Pantheon Report

Generated at 2018-10-02 12:15:51 (UTC).

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

Repeated the test of 18 congestion control schemes 5 times.

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

NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.
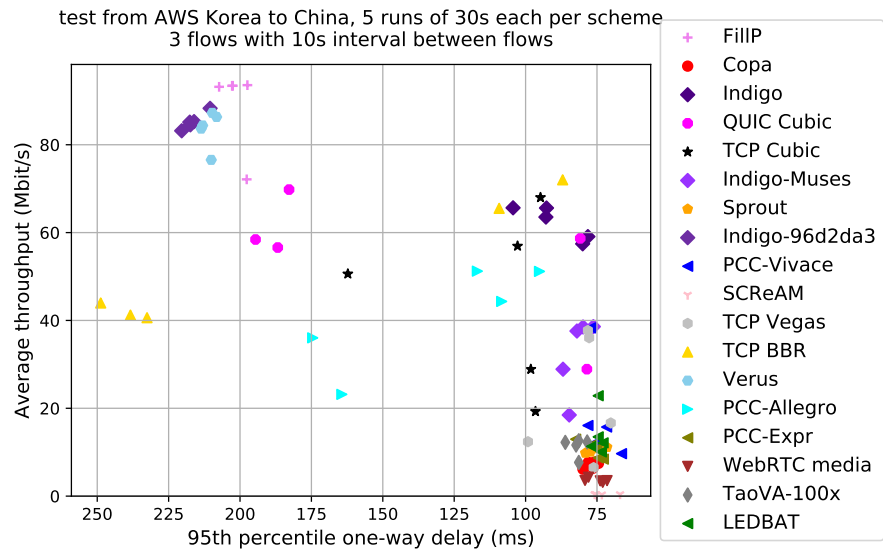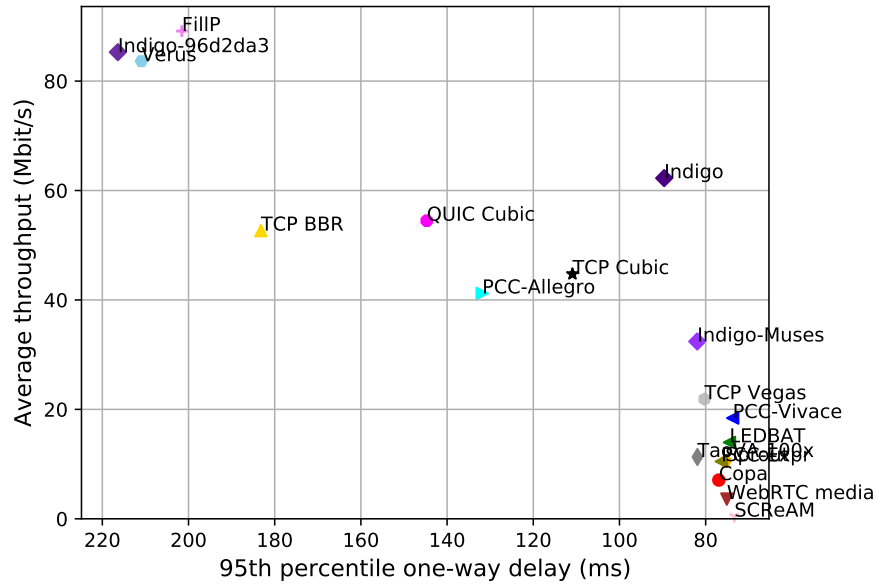
```
System info:
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 2e19c0464530faa92c63f8217c9971438a26a3be
third_party/fillp @ 5332fc9127c63565e13f4933b336c02d1aabdac6
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
```

```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS Korea to China, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS Korea to China, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	36.45	17.18	14.40	149.46	219.73	188.72	19.28	21.10	24.28
Copa	5	0.00	7.90	5.45	68.09	76.94	76.71	98.08	5.23	5.93
TCP Cubic	5	21.31	21.49	27.40	99.53	112.40	102.56	1.19	1.19	0.88
FillP	5	48.70	39.71	42.69	200.36	200.42	202.80	15.07	20.26	30.21
Indigo	5	30.30	34.06	29.52	86.00	89.59	92.34	4.40	7.40	16.55
Indigo-96d2da3	5	56.45	31.25	26.05	214.71	217.96	215.85	28.97	46.23	39.87
LEDBAT	5	8.05	6.77	4.32	72.00	73.38	74.27	0.07	0.08	0.10
Indigo-Muses	5	12.85	16.97	25.48	81.72	77.84	84.69	0.06	0.06	0.14
PCC-Allegro	5	42.75	20.44	21.93	110.40	119.89	141.16	18.59	23.63	38.50
PCC-Expr	5	3.94	7.55	4.63	72.80	76.52	75.93	51.43	42.76	41.55
QUIC Cubic	5	33.37	24.93	14.12	139.87	145.97	125.66	0.28	0.24	0.08
SCReAM	5	0.19	0.21	0.22	72.95	70.46	74.02	0.06	0.21	0.09
Sprout	5	5.31	5.54	4.69	74.08	73.96	76.10	0.11	0.10	0.09
TaoVA-100x	5	5.52	6.21	5.28	78.81	81.10	80.27	35.78	32.28	19.64
TCP Vegas	5	14.14	7.09	9.02	81.26	72.87	73.32	0.85	0.12	0.10
Verus	5	63.15	25.30	13.31	207.66	216.20	209.09	8.68	23.78	12.89
PCC-Vivace	5	13.63	5.40	3.62	74.15	71.51	71.08	0.05	0.10	0.08
WebRTC media	5	2.03	1.18	0.42	74.91	72.67	70.43	0.05	0.06	0.15

```
Run 1: Statistics of TCP BBR

Start at: 2018-10-02 10:06:35
End at: 2018-10-02 10:07:05
Local clock offset: 6.134 ms
Remote clock offset: 4.239 ms


# Below is generated by plot.py at 2018-10-02 12:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 232.560 ms
Loss rate: 21.10%
-- Flow 1:
Average throughput: 32.06 Mbit/s
95th percentile per-packet one-way delay: 197.120 ms
Loss rate: 23.06%
-- Flow 2:
Average throughput: 7.81 Mbit/s
95th percentile per-packet one-way delay: 343.014 ms
Loss rate: 15.43%
-- Flow 3:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 231.026 ms
Loss rate: 8.35%
```
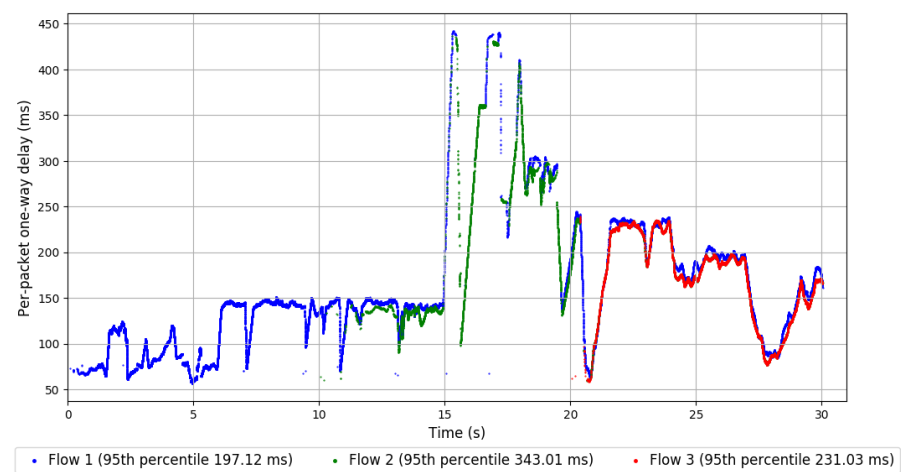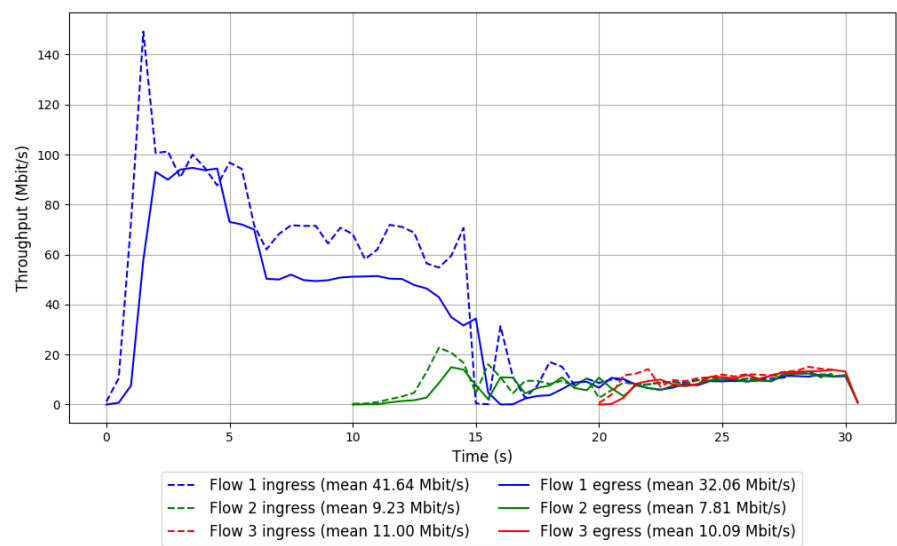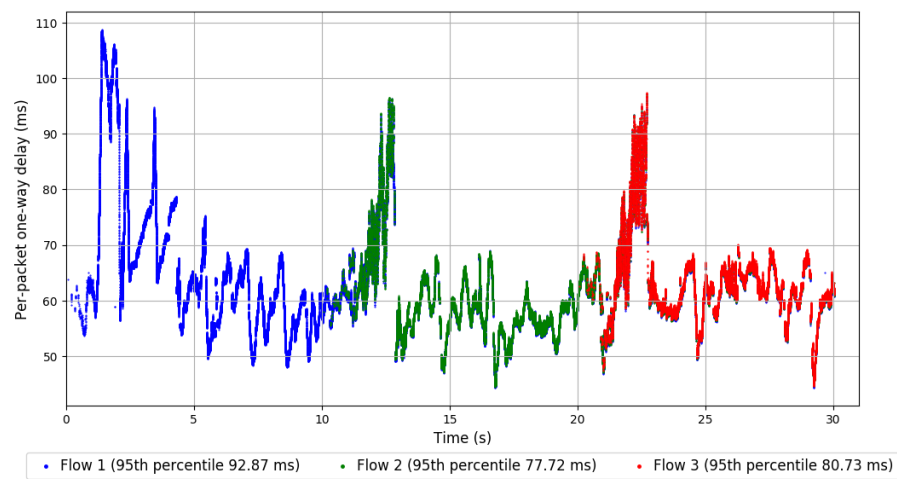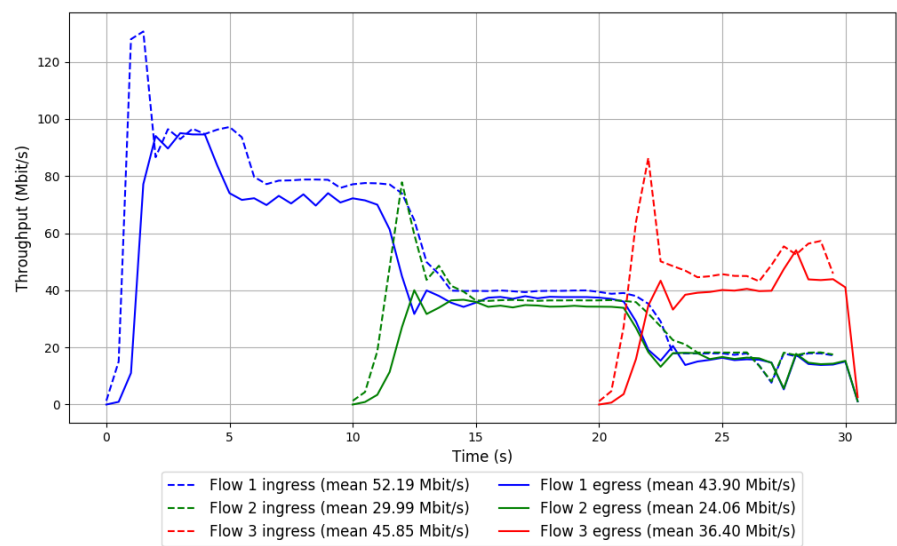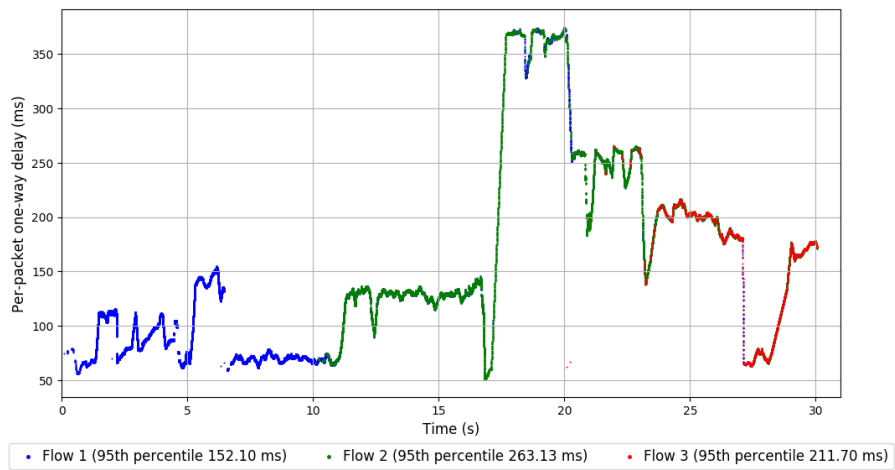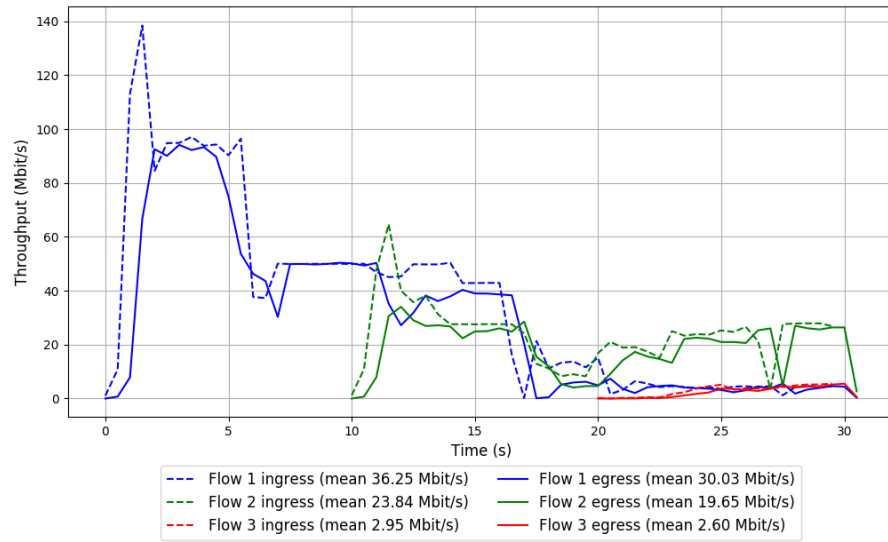
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 41.64 Mbit/s) - - - - Flow 1 egress (mean 32.06 Mbit/s)
Flow 2 ingress (mean 9.23 Mbit/s) - - - - Flow 2 egress (mean 7.81 Mbit/s)
Flow 3 ingress (mean 11.00 Mbit/s) - - - - Flow 3 egress (mean 10.09 Mbit/s)

Flow 1 (95th percentile 197.12 ms)   Flow 2 (95th percentile 343.01 ms)   Flow 3 (95th percentile 231.03 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-10-02 10:30:17
End at: 2018-10-02 10:30:47
Local clock offset: 10.979 ms
Remote clock offset: 24.322 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.02 Mbit/s
95th percentile per-packet one-way delay: 87.021 ms
Loss rate: 17.62%
-- Flow 1:
Average throughput: 43.90 Mbit/s
95th percentile per-packet one-way delay: 92.874 ms
Loss rate: 15.92%
-- Flow 2:
Average throughput: 24.06 Mbit/s
95th percentile per-packet one-way delay: 77.719 ms
Loss rate: 19.78%
-- Flow 3:
Average throughput: 36.40 Mbit/s
95th percentile per-packet one-way delay: 80.730 ms
Loss rate: 20.64%
```
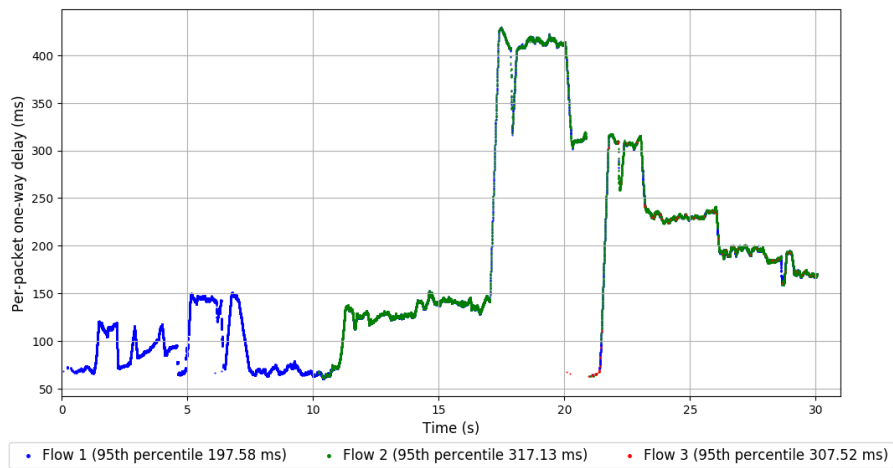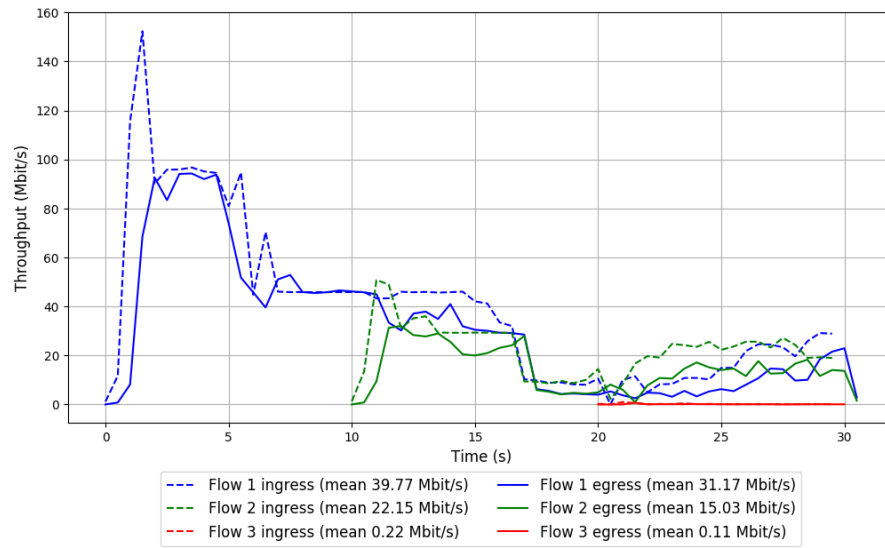
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-10-02 10:54:00
End at: 2018-10-02 10:54:30
Local clock offset: 0.108 ms
Remote clock offset: 28.452 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.97 Mbit/s
95th percentile per-packet one-way delay: 248.785 ms
Loss rate: 17.23%
-- Flow 1:
Average throughput: 30.03 Mbit/s
95th percentile per-packet one-way delay: 152.099 ms
Loss rate: 17.22%
-- Flow 2:
Average throughput: 19.65 Mbit/s
95th percentile per-packet one-way delay: 263.133 ms
Loss rate: 17.60%
-- Flow 3:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 211.700 ms
Loss rate: 11.69%
```
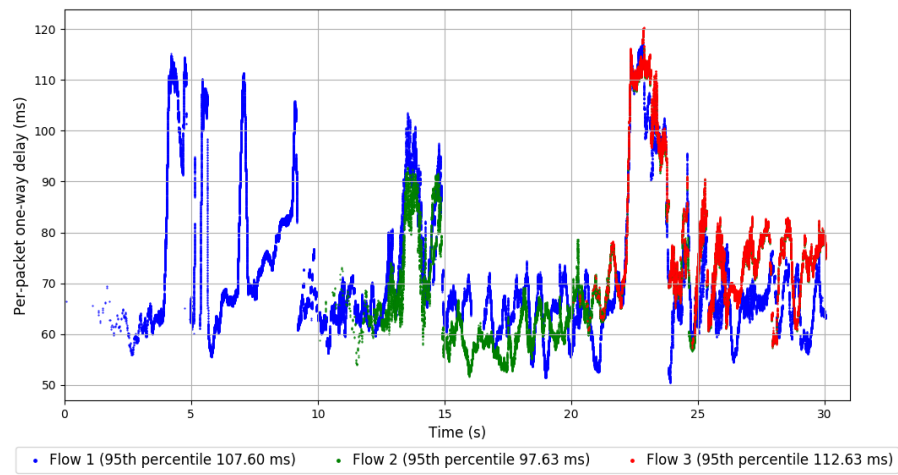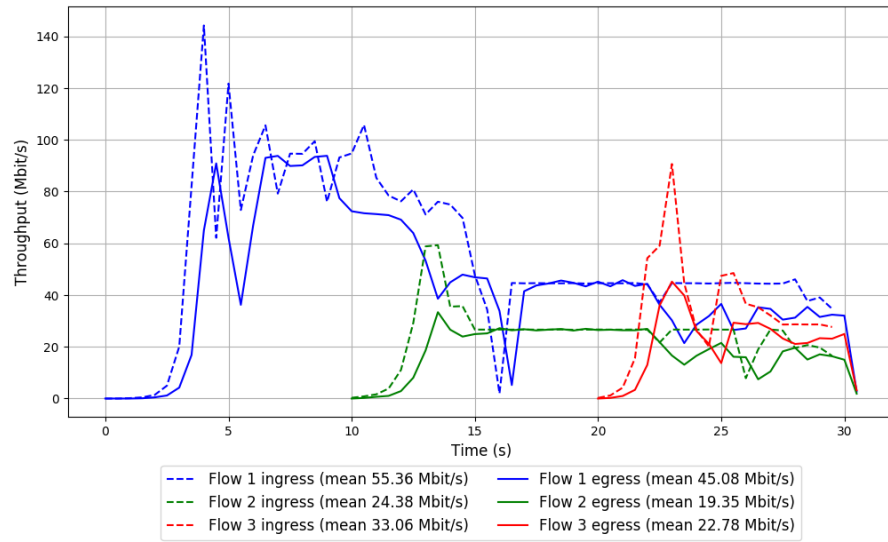
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-10-02 11:17:54
End at: 2018-10-02 11:18:24
Local clock offset: -11.464 ms
Remote clock offset: 22.984 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 41.22 Mbit/s
95th percentile per-packet one-way delay: 238.374 ms
Loss rate: 24.50%
-- Flow 1:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 197.581 ms
Loss rate: 21.62%
-- Flow 2:
Average throughput: 15.03 Mbit/s
95th percentile per-packet one-way delay: 317.134 ms
Loss rate: 32.15%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 307.519 ms
Loss rate: 49.69%
```

Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-10-02 11:41:54
End at: 2018-10-02 11:42:24
Local clock offset: -13.89 ms
Remote clock offset: 9.975 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.52 Mbit/s
95th percentile per-packet one-way delay: 109.250 ms
Loss rate: 20.64%
-- Flow 1:
Average throughput: 45.08 Mbit/s
95th percentile per-packet one-way delay: 107.602 ms
Loss rate: 18.60%
-- Flow 2:
Average throughput: 19.35 Mbit/s
95th percentile per-packet one-way delay: 97.629 ms
Loss rate: 20.55%
-- Flow 3:
Average throughput: 22.78 Mbit/s
95th percentile per-packet one-way delay: 112.629 ms
Loss rate: 31.04%
```
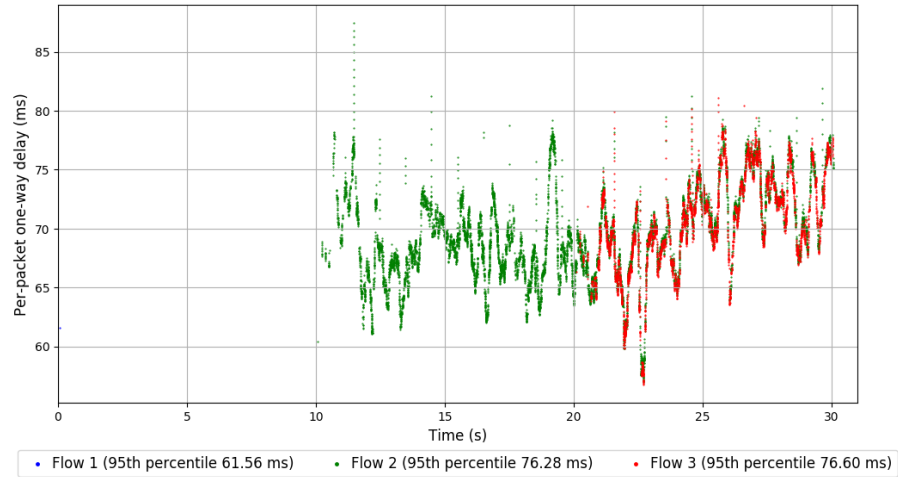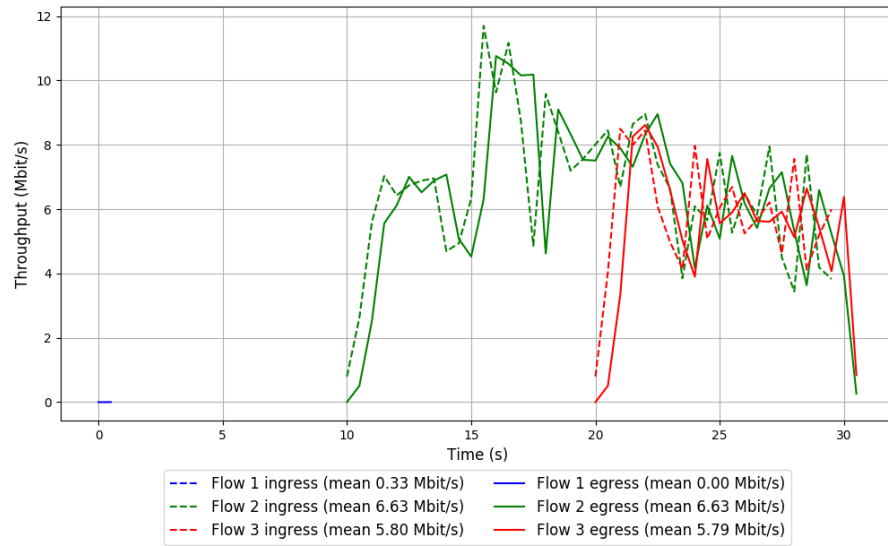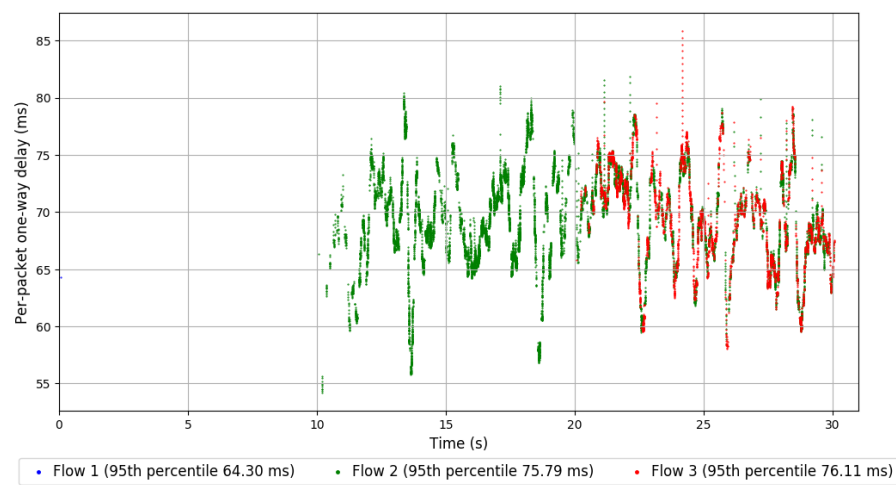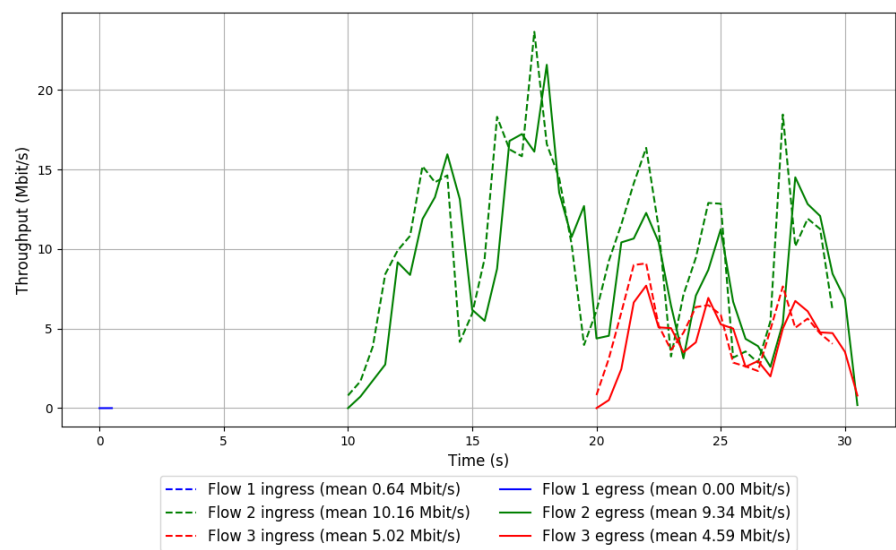
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 55.36 Mbit/s) Flow 1 egress (mean 45.08 Mbit/s)
Flow 2 ingress (mean 24.38 Mbit/s) Flow 2 egress (mean 19.35 Mbit/s)
Flow 3 ingress (mean 33.06 Mbit/s) Flow 3 egress (mean 22.78 Mbit/s)

Flow 1 (95th percentile 107.60 ms)   Flow 2 (95th percentile 97.63 ms)   Flow 3 (95th percentile 112.63 ms)

14

```
Run 1: Statistics of Copa

Start at: 2018-10-02 10:05:19
End at: 2018-10-02 10:05:49
Local clock offset: 5.643 ms
Remote clock offset: 2.713 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.34 Mbit/s
95th percentile per-packet one-way delay: 76.421 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 61.563 ms
Loss rate: 97.92%
-- Flow 2:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 76.282 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.79 Mbit/s
95th percentile per-packet one-way delay: 76.596 ms
Loss rate: 0.02%
```
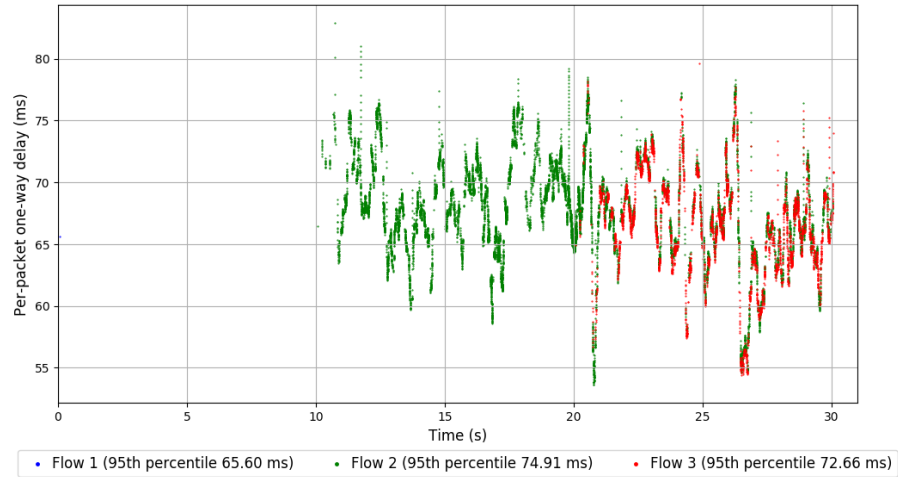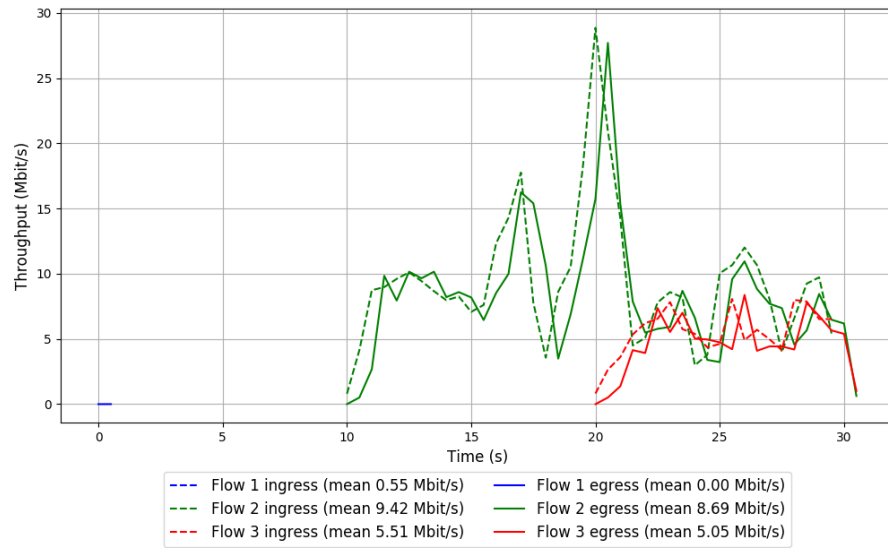
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-10-02 10:29:02
End at: 2018-10-02 10:29:32
Local clock offset: 10.563 ms
Remote clock offset: 25.842 ms

# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 75.896 ms
Loss rate: 8.20%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 64.299 ms
Loss rate: 98.95%
-- Flow 2:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 75.789 ms
Loss rate: 8.03%
-- Flow 3:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 76.111 ms
Loss rate: 8.70%
```
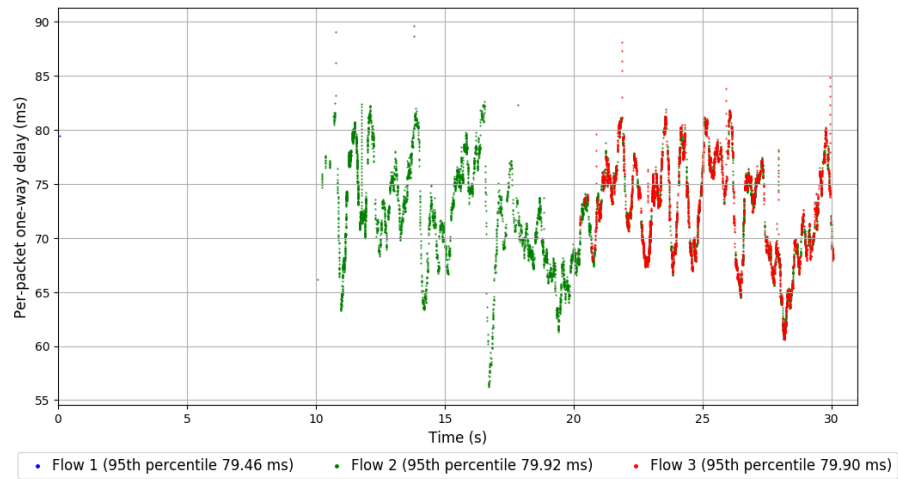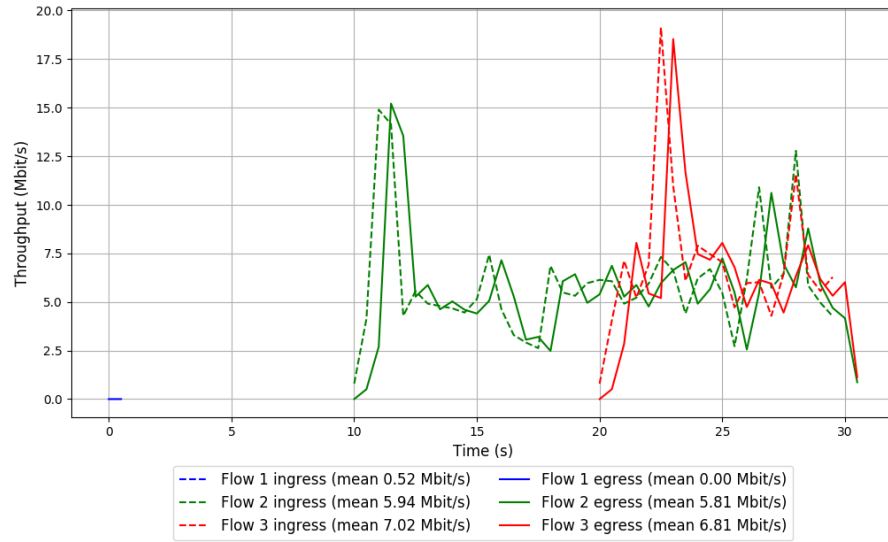
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 0.64 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 10.16 Mbit/s) --- Flow 2 egress (mean 9.34 Mbit/s)
Flow 3 ingress (mean 5.02 Mbit/s) --- Flow 3 egress (mean 4.59 Mbit/s)

Flow 1 (95th percentile 64.30 ms)   Flow 2 (95th percentile 75.79 ms)   Flow 3 (95th percentile 76.11 ms)

18

```
Run 3: Statistics of Copa

Start at: 2018-10-02 10:52:44
End at: 2018-10-02 10:53:14
Local clock offset: 1.246 ms
Remote clock offset: 25.965 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.46 Mbit/s
95th percentile per-packet one-way delay: 74.486 ms
Loss rate: 7.86%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 65.603 ms
Loss rate: 98.80%
-- Flow 2:
Average throughput: 8.69 Mbit/s
95th percentile per-packet one-way delay: 74.911 ms
Loss rate: 7.73%
-- Flow 3:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 72.658 ms
Loss rate: 8.13%
```
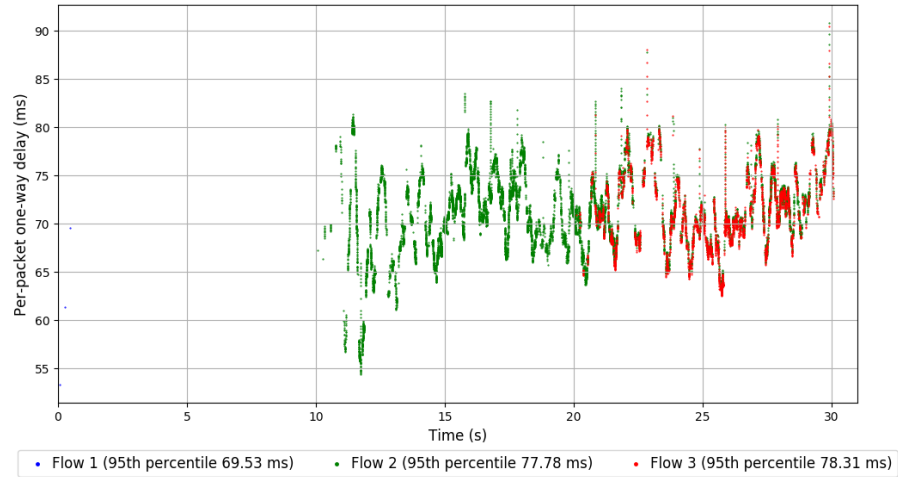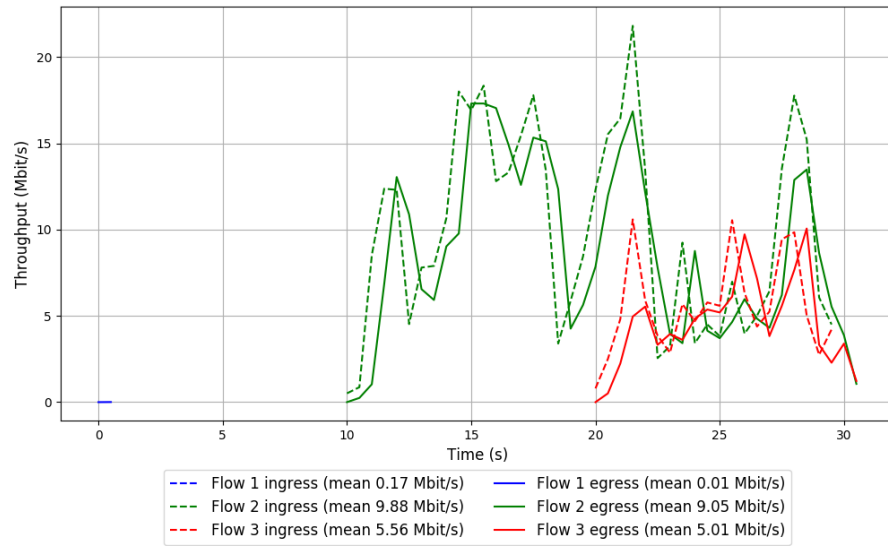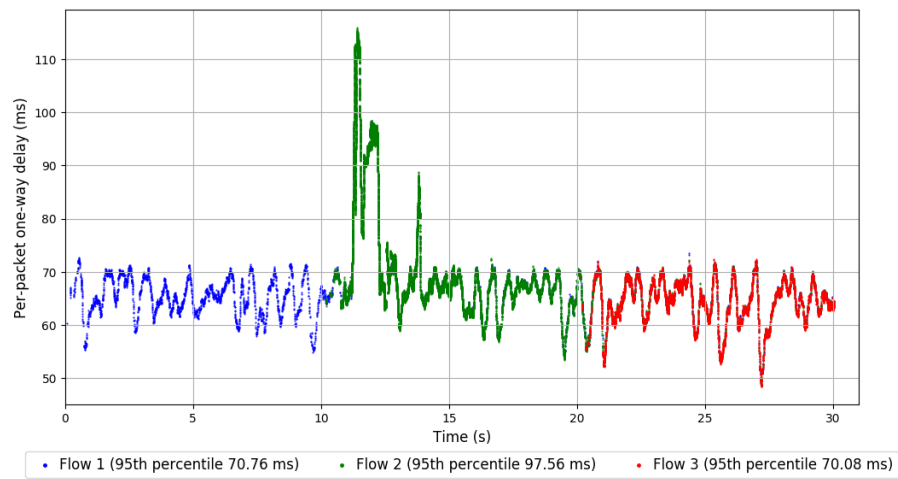
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-10-02 11:16:38
End at: 2018-10-02 11:17:08
Local clock offset: -11.489 ms
Remote clock offset: 25.333 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.14 Mbit/s
95th percentile per-packet one-way delay: 79.912 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 79.462 ms
Loss rate: 98.80%
-- Flow 2:
Average throughput: 5.81 Mbit/s
95th percentile per-packet one-way delay: 79.918 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 6.81 Mbit/s
95th percentile per-packet one-way delay: 79.900 ms
Loss rate: 2.94%
```
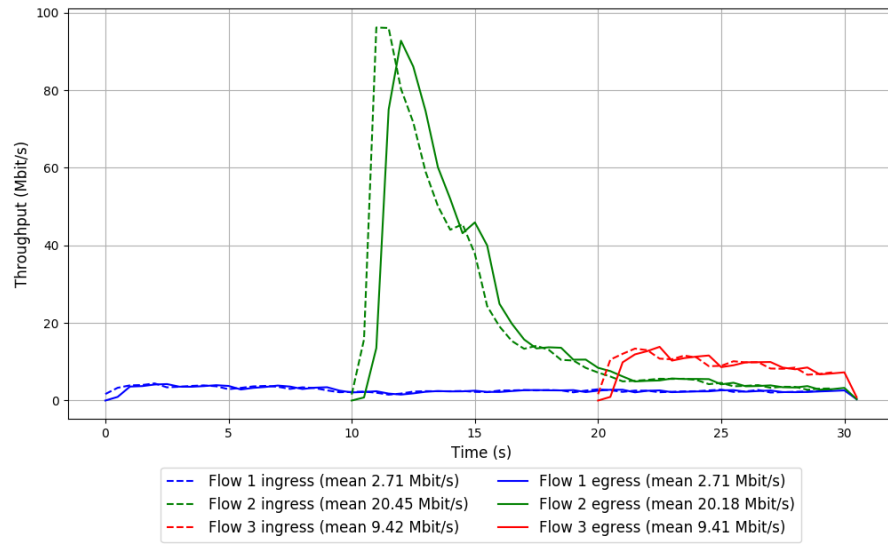
Run 4: Report of Copa — Data Link

22

```
Run 5: Statistics of Copa

Start at: 2018-10-02 11:40:26
End at: 2018-10-02 11:40:56
Local clock offset: -14.023 ms
Remote clock offset: 9.615 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.69 Mbit/s
95th percentile per-packet one-way delay: 78.028 ms
Loss rate: 8.72%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 69.532 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.05 Mbit/s
95th percentile per-packet one-way delay: 77.784 ms
Loss rate: 8.37%
-- Flow 3:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 78.307 ms
Loss rate: 9.86%
```
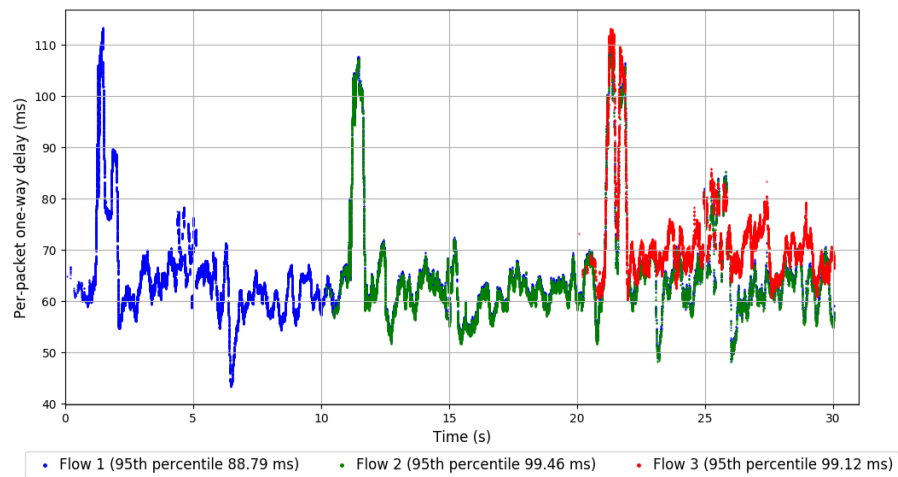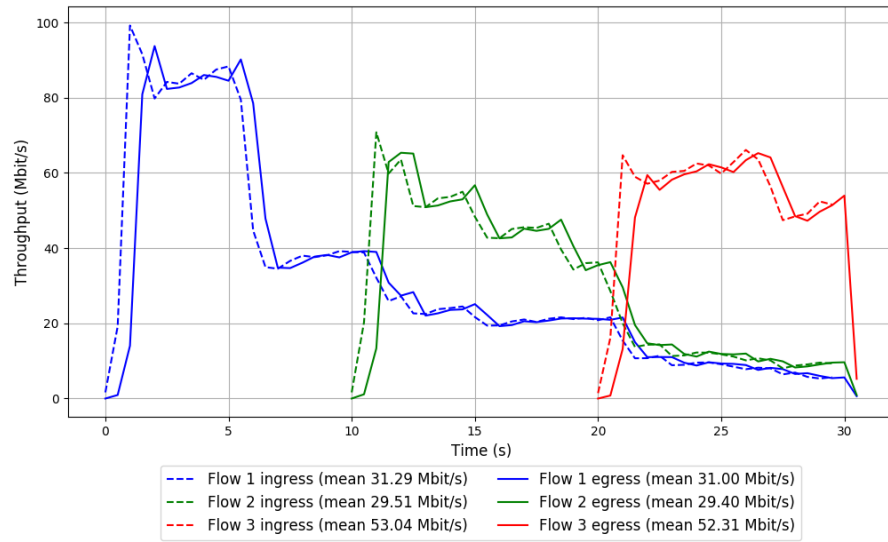
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-10-02 10:17:21
End at: 2018-10-02 10:17:51
Local clock offset: 8.534 ms
Remote clock offset: 22.326 ms


# Below is generated by plot.py at 2018-10-02 12:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.28 Mbit/s
95th percentile per-packet one-way delay: 96.534 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 2.71 Mbit/s
95th percentile per-packet one-way delay: 70.760 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 20.18 Mbit/s
95th percentile per-packet one-way delay: 97.558 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 70.083 ms
Loss rate: 0.17%
```
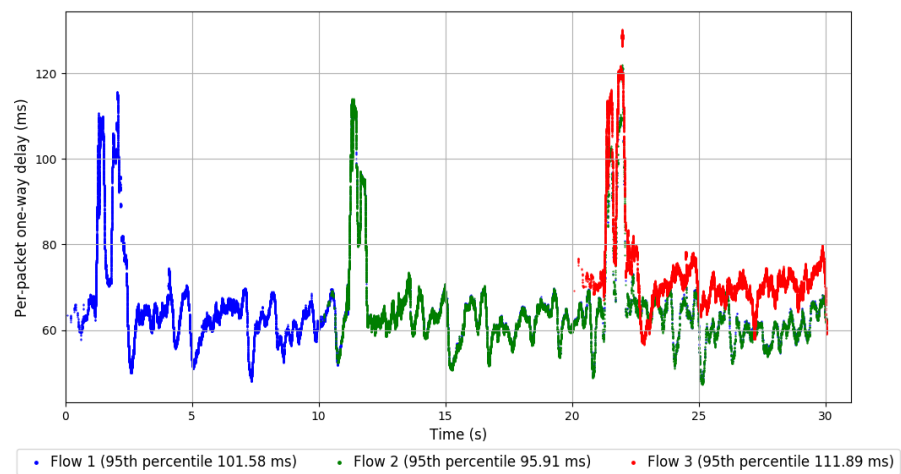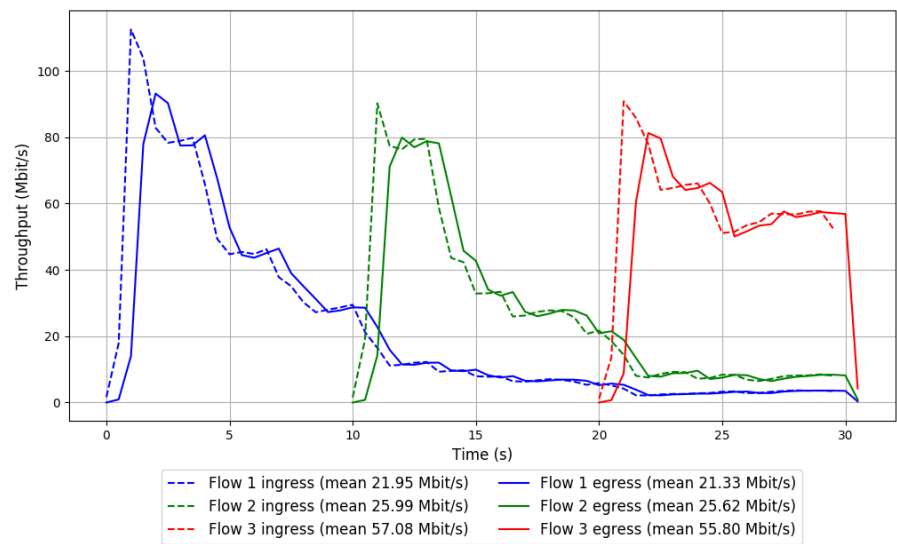
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-10-02 10:41:04
End at: 2018-10-02 10:41:34
Local clock offset: 12.864 ms
Remote clock offset: 27.666 ms


# Below is generated by plot.py at 2018-10-02 12:10:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.99 Mbit/s
95th percentile per-packet one-way delay: 94.782 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 31.00 Mbit/s
95th percentile per-packet one-way delay: 88.794 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 29.40 Mbit/s
95th percentile per-packet one-way delay: 99.459 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 52.31 Mbit/s
95th percentile per-packet one-way delay: 99.118 ms
Loss rate: 1.42%
```
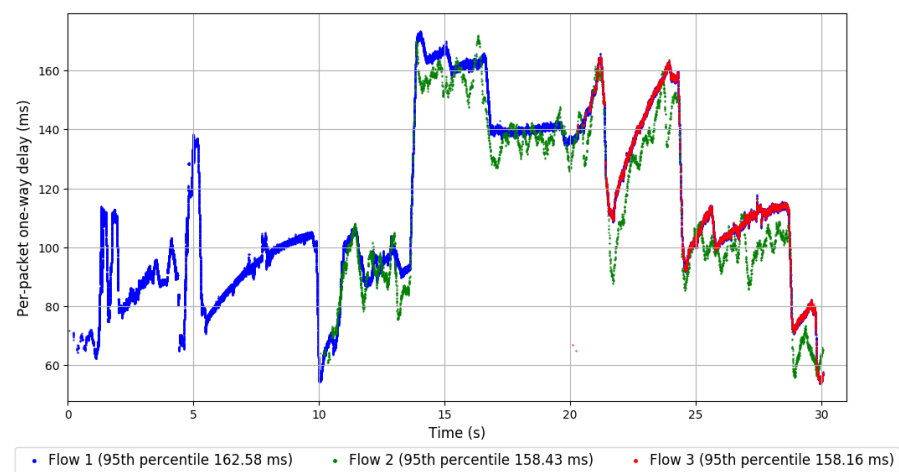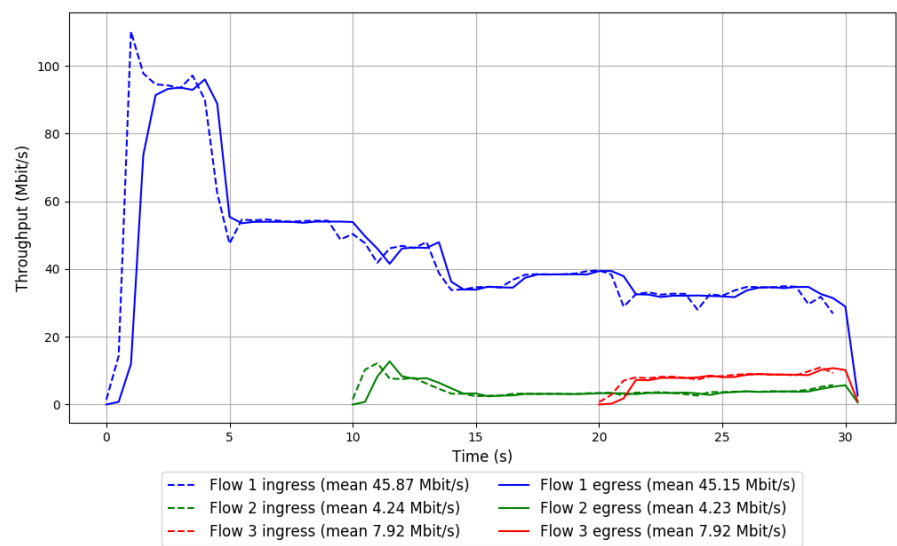
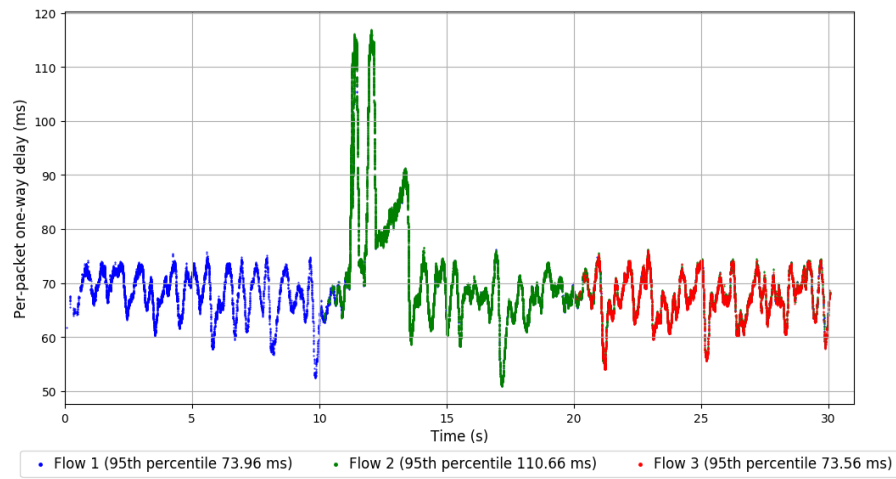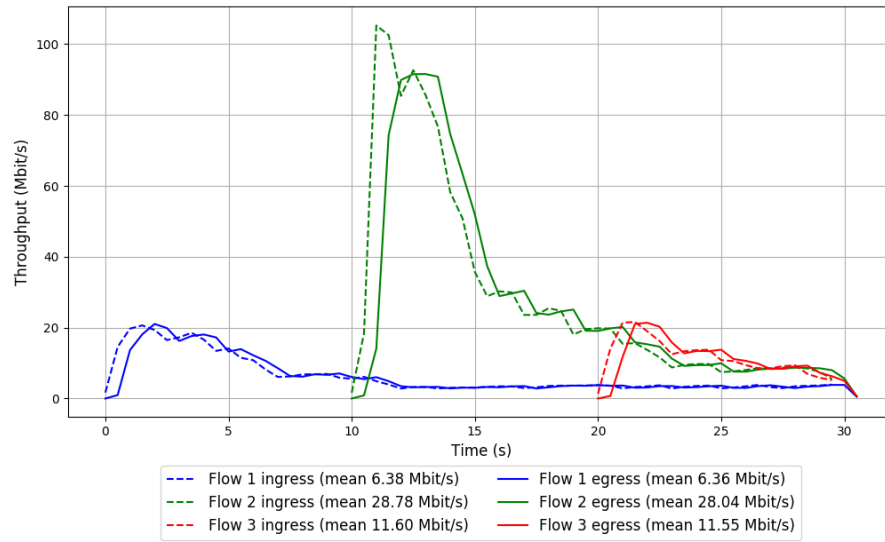Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-10-02 11:04:49
End at: 2018-10-02 11:05:19
Local clock offset: -7.678 ms
Remote clock offset: 27.051 ms


# Below is generated by plot.py at 2018-10-02 12:10:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.94 Mbit/s
95th percentile per-packet one-way delay: 102.820 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 21.33 Mbit/s
95th percentile per-packet one-way delay: 101.578 ms
Loss rate: 2.80%
-- Flow 2:
Average throughput: 25.62 Mbit/s
95th percentile per-packet one-way delay: 95.914 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 55.80 Mbit/s
95th percentile per-packet one-way delay: 111.888 ms
Loss rate: 2.35%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 21.95 Mbit/s) — Flow 1 egress (mean 21.33 Mbit/s)
Flow 2 ingress (mean 25.99 Mbit/s) — Flow 2 egress (mean 25.62 Mbit/s)
Flow 3 ingress (mean 57.08 Mbit/s) — Flow 3 egress (mean 55.80 Mbit/s)

Flow 1 (95th percentile 101.58 ms) • Flow 2 (95th percentile 95.91 ms) • Flow 3 (95th percentile 111.89 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-10-02 11:28:36
End at: 2018-10-02 11:29:06
Local clock offset: -12.137 ms
Remote clock offset: 13.464 ms


# Below is generated by plot.py at 2018-10-02 12:10:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.60 Mbit/s
95th percentile per-packet one-way delay: 162.245 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 45.15 Mbit/s
95th percentile per-packet one-way delay: 162.579 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 158.428 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 158.156 ms
Loss rate: 0.08%
```
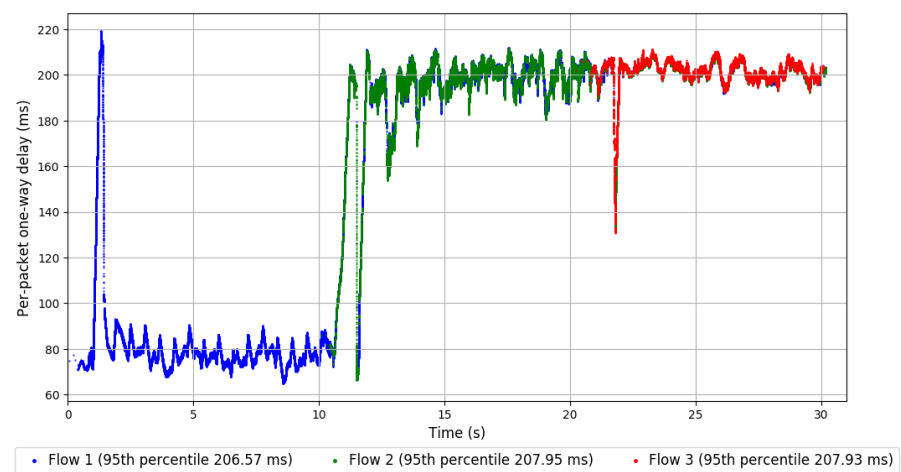
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2018-10-02 11:57:53
End at: 2018-10-02 11:58:23
Local clock offset: -11.351 ms
Remote clock offset: 8.129 ms


# Below is generated by plot.py at 2018-10-02 12:10:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.88 Mbit/s
95th percentile per-packet one-way delay: 98.181 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 73.959 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 110.658 ms
Loss rate: 2.57%
-- Flow 3:
Average throughput: 11.55 Mbit/s
95th percentile per-packet one-way delay: 73.557 ms
Loss rate: 0.37%
```
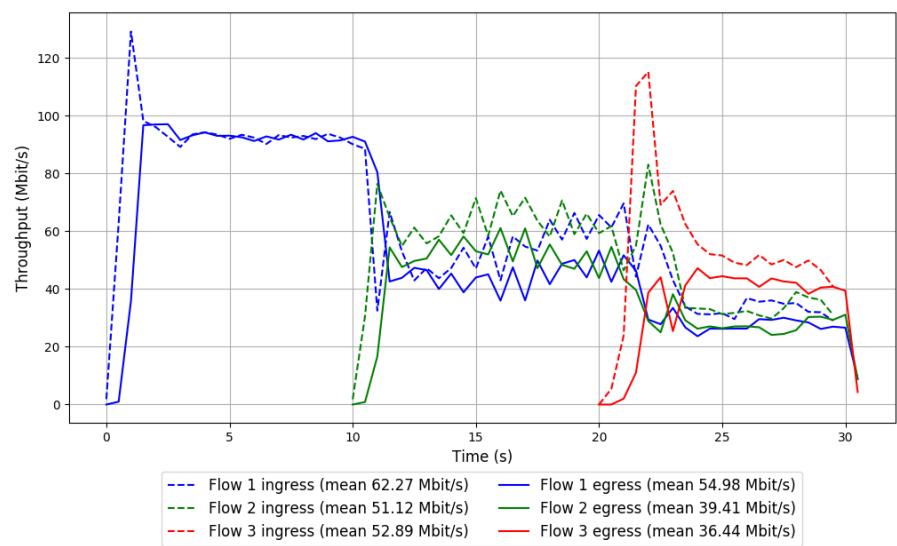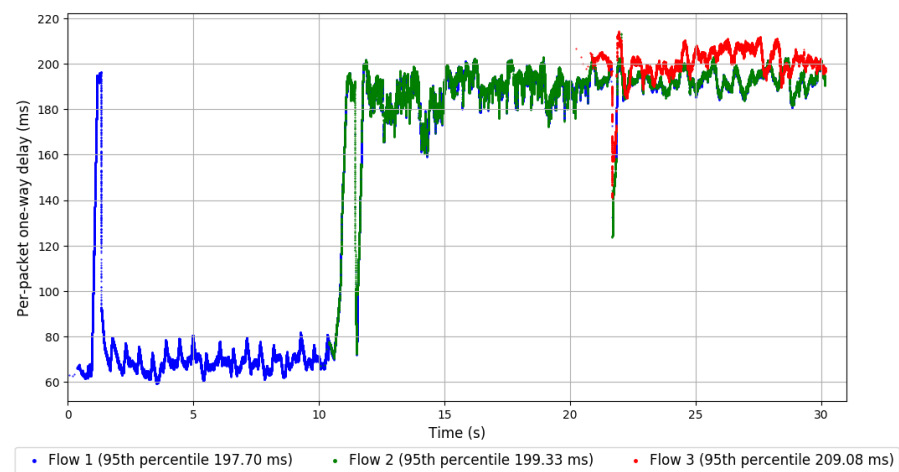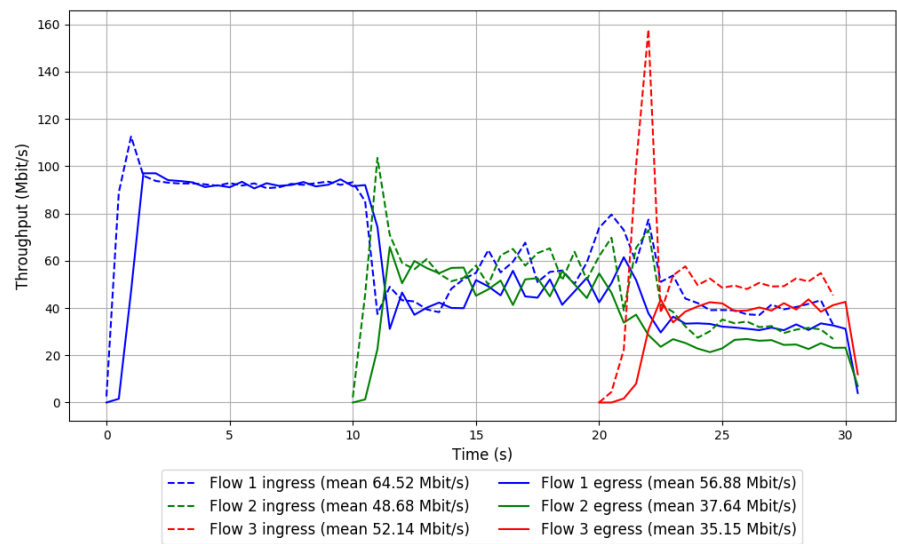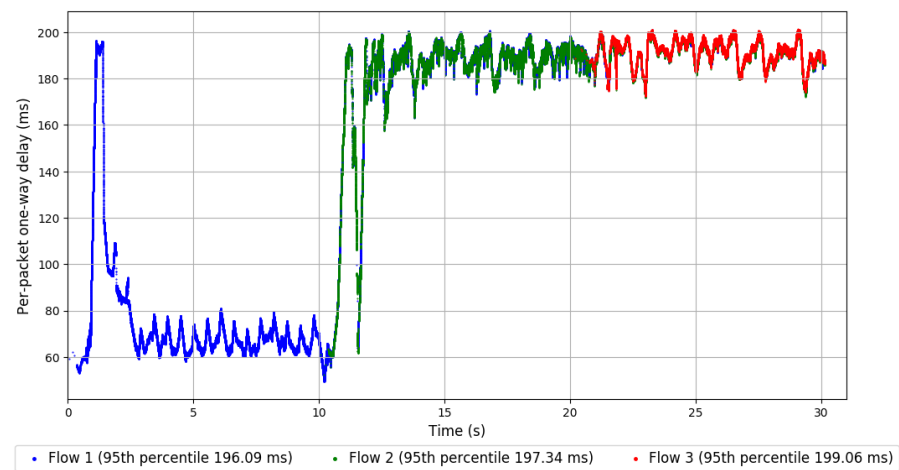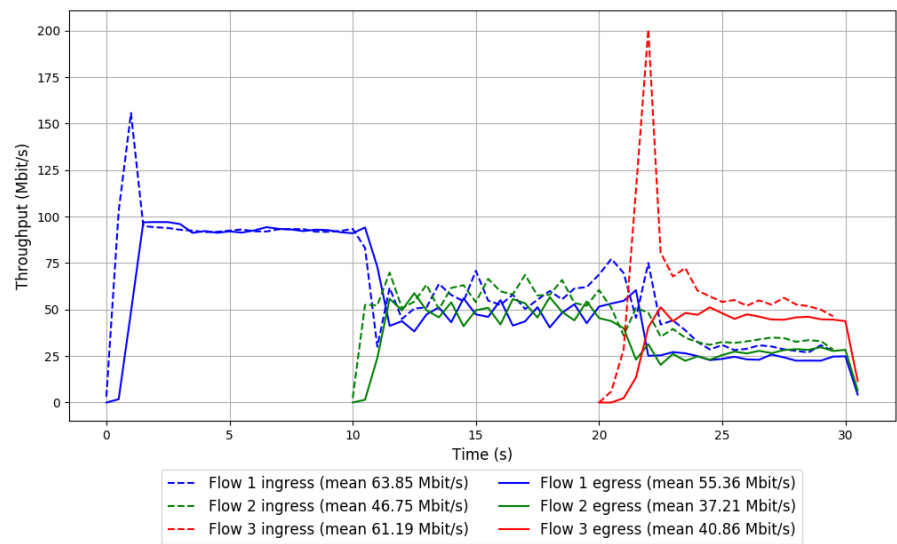
Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-10-02 10:07:55
End at: 2018-10-02 10:08:25
Local clock offset: 6.452 ms
Remote clock offset: 11.02 ms


# Below is generated by plot.py at 2018-10-02 12:11:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.19 Mbit/s
95th percentile per-packet one-way delay: 207.320 ms
Loss rate: 17.80%
-- Flow 1:
Average throughput: 54.98 Mbit/s
95th percentile per-packet one-way delay: 206.574 ms
Loss rate: 11.32%
-- Flow 2:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 207.949 ms
Loss rate: 22.45%
-- Flow 3:
Average throughput: 36.44 Mbit/s
95th percentile per-packet one-way delay: 207.928 ms
Loss rate: 31.77%
```

Run 1: Report of FillP — Data Link

- - - Flow 1 ingress (mean 62.27 Mbit/s) ——— Flow 1 egress (mean 54.98 Mbit/s)
- - - Flow 2 ingress (mean 51.12 Mbit/s) ——— Flow 2 egress (mean 39.41 Mbit/s)
- - - Flow 3 ingress (mean 52.89 Mbit/s) ——— Flow 3 egress (mean 36.44 Mbit/s)

• Flow 1 (95th percentile 206.57 ms)   • Flow 2 (95th percentile 207.95 ms)   • Flow 3 (95th percentile 207.93 ms)
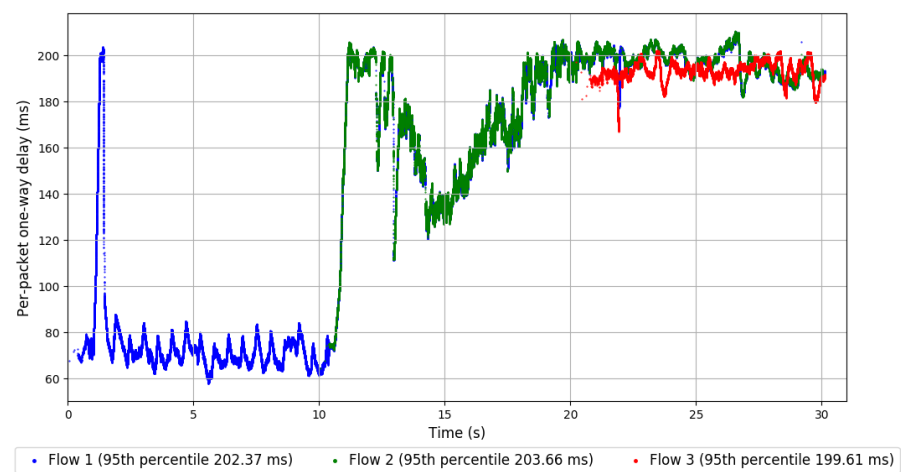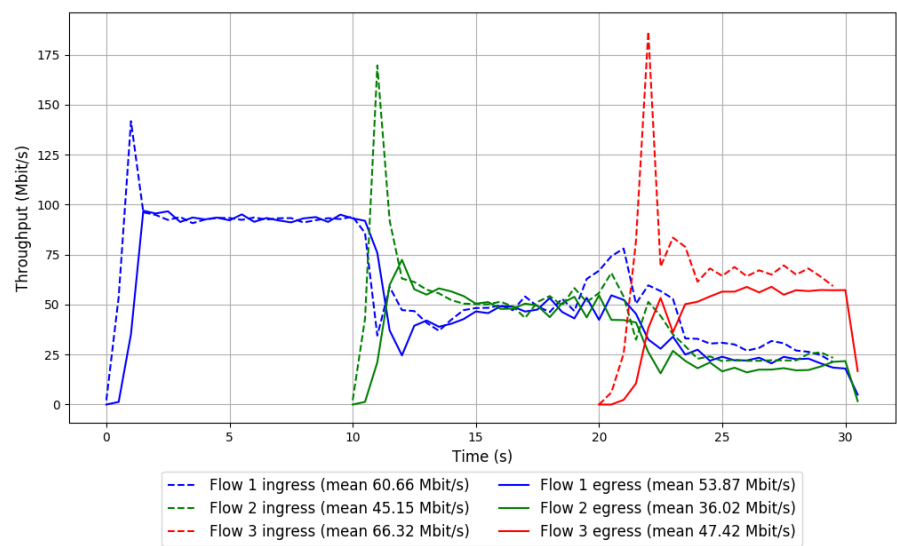
```
Run 2: Statistics of FillP

Start at: 2018-10-02 10:31:40
End at: 2018-10-02 10:32:10
Local clock offset: 11.095 ms
Remote clock offset: 29.497 ms


# Below is generated by plot.py at 2018-10-02 12:11:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.42 Mbit/s
95th percentile per-packet one-way delay: 202.770 ms
Loss rate: 17.85%
-- Flow 1:
Average throughput: 56.88 Mbit/s
95th percentile per-packet one-way delay: 197.704 ms
Loss rate: 11.71%
-- Flow 2:
Average throughput: 37.64 Mbit/s
95th percentile per-packet one-way delay: 199.331 ms
Loss rate: 22.20%
-- Flow 3:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 209.079 ms
Loss rate: 32.65%
```
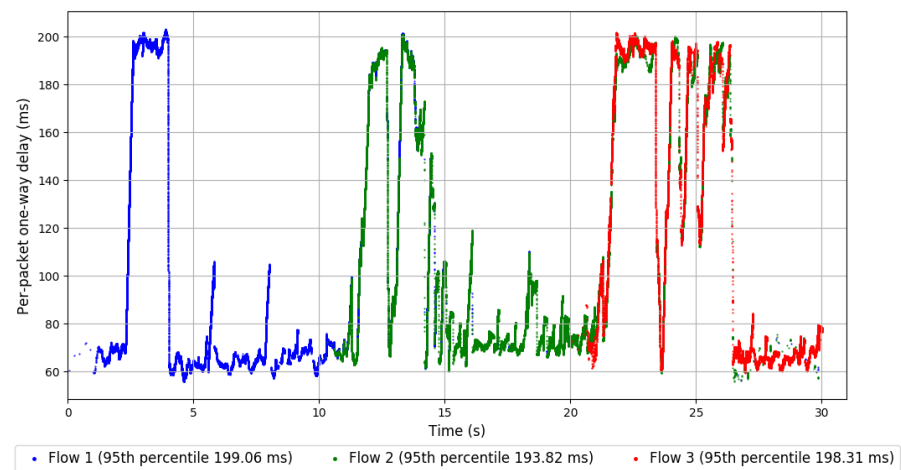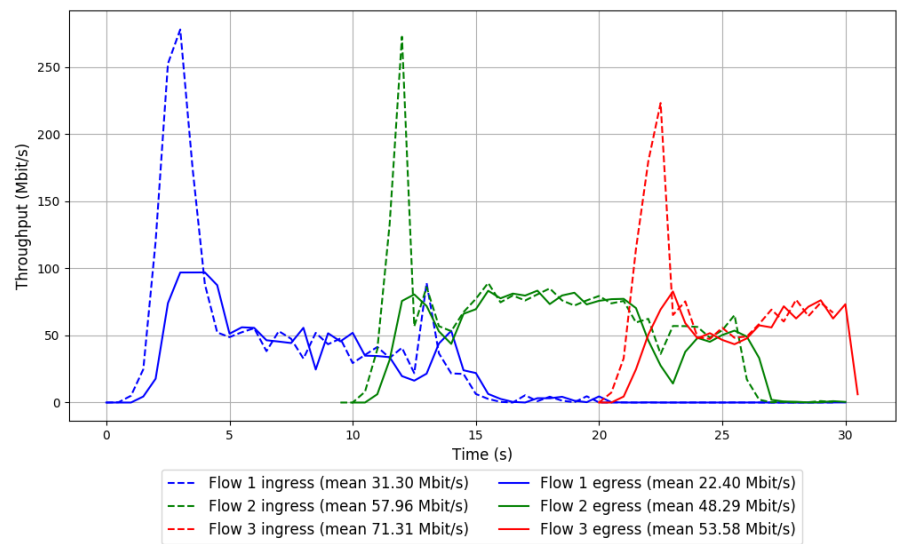
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 64.52 Mbit/s) ---- Flow 1 egress (mean 56.88 Mbit/s) ——
Flow 2 ingress (mean 48.68 Mbit/s) ---- Flow 2 egress (mean 37.64 Mbit/s) ——
Flow 3 ingress (mean 52.14 Mbit/s) ---- Flow 3 egress (mean 35.15 Mbit/s) ——

• Flow 1 (95th percentile 197.70 ms)   • Flow 2 (95th percentile 199.33 ms)   • Flow 3 (95th percentile 209.08 ms)

```
Run 3: Statistics of FillP

Start at: 2018-10-02 10:55:24
End at: 2018-10-02 10:55:54
Local clock offset: -1.645 ms
Remote clock offset: 27.633 ms


# Below is generated by plot.py at 2018-10-02 12:12:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.57 Mbit/s
95th percentile per-packet one-way delay: 197.416 ms
Loss rate: 18.45%
-- Flow 1:
Average throughput: 55.36 Mbit/s
95th percentile per-packet one-way delay: 196.093 ms
Loss rate: 13.06%
-- Flow 2:
Average throughput: 37.21 Mbit/s
95th percentile per-packet one-way delay: 197.340 ms
Loss rate: 19.89%
-- Flow 3:
Average throughput: 40.86 Mbit/s
95th percentile per-packet one-way delay: 199.065 ms
Loss rate: 33.24%
```
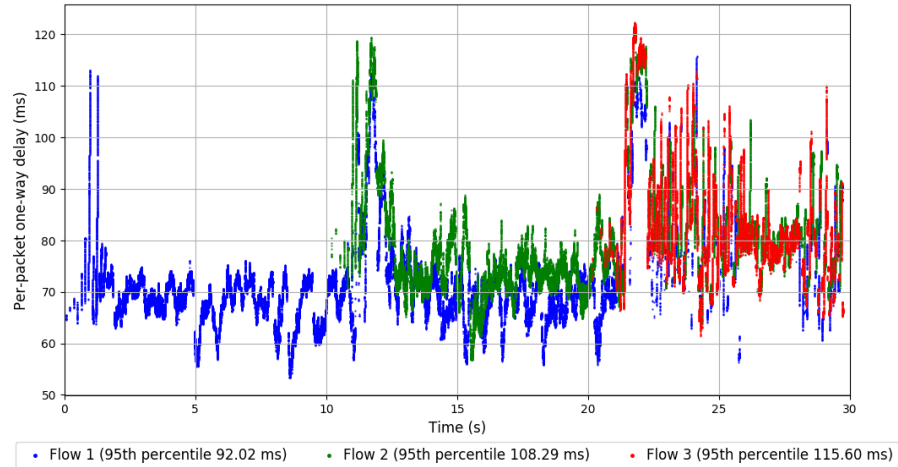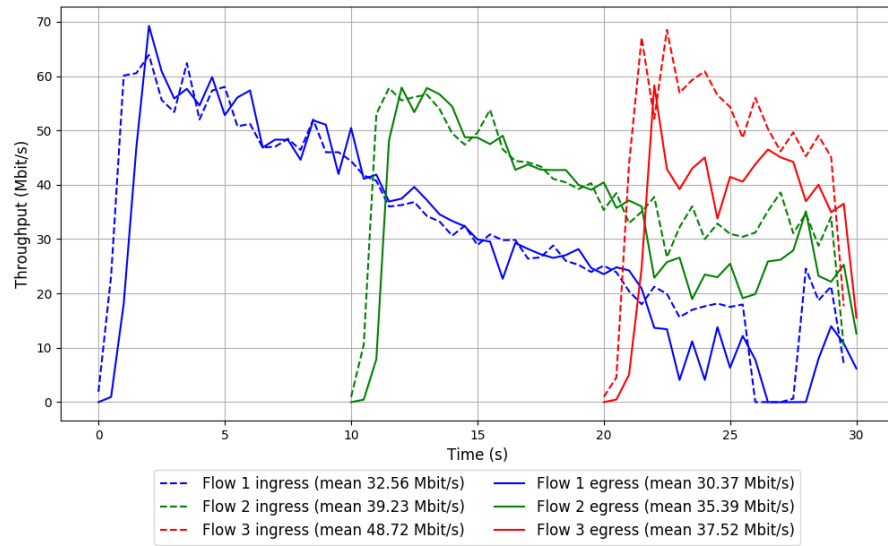
Run 3: Report of FillP — Data Link

40

```
Run 4: Statistics of FillP

Start at: 2018-10-02 11:19:14
End at: 2018-10-02 11:19:44
Local clock offset: -11.381 ms
Remote clock offset: 20.832 ms

# Below is generated by plot.py at 2018-10-02 12:12:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.42 Mbit/s
95th percentile per-packet one-way delay: 202.528 ms
Loss rate: 16.76%
-- Flow 1:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 202.368 ms
Loss rate: 10.83%
-- Flow 2:
Average throughput: 36.02 Mbit/s
95th percentile per-packet one-way delay: 203.665 ms
Loss rate: 20.09%
-- Flow 3:
Average throughput: 47.42 Mbit/s
95th percentile per-packet one-way delay: 199.610 ms
Loss rate: 28.54%
```
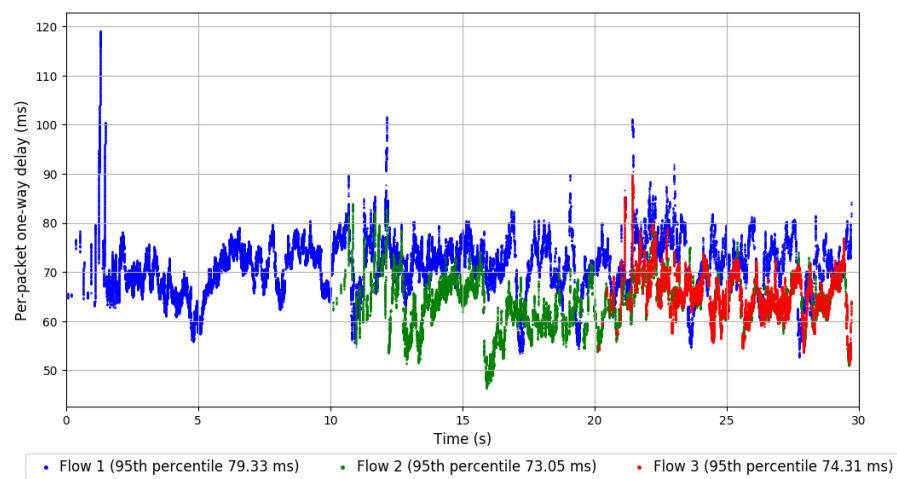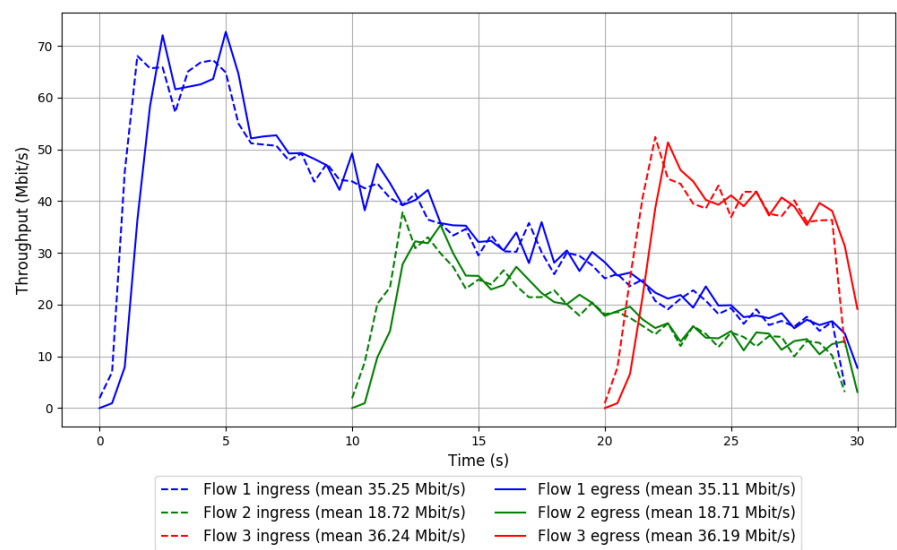
Run 4: Report of FillP — Data Link

42

```
Run 5: Statistics of FillP

Start at: 2018-10-02 11:47:08
End at: 2018-10-02 11:47:38
Local clock offset: -14.102 ms
Remote clock offset: 12.289 ms

# Below is generated by plot.py at 2018-10-02 12:12:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.12 Mbit/s
95th percentile per-packet one-way delay: 197.657 ms
Loss rate: 22.66%
-- Flow 1:
Average throughput: 22.40 Mbit/s
95th percentile per-packet one-way delay: 199.061 ms
Loss rate: 28.43%
-- Flow 2:
Average throughput: 48.29 Mbit/s
95th percentile per-packet one-way delay: 193.825 ms
Loss rate: 16.65%
-- Flow 3:
Average throughput: 53.58 Mbit/s
95th percentile per-packet one-way delay: 198.306 ms
Loss rate: 24.83%
```

Run 5: Report of FillP — Data Link

```
Run 1: Statistics of Indigo

Start at: 2018-10-02 10:09:24
End at: 2018-10-02 10:09:54
Local clock offset: 6.627 ms
Remote clock offset: 13.914 ms


# Below is generated by plot.py at 2018-10-02 12:12:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.64 Mbit/s
95th percentile per-packet one-way delay: 104.385 ms
Loss rate: 11.27%
-- Flow 1:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 92.020 ms
Loss rate: 6.76%
-- Flow 2:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 108.287 ms
Loss rate: 9.79%
-- Flow 3:
Average throughput: 37.52 Mbit/s
95th percentile per-packet one-way delay: 115.596 ms
Loss rate: 23.03%
```
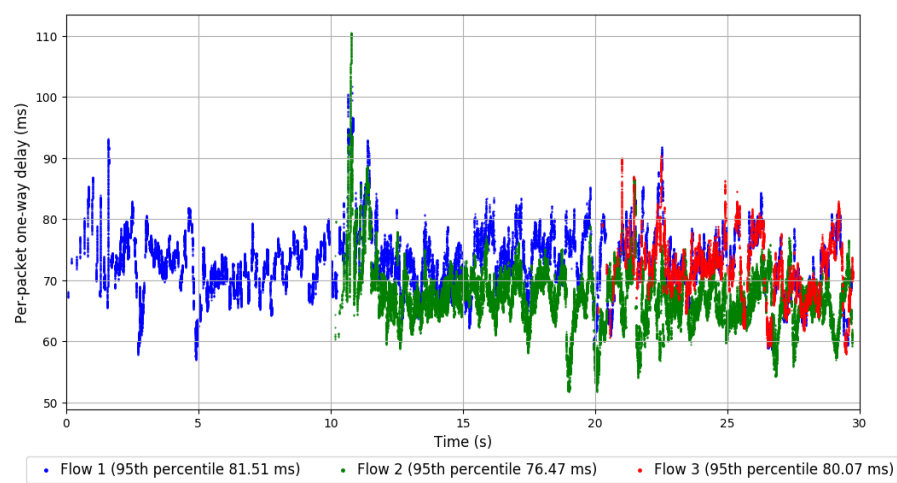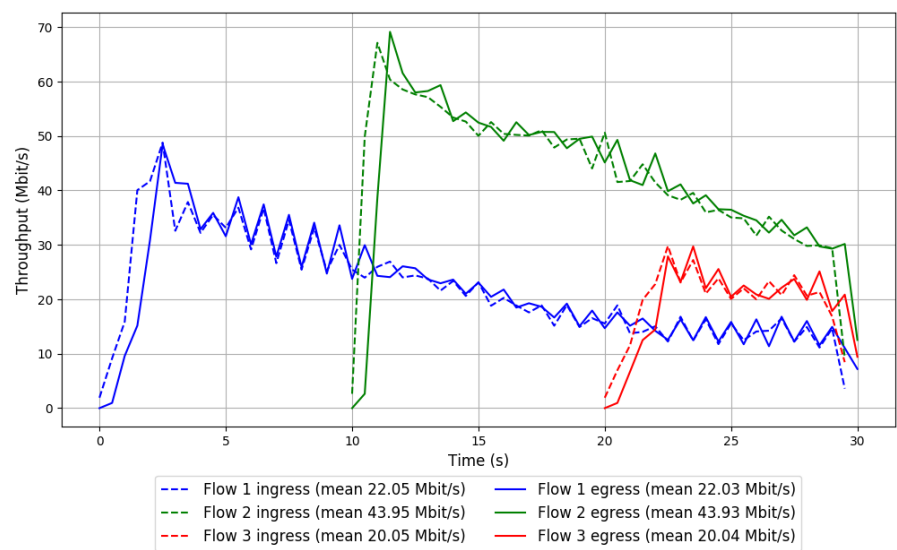
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-10-02 10:33:05
End at: 2018-10-02 10:33:35
Local clock offset: 11.301 ms
Remote clock offset: 27.574 ms


# Below is generated by plot.py at 2018-10-02 12:12:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 78.186 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 79.326 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 18.71 Mbit/s
95th percentile per-packet one-way delay: 73.054 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 36.19 Mbit/s
95th percentile per-packet one-way delay: 74.309 ms
Loss rate: 0.06%
```
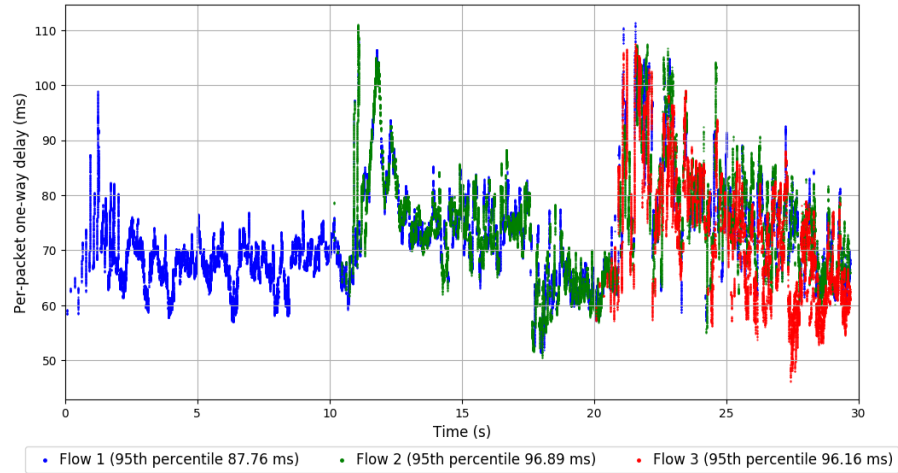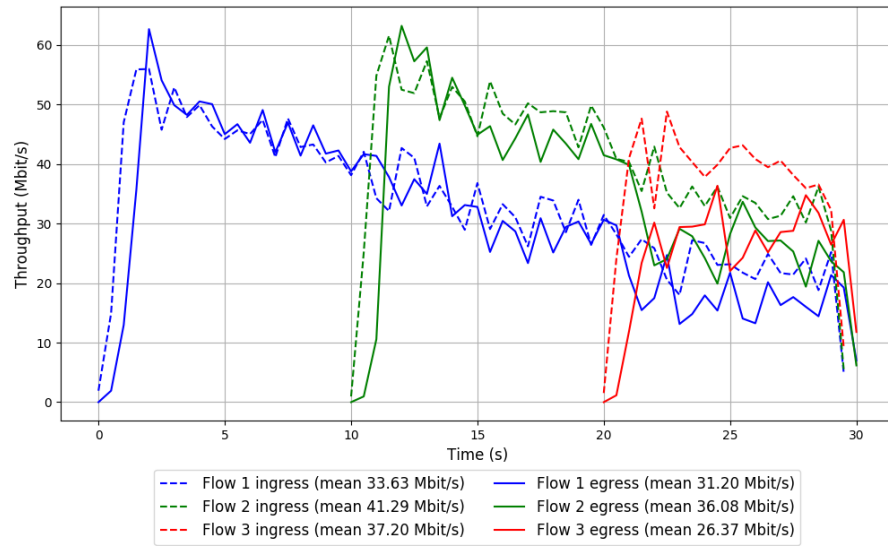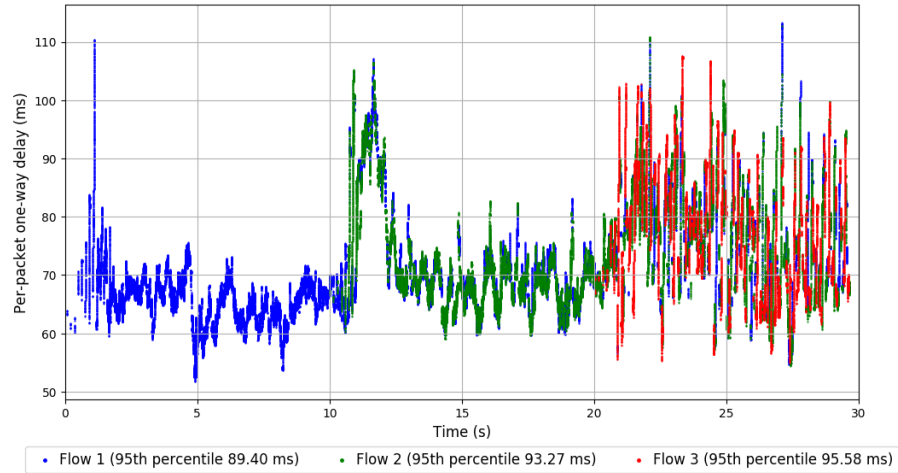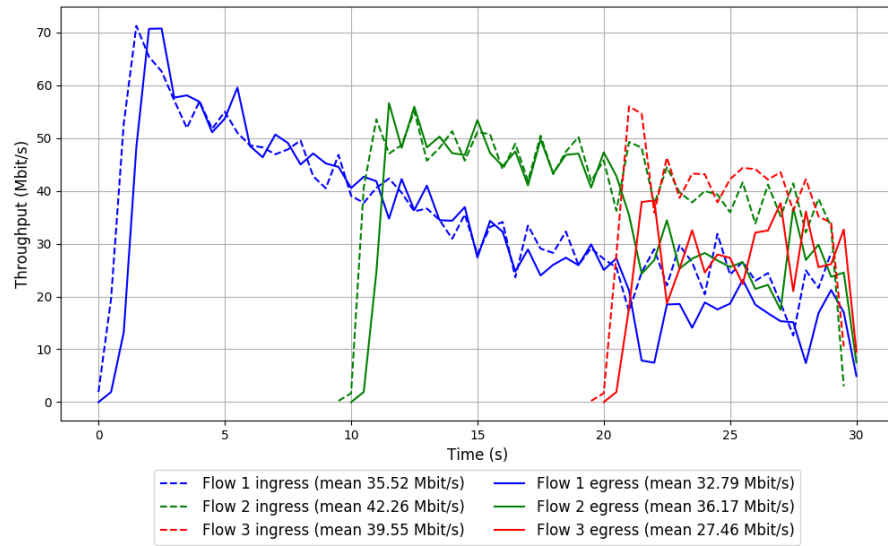
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-10-02 10:56:50
End at: 2018-10-02 10:57:20
Local clock offset: -2.838 ms
Remote clock offset: 29.004 ms


# Below is generated by plot.py at 2018-10-02 12:12:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.44 Mbit/s
95th percentile per-packet one-way delay: 80.015 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 22.03 Mbit/s
95th percentile per-packet one-way delay: 81.511 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 76.466 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 80.073 ms
Loss rate: 0.01%
```
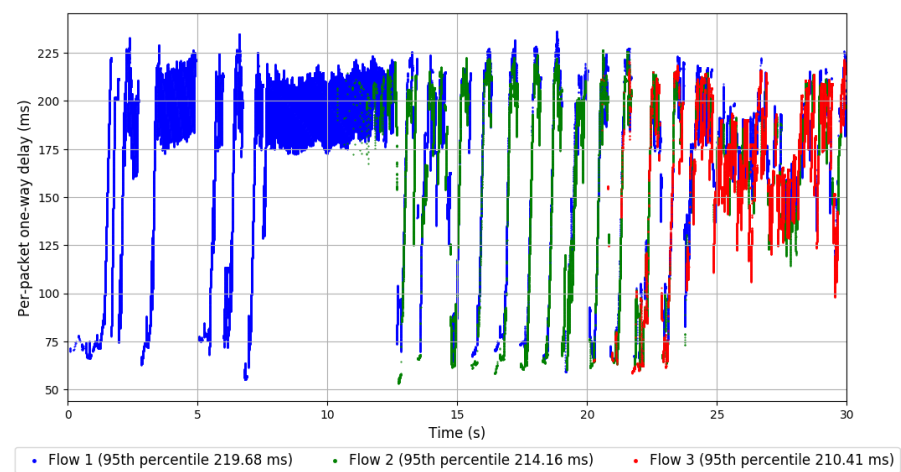
Run 3: Report of Indigo — Data Link

- - - - Flow 1 ingress (mean 22.05 Mbit/s) ——— Flow 1 egress (mean 22.03 Mbit/s)
- - - - Flow 2 ingress (mean 43.95 Mbit/s) ——— Flow 2 egress (mean 43.93 Mbit/s)
- - - - Flow 3 ingress (mean 20.05 Mbit/s) ——— Flow 3 egress (mean 20.04 Mbit/s)

- Flow 1 (95th percentile 81.51 ms)   - Flow 2 (95th percentile 76.47 ms)   - Flow 3 (95th percentile 80.07 ms)

```
Run 4: Statistics of Indigo

Start at: 2018-10-02 11:20:39
End at: 2018-10-02 11:21:09
Local clock offset: -11.49 ms
Remote clock offset: 17.56 ms


# Below is generated by plot.py at 2018-10-02 12:12:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.53 Mbit/s
95th percentile per-packet one-way delay: 92.884 ms
Loss rate: 12.85%
-- Flow 1:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 87.764 ms
Loss rate: 7.19%
-- Flow 2:
Average throughput: 36.08 Mbit/s
95th percentile per-packet one-way delay: 96.885 ms
Loss rate: 12.65%
-- Flow 3:
Average throughput: 26.37 Mbit/s
95th percentile per-packet one-way delay: 96.156 ms
Loss rate: 29.07%
```
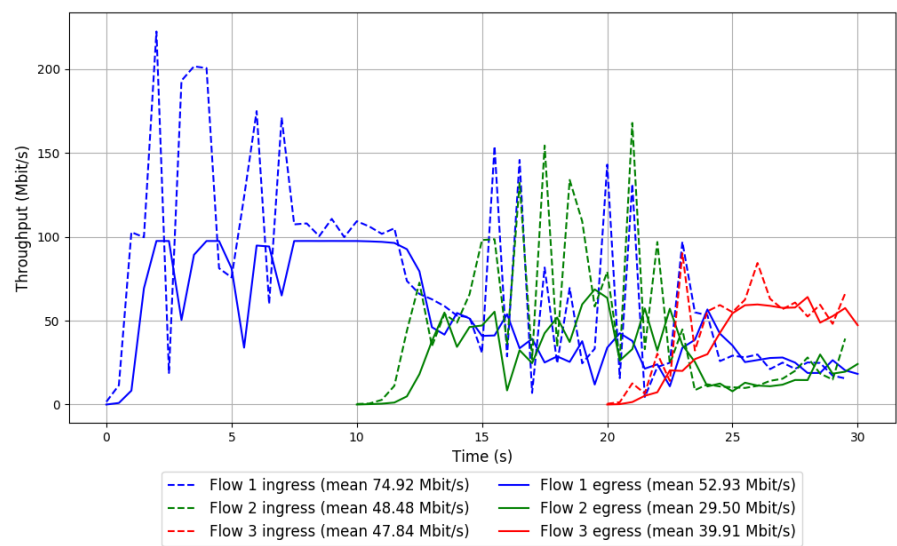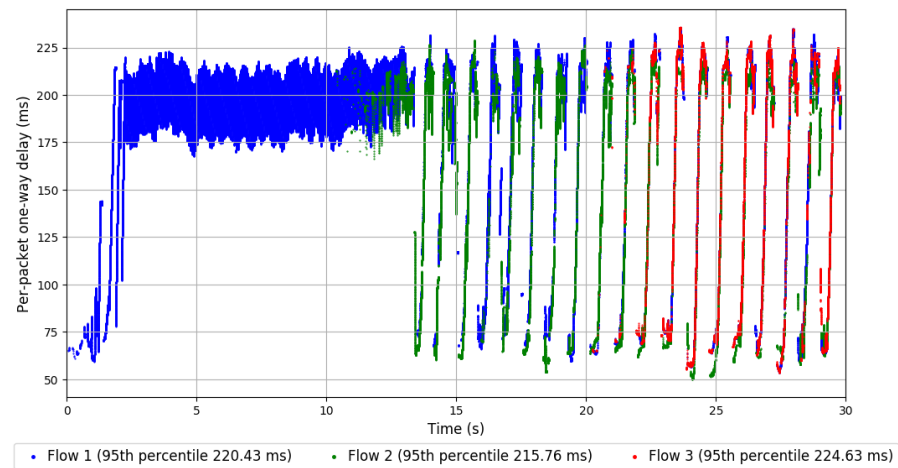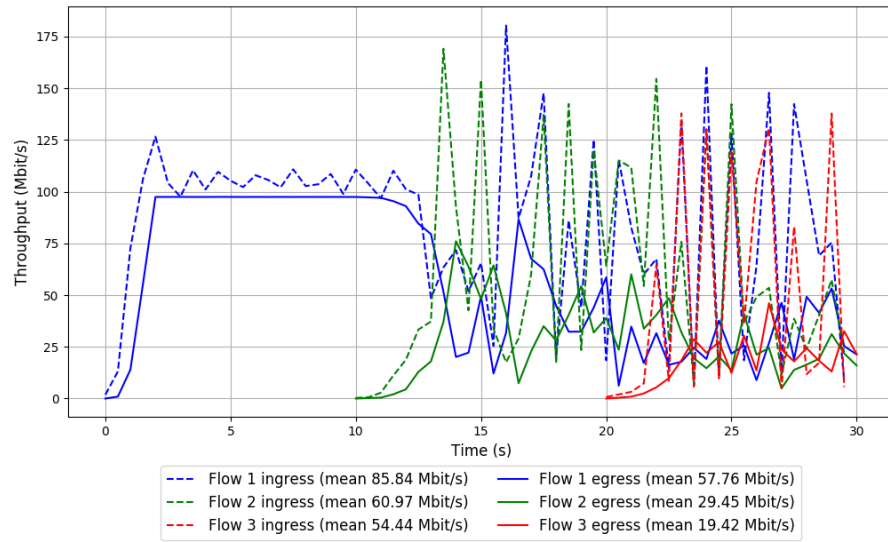
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-10-02 11:49:58
End at: 2018-10-02 11:50:28
Local clock offset: -12.991 ms
Remote clock offset: 7.449 ms


# Below is generated by plot.py at 2018-10-02 12:12:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.60 Mbit/s
95th percentile per-packet one-way delay: 92.680 ms
Loss rate: 14.02%
-- Flow 1:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 89.399 ms
Loss rate: 7.70%
-- Flow 2:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 93.270 ms
Loss rate: 14.42%
-- Flow 3:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 95.583 ms
Loss rate: 30.56%
```
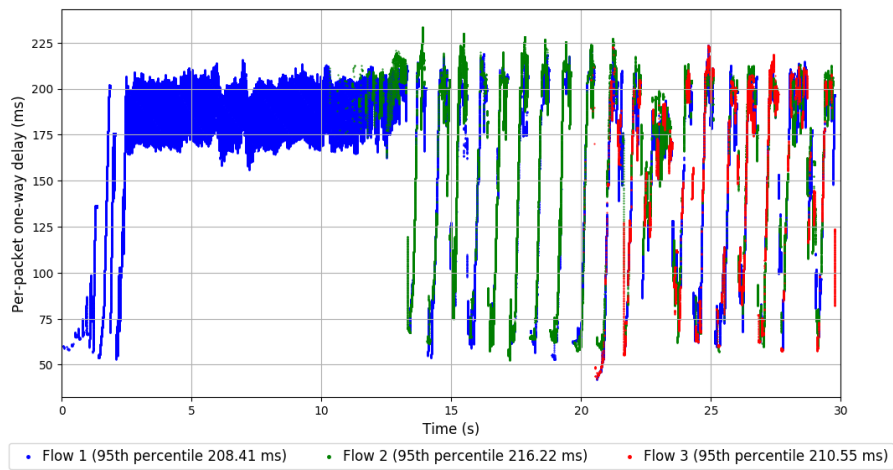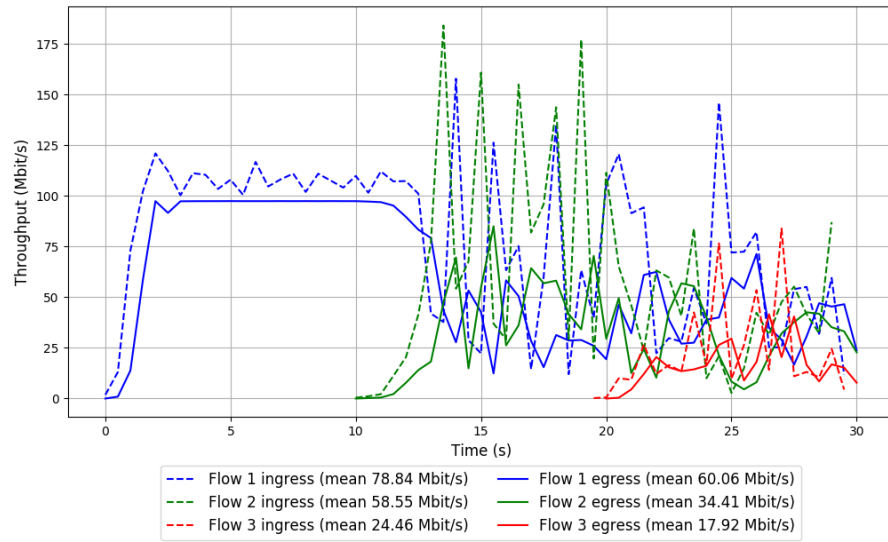
Run 5: Report of Indigo — Data Link

54

```
Run 1: Statistics of Indigo-96d2da3

Start at: 2018-10-02 10:26:19
End at: 2018-10-02 10:26:49
Local clock offset: 10.047 ms
Remote clock offset: 26.558 ms


# Below is generated by plot.py at 2018-10-02 12:12:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.15 Mbit/s
95th percentile per-packet one-way delay: 217.596 ms
Loss rate: 29.96%
-- Flow 1:
Average throughput: 52.93 Mbit/s
95th percentile per-packet one-way delay: 219.680 ms
Loss rate: 29.01%
-- Flow 2:
Average throughput: 29.50 Mbit/s
95th percentile per-packet one-way delay: 214.161 ms
Loss rate: 39.24%
-- Flow 3:
Average throughput: 39.91 Mbit/s
95th percentile per-packet one-way delay: 210.411 ms
Loss rate: 15.27%
```

Run 1: Report of Indigo-96d2da3 — Data Link

```
Run 2: Statistics of Indigo-96d2da3

Start at: 2018-10-02 10:49:58
End at: 2018-10-02 10:50:28
Local clock offset: 5.526 ms
Remote clock offset: 30.365 ms


# Below is generated by plot.py at 2018-10-02 12:13:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.18 Mbit/s
95th percentile per-packet one-way delay: 220.426 ms
Loss rate: 41.61%
-- Flow 1:
Average throughput: 57.76 Mbit/s
95th percentile per-packet one-way delay: 220.431 ms
Loss rate: 32.41%
-- Flow 2:
Average throughput: 29.45 Mbit/s
95th percentile per-packet one-way delay: 215.761 ms
Loss rate: 51.75%
-- Flow 3:
Average throughput: 19.42 Mbit/s
95th percentile per-packet one-way delay: 224.630 ms
Loss rate: 63.83%
```

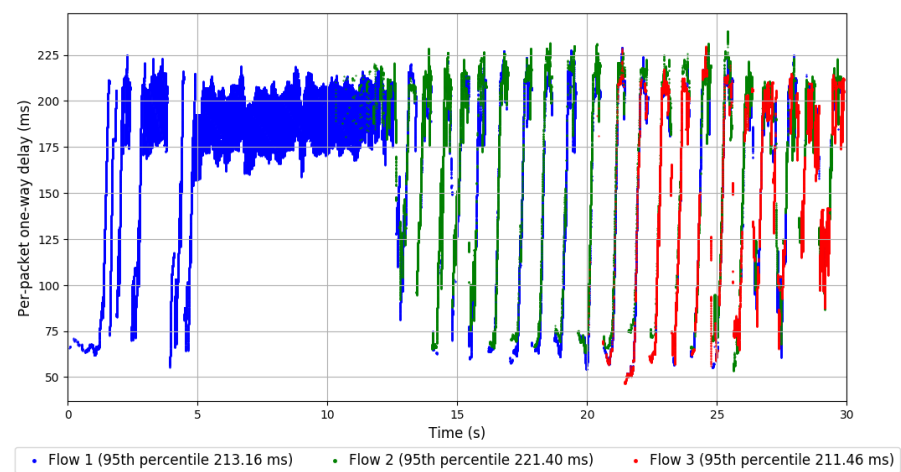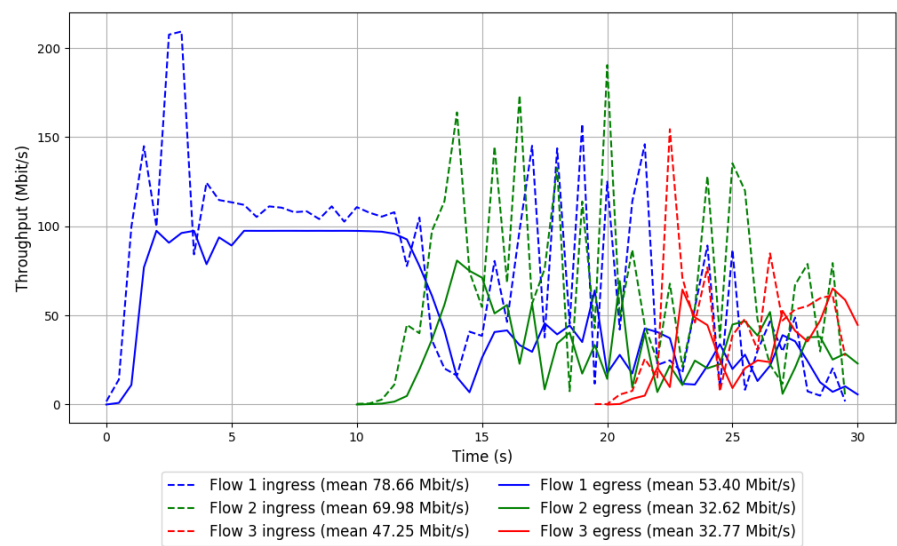# Run 2: Report of Indigo-96d2da3 — Data Link

58

```
Run 3: Statistics of Indigo-96d2da3

Start at: 2018-10-02 11:13:52
End at: 2018-10-02 11:14:22
Local clock offset: -10.967 ms
Remote clock offset: 26.545 ms


# Below is generated by plot.py at 2018-10-02 12:13:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.29 Mbit/s
95th percentile per-packet one-way delay: 210.480 ms
Loss rate: 29.15%
-- Flow 1:
Average throughput: 60.06 Mbit/s
95th percentile per-packet one-way delay: 208.412 ms
Loss rate: 23.47%
-- Flow 2:
Average throughput: 34.41 Mbit/s
95th percentile per-packet one-way delay: 216.219 ms
Loss rate: 41.26%
-- Flow 3:
Average throughput: 17.92 Mbit/s
95th percentile per-packet one-way delay: 210.551 ms
Loss rate: 26.98%
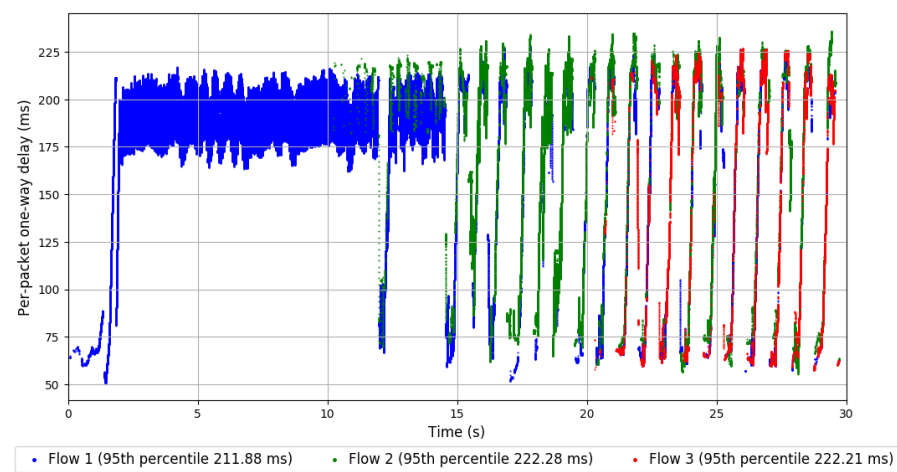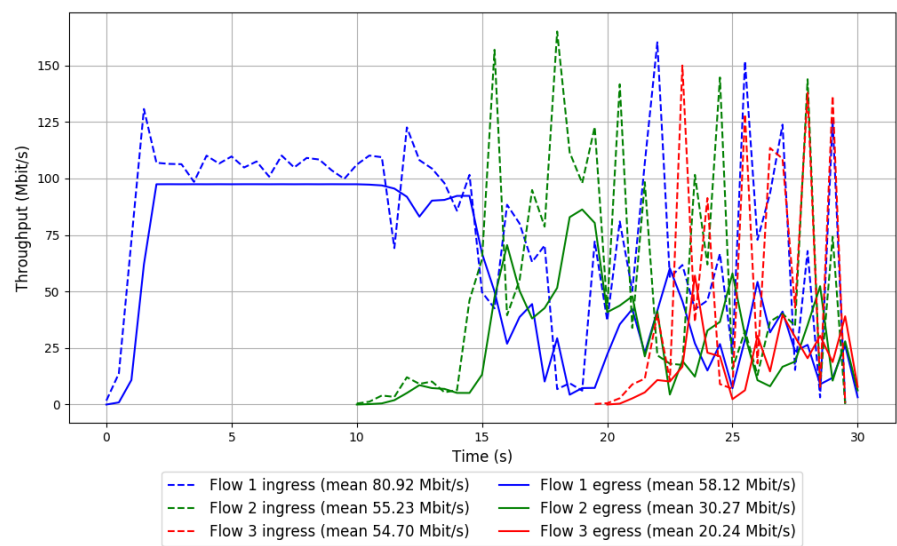```

Run 3: Report of Indigo-96d2da3 — Data Link



Flow 1 ingress (mean 78.84 Mbit/s) --- Flow 1 egress (mean 60.06 Mbit/s)
Flow 2 ingress (mean 58.55 Mbit/s) --- Flow 2 egress (mean 34.41 Mbit/s)
Flow 3 ingress (mean 24.46 Mbit/s) --- Flow 3 egress (mean 17.92 Mbit/s)



Flow 1 (95th percentile 208.41 ms)   Flow 2 (95th percentile 216.22 ms)   Flow 3 (95th percentile 210.55 ms)

```
Run 4: Statistics of Indigo-96d2da3

Start at: 2018-10-02 11:37:41
End at: 2018-10-02 11:38:11
Local clock offset: -13.468 ms
Remote clock offset: 12.208 ms

Below is generated by plot.py at 2018-10-02 12:13:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.27 Mbit/s
95th percentile per-packet one-way delay: 216.089 ms
Loss rate: 38.64%
-- Flow 1:
Average throughput: 53.40 Mbit/s
95th percentile per-packet one-way delay: 213.164 ms
Loss rate: 31.78%
-- Flow 2:
Average throughput: 32.62 Mbit/s
95th percentile per-packet one-way delay: 221.398 ms
Loss rate: 53.37%
-- Flow 3:
Average throughput: 32.77 Mbit/s
95th percentile per-packet one-way delay: 211.459 ms
Loss rate: 29.69%
```
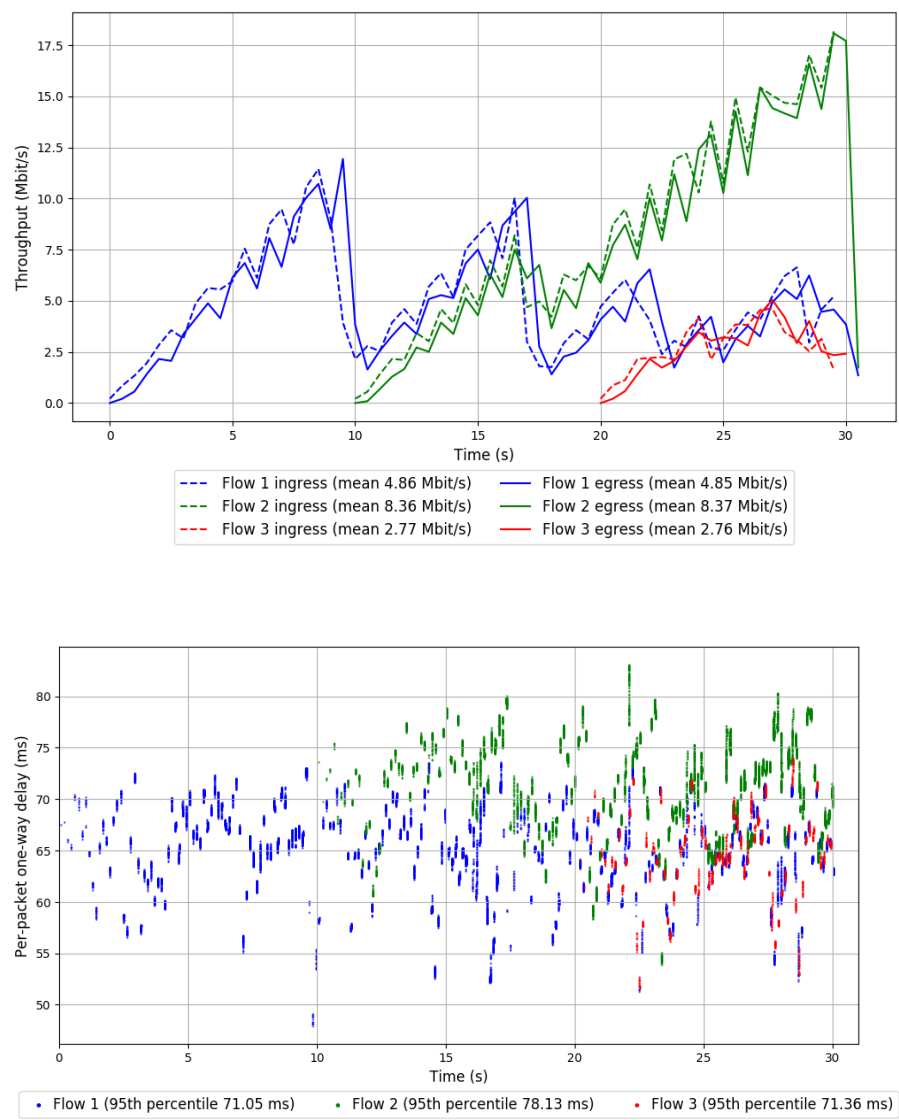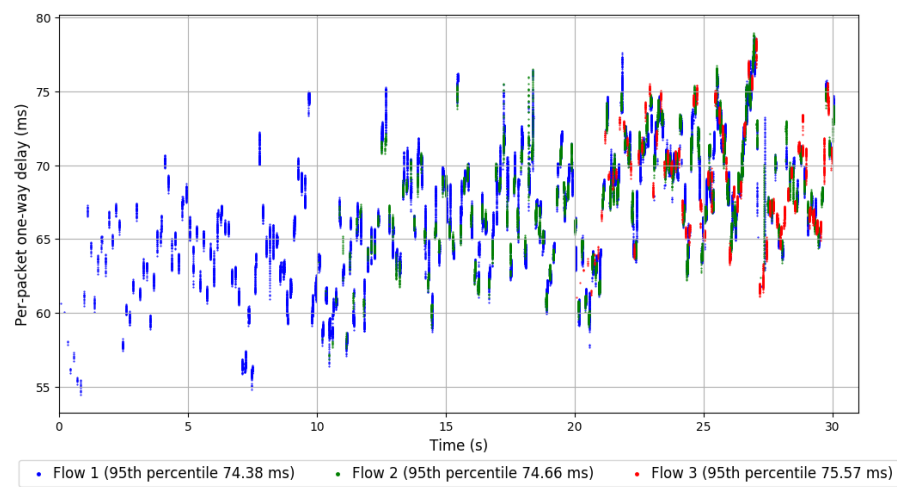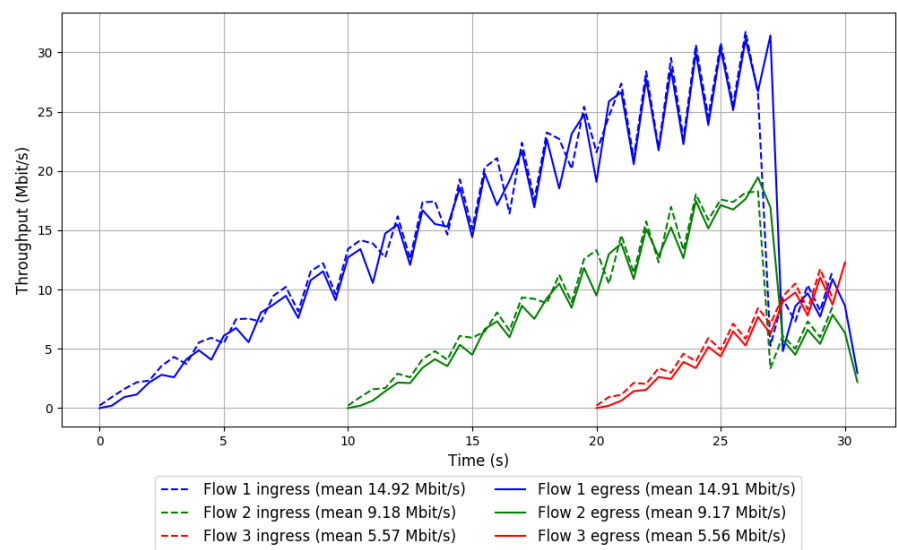
# Run 4: Report of Indigo-96d2da3 — Data Link



- Flow 1 ingress (mean 78.66 Mbit/s)
- Flow 1 egress (mean 53.40 Mbit/s)
- Flow 2 ingress (mean 69.98 Mbit/s)
- Flow 2 egress (mean 32.62 Mbit/s)
- Flow 3 ingress (mean 47.25 Mbit/s)
- Flow 3 egress (mean 32.77 Mbit/s)



- Flow 1 (95th percentile 213.16 ms)
- Flow 2 (95th percentile 221.40 ms)
- Flow 3 (95th percentile 211.46 ms)

```
Run 5: Statistics of Indigo-96d2da3

Start at: 2018-10-02 12:06:47
End at: 2018-10-02 12:07:17
Local clock offset: -11.045 ms
Remote clock offset: 1.843 ms

Below is generated by plot.py at 2018-10-02 12:13:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 84.53 Mbit/s
95th percentile per-packet one-way delay: 217.379 ms
Loss rate: 37.55%
-- Flow 1:
Average throughput: 58.12 Mbit/s
95th percentile per-packet one-way delay: 211.877 ms
Loss rate: 28.19%
-- Flow 2:
Average throughput: 30.27 Mbit/s
95th percentile per-packet one-way delay: 222.277 ms
Loss rate: 45.54%
-- Flow 3:
Average throughput: 20.24 Mbit/s
95th percentile per-packet one-way delay: 222.206 ms
Loss rate: 63.56%
```
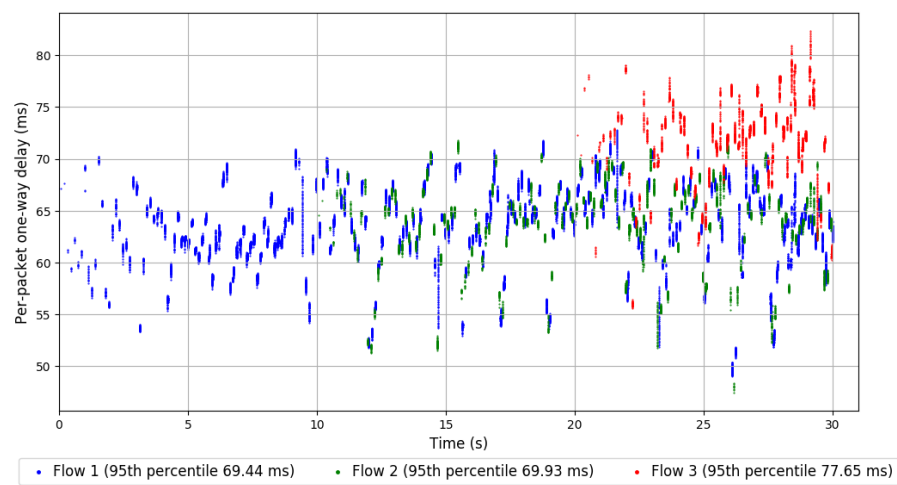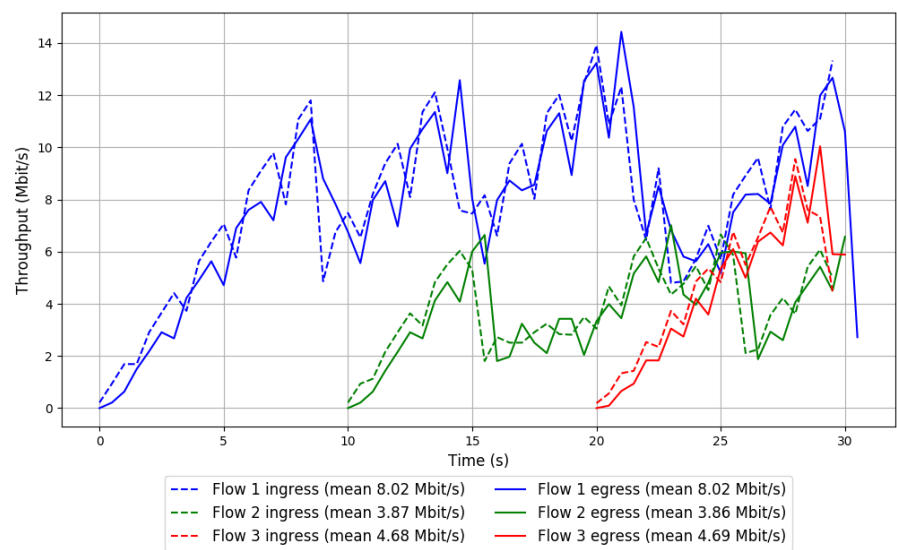
Run 5: Report of Indigo-96d2da3 — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-10-02 10:12:16
End at: 2018-10-02 10:12:46
Local clock offset: 7.495 ms
Remote clock offset: 18.311 ms

Below is generated by plot.py at 2018-10-02 12:13:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 76.889 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 71.049 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 78.126 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 2.76 Mbit/s
95th percentile per-packet one-way delay: 71.363 ms
Loss rate: 0.21%
```
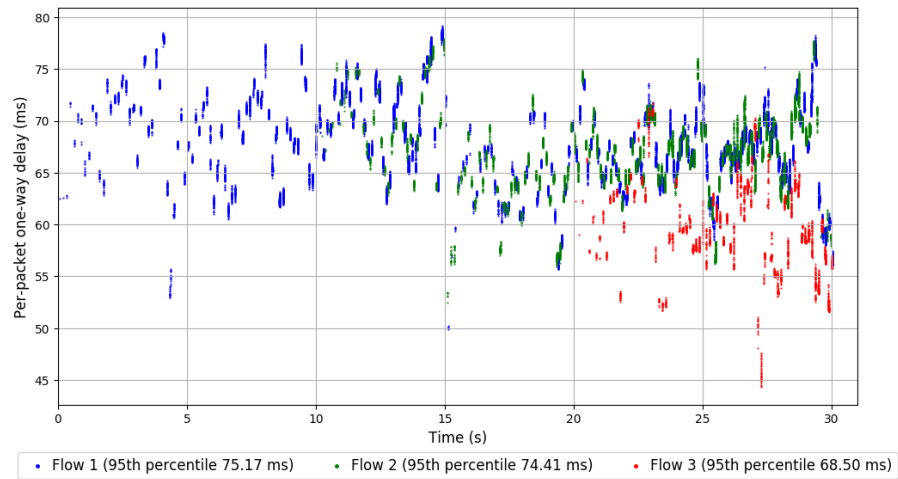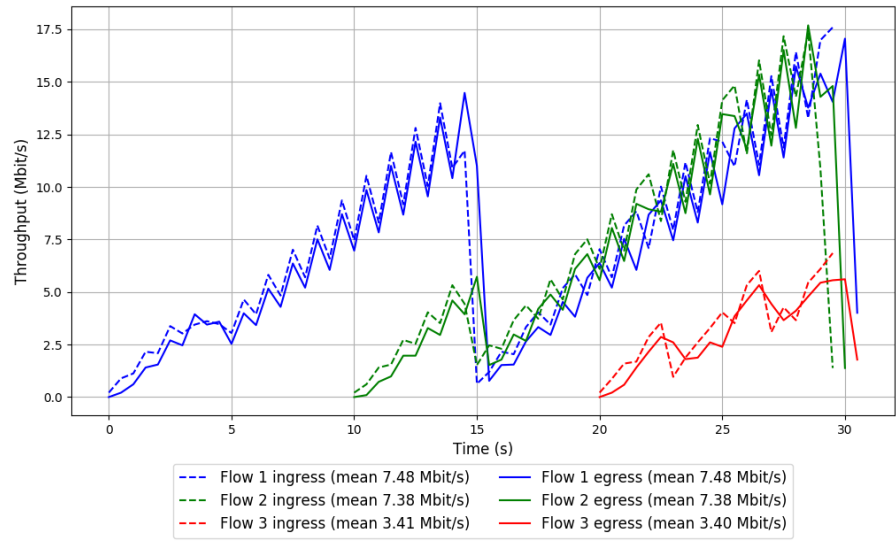
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-10-02 10:35:55
End at: 2018-10-02 10:36:25
Local clock offset: 11.812 ms
Remote clock offset: 27.066 ms

Below is generated by plot.py at 2018-10-02 12:13:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 74.589 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 14.91 Mbit/s
95th percentile per-packet one-way delay: 74.375 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 74.655 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.56 Mbit/s
95th percentile per-packet one-way delay: 75.572 ms
Loss rate: 0.00%
```
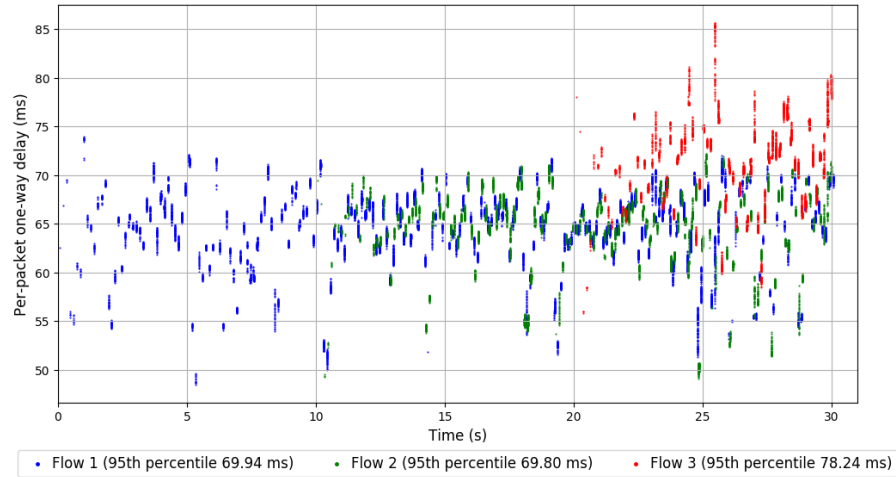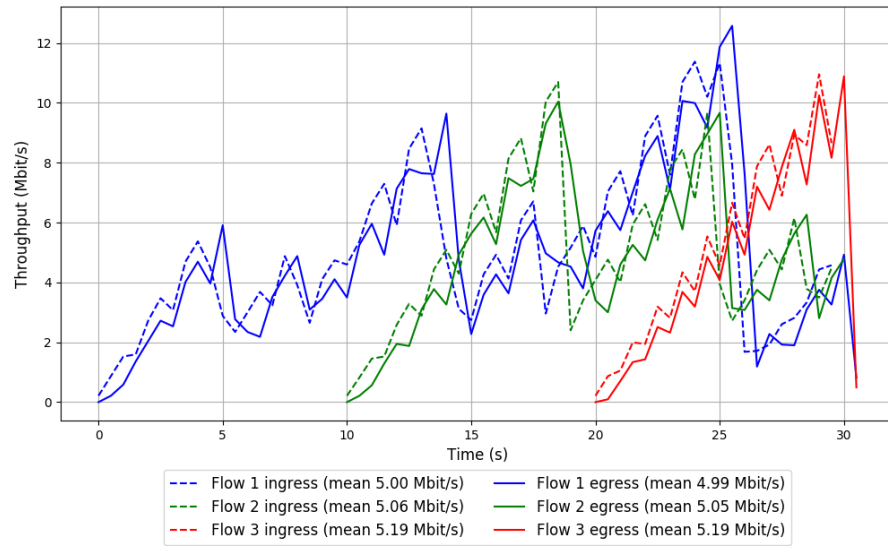
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-10-02 10:59:42
End at: 2018-10-02 11:00:12
Local clock offset: -4.813 ms
Remote clock offset: 28.508 ms

Below is generated by plot.py at 2018-10-02 12:13:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.13 Mbit/s
95th percentile per-packet one-way delay: 72.867 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 69.443 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 69.926 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 77.649 ms
Loss rate: 0.03%
```
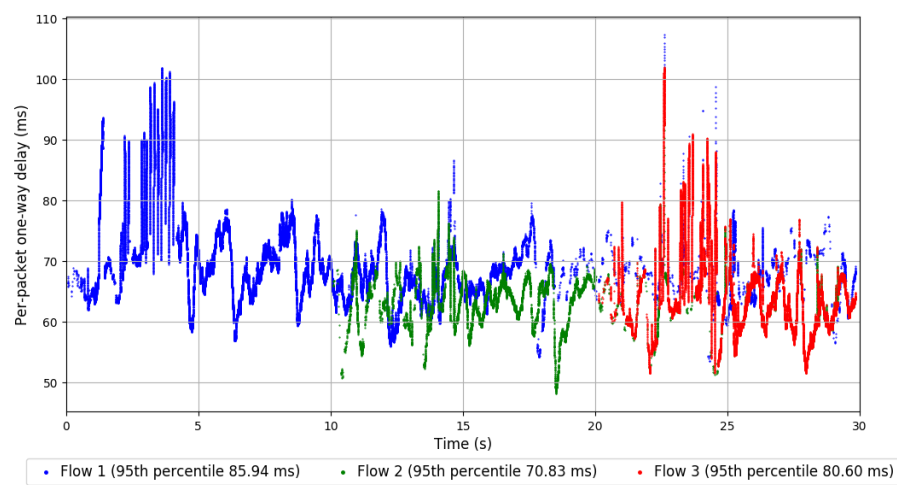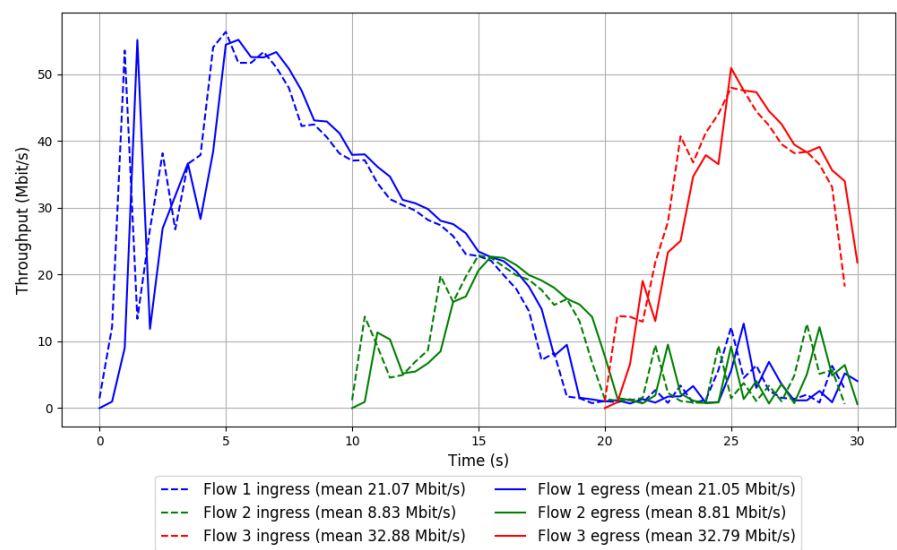
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-10-02 11:23:31
End at: 2018-10-02 11:24:01
Local clock offset: -11.722 ms
Remote clock offset: 15.142 ms

Below is generated by plot.py at 2018-10-02 12:13:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.50 Mbit/s
95th percentile per-packet one-way delay: 74.588 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 7.48 Mbit/s
95th percentile per-packet one-way delay: 75.165 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 74.412 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 68.503 ms
Loss rate: 0.21%
```
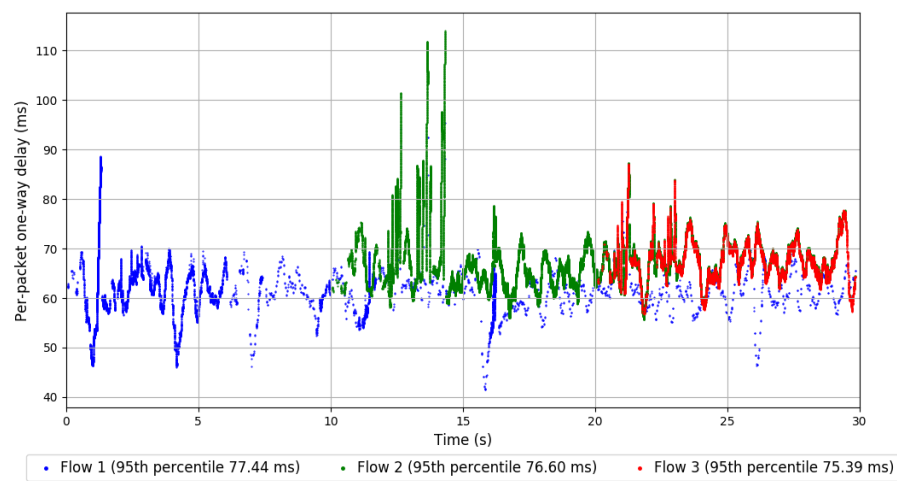
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-10-02 11:52:46
End at: 2018-10-02 11:53:16
Local clock offset: -12.243 ms
Remote clock offset: 5.744 ms

Below is generated by plot.py at 2018-10-02 12:13:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 73.476 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 69.943 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 69.801 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 5.19 Mbit/s
95th percentile per-packet one-way delay: 78.243 ms
Loss rate: 0.07%
```
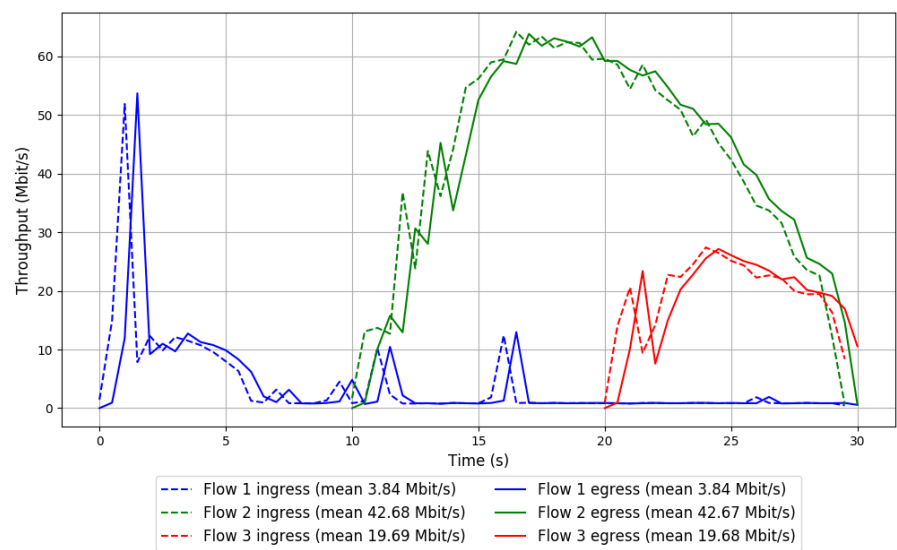
Run 5: Report of LEDBAT — Data Link



Flow 1 ingress (mean 5.00 Mbit/s)    Flow 1 egress (mean 4.99 Mbit/s)
Flow 2 ingress (mean 5.06 Mbit/s)    Flow 2 egress (mean 5.05 Mbit/s)
Flow 3 ingress (mean 5.19 Mbit/s)    Flow 3 egress (mean 5.19 Mbit/s)



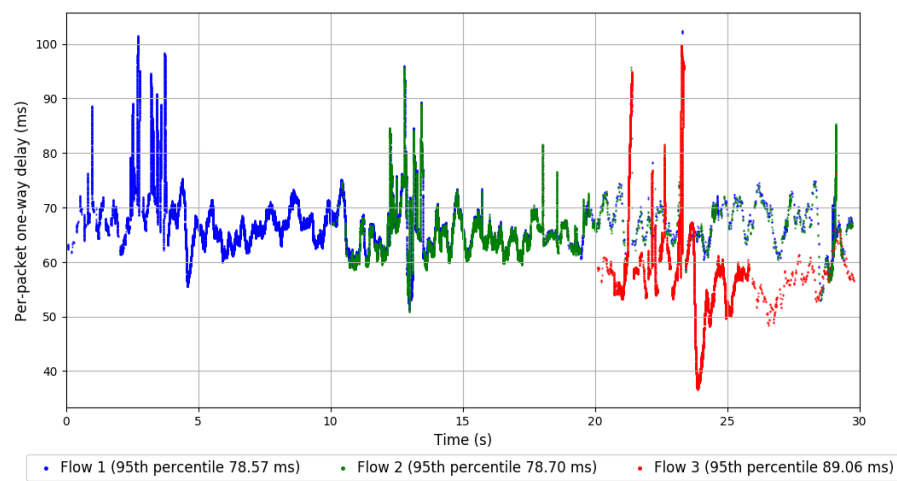Flow 1 (95th percentile 69.94 ms)    Flow 2 (95th percentile 69.80 ms)    Flow 3 (95th percentile 78.24 ms)

74

```
Run 1: Statistics of Indigo-Muses

Start at: 2018-10-02 10:13:31
End at: 2018-10-02 10:14:01
Local clock offset: 7.706 ms
Remote clock offset: 17.021 ms

Below is generated by plot.py at 2018-10-02 12:13:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 37.59 Mbit/s
95th percentile per-packet one-way delay: 82.017 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 21.05 Mbit/s
95th percentile per-packet one-way delay: 85.939 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 8.81 Mbit/s
95th percentile per-packet one-way delay: 70.834 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 32.79 Mbit/s
95th percentile per-packet one-way delay: 80.600 ms
Loss rate: 0.29%
```
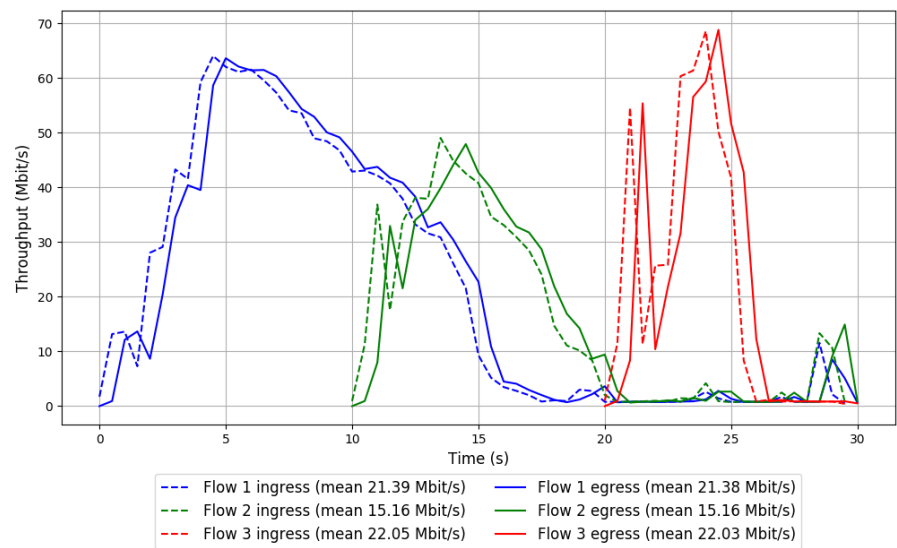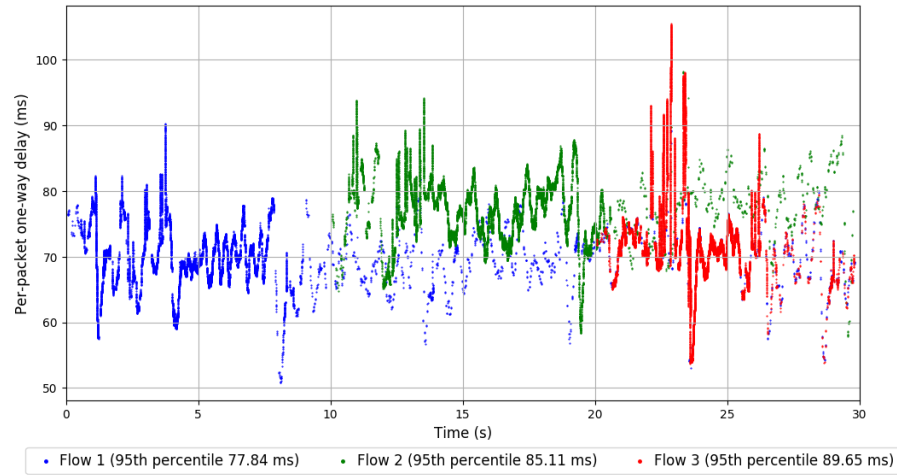
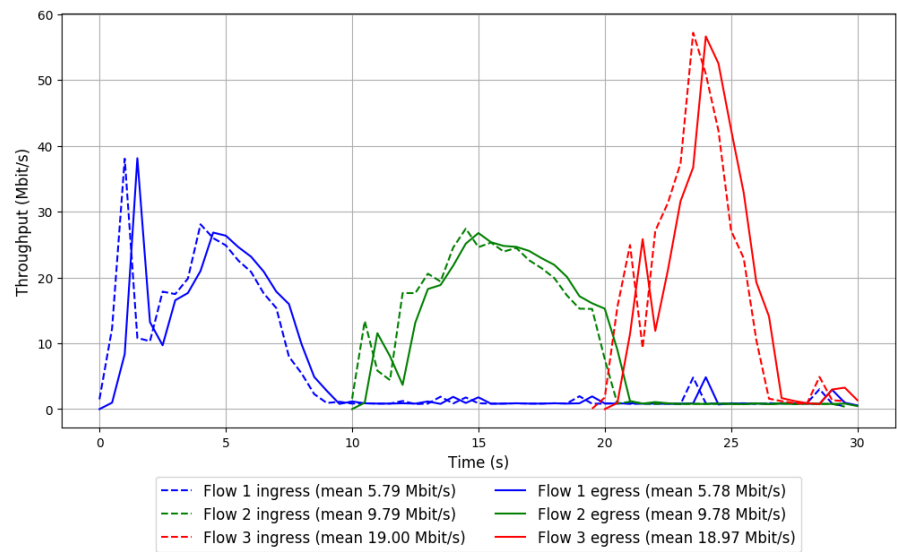Run 1: Report of Indigo-Muses — Data Link

```
Run 2: Statistics of Indigo-Muses

Start at: 2018-10-02 10:37:13
End at: 2018-10-02 10:37:43
Local clock offset: 12.019 ms
Remote clock offset: 27.176 ms


# Below is generated by plot.py at 2018-10-02 12:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.60 Mbit/s
95th percentile per-packet one-way delay: 76.272 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 3.84 Mbit/s
95th percentile per-packet one-way delay: 77.441 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 42.67 Mbit/s
95th percentile per-packet one-way delay: 76.601 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.68 Mbit/s
95th percentile per-packet one-way delay: 75.387 ms
Loss rate: 0.01%
```

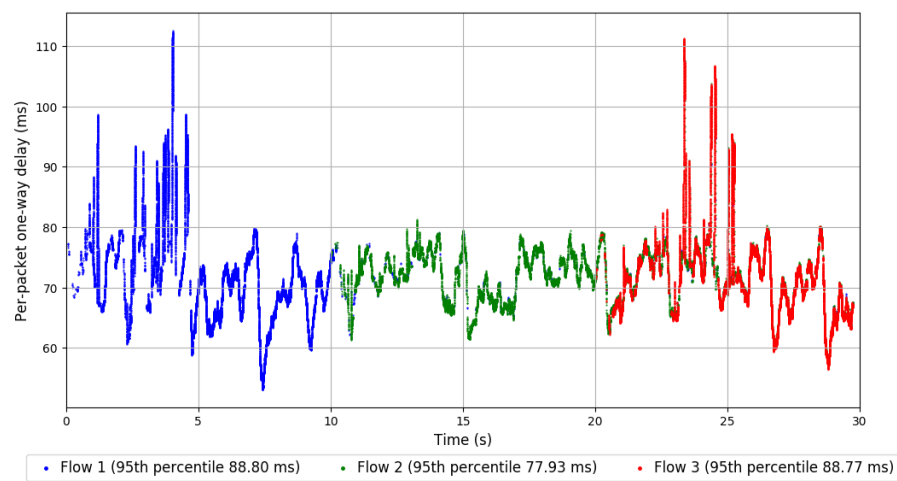Run 2: Report of Indigo-Muses — Data Link

```
Run 3: Statistics of Indigo-Muses

Start at: 2018-10-02 11:00:58
End at: 2018-10-02 11:01:28
Local clock offset: -5.62 ms
Remote clock offset: 24.377 ms


# Below is generated by plot.py at 2018-10-02 12:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.51 Mbit/s
95th percentile per-packet one-way delay: 79.874 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 21.38 Mbit/s
95th percentile per-packet one-way delay: 78.570 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 15.16 Mbit/s
95th percentile per-packet one-way delay: 78.698 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 22.03 Mbit/s
95th percentile per-packet one-way delay: 89.057 ms
Loss rate: 0.11%
```

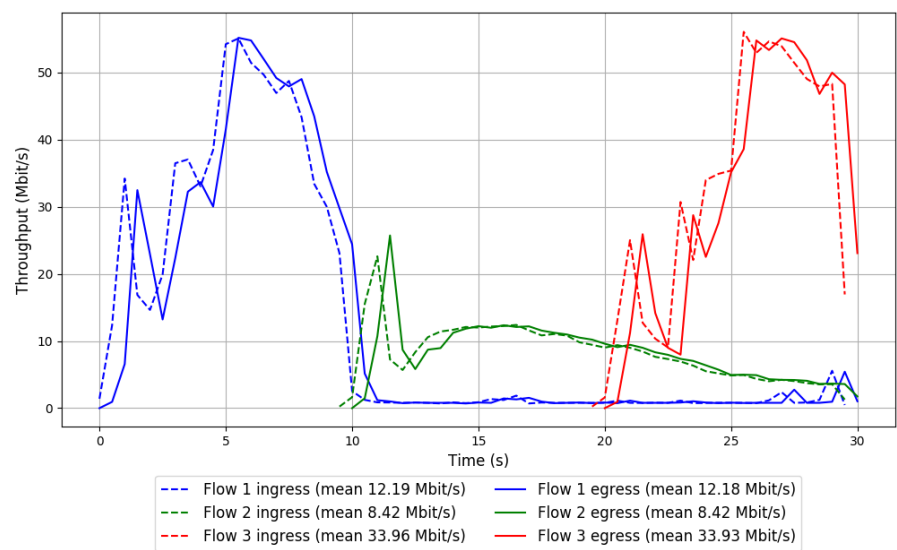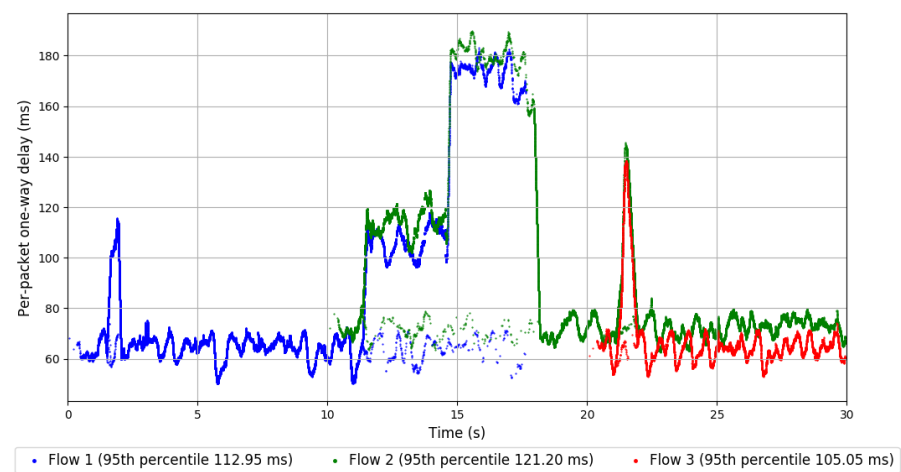Run 3: Report of Indigo-Muses — Data Link

```
Run 4: Statistics of Indigo-Muses

Start at: 2018-10-02 11:24:47
End at: 2018-10-02 11:25:17
Local clock offset: -11.638 ms
Remote clock offset: 24.38 ms

# Below is generated by plot.py at 2018-10-02 12:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.47 Mbit/s
95th percentile per-packet one-way delay: 84.715 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 5.78 Mbit/s
95th percentile per-packet one-way delay: 77.842 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 85.112 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 18.97 Mbit/s
95th percentile per-packet one-way delay: 89.651 ms
Loss rate: 0.18%
```
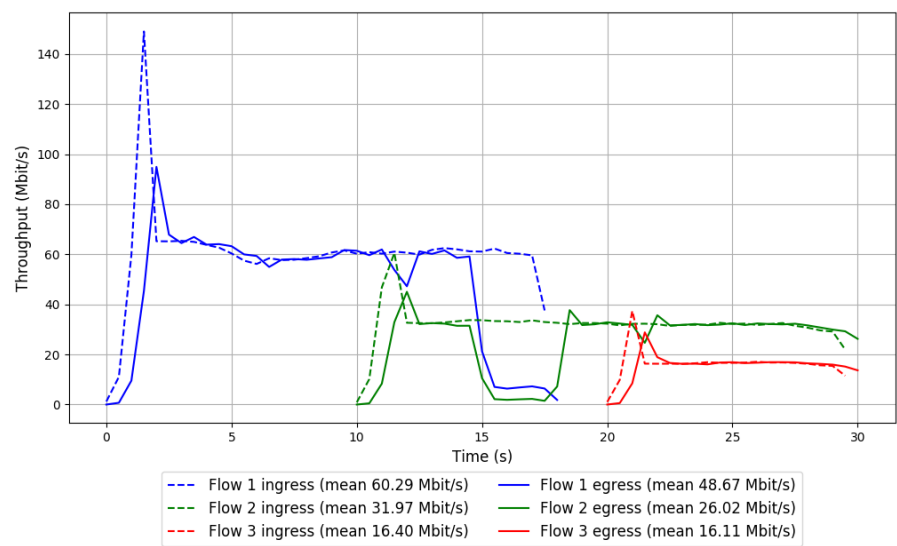
Run 4: Report of Indigo-Muses — Data Link

```
Run 5: Statistics of Indigo-Muses

Start at: 2018-10-02 11:54:03
End at: 2018-10-02 11:54:33
Local clock offset: -11.765 ms
Remote clock offset: 5.923 ms


# Below is generated by plot.py at 2018-10-02 12:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.90 Mbit/s
95th percentile per-packet one-way delay: 86.895 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 12.18 Mbit/s
95th percentile per-packet one-way delay: 88.803 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 77.934 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.93 Mbit/s
95th percentile per-packet one-way delay: 88.773 ms
Loss rate: 0.13%
```
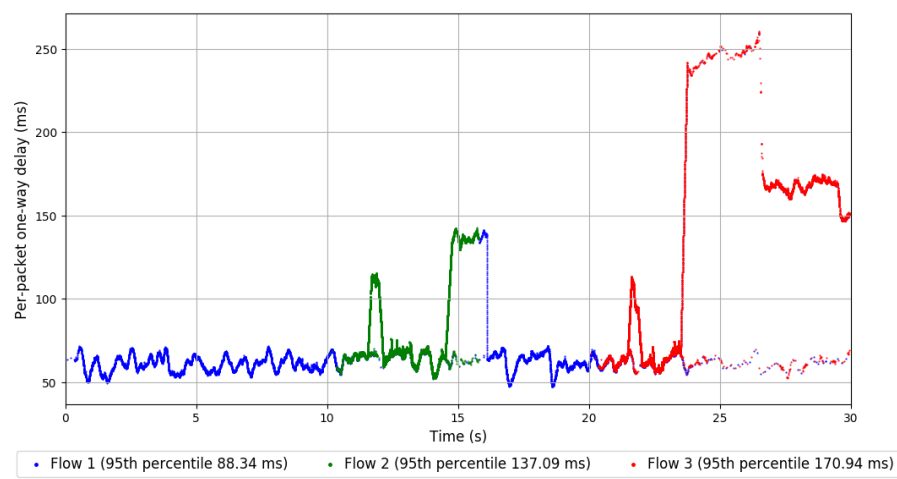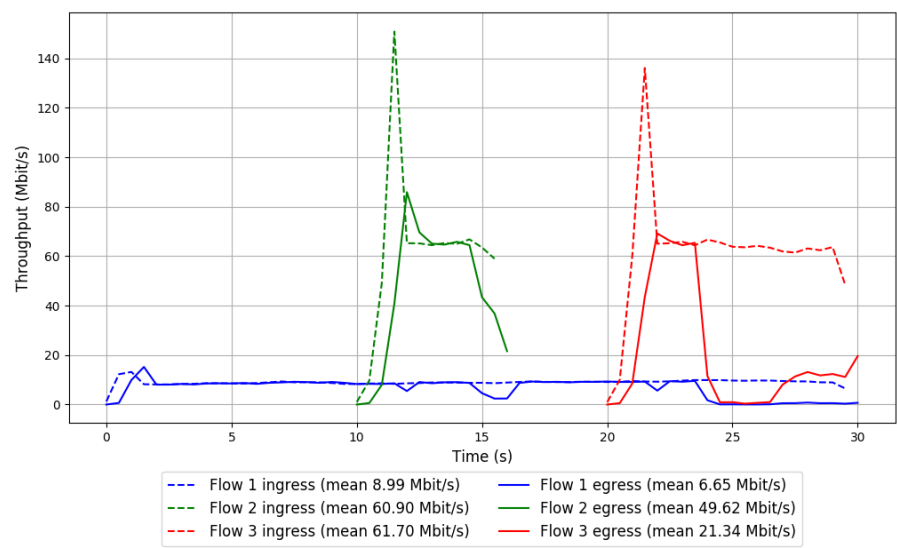
Run 5: Report of Indigo-Muses — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-10-02 10:22:26
End at: 2018-10-02 10:22:56
Local clock offset: 9.482 ms
Remote clock offset: 25.566 ms


# Below is generated by plot.py at 2018-10-02 12:13:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.22 Mbit/s
95th percentile per-packet one-way delay: 116.881 ms
Loss rate: 18.19%
-- Flow 1:
Average throughput: 48.67 Mbit/s
95th percentile per-packet one-way delay: 112.953 ms
Loss rate: 20.40%
-- Flow 2:
Average throughput: 26.02 Mbit/s
95th percentile per-packet one-way delay: 121.204 ms
Loss rate: 18.62%
-- Flow 3:
Average throughput: 16.11 Mbit/s
95th percentile per-packet one-way delay: 105.049 ms
Loss rate: 1.82%
```

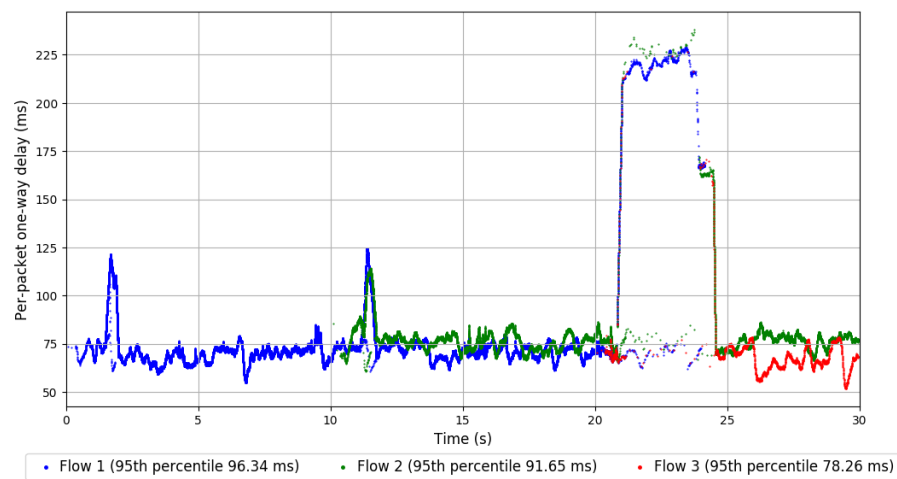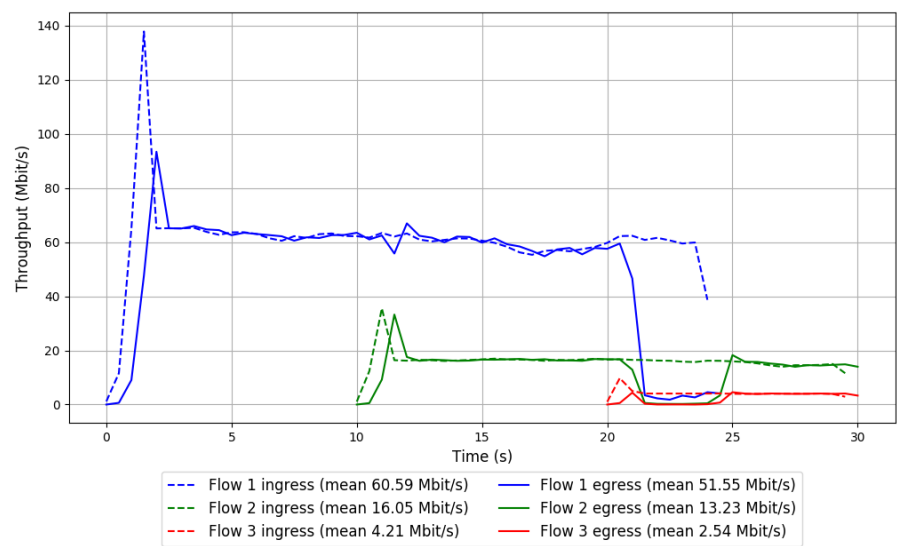Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-10-02 10:46:11
End at: 2018-10-02 10:46:41
Local clock offset: 12.794 ms
Remote clock offset: 29.286 ms


# Below is generated by plot.py at 2018-10-02 12:13:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.17 Mbit/s
95th percentile per-packet one-way delay: 164.336 ms
Loss rate: 44.14%
-- Flow 1:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 88.345 ms
Loss rate: 26.03%
-- Flow 2:
Average throughput: 49.62 Mbit/s
95th percentile per-packet one-way delay: 137.085 ms
Loss rate: 21.87%
-- Flow 3:
Average throughput: 21.34 Mbit/s
95th percentile per-packet one-way delay: 170.942 ms
Loss rate: 65.41%
```

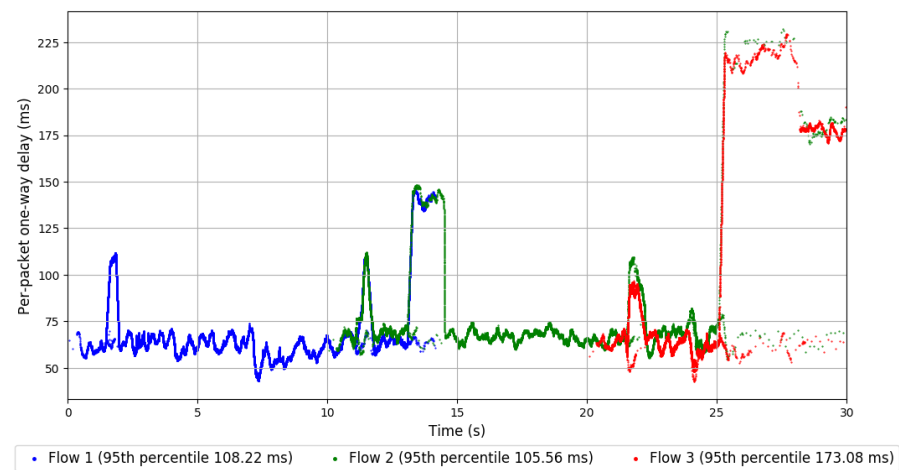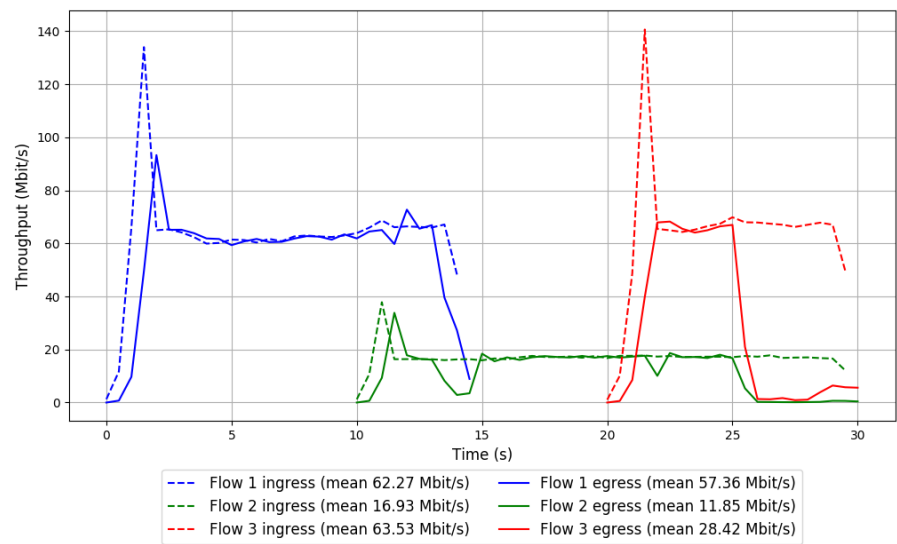Run 2: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 8.99 Mbit/s) —— Flow 1 egress (mean 6.65 Mbit/s)
- - - Flow 2 ingress (mean 60.90 Mbit/s) —— Flow 2 egress (mean 49.62 Mbit/s)
- - - Flow 3 ingress (mean 61.70 Mbit/s) —— Flow 3 egress (mean 21.34 Mbit/s)

• Flow 1 (95th percentile 88.34 ms)   • Flow 2 (95th percentile 137.09 ms)   • Flow 3 (95th percentile 170.94 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-10-02 11:09:59
End at: 2018-10-02 11:10:29
Local clock offset: -9.637 ms
Remote clock offset: 36.119 ms


# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.16 Mbit/s
95th percentile per-packet one-way delay: 95.129 ms
Loss rate: 16.64%
-- Flow 1:
Average throughput: 51.55 Mbit/s
95th percentile per-packet one-way delay: 96.336 ms
Loss rate: 15.79%
-- Flow 2:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 91.652 ms
Loss rate: 17.57%
-- Flow 3:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 78.256 ms
Loss rate: 39.61%
```
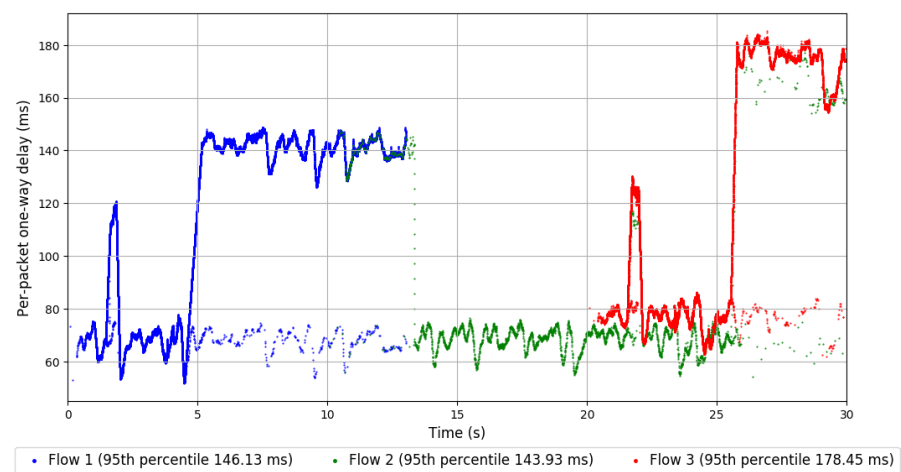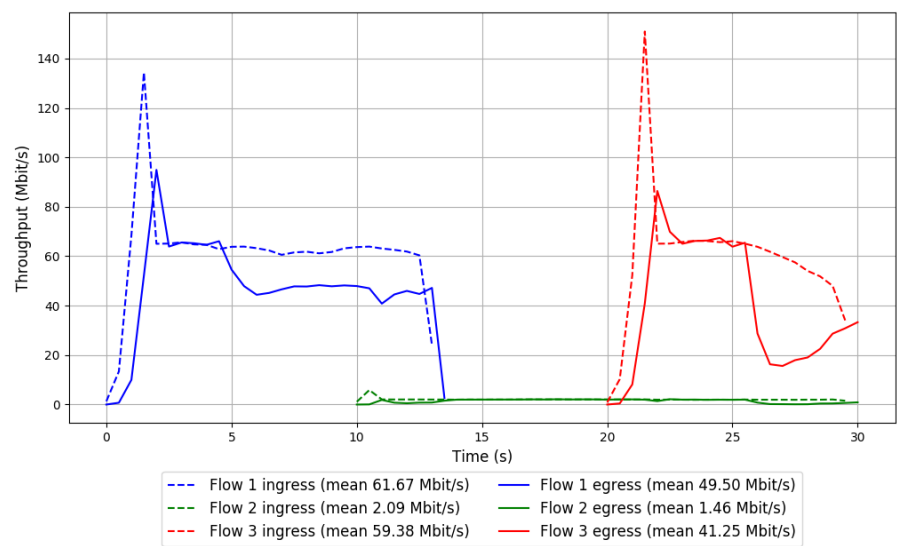
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-10-02 11:33:45
End at: 2018-10-02 11:34:15
Local clock offset: -12.875 ms
Remote clock offset: 10.703 ms


# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.33 Mbit/s
95th percentile per-packet one-way delay: 108.369 ms
Loss rate: 28.61%
-- Flow 1:
Average throughput: 57.36 Mbit/s
95th percentile per-packet one-way delay: 108.225 ms
Loss rate: 9.50%
-- Flow 2:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 105.560 ms
Loss rate: 29.99%
-- Flow 3:
Average throughput: 28.42 Mbit/s
95th percentile per-packet one-way delay: 173.081 ms
Loss rate: 55.13%
```

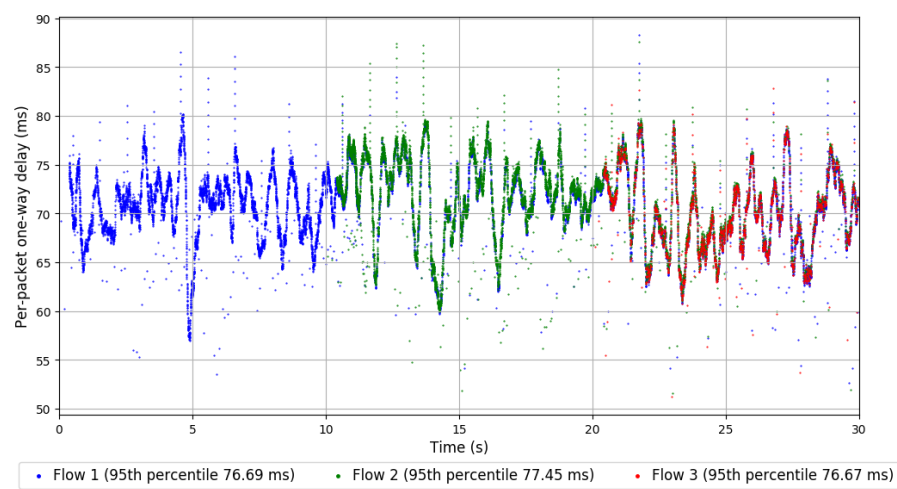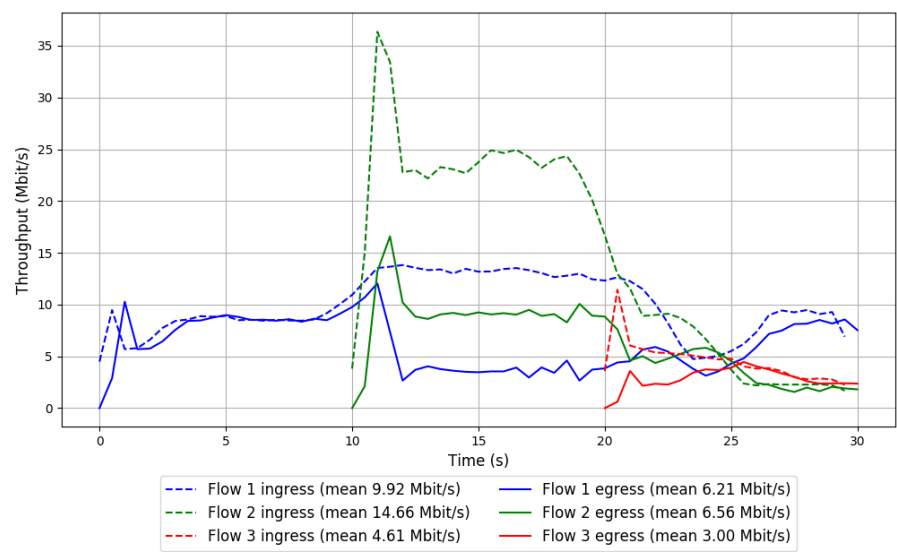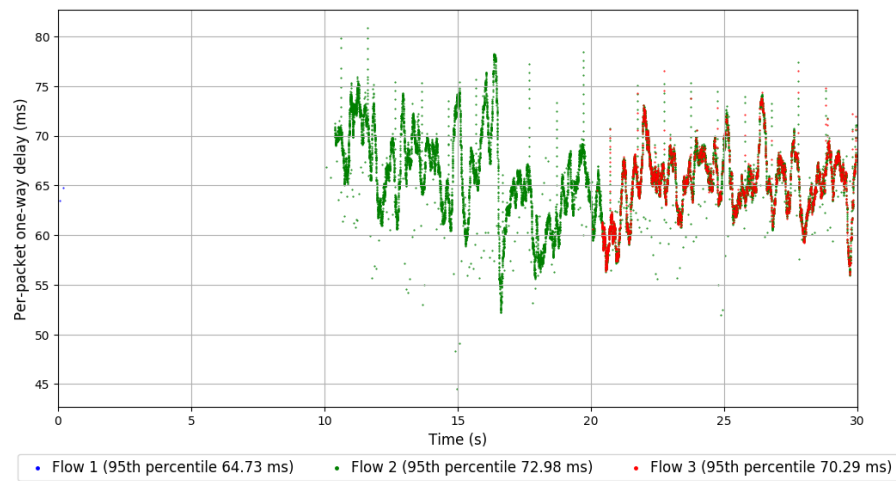Run 4: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 62.27 Mbit/s) —— Flow 1 egress (mean 57.36 Mbit/s)
- - - Flow 2 ingress (mean 16.93 Mbit/s) —— Flow 2 egress (mean 11.85 Mbit/s)
- - - Flow 3 ingress (mean 63.53 Mbit/s) —— Flow 3 egress (mean 28.42 Mbit/s)

• Flow 1 (95th percentile 108.22 ms)   • Flow 2 (95th percentile 105.56 ms)   • Flow 3 (95th percentile 173.08 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-10-02 12:03:00
End at: 2018-10-02 12:03:30
Local clock offset: -11.045 ms
Remote clock offset: 8.3 ms


# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.04 Mbit/s
95th percentile per-packet one-way delay: 174.541 ms
Loss rate: 25.27%
-- Flow 1:
Average throughput: 49.50 Mbit/s
95th percentile per-packet one-way delay: 146.134 ms
Loss rate: 21.24%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 143.929 ms
Loss rate: 30.10%
-- Flow 3:
Average throughput: 41.25 Mbit/s
95th percentile per-packet one-way delay: 178.449 ms
Loss rate: 30.53%
```

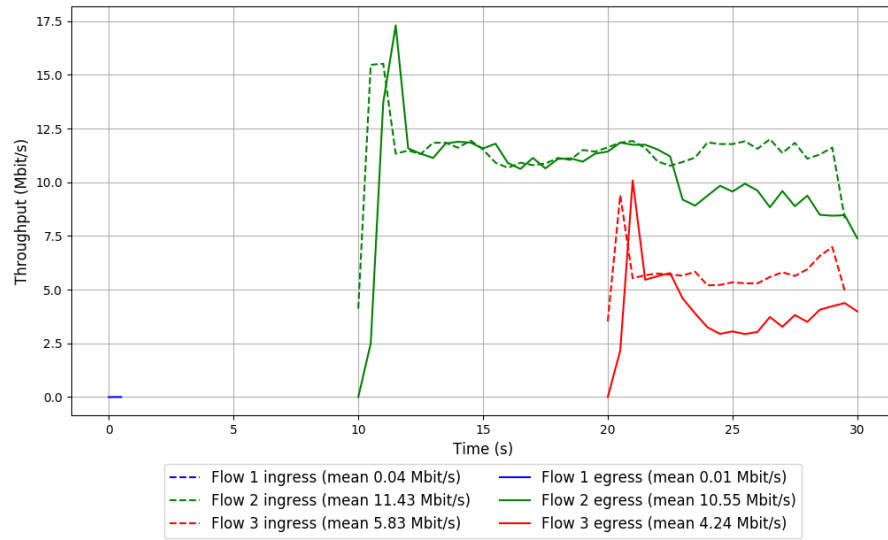Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 61.67 Mbit/s)   Flow 1 egress (mean 49.50 Mbit/s)
Flow 2 ingress (mean 2.09 Mbit/s)   Flow 2 egress (mean 1.46 Mbit/s)
Flow 3 ingress (mean 59.38 Mbit/s)   Flow 3 egress (mean 41.25 Mbit/s)

Flow 1 (95th percentile 146.13 ms)   Flow 2 (95th percentile 143.93 ms)   Flow 3 (95th percentile 178.45 ms)
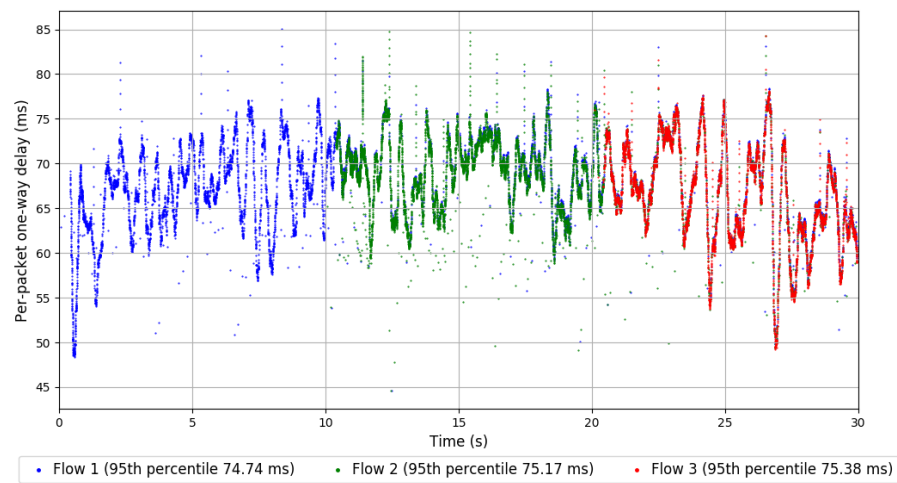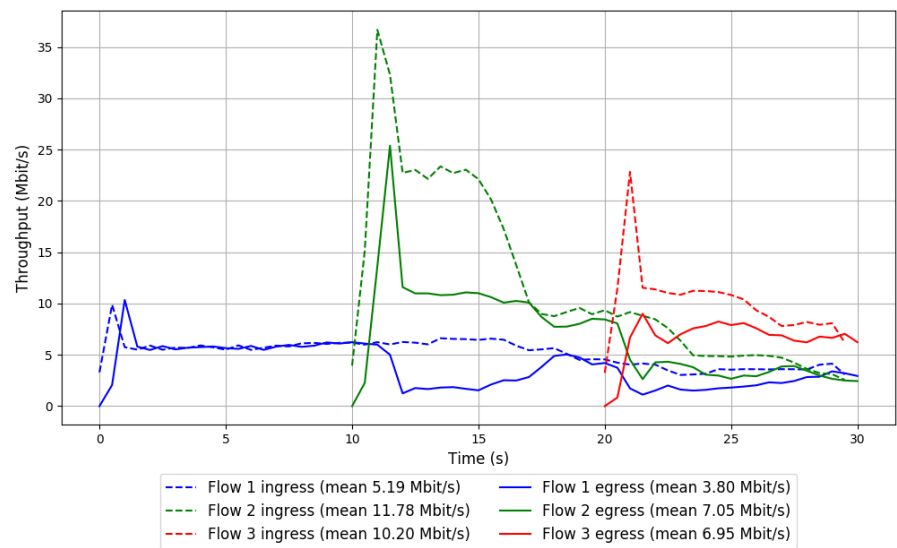
```
Run 1: Statistics of PCC-Expr

Start at: 2018-10-02 10:18:38
End at: 2018-10-02 10:19:08
Local clock offset: 8.725 ms
Remote clock offset: 22.828 ms


# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.56 Mbit/s
95th percentile per-packet one-way delay: 77.089 ms
Loss rate: 45.42%
-- Flow 1:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 76.695 ms
Loss rate: 37.38%
-- Flow 2:
Average throughput: 6.56 Mbit/s
95th percentile per-packet one-way delay: 77.448 ms
Loss rate: 55.24%
-- Flow 3:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 76.672 ms
Loss rate: 35.00%
```

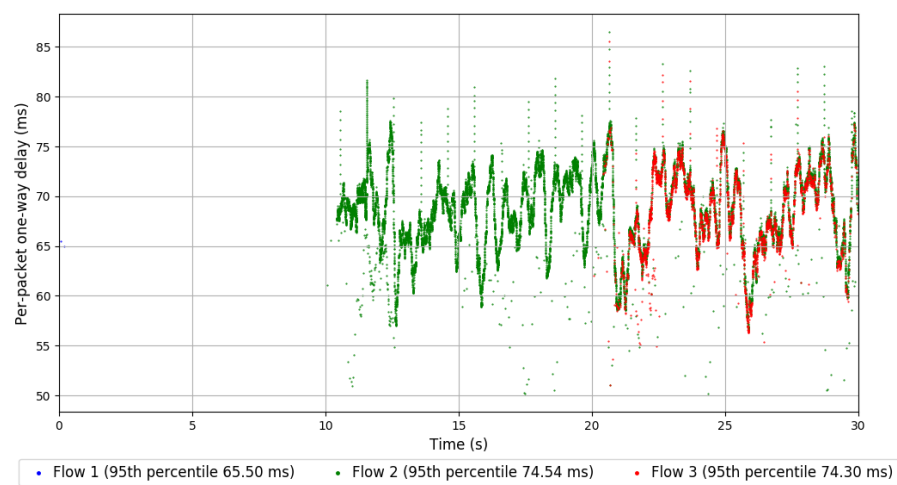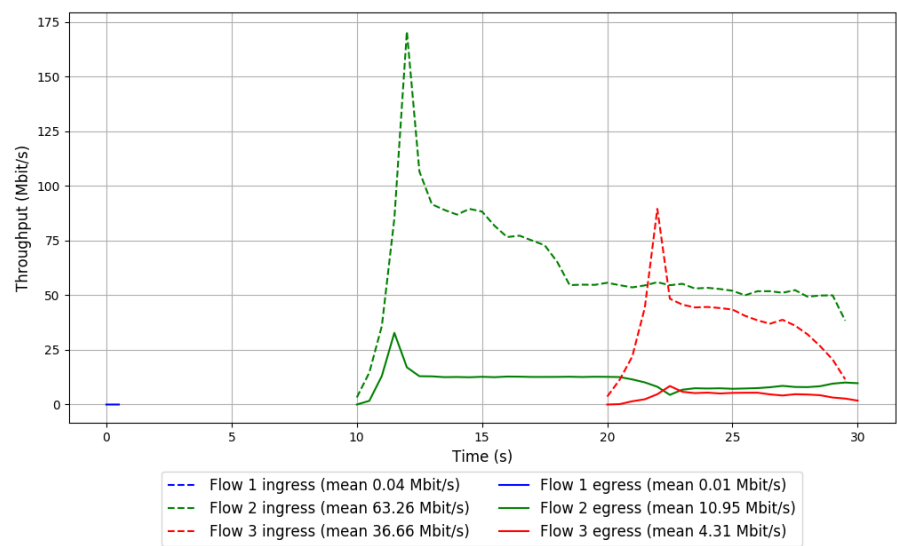Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-10-02 10:42:26
End at: 2018-10-02 10:42:56
Local clock offset: 12.945 ms
Remote clock offset: 27.301 ms

# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 72.778 ms
Loss rate: 11.59%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.728 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.55 Mbit/s
95th percentile per-packet one-way delay: 72.979 ms
Loss rate: 7.66%
-- Flow 3:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 70.292 ms
Loss rate: 27.10%
```

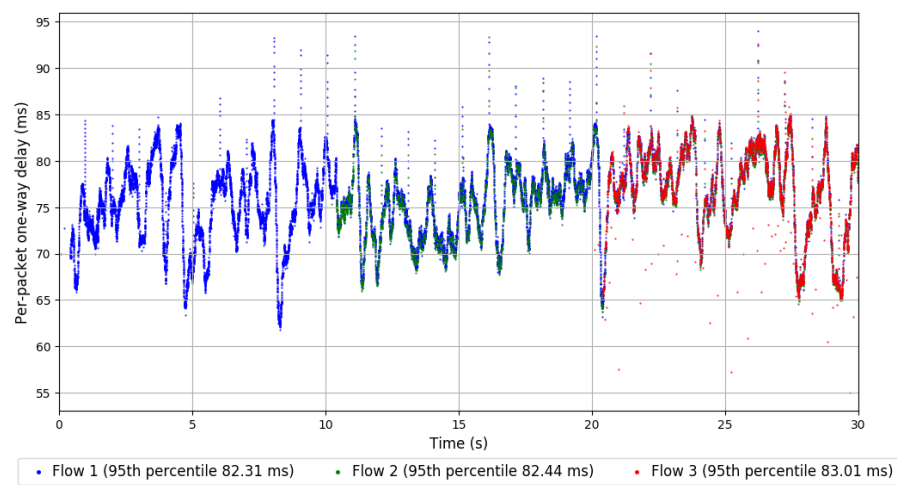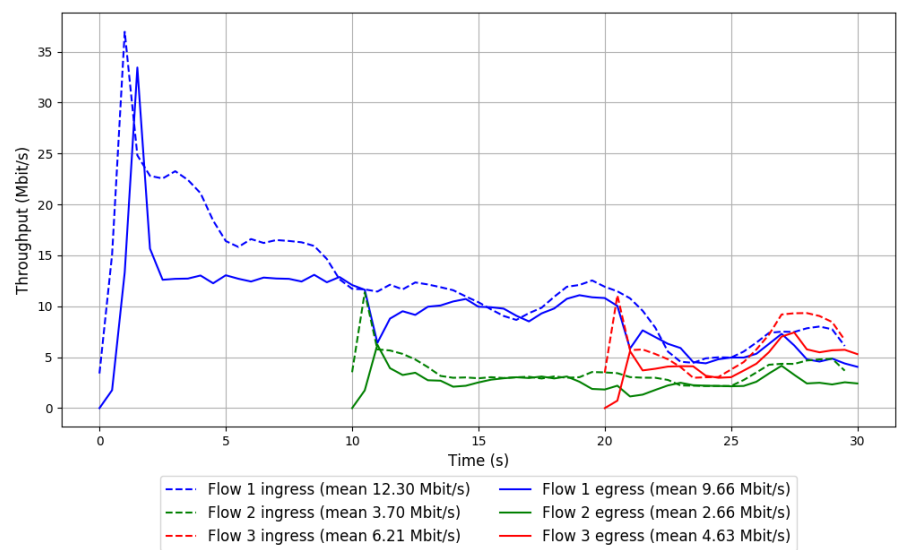## Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-10-02 11:06:10
End at: 2018-10-02 11:06:40
Local clock offset: -8.182 ms
Remote clock offset: 25.945 ms


# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.78 Mbit/s
95th percentile per-packet one-way delay: 75.105 ms
Loss rate: 34.25%
-- Flow 1:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 74.741 ms
Loss rate: 26.87%
-- Flow 2:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 75.170 ms
Loss rate: 40.12%
-- Flow 3:
Average throughput: 6.95 Mbit/s
95th percentile per-packet one-way delay: 75.381 ms
Loss rate: 31.97%
```
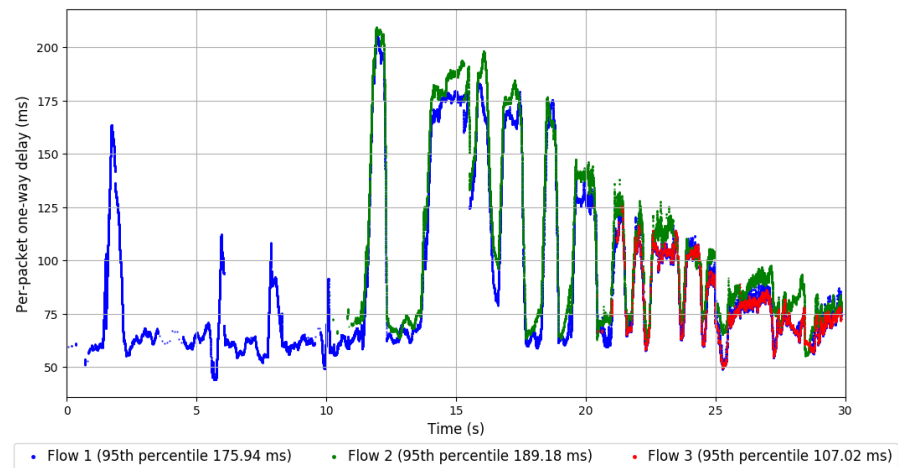
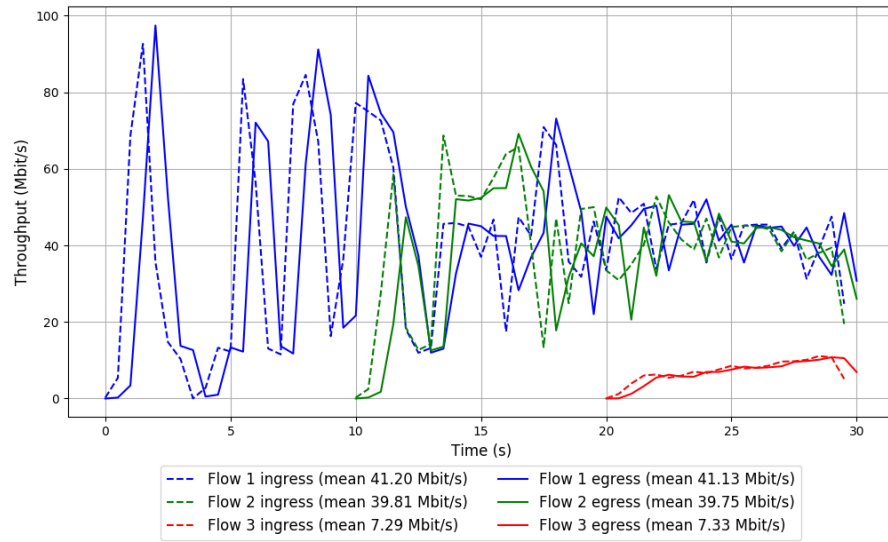Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-10-02 11:29:55
End at: 2018-10-02 11:30:25
Local clock offset: -12.193 ms
Remote clock offset: 10.74 ms


# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.71 Mbit/s
95th percentile per-packet one-way delay: 74.498 ms
Loss rate: 83.93%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 65.500 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.95 Mbit/s
95th percentile per-packet one-way delay: 74.539 ms
Loss rate: 82.68%
-- Flow 3:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 74.295 ms
Loss rate: 88.24%
```
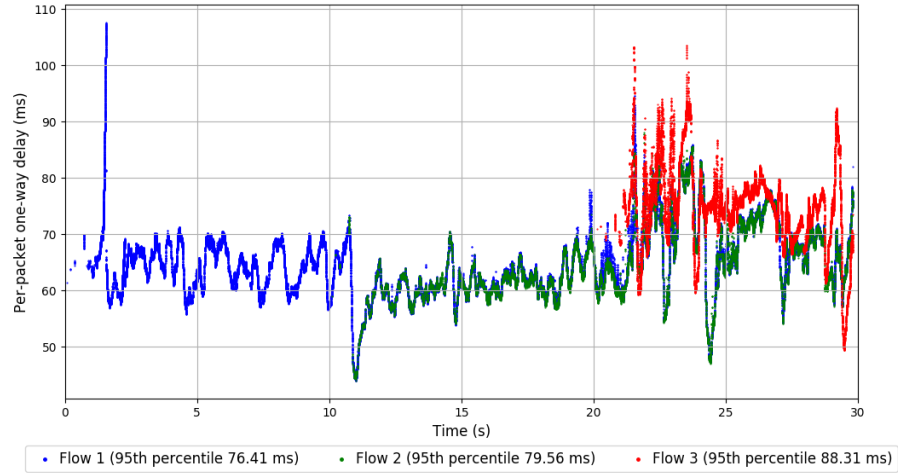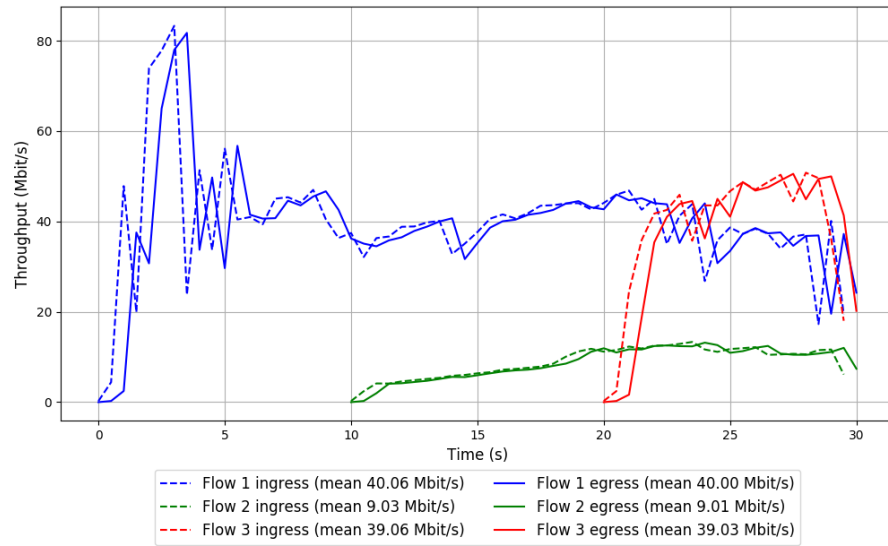
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2018-10-02 11:59:11
End at: 2018-10-02 11:59:41
Local clock offset: -11.235 ms
Remote clock offset: 9.02 ms


# Below is generated by plot.py at 2018-10-02 12:13:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.96 Mbit/s
95th percentile per-packet one-way delay: 82.469 ms
Loss rate: 22.93%
-- Flow 1:
Average throughput: 9.66 Mbit/s
95th percentile per-packet one-way delay: 82.314 ms
Loss rate: 21.47%
-- Flow 2:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 82.441 ms
Loss rate: 28.09%
-- Flow 3:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 83.014 ms
Loss rate: 25.44%
```

Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 12.30 Mbit/s)   Flow 1 egress (mean 9.66 Mbit/s)
Flow 2 ingress (mean 3.70 Mbit/s)   Flow 2 egress (mean 2.66 Mbit/s)
Flow 3 ingress (mean 6.21 Mbit/s)   Flow 3 egress (mean 4.63 Mbit/s)

Flow 1 (95th percentile 82.31 ms)   Flow 2 (95th percentile 82.44 ms)   Flow 3 (95th percentile 83.01 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-10-02 10:27:41
End at: 2018-10-02 10:28:11
Local clock offset: 10.596 ms
Remote clock offset: 26.516 ms


# Below is generated by plot.py at 2018-10-02 12:14:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.79 Mbit/s
95th percentile per-packet one-way delay: 182.825 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 41.13 Mbit/s
95th percentile per-packet one-way delay: 175.939 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 39.75 Mbit/s
95th percentile per-packet one-way delay: 189.184 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 7.33 Mbit/s
95th percentile per-packet one-way delay: 107.019 ms
Loss rate: 0.02%
```
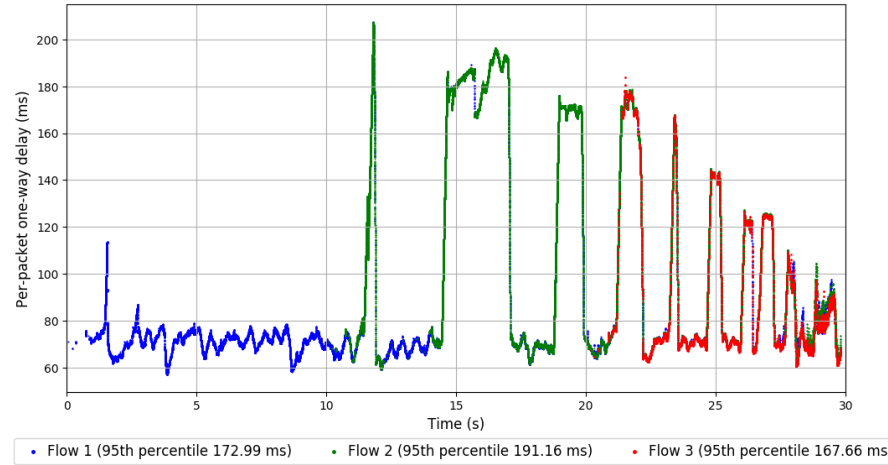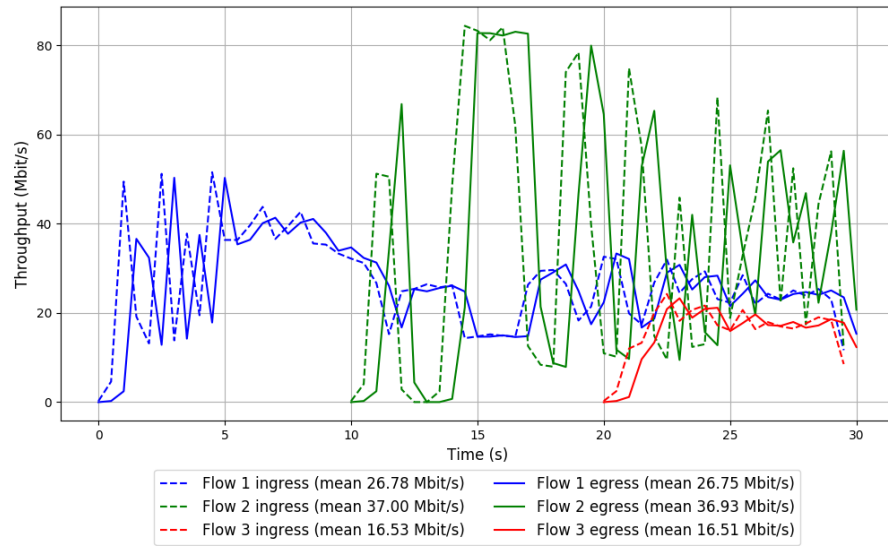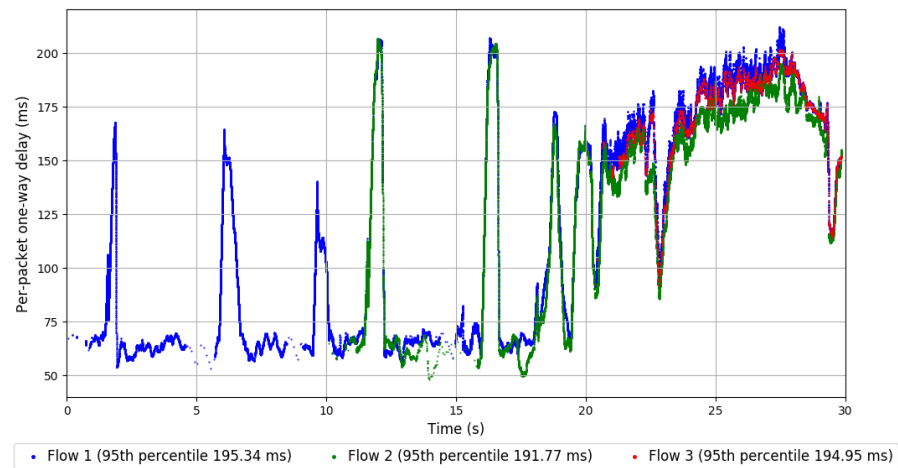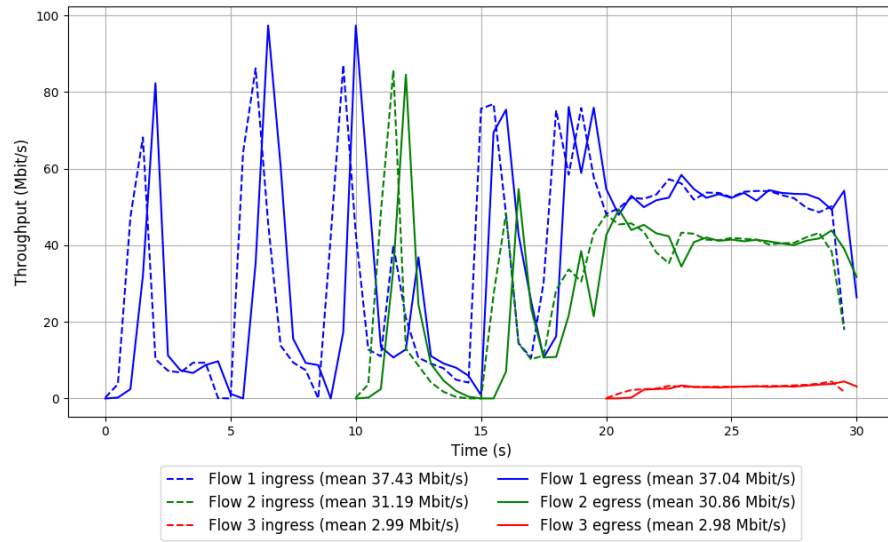
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-10-02 10:51:22
End at: 2018-10-02 10:51:52
Local clock offset: 3.151 ms
Remote clock offset: 28.607 ms


# Below is generated by plot.py at 2018-10-02 12:14:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 80.857 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 76.413 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 9.01 Mbit/s
95th percentile per-packet one-way delay: 79.559 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 39.03 Mbit/s
95th percentile per-packet one-way delay: 88.314 ms
Loss rate: 0.04%
```
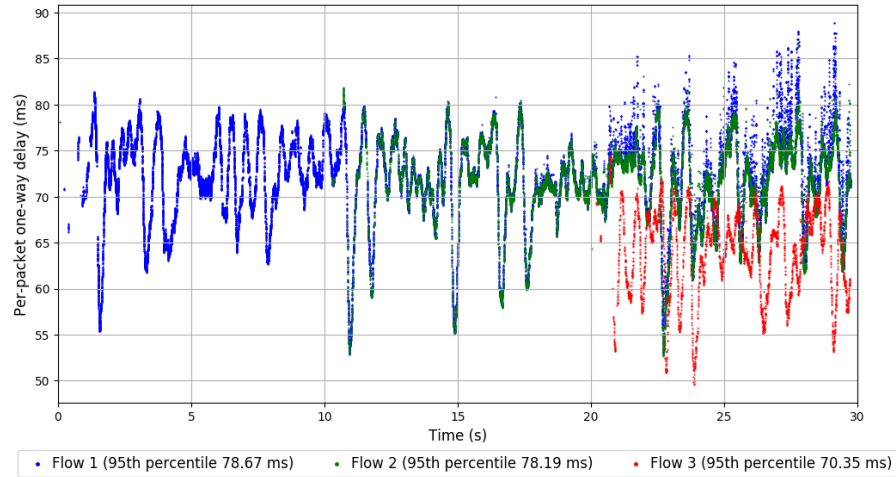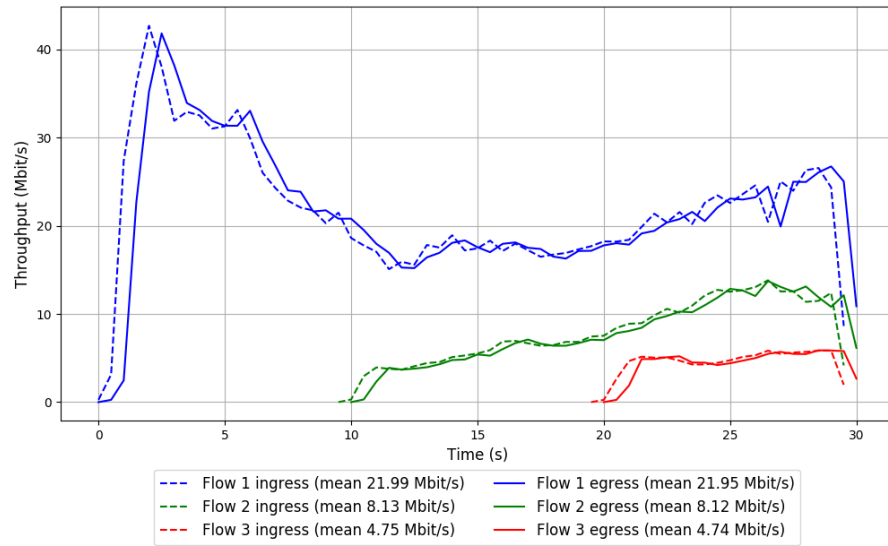
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-10-02 11:15:17
End at: 2018-10-02 11:15:47
Local clock offset: -11.296 ms
Remote clock offset: 33.399 ms


# Below is generated by plot.py at 2018-10-02 12:14:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.60 Mbit/s
95th percentile per-packet one-way delay: 186.785 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 26.75 Mbit/s
95th percentile per-packet one-way delay: 172.985 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 36.93 Mbit/s
95th percentile per-packet one-way delay: 191.156 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 16.51 Mbit/s
95th percentile per-packet one-way delay: 167.660 ms
Loss rate: 0.11%
```

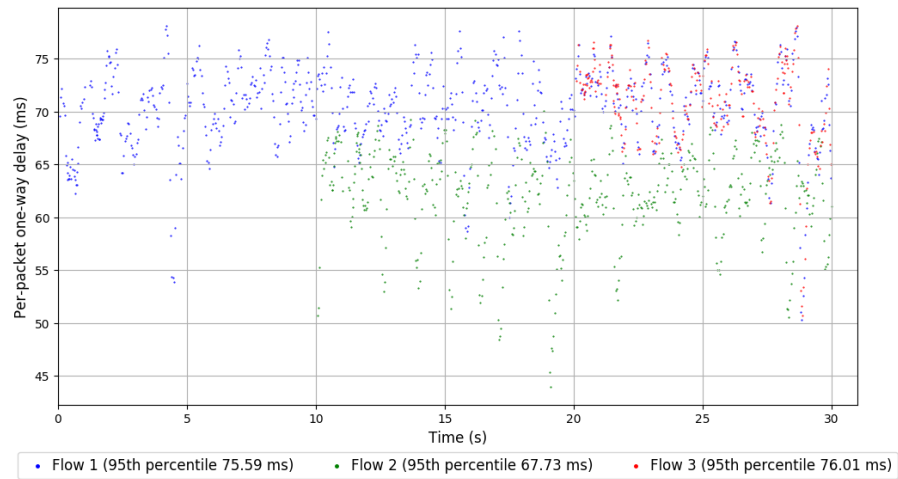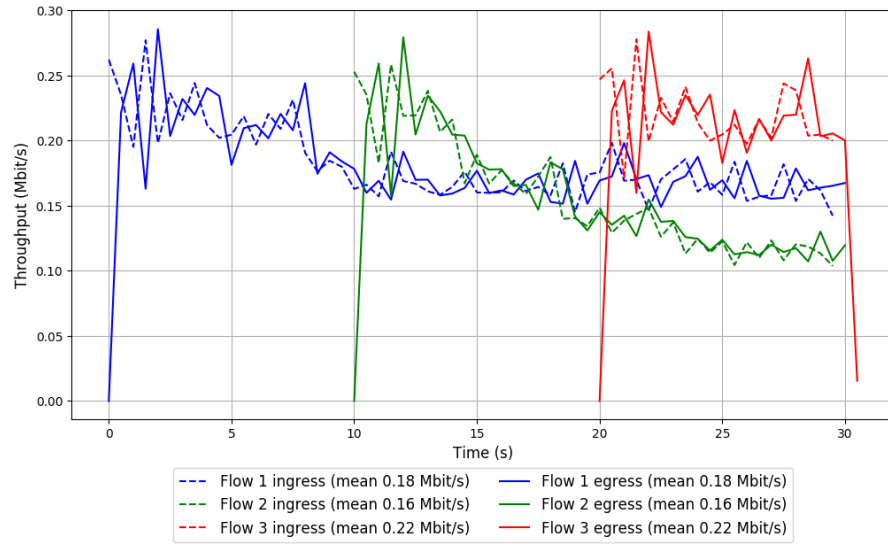Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-10-02 11:39:03
End at: 2018-10-02 11:39:33
Local clock offset: -13.556 ms
Remote clock offset: 8.043 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.43 Mbit/s
95th percentile per-packet one-way delay: 194.567 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 37.04 Mbit/s
95th percentile per-packet one-way delay: 195.341 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 191.766 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 194.953 ms
Loss rate: 0.00%
```

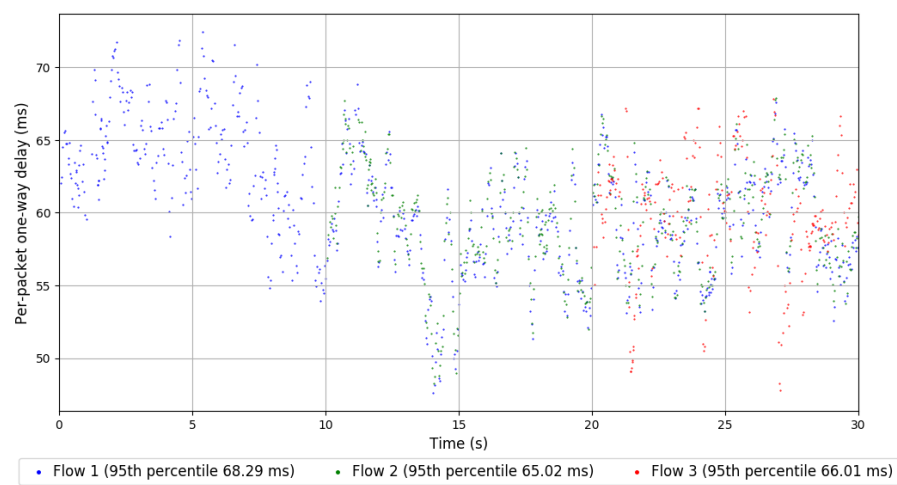Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-10-02 12:08:11
End at: 2018-10-02 12:08:41
Local clock offset: -11.107 ms
Remote clock offset: 2.764 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.90 Mbit/s
95th percentile per-packet one-way delay: 78.536 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 21.95 Mbit/s
95th percentile per-packet one-way delay: 78.670 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 8.12 Mbit/s
95th percentile per-packet one-way delay: 78.189 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 70.346 ms
Loss rate: 0.25%
```
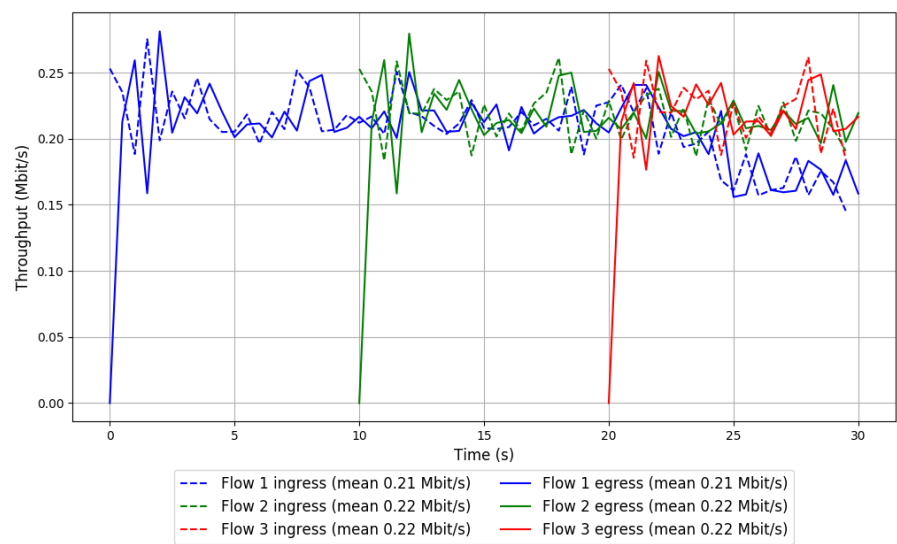
Run 5: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 21.99 Mbit/s) —— Flow 1 egress (mean 21.95 Mbit/s)
- - - Flow 2 ingress (mean 8.13 Mbit/s) —— Flow 2 egress (mean 8.12 Mbit/s)
- - - Flow 3 ingress (mean 4.75 Mbit/s) —— Flow 3 egress (mean 4.74 Mbit/s)

- Flow 1 (95th percentile 78.67 ms)   - Flow 2 (95th percentile 78.19 ms)   - Flow 3 (95th percentile 70.35 ms)
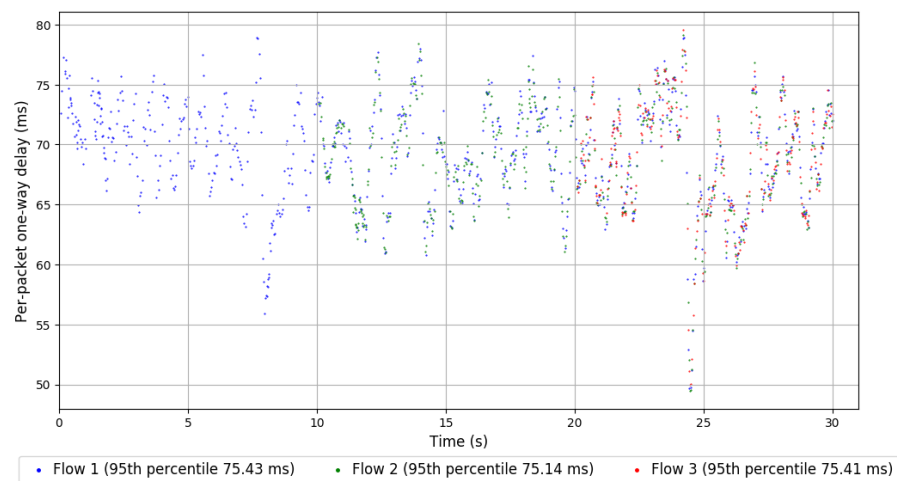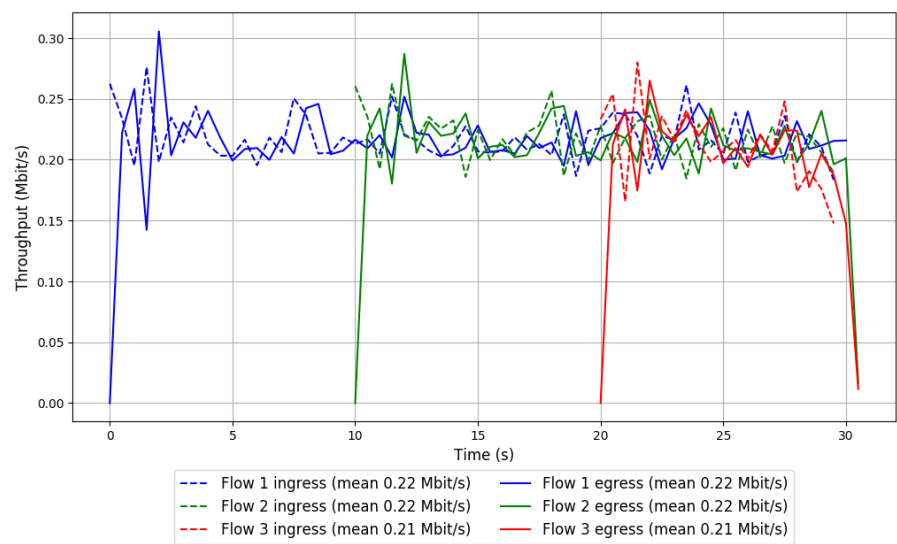
```
Run 1: Statistics of SCReAM

Start at: 2018-10-02 10:19:54
End at: 2018-10-02 10:20:24
Local clock offset: 8.991 ms
Remote clock offset: 21.945 ms

# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 75.280 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 75.590 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 67.735 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 76.007 ms
Loss rate: 0.00%
```
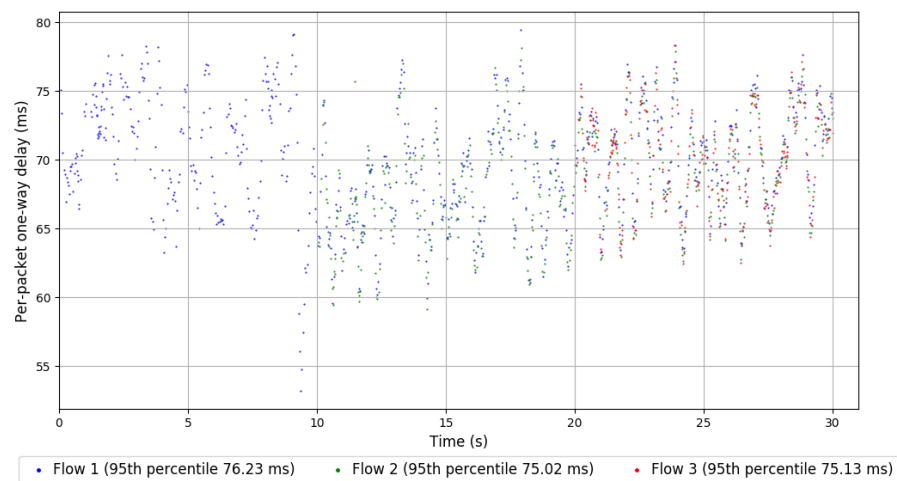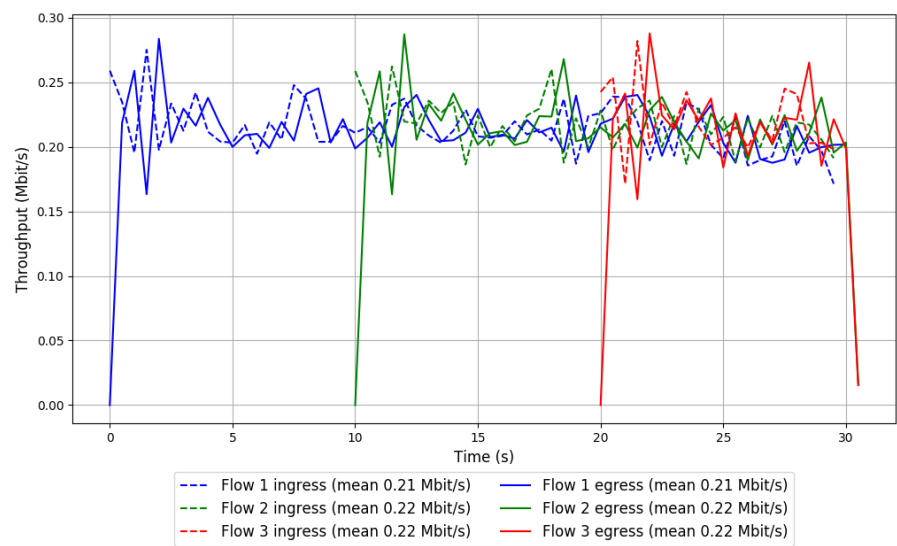
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-10-02 10:43:41
End at: 2018-10-02 10:44:11
Local clock offset: 13.117 ms
Remote clock offset: 25.518 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 66.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 68.286 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 65.020 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.006 ms
Loss rate: 0.00%
```
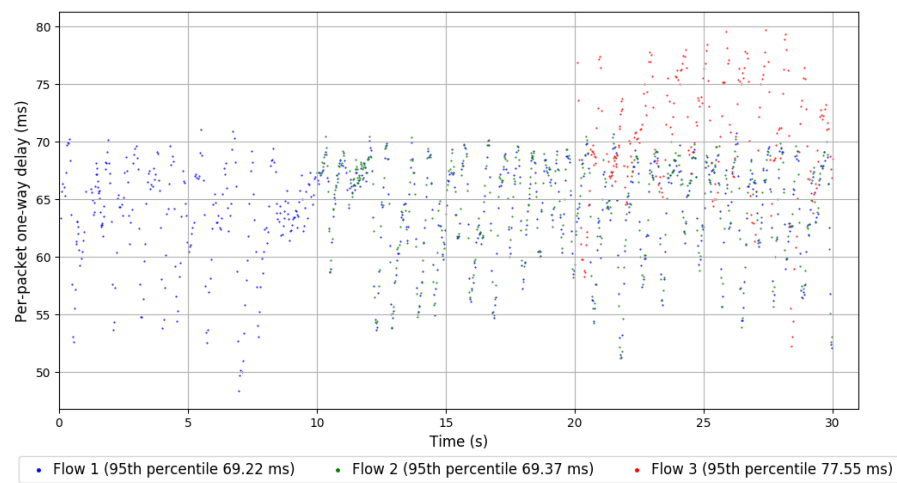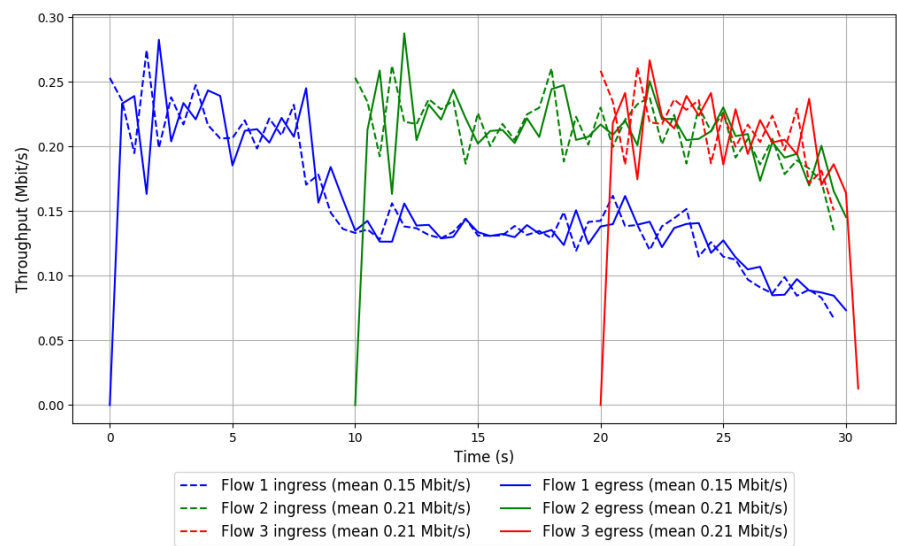
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-10-02 11:07:28
End at: 2018-10-02 11:07:58
Local clock offset: -8.935 ms
Remote clock offset: 28.395 ms

# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 75.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 75.432 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 75.140 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 75.409 ms
Loss rate: 0.00%
```
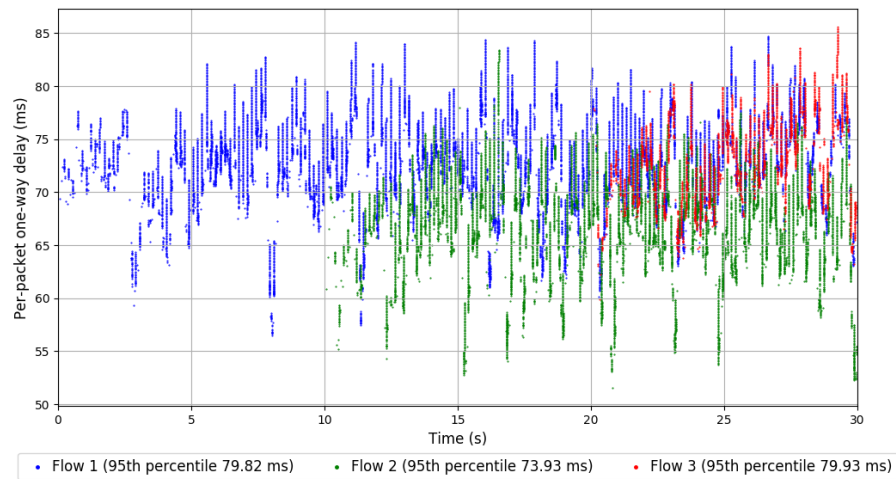
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-10-02 11:31:11
End at: 2018-10-02 11:31:41
Local clock offset: -12.422 ms
Remote clock offset: 12.622 ms

# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 75.807 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 76.231 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 75.023 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 75.131 ms
Loss rate: 0.00%
```
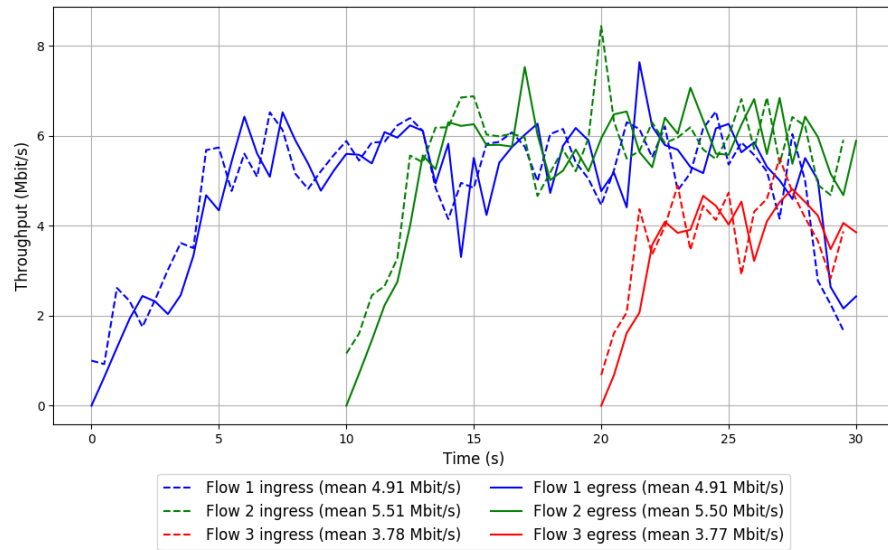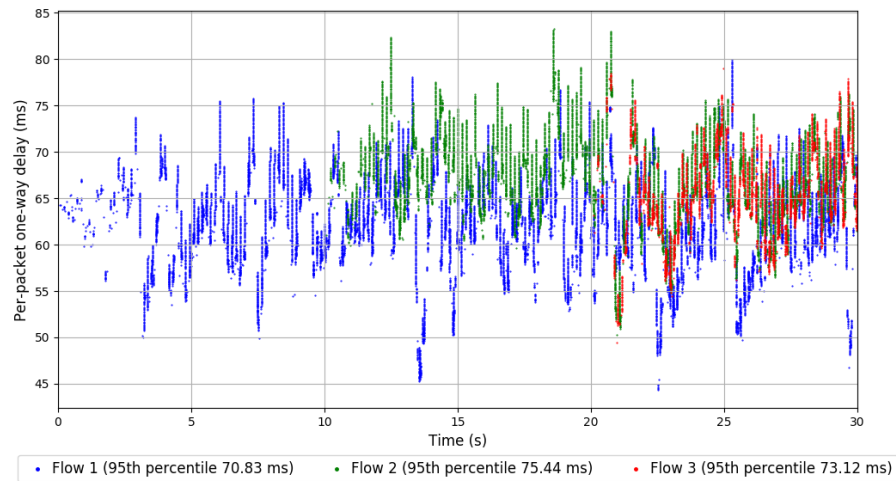
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-10-02 12:00:28
End at: 2018-10-02 12:00:58
Local clock offset: -11.326 ms
Remote clock offset: 3.614 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 73.292 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 69.223 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 69.368 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 77.551 ms
Loss rate: 0.43%
```
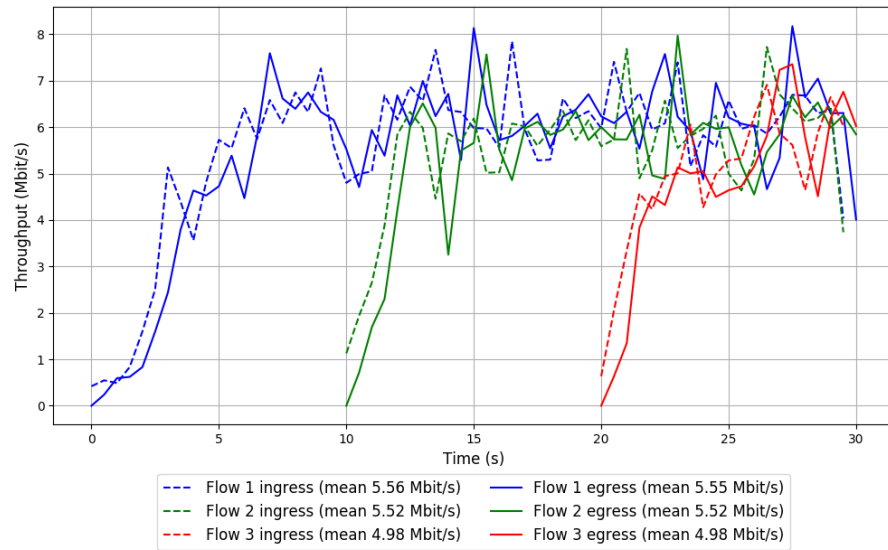
Run 5: Report of SCReAM — Data Link

124

```
Run 1: Statistics of Sprout

Start at: 2018-10-02 10:16:06
End at: 2018-10-02 10:16:36
Local clock offset: 8.418 ms
Remote clock offset: 20.773 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.81 Mbit/s
95th percentile per-packet one-way delay: 79.048 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 79.822 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 5.50 Mbit/s
95th percentile per-packet one-way delay: 73.928 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 79.931 ms
Loss rate: 0.16%
```
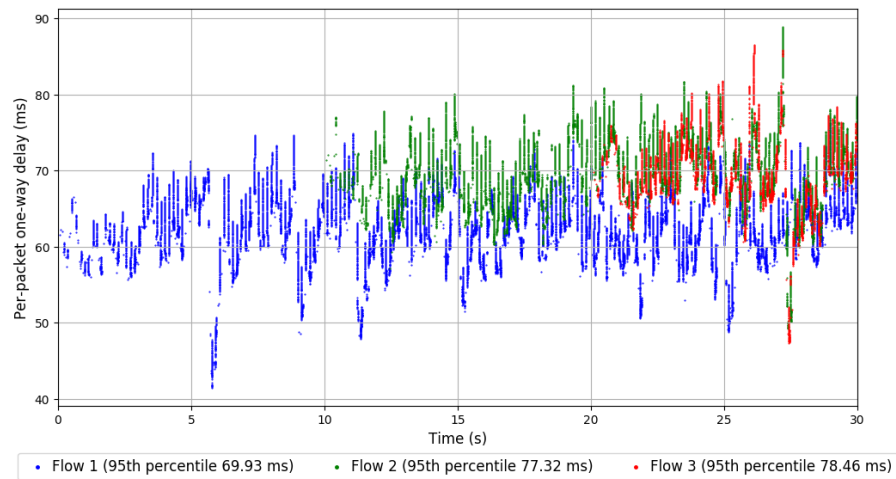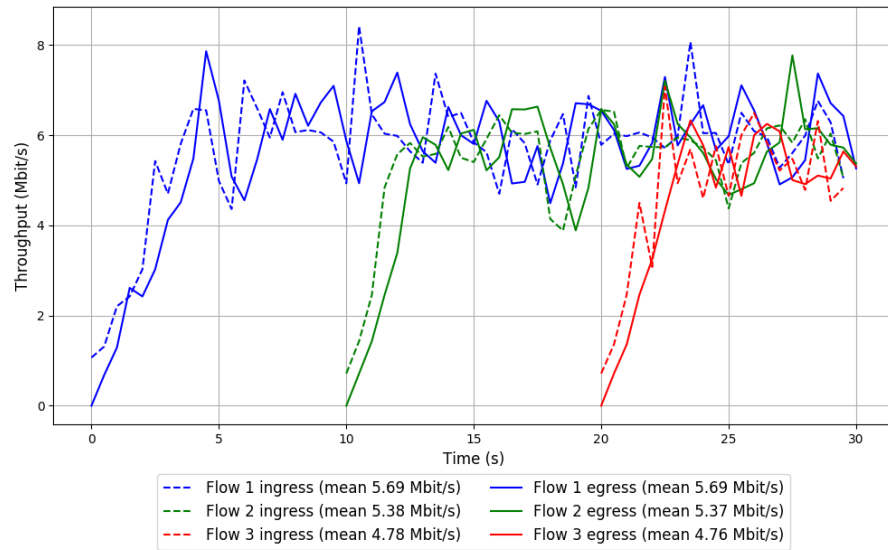
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-10-02 10:39:49
End at: 2018-10-02 10:40:19
Local clock offset: 12.566 ms
Remote clock offset: 27.412 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.86 Mbit/s
95th percentile per-packet one-way delay: 73.533 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 5.55 Mbit/s
95th percentile per-packet one-way delay: 70.833 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 5.52 Mbit/s
95th percentile per-packet one-way delay: 75.435 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.98 Mbit/s
95th percentile per-packet one-way delay: 73.116 ms
Loss rate: 0.00%
```
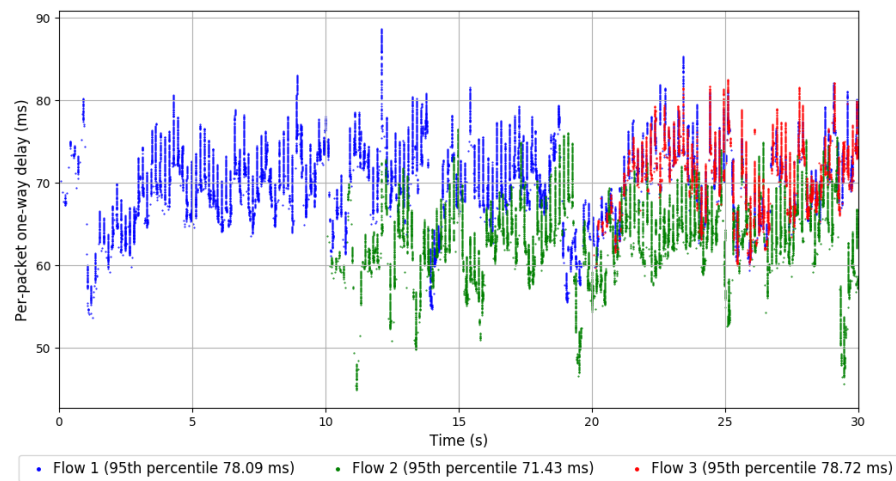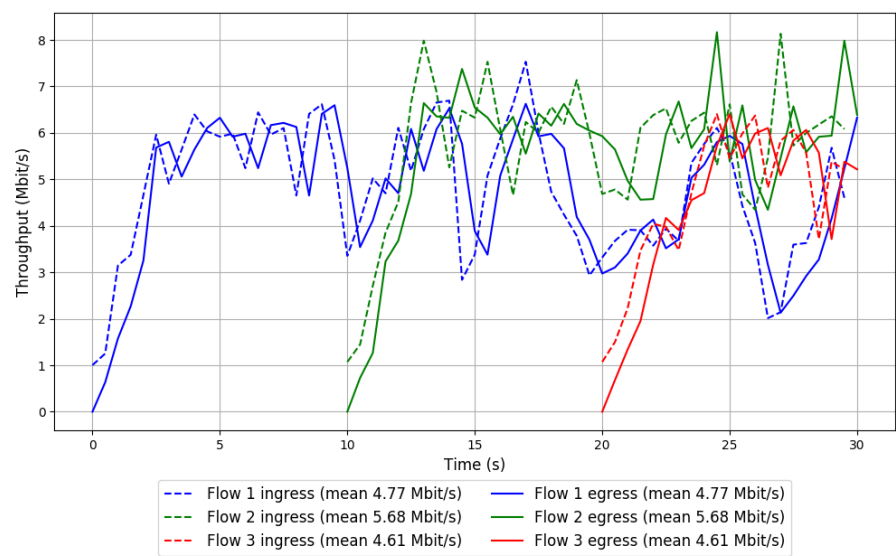
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-10-02 11:03:34
End at: 2018-10-02 11:04:04
Local clock offset: -7.235 ms
Remote clock offset: 26.016 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.83 Mbit/s
95th percentile per-packet one-way delay: 75.845 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 69.930 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 77.320 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 4.76 Mbit/s
95th percentile per-packet one-way delay: 78.459 ms
Loss rate: 0.19%
```
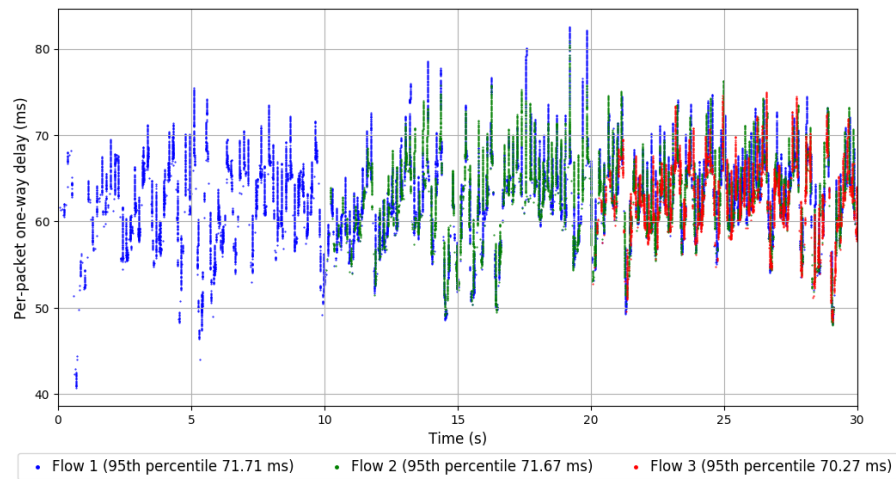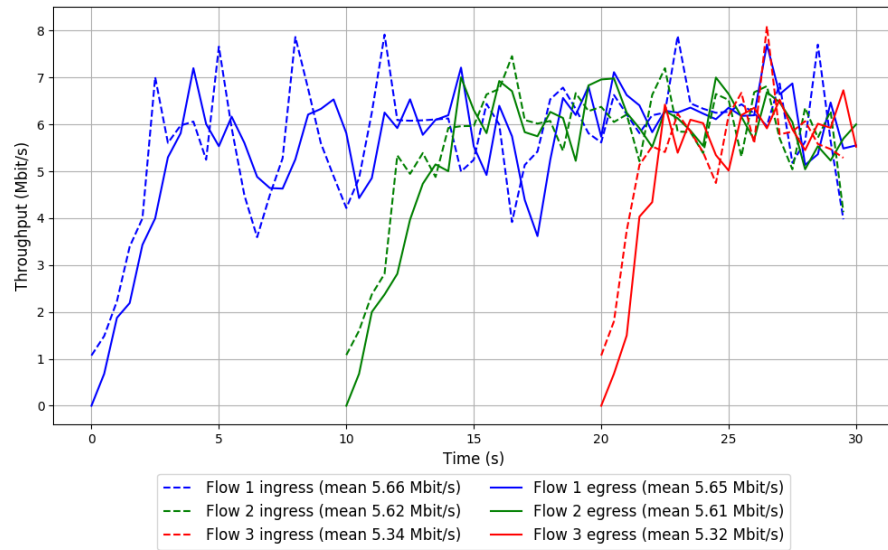
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-10-02 11:27:21
End at: 2018-10-02 11:27:51
Local clock offset: -12.052 ms
Remote clock offset: 12.706 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.07 Mbit/s
95th percentile per-packet one-way delay: 77.294 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 78.093 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 71.431 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 78.719 ms
Loss rate: 0.00%
```
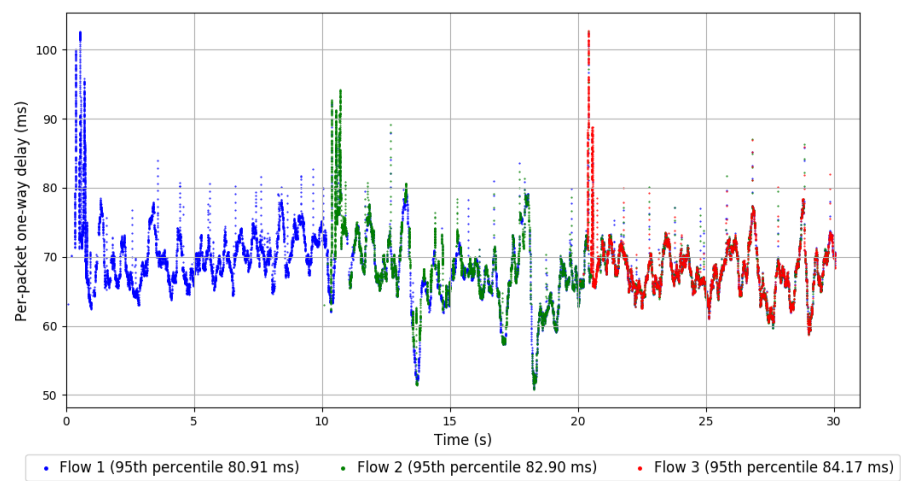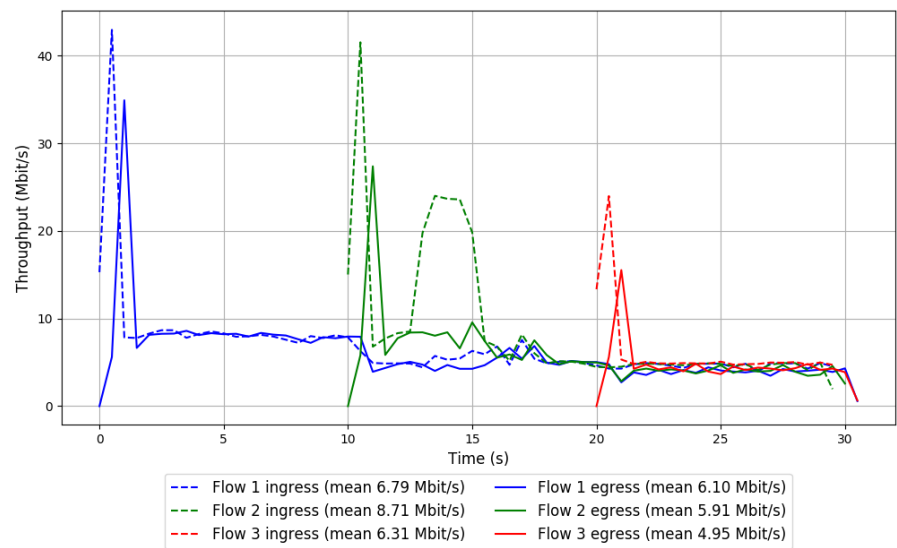
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-10-02 11:56:37
End at: 2018-10-02 11:57:07
Local clock offset: -11.371 ms
Remote clock offset: 2.368 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.14 Mbit/s
95th percentile per-packet one-way delay: 71.500 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 71.713 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 71.671 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 5.32 Mbit/s
95th percentile per-packet one-way delay: 70.267 ms
Loss rate: 0.12%
```
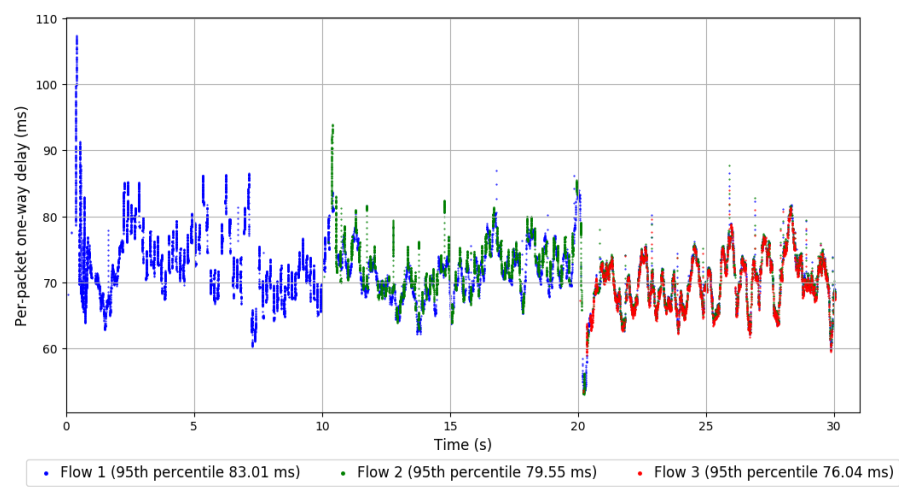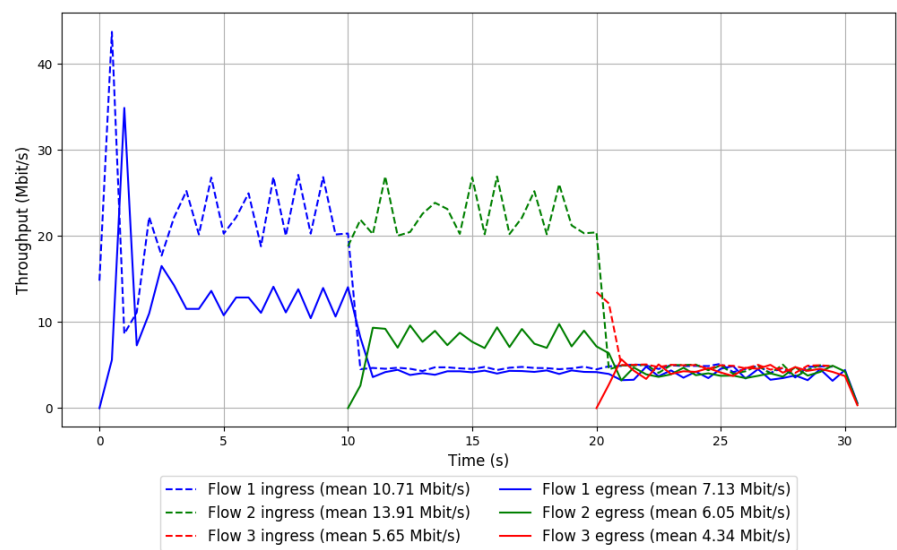
Run 5: Report of Sprout — Data Link

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

Start at: 2018-10-02 10:14:50
End at: 2018-10-02 10:15:20
Local clock offset: 7.978 ms
Remote clock offset: 18.937 ms

# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.63 Mbit/s
95th percentile per-packet one-way delay: 82.317 ms
Loss rate: 20.37%
-- Flow 1:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 80.912 ms
Loss rate: 10.11%
-- Flow 2:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 82.903 ms
Loss rate: 32.13%
-- Flow 3:
Average throughput: 4.95 Mbit/s
95th percentile per-packet one-way delay: 84.170 ms
Loss rate: 21.52%
```
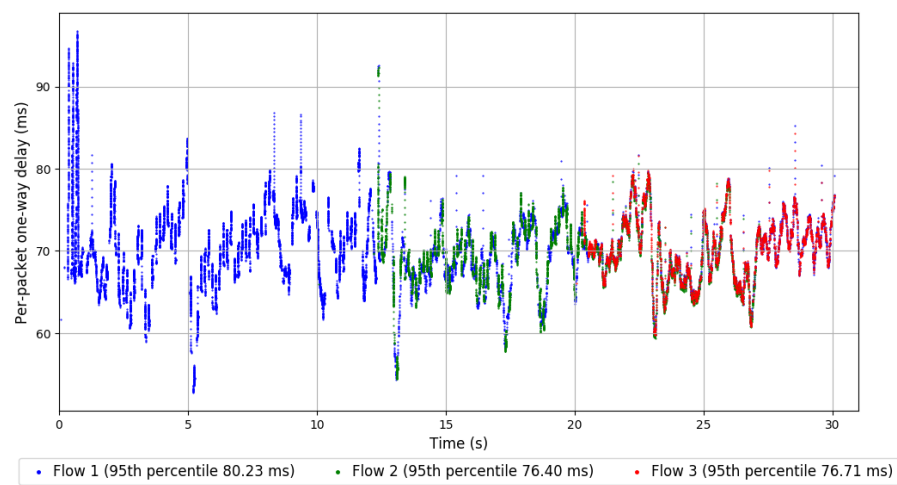
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-02 10:38:32
End at: 2018-10-02 10:39:02
Local clock offset: 12.14 ms
Remote clock offset: 31.718 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 81.385 ms
Loss rate: 42.29%
-- Flow 1:
Average throughput: 7.13 Mbit/s
95th percentile per-packet one-way delay: 83.014 ms
Loss rate: 33.37%
-- Flow 2:
Average throughput: 6.05 Mbit/s
95th percentile per-packet one-way delay: 79.551 ms
Loss rate: 56.49%
-- Flow 3:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 76.039 ms
Loss rate: 23.14%
```

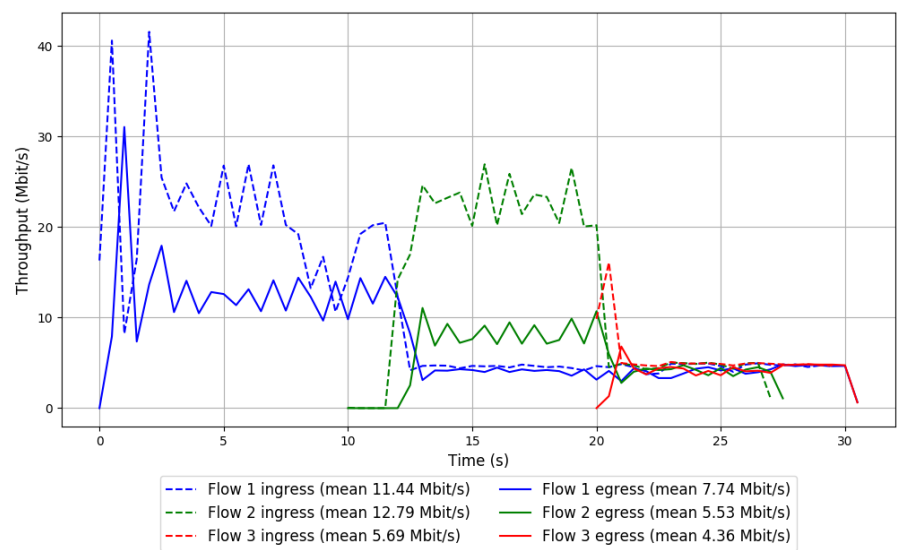Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-02 11:02:17
End at: 2018-10-02 11:02:47
Local clock offset: -6.3 ms
Remote clock offset: 28.109 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.34 Mbit/s
95th percentile per-packet one-way delay: 78.425 ms
Loss rate: 40.13%
-- Flow 1:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 80.230 ms
Loss rate: 32.29%
-- Flow 2:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 76.400 ms
Loss rate: 56.76%
-- Flow 3:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 76.714 ms
Loss rate: 23.32%
```
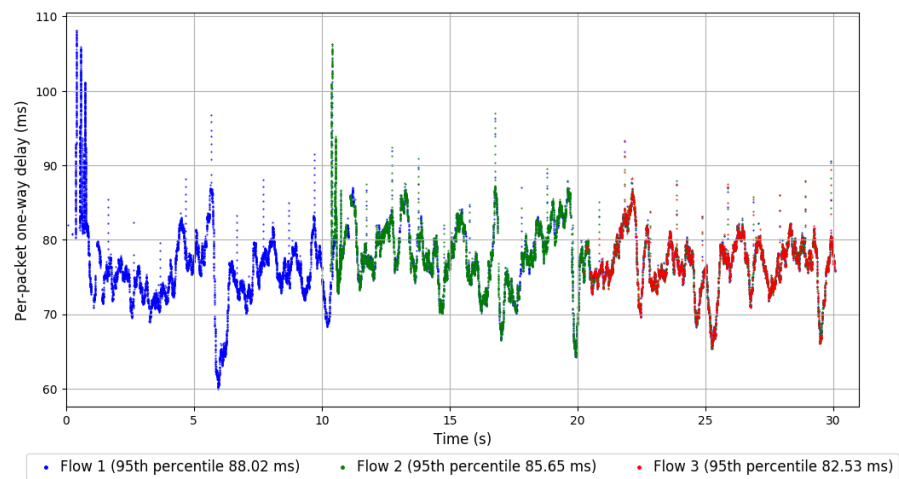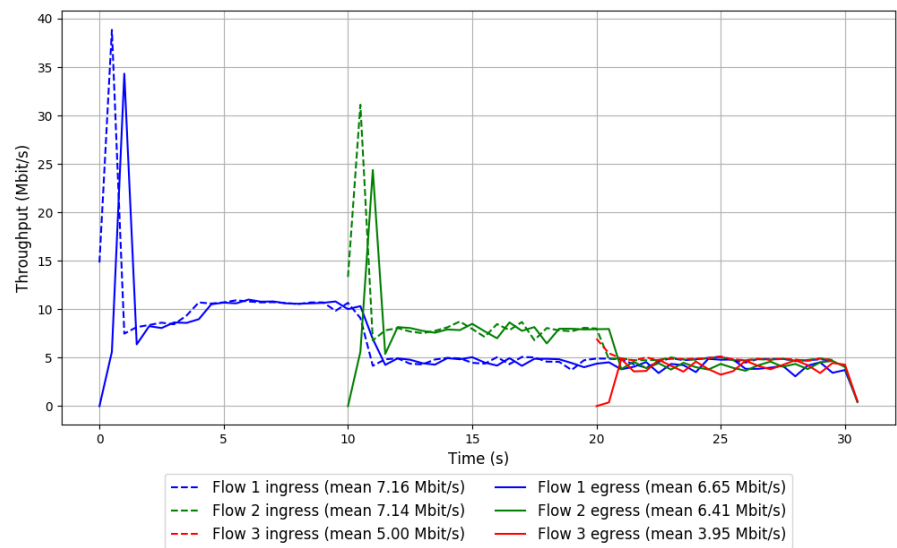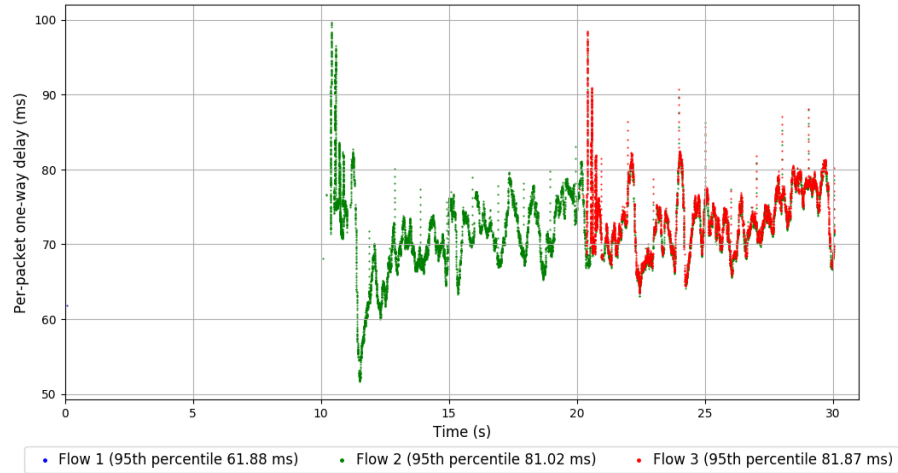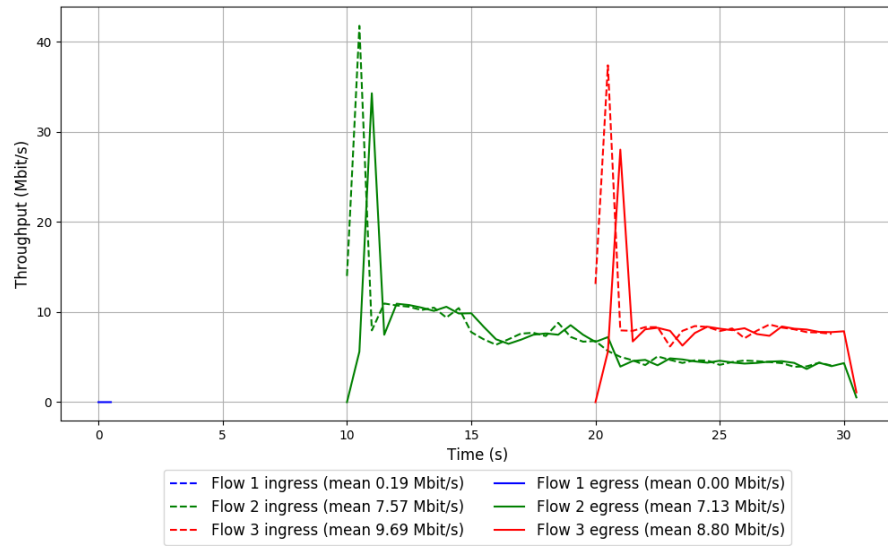
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 11.44 Mbit/s) — — — Flow 1 egress (mean 7.74 Mbit/s)
Flow 2 ingress (mean 12.79 Mbit/s) — — — Flow 2 egress (mean 5.53 Mbit/s)
Flow 3 ingress (mean 5.69 Mbit/s) — — — Flow 3 egress (mean 4.36 Mbit/s)

Flow 1 (95th percentile 80.23 ms) • Flow 2 (95th percentile 76.40 ms) • Flow 3 (95th percentile 76.71 ms)

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

Start at: 2018-10-02 11:26:04
End at: 2018-10-02 11:26:34
Local clock offset: -11.908 ms
Remote clock offset: 22.754 ms

# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 86.096 ms
Loss rate: 9.95%
-- Flow 1:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 88.021 ms
Loss rate: 7.19%
-- Flow 2:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 85.650 ms
Loss rate: 10.23%
-- Flow 3:
Average throughput: 3.95 Mbit/s
95th percentile per-packet one-way delay: 82.531 ms
Loss rate: 21.06%
```
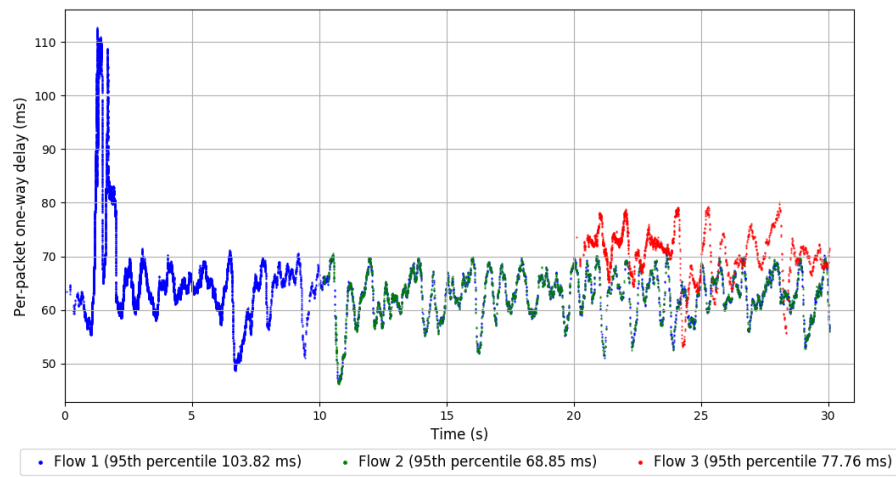
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-02 11:55:21
End at: 2018-10-02 11:55:51
Local clock offset: -11.754 ms
Remote clock offset: 7.136 ms

# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 81.374 ms
Loss rate: 7.13%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 61.877 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 7.13 Mbit/s
95th percentile per-packet one-way delay: 81.020 ms
Loss rate: 5.80%
-- Flow 3:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 81.871 ms
Loss rate: 9.18%
```
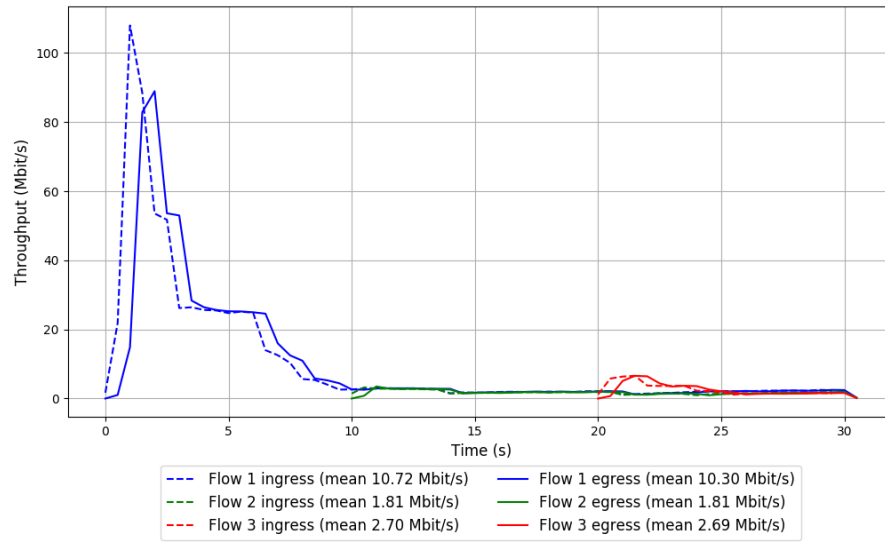
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 0.19 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 7.57 Mbit/s) --- Flow 2 egress (mean 7.13 Mbit/s)
Flow 3 ingress (mean 9.69 Mbit/s) --- Flow 3 egress (mean 8.80 Mbit/s)

Flow 1 (95th percentile 61.88 ms) · Flow 2 (95th percentile 81.02 ms) · Flow 3 (95th percentile 81.87 ms)
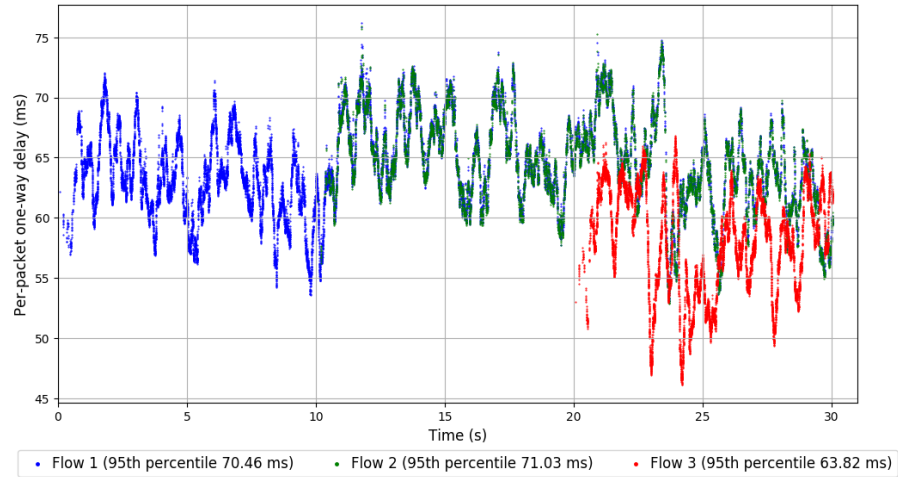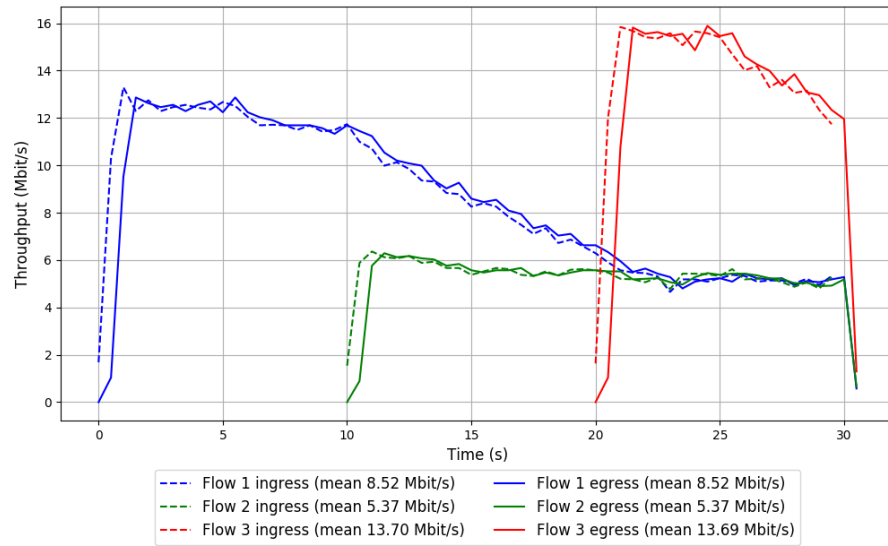
```
Run 1: Statistics of TCP Vegas

Start at: 2018-10-02 10:25:03
End at: 2018-10-02 10:25:33
Local clock offset: 9.98 ms
Remote clock offset: 25.342 ms


# Below is generated by plot.py at 2018-10-02 12:14:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.39 Mbit/s
95th percentile per-packet one-way delay: 99.165 ms
Loss rate: 3.37%
-- Flow 1:
Average throughput: 10.30 Mbit/s
95th percentile per-packet one-way delay: 103.817 ms
Loss rate: 4.00%
-- Flow 2:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 68.847 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 77.764 ms
Loss rate: 0.18%
```
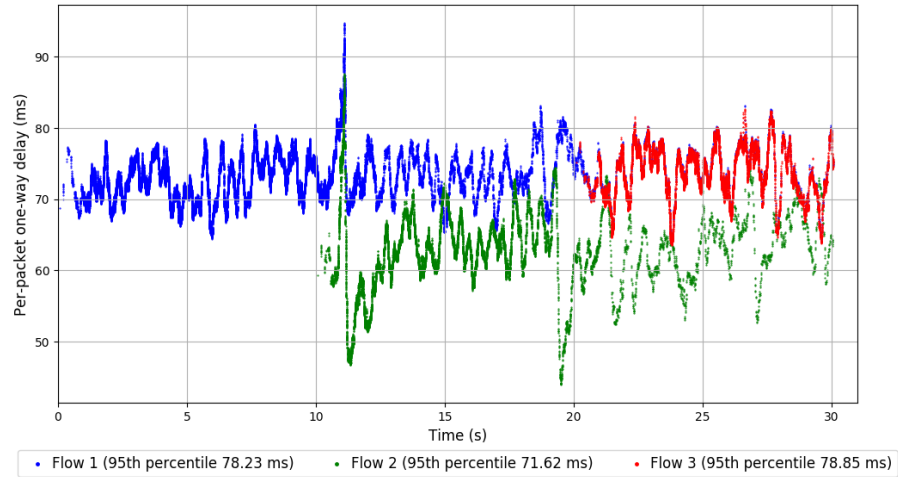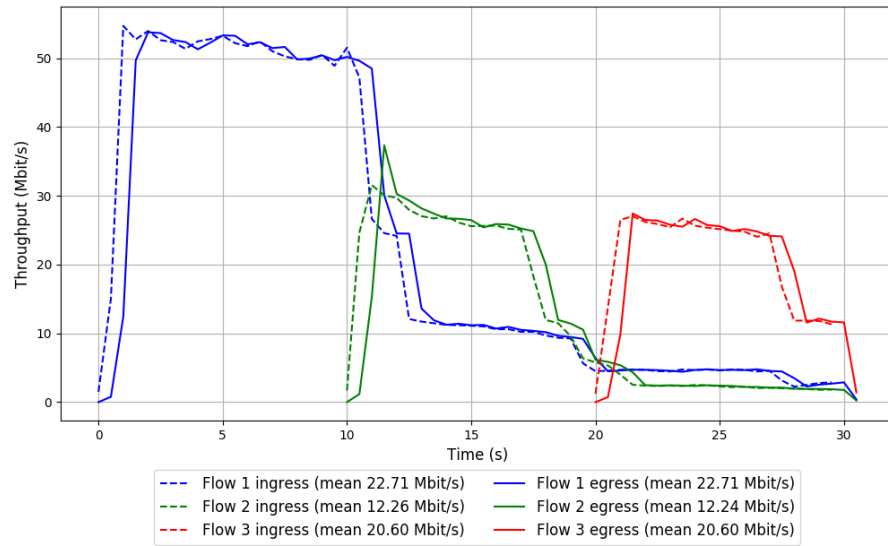
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-10-02 10:48:42
End at: 2018-10-02 10:49:12
Local clock offset: 7.446 ms
Remote clock offset: 24.662 ms


# Below is generated by plot.py at 2018-10-02 12:14:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.66 Mbit/s
95th percentile per-packet one-way delay: 70.168 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.52 Mbit/s
95th percentile per-packet one-way delay: 70.458 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 71.027 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.69 Mbit/s
95th percentile per-packet one-way delay: 63.817 ms
Loss rate: 0.00%
```
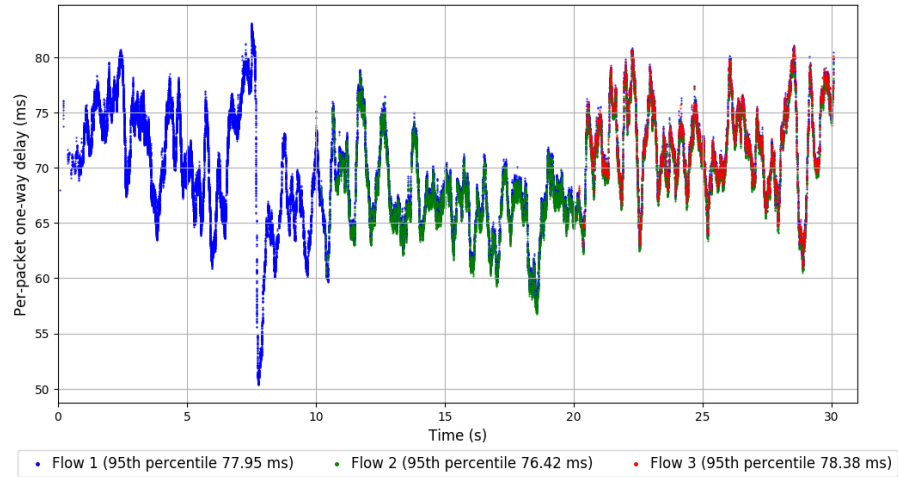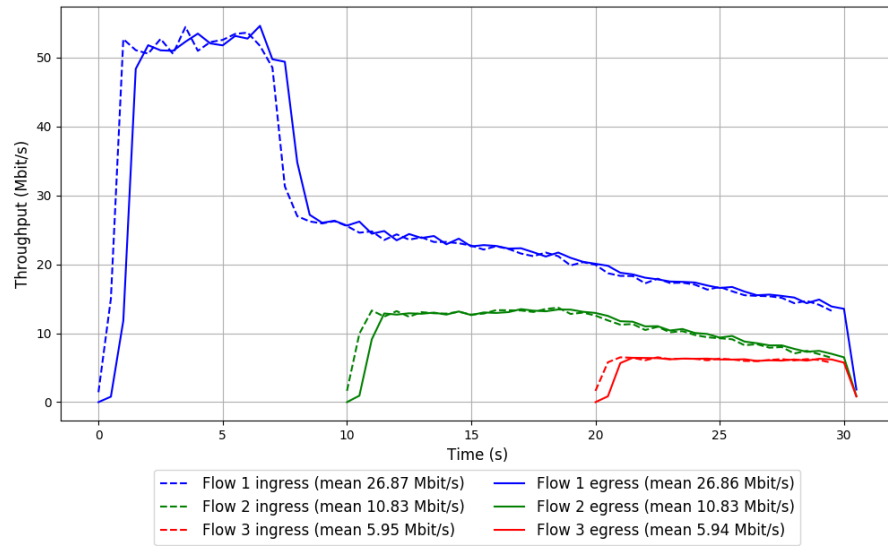
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-10-02 11:12:32
End at: 2018-10-02 11:13:02
Local clock offset: -10.411 ms
Remote clock offset: 31.461 ms


# Below is generated by plot.py at 2018-10-02 12:15:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 78.178 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 22.71 Mbit/s
95th percentile per-packet one-way delay: 78.234 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 71.618 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 20.60 Mbit/s
95th percentile per-packet one-way delay: 78.854 ms
Loss rate: 0.02%
```
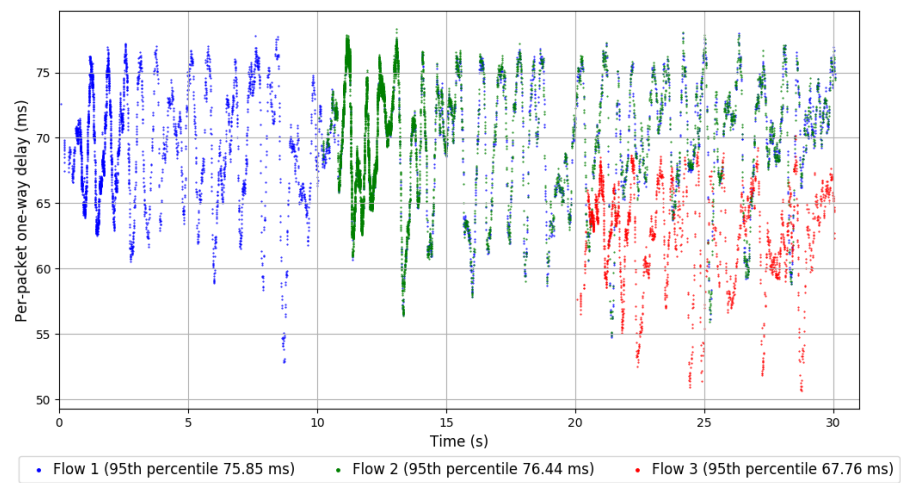
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-10-02 11:36:23
End at: 2018-10-02 11:36:53
Local clock offset: -13.343 ms
Remote clock offset: 12.229 ms


# Below is generated by plot.py at 2018-10-02 12:15:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 77.736 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 26.86 Mbit/s
95th percentile per-packet one-way delay: 77.951 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 10.83 Mbit/s
95th percentile per-packet one-way delay: 76.421 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.94 Mbit/s
95th percentile per-packet one-way delay: 78.384 ms
Loss rate: 0.00%
```

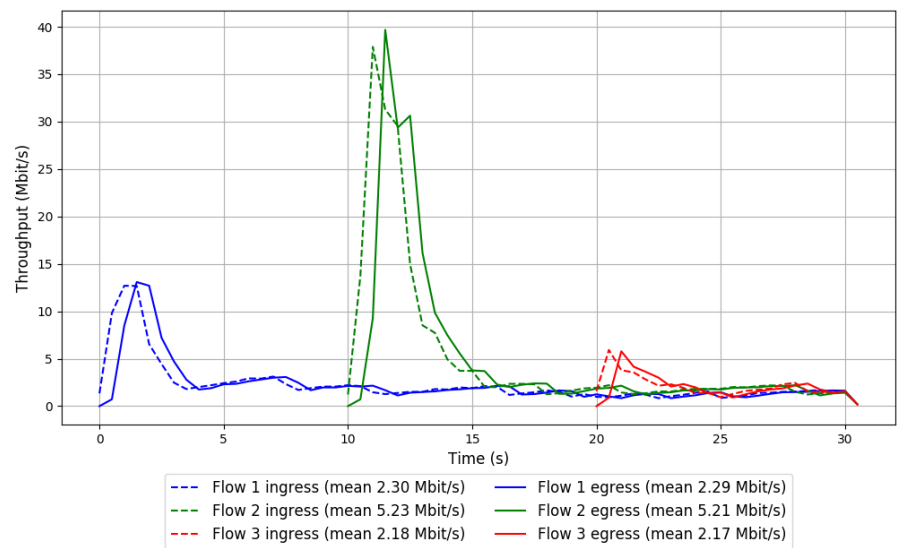Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-10-02 12:05:32
End at: 2018-10-02 12:06:02
Local clock offset: -11.041 ms
Remote clock offset: 0.332 ms


# Below is generated by plot.py at 2018-10-02 12:15:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 76.173 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 75.851 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 76.439 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 67.757 ms
Loss rate: 0.28%
```

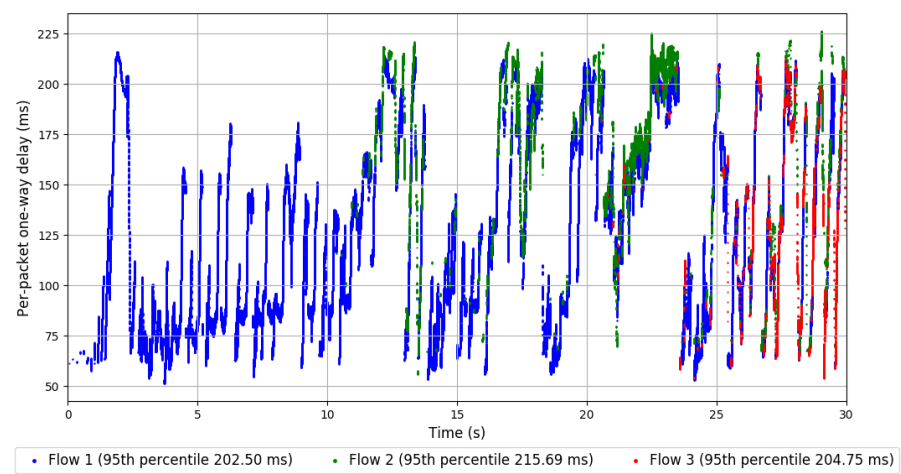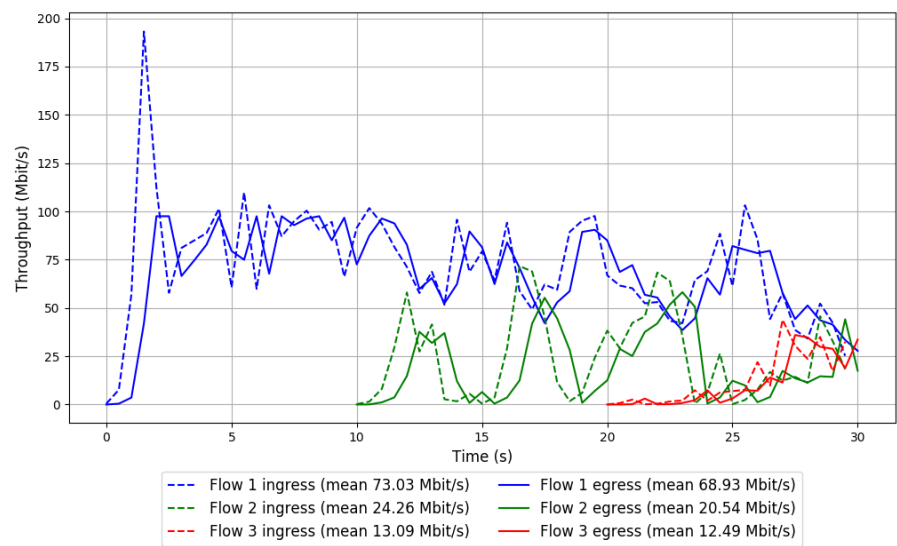Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-10-02 10:10:47
End at: 2018-10-02 10:11:17
Local clock offset: 7.192 ms
Remote clock offset: 12.004 ms

# Below is generated by plot.py at 2018-10-02 12:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.33 Mbit/s
95th percentile per-packet one-way delay: 208.197 ms
Loss rate: 6.88%
-- Flow 1:
Average throughput: 68.93 Mbit/s
95th percentile per-packet one-way delay: 202.495 ms
Loss rate: 5.15%
-- Flow 2:
Average throughput: 20.54 Mbit/s
95th percentile per-packet one-way delay: 215.685 ms
Loss rate: 15.26%
-- Flow 3:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 204.755 ms
Loss rate: 4.87%
```

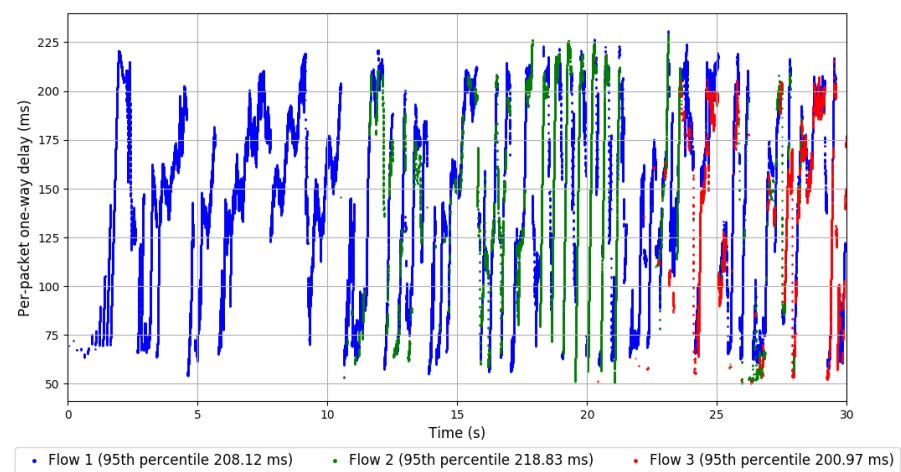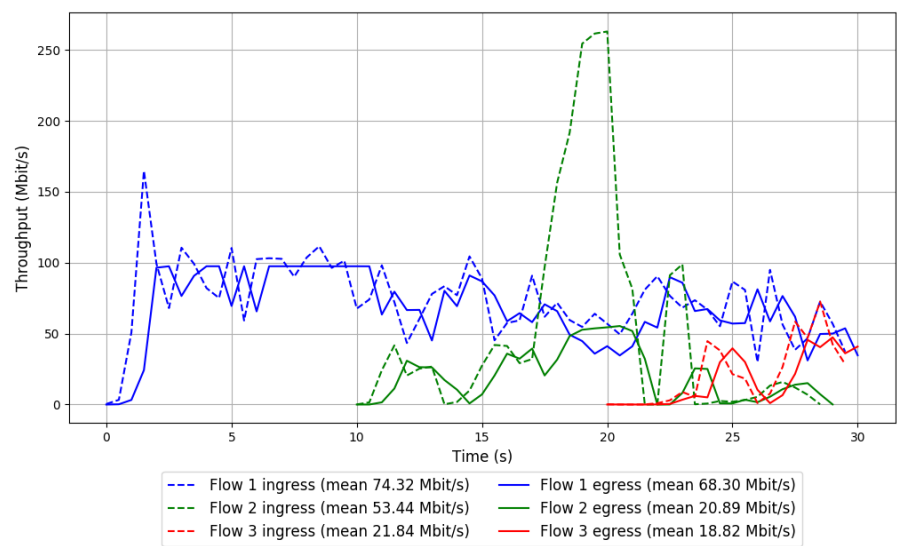# Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-10-02 10:34:27
End at: 2018-10-02 10:34:57
Local clock offset: 11.653 ms
Remote clock offset: 24.871 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.26 Mbit/s
95th percentile per-packet one-way delay: 209.722 ms
Loss rate: 23.71%
-- Flow 1:
Average throughput: 68.30 Mbit/s
95th percentile per-packet one-way delay: 208.118 ms
Loss rate: 7.98%
-- Flow 2:
Average throughput: 20.89 Mbit/s
95th percentile per-packet one-way delay: 218.833 ms
Loss rate: 60.81%
-- Flow 3:
Average throughput: 18.82 Mbit/s
95th percentile per-packet one-way delay: 200.967 ms
Loss rate: 14.18%
```
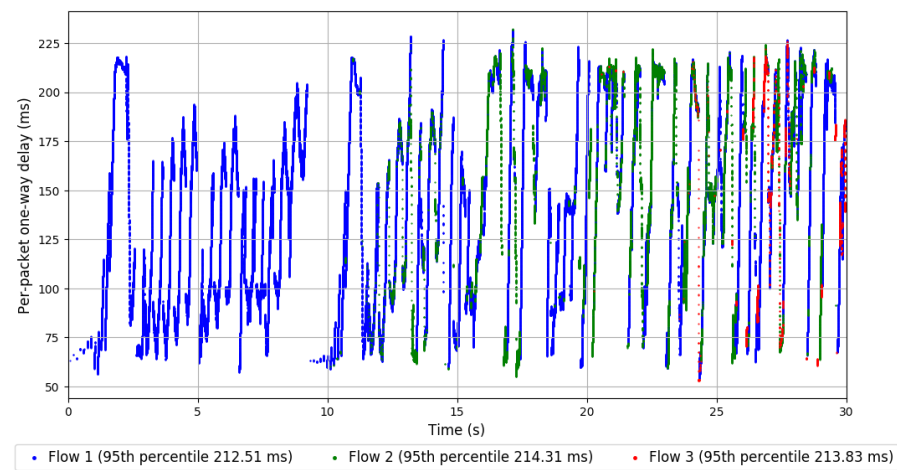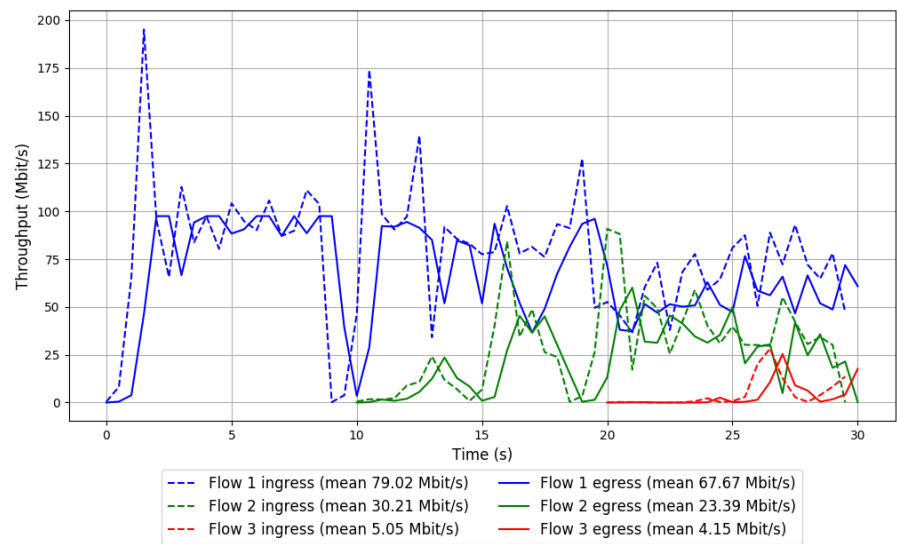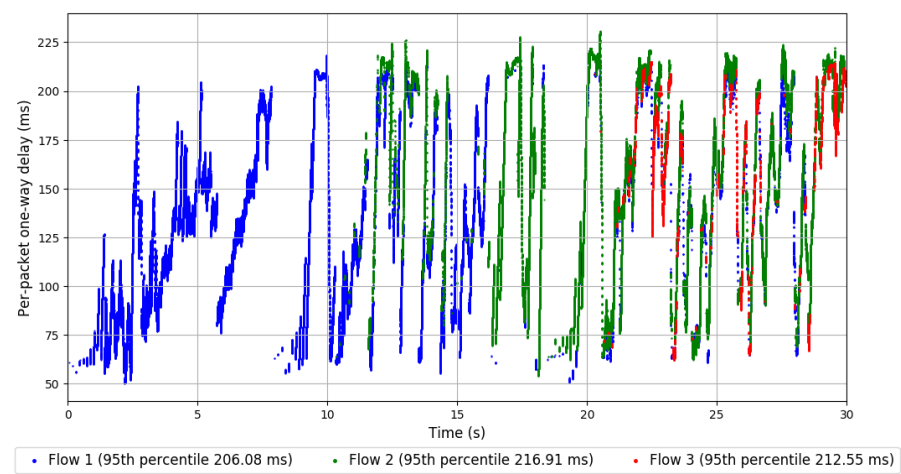
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 74.32 Mbit/s) --- Flow 1 egress (mean 68.30 Mbit/s)
Flow 2 ingress (mean 53.44 Mbit/s) --- Flow 2 egress (mean 20.89 Mbit/s)
Flow 3 ingress (mean 21.84 Mbit/s) --- Flow 3 egress (mean 18.82 Mbit/s)

Flow 1 (95th percentile 208.12 ms)   Flow 2 (95th percentile 218.83 ms)   Flow 3 (95th percentile 200.97 ms)

```
Run 3: Statistics of Verus

Start at: 2018-10-02 10:58:14
End at: 2018-10-02 10:58:44
Local clock offset: -4.105 ms
Remote clock offset: 30.318 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.39 Mbit/s
95th percentile per-packet one-way delay: 213.092 ms
Loss rate: 15.69%
-- Flow 1:
Average throughput: 67.67 Mbit/s
95th percentile per-packet one-way delay: 212.506 ms
Loss rate: 14.02%
-- Flow 2:
Average throughput: 23.39 Mbit/s
95th percentile per-packet one-way delay: 214.307 ms
Loss rate: 22.18%
-- Flow 3:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 213.833 ms
Loss rate: 17.54%
```

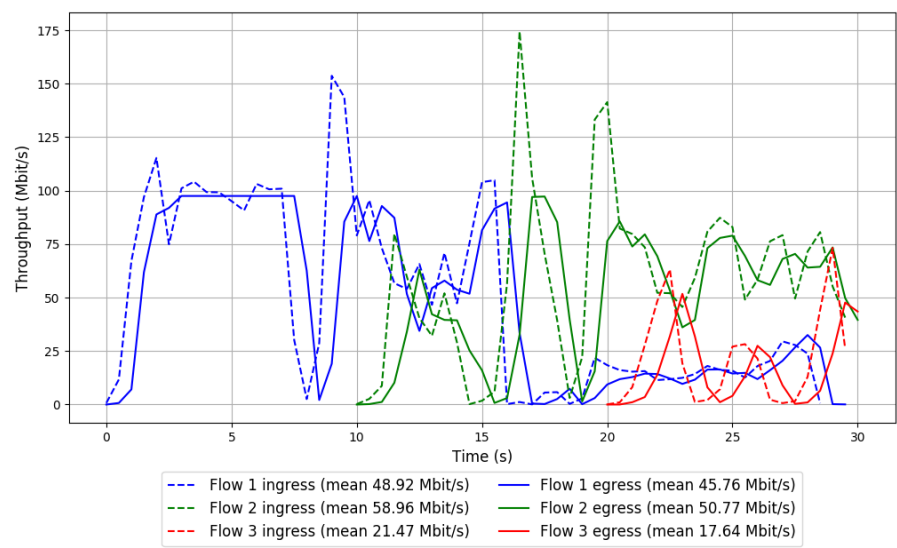Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-10-02 11:22:03
End at: 2018-10-02 11:22:33
Local clock offset: -11.571 ms
Remote clock offset: 16.258 ms

# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.67 Mbit/s
95th percentile per-packet one-way delay: 213.604 ms
Loss rate: 10.03%
-- Flow 1:
Average throughput: 45.76 Mbit/s
95th percentile per-packet one-way delay: 206.080 ms
Loss rate: 5.97%
-- Flow 2:
Average throughput: 50.77 Mbit/s
95th percentile per-packet one-way delay: 216.910 ms
Loss rate: 13.59%
-- Flow 3:
Average throughput: 17.64 Mbit/s
95th percentile per-packet one-way delay: 212.552 ms
Loss rate: 17.85%
```

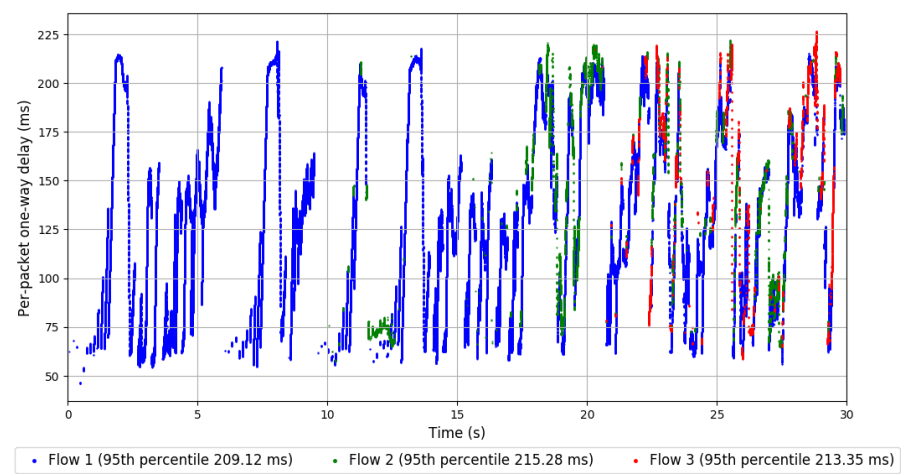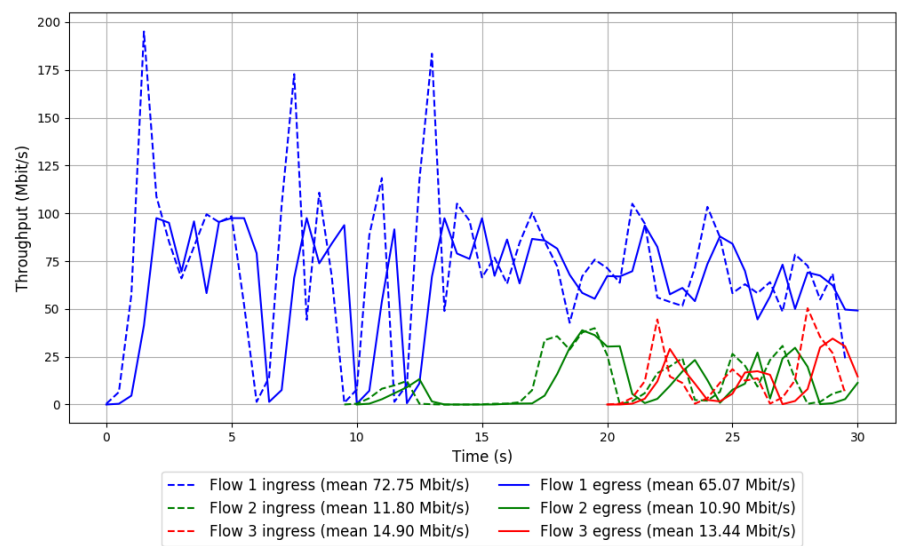Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-10-02 11:51:20
End at: 2018-10-02 11:51:50
Local clock offset: -12.352 ms
Remote clock offset: 4.597 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.56 Mbit/s
95th percentile per-packet one-way delay: 210.078 ms
Loss rate: 9.95%
-- Flow 1:
Average throughput: 65.07 Mbit/s
95th percentile per-packet one-way delay: 209.121 ms
Loss rate: 10.26%
-- Flow 2:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 215.284 ms
Loss rate: 7.05%
-- Flow 3:
Average throughput: 13.44 Mbit/s
95th percentile per-packet one-way delay: 213.350 ms
Loss rate: 10.00%
```

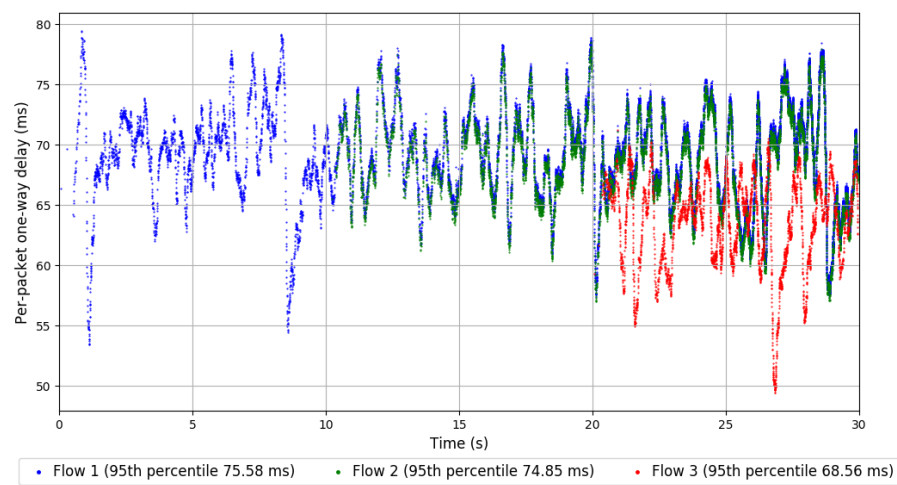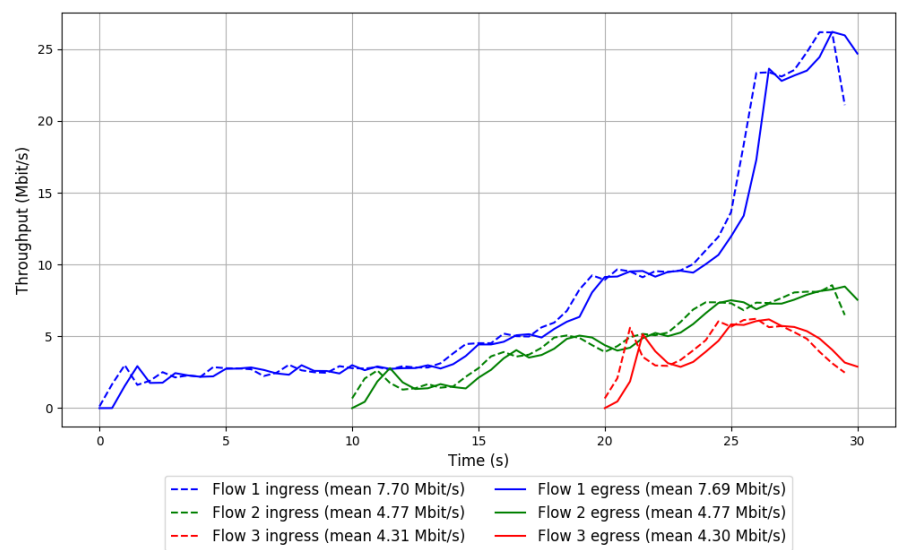Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-10-02 10:21:09
End at: 2018-10-02 10:21:39
Local clock offset: 9.22 ms
Remote clock offset: 23.258 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.28 Mbit/s
95th percentile per-packet one-way delay: 75.194 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 7.69 Mbit/s
95th percentile per-packet one-way delay: 75.583 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 74.849 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 68.563 ms
Loss rate: 0.22%
```

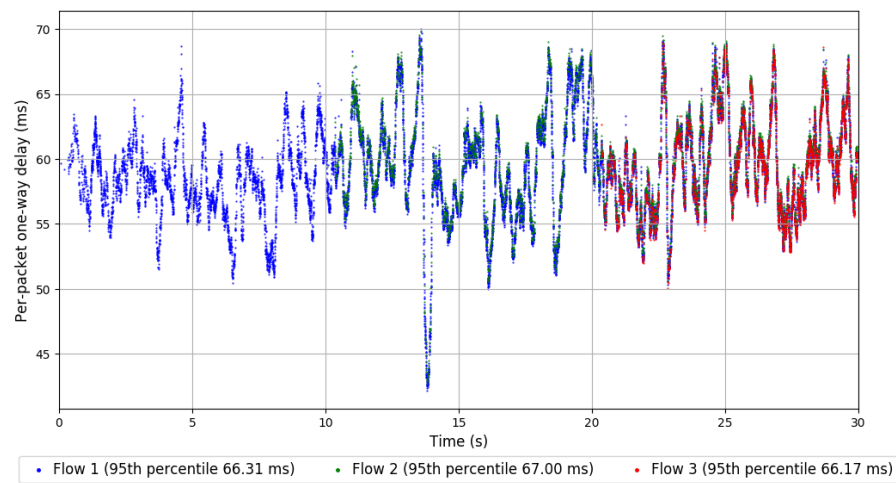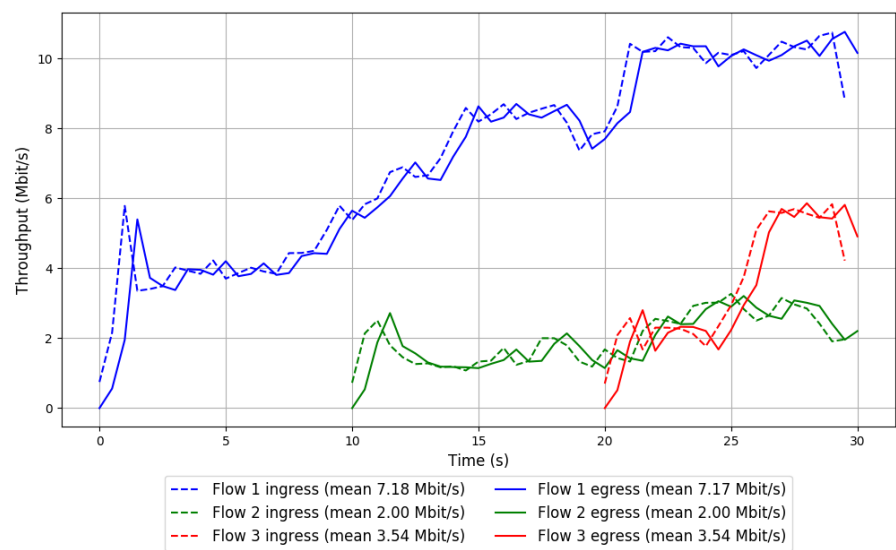Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-10-02 10:44:55
End at: 2018-10-02 10:45:25
Local clock offset: 13.492 ms
Remote clock offset: 26.738 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 66.419 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 66.312 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 67.000 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 66.172 ms
Loss rate: 0.00%
```

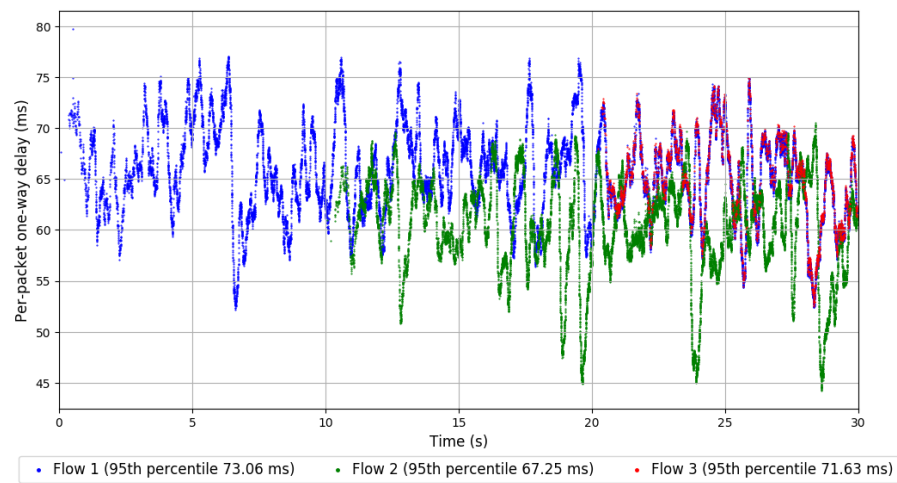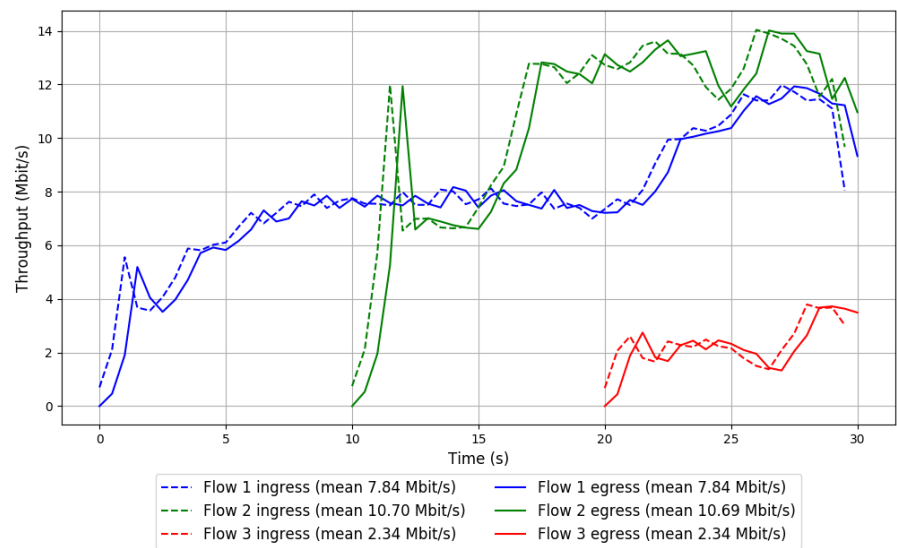Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-10-02 11:08:42
End at: 2018-10-02 11:09:12
Local clock offset: -9.239 ms
Remote clock offset: 26.499 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.73 Mbit/s
95th percentile per-packet one-way delay: 71.629 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 73.065 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 10.69 Mbit/s
95th percentile per-packet one-way delay: 67.248 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 71.630 ms
Loss rate: 0.00%
```

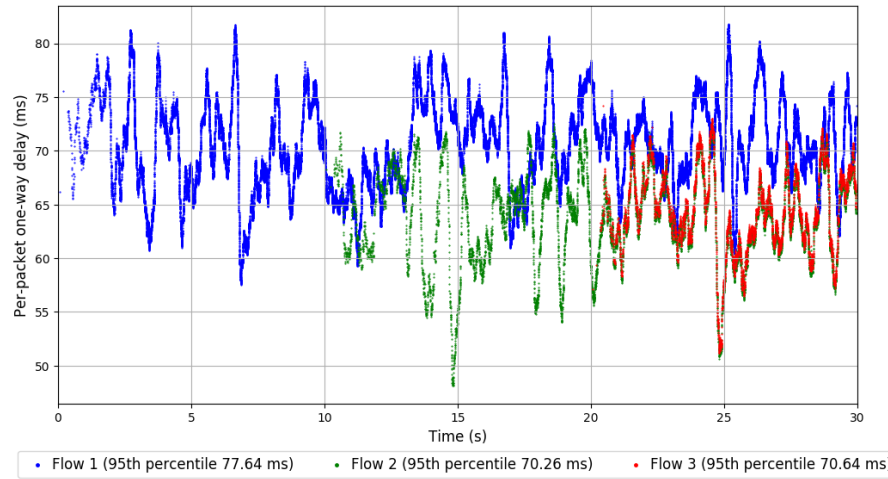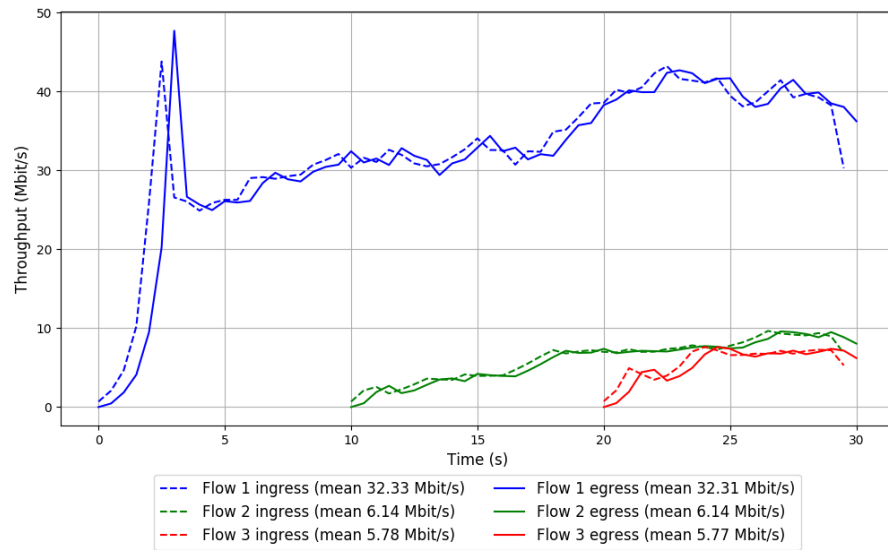Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-10-02 11:32:25
End at: 2018-10-02 11:32:55
Local clock offset: -12.619 ms
Remote clock offset: 13.983 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.30 Mbit/s
95th percentile per-packet one-way delay: 77.247 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 32.31 Mbit/s
95th percentile per-packet one-way delay: 77.642 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 6.14 Mbit/s
95th percentile per-packet one-way delay: 70.258 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 70.636 ms
Loss rate: 0.12%
```

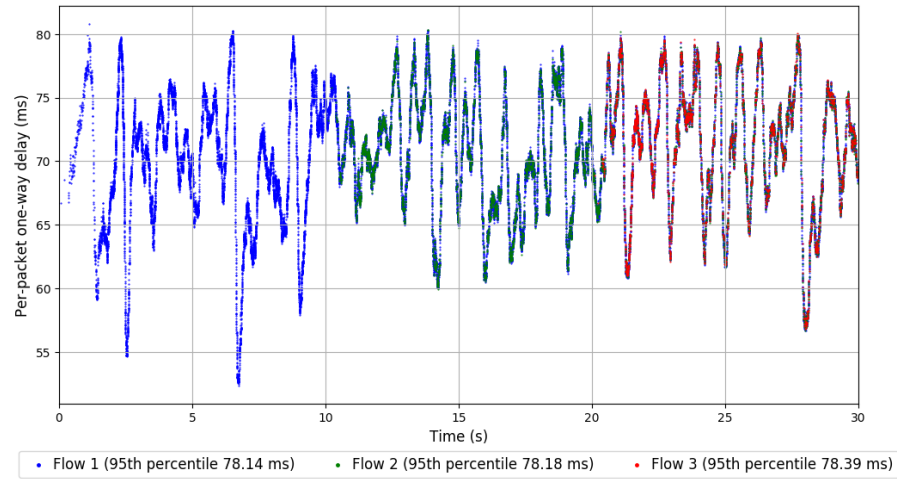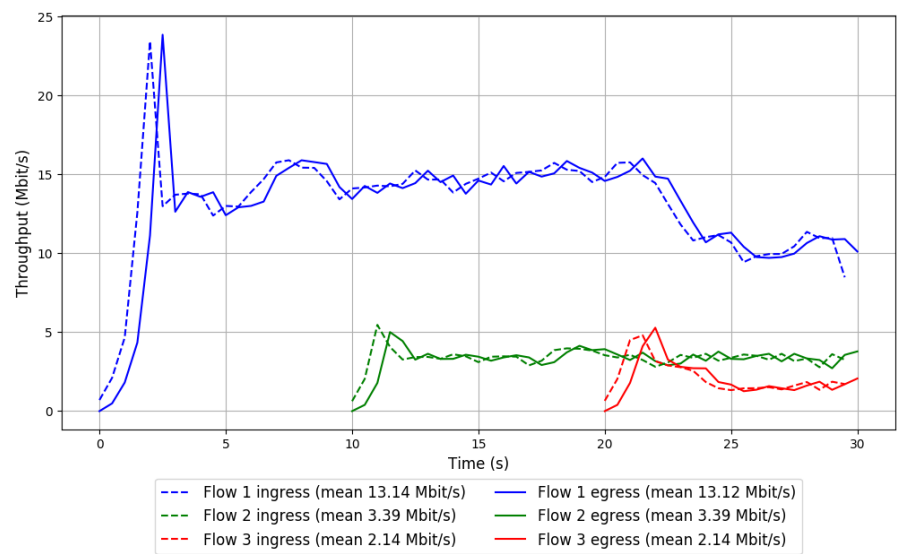Run 4: Report of PCC-Vivace — Data Link

172

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-10-02 12:01:42
End at: 2018-10-02 12:02:12
Local clock offset: -11.033 ms
Remote clock offset: 4.644 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.08 Mbit/s
95th percentile per-packet one-way delay: 78.169 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 78.141 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 78.181 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 78.393 ms
Loss rate: 0.06%
```

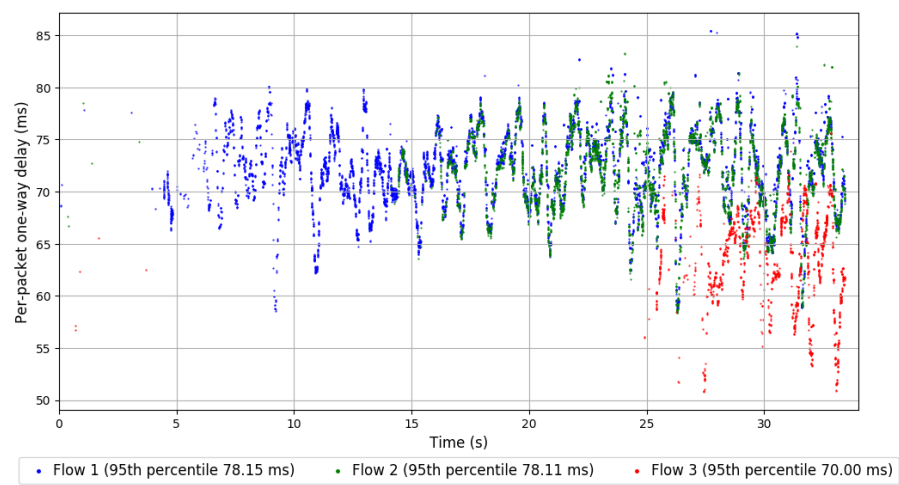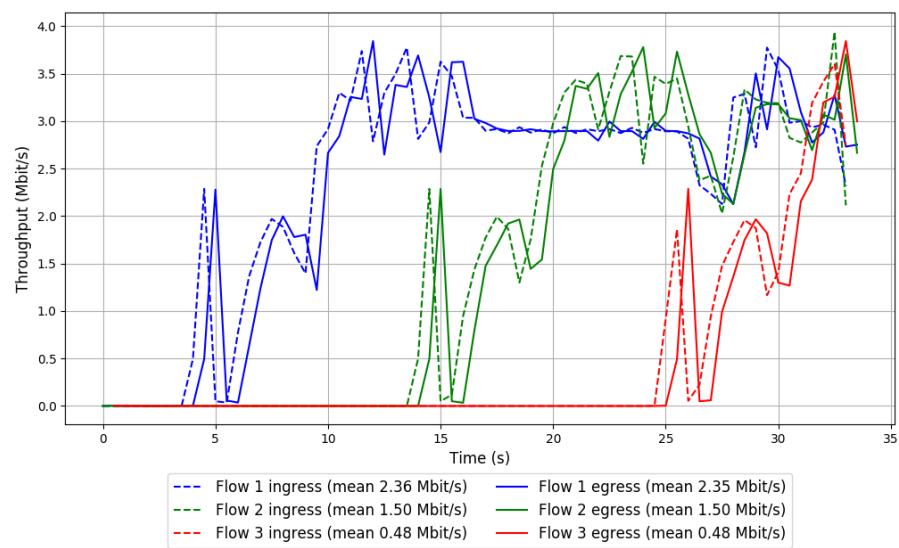# Run 5: Report of PCC-Vivace — Data Link

174

```
Run 1: Statistics of WebRTC media

Start at: 2018-10-02 10:23:48
End at: 2018-10-02 10:24:18
Local clock offset: 9.823 ms
Remote clock offset: 25.451 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 77.978 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 78.148 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 78.112 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 69.998 ms
Loss rate: 0.22%
```

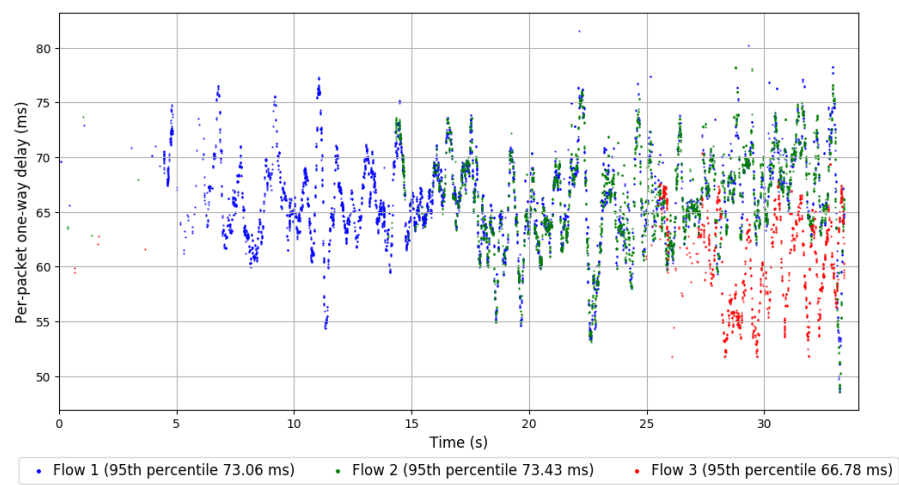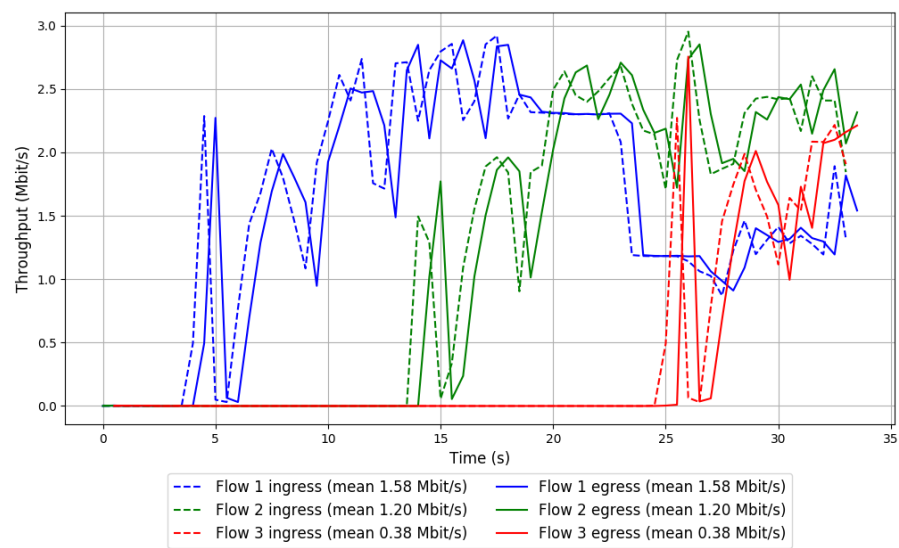Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-10-02 10:47:28
End at: 2018-10-02 10:47:58
Local clock offset: 9.863 ms
Remote clock offset: 26.804 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 72.987 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 73.062 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 73.430 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 66.777 ms
Loss rate: 0.00%
```
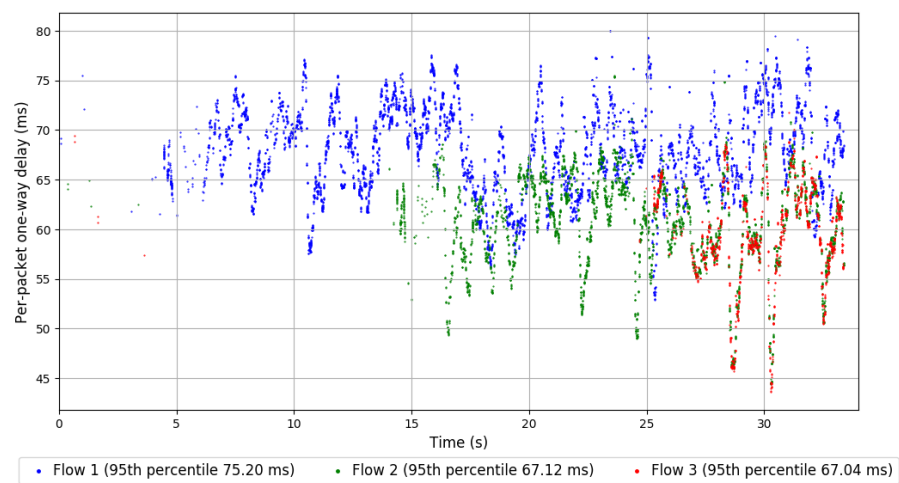
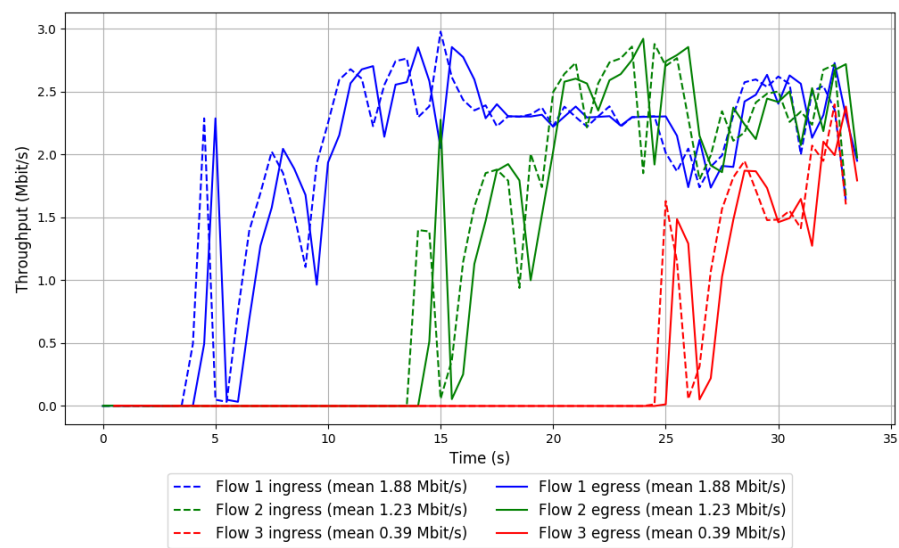Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-10-02 11:11:18
End at: 2018-10-02 11:11:48
Local clock offset: -10.206 ms
Remote clock offset: 26.45 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 73.848 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 75.204 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 67.116 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 67.036 ms
Loss rate: 0.15%
```

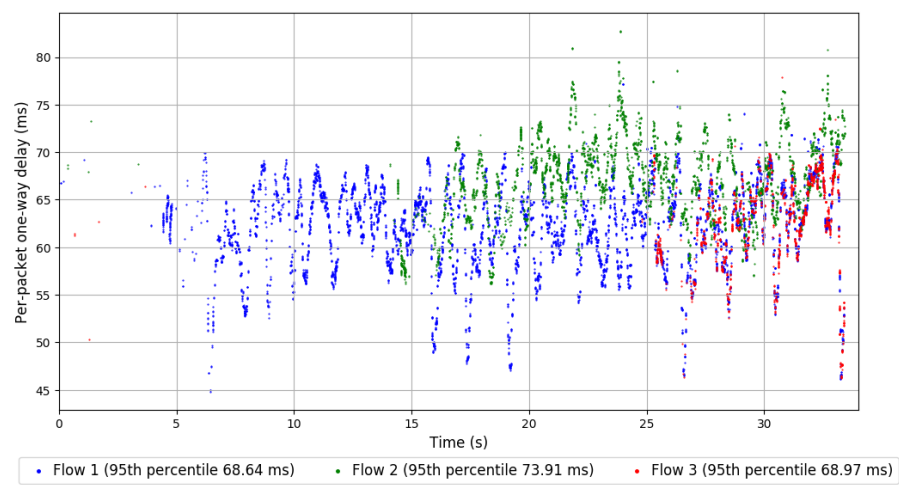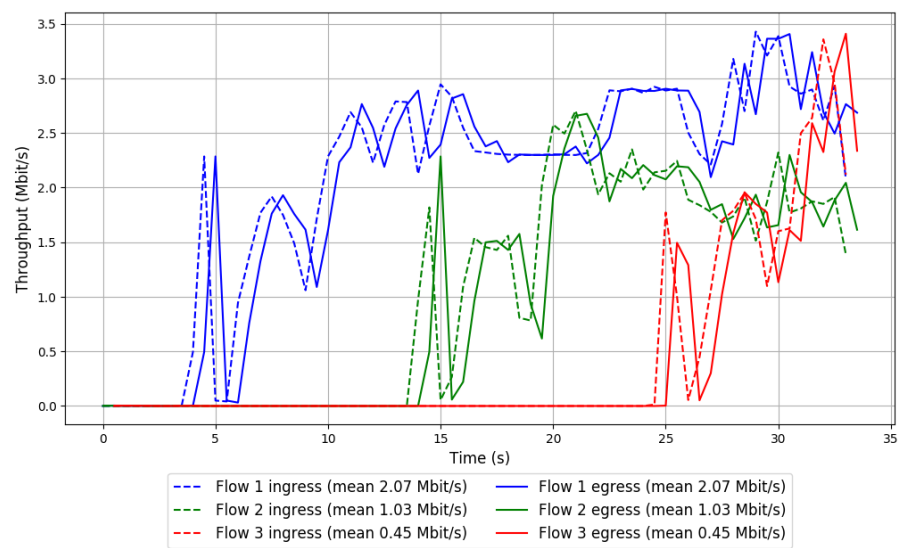Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-10-02 11:35:07
End at: 2018-10-02 11:35:37
Local clock offset: -13.006 ms
Remote clock offset: 10.288 ms

# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.53 Mbit/s
95th percentile per-packet one-way delay: 71.470 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 68.644 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 73.910 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 68.972 ms
Loss rate: 0.30%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-10-02 12:04:17
End at: 2018-10-02 12:04:48
Local clock offset: -11.046 ms
Remote clock offset: 4.52 ms


# Below is generated by plot.py at 2018-10-02 12:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 79.186 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 79.493 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 70.797 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 79.343 ms
Loss rate: 0.06%
```

Run 5: Report of WebRTC media — Data Link