Pantheon Report

Generated at 2018-07-19 11:24:23 (UTC).

Data path: GCE Sydney Ethernet (*local*) →GCE London Ethernet (*remote*).

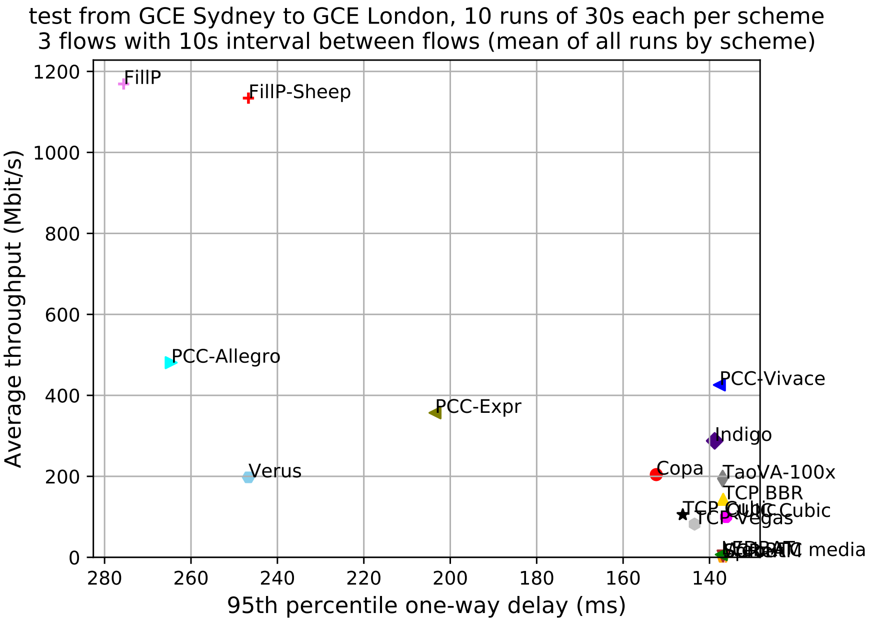
Repeated the test of 17 congestion control schemes 10 times.

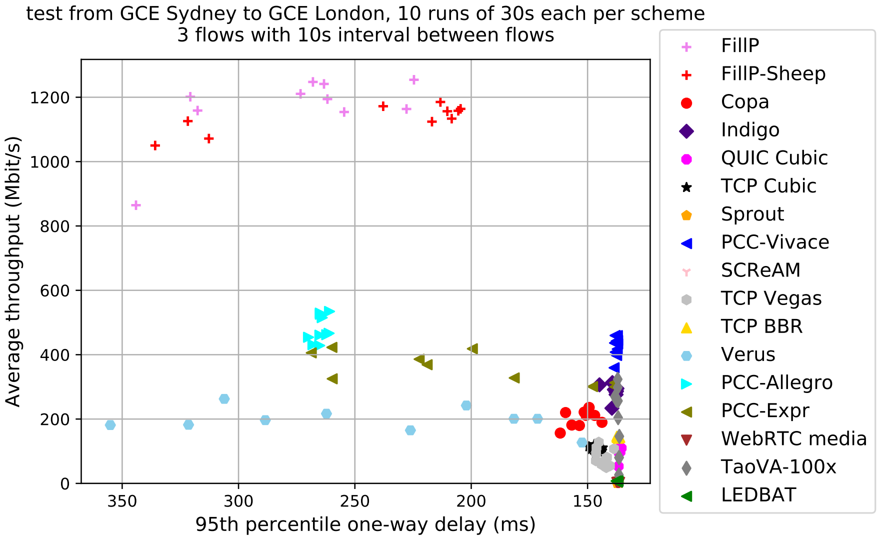
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

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

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

```
Git summary:
branch: master @ f7befc2d8410f41949e0ad8143a9aab40bab7edb
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

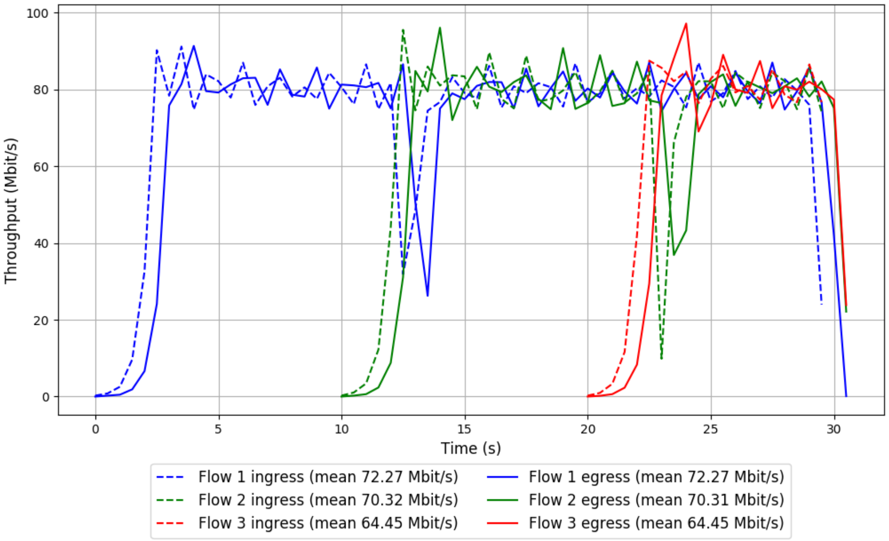

test from GCE Sydney to GCE London, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
1200
1000
800
600
400
200
0
280
260
240
220
200
180
160
140
FillP
FillP-Sheep
PCC-Allegro
PCC-Expr
PCC-Vivace
Indigo
Verus
Copa
TaoVA-100x
TCP BBR
TCP Cubic
QUIC Cubic
TCP Vegas
WebRTC media

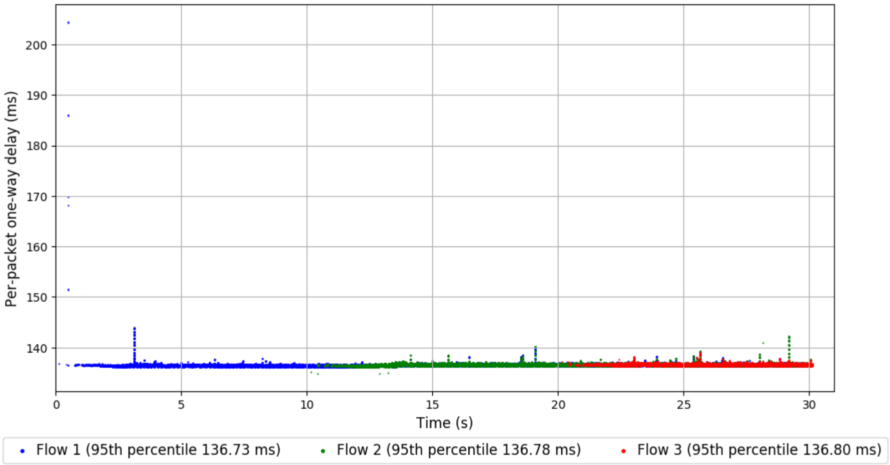

test from GCE Sydney to GCE London, 10 runs of 30s each per scheme
3 flows with 10s interval between flows
Average throughput (Mbit/s)
95th percentile one-way delay (ms)
1200
1000
800
600
400
200
0
350
300
250
200
150
FillP
FillP-Sheep
Copa
Indigo
QUIC Cubic
TCP Cubic
Sprout
PCC-Vivace
SCReAM
TCP Vegas
TCP BBR
Verus
PCC-Allegro
PCC-Expr
WebRTC media
TaoVA-100x
LEDBAT

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	10	73.58	72.01	65.76	136.71	136.85	137.12	0.00	0.00	0.00
Copa	10	115.18	97.26	75.64	147.29	156.31	155.96	0.00	0.02	0.03
TCP Cubic	10	59.58	45.19	47.12	145.77	144.64	149.10	0.00	0.24	0.10
FillP	10	617.88	595.11	468.42	275.99	255.59	217.69	2.59	2.91	2.00
FillP-Sheep	10	630.30	541.79	432.11	249.53	250.10	176.19	1.61	1.23	0.43
Indigo	10	150.65	149.07	119.86	137.70	138.89	142.66	0.00	0.00	0.00
LEDBAT	10	4.20	3.16	1.56	137.31	137.22	137.09	0.00	0.00	0.00
PCC-Allegro	10	371.99	146.58	34.33	265.11	263.95	264.61	2.41	3.21	4.14
PCC-Expr	10	229.36	165.33	53.15	203.04	194.37	173.11	0.19	0.31	0.10
QUIC Cubic	10	49.57	53.24	46.68	135.92	135.94	135.85	0.00	0.00	0.00
SCReAM	10	0.22	0.22	0.22	136.41	136.66	136.34	0.00	0.00	0.00
Sprout	10	0.15	0.16	0.20	136.89	136.82	136.85	0.00	0.00	0.00
TaoVA-100x	10	100.07	92.35	99.44	136.64	136.91	138.43	0.00	0.00	0.00
TCP Vegas	10	42.68	42.38	33.72	141.44	143.32	145.72	0.00	0.00	0.00
Verus	10	117.67	93.12	59.82	221.66	247.50	219.79	0.86	2.26	2.11
PCC-Vivace	10	262.32	185.10	122.25	137.56	138.10	139.38	0.00	0.01	0.00
WebRTC media	10	1.81	1.07	0.36	136.17	136.58	136.79	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-07-19 04:34:33
End at: 2018-07-19 04:35:03
Local clock offset: -0.196 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2018-07-19 09:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.41 Mbit/s
95th percentile per-packet one-way delay: 136.764 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.27 Mbit/s
95th percentile per-packet one-way delay: 136.734 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.31 Mbit/s
95th percentile per-packet one-way delay: 136.782 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.45 Mbit/s
95th percentile per-packet one-way delay: 136.802 ms
Loss rate: 0.00%
```

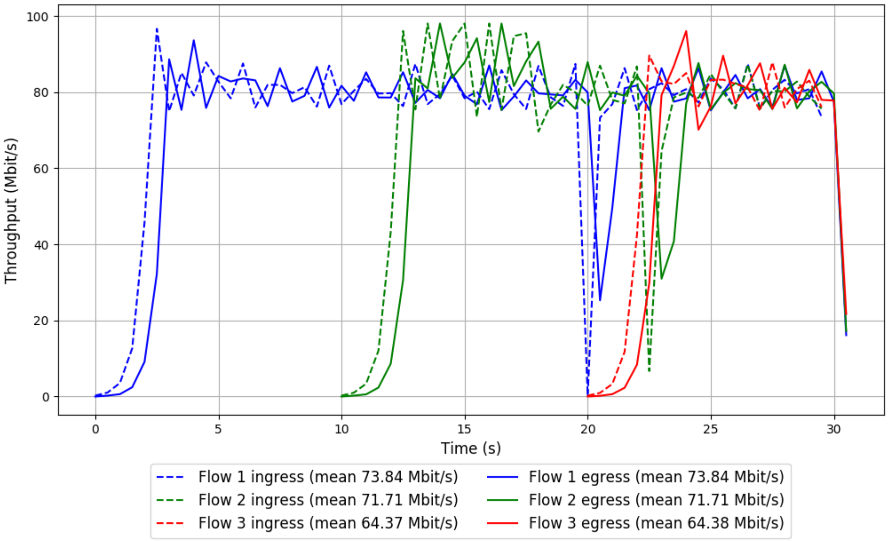
Run 1: Report of TCP BBR — Data Link

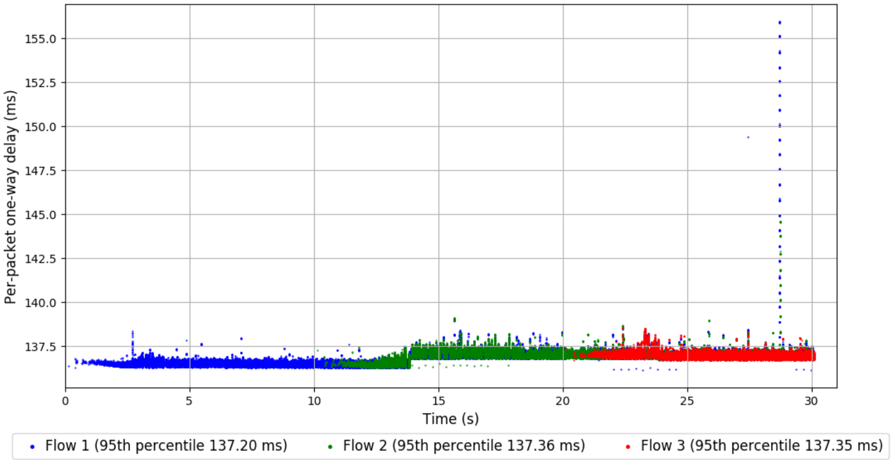




```
Run 2: Statistics of TCP BBR

Start at: 2018-07-19 05:01:12
End at: 2018-07-19 05:01:42
Local clock offset: -0.216 ms
Remote clock offset: 0.282 ms

# Below is generated by plot.py at 2018-07-19 09:07:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.78 Mbit/s
95th percentile per-packet one-way delay: 137.292 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.84 Mbit/s
95th percentile per-packet one-way delay: 137.202 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.71 Mbit/s
95th percentile per-packet one-way delay: 137.356 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.38 Mbit/s
95th percentile per-packet one-way delay: 137.348 ms
Loss rate: 0.00%
```

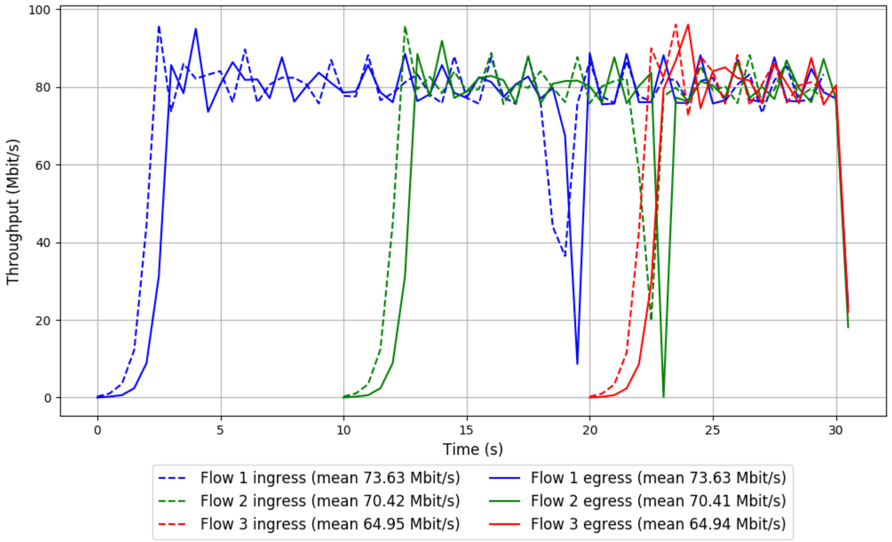
Run 2: Report of TCP BBR — Data Link

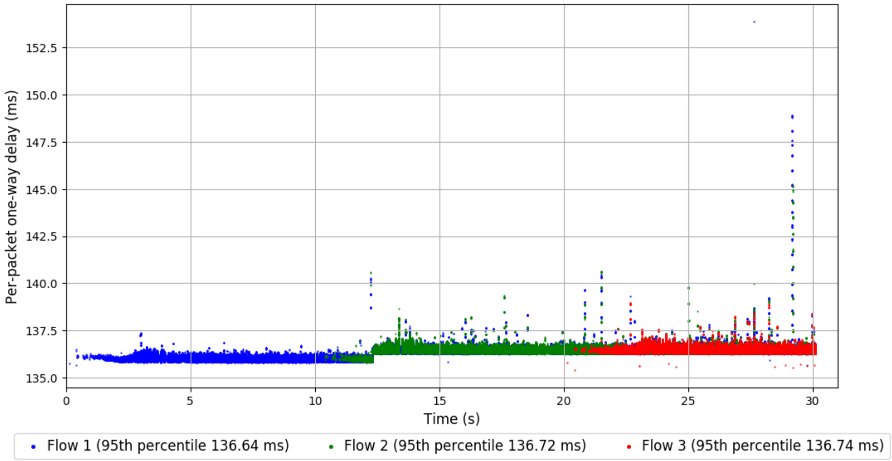




```
Run 3: Statistics of TCP BBR

Start at: 2018-07-19 05:28:24
End at: 2018-07-19 05:28:54
Local clock offset: -0.111 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-07-19 09:07:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.03 Mbit/s
95th percentile per-packet one-way delay: 136.690 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.63 Mbit/s
95th percentile per-packet one-way delay: 136.641 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.41 Mbit/s
95th percentile per-packet one-way delay: 136.720 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.94 Mbit/s
95th percentile per-packet one-way delay: 136.744 ms
Loss rate: 0.00%
```

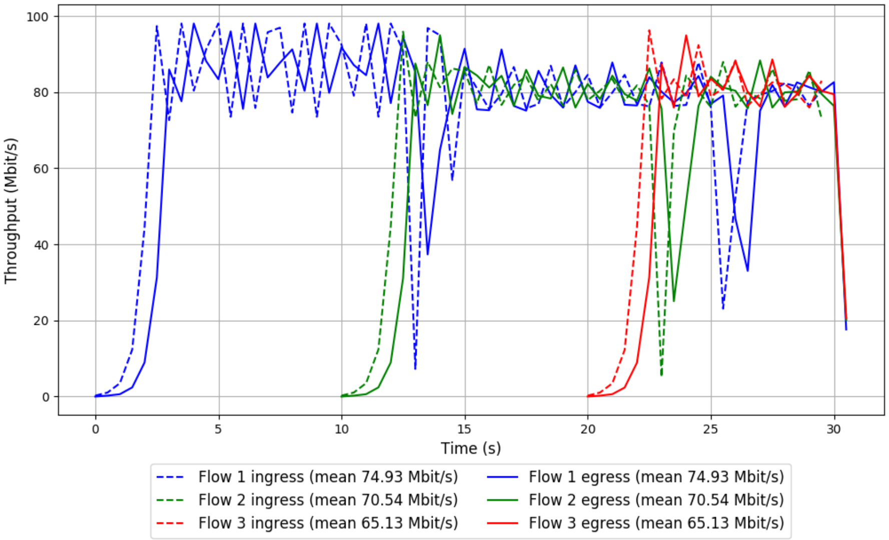
Run 3: Report of TCP BBR — Data Link

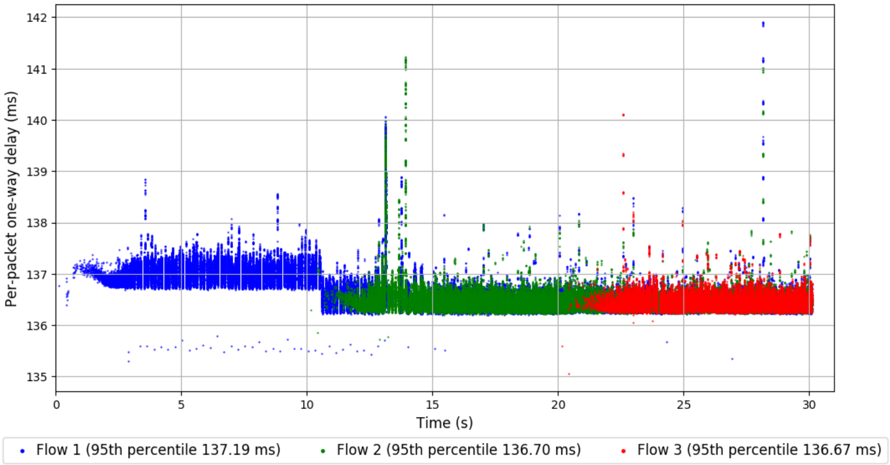




```
Run 4: Statistics of TCP BBR

Start at: 2018-07-19 05:55:26
End at: 2018-07-19 05:55:56
Local clock offset: -0.161 ms
Remote clock offset: 0.301 ms

# Below is generated by plot.py at 2018-07-19 09:07:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.57 Mbit/s
95th percentile per-packet one-way delay: 137.125 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.93 Mbit/s
95th percentile per-packet one-way delay: 137.191 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.54 Mbit/s
95th percentile per-packet one-way delay: 136.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.13 Mbit/s
95th percentile per-packet one-way delay: 136.669 ms
Loss rate: 0.00%
```

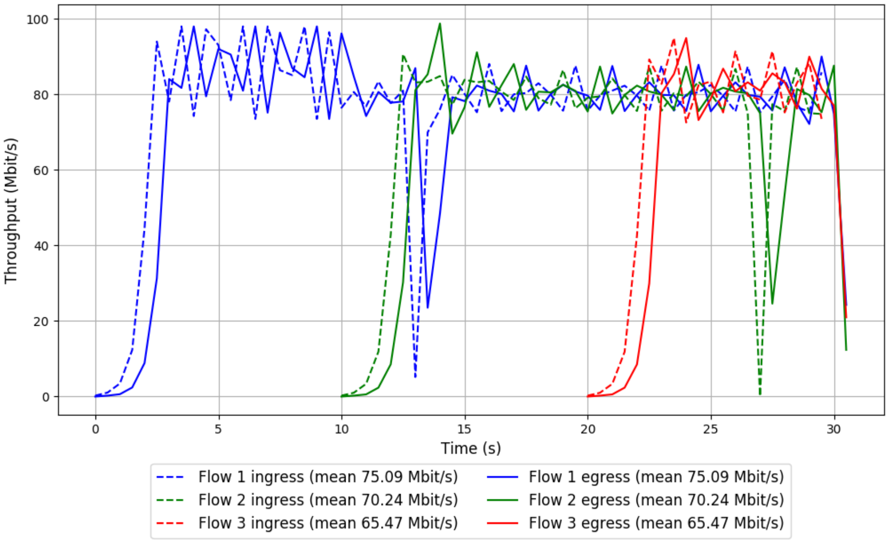
Run 4: Report of TCP BBR — Data Link

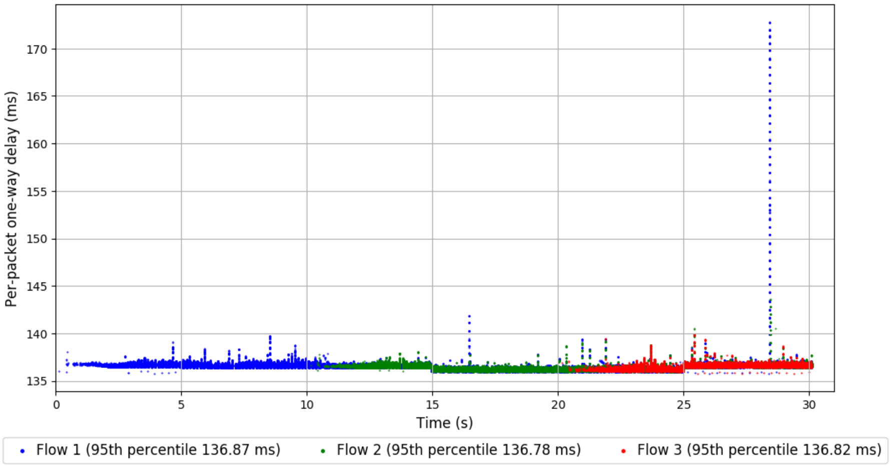




```
Run 5: Statistics of TCP BBR

Start at: 2018-07-19 06:22:21
End at: 2018-07-19 06:22:51
Local clock offset: -0.299 ms
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2018-07-19 09:07:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 143.57 Mbit/s
95th percentile per-packet one-way delay: 136.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.09 Mbit/s
95th percentile per-packet one-way delay: 136.868 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.24 Mbit/s
95th percentile per-packet one-way delay: 136.775 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.47 Mbit/s
95th percentile per-packet one-way delay: 136.818 ms
Loss rate: 0.00%
```

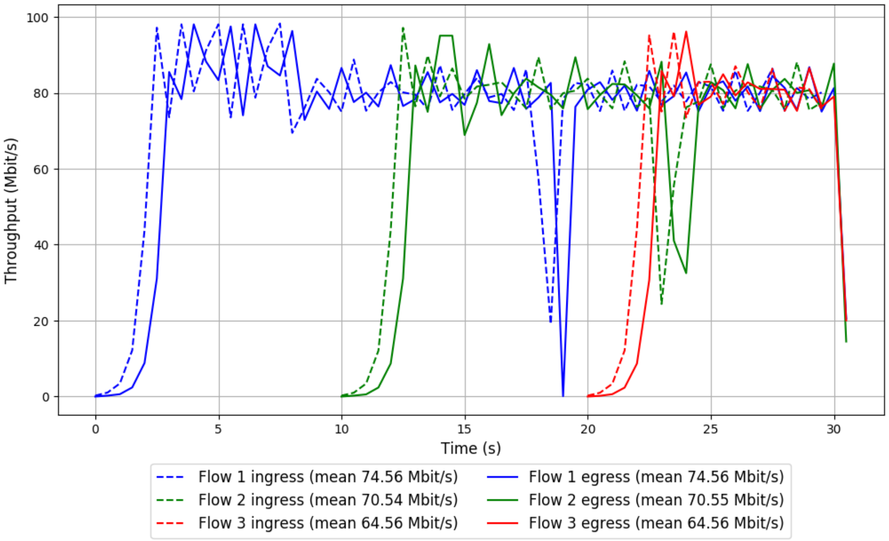
Run 5: Report of TCP BBR — Data Link

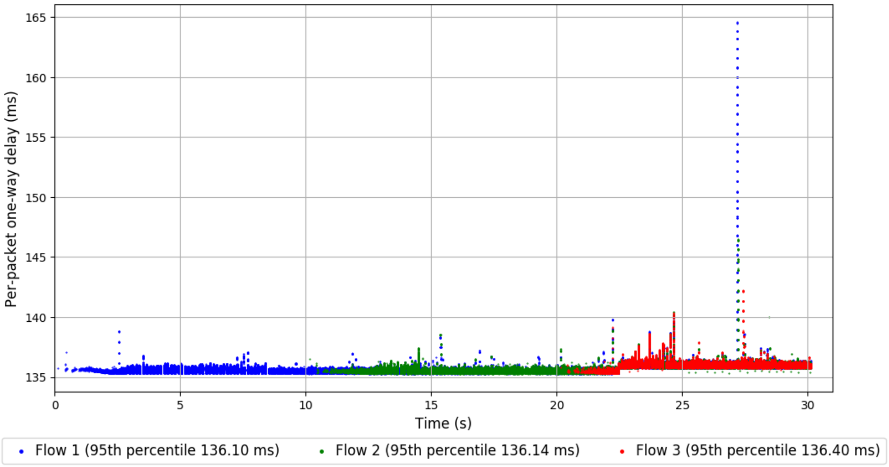




```
Run 6: Statistics of TCP BBR

Start at: 2018-07-19 06:49:04
End at: 2018-07-19 06:49:34
Local clock offset: 0.104 ms
Remote clock offset: -0.393 ms

# Below is generated by plot.py at 2018-07-19 09:07:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.99 Mbit/s
95th percentile per-packet one-way delay: 136.175 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.56 Mbit/s
95th percentile per-packet one-way delay: 136.102 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.55 Mbit/s
95th percentile per-packet one-way delay: 136.141 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.56 Mbit/s
95th percentile per-packet one-way delay: 136.395 ms
Loss rate: 0.00%
```

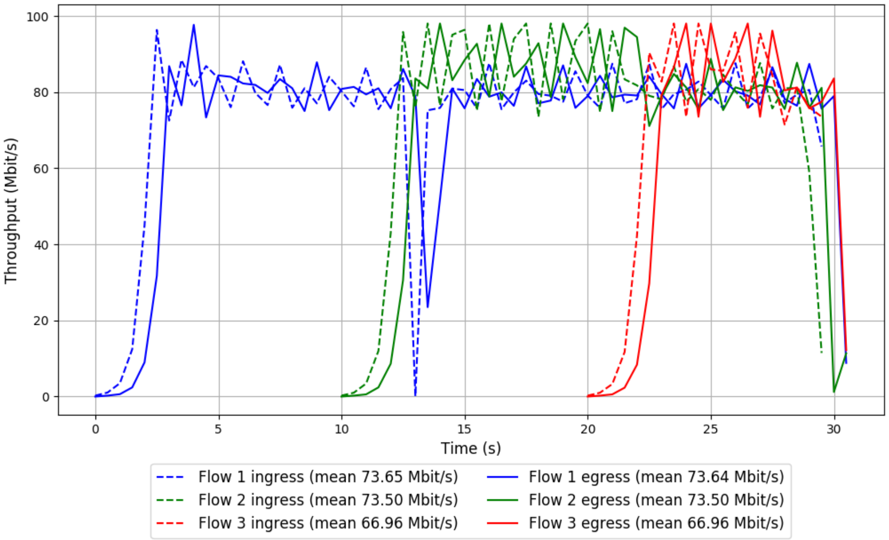
Run 6: Report of TCP BBR — Data Link

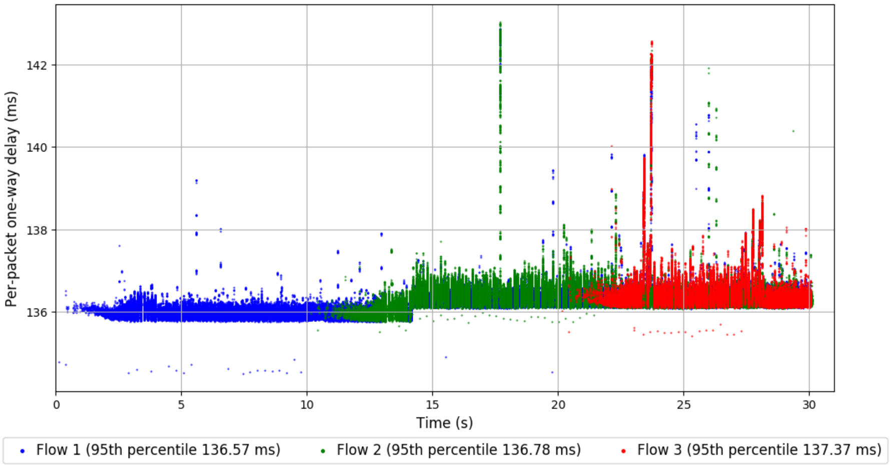




```
Run 7: Statistics of TCP BBR

Start at: 2018-07-19 07:16:12
End at: 2018-07-19 07:16:42
Local clock offset: -0.08 ms
Remote clock offset: -0.192 ms

# Below is generated by plot.py at 2018-07-19 09:07:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.54 Mbit/s
95th percentile per-packet one-way delay: 136.755 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.64 Mbit/s
95th percentile per-packet one-way delay: 136.568 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.50 Mbit/s
95th percentile per-packet one-way delay: 136.782 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 66.96 Mbit/s
95th percentile per-packet one-way delay: 137.366 ms
Loss rate: 0.00%
```

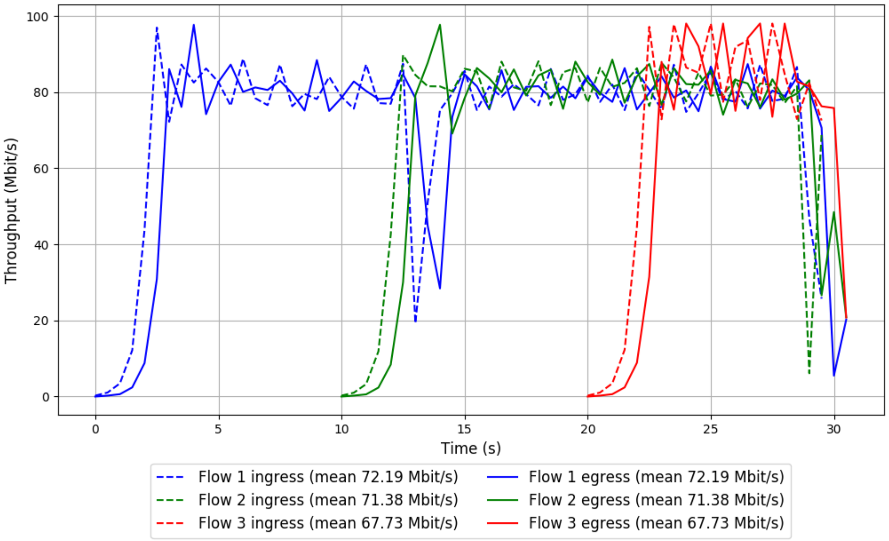
Run 7: Report of TCP BBR — Data Link

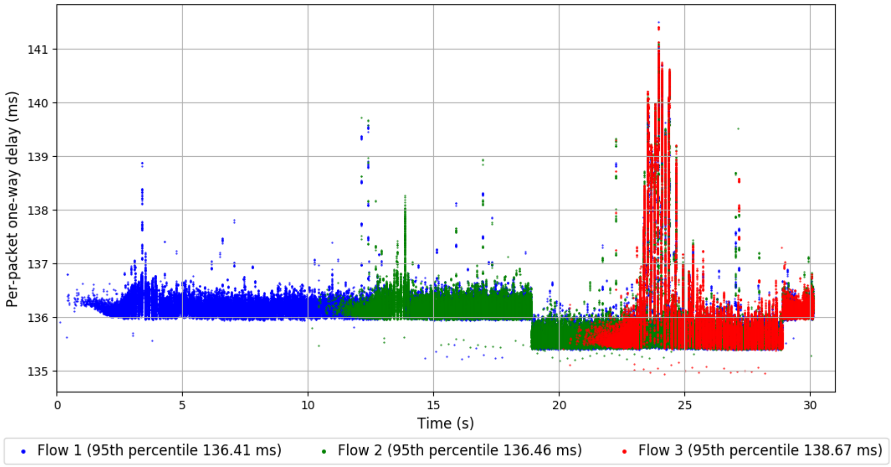




```
Run 8: Statistics of TCP BBR

Start at: 2018-07-19 07:43:07
End at: 2018-07-19 07:43:37
Local clock offset: -0.111 ms
Remote clock offset: -0.637 ms

# Below is generated by plot.py at 2018-07-19 09:07:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.25 Mbit/s
95th percentile per-packet one-way delay: 136.520 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.19 Mbit/s
95th percentile per-packet one-way delay: 136.408 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.38 Mbit/s
95th percentile per-packet one-way delay: 136.464 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 67.73 Mbit/s
95th percentile per-packet one-way delay: 138.673 ms
Loss rate: 0.00%
```

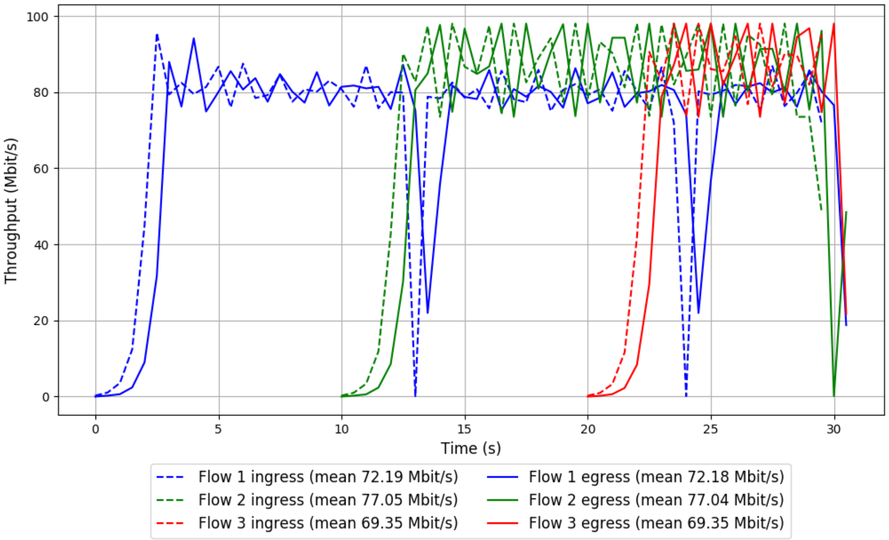
Run 8: Report of TCP BBR — Data Link

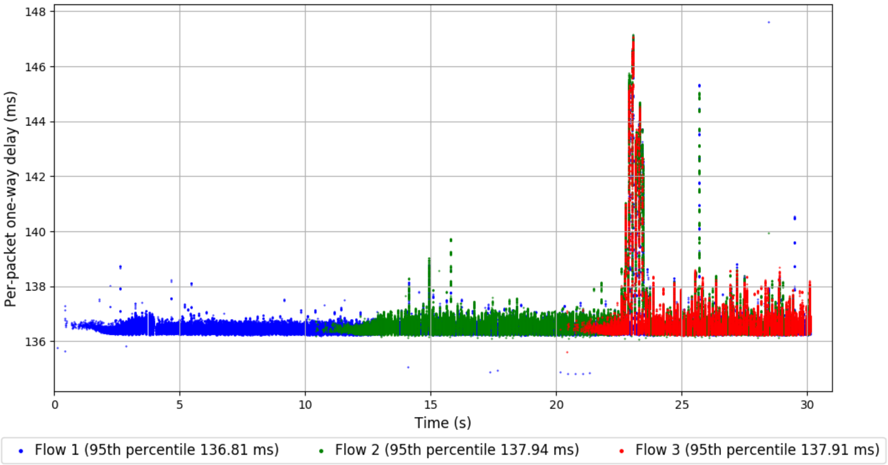




```
Run 9: Statistics of TCP BBR

Start at: 2018-07-19 08:10:04
End at: 2018-07-19 08:10:34
Local clock offset: -0.014 ms
Remote clock offset: -0.222 ms

# Below is generated by plot.py at 2018-07-19 09:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.48 Mbit/s
95th percentile per-packet one-way delay: 137.402 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.18 Mbit/s
95th percentile per-packet one-way delay: 136.811 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 137.938 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.35 Mbit/s
95th percentile per-packet one-way delay: 137.907 ms
Loss rate: 0.00%
```

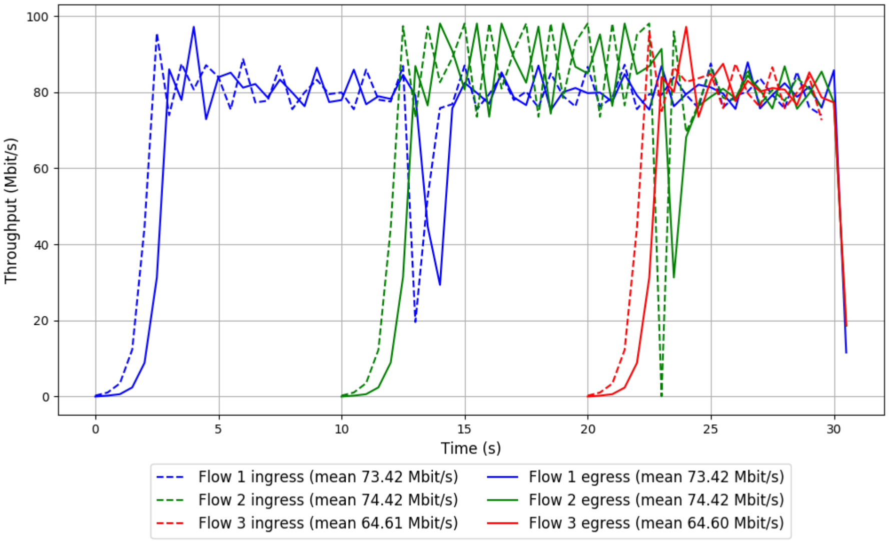
Run 9: Report of TCP BBR — Data Link

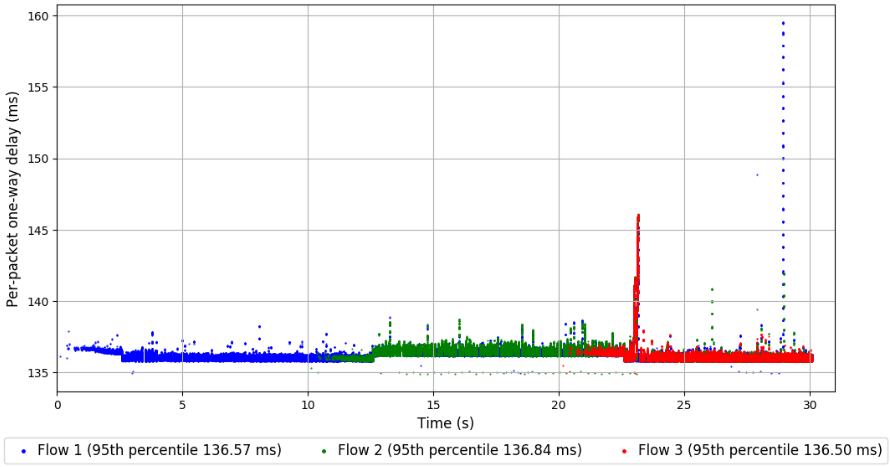




```
Run 10: Statistics of TCP BBR

Start at: 2018-07-19 08:37:14
End at: 2018-07-19 08:37:44
Local clock offset: -0.02 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-07-19 09:09:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.42 Mbit/s
95th percentile per-packet one-way delay: 136.716 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.42 Mbit/s
95th percentile per-packet one-way delay: 136.573 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.42 Mbit/s
95th percentile per-packet one-way delay: 136.837 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 64.60 Mbit/s
95th percentile per-packet one-way delay: 136.497 ms
Loss rate: 0.00%
```

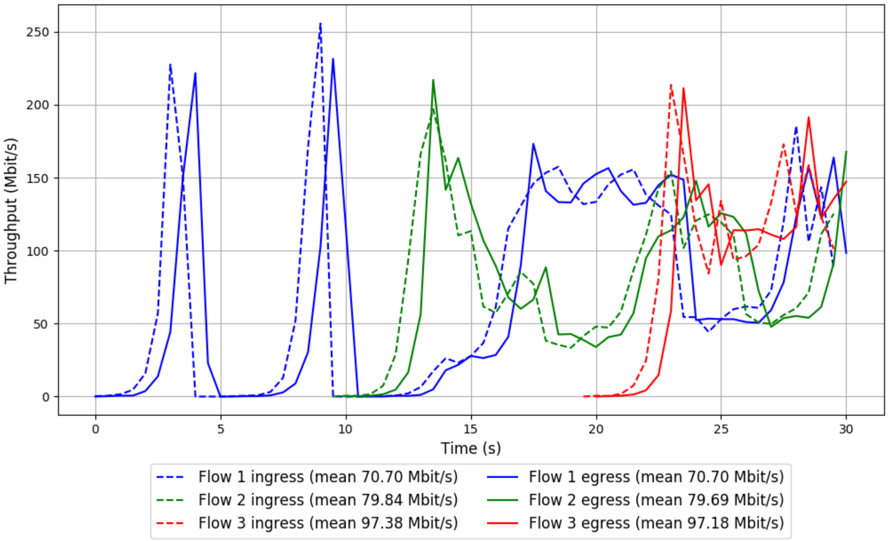
Run 10: Report of TCP BBR — Data Link

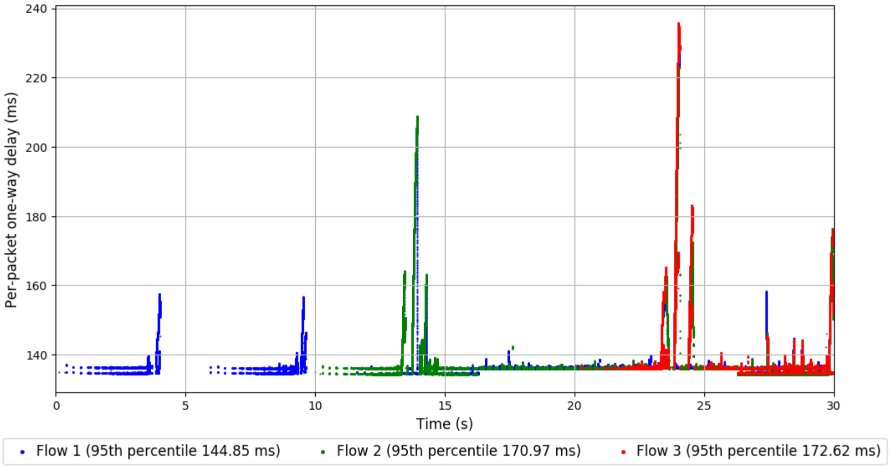




```
Run 1: Statistics of Copa

Start at: 2018-07-19 04:23:20
End at: 2018-07-19 04:23:50
Local clock offset: -0.298 ms
Remote clock offset: -0.472 ms

# Below is generated by plot.py at 2018-07-19 09:12:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.42 Mbit/s
95th percentile per-packet one-way delay: 161.742 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 70.70 Mbit/s
95th percentile per-packet one-way delay: 144.853 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 79.69 Mbit/s
95th percentile per-packet one-way delay: 170.970 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 172.618 ms
Loss rate: 0.08%
```

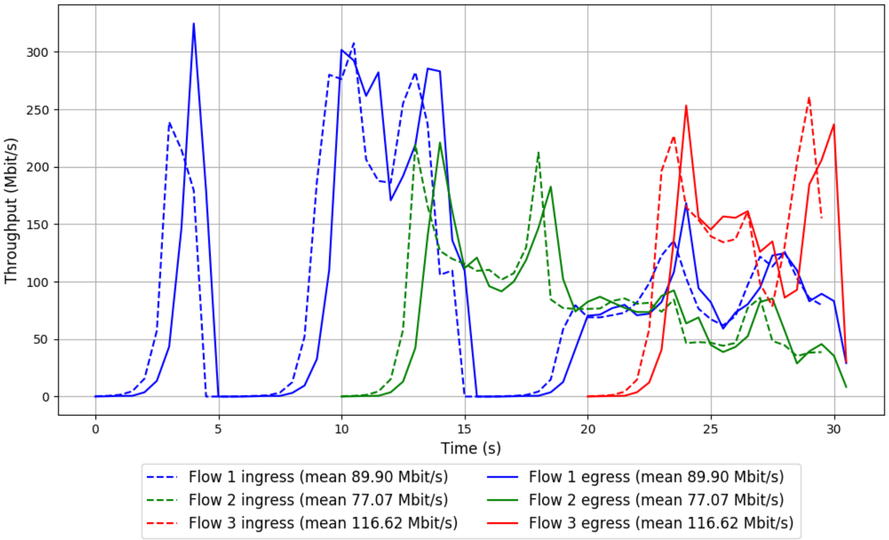
Run 1: Report of Copa — Data Link

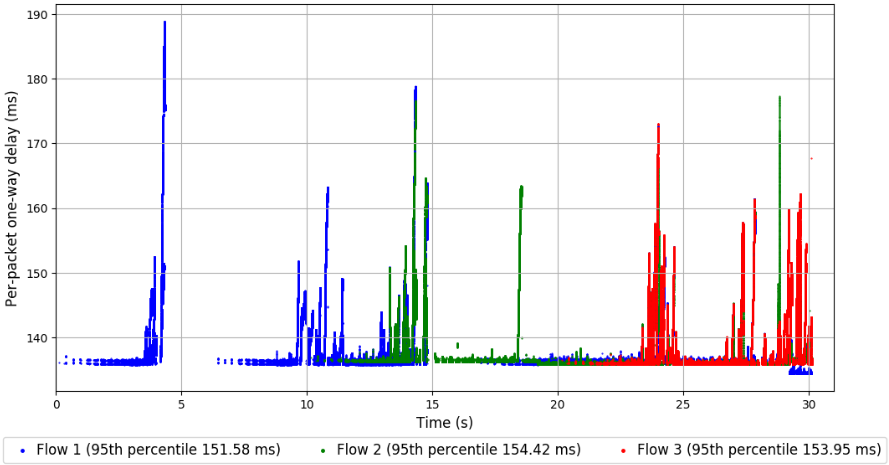




```
Run 2: Statistics of Copa

Start at: 2018-07-19 04:49:57
End at: 2018-07-19 04:50:27
Local clock offset: -0.169 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-19 09:13:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.93 Mbit/s
95th percentile per-packet one-way delay: 153.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 89.90 Mbit/s
95th percentile per-packet one-way delay: 151.578 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 77.07 Mbit/s
95th percentile per-packet one-way delay: 154.424 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 116.62 Mbit/s
95th percentile per-packet one-way delay: 153.949 ms
Loss rate: 0.00%
```

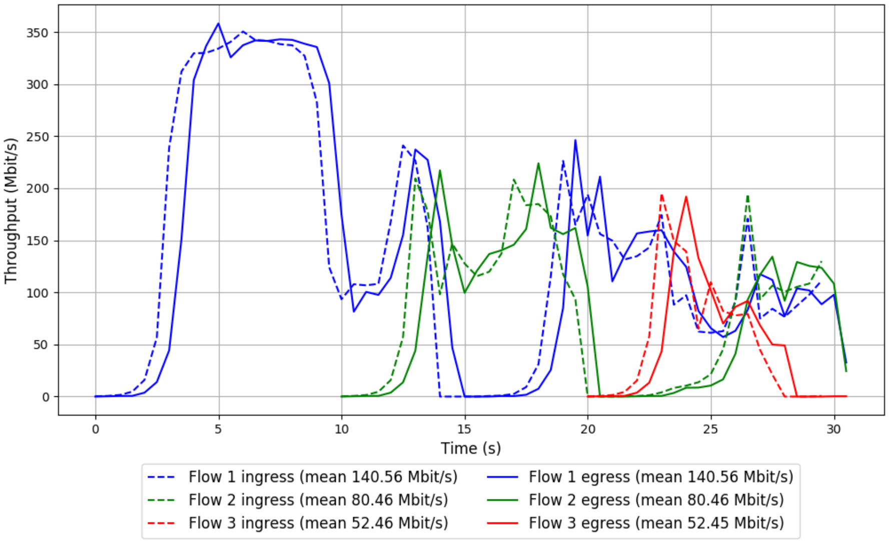
Run 2: Report of Copa — Data Link

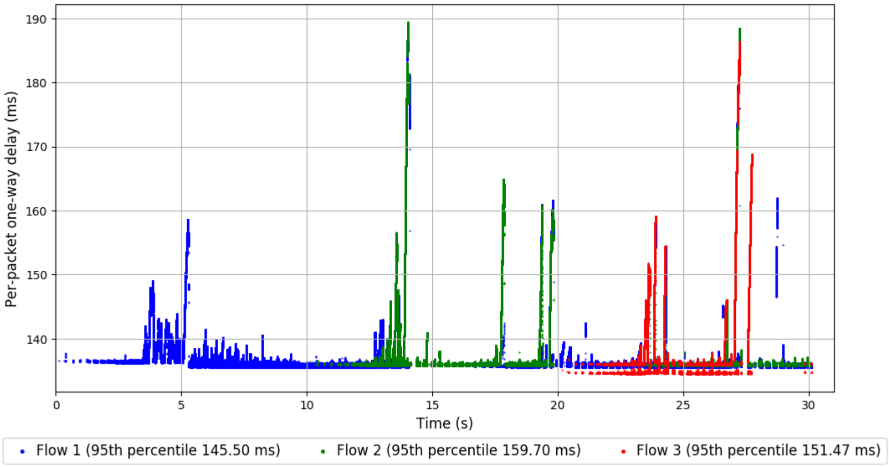




```
Run 3: Statistics of Copa

Start at: 2018-07-19 05:17:01
End at: 2018-07-19 05:17:31
Local clock offset: -0.195 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2018-07-19 09:14:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 211.51 Mbit/s
95th percentile per-packet one-way delay: 150.675 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 140.56 Mbit/s
95th percentile per-packet one-way delay: 145.504 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 80.46 Mbit/s
95th percentile per-packet one-way delay: 159.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.45 Mbit/s
95th percentile per-packet one-way delay: 151.472 ms
Loss rate: 0.00%
```

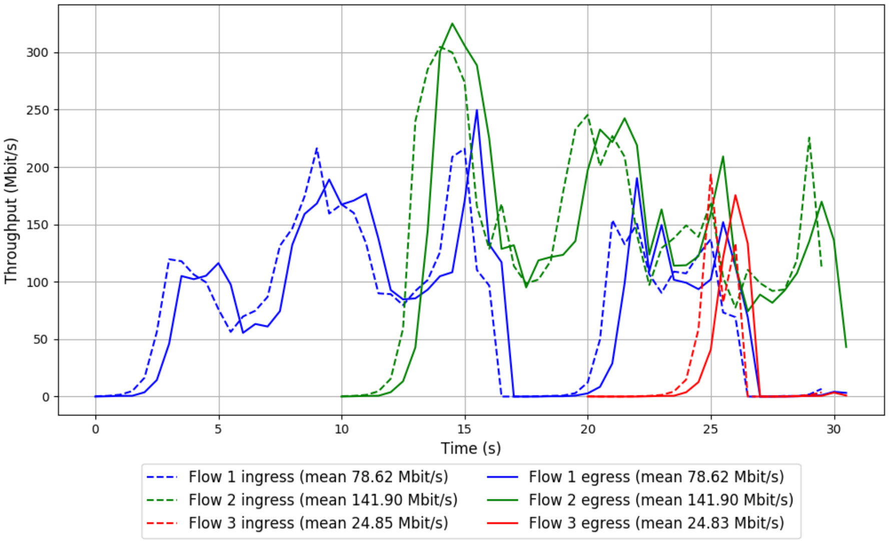
Run 3: Report of Copa — Data Link

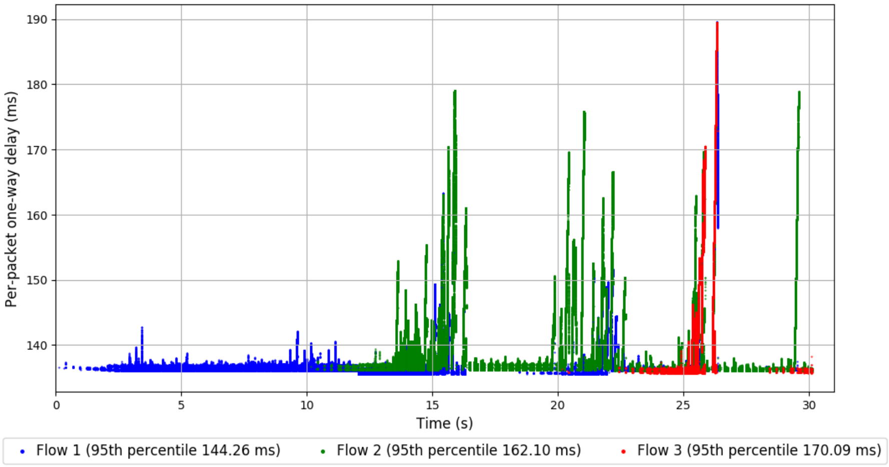




```
Run 4: Statistics of Copa

Start at: 2018-07-19 05:44:04
End at: 2018-07-19 05:44:34
Local clock offset: -0.123 ms
Remote clock offset: 0.282 ms

# Below is generated by plot.py at 2018-07-19 09:14:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.39 Mbit/s
95th percentile per-packet one-way delay: 156.778 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.62 Mbit/s
95th percentile per-packet one-way delay: 144.260 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.90 Mbit/s
95th percentile per-packet one-way delay: 162.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.83 Mbit/s
95th percentile per-packet one-way delay: 170.085 ms
Loss rate: 0.05%
```

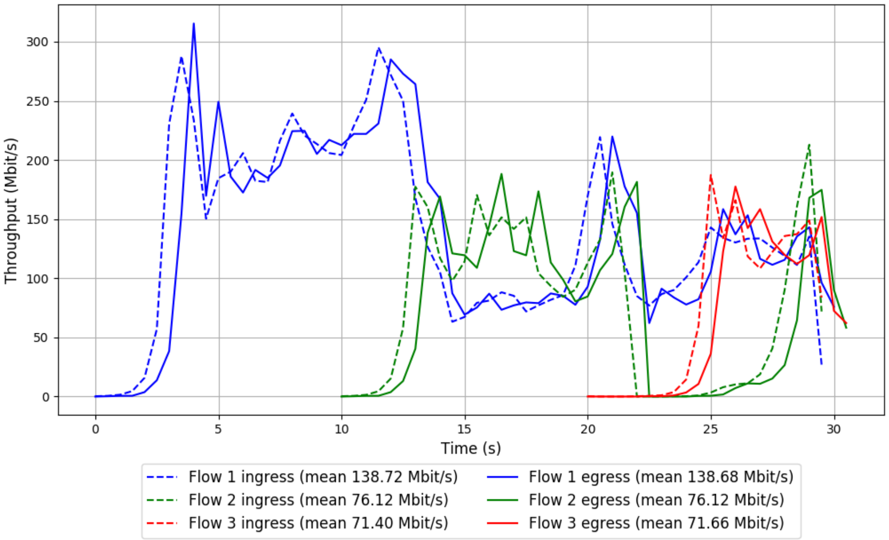
Run 4: Report of Copa — Data Link

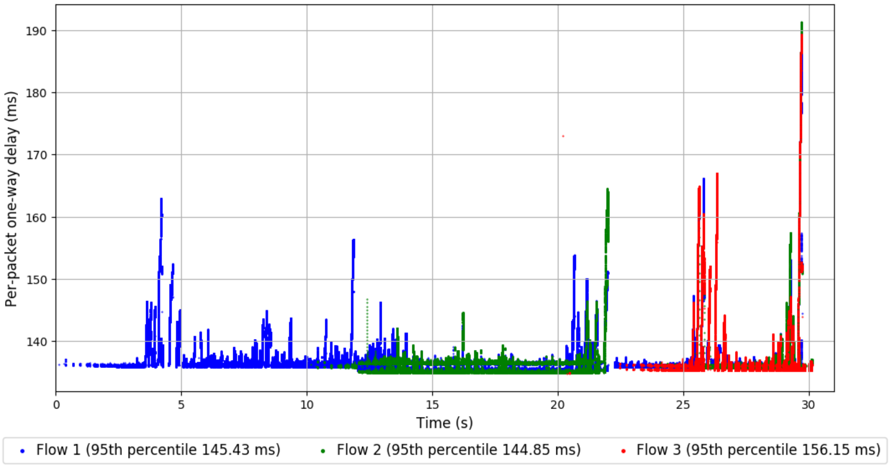




```
Run 5: Statistics of Copa

Start at: 2018-07-19 06:11:04
End at: 2018-07-19 06:11:34
Local clock offset: -0.253 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2018-07-19 09:14:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 211.30 Mbit/s
95th percentile per-packet one-way delay: 146.949 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 138.68 Mbit/s
95th percentile per-packet one-way delay: 145.432 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.12 Mbit/s
95th percentile per-packet one-way delay: 144.847 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.66 Mbit/s
95th percentile per-packet one-way delay: 156.145 ms
Loss rate: 0.02%
```

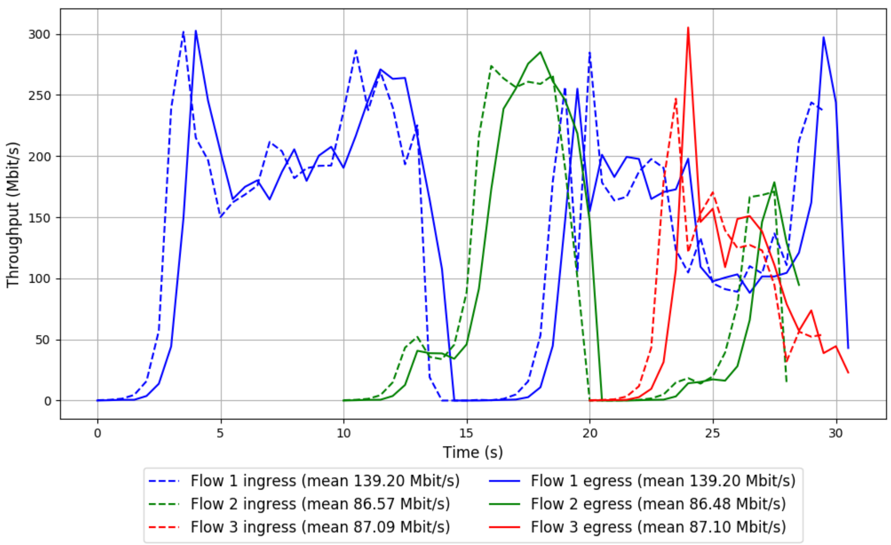
Run 5: Report of Copa — Data Link

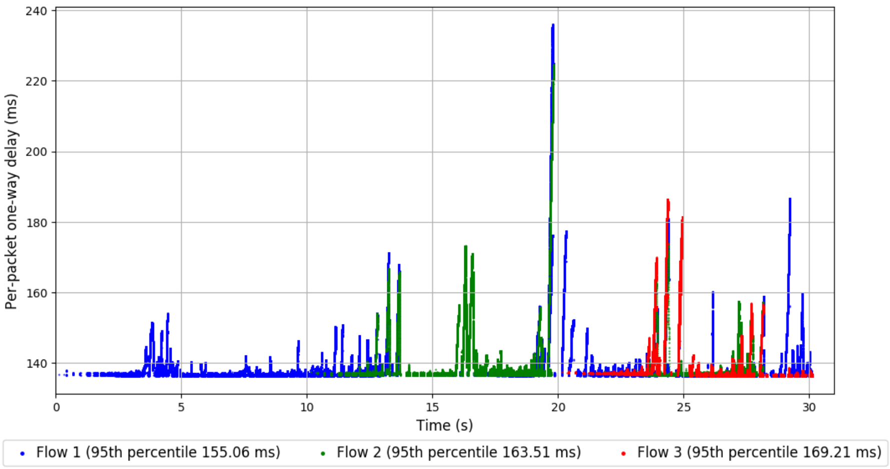




```
Run 6: Statistics of Copa

Start at: 2018-07-19 06:37:52
End at: 2018-07-19 06:38:22
Local clock offset: -0.241 ms
Remote clock offset: 0.352 ms

# Below is generated by plot.py at 2018-07-19 09:14:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.13 Mbit/s
95th percentile per-packet one-way delay: 159.461 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 139.20 Mbit/s
95th percentile per-packet one-way delay: 155.065 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.48 Mbit/s
95th percentile per-packet one-way delay: 163.506 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 87.10 Mbit/s
95th percentile per-packet one-way delay: 169.206 ms
Loss rate: 0.00%
```

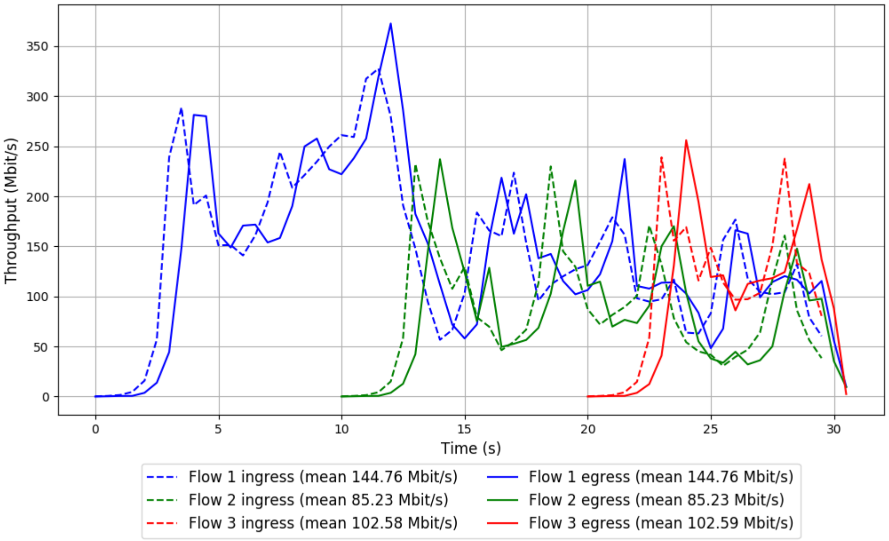
Run 6: Report of Copa — Data Link

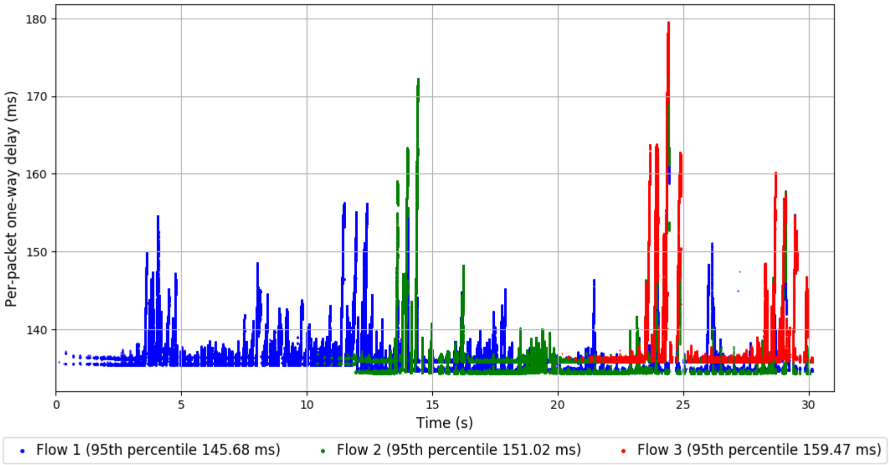




```
Run 7: Statistics of Copa

Start at: 2018-07-19 07:05:04
End at: 2018-07-19 07:05:34
Local clock offset: -0.09 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2018-07-19 09:17:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 235.36 Mbit/s
95th percentile per-packet one-way delay: 149.459 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 144.76 Mbit/s
95th percentile per-packet one-way delay: 145.678 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 85.23 Mbit/s
95th percentile per-packet one-way delay: 151.017 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 102.59 Mbit/s
95th percentile per-packet one-way delay: 159.473 ms
Loss rate: 0.00%
```

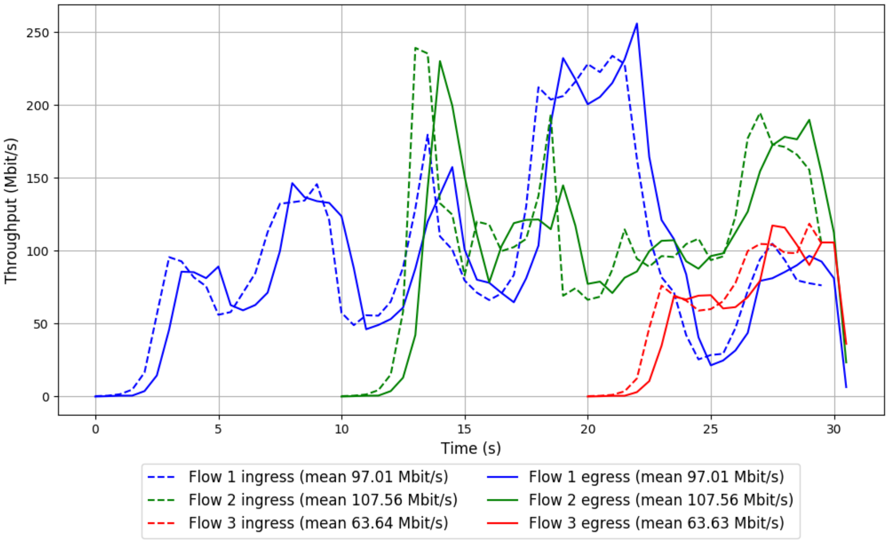
Run 7: Report of Copa — Data Link

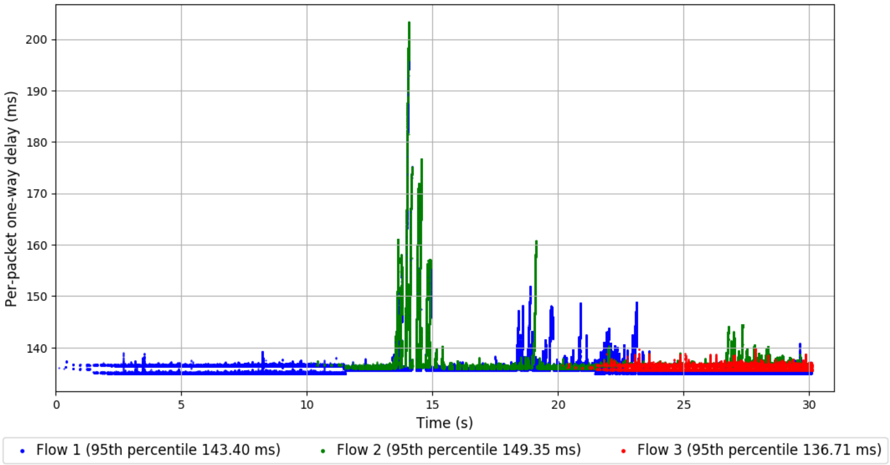




```
Run 8: Statistics of Copa

Start at: 2018-07-19 07:32:05
End at: 2018-07-19 07:32:35
Local clock offset: -0.204 ms
Remote clock offset: -0.235 ms

# Below is generated by plot.py at 2018-07-19 09:17:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 189.72 Mbit/s
95th percentile per-packet one-way delay: 143.819 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.01 Mbit/s
95th percentile per-packet one-way delay: 143.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 107.56 Mbit/s
95th percentile per-packet one-way delay: 149.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.63 Mbit/s
95th percentile per-packet one-way delay: 136.713 ms
Loss rate: 0.00%
```

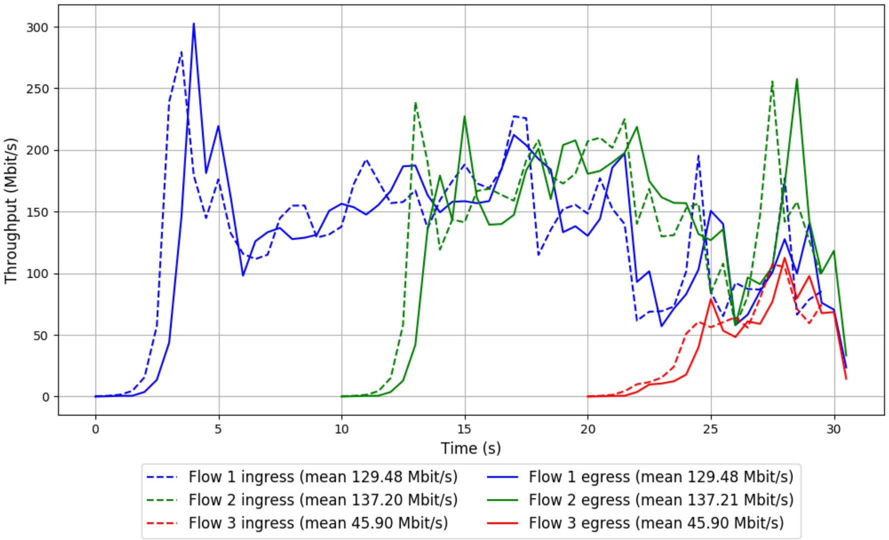
Run 8: Report of Copa — Data Link

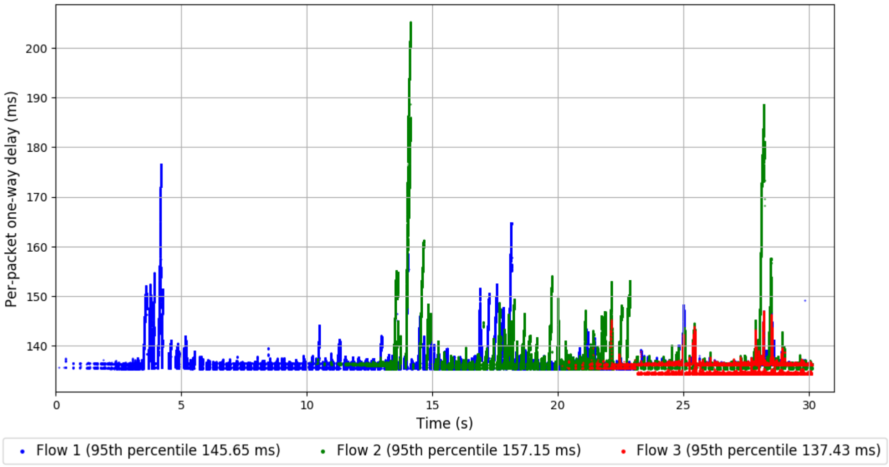




```
Run 9: Statistics of Copa

Start at: 2018-07-19 07:59:03
End at: 2018-07-19 07:59:33
Local clock offset: 0.023 ms
Remote clock offset: -0.295 ms

# Below is generated by plot.py at 2018-07-19 09:20:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.01 Mbit/s
95th percentile per-packet one-way delay: 149.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 129.48 Mbit/s
95th percentile per-packet one-way delay: 145.650 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 137.21 Mbit/s
95th percentile per-packet one-way delay: 157.145 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.90 Mbit/s
95th percentile per-packet one-way delay: 137.430 ms
Loss rate: 0.00%
```

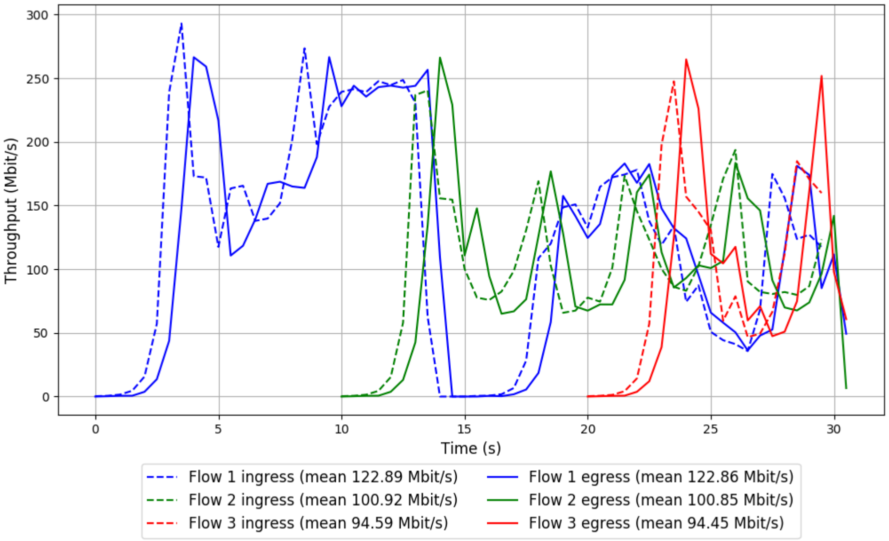
Run 9: Report of Copa — Data Link

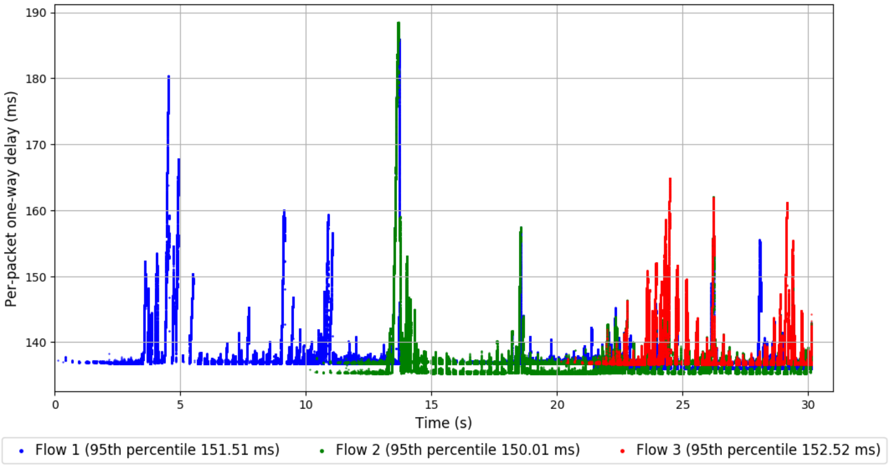




```
Run 10: Statistics of Copa

Start at: 2018-07-19 08:25:55
End at: 2018-07-19 08:26:25
Local clock offset: -0.184 ms
Remote clock offset: 0.276 ms

# Below is generated by plot.py at 2018-07-19 09:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 221.42 Mbit/s
95th percentile per-packet one-way delay: 151.479 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 122.86 Mbit/s
95th percentile per-packet one-way delay: 151.513 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 100.85 Mbit/s
95th percentile per-packet one-way delay: 150.007 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 152.523 ms
Loss rate: 0.12%
```

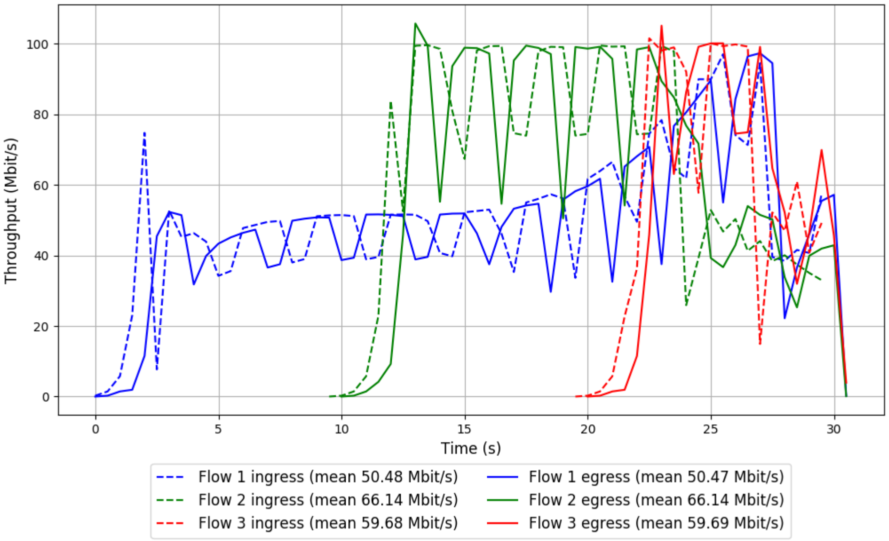
Run 10: Report of Copa — Data Link

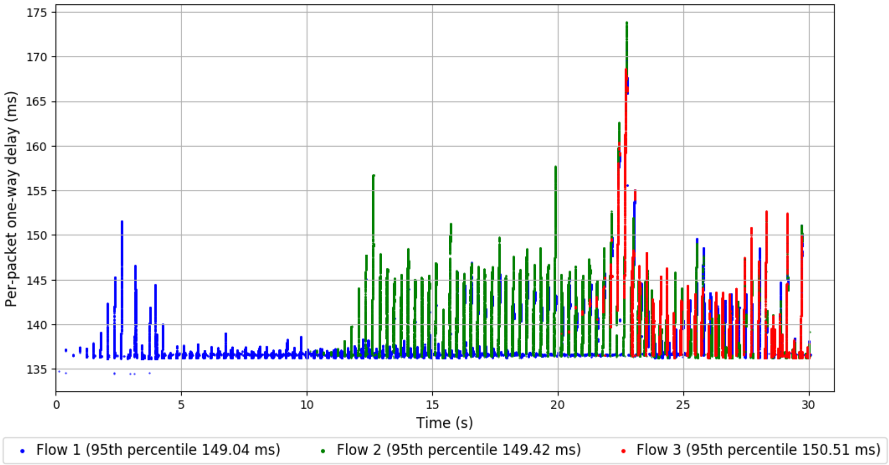




```
Run 1: Statistics of TCP Cubic

Start at: 2018-07-19 04:24:52
End at: 2018-07-19 04:25:22
Local clock offset: -0.097 ms
Remote clock offset: -0.133 ms

# Below is generated by plot.py at 2018-07-19 09:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.10 Mbit/s
95th percentile per-packet one-way delay: 149.432 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.47 Mbit/s
95th percentile per-packet one-way delay: 149.036 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.14 Mbit/s
95th percentile per-packet one-way delay: 149.423 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.69 Mbit/s
95th percentile per-packet one-way delay: 150.510 ms
Loss rate: 0.00%
```

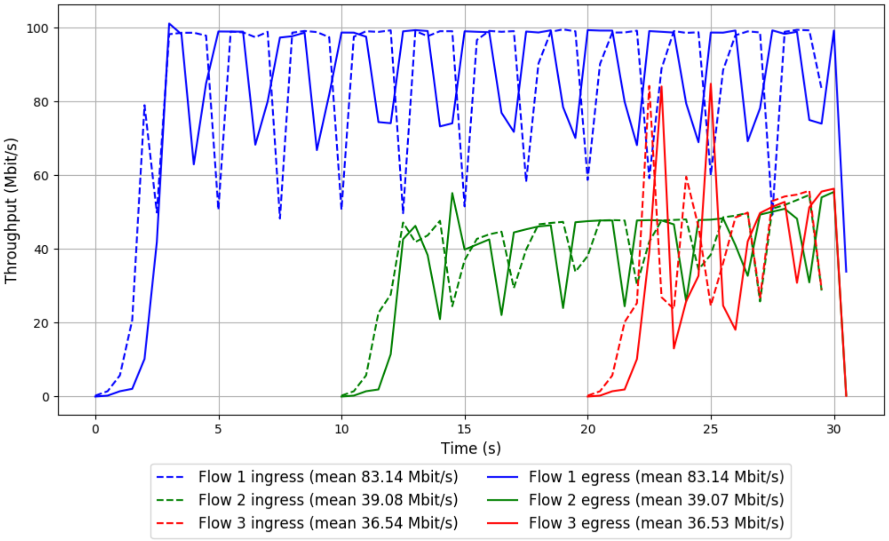
Run 1: Report of TCP Cubic — Data Link

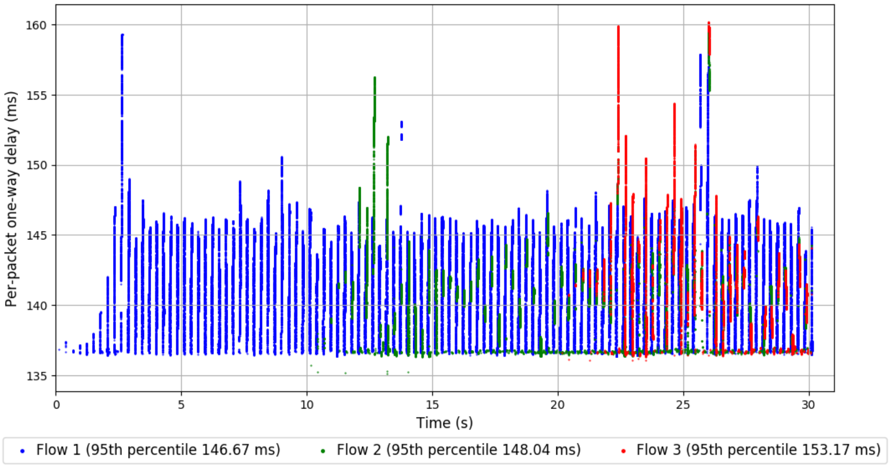




```
Run 2: Statistics of TCP Cubic

Start at: 2018-07-19 04:51:33
End at: 2018-07-19 04:52:03
Local clock offset: -0.274 ms
Remote clock offset: -0.105 ms

# Below is generated by plot.py at 2018-07-19 09:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.26 Mbit/s
95th percentile per-packet one-way delay: 147.113 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.14 Mbit/s
95th percentile per-packet one-way delay: 146.674 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.07 Mbit/s
95th percentile per-packet one-way delay: 148.040 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.53 Mbit/s
95th percentile per-packet one-way delay: 153.169 ms
Loss rate: 0.00%
```

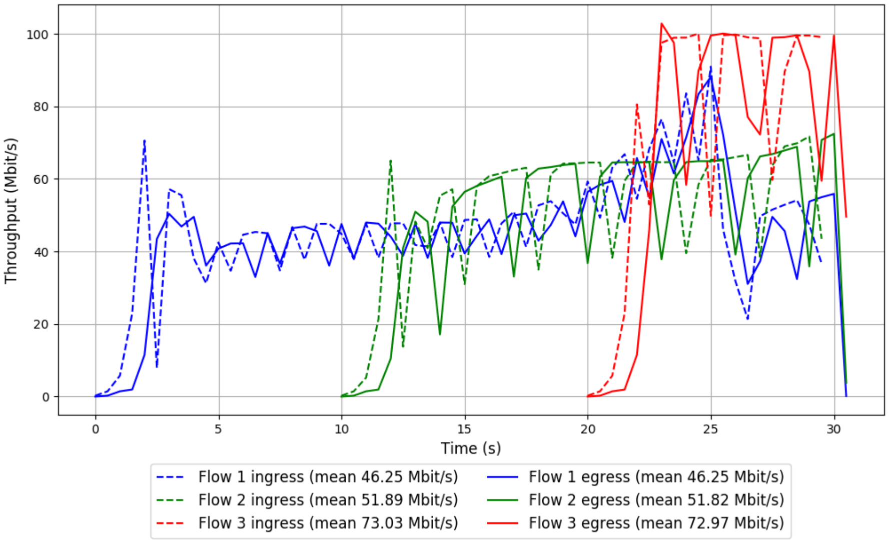
Run 2: Report of TCP Cubic — Data Link

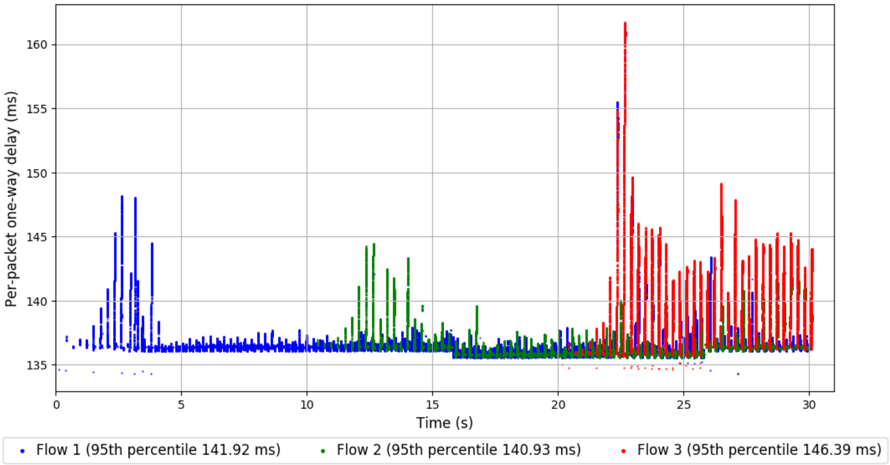




```
Run 3: Statistics of TCP Cubic

Start at: 2018-07-19 05:18:40
End at: 2018-07-19 05:19:10
Local clock offset: 0.11 ms
Remote clock offset: -0.097 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.87 Mbit/s
95th percentile per-packet one-way delay: 144.008 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 46.25 Mbit/s
95th percentile per-packet one-way delay: 141.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.82 Mbit/s
95th percentile per-packet one-way delay: 140.934 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 72.97 Mbit/s
95th percentile per-packet one-way delay: 146.388 ms
Loss rate: 0.00%
```

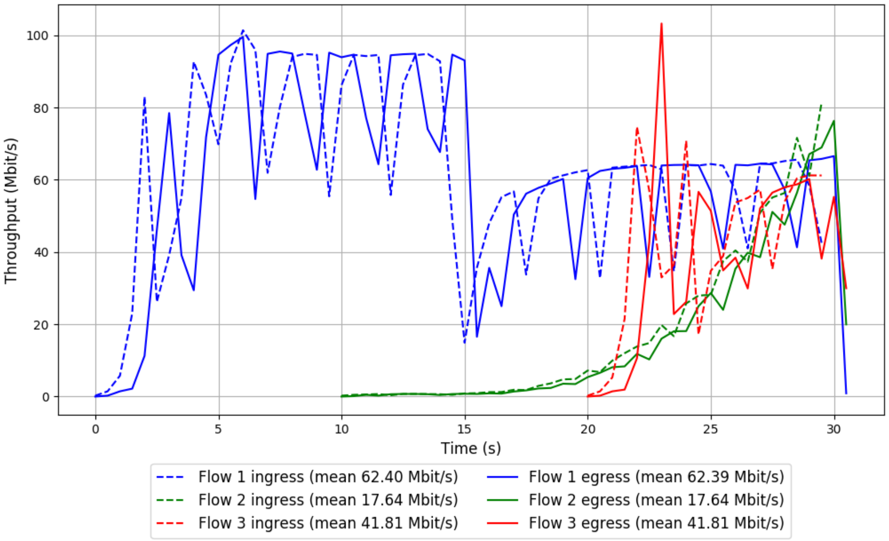
Run 3: Report of TCP Cubic — Data Link

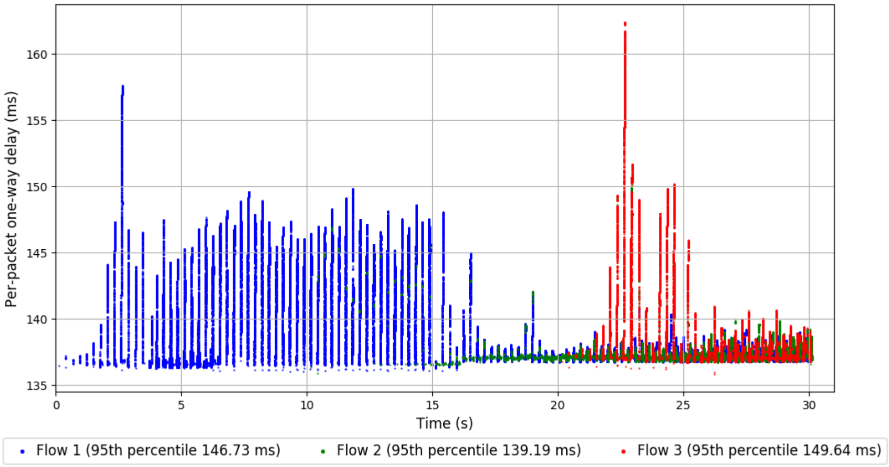




```
Run 4: Statistics of TCP Cubic

Start at: 2018-07-19 05:45:40
End at: 2018-07-19 05:46:10
Local clock offset: -0.198 ms
Remote clock offset: 0.348 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.95 Mbit/s
95th percentile per-packet one-way delay: 146.783 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.39 Mbit/s
95th percentile per-packet one-way delay: 146.732 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.64 Mbit/s
95th percentile per-packet one-way delay: 139.186 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 41.81 Mbit/s
95th percentile per-packet one-way delay: 149.638 ms
Loss rate: 0.00%
```

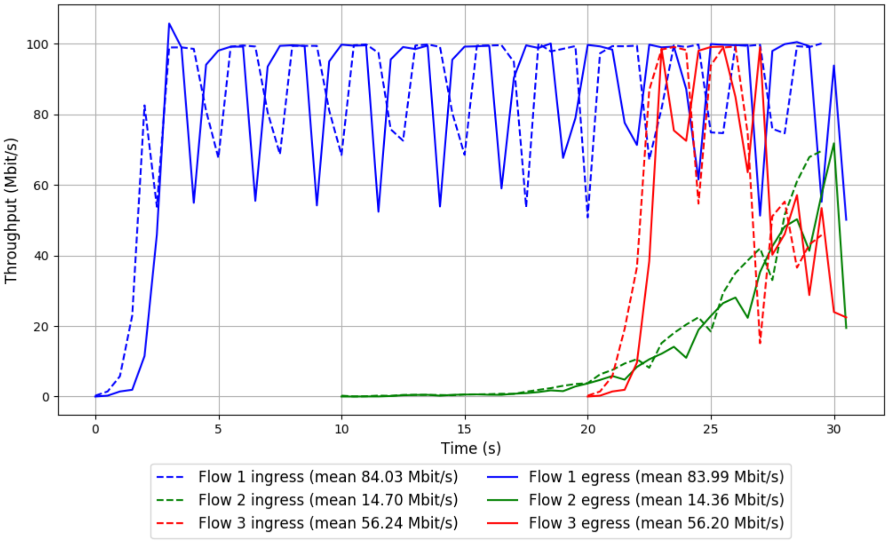
Run 4: Report of TCP Cubic — Data Link

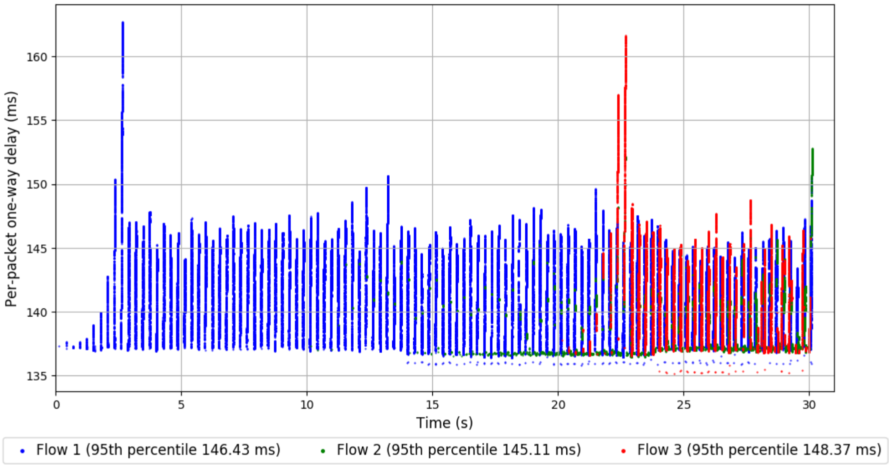




```
Run 5: Statistics of TCP Cubic

Start at: 2018-07-19 06:12:42
End at: 2018-07-19 06:13:12
Local clock offset: -0.318 ms
Remote clock offset: 0.3 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.10 Mbit/s
95th percentile per-packet one-way delay: 146.492 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 83.99 Mbit/s
95th percentile per-packet one-way delay: 146.425 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.36 Mbit/s
95th percentile per-packet one-way delay: 145.107 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 56.20 Mbit/s
95th percentile per-packet one-way delay: 148.370 ms
Loss rate: 0.00%
```

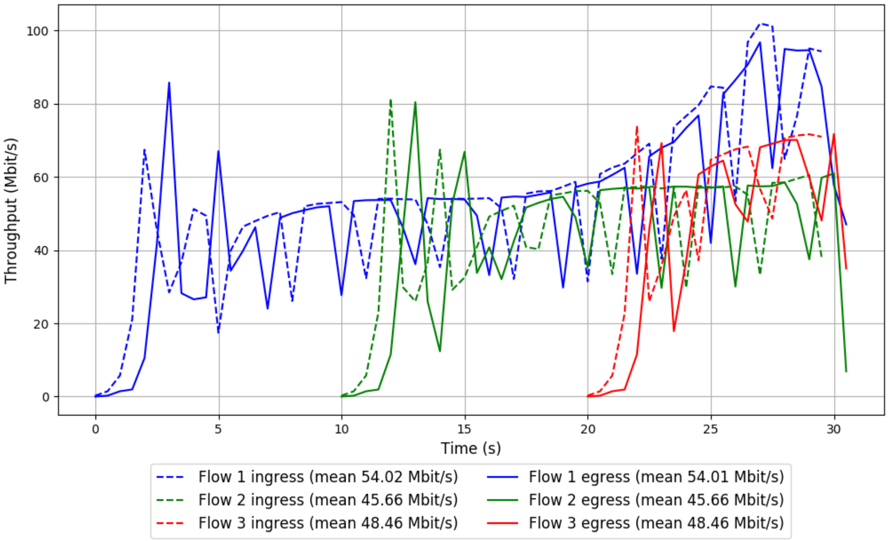
Run 5: Report of TCP Cubic — Data Link

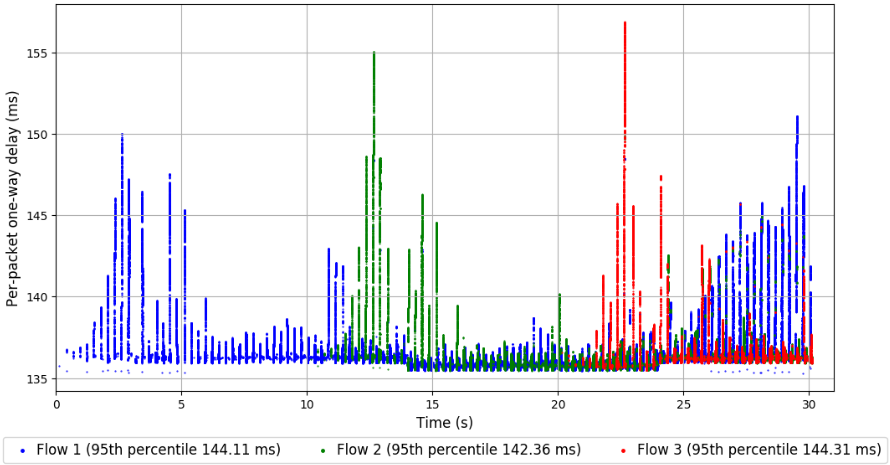




```
Run 6: Statistics of TCP Cubic

Start at: 2018-07-19 06:39:32
End at: 2018-07-19 06:40:02
Local clock offset: -0.109 ms
Remote clock offset: -0.41 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.41 Mbit/s
95th percentile per-packet one-way delay: 143.878 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.01 Mbit/s
95th percentile per-packet one-way delay: 144.109 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.66 Mbit/s
95th percentile per-packet one-way delay: 142.359 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.46 Mbit/s
95th percentile per-packet one-way delay: 144.309 ms
Loss rate: 0.00%
```

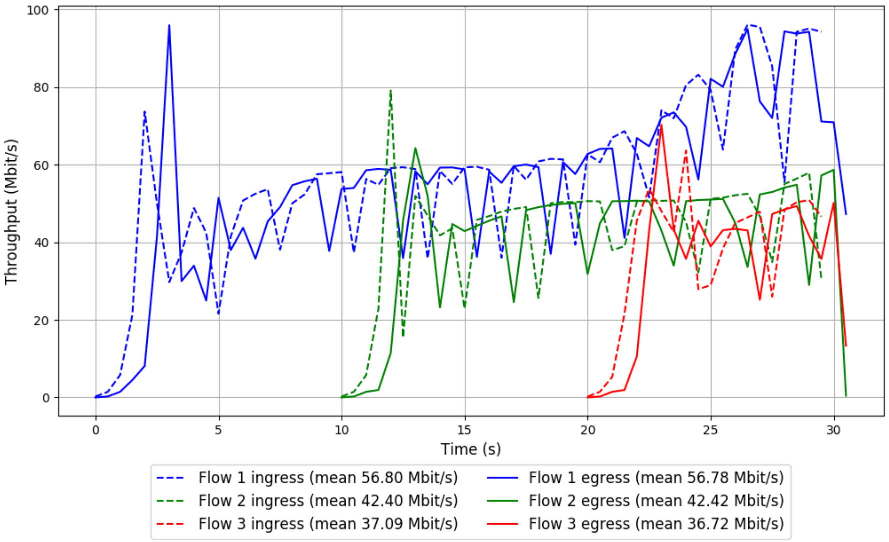
Run 6: Report of TCP Cubic — Data Link

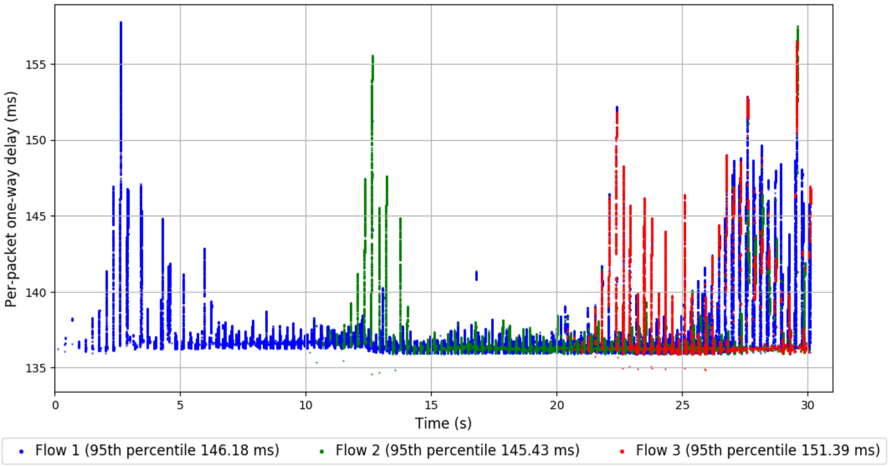




```
Run 7: Statistics of TCP Cubic

Start at: 2018-07-19 07:06:44
End at: 2018-07-19 07:07:14
Local clock offset: -0.222 ms
Remote clock offset: -0.149 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.19 Mbit/s
95th percentile per-packet one-way delay: 146.621 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 146.184 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.42 Mbit/s
95th percentile per-packet one-way delay: 145.425 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.72 Mbit/s
95th percentile per-packet one-way delay: 151.389 ms
Loss rate: 0.99%
```

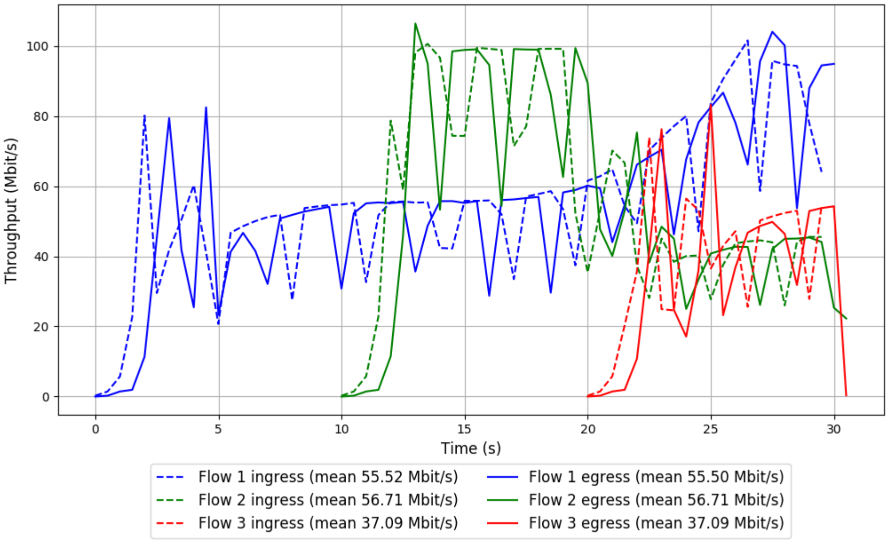
Run 7: Report of TCP Cubic — Data Link

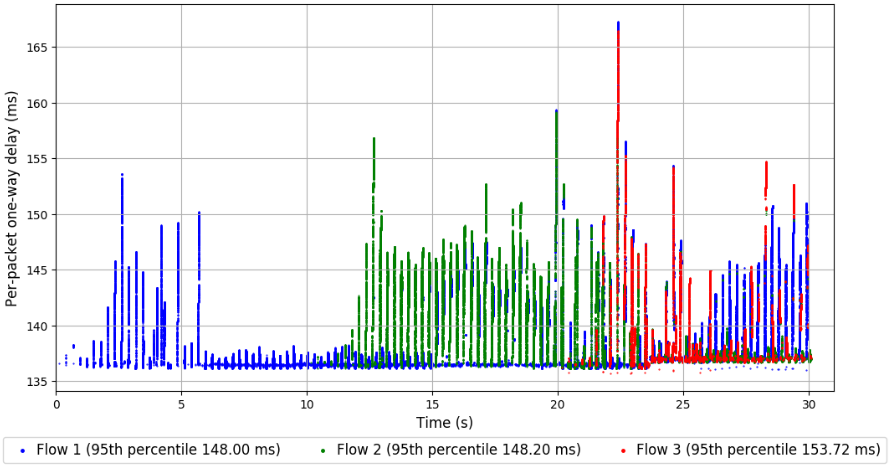




```
Run 8: Statistics of TCP Cubic

Start at: 2018-07-19 07:33:43
End at: 2018-07-19 07:34:13
Local clock offset: -0.175 ms
Remote clock offset: 0.108 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.26 Mbit/s
95th percentile per-packet one-way delay: 148.567 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.50 Mbit/s
95th percentile per-packet one-way delay: 148.003 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 148.196 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.09 Mbit/s
95th percentile per-packet one-way delay: 153.719 ms
Loss rate: 0.00%
```

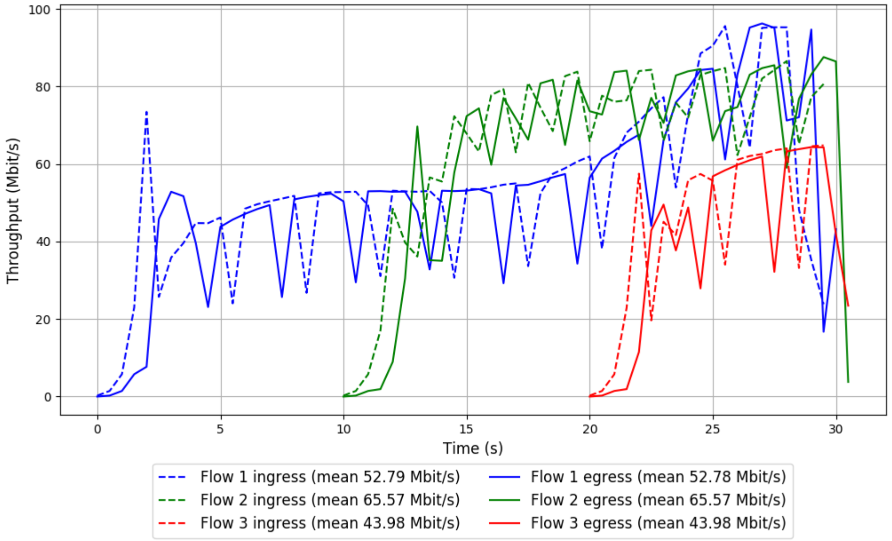
Run 8: Report of TCP Cubic — Data Link

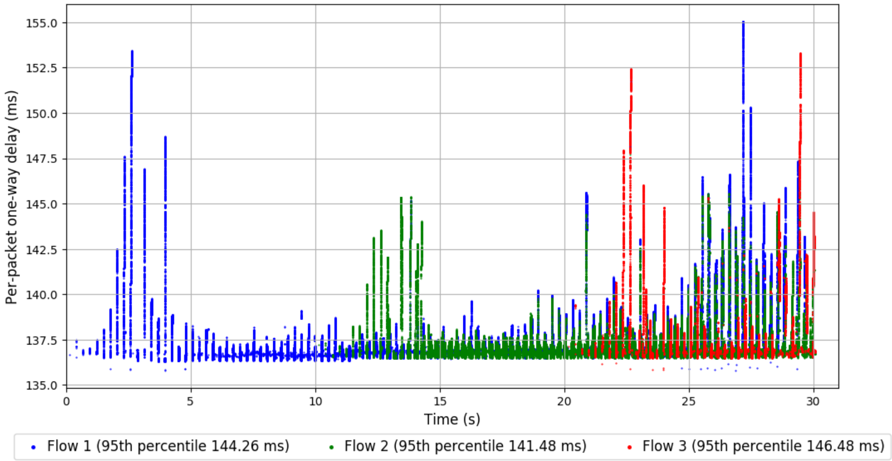




```
Run 9: Statistics of TCP Cubic

Start at: 2018-07-19 08:00:45
End at: 2018-07-19 08:01:15
Local clock offset: 0.143 ms
Remote clock offset: 0.095 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.85 Mbit/s
95th percentile per-packet one-way delay: 143.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.78 Mbit/s
95th percentile per-packet one-way delay: 144.264 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.57 Mbit/s
95th percentile per-packet one-way delay: 141.479 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.98 Mbit/s
95th percentile per-packet one-way delay: 146.476 ms
Loss rate: 0.00%
```

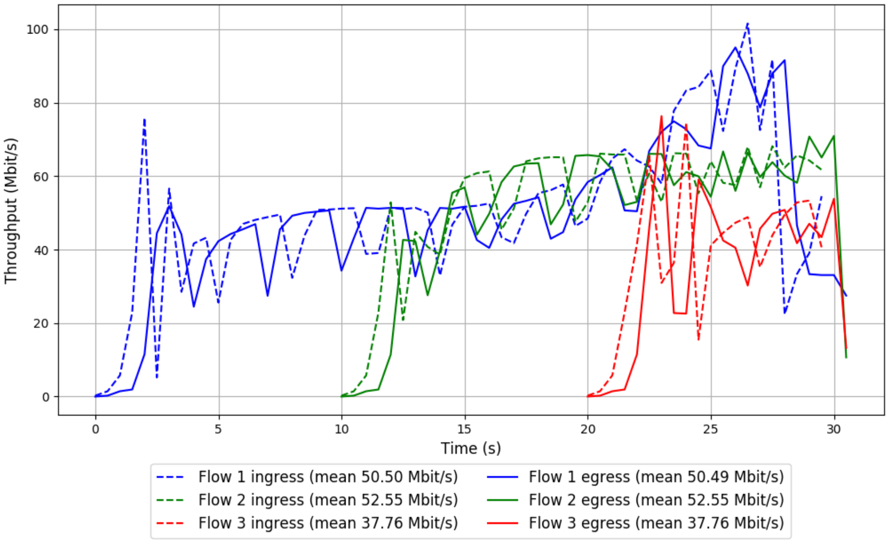
Run 9: Report of TCP Cubic — Data Link

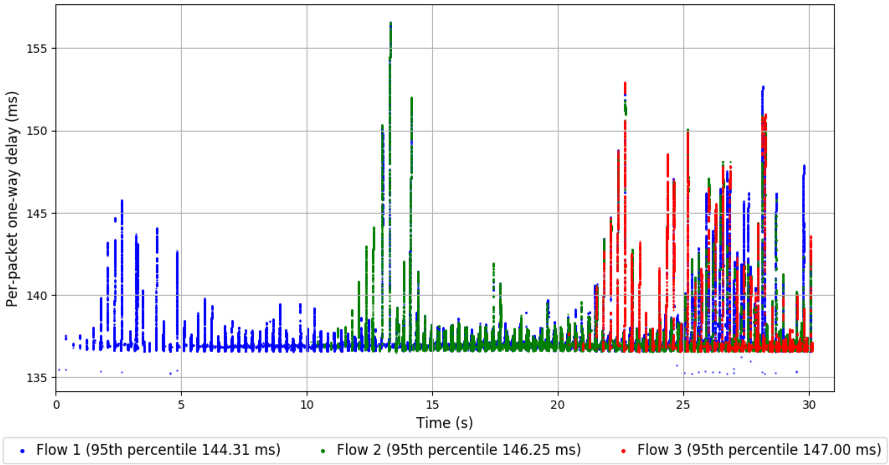




```
Run 10: Statistics of TCP Cubic

Start at: 2018-07-19 08:27:35
End at: 2018-07-19 08:28:05
Local clock offset: -0.026 ms
Remote clock offset: 0.249 ms

# Below is generated by plot.py at 2018-07-19 09:20:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.98 Mbit/s
95th percentile per-packet one-way delay: 145.388 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.49 Mbit/s
95th percentile per-packet one-way delay: 144.313 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.55 Mbit/s
95th percentile per-packet one-way delay: 146.247 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.76 Mbit/s
95th percentile per-packet one-way delay: 146.999 ms
Loss rate: 0.00%
```

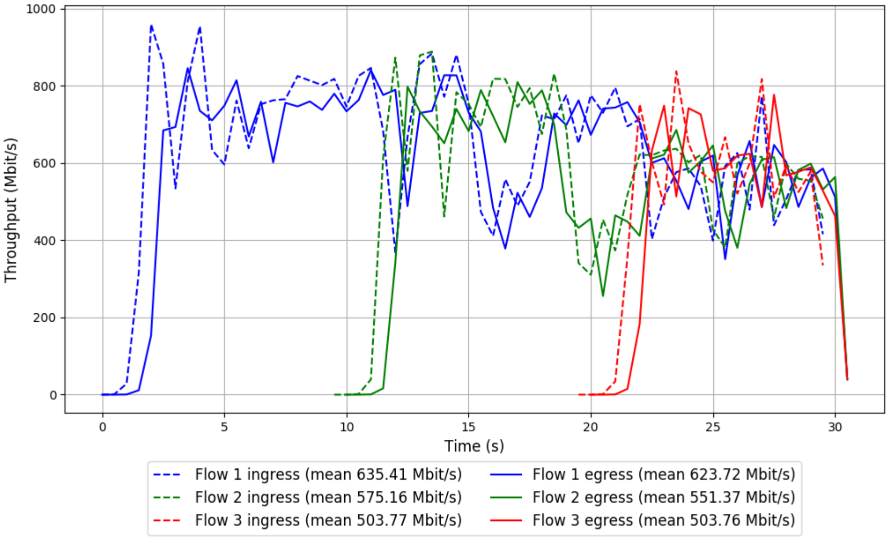
Run 10: Report of TCP Cubic — Data Link

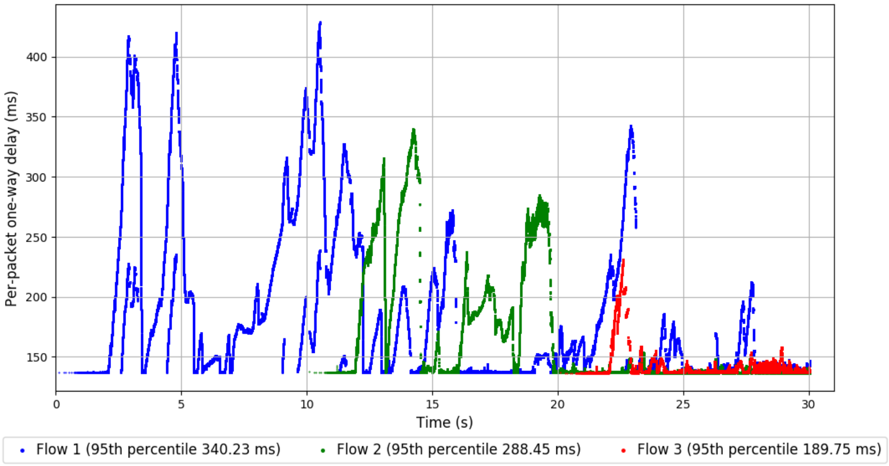




```
Run 1: Statistics of FillP

Start at: 2018-07-19 04:28:13
End at: 2018-07-19 04:28:43
Local clock offset: -0.398 ms
Remote clock offset: 0.226 ms

# Below is generated by plot.py at 2018-07-19 09:42:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1158.68 Mbit/s
95th percentile per-packet one-way delay: 317.589 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 623.72 Mbit/s
95th percentile per-packet one-way delay: 340.226 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 551.37 Mbit/s
95th percentile per-packet one-way delay: 288.451 ms
Loss rate: 4.14%
-- Flow 3:
Average throughput: 503.76 Mbit/s
95th percentile per-packet one-way delay: 189.755 ms
Loss rate: 0.00%
```

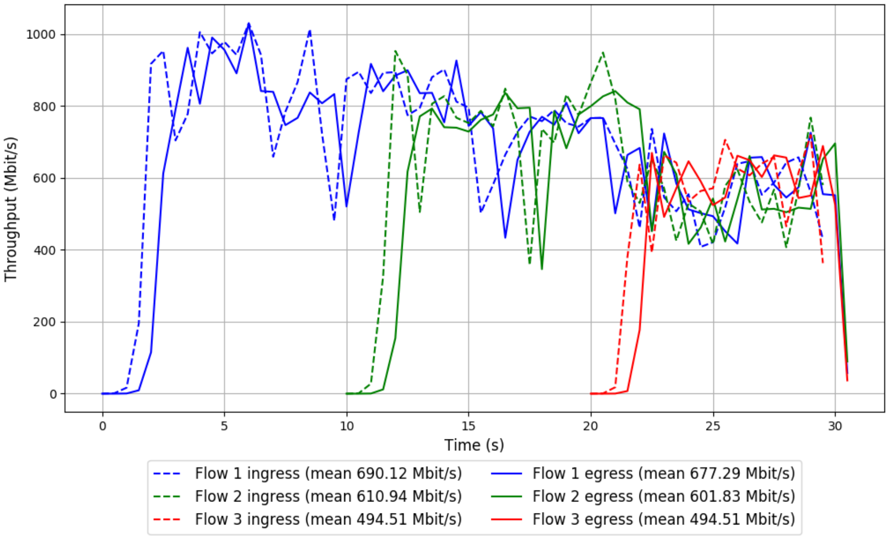
Run 1: Report of FillP — Data Link

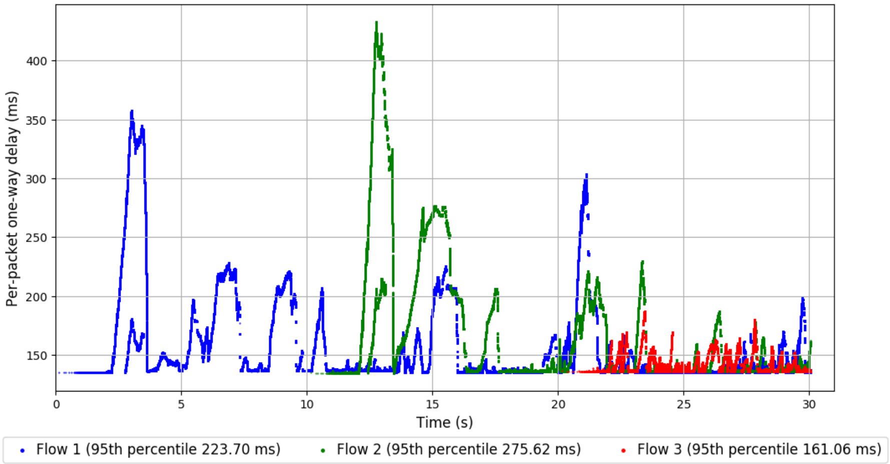




```
Run 2: Statistics of FillP

Start at: 2018-07-19 04:54:53
End at: 2018-07-19 04:55:23
Local clock offset: -0.171 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-19 09:45:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1241.34 Mbit/s
95th percentile per-packet one-way delay: 263.269 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 677.29 Mbit/s
95th percentile per-packet one-way delay: 223.699 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 601.83 Mbit/s
95th percentile per-packet one-way delay: 275.619 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 494.51 Mbit/s
95th percentile per-packet one-way delay: 161.063 ms
Loss rate: 0.00%
```

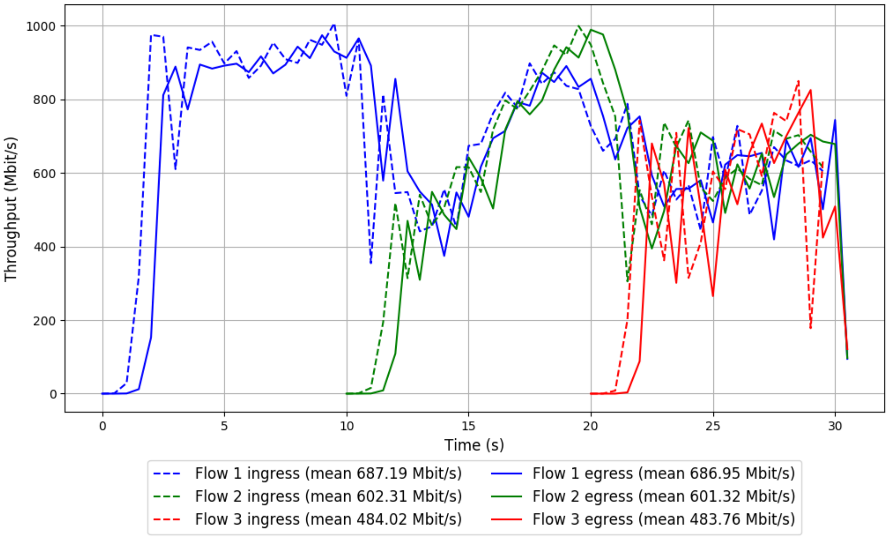
Run 2: Report of FillP — Data Link

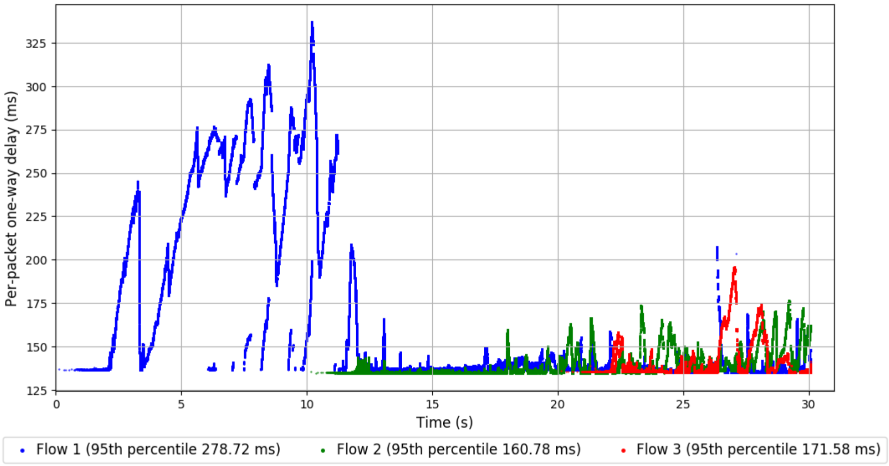




```
Run 3: Statistics of FillP

Start at: 2018-07-19 05:22:02
End at: 2018-07-19 05:22:32
Local clock offset: 0.044 ms
Remote clock offset: 0.295 ms

# Below is generated by plot.py at 2018-07-19 09:45:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1247.58 Mbit/s
95th percentile per-packet one-way delay: 268.026 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 686.95 Mbit/s
95th percentile per-packet one-way delay: 278.716 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 601.32 Mbit/s
95th percentile per-packet one-way delay: 160.779 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 483.76 Mbit/s
95th percentile per-packet one-way delay: 171.580 ms
Loss rate: 0.05%
```

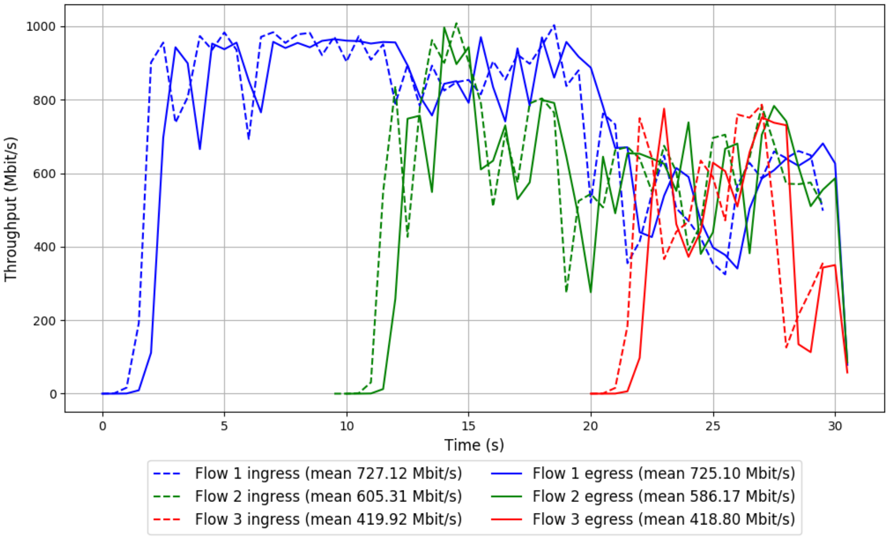
Run 3: Report of FillP — Data Link

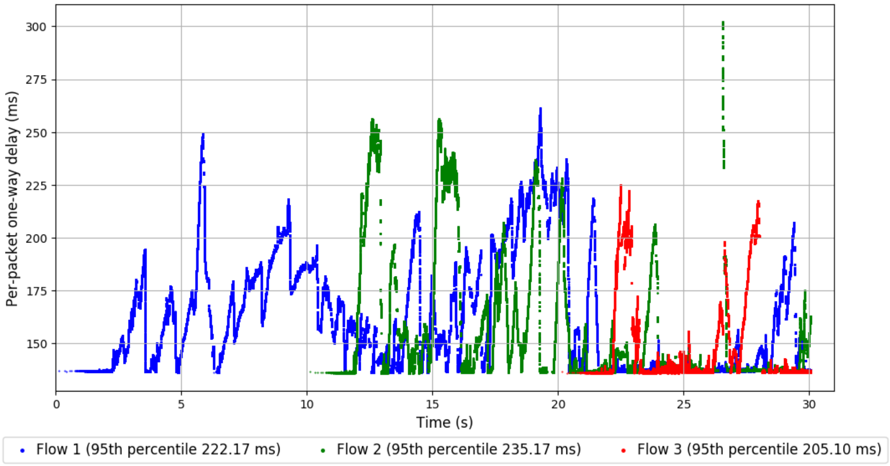




```
Run 4: Statistics of FillP

Start at: 2018-07-19 05:49:01
End at: 2018-07-19 05:49:31
Local clock offset: -0.205 ms
Remote clock offset: 0.289 ms

# Below is generated by plot.py at 2018-07-19 09:45:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1254.22 Mbit/s
95th percentile per-packet one-way delay: 224.607 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 725.10 Mbit/s
95th percentile per-packet one-way delay: 222.167 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 586.17 Mbit/s
95th percentile per-packet one-way delay: 235.169 ms
Loss rate: 3.15%
-- Flow 3:
Average throughput: 418.80 Mbit/s
95th percentile per-packet one-way delay: 205.103 ms
Loss rate: 0.26%
```

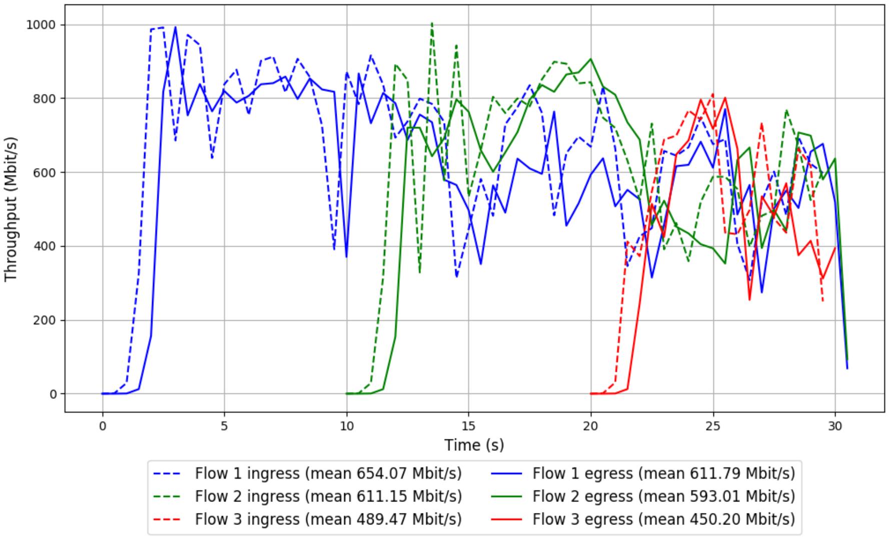
Run 4: Report of FillP — Data Link

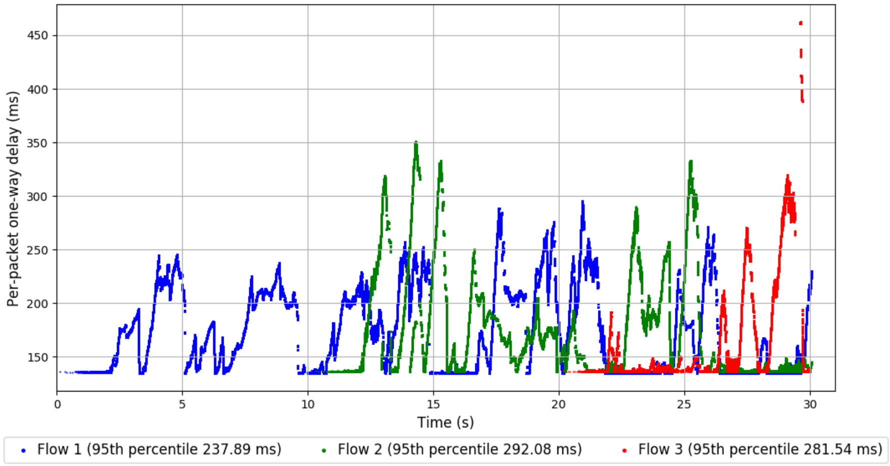




```
Run 5: Statistics of FillP

Start at: 2018-07-19 06:16:03
End at: 2018-07-19 06:16:33
Local clock offset: -0.396 ms
Remote clock offset: -0.422 ms

# Below is generated by plot.py at 2018-07-19 09:45:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1154.18 Mbit/s
95th percentile per-packet one-way delay: 254.600 ms
Loss rate: 5.50%
-- Flow 1:
Average throughput: 611.79 Mbit/s
95th percentile per-packet one-way delay: 237.888 ms
Loss rate: 6.46%
-- Flow 2:
Average throughput: 593.01 Mbit/s
95th percentile per-packet one-way delay: 292.083 ms
Loss rate: 2.96%
-- Flow 3:
Average throughput: 450.20 Mbit/s
95th percentile per-packet one-way delay: 281.538 ms
Loss rate: 8.01%
```

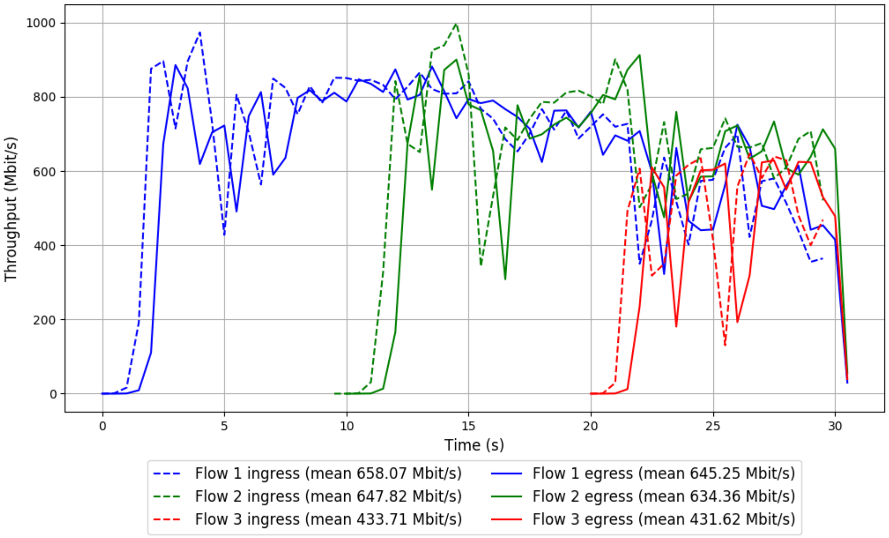
Run 5: Report of FillP — Data Link

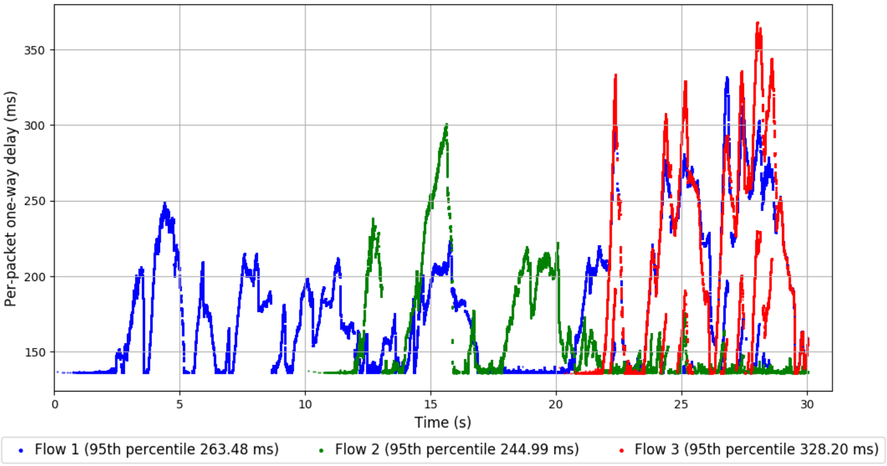




```
Run 6: Statistics of FillP

Start at: 2018-07-19 06:42:46
End at: 2018-07-19 06:43:16
Local clock offset: -0.18 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-19 09:45:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1210.55 Mbit/s
95th percentile per-packet one-way delay: 273.342 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 645.25 Mbit/s
95th percentile per-packet one-way delay: 263.476 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 634.36 Mbit/s
95th percentile per-packet one-way delay: 244.987 ms
Loss rate: 2.08%
-- Flow 3:
Average throughput: 431.62 Mbit/s
95th percentile per-packet one-way delay: 328.205 ms
Loss rate: 0.48%
```

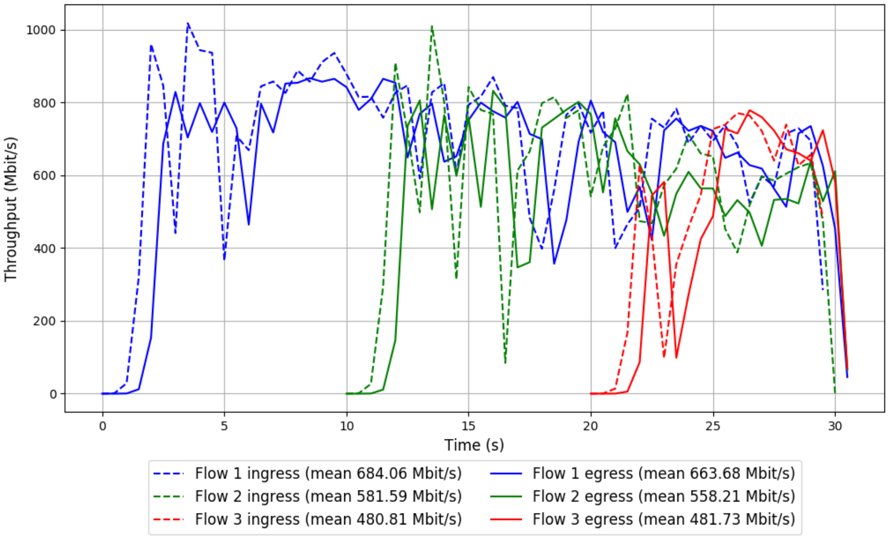
Run 6: Report of FillP — Data Link

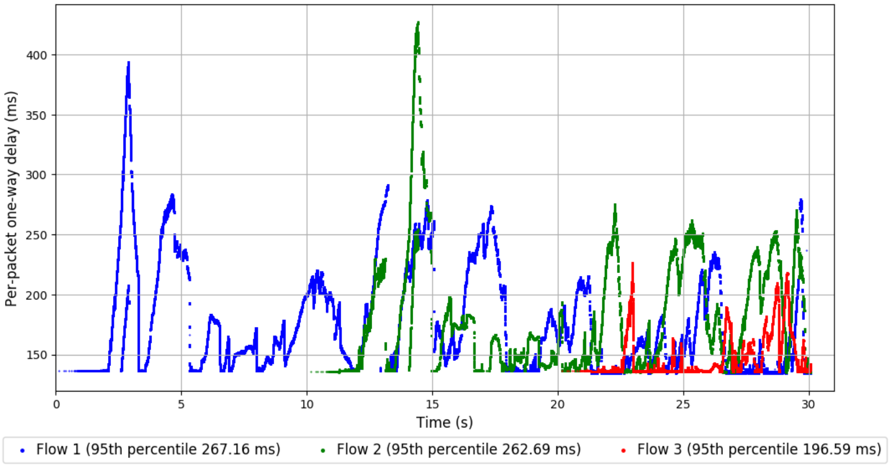




```
Run 7: Statistics of FillP

Start at: 2018-07-19 07:09:55
End at: 2018-07-19 07:10:25
Local clock offset: -0.047 ms
Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2018-07-19 09:46:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1194.26 Mbit/s
95th percentile per-packet one-way delay: 261.793 ms
Loss rate: 3.16%
-- Flow 1:
Average throughput: 663.68 Mbit/s
95th percentile per-packet one-way delay: 267.160 ms
Loss rate: 3.11%
-- Flow 2:
Average throughput: 558.21 Mbit/s
95th percentile per-packet one-way delay: 262.688 ms
Loss rate: 4.47%
-- Flow 3:
Average throughput: 481.73 Mbit/s
95th percentile per-packet one-way delay: 196.586 ms
Loss rate: 0.18%
```

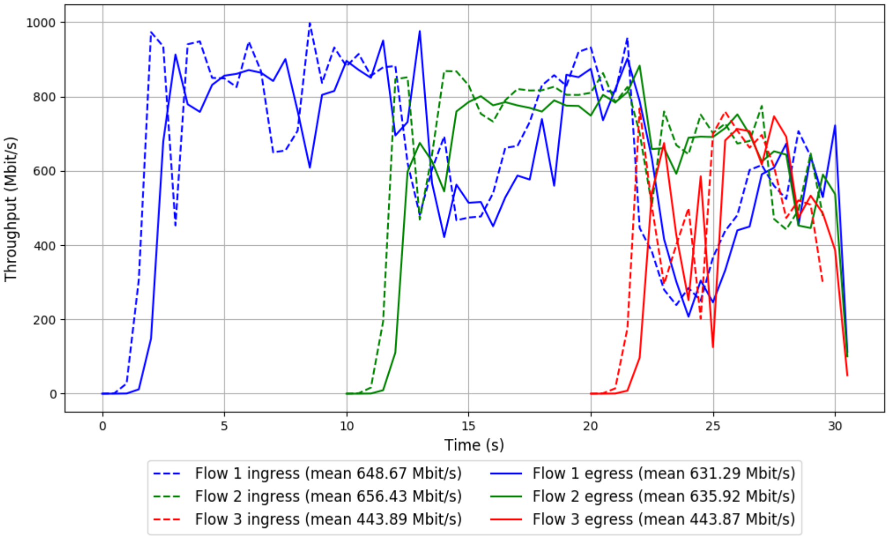
Run 7: Report of FillP — Data Link

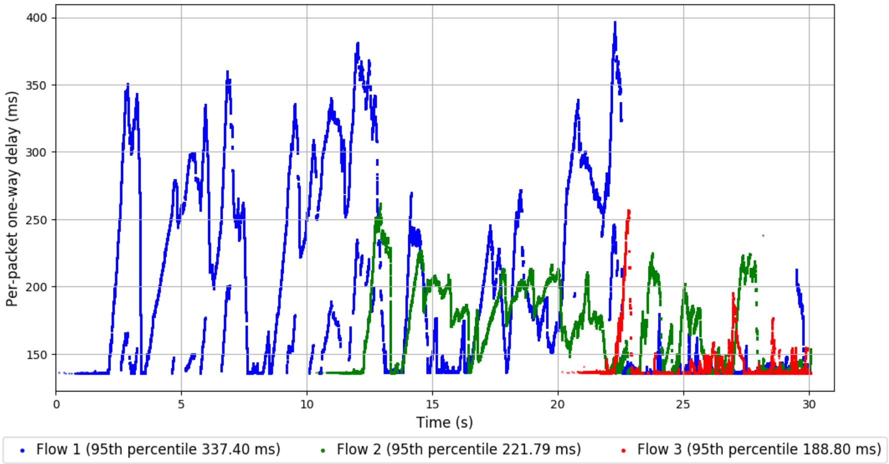




```
Run 8: Statistics of FillP

Start at: 2018-07-19 07:36:55
End at: 2018-07-19 07:37:25
Local clock offset: -0.161 ms
Remote clock offset: -0.316 ms

# Below is generated by plot.py at 2018-07-19 09:47:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1201.50 Mbit/s
95th percentile per-packet one-way delay: 320.721 ms
Loss rate: 2.52%
-- Flow 1:
Average throughput: 631.29 Mbit/s
95th percentile per-packet one-way delay: 337.396 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 635.92 Mbit/s
95th percentile per-packet one-way delay: 221.793 ms
Loss rate: 3.12%
-- Flow 3:
Average throughput: 443.87 Mbit/s
95th percentile per-packet one-way delay: 188.800 ms
Loss rate: 0.01%
```

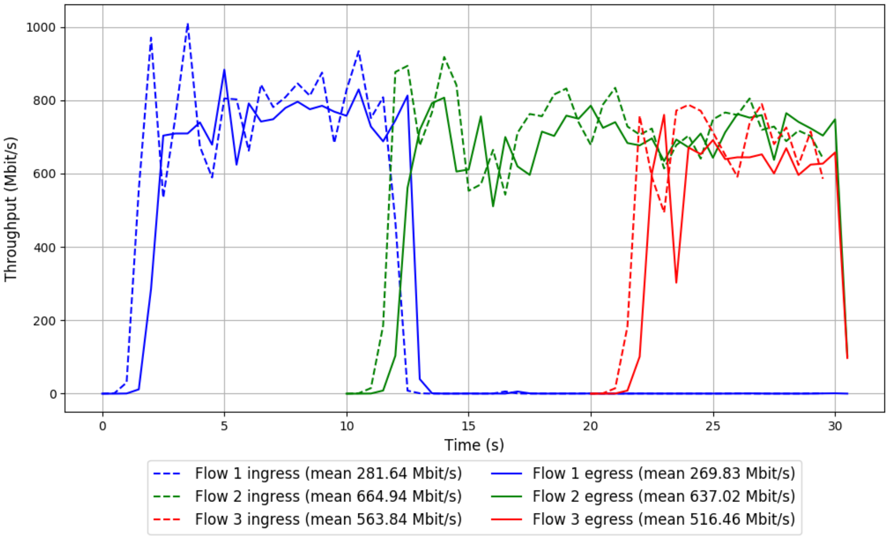
Run 8: Report of FillP — Data Link

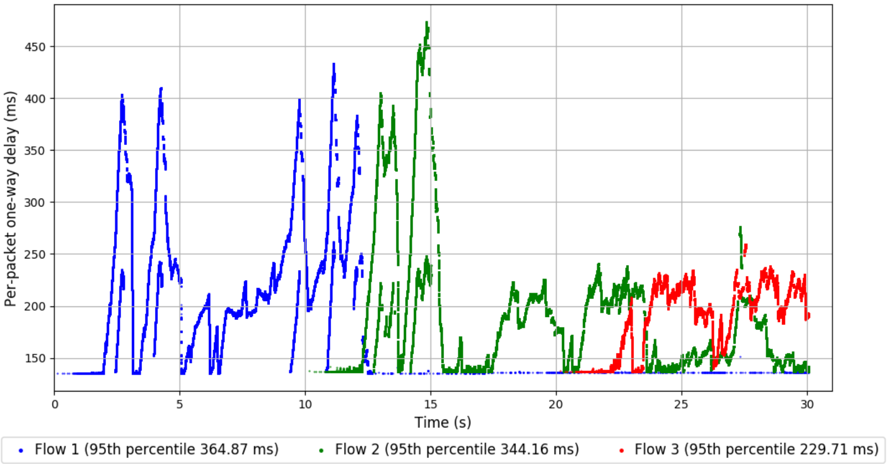




```
Run 9: Statistics of FillP

Start at: 2018-07-19 08:03:59
End at: 2018-07-19 08:04:29
Local clock offset: -0.132 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-07-19 10:01:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 864.54 Mbit/s
95th percentile per-packet one-way delay: 344.057 ms
Loss rate: 5.06%
-- Flow 1:
Average throughput: 269.83 Mbit/s
95th percentile per-packet one-way delay: 364.868 ms
Loss rate: 4.19%
-- Flow 2:
Average throughput: 637.02 Mbit/s
95th percentile per-packet one-way delay: 344.158 ms
Loss rate: 4.20%
-- Flow 3:
Average throughput: 516.46 Mbit/s
95th percentile per-packet one-way delay: 229.713 ms
Loss rate: 8.42%
```

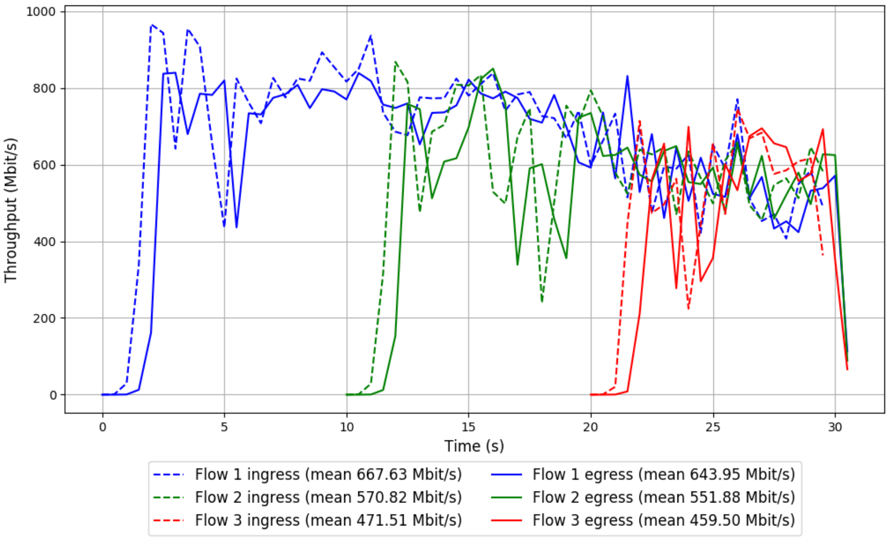
Run 9: Report of FillP — Data Link

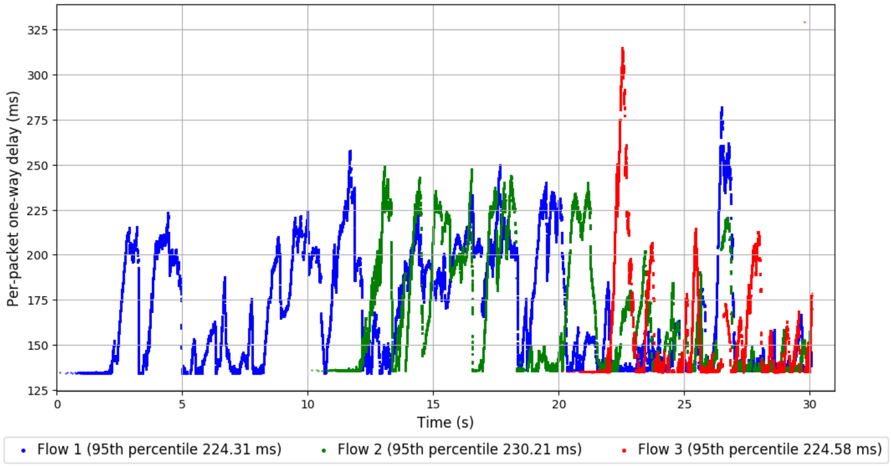




```
Run 10: Statistics of FillP

Start at: 2018-07-19 08:30:50
End at: 2018-07-19 08:31:20
Local clock offset: 0.137 ms
Remote clock offset: -0.447 ms

# Below is generated by plot.py at 2018-07-19 10:08:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1163.49 Mbit/s
95th percentile per-packet one-way delay: 227.810 ms
Loss rate: 3.35%
-- Flow 1:
Average throughput: 643.95 Mbit/s
95th percentile per-packet one-way delay: 224.311 ms
Loss rate: 3.54%
-- Flow 2:
Average throughput: 551.88 Mbit/s
95th percentile per-packet one-way delay: 230.209 ms
Loss rate: 3.32%
-- Flow 3:
Average throughput: 459.50 Mbit/s
95th percentile per-packet one-way delay: 224.576 ms
Loss rate: 2.61%
```

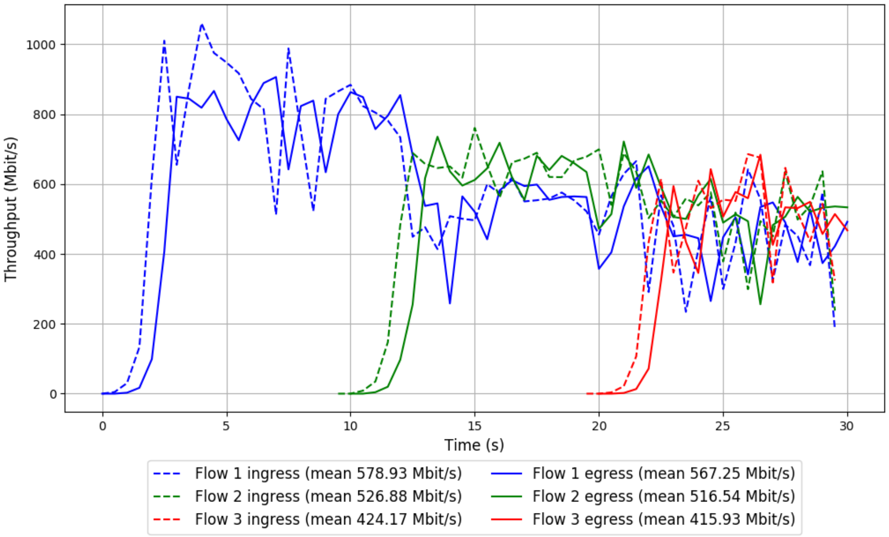
Run 10: Report of FillP — Data Link

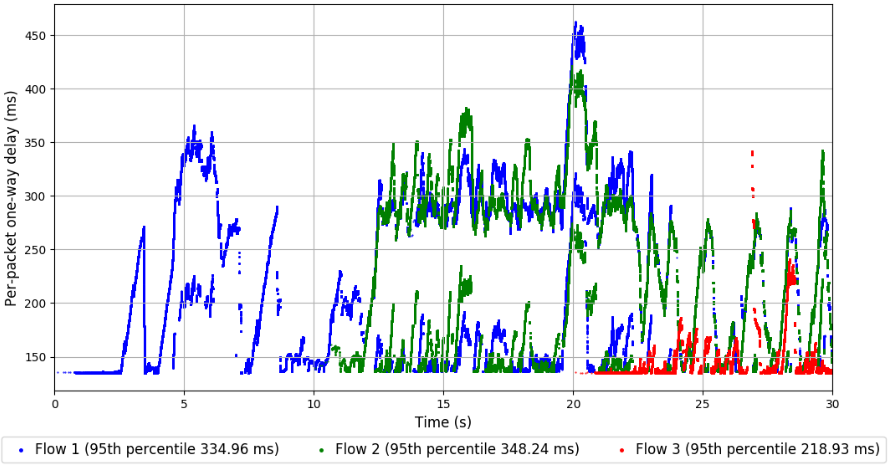




```
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-19 04:21:09
End at: 2018-07-19 04:21:39
Local clock offset: -0.354 ms
Remote clock offset: -0.147 ms

# Below is generated by plot.py at 2018-07-19 10:08:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1050.03 Mbit/s
95th percentile per-packet one-way delay: 335.821 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 567.25 Mbit/s
95th percentile per-packet one-way delay: 334.959 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 516.54 Mbit/s
95th percentile per-packet one-way delay: 348.244 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 415.93 Mbit/s
95th percentile per-packet one-way delay: 218.926 ms
Loss rate: 1.94%
```

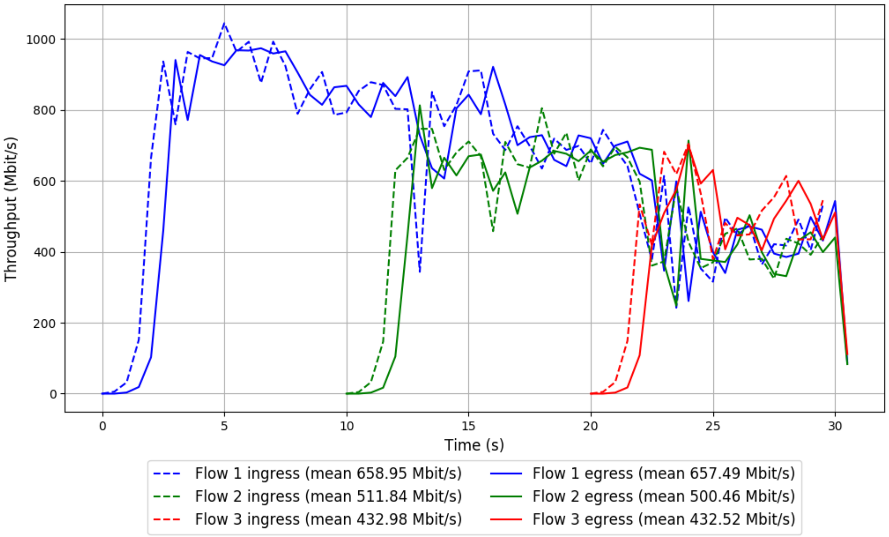
Run 1: Report of FillP-Sheep — Data Link

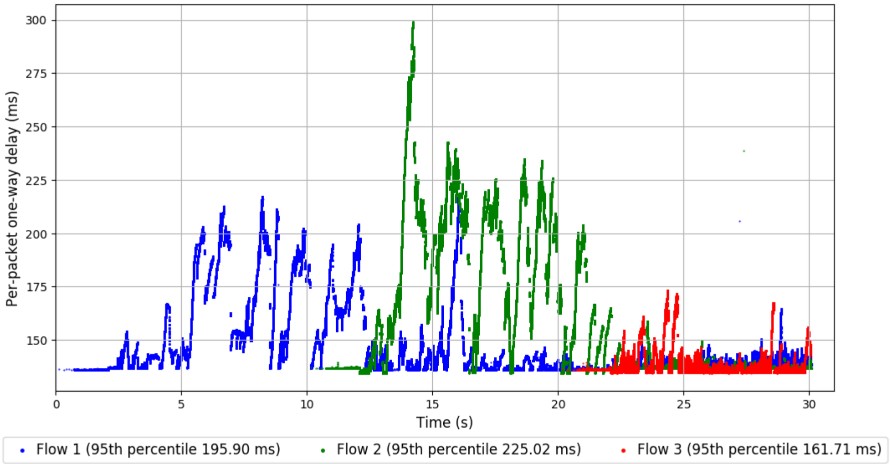




```
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-19 04:47:44
End at: 2018-07-19 04:48:14
Local clock offset: -0.17 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2018-07-19 10:08:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1133.54 Mbit/s
95th percentile per-packet one-way delay: 208.389 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 657.49 Mbit/s
95th percentile per-packet one-way delay: 195.897 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 500.46 Mbit/s
95th percentile per-packet one-way delay: 225.021 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 432.52 Mbit/s
95th percentile per-packet one-way delay: 161.707 ms
Loss rate: 0.00%
```

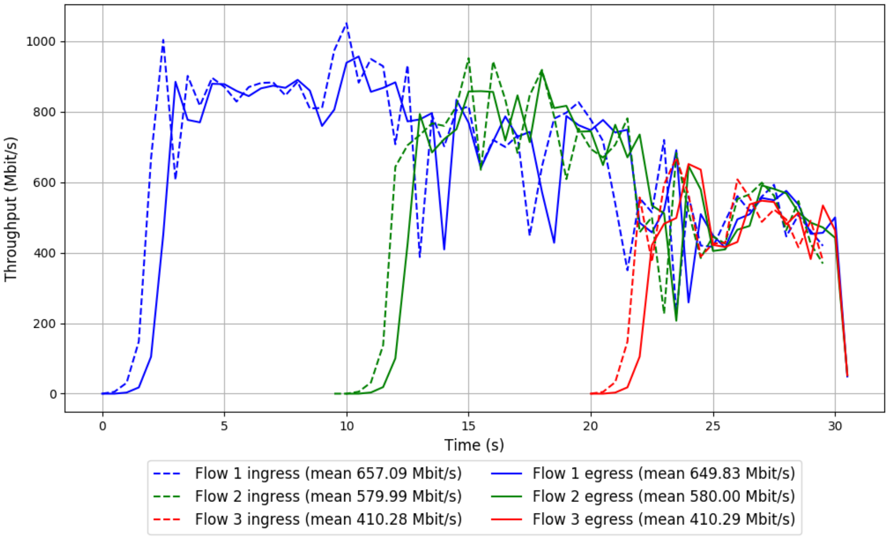
Run 2: Report of FillP-Sheep — Data Link

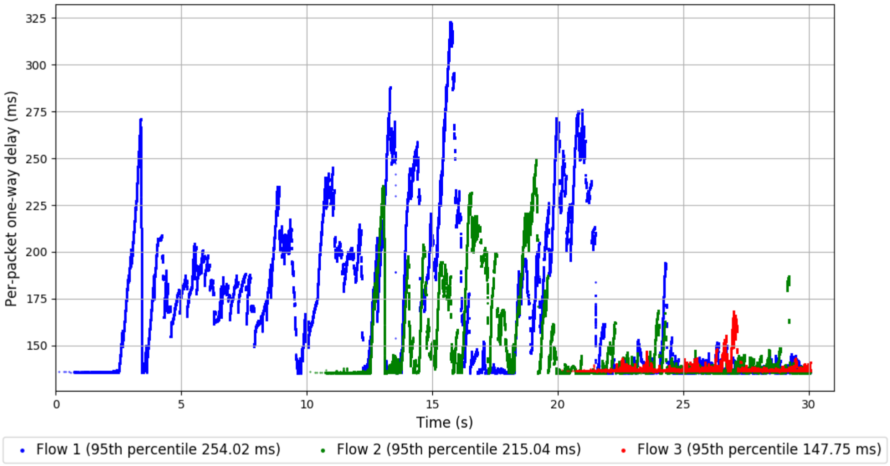




```
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-19 05:14:47
End at: 2018-07-19 05:15:17
Local clock offset: -0.392 ms
Remote clock offset: 0.273 ms

# Below is generated by plot.py at 2018-07-19 10:10:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1172.05 Mbit/s
95th percentile per-packet one-way delay: 237.829 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 649.83 Mbit/s
95th percentile per-packet one-way delay: 254.021 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 580.00 Mbit/s
95th percentile per-packet one-way delay: 215.040 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 410.29 Mbit/s
95th percentile per-packet one-way delay: 147.746 ms
Loss rate: 0.00%
```

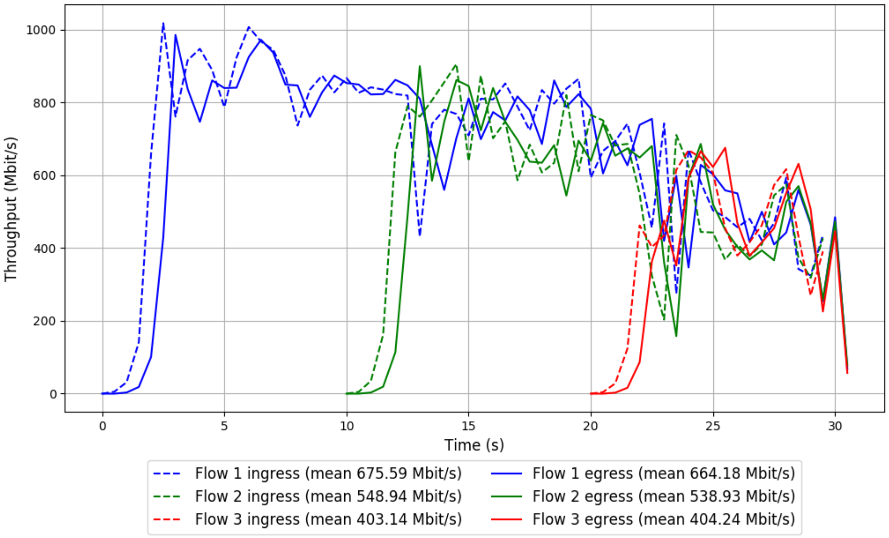
Run 3: Report of FillP-Sheep — Data Link

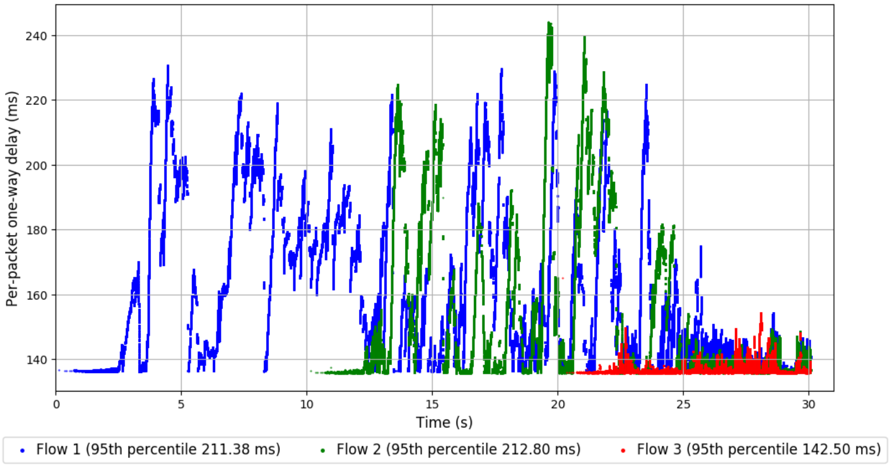




```
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-19 05:41:50
End at: 2018-07-19 05:42:20
Local clock offset: 0.009 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-07-19 10:10:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1156.43 Mbit/s
95th percentile per-packet one-way delay: 210.269 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 664.18 Mbit/s
95th percentile per-packet one-way delay: 211.379 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 538.93 Mbit/s
95th percentile per-packet one-way delay: 212.799 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 404.24 Mbit/s
95th percentile per-packet one-way delay: 142.499 ms
Loss rate: 0.00%
```

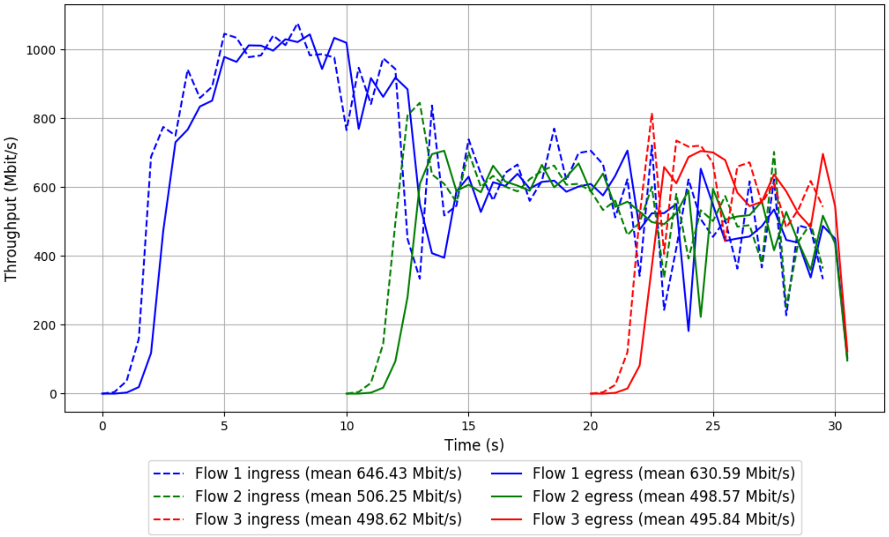
Run 4: Report of FillP-Sheep — Data Link

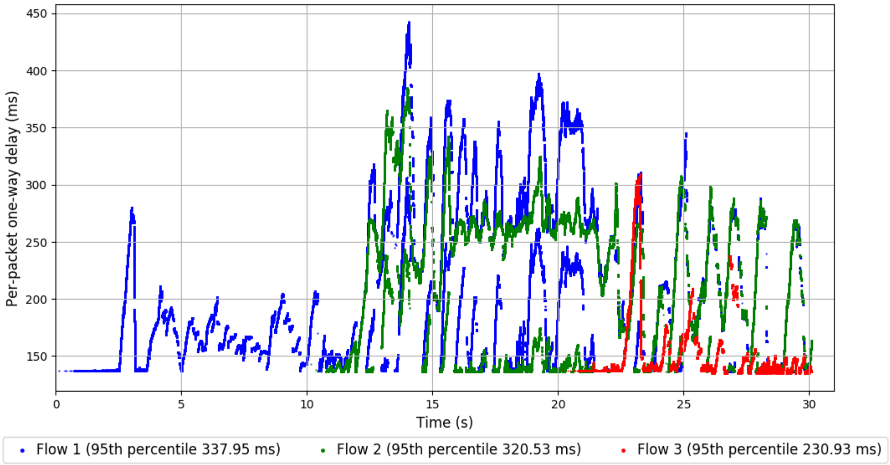




```
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-19 06:08:50
End at: 2018-07-19 06:09:20
Local clock offset: -0.357 ms
Remote clock offset: 0.281 ms

# Below is generated by plot.py at 2018-07-19 10:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1125.81 Mbit/s
95th percentile per-packet one-way delay: 321.779 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 630.59 Mbit/s
95th percentile per-packet one-way delay: 337.946 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 498.57 Mbit/s
95th percentile per-packet one-way delay: 320.530 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 495.84 Mbit/s
95th percentile per-packet one-way delay: 230.928 ms
Loss rate: 0.57%
```

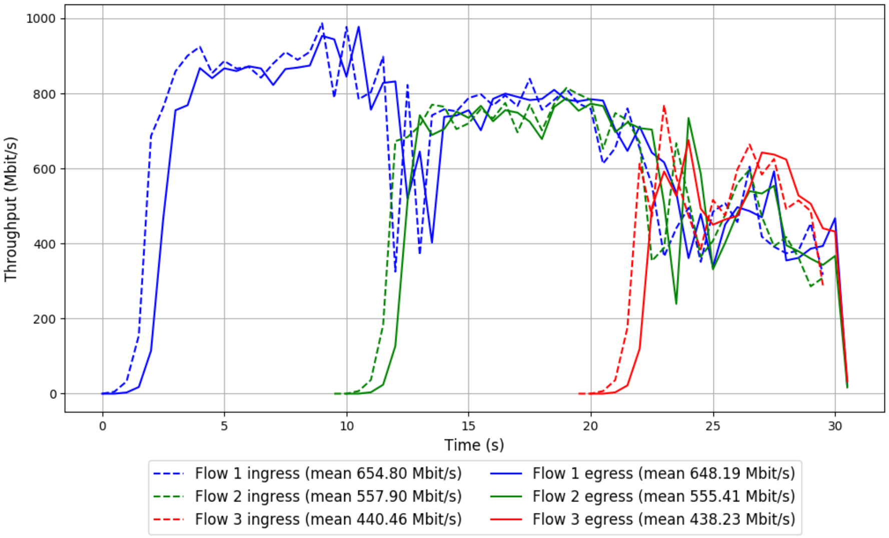
Run 5: Report of FillP-Sheep — Data Link

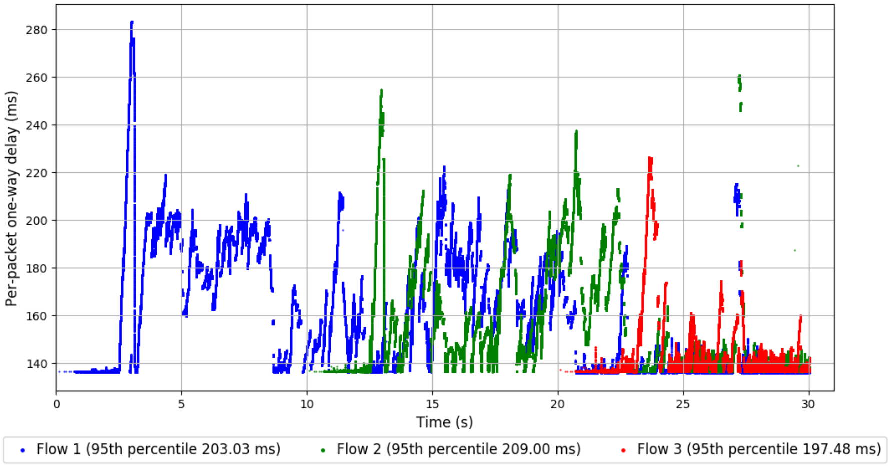




```
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-19 06:35:37
End at: 2018-07-19 06:36:07
Local clock offset: 0.026 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-19 10:12:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1163.88 Mbit/s
95th percentile per-packet one-way delay: 204.553 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 648.19 Mbit/s
95th percentile per-packet one-way delay: 203.033 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 555.41 Mbit/s
95th percentile per-packet one-way delay: 209.003 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 438.23 Mbit/s
95th percentile per-packet one-way delay: 197.480 ms
Loss rate: 0.50%
```

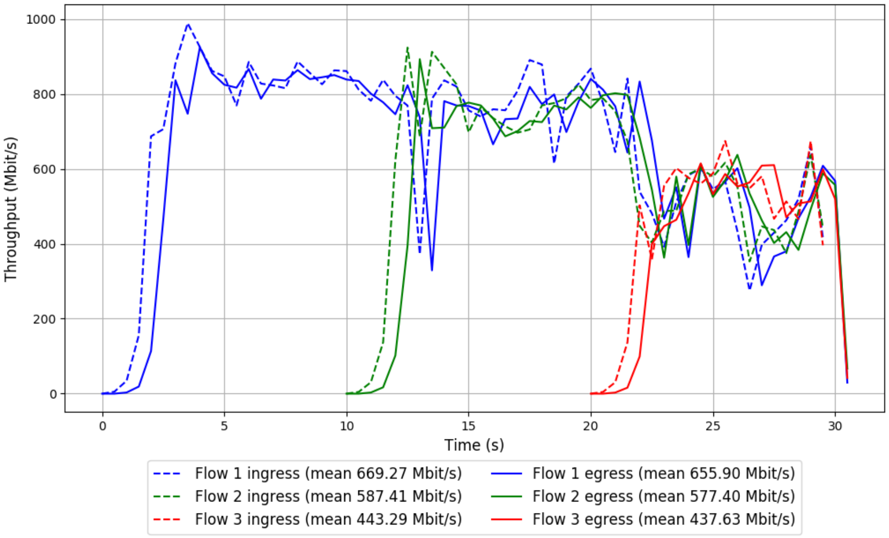
Run 6: Report of FillP-Sheep — Data Link

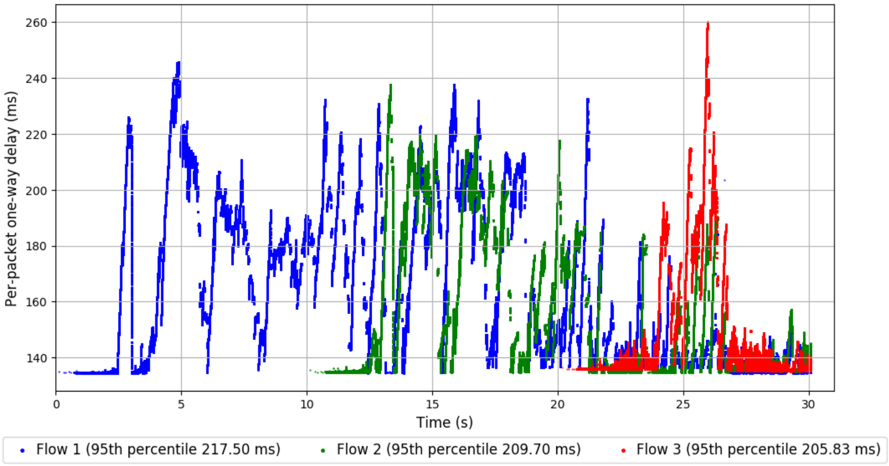




```
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-19 07:02:49
End at: 2018-07-19 07:03:19
Local clock offset: -0.09 ms
Remote clock offset: -0.141 ms

# Below is generated by plot.py at 2018-07-19 10:30:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1185.26 Mbit/s
95th percentile per-packet one-way delay: 213.236 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 655.90 Mbit/s
95th percentile per-packet one-way delay: 217.500 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 577.40 Mbit/s
95th percentile per-packet one-way delay: 209.697 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 437.63 Mbit/s
95th percentile per-packet one-way delay: 205.827 ms
Loss rate: 1.25%
```

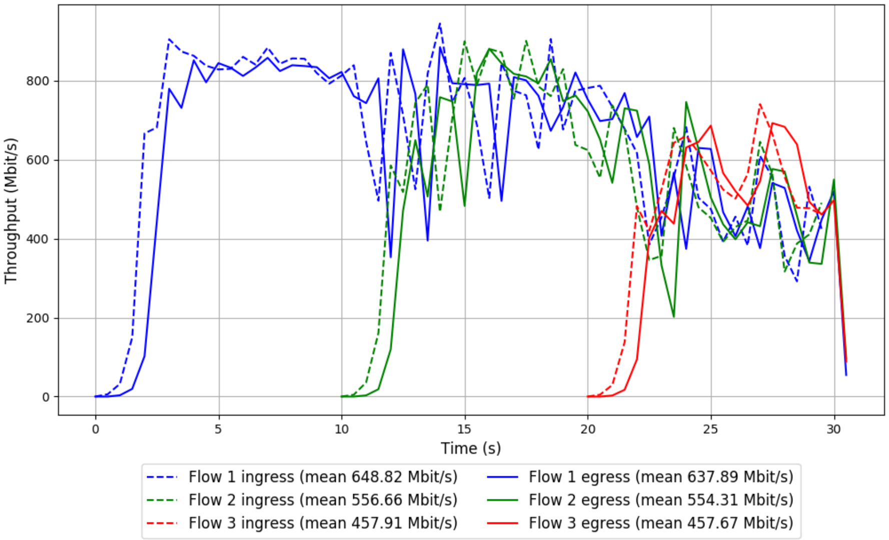
Run 7: Report of FillP-Sheep — Data Link

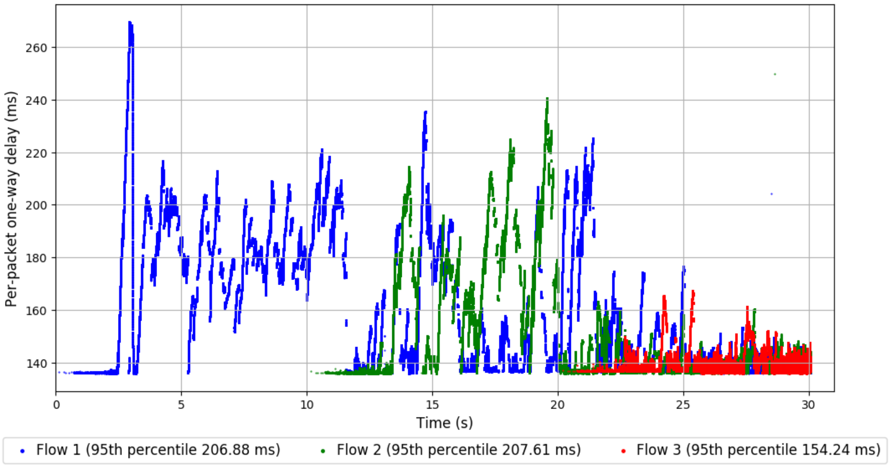




```
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-19 07:29:51
End at: 2018-07-19 07:30:21
Local clock offset: -0.161 ms
Remote clock offset: 0.102 ms

# Below is generated by plot.py at 2018-07-19 10:34:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1157.97 Mbit/s
95th percentile per-packet one-way delay: 205.556 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 637.89 Mbit/s
95th percentile per-packet one-way delay: 206.875 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 554.31 Mbit/s
95th percentile per-packet one-way delay: 207.613 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 457.67 Mbit/s
95th percentile per-packet one-way delay: 154.242 ms
Loss rate: 0.05%
```

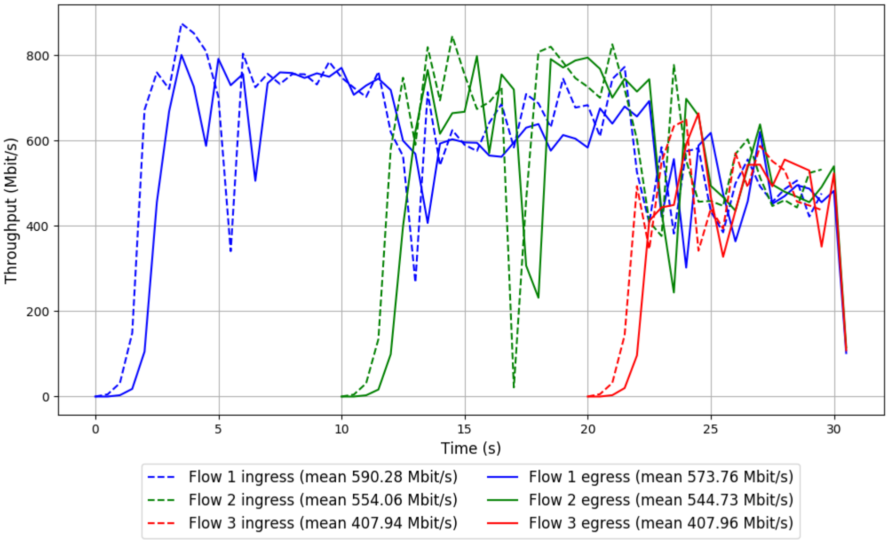
Run 8: Report of FillP-Sheep — Data Link

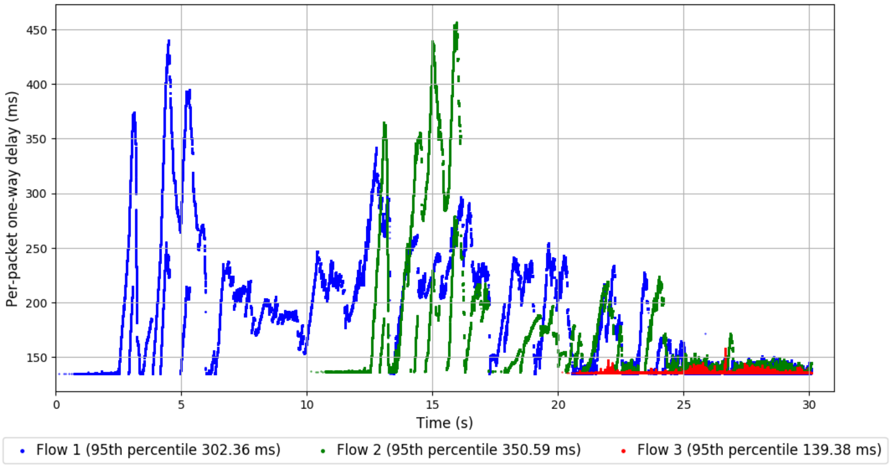




```
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-19 07:56:52
End at: 2018-07-19 07:57:22
Local clock offset: -0.057 ms
Remote clock offset: 0.088 ms

# Below is generated by plot.py at 2018-07-19 10:34:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1071.59 Mbit/s
95th percentile per-packet one-way delay: 312.732 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 573.76 Mbit/s
95th percentile per-packet one-way delay: 302.359 ms
Loss rate: 2.79%
-- Flow 2:
Average throughput: 544.73 Mbit/s
95th percentile per-packet one-way delay: 350.587 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 407.96 Mbit/s
95th percentile per-packet one-way delay: 139.384 ms
Loss rate: 0.00%
```

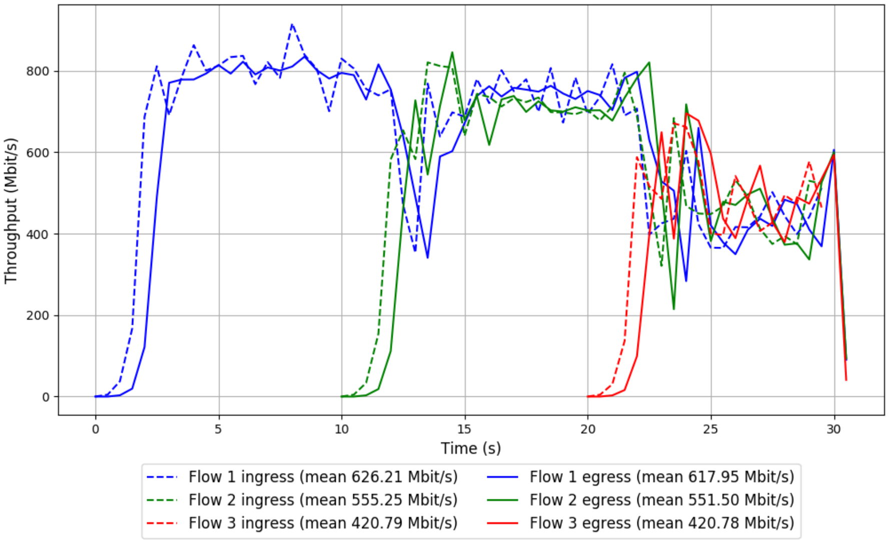
Run 9: Report of FillP-Sheep — Data Link

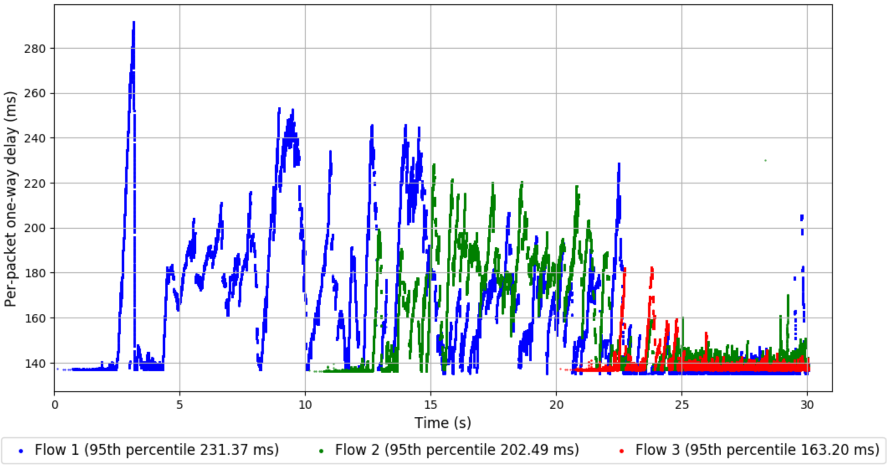




```
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-19 08:23:41
End at: 2018-07-19 08:24:11
Local clock offset: -0.098 ms
Remote clock offset: 0.312 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1124.15 Mbit/s
95th percentile per-packet one-way delay: 216.866 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 617.95 Mbit/s
95th percentile per-packet one-way delay: 231.366 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 551.50 Mbit/s
95th percentile per-packet one-way delay: 202.485 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 420.78 Mbit/s
95th percentile per-packet one-way delay: 163.198 ms
Loss rate: 0.00%
```

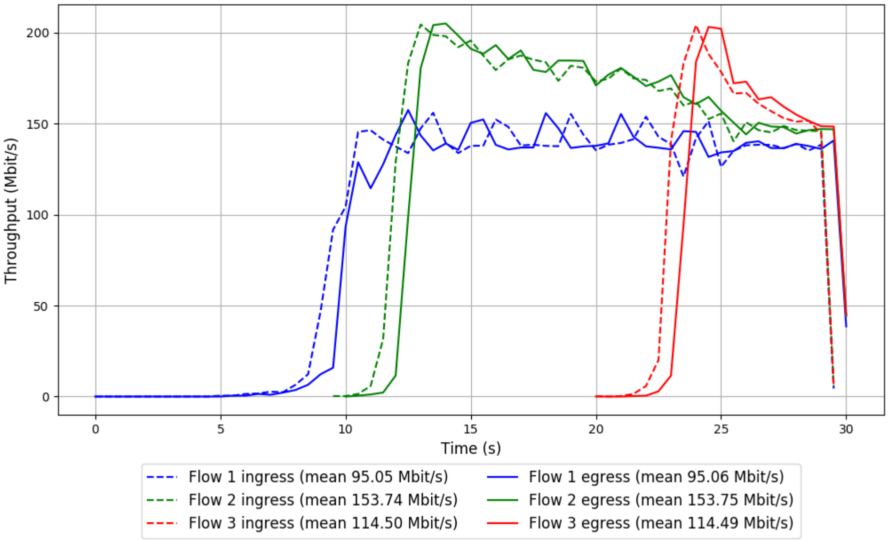
Run 10: Report of FillP-Sheep — Data Link

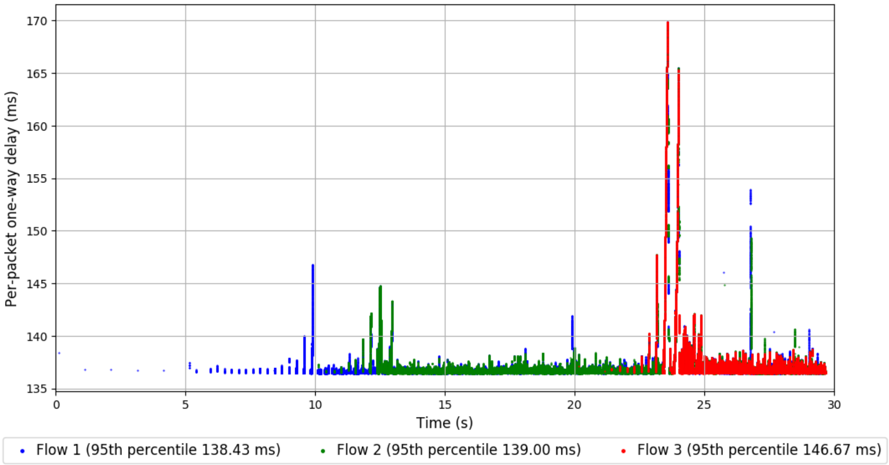




```
Run 1: Statistics of Indigo

Start at: 2018-07-19 04:37:13
End at: 2018-07-19 04:37:43
Local clock offset: -0.091 ms
Remote clock offset: 0.23 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 233.66 Mbit/s
95th percentile per-packet one-way delay: 139.540 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.06 Mbit/s
95th percentile per-packet one-way delay: 138.426 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 153.75 Mbit/s
95th percentile per-packet one-way delay: 138.996 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 114.49 Mbit/s
95th percentile per-packet one-way delay: 146.673 ms
Loss rate: 0.01%
```

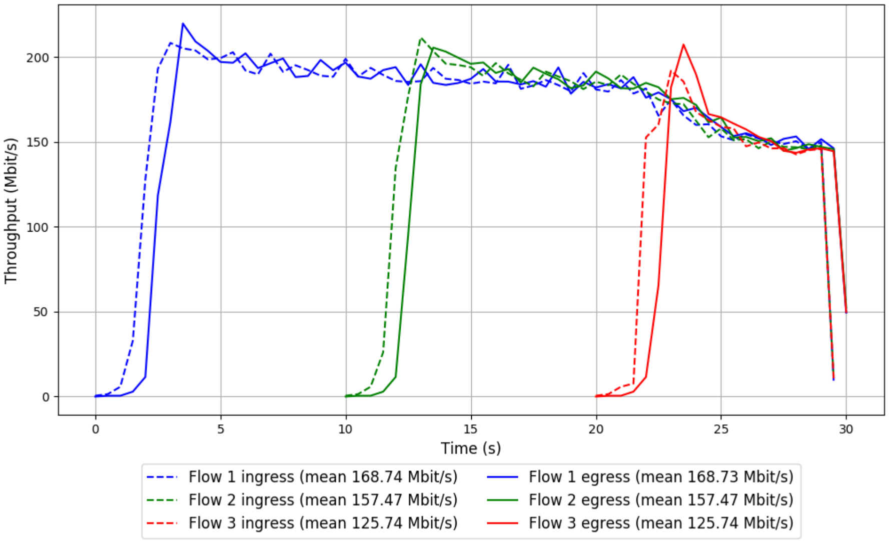
Run 1: Report of Indigo — Data Link

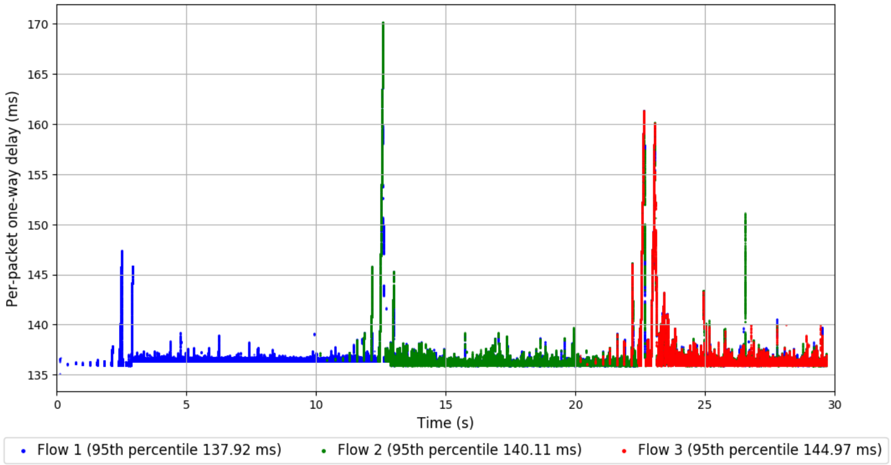




```
Run 2: Statistics of Indigo

Start at: 2018-07-19 05:03:53
End at: 2018-07-19 05:04:23
Local clock offset: -0.229 ms
Remote clock offset: -0.092 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.26 Mbit/s
95th percentile per-packet one-way delay: 139.343 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 168.73 Mbit/s
95th percentile per-packet one-way delay: 137.918 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 157.47 Mbit/s
95th percentile per-packet one-way delay: 140.110 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 125.74 Mbit/s
95th percentile per-packet one-way delay: 144.968 ms
Loss rate: 0.00%
```

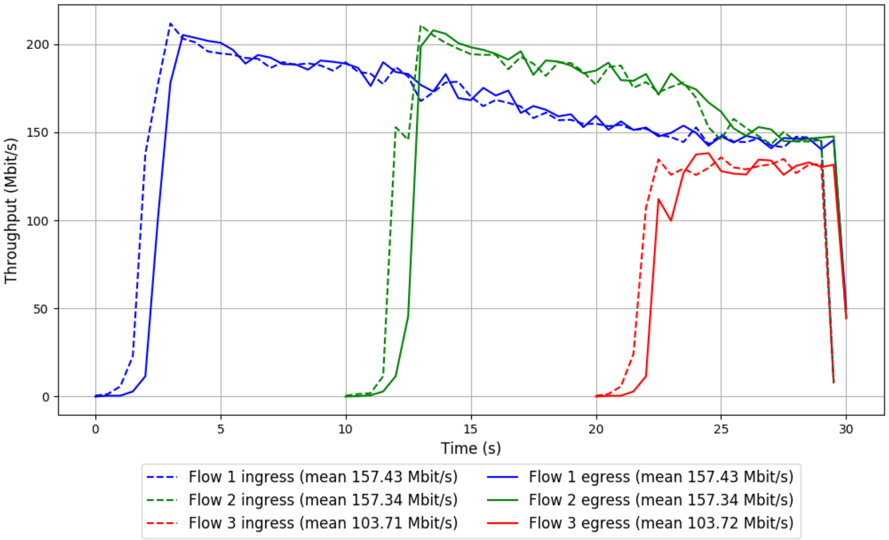
Run 2: Report of Indigo — Data Link

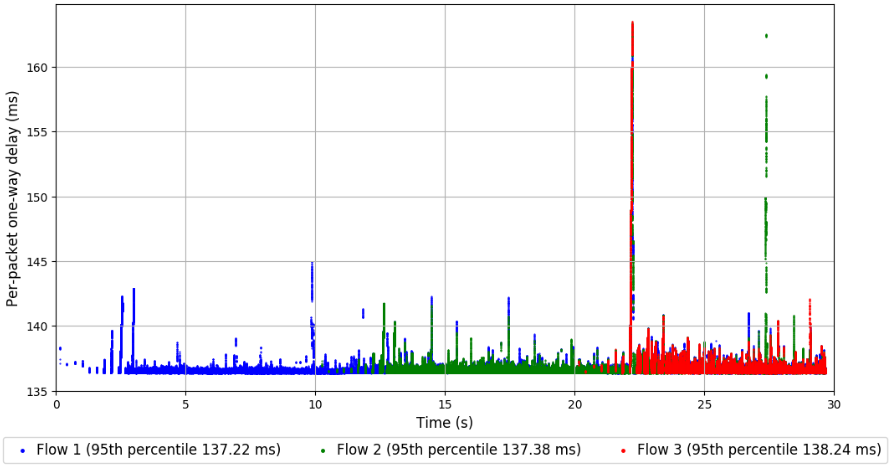




```
Run 3: Statistics of Indigo

Start at: 2018-07-19 05:31:05
End at: 2018-07-19 05:31:35
Local clock offset: -0.328 ms
Remote clock offset: 0.312 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.43 Mbit/s
95th percentile per-packet one-way delay: 137.421 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 157.43 Mbit/s
95th percentile per-packet one-way delay: 137.220 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 157.34 Mbit/s
95th percentile per-packet one-way delay: 137.376 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 103.72 Mbit/s
95th percentile per-packet one-way delay: 138.244 ms
Loss rate: 0.00%
```

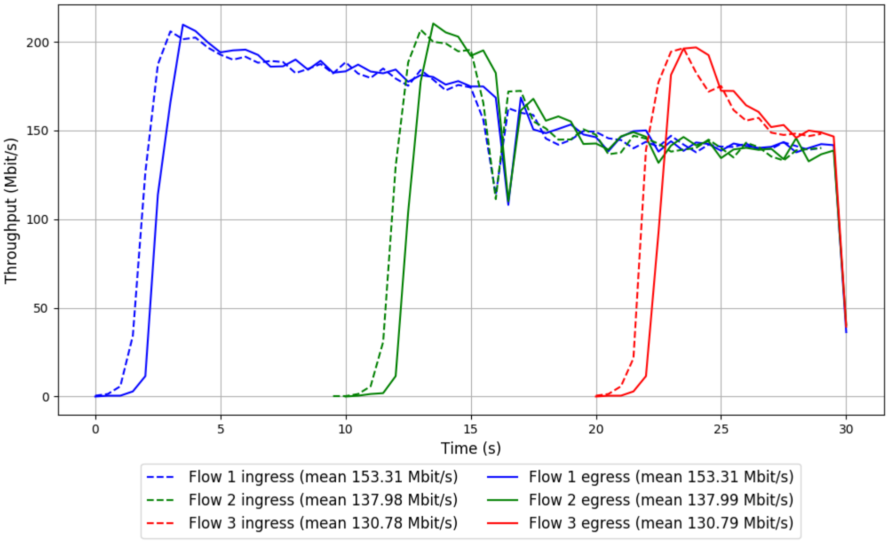
Run 3: Report of Indigo — Data Link

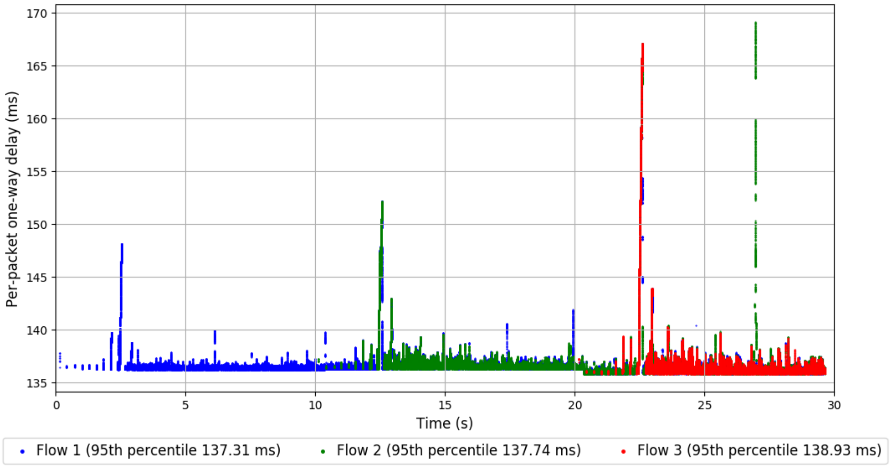




```
Run 4: Statistics of Indigo

Start at: 2018-07-19 05:58:05
End at: 2018-07-19 05:58:35
Local clock offset: -0.089 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.60 Mbit/s
95th percentile per-packet one-way delay: 137.567 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 153.31 Mbit/s
95th percentile per-packet one-way delay: 137.312 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 137.99 Mbit/s
95th percentile per-packet one-way delay: 137.743 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 130.79 Mbit/s
95th percentile per-packet one-way delay: 138.925 ms
Loss rate: 0.00%
```

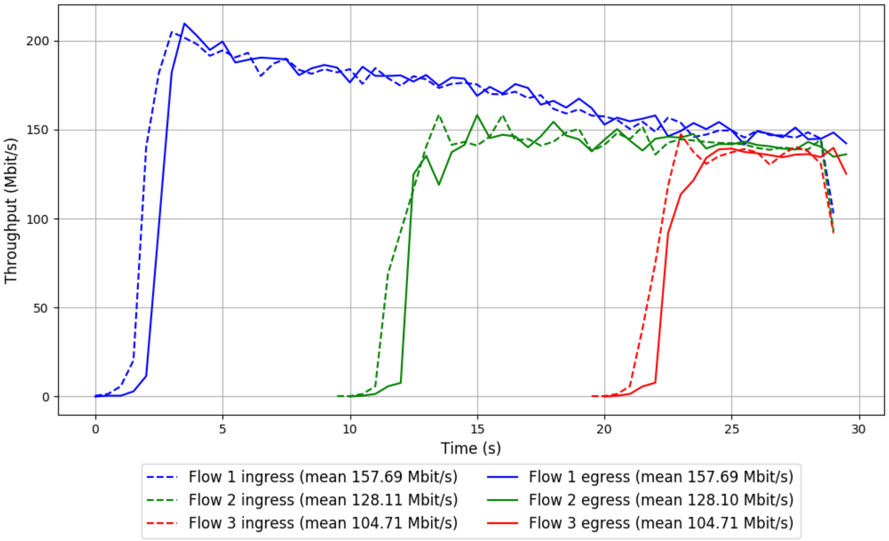
Run 4: Report of Indigo — Data Link

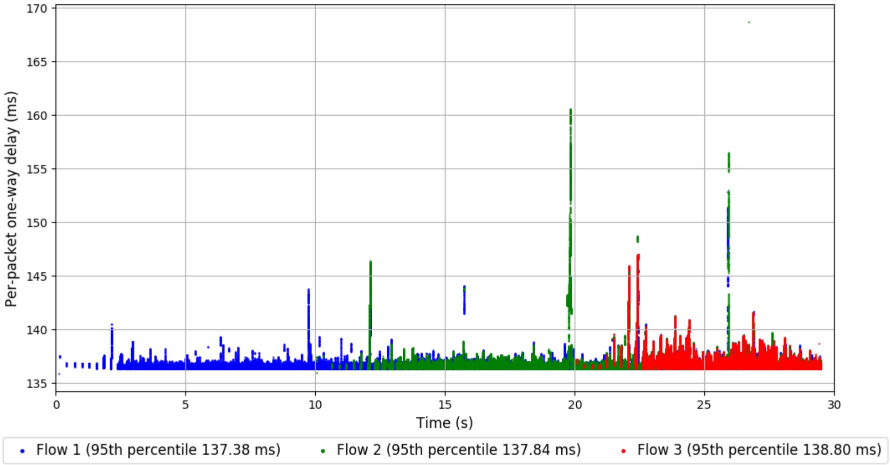




```
Run 5: Statistics of Indigo

Start at: 2018-07-19 06:25:01
End at: 2018-07-19 06:25:31
Local clock offset: -0.114 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 276.07 Mbit/s
95th percentile per-packet one-way delay: 137.748 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 157.69 Mbit/s
95th percentile per-packet one-way delay: 137.385 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 128.10 Mbit/s
95th percentile per-packet one-way delay: 137.845 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 104.71 Mbit/s
95th percentile per-packet one-way delay: 138.802 ms
Loss rate: 0.00%
```

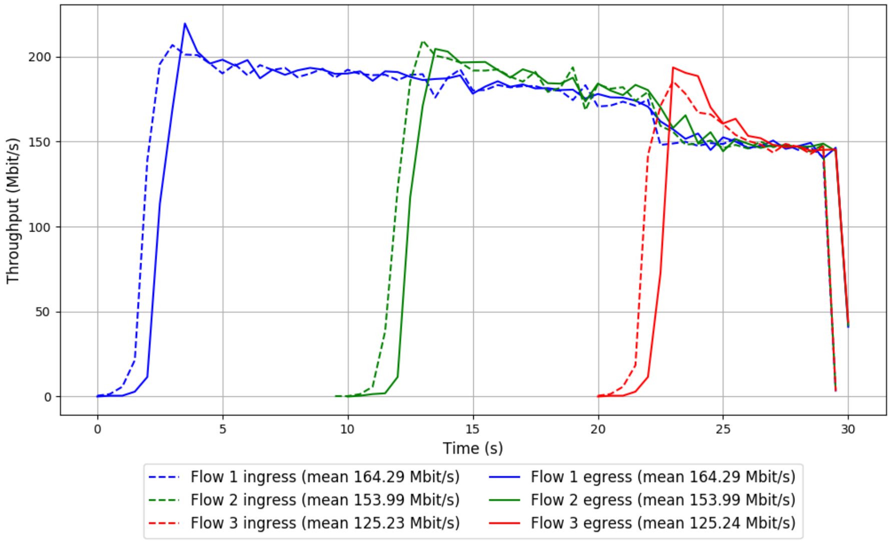
Run 5: Report of Indigo — Data Link

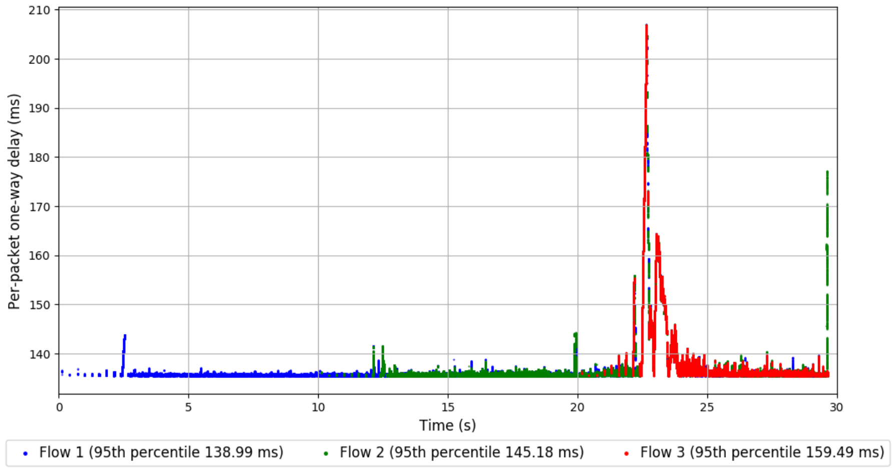




```
Run 6: Statistics of Indigo

Start at: 2018-07-19 06:51:45
End at: 2018-07-19 06:52:15
Local clock offset: -0.063 ms
Remote clock offset: -0.381 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.40 Mbit/s
95th percentile per-packet one-way delay: 144.888 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 164.29 Mbit/s
95th percentile per-packet one-way delay: 138.988 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 153.99 Mbit/s
95th percentile per-packet one-way delay: 145.177 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 125.24 Mbit/s
95th percentile per-packet one-way delay: 159.489 ms
Loss rate: 0.00%
```

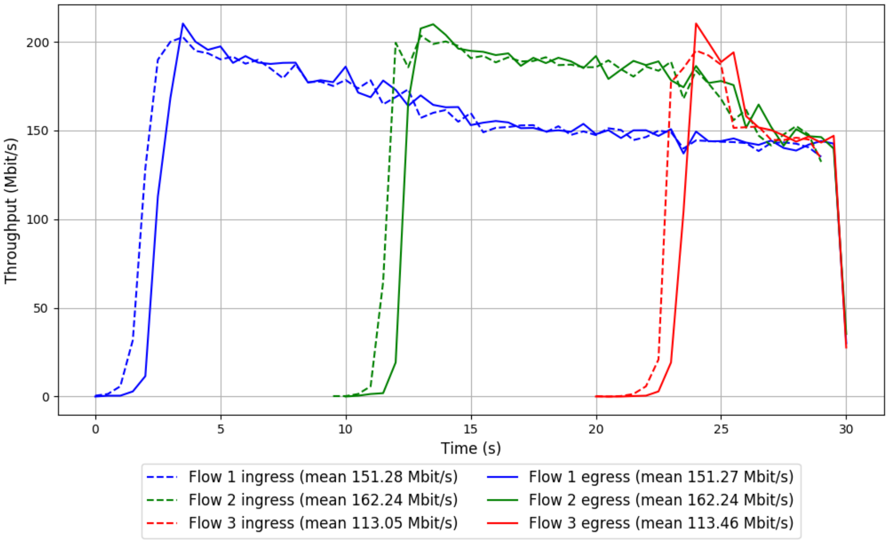
Run 6: Report of Indigo — Data Link

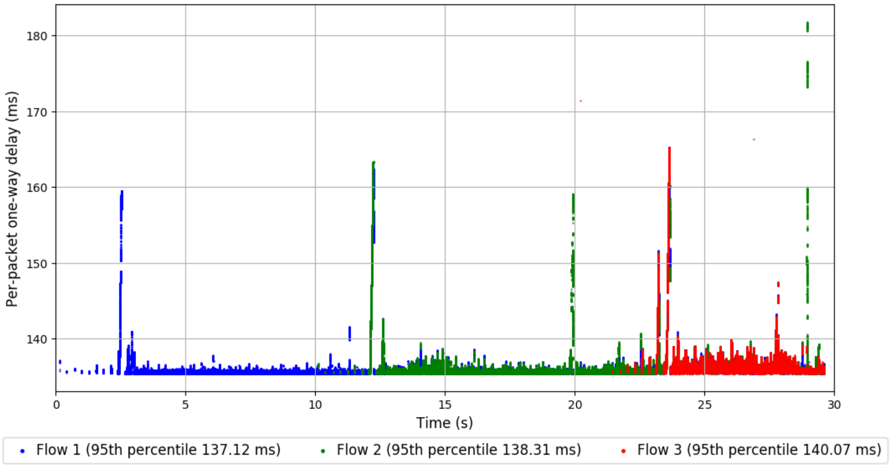




```
Run 7: Statistics of Indigo

Start at: 2018-07-19 07:18:53
End at: 2018-07-19 07:19:23
Local clock offset: -0.101 ms
Remote clock offset: -0.543 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.87 Mbit/s
95th percentile per-packet one-way delay: 137.847 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 151.27 Mbit/s
95th percentile per-packet one-way delay: 137.123 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 162.24 Mbit/s
95th percentile per-packet one-way delay: 138.311 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 113.46 Mbit/s
95th percentile per-packet one-way delay: 140.069 ms
Loss rate: 0.01%
```

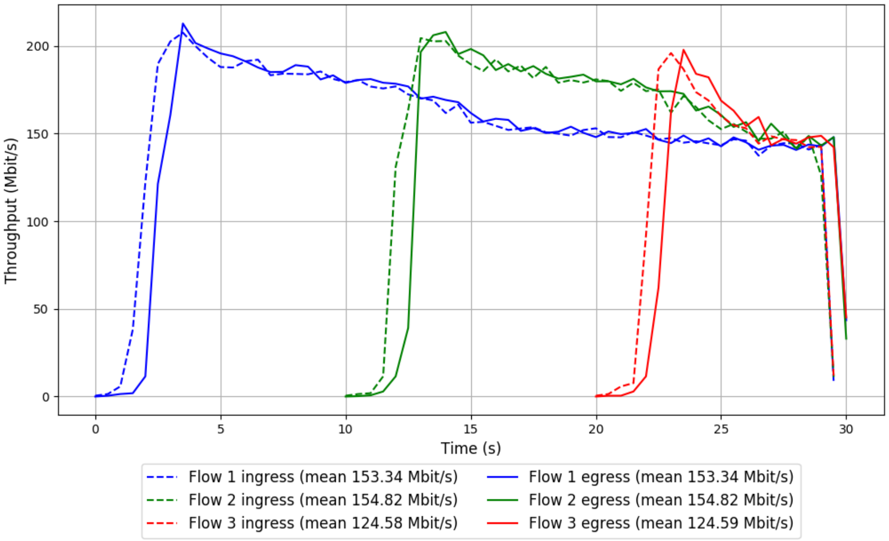
Run 7: Report of Indigo — Data Link

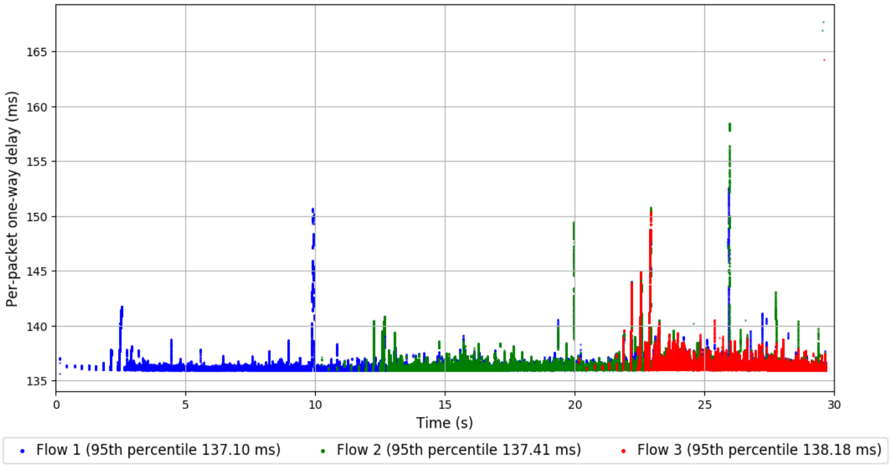




```
Run 8: Statistics of Indigo

Start at: 2018-07-19 07:45:48
End at: 2018-07-19 07:46:18
Local clock offset: -0.272 ms
Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2018-07-19 10:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.29 Mbit/s
95th percentile per-packet one-way delay: 137.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 153.34 Mbit/s
95th percentile per-packet one-way delay: 137.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 154.82 Mbit/s
95th percentile per-packet one-way delay: 137.407 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.59 Mbit/s
95th percentile per-packet one-way delay: 138.179 ms
Loss rate: 0.00%
```

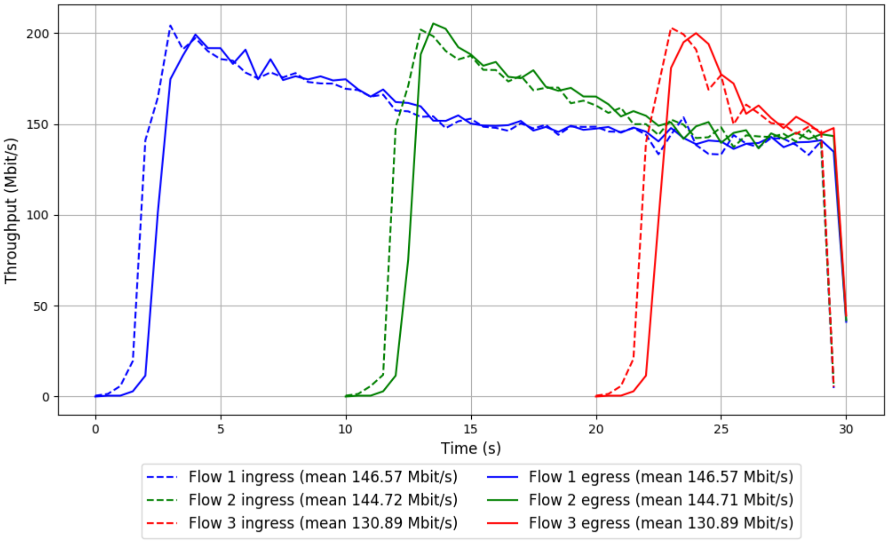
Run 8: Report of Indigo — Data Link

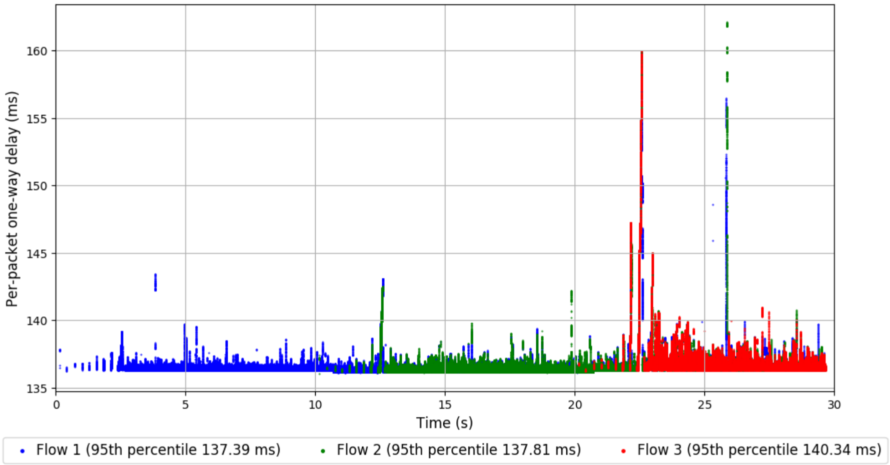




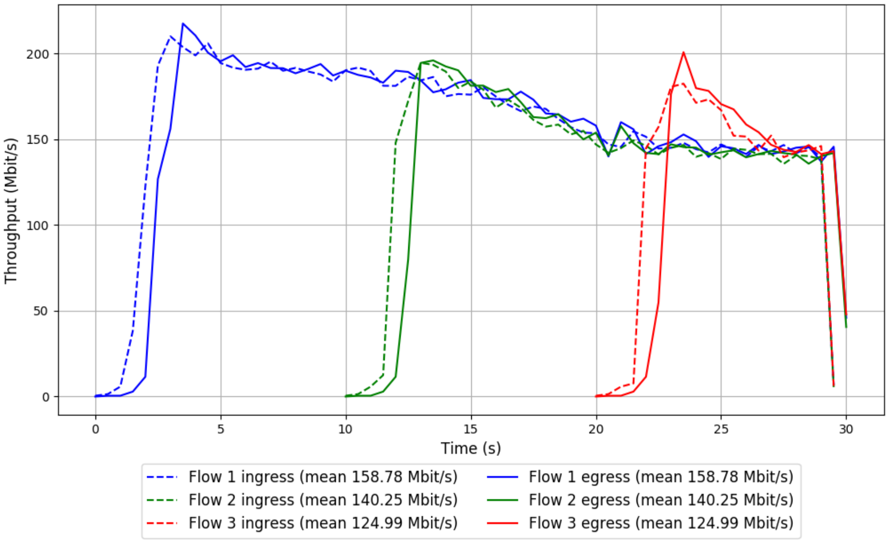
```
Run 9: Statistics of Indigo

Start at: 2018-07-19 08:12:45
End at: 2018-07-19 08:13:15
Local clock offset: -0.097 ms
Remote clock offset: -0.178 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.30 Mbit/s
95th percentile per-packet one-way delay: 137.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 146.57 Mbit/s
95th percentile per-packet one-way delay: 137.388 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 144.71 Mbit/s
95th percentile per-packet one-way delay: 137.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 130.89 Mbit/s
95th percentile per-packet one-way delay: 140.338 ms
Loss rate: 0.00%
```

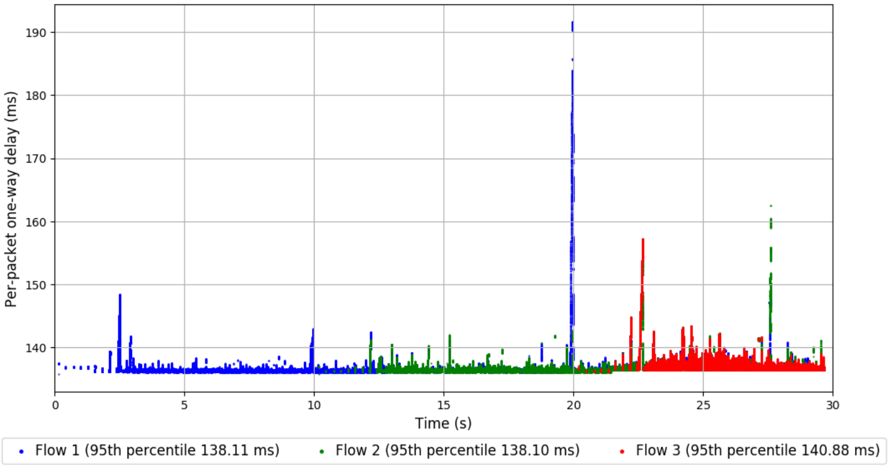
Run 9: Report of Indigo — Data Link





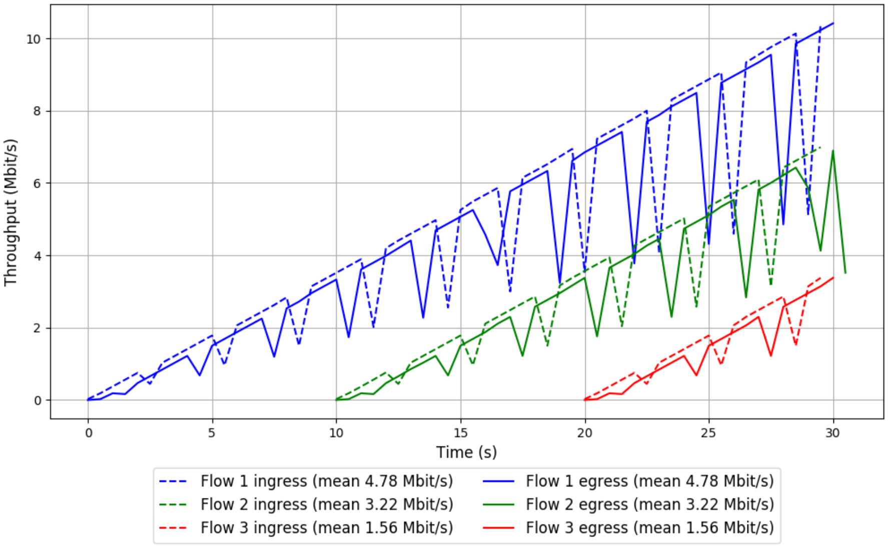
```
Run 10: Statistics of Indigo

Start at: 2018-07-19 08:39:54
End at: 2018-07-19 08:40:24
Local clock offset: 0.071 ms
Remote clock offset: 0.374 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.42 Mbit/s
95th percentile per-packet one-way delay: 138.499 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 158.78 Mbit/s
95th percentile per-packet one-way delay: 138.107 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.25 Mbit/s
95th percentile per-packet one-way delay: 138.099 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.99 Mbit/s
95th percentile per-packet one-way delay: 140.882 ms
Loss rate: 0.00%
```

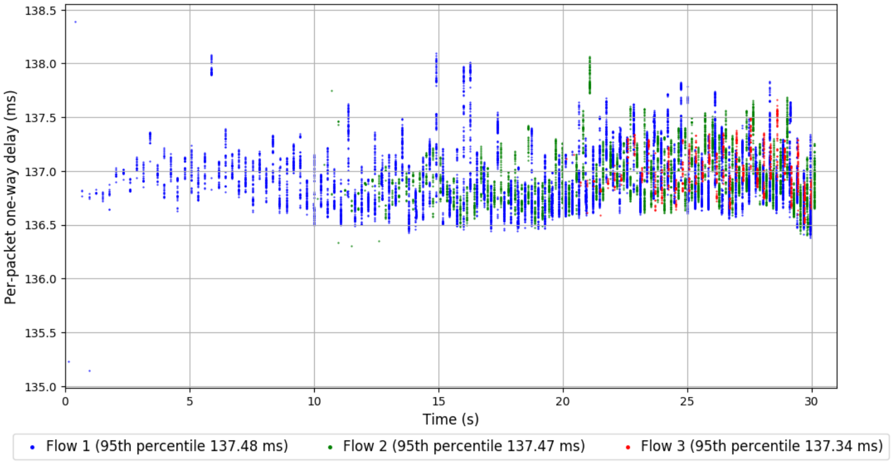

Throughput (Mbit/s)
200
150
100
50
0
0
5
10
15
20
25
30
Time (s)
Flow 1 ingress (mean 158.78 Mbit/s)
Flow 2 ingress (mean 140.25 Mbit/s)
Flow 3 ingress (mean 124.99 Mbit/s)
Flow 1 egress (mean 158.78 Mbit/s)
Flow 2 egress (mean 140.25 Mbit/s)
Flow 3 egress (mean 124.99 Mbit/s)


Per-packet one-way delay (ms)
190
180
170
160
150
140
0
5
10
15
20
25
30
Time (s)
Flow 1 (95th percentile 138.11 ms)
Flow 2 (95th percentile 138.10 ms)
Flow 3 (95th percentile 140.88 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2018-07-19 04:35:57
End at: 2018-07-19 04:36:27
Local clock offset: -0.351 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 137.470 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 137.480 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 137.468 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 137.342 ms
Loss rate: 0.00%
```

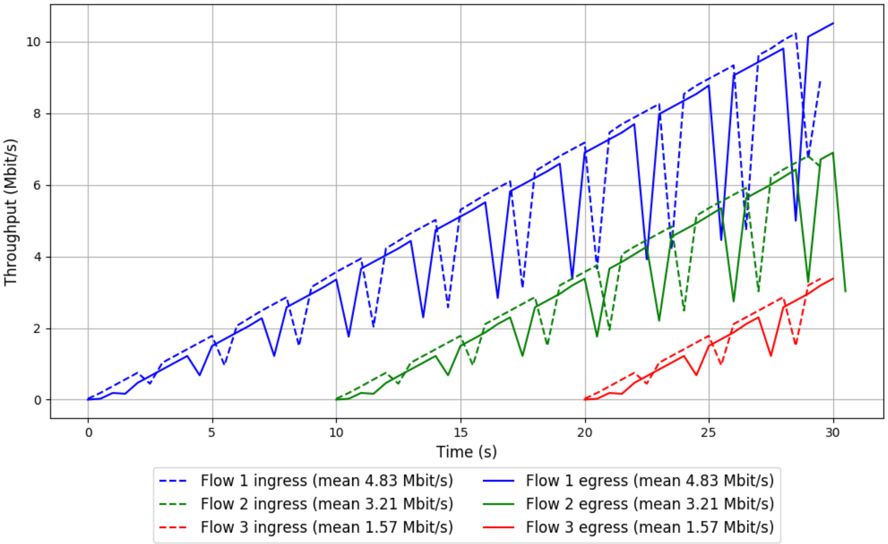
Run 1: Report of LEDBAT — Data Link

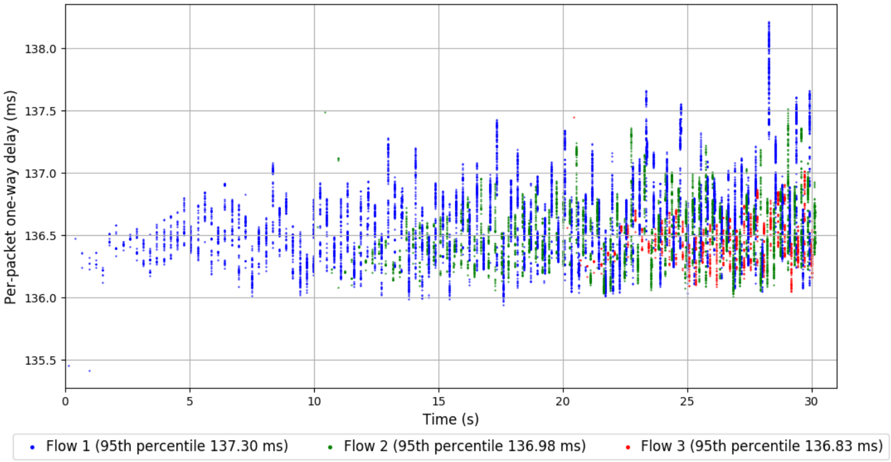




```
Run 2: Statistics of LEDBAT

Start at: 2018-07-19 05:02:37
End at: 2018-07-19 05:03:07
Local clock offset: -0.152 ms
Remote clock offset: -0.451 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 137.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.83 Mbit/s
95th percentile per-packet one-way delay: 137.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 136.984 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 0.00%
```

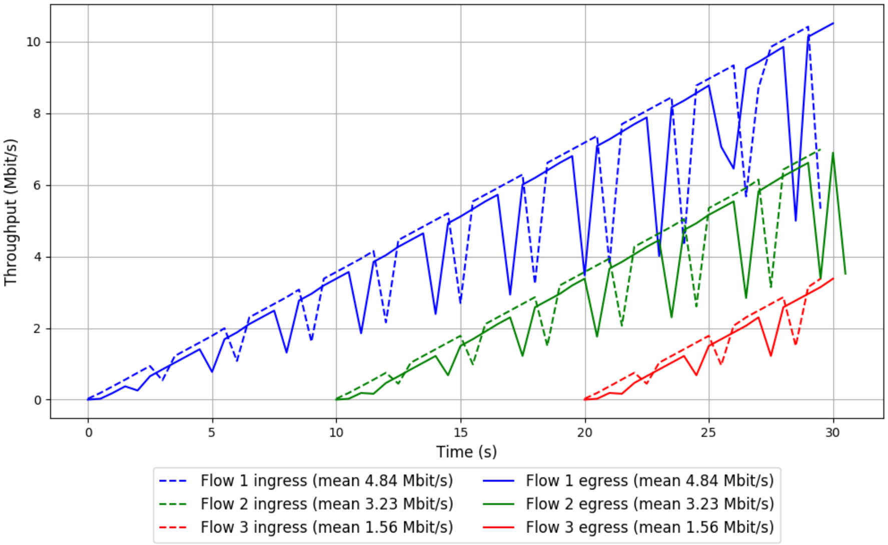
Run 2: Report of LEDBAT — Data Link

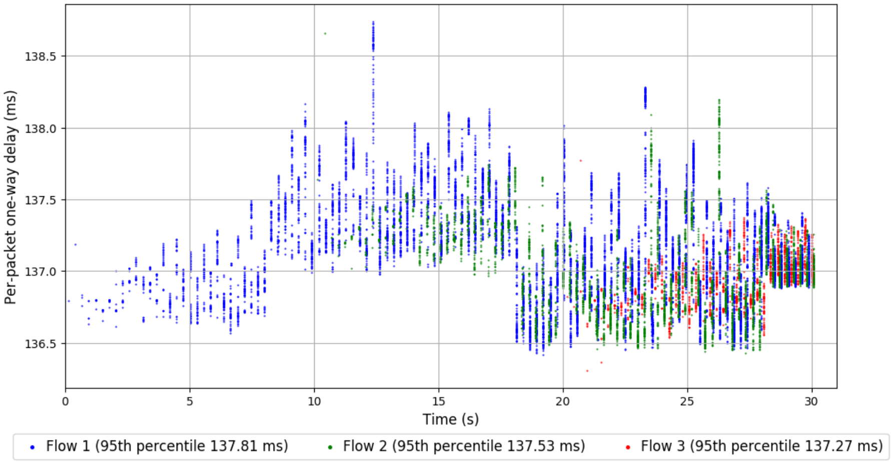




```
Run 3: Statistics of LEDBAT

Start at: 2018-07-19 05:29:48
End at: 2018-07-19 05:30:18
Local clock offset: -0.351 ms
Remote clock offset: 0.322 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 137.736 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 137.808 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.23 Mbit/s
95th percentile per-packet one-way delay: 137.530 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 137.273 ms
Loss rate: 0.00%
```

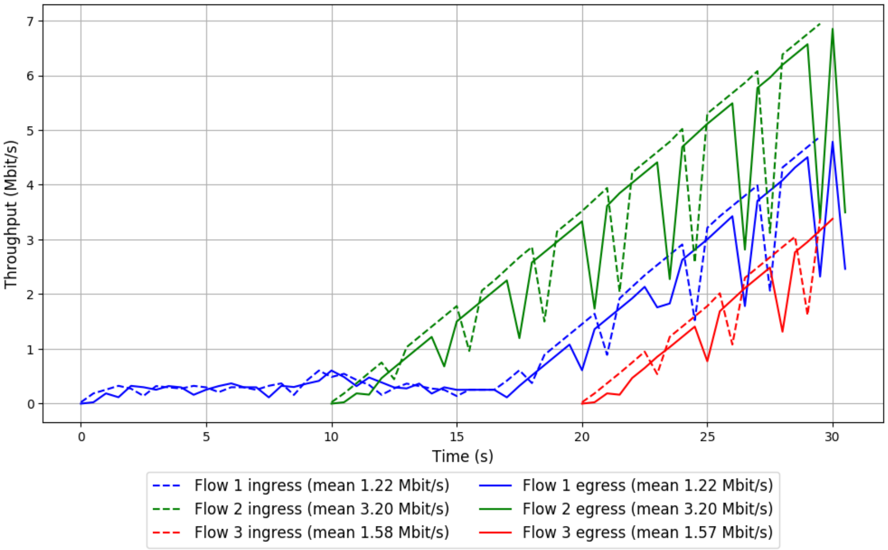
Run 3: Report of LEDBAT — Data Link

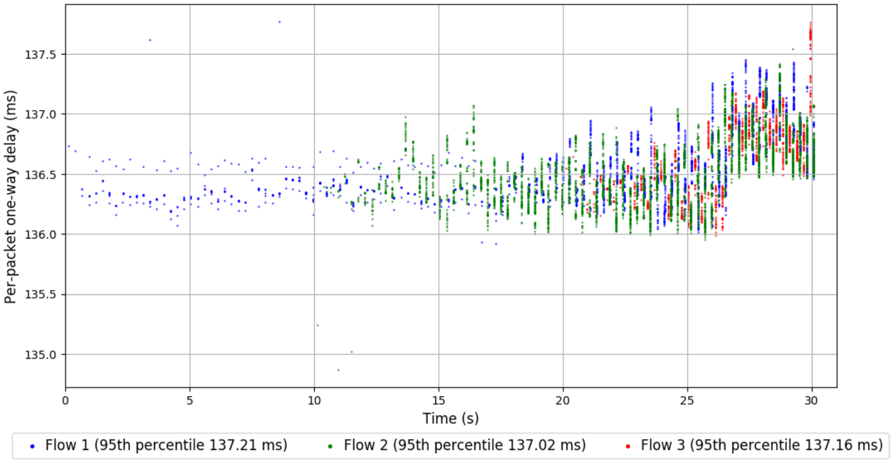




```
Run 4: Statistics of LEDBAT

Start at: 2018-07-19 05:56:50
End at: 2018-07-19 05:57:20
Local clock offset: -0.285 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 137.133 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 137.210 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 137.023 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 137.160 ms
Loss rate: 0.00%
```

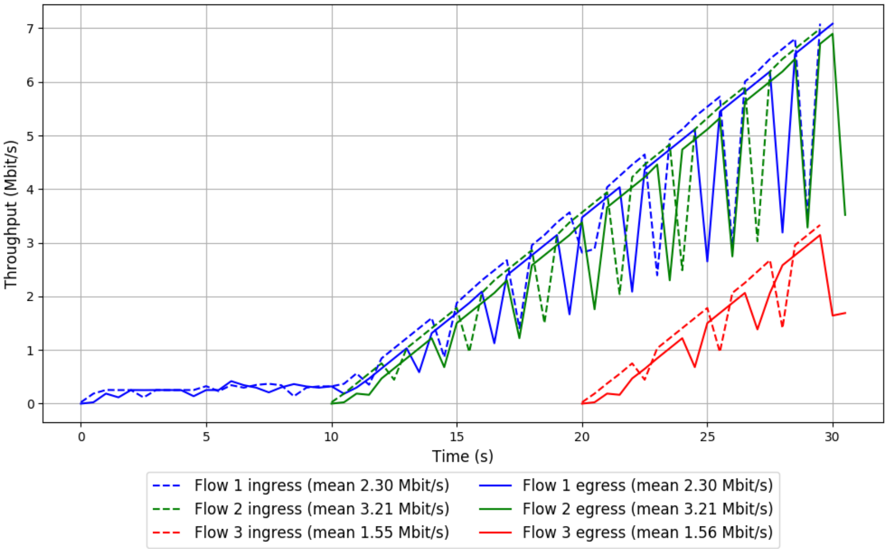
Run 4: Report of LEDBAT — Data Link

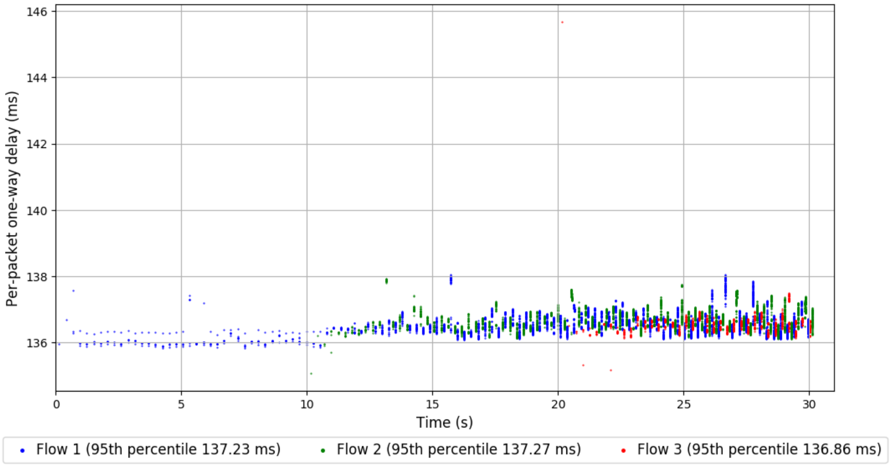




```
Run 5: Statistics of LEDBAT

Start at: 2018-07-19 06:23:45
End at: 2018-07-19 06:24:15
Local clock offset: -0.308 ms
Remote clock offset: -0.439 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 137.239 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 137.227 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 137.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 136.858 ms
Loss rate: 0.00%
```

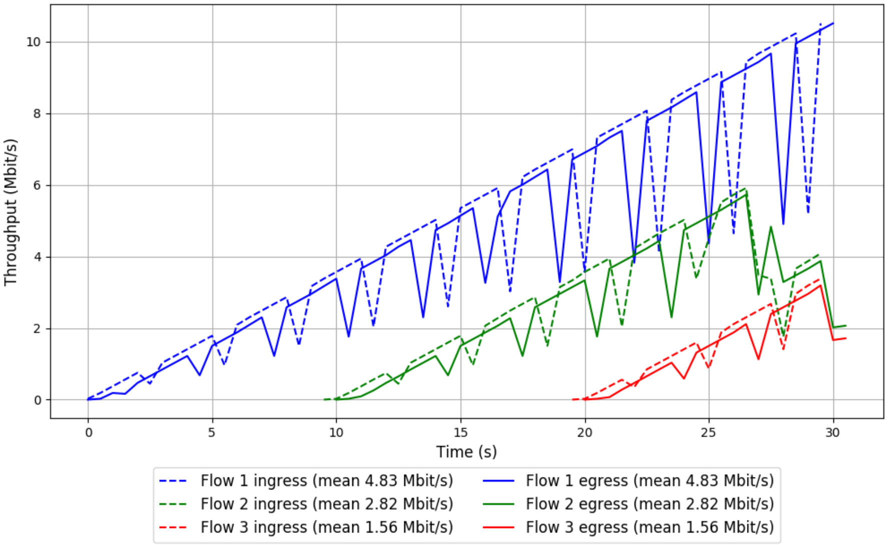
Run 5: Report of LEDBAT — Data Link

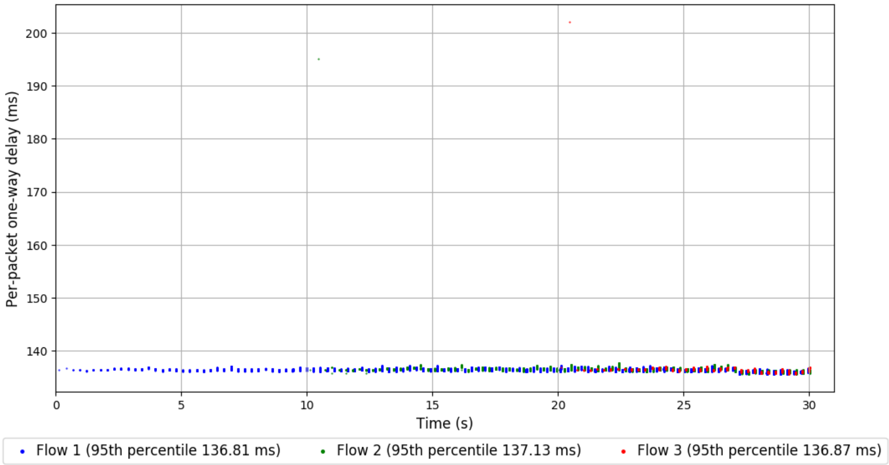




```
Run 6: Statistics of LEDBAT

Start at: 2018-07-19 06:50:29
End at: 2018-07-19 06:50:59
Local clock offset: 0.027 ms
Remote clock offset: -0.121 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 136.891 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.83 Mbit/s
95th percentile per-packet one-way delay: 136.815 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.82 Mbit/s
95th percentile per-packet one-way delay: 137.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 136.874 ms
Loss rate: 0.00%
```

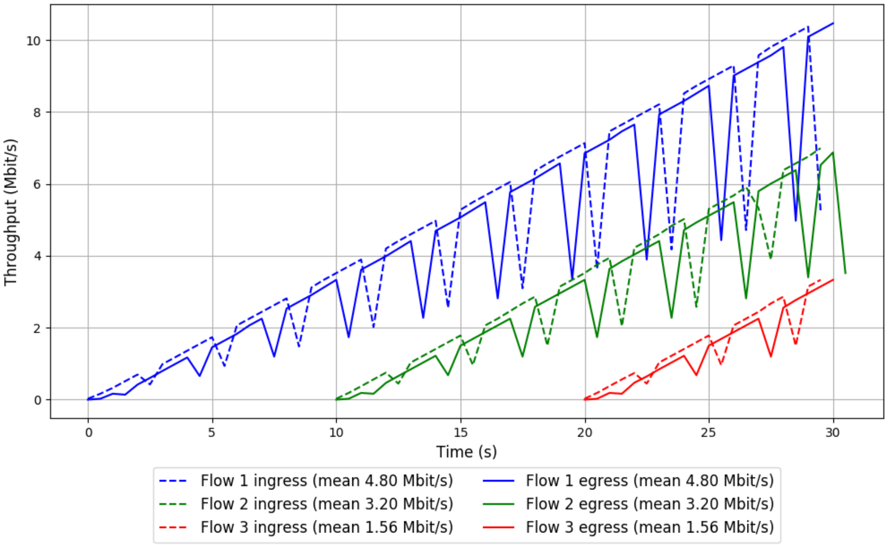
Run 6: Report of LEDBAT — Data Link

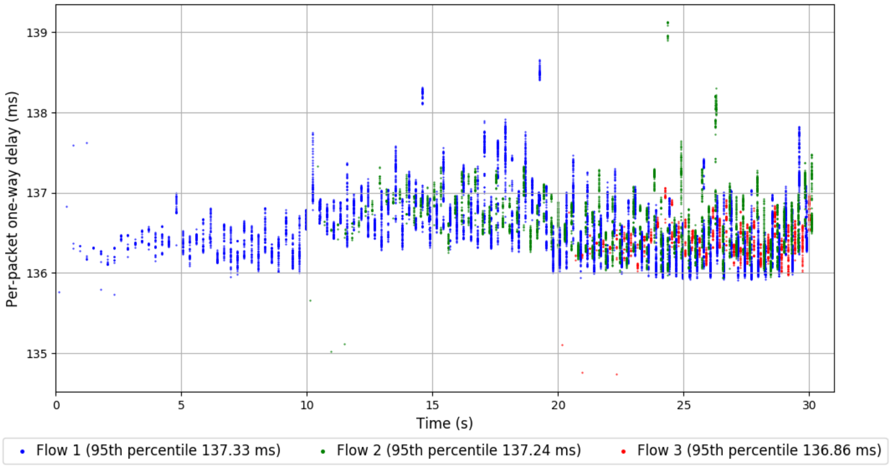




```
Run 7: Statistics of LEDBAT

Start at: 2018-07-19 07:17:36
End at: 2018-07-19 07:18:06
Local clock offset: -0.201 ms
Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.40 Mbit/s
95th percentile per-packet one-way delay: 137.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 137.329 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 137.237 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 136.856 ms
Loss rate: 0.00%
```

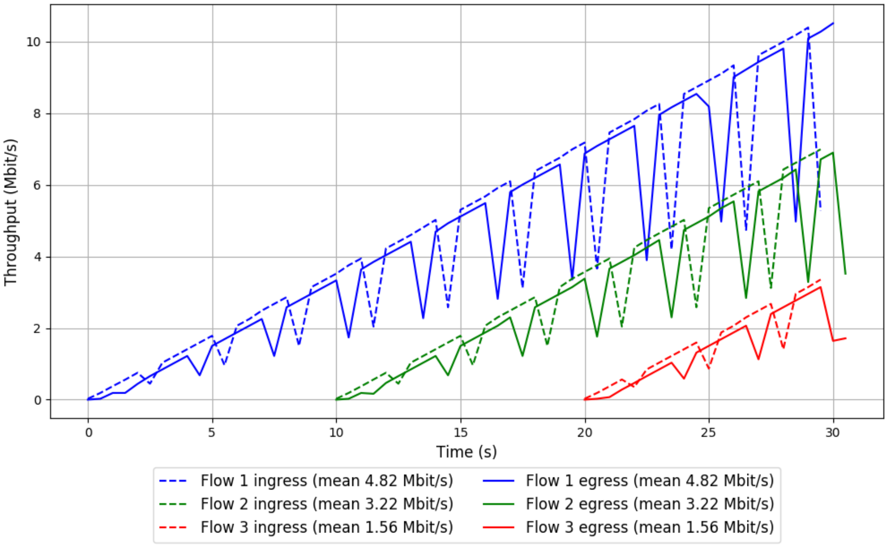
Run 7: Report of LEDBAT — Data Link

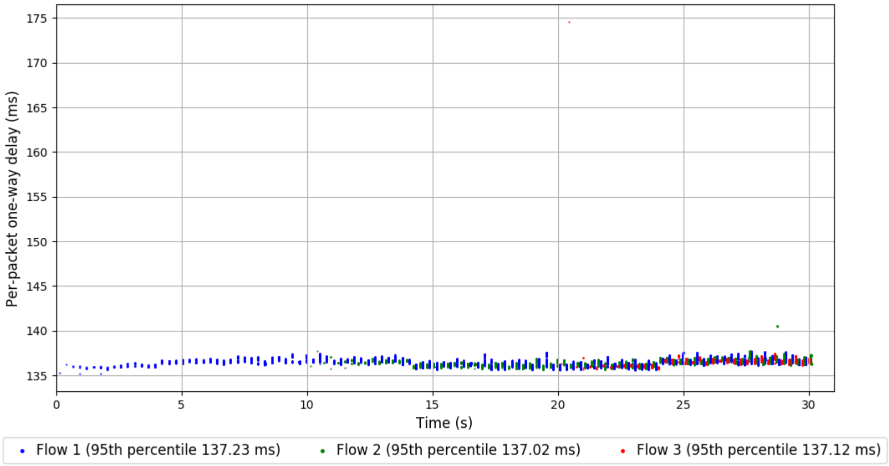




```
Run 8: Statistics of LEDBAT

Start at: 2018-07-19 07:44:32
End at: 2018-07-19 07:45:02
Local clock offset: -0.202 ms
Remote clock offset: -0.61 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 137.187 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 137.228 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 137.023 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 137.124 ms
Loss rate: 0.00%
```

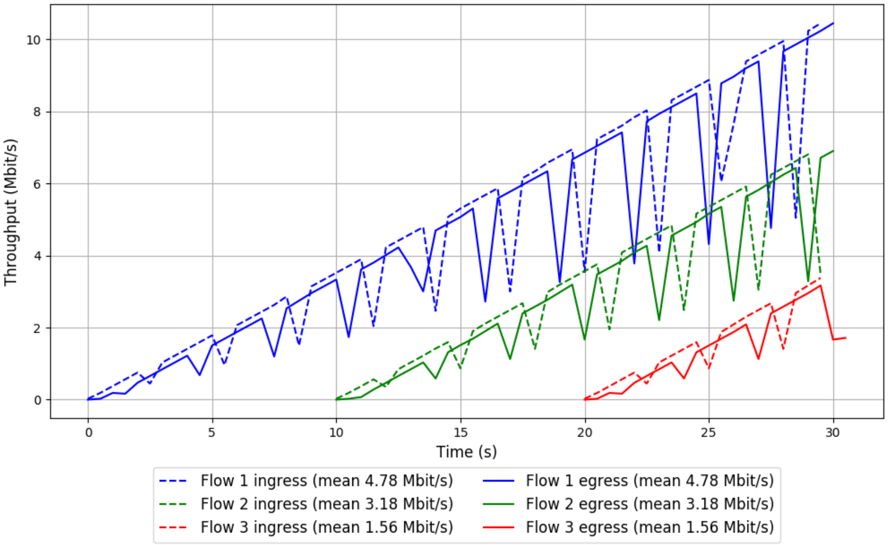
Run 8: Report of LEDBAT — Data Link

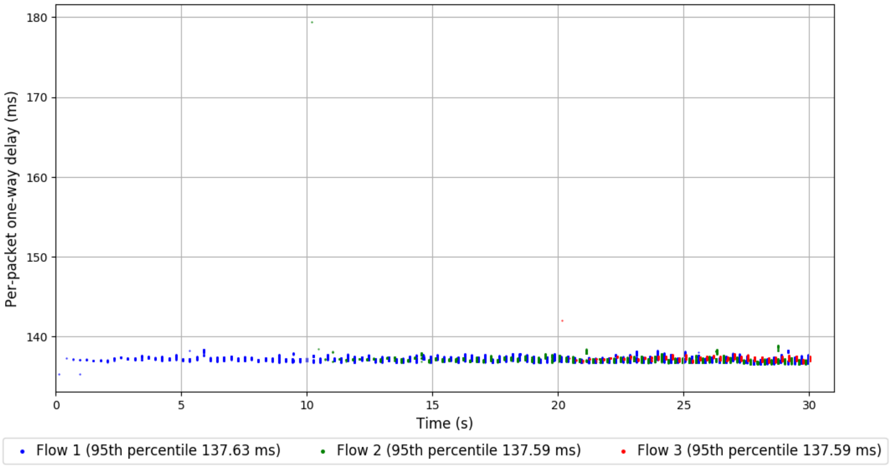




```
Run 9: Statistics of LEDBAT

Start at: 2018-07-19 08:11:29
End at: 2018-07-19 08:11:59
Local clock offset: -0.116 ms
Remote clock offset: 0.168 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 137.619 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 137.629 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 137.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 137.591 ms
Loss rate: 0.00%
```

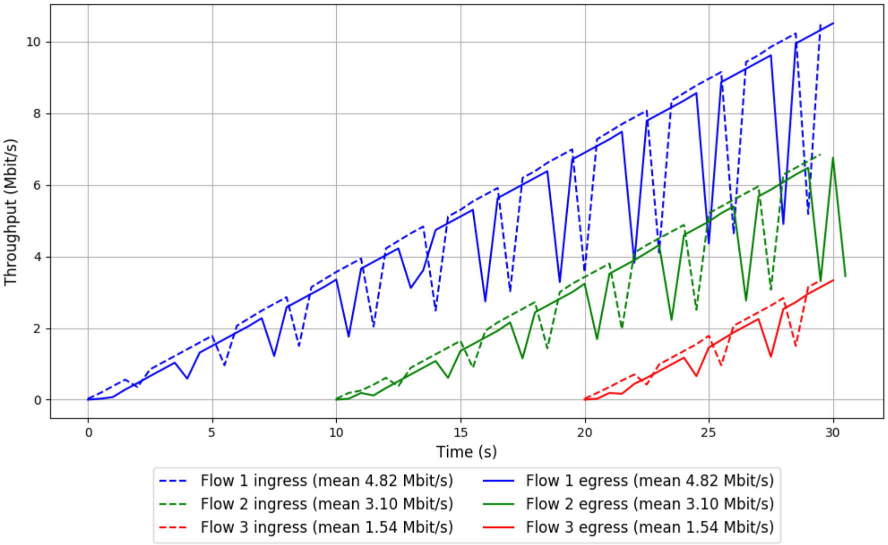
Run 9: Report of LEDBAT — Data Link

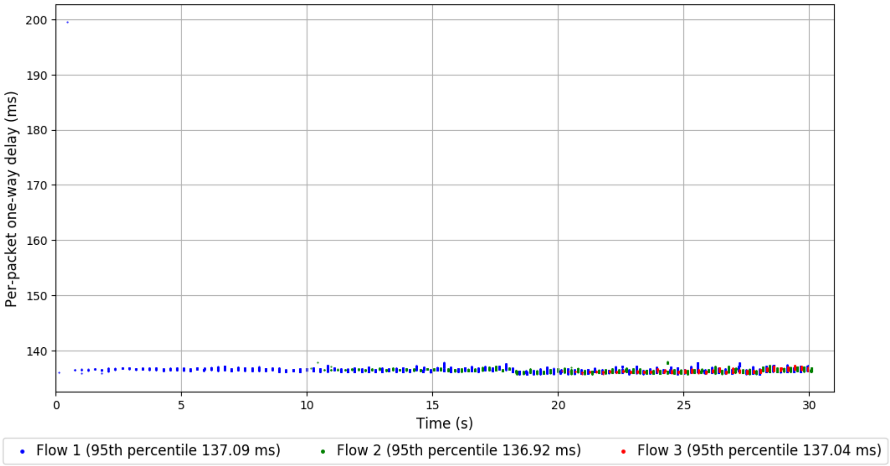




```
Run 10: Statistics of LEDBAT

Start at: 2018-07-19 08:38:38
End at: 2018-07-19 08:39:08
Local clock offset: -0.017 ms
Remote clock offset: -0.009 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.37 Mbit/s
95th percentile per-packet one-way delay: 137.055 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 137.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 136.917 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 137.038 ms
Loss rate: 0.00%
```

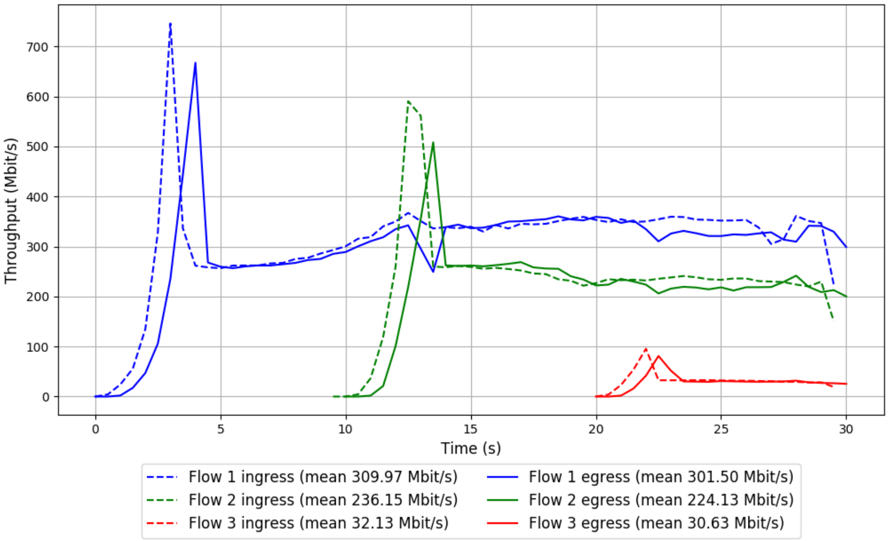
Run 10: Report of LEDBAT — Data Link

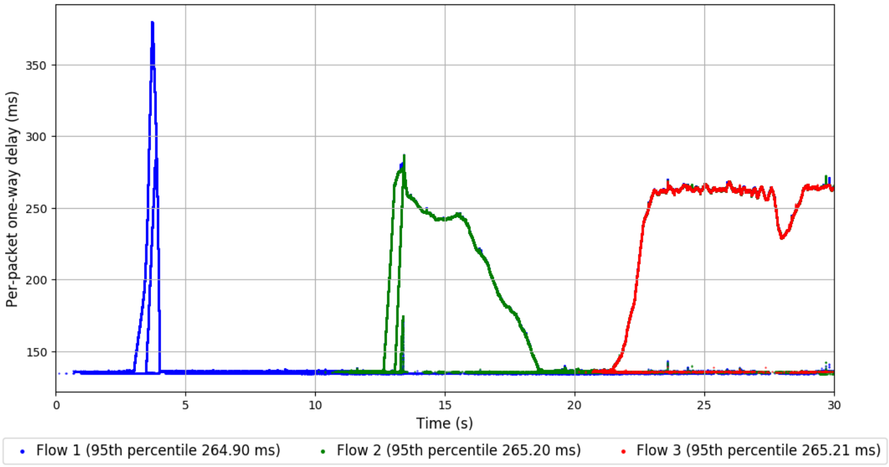




```
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-19 04:46:07
End at: 2018-07-19 04:46:37
Local clock offset: -0.082 ms
Remote clock offset: -0.48 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 460.70 Mbit/s
95th percentile per-packet one-way delay: 265.014 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 301.50 Mbit/s
95th percentile per-packet one-way delay: 264.900 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 224.13 Mbit/s
95th percentile per-packet one-way delay: 265.197 ms
Loss rate: 5.08%
-- Flow 3:
Average throughput: 30.63 Mbit/s
95th percentile per-packet one-way delay: 265.213 ms
Loss rate: 4.66%
```

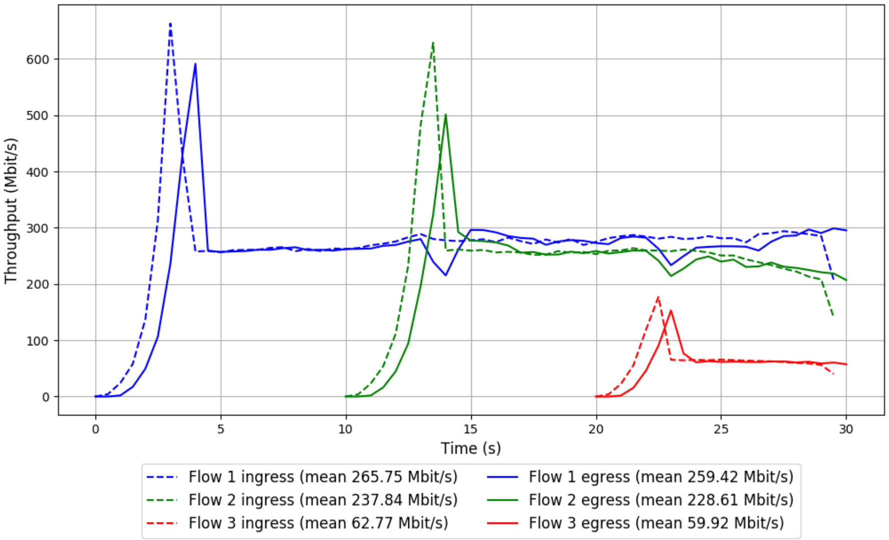
Run 1: Report of PCC-Allegro — Data Link

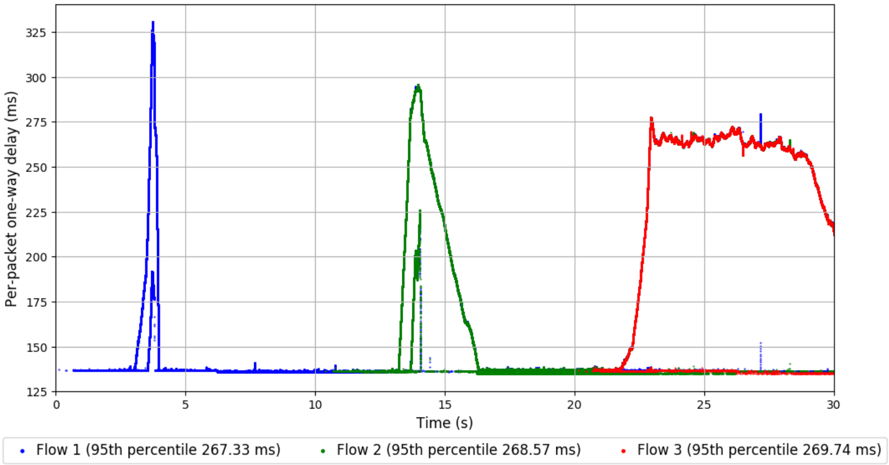




```
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-19 05:13:10
End at: 2018-07-19 05:13:40
Local clock offset: -0.076 ms
Remote clock offset: 0.283 ms

# Below is generated by plot.py at 2018-07-19 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.15 Mbit/s
95th percentile per-packet one-way delay: 268.004 ms
Loss rate: 3.01%
-- Flow 1:
Average throughput: 259.42 Mbit/s
95th percentile per-packet one-way delay: 267.332 ms
Loss rate: 2.38%
-- Flow 2:
Average throughput: 228.61 Mbit/s
95th percentile per-packet one-way delay: 268.571 ms
Loss rate: 3.87%
-- Flow 3:
Average throughput: 59.92 Mbit/s
95th percentile per-packet one-way delay: 269.739 ms
Loss rate: 4.52%
```

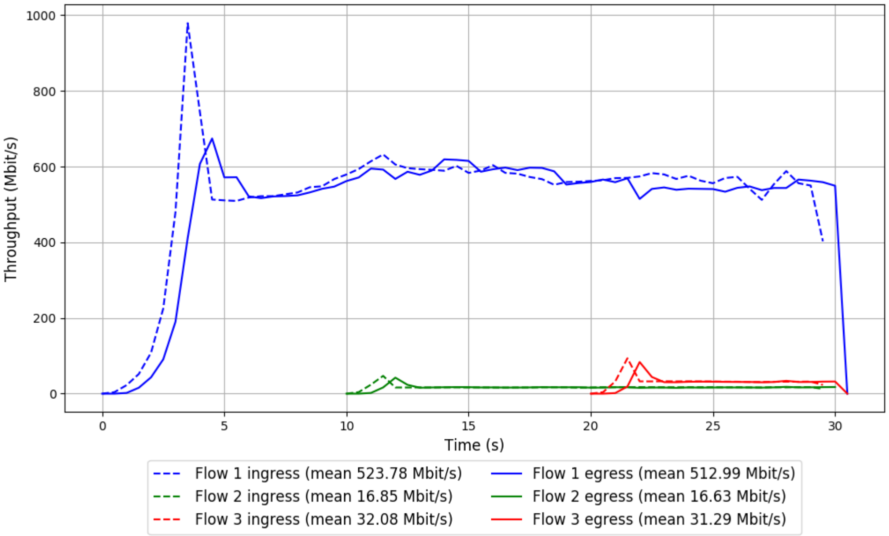
Run 2: Report of PCC-Allegro — Data Link

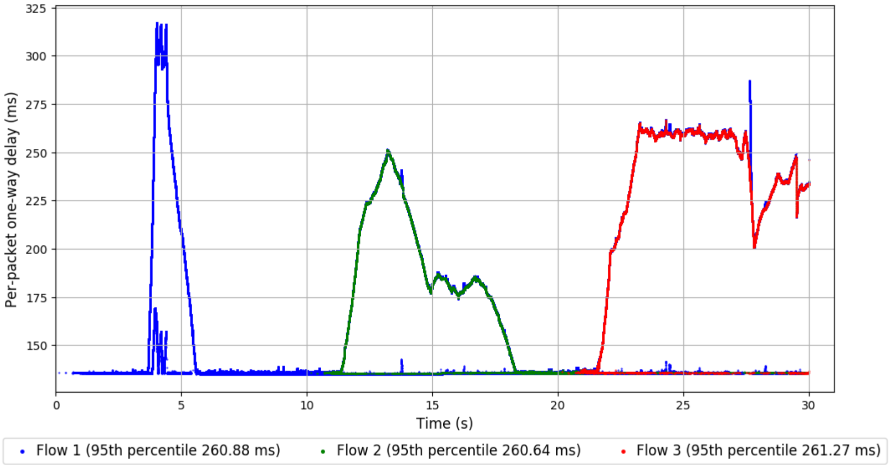




```
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-19 05:40:11
End at: 2018-07-19 05:40:41
Local clock offset: -0.128 ms
Remote clock offset: -0.372 ms

# Below is generated by plot.py at 2018-07-19 10:35:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 534.36 Mbit/s
95th percentile per-packet one-way delay: 260.892 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 512.99 Mbit/s
95th percentile per-packet one-way delay: 260.885 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 16.63 Mbit/s
95th percentile per-packet one-way delay: 260.640 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 261.267 ms
Loss rate: 2.36%
```

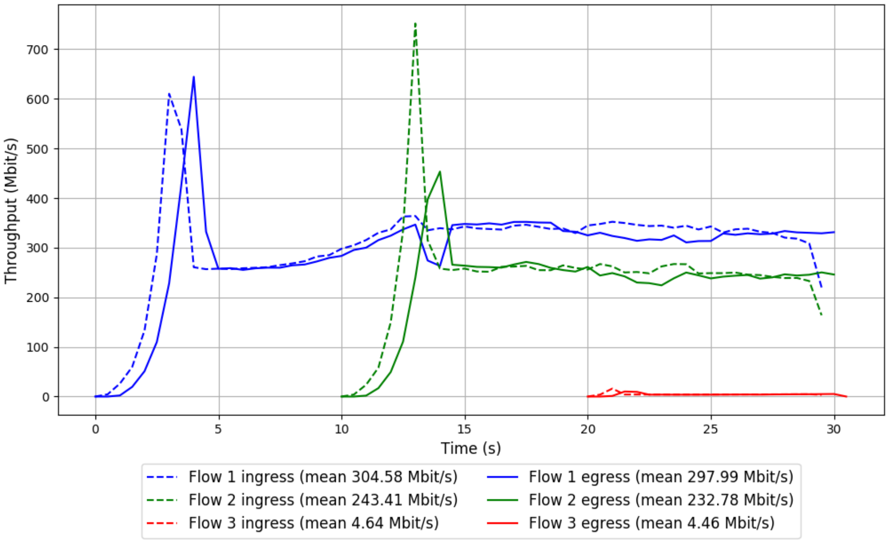
Run 3: Report of PCC-Allegro — Data Link

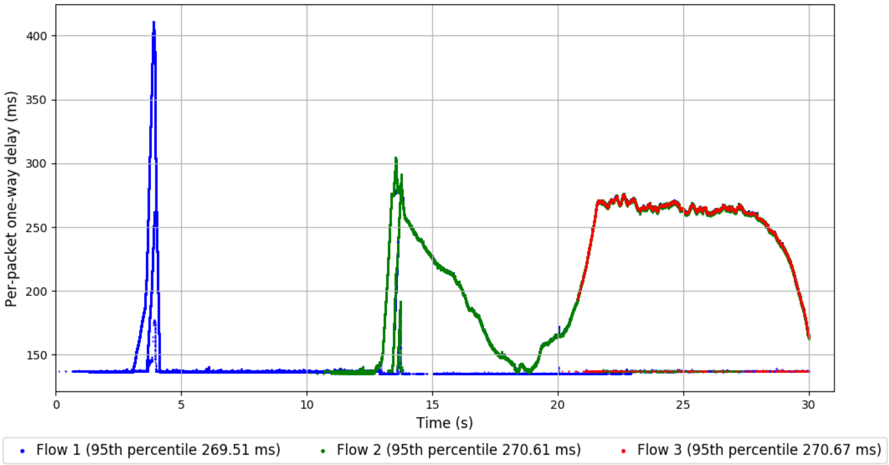




```
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-19 06:07:13
End at: 2018-07-19 06:07:43
Local clock offset: -0.006 ms
Remote clock offset: 0.26 ms

# Below is generated by plot.py at 2018-07-19 10:35:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.15 Mbit/s
95th percentile per-packet one-way delay: 269.913 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 297.99 Mbit/s
95th percentile per-packet one-way delay: 269.514 ms
Loss rate: 2.17%
-- Flow 2:
Average throughput: 232.78 Mbit/s
95th percentile per-packet one-way delay: 270.613 ms
Loss rate: 4.36%
-- Flow 3:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 270.673 ms
Loss rate: 3.94%
```

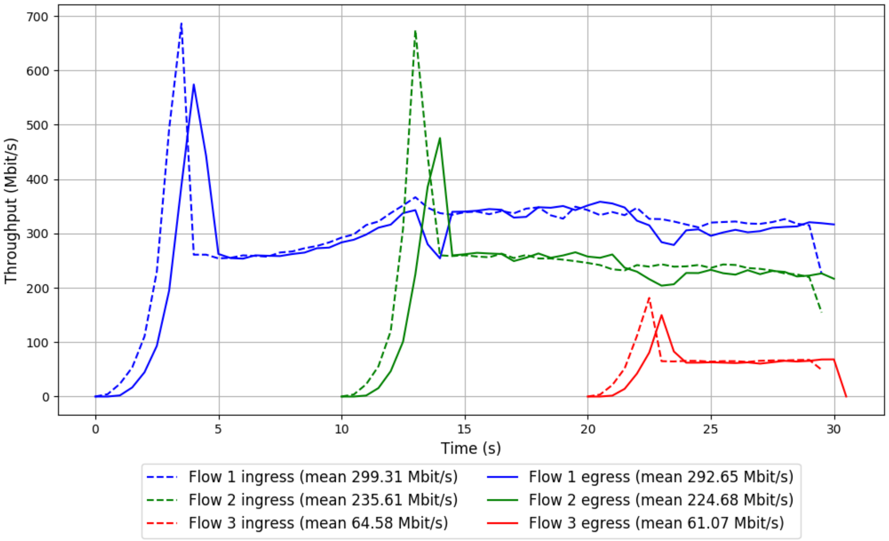
Run 4: Report of PCC-Allegro — Data Link

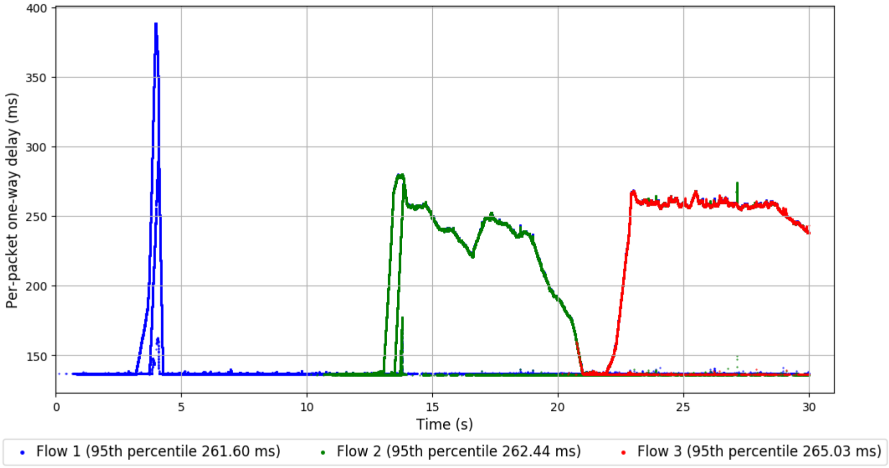




```
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-19 06:33:59
End at: 2018-07-19 06:34:29
Local clock offset: -0.278 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-19 10:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.05 Mbit/s
95th percentile per-packet one-way delay: 262.092 ms
Loss rate: 3.16%
-- Flow 1:
Average throughput: 292.65 Mbit/s
95th percentile per-packet one-way delay: 261.595 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 224.68 Mbit/s
95th percentile per-packet one-way delay: 262.443 ms
Loss rate: 4.64%
-- Flow 3:
Average throughput: 61.07 Mbit/s
95th percentile per-packet one-way delay: 265.032 ms
Loss rate: 5.39%
```

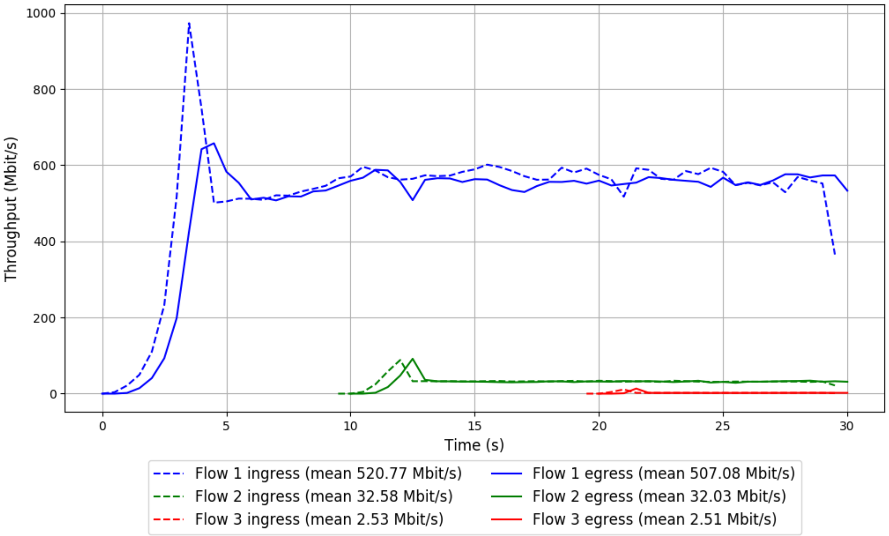
Run 5: Report of PCC-Allegro — Data Link

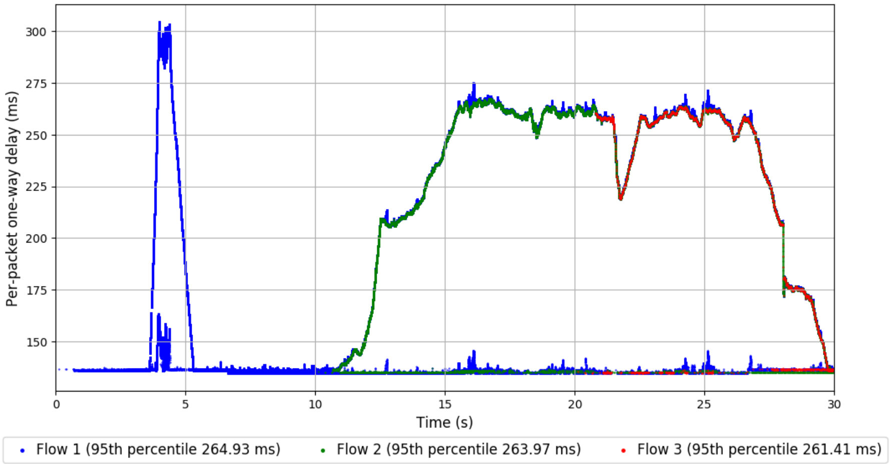




```
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-19 07:01:09
End at: 2018-07-19 07:01:39
Local clock offset: -0.237 ms
Remote clock offset: -0.159 ms

# Below is generated by plot.py at 2018-07-19 10:42:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 529.22 Mbit/s
95th percentile per-packet one-way delay: 264.869 ms
Loss rate: 2.59%
-- Flow 1:
Average throughput: 507.08 Mbit/s
95th percentile per-packet one-way delay: 264.927 ms
Loss rate: 2.63%
-- Flow 2:
Average throughput: 32.03 Mbit/s
95th percentile per-packet one-way delay: 263.971 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 261.406 ms
Loss rate: 1.11%
```

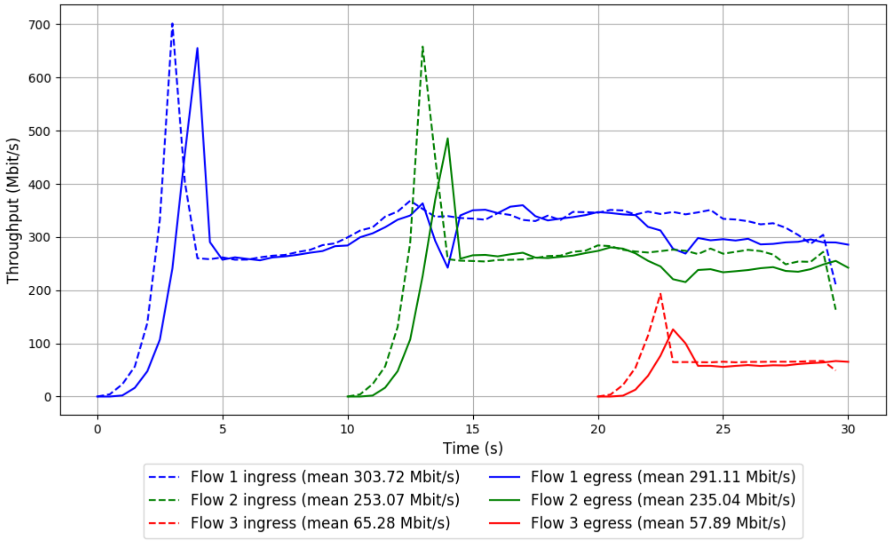
Run 6: Report of PCC-Allegro — Data Link

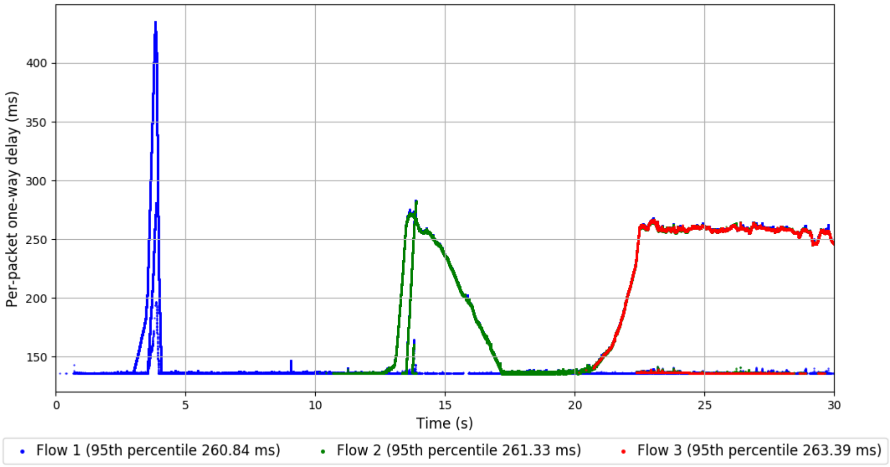




```
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-19 07:28:12
End at: 2018-07-19 07:28:42
Local clock offset: -0.173 ms
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2018-07-19 10:42:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.44 Mbit/s
95th percentile per-packet one-way delay: 261.076 ms
Loss rate: 5.47%
-- Flow 1:
Average throughput: 291.11 Mbit/s
95th percentile per-packet one-way delay: 260.838 ms
Loss rate: 4.14%
-- Flow 2:
Average throughput: 235.04 Mbit/s
95th percentile per-packet one-way delay: 261.327 ms
Loss rate: 7.11%
-- Flow 3:
Average throughput: 57.89 Mbit/s
95th percentile per-packet one-way delay: 263.390 ms
Loss rate: 11.32%
```

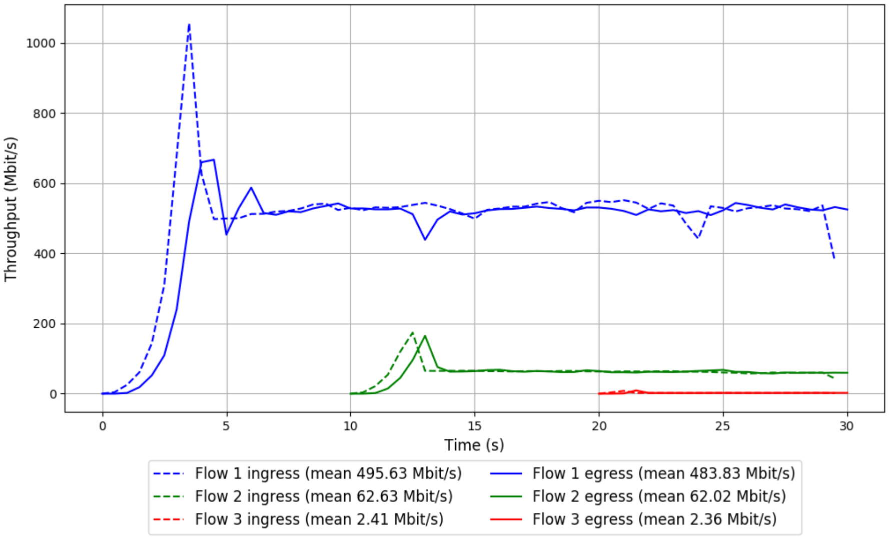
Run 7: Report of PCC-Allegro — Data Link

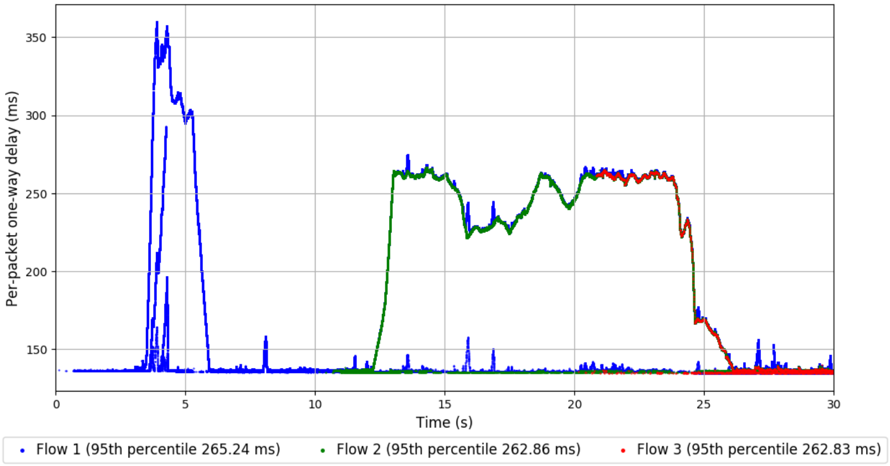




```
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-19 07:55:12
End at: 2018-07-19 07:55:42
Local clock offset: -0.156 ms
Remote clock offset: -0.608 ms

# Below is generated by plot.py at 2018-07-19 10:42:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 525.82 Mbit/s
95th percentile per-packet one-way delay: 264.844 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 483.83 Mbit/s
95th percentile per-packet one-way delay: 265.244 ms
Loss rate: 2.38%
-- Flow 2:
Average throughput: 62.02 Mbit/s
95th percentile per-packet one-way delay: 262.860 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 262.826 ms
Loss rate: 1.78%
```

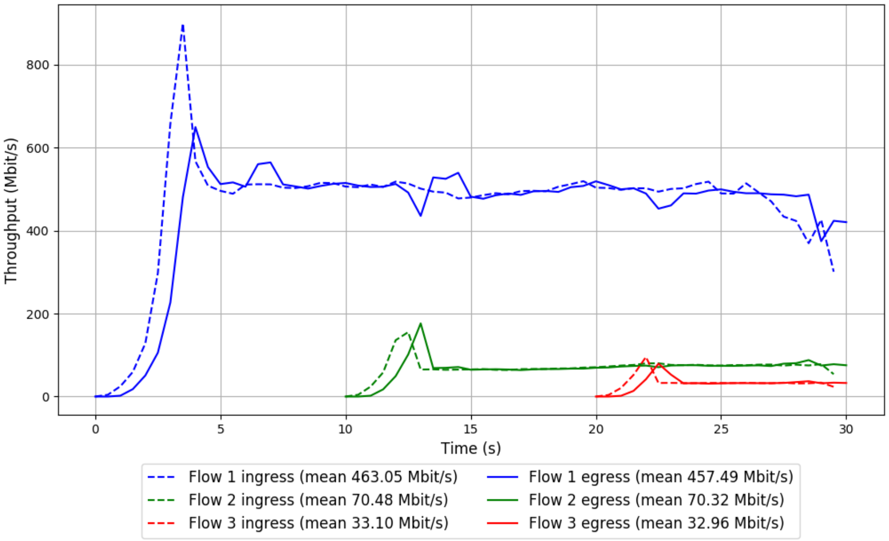
Run 8: Report of PCC-Allegro — Data Link

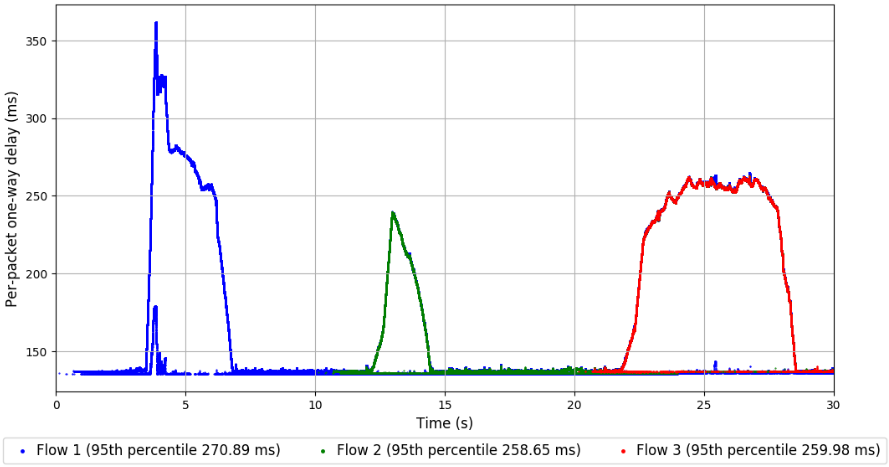




```
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-19 08:22:02
End at: 2018-07-19 08:22:32
Local clock offset: -0.172 ms
Remote clock offset: 0.249 ms

# Below is generated by plot.py at 2018-07-19 10:42:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 515.08 Mbit/s
95th percentile per-packet one-way delay: 264.028 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 457.49 Mbit/s
95th percentile per-packet one-way delay: 270.887 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 70.32 Mbit/s
95th percentile per-packet one-way delay: 258.649 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 259.977 ms
Loss rate: 0.44%
```

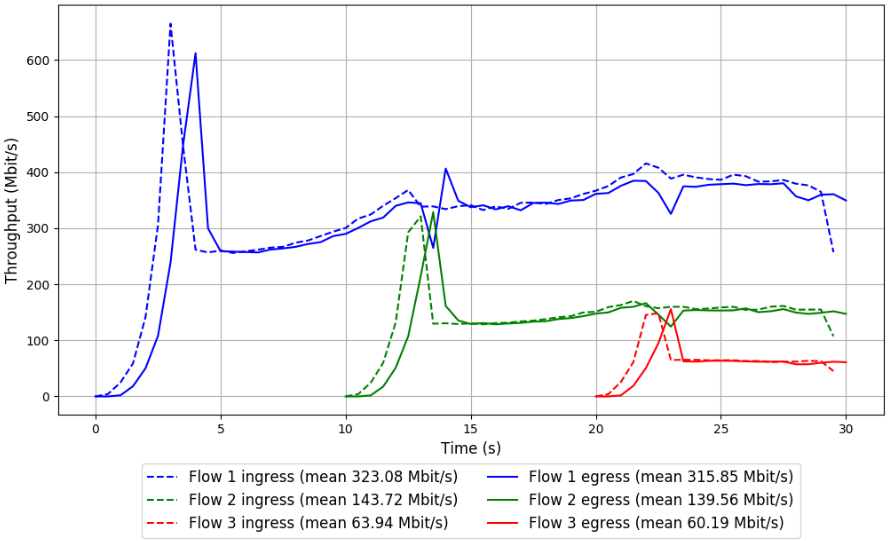
Run 9: Report of PCC-Allegro — Data Link

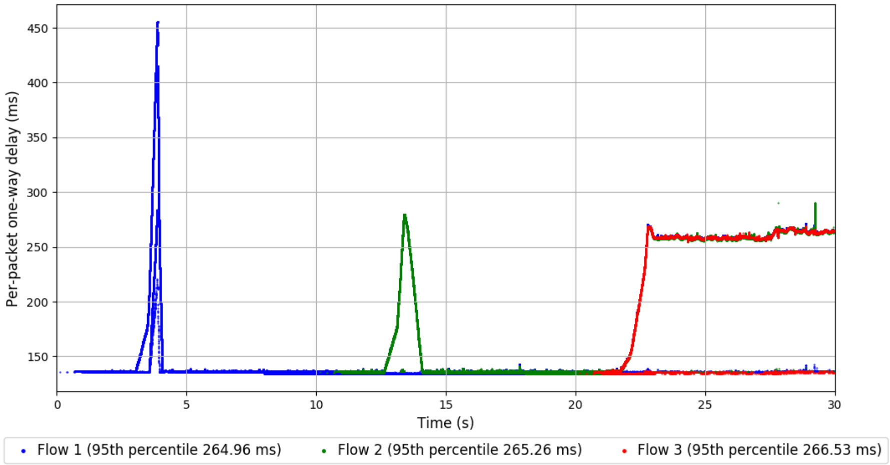




```
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-19 08:48:48
End at: 2018-07-19 08:49:18
Local clock offset: -0.015 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2018-07-19 10:42:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 428.39 Mbit/s
95th percentile per-packet one-way delay: 265.126 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 315.85 Mbit/s
95th percentile per-packet one-way delay: 264.963 ms
Loss rate: 2.24%
-- Flow 2:
Average throughput: 139.56 Mbit/s
95th percentile per-packet one-way delay: 265.259 ms
Loss rate: 2.89%
-- Flow 3:
Average throughput: 60.19 Mbit/s
95th percentile per-packet one-way delay: 266.531 ms
Loss rate: 5.84%
```

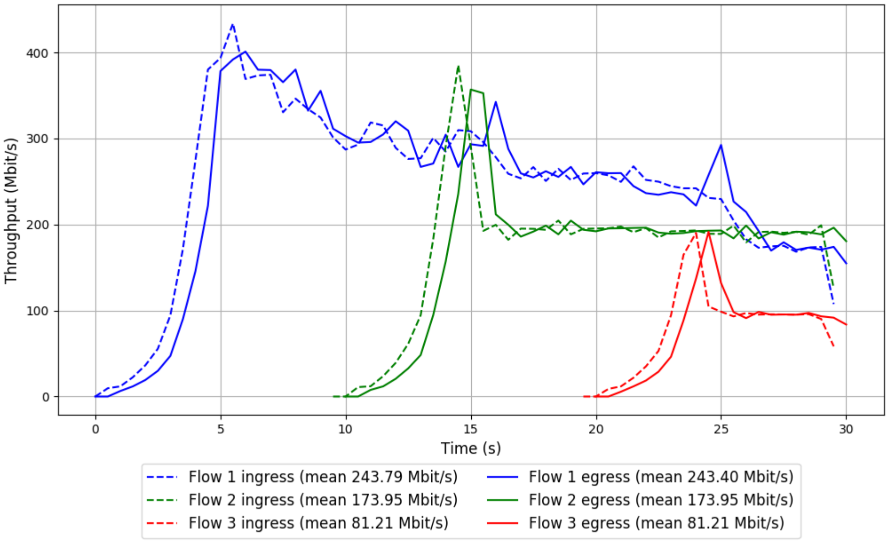
Run 10: Report of PCC-Allegro — Data Link

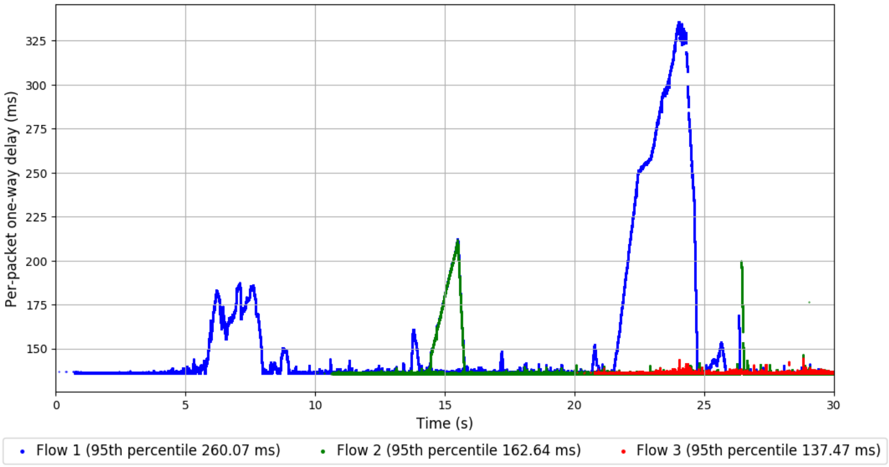




```
Run 1: Statistics of PCC-Expr

Start at: 2018-07-19 04:26:15
End at: 2018-07-19 04:26:45
Local clock offset: -0.025 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2018-07-19 10:47:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.11 Mbit/s
95th percentile per-packet one-way delay: 222.404 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 243.40 Mbit/s
95th percentile per-packet one-way delay: 260.067 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 173.95 Mbit/s
95th percentile per-packet one-way delay: 162.641 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 81.21 Mbit/s
95th percentile per-packet one-way delay: 137.472 ms
Loss rate: 0.00%
```

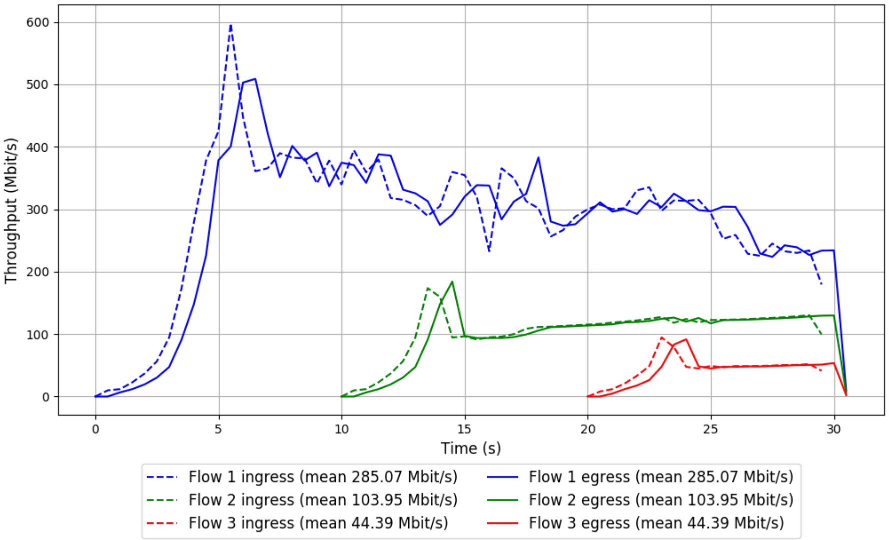
Run 1: Report of PCC-Expr — Data Link

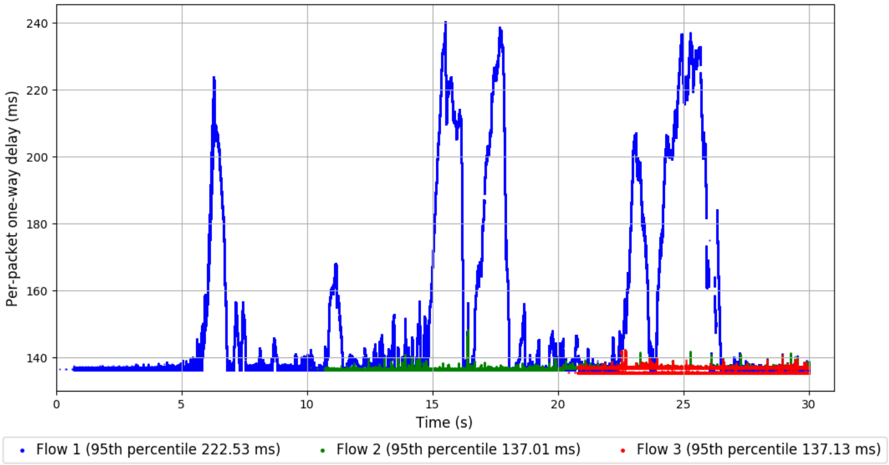




```
Run 2: Statistics of PCC-Expr

Start at: 2018-07-19 04:52:56
End at: 2018-07-19 04:53:26
Local clock offset: -0.239 ms
Remote clock offset: 0.278 ms

# Below is generated by plot.py at 2018-07-19 10:48:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.83 Mbit/s
95th percentile per-packet one-way delay: 218.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 285.07 Mbit/s
95th percentile per-packet one-way delay: 222.526 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 103.95 Mbit/s
95th percentile per-packet one-way delay: 137.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.39 Mbit/s
95th percentile per-packet one-way delay: 137.129 ms
Loss rate: 0.00%
```

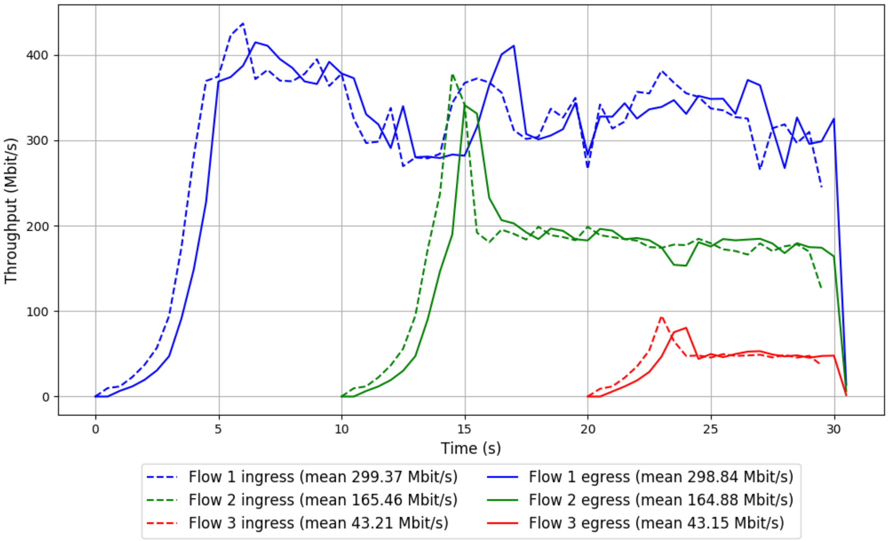
Run 2: Report of PCC-Expr — Data Link

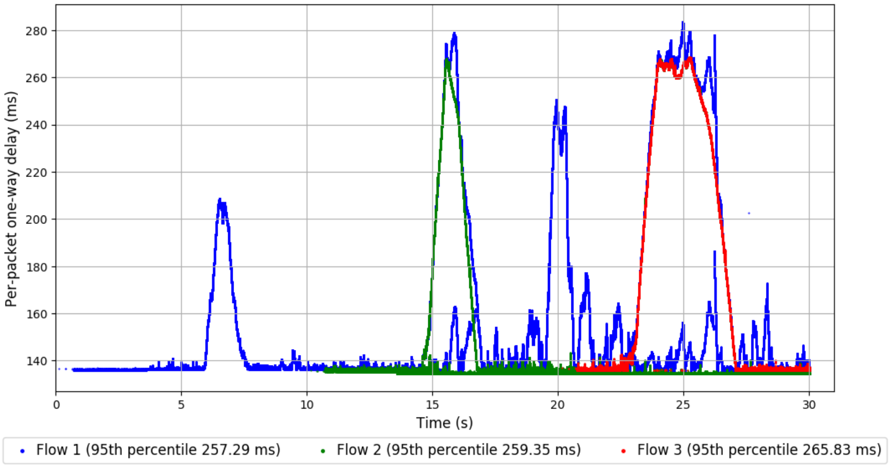




```
Run 3: Statistics of PCC-Expr

Start at: 2018-07-19 05:20:03
End at: 2018-07-19 05:20:33
Local clock offset: -0.196 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-07-19 10:54:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.71 Mbit/s
95th percentile per-packet one-way delay: 259.879 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 298.84 Mbit/s
95th percentile per-packet one-way delay: 257.289 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 164.88 Mbit/s
95th percentile per-packet one-way delay: 259.353 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 43.15 Mbit/s
95th percentile per-packet one-way delay: 265.829 ms
Loss rate: 0.15%
```

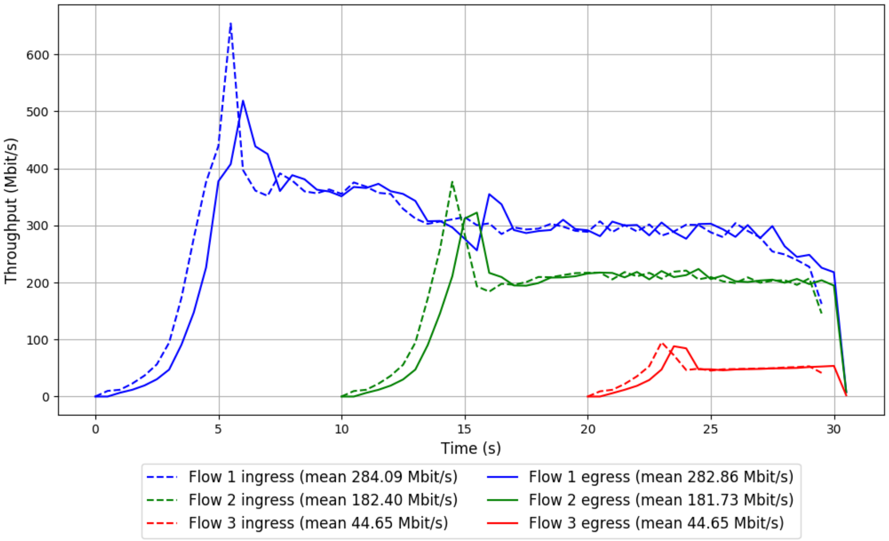
Run 3: Report of PCC-Expr — Data Link

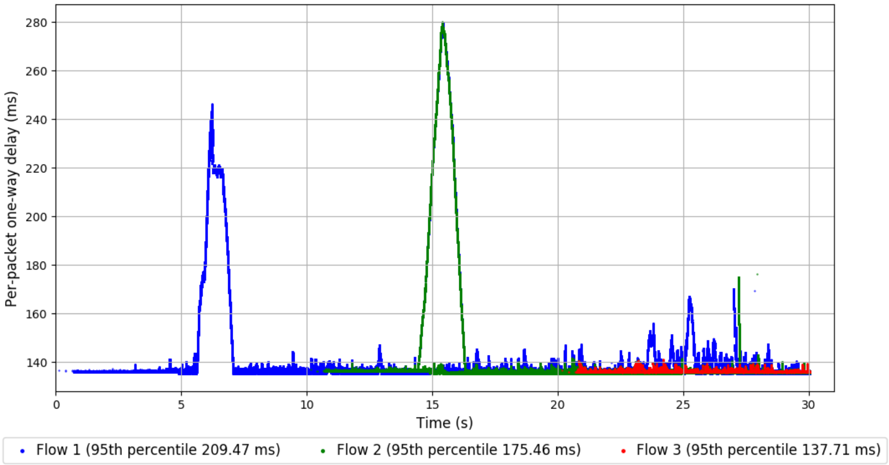




```
Run 4: Statistics of PCC-Expr

Start at: 2018-07-19 05:47:01
End at: 2018-07-19 05:47:31
Local clock offset: -0.18 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2018-07-19 10:55:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.43 Mbit/s
95th percentile per-packet one-way delay: 199.527 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 282.86 Mbit/s
95th percentile per-packet one-way delay: 209.465 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 181.73 Mbit/s
95th percentile per-packet one-way delay: 175.455 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 44.65 Mbit/s
95th percentile per-packet one-way delay: 137.710 ms
Loss rate: 0.00%
```

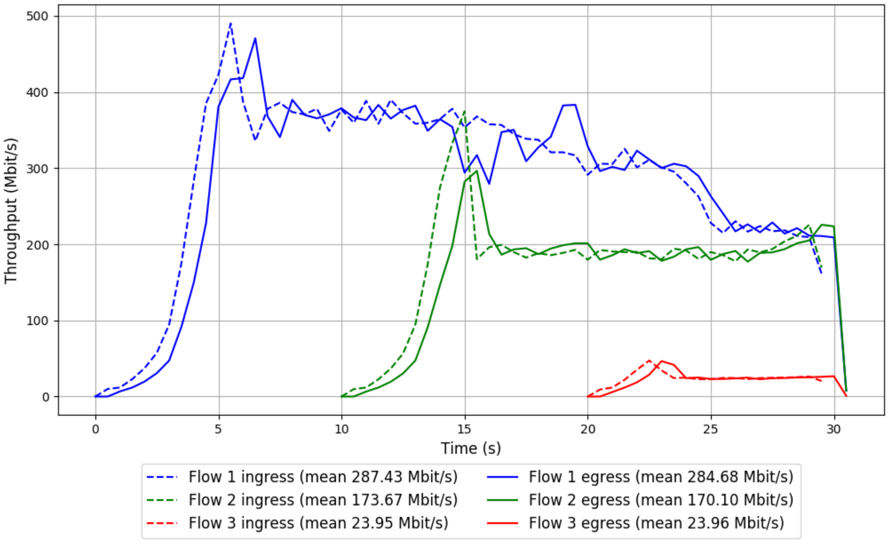
Run 4: Report of PCC-Expr — Data Link

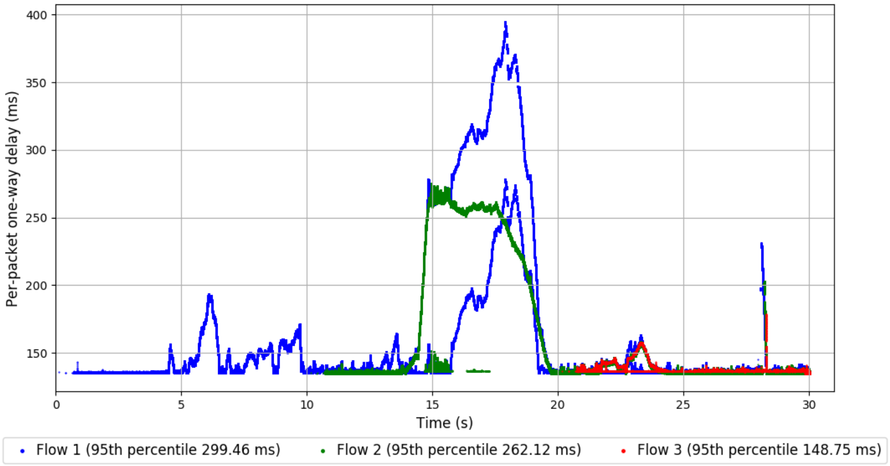




```
Run 5: Statistics of PCC-Expr

Start at: 2018-07-19 06:14:06
End at: 2018-07-19 06:14:36
Local clock offset: -0.202 ms
Remote clock offset: -0.041 ms

# Below is generated by plot.py at 2018-07-19 10:56:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 405.70 Mbit/s
95th percentile per-packet one-way delay: 268.749 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 284.68 Mbit/s
95th percentile per-packet one-way delay: 299.460 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 170.10 Mbit/s
95th percentile per-packet one-way delay: 262.122 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 148.747 ms
Loss rate: 0.00%
```

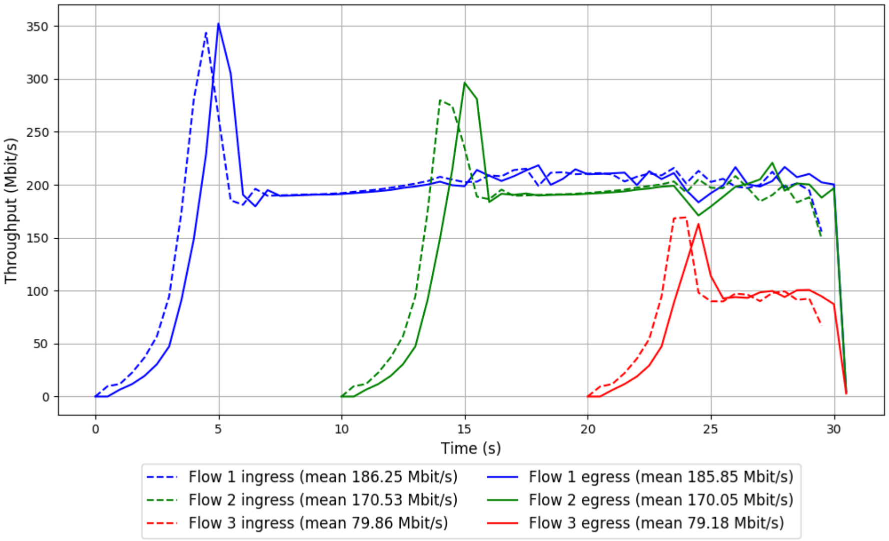
Run 5: Report of PCC-Expr — Data Link

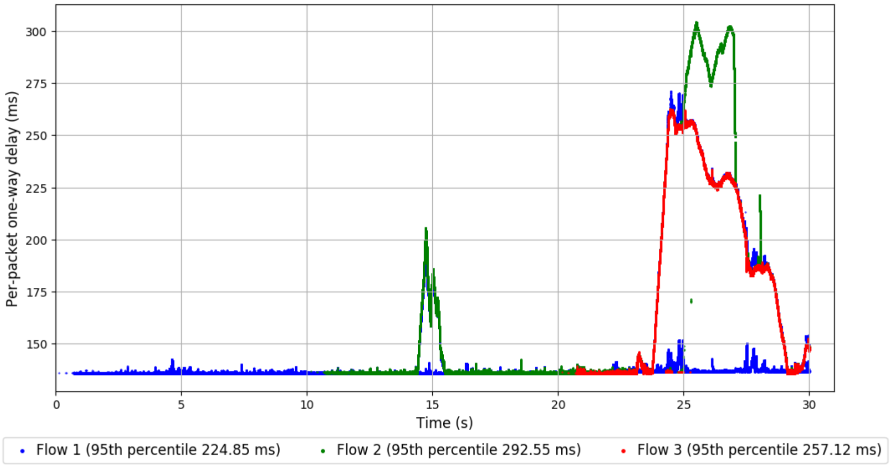




```
Run 6: Statistics of PCC-Expr

Start at: 2018-07-19 06:40:54
End at: 2018-07-19 06:41:24
Local clock offset: -0.144 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-07-19 10:56:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 325.08 Mbit/s
95th percentile per-packet one-way delay: 259.755 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 185.85 Mbit/s
95th percentile per-packet one-way delay: 224.851 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 170.05 Mbit/s
95th percentile per-packet one-way delay: 292.545 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 79.18 Mbit/s
95th percentile per-packet one-way delay: 257.115 ms
Loss rate: 0.81%
```

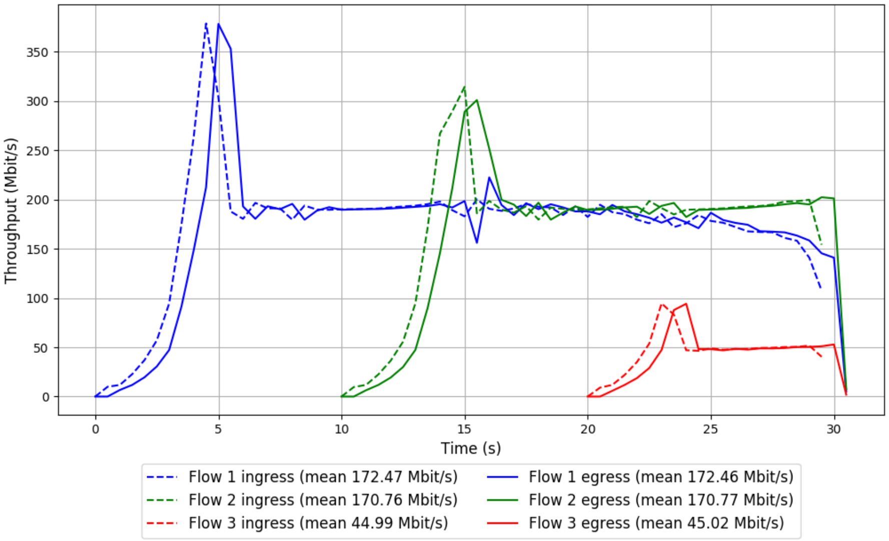
Run 6: Report of PCC-Expr — Data Link

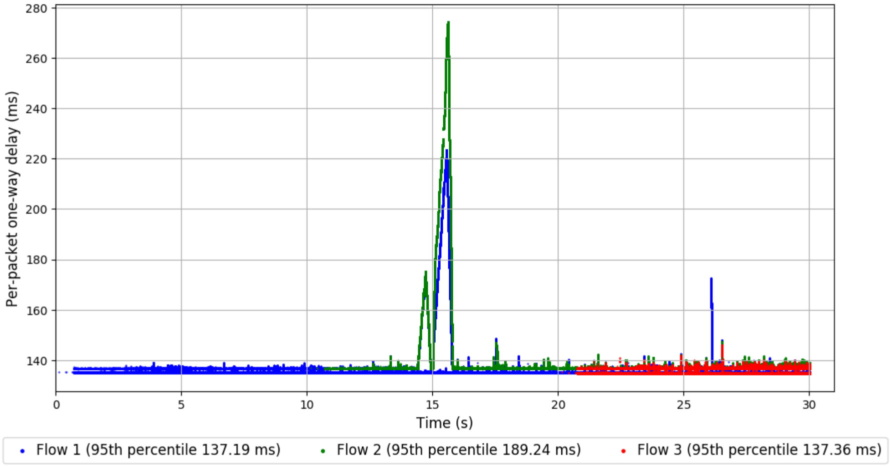




```
Run 7: Statistics of PCC-Expr

Start at: 2018-07-19 07:08:06
End at: 2018-07-19 07:08:36
Local clock offset: -0.139 ms
Remote clock offset: 0.191 ms

# Below is generated by plot.py at 2018-07-19 10:56:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.86 Mbit/s
95th percentile per-packet one-way delay: 147.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 172.46 Mbit/s
95th percentile per-packet one-way delay: 137.185 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 170.77 Mbit/s
95th percentile per-packet one-way delay: 189.240 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.02 Mbit/s
95th percentile per-packet one-way delay: 137.359 ms
Loss rate: 0.00%
```

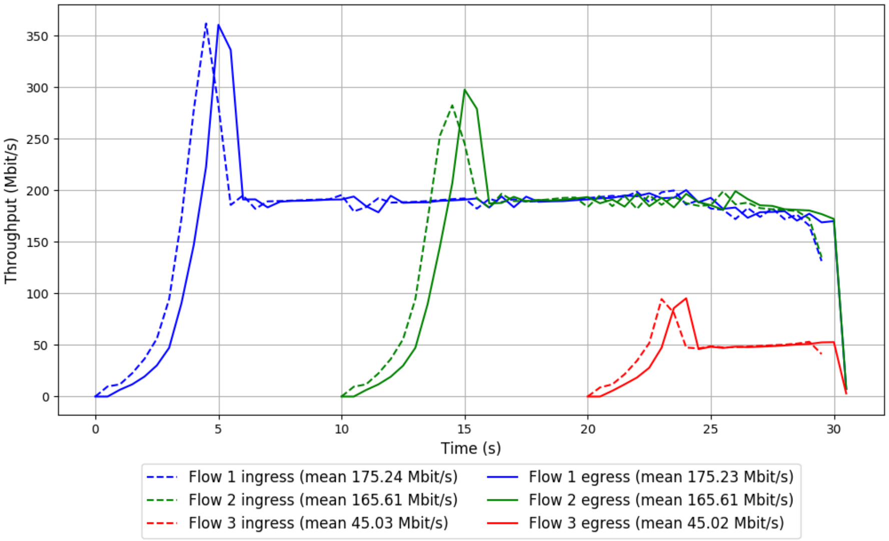
Run 7: Report of PCC-Expr — Data Link

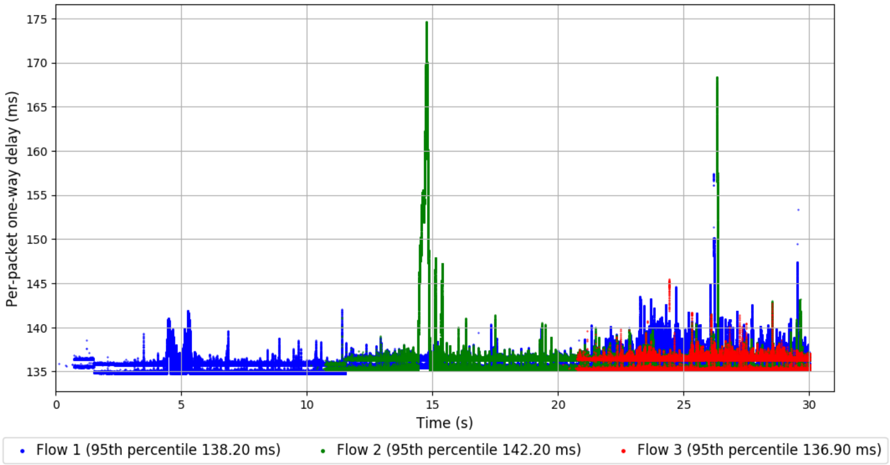




```
Run 8: Statistics of PCC-Expr

Start at: 2018-07-19 07:35:05
End at: 2018-07-19 07:35:35
Local clock offset: -0.094 ms
Remote clock offset: -0.25 ms

# Below is generated by plot.py at 2018-07-19 10:56:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.21 Mbit/s
95th percentile per-packet one-way delay: 138.306 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 175.23 Mbit/s
95th percentile per-packet one-way delay: 138.203 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 165.61 Mbit/s
95th percentile per-packet one-way delay: 142.198 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.02 Mbit/s
95th percentile per-packet one-way delay: 136.903 ms
Loss rate: 0.00%
```

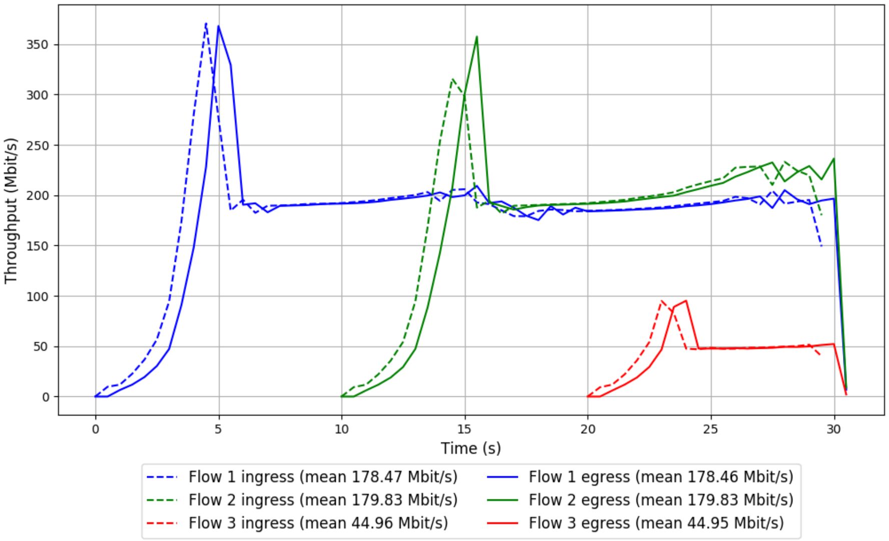
Run 8: Report of PCC-Expr — Data Link

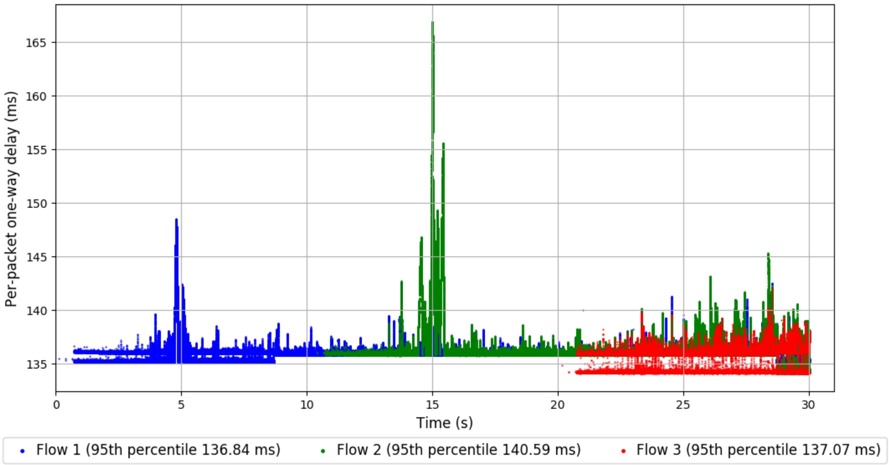




```
Run 9: Statistics of PCC-Expr

Start at: 2018-07-19 08:02:07
End at: 2018-07-19 08:02:37
Local clock offset: -0.042 ms
Remote clock offset: -0.643 ms

# Below is generated by plot.py at 2018-07-19 11:00:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.84 Mbit/s
95th percentile per-packet one-way delay: 138.330 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 178.46 Mbit/s
95th percentile per-packet one-way delay: 136.839 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 179.83 Mbit/s
95th percentile per-packet one-way delay: 140.590 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.95 Mbit/s
95th percentile per-packet one-way delay: 137.074 ms
Loss rate: 0.00%
```

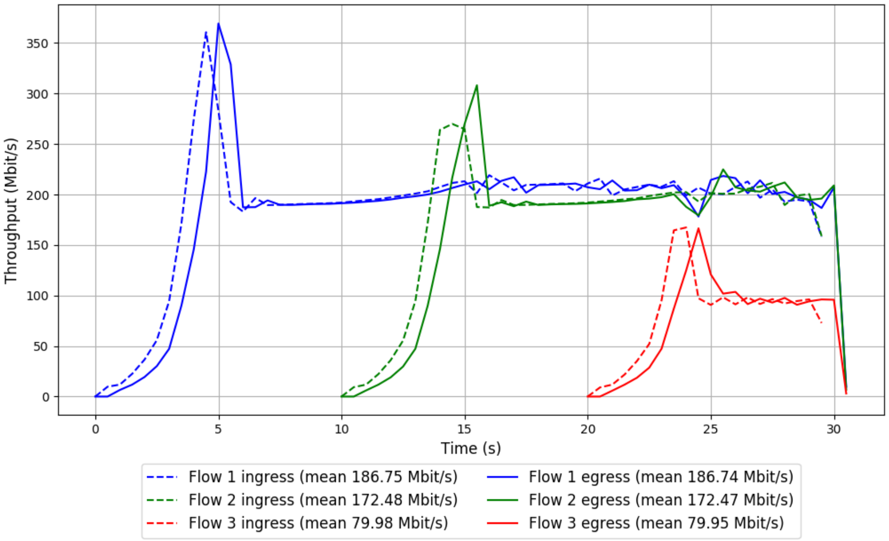
Run 9: Report of PCC-Expr — Data Link

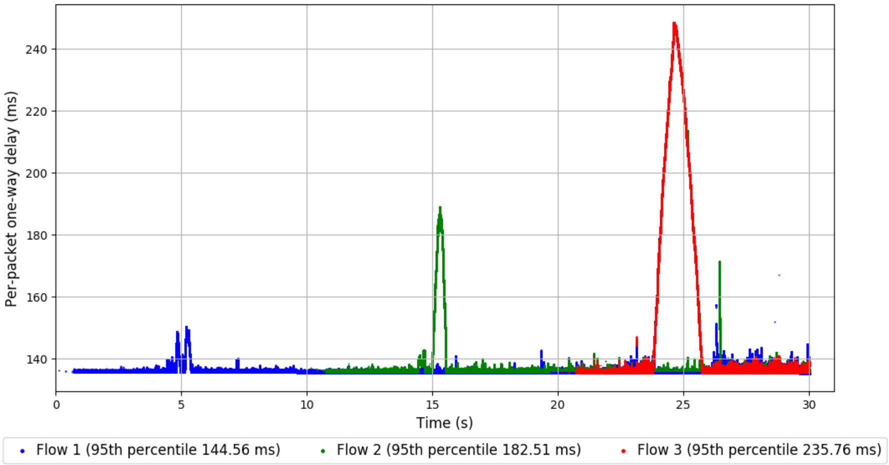




```
Run 10: Statistics of PCC-Expr

Start at: 2018-07-19 08:28:57
End at: 2018-07-19 08:29:27
Local clock offset: -0.093 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.78 Mbit/s
95th percentile per-packet one-way delay: 181.538 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 186.74 Mbit/s
95th percentile per-packet one-way delay: 144.564 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 172.47 Mbit/s
95th percentile per-packet one-way delay: 182.514 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 79.95 Mbit/s
95th percentile per-packet one-way delay: 235.765 ms
Loss rate: 0.01%
```

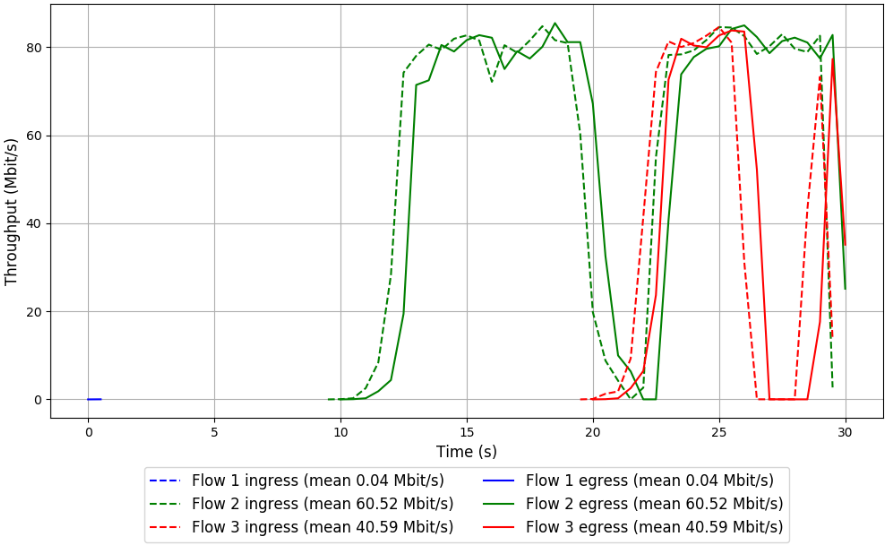
Run 10: Report of PCC-Expr — Data Link

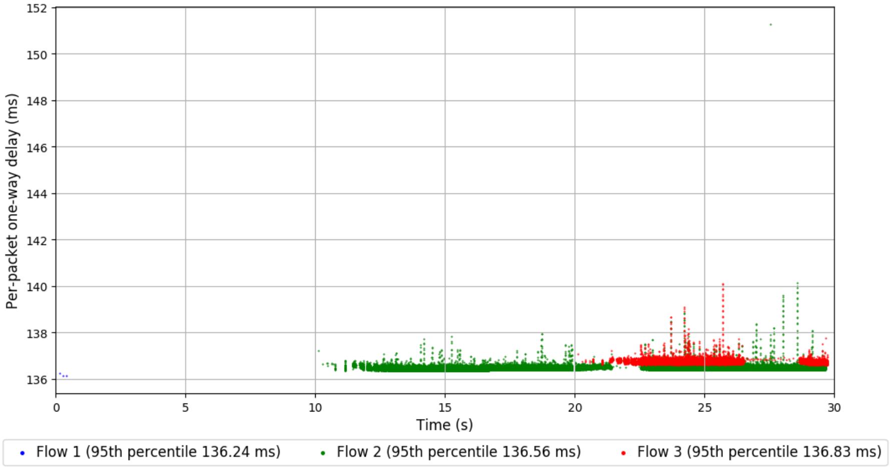




```
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-19 04:38:49
End at: 2018-07-19 04:39:19
Local clock offset: 0.048 ms
Remote clock offset: 0.256 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.09 Mbit/s
95th percentile per-packet one-way delay: 136.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 136.236 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.52 Mbit/s
95th percentile per-packet one-way delay: 136.556 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 136.832 ms
Loss rate: 0.00%
```

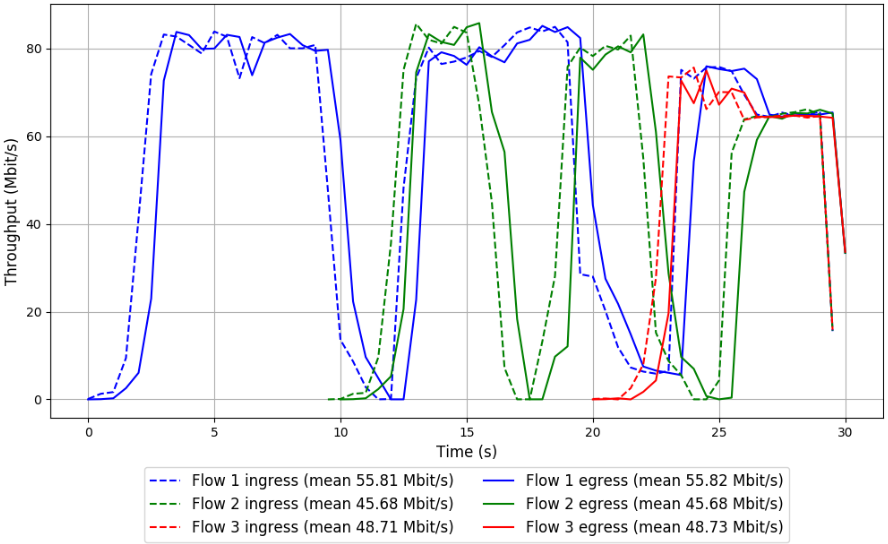
Run 1: Report of QUIC Cubic — Data Link

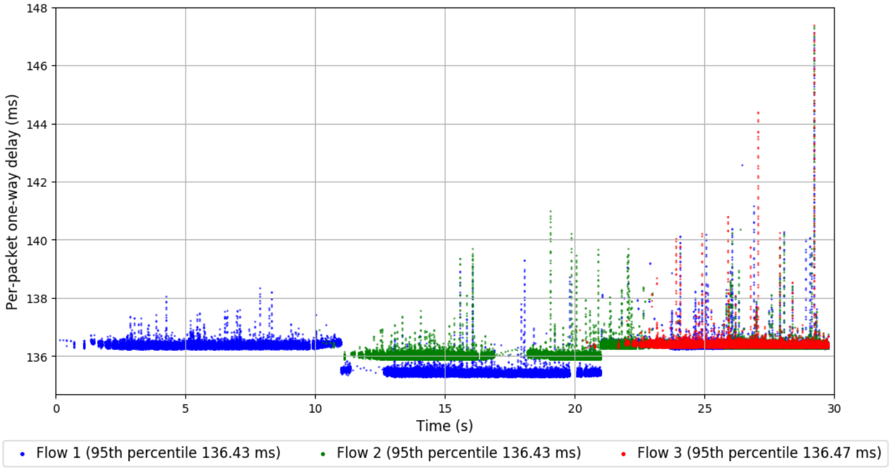




```
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-19 05:05:35
End at: 2018-07-19 05:06:05
Local clock offset: -0.228 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.84 Mbit/s
95th percentile per-packet one-way delay: 136.438 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.82 Mbit/s
95th percentile per-packet one-way delay: 136.426 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.68 Mbit/s
95th percentile per-packet one-way delay: 136.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.73 Mbit/s
95th percentile per-packet one-way delay: 136.470 ms
Loss rate: 0.00%
```

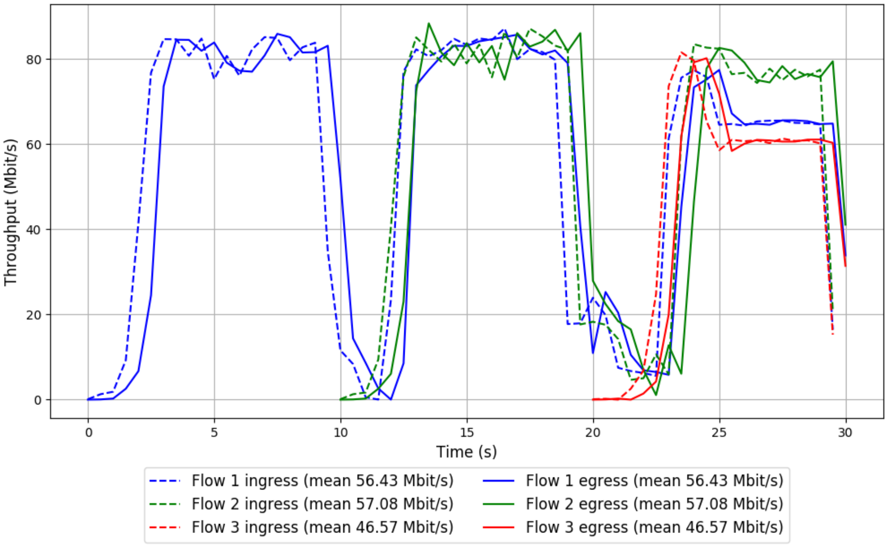
Run 2: Report of QUIC Cubic — Data Link

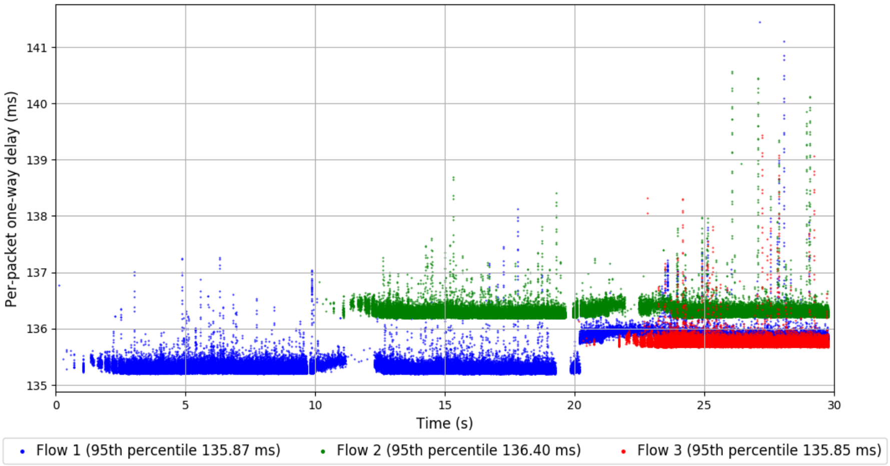




```
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-19 05:32:46
End at: 2018-07-19 05:33:16
Local clock offset: -0.117 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.32 Mbit/s
95th percentile per-packet one-way delay: 136.335 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.43 Mbit/s
95th percentile per-packet one-way delay: 135.873 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.08 Mbit/s
95th percentile per-packet one-way delay: 136.397 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.57 Mbit/s
95th percentile per-packet one-way delay: 135.847 ms
Loss rate: 0.00%
```

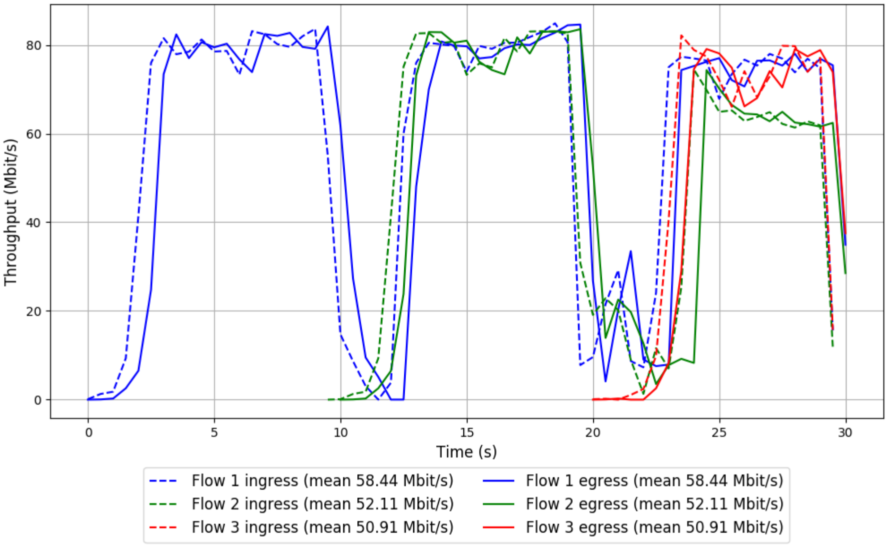
Run 3: Report of QUIC Cubic — Data Link

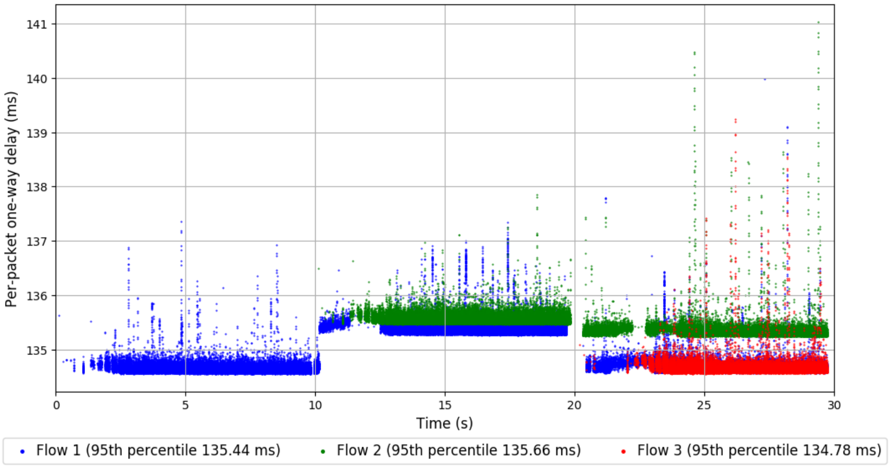




```
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-19 05:59:46
End at: 2018-07-19 06:00:16
Local clock offset: -0.19 ms
Remote clock offset: -0.404 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.40 Mbit/s
95th percentile per-packet one-way delay: 135.597 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.44 Mbit/s
95th percentile per-packet one-way delay: 135.437 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.11 Mbit/s
95th percentile per-packet one-way delay: 135.662 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.91 Mbit/s
95th percentile per-packet one-way delay: 134.778 ms
Loss rate: 0.00%
```

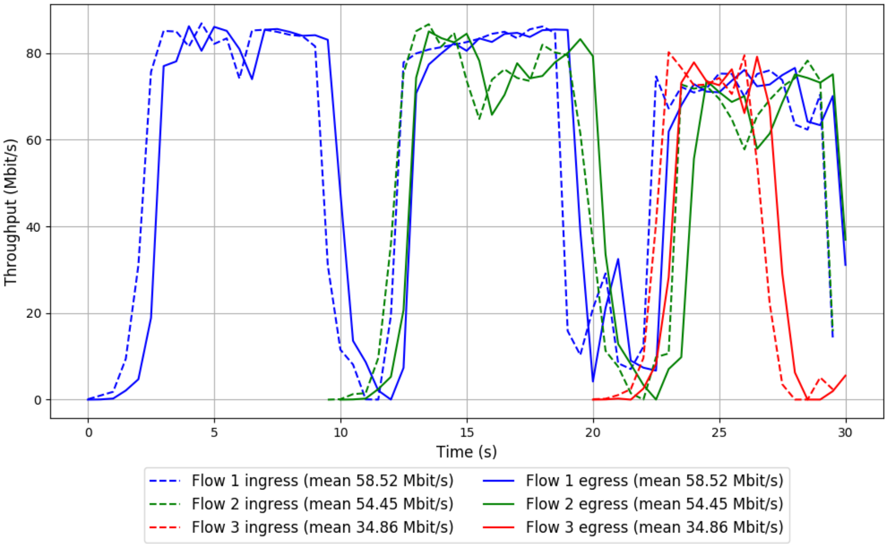
Run 4: Report of QUIC Cubic — Data Link

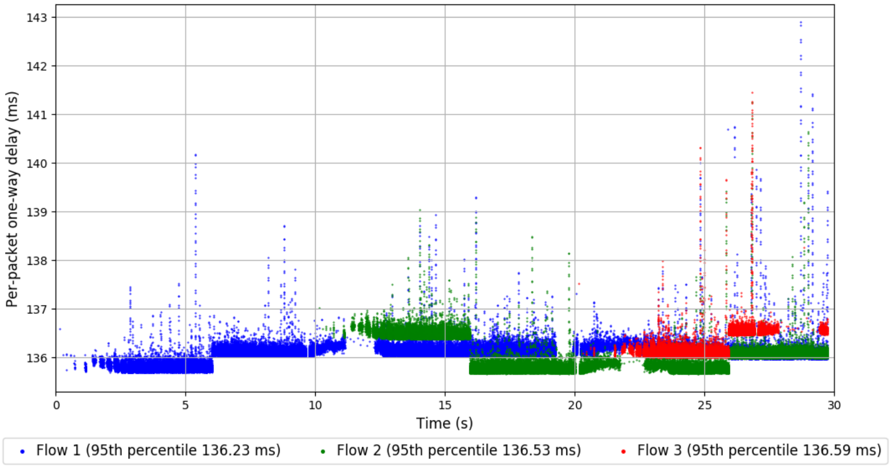




```
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-19 06:26:40
End at: 2018-07-19 06:27:10
Local clock offset: 0.027 ms
Remote clock offset: 0.259 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.87 Mbit/s
95th percentile per-packet one-way delay: 136.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.52 Mbit/s
95th percentile per-packet one-way delay: 136.232 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.45 Mbit/s
95th percentile per-packet one-way delay: 136.527 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.86 Mbit/s
95th percentile per-packet one-way delay: 136.592 ms
Loss rate: 0.00%
```

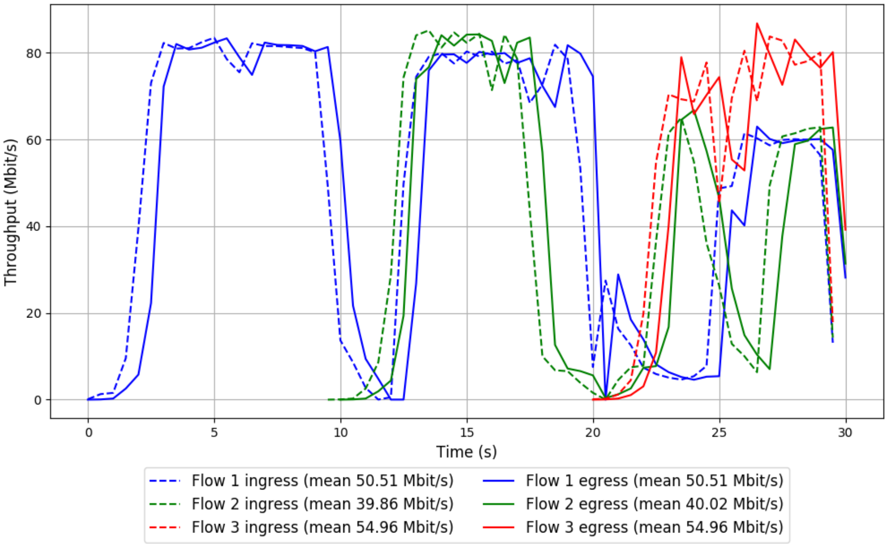
Run 5: Report of QUIC Cubic — Data Link

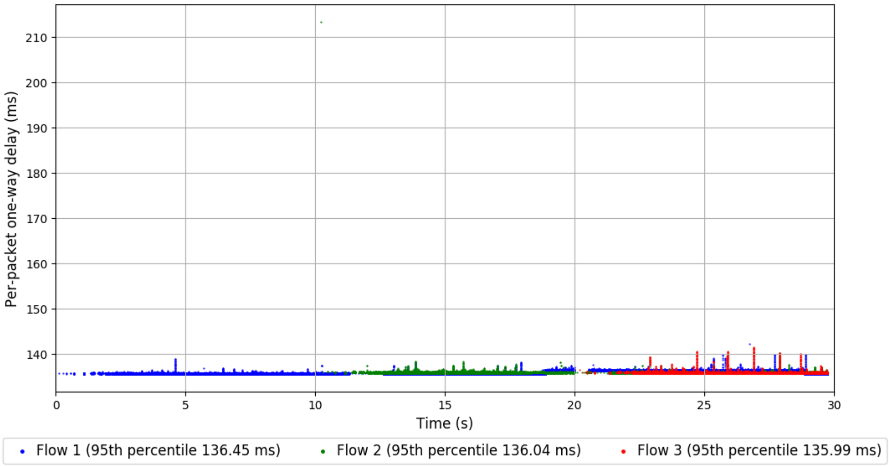




```
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-19 06:53:27
End at: 2018-07-19 06:53:57
Local clock offset: -0.13 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.66 Mbit/s
95th percentile per-packet one-way delay: 136.420 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.51 Mbit/s
95th percentile per-packet one-way delay: 136.451 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 136.038 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.96 Mbit/s
95th percentile per-packet one-way delay: 135.990 ms
Loss rate: 0.00%
```

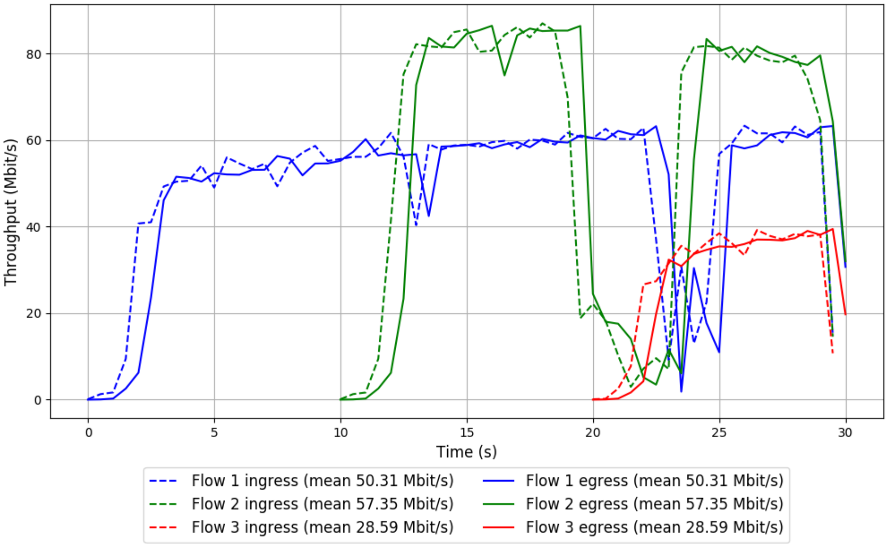
Run 6: Report of QUIC Cubic — Data Link

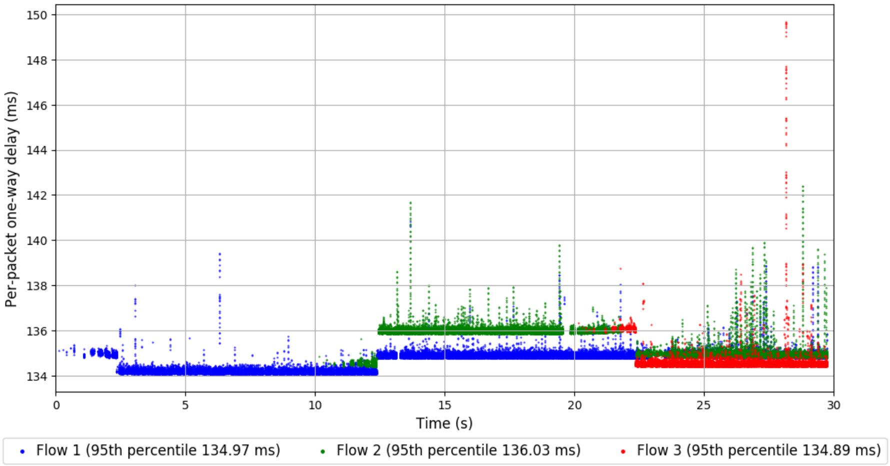




```
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-19 07:20:34
End at: 2018-07-19 07:21:04
Local clock offset: 0.127 ms
Remote clock offset: -0.221 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 135.978 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.31 Mbit/s
95th percentile per-packet one-way delay: 134.970 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.35 Mbit/s
95th percentile per-packet one-way delay: 136.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.59 Mbit/s
95th percentile per-packet one-way delay: 134.892 ms
Loss rate: 0.00%
```

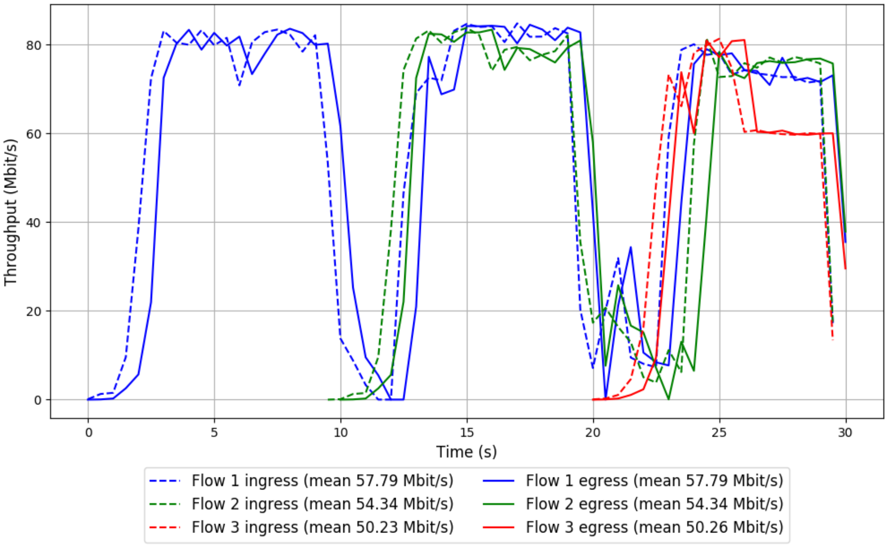
Run 7: Report of QUIC Cubic — Data Link

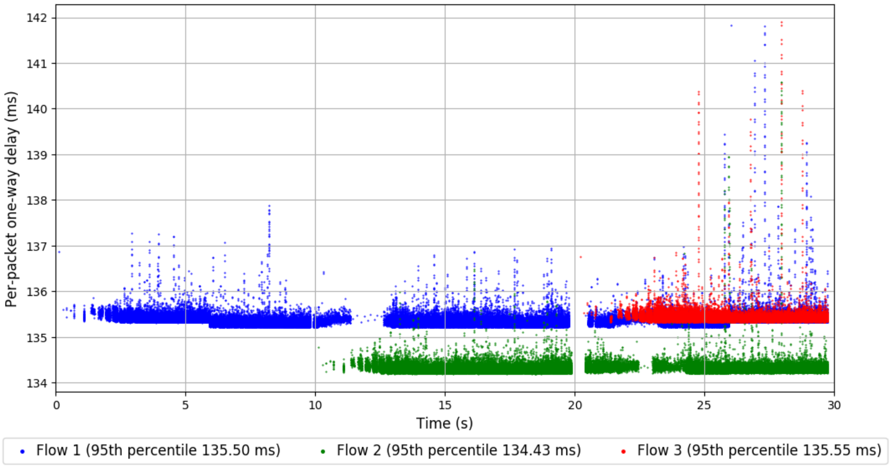




```
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-19 07:47:30
End at: 2018-07-19 07:48:00
Local clock offset: -0.164 ms
Remote clock offset: -0.649 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.97 Mbit/s
95th percentile per-packet one-way delay: 135.486 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.79 Mbit/s
95th percentile per-packet one-way delay: 135.496 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.34 Mbit/s
95th percentile per-packet one-way delay: 134.428 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 135.550 ms
Loss rate: 0.00%
```

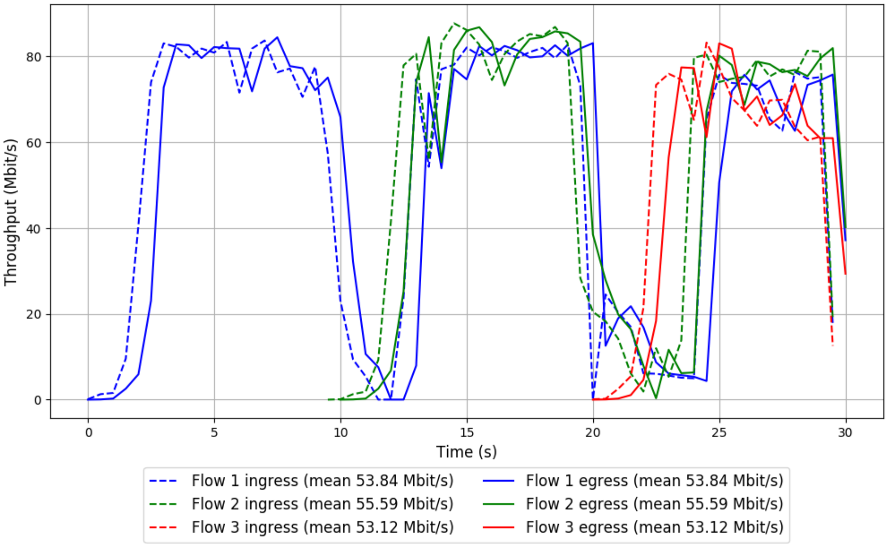
Run 8: Report of QUIC Cubic — Data Link

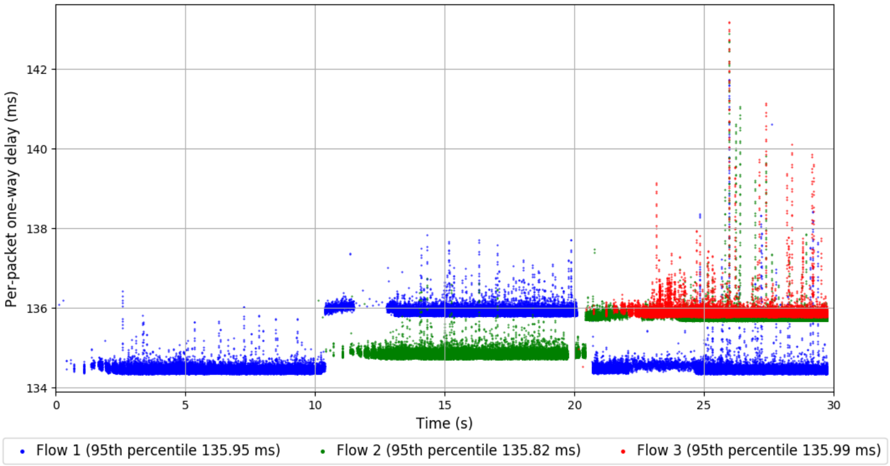




```
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-19 08:14:26
End at: 2018-07-19 08:14:56
Local clock offset: 0.077 ms
Remote clock offset: -0.466 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.86 Mbit/s
95th percentile per-packet one-way delay: 135.936 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.84 Mbit/s
95th percentile per-packet one-way delay: 135.950 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.59 Mbit/s
95th percentile per-packet one-way delay: 135.824 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.12 Mbit/s
95th percentile per-packet one-way delay: 135.992 ms
Loss rate: 0.00%
```

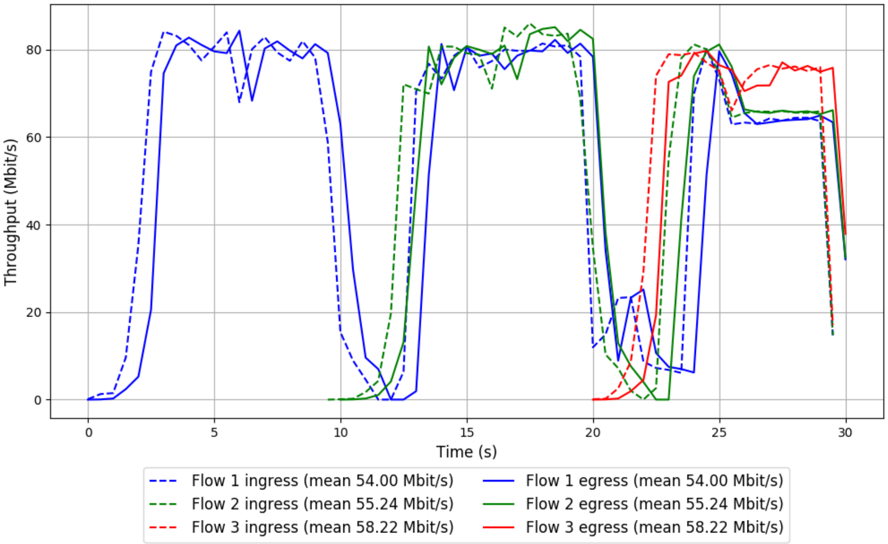
Run 9: Report of QUIC Cubic — Data Link

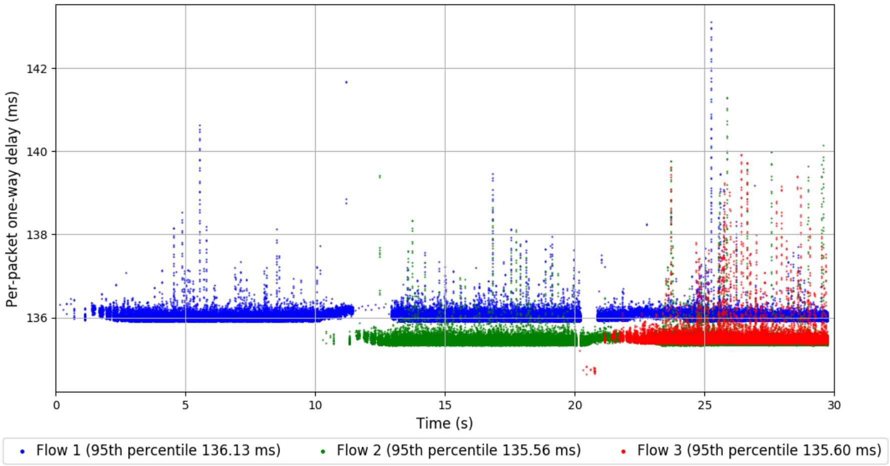




```
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-19 08:41:35
End at: 2018-07-19 08:42:05
Local clock offset: -0.287 ms
Remote clock offset: -0.089 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.41 Mbit/s
95th percentile per-packet one-way delay: 136.092 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.00 Mbit/s
95th percentile per-packet one-way delay: 136.135 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.24 Mbit/s
95th percentile per-packet one-way delay: 135.556 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 58.22 Mbit/s
95th percentile per-packet one-way delay: 135.601 ms
Loss rate: 0.00%
```

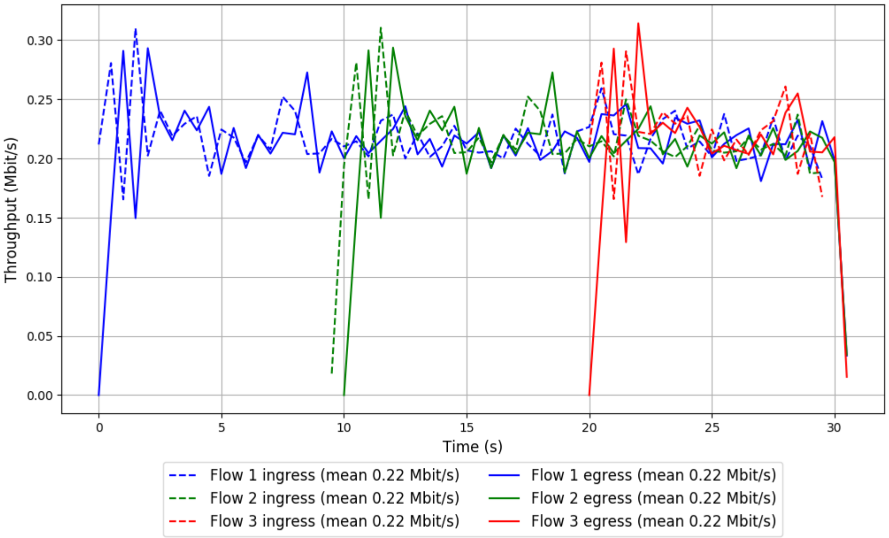
Run 10: Report of QUIC Cubic — Data Link

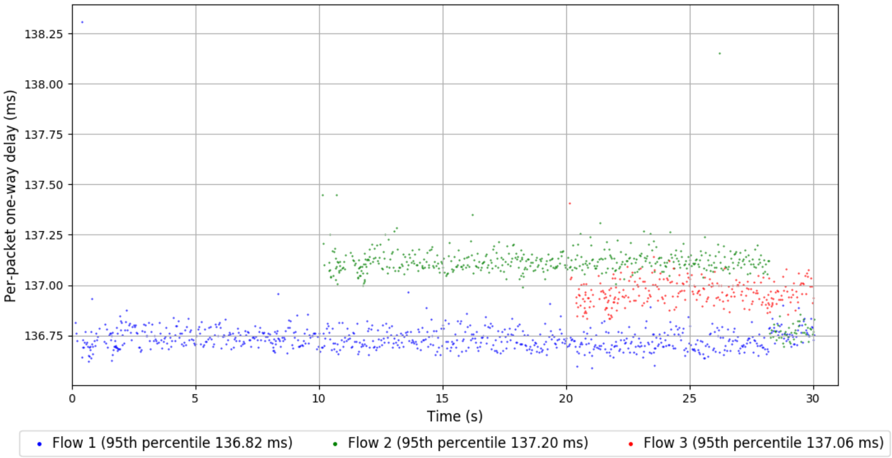




```
Run 1: Statistics of SCReAM

Start at: 2018-07-19 04:33:18
End at: 2018-07-19 04:33:48
Local clock offset: -0.141 ms
Remote clock offset: 0.225 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 137.159 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.816 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.203 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.062 ms
Loss rate: 0.00%
```

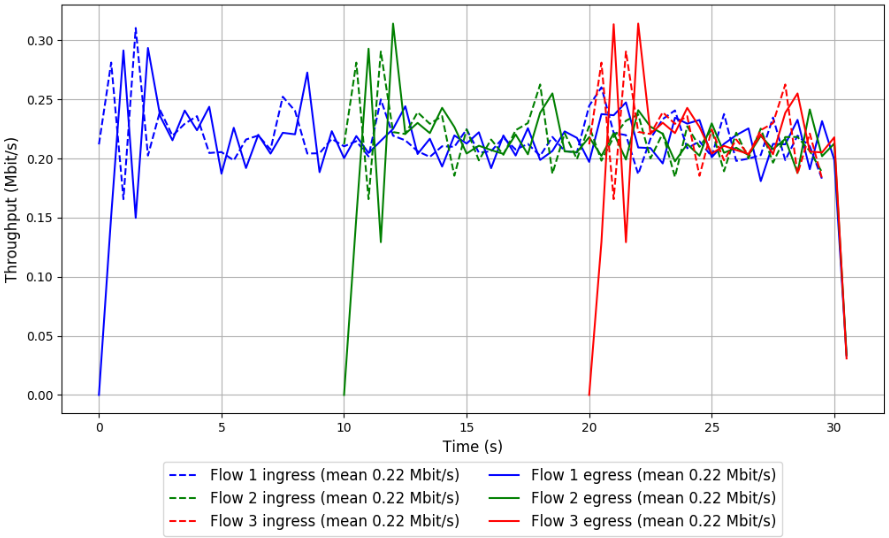
Run 1: Report of SCReAM — Data Link

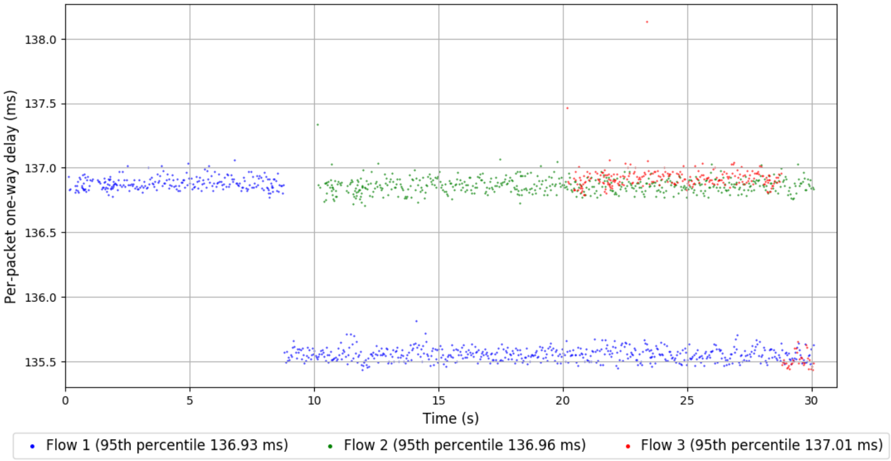




```
Run 2: Statistics of SCReAM

Start at: 2018-07-19 04:59:57
End at: 2018-07-19 05:00:27
Local clock offset: -0.198 ms
Remote clock offset: 0.278 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.966 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.927 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.959 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.012 ms
Loss rate: 0.00%
```

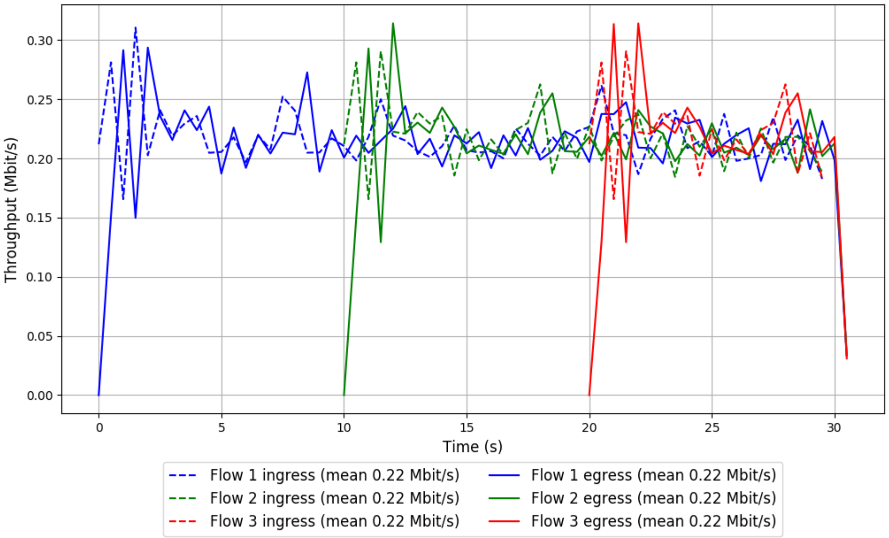
Run 2: Report of SCReAM — Data Link

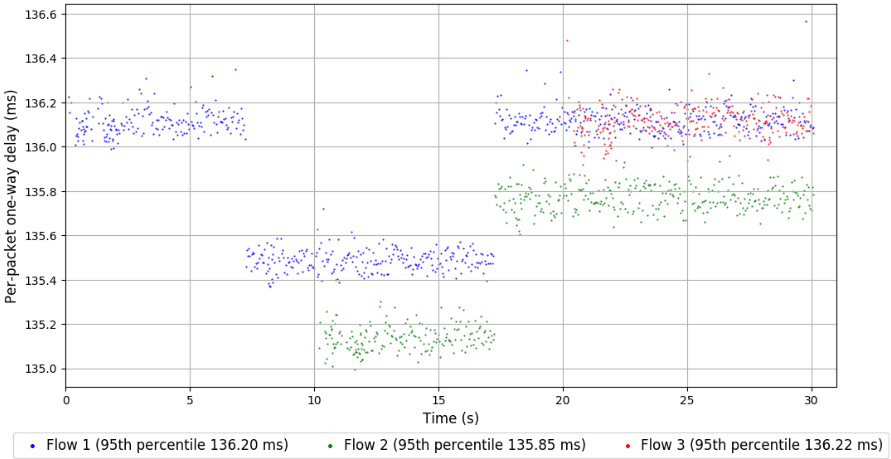




```
Run 3: Statistics of SCReAM

Start at: 2018-07-19 05:27:09
End at: 2018-07-19 05:27:39
Local clock offset: -0.157 ms
Remote clock offset: -0.436 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.187 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.197 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.855 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.222 ms
Loss rate: 0.00%
```

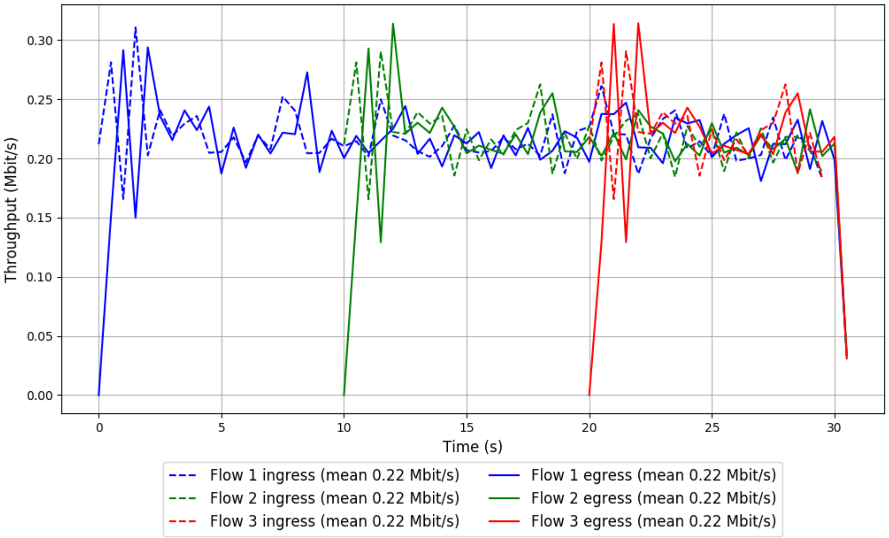
Run 3: Report of SCReAM — Data Link

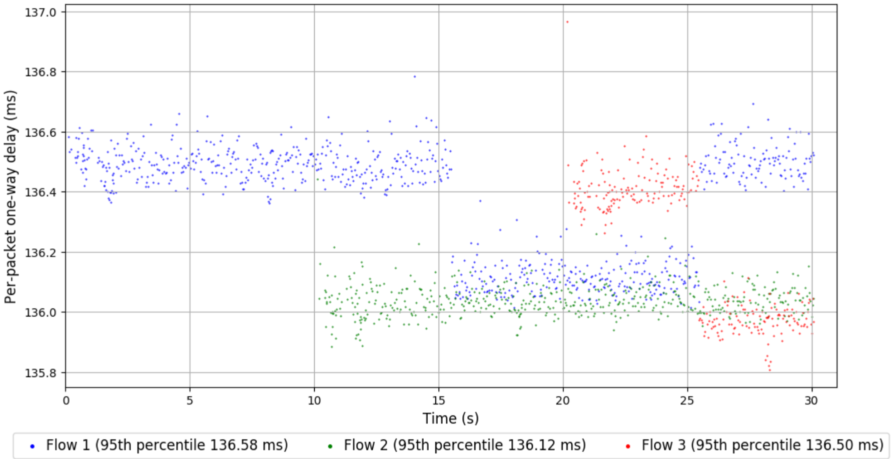




```
Run 4: Statistics of SCReAM

Start at: 2018-07-19 05:54:11
End at: 2018-07-19 05:54:41
Local clock offset: -0.146 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2018-07-19 11:01:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.552 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.584 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.122 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.499 ms
Loss rate: 0.00%
```

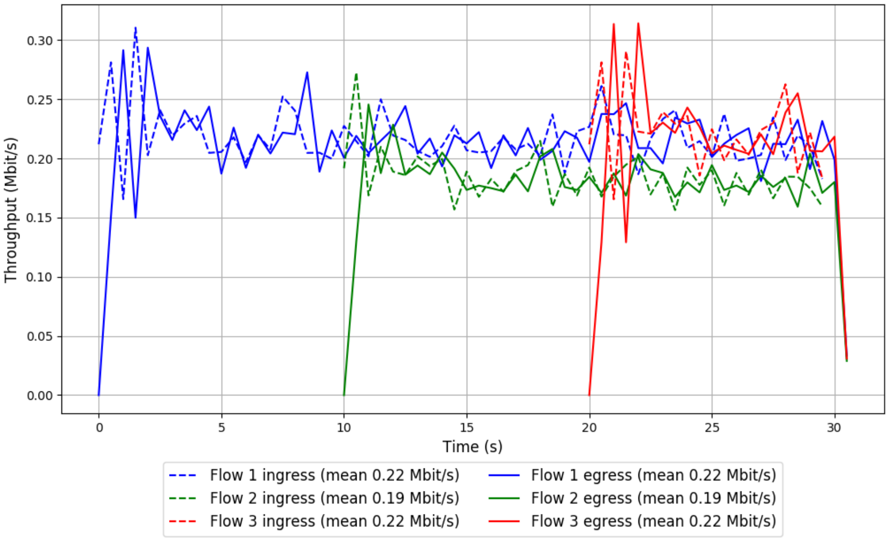
Run 4: Report of SCReAM — Data Link

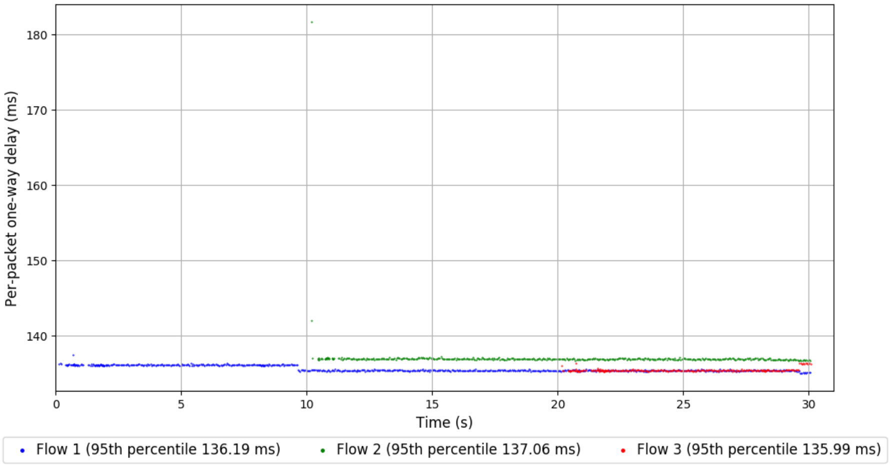




```
Run 5: Statistics of SCReAM

Start at: 2018-07-19 06:21:07
End at: 2018-07-19 06:21:37
Local clock offset: -0.05 ms
Remote clock offset: 0.307 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 136.994 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.190 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 137.055 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.990 ms
Loss rate: 0.00%
```

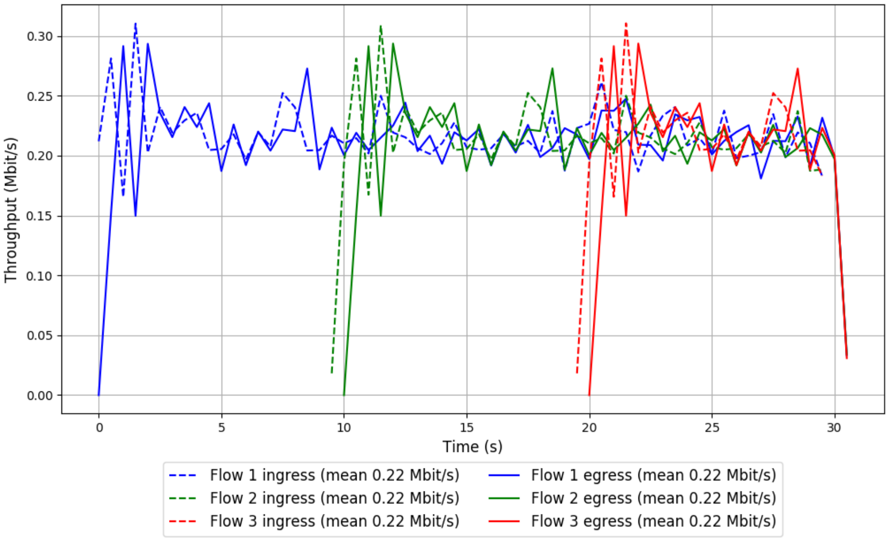
Run 5: Report of SCReAM — Data Link

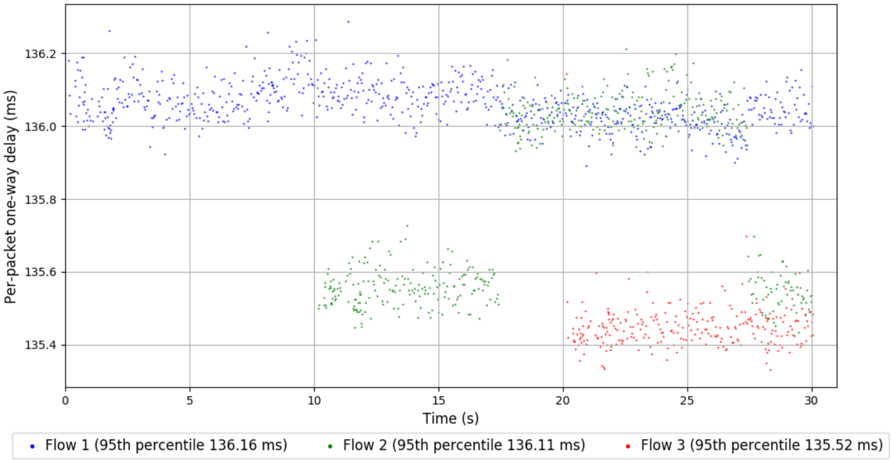




```
Run 6: Statistics of SCReAM

Start at: 2018-07-19 06:47:49
End at: 2018-07-19 06:48:19
Local clock offset: 0.118 ms
Remote clock offset: -0.372 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.156 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.109 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.518 ms
Loss rate: 0.00%
```

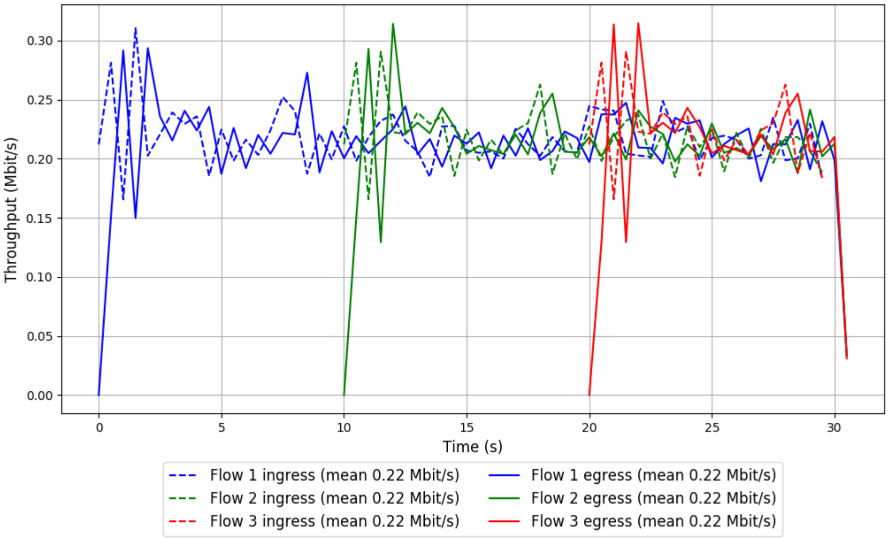
Run 6: Report of SCReAM — Data Link

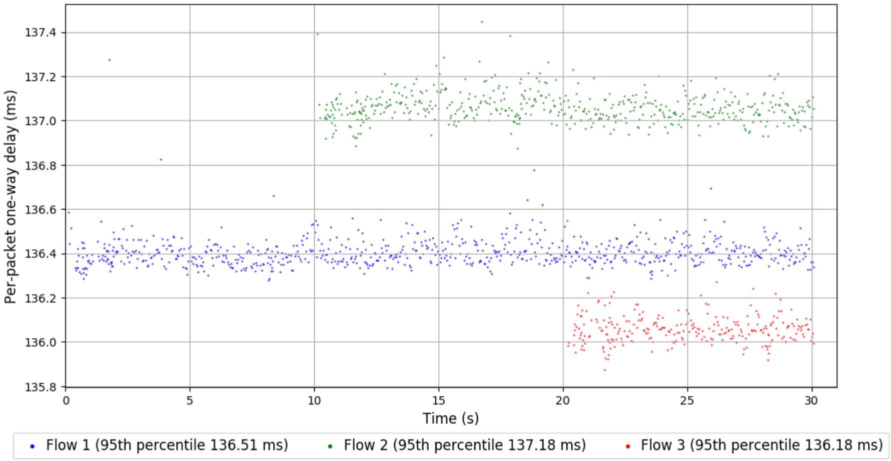




```
Run 7: Statistics of SCReAM

Start at: 2018-07-19 07:14:57
End at: 2018-07-19 07:15:27
Local clock offset: -0.135 ms
Remote clock offset: 0.165 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 137.119 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.180 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.181 ms
Loss rate: 0.00%
```

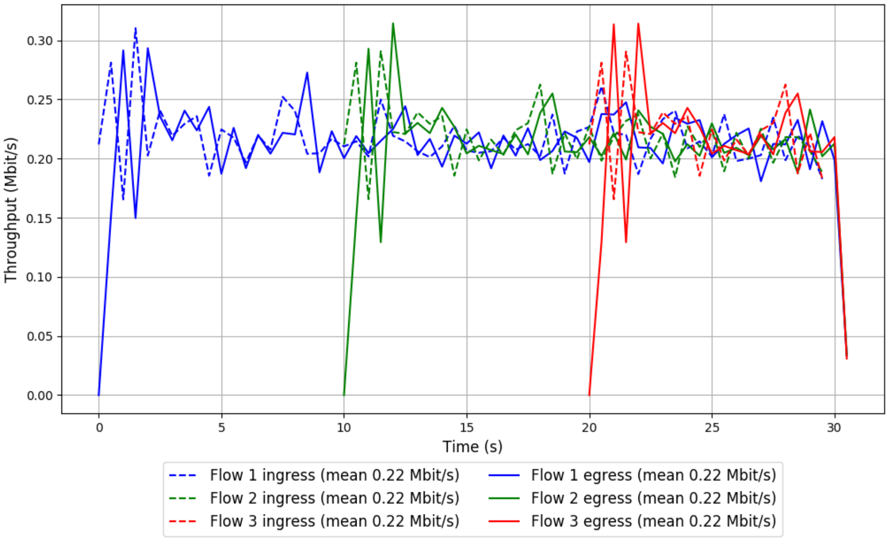
Run 7: Report of SCReAM — Data Link

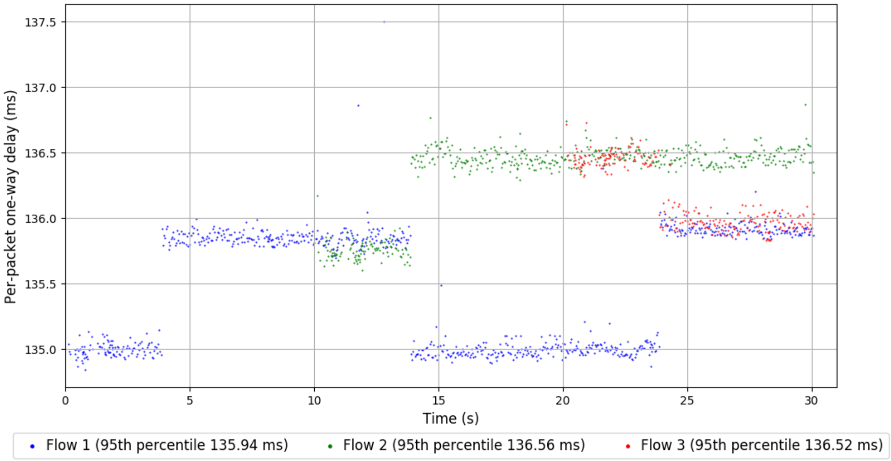




```
Run 8: Statistics of SCReAM

Start at: 2018-07-19 07:41:52
End at: 2018-07-19 07:42:22
Local clock offset: 0.052 ms
Remote clock offset: -0.226 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.942 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.557 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.524 ms
Loss rate: 0.00%
```

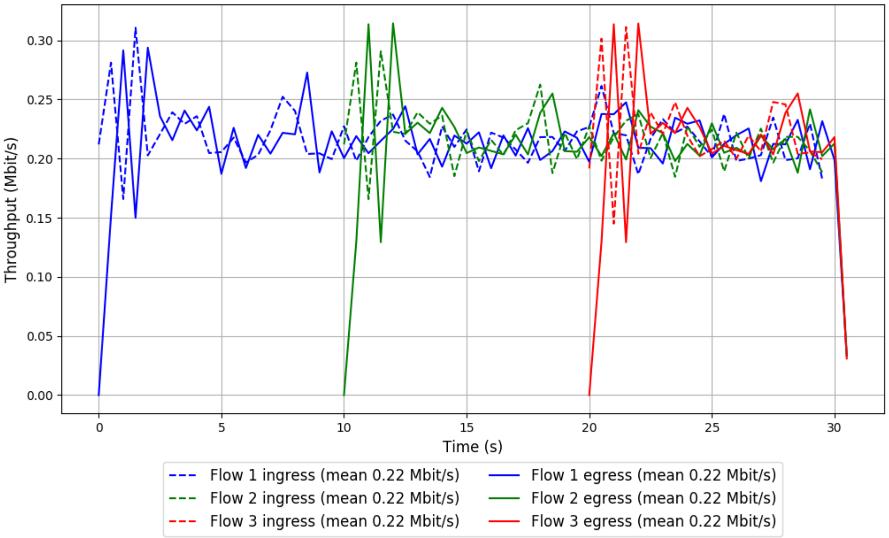
Run 8: Report of SCReAM — Data Link

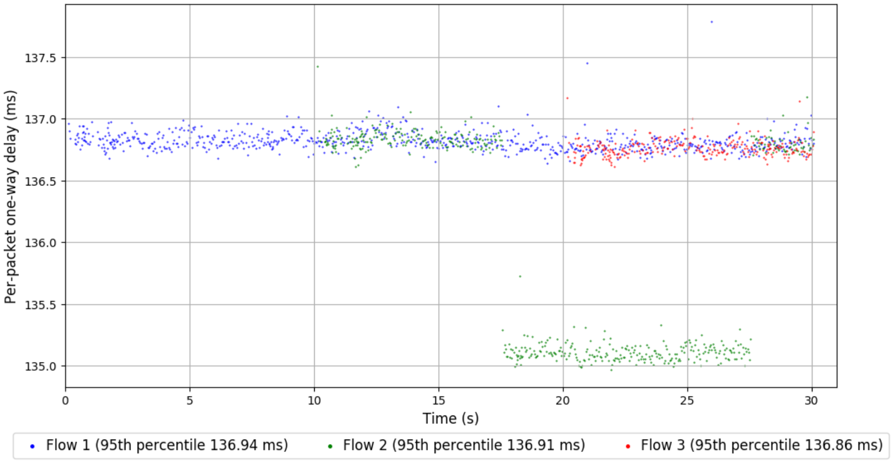




```
Run 9: Statistics of SCReAM

Start at: 2018-07-19 08:08:49
End at: 2018-07-19 08:09:19
Local clock offset: -0.034 ms
Remote clock offset: 0.114 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.926 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.943 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.905 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.864 ms
Loss rate: 0.00%
```

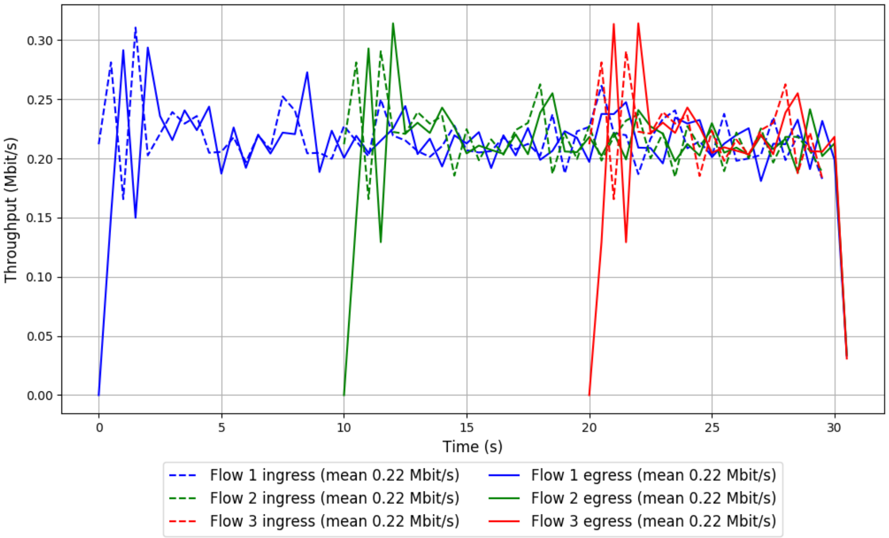
Run 9: Report of SCReAM — Data Link

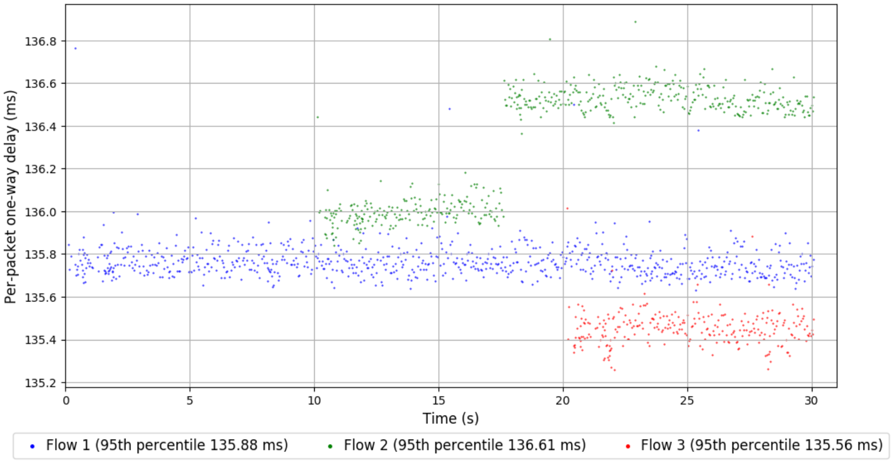




```
Run 10: Statistics of SCReAM

Start at: 2018-07-19 08:35:59
End at: 2018-07-19 08:36:29
Local clock offset: 0.005 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.571 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.875 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.612 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.561 ms
Loss rate: 0.00%
```

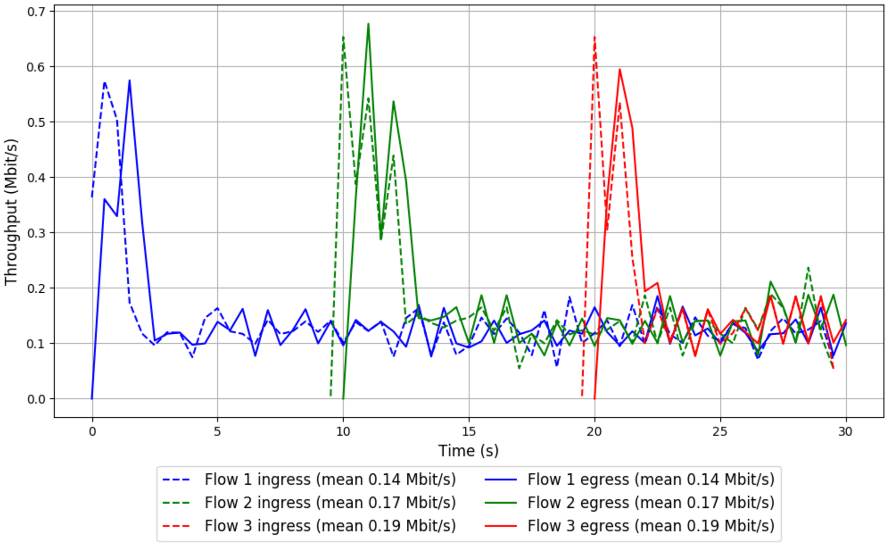
Run 10: Report of SCReAM — Data Link

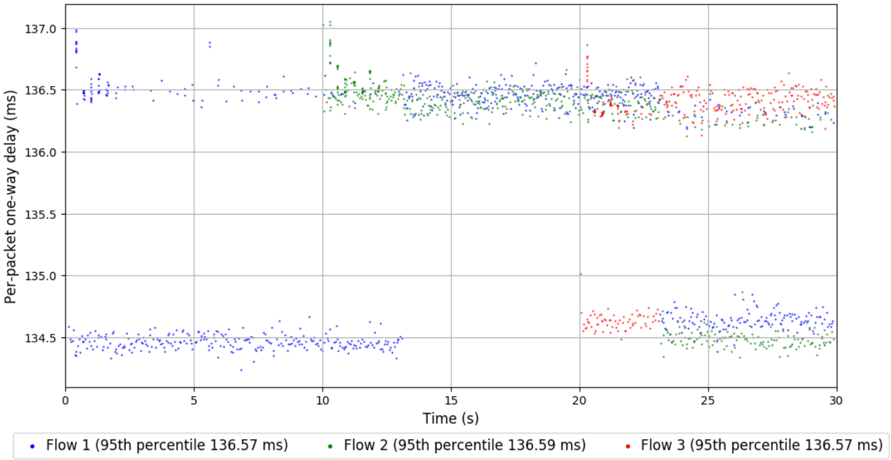




```
Run 1: Statistics of Sprout

Start at: 2018-07-19 04:32:03
End at: 2018-07-19 04:32:33
Local clock offset: -0.368 ms
Remote clock offset: -0.494 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 136.580 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.569 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.590 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.569 ms
Loss rate: 0.00%
```

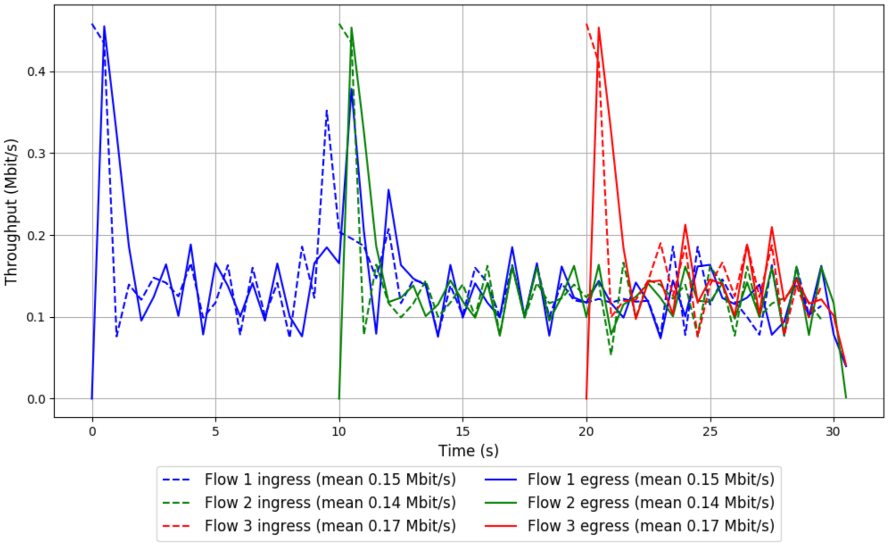
Run 1: Report of Sprout — Data Link

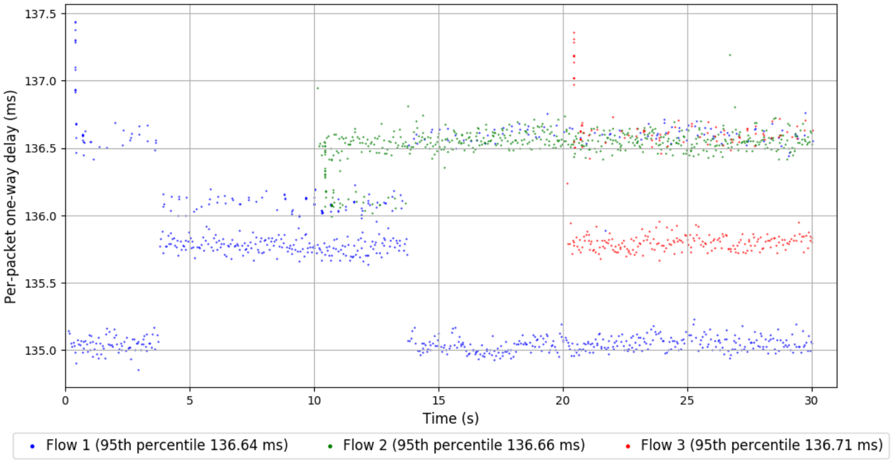




```
Run 2: Statistics of Sprout

Start at: 2018-07-19 04:58:42
End at: 2018-07-19 04:59:12
Local clock offset: -0.161 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 136.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.642 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.662 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.705 ms
Loss rate: 0.00%
```

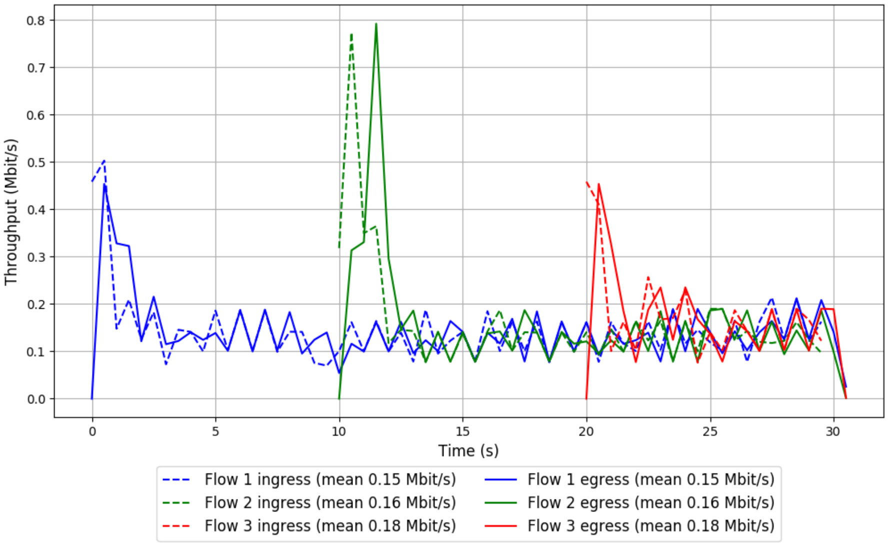
Run 2: Report of Sprout — Data Link

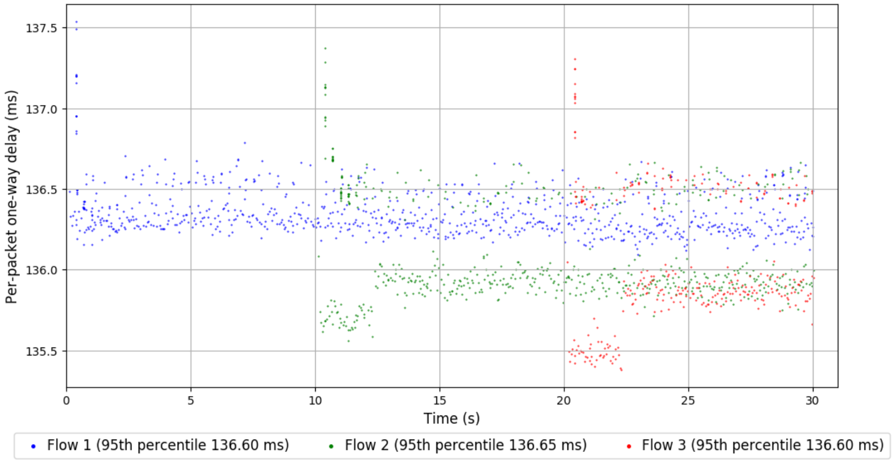




```
Run 3: Statistics of Sprout

Start at: 2018-07-19 05:25:54
End at: 2018-07-19 05:26:24
Local clock offset: -0.036 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 136.610 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.596 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.651 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.602 ms
Loss rate: 0.00%
```

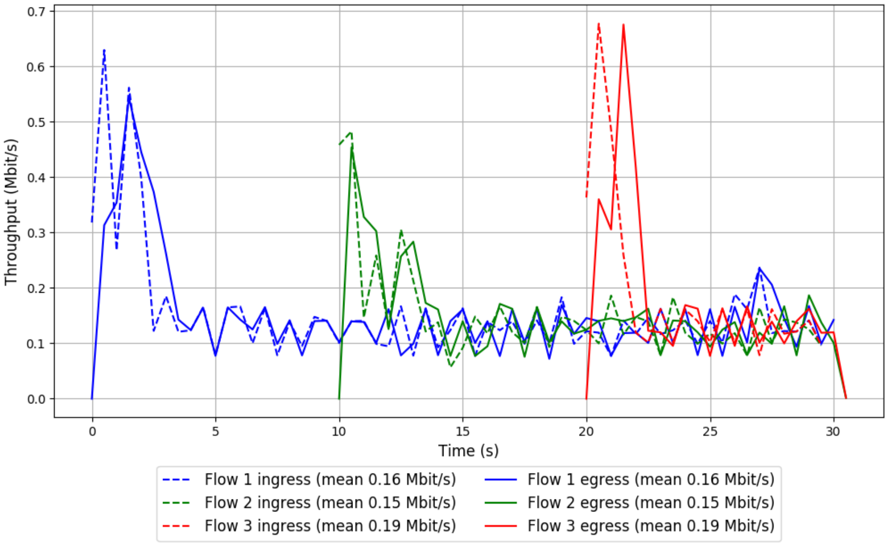
Run 3: Report of Sprout — Data Link

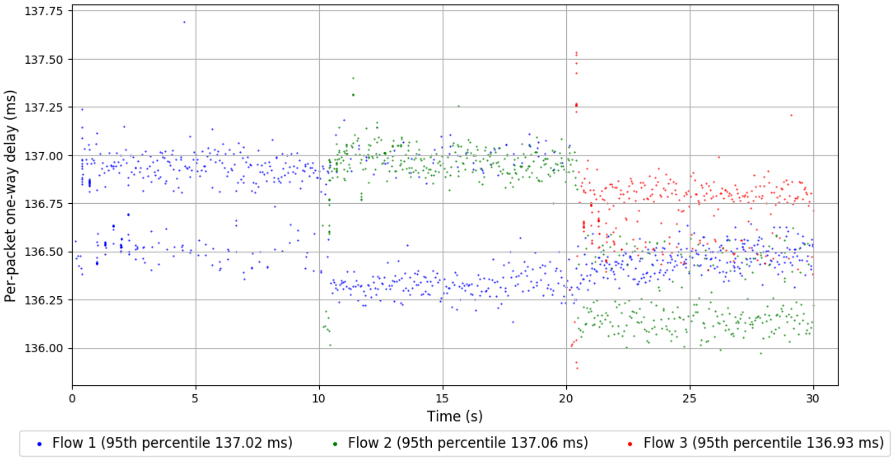




```
Run 4: Statistics of Sprout

Start at: 2018-07-19 05:52:56
End at: 2018-07-19 05:53:26
Local clock offset: -0.147 ms
Remote clock offset: 0.297 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 137.046 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 137.024 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 137.057 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 136.931 ms
Loss rate: 0.00%
```

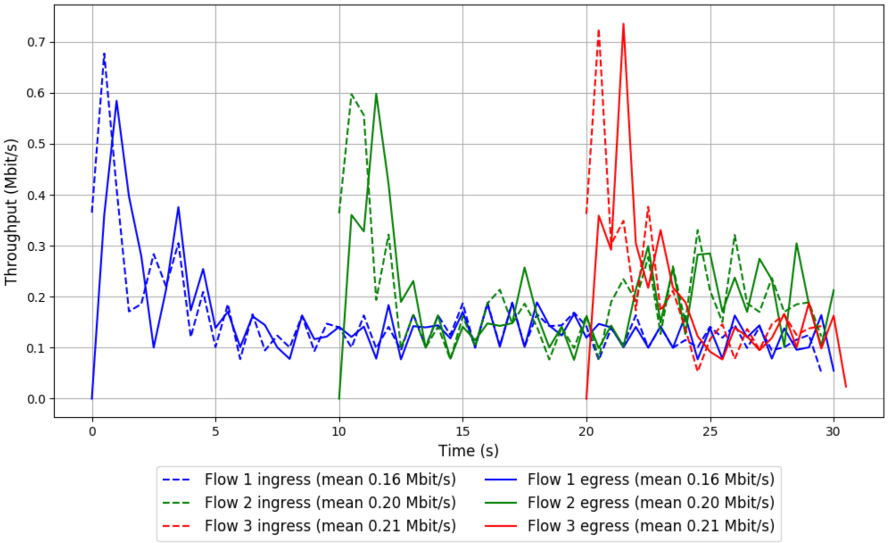
Run 4: Report of Sprout — Data Link

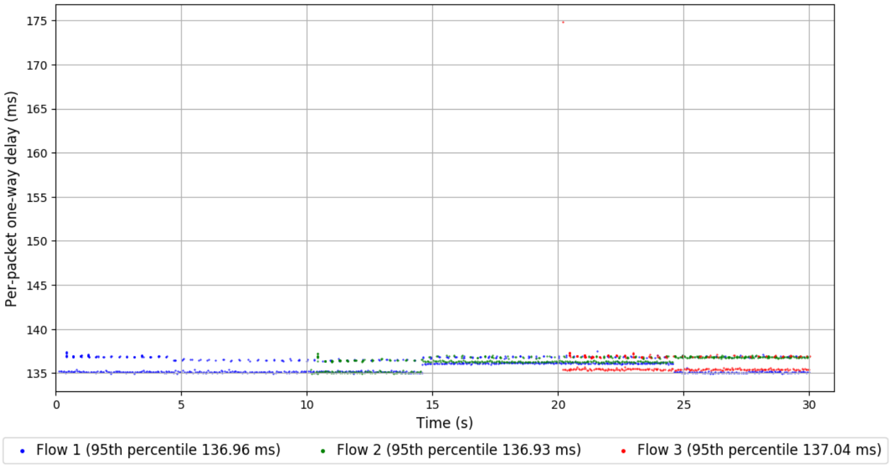




```
Run 5: Statistics of Sprout

Start at: 2018-07-19 06:19:52
End at: 2018-07-19 06:20:22
Local clock offset: -0.086 ms
Remote clock offset: 0.279 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.968 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 136.960 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 136.928 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 137.045 ms
Loss rate: 0.00%
```

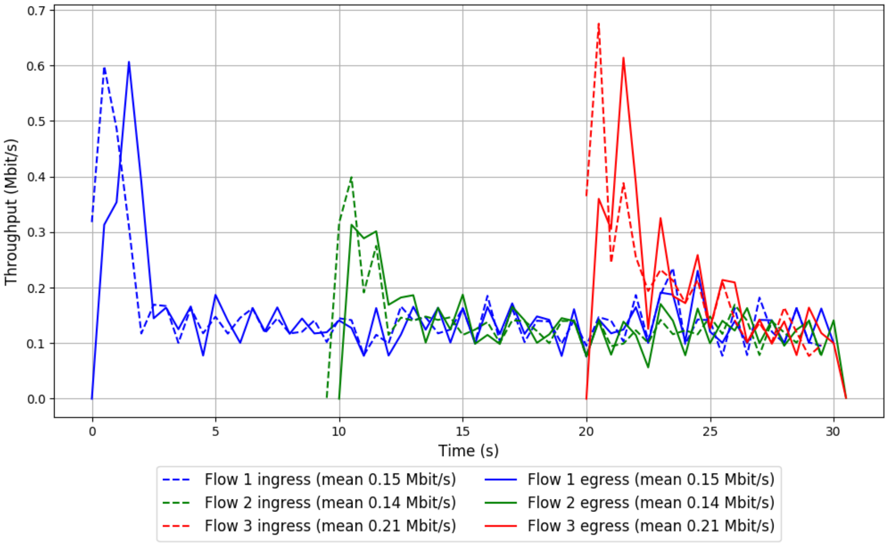
Run 5: Report of Sprout — Data Link

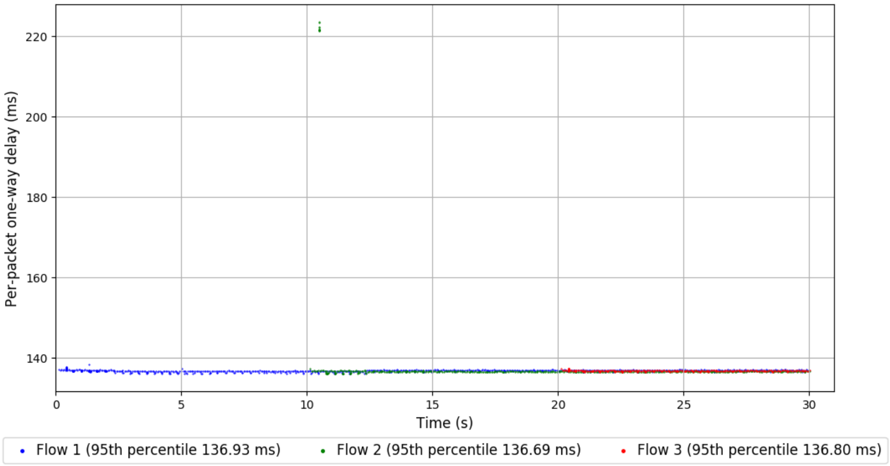




```
Run 6: Statistics of Sprout

Start at: 2018-07-19 06:46:34
End at: 2018-07-19 06:47:04
Local clock offset: -0.091 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 136.909 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.929 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.693 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 136.799 ms
Loss rate: 0.00%
```

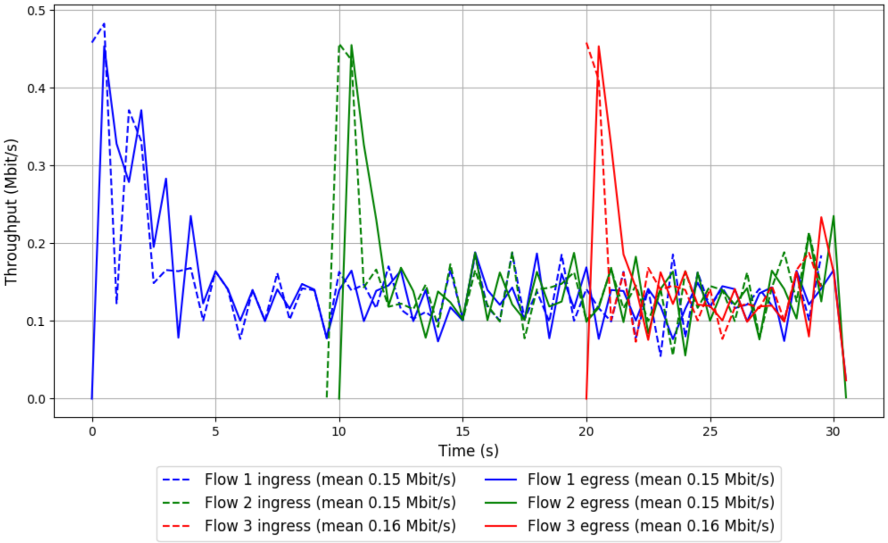
Run 6: Report of Sprout — Data Link

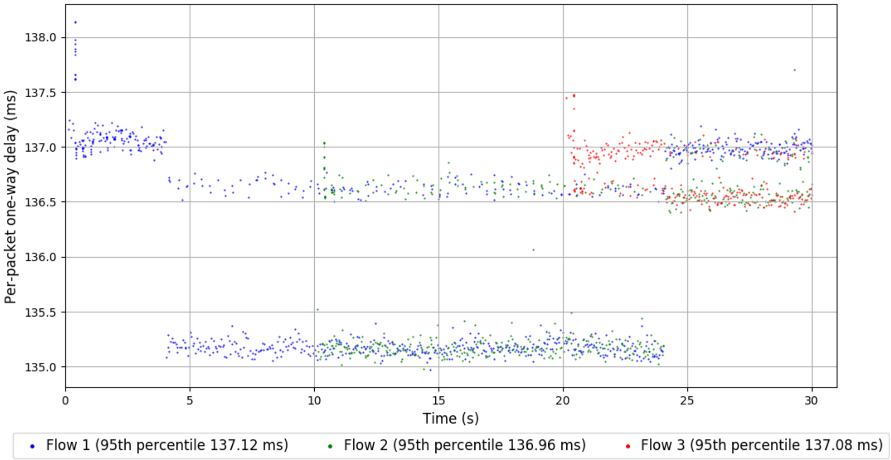




```
Run 7: Statistics of Sprout

Start at: 2018-07-19 07:13:42
End at: 2018-07-19 07:14:12
Local clock offset: -0.303 ms
Remote clock offset: 0.189 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 137.086 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 137.124 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 136.957 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 137.079 ms
Loss rate: 0.00%
```

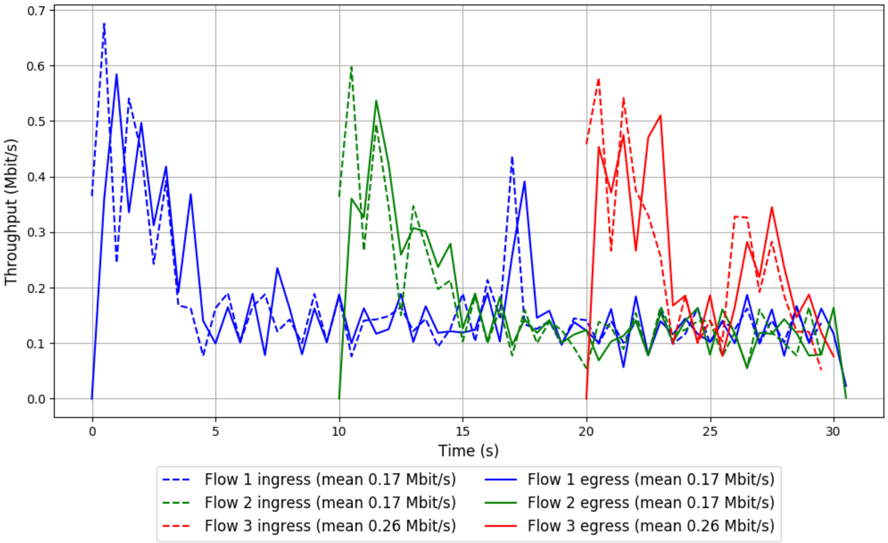
Run 7: Report of Sprout — Data Link

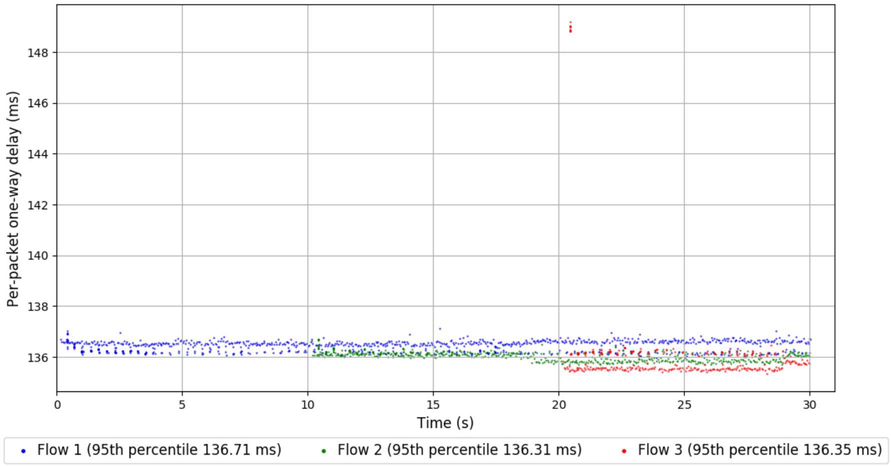




```
Run 8: Statistics of Sprout

Start at: 2018-07-19 07:40:37
End at: 2018-07-19 07:41:07
Local clock offset: -0.148 ms
Remote clock offset: -0.209 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.666 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.711 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.309 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 136.351 ms
Loss rate: 0.00%
```

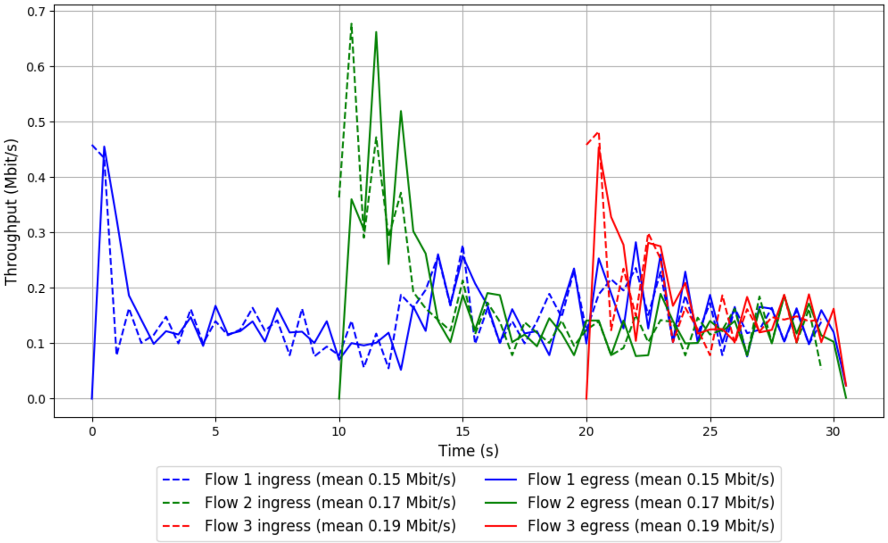
Run 8: Report of Sprout — Data Link

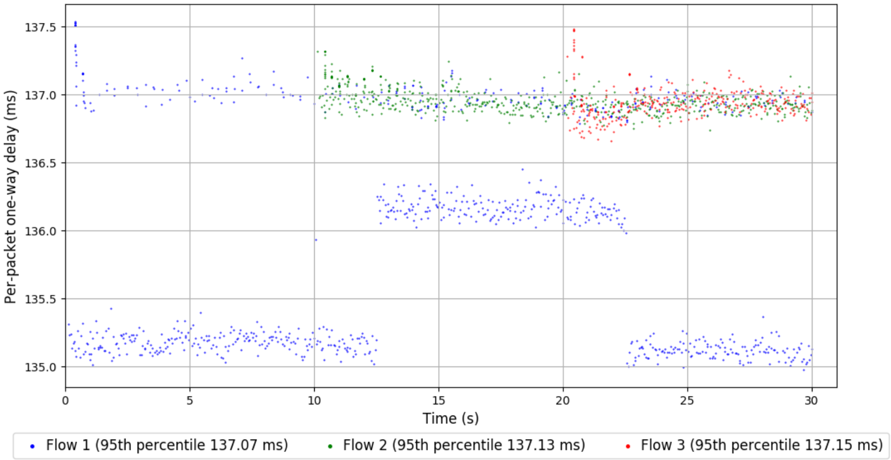




```
Run 9: Statistics of Sprout

Start at: 2018-07-19 08:07:34
End at: 2018-07-19 08:08:04
Local clock offset: -0.062 ms
Remote clock offset: 0.137 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 137.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 137.066 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 137.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 137.146 ms
Loss rate: 0.00%
```

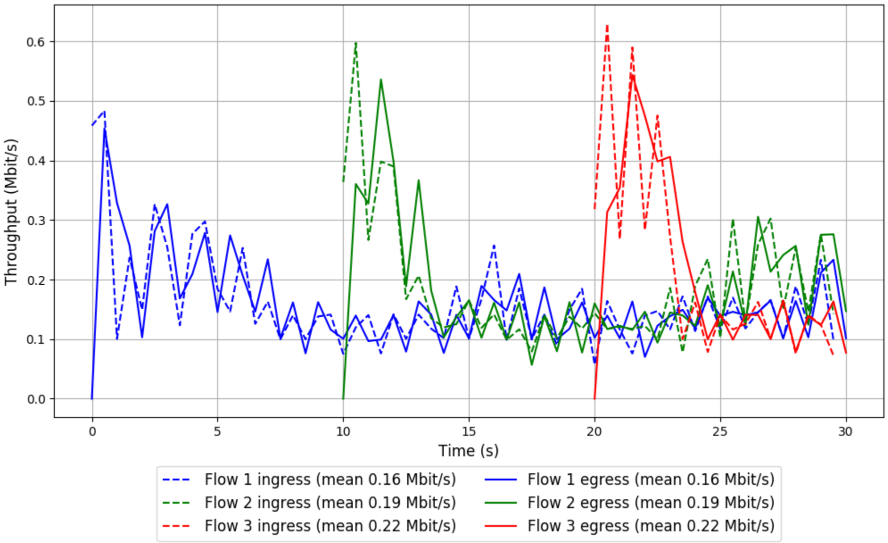
Run 9: Report of Sprout — Data Link

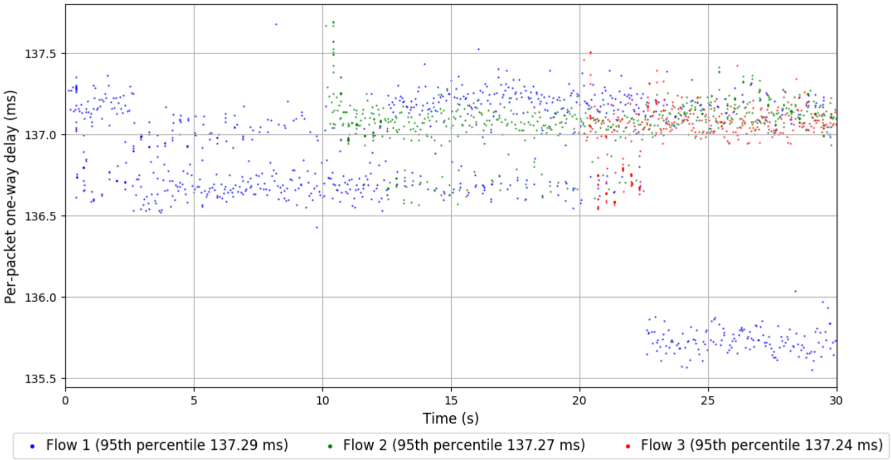




```
Run 10: Statistics of Sprout

Start at: 2018-07-19 08:34:44
End at: 2018-07-19 08:35:14
Local clock offset: -0.272 ms
Remote clock offset: 0.304 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 137.277 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 137.288 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 137.267 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.239 ms
Loss rate: 0.00%
```

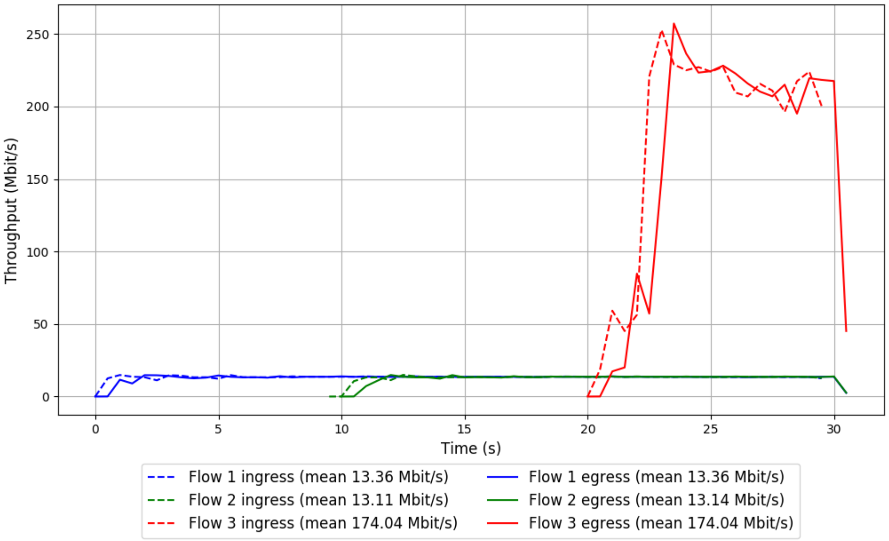
Run 10: Report of Sprout — Data Link

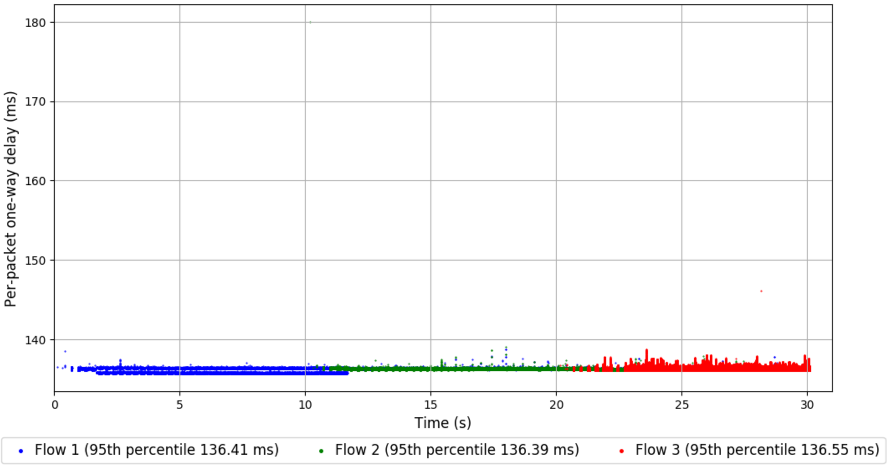




```
Run 1: Statistics of TaoVA-100x

Start at: 2018-07-19 04:42:04
End at: 2018-07-19 04:42:35
Local clock offset: -0.107 ms
Remote clock offset: -0.153 ms

# Below is generated by plot.py at 2018-07-19 11:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.95 Mbit/s
95th percentile per-packet one-way delay: 136.504 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 136.412 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 136.394 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 174.04 Mbit/s
95th percentile per-packet one-way delay: 136.549 ms
Loss rate: 0.00%
```

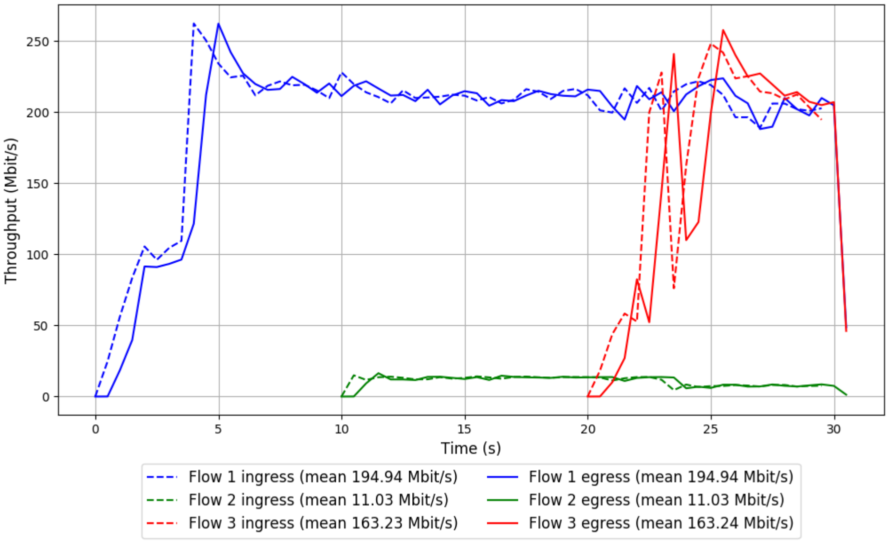
Run 1: Report of TaoVA-100x — Data Link

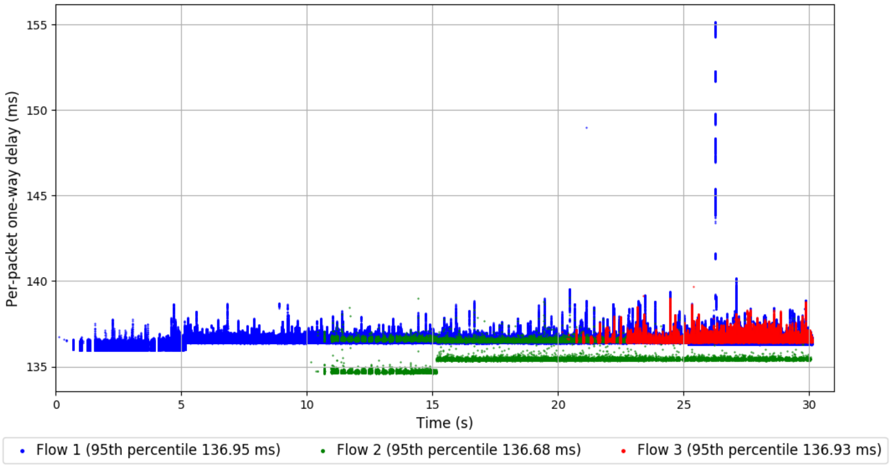




```
Run 2: Statistics of TaoVA-100x

Start at: 2018-07-19 05:08:51
End at: 2018-07-19 05:09:21
Local clock offset: -0.265 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-07-19 11:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.44 Mbit/s
95th percentile per-packet one-way delay: 136.939 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.94 Mbit/s
95th percentile per-packet one-way delay: 136.950 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 136.683 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 163.24 Mbit/s
95th percentile per-packet one-way delay: 136.932 ms
Loss rate: 0.00%
```

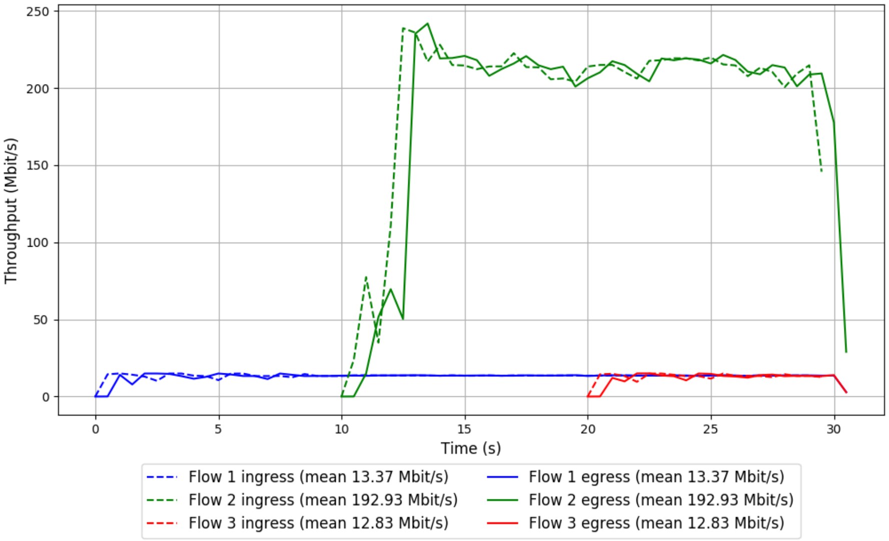
Run 2: Report of TaoVA-100x — Data Link

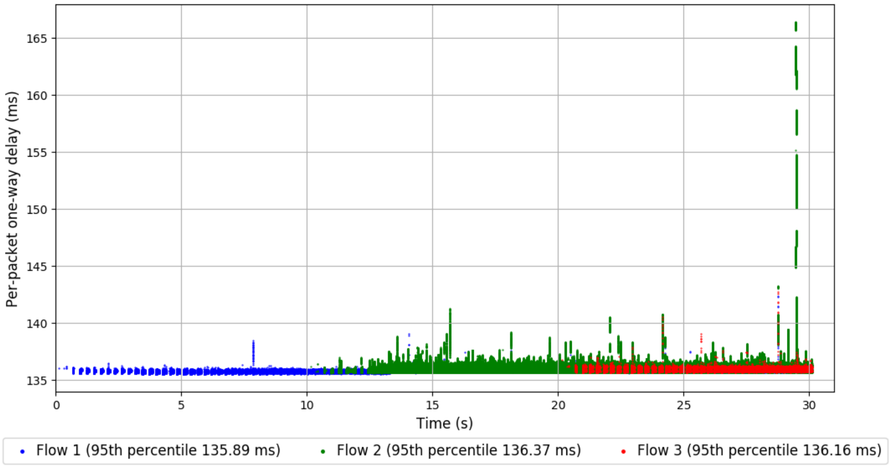




```
Run 3: Statistics of TaoVA-100x

Start at: 2018-07-19 05:36:03
End at: 2018-07-19 05:36:33
Local clock offset: 0.022 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-19 11:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.13 Mbit/s
95th percentile per-packet one-way delay: 136.349 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 135.889 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.93 Mbit/s
95th percentile per-packet one-way delay: 136.367 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.83 Mbit/s
95th percentile per-packet one-way delay: 136.165 ms
Loss rate: 0.00%
```

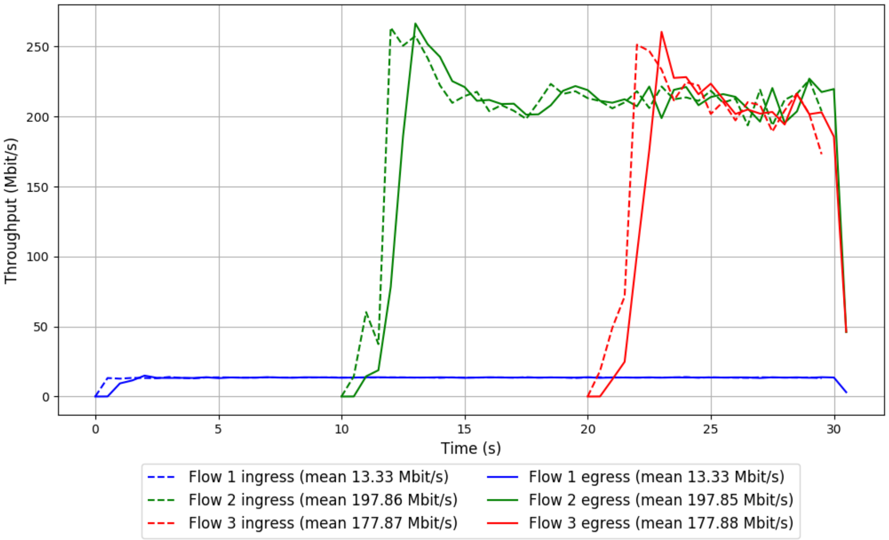
Run 3: Report of TaoVA-100x — Data Link

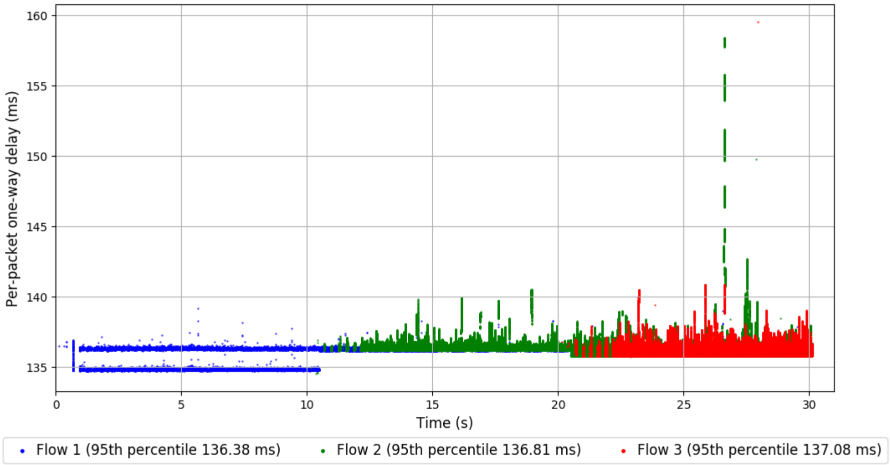




```
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-19 06:02:56
End at: 2018-07-19 06:03:26
Local clock offset: -0.107 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2018-07-19 11:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 204.21 Mbit/s
95th percentile per-packet one-way delay: 136.869 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.33 Mbit/s
95th percentile per-packet one-way delay: 136.378 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 197.85 Mbit/s
95th percentile per-packet one-way delay: 136.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 177.88 Mbit/s
95th percentile per-packet one-way delay: 137.077 ms
Loss rate: 0.00%
```

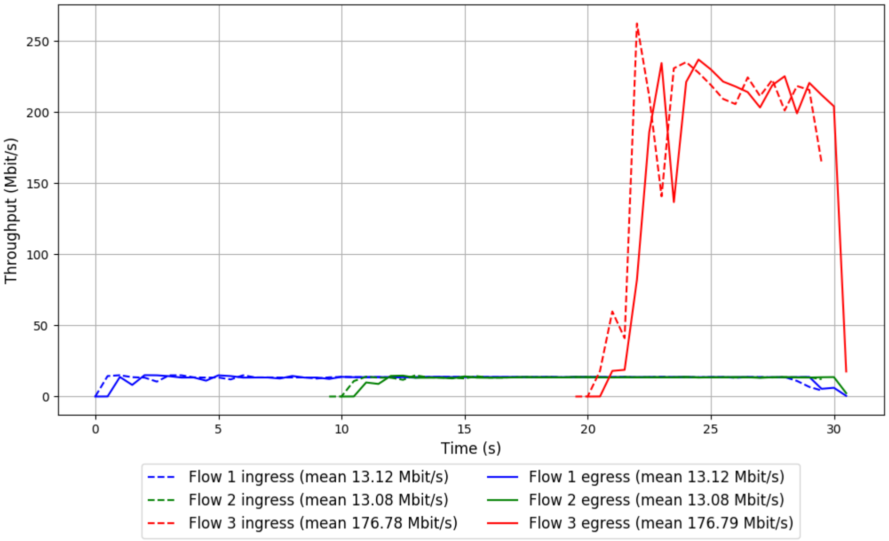
Run 4: Report of TaoVA-100x — Data Link

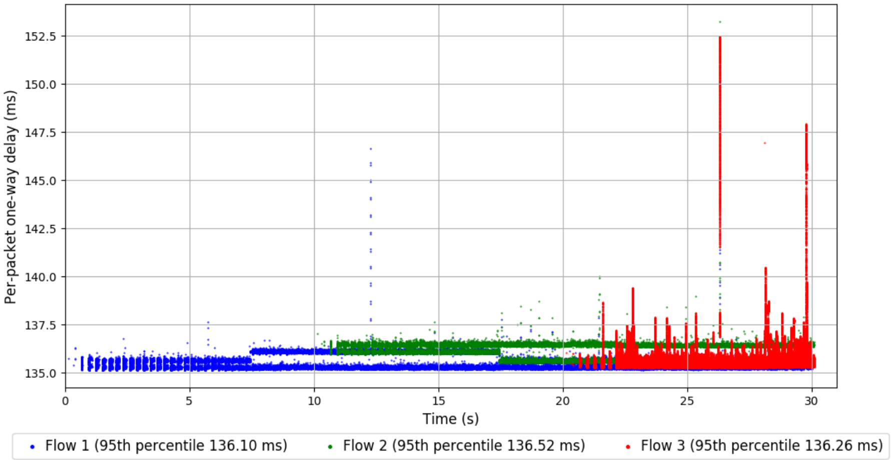




```
Run 5: Statistics of TaoVA-100x

Start at: 2018-07-19 06:29:59
End at: 2018-07-19 06:30:29
Local clock offset: -0.155 ms
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2018-07-19 11:06:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.57 Mbit/s
95th percentile per-packet one-way delay: 136.441 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 136.101 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.08 Mbit/s
95th percentile per-packet one-way delay: 136.517 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.79 Mbit/s
95th percentile per-packet one-way delay: 136.262 ms
Loss rate: 0.00%
```

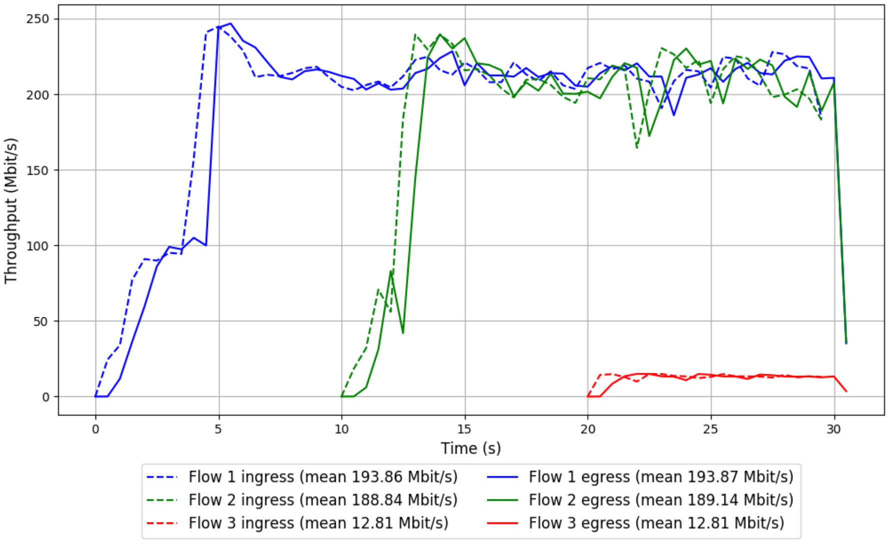
Run 5: Report of TaoVA-100x — Data Link

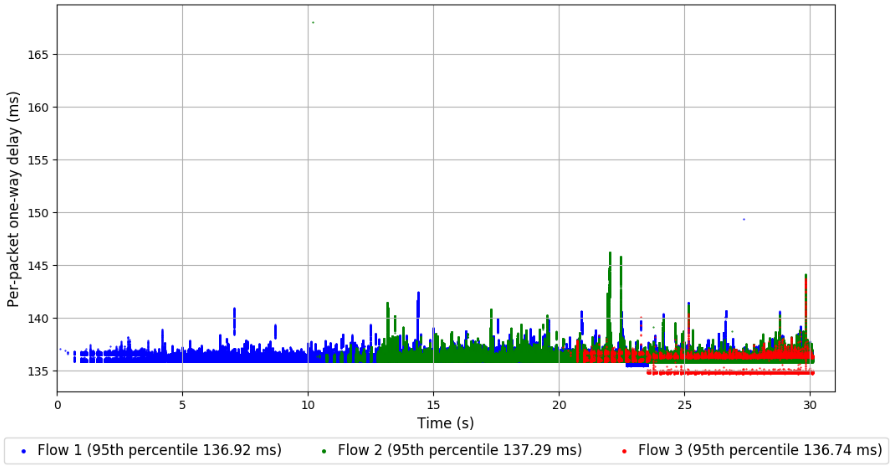




```
Run 6: Statistics of TaoVA-100x

Start at: 2018-07-19 06:56:43
End at: 2018-07-19 06:57:13
Local clock offset: -0.11 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-07-19 11:10:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 323.59 Mbit/s
95th percentile per-packet one-way delay: 137.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.87 Mbit/s
95th percentile per-packet one-way delay: 136.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.14 Mbit/s
95th percentile per-packet one-way delay: 137.294 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.81 Mbit/s
95th percentile per-packet one-way delay: 136.742 ms
Loss rate: 0.00%
```

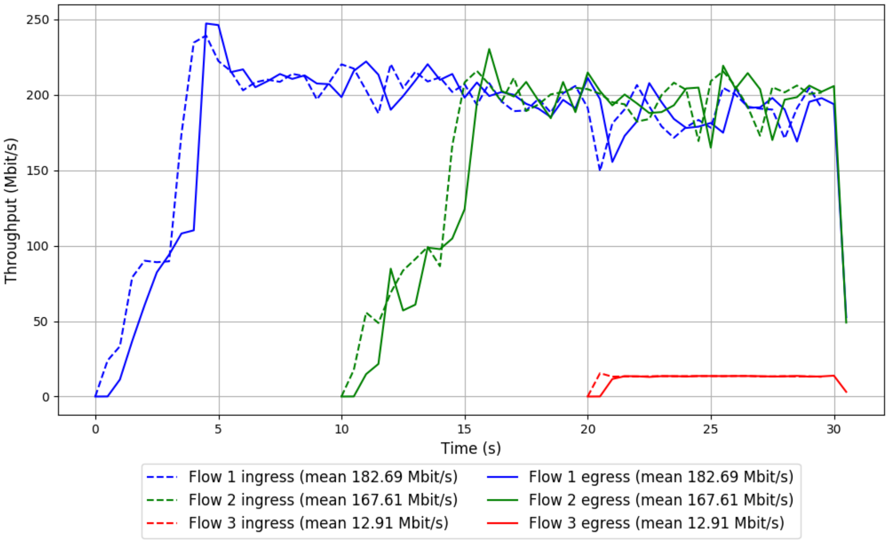
Run 6: Report of TaoVA-100x — Data Link

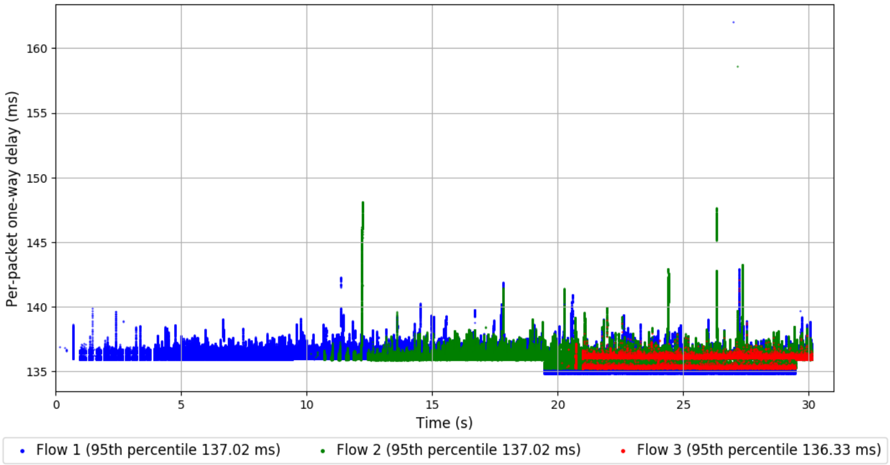




```
Run 7: Statistics of TaoVA-100x

Start at: 2018-07-19 07:23:47
End at: 2018-07-19 07:24:17
Local clock offset: -0.282 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2018-07-19 11:10:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.63 Mbit/s
95th percentile per-packet one-way delay: 137.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 182.69 Mbit/s
95th percentile per-packet one-way delay: 137.023 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 167.61 Mbit/s
95th percentile per-packet one-way delay: 137.019 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.91 Mbit/s
95th percentile per-packet one-way delay: 136.332 ms
Loss rate: 0.00%
```

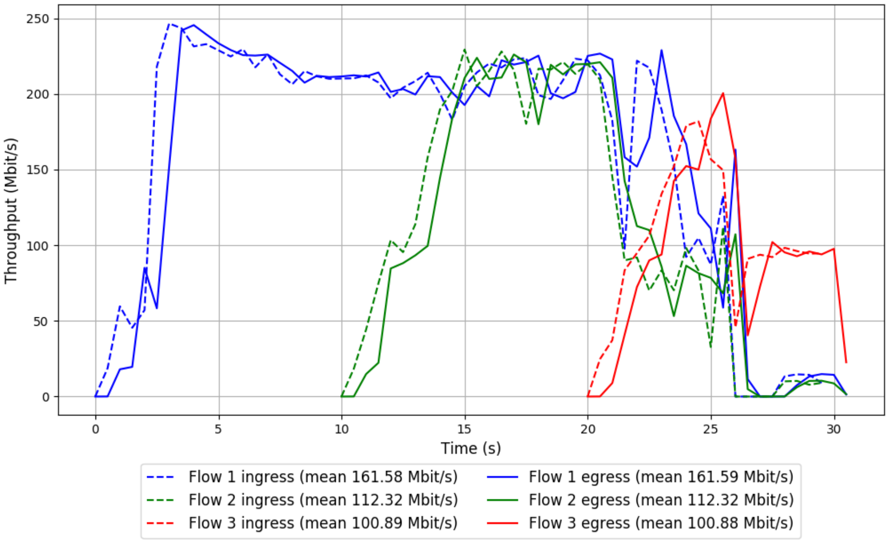
Run 7: Report of TaoVA-100x — Data Link

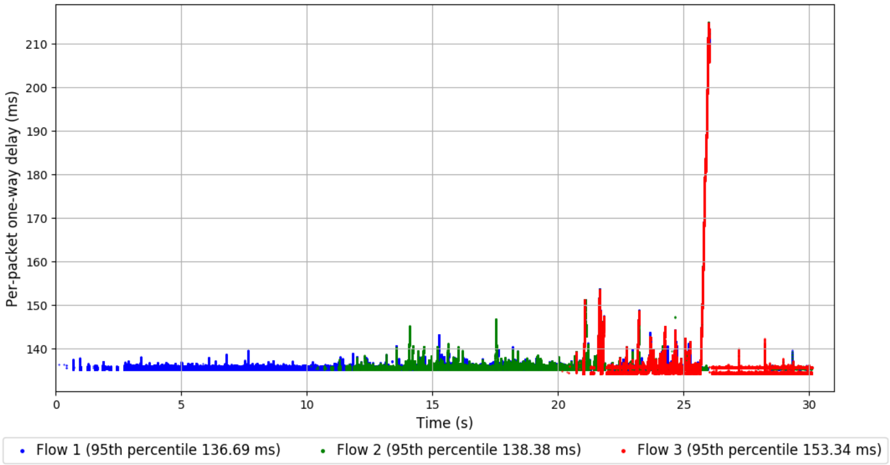




```
Run 8: Statistics of TaoVA-100x

Start at: 2018-07-19 07:50:46
End at: 2018-07-19 07:51:16
Local clock offset: 0.033 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-07-19 11:10:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.72 Mbit/s
95th percentile per-packet one-way delay: 138.235 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.59 Mbit/s
95th percentile per-packet one-way delay: 136.695 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.32 Mbit/s
95th percentile per-packet one-way delay: 138.379 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 100.88 Mbit/s
95th percentile per-packet one-way delay: 153.343 ms
Loss rate: 0.00%
```

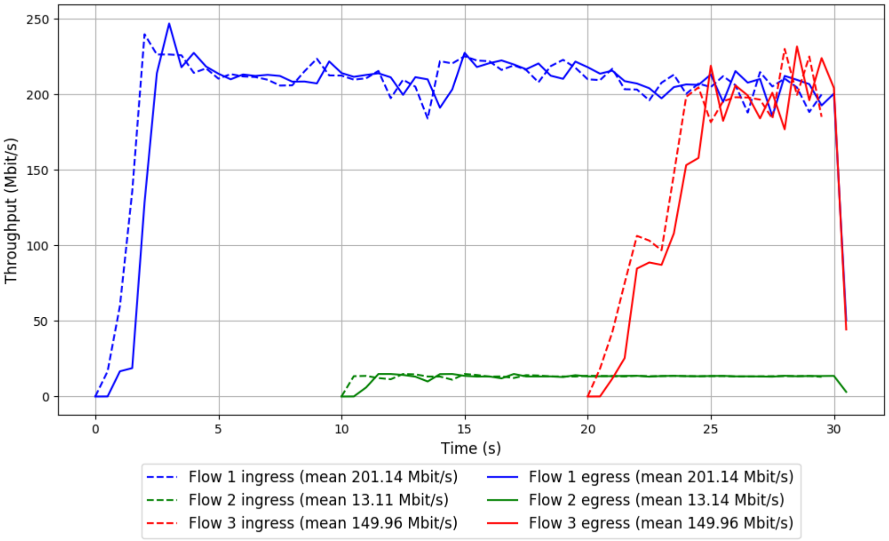
Run 8: Report of TaoVA-100x — Data Link

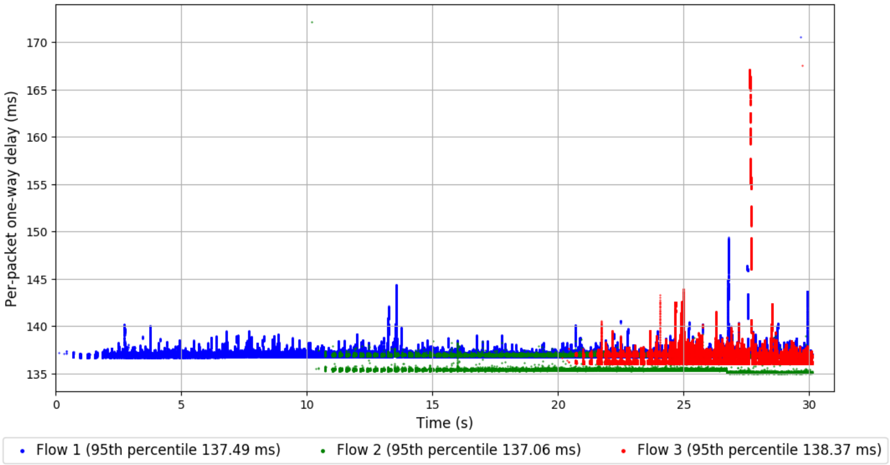




```
Run 9: Statistics of TaoVA-100x

Start at: 2018-07-19 08:17:40
End at: 2018-07-19 08:18:10
Local clock offset: -0.242 ms
Remote clock offset: 0.236 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.67 Mbit/s
95th percentile per-packet one-way delay: 137.593 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.14 Mbit/s
95th percentile per-packet one-way delay: 137.491 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 137.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 149.96 Mbit/s
95th percentile per-packet one-way delay: 138.372 ms
Loss rate: 0.00%
```

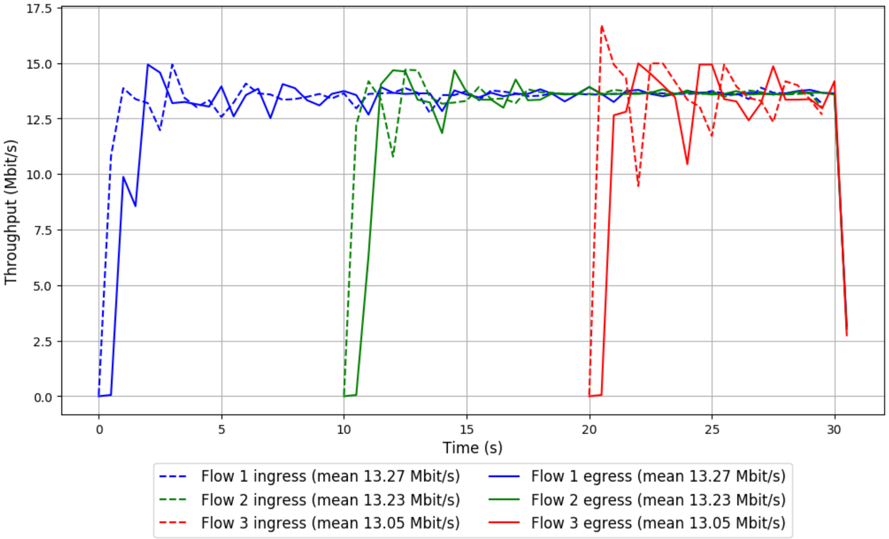
Run 9: Report of TaoVA-100x — Data Link

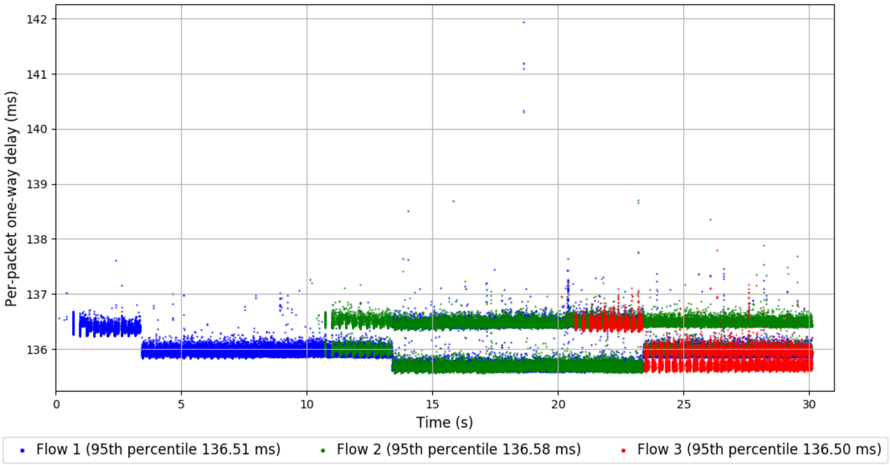




```
Run 10: Statistics of TaoVA-100x

Start at: 2018-07-19 08:44:53
End at: 2018-07-19 08:45:23
Local clock offset: -0.171 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.40 Mbit/s
95th percentile per-packet one-way delay: 136.541 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.27 Mbit/s
95th percentile per-packet one-way delay: 136.510 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 136.576 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 136.505 ms
Loss rate: 0.00%
```

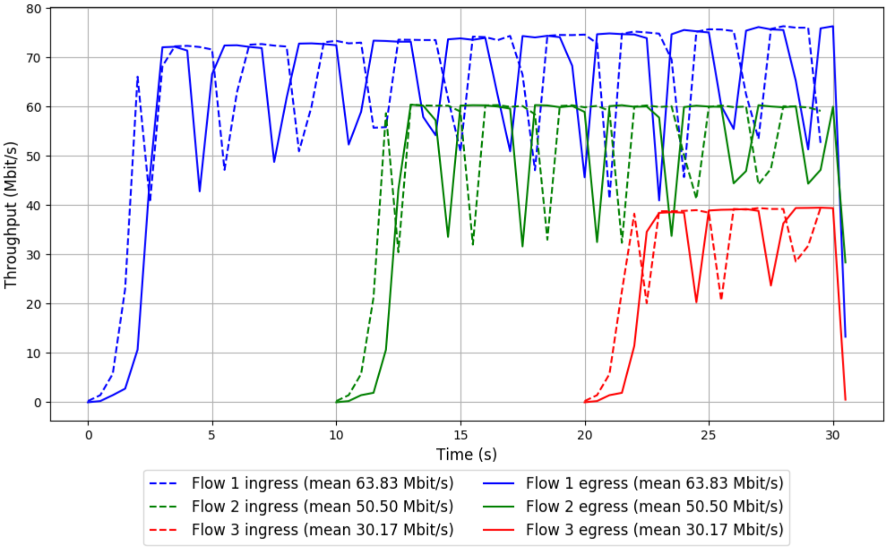
Run 10: Report of TaoVA-100x — Data Link

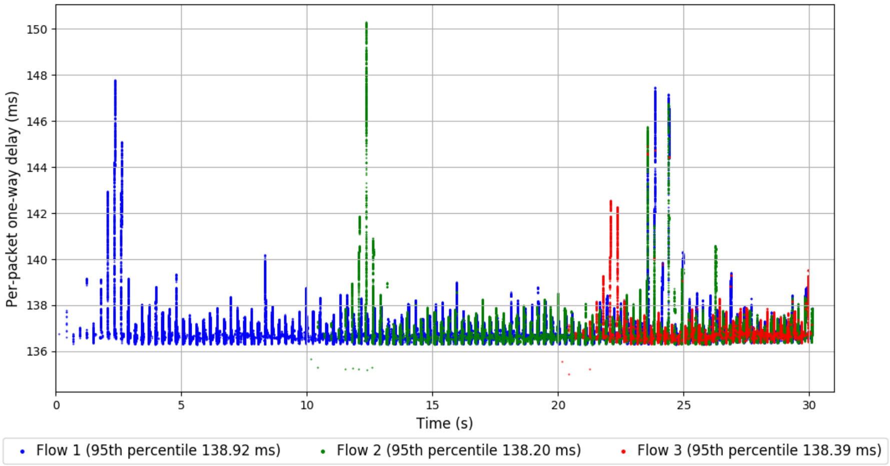




```
Run 1: Statistics of TCP Vegas

Start at: 2018-07-19 04:43:29
End at: 2018-07-19 04:43:59
Local clock offset: 0.05 ms
Remote clock offset: 0.226 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.46 Mbit/s
95th percentile per-packet one-way delay: 138.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.83 Mbit/s
95th percentile per-packet one-way delay: 138.921 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.50 Mbit/s
95th percentile per-packet one-way delay: 138.197 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.17 Mbit/s
95th percentile per-packet one-way delay: 138.388 ms
Loss rate: 0.00%
```

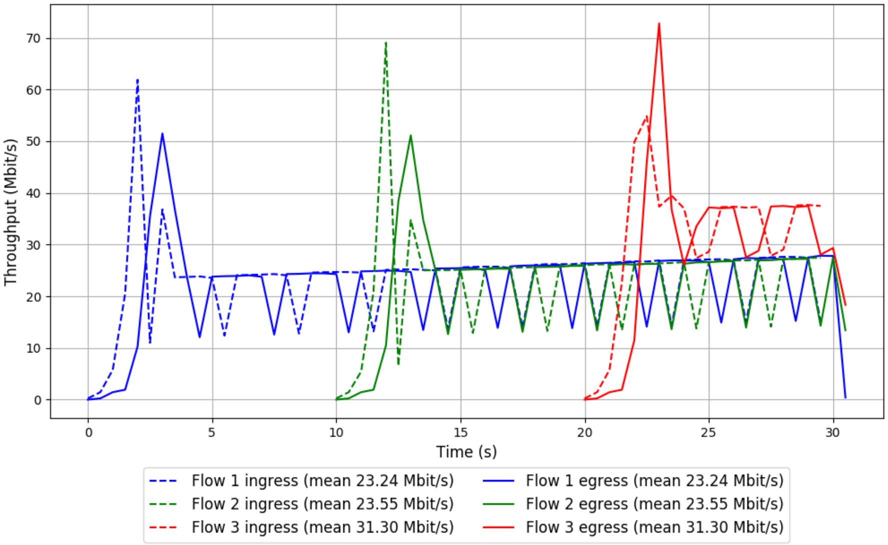
Run 1: Report of TCP Vegas — Data Link

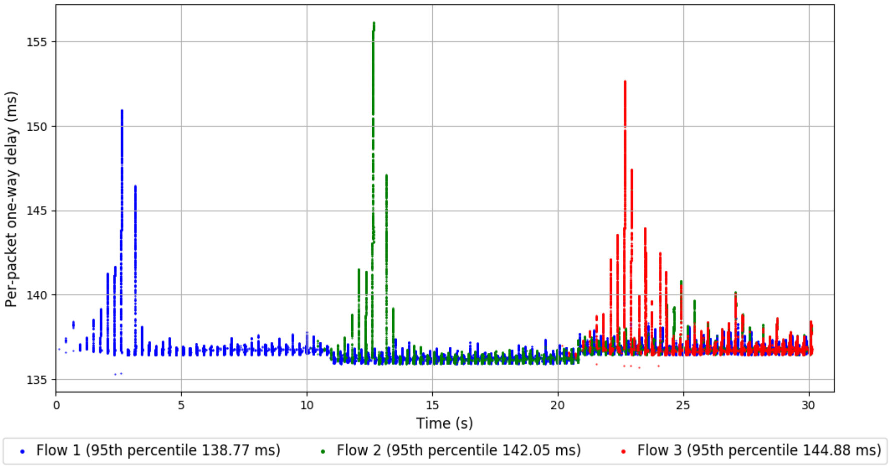




```
Run 2: Statistics of TCP Vegas

Start at: 2018-07-19 05:10:35
End at: 2018-07-19 05:11:05
Local clock offset: -0.224 ms
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.28 Mbit/s
95th percentile per-packet one-way delay: 141.956 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.24 Mbit/s
95th percentile per-packet one-way delay: 138.770 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.55 Mbit/s
95th percentile per-packet one-way delay: 142.048 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 144.876 ms
Loss rate: 0.00%
```

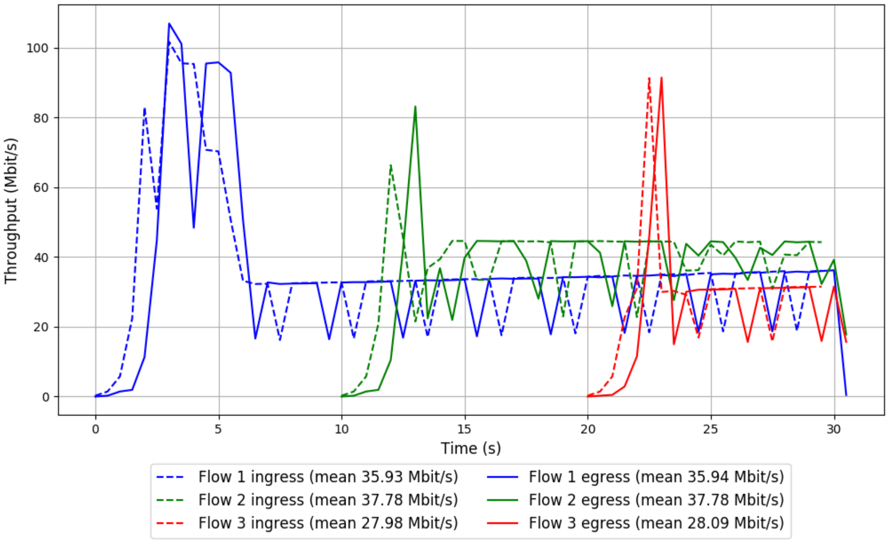
Run 2: Report of TCP Vegas — Data Link

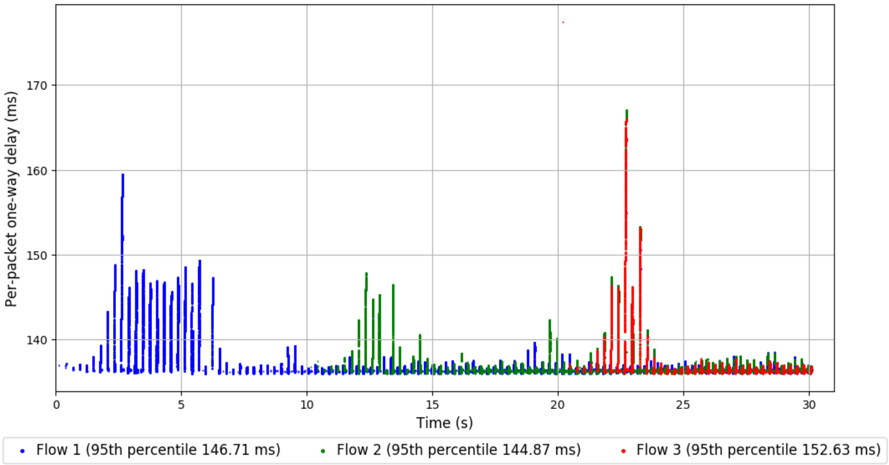




```
Run 3: Statistics of TCP Vegas

Start at: 2018-07-19 05:37:35
End at: 2018-07-19 05:38:05
Local clock offset: -0.299 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.33 Mbit/s
95th percentile per-packet one-way delay: 146.424 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.94 Mbit/s
95th percentile per-packet one-way delay: 146.707 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.78 Mbit/s
95th percentile per-packet one-way delay: 144.867 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.09 Mbit/s
95th percentile per-packet one-way delay: 152.630 ms
Loss rate: 0.00%
```

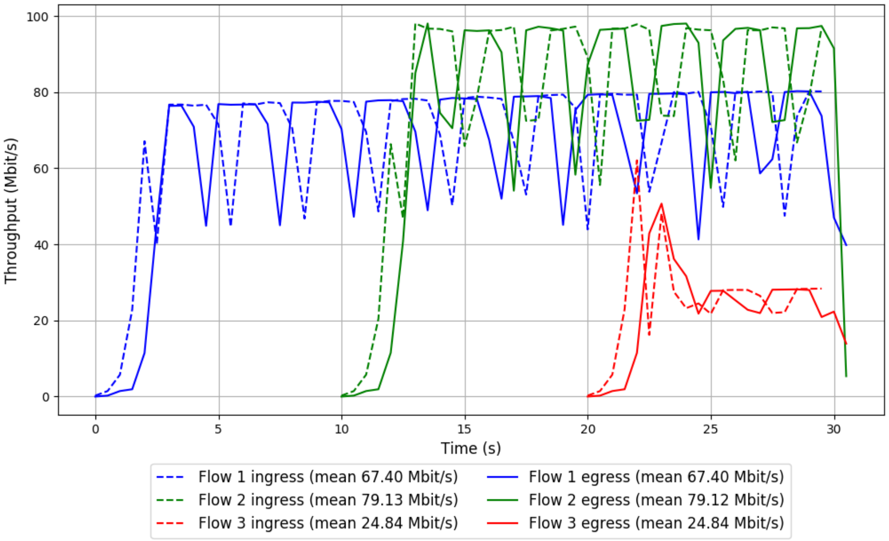
Run 3: Report of TCP Vegas — Data Link

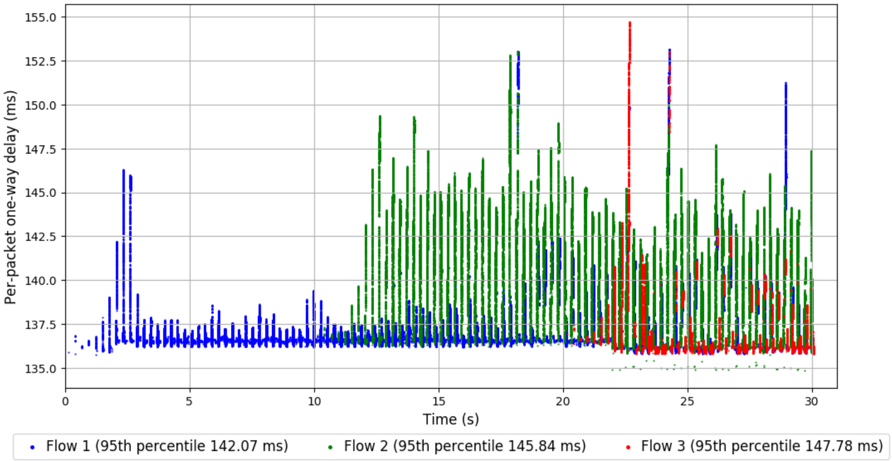




```
Run 4: Statistics of TCP Vegas

Start at: 2018-07-19 06:04:34
End at: 2018-07-19 06:05:04
Local clock offset: -0.121 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.08 Mbit/s
95th percentile per-packet one-way delay: 145.202 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.40 Mbit/s
95th percentile per-packet one-way delay: 142.073 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 79.12 Mbit/s
95th percentile per-packet one-way delay: 145.839 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.84 Mbit/s
95th percentile per-packet one-way delay: 147.779 ms
Loss rate: 0.00%
```

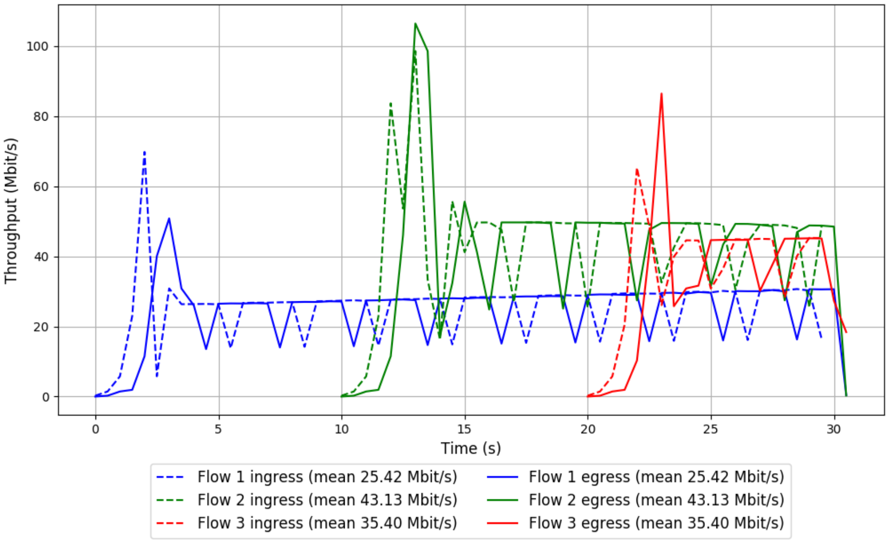
Run 4: Report of TCP Vegas — Data Link

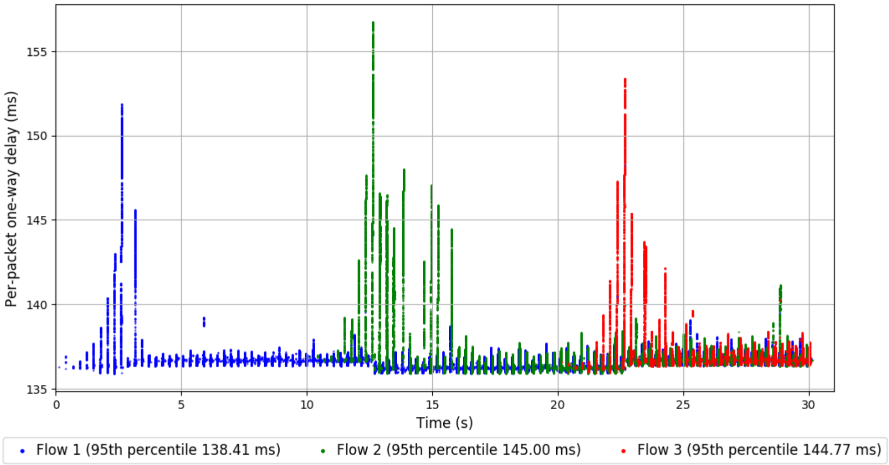




```
Run 5: Statistics of TCP Vegas

Start at: 2018-07-19 06:31:24
End at: 2018-07-19 06:31:54
Local clock offset: -0.195 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.85 Mbit/s
95th percentile per-packet one-way delay: 143.851 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 25.42 Mbit/s
95th percentile per-packet one-way delay: 138.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.13 Mbit/s
95th percentile per-packet one-way delay: 144.995 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.40 Mbit/s
95th percentile per-packet one-way delay: 144.768 ms
Loss rate: 0.00%
```

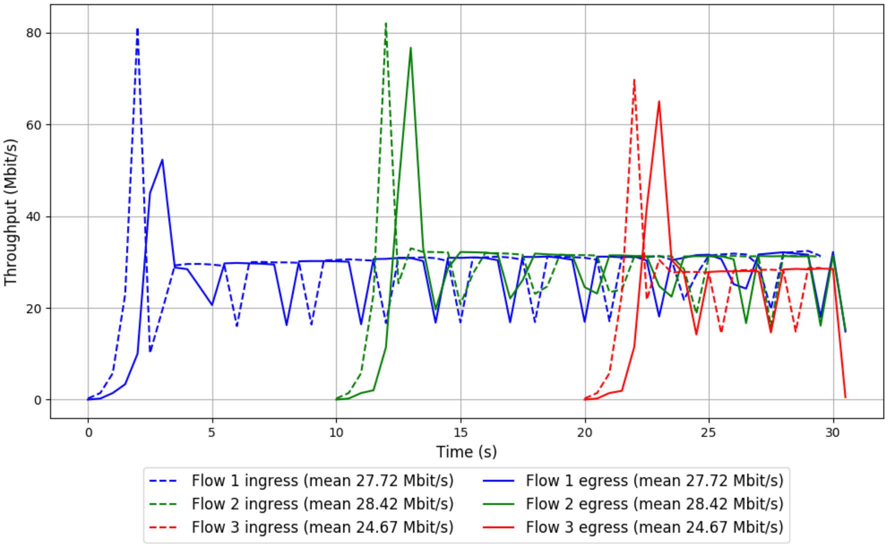
Run 5: Report of TCP Vegas — Data Link

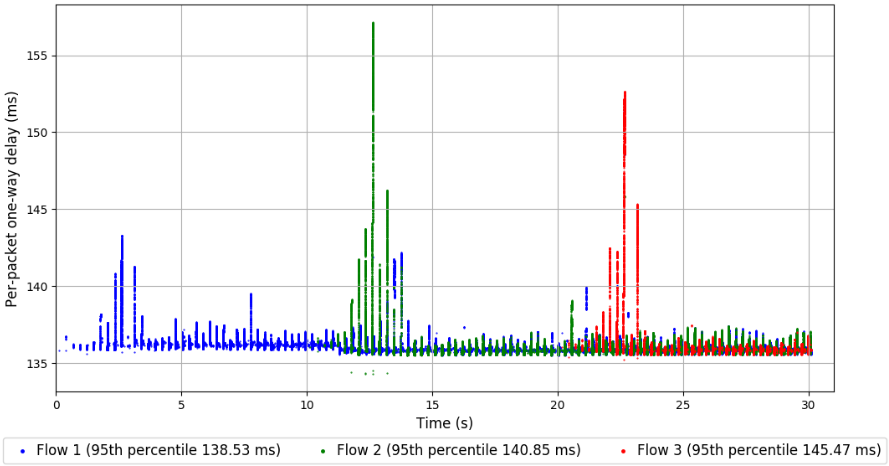




```
Run 6: Statistics of TCP Vegas

Start at: 2018-07-19 06:58:35
End at: 2018-07-19 06:59:05
Local clock offset: 0.141 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.79 Mbit/s
95th percentile per-packet one-way delay: 140.391 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.72 Mbit/s
95th percentile per-packet one-way delay: 138.526 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.42 Mbit/s
95th percentile per-packet one-way delay: 140.851 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 145.468 ms
Loss rate: 0.00%
```

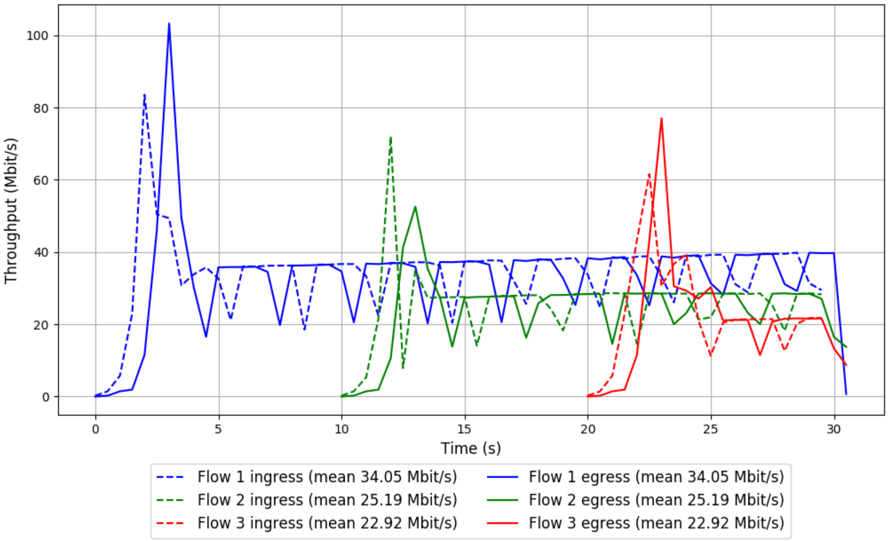
Run 6: Report of TCP Vegas — Data Link

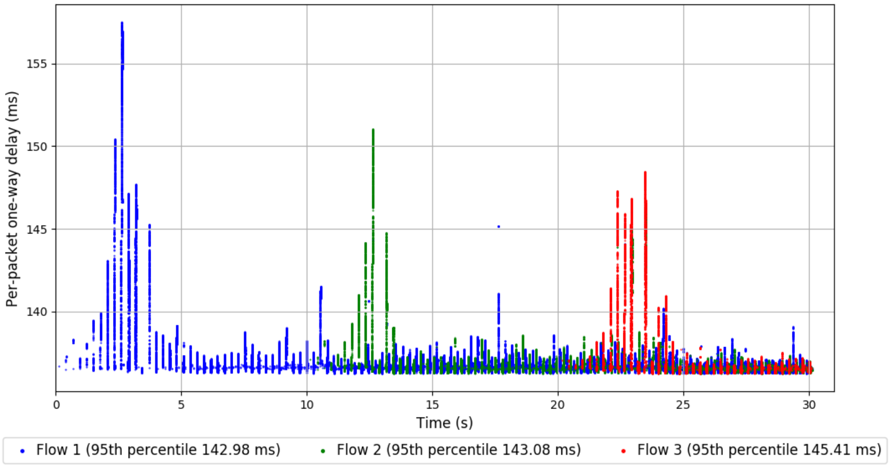




```
Run 7: Statistics of TCP Vegas

Start at: 2018-07-19 07:25:37
End at: 2018-07-19 07:26:07
Local clock offset: -0.235 ms
Remote clock offset: 0.169 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.44 Mbit/s
95th percentile per-packet one-way delay: 143.910 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.05 Mbit/s
95th percentile per-packet one-way delay: 142.984 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.19 Mbit/s
95th percentile per-packet one-way delay: 143.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.92 Mbit/s
95th percentile per-packet one-way delay: 145.411 ms
Loss rate: 0.00%
```

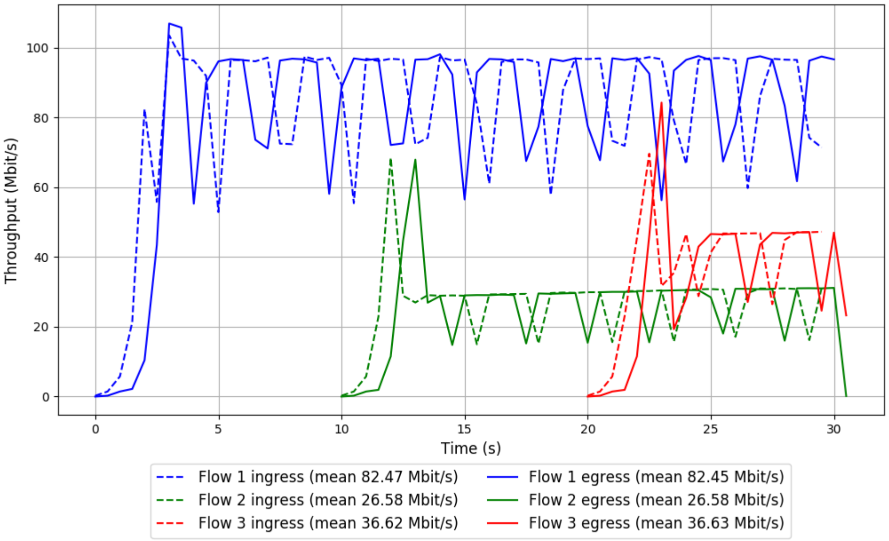
Run 7: Report of TCP Vegas — Data Link

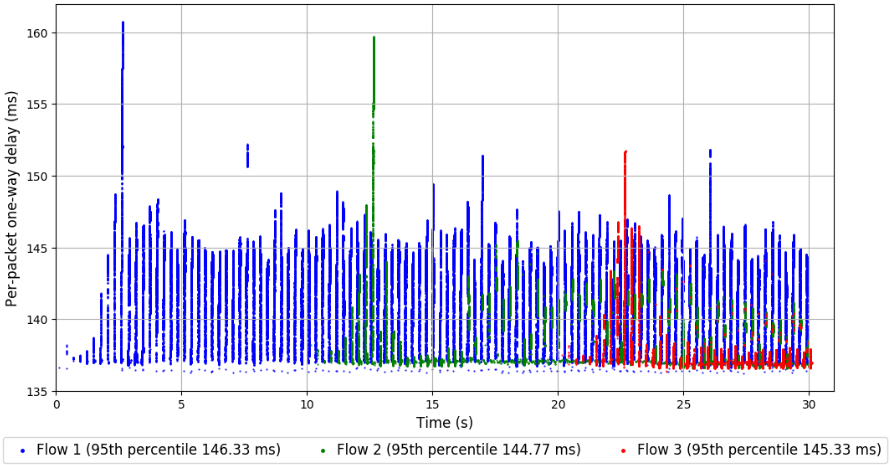




```
Run 8: Statistics of TCP Vegas

Start at: 2018-07-19 07:52:32
End at: 2018-07-19 07:53:02
Local clock offset: -0.134 ms
Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.81 Mbit/s
95th percentile per-packet one-way delay: 146.169 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.45 Mbit/s
95th percentile per-packet one-way delay: 146.328 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.58 Mbit/s
95th percentile per-packet one-way delay: 144.767 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.63 Mbit/s
95th percentile per-packet one-way delay: 145.334 ms
Loss rate: 0.00%
```

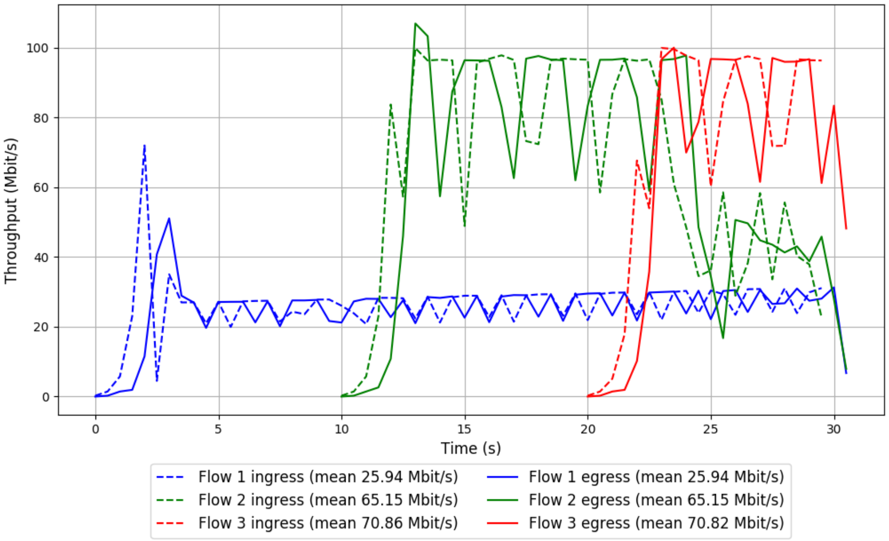
Run 8: Report of TCP Vegas — Data Link

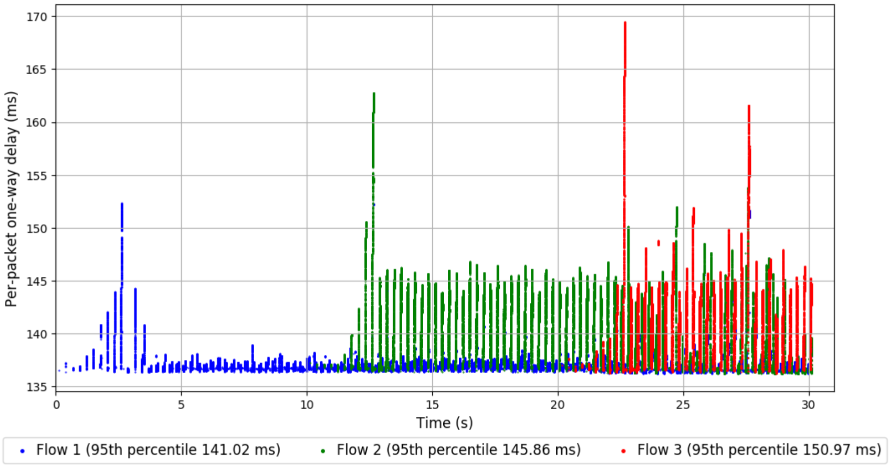




```
Run 9: Statistics of TCP Vegas

Start at: 2018-07-19 08:19:25
End at: 2018-07-19 08:19:55
Local clock offset: -0.148 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 146.352 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 25.94 Mbit/s
95th percentile per-packet one-way delay: 141.019 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.15 Mbit/s
95th percentile per-packet one-way delay: 145.856 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.82 Mbit/s
95th percentile per-packet one-way delay: 150.968 ms
Loss rate: 0.00%
```

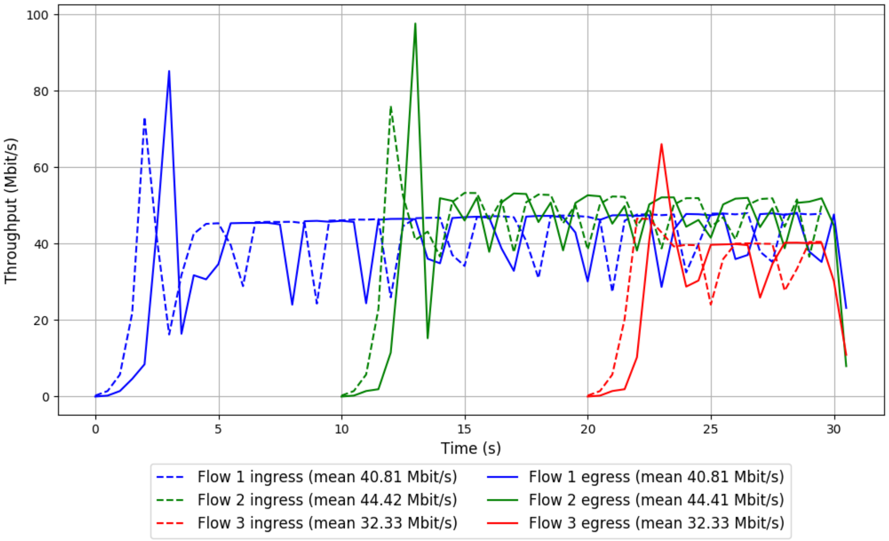
Run 9: Report of TCP Vegas — Data Link

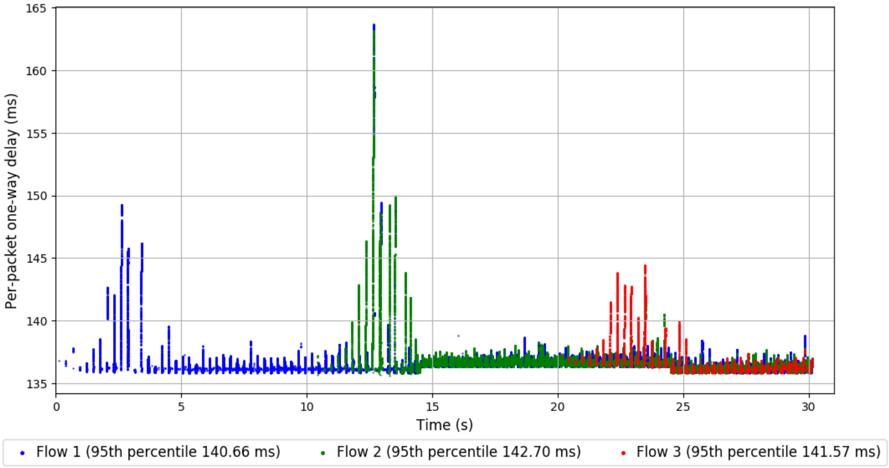




```
Run 10: Statistics of TCP Vegas

Start at: 2018-07-19 08:46:12
End at: 2018-07-19 08:46:42
Local clock offset: -0.149 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-07-19 11:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.13 Mbit/s
95th percentile per-packet one-way delay: 141.678 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 140.661 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.41 Mbit/s
95th percentile per-packet one-way delay: 142.701 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.33 Mbit/s
95th percentile per-packet one-way delay: 141.573 ms
Loss rate: 0.00%
```

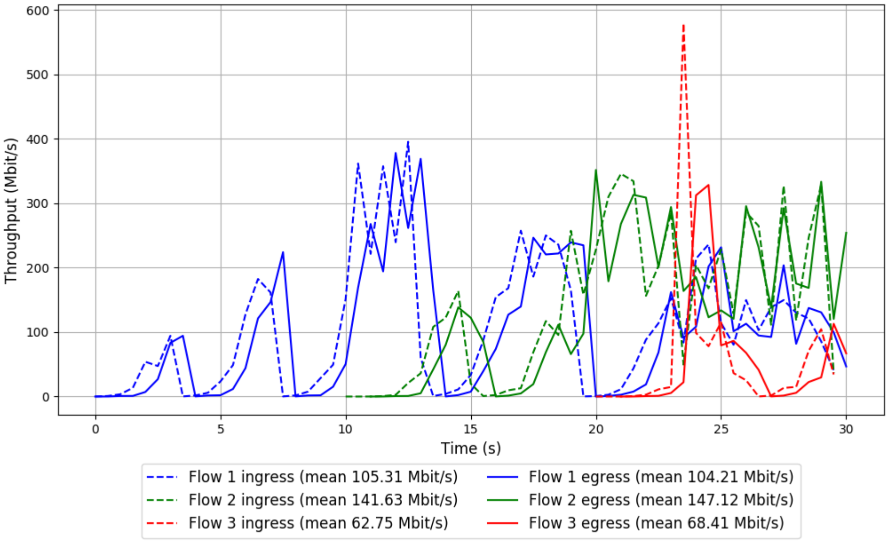
Run 10: Report of TCP Vegas — Data Link

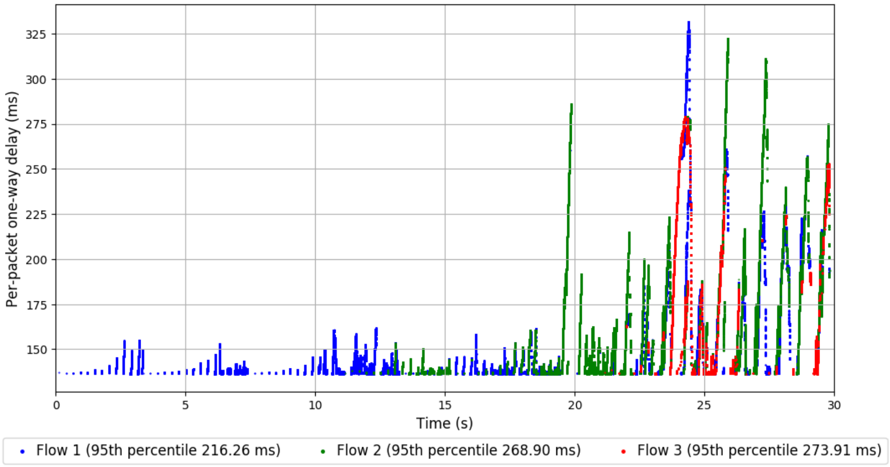




```
Run 1: Statistics of Verus

Start at: 2018-07-19 04:30:28
End at: 2018-07-19 04:30:58
Local clock offset: -0.035 ms
Remote clock offset: 0.229 ms

# Below is generated by plot.py at 2018-07-19 11:12:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.70 Mbit/s
95th percentile per-packet one-way delay: 262.204 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 104.21 Mbit/s
95th percentile per-packet one-way delay: 216.261 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 147.12 Mbit/s
95th percentile per-packet one-way delay: 268.904 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 68.41 Mbit/s
95th percentile per-packet one-way delay: 273.906 ms
Loss rate: 1.36%
```

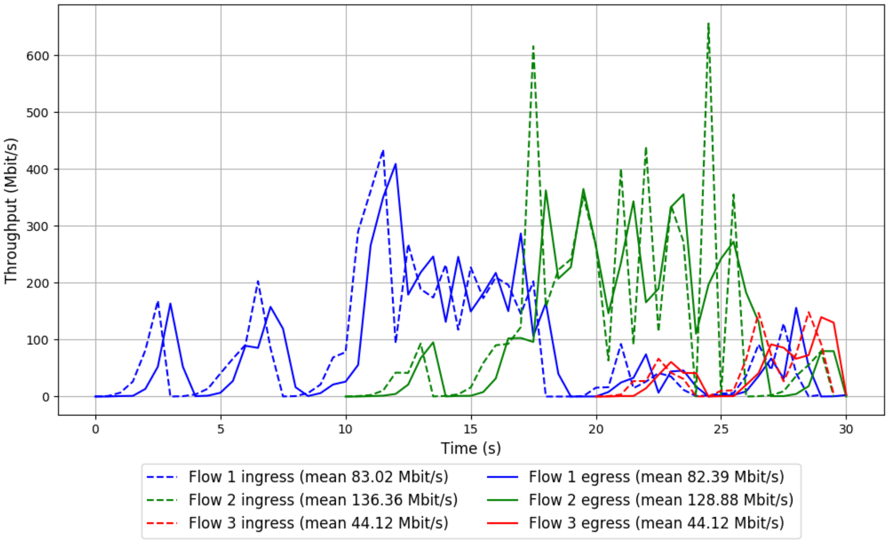
Run 1: Report of Verus — Data Link

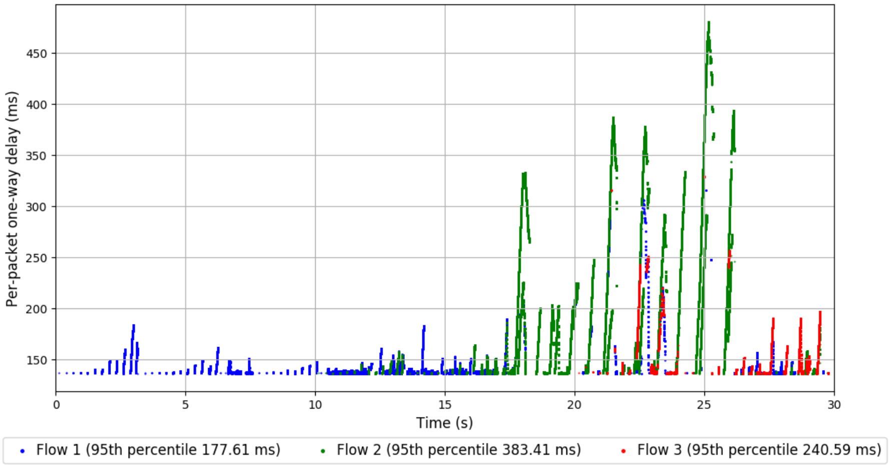




```
Run 2: Statistics of Verus

Start at: 2018-07-19 04:57:11
End at: 2018-07-19 04:57:41
Local clock offset: -0.039 ms
Remote clock offset: -0.091 ms

# Below is generated by plot.py at 2018-07-19 11:12:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.30 Mbit/s
95th percentile per-packet one-way delay: 355.086 ms
Loss rate: 2.98%
-- Flow 1:
Average throughput: 82.39 Mbit/s
95th percentile per-packet one-way delay: 177.609 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 128.88 Mbit/s
95th percentile per-packet one-way delay: 383.414 ms
Loss rate: 5.48%
-- Flow 3:
Average throughput: 44.12 Mbit/s
95th percentile per-packet one-way delay: 240.590 ms
Loss rate: 0.00%
```

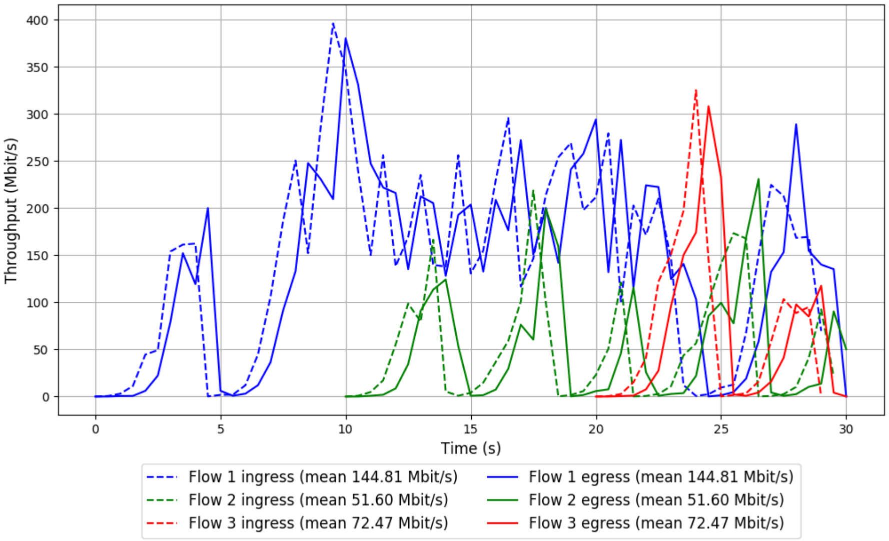
Run 2: Report of Verus — Data Link

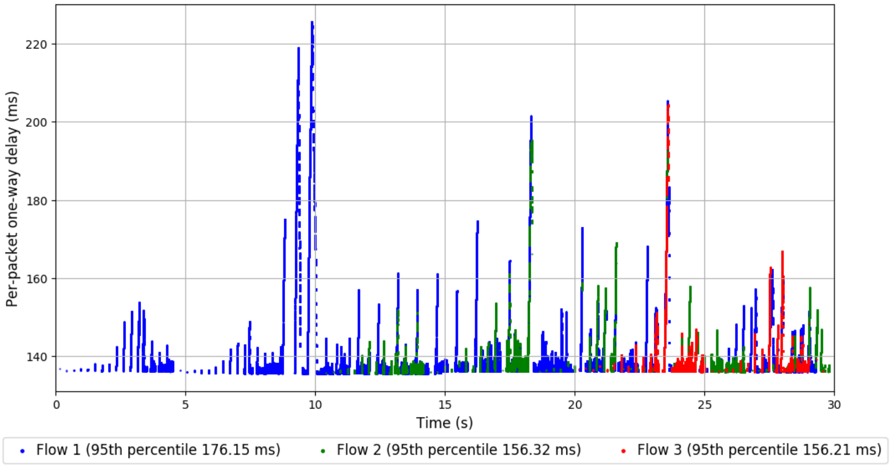




```
Run 3: Statistics of Verus

Start at: 2018-07-19 05:24:21
End at: 2018-07-19 05:24:51
Local clock offset: 0.067 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2018-07-19 11:12:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 200.90 Mbit/s
95th percentile per-packet one-way delay: 171.491 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 144.81 Mbit/s
95th percentile per-packet one-way delay: 176.150 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.60 Mbit/s
95th percentile per-packet one-way delay: 156.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 72.47 Mbit/s
95th percentile per-packet one-way delay: 156.207 ms
Loss rate: 0.00%
```

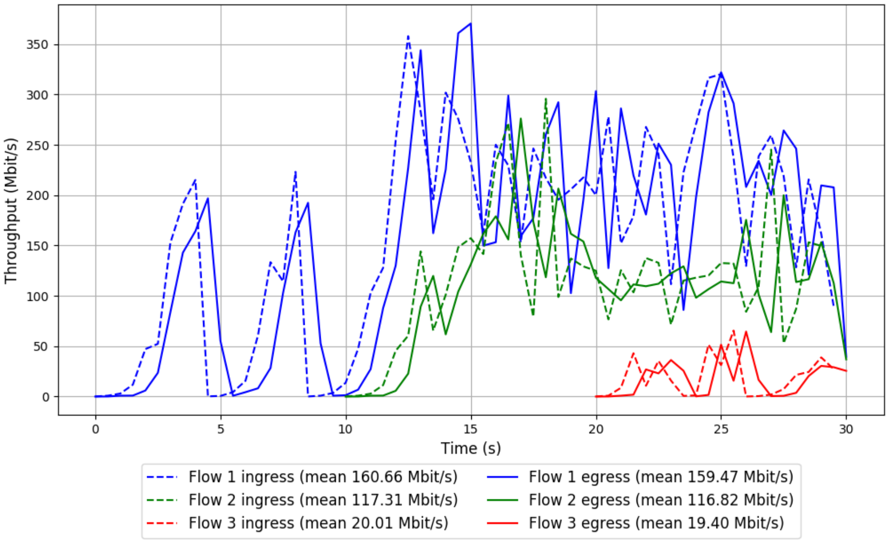
Run 3: Report of Verus — Data Link

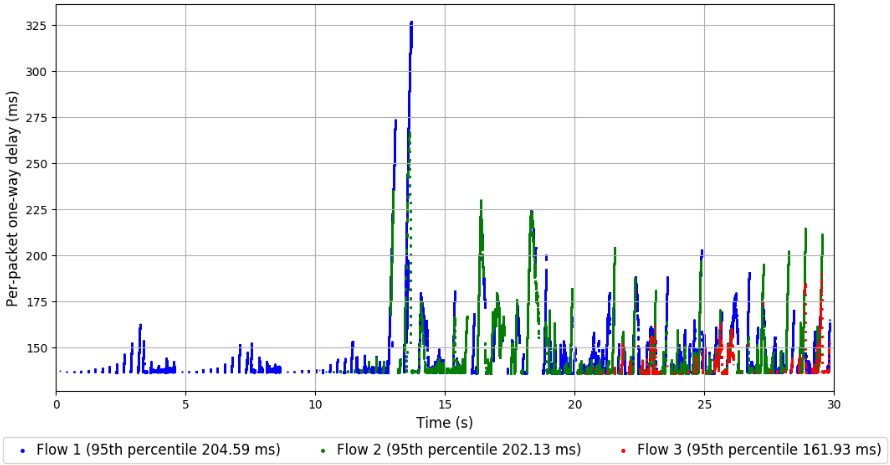




```
Run 4: Statistics of Verus

Start at: 2018-07-19 05:51:20
End at: 2018-07-19 05:51:50
Local clock offset: -0.093 ms
Remote clock offset: 0.349 ms

# Below is generated by plot.py at 2018-07-19 11:13:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 242.14 Mbit/s
95th percentile per-packet one-way delay: 202.085 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 159.47 Mbit/s
95th percentile per-packet one-way delay: 204.593 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 116.82 Mbit/s
95th percentile per-packet one-way delay: 202.127 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 19.40 Mbit/s
95th percentile per-packet one-way delay: 161.927 ms
Loss rate: 2.97%
```

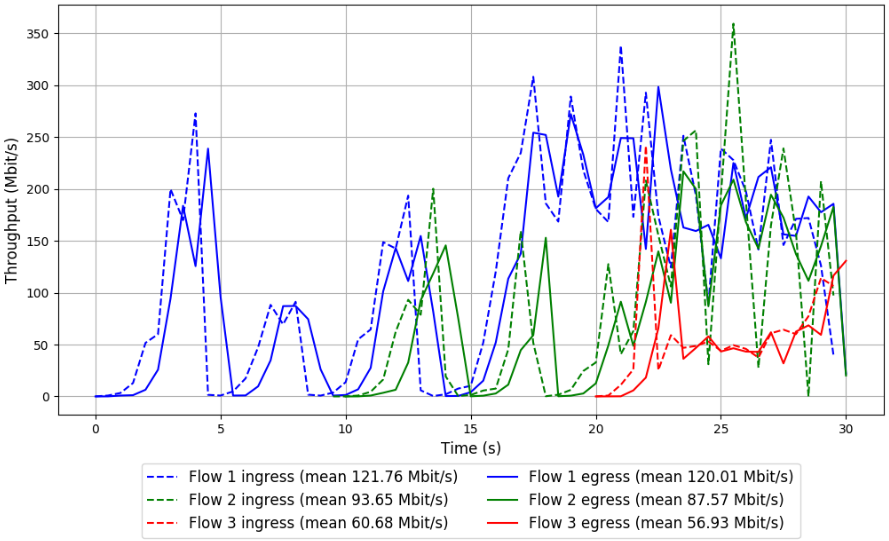
Run 4: Report of Verus — Data Link

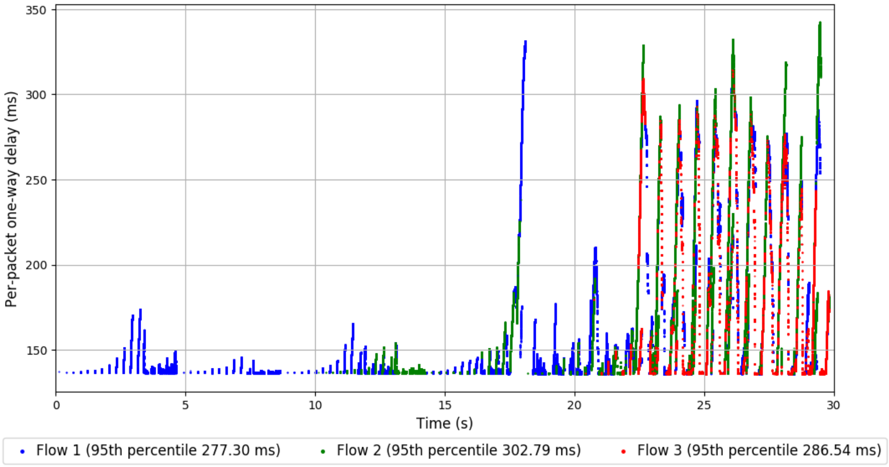




```
Run 5: Statistics of Verus

Start at: 2018-07-19 06:18:18
End at: 2018-07-19 06:18:48
Local clock offset: -0.205 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-07-19 11:13:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 196.58 Mbit/s
95th percentile per-packet one-way delay: 288.489 ms
Loss rate: 3.45%
-- Flow 1:
Average throughput: 120.01 Mbit/s
95th percentile per-packet one-way delay: 277.296 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 87.57 Mbit/s
95th percentile per-packet one-way delay: 302.788 ms
Loss rate: 6.49%
-- Flow 3:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 286.538 ms
Loss rate: 6.29%
```

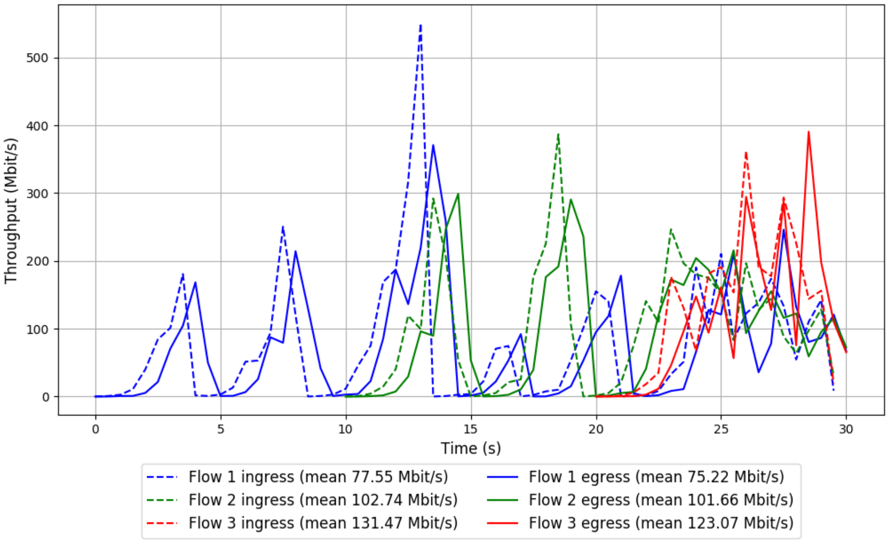
Run 5: Report of Verus — Data Link

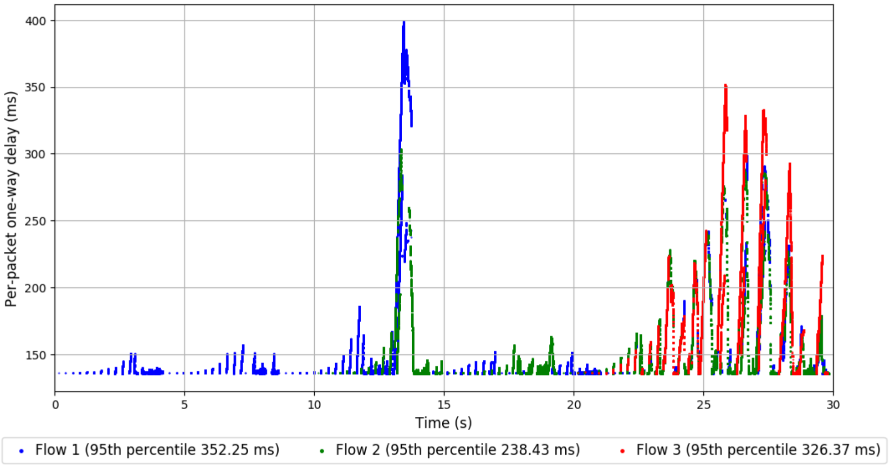




```
Run 6: Statistics of Verus

Start at: 2018-07-19 06:45:03
End at: 2018-07-19 06:45:33
Local clock offset: 0.026 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-07-19 11:14:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.16 Mbit/s
95th percentile per-packet one-way delay: 321.479 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 75.22 Mbit/s
95th percentile per-packet one-way delay: 352.248 ms
Loss rate: 3.00%
-- Flow 2:
Average throughput: 101.66 Mbit/s
95th percentile per-packet one-way delay: 238.425 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 123.07 Mbit/s
95th percentile per-packet one-way delay: 326.374 ms
Loss rate: 6.40%
```

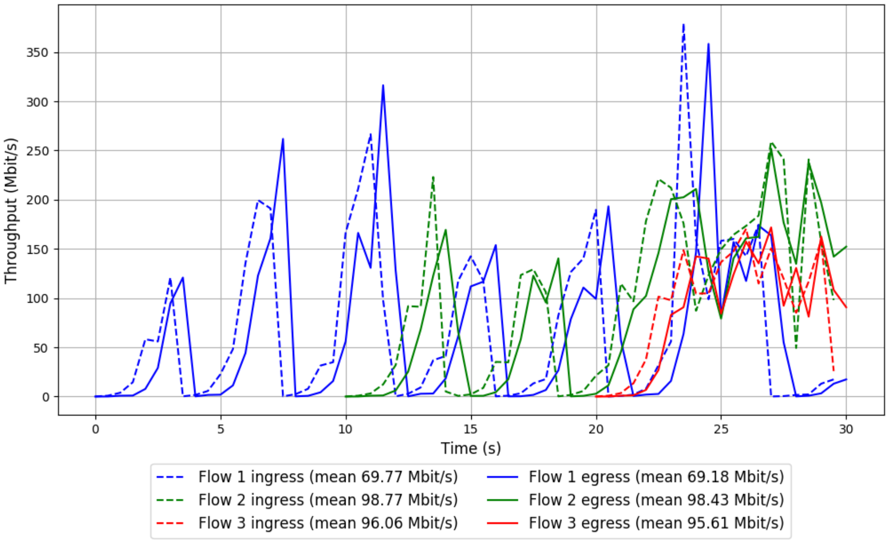
Run 6: Report of Verus — Data Link

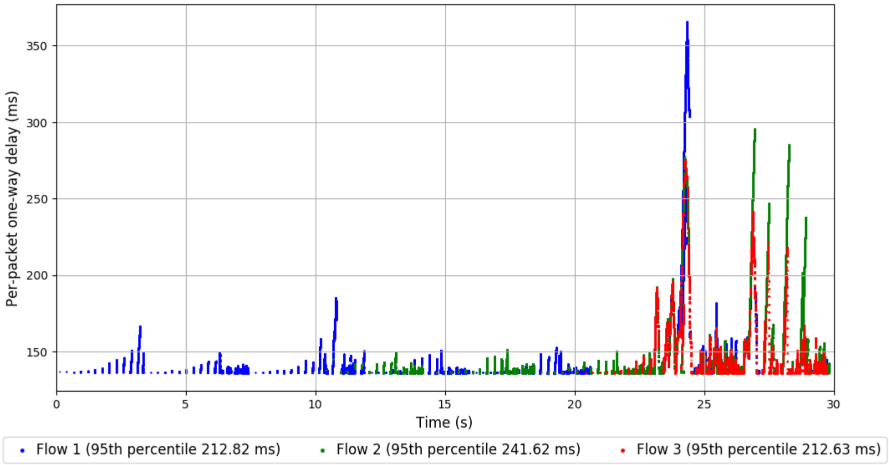




```
Run 7: Statistics of Verus

Start at: 2018-07-19 07:12:13
End at: 2018-07-19 07:12:43
Local clock offset: -0.31 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2018-07-19 11:14:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.02 Mbit/s
95th percentile per-packet one-way delay: 226.130 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 69.18 Mbit/s
95th percentile per-packet one-way delay: 212.824 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 98.43 Mbit/s
95th percentile per-packet one-way delay: 241.618 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 212.631 ms
Loss rate: 0.48%
```

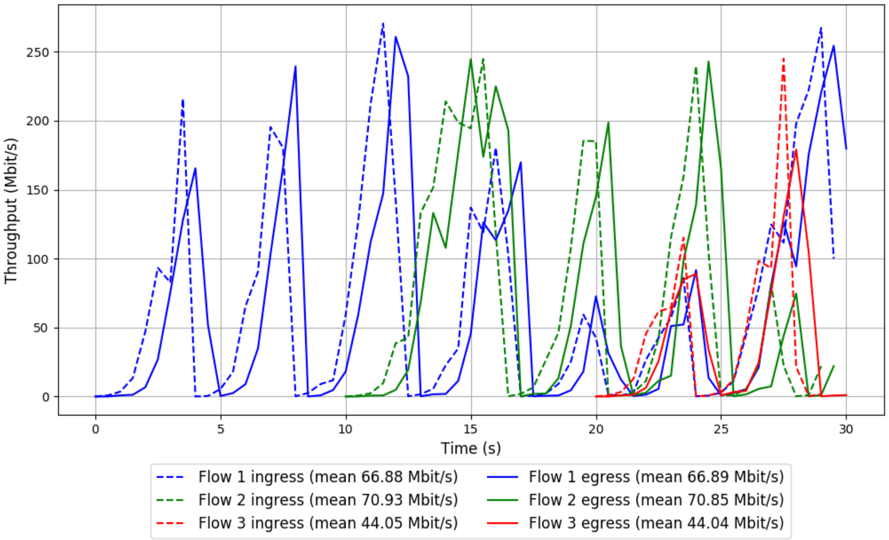
Run 7: Report of Verus — Data Link

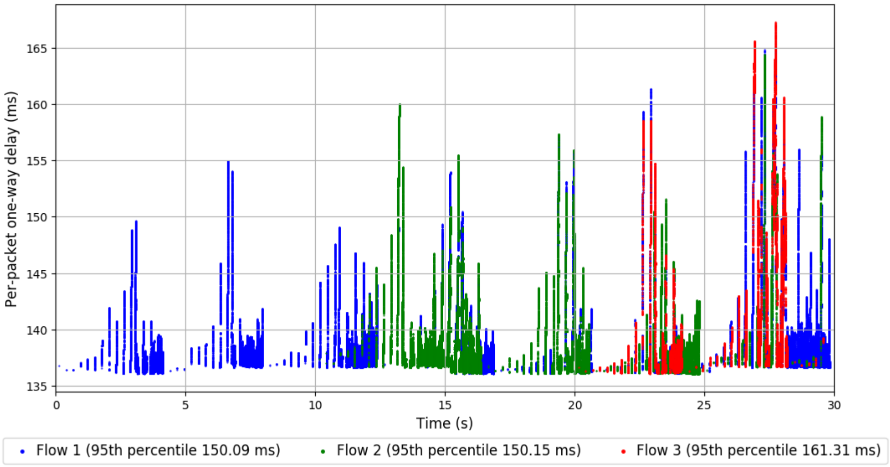




```
Run 8: Statistics of Verus

Start at: 2018-07-19 07:39:11
End at: 2018-07-19 07:39:41
Local clock offset: -0.059 ms
Remote clock offset: 0.119 ms

# Below is generated by plot.py at 2018-07-19 11:14:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.03 Mbit/s
95th percentile per-packet one-way delay: 152.376 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.89 Mbit/s
95th percentile per-packet one-way delay: 150.095 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 70.85 Mbit/s
95th percentile per-packet one-way delay: 150.152 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.04 Mbit/s
95th percentile per-packet one-way delay: 161.311 ms
Loss rate: 0.00%
```

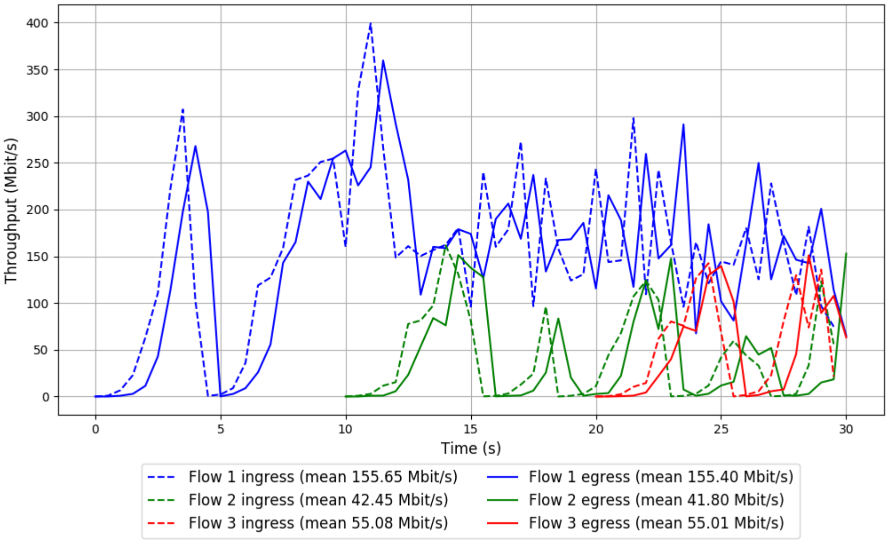
Run 8: Report of Verus — Data Link

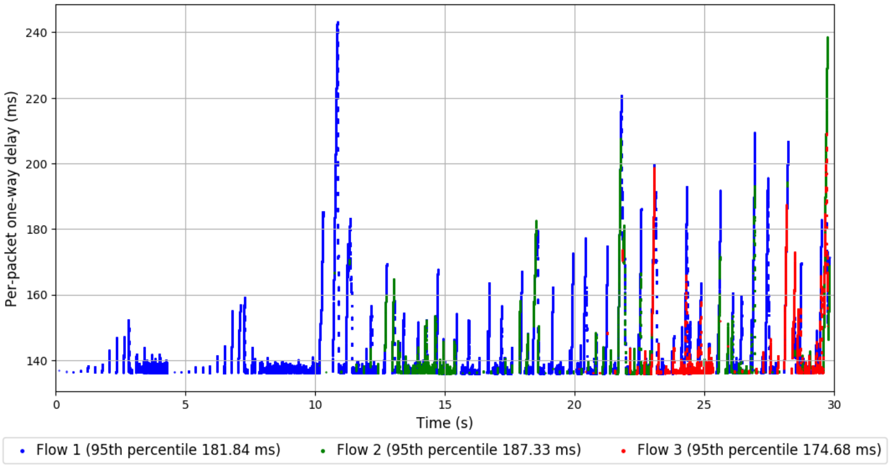




```
Run 9: Statistics of Verus

Start at: 2018-07-19 08:06:01
End at: 2018-07-19 08:06:31
Local clock offset: 0.135 ms
Remote clock offset: -0.279 ms

# Below is generated by plot.py at 2018-07-19 11:15:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 200.87 Mbit/s
95th percentile per-packet one-way delay: 181.651 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 155.40 Mbit/s
95th percentile per-packet one-way delay: 181.840 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 41.80 Mbit/s
95th percentile per-packet one-way delay: 187.331 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 55.01 Mbit/s
95th percentile per-packet one-way delay: 174.677 ms
Loss rate: 0.00%
```

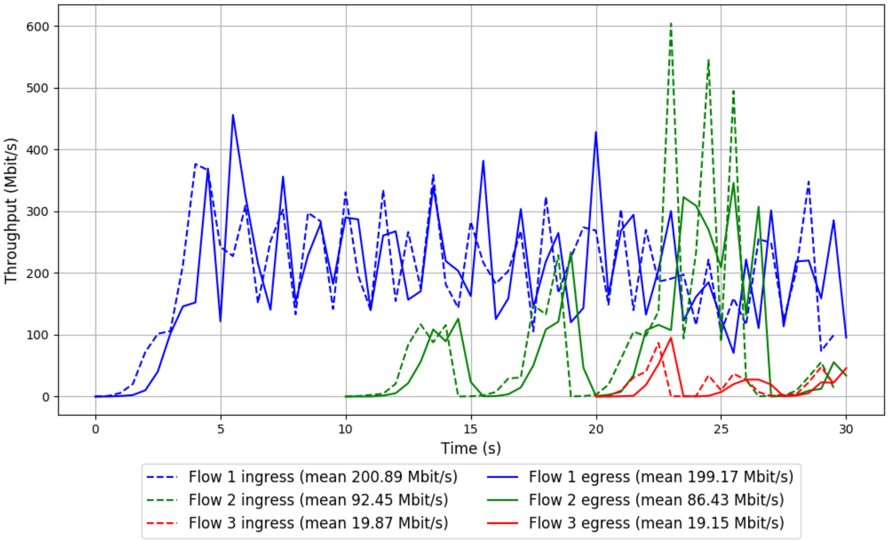
Run 9: Report of Verus — Data Link

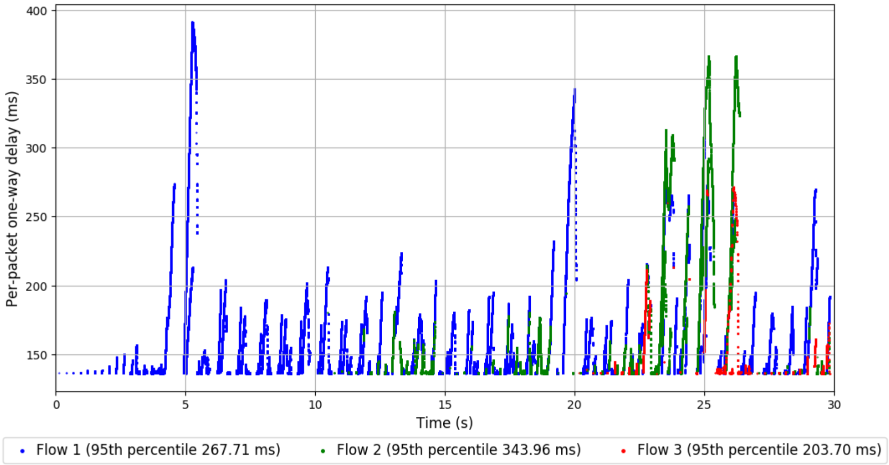




```
Run 10: Statistics of Verus

Start at: 2018-07-19 08:33:06
End at: 2018-07-19 08:33:36
Local clock offset: 0.151 ms
Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2018-07-19 11:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.66 Mbit/s
95th percentile per-packet one-way delay: 306.120 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 199.17 Mbit/s
95th percentile per-packet one-way delay: 267.714 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 86.43 Mbit/s
95th percentile per-packet one-way delay: 343.964 ms
Loss rate: 6.52%
-- Flow 3:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 203.700 ms
Loss rate: 3.60%
```

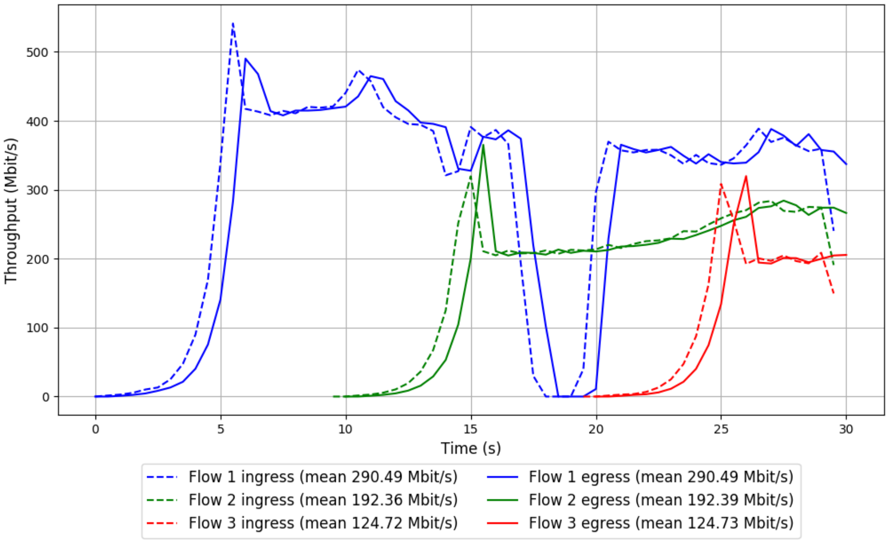
Run 10: Report of Verus — Data Link

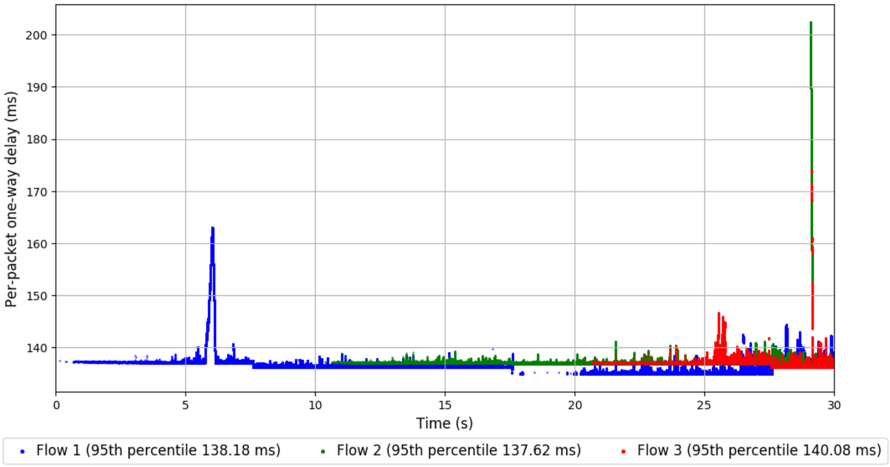




```
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-19 04:40:08
End at: 2018-07-19 04:40:38
Local clock offset: -0.195 ms
Remote clock offset: 0.254 ms

# Below is generated by plot.py at 2018-07-19 11:21:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.71 Mbit/s
95th percentile per-packet one-way delay: 138.183 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 290.49 Mbit/s
95th percentile per-packet one-way delay: 138.178 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.39 Mbit/s
95th percentile per-packet one-way delay: 137.625 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.73 Mbit/s
95th percentile per-packet one-way delay: 140.083 ms
Loss rate: 0.00%
```

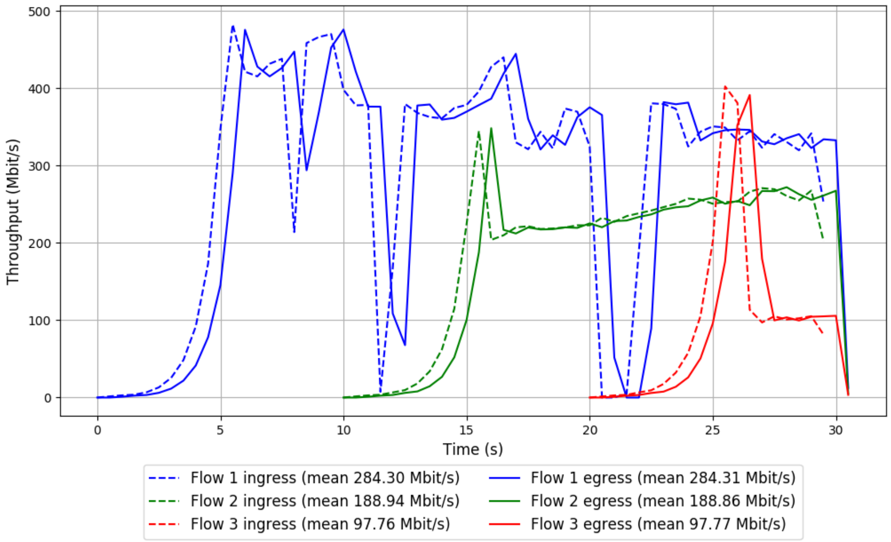
Run 1: Report of PCC-Vivace — Data Link

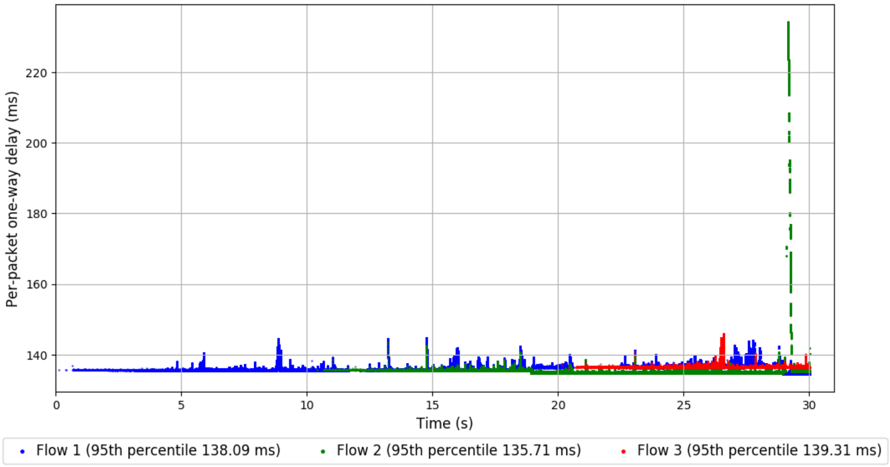




```
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-19 05:06:57
End at: 2018-07-19 05:07:27
Local clock offset: -0.463 ms
Remote clock offset: -0.43 ms

# Below is generated by plot.py at 2018-07-19 11:21:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 442.12 Mbit/s
95th percentile per-packet one-way delay: 137.709 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 284.31 Mbit/s
95th percentile per-packet one-way delay: 138.094 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 188.86 Mbit/s
95th percentile per-packet one-way delay: 135.711 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 97.77 Mbit/s
95th percentile per-packet one-way delay: 139.307 ms
Loss rate: 0.00%
```

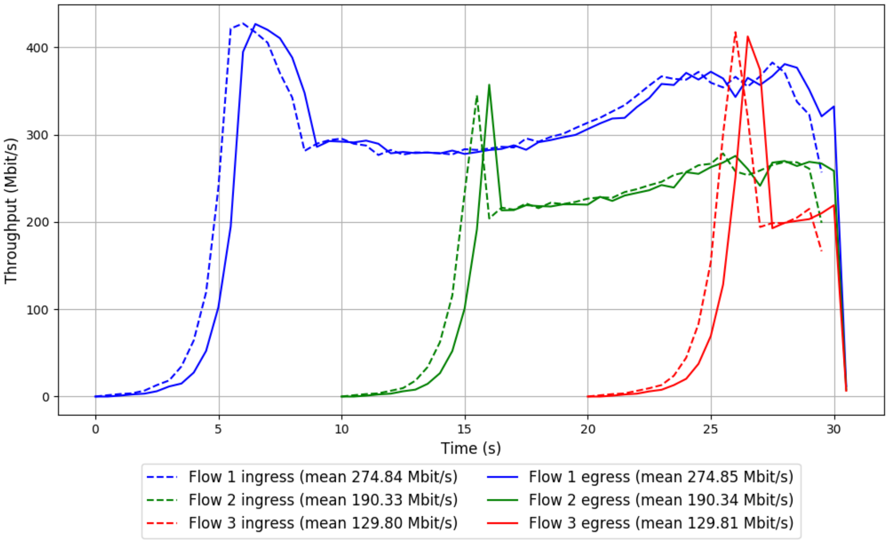
Run 2: Report of PCC-Vivace — Data Link

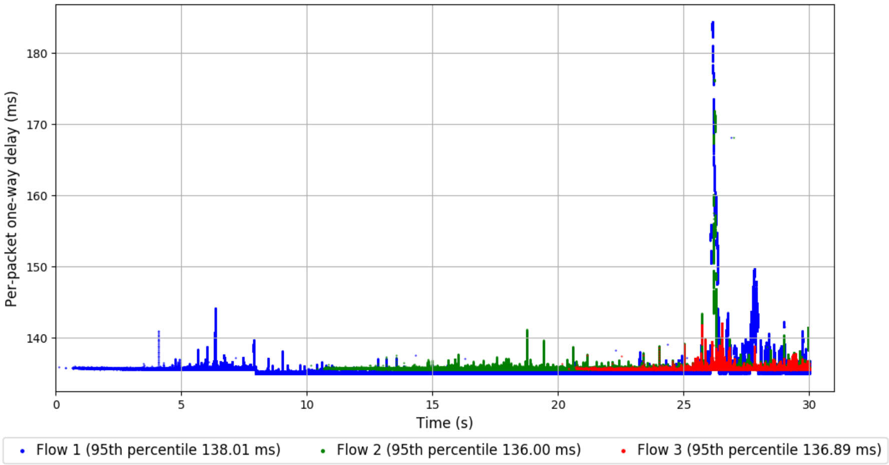




```
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-19 05:34:08
End at: 2018-07-19 05:34:38
Local clock offset: -0.247 ms
Remote clock offset: -0.407 ms

# Below is generated by plot.py at 2018-07-19 11:21:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.25 Mbit/s
95th percentile per-packet one-way delay: 137.087 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 274.85 Mbit/s
95th percentile per-packet one-way delay: 138.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 190.34 Mbit/s
95th percentile per-packet one-way delay: 135.998 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 129.81 Mbit/s
95th percentile per-packet one-way delay: 136.893 ms
Loss rate: 0.00%
```

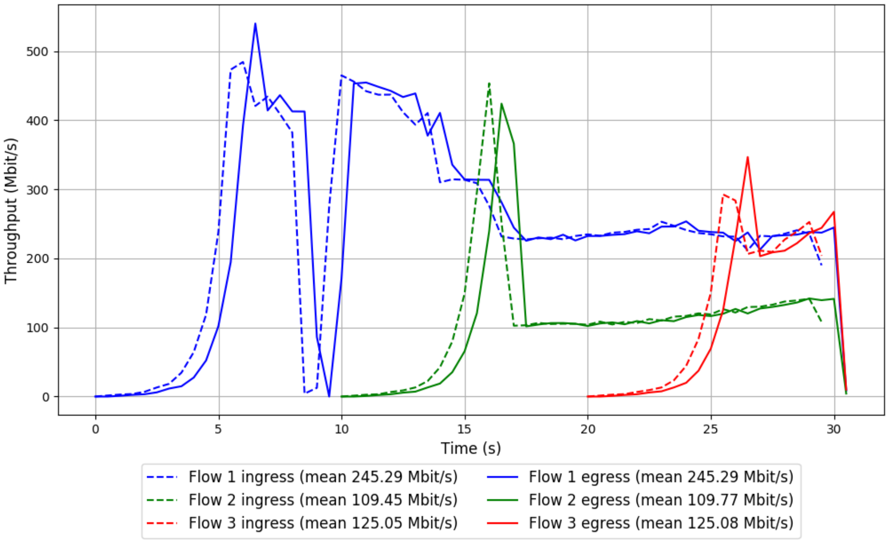
Run 3: Report of PCC-Vivace — Data Link

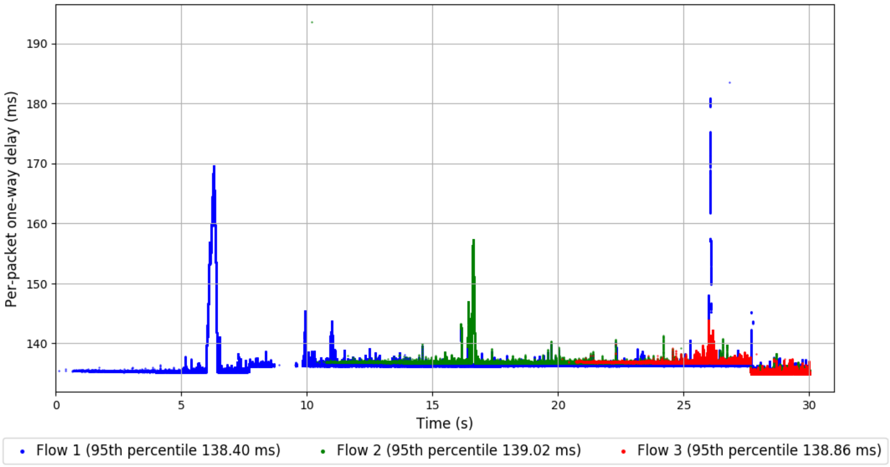




```
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-19 06:01:08
End at: 2018-07-19 06:01:38
Local clock offset: -0.165 ms
Remote clock offset: 0.304 ms

# Below is generated by plot.py at 2018-07-19 11:21:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 359.30 Mbit/s
95th percentile per-packet one-way delay: 138.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 245.29 Mbit/s
95th percentile per-packet one-way delay: 138.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 109.77 Mbit/s
95th percentile per-packet one-way delay: 139.017 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 125.08 Mbit/s
95th percentile per-packet one-way delay: 138.859 ms
Loss rate: 0.00%
```

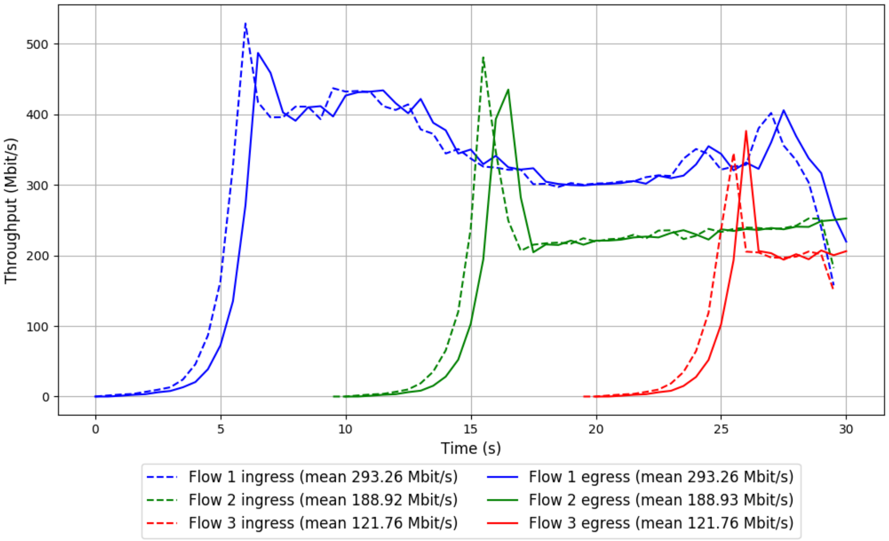
Run 4: Report of PCC-Vivace — Data Link

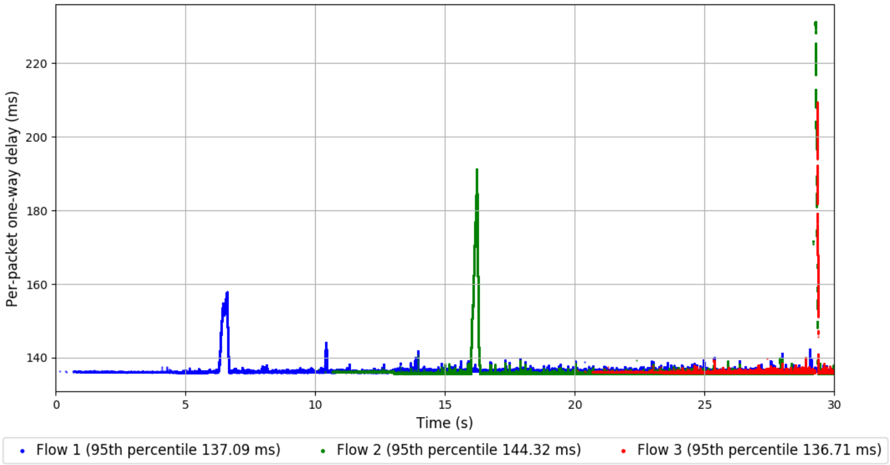




```
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-19 06:28:03
End at: 2018-07-19 06:28:33
Local clock offset: -0.243 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-07-19 11:22:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.24 Mbit/s
95th percentile per-packet one-way delay: 137.202 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 293.26 Mbit/s
95th percentile per-packet one-way delay: 137.087 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 188.93 Mbit/s
95th percentile per-packet one-way delay: 144.321 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.76 Mbit/s
95th percentile per-packet one-way delay: 136.706 ms
Loss rate: 0.00%
```

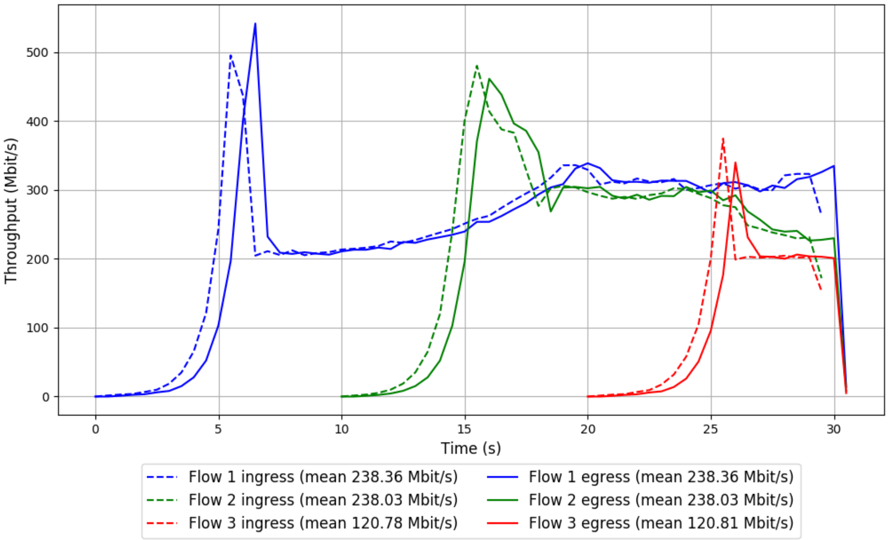
Run 5: Report of PCC-Vivace — Data Link

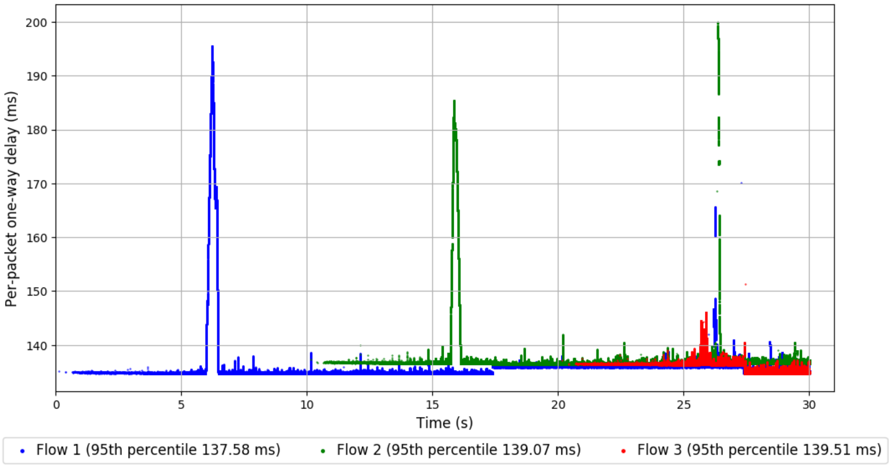




```
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-19 06:54:49
End at: 2018-07-19 06:55:19
Local clock offset: -0.142 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-07-19 11:22:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.45 Mbit/s
95th percentile per-packet one-way delay: 138.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 238.36 Mbit/s
95th percentile per-packet one-way delay: 137.580 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 238.03 Mbit/s
95th percentile per-packet one-way delay: 139.068 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 120.81 Mbit/s
95th percentile per-packet one-way delay: 139.515 ms
Loss rate: 0.00%
```

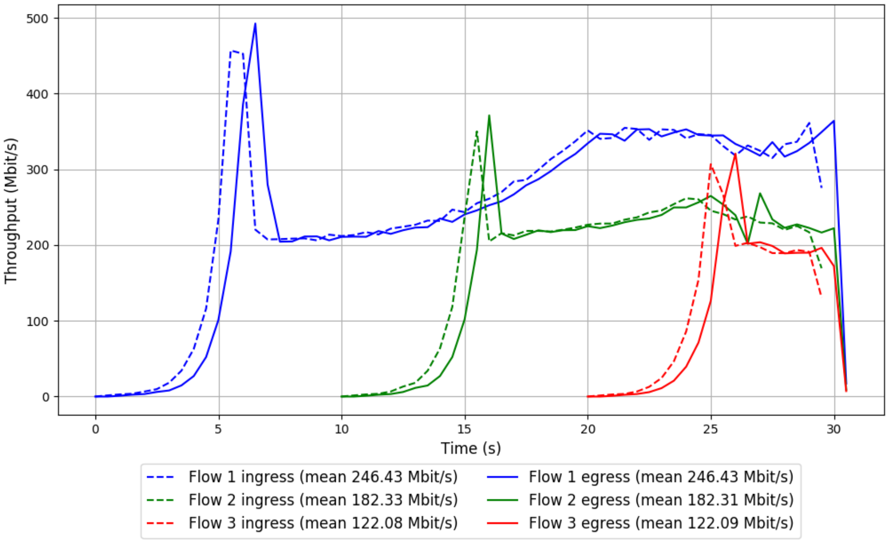
Run 6: Report of PCC-Vivace — Data Link

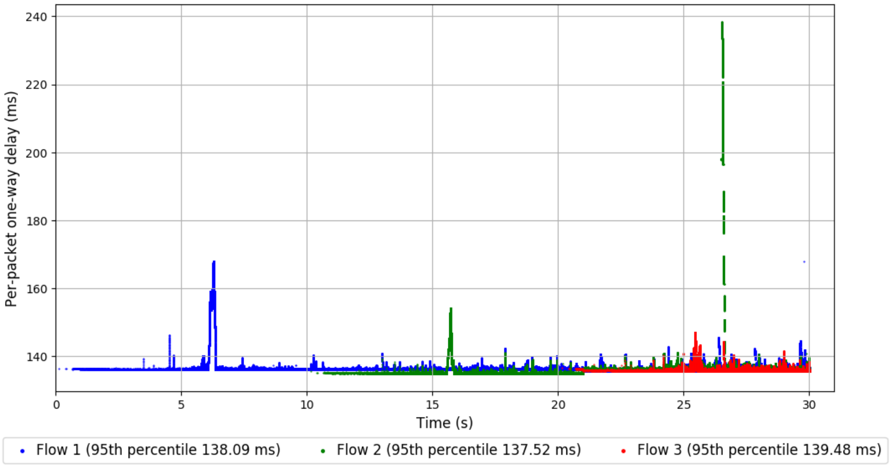




```
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-19 07:21:55
End at: 2018-07-19 07:22:25
Local clock offset: 0.013 ms
Remote clock offset: 0.169 ms

# Below is generated by plot.py at 2018-07-19 11:23:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.90 Mbit/s
95th percentile per-packet one-way delay: 138.104 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 246.43 Mbit/s
95th percentile per-packet one-way delay: 138.091 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 182.31 Mbit/s
95th percentile per-packet one-way delay: 137.523 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 122.09 Mbit/s
95th percentile per-packet one-way delay: 139.483 ms
Loss rate: 0.00%
```

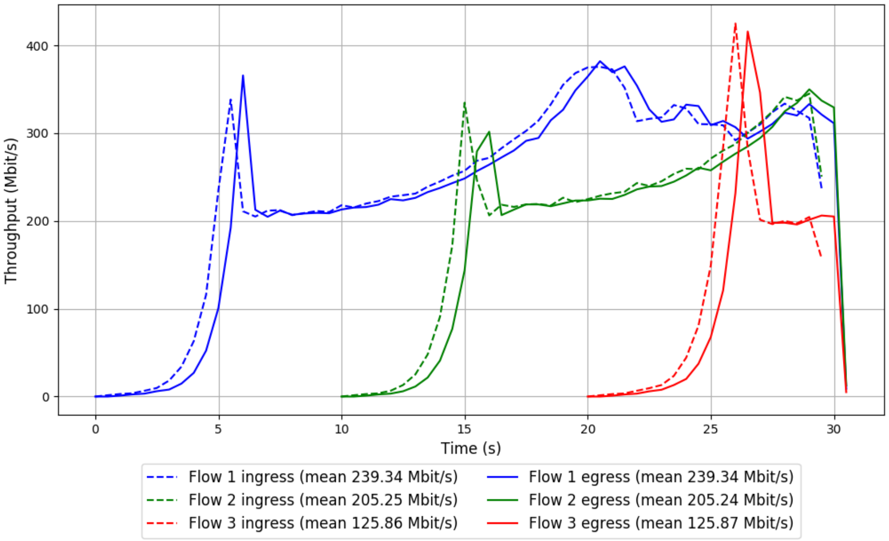
Run 7: Report of PCC-Vivace — Data Link

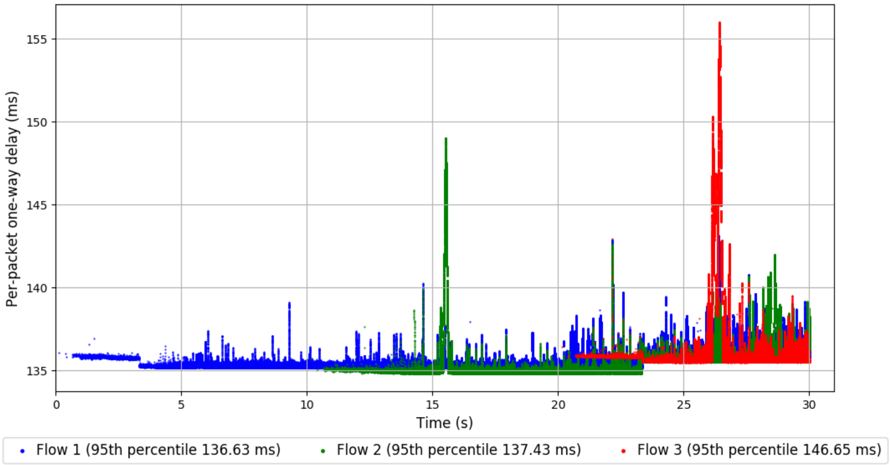




```
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-19 07:48:53
End at: 2018-07-19 07:49:23
Local clock offset: -0.038 ms
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2018-07-19 11:23:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.38 Mbit/s
95th percentile per-packet one-way delay: 137.266 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 239.34 Mbit/s
95th percentile per-packet one-way delay: 136.634 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 205.24 Mbit/s
95th percentile per-packet one-way delay: 137.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 125.87 Mbit/s
95th percentile per-packet one-way delay: 146.649 ms
Loss rate: 0.00%
```

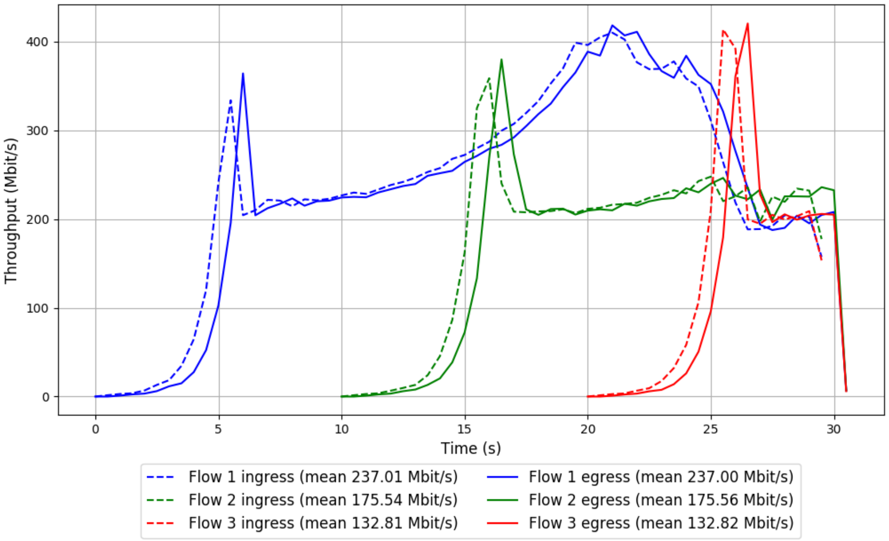
Run 8: Report of PCC-Vivace — Data Link

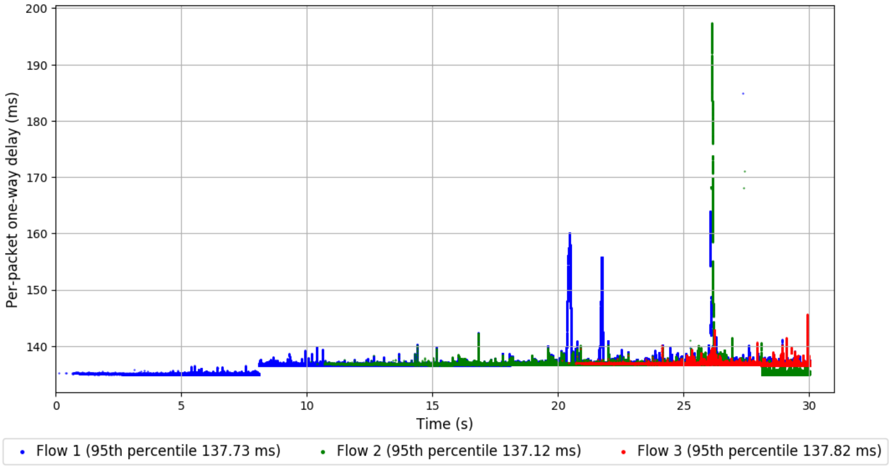




```
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-19 08:15:48
End at: 2018-07-19 08:16:18
Local clock offset: -0.163 ms
Remote clock offset: 0.251 ms

# Below is generated by plot.py at 2018-07-19 11:24:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.54 Mbit/s
95th percentile per-packet one-way delay: 137.523 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 237.00 Mbit/s
95th percentile per-packet one-way delay: 137.726 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 175.56 Mbit/s
95th percentile per-packet one-way delay: 137.118 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.82 Mbit/s
95th percentile per-packet one-way delay: 137.816 ms
Loss rate: 0.00%
```

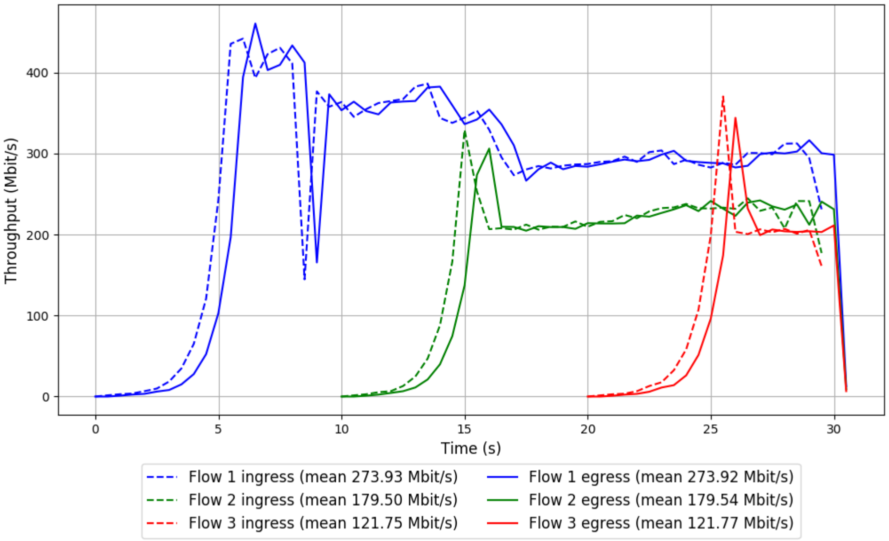
Run 9: Report of PCC-Vivace — Data Link

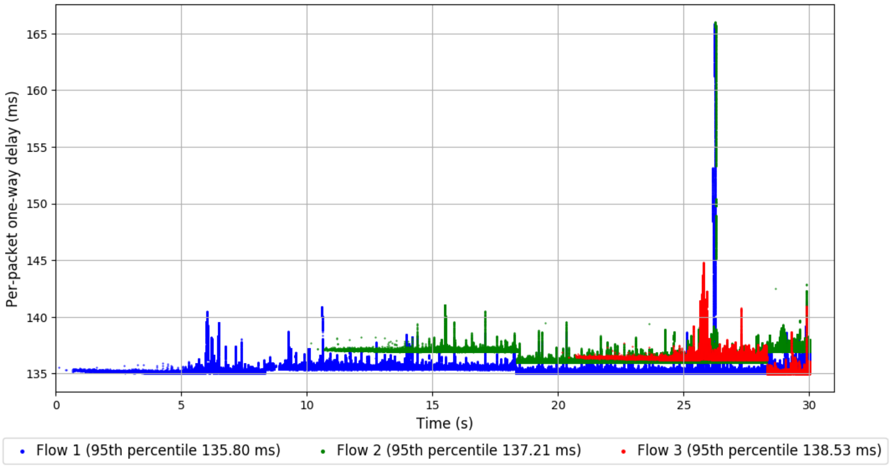




```
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-19 08:42:58
End at: 2018-07-19 08:43:28
Local clock offset: -0.278 ms
Remote clock offset: 0.291 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.42 Mbit/s
95th percentile per-packet one-way delay: 137.072 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 273.92 Mbit/s
95th percentile per-packet one-way delay: 135.798 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 179.54 Mbit/s
95th percentile per-packet one-way delay: 137.212 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.77 Mbit/s
95th percentile per-packet one-way delay: 138.529 ms
Loss rate: 0.00%
```

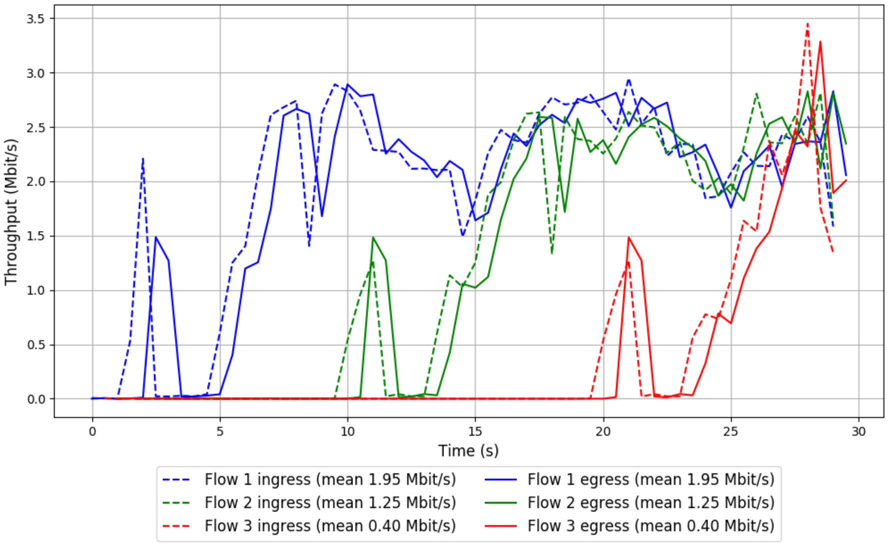
Run 10: Report of PCC-Vivace — Data Link

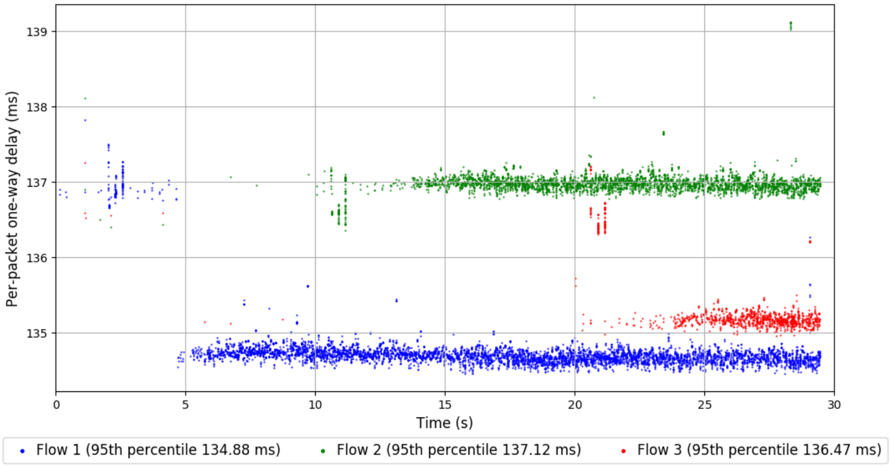




```
Run 1: Statistics of WebRTC media

Start at: 2018-07-19 04:44:51
End at: 2018-07-19 04:45:21
Local clock offset: 0.085 ms
Remote clock offset: 0.223 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 137.059 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 134.880 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 137.115 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 136.466 ms
Loss rate: 0.00%
```

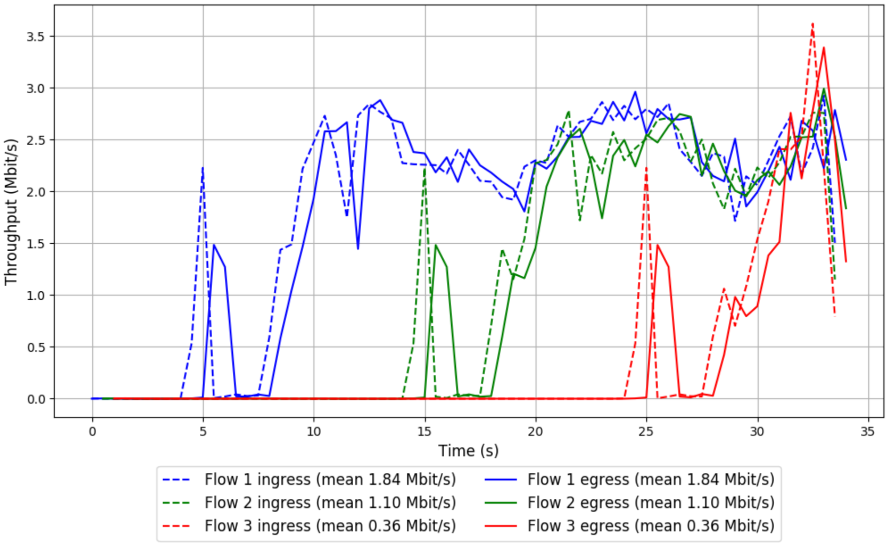
Run 1: Report of WebRTC media — Data Link

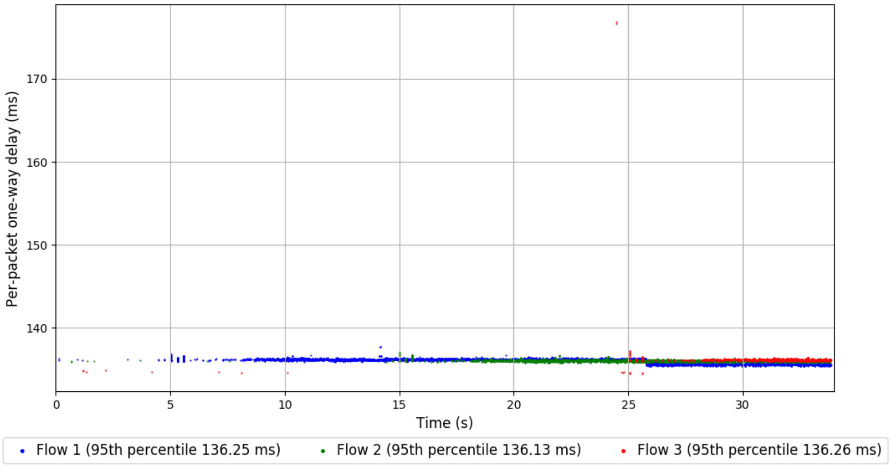




```
Run 2: Statistics of WebRTC media

Start at: 2018-07-19 05:11:54
End at: 2018-07-19 05:12:24
Local clock offset: 0.01 ms
Remote clock offset: -0.409 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 136.234 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 136.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 136.128 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.256 ms
Loss rate: 0.00%
```

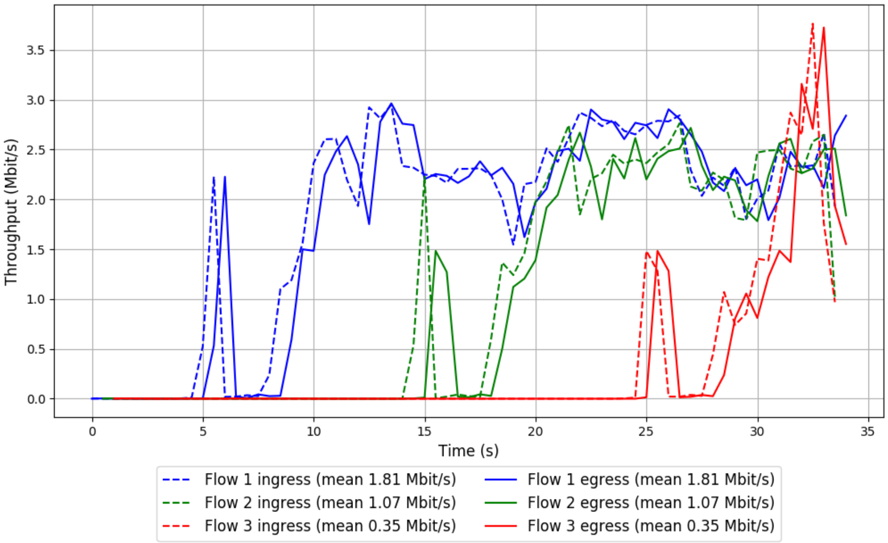
Run 2: Report of WebRTC media — Data Link

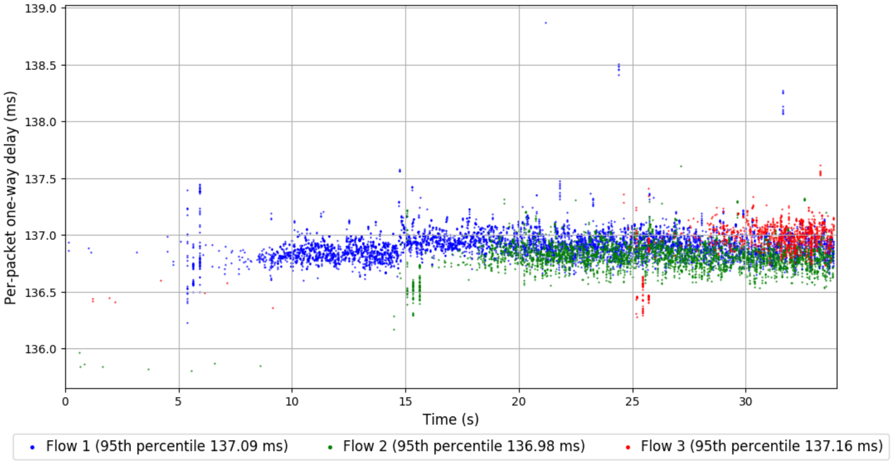




```
Run 3: Statistics of WebRTC media

Start at: 2018-07-19 05:38:55
End at: 2018-07-19 05:39:25
Local clock offset: -0.108 ms
Remote clock offset: 0.327 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 137.087 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 137.085 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 136.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 137.155 ms
Loss rate: 0.00%
```

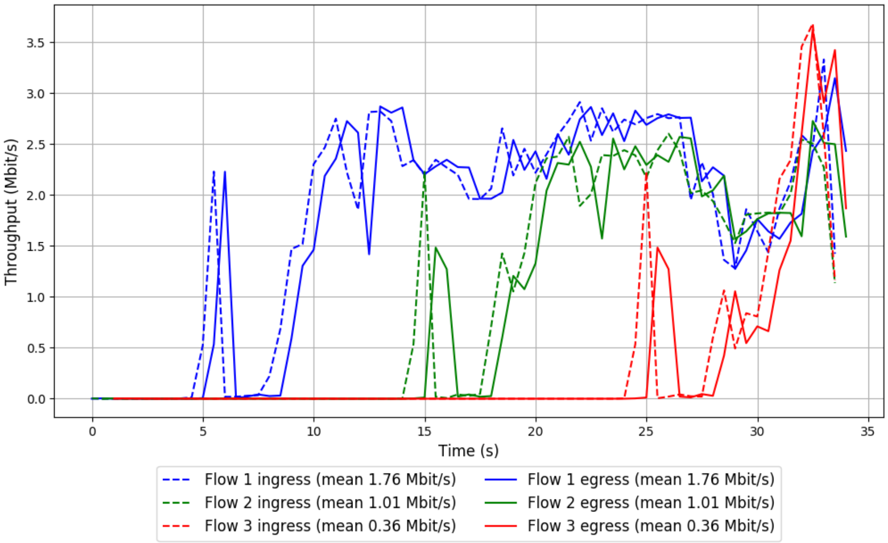
Run 3: Report of WebRTC media — Data Link

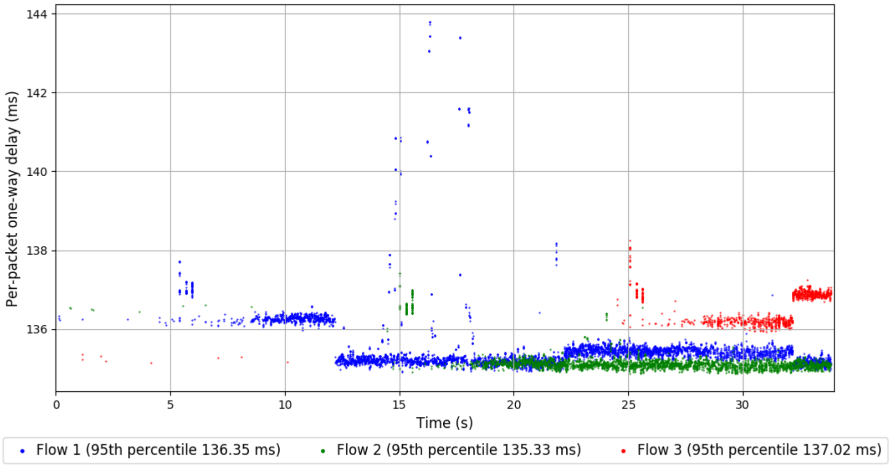




```
Run 4: Statistics of WebRTC media

Start at: 2018-07-19 06:05:58
End at: 2018-07-19 06:06:28
Local clock offset: -0.184 ms
Remote clock offset: 0.265 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 136.886 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 136.348 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 135.329 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 137.020 ms
Loss rate: 0.00%
```

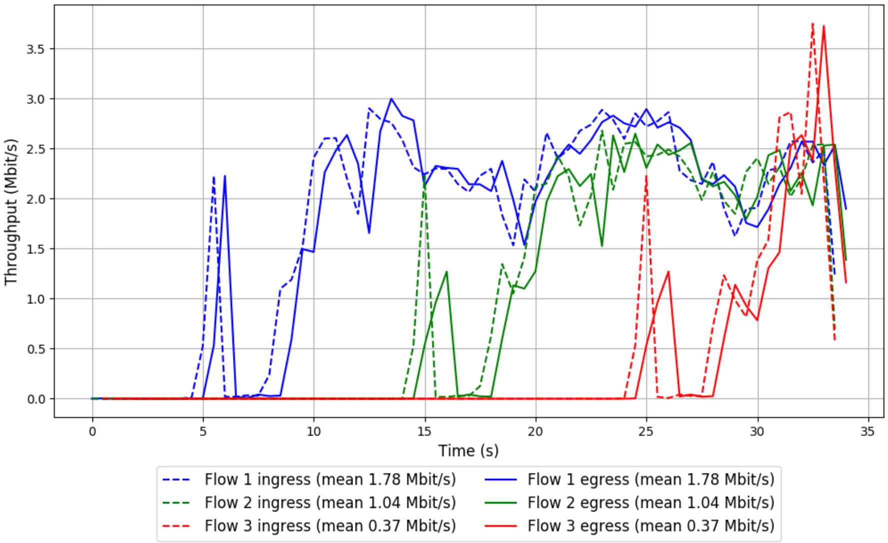
Run 4: Report of WebRTC media — Data Link

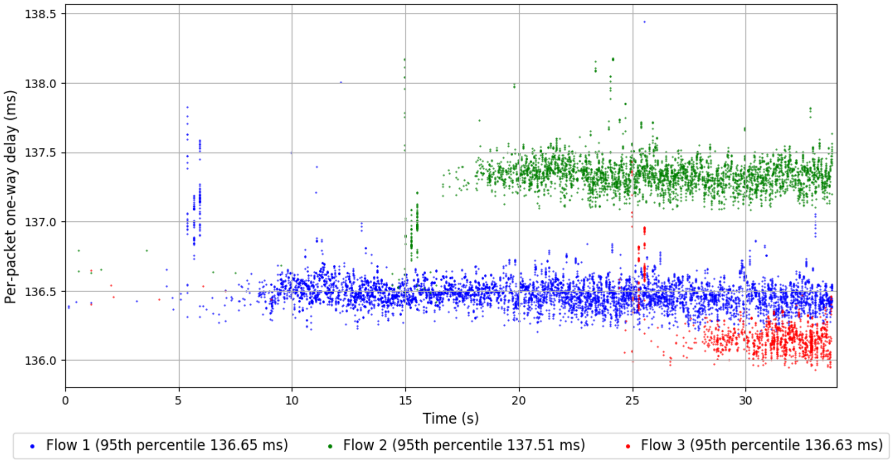




```
Run 5: Statistics of WebRTC media

Start at: 2018-07-19 06:32:43
End at: 2018-07-19 06:33:13
Local clock offset: -0.155 ms
Remote clock offset: 0.293 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 137.437 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 136.647 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 137.513 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 136.631 ms
Loss rate: 0.00%
```

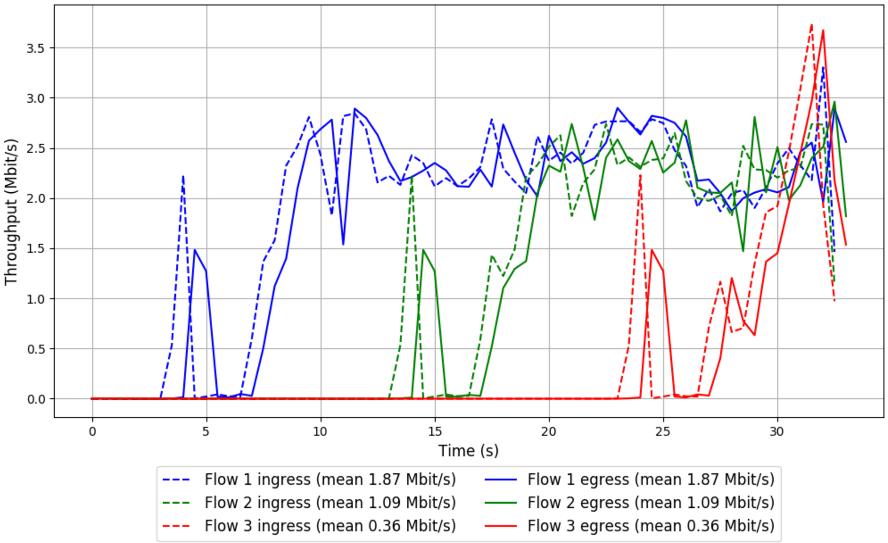
Run 5: Report of WebRTC media — Data Link

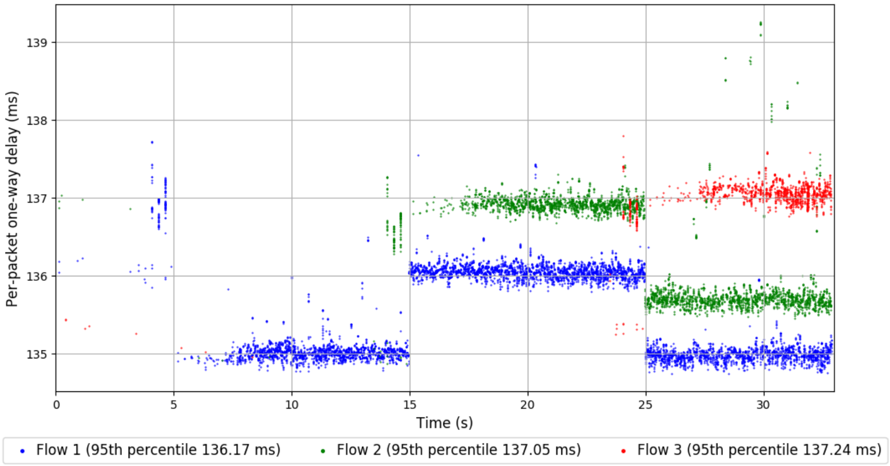




```
Run 6: Statistics of WebRTC media

Start at: 2018-07-19 06:59:54
End at: 2018-07-19 07:00:24
Local clock offset: -0.102 ms
Remote clock offset: 0.263 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 137.088 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 136.168 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 137.047 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 137.240 ms
Loss rate: 0.00%
```

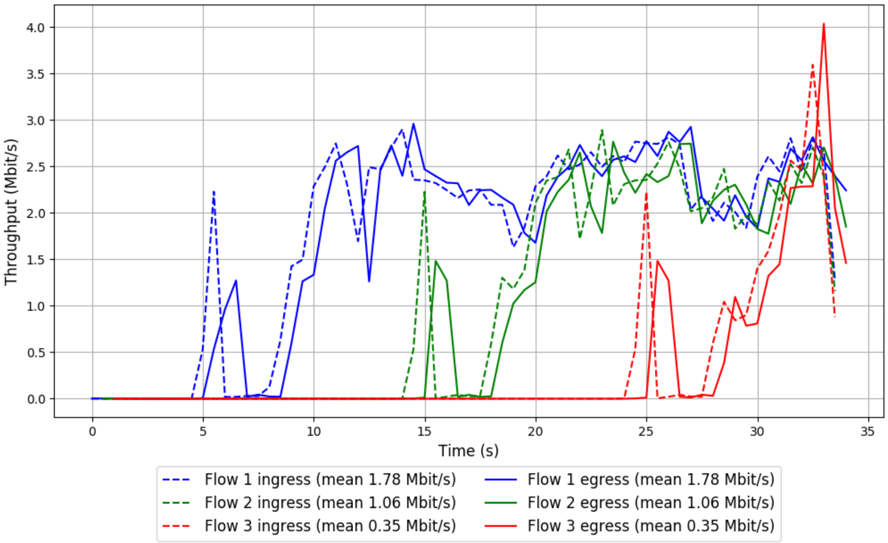
Run 6: Report of WebRTC media — Data Link

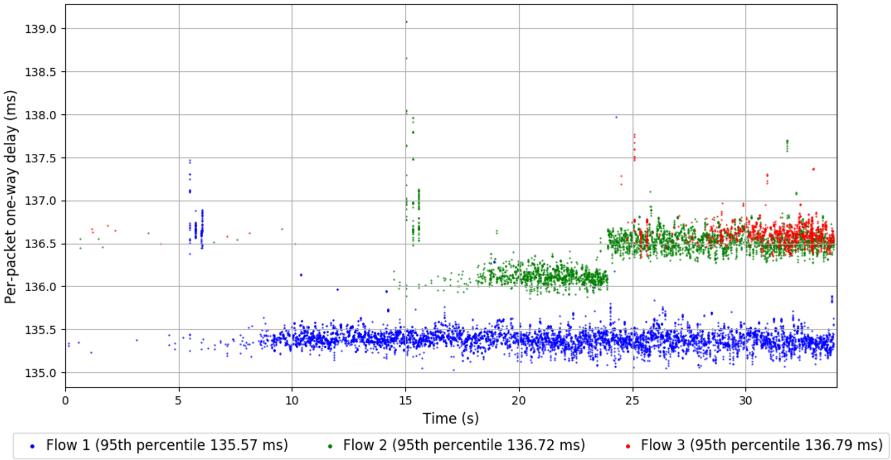




```
Run 7: Statistics of WebRTC media

Start at: 2018-07-19 07:26:56
End at: 2018-07-19 07:27:26
Local clock offset: -0.259 ms
Remote clock offset: 0.167 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 136.686 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 135.573 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 136.715 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 136.788 ms
Loss rate: 0.00%
```

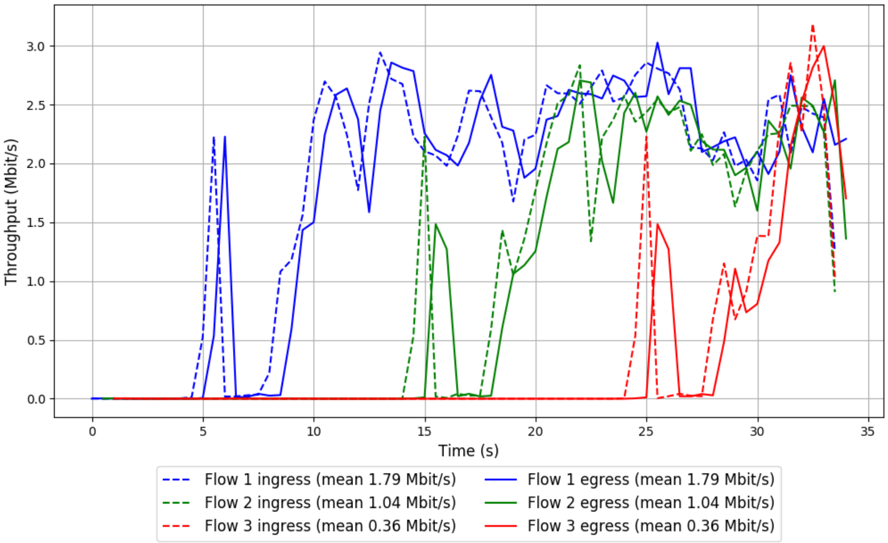
Run 7: Report of WebRTC media — Data Link

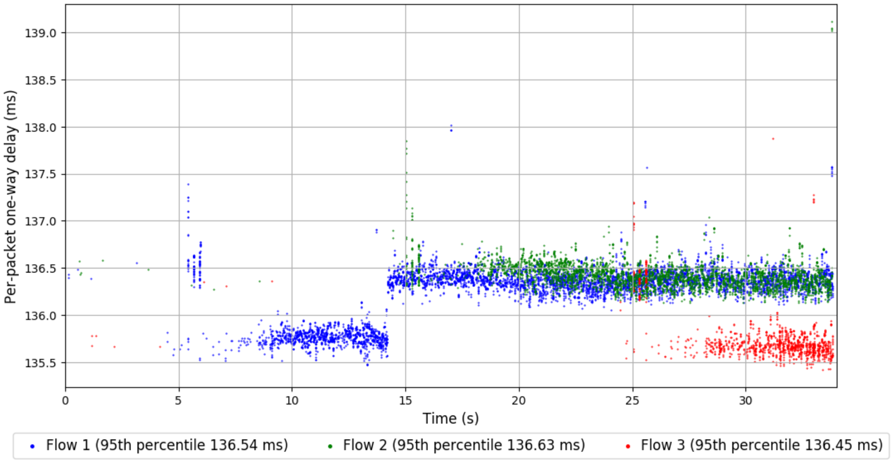




```
Run 8: Statistics of WebRTC media

Start at: 2018-07-19 07:53:56
End at: 2018-07-19 07:54:26
Local clock offset: 0.069 ms
Remote clock offset: -0.221 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 136.570 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 136.537 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 136.633 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.446 ms
Loss rate: 0.00%
```

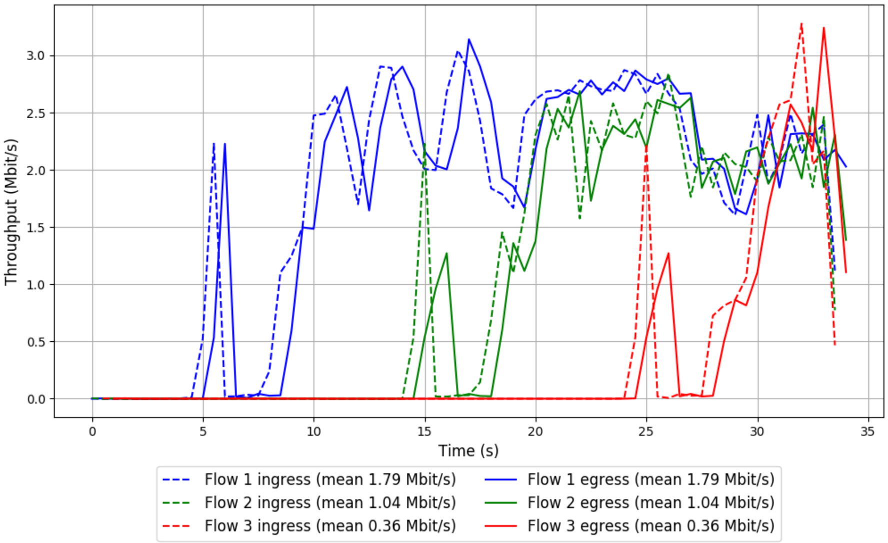
Run 8: Report of WebRTC media — Data Link

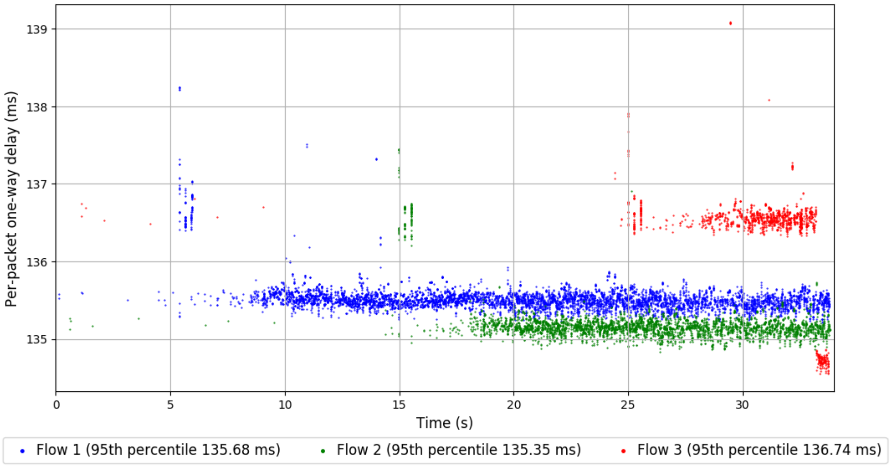




```
Run 9: Statistics of WebRTC media

Start at: 2018-07-19 08:20:47
End at: 2018-07-19 08:21:17
Local clock offset: -0.082 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 136.579 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 135.675 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 135.354 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.743 ms
Loss rate: 0.00%
```

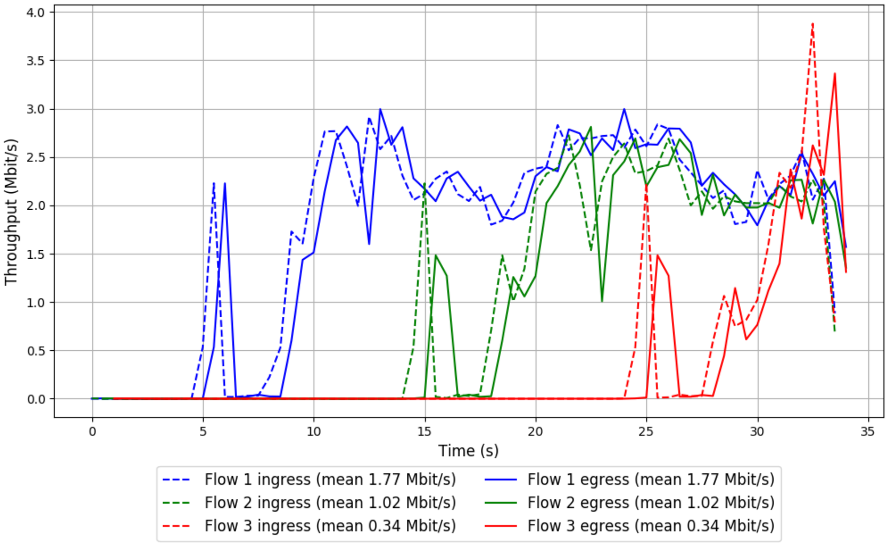
Run 9: Report of WebRTC media — Data Link



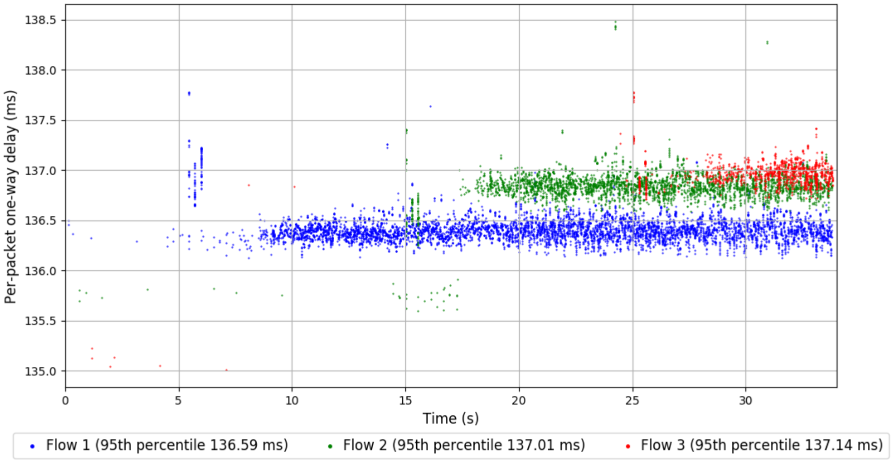


```
Run 10: Statistics of WebRTC media

Start at: 2018-07-19 08:47:33
End at: 2018-07-19 08:48:03
Local clock offset: -0.393 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-07-19 11:24:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 137.016 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 136.588 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 137.007 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 137.137 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link



Throughput (Mbit/s)
Time (s)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
5
10
15
20
25
30
35
Flow 1 ingress (mean 1.77 Mbit/s)
Flow 2 ingress (mean 1.02 Mbit/s)
Flow 3 ingress (mean 0.34 Mbit/s)
Flow 1 egress (mean 1.77 Mbit/s)
Flow 2 egress (mean 1.02 Mbit/s)
Flow 3 egress (mean 0.34 Mbit/s)



Per-packet one-way delay (ms)
Time (s)
135.0
135.5
136.0
136.5
137.0
137.5
138.0
138.5
0
5
10
15
20
25
30
Flow 1 (95th percentile 136.59 ms)
Flow 2 (95th percentile 137.01 ms)
Flow 3 (95th percentile 137.14 ms)