Pantheon Report

Generated at 2019-06-28 04:16:59 (UTC).

Data path: GCE Iowa on **ens4** (*remote*) →GCE Sydney on **ens4** (*local*).

Repeated the test of 22 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 `time.google.com` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1032-gcp
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 @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
 M helpers/__init__.pyc
 M helpers/context.pyc
 M helpers/utils.pyc
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
```
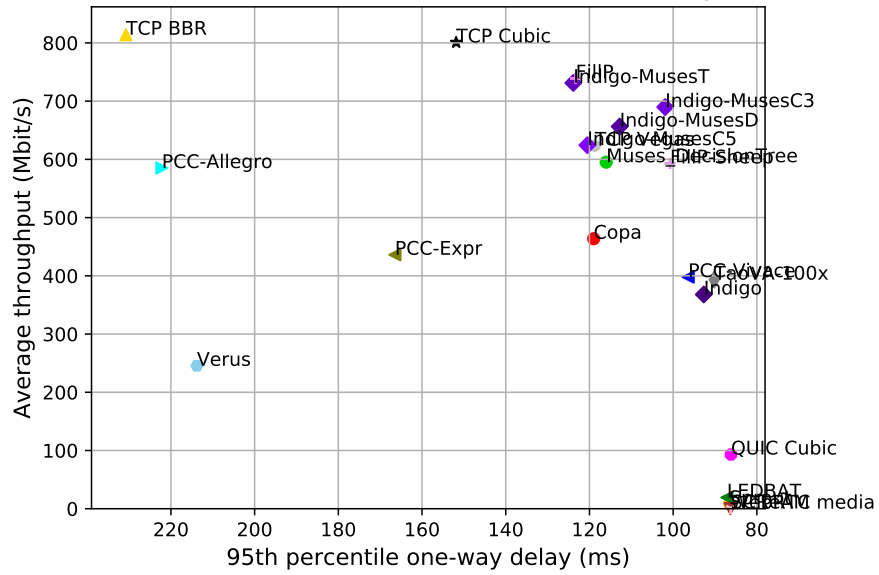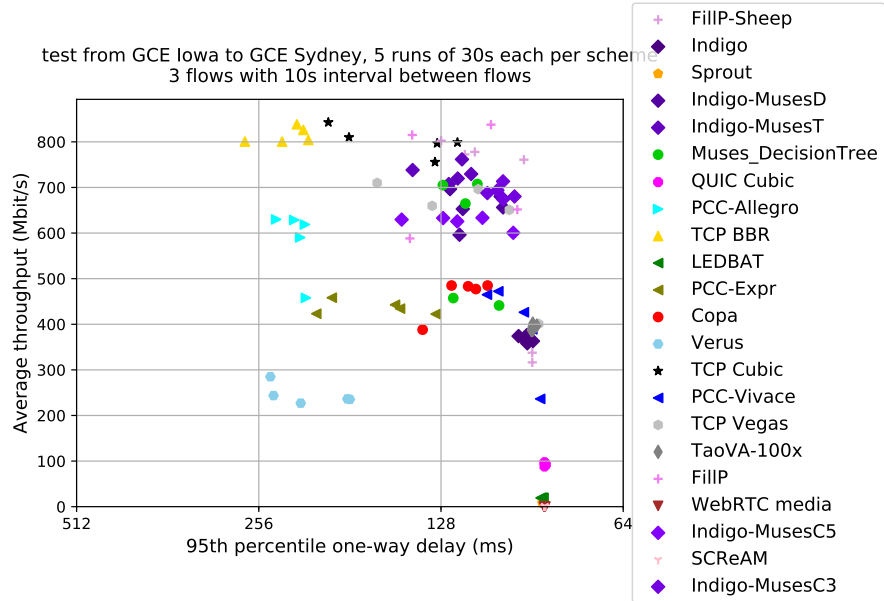
```
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE Iowa to GCE Sydney, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from GCE Iowa to GCE Sydney, 5 runs of 30s each per scheme
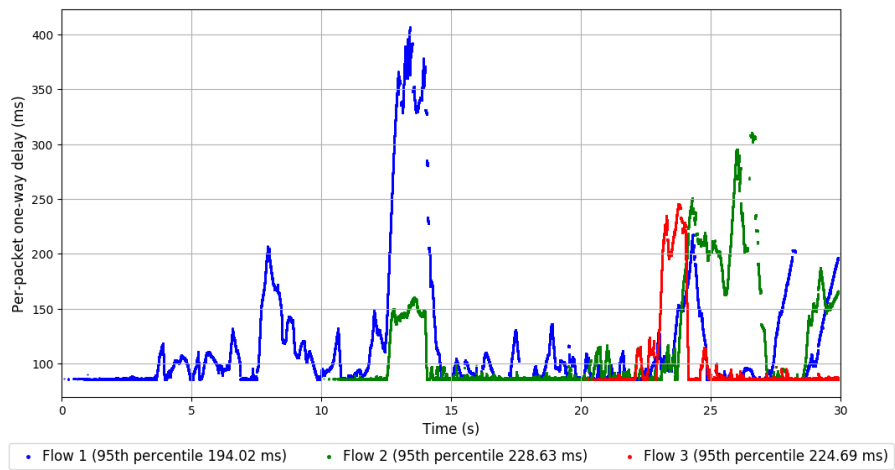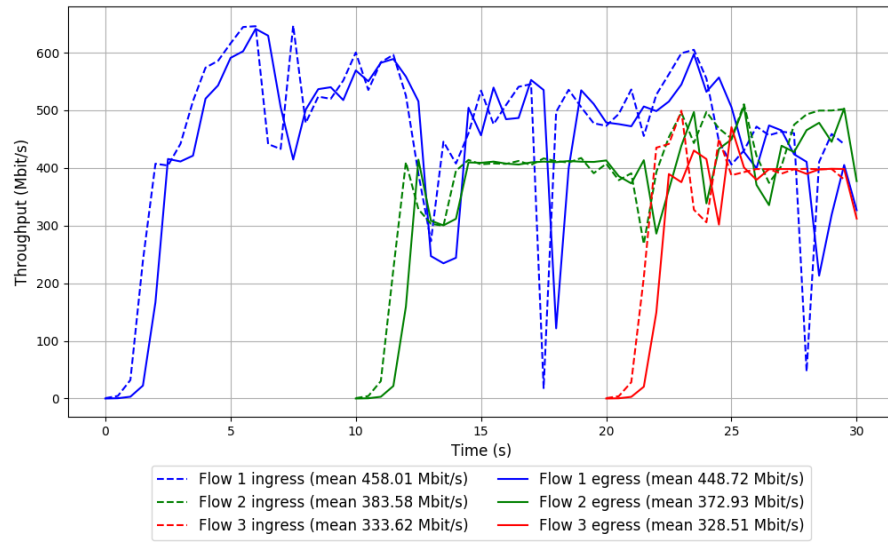3 flows with 10s interval between flows

3

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	434.63	398.77	348.93	222.36	246.25	184.49	3.15	4.04	3.31
Copa	5	252.67	225.05	187.62	113.22	126.73	106.99	0.60	1.02	2.35
TCP Cubic	5	432.83	390.38	330.89	127.72	159.54	134.24	0.65	0.90	2.36
FillP	5	437.19	335.02	243.19	129.23	93.15	89.11	1.36	0.81	2.13
FillP-Sheep	5	302.50	322.18	234.27	104.29	90.93	90.63	0.54	0.80	2.13
Indigo	5	199.43	179.56	152.15	91.60	94.45	93.90	0.63	0.91	2.12
Indigo-MusesC3	5	415.04	338.26	236.61	106.94	91.55	93.76	0.39	0.87	3.37
Indigo-MusesC5	5	377.95	347.03	100.37	126.78	100.57	86.71	0.30	1.03	3.98
Indigo-MusesD	5	394.70	327.68	216.48	116.79	102.34	89.77	0.51	1.00	3.41
Indigo-MusesT	5	446.17	356.77	242.22	128.69	109.11	92.88	0.45	1.02	3.56
LEDBAT	5	12.48	8.28	4.02	87.18	86.96	86.91	1.15	1.74	3.52
Muses_DecisionTree	5	372.36	288.47	104.14	115.59	107.14	88.61	0.57	0.97	2.41
PCC-Allegro	5	367.07	223.21	216.23	225.50	162.61	189.79	6.91	1.38	3.53
PCC-Expr	5	239.68	215.14	165.08	158.50	172.30	131.56	1.74	1.63	2.34
QUIC Cubic	5	53.75	45.71	26.54	86.21	86.01	86.07	0.87	1.44	1.16
SCReAM	5	0.22	0.21	0.22	86.14	86.05	86.22	0.54	1.00	1.78
Sprout	5	4.19	3.99	3.23	86.69	86.60	86.44	0.60	1.17	2.87
TaoVA-100x	5	206.71	193.72	176.78	89.18	90.35	92.15	0.62	0.92	1.92
TCP Vegas	5	324.36	296.95	310.31	117.47	101.27	100.10	0.48	0.79	2.25
Verus	5	141.65	121.14	72.79	207.93	204.34	141.95	2.68	1.13	4.32
PCC-Vivace	5	234.02	174.17	148.17	106.00	92.88	101.59	1.23	1.19	2.54
WebRTC media	5	0.05	0.05	0.05	86.13	87.22	86.30	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-06-27 22:33:10
End at: 2019-06-27 22:33:40
Local clock offset: 0.29 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2019-06-28 02:00:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 804.18 Mbit/s
95th percentile per-packet one-way delay: 212.017 ms
Loss rate: 3.00%
-- Flow 1:
Average throughput: 448.72 Mbit/s
95th percentile per-packet one-way delay: 194.020 ms
Loss rate: 2.59%
-- Flow 2:
Average throughput: 372.93 Mbit/s
95th percentile per-packet one-way delay: 228.635 ms
Loss rate: 3.62%
-- Flow 3:
Average throughput: 328.51 Mbit/s
95th percentile per-packet one-way delay: 224.694 ms
Loss rate: 3.24%
```
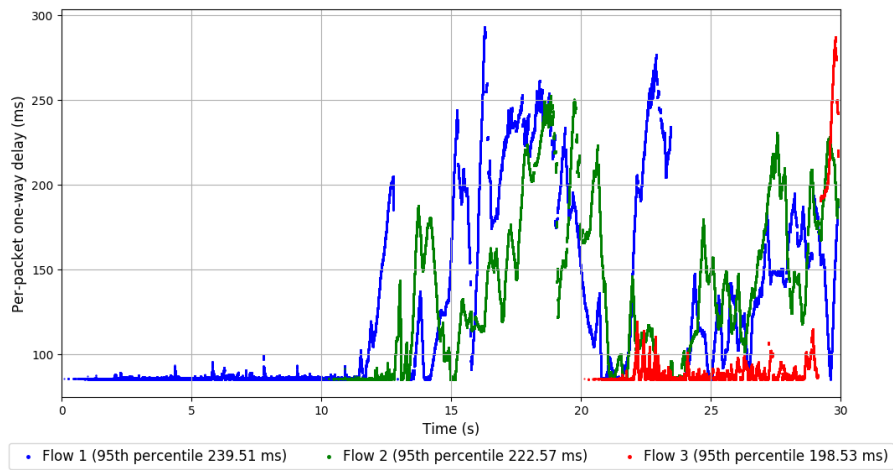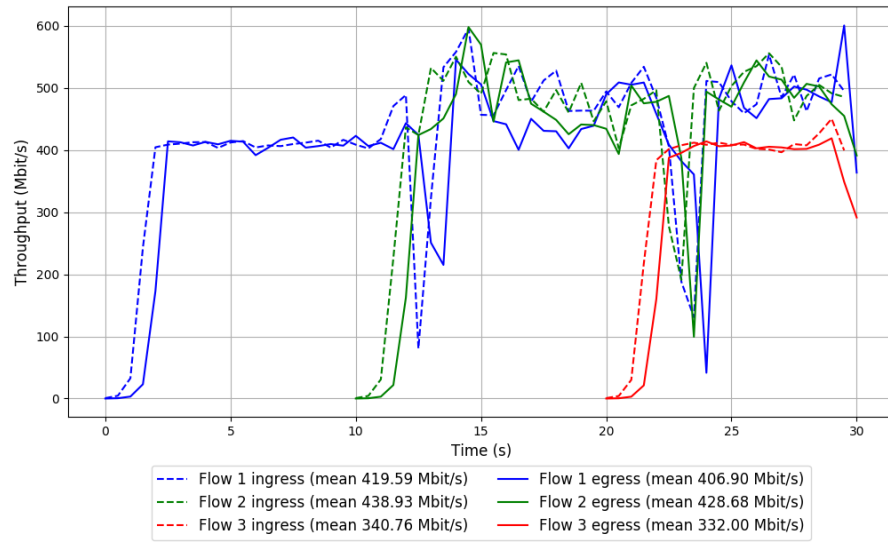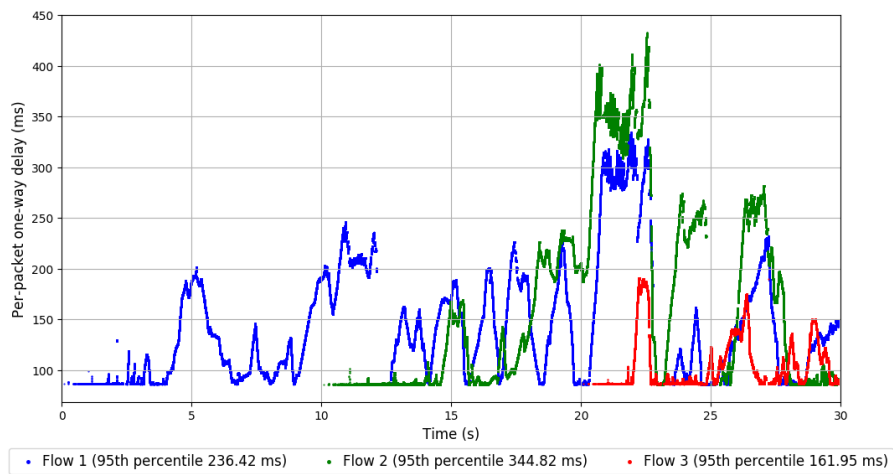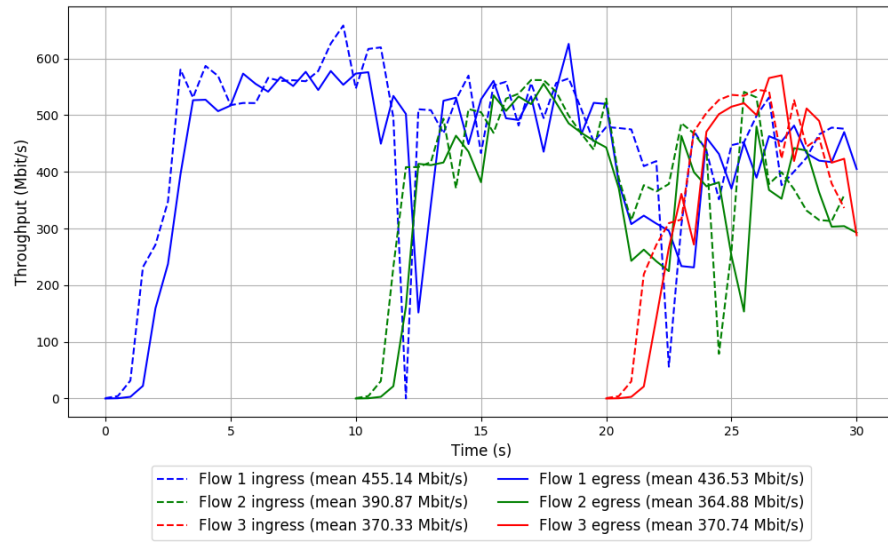
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 458.01 Mbit/s)   Flow 1 egress (mean 448.72 Mbit/s)
Flow 2 ingress (mean 383.58 Mbit/s)   Flow 2 egress (mean 372.93 Mbit/s)
Flow 3 ingress (mean 333.62 Mbit/s)   Flow 3 egress (mean 328.51 Mbit/s)

Flow 1 (95th percentile 194.02 ms)   Flow 2 (95th percentile 228.63 ms)   Flow 3 (95th percentile 224.69 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-06-27 23:11:00
End at: 2019-06-27 23:11:30
Local clock offset: -0.258 ms
Remote clock offset: 0.003 ms


# Below is generated by plot.py at 2019-06-28 02:01:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 800.57 Mbit/s
95th percentile per-packet one-way delay: 234.255 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 406.90 Mbit/s
95th percentile per-packet one-way delay: 239.509 ms
Loss rate: 3.59%
-- Flow 2:
Average throughput: 428.68 Mbit/s
95th percentile per-packet one-way delay: 222.574 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 332.00 Mbit/s
95th percentile per-packet one-way delay: 198.526 ms
Loss rate: 4.27%
```
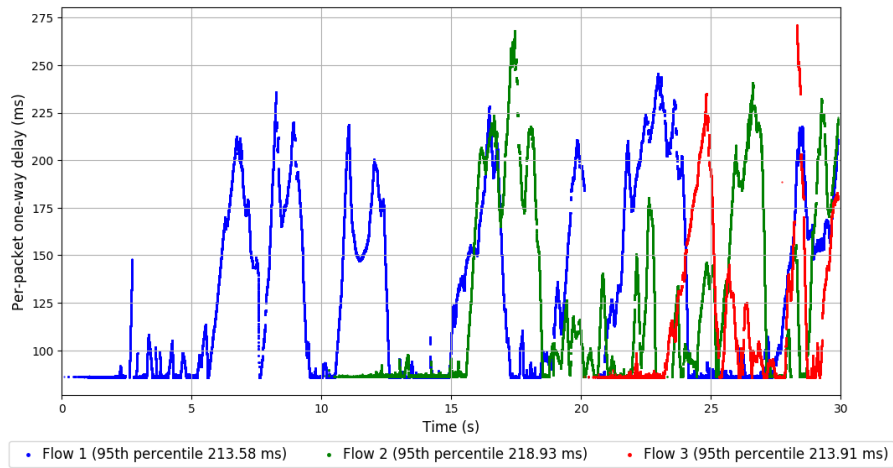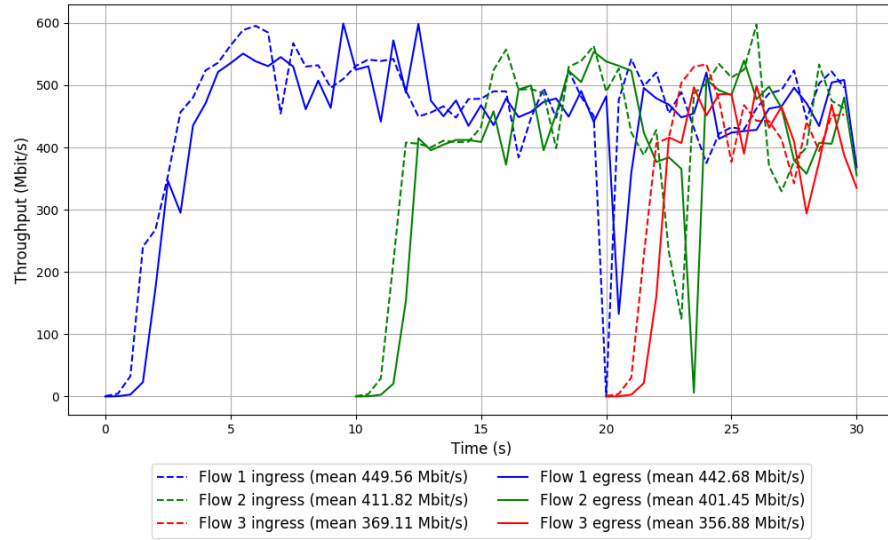
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 419.59 Mbit/s)   Flow 1 egress (mean 406.90 Mbit/s)
Flow 2 ingress (mean 438.93 Mbit/s)   Flow 2 egress (mean 428.68 Mbit/s)
Flow 3 ingress (mean 340.76 Mbit/s)   Flow 3 egress (mean 332.00 Mbit/s)

Flow 1 (95th percentile 239.51 ms)   Flow 2 (95th percentile 222.57 ms)   Flow 3 (95th percentile 198.53 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2019-06-27 23:49:28
End at: 2019-06-27 23:49:58
Local clock offset: 0.162 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2019-06-28 02:01:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 800.68 Mbit/s
95th percentile per-packet one-way delay: 269.933 ms
Loss rate: 5.08%
-- Flow 1:
Average throughput: 436.53 Mbit/s
95th percentile per-packet one-way delay: 236.420 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 364.88 Mbit/s
95th percentile per-packet one-way delay: 344.816 ms
Loss rate: 7.46%
-- Flow 3:
Average throughput: 370.74 Mbit/s
95th percentile per-packet one-way delay: 161.950 ms
Loss rate: 1.64%
```
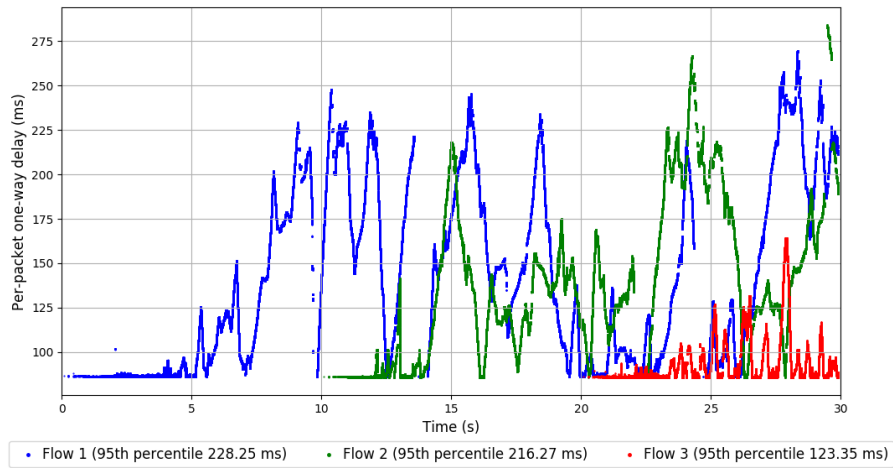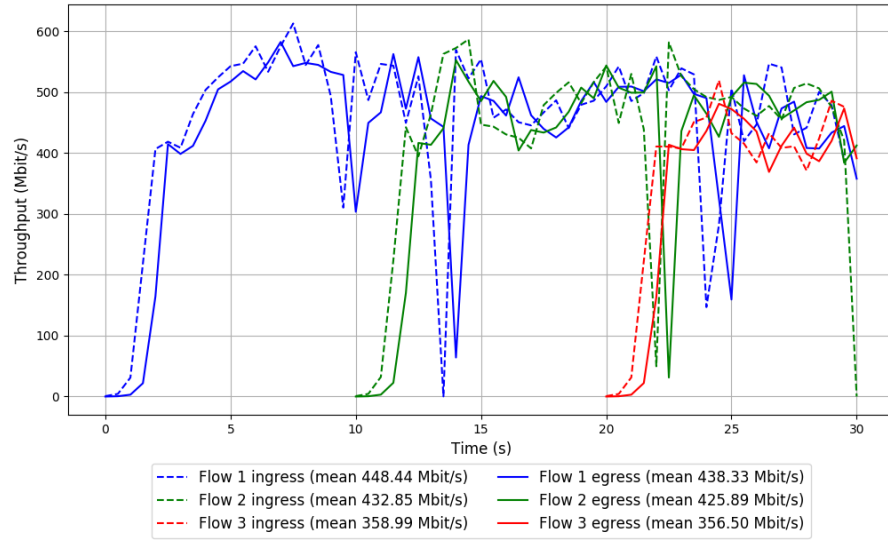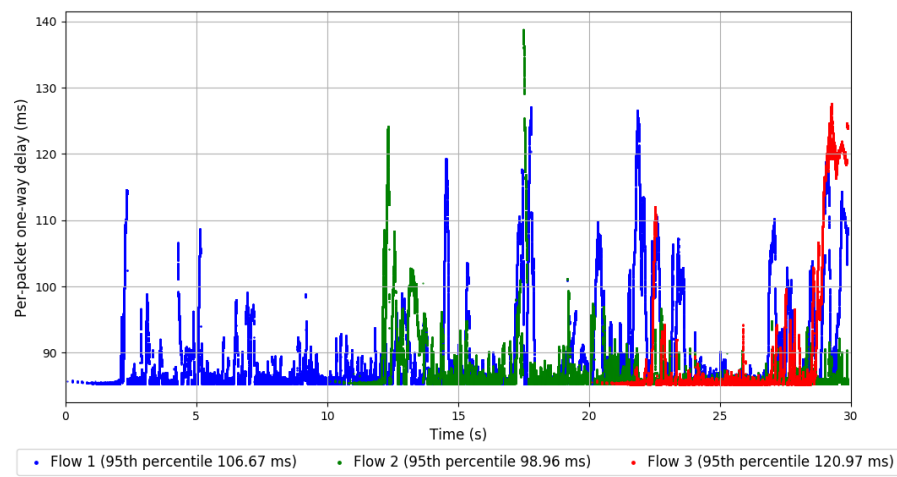
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 455.14 Mbit/s) --- Flow 1 egress (mean 436.53 Mbit/s)
Flow 2 ingress (mean 390.87 Mbit/s) --- Flow 2 egress (mean 364.88 Mbit/s)
Flow 3 ingress (mean 370.33 Mbit/s) --- Flow 3 egress (mean 370.74 Mbit/s)

Flow 1 (95th percentile 236.42 ms)   Flow 2 (95th percentile 344.82 ms)   Flow 3 (95th percentile 161.95 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-06-28 00:27:46
End at: 2019-06-28 00:28:16
Local clock offset: -0.021 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2019-06-28 02:01:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 826.24 Mbit/s
95th percentile per-packet one-way delay: 216.079 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 442.68 Mbit/s
95th percentile per-packet one-way delay: 213.577 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 401.45 Mbit/s
95th percentile per-packet one-way delay: 218.929 ms
Loss rate: 3.36%
-- Flow 3:
Average throughput: 356.88 Mbit/s
95th percentile per-packet one-way delay: 213.907 ms
Loss rate: 5.00%
```
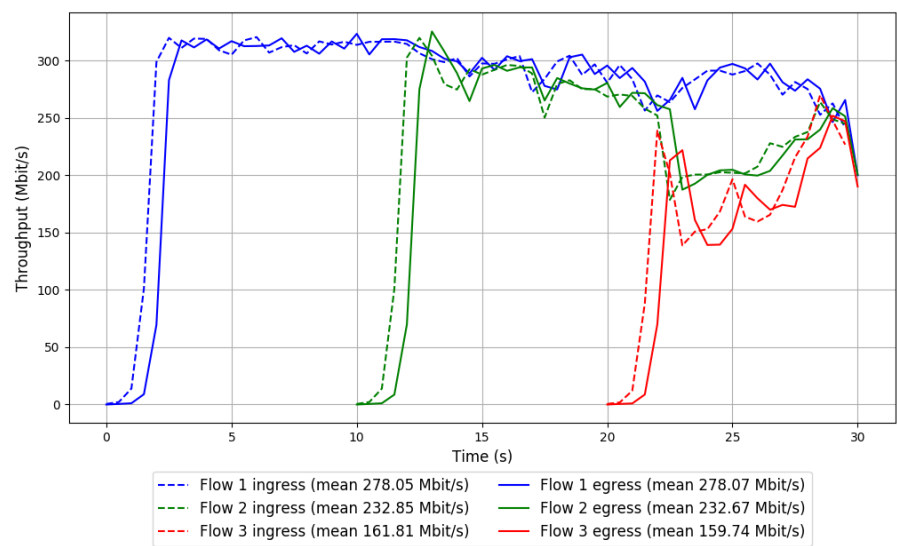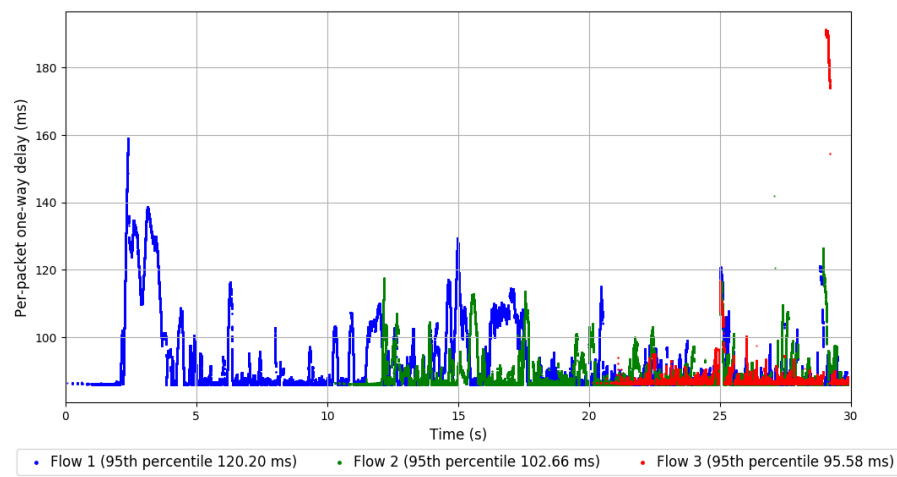
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2019-06-28 01:05:40
End at: 2019-06-28 01:06:10
Local clock offset: 0.001 ms
Remote clock offset: -0.015 ms


# Below is generated by plot.py at 2019-06-28 02:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 838.45 Mbit/s
95th percentile per-packet one-way delay: 221.464 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 438.33 Mbit/s
95th percentile per-packet one-way delay: 228.255 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 425.89 Mbit/s
95th percentile per-packet one-way delay: 216.272 ms
Loss rate: 2.56%
-- Flow 3:
Average throughput: 356.50 Mbit/s
95th percentile per-packet one-way delay: 123.349 ms
Loss rate: 2.38%
```
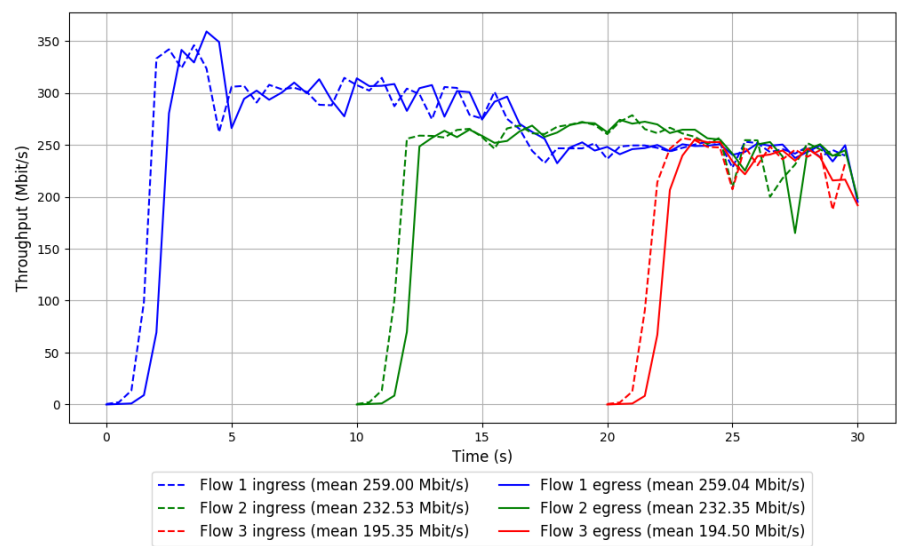
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 448.44 Mbit/s) --- Flow 1 egress (mean 438.33 Mbit/s)
Flow 2 ingress (mean 432.85 Mbit/s) --- Flow 2 egress (mean 425.89 Mbit/s)
Flow 3 ingress (mean 358.99 Mbit/s) --- Flow 3 egress (mean 356.50 Mbit/s)

Flow 1 (95th percentile 228.25 ms)   Flow 2 (95th percentile 216.27 ms)   Flow 3 (95th percentile 123.35 ms)
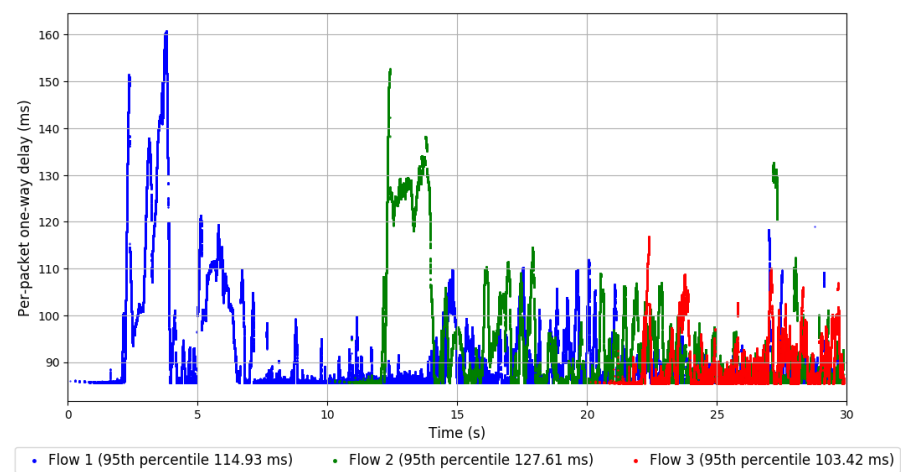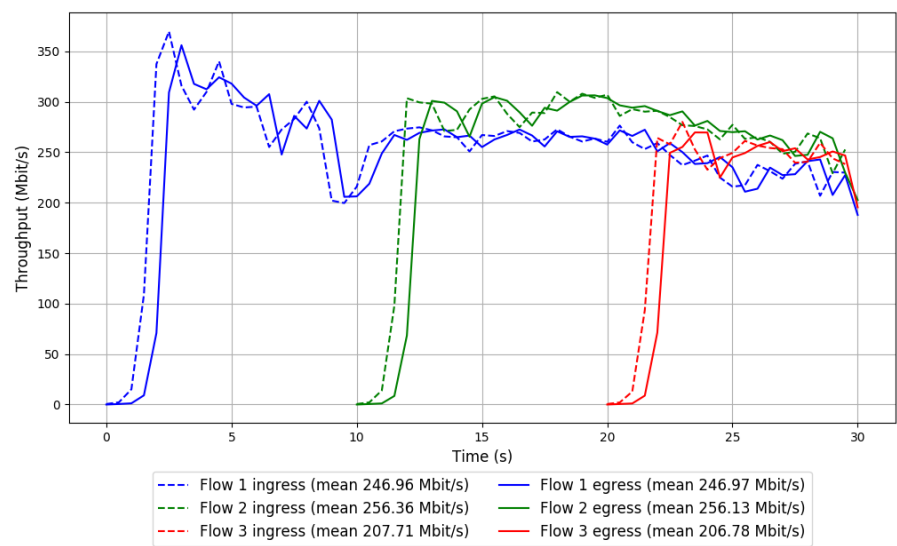
```
Run 1: Statistics of Copa

Start at: 2019-06-27 22:42:23
End at: 2019-06-27 22:42:53
Local clock offset: -0.092 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-28 02:02:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.97 Mbit/s
95th percentile per-packet one-way delay: 107.210 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 278.07 Mbit/s
95th percentile per-packet one-way delay: 106.673 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 232.67 Mbit/s
95th percentile per-packet one-way delay: 98.957 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 159.74 Mbit/s
95th percentile per-packet one-way delay: 120.965 ms
Loss rate: 2.99%
```

Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-06-27 23:20:30
End at: 2019-06-27 23:21:00
Local clock offset: 0.128 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2019-06-28 02:02:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.22 Mbit/s
95th percentile per-packet one-way delay: 112.104 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 259.04 Mbit/s
95th percentile per-packet one-way delay: 120.203 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 232.35 Mbit/s
95th percentile per-packet one-way delay: 102.657 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 194.50 Mbit/s
95th percentile per-packet one-way delay: 95.575 ms
Loss rate: 2.17%
```
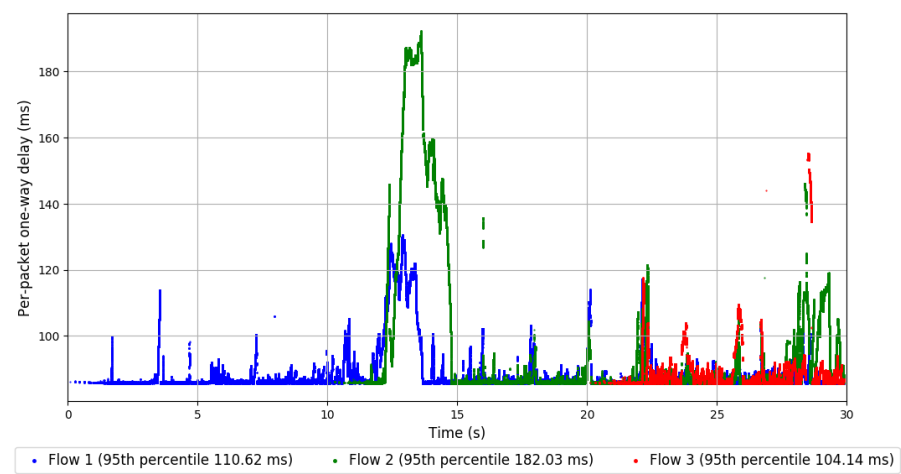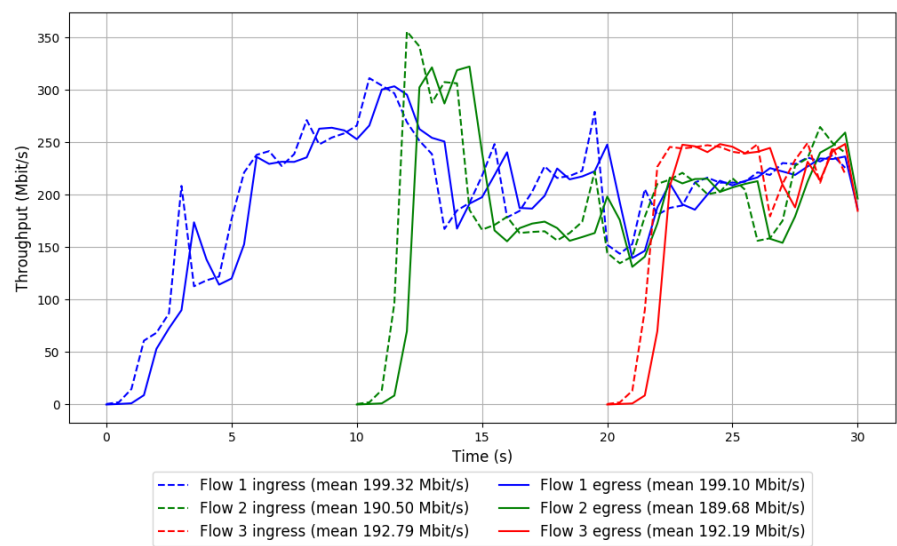
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-06-27 23:58:58
End at: 2019-06-27 23:59:28
Local clock offset: -0.345 ms
Remote clock offset: -0.113 ms


# Below is generated by plot.py at 2019-06-28 02:02:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.96 Mbit/s
95th percentile per-packet one-way delay: 122.955 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 246.97 Mbit/s
95th percentile per-packet one-way delay: 114.928 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 256.13 Mbit/s
95th percentile per-packet one-way delay: 127.605 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 206.78 Mbit/s
95th percentile per-packet one-way delay: 103.421 ms
Loss rate: 2.17%
```
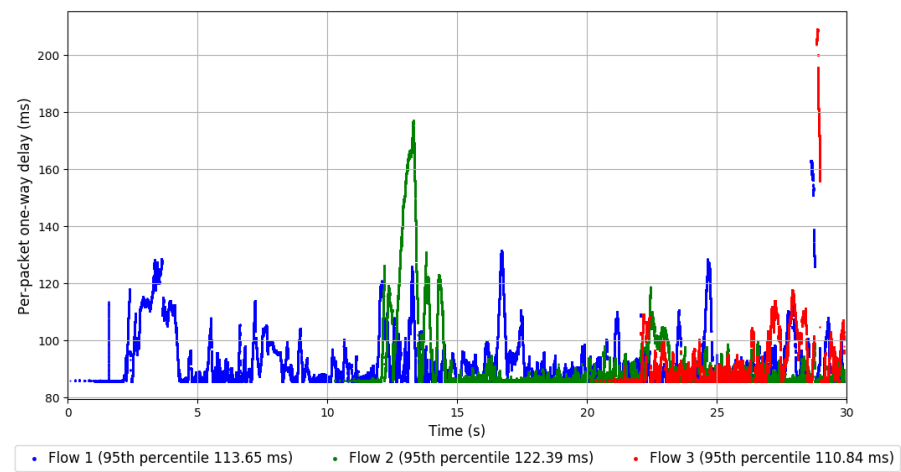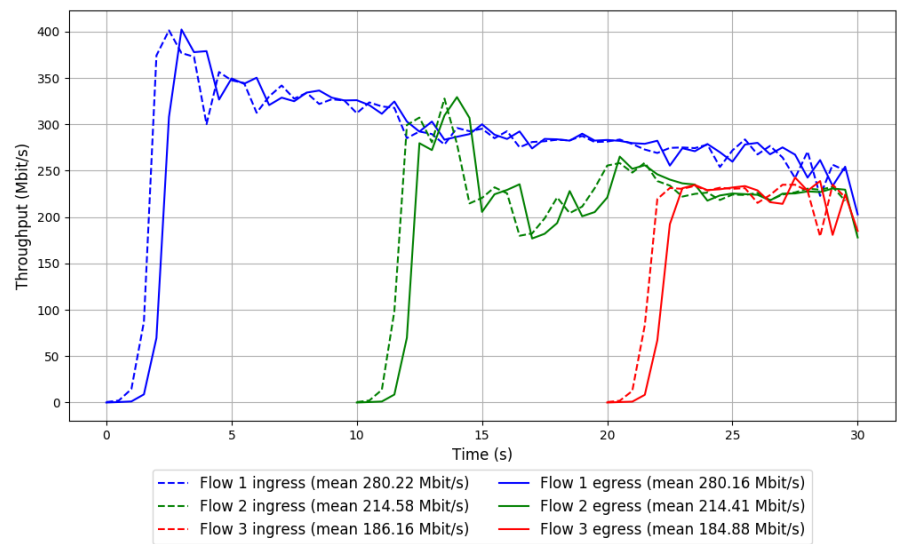
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-06-28 00:37:14
End at: 2019-06-28 00:37:44
Local clock offset: -0.024 ms
Remote clock offset: -0.13 ms


# Below is generated by plot.py at 2019-06-28 02:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 388.14 Mbit/s
95th percentile per-packet one-way delay: 137.270 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 199.10 Mbit/s
95th percentile per-packet one-way delay: 110.623 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 189.68 Mbit/s
95th percentile per-packet one-way delay: 182.026 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 192.19 Mbit/s
95th percentile per-packet one-way delay: 104.142 ms
Loss rate: 2.03%
```
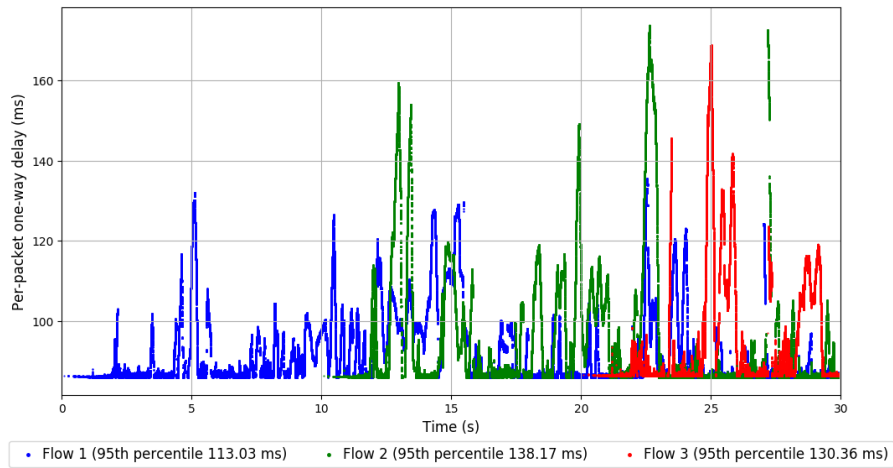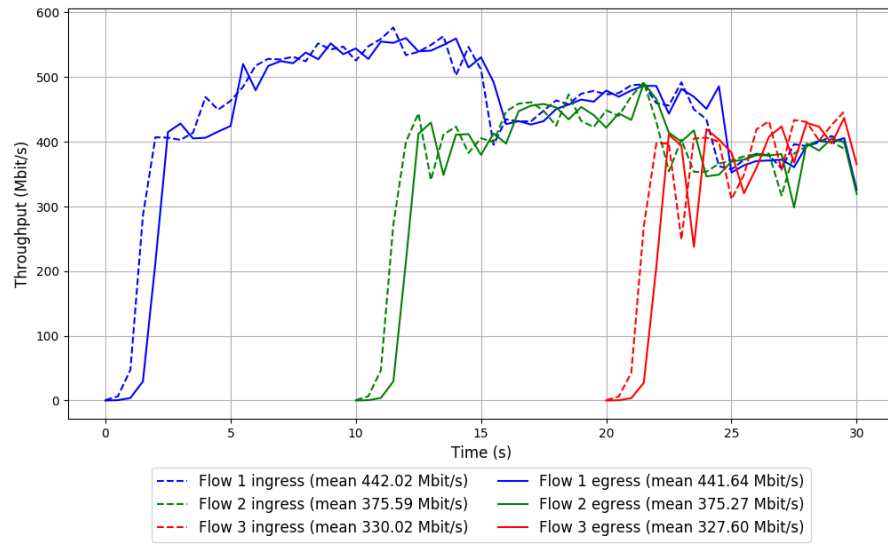
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-06-28 01:14:58
End at: 2019-06-28 01:15:28
Local clock offset: -0.162 ms
Remote clock offset: 0.008 ms


# Below is generated by plot.py at 2019-06-28 02:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.24 Mbit/s
95th percentile per-packet one-way delay: 115.446 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 280.16 Mbit/s
95th percentile per-packet one-way delay: 113.652 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 214.41 Mbit/s
95th percentile per-packet one-way delay: 122.389 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 184.88 Mbit/s
95th percentile per-packet one-way delay: 110.836 ms
Loss rate: 2.41%
```
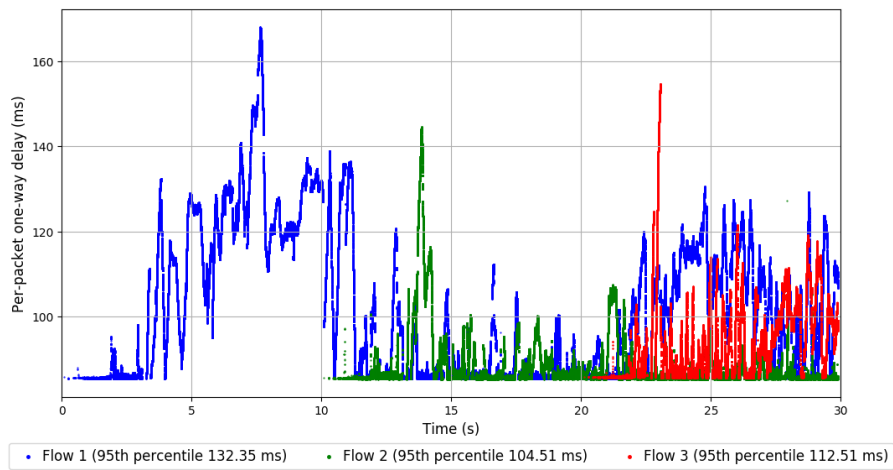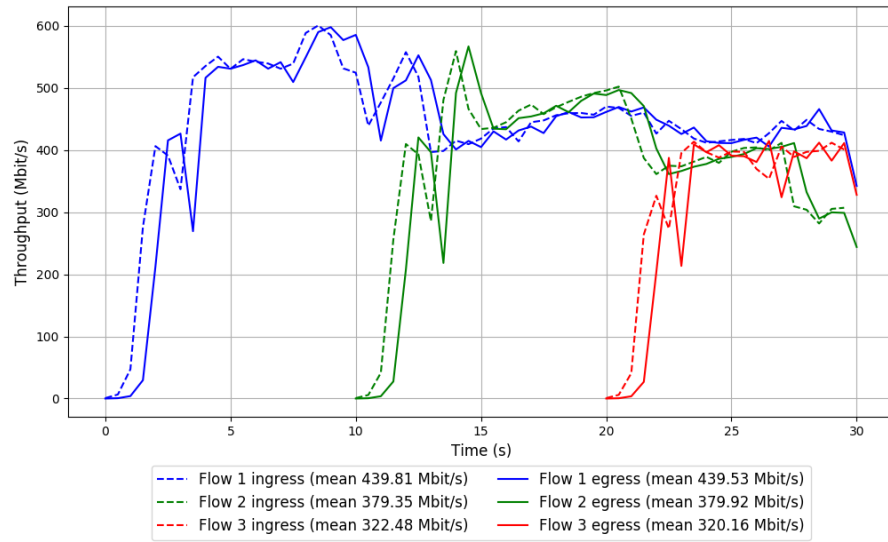
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 280.22 Mbit/s) ---- Flow 1 egress (mean 280.16 Mbit/s) ——
Flow 2 ingress (mean 214.58 Mbit/s) ---- Flow 2 egress (mean 214.41 Mbit/s) ——
Flow 3 ingress (mean 186.16 Mbit/s) ---- Flow 3 egress (mean 184.88 Mbit/s) ——

Flow 1 (95th percentile 113.65 ms)   Flow 2 (95th percentile 122.39 ms)   Flow 3 (95th percentile 110.84 ms)

24

```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-27 22:45:44
End at: 2019-06-27 22:46:14
Local clock offset: 0.615 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-28 02:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 798.69 Mbit/s
95th percentile per-packet one-way delay: 120.236 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 441.64 Mbit/s
95th percentile per-packet one-way delay: 113.034 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 375.27 Mbit/s
95th percentile per-packet one-way delay: 138.167 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 327.60 Mbit/s
95th percentile per-packet one-way delay: 130.357 ms
Loss rate: 2.45%
```

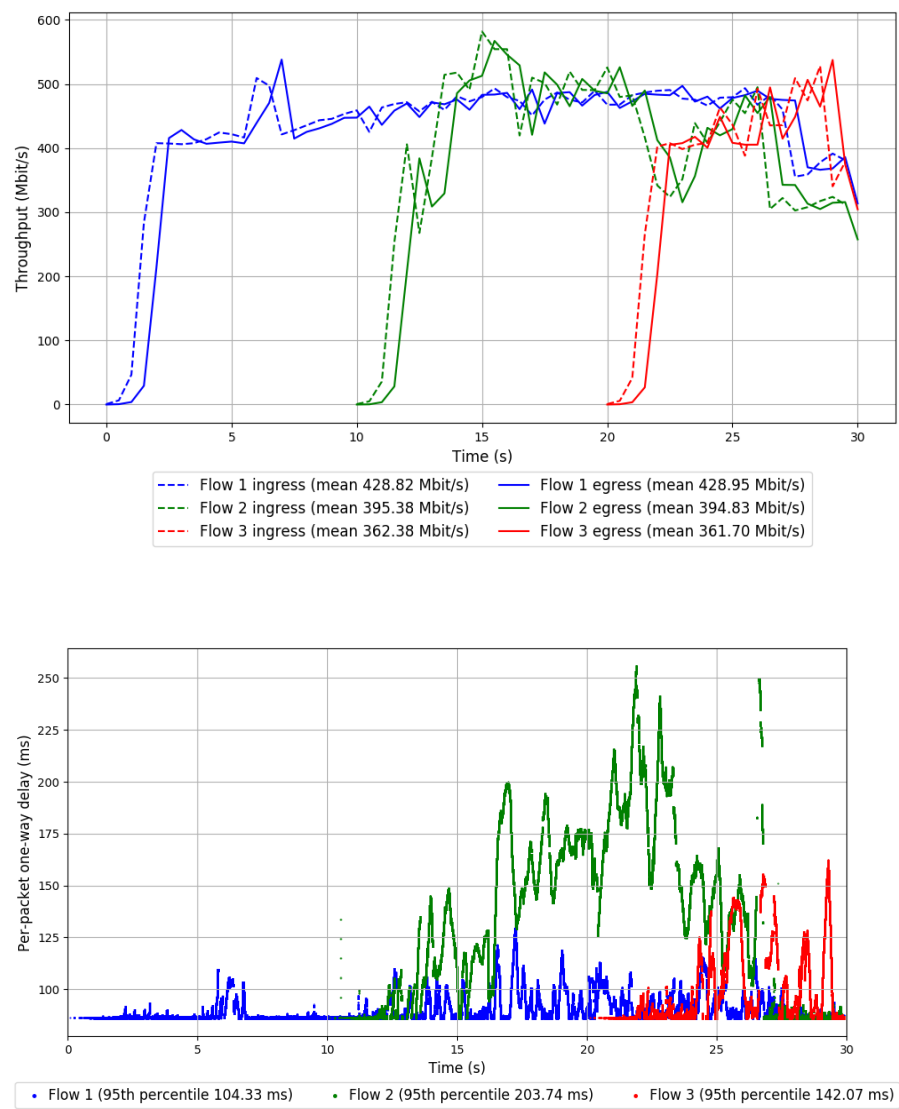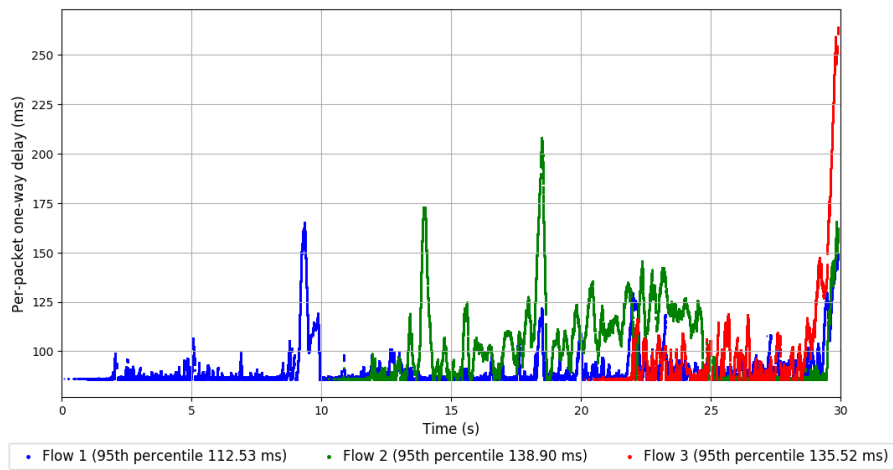Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-06-27 23:23:50
End at: 2019-06-27 23:24:20
Local clock offset: -0.54 ms
Remote clock offset: -0.021 ms


# Below is generated by plot.py at 2019-06-28 02:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 796.96 Mbit/s
95th percentile per-packet one-way delay: 129.891 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 439.53 Mbit/s
95th percentile per-packet one-way delay: 132.352 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 379.92 Mbit/s
95th percentile per-packet one-way delay: 104.507 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 320.16 Mbit/s
95th percentile per-packet one-way delay: 112.514 ms
Loss rate: 2.45%
```

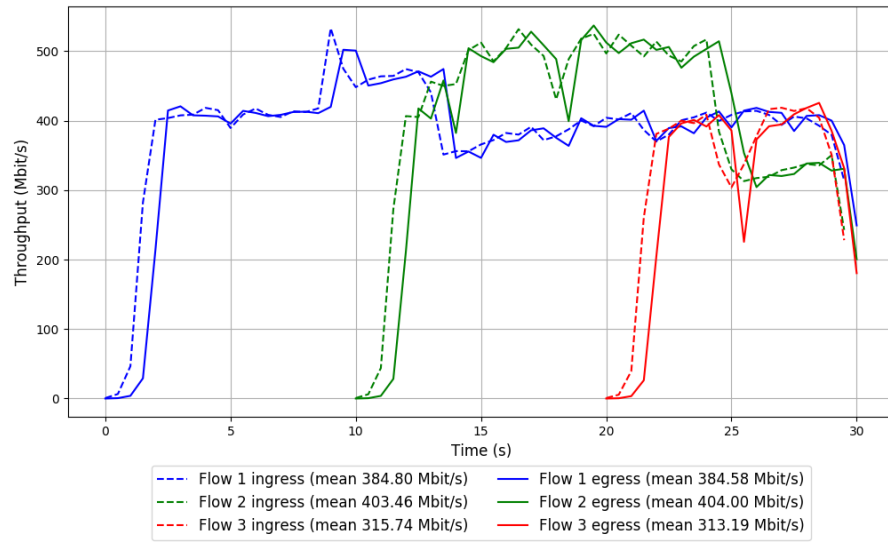Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 439.81 Mbit/s) ---- Flow 1 egress (mean 439.53 Mbit/s) ——
Flow 2 ingress (mean 379.35 Mbit/s) ---- Flow 2 egress (mean 379.92 Mbit/s) ——
Flow 3 ingress (mean 322.48 Mbit/s) ---- Flow 3 egress (mean 320.16 Mbit/s) ——

• Flow 1 (95th percentile 132.35 ms)   • Flow 2 (95th percentile 104.51 ms)   • Flow 3 (95th percentile 112.51 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 00:02:19
End at: 2019-06-28 00:02:49
Local clock offset: 0.296 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-28 02:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 809.94 Mbit/s
95th percentile per-packet one-way delay: 181.648 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 428.95 Mbit/s
95th percentile per-packet one-way delay: 104.328 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 394.83 Mbit/s
95th percentile per-packet one-way delay: 203.743 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 361.70 Mbit/s
95th percentile per-packet one-way delay: 142.066 ms
Loss rate: 1.91%
```
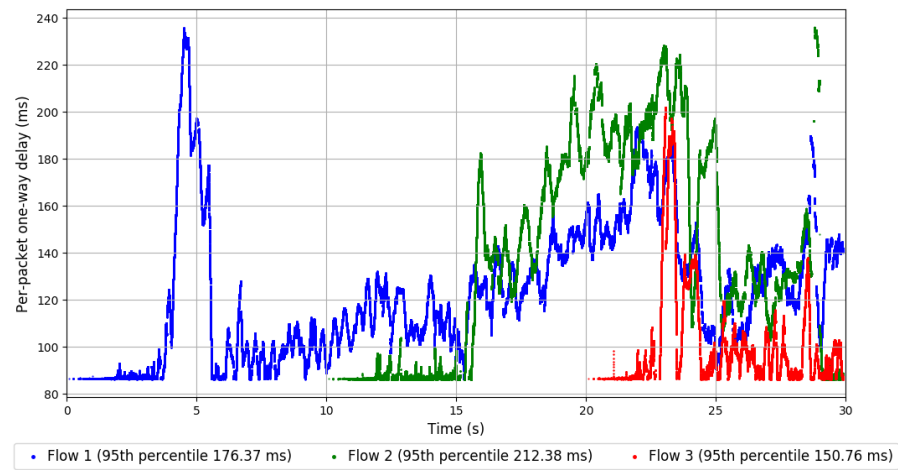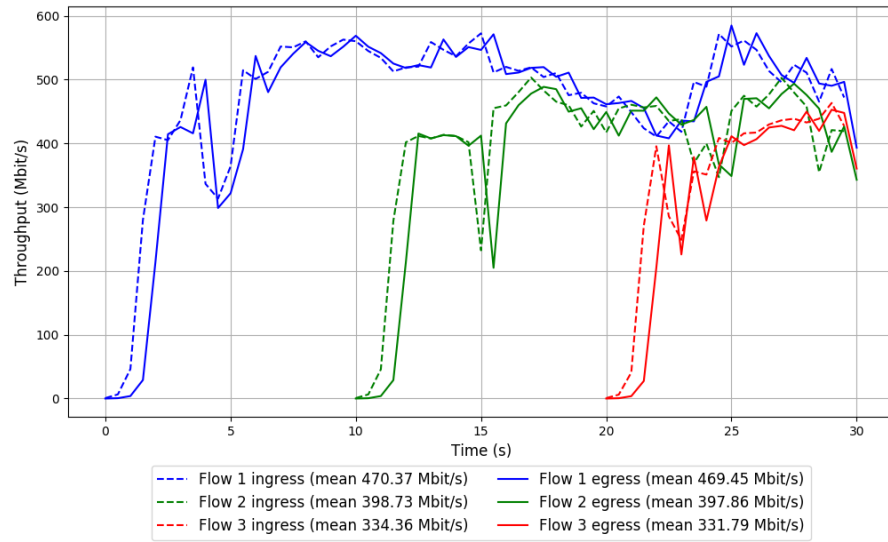
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 428.82 Mbit/s) --- Flow 1 egress (mean 428.95 Mbit/s)
Flow 2 ingress (mean 395.38 Mbit/s) --- Flow 2 egress (mean 394.83 Mbit/s)
Flow 3 ingress (mean 362.38 Mbit/s) --- Flow 3 egress (mean 361.70 Mbit/s)

Flow 1 (95th percentile 104.33 ms)   Flow 2 (95th percentile 203.74 ms)   Flow 3 (95th percentile 142.07 ms)

30

```
Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 00:40:27
End at: 2019-06-28 00:40:57
Local clock offset: -0.036 ms
Remote clock offset: -0.159 ms


# Below is generated by plot.py at 2019-06-28 02:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 755.71 Mbit/s
95th percentile per-packet one-way delay: 130.963 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 384.58 Mbit/s
95th percentile per-packet one-way delay: 112.531 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 404.00 Mbit/s
95th percentile per-packet one-way delay: 138.902 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 313.19 Mbit/s
95th percentile per-packet one-way delay: 135.524 ms
Loss rate: 2.51%
```
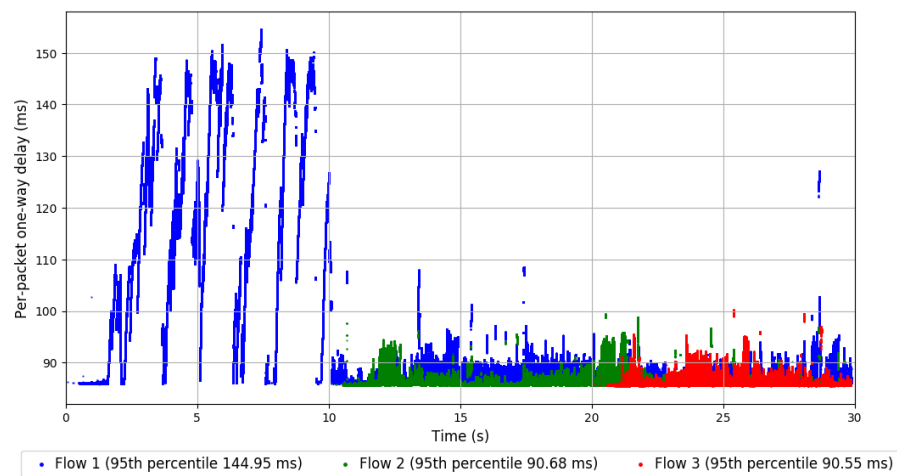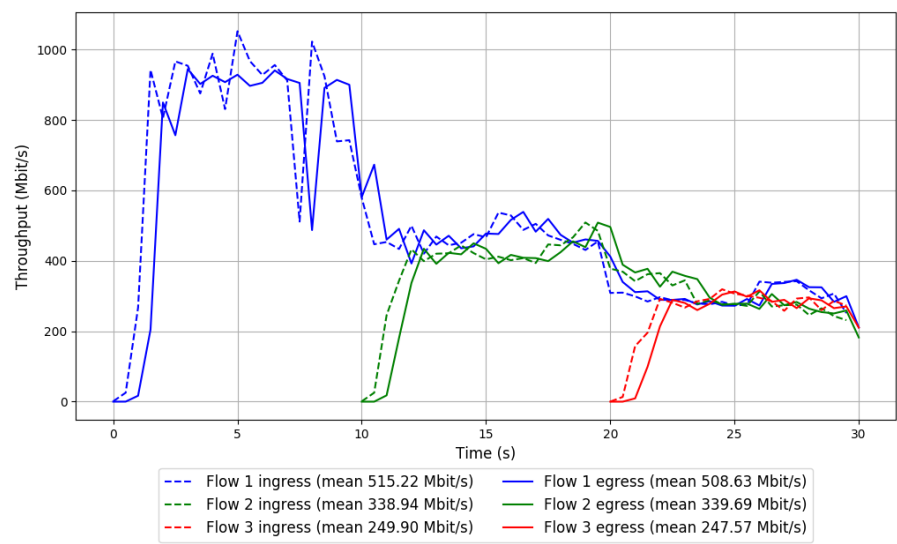
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 01:18:19
End at: 2019-06-28 01:18:49
Local clock offset: 0.382 ms
Remote clock offset: 0.011 ms


# Below is generated by plot.py at 2019-06-28 02:18:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 842.79 Mbit/s
95th percentile per-packet one-way delay: 196.497 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 469.45 Mbit/s
95th percentile per-packet one-way delay: 176.373 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 397.86 Mbit/s
95th percentile per-packet one-way delay: 212.375 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 331.79 Mbit/s
95th percentile per-packet one-way delay: 150.758 ms
Loss rate: 2.48%
```

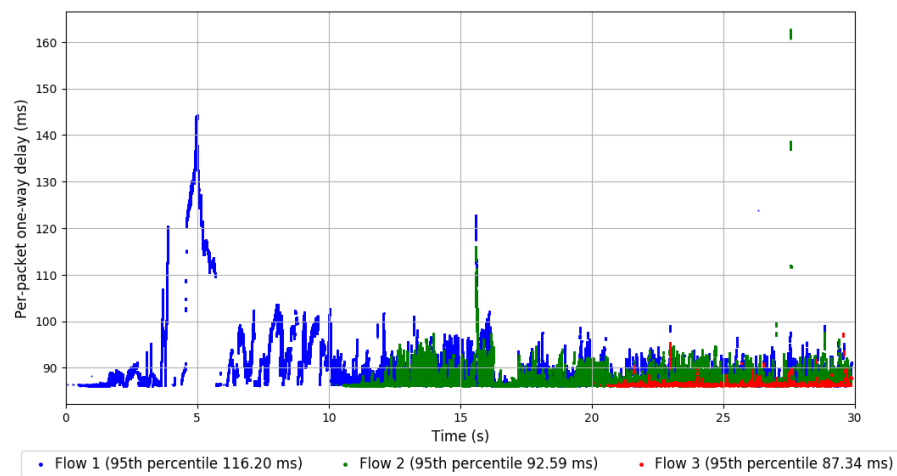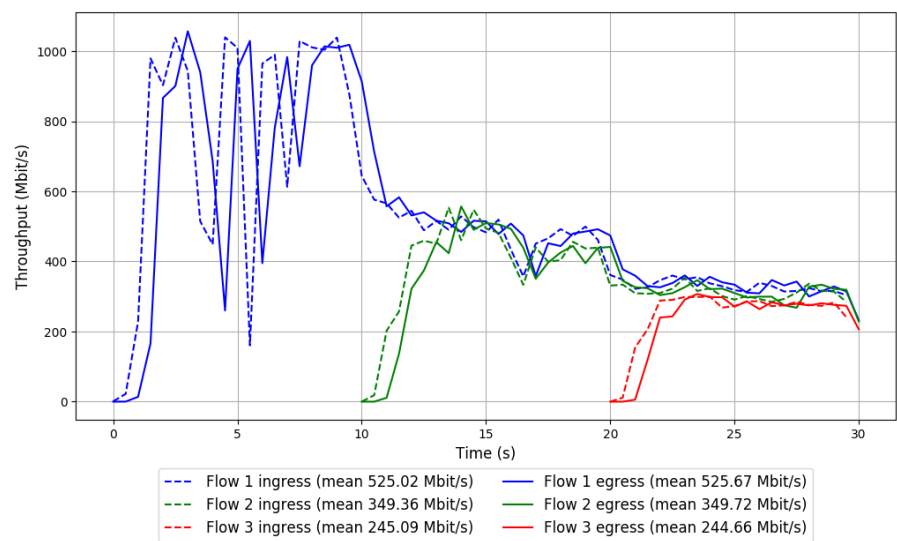Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-06-27 22:29:31
End at: 2019-06-27 22:30:01
Local clock offset: 0.128 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2019-06-28 02:21:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 815.08 Mbit/s
95th percentile per-packet one-way delay: 142.791 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 508.63 Mbit/s
95th percentile per-packet one-way delay: 144.946 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 339.69 Mbit/s
95th percentile per-packet one-way delay: 90.679 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 247.57 Mbit/s
95th percentile per-packet one-way delay: 90.550 ms
Loss rate: 2.64%
```
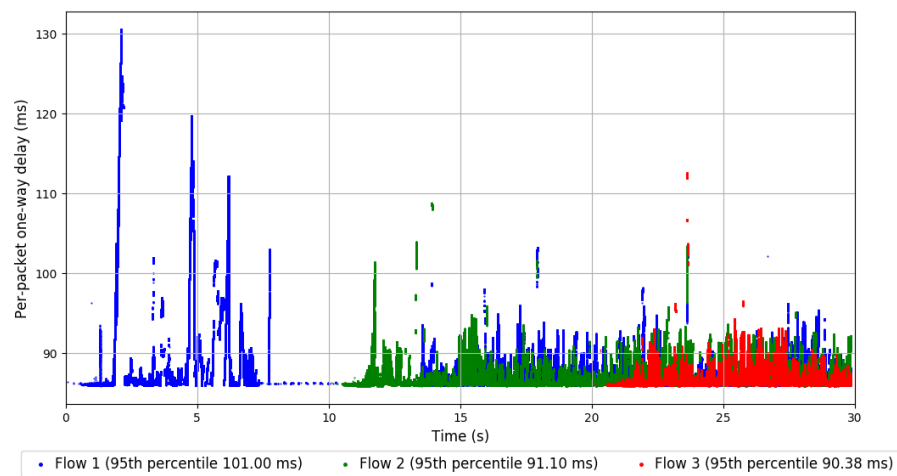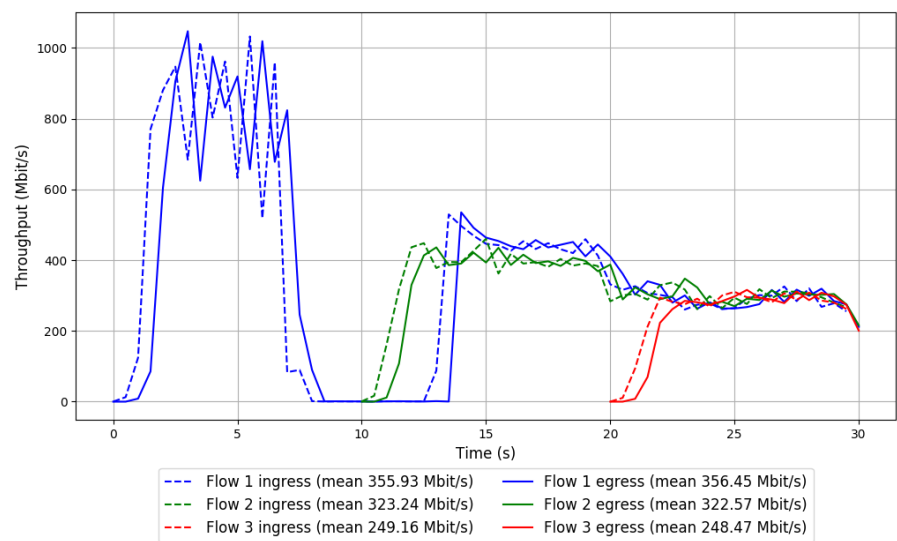
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 515.22 Mbit/s)   Flow 1 egress (mean 508.63 Mbit/s)
Flow 2 ingress (mean 338.94 Mbit/s)   Flow 2 egress (mean 339.69 Mbit/s)
Flow 3 ingress (mean 249.90 Mbit/s)   Flow 3 egress (mean 247.57 Mbit/s)

Flow 1 (95th percentile 144.95 ms)   Flow 2 (95th percentile 90.68 ms)   Flow 3 (95th percentile 90.55 ms)

```
Run 2: Statistics of FillP

Start at: 2019-06-27 23:07:28
End at: 2019-06-27 23:07:58
Local clock offset: 0.342 ms
Remote clock offset: -0.081 ms


# Below is generated by plot.py at 2019-06-28 02:27:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 588.24 Mbit/s
95th percentile per-packet one-way delay: 144.097 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 298.17 Mbit/s
95th percentile per-packet one-way delay: 146.248 ms
Loss rate: 3.19%
-- Flow 2:
Average throughput: 315.03 Mbit/s
95th percentile per-packet one-way delay: 89.849 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 248.02 Mbit/s
95th percentile per-packet one-way delay: 89.135 ms
Loss rate: 1.82%
```
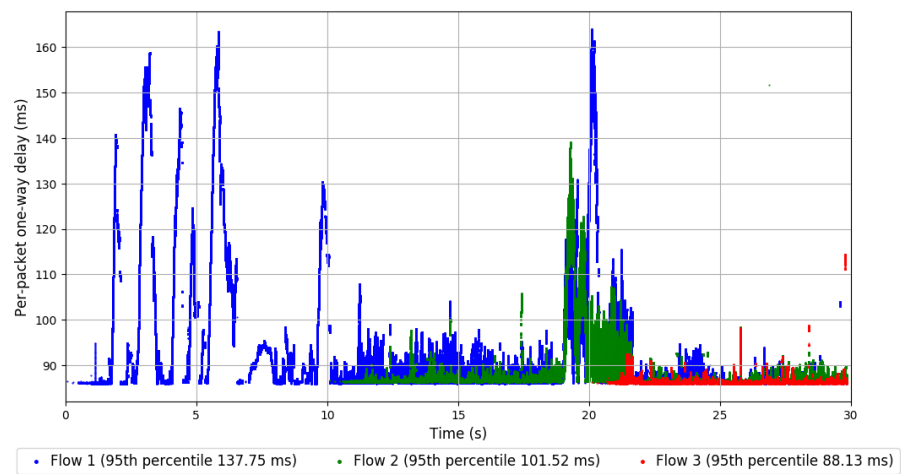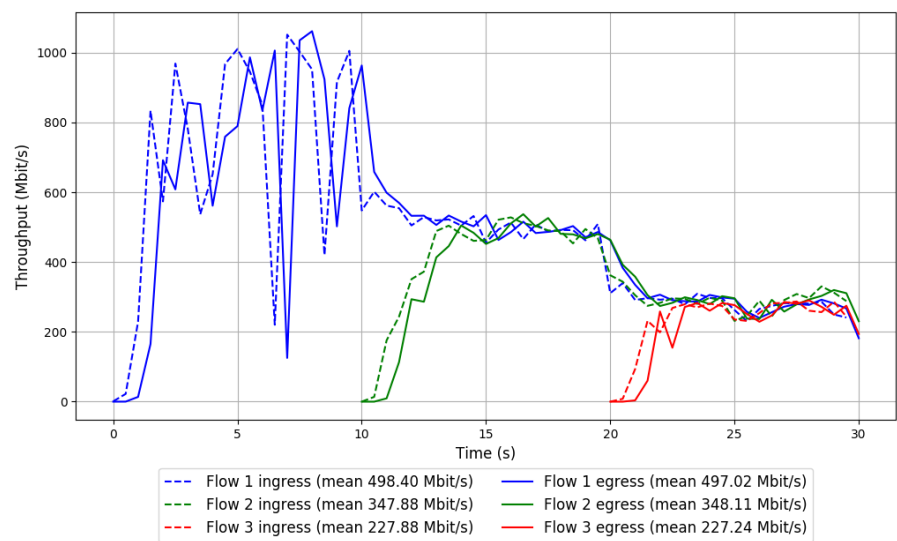
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 306.00 Mbit/s) --- Flow 1 egress (mean 298.17 Mbit/s)
Flow 2 ingress (mean 314.64 Mbit/s) --- Flow 2 egress (mean 315.03 Mbit/s)
Flow 3 ingress (mean 248.69 Mbit/s) --- Flow 3 egress (mean 248.02 Mbit/s)

Flow 1 (95th percentile 146.25 ms)   Flow 2 (95th percentile 89.85 ms)   Flow 3 (95th percentile 89.14 ms)

```
Run 3: Statistics of FillP

Start at: 2019-06-27 23:46:00
End at: 2019-06-27 23:46:30
Local clock offset: 0.255 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-28 02:35:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 837.67 Mbit/s
95th percentile per-packet one-way delay: 105.842 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 525.67 Mbit/s
95th percentile per-packet one-way delay: 116.196 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 349.72 Mbit/s
95th percentile per-packet one-way delay: 92.589 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 244.66 Mbit/s
95th percentile per-packet one-way delay: 87.338 ms
Loss rate: 1.93%
```
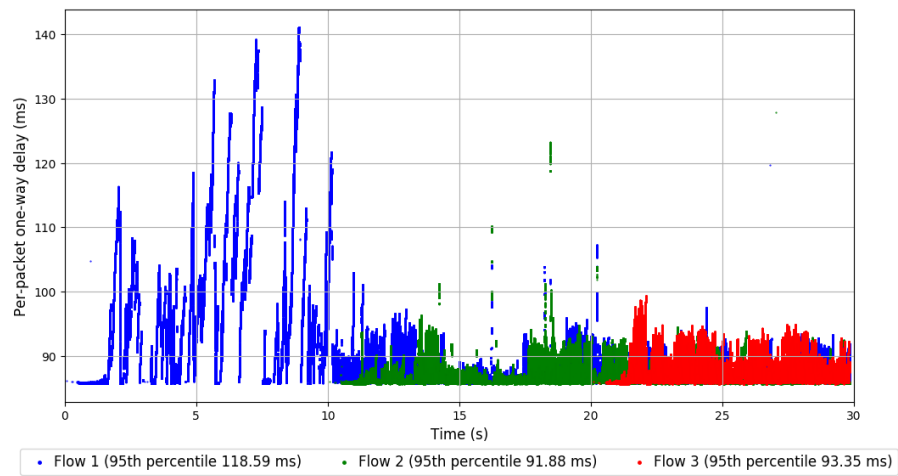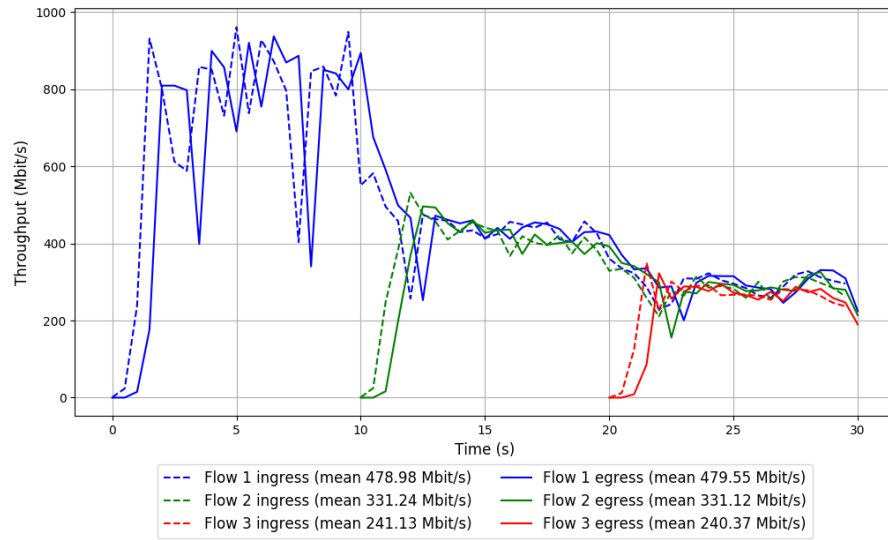
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 525.02 Mbit/s) Flow 1 egress (mean 525.67 Mbit/s)
Flow 2 ingress (mean 349.36 Mbit/s) Flow 2 egress (mean 349.72 Mbit/s)
Flow 3 ingress (mean 245.09 Mbit/s) Flow 3 egress (mean 244.66 Mbit/s)

Flow 1 (95th percentile 116.20 ms) Flow 2 (95th percentile 92.59 ms) Flow 3 (95th percentile 87.34 ms)

```
Run 4: Statistics of FillP

Start at: 2019-06-28 00:24:16
End at: 2019-06-28 00:24:46
Local clock offset: 0.185 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2019-06-28 02:35:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 651.68 Mbit/s
95th percentile per-packet one-way delay: 95.761 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 356.45 Mbit/s
95th percentile per-packet one-way delay: 100.996 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 322.57 Mbit/s
95th percentile per-packet one-way delay: 91.096 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 248.47 Mbit/s
95th percentile per-packet one-way delay: 90.377 ms
Loss rate: 2.05%
```
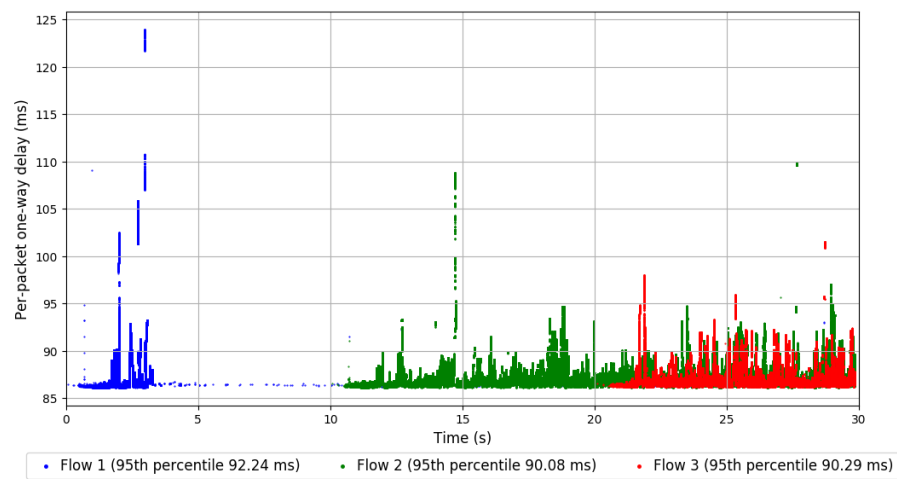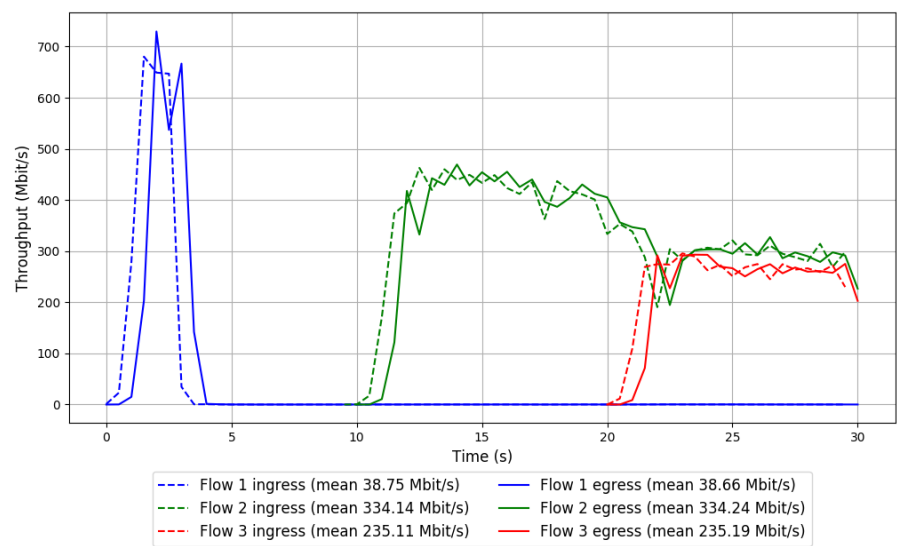
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 355.93 Mbit/s)   Flow 1 egress (mean 356.45 Mbit/s)
Flow 2 ingress (mean 323.24 Mbit/s)   Flow 2 egress (mean 322.57 Mbit/s)
Flow 3 ingress (mean 249.16 Mbit/s)   Flow 3 egress (mean 248.47 Mbit/s)

Flow 1 (95th percentile 101.00 ms)   Flow 2 (95th percentile 91.10 ms)   Flow 3 (95th percentile 90.38 ms)

```
Run 5: Statistics of FillP

Start at: 2019-06-28 01:01:57
End at: 2019-06-28 01:02:27
Local clock offset: 0.259 ms
Remote clock offset: -0.007 ms


# Below is generated by plot.py at 2019-06-28 02:35:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 802.35 Mbit/s
95th percentile per-packet one-way delay: 127.956 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 497.02 Mbit/s
95th percentile per-packet one-way delay: 137.755 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 348.11 Mbit/s
95th percentile per-packet one-way delay: 101.519 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 227.24 Mbit/s
95th percentile per-packet one-way delay: 88.127 ms
Loss rate: 2.23%
```
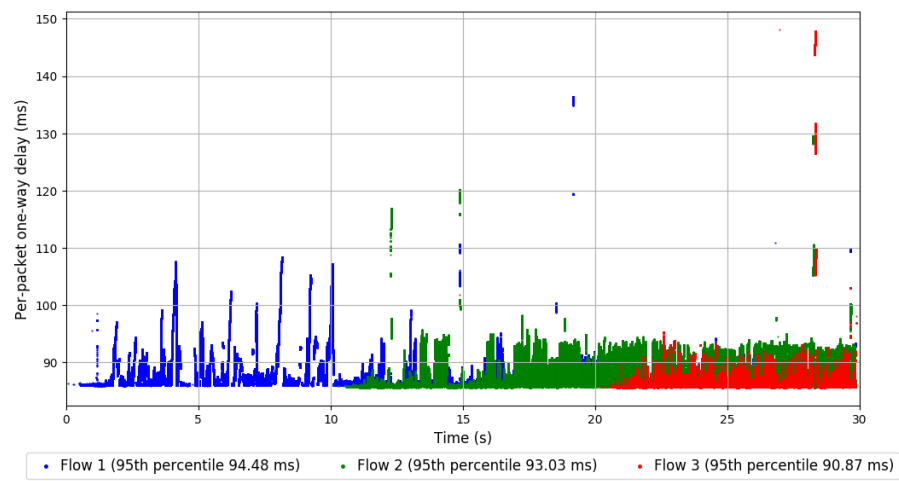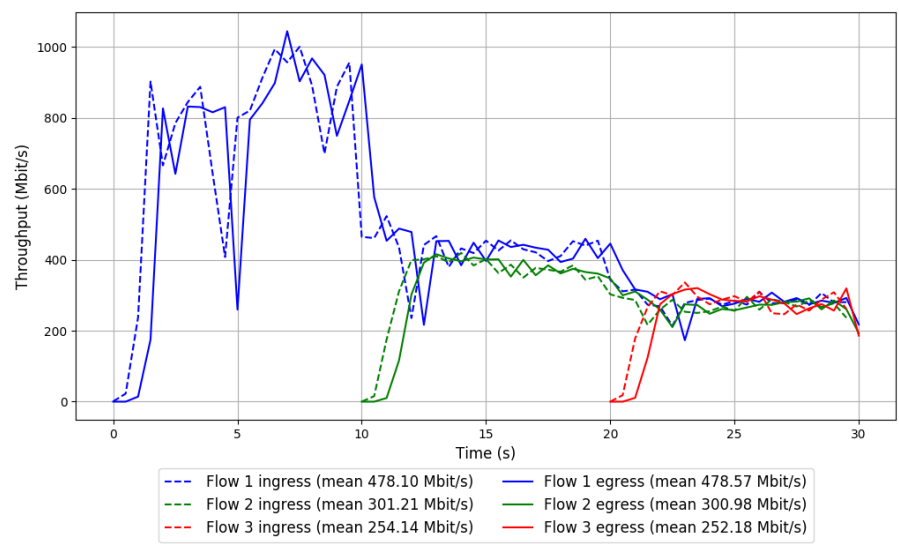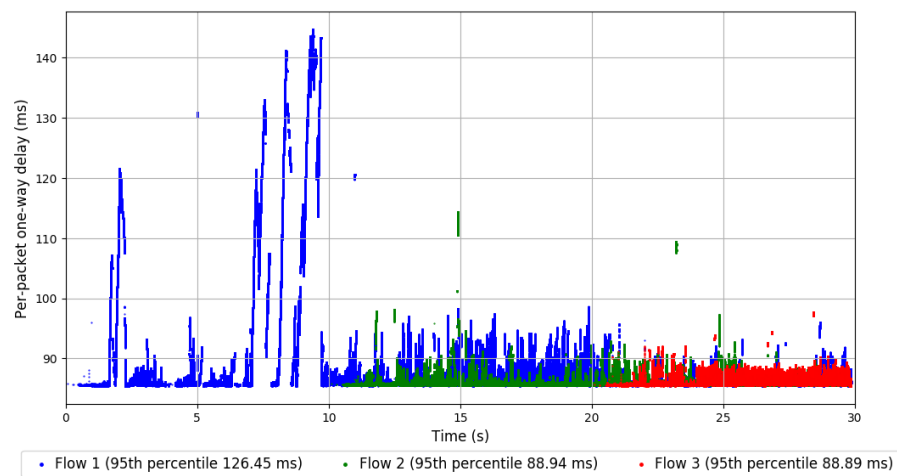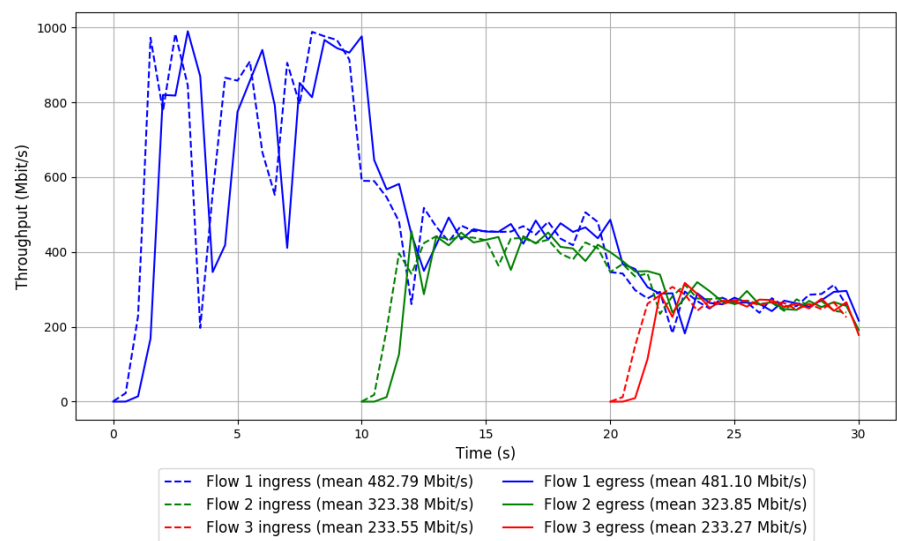
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-06-27 22:27:41
End at: 2019-06-27 22:28:11
Local clock offset: 0.253 ms
Remote clock offset: 0.042 ms


# Below is generated by plot.py at 2019-06-28 02:35:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 777.91 Mbit/s
95th percentile per-packet one-way delay: 112.552 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 479.55 Mbit/s
95th percentile per-packet one-way delay: 118.587 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 331.12 Mbit/s
95th percentile per-packet one-way delay: 91.884 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 240.37 Mbit/s
95th percentile per-packet one-way delay: 93.353 ms
Loss rate: 2.09%
```

Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 478.98 Mbit/s)   Flow 1 egress (mean 479.55 Mbit/s)
Flow 2 ingress (mean 331.24 Mbit/s)   Flow 2 egress (mean 331.12 Mbit/s)
Flow 3 ingress (mean 241.13 Mbit/s)   Flow 3 egress (mean 240.37 Mbit/s)

Flow 1 (95th percentile 118.59 ms)   Flow 2 (95th percentile 91.88 ms)   Flow 3 (95th percentile 93.35 ms)

46

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-06-27 23:05:57
End at: 2019-06-27 23:06:27
Local clock offset: 0.679 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-06-28 02:35:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.59 Mbit/s
95th percentile per-packet one-way delay: 90.475 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 38.66 Mbit/s
95th percentile per-packet one-way delay: 92.240 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 334.24 Mbit/s
95th percentile per-packet one-way delay: 90.079 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 235.19 Mbit/s
95th percentile per-packet one-way delay: 90.288 ms
Loss rate: 1.75%
```
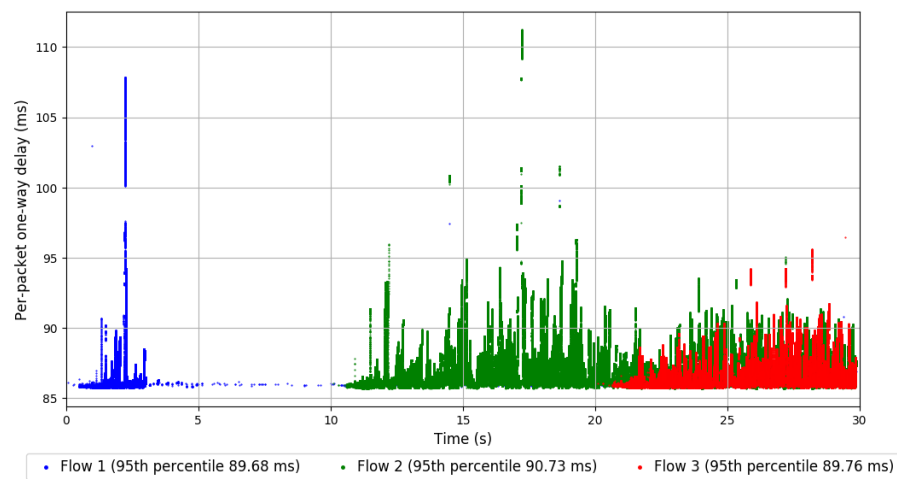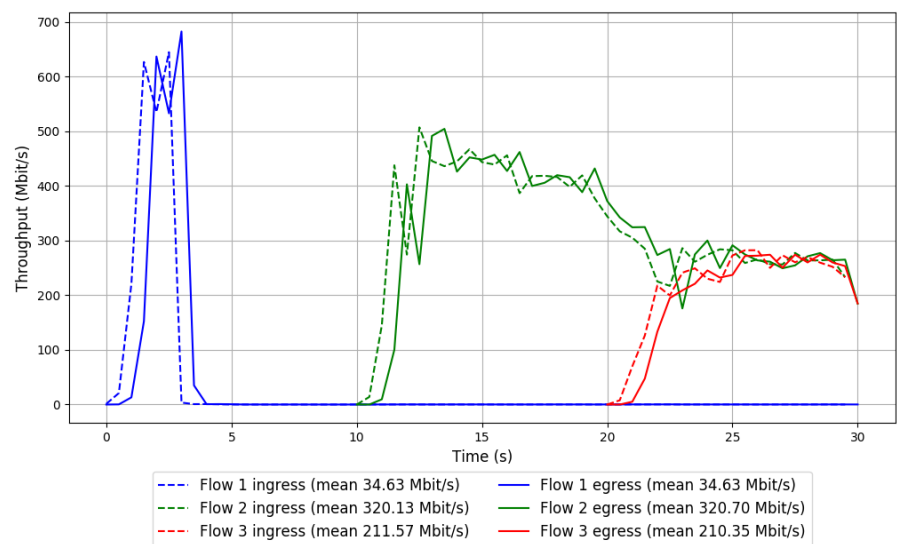
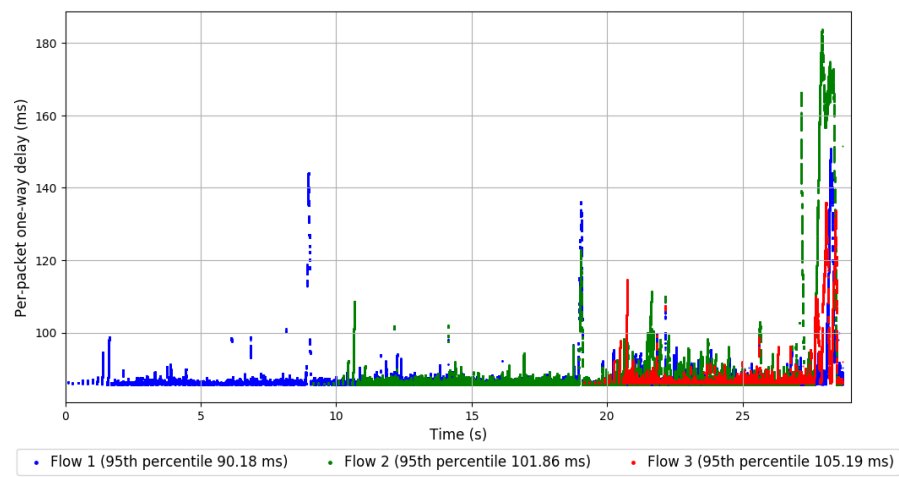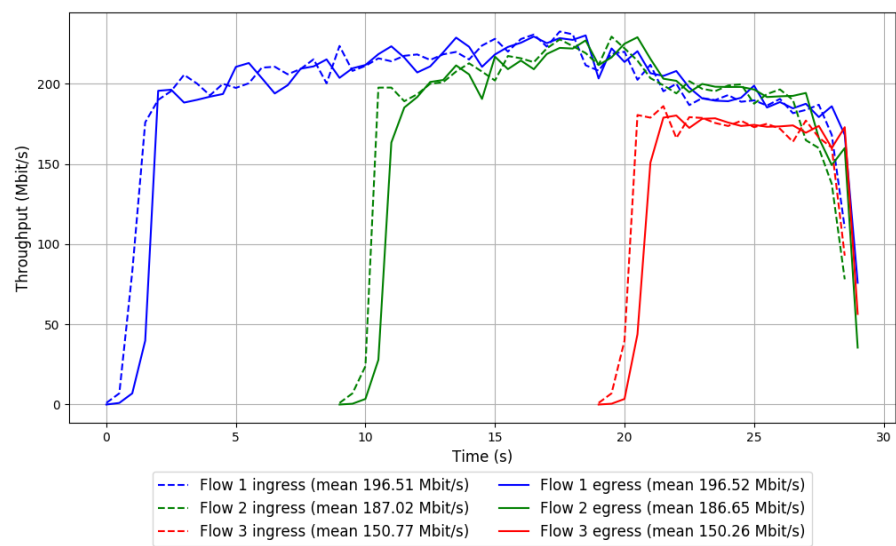Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-06-27 23:44:11
End at: 2019-06-27 23:44:41
Local clock offset: -0.146 ms
Remote clock offset: -0.0 ms


# Below is generated by plot.py at 2019-06-28 02:36:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 760.82 Mbit/s
95th percentile per-packet one-way delay: 93.386 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 478.57 Mbit/s
95th percentile per-packet one-way delay: 94.485 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 300.98 Mbit/s
95th percentile per-packet one-way delay: 93.029 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 252.18 Mbit/s
95th percentile per-packet one-way delay: 90.873 ms
Loss rate: 2.51%
```
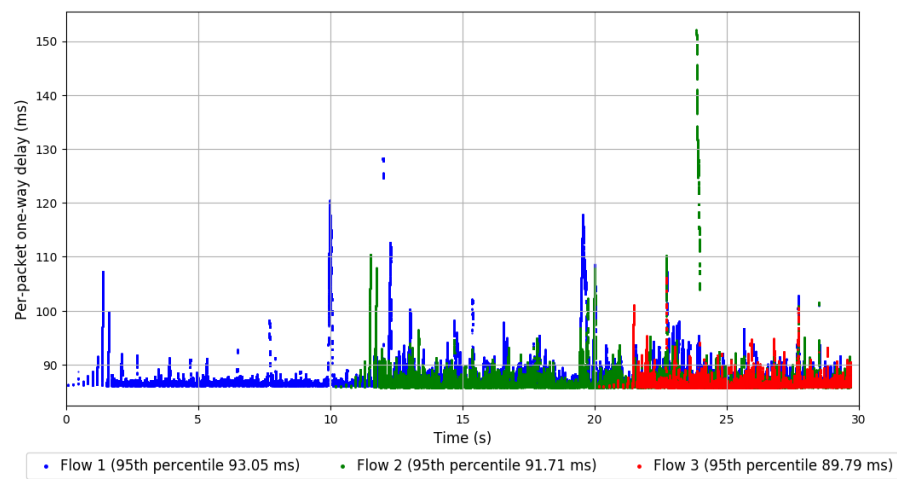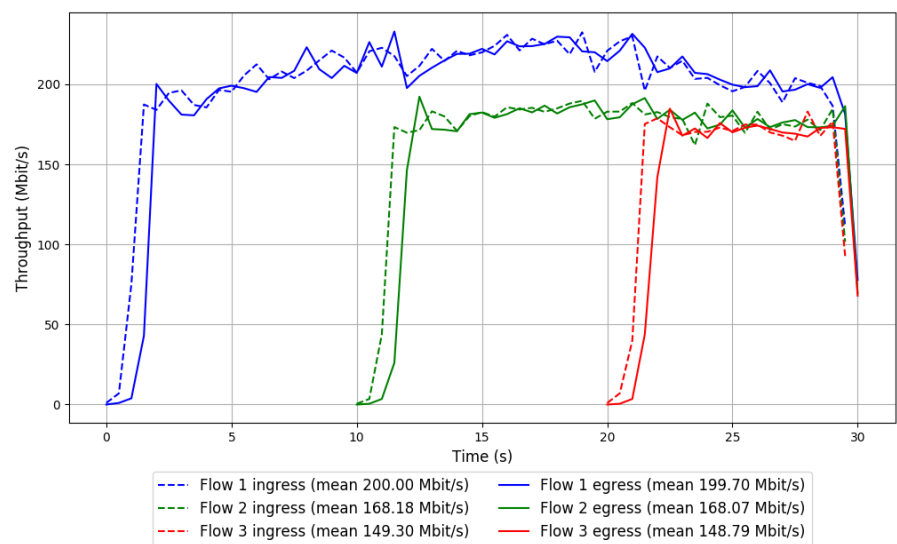
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 478.10 Mbit/s) --- Flow 1 egress (mean 478.57 Mbit/s)
Flow 2 ingress (mean 301.21 Mbit/s) --- Flow 2 egress (mean 300.98 Mbit/s)
Flow 3 ingress (mean 254.14 Mbit/s) --- Flow 3 egress (mean 252.18 Mbit/s)

Flow 1 (95th percentile 94.48 ms) • Flow 2 (95th percentile 93.03 ms) • Flow 3 (95th percentile 90.87 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 00:22:25
End at: 2019-06-28 00:22:55
Local clock offset: -0.385 ms
Remote clock offset: -0.147 ms


# Below is generated by plot.py at 2019-06-28 02:40:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 772.46 Mbit/s
95th percentile per-packet one-way delay: 116.922 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 481.10 Mbit/s
95th percentile per-packet one-way delay: 126.448 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 323.85 Mbit/s
95th percentile per-packet one-way delay: 88.938 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 233.27 Mbit/s
95th percentile per-packet one-way delay: 88.895 ms
Loss rate: 1.92%
```

Run 4: Report of FillP-Sheep — Data Link
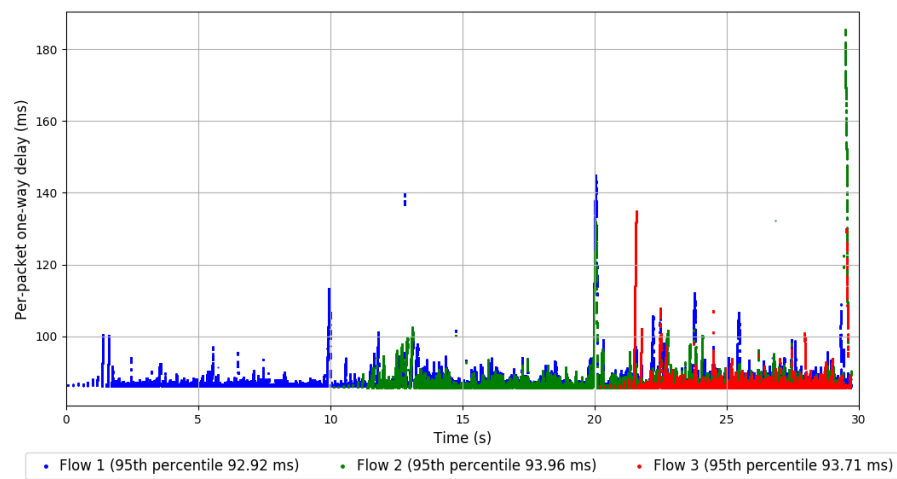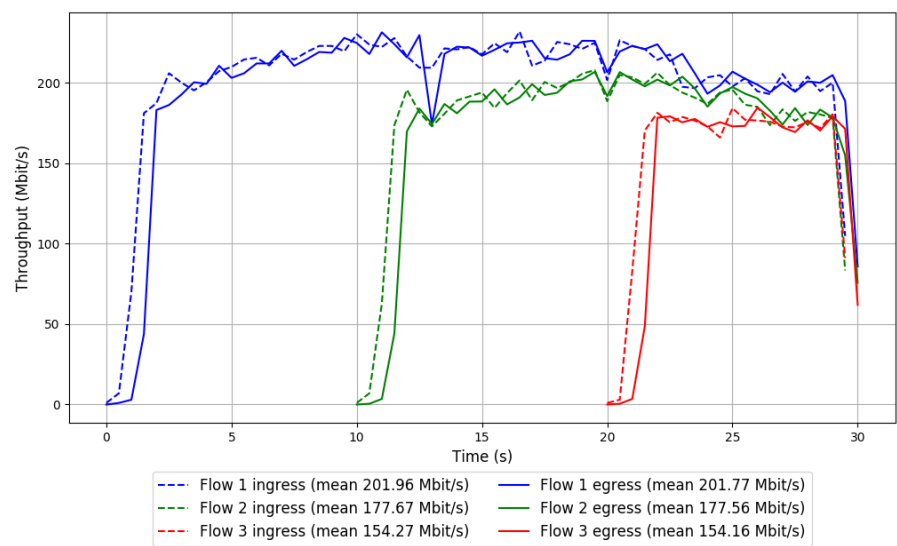

Flow 1 ingress (mean 482.79 Mbit/s) --- Flow 1 egress (mean 481.10 Mbit/s)
Flow 2 ingress (mean 323.38 Mbit/s) --- Flow 2 egress (mean 323.85 Mbit/s)
Flow 3 ingress (mean 233.55 Mbit/s) --- Flow 3 egress (mean 233.27 Mbit/s)

Flow 1 (95th percentile 126.45 ms) Flow 2 (95th percentile 88.94 ms) Flow 3 (95th percentile 88.89 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 01:00:27
End at: 2019-06-28 01:00:57
Local clock offset: 0.008 ms
Remote clock offset: 0.012 ms


# Below is generated by plot.py at 2019-06-28 02:40:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.41 Mbit/s
95th percentile per-packet one-way delay: 90.456 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 34.63 Mbit/s
95th percentile per-packet one-way delay: 89.681 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 320.70 Mbit/s
95th percentile per-packet one-way delay: 90.728 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 210.35 Mbit/s
95th percentile per-packet one-way delay: 89.759 ms
Loss rate: 2.39%
```
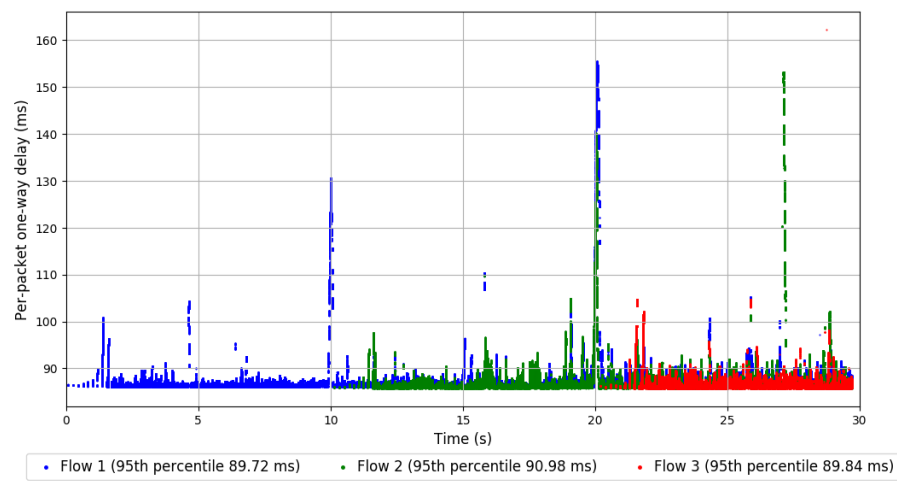
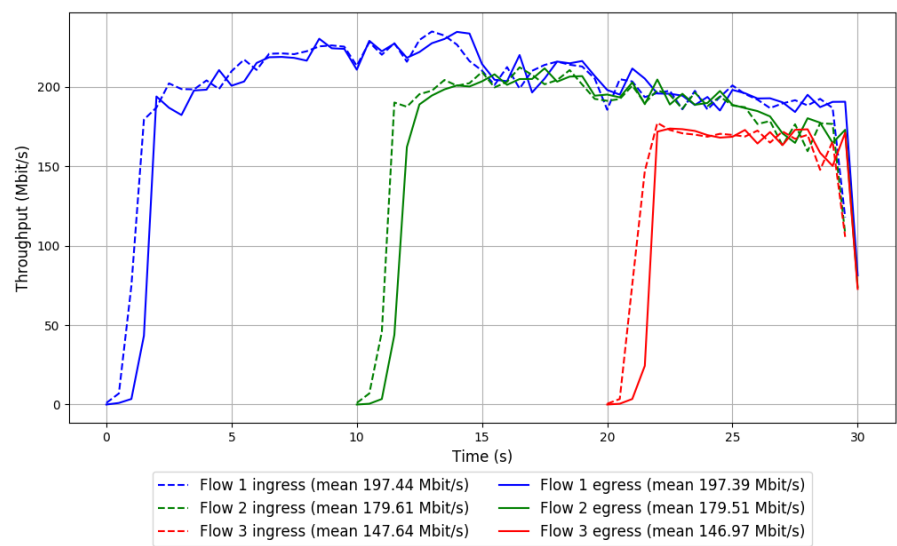Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-06-27 22:36:55
End at: 2019-06-27 22:37:25
Local clock offset: 0.327 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-06-28 02:41:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.06 Mbit/s
95th percentile per-packet one-way delay: 95.293 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 196.52 Mbit/s
95th percentile per-packet one-way delay: 90.176 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 186.65 Mbit/s
95th percentile per-packet one-way delay: 101.856 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 150.26 Mbit/s
95th percentile per-packet one-way delay: 105.189 ms
Loss rate: 2.05%
```
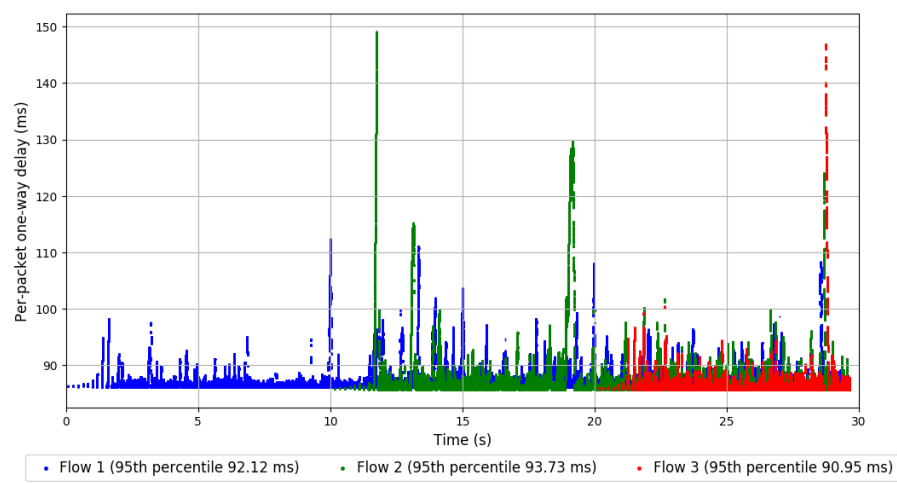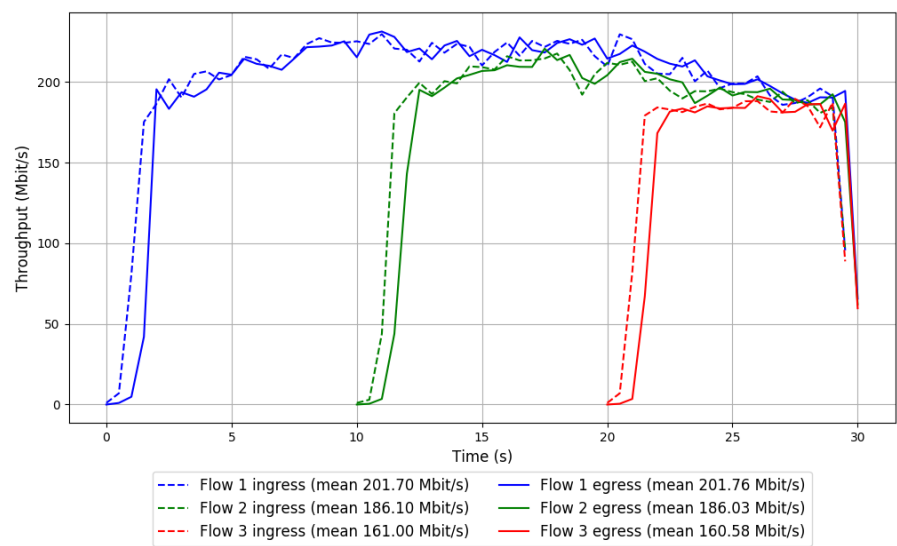
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-06-27 23:14:48
End at: 2019-06-27 23:15:18
Local clock offset: 0.014 ms
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2019-06-28 02:45:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 358.22 Mbit/s
95th percentile per-packet one-way delay: 92.186 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 199.70 Mbit/s
95th percentile per-packet one-way delay: 93.048 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 168.07 Mbit/s
95th percentile per-packet one-way delay: 91.706 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 148.79 Mbit/s
95th percentile per-packet one-way delay: 89.789 ms
Loss rate: 2.11%
```

Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-06-27 23:53:17
End at: 2019-06-27 23:53:47
Local clock offset: -0.077 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2019-06-28 02:47:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.43 Mbit/s
95th percentile per-packet one-way delay: 93.369 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 201.77 Mbit/s
95th percentile per-packet one-way delay: 92.917 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 177.56 Mbit/s
95th percentile per-packet one-way delay: 93.957 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 154.16 Mbit/s
95th percentile per-packet one-way delay: 93.714 ms
Loss rate: 2.17%
```
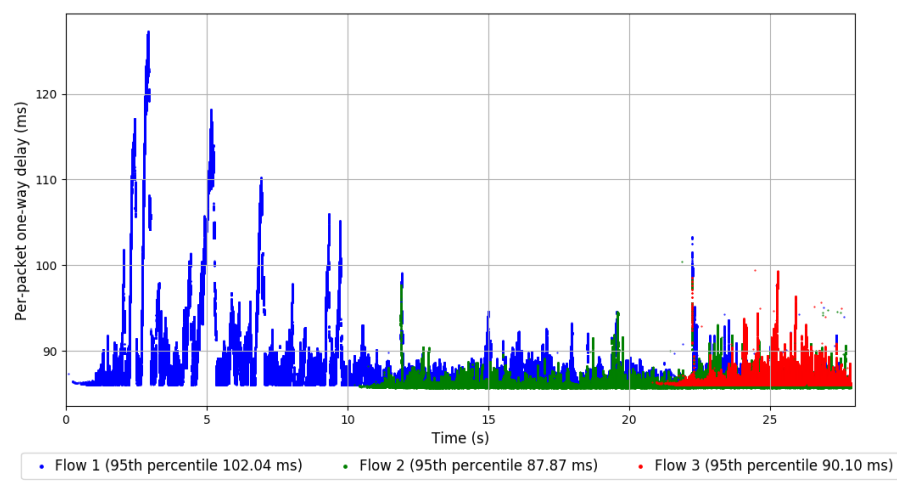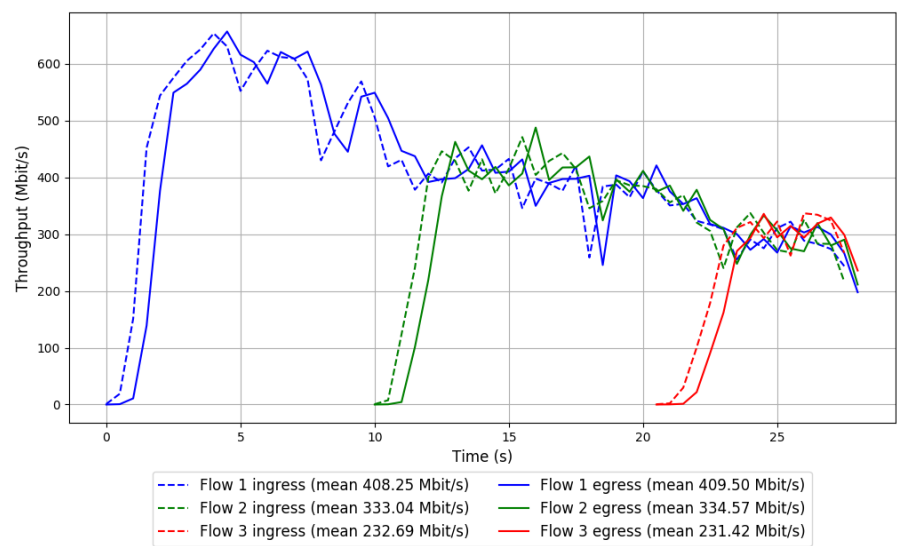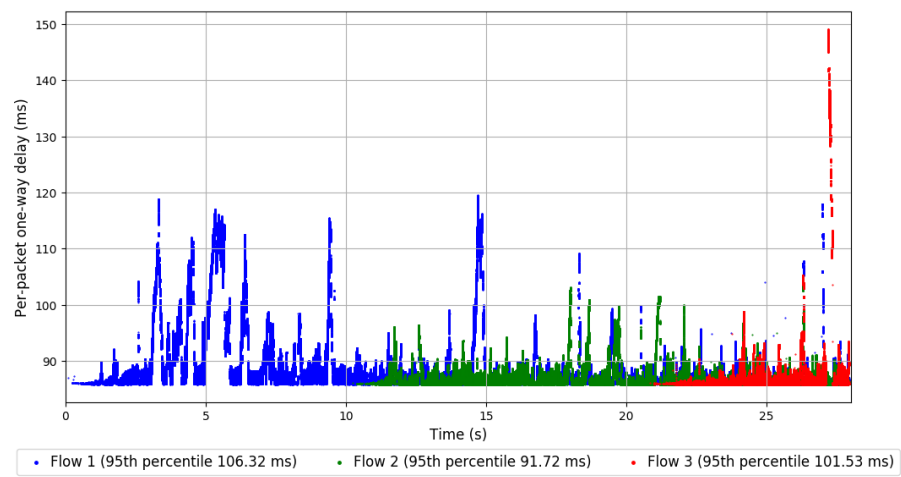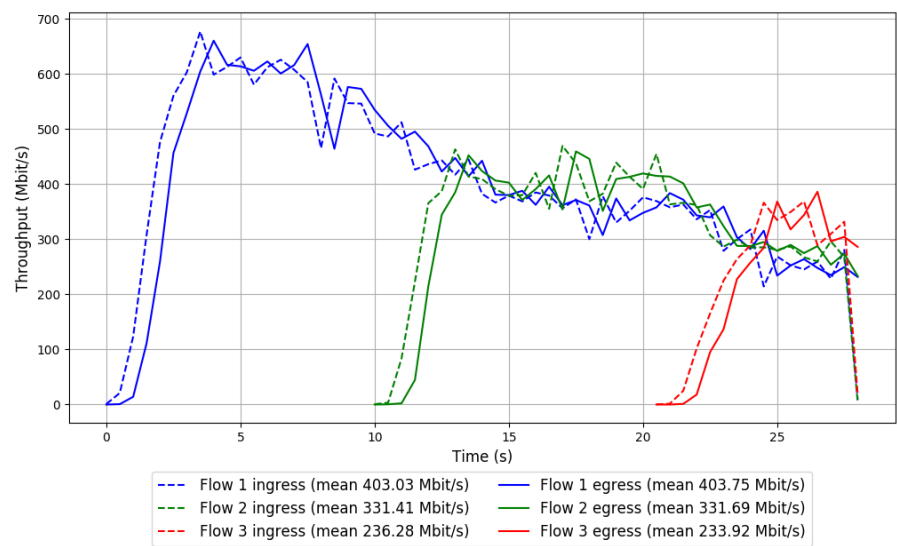
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-06-28 00:31:34
End at: 2019-06-28 00:32:04
Local clock offset: -0.053 ms
Remote clock offset: -0.126 ms


# Below is generated by plot.py at 2019-06-28 02:48:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.11 Mbit/s
95th percentile per-packet one-way delay: 90.213 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 197.39 Mbit/s
95th percentile per-packet one-way delay: 89.717 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 179.51 Mbit/s
95th percentile per-packet one-way delay: 90.985 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 146.97 Mbit/s
95th percentile per-packet one-way delay: 89.841 ms
Loss rate: 2.23%
```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-06-28 01:09:27
End at: 2019-06-28 01:09:57
Local clock offset: 0.001 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2019-06-28 02:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.93 Mbit/s
95th percentile per-packet one-way delay: 92.378 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 201.76 Mbit/s
95th percentile per-packet one-way delay: 92.123 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 186.03 Mbit/s
95th percentile per-packet one-way delay: 93.730 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 160.58 Mbit/s
95th percentile per-packet one-way delay: 90.950 ms
Loss rate: 2.03%
```
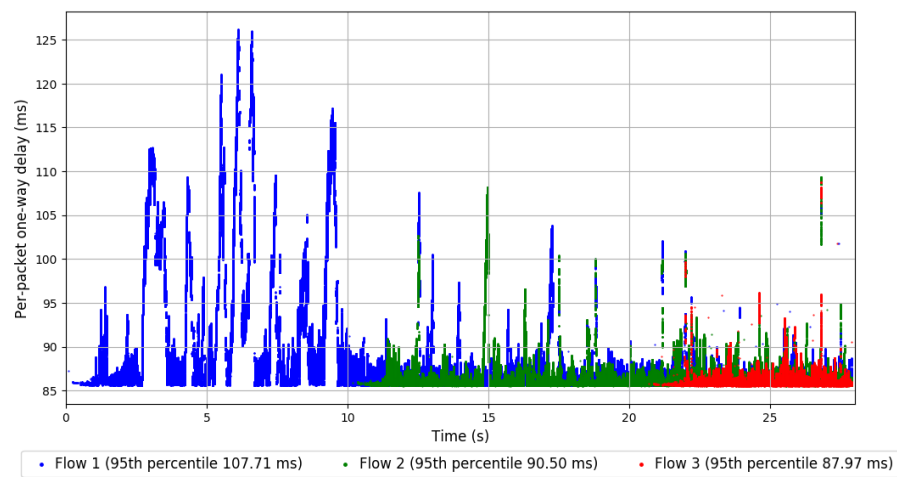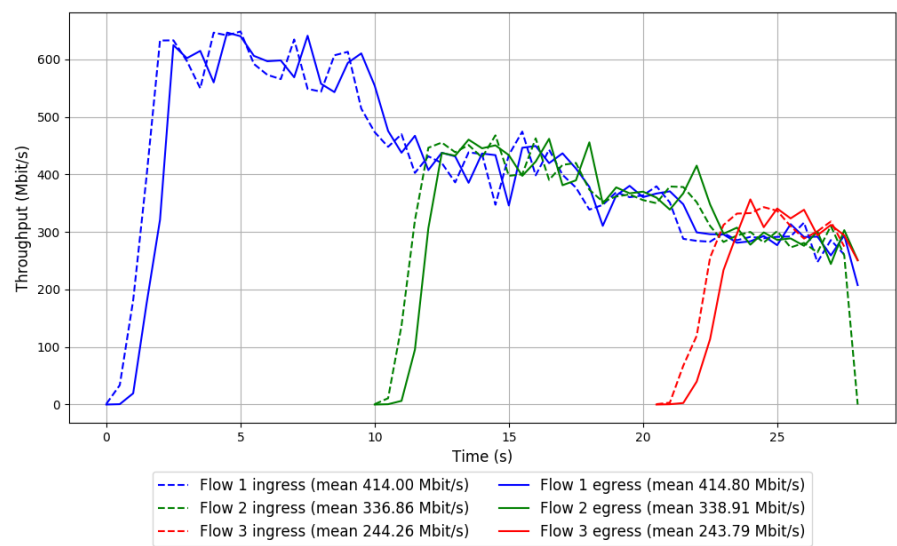
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-27 22:25:51
End at: 2019-06-27 22:26:21
Local clock offset: 0.246 ms
Remote clock offset: 0.042 ms


# Below is generated by plot.py at 2019-06-28 02:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.23 Mbit/s
95th percentile per-packet one-way delay: 96.769 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 409.50 Mbit/s
95th percentile per-packet one-way delay: 102.043 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 334.57 Mbit/s
95th percentile per-packet one-way delay: 87.867 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 231.42 Mbit/s
95th percentile per-packet one-way delay: 90.096 ms
Loss rate: 3.05%
```

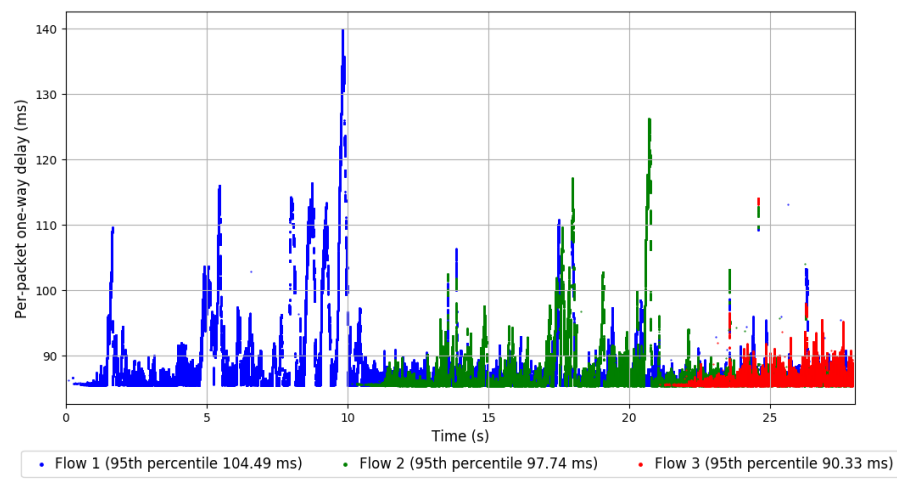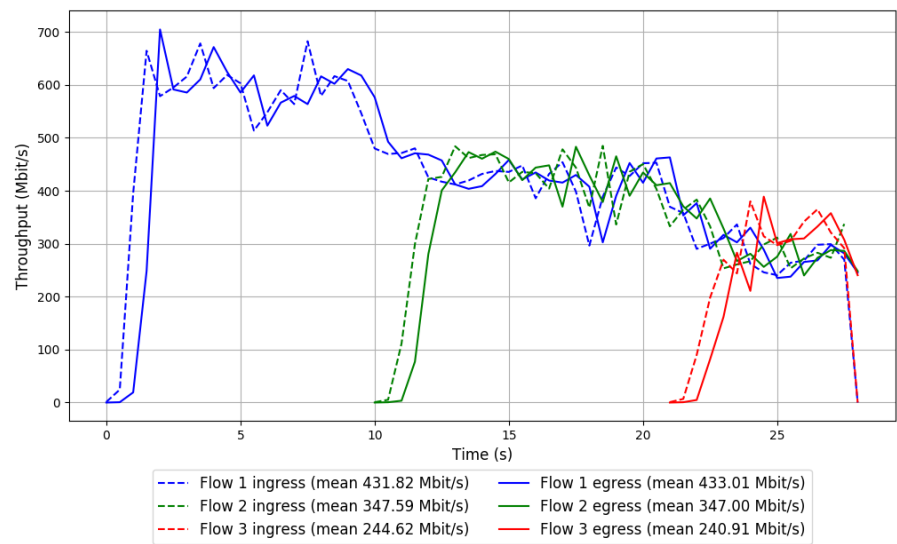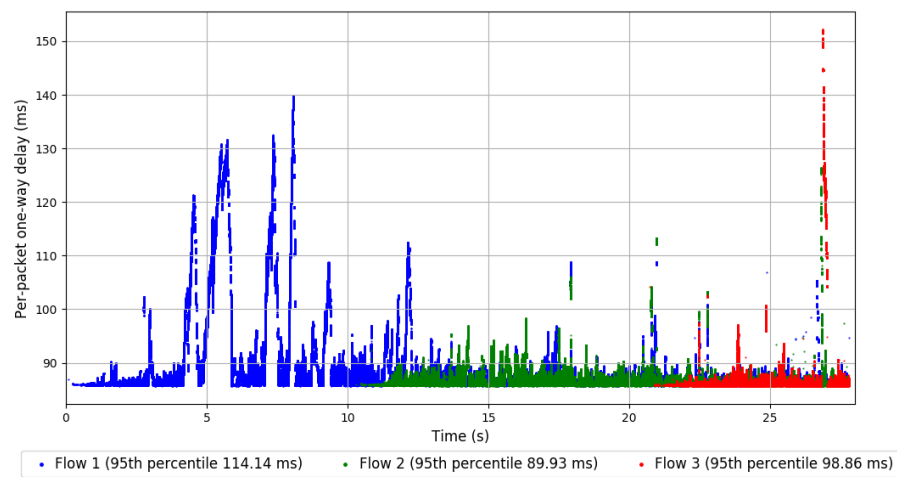# Run 1: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 408.25 Mbit/s) --- Flow 1 egress (mean 409.50 Mbit/s)
Flow 2 ingress (mean 333.04 Mbit/s) --- Flow 2 egress (mean 334.57 Mbit/s)
Flow 3 ingress (mean 232.69 Mbit/s) --- Flow 3 egress (mean 231.42 Mbit/s)

Flow 1 (95th percentile 102.04 ms) • Flow 2 (95th percentile 87.87 ms) • Flow 3 (95th percentile 90.10 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-27 23:04:07
End at: 2019-06-27 23:04:37
Local clock offset: 0.364 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2019-06-28 02:49:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 674.22 Mbit/s
95th percentile per-packet one-way delay: 101.074 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 403.75 Mbit/s
95th percentile per-packet one-way delay: 106.324 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 331.69 Mbit/s
95th percentile per-packet one-way delay: 91.716 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 233.92 Mbit/s
95th percentile per-packet one-way delay: 101.532 ms
Loss rate: 3.36%
```
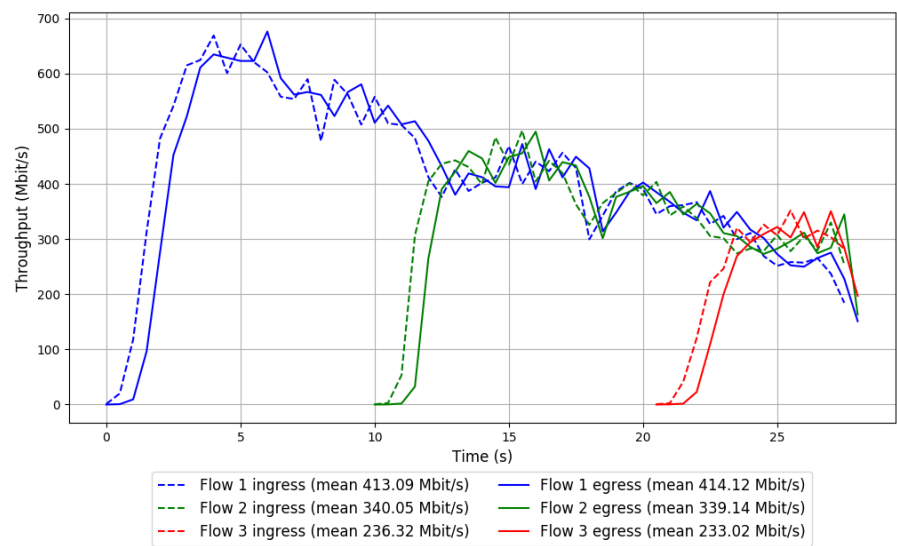
Run 2: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 403.03 Mbit/s) --- Flow 1 egress (mean 403.75 Mbit/s)
Flow 2 ingress (mean 331.41 Mbit/s) --- Flow 2 egress (mean 331.69 Mbit/s)
Flow 3 ingress (mean 236.28 Mbit/s) --- Flow 3 egress (mean 233.92 Mbit/s)

Flow 1 (95th percentile 106.32 ms) • Flow 2 (95th percentile 91.72 ms) • Flow 3 (95th percentile 101.53 ms)

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-27 23:42:20
End at: 2019-06-27 23:42:50
Local clock offset: -0.356 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2019-06-28 02:53:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 693.65 Mbit/s
95th percentile per-packet one-way delay: 103.279 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 414.80 Mbit/s
95th percentile per-packet one-way delay: 107.706 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 338.91 Mbit/s
95th percentile per-packet one-way delay: 90.496 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 243.79 Mbit/s
95th percentile per-packet one-way delay: 87.965 ms
Loss rate: 2.48%
```
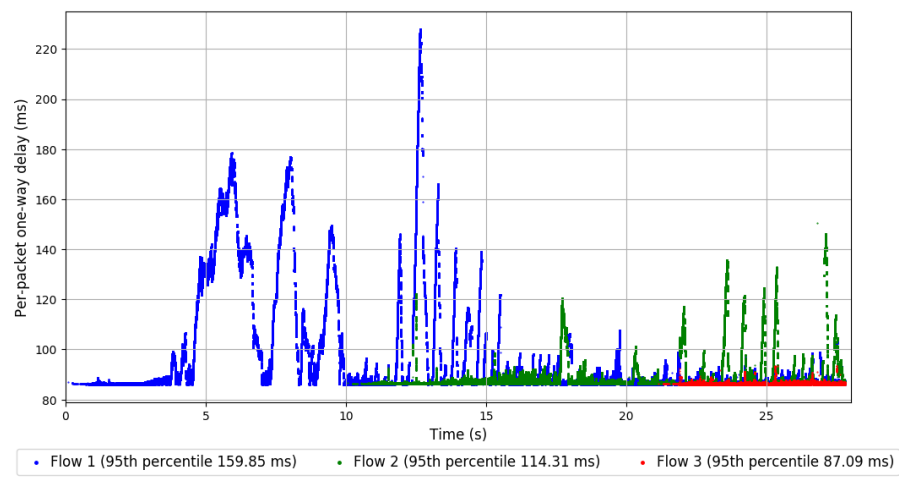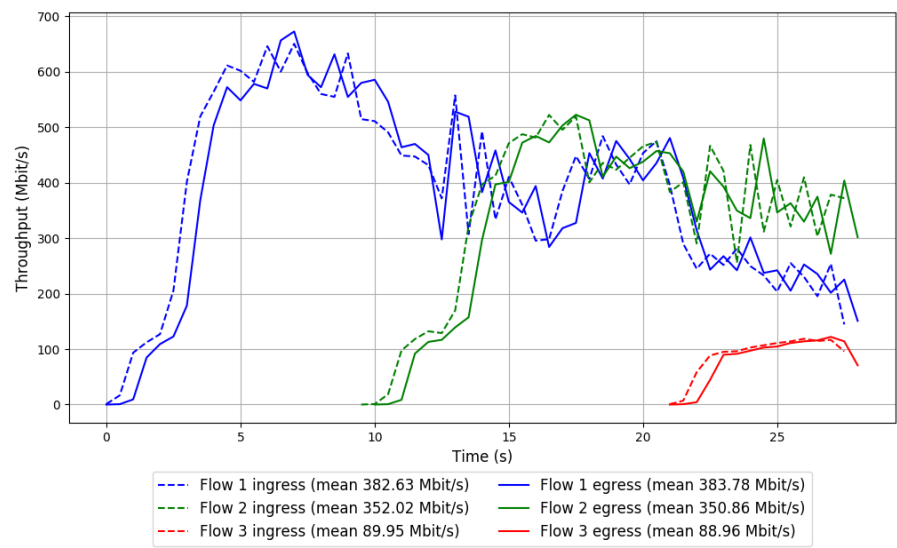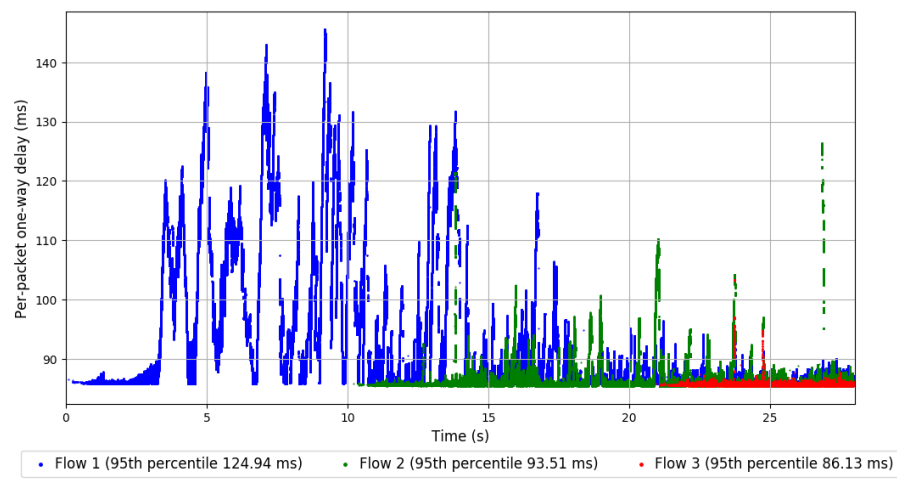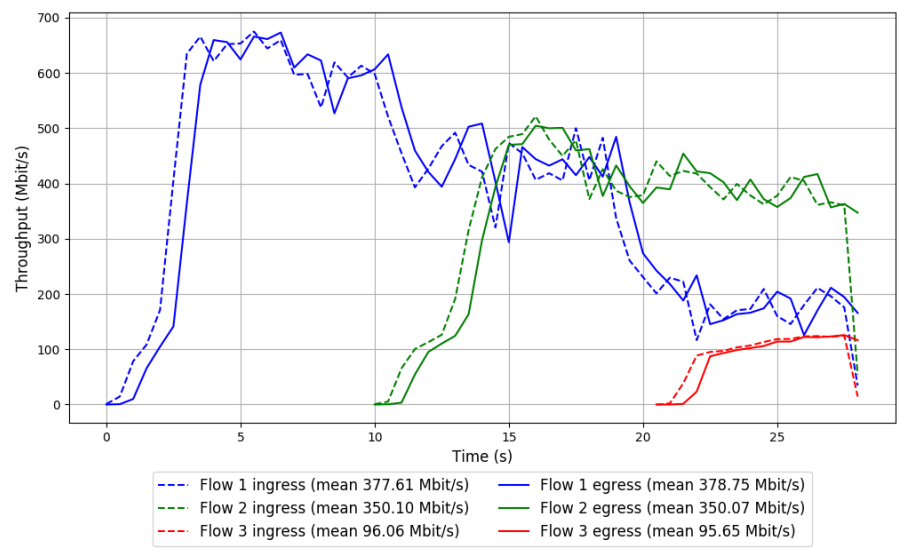
Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 414.00 Mbit/s)   Flow 1 egress (mean 414.80 Mbit/s)
Flow 2 ingress (mean 336.86 Mbit/s)   Flow 2 egress (mean 338.91 Mbit/s)
Flow 3 ingress (mean 244.26 Mbit/s)   Flow 3 egress (mean 243.79 Mbit/s)

Flow 1 (95th percentile 107.71 ms)   Flow 2 (95th percentile 90.50 ms)   Flow 3 (95th percentile 87.97 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 00:20:33
End at: 2019-06-28 00:21:03
Local clock offset: -0.465 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2019-06-28 02:55:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 713.41 Mbit/s
95th percentile per-packet one-way delay: 101.097 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 433.01 Mbit/s
95th percentile per-packet one-way delay: 104.494 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 347.00 Mbit/s
95th percentile per-packet one-way delay: 97.744 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 240.91 Mbit/s
95th percentile per-packet one-way delay: 90.335 ms
Loss rate: 3.98%
```

Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 00:58:37
End at: 2019-06-28 00:59:07
Local clock offset: -0.017 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-06-28 02:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.67 Mbit/s
95th percentile per-packet one-way delay: 107.300 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 414.12 Mbit/s
95th percentile per-packet one-way delay: 114.135 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 339.14 Mbit/s
95th percentile per-packet one-way delay: 89.934 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 233.02 Mbit/s
95th percentile per-packet one-way delay: 98.860 ms
Loss rate: 4.00%
```
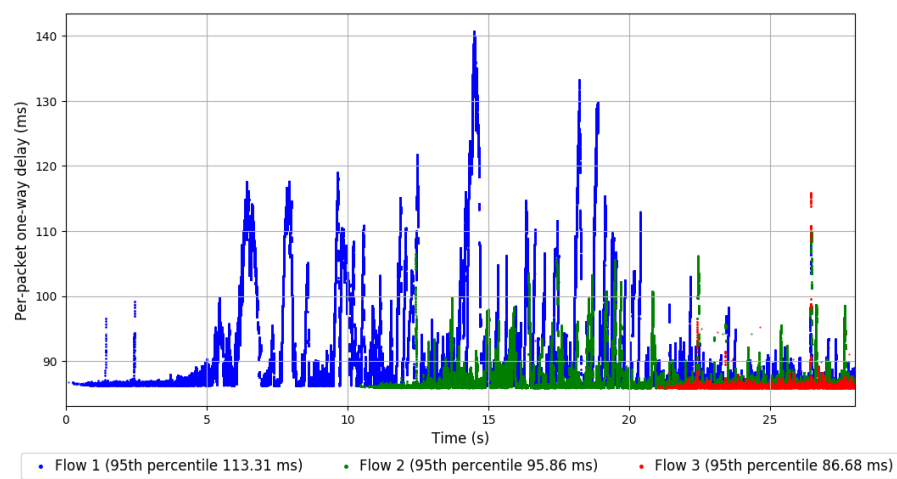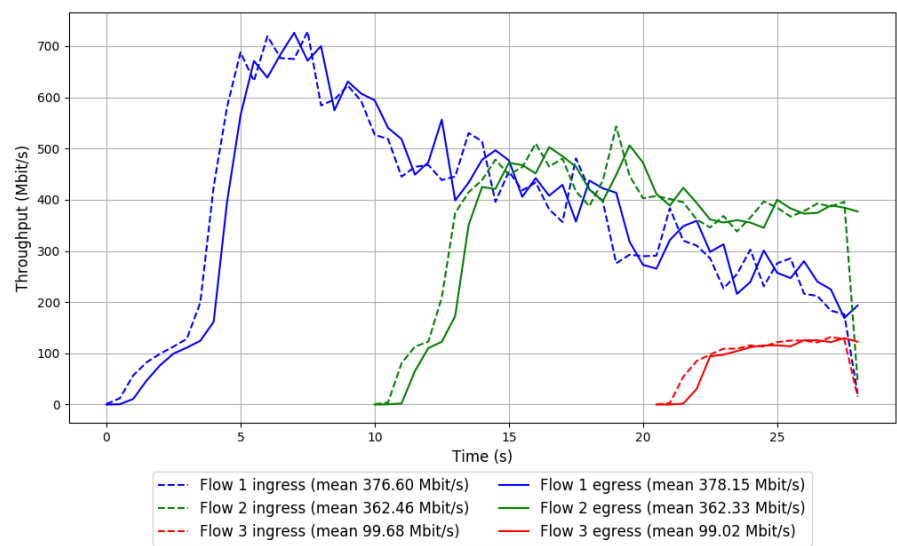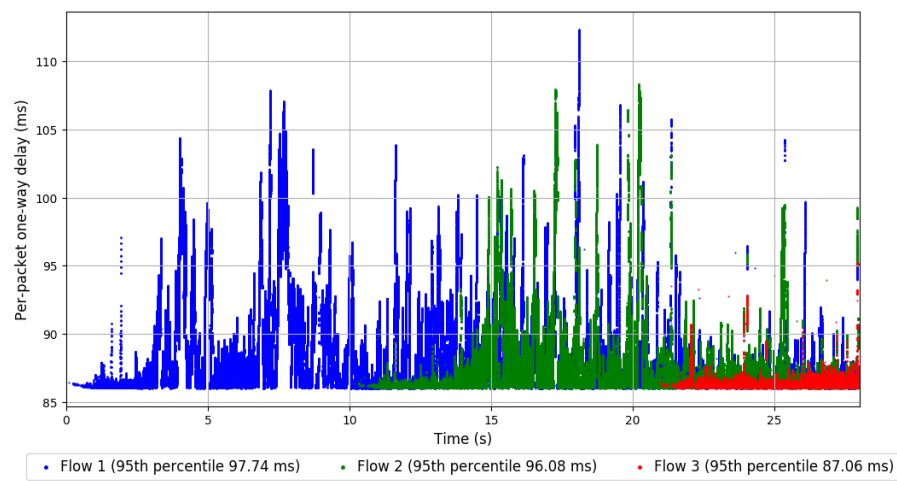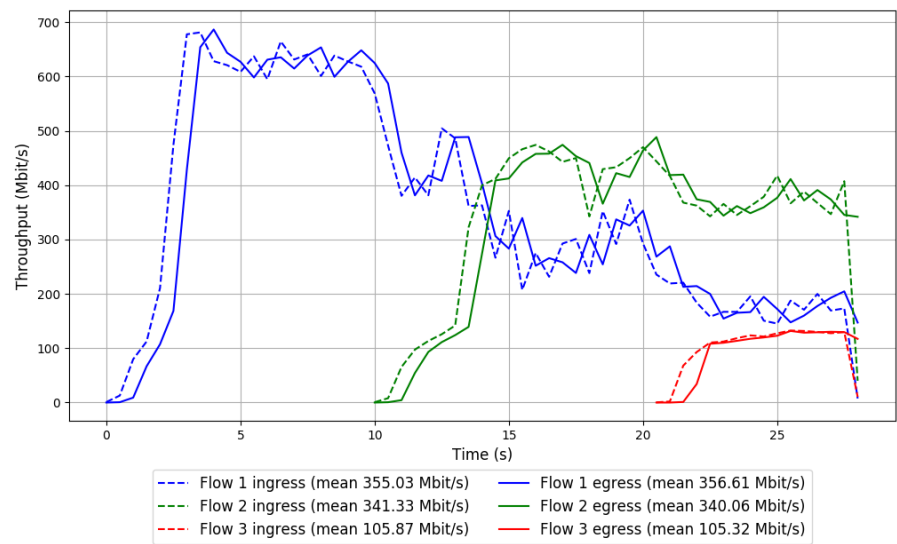
Run 5: Report of Indigo-MusesC3 — Data Link

74

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-27 22:18:15
End at: 2019-06-27 22:18:45
Local clock offset: 0.648 ms
Remote clock offset: 0.05 ms


# Below is generated by plot.py at 2019-06-28 02:59:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 629.55 Mbit/s
95th percentile per-packet one-way delay: 148.665 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 383.78 Mbit/s
95th percentile per-packet one-way delay: 159.849 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 350.86 Mbit/s
95th percentile per-packet one-way delay: 114.307 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 88.96 Mbit/s
95th percentile per-packet one-way delay: 87.091 ms
Loss rate: 3.55%
```

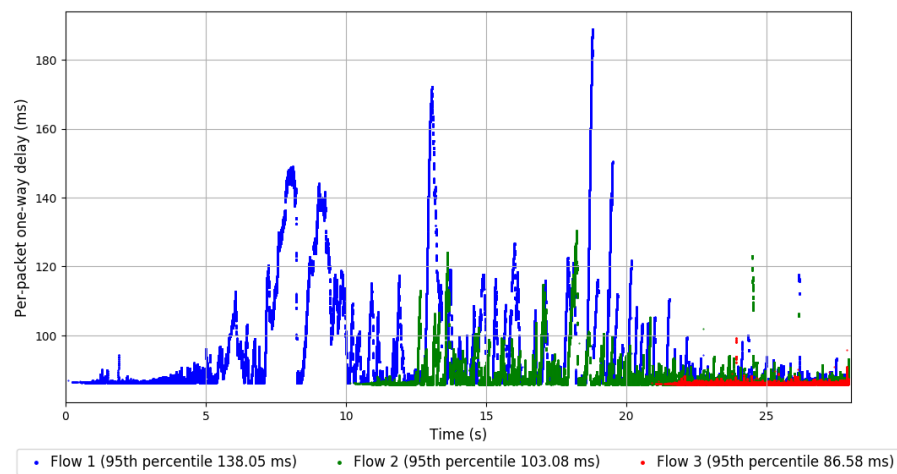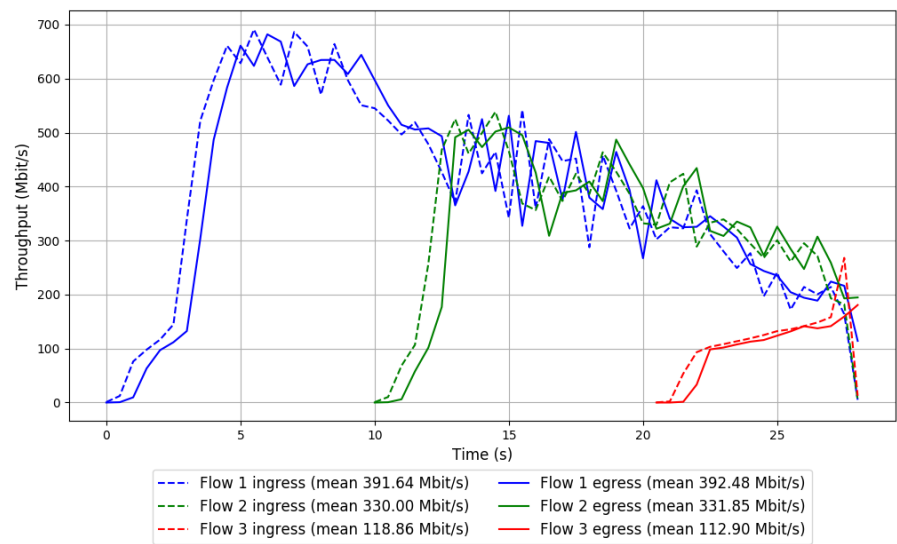Run 1: Report of Indigo-MusesC5 — Data Link

76

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-27 22:56:30
End at: 2019-06-27 22:57:00
Local clock offset: 0.174 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-06-28 03:00:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 625.61 Mbit/s
95th percentile per-packet one-way delay: 120.321 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 378.75 Mbit/s
95th percentile per-packet one-way delay: 124.941 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 350.07 Mbit/s
95th percentile per-packet one-way delay: 93.511 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: 86.130 ms
Loss rate: 2.98%
```

Run 2: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 377.61 Mbit/s) ——— Flow 1 egress (mean 378.75 Mbit/s)
- - - - Flow 2 ingress (mean 350.10 Mbit/s) ——— Flow 2 egress (mean 350.07 Mbit/s)
- - - - Flow 3 ingress (mean 96.06 Mbit/s) ——— Flow 3 egress (mean 95.65 Mbit/s)

- Flow 1 (95th percentile 124.94 ms) • Flow 2 (95th percentile 93.51 ms) • Flow 3 (95th percentile 86.13 ms)
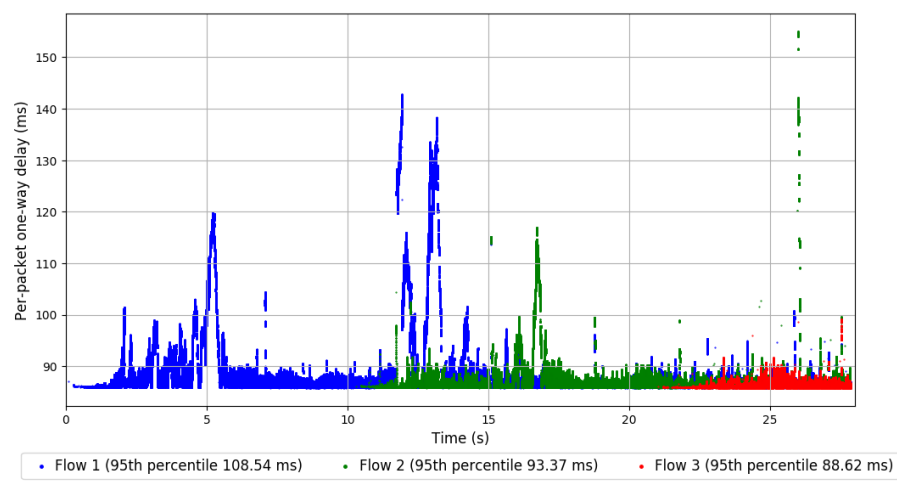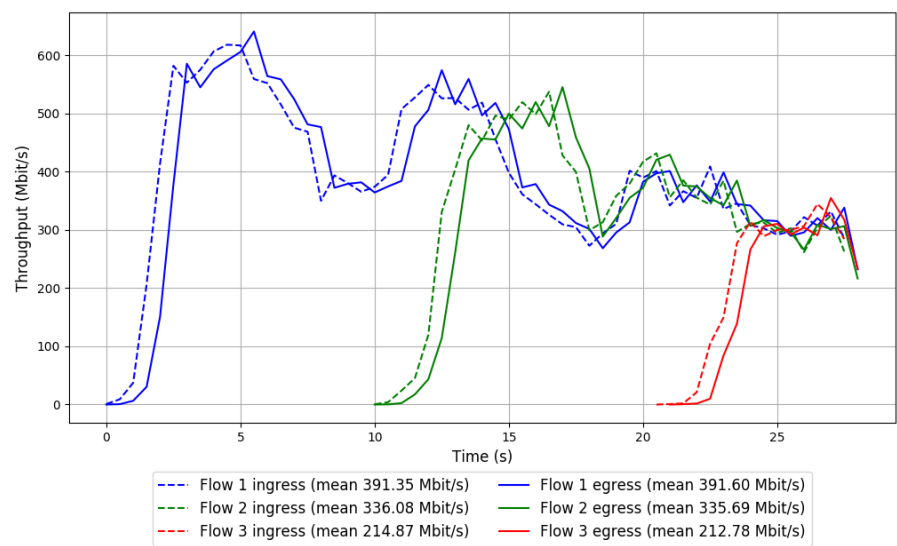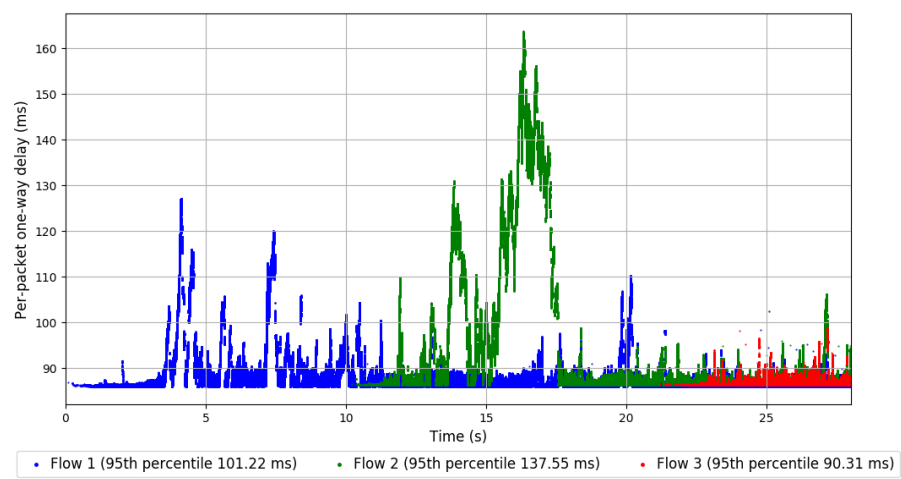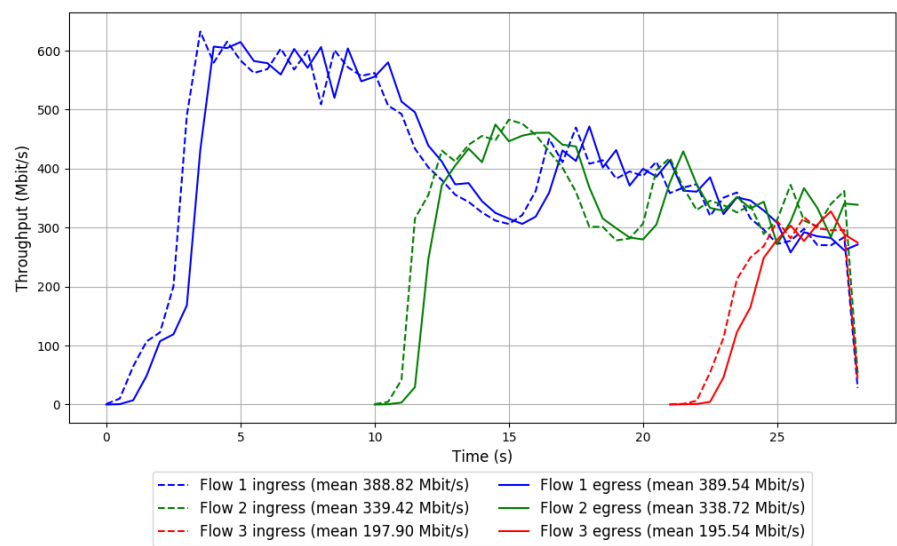
```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-27 23:34:41
End at: 2019-06-27 23:35:11
Local clock offset: -0.052 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2019-06-28 03:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 633.47 Mbit/s
95th percentile per-packet one-way delay: 109.323 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 378.15 Mbit/s
95th percentile per-packet one-way delay: 113.314 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 362.33 Mbit/s
95th percentile per-packet one-way delay: 95.865 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 99.02 Mbit/s
95th percentile per-packet one-way delay: 86.682 ms
Loss rate: 3.02%
```

Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 376.60 Mbit/s) --- Flow 1 egress (mean 378.15 Mbit/s)
Flow 2 ingress (mean 362.46 Mbit/s) --- Flow 2 egress (mean 362.33 Mbit/s)
Flow 3 ingress (mean 99.68 Mbit/s) --- Flow 3 egress (mean 99.02 Mbit/s)

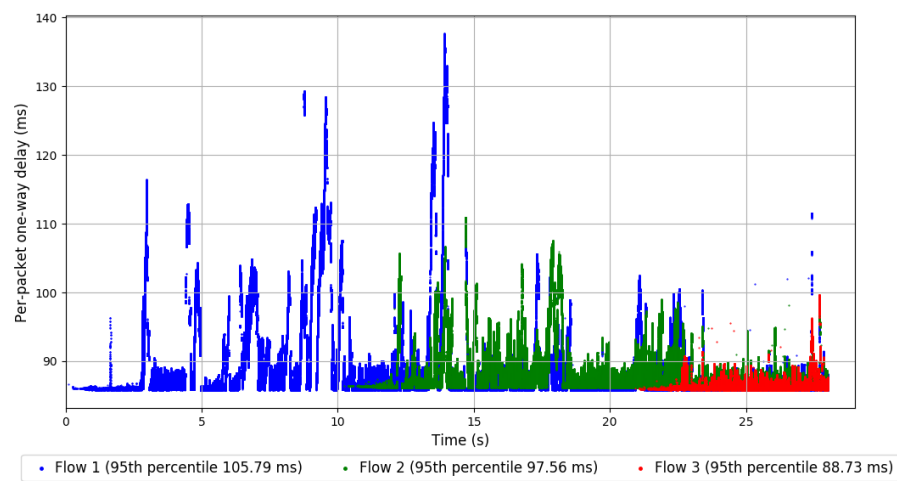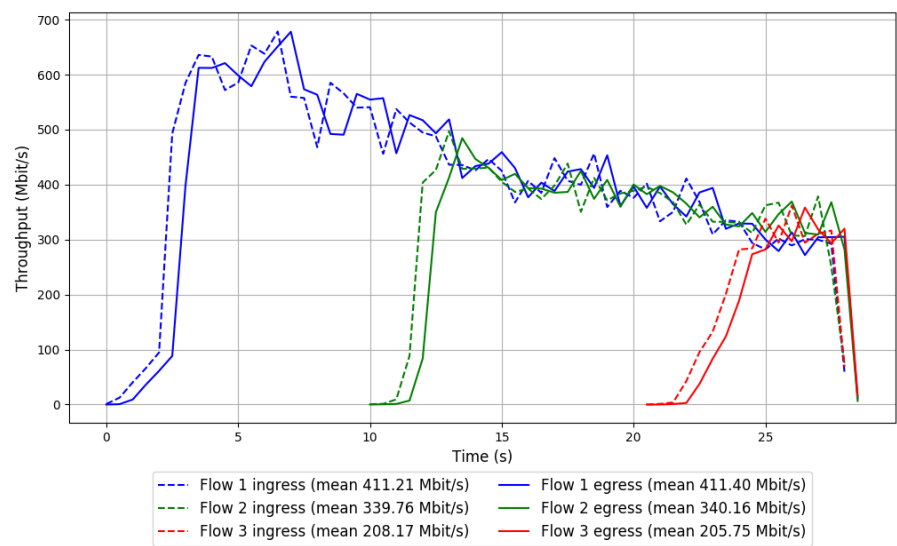Flow 1 (95th percentile 113.31 ms) · Flow 2 (95th percentile 95.86 ms) · Flow 3 (95th percentile 86.68 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 00:13:00
End at: 2019-06-28 00:13:30
Local clock offset: 0.177 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2019-06-28 03:00:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 600.57 Mbit/s
95th percentile per-packet one-way delay: 97.239 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 356.61 Mbit/s
95th percentile per-packet one-way delay: 97.743 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 340.06 Mbit/s
95th percentile per-packet one-way delay: 96.084 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 105.32 Mbit/s
95th percentile per-packet one-way delay: 87.057 ms
Loss rate: 2.92%
```

Run 4: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 355.03 Mbit/s) —— Flow 1 egress (mean 356.61 Mbit/s)
- - - Flow 2 ingress (mean 341.33 Mbit/s) —— Flow 2 egress (mean 340.06 Mbit/s)
- - - Flow 3 ingress (mean 105.87 Mbit/s) —— Flow 3 egress (mean 105.32 Mbit/s)

- Flow 1 (95th percentile 97.74 ms)   • Flow 2 (95th percentile 96.08 ms)   • Flow 3 (95th percentile 87.06 ms)
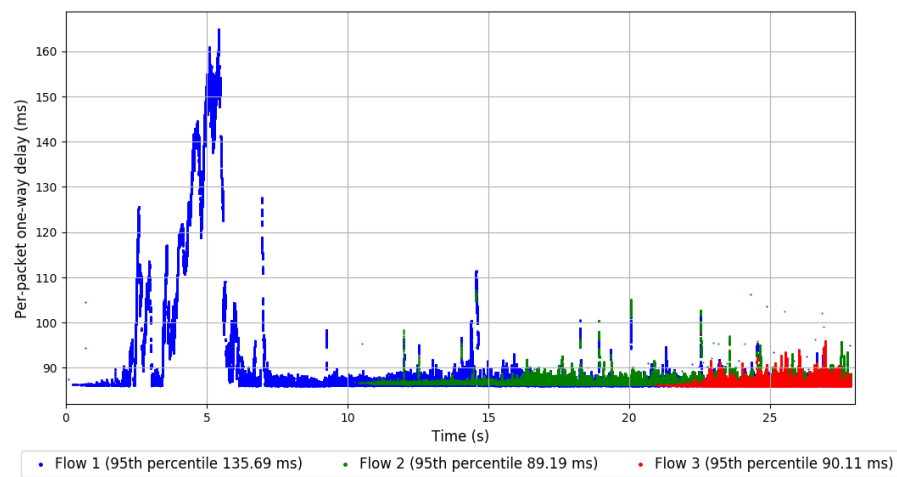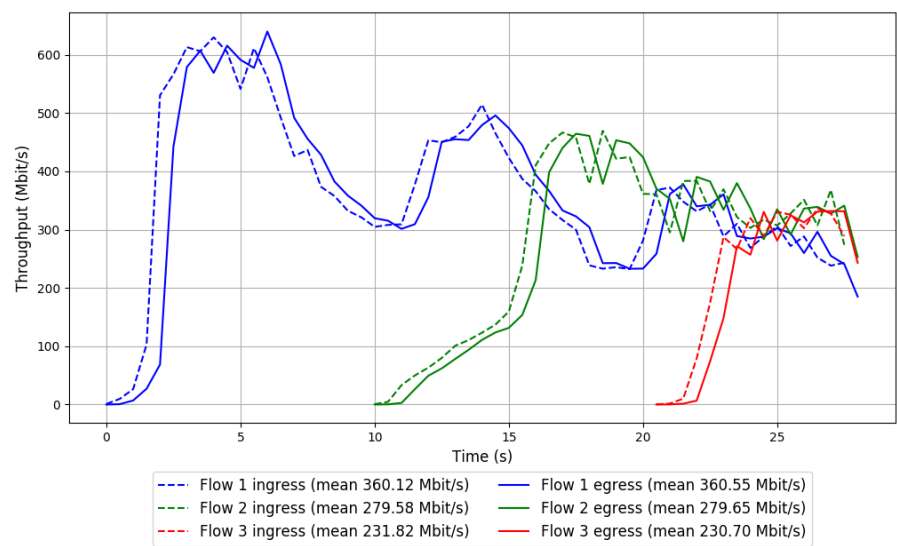
```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 00:51:02
End at: 2019-06-28 00:51:32
Local clock offset: -0.037 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2019-06-28 03:01:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 632.90 Mbit/s
95th percentile per-packet one-way delay: 126.971 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 392.48 Mbit/s
95th percentile per-packet one-way delay: 138.049 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 331.85 Mbit/s
95th percentile per-packet one-way delay: 103.078 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 112.90 Mbit/s
95th percentile per-packet one-way delay: 86.584 ms
Loss rate: 7.42%
```

Run 5: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 391.64 Mbit/s)   —— Flow 1 egress (mean 392.48 Mbit/s)
- - - - Flow 2 ingress (mean 330.00 Mbit/s)   —— Flow 2 egress (mean 331.85 Mbit/s)
- - - - Flow 3 ingress (mean 118.86 Mbit/s)   —— Flow 3 egress (mean 112.90 Mbit/s)

• Flow 1 (95th percentile 138.05 ms)   • Flow 2 (95th percentile 103.08 ms)   • Flow 3 (95th percentile 86.58 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-27 22:47:43
End at: 2019-06-27 22:48:13
Local clock offset: 0.486 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-06-28 03:06:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 656.23 Mbit/s
95th percentile per-packet one-way delay: 101.082 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 391.60 Mbit/s
95th percentile per-packet one-way delay: 108.539 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 335.69 Mbit/s
95th percentile per-packet one-way delay: 93.368 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 212.78 Mbit/s
95th percentile per-packet one-way delay: 88.619 ms
Loss rate: 3.49%
```
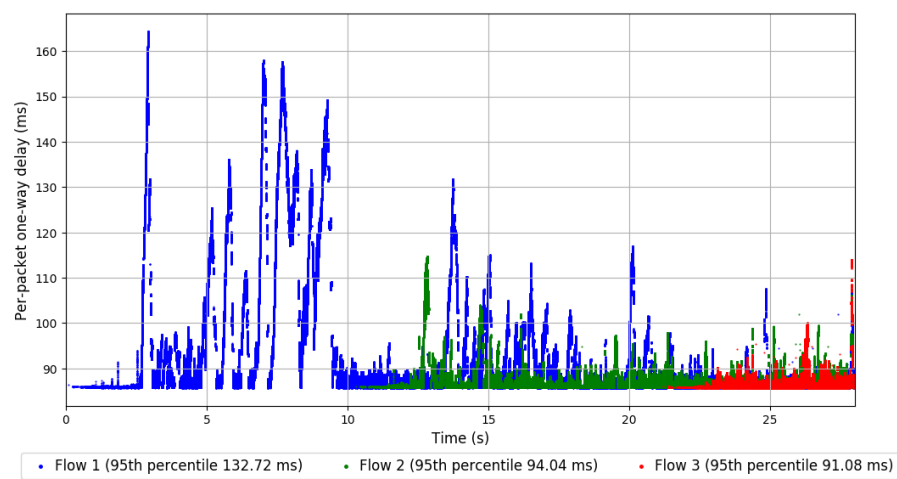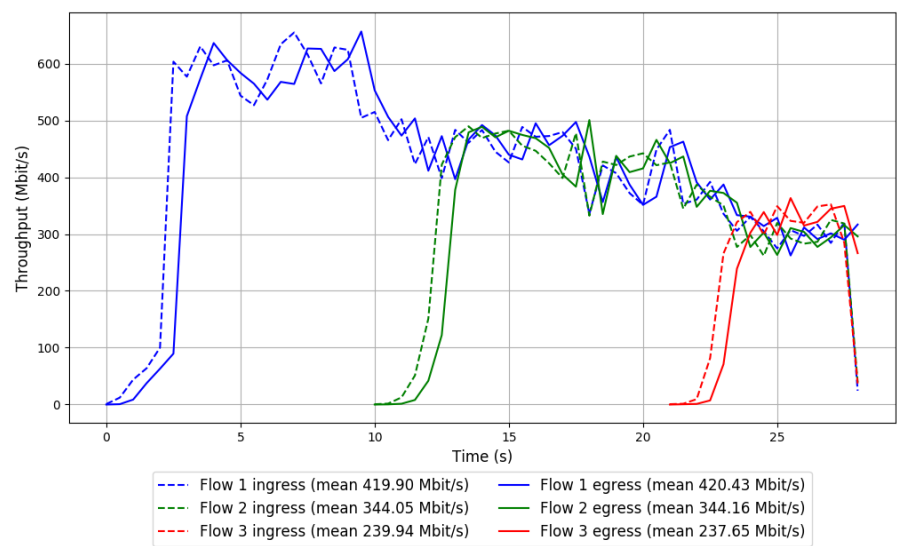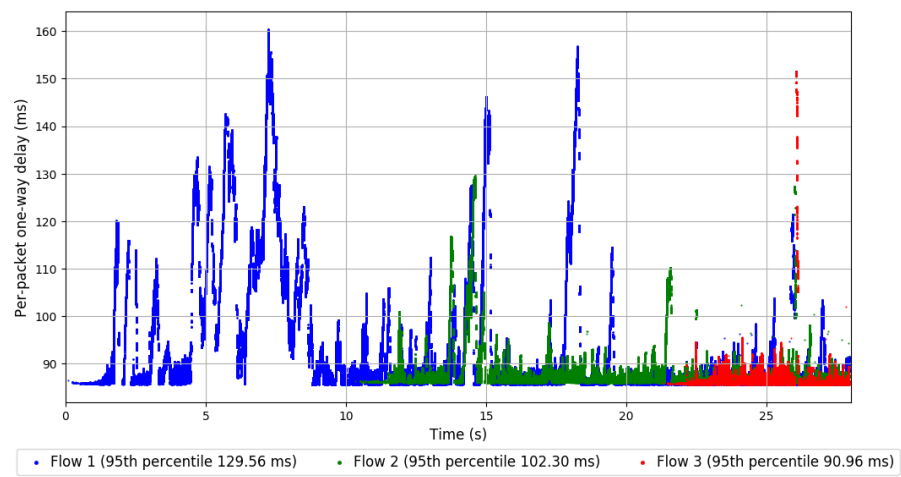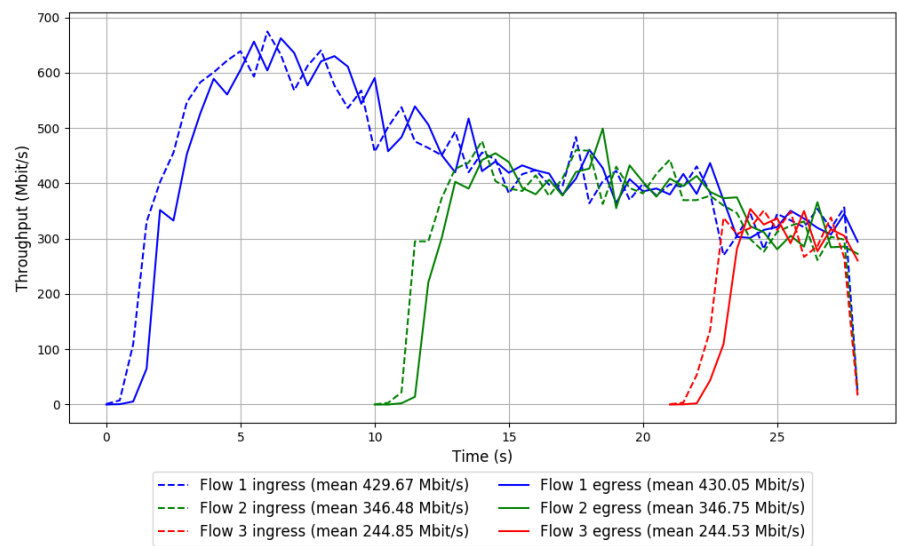
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-27 23:25:49
End at: 2019-06-27 23:26:19
Local clock offset: 0.127 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-06-28 03:07:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 652.84 Mbit/s
95th percentile per-packet one-way delay: 117.823 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 389.54 Mbit/s
95th percentile per-packet one-way delay: 101.218 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 338.72 Mbit/s
95th percentile per-packet one-way delay: 137.547 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 195.54 Mbit/s
95th percentile per-packet one-way delay: 90.313 ms
Loss rate: 3.76%
```

Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 00:04:19
End at: 2019-06-28 00:04:49
Local clock offset: -0.121 ms
Remote clock offset: -0.133 ms


# Below is generated by plot.py at 2019-06-28 03:11:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.30 Mbit/s
95th percentile per-packet one-way delay: 102.021 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 411.40 Mbit/s
95th percentile per-packet one-way delay: 105.790 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 340.16 Mbit/s
95th percentile per-packet one-way delay: 97.558 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 205.75 Mbit/s
95th percentile per-packet one-way delay: 88.726 ms
Loss rate: 3.51%
```
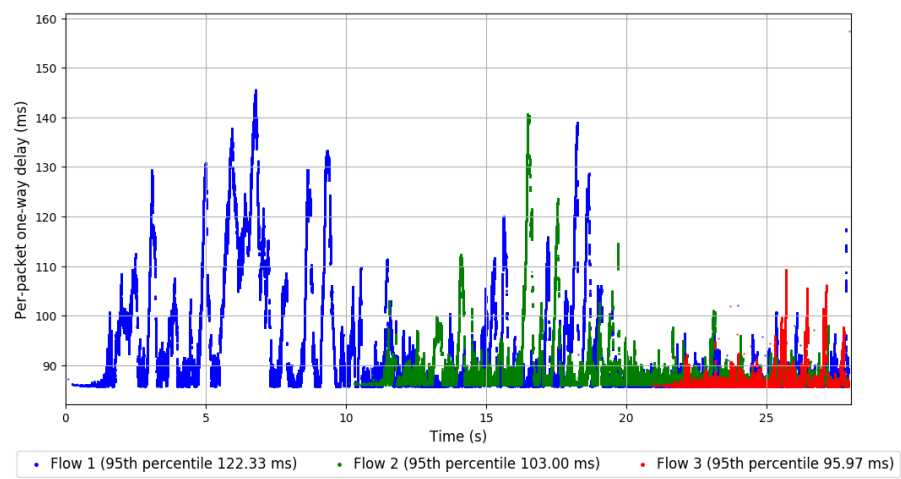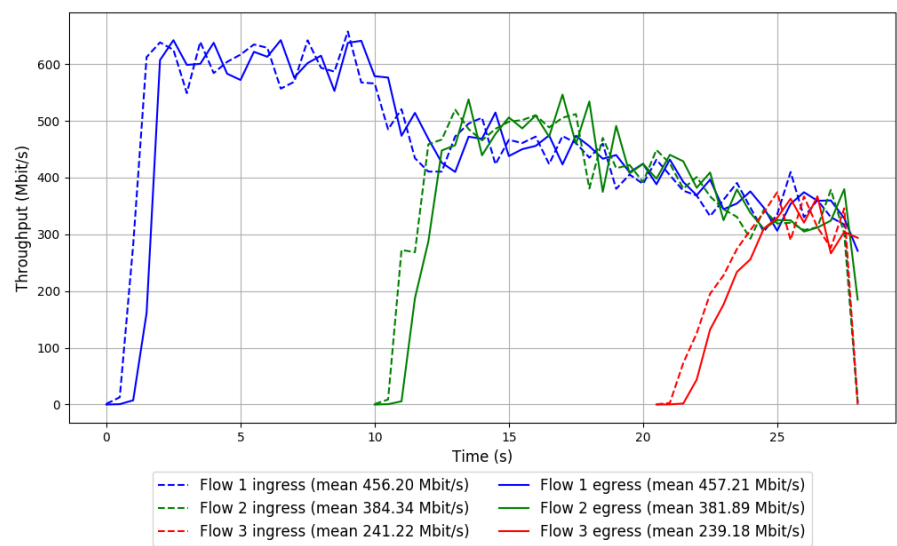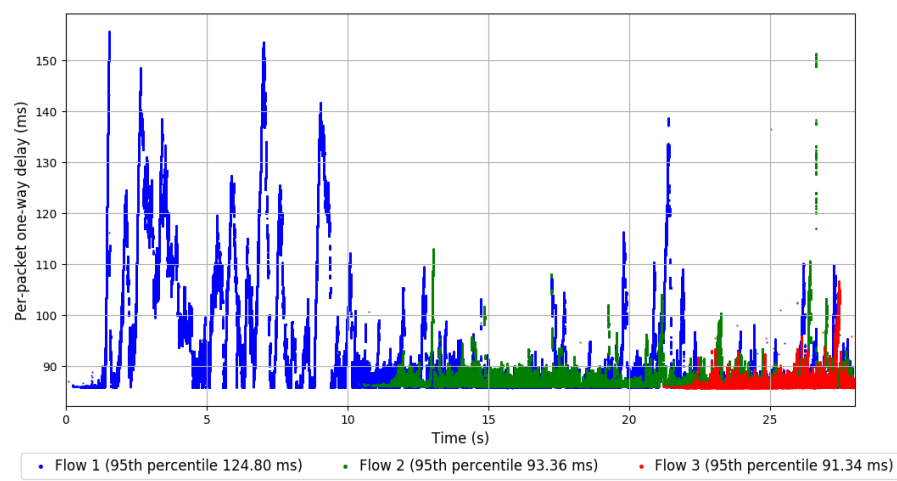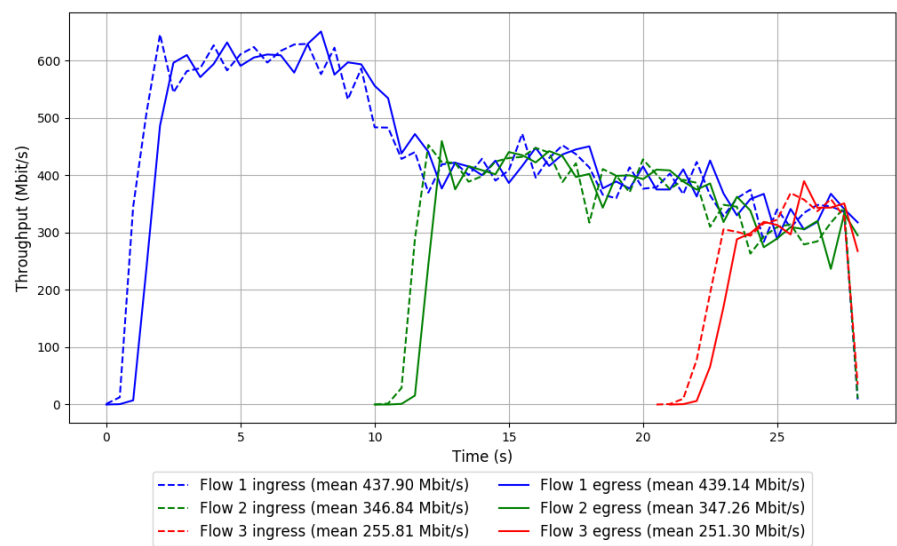
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 00:42:24
End at: 2019-06-28 00:42:54
Local clock offset: 0.19 ms
Remote clock offset: -0.141 ms


# Below is generated by plot.py at 2019-06-28 03:11:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 596.25 Mbit/s
95th percentile per-packet one-way delay: 119.288 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 360.55 Mbit/s
95th percentile per-packet one-way delay: 135.695 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 279.65 Mbit/s
95th percentile per-packet one-way delay: 89.195 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 230.70 Mbit/s
95th percentile per-packet one-way delay: 90.107 ms
Loss rate: 2.85%
```

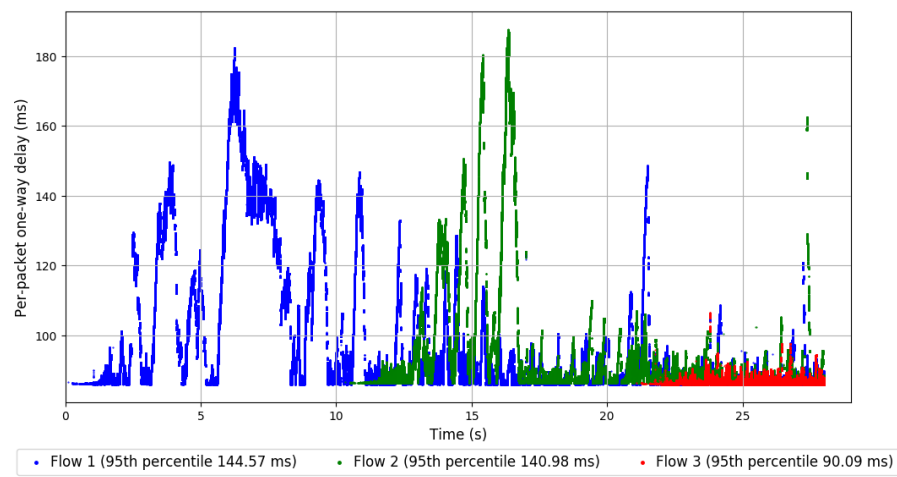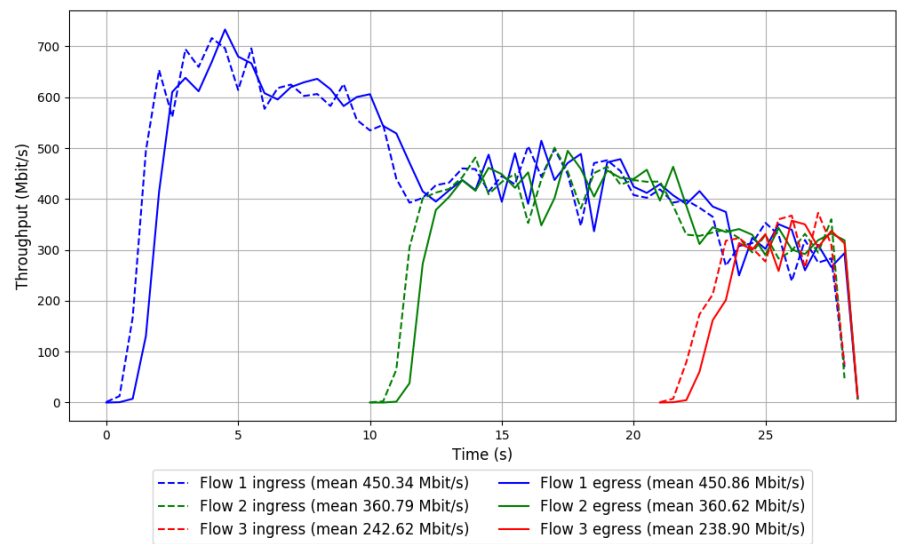## Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 01:20:21
End at: 2019-06-28 01:20:51
Local clock offset: 0.011 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2019-06-28 03:13:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 696.35 Mbit/s
95th percentile per-packet one-way delay: 123.687 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 420.43 Mbit/s
95th percentile per-packet one-way delay: 132.718 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 344.16 Mbit/s
95th percentile per-packet one-way delay: 94.043 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 237.65 Mbit/s
95th percentile per-packet one-way delay: 91.083 ms
Loss rate: 3.43%
```

Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 419.90 Mbit/s) --- Flow 1 egress (mean 420.43 Mbit/s)
Flow 2 ingress (mean 344.05 Mbit/s) --- Flow 2 egress (mean 344.16 Mbit/s)
Flow 3 ingress (mean 239.94 Mbit/s) --- Flow 3 egress (mean 237.65 Mbit/s)

Flow 1 (95th percentile 132.72 ms) • Flow 2 (95th percentile 94.04 ms) • Flow 3 (95th percentile 91.08 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-27 22:49:31
End at: 2019-06-27 22:50:01
Local clock offset: 0.339 ms
Remote clock offset: -0.046 ms

# Below is generated by plot.py at 2019-06-28 03:14:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 707.44 Mbit/s
95th percentile per-packet one-way delay: 124.261 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 430.05 Mbit/s
95th percentile per-packet one-way delay: 129.556 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 346.75 Mbit/s
95th percentile per-packet one-way delay: 102.300 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 244.53 Mbit/s
95th percentile per-packet one-way delay: 90.956 ms
Loss rate: 2.68%
```
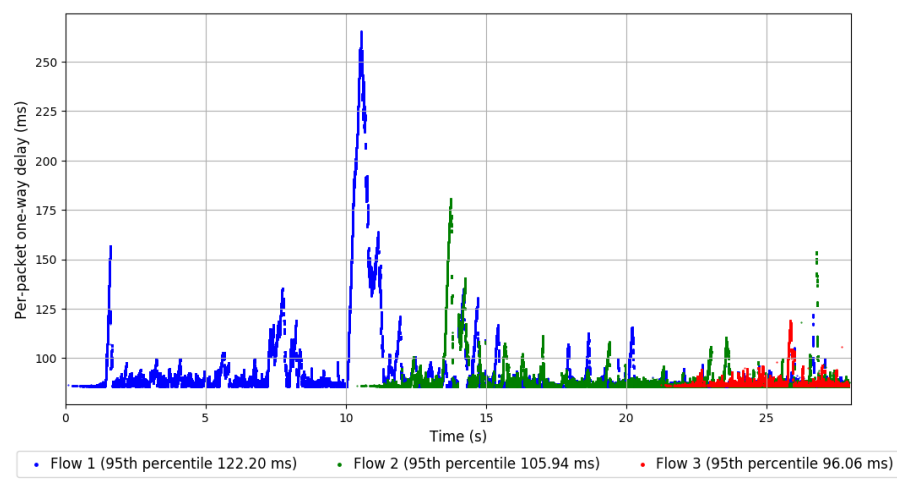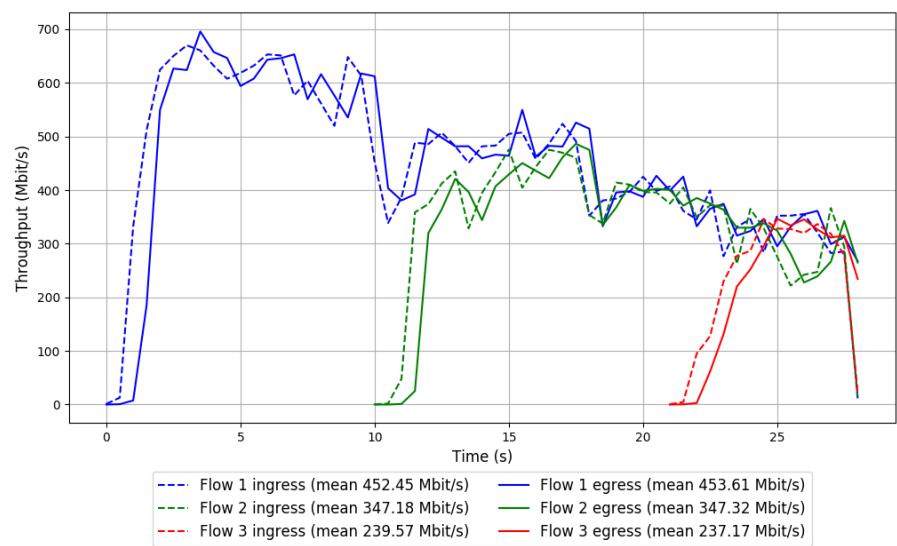
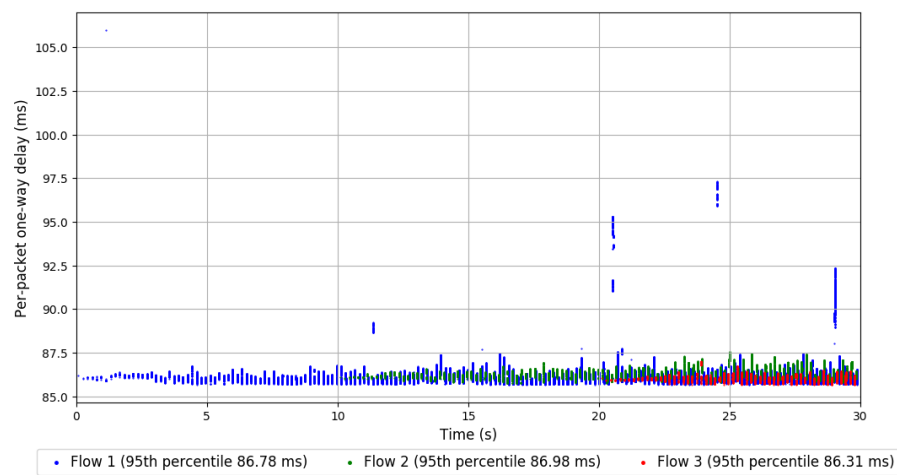Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-27 23:27:38
End at: 2019-06-27 23:28:08
Local clock offset: -0.175 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-06-28 03:15:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 761.61 Mbit/s
95th percentile per-packet one-way delay: 118.183 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 457.21 Mbit/s
95th percentile per-packet one-way delay: 122.327 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 381.89 Mbit/s
95th percentile per-packet one-way delay: 102.995 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 239.18 Mbit/s
95th percentile per-packet one-way delay: 95.973 ms
Loss rate: 3.20%
```

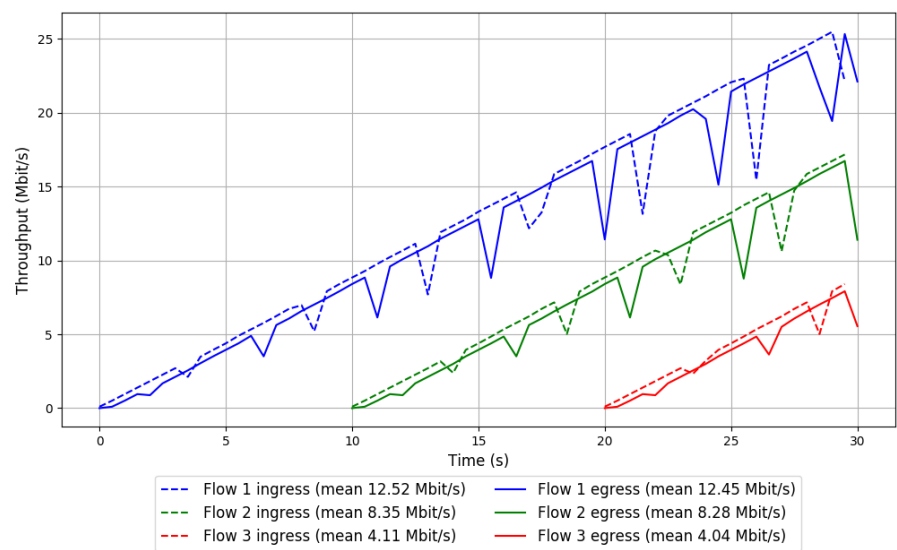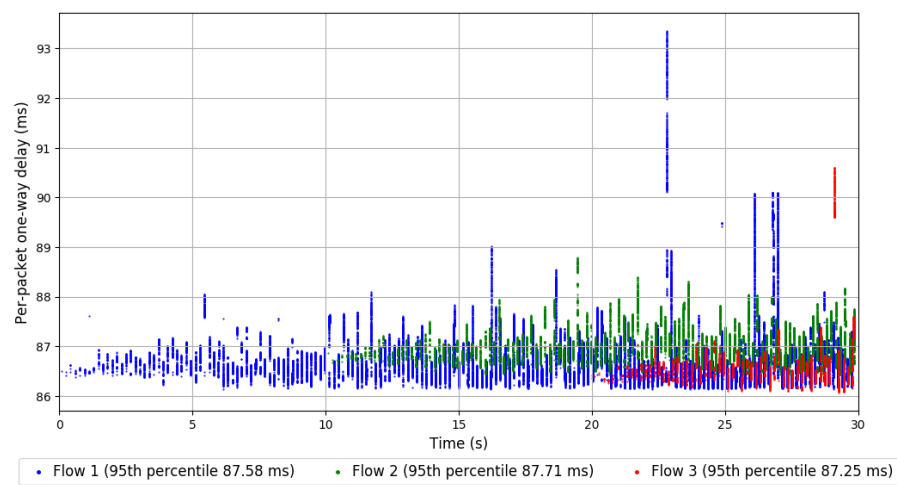# Run 2: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 456.20 Mbit/s)   Flow 1 egress (mean 457.21 Mbit/s)
Flow 2 ingress (mean 384.34 Mbit/s)   Flow 2 egress (mean 381.89 Mbit/s)
Flow 3 ingress (mean 241.22 Mbit/s)   Flow 3 egress (mean 239.18 Mbit/s)

Flow 1 (95th percentile 122.33 ms)   Flow 2 (95th percentile 103.00 ms)   Flow 3 (95th percentile 95.97 ms)

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-28 00:06:10
End at: 2019-06-28 00:06:40
Local clock offset: -0.101 ms
Remote clock offset: -0.036 ms


# Below is generated by plot.py at 2019-06-28 03:15:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 719.63 Mbit/s
95th percentile per-packet one-way delay: 120.117 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 439.14 Mbit/s
95th percentile per-packet one-way delay: 124.796 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 347.26 Mbit/s
95th percentile per-packet one-way delay: 93.359 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 251.30 Mbit/s
95th percentile per-packet one-way delay: 91.339 ms
Loss rate: 4.24%
```

Run 3: Report of Indigo-MusesT — Data Link
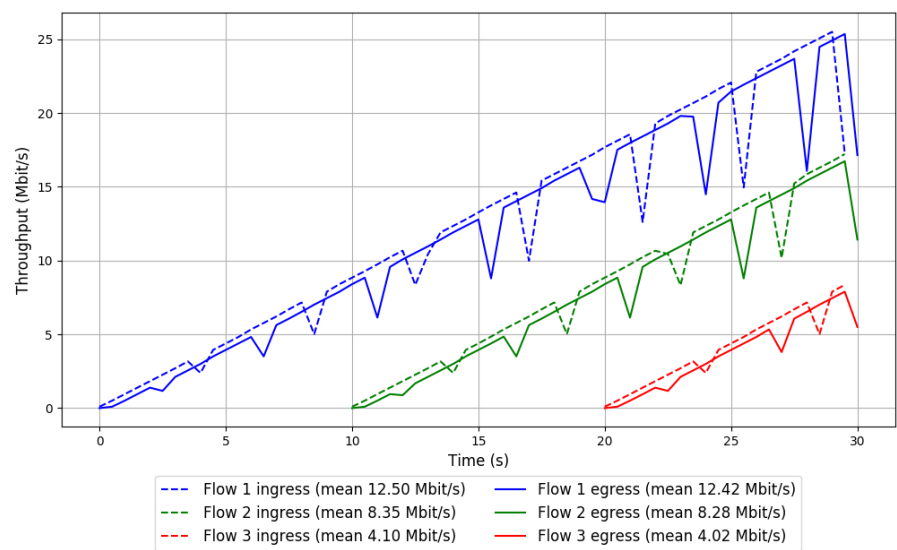

Flow 1 ingress (mean 437.90 Mbit/s) — — — Flow 1 egress (mean 439.14 Mbit/s)
Flow 2 ingress (mean 346.84 Mbit/s) — — — Flow 2 egress (mean 347.26 Mbit/s)
Flow 3 ingress (mean 255.81 Mbit/s) — — — Flow 3 egress (mean 251.30 Mbit/s)

Flow 1 (95th percentile 124.80 ms)   Flow 2 (95th percentile 93.36 ms)   Flow 3 (95th percentile 91.34 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-28 00:44:11
End at: 2019-06-28 00:44:41
Local clock offset: 0.16 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2019-06-28 03:20:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 738.22 Mbit/s
95th percentile per-packet one-way delay: 142.597 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 450.86 Mbit/s
95th percentile per-packet one-way delay: 144.574 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 360.62 Mbit/s
95th percentile per-packet one-way delay: 140.982 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 238.90 Mbit/s
95th percentile per-packet one-way delay: 90.092 ms
Loss rate: 4.00%
```

Run 4: Report of Indigo-MusesT — Data Link
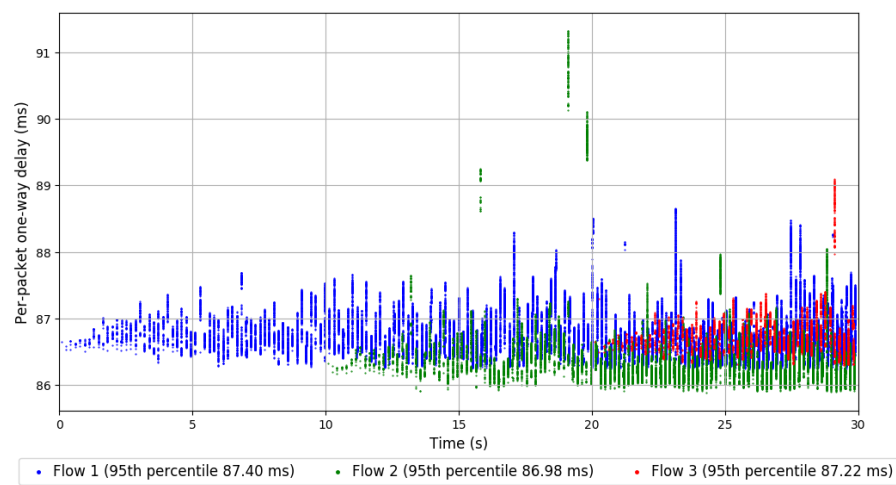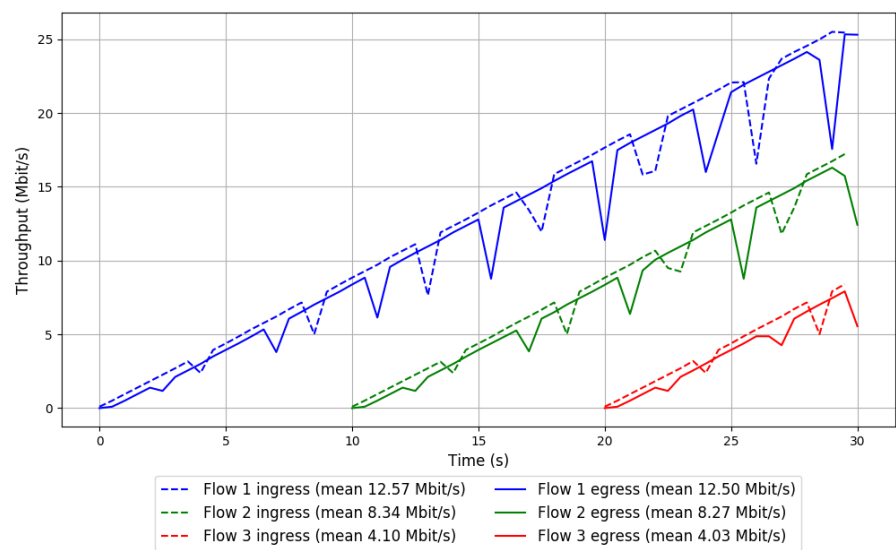
```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-28 01:22:13
End at: 2019-06-28 01:22:43
Local clock offset: 0.016 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2019-06-28 03:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 729.51 Mbit/s
95th percentile per-packet one-way delay: 114.128 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 453.61 Mbit/s
95th percentile per-packet one-way delay: 122.199 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 347.32 Mbit/s
95th percentile per-packet one-way delay: 105.937 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 237.17 Mbit/s
95th percentile per-packet one-way delay: 96.057 ms
Loss rate: 3.67%
```

Run 5: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 452.45 Mbit/s) --- Flow 1 egress (mean 453.61 Mbit/s)
Flow 2 ingress (mean 347.18 Mbit/s) --- Flow 2 egress (mean 347.32 Mbit/s)
Flow 3 ingress (mean 239.57 Mbit/s) --- Flow 3 egress (mean 237.17 Mbit/s)

Flow 1 (95th percentile 122.20 ms)   Flow 2 (95th percentile 105.94 ms)   Flow 3 (95th percentile 96.06 ms)

104

```
Run 1: Statistics of LEDBAT

Start at: 2019-06-27 22:44:27
End at: 2019-06-27 22:44:57
Local clock offset: 0.325 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2019-06-28 03:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.24 Mbit/s
95th percentile per-packet one-way delay: 86.880 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 86.783 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 86.977 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 86.315 ms
Loss rate: 3.52%
```
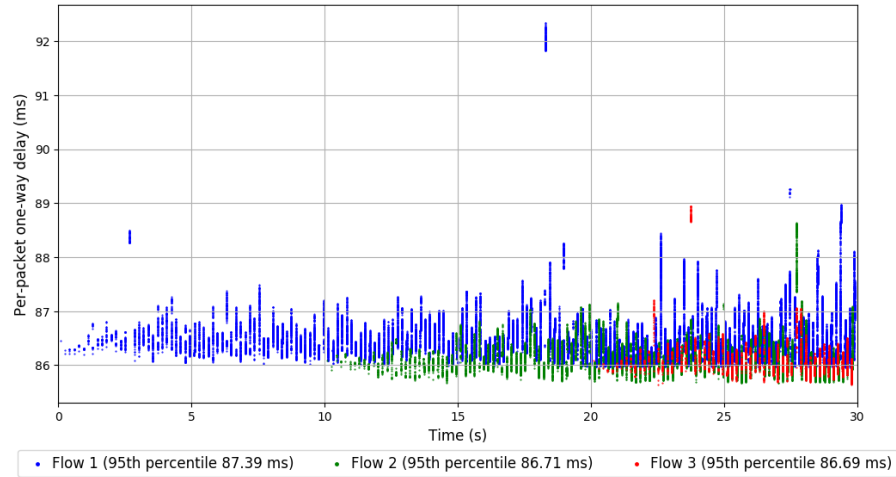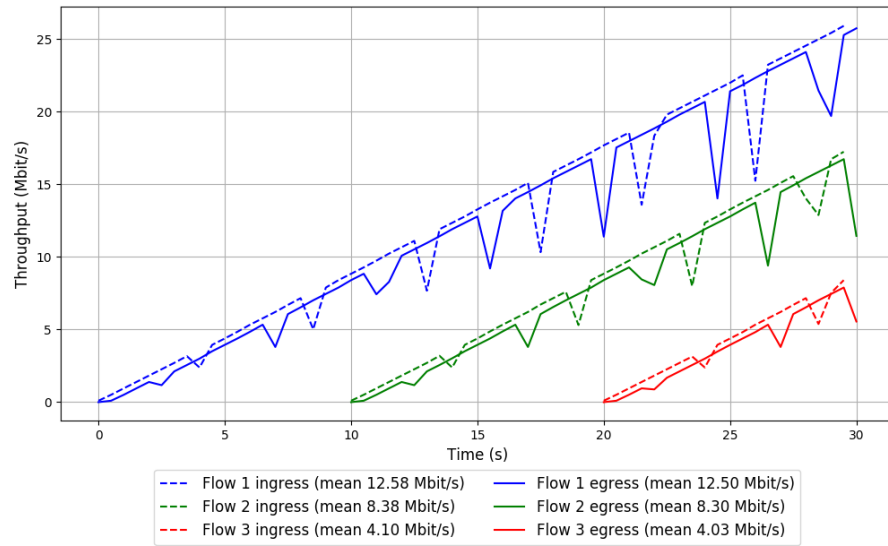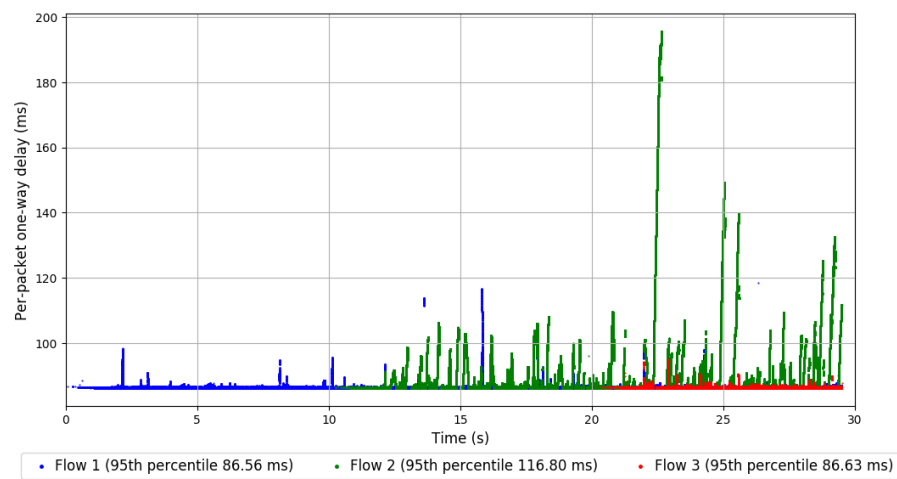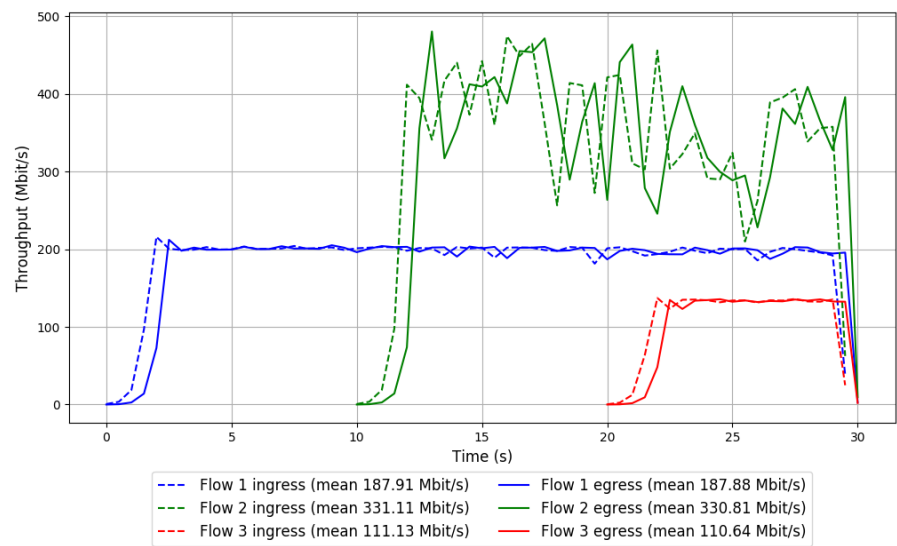
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 12.52 Mbit/s)   Flow 1 egress (mean 12.45 Mbit/s)
Flow 2 ingress (mean 8.35 Mbit/s)   Flow 2 egress (mean 8.28 Mbit/s)
Flow 3 ingress (mean 4.11 Mbit/s)   Flow 3 egress (mean 4.04 Mbit/s)

Flow 1 (95th percentile 86.78 ms)   Flow 2 (95th percentile 86.98 ms)   Flow 3 (95th percentile 86.31 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-06-27 23:22:33
End at: 2019-06-27 23:23:03
Local clock offset: 0.248 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2019-06-28 03:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.19 Mbit/s
95th percentile per-packet one-way delay: 87.655 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 12.42 Mbit/s
95th percentile per-packet one-way delay: 87.582 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 87.706 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 87.247 ms
Loss rate: 3.52%
```
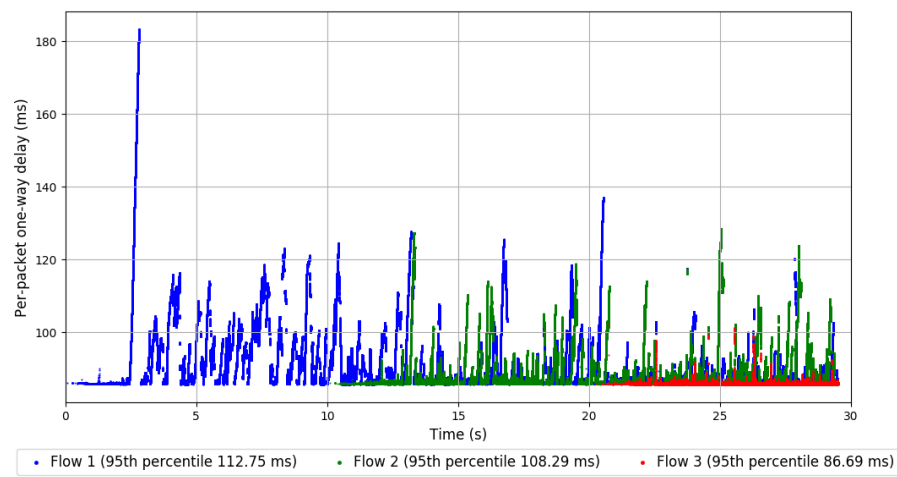
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-06-28 00:01:02
End at: 2019-06-28 00:01:32
Local clock offset: -0.54 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2019-06-28 03:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.31 Mbit/s
95th percentile per-packet one-way delay: 86.685 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.52 Mbit/s
95th percentile per-packet one-way delay: 86.752 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 86.436 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 87.094 ms
Loss rate: 3.50%
```
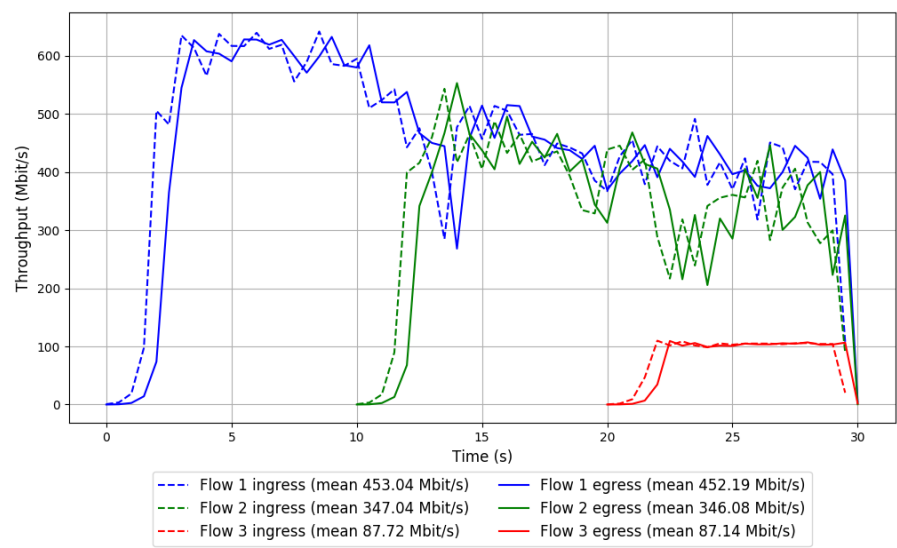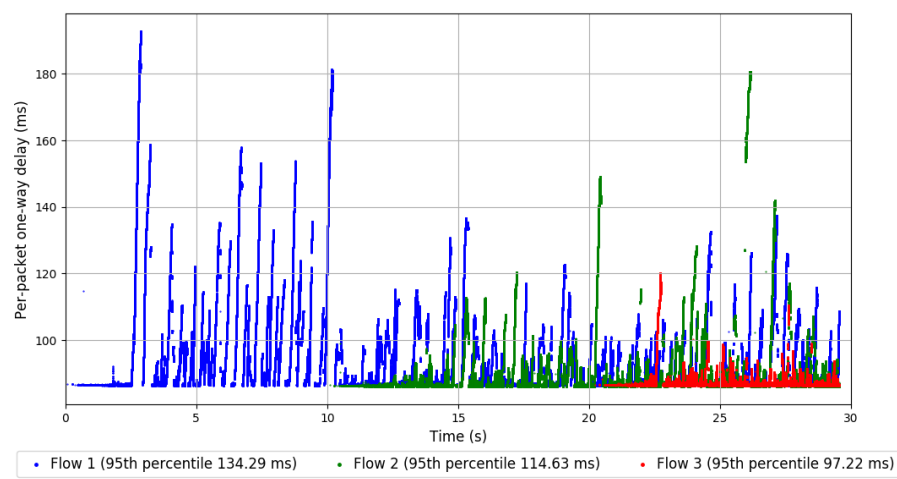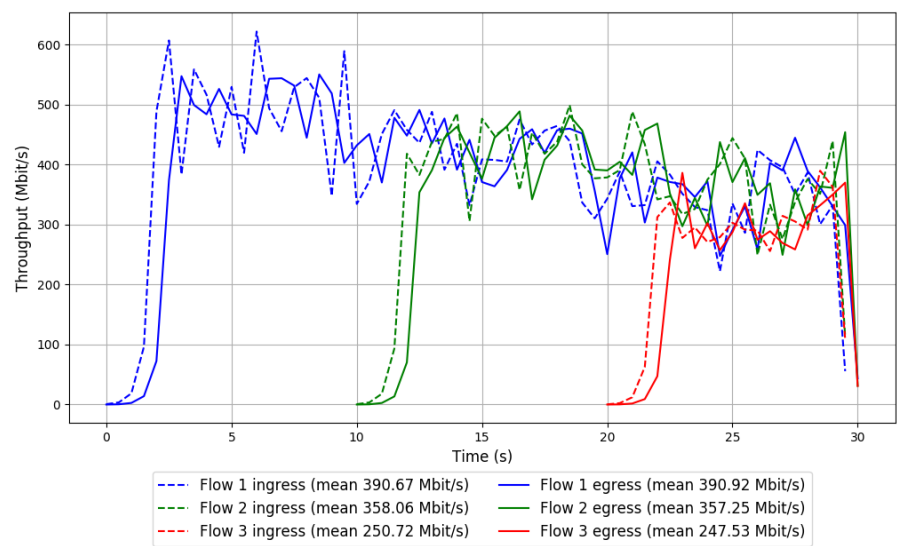
Run 3: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 12.59 Mbit/s) —— Flow 1 egress (mean 12.52 Mbit/s)
- - - Flow 2 ingress (mean 8.34 Mbit/s) —— Flow 2 egress (mean 8.27 Mbit/s)
- - - Flow 3 ingress (mean 4.06 Mbit/s) —— Flow 3 egress (mean 3.99 Mbit/s)

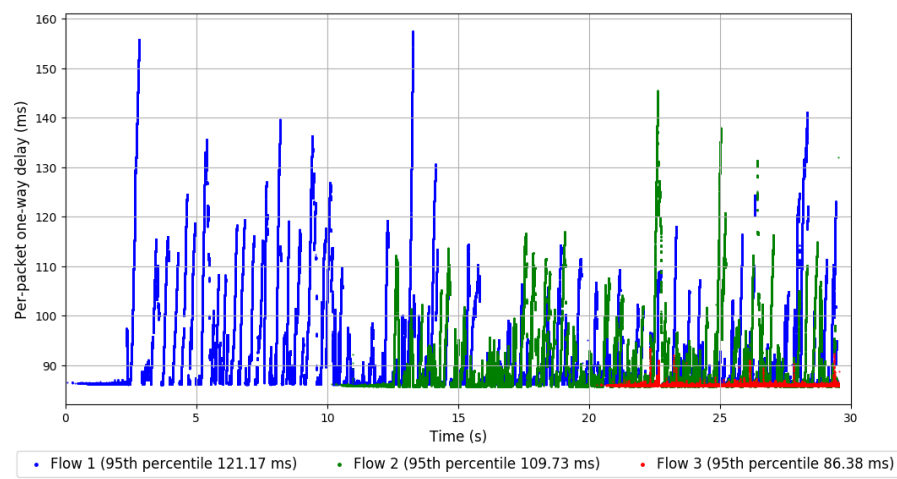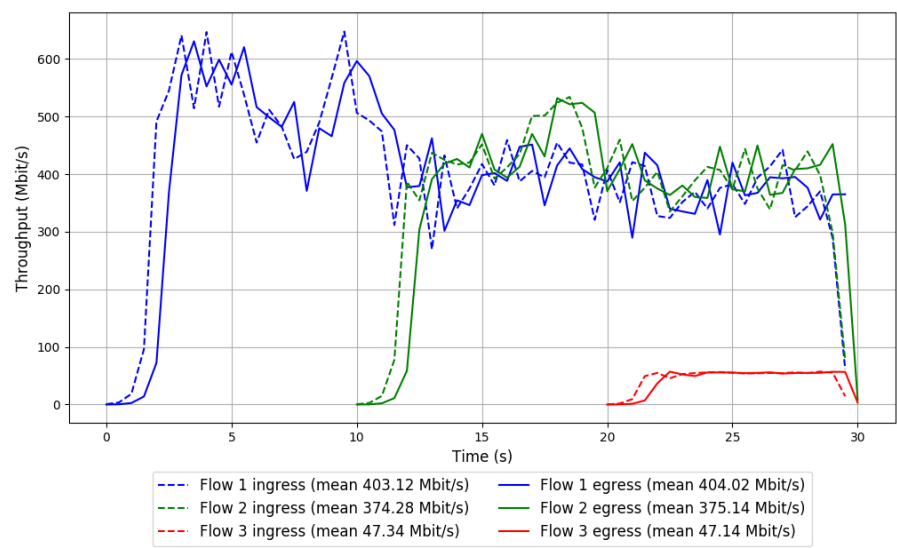- Flow 1 (95th percentile 86.75 ms) - Flow 2 (95th percentile 86.44 ms) - Flow 3 (95th percentile 87.09 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-06-28 00:39:10
End at: 2019-06-28 00:39:40
Local clock offset: 0.15 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2019-06-28 03:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.29 Mbit/s
95th percentile per-packet one-way delay: 87.356 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 87.404 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 86.977 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 87.217 ms
Loss rate: 3.52%
```

Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-06-28 01:17:02
End at: 2019-06-28 01:17:32
Local clock offset: -0.043 ms
Remote clock offset: 0.027 ms


# Below is generated by plot.py at 2019-06-28 03:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.30 Mbit/s
95th percentile per-packet one-way delay: 87.245 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 87.387 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 86.710 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 86.691 ms
Loss rate: 3.52%
```

Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 22:40:43
End at: 2019-06-27 22:41:13
Local clock offset: 0.517 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-06-28 03:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 441.18 Mbit/s
95th percentile per-packet one-way delay: 102.628 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 187.88 Mbit/s
95th percentile per-packet one-way delay: 86.557 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 330.81 Mbit/s
95th percentile per-packet one-way delay: 116.797 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 110.64 Mbit/s
95th percentile per-packet one-way delay: 86.627 ms
Loss rate: 2.24%
```
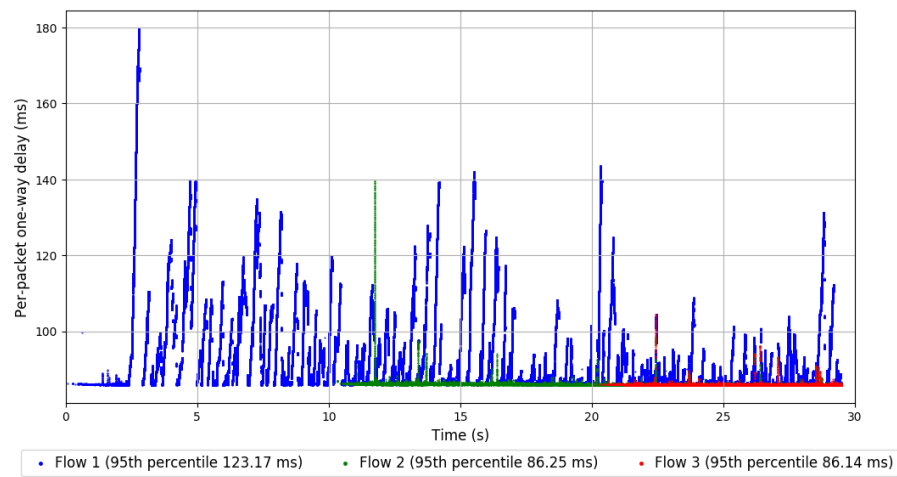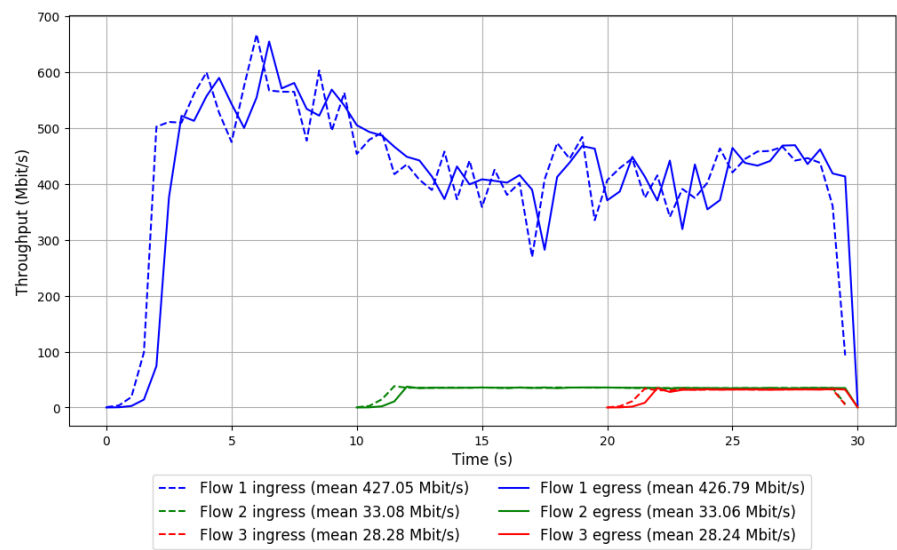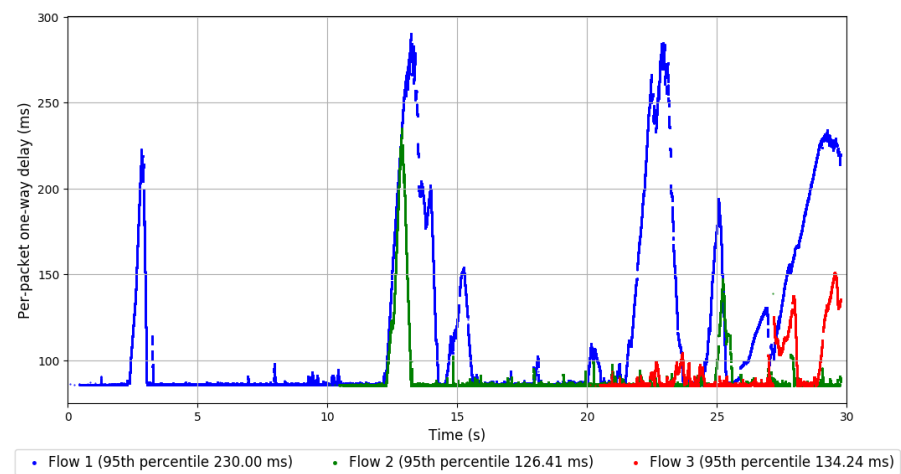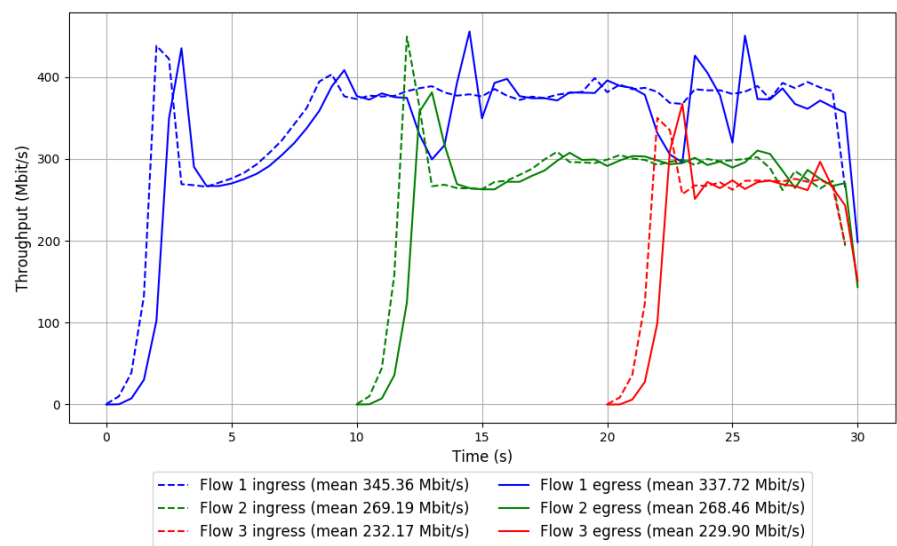
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 23:18:36
End at: 2019-06-27 23:19:06
Local clock offset: -0.169 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2019-06-28 03:26:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 707.52 Mbit/s
95th percentile per-packet one-way delay: 111.458 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 452.19 Mbit/s
95th percentile per-packet one-way delay: 112.753 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 346.08 Mbit/s
95th percentile per-packet one-way delay: 108.286 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 87.14 Mbit/s
95th percentile per-packet one-way delay: 86.687 ms
Loss rate: 2.53%
```

Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-27 23:57:05
End at: 2019-06-27 23:57:35
Local clock offset: 0.309 ms
Remote clock offset: -0.11 ms


# Below is generated by plot.py at 2019-06-28 03:26:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 705.11 Mbit/s
95th percentile per-packet one-way delay: 127.084 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 390.92 Mbit/s
95th percentile per-packet one-way delay: 134.291 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 357.25 Mbit/s
95th percentile per-packet one-way delay: 114.628 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 247.53 Mbit/s
95th percentile per-packet one-way delay: 97.220 ms
Loss rate: 3.06%
```

Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 00:35:22
End at: 2019-06-28 00:35:52
Local clock offset: -0.027 ms
Remote clock offset: -0.154 ms


# Below is generated by plot.py at 2019-06-28 03:26:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 664.63 Mbit/s
95th percentile per-packet one-way delay: 116.651 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 404.02 Mbit/s
95th percentile per-packet one-way delay: 121.167 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 375.14 Mbit/s
95th percentile per-packet one-way delay: 109.735 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 47.14 Mbit/s
95th percentile per-packet one-way delay: 86.382 ms
Loss rate: 2.23%
```

Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 01:13:18
End at: 2019-06-28 01:13:48
Local clock offset: 0.07 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-06-28 03:26:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 457.40 Mbit/s
95th percentile per-packet one-way delay: 122.165 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 426.79 Mbit/s
95th percentile per-packet one-way delay: 123.175 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 86.254 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 28.24 Mbit/s
95th percentile per-packet one-way delay: 86.137 ms
Loss rate: 2.00%
```
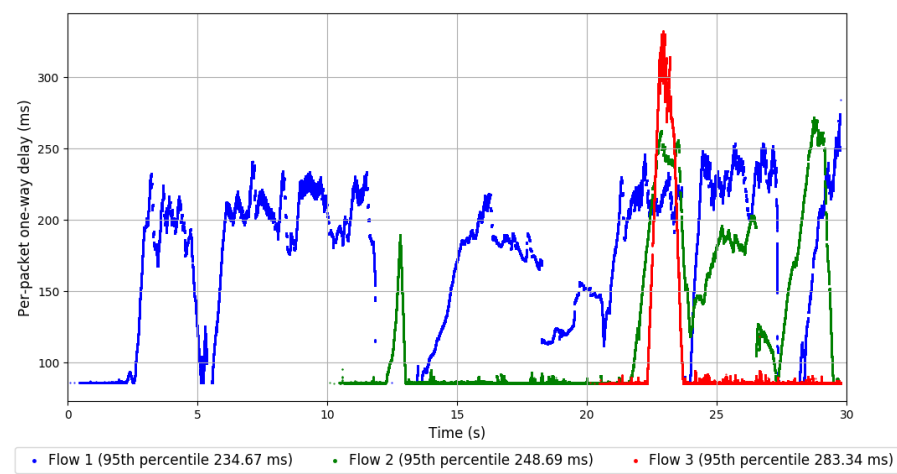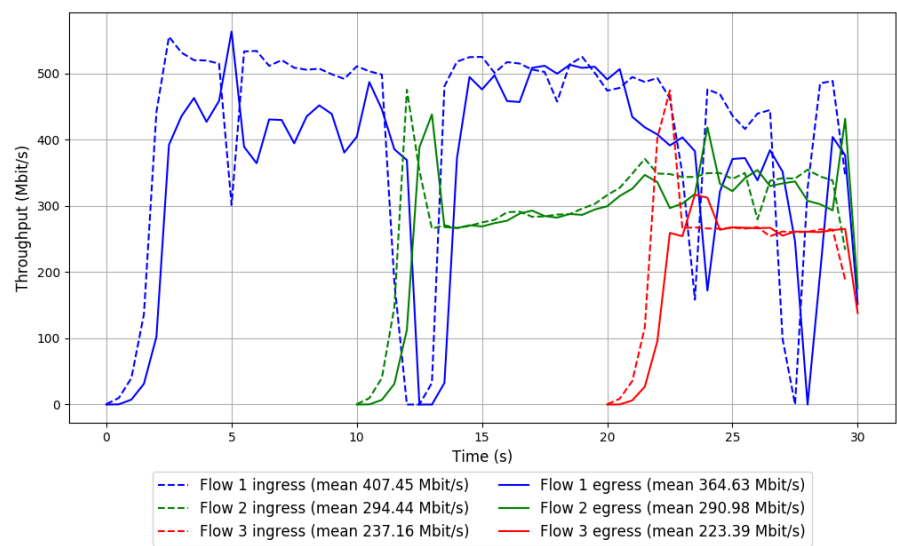
Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-06-27 22:52:38
End at: 2019-06-27 22:53:08
Local clock offset: 0.1 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2019-06-28 03:35:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 590.30 Mbit/s
95th percentile per-packet one-way delay: 218.691 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 337.72 Mbit/s
95th percentile per-packet one-way delay: 229.996 ms
Loss rate: 2.78%
-- Flow 2:
Average throughput: 268.46 Mbit/s
95th percentile per-packet one-way delay: 126.408 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 229.90 Mbit/s
95th percentile per-packet one-way delay: 134.238 ms
Loss rate: 2.73%
```
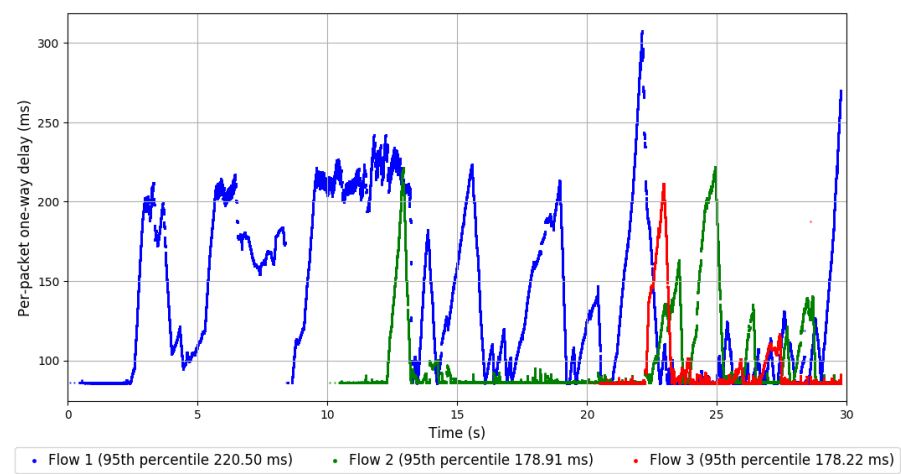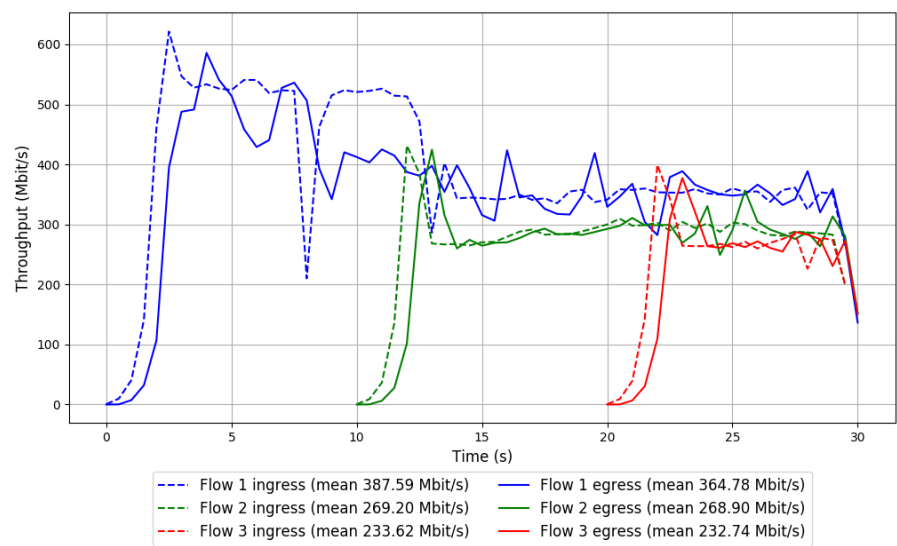
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-06-27 23:30:48
End at: 2019-06-27 23:31:18
Local clock offset: -0.593 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-06-28 03:45:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.63 Mbit/s
95th percentile per-packet one-way delay: 223.748 ms
Loss rate: 5.90%
-- Flow 1:
Average throughput: 362.09 Mbit/s
95th percentile per-packet one-way delay: 227.724 ms
Loss rate: 8.88%
-- Flow 2:
Average throughput: 281.87 Mbit/s
95th percentile per-packet one-way delay: 173.134 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 244.65 Mbit/s
95th percentile per-packet one-way delay: 188.727 ms
Loss rate: 2.37%
```

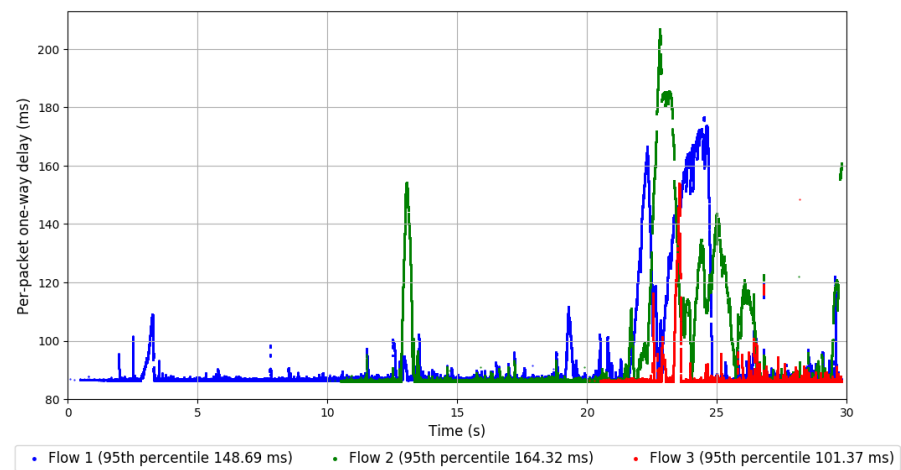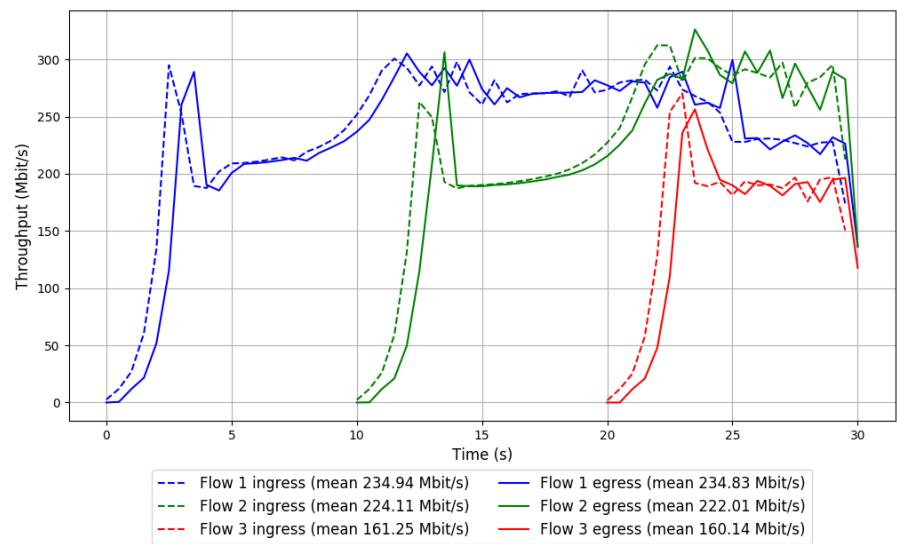Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 00:09:19
End at: 2019-06-28 00:09:49
Local clock offset: -0.107 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2019-06-28 03:45:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 457.90 Mbit/s
95th percentile per-packet one-way delay: 213.984 ms
Loss rate: 5.19%
-- Flow 1:
Average throughput: 406.12 Mbit/s
95th percentile per-packet one-way delay: 214.608 ms
Loss rate: 5.49%
-- Flow 2:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 85.933 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 150.48 Mbit/s
95th percentile per-packet one-way delay: 164.439 ms
Loss rate: 2.93%
```

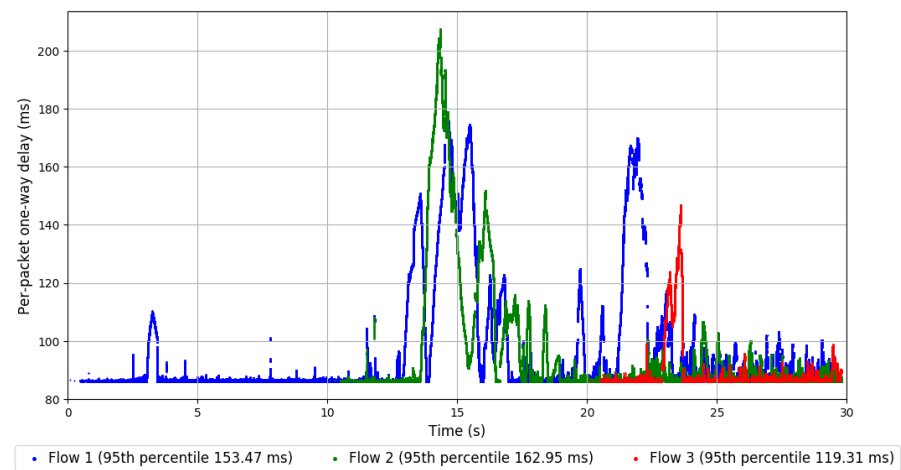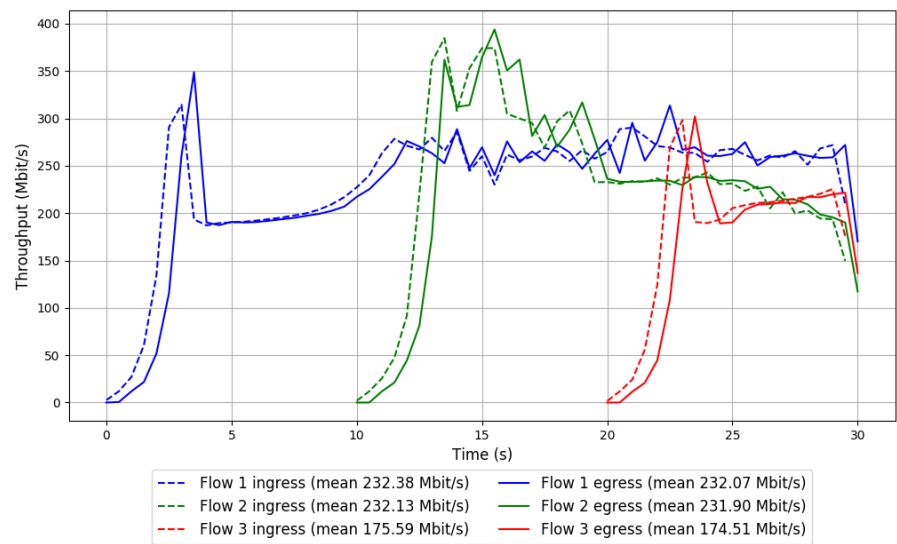# Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 429.71 Mbit/s) --- Flow 1 egress (mean 406.12 Mbit/s)
Flow 2 ingress (mean 5.89 Mbit/s) --- Flow 2 egress (mean 5.85 Mbit/s)
Flow 3 ingress (mean 152.28 Mbit/s) --- Flow 3 egress (mean 150.48 Mbit/s)

Flow 1 (95th percentile 214.61 ms) · Flow 2 (95th percentile 85.93 ms) · Flow 3 (95th percentile 164.44 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 00:47:21
End at: 2019-06-28 00:47:51
Local clock offset: -0.081 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2019-06-28 03:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 629.91 Mbit/s
95th percentile per-packet one-way delay: 239.609 ms
Loss rate: 8.03%
-- Flow 1:
Average throughput: 364.63 Mbit/s
95th percentile per-packet one-way delay: 234.673 ms
Loss rate: 10.99%
-- Flow 2:
Average throughput: 290.98 Mbit/s
95th percentile per-packet one-way delay: 248.685 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 223.39 Mbit/s
95th percentile per-packet one-way delay: 283.342 ms
Loss rate: 7.52%
```
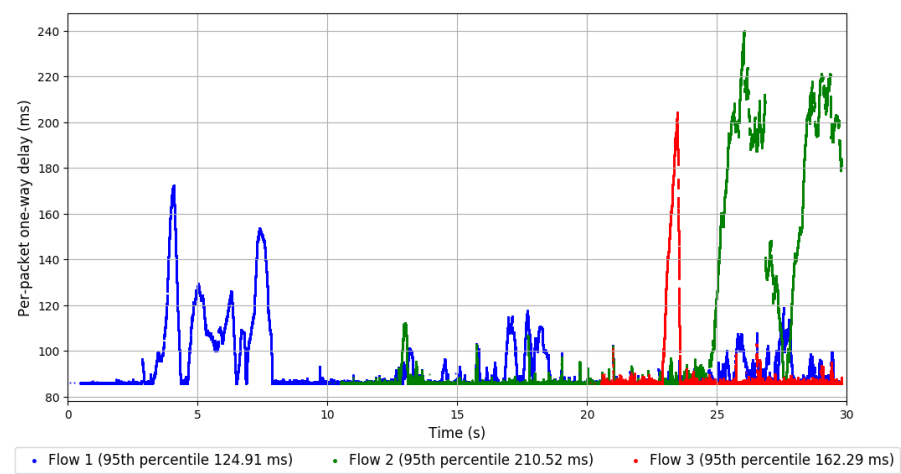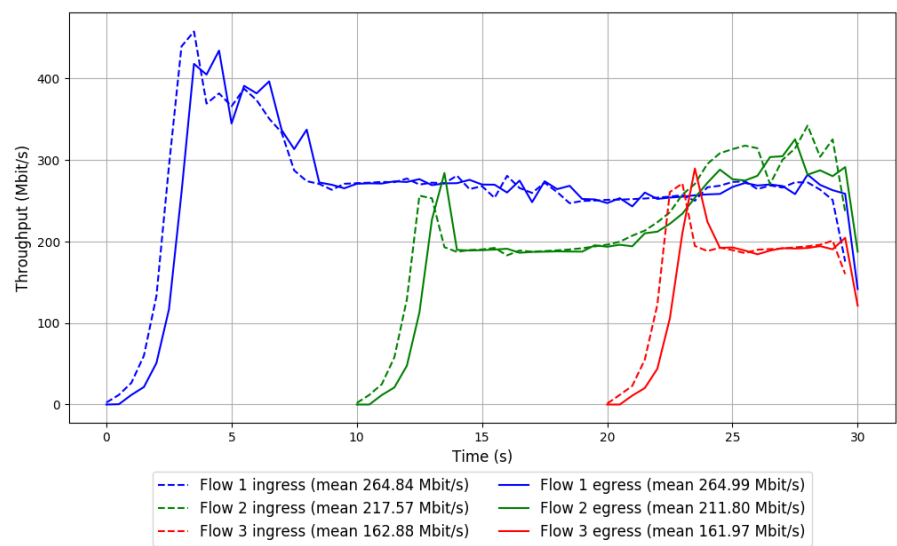
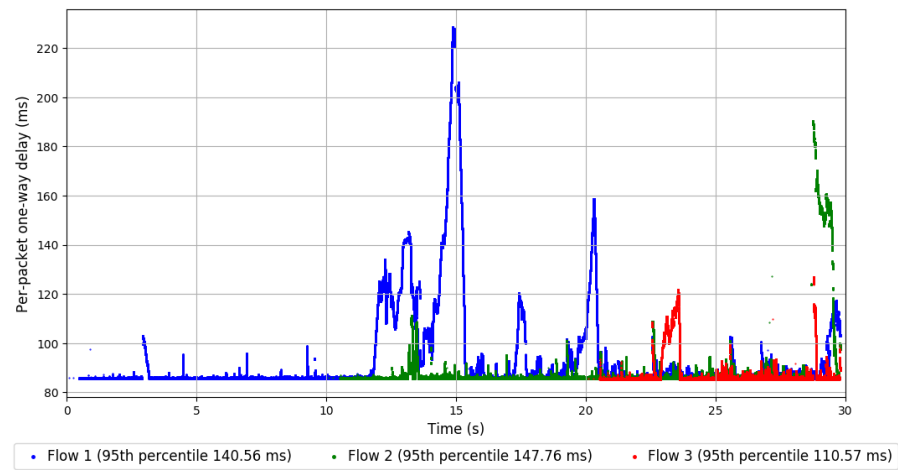Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 01:25:21
End at: 2019-06-28 01:25:51
Local clock offset: -0.081 ms
Remote clock offset: 0.053 ms


# Below is generated by plot.py at 2019-06-28 03:47:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 618.73 Mbit/s
95th percentile per-packet one-way delay: 214.842 ms
Loss rate: 4.40%
-- Flow 1:
Average throughput: 364.78 Mbit/s
95th percentile per-packet one-way delay: 220.500 ms
Loss rate: 6.43%
-- Flow 2:
Average throughput: 268.90 Mbit/s
95th percentile per-packet one-way delay: 178.910 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 232.74 Mbit/s
95th percentile per-packet one-way delay: 178.220 ms
Loss rate: 2.12%
```

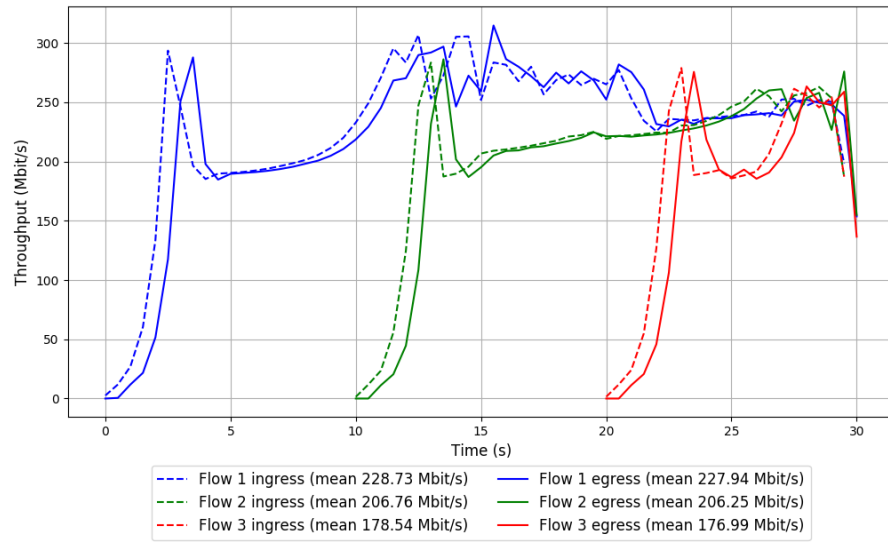# Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-27 22:20:03
End at: 2019-06-27 22:20:33
Local clock offset: 0.687 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2019-06-28 03:47:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 434.30 Mbit/s
95th percentile per-packet one-way delay: 149.599 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 234.83 Mbit/s
95th percentile per-packet one-way delay: 148.694 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 222.01 Mbit/s
95th percentile per-packet one-way delay: 164.319 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 160.14 Mbit/s
95th percentile per-packet one-way delay: 101.367 ms
Loss rate: 2.42%
```
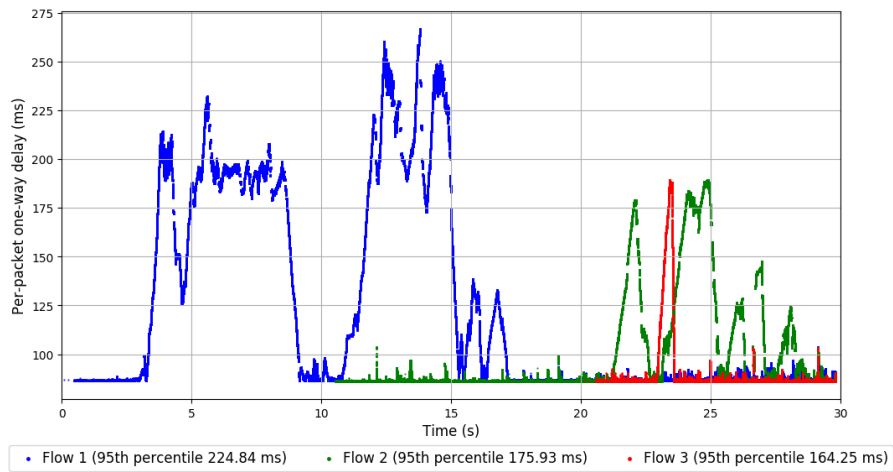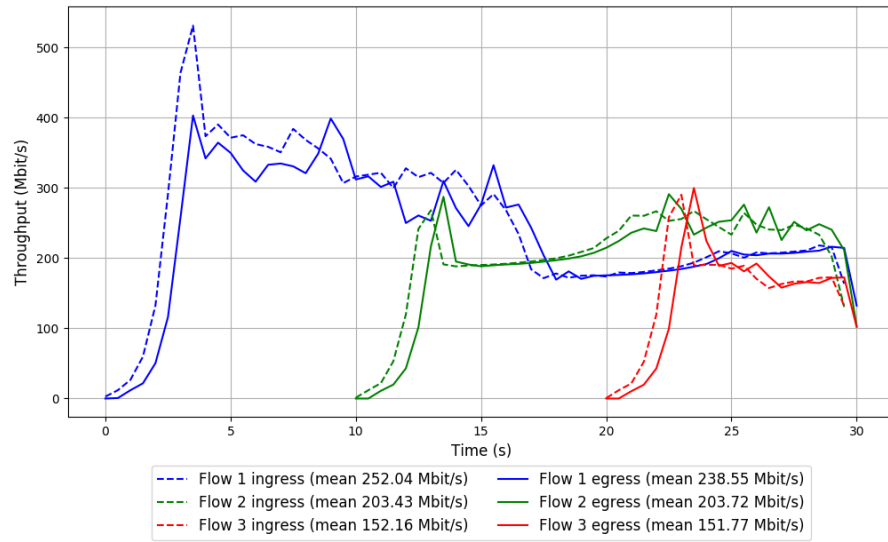
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-06-27 22:58:18
End at: 2019-06-27 22:58:48
Local clock offset: 0.801 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2019-06-28 03:47:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 442.74 Mbit/s
95th percentile per-packet one-way delay: 152.487 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 232.07 Mbit/s
95th percentile per-packet one-way delay: 153.467 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 231.90 Mbit/s
95th percentile per-packet one-way delay: 162.948 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 174.51 Mbit/s
95th percentile per-packet one-way delay: 119.314 ms
Loss rate: 2.35%
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-06-27 23:36:30
End at: 2019-06-27 23:37:00
Local clock offset: -0.07 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-06-28 03:47:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 458.25 Mbit/s
95th percentile per-packet one-way delay: 193.933 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 264.99 Mbit/s
95th percentile per-packet one-way delay: 124.913 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 211.80 Mbit/s
95th percentile per-packet one-way delay: 210.524 ms
Loss rate: 3.51%
-- Flow 3:
Average throughput: 161.97 Mbit/s
95th percentile per-packet one-way delay: 162.291 ms
Loss rate: 2.32%
```
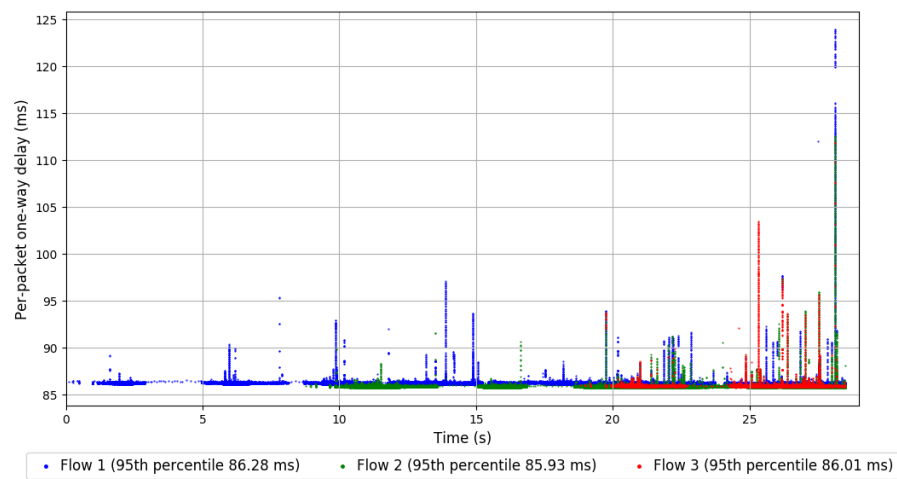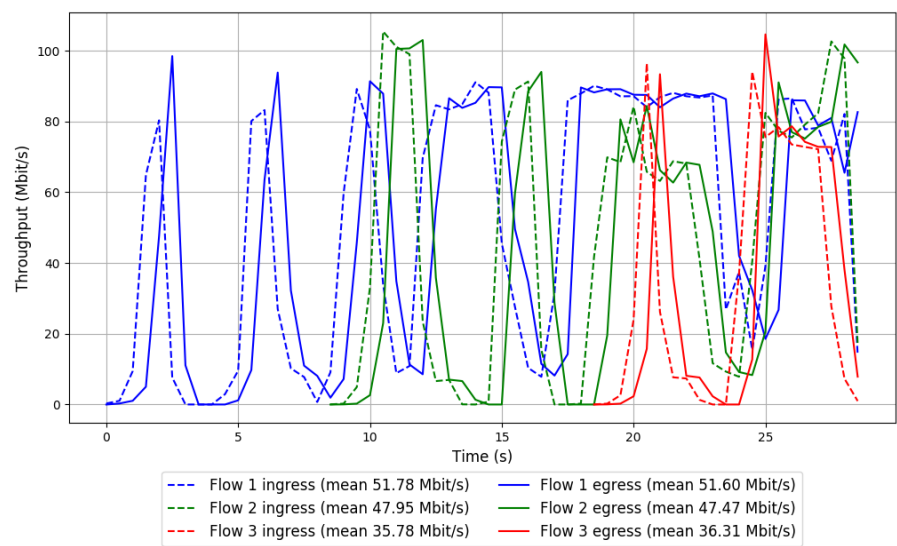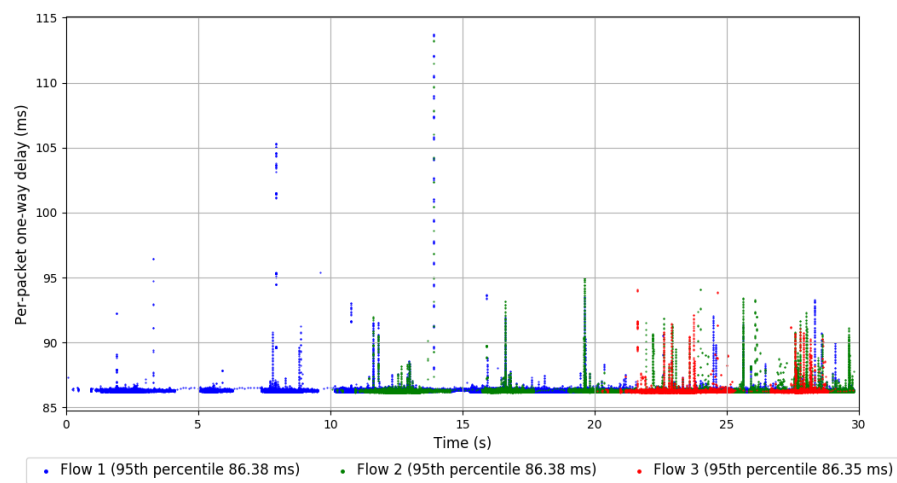
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 264.84 Mbit/s) --- Flow 1 egress (mean 264.99 Mbit/s)
Flow 2 ingress (mean 217.57 Mbit/s) --- Flow 2 egress (mean 211.80 Mbit/s)
Flow 3 ingress (mean 162.88 Mbit/s) --- Flow 3 egress (mean 161.97 Mbit/s)

Flow 1 (95th percentile 124.91 ms) • Flow 2 (95th percentile 210.52 ms) • Flow 3 (95th percentile 162.29 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 00:14:46
End at: 2019-06-28 00:15:16
Local clock offset: -0.503 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2019-06-28 03:52:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.39 Mbit/s
95th percentile per-packet one-way delay: 130.680 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 227.94 Mbit/s
95th percentile per-packet one-way delay: 140.565 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 206.25 Mbit/s
95th percentile per-packet one-way delay: 147.758 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 176.99 Mbit/s
95th percentile per-packet one-way delay: 110.573 ms
Loss rate: 2.61%
```
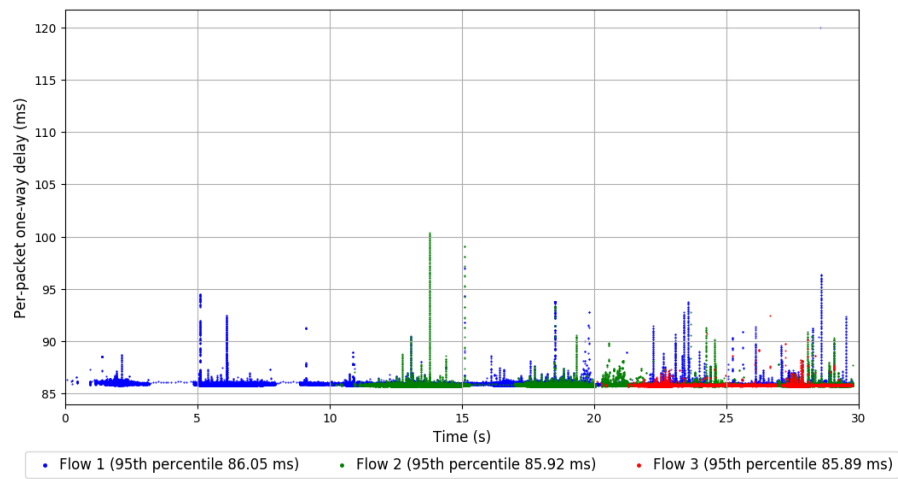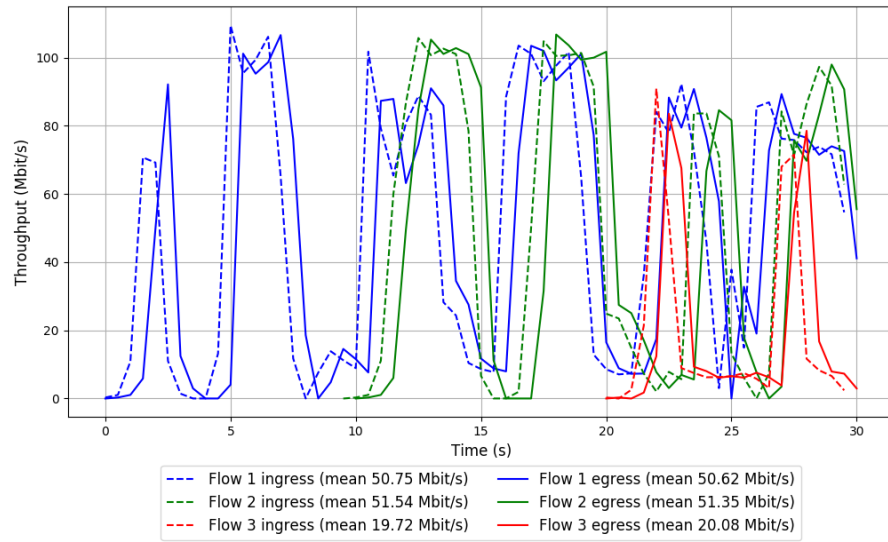
Run 4: Report of PCC-Expr — Data Link

- Flow 1 ingress (mean 228.73 Mbit/s)
- Flow 1 egress (mean 227.94 Mbit/s)
- Flow 2 ingress (mean 206.76 Mbit/s)
- Flow 2 egress (mean 206.25 Mbit/s)
- Flow 3 ingress (mean 178.54 Mbit/s)
- Flow 3 egress (mean 176.99 Mbit/s)

- Flow 1 (95th percentile 140.56 ms)
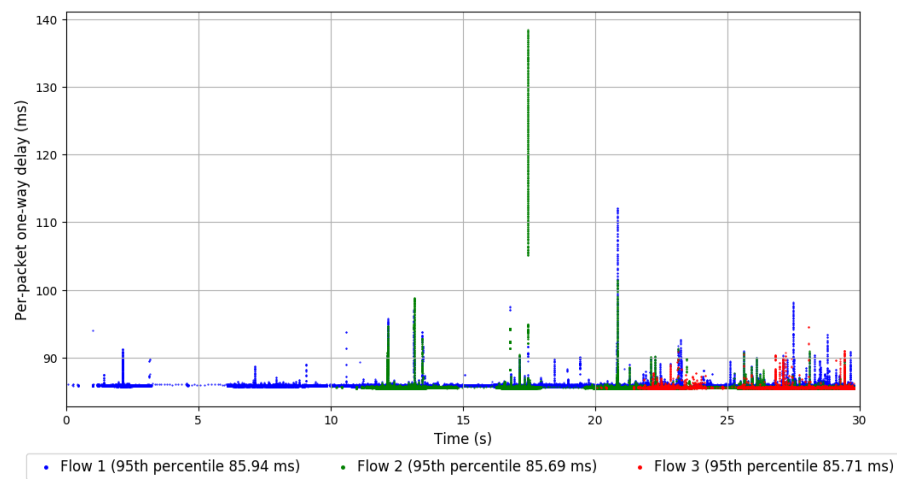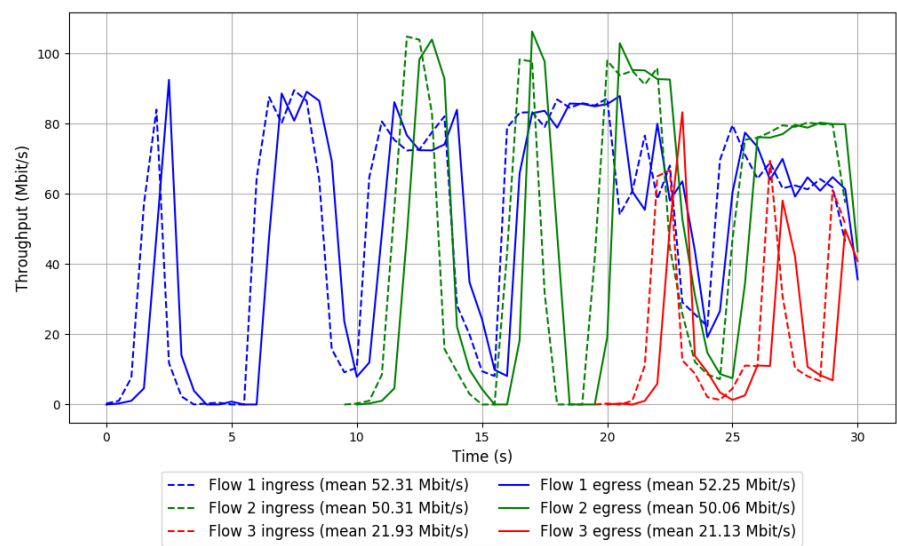- Flow 2 (95th percentile 147.76 ms)
- Flow 3 (95th percentile 110.57 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 00:52:50
End at: 2019-06-28 00:53:20
Local clock offset: 0.413 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2019-06-28 03:54:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.11 Mbit/s
95th percentile per-packet one-way delay: 205.741 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 238.55 Mbit/s
95th percentile per-packet one-way delay: 224.842 ms
Loss rate: 5.90%
-- Flow 2:
Average throughput: 203.72 Mbit/s
95th percentile per-packet one-way delay: 175.931 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 151.77 Mbit/s
95th percentile per-packet one-way delay: 164.250 ms
Loss rate: 2.02%
```

Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-06-27 22:24:30
End at: 2019-06-27 22:25:00
Local clock offset: 0.33 ms
Remote clock offset: 0.004 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.92 Mbit/s
95th percentile per-packet one-way delay: 86.258 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 51.60 Mbit/s
95th percentile per-packet one-way delay: 86.281 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 47.47 Mbit/s
95th percentile per-packet one-way delay: 85.926 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 36.31 Mbit/s
95th percentile per-packet one-way delay: 86.012 ms
Loss rate: 0.29%
```
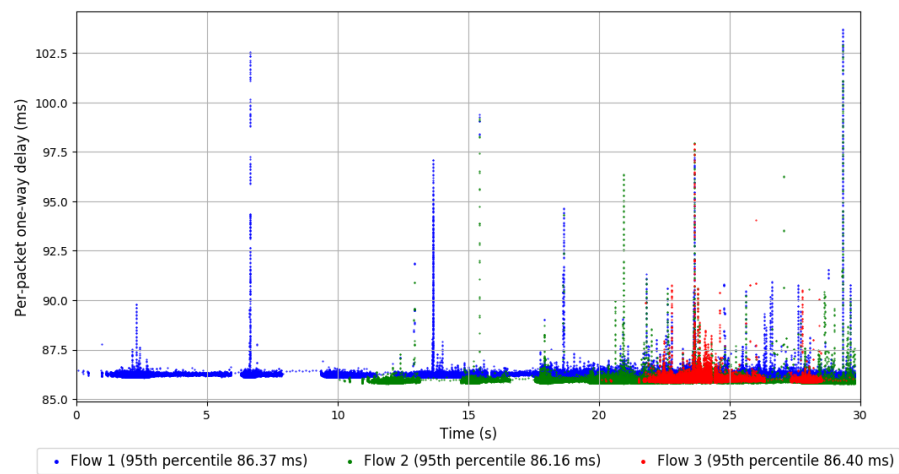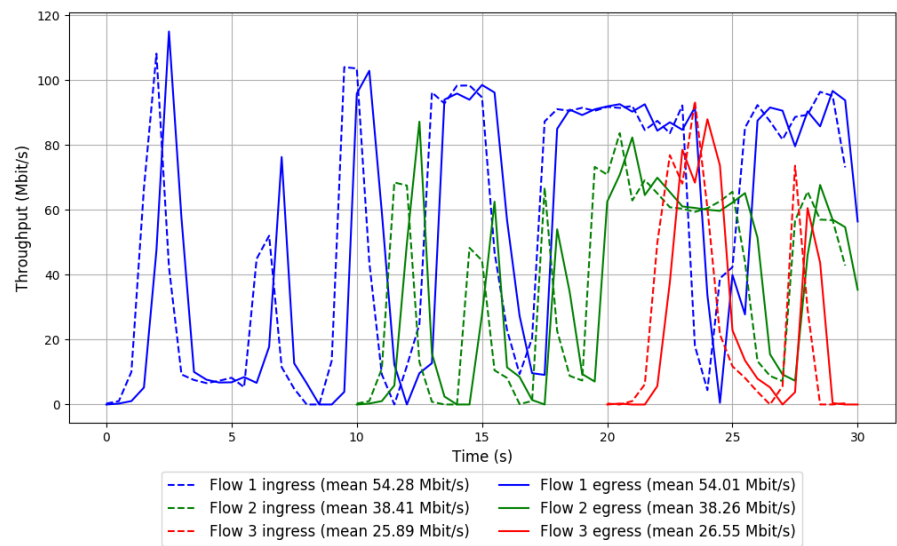
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-06-27 23:02:46
End at: 2019-06-27 23:03:16
Local clock offset: 0.858 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 86.382 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 60.26 Mbit/s
95th percentile per-packet one-way delay: 86.384 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 41.43 Mbit/s
95th percentile per-packet one-way delay: 86.383 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 28.64 Mbit/s
95th percentile per-packet one-way delay: 86.347 ms
Loss rate: 0.00%
```
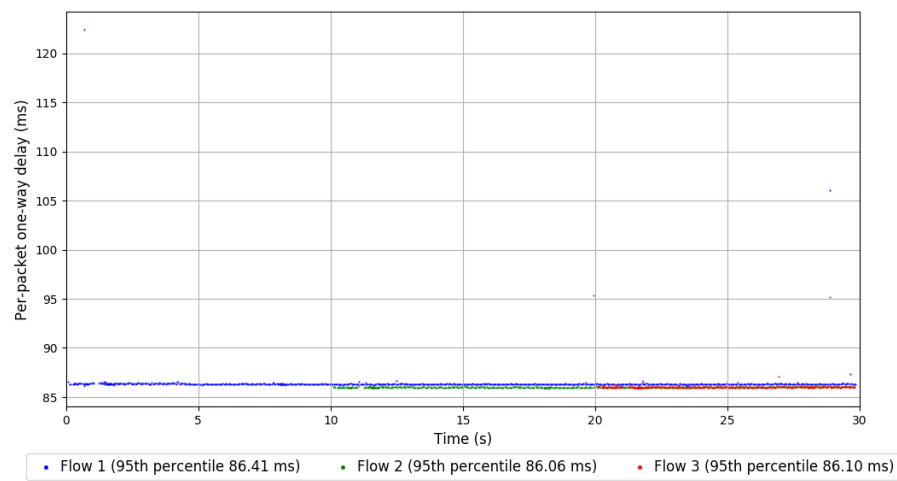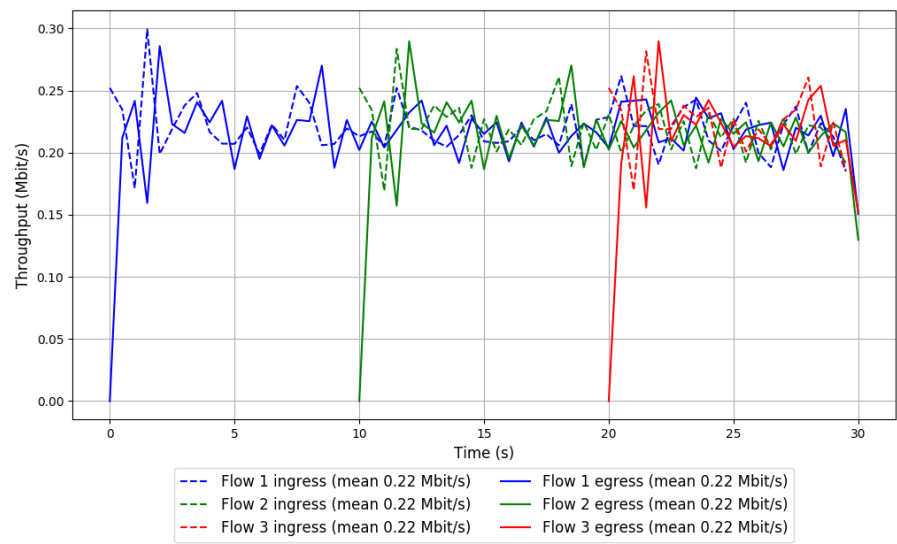
Run 2: Report of QUIC Cubic — Data Link

148

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-06-27 23:40:59
End at: 2019-06-27 23:41:29
Local clock offset: -0.174 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.21 Mbit/s
95th percentile per-packet one-way delay: 86.019 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 50.62 Mbit/s
95th percentile per-packet one-way delay: 86.054 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 51.35 Mbit/s
95th percentile per-packet one-way delay: 85.920 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 20.08 Mbit/s
95th percentile per-packet one-way delay: 85.893 ms
Loss rate: 0.14%
```
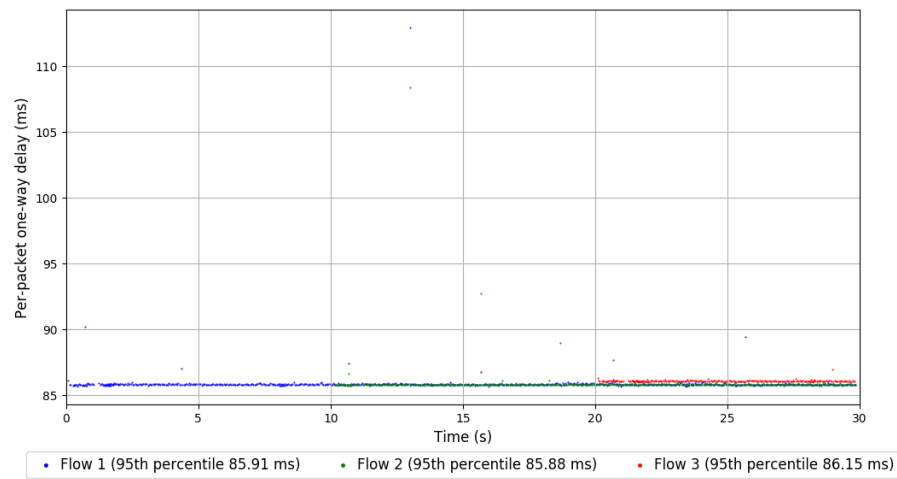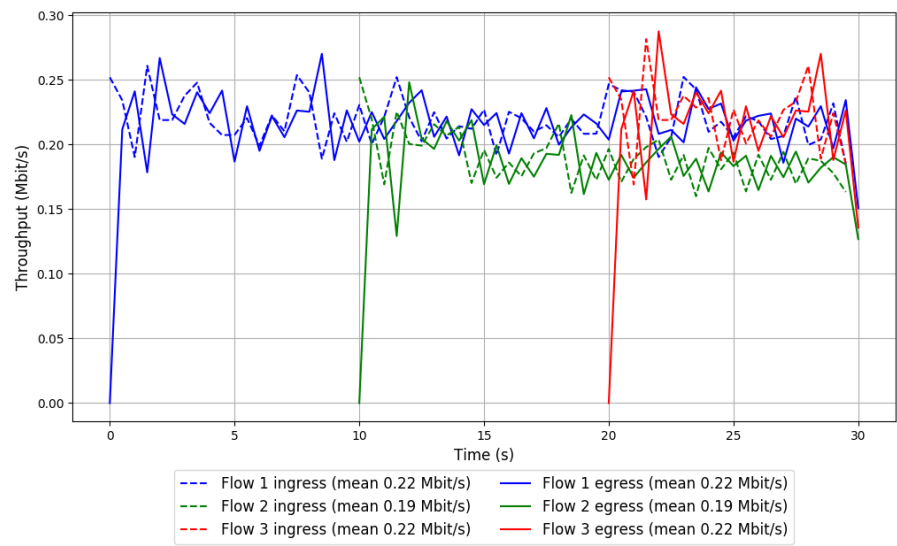
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 00:19:12
End at: 2019-06-28 00:19:42
Local clock offset: -0.373 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 85.923 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 52.25 Mbit/s
95th percentile per-packet one-way delay: 85.944 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 50.06 Mbit/s
95th percentile per-packet one-way delay: 85.688 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 21.13 Mbit/s
95th percentile per-packet one-way delay: 85.711 ms
Loss rate: 5.30%
```

Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 00:57:16
End at: 2019-06-28 00:57:46
Local clock offset: 0.041 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.98 Mbit/s
95th percentile per-packet one-way delay: 86.350 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 54.01 Mbit/s
95th percentile per-packet one-way delay: 86.370 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 38.26 Mbit/s
95th percentile per-packet one-way delay: 86.156 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 26.55 Mbit/s
95th percentile per-packet one-way delay: 86.400 ms
Loss rate: 0.08%
```

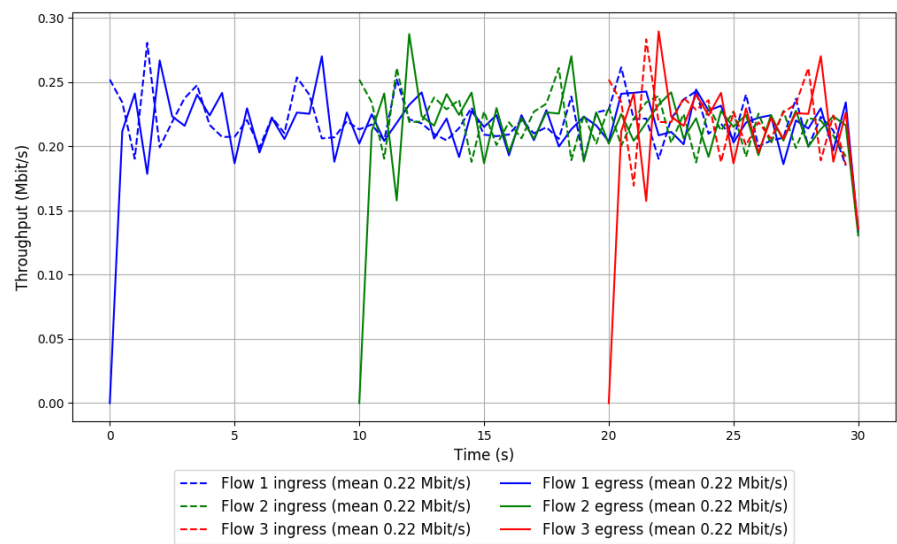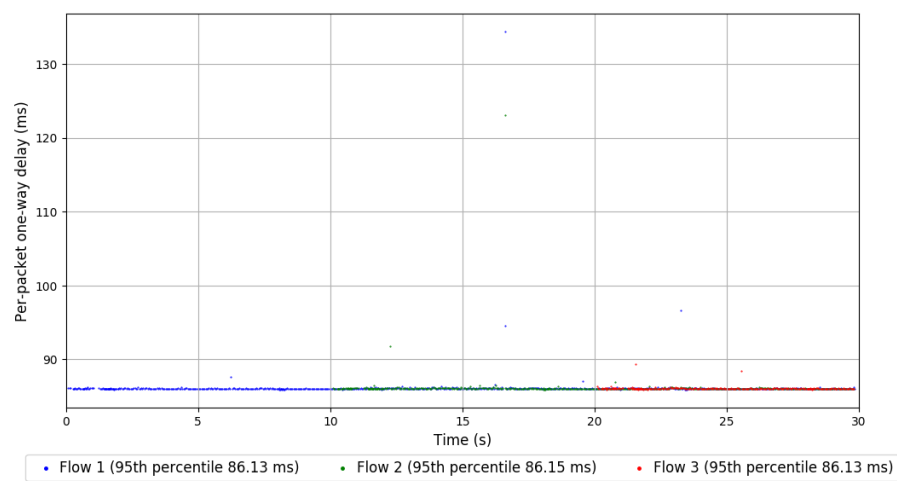## Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-06-27 22:22:01
End at: 2019-06-27 22:22:31
Local clock offset: 0.242 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.380 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.408 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.061 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.096 ms
Loss rate: 1.85%
```
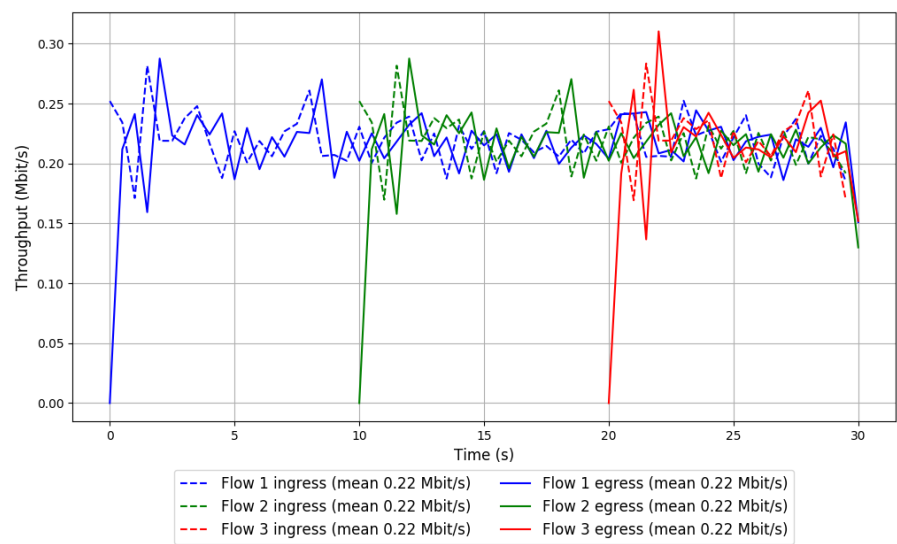
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-06-27 23:00:17
End at: 2019-06-27 23:00:47
Local clock offset: 0.202 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 86.102 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.911 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 85.881 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.152 ms
Loss rate: 1.85%
```
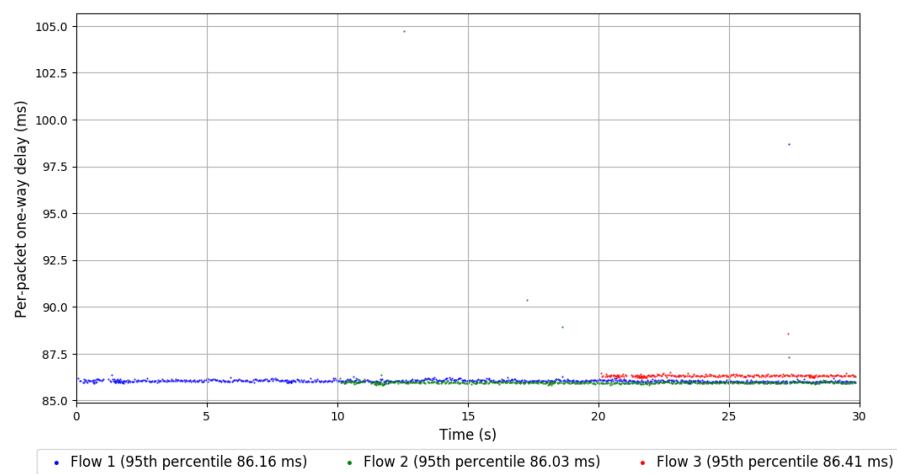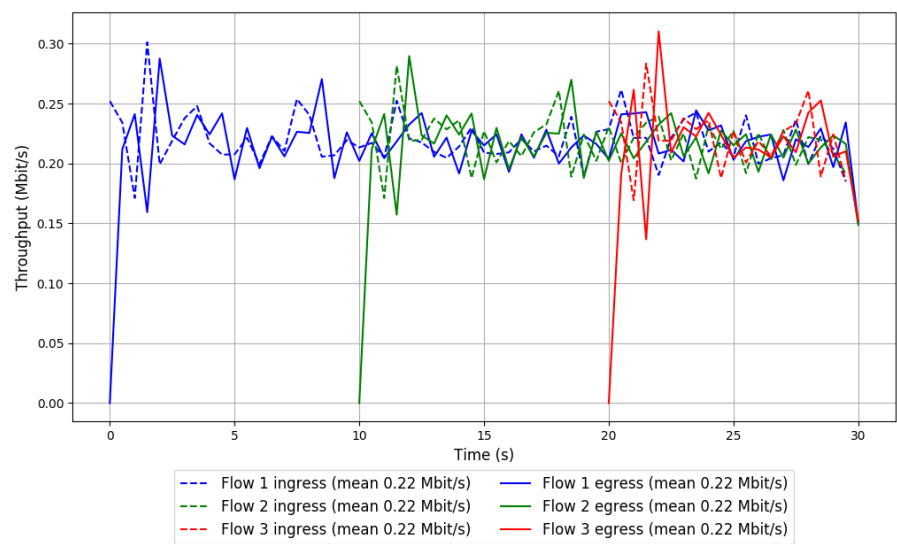
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-06-27 23:38:31
End at: 2019-06-27 23:39:01
Local clock offset: -0.159 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.268 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.090 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.105 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.336 ms
Loss rate: 1.85%
```
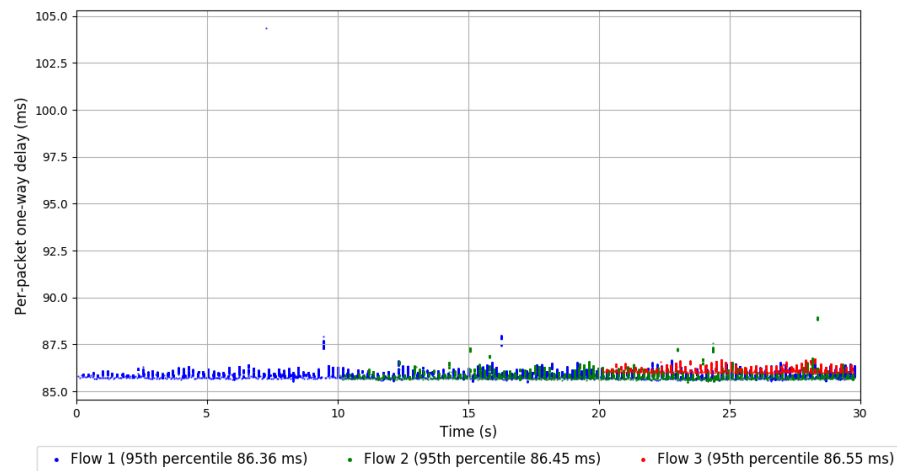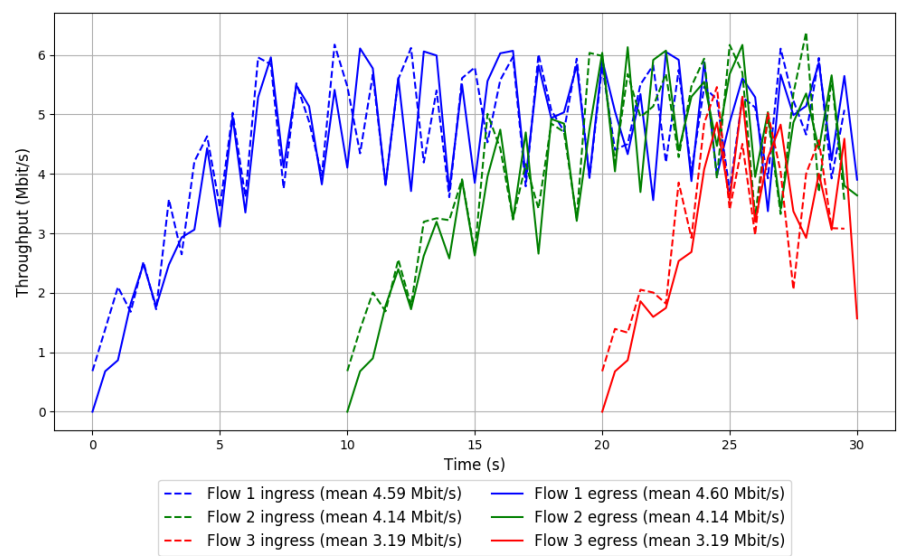
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-06-28 00:16:43
End at: 2019-06-28 00:17:13
Local clock offset: -0.072 ms
Remote clock offset: -0.128 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.137 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.129 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.148 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.129 ms
Loss rate: 1.50%
```
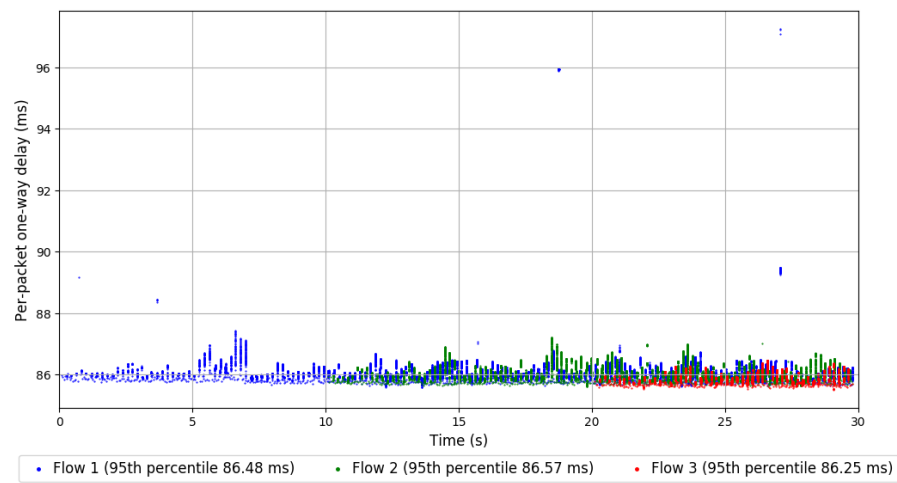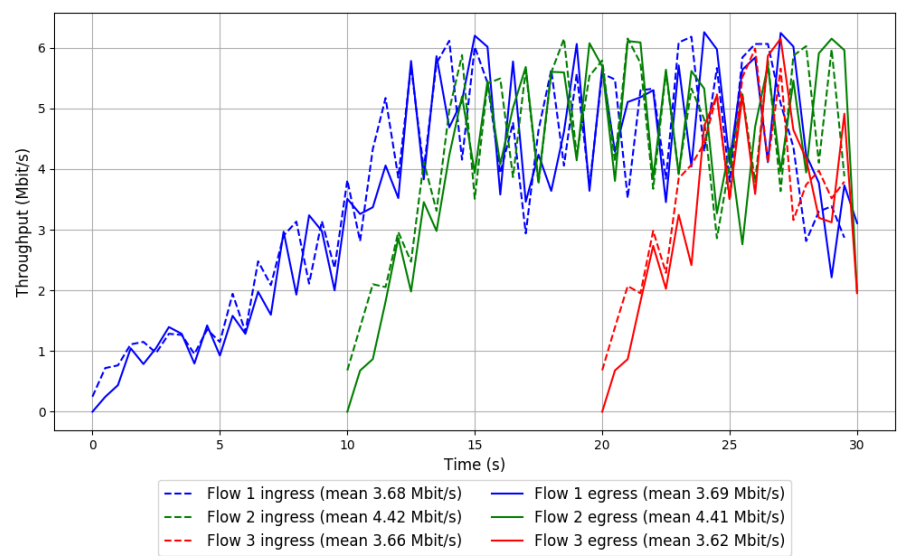
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-06-28 00:54:47
End at: 2019-06-28 00:55:17
Local clock offset: -0.073 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.341 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.156 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.033 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.409 ms
Loss rate: 1.85%
```
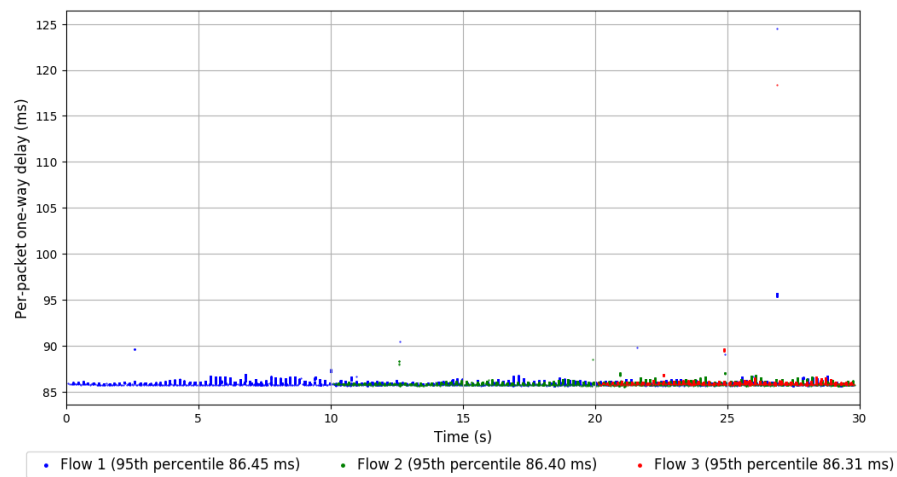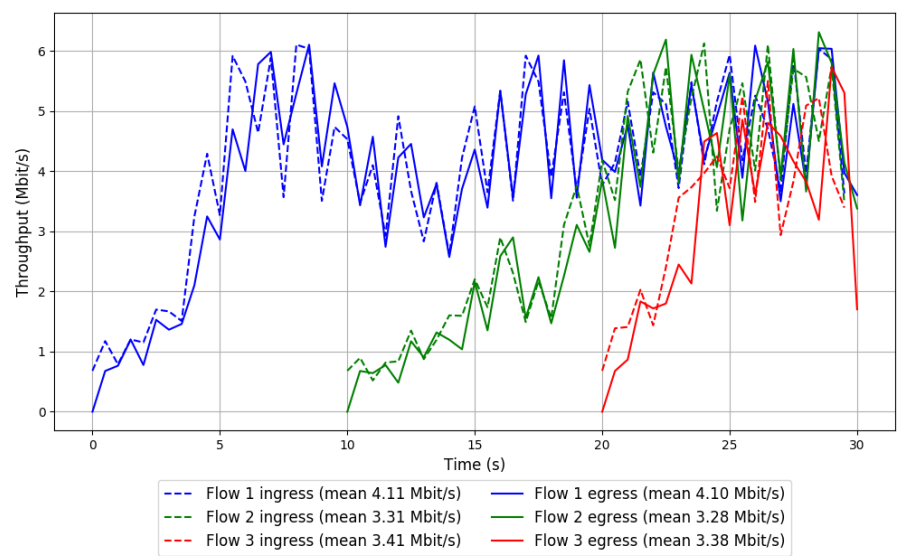
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-06-27 22:51:22
End at: 2019-06-27 22:51:52
Local clock offset: 0.155 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.38 Mbit/s
95th percentile per-packet one-way delay: 86.427 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 86.356 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 86.449 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 86.545 ms
Loss rate: 2.40%
```
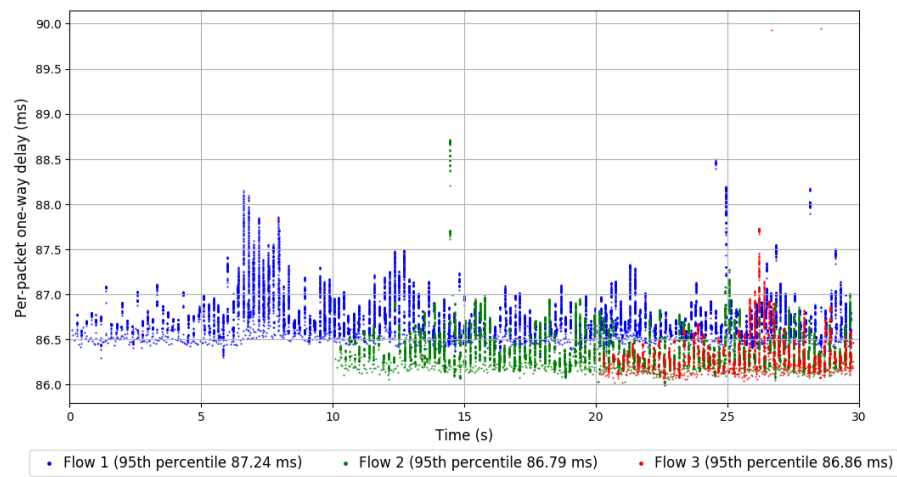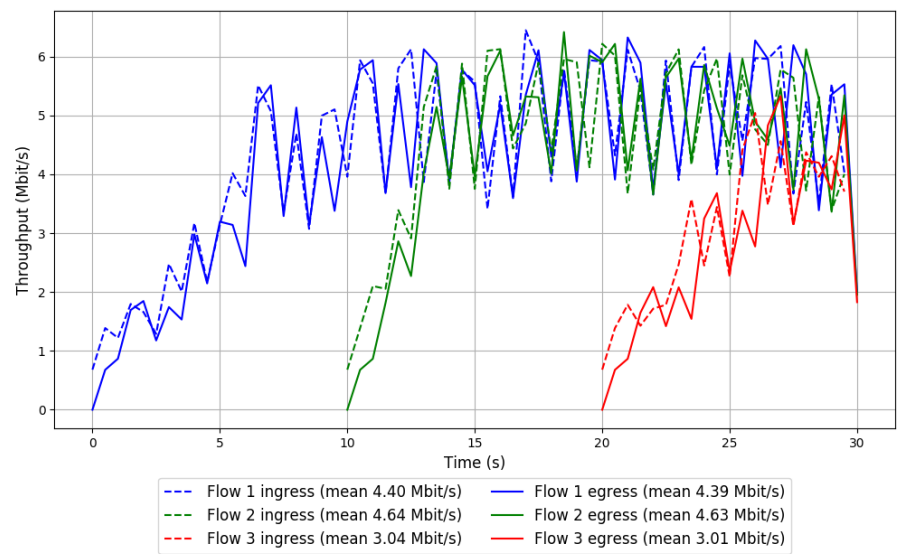
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-06-27 23:29:32
End at: 2019-06-27 23:30:02
Local clock offset: -0.43 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 86.498 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 3.69 Mbit/s
95th percentile per-packet one-way delay: 86.484 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 86.570 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 86.248 ms
Loss rate: 2.56%
```
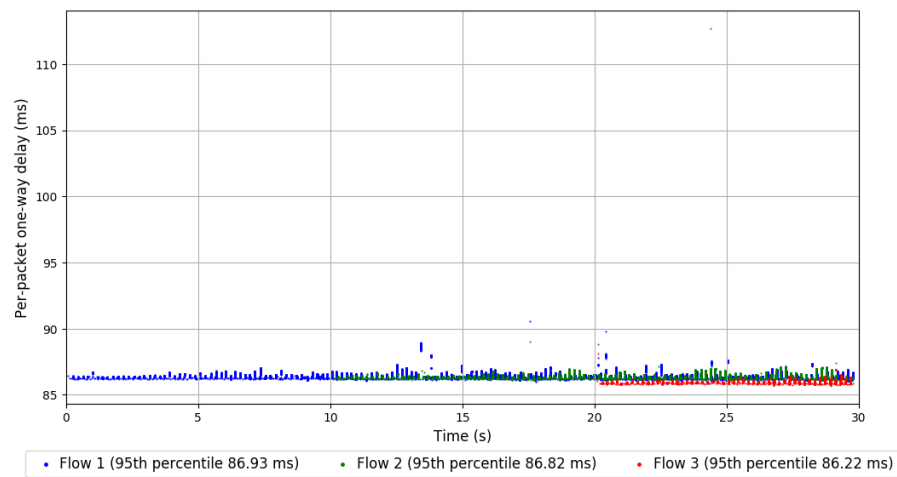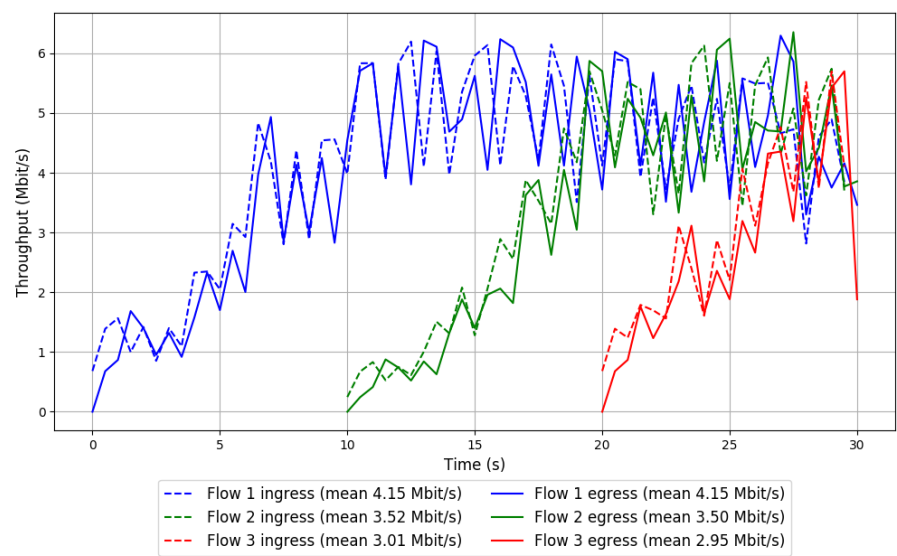
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-06-28 00:08:03
End at: 2019-06-28 00:08:33
Local clock offset: -0.339 ms
Remote clock offset: -0.124 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 86.414 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 86.446 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 86.400 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 86.313 ms
Loss rate: 2.52%
```
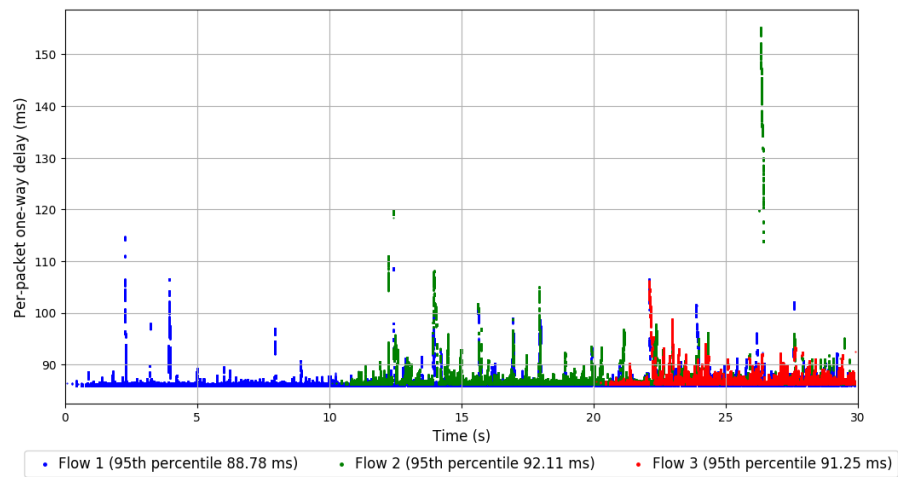
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-06-28 00:46:05
End at: 2019-06-28 00:46:35
Local clock offset: 0.112 ms
Remote clock offset: -0.141 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.43 Mbit/s
95th percentile per-packet one-way delay: 87.088 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 87.238 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 86.790 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 86.863 ms
Loss rate: 3.13%
```
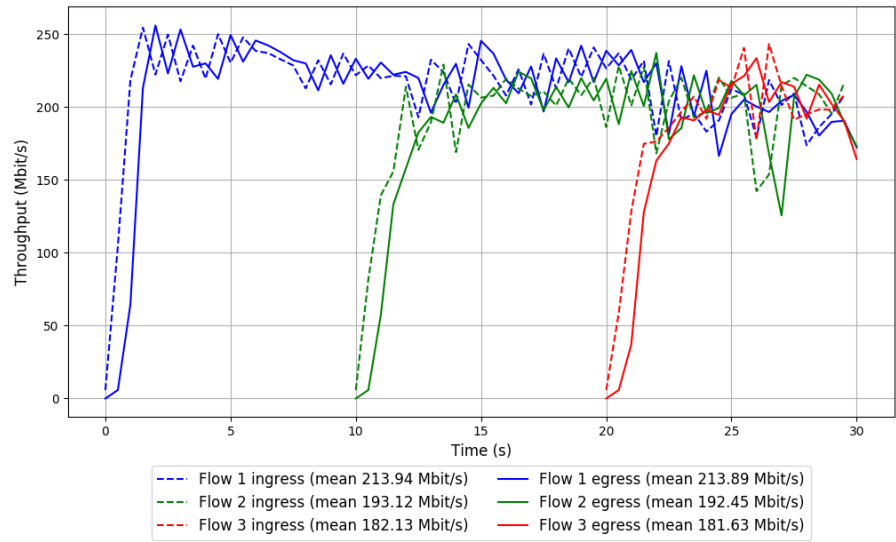
Run 4: Report of Sprout — Data Link

172

```
Run 5: Statistics of Sprout

Start at: 2019-06-28 01:24:05
End at: 2019-06-28 01:24:35
Local clock offset: -0.053 ms
Remote clock offset: 0.014 ms


# Below is generated by plot.py at 2019-06-28 03:54:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 86.835 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 86.928 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 86.816 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 2.95 Mbit/s
95th percentile per-packet one-way delay: 86.217 ms
Loss rate: 3.74%
```
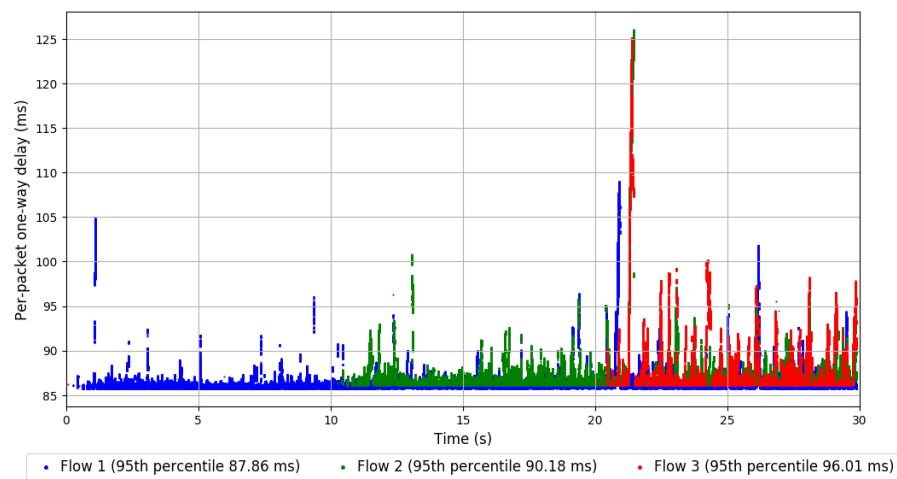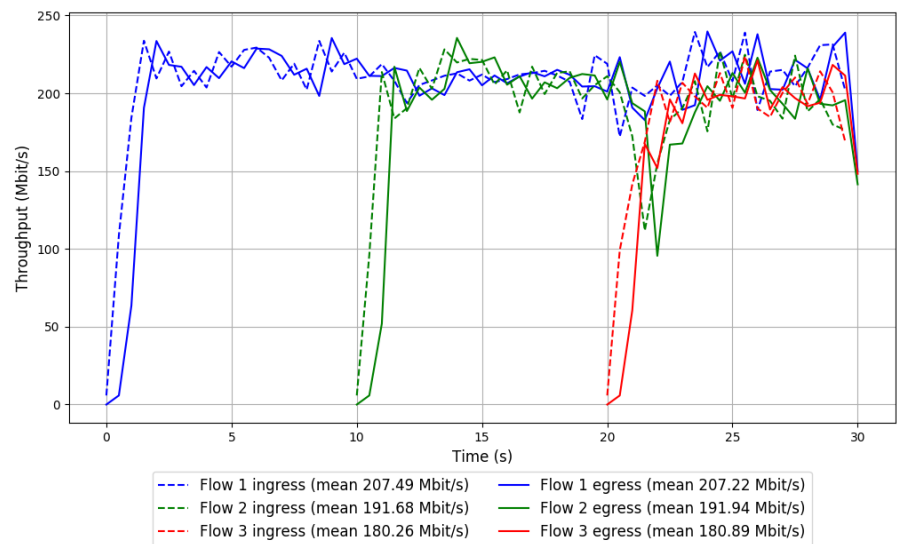
Run 5: Report of Sprout — Data Link

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

Start at: 2019-06-27 22:38:48
End at: 2019-06-27 22:39:18
Local clock offset: 0.553 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-06-28 04:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.32 Mbit/s
95th percentile per-packet one-way delay: 90.291 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 213.89 Mbit/s
95th percentile per-packet one-way delay: 88.777 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 192.45 Mbit/s
95th percentile per-packet one-way delay: 92.112 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 181.63 Mbit/s
95th percentile per-packet one-way delay: 91.246 ms
Loss rate: 1.93%
```
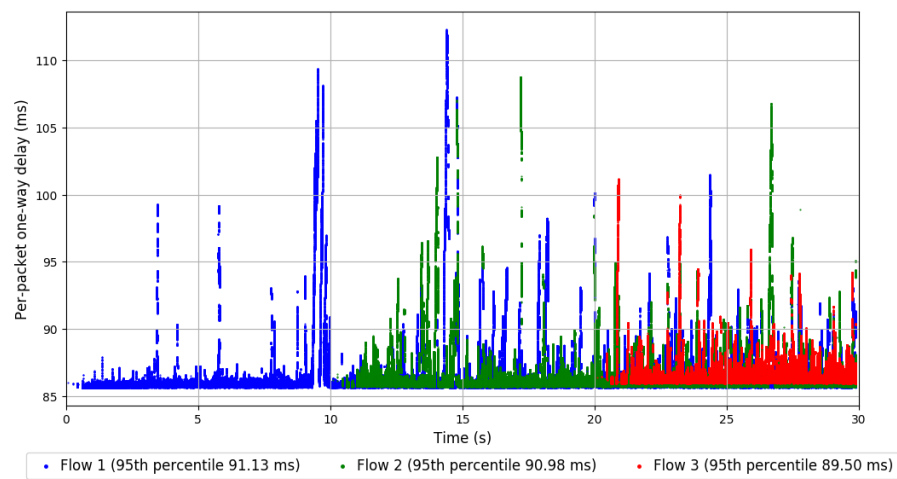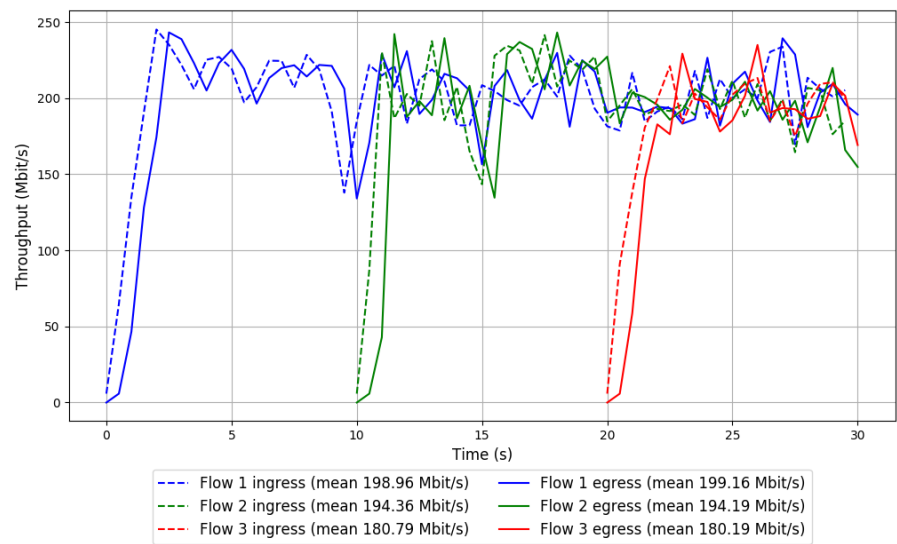
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 213.94 Mbit/s) ---- Flow 1 egress (mean 213.89 Mbit/s)
Flow 2 ingress (mean 193.12 Mbit/s) ---- Flow 2 egress (mean 192.45 Mbit/s)
Flow 3 ingress (mean 182.13 Mbit/s) ---- Flow 3 egress (mean 181.63 Mbit/s)

Flow 1 (95th percentile 88.78 ms)   Flow 2 (95th percentile 92.11 ms)   Flow 3 (95th percentile 91.25 ms)

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

Start at: 2019-06-27 23:16:39
End at: 2019-06-27 23:17:09
Local clock offset: -0.036 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2019-06-28 04:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.00 Mbit/s
95th percentile per-packet one-way delay: 90.558 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 207.22 Mbit/s
95th percentile per-packet one-way delay: 87.863 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 191.94 Mbit/s
95th percentile per-packet one-way delay: 90.176 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 180.89 Mbit/s
95th percentile per-packet one-way delay: 96.006 ms
Loss rate: 1.40%
```

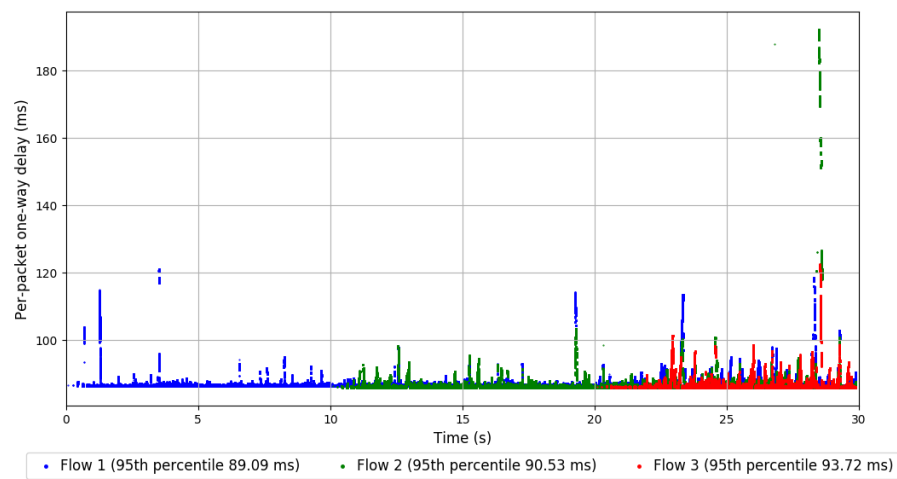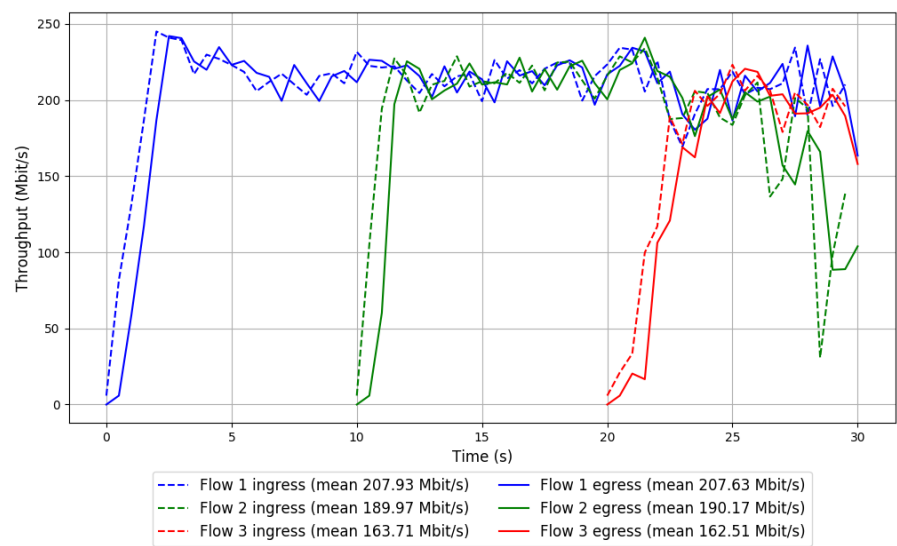Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-27 23:55:10
End at: 2019-06-27 23:55:40
Local clock offset: -0.119 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2019-06-28 04:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.32 Mbit/s
95th percentile per-packet one-way delay: 90.803 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 199.16 Mbit/s
95th percentile per-packet one-way delay: 91.131 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 194.19 Mbit/s
95th percentile per-packet one-way delay: 90.984 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 180.19 Mbit/s
95th percentile per-packet one-way delay: 89.500 ms
Loss rate: 2.00%
```

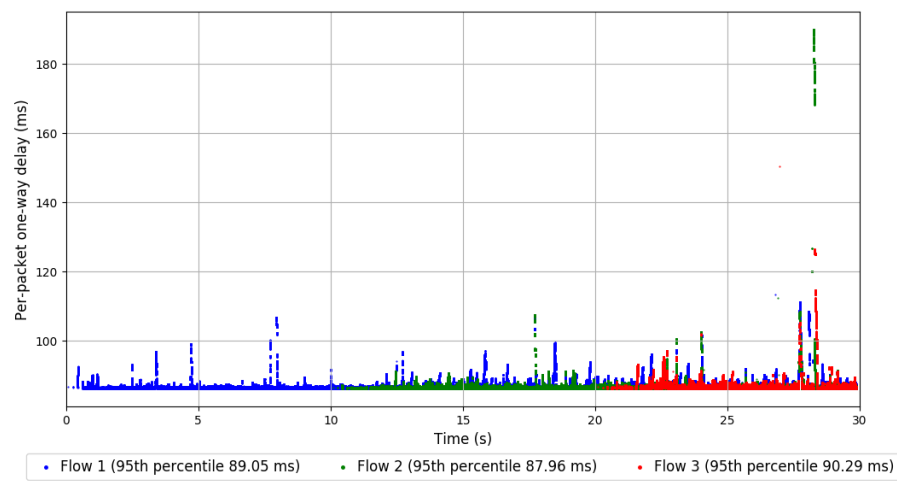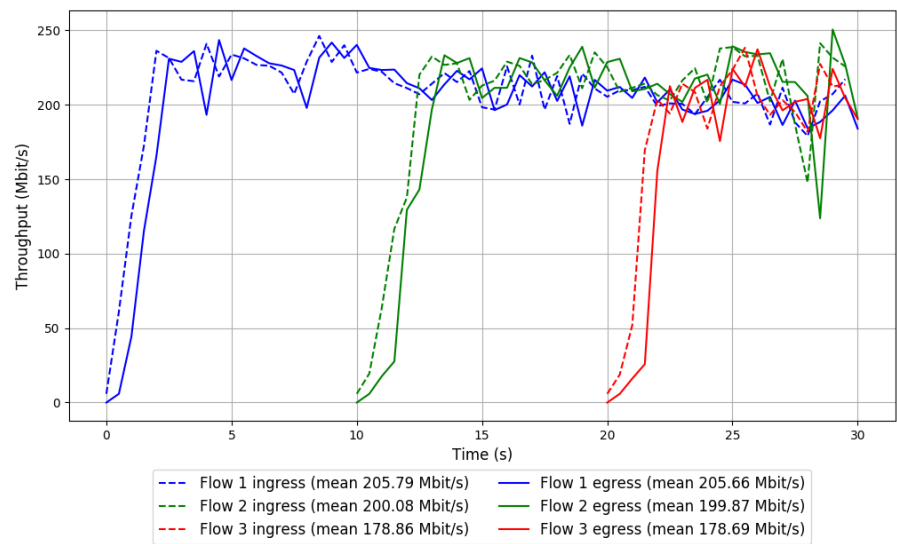# Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 198.96 Mbit/s) --- Flow 1 egress (mean 199.16 Mbit/s)
Flow 2 ingress (mean 194.36 Mbit/s) --- Flow 2 egress (mean 194.19 Mbit/s)
Flow 3 ingress (mean 180.79 Mbit/s) --- Flow 3 egress (mean 180.19 Mbit/s)

Flow 1 (95th percentile 91.13 ms) • Flow 2 (95th percentile 90.98 ms) • Flow 3 (95th percentile 89.50 ms)

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

Start at: 2019-06-28 00:33:26
End at: 2019-06-28 00:33:56
Local clock offset: 0.182 ms
Remote clock offset: -0.132 ms


# Below is generated by plot.py at 2019-06-28 04:01:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.32 Mbit/s
95th percentile per-packet one-way delay: 90.316 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 207.63 Mbit/s
95th percentile per-packet one-way delay: 89.087 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 190.17 Mbit/s
95th percentile per-packet one-way delay: 90.531 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 162.51 Mbit/s
95th percentile per-packet one-way delay: 93.715 ms
Loss rate: 2.46%
```

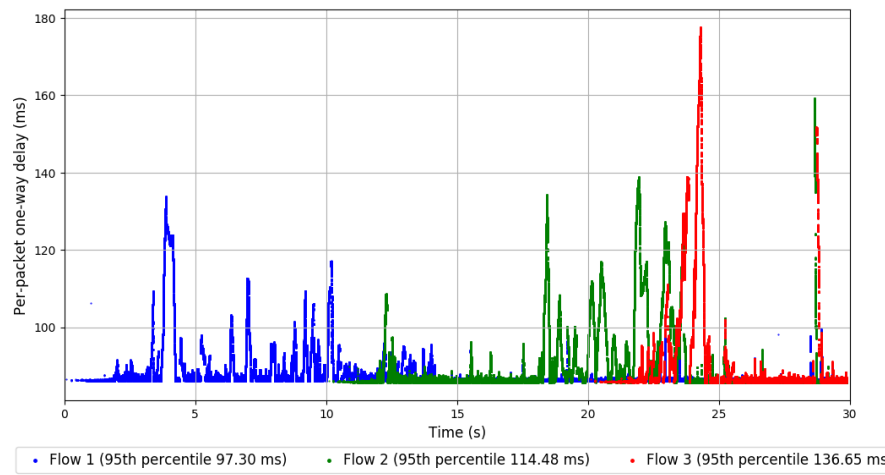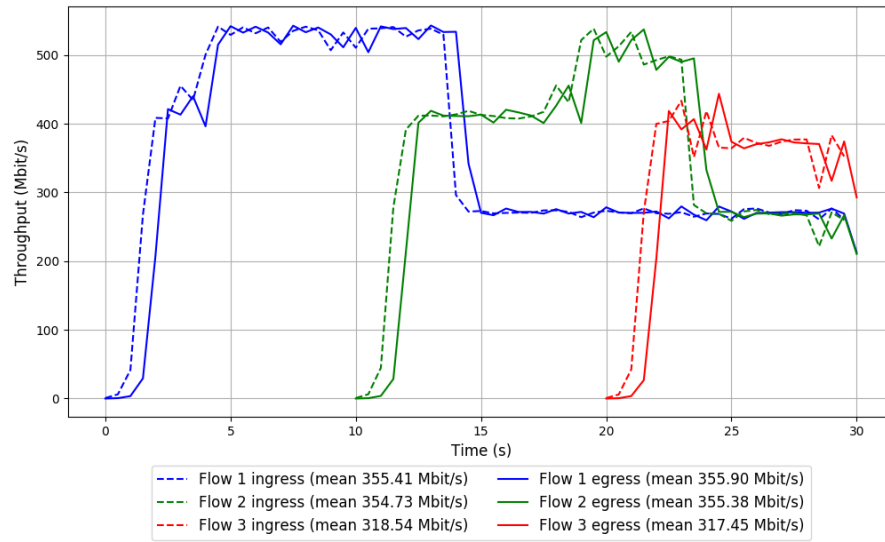Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-28 01:11:22
End at: 2019-06-28 01:11:52
Local clock offset: 0.446 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2019-06-28 04:01:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.03 Mbit/s
95th percentile per-packet one-way delay: 88.930 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 205.66 Mbit/s
95th percentile per-packet one-way delay: 89.045 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 199.87 Mbit/s
95th percentile per-packet one-way delay: 87.959 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 178.69 Mbit/s
95th percentile per-packet one-way delay: 90.290 ms
Loss rate: 1.81%
```

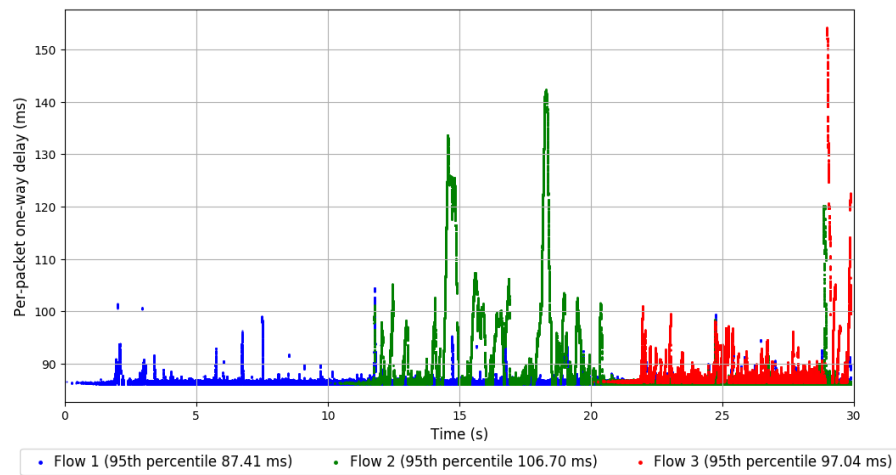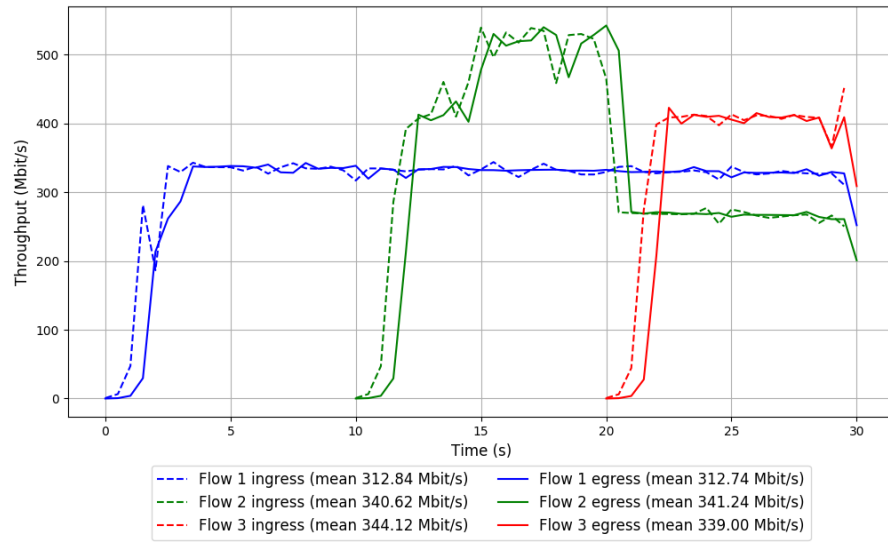# Run 5: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2019-06-27 22:54:36
End at: 2019-06-27 22:55:06
Local clock offset: 0.391 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2019-06-28 04:02:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 696.16 Mbit/s
95th percentile per-packet one-way delay: 111.110 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 355.90 Mbit/s
95th percentile per-packet one-way delay: 97.301 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 355.38 Mbit/s
95th percentile per-packet one-way delay: 114.479 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 317.45 Mbit/s
95th percentile per-packet one-way delay: 136.652 ms
Loss rate: 2.08%
```
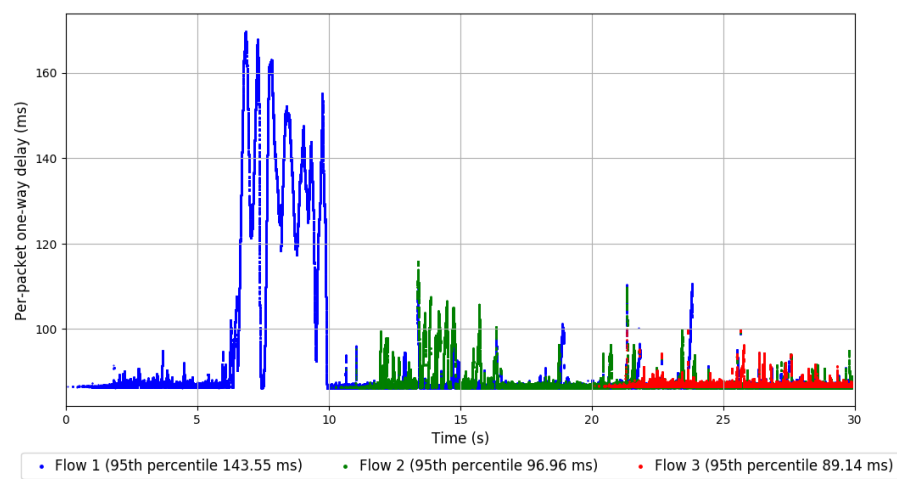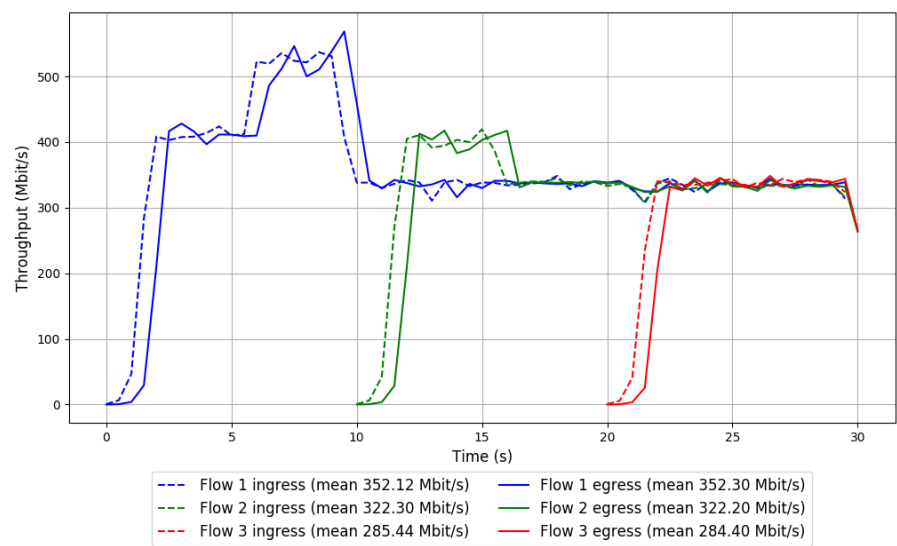
Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 355.41 Mbit/s) ---- Flow 1 egress (mean 355.90 Mbit/s) —
Flow 2 ingress (mean 354.73 Mbit/s) ---- Flow 2 egress (mean 355.38 Mbit/s) —
Flow 3 ingress (mean 318.54 Mbit/s) ---- Flow 3 egress (mean 317.45 Mbit/s) —

Flow 1 (95th percentile 97.30 ms) Flow 2 (95th percentile 114.48 ms) Flow 3 (95th percentile 136.65 ms)

186

```
Run 2: Statistics of TCP Vegas

Start at: 2019-06-27 23:32:50
End at: 2019-06-27 23:33:20
Local clock offset: 0.179 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2019-06-28 04:06:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 650.84 Mbit/s
95th percentile per-packet one-way delay: 98.703 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 312.74 Mbit/s
95th percentile per-packet one-way delay: 87.408 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 341.24 Mbit/s
95th percentile per-packet one-way delay: 106.704 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 339.00 Mbit/s
95th percentile per-packet one-way delay: 97.039 ms
Loss rate: 3.19%
```
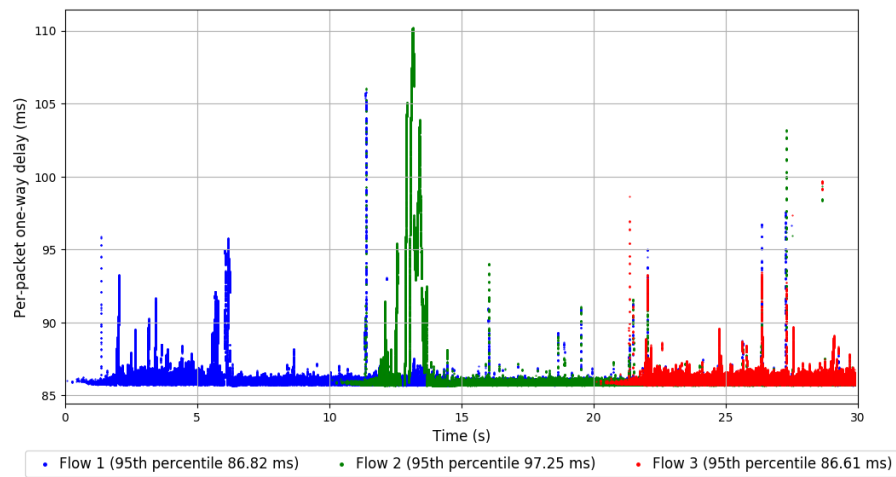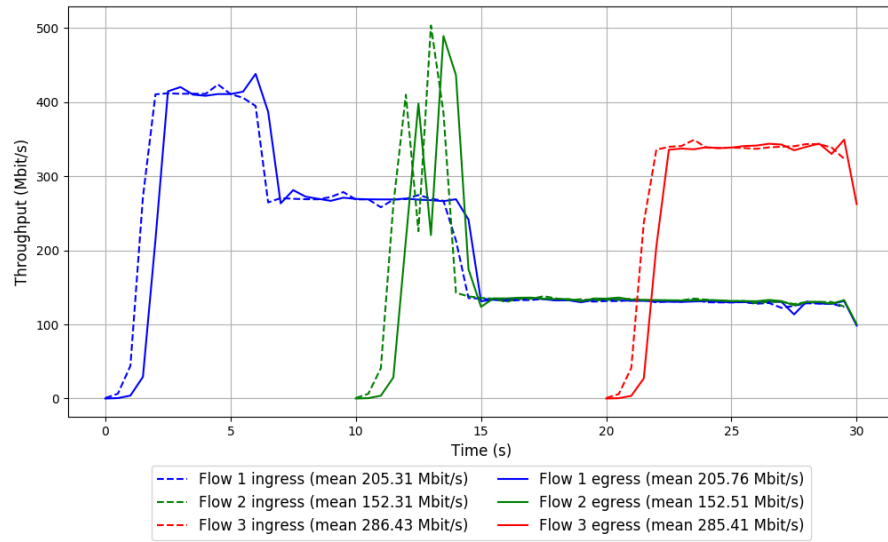
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 00:11:08
End at: 2019-06-28 00:11:38
Local clock offset: 0.284 ms
Remote clock offset: -0.115 ms


# Below is generated by plot.py at 2019-06-28 04:08:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 659.69 Mbit/s
95th percentile per-packet one-way delay: 132.380 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 352.30 Mbit/s
95th percentile per-packet one-way delay: 143.554 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 322.20 Mbit/s
95th percentile per-packet one-way delay: 96.957 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 284.40 Mbit/s
95th percentile per-packet one-way delay: 89.145 ms
Loss rate: 2.09%
```
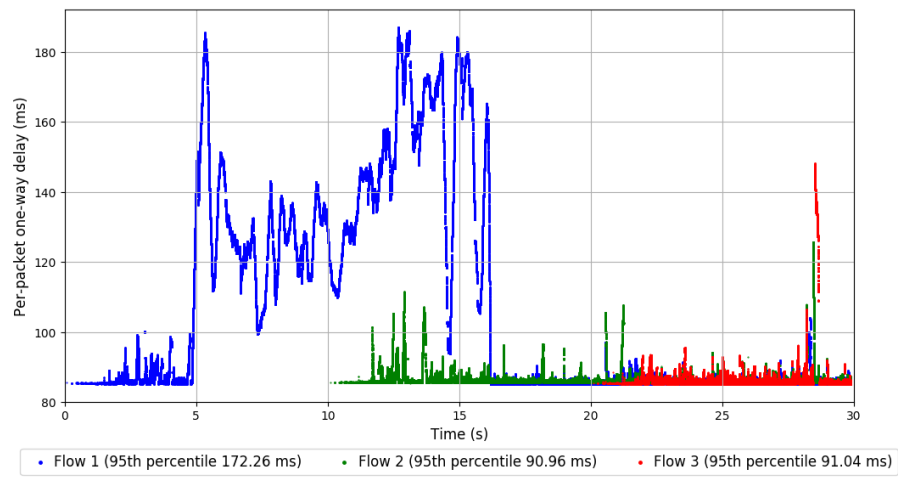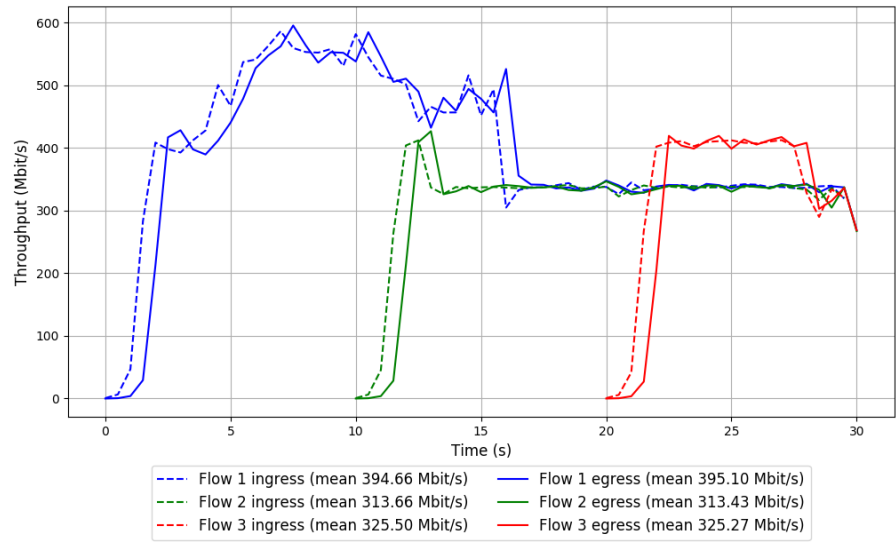
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 00:49:23
End at: 2019-06-28 00:49:53
Local clock offset: -0.058 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-06-28 04:08:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 400.78 Mbit/s
95th percentile per-packet one-way delay: 88.289 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 205.76 Mbit/s
95th percentile per-packet one-way delay: 86.822 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 152.51 Mbit/s
95th percentile per-packet one-way delay: 97.245 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 285.41 Mbit/s
95th percentile per-packet one-way delay: 86.610 ms
Loss rate: 2.08%
```
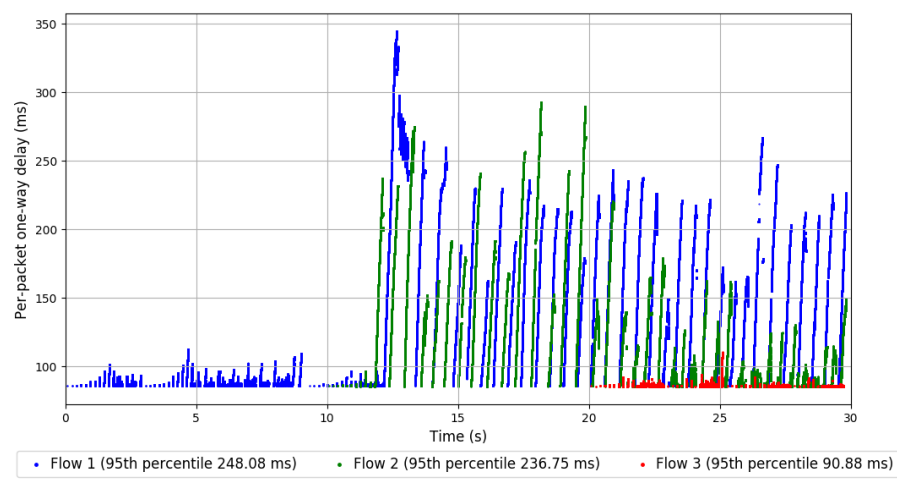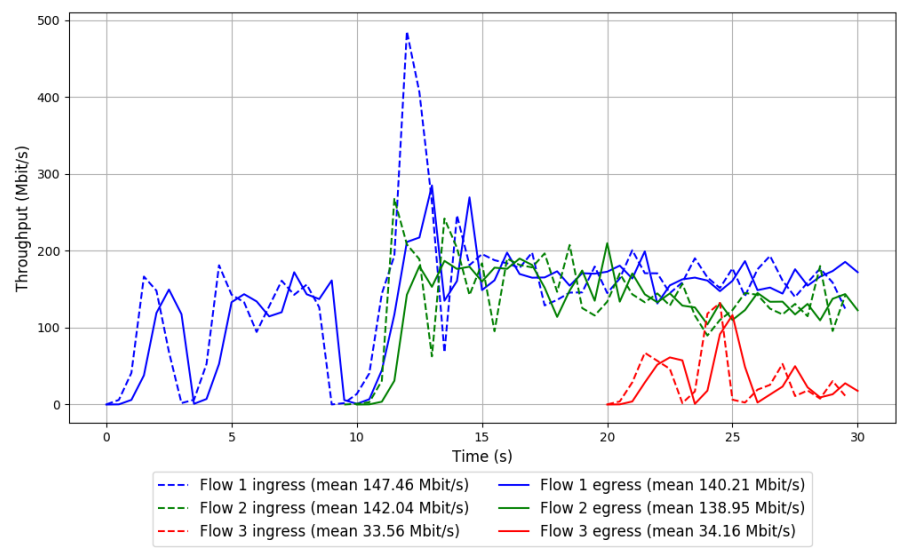
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 01:27:23
End at: 2019-06-28 01:27:53
Local clock offset: -0.449 ms
Remote clock offset: 0.006 ms


# Below is generated by plot.py at 2019-06-28 04:14:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 710.11 Mbit/s
95th percentile per-packet one-way delay: 163.202 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 395.10 Mbit/s
95th percentile per-packet one-way delay: 172.258 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 313.43 Mbit/s
95th percentile per-packet one-way delay: 90.963 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 325.27 Mbit/s
95th percentile per-packet one-way delay: 91.039 ms
Loss rate: 1.81%
```

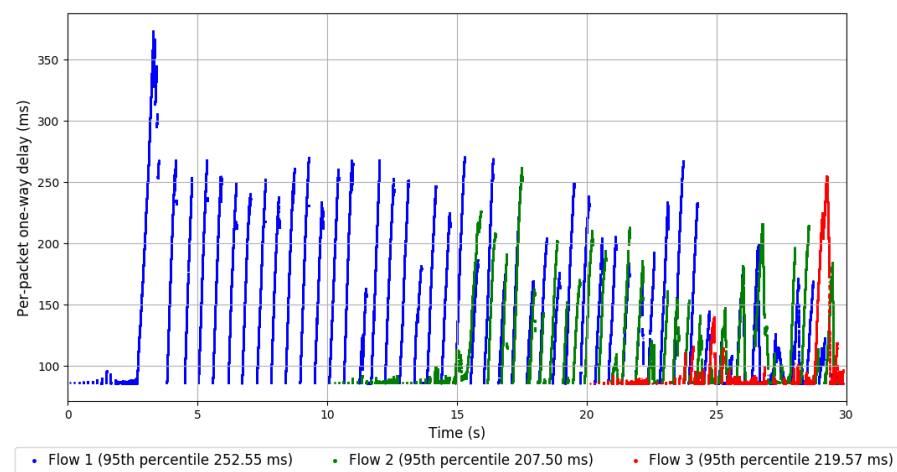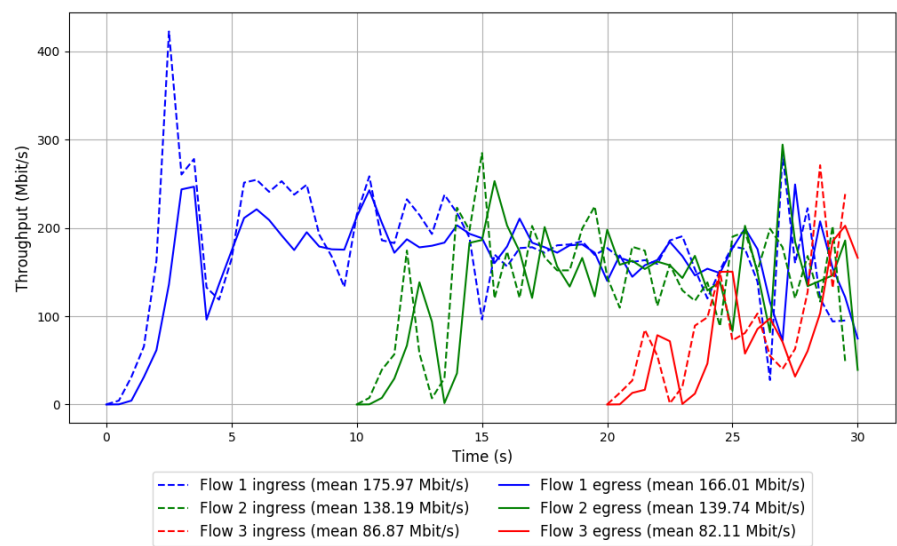Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-06-27 22:35:14
End at: 2019-06-27 22:35:44
Local clock offset: 0.058 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2019-06-28 04:14:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 243.63 Mbit/s
95th percentile per-packet one-way delay: 242.028 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 140.21 Mbit/s
95th percentile per-packet one-way delay: 248.078 ms
Loss rate: 4.63%
-- Flow 2:
Average throughput: 138.95 Mbit/s
95th percentile per-packet one-way delay: 236.751 ms
Loss rate: 2.10%
-- Flow 3:
Average throughput: 34.16 Mbit/s
95th percentile per-packet one-way delay: 90.878 ms
Loss rate: 0.01%
```
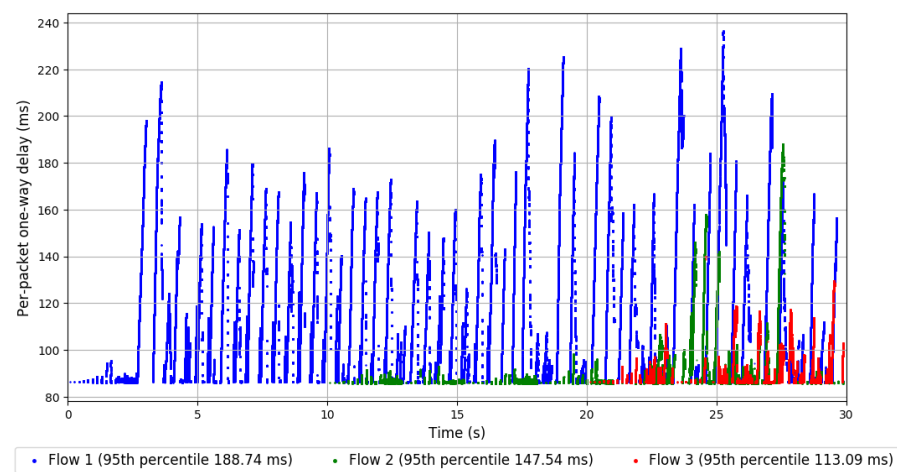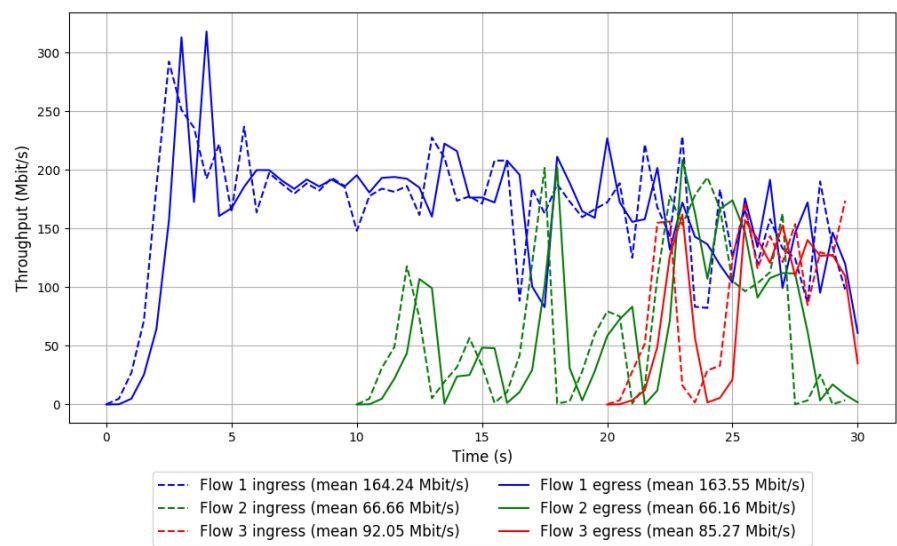
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-06-27 23:13:02
End at: 2019-06-27 23:13:32
Local clock offset: -0.141 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-06-28 04:14:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.99 Mbit/s
95th percentile per-packet one-way delay: 244.940 ms
Loss rate: 4.52%
-- Flow 1:
Average throughput: 166.01 Mbit/s
95th percentile per-packet one-way delay: 252.546 ms
Loss rate: 6.21%
-- Flow 2:
Average throughput: 139.74 Mbit/s
95th percentile per-packet one-way delay: 207.497 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 82.11 Mbit/s
95th percentile per-packet one-way delay: 219.566 ms
Loss rate: 7.13%
```
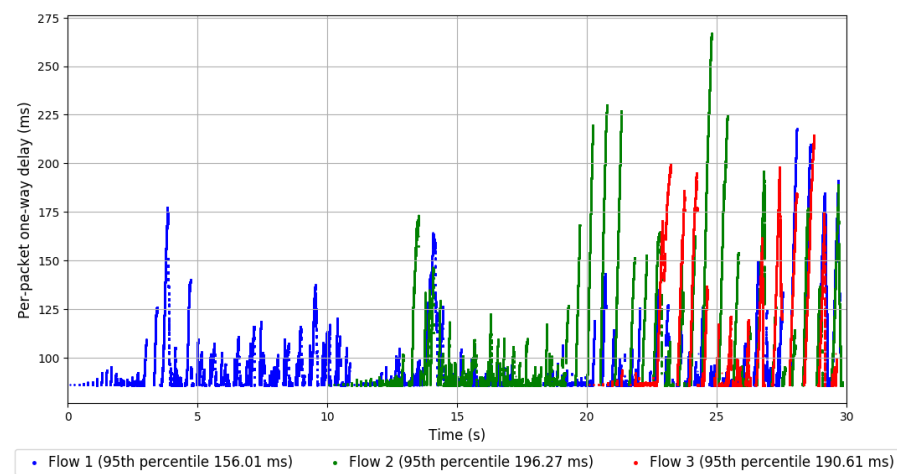
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-06-27 23:51:35
End at: 2019-06-27 23:52:05
Local clock offset: -0.085 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2019-06-28 04:14:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 235.31 Mbit/s
95th percentile per-packet one-way delay: 181.038 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 163.55 Mbit/s
95th percentile per-packet one-way delay: 188.743 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 66.16 Mbit/s
95th percentile per-packet one-way delay: 147.537 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 85.27 Mbit/s
95th percentile per-packet one-way delay: 113.091 ms
Loss rate: 8.81%
```

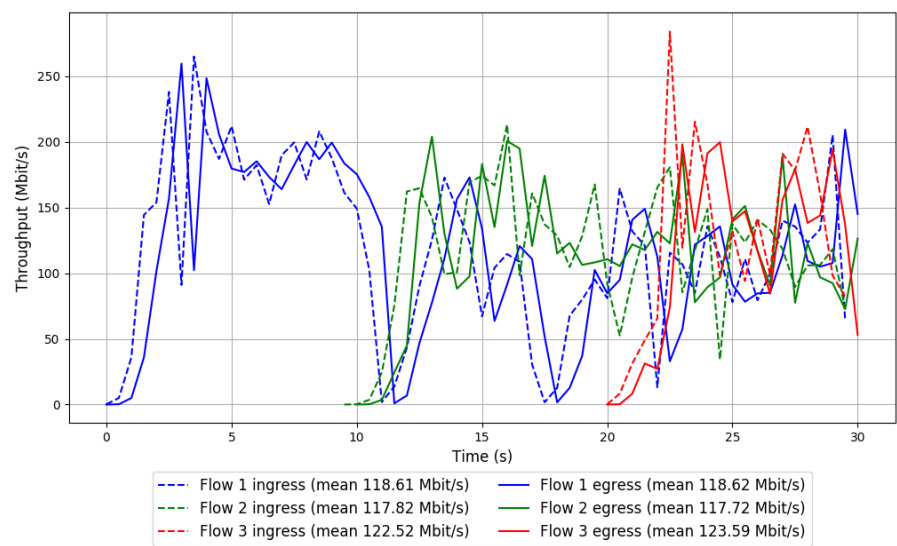## Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-06-28 00:29:53
End at: 2019-06-28 00:30:23
Local clock offset: -0.05 ms
Remote clock offset: -0.141 ms


# Below is generated by plot.py at 2019-06-28 04:14:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.33 Mbit/s
95th percentile per-packet one-way delay: 182.755 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 118.62 Mbit/s
95th percentile per-packet one-way delay: 156.006 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 117.72 Mbit/s
95th percentile per-packet one-way delay: 196.270 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 123.59 Mbit/s
95th percentile per-packet one-way delay: 190.607 ms
Loss rate: 3.15%
```
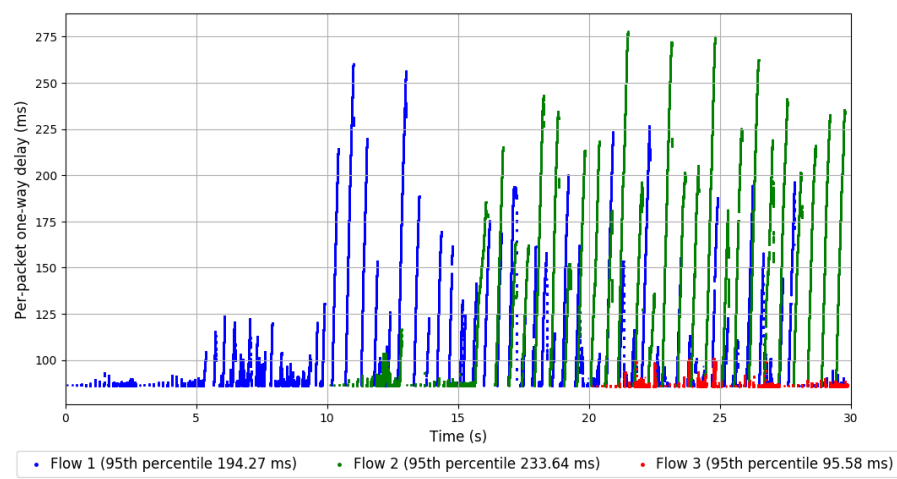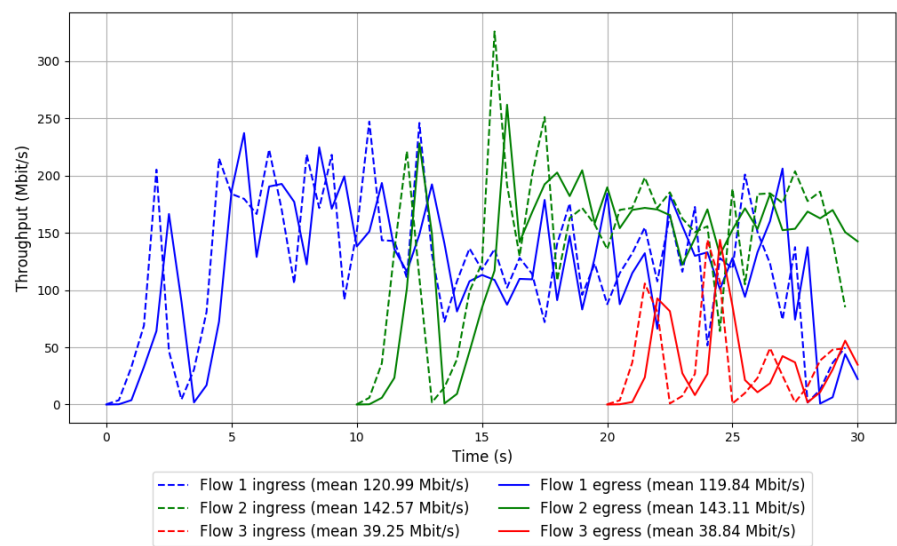
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-06-28 01:07:48
End at: 2019-06-28 01:08:18
Local clock offset: 0.007 ms
Remote clock offset: 0.011 ms


# Below is generated by plot.py at 2019-06-28 04:15:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 227.01 Mbit/s
95th percentile per-packet one-way delay: 218.260 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 119.84 Mbit/s
95th percentile per-packet one-way delay: 194.269 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 143.11 Mbit/s
95th percentile per-packet one-way delay: 233.636 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 95.584 ms
Loss rate: 2.50%
```
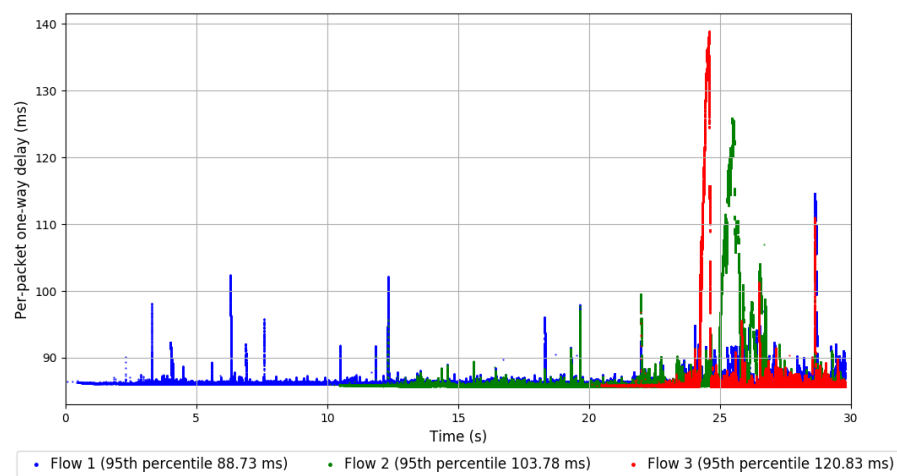
Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-27 22:31:23
End at: 2019-06-27 22:31:53
Local clock offset: 0.257 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-06-28 04:16:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.24 Mbit/s
95th percentile per-packet one-way delay: 93.397 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 238.95 Mbit/s
95th percentile per-packet one-way delay: 88.730 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 213.68 Mbit/s
95th percentile per-packet one-way delay: 103.782 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 139.94 Mbit/s
95th percentile per-packet one-way delay: 120.826 ms
Loss rate: 2.51%
```
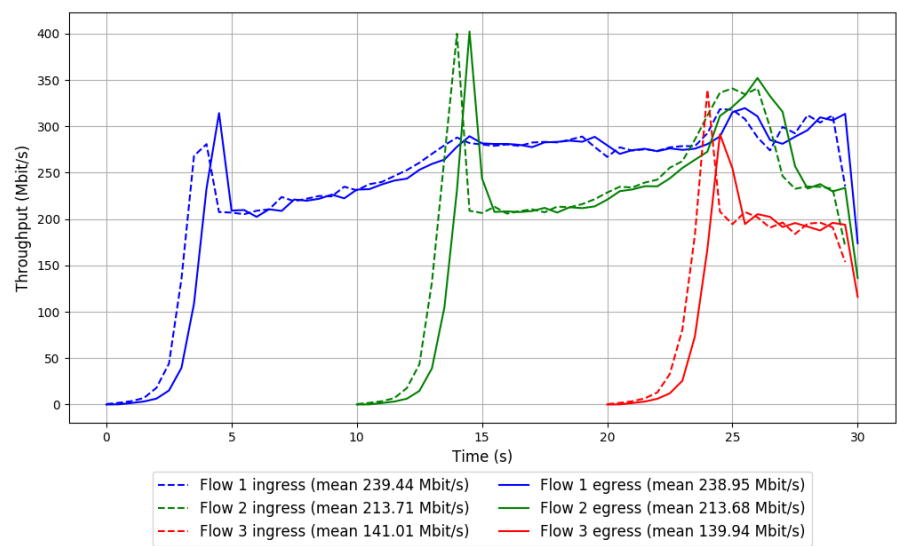
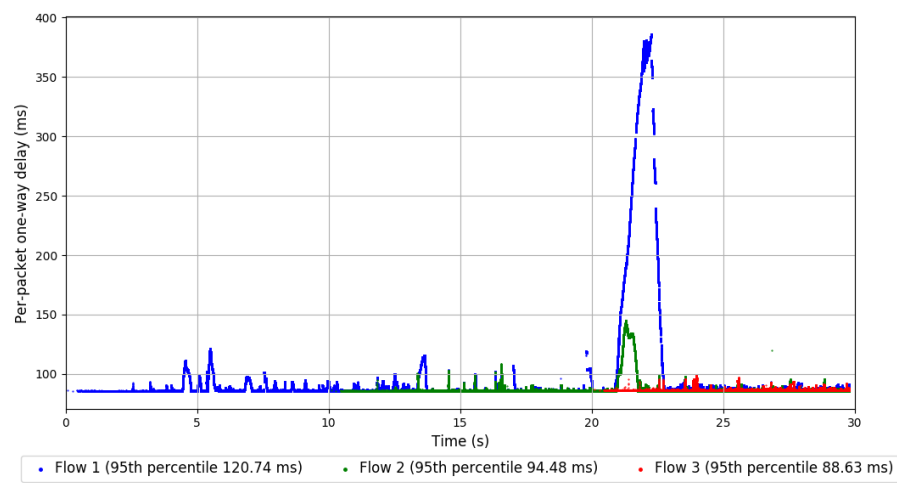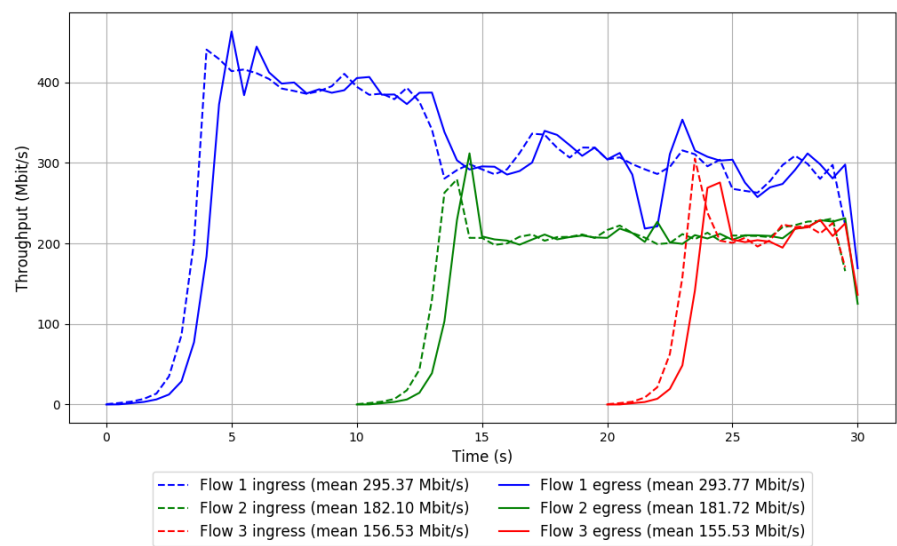## Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-06-27 23:09:10
End at: 2019-06-27 23:09:40
Local clock offset: -0.03 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2019-06-28 04:16:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.87 Mbit/s
95th percentile per-packet one-way delay: 107.480 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 293.77 Mbit/s
95th percentile per-packet one-way delay: 120.736 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 181.72 Mbit/s
95th percentile per-packet one-way delay: 94.477 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 155.53 Mbit/s
95th percentile per-packet one-way delay: 88.630 ms
Loss rate: 2.38%
```

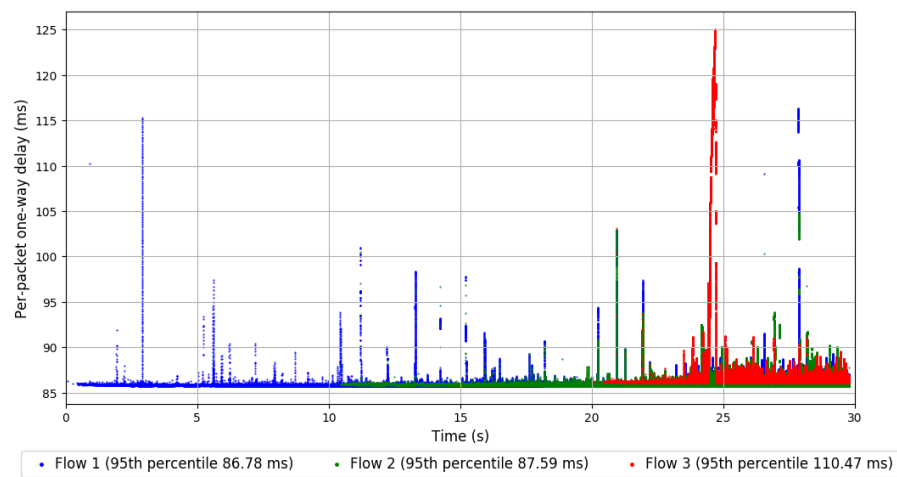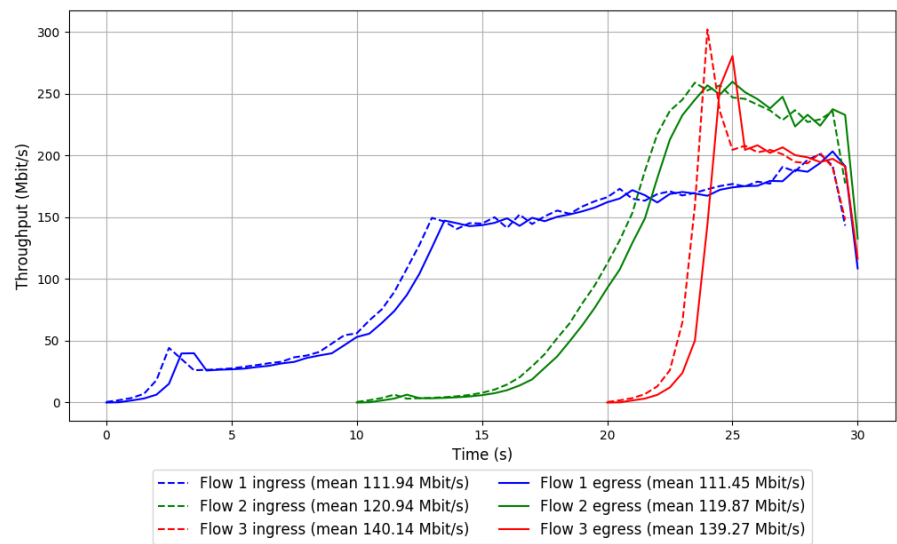## Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 295.37 Mbit/s) — Flow 1 egress (mean 293.77 Mbit/s)
Flow 2 ingress (mean 182.10 Mbit/s) — Flow 2 egress (mean 181.72 Mbit/s)
Flow 3 ingress (mean 156.53 Mbit/s) — Flow 3 egress (mean 155.53 Mbit/s)

Flow 1 (95th percentile 120.74 ms)   Flow 2 (95th percentile 94.48 ms)   Flow 3 (95th percentile 88.63 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-06-27 23:47:53
End at: 2019-06-27 23:48:23
Local clock offset: -0.085 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2019-06-28 04:16:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.35 Mbit/s
95th percentile per-packet one-way delay: 87.778 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 111.45 Mbit/s
95th percentile per-packet one-way delay: 86.780 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 119.87 Mbit/s
95th percentile per-packet one-way delay: 87.595 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 139.27 Mbit/s
95th percentile per-packet one-way delay: 110.472 ms
Loss rate: 2.36%
```

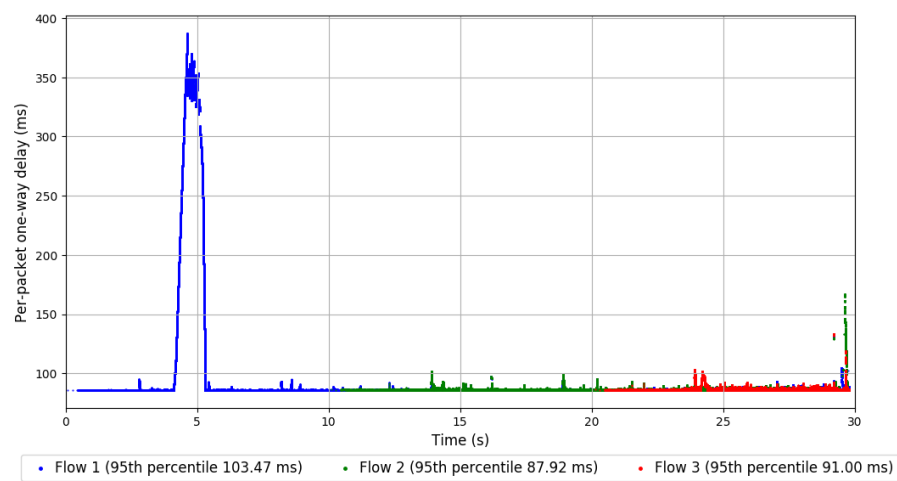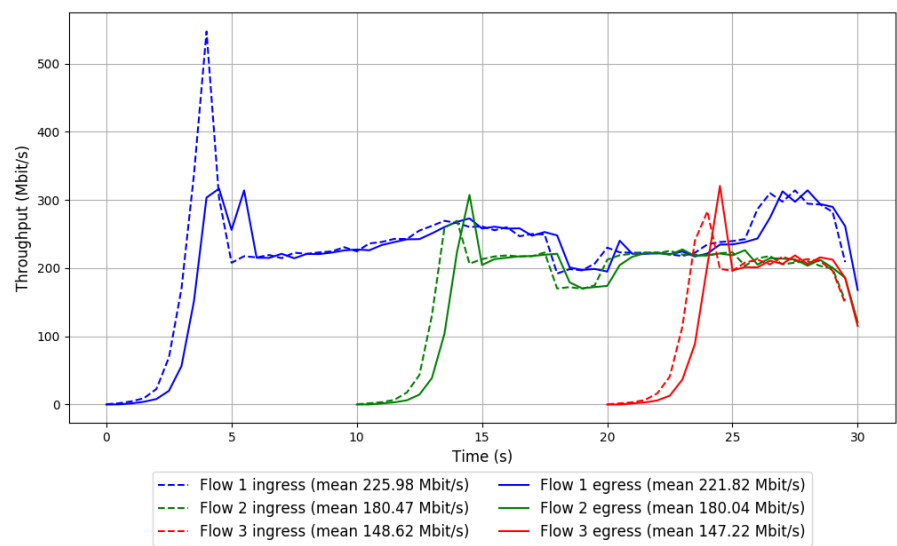# Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 00:26:00
End at: 2019-06-28 00:26:31
Local clock offset: -0.09 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2019-06-28 04:16:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.05 Mbit/s
95th percentile per-packet one-way delay: 90.444 ms
Loss rate: 2.06%
-- Flow 1:
Average throughput: 221.82 Mbit/s
95th percentile per-packet one-way delay: 103.465 ms
Loss rate: 2.41%
-- Flow 2:
Average throughput: 180.04 Mbit/s
95th percentile per-packet one-way delay: 87.923 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 147.22 Mbit/s
95th percentile per-packet one-way delay: 90.997 ms
Loss rate: 2.70%
```

Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 01:03:49
End at: 2019-06-28 01:04:19
Local clock offset: -0.081 ms
Remote clock offset: 0.015 ms


# Below is generated by plot.py at 2019-06-28 04:16:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.32 Mbit/s
95th percentile per-packet one-way delay: 102.932 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 304.12 Mbit/s
95th percentile per-packet one-way delay: 130.286 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 175.55 Mbit/s
95th percentile per-packet one-way delay: 90.636 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 158.87 Mbit/s
95th percentile per-packet one-way delay: 97.037 ms
Loss rate: 2.75%
```
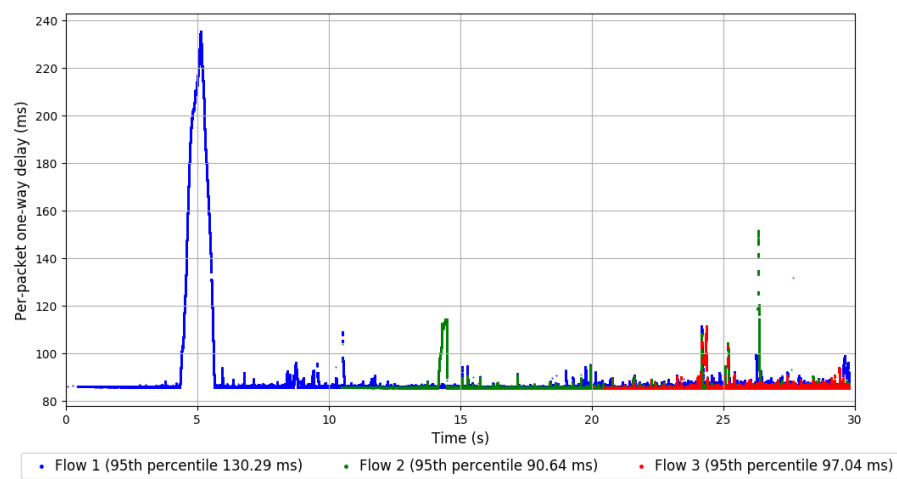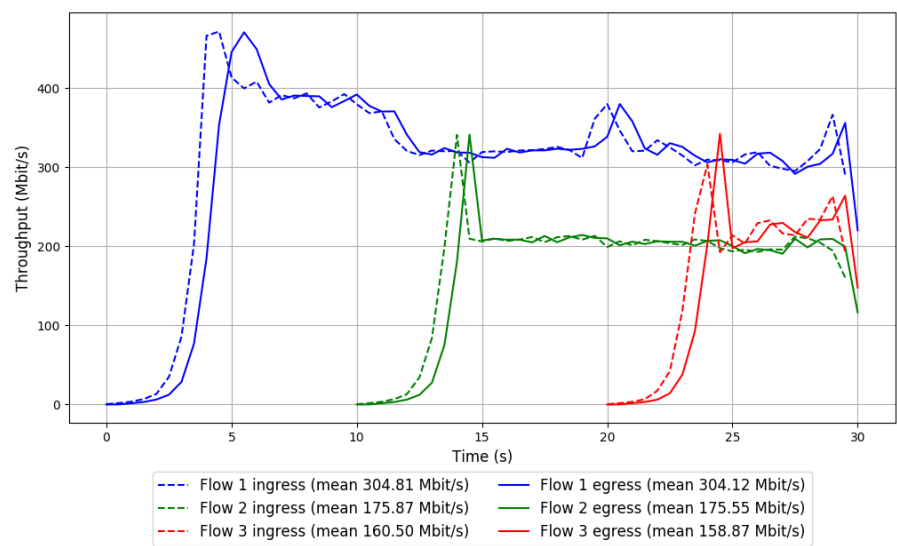
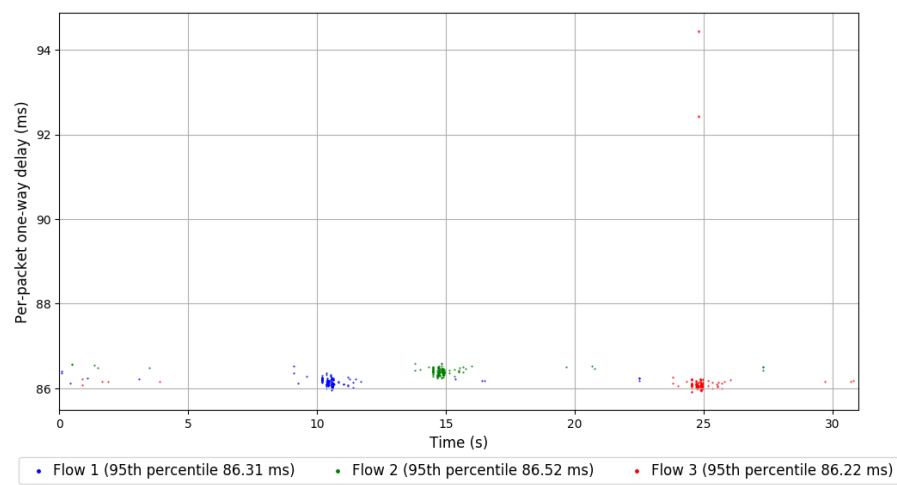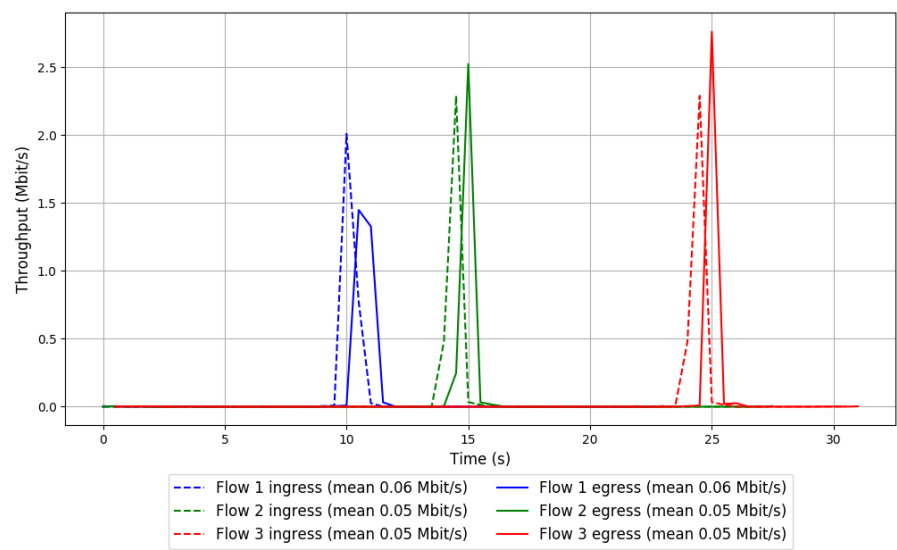Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-06-27 22:23:15
End at: 2019-06-27 22:23:45
Local clock offset: 0.422 ms
Remote clock offset: 0.062 ms


# Below is generated by plot.py at 2019-06-28 04:16:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.499 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.306 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.520 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.224 ms
Loss rate: 0.00%
```

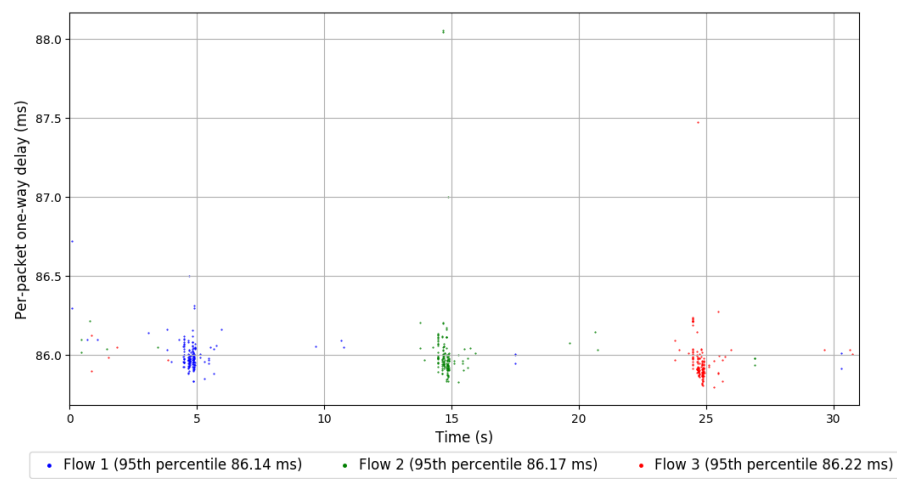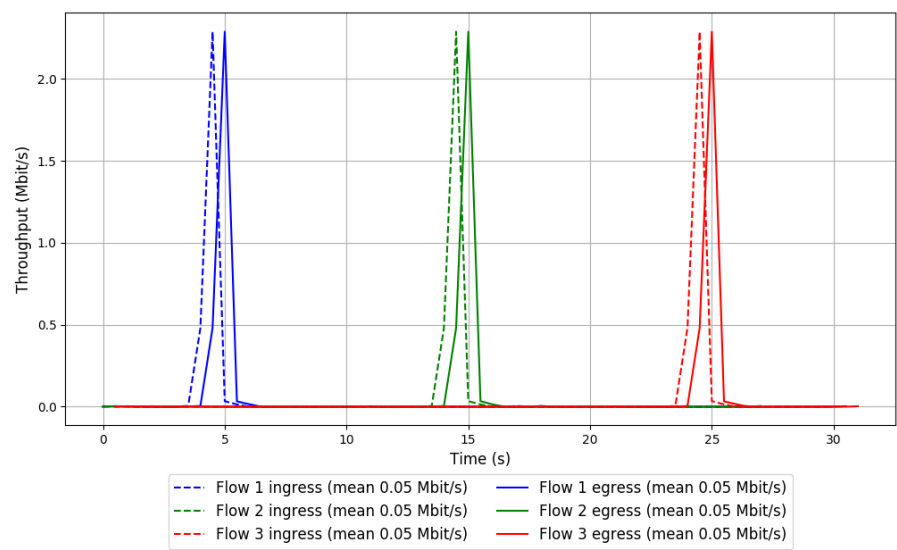Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-06-27 23:01:31
End at: 2019-06-27 23:02:01
Local clock offset: 0.427 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2019-06-28 04:16:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.188 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.170 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.215 ms
Loss rate: 0.00%
```

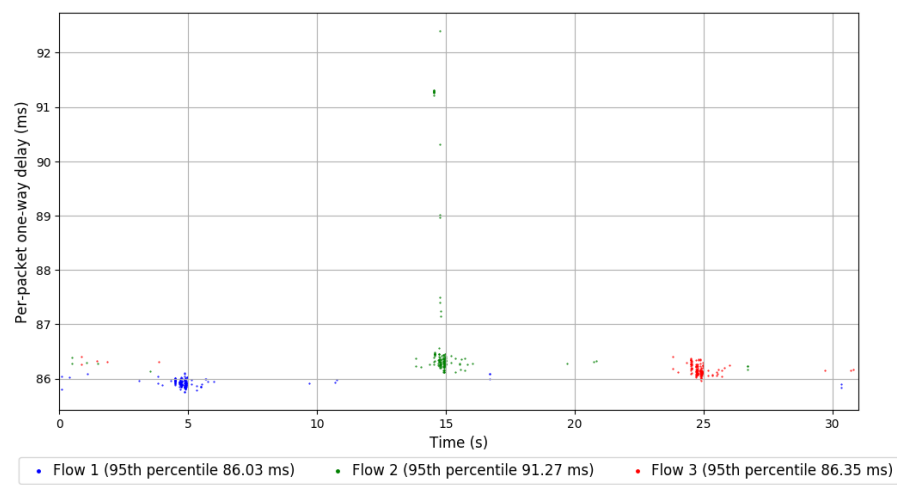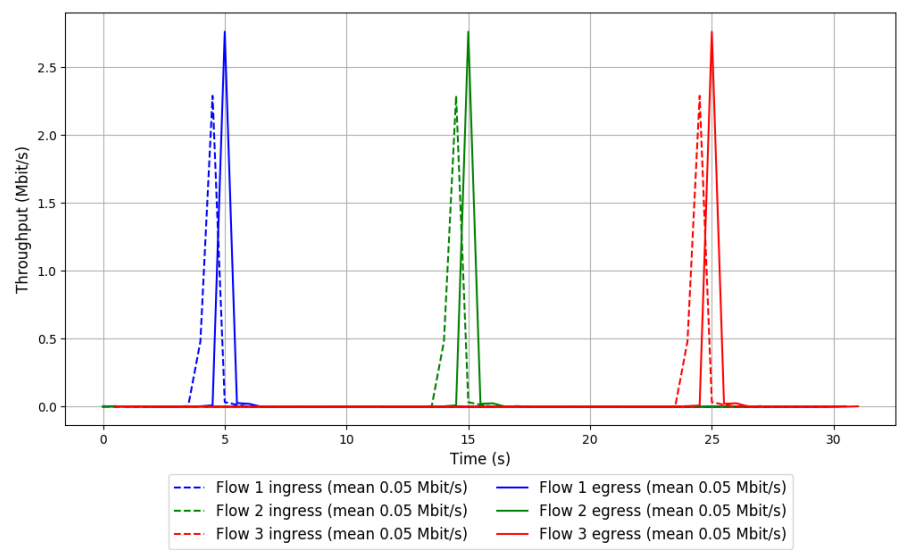Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-06-27 23:39:45
End at: 2019-06-27 23:40:15
Local clock offset: -0.247 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2019-06-28 04:16:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.459 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.029 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 91.273 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.346 ms
Loss rate: 0.00%
```

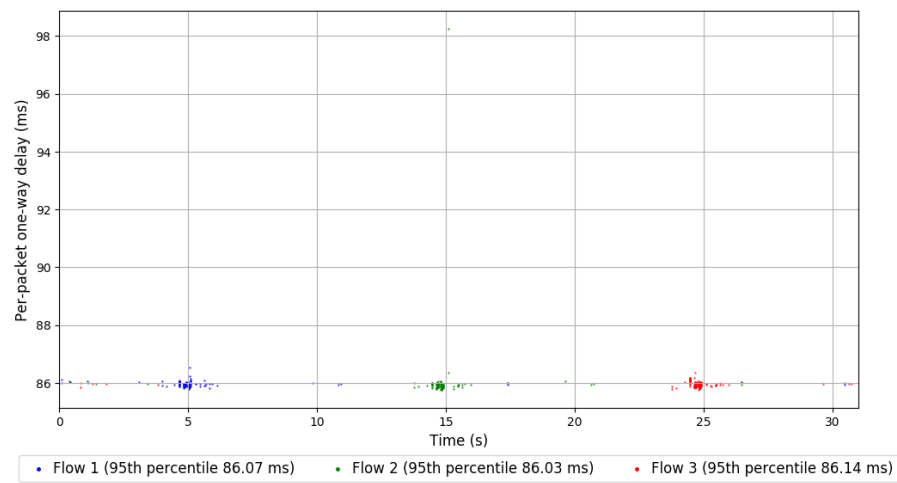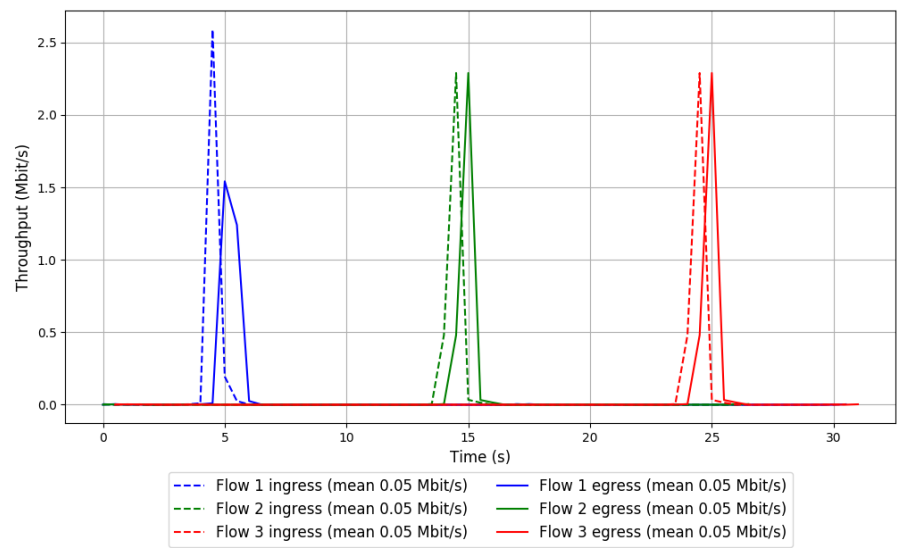Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-06-28 00:17:58
End at: 2019-06-28 00:18:28
Local clock offset: -0.108 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2019-06-28 04:16:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.085 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.071 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.026 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.144 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-06-28 00:56:02
End at: 2019-06-28 00:56:32
Local clock offset: 0.015 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2019-06-28 04:16:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 86.428 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.109 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.135 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.583 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link