-way delay: 196.955 ms
Loss rate: 24.24%
-- Flow 1:
Average throughput: 17.07 Mbit/s
95th percentile per-packet one-way delay: 197.345 ms
Loss rate: 21.97%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 196.172 ms
Loss rate: 28.51%
-- Flow 3:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 194.143 ms
Loss rate: 23.56%
```

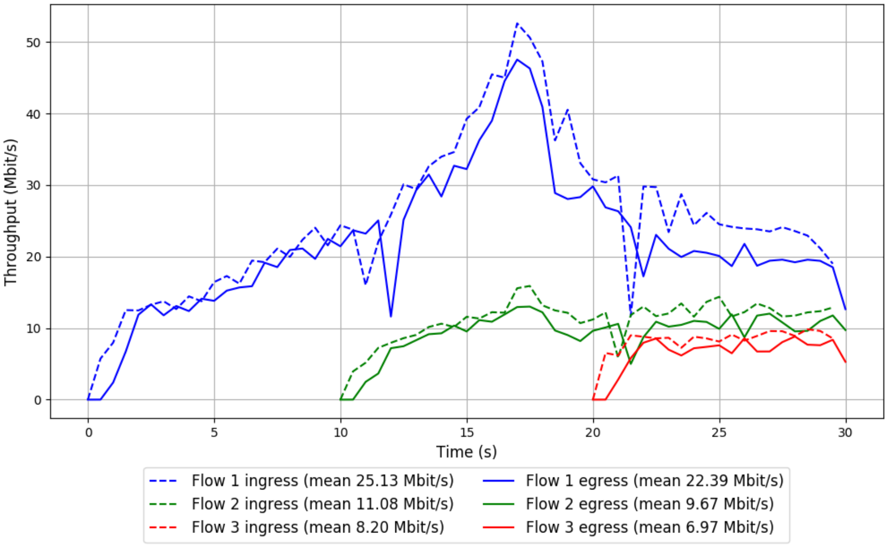
Run 5: Report of FillP — Data Link

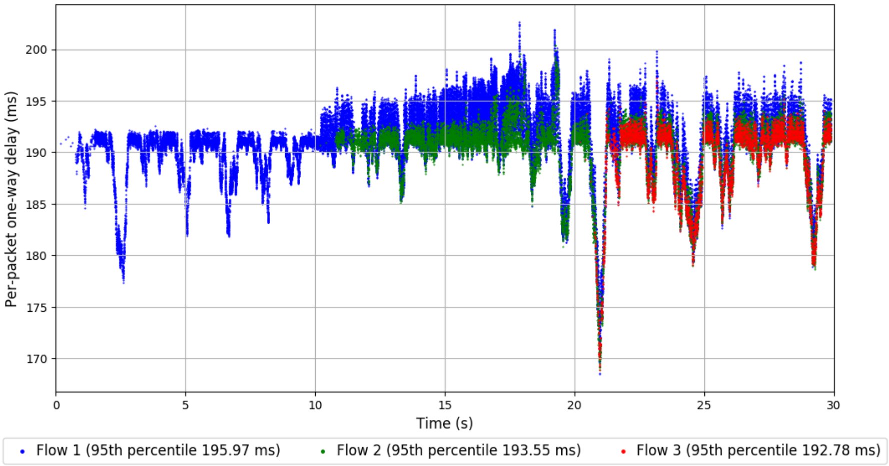




```
Run 1: Statistics of FillP-Sheep

Start at: 2019-02-20 10:25:12
End at: 2019-02-20 10:25:42
Local clock offset: -4.895 ms
Remote clock offset: -10.639 ms

# Below is generated by plot.py at 2019-02-20 15:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.07 Mbit/s
95th percentile per-packet one-way delay: 195.611 ms
Loss rate: 12.55%
-- Flow 1:
Average throughput: 22.39 Mbit/s
95th percentile per-packet one-way delay: 195.968 ms
Loss rate: 11.66%
-- Flow 2:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 193.548 ms
Loss rate: 13.89%
-- Flow 3:
Average throughput: 6.97 Mbit/s
95th percentile per-packet one-way delay: 192.784 ms
Loss rate: 17.18%
```

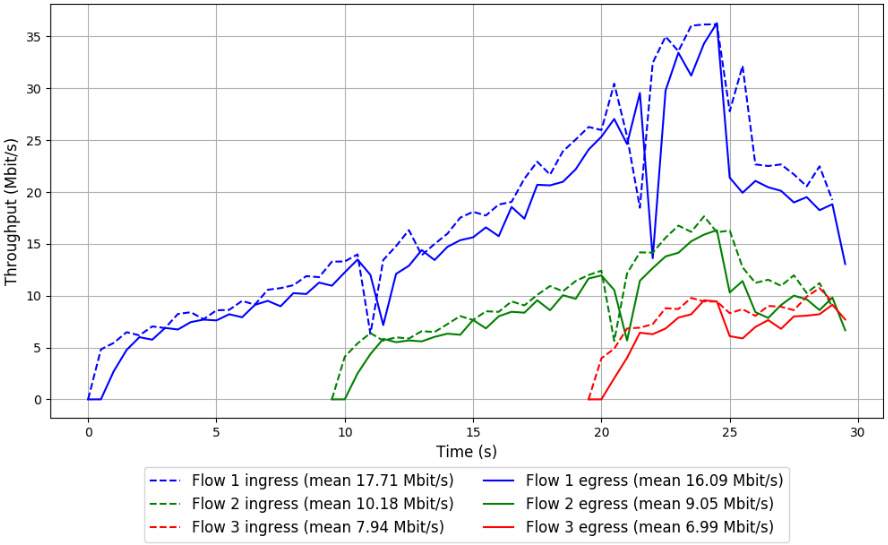
Run 1: Report of FillP-Sheep — Data Link

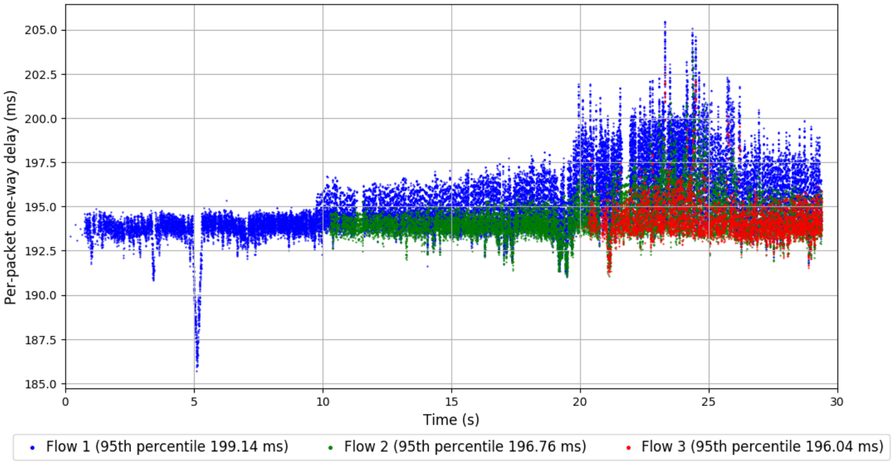




```
Run 2: Statistics of FillP-Sheep

Start at: 2019-02-20 11:31:40
End at: 2019-02-20 11:32:10
Local clock offset: 7.544 ms
Remote clock offset: -16.46 ms

# Below is generated by plot.py at 2019-02-20 15:48:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 198.738 ms
Loss rate: 10.93%
-- Flow 1:
Average throughput: 16.09 Mbit/s
95th percentile per-packet one-way delay: 199.137 ms
Loss rate: 9.97%
-- Flow 2:
Average throughput: 9.05 Mbit/s
95th percentile per-packet one-way delay: 196.763 ms
Loss rate: 12.11%
-- Flow 3:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 196.045 ms
Loss rate: 14.25%
```

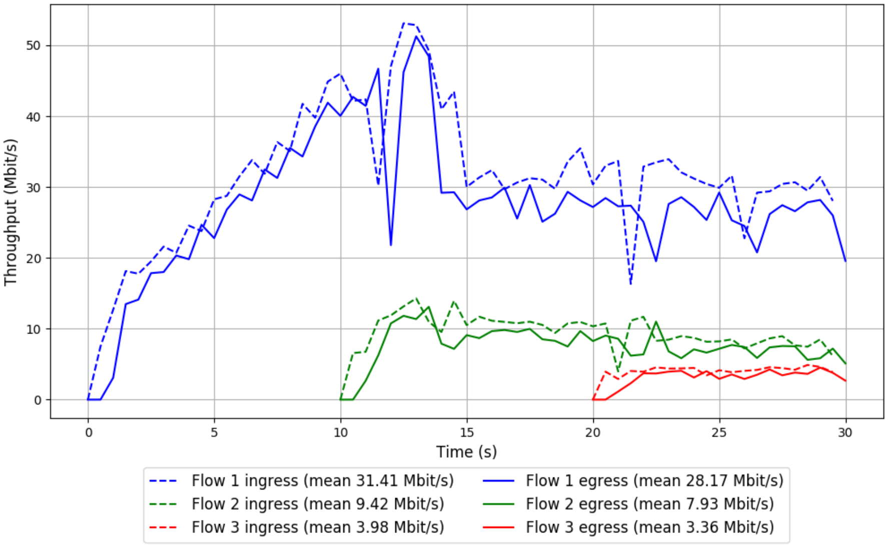
Run 2: Report of FillP-Sheep — Data Link

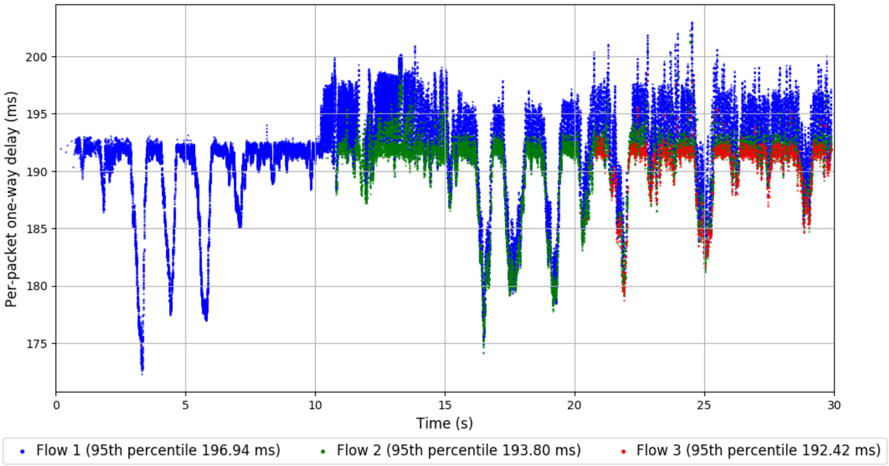




```
Run 3: Statistics of FillP-Sheep

Start at: 2019-02-20 12:58:06
End at: 2019-02-20 12:58:36
Local clock offset: -4.508 ms
Remote clock offset: -15.363 ms

# Below is generated by plot.py at 2019-02-20 15:49:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.51 Mbit/s
95th percentile per-packet one-way delay: 196.740 ms
Loss rate: 12.26%
-- Flow 1:
Average throughput: 28.17 Mbit/s
95th percentile per-packet one-way delay: 196.942 ms
Loss rate: 11.10%
-- Flow 2:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 193.802 ms
Loss rate: 16.94%
-- Flow 3:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 192.422 ms
Loss rate: 17.62%
```

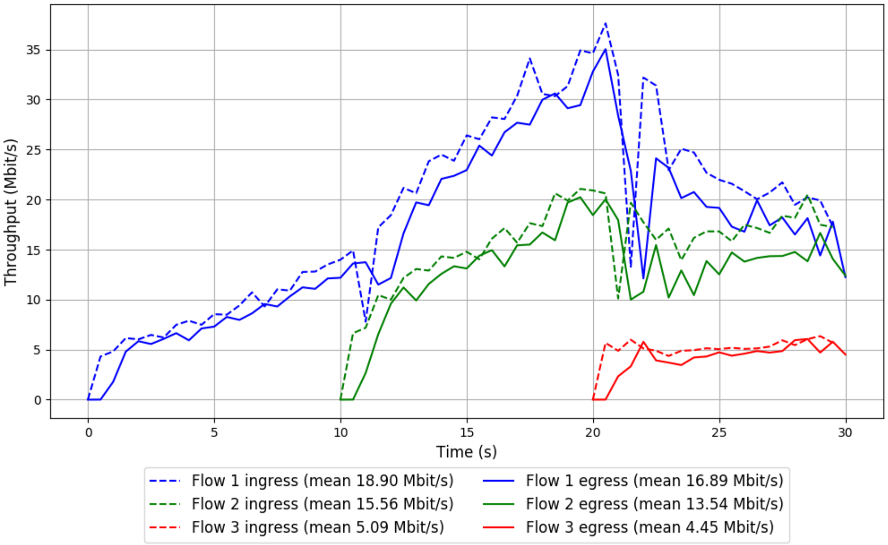
Run 3: Report of FillP-Sheep — Data Link

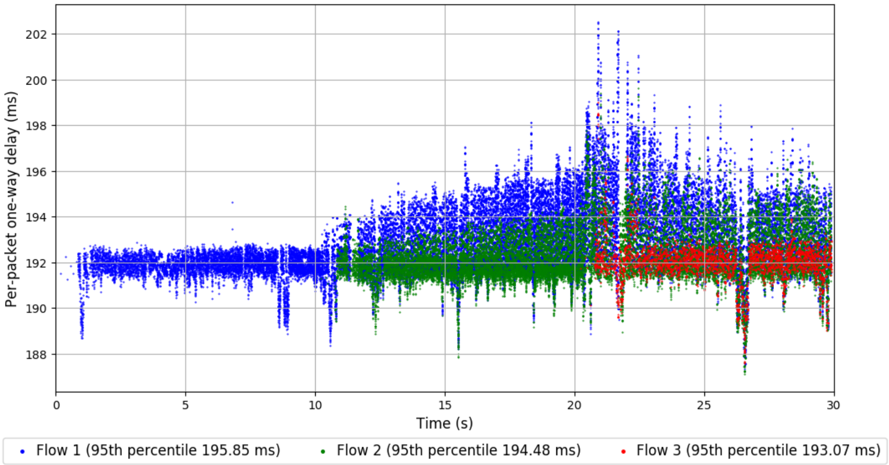




```
Run 4: Statistics of FillP-Sheep

Start at: 2019-02-20 14:08:17
End at: 2019-02-20 14:08:47
Local clock offset: 0.136 ms
Remote clock offset: -14.674 ms

# Below is generated by plot.py at 2019-02-20 15:49:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.31 Mbit/s
95th percentile per-packet one-way delay: 195.438 ms
Loss rate: 12.47%
-- Flow 1:
Average throughput: 16.89 Mbit/s
95th percentile per-packet one-way delay: 195.853 ms
Loss rate: 11.36%
-- Flow 2:
Average throughput: 13.54 Mbit/s
95th percentile per-packet one-way delay: 194.479 ms
Loss rate: 14.14%
-- Flow 3:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 193.067 ms
Loss rate: 14.72%
```

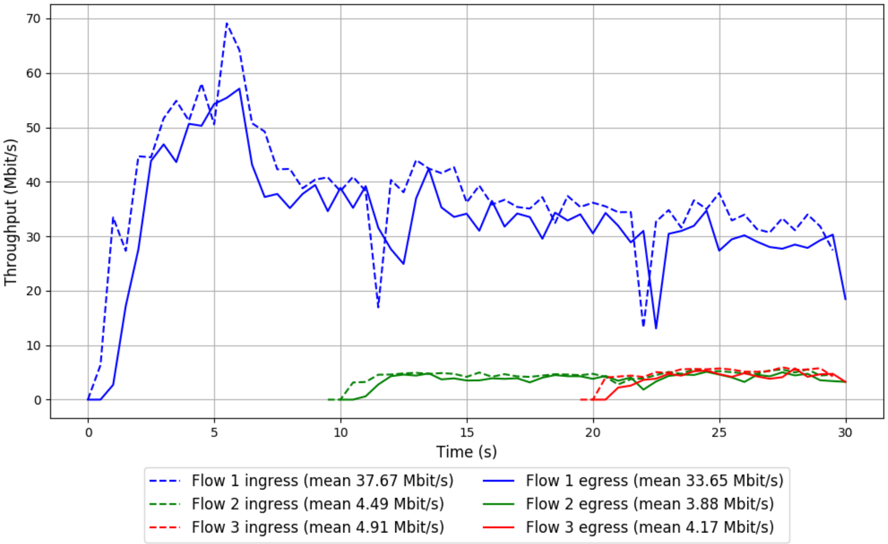
Run 4: Report of FillP-Sheep — Data Link

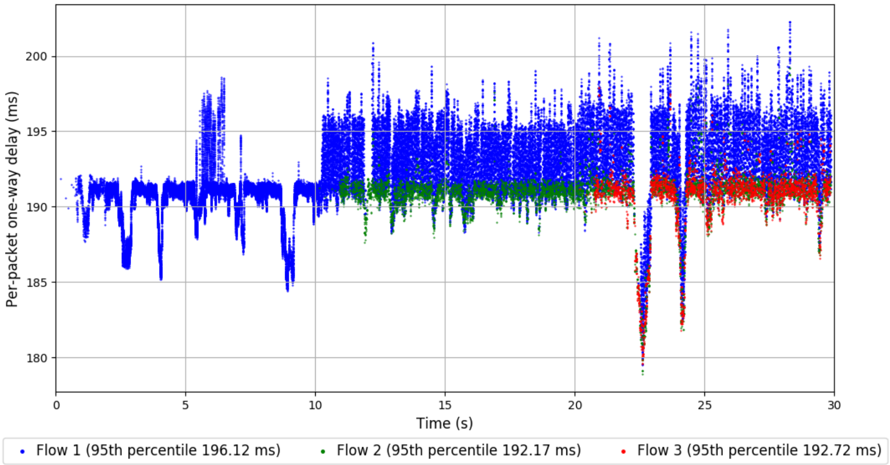




```
Run 5: Statistics of FillP-Sheep

Start at: 2019-02-20 15:21:00
End at: 2019-02-20 15:21:30
Local clock offset: -0.993 ms
Remote clock offset: -14.315 ms

# Below is generated by plot.py at 2019-02-20 15:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.58 Mbit/s
95th percentile per-packet one-way delay: 196.016 ms
Loss rate: 11.89%
-- Flow 1:
Average throughput: 33.65 Mbit/s
95th percentile per-packet one-way delay: 196.117 ms
Loss rate: 11.44%
-- Flow 2:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 192.174 ms
Loss rate: 14.64%
-- Flow 3:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 192.723 ms
Loss rate: 17.33%
```

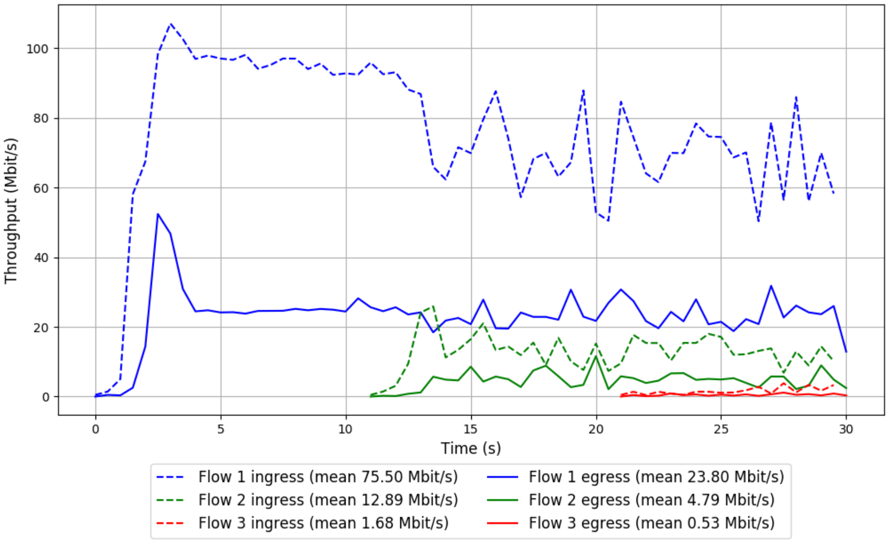
Run 5: Report of FillP-Sheep — Data Link

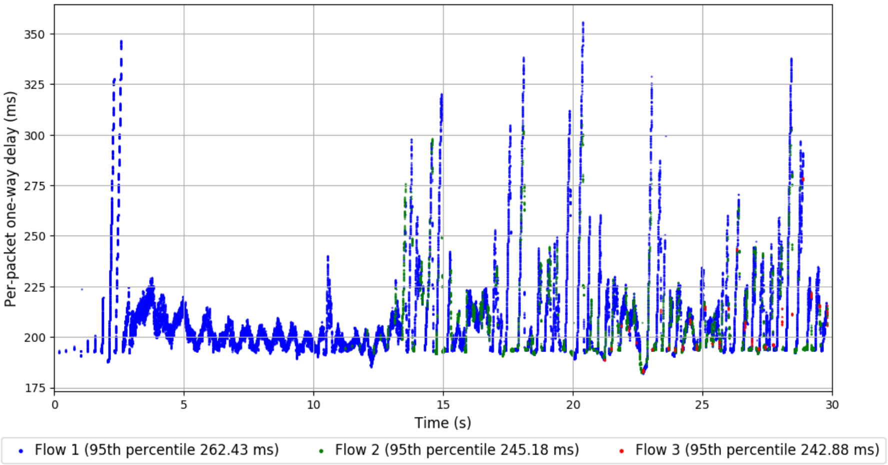




```
Run 1: Statistics of Indigo

Start at: 2019-02-20 10:09:51
End at: 2019-02-20 10:10:21
Local clock offset: 1.18 ms
Remote clock offset: -14.721 ms

# Below is generated by plot.py at 2019-02-20 15:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 260.429 ms
Loss rate: 68.24%
-- Flow 1:
Average throughput: 23.80 Mbit/s
95th percentile per-packet one-way delay: 262.427 ms
Loss rate: 68.77%
-- Flow 2:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 245.175 ms
Loss rate: 63.37%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 242.883 ms
Loss rate: 68.42%
```

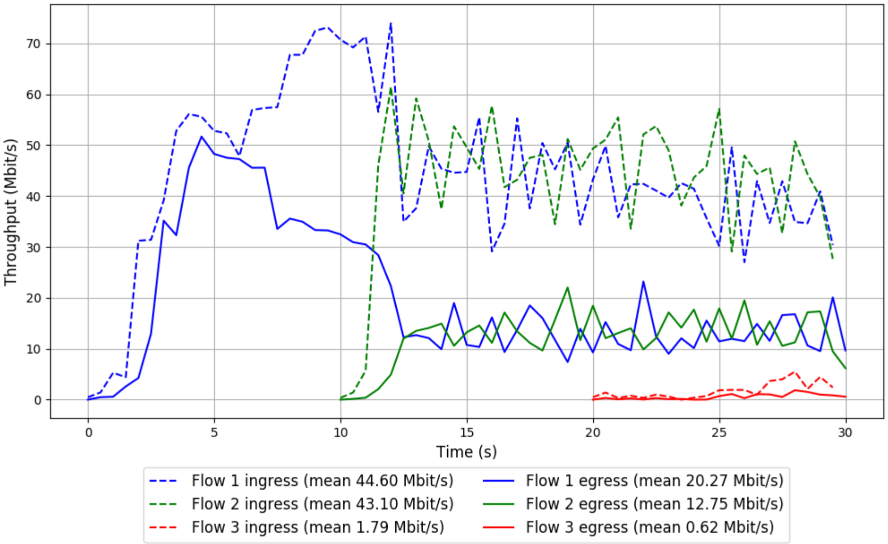
Run 1: Report of Indigo — Data Link

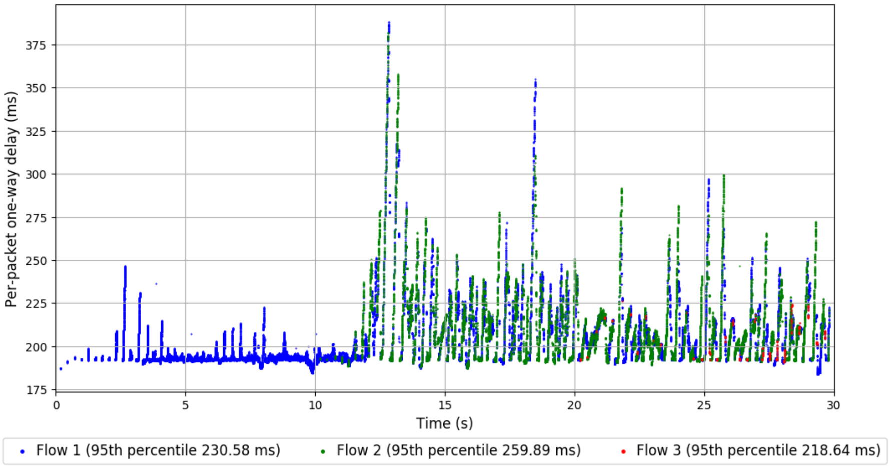




```
Run 2: Statistics of Indigo

Start at: 2019-02-20 11:12:56
End at: 2019-02-20 11:13:26
Local clock offset: 7.079 ms
Remote clock offset: -14.743 ms

# Below is generated by plot.py at 2019-02-20 15:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.91 Mbit/s
95th percentile per-packet one-way delay: 240.836 ms
Loss rate: 61.11%
-- Flow 1:
Average throughput: 20.27 Mbit/s
95th percentile per-packet one-way delay: 230.578 ms
Loss rate: 54.80%
-- Flow 2:
Average throughput: 12.75 Mbit/s
95th percentile per-packet one-way delay: 259.886 ms
Loss rate: 70.80%
-- Flow 3:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 218.638 ms
Loss rate: 66.26%
```

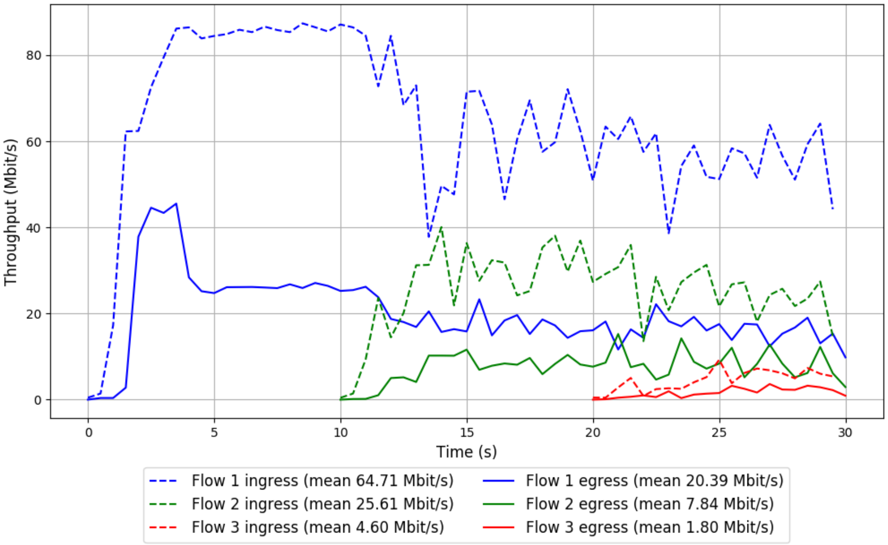
Run 2: Report of Indigo — Data Link

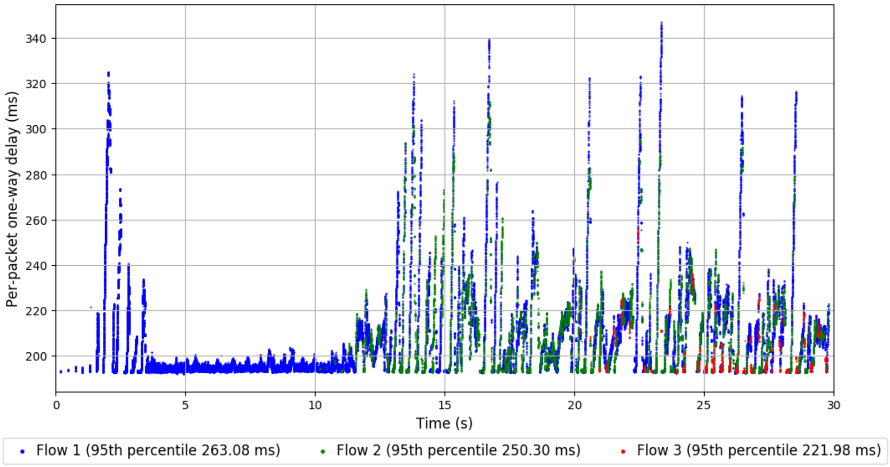




```
Run 3: Statistics of Indigo

Start at: 2019-02-20 12:33:42
End at: 2019-02-20 12:34:12
Local clock offset: -5.088 ms
Remote clock offset: -16.015 ms

# Below is generated by plot.py at 2019-02-20 15:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.16 Mbit/s
95th percentile per-packet one-way delay: 259.830 ms
Loss rate: 68.80%
-- Flow 1:
Average throughput: 20.39 Mbit/s
95th percentile per-packet one-way delay: 263.077 ms
Loss rate: 68.71%
-- Flow 2:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 250.298 ms
Loss rate: 69.77%
-- Flow 3:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 221.979 ms
Loss rate: 61.97%
```

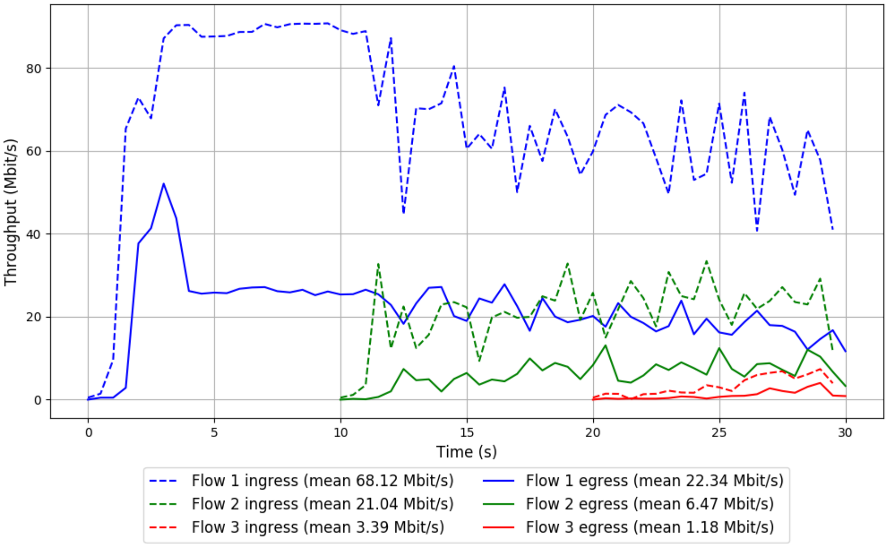
Run 3: Report of Indigo — Data Link

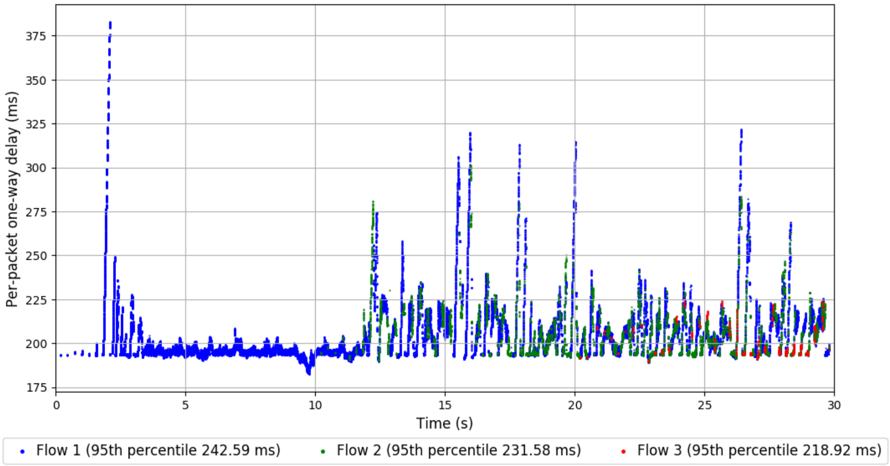




```
Run 4: Statistics of Indigo

Start at: 2019-02-20 13:46:45
End at: 2019-02-20 13:47:15
Local clock offset: 4.437 ms
Remote clock offset: -16.107 ms

# Below is generated by plot.py at 2019-02-20 15:49:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.00 Mbit/s
95th percentile per-packet one-way delay: 239.412 ms
Loss rate: 67.75%
-- Flow 1:
Average throughput: 22.34 Mbit/s
95th percentile per-packet one-way delay: 242.595 ms
Loss rate: 67.39%
-- Flow 2:
Average throughput: 6.47 Mbit/s
95th percentile per-packet one-way delay: 231.582 ms
Loss rate: 69.65%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 218.916 ms
Loss rate: 66.07%
```

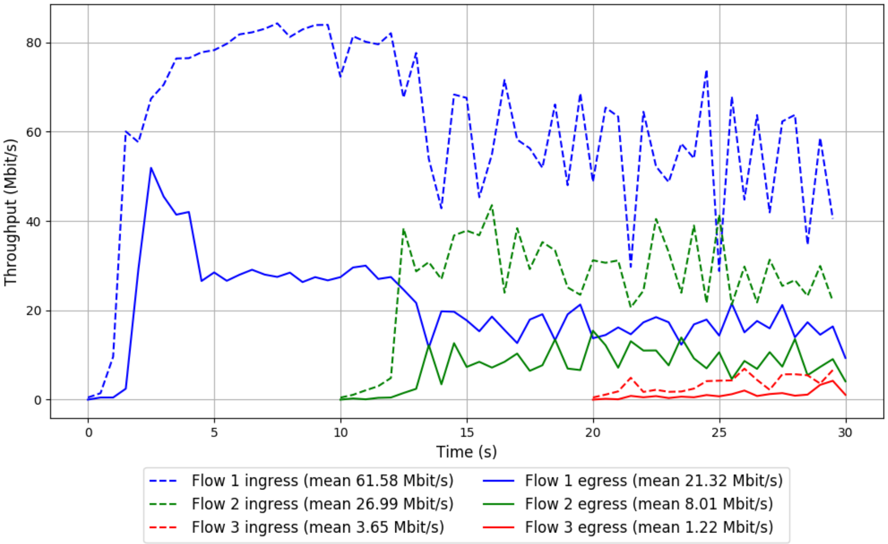
Run 4: Report of Indigo — Data Link

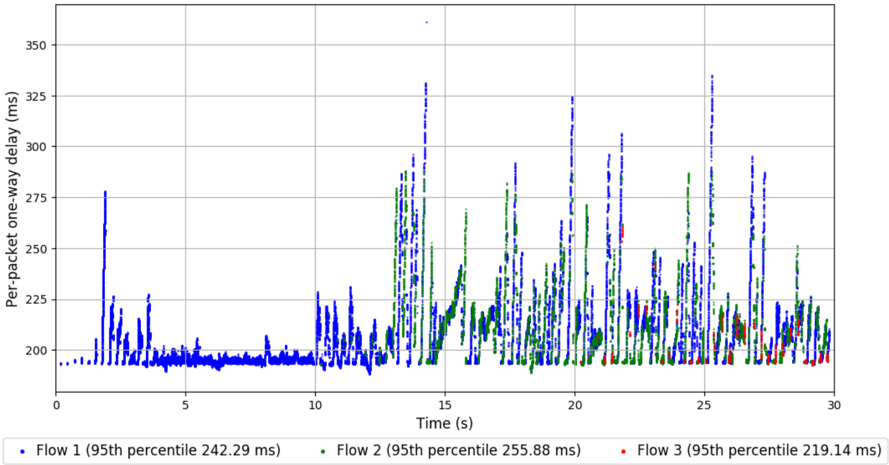




```
Run 5: Statistics of Indigo

Start at: 2019-02-20 15:00:38
End at: 2019-02-20 15:01:08
Local clock offset: 10.82 ms
Remote clock offset: -14.316 ms

# Below is generated by plot.py at 2019-02-20 15:49:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 246.544 ms
Loss rate: 66.84%
-- Flow 1:
Average throughput: 21.32 Mbit/s
95th percentile per-packet one-way delay: 242.291 ms
Loss rate: 65.67%
-- Flow 2:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 255.880 ms
Loss rate: 70.78%
-- Flow 3:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 219.144 ms
Loss rate: 67.63%
```

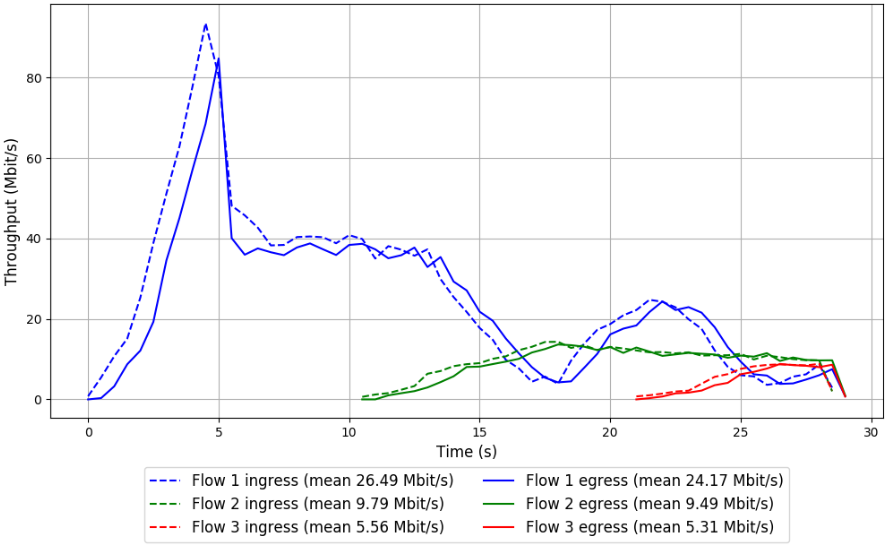
Run 5: Report of Indigo — Data Link

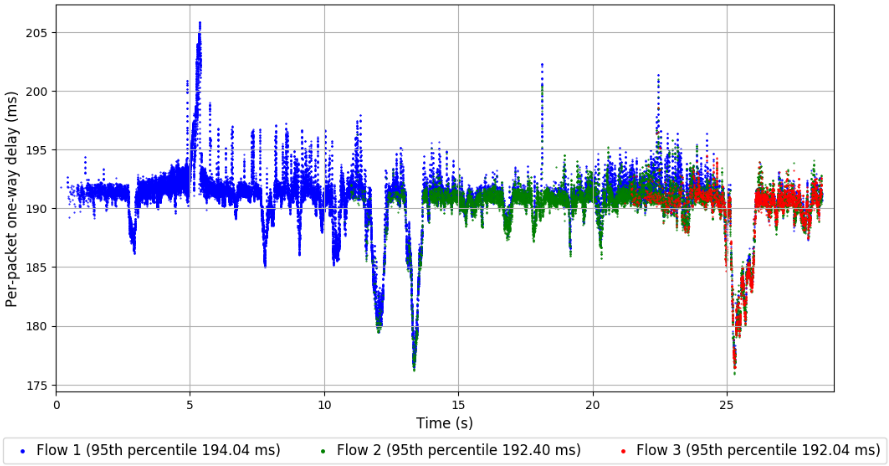




```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-20 10:49:34
End at: 2019-02-20 10:50:04
Local clock offset: 4.02 ms
Remote clock offset: -13.029 ms

# Below is generated by plot.py at 2019-02-20 15:49:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.50 Mbit/s
95th percentile per-packet one-way delay: 193.614 ms
Loss rate: 8.55%
-- Flow 1:
Average throughput: 24.17 Mbit/s
95th percentile per-packet one-way delay: 194.036 ms
Loss rate: 9.56%
-- Flow 2:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 192.395 ms
Loss rate: 4.42%
-- Flow 3:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 192.041 ms
Loss rate: 7.73%
```

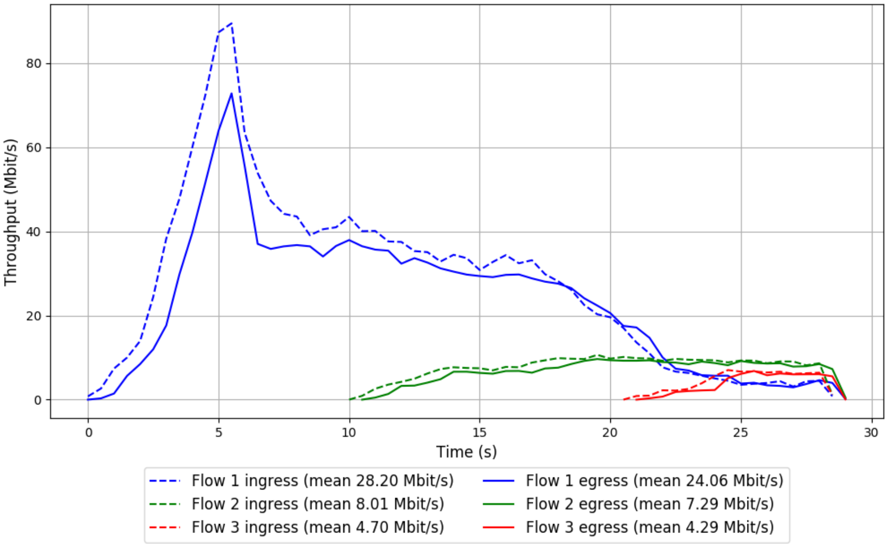
Run 1: Report of Indigo-MusesC3 — Data Link

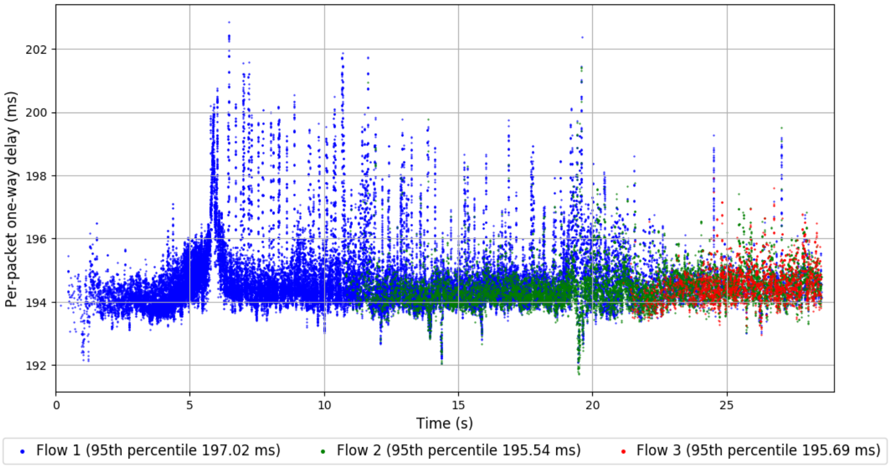




```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-20 12:02:28
End at: 2019-02-20 12:02:58
Local clock offset: 1.819 ms
Remote clock offset: -16.301 ms

# Below is generated by plot.py at 2019-02-20 15:49:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.80 Mbit/s
95th percentile per-packet one-way delay: 196.742 ms
Loss rate: 14.54%
-- Flow 1:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 197.023 ms
Loss rate: 15.44%
-- Flow 2:
Average throughput: 7.29 Mbit/s
95th percentile per-packet one-way delay: 195.538 ms
Loss rate: 10.21%
-- Flow 3:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 195.693 ms
Loss rate: 11.92%
```

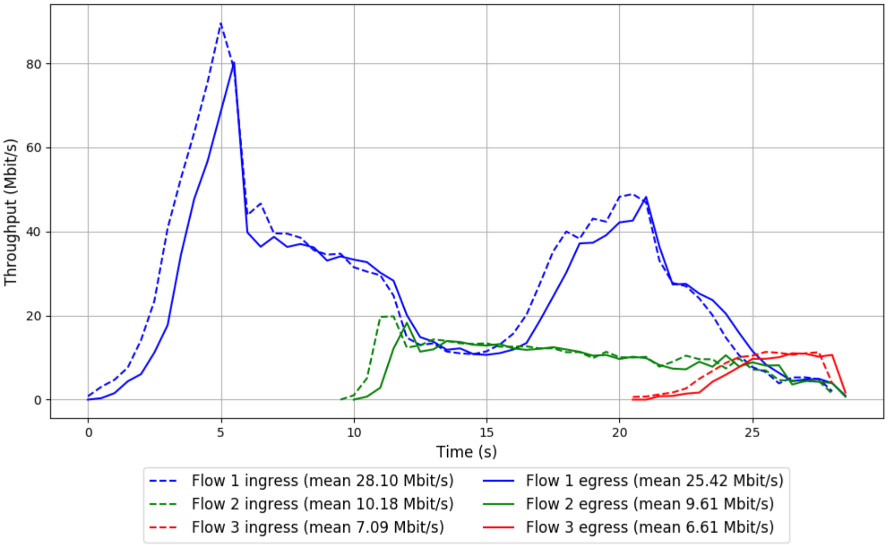
Run 2: Report of Indigo-MusesC3 — Data Link

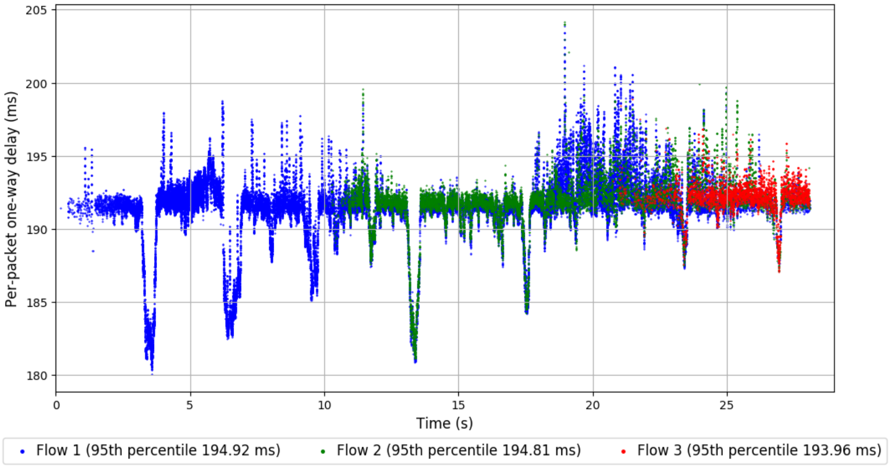




```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-20 13:20:56
End at: 2019-02-20 13:21:26
Local clock offset: 6.605 ms
Remote clock offset: -14.596 ms

# Below is generated by plot.py at 2019-02-20 15:49:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.38 Mbit/s
95th percentile per-packet one-way delay: 194.846 ms
Loss rate: 9.73%
-- Flow 1:
Average throughput: 25.42 Mbit/s
95th percentile per-packet one-way delay: 194.916 ms
Loss rate: 10.37%
-- Flow 2:
Average throughput: 9.61 Mbit/s
95th percentile per-packet one-way delay: 194.805 ms
Loss rate: 6.91%
-- Flow 3:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 193.956 ms
Loss rate: 9.99%
```

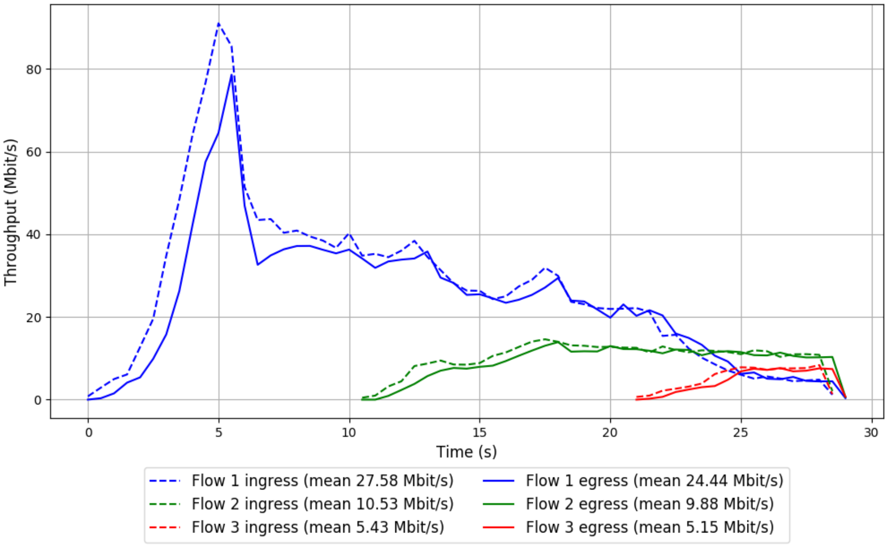
Run 3: Report of Indigo-MusesC3 — Data Link

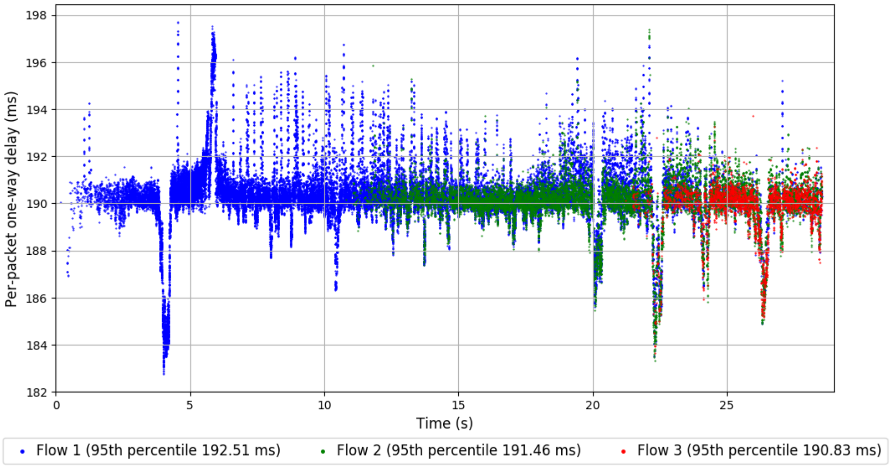




```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-20 14:37:19
End at: 2019-02-20 14:37:49
Local clock offset: 4.505 ms
Remote clock offset: -13.908 ms

# Below is generated by plot.py at 2019-02-20 15:49:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.93 Mbit/s
95th percentile per-packet one-way delay: 192.207 ms
Loss rate: 11.16%
-- Flow 1:
Average throughput: 24.44 Mbit/s
95th percentile per-packet one-way delay: 192.506 ms
Loss rate: 12.17%
-- Flow 2:
Average throughput: 9.88 Mbit/s
95th percentile per-packet one-way delay: 191.462 ms
Loss rate: 7.56%
-- Flow 3:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 190.826 ms
Loss rate: 8.54%
```

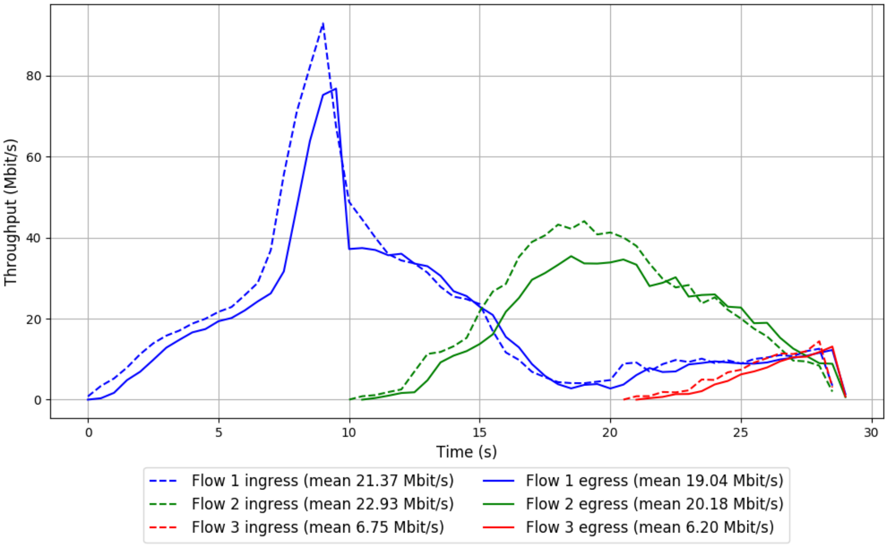
Run 4: Report of Indigo-MusesC3 — Data Link

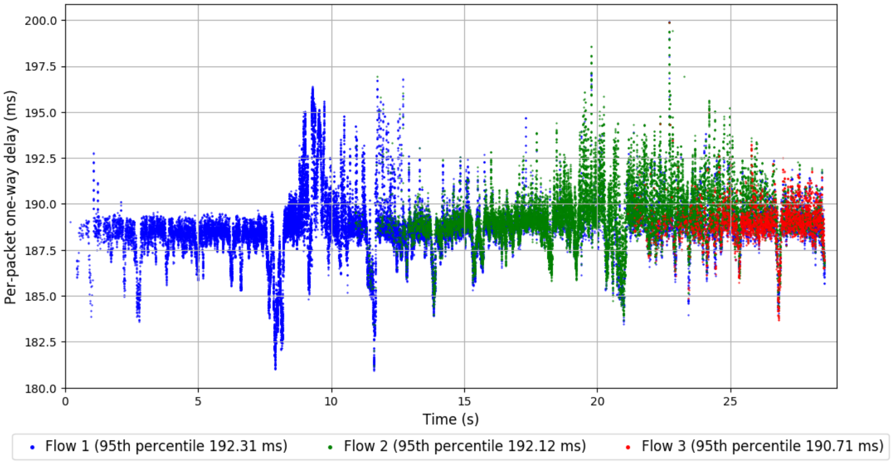




```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-20 15:43:16
End at: 2019-02-20 15:43:46
Local clock offset: 4.465 ms
Remote clock offset: -12.854 ms

# Below is generated by plot.py at 2019-02-20 15:49:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.39 Mbit/s
95th percentile per-packet one-way delay: 192.130 ms
Loss rate: 12.26%
-- Flow 1:
Average throughput: 19.04 Mbit/s
95th percentile per-packet one-way delay: 192.313 ms
Loss rate: 11.71%
-- Flow 2:
Average throughput: 20.18 Mbit/s
95th percentile per-packet one-way delay: 192.123 ms
Loss rate: 13.22%
-- Flow 3:
Average throughput: 6.20 Mbit/s
95th percentile per-packet one-way delay: 190.714 ms
Loss rate: 11.17%
```

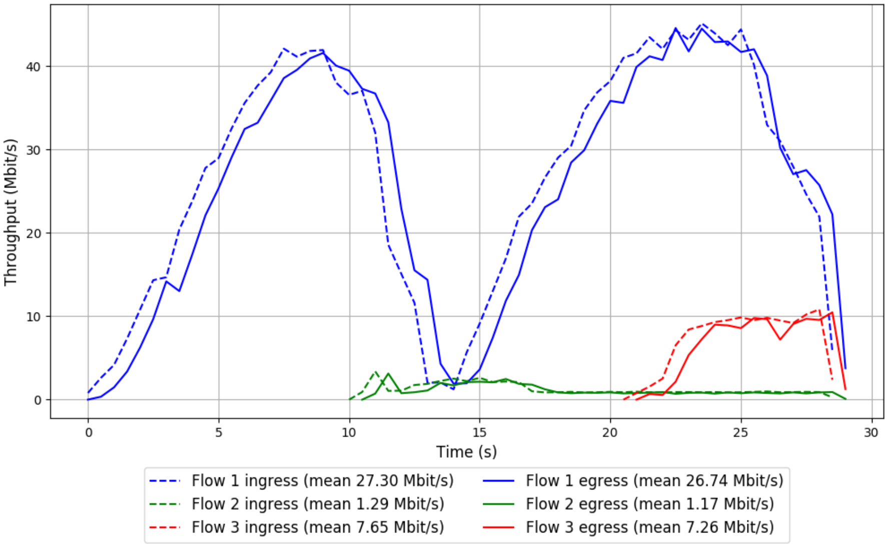
Run 5: Report of Indigo-MusesC3 — Data Link

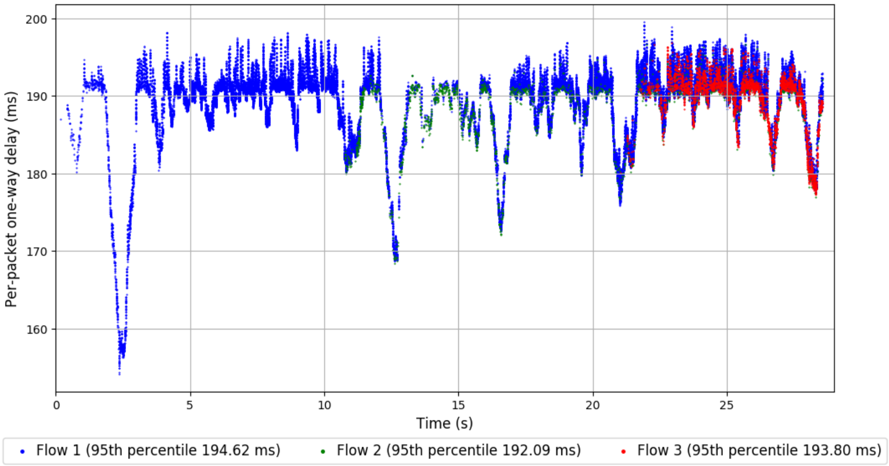




```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-20 09:58:17
End at: 2019-02-20 09:58:47
Local clock offset: 12.598 ms
Remote clock offset: -18.801 ms

# Below is generated by plot.py at 2019-02-20 15:49:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.40 Mbit/s
95th percentile per-packet one-way delay: 194.546 ms
Loss rate: 3.52%
-- Flow 1:
Average throughput: 26.74 Mbit/s
95th percentile per-packet one-way delay: 194.625 ms
Loss rate: 2.95%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 192.094 ms
Loss rate: 10.83%
-- Flow 3:
Average throughput: 7.26 Mbit/s
95th percentile per-packet one-way delay: 193.804 ms
Loss rate: 8.11%
```

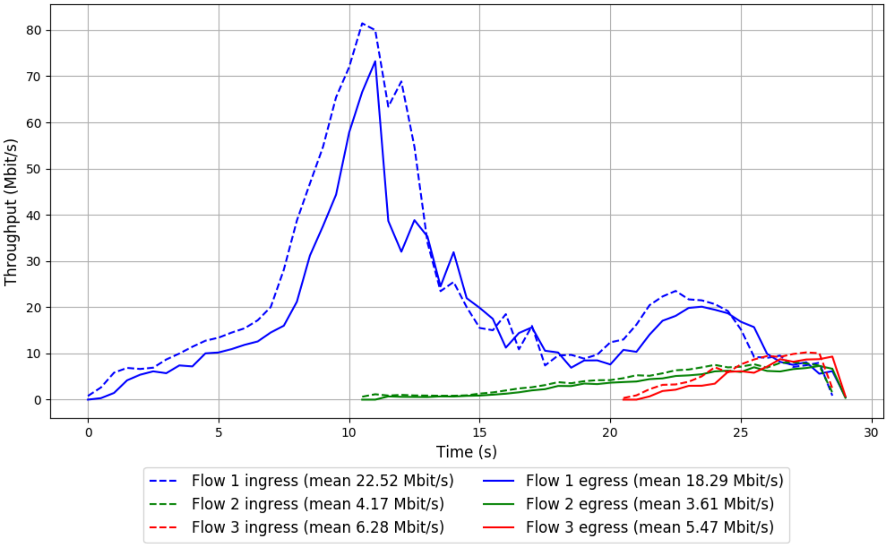
Run 1: Report of Indigo-MusesC5 — Data Link

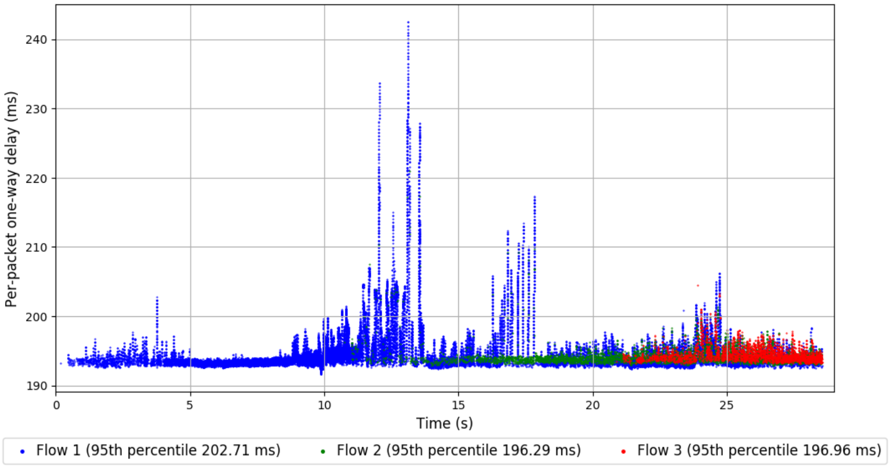




```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-20 10:59:12
End at: 2019-02-20 10:59:42
Local clock offset: 5.054 ms
Remote clock offset: -15.752 ms

# Below is generated by plot.py at 2019-02-20 15:49:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.03 Mbit/s
95th percentile per-packet one-way delay: 201.652 ms
Loss rate: 18.82%
-- Flow 1:
Average throughput: 18.29 Mbit/s
95th percentile per-packet one-way delay: 202.711 ms
Loss rate: 19.52%
-- Flow 2:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 196.288 ms
Loss rate: 14.82%
-- Flow 3:
Average throughput: 5.47 Mbit/s
95th percentile per-packet one-way delay: 196.959 ms
Loss rate: 15.80%
```

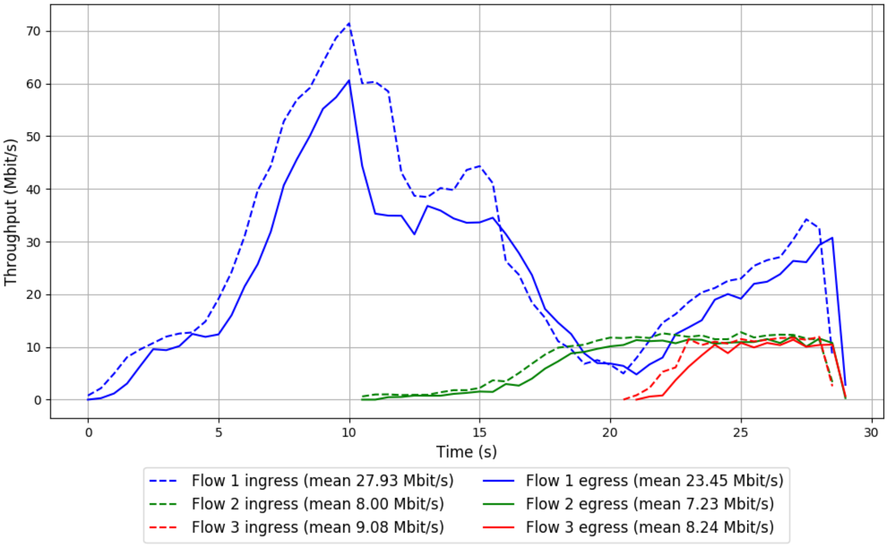
Run 2: Report of Indigo-MusesC5 — Data Link

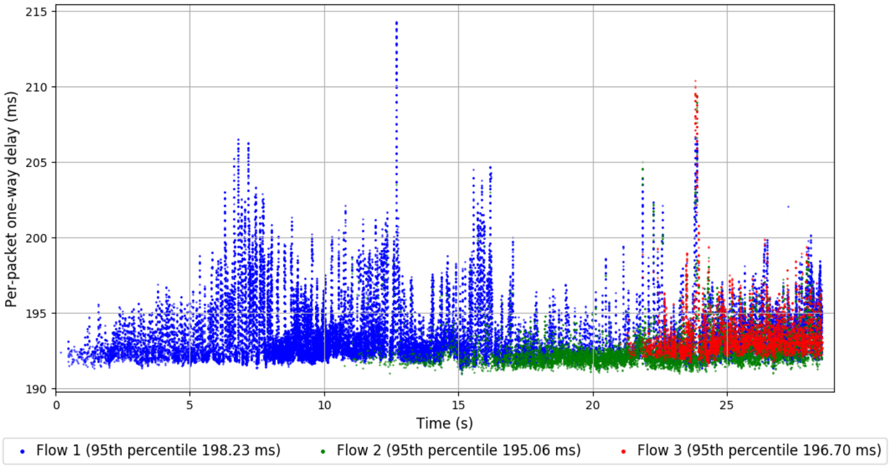




```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-20 12:17:34
End at: 2019-02-20 12:18:04
Local clock offset: -4.073 ms
Remote clock offset: -14.038 ms

# Below is generated by plot.py at 2019-02-20 15:49:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.15 Mbit/s
95th percentile per-packet one-way delay: 197.867 ms
Loss rate: 15.66%
-- Flow 1:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 198.228 ms
Loss rate: 16.81%
-- Flow 2:
Average throughput: 7.23 Mbit/s
95th percentile per-packet one-way delay: 195.063 ms
Loss rate: 10.95%
-- Flow 3:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 196.696 ms
Loss rate: 12.29%
```

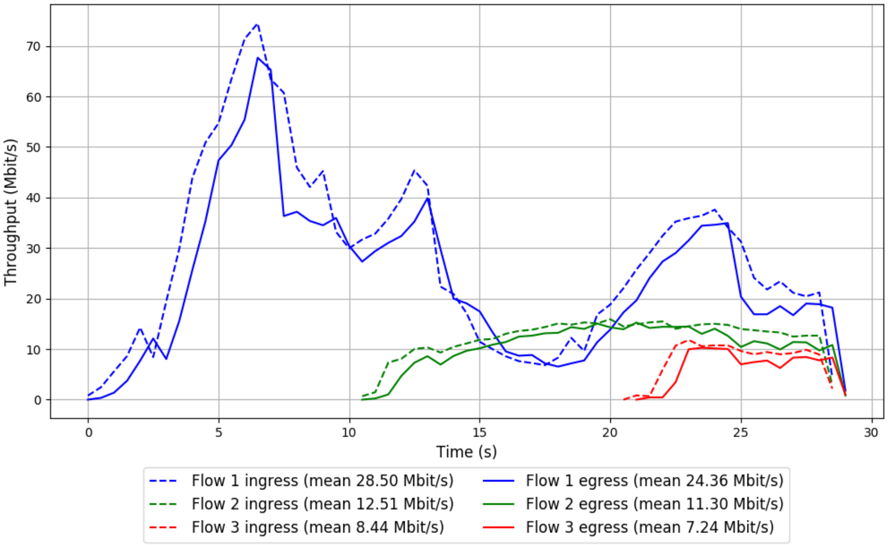
Run 3: Report of Indigo-MusesC5 — Data Link

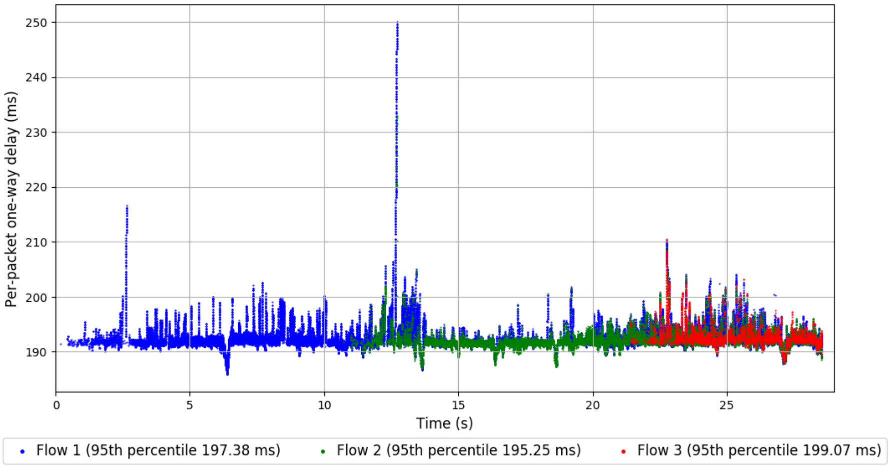




```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-20 13:33:12
End at: 2019-02-20 13:33:42
Local clock offset: 6.373 ms
Remote clock offset: -14.35 ms

# Below is generated by plot.py at 2019-02-20 15:49:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.34 Mbit/s
95th percentile per-packet one-way delay: 197.171 ms
Loss rate: 14.53%
-- Flow 1:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 197.377 ms
Loss rate: 15.29%
-- Flow 2:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 195.246 ms
Loss rate: 11.07%
-- Flow 3:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 199.071 ms
Loss rate: 17.12%
```

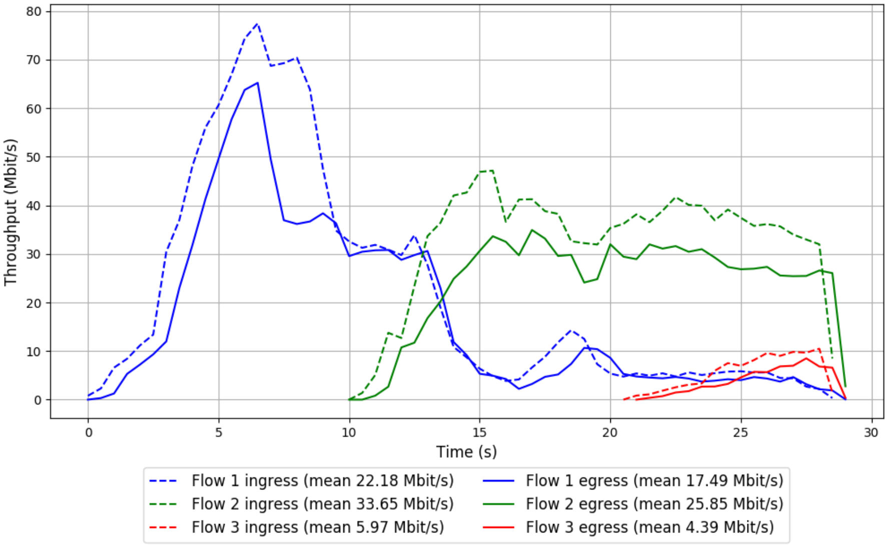
Run 4: Report of Indigo-MusesC5 — Data Link

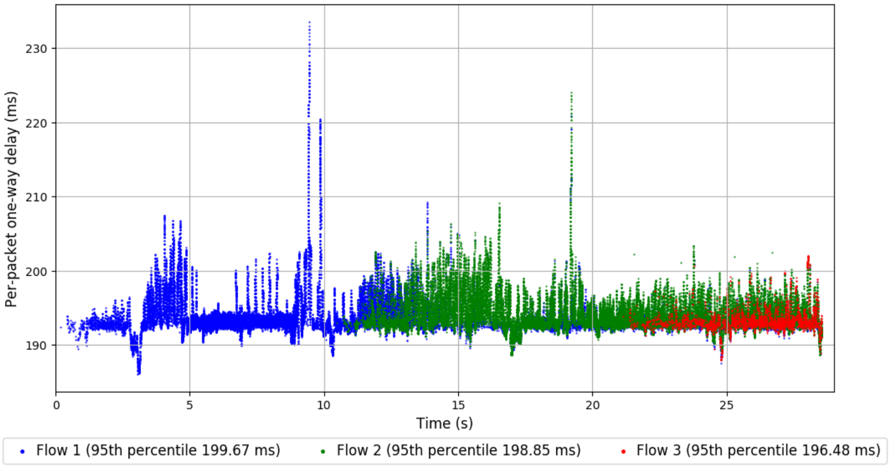




```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-20 14:47:53
End at: 2019-02-20 14:48:23
Local clock offset: 9.123 ms
Remote clock offset: -15.135 ms

# Below is generated by plot.py at 2019-02-20 15:50:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.10 Mbit/s
95th percentile per-packet one-way delay: 199.190 ms
Loss rate: 23.23%
-- Flow 1:
Average throughput: 17.49 Mbit/s
95th percentile per-packet one-way delay: 199.673 ms
Loss rate: 21.83%
-- Flow 2:
Average throughput: 25.85 Mbit/s
95th percentile per-packet one-way delay: 198.854 ms
Loss rate: 24.26%
-- Flow 3:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 196.481 ms
Loss rate: 28.83%
```

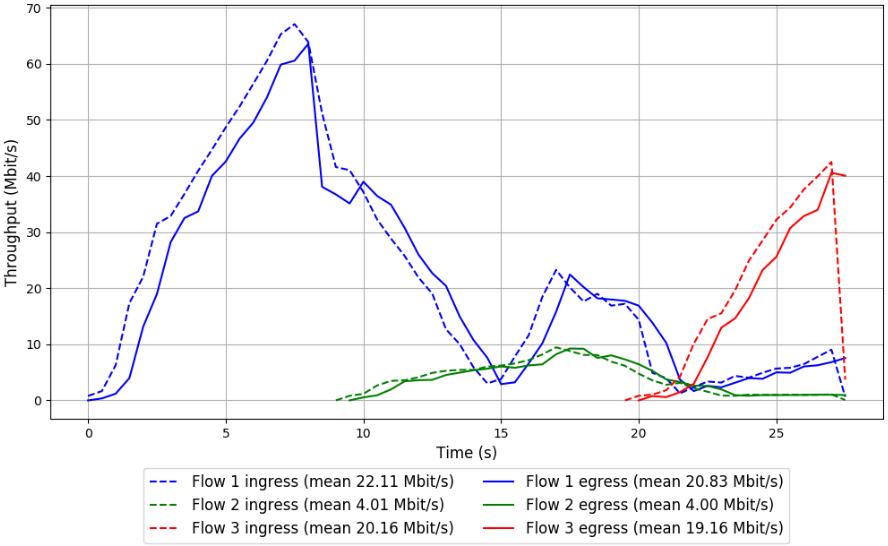
Run 5: Report of Indigo-MusesC5 — Data Link

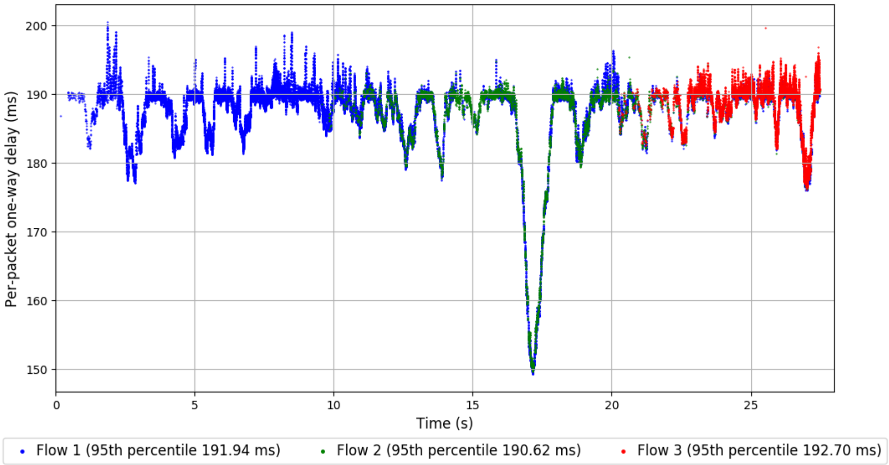




```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-20 10:22:17
End at: 2019-02-20 10:22:47
Local clock offset: -4.303 ms
Remote clock offset: -9.78 ms

# Below is generated by plot.py at 2019-02-20 15:50:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 192.057 ms
Loss rate: 6.48%
-- Flow 1:
Average throughput: 20.83 Mbit/s
95th percentile per-packet one-way delay: 191.936 ms
Loss rate: 6.67%
-- Flow 2:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 190.623 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 19.16 Mbit/s
95th percentile per-packet one-way delay: 192.698 ms
Loss rate: 8.07%
```

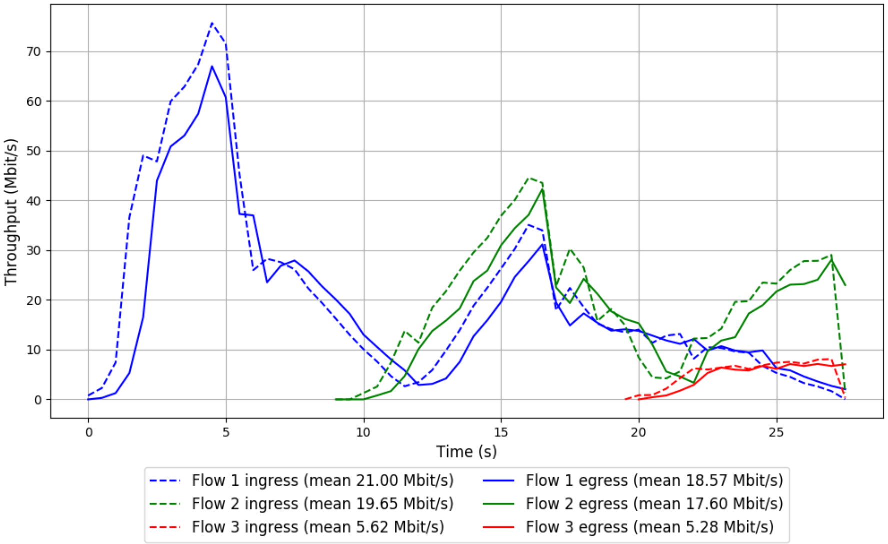
Run 1: Report of Indigo-MusesD — Data Link

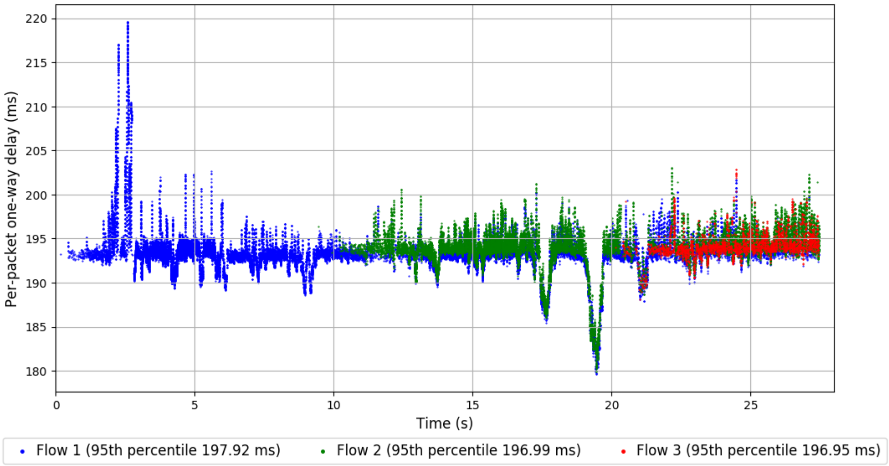




```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-20 11:26:58
End at: 2019-02-20 11:27:28
Local clock offset: 7.826 ms
Remote clock offset: -16.884 ms

# Below is generated by plot.py at 2019-02-20 15:50:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.61 Mbit/s
95th percentile per-packet one-way delay: 197.297 ms
Loss rate: 11.98%
-- Flow 1:
Average throughput: 18.57 Mbit/s
95th percentile per-packet one-way delay: 197.924 ms
Loss rate: 12.34%
-- Flow 2:
Average throughput: 17.60 Mbit/s
95th percentile per-packet one-way delay: 196.993 ms
Loss rate: 11.69%
-- Flow 3:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 196.947 ms
Loss rate: 9.55%
```

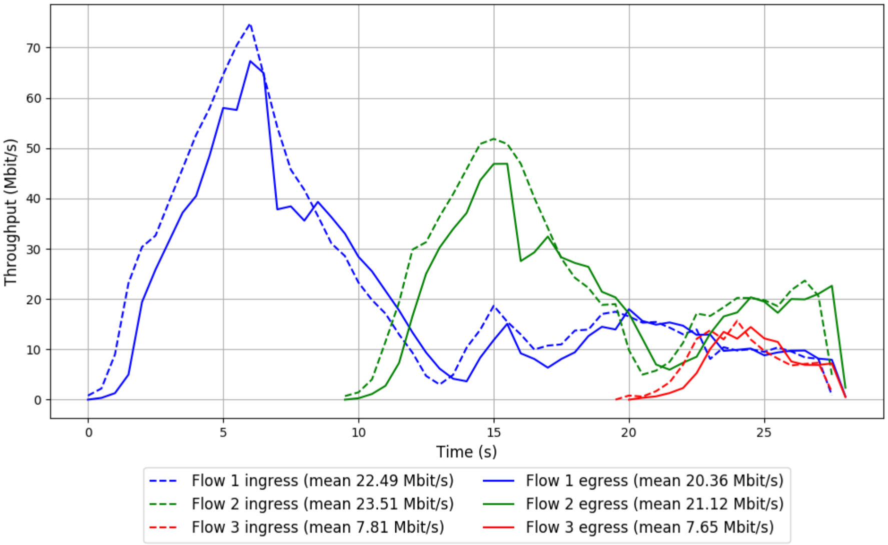
Run 2: Report of Indigo-MusesD — Data Link

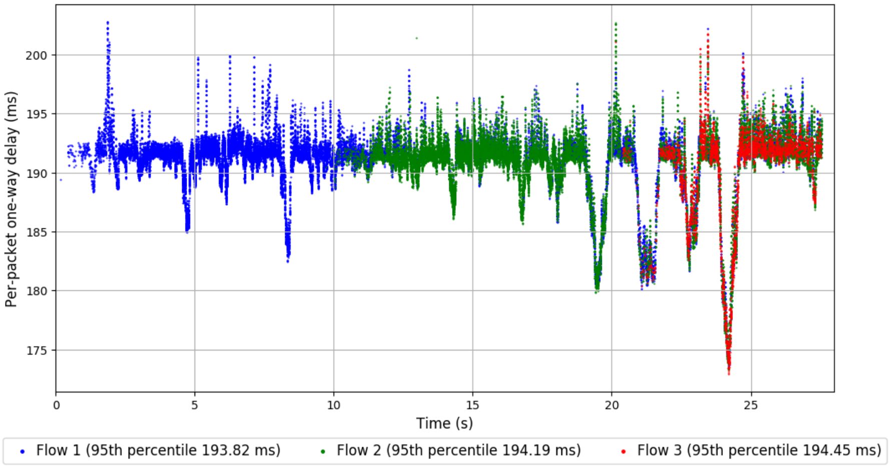




```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-20 12:54:29
End at: 2019-02-20 12:54:59
Local clock offset: -4.127 ms
Remote clock offset: -15.137 ms

# Below is generated by plot.py at 2019-02-20 15:50:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.18 Mbit/s
95th percentile per-packet one-way delay: 194.027 ms
Loss rate: 10.42%
-- Flow 1:
Average throughput: 20.36 Mbit/s
95th percentile per-packet one-way delay: 193.825 ms
Loss rate: 10.19%
-- Flow 2:
Average throughput: 21.12 Mbit/s
95th percentile per-packet one-way delay: 194.185 ms
Loss rate: 11.41%
-- Flow 3:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 194.447 ms
Loss rate: 5.70%
```

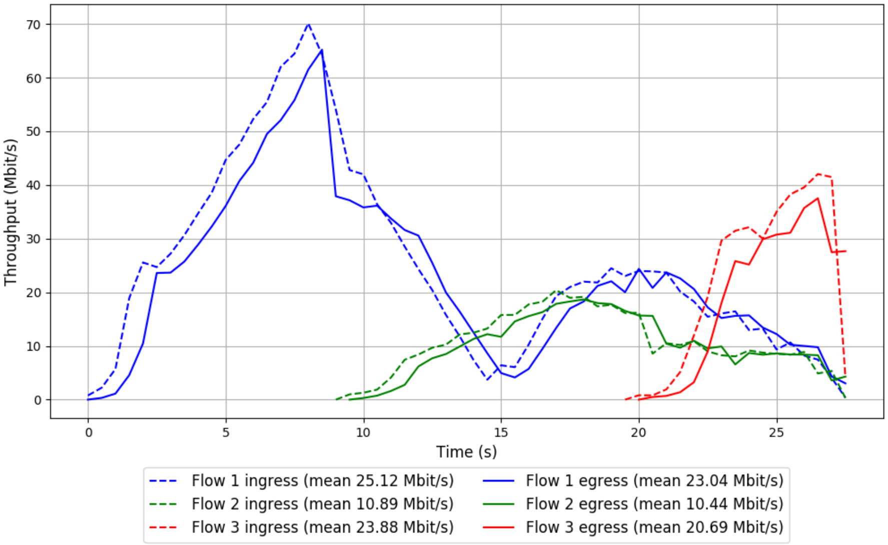
Run 3: Report of Indigo-MusesD — Data Link

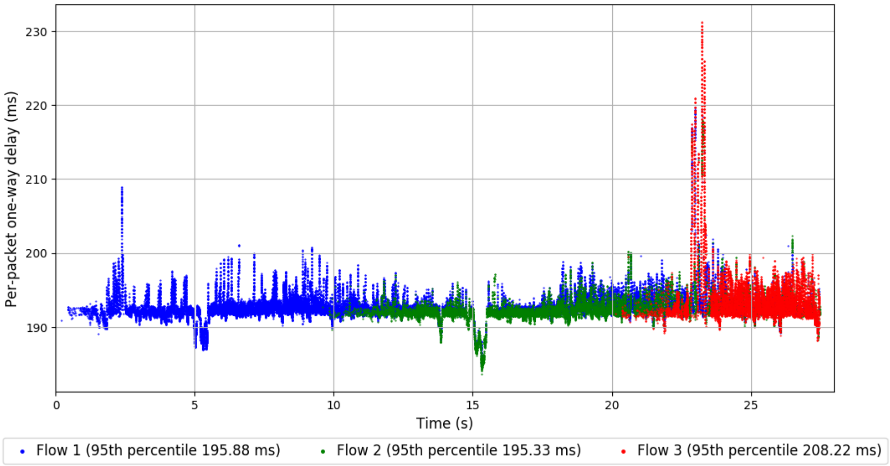




```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-20 14:02:06
End at: 2019-02-20 14:02:36
Local clock offset: 2.701 ms
Remote clock offset: -14.404 ms

# Below is generated by plot.py at 2019-02-20 15:50:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.44 Mbit/s
95th percentile per-packet one-way delay: 196.537 ms
Loss rate: 9.71%
-- Flow 1:
Average throughput: 23.04 Mbit/s
95th percentile per-packet one-way delay: 195.875 ms
Loss rate: 9.17%
-- Flow 2:
Average throughput: 10.44 Mbit/s
95th percentile per-packet one-way delay: 195.326 ms
Loss rate: 5.46%
-- Flow 3:
Average throughput: 20.69 Mbit/s
95th percentile per-packet one-way delay: 208.223 ms
Loss rate: 16.40%
```

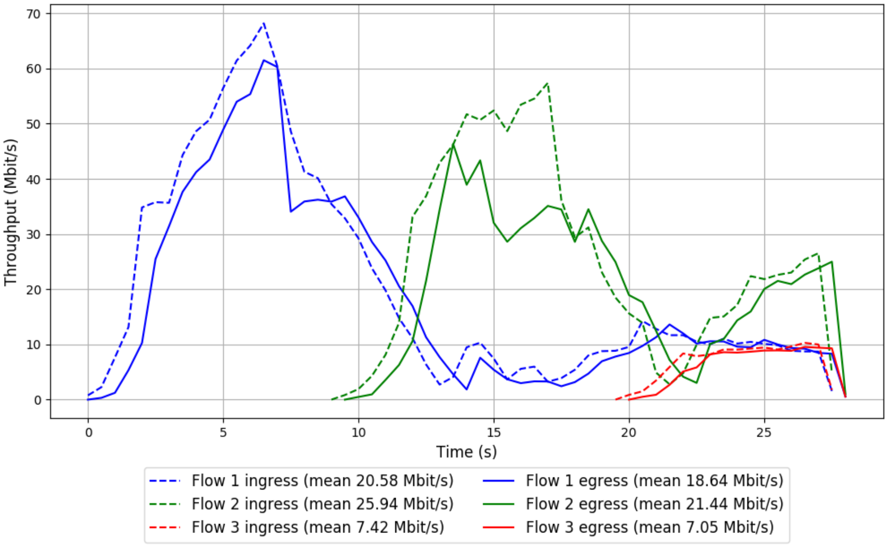
Run 4: Report of Indigo-MusesD — Data Link

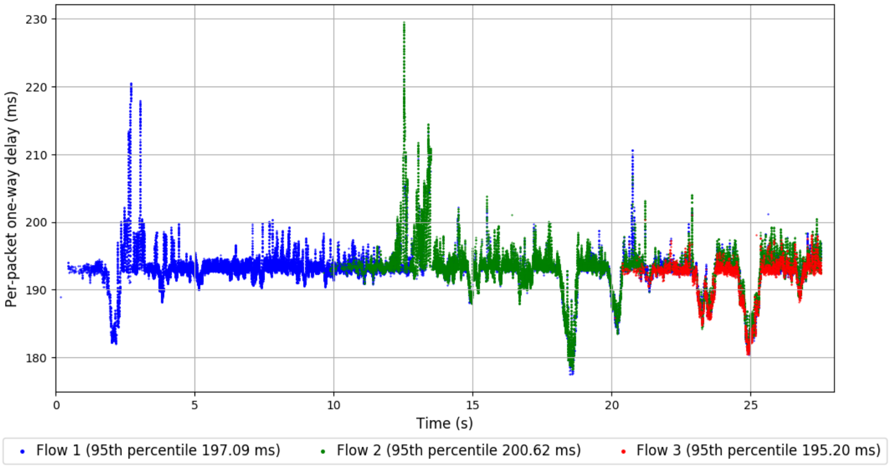




```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-20 15:15:53
End at: 2019-02-20 15:16:23
Local clock offset: 0.157 ms
Remote clock offset: -15.705 ms

# Below is generated by plot.py at 2019-02-20 15:50:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.58 Mbit/s
95th percentile per-packet one-way delay: 198.156 ms
Loss rate: 13.68%
-- Flow 1:
Average throughput: 18.64 Mbit/s
95th percentile per-packet one-way delay: 197.089 ms
Loss rate: 10.27%
-- Flow 2:
Average throughput: 21.44 Mbit/s
95th percentile per-packet one-way delay: 200.623 ms
Loss rate: 18.46%
-- Flow 3:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 195.204 ms
Loss rate: 8.17%
```

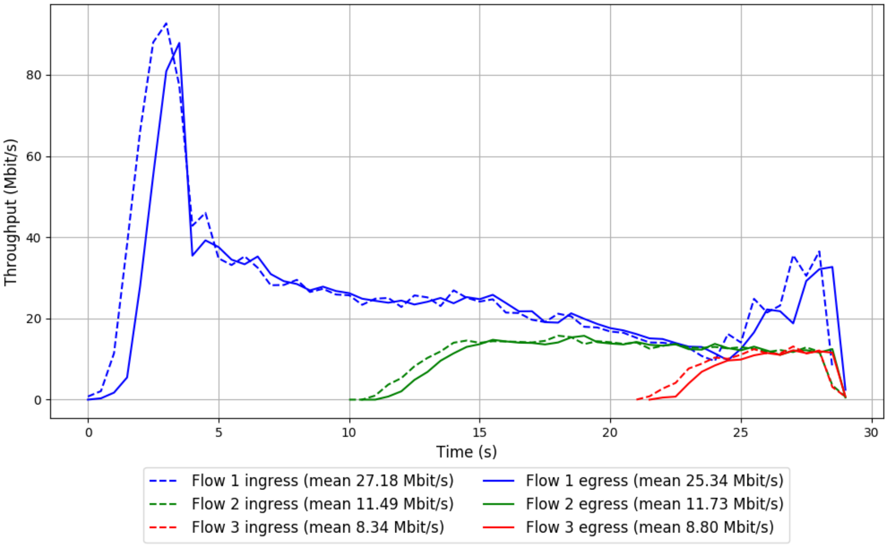
Run 5: Report of Indigo-MusesD — Data Link

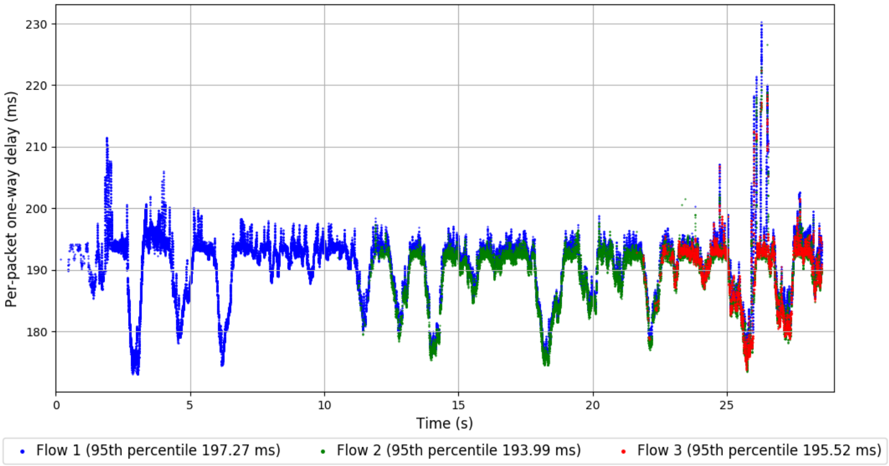




```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-20 10:32:14
End at: 2019-02-20 10:32:45
Local clock offset: -3.336 ms
Remote clock offset: -12.389 ms

# Below is generated by plot.py at 2019-02-20 15:50:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.94 Mbit/s
95th percentile per-packet one-way delay: 196.612 ms
Loss rate: 6.75%
-- Flow 1:
Average throughput: 25.34 Mbit/s
95th percentile per-packet one-way delay: 197.273 ms
Loss rate: 7.68%
-- Flow 2:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 193.992 ms
Loss rate: 3.21%
-- Flow 3:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 195.520 ms
Loss rate: 7.55%
```

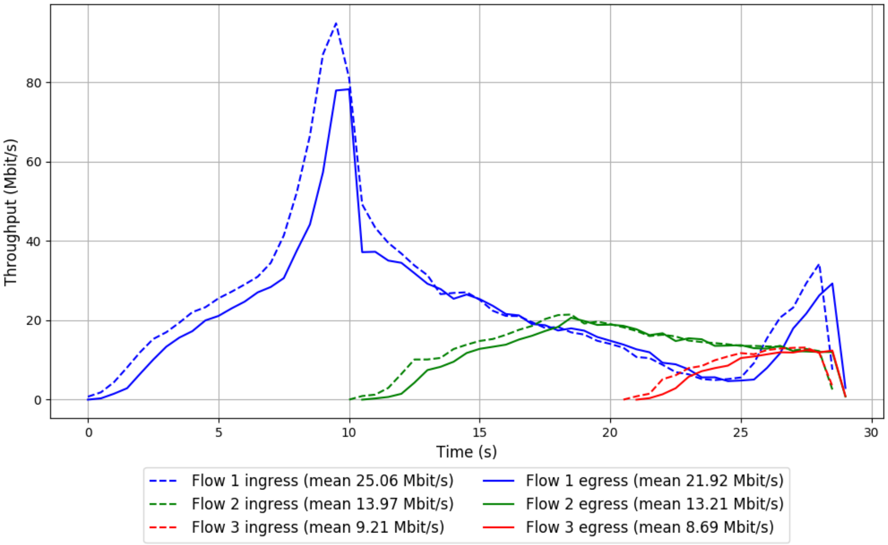
Run 1: Report of Indigo-MusesT — Data Link

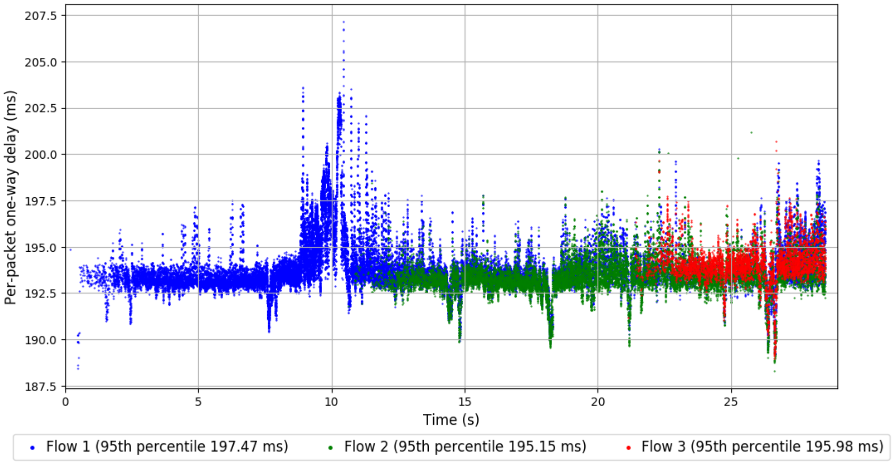




```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-20 11:41:06
End at: 2019-02-20 11:41:36
Local clock offset: 5.148 ms
Remote clock offset: -15.82 ms

# Below is generated by plot.py at 2019-02-20 15:50:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.52 Mbit/s
95th percentile per-packet one-way delay: 196.941 ms
Loss rate: 11.41%
-- Flow 1:
Average throughput: 21.92 Mbit/s
95th percentile per-packet one-way delay: 197.474 ms
Loss rate: 13.29%
-- Flow 2:
Average throughput: 13.21 Mbit/s
95th percentile per-packet one-way delay: 195.147 ms
Loss rate: 6.82%
-- Flow 3:
Average throughput: 8.69 Mbit/s
95th percentile per-packet one-way delay: 195.980 ms
Loss rate: 8.83%
```

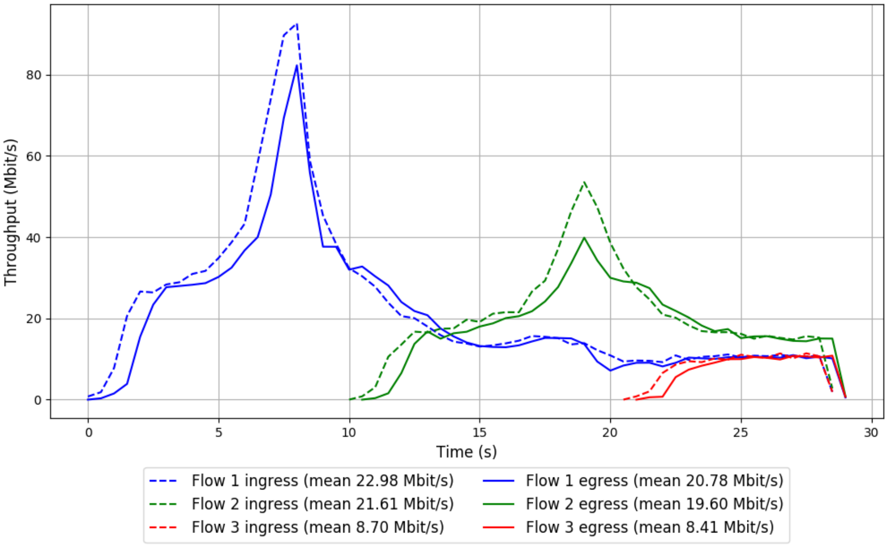
Run 2: Report of Indigo-MusesT — Data Link

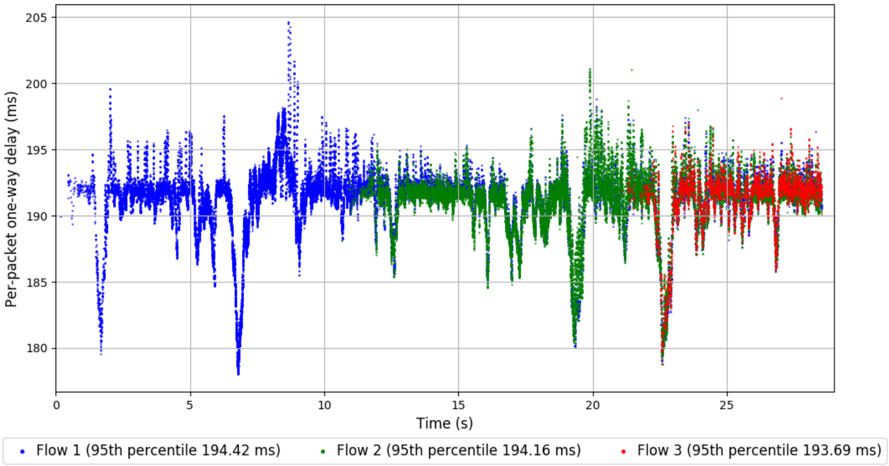




```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-20 13:04:49
End at: 2019-02-20 13:05:19
Local clock offset: 0.291 ms
Remote clock offset: -15.19 ms

# Below is generated by plot.py at 2019-02-20 15:50:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.34 Mbit/s
95th percentile per-packet one-way delay: 194.290 ms
Loss rate: 10.18%
-- Flow 1:
Average throughput: 20.78 Mbit/s
95th percentile per-packet one-way delay: 194.418 ms
Loss rate: 10.35%
-- Flow 2:
Average throughput: 19.60 Mbit/s
95th percentile per-packet one-way delay: 194.163 ms
Loss rate: 10.55%
-- Flow 3:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 193.694 ms
Loss rate: 6.34%
```

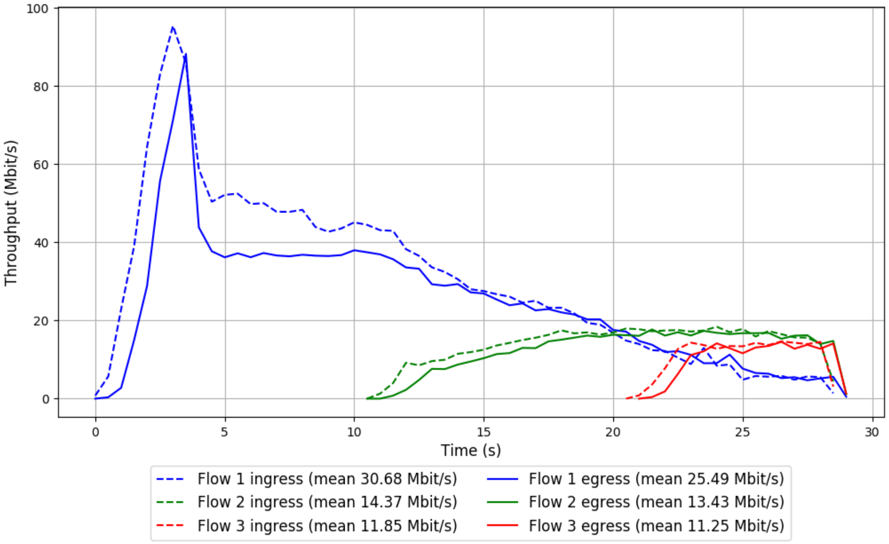
Run 3: Report of Indigo-MusesT — Data Link

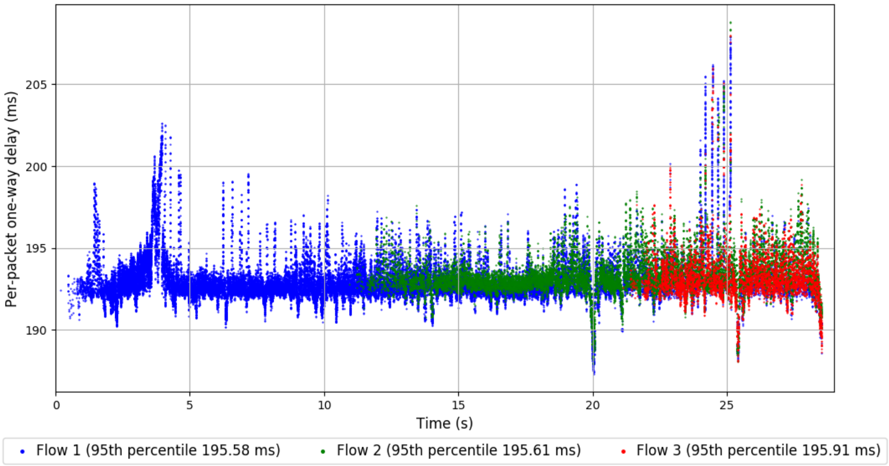




```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-20 14:15:13
End at: 2019-02-20 14:15:43
Local clock offset: -1.388 ms
Remote clock offset: -15.348 ms

# Below is generated by plot.py at 2019-02-20 15:50:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.75 Mbit/s
95th percentile per-packet one-way delay: 195.626 ms
Loss rate: 14.93%
-- Flow 1:
Average throughput: 25.49 Mbit/s
95th percentile per-packet one-way delay: 195.577 ms
Loss rate: 17.68%
-- Flow 2:
Average throughput: 13.43 Mbit/s
95th percentile per-packet one-way delay: 195.614 ms
Loss rate: 7.94%
-- Flow 3:
Average throughput: 11.25 Mbit/s
95th percentile per-packet one-way delay: 195.912 ms
Loss rate: 8.13%
```

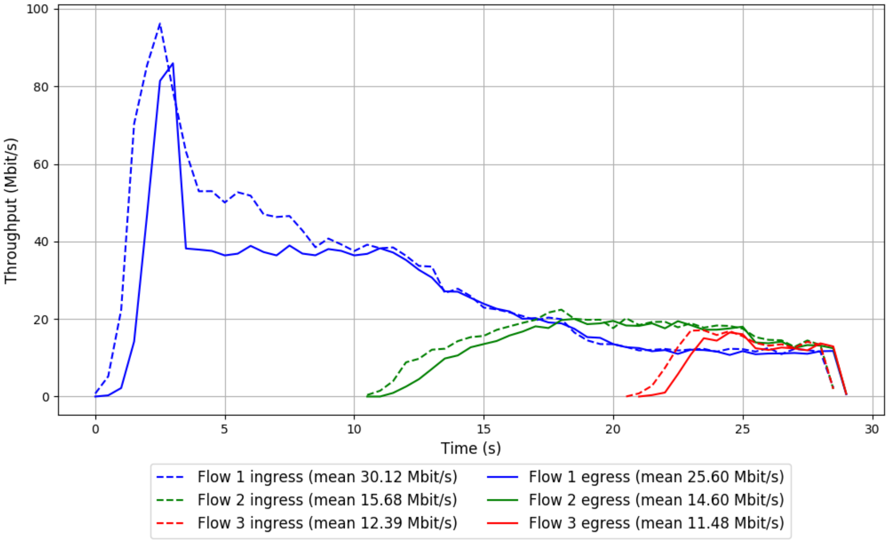
Run 4: Report of Indigo-MusesT — Data Link

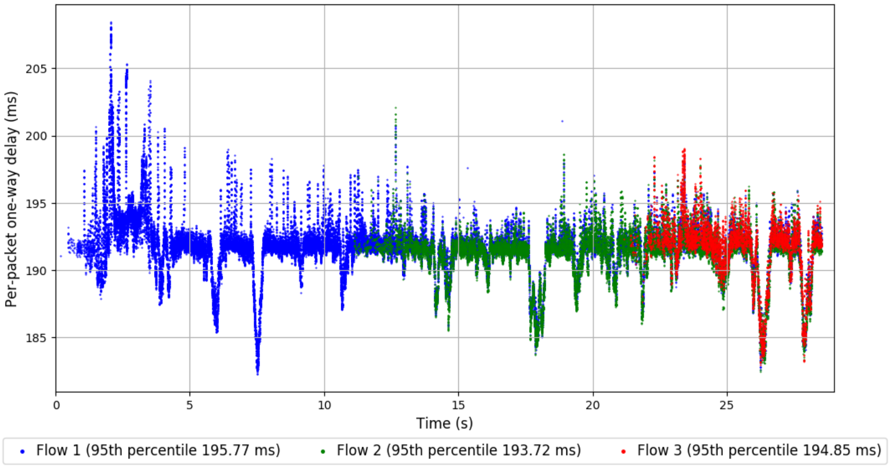




```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-20 15:27:35
End at: 2019-02-20 15:28:05
Local clock offset: -2.379 ms
Remote clock offset: -15.545 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.68 Mbit/s
95th percentile per-packet one-way delay: 195.176 ms
Loss rate: 13.63%
-- Flow 1:
Average throughput: 25.60 Mbit/s
95th percentile per-packet one-way delay: 195.773 ms
Loss rate: 15.75%
-- Flow 2:
Average throughput: 14.60 Mbit/s
95th percentile per-packet one-way delay: 193.721 ms
Loss rate: 8.21%
-- Flow 3:
Average throughput: 11.48 Mbit/s
95th percentile per-packet one-way delay: 194.849 ms
Loss rate: 10.44%
```

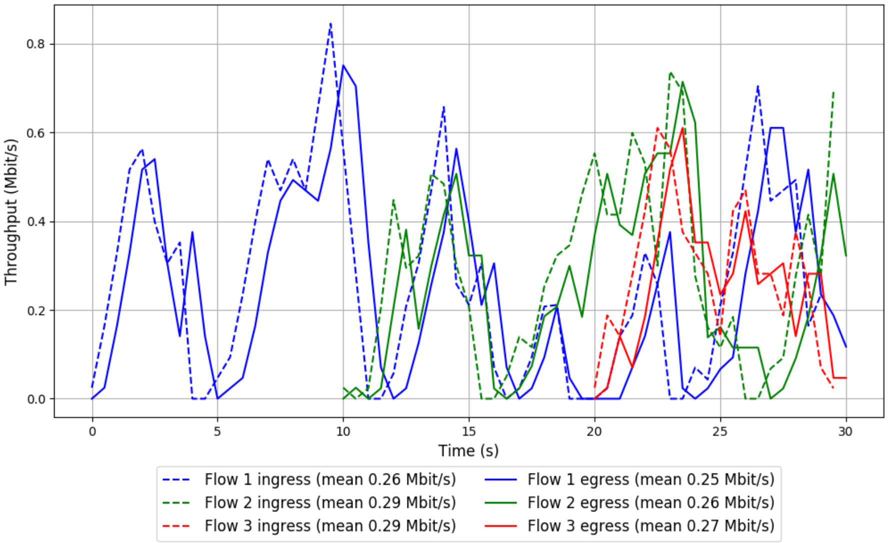
Run 5: Report of Indigo-MusesT — Data Link

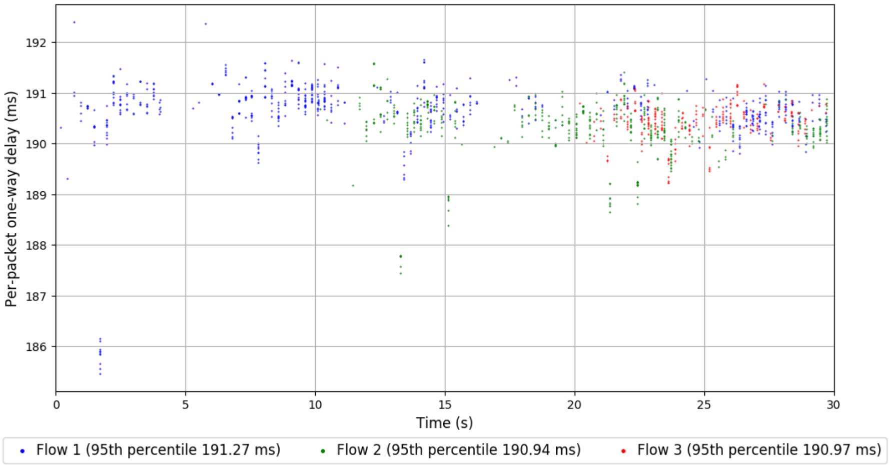




```
Run 1: Statistics of LEDBAT

Start at: 2019-02-20 10:44:28
End at: 2019-02-20 10:44:58
Local clock offset: 3.17 ms
Remote clock offset: -11.946 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 191.182 ms
Loss rate: 7.66%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 191.268 ms
Loss rate: 6.36%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 190.941 ms
Loss rate: 8.55%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 190.969 ms
Loss rate: 9.43%
```

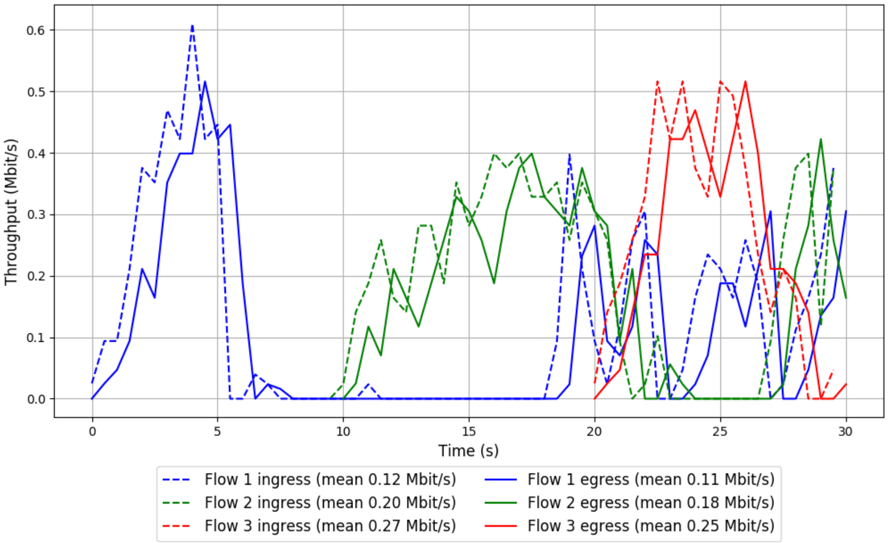
Run 1: Report of LEDBAT — Data Link

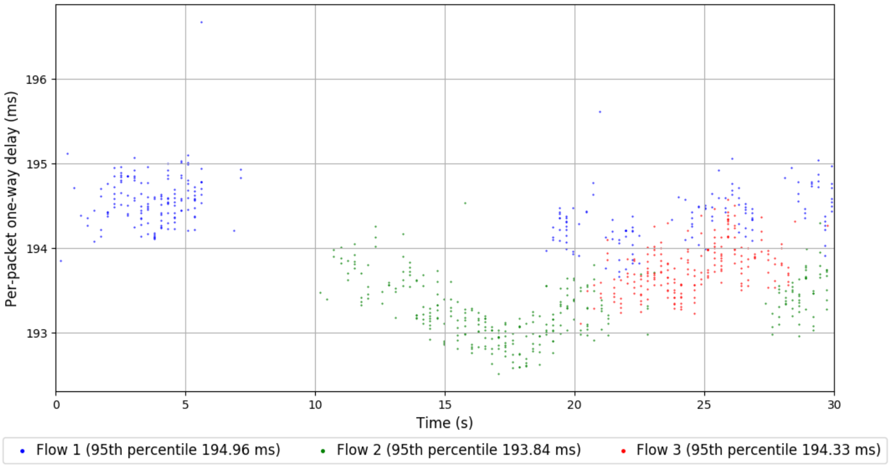




```
Run 2: Statistics of LEDBAT

Start at: 2019-02-20 11:55:14
End at: 2019-02-20 11:55:44
Local clock offset: 3.897 ms
Remote clock offset: -16.036 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 194.799 ms
Loss rate: 11.05%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 194.955 ms
Loss rate: 12.56%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 193.844 ms
Loss rate: 11.39%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 194.333 ms
Loss rate: 8.44%
```

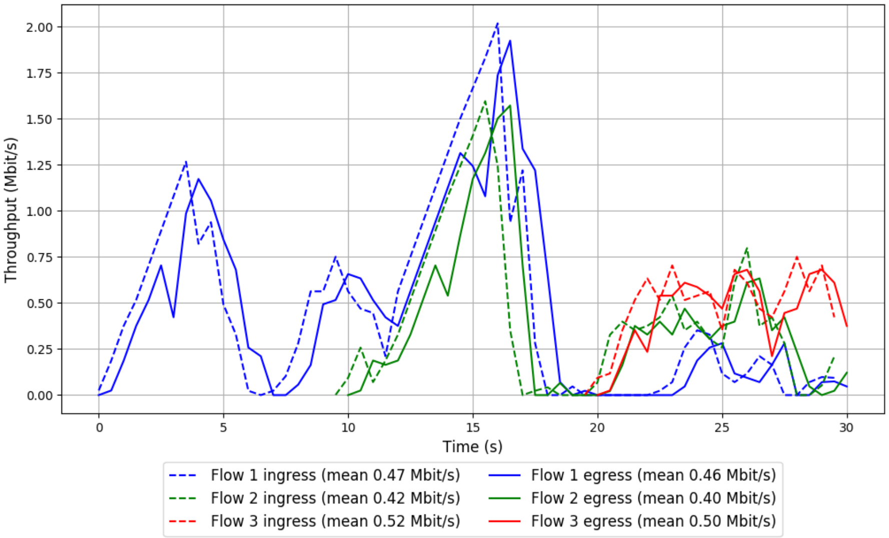
Run 2: Report of LEDBAT — Data Link

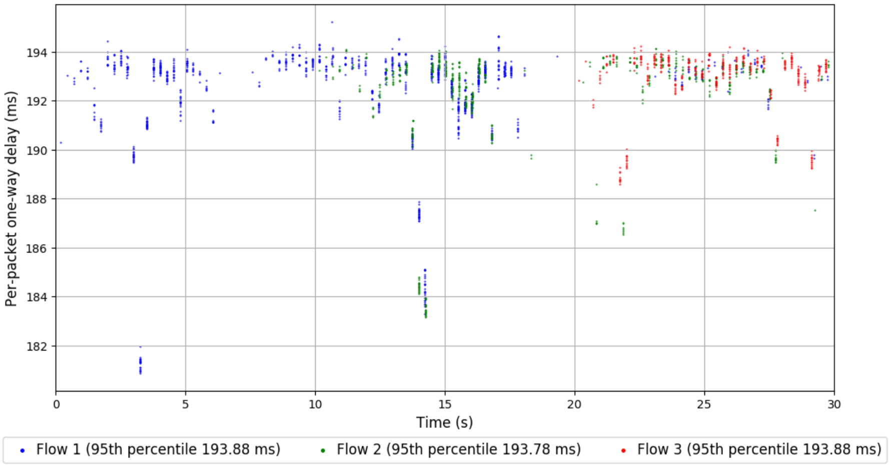




```
Run 3: Statistics of LEDBAT

Start at: 2019-02-20 13:15:21
End at: 2019-02-20 13:15:51
Local clock offset: 5.342 ms
Remote clock offset: -15.775 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 193.868 ms
Loss rate: 4.14%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 193.885 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 193.776 ms
Loss rate: 4.53%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 193.882 ms
Loss rate: 6.51%
```

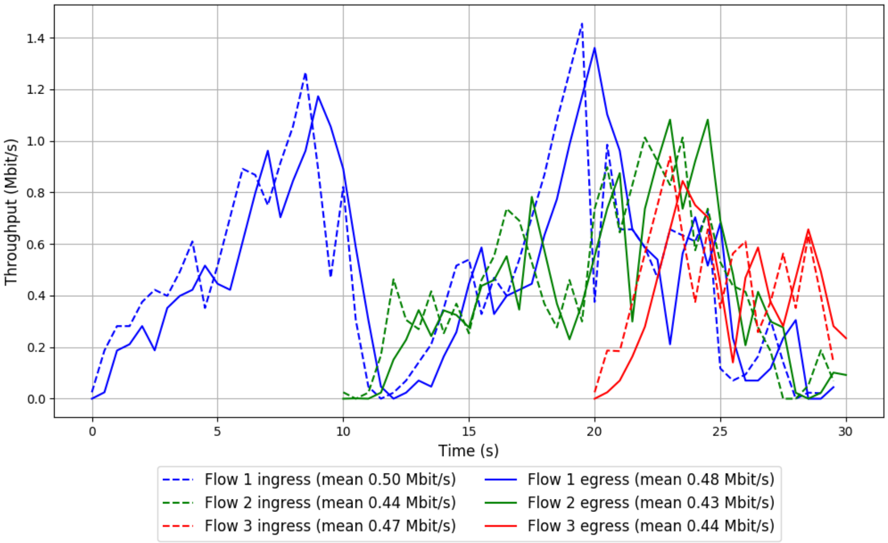
Run 3: Report of LEDBAT — Data Link

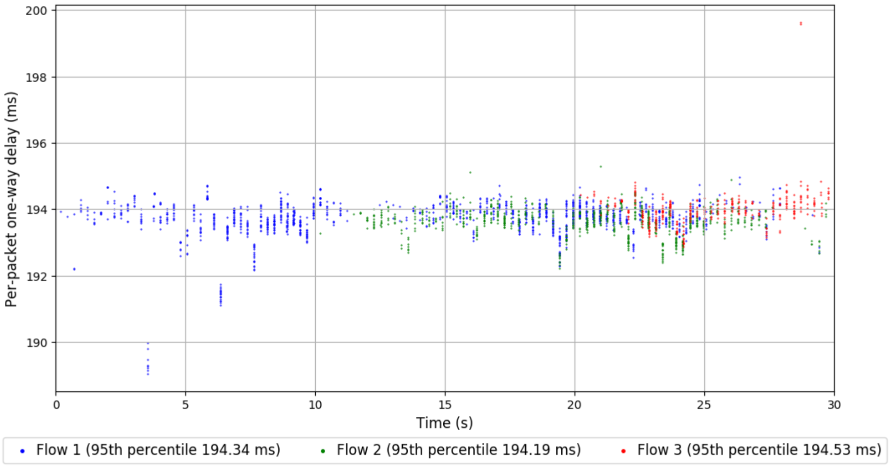




```
Run 4: Statistics of LEDBAT

Start at: 2019-02-20 14:27:55
End at: 2019-02-20 14:28:25
Local clock offset: -2.917 ms
Remote clock offset: -16.802 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 194.346 ms
Loss rate: 4.11%
-- Flow 1:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 194.341 ms
Loss rate: 3.70%
-- Flow 2:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 194.195 ms
Loss rate: 3.81%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 194.535 ms
Loss rate: 6.03%
```

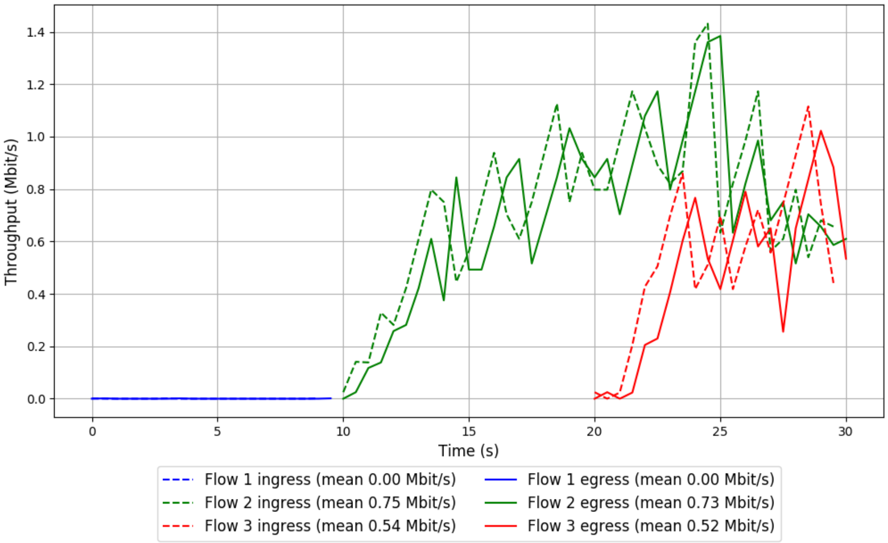
Run 4: Report of LEDBAT — Data Link

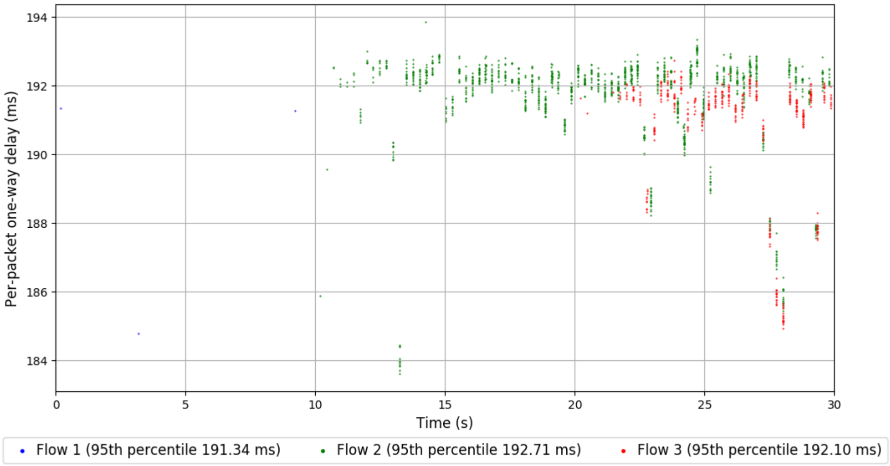




```
Run 5: Statistics of LEDBAT

Start at: 2019-02-20 15:38:13
End at: 2019-02-20 15:38:43
Local clock offset: 2.823 ms
Remote clock offset: -16.542 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 192.656 ms
Loss rate: 3.77%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 191.337 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 192.707 ms
Loss rate: 3.09%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 192.103 ms
Loss rate: 5.66%
```

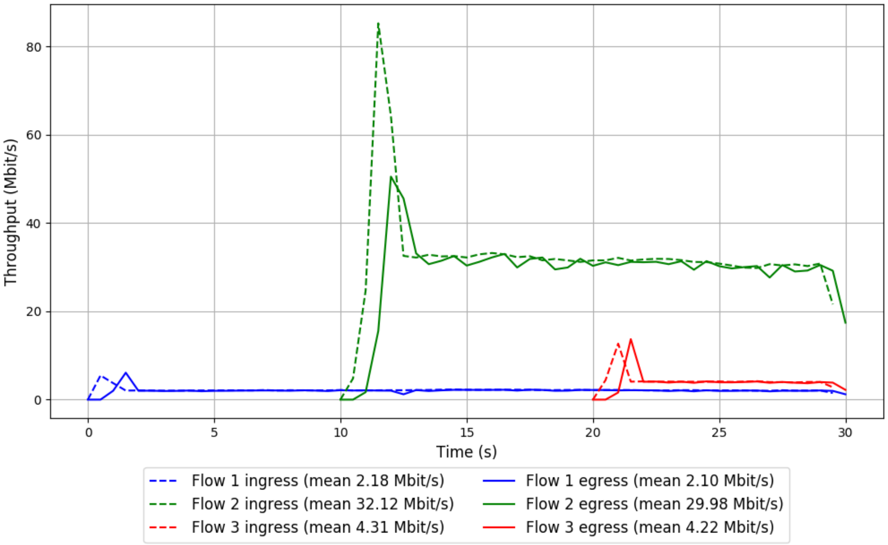
Run 5: Report of LEDBAT — Data Link

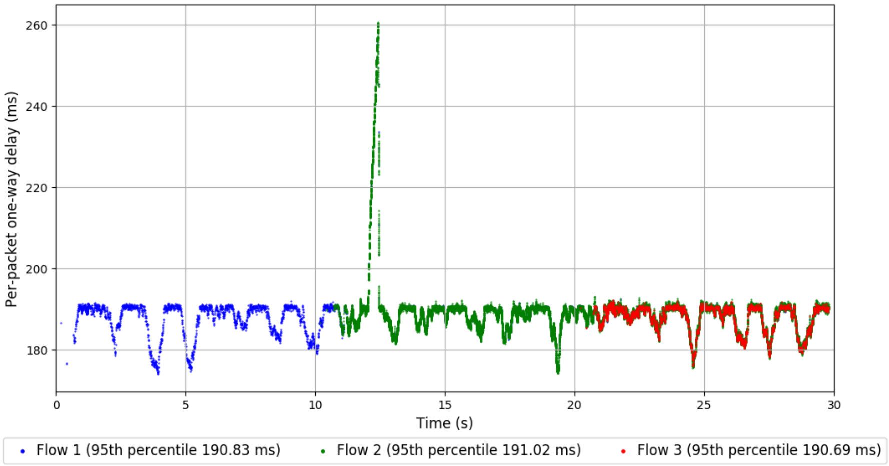




```
Run 1: Statistics of PCC-Allegro

Start at: 2019-02-20 09:56:11
End at: 2019-02-20 09:56:41
Local clock offset: 12.412 ms
Remote clock offset: -17.465 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.32 Mbit/s
95th percentile per-packet one-way delay: 190.934 ms
Loss rate: 7.35%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 190.832 ms
Loss rate: 4.35%
-- Flow 2:
Average throughput: 29.98 Mbit/s
95th percentile per-packet one-way delay: 191.020 ms
Loss rate: 7.83%
-- Flow 3:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 190.690 ms
Loss rate: 4.66%
```

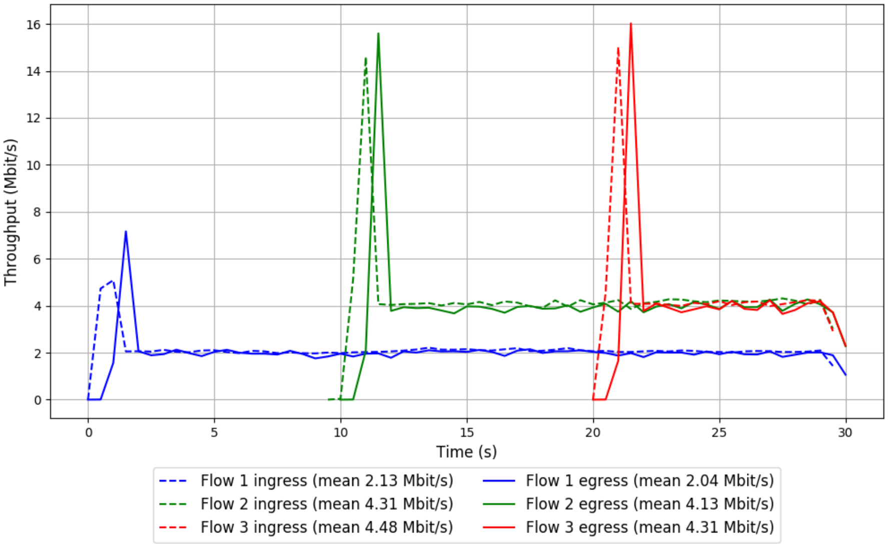
Run 1: Report of PCC-Allegro — Data Link

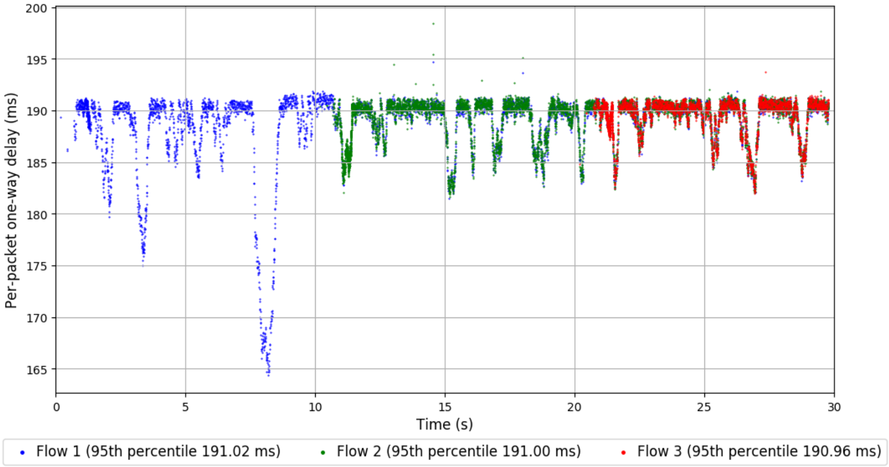




```
Run 2: Statistics of PCC-Allegro

Start at: 2019-02-20 10:56:45
End at: 2019-02-20 10:57:15
Local clock offset: 4.837 ms
Remote clock offset: -12.756 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 191.001 ms
Loss rate: 5.49%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 191.018 ms
Loss rate: 4.89%
-- Flow 2:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 191.001 ms
Loss rate: 5.60%
-- Flow 3:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 190.959 ms
Loss rate: 6.15%
```

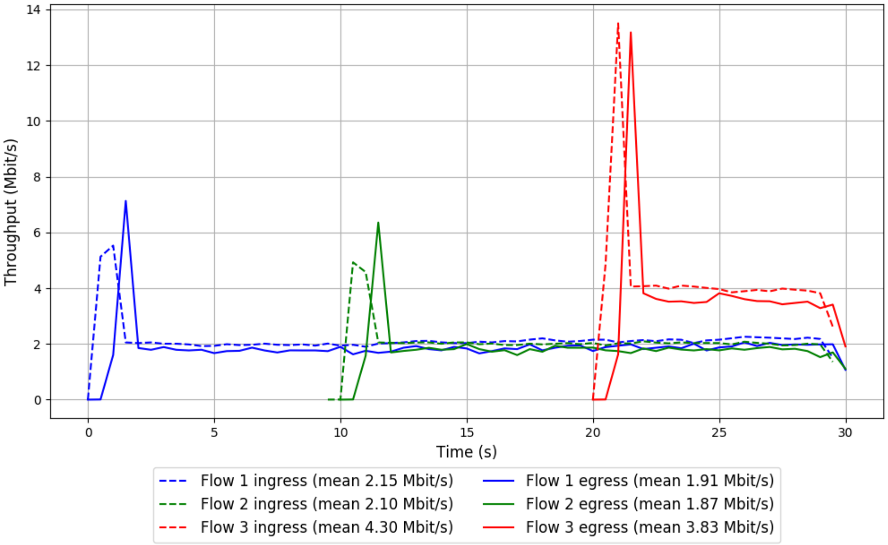
Run 2: Report of PCC-Allegro — Data Link

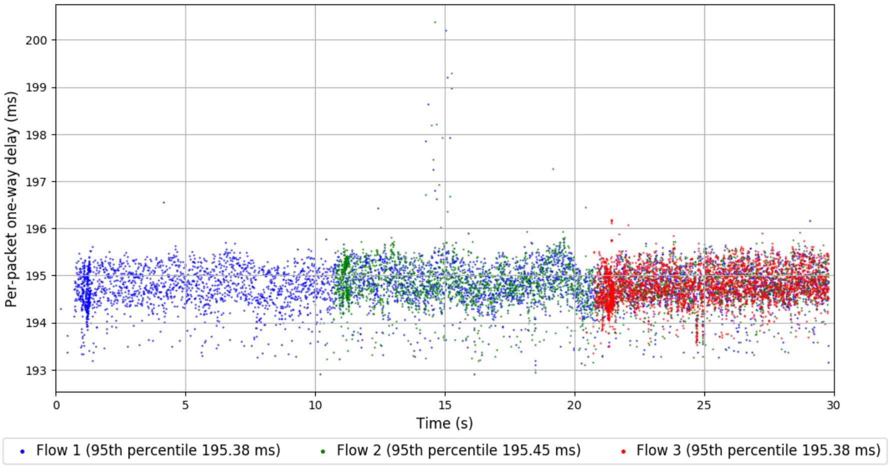




```
Run 3: Statistics of PCC-Allegro

Start at: 2019-02-20 12:15:30
End at: 2019-02-20 12:16:00
Local clock offset: -3.739 ms
Remote clock offset: -16.54 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 195.402 ms
Loss rate: 12.25%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 195.385 ms
Loss rate: 11.85%
-- Flow 2:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 195.446 ms
Loss rate: 12.02%
-- Flow 3:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 195.377 ms
Loss rate: 13.08%
```

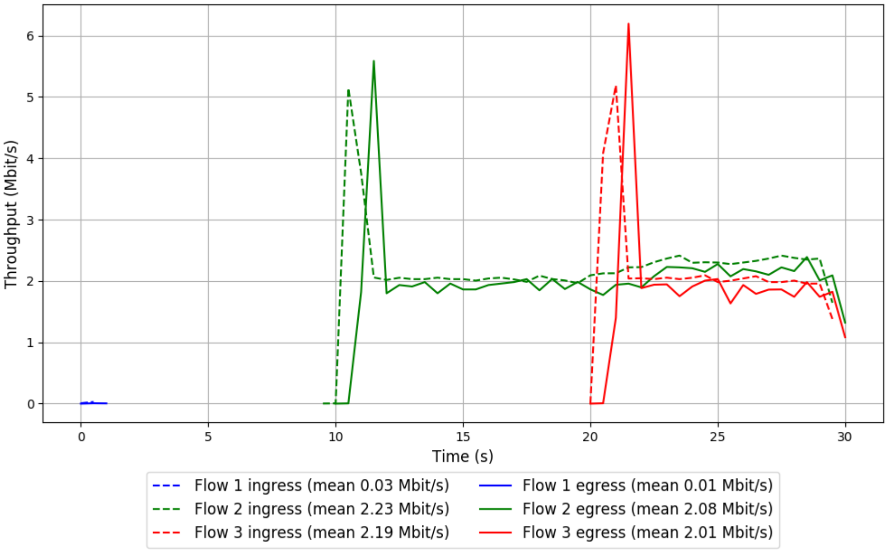
Run 3: Report of PCC-Allegro — Data Link

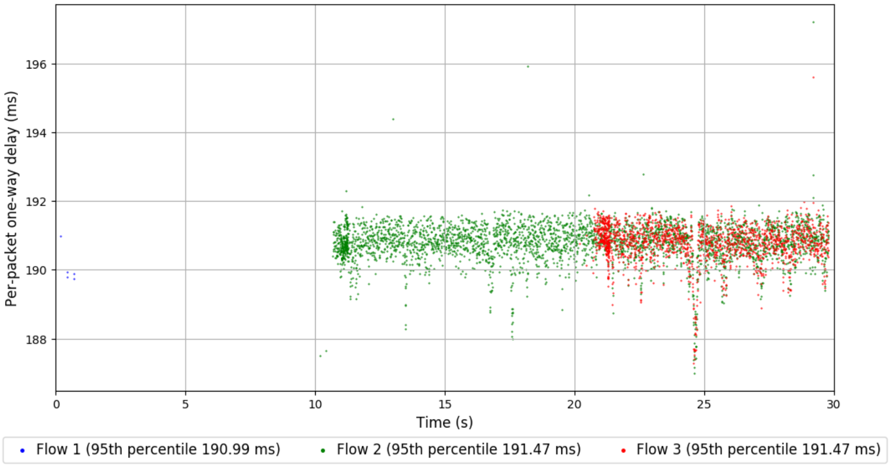




```
Run 4: Statistics of PCC-Allegro

Start at: 2019-02-20 13:31:40
End at: 2019-02-20 13:32:10
Local clock offset: 7.06 ms
Remote clock offset: -12.964 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 191.472 ms
Loss rate: 8.85%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 190.990 ms
Loss rate: 70.09%
-- Flow 2:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 191.472 ms
Loss rate: 8.07%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 191.469 ms
Loss rate: 10.41%
```

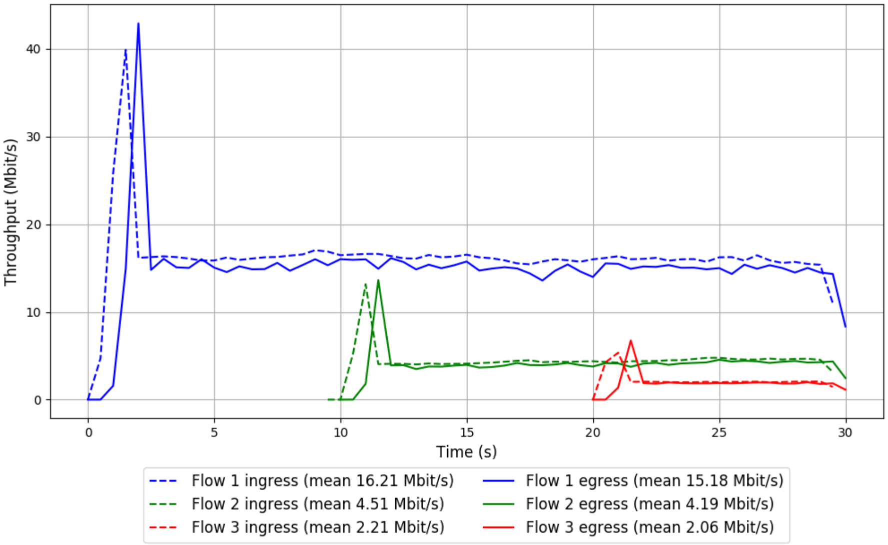
Run 4: Report of PCC-Allegro — Data Link

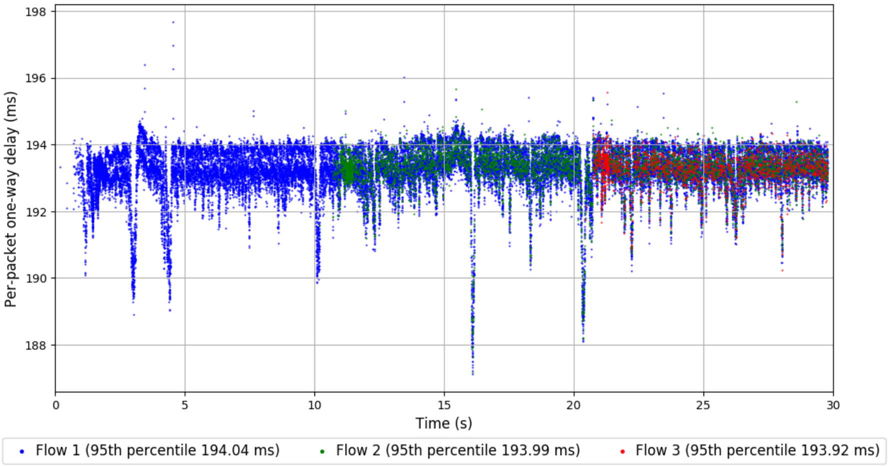




```
Run 5: Statistics of PCC-Allegro

Start at: 2019-02-20 14:44:46
End at: 2019-02-20 14:45:16
Local clock offset: 8.085 ms
Remote clock offset: -15.922 ms

# Below is generated by plot.py at 2019-02-20 15:50:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.62 Mbit/s
95th percentile per-packet one-way delay: 194.031 ms
Loss rate: 7.42%
-- Flow 1:
Average throughput: 15.18 Mbit/s
95th percentile per-packet one-way delay: 194.038 ms
Loss rate: 7.17%
-- Flow 2:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 193.990 ms
Loss rate: 8.35%
-- Flow 3:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 193.924 ms
Loss rate: 9.26%
```

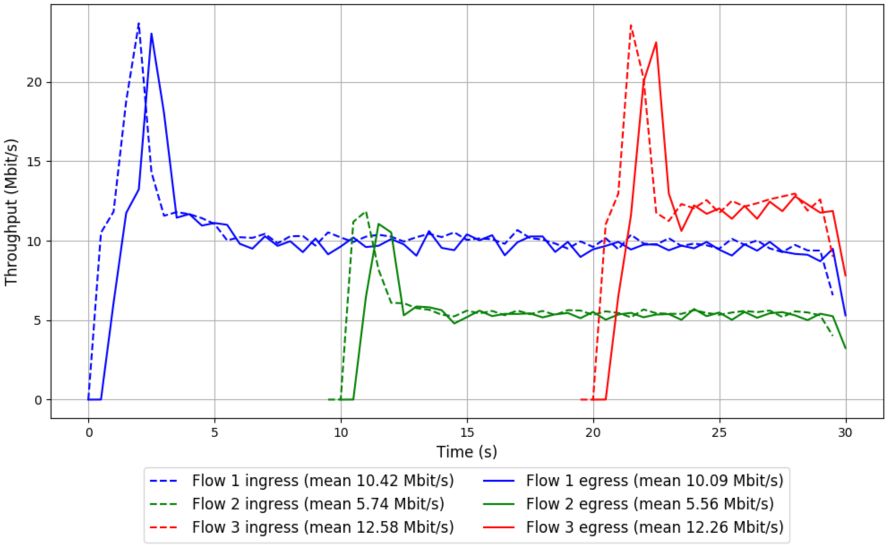
Run 5: Report of PCC-Allegro — Data Link

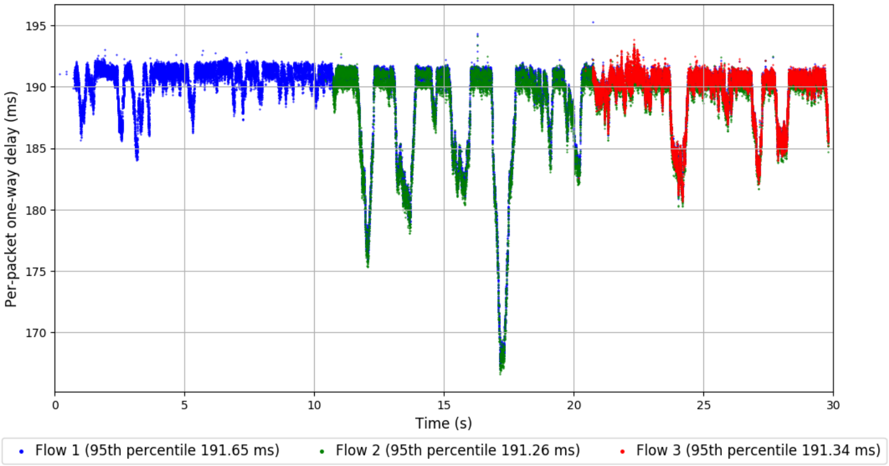




```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-20 10:38:05
End at: 2019-02-20 10:38:35
Local clock offset: 0.669 ms
Remote clock offset: -11.426 ms

# Below is generated by plot.py at 2019-02-20 15:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.76 Mbit/s
95th percentile per-packet one-way delay: 191.565 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 191.652 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 5.56 Mbit/s
95th percentile per-packet one-way delay: 191.265 ms
Loss rate: 4.20%
-- Flow 3:
Average throughput: 12.26 Mbit/s
95th percentile per-packet one-way delay: 191.342 ms
Loss rate: 4.99%
```

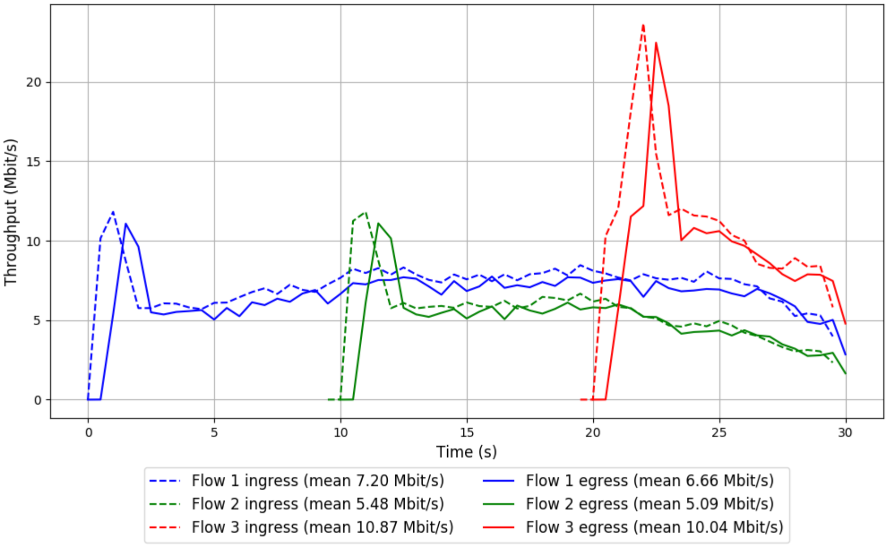
Run 1: Report of PCC-Expr — Data Link

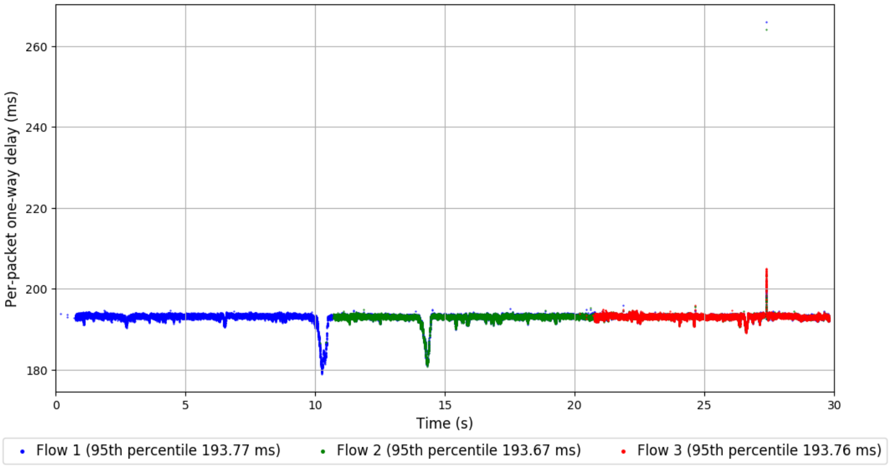




```
Run 2: Statistics of PCC-Expr

Start at: 2019-02-20 11:48:38
End at: 2019-02-20 11:49:08
Local clock offset: 4.141 ms
Remote clock offset: -15.944 ms

# Below is generated by plot.py at 2019-02-20 15:51:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 193.747 ms
Loss rate: 8.74%
-- Flow 1:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 193.768 ms
Loss rate: 8.29%
-- Flow 2:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 193.670 ms
Loss rate: 8.35%
-- Flow 3:
Average throughput: 10.04 Mbit/s
95th percentile per-packet one-way delay: 193.765 ms
Loss rate: 10.05%
```

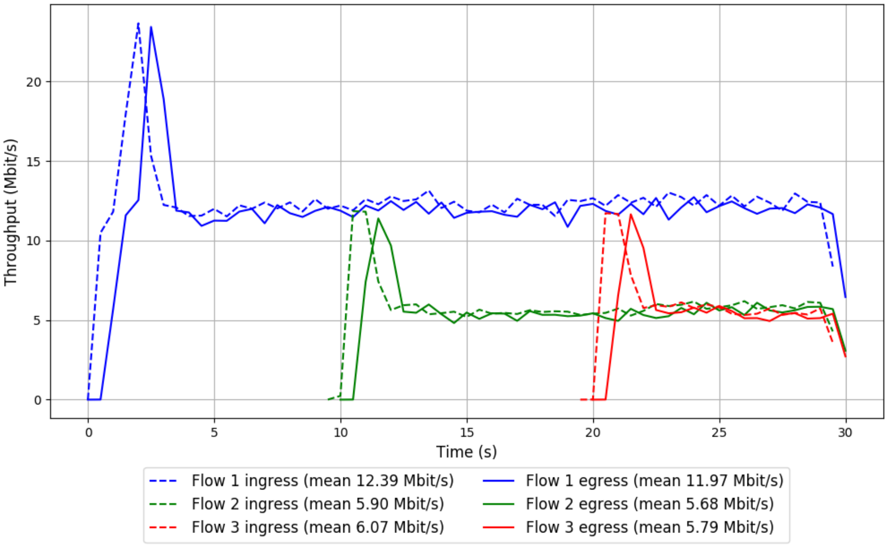
Run 2: Report of PCC-Expr — Data Link

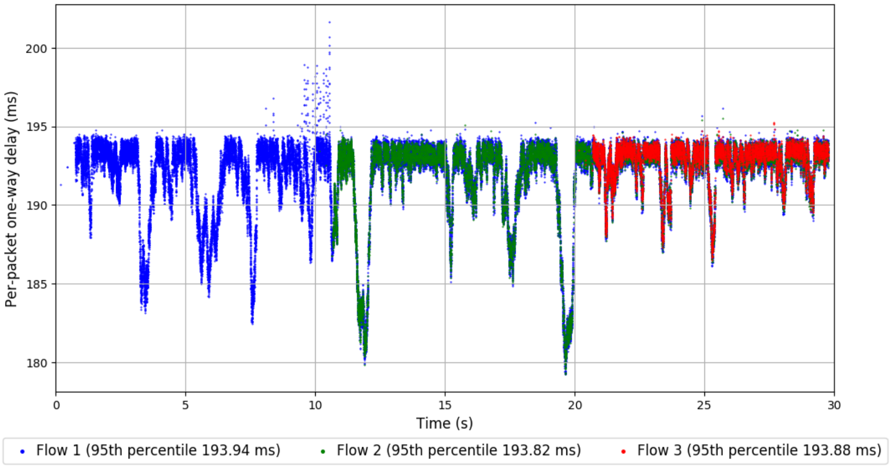




```
Run 3: Statistics of PCC-Expr

Start at: 2019-02-20 13:08:32
End at: 2019-02-20 13:09:02
Local clock offset: 2.701 ms
Remote clock offset: -16.471 ms

# Below is generated by plot.py at 2019-02-20 15:51:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.62 Mbit/s
95th percentile per-packet one-way delay: 193.910 ms
Loss rate: 4.69%
-- Flow 1:
Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 193.943 ms
Loss rate: 4.21%
-- Flow 2:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 193.818 ms
Loss rate: 5.03%
-- Flow 3:
Average throughput: 5.79 Mbit/s
95th percentile per-packet one-way delay: 193.880 ms
Loss rate: 7.00%
```

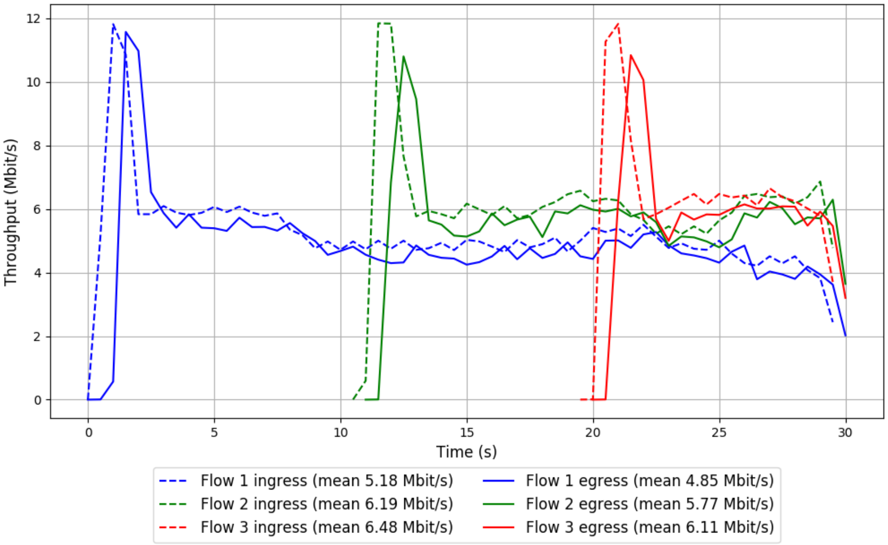
Run 3: Report of PCC-Expr — Data Link

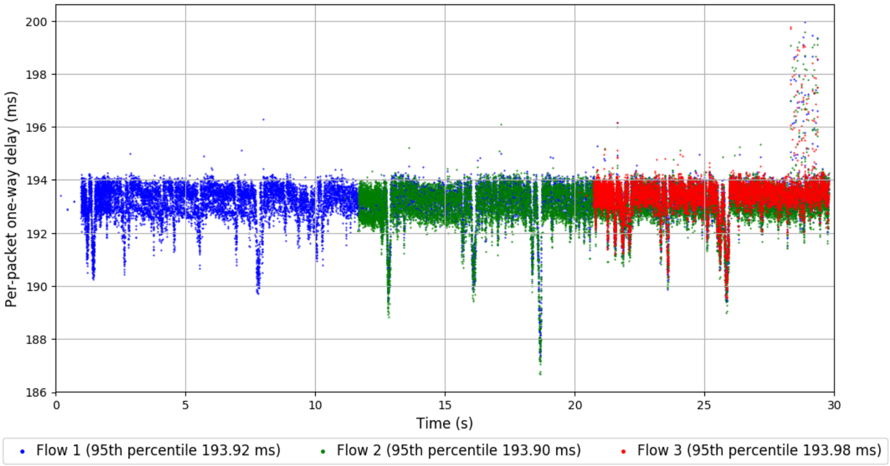




```
Run 4: Statistics of PCC-Expr

Start at: 2019-02-20 14:21:33
End at: 2019-02-20 14:22:03
Local clock offset: -2.187 ms
Remote clock offset: -16.231 ms

# Below is generated by plot.py at 2019-02-20 15:51:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.48 Mbit/s
95th percentile per-packet one-way delay: 193.928 ms
Loss rate: 7.59%
-- Flow 1:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 193.922 ms
Loss rate: 7.00%
-- Flow 2:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 193.897 ms
Loss rate: 8.07%
-- Flow 3:
Average throughput: 6.11 Mbit/s
95th percentile per-packet one-way delay: 193.984 ms
Loss rate: 8.15%
```

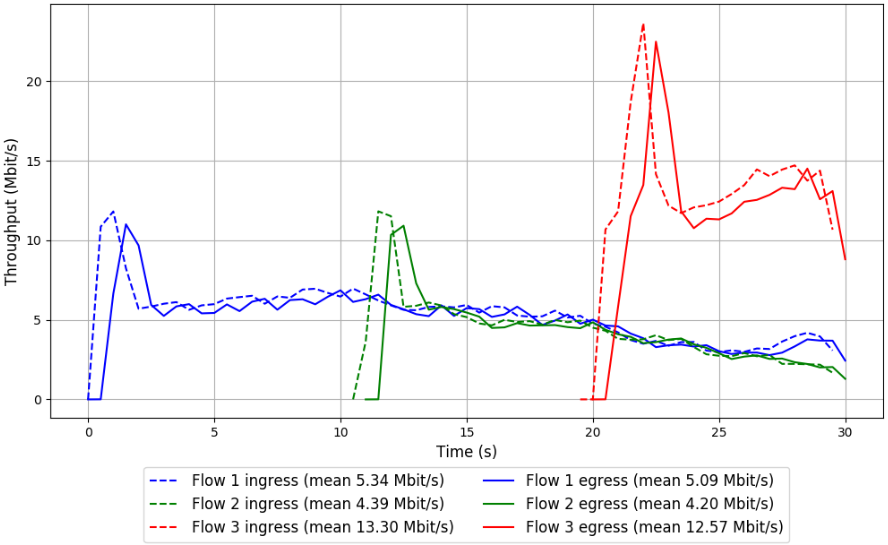
Run 4: Report of PCC-Expr — Data Link

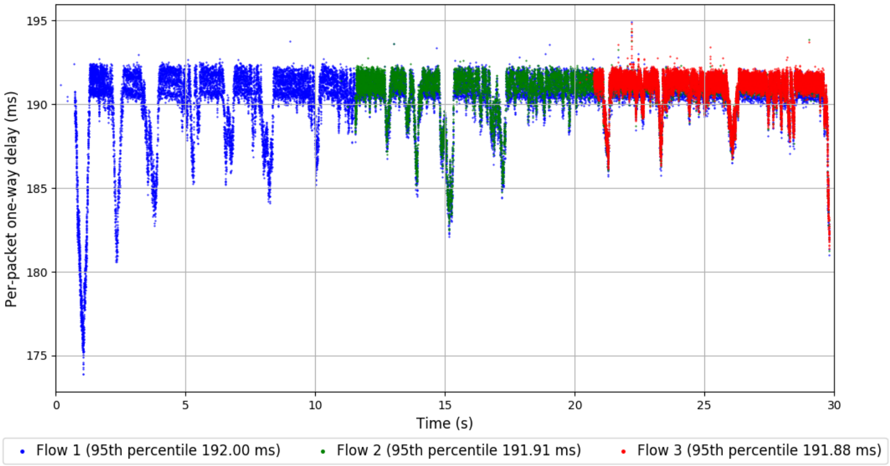




```
Run 5: Statistics of PCC-Expr

Start at: 2019-02-20 15:32:11
End at: 2019-02-20 15:32:41
Local clock offset: -0.612 ms
Remote clock offset: -15.874 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 191.936 ms
Loss rate: 6.36%
-- Flow 1:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 191.998 ms
Loss rate: 5.45%
-- Flow 2:
Average throughput: 4.20 Mbit/s
95th percentile per-packet one-way delay: 191.915 ms
Loss rate: 5.65%
-- Flow 3:
Average throughput: 12.57 Mbit/s
95th percentile per-packet one-way delay: 191.881 ms
Loss rate: 7.93%
```

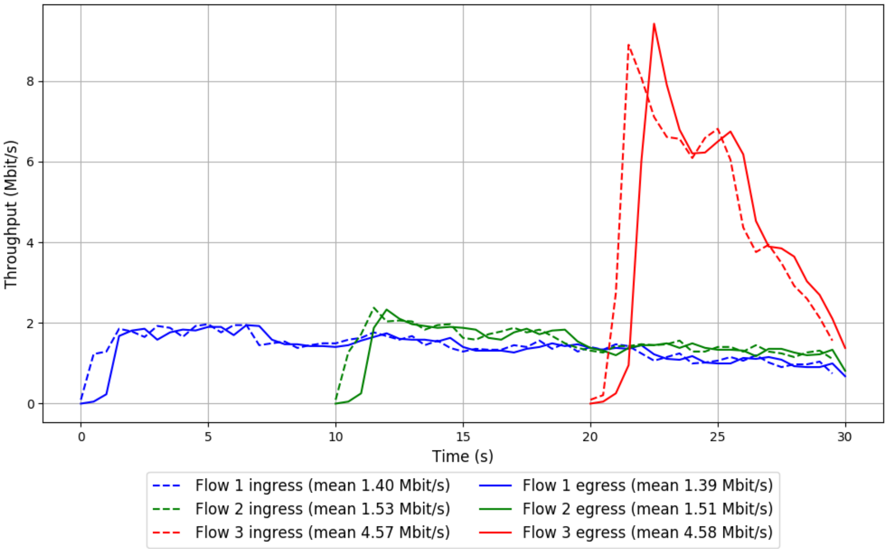
Run 5: Report of PCC-Expr — Data Link

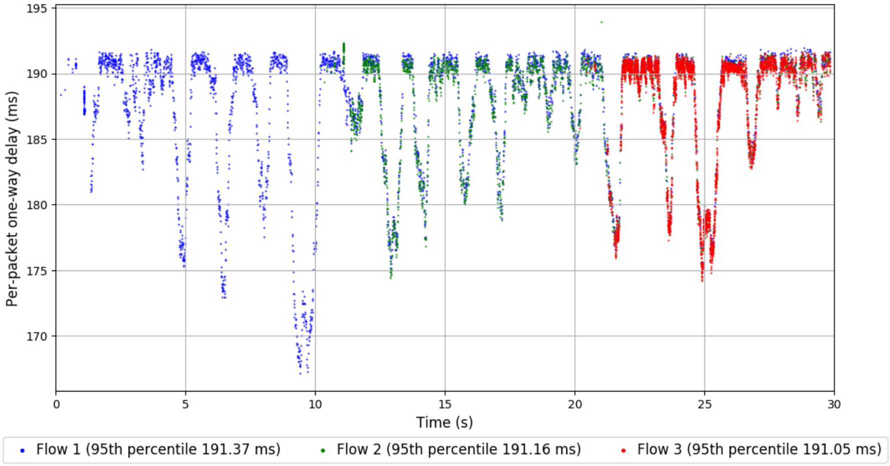




```
Run 1: Statistics of QUIC Cubic

Start at: 2019-02-20 10:18:03
End at: 2019-02-20 10:18:33
Local clock offset: -2.841 ms
Remote clock offset: -11.046 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 191.235 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 191.373 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 191.164 ms
Loss rate: 2.64%
-- Flow 3:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 191.050 ms
Loss rate: 2.50%
```

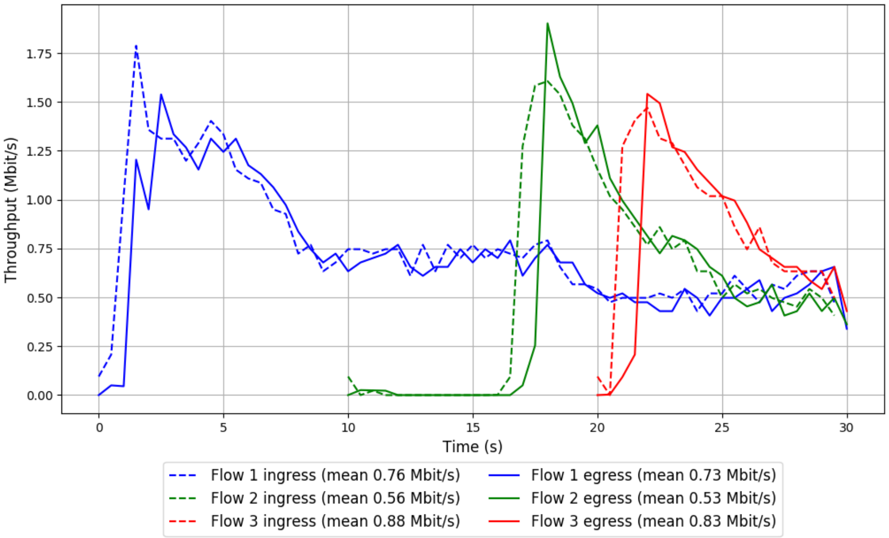
Run 1: Report of QUIC Cubic — Data Link

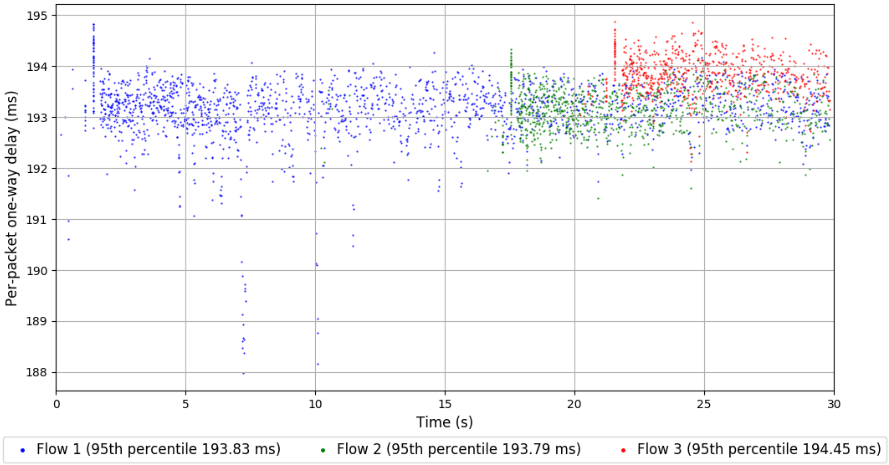




```
Run 2: Statistics of QUIC Cubic

Start at: 2019-02-20 11:23:09
End at: 2019-02-20 11:23:39
Local clock offset: 7.875 ms
Remote clock offset: -16.063 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 194.169 ms
Loss rate: 5.77%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 193.828 ms
Loss rate: 4.66%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 193.790 ms
Loss rate: 6.48%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 194.451 ms
Loss rate: 7.73%
```

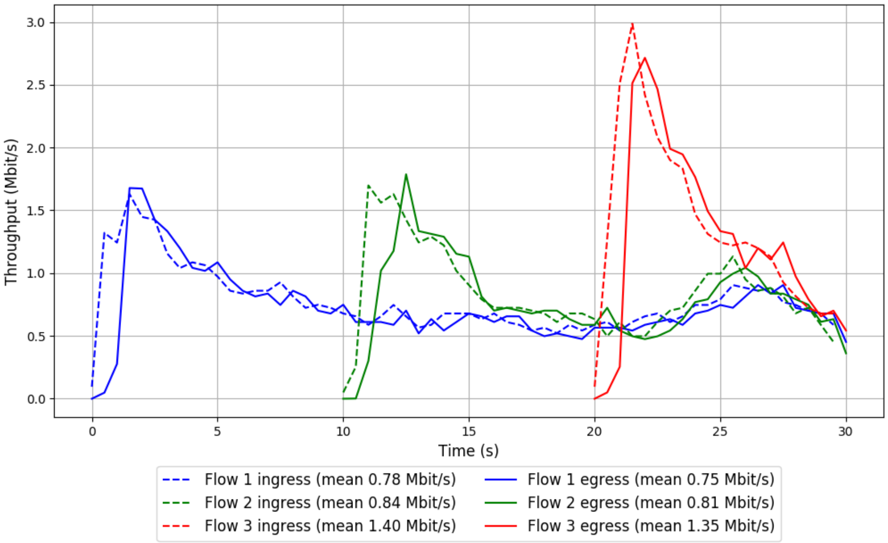
Run 2: Report of QUIC Cubic — Data Link

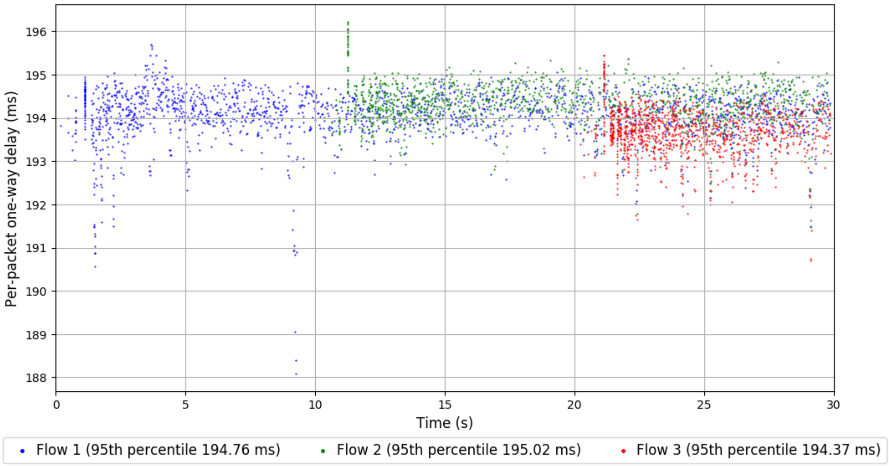




```
Run 3: Statistics of QUIC Cubic

Start at: 2019-02-20 12:46:45
End at: 2019-02-20 12:47:15
Local clock offset: -4.166 ms
Remote clock offset: -17.949 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 194.867 ms
Loss rate: 5.30%
-- Flow 1:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 194.765 ms
Loss rate: 4.97%
-- Flow 2:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 195.021 ms
Loss rate: 5.23%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 194.371 ms
Loss rate: 5.95%
```

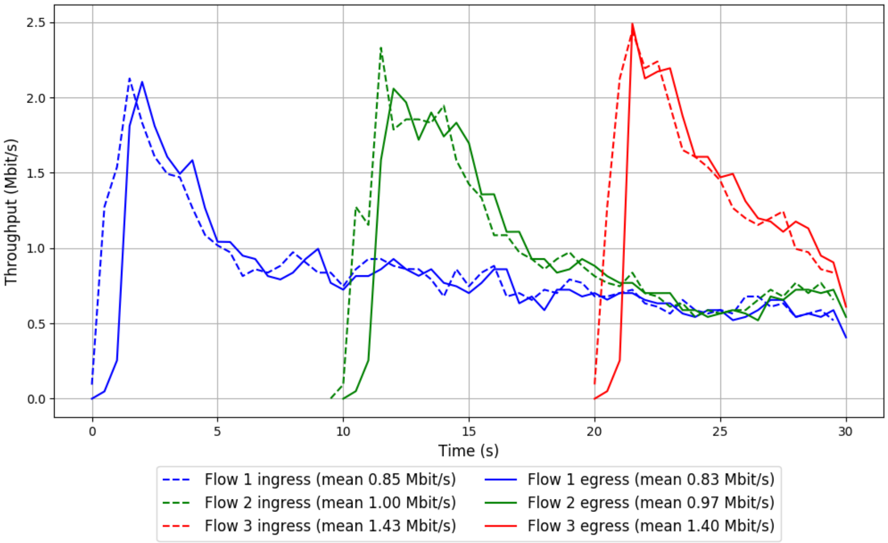
Run 3: Report of QUIC Cubic — Data Link

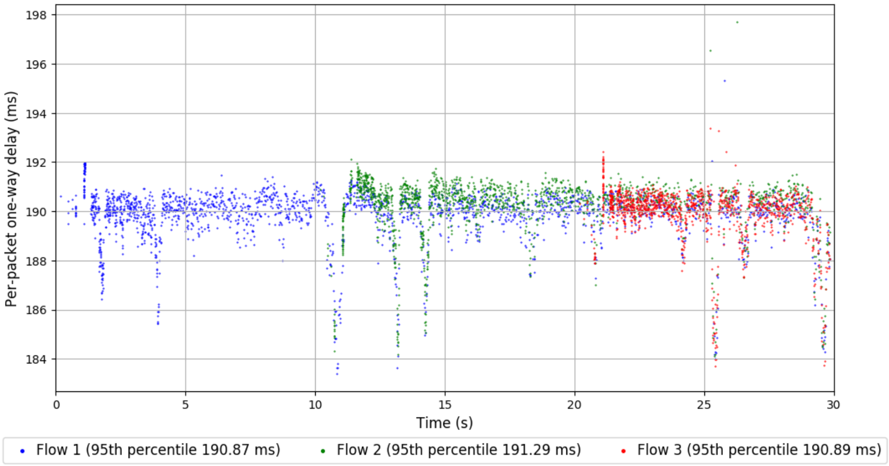




```
Run 4: Statistics of QUIC Cubic

Start at: 2019-02-20 13:57:09
End at: 2019-02-20 13:57:39
Local clock offset: 4.095 ms
Remote clock offset: -13.287 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 191.117 ms
Loss rate: 4.07%
-- Flow 1:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 190.873 ms
Loss rate: 3.77%
-- Flow 2:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 191.294 ms
Loss rate: 3.86%
-- Flow 3:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 190.891 ms
Loss rate: 4.88%
```

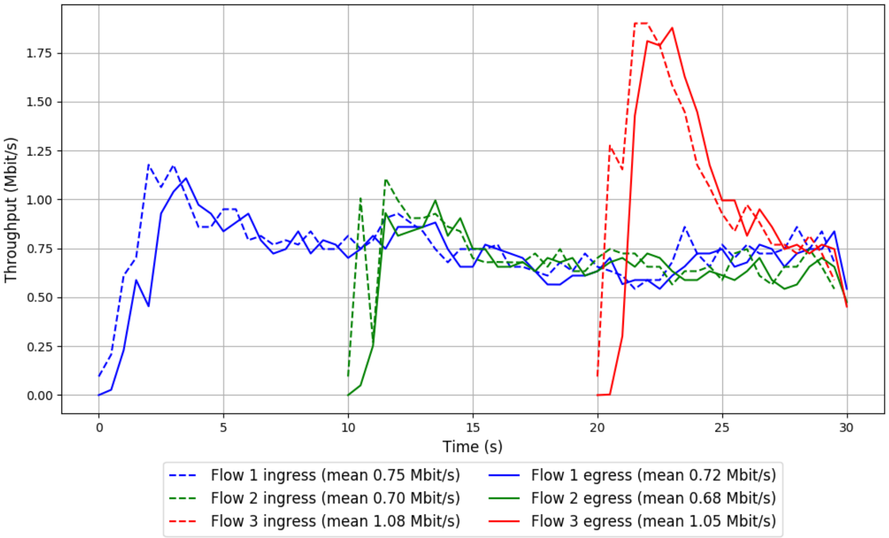
Run 4: Report of QUIC Cubic — Data Link

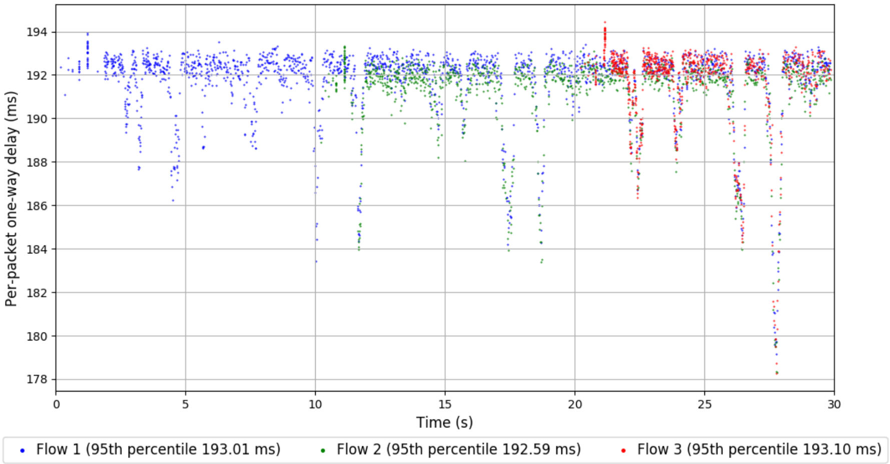




```
Run 5: Statistics of QUIC Cubic

Start at: 2019-02-20 15:12:03
End at: 2019-02-20 15:12:33
Local clock offset: 1.548 ms
Remote clock offset: -14.382 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 192.984 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 193.008 ms
Loss rate: 4.48%
-- Flow 2:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 192.587 ms
Loss rate: 4.95%
-- Flow 3:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 193.101 ms
Loss rate: 5.18%
```

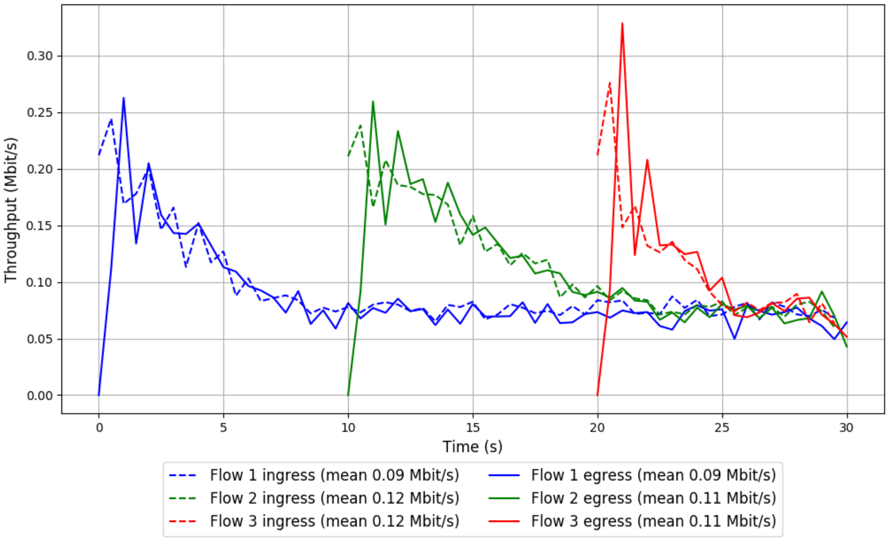
Run 5: Report of QUIC Cubic — Data Link

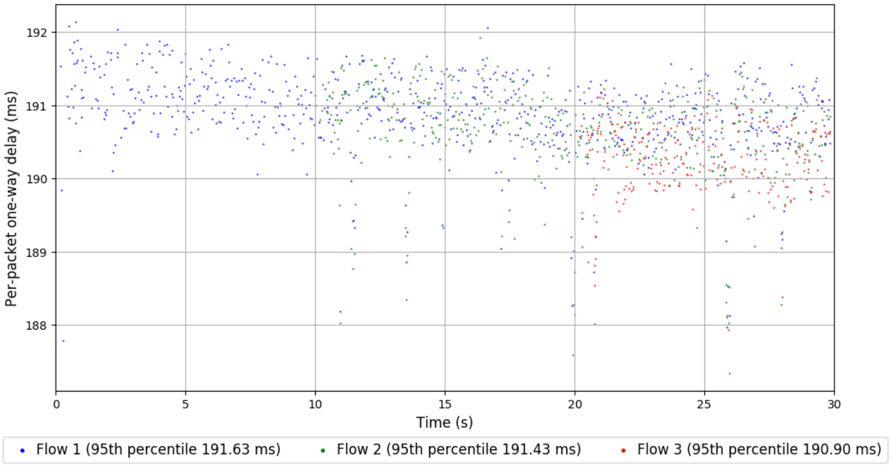




```
Run 1: Statistics of SCReAM

Start at: 2019-02-20 10:43:02
End at: 2019-02-20 10:43:32
Local clock offset: 2.477 ms
Remote clock offset: -12.299 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 191.548 ms
Loss rate: 5.90%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 191.634 ms
Loss rate: 7.39%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 191.430 ms
Loss rate: 4.83%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 190.899 ms
Loss rate: 4.38%
```

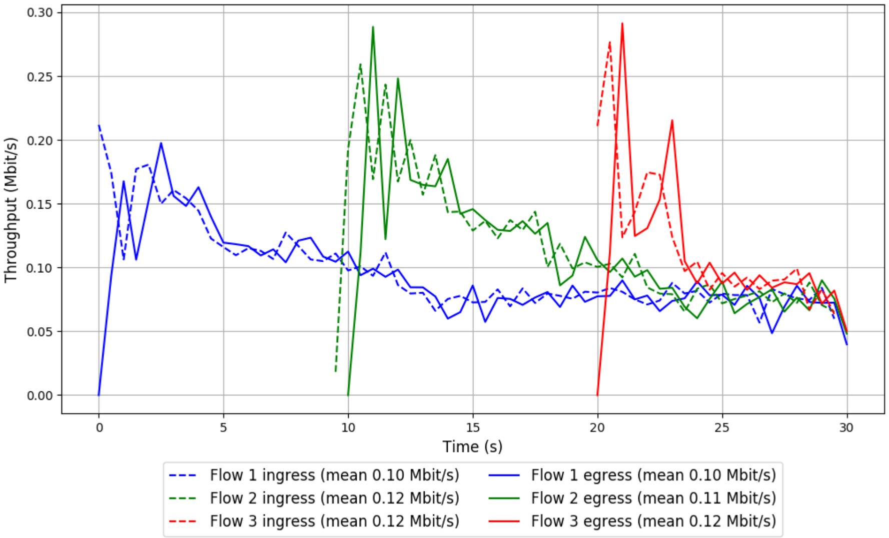
Run 1: Report of SCReAM — Data Link

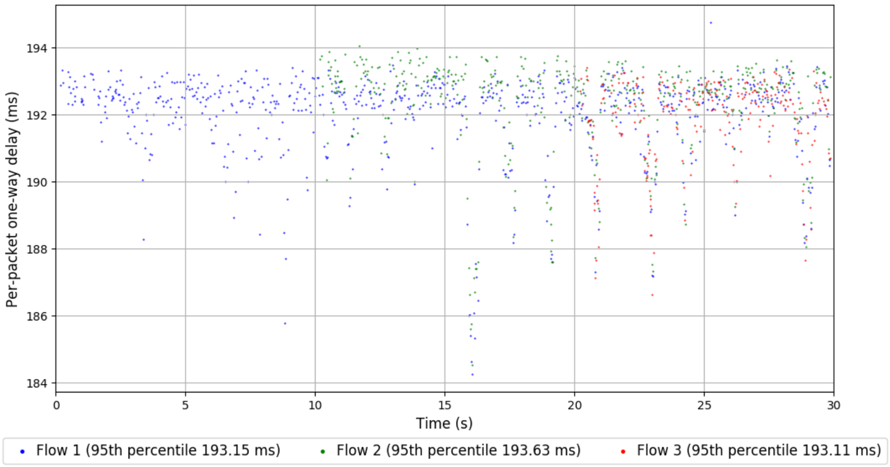




```
Run 2: Statistics of SCReAM

Start at: 2019-02-20 11:53:51
End at: 2019-02-20 11:54:21
Local clock offset: 3.877 ms
Remote clock offset: -16.482 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 193.363 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 193.150 ms
Loss rate: 4.21%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 193.630 ms
Loss rate: 4.80%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 193.112 ms
Loss rate: 4.96%
```

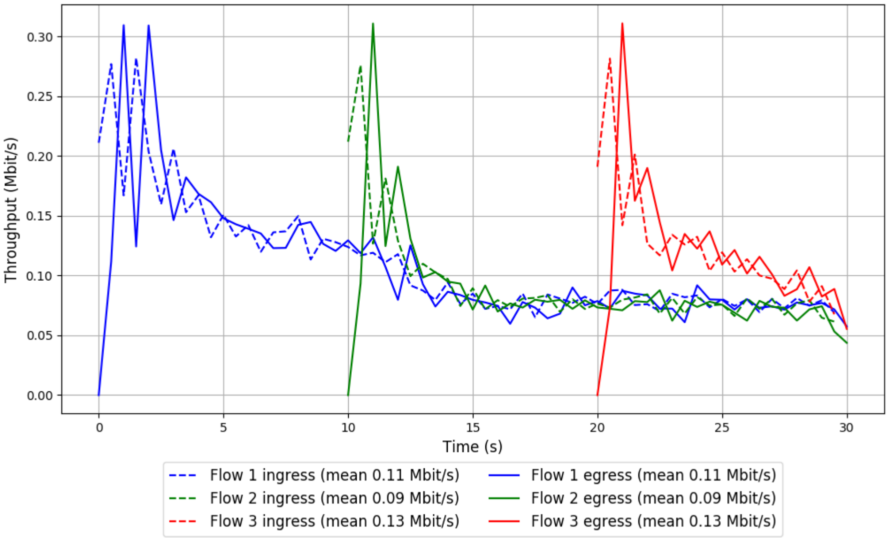
Run 2: Report of SCReAM — Data Link

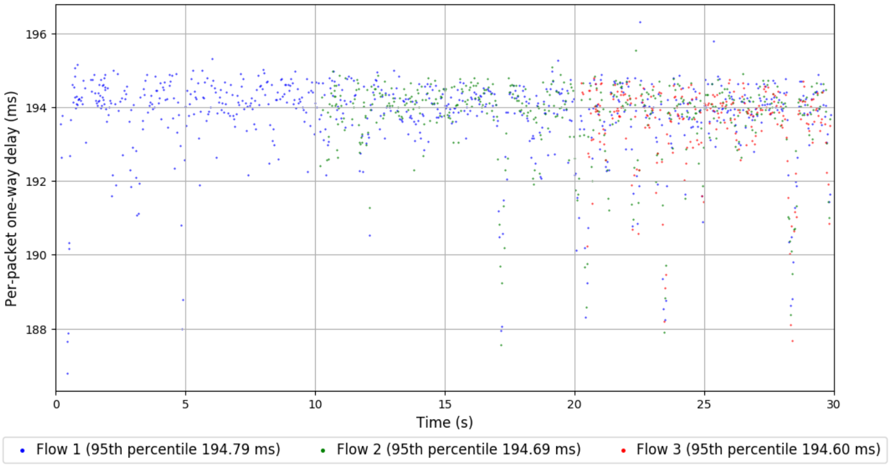




```
Run 3: Statistics of SCReAM

Start at: 2019-02-20 13:14:01
End at: 2019-02-20 13:14:31
Local clock offset: 4.79 ms
Remote clock offset: -17.112 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 194.739 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 194.794 ms
Loss rate: 3.43%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 194.695 ms
Loss rate: 4.94%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 194.605 ms
Loss rate: 3.39%
```

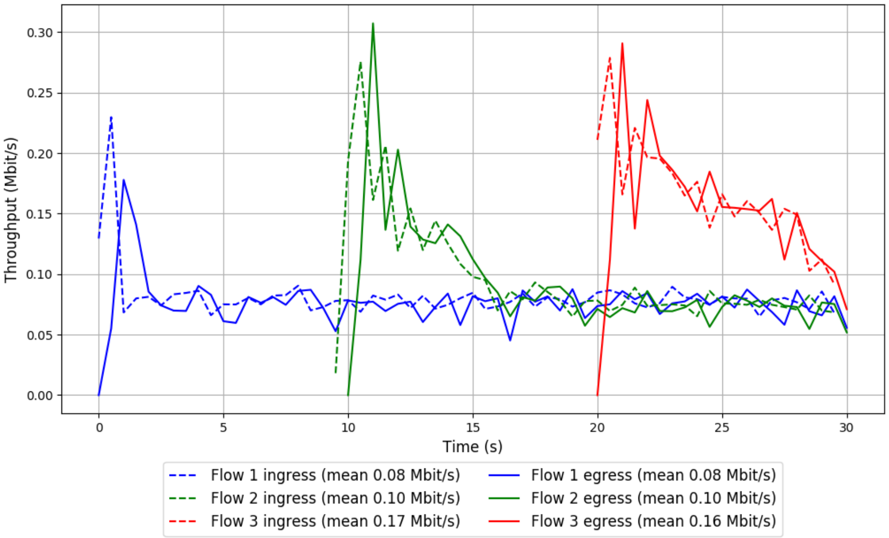
Run 3: Report of SCReAM — Data Link

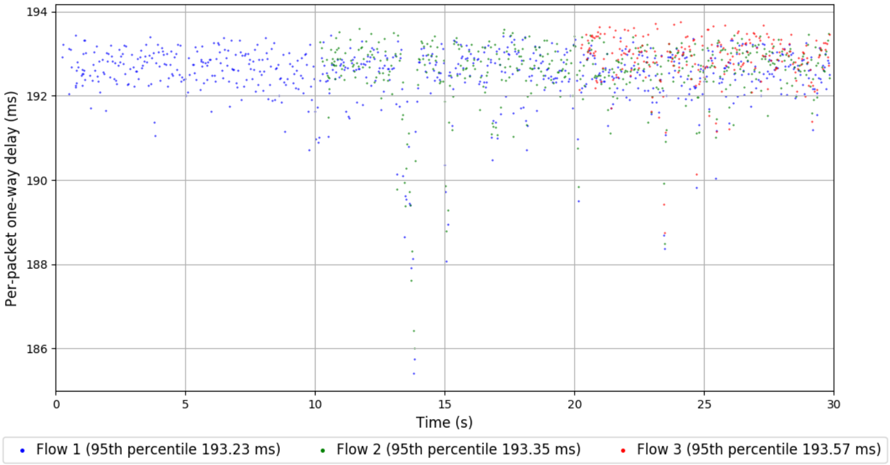




```
Run 4: Statistics of SCReAM

Start at: 2019-02-20 14:26:28
End at: 2019-02-20 14:26:58
Local clock offset: -2.768 ms
Remote clock offset: -16.004 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 193.374 ms
Loss rate: 5.08%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 193.226 ms
Loss rate: 4.90%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 193.349 ms
Loss rate: 5.02%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 193.566 ms
Loss rate: 5.43%
```

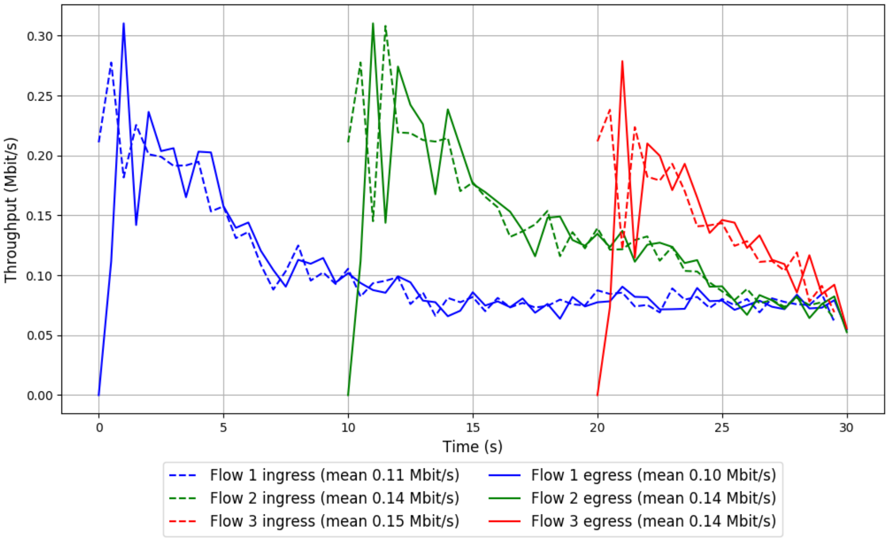
Run 4: Report of SCReAM — Data Link

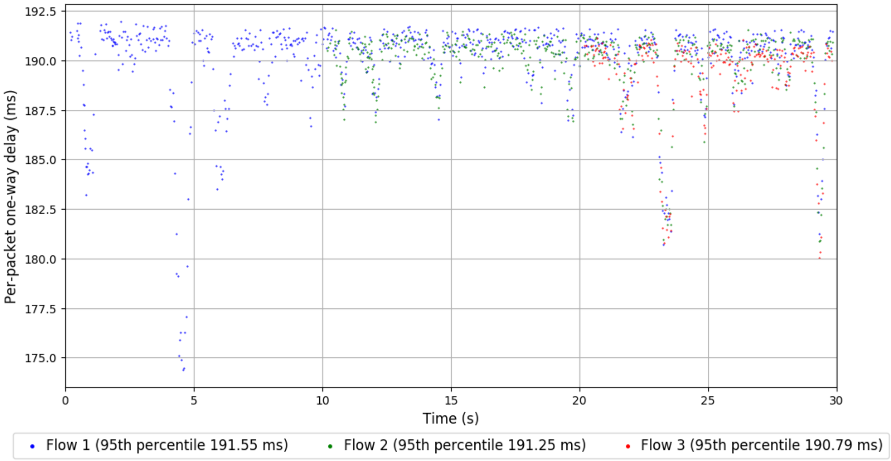




```
Run 5: Statistics of SCReAM

Start at: 2019-02-20 15:36:46
End at: 2019-02-20 15:37:16
Local clock offset: 2.156 ms
Remote clock offset: -15.381 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 191.462 ms
Loss rate: 3.25%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 191.551 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 191.253 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 190.788 ms
Loss rate: 4.85%
```

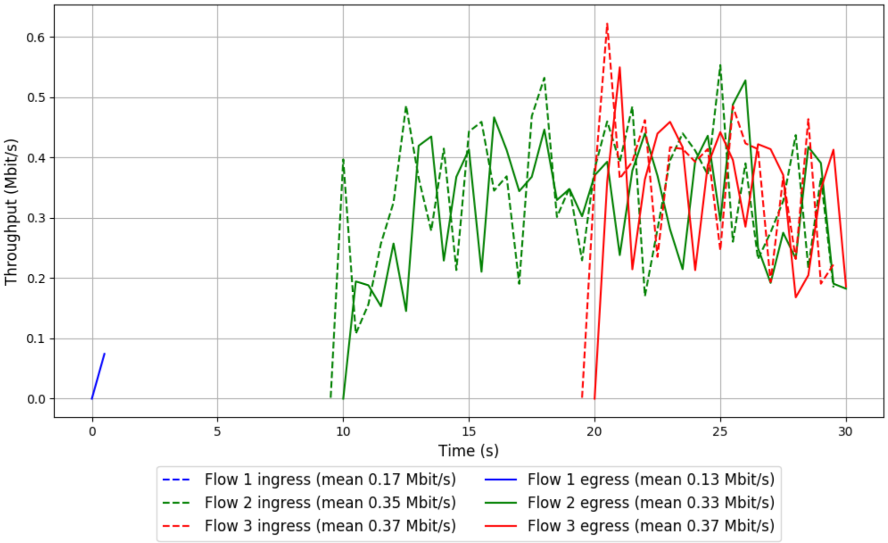
Run 5: Report of SCReAM — Data Link

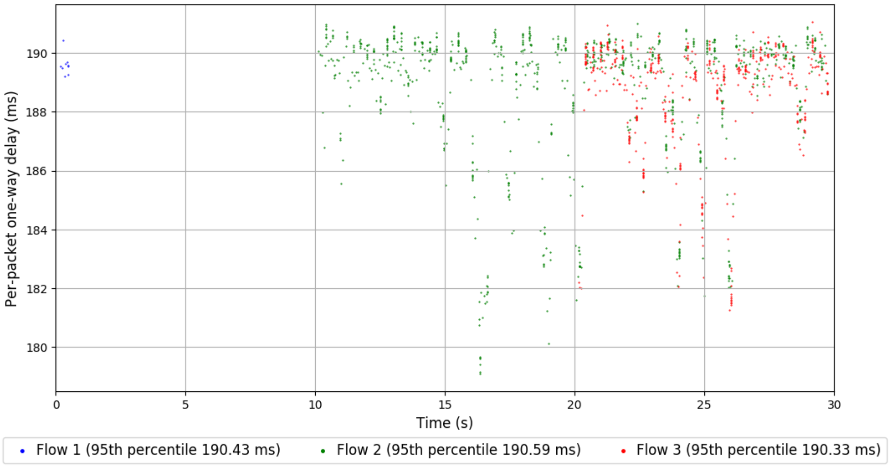




```
Run 1: Statistics of Sprout

Start at: 2019-02-20 10:41:32
End at: 2019-02-20 10:42:02
Local clock offset: 2.39 ms
Remote clock offset: -10.944 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 190.542 ms
Loss rate: 4.85%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 190.431 ms
Loss rate: 24.38%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 190.589 ms
Loss rate: 5.36%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 190.333 ms
Loss rate: 3.62%
```

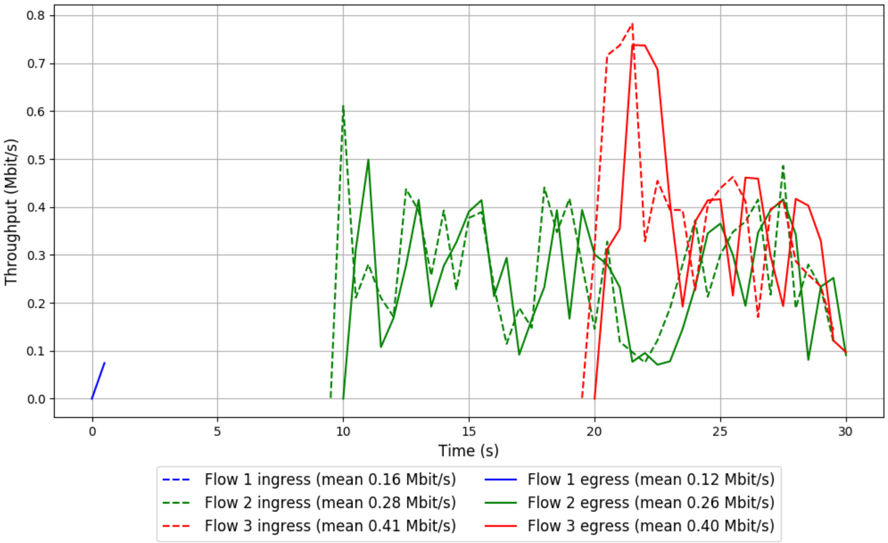
Run 1: Report of Sprout — Data Link

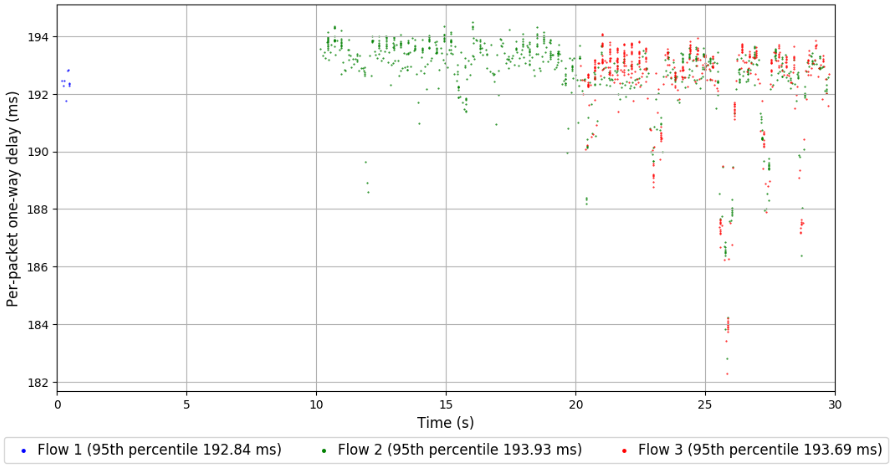




```
Run 2: Statistics of Sprout

Start at: 2019-02-20 11:52:27
End at: 2019-02-20 11:52:57
Local clock offset: 4.059 ms
Remote clock offset: -16.219 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 193.870 ms
Loss rate: 6.22%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 192.842 ms
Loss rate: 24.38%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 193.930 ms
Loss rate: 7.40%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 193.685 ms
Loss rate: 4.37%
```

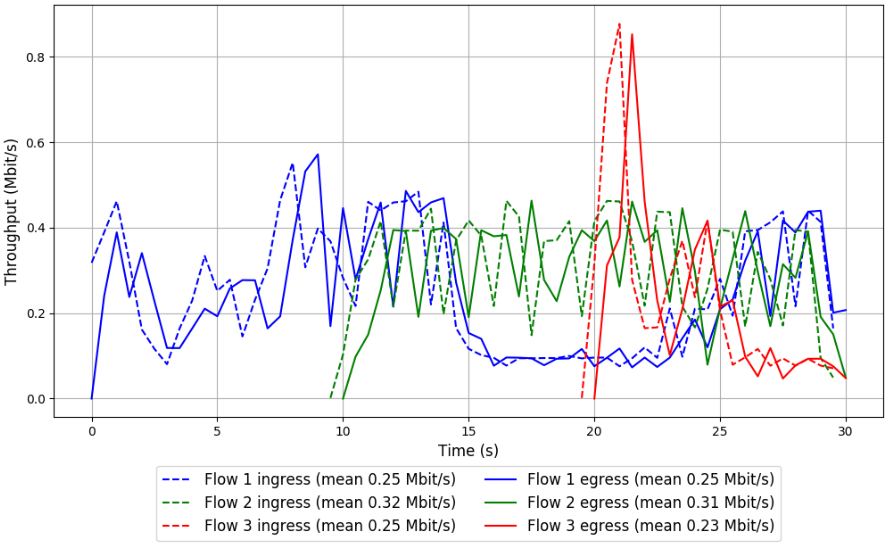
Run 2: Report of Sprout — Data Link

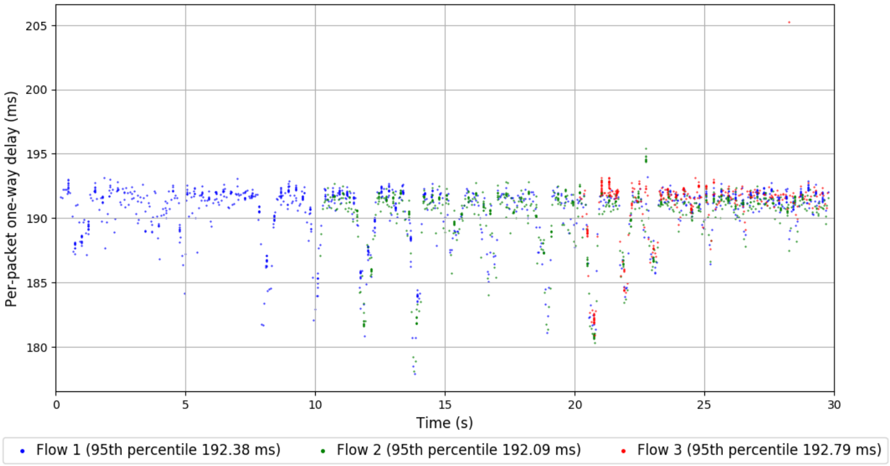




```
Run 3: Statistics of Sprout

Start at: 2019-02-20 13:12:23
End at: 2019-02-20 13:12:53
Local clock offset: 4.134 ms
Remote clock offset: -14.894 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 192.436 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 192.378 ms
Loss rate: 3.94%
-- Flow 2:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 192.088 ms
Loss rate: 4.64%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 192.789 ms
Loss rate: 7.80%
```

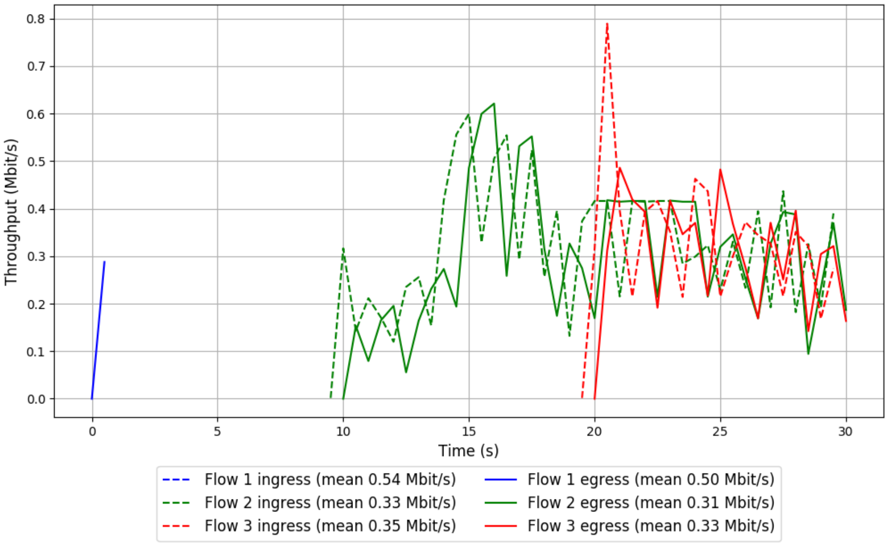
Run 3: Report of Sprout — Data Link

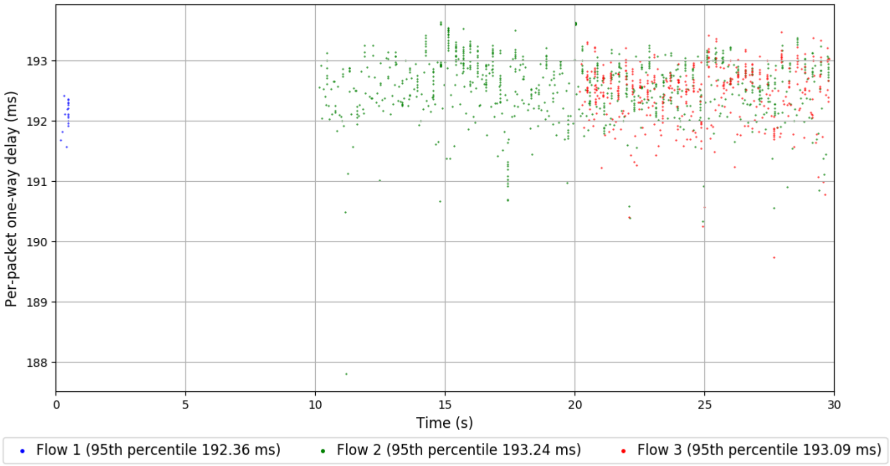




```
Run 4: Statistics of Sprout

Start at: 2019-02-20 14:25:00
End at: 2019-02-20 14:25:30
Local clock offset: -2.543 ms
Remote clock offset: -15.131 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 193.205 ms
Loss rate: 6.61%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 192.361 ms
Loss rate: 7.69%
-- Flow 2:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 193.235 ms
Loss rate: 6.35%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 193.094 ms
Loss rate: 7.06%
```

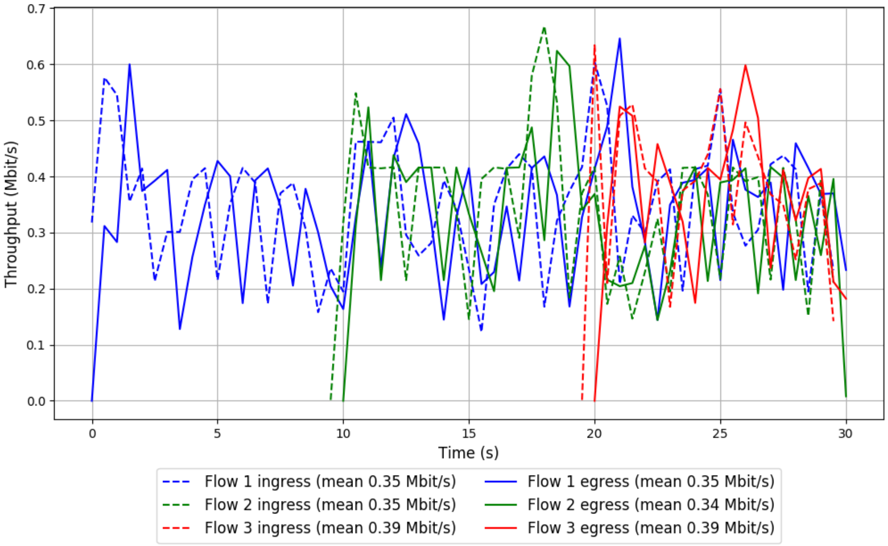
Run 4: Report of Sprout — Data Link

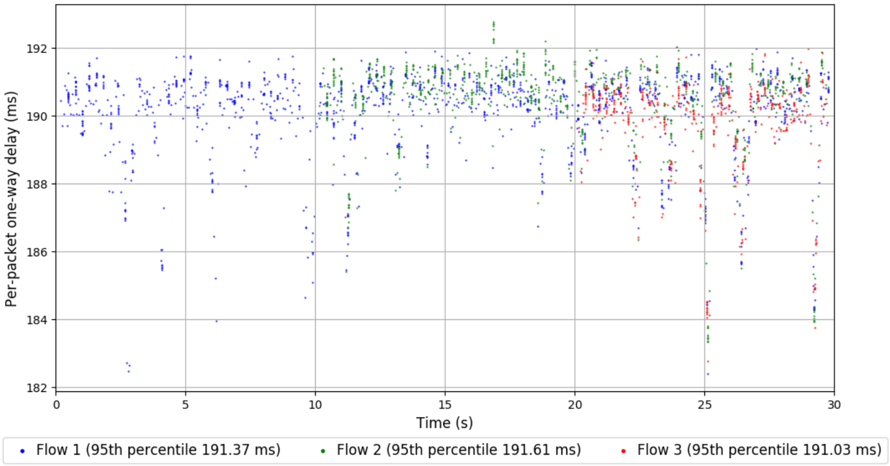




```
Run 5: Statistics of Sprout

Start at: 2019-02-20 15:35:20
End at: 2019-02-20 15:35:50
Local clock offset: 1.633 ms
Remote clock offset: -14.871 ms

# Below is generated by plot.py at 2019-02-20 15:51:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 191.495 ms
Loss rate: 2.92%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 191.368 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 191.613 ms
Loss rate: 4.16%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 191.029 ms
Loss rate: 2.59%
```

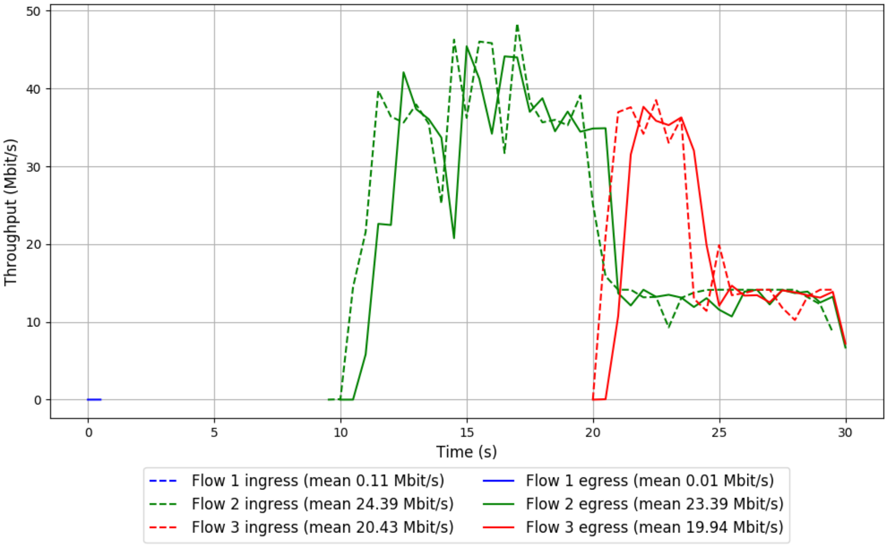
Run 5: Report of Sprout — Data Link

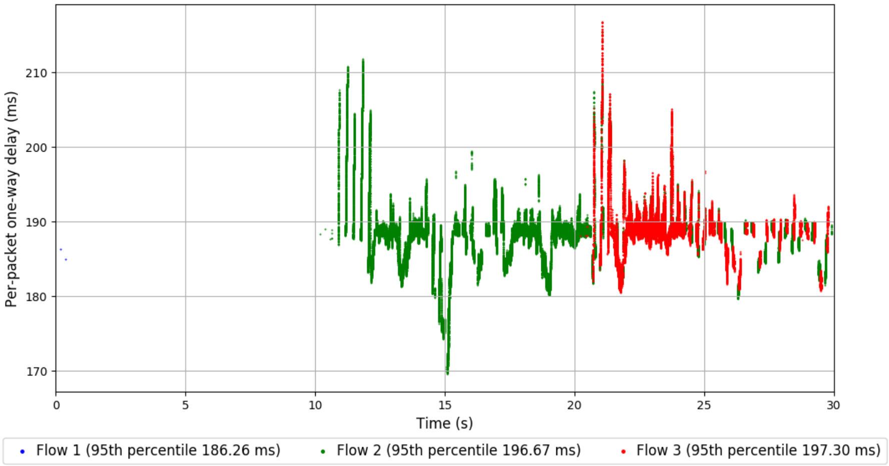




```
Run 1: Statistics of TaoVA-100x

Start at: 2019-02-20 10:04:37
End at: 2019-02-20 10:05:07
Local clock offset: 5.697 ms
Remote clock offset: -13.225 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.92 Mbit/s
95th percentile per-packet one-way delay: 196.897 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 186.259 ms
Loss rate: 92.42%
-- Flow 2:
Average throughput: 23.39 Mbit/s
95th percentile per-packet one-way delay: 196.666 ms
Loss rate: 4.30%
-- Flow 3:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 197.301 ms
Loss rate: 4.98%
```

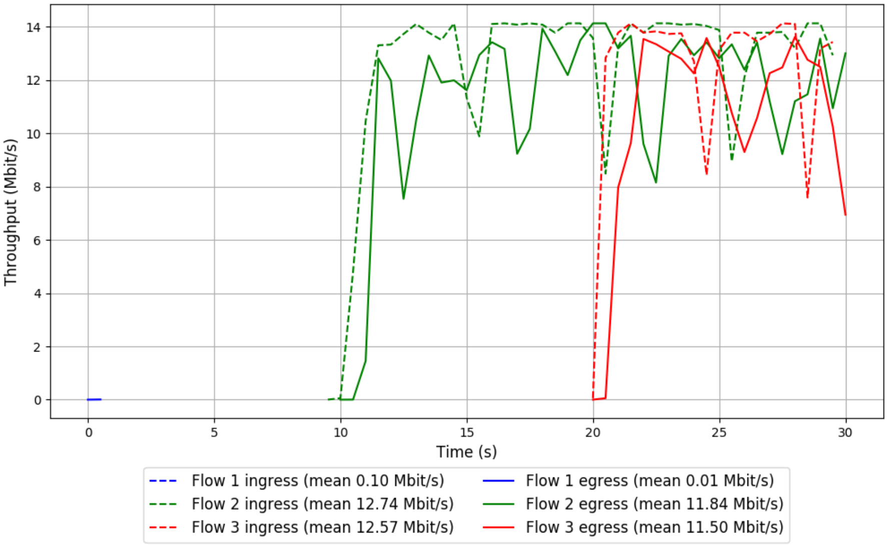
Run 1: Report of TaoVA-100x — Data Link

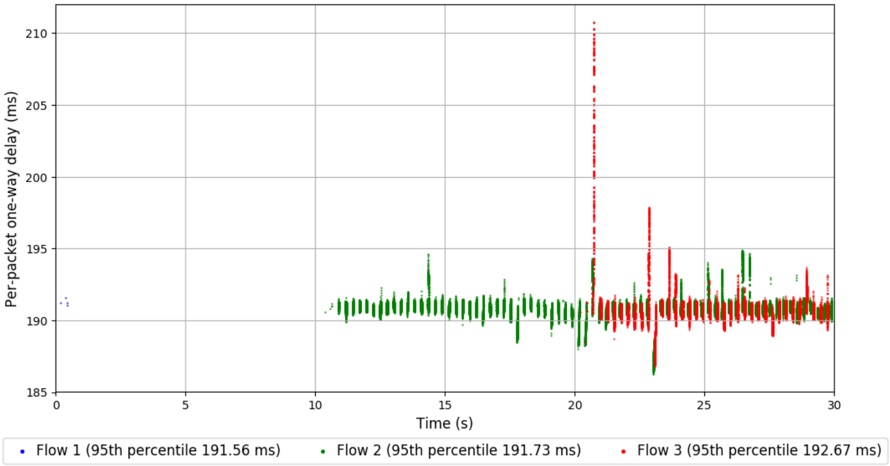




```
Run 2: Statistics of TaoVA-100x

Start at: 2019-02-20 11:08:42
End at: 2019-02-20 11:09:12
Local clock offset: 6.779 ms
Remote clock offset: -12.886 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.48 Mbit/s
95th percentile per-packet one-way delay: 192.144 ms
Loss rate: 9.78%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 191.560 ms
Loss rate: 88.63%
-- Flow 2:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 191.728 ms
Loss rate: 9.19%
-- Flow 3:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 192.668 ms
Loss rate: 10.99%
```

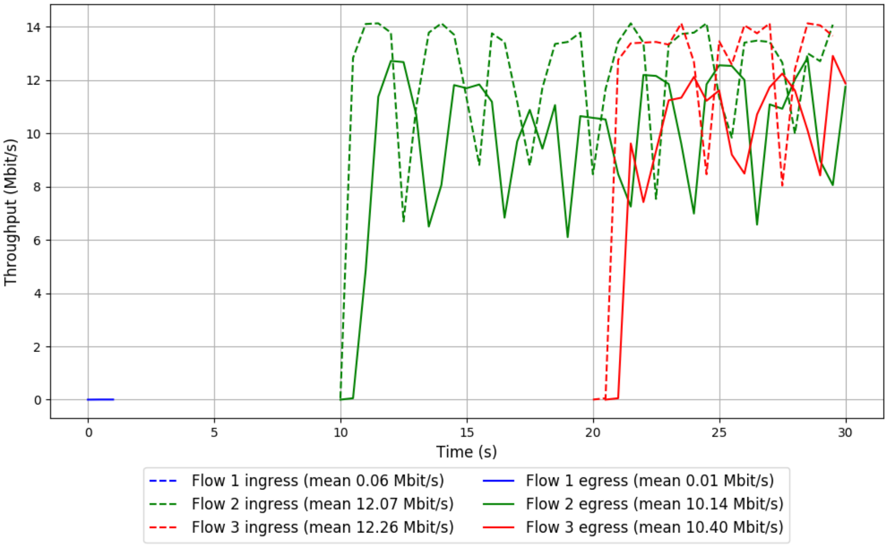
Run 2: Report of TaoVA-100x — Data Link

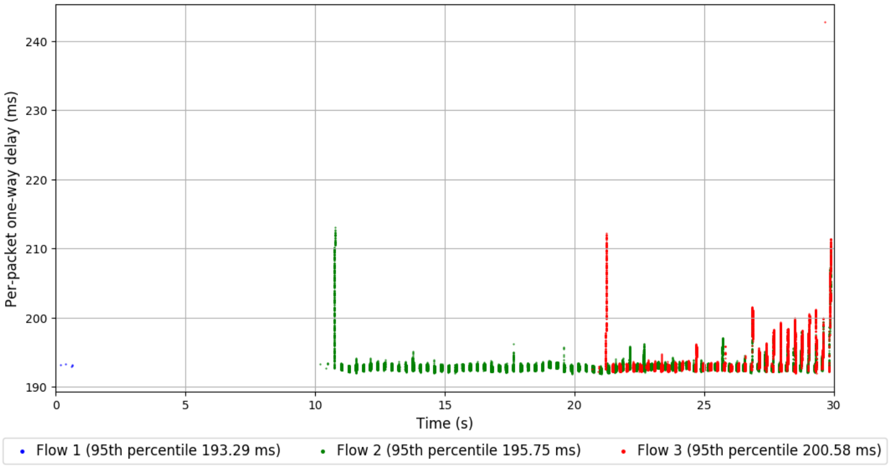




```
Run 3: Statistics of TaoVA-100x

Start at: 2019-02-20 12:28:01
End at: 2019-02-20 12:28:31
Local clock offset: -5.917 ms
Remote clock offset: -15.428 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 197.998 ms
Loss rate: 17.26%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 193.289 ms
Loss rate: 85.39%
-- Flow 2:
Average throughput: 10.14 Mbit/s
95th percentile per-packet one-way delay: 195.749 ms
Loss rate: 17.13%
-- Flow 3:
Average throughput: 10.40 Mbit/s
95th percentile per-packet one-way delay: 200.582 ms
Loss rate: 17.52%
```

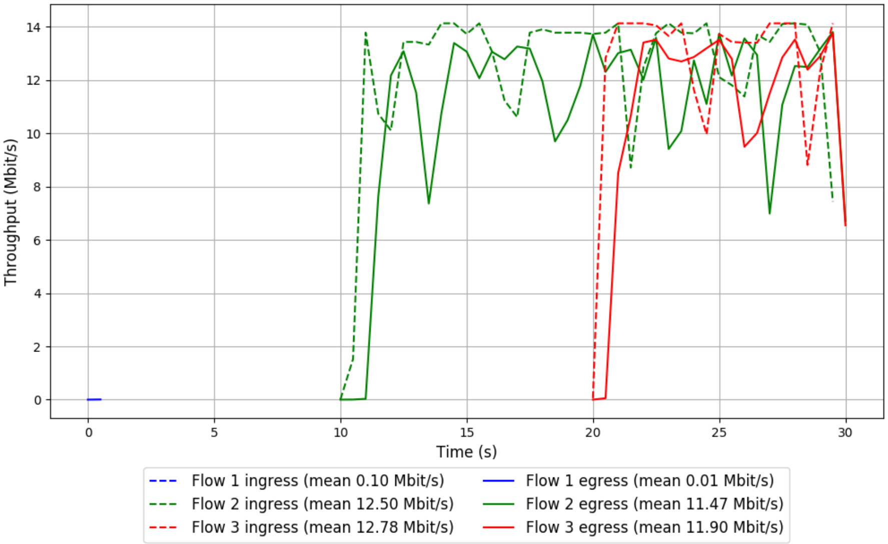
Run 3: Report of TaoVA-100x — Data Link

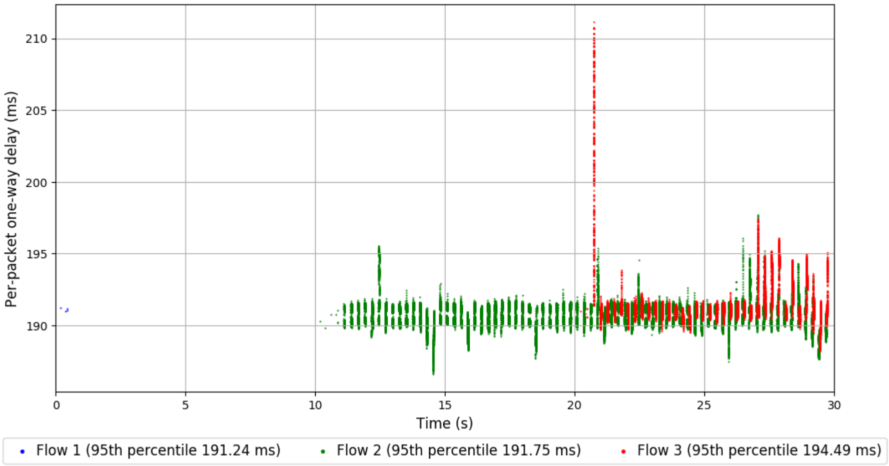




```
Run 4: Statistics of TaoVA-100x

Start at: 2019-02-20 13:43:24
End at: 2019-02-20 13:43:54
Local clock offset: 4.593 ms
Remote clock offset: -13.848 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 193.122 ms
Loss rate: 9.38%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 191.235 ms
Loss rate: 88.63%
-- Flow 2:
Average throughput: 11.47 Mbit/s
95th percentile per-packet one-way delay: 191.746 ms
Loss rate: 9.40%
-- Flow 3:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 194.489 ms
Loss rate: 9.33%
```

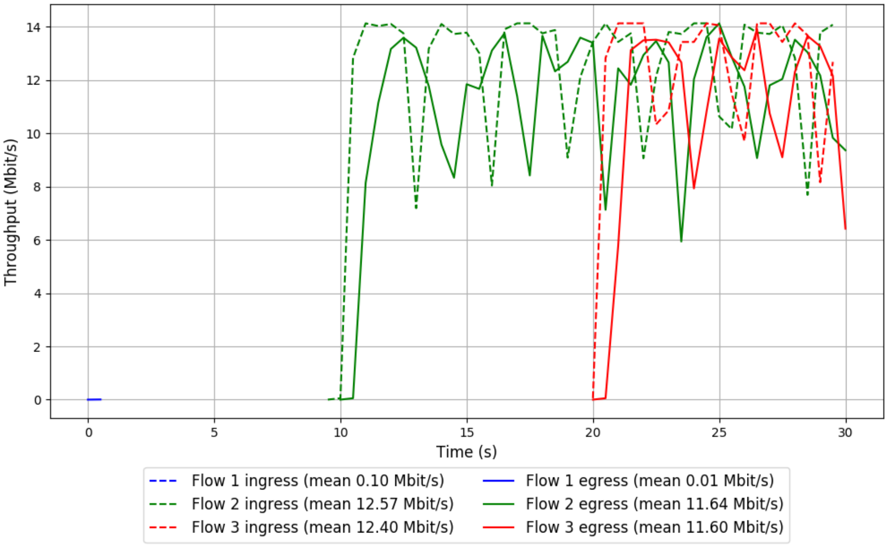
Run 4: Report of TaoVA-100x — Data Link

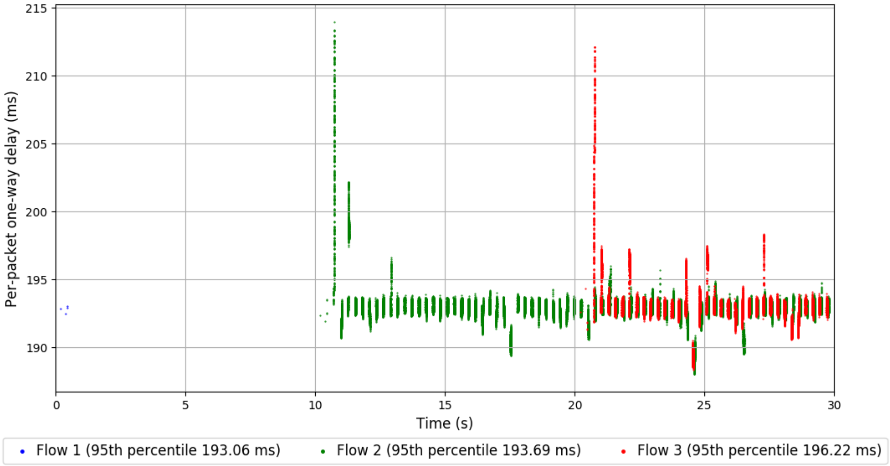




```
Run 5: Statistics of TaoVA-100x

Start at: 2019-02-20 14:57:12
End at: 2019-02-20 14:57:42
Local clock offset: 11.142 ms
Remote clock offset: -15.348 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.44 Mbit/s
95th percentile per-packet one-way delay: 194.539 ms
Loss rate: 8.75%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 193.057 ms
Loss rate: 88.63%
-- Flow 2:
Average throughput: 11.64 Mbit/s
95th percentile per-packet one-way delay: 193.687 ms
Loss rate: 8.62%
-- Flow 3:
Average throughput: 11.60 Mbit/s
95th percentile per-packet one-way delay: 196.219 ms
Loss rate: 9.02%
```

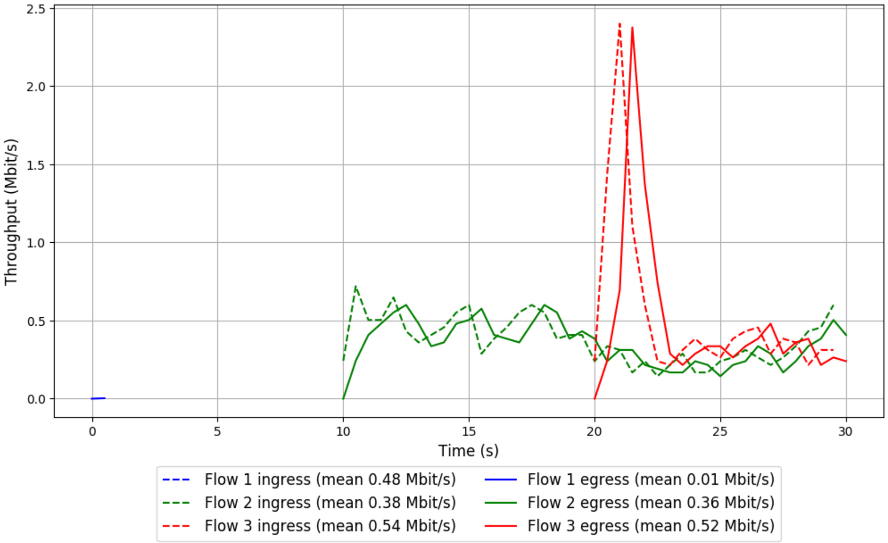
Run 5: Report of TaoVA-100x — Data Link

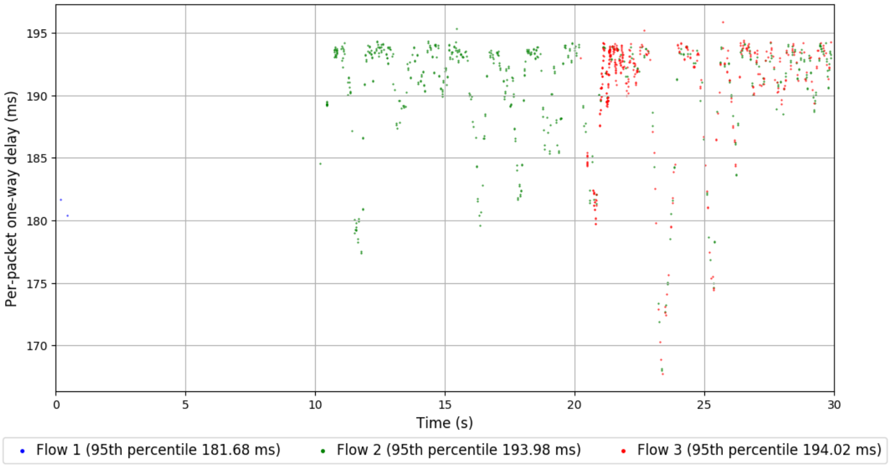




```
Run 1: Statistics of TCP Vegas

Start at: 2019-02-20 10:16:41
End at: 2019-02-20 10:17:11
Local clock offset: -2.649 ms
Remote clock offset: -13.952 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 194.006 ms
Loss rate: 6.09%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 181.682 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 193.980 ms
Loss rate: 5.24%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 194.022 ms
Loss rate: 5.18%
```

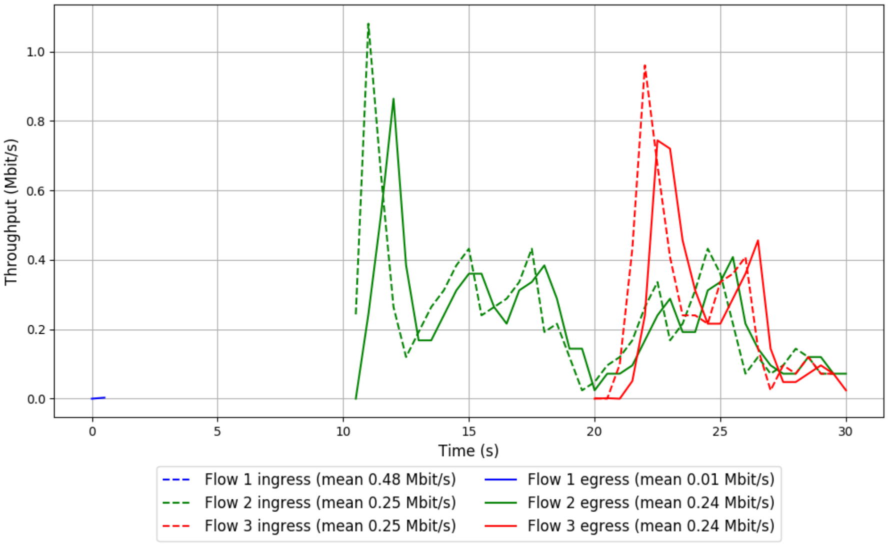
Run 1: Report of TCP Vegas — Data Link

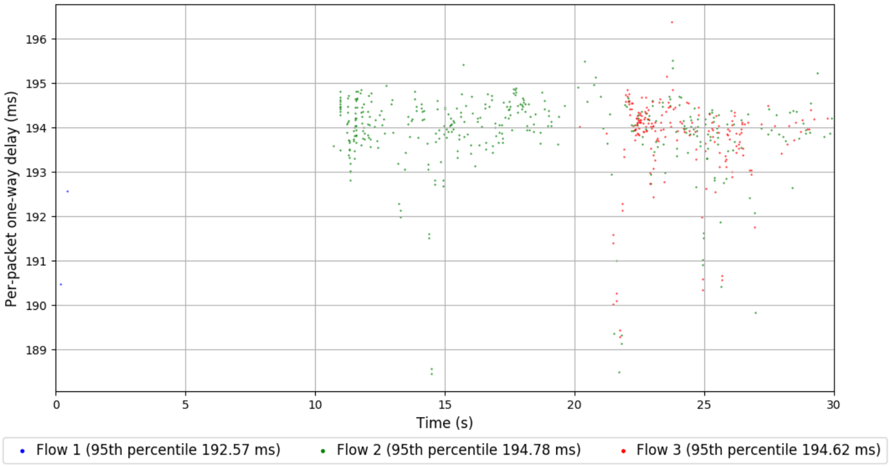




```
Run 2: Statistics of TCP Vegas

Start at: 2019-02-20 11:21:43
End at: 2019-02-20 11:22:13
Local clock offset: 7.568 ms
Remote clock offset: -16.92 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 194.751 ms
Loss rate: 7.47%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 192.574 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 194.778 ms
Loss rate: 4.77%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 194.616 ms
Loss rate: 8.21%
```

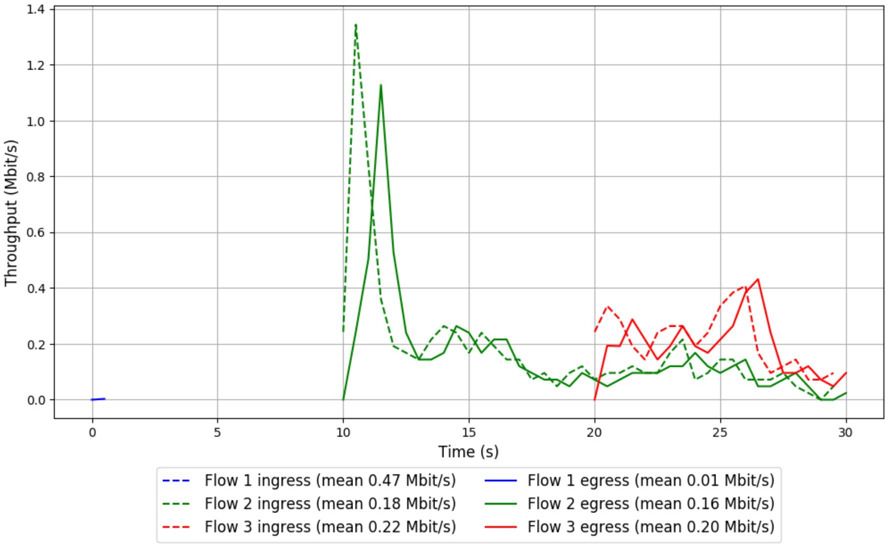
Run 2: Report of TCP Vegas — Data Link

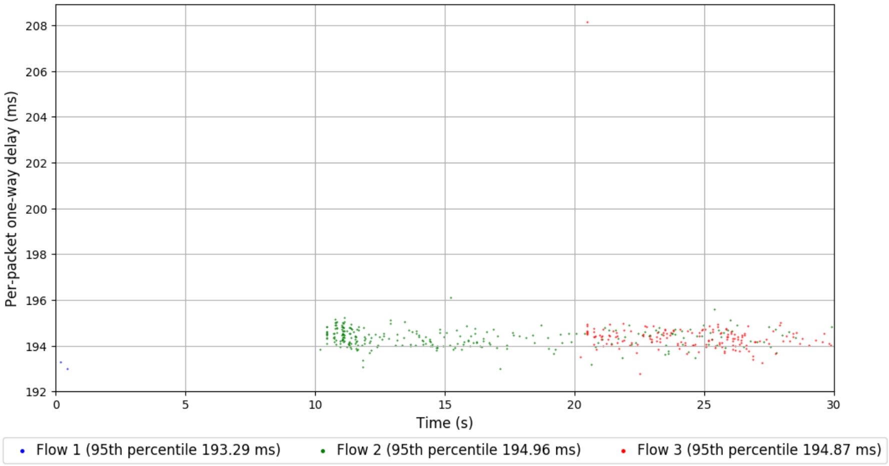




```
Run 3: Statistics of TCP Vegas

Start at: 2019-02-20 12:45:20
End at: 2019-02-20 12:45:50
Local clock offset: -3.928 ms
Remote clock offset: -17.503 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 194.909 ms
Loss rate: 11.89%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 193.290 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 194.964 ms
Loss rate: 10.70%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 194.871 ms
Loss rate: 8.97%
```

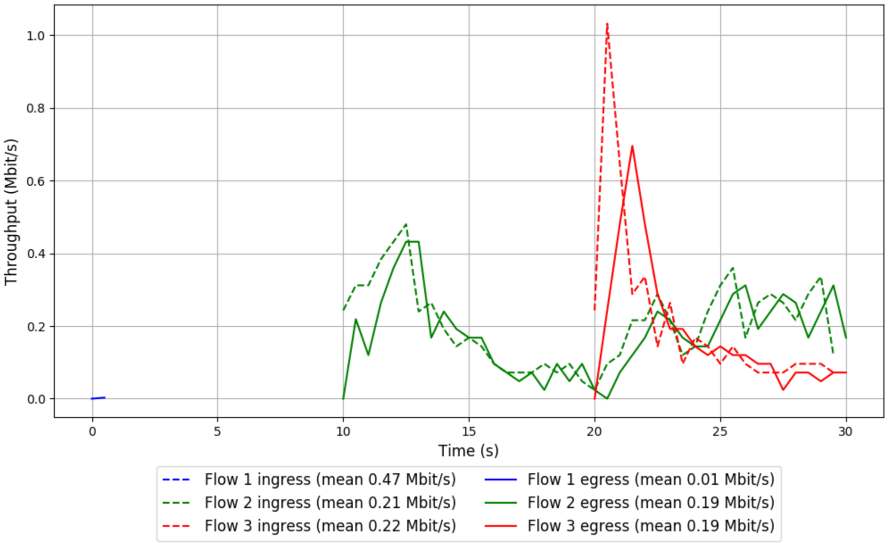
Run 3: Report of TCP Vegas — Data Link

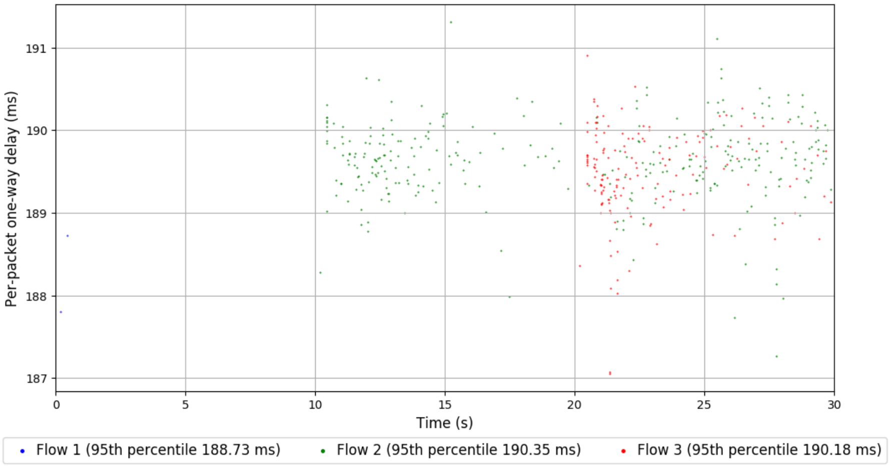




```
Run 4: Statistics of TCP Vegas

Start at: 2019-02-20 13:55:43
End at: 2019-02-20 13:56:13
Local clock offset: 4.145 ms
Remote clock offset: -12.17 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 190.339 ms
Loss rate: 13.17%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 188.728 ms
Loss rate: 98.79%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 190.352 ms
Loss rate: 11.37%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 190.180 ms
Loss rate: 11.79%
```

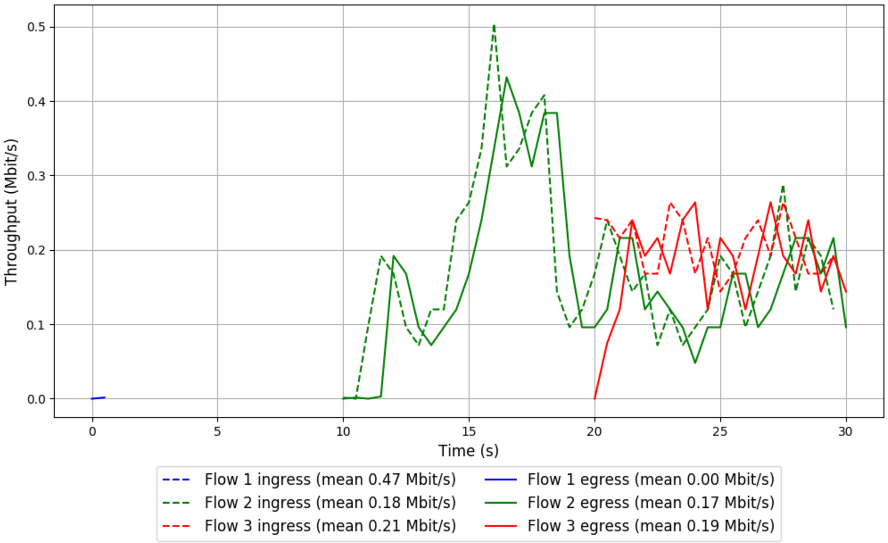
Run 4: Report of TCP Vegas — Data Link

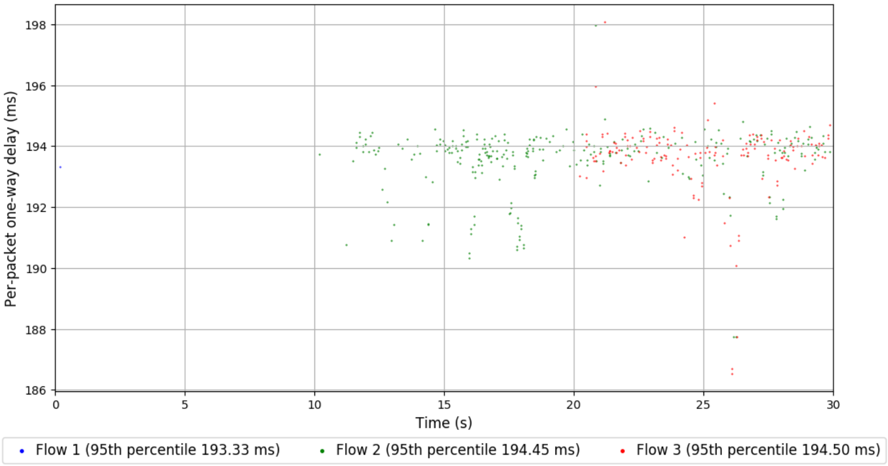




```
Run 5: Statistics of TCP Vegas

Start at: 2019-02-20 15:10:34
End at: 2019-02-20 15:11:04
Local clock offset: 2.167 ms
Remote clock offset: -15.389 ms

# Below is generated by plot.py at 2019-02-20 15:51:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 194.483 ms
Loss rate: 10.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 193.331 ms
Loss rate: 99.37%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 194.448 ms
Loss rate: 6.71%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 194.501 ms
Loss rate: 10.46%
```

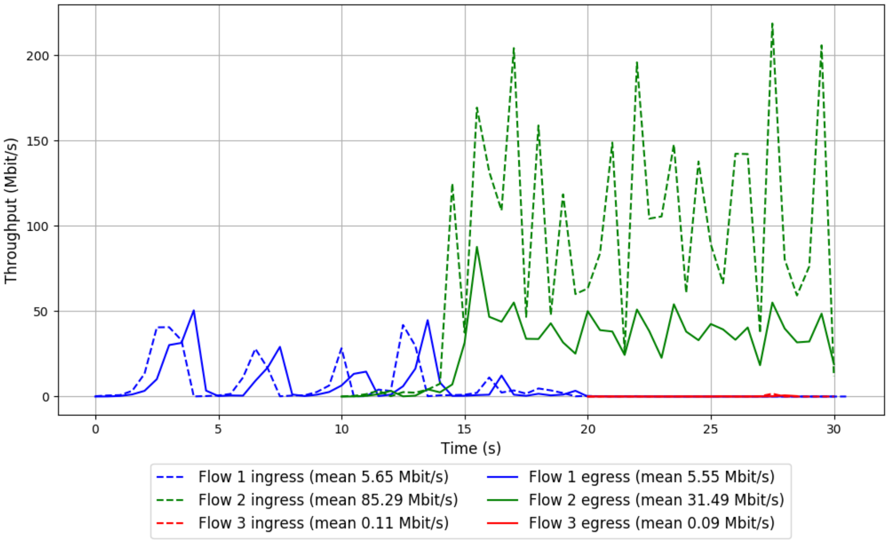
Run 5: Report of TCP Vegas — Data Link

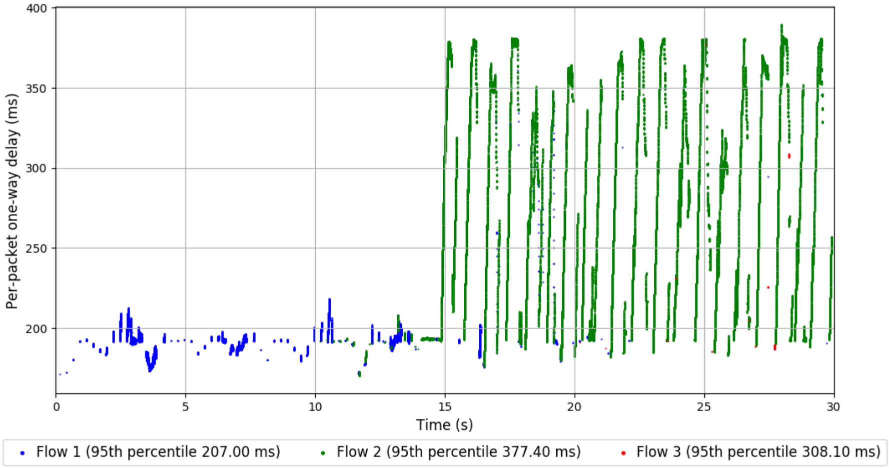




```
Run 1: Statistics of Verus

Start at: 2019-02-20 10:28:34
End at: 2019-02-20 10:29:04
Local clock offset: -5.716 ms
Remote clock offset: -11.24 ms

# Below is generated by plot.py at 2019-02-20 15:51:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.41 Mbit/s
95th percentile per-packet one-way delay: 376.375 ms
Loss rate: 58.47%
-- Flow 1:
Average throughput: 5.55 Mbit/s
95th percentile per-packet one-way delay: 206.996 ms
Loss rate: 4.84%
-- Flow 2:
Average throughput: 31.49 Mbit/s
95th percentile per-packet one-way delay: 377.398 ms
Loss rate: 63.86%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 308.097 ms
Loss rate: 41.41%
```

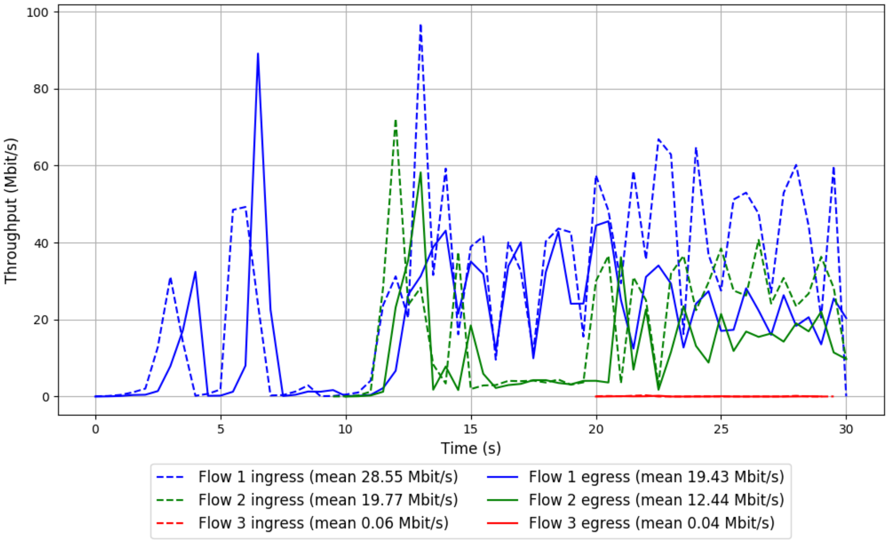
Run 1: Report of Verus — Data Link

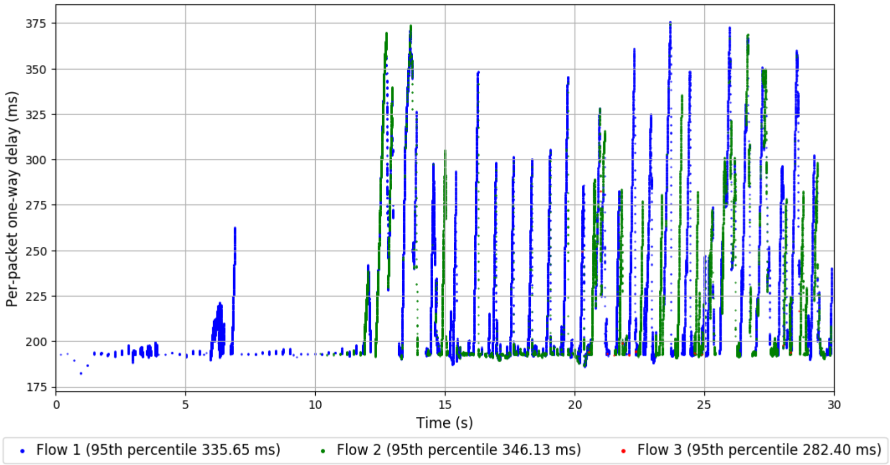




```
Run 2: Statistics of Verus

Start at: 2019-02-20 11:36:22
End at: 2019-02-20 11:36:52
Local clock offset: 5.993 ms
Remote clock offset: -15.801 ms

# Below is generated by plot.py at 2019-02-20 15:51:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.68 Mbit/s
95th percentile per-packet one-way delay: 338.184 ms
Loss rate: 34.60%
-- Flow 1:
Average throughput: 19.43 Mbit/s
95th percentile per-packet one-way delay: 335.652 ms
Loss rate: 32.62%
-- Flow 2:
Average throughput: 12.44 Mbit/s
95th percentile per-packet one-way delay: 346.131 ms
Loss rate: 38.81%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 282.397 ms
Loss rate: 50.00%
```

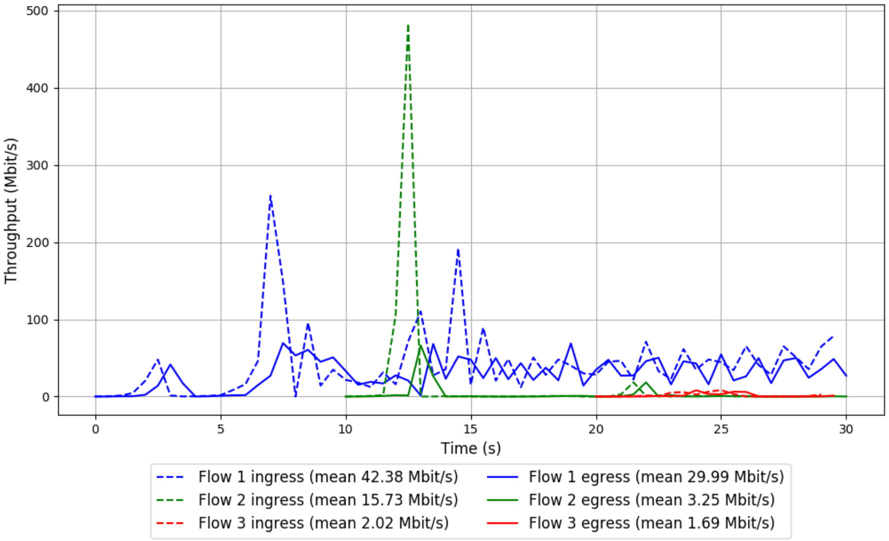
Run 2: Report of Verus — Data Link

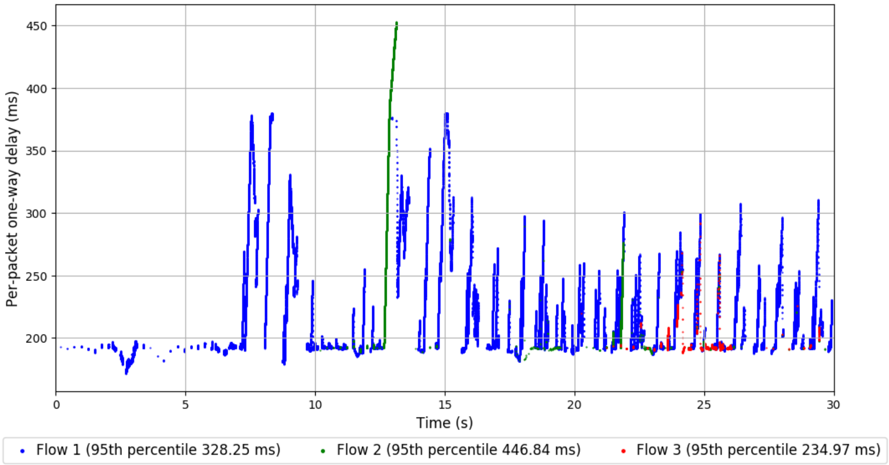




```
Run 3: Statistics of Verus

Start at: 2019-02-20 13:00:30
End at: 2019-02-20 13:01:00
Local clock offset: -3.799 ms
Remote clock offset: -16.121 ms

# Below is generated by plot.py at 2019-02-20 15:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.63 Mbit/s
95th percentile per-packet one-way delay: 366.034 ms
Loss rate: 39.43%
-- Flow 1:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 328.248 ms
Loss rate: 29.87%
-- Flow 2:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 446.842 ms
Loss rate: 79.75%
-- Flow 3:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 234.965 ms
Loss rate: 16.63%
```

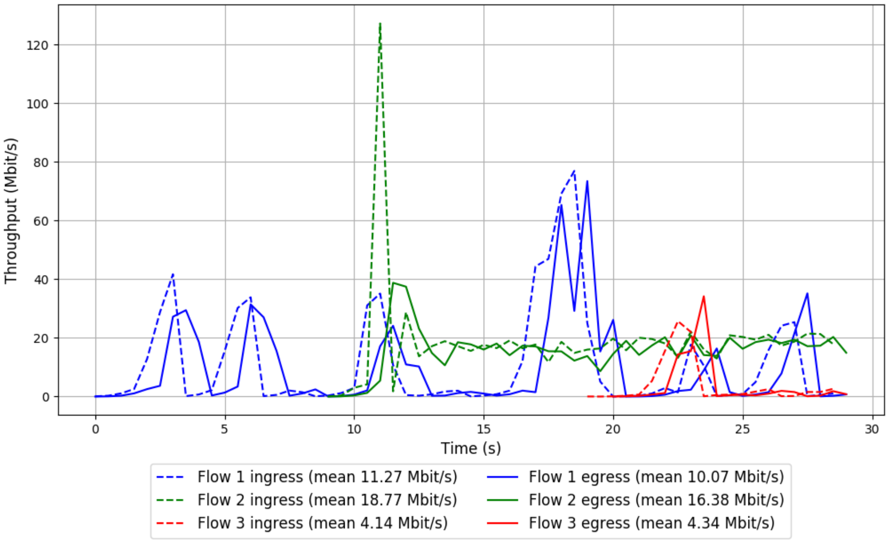
Run 3: Report of Verus — Data Link

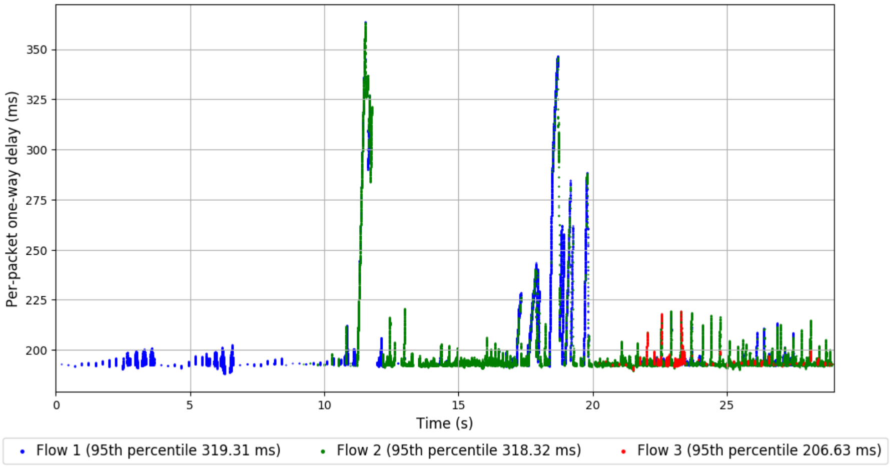




```
Run 4: Statistics of Verus

Start at: 2019-02-20 14:11:04
End at: 2019-02-20 14:11:34
Local clock offset: -0.516 ms
Remote clock offset: -15.394 ms

# Below is generated by plot.py at 2019-02-20 15:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.59 Mbit/s
95th percentile per-packet one-way delay: 316.806 ms
Loss rate: 12.50%
-- Flow 1:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 319.310 ms
Loss rate: 11.49%
-- Flow 2:
Average throughput: 16.38 Mbit/s
95th percentile per-packet one-way delay: 318.324 ms
Loss rate: 13.85%
-- Flow 3:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 206.634 ms
Loss rate: 8.21%
```

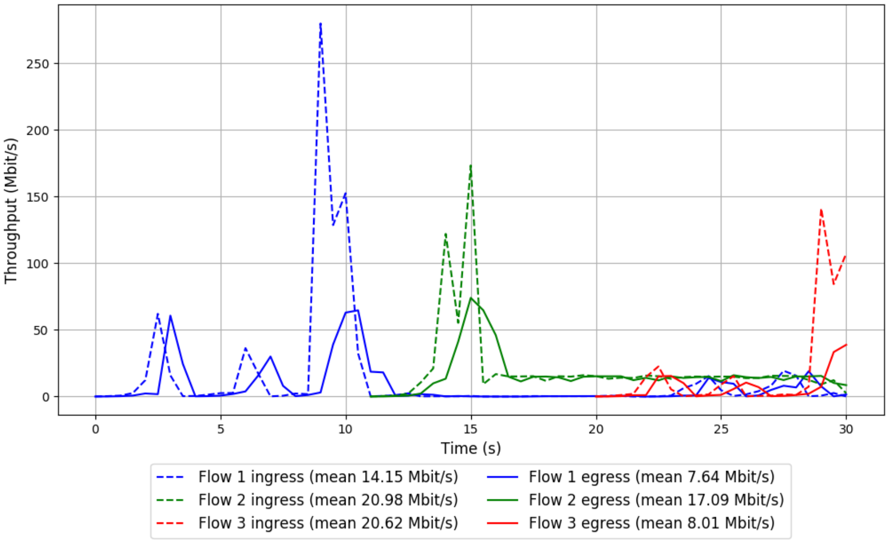
Run 4: Report of Verus — Data Link

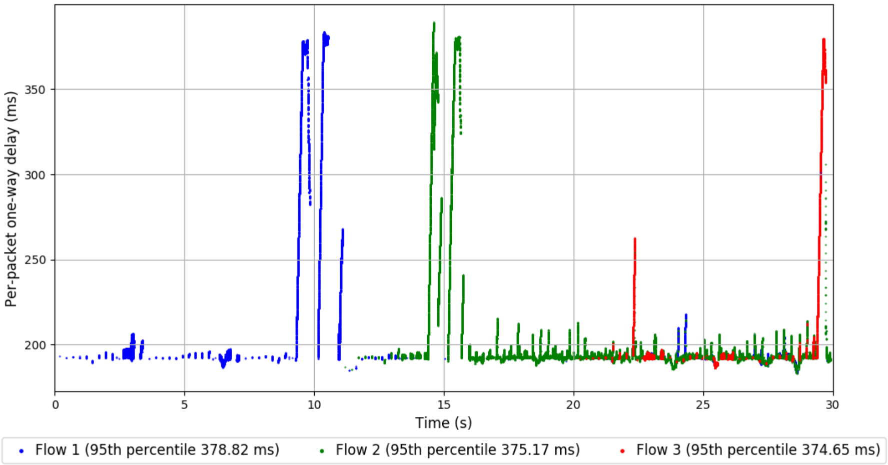




```
Run 5: Statistics of Verus

Start at: 2019-02-20 15:23:46
End at: 2019-02-20 15:24:16
Local clock offset: -1.751 ms
Remote clock offset: -15.812 ms

# Below is generated by plot.py at 2019-02-20 15:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.92 Mbit/s
95th percentile per-packet one-way delay: 376.667 ms
Loss rate: 39.93%
-- Flow 1:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 378.820 ms
Loss rate: 46.94%
-- Flow 2:
Average throughput: 17.09 Mbit/s
95th percentile per-packet one-way delay: 375.171 ms
Loss rate: 20.17%
-- Flow 3:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 374.647 ms
Loss rate: 63.57%
```

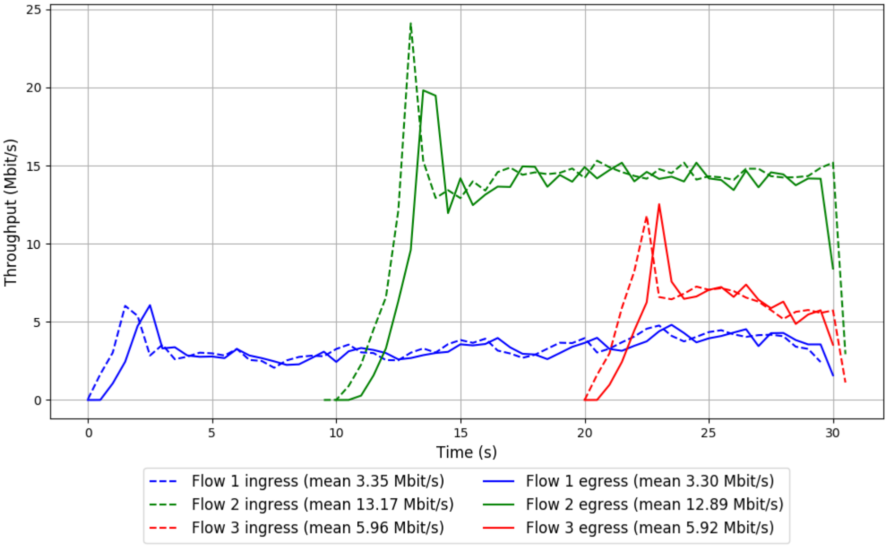
Run 5: Report of Verus — Data Link

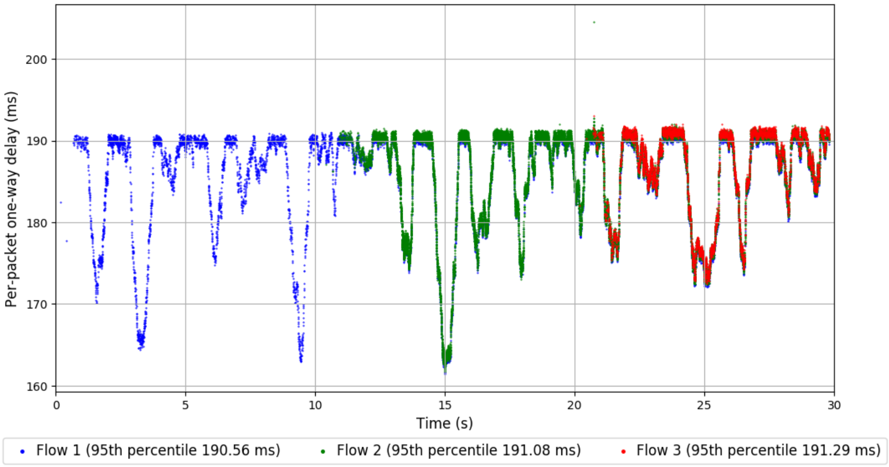




```
Run 1: Statistics of PCC-Vivace

Start at: 2019-02-20 10:19:38
End at: 2019-02-20 10:20:08
Local clock offset: -3.527 ms
Remote clock offset: -10.617 ms

# Below is generated by plot.py at 2019-02-20 15:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.77 Mbit/s
95th percentile per-packet one-way delay: 191.054 ms
Loss rate: 6.28%
-- Flow 1:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 190.558 ms
Loss rate: 2.42%
-- Flow 2:
Average throughput: 12.89 Mbit/s
95th percentile per-packet one-way delay: 191.078 ms
Loss rate: 6.85%
-- Flow 3:
Average throughput: 5.92 Mbit/s
95th percentile per-packet one-way delay: 191.293 ms
Loss rate: 9.99%
```

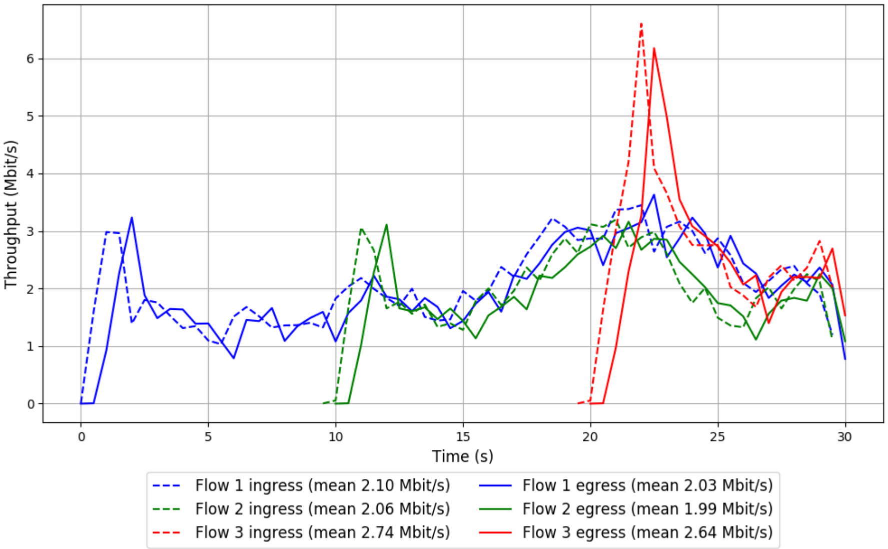
Run 1: Report of PCC-Vivace — Data Link

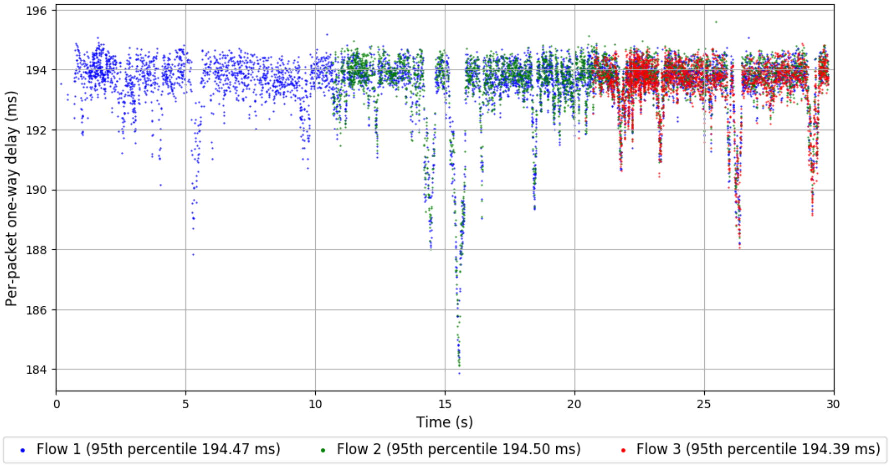




```
Run 2: Statistics of PCC-Vivace

Start at: 2019-02-20 11:24:52
End at: 2019-02-20 11:25:22
Local clock offset: 7.696 ms
Remote clock offset: -17.028 ms

# Below is generated by plot.py at 2019-02-20 15:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 194.465 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 194.467 ms
Loss rate: 4.00%
-- Flow 2:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 194.495 ms
Loss rate: 4.44%
-- Flow 3:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 194.389 ms
Loss rate: 6.04%
```

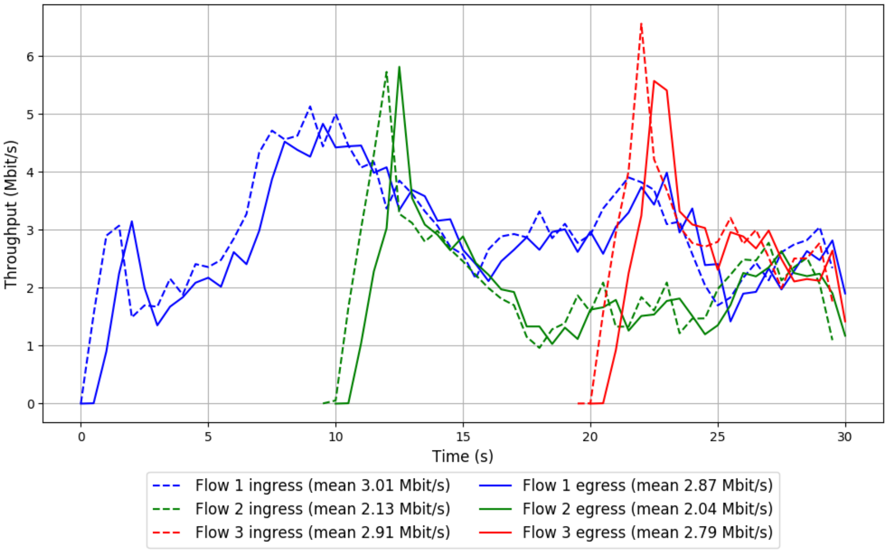
Run 2: Report of PCC-Vivace — Data Link

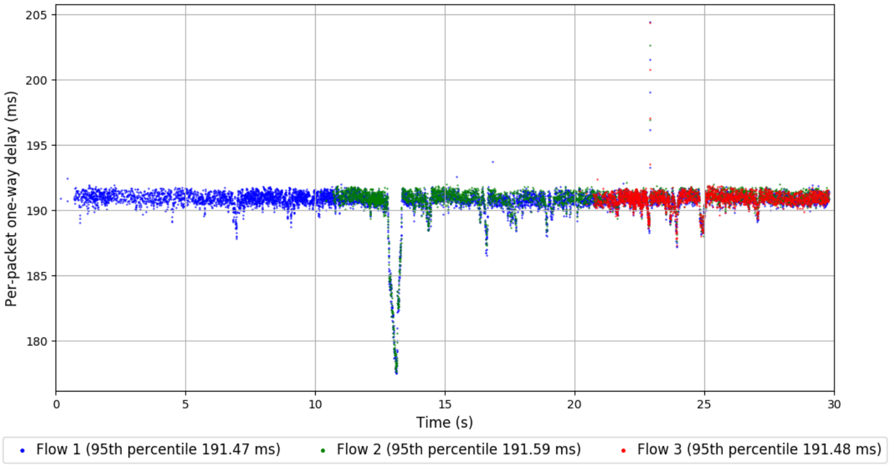




```
Run 3: Statistics of PCC-Vivace

Start at: 2019-02-20 12:48:23
End at: 2019-02-20 12:48:53
Local clock offset: -4.023 ms
Remote clock offset: -14.839 ms

# Below is generated by plot.py at 2019-02-20 15:51:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.13 Mbit/s
95th percentile per-packet one-way delay: 191.510 ms
Loss rate: 5.57%
-- Flow 1:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 191.475 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 191.585 ms
Loss rate: 5.55%
-- Flow 3:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 191.484 ms
Loss rate: 6.54%
```

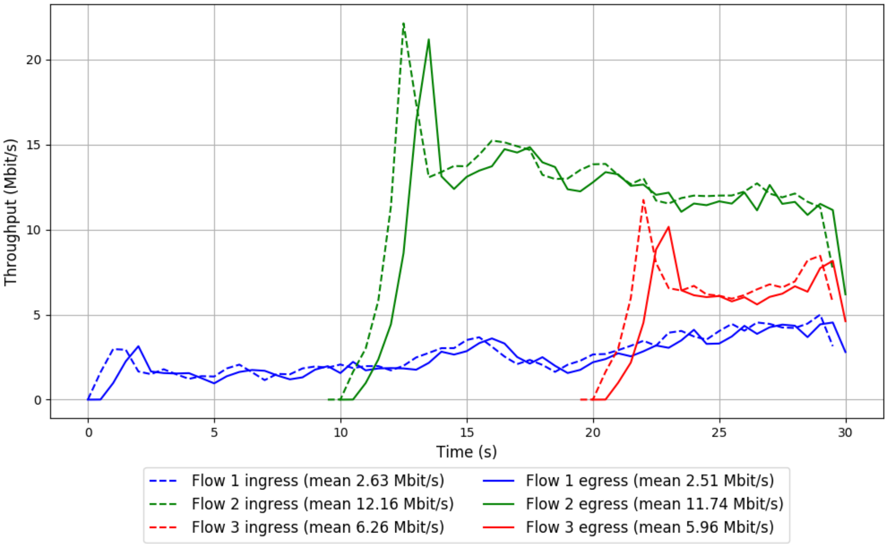
Run 3: Report of PCC-Vivace — Data Link

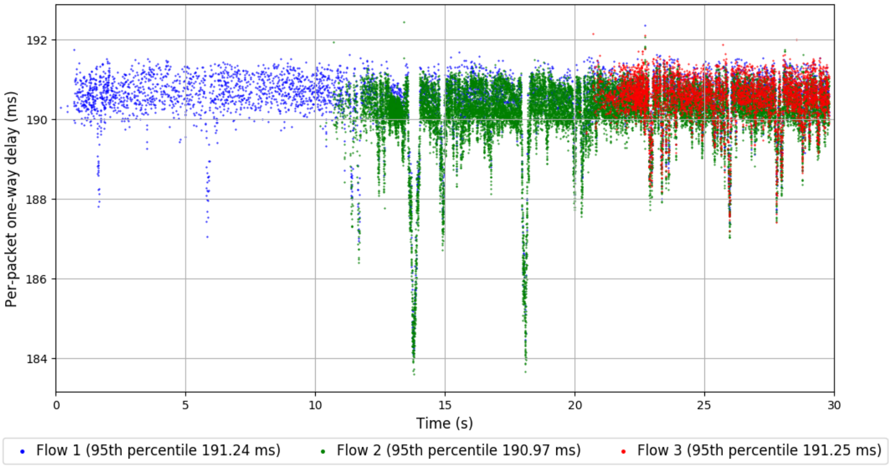




```
Run 4: Statistics of PCC-Vivace

Start at: 2019-02-20 13:58:42
End at: 2019-02-20 13:59:12
Local clock offset: 4.226 ms
Remote clock offset: -13.782 ms

# Below is generated by plot.py at 2019-02-20 15:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.23 Mbit/s
95th percentile per-packet one-way delay: 191.095 ms
Loss rate: 5.31%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 191.238 ms
Loss rate: 5.61%
-- Flow 2:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 190.972 ms
Loss rate: 4.70%
-- Flow 3:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 191.247 ms
Loss rate: 7.30%
```

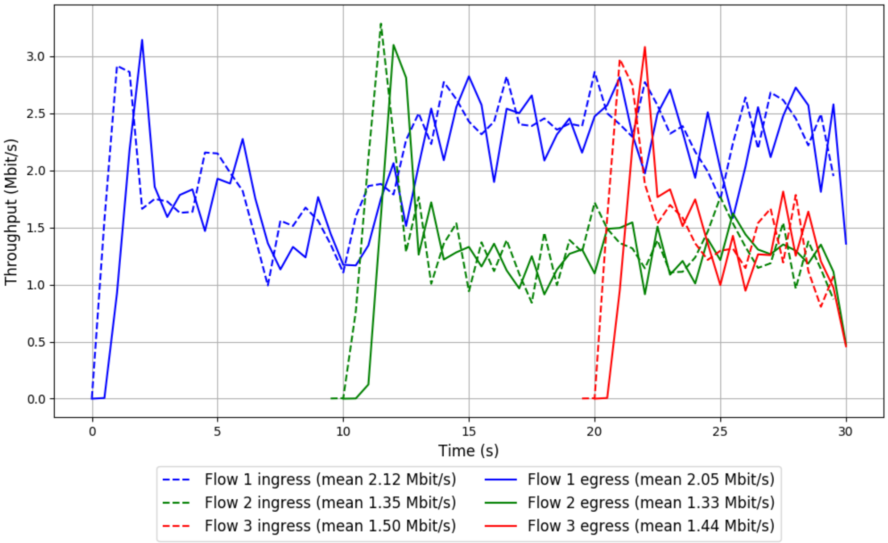
Run 4: Report of PCC-Vivace — Data Link

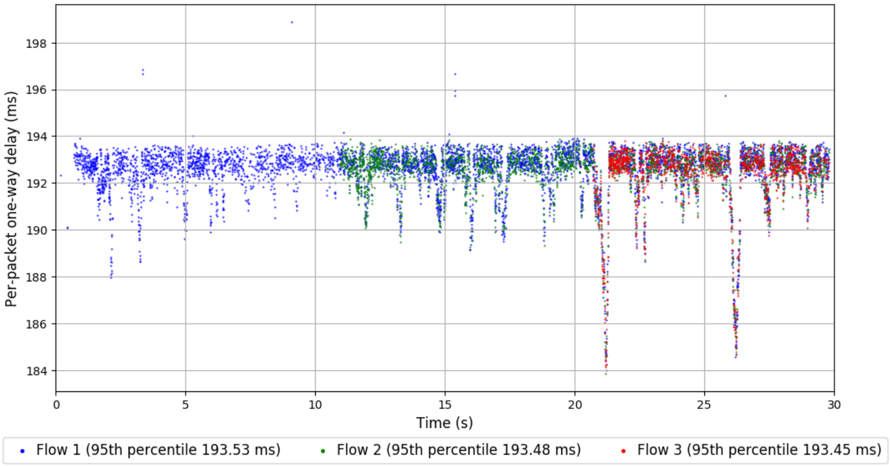




```
Run 5: Statistics of PCC-Vivace

Start at: 2019-02-20 15:13:44
End at: 2019-02-20 15:14:14
Local clock offset: 1.008 ms
Remote clock offset: -15.111 ms

# Below is generated by plot.py at 2019-02-20 15:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 193.504 ms
Loss rate: 4.47%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 193.528 ms
Loss rate: 4.22%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 193.484 ms
Loss rate: 4.10%
-- Flow 3:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 193.450 ms
Loss rate: 6.22%
```

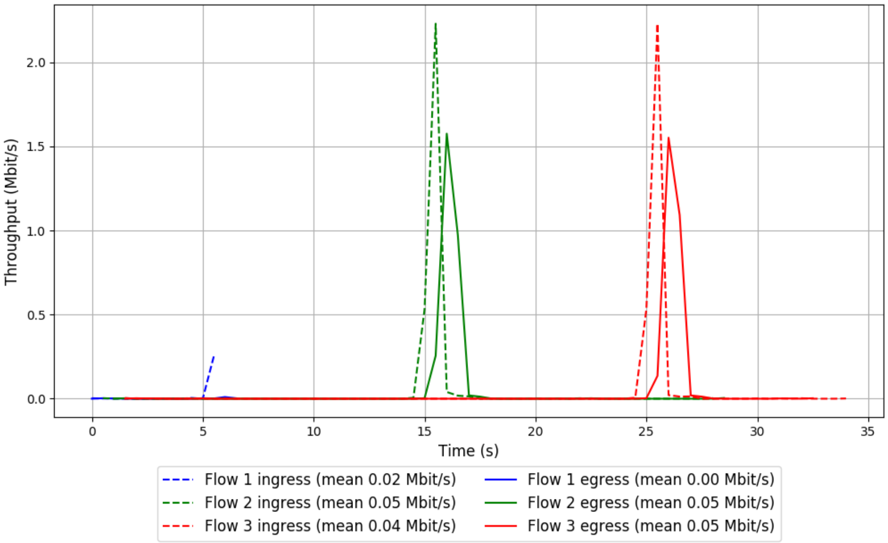
Run 5: Report of PCC-Vivace — Data Link

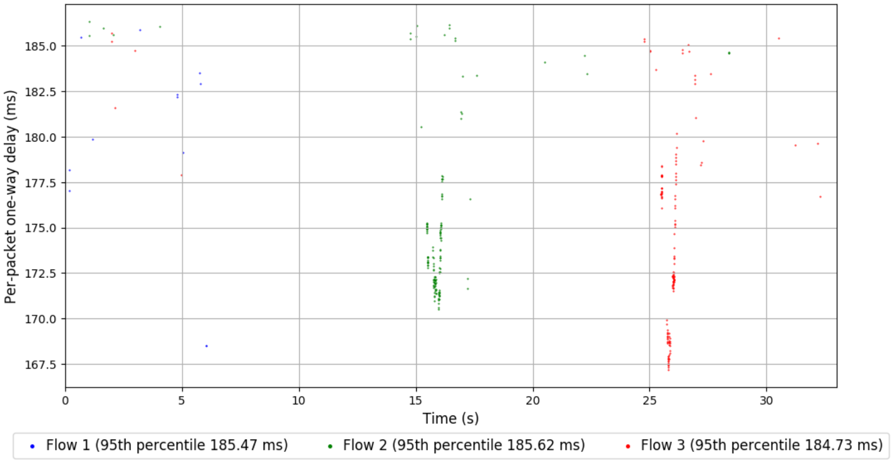




```
Run 1: Statistics of WebRTC media

Start at: 2019-02-20 10:30:53
End at: 2019-02-20 10:31:23
Local clock offset: -5.121 ms
Remote clock offset: -5.667 ms

# Below is generated by plot.py at 2019-02-20 15:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 185.423 ms
Loss rate: 4.06%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 185.470 ms
Loss rate: 90.59%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 185.617 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 184.727 ms
Loss rate: 0.05%
```

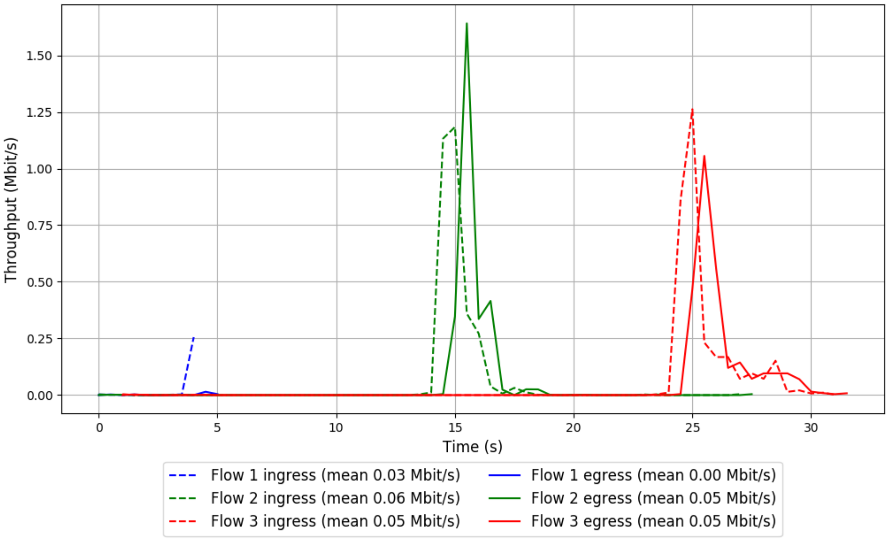
Run 1: Report of WebRTC media — Data Link

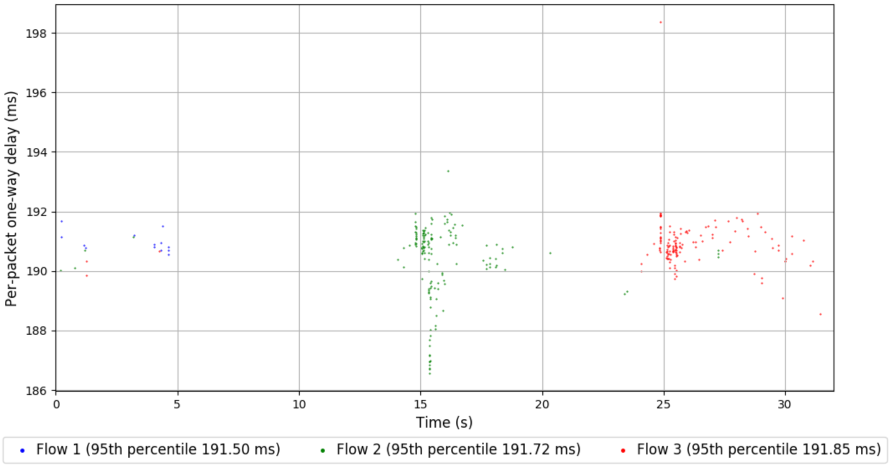




```
Run 2: Statistics of WebRTC media

Start at: 2019-02-20 11:39:42
End at: 2019-02-20 11:40:12
Local clock offset: 5.247 ms
Remote clock offset: -13.451 ms

# Below is generated by plot.py at 2019-02-20 15:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 191.783 ms
Loss rate: 12.47%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 191.495 ms
Loss rate: 90.11%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 191.721 ms
Loss rate: 7.60%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 191.855 ms
Loss rate: 10.65%
```

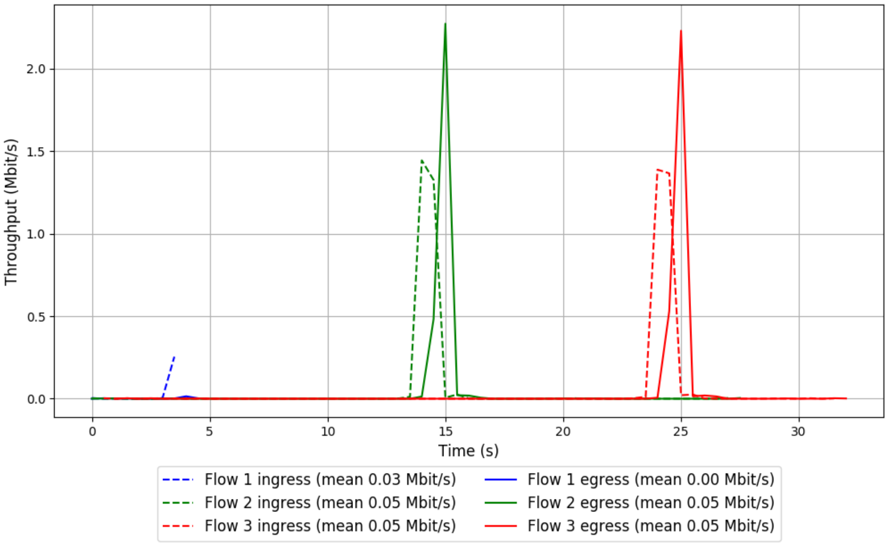
Run 2: Report of WebRTC media — Data Link

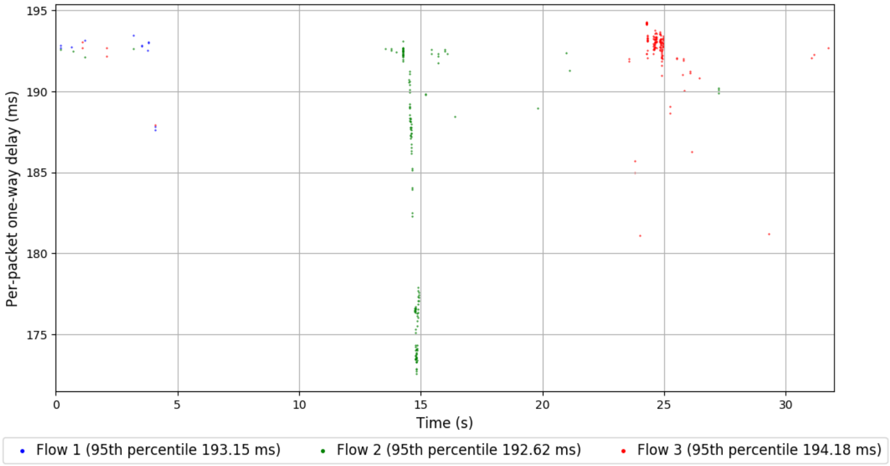




```
Run 3: Statistics of WebRTC media

Start at: 2019-02-20 13:03:24
End at: 2019-02-20 13:03:54
Local clock offset: -0.83 ms
Remote clock offset: -16.356 ms

# Below is generated by plot.py at 2019-02-20 15:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 193.576 ms
Loss rate: 4.13%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 193.150 ms
Loss rate: 90.59%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 192.617 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 194.177 ms
Loss rate: 0.05%
```

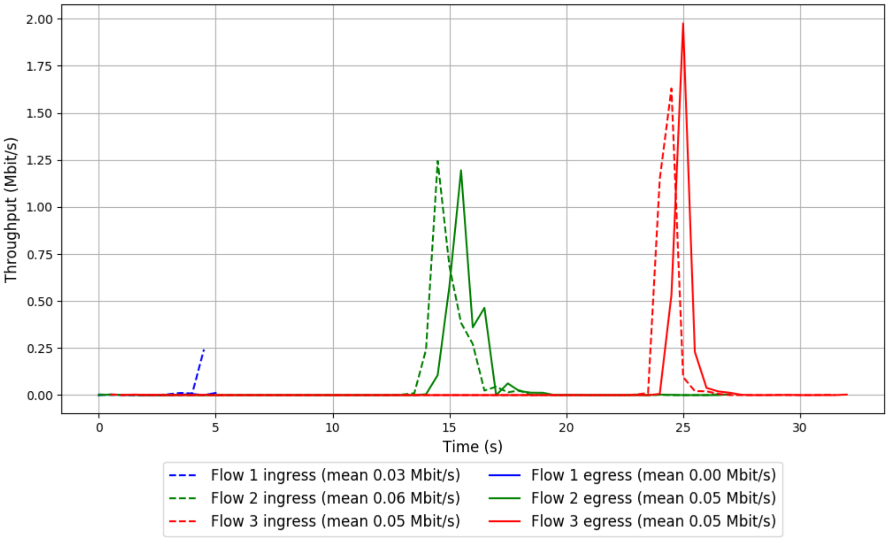
Run 3: Report of WebRTC media — Data Link

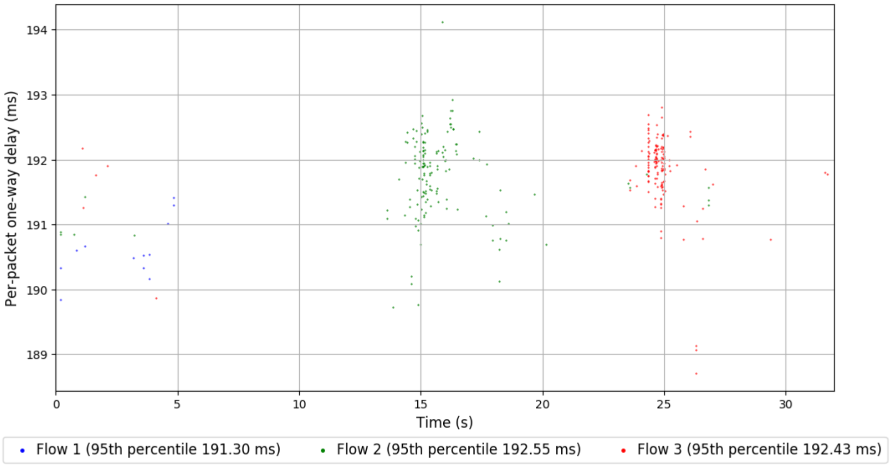




```
Run 4: Statistics of WebRTC media

Start at: 2019-02-20 14:13:48
End at: 2019-02-20 14:14:18
Local clock offset: -1.111 ms
Remote clock offset: -14.277 ms

# Below is generated by plot.py at 2019-02-20 15:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 192.499 ms
Loss rate: 8.12%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 191.301 ms
Loss rate: 90.89%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 192.550 ms
Loss rate: 4.51%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 192.431 ms
Loss rate: 4.07%
```

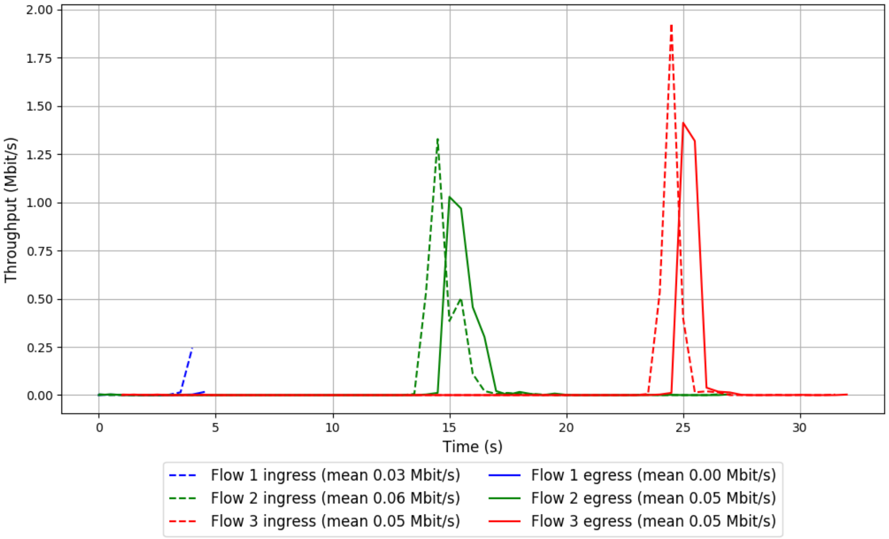
Run 4: Report of WebRTC media — Data Link



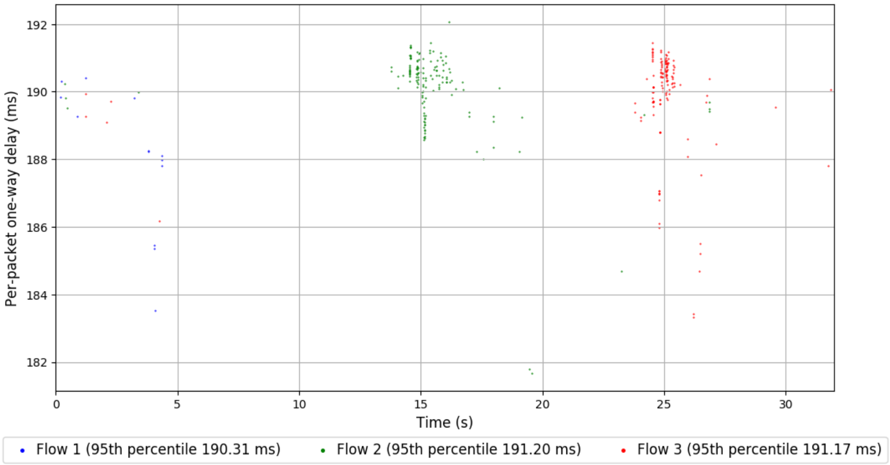


```
Run 5: Statistics of WebRTC media

Start at: 2019-02-20 15:26:10
End at: 2019-02-20 15:26:40
Local clock offset: -1.928 ms
Remote clock offset: -13.619 ms

# Below is generated by plot.py at 2019-02-20 15:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 191.171 ms
Loss rate: 7.08%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 190.315 ms
Loss rate: 90.11%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 191.201 ms
Loss rate: 3.33%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 191.168 ms
Loss rate: 3.28%
```

Run 5: Report of WebRTC media — Data Link



Throughput (Mbit/s)
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 0.03 Mbit/s)
Flow 2 ingress (mean 0.06 Mbit/s)
Flow 3 ingress (mean 0.05 Mbit/s)
Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 egress (mean 0.05 Mbit/s)
Flow 3 egress (mean 0.05 Mbit/s)



Per-packet one-way delay (ms)
192
190
188
186
184
182
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 190.31 ms)
Flow 2 (95th percentile 191.20 ms)
Flow 3 (95th percentile 191.17 ms)