Pantheon Report

Generated at 2019-07-12 18:34:59 (UTC).

Data path: Brazil on `p4p1` (*remote*) →AWS Brazil 1 on `ens5` (*local*).

Repeated the test of 24 congestion control schemes 5 times.

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

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.
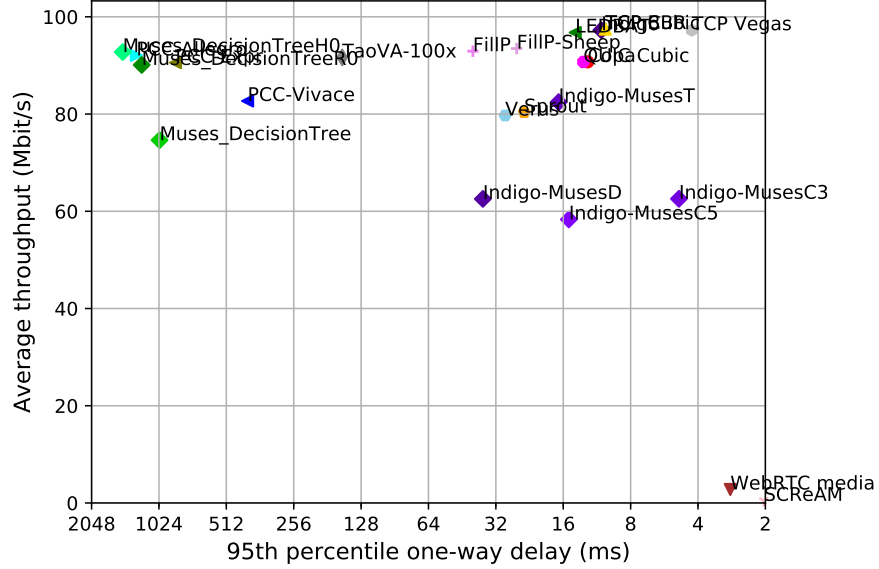
```
System info:
Linux 4.15.0-1041-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 2076e1149a241f3edb4365d686df32342bf9561f
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 @ 8bb93ffff2b107204a92d8b72449fc0c55e15f00
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
```
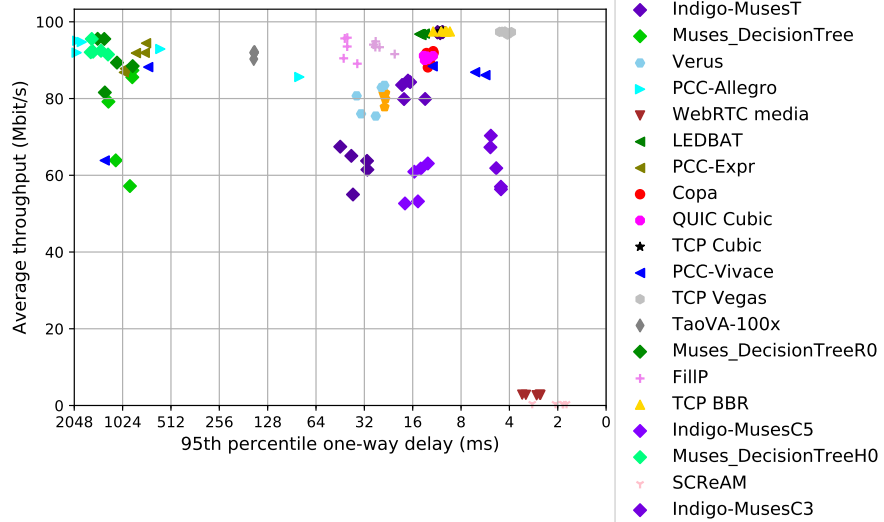
```
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from Brazil to AWS Brazil 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from Brazil to AWS Brazil 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

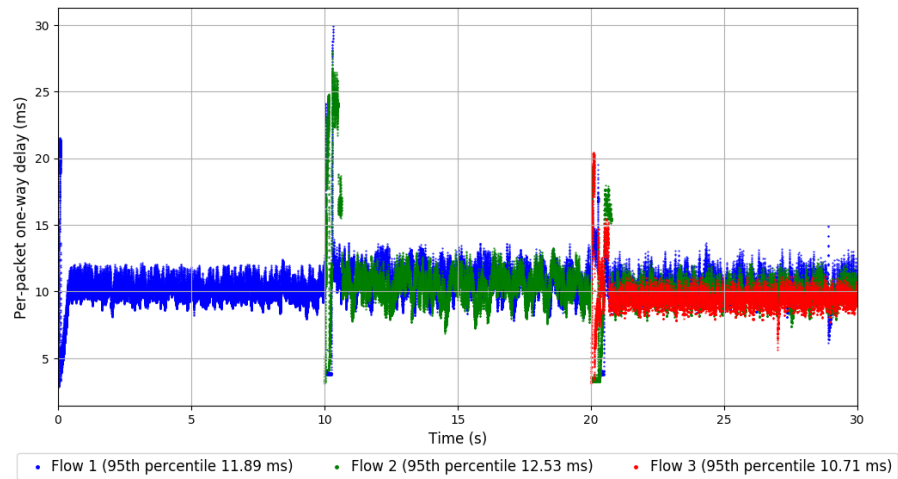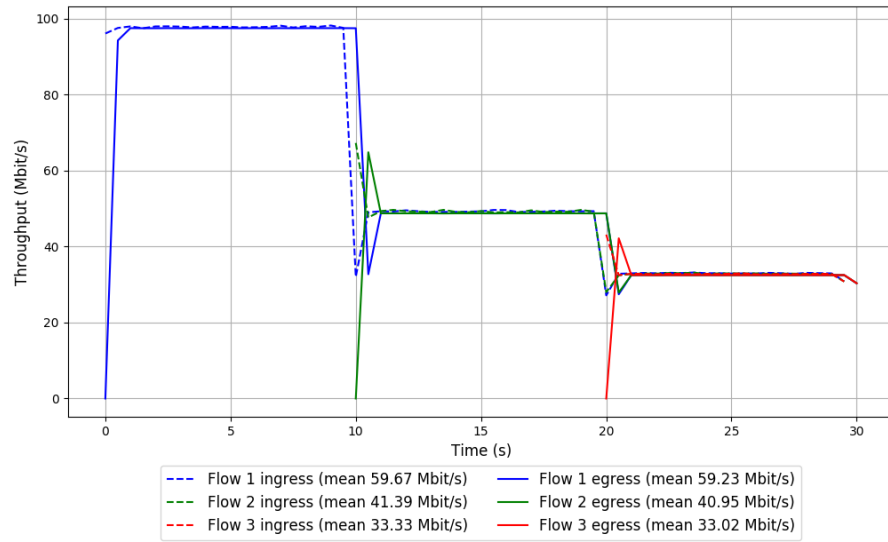| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	59.28	40.92	32.98	9.36	10.86	11.37	0.31	0.73	1.17
Copa	5	54.10	39.40	31.28	12.33	12.24	13.53	0.03	0.08	0.13
TCP Cubic	5	59.61	40.62	32.49	10.37	10.42	10.29	0.08	0.14	0.24
FillP	5	53.67	43.26	31.55	31.57	42.82	48.47	0.14	0.49	1.59
FillP-Sheep	5	58.37	37.89	29.76	24.19	26.73	39.08	0.05	0.09	0.11
Indigo	5	57.77	42.19	34.87	9.99	10.88	9.54	0.13	0.90	0.15
Indigo-MusesC3	5	45.33	21.73	14.78	4.77	5.05	5.16	0.01	0.02	0.14
Indigo-MusesC5	5	31.71	29.10	31.50	12.16	14.82	18.46	0.04	0.05	0.20
Indigo-MusesD	5	37.97	24.22	36.46	17.00	16.91	48.49	0.14	0.13	2.43
Indigo-MusesT	5	53.55	35.76	26.52	13.85	19.89	17.81	0.05	0.08	0.24
LEDBAT	5	59.16	40.33	32.38	14.03	14.37	13.74	0.13	0.22	0.36
Muses_DecisionTree	5	33.07	34.46	58.91	855.83	909.86	1093.62	0.84	2.33	2.16
Muses_DecisionTreeH0	5	50.64	43.95	40.74	854.54	1345.80	1841.19	1.27	3.97	19.86
Muses_DecisionTreeR0	5	48.35	40.05	47.88	851.09	1122.72	1457.31	0.63	1.82	14.15
PCC-Allegro	5	63.23	30.45	26.07	1386.34	403.92	9.97	8.23	3.86	0.11
PCC-Expr	5	60.60	30.53	29.29	715.28	333.68	286.56	19.81	4.16	4.37
QUIC Cubic	5	53.76	40.08	31.12	12.62	12.97	13.91	0.16	0.33	0.51
SCReAM	5	0.22	0.22	0.22	1.78	1.95	2.02	0.00	0.04	0.14
Sprout	5	42.90	40.31	32.18	22.13	24.53	25.13	0.05	0.17	0.29
TaoVA-100x	5	54.83	39.40	31.80	154.97	155.51	155.91	0.51	1.11	2.66
TCP Vegas	5	53.11	45.84	41.00	3.27	4.00	4.69	0.01	0.01	0.05
Verus	5	44.77	37.92	29.11	26.14	25.63	131.30	0.06	0.07	0.18
PCC-Vivace	5	52.21	33.11	25.62	455.34	80.49	49.52	1.29	0.17	0.21
WebRTC media	5	1.53	0.85	0.40	2.56	2.82	3.10	0.00	0.01	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-07-12 16:05:59
End at: 2019-07-12 16:06:29
Local clock offset: -6.293 ms
Remote clock offset: -0.636 ms


# Below is generated by plot.py at 2019-07-12 18:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 11.934 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 11.887 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 40.95 Mbit/s
95th percentile per-packet one-way delay: 12.531 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 33.02 Mbit/s
95th percentile per-packet one-way delay: 10.713 ms
Loss rate: 0.95%
```
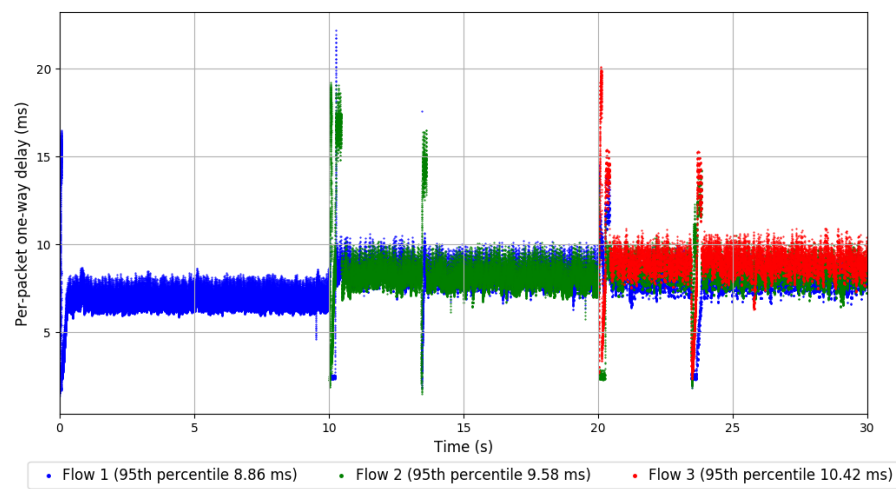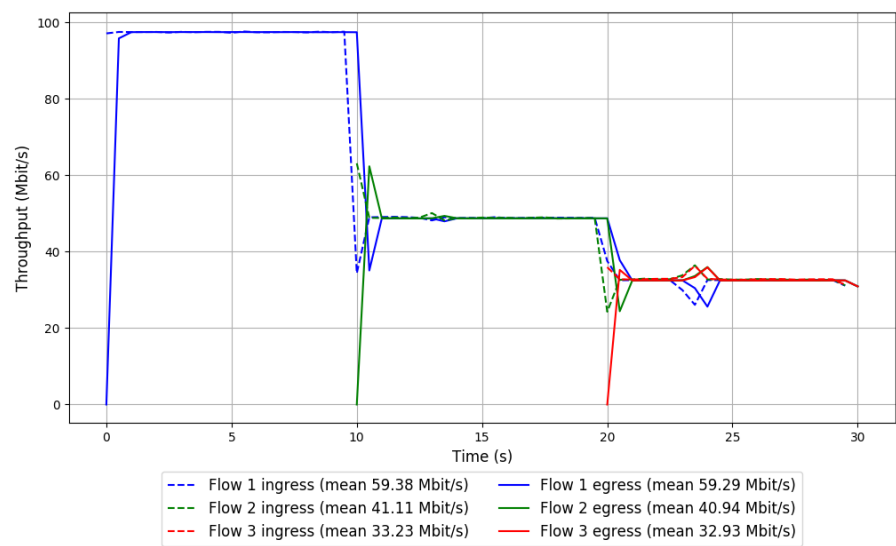
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 59.67 Mbit/s)   Flow 1 egress (mean 59.23 Mbit/s)
Flow 2 ingress (mean 41.39 Mbit/s)   Flow 2 egress (mean 40.95 Mbit/s)
Flow 3 ingress (mean 33.33 Mbit/s)   Flow 3 egress (mean 33.02 Mbit/s)

Flow 1 (95th percentile 11.89 ms)   Flow 2 (95th percentile 12.53 ms)   Flow 3 (95th percentile 10.71 ms)

6

```
Run 2: Statistics of TCP BBR

Start at: 2019-07-12 16:33:41
End at: 2019-07-12 16:34:11
Local clock offset: -5.264 ms
Remote clock offset: -0.166 ms


# Below is generated by plot.py at 2019-07-12 18:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 9.393 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 59.29 Mbit/s
95th percentile per-packet one-way delay: 8.860 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.94 Mbit/s
95th percentile per-packet one-way delay: 9.581 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 32.93 Mbit/s
95th percentile per-packet one-way delay: 10.419 ms
Loss rate: 0.96%
```
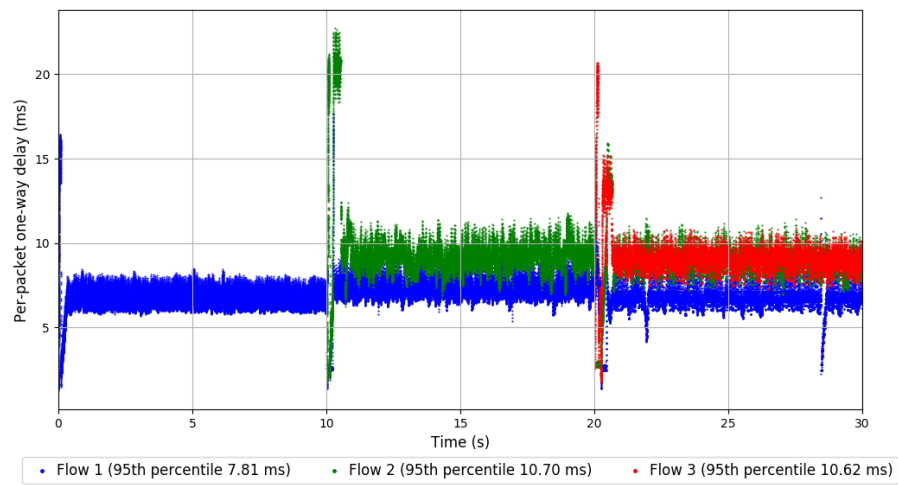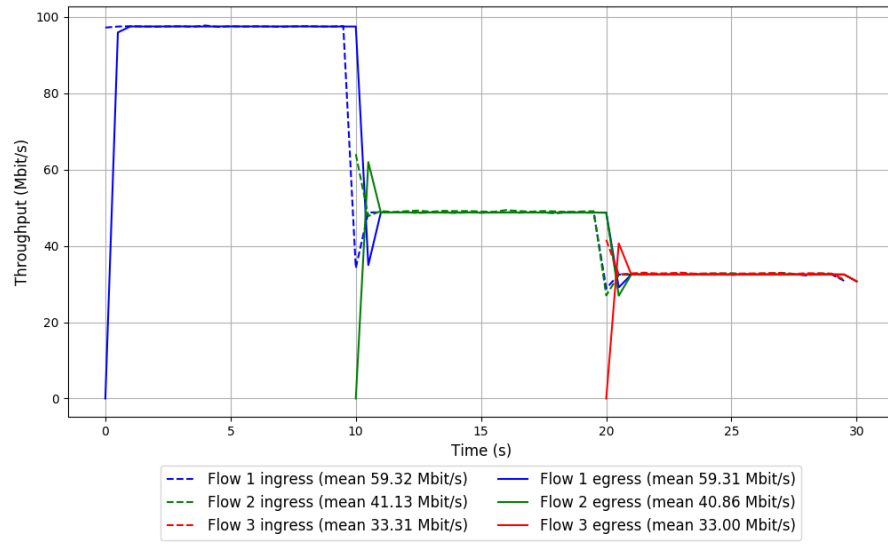
Run 2: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 59.38 Mbit/s) —— Flow 1 egress (mean 59.29 Mbit/s)
- - - Flow 2 ingress (mean 41.11 Mbit/s) —— Flow 2 egress (mean 40.94 Mbit/s)
- - - Flow 3 ingress (mean 33.23 Mbit/s) —— Flow 3 egress (mean 32.93 Mbit/s)

• Flow 1 (95th percentile 8.86 ms)   • Flow 2 (95th percentile 9.58 ms)   • Flow 3 (95th percentile 10.42 ms)

8

```
Run 3: Statistics of TCP BBR

Start at: 2019-07-12 17:01:23
End at: 2019-07-12 17:01:53
Local clock offset: -3.04 ms
Remote clock offset: 0.194 ms


# Below is generated by plot.py at 2019-07-12 18:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 9.856 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 7.812 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.86 Mbit/s
95th percentile per-packet one-way delay: 10.701 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 10.619 ms
Loss rate: 0.98%
```
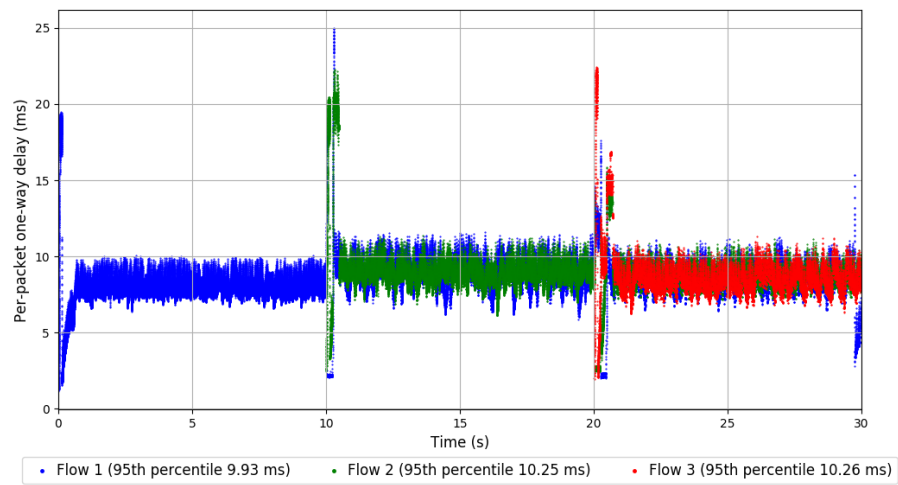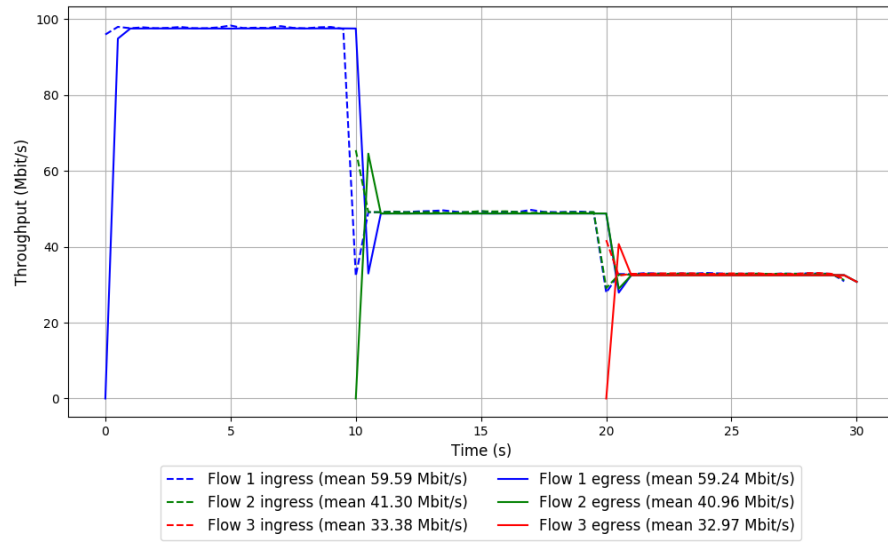
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 59.32 Mbit/s)   Flow 1 egress (mean 59.31 Mbit/s)
Flow 2 ingress (mean 41.13 Mbit/s)   Flow 2 egress (mean 40.86 Mbit/s)
Flow 3 ingress (mean 33.31 Mbit/s)   Flow 3 egress (mean 33.00 Mbit/s)

Flow 1 (95th percentile 7.81 ms)   Flow 2 (95th percentile 10.70 ms)   Flow 3 (95th percentile 10.62 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-07-12 17:29:06
End at: 2019-07-12 17:29:36
Local clock offset: -1.906 ms
Remote clock offset: 0.447 ms


# Below is generated by plot.py at 2019-07-12 18:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.046 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 59.24 Mbit/s
95th percentile per-packet one-way delay: 9.934 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 10.253 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 32.97 Mbit/s
95th percentile per-packet one-way delay: 10.260 ms
Loss rate: 1.31%
```
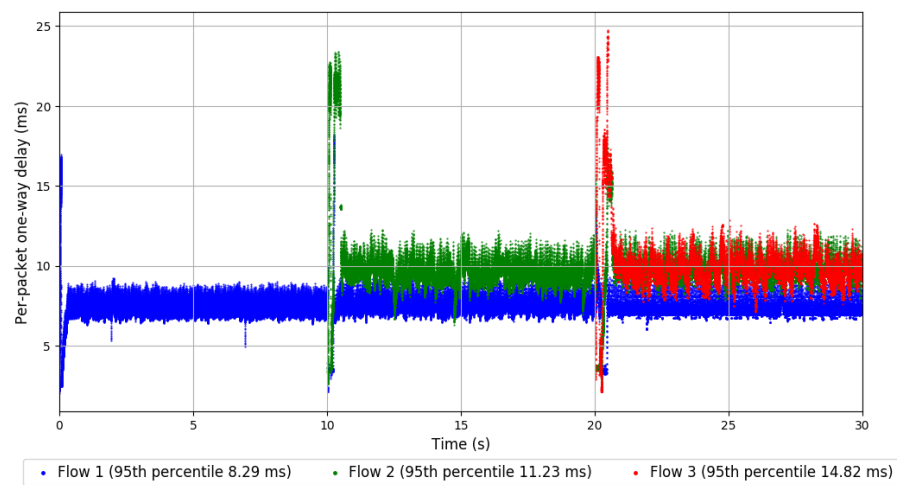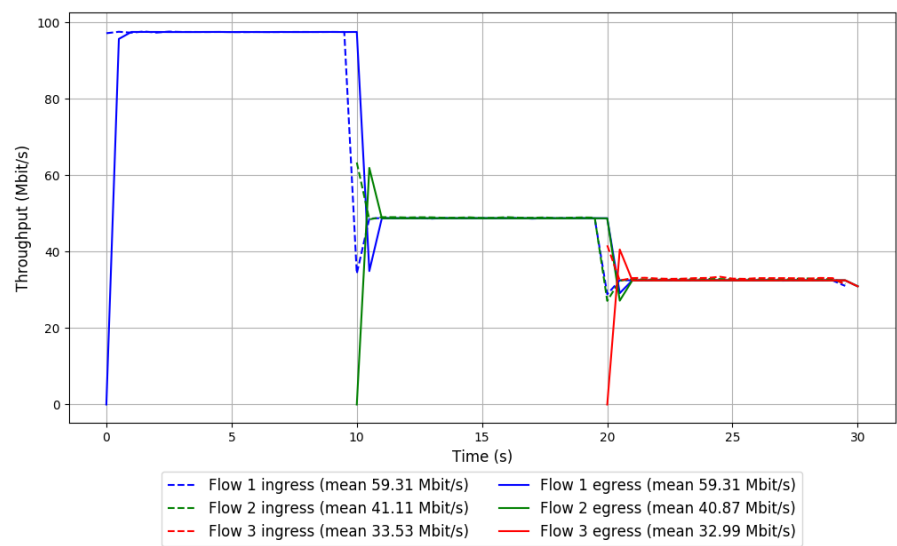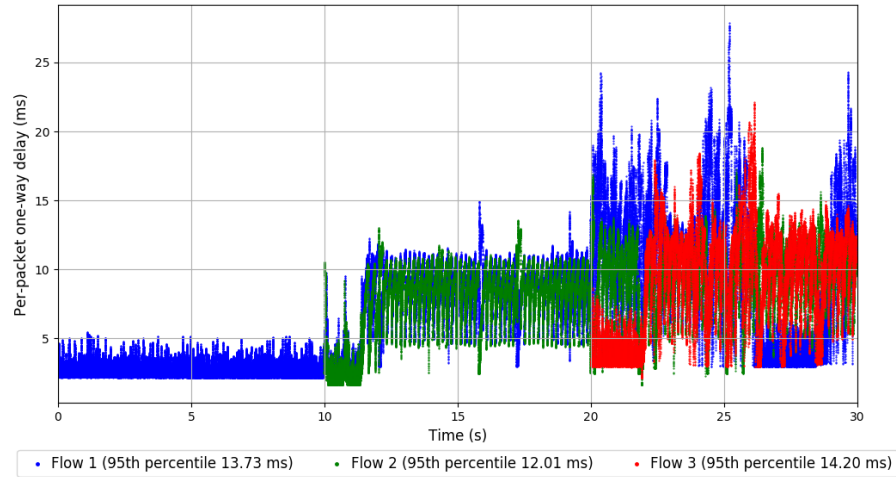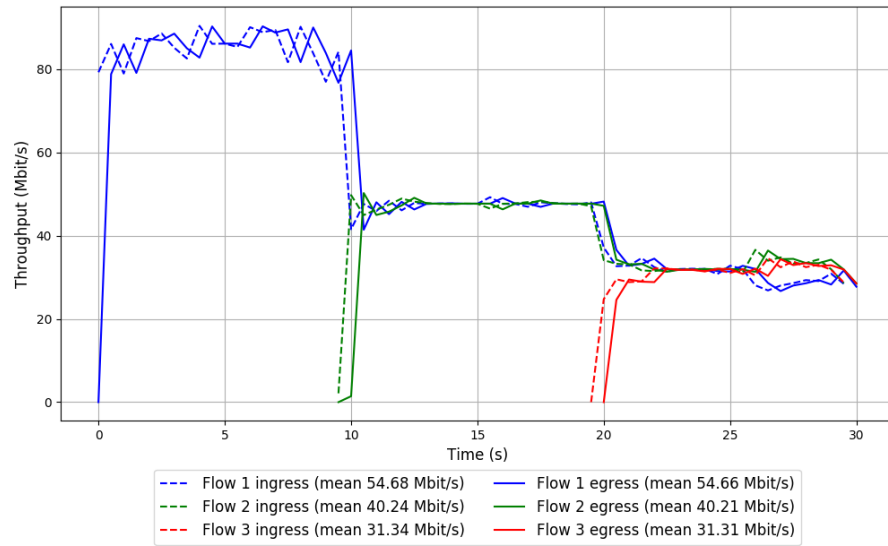
Run 4: Report of TCP BBR — Data Link

- - - - Flow 1 ingress (mean 59.59 Mbit/s)   —— Flow 1 egress (mean 59.24 Mbit/s)
- - - - Flow 2 ingress (mean 41.30 Mbit/s)   —— Flow 2 egress (mean 40.96 Mbit/s)
- - - - Flow 3 ingress (mean 33.38 Mbit/s)   —— Flow 3 egress (mean 32.97 Mbit/s)

• Flow 1 (95th percentile 9.93 ms)   • Flow 2 (95th percentile 10.25 ms)   • Flow 3 (95th percentile 10.26 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-07-12 17:56:49
End at: 2019-07-12 17:57:19
Local clock offset: 2.926 ms
Remote clock offset: 0.519 ms


# Below is generated by plot.py at 2019-07-12 18:19:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.622 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 59.31 Mbit/s
95th percentile per-packet one-way delay: 8.287 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 11.231 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 32.99 Mbit/s
95th percentile per-packet one-way delay: 14.825 ms
Loss rate: 1.67%
```
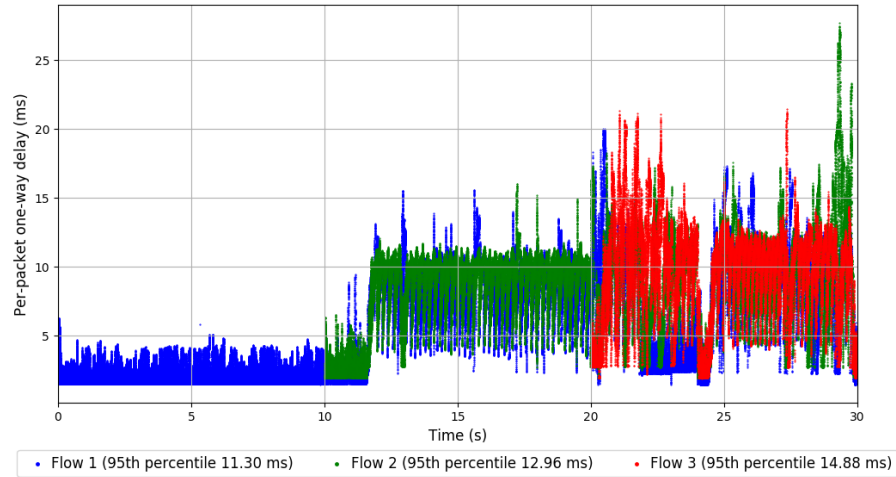
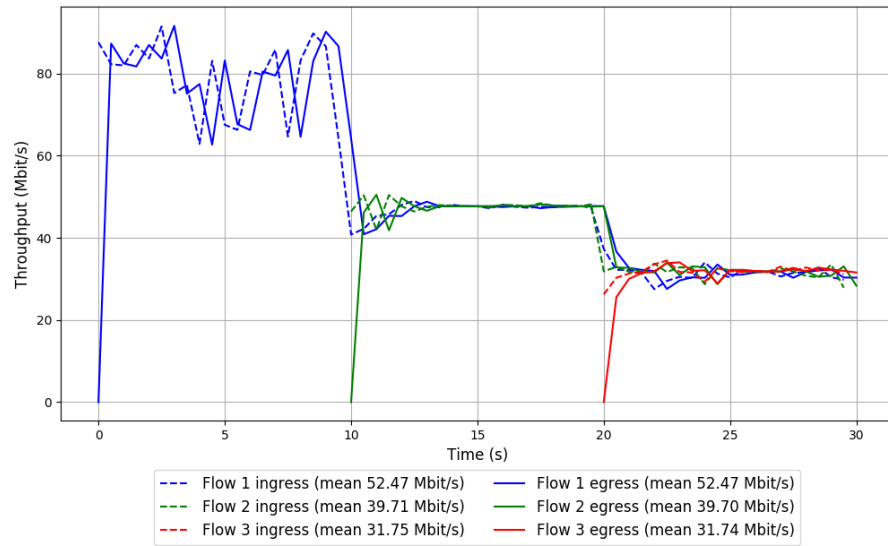Run 5: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2019-07-12 16:08:23
End at: 2019-07-12 16:08:53
Local clock offset: -6.936 ms
Remote clock offset: -0.675 ms


# Below is generated by plot.py at 2019-07-12 18:20:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.86 Mbit/s
95th percentile per-packet one-way delay: 13.134 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 54.66 Mbit/s
95th percentile per-packet one-way delay: 13.735 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 40.21 Mbit/s
95th percentile per-packet one-way delay: 12.008 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 31.31 Mbit/s
95th percentile per-packet one-way delay: 14.201 ms
Loss rate: 0.15%
```
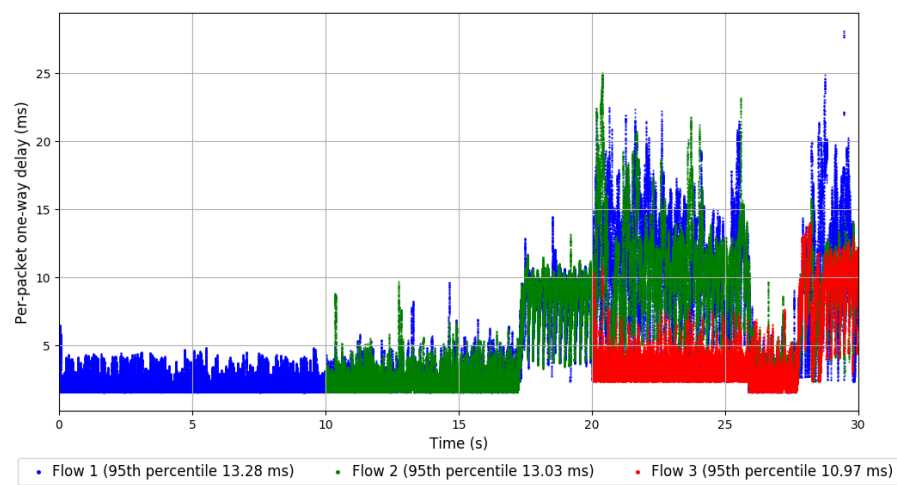
Run 1: Report of Copa — Data Link

- - - Flow 1 ingress (mean 54.68 Mbit/s) — Flow 1 egress (mean 54.66 Mbit/s)
- - - Flow 2 ingress (mean 40.24 Mbit/s) — Flow 2 egress (mean 40.21 Mbit/s)
- - - Flow 3 ingress (mean 31.34 Mbit/s) — Flow 3 egress (mean 31.31 Mbit/s)

- Flow 1 (95th percentile 13.73 ms)   • Flow 2 (95th percentile 12.01 ms)   • Flow 3 (95th percentile 14.20 ms)

```
Run 2: Statistics of Copa

Start at: 2019-07-12 16:36:04
End at: 2019-07-12 16:36:34
Local clock offset: -4.859 ms
Remote clock offset: -0.142 ms


# Below is generated by plot.py at 2019-07-12 18:20:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.47 Mbit/s
95th percentile per-packet one-way delay: 12.471 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 11.300 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 12.963 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 31.74 Mbit/s
95th percentile per-packet one-way delay: 14.883 ms
Loss rate: 0.08%
```
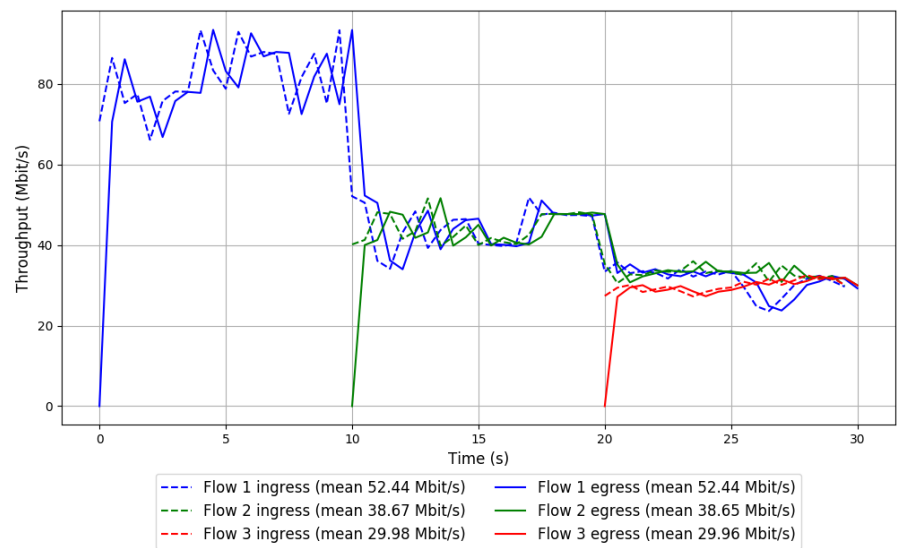
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-07-12 17:03:45
End at: 2019-07-12 17:04:15
Local clock offset: -2.739 ms
Remote clock offset: 0.18 ms


# Below is generated by plot.py at 2019-07-12 18:20:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.12 Mbit/s
95th percentile per-packet one-way delay: 12.877 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 52.44 Mbit/s
95th percentile per-packet one-way delay: 13.276 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.65 Mbit/s
95th percentile per-packet one-way delay: 13.028 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 10.972 ms
Loss rate: 0.11%
```
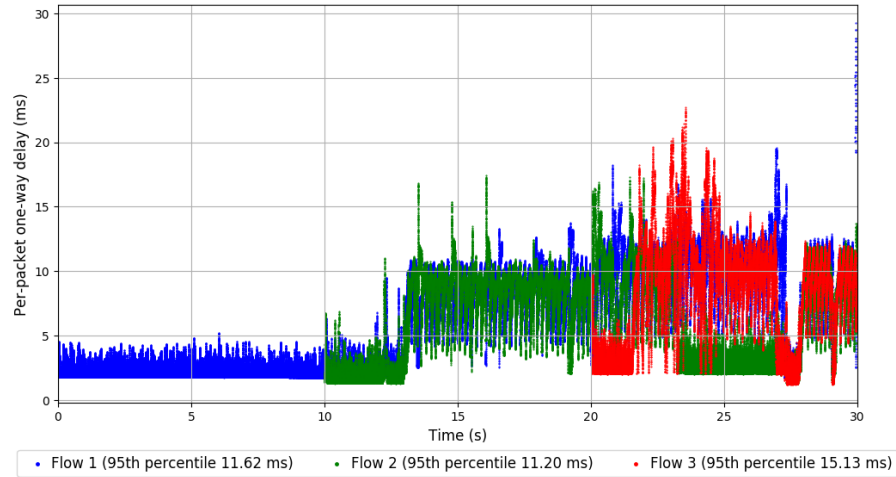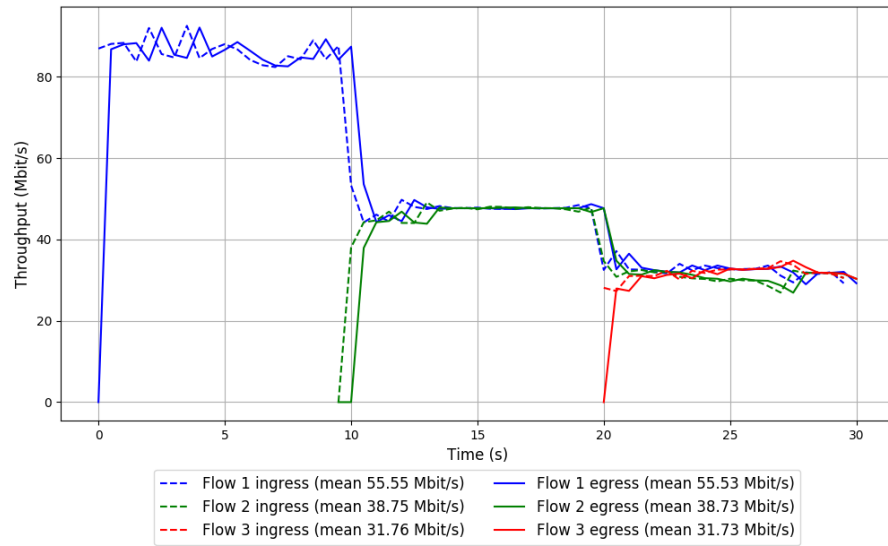
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-07-12 17:31:29
End at: 2019-07-12 17:31:59
Local clock offset: -1.098 ms
Remote clock offset: 0.477 ms


# Below is generated by plot.py at 2019-07-12 18:21:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.88 Mbit/s
95th percentile per-packet one-way delay: 11.856 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 55.53 Mbit/s
95th percentile per-packet one-way delay: 11.623 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 11.201 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 31.73 Mbit/s
95th percentile per-packet one-way delay: 15.128 ms
Loss rate: 0.15%
```
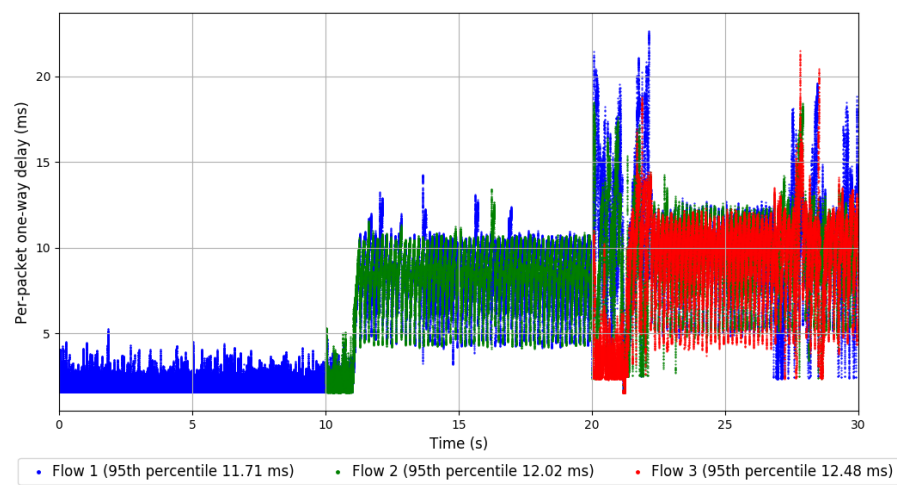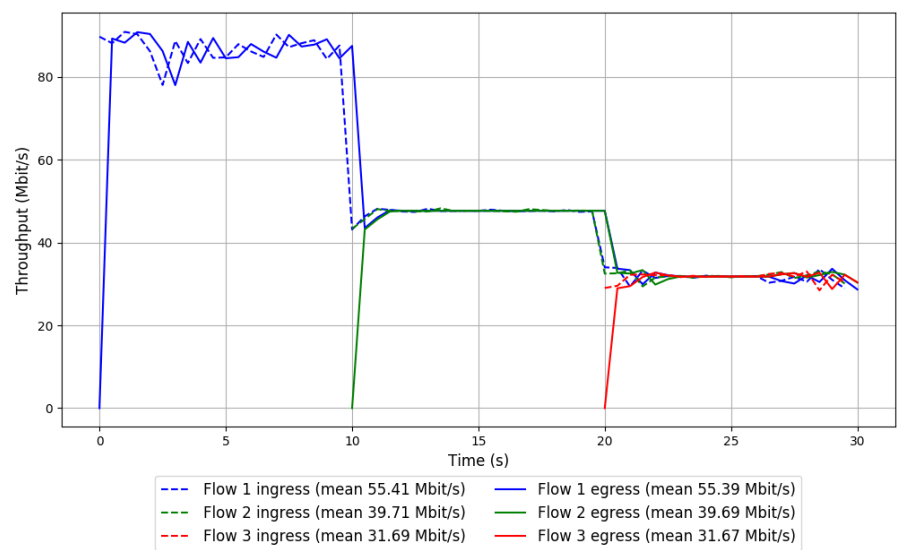
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-07-12 17:59:12
End at: 2019-07-12 17:59:42
Local clock offset: 2.551 ms
Remote clock offset: 0.523 ms


# Below is generated by plot.py at 2019-07-12 18:21:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.34 Mbit/s
95th percentile per-packet one-way delay: 11.925 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 55.39 Mbit/s
95th percentile per-packet one-way delay: 11.710 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 39.69 Mbit/s
95th percentile per-packet one-way delay: 12.017 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 12.476 ms
Loss rate: 0.14%
```
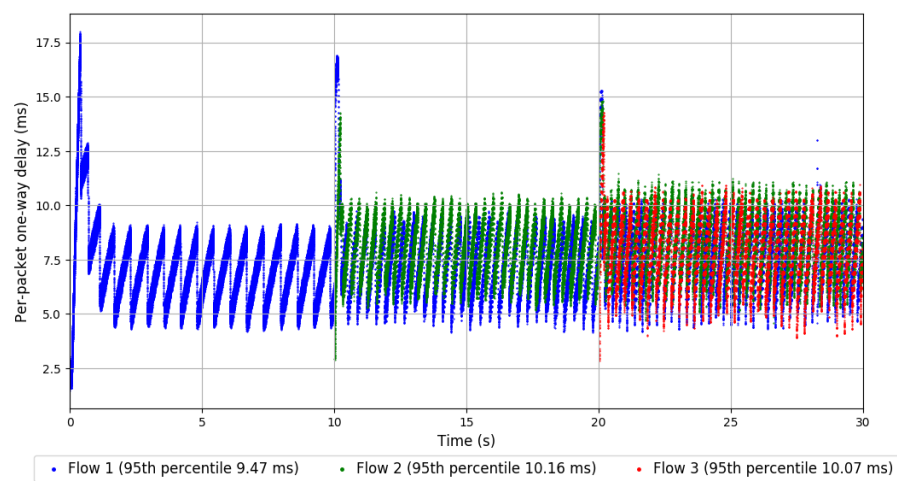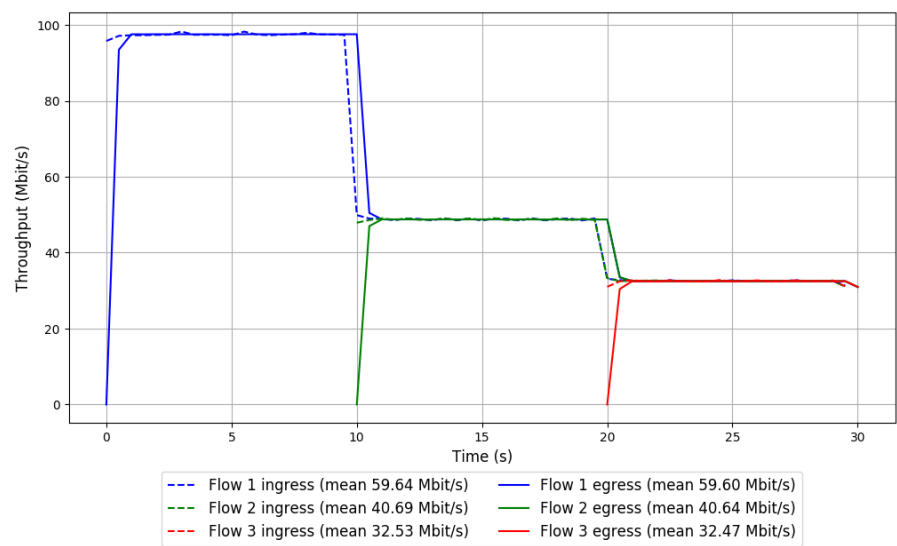
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-07-12 16:14:11
End at: 2019-07-12 16:14:41
Local clock offset: -6.713 ms
Remote clock offset: -0.475 ms


# Below is generated by plot.py at 2019-07-12 18:21:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 9.943 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.60 Mbit/s
95th percentile per-packet one-way delay: 9.467 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.163 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.47 Mbit/s
95th percentile per-packet one-way delay: 10.070 ms
Loss rate: 0.23%
```

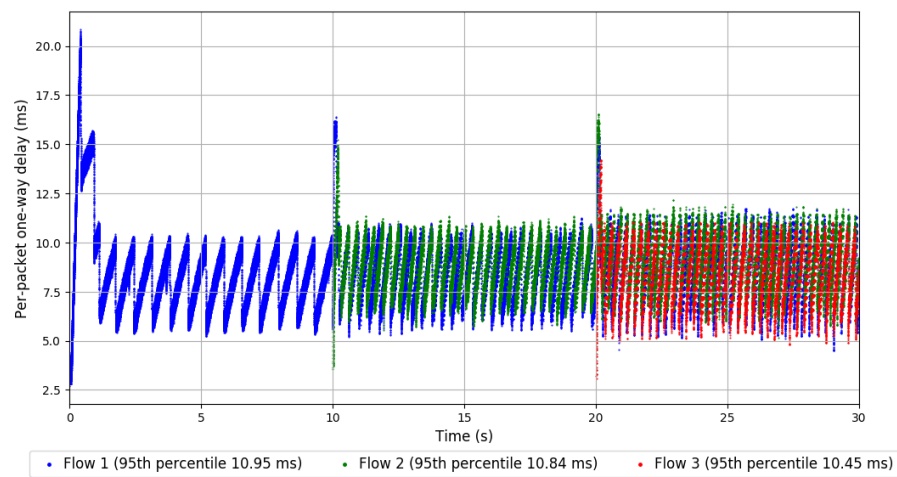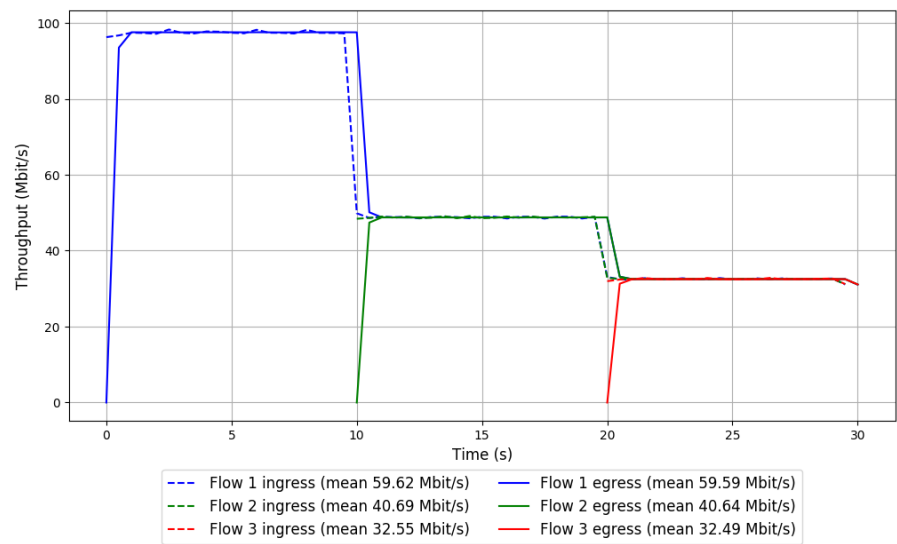Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-07-12 16:41:53
End at: 2019-07-12 16:42:23
Local clock offset: -3.278 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2019-07-12 18:21:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 10.819 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.59 Mbit/s
95th percentile per-packet one-way delay: 10.953 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.840 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.452 ms
Loss rate: 0.24%
```
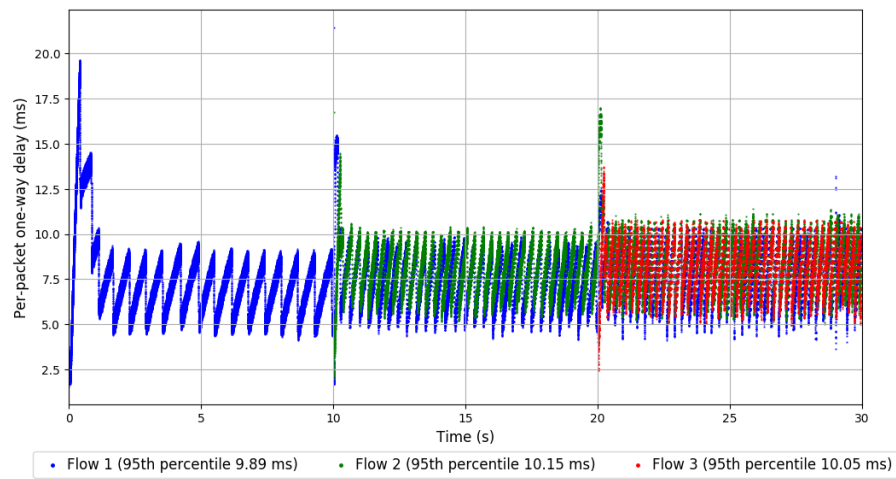
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 59.62 Mbit/s) — — — Flow 1 egress (mean 59.59 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s) — — — Flow 2 egress (mean 40.64 Mbit/s)
Flow 3 ingress (mean 32.55 Mbit/s) — — — Flow 3 egress (mean 32.49 Mbit/s)

• Flow 1 (95th percentile 10.95 ms)   • Flow 2 (95th percentile 10.84 ms)   • Flow 3 (95th percentile 10.45 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-07-12 17:09:34
End at: 2019-07-12 17:10:04
Local clock offset: -2.552 ms
Remote clock offset: 0.198 ms


# Below is generated by plot.py at 2019-07-12 18:21:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 10.035 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.57 Mbit/s
95th percentile per-packet one-way delay: 9.895 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.155 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.50 Mbit/s
95th percentile per-packet one-way delay: 10.048 ms
Loss rate: 0.25%
```
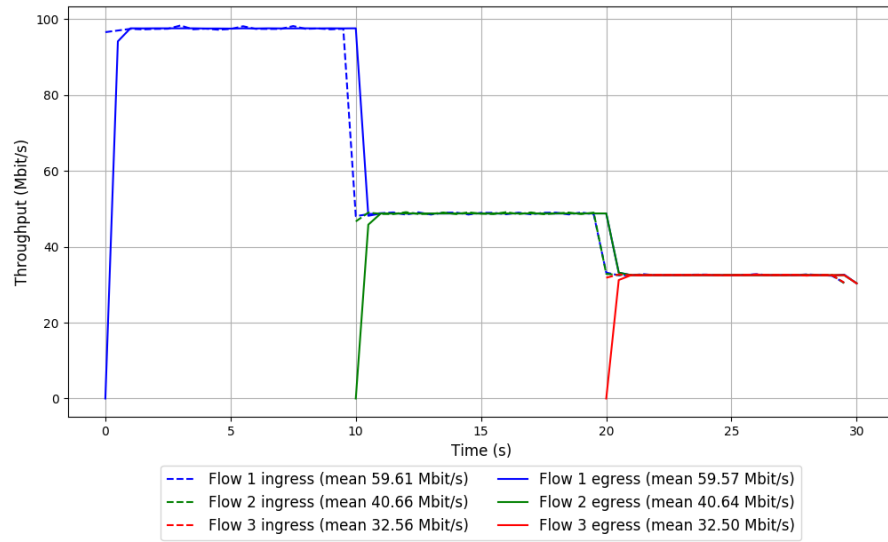
Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2019-07-12 17:37:19
End at: 2019-07-12 17:37:49
Local clock offset: 0.739 ms
Remote clock offset: 0.431 ms


# Below is generated by plot.py at 2019-07-12 18:21:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 10.379 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 10.916 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.56 Mbit/s
95th percentile per-packet one-way delay: 10.246 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.162 ms
Loss rate: 0.23%
```
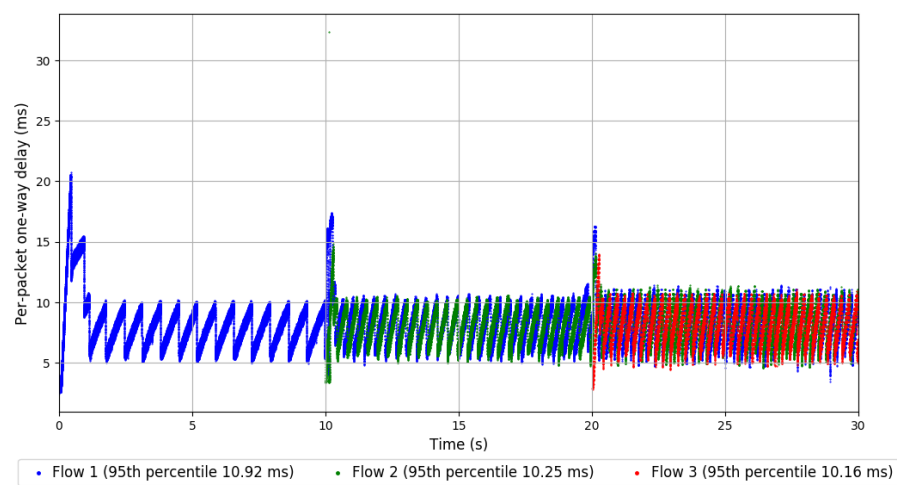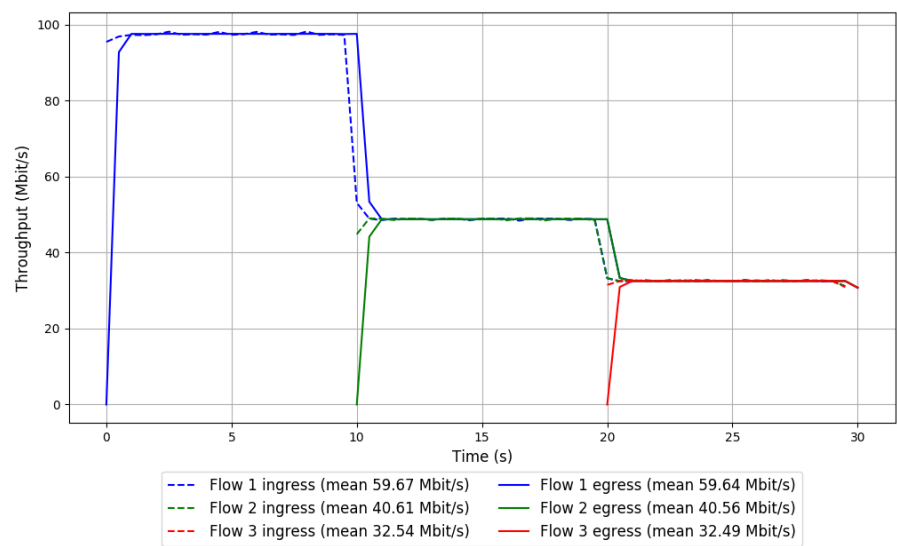
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-07-12 18:05:02
End at: 2019-07-12 18:05:32
Local clock offset: 3.802 ms
Remote clock offset: 0.577 ms


# Below is generated by plot.py at 2019-07-12 18:21:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.50 Mbit/s
95th percentile per-packet one-way delay: 10.675 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 10.610 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.688 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.724 ms
Loss rate: 0.25%
```
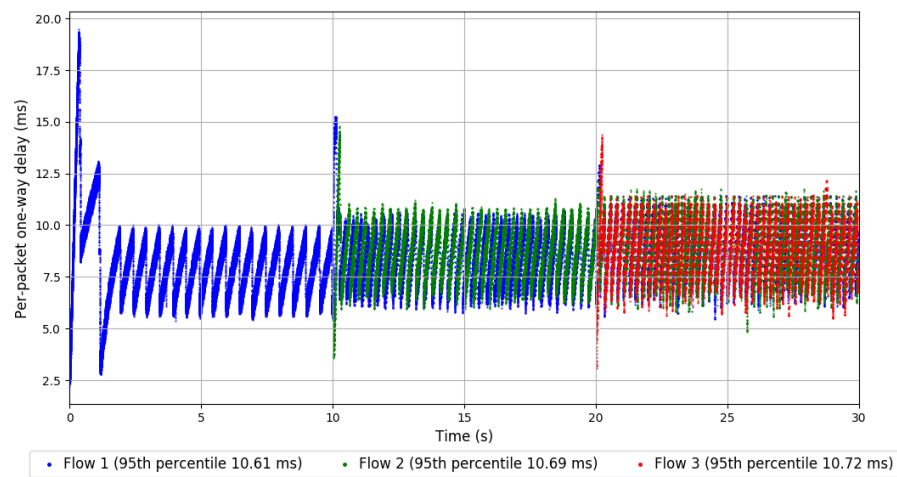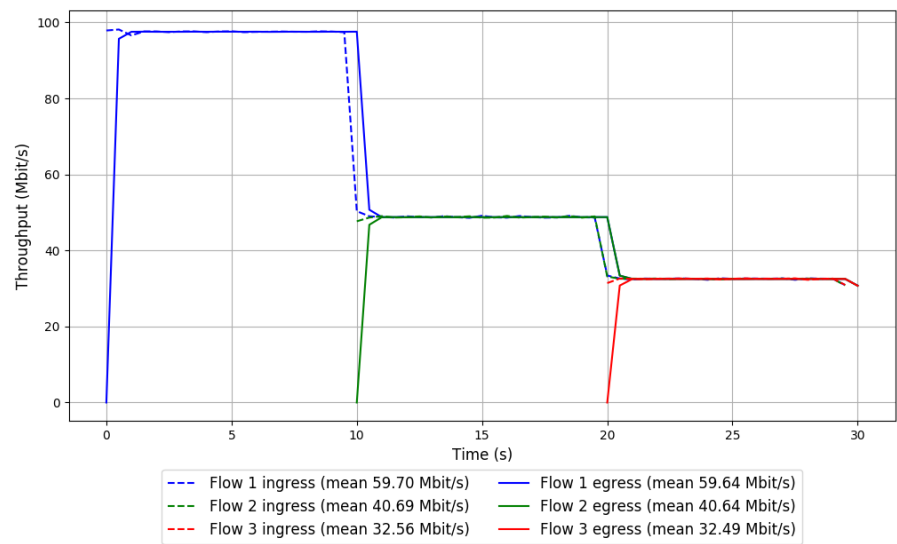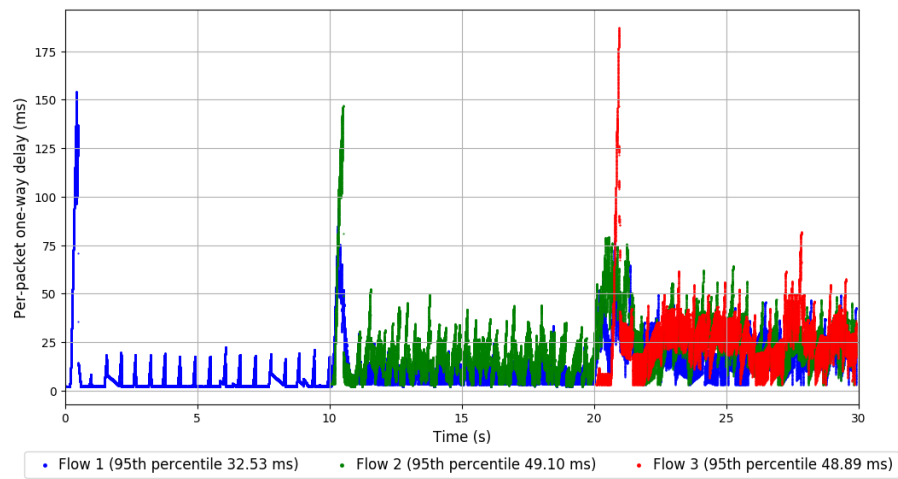
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 59.70 Mbit/s)   Flow 1 egress (mean 59.64 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s)   Flow 2 egress (mean 40.64 Mbit/s)
Flow 3 ingress (mean 32.56 Mbit/s)   Flow 3 egress (mean 32.49 Mbit/s)

Flow 1 (95th percentile 10.61 ms)   Flow 2 (95th percentile 10.69 ms)   Flow 3 (95th percentile 10.72 ms)
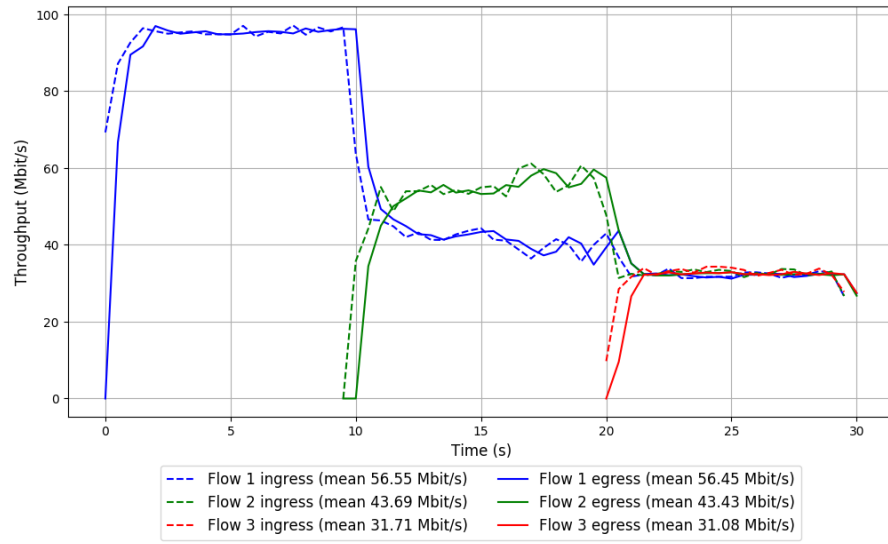
```
Run 1: Statistics of FillP

Start at: 2019-07-12 16:22:13
End at: 2019-07-12 16:22:43
Local clock offset: -5.834 ms
Remote clock offset: -0.363 ms


# Below is generated by plot.py at 2019-07-12 18:21:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 42.376 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 56.45 Mbit/s
95th percentile per-packet one-way delay: 32.528 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 43.43 Mbit/s
95th percentile per-packet one-way delay: 49.104 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 31.08 Mbit/s
95th percentile per-packet one-way delay: 48.890 ms
Loss rate: 1.95%
```
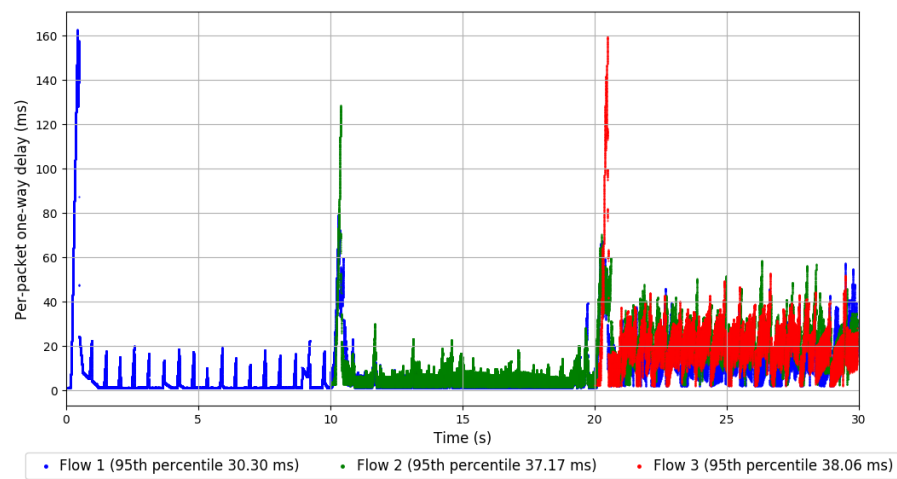
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 56.55 Mbit/s) — — —   Flow 1 egress (mean 56.45 Mbit/s)
Flow 2 ingress (mean 43.69 Mbit/s) — — —   Flow 2 egress (mean 43.43 Mbit/s)
Flow 3 ingress (mean 31.71 Mbit/s) — — —   Flow 3 egress (mean 31.08 Mbit/s)

Flow 1 (95th percentile 32.53 ms)   Flow 2 (95th percentile 49.10 ms)   Flow 3 (95th percentile 48.89 ms)

36

```
Run 2: Statistics of FillP

Start at: 2019-07-12 16:49:55
End at: 2019-07-12 16:50:25
Local clock offset: -3.649 ms
Remote clock offset: 0.011 ms


# Below is generated by plot.py at 2019-07-12 18:21:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.08 Mbit/s
95th percentile per-packet one-way delay: 35.411 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 30.305 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 41.24 Mbit/s
95th percentile per-packet one-way delay: 37.172 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: 38.064 ms
Loss rate: 0.84%
```
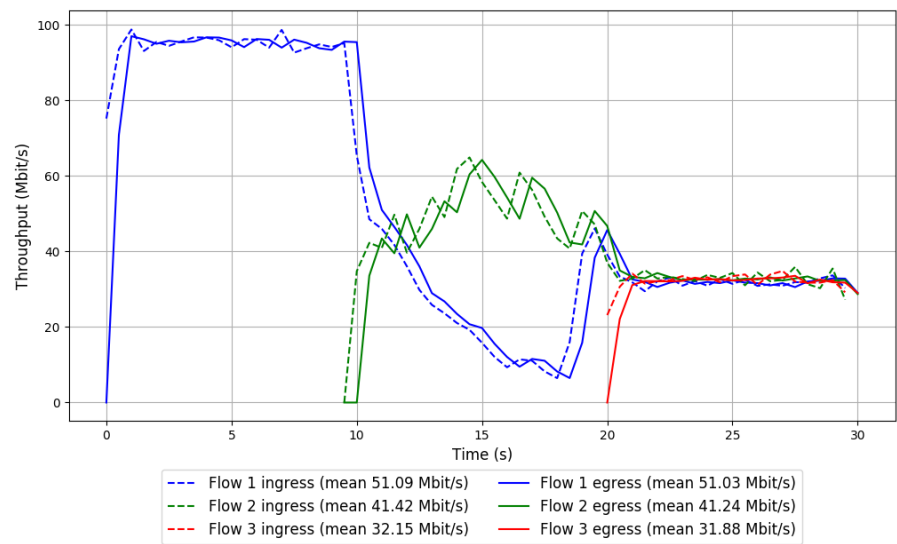
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-07-12 17:17:36
End at: 2019-07-12 17:18:06
Local clock offset: -2.239 ms
Remote clock offset: 0.364 ms


# Below is generated by plot.py at 2019-07-12 18:22:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.86 Mbit/s
95th percentile per-packet one-way delay: 40.878 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 57.80 Mbit/s
95th percentile per-packet one-way delay: 33.061 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 41.27 Mbit/s
95th percentile per-packet one-way delay: 42.083 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 51.377 ms
Loss rate: 1.53%
```
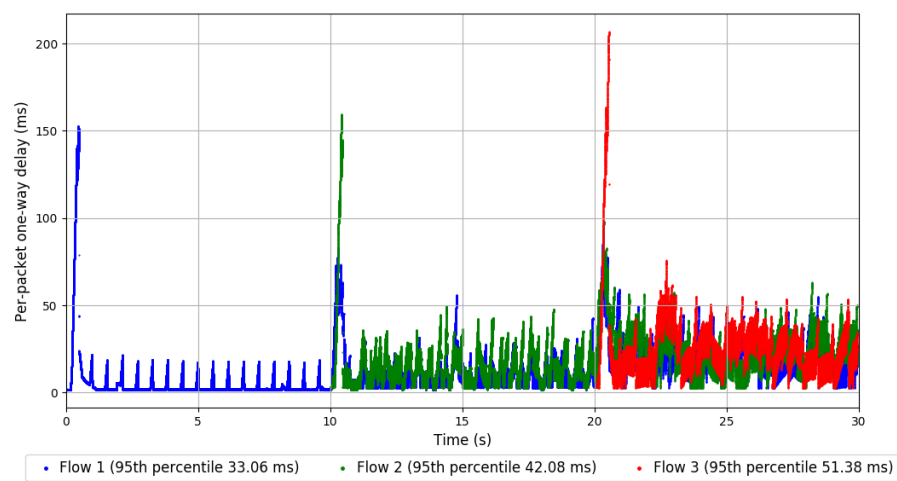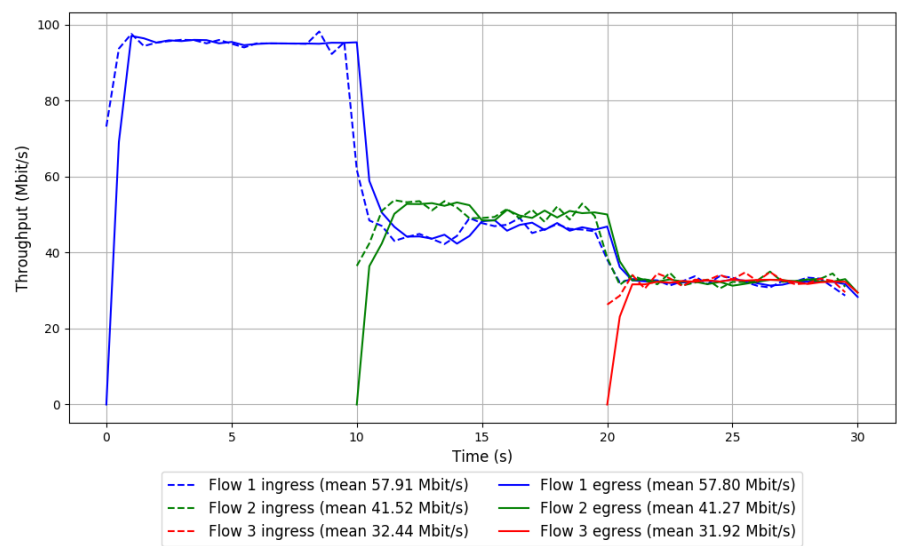
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-07-12 17:45:19
End at: 2019-07-12 17:45:49
Local clock offset: 2.083 ms
Remote clock offset: 0.575 ms

# Below is generated by plot.py at 2019-07-12 18:22:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.49 Mbit/s
95th percentile per-packet one-way delay: 43.046 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 49.86 Mbit/s
95th percentile per-packet one-way delay: 30.818 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 45.58 Mbit/s
95th percentile per-packet one-way delay: 41.947 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 30.99 Mbit/s
95th percentile per-packet one-way delay: 57.407 ms
Loss rate: 1.99%
```
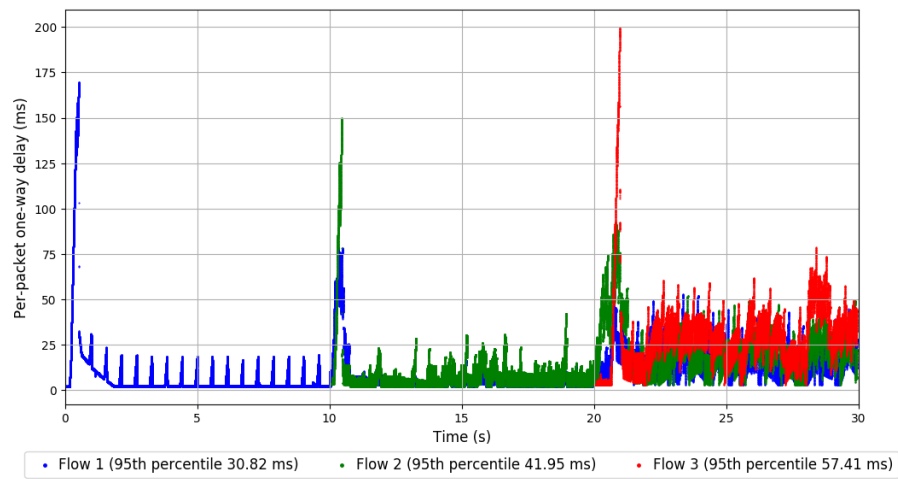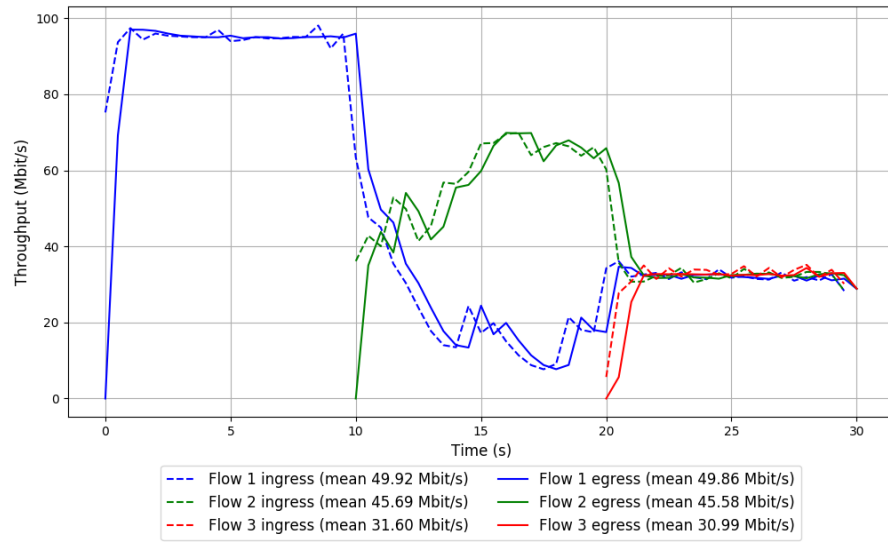
Run 4: Report of FillP — Data Link

- Flow 1 ingress (mean 49.92 Mbit/s)
- Flow 1 egress (mean 49.86 Mbit/s)
- Flow 2 ingress (mean 45.69 Mbit/s)
- Flow 2 egress (mean 45.58 Mbit/s)
- Flow 3 ingress (mean 31.60 Mbit/s)
- Flow 3 egress (mean 30.99 Mbit/s)

- Flow 1 (95th percentile 30.82 ms)
- Flow 2 (95th percentile 41.95 ms)
- Flow 3 (95th percentile 57.41 ms)

```
Run 5: Statistics of FillP

Start at: 2019-07-12 18:13:03
End at: 2019-07-12 18:13:33
Local clock offset: 3.601 ms
Remote clock offset: 0.495 ms


# Below is generated by plot.py at 2019-07-12 18:22:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 40.924 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 53.19 Mbit/s
95th percentile per-packet one-way delay: 31.135 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 44.76 Mbit/s
95th percentile per-packet one-way delay: 43.817 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 46.607 ms
Loss rate: 1.66%
```
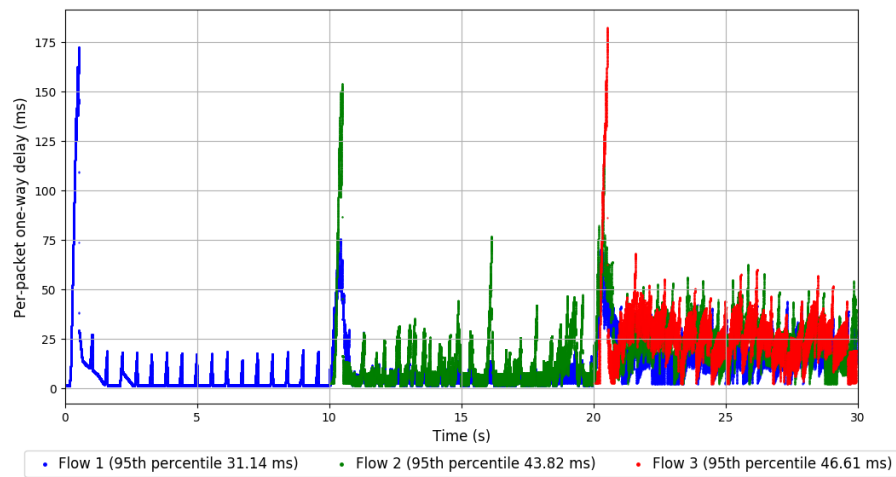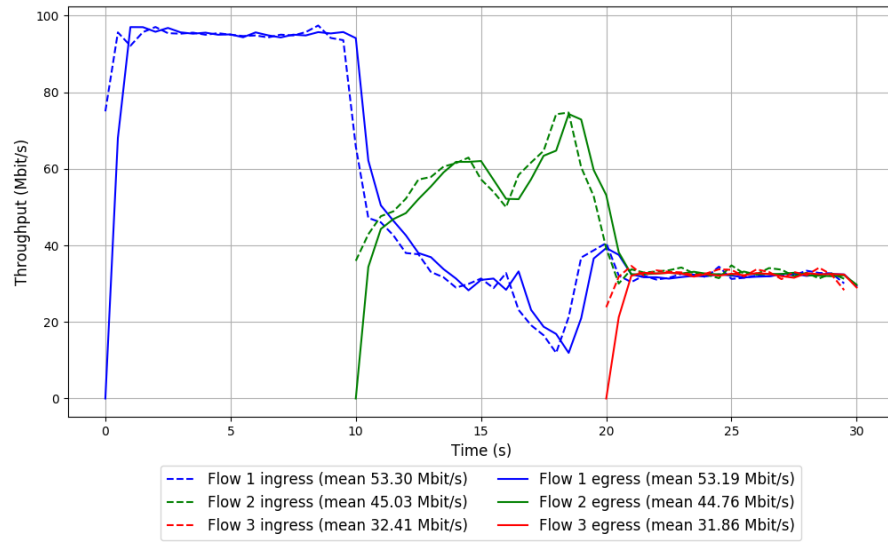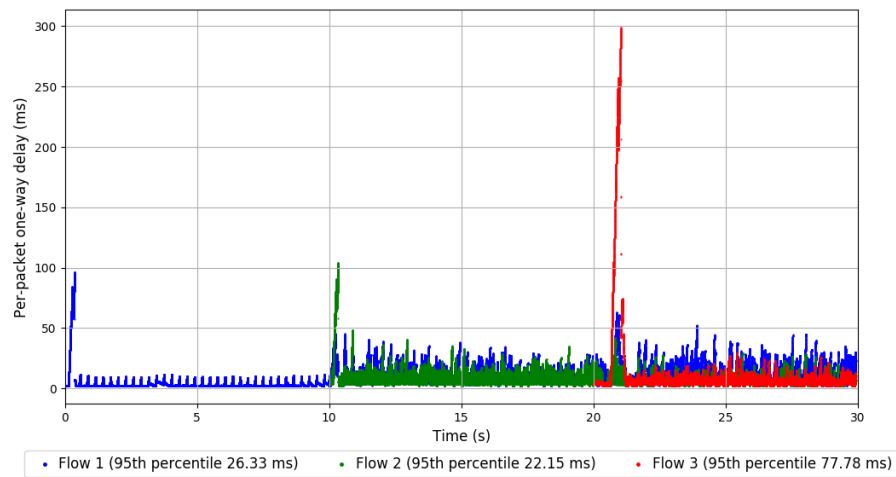
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 53.30 Mbit/s) --- Flow 1 egress (mean 53.19 Mbit/s)
Flow 2 ingress (mean 45.03 Mbit/s) --- Flow 2 egress (mean 44.76 Mbit/s)
Flow 3 ingress (mean 32.41 Mbit/s) --- Flow 3 egress (mean 31.86 Mbit/s)

Flow 1 (95th percentile 31.14 ms)   Flow 2 (95th percentile 43.82 ms)   Flow 3 (95th percentile 46.61 ms)
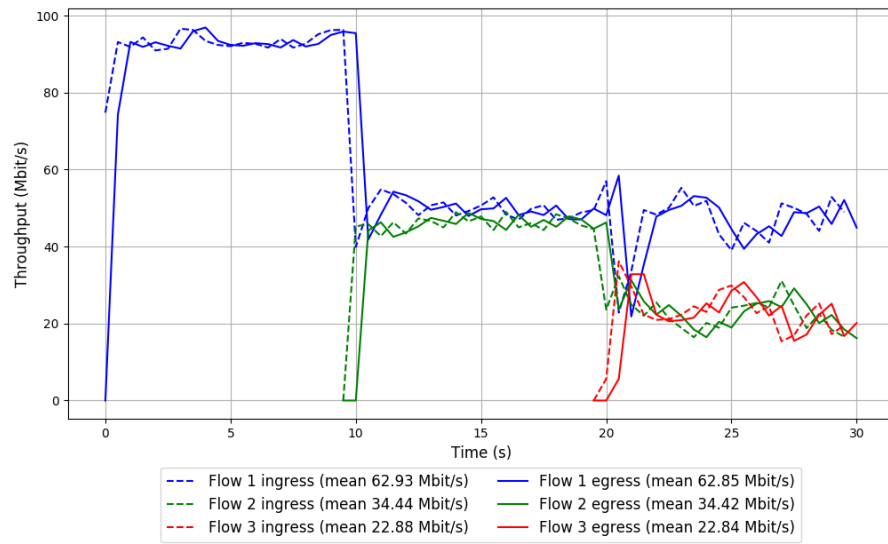
44

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-07-12 16:21:04
End at: 2019-07-12 16:21:34
Local clock offset: -5.763 ms
Remote clock offset: -0.453 ms


# Below is generated by plot.py at 2019-07-12 18:22:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.38 Mbit/s
95th percentile per-packet one-way delay: 25.750 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 62.85 Mbit/s
95th percentile per-packet one-way delay: 26.329 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 34.42 Mbit/s
95th percentile per-packet one-way delay: 22.150 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 22.84 Mbit/s
95th percentile per-packet one-way delay: 77.783 ms
Loss rate: 0.04%
```
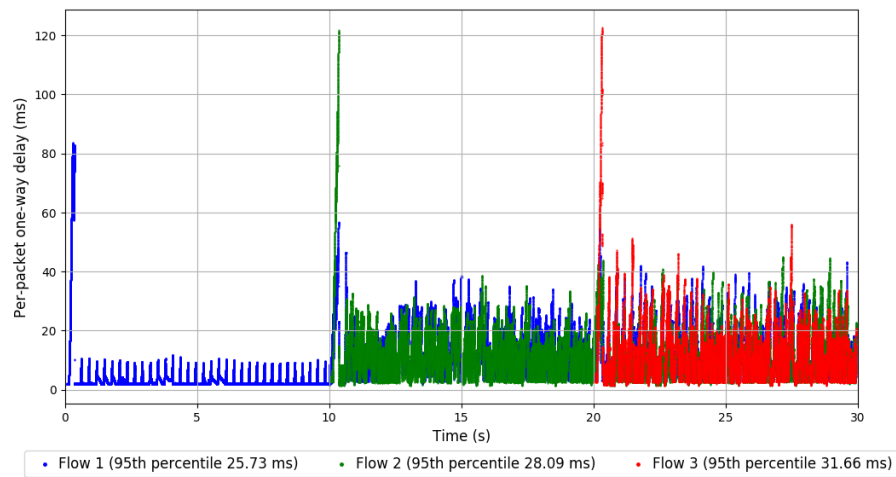
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 62.93 Mbit/s)   Flow 1 egress (mean 62.85 Mbit/s)
Flow 2 ingress (mean 34.44 Mbit/s)   Flow 2 egress (mean 34.42 Mbit/s)
Flow 3 ingress (mean 22.88 Mbit/s)   Flow 3 egress (mean 22.84 Mbit/s)

Flow 1 (95th percentile 26.33 ms)   Flow 2 (95th percentile 22.15 ms)   Flow 3 (95th percentile 77.78 ms)

46

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-07-12 16:48:46
End at: 2019-07-12 16:49:16
Local clock offset: -3.56 ms
Remote clock offset: 0.007 ms


# Below is generated by plot.py at 2019-07-12 18:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 27.205 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 25.730 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 28.085 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 31.663 ms
Loss rate: 0.17%
```
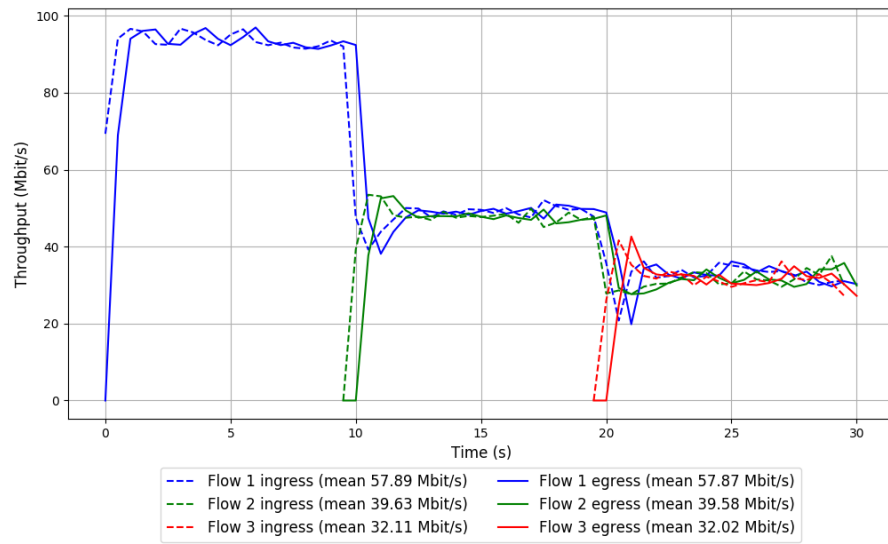
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.89 Mbit/s)   Flow 1 egress (mean 57.87 Mbit/s)
Flow 2 ingress (mean 39.63 Mbit/s)   Flow 2 egress (mean 39.58 Mbit/s)
Flow 3 ingress (mean 32.11 Mbit/s)   Flow 3 egress (mean 32.02 Mbit/s)

Flow 1 (95th percentile 25.73 ms)   Flow 2 (95th percentile 28.09 ms)   Flow 3 (95th percentile 31.66 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-07-12 17:16:28
End at: 2019-07-12 17:16:58
Local clock offset: -1.731 ms
Remote clock offset: 0.297 ms

# Below is generated by plot.py at 2019-07-12 18:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.05 Mbit/s
95th percentile per-packet one-way delay: 28.077 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 58.28 Mbit/s
95th percentile per-packet one-way delay: 26.612 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 42.34 Mbit/s
95th percentile per-packet one-way delay: 29.662 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 22.96 Mbit/s
95th percentile per-packet one-way delay: 29.001 ms
Loss rate: 0.23%
```
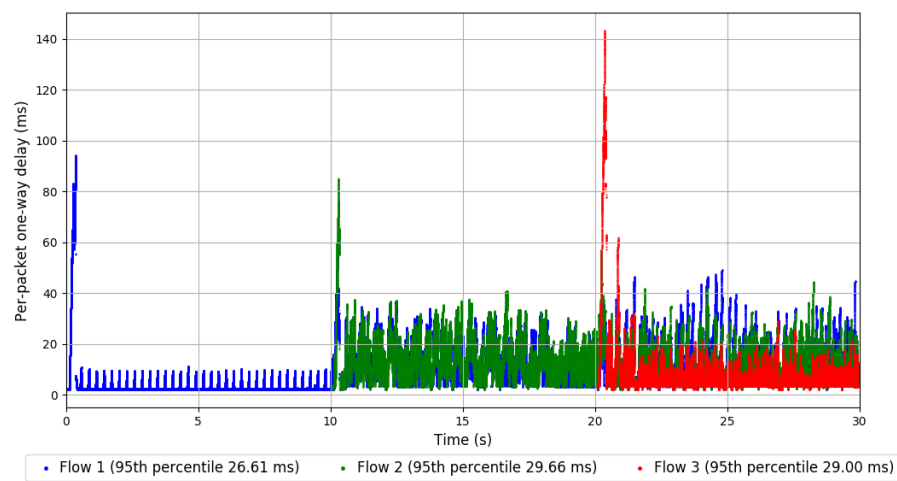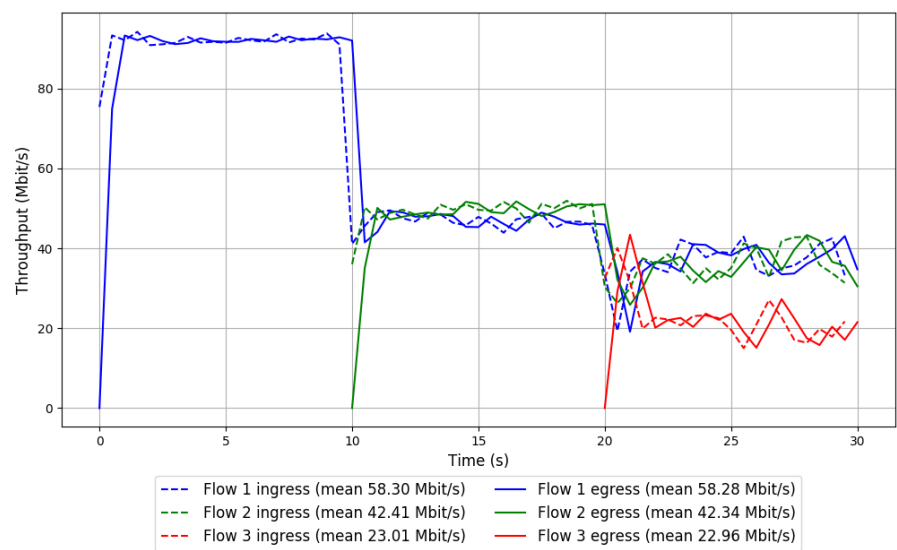
Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-07-12 17:44:11
End at: 2019-07-12 17:44:41
Local clock offset: 1.157 ms
Remote clock offset: 0.404 ms


# Below is generated by plot.py at 2019-07-12 18:23:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.44 Mbit/s
95th percentile per-packet one-way delay: 27.339 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 57.31 Mbit/s
95th percentile per-packet one-way delay: 23.523 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 37.74 Mbit/s
95th percentile per-packet one-way delay: 30.205 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 33.15 Mbit/s
95th percentile per-packet one-way delay: 35.970 ms
Loss rate: 0.02%
```
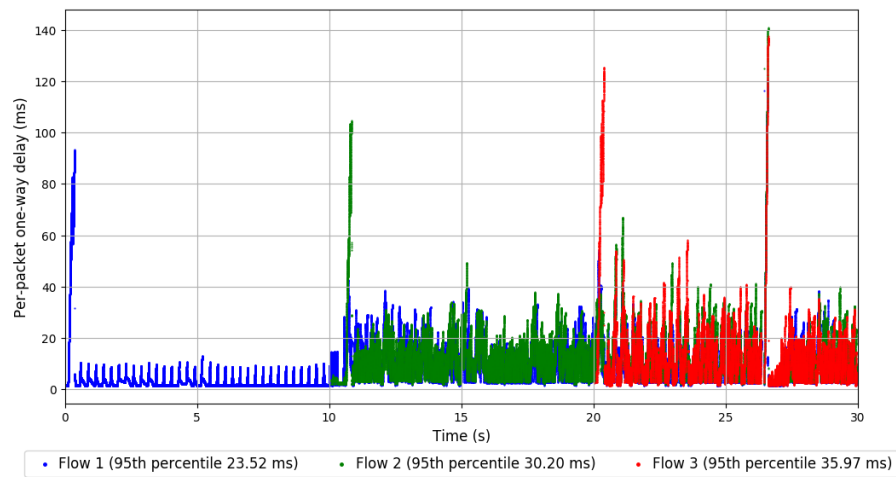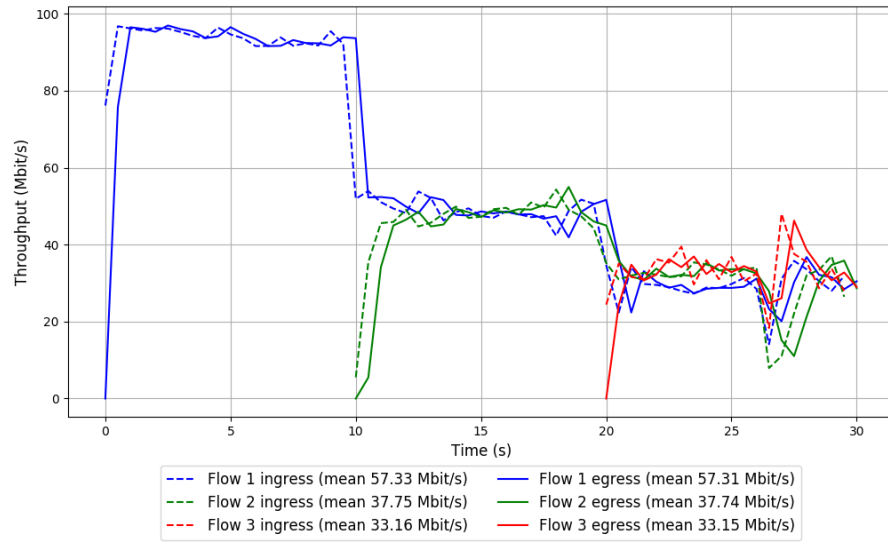
Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-07-12 18:11:54
End at: 2019-07-12 18:12:24
Local clock offset: 3.203 ms
Remote clock offset: 0.521 ms


# Below is generated by plot.py at 2019-07-12 18:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.59 Mbit/s
95th percentile per-packet one-way delay: 20.709 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 55.53 Mbit/s
95th percentile per-packet one-way delay: 18.738 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.36 Mbit/s
95th percentile per-packet one-way delay: 23.566 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 37.81 Mbit/s
95th percentile per-packet one-way delay: 20.969 ms
Loss rate: 0.08%
```
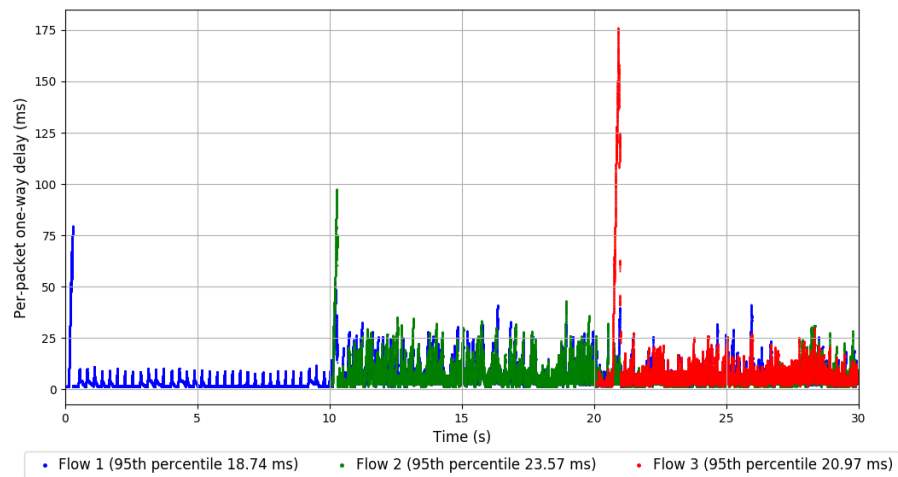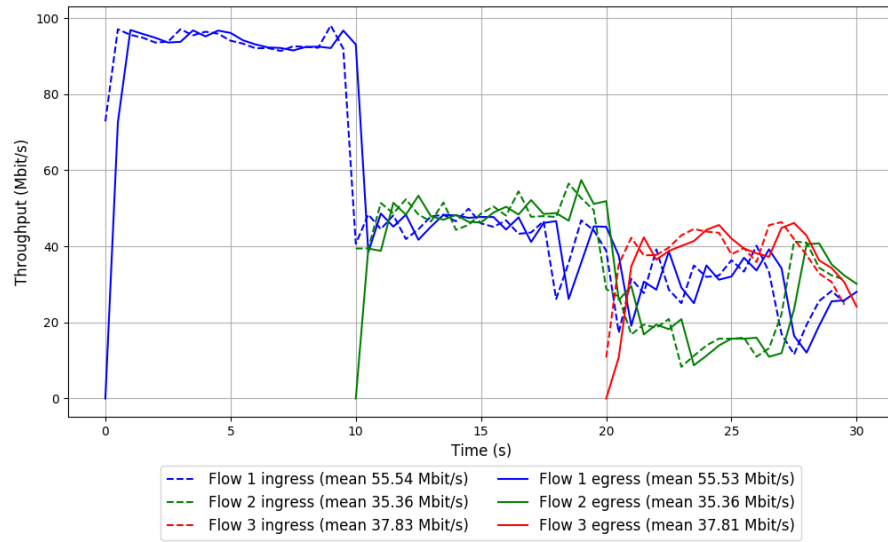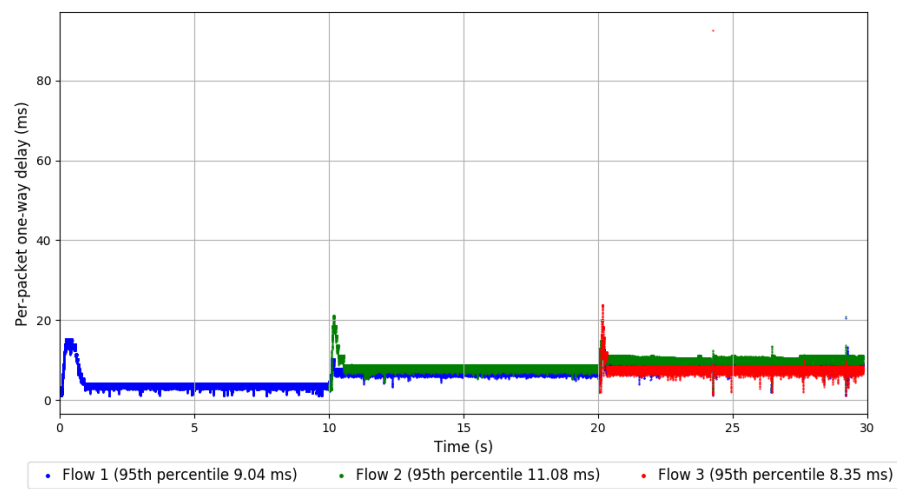
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 55.54 Mbit/s)   Flow 1 egress (mean 55.53 Mbit/s)
Flow 2 ingress (mean 35.36 Mbit/s)   Flow 2 egress (mean 35.36 Mbit/s)
Flow 3 ingress (mean 37.83 Mbit/s)   Flow 3 egress (mean 37.81 Mbit/s)

Flow 1 (95th percentile 18.74 ms)   Flow 2 (95th percentile 23.57 ms)   Flow 3 (95th percentile 20.97 ms)
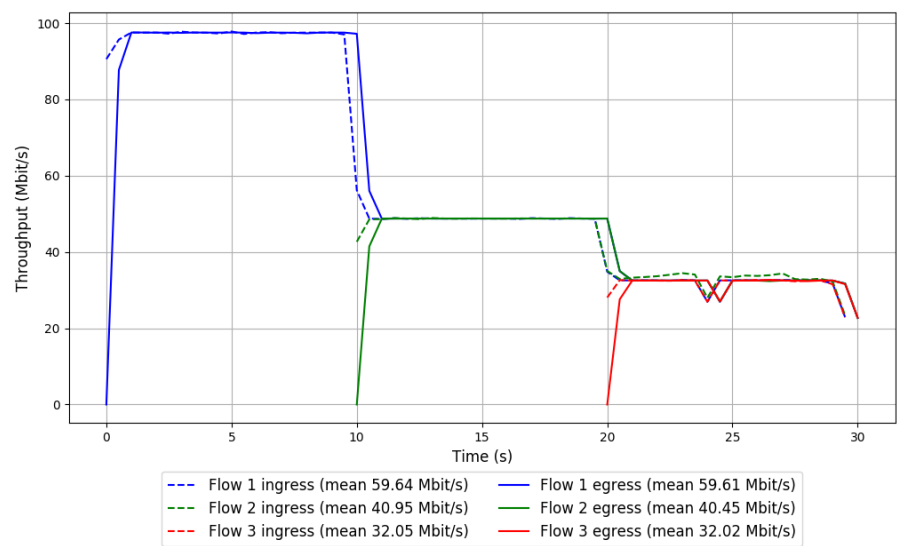
```
Run 1: Statistics of Indigo

Start at: 2019-07-12 15:59:04
End at: 2019-07-12 15:59:34
Local clock offset: -8.053 ms
Remote clock offset: -0.673 ms


# Below is generated by plot.py at 2019-07-12 18:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.03 Mbit/s
95th percentile per-packet one-way delay: 10.789 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 9.042 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 11.080 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 8.349 ms
Loss rate: 0.11%
```
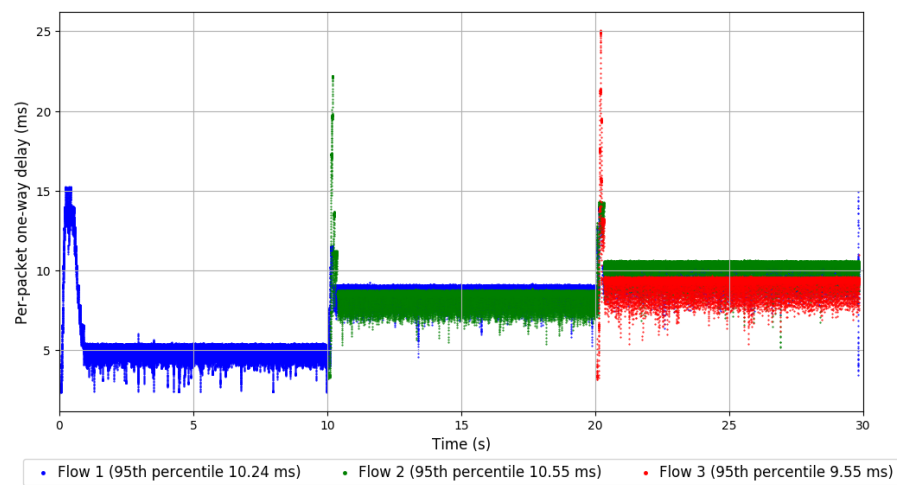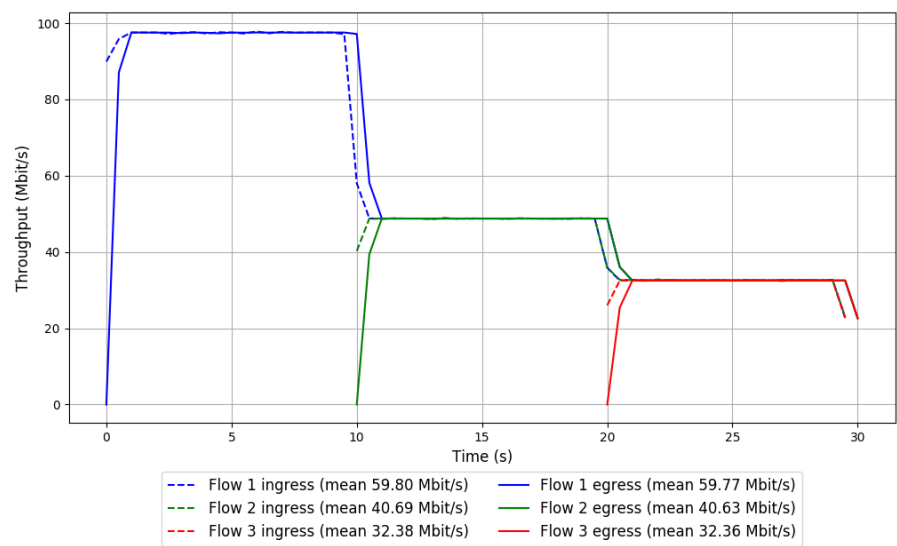
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 59.64 Mbit/s)   Flow 1 egress (mean 59.61 Mbit/s)
Flow 2 ingress (mean 40.95 Mbit/s)   Flow 2 egress (mean 40.45 Mbit/s)
Flow 3 ingress (mean 32.05 Mbit/s)   Flow 3 egress (mean 32.02 Mbit/s)

Flow 1 (95th percentile 9.04 ms)   Flow 2 (95th percentile 11.08 ms)   Flow 3 (95th percentile 8.35 ms)

```
Run 2: Statistics of Indigo

Start at: 2019-07-12 16:26:47
End at: 2019-07-12 16:27:17
Local clock offset: -5.713 ms
Remote clock offset: -0.264 ms


# Below is generated by plot.py at 2019-07-12 18:23:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.34 Mbit/s
95th percentile per-packet one-way delay: 10.484 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 59.77 Mbit/s
95th percentile per-packet one-way delay: 10.239 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 10.550 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 9.554 ms
Loss rate: 0.10%
```

Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-07-12 16:54:29
End at: 2019-07-12 16:54:59
Local clock offset: -3.157 ms
Remote clock offset: 0.057 ms


# Below is generated by plot.py at 2019-07-12 18:24:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.24 Mbit/s
95th percentile per-packet one-way delay: 11.224 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 11.234 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 11.355 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 32.33 Mbit/s
95th percentile per-packet one-way delay: 8.752 ms
Loss rate: 0.11%
```
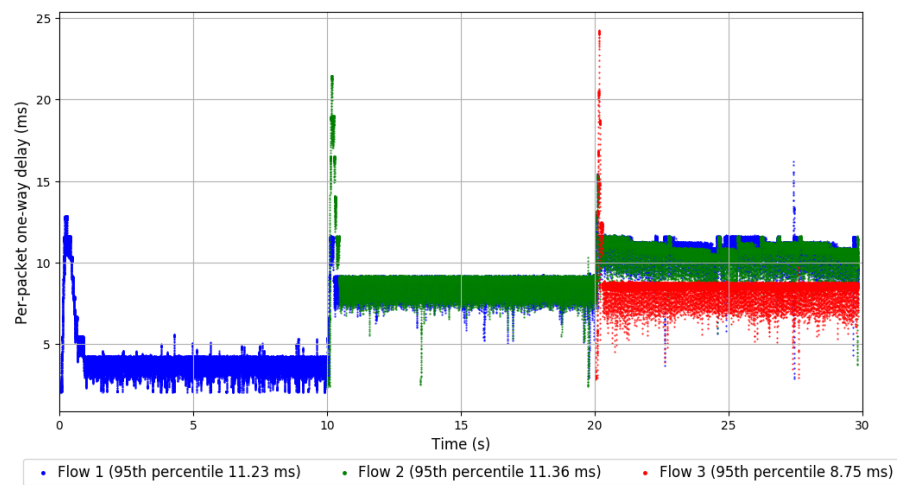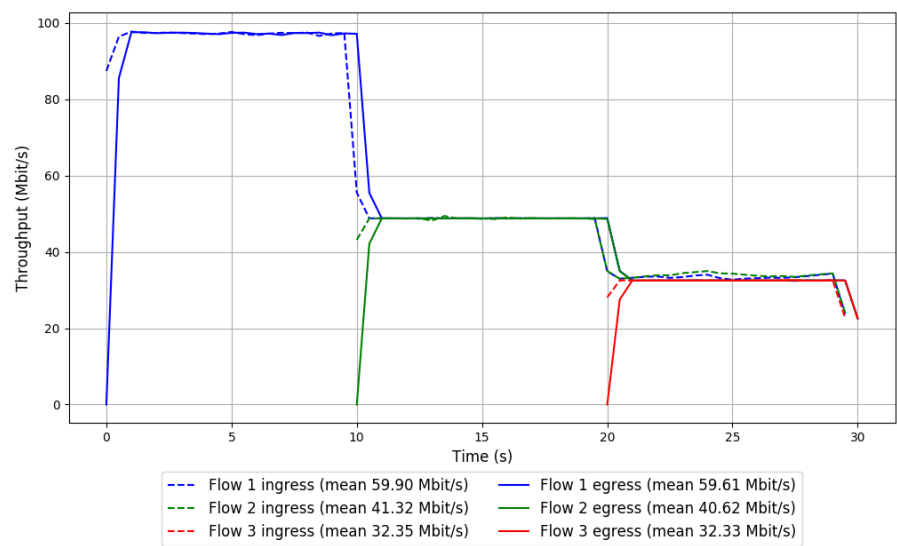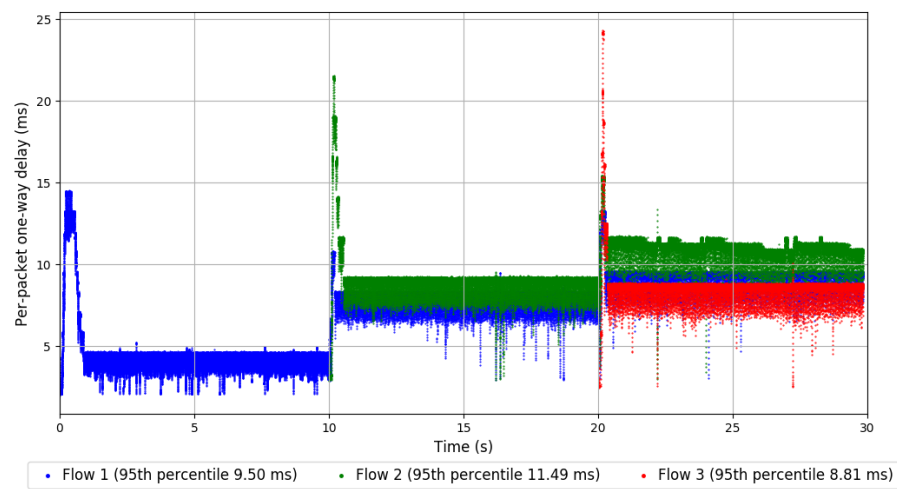
Run 3: Report of Indigo — Data Link

- - - - Flow 1 ingress (mean 59.90 Mbit/s) ——— Flow 1 egress (mean 59.61 Mbit/s)
- - - - Flow 2 ingress (mean 41.32 Mbit/s) ——— Flow 2 egress (mean 40.62 Mbit/s)
- - - - Flow 3 ingress (mean 32.35 Mbit/s) ——— Flow 3 egress (mean 32.33 Mbit/s)

- Flow 1 (95th percentile 11.23 ms)   • Flow 2 (95th percentile 11.36 ms)   • Flow 3 (95th percentile 8.75 ms)

```
Run 4: Statistics of Indigo

Start at: 2019-07-12 17:22:10
End at: 2019-07-12 17:22:40
Local clock offset: -2.053 ms
Remote clock offset: 0.343 ms


# Below is generated by plot.py at 2019-07-12 18:24:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 11.205 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 59.70 Mbit/s
95th percentile per-packet one-way delay: 9.501 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 11.492 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 32.33 Mbit/s
95th percentile per-packet one-way delay: 8.810 ms
Loss rate: 0.11%
```
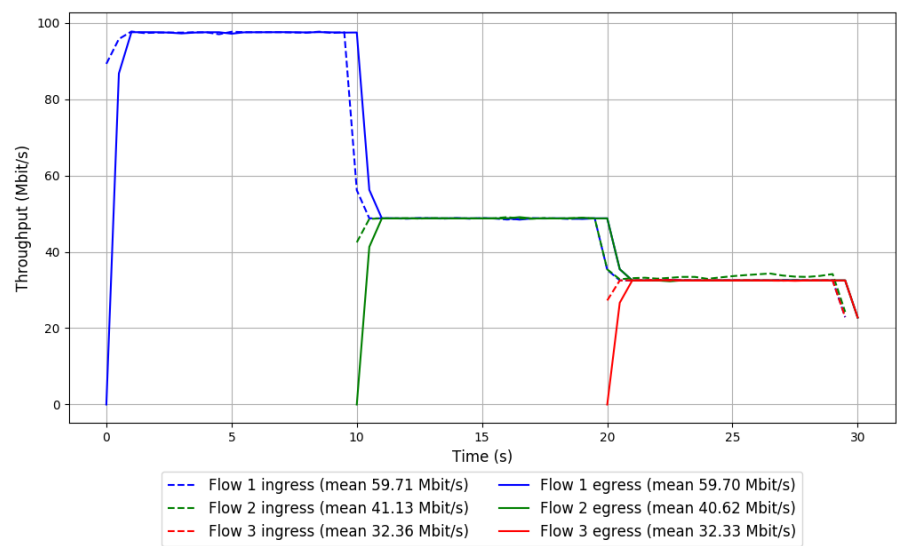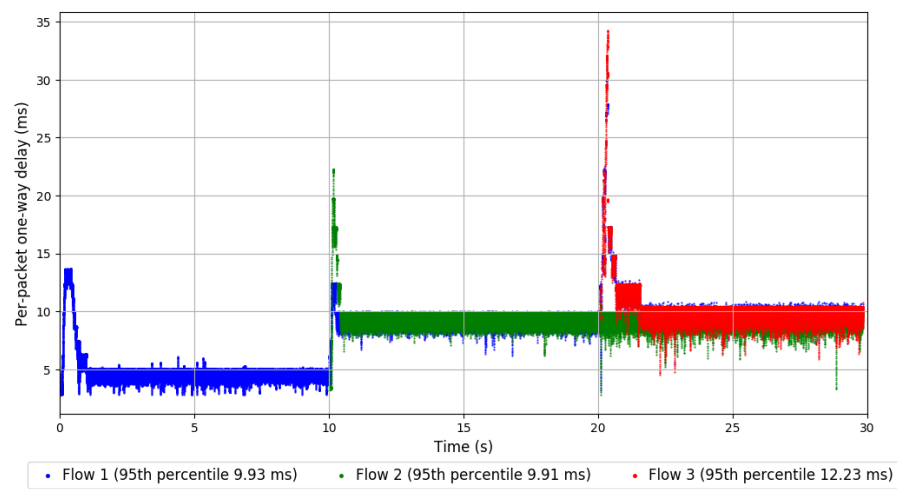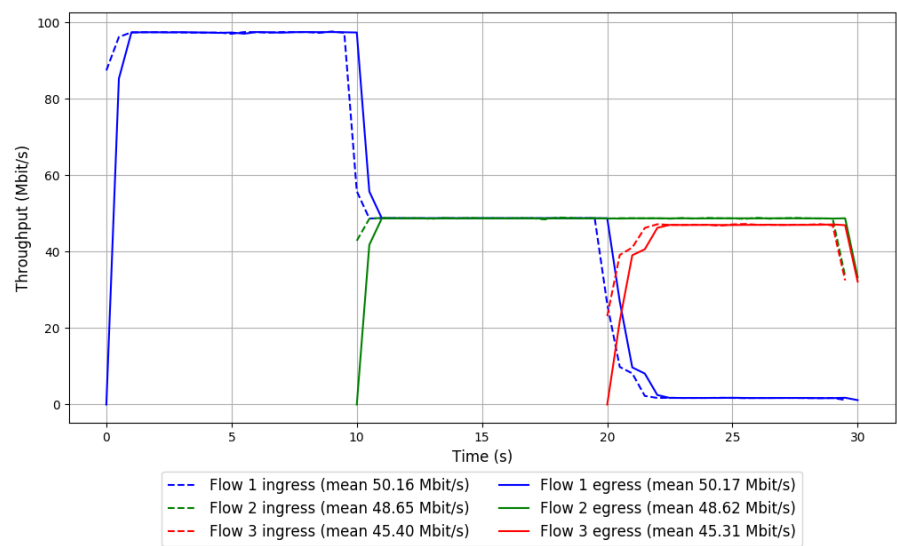
Run 4: Report of Indigo — Data Link

- - - - Flow 1 ingress (mean 59.71 Mbit/s) —— Flow 1 egress (mean 59.70 Mbit/s)
- - - - Flow 2 ingress (mean 41.13 Mbit/s) —— Flow 2 egress (mean 40.62 Mbit/s)
- - - - Flow 3 ingress (mean 32.36 Mbit/s) —— Flow 3 egress (mean 32.33 Mbit/s)

• Flow 1 (95th percentile 9.50 ms)   • Flow 2 (95th percentile 11.49 ms)   • Flow 3 (95th percentile 8.81 ms)

```
Run 5: Statistics of Indigo

Start at: 2019-07-12 17:49:54
End at: 2019-07-12 17:50:24
Local clock offset: 2.545 ms
Remote clock offset: 0.539 ms


# Below is generated by plot.py at 2019-07-12 18:24:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 10.386 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 50.17 Mbit/s
95th percentile per-packet one-way delay: 9.934 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 48.62 Mbit/s
95th percentile per-packet one-way delay: 9.908 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 45.31 Mbit/s
95th percentile per-packet one-way delay: 12.231 ms
Loss rate: 0.30%
```
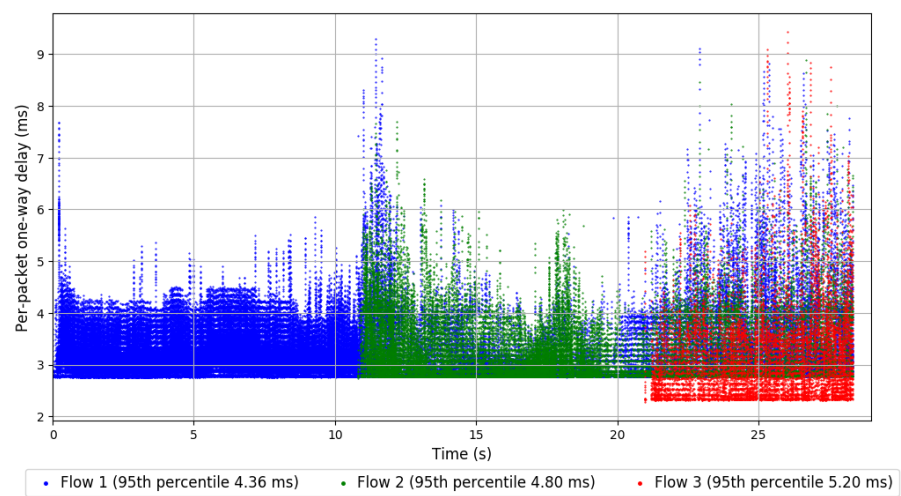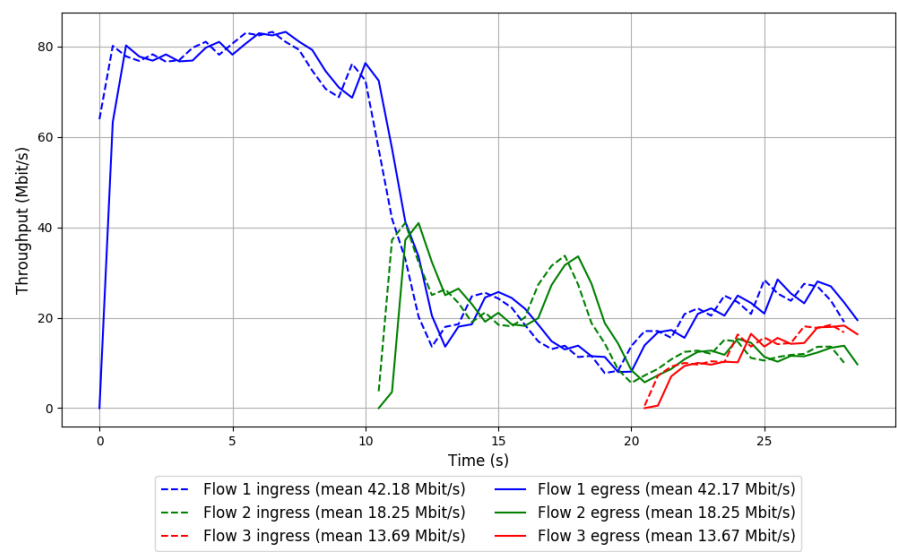
Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 50.16 Mbit/s)   Flow 1 egress (mean 50.17 Mbit/s)
Flow 2 ingress (mean 48.65 Mbit/s)   Flow 2 egress (mean 48.62 Mbit/s)
Flow 3 ingress (mean 45.40 Mbit/s)   Flow 3 egress (mean 45.31 Mbit/s)

Flow 1 (95th percentile 9.93 ms)   Flow 2 (95th percentile 9.91 ms)   Flow 3 (95th percentile 12.23 ms)

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-12 16:19:57
End at: 2019-07-12 16:20:27
Local clock offset: -5.861 ms
Remote clock offset: -0.37 ms


# Below is generated by plot.py at 2019-07-12 18:24:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.02 Mbit/s
95th percentile per-packet one-way delay: 4.518 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 42.17 Mbit/s
95th percentile per-packet one-way delay: 4.362 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.25 Mbit/s
95th percentile per-packet one-way delay: 4.803 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 13.67 Mbit/s
95th percentile per-packet one-way delay: 5.203 ms
Loss rate: 0.29%
```

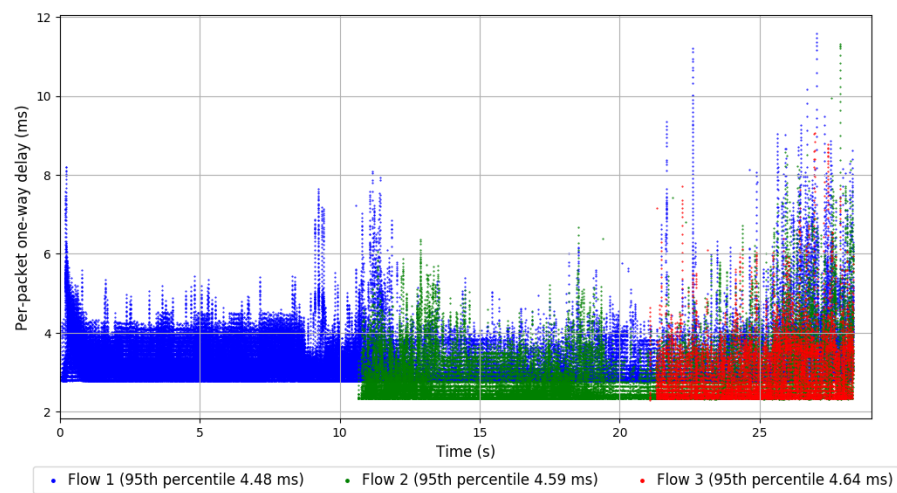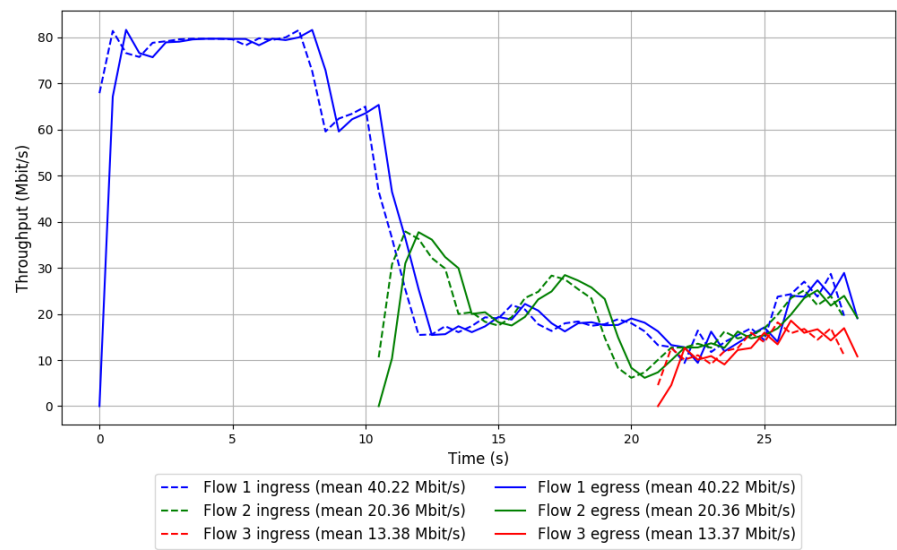Run 1: Report of Indigo-MusesC3 — Data Link

- - - - Flow 1 ingress (mean 42.18 Mbit/s) ——— Flow 1 egress (mean 42.17 Mbit/s)
- - - - Flow 2 ingress (mean 18.25 Mbit/s) ——— Flow 2 egress (mean 18.25 Mbit/s)
- - - - Flow 3 ingress (mean 13.69 Mbit/s) ——— Flow 3 egress (mean 13.67 Mbit/s)

• Flow 1 (95th percentile 4.36 ms)   • Flow 2 (95th percentile 4.80 ms)   • Flow 3 (95th percentile 5.20 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-12 16:47:38
End at: 2019-07-12 16:48:08
Local clock offset: -2.847 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-07-12 18:24:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.36 Mbit/s
95th percentile per-packet one-way delay: 4.513 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 40.22 Mbit/s
95th percentile per-packet one-way delay: 4.481 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 20.36 Mbit/s
95th percentile per-packet one-way delay: 4.591 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 4.641 ms
Loss rate: 0.23%
```
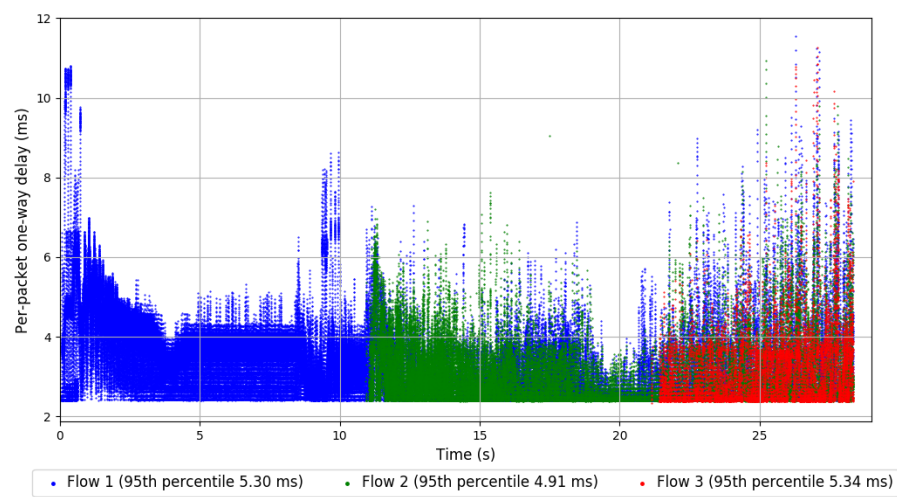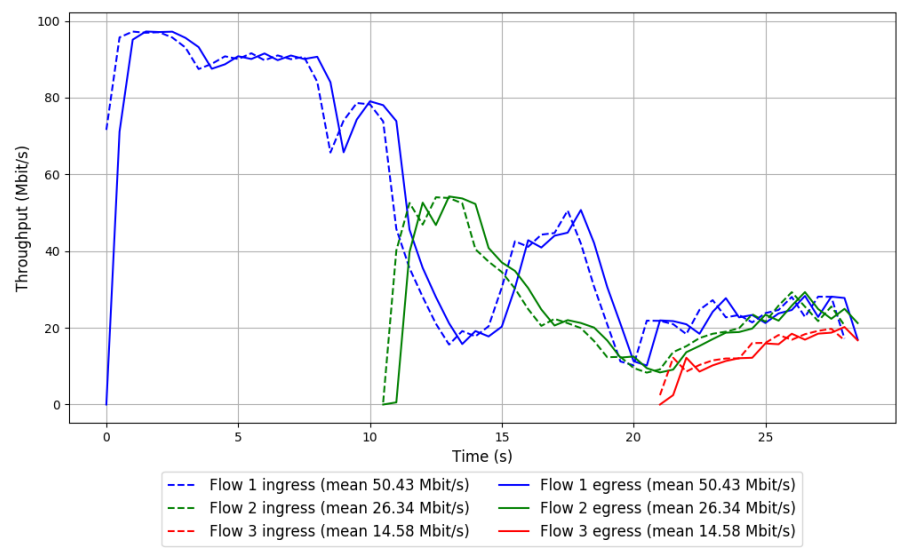
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-12 17:15:19
End at: 2019-07-12 17:15:49
Local clock offset: -1.557 ms
Remote clock offset: 0.298 ms


# Below is generated by plot.py at 2019-07-12 18:24:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.32 Mbit/s
95th percentile per-packet one-way delay: 5.220 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.43 Mbit/s
95th percentile per-packet one-way delay: 5.304 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 26.34 Mbit/s
95th percentile per-packet one-way delay: 4.909 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.58 Mbit/s
95th percentile per-packet one-way delay: 5.339 ms
Loss rate: 0.00%
```
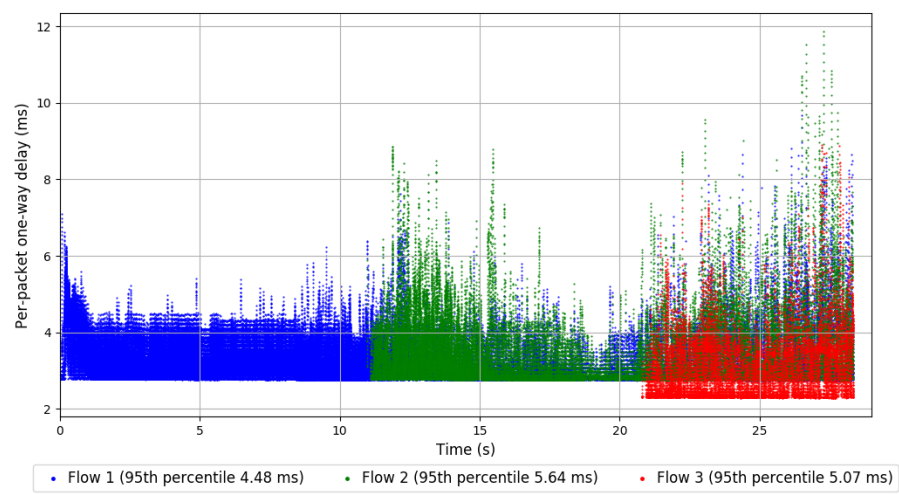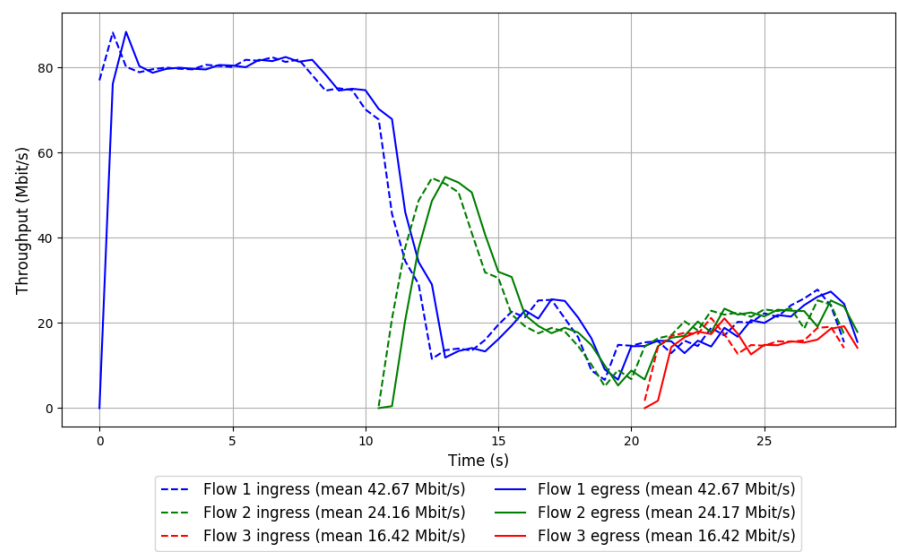
Run 3: Report of Indigo-MusesC3 — Data Link

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-12 17:43:03
End at: 2019-07-12 17:43:33
Local clock offset: 1.841 ms
Remote clock offset: 0.546 ms


# Below is generated by plot.py at 2019-07-12 18:24:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.86 Mbit/s
95th percentile per-packet one-way delay: 4.831 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.67 Mbit/s
95th percentile per-packet one-way delay: 4.482 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.17 Mbit/s
95th percentile per-packet one-way delay: 5.640 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 16.42 Mbit/s
95th percentile per-packet one-way delay: 5.074 ms
Loss rate: 0.00%
```
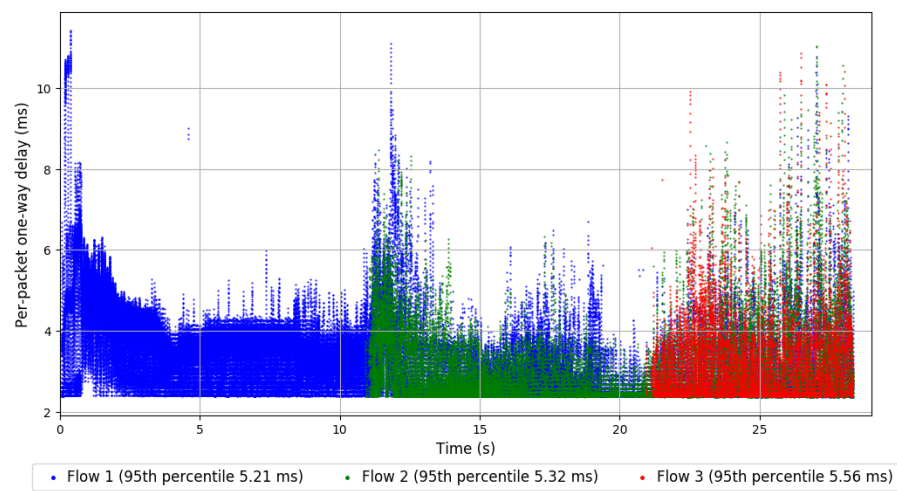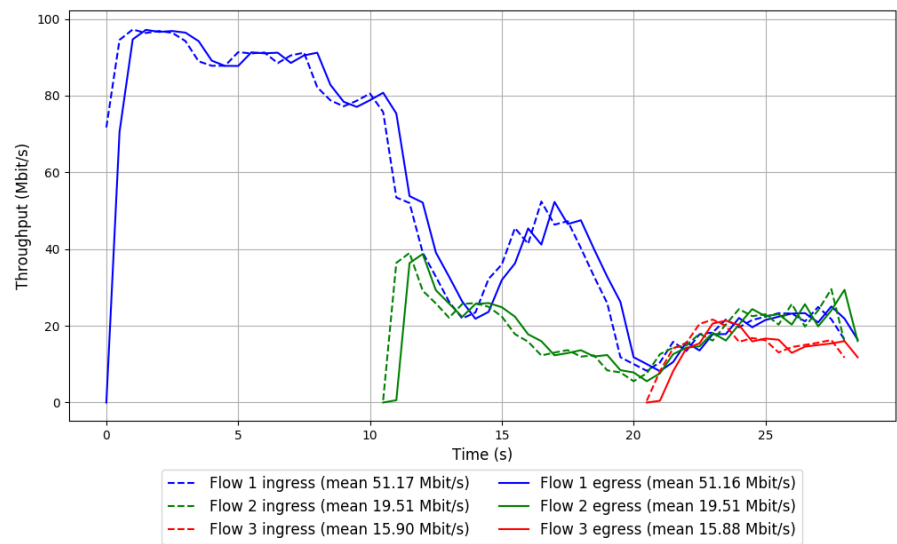
Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 42.67 Mbit/s)   Flow 1 egress (mean 42.67 Mbit/s)
Flow 2 ingress (mean 24.16 Mbit/s)   Flow 2 egress (mean 24.17 Mbit/s)
Flow 3 ingress (mean 16.42 Mbit/s)   Flow 3 egress (mean 16.42 Mbit/s)

Flow 1 (95th percentile 4.48 ms)   Flow 2 (95th percentile 5.64 ms)   Flow 3 (95th percentile 5.07 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-12 18:10:46
End at: 2019-07-12 18:11:16
Local clock offset: 4.221 ms
Remote clock offset: 0.506 ms

# Below is generated by plot.py at 2019-07-12 18:24:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.30 Mbit/s
95th percentile per-packet one-way delay: 5.252 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 51.16 Mbit/s
95th percentile per-packet one-way delay: 5.213 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.51 Mbit/s
95th percentile per-packet one-way delay: 5.321 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.88 Mbit/s
95th percentile per-packet one-way delay: 5.558 ms
Loss rate: 0.18%
```

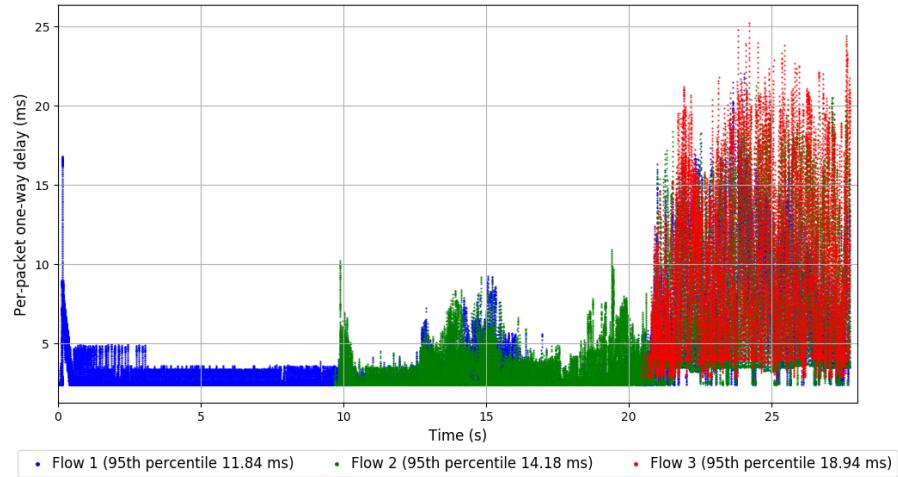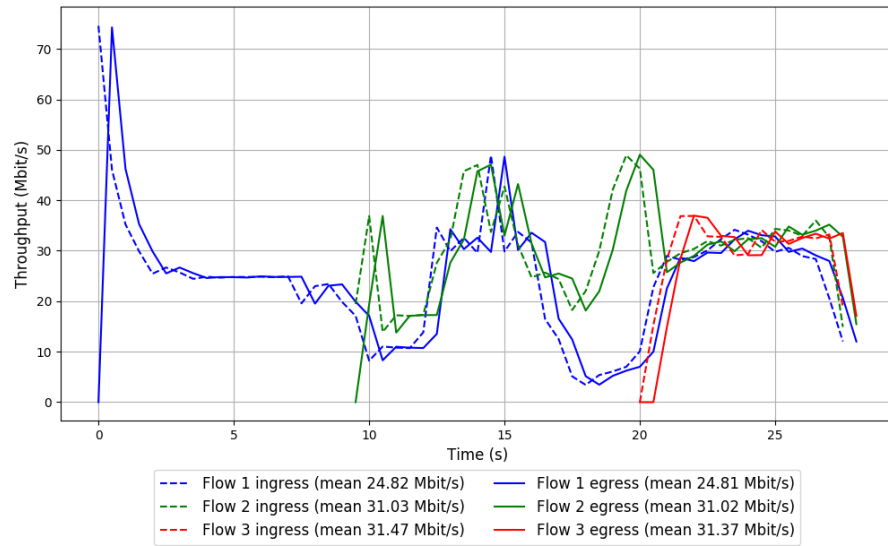# Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-12 16:17:41
End at: 2019-07-12 16:18:11
Local clock offset: -5.833 ms
Remote clock offset: -0.404 ms


# Below is generated by plot.py at 2019-07-12 18:24:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.20 Mbit/s
95th percentile per-packet one-way delay: 14.843 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 24.81 Mbit/s
95th percentile per-packet one-way delay: 11.840 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 14.180 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 18.938 ms
Loss rate: 0.40%
```

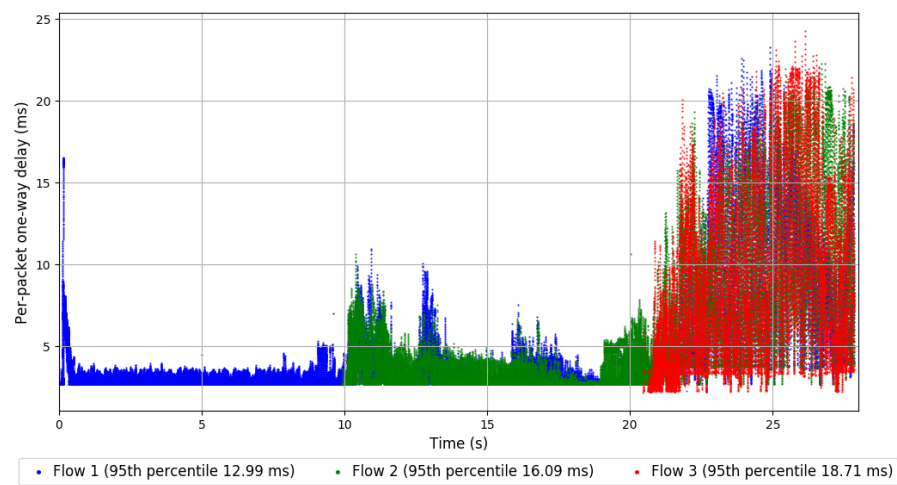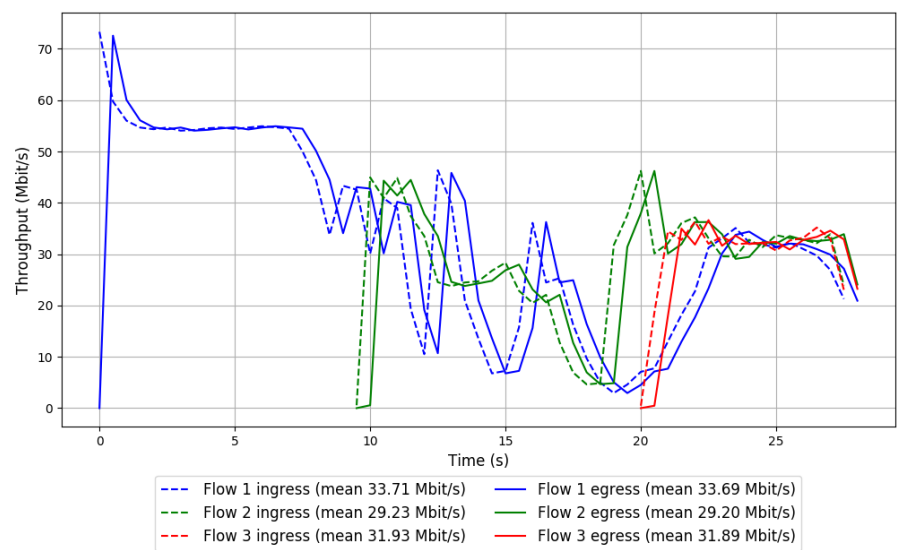Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-12 16:45:23
End at: 2019-07-12 16:45:53
Local clock offset: -3.029 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-07-12 18:24:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.93 Mbit/s
95th percentile per-packet one-way delay: 15.643 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 33.69 Mbit/s
95th percentile per-packet one-way delay: 12.986 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 29.20 Mbit/s
95th percentile per-packet one-way delay: 16.093 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 18.711 ms
Loss rate: 0.12%
```

Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-12 17:13:04
End at: 2019-07-12 17:13:34
Local clock offset: -1.642 ms
Remote clock offset: 0.315 ms


# Below is generated by plot.py at 2019-07-12 18:24:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.66 Mbit/s
95th percentile per-packet one-way delay: 17.871 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 23.74 Mbit/s
95th percentile per-packet one-way delay: 12.564 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 32.94 Mbit/s
95th percentile per-packet one-way delay: 18.272 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 31.55 Mbit/s
95th percentile per-packet one-way delay: 21.840 ms
Loss rate: 0.10%
```
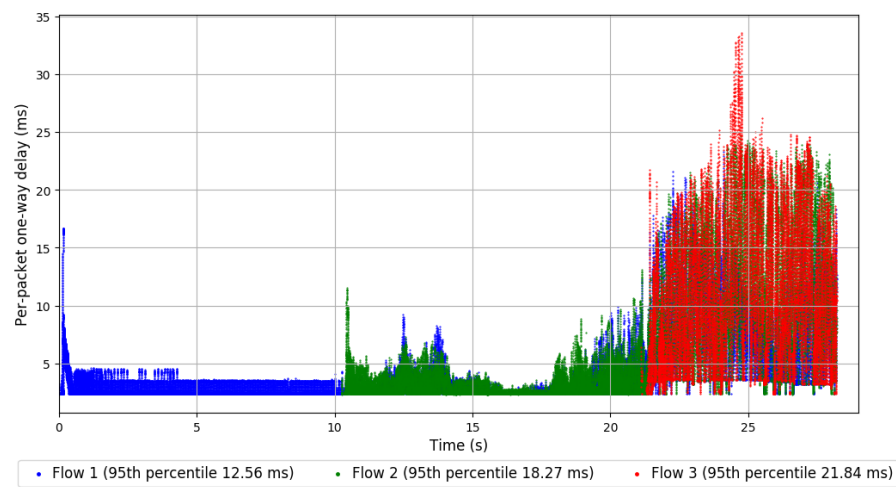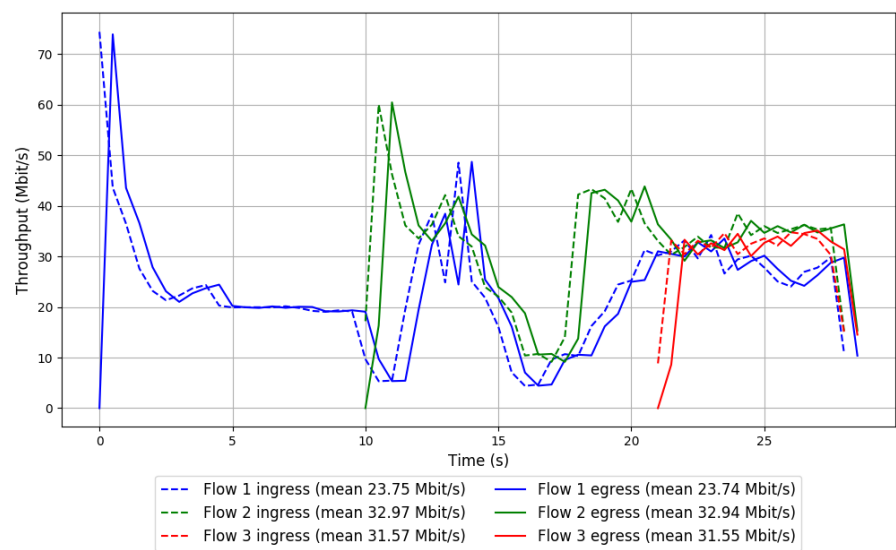
Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 23.75 Mbit/s) — Flow 1 egress (mean 23.74 Mbit/s)
Flow 2 ingress (mean 32.97 Mbit/s) — Flow 2 egress (mean 32.94 Mbit/s)
Flow 3 ingress (mean 31.57 Mbit/s) — Flow 3 egress (mean 31.55 Mbit/s)

Flow 1 (95th percentile 12.56 ms) • Flow 2 (95th percentile 18.27 ms) • Flow 3 (95th percentile 21.84 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-12 17:40:47
End at: 2019-07-12 17:41:17
Local clock offset: 1.461 ms
Remote clock offset: 0.539 ms


# Below is generated by plot.py at 2019-07-12 18:24:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.08 Mbit/s
95th percentile per-packet one-way delay: 12.882 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 39.81 Mbit/s
95th percentile per-packet one-way delay: 11.993 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 24.61 Mbit/s
95th percentile per-packet one-way delay: 10.488 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 15.759 ms
Loss rate: 0.27%
```
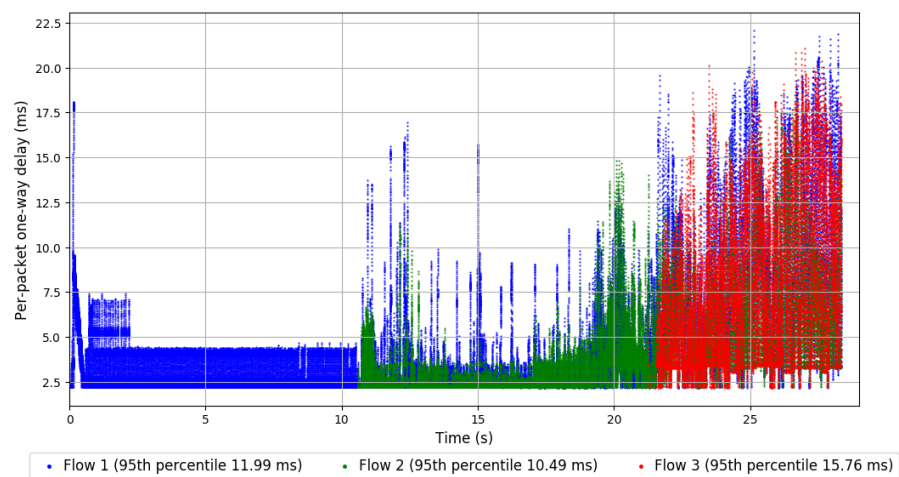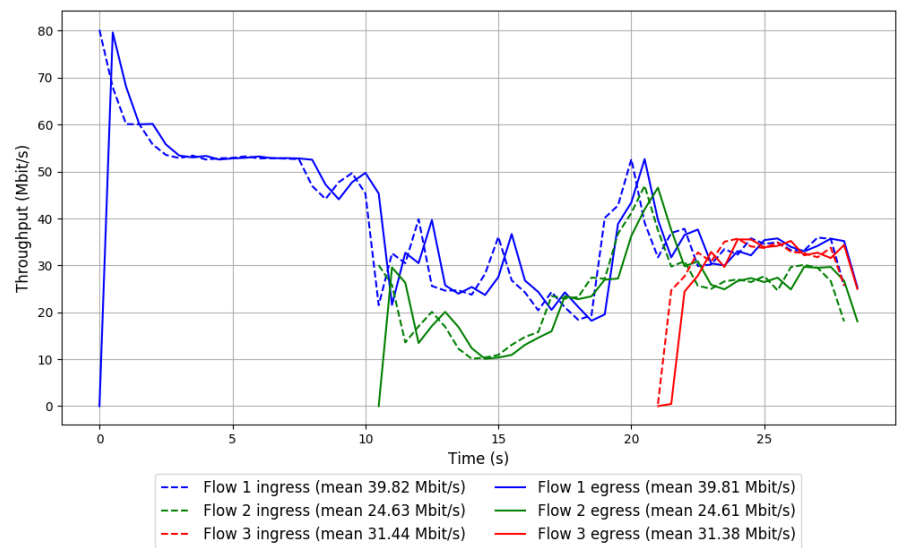
Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-12 18:08:30
End at: 2019-07-12 18:09:00
Local clock offset: 4.09 ms
Remote clock offset: 0.509 ms

# Below is generated by plot.py at 2019-07-12 18:24:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.75 Mbit/s
95th percentile per-packet one-way delay: 14.265 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 36.49 Mbit/s
95th percentile per-packet one-way delay: 11.436 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 27.72 Mbit/s
95th percentile per-packet one-way delay: 15.072 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 17.066 ms
Loss rate: 0.12%
```
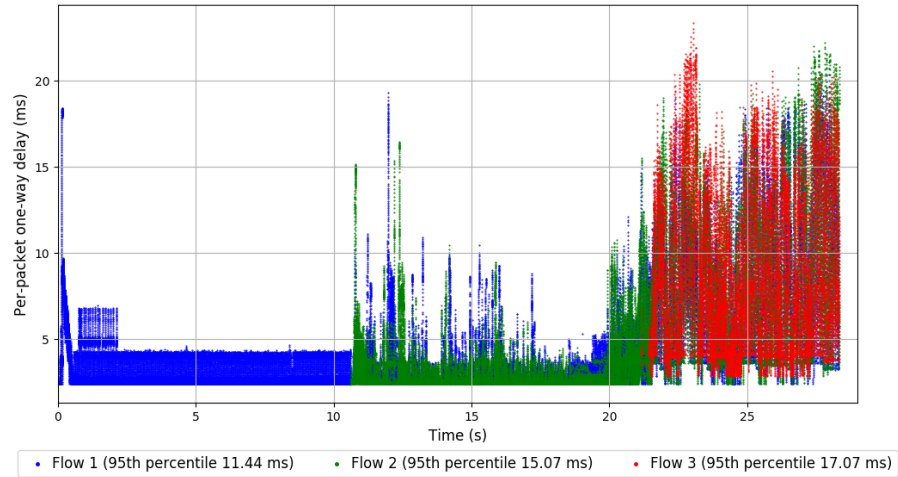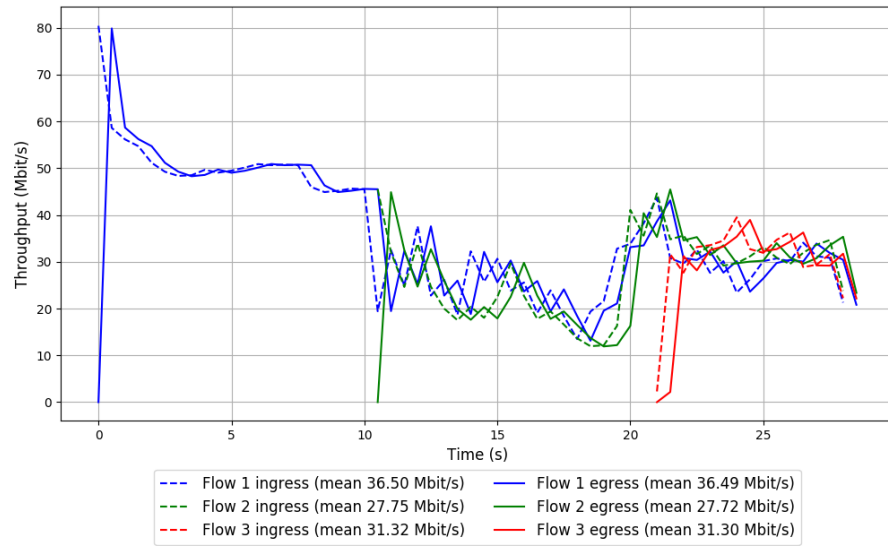
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 36.50 Mbit/s)
Flow 1 egress (mean 36.49 Mbit/s)
Flow 2 ingress (mean 27.75 Mbit/s)
Flow 2 egress (mean 27.72 Mbit/s)
Flow 3 ingress (mean 31.32 Mbit/s)
Flow 3 egress (mean 31.30 Mbit/s)

Flow 1 (95th percentile 11.44 ms)
Flow 2 (95th percentile 15.07 ms)
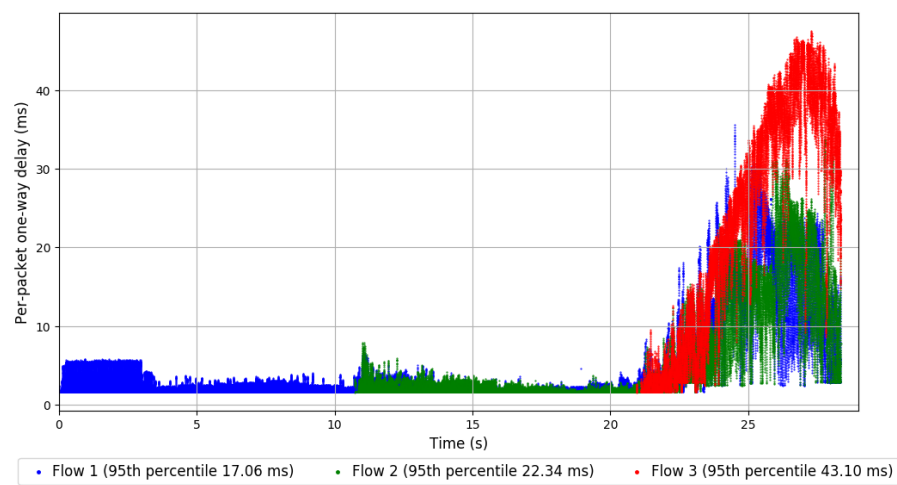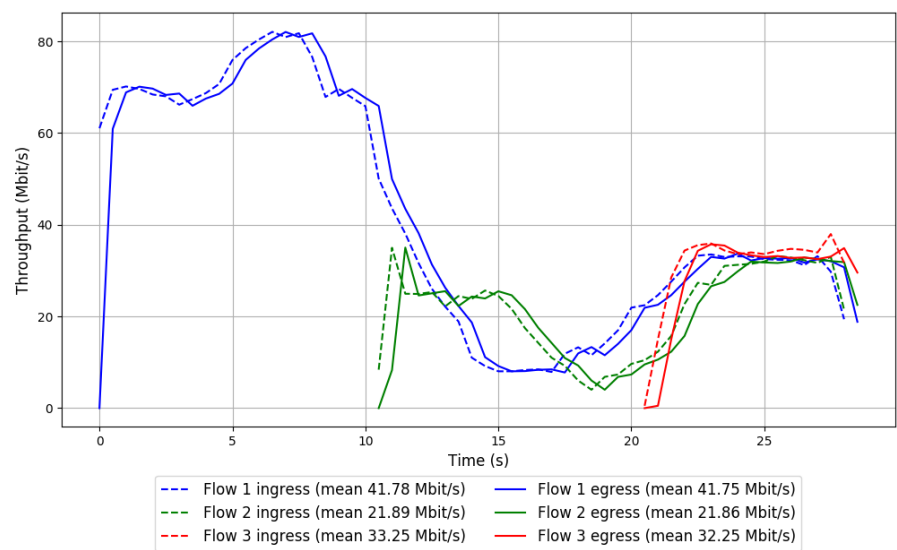Flow 3 (95th percentile 17.07 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-12 16:18:49
End at: 2019-07-12 16:19:19
Local clock offset: -6.601 ms
Remote clock offset: -0.406 ms


# Below is generated by plot.py at 2019-07-12 18:24:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.76 Mbit/s
95th percentile per-packet one-way delay: 30.788 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 41.75 Mbit/s
95th percentile per-packet one-way delay: 17.063 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 21.86 Mbit/s
95th percentile per-packet one-way delay: 22.335 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.25 Mbit/s
95th percentile per-packet one-way delay: 43.105 ms
Loss rate: 3.01%
```

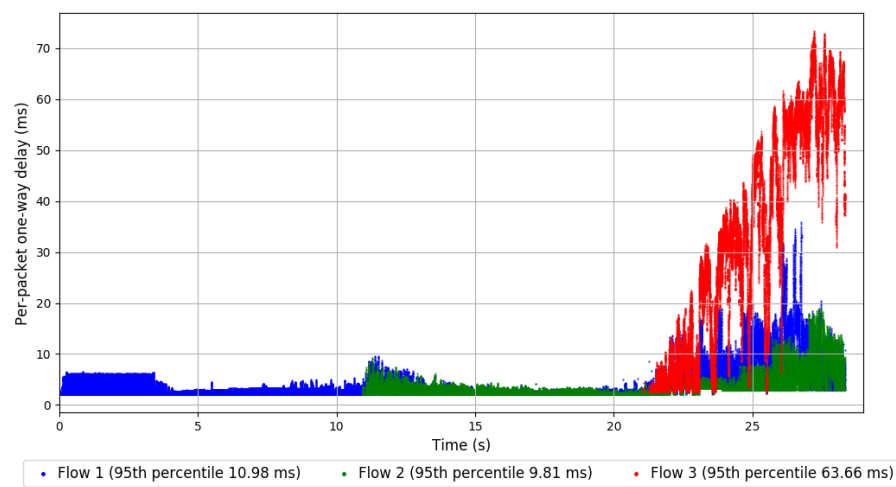Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 41.78 Mbit/s) — Flow 1 egress (mean 41.75 Mbit/s)
Flow 2 ingress (mean 21.89 Mbit/s) — Flow 2 egress (mean 21.86 Mbit/s)
Flow 3 ingress (mean 33.25 Mbit/s) — Flow 3 egress (mean 32.25 Mbit/s)

Flow 1 (95th percentile 17.06 ms)   Flow 2 (95th percentile 22.34 ms)   Flow 3 (95th percentile 43.10 ms)
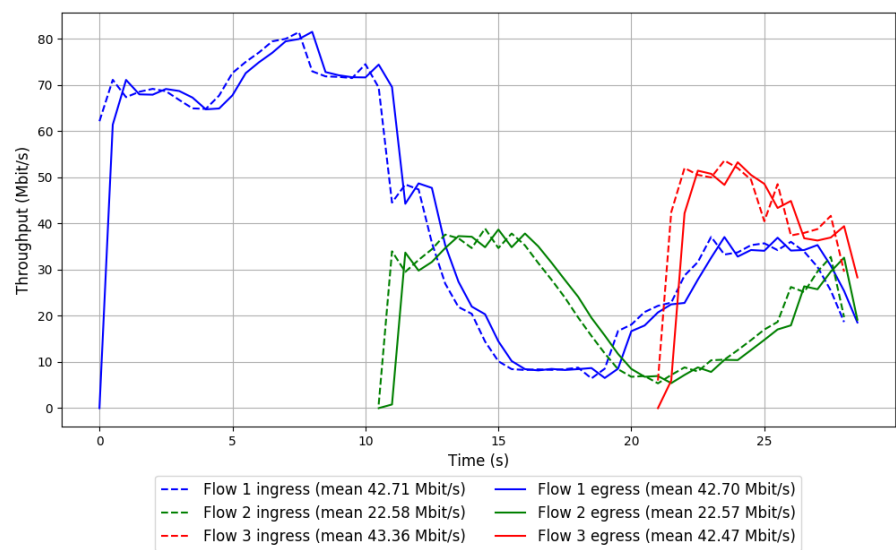
```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-12 16:46:30
End at: 2019-07-12 16:47:00
Local clock offset: -3.118 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2019-07-12 18:24:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.45 Mbit/s
95th percentile per-packet one-way delay: 45.208 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 10.985 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 22.57 Mbit/s
95th percentile per-packet one-way delay: 9.815 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 42.47 Mbit/s
95th percentile per-packet one-way delay: 63.665 ms
Loss rate: 2.10%
```

Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-12 17:14:12
End at: 2019-07-12 17:14:42
Local clock offset: -1.886 ms
Remote clock offset: 0.275 ms

# Below is generated by plot.py at 2019-07-12 18:24:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.99 Mbit/s
95th percentile per-packet one-way delay: 37.668 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 32.94 Mbit/s
95th percentile per-packet one-way delay: 26.513 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 21.73 Mbit/s
95th percentile per-packet one-way delay: 19.527 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 44.912 ms
Loss rate: 3.10%
```
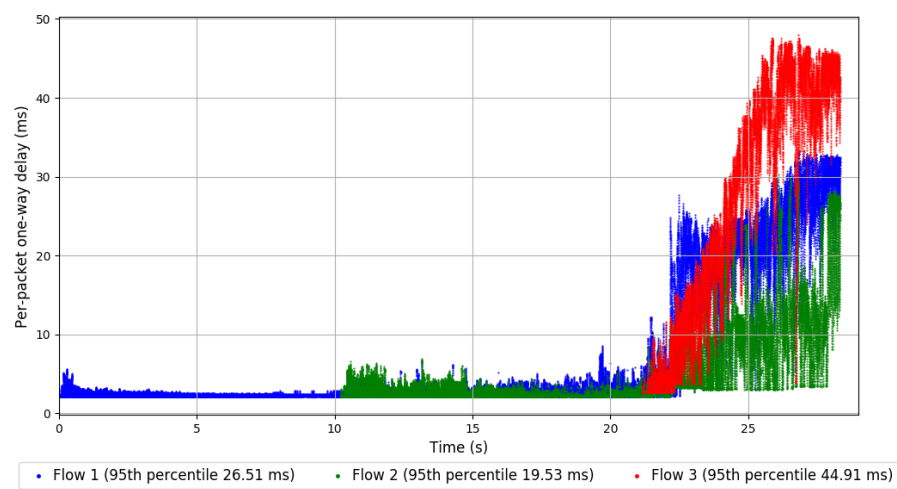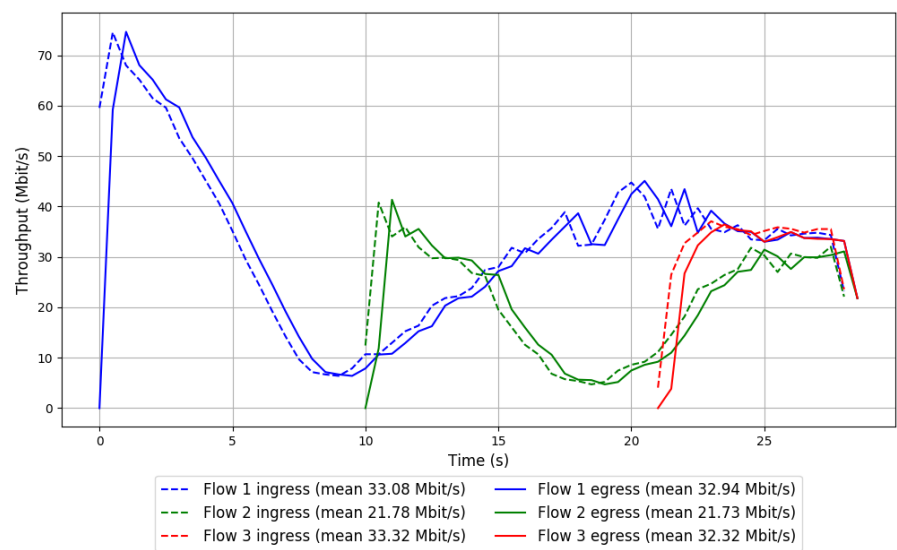
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-12 17:41:54
End at: 2019-07-12 17:42:24
Local clock offset: 0.907 ms
Remote clock offset: 0.504 ms


# Below is generated by plot.py at 2019-07-12 18:25:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.06 Mbit/s
95th percentile per-packet one-way delay: 38.576 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 41.07 Mbit/s
95th percentile per-packet one-way delay: 17.836 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 23.65 Mbit/s
95th percentile per-packet one-way delay: 17.249 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 53.603 ms
Loss rate: 2.37%
```
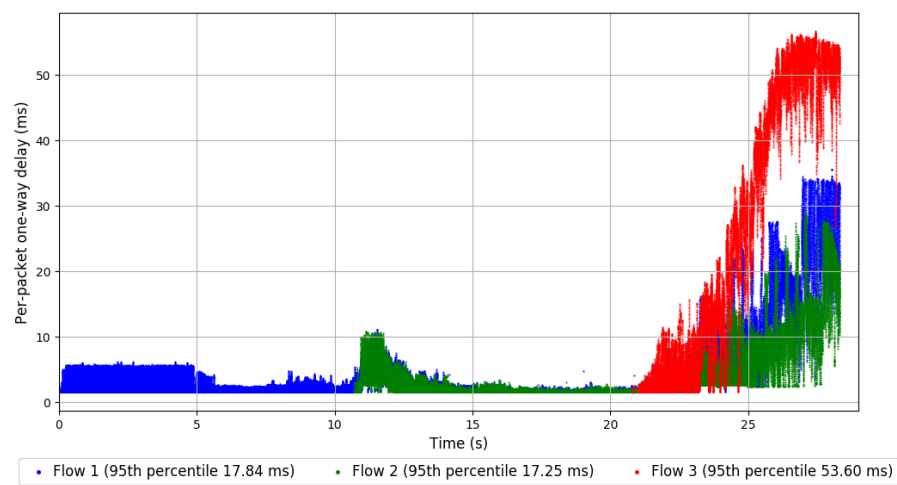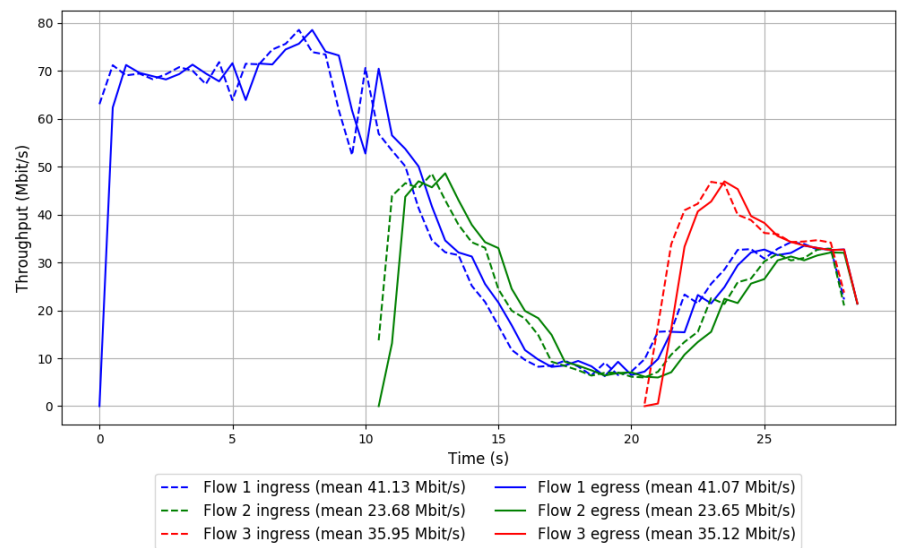
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-12 18:09:38
End at: 2019-07-12 18:10:08
Local clock offset: 3.143 ms
Remote clock offset: 0.468 ms


# Below is generated by plot.py at 2019-07-12 18:25:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.47 Mbit/s
95th percentile per-packet one-way delay: 30.638 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 12.593 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 15.649 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 37.186 ms
Loss rate: 1.57%
```
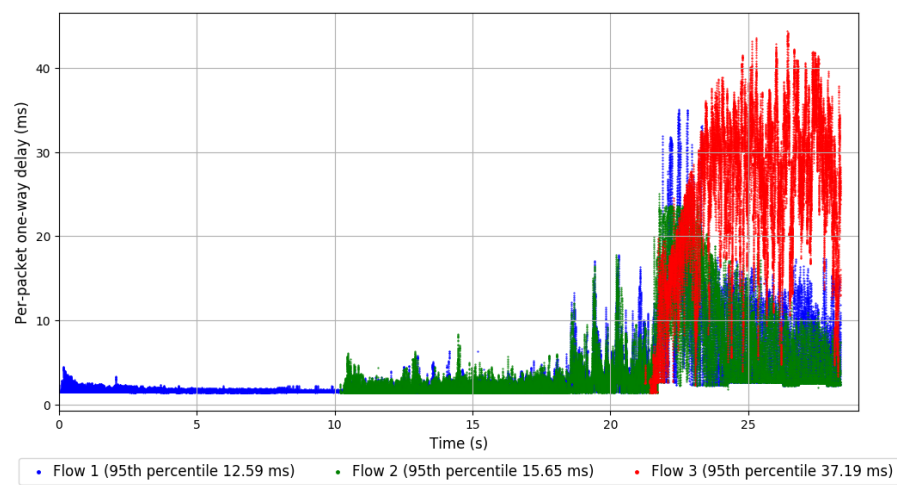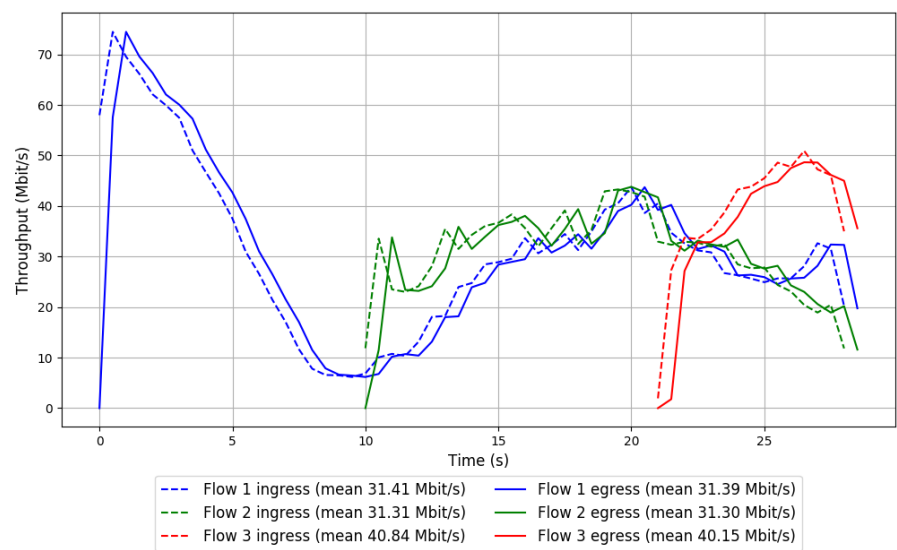
Run 5: Report of Indigo-MusesD — Data Link

- - - - Flow 1 ingress (mean 31.41 Mbit/s)   —— Flow 1 egress (mean 31.39 Mbit/s)
- - - - Flow 2 ingress (mean 31.31 Mbit/s)   —— Flow 2 egress (mean 31.30 Mbit/s)
- - - - Flow 3 ingress (mean 40.84 Mbit/s)   —— Flow 3 egress (mean 40.15 Mbit/s)

• Flow 1 (95th percentile 12.59 ms)   • Flow 2 (95th percentile 15.65 ms)   • Flow 3 (95th percentile 37.19 ms)
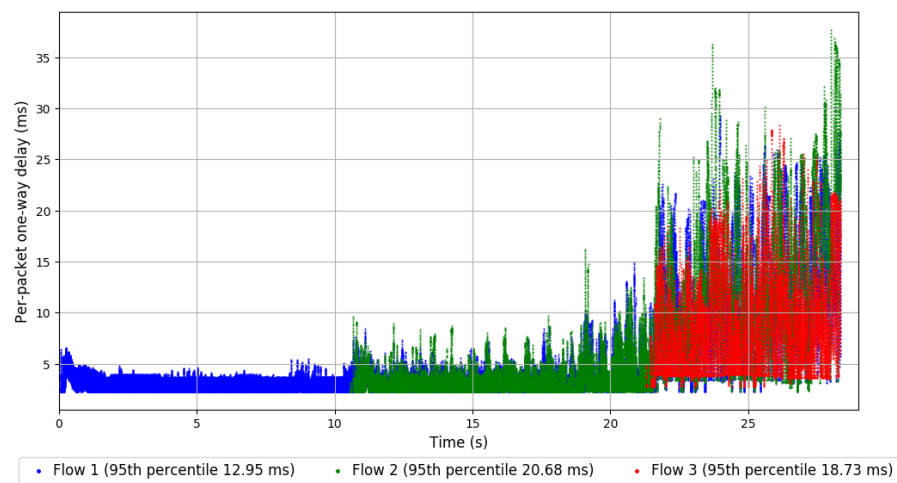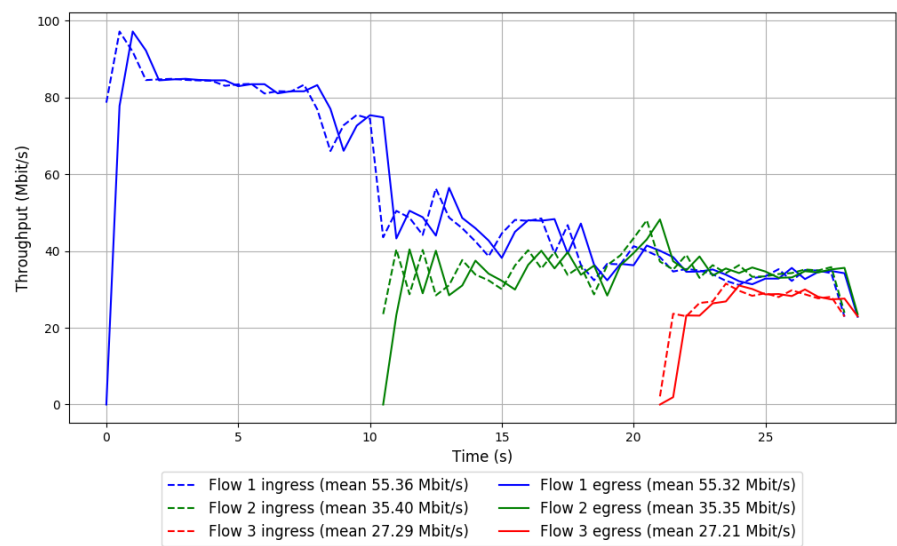
```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-12 16:23:22
End at: 2019-07-12 16:23:52
Local clock offset: -5.833 ms
Remote clock offset: -0.295 ms


# Below is generated by plot.py at 2019-07-12 18:25:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.28 Mbit/s
95th percentile per-packet one-way delay: 16.607 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 12.946 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 35.35 Mbit/s
95th percentile per-packet one-way delay: 20.678 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 27.21 Mbit/s
95th percentile per-packet one-way delay: 18.735 ms
Loss rate: 0.35%
```

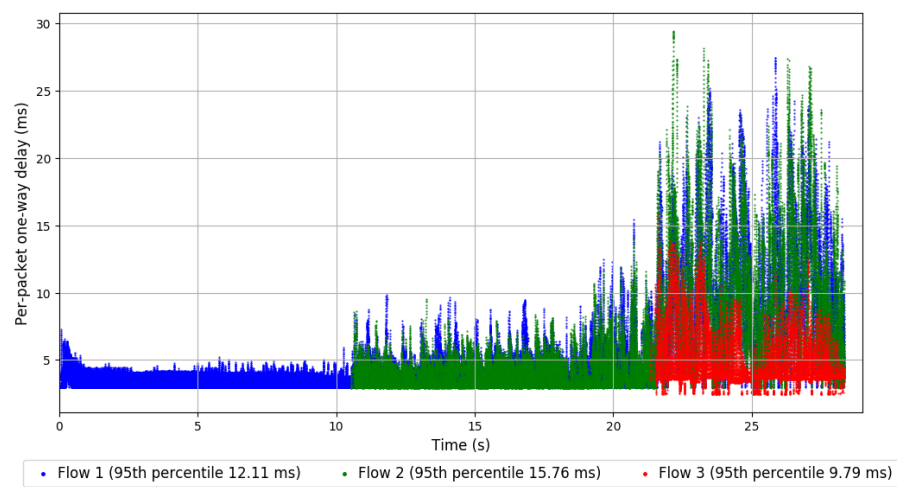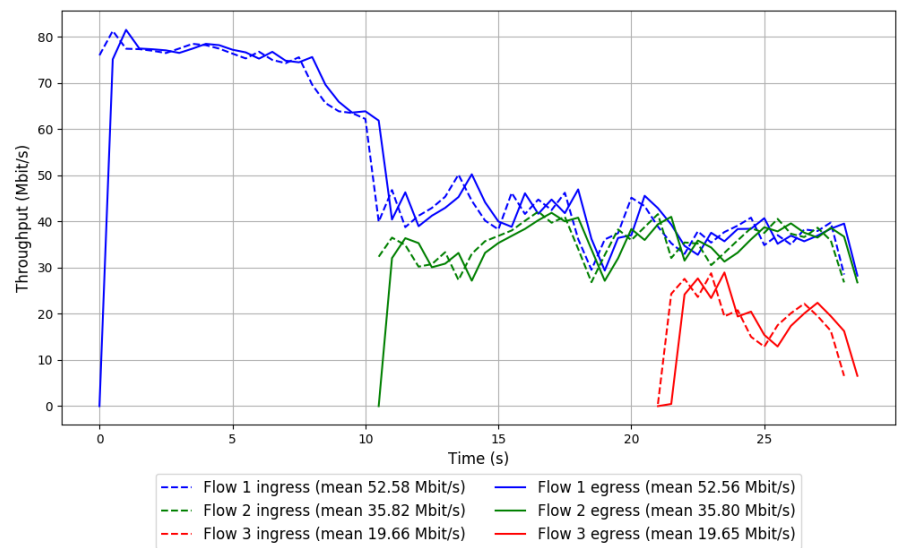Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-12 16:51:03
End at: 2019-07-12 16:51:33
Local clock offset: -2.549 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2019-07-12 18:25:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.89 Mbit/s
95th percentile per-packet one-way delay: 13.390 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 52.56 Mbit/s
95th percentile per-packet one-way delay: 12.108 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 35.80 Mbit/s
95th percentile per-packet one-way delay: 15.755 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.65 Mbit/s
95th percentile per-packet one-way delay: 9.785 ms
Loss rate: 0.03%
```

Run 2: Report of Indigo-MusesT — Data Link

- - - Flow 1 ingress (mean 52.58 Mbit/s)   —— Flow 1 egress (mean 52.56 Mbit/s)
- - - Flow 2 ingress (mean 35.82 Mbit/s)   —— Flow 2 egress (mean 35.80 Mbit/s)
- - - Flow 3 ingress (mean 19.66 Mbit/s)   —— Flow 3 egress (mean 19.65 Mbit/s)

• Flow 1 (95th percentile 12.11 ms)   • Flow 2 (95th percentile 15.76 ms)   • Flow 3 (95th percentile 9.79 ms)

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-12 17:18:45
End at: 2019-07-12 17:19:15
Local clock offset: -1.41 ms
Remote clock offset: 0.389 ms


# Below is generated by plot.py at 2019-07-12 18:25:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.86 Mbit/s
95th percentile per-packet one-way delay: 18.118 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 50.50 Mbit/s
95th percentile per-packet one-way delay: 15.426 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 36.03 Mbit/s
95th percentile per-packet one-way delay: 20.320 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 28.52 Mbit/s
95th percentile per-packet one-way delay: 20.449 ms
Loss rate: 0.16%
```
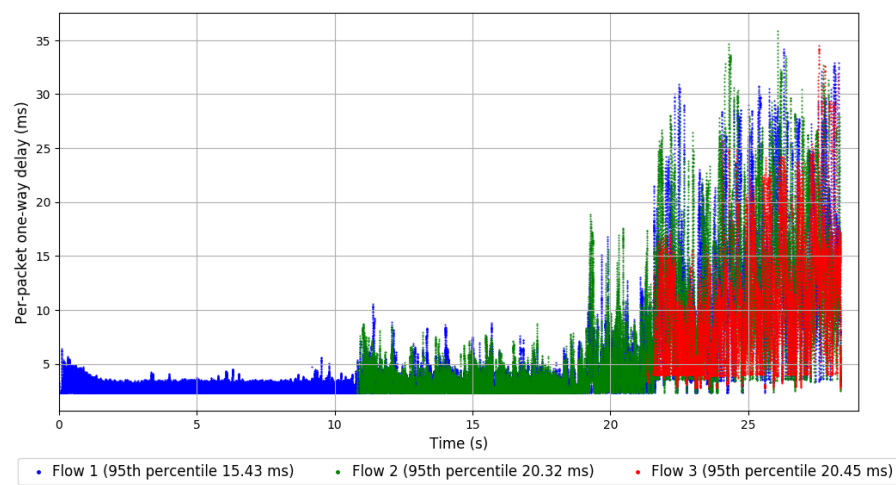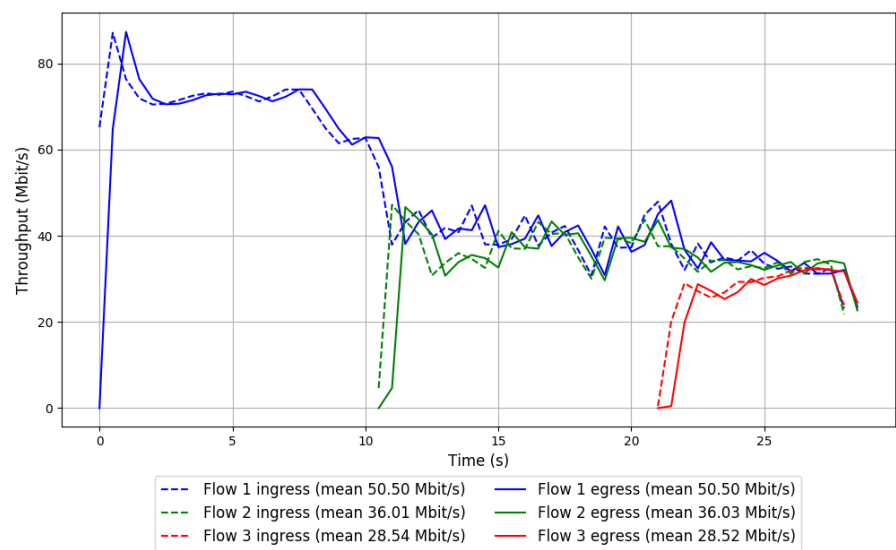
Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-12 17:46:28
End at: 2019-07-12 17:46:58
Local clock offset: 2.195 ms
Remote clock offset: 0.449 ms


# Below is generated by plot.py at 2019-07-12 18:25:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.54 Mbit/s
95th percentile per-packet one-way delay: 18.626 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 54.41 Mbit/s
95th percentile per-packet one-way delay: 15.093 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 35.22 Mbit/s
95th percentile per-packet one-way delay: 22.154 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 28.95 Mbit/s
95th percentile per-packet one-way delay: 20.391 ms
Loss rate: 0.24%
```
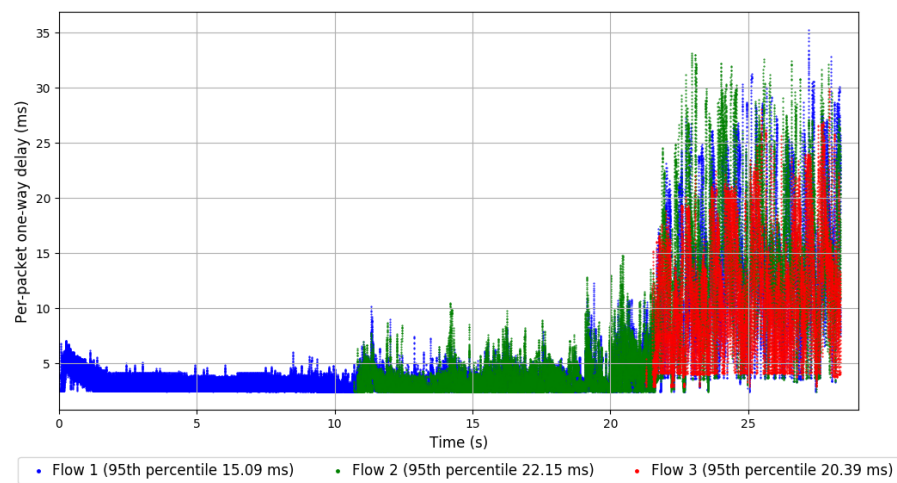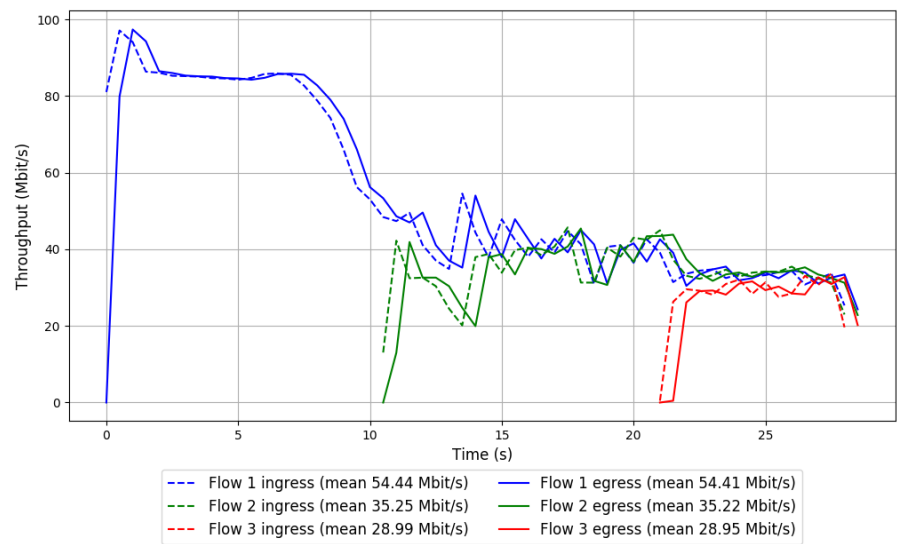
Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-12 18:14:12
End at: 2019-07-12 18:14:42
Local clock offset: 3.404 ms
Remote clock offset: 0.596 ms


# Below is generated by plot.py at 2019-07-12 18:25:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.68 Mbit/s
95th percentile per-packet one-way delay: 17.122 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 54.96 Mbit/s
95th percentile per-packet one-way delay: 13.666 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 36.41 Mbit/s
95th percentile per-packet one-way delay: 20.522 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 28.25 Mbit/s
95th percentile per-packet one-way delay: 19.714 ms
Loss rate: 0.42%
```
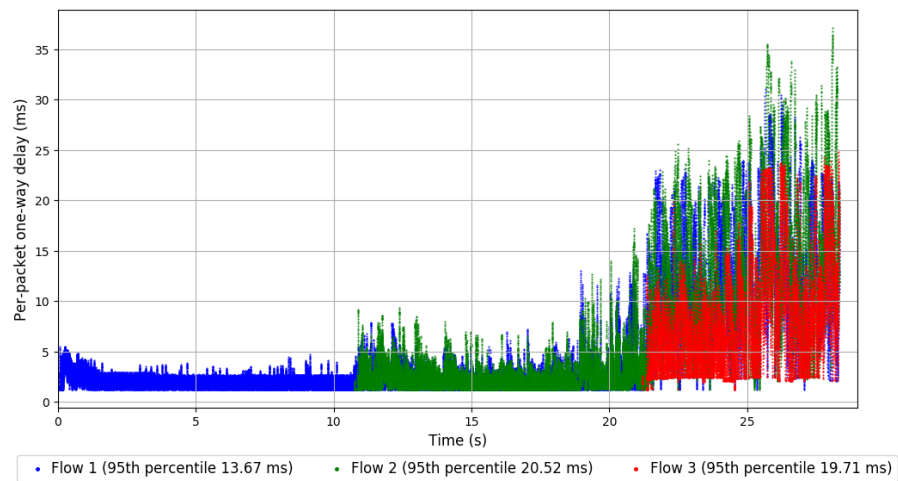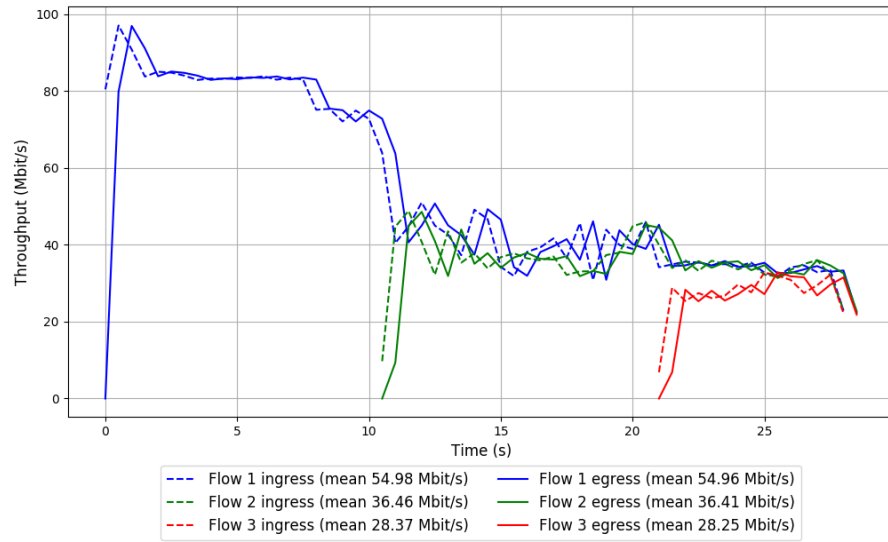
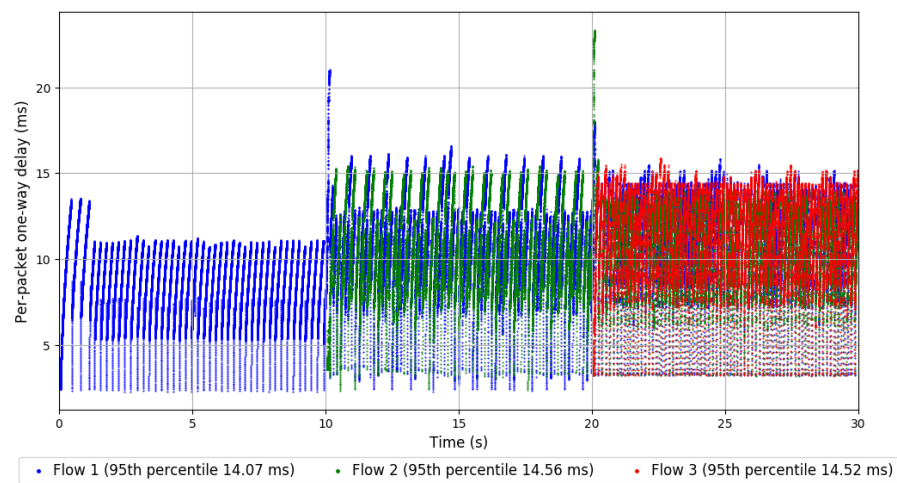Run 5: Report of Indigo-MusesT — Data Link

104

```
Run 1: Statistics of LEDBAT

Start at: 2019-07-12 16:00:14
End at: 2019-07-12 16:00:44
Local clock offset: -6.876 ms
Remote clock offset: -0.814 ms

# Below is generated by plot.py at 2019-07-12 18:26:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.81 Mbit/s
95th percentile per-packet one-way delay: 14.353 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 14.075 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 14.558 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 32.65 Mbit/s
95th percentile per-packet one-way delay: 14.524 ms
Loss rate: 0.35%
```

Run 1: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 59.31 Mbit/s) —— Flow 1 egress (mean 59.23 Mbit/s)
- - - Flow 2 ingress (mean 40.24 Mbit/s) —— Flow 2 egress (mean 40.16 Mbit/s)
- - - Flow 3 ingress (mean 32.75 Mbit/s) —— Flow 3 egress (mean 32.65 Mbit/s)

• Flow 1 (95th percentile 14.07 ms)   • Flow 2 (95th percentile 14.56 ms)   • Flow 3 (95th percentile 14.52 ms)
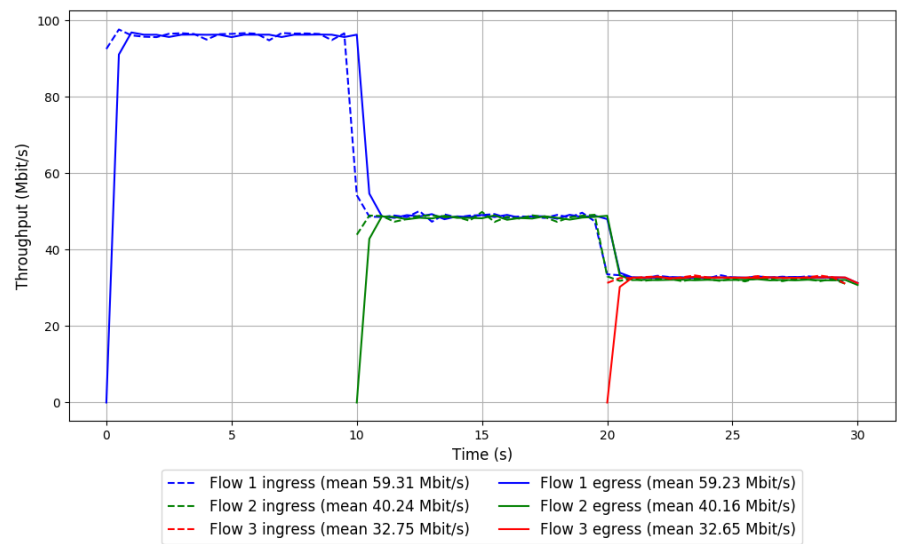
```
Run 2: Statistics of LEDBAT

Start at: 2019-07-12 16:27:58
End at: 2019-07-12 16:28:28
Local clock offset: -5.767 ms
Remote clock offset: -0.34 ms


# Below is generated by plot.py at 2019-07-12 18:26:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.79 Mbit/s
95th percentile per-packet one-way delay: 14.575 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 59.24 Mbit/s
95th percentile per-packet one-way delay: 14.697 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 14.582 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 32.20 Mbit/s
95th percentile per-packet one-way delay: 13.479 ms
Loss rate: 0.35%
```
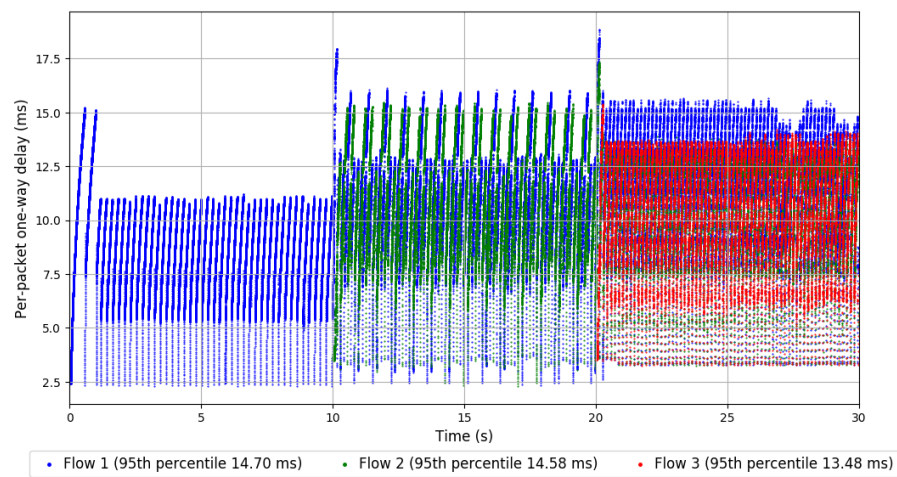
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 59.31 Mbit/s)   Flow 1 egress (mean 59.24 Mbit/s)
Flow 2 ingress (mean 40.34 Mbit/s)   Flow 2 egress (mean 40.27 Mbit/s)
Flow 3 ingress (mean 32.29 Mbit/s)   Flow 3 egress (mean 32.20 Mbit/s)

Flow 1 (95th percentile 14.70 ms)   Flow 2 (95th percentile 14.58 ms)   Flow 3 (95th percentile 13.48 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-07-12 16:55:40
End at: 2019-07-12 16:56:10
Local clock offset: -2.352 ms
Remote clock offset: 0.124 ms


# Below is generated by plot.py at 2019-07-12 18:26:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.81 Mbit/s
95th percentile per-packet one-way delay: 14.255 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 59.20 Mbit/s
95th percentile per-packet one-way delay: 14.139 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.18 Mbit/s
95th percentile per-packet one-way delay: 14.409 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 32.65 Mbit/s
95th percentile per-packet one-way delay: 14.324 ms
Loss rate: 0.37%
```
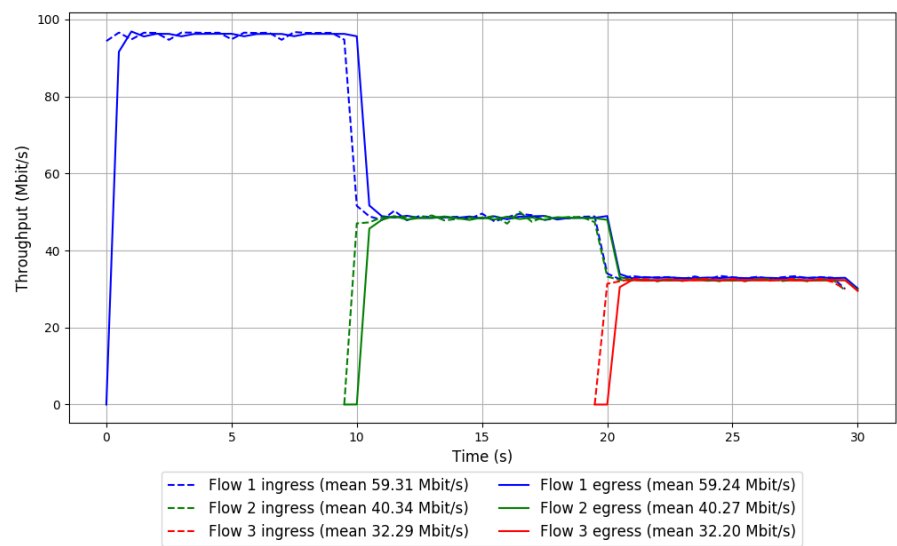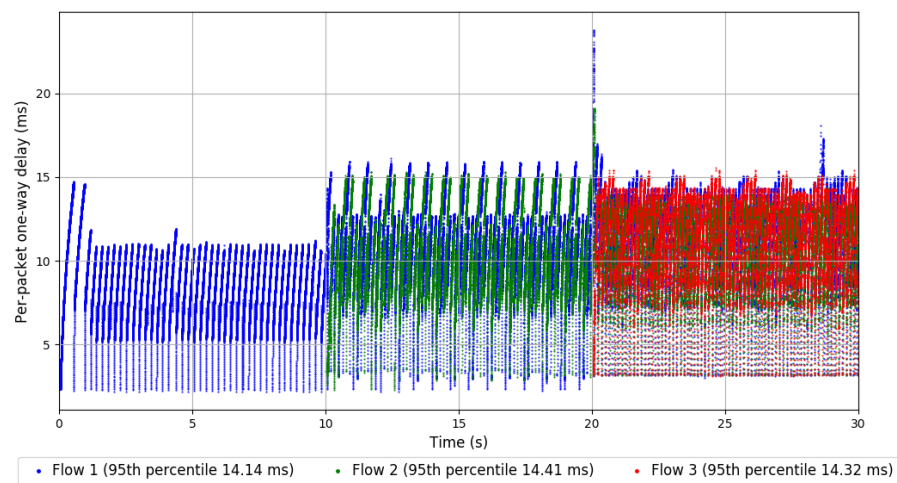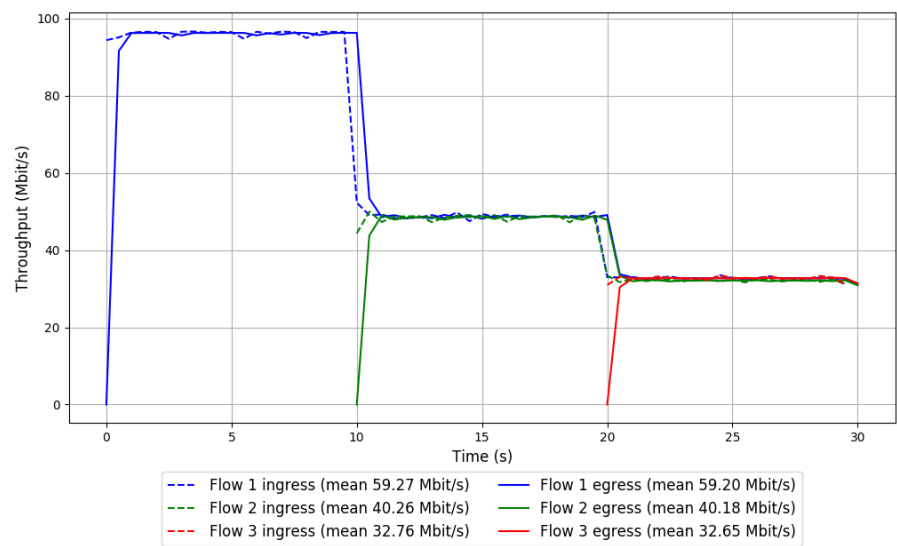
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 59.27 Mbit/s) --- Flow 1 egress (mean 59.20 Mbit/s)
Flow 2 ingress (mean 40.26 Mbit/s) --- Flow 2 egress (mean 40.18 Mbit/s)
Flow 3 ingress (mean 32.76 Mbit/s) --- Flow 3 egress (mean 32.65 Mbit/s)

Flow 1 (95th percentile 14.14 ms) • Flow 2 (95th percentile 14.41 ms) • Flow 3 (95th percentile 14.32 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-07-12 17:23:21
End at: 2019-07-12 17:23:51
Local clock offset: -2.017 ms
Remote clock offset: 0.416 ms


# Below is generated by plot.py at 2019-07-12 18:26:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.92 Mbit/s
95th percentile per-packet one-way delay: 13.445 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 13.396 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 13.772 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 32.00 Mbit/s
95th percentile per-packet one-way delay: 12.627 ms
Loss rate: 0.39%
```
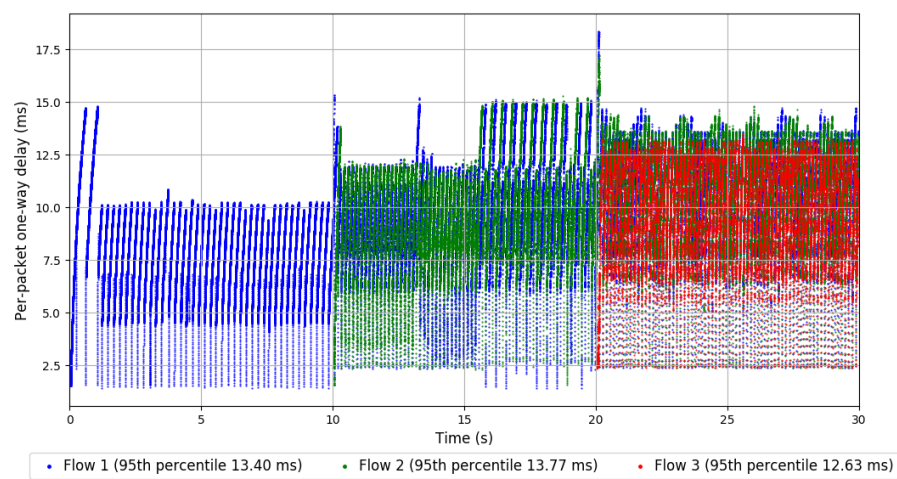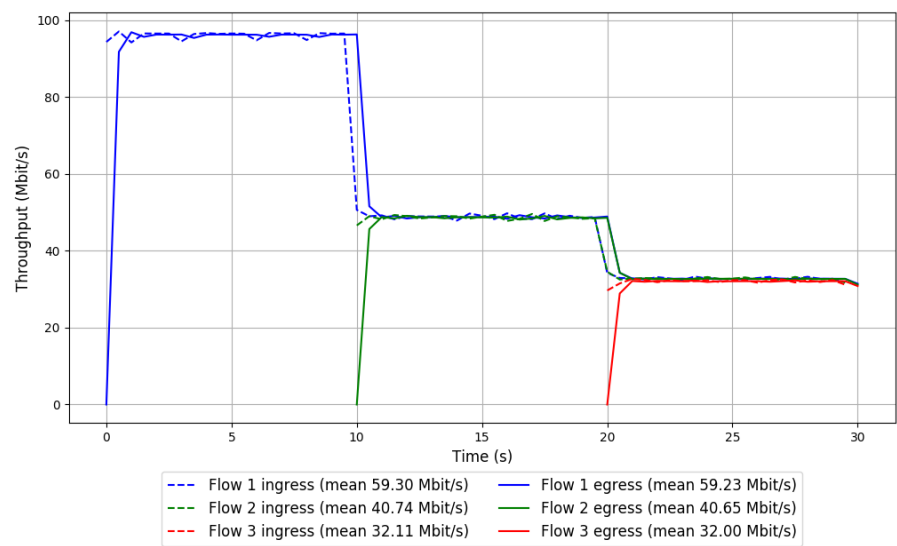
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-07-12 17:51:04
End at: 2019-07-12 17:51:34
Local clock offset: 2.605 ms
Remote clock offset: 0.483 ms


# Below is generated by plot.py at 2019-07-12 18:26:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.55 Mbit/s
95th percentile per-packet one-way delay: 14.104 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 13.841 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.39 Mbit/s
95th percentile per-packet one-way delay: 14.533 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 32.38 Mbit/s
95th percentile per-packet one-way delay: 13.758 ms
Loss rate: 0.35%
```
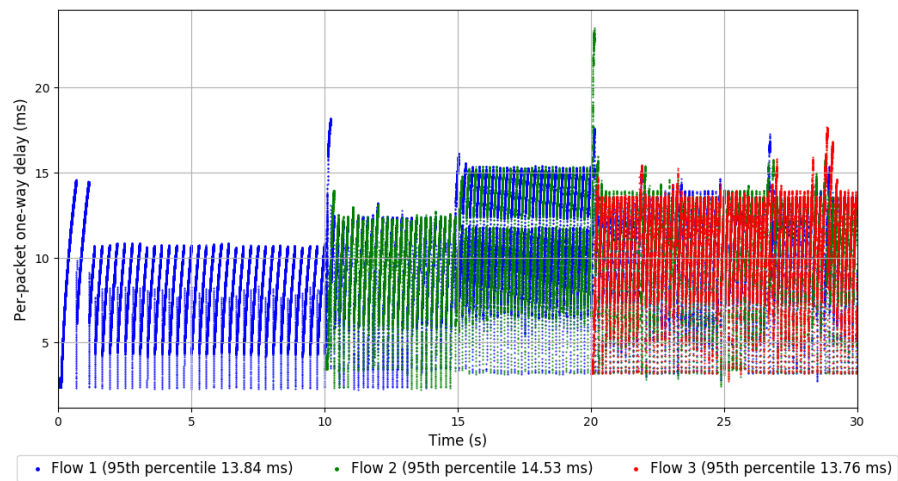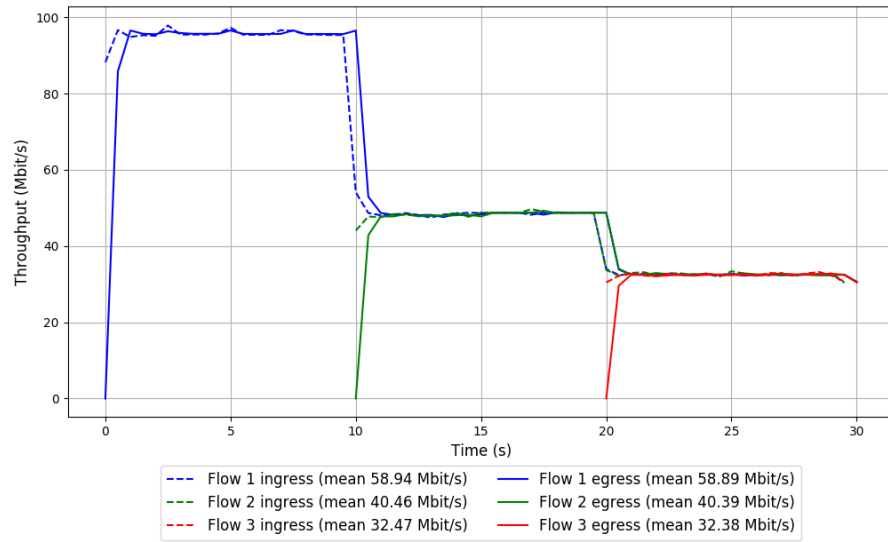
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 58.94 Mbit/s)   Flow 1 egress (mean 58.89 Mbit/s)
Flow 2 ingress (mean 40.46 Mbit/s)   Flow 2 egress (mean 40.39 Mbit/s)
Flow 3 ingress (mean 32.47 Mbit/s)   Flow 3 egress (mean 32.38 Mbit/s)

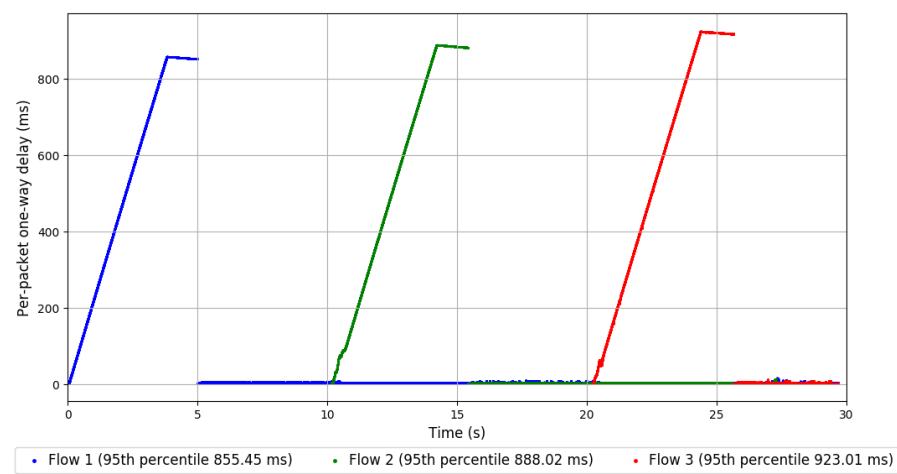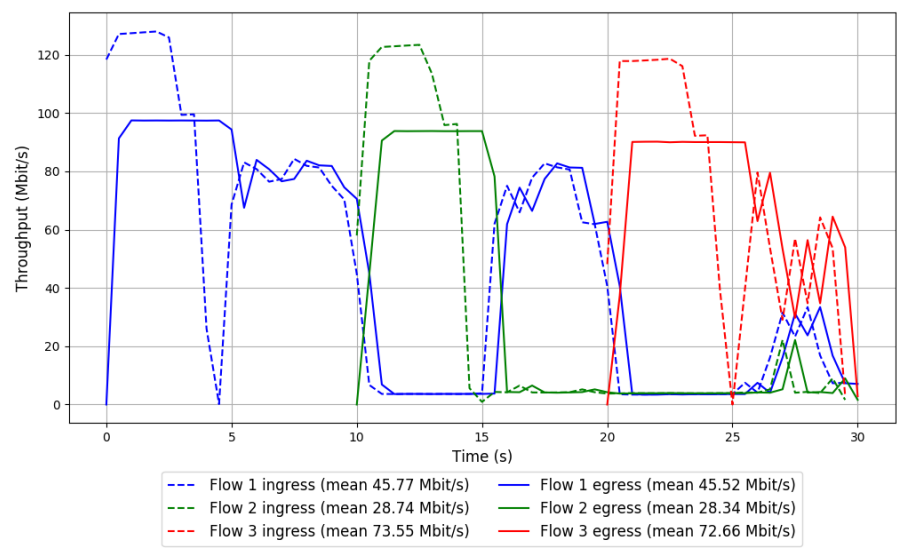Flow 1 (95th percentile 13.84 ms)   Flow 2 (95th percentile 14.53 ms)   Flow 3 (95th percentile 13.76 ms)

Run 1: Statistics of Muses_DecisionTree

Start at: 2019-07-12 16:04:50
End at: 2019-07-12 16:05:20
Local clock offset: -6.368 ms
Remote clock offset: -0.617 ms

Below is generated by plot.py at 2019-07-12 18:26:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 87.35 Mbit/s
95th percentile per-packet one-way delay: 889.530 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 855.448 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 28.34 Mbit/s
95th percentile per-packet one-way delay: 888.018 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 72.66 Mbit/s
95th percentile per-packet one-way delay: 923.009 ms
Loss rate: 1.25%
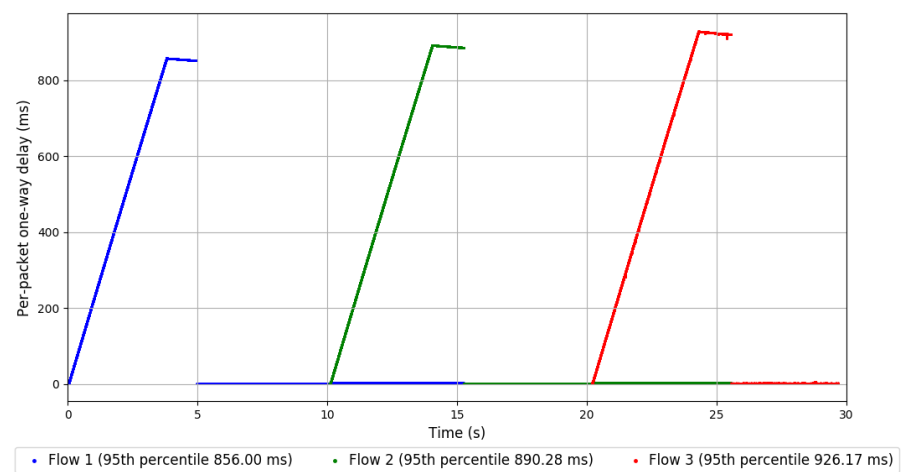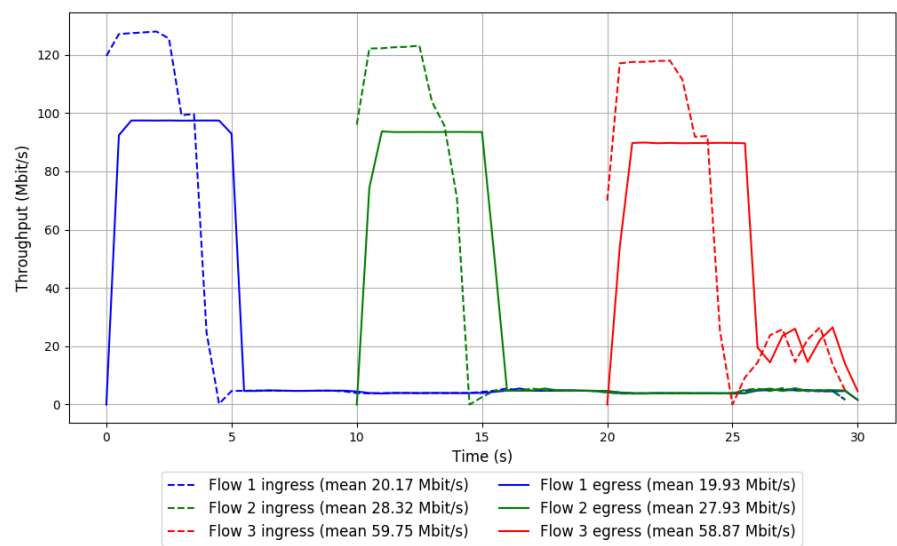
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 16:32:33
End at: 2019-07-12 16:33:03
Local clock offset: -5.507 ms
Remote clock offset: -0.229 ms


# Below is generated by plot.py at 2019-07-12 18:26:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.19 Mbit/s
95th percentile per-packet one-way delay: 922.013 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 19.93 Mbit/s
95th percentile per-packet one-way delay: 856.005 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 27.93 Mbit/s
95th percentile per-packet one-way delay: 890.280 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 926.173 ms
Loss rate: 1.51%
```

Run 2: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 20.17 Mbit/s) — Flow 1 egress (mean 19.93 Mbit/s)
Flow 2 ingress (mean 28.32 Mbit/s) — Flow 2 egress (mean 27.93 Mbit/s)
Flow 3 ingress (mean 59.75 Mbit/s) — Flow 3 egress (mean 58.87 Mbit/s)

Flow 1 (95th percentile 856.00 ms)   Flow 2 (95th percentile 890.28 ms)   Flow 3 (95th percentile 926.17 ms)

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 17:00:15
End at: 2019-07-12 17:00:45
Local clock offset: -2.054 ms
Remote clock offset: 0.18 ms


# Below is generated by plot.py at 2019-07-12 18:26:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.89 Mbit/s
95th percentile per-packet one-way delay: 1129.786 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 27.41 Mbit/s
95th percentile per-packet one-way delay: 856.200 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 29.84 Mbit/s
95th percentile per-packet one-way delay: 1093.206 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 52.41 Mbit/s
95th percentile per-packet one-way delay: 1340.029 ms
Loss rate: 3.11%
```
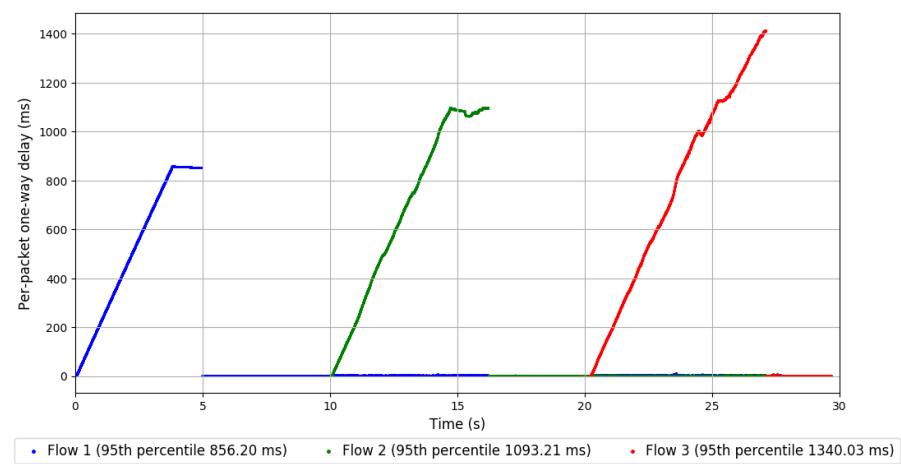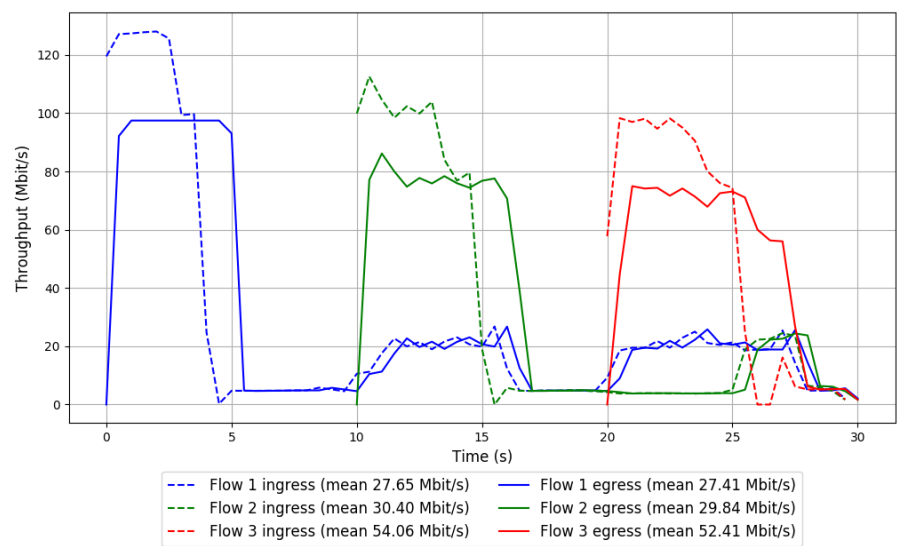
Run 3: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 27.65 Mbit/s) — Flow 1 egress (mean 27.41 Mbit/s)
Flow 2 ingress (mean 30.40 Mbit/s) — Flow 2 egress (mean 29.84 Mbit/s)
Flow 3 ingress (mean 54.06 Mbit/s) — Flow 3 egress (mean 52.41 Mbit/s)

Flow 1 (95th percentile 856.20 ms)   Flow 2 (95th percentile 1093.21 ms)   Flow 3 (95th percentile 1340.03 ms)

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 17:27:57
End at: 2019-07-12 17:28:27
Local clock offset: -1.01 ms
Remote clock offset: 0.438 ms


# Below is generated by plot.py at 2019-07-12 18:27:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.56 Mbit/s
95th percentile per-packet one-way delay: 891.415 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 49.96 Mbit/s
95th percentile per-packet one-way delay: 854.930 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 28.44 Mbit/s
95th percentile per-packet one-way delay: 888.540 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 52.83 Mbit/s
95th percentile per-packet one-way delay: 924.322 ms
Loss rate: 1.77%
```
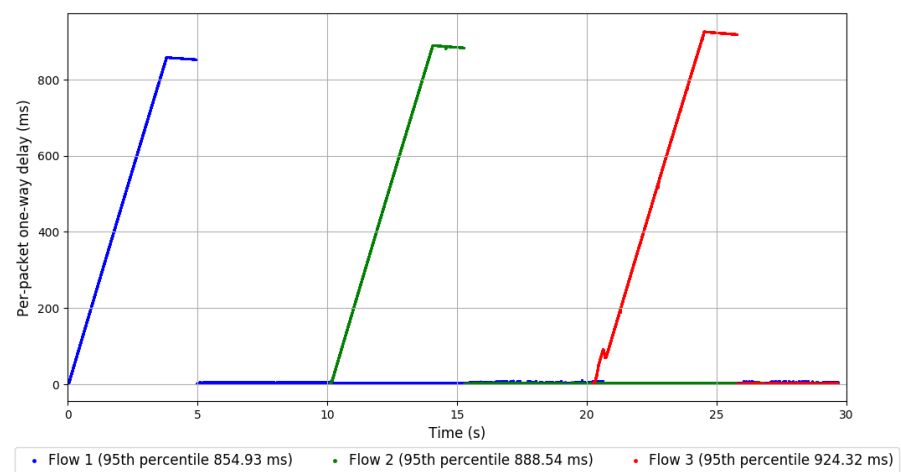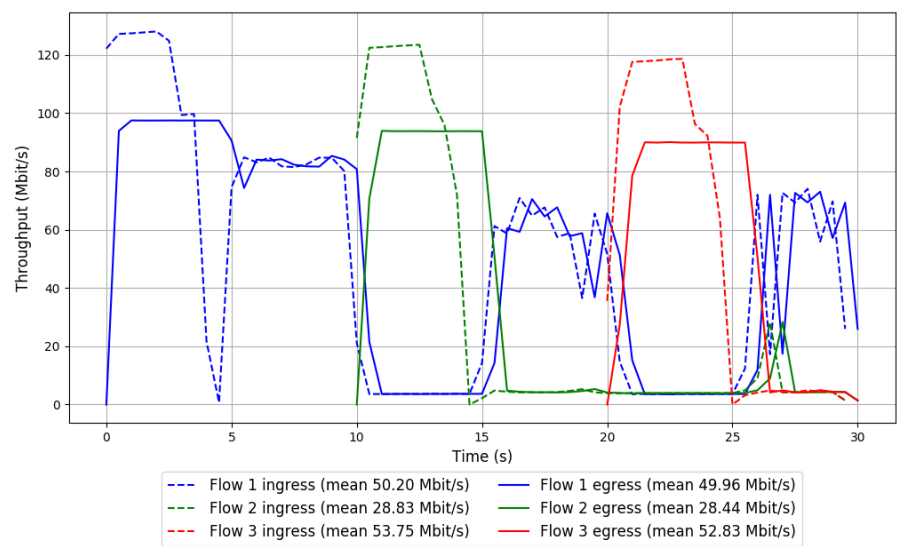
Run 4: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 50.20 Mbit/s) --- Flow 1 egress (mean 49.96 Mbit/s)
Flow 2 ingress (mean 28.83 Mbit/s) --- Flow 2 egress (mean 28.44 Mbit/s)
Flow 3 ingress (mean 53.75 Mbit/s) --- Flow 3 egress (mean 52.83 Mbit/s)

Flow 1 (95th percentile 854.93 ms)   Flow 2 (95th percentile 888.54 ms)   Flow 3 (95th percentile 924.32 ms)

122

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-07-12 17:55:40
End at: 2019-07-12 17:56:10
Local clock offset: 3.05 ms
Remote clock offset: 0.499 ms


# Below is generated by plot.py at 2019-07-12 18:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.19 Mbit/s
95th percentile per-packet one-way delay: 1254.847 ms
Loss rate: 3.74%
-- Flow 1:
Average throughput: 22.51 Mbit/s
95th percentile per-packet one-way delay: 856.549 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 57.75 Mbit/s
95th percentile per-packet one-way delay: 789.241 ms
Loss rate: 5.51%
-- Flow 3:
Average throughput: 57.76 Mbit/s
95th percentile per-packet one-way delay: 1354.591 ms
Loss rate: 3.18%
```
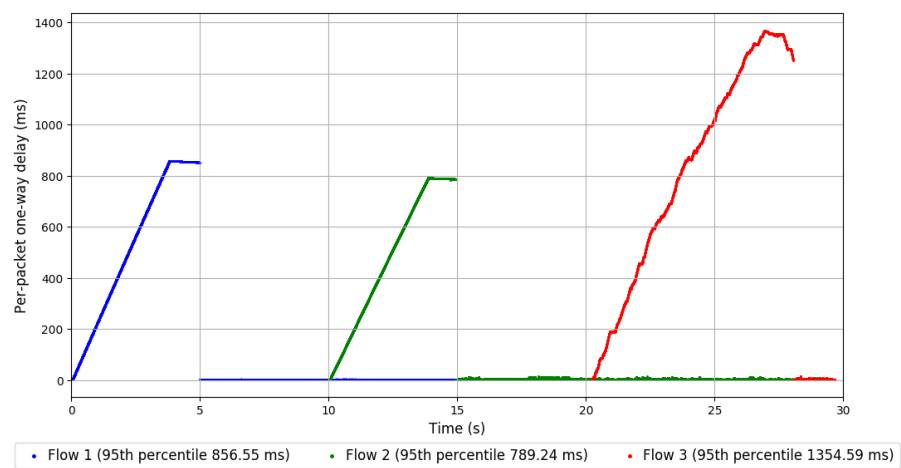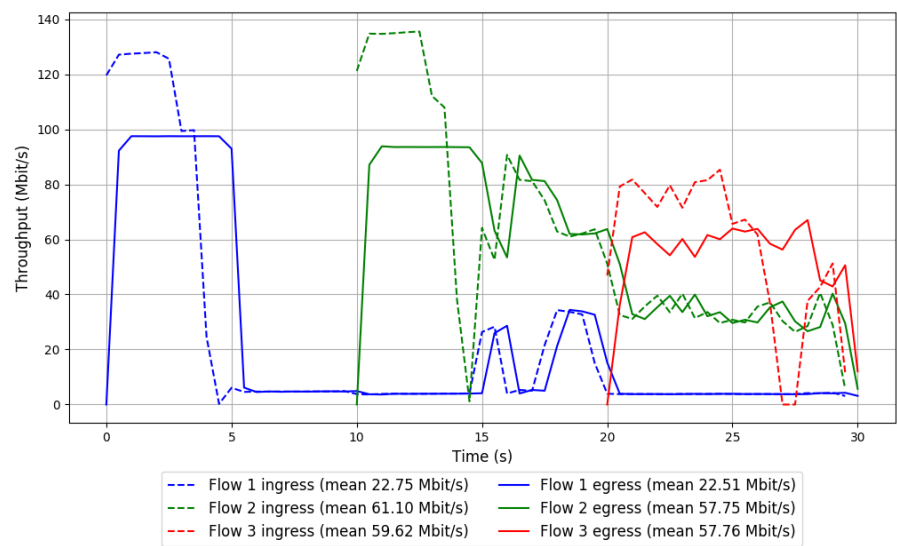
Run 5: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 22.75 Mbit/s) --- Flow 1 egress (mean 22.51 Mbit/s)
Flow 2 ingress (mean 61.10 Mbit/s) --- Flow 2 egress (mean 57.75 Mbit/s)
Flow 3 ingress (mean 59.62 Mbit/s) --- Flow 3 egress (mean 57.76 Mbit/s)

Flow 1 (95th percentile 856.55 ms)   Flow 2 (95th percentile 789.24 ms)   Flow 3 (95th percentile 1354.59 ms)
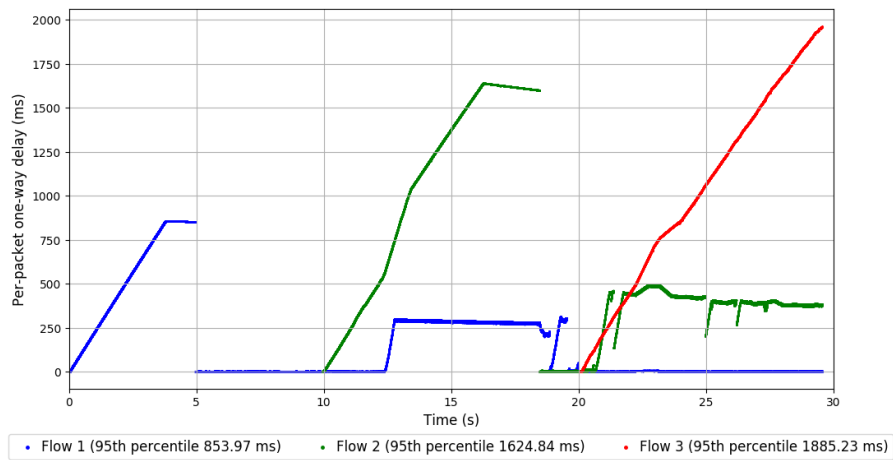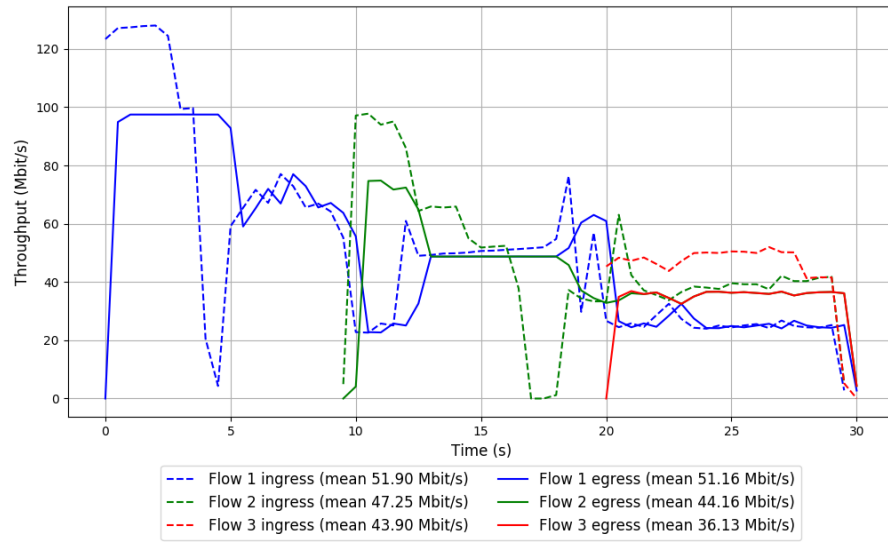
```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 16:03:40
End at: 2019-07-12 16:04:10
Local clock offset: -7.298 ms
Remote clock offset: -0.616 ms


# Below is generated by plot.py at 2019-07-12 18:27:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.07 Mbit/s
95th percentile per-packet one-way delay: 1616.977 ms
Loss rate: 6.67%
-- Flow 1:
Average throughput: 51.16 Mbit/s
95th percentile per-packet one-way delay: 853.971 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 1624.835 ms
Loss rate: 6.55%
-- Flow 3:
Average throughput: 36.13 Mbit/s
95th percentile per-packet one-way delay: 1885.233 ms
Loss rate: 24.56%
```

Run 1: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 51.90 Mbit/s)   Flow 1 egress (mean 51.16 Mbit/s)
Flow 2 ingress (mean 47.25 Mbit/s)   Flow 2 egress (mean 44.16 Mbit/s)
Flow 3 ingress (mean 43.90 Mbit/s)   Flow 3 egress (mean 36.13 Mbit/s)

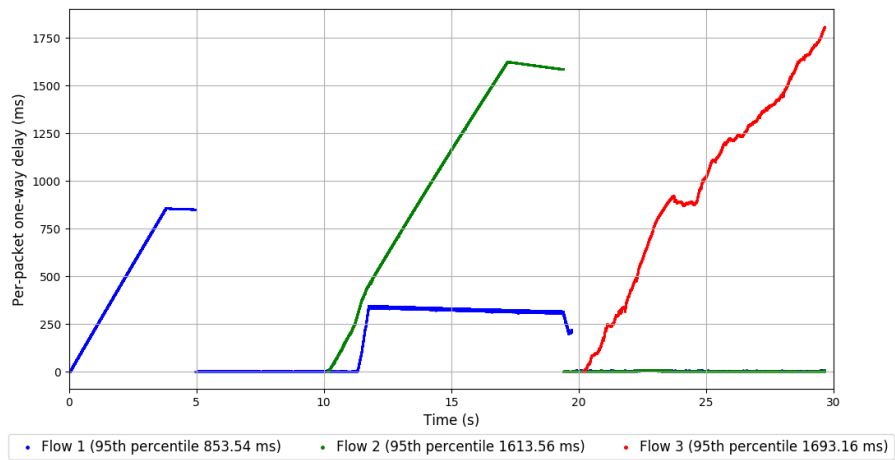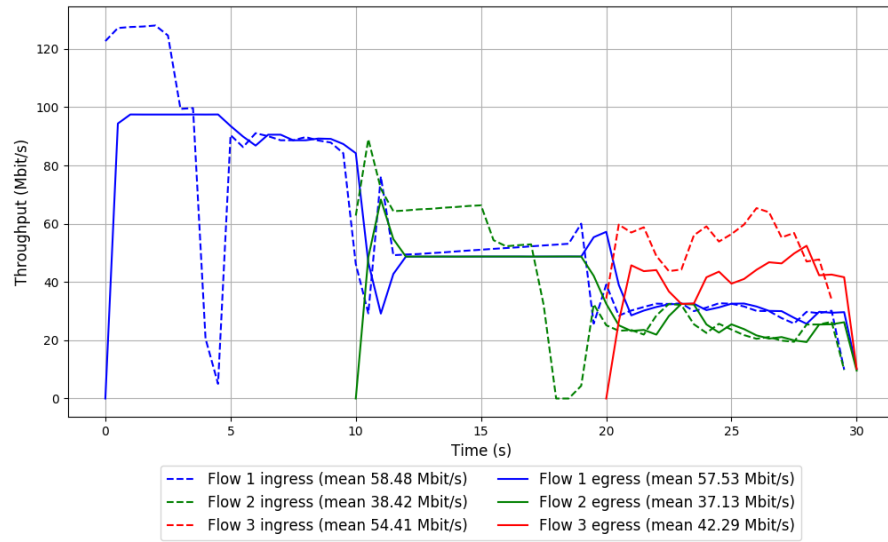Flow 1 (95th percentile 853.97 ms)   Flow 2 (95th percentile 1624.84 ms)   Flow 3 (95th percentile 1885.23 ms)

Run 2: Statistics of Muses_DecisionTreeH0

Start at: 2019-07-12 16:31:24
End at: 2019-07-12 16:31:54
Local clock offset: -5.247 ms
Remote clock offset: -0.215 ms

Below is generated by plot.py at 2019-07-12 18:27:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.54 Mbit/s
95th percentile per-packet one-way delay: 1593.524 ms
Loss rate: 5.12%
-- Flow 1:
Average throughput: 57.53 Mbit/s
95th percentile per-packet one-way delay: 853.540 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 1613.562 ms
Loss rate: 3.38%
-- Flow 3:
Average throughput: 42.29 Mbit/s
95th percentile per-packet one-way delay: 1693.163 ms
Loss rate: 19.80%

Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 16:59:05
End at: 2019-07-12 16:59:35
Local clock offset: -2.312 ms
Remote clock offset: 0.171 ms


# Below is generated by plot.py at 2019-07-12 18:27:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.21 Mbit/s
95th percentile per-packet one-way delay: 1563.862 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 47.18 Mbit/s
95th percentile per-packet one-way delay: 854.385 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 45.31 Mbit/s
95th percentile per-packet one-way delay: 1179.239 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 47.05 Mbit/s
95th percentile per-packet one-way delay: 1654.215 ms
Loss rate: 10.36%
```
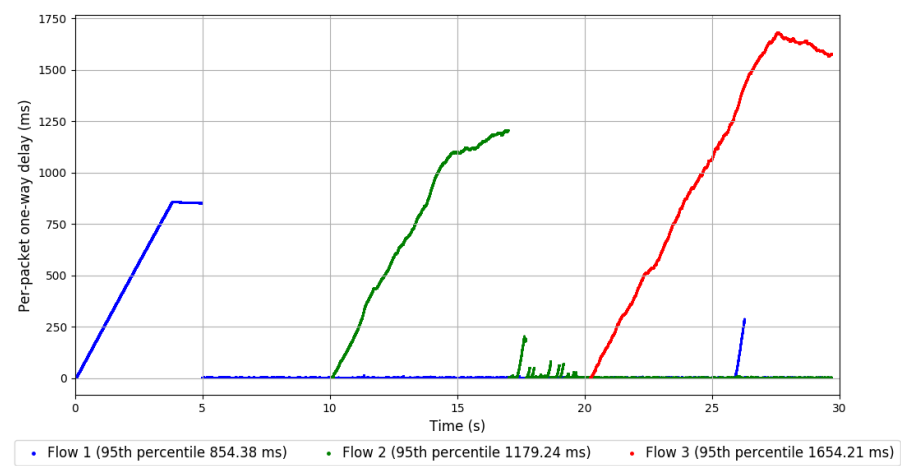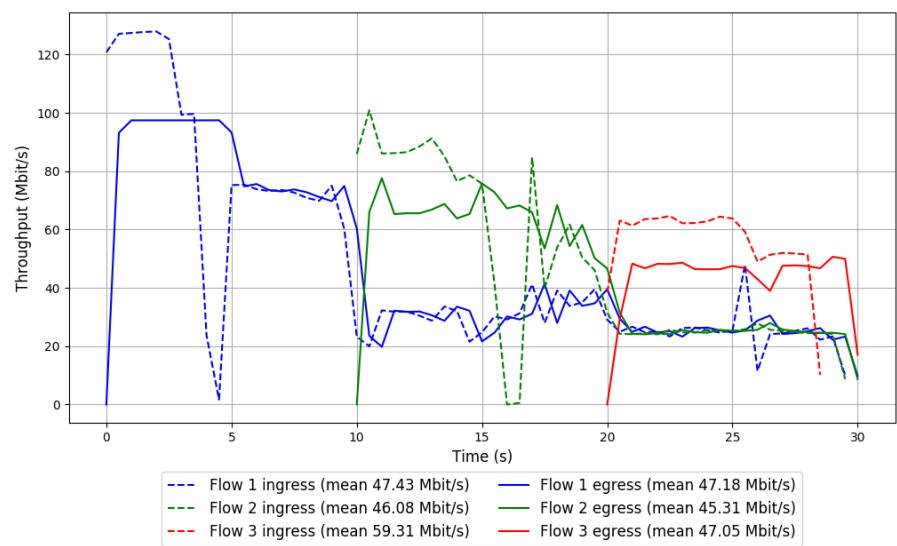
Run 3: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 47.43 Mbit/s) --- Flow 1 egress (mean 47.18 Mbit/s)
Flow 2 ingress (mean 46.08 Mbit/s) --- Flow 2 egress (mean 45.31 Mbit/s)
Flow 3 ingress (mean 59.31 Mbit/s) --- Flow 3 egress (mean 47.05 Mbit/s)

Flow 1 (95th percentile 854.38 ms)   Flow 2 (95th percentile 1179.24 ms)   Flow 3 (95th percentile 1654.21 ms)

130

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 17:26:47
End at: 2019-07-12 17:27:17
Local clock offset: -1.065 ms
Remote clock offset: 0.39 ms


# Below is generated by plot.py at 2019-07-12 18:27:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.48 Mbit/s
95th percentile per-packet one-way delay: 1262.203 ms
Loss rate: 6.19%
-- Flow 1:
Average throughput: 48.33 Mbit/s
95th percentile per-packet one-way delay: 855.061 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 47.70 Mbit/s
95th percentile per-packet one-way delay: 1152.116 ms
Loss rate: 6.03%
-- Flow 3:
Average throughput: 36.34 Mbit/s
95th percentile per-packet one-way delay: 1893.365 ms
Loss rate: 24.46%
```
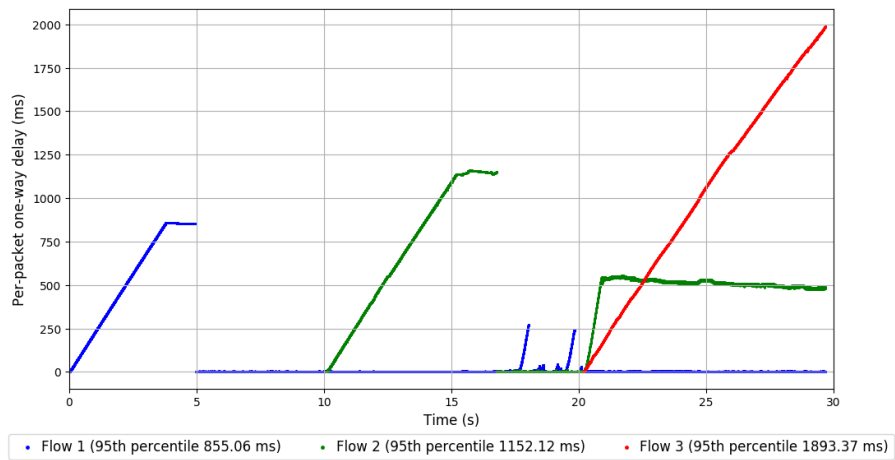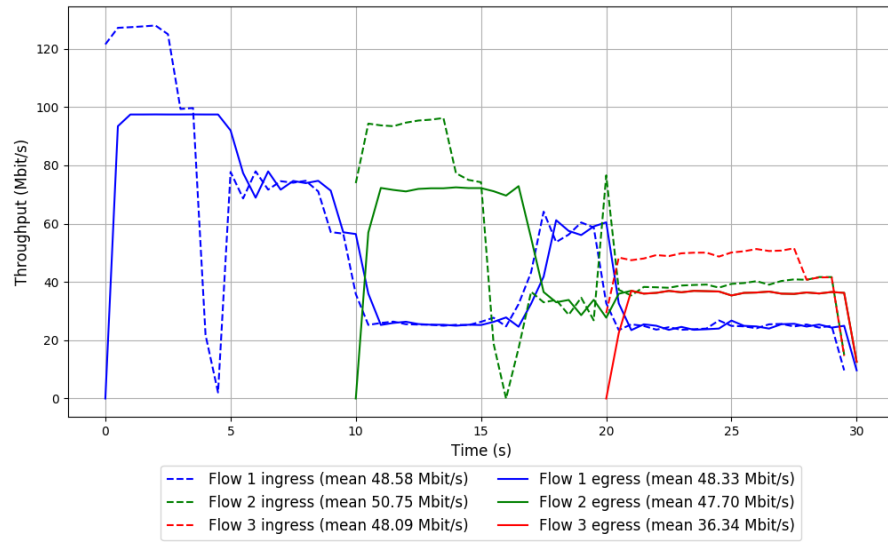
Run 4: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 48.58 Mbit/s)   Flow 1 egress (mean 48.33 Mbit/s)
Flow 2 ingress (mean 50.75 Mbit/s)   Flow 2 egress (mean 47.70 Mbit/s)
Flow 3 ingress (mean 48.09 Mbit/s)   Flow 3 egress (mean 36.34 Mbit/s)

Flow 1 (95th percentile 855.06 ms)   Flow 2 (95th percentile 1152.12 ms)   Flow 3 (95th percentile 1893.37 ms)

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-12 17:54:30
End at: 2019-07-12 17:55:00
Local clock offset: 2.189 ms
Remote clock offset: 0.526 ms


# Below is generated by plot.py at 2019-07-12 18:27:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.45 Mbit/s
95th percentile per-packet one-way delay: 1396.028 ms
Loss rate: 5.29%
-- Flow 1:
Average throughput: 49.00 Mbit/s
95th percentile per-packet one-way delay: 855.767 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 45.45 Mbit/s
95th percentile per-packet one-way delay: 1159.247 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 41.90 Mbit/s
95th percentile per-packet one-way delay: 2079.973 ms
Loss rate: 20.10%
```
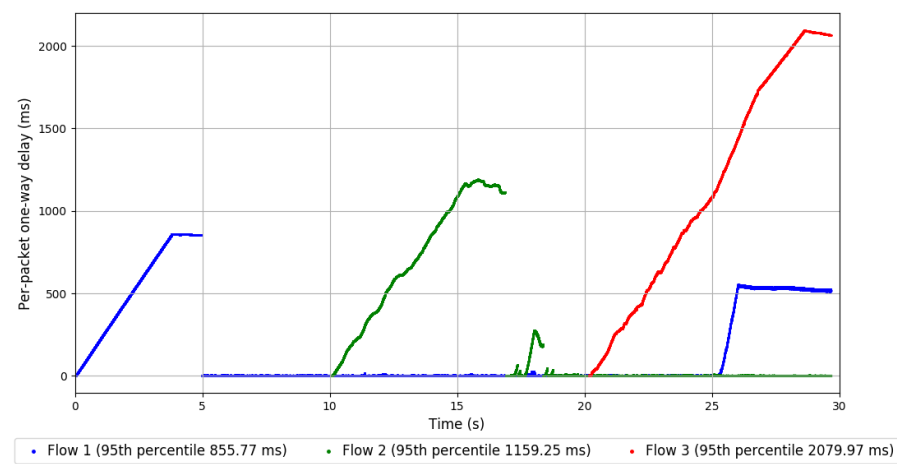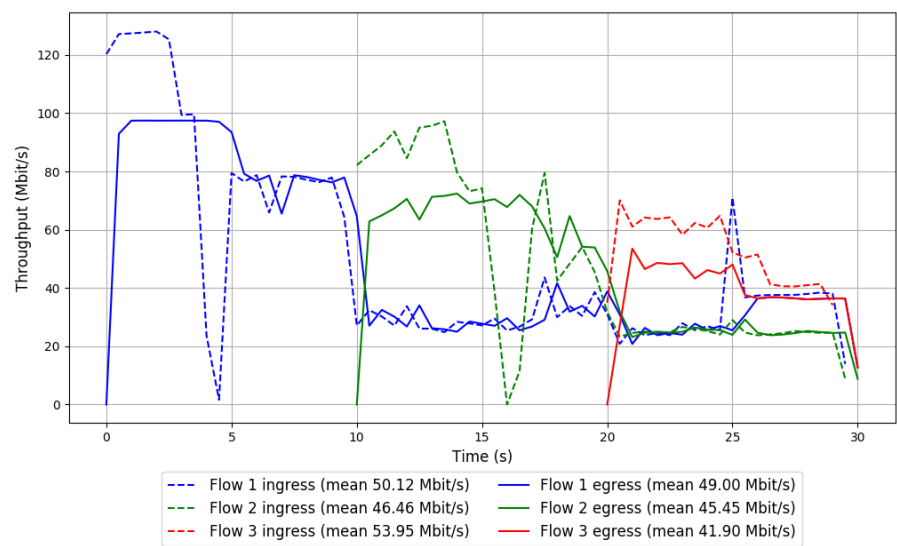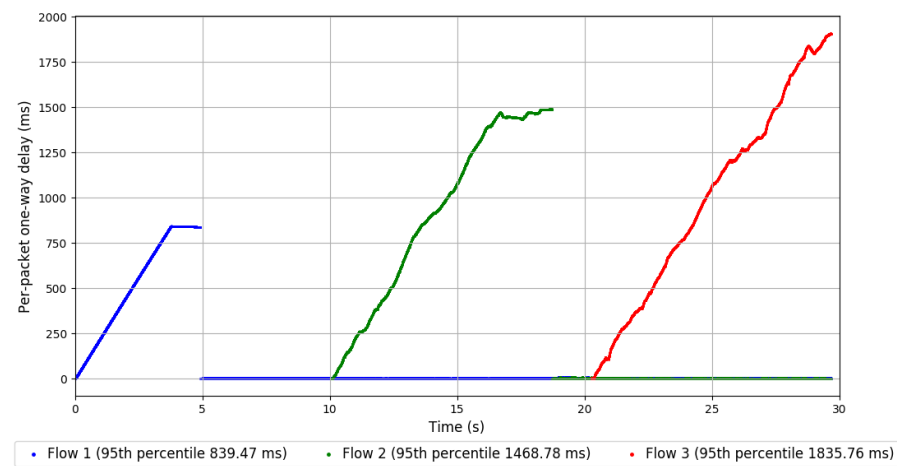
Run 5: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 50.12 Mbit/s)   Flow 1 egress (mean 49.00 Mbit/s)
Flow 2 ingress (mean 46.46 Mbit/s)   Flow 2 egress (mean 45.45 Mbit/s)
Flow 3 ingress (mean 53.95 Mbit/s)   Flow 3 egress (mean 41.90 Mbit/s)

Flow 1 (95th percentile 855.77 ms)   Flow 2 (95th percentile 1159.25 ms)   Flow 3 (95th percentile 2079.97 ms)
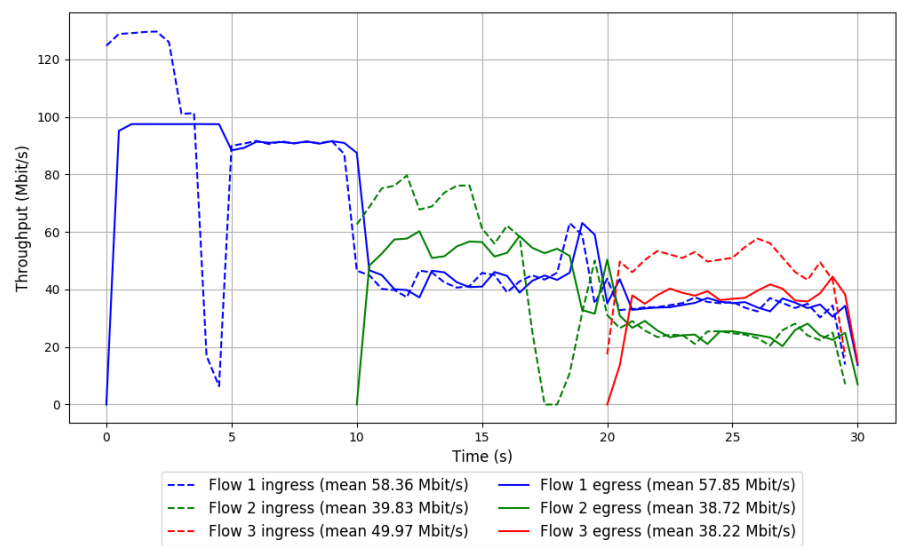
```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 16:16:31
End at: 2019-07-12 16:17:01
Local clock offset: -6.693 ms
Remote clock offset: -0.516 ms


# Below is generated by plot.py at 2019-07-12 18:27:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.56 Mbit/s
95th percentile per-packet one-way delay: 1465.016 ms
Loss rate: 4.96%
-- Flow 1:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 839.472 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 1468.779 ms
Loss rate: 2.81%
-- Flow 3:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 1835.762 ms
Loss rate: 23.54%
```
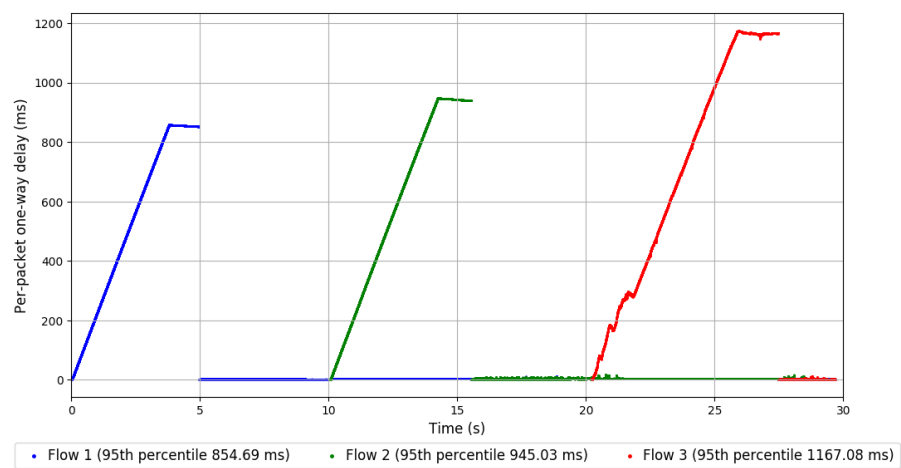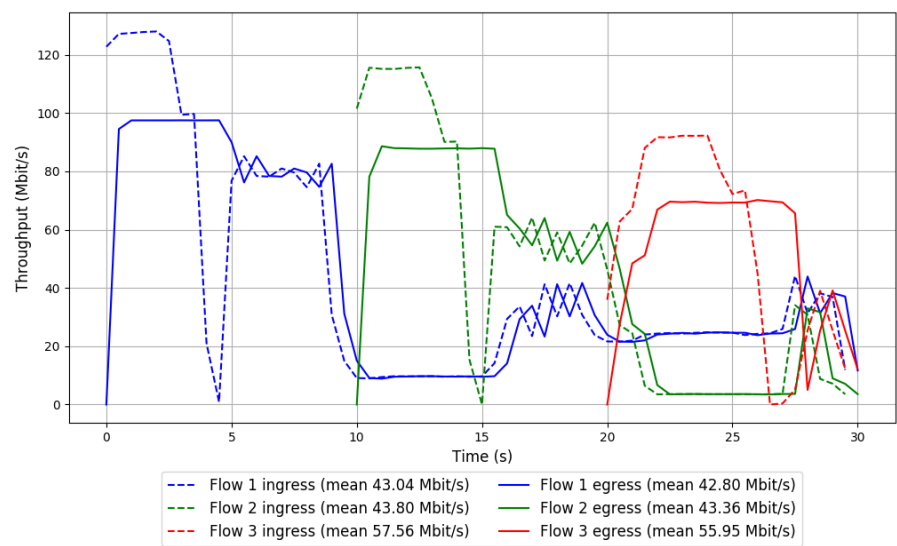
Run 1: Report of Muses_DecisionTreeR0 — Data Link

- - - Flow 1 ingress (mean 58.36 Mbit/s)   —— Flow 1 egress (mean 57.85 Mbit/s)
- - - Flow 2 ingress (mean 39.83 Mbit/s)   —— Flow 2 egress (mean 38.72 Mbit/s)
- - - Flow 3 ingress (mean 49.97 Mbit/s)   —— Flow 3 egress (mean 38.22 Mbit/s)

- Flow 1 (95th percentile 839.47 ms)   • Flow 2 (95th percentile 1468.78 ms)   • Flow 3 (95th percentile 1835.76 ms)

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 16:44:13
End at: 2019-07-12 16:44:43
Local clock offset: -3.854 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2019-07-12 18:28:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 1110.086 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 42.80 Mbit/s
95th percentile per-packet one-way delay: 854.686 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 43.36 Mbit/s
95th percentile per-packet one-way delay: 945.032 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 55.95 Mbit/s
95th percentile per-packet one-way delay: 1167.075 ms
Loss rate: 2.85%
```
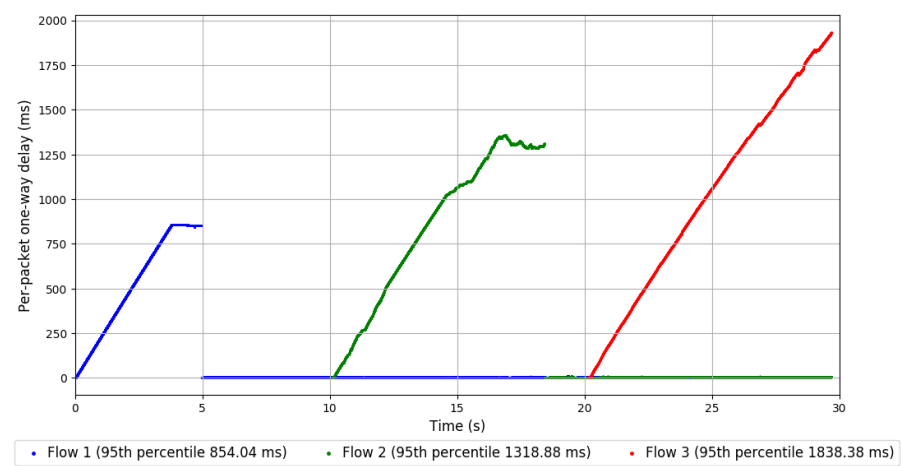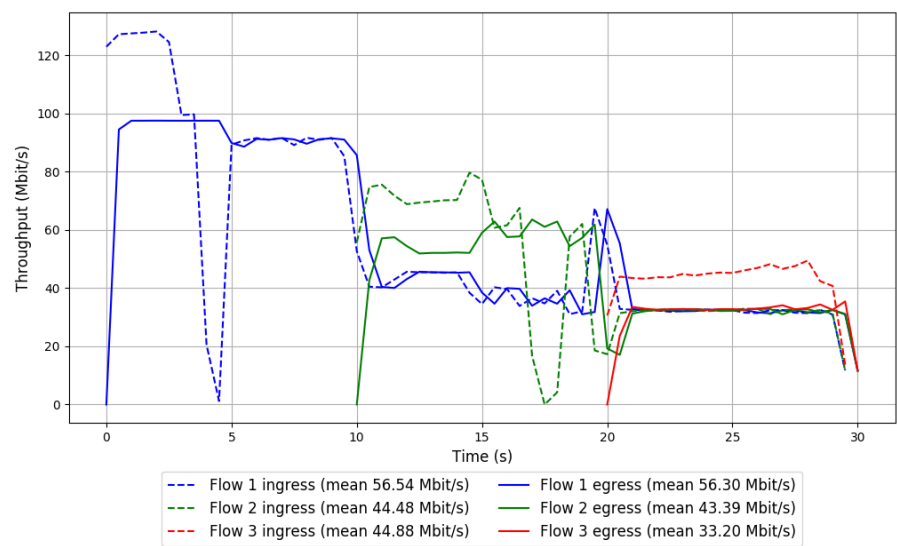
Run 2: Report of Muses_DecisionTreeR0 — Data Link

- - - Flow 1 ingress (mean 43.04 Mbit/s) —— Flow 1 egress (mean 42.80 Mbit/s)
- - - Flow 2 ingress (mean 43.80 Mbit/s) —— Flow 2 egress (mean 43.36 Mbit/s)
- - - Flow 3 ingress (mean 57.56 Mbit/s) —— Flow 3 egress (mean 55.95 Mbit/s)

• Flow 1 (95th percentile 854.69 ms)   • Flow 2 (95th percentile 945.03 ms)   • Flow 3 (95th percentile 1167.08 ms)

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 17:11:54
End at: 2019-07-12 17:12:24
Local clock offset: -1.685 ms
Remote clock offset: 0.287 ms


# Below is generated by plot.py at 2019-07-12 18:28:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.54 Mbit/s
95th percentile per-packet one-way delay: 1332.096 ms
Loss rate: 4.72%
-- Flow 1:
Average throughput: 56.30 Mbit/s
95th percentile per-packet one-way delay: 854.042 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 43.39 Mbit/s
95th percentile per-packet one-way delay: 1318.884 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 33.20 Mbit/s
95th percentile per-packet one-way delay: 1838.382 ms
Loss rate: 26.13%
```
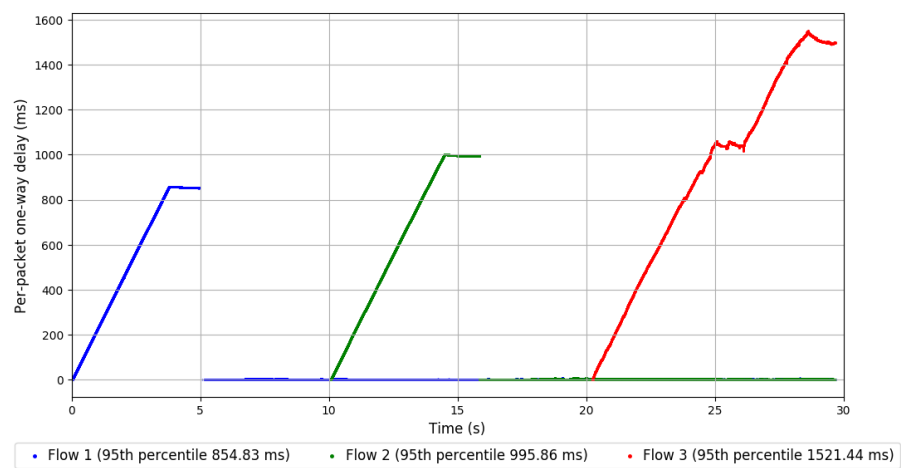
Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 17:39:37
End at: 2019-07-12 17:40:07
Local clock offset: 0.352 ms
Remote clock offset: 0.483 ms


# Below is generated by plot.py at 2019-07-12 18:28:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.59 Mbit/s
95th percentile per-packet one-way delay: 1321.316 ms
Loss rate: 4.04%
-- Flow 1:
Average throughput: 37.32 Mbit/s
95th percentile per-packet one-way delay: 854.832 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 45.78 Mbit/s
95th percentile per-packet one-way delay: 995.862 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 43.91 Mbit/s
95th percentile per-packet one-way delay: 1521.436 ms
Loss rate: 16.94%
```
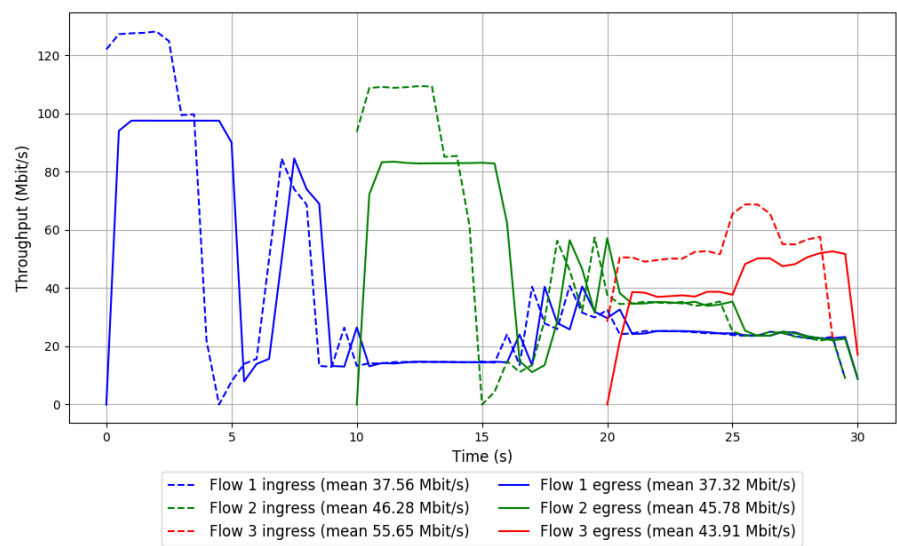
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-12 18:07:21
End at: 2019-07-12 18:07:51
Local clock offset: 3.182 ms
Remote clock offset: 0.406 ms


# Below is generated by plot.py at 2019-07-12 18:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.46 Mbit/s
95th percentile per-packet one-way delay: 886.384 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 47.46 Mbit/s
95th percentile per-packet one-way delay: 852.442 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 29.02 Mbit/s
95th percentile per-packet one-way delay: 885.062 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 68.13 Mbit/s
95th percentile per-packet one-way delay: 923.911 ms
Loss rate: 1.31%
```
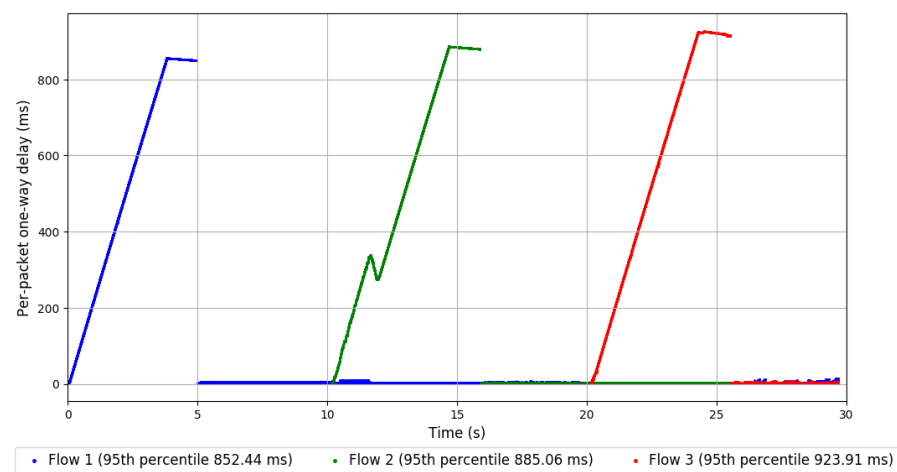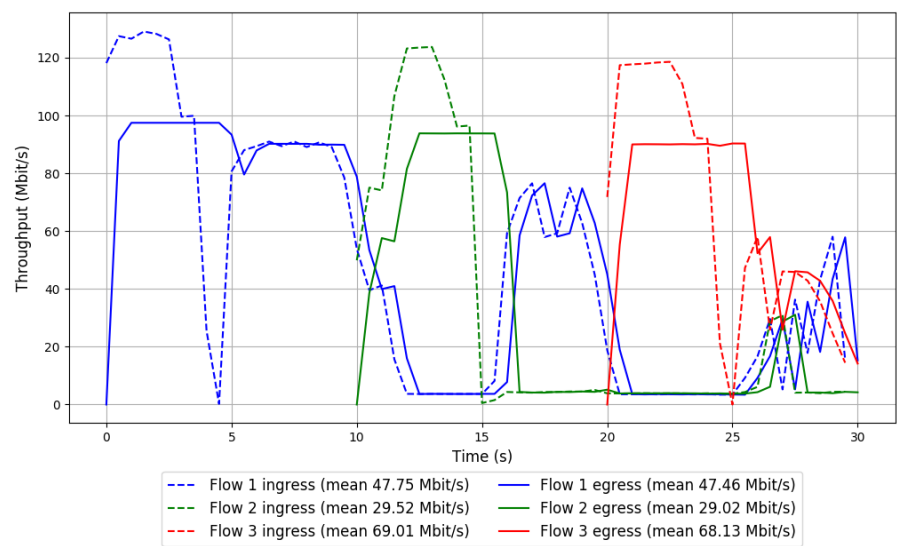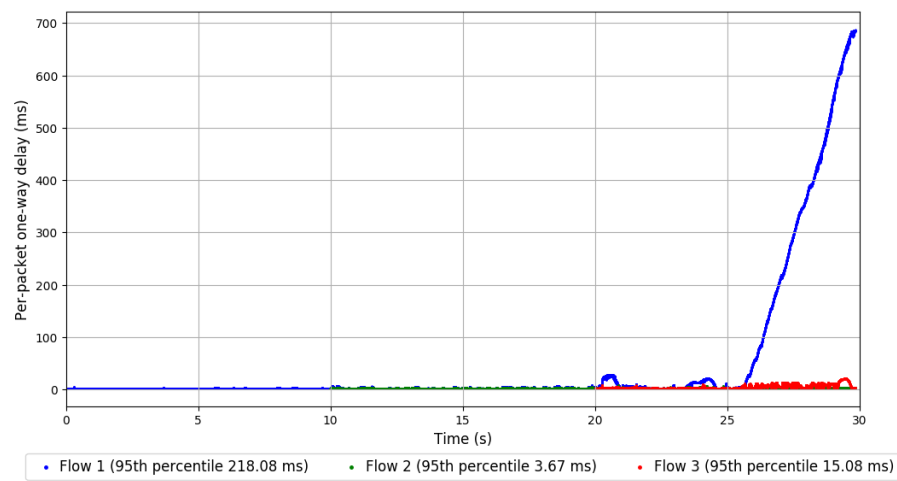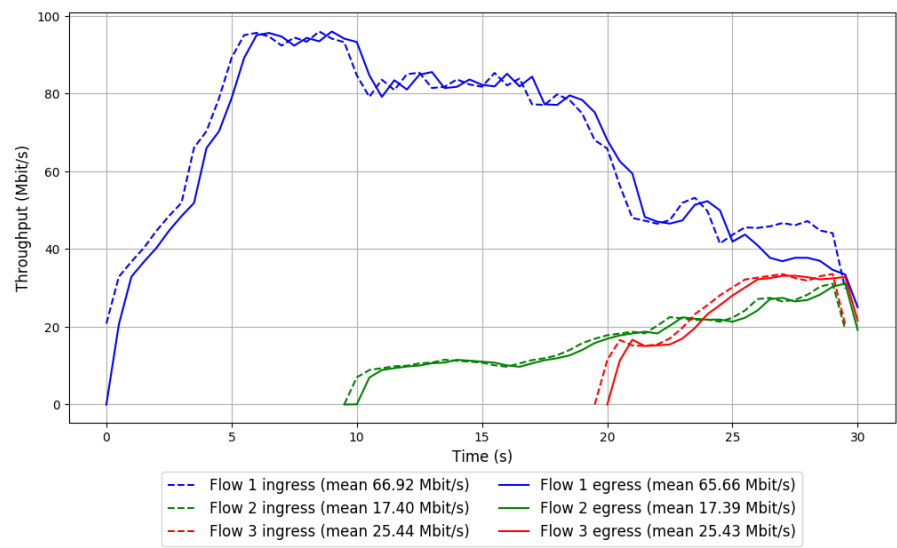
Run 5: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 47.75 Mbit/s)   Flow 1 egress (mean 47.46 Mbit/s)
Flow 2 ingress (mean 29.52 Mbit/s)   Flow 2 egress (mean 29.02 Mbit/s)
Flow 3 ingress (mean 69.01 Mbit/s)   Flow 3 egress (mean 68.13 Mbit/s)

Flow 1 (95th percentile 852.44 ms)   Flow 2 (95th percentile 885.06 ms)   Flow 3 (95th percentile 923.91 ms)

144

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-07-12 16:10:48
End at: 2019-07-12 16:11:18
Local clock offset: -6.045 ms
Remote clock offset: -0.568 ms


# Below is generated by plot.py at 2019-07-12 18:28:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.62 Mbit/s
95th percentile per-packet one-way delay: 81.271 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 65.66 Mbit/s
95th percentile per-packet one-way delay: 218.077 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 17.39 Mbit/s
95th percentile per-packet one-way delay: 3.673 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 25.43 Mbit/s
95th percentile per-packet one-way delay: 15.083 ms
Loss rate: 0.10%
```
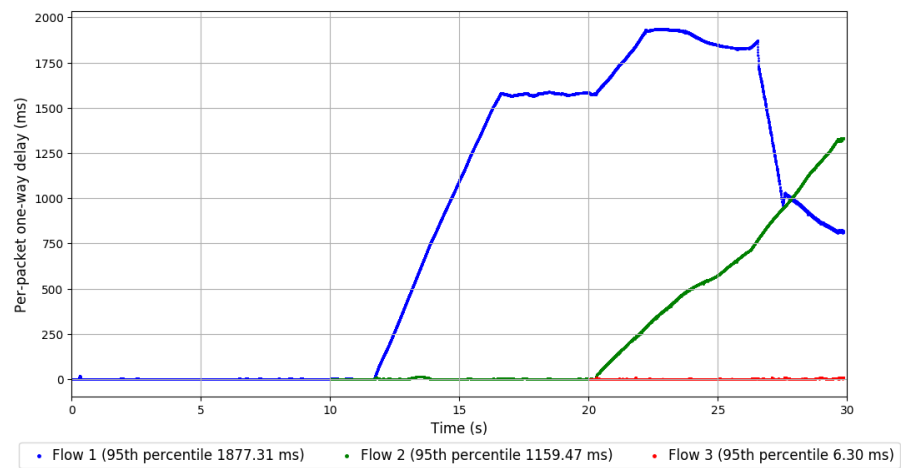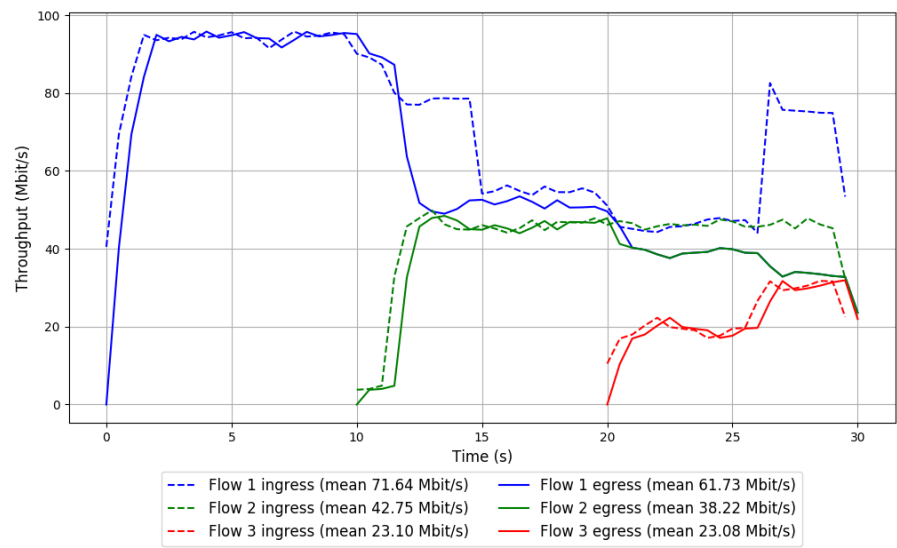
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 66.92 Mbit/s) --- Flow 1 egress (mean 65.66 Mbit/s)
Flow 2 ingress (mean 17.40 Mbit/s) --- Flow 2 egress (mean 17.39 Mbit/s)
Flow 3 ingress (mean 25.44 Mbit/s) --- Flow 3 egress (mean 25.43 Mbit/s)

Flow 1 (95th percentile 218.08 ms)   Flow 2 (95th percentile 3.67 ms)   Flow 3 (95th percentile 15.08 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-07-12 16:38:29
End at: 2019-07-12 16:38:59
Local clock offset: -4.691 ms
Remote clock offset: -0.166 ms


# Below is generated by plot.py at 2019-07-12 18:28:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.73 Mbit/s
95th percentile per-packet one-way delay: 1839.259 ms
Loss rate: 12.05%
-- Flow 1:
Average throughput: 61.73 Mbit/s
95th percentile per-packet one-way delay: 1877.310 ms
Loss rate: 13.87%
-- Flow 2:
Average throughput: 38.22 Mbit/s
95th percentile per-packet one-way delay: 1159.466 ms
Loss rate: 10.64%
-- Flow 3:
Average throughput: 23.08 Mbit/s
95th percentile per-packet one-way delay: 6.303 ms
Loss rate: 0.17%
```
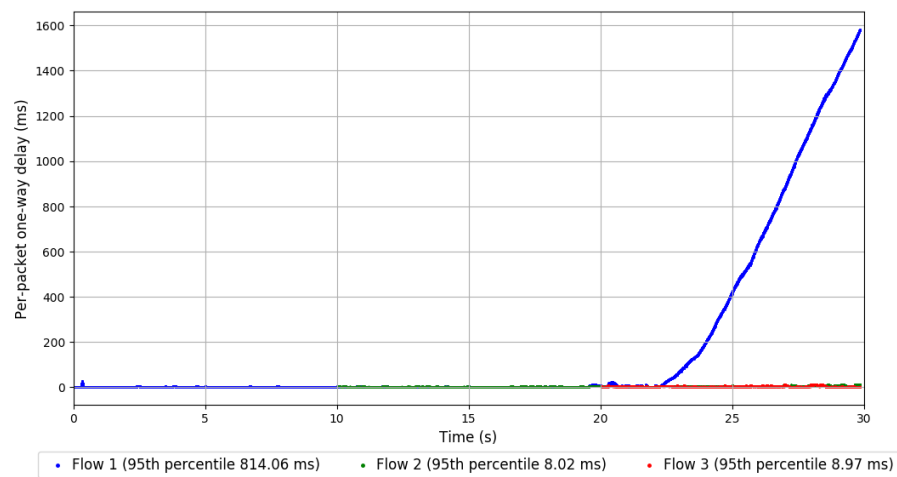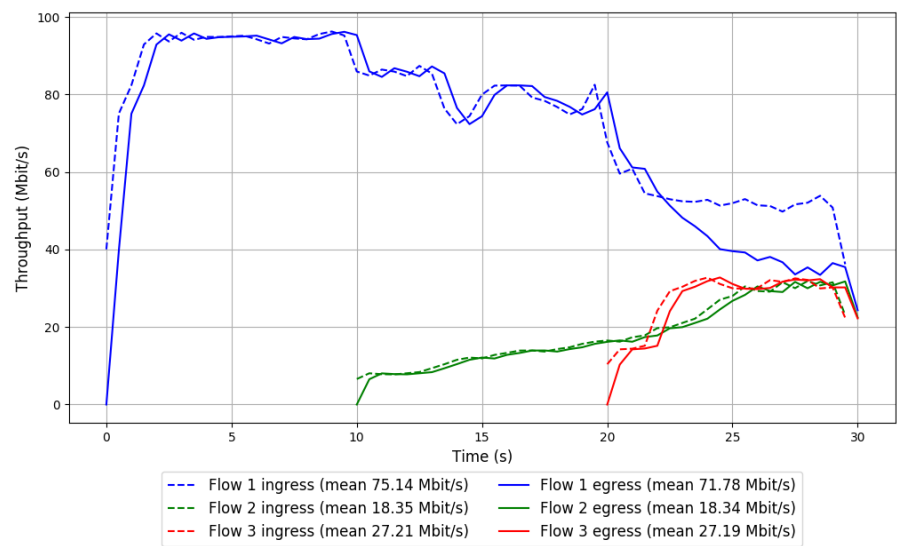
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 71.64 Mbit/s)   Flow 1 egress (mean 61.73 Mbit/s)
Flow 2 ingress (mean 42.75 Mbit/s)   Flow 2 egress (mean 38.22 Mbit/s)
Flow 3 ingress (mean 23.10 Mbit/s)   Flow 3 egress (mean 23.08 Mbit/s)

• Flow 1 (95th percentile 1877.31 ms)   • Flow 2 (95th percentile 1159.47 ms)   • Flow 3 (95th percentile 6.30 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-07-12 17:06:10
End at: 2019-07-12 17:06:40
Local clock offset: -2.674 ms
Remote clock offset: 0.095 ms


# Below is generated by plot.py at 2019-07-12 18:29:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.92 Mbit/s
95th percentile per-packet one-way delay: 596.329 ms
Loss rate: 3.51%
-- Flow 1:
Average throughput: 71.78 Mbit/s
95th percentile per-packet one-way delay: 814.056 ms
Loss rate: 4.48%
-- Flow 2:
Average throughput: 18.34 Mbit/s
95th percentile per-packet one-way delay: 8.022 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 27.19 Mbit/s
95th percentile per-packet one-way delay: 8.971 ms
Loss rate: 0.07%
```
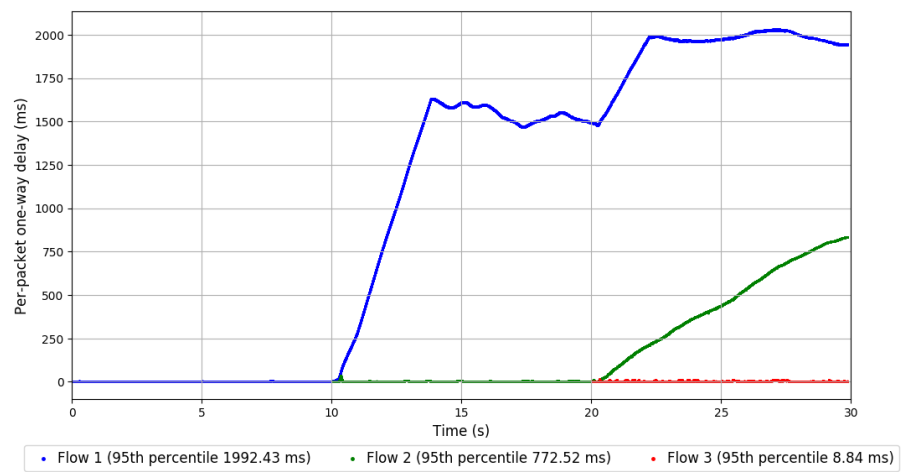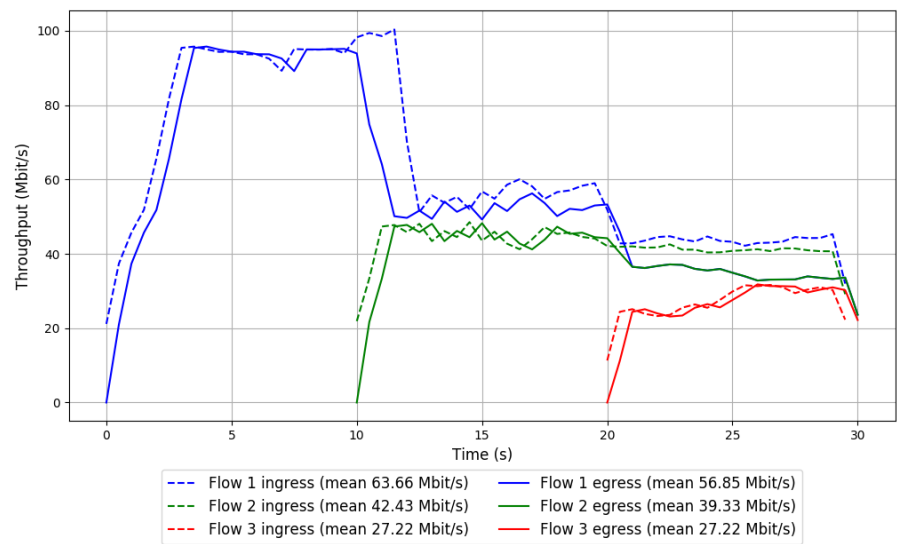
Run 3: Report of PCC-Allegro — Data Link

- - - - Flow 1 ingress (mean 75.14 Mbit/s) ——— Flow 1 egress (mean 71.78 Mbit/s)
- - - - Flow 2 ingress (mean 18.35 Mbit/s) ——— Flow 2 egress (mean 18.34 Mbit/s)
- - - - Flow 3 ingress (mean 27.21 Mbit/s) ——— Flow 3 egress (mean 27.19 Mbit/s)

• Flow 1 (95th percentile 814.06 ms)   • Flow 2 (95th percentile 8.02 ms)   • Flow 3 (95th percentile 8.97 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-07-12 17:33:54
End at: 2019-07-12 17:34:24
Local clock offset: 0.359 ms
Remote clock offset: 0.419 ms


# Below is generated by plot.py at 2019-07-12 18:29:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 1979.266 ms
Loss rate: 8.81%
-- Flow 1:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 1992.427 ms
Loss rate: 10.70%
-- Flow 2:
Average throughput: 39.33 Mbit/s
95th percentile per-packet one-way delay: 772.525 ms
Loss rate: 7.32%
-- Flow 3:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 8.838 ms
Loss rate: 0.07%
```
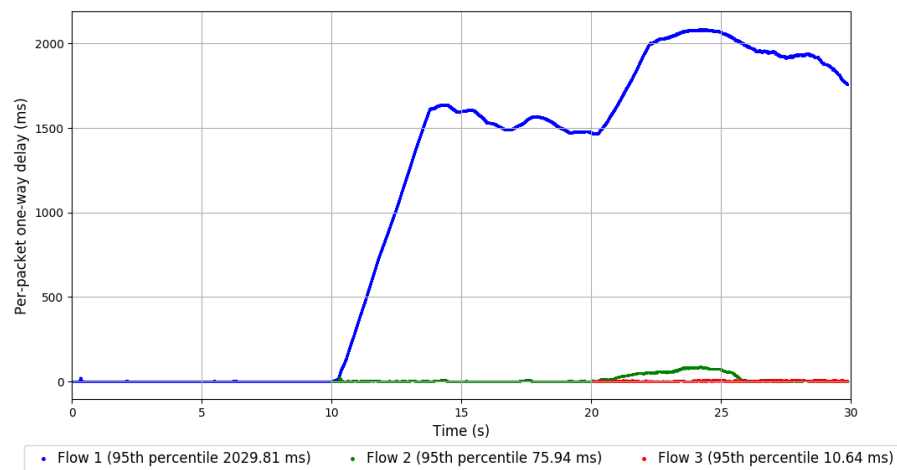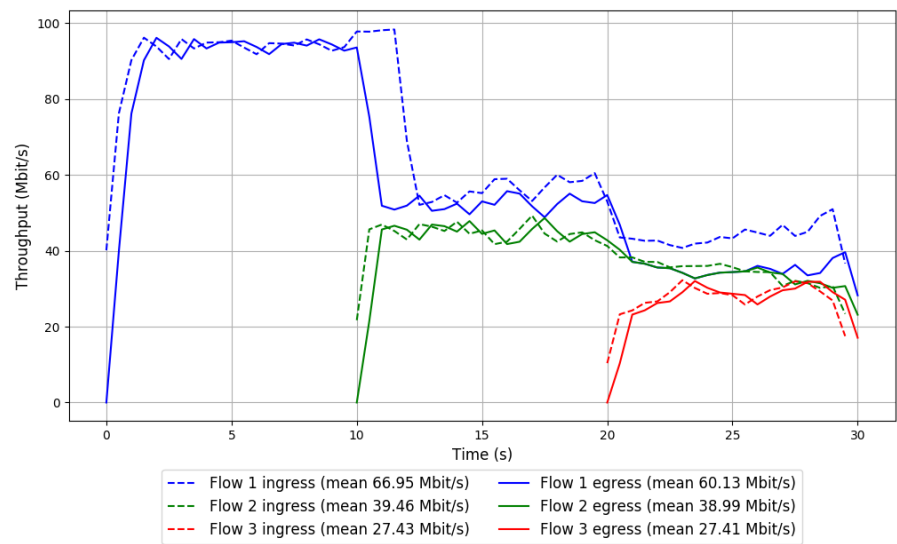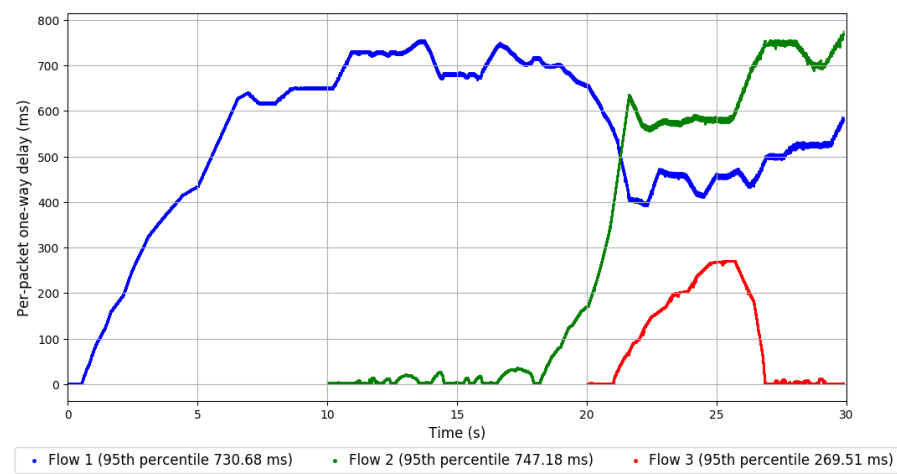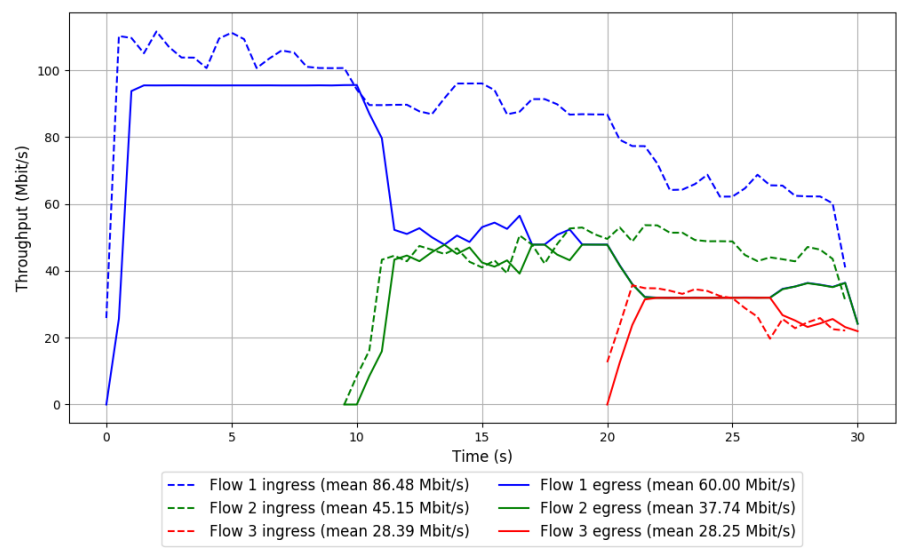
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 63.66 Mbit/s)   Flow 1 egress (mean 56.85 Mbit/s)
Flow 2 ingress (mean 42.43 Mbit/s)   Flow 2 egress (mean 39.33 Mbit/s)
Flow 3 ingress (mean 27.22 Mbit/s)   Flow 3 egress (mean 27.22 Mbit/s)

Flow 1 (95th percentile 1992.43 ms)   Flow 2 (95th percentile 772.52 ms)   Flow 3 (95th percentile 8.84 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-07-12 18:01:37
End at: 2019-07-12 18:02:07
Local clock offset: 2.676 ms
Remote clock offset: 0.518 ms


# Below is generated by plot.py at 2019-07-12 18:29:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 1961.415 ms
Loss rate: 7.00%
-- Flow 1:
Average throughput: 60.13 Mbit/s
95th percentile per-packet one-way delay: 2029.811 ms
Loss rate: 10.20%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 75.937 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 27.41 Mbit/s
95th percentile per-packet one-way delay: 10.637 ms
Loss rate: 0.12%
```
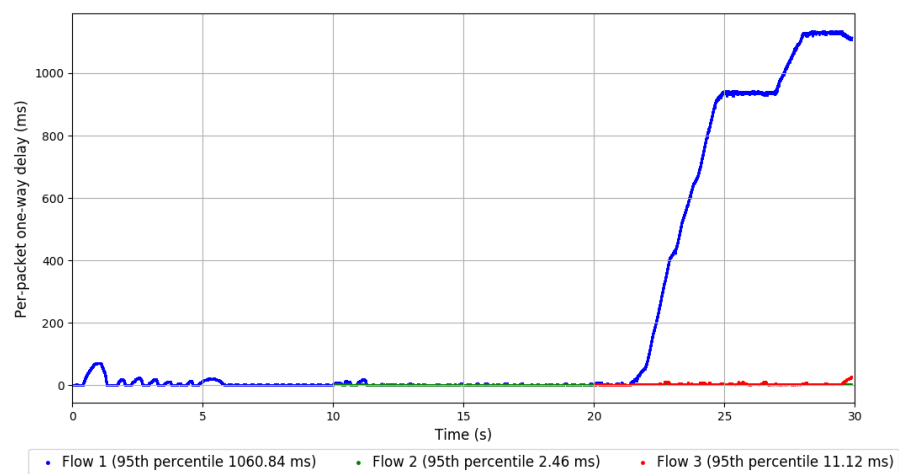
Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-07-12 16:07:09
End at: 2019-07-12 16:07:39
Local clock offset: -7.266 ms
Remote clock offset: -0.63 ms


# Below is generated by plot.py at 2019-07-12 18:30:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 731.777 ms
Loss rate: 25.00%
-- Flow 1:
Average throughput: 60.00 Mbit/s
95th percentile per-packet one-way delay: 730.680 ms
Loss rate: 30.63%
-- Flow 2:
Average throughput: 37.74 Mbit/s
95th percentile per-packet one-way delay: 747.184 ms
Loss rate: 16.45%
-- Flow 3:
Average throughput: 28.25 Mbit/s
95th percentile per-packet one-way delay: 269.506 ms
Loss rate: 0.54%
```

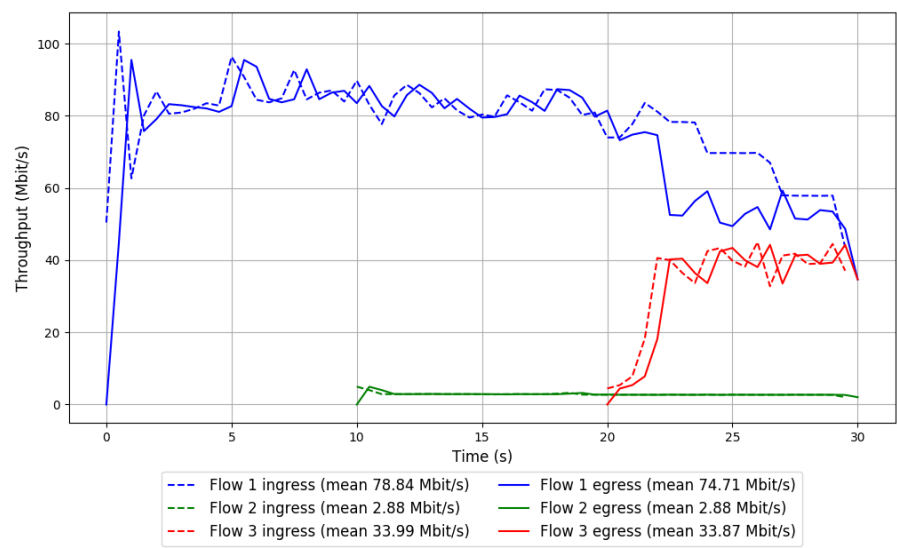Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 86.48 Mbit/s) --- Flow 1 egress (mean 60.00 Mbit/s)
Flow 2 ingress (mean 45.15 Mbit/s) --- Flow 2 egress (mean 37.74 Mbit/s)
Flow 3 ingress (mean 28.39 Mbit/s) --- Flow 3 egress (mean 28.25 Mbit/s)

Flow 1 (95th percentile 730.68 ms)   Flow 2 (95th percentile 747.18 ms)   Flow 3 (95th percentile 269.51 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-07-12 16:34:51
End at: 2019-07-12 16:35:21
Local clock offset: -5.135 ms
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2019-07-12 18:30:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.80 Mbit/s
95th percentile per-packet one-way delay: 991.576 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 74.71 Mbit/s
95th percentile per-packet one-way delay: 1060.844 ms
Loss rate: 5.26%
-- Flow 2:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 2.458 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.87 Mbit/s
95th percentile per-packet one-way delay: 11.118 ms
Loss rate: 0.42%
```
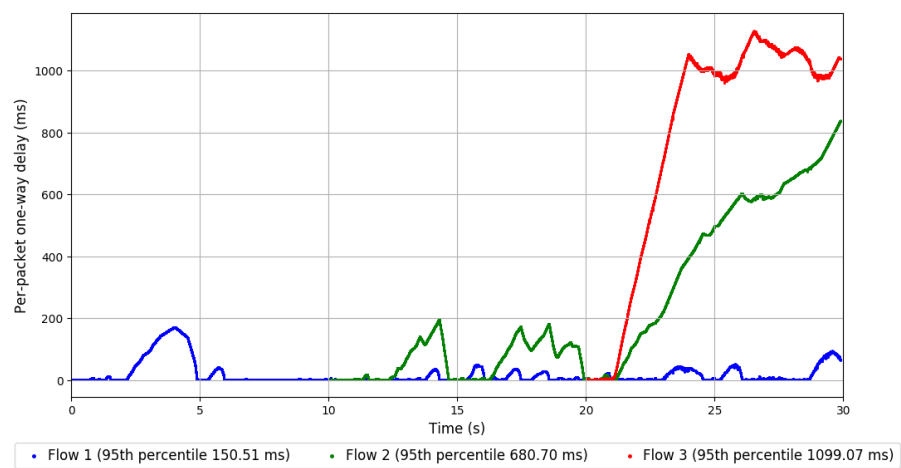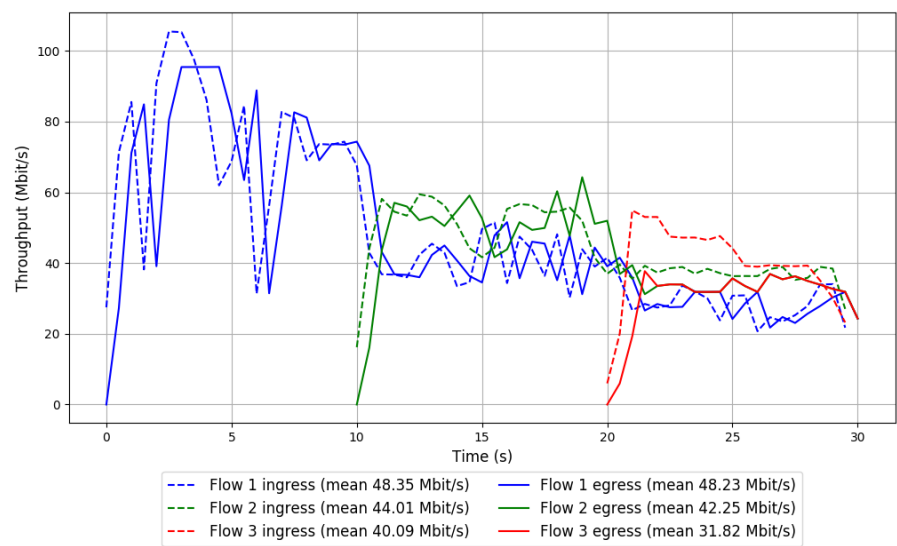
Run 2: Report of PCC-Expr — Data Link

- - - Flow 1 ingress (mean 78.84 Mbit/s) ——— Flow 1 egress (mean 74.71 Mbit/s)
- - - Flow 2 ingress (mean 2.88 Mbit/s) ——— Flow 2 egress (mean 2.88 Mbit/s)
- - - Flow 3 ingress (mean 33.99 Mbit/s) ——— Flow 3 egress (mean 33.87 Mbit/s)

• Flow 1 (95th percentile 1060.84 ms)　　• Flow 2 (95th percentile 2.46 ms)　　• Flow 3 (95th percentile 11.12 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-07-12 17:02:32
End at: 2019-07-12 17:03:02
Local clock offset: -1.993 ms
Remote clock offset: 0.159 ms


# Below is generated by plot.py at 2019-07-12 18:30:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 1006.318 ms
Loss rate: 4.45%
-- Flow 1:
Average throughput: 48.23 Mbit/s
95th percentile per-packet one-way delay: 150.515 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 680.701 ms
Loss rate: 4.02%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 1099.068 ms
Loss rate: 20.68%
```
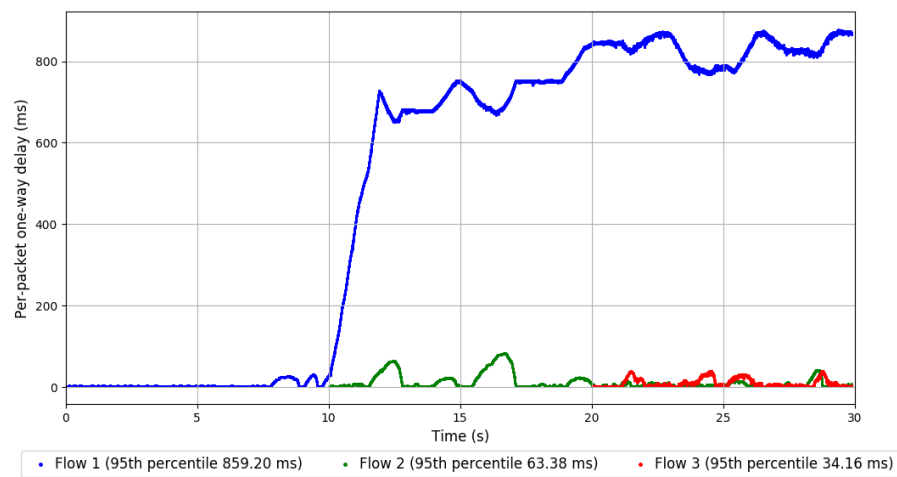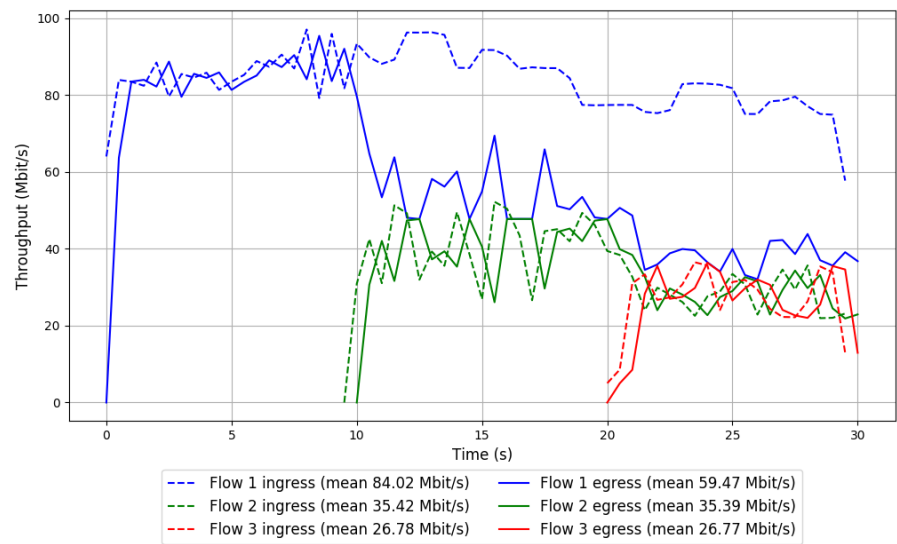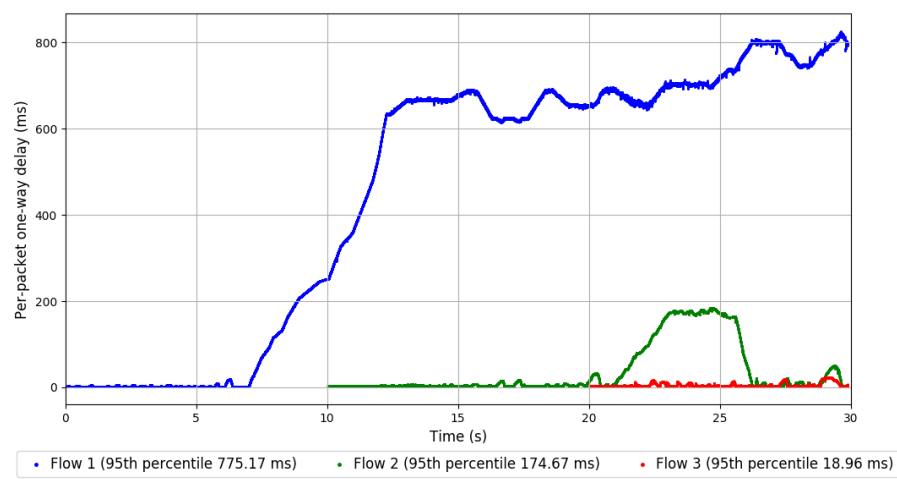
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 48.35 Mbit/s) --- Flow 1 egress (mean 48.23 Mbit/s)
Flow 2 ingress (mean 44.01 Mbit/s) --- Flow 2 egress (mean 42.25 Mbit/s)
Flow 3 ingress (mean 40.09 Mbit/s) --- Flow 3 egress (mean 31.82 Mbit/s)

Flow 1 (95th percentile 150.51 ms)   Flow 2 (95th percentile 680.70 ms)   Flow 3 (95th percentile 1099.07 ms)

160

```
Run 4: Statistics of PCC-Expr

Start at: 2019-07-12 17:30:16
End at: 2019-07-12 17:30:46
Local clock offset: -1.309 ms
Remote clock offset: 0.467 ms


# Below is generated by plot.py at 2019-07-12 18:30:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.85 Mbit/s
95th percentile per-packet one-way delay: 846.058 ms
Loss rate: 21.12%
-- Flow 1:
Average throughput: 59.47 Mbit/s
95th percentile per-packet one-way delay: 859.195 ms
Loss rate: 29.22%
-- Flow 2:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 63.381 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 26.77 Mbit/s
95th percentile per-packet one-way delay: 34.162 ms
Loss rate: 0.12%
```
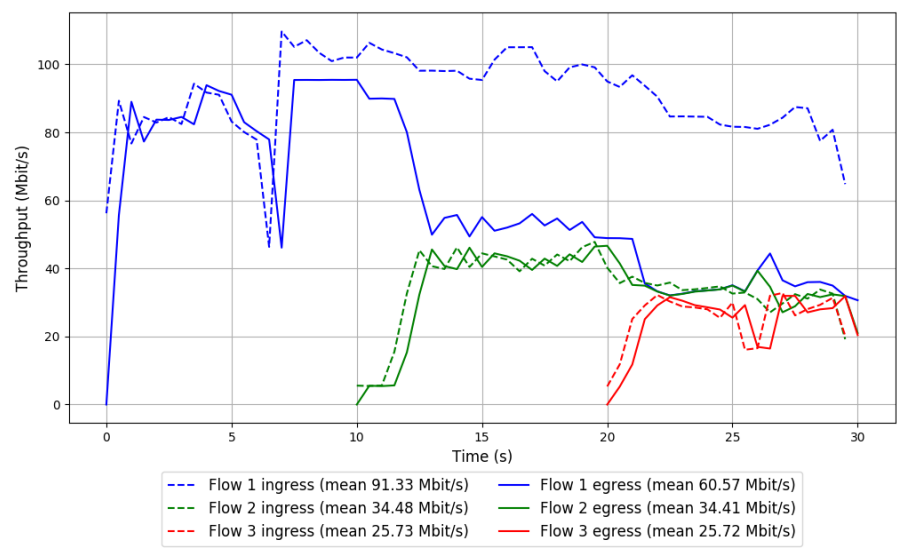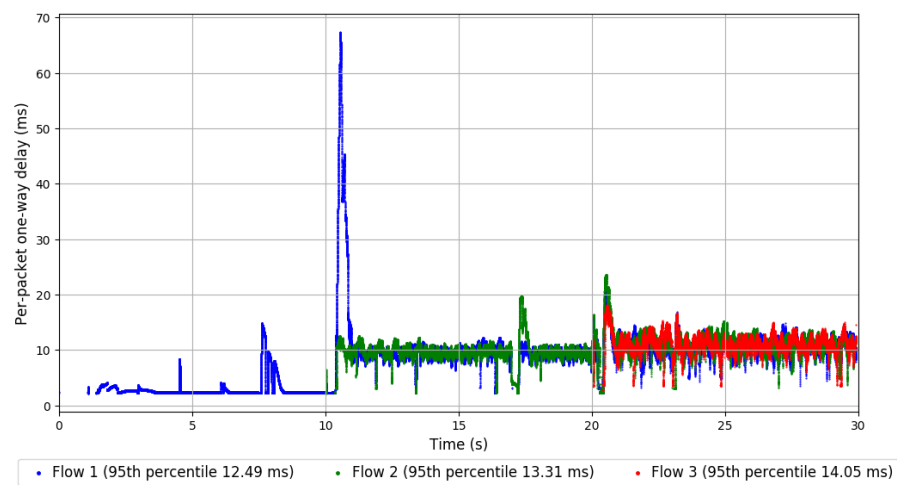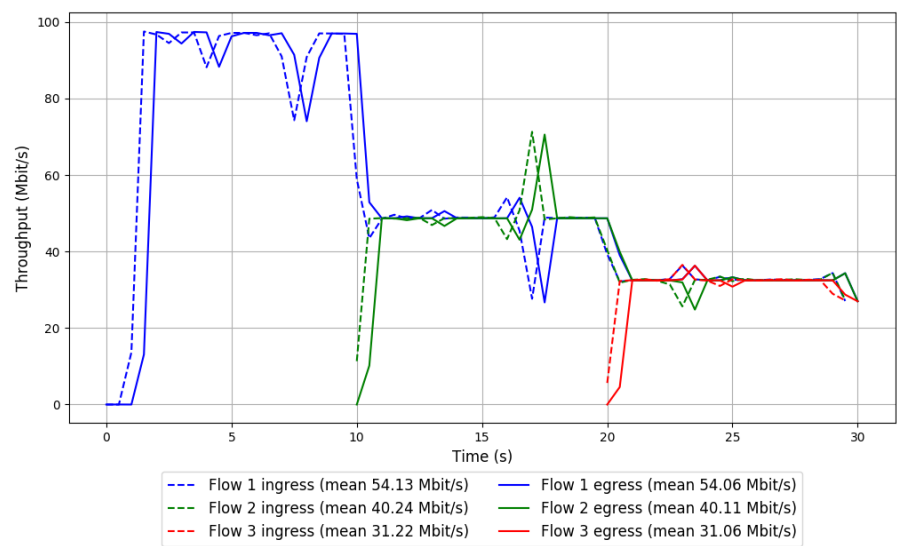
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-07-12 17:57:58
End at: 2019-07-12 17:58:28
Local clock offset: 2.475 ms
Remote clock offset: 0.496 ms


# Below is generated by plot.py at 2019-07-12 18:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.93 Mbit/s
95th percentile per-packet one-way delay: 745.445 ms
Loss rate: 25.12%
-- Flow 1:
Average throughput: 60.57 Mbit/s
95th percentile per-packet one-way delay: 775.174 ms
Loss rate: 33.69%
-- Flow 2:
Average throughput: 34.41 Mbit/s
95th percentile per-packet one-way delay: 174.666 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 25.72 Mbit/s
95th percentile per-packet one-way delay: 18.960 ms
Loss rate: 0.11%
```
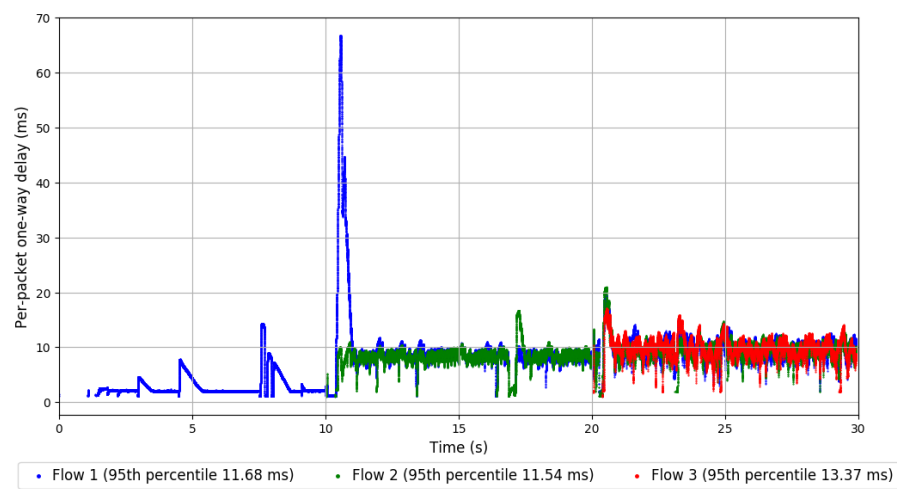
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 91.33 Mbit/s) Flow 1 egress (mean 60.57 Mbit/s)
Flow 2 ingress (mean 34.48 Mbit/s) Flow 2 egress (mean 34.41 Mbit/s)
Flow 3 ingress (mean 25.73 Mbit/s) Flow 3 egress (mean 25.72 Mbit/s)

Flow 1 (95th percentile 775.17 ms) Flow 2 (95th percentile 174.67 ms) Flow 3 (95th percentile 18.96 ms)
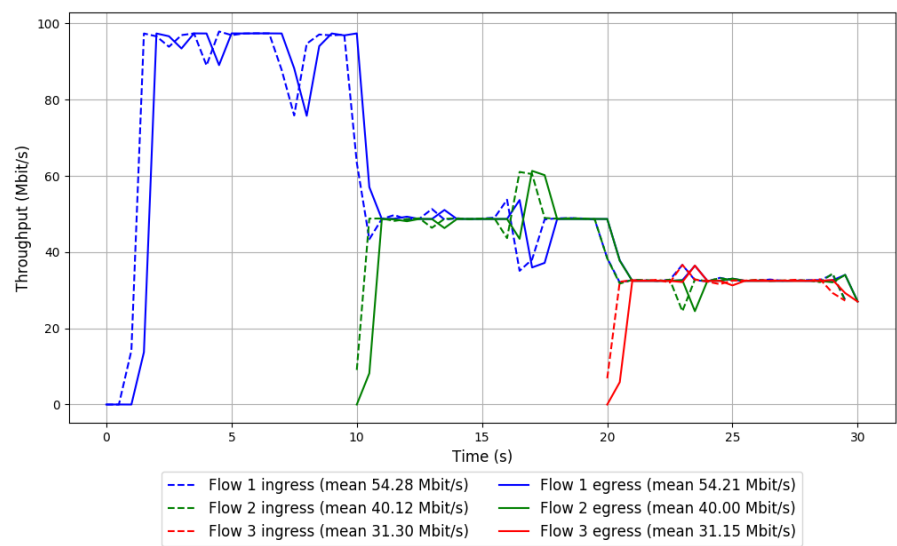
```
Run 1: Statistics of QUIC Cubic

Start at: 2019-07-12 16:02:30
End at: 2019-07-12 16:03:00
Local clock offset: -6.631 ms
Remote clock offset: -0.632 ms


# Below is generated by plot.py at 2019-07-12 18:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.02 Mbit/s
95th percentile per-packet one-way delay: 13.112 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 54.06 Mbit/s
95th percentile per-packet one-way delay: 12.493 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.11 Mbit/s
95th percentile per-packet one-way delay: 13.313 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 14.055 ms
Loss rate: 0.54%
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-07-12 16:30:14
End at: 2019-07-12 16:30:44
Local clock offset: -6.428 ms
Remote clock offset: -0.288 ms


# Below is generated by plot.py at 2019-07-12 18:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.12 Mbit/s
95th percentile per-packet one-way delay: 11.953 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 54.21 Mbit/s
95th percentile per-packet one-way delay: 11.675 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 11.537 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 31.15 Mbit/s
95th percentile per-packet one-way delay: 13.370 ms
Loss rate: 0.51%
```
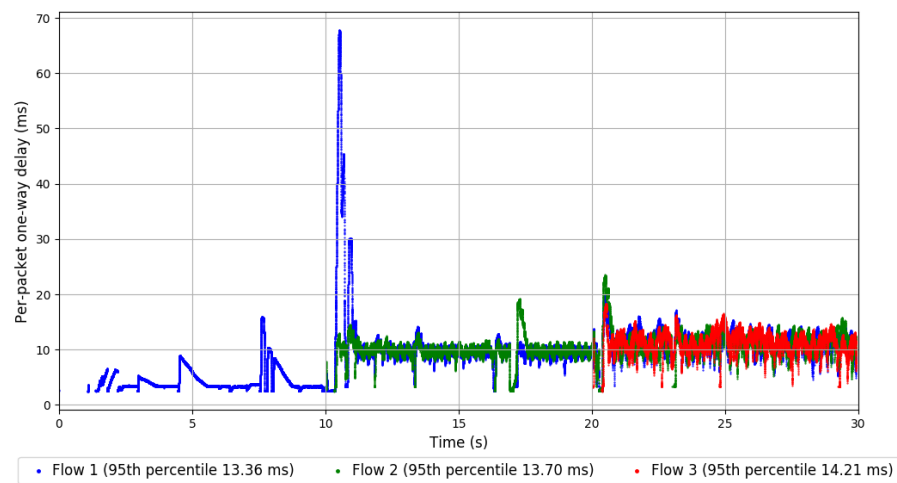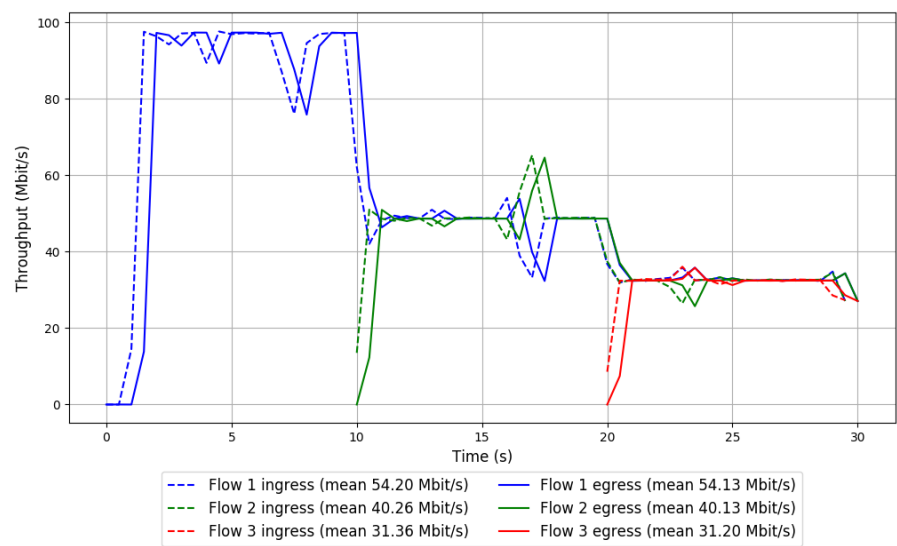
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-07-12 16:57:56
End at: 2019-07-12 16:58:26
Local clock offset: -2.144 ms
Remote clock offset: 0.045 ms


# Below is generated by plot.py at 2019-07-12 18:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.15 Mbit/s
95th percentile per-packet one-way delay: 13.664 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 54.13 Mbit/s
95th percentile per-packet one-way delay: 13.355 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.13 Mbit/s
95th percentile per-packet one-way delay: 13.701 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 14.207 ms
Loss rate: 0.53%
```
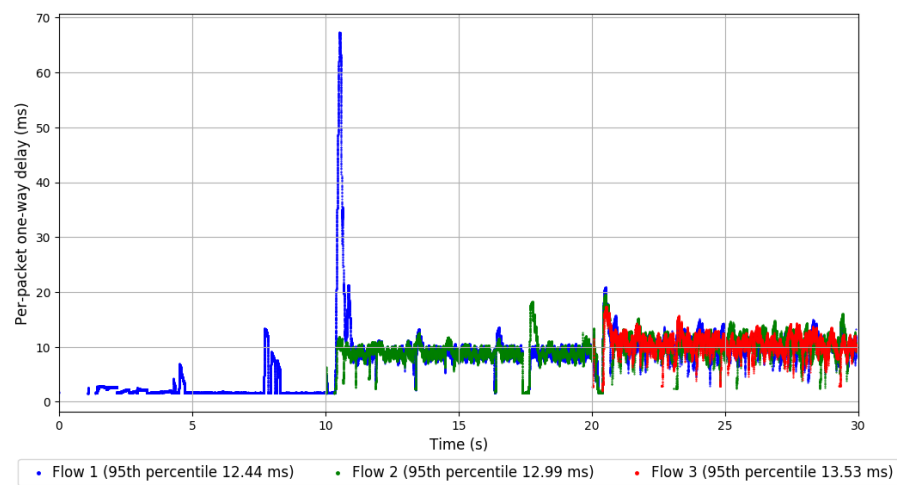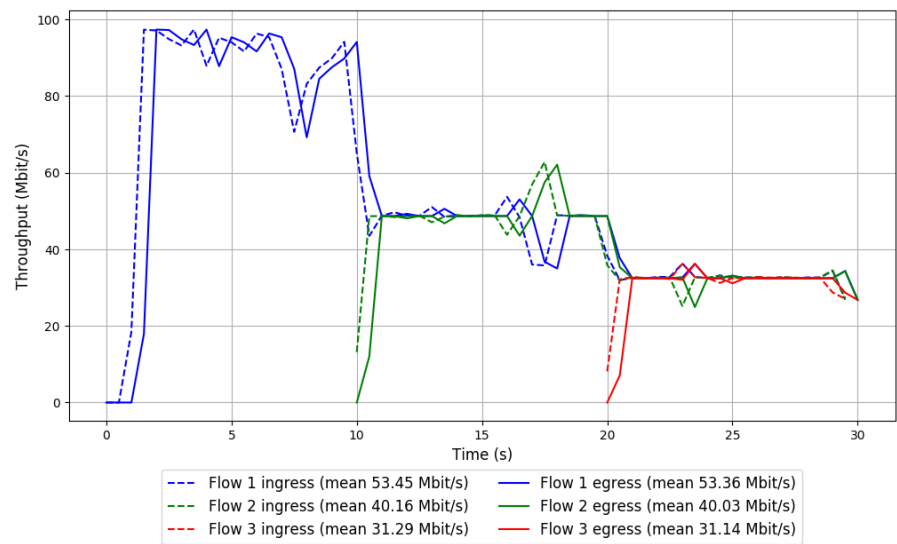
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 54.20 Mbit/s) --- Flow 1 egress (mean 54.13 Mbit/s)
Flow 2 ingress (mean 40.26 Mbit/s) --- Flow 2 egress (mean 40.13 Mbit/s)
Flow 3 ingress (mean 31.36 Mbit/s) --- Flow 3 egress (mean 31.20 Mbit/s)

Flow 1 (95th percentile 13.36 ms)   Flow 2 (95th percentile 13.70 ms)   Flow 3 (95th percentile 14.21 ms)

170

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-07-12 17:25:37
End at: 2019-07-12 17:26:07
Local clock offset: -1.927 ms
Remote clock offset: 0.386 ms


# Below is generated by plot.py at 2019-07-12 18:31:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.29 Mbit/s
95th percentile per-packet one-way delay: 12.859 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 53.36 Mbit/s
95th percentile per-packet one-way delay: 12.438 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 40.03 Mbit/s
95th percentile per-packet one-way delay: 12.986 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 13.534 ms
Loss rate: 0.50%
```
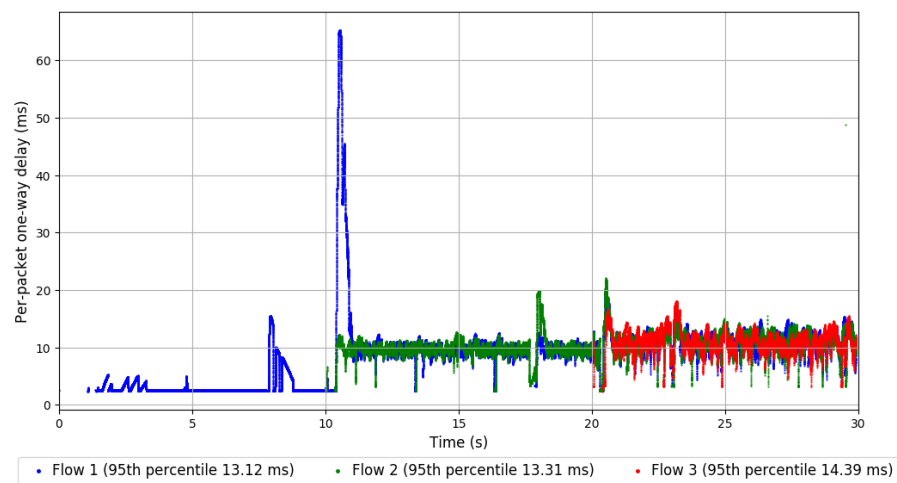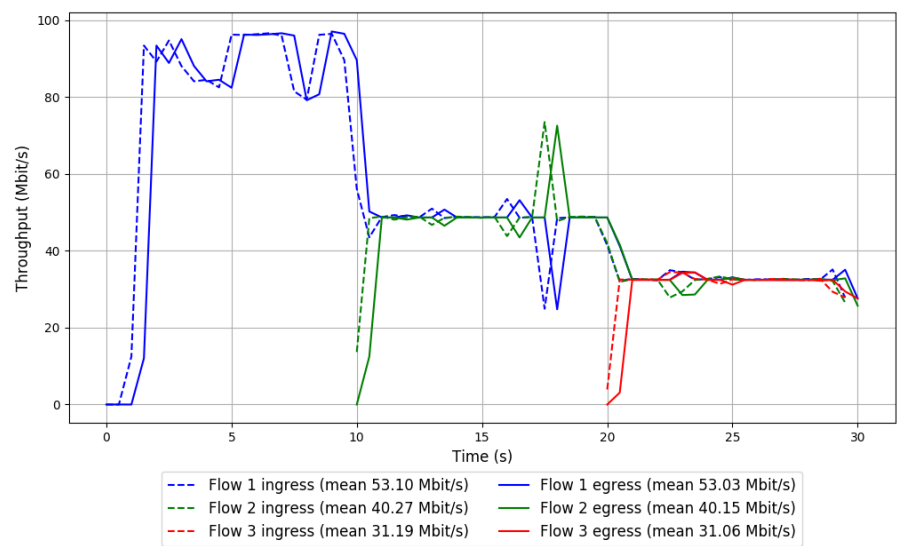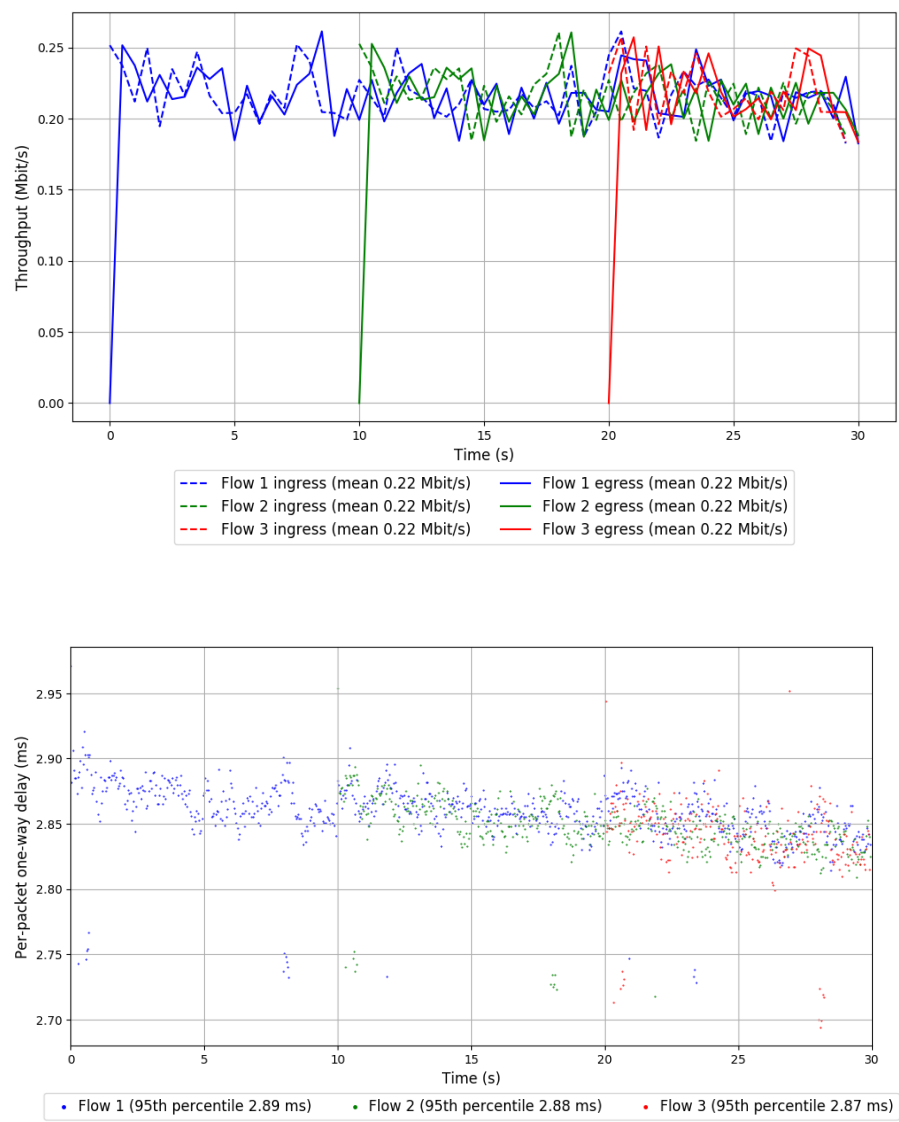
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 53.45 Mbit/s) --- Flow 1 egress (mean 53.36 Mbit/s)
Flow 2 ingress (mean 40.16 Mbit/s) --- Flow 2 egress (mean 40.03 Mbit/s)
Flow 3 ingress (mean 31.29 Mbit/s) --- Flow 3 egress (mean 31.14 Mbit/s)

Flow 1 (95th percentile 12.44 ms)   Flow 2 (95th percentile 12.99 ms)   Flow 3 (95th percentile 13.53 ms)

172

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-07-12 17:53:21
End at: 2019-07-12 17:53:51
Local clock offset: 2.566 ms
Remote clock offset: 0.594 ms


# Below is generated by plot.py at 2019-07-12 18:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.01 Mbit/s
95th percentile per-packet one-way delay: 13.466 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 53.03 Mbit/s
95th percentile per-packet one-way delay: 13.117 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 13.314 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 14.388 ms
Loss rate: 0.47%
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 53.10 Mbit/s) --- Flow 1 egress (mean 53.03 Mbit/s)
Flow 2 ingress (mean 40.27 Mbit/s) --- Flow 2 egress (mean 40.15 Mbit/s)
Flow 3 ingress (mean 31.19 Mbit/s) --- Flow 3 egress (mean 31.06 Mbit/s)

Flow 1 (95th percentile 13.12 ms) · Flow 2 (95th percentile 13.31 ms) · Flow 3 (95th percentile 14.39 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-07-12 16:01:25
End at: 2019-07-12 16:01:55
Local clock offset: -6.756 ms
Remote clock offset: -0.753 ms


# Below is generated by plot.py at 2019-07-12 18:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.884 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.887 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.877 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.870 ms
Loss rate: 0.00%
```
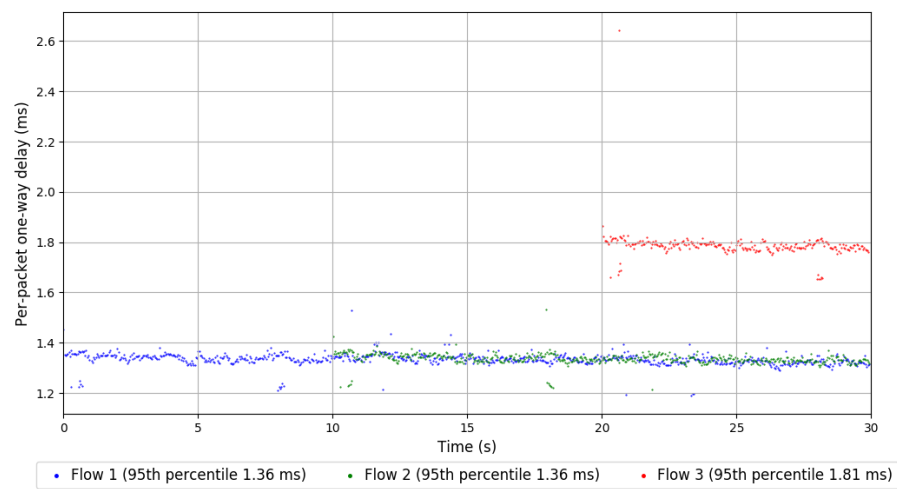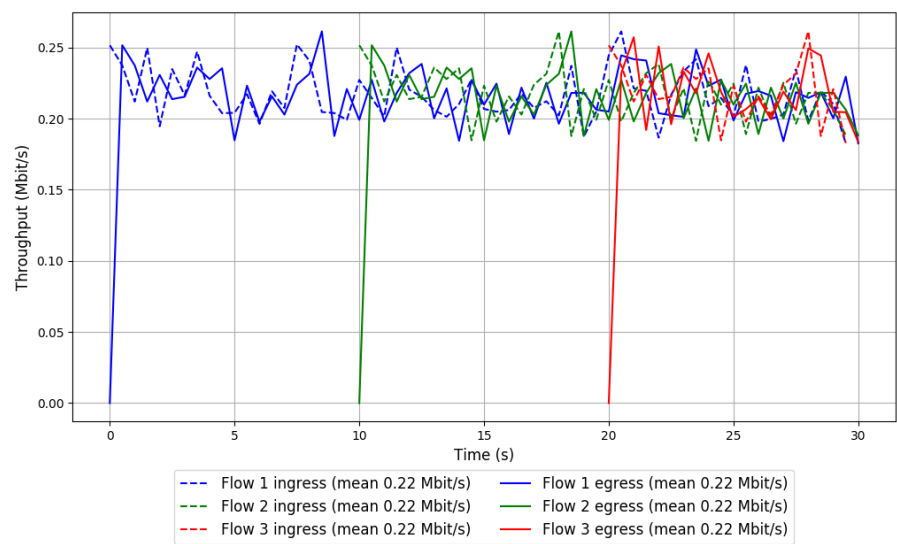
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-07-12 16:29:09
End at: 2019-07-12 16:29:39
Local clock offset: -6.537 ms
Remote clock offset: -0.217 ms


# Below is generated by plot.py at 2019-07-12 18:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.773 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.380 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.789 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.746 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-07-12 16:56:50
End at: 2019-07-12 16:57:20
Local clock offset: -3.293 ms
Remote clock offset: 0.056 ms


# Below is generated by plot.py at 2019-07-12 18:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.795 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.364 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.364 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.815 ms
Loss rate: 0.35%
```
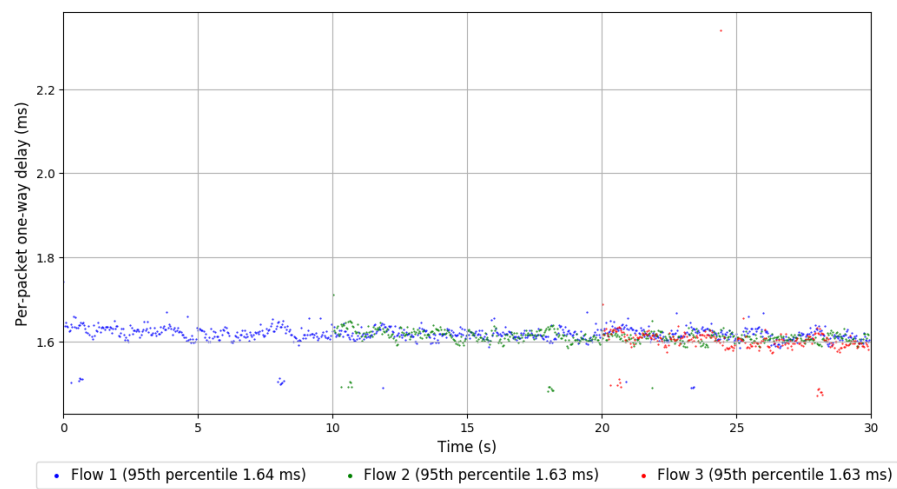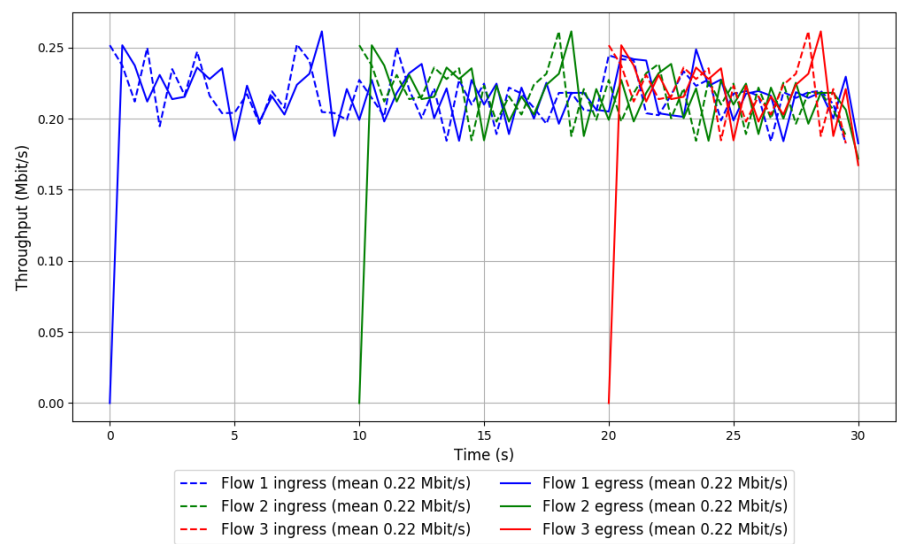
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-07-12 17:24:32
End at: 2019-07-12 17:25:02
Local clock offset: -1.971 ms
Remote clock offset: 0.374 ms


# Below is generated by plot.py at 2019-07-12 18:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.637 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.640 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.634 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.628 ms
Loss rate: 0.35%
```
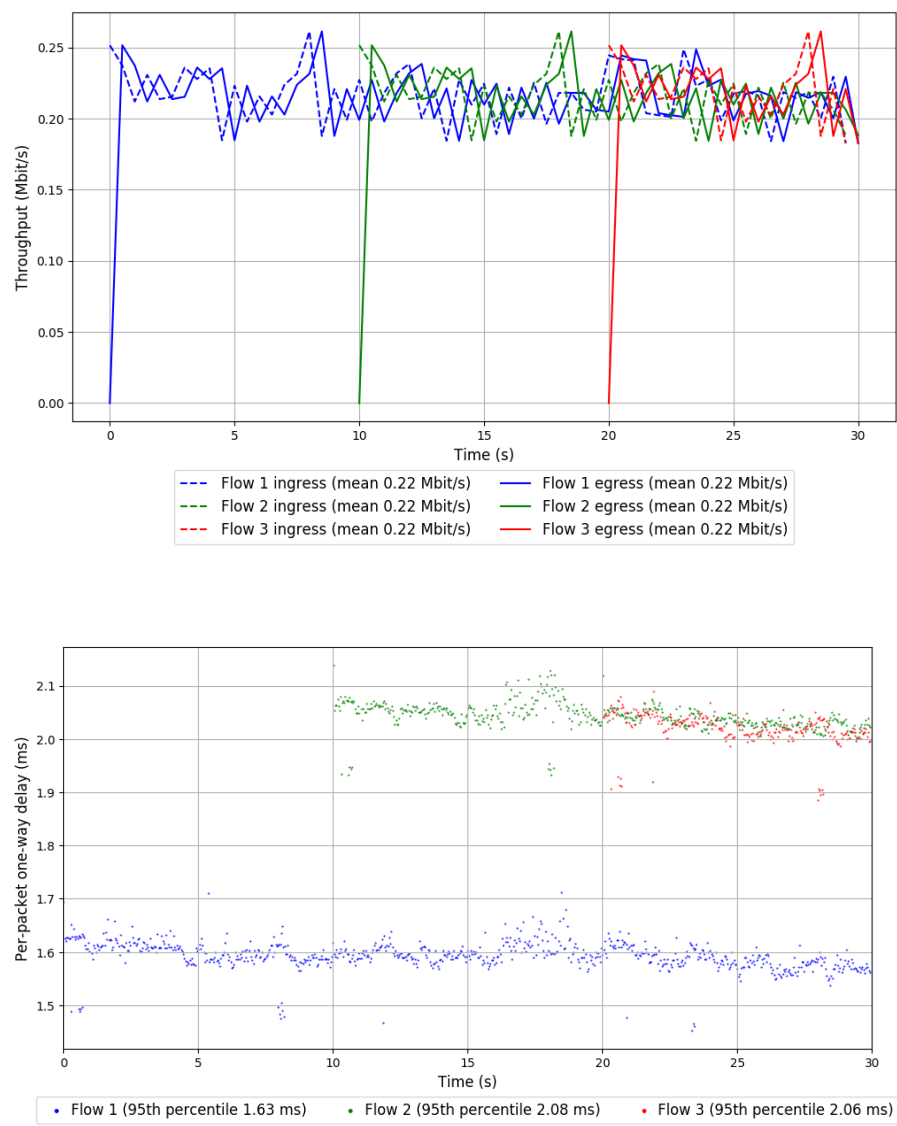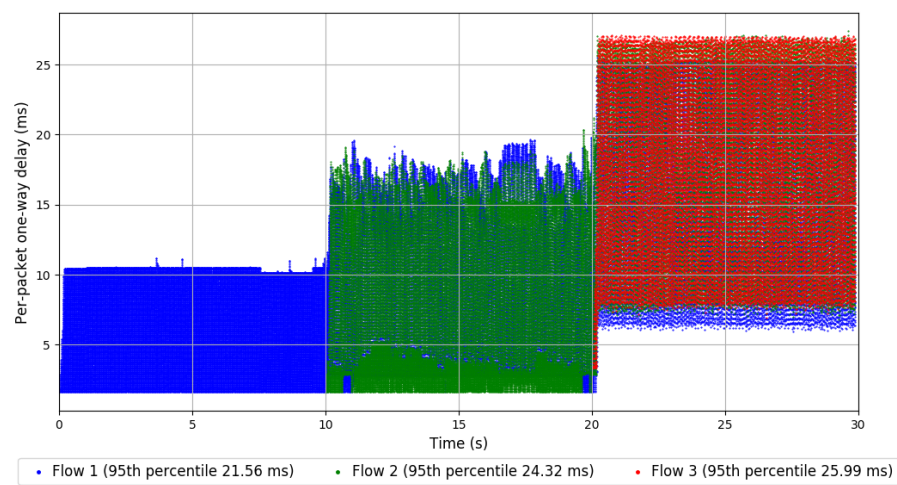
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-07-12 17:52:15
End at: 2019-07-12 17:52:45
Local clock offset: 1.985 ms
Remote clock offset: 0.533 ms


# Below is generated by plot.py at 2019-07-12 18:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.630 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.055 ms
Loss rate: 0.00%
```
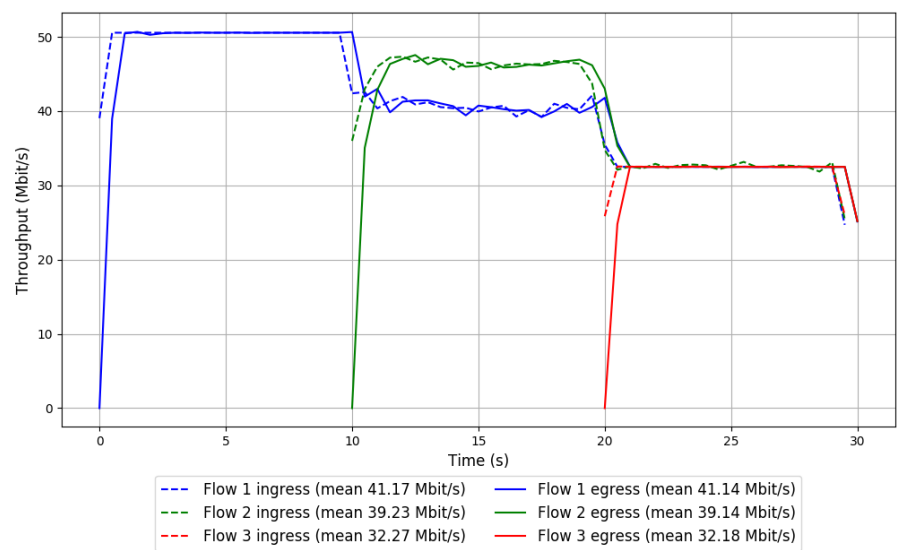
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-07-12 15:57:56
End at: 2019-07-12 15:58:26
Local clock offset: -7.782 ms
Remote clock offset: -0.713 ms


# Below is generated by plot.py at 2019-07-12 18:31:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.80 Mbit/s
95th percentile per-packet one-way delay: 23.946 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 21.561 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 24.320 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.18 Mbit/s
95th percentile per-packet one-way delay: 25.994 ms
Loss rate: 0.32%
```
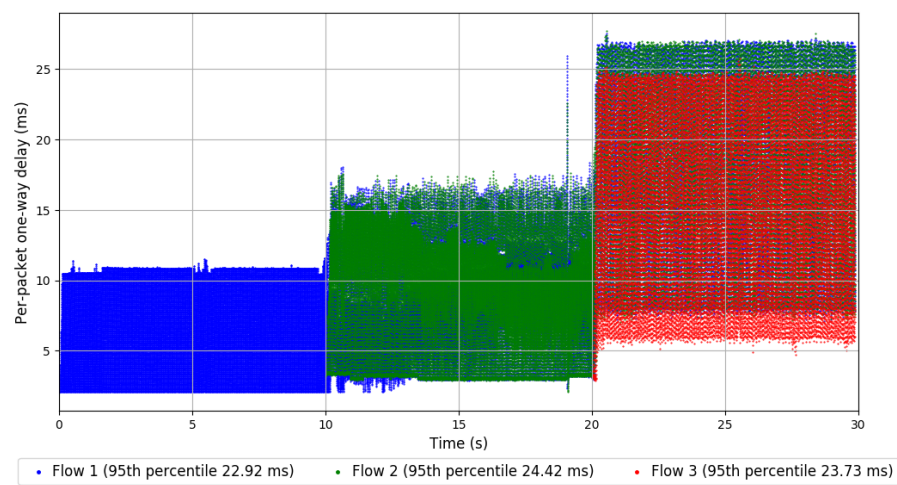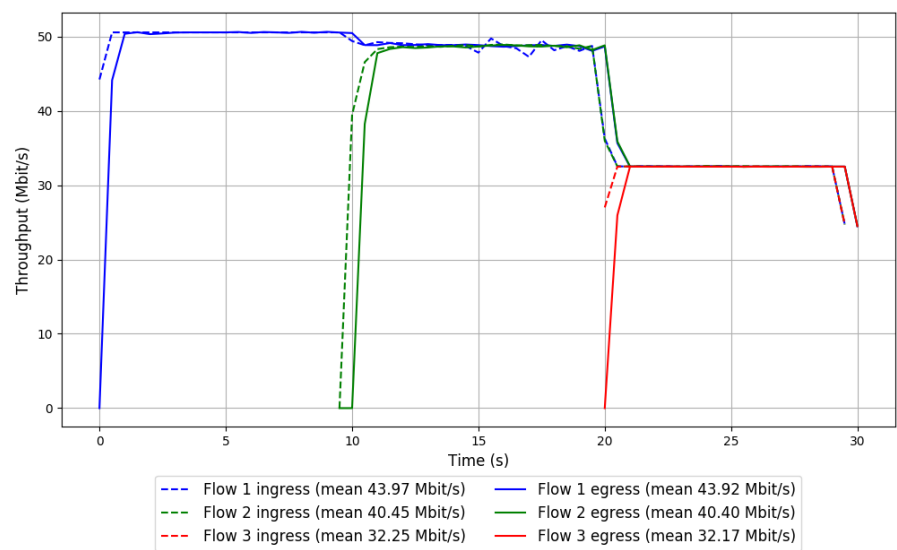
Run 1: Report of Sprout — Data Link

- - - Flow 1 ingress (mean 41.17 Mbit/s) ——— Flow 1 egress (mean 41.14 Mbit/s)
- - - Flow 2 ingress (mean 39.23 Mbit/s) ——— Flow 2 egress (mean 39.14 Mbit/s)
- - - Flow 3 ingress (mean 32.27 Mbit/s) ——— Flow 3 egress (mean 32.18 Mbit/s)

• Flow 1 (95th percentile 21.56 ms)   • Flow 2 (95th percentile 24.32 ms)   • Flow 3 (95th percentile 25.99 ms)

```
Run 2: Statistics of Sprout

Start at: 2019-07-12 16:25:40
End at: 2019-07-12 16:26:10
Local clock offset: -6.576 ms
Remote clock offset: -0.323 ms


# Below is generated by plot.py at 2019-07-12 18:31:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.44 Mbit/s
95th percentile per-packet one-way delay: 23.693 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 43.92 Mbit/s
95th percentile per-packet one-way delay: 22.918 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.40 Mbit/s
95th percentile per-packet one-way delay: 24.418 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 23.730 ms
Loss rate: 0.20%
```
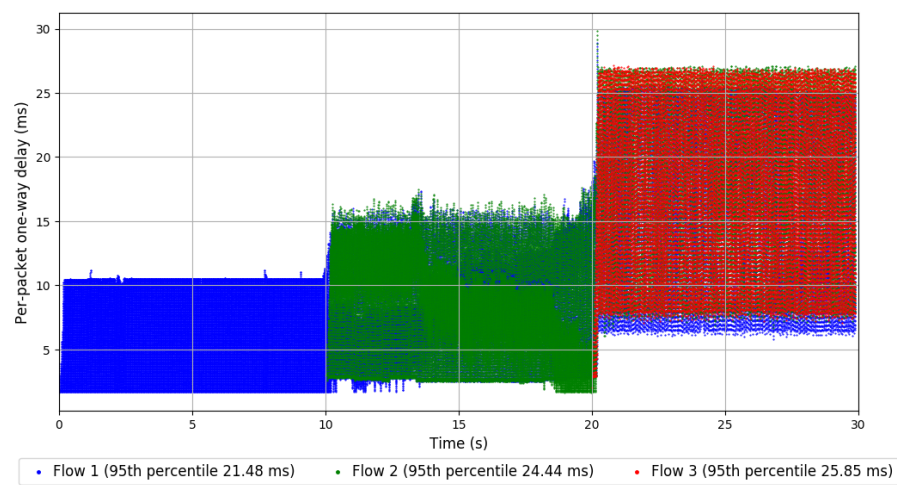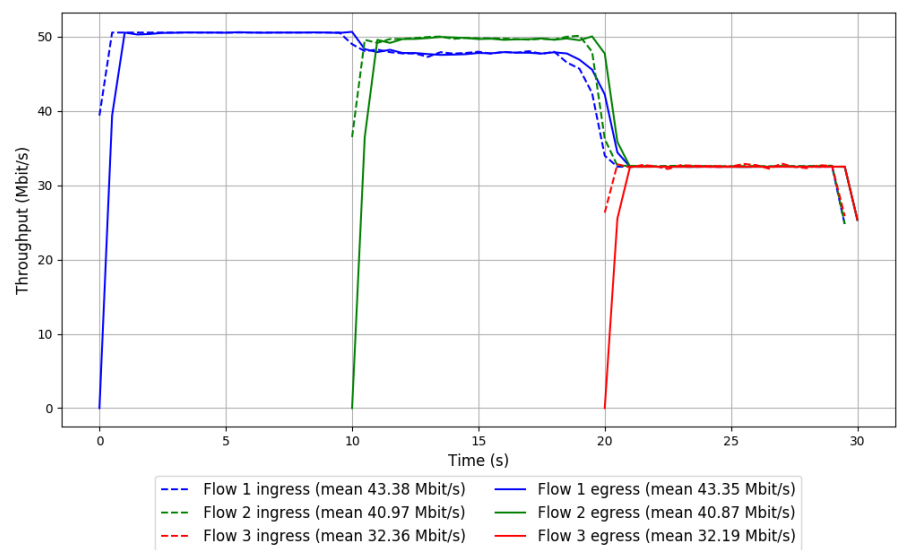
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-07-12 16:53:21
End at: 2019-07-12 16:53:51
Local clock offset: -3.209 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-07-12 18:31:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.16 Mbit/s
95th percentile per-packet one-way delay: 23.907 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 43.35 Mbit/s
95th percentile per-packet one-way delay: 21.485 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 24.436 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 25.848 ms
Loss rate: 0.46%
```
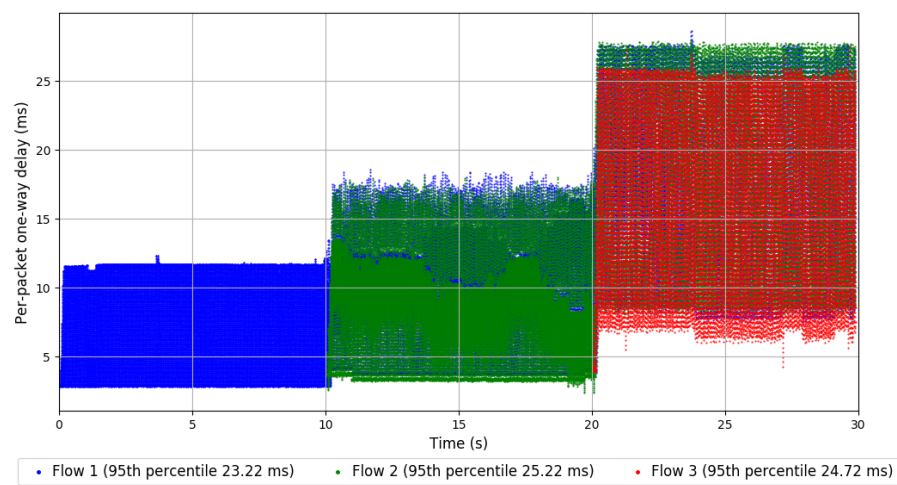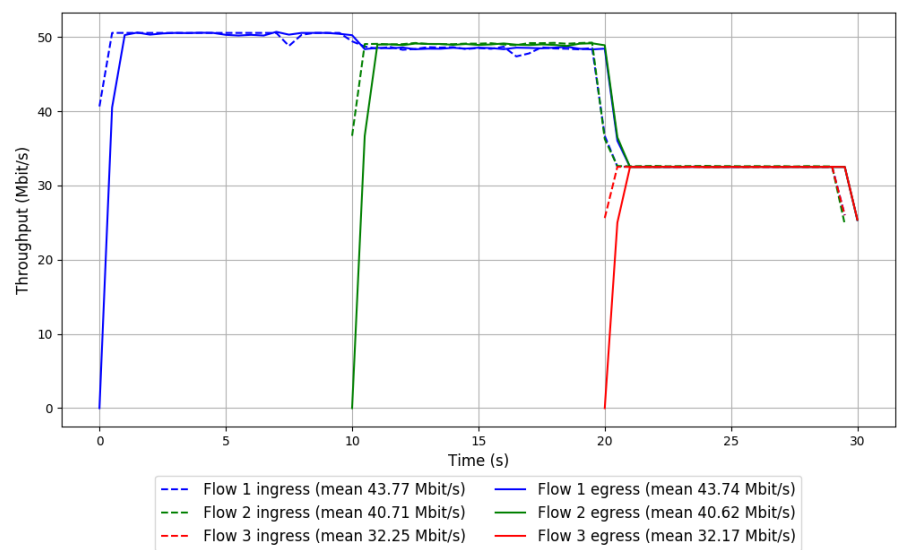
Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 43.38 Mbit/s)   Flow 1 egress (mean 43.35 Mbit/s)
Flow 2 ingress (mean 40.97 Mbit/s)   Flow 2 egress (mean 40.87 Mbit/s)
Flow 3 ingress (mean 32.36 Mbit/s)   Flow 3 egress (mean 32.19 Mbit/s)

Flow 1 (95th percentile 21.48 ms)   Flow 2 (95th percentile 24.44 ms)   Flow 3 (95th percentile 25.85 ms)

```
Run 4: Statistics of Sprout

Start at: 2019-07-12 17:21:03
End at: 2019-07-12 17:21:33
Local clock offset: -1.322 ms
Remote clock offset: 0.36 ms


# Below is generated by plot.py at 2019-07-12 18:31:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.37 Mbit/s
95th percentile per-packet one-way delay: 24.374 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 43.74 Mbit/s
95th percentile per-packet one-way delay: 23.223 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 40.62 Mbit/s
95th percentile per-packet one-way delay: 25.220 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 24.723 ms
Loss rate: 0.19%
```
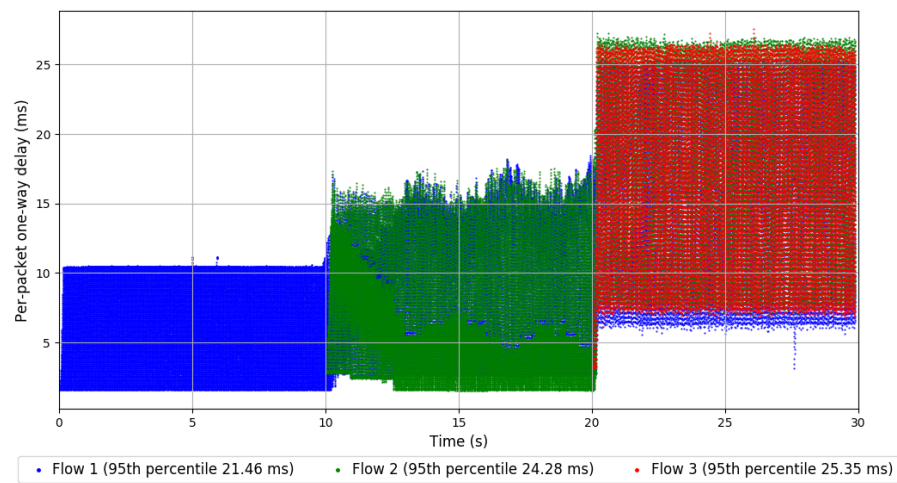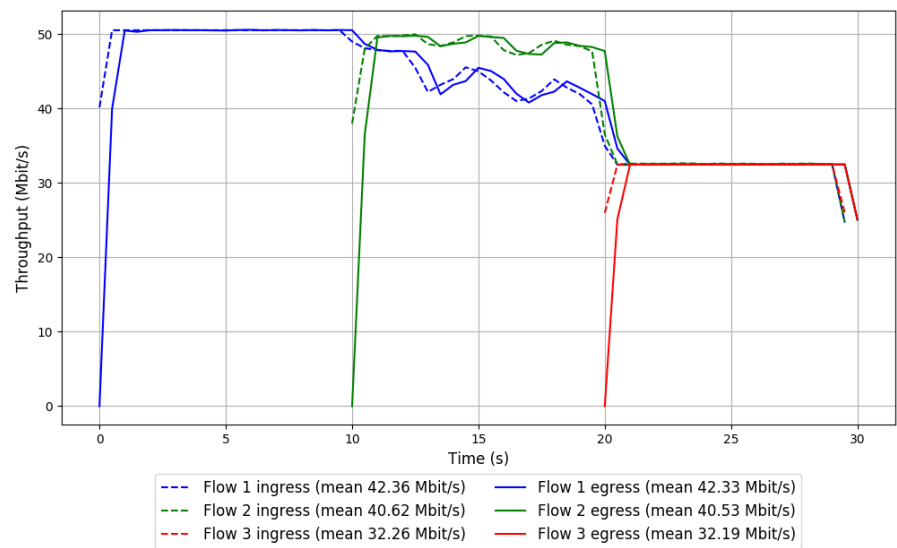
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-07-12 17:48:46
End at: 2019-07-12 17:49:16
Local clock offset: 1.667 ms
Remote clock offset: 0.595 ms


# Below is generated by plot.py at 2019-07-12 18:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.91 Mbit/s
95th percentile per-packet one-way delay: 23.692 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 42.33 Mbit/s
95th percentile per-packet one-way delay: 21.463 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 40.53 Mbit/s
95th percentile per-packet one-way delay: 24.276 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 25.353 ms
Loss rate: 0.27%
```

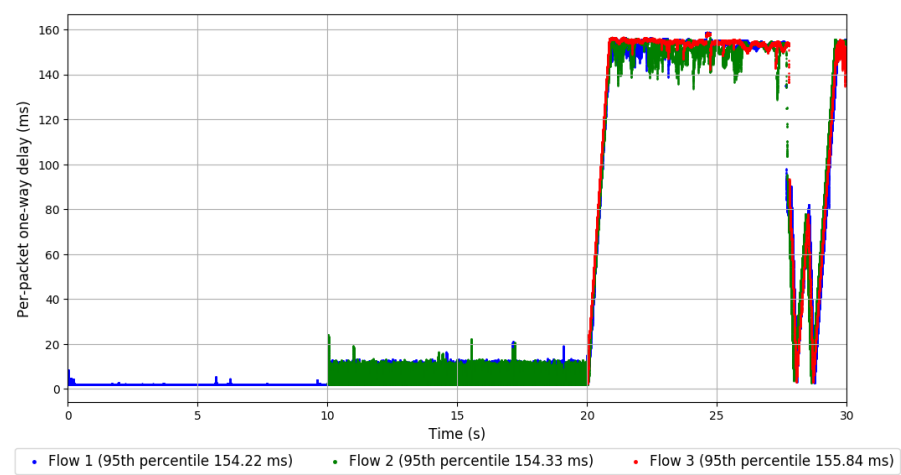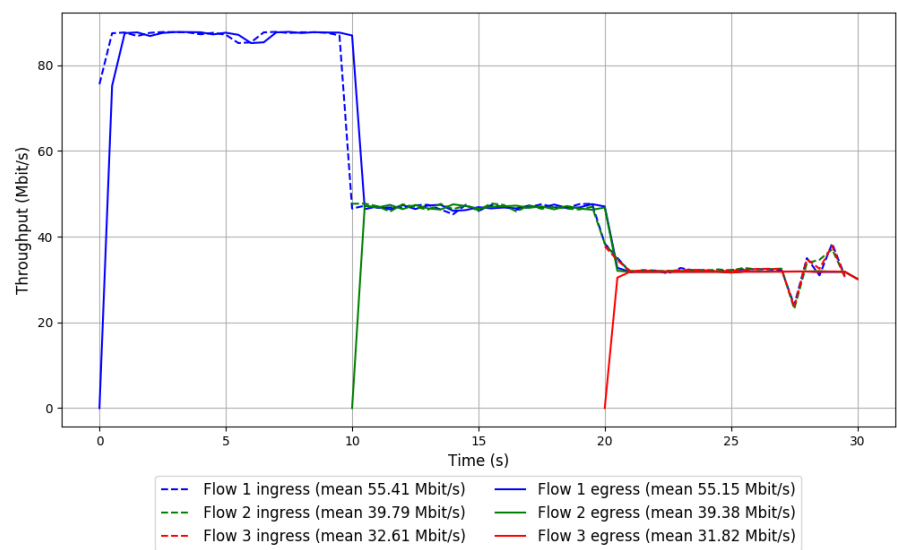## Run 5: Report of Sprout — Data Link

194

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

Start at: 2019-07-12 16:09:35
End at: 2019-07-12 16:10:05
Local clock offset: -6.345 ms
Remote clock offset: -0.555 ms


# Below is generated by plot.py at 2019-07-12 18:33:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.95 Mbit/s
95th percentile per-packet one-way delay: 154.840 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 55.15 Mbit/s
95th percentile per-packet one-way delay: 154.215 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 39.38 Mbit/s
95th percentile per-packet one-way delay: 154.332 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 155.839 ms
Loss rate: 2.51%
```

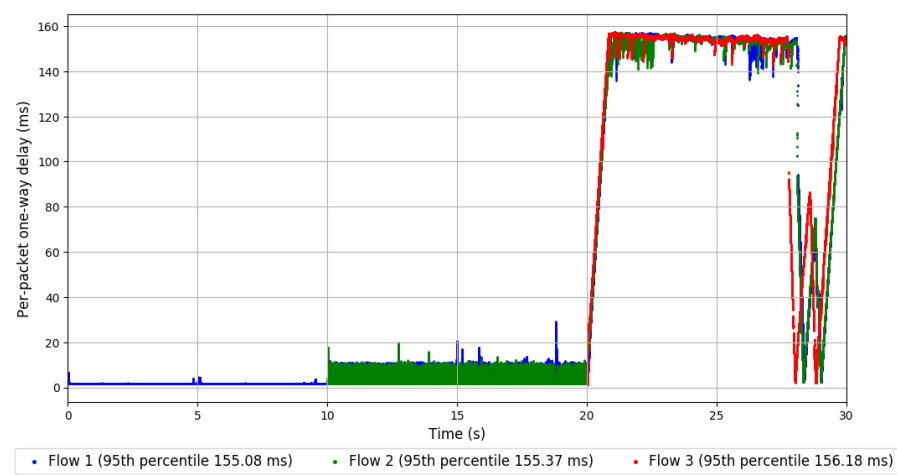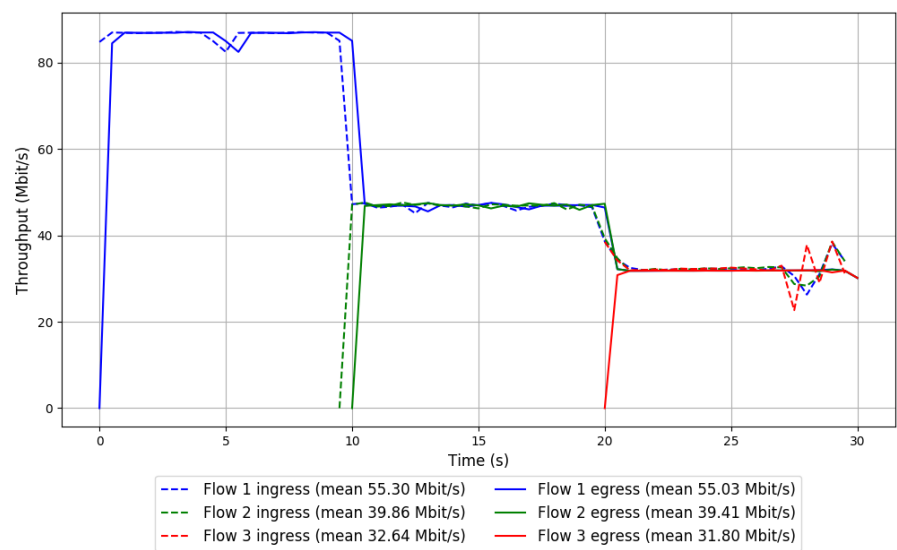Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-07-12 16:37:16
End at: 2019-07-12 16:37:46
Local clock offset: -4.898 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-07-12 18:33:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.86 Mbit/s
95th percentile per-packet one-way delay: 155.523 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 55.03 Mbit/s
95th percentile per-packet one-way delay: 155.080 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 155.374 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 31.80 Mbit/s
95th percentile per-packet one-way delay: 156.177 ms
Loss rate: 2.64%
```

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

- - - - Flow 1 ingress (mean 55.30 Mbit/s)   —— Flow 1 egress (mean 55.03 Mbit/s)
- - - - Flow 2 ingress (mean 39.86 Mbit/s)   —— Flow 2 egress (mean 39.41 Mbit/s)
- - - - Flow 3 ingress (mean 32.64 Mbit/s)   —— Flow 3 egress (mean 31.80 Mbit/s)

• Flow 1 (95th percentile 155.08 ms)   • Flow 2 (95th percentile 155.37 ms)   • Flow 3 (95th percentile 156.18 ms)

198

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

Start at: 2019-07-12 17:04:57
End at: 2019-07-12 17:05:27
Local clock offset: -2.136 ms
Remote clock offset: 0.186 ms


# Below is generated by plot.py at 2019-07-12 18:33:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.31 Mbit/s
95th percentile per-packet one-way delay: 156.227 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 53.53 Mbit/s
95th percentile per-packet one-way delay: 155.876 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 39.34 Mbit/s
95th percentile per-packet one-way delay: 156.798 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 31.79 Mbit/s
95th percentile per-packet one-way delay: 155.949 ms
Loss rate: 2.61%
```
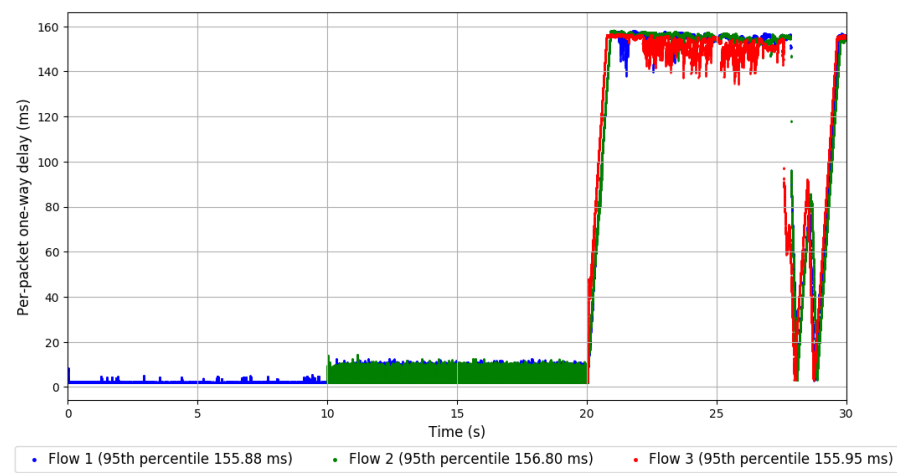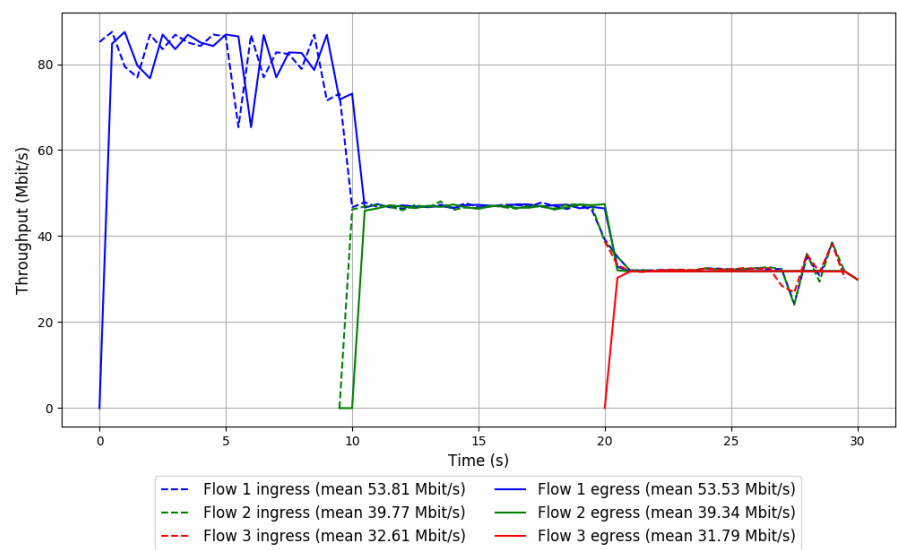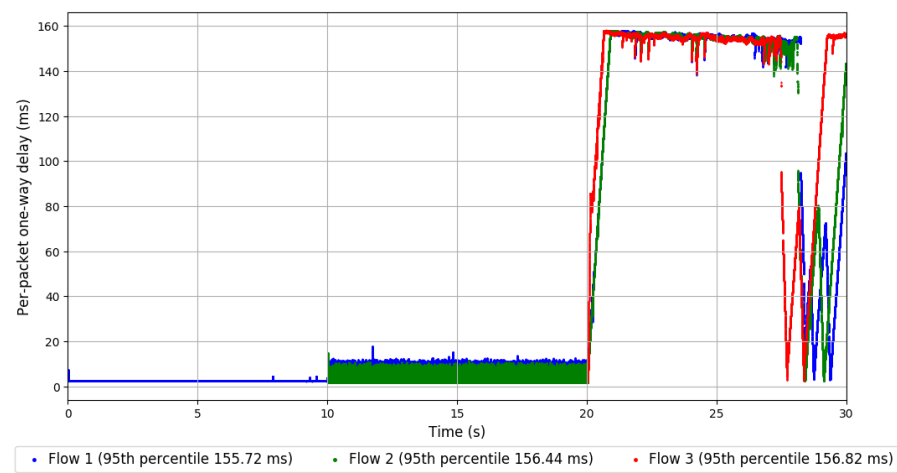
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 53.81 Mbit/s)   Flow 1 egress (mean 53.53 Mbit/s)
Flow 2 ingress (mean 39.77 Mbit/s)   Flow 2 egress (mean 39.34 Mbit/s)
Flow 3 ingress (mean 32.61 Mbit/s)   Flow 3 egress (mean 31.79 Mbit/s)

Flow 1 (95th percentile 155.88 ms)   Flow 2 (95th percentile 156.80 ms)   Flow 3 (95th percentile 155.95 ms)

200

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

Start at: 2019-07-12 17:32:42
End at: 2019-07-12 17:33:12
Local clock offset: -0.203 ms
Remote clock offset: 0.485 ms


# Below is generated by plot.py at 2019-07-12 18:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.01 Mbit/s
95th percentile per-packet one-way delay: 156.261 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 55.18 Mbit/s
95th percentile per-packet one-way delay: 155.716 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 39.46 Mbit/s
95th percentile per-packet one-way delay: 156.441 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 156.817 ms
Loss rate: 2.80%
```
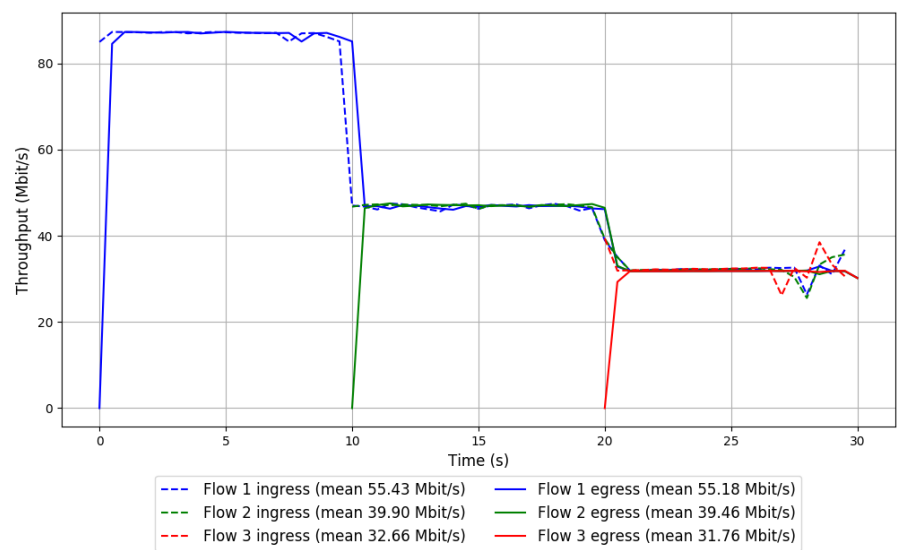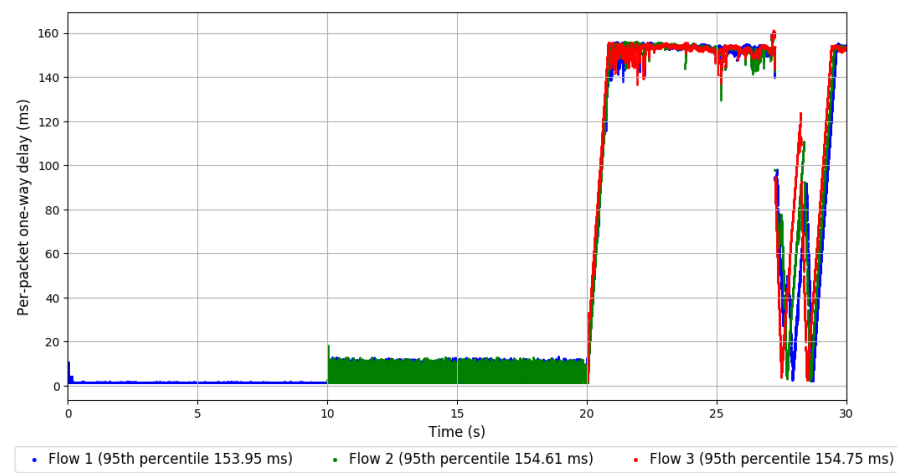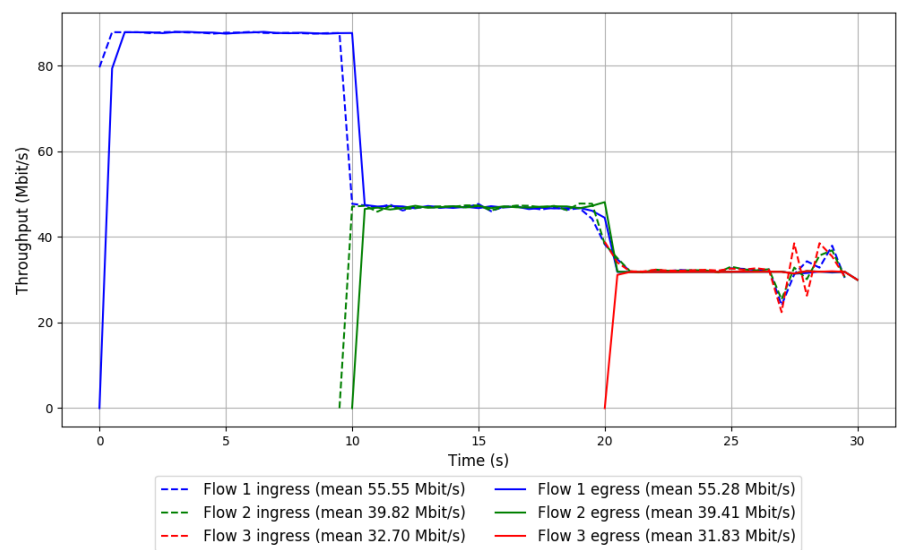
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 55.43 Mbit/s) --- Flow 1 egress (mean 55.18 Mbit/s)
Flow 2 ingress (mean 39.90 Mbit/s) --- Flow 2 egress (mean 39.46 Mbit/s)
Flow 3 ingress (mean 32.66 Mbit/s) --- Flow 3 egress (mean 31.76 Mbit/s)

Flow 1 (95th percentile 155.72 ms)   Flow 2 (95th percentile 156.44 ms)   Flow 3 (95th percentile 156.82 ms)

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

Start at: 2019-07-12 18:00:24
End at: 2019-07-12 18:00:54
Local clock offset: 2.654 ms
Remote clock offset: 0.518 ms


# Below is generated by plot.py at 2019-07-12 18:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 154.328 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 153.953 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 154.610 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 154.751 ms
Loss rate: 2.72%
```
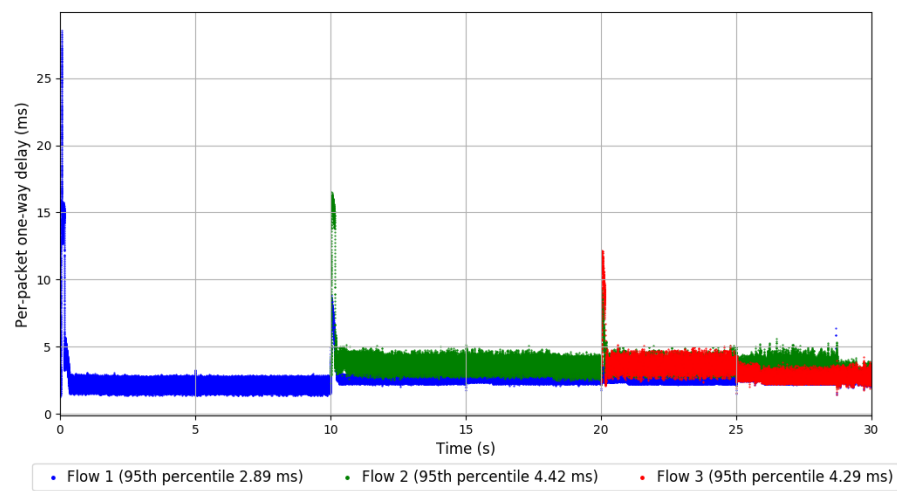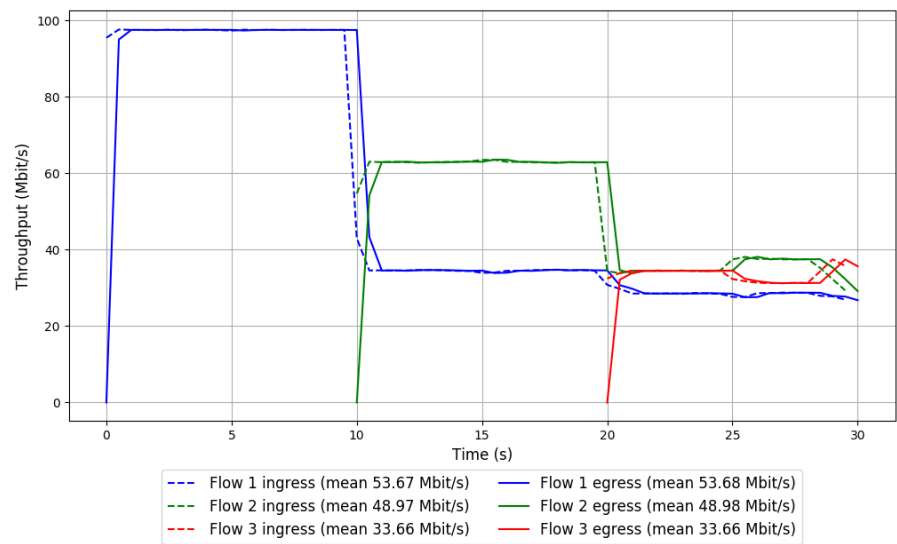
Run 5: Report of TaoVA-100x — Data Link

- - - Flow 1 ingress (mean 55.55 Mbit/s) —— Flow 1 egress (mean 55.28 Mbit/s)
- - - Flow 2 ingress (mean 39.82 Mbit/s) —— Flow 2 egress (mean 39.41 Mbit/s)
- - - Flow 3 ingress (mean 32.70 Mbit/s) —— Flow 3 egress (mean 31.83 Mbit/s)

• Flow 1 (95th percentile 153.95 ms)   • Flow 2 (95th percentile 154.61 ms)   • Flow 3 (95th percentile 154.75 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-07-12 16:24:30
End at: 2019-07-12 16:25:00
Local clock offset: -6.815 ms
Remote clock offset: -0.369 ms


# Below is generated by plot.py at 2019-07-12 18:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 4.268 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.68 Mbit/s
95th percentile per-packet one-way delay: 2.888 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 48.98 Mbit/s
95th percentile per-packet one-way delay: 4.417 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 4.290 ms
Loss rate: 0.05%
```
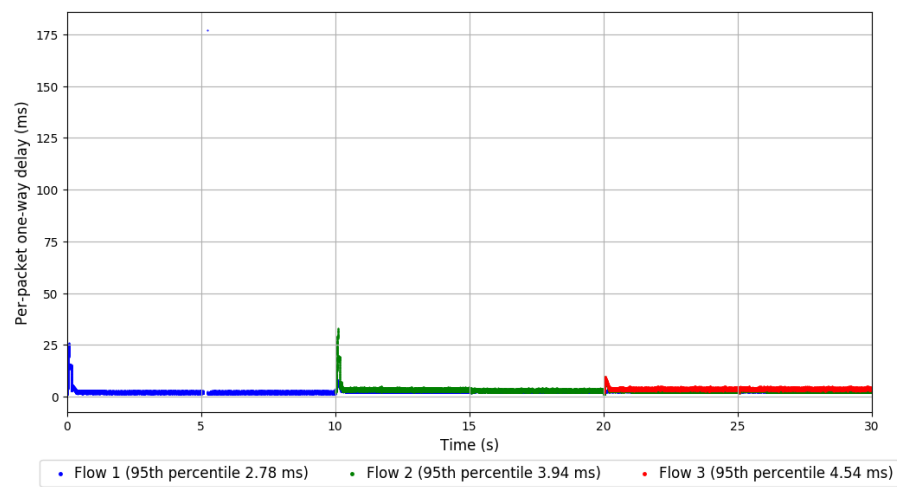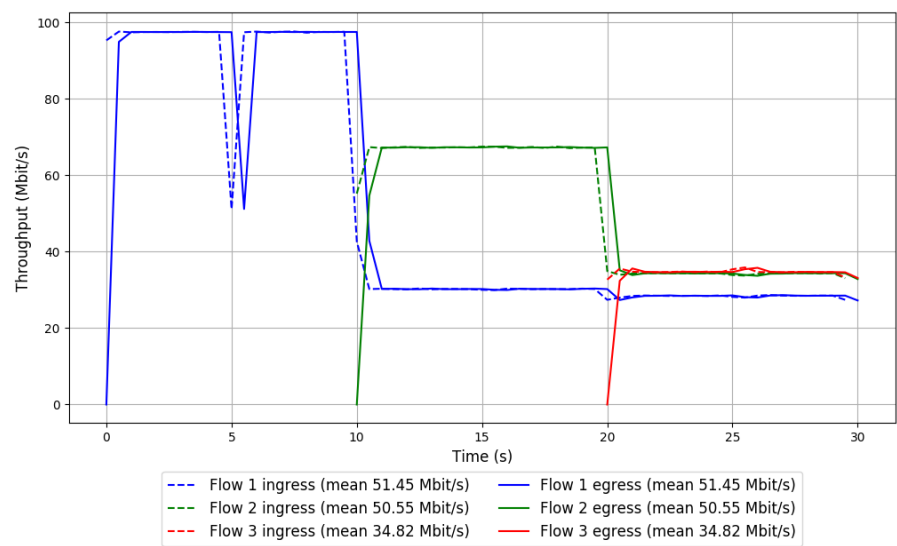
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-07-12 16:52:12
End at: 2019-07-12 16:52:42
Local clock offset: -3.507 ms
Remote clock offset: 0.022 ms


# Below is generated by plot.py at 2019-07-12 18:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 4.111 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 51.45 Mbit/s
95th percentile per-packet one-way delay: 2.777 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.55 Mbit/s
95th percentile per-packet one-way delay: 3.944 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 34.82 Mbit/s
95th percentile per-packet one-way delay: 4.541 ms
Loss rate: 0.06%
```
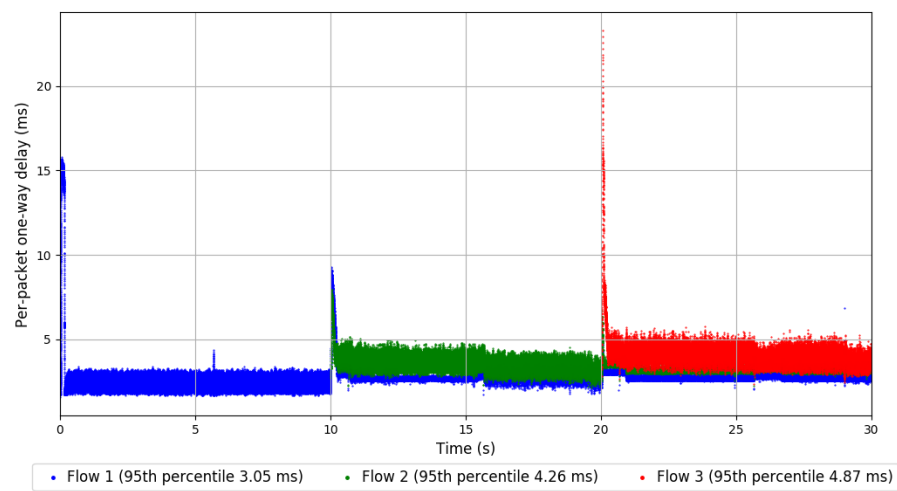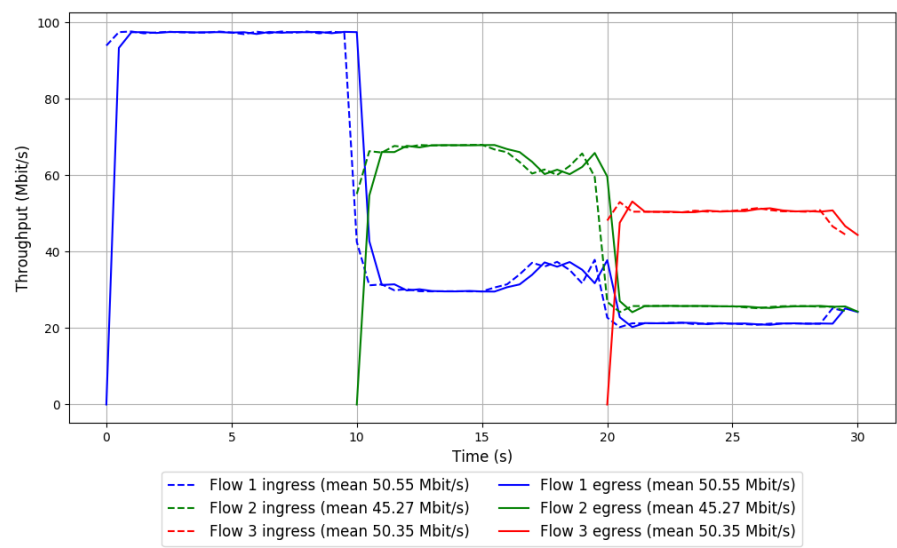
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 51.45 Mbit/s) --- Flow 1 egress (mean 51.45 Mbit/s)
Flow 2 ingress (mean 50.55 Mbit/s) --- Flow 2 egress (mean 50.55 Mbit/s)
Flow 3 ingress (mean 34.82 Mbit/s) --- Flow 3 egress (mean 34.82 Mbit/s)

Flow 1 (95th percentile 2.78 ms) • Flow 2 (95th percentile 3.94 ms) • Flow 3 (95th percentile 4.54 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2019-07-12 17:19:53
End at: 2019-07-12 17:20:23
Local clock offset: -2.139 ms
Remote clock offset: 0.287 ms


# Below is generated by plot.py at 2019-07-12 18:33:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.42 Mbit/s
95th percentile per-packet one-way delay: 4.443 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.55 Mbit/s
95th percentile per-packet one-way delay: 3.047 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 45.27 Mbit/s
95th percentile per-packet one-way delay: 4.264 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 50.35 Mbit/s
95th percentile per-packet one-way delay: 4.869 ms
Loss rate: 0.05%
```
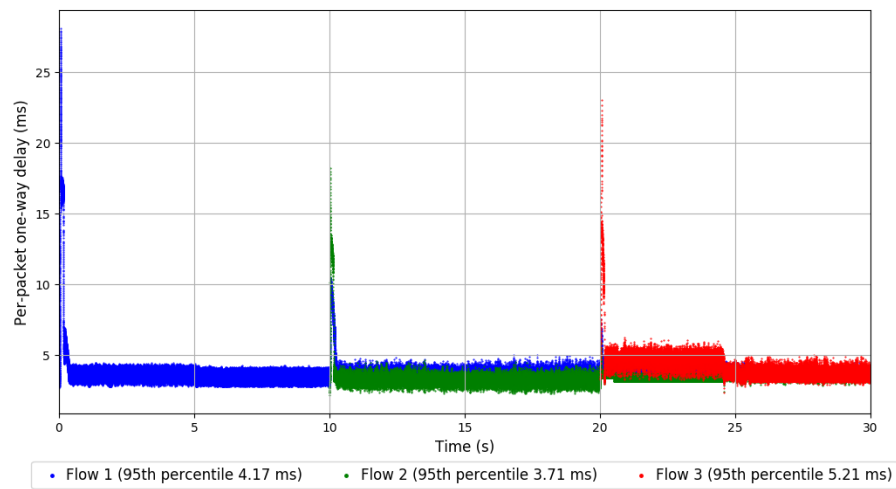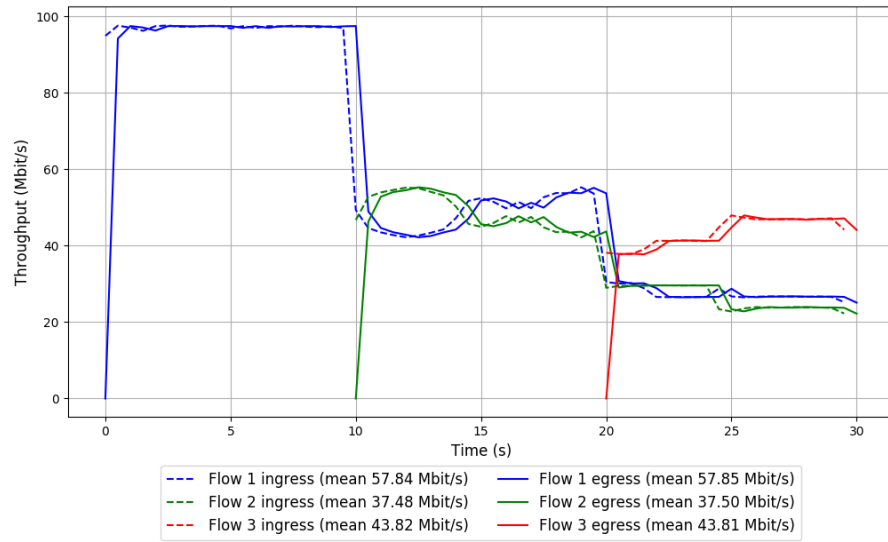
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 50.55 Mbit/s) --- Flow 1 egress (mean 50.55 Mbit/s)
Flow 2 ingress (mean 45.27 Mbit/s) --- Flow 2 egress (mean 45.27 Mbit/s)
Flow 3 ingress (mean 50.35 Mbit/s) --- Flow 3 egress (mean 50.35 Mbit/s)

Flow 1 (95th percentile 3.05 ms)   Flow 2 (95th percentile 4.26 ms)   Flow 3 (95th percentile 4.87 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-07-12 17:47:37
End at: 2019-07-12 17:48:07
Local clock offset: 2.316 ms
Remote clock offset: 0.591 ms


# Below is generated by plot.py at 2019-07-12 18:33:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 4.604 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 4.170 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 37.50 Mbit/s
95th percentile per-packet one-way delay: 3.715 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 43.81 Mbit/s
95th percentile per-packet one-way delay: 5.215 ms
Loss rate: 0.05%
```
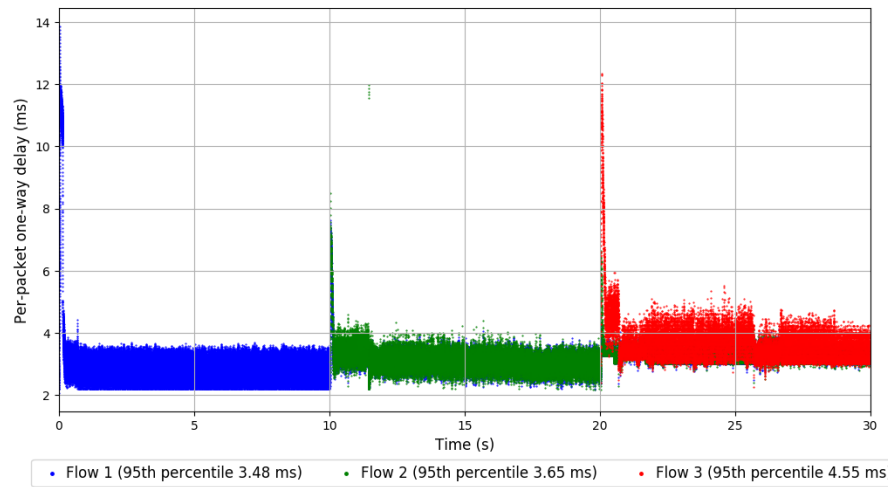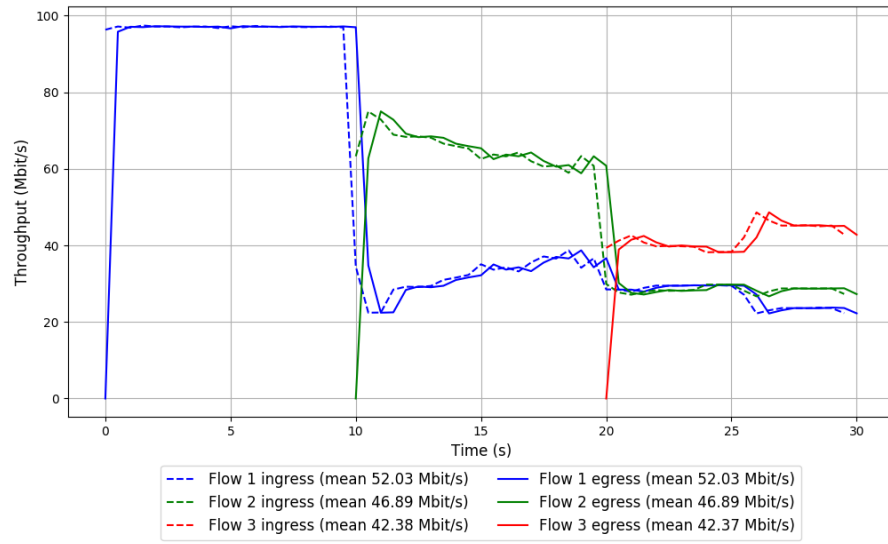
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-07-12 18:15:20
End at: 2019-07-12 18:15:50
Local clock offset: 4.332 ms
Remote clock offset: 0.515 ms


# Below is generated by plot.py at 2019-07-12 18:33:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 3.887 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 52.03 Mbit/s
95th percentile per-packet one-way delay: 3.481 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.89 Mbit/s
95th percentile per-packet one-way delay: 3.655 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 42.37 Mbit/s
95th percentile per-packet one-way delay: 4.547 ms
Loss rate: 0.04%
```
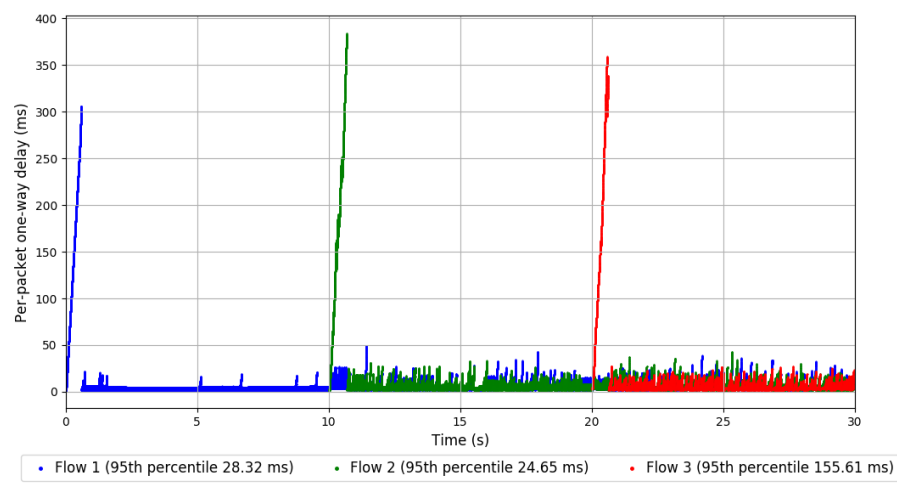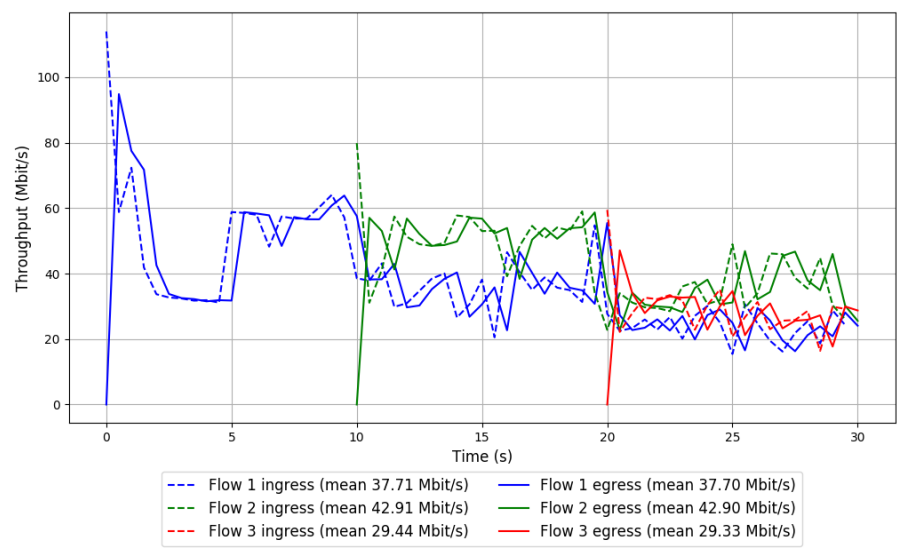
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 52.03 Mbit/s) —— Flow 1 egress (mean 52.03 Mbit/s)
Flow 2 ingress (mean 46.89 Mbit/s) —— Flow 2 egress (mean 46.89 Mbit/s)
Flow 3 ingress (mean 42.38 Mbit/s) —— Flow 3 egress (mean 42.37 Mbit/s)

• Flow 1 (95th percentile 3.48 ms)   • Flow 2 (95th percentile 3.65 ms)   • Flow 3 (95th percentile 4.55 ms)
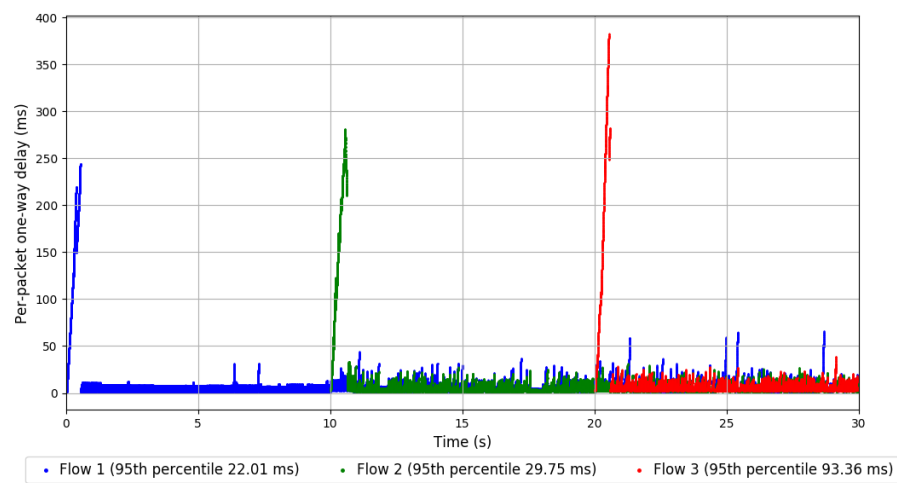
```
Run 1: Statistics of Verus

Start at: 2019-07-12 16:13:02
End at: 2019-07-12 16:13:32
Local clock offset: -6.754 ms
Remote clock offset: -0.485 ms


# Below is generated by plot.py at 2019-07-12 18:33:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.02 Mbit/s
95th percentile per-packet one-way delay: 33.526 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 28.315 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 42.90 Mbit/s
95th percentile per-packet one-way delay: 24.646 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 155.610 ms
Loss rate: 0.14%
```
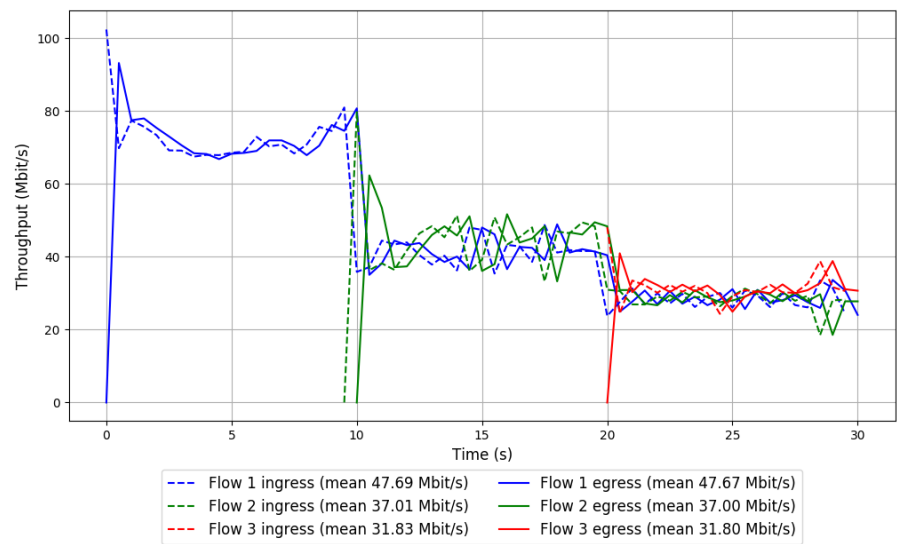
Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 37.71 Mbit/s) --- Flow 1 egress (mean 37.70 Mbit/s)
Flow 2 ingress (mean 42.91 Mbit/s) --- Flow 2 egress (mean 42.90 Mbit/s)
Flow 3 ingress (mean 29.44 Mbit/s) --- Flow 3 egress (mean 29.33 Mbit/s)

Flow 1 (95th percentile 28.32 ms) • Flow 2 (95th percentile 24.65 ms) • Flow 3 (95th percentile 155.61 ms)

```
Run 2: Statistics of Verus

Start at: 2019-07-12 16:40:43
End at: 2019-07-12 16:41:14
Local clock offset: -4.249 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2019-07-12 18:34:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.89 Mbit/s
95th percentile per-packet one-way delay: 24.984 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 47.67 Mbit/s
95th percentile per-packet one-way delay: 22.006 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 37.00 Mbit/s
95th percentile per-packet one-way delay: 29.751 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 31.80 Mbit/s
95th percentile per-packet one-way delay: 93.362 ms
Loss rate: 0.11%
```
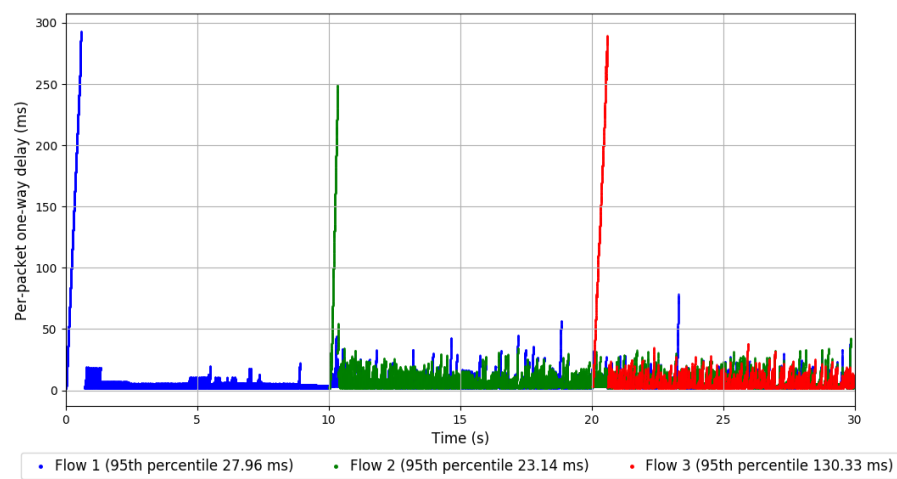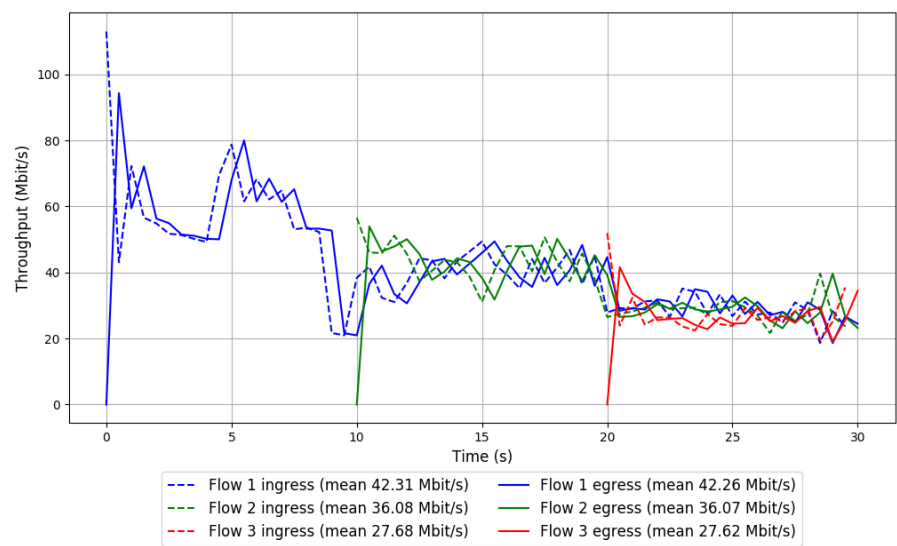
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 47.69 Mbit/s) --- Flow 1 egress (mean 47.67 Mbit/s)
Flow 2 ingress (mean 37.01 Mbit/s) --- Flow 2 egress (mean 37.00 Mbit/s)
Flow 3 ingress (mean 31.83 Mbit/s) --- Flow 3 egress (mean 31.80 Mbit/s)

Flow 1 (95th percentile 22.01 ms)   Flow 2 (95th percentile 29.75 ms)   Flow 3 (95th percentile 93.36 ms)

```
Run 3: Statistics of Verus

Start at: 2019-07-12 17:08:24
End at: 2019-07-12 17:08:54
Local clock offset: -2.898 ms
Remote clock offset: 0.105 ms


# Below is generated by plot.py at 2019-07-12 18:34:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.44 Mbit/s
95th percentile per-packet one-way delay: 27.175 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 42.26 Mbit/s
95th percentile per-packet one-way delay: 27.959 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 36.07 Mbit/s
95th percentile per-packet one-way delay: 23.137 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 27.62 Mbit/s
95th percentile per-packet one-way delay: 130.334 ms
Loss rate: 0.24%
```
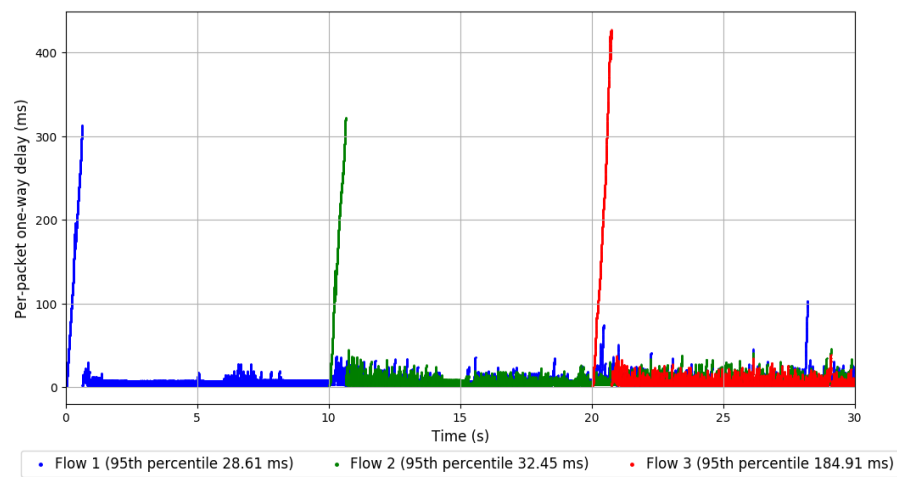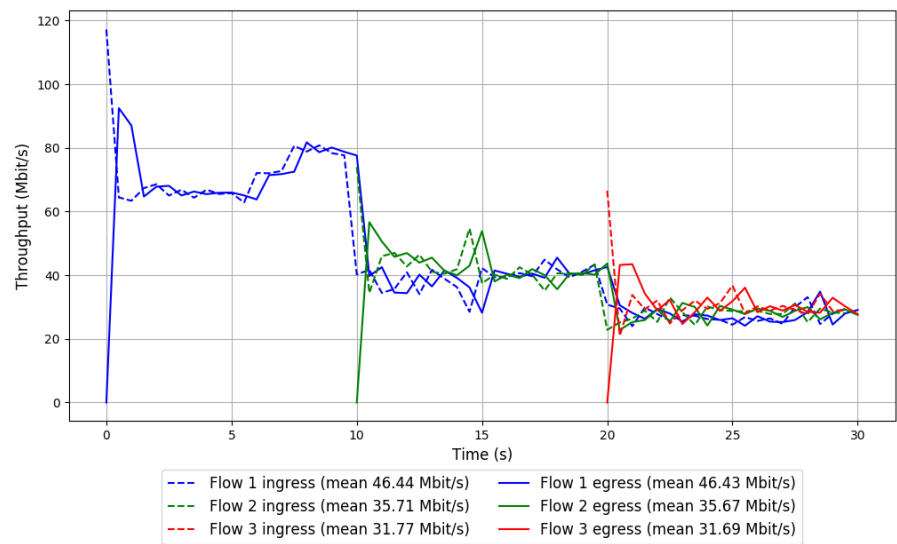
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-07-12 17:36:09
End at: 2019-07-12 17:36:39
Local clock offset: 0.01 ms
Remote clock offset: 0.397 ms


# Below is generated by plot.py at 2019-07-12 18:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.71 Mbit/s
95th percentile per-packet one-way delay: 35.728 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 46.43 Mbit/s
95th percentile per-packet one-way delay: 28.606 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 35.67 Mbit/s
95th percentile per-packet one-way delay: 32.450 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 184.907 ms
Loss rate: 0.28%
```
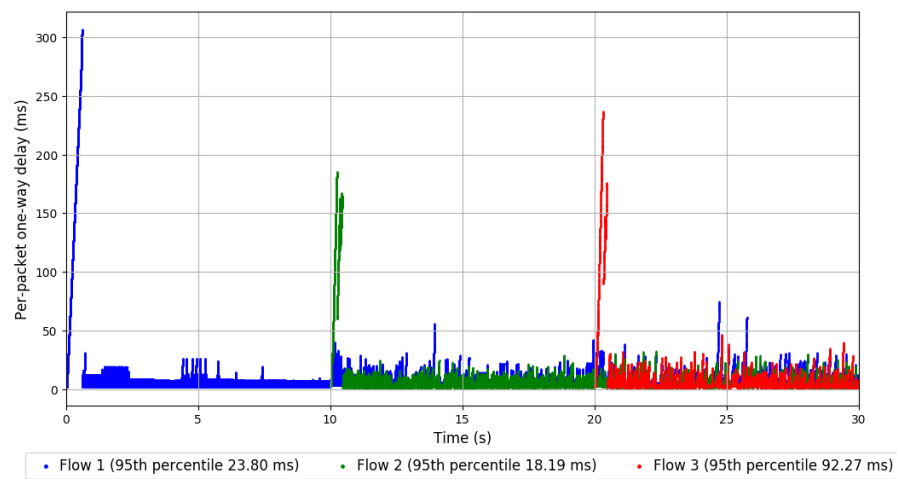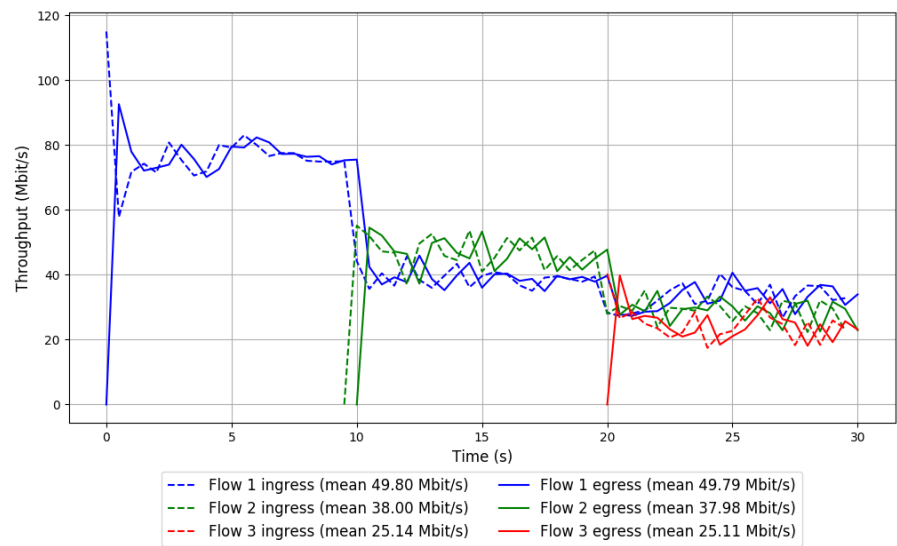
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-07-12 18:03:52
End at: 2019-07-12 18:04:22
Local clock offset: 2.712 ms
Remote clock offset: 0.512 ms


# Below is generated by plot.py at 2019-07-12 18:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.44 Mbit/s
95th percentile per-packet one-way delay: 24.014 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 49.79 Mbit/s
95th percentile per-packet one-way delay: 23.804 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 37.98 Mbit/s
95th percentile per-packet one-way delay: 18.186 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 25.11 Mbit/s
95th percentile per-packet one-way delay: 92.265 ms
Loss rate: 0.15%
```
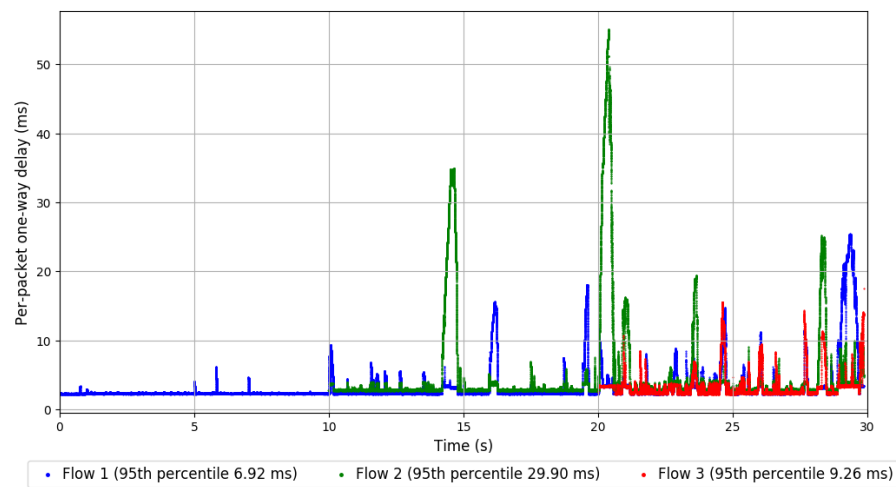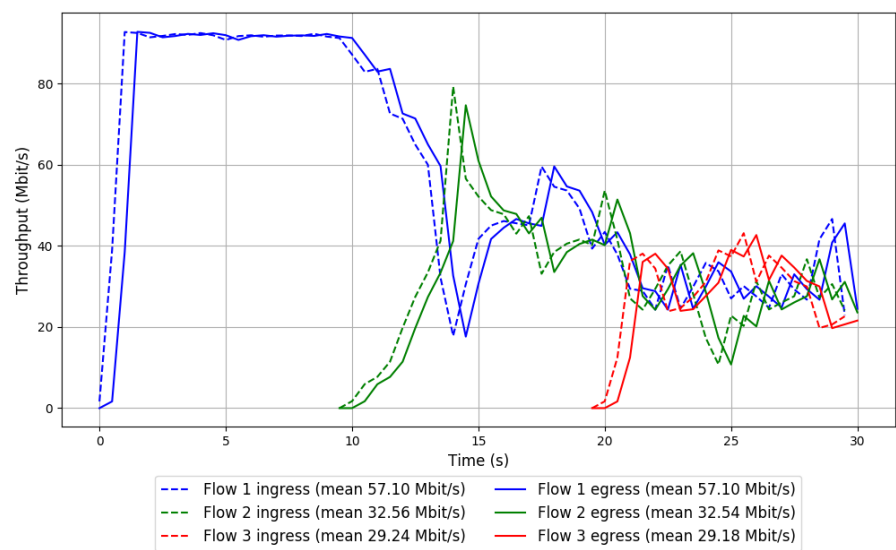
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 49.80 Mbit/s)   Flow 1 egress (mean 49.79 Mbit/s)
Flow 2 ingress (mean 38.00 Mbit/s)   Flow 2 egress (mean 37.98 Mbit/s)
Flow 3 ingress (mean 25.14 Mbit/s)   Flow 3 egress (mean 25.11 Mbit/s)

Flow 1 (95th percentile 23.80 ms)   Flow 2 (95th percentile 18.19 ms)   Flow 3 (95th percentile 92.27 ms)
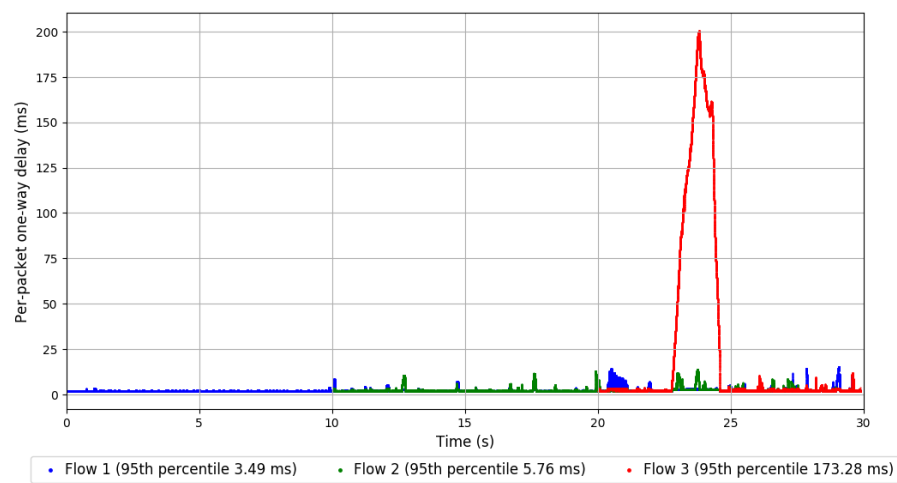
```
Run 1: Statistics of PCC-Vivace

Start at: 2019-07-12 16:15:21
End at: 2019-07-12 16:15:51
Local clock offset: -5.896 ms
Remote clock offset: -0.418 ms


# Below is generated by plot.py at 2019-07-12 18:34:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.40 Mbit/s
95th percentile per-packet one-way delay: 12.022 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 57.10 Mbit/s
95th percentile per-packet one-way delay: 6.923 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 32.54 Mbit/s
95th percentile per-packet one-way delay: 29.901 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 9.255 ms
Loss rate: 0.21%
```
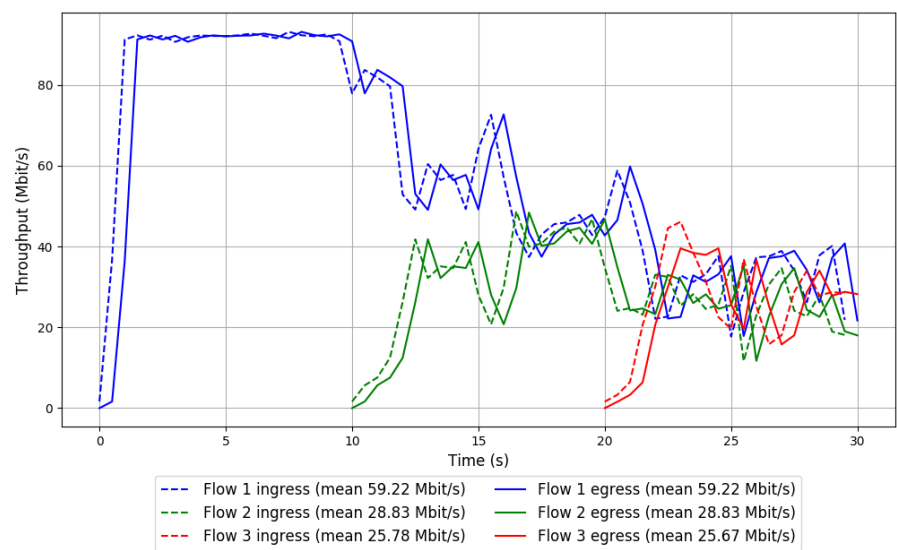
Run 1: Report of PCC-Vivace — Data Link

- - - Flow 1 ingress (mean 57.10 Mbit/s) ——— Flow 1 egress (mean 57.10 Mbit/s)
- - - Flow 2 ingress (mean 32.56 Mbit/s) ——— Flow 2 egress (mean 32.54 Mbit/s)
- - - Flow 3 ingress (mean 29.24 Mbit/s) ——— Flow 3 egress (mean 29.18 Mbit/s)

• Flow 1 (95th percentile 6.92 ms)   • Flow 2 (95th percentile 29.90 ms)   • Flow 3 (95th percentile 9.26 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-07-12 16:43:03
End at: 2019-07-12 16:43:33
Local clock offset: -3.382 ms
Remote clock offset: -0.094 ms


# Below is generated by plot.py at 2019-07-12 18:34:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.86 Mbit/s
95th percentile per-packet one-way delay: 6.538 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 59.22 Mbit/s
95th percentile per-packet one-way delay: 3.490 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 28.83 Mbit/s
95th percentile per-packet one-way delay: 5.760 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 25.67 Mbit/s
95th percentile per-packet one-way delay: 173.275 ms
Loss rate: 0.45%
```
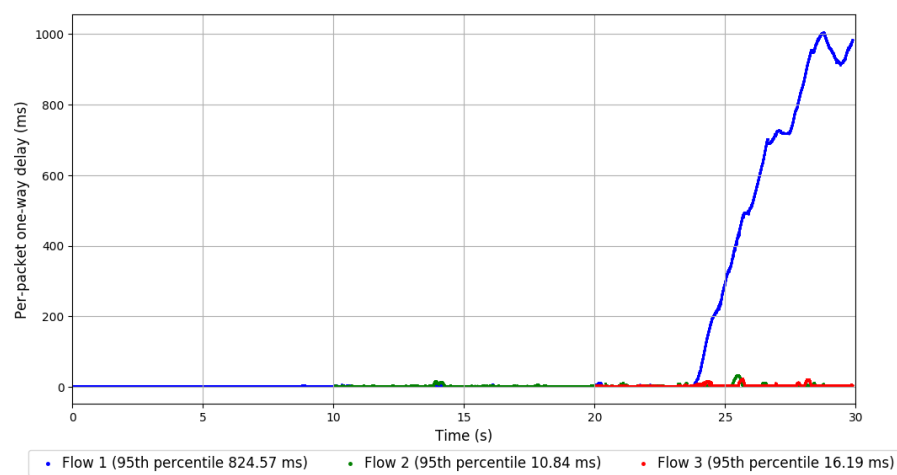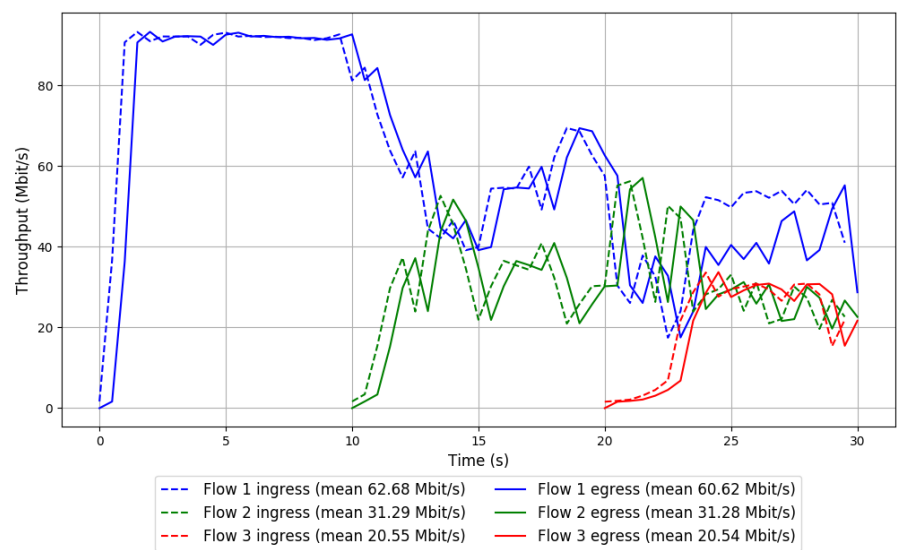
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-07-12 17:10:43
End at: 2019-07-12 17:11:13
Local clock offset: -1.787 ms
Remote clock offset: 0.196 ms


# Below is generated by plot.py at 2019-07-12 18:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.20 Mbit/s
95th percentile per-packet one-way delay: 709.446 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 60.62 Mbit/s
95th percentile per-packet one-way delay: 824.567 ms
Loss rate: 3.31%
-- Flow 2:
Average throughput: 31.28 Mbit/s
95th percentile per-packet one-way delay: 10.836 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 20.54 Mbit/s
95th percentile per-packet one-way delay: 16.186 ms
Loss rate: 0.11%
```
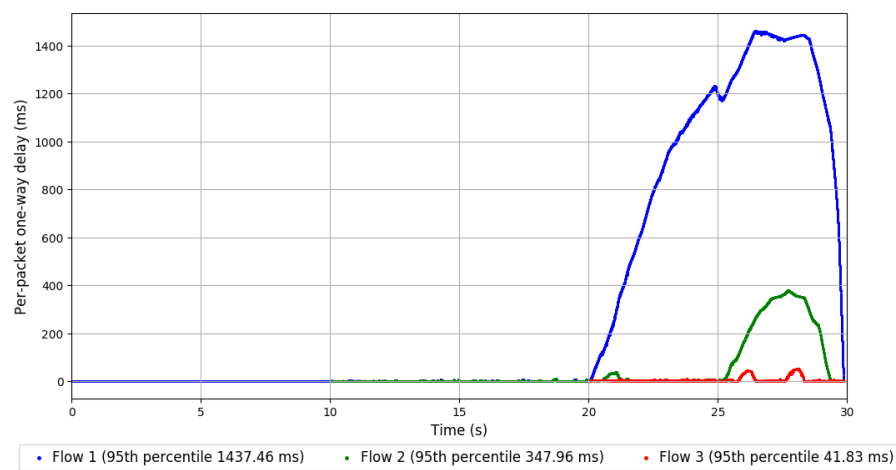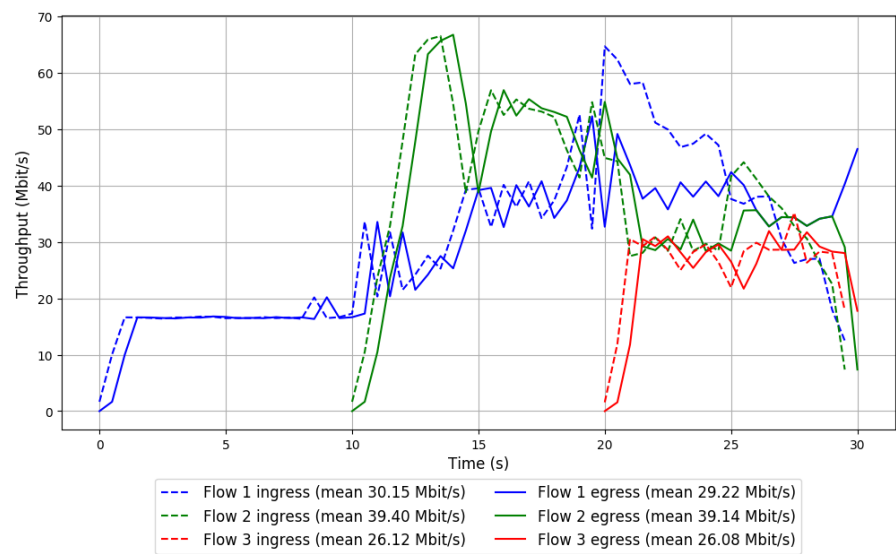
Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-07-12 17:38:28
End at: 2019-07-12 17:38:58
Local clock offset: 0.193 ms
Remote clock offset: 0.422 ms


# Below is generated by plot.py at 2019-07-12 18:34:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.86 Mbit/s
95th percentile per-packet one-way delay: 1323.847 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 29.22 Mbit/s
95th percentile per-packet one-way delay: 1437.461 ms
Loss rate: 3.10%
-- Flow 2:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 347.961 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 26.08 Mbit/s
95th percentile per-packet one-way delay: 41.828 ms
Loss rate: 0.21%
```
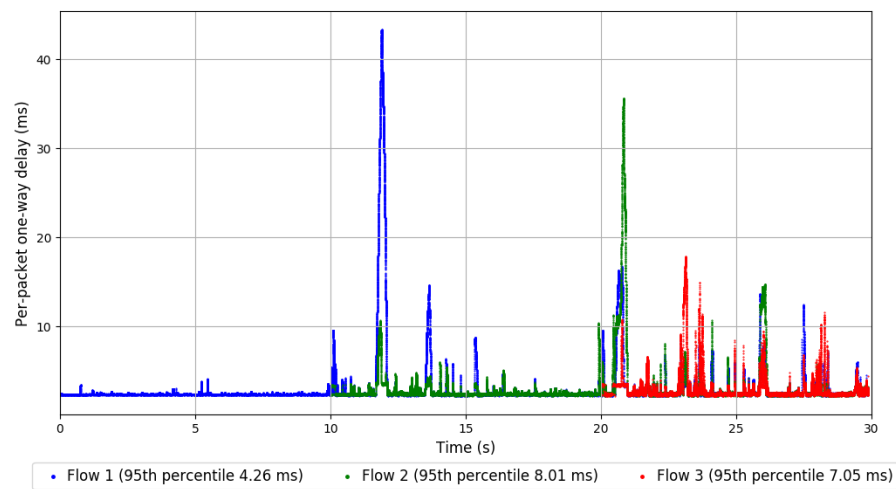
Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-07-12 18:06:11
End at: 2019-07-12 18:06:41
Local clock offset: 3.88 ms
Remote clock offset: 0.544 ms


# Below is generated by plot.py at 2019-07-12 18:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.10 Mbit/s
95th percentile per-packet one-way delay: 5.645 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 4.264 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 33.76 Mbit/s
95th percentile per-packet one-way delay: 8.006 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 26.61 Mbit/s
95th percentile per-packet one-way delay: 7.053 ms
Loss rate: 0.07%
```
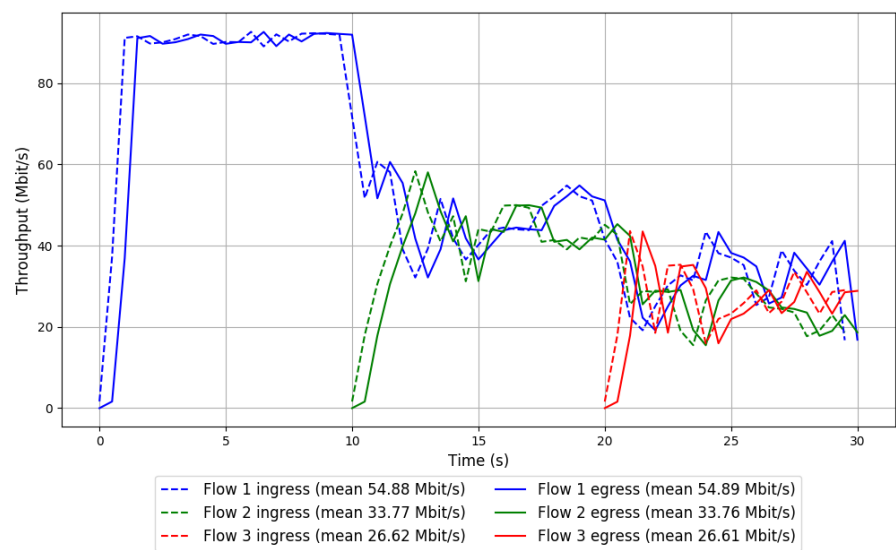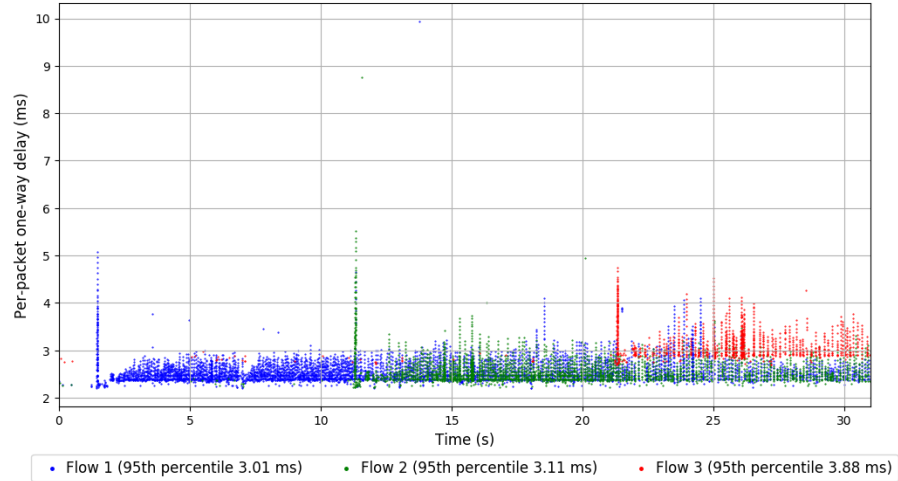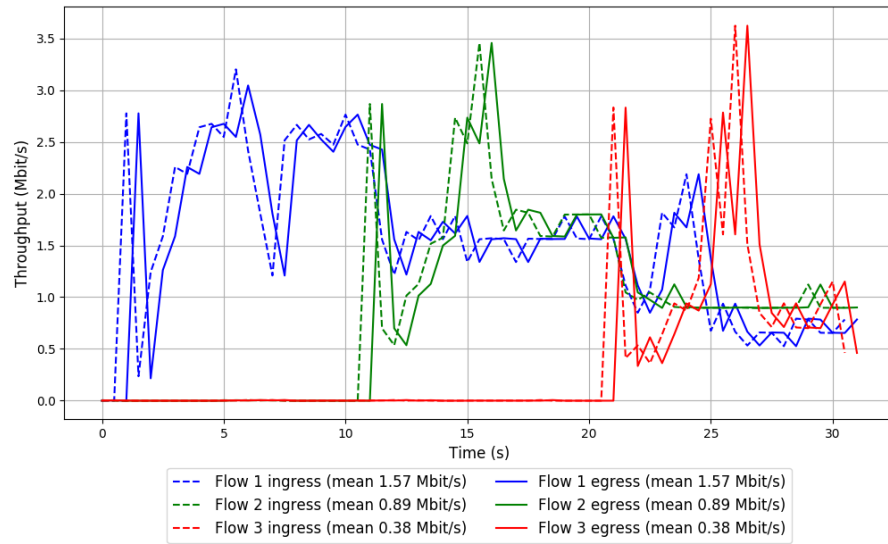
Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-07-12 16:11:56
End at: 2019-07-12 16:12:26
Local clock offset: -6.053 ms
Remote clock offset: -0.547 ms


# Below is generated by plot.py at 2019-07-12 18:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 3.327 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 3.011 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 3.111 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 3.878 ms
Loss rate: 0.00%
```
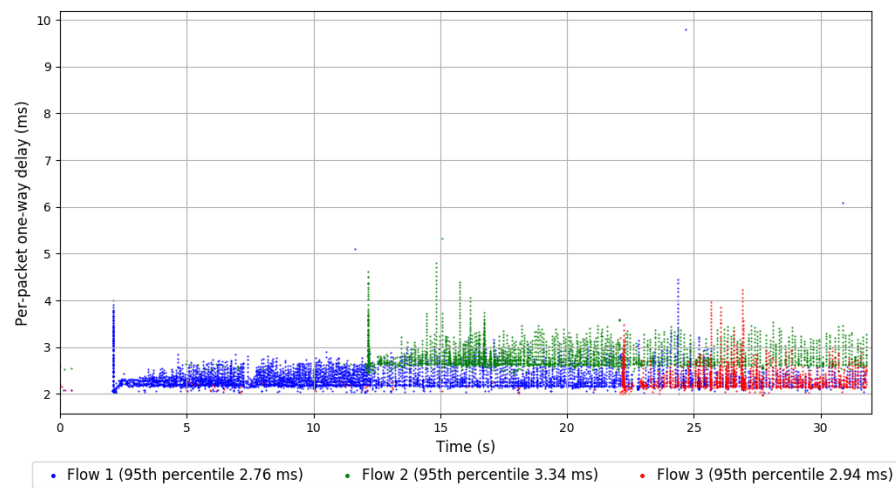
Run 1: Report of WebRTC media — Data Link

- Flow 1 ingress (mean 1.57 Mbit/s) — Flow 1 egress (mean 1.57 Mbit/s)
- Flow 2 ingress (mean 0.89 Mbit/s) — Flow 2 egress (mean 0.89 Mbit/s)
- Flow 3 ingress (mean 0.38 Mbit/s) — Flow 3 egress (mean 0.38 Mbit/s)

- Flow 1 (95th percentile 3.01 ms)
- Flow 2 (95th percentile 3.11 ms)
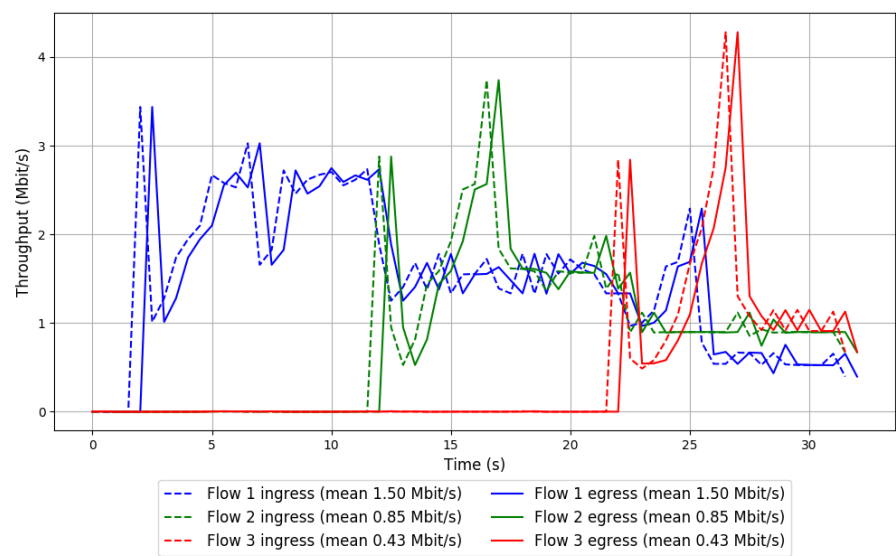- Flow 3 (95th percentile 3.88 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2019-07-12 16:39:38
End at: 2019-07-12 16:40:08
Local clock offset: -3.753 ms
Remote clock offset: -0.148 ms


# Below is generated by plot.py at 2019-07-12 18:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 3.159 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 2.757 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 3.344 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.943 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-07-12 17:07:19
End at: 2019-07-12 17:07:49
Local clock offset: -2.125 ms
Remote clock offset: 0.242 ms

# Below is generated by plot.py at 2019-07-12 18:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 2.708 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 2.710 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 2.692 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 2.763 ms
Loss rate: 0.00%
```
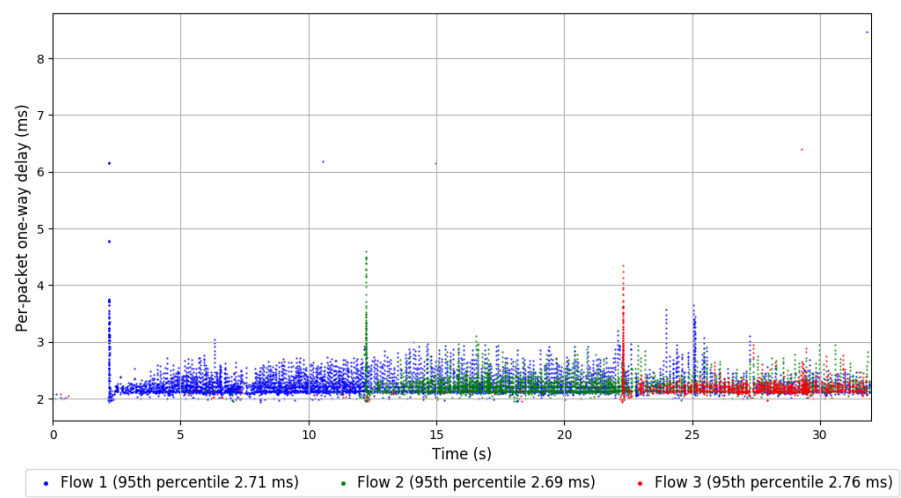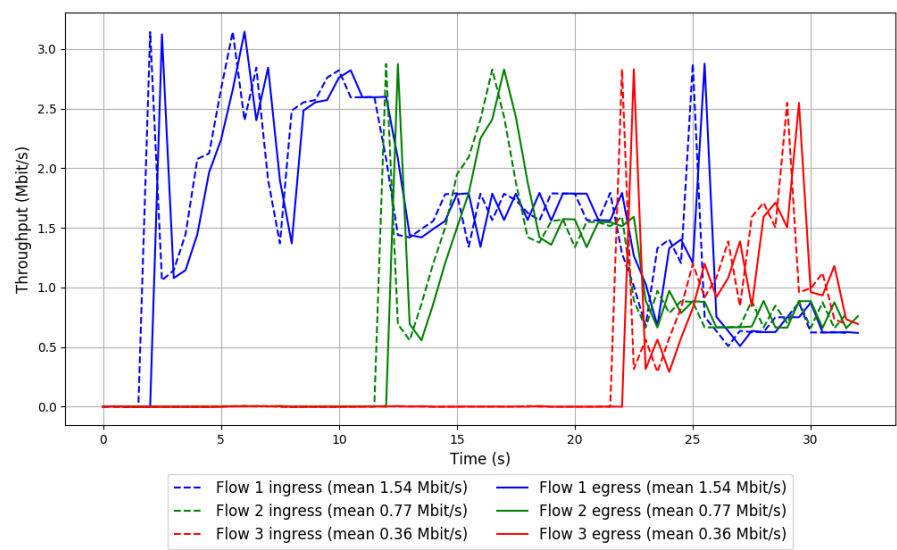
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-07-12 17:35:03
End at: 2019-07-12 17:35:33
Local clock offset: -0.176 ms
Remote clock offset: 0.468 ms


# Below is generated by plot.py at 2019-07-12 18:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 2.565 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 2.119 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 2.663 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 2.869 ms
Loss rate: 0.00%
```
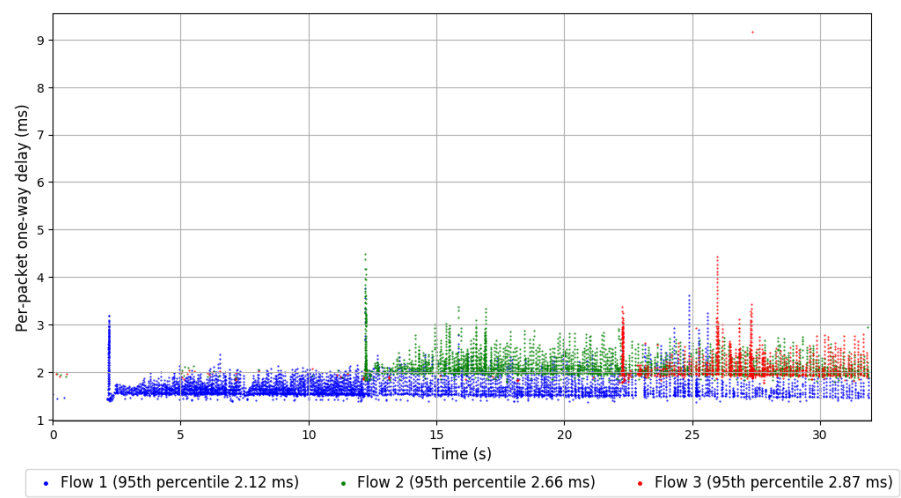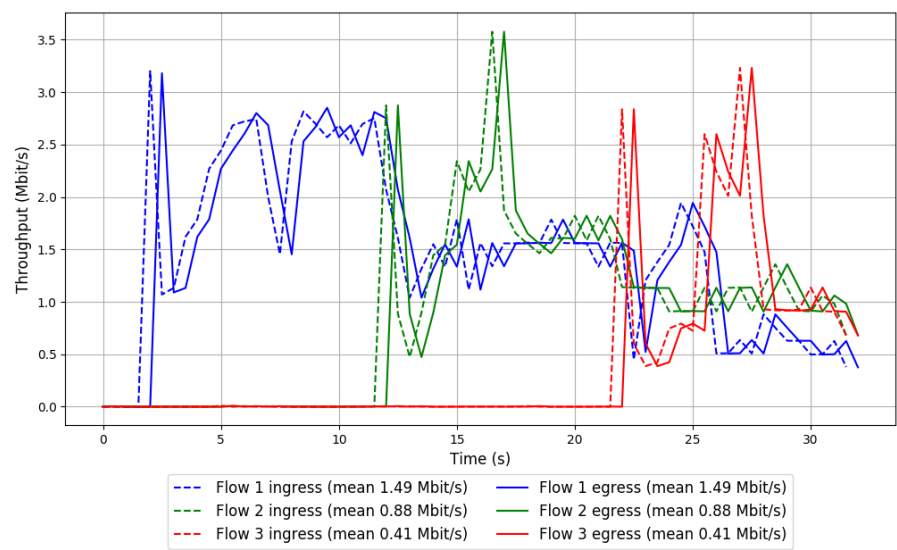
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-07-12 18:02:46
End at: 2019-07-12 18:03:16
Local clock offset: 2.845 ms
Remote clock offset: 0.506 ms


# Below is generated by plot.py at 2019-07-12 18:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 2.590 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 2.225 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 2.290 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.036 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link