Pantheon Report

Generated at 2019-01-19 02:17:26 (UTC).

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

Repeated the test of 21 congestion control schemes 5 times.

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

NTP offsets were measured against gps.ntp.br and have been applied to correct the timestamps in logs.
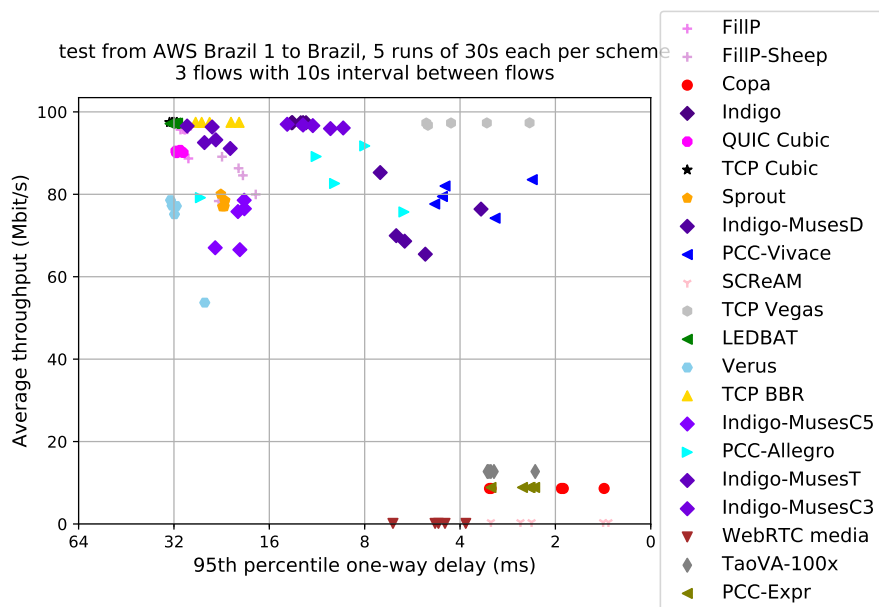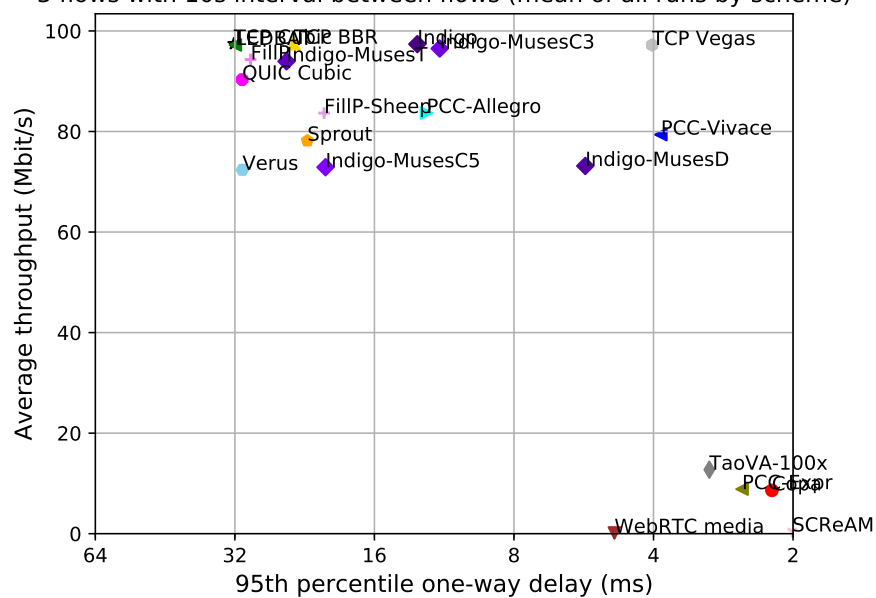
```
System info:
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ c80a283586bf7b0cc1fe08c69c8f60d56498f81c
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ c3eee875824760ec5b2fd207fefe166e1afe2170
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
```

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

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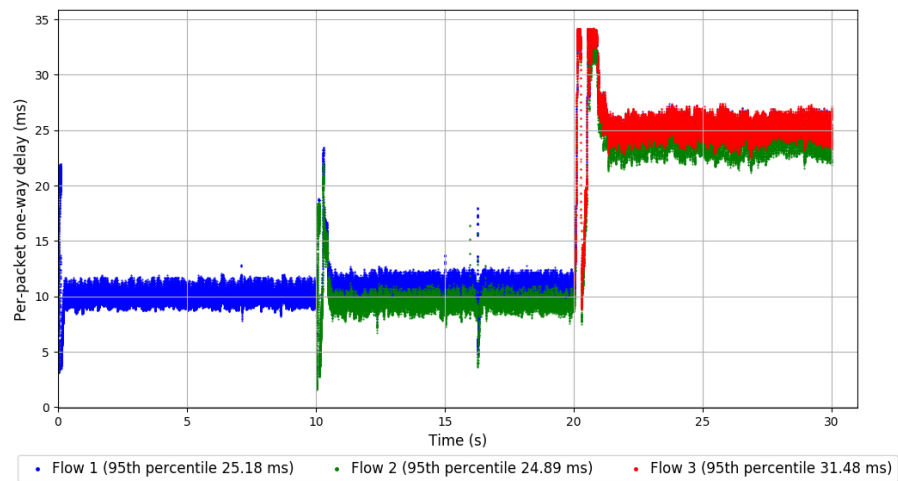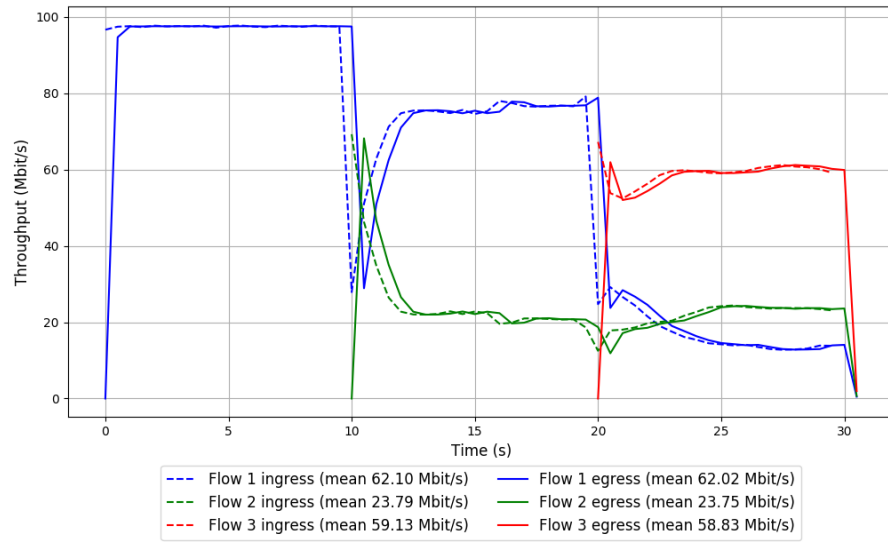3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS Brazil 1 to Brazil, 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	67.92	32.39	23.93	23.63	22.93	27.19	0.02	0.02	0.16
Copa	5	0.00	12.81	2.94	2.14	1.99	2.81	97.92	66.07	81.81
TCP Cubic	5	64.90	34.16	29.58	31.87	31.98	32.33	0.04	0.04	0.07
FillP	5	48.69	50.39	36.48	29.27	29.29	29.52	13.43	17.29	41.09
FillP-Sheep	5	49.15	35.26	33.35	18.28	20.40	22.98	2.49	1.92	3.36
Indigo	5	46.87	40.62	72.44	11.17	12.98	13.53	0.00	0.00	0.00
Indigo-MusesC3	5	55.46	43.36	42.36	10.70	11.57	12.02	0.00	0.00	0.00
Indigo-MusesC5	5	41.47	32.36	33.97	19.14	20.69	21.48	0.00	0.00	0.00
Indigo-MusesD	5	44.48	33.81	21.98	5.21	5.51	6.29	0.00	0.00	0.00
Indigo-MusesT	5	57.89	44.15	24.09	22.82	25.61	27.17	0.05	0.13	0.50
LEDBAT	5	62.43	37.23	30.14	31.81	31.94	31.98	0.03	0.07	0.10
PCC-Allegro	5	66.09	19.93	13.15	6.98	15.71	17.10	0.00	0.00	0.00
PCC-Expr	5	0.47	9.57	7.57	2.04	2.03	2.02	85.71	24.91	22.29
QUIC Cubic	5	58.17	33.85	29.40	30.55	30.74	31.05	0.15	0.19	0.22
SCReAM	5	0.22	0.22	0.22	1.72	1.72	1.71	0.00	0.00	0.00
Sprout	5	42.17	38.69	31.05	20.91	22.27	24.27	0.00	0.00	0.00
TaoVA-100x	5	8.28	7.25	4.66	1.89	2.93	3.77	85.70	92.14	93.61
TCP Vegas	5	55.56	41.91	41.28	4.92	3.35	3.81	0.00	0.00	0.00
Verus	5	44.71	27.70	28.67	28.83	31.00	32.54	11.18	19.27	19.71
PCC-Vivace	5	46.20	36.44	27.07	3.12	3.41	7.27	0.04	0.00	0.00
WebRTC media	5	0.05	0.05	0.05	4.58	5.16	4.48	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-01-19 00:21:23
End at: 2019-01-19 00:21:53
Local clock offset: -7.52 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2019-01-19 02:07:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 26.165 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 62.02 Mbit/s
95th percentile per-packet one-way delay: 25.184 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 23.75 Mbit/s
95th percentile per-packet one-way delay: 24.890 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 58.83 Mbit/s
95th percentile per-packet one-way delay: 31.484 ms
Loss rate: 0.36%
```
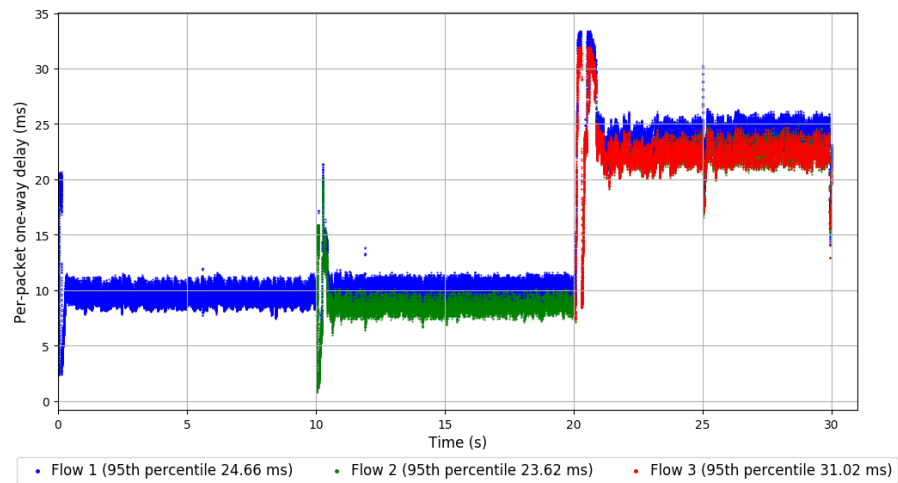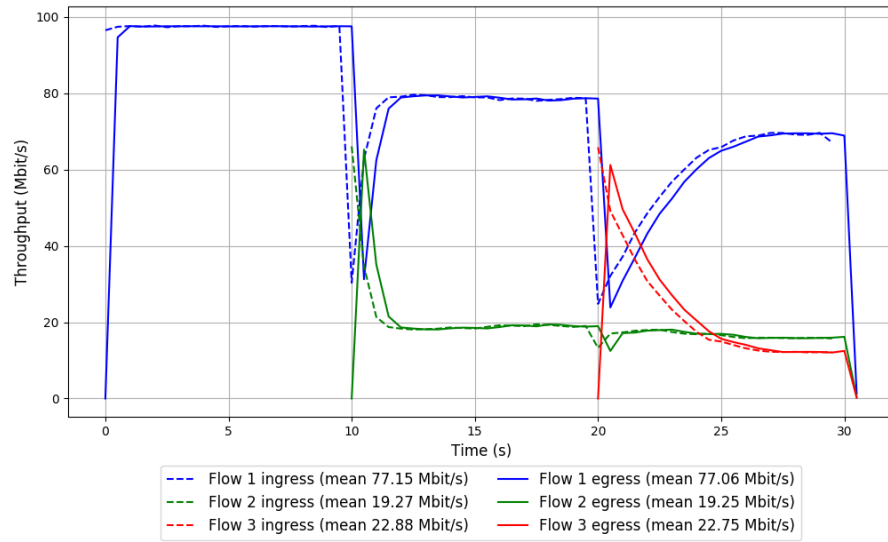
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 62.10 Mbit/s) --- Flow 1 egress (mean 62.02 Mbit/s)
Flow 2 ingress (mean 23.79 Mbit/s) --- Flow 2 egress (mean 23.75 Mbit/s)
Flow 3 ingress (mean 59.13 Mbit/s) --- Flow 3 egress (mean 58.83 Mbit/s)

Flow 1 (95th percentile 25.18 ms)   Flow 2 (95th percentile 24.89 ms)   Flow 3 (95th percentile 31.48 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-01-19 00:45:17
End at: 2019-01-19 00:45:47
Local clock offset: -7.891 ms
Remote clock offset: 0.121 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 24.697 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 77.06 Mbit/s
95th percentile per-packet one-way delay: 24.663 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 19.25 Mbit/s
95th percentile per-packet one-way delay: 23.623 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 22.75 Mbit/s
95th percentile per-packet one-way delay: 31.020 ms
Loss rate: 0.45%
```
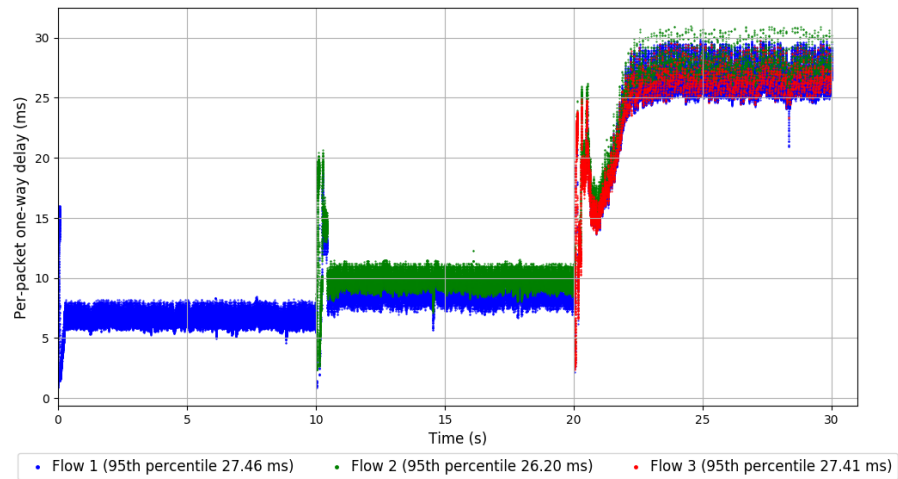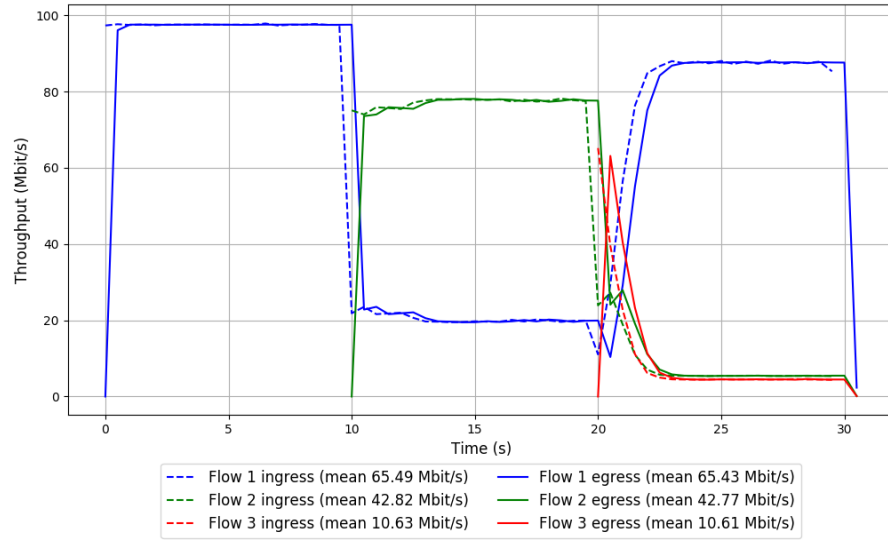
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 77.15 Mbit/s) --- Flow 1 egress (mean 77.06 Mbit/s)
Flow 2 ingress (mean 19.27 Mbit/s) --- Flow 2 egress (mean 19.25 Mbit/s)
Flow 3 ingress (mean 22.88 Mbit/s) --- Flow 3 egress (mean 22.75 Mbit/s)

Flow 1 (95th percentile 24.66 ms) Flow 2 (95th percentile 23.62 ms) Flow 3 (95th percentile 31.02 ms)

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```
Run 3: Statistics of TCP BBR

Start at: 2019-01-19 01:09:11
End at: 2019-01-19 01:09:41
Local clock offset: -7.634 ms
Remote clock offset: 0.472 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 27.337 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.43 Mbit/s
95th percentile per-packet one-way delay: 27.462 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.77 Mbit/s
95th percentile per-packet one-way delay: 26.195 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.61 Mbit/s
95th percentile per-packet one-way delay: 27.409 ms
Loss rate: 0.00%
```
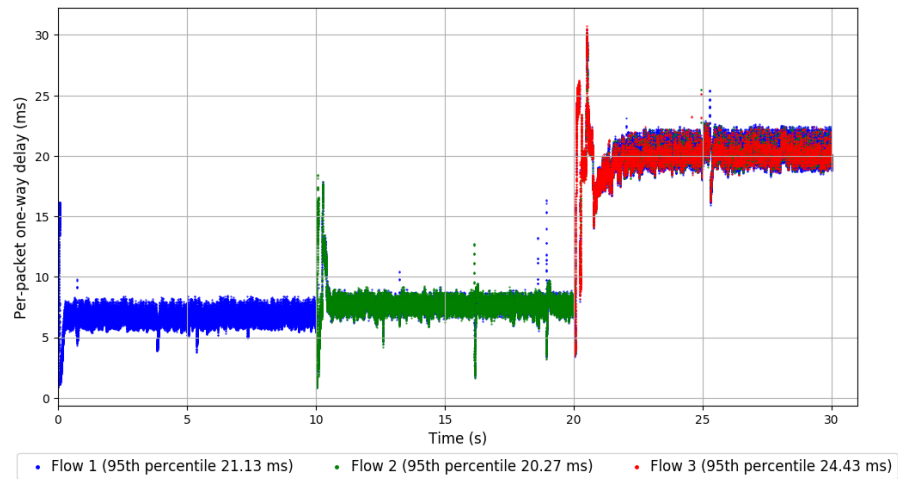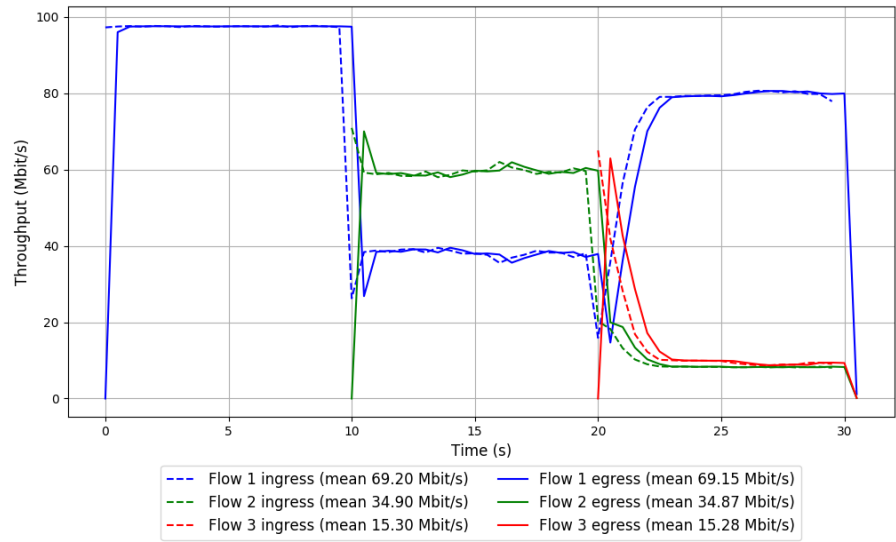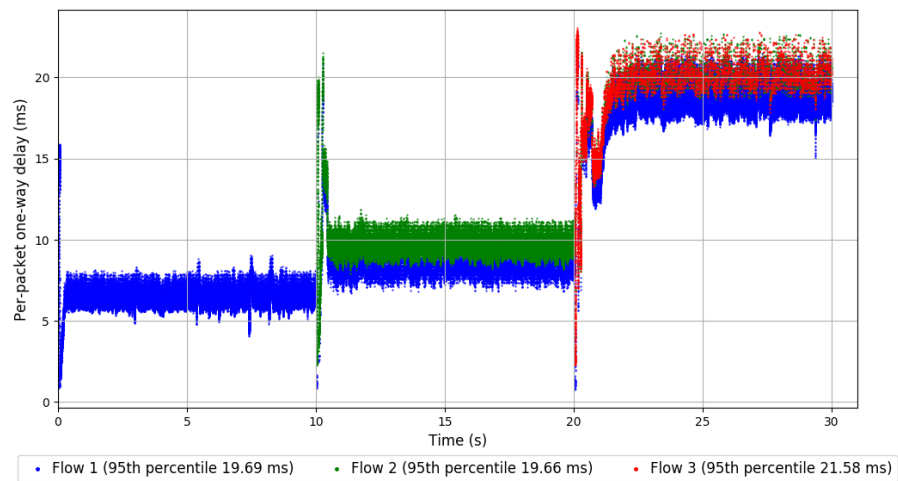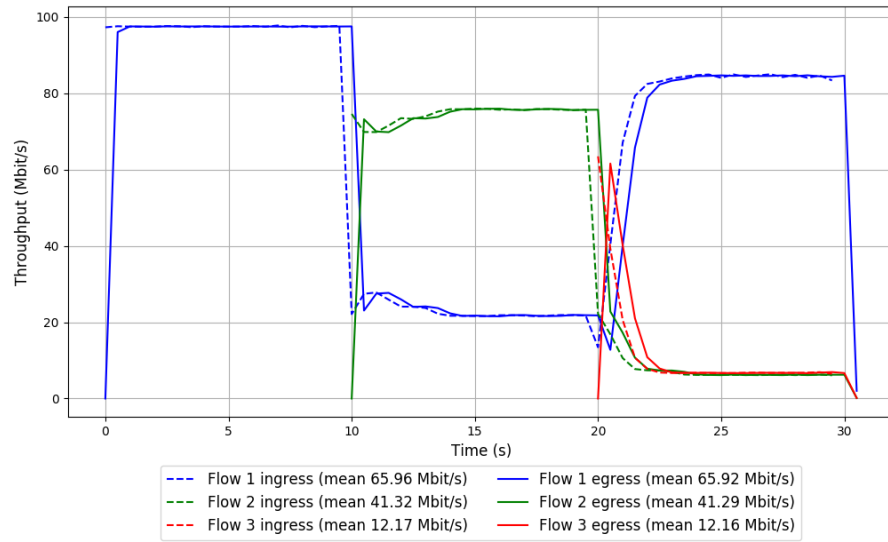
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 65.49 Mbit/s) --- Flow 1 egress (mean 65.43 Mbit/s)
Flow 2 ingress (mean 42.82 Mbit/s) --- Flow 2 egress (mean 42.77 Mbit/s)
Flow 3 ingress (mean 10.63 Mbit/s) --- Flow 3 egress (mean 10.61 Mbit/s)

Flow 1 (95th percentile 27.46 ms)   Flow 2 (95th percentile 26.20 ms)   Flow 3 (95th percentile 27.41 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-01-19 01:33:05
End at: 2019-01-19 01:33:35
Local clock offset: -5.876 ms
Remote clock offset: 0.703 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 21.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.15 Mbit/s
95th percentile per-packet one-way delay: 21.128 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.87 Mbit/s
95th percentile per-packet one-way delay: 20.273 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.28 Mbit/s
95th percentile per-packet one-way delay: 24.430 ms
Loss rate: 0.00%
```
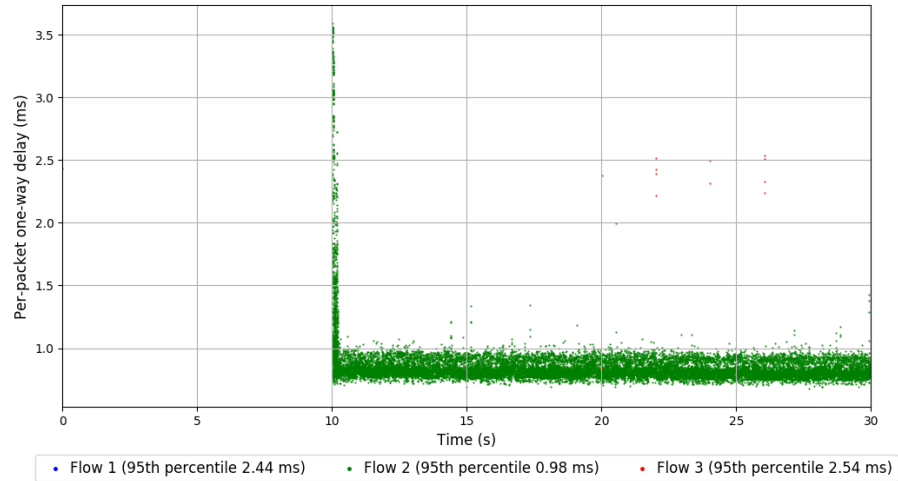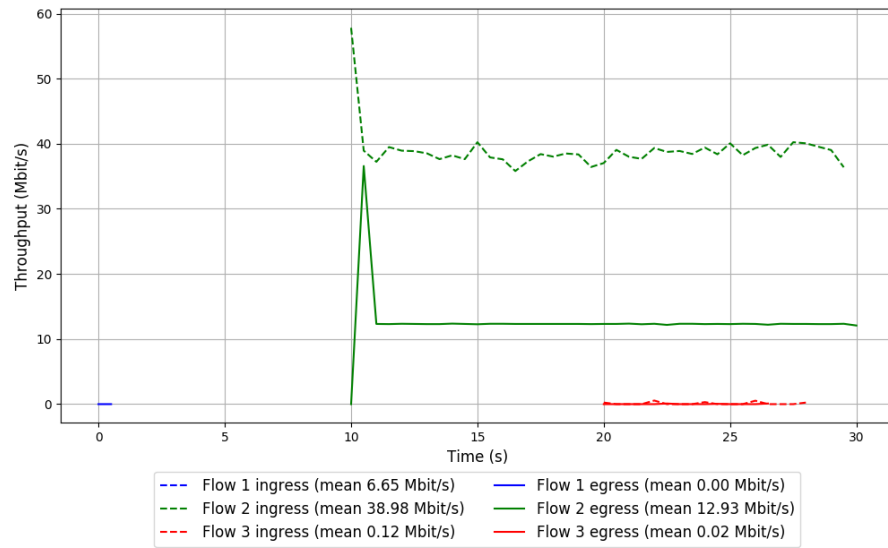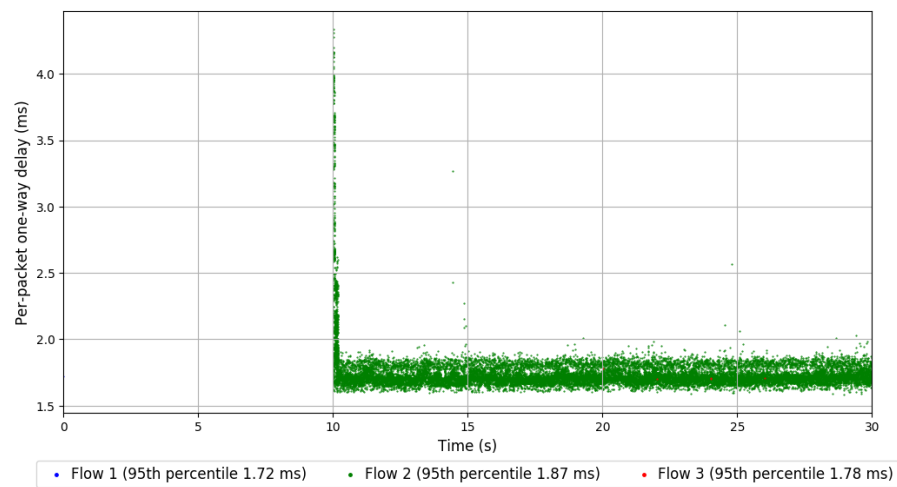
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 69.20 Mbit/s) --- Flow 1 egress (mean 69.15 Mbit/s)
Flow 2 ingress (mean 34.90 Mbit/s) --- Flow 2 egress (mean 34.87 Mbit/s)
Flow 3 ingress (mean 15.30 Mbit/s) --- Flow 3 egress (mean 15.28 Mbit/s)

Flow 1 (95th percentile 21.13 ms)   Flow 2 (95th percentile 20.27 ms)   Flow 3 (95th percentile 24.43 ms)

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```
Run 5: Statistics of TCP BBR

Start at: 2019-01-19 01:56:57
End at: 2019-01-19 01:57:27
Local clock offset: -6.556 ms
Remote clock offset: 0.882 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 19.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.92 Mbit/s
95th percentile per-packet one-way delay: 19.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.29 Mbit/s
95th percentile per-packet one-way delay: 19.658 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.16 Mbit/s
95th percentile per-packet one-way delay: 21.582 ms
Loss rate: 0.00%
```
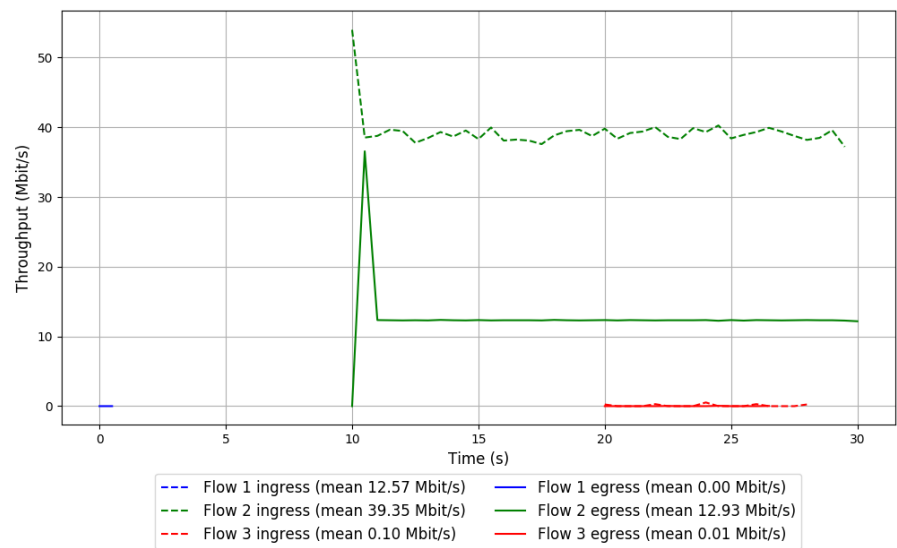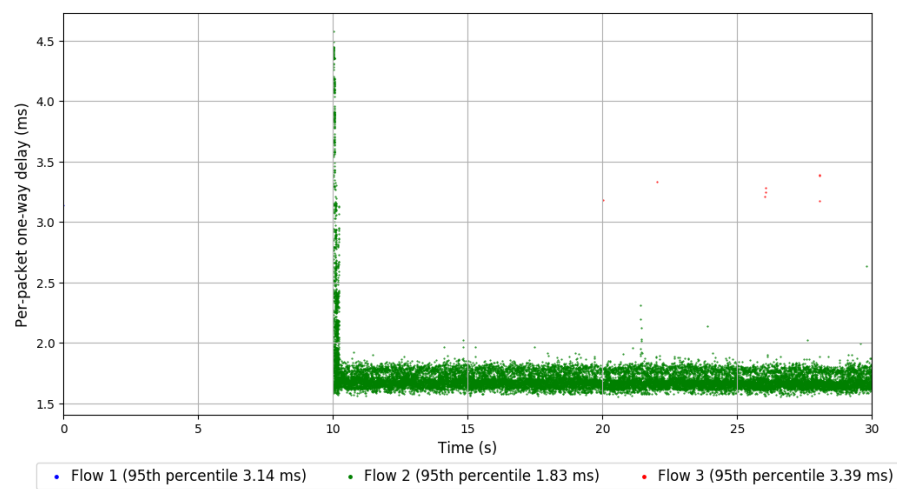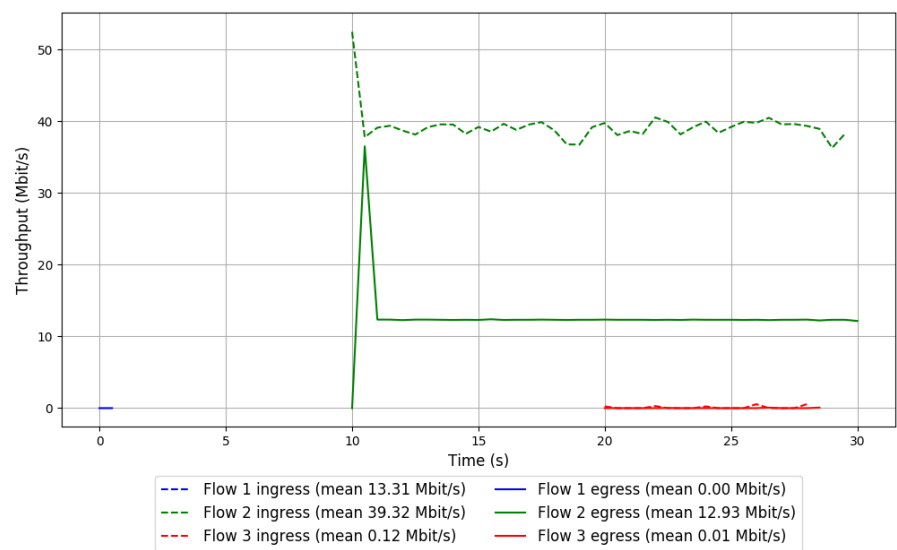
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 65.96 Mbit/s) --- Flow 1 egress (mean 65.92 Mbit/s)
Flow 2 ingress (mean 41.32 Mbit/s) --- Flow 2 egress (mean 41.29 Mbit/s)
Flow 3 ingress (mean 12.17 Mbit/s) --- Flow 3 egress (mean 12.16 Mbit/s)

Flow 1 (95th percentile 19.69 ms)   Flow 2 (95th percentile 19.66 ms)   Flow 3 (95th percentile 21.58 ms)

```
Run 1: Statistics of Copa

Start at: 2019-01-19 00:27:05
End at: 2019-01-19 00:27:35
Local clock offset: -7.059 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 0.978 ms
Loss rate: 66.86%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.436 ms
Loss rate: 97.24%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 66.83%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 2.536 ms
Loss rate: 87.08%
```
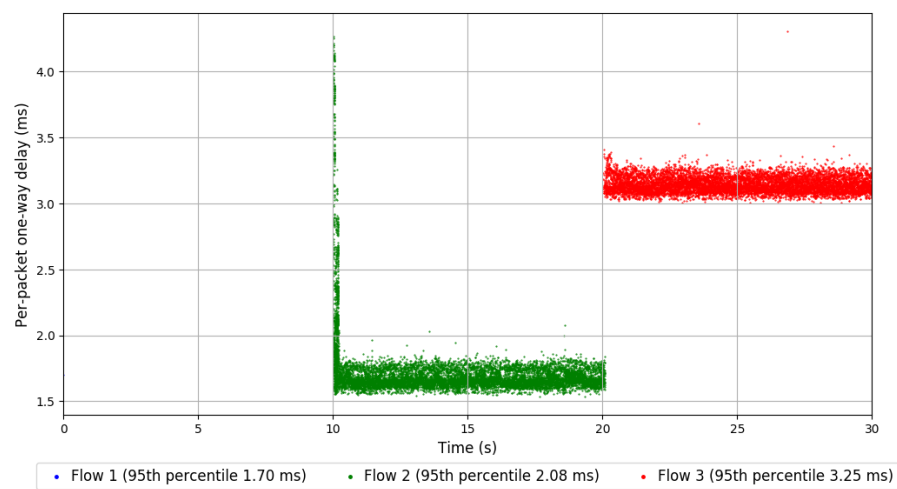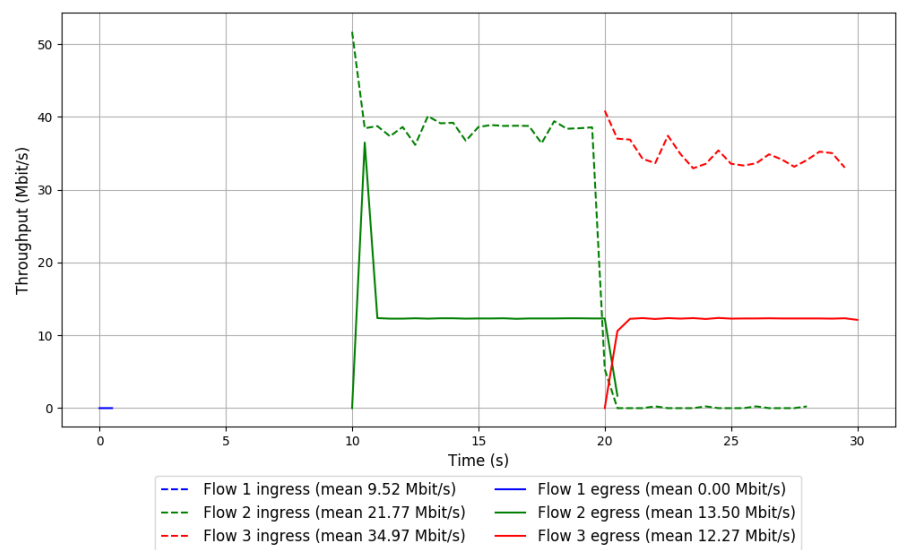
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 6.65 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 38.98 Mbit/s)   Flow 2 egress (mean 12.93 Mbit/s)
Flow 3 ingress (mean 0.12 Mbit/s)   Flow 3 egress (mean 0.02 Mbit/s)

Flow 1 (95th percentile 2.44 ms)   Flow 2 (95th percentile 0.98 ms)   Flow 3 (95th percentile 2.54 ms)

```
Run 2: Statistics of Copa

Start at: 2019-01-19 00:51:00
End at: 2019-01-19 00:51:30
Local clock offset: -8.404 ms
Remote clock offset: 0.263 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 1.874 ms
Loss rate: 67.16%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.719 ms
Loss rate: 97.92%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 1.874 ms
Loss rate: 67.13%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1.781 ms
Loss rate: 93.82%
```
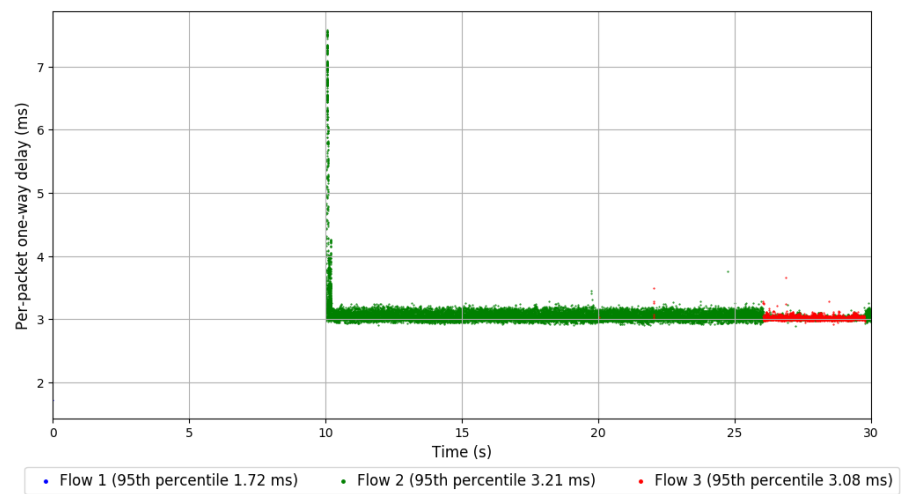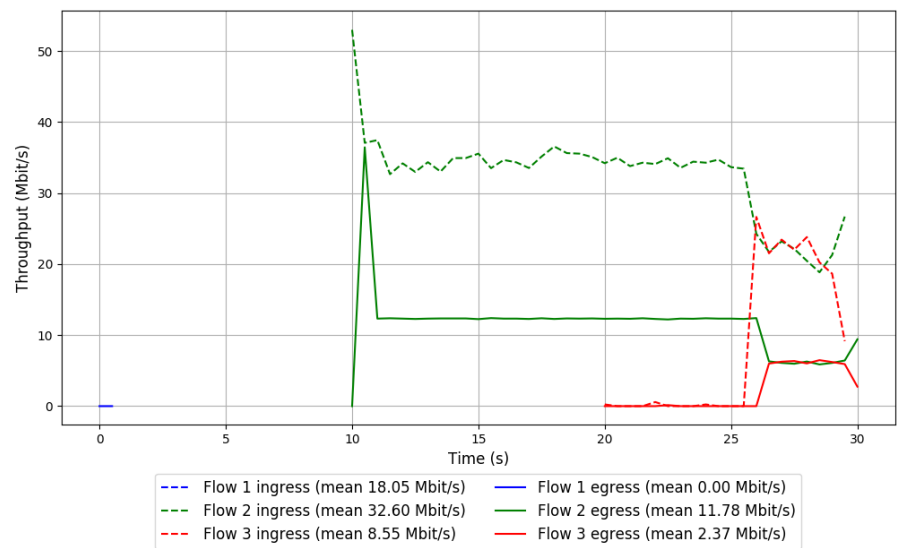
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 12.57 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s) ---
Flow 2 ingress (mean 39.35 Mbit/s) --- Flow 2 egress (mean 12.93 Mbit/s) ---
Flow 3 ingress (mean 0.10 Mbit/s) --- Flow 3 egress (mean 0.01 Mbit/s) ---

Flow 1 (95th percentile 1.72 ms) · Flow 2 (95th percentile 1.87 ms) · Flow 3 (95th percentile 1.78 ms)

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```
Run 3: Statistics of Copa

Start at: 2019-01-19 01:14:53
End at: 2019-01-19 01:15:23
Local clock offset: -8.482 ms
Remote clock offset: 0.528 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 1.835 ms
Loss rate: 67.14%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.142 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 1.834 ms
Loss rate: 67.11%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3.393 ms
Loss rate: 90.93%
```
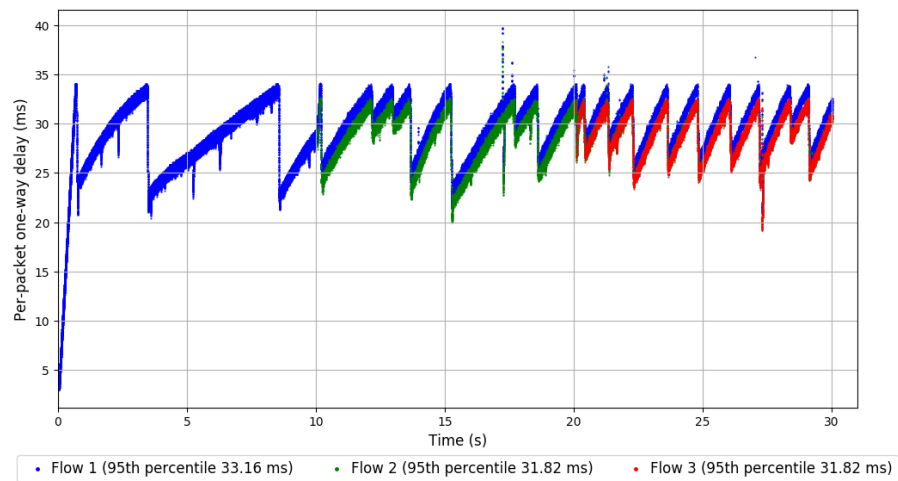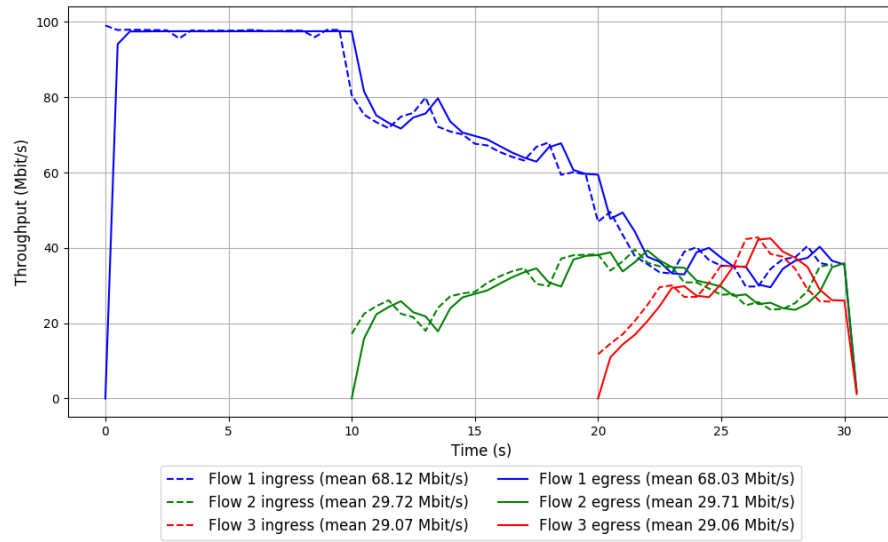
Run 3: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 13.31 Mbit/s)   —— Flow 1 egress (mean 0.00 Mbit/s)
- - - - Flow 2 ingress (mean 39.32 Mbit/s)   —— Flow 2 egress (mean 12.93 Mbit/s)
- - - - Flow 3 ingress (mean 0.12 Mbit/s)   —— Flow 3 egress (mean 0.01 Mbit/s)

• Flow 1 (95th percentile 3.14 ms)   • Flow 2 (95th percentile 1.83 ms)   • Flow 3 (95th percentile 3.39 ms)

```
Run 4: Statistics of Copa

Start at: 2019-01-19 01:38:46
End at: 2019-01-19 01:39:16
Local clock offset: -6.456 ms
Remote clock offset: 0.73 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 3.228 ms
Loss rate: 65.19%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.700 ms
Loss rate: 97.24%
-- Flow 2:
Average throughput: 13.50 Mbit/s
95th percentile per-packet one-way delay: 2.082 ms
Loss rate: 65.42%
-- Flow 3:
Average throughput: 12.27 Mbit/s
95th percentile per-packet one-way delay: 3.249 ms
Loss rate: 64.92%
```
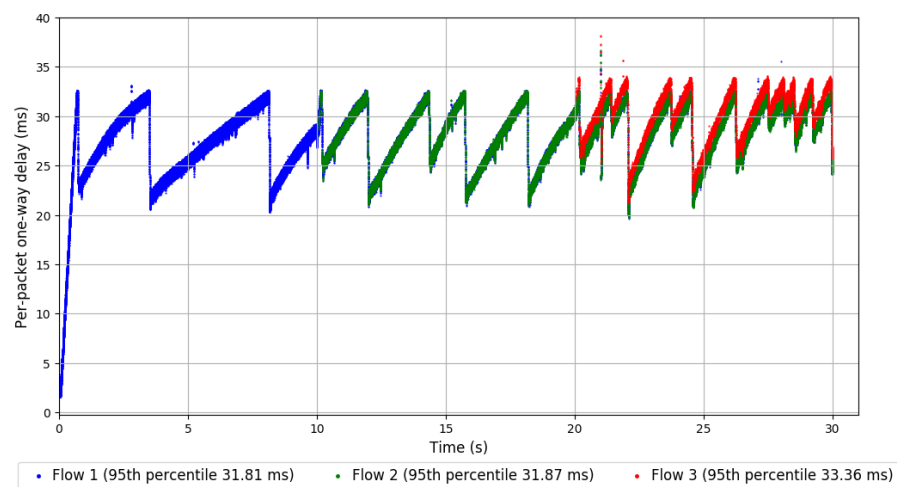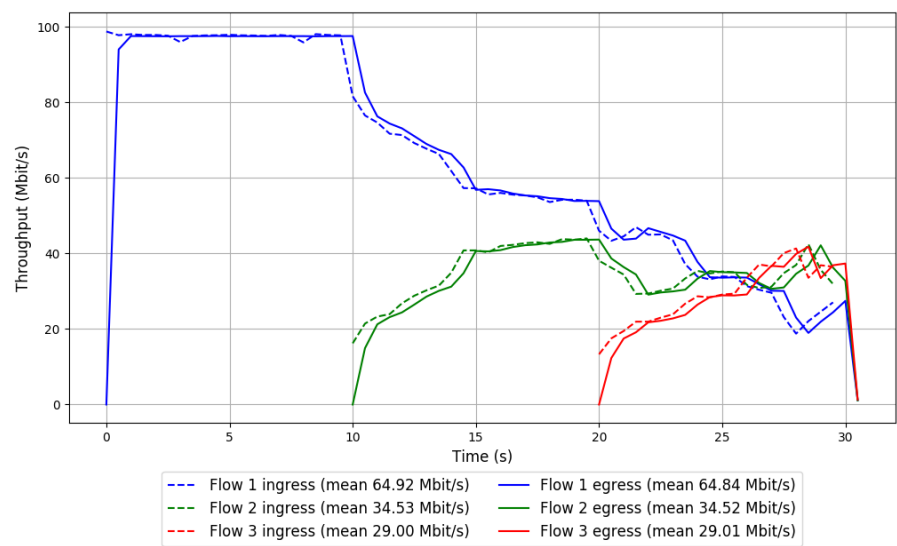
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 9.52 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 21.77 Mbit/s) --- Flow 2 egress (mean 13.50 Mbit/s)
Flow 3 ingress (mean 34.97 Mbit/s) --- Flow 3 egress (mean 12.27 Mbit/s)

Flow 1 (95th percentile 1.70 ms) • Flow 2 (95th percentile 2.08 ms) • Flow 3 (95th percentile 3.25 ms)

```
Run 5: Statistics of Copa

Start at: 2019-01-19 02:02:40
End at: 2019-01-19 02:03:10
Local clock offset: -7.607 ms
Remote clock offset: 0.819 ms


# Below is generated by plot.py at 2019-01-19 02:07:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 3.193 ms
Loss rate: 64.82%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.721 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 3.206 ms
Loss rate: 63.86%
-- Flow 3:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 3.085 ms
Loss rate: 72.31%
```
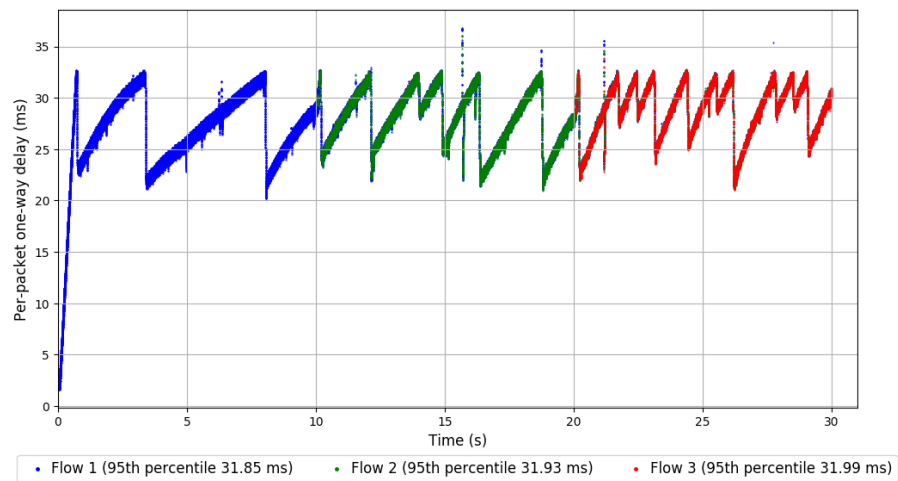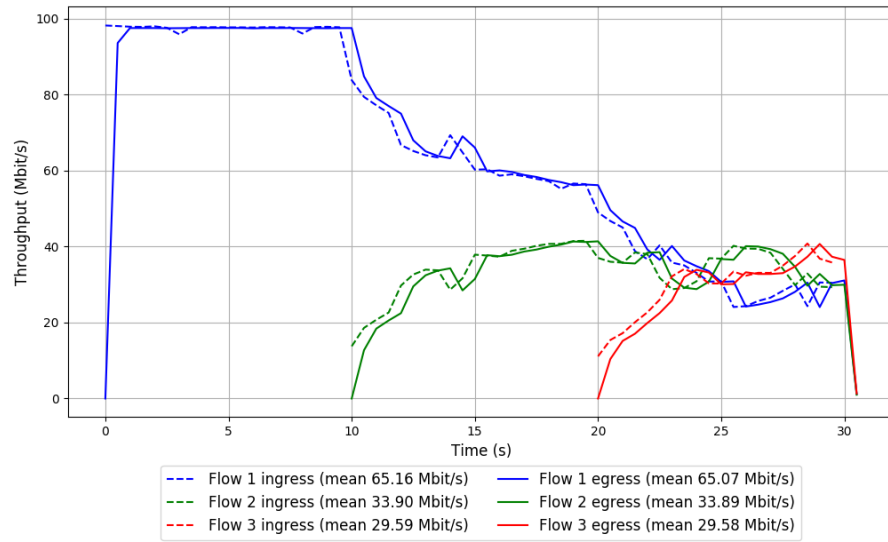
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 18.05 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s) —
Flow 2 ingress (mean 32.60 Mbit/s) --- Flow 2 egress (mean 11.78 Mbit/s) —
Flow 3 ingress (mean 8.55 Mbit/s) --- Flow 3 egress (mean 2.37 Mbit/s) —

• Flow 1 (95th percentile 1.72 ms) • Flow 2 (95th percentile 3.21 ms) • Flow 3 (95th percentile 3.08 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2019-01-19 00:05:27
End at: 2019-01-19 00:05:57
Local clock offset: -6.466 ms
Remote clock offset: -0.386 ms


# Below is generated by plot.py at 2019-01-19 02:07:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 33.050 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 68.03 Mbit/s
95th percentile per-packet one-way delay: 33.155 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 31.821 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 29.06 Mbit/s
95th percentile per-packet one-way delay: 31.823 ms
Loss rate: 0.04%
```
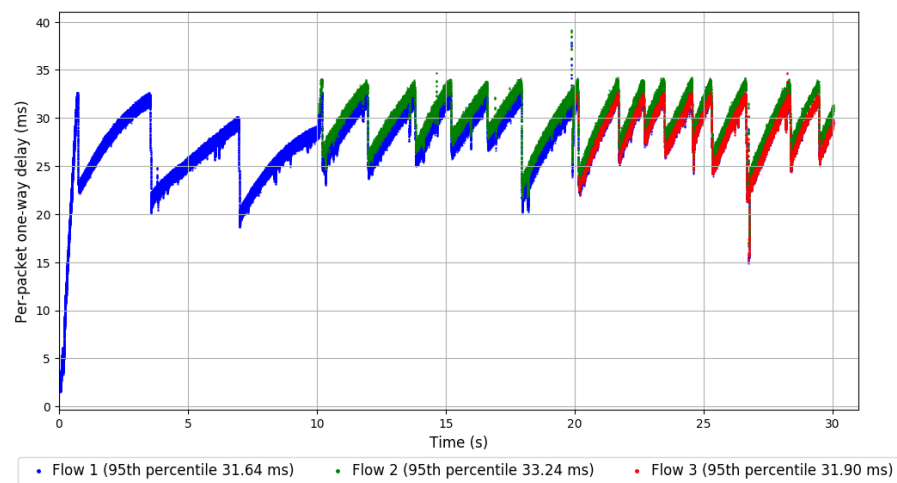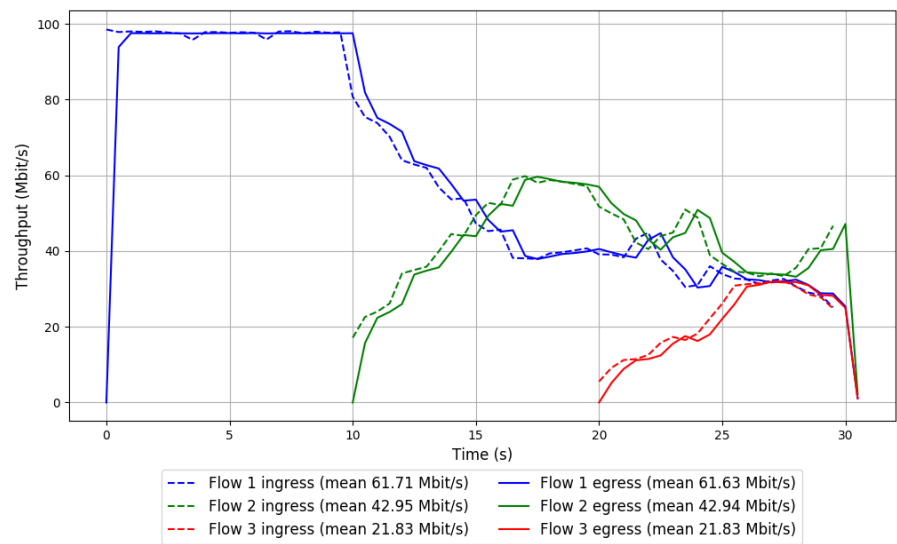
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-01-19 00:29:22
End at: 2019-01-19 00:29:52
Local clock offset: -7.923 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2019-01-19 02:07:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 32.091 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 64.84 Mbit/s
95th percentile per-packet one-way delay: 31.810 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 31.870 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 29.01 Mbit/s
95th percentile per-packet one-way delay: 33.364 ms
Loss rate: 0.04%
```
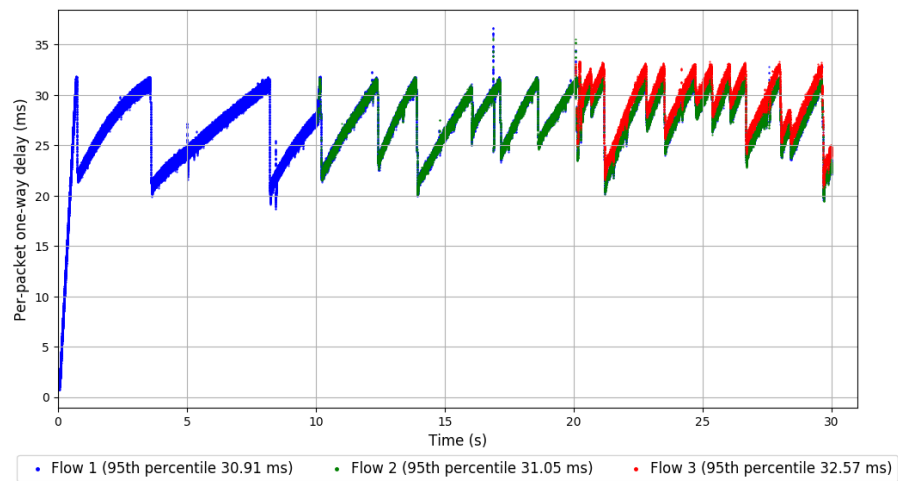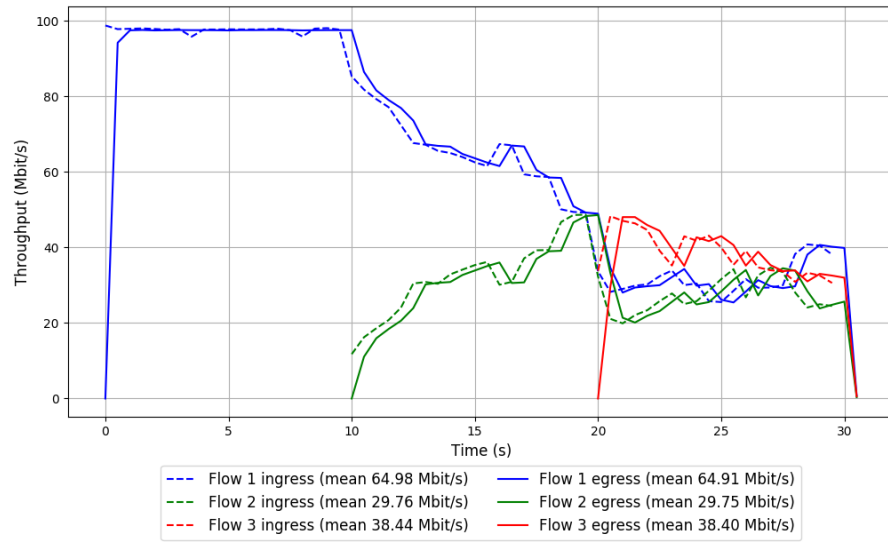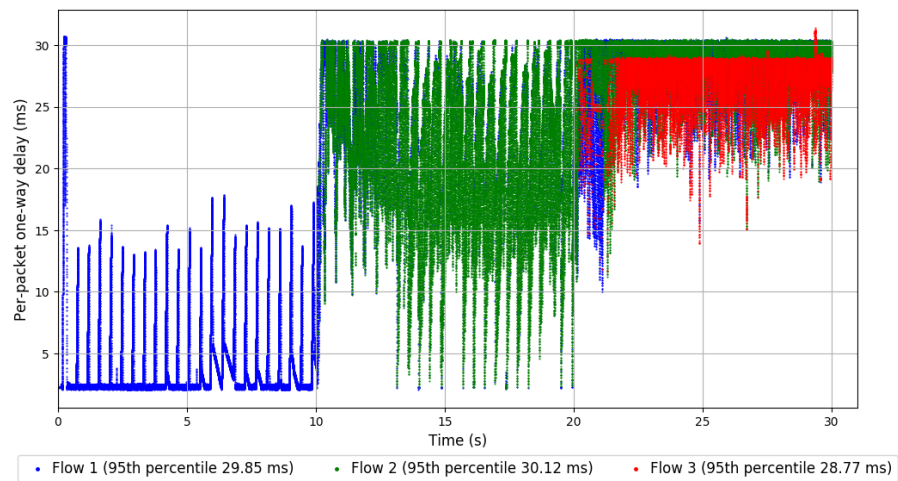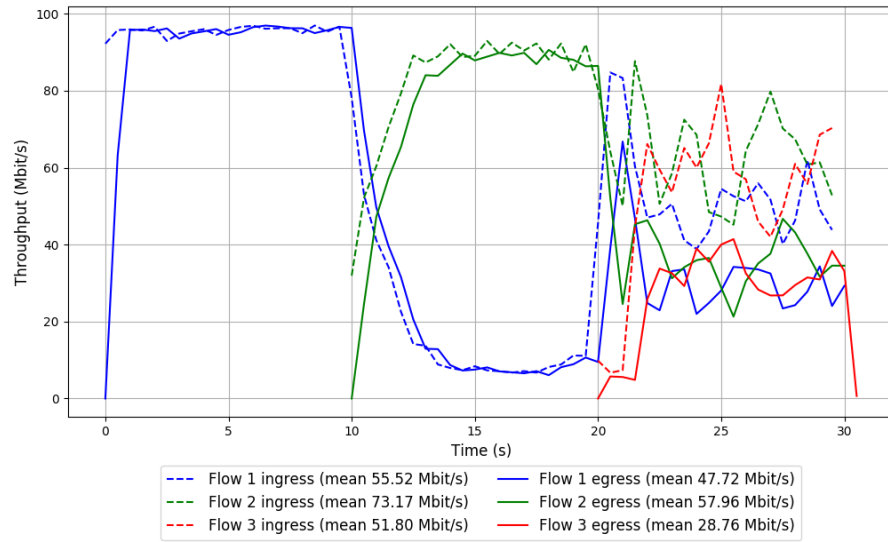
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 64.92 Mbit/s) --- Flow 1 egress (mean 64.84 Mbit/s)
Flow 2 ingress (mean 34.53 Mbit/s) --- Flow 2 egress (mean 34.52 Mbit/s)
Flow 3 ingress (mean 29.00 Mbit/s) --- Flow 3 egress (mean 29.01 Mbit/s)

Flow 1 (95th percentile 31.81 ms)   Flow 2 (95th percentile 31.87 ms)   Flow 3 (95th percentile 33.36 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-01-19 00:53:16
End at: 2019-01-19 00:53:46
Local clock offset: -8.319 ms
Remote clock offset: 0.266 ms


# Below is generated by plot.py at 2019-01-19 02:07:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 31.898 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 65.07 Mbit/s
95th percentile per-packet one-way delay: 31.846 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 33.89 Mbit/s
95th percentile per-packet one-way delay: 31.926 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 31.994 ms
Loss rate: 0.03%
```
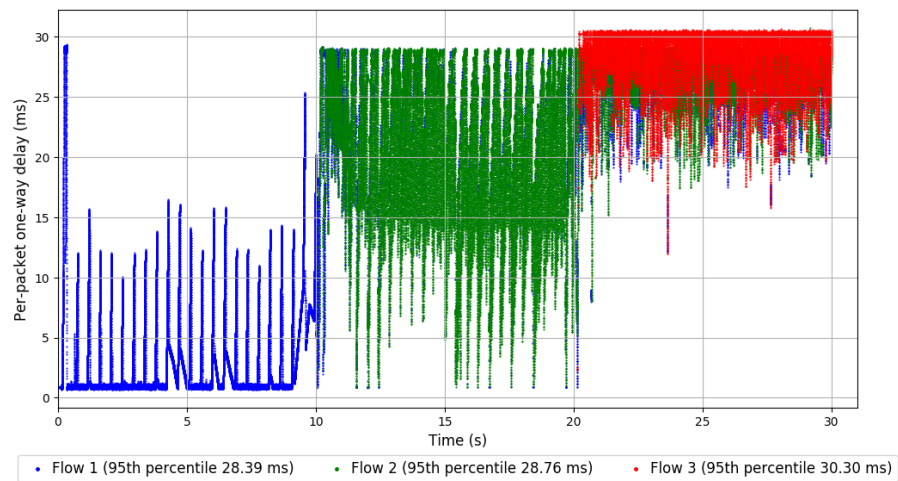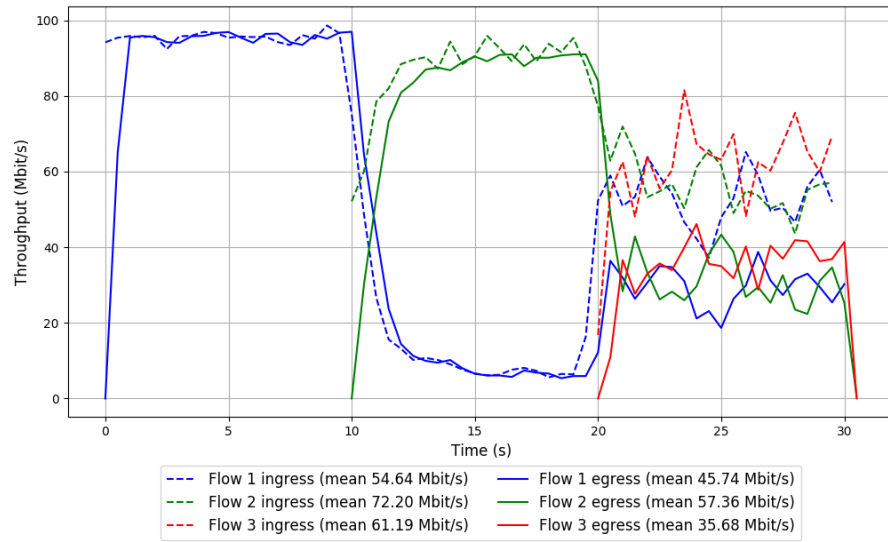
Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2019-01-19 01:17:09
End at: 2019-01-19 01:17:39
Local clock offset: -8.384 ms
Remote clock offset: 0.467 ms


# Below is generated by plot.py at 2019-01-19 02:08:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 32.446 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 61.63 Mbit/s
95th percentile per-packet one-way delay: 31.641 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 42.94 Mbit/s
95th percentile per-packet one-way delay: 33.243 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 21.83 Mbit/s
95th percentile per-packet one-way delay: 31.897 ms
Loss rate: 0.04%
```

Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-01-19 01:41:02
End at: 2019-01-19 01:41:32
Local clock offset: -5.636 ms
Remote clock offset: 0.671 ms


# Below is generated by plot.py at 2019-01-19 02:08:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 31.311 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 64.91 Mbit/s
95th percentile per-packet one-way delay: 30.909 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 29.75 Mbit/s
95th percentile per-packet one-way delay: 31.049 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 38.40 Mbit/s
95th percentile per-packet one-way delay: 32.566 ms
Loss rate: 0.20%
```
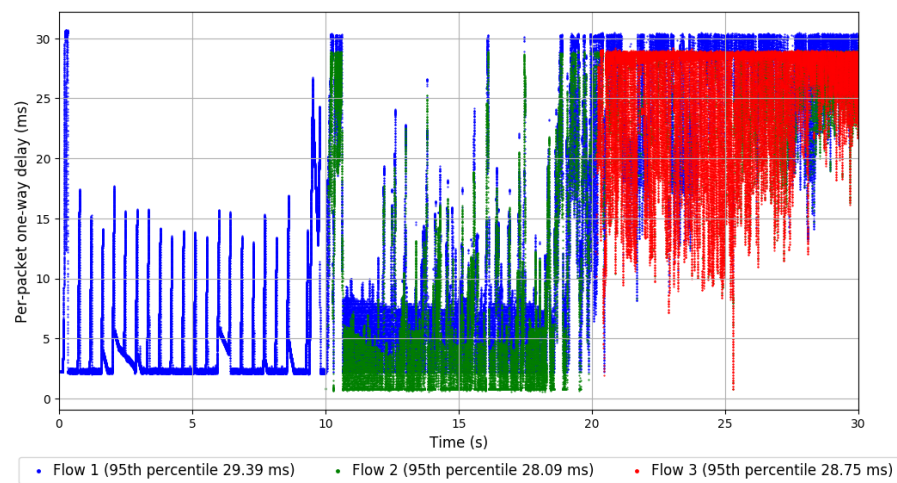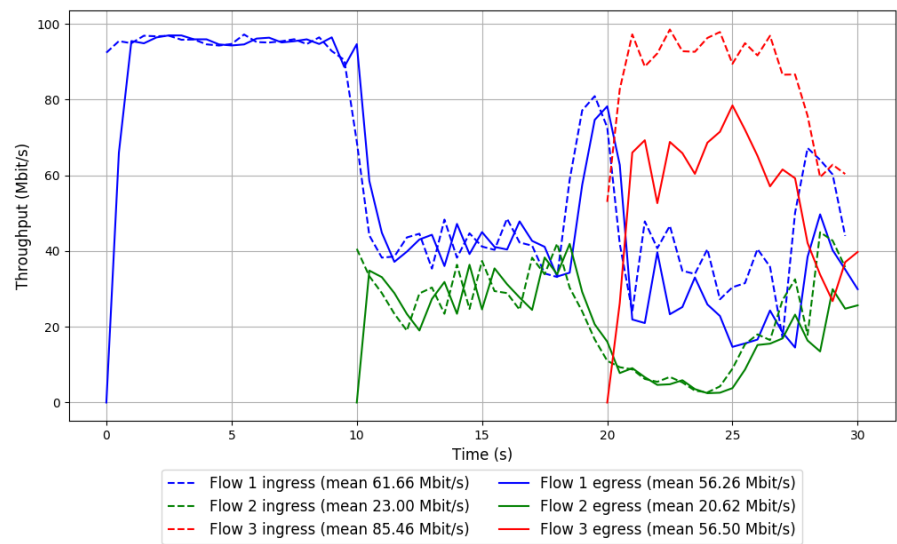
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 64.98 Mbit/s)   Flow 1 egress (mean 64.91 Mbit/s)
Flow 2 ingress (mean 29.76 Mbit/s)   Flow 2 egress (mean 29.75 Mbit/s)
Flow 3 ingress (mean 38.44 Mbit/s)   Flow 3 egress (mean 38.40 Mbit/s)

Flow 1 (95th percentile 30.91 ms)   Flow 2 (95th percentile 31.05 ms)   Flow 3 (95th percentile 32.57 ms)

```
Run 1: Statistics of FillP

Start at: 2019-01-19 00:24:51
End at: 2019-01-19 00:25:21
Local clock offset: -7.004 ms
Remote clock offset: -0.196 ms


# Below is generated by plot.py at 2019-01-19 02:08:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 30.023 ms
Loss rate: 20.98%
-- Flow 1:
Average throughput: 47.72 Mbit/s
95th percentile per-packet one-way delay: 29.849 ms
Loss rate: 13.97%
-- Flow 2:
Average throughput: 57.96 Mbit/s
95th percentile per-packet one-way delay: 30.124 ms
Loss rate: 20.69%
-- Flow 3:
Average throughput: 28.76 Mbit/s
95th percentile per-packet one-way delay: 28.774 ms
Loss rate: 44.45%
```
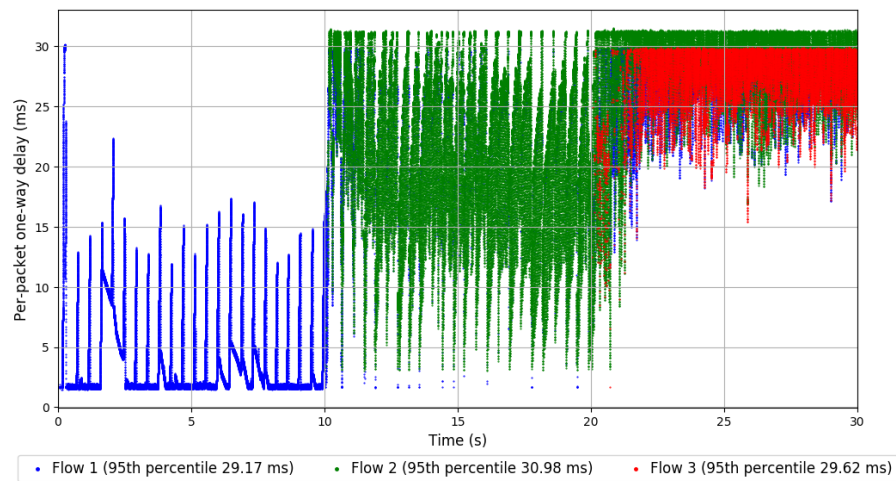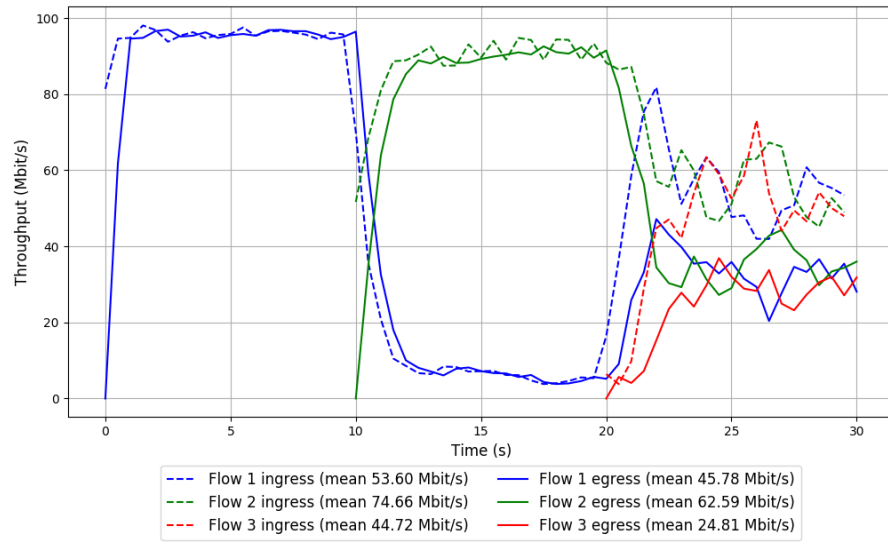
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 55.52 Mbit/s) --- Flow 1 egress (mean 47.72 Mbit/s)
Flow 2 ingress (mean 73.17 Mbit/s) --- Flow 2 egress (mean 57.96 Mbit/s)
Flow 3 ingress (mean 51.80 Mbit/s) --- Flow 3 egress (mean 28.76 Mbit/s)

Flow 1 (95th percentile 29.85 ms)   Flow 2 (95th percentile 30.12 ms)   Flow 3 (95th percentile 28.77 ms)

```
Run 2: Statistics of FillP

Start at: 2019-01-19 00:48:45
End at: 2019-01-19 00:49:15
Local clock offset: -7.773 ms
Remote clock offset: 0.202 ms


# Below is generated by plot.py at 2019-01-19 02:08:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 29.039 ms
Loss rate: 22.07%
-- Flow 1:
Average throughput: 45.74 Mbit/s
95th percentile per-packet one-way delay: 28.390 ms
Loss rate: 16.21%
-- Flow 2:
Average throughput: 57.36 Mbit/s
95th percentile per-packet one-way delay: 28.764 ms
Loss rate: 20.46%
-- Flow 3:
Average throughput: 35.68 Mbit/s
95th percentile per-packet one-way delay: 30.298 ms
Loss rate: 41.61%
```
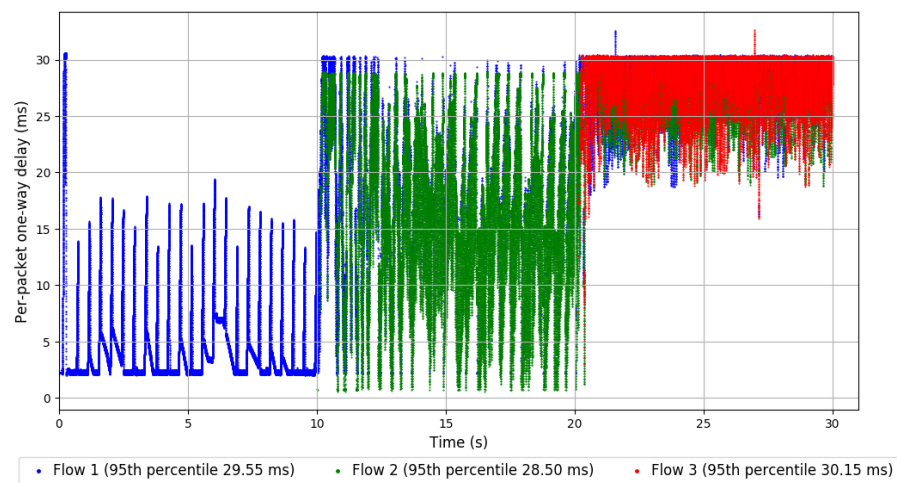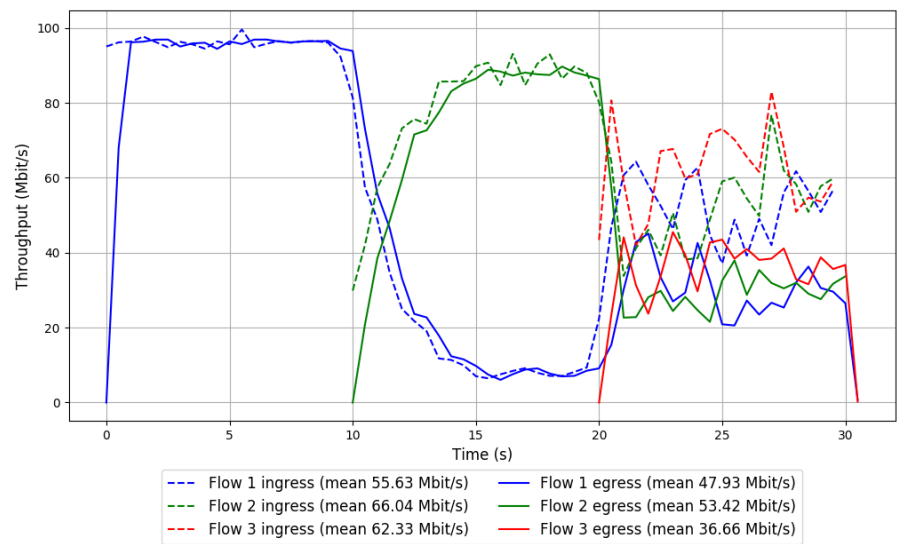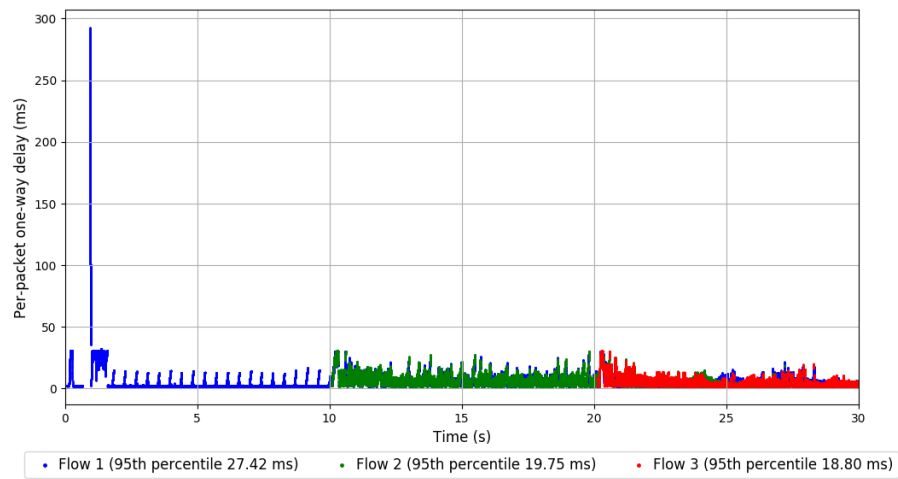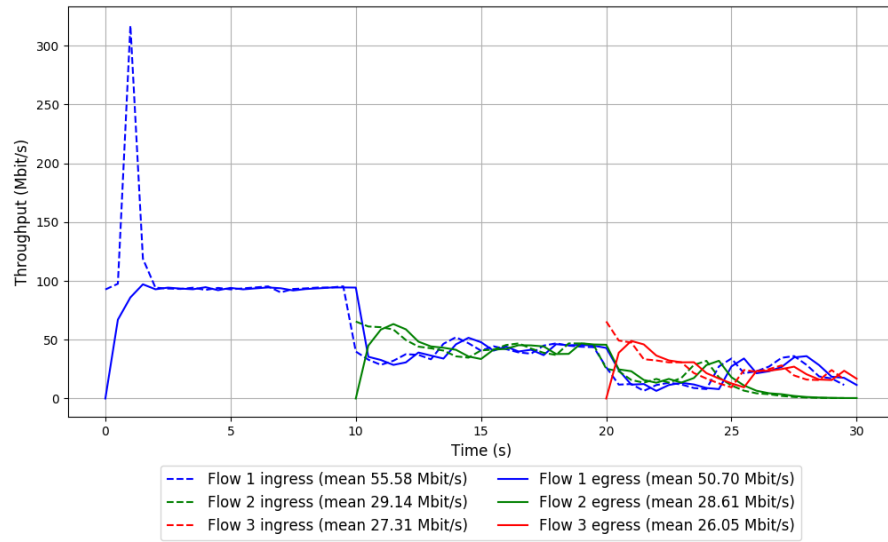
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 54.64 Mbit/s) --- Flow 1 egress (mean 45.74 Mbit/s) ---
Flow 2 ingress (mean 72.20 Mbit/s) --- Flow 2 egress (mean 57.36 Mbit/s) ---
Flow 3 ingress (mean 61.19 Mbit/s) --- Flow 3 egress (mean 35.68 Mbit/s) ---

Flow 1 (95th percentile 28.39 ms) · Flow 2 (95th percentile 28.76 ms) · Flow 3 (95th percentile 30.30 ms)

```
Run 3: Statistics of FillP

Start at: 2019-01-19 01:12:39
End at: 2019-01-19 01:13:09
Local clock offset: -7.631 ms
Remote clock offset: 0.455 ms


# Below is generated by plot.py at 2019-01-19 02:08:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.69 Mbit/s
95th percentile per-packet one-way delay: 28.810 ms
Loss rate: 15.67%
-- Flow 1:
Average throughput: 56.26 Mbit/s
95th percentile per-packet one-way delay: 29.395 ms
Loss rate: 8.68%
-- Flow 2:
Average throughput: 20.62 Mbit/s
95th percentile per-packet one-way delay: 28.095 ms
Loss rate: 10.26%
-- Flow 3:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 28.751 ms
Loss rate: 33.83%
```
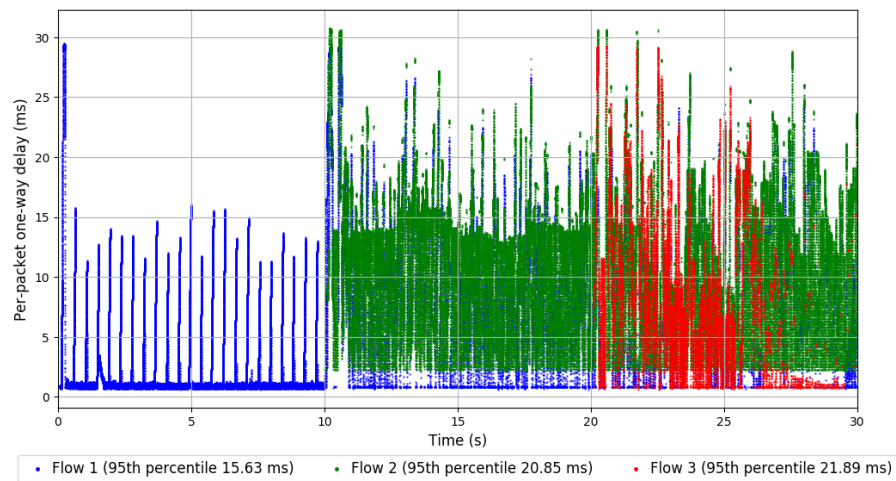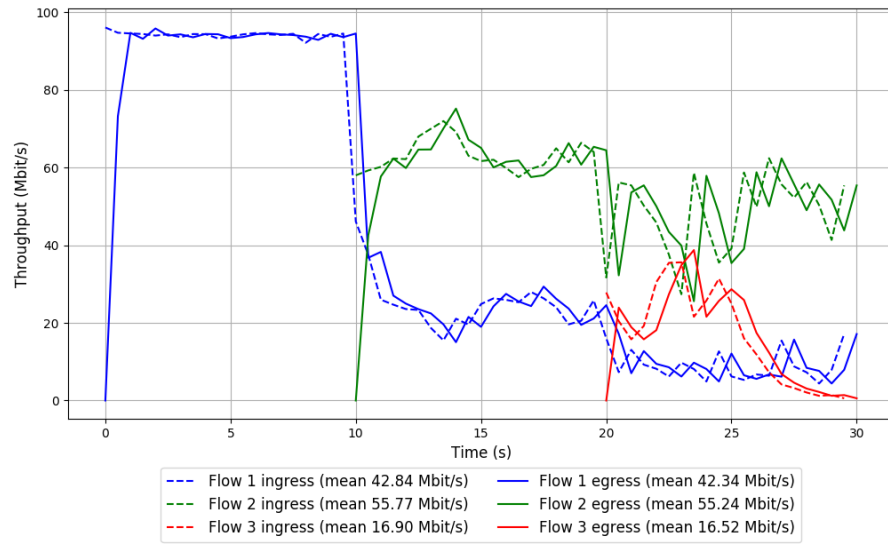
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 61.66 Mbit/s) — — — Flow 1 egress (mean 56.26 Mbit/s)
Flow 2 ingress (mean 23.00 Mbit/s) — — — Flow 2 egress (mean 20.62 Mbit/s)
Flow 3 ingress (mean 85.46 Mbit/s) — — — Flow 3 egress (mean 56.50 Mbit/s)

Flow 1 (95th percentile 29.39 ms)   Flow 2 (95th percentile 28.09 ms)   Flow 3 (95th percentile 28.75 ms)

```
Run 4: Statistics of FillP

Start at: 2019-01-19 01:36:32
End at: 2019-01-19 01:37:02
Local clock offset: -6.54 ms
Remote clock offset: 0.756 ms

# Below is generated by plot.py at 2019-01-19 02:08:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 30.520 ms
Loss rate: 18.92%
-- Flow 1:
Average throughput: 45.78 Mbit/s
95th percentile per-packet one-way delay: 29.173 ms
Loss rate: 14.51%
-- Flow 2:
Average throughput: 62.59 Mbit/s
95th percentile per-packet one-way delay: 30.983 ms
Loss rate: 16.05%
-- Flow 3:
Average throughput: 24.81 Mbit/s
95th percentile per-packet one-way delay: 29.619 ms
Loss rate: 44.43%
```
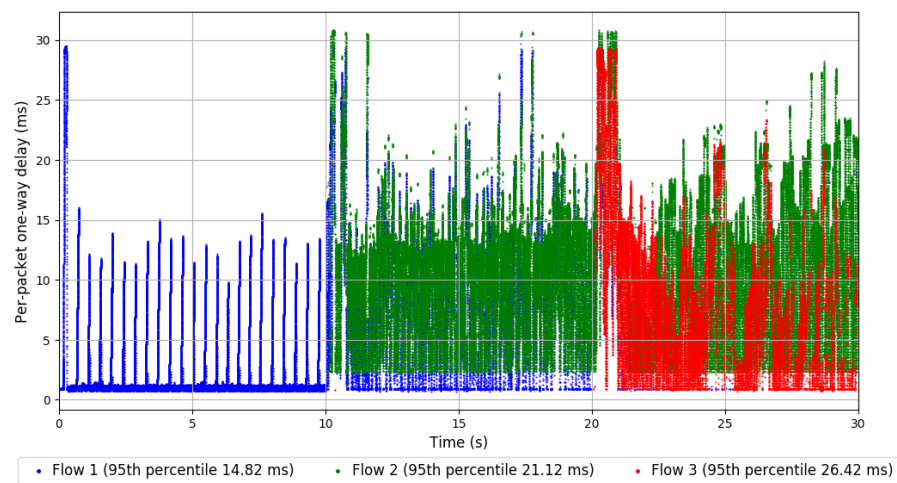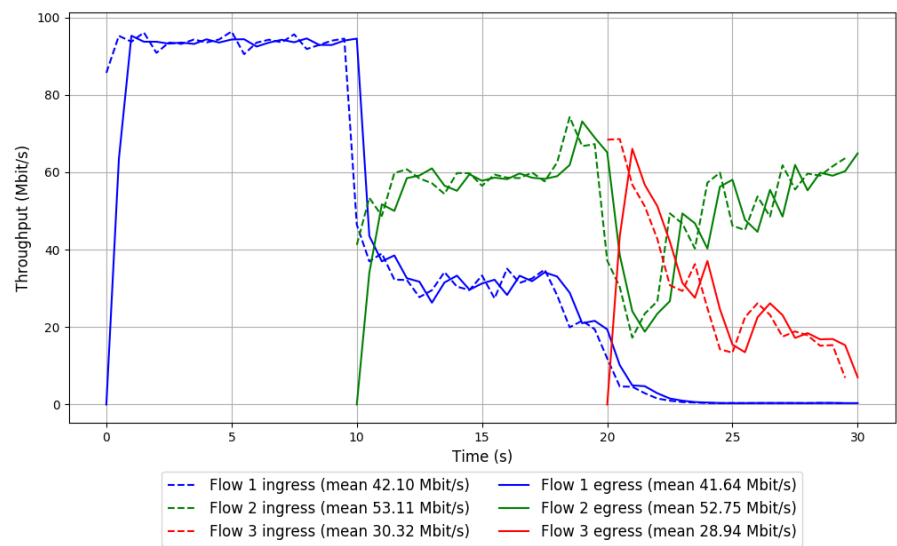
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-01-19 02:00:26
End at: 2019-01-19 02:00:56
Local clock offset: -6.74 ms
Remote clock offset: 0.827 ms


# Below is generated by plot.py at 2019-01-19 02:08:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 29.597 ms
Loss rate: 20.39%
-- Flow 1:
Average throughput: 47.93 Mbit/s
95th percentile per-packet one-way delay: 29.553 ms
Loss rate: 13.77%
-- Flow 2:
Average throughput: 53.42 Mbit/s
95th percentile per-packet one-way delay: 28.502 ms
Loss rate: 19.01%
-- Flow 3:
Average throughput: 36.66 Mbit/s
95th percentile per-packet one-way delay: 30.152 ms
Loss rate: 41.12%
```
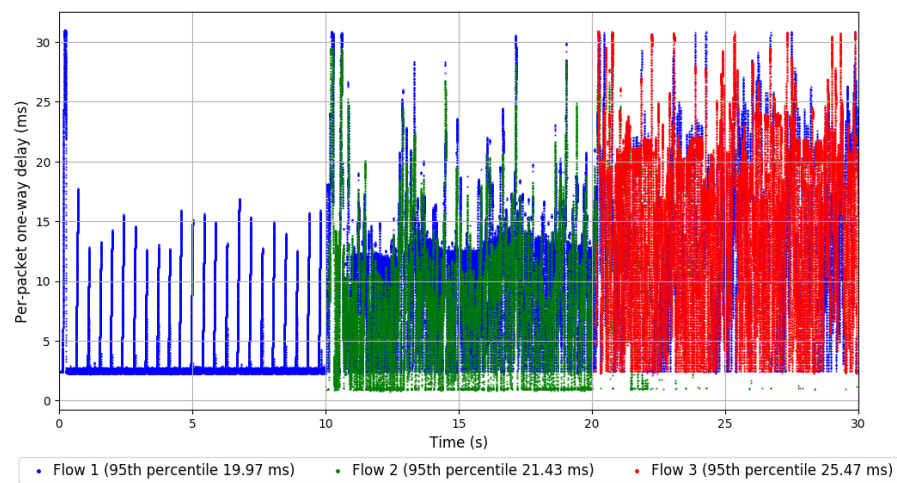
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-01-19 00:09:58
End at: 2019-01-19 00:10:28
Local clock offset: -6.911 ms
Remote clock offset: -0.321 ms


# Below is generated by plot.py at 2019-01-19 02:08:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.36 Mbit/s
95th percentile per-packet one-way delay: 23.112 ms
Loss rate: 6.73%
-- Flow 1:
Average throughput: 50.70 Mbit/s
95th percentile per-packet one-way delay: 27.421 ms
Loss rate: 8.76%
-- Flow 2:
Average throughput: 28.61 Mbit/s
95th percentile per-packet one-way delay: 19.755 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 26.05 Mbit/s
95th percentile per-packet one-way delay: 18.795 ms
Loss rate: 4.68%
```
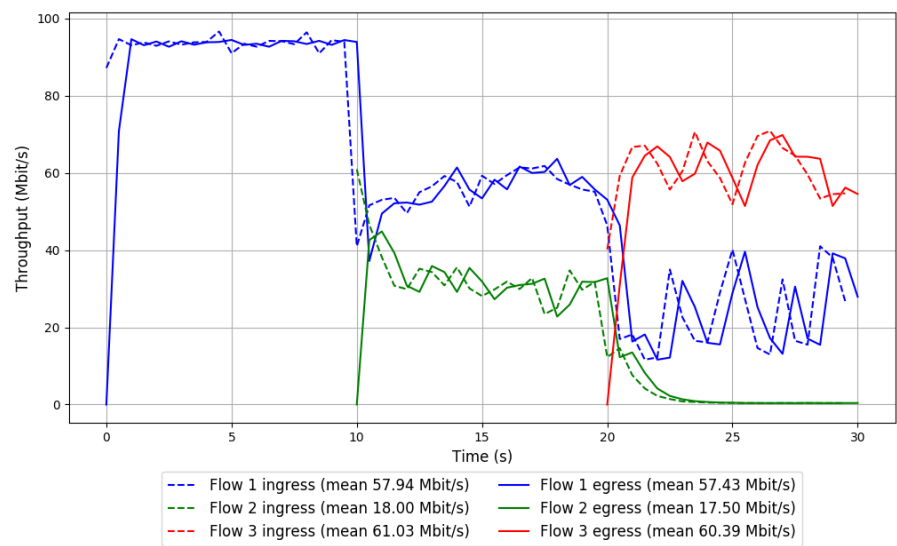
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-01-19 00:33:52
End at: 2019-01-19 00:34:22
Local clock offset: -7.354 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2019-01-19 02:09:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.59 Mbit/s
95th percentile per-packet one-way delay: 19.384 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 42.34 Mbit/s
95th percentile per-packet one-way delay: 15.628 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 55.24 Mbit/s
95th percentile per-packet one-way delay: 20.851 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 21.887 ms
Loss rate: 2.13%
```
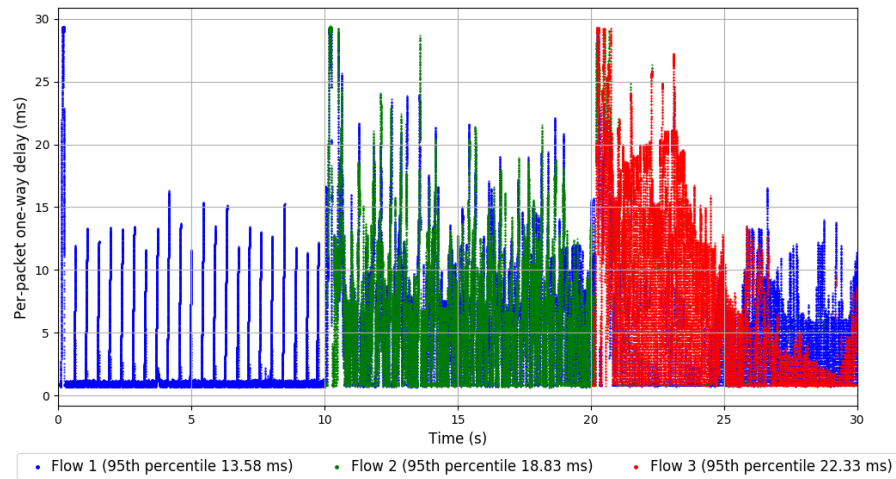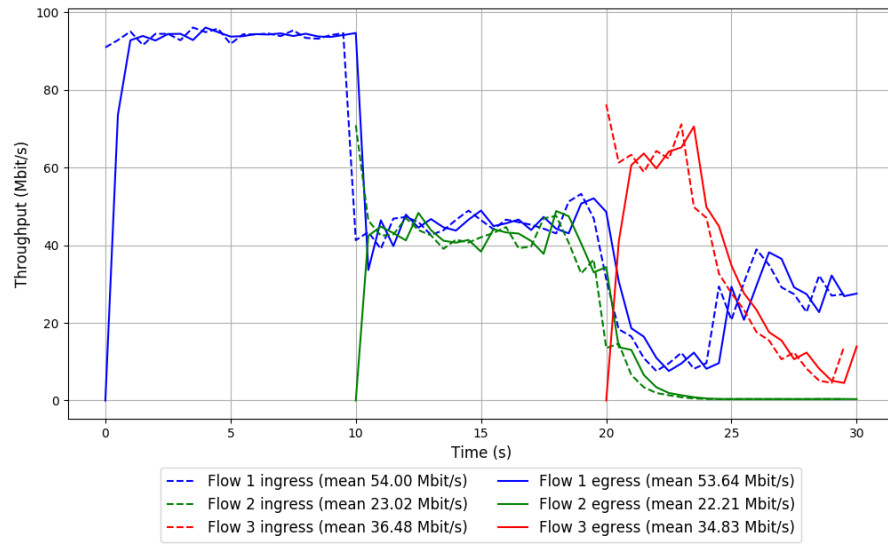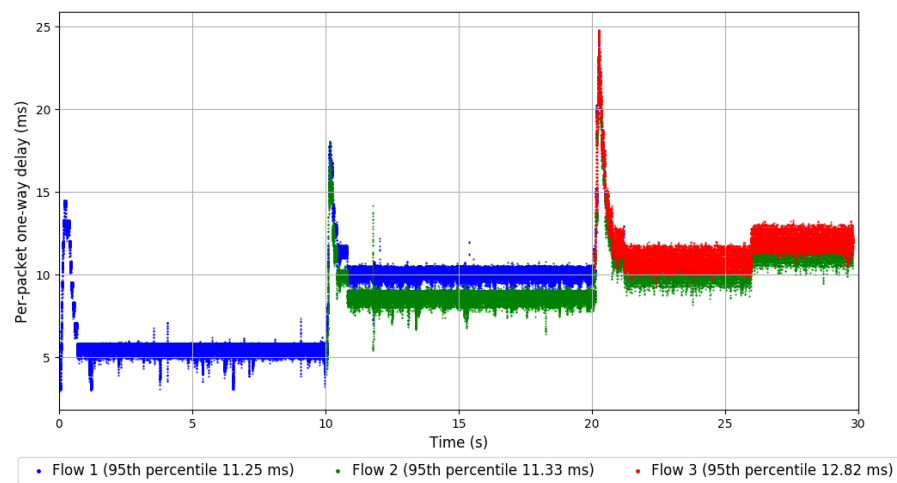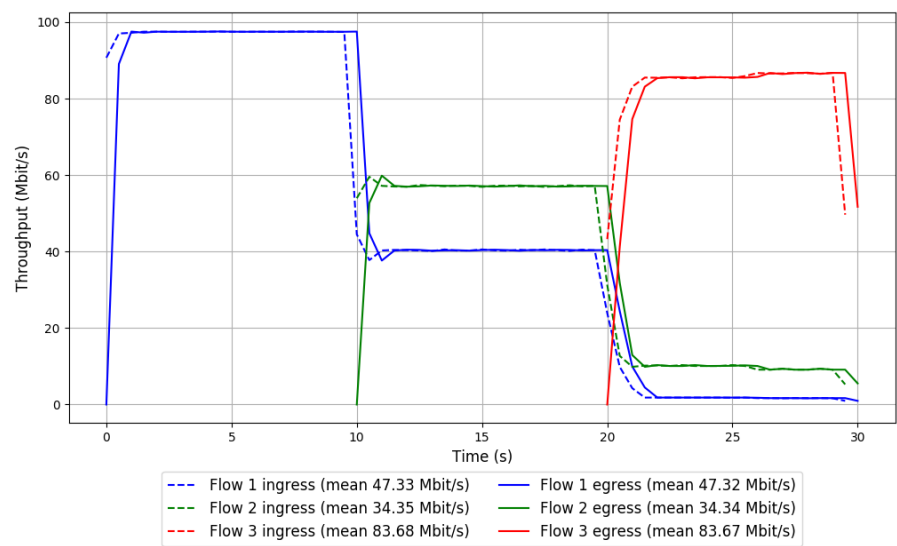
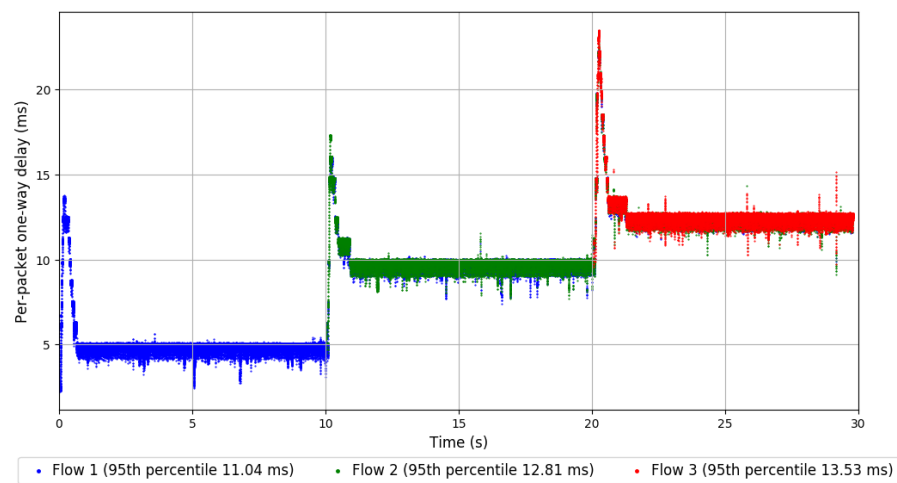Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-01-19 00:57:46
End at: 2019-01-19 00:58:16
Local clock offset: -7.485 ms
Remote clock offset: 0.39 ms


# Below is generated by plot.py at 2019-01-19 02:09:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.32 Mbit/s
95th percentile per-packet one-way delay: 20.006 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 41.64 Mbit/s
95th percentile per-packet one-way delay: 14.824 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 52.75 Mbit/s
95th percentile per-packet one-way delay: 21.117 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 28.94 Mbit/s
95th percentile per-packet one-way delay: 26.417 ms
Loss rate: 4.57%
```
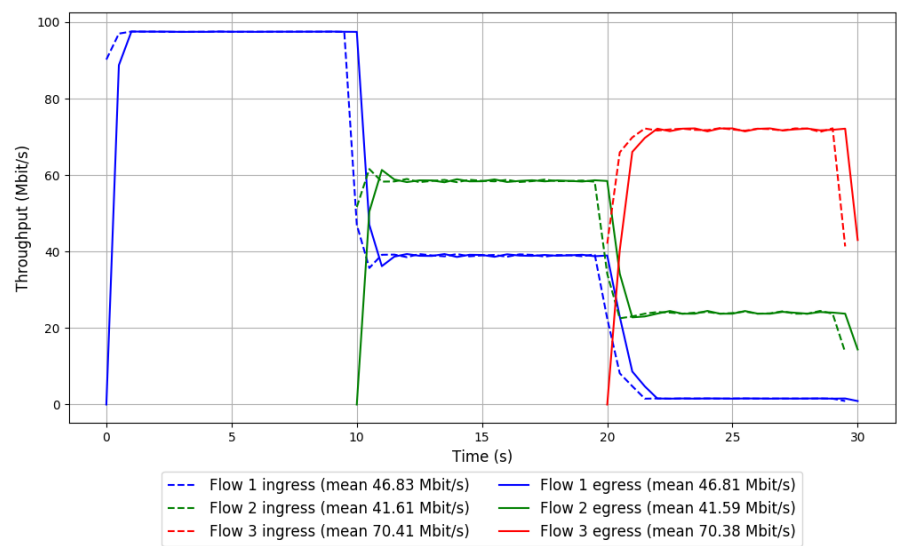
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 42.10 Mbit/s) --- Flow 1 egress (mean 41.64 Mbit/s)
Flow 2 ingress (mean 53.11 Mbit/s) --- Flow 2 egress (mean 52.75 Mbit/s)
Flow 3 ingress (mean 30.32 Mbit/s) --- Flow 3 egress (mean 28.94 Mbit/s)

Flow 1 (95th percentile 14.82 ms)   Flow 2 (95th percentile 21.12 ms)   Flow 3 (95th percentile 26.42 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-01-19 01:21:40
End at: 2019-01-19 01:22:10
Local clock offset: -6.834 ms
Remote clock offset: 0.622 ms


# Below is generated by plot.py at 2019-01-19 02:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.12 Mbit/s
95th percentile per-packet one-way delay: 22.564 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 57.43 Mbit/s
95th percentile per-packet one-way delay: 19.968 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 17.50 Mbit/s
95th percentile per-packet one-way delay: 21.428 ms
Loss rate: 2.72%
-- Flow 3:
Average throughput: 60.39 Mbit/s
95th percentile per-packet one-way delay: 25.468 ms
Loss rate: 0.91%
```
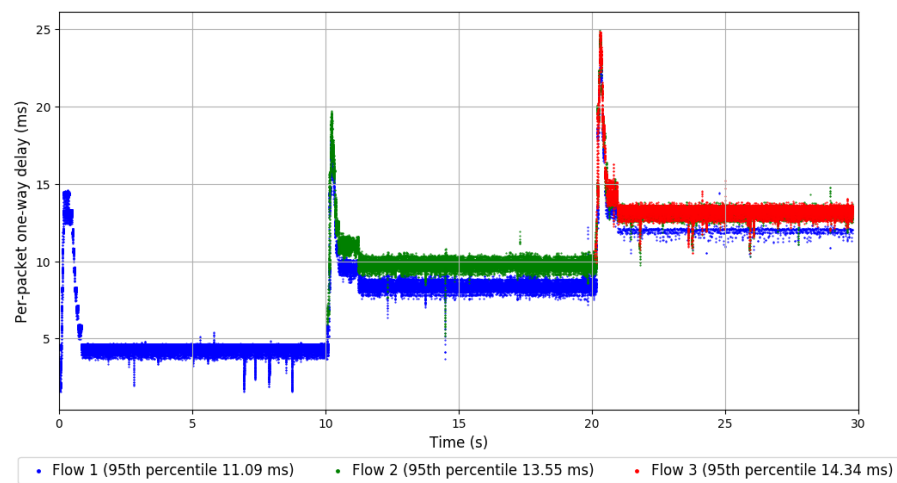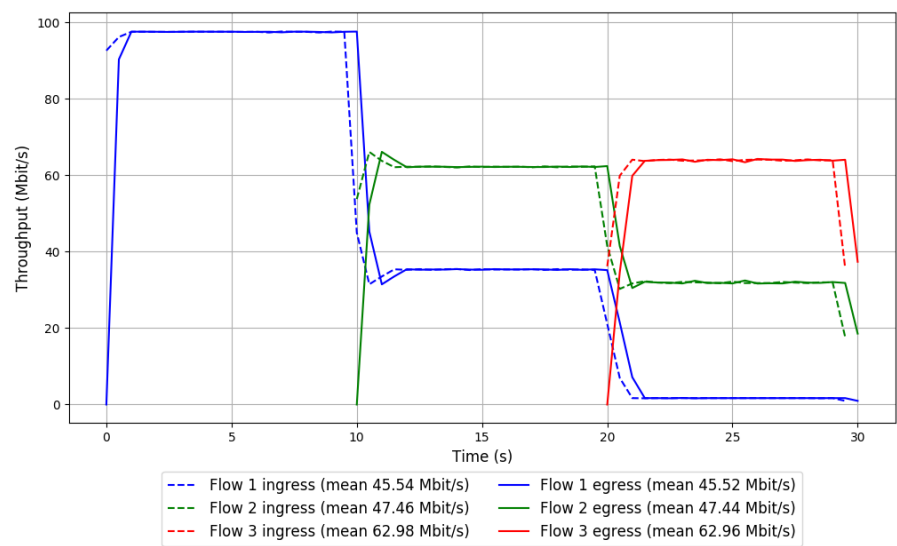
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.94 Mbit/s) --- Flow 1 egress (mean 57.43 Mbit/s)
Flow 2 ingress (mean 18.00 Mbit/s) --- Flow 2 egress (mean 17.50 Mbit/s)
Flow 3 ingress (mean 61.03 Mbit/s) --- Flow 3 egress (mean 60.39 Mbit/s)

Flow 1 (95th percentile 19.97 ms)   Flow 2 (95th percentile 21.43 ms)   Flow 3 (95th percentile 25.47 ms)

52

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-01-19 01:45:33
End at: 2019-01-19 01:46:03
Local clock offset: -5.595 ms
Remote clock offset: 0.821 ms


# Below is generated by plot.py at 2019-01-19 02:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.96 Mbit/s
95th percentile per-packet one-way delay: 17.659 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 53.64 Mbit/s
95th percentile per-packet one-way delay: 13.578 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 22.21 Mbit/s
95th percentile per-packet one-way delay: 18.827 ms
Loss rate: 3.56%
-- Flow 3:
Average throughput: 34.83 Mbit/s
95th percentile per-packet one-way delay: 22.326 ms
Loss rate: 4.50%
```
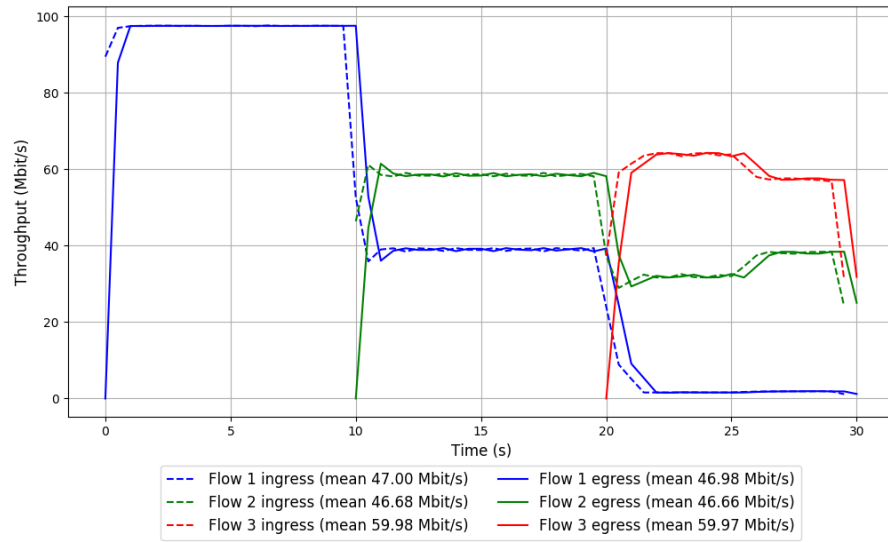
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 54.00 Mbit/s)   Flow 1 egress (mean 53.64 Mbit/s)
Flow 2 ingress (mean 23.02 Mbit/s)   Flow 2 egress (mean 22.21 Mbit/s)
Flow 3 ingress (mean 36.48 Mbit/s)   Flow 3 egress (mean 34.83 Mbit/s)

Flow 1 (95th percentile 13.58 ms)   Flow 2 (95th percentile 18.83 ms)   Flow 3 (95th percentile 22.33 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-01-19 00:14:30
End at: 2019-01-19 00:15:00
Local clock offset: -7.156 ms
Remote clock offset: -0.298 ms


# Below is generated by plot.py at 2019-01-19 02:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.37 Mbit/s
95th percentile per-packet one-way delay: 12.251 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.32 Mbit/s
95th percentile per-packet one-way delay: 11.246 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.34 Mbit/s
95th percentile per-packet one-way delay: 11.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 83.67 Mbit/s
95th percentile per-packet one-way delay: 12.825 ms
Loss rate: 0.00%
```
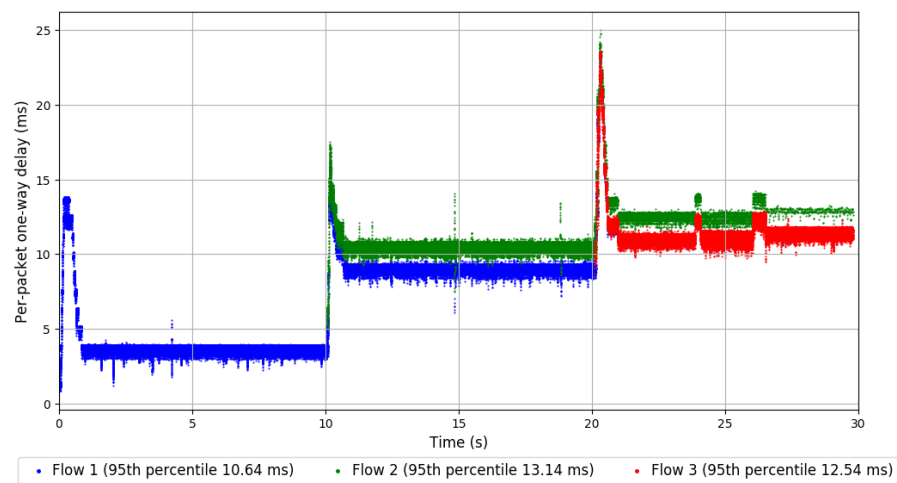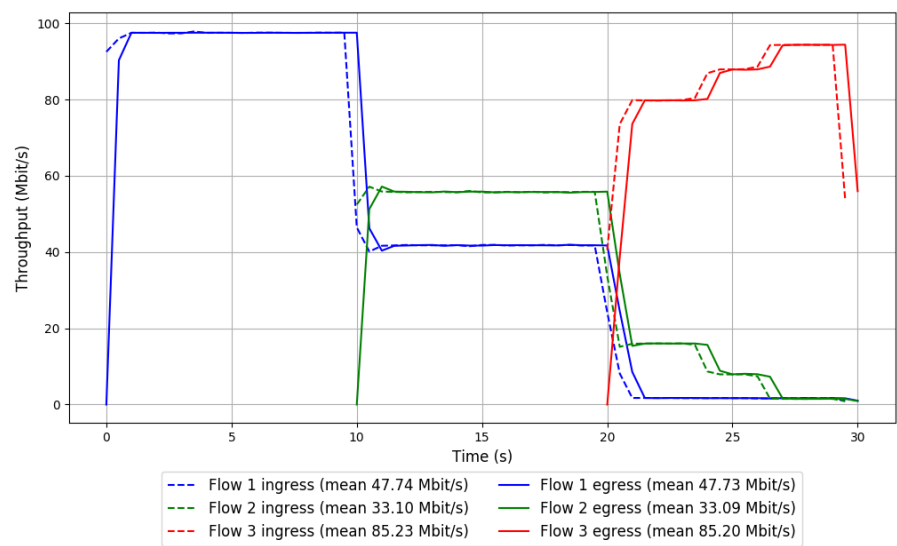
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-01-19 00:38:25
End at: 2019-01-19 00:38:55
Local clock offset: -7.628 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2019-01-19 02:09:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 12.734 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.81 Mbit/s
95th percentile per-packet one-way delay: 11.035 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 12.809 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.38 Mbit/s
95th percentile per-packet one-way delay: 13.531 ms
Loss rate: 0.00%
```
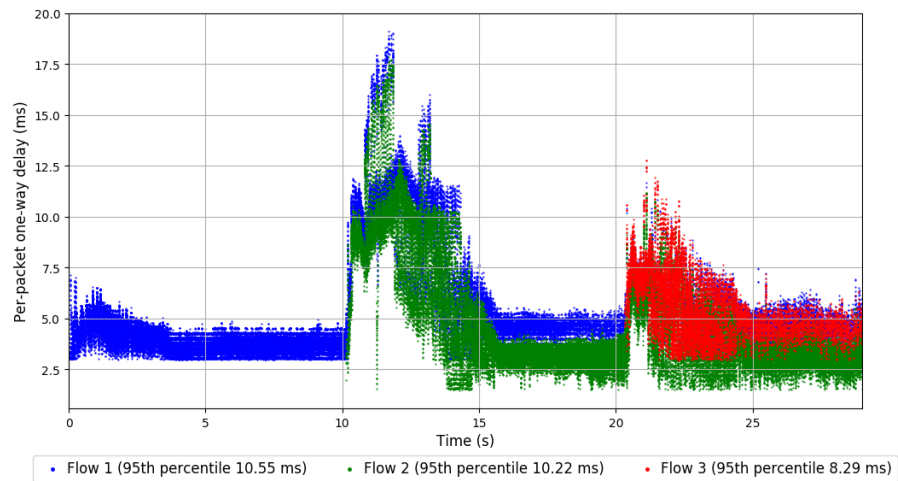
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-01-19 01:02:19
End at: 2019-01-19 01:02:49
Local clock offset: -8.311 ms
Remote clock offset: 0.358 ms


# Below is generated by plot.py at 2019-01-19 02:09:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 13.530 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 11.086 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.44 Mbit/s
95th percentile per-packet one-way delay: 13.548 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 62.96 Mbit/s
95th percentile per-packet one-way delay: 14.335 ms
Loss rate: 0.00%
```
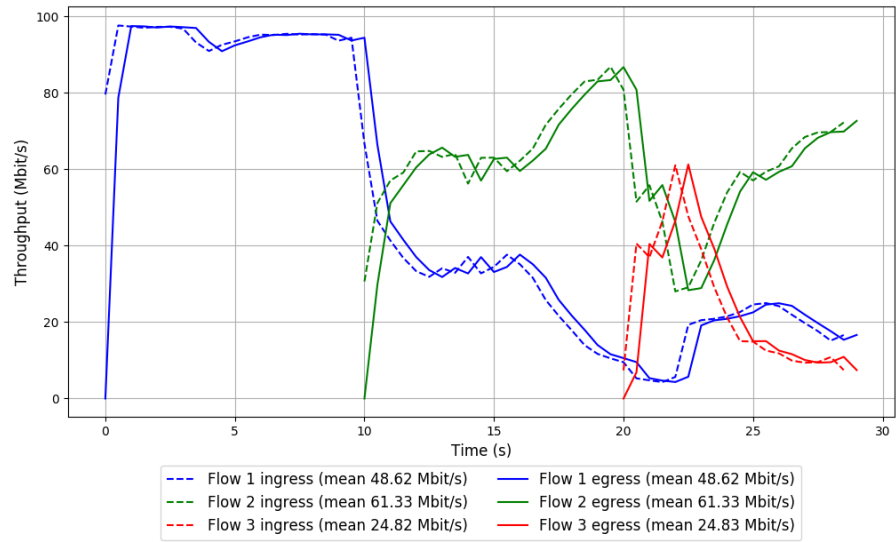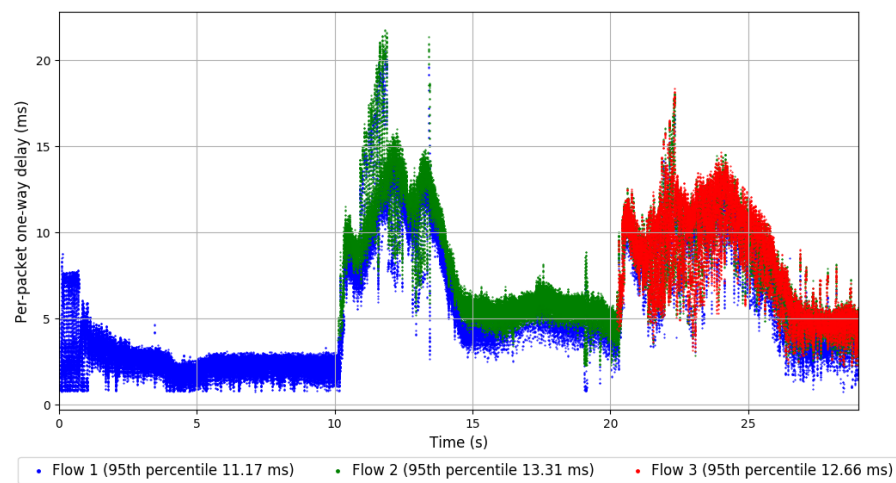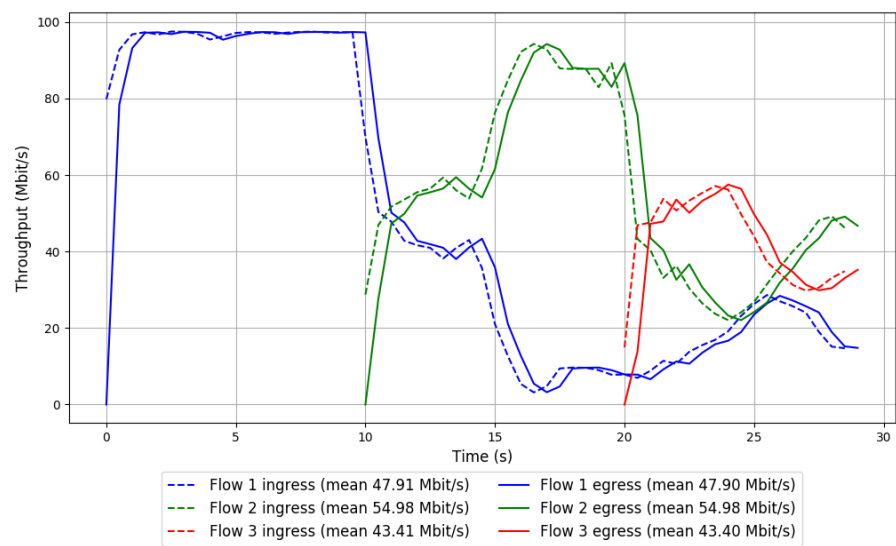
Run 3: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 45.54 Mbit/s) ——— Flow 1 egress (mean 45.52 Mbit/s)
- - - Flow 2 ingress (mean 47.46 Mbit/s) ——— Flow 2 egress (mean 47.44 Mbit/s)
- - - Flow 3 ingress (mean 62.98 Mbit/s) ——— Flow 3 egress (mean 62.96 Mbit/s)

- Flow 1 (95th percentile 11.09 ms)   - Flow 2 (95th percentile 13.55 ms)   - Flow 3 (95th percentile 14.34 ms)

```
Run 4: Statistics of Indigo

Start at: 2019-01-19 01:26:14
End at: 2019-01-19 01:26:44
Local clock offset: -7.058 ms
Remote clock offset: 0.635 ms

# Below is generated by plot.py at 2019-01-19 02:10:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 13.609 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.98 Mbit/s
95th percentile per-packet one-way delay: 11.824 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.66 Mbit/s
95th percentile per-packet one-way delay: 14.060 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.97 Mbit/s
95th percentile per-packet one-way delay: 14.411 ms
Loss rate: 0.00%
```
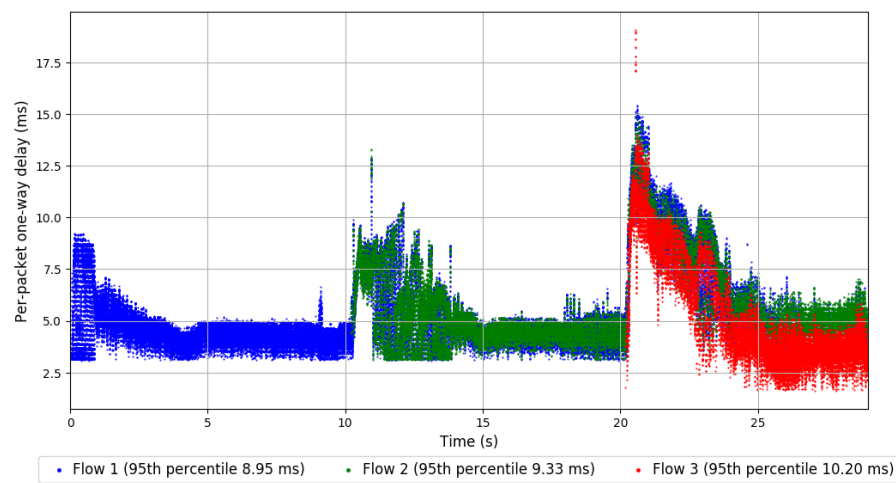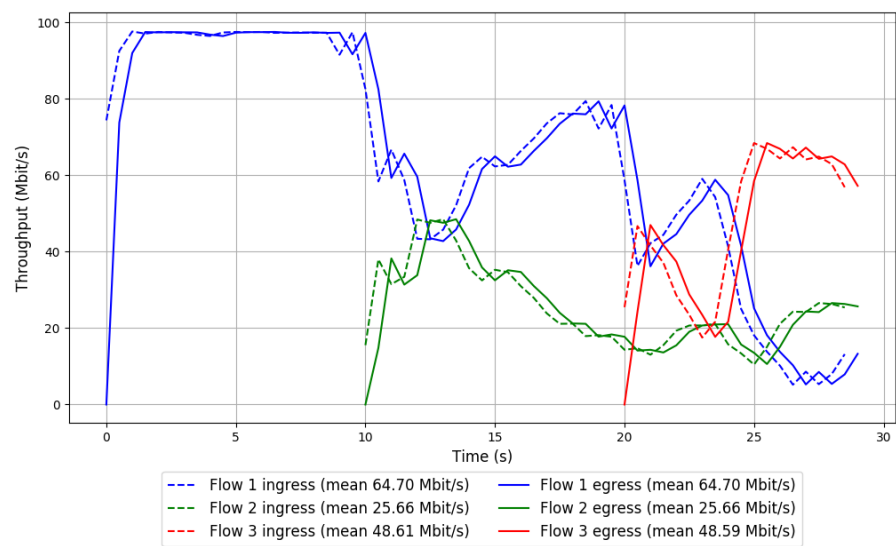
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-01-19 01:50:05
End at: 2019-01-19 01:50:35
Local clock offset: -6.025 ms
Remote clock offset: 0.951 ms


# Below is generated by plot.py at 2019-01-19 02:10:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 12.515 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.73 Mbit/s
95th percentile per-packet one-way delay: 10.636 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 13.142 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 85.20 Mbit/s
95th percentile per-packet one-way delay: 12.539 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-19 00:22:32
End at: 2019-01-19 00:23:02
Local clock offset: -7.561 ms
Remote clock offset: -0.18 ms


# Below is generated by plot.py at 2019-01-19 02:10:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 10.259 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.62 Mbit/s
95th percentile per-packet one-way delay: 10.547 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.33 Mbit/s
95th percentile per-packet one-way delay: 10.220 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.83 Mbit/s
95th percentile per-packet one-way delay: 8.291 ms
Loss rate: 0.00%
```
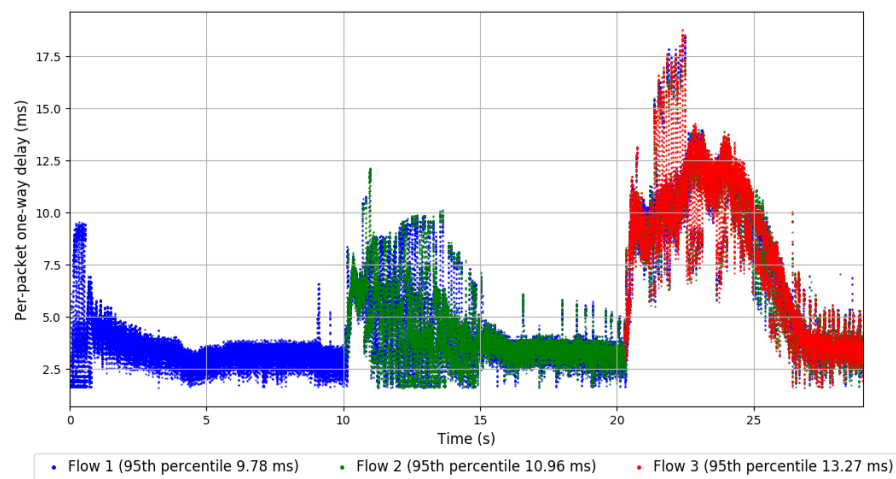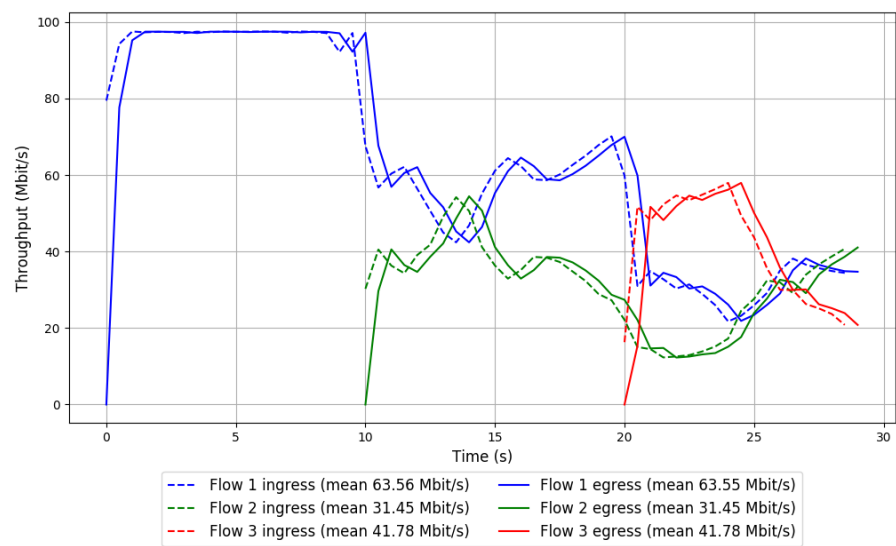
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-19 00:46:26
End at: 2019-01-19 00:46:56
Local clock offset: -7.864 ms
Remote clock offset: 0.178 ms


# Below is generated by plot.py at 2019-01-19 02:10:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.81 Mbit/s
95th percentile per-packet one-way delay: 12.524 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.90 Mbit/s
95th percentile per-packet one-way delay: 11.169 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.98 Mbit/s
95th percentile per-packet one-way delay: 13.306 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.40 Mbit/s
95th percentile per-packet one-way delay: 12.662 ms
Loss rate: 0.00%
```
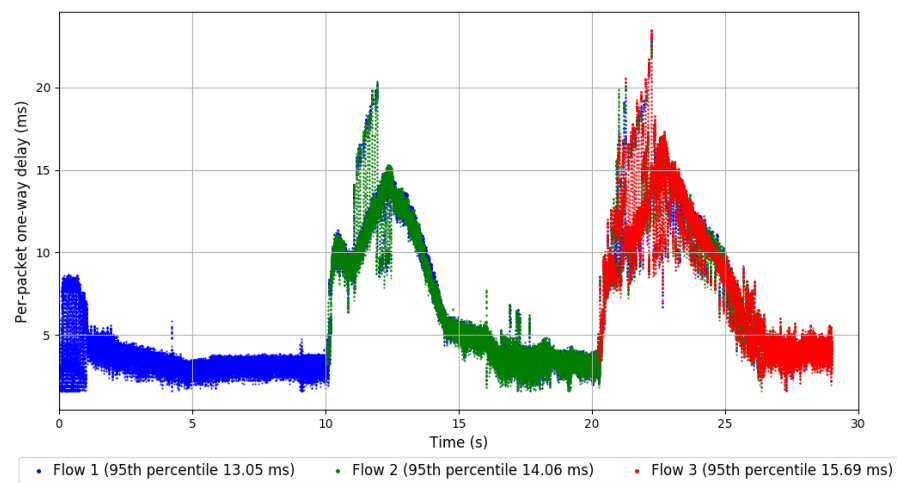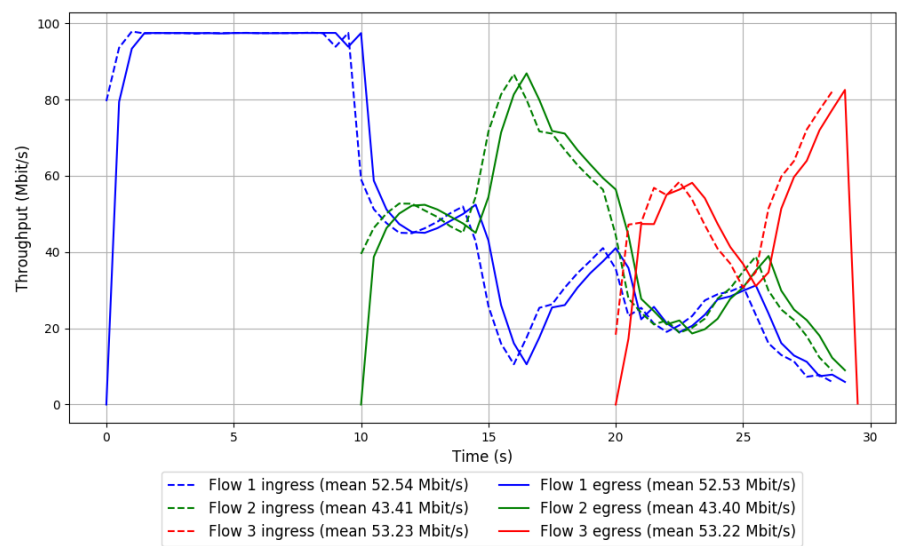
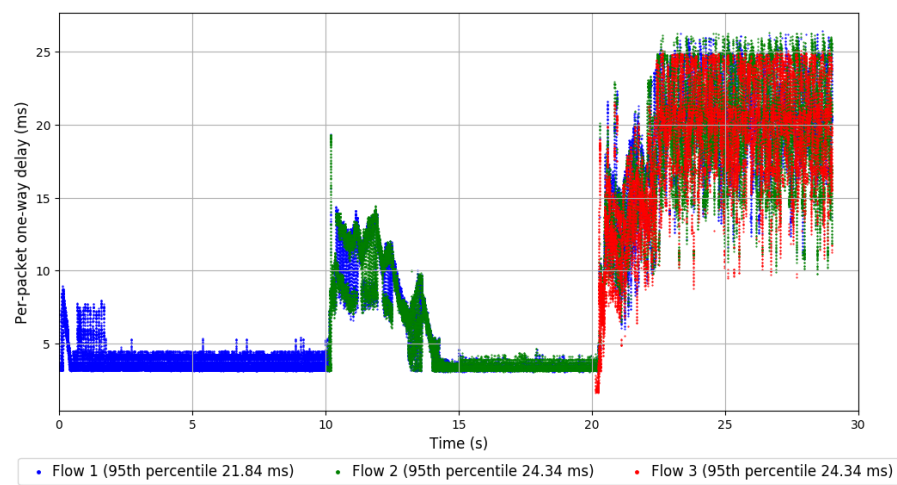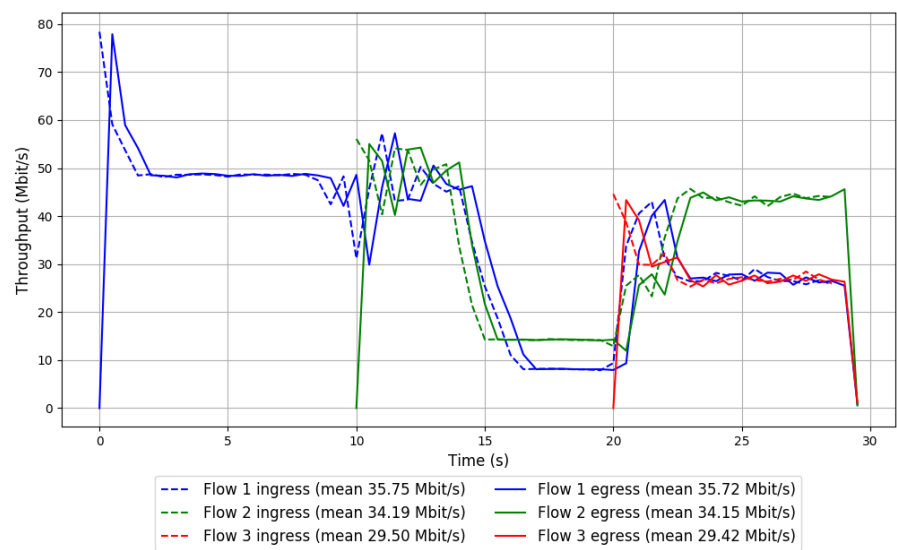Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-19 01:10:20
End at: 2019-01-19 01:10:50
Local clock offset: -8.431 ms
Remote clock offset: 0.477 ms


# Below is generated by plot.py at 2019-01-19 02:10:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.10 Mbit/s
95th percentile per-packet one-way delay: 9.350 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.70 Mbit/s
95th percentile per-packet one-way delay: 8.947 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.66 Mbit/s
95th percentile per-packet one-way delay: 9.333 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 10.204 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC3 — Data Link

- - - - Flow 1 ingress (mean 64.70 Mbit/s)   ——— Flow 1 egress (mean 64.70 Mbit/s)
- - - - Flow 2 ingress (mean 25.66 Mbit/s)   ——— Flow 2 egress (mean 25.66 Mbit/s)
- - - - Flow 3 ingress (mean 48.61 Mbit/s)   ——— Flow 3 egress (mean 48.59 Mbit/s)

• Flow 1 (95th percentile 8.95 ms)   • Flow 2 (95th percentile 9.33 ms)   • Flow 3 (95th percentile 10.20 ms)

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```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-19 01:34:14
End at: 2019-01-19 01:34:44
Local clock offset: -6.6 ms
Remote clock offset: 0.705 ms


# Below is generated by plot.py at 2019-01-19 02:10:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 11.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.55 Mbit/s
95th percentile per-packet one-way delay: 9.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.45 Mbit/s
95th percentile per-packet one-way delay: 10.956 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.78 Mbit/s
95th percentile per-packet one-way delay: 13.265 ms
Loss rate: 0.00%
```
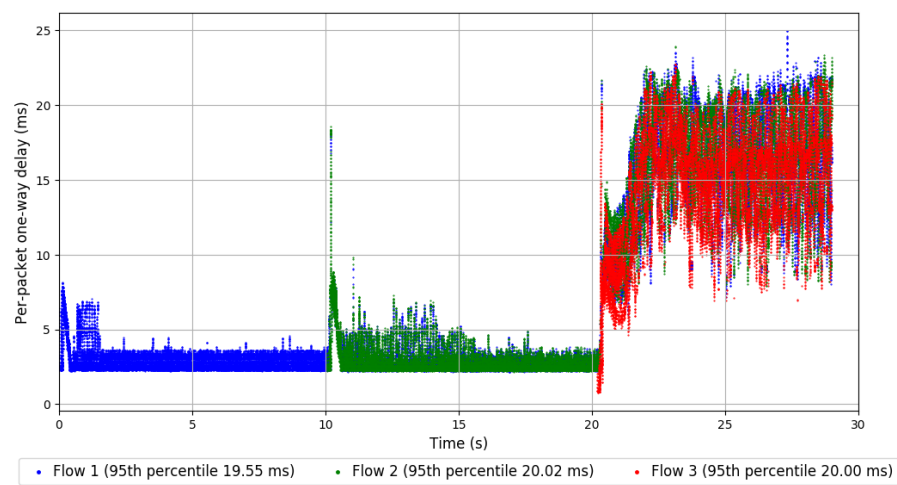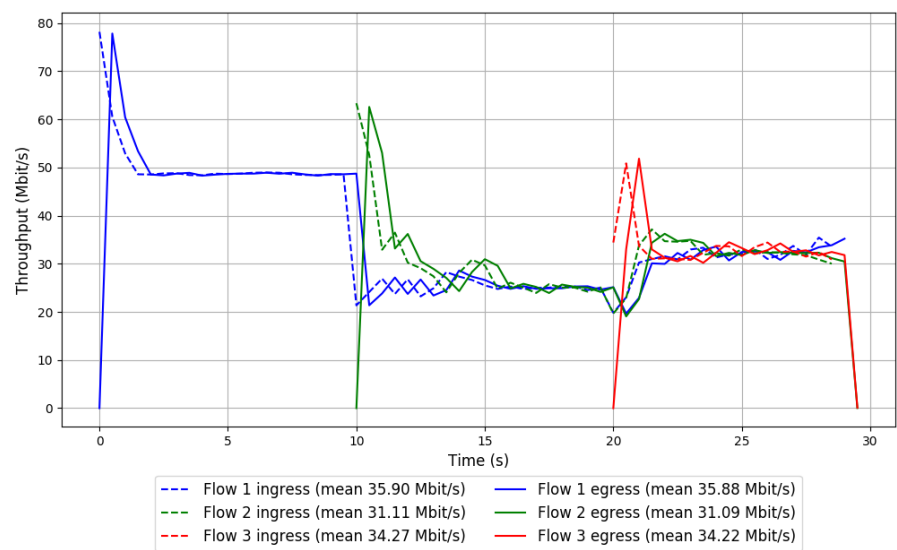
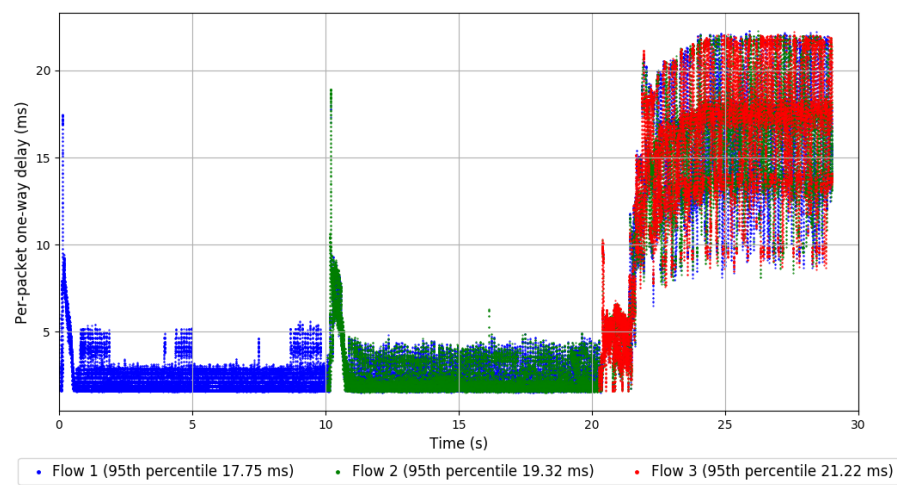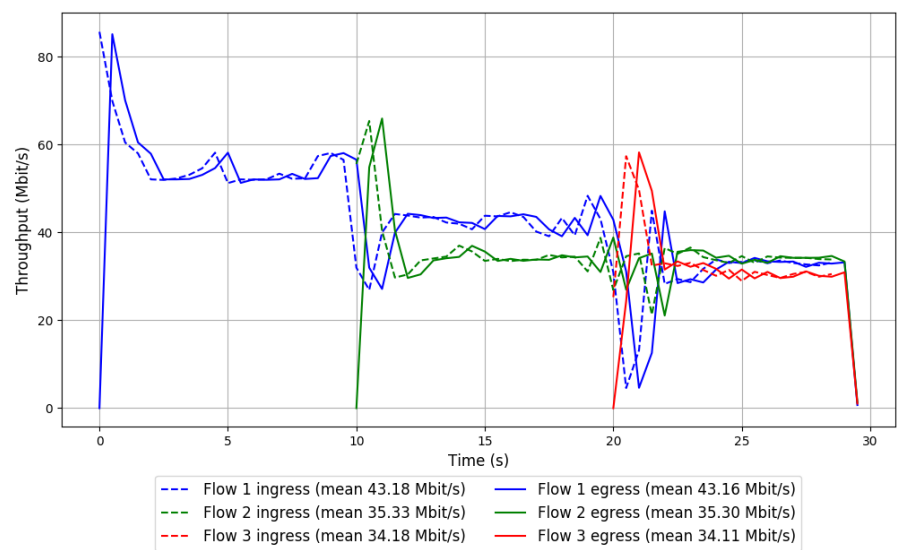Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-19 01:58:07
End at: 2019-01-19 01:58:37
Local clock offset: -7.38 ms
Remote clock offset: 0.943 ms


# Below is generated by plot.py at 2019-01-19 02:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.99 Mbit/s
95th percentile per-packet one-way delay: 14.050 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.53 Mbit/s
95th percentile per-packet one-way delay: 13.053 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.40 Mbit/s
95th percentile per-packet one-way delay: 14.057 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.22 Mbit/s
95th percentile per-packet one-way delay: 15.689 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 52.54 Mbit/s)   Flow 1 egress (mean 52.53 Mbit/s)
Flow 2 ingress (mean 43.41 Mbit/s)   Flow 2 egress (mean 43.40 Mbit/s)
Flow 3 ingress (mean 53.23 Mbit/s)   Flow 3 egress (mean 53.22 Mbit/s)

Flow 1 (95th percentile 13.05 ms)   Flow 2 (95th percentile 14.06 ms)   Flow 3 (95th percentile 15.69 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-19 00:13:22
End at: 2019-01-19 00:13:52
Local clock offset: -7.146 ms
Remote clock offset: -0.254 ms


# Below is generated by plot.py at 2019-01-19 02:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.03 Mbit/s
95th percentile per-packet one-way delay: 23.708 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.72 Mbit/s
95th percentile per-packet one-way delay: 21.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.15 Mbit/s
95th percentile per-packet one-way delay: 24.337 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.42 Mbit/s
95th percentile per-packet one-way delay: 24.336 ms
Loss rate: 0.00%
```
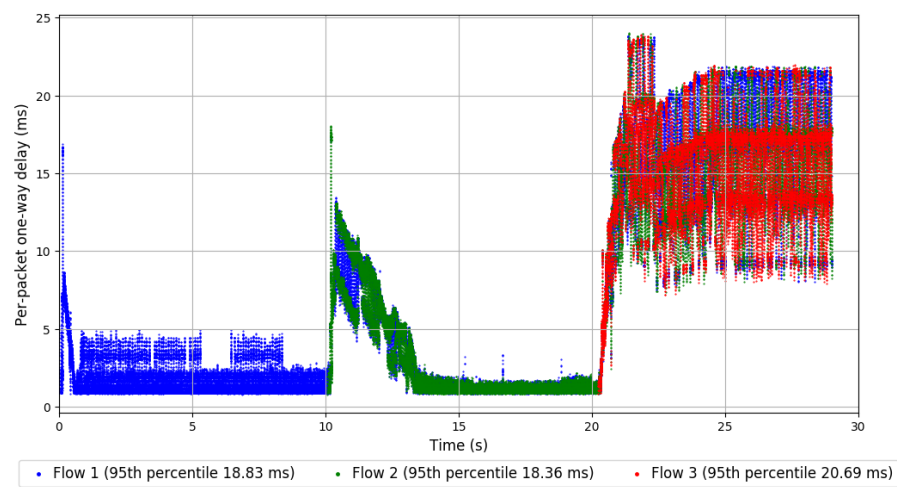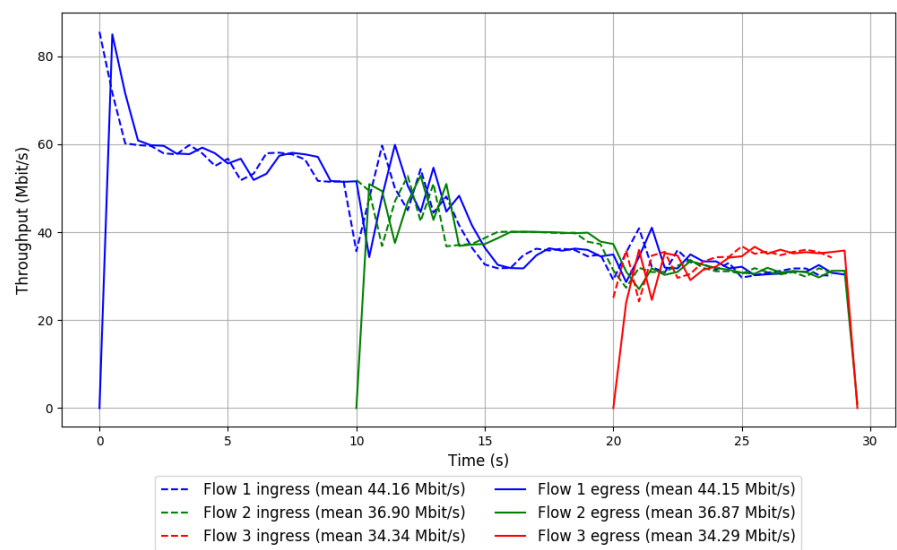
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-19 00:37:17
End at: 2019-01-19 00:37:47
Local clock offset: -7.492 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2019-01-19 02:10:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.56 Mbit/s
95th percentile per-packet one-way delay: 19.821 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.88 Mbit/s
95th percentile per-packet one-way delay: 19.548 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.09 Mbit/s
95th percentile per-packet one-way delay: 20.021 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.22 Mbit/s
95th percentile per-packet one-way delay: 19.997 ms
Loss rate: 0.00%
```
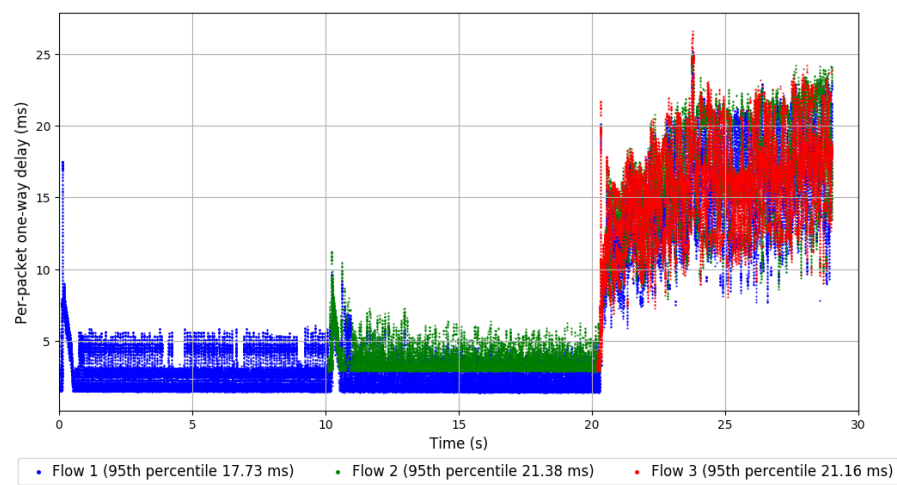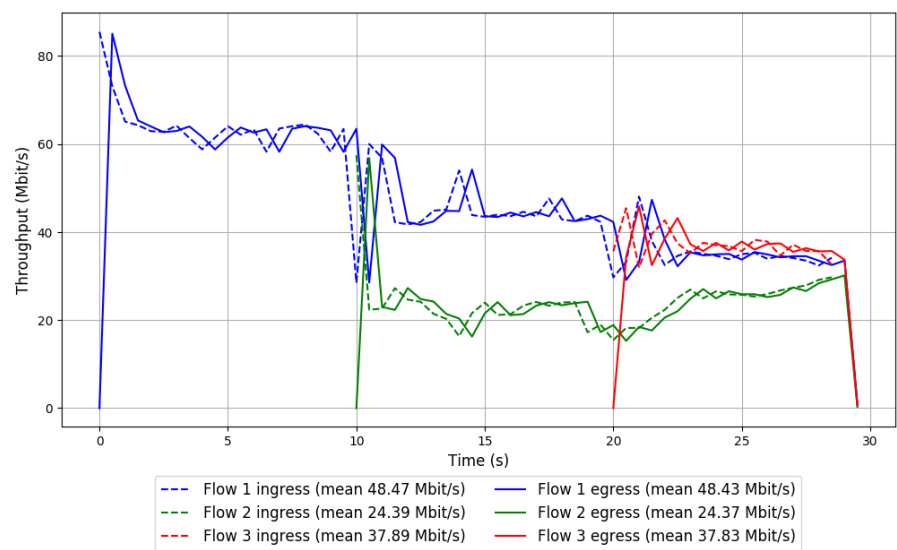
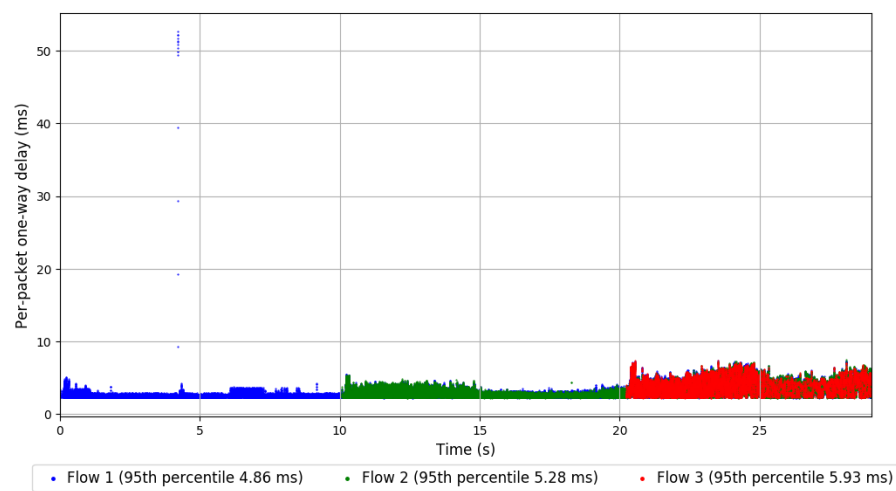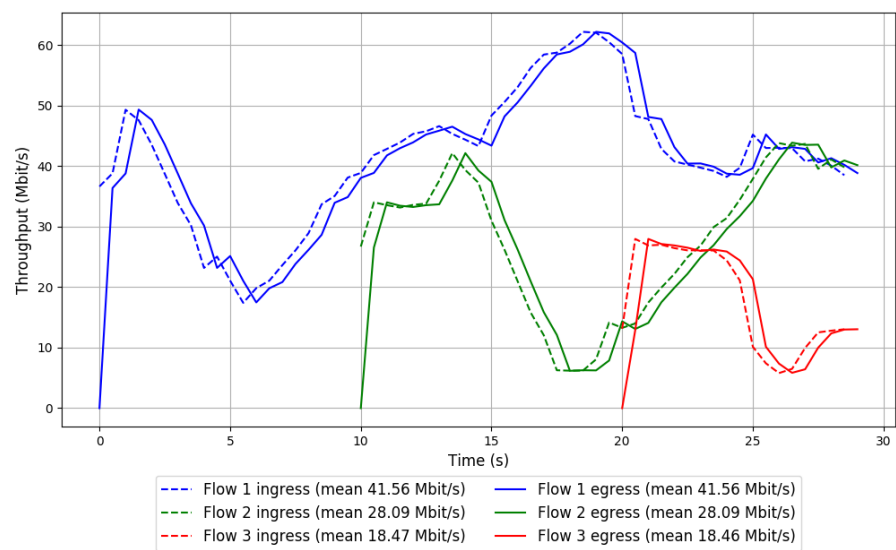Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-19 01:01:11
End at: 2019-01-19 01:01:41
Local clock offset: -8.231 ms
Remote clock offset: 0.388 ms


# Below is generated by plot.py at 2019-01-19 02:11:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.50 Mbit/s
95th percentile per-packet one-way delay: 19.179 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.16 Mbit/s
95th percentile per-packet one-way delay: 17.751 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.30 Mbit/s
95th percentile per-packet one-way delay: 19.322 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.11 Mbit/s
95th percentile per-packet one-way delay: 21.217 ms
Loss rate: 0.00%
```

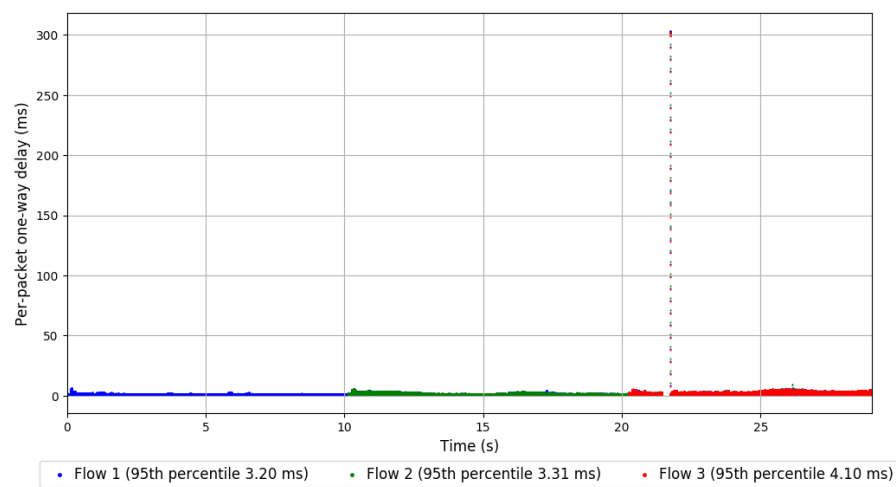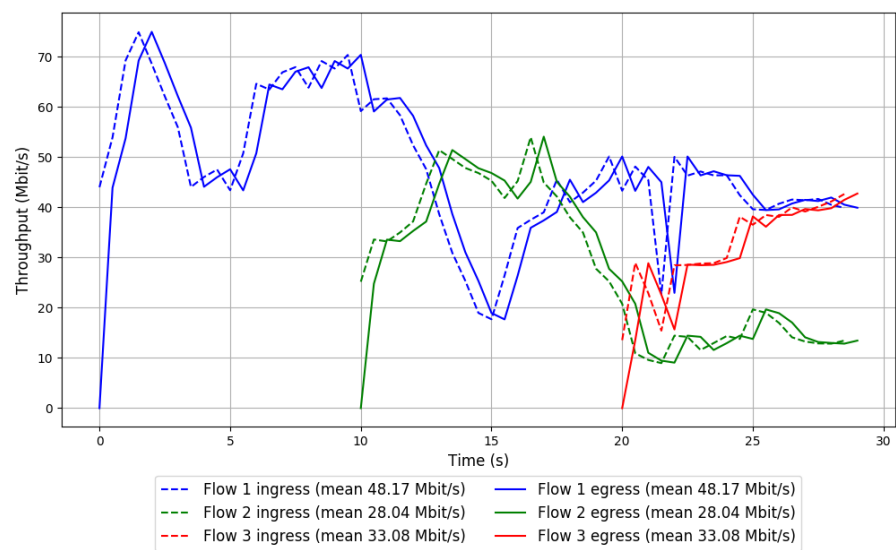Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-19 01:25:05
End at: 2019-01-19 01:25:35
Local clock offset: -6.414 ms
Remote clock offset: 0.617 ms


# Below is generated by plot.py at 2019-01-19 02:11:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 19.205 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.15 Mbit/s
95th percentile per-packet one-way delay: 18.833 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.87 Mbit/s
95th percentile per-packet one-way delay: 18.365 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.29 Mbit/s
95th percentile per-packet one-way delay: 20.691 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-19 01:48:57
End at: 2019-01-19 01:49:27
Local clock offset: -6.617 ms
Remote clock offset: 0.836 ms


# Below is generated by plot.py at 2019-01-19 02:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.81 Mbit/s
95th percentile per-packet one-way delay: 20.098 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.43 Mbit/s
95th percentile per-packet one-way delay: 17.725 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.37 Mbit/s
95th percentile per-packet one-way delay: 21.383 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.83 Mbit/s
95th percentile per-packet one-way delay: 21.158 ms
Loss rate: 0.00%
```
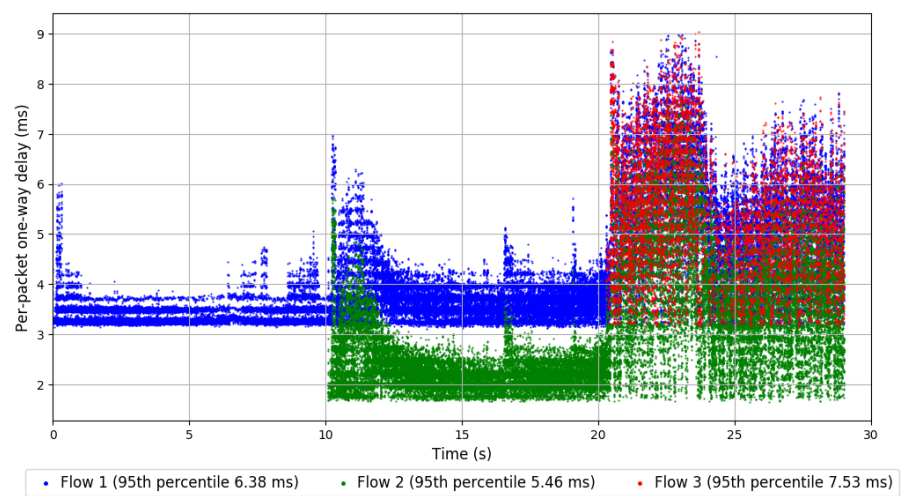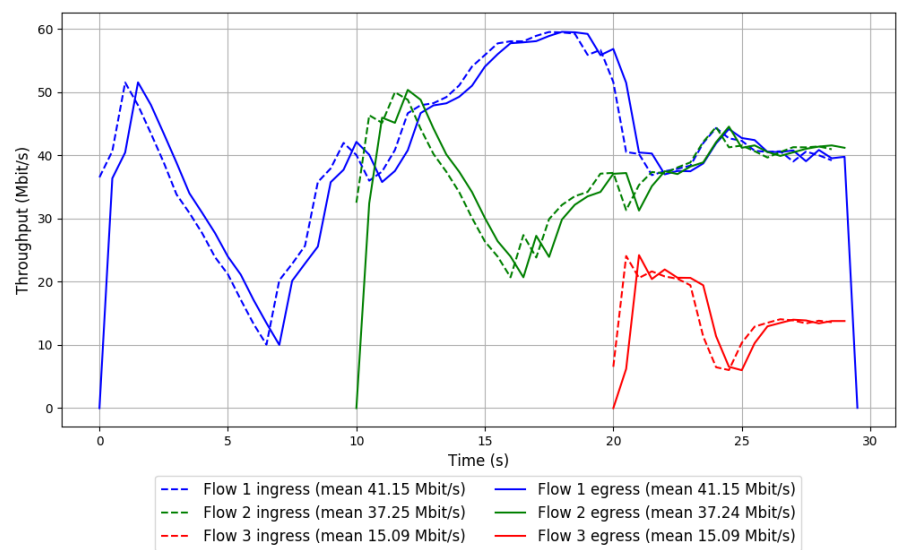
Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-19 00:06:36
End at: 2019-01-19 00:07:06
Local clock offset: -5.862 ms
Remote clock offset: -0.329 ms


# Below is generated by plot.py at 2019-01-19 02:11:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.47 Mbit/s
95th percentile per-packet one-way delay: 5.148 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.56 Mbit/s
95th percentile per-packet one-way delay: 4.856 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.09 Mbit/s
95th percentile per-packet one-way delay: 5.278 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.46 Mbit/s
95th percentile per-packet one-way delay: 5.926 ms
Loss rate: 0.00%
```
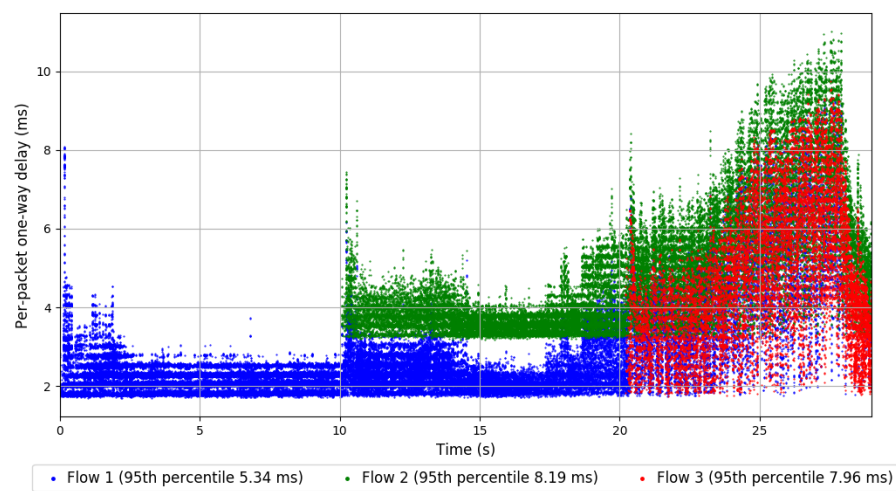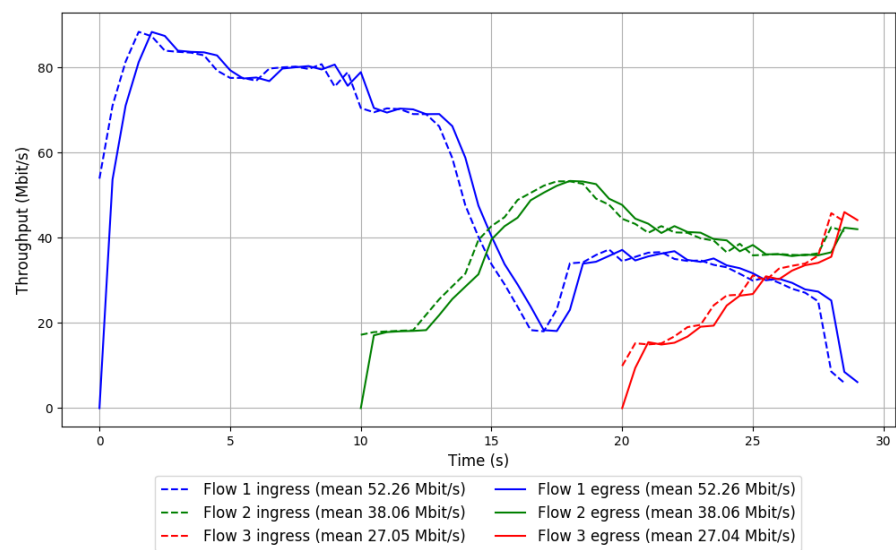
Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 41.56 Mbit/s) --- Flow 1 egress (mean 41.56 Mbit/s)
Flow 2 ingress (mean 28.09 Mbit/s) --- Flow 2 egress (mean 28.09 Mbit/s)
Flow 3 ingress (mean 18.47 Mbit/s) --- Flow 3 egress (mean 18.46 Mbit/s)

Flow 1 (95th percentile 4.86 ms) Flow 2 (95th percentile 5.28 ms) Flow 3 (95th percentile 5.93 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-19 00:30:31
End at: 2019-01-19 00:31:01
Local clock offset: -7.202 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2019-01-19 02:11:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.41 Mbit/s
95th percentile per-packet one-way delay: 3.434 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.17 Mbit/s
95th percentile per-packet one-way delay: 3.199 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 3.314 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 4.103 ms
Loss rate: 0.00%
```
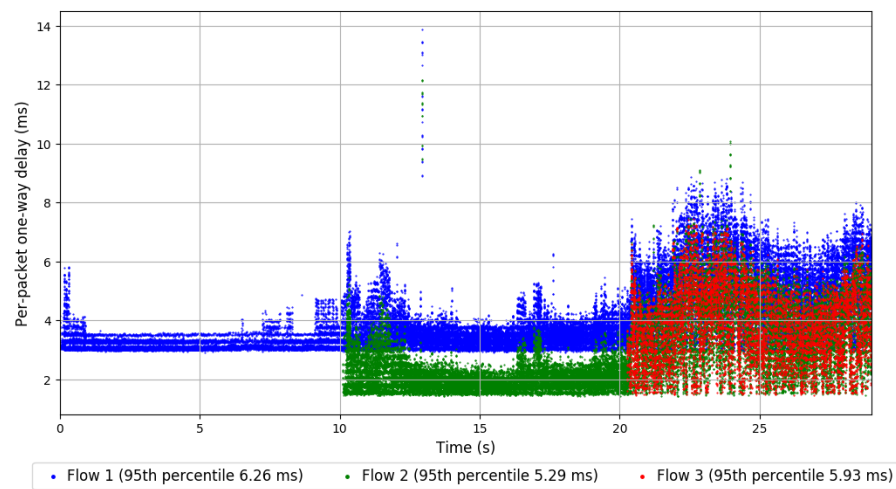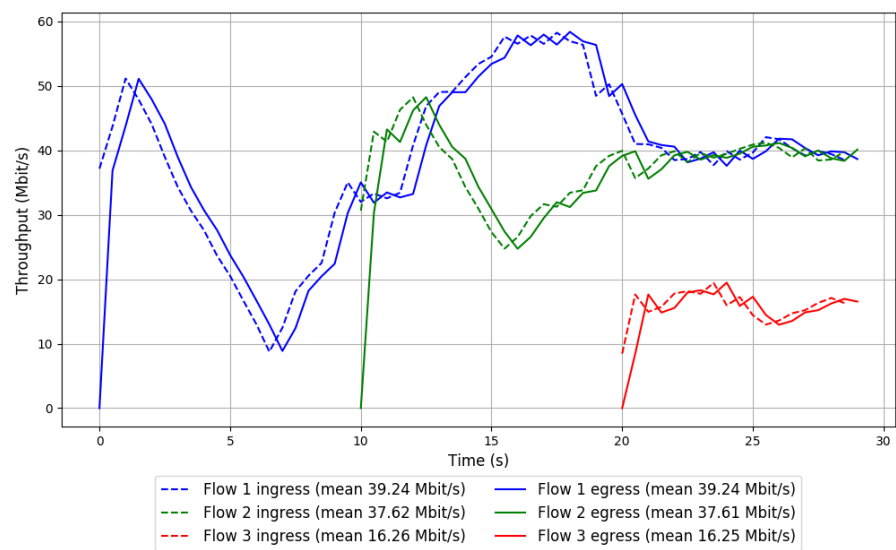
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-19 00:54:25
End at: 2019-01-19 00:54:55
Local clock offset: -8.356 ms
Remote clock offset: 0.353 ms


# Below is generated by plot.py at 2019-01-19 02:11:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.96 Mbit/s
95th percentile per-packet one-way delay: 6.360 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.15 Mbit/s
95th percentile per-packet one-way delay: 6.382 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.24 Mbit/s
95th percentile per-packet one-way delay: 5.463 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.09 Mbit/s
95th percentile per-packet one-way delay: 7.527 ms
Loss rate: 0.00%
```
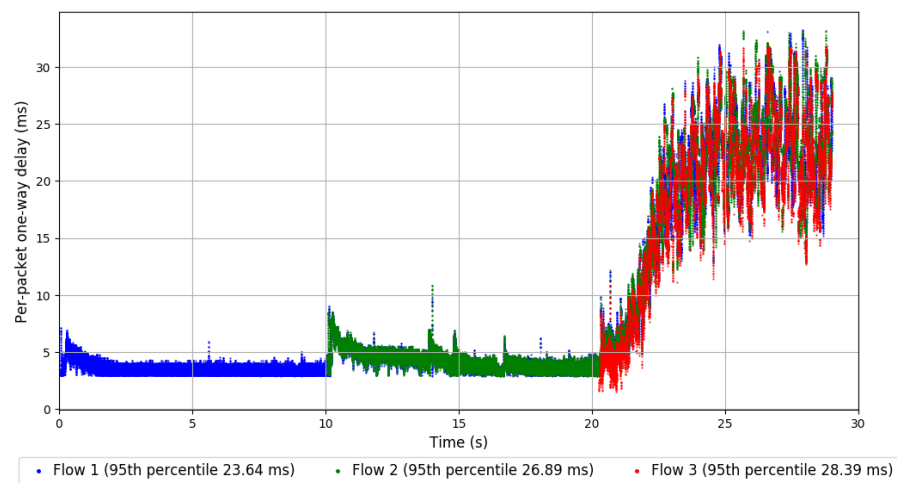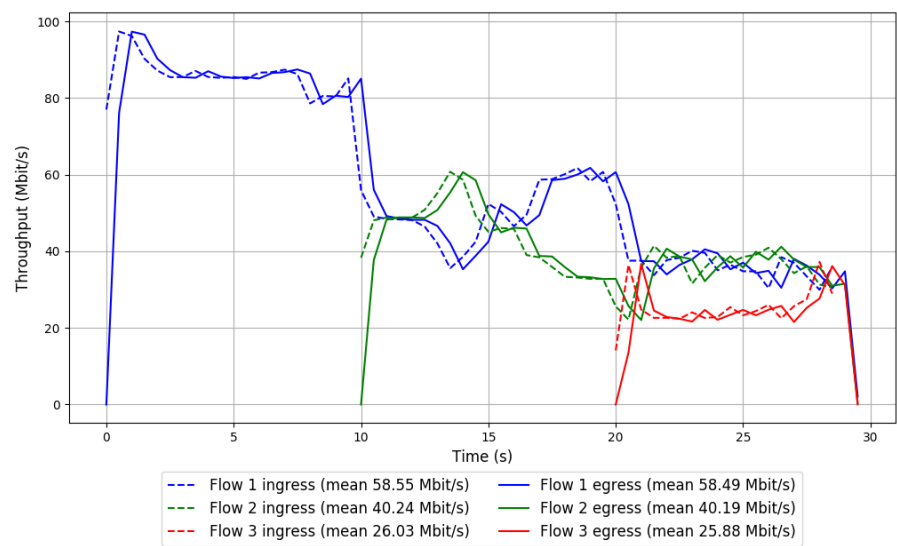
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-19 01:18:18
End at: 2019-01-19 01:18:48
Local clock offset: -8.194 ms
Remote clock offset: 0.595 ms


# Below is generated by plot.py at 2019-01-19 02:11:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.28 Mbit/s
95th percentile per-packet one-way delay: 7.146 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.26 Mbit/s
95th percentile per-packet one-way delay: 5.341 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.06 Mbit/s
95th percentile per-packet one-way delay: 8.186 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.04 Mbit/s
95th percentile per-packet one-way delay: 7.961 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-19 01:42:12
End at: 2019-01-19 01:42:42
Local clock offset: -6.376 ms
Remote clock offset: 0.711 ms


# Below is generated by plot.py at 2019-01-19 02:11:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.62 Mbit/s
95th percentile per-packet one-way delay: 5.982 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 39.24 Mbit/s
95th percentile per-packet one-way delay: 6.256 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.61 Mbit/s
95th percentile per-packet one-way delay: 5.286 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.25 Mbit/s
95th percentile per-packet one-way delay: 5.931 ms
Loss rate: 0.00%
```
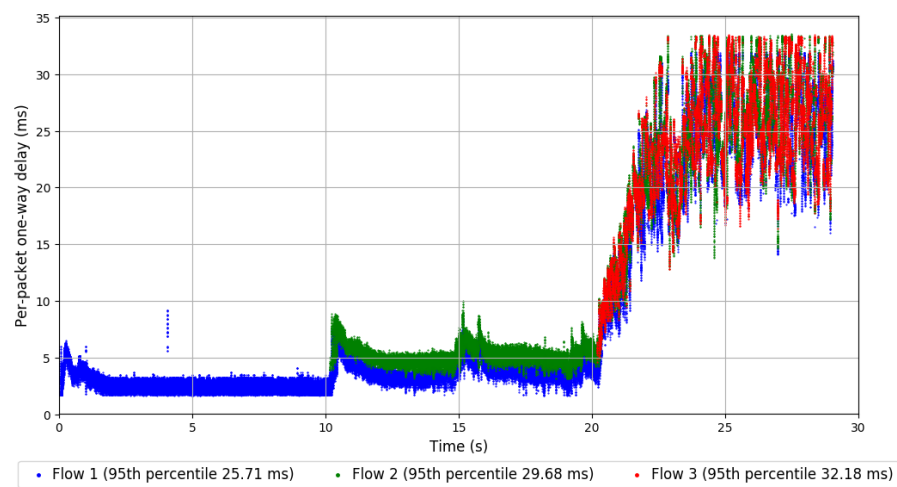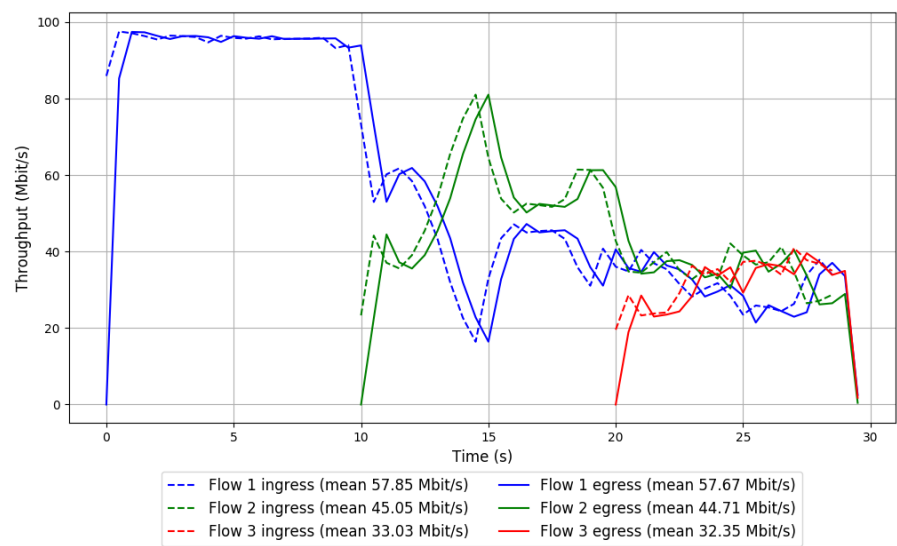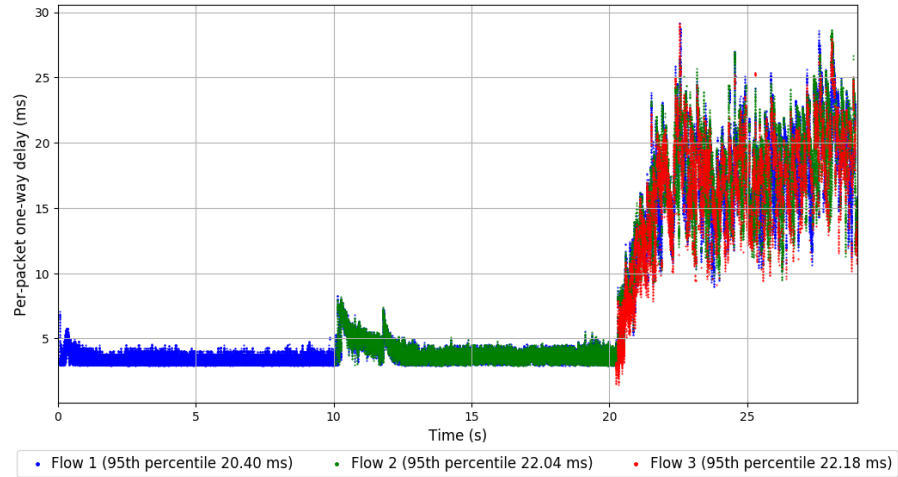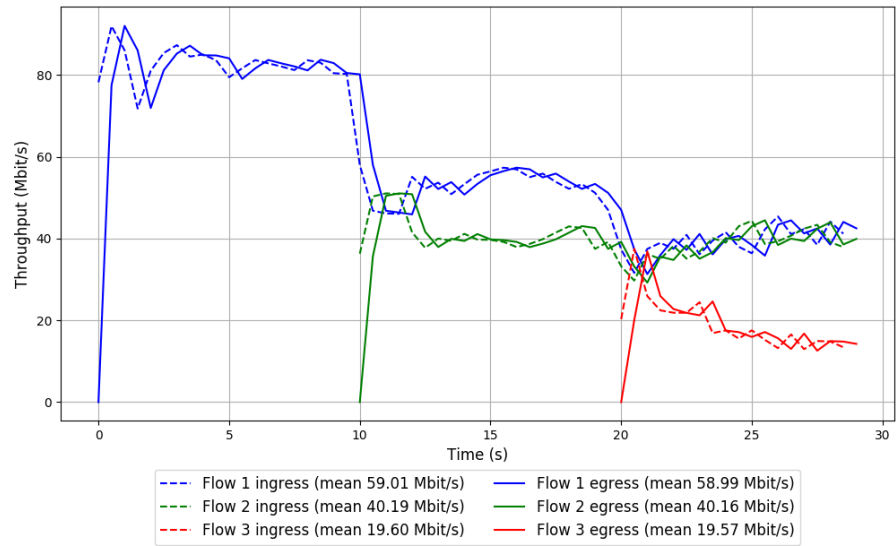
Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-19 00:11:06
End at: 2019-01-19 00:11:36
Local clock offset: -6.91 ms
Remote clock offset: -0.362 ms


# Below is generated by plot.py at 2019-01-19 02:12:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.55 Mbit/s
95th percentile per-packet one-way delay: 25.638 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 23.644 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 40.19 Mbit/s
95th percentile per-packet one-way delay: 26.889 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.88 Mbit/s
95th percentile per-packet one-way delay: 28.391 ms
Loss rate: 0.29%
```

Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-19 00:35:00
End at: 2019-01-19 00:35:30
Local clock offset: -8.244 ms
Remote clock offset: 0.055 ms

# Below is generated by plot.py at 2019-01-19 02:12:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.57 Mbit/s
95th percentile per-packet one-way delay: 29.074 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 57.67 Mbit/s
95th percentile per-packet one-way delay: 25.709 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 44.71 Mbit/s
95th percentile per-packet one-way delay: 29.677 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 32.35 Mbit/s
95th percentile per-packet one-way delay: 32.176 ms
Loss rate: 1.80%
```
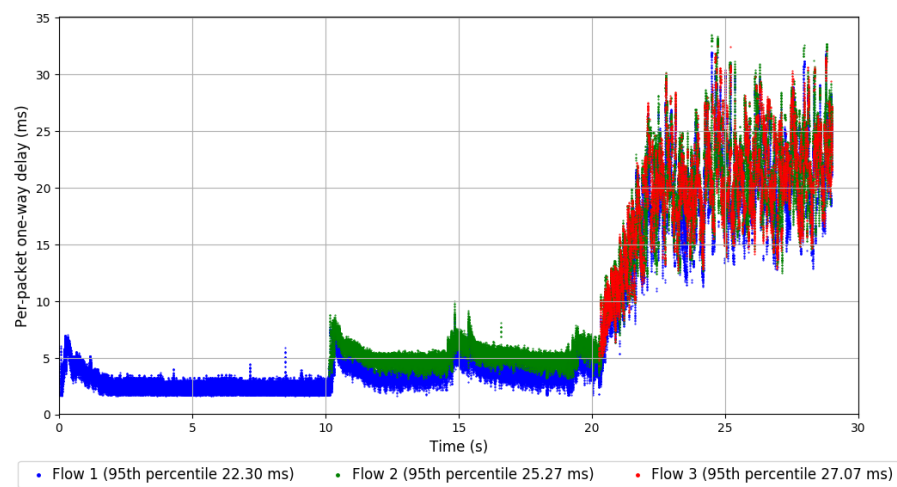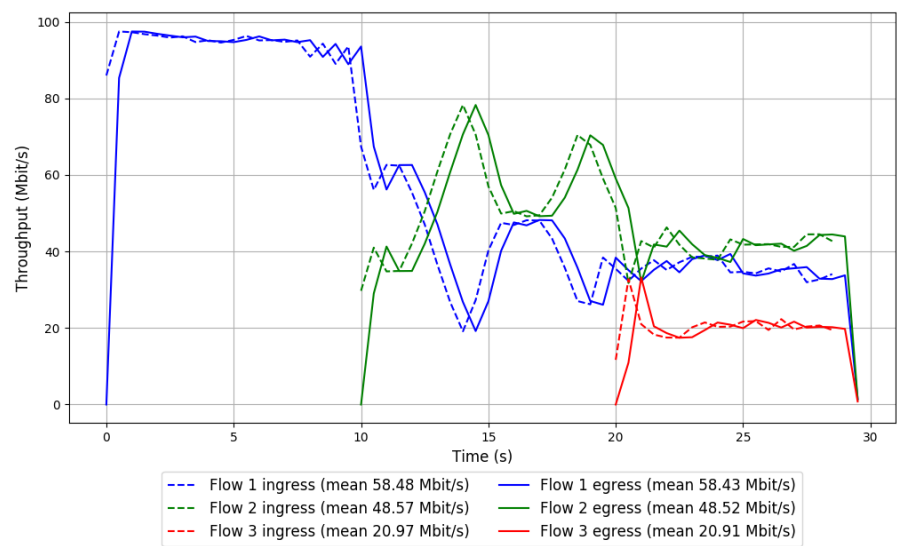
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-19 00:58:55
End at: 2019-01-19 00:59:25
Local clock offset: -8.228 ms
Remote clock offset: 0.292 ms


# Below is generated by plot.py at 2019-01-19 02:12:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.12 Mbit/s
95th percentile per-packet one-way delay: 21.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.99 Mbit/s
95th percentile per-packet one-way delay: 20.400 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 22.043 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.57 Mbit/s
95th percentile per-packet one-way delay: 22.179 ms
Loss rate: 0.00%
```
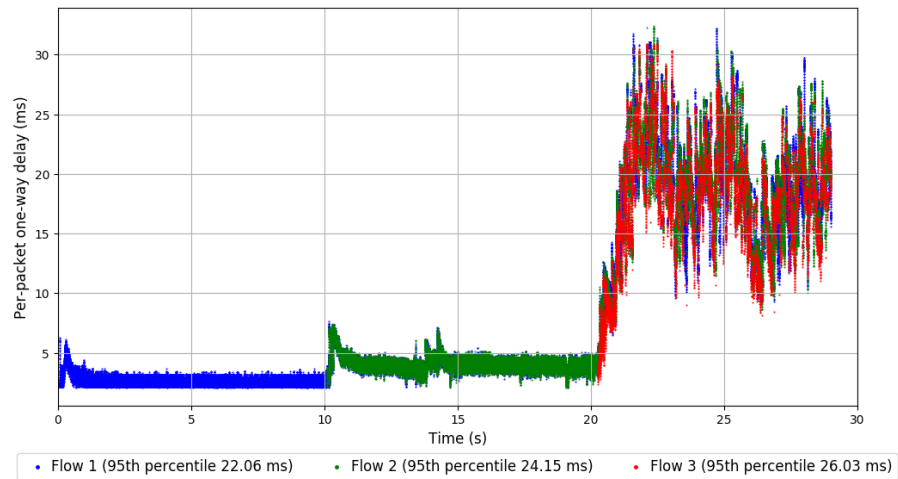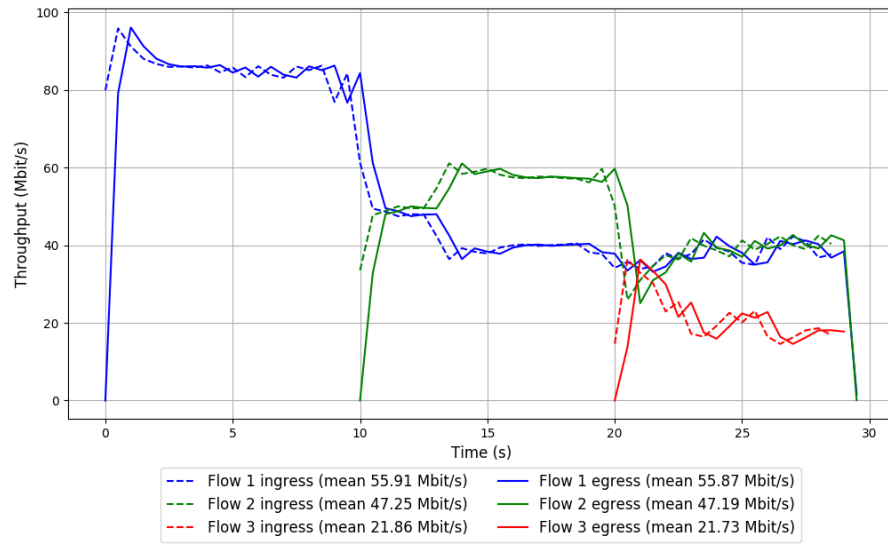
Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-19 01:22:49
End at: 2019-01-19 01:23:19
Local clock offset: -7.405 ms
Remote clock offset: 0.631 ms


# Below is generated by plot.py at 2019-01-19 02:12:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.33 Mbit/s
95th percentile per-packet one-way delay: 24.238 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 58.43 Mbit/s
95th percentile per-packet one-way delay: 22.297 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 48.52 Mbit/s
95th percentile per-packet one-way delay: 25.267 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.91 Mbit/s
95th percentile per-packet one-way delay: 27.072 ms
Loss rate: 0.01%
```

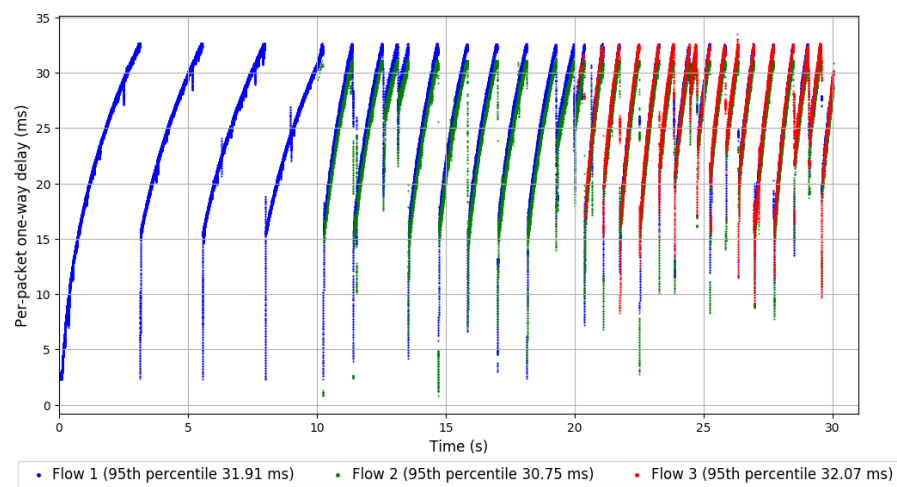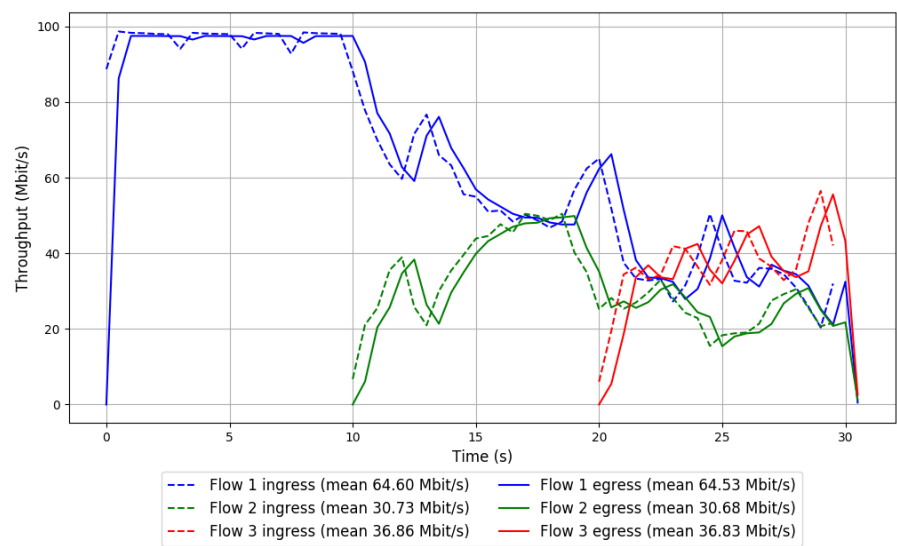Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-19 01:46:41
End at: 2019-01-19 01:47:11
Local clock offset: -5.563 ms
Remote clock offset: 0.717 ms


# Below is generated by plot.py at 2019-01-19 02:12:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.22 Mbit/s
95th percentile per-packet one-way delay: 23.609 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 55.87 Mbit/s
95th percentile per-packet one-way delay: 22.059 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 47.19 Mbit/s
95th percentile per-packet one-way delay: 24.153 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 21.73 Mbit/s
95th percentile per-packet one-way delay: 26.031 ms
Loss rate: 0.39%
```

Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-01-19 00:28:11
End at: 2019-01-19 00:28:41
Local clock offset: -7.104 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-01-19 02:12:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 31.852 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 64.53 Mbit/s
95th percentile per-packet one-way delay: 31.912 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 30.68 Mbit/s
95th percentile per-packet one-way delay: 30.753 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 36.83 Mbit/s
95th percentile per-packet one-way delay: 32.072 ms
Loss rate: 0.04%
```
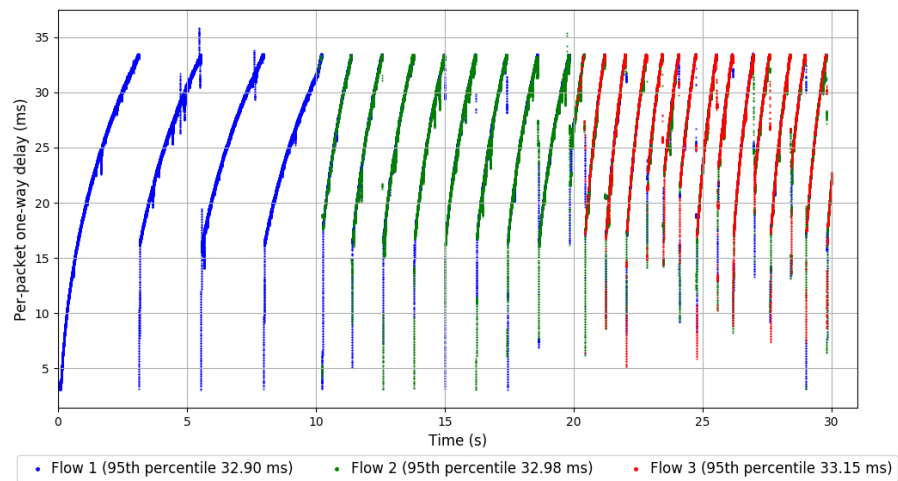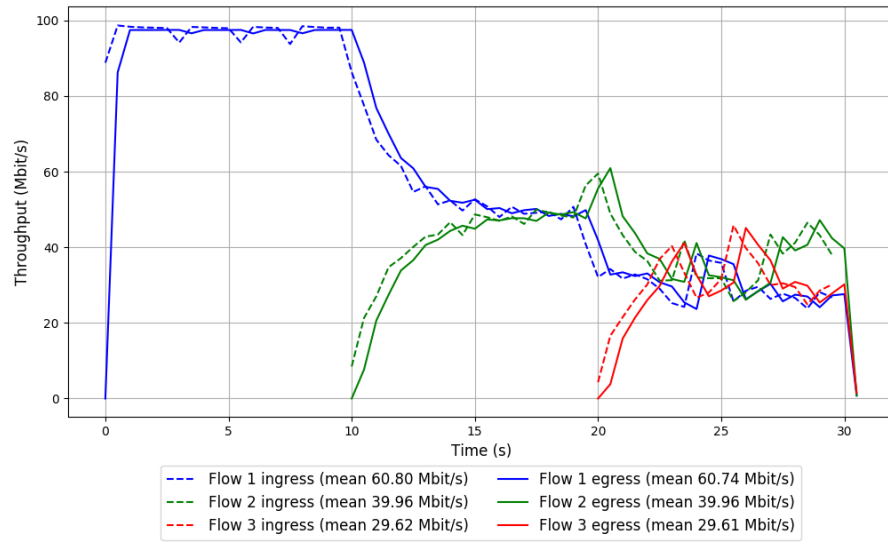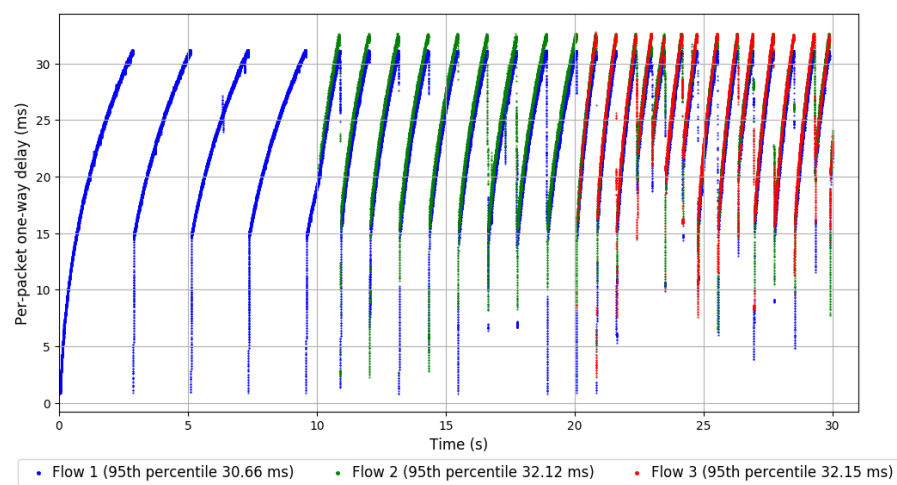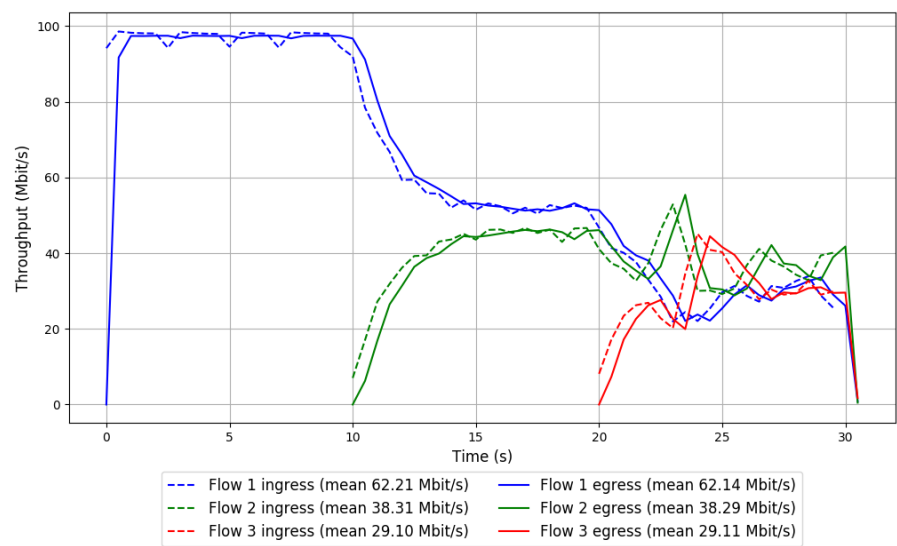
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 64.60 Mbit/s) --- Flow 1 egress (mean 64.53 Mbit/s)
Flow 2 ingress (mean 30.73 Mbit/s) --- Flow 2 egress (mean 30.68 Mbit/s)
Flow 3 ingress (mean 36.86 Mbit/s) --- Flow 3 egress (mean 36.83 Mbit/s)

Flow 1 (95th percentile 31.91 ms)   Flow 2 (95th percentile 30.75 ms)   Flow 3 (95th percentile 32.07 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-01-19 00:52:06
End at: 2019-01-19 00:52:36
Local clock offset: -8.349 ms
Remote clock offset: 0.267 ms

# Below is generated by plot.py at 2019-01-19 02:12:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.15 Mbit/s
95th percentile per-packet one-way delay: 32.931 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 60.74 Mbit/s
95th percentile per-packet one-way delay: 32.900 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.96 Mbit/s
95th percentile per-packet one-way delay: 32.984 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 33.151 ms
Loss rate: 0.09%
```
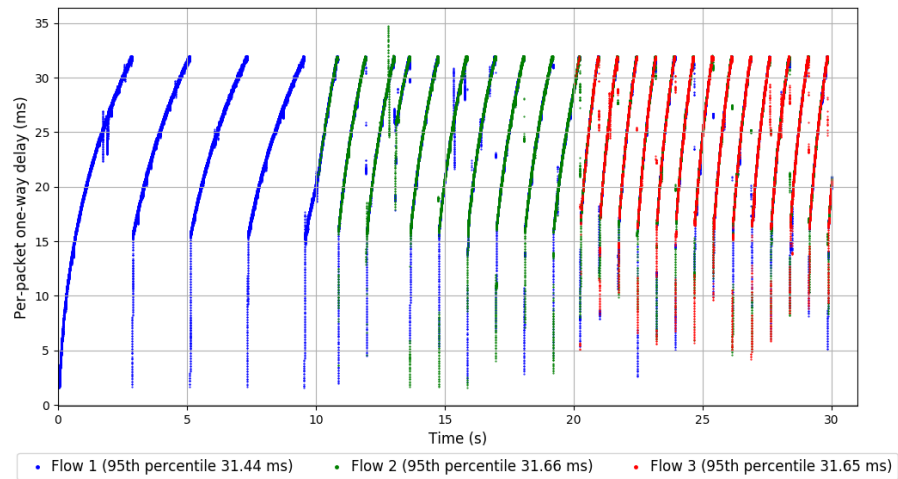
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 60.80 Mbit/s) --- Flow 1 egress (mean 60.74 Mbit/s)
Flow 2 ingress (mean 39.96 Mbit/s) --- Flow 2 egress (mean 39.96 Mbit/s)
Flow 3 ingress (mean 29.62 Mbit/s) --- Flow 3 egress (mean 29.61 Mbit/s)

Flow 1 (95th percentile 32.90 ms)   Flow 2 (95th percentile 32.98 ms)   Flow 3 (95th percentile 33.15 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-01-19 01:15:59
End at: 2019-01-19 01:16:29
Local clock offset: -7.744 ms
Remote clock offset: 0.529 ms


# Below is generated by plot.py at 2019-01-19 02:13:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.26 Mbit/s
95th percentile per-packet one-way delay: 31.178 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 62.14 Mbit/s
95th percentile per-packet one-way delay: 30.664 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 38.29 Mbit/s
95th percentile per-packet one-way delay: 32.125 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 29.11 Mbit/s
95th percentile per-packet one-way delay: 32.151 ms
Loss rate: 0.08%
```
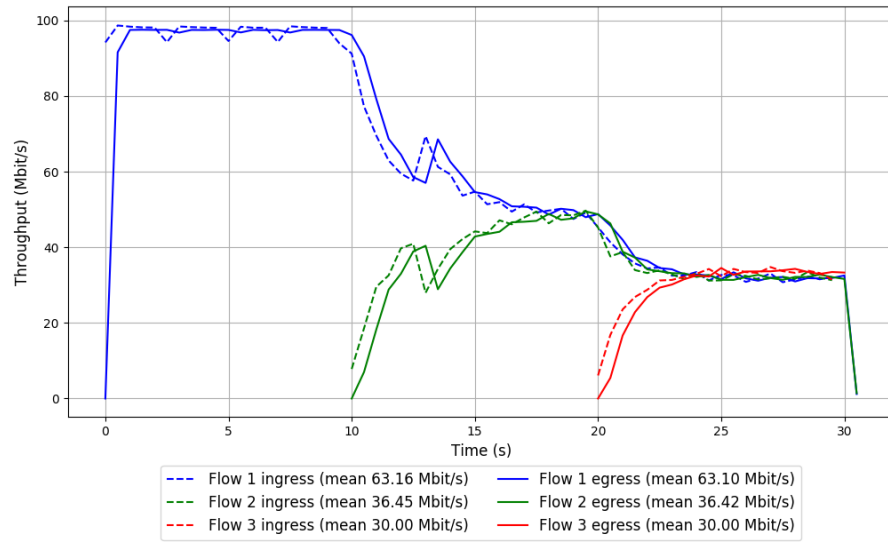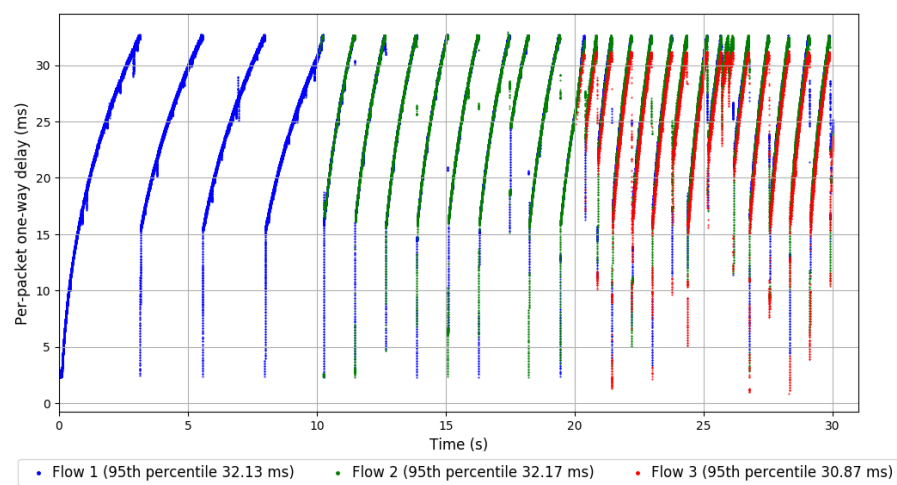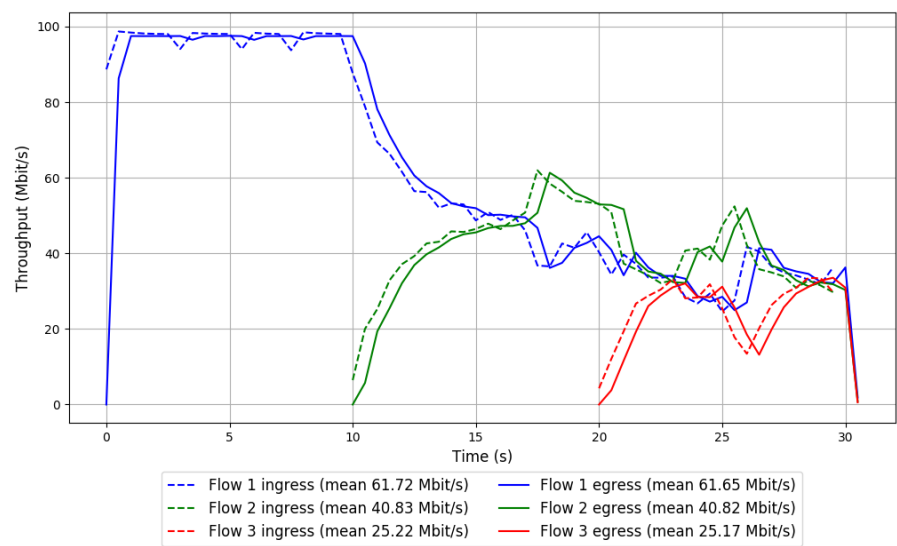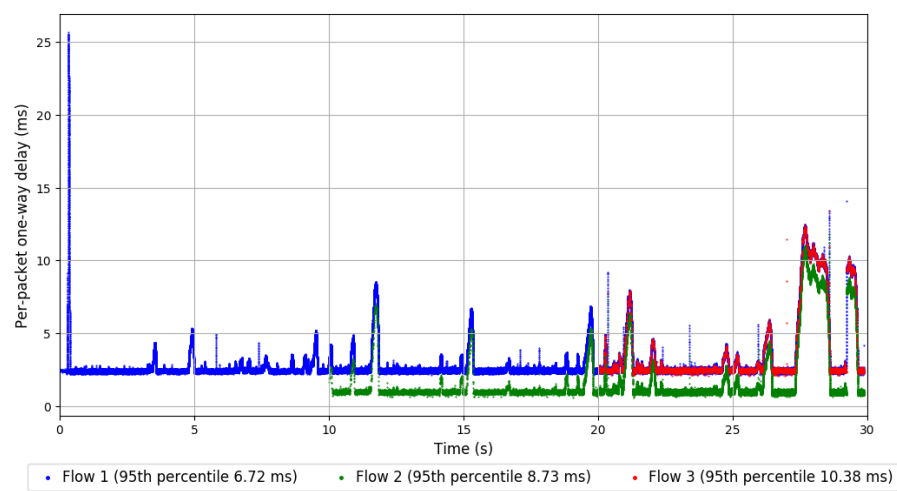
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 62.21 Mbit/s) — — — — Flow 1 egress (mean 62.14 Mbit/s)
Flow 2 ingress (mean 38.31 Mbit/s) — — — — Flow 2 egress (mean 38.29 Mbit/s)
Flow 3 ingress (mean 29.10 Mbit/s) — — — — Flow 3 egress (mean 29.11 Mbit/s)

Flow 1 (95th percentile 30.66 ms)   Flow 2 (95th percentile 32.12 ms)   Flow 3 (95th percentile 32.15 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-01-19 01:39:52
End at: 2019-01-19 01:40:22
Local clock offset: -6.515 ms
Remote clock offset: 0.675 ms


# Below is generated by plot.py at 2019-01-19 02:13:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.29 Mbit/s
95th percentile per-packet one-way delay: 31.582 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 63.10 Mbit/s
95th percentile per-packet one-way delay: 31.441 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 36.42 Mbit/s
95th percentile per-packet one-way delay: 31.659 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 30.00 Mbit/s
95th percentile per-packet one-way delay: 31.648 ms
Loss rate: 0.09%
```
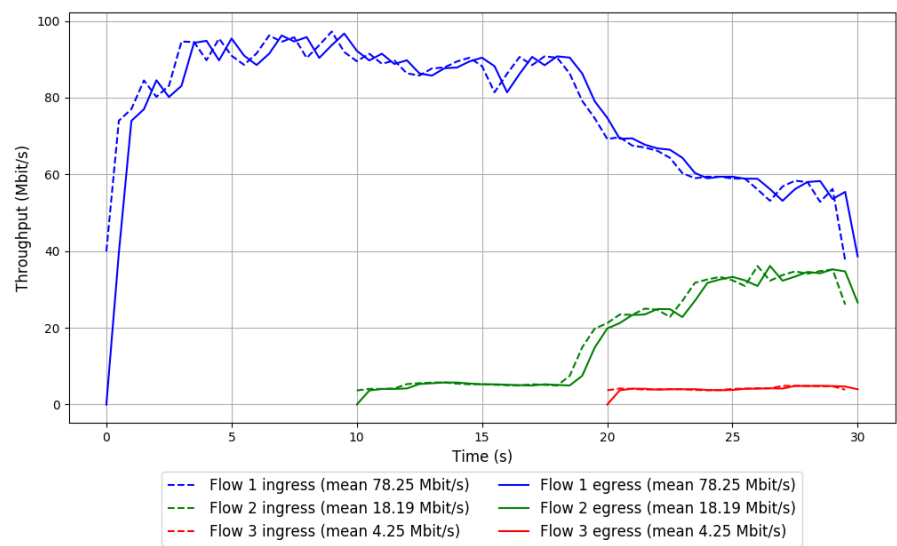
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-01-19 02:03:46
End at: 2019-01-19 02:04:16
Local clock offset: -6.896 ms
Remote clock offset: 0.914 ms


# Below is generated by plot.py at 2019-01-19 02:13:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 32.112 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 61.65 Mbit/s
95th percentile per-packet one-way delay: 32.127 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.82 Mbit/s
95th percentile per-packet one-way delay: 32.167 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 25.17 Mbit/s
95th percentile per-packet one-way delay: 30.869 ms
Loss rate: 0.22%
```
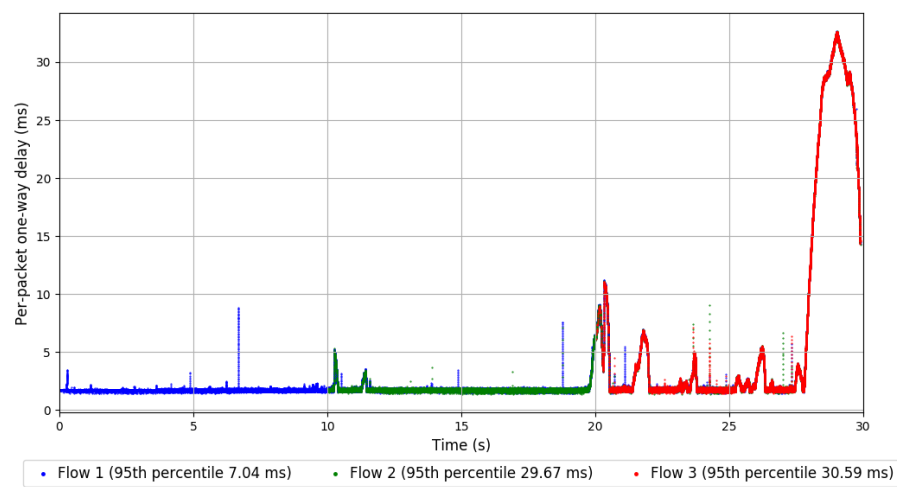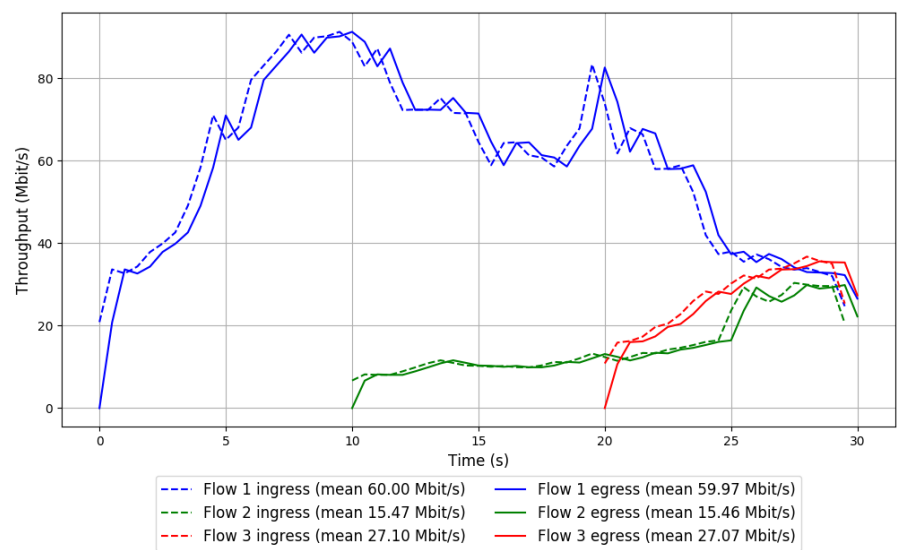
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 61.72 Mbit/s)   Flow 1 egress (mean 61.65 Mbit/s)
Flow 2 ingress (mean 40.83 Mbit/s)   Flow 2 egress (mean 40.82 Mbit/s)
Flow 3 ingress (mean 25.22 Mbit/s)   Flow 3 egress (mean 25.17 Mbit/s)

Flow 1 (95th percentile 32.13 ms)   Flow 2 (95th percentile 32.17 ms)   Flow 3 (95th percentile 30.87 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-19 00:08:50
End at: 2019-01-19 00:09:20
Local clock offset: -6.081 ms
Remote clock offset: -0.344 ms


# Below is generated by plot.py at 2019-01-19 02:13:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 7.996 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.25 Mbit/s
95th percentile per-packet one-way delay: 6.716 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.19 Mbit/s
95th percentile per-packet one-way delay: 8.729 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 10.385 ms
Loss rate: 0.00%
```
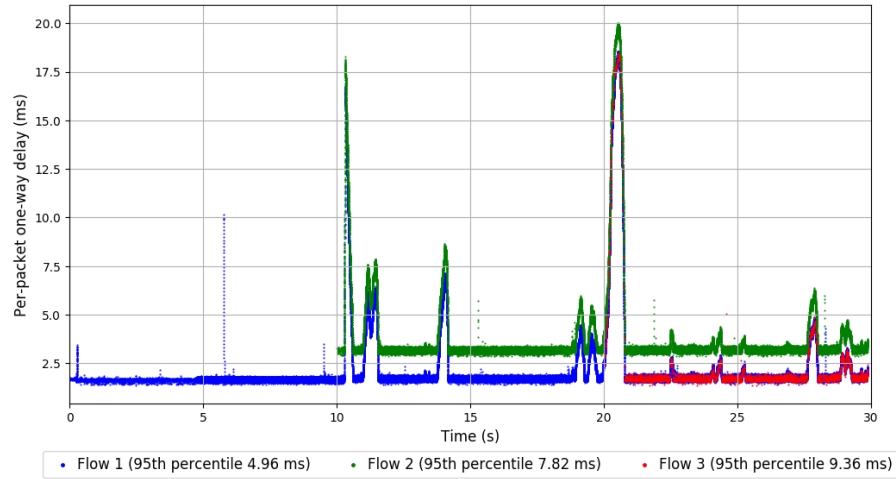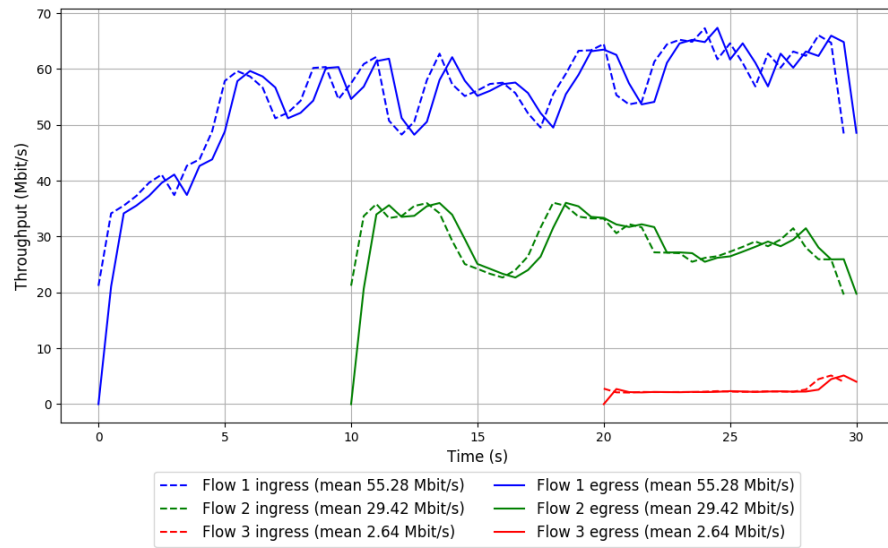
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-01-19 00:32:45
End at: 2019-01-19 00:33:15
Local clock offset: -8.078 ms
Remote clock offset: 0.054 ms


# Below is generated by plot.py at 2019-01-19 02:13:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.19 Mbit/s
95th percentile per-packet one-way delay: 26.404 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 59.97 Mbit/s
95th percentile per-packet one-way delay: 7.037 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 15.46 Mbit/s
95th percentile per-packet one-way delay: 29.667 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 27.07 Mbit/s
95th percentile per-packet one-way delay: 30.588 ms
Loss rate: 0.01%
```
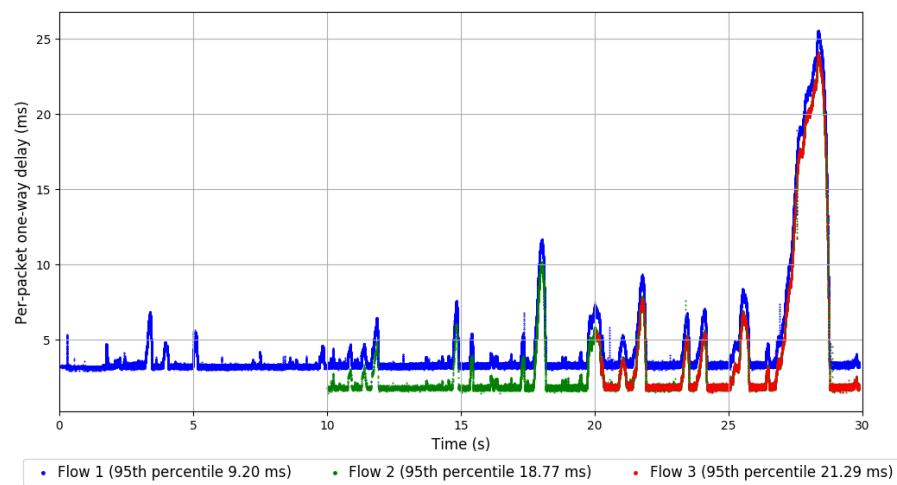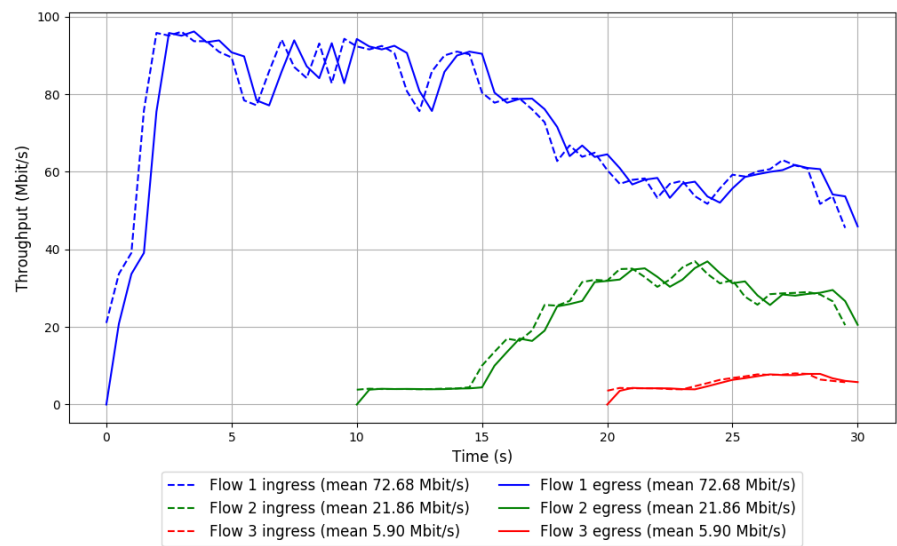
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-01-19 00:56:39
End at: 2019-01-19 00:57:09
Local clock offset: -8.25 ms
Remote clock offset: 0.324 ms


# Below is generated by plot.py at 2019-01-19 02:13:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 6.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 4.956 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.42 Mbit/s
95th percentile per-packet one-way delay: 7.816 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 9.357 ms
Loss rate: 0.00%
```
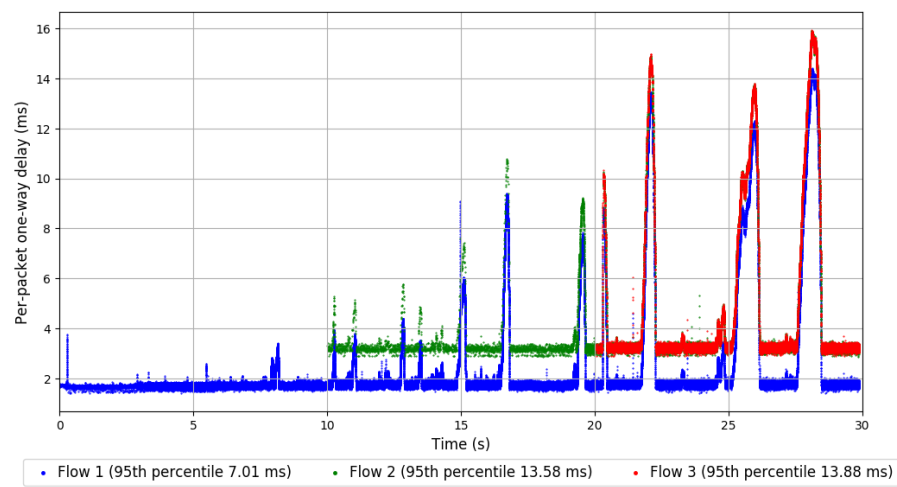
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-01-19 01:20:32
End at: 2019-01-19 01:21:02
Local clock offset: -7.753 ms
Remote clock offset: 0.596 ms


# Below is generated by plot.py at 2019-01-19 02:14:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.17 Mbit/s
95th percentile per-packet one-way delay: 11.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.68 Mbit/s
95th percentile per-packet one-way delay: 9.196 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.86 Mbit/s
95th percentile per-packet one-way delay: 18.768 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 21.292 ms
Loss rate: 0.00%
```
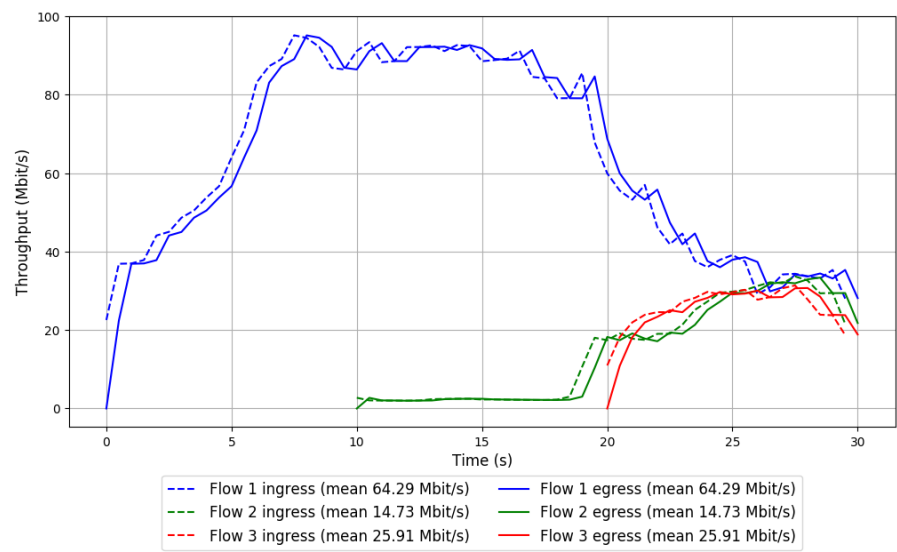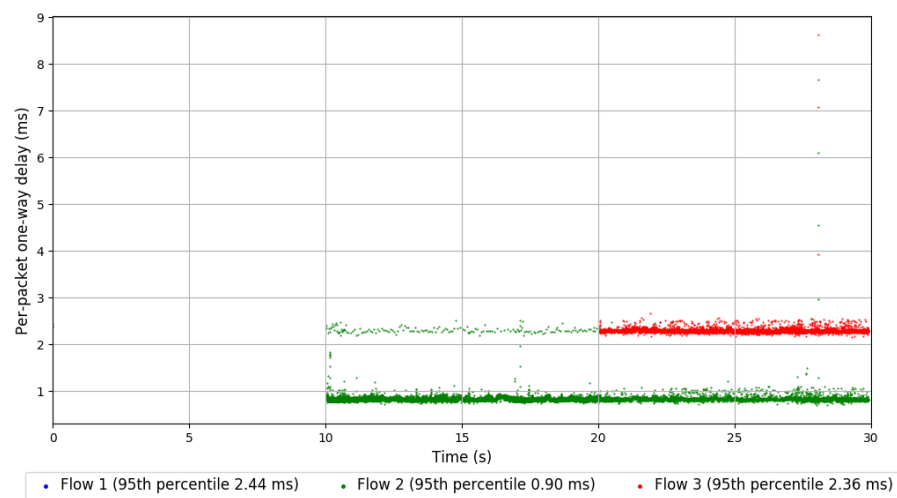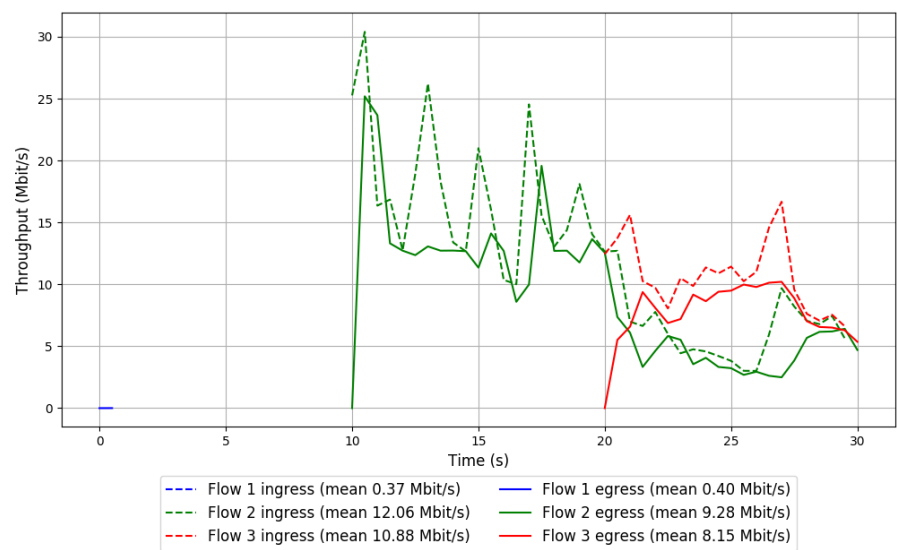
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-01-19 01:44:25
End at: 2019-01-19 01:44:55
Local clock offset: -6.43 ms
Remote clock offset: 0.762 ms


# Below is generated by plot.py at 2019-01-19 02:14:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.63 Mbit/s
95th percentile per-packet one-way delay: 9.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.29 Mbit/s
95th percentile per-packet one-way delay: 7.013 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.73 Mbit/s
95th percentile per-packet one-way delay: 13.581 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.91 Mbit/s
95th percentile per-packet one-way delay: 13.884 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-19 00:16:51
End at: 2019-01-19 00:17:21
Local clock offset: -6.525 ms
Remote clock offset: -0.287 ms


# Below is generated by plot.py at 2019-01-19 02:14:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 2.326 ms
Loss rate: 23.68%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 2.436 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 0.904 ms
Loss rate: 23.08%
-- Flow 3:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 2.364 ms
Loss rate: 25.03%
```
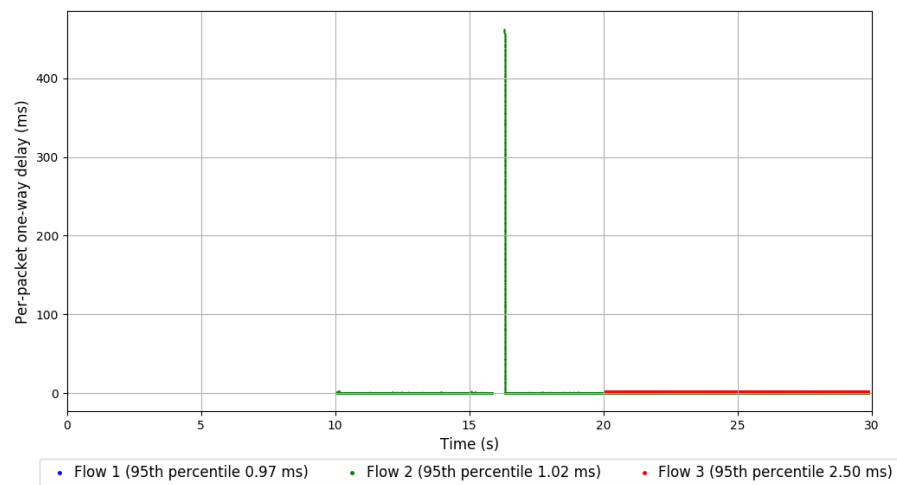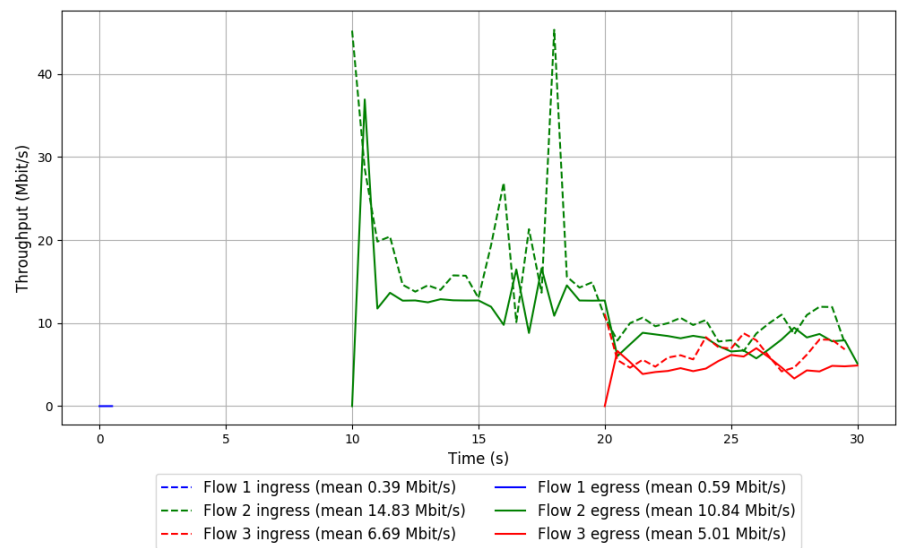
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 0.37 Mbit/s) Flow 1 egress (mean 0.40 Mbit/s)
Flow 2 ingress (mean 12.06 Mbit/s) Flow 2 egress (mean 9.28 Mbit/s)
Flow 3 ingress (mean 10.88 Mbit/s) Flow 3 egress (mean 8.15 Mbit/s)

Flow 1 (95th percentile 2.44 ms) Flow 2 (95th percentile 0.90 ms) Flow 3 (95th percentile 2.36 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-01-19 00:40:45
End at: 2019-01-19 00:41:15
Local clock offset: -7.662 ms
Remote clock offset: 0.102 ms


# Below is generated by plot.py at 2019-01-19 02:14:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.87 Mbit/s
95th percentile per-packet one-way delay: 2.404 ms
Loss rate: 26.57%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 0.971 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.84 Mbit/s
95th percentile per-packet one-way delay: 1.016 ms
Loss rate: 26.89%
-- Flow 3:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 2.501 ms
Loss rate: 25.16%
```
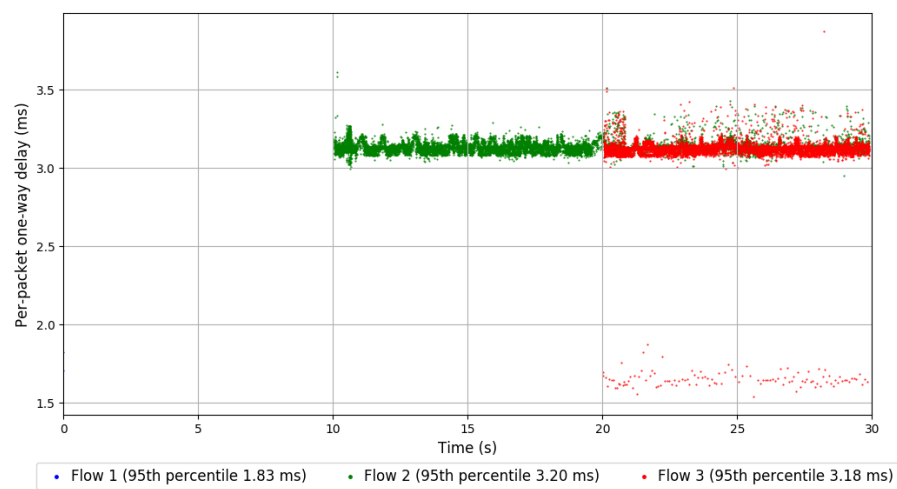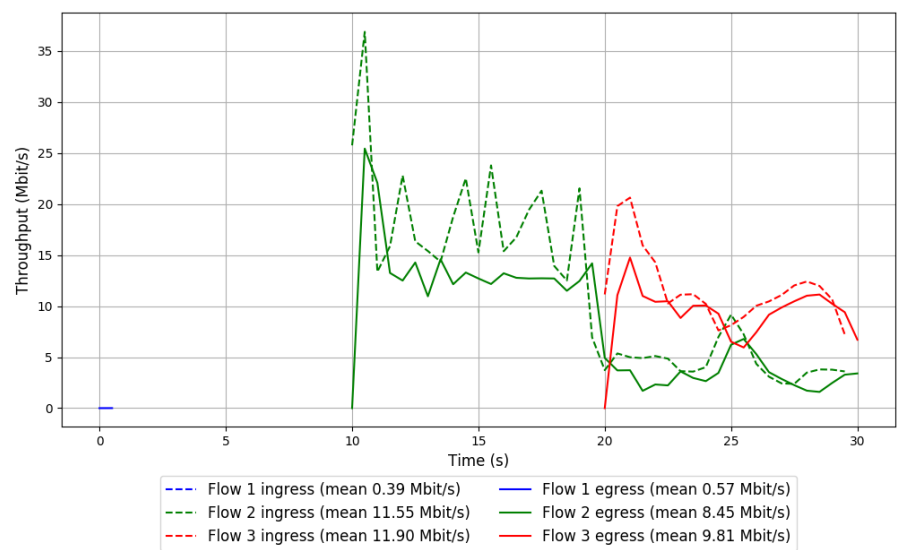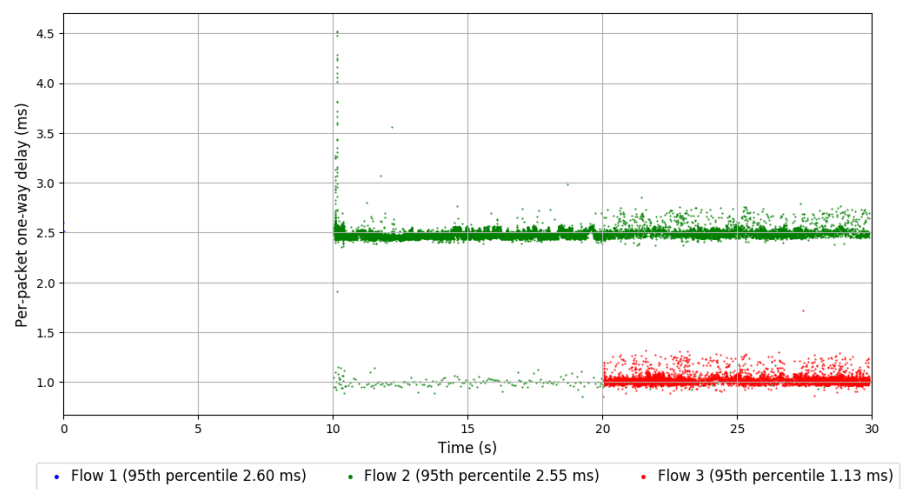
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 0.39 Mbit/s) --- Flow 1 egress (mean 0.59 Mbit/s)
Flow 2 ingress (mean 14.83 Mbit/s) --- Flow 2 egress (mean 10.84 Mbit/s)
Flow 3 ingress (mean 6.69 Mbit/s) --- Flow 3 egress (mean 5.01 Mbit/s)

Flow 1 (95th percentile 0.97 ms)   Flow 2 (95th percentile 1.02 ms)   Flow 3 (95th percentile 2.50 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-01-19 01:04:40
End at: 2019-01-19 01:05:10
Local clock offset: -8.268 ms
Remote clock offset: 0.441 ms

# Below is generated by plot.py at 2019-01-19 02:14:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 3.195 ms
Loss rate: 23.67%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 1.826 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 3.198 ms
Loss rate: 26.78%
-- Flow 3:
Average throughput: 9.81 Mbit/s
95th percentile per-packet one-way delay: 3.184 ms
Loss rate: 17.59%
```
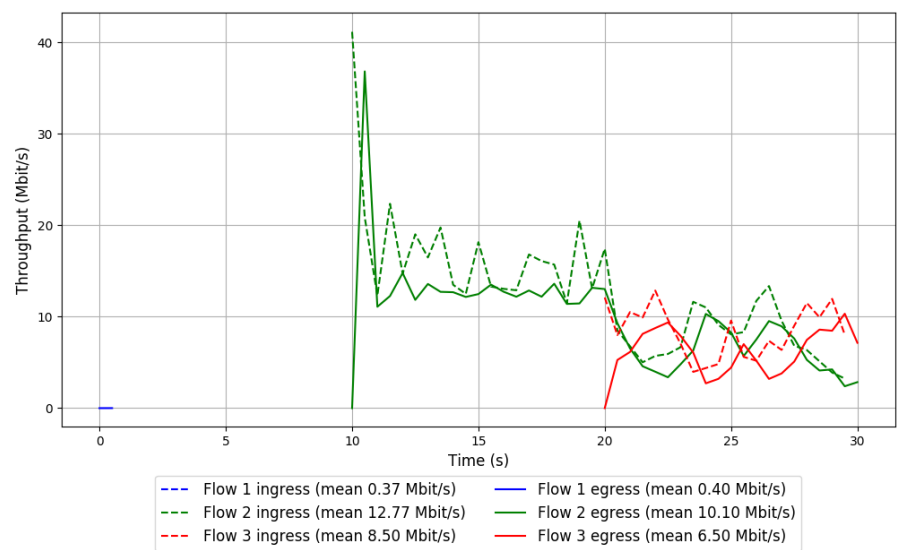
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-01-19 01:28:34
End at: 2019-01-19 01:29:04
Local clock offset: -6.228 ms
Remote clock offset: 0.643 ms


# Below is generated by plot.py at 2019-01-19 02:14:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 2.541 ms
Loss rate: 21.58%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 2.599 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 2.549 ms
Loss rate: 20.92%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 1.126 ms
Loss rate: 23.56%
```
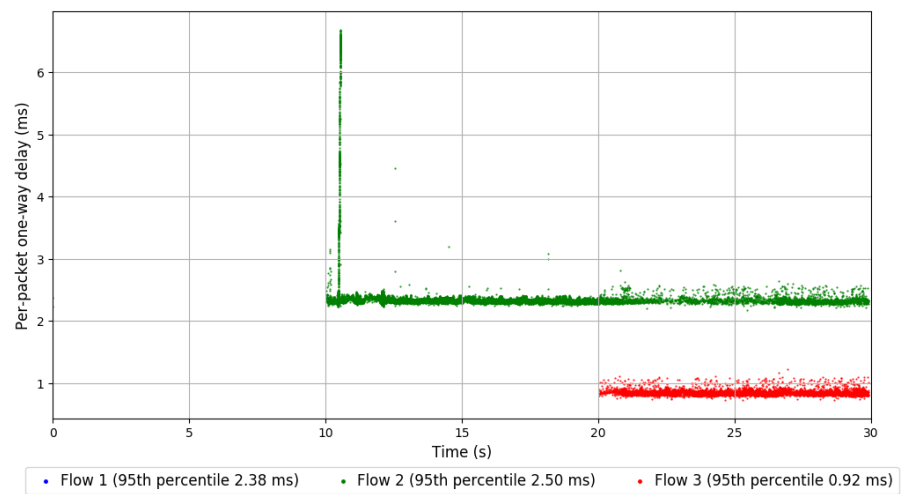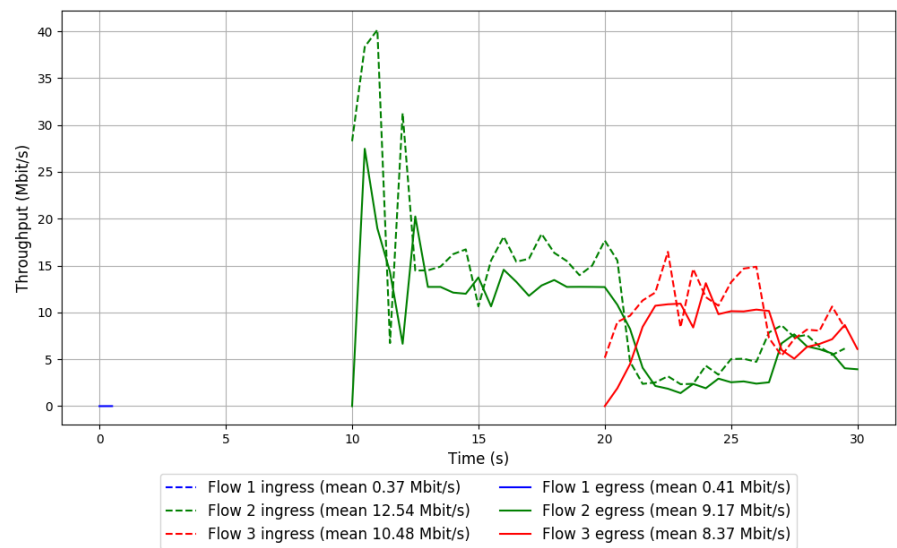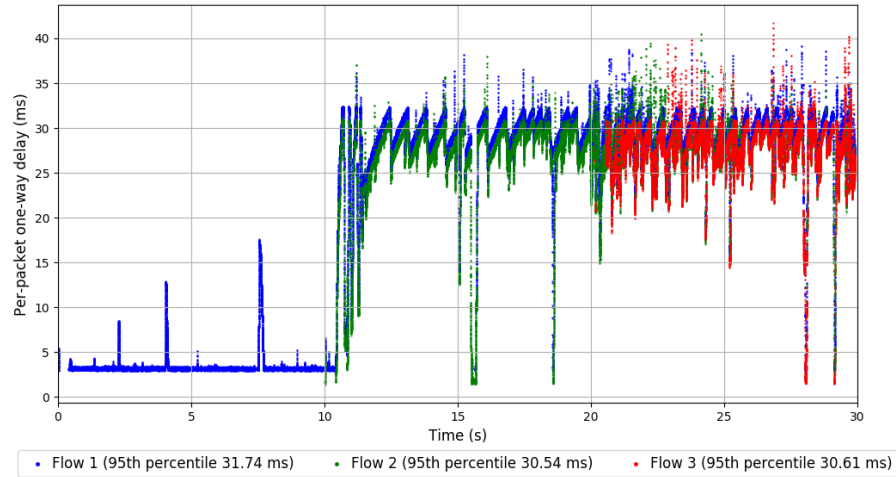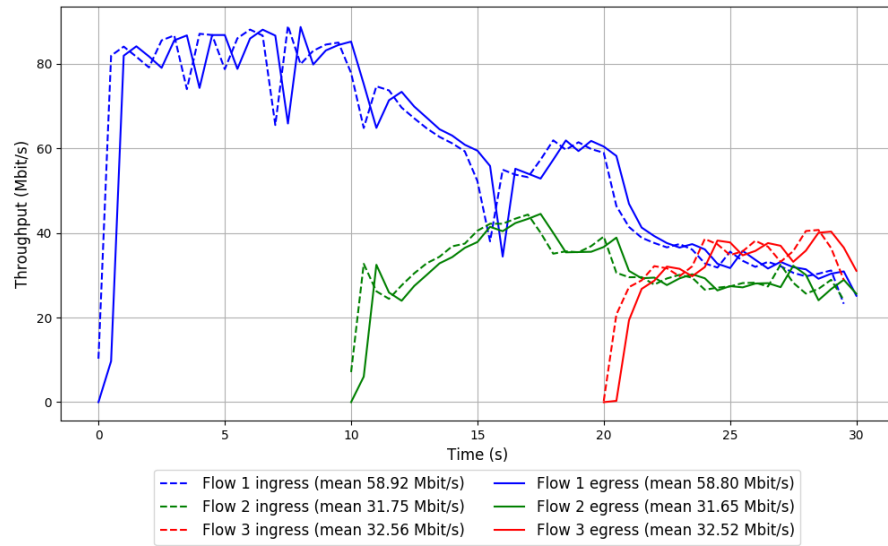
Run 4: Report of PCC-Expr — Data Link

Throughput (Mbit/s) vs Time (s)

- - - Flow 1 ingress (mean 0.37 Mbit/s) —— Flow 1 egress (mean 0.40 Mbit/s)
- - - Flow 2 ingress (mean 12.77 Mbit/s) —— Flow 2 egress (mean 10.10 Mbit/s)
- - - Flow 3 ingress (mean 8.50 Mbit/s) —— Flow 3 egress (mean 6.50 Mbit/s)

Per-packet one-way delay (ms) vs Time (s)

• Flow 1 (95th percentile 2.60 ms) • Flow 2 (95th percentile 2.55 ms) • Flow 3 (95th percentile 1.13 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-01-19 01:52:26
End at: 2019-01-19 01:52:56
Local clock offset: -6.283 ms
Remote clock offset: 0.879 ms


# Below is generated by plot.py at 2019-01-19 02:14:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 2.418 ms
Loss rate: 24.90%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 2.502 ms
Loss rate: 26.88%
-- Flow 3:
Average throughput: 8.37 Mbit/s
95th percentile per-packet one-way delay: 0.921 ms
Loss rate: 20.09%
```
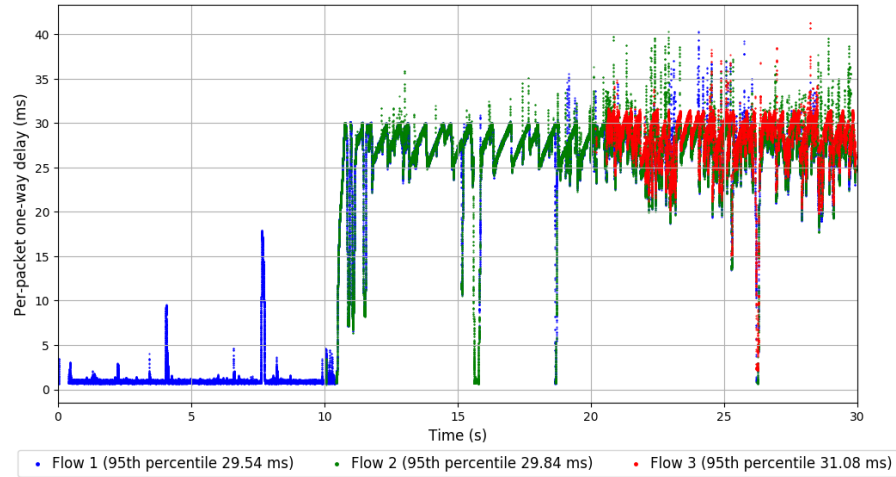
Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-19 00:17:56
End at: 2019-01-19 00:18:26
Local clock offset: -7.349 ms
Remote clock offset: -0.251 ms


# Below is generated by plot.py at 2019-01-19 02:14:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.54 Mbit/s
95th percentile per-packet one-way delay: 31.602 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 58.80 Mbit/s
95th percentile per-packet one-way delay: 31.743 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 31.65 Mbit/s
95th percentile per-packet one-way delay: 30.539 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 32.52 Mbit/s
95th percentile per-packet one-way delay: 30.610 ms
Loss rate: 0.14%
```
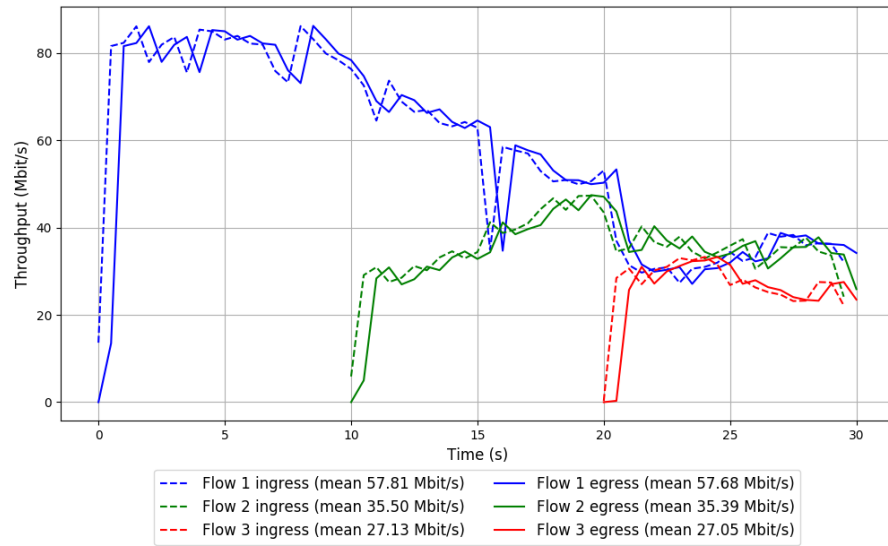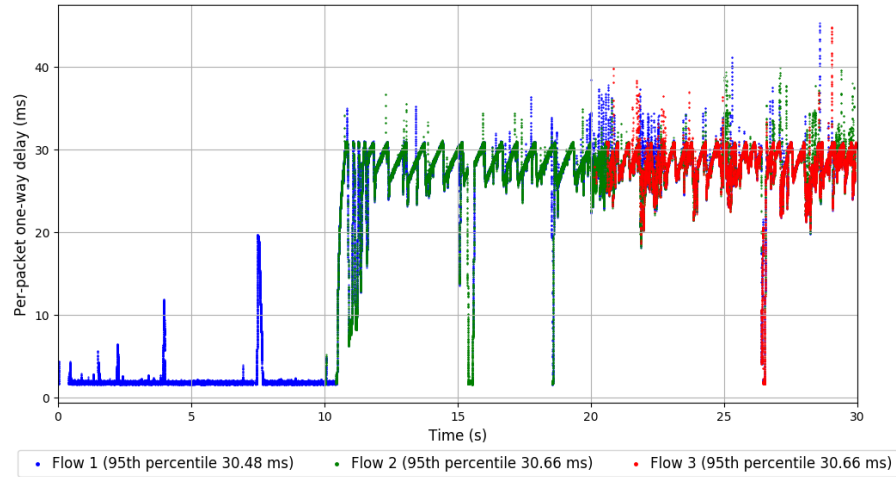
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-01-19 00:41:51
End at: 2019-01-19 00:42:21
Local clock offset: -7.685 ms
Remote clock offset: 0.047 ms


# Below is generated by plot.py at 2019-01-19 02:14:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.09 Mbit/s
95th percentile per-packet one-way delay: 29.884 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 57.68 Mbit/s
95th percentile per-packet one-way delay: 29.544 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 29.840 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 27.05 Mbit/s
95th percentile per-packet one-way delay: 31.076 ms
Loss rate: 0.31%
```
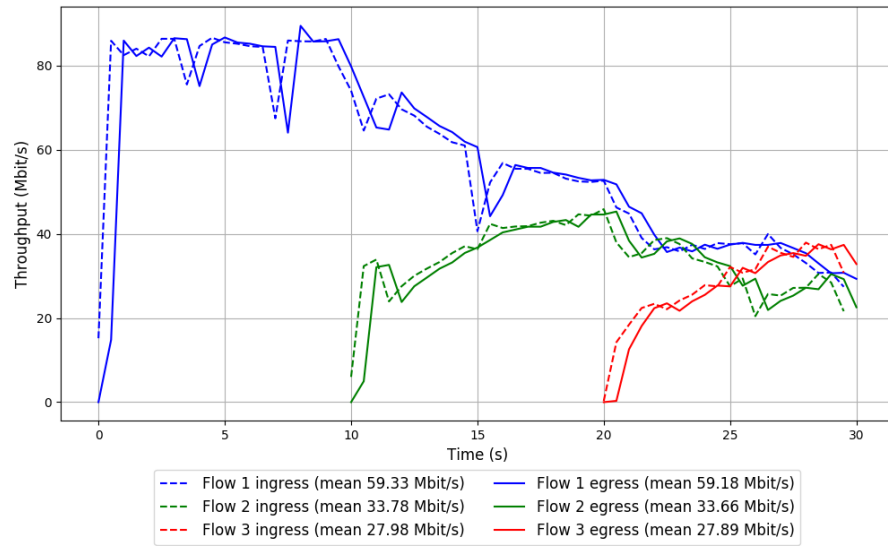
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-01-19 01:05:45
End at: 2019-01-19 01:06:15
Local clock offset: -8.283 ms
Remote clock offset: 0.481 ms


# Below is generated by plot.py at 2019-01-19 02:14:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.73 Mbit/s
95th percentile per-packet one-way delay: 30.570 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 30.476 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 30.665 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 27.89 Mbit/s
95th percentile per-packet one-way delay: 30.663 ms
Loss rate: 0.27%
```
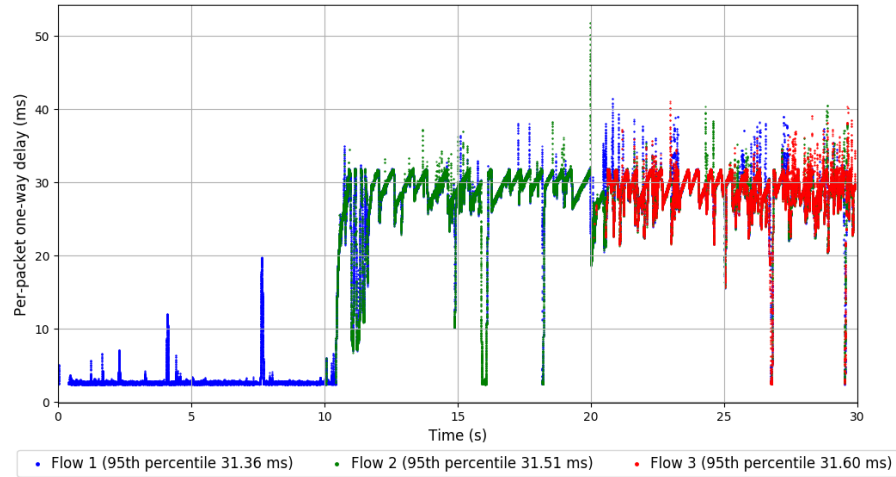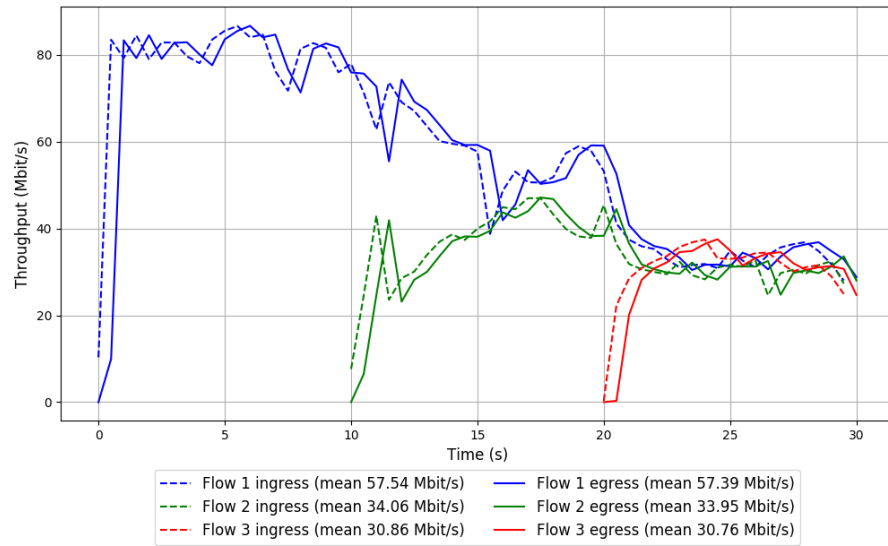
Run 3: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 59.33 Mbit/s) —— Flow 1 egress (mean 59.18 Mbit/s)
- - - Flow 2 ingress (mean 33.78 Mbit/s) —— Flow 2 egress (mean 33.66 Mbit/s)
- - - Flow 3 ingress (mean 27.98 Mbit/s) —— Flow 3 egress (mean 27.89 Mbit/s)

• Flow 1 (95th percentile 30.48 ms) • Flow 2 (95th percentile 30.66 ms) • Flow 3 (95th percentile 30.66 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-01-19 01:29:39
End at: 2019-01-19 01:30:09
Local clock offset: -6.15 ms
Remote clock offset: 0.721 ms


# Below is generated by plot.py at 2019-01-19 02:14:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.05 Mbit/s
95th percentile per-packet one-way delay: 31.452 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 57.39 Mbit/s
95th percentile per-packet one-way delay: 31.360 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 31.509 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 30.76 Mbit/s
95th percentile per-packet one-way delay: 31.597 ms
Loss rate: 0.26%
```
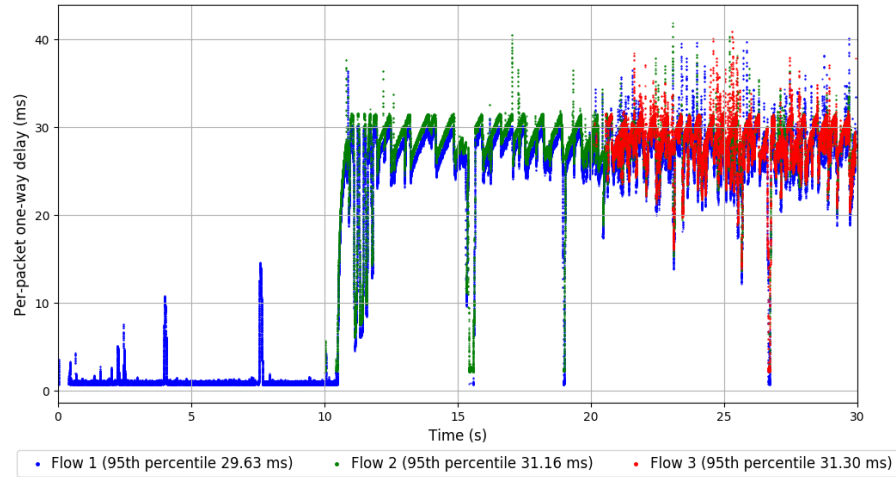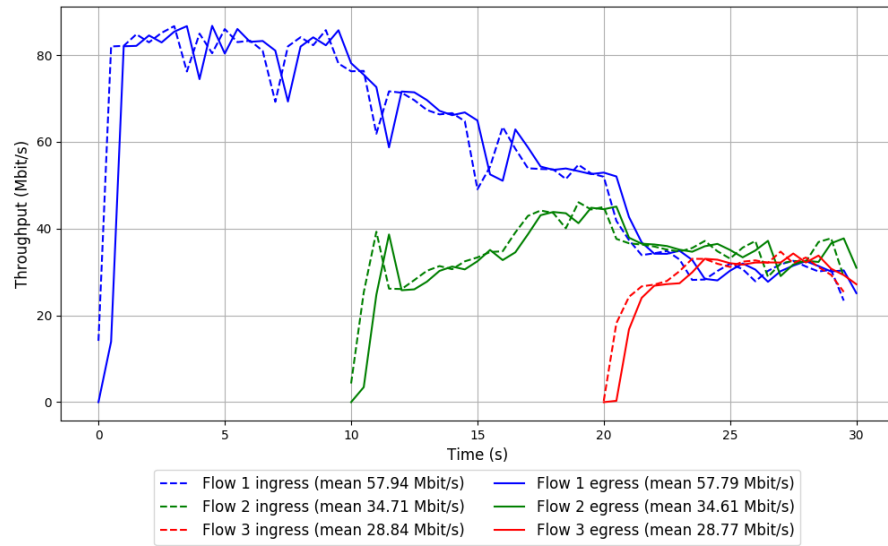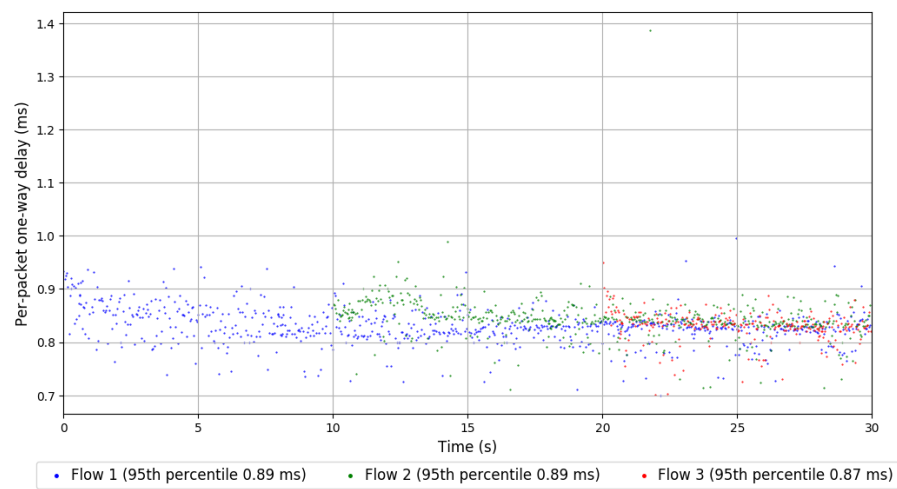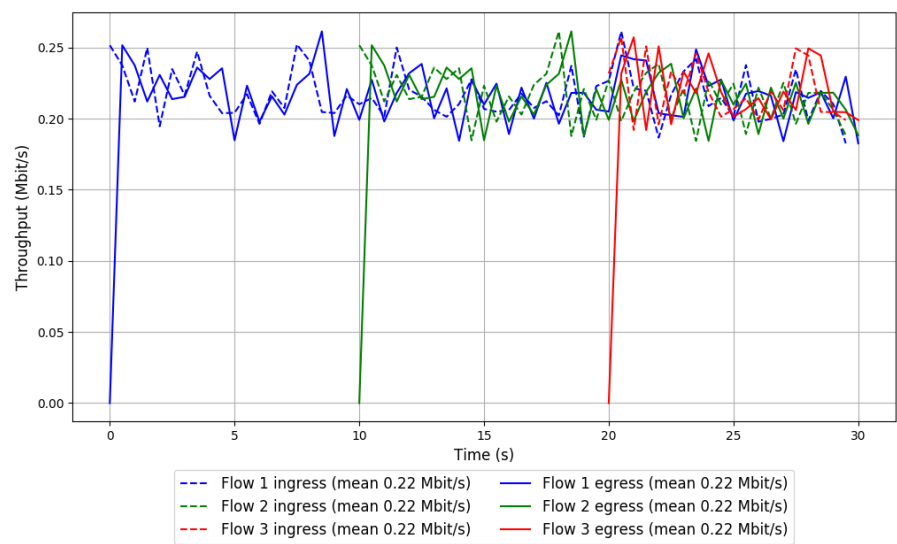
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-01-19 01:53:32
End at: 2019-01-19 01:54:02
Local clock offset: -6.324 ms
Remote clock offset: 0.91 ms


# Below is generated by plot.py at 2019-01-19 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.24 Mbit/s
95th percentile per-packet one-way delay: 30.824 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 57.79 Mbit/s
95th percentile per-packet one-way delay: 29.628 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 31.156 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 28.77 Mbit/s
95th percentile per-packet one-way delay: 31.300 ms
Loss rate: 0.14%
```

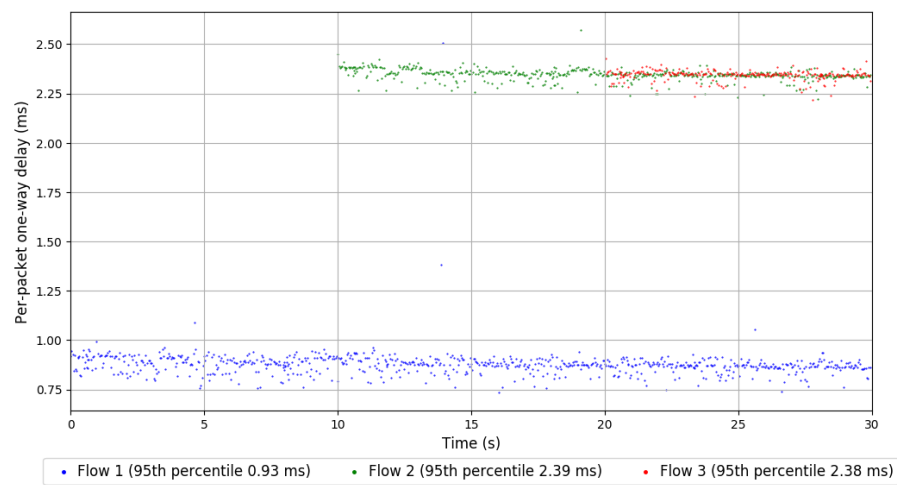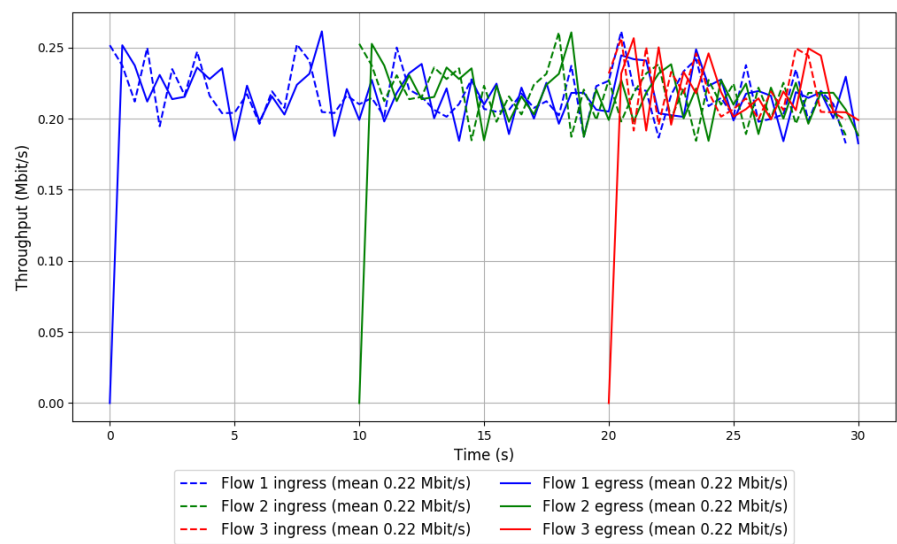Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-01-19 00:07:44
End at: 2019-01-19 00:08:14
Local clock offset: -5.928 ms
Remote clock offset: -0.373 ms


# Below is generated by plot.py at 2019-01-19 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 0.888 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.889 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.890 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.867 ms
Loss rate: 0.00%
```
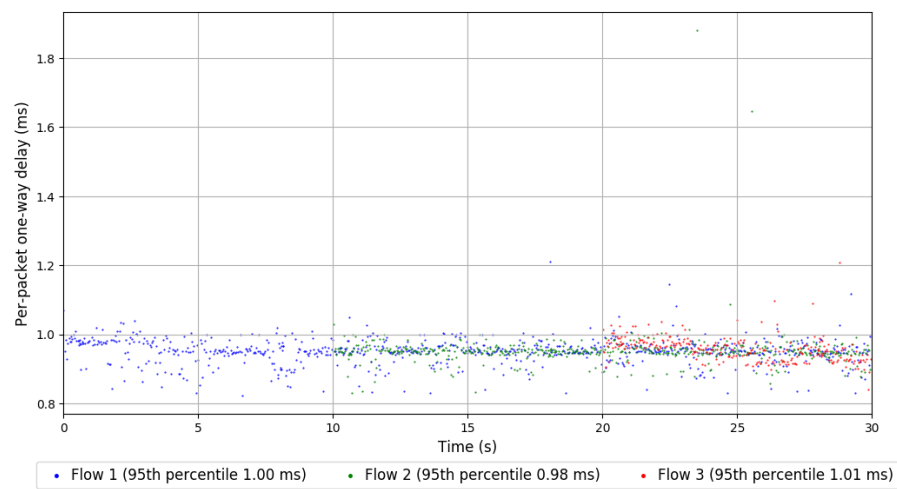
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-01-19 00:31:39
End at: 2019-01-19 00:32:09
Local clock offset: -7.279 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-01-19 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.378 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.932 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.388 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.376 ms
Loss rate: 0.00%
```
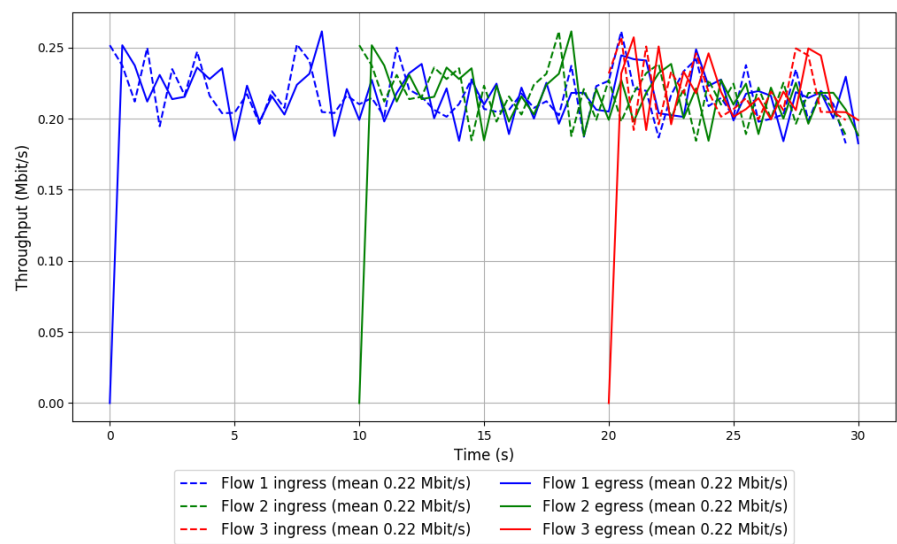
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-01-19 00:55:34
End at: 2019-01-19 00:56:04
Local clock offset: -7.571 ms
Remote clock offset: 0.289 ms


# Below is generated by plot.py at 2019-01-19 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 0.999 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.001 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.985 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.015 ms
Loss rate: 0.00%
```
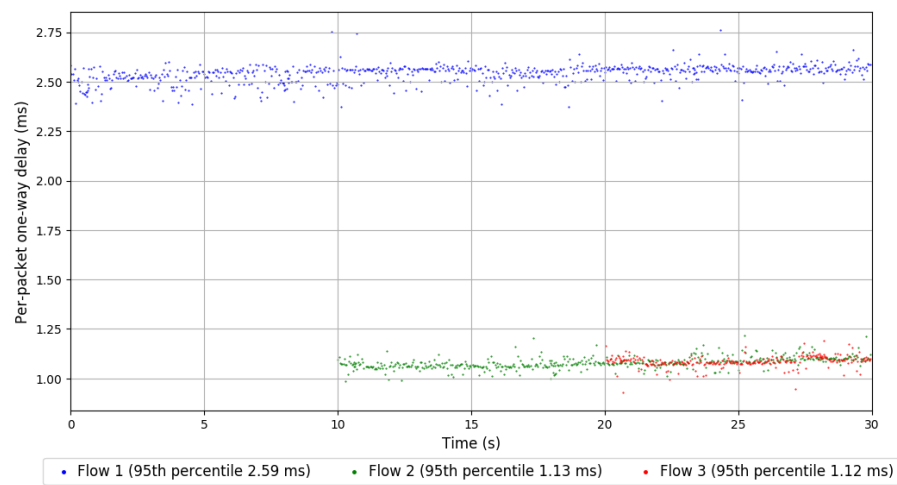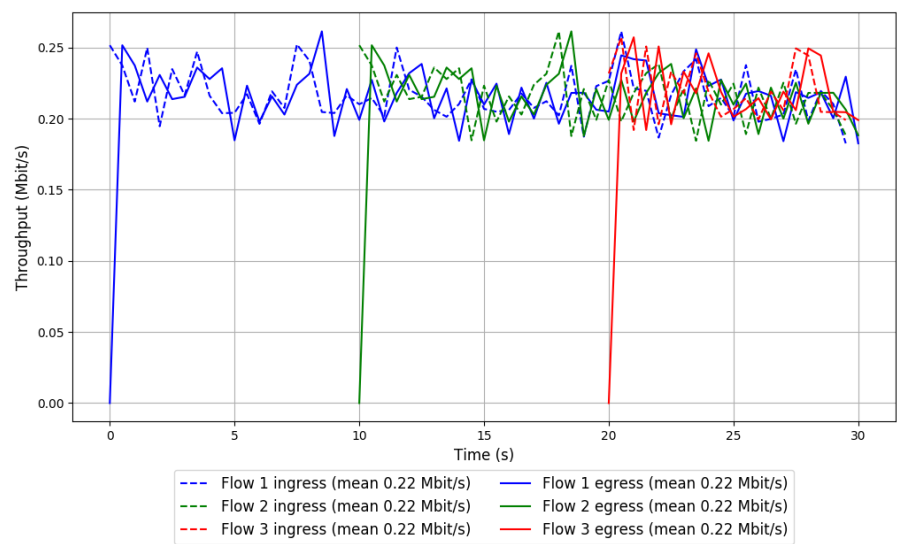
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-01-19 01:19:27
End at: 2019-01-19 01:19:57
Local clock offset: -7.258 ms
Remote clock offset: 0.519 ms


# Below is generated by plot.py at 2019-01-19 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.578 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.587 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.129 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.00%
```
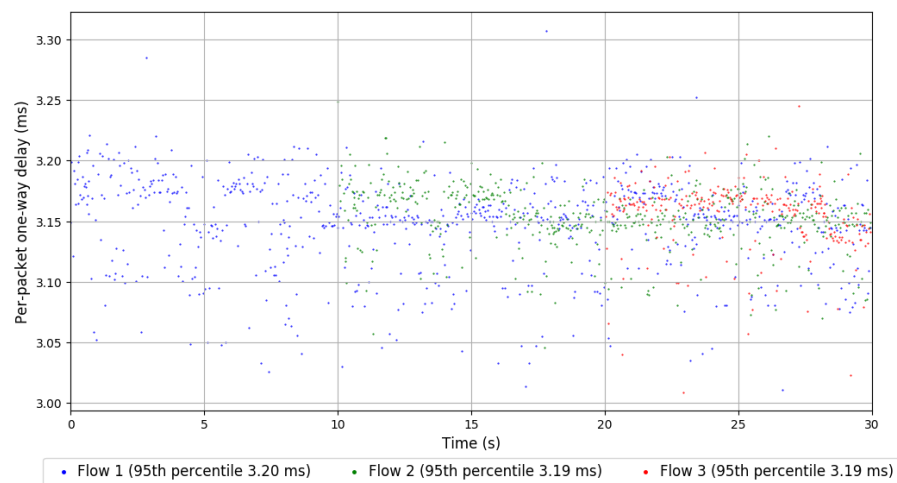
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-01-19 01:43:20
End at: 2019-01-19 01:43:50
Local clock offset: -6.38 ms
Remote clock offset: 0.781 ms


# Below is generated by plot.py at 2019-01-19 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.199 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.189 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.189 ms
Loss rate: 0.00%
```
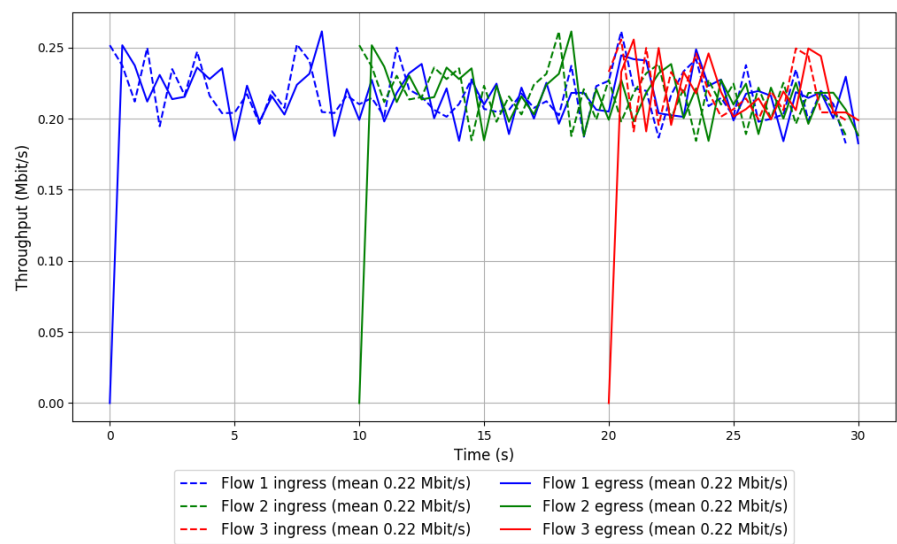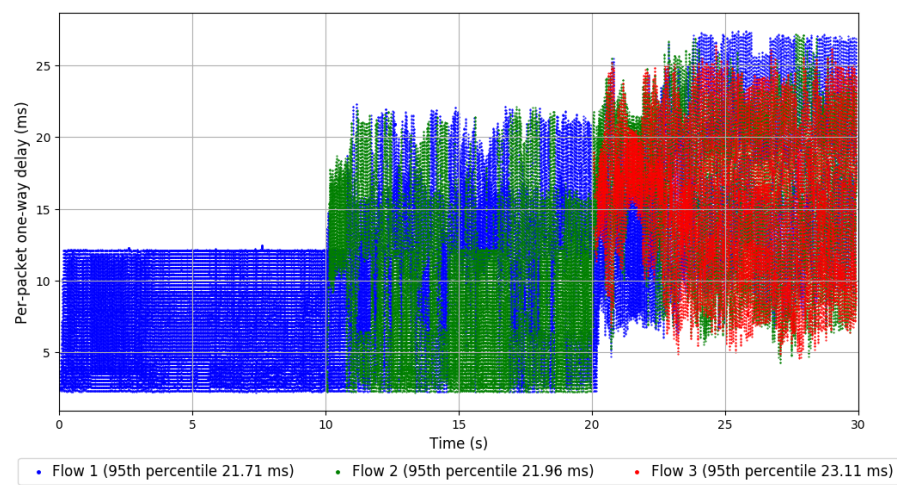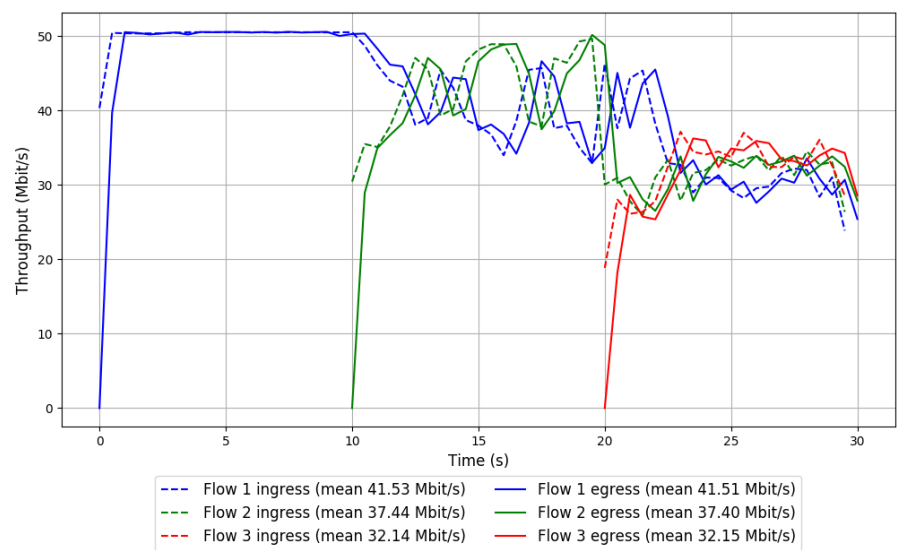
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-01-19 00:12:15
End at: 2019-01-19 00:12:45
Local clock offset: -6.211 ms
Remote clock offset: -0.262 ms


# Below is generated by plot.py at 2019-01-19 02:14:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.01 Mbit/s
95th percentile per-packet one-way delay: 22.172 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.51 Mbit/s
95th percentile per-packet one-way delay: 21.707 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.40 Mbit/s
95th percentile per-packet one-way delay: 21.956 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.15 Mbit/s
95th percentile per-packet one-way delay: 23.112 ms
Loss rate: 0.00%
```

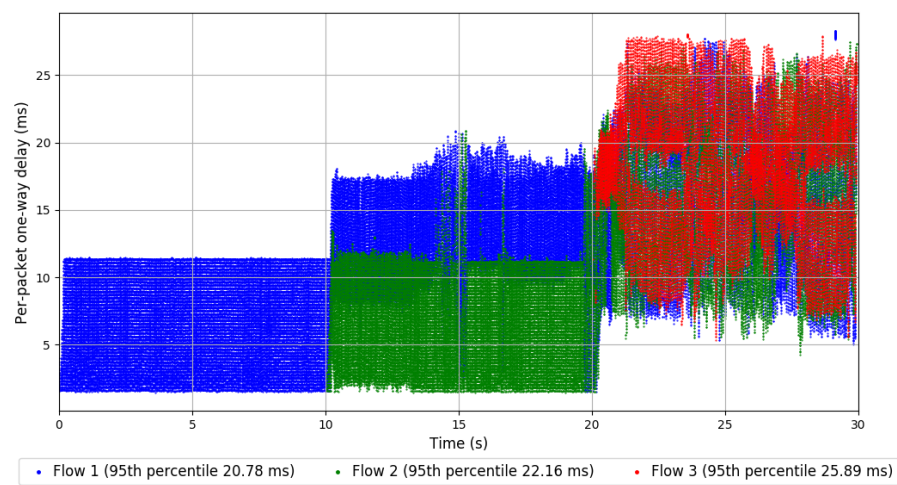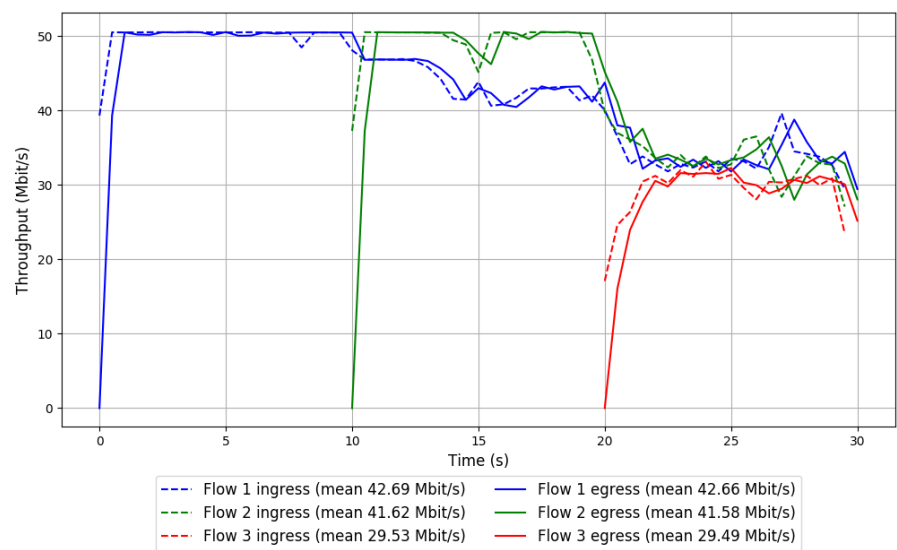Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-01-19 00:36:10
End at: 2019-01-19 00:36:40
Local clock offset: -8.2 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2019-01-19 02:14:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.05 Mbit/s
95th percentile per-packet one-way delay: 22.760 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.66 Mbit/s
95th percentile per-packet one-way delay: 20.776 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.58 Mbit/s
95th percentile per-packet one-way delay: 22.158 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.49 Mbit/s
95th percentile per-packet one-way delay: 25.888 ms
Loss rate: 0.00%
```

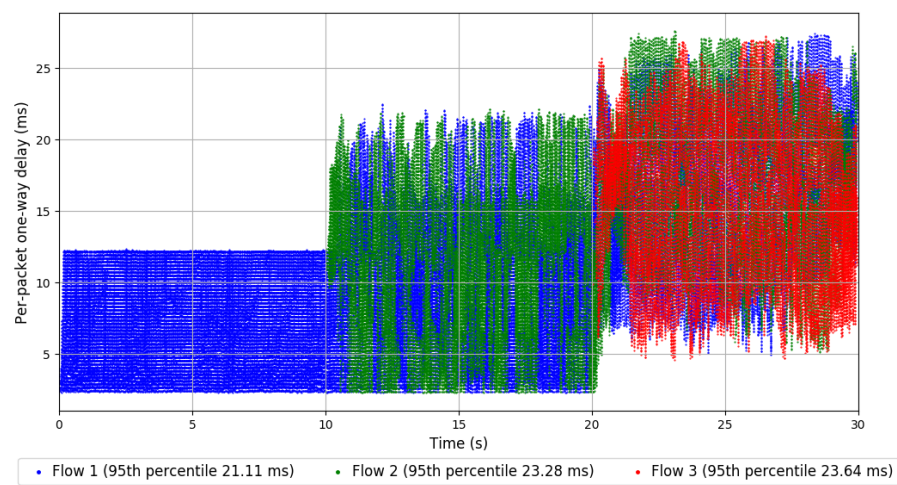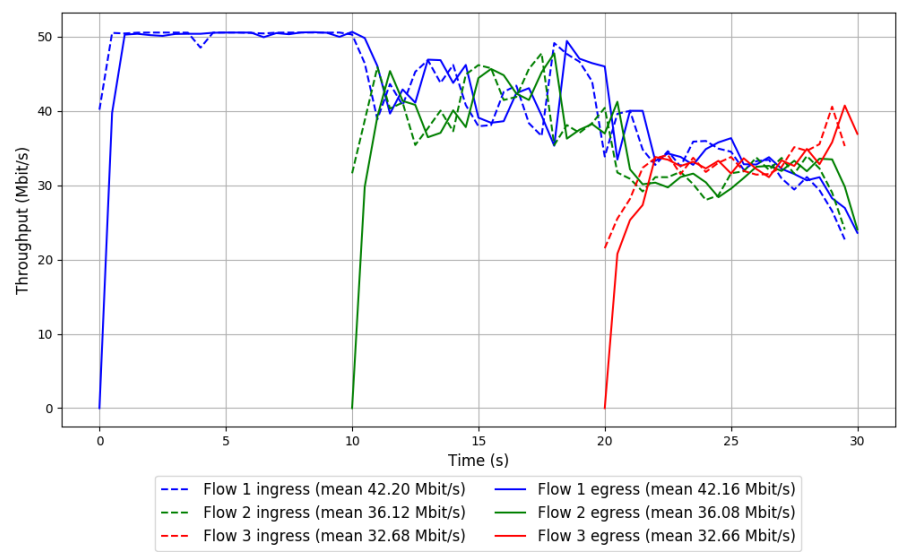## Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-01-19 01:00:04
End at: 2019-01-19 01:00:34
Local clock offset: -7.474 ms
Remote clock offset: 0.418 ms


# Below is generated by plot.py at 2019-01-19 02:14:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.98 Mbit/s
95th percentile per-packet one-way delay: 22.502 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.16 Mbit/s
95th percentile per-packet one-way delay: 21.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.08 Mbit/s
95th percentile per-packet one-way delay: 23.282 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.66 Mbit/s
95th percentile per-packet one-way delay: 23.643 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

- - - Flow 1 ingress (mean 42.20 Mbit/s) —— Flow 1 egress (mean 42.16 Mbit/s)
- - - Flow 2 ingress (mean 36.12 Mbit/s) —— Flow 2 egress (mean 36.08 Mbit/s)
- - - Flow 3 ingress (mean 32.68 Mbit/s) —— Flow 3 egress (mean 32.66 Mbit/s)

- Flow 1 (95th percentile 21.11 ms)   • Flow 2 (95th percentile 23.28 ms)   • Flow 3 (95th percentile 23.64 ms)
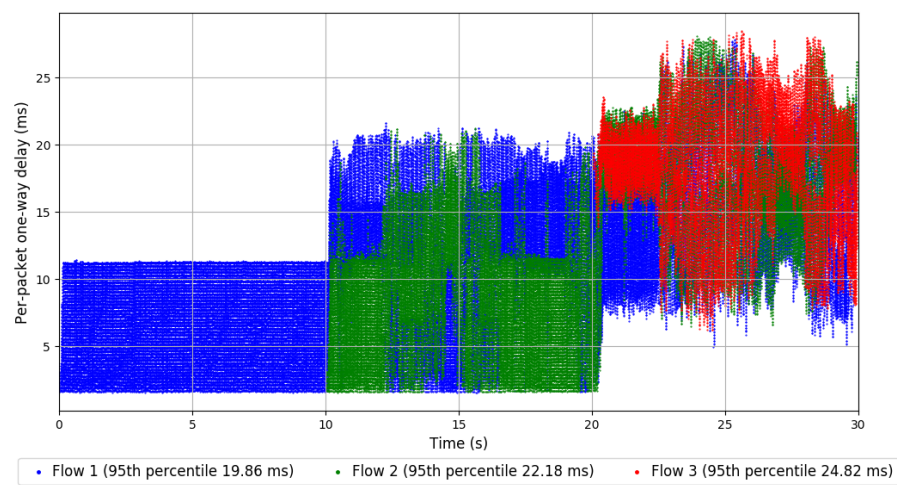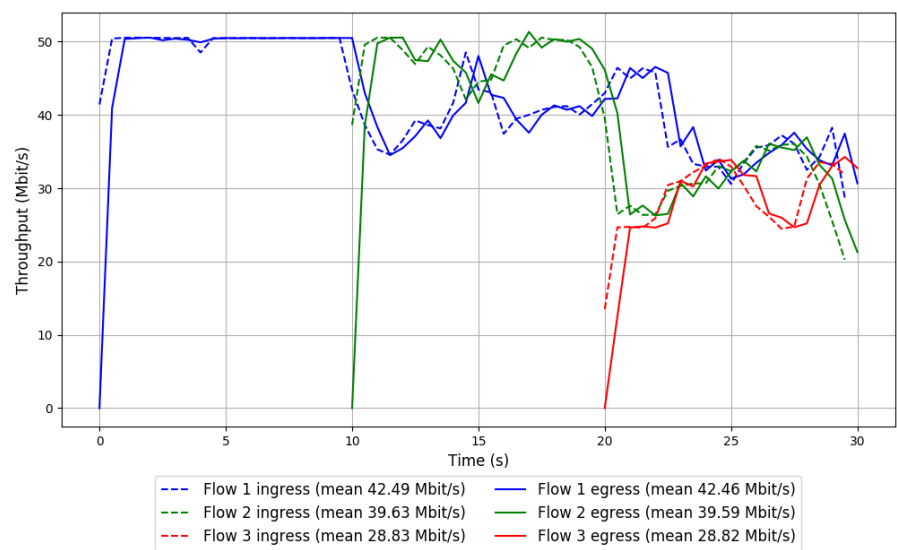
```
Run 4: Statistics of Sprout

Start at: 2019-01-19 01:23:58
End at: 2019-01-19 01:24:28
Local clock offset: -7.259 ms
Remote clock offset: 0.62 ms


# Below is generated by plot.py at 2019-01-19 02:15:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.32 Mbit/s
95th percentile per-packet one-way delay: 22.131 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.46 Mbit/s
95th percentile per-packet one-way delay: 19.865 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.59 Mbit/s
95th percentile per-packet one-way delay: 22.184 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.82 Mbit/s
95th percentile per-packet one-way delay: 24.819 ms
Loss rate: 0.00%
```
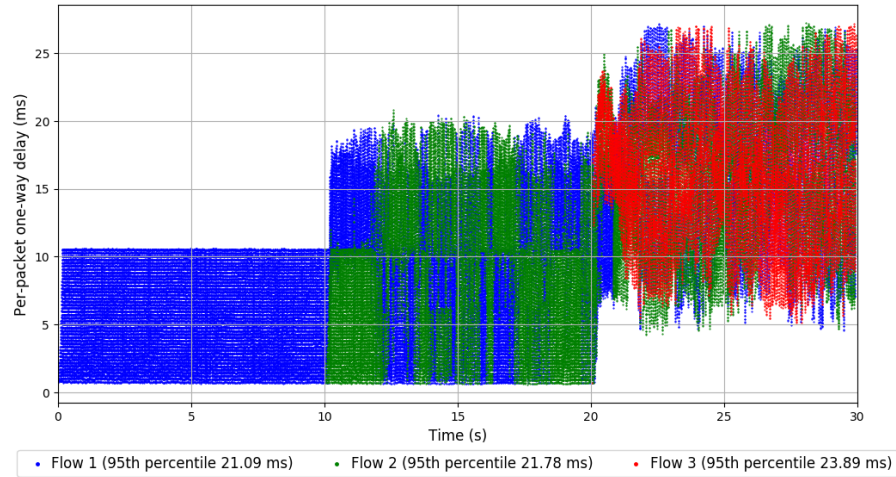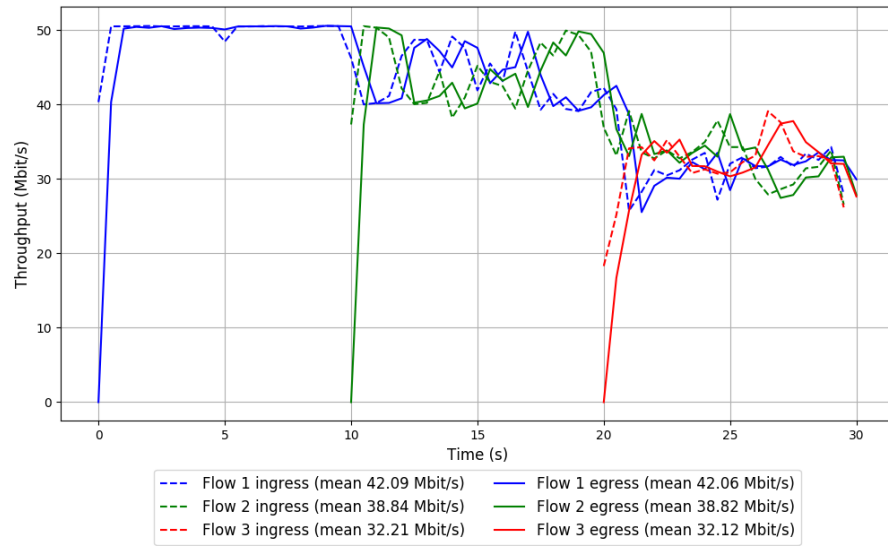
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-01-19 01:47:50
End at: 2019-01-19 01:48:20
Local clock offset: -5.689 ms
Remote clock offset: 0.794 ms


# Below is generated by plot.py at 2019-01-19 02:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.49 Mbit/s
95th percentile per-packet one-way delay: 22.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.06 Mbit/s
95th percentile per-packet one-way delay: 21.093 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.82 Mbit/s
95th percentile per-packet one-way delay: 21.780 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 23.888 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 42.09 Mbit/s) — — — Flow 1 egress (mean 42.06 Mbit/s)
Flow 2 ingress (mean 38.84 Mbit/s) — — — Flow 2 egress (mean 38.82 Mbit/s)
Flow 3 ingress (mean 32.21 Mbit/s) — — — Flow 3 egress (mean 32.12 Mbit/s)

Flow 1 (95th percentile 21.09 ms) • Flow 2 (95th percentile 21.78 ms) • Flow 3 (95th percentile 23.89 ms)

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

Start at: 2019-01-19 00:20:15
End at: 2019-01-19 00:20:45
Local clock offset: -6.684 ms
Remote clock offset: -0.18 ms


# Below is generated by plot.py at 2019-01-19 02:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 2.316 ms
Loss rate: 93.35%
-- Flow 1:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 0.939 ms
Loss rate: 89.56%
-- Flow 2:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 0.910 ms
Loss rate: 95.77%
-- Flow 3:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 2.381 ms
Loss rate: 97.18%
```
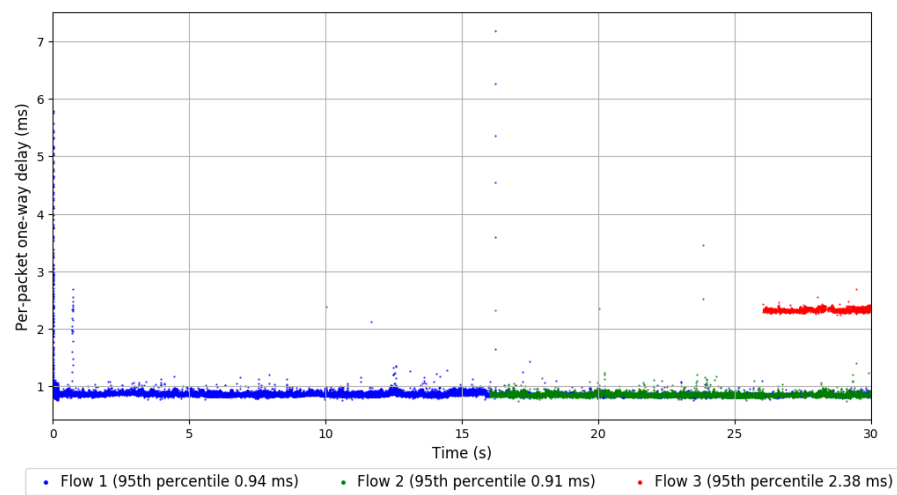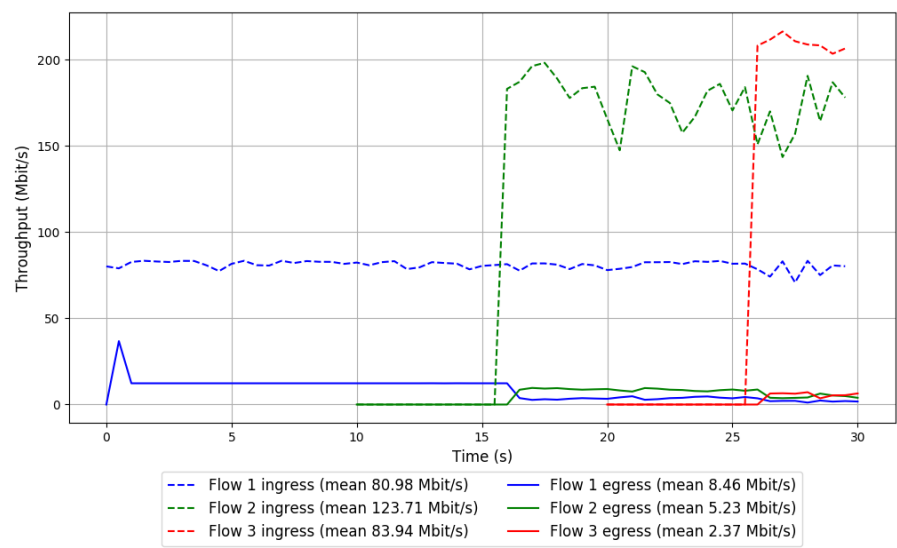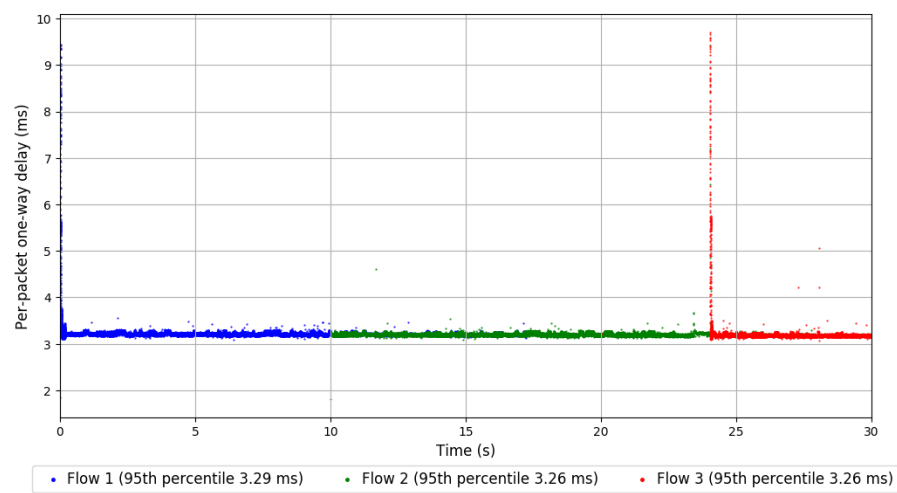
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 80.98 Mbit/s) --- Flow 1 egress (mean 8.46 Mbit/s)
Flow 2 ingress (mean 123.71 Mbit/s) --- Flow 2 egress (mean 5.23 Mbit/s)
Flow 3 ingress (mean 83.94 Mbit/s) --- Flow 3 egress (mean 2.37 Mbit/s)

Flow 1 (95th percentile 0.94 ms) Flow 2 (95th percentile 0.91 ms) Flow 3 (95th percentile 2.38 ms)

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

Start at: 2019-01-19 00:44:09
End at: 2019-01-19 00:44:39
Local clock offset: -8.595 ms
Remote clock offset: 0.196 ms


# Below is generated by plot.py at 2019-01-19 02:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.278 ms
Loss rate: 91.99%
-- Flow 1:
Average throughput: 8.97 Mbit/s
95th percentile per-packet one-way delay: 3.291 ms
Loss rate: 89.21%
-- Flow 2:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 3.263 ms
Loss rate: 94.68%
-- Flow 3:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 3.260 ms
Loss rate: 84.84%
```
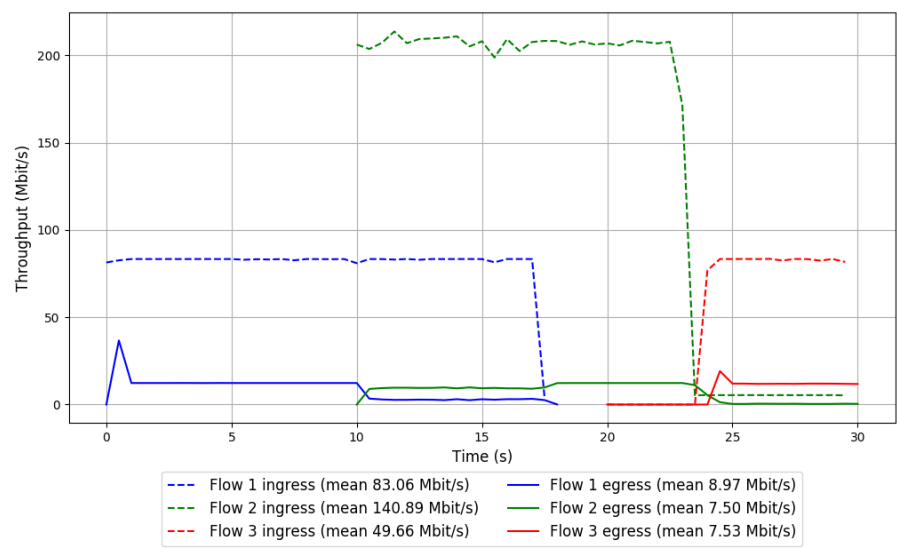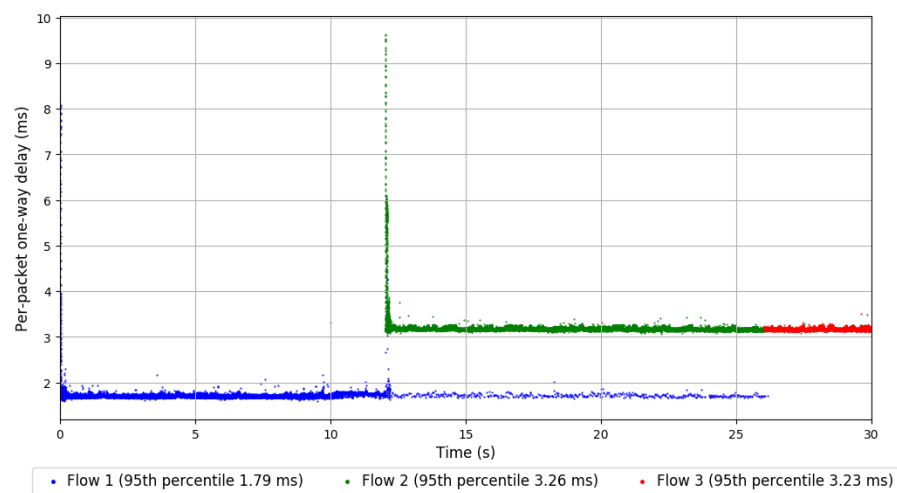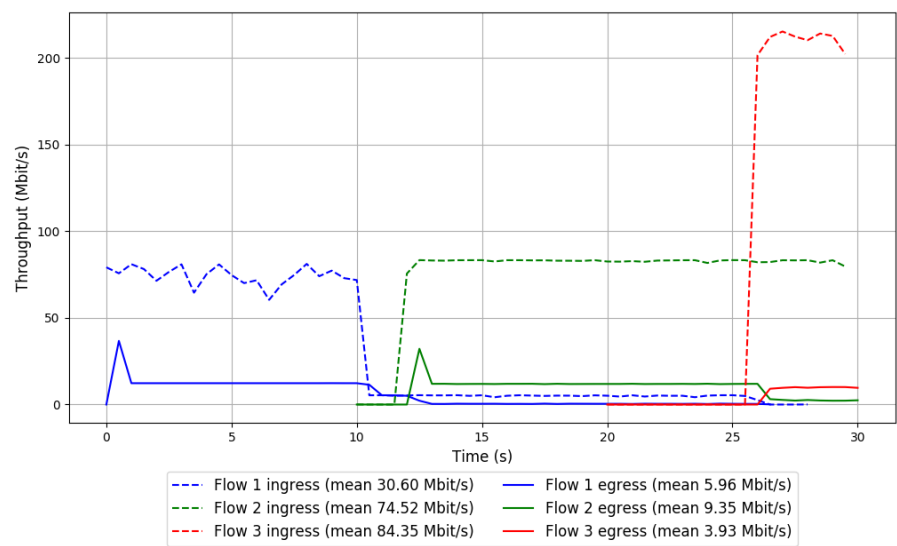
Run 2: Report of TaoVA-100x — Data Link

- - - Flow 1 ingress (mean 83.06 Mbit/s) ——— Flow 1 egress (mean 8.97 Mbit/s)
- - - Flow 2 ingress (mean 140.89 Mbit/s) ——— Flow 2 egress (mean 7.50 Mbit/s)
- - - Flow 3 ingress (mean 49.66 Mbit/s) ——— Flow 3 egress (mean 7.53 Mbit/s)

• Flow 1 (95th percentile 3.29 ms)   • Flow 2 (95th percentile 3.26 ms)   • Flow 3 (95th percentile 3.26 ms)

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

Start at: 2019-01-19 01:08:04
End at: 2019-01-19 01:08:34
Local clock offset: -8.368 ms
Remote clock offset: 0.466 ms


# Below is generated by plot.py at 2019-01-19 02:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.242 ms
Loss rate: 88.04%
-- Flow 1:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 1.795 ms
Loss rate: 81.92%
-- Flow 2:
Average throughput: 9.35 Mbit/s
95th percentile per-packet one-way delay: 3.257 ms
Loss rate: 87.45%
-- Flow 3:
Average throughput: 3.93 Mbit/s
95th percentile per-packet one-way delay: 3.231 ms
Loss rate: 95.34%
```
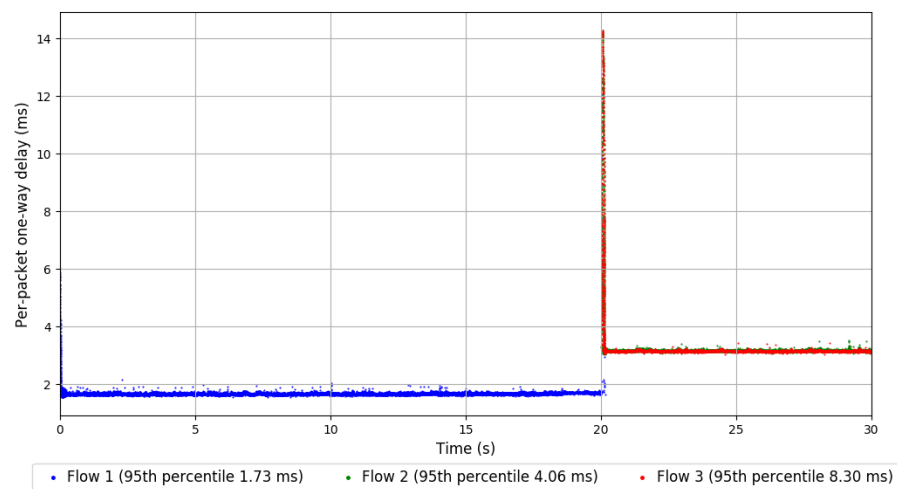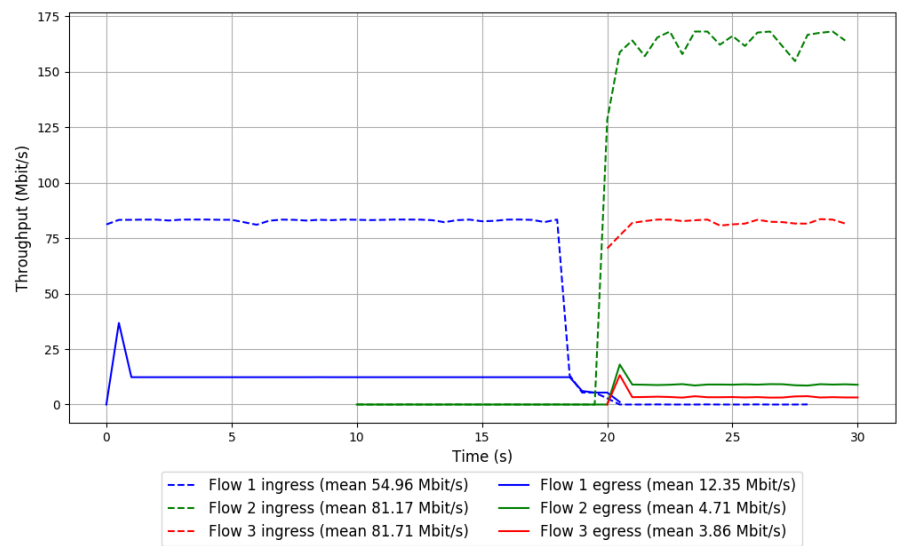
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 30.60 Mbit/s) --- Flow 1 egress (mean 5.96 Mbit/s)
Flow 2 ingress (mean 74.52 Mbit/s) --- Flow 2 egress (mean 9.35 Mbit/s)
Flow 3 ingress (mean 84.35 Mbit/s) --- Flow 3 egress (mean 3.93 Mbit/s)

Flow 1 (95th percentile 1.79 ms) Flow 2 (95th percentile 3.26 ms) Flow 3 (95th percentile 3.23 ms)

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

Start at: 2019-01-19 01:31:58
End at: 2019-01-19 01:32:28
Local clock offset: -6.695 ms
Remote clock offset: 0.666 ms


# Below is generated by plot.py at 2019-01-19 02:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.197 ms
Loss rate: 90.42%
-- Flow 1:
Average throughput: 12.35 Mbit/s
95th percentile per-packet one-way delay: 1.727 ms
Loss rate: 83.91%
-- Flow 2:
Average throughput: 4.71 Mbit/s
95th percentile per-packet one-way delay: 4.062 ms
Loss rate: 94.19%
-- Flow 3:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 8.296 ms
Loss rate: 95.28%
```
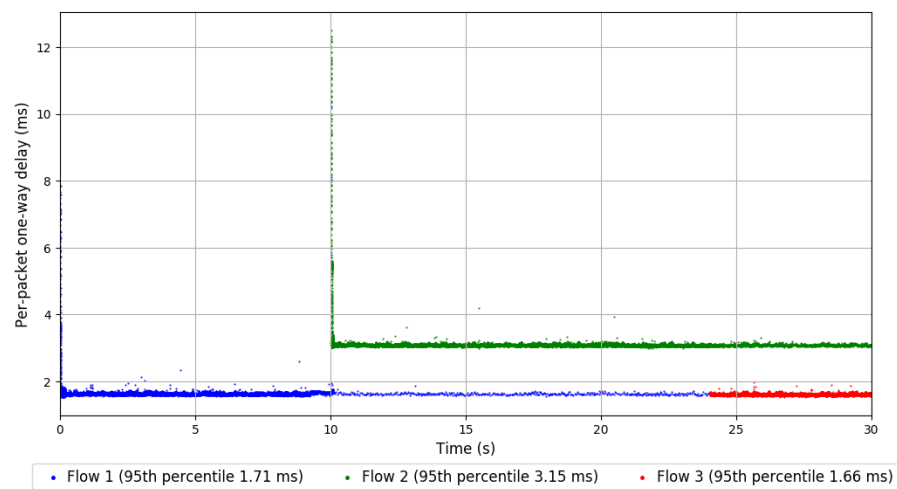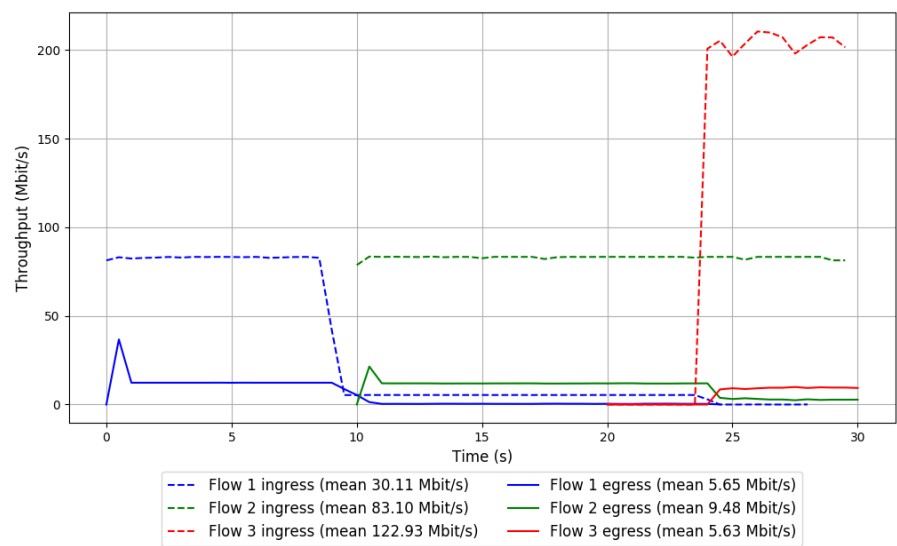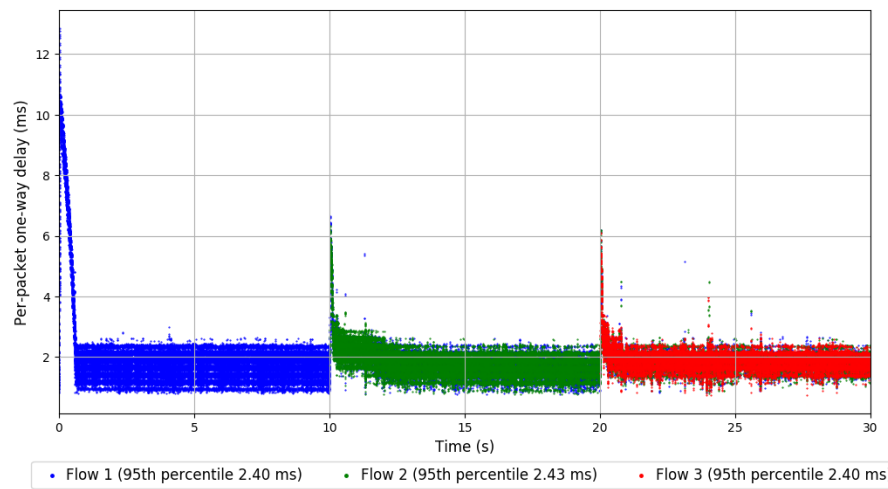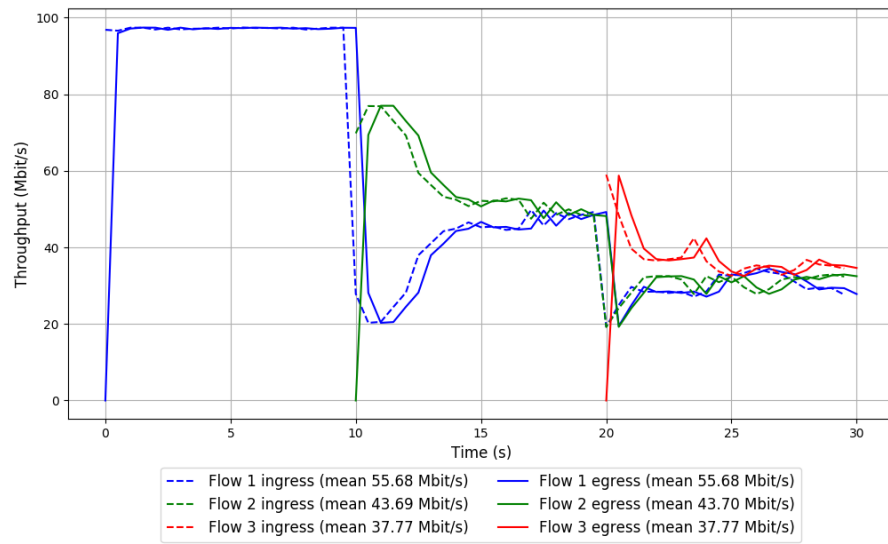
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 54.96 Mbit/s) — Flow 1 egress (mean 12.35 Mbit/s)
Flow 2 ingress (mean 81.17 Mbit/s) — Flow 2 egress (mean 4.71 Mbit/s)
Flow 3 ingress (mean 81.71 Mbit/s) — Flow 3 egress (mean 3.86 Mbit/s)

• Flow 1 (95th percentile 1.73 ms)   • Flow 2 (95th percentile 4.06 ms)   • Flow 3 (95th percentile 8.30 ms)

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

Start at: 2019-01-19 01:55:50
End at: 2019-01-19 01:56:20
Local clock offset: -7.31 ms
Remote clock offset: 0.84 ms


# Below is generated by plot.py at 2019-01-19 02:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.126 ms
Loss rate: 89.77%
-- Flow 1:
Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 1.709 ms
Loss rate: 83.91%
-- Flow 2:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 3.146 ms
Loss rate: 88.59%
-- Flow 3:
Average throughput: 5.63 Mbit/s
95th percentile per-packet one-way delay: 1.663 ms
Loss rate: 95.43%
```

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

```
Run 1: Statistics of TCP Vegas

Start at: 2019-01-19 00:19:06
End at: 2019-01-19 00:19:36
Local clock offset: -6.631 ms
Remote clock offset: -0.209 ms


# Below is generated by plot.py at 2019-01-19 02:15:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.34 Mbit/s
95th percentile per-packet one-way delay: 2.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.68 Mbit/s
95th percentile per-packet one-way delay: 2.403 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.70 Mbit/s
95th percentile per-packet one-way delay: 2.434 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 2.397 ms
Loss rate: 0.00%
```
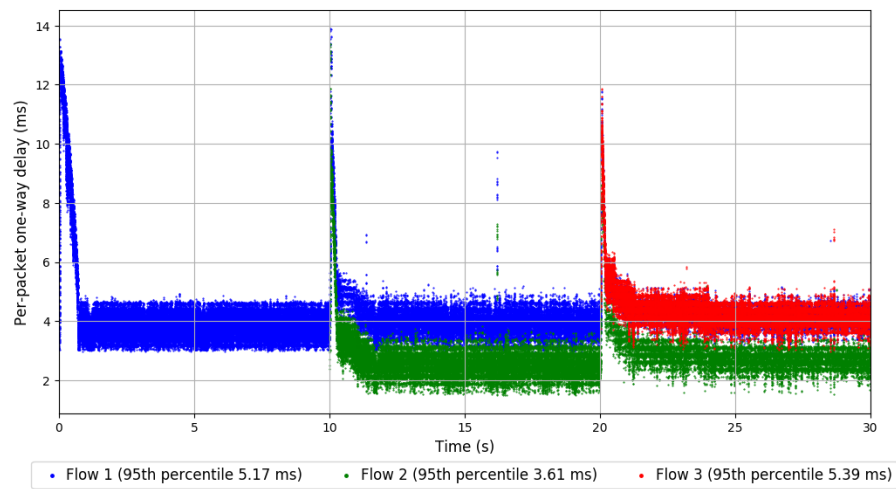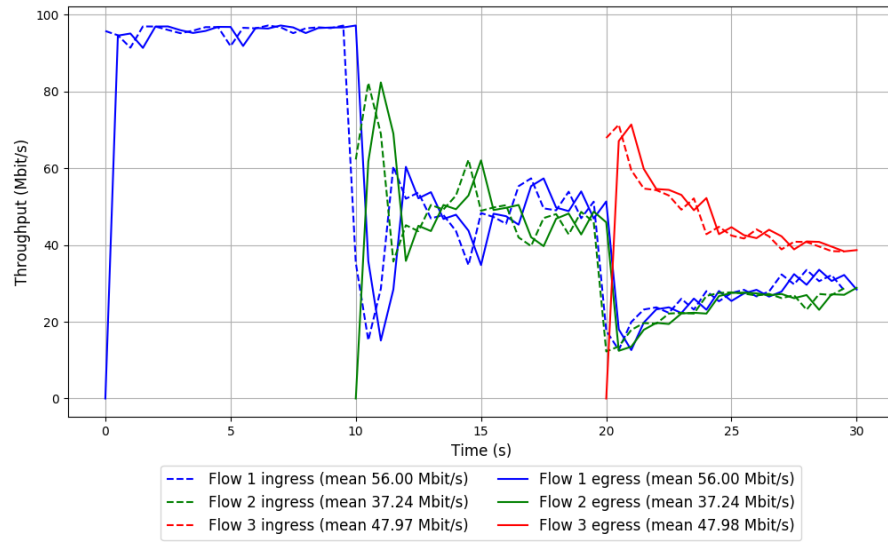
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-01-19 00:43:00
End at: 2019-01-19 00:43:30
Local clock offset: -8.472 ms
Remote clock offset: 0.128 ms


# Below is generated by plot.py at 2019-01-19 02:16:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.75 Mbit/s
95th percentile per-packet one-way delay: 5.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.00 Mbit/s
95th percentile per-packet one-way delay: 5.173 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.24 Mbit/s
95th percentile per-packet one-way delay: 3.607 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.98 Mbit/s
95th percentile per-packet one-way delay: 5.394 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-01-19 01:06:54
End at: 2019-01-19 01:07:24
Local clock offset: -8.281 ms
Remote clock offset: 0.451 ms


# Below is generated by plot.py at 2019-01-19 02:16:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 3.292 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.48 Mbit/s
95th percentile per-packet one-way delay: 3.353 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.95 Mbit/s
95th percentile per-packet one-way delay: 3.201 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.76 Mbit/s
95th percentile per-packet one-way delay: 3.386 ms
Loss rate: 0.00%
```
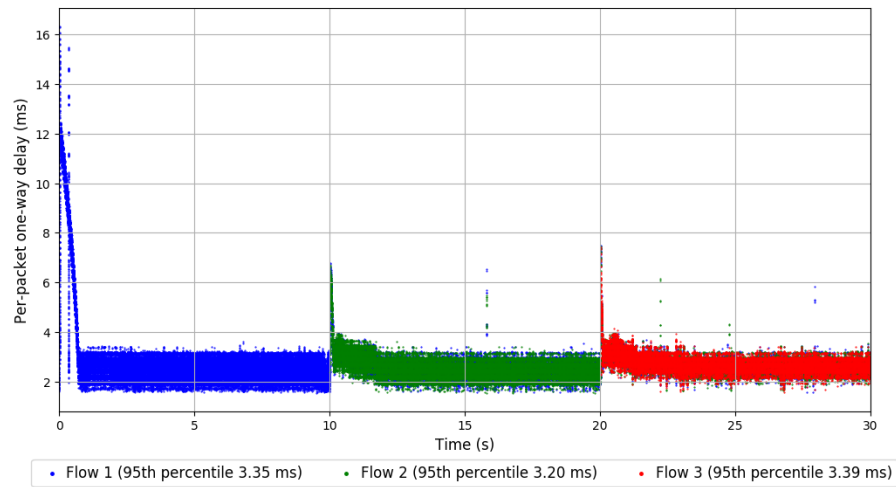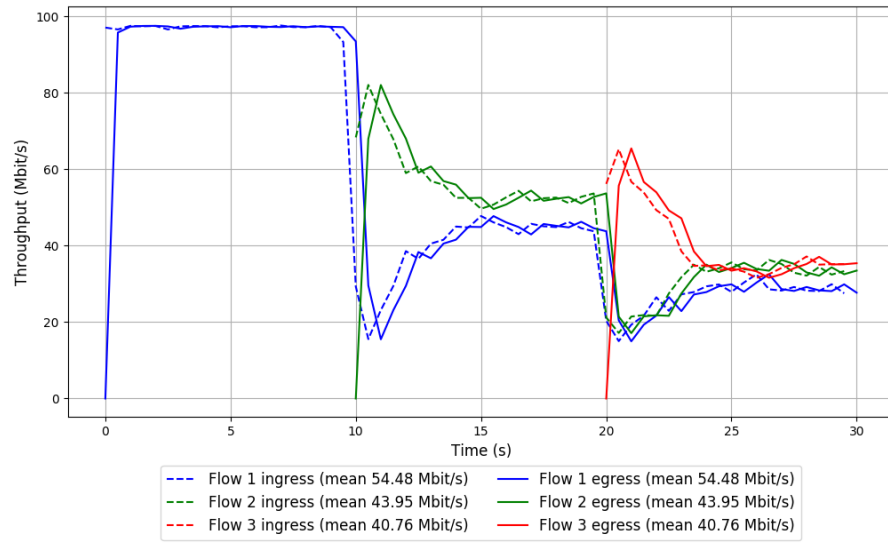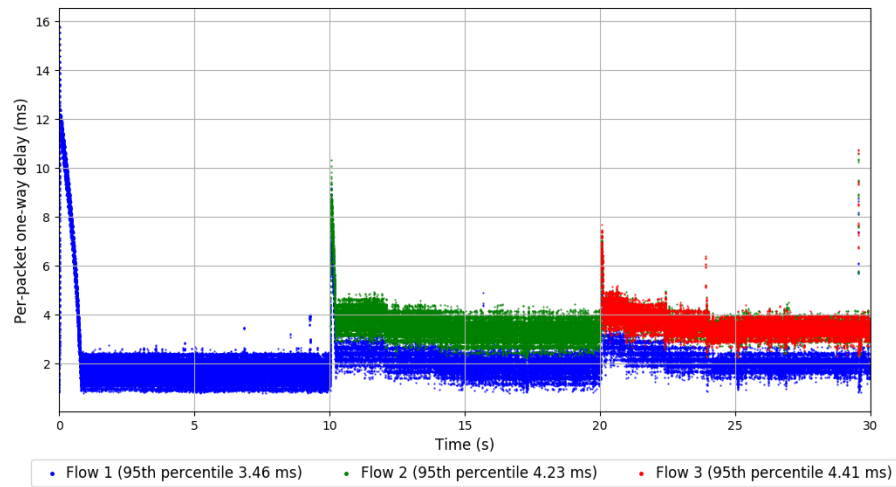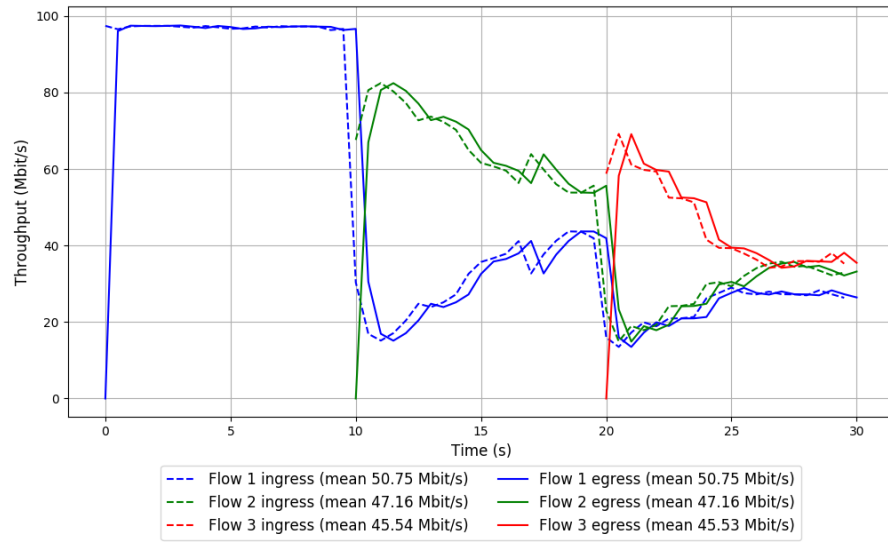
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 54.48 Mbit/s) --- Flow 1 egress (mean 54.48 Mbit/s)
Flow 2 ingress (mean 43.95 Mbit/s) --- Flow 2 egress (mean 43.95 Mbit/s)
Flow 3 ingress (mean 40.76 Mbit/s) --- Flow 3 egress (mean 40.76 Mbit/s)

Flow 1 (95th percentile 3.35 ms)   Flow 2 (95th percentile 3.20 ms)   Flow 3 (95th percentile 3.39 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-01-19 01:30:48
End at: 2019-01-19 01:31:18
Local clock offset: -6.016 ms
Remote clock offset: 0.627 ms


# Below is generated by plot.py at 2019-01-19 02:16:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 4.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.75 Mbit/s
95th percentile per-packet one-way delay: 3.465 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.16 Mbit/s
95th percentile per-packet one-way delay: 4.226 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.53 Mbit/s
95th percentile per-packet one-way delay: 4.412 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-01-19 01:54:41
End at: 2019-01-19 01:55:11
Local clock offset: -7.218 ms
Remote clock offset: 0.92 ms


# Below is generated by plot.py at 2019-01-19 02:16:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.29 Mbit/s
95th percentile per-packet one-way delay: 5.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.87 Mbit/s
95th percentile per-packet one-way delay: 10.216 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.51 Mbit/s
95th percentile per-packet one-way delay: 3.269 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.36 Mbit/s
95th percentile per-packet one-way delay: 3.469 ms
Loss rate: 0.00%
```
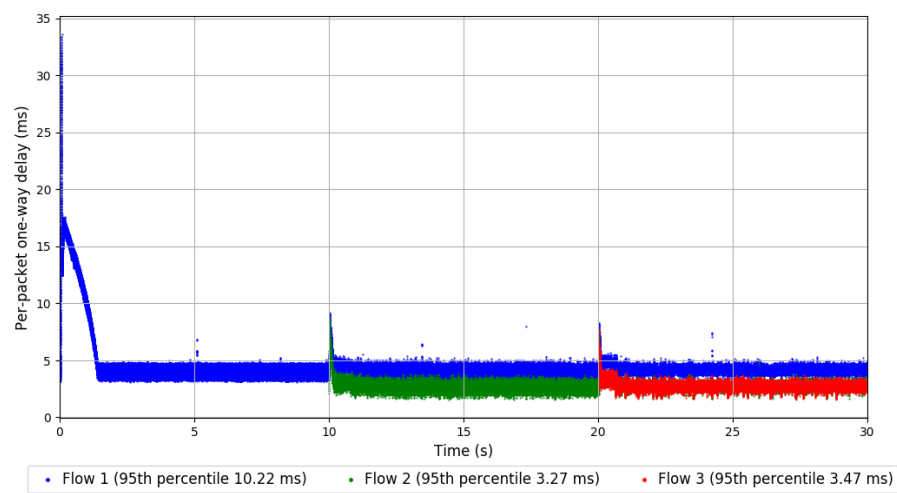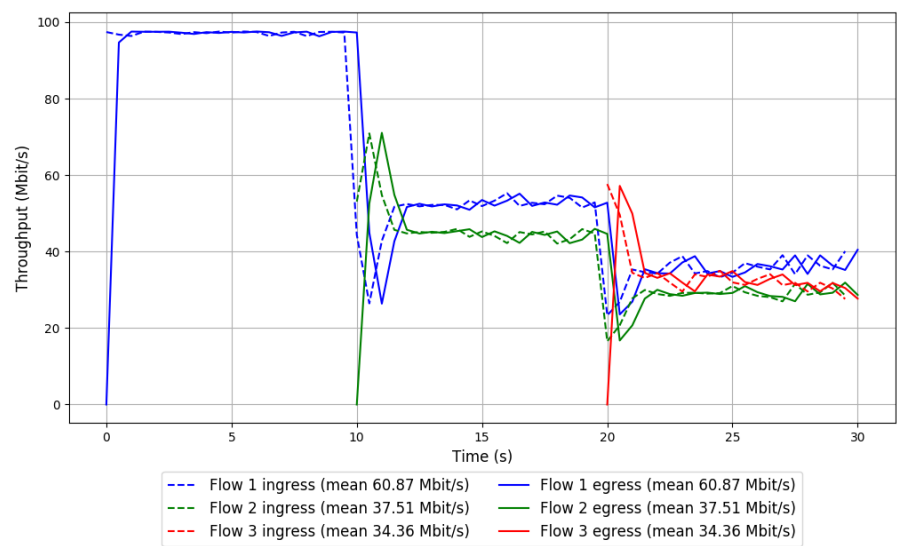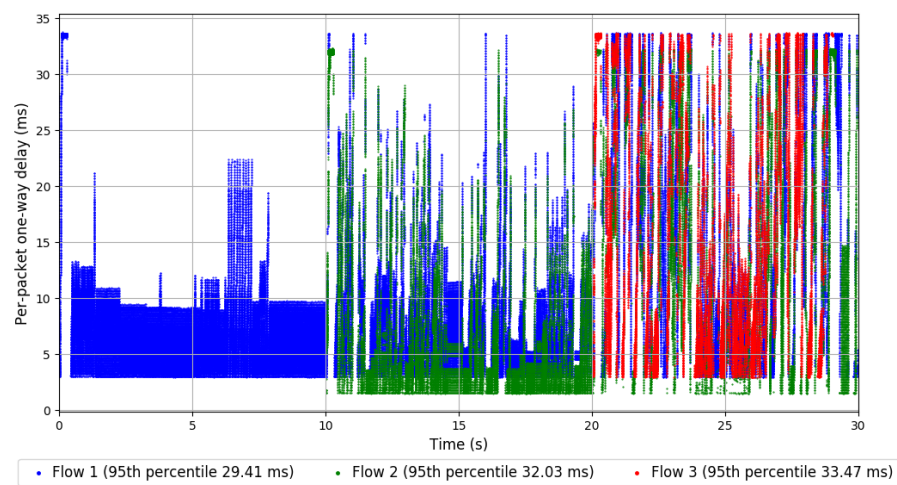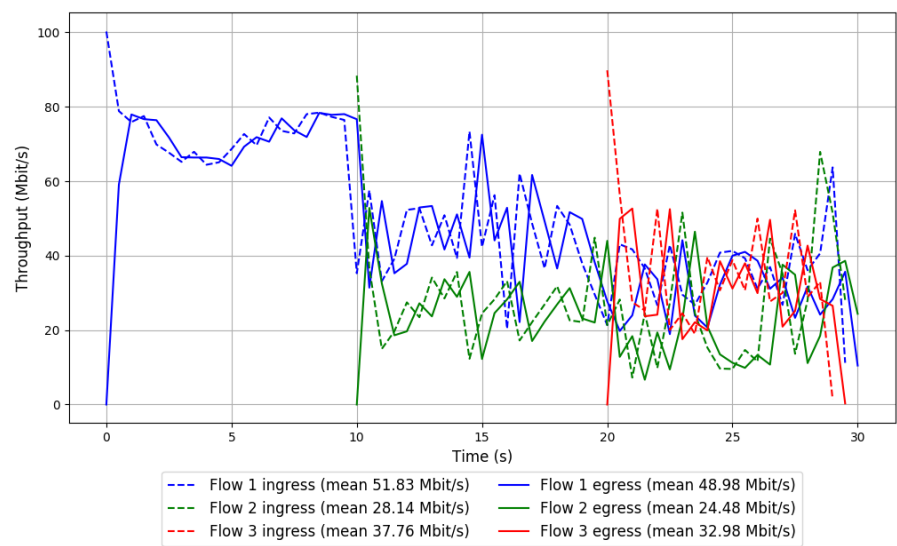
Run 5: Report of TCP Vegas — Data Link

- - - - Flow 1 ingress (mean 60.87 Mbit/s) ———— Flow 1 egress (mean 60.87 Mbit/s)
- - - - Flow 2 ingress (mean 37.51 Mbit/s) ———— Flow 2 egress (mean 37.51 Mbit/s)
- - - - Flow 3 ingress (mean 34.36 Mbit/s) ———— Flow 3 egress (mean 34.36 Mbit/s)

- Flow 1 (95th percentile 10.22 ms)   • Flow 2 (95th percentile 3.27 ms)   • Flow 3 (95th percentile 3.47 ms)
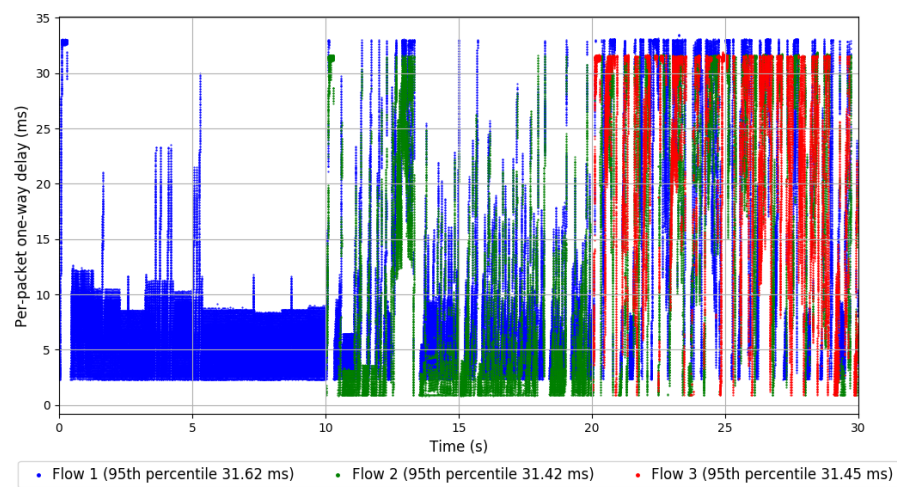
```
Run 1: Statistics of Verus

Start at: 2019-01-19 00:23:41
End at: 2019-01-19 00:24:11
Local clock offset: -7.646 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2019-01-19 02:16:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.16 Mbit/s
95th percentile per-packet one-way delay: 31.874 ms
Loss rate: 8.14%
-- Flow 1:
Average throughput: 48.98 Mbit/s
95th percentile per-packet one-way delay: 29.412 ms
Loss rate: 5.50%
-- Flow 2:
Average throughput: 24.48 Mbit/s
95th percentile per-packet one-way delay: 32.030 ms
Loss rate: 12.86%
-- Flow 3:
Average throughput: 32.98 Mbit/s
95th percentile per-packet one-way delay: 33.468 ms
Loss rate: 12.44%
```

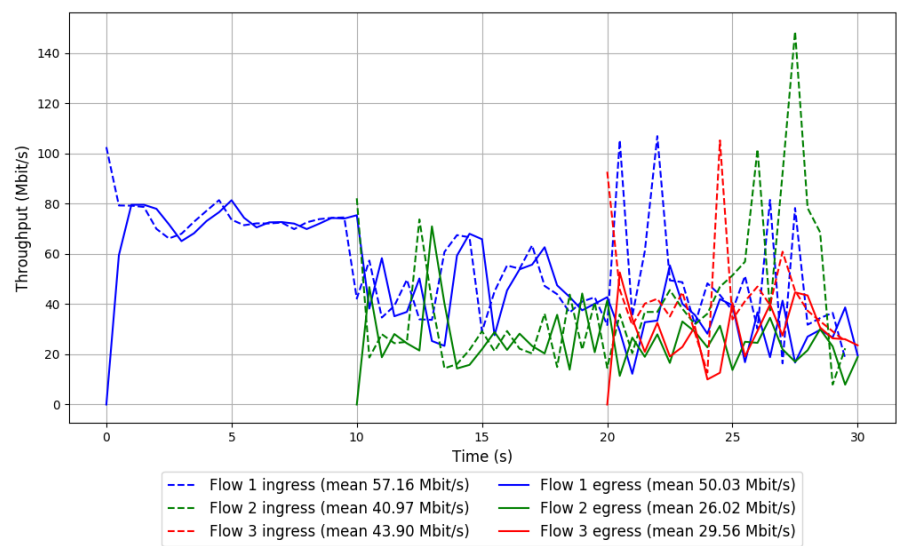Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-01-19 00:47:35
End at: 2019-01-19 00:48:05
Local clock offset: -7.834 ms
Remote clock offset: 0.246 ms


# Below is generated by plot.py at 2019-01-19 02:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.15 Mbit/s
95th percentile per-packet one-way delay: 31.441 ms
Loss rate: 22.03%
-- Flow 1:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 31.622 ms
Loss rate: 12.45%
-- Flow 2:
Average throughput: 26.02 Mbit/s
95th percentile per-packet one-way delay: 31.416 ms
Loss rate: 36.47%
-- Flow 3:
Average throughput: 29.56 Mbit/s
95th percentile per-packet one-way delay: 31.449 ms
Loss rate: 32.64%
```

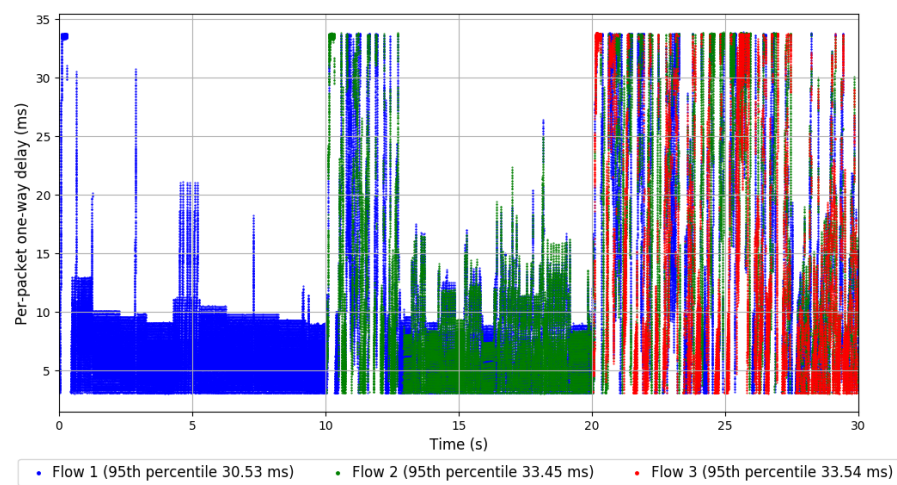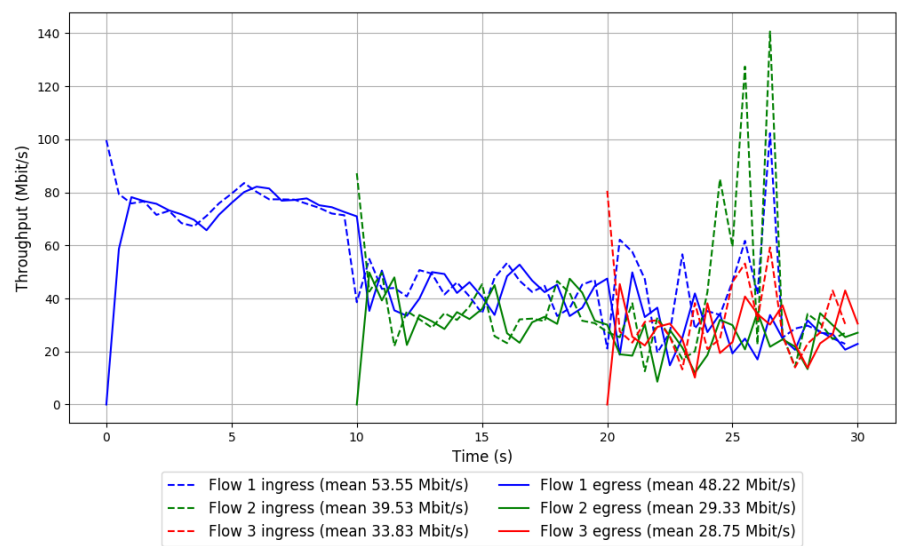Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-01-19 01:11:29
End at: 2019-01-19 01:11:59
Local clock offset: -8.361 ms
Remote clock offset: 0.56 ms


# Below is generated by plot.py at 2019-01-19 02:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.26 Mbit/s
95th percentile per-packet one-way delay: 32.450 ms
Loss rate: 15.12%
-- Flow 1:
Average throughput: 48.22 Mbit/s
95th percentile per-packet one-way delay: 30.531 ms
Loss rate: 9.92%
-- Flow 2:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 33.451 ms
Loss rate: 25.78%
-- Flow 3:
Average throughput: 28.75 Mbit/s
95th percentile per-packet one-way delay: 33.536 ms
Loss rate: 14.93%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-01-19 01:35:23
End at: 2019-01-19 01:35:53
Local clock offset: -5.859 ms
Remote clock offset: 0.707 ms


# Below is generated by plot.py at 2019-01-19 02:16:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.71 Mbit/s
95th percentile per-packet one-way delay: 25.583 ms
Loss rate: 4.47%
-- Flow 1:
Average throughput: 28.38 Mbit/s
95th percentile per-packet one-way delay: 20.992 ms
Loss rate: 3.39%
-- Flow 2:
Average throughput: 26.76 Mbit/s
95th percentile per-packet one-way delay: 25.387 ms
Loss rate: 4.38%
-- Flow 3:
Average throughput: 22.73 Mbit/s
95th percentile per-packet one-way delay: 31.383 ms
Loss rate: 8.52%
```
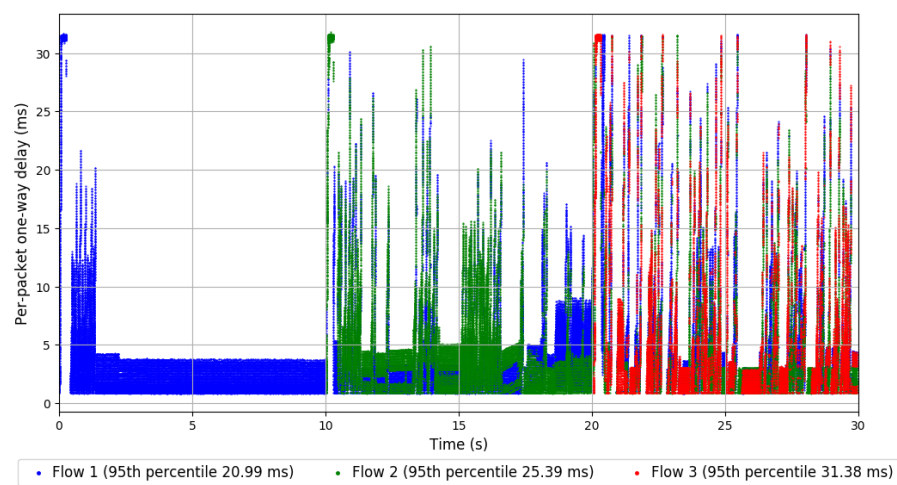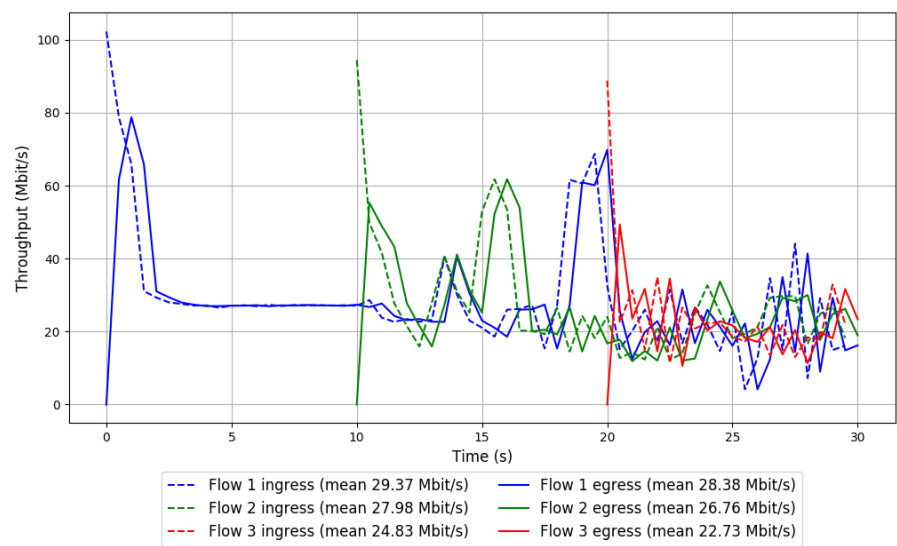
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-01-19 01:59:16
End at: 2019-01-19 01:59:46
Local clock offset: -6.74 ms
Remote clock offset: 0.908 ms


# Below is generated by plot.py at 2019-01-19 02:17:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.58 Mbit/s
95th percentile per-packet one-way delay: 32.802 ms
Loss rate: 23.41%
-- Flow 1:
Average throughput: 47.94 Mbit/s
95th percentile per-packet one-way delay: 31.585 ms
Loss rate: 24.62%
-- Flow 2:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 32.739 ms
Loss rate: 16.86%
-- Flow 3:
Average throughput: 29.32 Mbit/s
95th percentile per-packet one-way delay: 32.882 ms
Loss rate: 30.00%
```
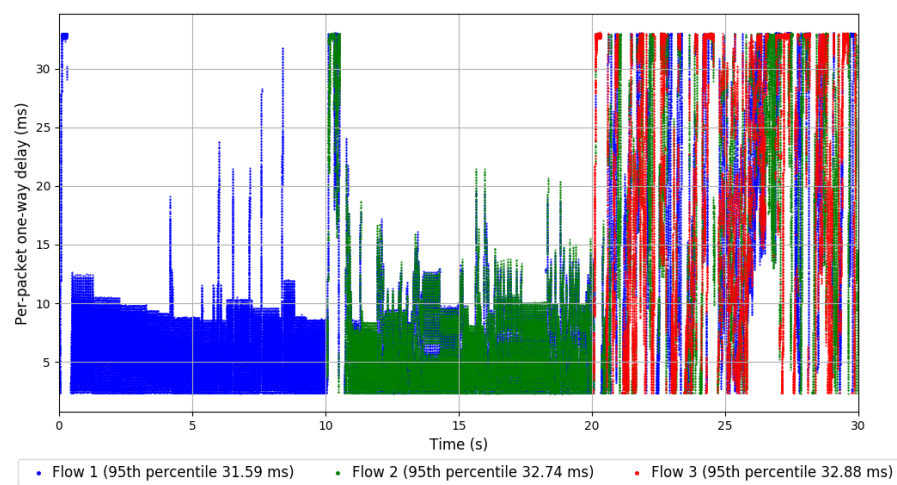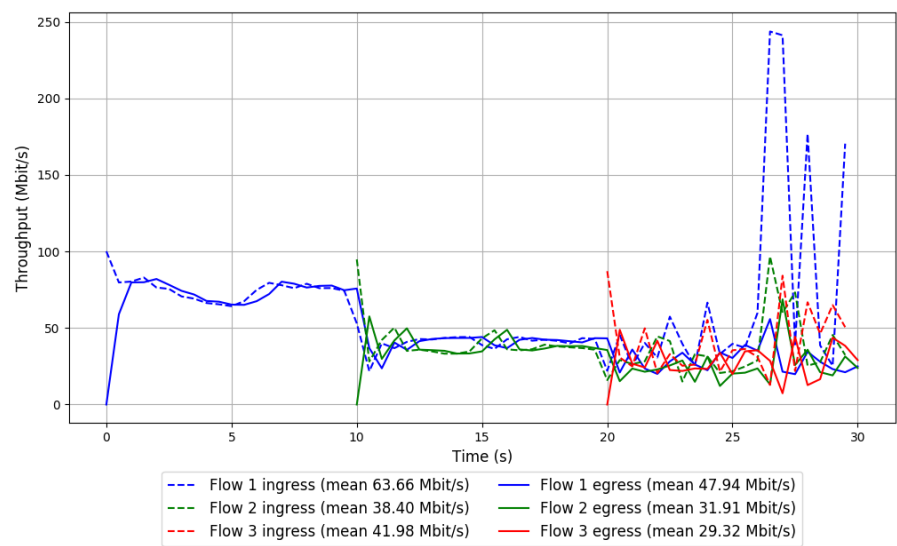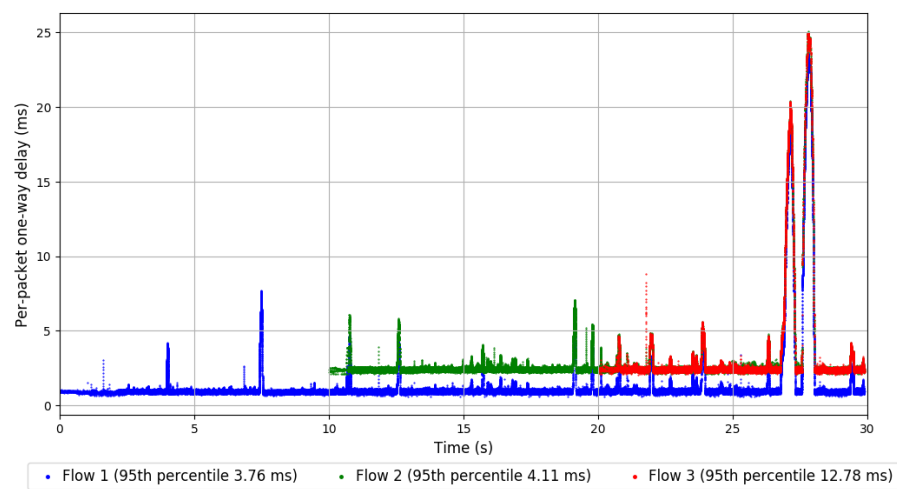
Run 5: Report of Verus — Data Link

- - - Flow 1 ingress (mean 63.66 Mbit/s) —— Flow 1 egress (mean 47.94 Mbit/s)
- - - Flow 2 ingress (mean 38.40 Mbit/s) —— Flow 2 egress (mean 31.91 Mbit/s)
- - - Flow 3 ingress (mean 41.98 Mbit/s) —— Flow 3 egress (mean 29.32 Mbit/s)

- Flow 1 (95th percentile 31.59 ms)   - Flow 2 (95th percentile 32.74 ms)   - Flow 3 (95th percentile 32.88 ms)
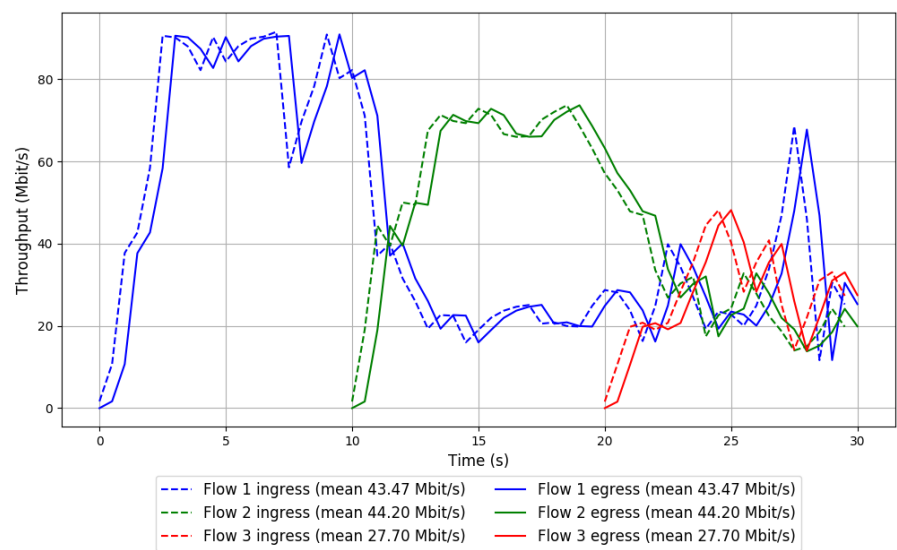
194

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-01-19 00:15:41
End at: 2019-01-19 00:16:11
Local clock offset: -6.449 ms
Remote clock offset: -0.243 ms


# Below is generated by plot.py at 2019-01-19 02:17:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.01 Mbit/s
95th percentile per-packet one-way delay: 4.462 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.47 Mbit/s
95th percentile per-packet one-way delay: 3.760 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.20 Mbit/s
95th percentile per-packet one-way delay: 4.108 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 12.782 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-01-19 00:39:35
End at: 2019-01-19 00:40:05
Local clock offset: -8.367 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2019-01-19 02:17:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.47 Mbit/s
95th percentile per-packet one-way delay: 4.547 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.32 Mbit/s
95th percentile per-packet one-way delay: 2.728 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.31 Mbit/s
95th percentile per-packet one-way delay: 5.074 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.26 Mbit/s
95th percentile per-packet one-way delay: 9.046 ms
Loss rate: 0.00%
```
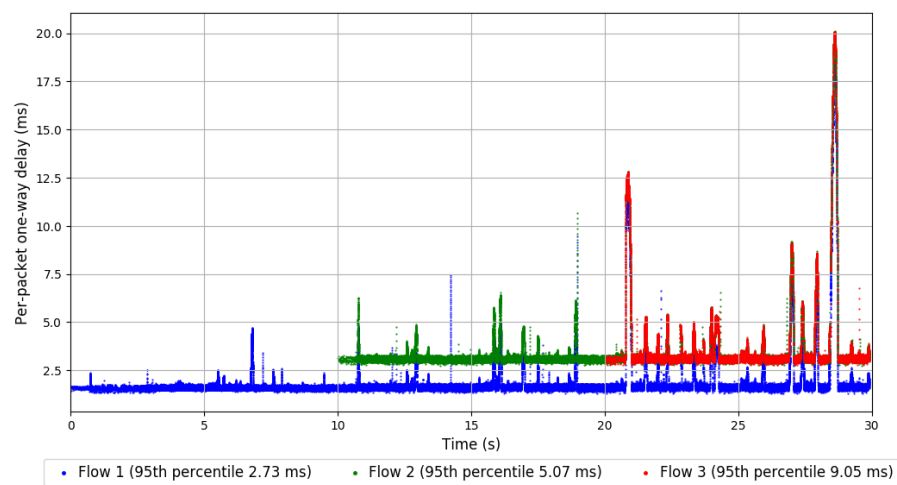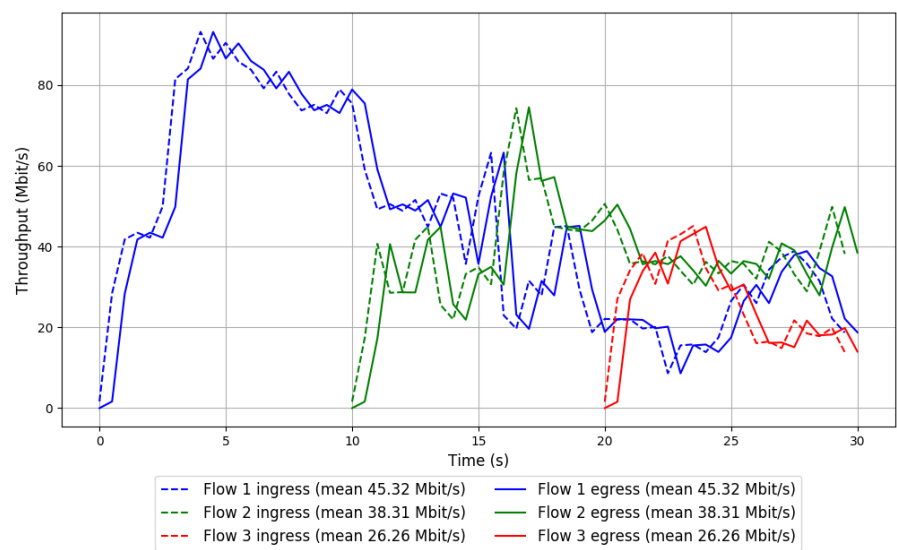
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-01-19 01:03:30
End at: 2019-01-19 01:04:00
Local clock offset: -7.498 ms
Remote clock offset: 0.442 ms


# Below is generated by plot.py at 2019-01-19 02:17:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.65 Mbit/s
95th percentile per-packet one-way delay: 4.810 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 38.95 Mbit/s
95th percentile per-packet one-way delay: 5.942 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 44.00 Mbit/s
95th percentile per-packet one-way delay: 3.472 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.56 Mbit/s
95th percentile per-packet one-way delay: 6.108 ms
Loss rate: 0.00%
```
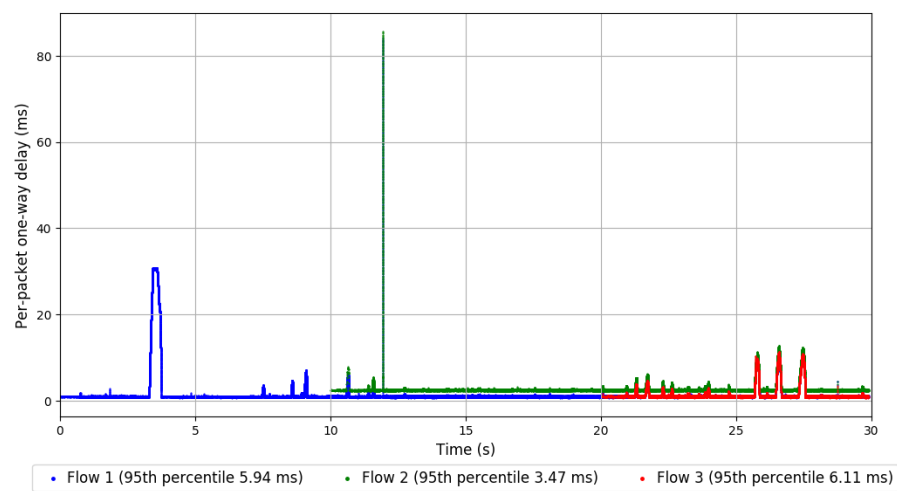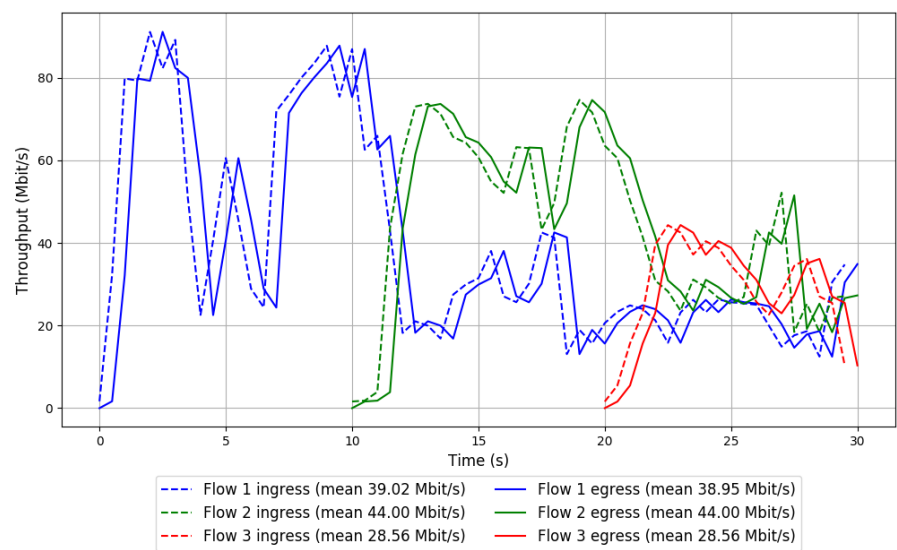
Run 3: Report of PCC-Vivace — Data Link

- Flow 1 ingress (mean 39.02 Mbit/s) — Flow 1 egress (mean 38.95 Mbit/s)
- Flow 2 ingress (mean 44.00 Mbit/s) — Flow 2 egress (mean 44.00 Mbit/s)
- Flow 3 ingress (mean 28.56 Mbit/s) — Flow 3 egress (mean 28.56 Mbit/s)

- Flow 1 (95th percentile 5.94 ms) - Flow 2 (95th percentile 3.47 ms) - Flow 3 (95th percentile 6.11 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-01-19 01:27:24
End at: 2019-01-19 01:27:54
Local clock offset: -6.199 ms
Remote clock offset: 0.648 ms


# Below is generated by plot.py at 2019-01-19 02:17:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.20 Mbit/s
95th percentile per-packet one-way delay: 3.101 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.54 Mbit/s
95th percentile per-packet one-way delay: 2.004 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.46 Mbit/s
95th percentile per-packet one-way delay: 3.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.47 Mbit/s
95th percentile per-packet one-way delay: 4.985 ms
Loss rate: 0.00%
```
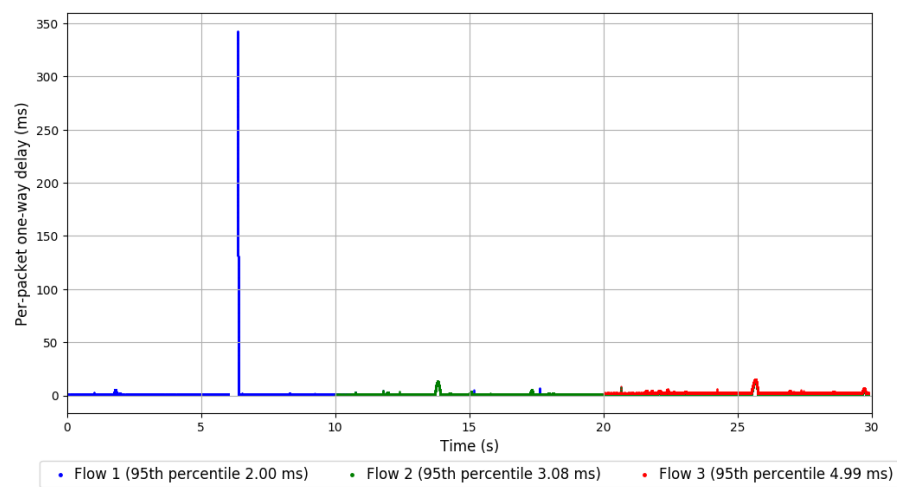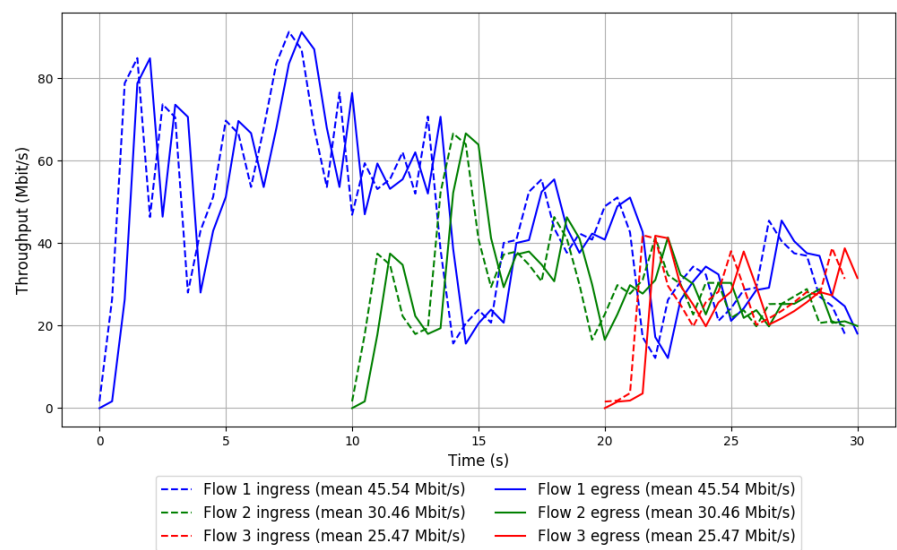
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 45.54 Mbit/s) — Flow 1 egress (mean 45.54 Mbit/s)
Flow 2 ingress (mean 30.46 Mbit/s) — Flow 2 egress (mean 30.46 Mbit/s)
Flow 3 ingress (mean 25.47 Mbit/s) — Flow 3 egress (mean 25.47 Mbit/s)

• Flow 1 (95th percentile 2.00 ms)   • Flow 2 (95th percentile 3.08 ms)   • Flow 3 (95th percentile 4.99 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-01-19 01:51:16
End at: 2019-01-19 01:51:46
Local clock offset: -6.124 ms
Remote clock offset: 0.846 ms


# Below is generated by plot.py at 2019-01-19 02:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.55 Mbit/s
95th percentile per-packet one-way delay: 2.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.74 Mbit/s
95th percentile per-packet one-way delay: 1.143 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.24 Mbit/s
95th percentile per-packet one-way delay: 1.296 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.37 Mbit/s
95th percentile per-packet one-way delay: 3.436 ms
Loss rate: 0.00%
```
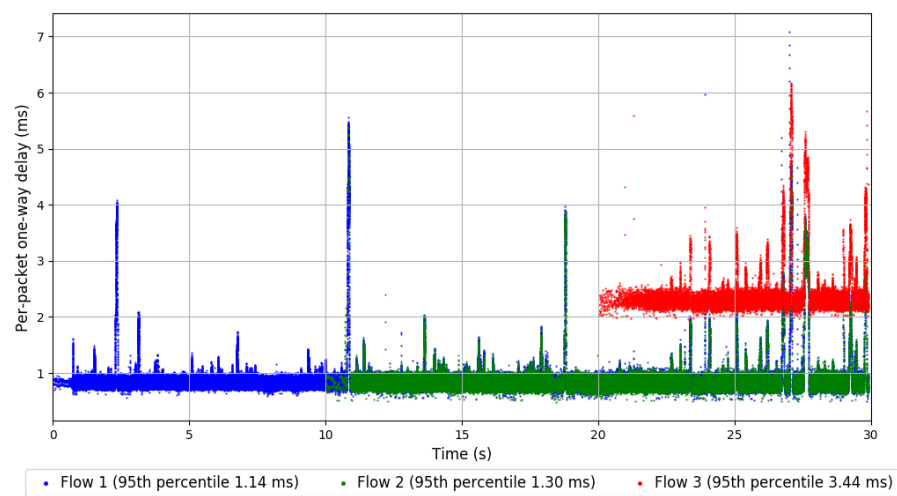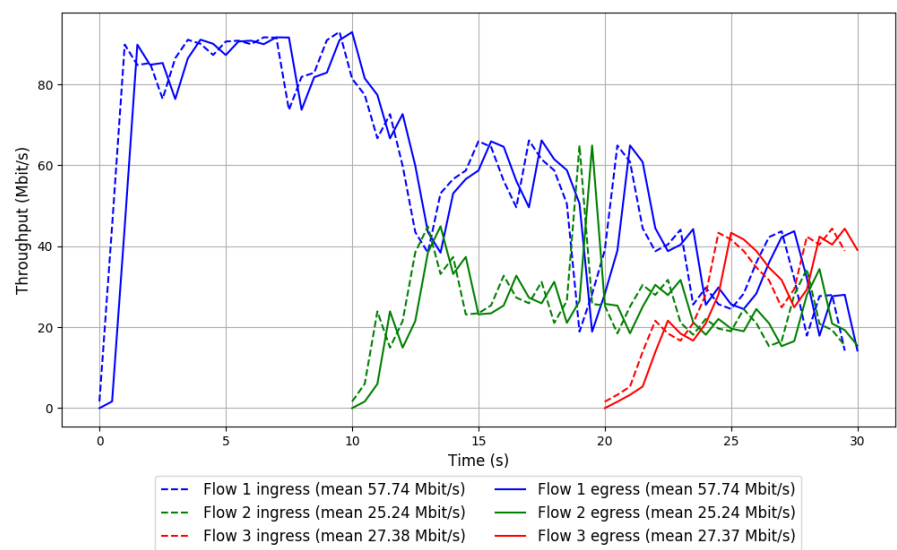
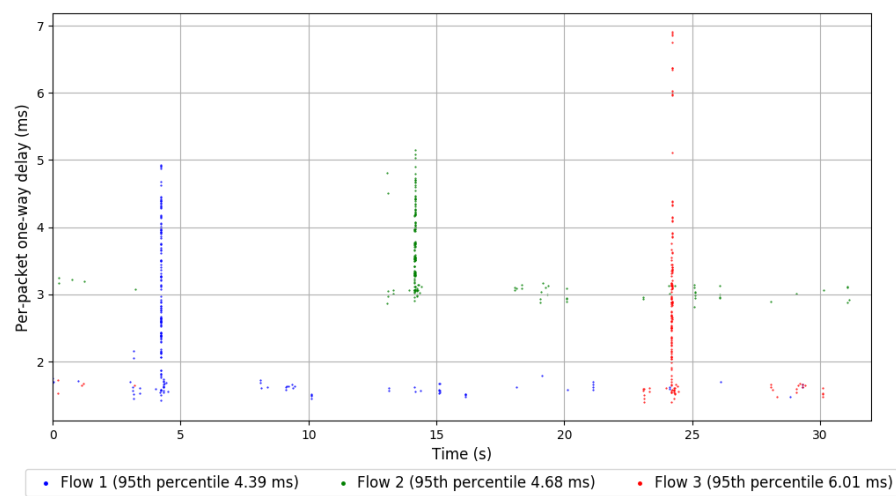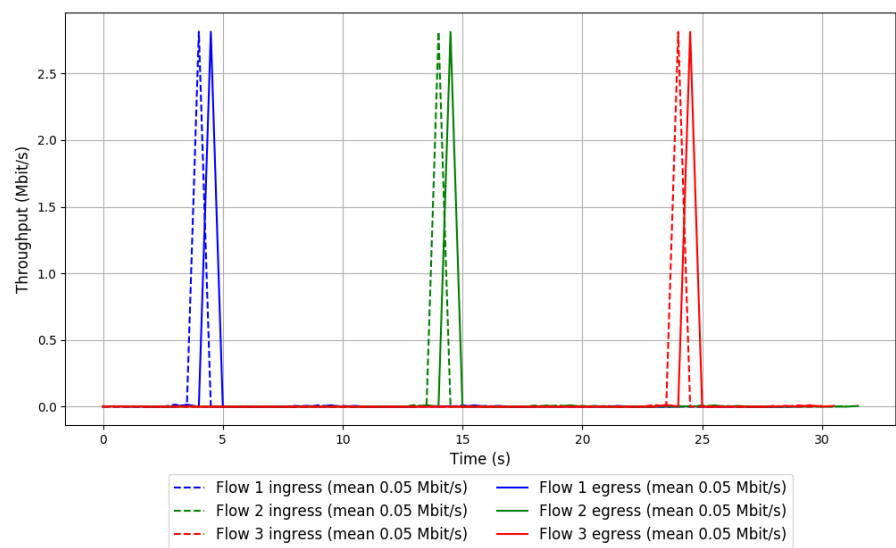Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-01-19 00:26:00
End at: 2019-01-19 00:26:30
Local clock offset: -7.775 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2019-01-19 02:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.394 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.683 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.010 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-01-19 00:49:54
End at: 2019-01-19 00:50:24
Local clock offset: -8.456 ms
Remote clock offset: 0.279 ms


# Below is generated by plot.py at 2019-01-19 02:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.795 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.734 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.379 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.795 ms
Loss rate: 0.00%
```
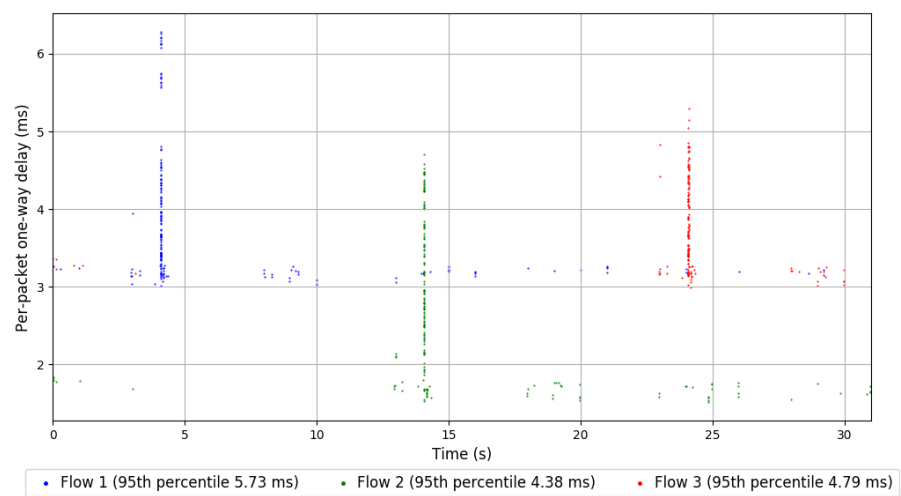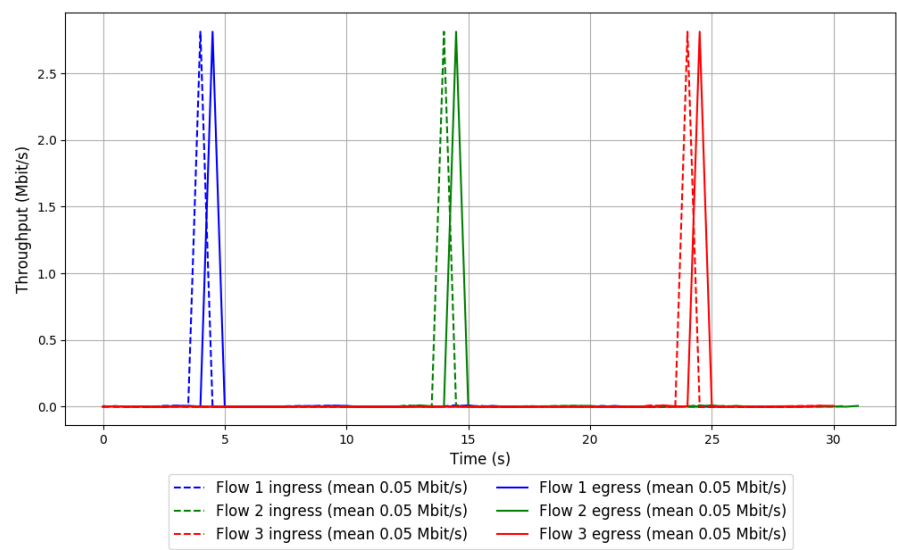
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-01-19 01:13:47
End at: 2019-01-19 01:14:17
Local clock offset: -7.643 ms
Remote clock offset: 0.517 ms


# Below is generated by plot.py at 2019-01-19 02:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 6.513 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.106 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 8.473 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.863 ms
Loss rate: 0.00%
```
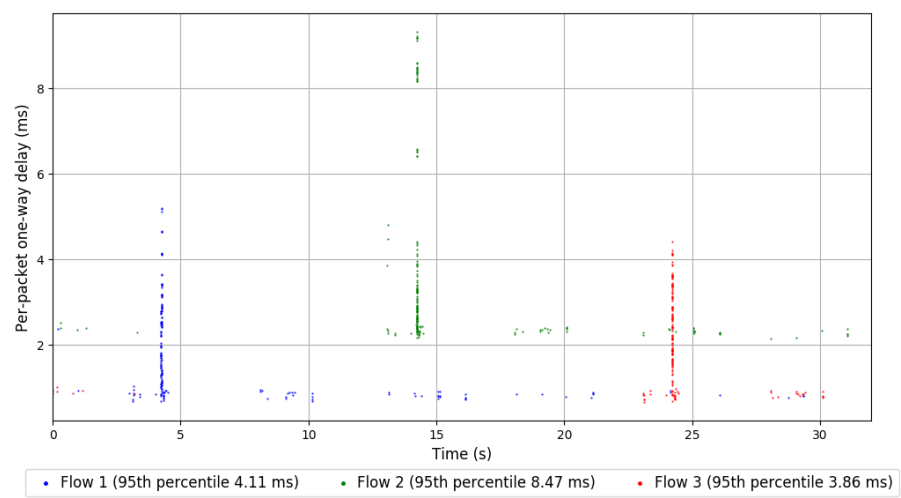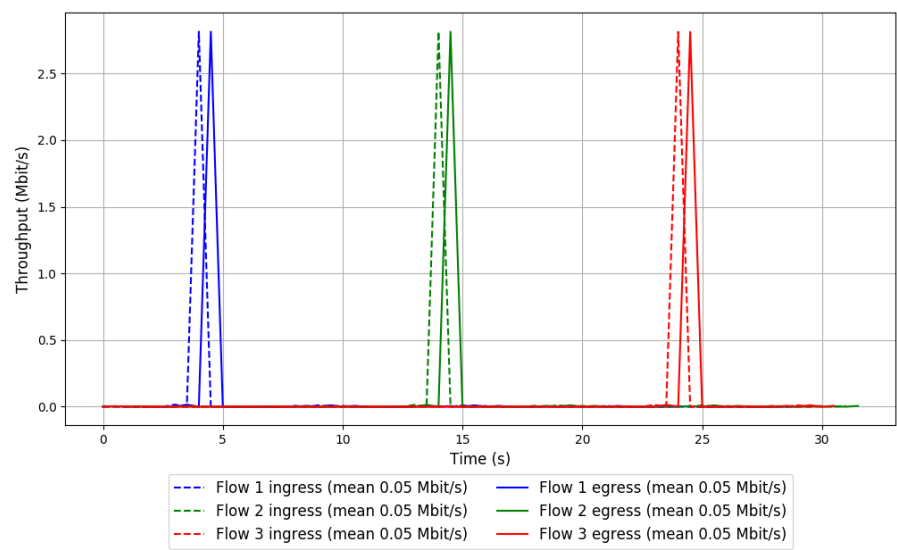
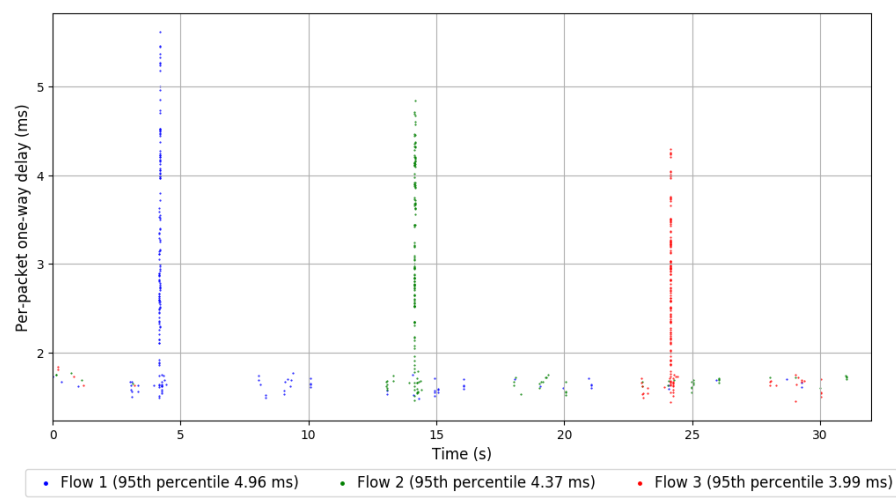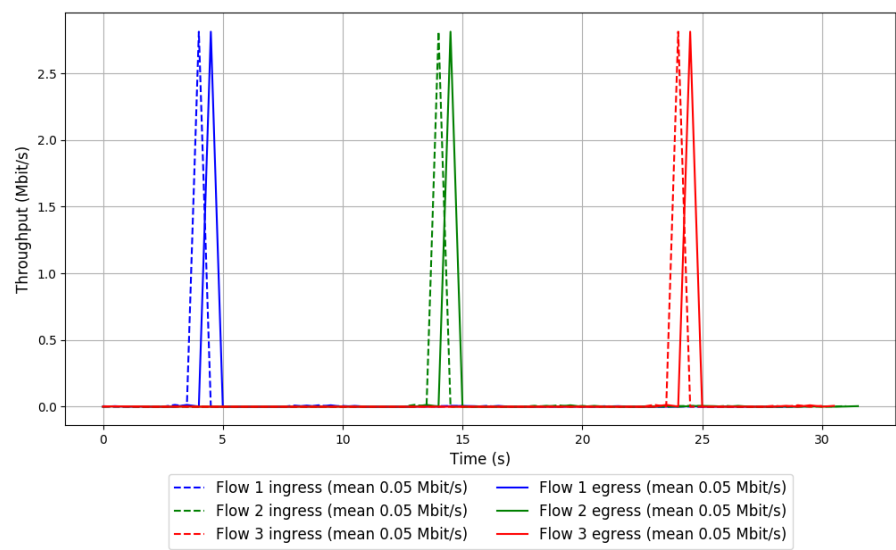## Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-01-19 01:37:41
End at: 2019-01-19 01:38:11
Local clock offset: -6.499 ms
Remote clock offset: 0.733 ms


# Below is generated by plot.py at 2019-01-19 02:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.462 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.961 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.373 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.992 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-01-19 02:01:35
End at: 2019-01-19 02:02:05
Local clock offset: -6.85 ms
Remote clock offset: 0.854 ms


# Below is generated by plot.py at 2019-01-19 02:17:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.838 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.688 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.867 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.758 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link