Pantheon Report

Generated at 2019-07-18 02:44:07 (UTC).

Data path: AWS California 1 on `ens5` (*local*) →Stanford on `eno1` (*remote*).

Repeated the test of 24 congestion control schemes 5 times.

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.
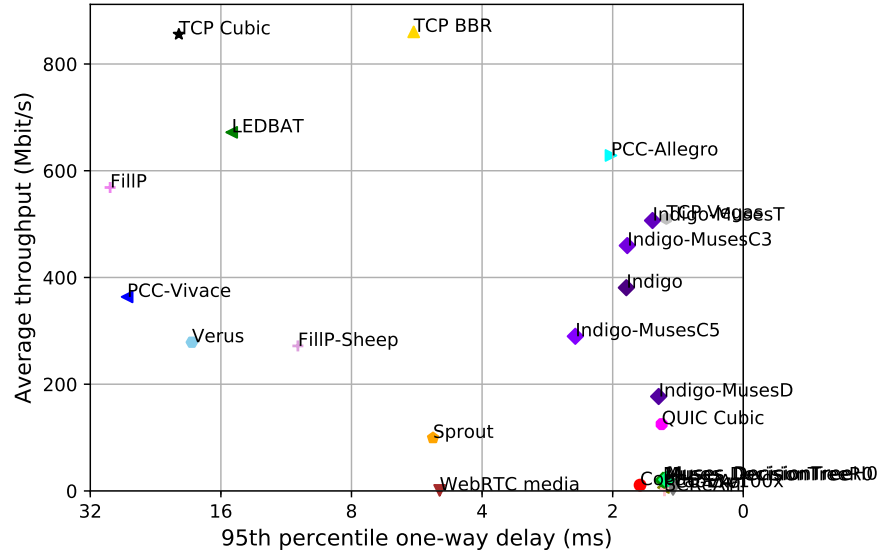
```
System info:
Linux 4.15.0-1043-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
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
```
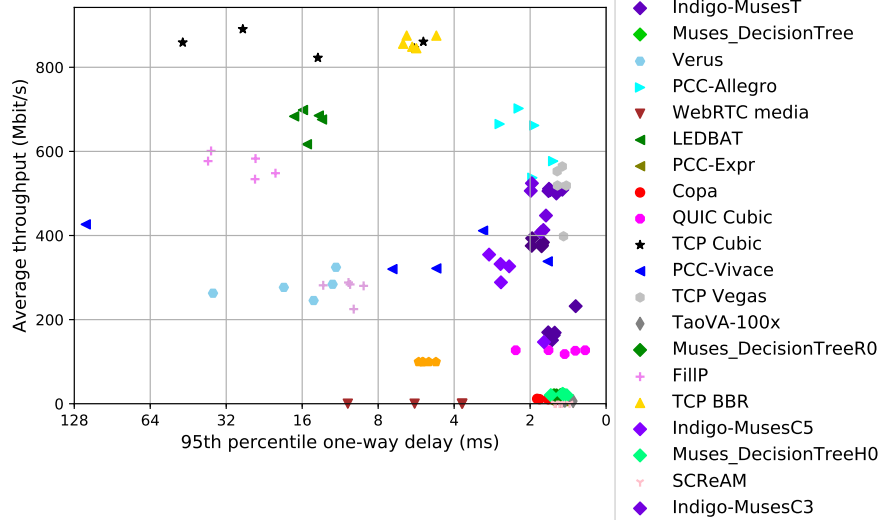
```
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

test from AWS California 1 to Stanford, 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	496.30	368.88	355.22	5.65	6.03	4.67	3.93	8.87	9.56
Copa	5	6.42	5.58	4.70	1.58	1.59	1.74	47.68	52.38	42.45
TCP Cubic	5	490.29	390.74	315.71	23.78	2.28	2.10	0.07	0.05	0.09
FillP	5	368.48	243.10	115.74	25.39	27.20	11.66	7.25	9.81	4.47
FillP-Sheep	5	226.76	51.84	31.99	11.12	2.76	5.68	0.41	1.14	4.33
Indigo	5	197.89	186.97	182.76	1.66	1.71	2.14	0.00	0.00	0.00
Indigo-MusesC3	5	231.91	260.86	191.74	1.69	1.94	1.71	0.02	0.03	0.02
Indigo-MusesC5	5	152.57	156.53	123.67	1.56	2.99	2.45	0.01	0.08	0.04
Indigo-MusesD	5	95.18	89.35	81.32	1.33	1.18	1.34	0.01	0.00	0.01
Indigo-MusesT	5	289.23	253.22	193.56	1.36	1.39	1.52	0.01	0.00	0.01
LEDBAT	5	393.16	336.76	184.97	16.65	9.08	6.08	0.11	0.20	0.49
Muses_DecisionTree	5	10.18	10.02	10.18	1.21	1.18	1.14	0.00	0.00	0.00
Muses_DecisionTreeH0	5	10.71	10.65	10.51	1.18	1.15	1.14	0.01	0.01	0.01
Muses_DecisionTreeR0	5	9.90	10.00	10.38	1.24	1.22	1.21	0.00	0.00	0.00
PCC-Allegro	5	489.16	134.35	152.00	2.07	1.69	1.84	0.09	0.09	0.12
PCC-Expr	5	0.74	6.22	7.28	1.19	1.24	1.16	85.71	21.94	25.07
QUIC Cubic	5	67.83	60.62	52.09	1.11	1.24	3.76	0.01	0.00	0.00
SCReAM	5	0.22	0.22	0.22	1.20	1.19	1.17	0.00	0.00	0.00
Sprout	5	49.91	49.82	49.50	5.18	5.21	5.15	0.06	0.09	0.13
TaoVA-100x	5	0.00	6.62	7.86	1.16	1.09	1.01	95.92	22.46	31.63
TCP Vegas	5	289.80	201.15	260.66	1.18	1.18	1.18	0.00	0.02	0.01
Verus	5	151.01	127.34	130.88	11.20	36.97	36.13	1.56	3.94	2.60
PCC-Vivace	5	184.03	188.12	165.08	5.39	33.31	44.18	0.02	0.05	0.07
WebRTC media	5	0.48	0.33	0.16	2.37	5.92	4.20	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-07-17 22:53:38
End at: 2019-07-17 22:54:08
Local clock offset: 5.815 ms
Remote clock offset: 4.373 ms

# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.35 Mbit/s
95th percentile per-packet one-way delay: 4.705 ms
Loss rate: 6.53%
-- Flow 1:
Average throughput: 520.26 Mbit/s
95th percentile per-packet one-way delay: 4.640 ms
Loss rate: 3.88%
-- Flow 2:
Average throughput: 345.26 Mbit/s
95th percentile per-packet one-way delay: 5.226 ms
Loss rate: 10.96%
-- Flow 3:
Average throughput: 376.40 Mbit/s
95th percentile per-packet one-way delay: 3.569 ms
Loss rate: 8.62%
```
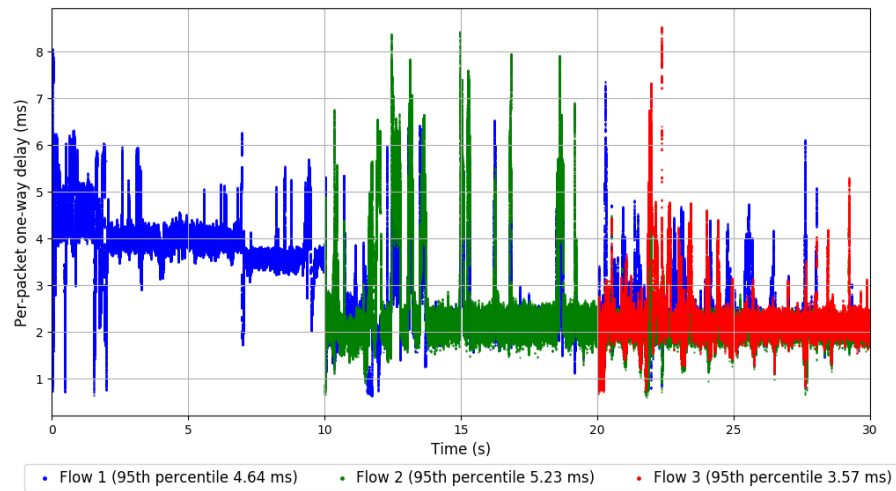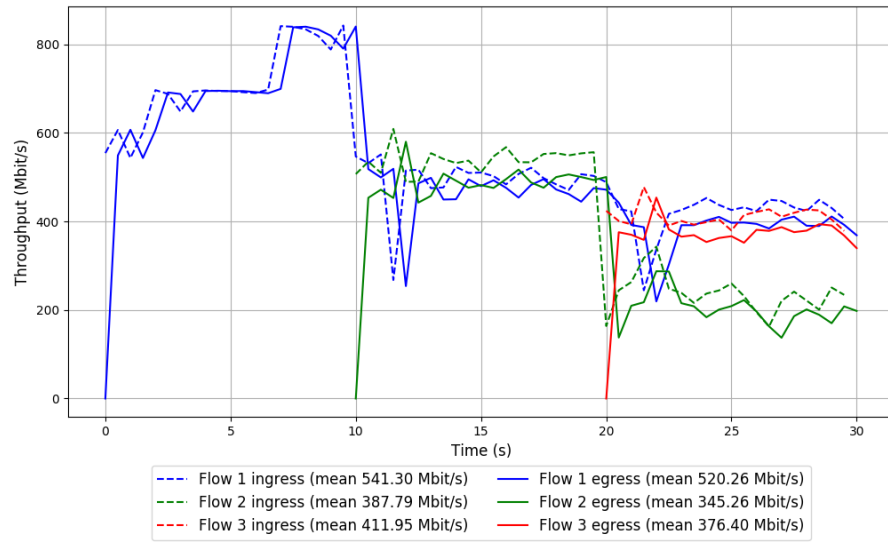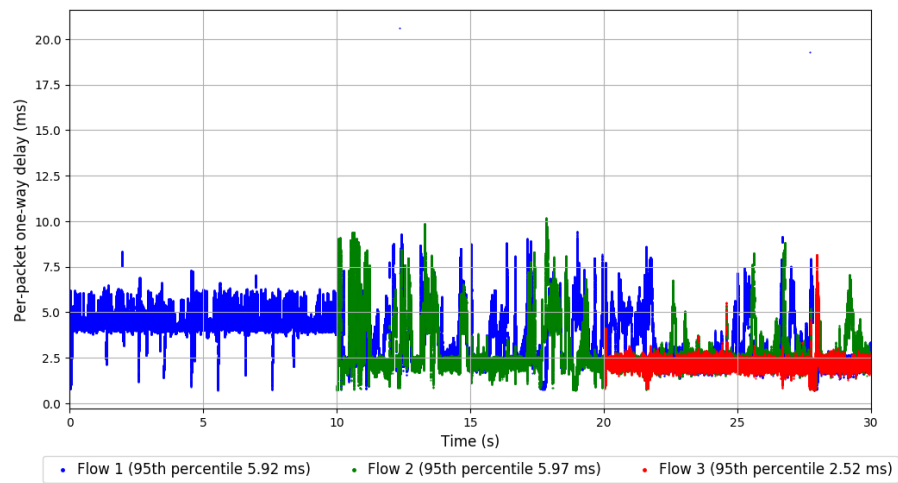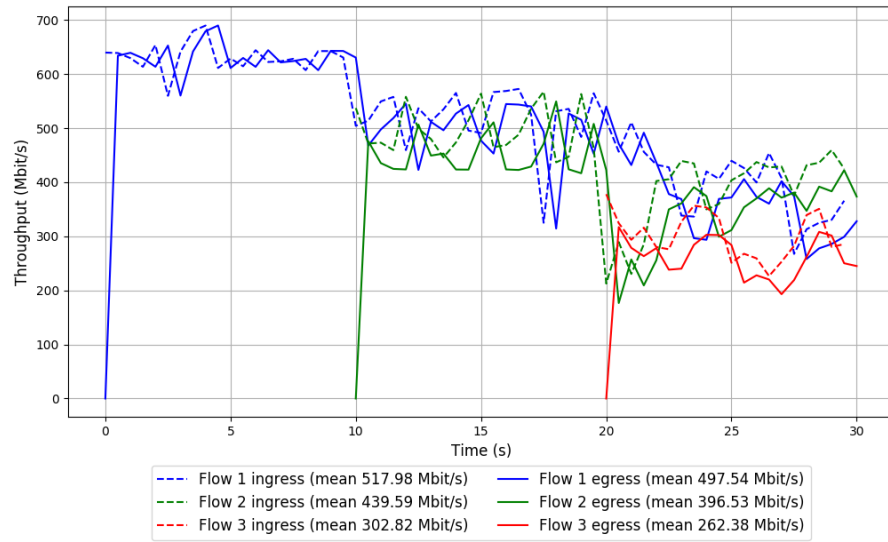
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-07-17 23:27:44
End at: 2019-07-17 23:28:14
Local clock offset: 5.714 ms
Remote clock offset: -0.452 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 848.89 Mbit/s
95th percentile per-packet one-way delay: 5.862 ms
Loss rate: 6.86%
-- Flow 1:
Average throughput: 497.54 Mbit/s
95th percentile per-packet one-way delay: 5.924 ms
Loss rate: 3.94%
-- Flow 2:
Average throughput: 396.53 Mbit/s
95th percentile per-packet one-way delay: 5.970 ms
Loss rate: 9.79%
-- Flow 3:
Average throughput: 262.38 Mbit/s
95th percentile per-packet one-way delay: 2.521 ms
Loss rate: 13.34%
```
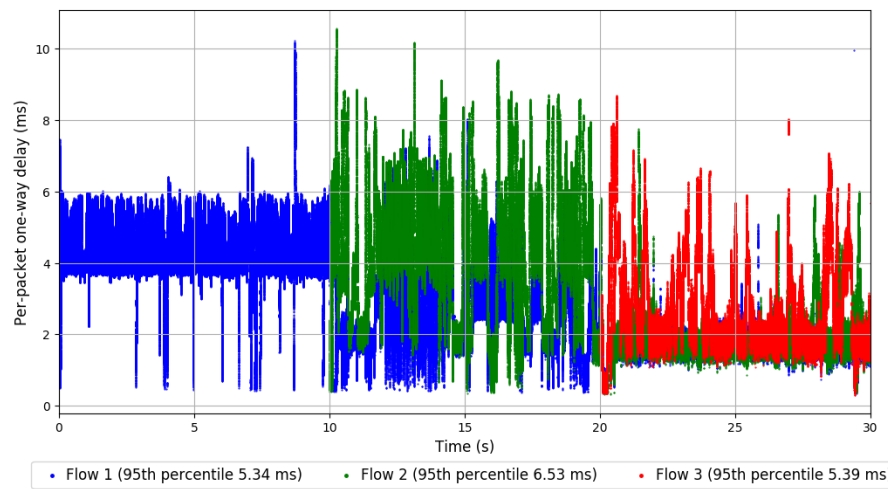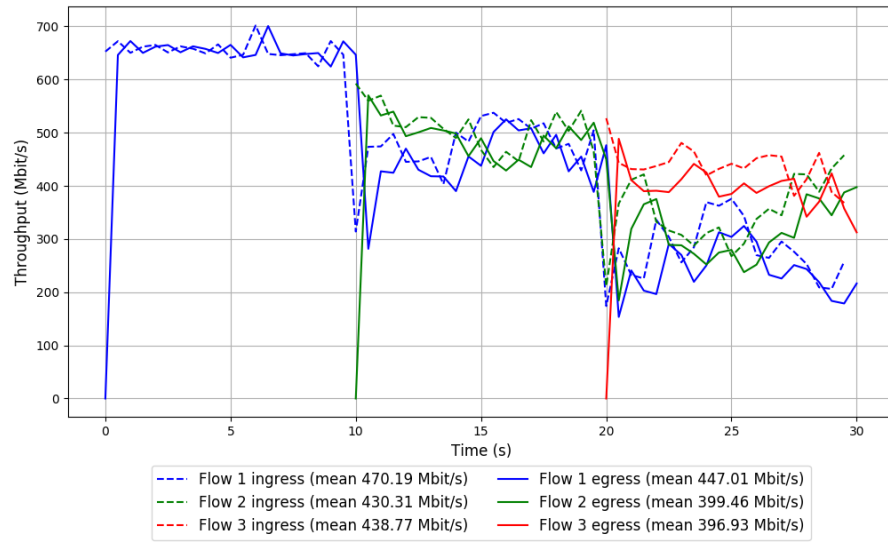
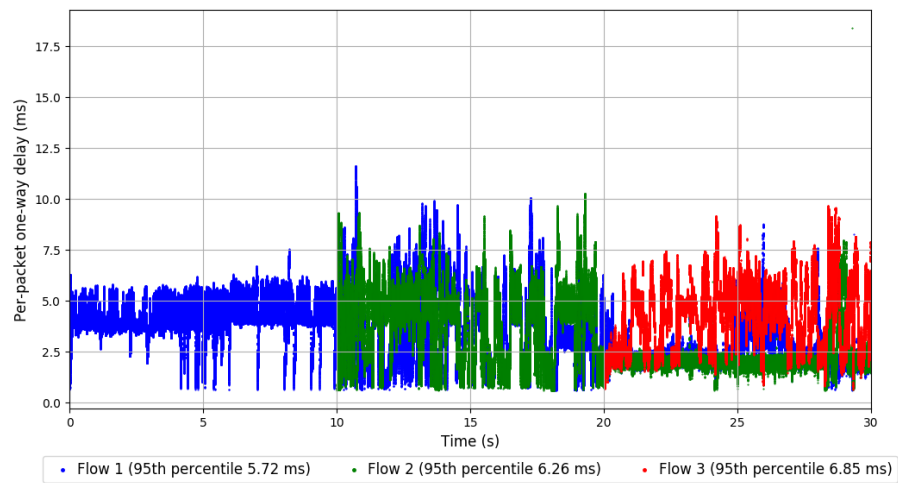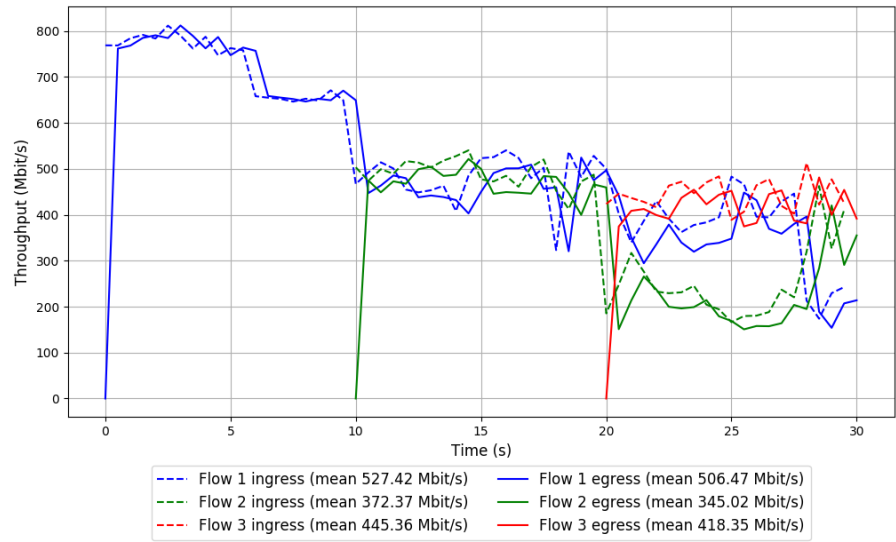Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-07-18 00:01:43
End at: 2019-07-18 00:02:13
Local clock offset: 1.924 ms
Remote clock offset: 3.598 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 845.40 Mbit/s
95th percentile per-packet one-way delay: 5.649 ms
Loss rate: 6.38%
-- Flow 1:
Average throughput: 447.01 Mbit/s
95th percentile per-packet one-way delay: 5.343 ms
Loss rate: 4.93%
-- Flow 2:
Average throughput: 399.46 Mbit/s
95th percentile per-packet one-way delay: 6.532 ms
Loss rate: 7.16%
-- Flow 3:
Average throughput: 396.93 Mbit/s
95th percentile per-packet one-way delay: 5.388 ms
Loss rate: 9.50%
```
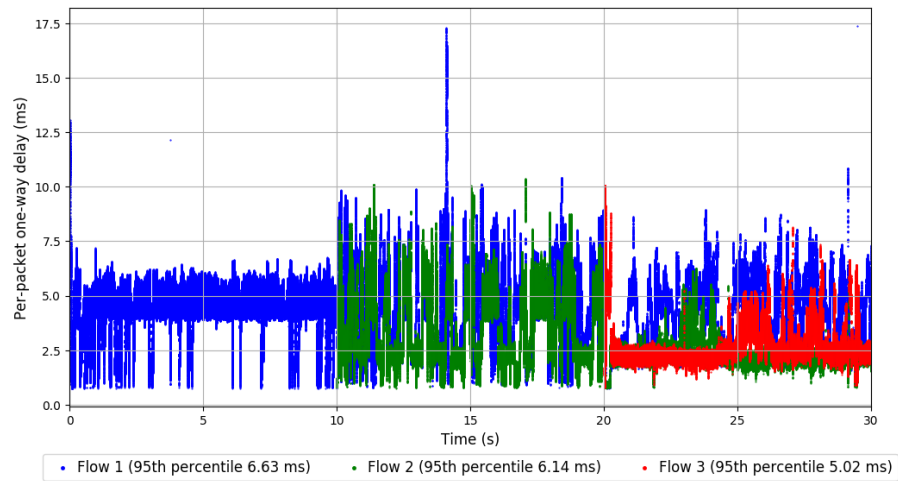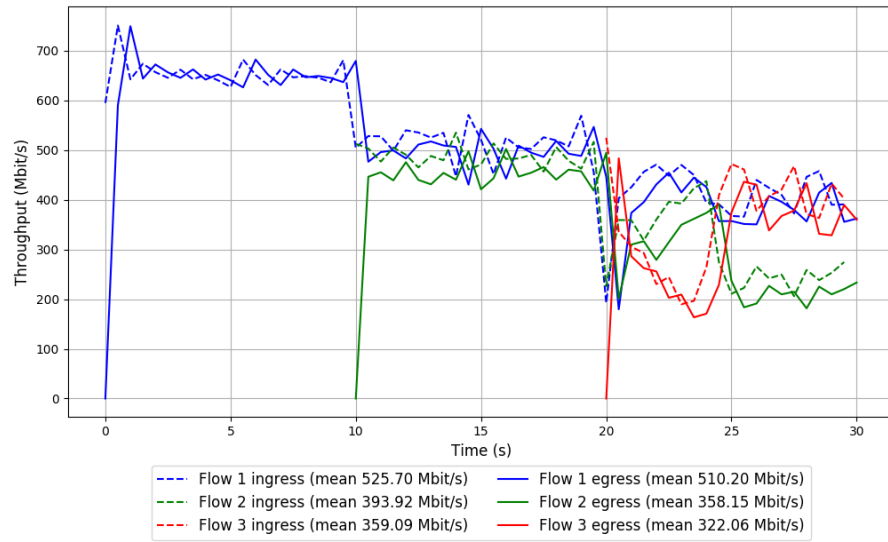
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2019-07-18 00:35:45
End at: 2019-07-18 00:36:15
Local clock offset: -4.256 ms
Remote clock offset: -0.452 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.42 Mbit/s
95th percentile per-packet one-way delay: 6.170 ms
Loss rate: 5.21%
-- Flow 1:
Average throughput: 506.47 Mbit/s
95th percentile per-packet one-way delay: 5.722 ms
Loss rate: 3.97%
-- Flow 2:
Average throughput: 345.02 Mbit/s
95th percentile per-packet one-way delay: 6.263 ms
Loss rate: 7.34%
-- Flow 3:
Average throughput: 418.35 Mbit/s
95th percentile per-packet one-way delay: 6.850 ms
Loss rate: 6.04%
```

Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2019-07-18 01:09:33
End at: 2019-07-18 01:10:03
Local clock offset: -3.945 ms
Remote clock offset: -0.219 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 856.04 Mbit/s
95th percentile per-packet one-way delay: 6.369 ms
Loss rate: 5.69%
-- Flow 1:
Average throughput: 510.20 Mbit/s
95th percentile per-packet one-way delay: 6.631 ms
Loss rate: 2.94%
-- Flow 2:
Average throughput: 358.15 Mbit/s
95th percentile per-packet one-way delay: 6.145 ms
Loss rate: 9.08%
-- Flow 3:
Average throughput: 322.06 Mbit/s
95th percentile per-packet one-way delay: 5.024 ms
Loss rate: 10.30%
```
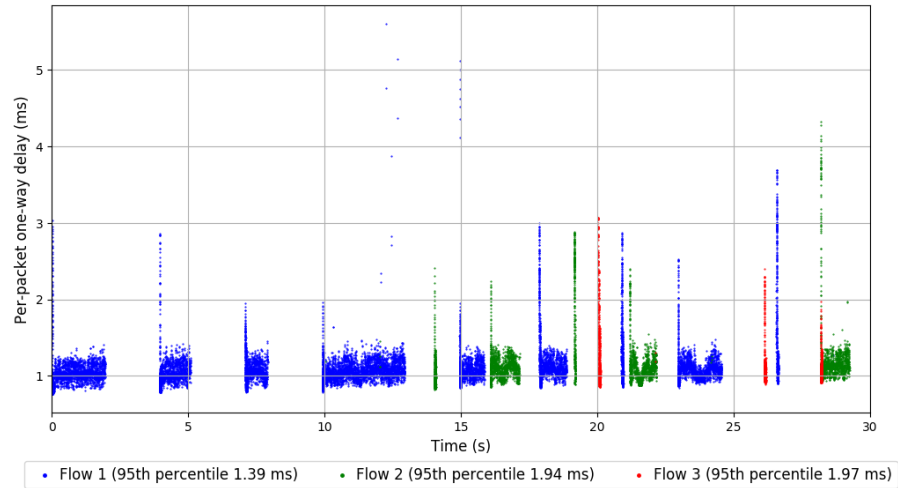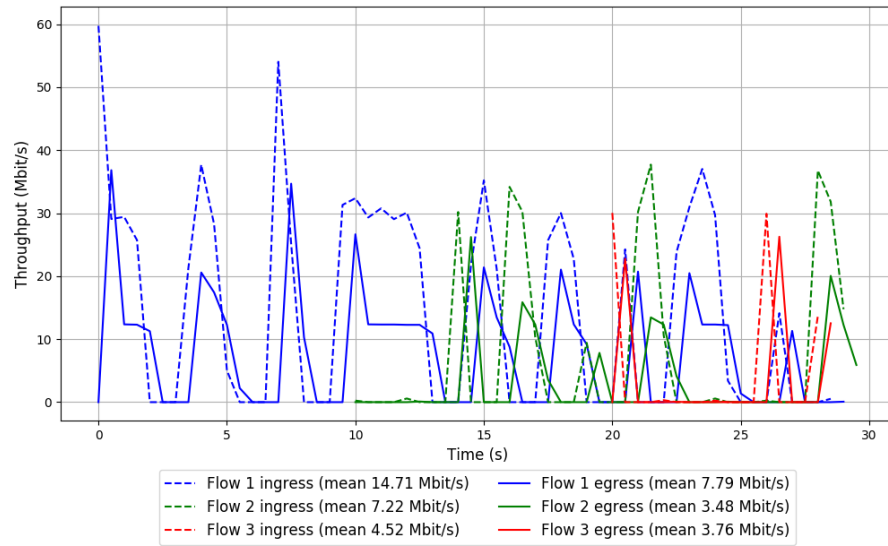
Run 5: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2019-07-17 23:04:25
End at: 2019-07-17 23:04:55
Local clock offset: 5.803 ms
Remote clock offset: 2.11 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 1.531 ms
Loss rate: 46.29%
-- Flow 1:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 1.392 ms
Loss rate: 47.06%
-- Flow 2:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 1.939 ms
Loss rate: 51.76%
-- Flow 3:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 1.974 ms
Loss rate: 17.00%
```
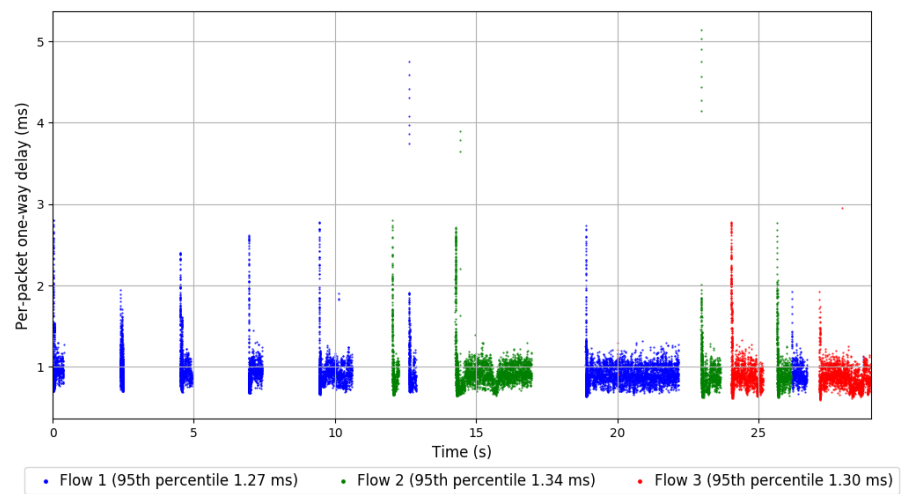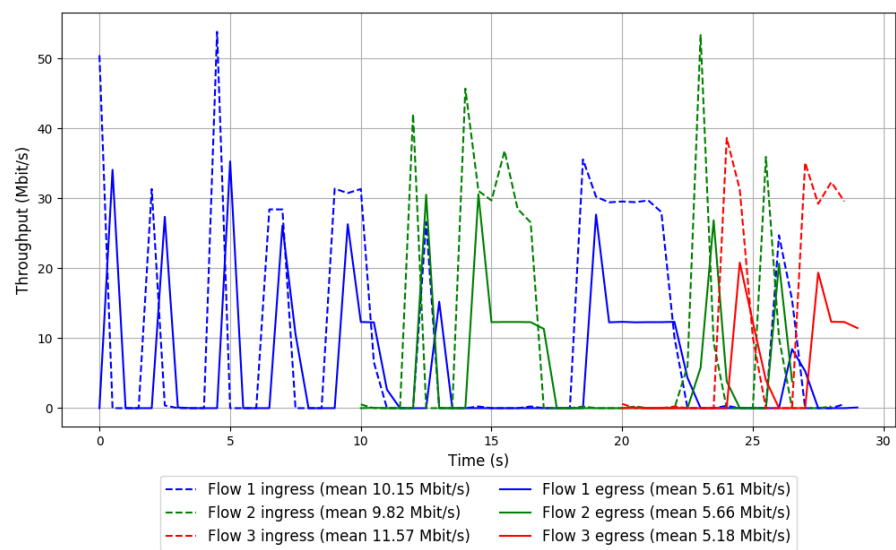
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-07-17 23:38:31
End at: 2019-07-17 23:39:01
Local clock offset: 5.635 ms
Remote clock offset: 1.468 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.31 Mbit/s
95th percentile per-packet one-way delay: 1.292 ms
Loss rate: 47.90%
-- Flow 1:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 1.273 ms
Loss rate: 44.79%
-- Flow 2:
Average throughput: 5.66 Mbit/s
95th percentile per-packet one-way delay: 1.343 ms
Loss rate: 48.73%
-- Flow 3:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 1.296 ms
Loss rate: 55.23%
```
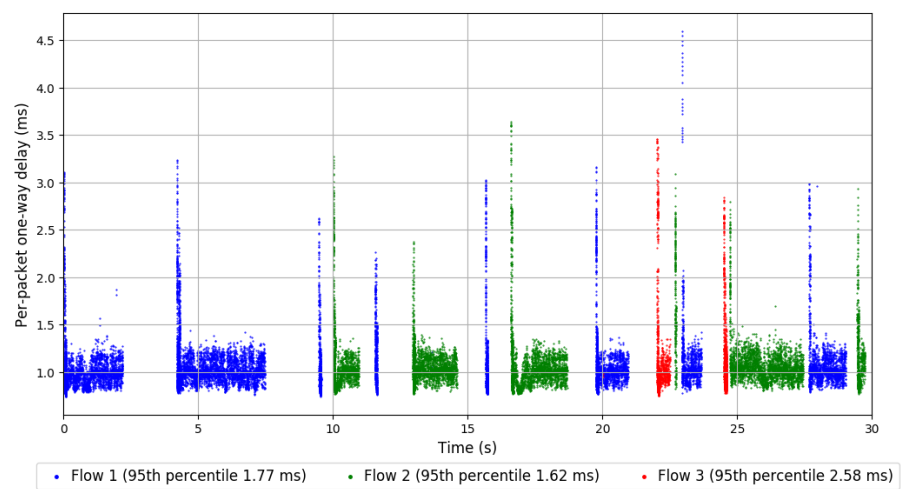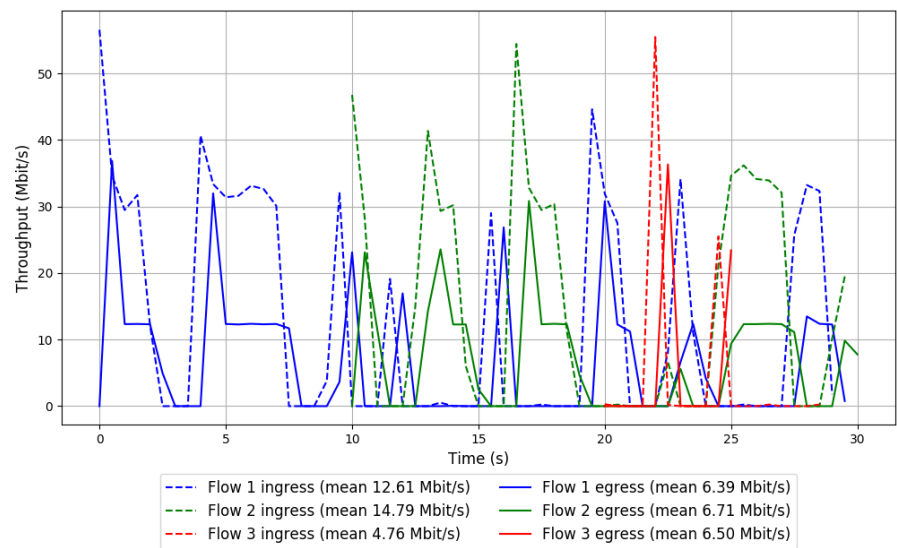
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-07-18 00:12:30
End at: 2019-07-18 00:13:00
Local clock offset: -0.967 ms
Remote clock offset: 1.883 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 1.815 ms
Loss rate: 50.25%
-- Flow 1:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 1.768 ms
Loss rate: 49.36%
-- Flow 2:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 1.618 ms
Loss rate: 54.62%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 2.578 ms
Loss rate: 27.00%
```
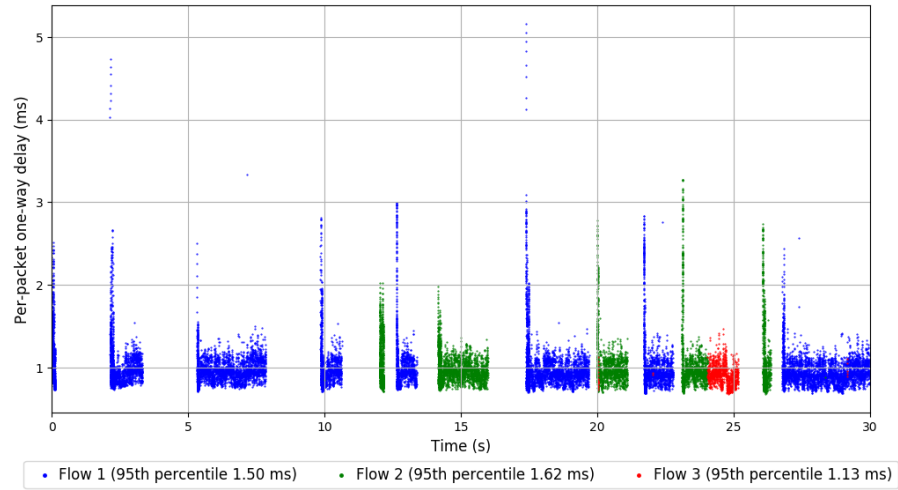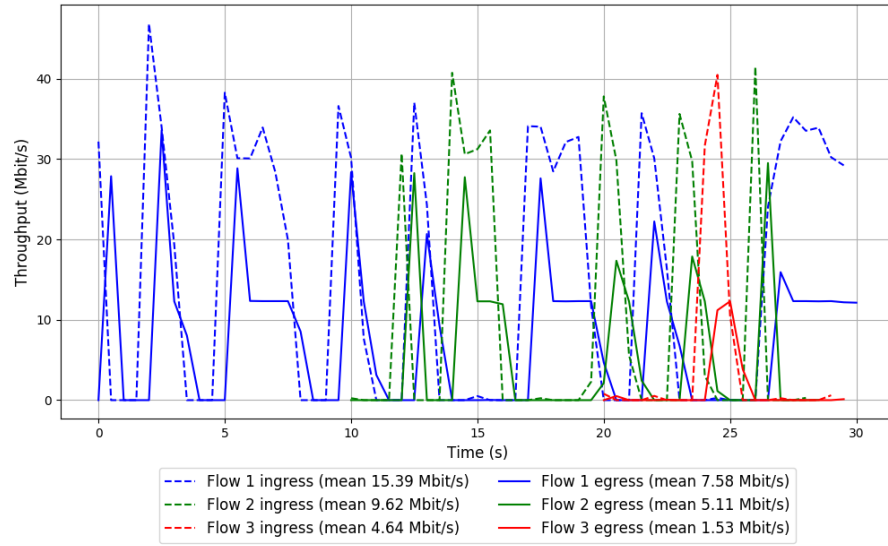
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-07-18 00:46:22
End at: 2019-07-18 00:46:52
Local clock offset: -5.542 ms
Remote clock offset: -0.207 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.17 Mbit/s
95th percentile per-packet one-way delay: 1.512 ms
Loss rate: 50.76%
-- Flow 1:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 1.496 ms
Loss rate: 50.76%
-- Flow 2:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 1.625 ms
Loss rate: 46.87%
-- Flow 3:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 1.130 ms
Loss rate: 66.99%
```
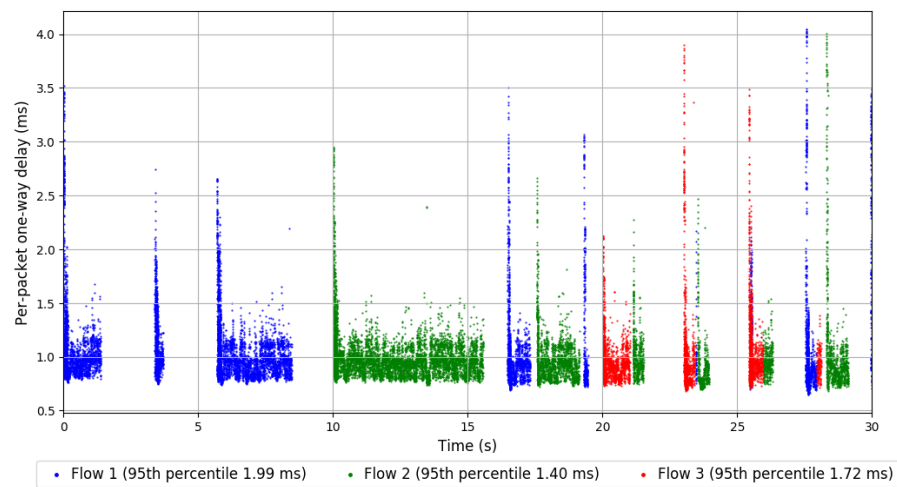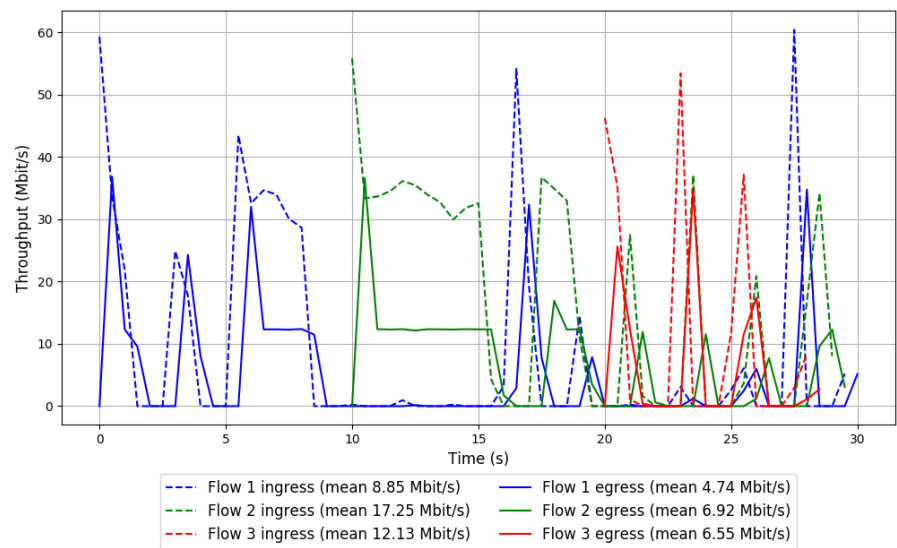
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 15.39 Mbit/s)   Flow 1 egress (mean 7.58 Mbit/s)
Flow 2 ingress (mean 9.62 Mbit/s)   Flow 2 egress (mean 5.11 Mbit/s)
Flow 3 ingress (mean 4.64 Mbit/s)   Flow 3 egress (mean 1.53 Mbit/s)

Flow 1 (95th percentile 1.50 ms)   Flow 2 (95th percentile 1.62 ms)   Flow 3 (95th percentile 1.13 ms)

```
Run 5: Statistics of Copa

Start at: 2019-07-18 01:20:23
End at: 2019-07-18 01:20:53
Local clock offset: -3.876 ms
Remote clock offset: 1.567 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 1.754 ms
Loss rate: 52.78%
-- Flow 1:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 1.987 ms
Loss rate: 46.44%
-- Flow 2:
Average throughput: 6.92 Mbit/s
95th percentile per-packet one-way delay: 1.400 ms
Loss rate: 59.90%
-- Flow 3:
Average throughput: 6.55 Mbit/s
95th percentile per-packet one-way delay: 1.722 ms
Loss rate: 46.01%
```
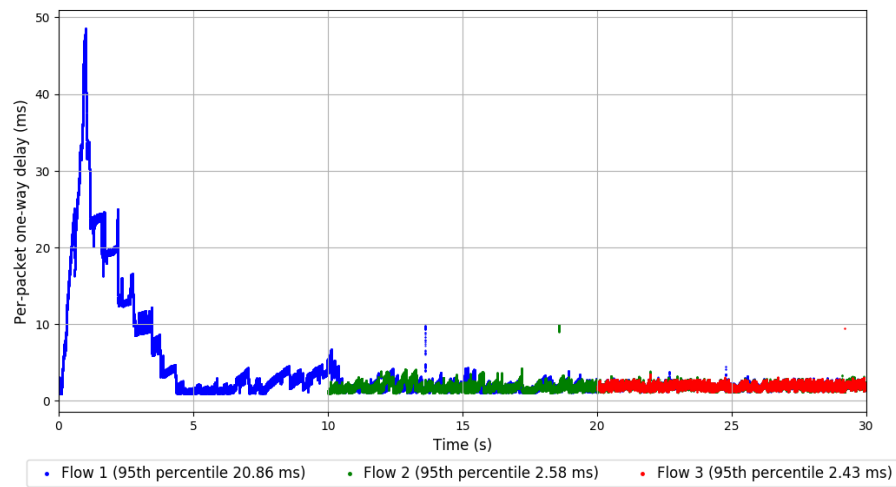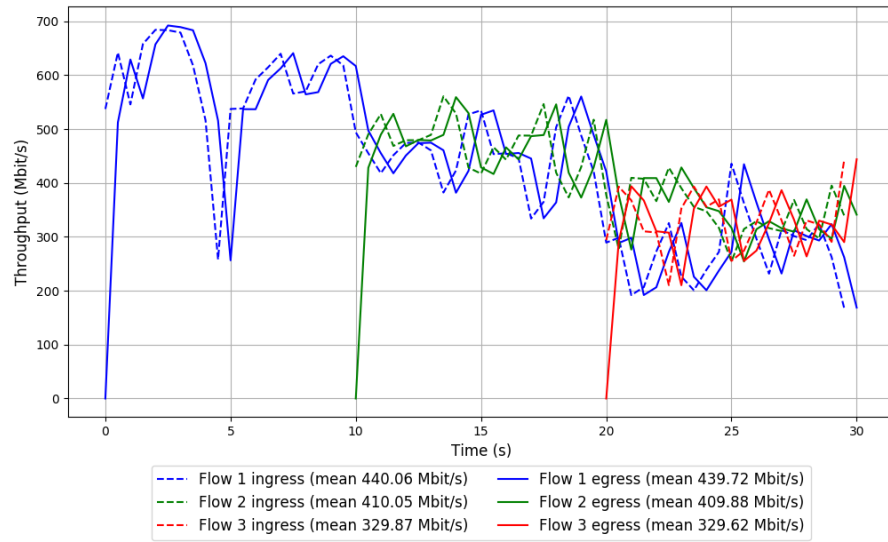
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 8.85 Mbit/s)   Flow 1 egress (mean 4.74 Mbit/s)
Flow 2 ingress (mean 17.25 Mbit/s)   Flow 2 egress (mean 6.92 Mbit/s)
Flow 3 ingress (mean 12.13 Mbit/s)   Flow 3 egress (mean 6.55 Mbit/s)

Flow 1 (95th percentile 1.99 ms)   Flow 2 (95th percentile 1.40 ms)   Flow 3 (95th percentile 1.72 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2019-07-17 22:59:58
End at: 2019-07-17 23:00:28
Local clock offset: 5.769 ms
Remote clock offset: 3.799 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 822.54 Mbit/s
95th percentile per-packet one-way delay: 13.865 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 439.72 Mbit/s
95th percentile per-packet one-way delay: 20.864 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 409.88 Mbit/s
95th percentile per-packet one-way delay: 2.580 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 329.62 Mbit/s
95th percentile per-packet one-way delay: 2.434 ms
Loss rate: 0.07%
```
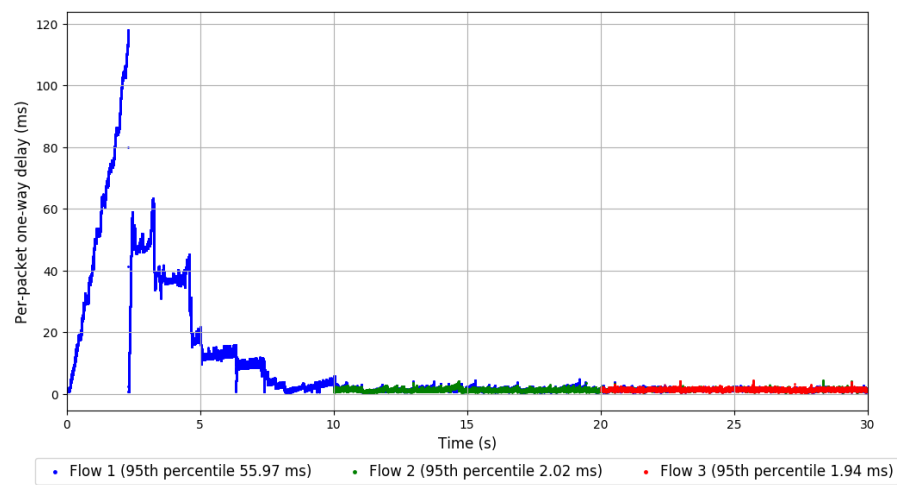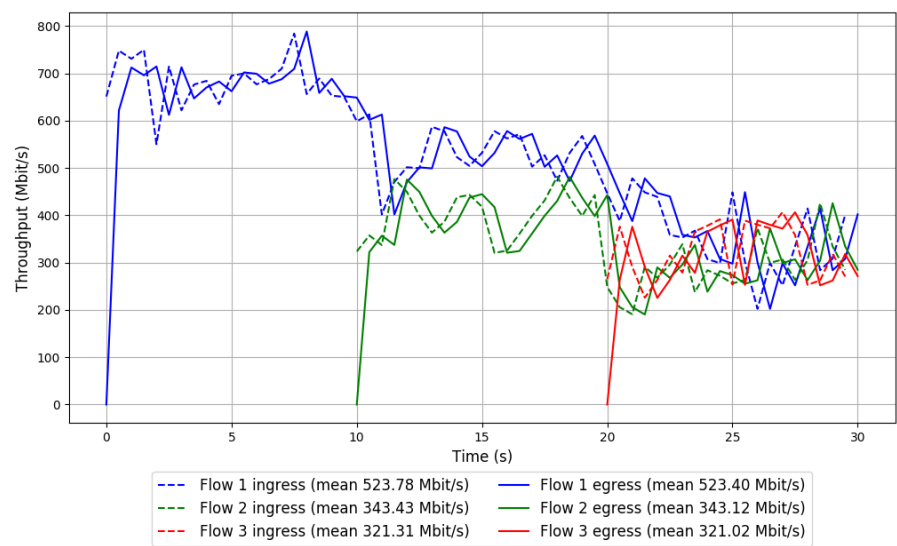
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-07-17 23:34:02
End at: 2019-07-17 23:34:32
Local clock offset: 5.654 ms
Remote clock offset: 0.182 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 858.92 Mbit/s
95th percentile per-packet one-way delay: 47.583 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 523.40 Mbit/s
95th percentile per-packet one-way delay: 55.974 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 343.12 Mbit/s
95th percentile per-packet one-way delay: 2.015 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 321.02 Mbit/s
95th percentile per-packet one-way delay: 1.944 ms
Loss rate: 0.09%
```
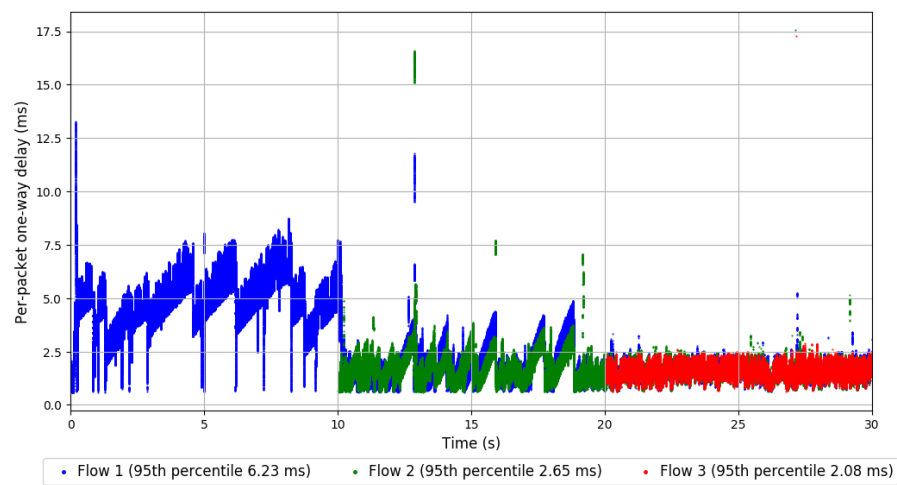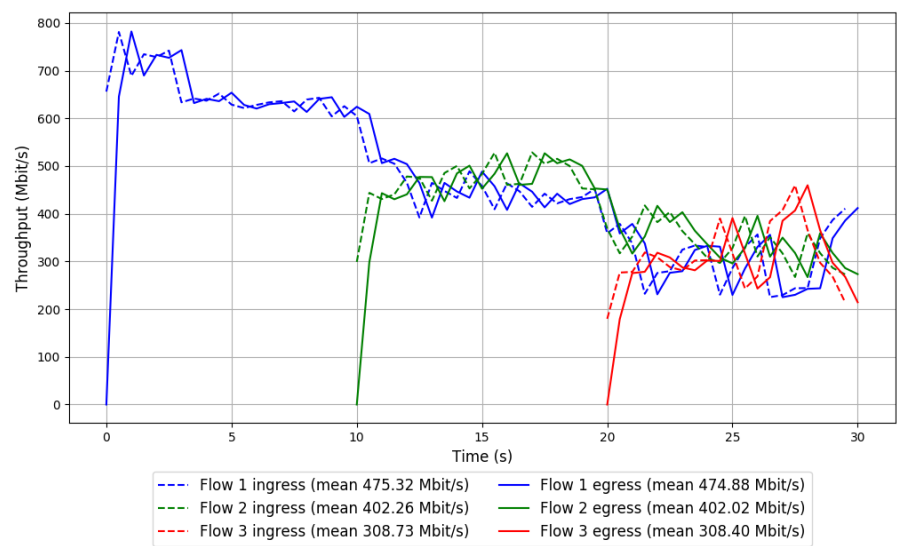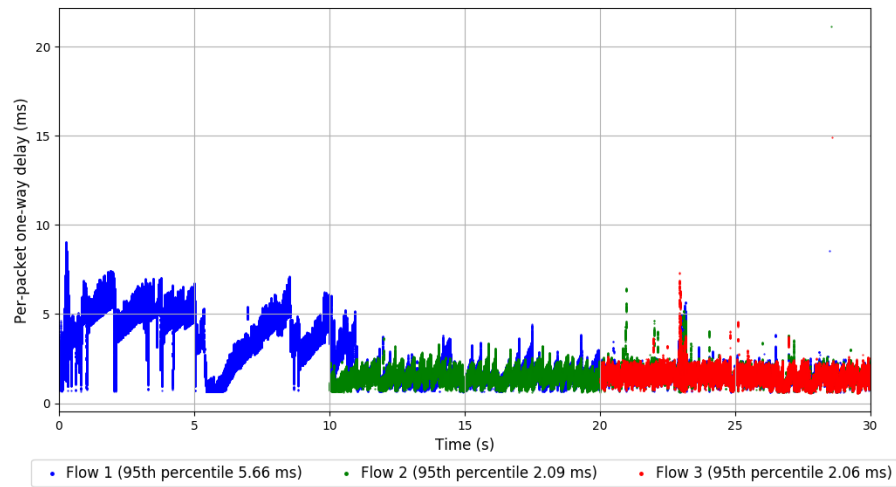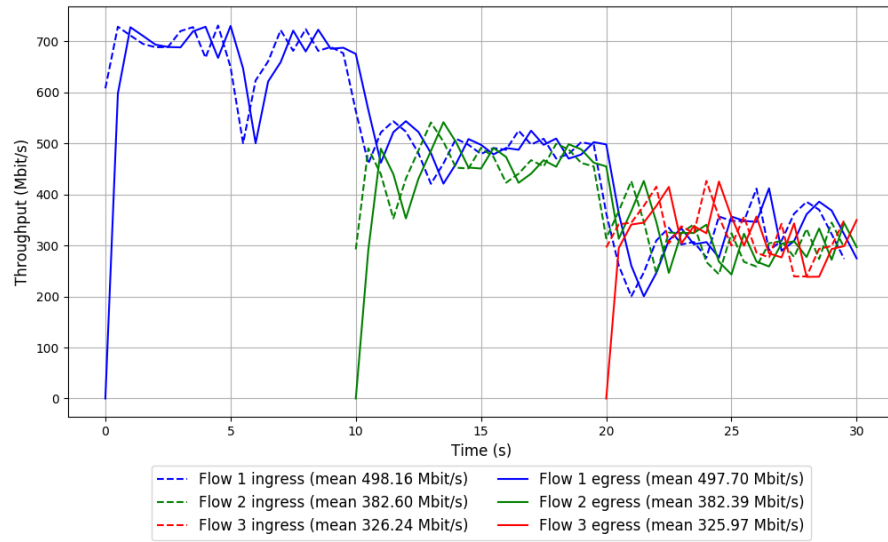
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 523.78 Mbit/s) --- Flow 1 egress (mean 523.40 Mbit/s)
Flow 2 ingress (mean 343.43 Mbit/s) --- Flow 2 egress (mean 343.12 Mbit/s)
Flow 3 ingress (mean 321.31 Mbit/s) --- Flow 3 egress (mean 321.02 Mbit/s)

Flow 1 (95th percentile 55.97 ms)   Flow 2 (95th percentile 2.02 ms)   Flow 3 (95th percentile 1.94 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-07-18 00:07:58
End at: 2019-07-18 00:08:28
Local clock offset: -0.017 ms
Remote clock offset: 3.037 ms


# Below is generated by plot.py at 2019-07-18 01:59:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 845.13 Mbit/s
95th percentile per-packet one-way delay: 5.757 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 474.88 Mbit/s
95th percentile per-packet one-way delay: 6.227 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 402.02 Mbit/s
95th percentile per-packet one-way delay: 2.652 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 308.40 Mbit/s
95th percentile per-packet one-way delay: 2.076 ms
Loss rate: 0.10%
```
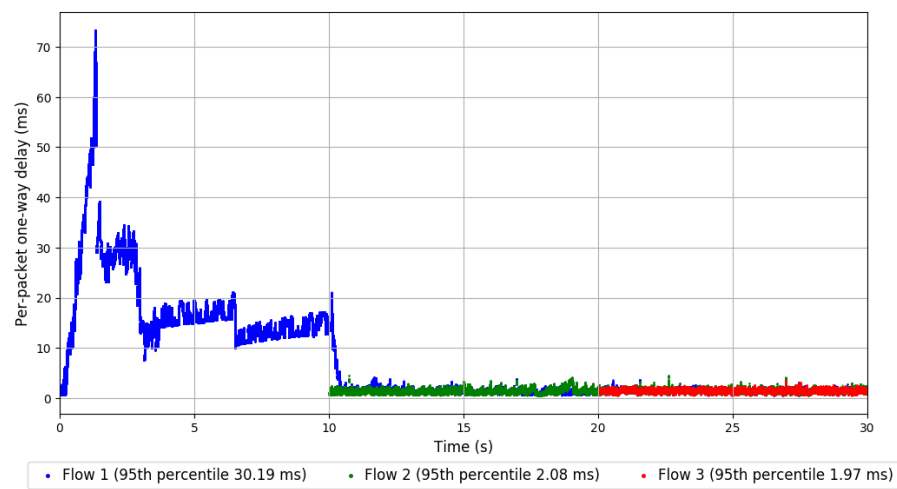
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 475.32 Mbit/s) — Flow 1 egress (mean 474.88 Mbit/s)
Flow 2 ingress (mean 402.26 Mbit/s) — Flow 2 egress (mean 402.02 Mbit/s)
Flow 3 ingress (mean 308.73 Mbit/s) — Flow 3 egress (mean 308.40 Mbit/s)

Flow 1 (95th percentile 6.23 ms)   Flow 2 (95th percentile 2.65 ms)   Flow 3 (95th percentile 2.08 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-07-18 00:41:54
End at: 2019-07-18 00:42:24
Local clock offset: -4.983 ms
Remote clock offset: -0.415 ms


# Below is generated by plot.py at 2019-07-18 02:08:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 860.79 Mbit/s
95th percentile per-packet one-way delay: 5.296 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 497.70 Mbit/s
95th percentile per-packet one-way delay: 5.659 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 382.39 Mbit/s
95th percentile per-packet one-way delay: 2.089 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 325.97 Mbit/s
95th percentile per-packet one-way delay: 2.056 ms
Loss rate: 0.07%
```
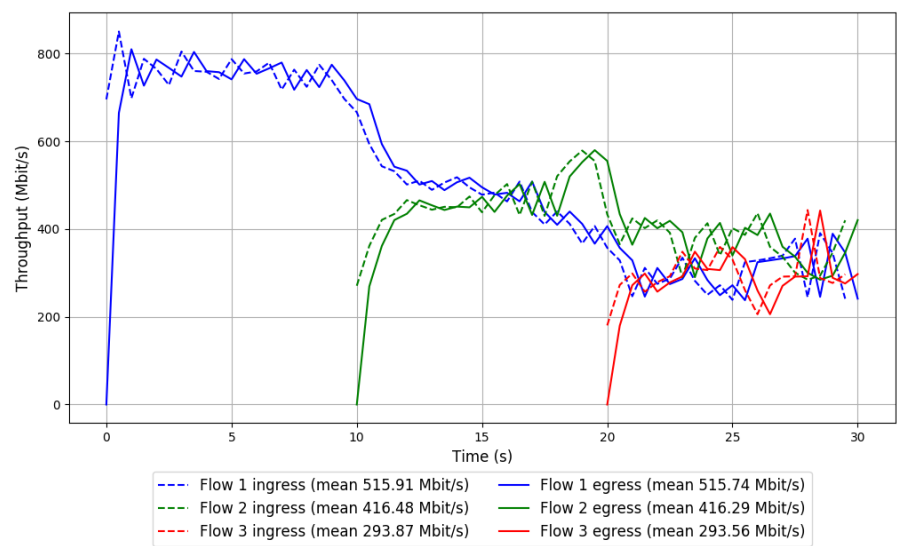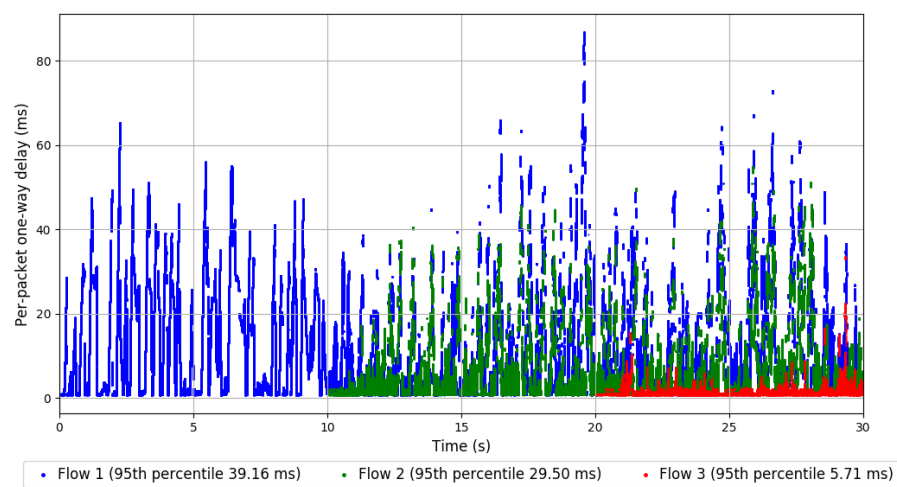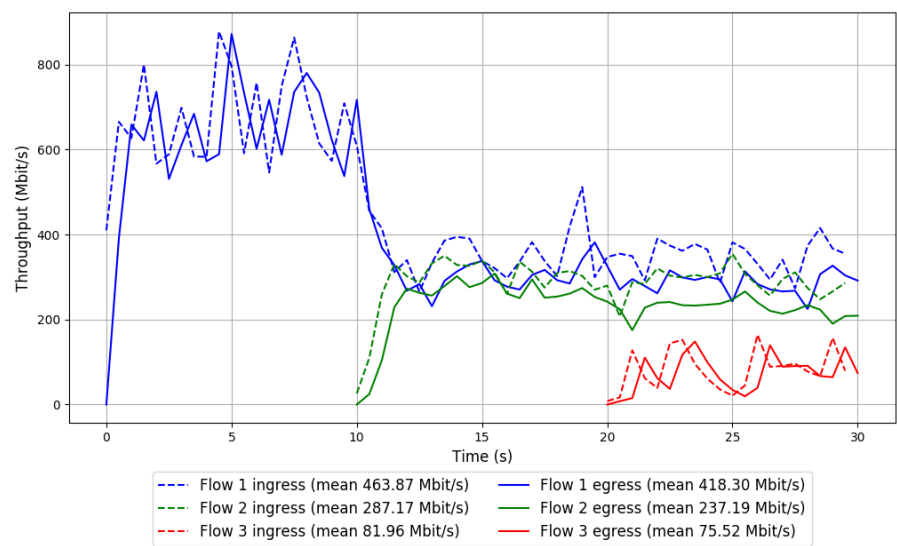
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-07-18 01:15:49
End at: 2019-07-18 01:16:19
Local clock offset: -3.818 ms
Remote clock offset: 0.261 ms


# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 890.70 Mbit/s
95th percentile per-packet one-way delay: 27.502 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 515.74 Mbit/s
95th percentile per-packet one-way delay: 30.194 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 416.29 Mbit/s
95th percentile per-packet one-way delay: 2.081 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 293.56 Mbit/s
95th percentile per-packet one-way delay: 1.974 ms
Loss rate: 0.11%
```
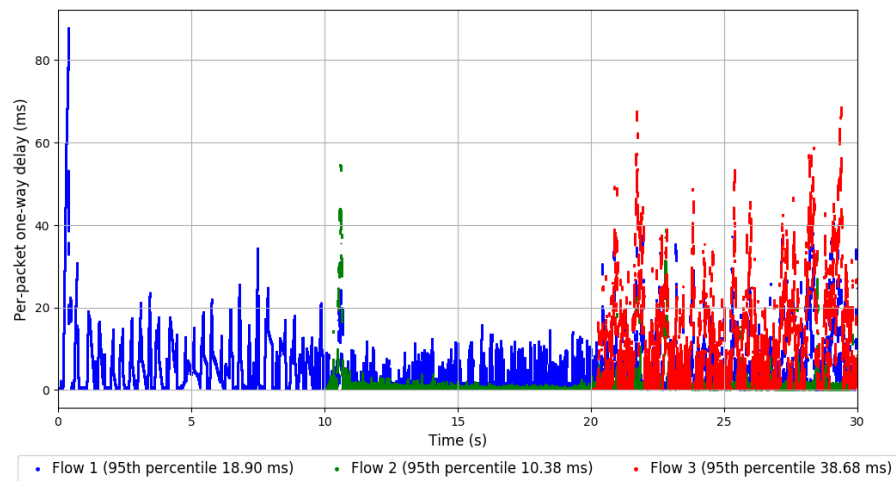
Run 5: Report of TCP Cubic — Data Link

Legend:
- Flow 1 ingress (mean 515.91 Mbit/s) —— Flow 1 egress (mean 515.74 Mbit/s)
- Flow 2 ingress (mean 416.48 Mbit/s) —— Flow 2 egress (mean 416.29 Mbit/s)
- Flow 3 ingress (mean 293.87 Mbit/s) —— Flow 3 egress (mean 293.56 Mbit/s)

Legend:
- Flow 1 (95th percentile 30.19 ms)   • Flow 2 (95th percentile 2.08 ms)   • Flow 3 (95th percentile 1.97 ms)

```
Run 1: Statistics of FillP

Start at: 2019-07-17 23:24:38
End at: 2019-07-17 23:25:08
Local clock offset: 5.748 ms
Remote clock offset: -0.314 ms

# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 601.09 Mbit/s
95th percentile per-packet one-way delay: 36.740 ms
Loss rate: 11.87%
-- Flow 1:
Average throughput: 418.30 Mbit/s
95th percentile per-packet one-way delay: 39.161 ms
Loss rate: 9.82%
-- Flow 2:
Average throughput: 237.19 Mbit/s
95th percentile per-packet one-way delay: 29.499 ms
Loss rate: 17.41%
-- Flow 3:
Average throughput: 75.52 Mbit/s
95th percentile per-packet one-way delay: 5.709 ms
Loss rate: 7.86%
```
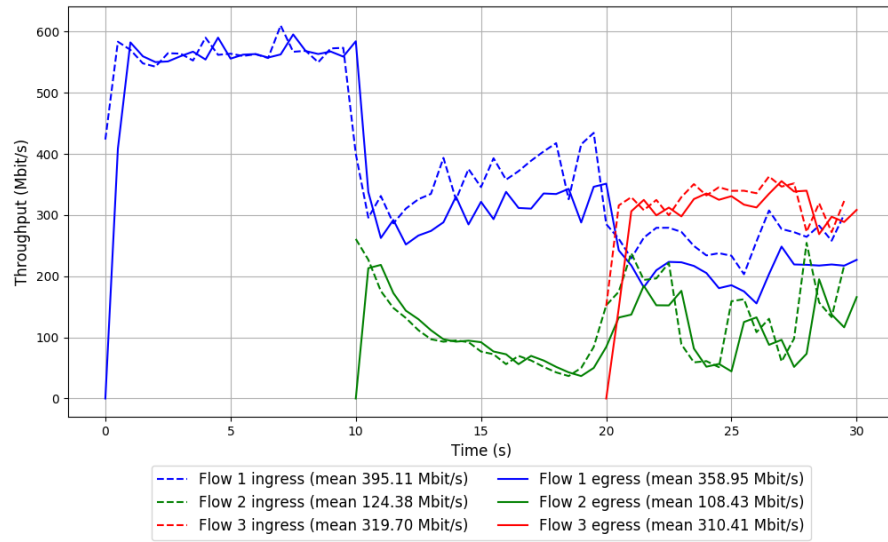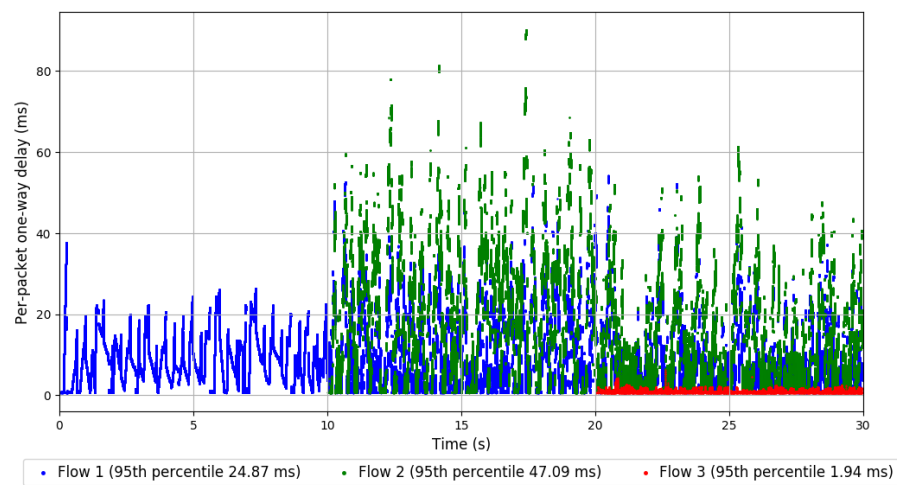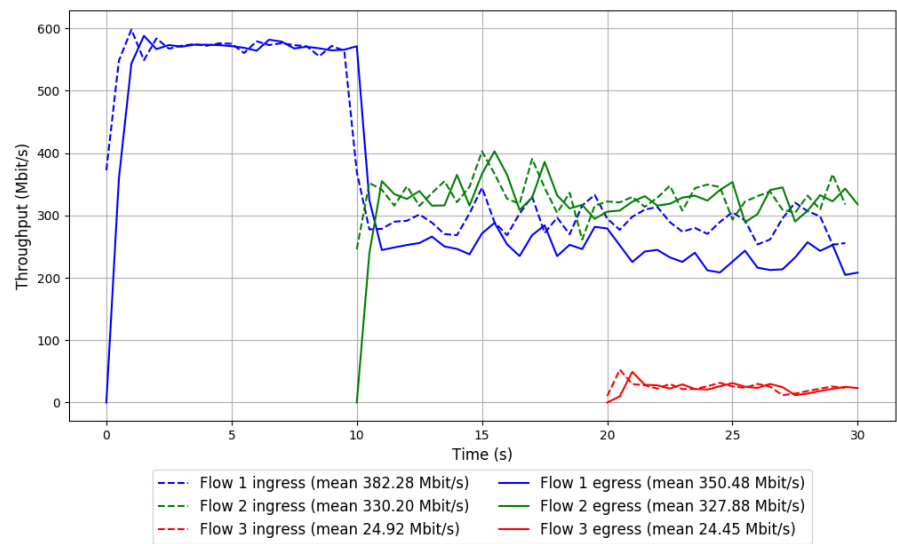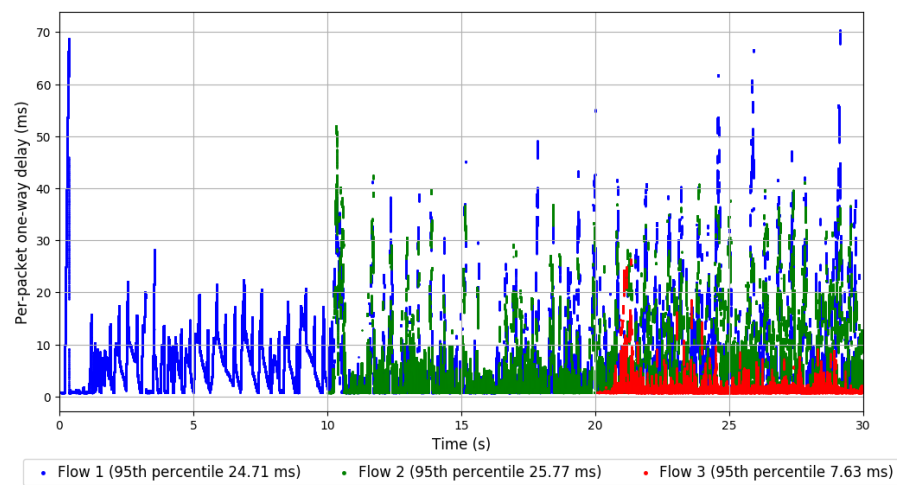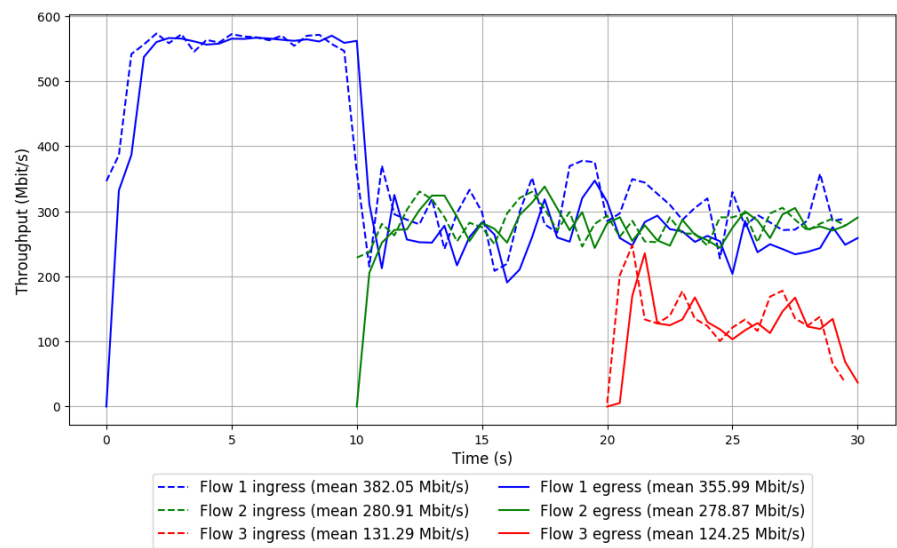
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 463.87 Mbit/s) ----- Flow 1 egress (mean 418.30 Mbit/s) ——
Flow 2 ingress (mean 287.17 Mbit/s) ----- Flow 2 egress (mean 237.19 Mbit/s) ——
Flow 3 ingress (mean 81.96 Mbit/s) ----- Flow 3 egress (mean 75.52 Mbit/s) ——

Flow 1 (95th percentile 39.16 ms) • Flow 2 (95th percentile 29.50 ms) • Flow 3 (95th percentile 5.71 ms)

```
Run 2: Statistics of FillP

Start at: 2019-07-17 23:58:41
End at: 2019-07-17 23:59:11
Local clock offset: 3.359 ms
Remote clock offset: 3.552 ms


# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 533.95 Mbit/s
95th percentile per-packet one-way delay: 24.604 ms
Loss rate: 8.50%
-- Flow 1:
Average throughput: 358.95 Mbit/s
95th percentile per-packet one-way delay: 18.902 ms
Loss rate: 9.11%
-- Flow 2:
Average throughput: 108.43 Mbit/s
95th percentile per-packet one-way delay: 10.380 ms
Loss rate: 12.79%
-- Flow 3:
Average throughput: 310.41 Mbit/s
95th percentile per-packet one-way delay: 38.684 ms
Loss rate: 2.88%
```

Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-07-18 00:32:44
End at: 2019-07-18 00:33:14
Local clock offset: -3.894 ms
Remote clock offset: -0.341 ms


# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.93 Mbit/s
95th percentile per-packet one-way delay: 37.767 ms
Loss rate: 5.46%
-- Flow 1:
Average throughput: 350.48 Mbit/s
95th percentile per-packet one-way delay: 24.873 ms
Loss rate: 8.30%
-- Flow 2:
Average throughput: 327.88 Mbit/s
95th percentile per-packet one-way delay: 47.091 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 24.45 Mbit/s
95th percentile per-packet one-way delay: 1.940 ms
Loss rate: 1.90%
```
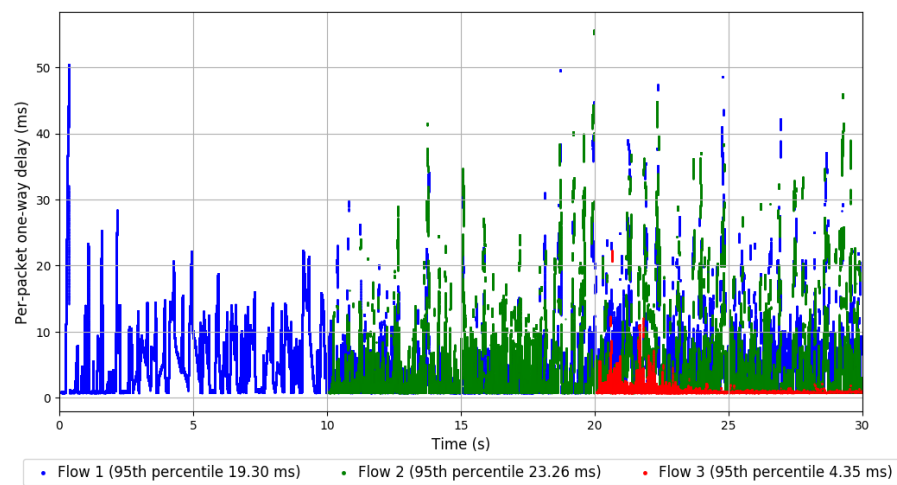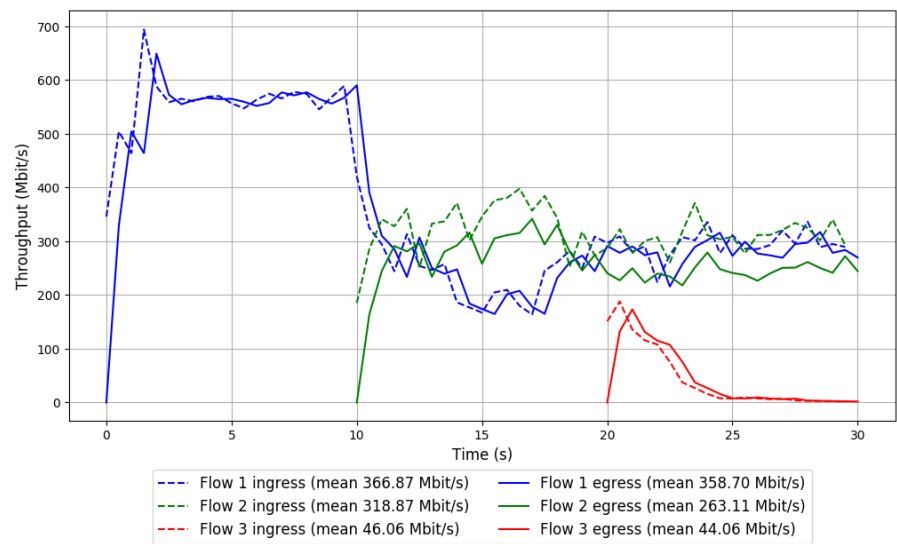
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 382.28 Mbit/s) Flow 1 egress (mean 350.48 Mbit/s)
Flow 2 ingress (mean 330.20 Mbit/s) Flow 2 egress (mean 327.88 Mbit/s)
Flow 3 ingress (mean 24.92 Mbit/s)   Flow 3 egress (mean 24.45 Mbit/s)

Flow 1 (95th percentile 24.87 ms)   Flow 2 (95th percentile 47.09 ms)   Flow 3 (95th percentile 1.94 ms)

```
Run 4: Statistics of FillP

Start at: 2019-07-18 01:06:33
End at: 2019-07-18 01:07:03
Local clock offset: -4.088 ms
Remote clock offset: -0.213 ms


# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 582.89 Mbit/s
95th percentile per-packet one-way delay: 24.493 ms
Loss rate: 4.85%
-- Flow 1:
Average throughput: 355.99 Mbit/s
95th percentile per-packet one-way delay: 24.708 ms
Loss rate: 6.82%
-- Flow 2:
Average throughput: 278.87 Mbit/s
95th percentile per-packet one-way delay: 25.768 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 124.25 Mbit/s
95th percentile per-packet one-way delay: 7.626 ms
Loss rate: 5.37%
```
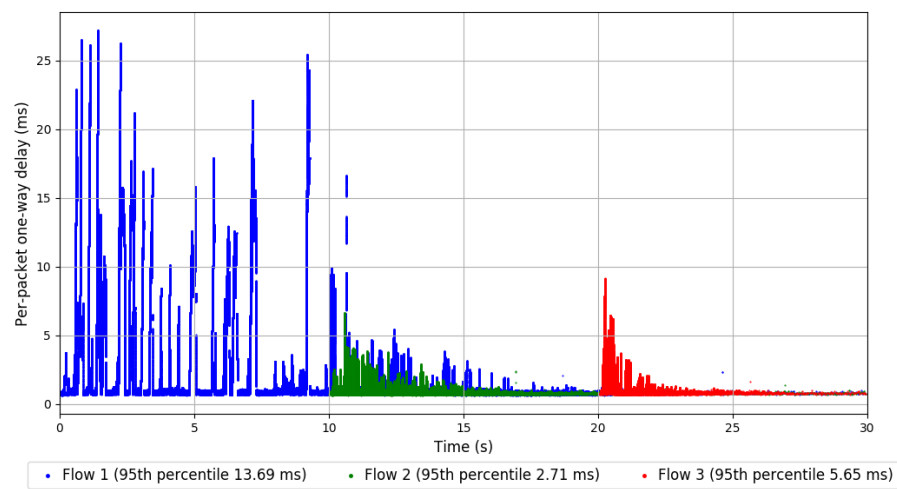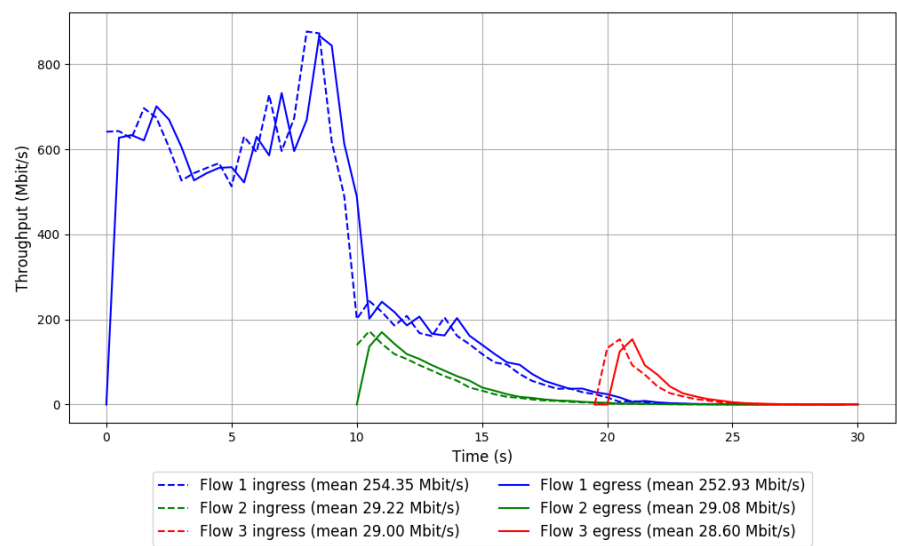
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-07-18 01:40:38
End at: 2019-07-18 01:41:08
Local clock offset: 0.155 ms
Remote clock offset: 3.561 ms


# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.19 Mbit/s
95th percentile per-packet one-way delay: 20.416 ms
Loss rate: 7.73%
-- Flow 1:
Average throughput: 358.70 Mbit/s
95th percentile per-packet one-way delay: 19.304 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 263.11 Mbit/s
95th percentile per-packet one-way delay: 23.256 ms
Loss rate: 17.49%
-- Flow 3:
Average throughput: 44.06 Mbit/s
95th percentile per-packet one-way delay: 4.352 ms
Loss rate: 4.34%
```
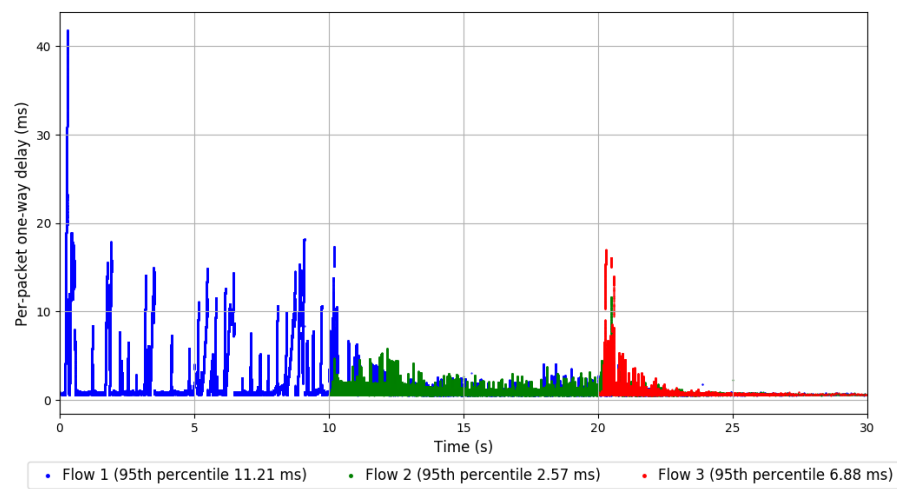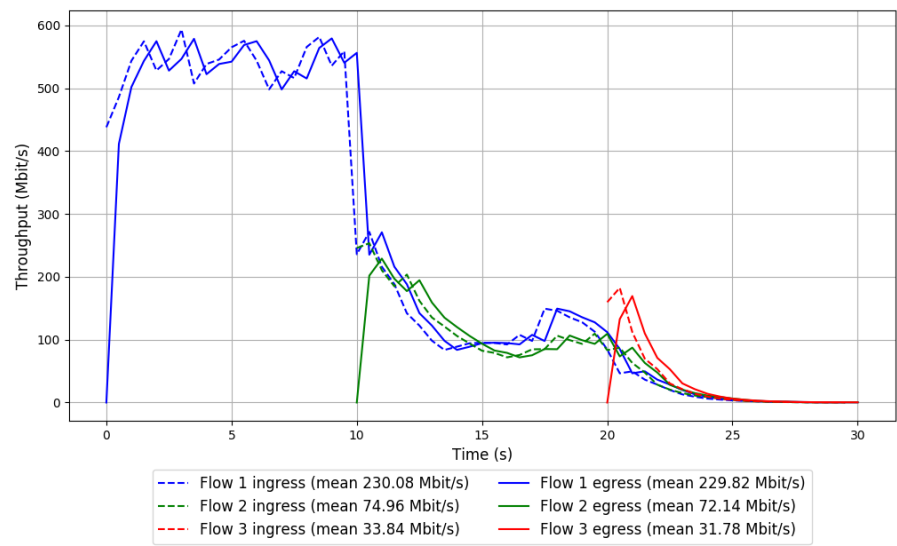
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-07-17 23:15:06
End at: 2019-07-17 23:15:36
Local clock offset: 5.773 ms
Remote clock offset: 0.227 ms

# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 281.58 Mbit/s
95th percentile per-packet one-way delay: 13.206 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 252.93 Mbit/s
95th percentile per-packet one-way delay: 13.691 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 29.08 Mbit/s
95th percentile per-packet one-way delay: 2.715 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 28.60 Mbit/s
95th percentile per-packet one-way delay: 5.651 ms
Loss rate: 1.40%
```
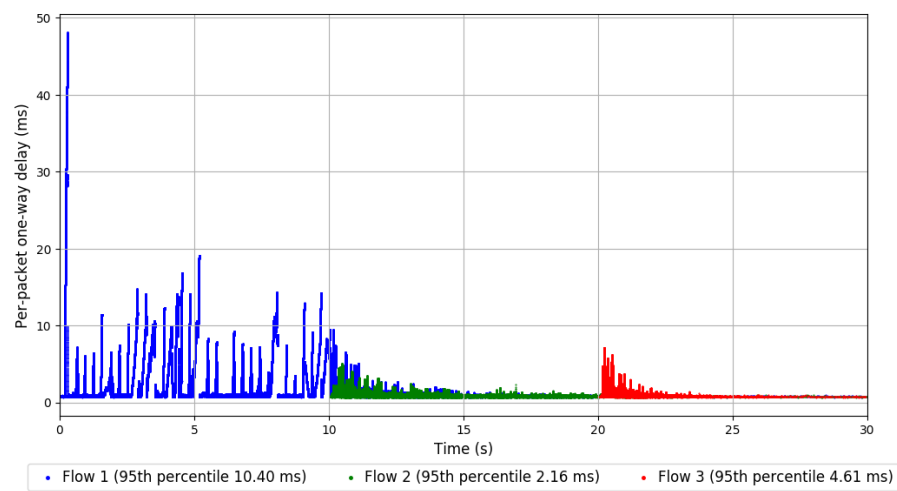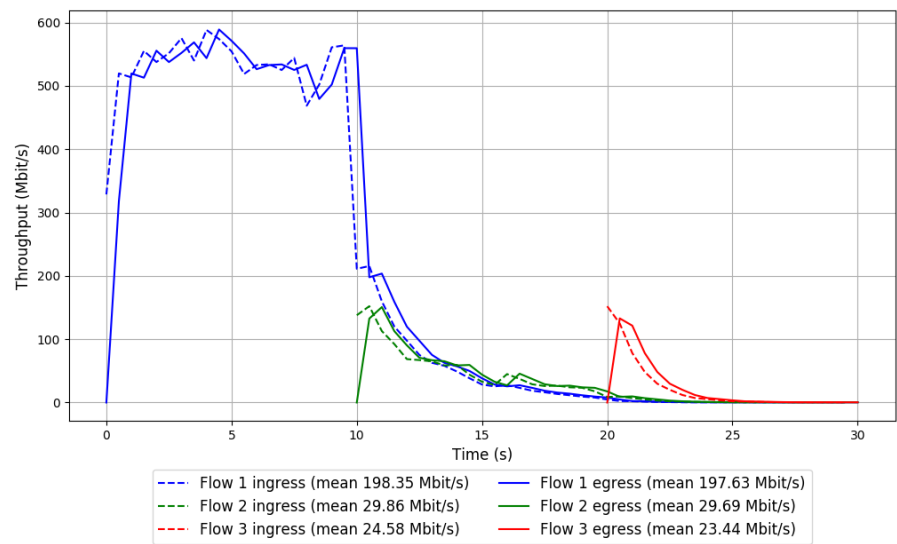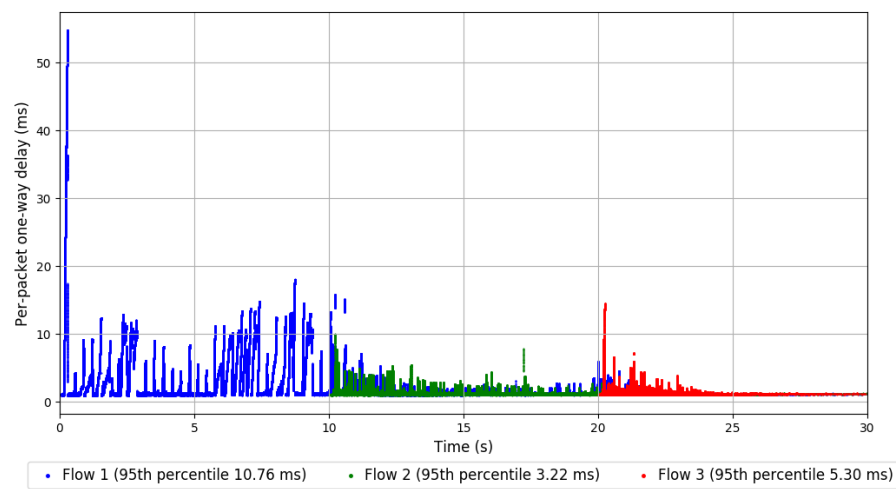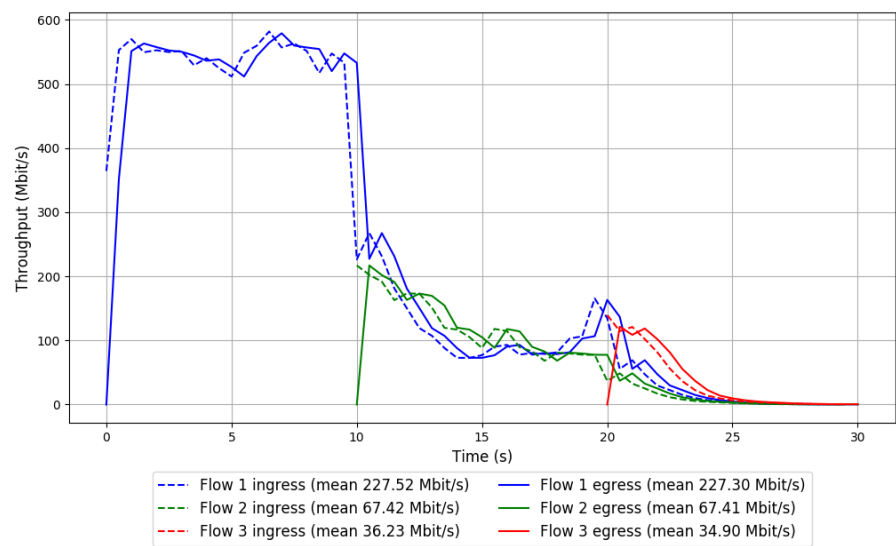
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 254.35 Mbit/s)   Flow 1 egress (mean 252.93 Mbit/s)
Flow 2 ingress (mean 29.22 Mbit/s)   Flow 2 egress (mean 29.08 Mbit/s)
Flow 3 ingress (mean 29.00 Mbit/s)   Flow 3 egress (mean 28.60 Mbit/s)

Flow 1 (95th percentile 13.69 ms)   Flow 2 (95th percentile 2.71 ms)   Flow 3 (95th percentile 5.65 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-07-17 23:49:06
End at: 2019-07-17 23:49:36
Local clock offset: 5.543 ms
Remote clock offset: 2.844 ms


# Below is generated by plot.py at 2019-07-18 02:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.24 Mbit/s
95th percentile per-packet one-way delay: 10.485 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 229.82 Mbit/s
95th percentile per-packet one-way delay: 11.209 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 72.14 Mbit/s
95th percentile per-packet one-way delay: 2.572 ms
Loss rate: 3.76%
-- Flow 3:
Average throughput: 31.78 Mbit/s
95th percentile per-packet one-way delay: 6.878 ms
Loss rate: 6.10%
```
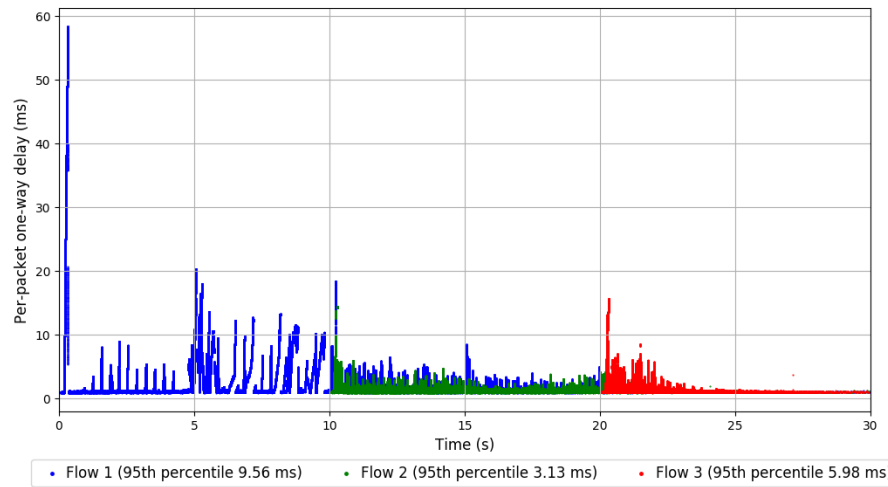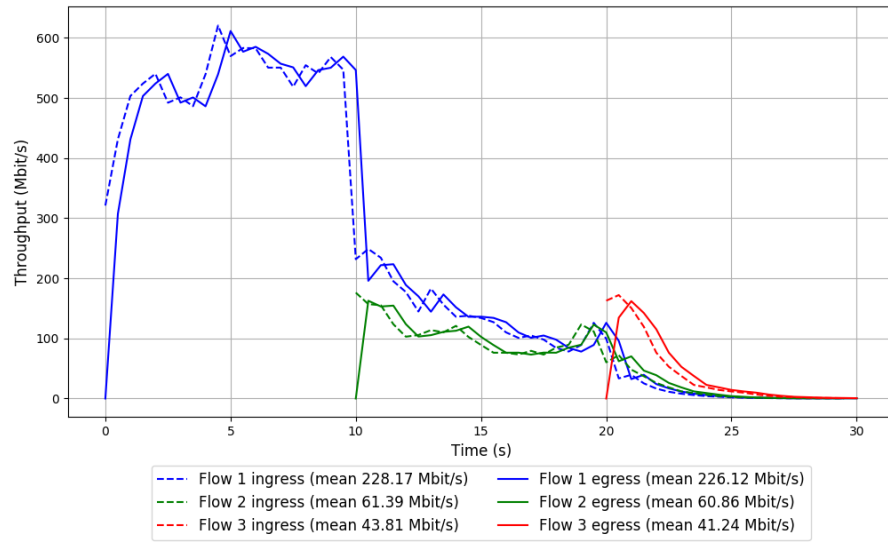
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 230.08 Mbit/s) --- Flow 1 egress (mean 229.82 Mbit/s)
Flow 2 ingress (mean 74.96 Mbit/s) --- Flow 2 egress (mean 72.14 Mbit/s)
Flow 3 ingress (mean 33.84 Mbit/s) --- Flow 3 egress (mean 31.78 Mbit/s)

Flow 1 (95th percentile 11.21 ms)　Flow 2 (95th percentile 2.57 ms)　Flow 3 (95th percentile 6.88 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-07-18 00:23:08
End at: 2019-07-18 00:23:38
Local clock offset: -2.675 ms
Remote clock offset: 0.31 ms


# Below is generated by plot.py at 2019-07-18 02:10:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.00 Mbit/s
95th percentile per-packet one-way delay: 10.000 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 197.63 Mbit/s
95th percentile per-packet one-way delay: 10.402 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 2.164 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 23.44 Mbit/s
95th percentile per-packet one-way delay: 4.614 ms
Loss rate: 4.61%
```
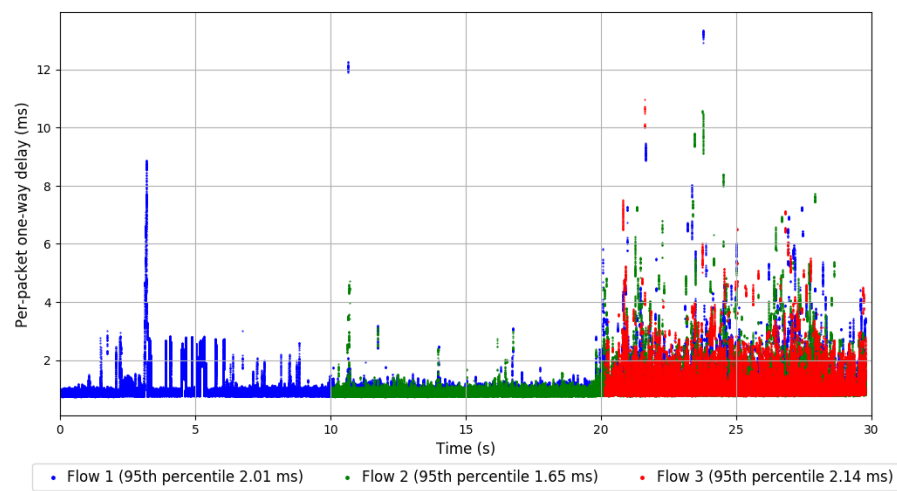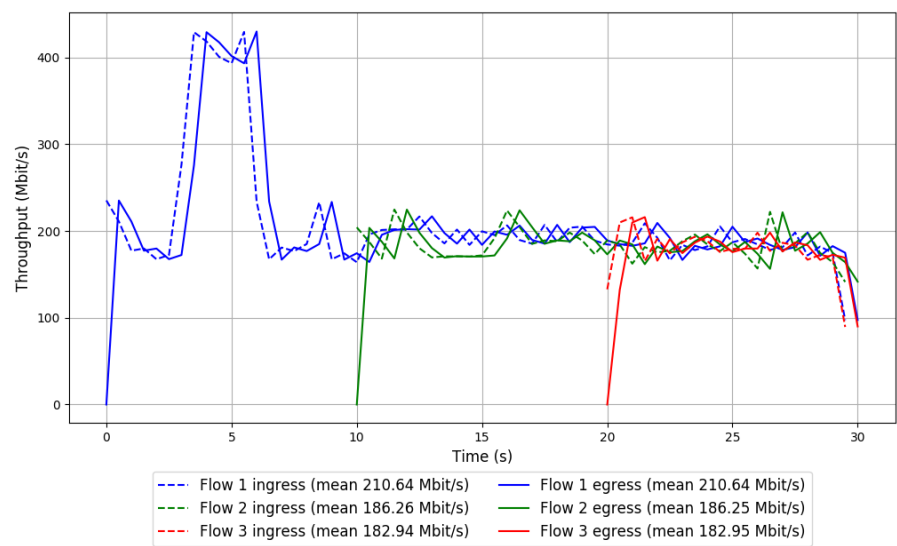
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 198.35 Mbit/s)
Flow 1 egress (mean 197.63 Mbit/s)
Flow 2 ingress (mean 29.86 Mbit/s)
Flow 2 egress (mean 29.69 Mbit/s)
Flow 3 ingress (mean 24.58 Mbit/s)
Flow 3 egress (mean 23.44 Mbit/s)

Flow 1 (95th percentile 10.40 ms)
Flow 2 (95th percentile 2.16 ms)
Flow 3 (95th percentile 4.61 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-07-18 00:57:00
End at: 2019-07-18 00:57:30
Local clock offset: -5.844 ms
Remote clock offset: -0.182 ms


# Below is generated by plot.py at 2019-07-18 02:11:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.68 Mbit/s
95th percentile per-packet one-way delay: 10.336 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 227.30 Mbit/s
95th percentile per-packet one-way delay: 10.759 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 67.41 Mbit/s
95th percentile per-packet one-way delay: 3.216 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 5.296 ms
Loss rate: 3.69%
```
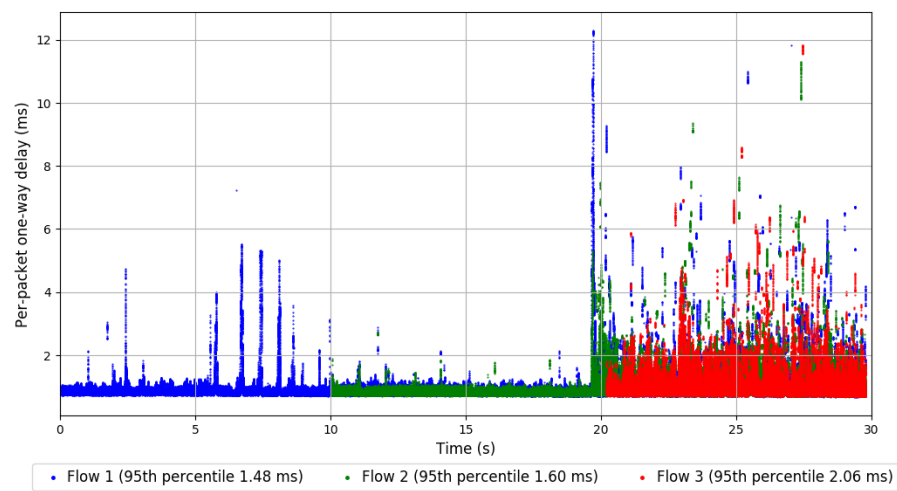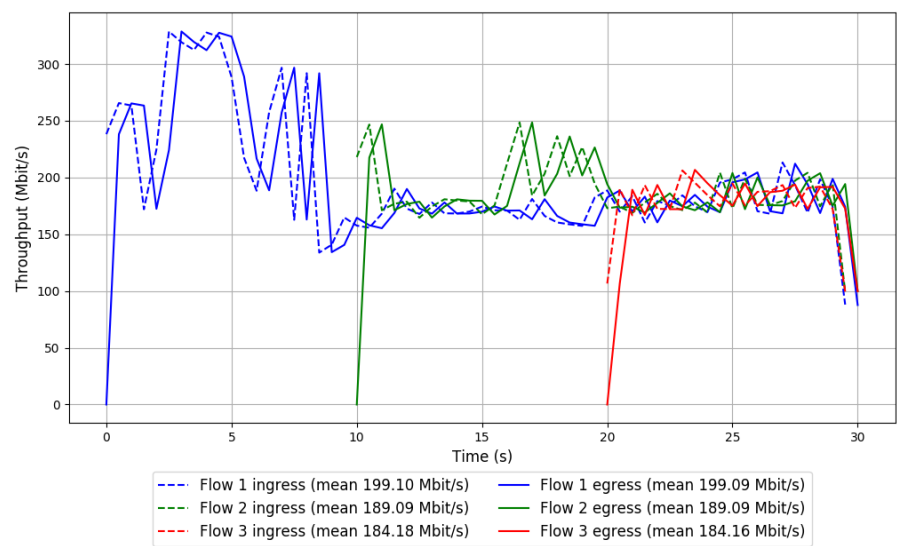
Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-07-18 01:31:02
End at: 2019-07-18 01:31:32
Local clock offset: -1.529 ms
Remote clock offset: 2.978 ms


# Below is generated by plot.py at 2019-07-18 02:11:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.24 Mbit/s
95th percentile per-packet one-way delay: 9.136 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 226.12 Mbit/s
95th percentile per-packet one-way delay: 9.559 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 60.86 Mbit/s
95th percentile per-packet one-way delay: 3.129 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 41.24 Mbit/s
95th percentile per-packet one-way delay: 5.978 ms
Loss rate: 5.86%
```
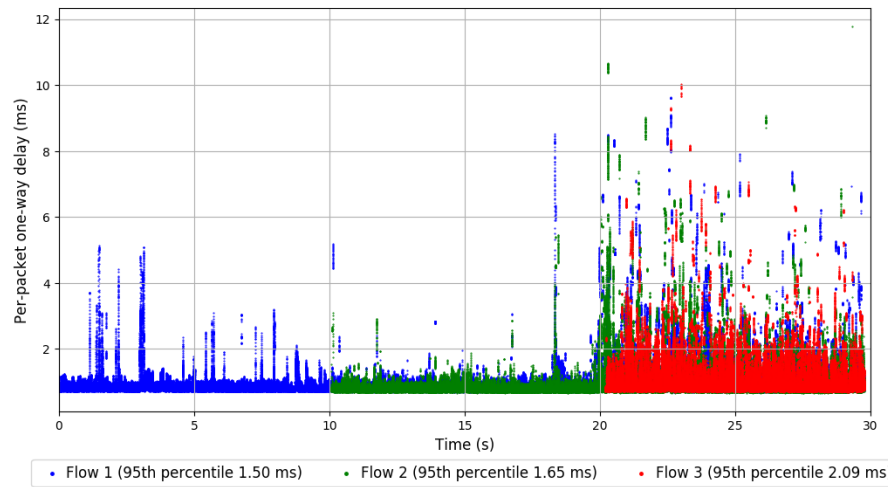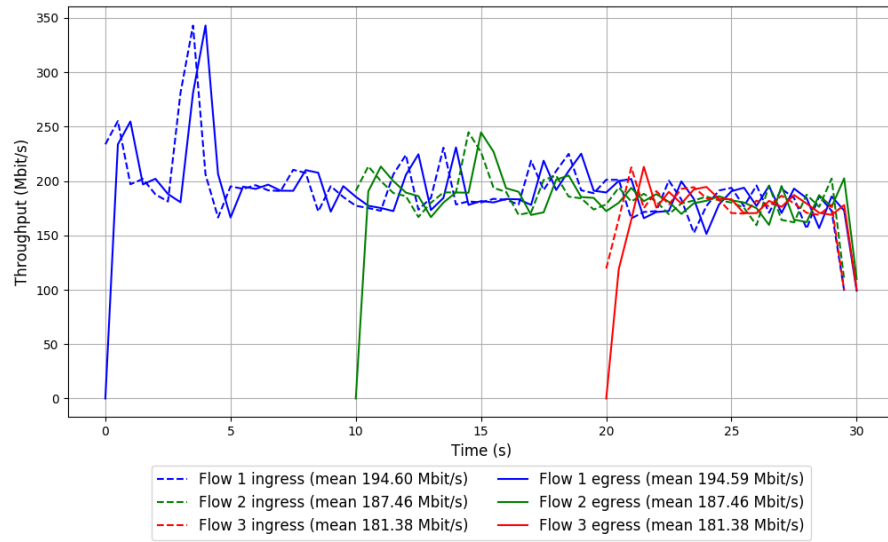
Run 5: Report of FillP-Sheep — Data Link

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```
Run 1: Statistics of Indigo

Start at: 2019-07-17 23:12:20
End at: 2019-07-17 23:12:50
Local clock offset: 5.773 ms
Remote clock offset: 0.562 ms

# Below is generated by plot.py at 2019-07-18 02:12:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 393.49 Mbit/s
95th percentile per-packet one-way delay: 1.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 210.64 Mbit/s
95th percentile per-packet one-way delay: 2.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.25 Mbit/s
95th percentile per-packet one-way delay: 1.654 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 182.95 Mbit/s
95th percentile per-packet one-way delay: 2.139 ms
Loss rate: 0.01%
```
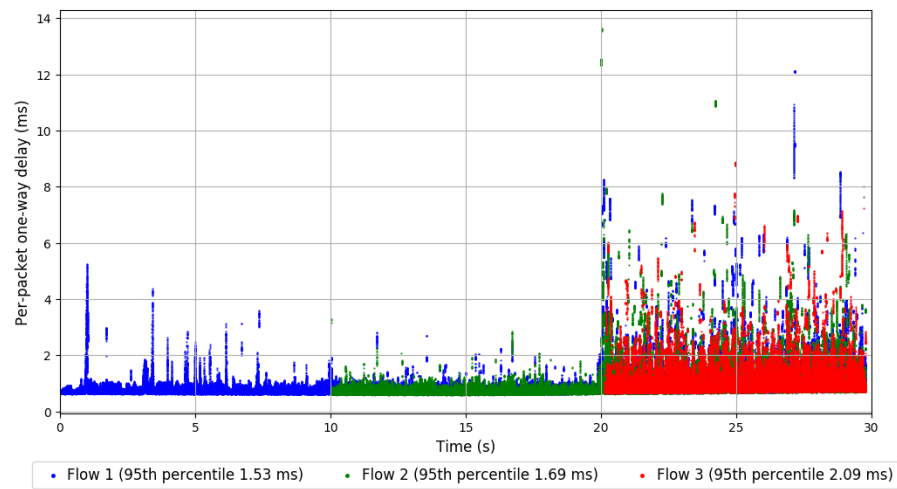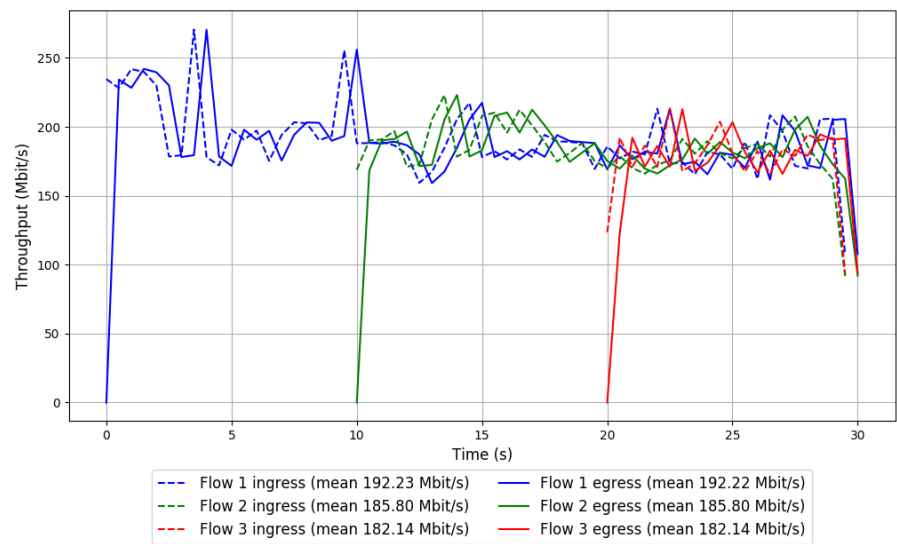
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-07-17 23:46:21
End at: 2019-07-17 23:46:51
Local clock offset: 5.55 ms
Remote clock offset: 2.68 ms


# Below is generated by plot.py at 2019-07-18 02:12:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 383.72 Mbit/s
95th percentile per-packet one-way delay: 1.663 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 199.09 Mbit/s
95th percentile per-packet one-way delay: 1.481 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 189.09 Mbit/s
95th percentile per-packet one-way delay: 1.602 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 184.16 Mbit/s
95th percentile per-packet one-way delay: 2.056 ms
Loss rate: 0.00%
```
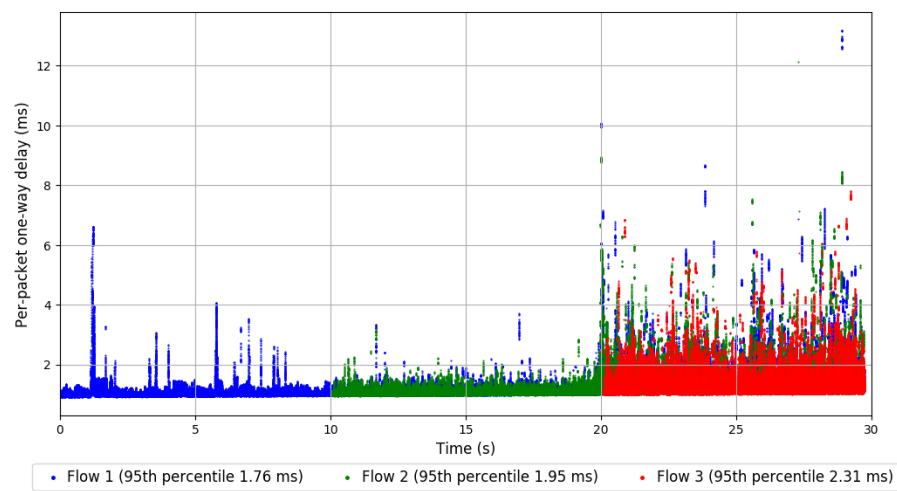
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-07-18 00:20:23
End at: 2019-07-18 00:20:53
Local clock offset: -2.265 ms
Remote clock offset: 0.571 ms


# Below is generated by plot.py at 2019-07-18 02:12:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.01 Mbit/s
95th percentile per-packet one-way delay: 1.687 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.59 Mbit/s
95th percentile per-packet one-way delay: 1.502 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 187.46 Mbit/s
95th percentile per-packet one-way delay: 1.653 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 181.38 Mbit/s
95th percentile per-packet one-way delay: 2.094 ms
Loss rate: 0.00%
```
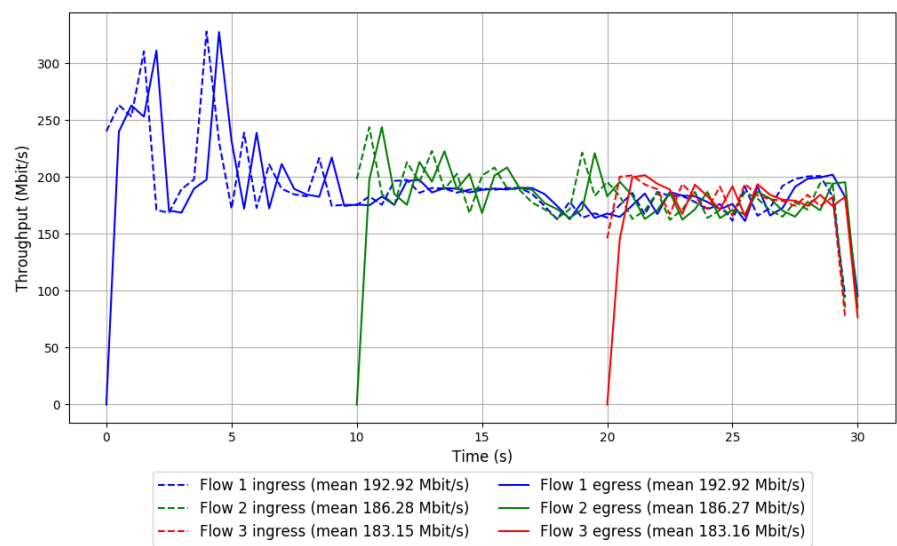
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-07-18 00:54:14
End at: 2019-07-18 00:54:44
Local clock offset: -6.436 ms
Remote clock offset: -0.208 ms


# Below is generated by plot.py at 2019-07-18 02:13:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.51 Mbit/s
95th percentile per-packet one-way delay: 1.699 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 192.22 Mbit/s
95th percentile per-packet one-way delay: 1.526 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 185.80 Mbit/s
95th percentile per-packet one-way delay: 1.688 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 182.14 Mbit/s
95th percentile per-packet one-way delay: 2.091 ms
Loss rate: 0.00%
```
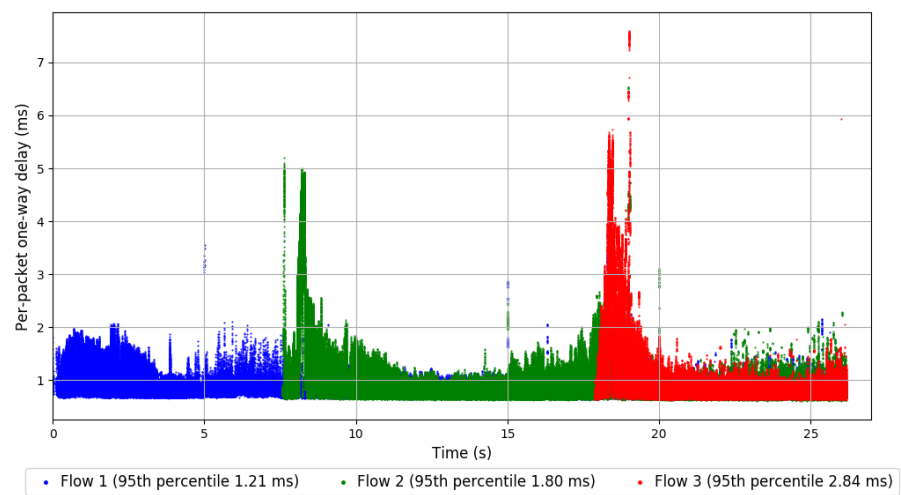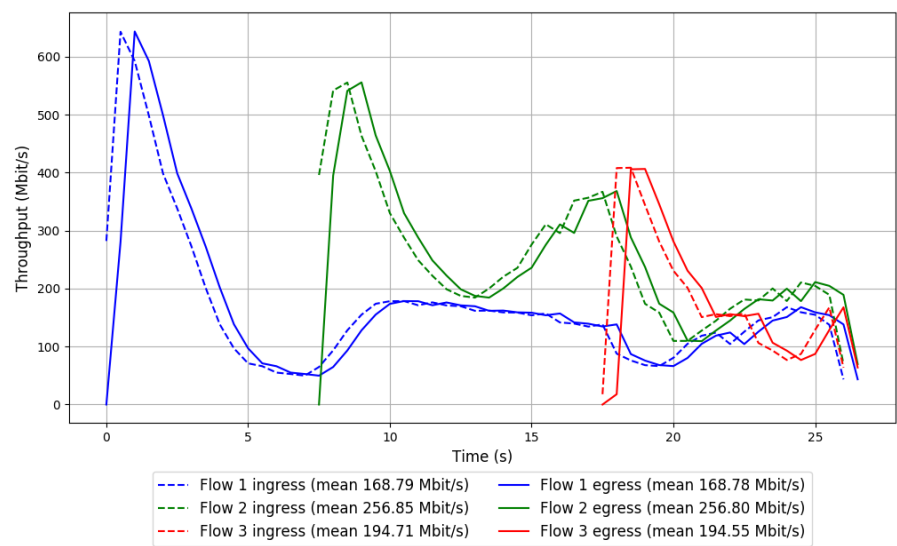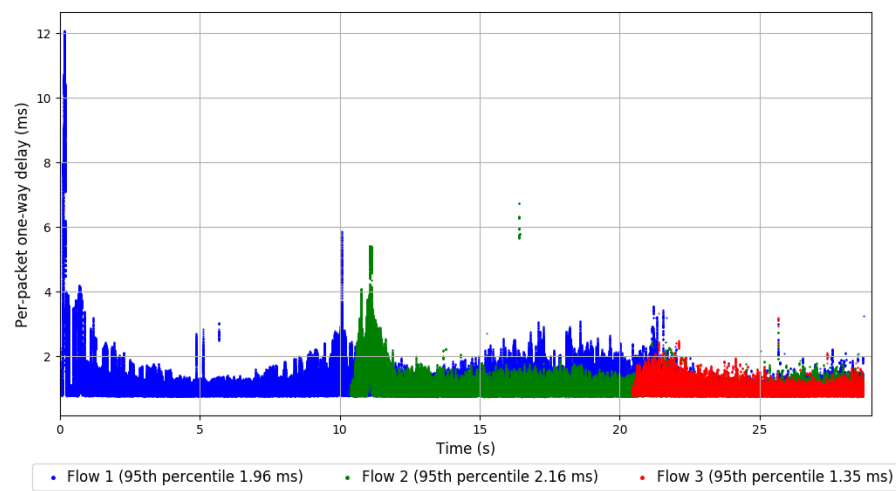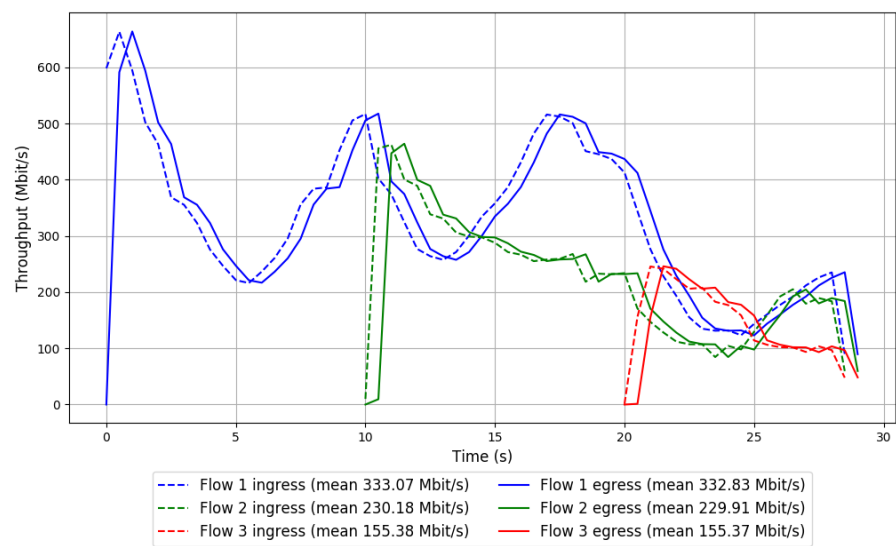
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-07-18 01:28:16
End at: 2019-07-18 01:28:46
Local clock offset: -2.454 ms
Remote clock offset: 2.709 ms


# Below is generated by plot.py at 2019-07-18 02:13:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.52 Mbit/s
95th percentile per-packet one-way delay: 1.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 192.92 Mbit/s
95th percentile per-packet one-way delay: 1.764 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.27 Mbit/s
95th percentile per-packet one-way delay: 1.946 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 183.16 Mbit/s
95th percentile per-packet one-way delay: 2.312 ms
Loss rate: 0.00%
```
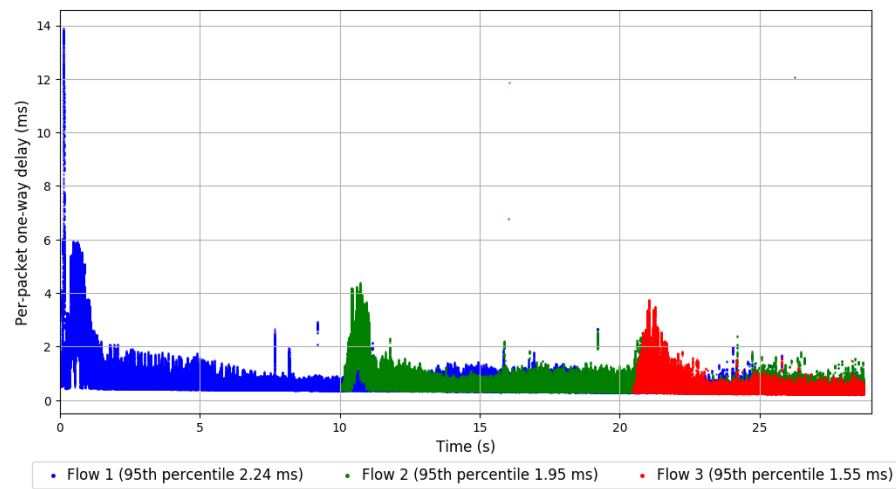
Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 192.92 Mbit/s) --- Flow 1 egress (mean 192.92 Mbit/s)
Flow 2 ingress (mean 186.28 Mbit/s) --- Flow 2 egress (mean 186.27 Mbit/s)
Flow 3 ingress (mean 183.15 Mbit/s) --- Flow 3 egress (mean 183.16 Mbit/s)

Flow 1 (95th percentile 1.76 ms) • Flow 2 (95th percentile 1.95 ms) • Flow 3 (95th percentile 2.31 ms)

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-07-17 22:52:11
End at: 2019-07-17 22:52:41
Local clock offset: 5.817 ms
Remote clock offset: 4.263 ms


# Below is generated by plot.py at 2019-07-18 02:14:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 413.07 Mbit/s
95th percentile per-packet one-way delay: 1.651 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 168.78 Mbit/s
95th percentile per-packet one-way delay: 1.206 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 256.80 Mbit/s
95th percentile per-packet one-way delay: 1.798 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 194.55 Mbit/s
95th percentile per-packet one-way delay: 2.839 ms
Loss rate: 0.08%
```
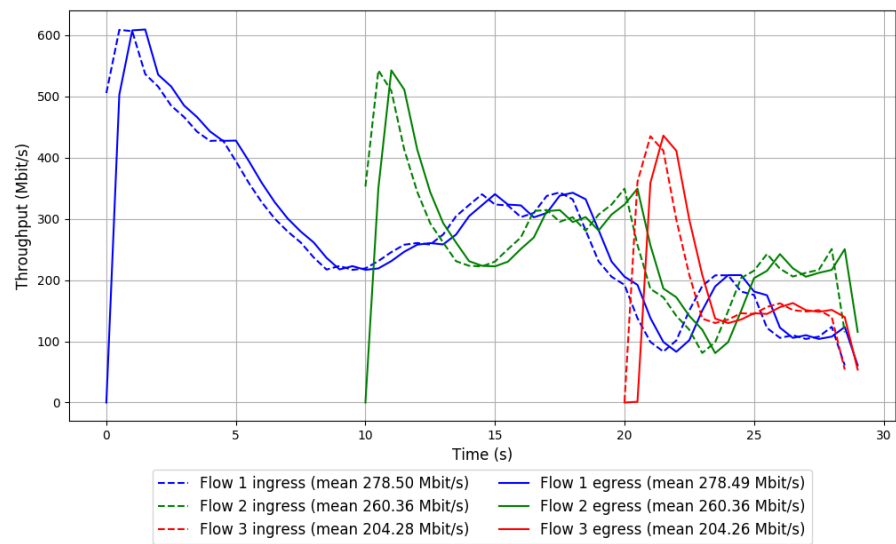
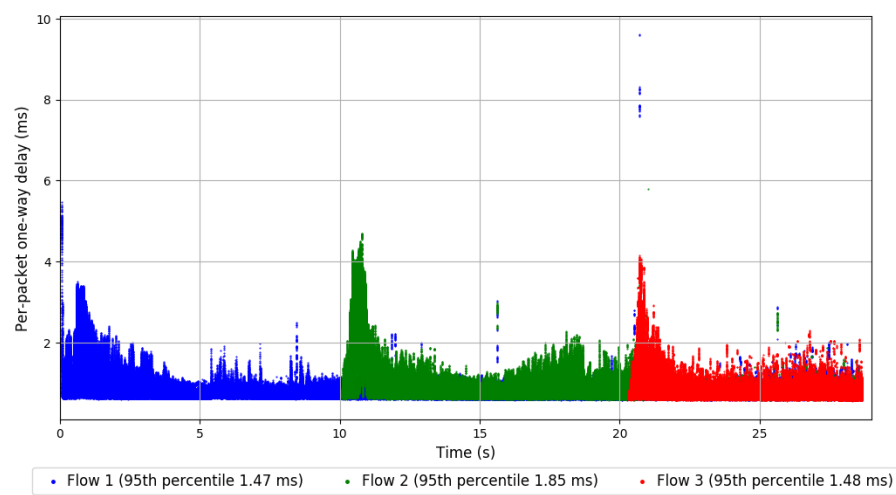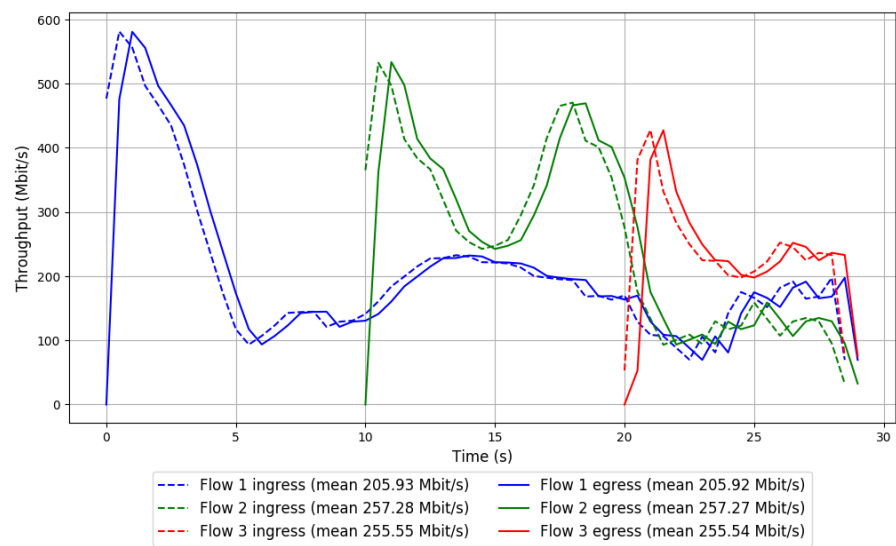Run 1: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 168.79 Mbit/s) --- Flow 1 egress (mean 168.78 Mbit/s)
Flow 2 ingress (mean 256.85 Mbit/s) --- Flow 2 egress (mean 256.80 Mbit/s)
Flow 3 ingress (mean 194.71 Mbit/s) --- Flow 3 egress (mean 194.55 Mbit/s)

Flow 1 (95th percentile 1.21 ms) Flow 2 (95th percentile 1.80 ms) Flow 3 (95th percentile 2.84 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-07-17 23:26:12
End at: 2019-07-17 23:26:42
Local clock offset: 5.717 ms
Remote clock offset: -0.369 ms


# Below is generated by plot.py at 2019-07-18 02:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 524.23 Mbit/s
95th percentile per-packet one-way delay: 1.953 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 332.83 Mbit/s
95th percentile per-packet one-way delay: 1.955 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 229.91 Mbit/s
95th percentile per-packet one-way delay: 2.161 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 155.37 Mbit/s
95th percentile per-packet one-way delay: 1.348 ms
Loss rate: 0.01%
```

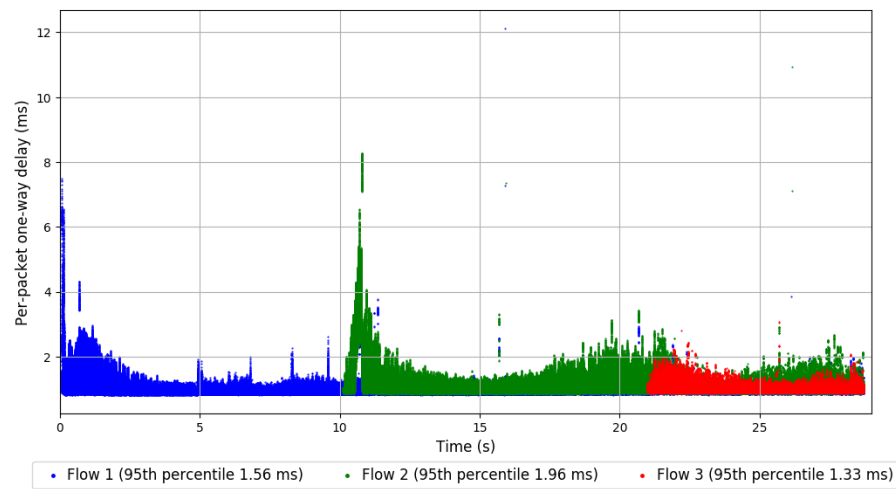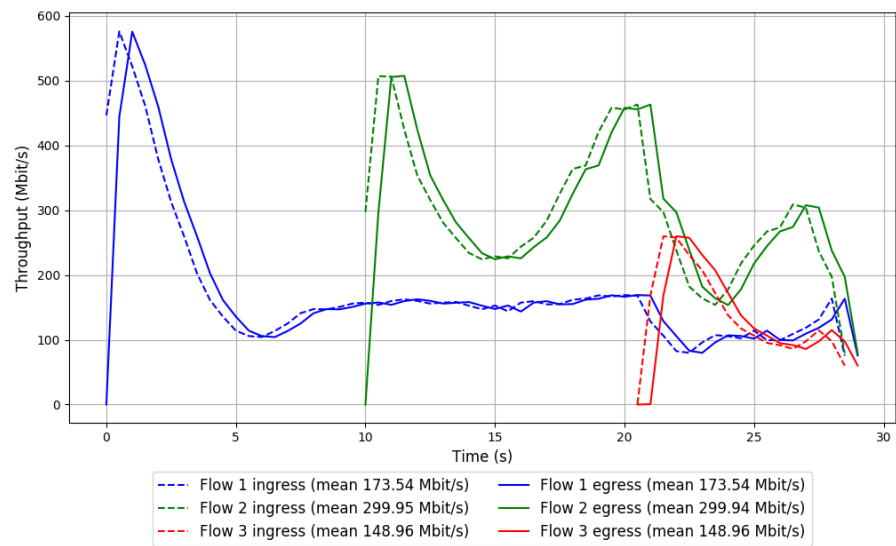Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-07-18 00:00:12
End at: 2019-07-18 00:00:42
Local clock offset: 2.589 ms
Remote clock offset: 3.567 ms


# Below is generated by plot.py at 2019-07-18 02:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.21 Mbit/s
95th percentile per-packet one-way delay: 1.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 278.49 Mbit/s
95th percentile per-packet one-way delay: 2.244 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 260.36 Mbit/s
95th percentile per-packet one-way delay: 1.945 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 204.26 Mbit/s
95th percentile per-packet one-way delay: 1.547 ms
Loss rate: 0.01%
```
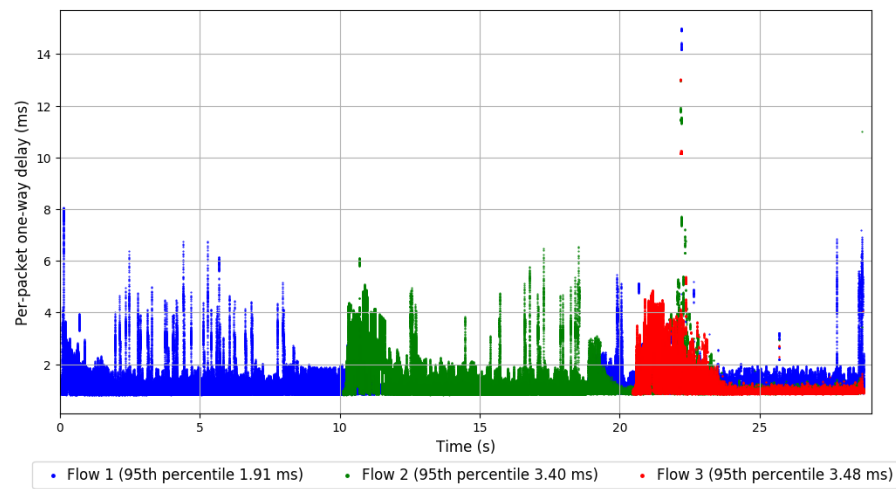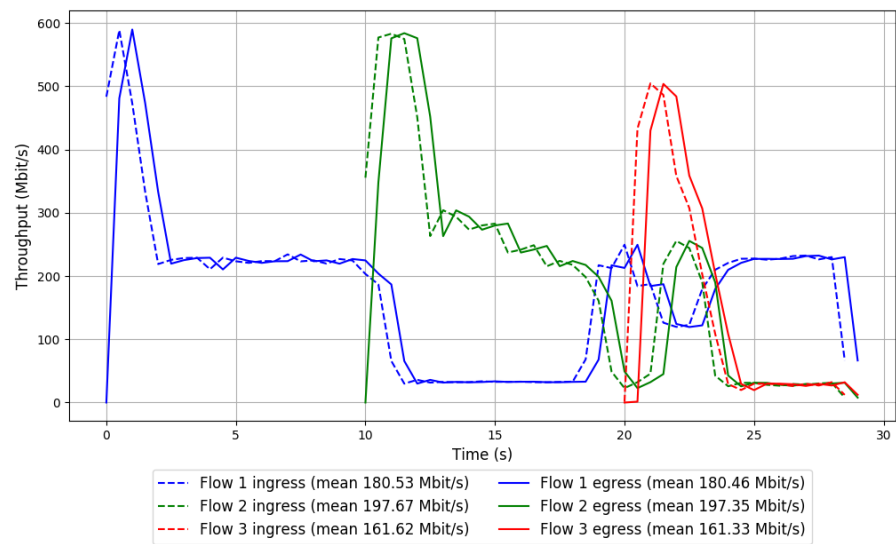
Run 3: Report of Indigo-MusesC3 — Data Link

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-07-18 00:34:16
End at: 2019-07-18 00:34:46
Local clock offset: -4.098 ms
Remote clock offset: -0.409 ms


# Below is generated by plot.py at 2019-07-18 02:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.47 Mbit/s
95th percentile per-packet one-way delay: 1.583 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 205.92 Mbit/s
95th percentile per-packet one-way delay: 1.469 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 257.27 Mbit/s
95th percentile per-packet one-way delay: 1.849 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 255.54 Mbit/s
95th percentile per-packet one-way delay: 1.482 ms
Loss rate: 0.00%
```
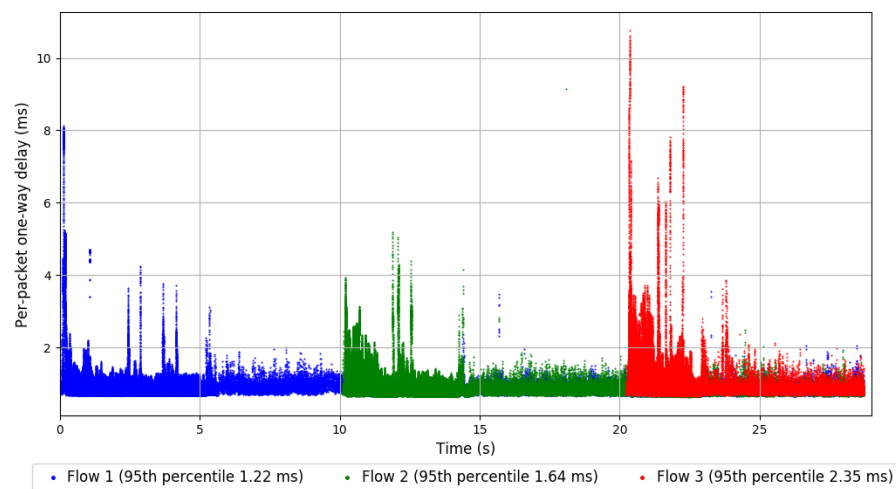
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-07-18 01:08:05
End at: 2019-07-18 01:08:35
Local clock offset: -4.04 ms
Remote clock offset: -0.162 ms


# Below is generated by plot.py at 2019-07-18 02:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 407.86 Mbit/s
95th percentile per-packet one-way delay: 1.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 173.54 Mbit/s
95th percentile per-packet one-way delay: 1.563 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 299.94 Mbit/s
95th percentile per-packet one-way delay: 1.960 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.96 Mbit/s
95th percentile per-packet one-way delay: 1.332 ms
Loss rate: 0.00%
```
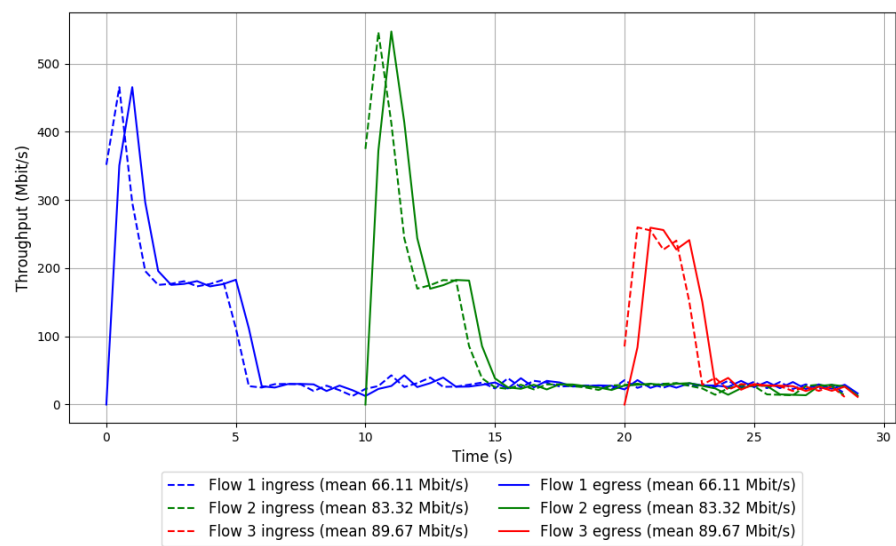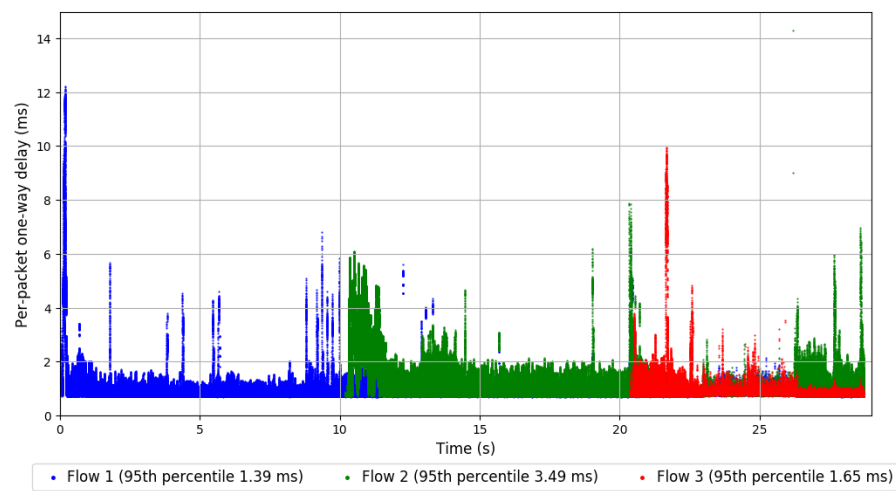
Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-07-17 23:10:53
End at: 2019-07-17 23:11:23
Local clock offset: 5.779 ms
Remote clock offset: 0.826 ms


# Below is generated by plot.py at 2019-07-18 02:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.64 Mbit/s
95th percentile per-packet one-way delay: 2.908 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 180.46 Mbit/s
95th percentile per-packet one-way delay: 1.909 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 197.35 Mbit/s
95th percentile per-packet one-way delay: 3.401 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 161.33 Mbit/s
95th percentile per-packet one-way delay: 3.482 ms
Loss rate: 0.18%
```
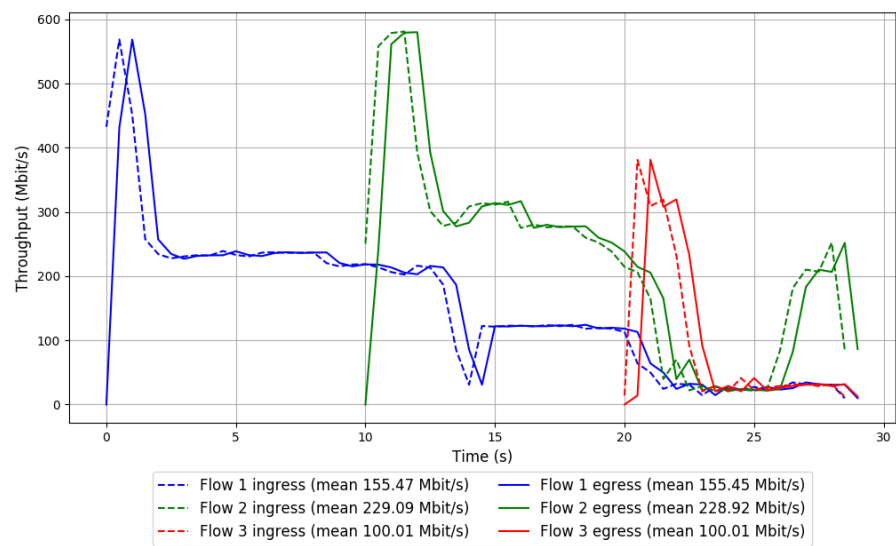
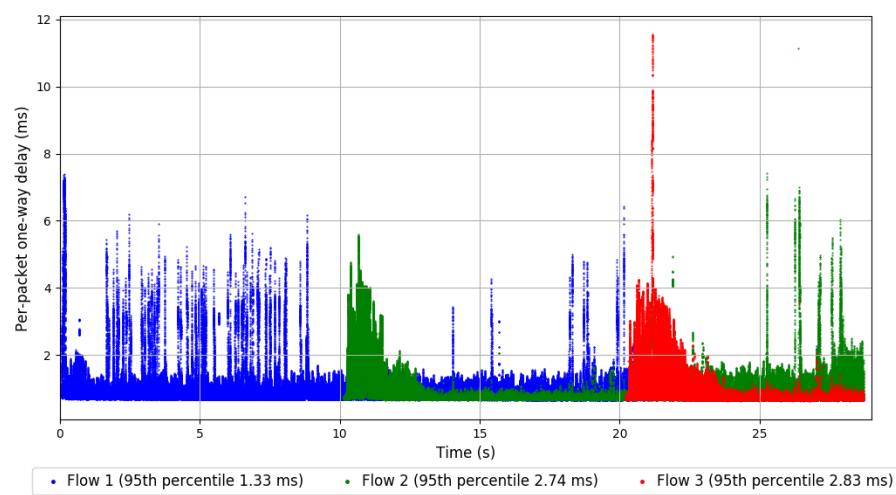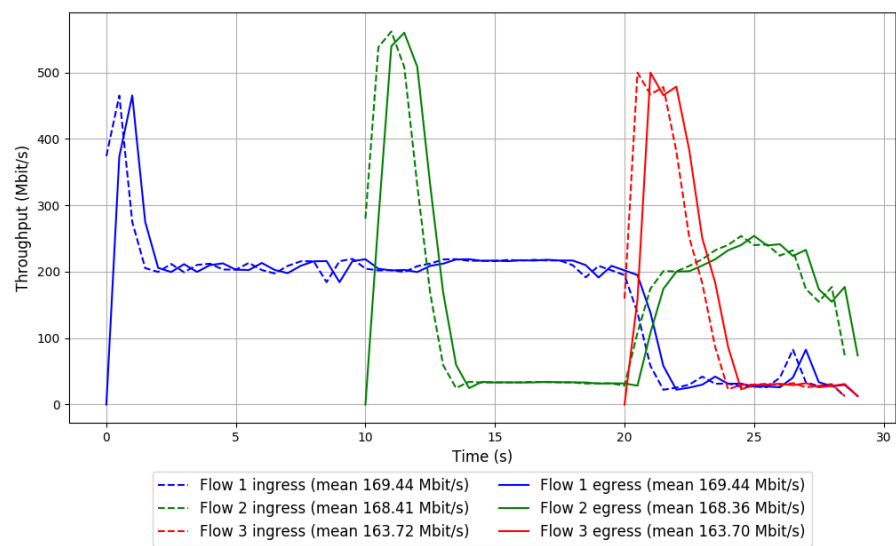Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-07-17 23:45:01
End at: 2019-07-17 23:45:31
Local clock offset: 5.576 ms
Remote clock offset: 2.49 ms


# Below is generated by plot.py at 2019-07-18 02:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 146.69 Mbit/s
95th percentile per-packet one-way delay: 1.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.11 Mbit/s
95th percentile per-packet one-way delay: 1.219 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.32 Mbit/s
95th percentile per-packet one-way delay: 1.639 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 2.346 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesC5 — Data Link

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```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-07-18 00:18:57
End at: 2019-07-18 00:19:27
Local clock offset: -2.039 ms
Remote clock offset: 0.763 ms


# Below is generated by plot.py at 2019-07-18 02:18:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.18 Mbit/s
95th percentile per-packet one-way delay: 2.619 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 155.45 Mbit/s
95th percentile per-packet one-way delay: 1.385 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 228.92 Mbit/s
95th percentile per-packet one-way delay: 3.493 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 100.01 Mbit/s
95th percentile per-packet one-way delay: 1.646 ms
Loss rate: 0.00%
```
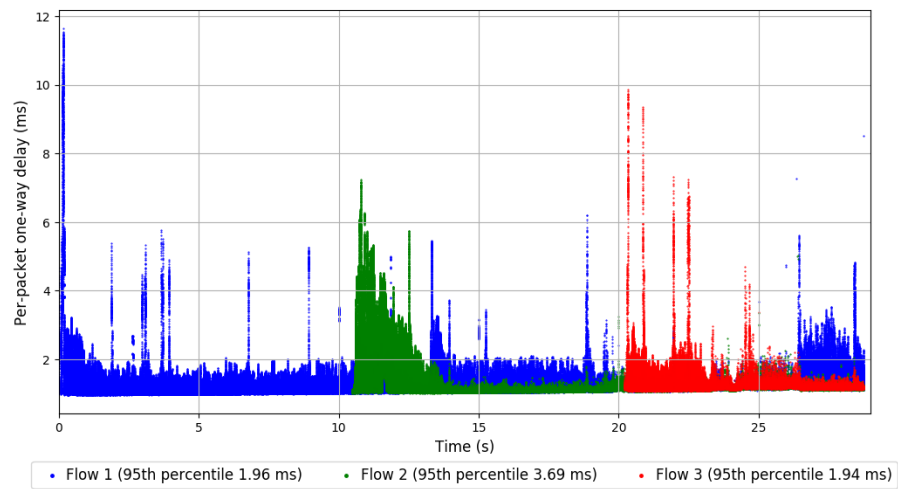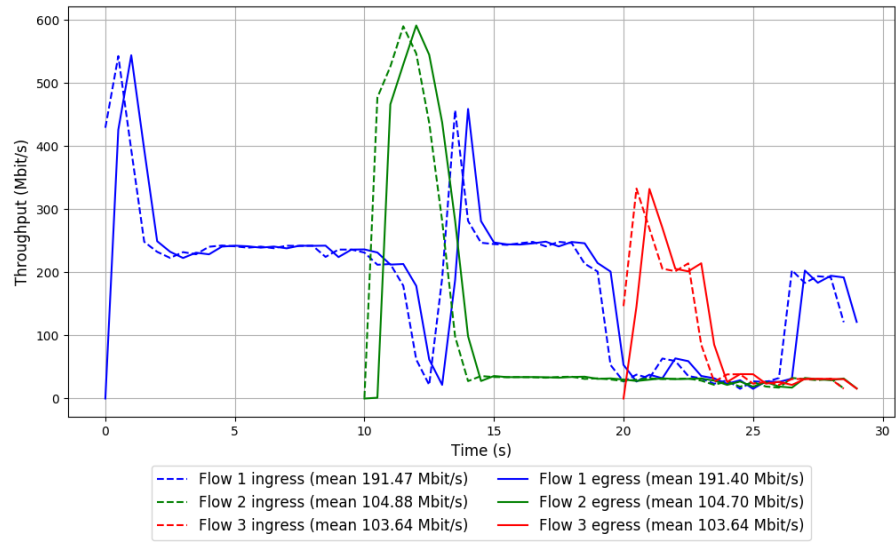
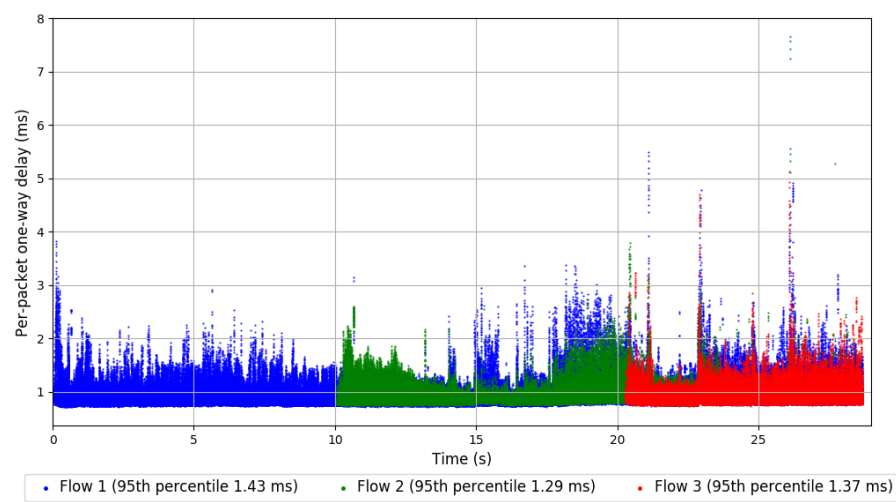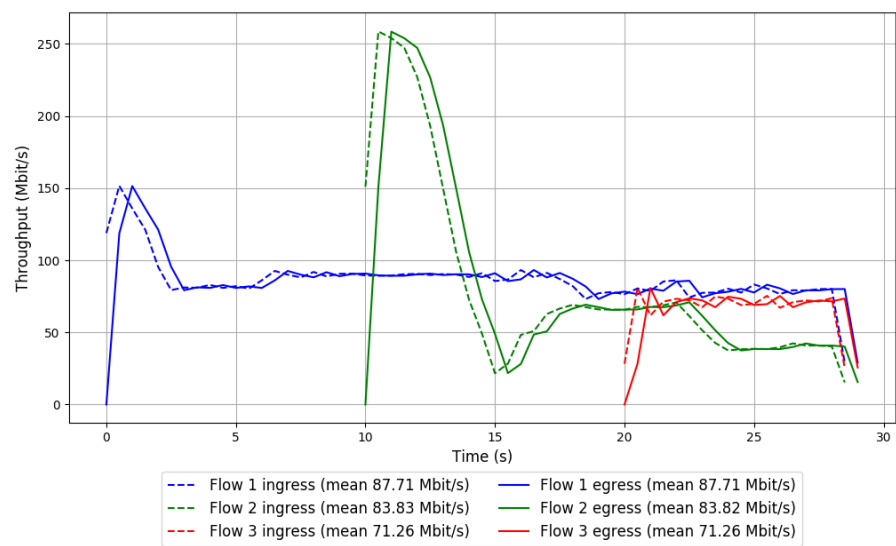Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-07-18 00:52:49
End at: 2019-07-18 00:53:19
Local clock offset: -6.285 ms
Remote clock offset: -0.164 ms


# Below is generated by plot.py at 2019-07-18 02:18:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 326.71 Mbit/s
95th percentile per-packet one-way delay: 2.421 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 169.44 Mbit/s
95th percentile per-packet one-way delay: 1.333 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 168.36 Mbit/s
95th percentile per-packet one-way delay: 2.741 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 163.70 Mbit/s
95th percentile per-packet one-way delay: 2.834 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-07-18 01:26:52
End at: 2019-07-18 01:27:22
Local clock offset: -3.102 ms
Remote clock offset: 2.493 ms


# Below is generated by plot.py at 2019-07-18 02:18:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.70 Mbit/s
95th percentile per-packet one-way delay: 2.610 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 191.40 Mbit/s
95th percentile per-packet one-way delay: 1.956 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 104.70 Mbit/s
95th percentile per-packet one-way delay: 3.691 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 103.64 Mbit/s
95th percentile per-packet one-way delay: 1.944 ms
Loss rate: 0.00%
```
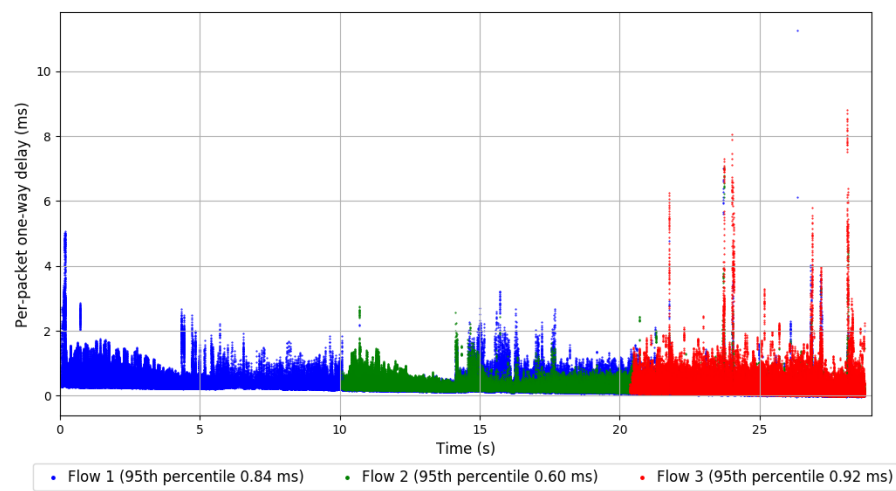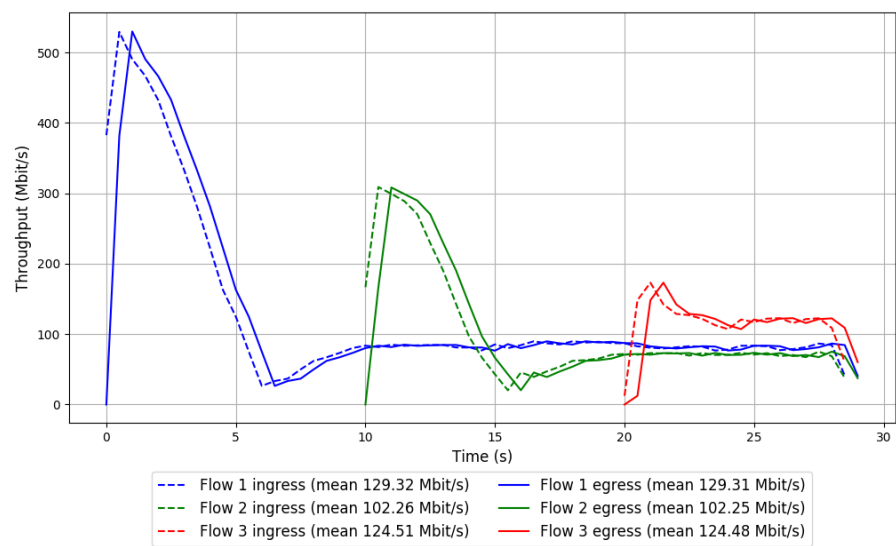
Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-07-17 23:21:59
End at: 2019-07-17 23:22:29
Local clock offset: 5.732 ms
Remote clock offset: -0.213 ms


# Below is generated by plot.py at 2019-07-18 02:18:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 163.03 Mbit/s
95th percentile per-packet one-way delay: 1.378 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.71 Mbit/s
95th percentile per-packet one-way delay: 1.430 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.82 Mbit/s
95th percentile per-packet one-way delay: 1.295 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.26 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 0.00%
```
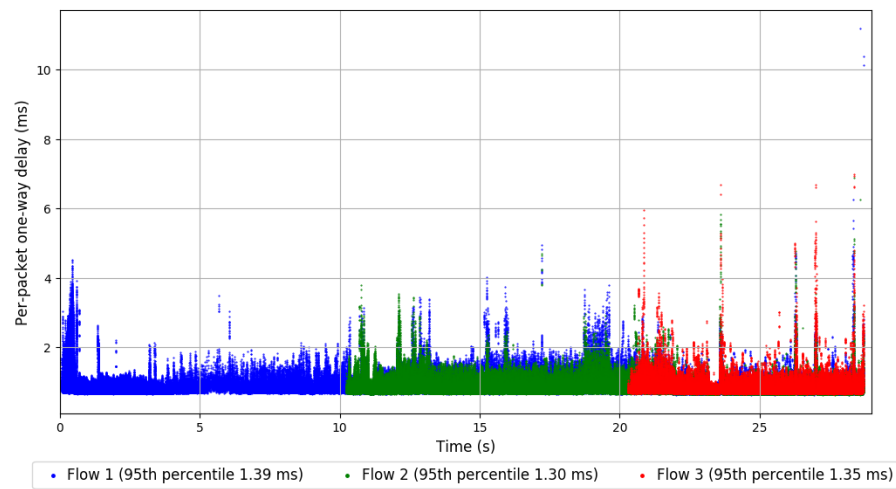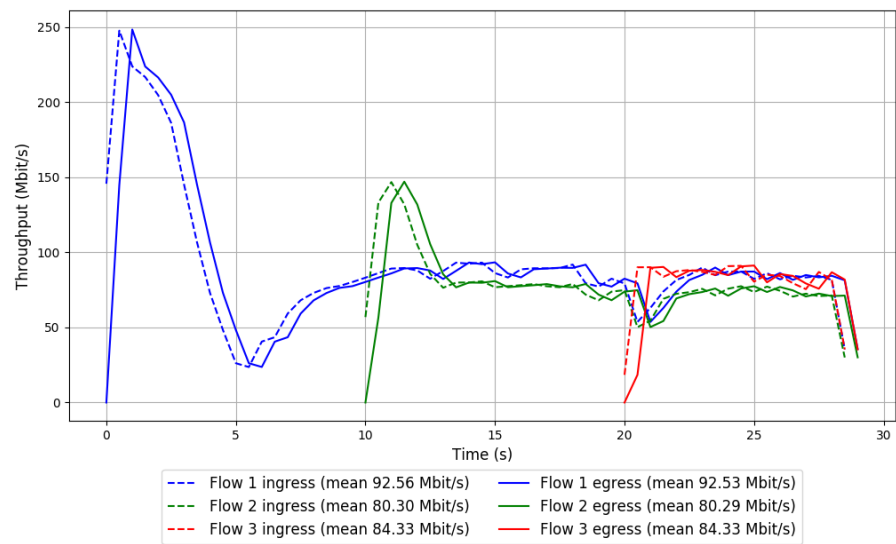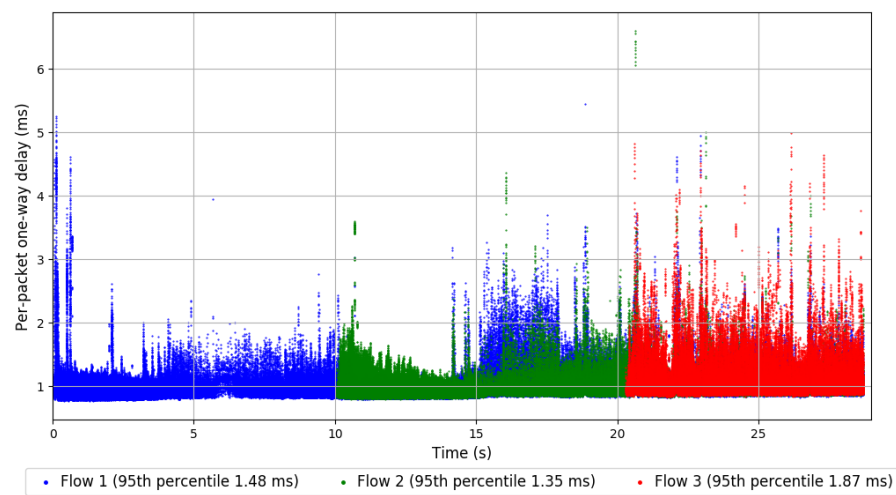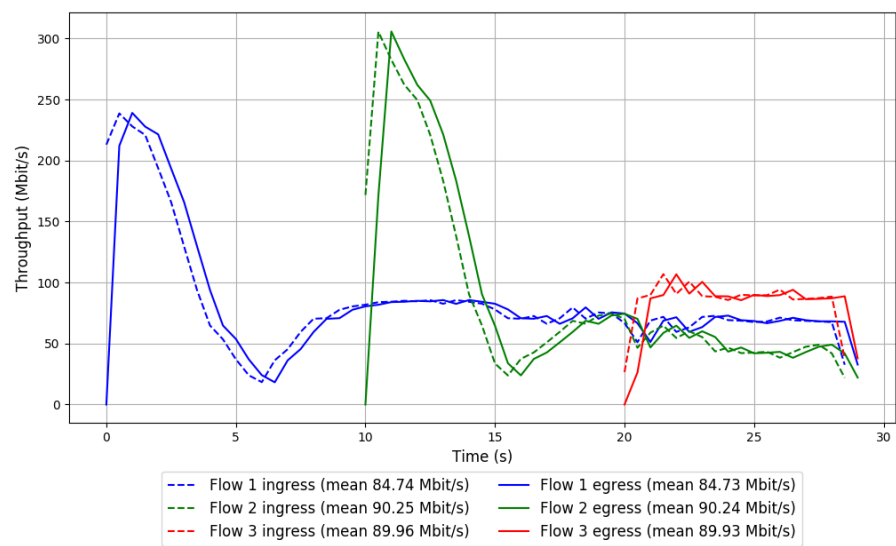
Run 1: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 87.71 Mbit/s) ——— Flow 1 egress (mean 87.71 Mbit/s)
- - - Flow 2 ingress (mean 83.83 Mbit/s) ——— Flow 2 egress (mean 83.82 Mbit/s)
- - - Flow 3 ingress (mean 71.26 Mbit/s) ——— Flow 3 egress (mean 71.26 Mbit/s)

• Flow 1 (95th percentile 1.43 ms)   • Flow 2 (95th percentile 1.29 ms)   • Flow 3 (95th percentile 1.37 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-07-17 23:55:59
End at: 2019-07-17 23:56:30
Local clock offset: 4.863 ms
Remote clock offset: 3.323 ms


# Below is generated by plot.py at 2019-07-18 02:19:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.00 Mbit/s
95th percentile per-packet one-way delay: 0.801 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 129.31 Mbit/s
95th percentile per-packet one-way delay: 0.842 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 102.25 Mbit/s
95th percentile per-packet one-way delay: 0.598 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 124.48 Mbit/s
95th percentile per-packet one-way delay: 0.922 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-07-18 00:30:04
End at: 2019-07-18 00:30:34
Local clock offset: -3.543 ms
Remote clock offset: -0.15 ms


# Below is generated by plot.py at 2019-07-18 02:19:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.99 Mbit/s
95th percentile per-packet one-way delay: 1.354 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 92.53 Mbit/s
95th percentile per-packet one-way delay: 1.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 80.29 Mbit/s
95th percentile per-packet one-way delay: 1.305 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.33 Mbit/s
95th percentile per-packet one-way delay: 1.346 ms
Loss rate: 0.00%
```
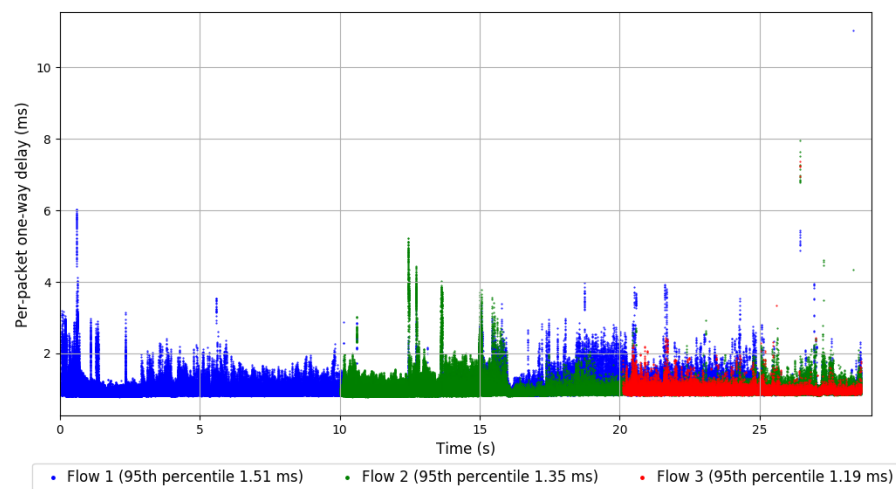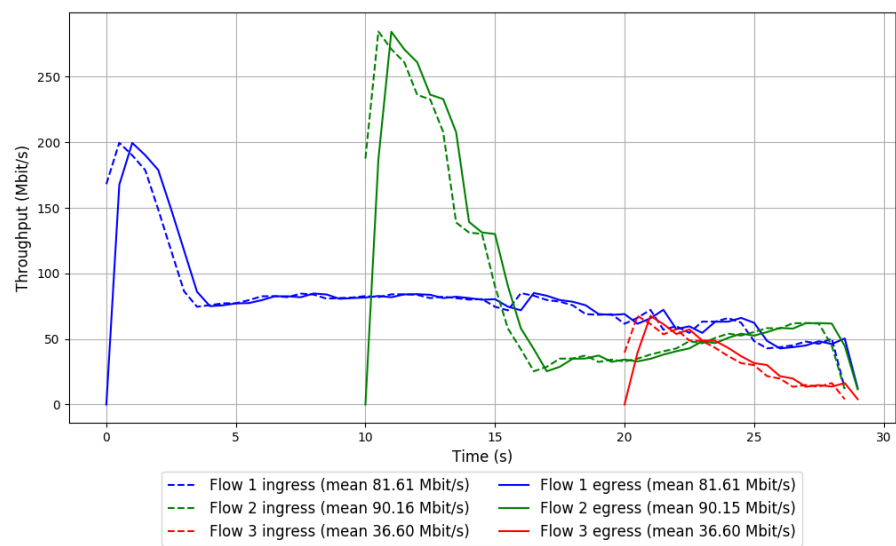
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-07-18 01:03:54
End at: 2019-07-18 01:04:24
Local clock offset: -4.384 ms
Remote clock offset: -0.194 ms


# Below is generated by plot.py at 2019-07-18 02:19:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.73 Mbit/s
95th percentile per-packet one-way delay: 1.523 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 84.73 Mbit/s
95th percentile per-packet one-way delay: 1.475 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 90.24 Mbit/s
95th percentile per-packet one-way delay: 1.352 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 89.93 Mbit/s
95th percentile per-packet one-way delay: 1.869 ms
Loss rate: 0.03%
```
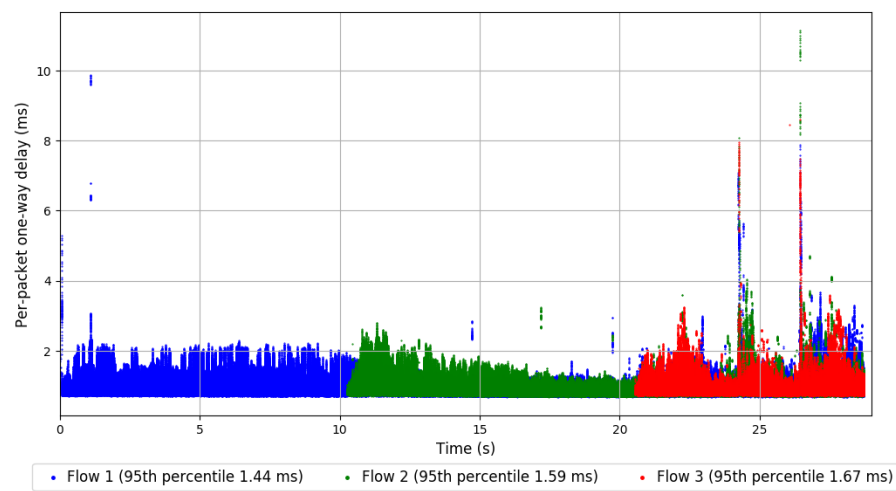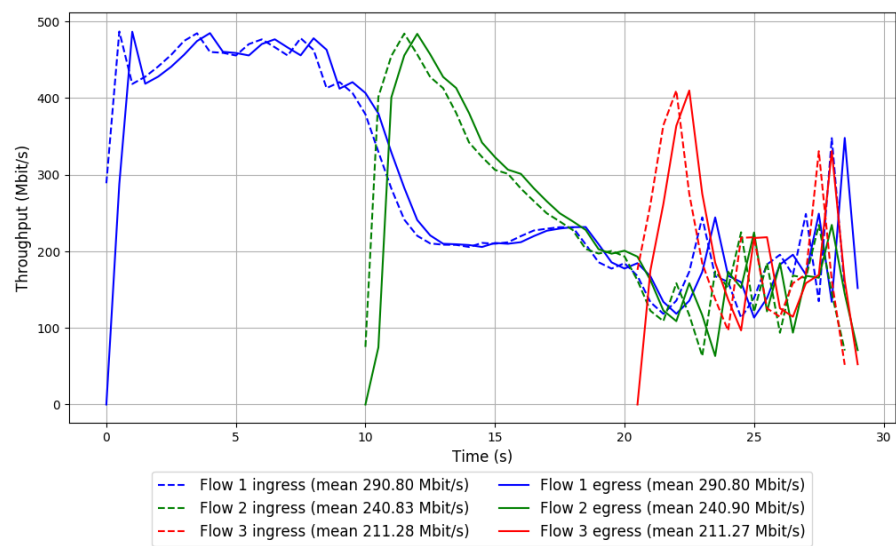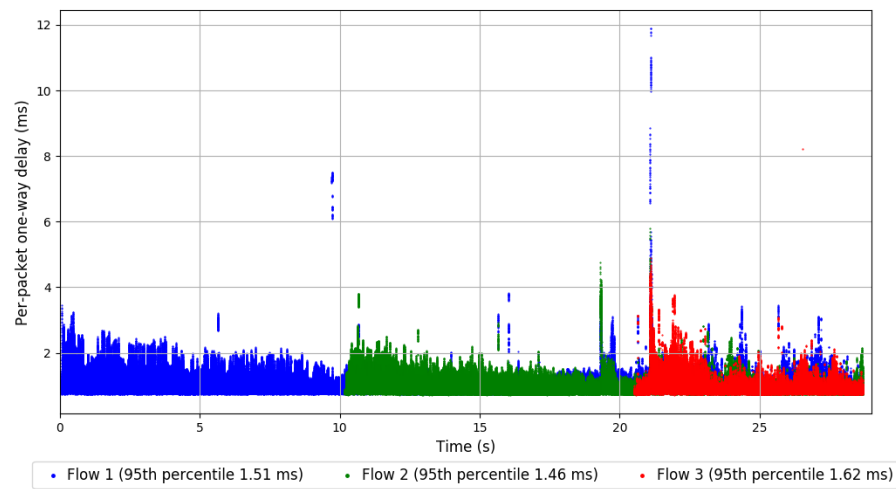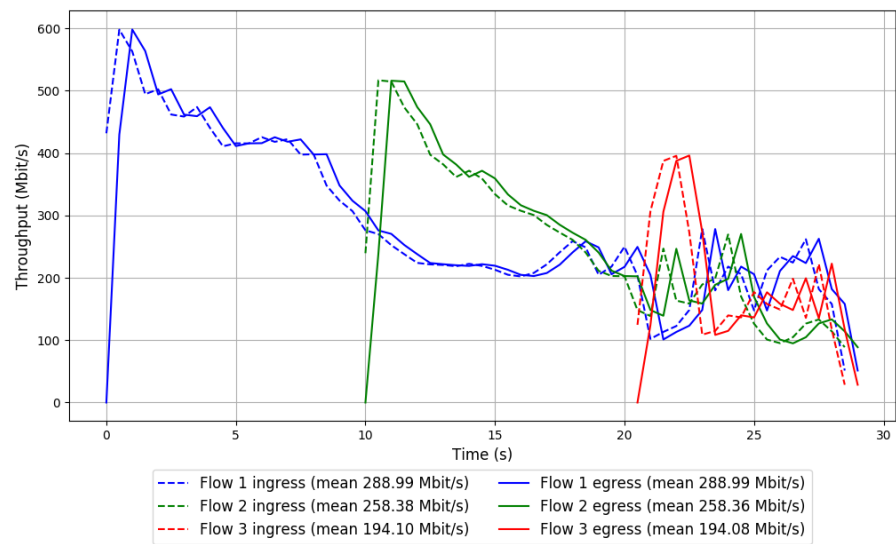
Run 4: Report of Indigo-MusesD — Data Link

- - - Flow 1 ingress (mean 84.74 Mbit/s) —— Flow 1 egress (mean 84.73 Mbit/s)
- - - Flow 2 ingress (mean 90.25 Mbit/s) —— Flow 2 egress (mean 90.24 Mbit/s)
- - - Flow 3 ingress (mean 89.96 Mbit/s) —— Flow 3 egress (mean 89.93 Mbit/s)

• Flow 1 (95th percentile 1.48 ms)   • Flow 2 (95th percentile 1.35 ms)   • Flow 3 (95th percentile 1.87 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-07-18 01:37:59
End at: 2019-07-18 01:38:29
Local clock offset: -0.132 ms
Remote clock offset: 3.48 ms


# Below is generated by plot.py at 2019-07-18 02:19:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.09 Mbit/s
95th percentile per-packet one-way delay: 1.425 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.61 Mbit/s
95th percentile per-packet one-way delay: 1.507 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 90.15 Mbit/s
95th percentile per-packet one-way delay: 1.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.60 Mbit/s
95th percentile per-packet one-way delay: 1.187 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-07-17 22:56:43
End at: 2019-07-17 22:57:13
Local clock offset: 5.766 ms
Remote clock offset: 4.699 ms

# Below is generated by plot.py at 2019-07-18 02:23:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.72 Mbit/s
95th percentile per-packet one-way delay: 1.516 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 290.80 Mbit/s
95th percentile per-packet one-way delay: 1.437 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 240.90 Mbit/s
95th percentile per-packet one-way delay: 1.590 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 211.27 Mbit/s
95th percentile per-packet one-way delay: 1.672 ms
Loss rate: 0.00%
```
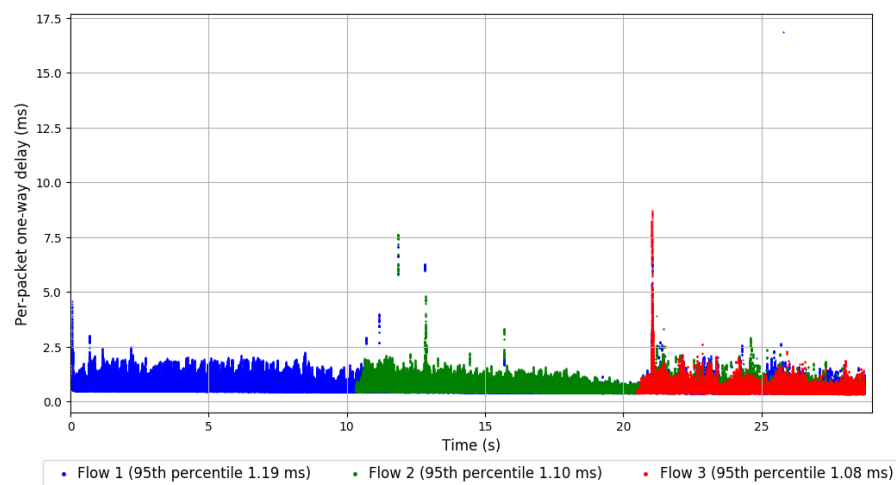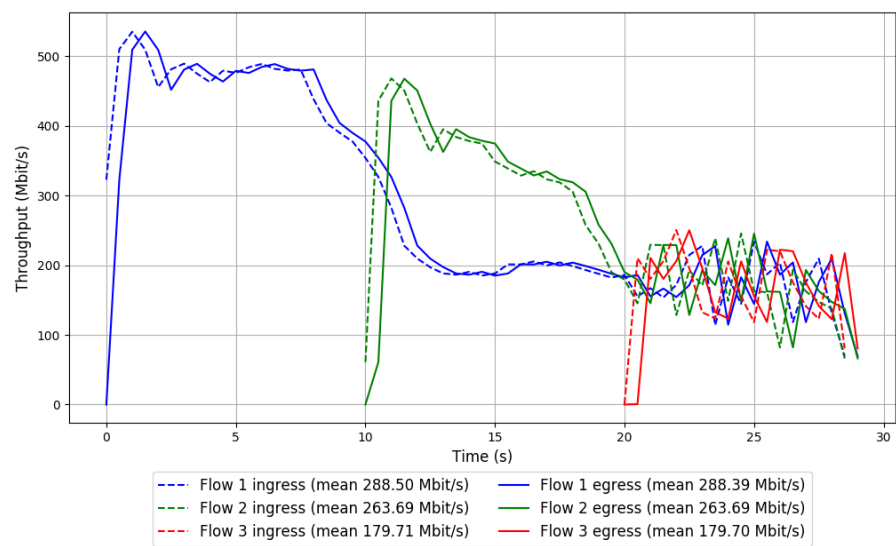
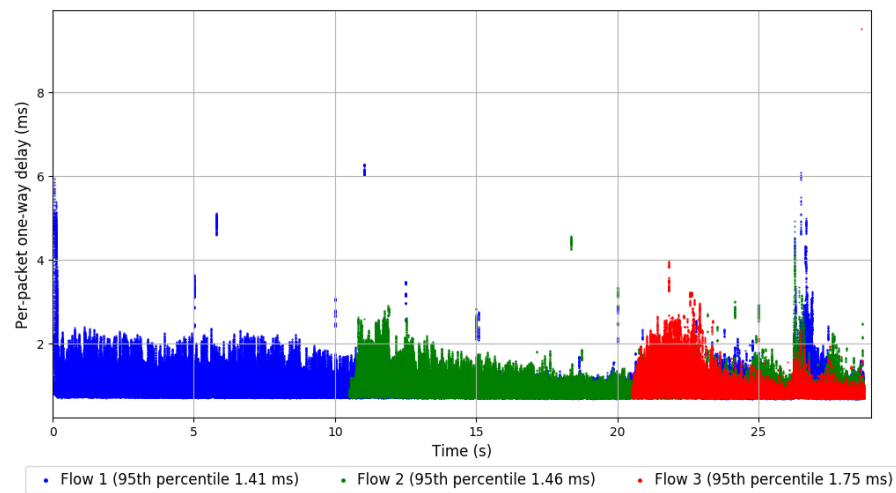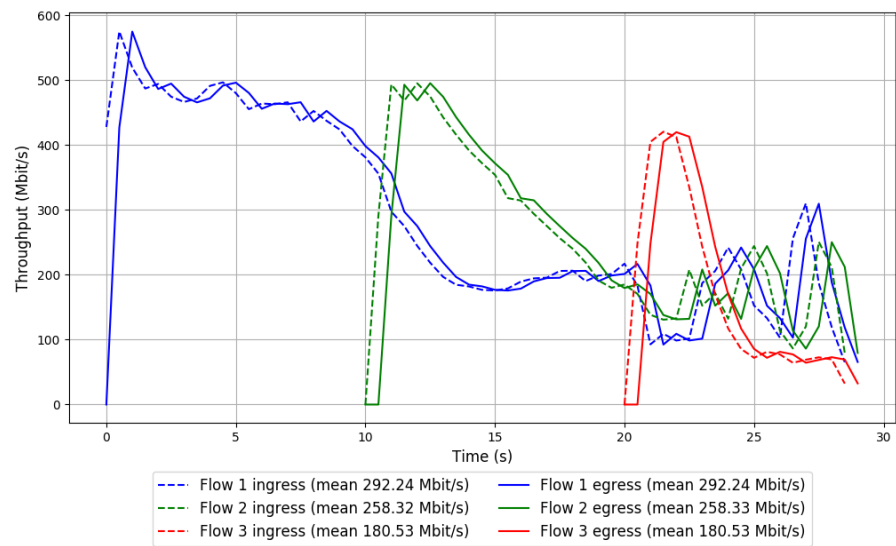Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-07-17 23:30:48
End at: 2019-07-17 23:31:18
Local clock offset: 5.684 ms
Remote clock offset: -0.535 ms

# Below is generated by plot.py at 2019-07-18 02:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.06 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 288.99 Mbit/s
95th percentile per-packet one-way delay: 1.507 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 258.36 Mbit/s
95th percentile per-packet one-way delay: 1.455 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 194.08 Mbit/s
95th percentile per-packet one-way delay: 1.622 ms
Loss rate: 0.01%
```
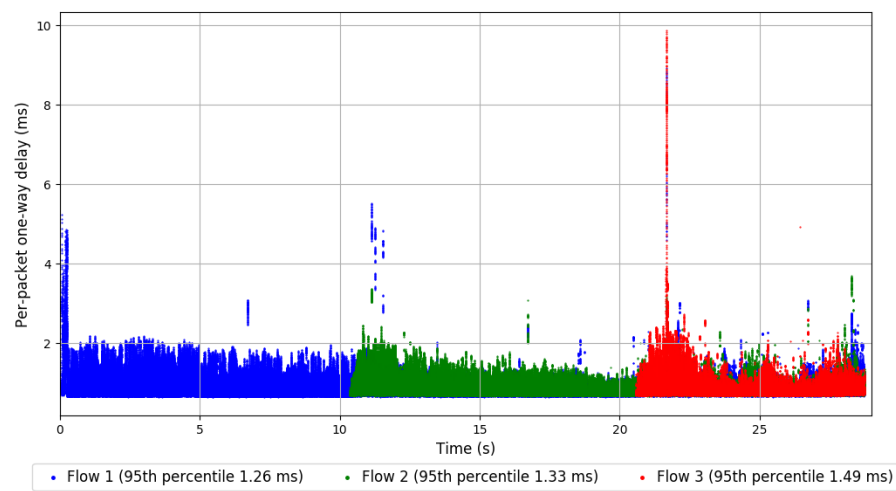
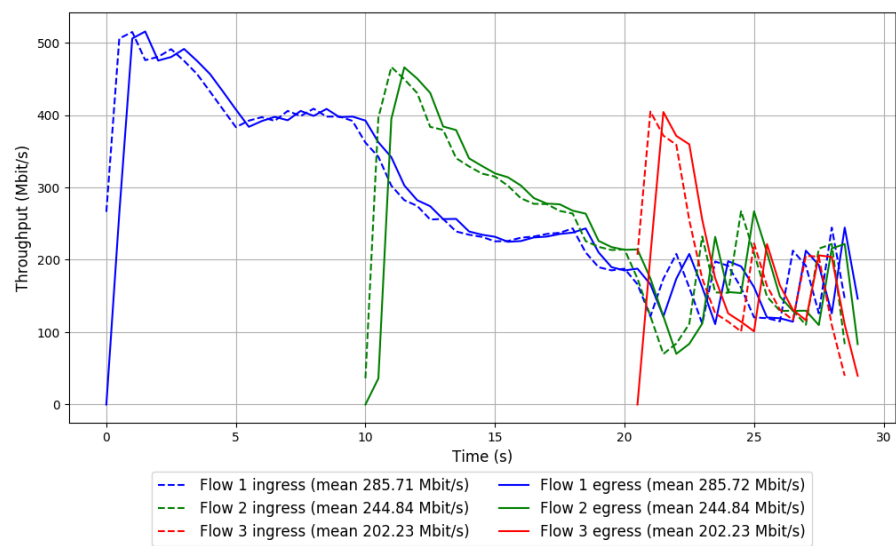Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-07-18 00:04:46
End at: 2019-07-18 00:05:16
Local clock offset: 0.834 ms
Remote clock offset: 3.703 ms


# Below is generated by plot.py at 2019-07-18 02:24:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 508.89 Mbit/s
95th percentile per-packet one-way delay: 1.152 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 288.39 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 263.69 Mbit/s
95th percentile per-packet one-way delay: 1.101 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 179.70 Mbit/s
95th percentile per-packet one-way delay: 1.081 ms
Loss rate: 0.02%
```

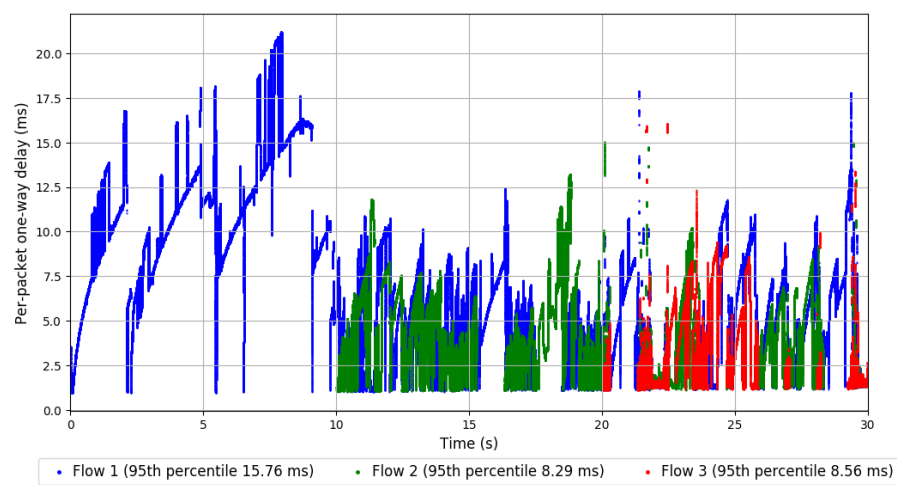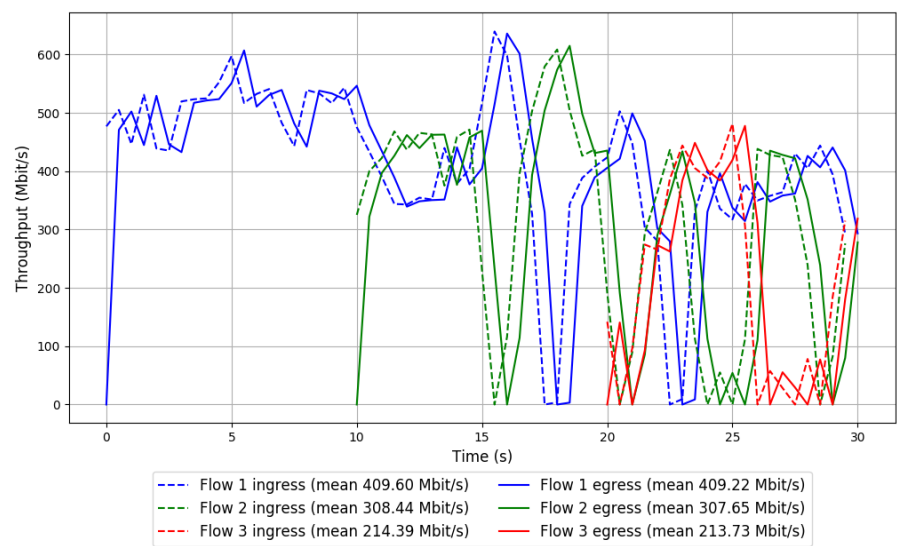# Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-07-18 00:38:40
End at: 2019-07-18 00:39:10
Local clock offset: -4.607 ms
Remote clock offset: -0.419 ms


# Below is generated by plot.py at 2019-07-18 02:24:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 507.96 Mbit/s
95th percentile per-packet one-way delay: 1.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 292.24 Mbit/s
95th percentile per-packet one-way delay: 1.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 258.33 Mbit/s
95th percentile per-packet one-way delay: 1.457 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 180.53 Mbit/s
95th percentile per-packet one-way delay: 1.752 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-07-18 01:12:36
End at: 2019-07-18 01:13:06
Local clock offset: -3.855 ms
Remote clock offset: -0.293 ms

# Below is generated by plot.py at 2019-07-18 02:24:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.93 Mbit/s
95th percentile per-packet one-way delay: 1.309 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 285.72 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 244.84 Mbit/s
95th percentile per-packet one-way delay: 1.328 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 202.23 Mbit/s
95th percentile per-packet one-way delay: 1.491 ms
Loss rate: 0.00%
```

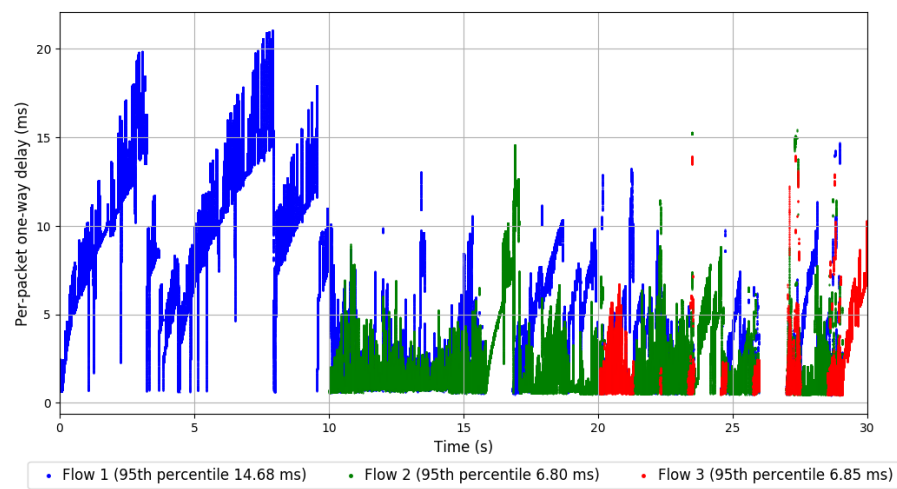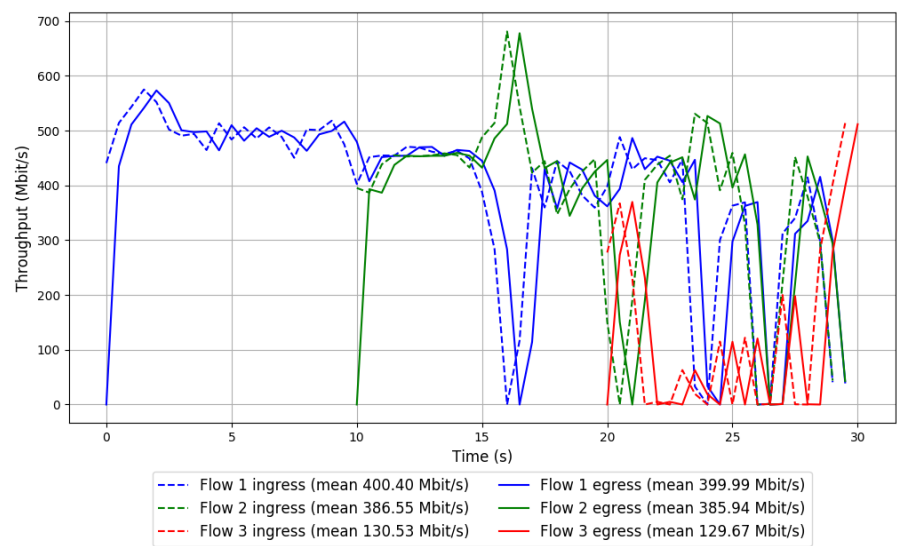Run 5: Report of Indigo-MusesT — Data Link

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```
Run 1: Statistics of LEDBAT

Start at: 2019-07-17 22:58:14
End at: 2019-07-17 22:58:44
Local clock offset: 5.771 ms
Remote clock offset: 4.71 ms


# Below is generated by plot.py at 2019-07-18 02:27:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 685.18 Mbit/s
95th percentile per-packet one-way delay: 13.752 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 409.22 Mbit/s
95th percentile per-packet one-way delay: 15.757 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 307.65 Mbit/s
95th percentile per-packet one-way delay: 8.290 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 213.73 Mbit/s
95th percentile per-packet one-way delay: 8.559 ms
Loss rate: 0.30%
```
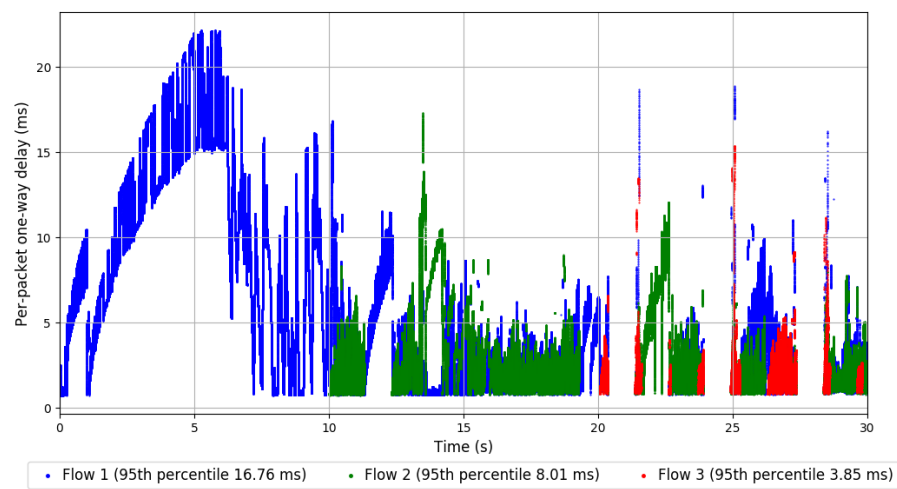
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-07-17 23:32:19
End at: 2019-07-17 23:32:50
Local clock offset: 5.664 ms
Remote clock offset: -0.478 ms


# Below is generated by plot.py at 2019-07-18 02:27:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 675.84 Mbit/s
95th percentile per-packet one-way delay: 13.358 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 399.99 Mbit/s
95th percentile per-packet one-way delay: 14.681 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 385.94 Mbit/s
95th percentile per-packet one-way delay: 6.799 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 129.67 Mbit/s
95th percentile per-packet one-way delay: 6.854 ms
Loss rate: 0.65%
```
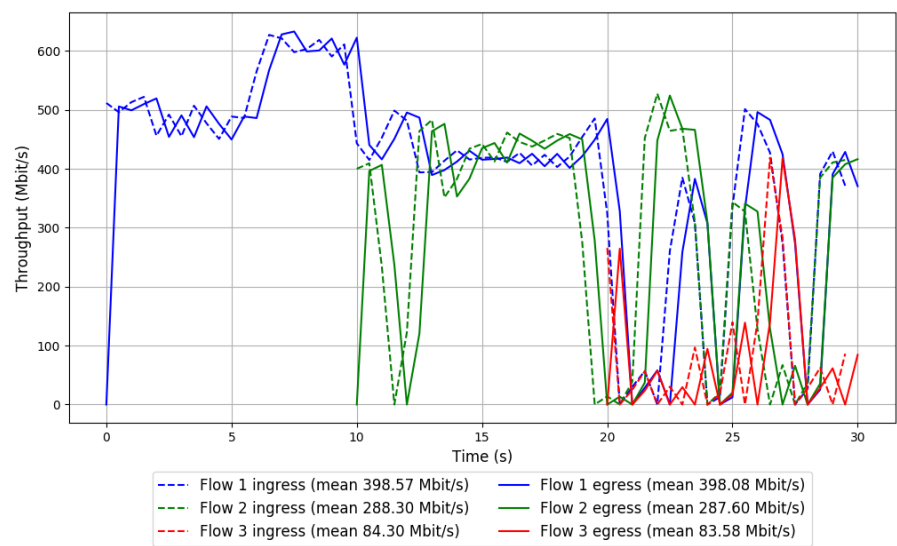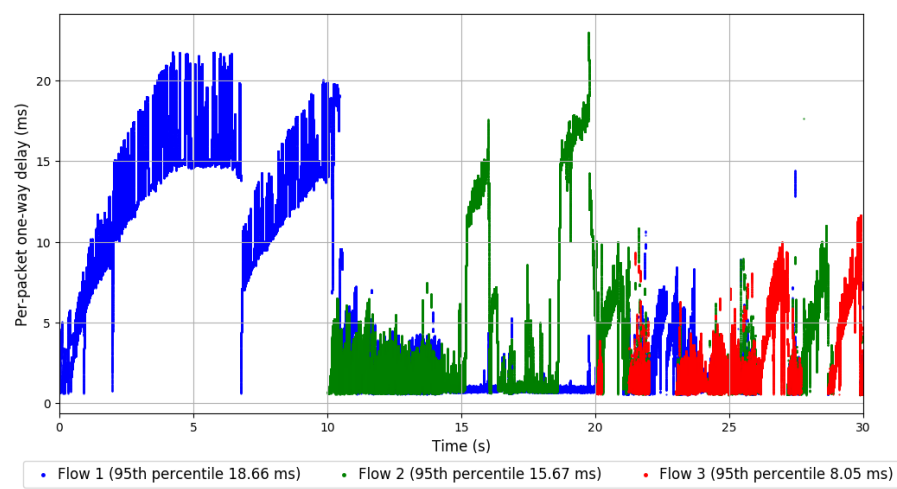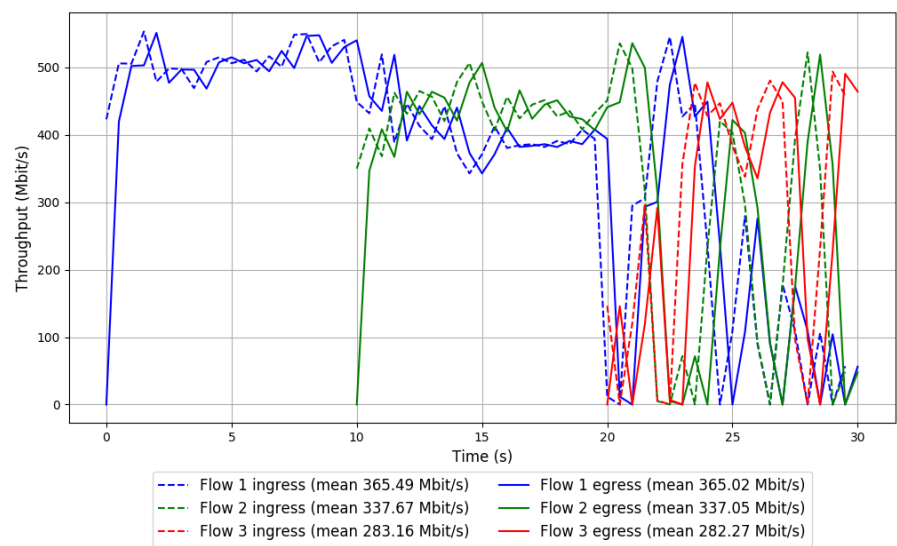
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 400.40 Mbit/s) ---- Flow 1 egress (mean 399.99 Mbit/s)
Flow 2 ingress (mean 386.55 Mbit/s) ---- Flow 2 egress (mean 385.94 Mbit/s)
Flow 3 ingress (mean 130.53 Mbit/s) ---- Flow 3 egress (mean 129.67 Mbit/s)

Flow 1 (95th percentile 14.68 ms)   Flow 2 (95th percentile 6.80 ms)   Flow 3 (95th percentile 6.85 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-07-18 00:06:18
End at: 2019-07-18 00:06:48
Local clock offset: 0.427 ms
Remote clock offset: 3.853 ms


# Below is generated by plot.py at 2019-07-18 02:27:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.97 Mbit/s
95th percentile per-packet one-way delay: 15.330 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 398.08 Mbit/s
95th percentile per-packet one-way delay: 16.758 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 287.60 Mbit/s
95th percentile per-packet one-way delay: 8.009 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 83.58 Mbit/s
95th percentile per-packet one-way delay: 3.851 ms
Loss rate: 0.86%
```
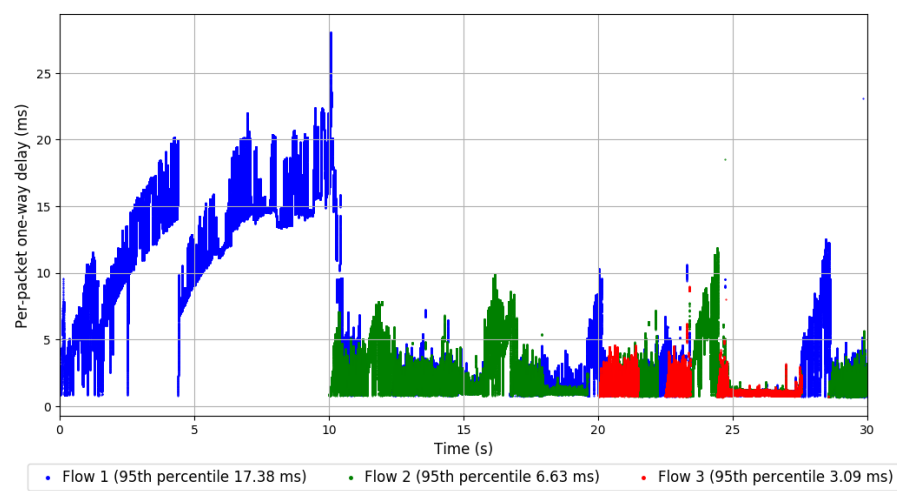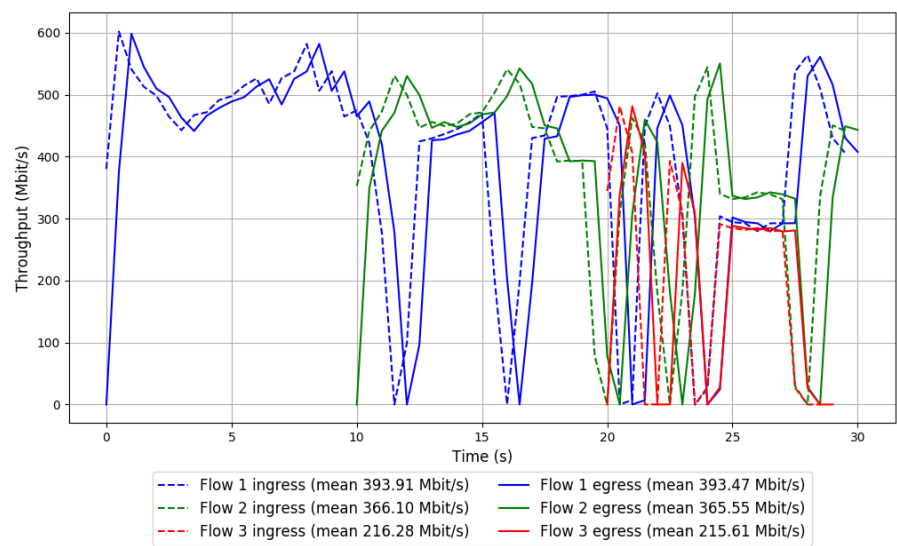
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-07-18 00:40:11
End at: 2019-07-18 00:40:41
Local clock offset: -4.763 ms
Remote clock offset: -0.561 ms


# Below is generated by plot.py at 2019-07-18 02:32:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 683.29 Mbit/s
95th percentile per-packet one-way delay: 17.222 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 365.02 Mbit/s
95th percentile per-packet one-way delay: 18.656 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 337.05 Mbit/s
95th percentile per-packet one-way delay: 15.671 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 282.27 Mbit/s
95th percentile per-packet one-way delay: 8.052 ms
Loss rate: 0.31%
```
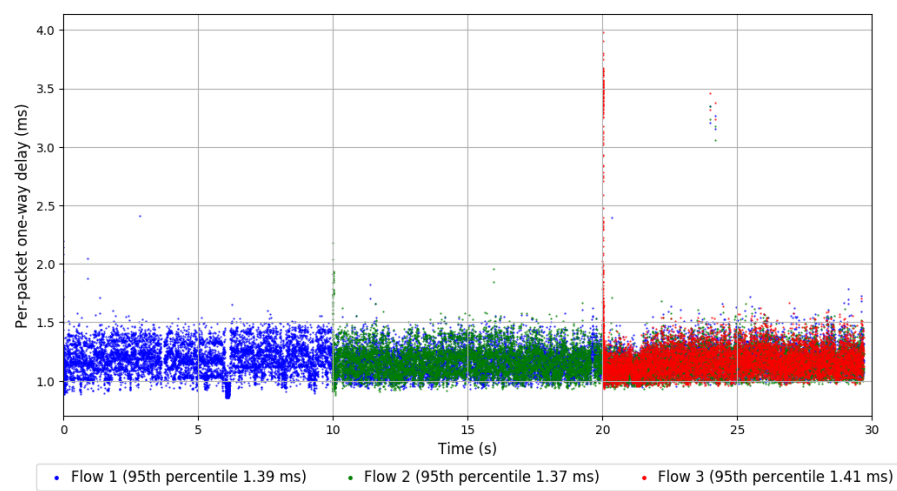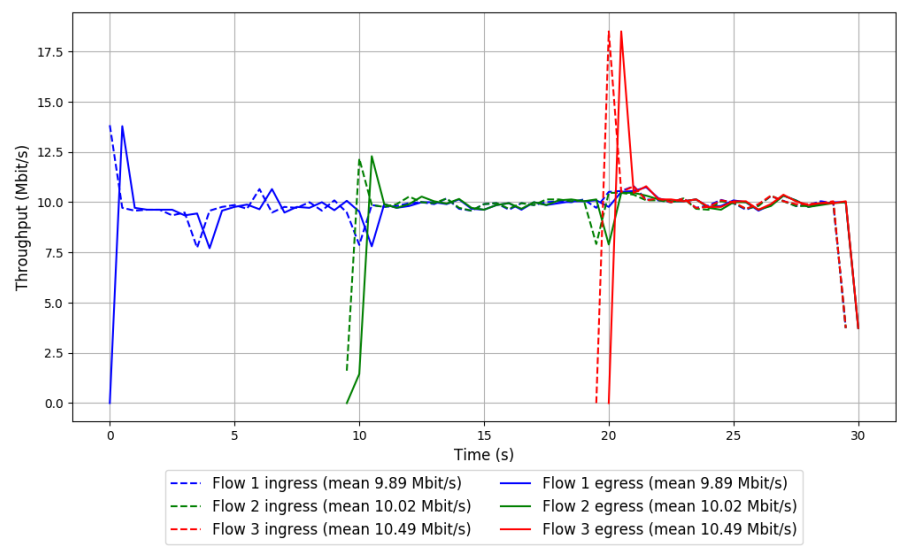
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-07-18 01:14:07
End at: 2019-07-18 01:14:37
Local clock offset: -3.849 ms
Remote clock offset: -0.194 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 698.40 Mbit/s
95th percentile per-packet one-way delay: 15.887 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 393.47 Mbit/s
95th percentile per-packet one-way delay: 17.379 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 365.55 Mbit/s
95th percentile per-packet one-way delay: 6.626 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 215.61 Mbit/s
95th percentile per-packet one-way delay: 3.088 ms
Loss rate: 0.31%
```
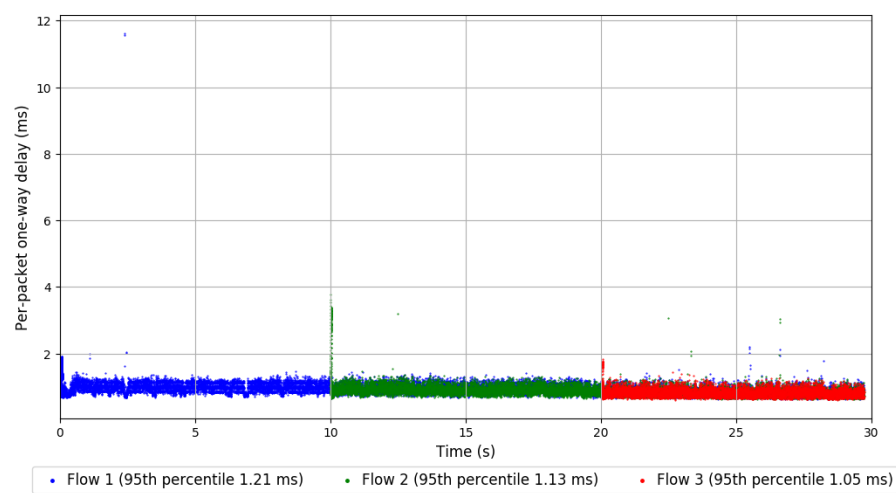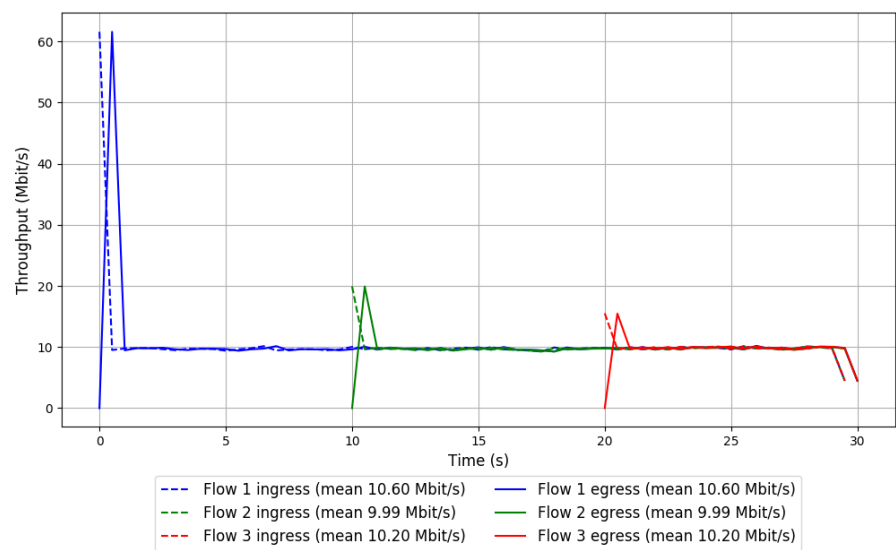
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 393.91 Mbit/s) --- Flow 1 egress (mean 393.47 Mbit/s)
Flow 2 ingress (mean 366.10 Mbit/s) --- Flow 2 egress (mean 365.55 Mbit/s)
Flow 3 ingress (mean 216.28 Mbit/s) --- Flow 3 egress (mean 215.61 Mbit/s)

Flow 1 (95th percentile 17.38 ms)   Flow 2 (95th percentile 6.63 ms)   Flow 3 (95th percentile 3.09 ms)

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-07-17 23:05:41
End at: 2019-07-17 23:06:11
Local clock offset: 5.789 ms
Remote clock offset: 1.853 ms

# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.97 Mbit/s
95th percentile per-packet one-way delay: 1.385 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.89 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 1.373 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 10.49 Mbit/s
95th percentile per-packet one-way delay: 1.405 ms
Loss rate: 0.00%
```
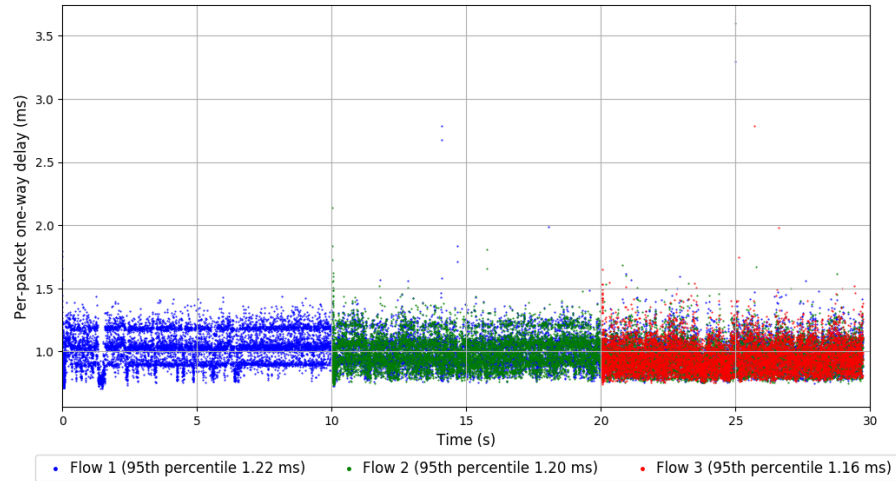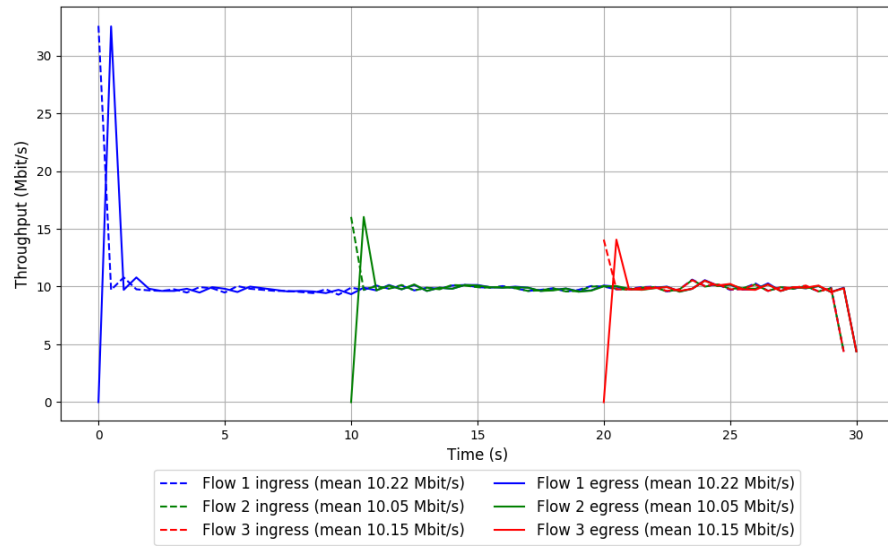
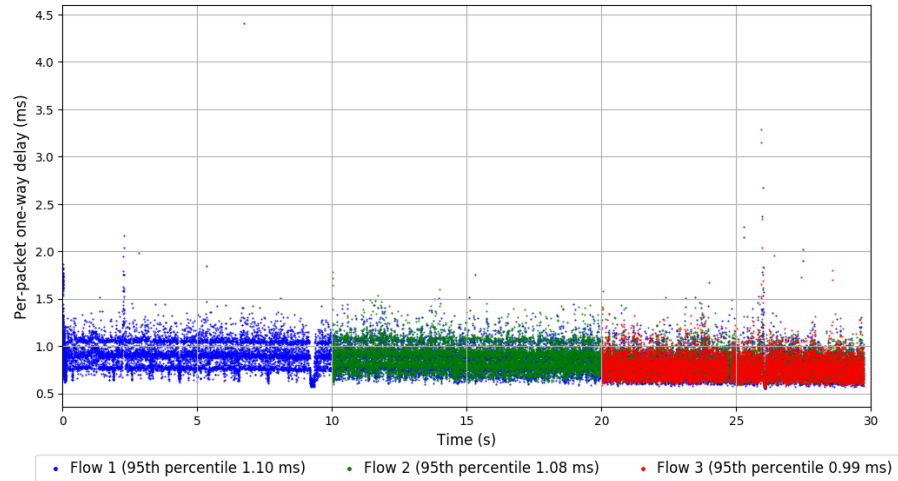Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-07-17 23:39:46
End at: 2019-07-17 23:40:16
Local clock offset: 5.616 ms
Remote clock offset: 1.705 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.55 Mbit/s
95th percentile per-packet one-way delay: 1.170 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.60 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 1.129 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.00%
```

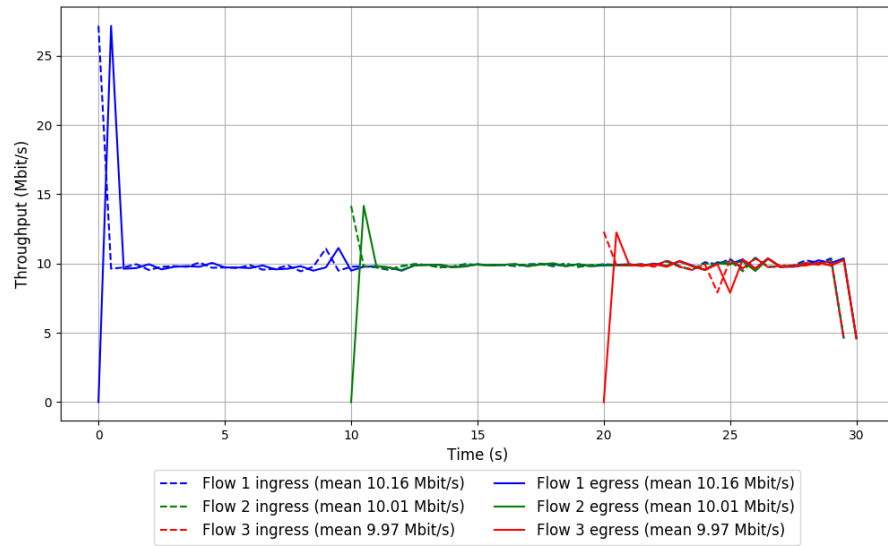## Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 00:13:45
End at: 2019-07-18 00:14:15
Local clock offset: -1.228 ms
Remote clock offset: 1.557 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.19 Mbit/s
95th percentile per-packet one-way delay: 1.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.22 Mbit/s
95th percentile per-packet one-way delay: 1.219 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 1.159 ms
Loss rate: 0.00%
```
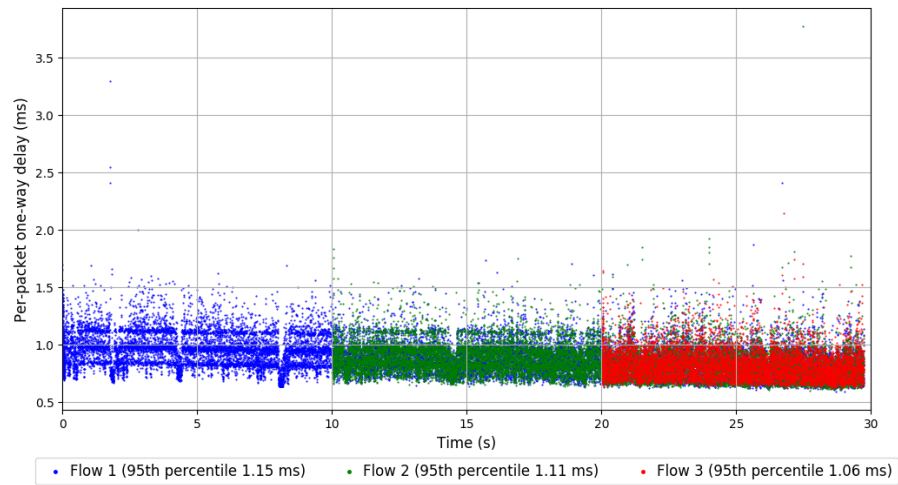
Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 00:47:37
End at: 2019-07-18 00:48:07
Local clock offset: -5.652 ms
Remote clock offset: -0.264 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 1.084 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.16 Mbit/s
95th percentile per-packet one-way delay: 1.102 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.01 Mbit/s
95th percentile per-packet one-way delay: 1.078 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.01%
```
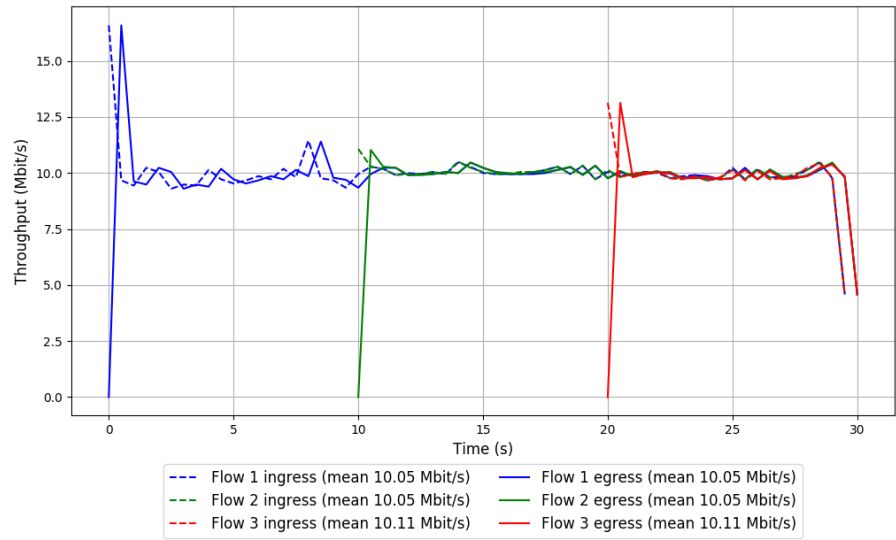
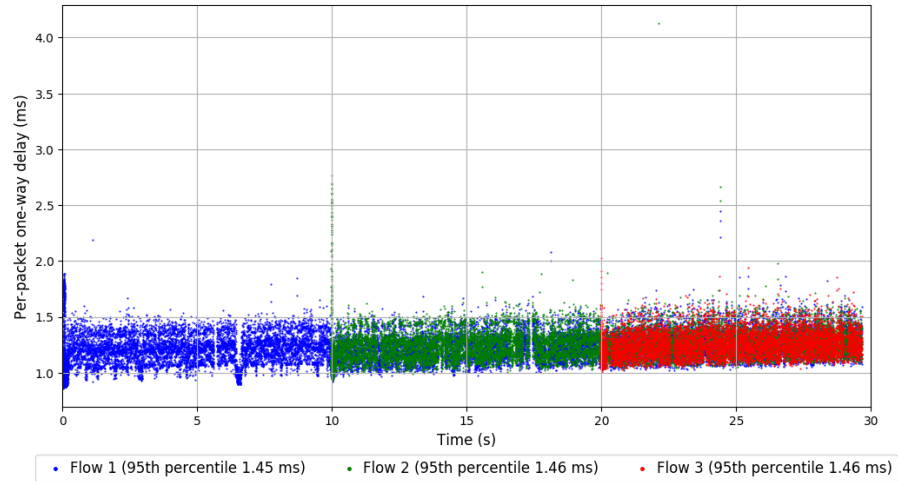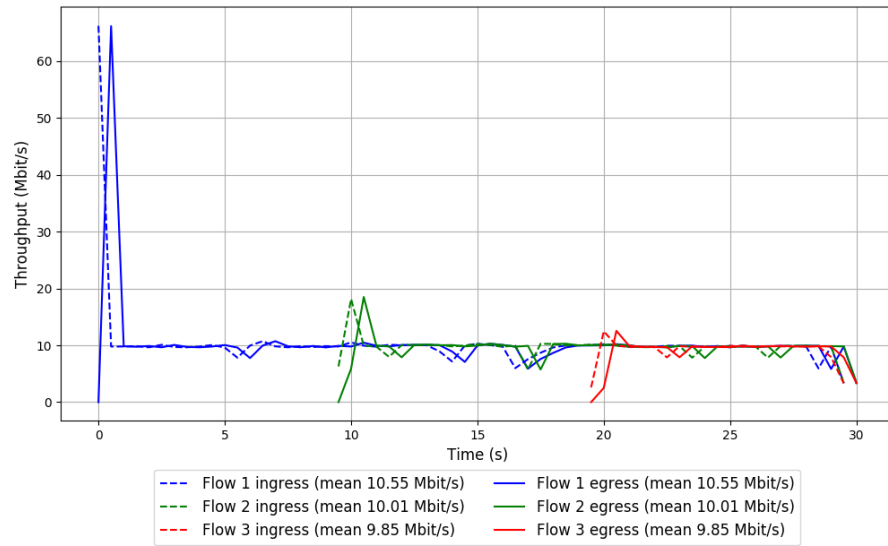Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-07-18 01:21:38
End at: 2019-07-18 01:22:08
Local clock offset: -3.85 ms
Remote clock offset: 1.788 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 1.130 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 1.152 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.11 Mbit/s
95th percentile per-packet one-way delay: 1.062 ms
Loss rate: 0.00%
```
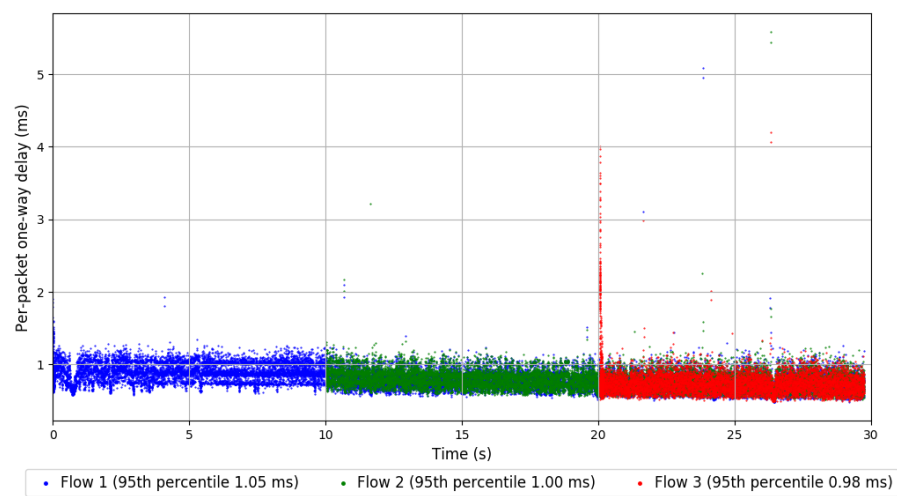
Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-17 23:03:10
End at: 2019-07-17 23:03:40
Local clock offset: 5.794 ms
Remote clock offset: 2.607 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.41 Mbit/s
95th percentile per-packet one-way delay: 1.456 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 10.55 Mbit/s
95th percentile per-packet one-way delay: 1.447 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 10.01 Mbit/s
95th percentile per-packet one-way delay: 1.463 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 1.464 ms
Loss rate: 0.04%
```
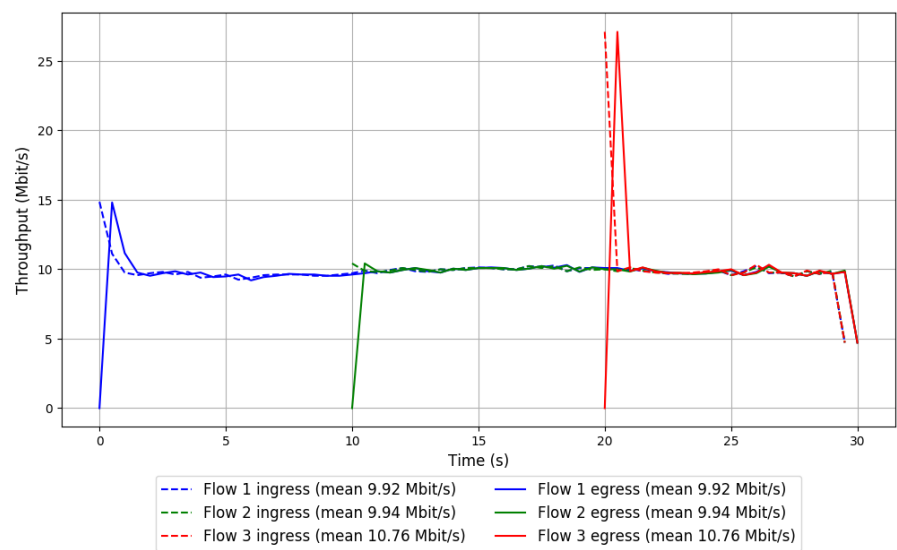
Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-17 23:37:16
End at: 2019-07-17 23:37:46
Local clock offset: 5.641 ms
Remote clock offset: 1.079 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 1.035 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.92 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 0.999 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.76 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 0.00%
```
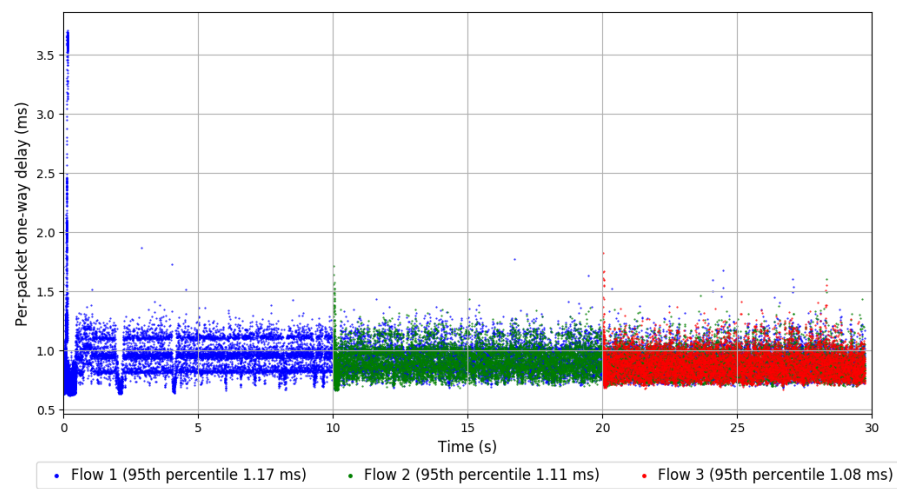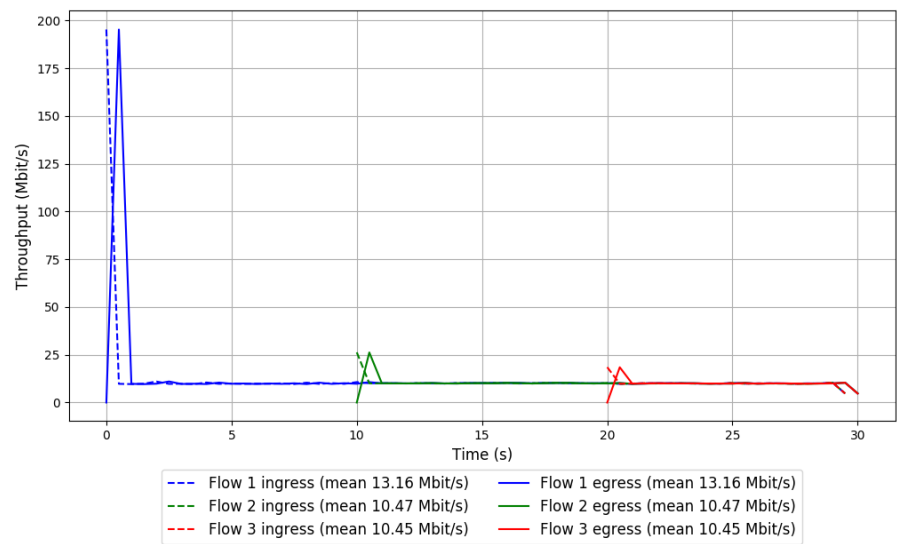
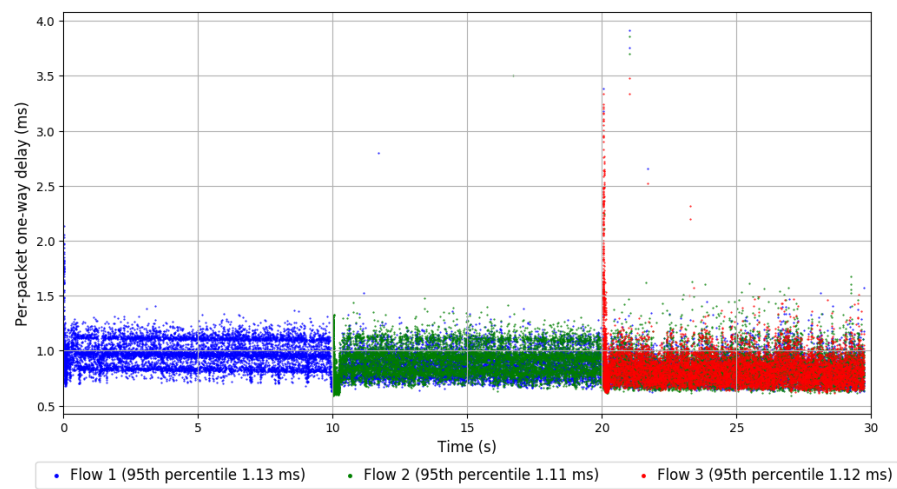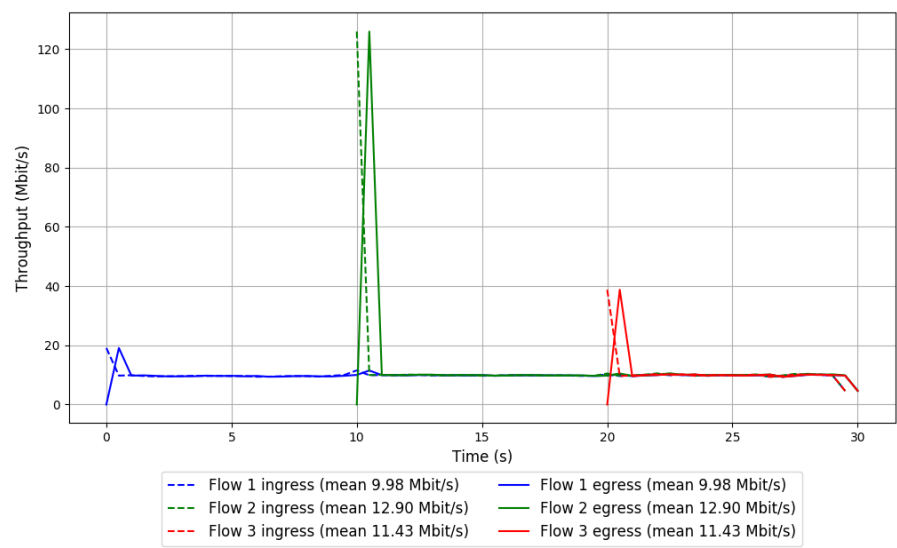Run 2: Report of Muses_DecisionTreeH0 — Data Link

Run 3: Statistics of Muses_DecisionTreeH0

Start at: 2019-07-18 00:11:15
End at: 2019-07-18 00:11:45
Local clock offset: -0.712 ms
Remote clock offset: 2.122 ms

Below is generated by plot.py at 2019-07-18 02:33:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 23.52 Mbit/s
95th percentile per-packet one-way delay: 1.147 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 1.173 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.47 Mbit/s
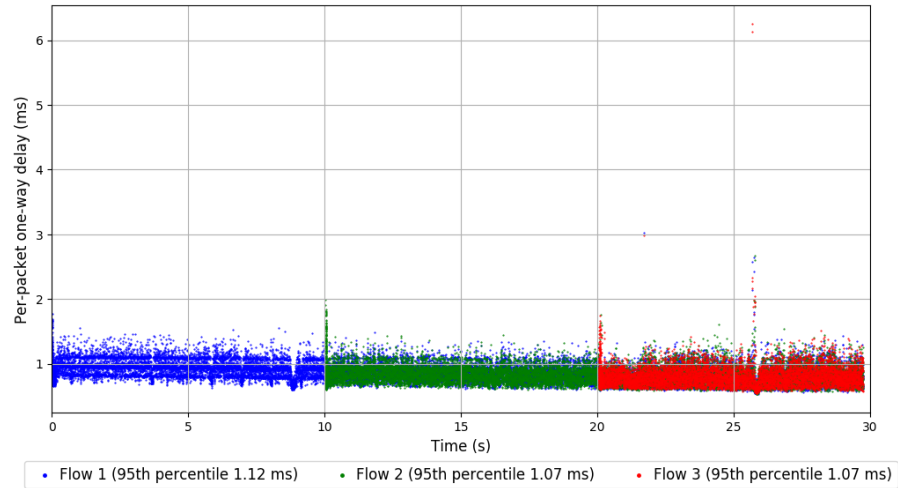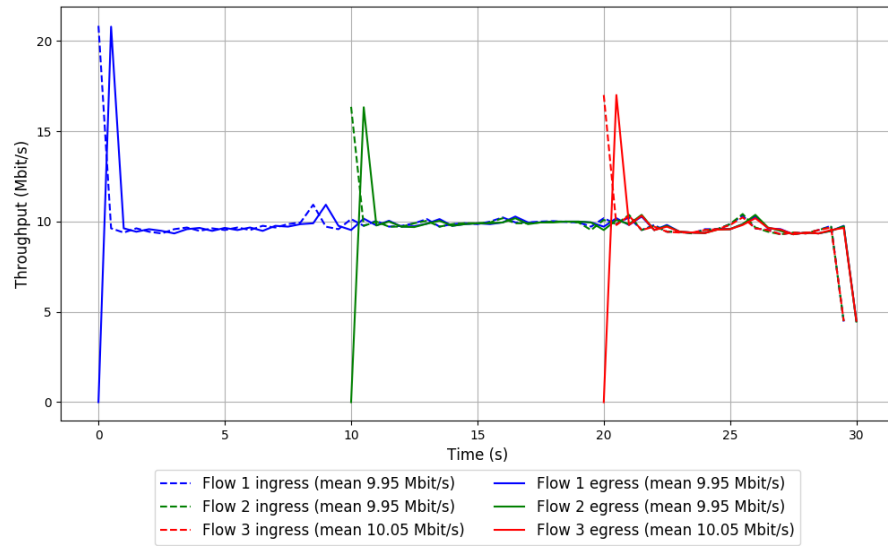95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.45 Mbit/s
95th percentile per-packet one-way delay: 1.081 ms
Loss rate: 0.00%

Run 3: Report of Muses_DecisionTreeH0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-07-18 00:45:07
End at: 2019-07-18 00:45:37
Local clock offset: -5.365 ms
Remote clock offset: -0.283 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.26 Mbit/s
95th percentile per-packet one-way delay: 1.123 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 1.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 1.111 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 1.122 ms
Loss rate: 0.00%
```

Run 4: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 9.98 Mbit/s) --- Flow 1 egress (mean 9.98 Mbit/s)
Flow 2 ingress (mean 12.90 Mbit/s) --- Flow 2 egress (mean 12.90 Mbit/s)
Flow 3 ingress (mean 11.43 Mbit/s) --- Flow 3 egress (mean 11.43 Mbit/s)

Flow 1 (95th percentile 1.13 ms) · Flow 2 (95th percentile 1.11 ms) · Flow 3 (95th percentile 1.12 ms)

Run 5: Statistics of Muses_DecisionTreeH0

Start at: 2019-07-18 01:19:08
End at: 2019-07-18 01:19:38
Local clock offset: -3.845 ms
Remote clock offset: 1.194 ms

Below is generated by plot.py at 2019-07-18 02:33:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 19.82 Mbit/s
95th percentile per-packet one-way delay: 1.103 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.95 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.95 Mbit/s
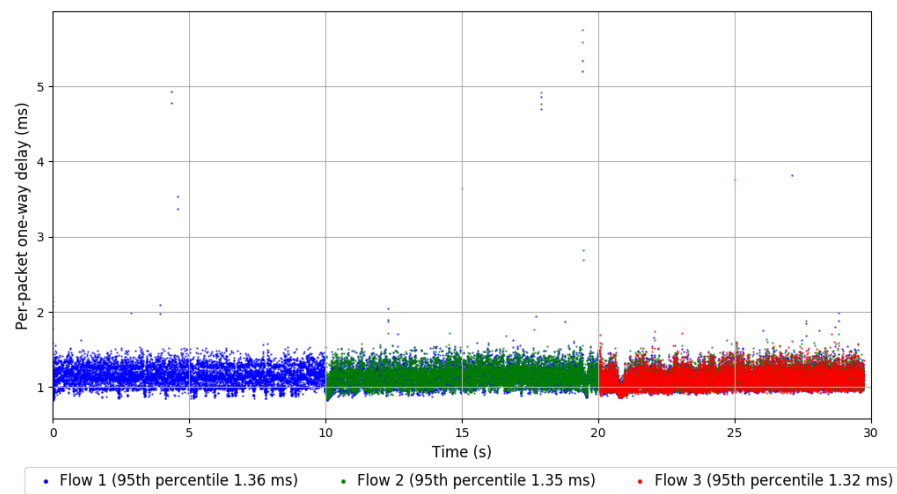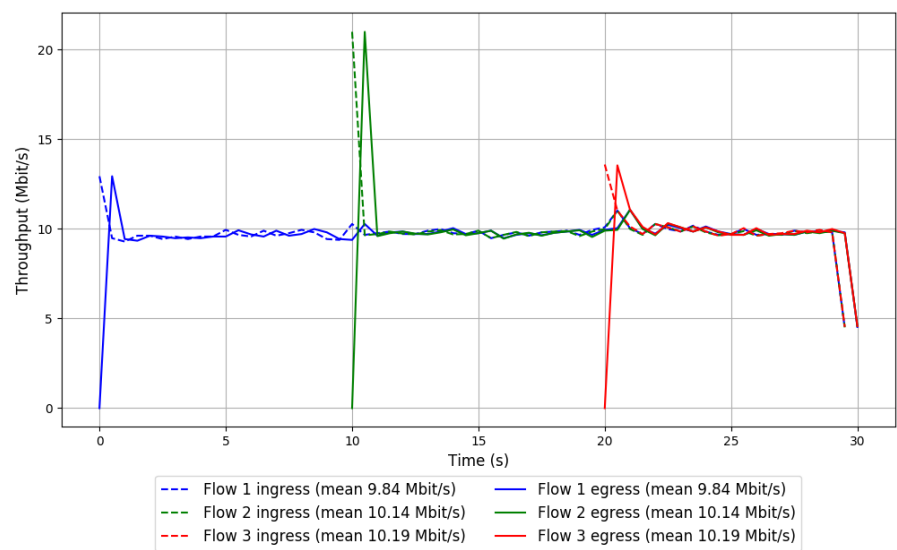95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%

Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-17 23:06:56
End at: 2019-07-17 23:07:26
Local clock offset: 5.814 ms
Remote clock offset: 1.542 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.88 Mbit/s
95th percentile per-packet one-way delay: 1.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.84 Mbit/s
95th percentile per-packet one-way delay: 1.358 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.14 Mbit/s
95th percentile per-packet one-way delay: 1.355 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.19 Mbit/s
95th percentile per-packet one-way delay: 1.325 ms
Loss rate: 0.00%
```
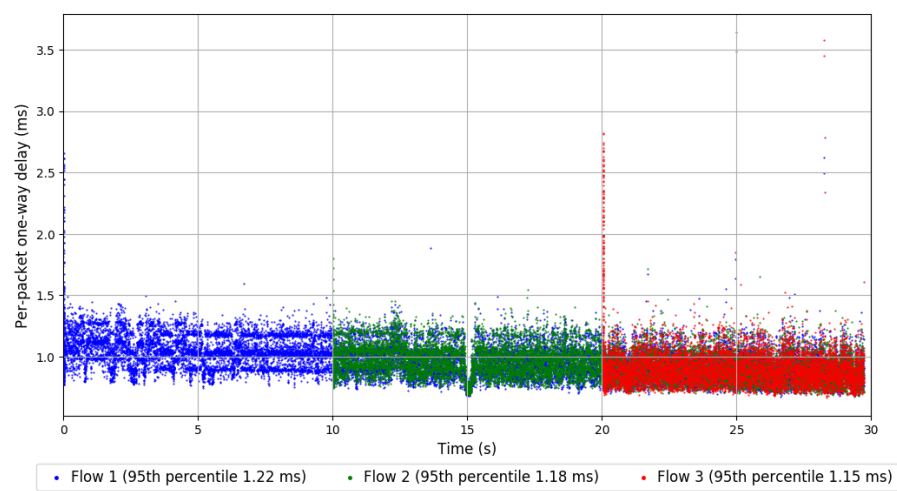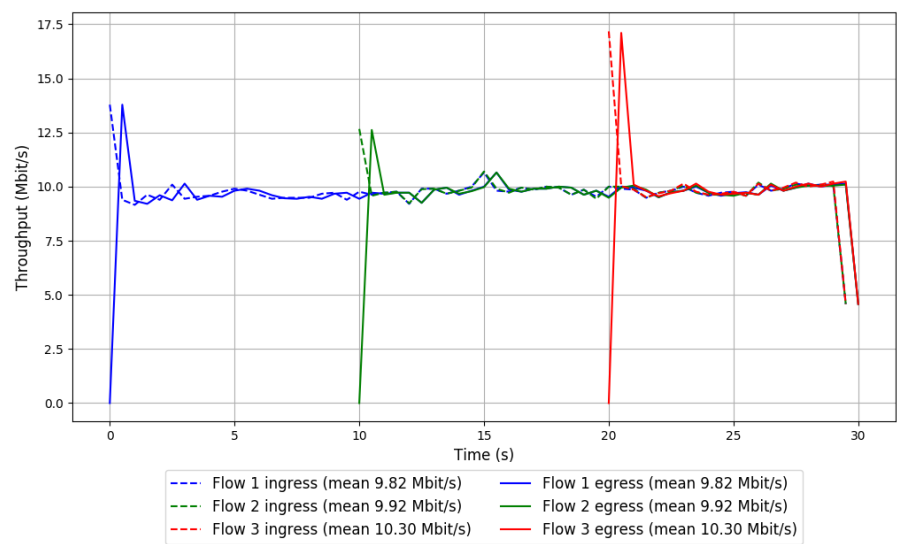
Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-17 23:41:02
End at: 2019-07-17 23:41:32
Local clock offset: 5.592 ms
Remote clock offset: 1.958 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.76 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.82 Mbit/s
95th percentile per-packet one-way delay: 1.216 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.92 Mbit/s
95th percentile per-packet one-way delay: 1.179 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.30 Mbit/s
95th percentile per-packet one-way delay: 1.149 ms
Loss rate: 0.00%
```
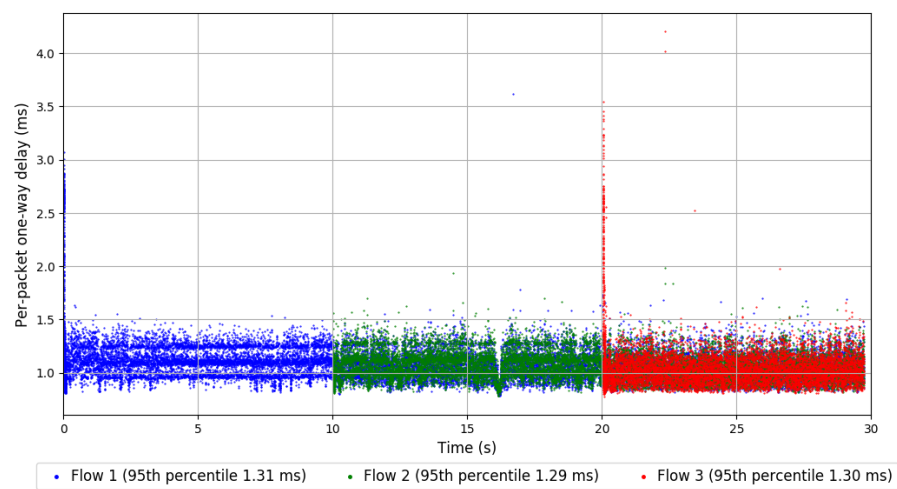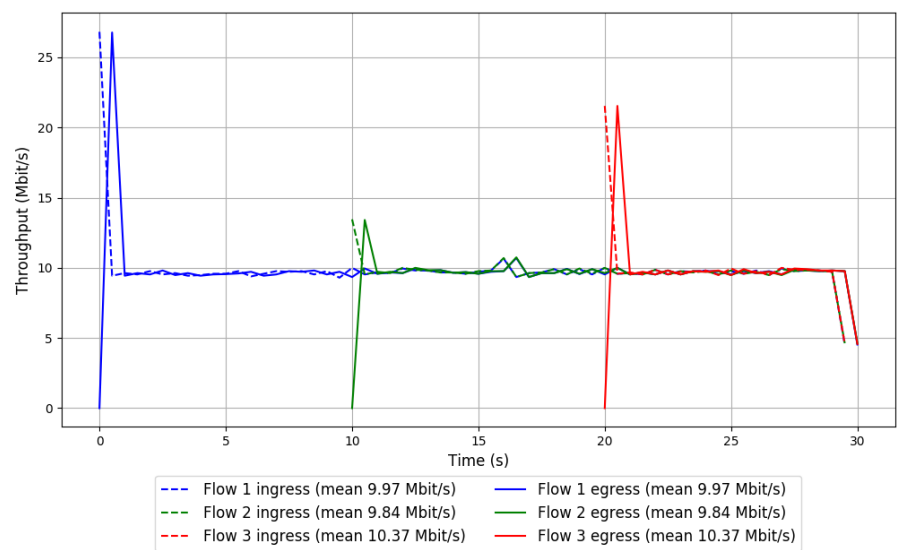
Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 00:15:00
End at: 2019-07-18 00:15:30
Local clock offset: -1.472 ms
Remote clock offset: 1.344 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.88 Mbit/s
95th percentile per-packet one-way delay: 1.301 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.97 Mbit/s
95th percentile per-packet one-way delay: 1.307 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.84 Mbit/s
95th percentile per-packet one-way delay: 1.289 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.37 Mbit/s
95th percentile per-packet one-way delay: 1.300 ms
Loss rate: 0.00%
```
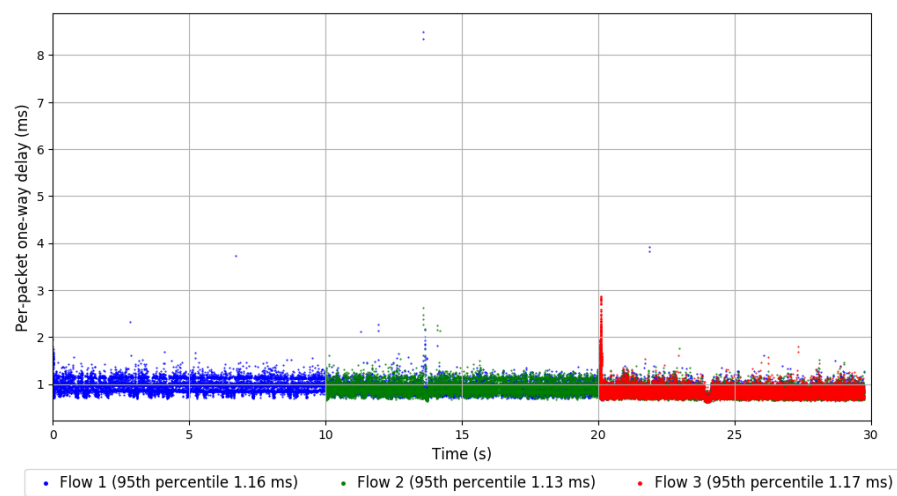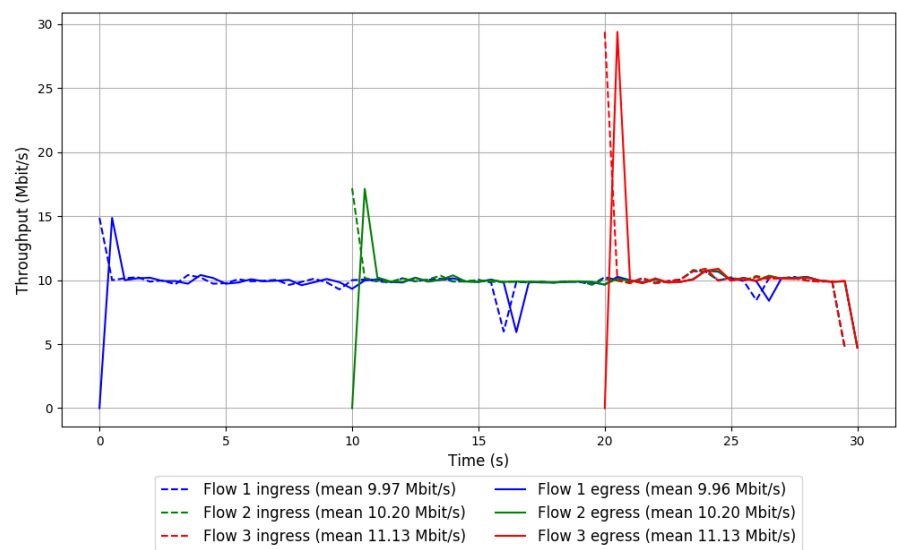
Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 00:48:53
End at: 2019-07-18 00:49:23
Local clock offset: -5.803 ms
Remote clock offset: -0.18 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.36 Mbit/s
95th percentile per-packet one-way delay: 1.147 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 1.129 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 1.166 ms
Loss rate: 0.00%
```
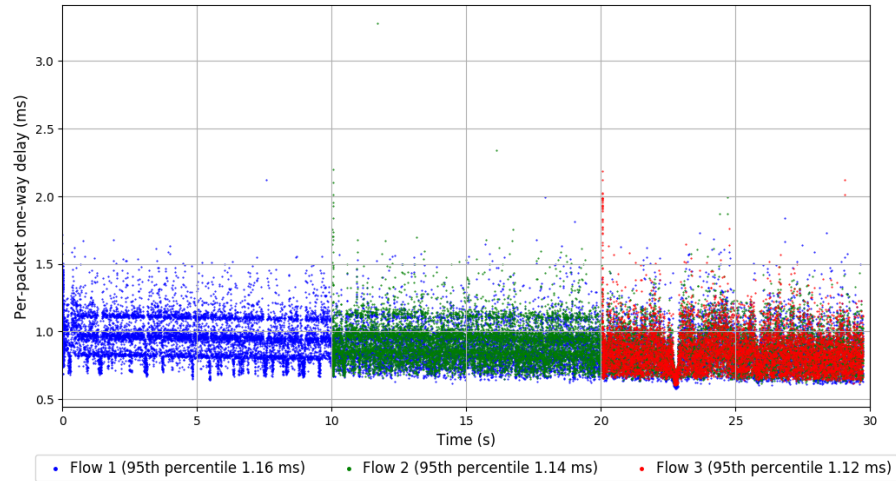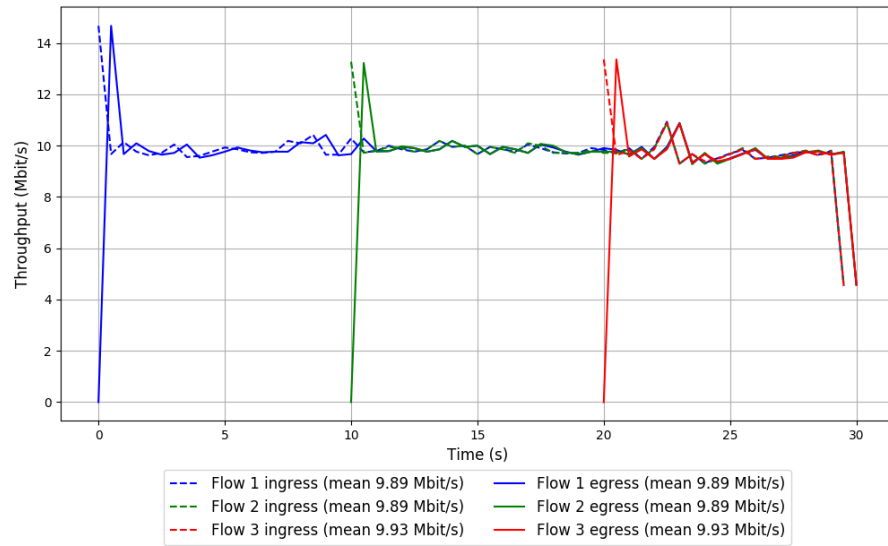
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-07-18 01:22:54
End at: 2019-07-18 01:23:24
Local clock offset: -3.885 ms
Remote clock offset: 1.978 ms


# Below is generated by plot.py at 2019-07-18 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.68 Mbit/s
95th percentile per-packet one-way delay: 1.147 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.89 Mbit/s
95th percentile per-packet one-way delay: 1.160 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.89 Mbit/s
95th percentile per-packet one-way delay: 1.138 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.93 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.00%
```
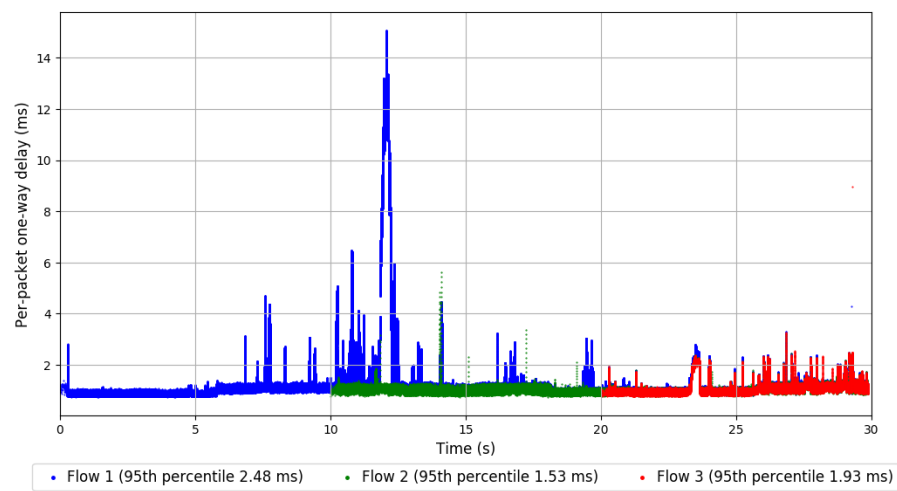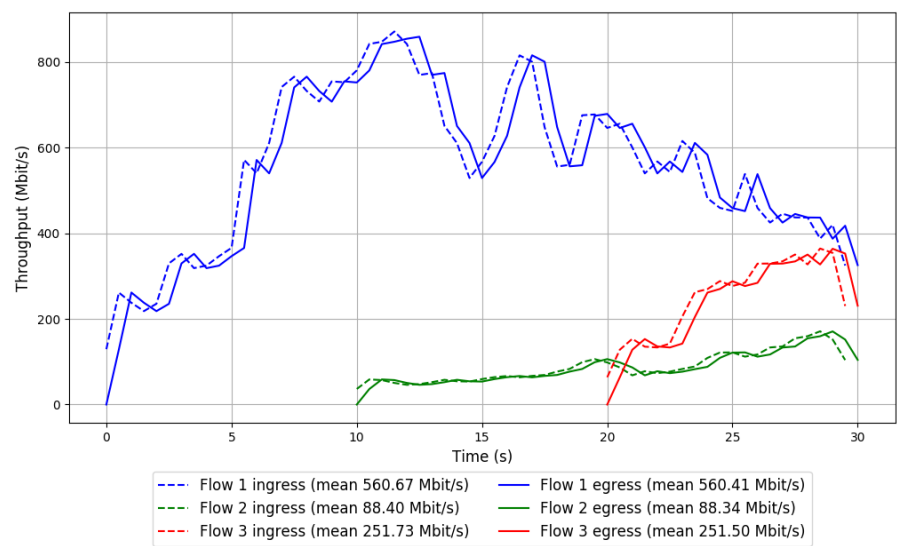
Run 5: Report of Muses_DecisionTreeR0 — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-07-17 23:16:29
End at: 2019-07-17 23:16:59
Local clock offset: 5.741 ms
Remote clock offset: 0.172 ms


# Below is generated by plot.py at 2019-07-18 02:34:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 702.12 Mbit/s
95th percentile per-packet one-way delay: 2.221 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 560.41 Mbit/s
95th percentile per-packet one-way delay: 2.477 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 88.34 Mbit/s
95th percentile per-packet one-way delay: 1.535 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 251.50 Mbit/s
95th percentile per-packet one-way delay: 1.926 ms
Loss rate: 0.10%
```
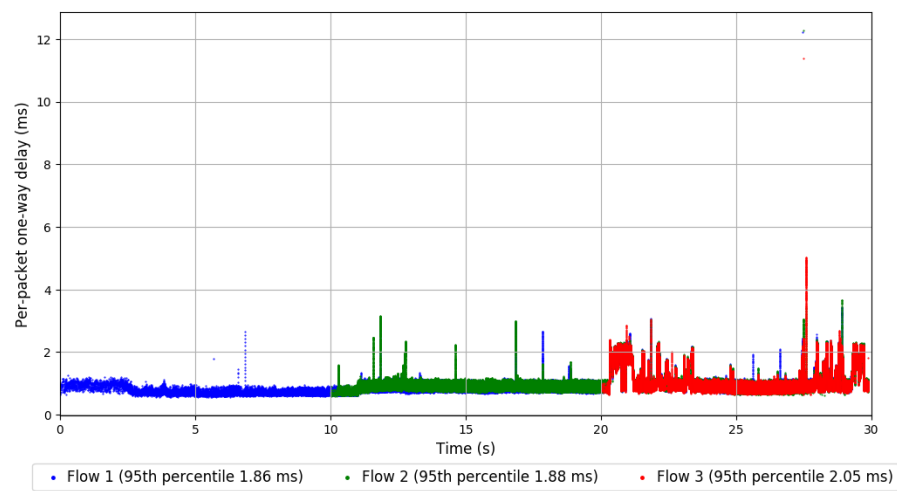
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-07-17 23:50:29
End at: 2019-07-17 23:50:59
Local clock offset: 5.513 ms
Remote clock offset: 2.949 ms


# Below is generated by plot.py at 2019-07-18 02:34:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.38 Mbit/s
95th percentile per-packet one-way delay: 1.941 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 222.60 Mbit/s
95th percentile per-packet one-way delay: 1.856 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 334.00 Mbit/s
95th percentile per-packet one-way delay: 1.879 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 281.04 Mbit/s
95th percentile per-packet one-way delay: 2.050 ms
Loss rate: 0.23%
```
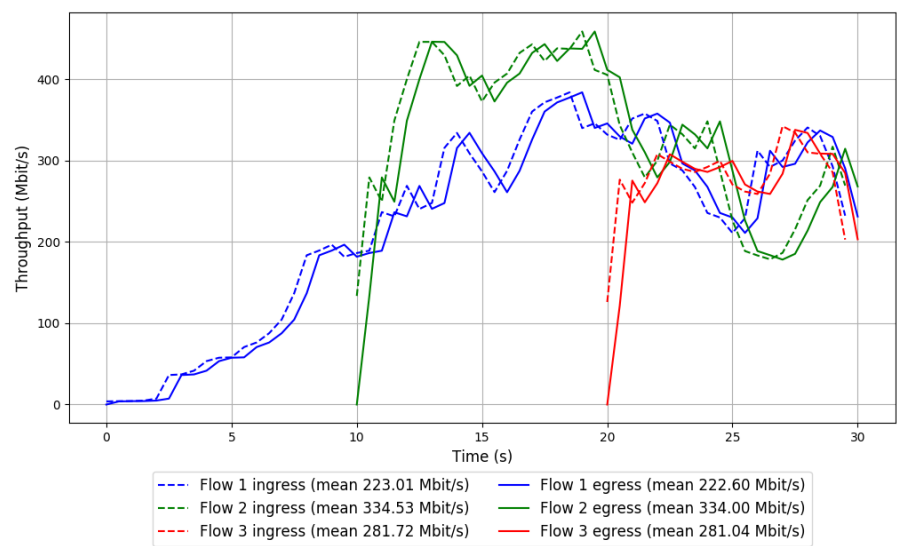
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-07-18 00:24:29
End at: 2019-07-18 00:24:59
Local clock offset: -2.817 ms
Remote clock offset: 0.22 ms


# Below is generated by plot.py at 2019-07-18 02:34:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 661.68 Mbit/s
95th percentile per-packet one-way delay: 1.892 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 579.19 Mbit/s
95th percentile per-packet one-way delay: 1.951 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 107.45 Mbit/s
95th percentile per-packet one-way delay: 1.475 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 33.56 Mbit/s
95th percentile per-packet one-way delay: 1.561 ms
Loss rate: 0.13%
```
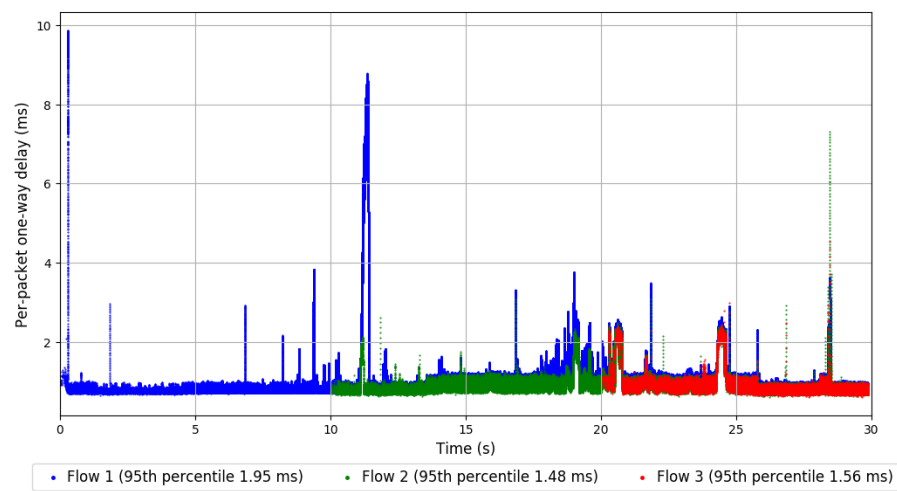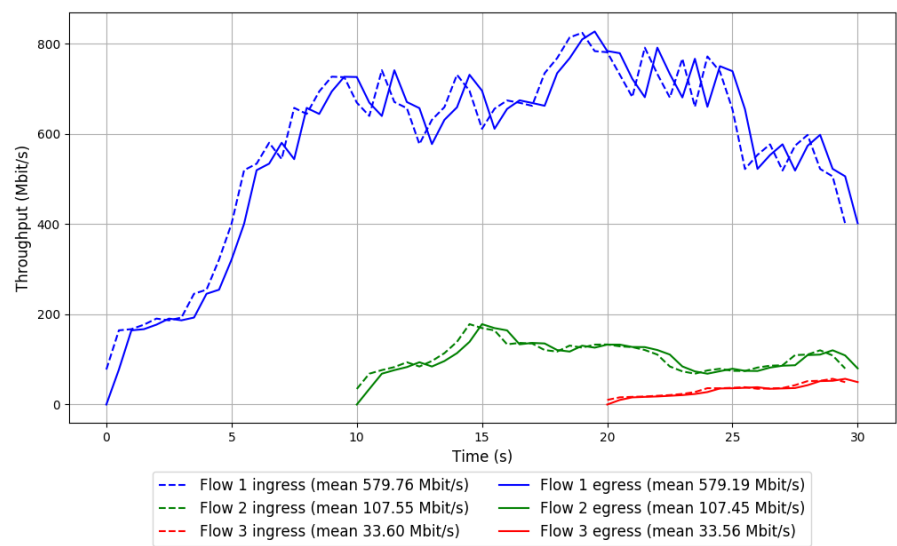
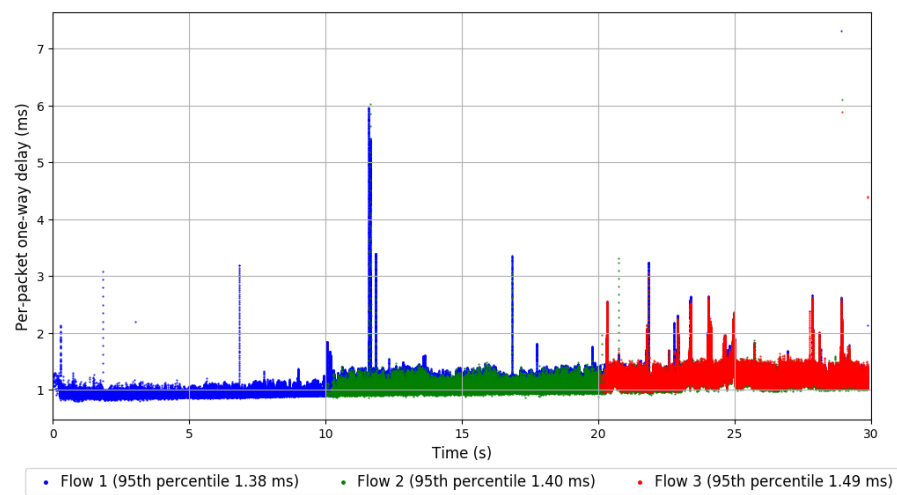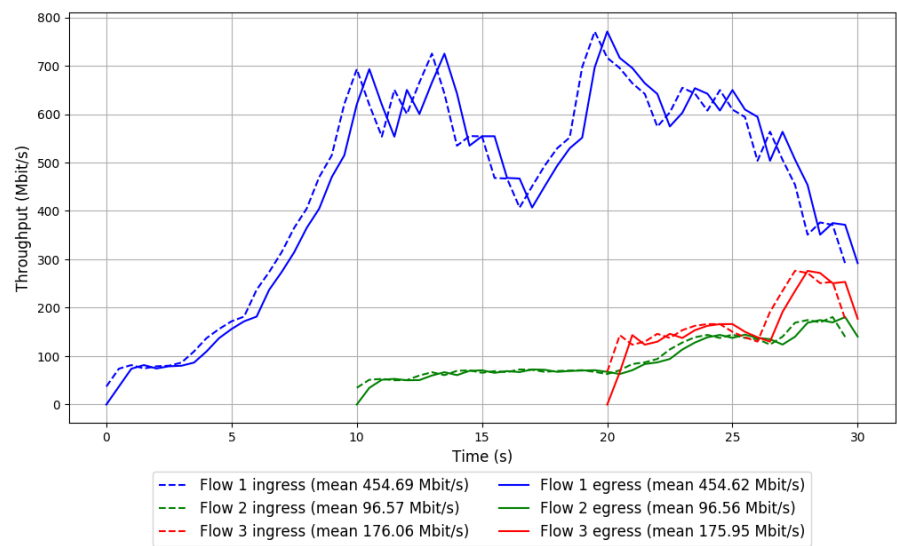Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-07-18 00:58:22
End at: 2019-07-18 00:58:52
Local clock offset: -5.383 ms
Remote clock offset: -0.164 ms


# Below is generated by plot.py at 2019-07-18 02:34:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.84 Mbit/s
95th percentile per-packet one-way delay: 1.394 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 454.62 Mbit/s
95th percentile per-packet one-way delay: 1.382 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 96.56 Mbit/s
95th percentile per-packet one-way delay: 1.398 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 175.95 Mbit/s
95th percentile per-packet one-way delay: 1.491 ms
Loss rate: 0.03%
```

Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-07-18 01:32:24
End at: 2019-07-18 01:32:54
Local clock offset: -1.183 ms
Remote clock offset: 3.113 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 665.08 Mbit/s
95th percentile per-packet one-way delay: 2.641 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 628.96 Mbit/s
95th percentile per-packet one-way delay: 2.700 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 45.42 Mbit/s
95th percentile per-packet one-way delay: 2.186 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 17.93 Mbit/s
95th percentile per-packet one-way delay: 2.190 ms
Loss rate: 0.12%
```
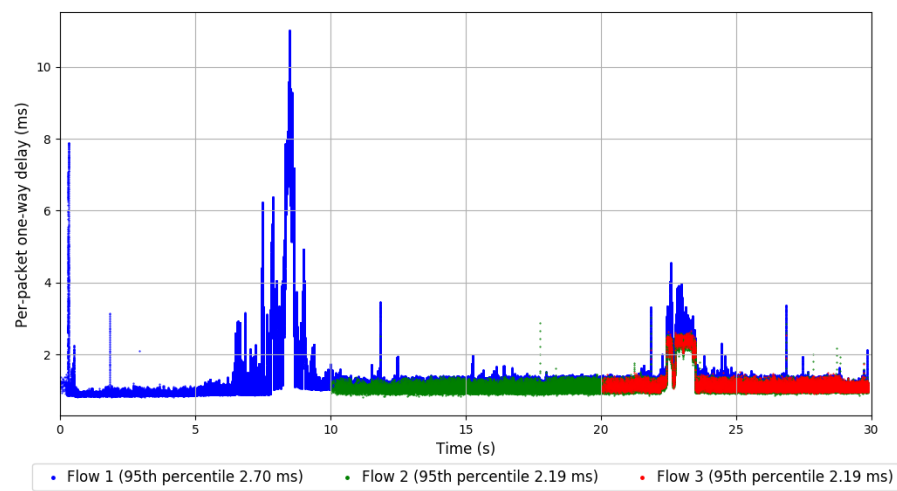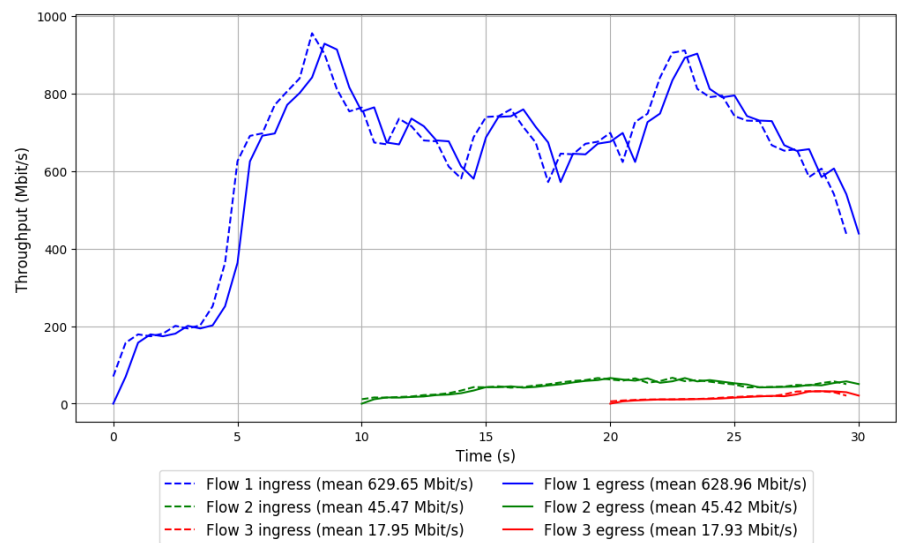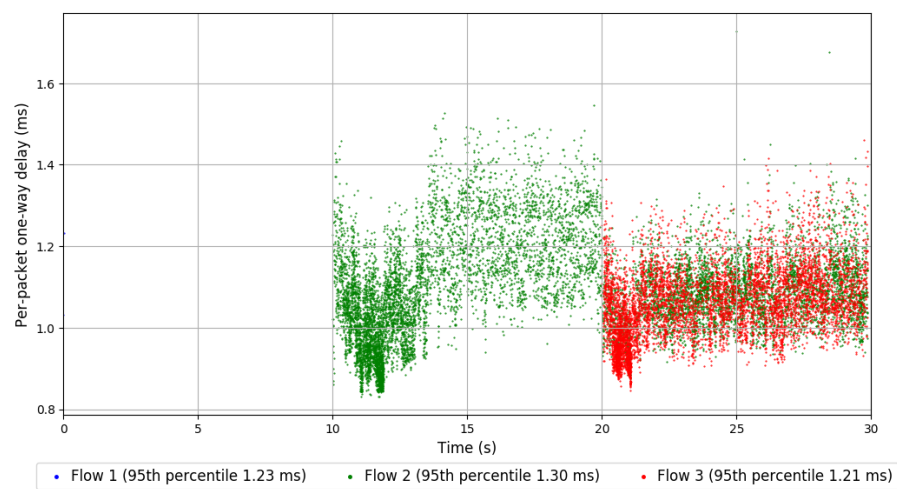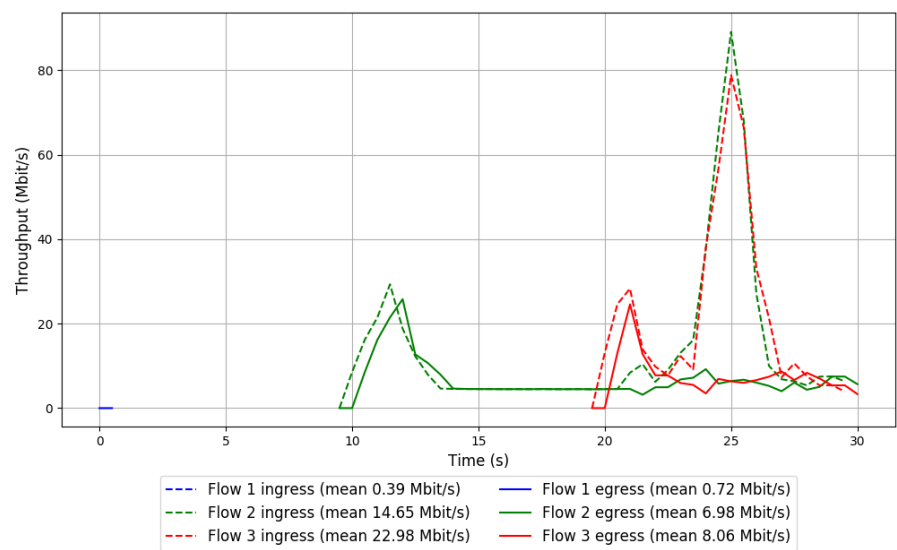
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 629.65 Mbit/s) --- Flow 1 egress (mean 628.96 Mbit/s)
Flow 2 ingress (mean 45.47 Mbit/s) --- Flow 2 egress (mean 45.42 Mbit/s)
Flow 3 ingress (mean 17.95 Mbit/s) --- Flow 3 egress (mean 17.93 Mbit/s)

Flow 1 (95th percentile 2.70 ms)   Flow 2 (95th percentile 2.19 ms)   Flow 3 (95th percentile 2.19 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2019-07-17 23:09:38
End at: 2019-07-17 23:10:08
Local clock offset: 5.806 ms
Remote clock offset: 1.033 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 1.284 ms
Loss rate: 57.86%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 1.232 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 6.98 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 52.35%
-- Flow 3:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 1.207 ms
Loss rate: 64.94%
```
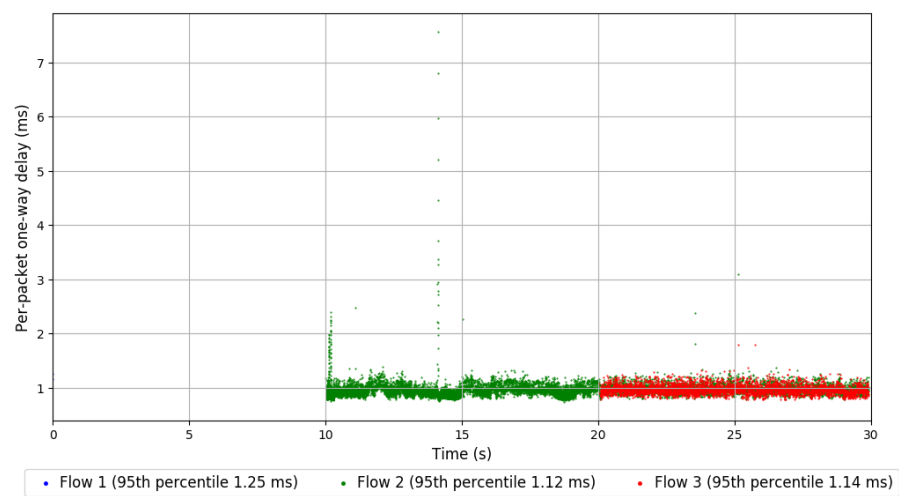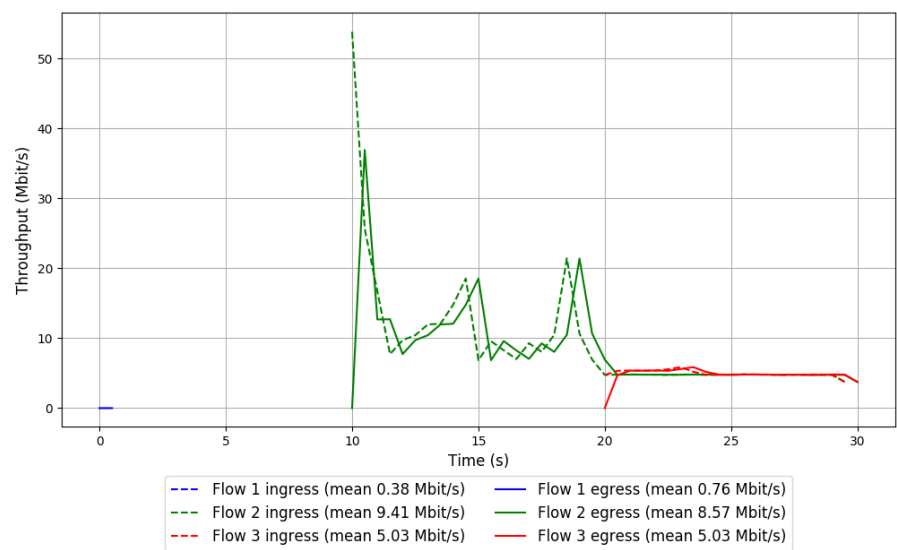
Run 1: Report of PCC-Expr — Data Link

- - - Flow 1 ingress (mean 0.39 Mbit/s)   —— Flow 1 egress (mean 0.72 Mbit/s)
- - - Flow 2 ingress (mean 14.65 Mbit/s)   —— Flow 2 egress (mean 6.98 Mbit/s)
- - - Flow 3 ingress (mean 22.98 Mbit/s)   —— Flow 3 egress (mean 8.06 Mbit/s)

• Flow 1 (95th percentile 1.23 ms)   • Flow 2 (95th percentile 1.30 ms)   • Flow 3 (95th percentile 1.21 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-07-17 23:43:46
End at: 2019-07-17 23:44:16
Local clock offset: 5.58 ms
Remote clock offset: 2.42 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.36 Mbit/s
95th percentile per-packet one-way delay: 1.125 ms
Loss rate: 7.14%
-- Flow 1:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 1.255 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 1.122 ms
Loss rate: 9.03%
-- Flow 3:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.00%
```
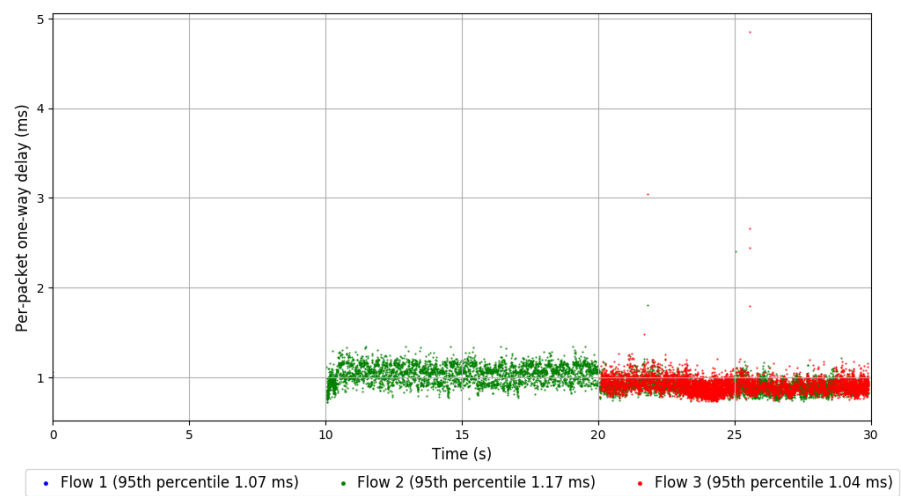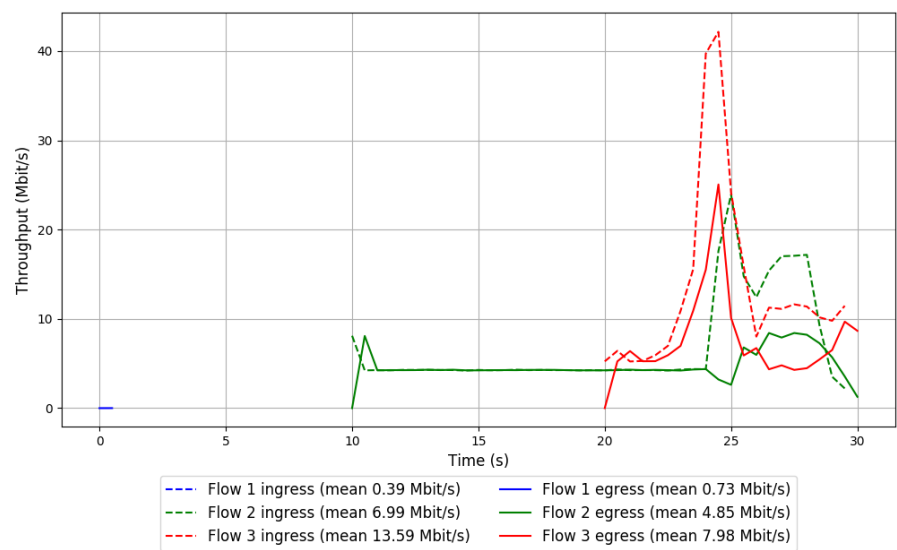
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-07-18 00:17:42
End at: 2019-07-18 00:18:12
Local clock offset: -1.844 ms
Remote clock offset: 0.916 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 1.146 ms
Loss rate: 35.92%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 1.066 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 1.166 ms
Loss rate: 30.73%
-- Flow 3:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 41.29%
```
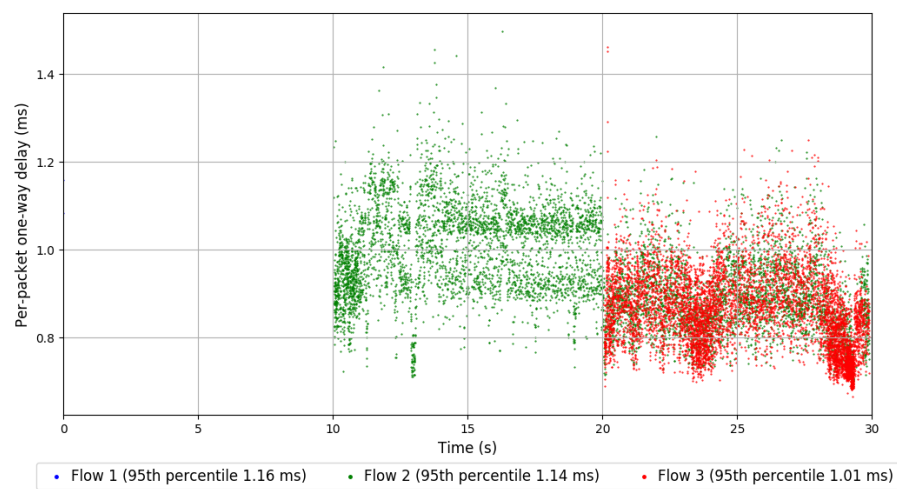
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-07-18 00:51:34
End at: 2019-07-18 00:52:04
Local clock offset: -6.129 ms
Remote clock offset: -0.15 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.07 Mbit/s
95th percentile per-packet one-way delay: 1.105 ms
Loss rate: 14.15%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 4.82 Mbit/s
95th percentile per-packet one-way delay: 1.140 ms
Loss rate: 9.17%
-- Flow 3:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 19.10%
```
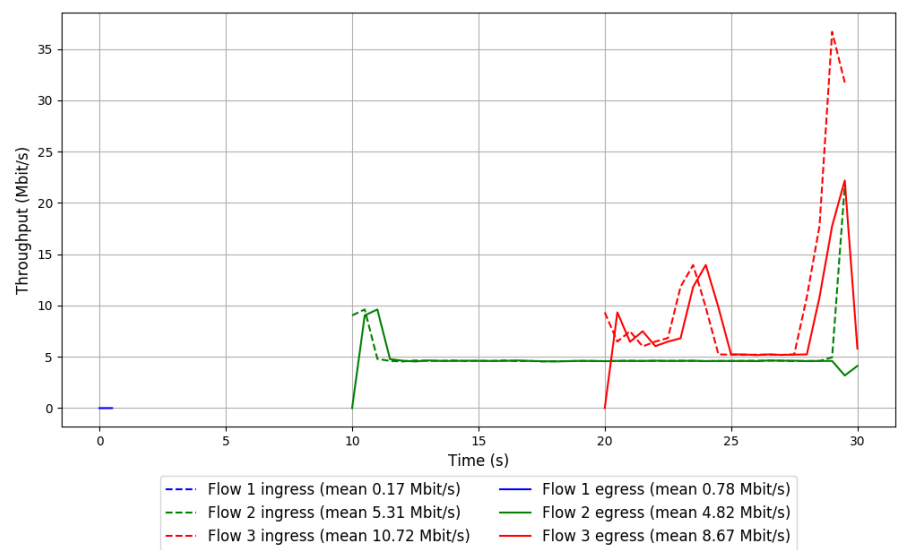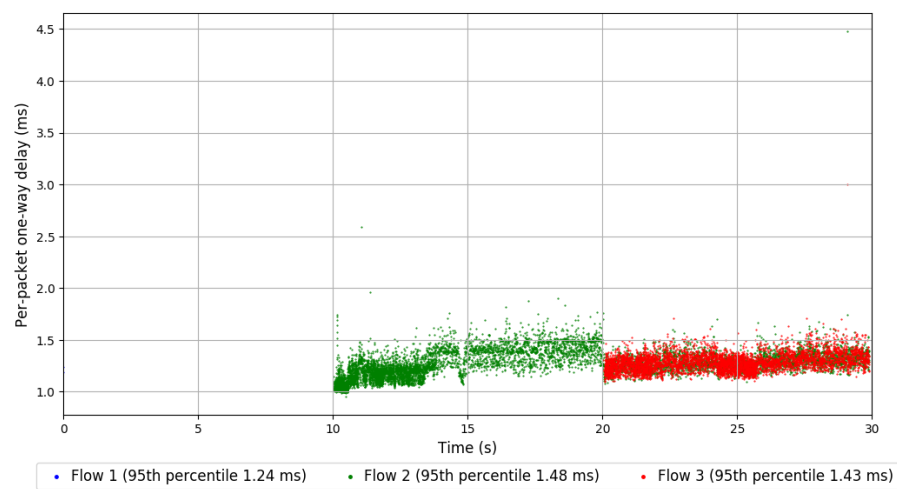
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-07-18 01:25:37
End at: 2019-07-18 01:26:07
Local clock offset: -3.567 ms
Remote clock offset: 2.391 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 1.462 ms
Loss rate: 5.55%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 1.239 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 1.477 ms
Loss rate: 8.41%
-- Flow 3:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 1.430 ms
Loss rate: 0.00%
```
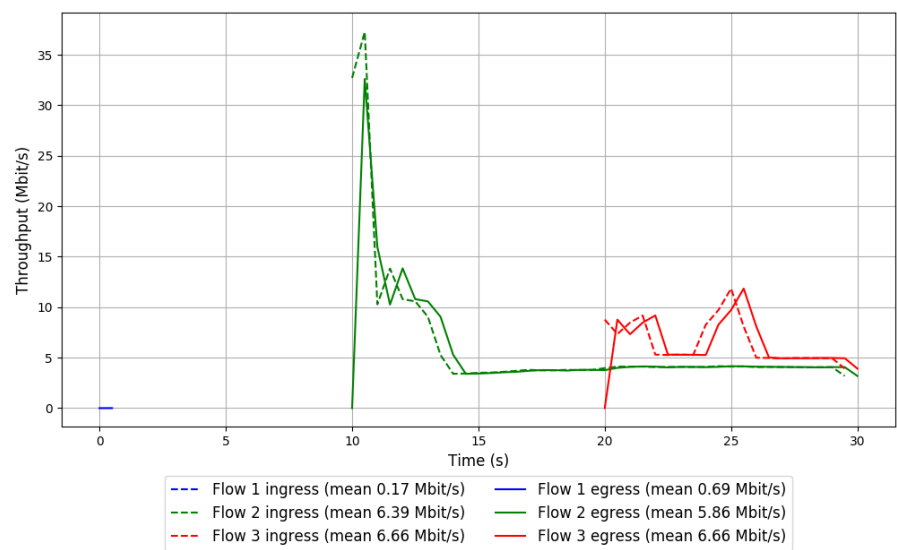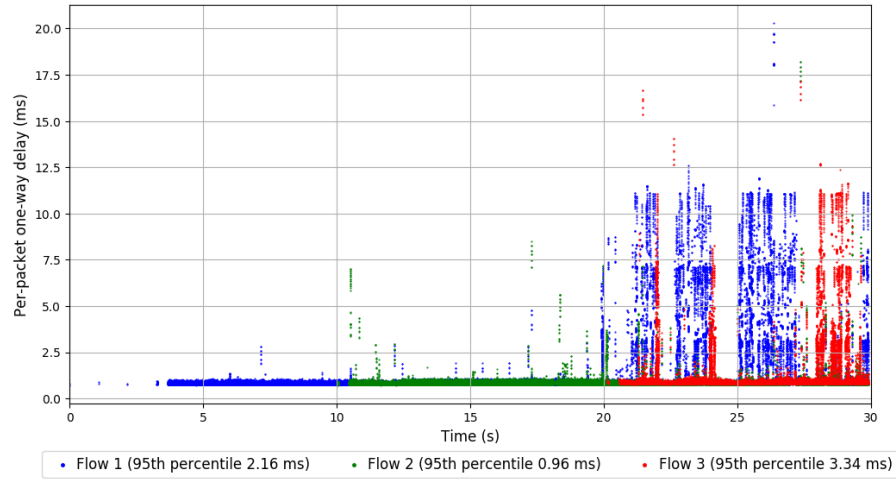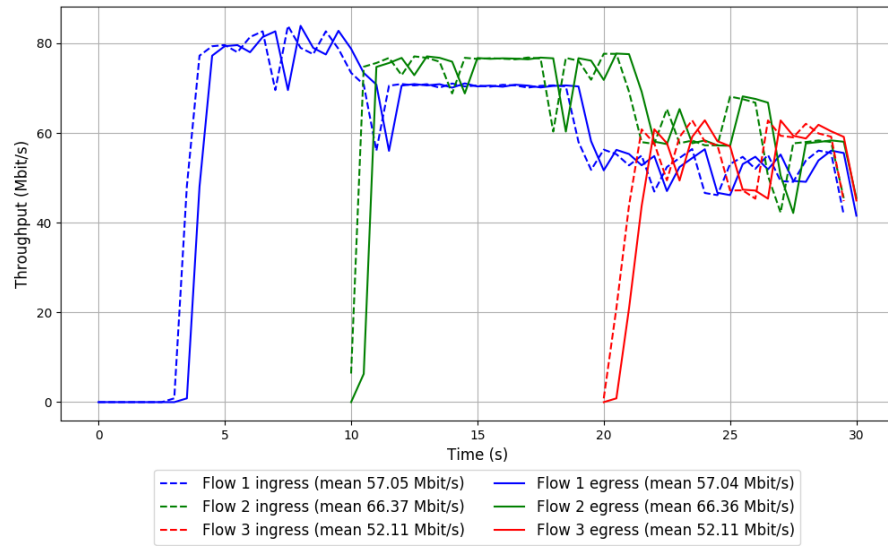
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 0.17 Mbit/s)   Flow 1 egress (mean 0.69 Mbit/s)
Flow 2 ingress (mean 6.39 Mbit/s)   Flow 2 egress (mean 5.86 Mbit/s)
Flow 3 ingress (mean 6.66 Mbit/s)   Flow 3 egress (mean 6.66 Mbit/s)

Flow 1 (95th percentile 1.24 ms)   Flow 2 (95th percentile 1.48 ms)   Flow 3 (95th percentile 1.43 ms)

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```
Run 1: Statistics of QUIC Cubic

Start at: 2019-07-17 23:23:19
End at: 2019-07-17 23:23:49
Local clock offset: 5.713 ms
Remote clock offset: -0.273 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.14 Mbit/s
95th percentile per-packet one-way delay: 1.091 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 57.04 Mbit/s
95th percentile per-packet one-way delay: 2.160 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 66.36 Mbit/s
95th percentile per-packet one-way delay: 0.957 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.11 Mbit/s
95th percentile per-packet one-way delay: 3.343 ms
Loss rate: 0.00%
```
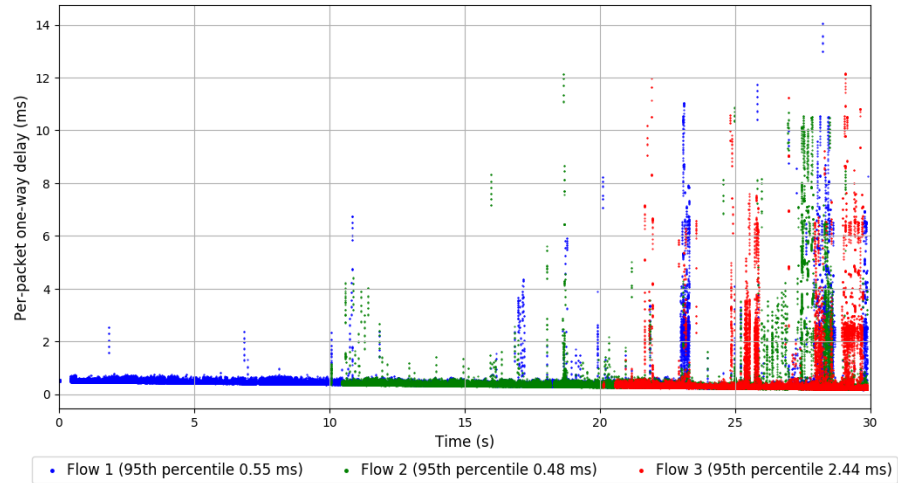
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-07-17 23:57:22
End at: 2019-07-17 23:57:52
Local clock offset: 3.959 ms
Remote clock offset: 3.447 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.20 Mbit/s
95th percentile per-packet one-way delay: 0.552 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 67.38 Mbit/s
95th percentile per-packet one-way delay: 0.548 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 65.54 Mbit/s
95th percentile per-packet one-way delay: 0.478 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.75 Mbit/s
95th percentile per-packet one-way delay: 2.439 ms
Loss rate: 0.00%
```
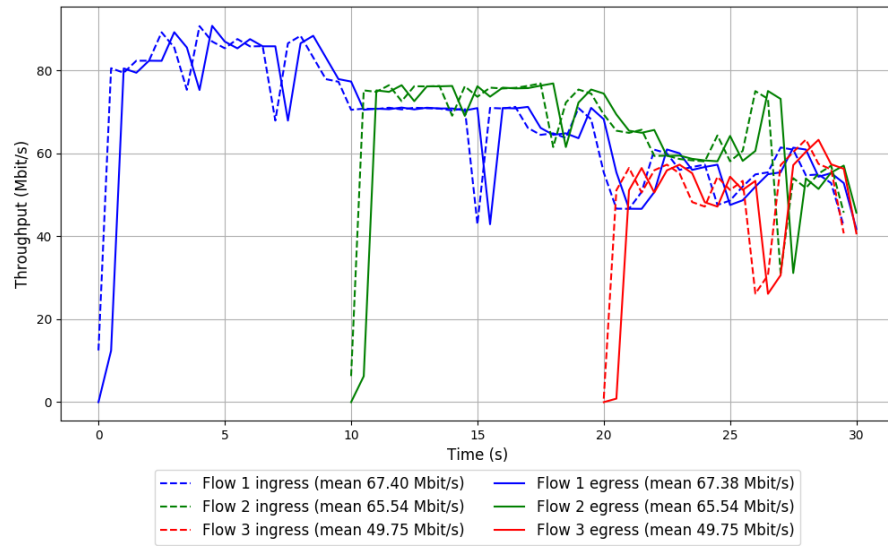
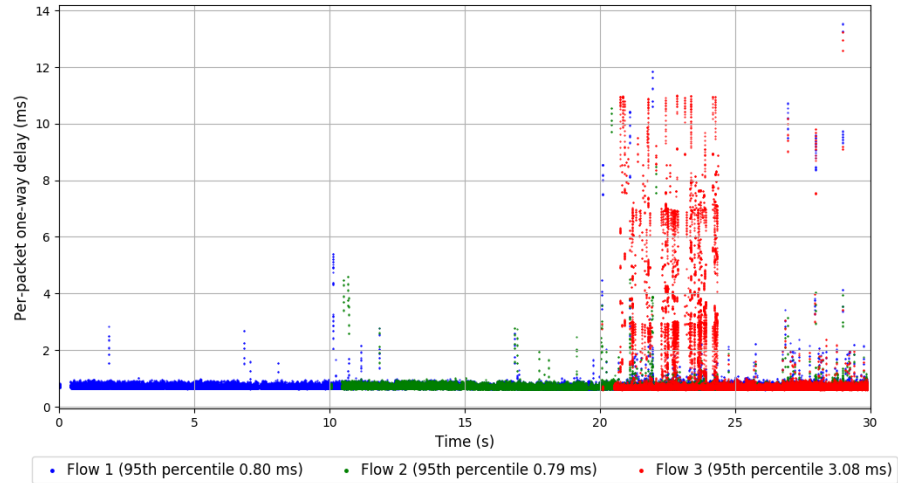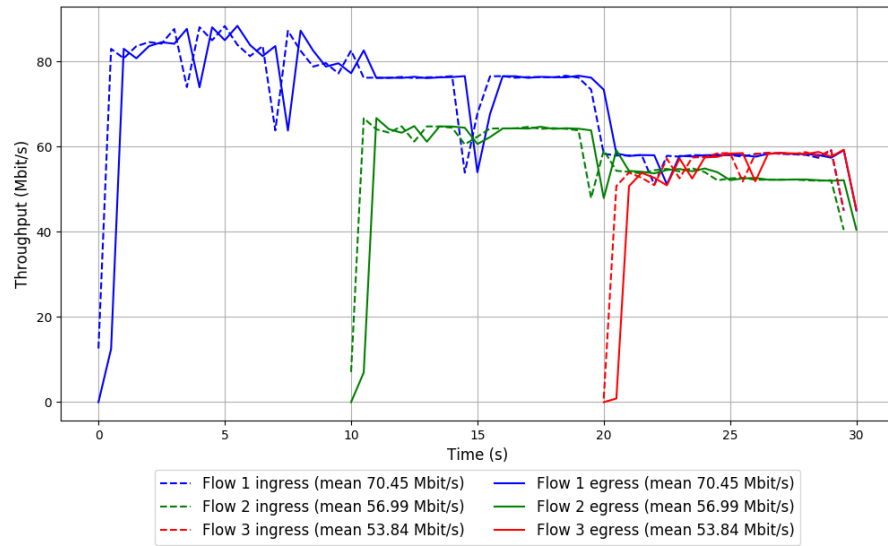Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-07-18 00:31:25
End at: 2019-07-18 00:31:55
Local clock offset: -3.724 ms
Remote clock offset: -0.254 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.99 Mbit/s
95th percentile per-packet one-way delay: 0.811 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.45 Mbit/s
95th percentile per-packet one-way delay: 0.801 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 0.791 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.84 Mbit/s
95th percentile per-packet one-way delay: 3.083 ms
Loss rate: 0.00%
```
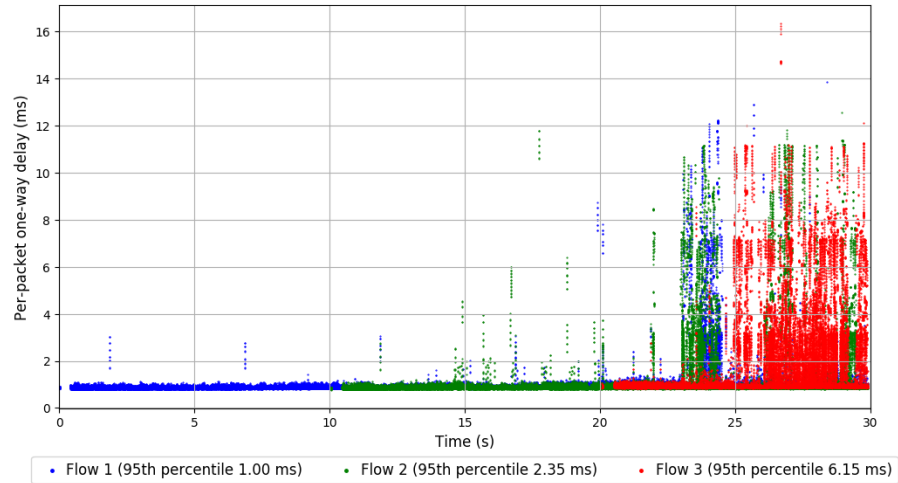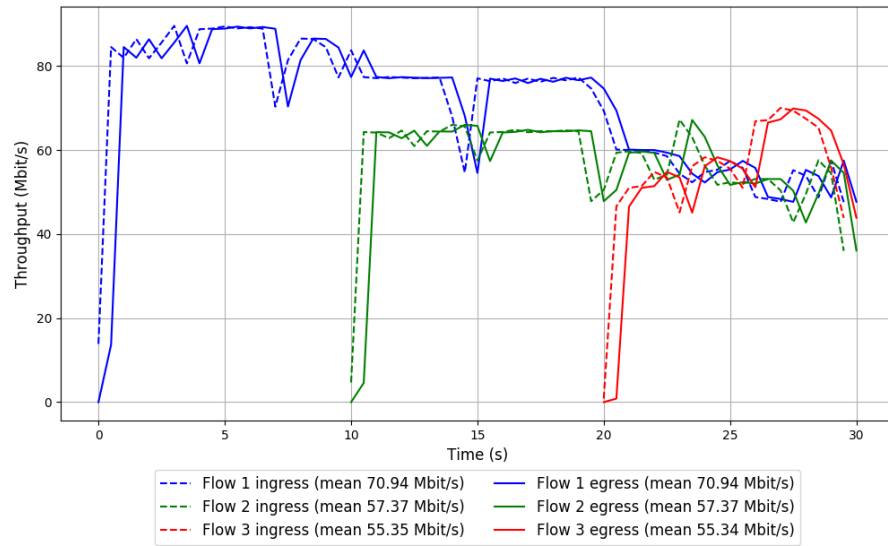
Run 3: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 70.45 Mbit/s) —— Flow 1 egress (mean 70.45 Mbit/s)
- - - Flow 2 ingress (mean 56.99 Mbit/s) —— Flow 2 egress (mean 56.99 Mbit/s)
- - - Flow 3 ingress (mean 53.84 Mbit/s) —— Flow 3 egress (mean 53.84 Mbit/s)

• Flow 1 (95th percentile 0.80 ms)   • Flow 2 (95th percentile 0.79 ms)   • Flow 3 (95th percentile 3.08 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-07-18 01:05:14
End at: 2019-07-18 01:05:44
Local clock offset: -4.249 ms
Remote clock offset: -0.203 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.22 Mbit/s
95th percentile per-packet one-way delay: 2.281 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.94 Mbit/s
95th percentile per-packet one-way delay: 0.997 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.37 Mbit/s
95th percentile per-packet one-way delay: 2.354 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.34 Mbit/s
95th percentile per-packet one-way delay: 6.147 ms
Loss rate: 0.01%
```
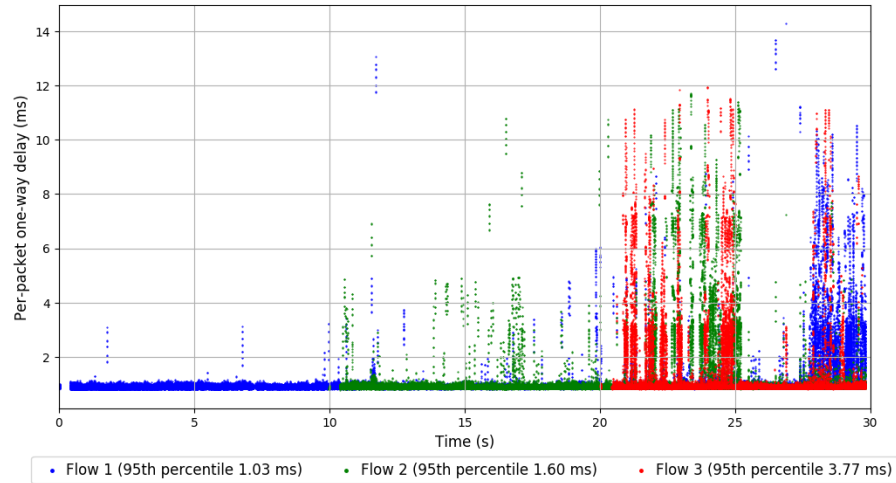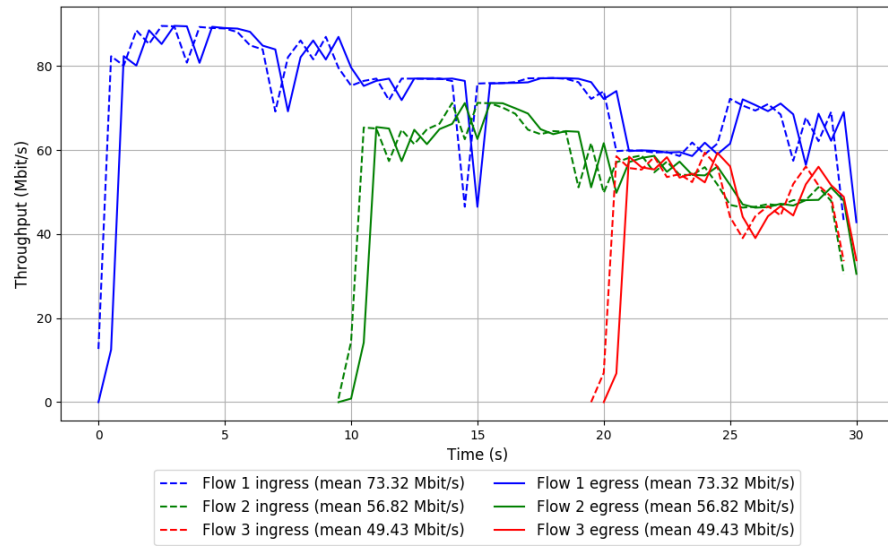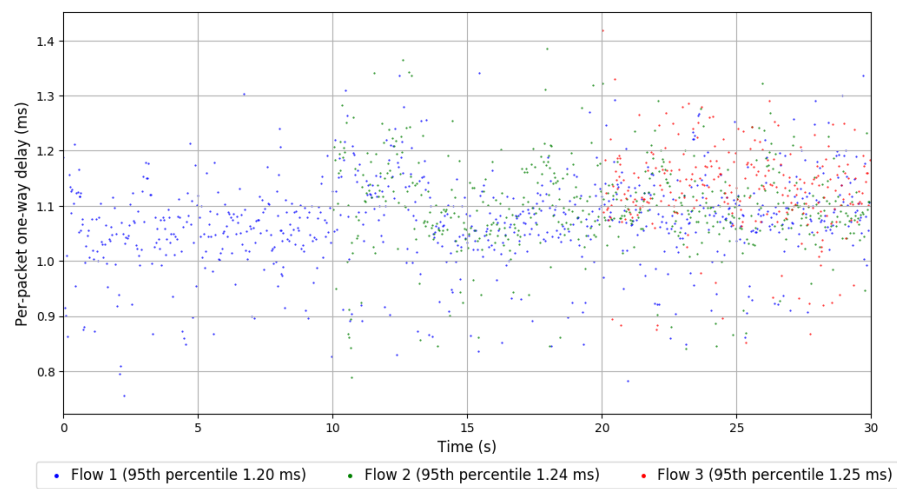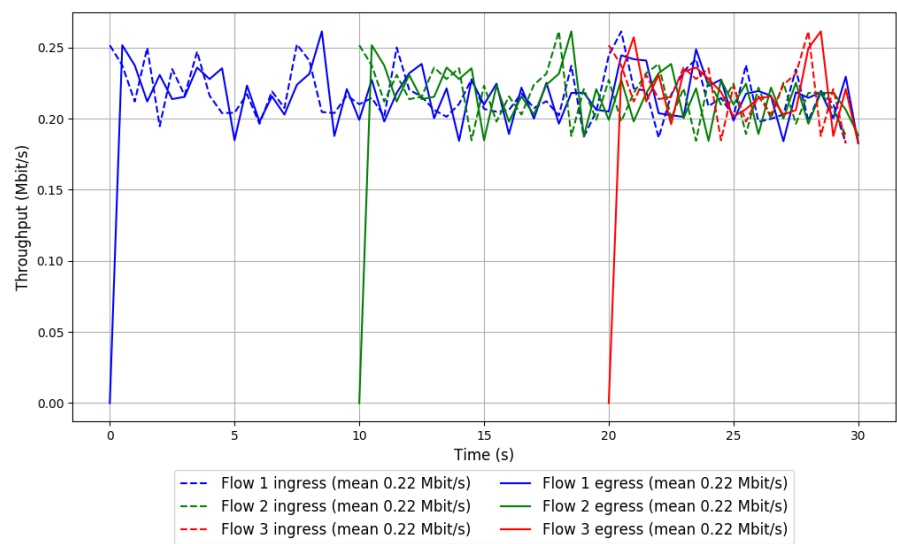
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 70.94 Mbit/s)   Flow 1 egress (mean 70.94 Mbit/s)
Flow 2 ingress (mean 57.37 Mbit/s)   Flow 2 egress (mean 57.37 Mbit/s)
Flow 3 ingress (mean 55.35 Mbit/s)   Flow 3 egress (mean 55.34 Mbit/s)

Flow 1 (95th percentile 1.00 ms)   Flow 2 (95th percentile 2.35 ms)   Flow 3 (95th percentile 6.15 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-07-18 01:39:19
End at: 2019-07-18 01:39:49
Local clock offset: 0.003 ms
Remote clock offset: 3.544 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.41 Mbit/s
95th percentile per-packet one-way delay: 1.516 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.32 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 56.82 Mbit/s
95th percentile per-packet one-way delay: 1.599 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.43 Mbit/s
95th percentile per-packet one-way delay: 3.768 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-07-17 23:20:45
End at: 2019-07-17 23:21:15
Local clock offset: 5.758 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.204 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.237 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.249 ms
Loss rate: 0.00%
```
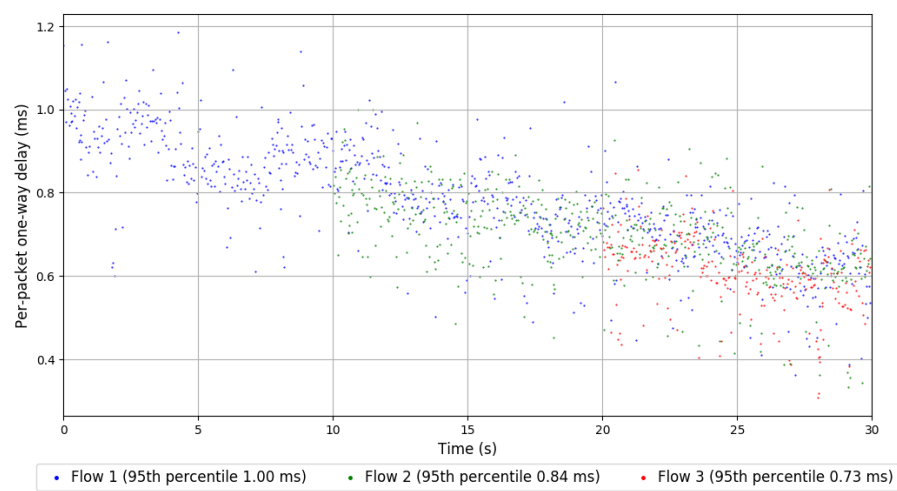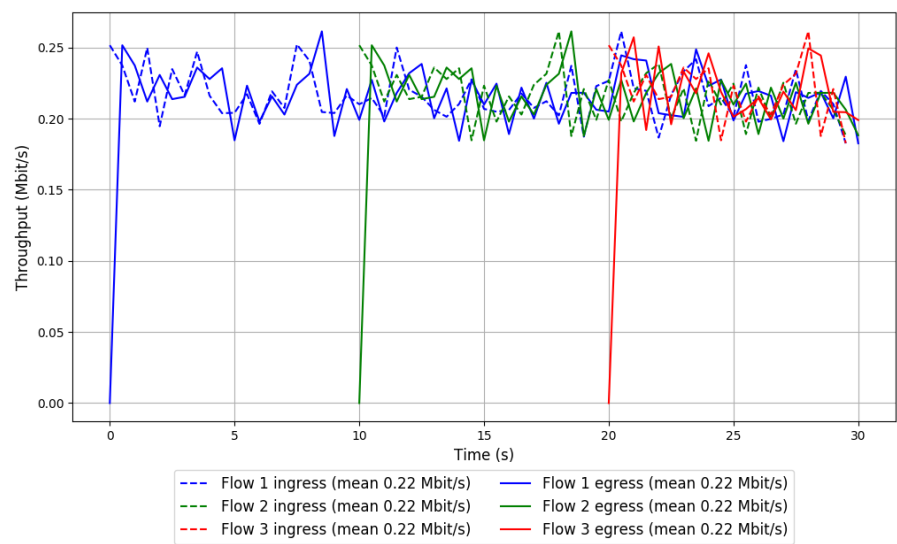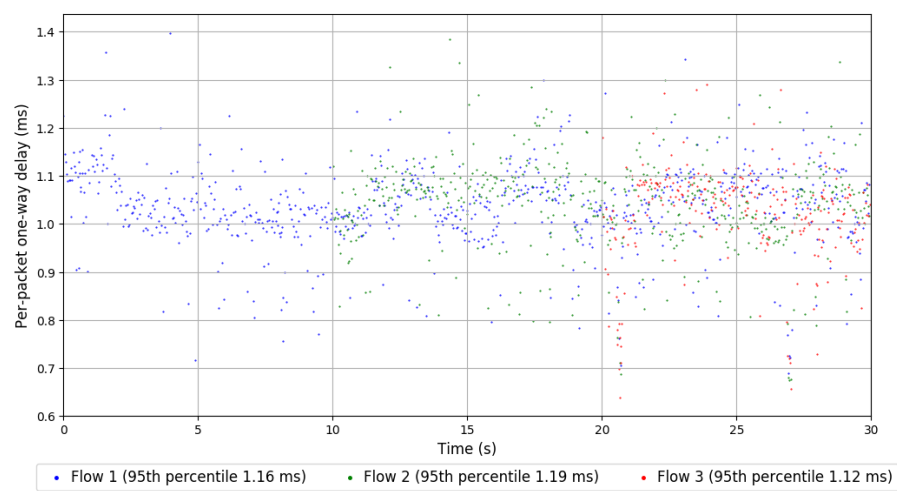
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-07-17 23:54:45
End at: 2019-07-17 23:55:15
Local clock offset: 5.461 ms
Remote clock offset: 3.325 ms

# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 0.962 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.996 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.845 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.733 ms
Loss rate: 0.00%
```
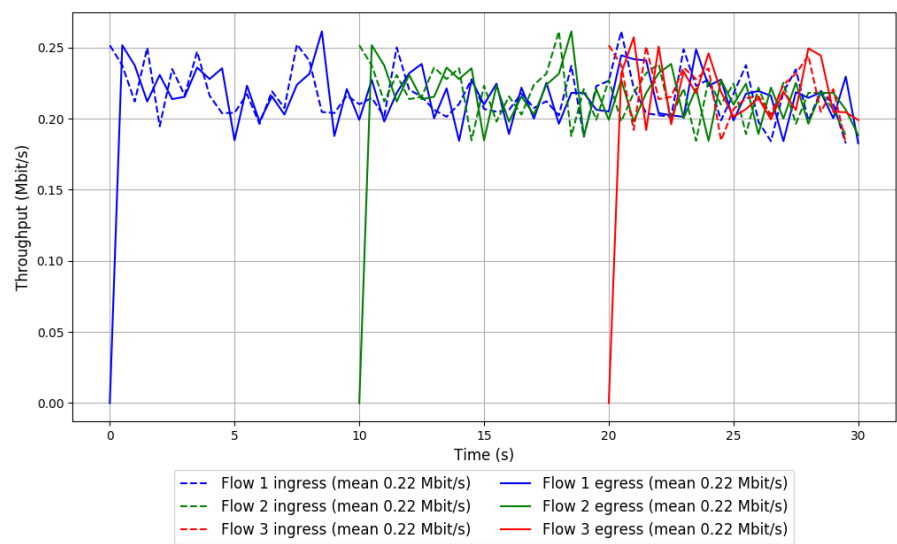
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-07-18 00:28:50
End at: 2019-07-18 00:29:20
Local clock offset: -3.417 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.187 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%
```
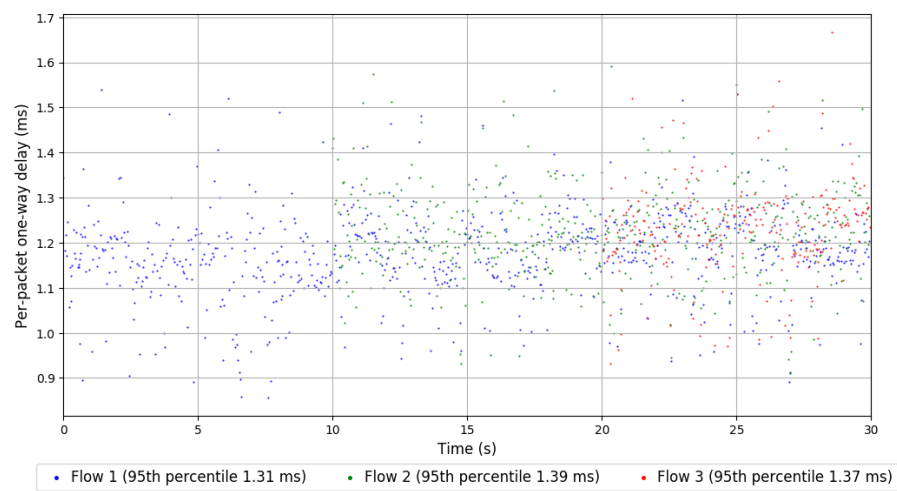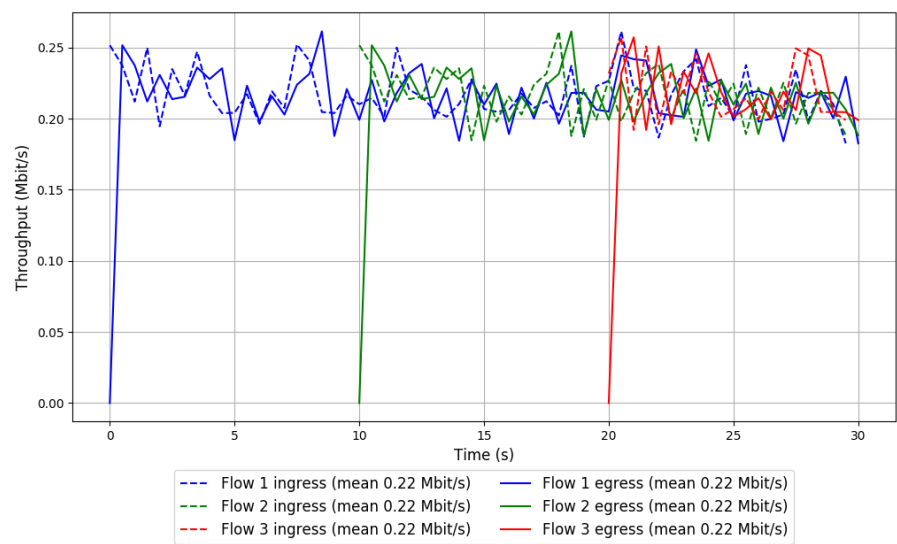
Run 3: Report of SCReAM — Data Link

- Flow 1 ingress (mean 0.22 Mbit/s) --- Flow 1 egress (mean 0.22 Mbit/s)
- Flow 2 ingress (mean 0.22 Mbit/s) --- Flow 2 egress (mean 0.22 Mbit/s)
- Flow 3 ingress (mean 0.22 Mbit/s) --- Flow 3 egress (mean 0.22 Mbit/s)

- Flow 1 (95th percentile 1.16 ms) • Flow 2 (95th percentile 1.19 ms) • Flow 3 (95th percentile 1.12 ms)

```
Run 4: Statistics of SCReAM

Start at: 2019-07-18 01:02:39
End at: 2019-07-18 01:03:09
Local clock offset: -4.555 ms
Remote clock offset: -0.22 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.315 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.386 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.369 ms
Loss rate: 0.00%
```
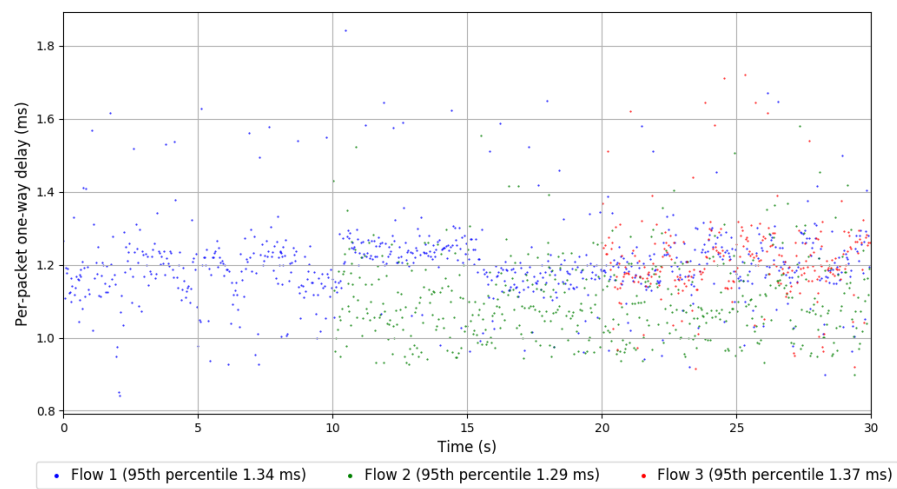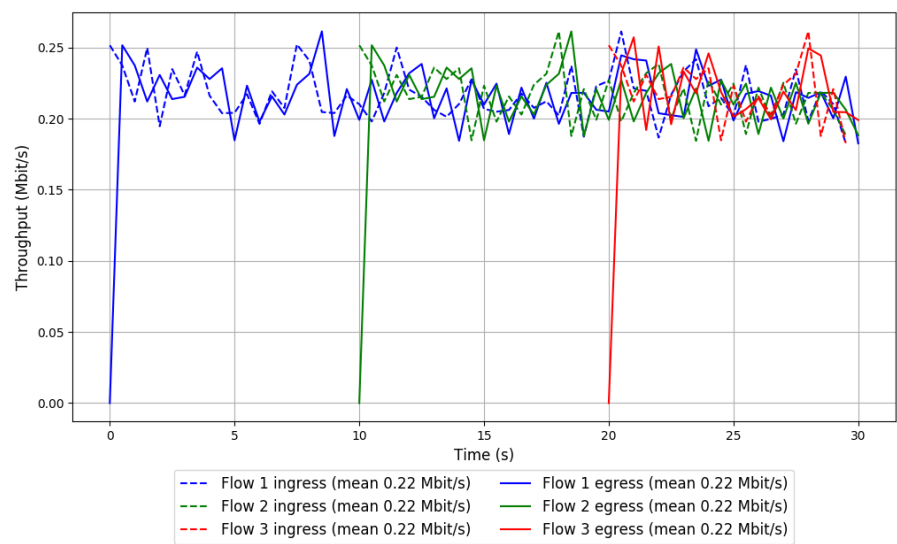
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-07-18 01:36:45
End at: 2019-07-18 01:37:15
Local clock offset: -0.333 ms
Remote clock offset: 3.395 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.343 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.369 ms
Loss rate: 0.00%
```
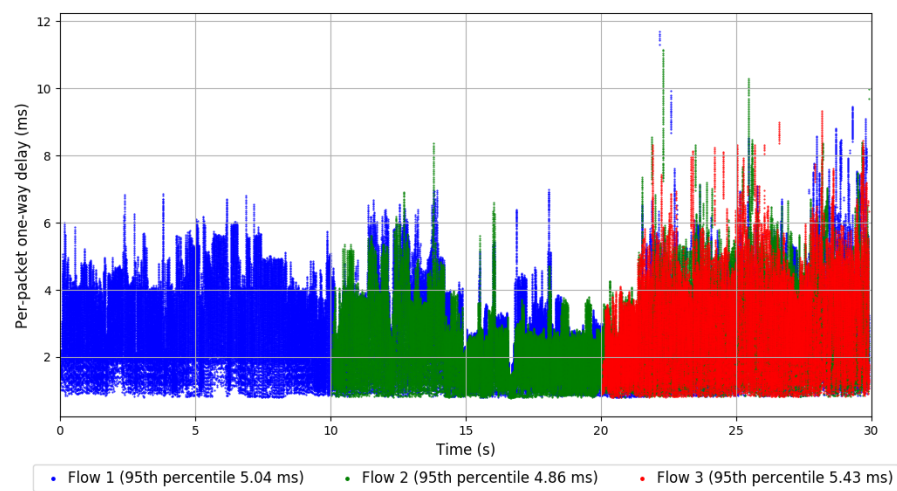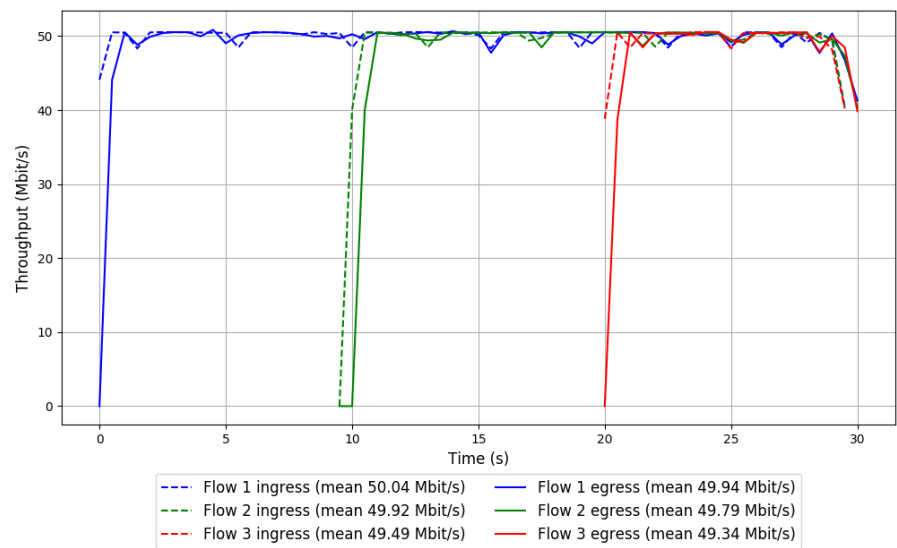
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-07-17 23:18:00
End at: 2019-07-17 23:18:30
Local clock offset: 5.766 ms
Remote clock offset: 0.073 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.41 Mbit/s
95th percentile per-packet one-way delay: 5.043 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 49.94 Mbit/s
95th percentile per-packet one-way delay: 5.037 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 49.79 Mbit/s
95th percentile per-packet one-way delay: 4.858 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 5.427 ms
Loss rate: 0.24%
```
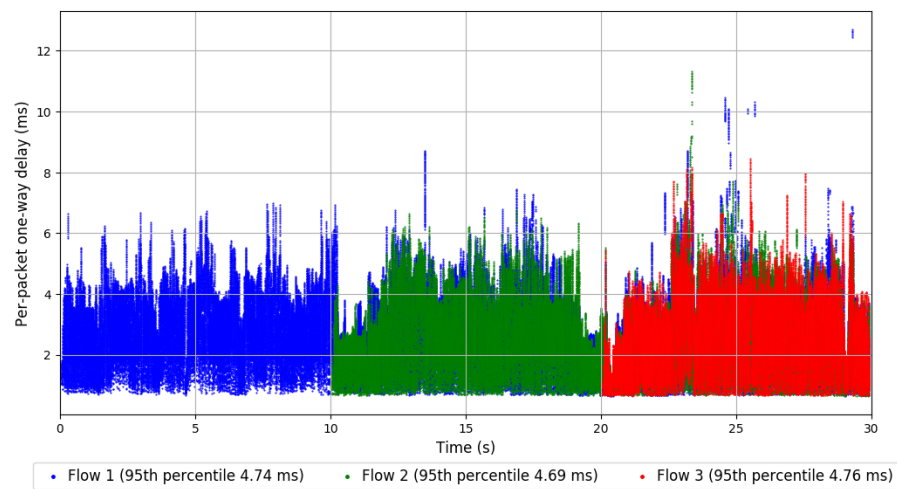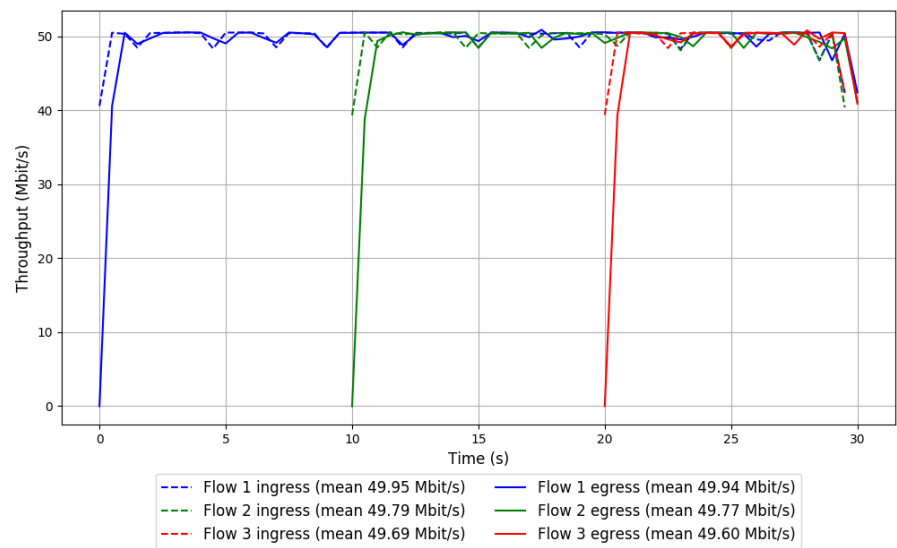
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-07-17 23:51:56
End at: 2019-07-17 23:52:26
Local clock offset: 5.499 ms
Remote clock offset: 3.074 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.44 Mbit/s
95th percentile per-packet one-way delay: 4.724 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 49.94 Mbit/s
95th percentile per-packet one-way delay: 4.740 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 49.77 Mbit/s
95th percentile per-packet one-way delay: 4.692 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 49.60 Mbit/s
95th percentile per-packet one-way delay: 4.757 ms
Loss rate: 0.17%
```
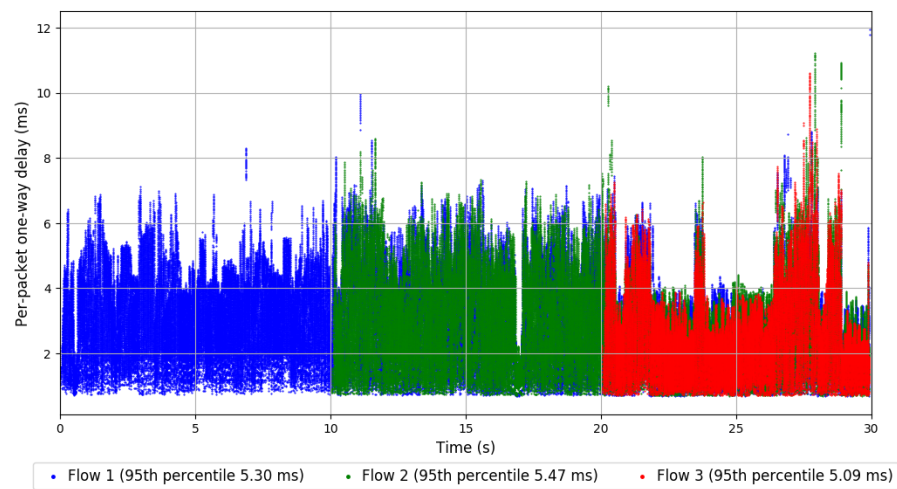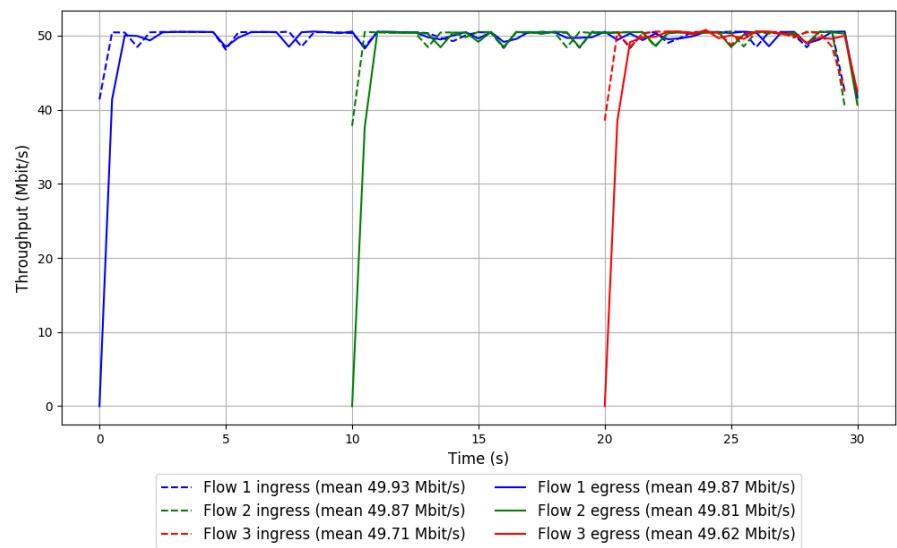
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-07-18 00:26:00
End at: 2019-07-18 00:26:30
Local clock offset: -3.026 ms
Remote clock offset: 0.083 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.37 Mbit/s
95th percentile per-packet one-way delay: 5.337 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 49.87 Mbit/s
95th percentile per-packet one-way delay: 5.305 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 49.81 Mbit/s
95th percentile per-packet one-way delay: 5.467 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 49.62 Mbit/s
95th percentile per-packet one-way delay: 5.089 ms
Loss rate: 0.17%
```
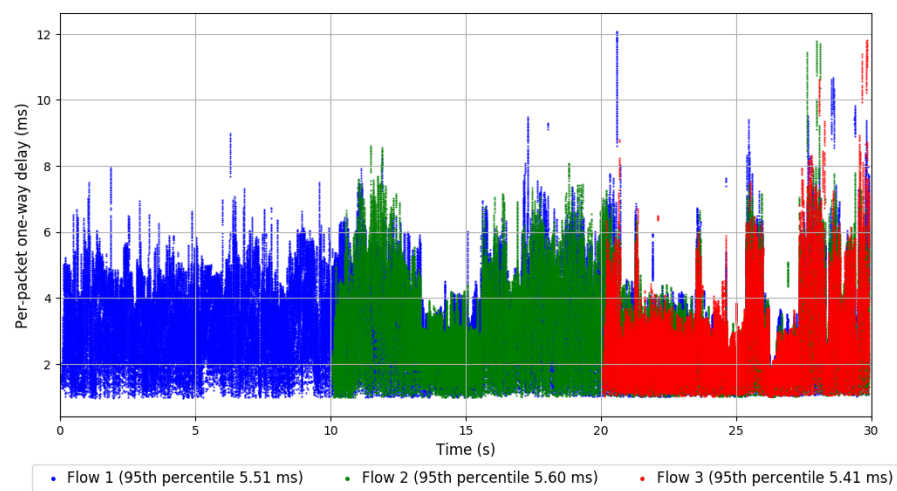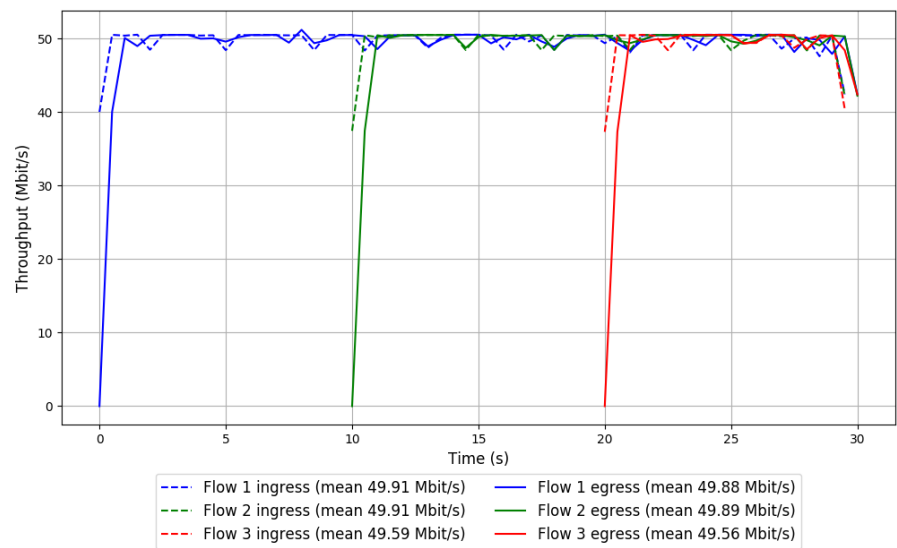
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-07-18 00:59:50
End at: 2019-07-18 01:00:21
Local clock offset: -5.097 ms
Remote clock offset: -0.169 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.45 Mbit/s
95th percentile per-packet one-way delay: 5.529 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 49.88 Mbit/s
95th percentile per-packet one-way delay: 5.512 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 49.89 Mbit/s
95th percentile per-packet one-way delay: 5.596 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 49.56 Mbit/s
95th percentile per-packet one-way delay: 5.412 ms
Loss rate: 0.00%
```
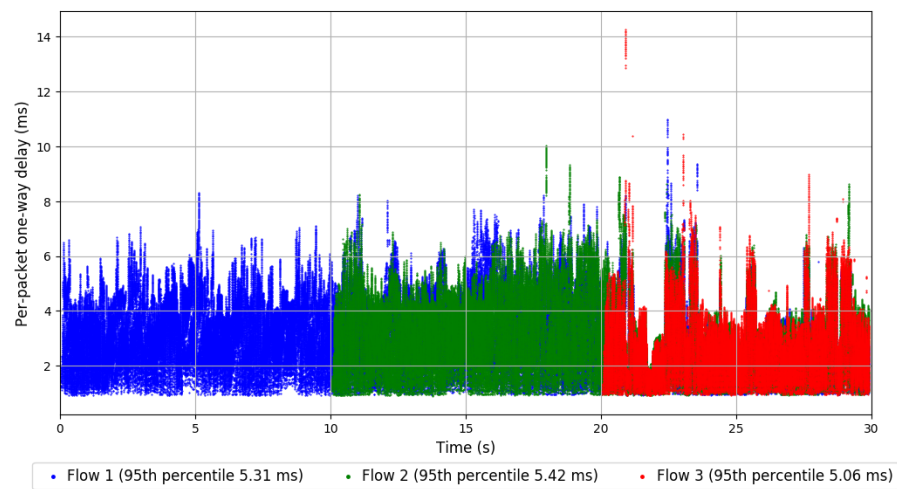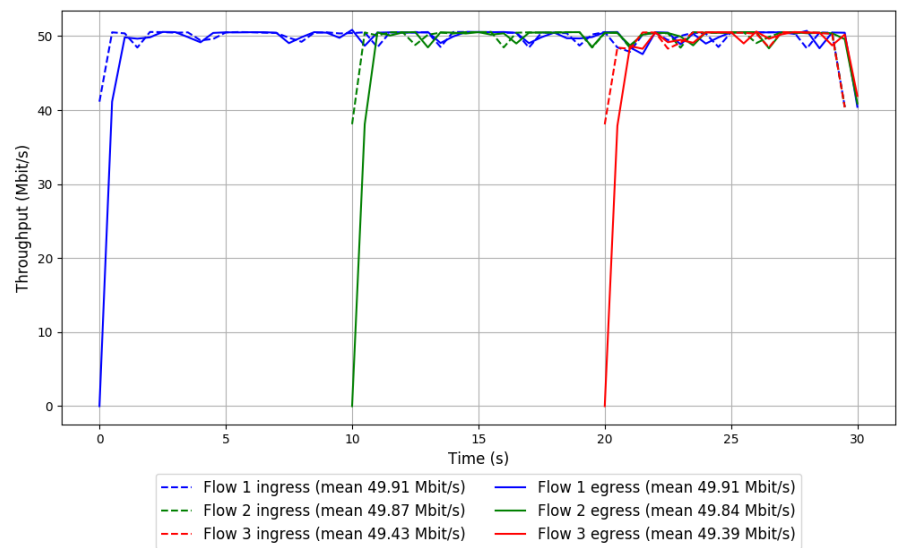
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-07-18 01:33:55
End at: 2019-07-18 01:34:25
Local clock offset: -0.843 ms
Remote clock offset: 3.257 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.38 Mbit/s
95th percentile per-packet one-way delay: 5.317 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 5.310 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 49.84 Mbit/s
95th percentile per-packet one-way delay: 5.419 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 49.39 Mbit/s
95th percentile per-packet one-way delay: 5.064 ms
Loss rate: 0.06%
```

Run 5: Report of Sprout — Data Link

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

Start at: 2019-07-17 22:55:28
End at: 2019-07-17 22:55:58
Local clock offset: 5.768 ms
Remote clock offset: 4.646 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 59.65%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.347 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 1.252 ms
Loss rate: 34.11%
-- Flow 3:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 1.116 ms
Loss rate: 66.61%
```
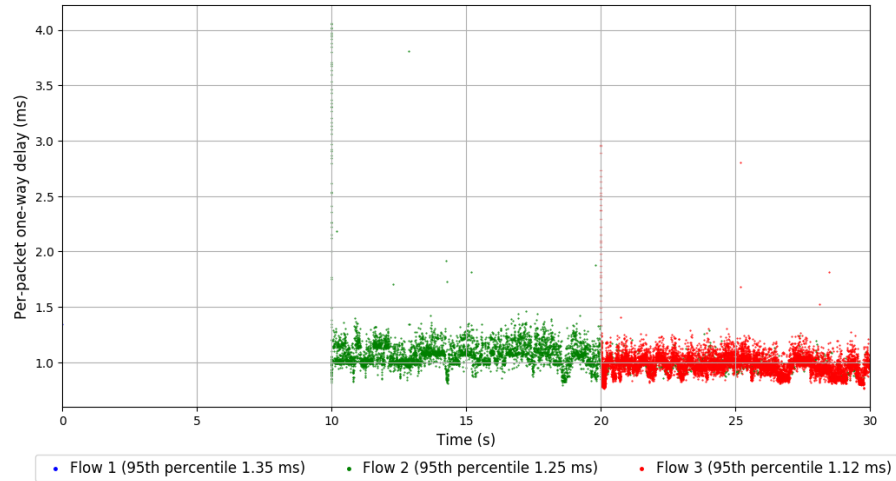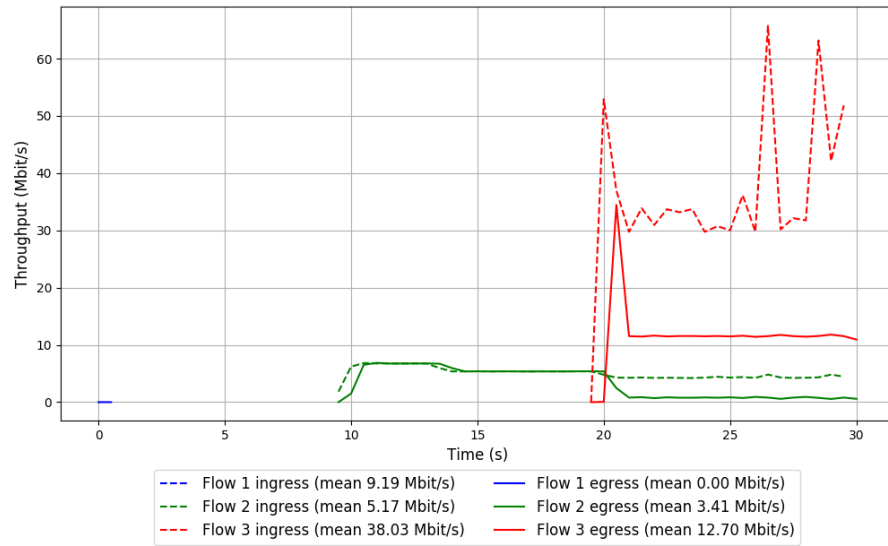
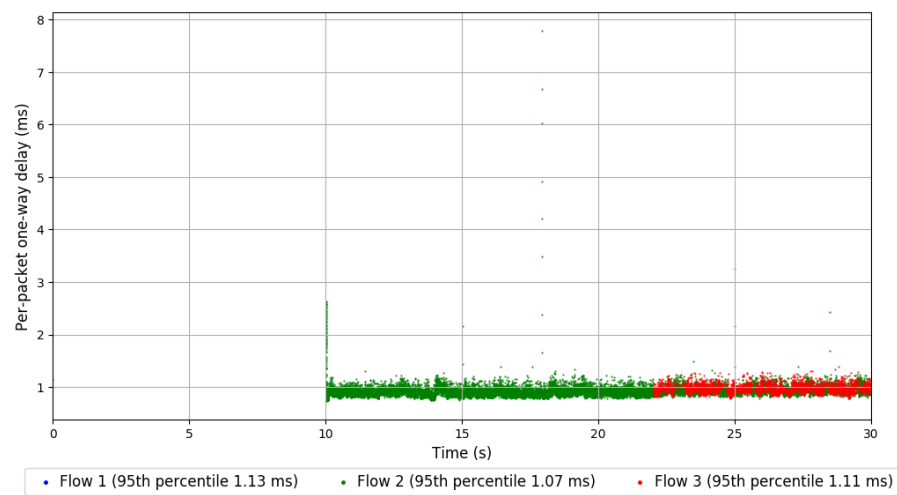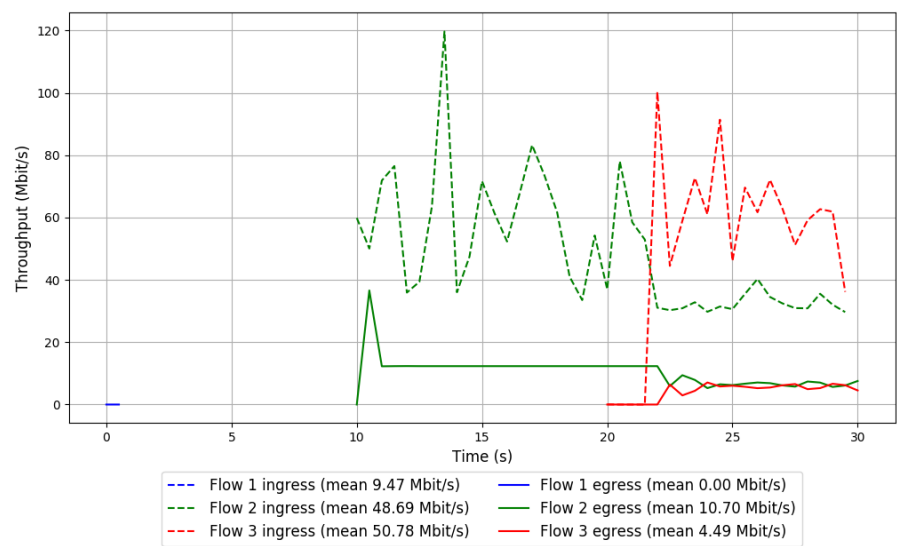# Run 1: Report of TaoVA-100x — Data Link

196

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

Start at: 2019-07-17 23:29:33
End at: 2019-07-17 23:30:03
Local clock offset: 5.693 ms
Remote clock offset: -0.498 ms

# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 1.081 ms
Loss rate: 82.53%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.134 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 78.03%
-- Flow 3:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 1.111 ms
Loss rate: 91.17%
```
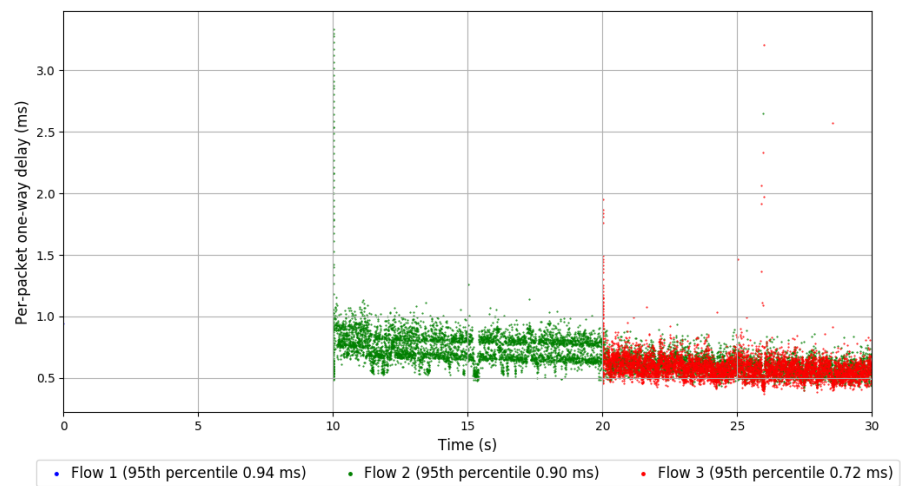
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 9.47 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 48.69 Mbit/s) --- Flow 2 egress (mean 10.70 Mbit/s)
Flow 3 ingress (mean 50.78 Mbit/s) --- Flow 3 egress (mean 4.49 Mbit/s)

Flow 1 (95th percentile 1.13 ms)   Flow 2 (95th percentile 1.07 ms)   Flow 3 (95th percentile 1.11 ms)

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

Start at: 2019-07-18 00:03:32
End at: 2019-07-18 00:04:02
Local clock offset: 1.299 ms
Remote clock offset: 3.736 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.19 Mbit/s
95th percentile per-packet one-way delay: 0.868 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 0.899 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 0.721 ms
Loss rate: 0.00%
```
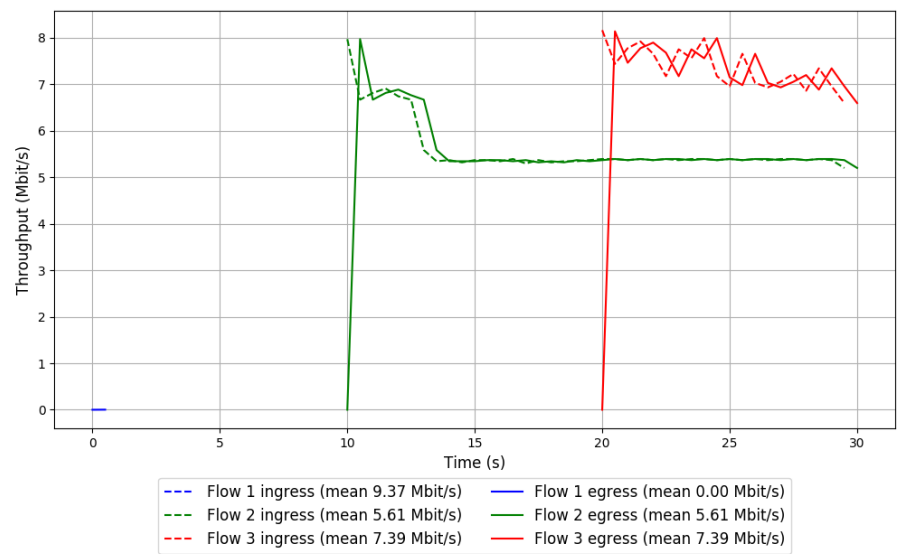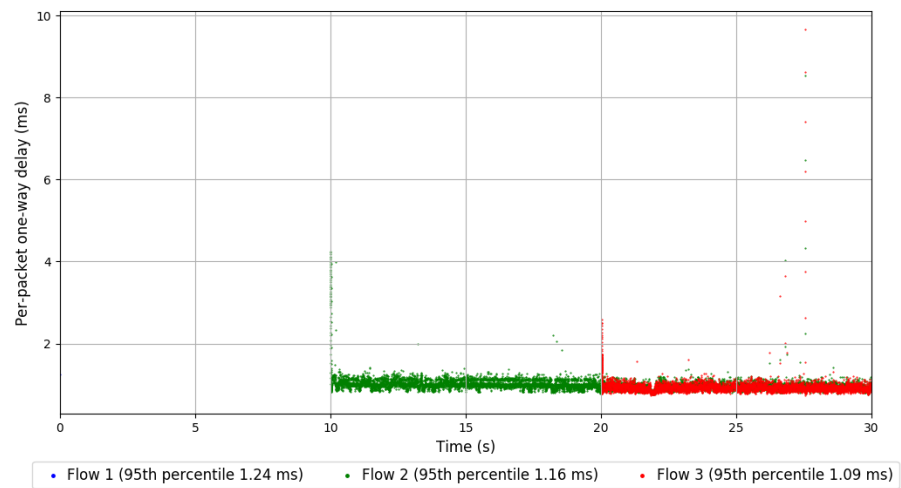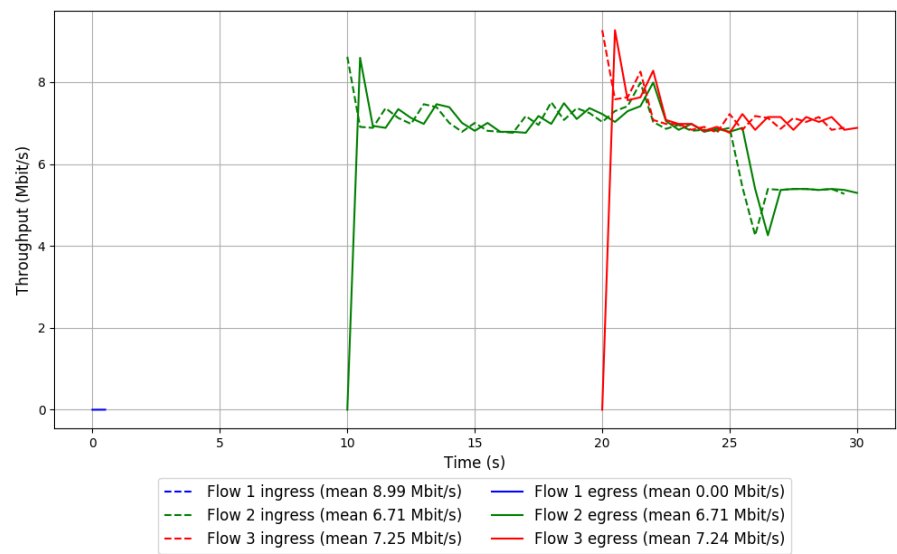
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 9.37 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 5.61 Mbit/s) --- Flow 2 egress (mean 5.61 Mbit/s)
Flow 3 ingress (mean 7.39 Mbit/s) --- Flow 3 egress (mean 7.39 Mbit/s)

Flow 1 (95th percentile 0.94 ms)   Flow 2 (95th percentile 0.90 ms)   Flow 3 (95th percentile 0.72 ms)

200

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

Start at: 2019-07-18 00:37:25
End at: 2019-07-18 00:37:55
Local clock offset: -4.498 ms
Remote clock offset: -0.395 ms


# Below is generated by plot.py at 2019-07-18 02:36:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.88 Mbit/s
95th percentile per-packet one-way delay: 1.145 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.238 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 1.089 ms
Loss rate: 0.02%
```
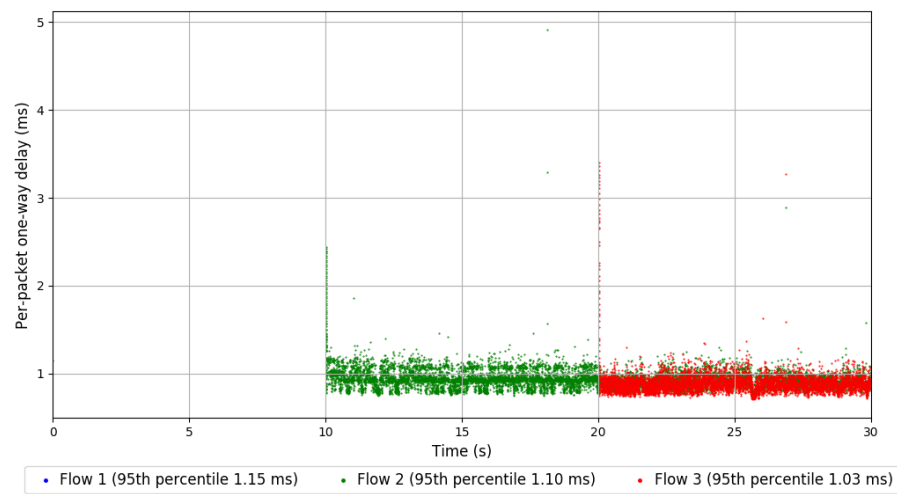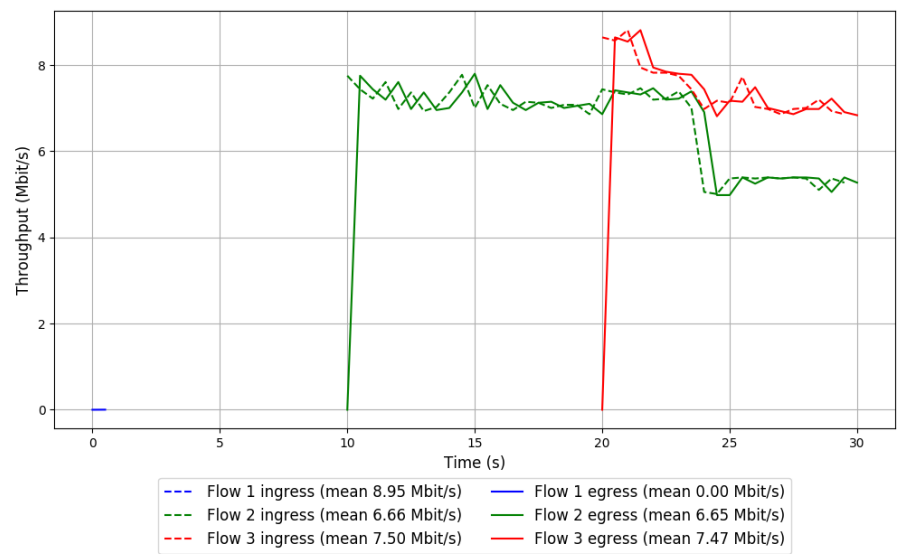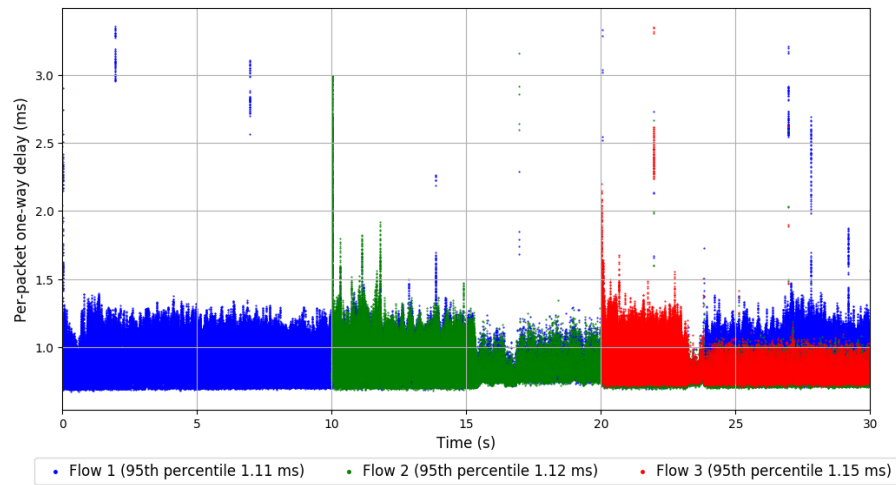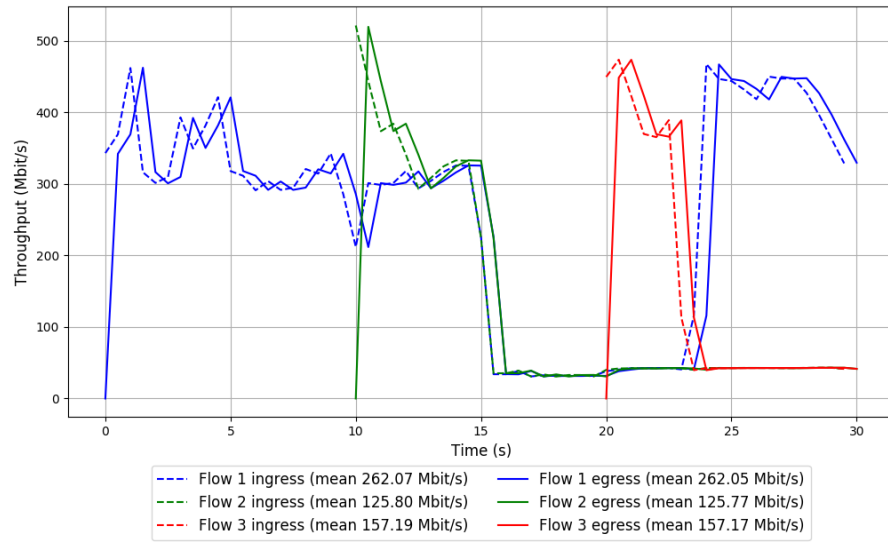
Run 4: Report of TaoVA-100x — Data Link

- --- Flow 1 ingress (mean 8.99 Mbit/s) ⎯⎯ Flow 1 egress (mean 0.00 Mbit/s)
- --- Flow 2 ingress (mean 6.71 Mbit/s) ⎯⎯ Flow 2 egress (mean 6.71 Mbit/s)
- --- Flow 3 ingress (mean 7.25 Mbit/s) ⎯⎯ Flow 3 egress (mean 7.24 Mbit/s)

- Flow 1 (95th percentile 1.24 ms) • Flow 2 (95th percentile 1.16 ms) • Flow 3 (95th percentile 1.09 ms)

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

Start at: 2019-07-18 01:11:21
End at: 2019-07-18 01:11:51
Local clock offset: -3.883 ms
Remote clock offset: -0.284 ms


# Below is generated by plot.py at 2019-07-18 02:36:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.92 Mbit/s
95th percentile per-packet one-way delay: 1.086 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.147 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 1.097 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 1.035 ms
Loss rate: 0.34%
```

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

Flow 1 ingress (mean 8.95 Mbit/s) — — —   Flow 1 egress (mean 0.00 Mbit/s) ——
Flow 2 ingress (mean 6.66 Mbit/s) — — —   Flow 2 egress (mean 6.65 Mbit/s) ——
Flow 3 ingress (mean 7.50 Mbit/s) — — —   Flow 3 egress (mean 7.47 Mbit/s) ——

Flow 1 (95th percentile 1.15 ms)   Flow 2 (95th percentile 1.10 ms)   Flow 3 (95th percentile 1.03 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-07-17 23:19:17
End at: 2019-07-17 23:19:47
Local clock offset: 5.746 ms
Remote clock offset: -0.081 ms


# Below is generated by plot.py at 2019-07-18 02:39:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 398.13 Mbit/s
95th percentile per-packet one-way delay: 1.121 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 262.05 Mbit/s
95th percentile per-packet one-way delay: 1.114 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 125.77 Mbit/s
95th percentile per-packet one-way delay: 1.122 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 157.17 Mbit/s
95th percentile per-packet one-way delay: 1.147 ms
Loss rate: 0.01%
```
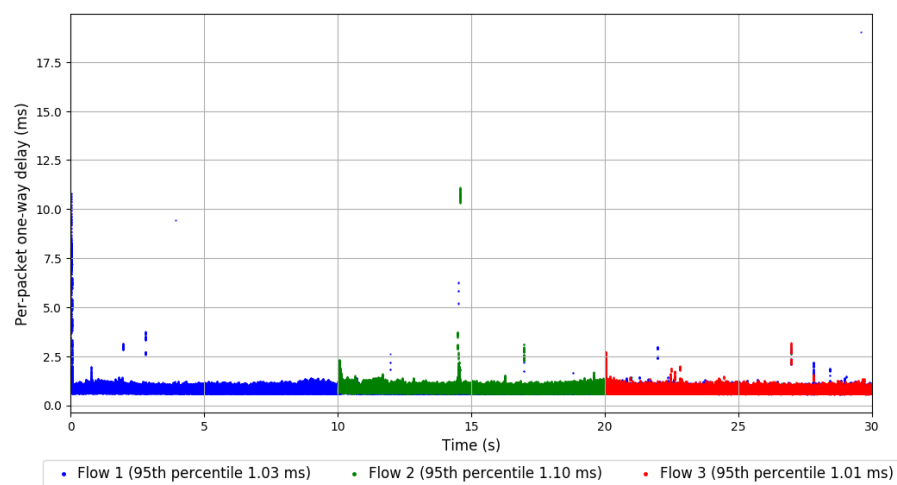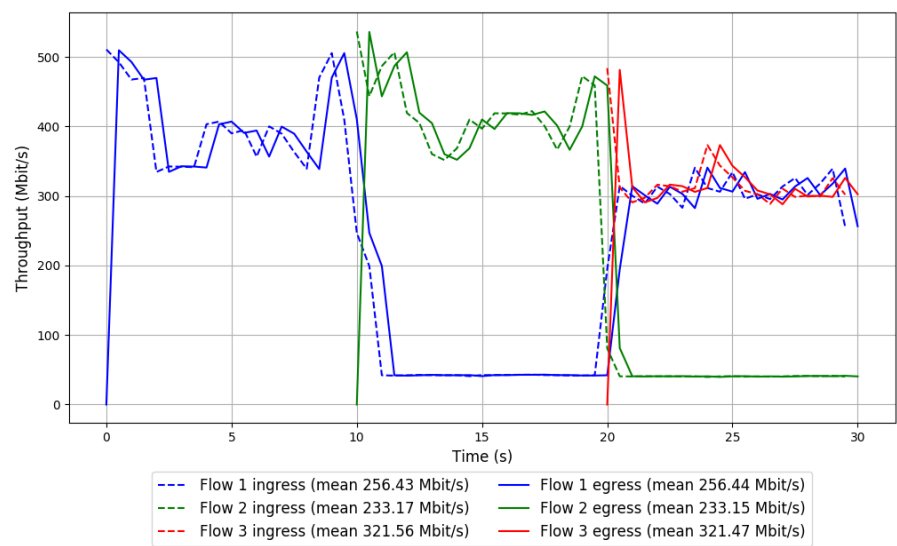
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-07-17 23:53:13
End at: 2019-07-17 23:53:43
Local clock offset: 5.468 ms
Remote clock offset: 3.1 ms


# Below is generated by plot.py at 2019-07-18 02:40:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 518.65 Mbit/s
95th percentile per-packet one-way delay: 1.047 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 256.44 Mbit/s
95th percentile per-packet one-way delay: 1.027 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 233.15 Mbit/s
95th percentile per-packet one-way delay: 1.096 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 321.47 Mbit/s
95th percentile per-packet one-way delay: 1.014 ms
Loss rate: 0.02%
```
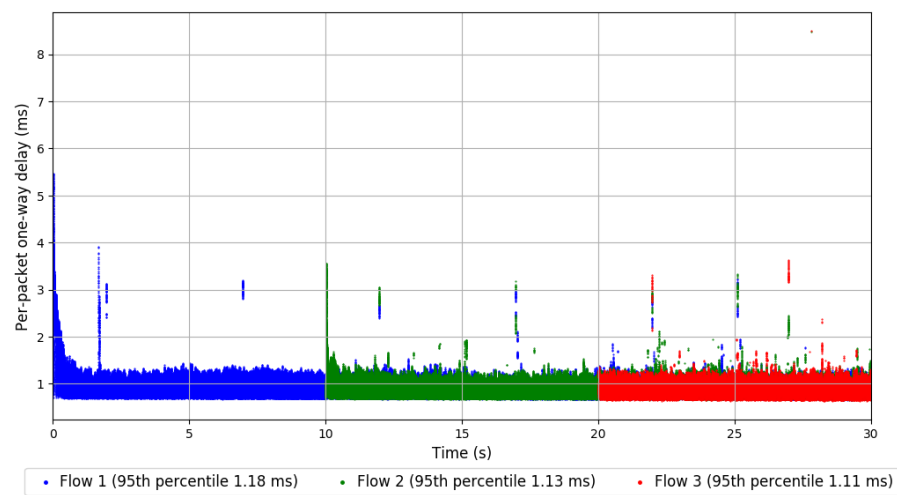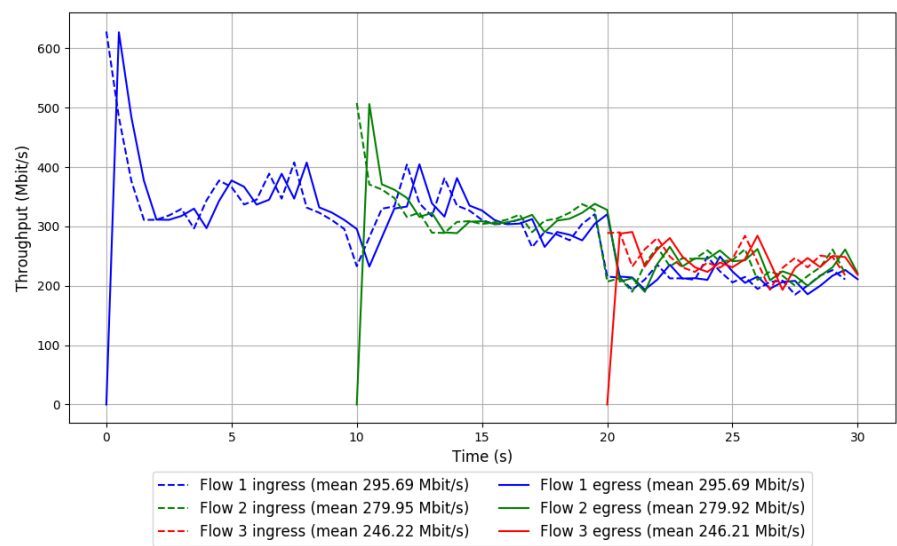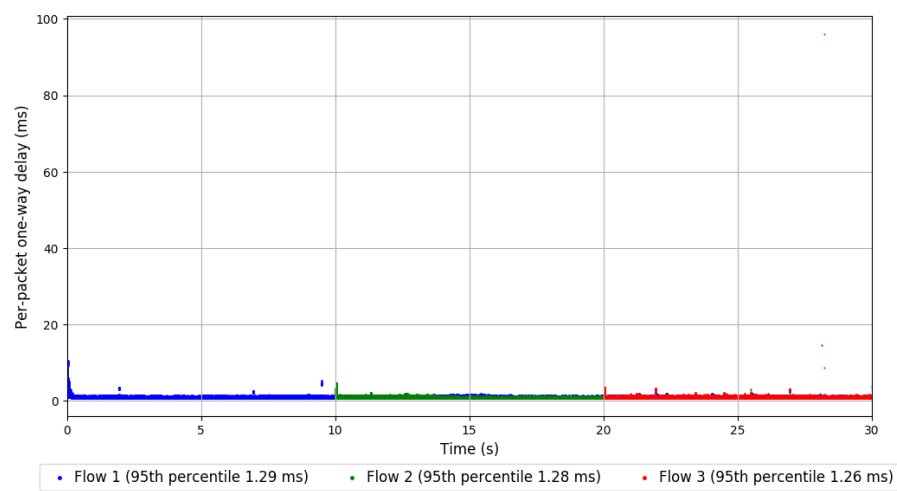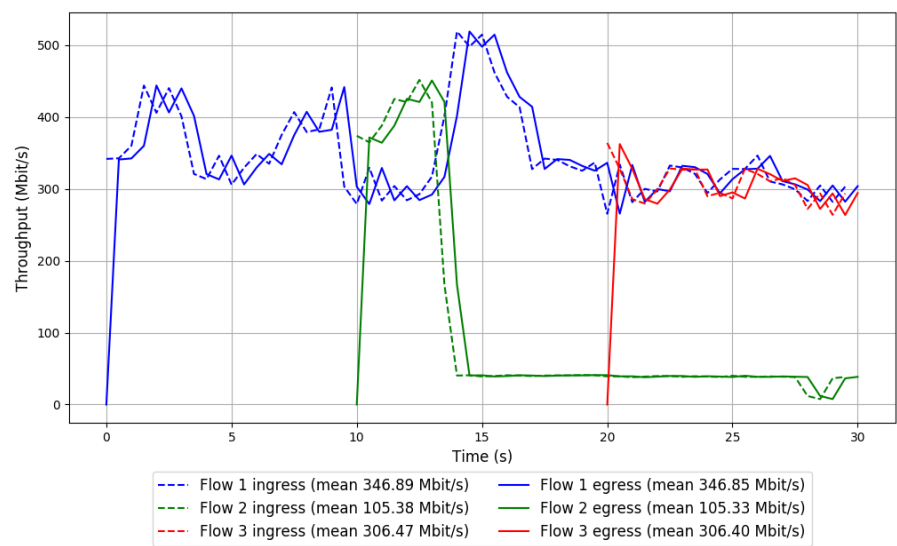
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-07-18 00:27:17
End at: 2019-07-18 00:27:47
Local clock offset: -3.199 ms
Remote clock offset: 0.014 ms


# Below is generated by plot.py at 2019-07-18 02:41:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 564.18 Mbit/s
95th percentile per-packet one-way delay: 1.153 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 295.69 Mbit/s
95th percentile per-packet one-way delay: 1.182 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 279.92 Mbit/s
95th percentile per-packet one-way delay: 1.127 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 246.21 Mbit/s
95th percentile per-packet one-way delay: 1.110 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-07-18 01:01:07
End at: 2019-07-18 01:01:37
Local clock offset: -4.812 ms
Remote clock offset: -0.243 ms


# Below is generated by plot.py at 2019-07-18 02:41:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 518.88 Mbit/s
95th percentile per-packet one-way delay: 1.281 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 346.85 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 105.33 Mbit/s
95th percentile per-packet one-way delay: 1.283 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 306.40 Mbit/s
95th percentile per-packet one-way delay: 1.264 ms
Loss rate: 0.02%
```
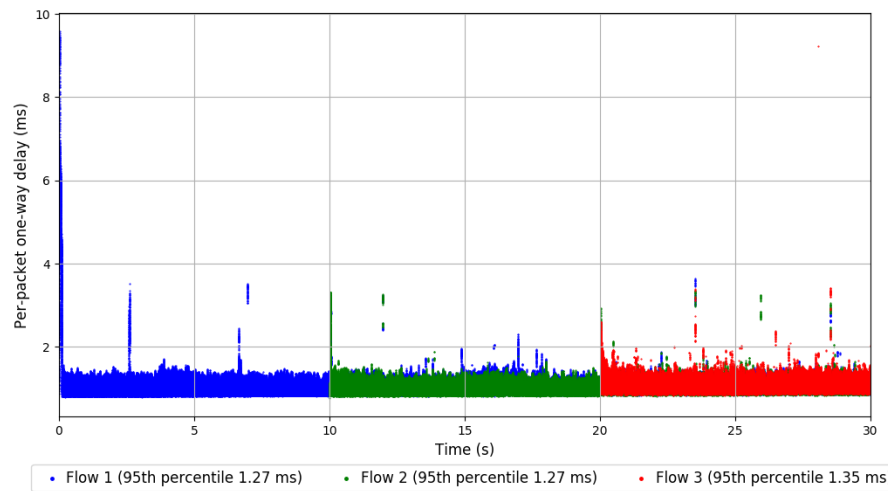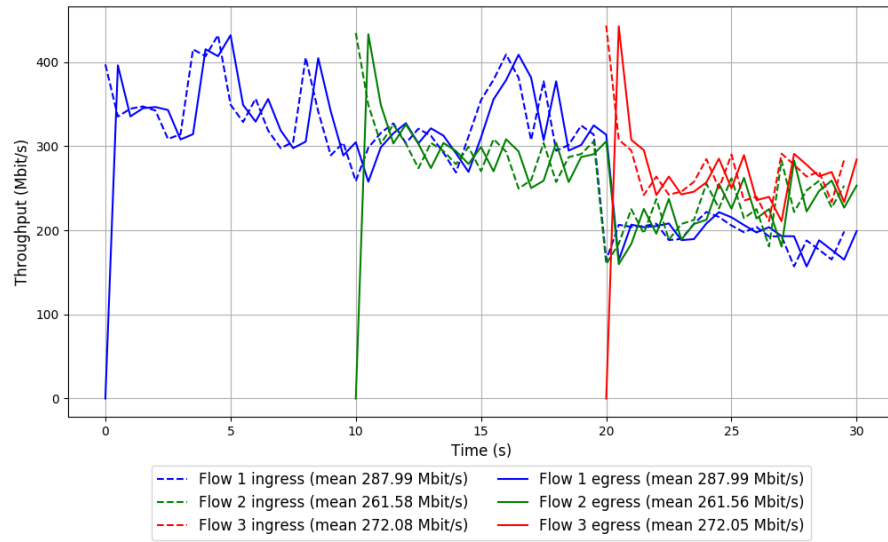
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-07-18 01:35:12
End at: 2019-07-18 01:35:42
Local clock offset: -0.614 ms
Remote clock offset: 3.278 ms


# Below is generated by plot.py at 2019-07-18 02:42:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 552.69 Mbit/s
95th percentile per-packet one-way delay: 1.288 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 287.99 Mbit/s
95th percentile per-packet one-way delay: 1.273 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 261.56 Mbit/s
95th percentile per-packet one-way delay: 1.268 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 272.05 Mbit/s
95th percentile per-packet one-way delay: 1.348 ms
Loss rate: 0.00%
```
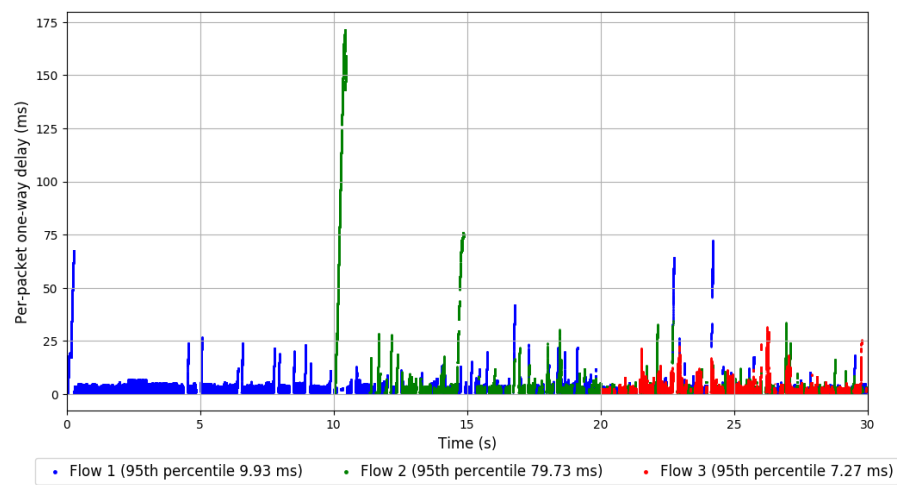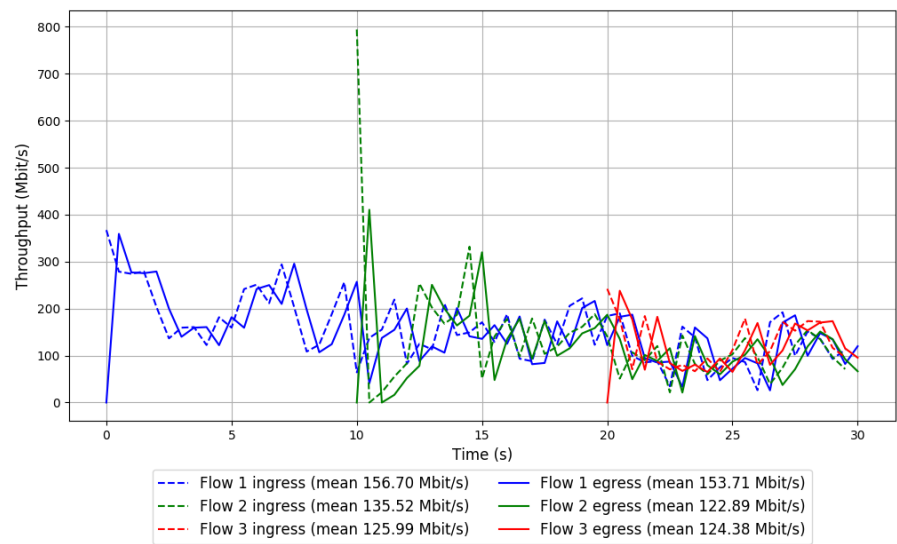
Run 5: Report of TCP Vegas — Data Link

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```
Run 1: Statistics of Verus

Start at: 2019-07-17 23:08:11
End at: 2019-07-17 23:08:41
Local clock offset: 5.806 ms
Remote clock offset: 1.259 ms


# Below is generated by plot.py at 2019-07-18 02:42:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 276.66 Mbit/s
95th percentile per-packet one-way delay: 18.914 ms
Loss rate: 4.13%
-- Flow 1:
Average throughput: 153.71 Mbit/s
95th percentile per-packet one-way delay: 9.928 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 122.89 Mbit/s
95th percentile per-packet one-way delay: 79.729 ms
Loss rate: 9.31%
-- Flow 3:
Average throughput: 124.38 Mbit/s
95th percentile per-packet one-way delay: 7.271 ms
Loss rate: 1.26%
```
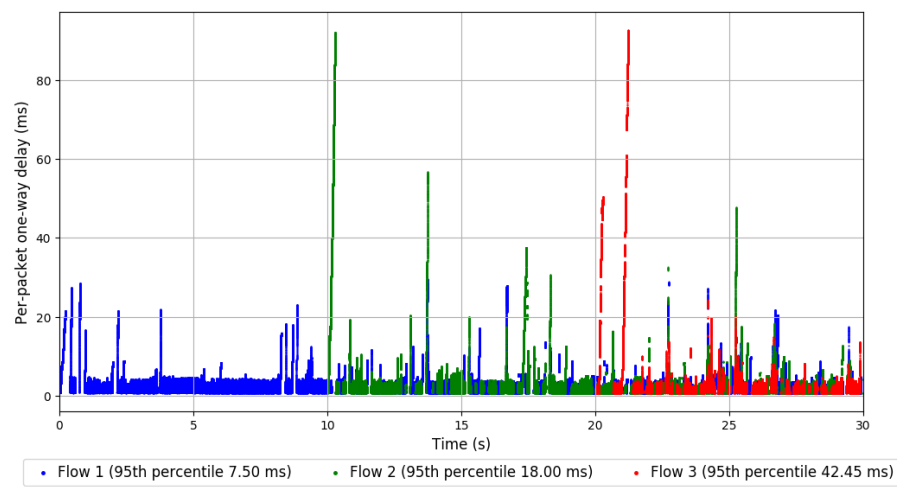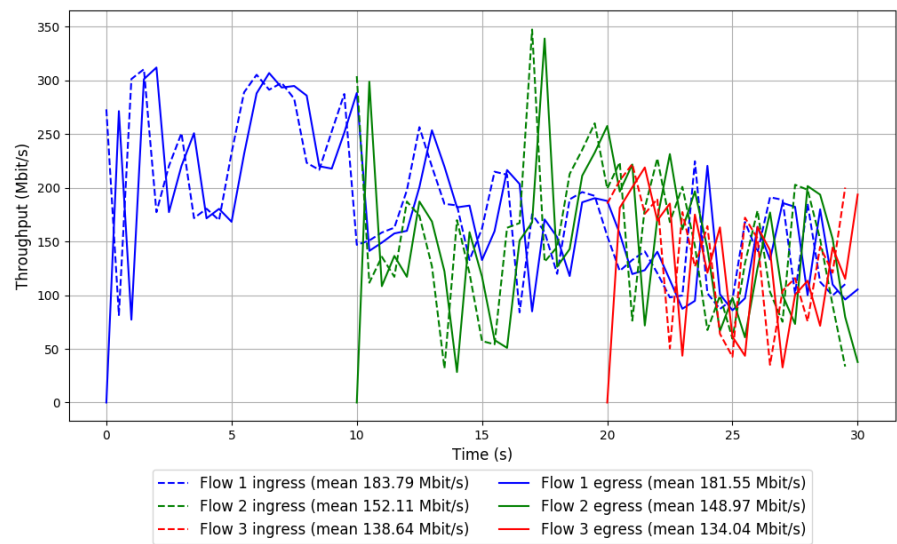
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-07-17 23:42:17
End at: 2019-07-17 23:42:47
Local clock offset: 5.588 ms
Remote clock offset: 2.164 ms


# Below is generated by plot.py at 2019-07-18 02:42:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 324.45 Mbit/s
95th percentile per-packet one-way delay: 11.755 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 181.55 Mbit/s
95th percentile per-packet one-way delay: 7.496 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 148.97 Mbit/s
95th percentile per-packet one-way delay: 18.000 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 134.04 Mbit/s
95th percentile per-packet one-way delay: 42.452 ms
Loss rate: 3.19%
```
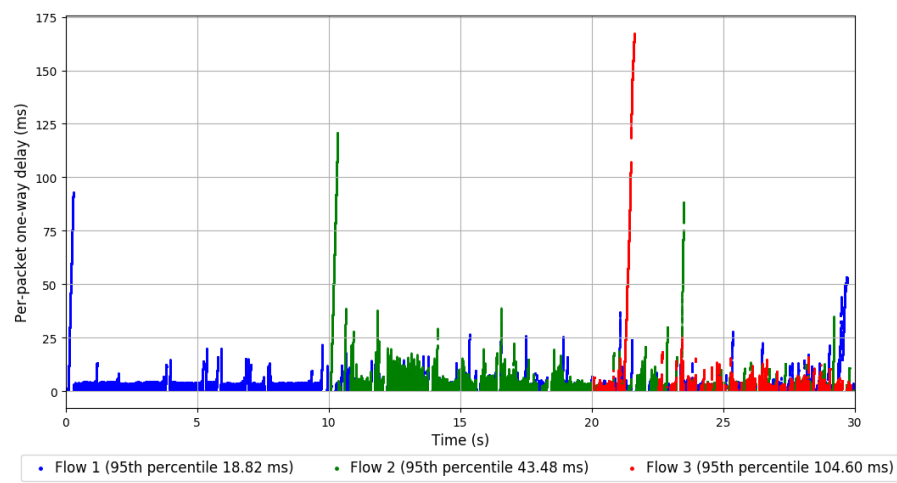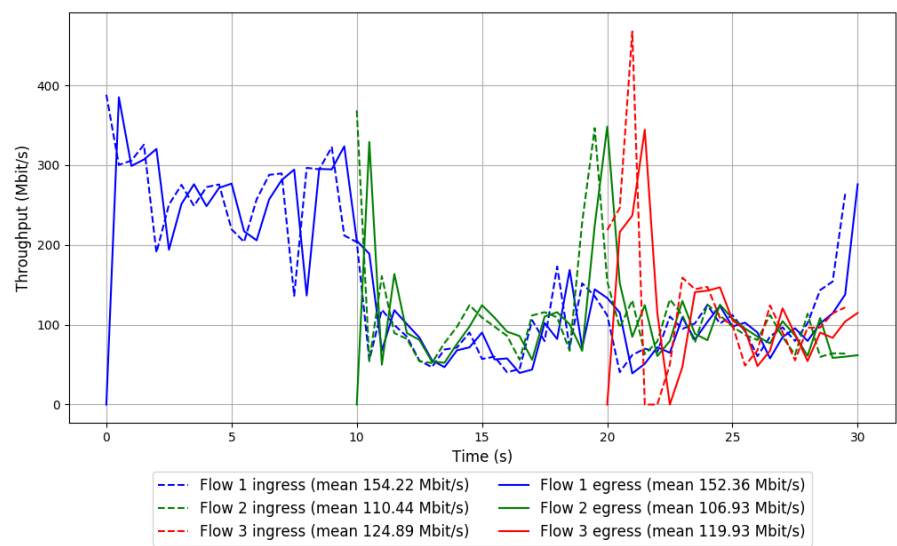
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-07-18 00:16:16
End at: 2019-07-18 00:16:46
Local clock offset: -1.591 ms
Remote clock offset: 1.046 ms


# Below is generated by plot.py at 2019-07-18 02:42:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.81 Mbit/s
95th percentile per-packet one-way delay: 36.100 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 152.36 Mbit/s
95th percentile per-packet one-way delay: 18.816 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 106.93 Mbit/s
95th percentile per-packet one-way delay: 43.482 ms
Loss rate: 3.17%
-- Flow 3:
Average throughput: 119.93 Mbit/s
95th percentile per-packet one-way delay: 104.596 ms
Loss rate: 3.97%
```

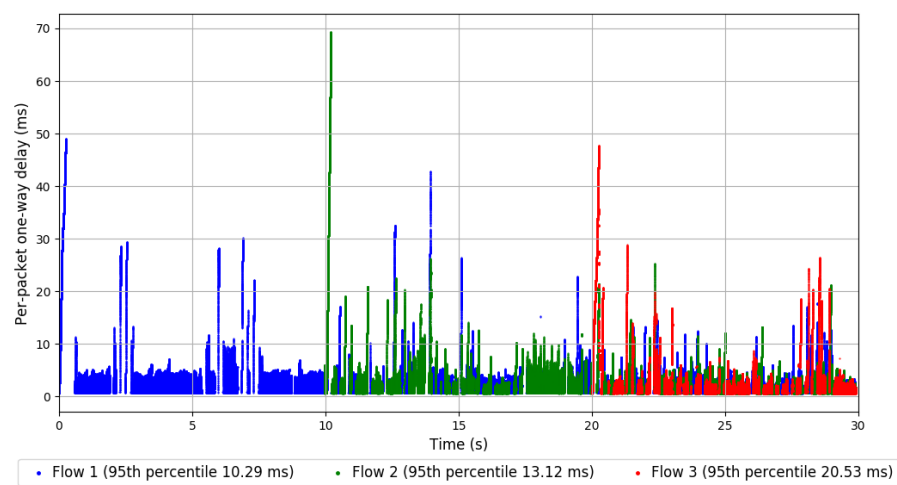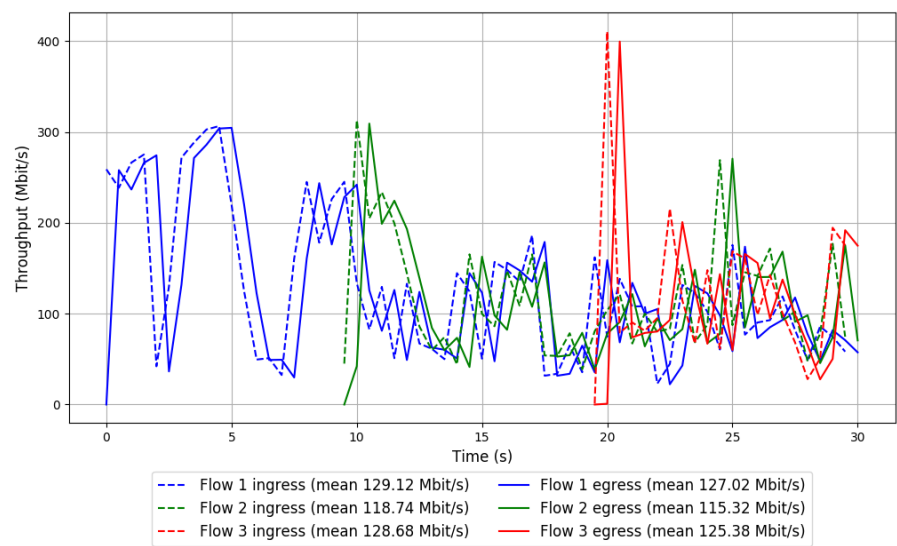## Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-07-18 00:50:08
End at: 2019-07-18 00:50:38
Local clock offset: -5.93 ms
Remote clock offset: -0.165 ms


# Below is generated by plot.py at 2019-07-18 02:42:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.42 Mbit/s
95th percentile per-packet one-way delay: 14.416 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 127.02 Mbit/s
95th percentile per-packet one-way delay: 10.293 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 115.32 Mbit/s
95th percentile per-packet one-way delay: 13.120 ms
Loss rate: 2.88%
-- Flow 3:
Average throughput: 125.38 Mbit/s
95th percentile per-packet one-way delay: 20.528 ms
Loss rate: 2.56%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-07-18 01:24:09
End at: 2019-07-18 01:24:39
Local clock offset: -3.89 ms
Remote clock offset: 2.114 ms


# Below is generated by plot.py at 2019-07-18 02:42:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.02 Mbit/s
95th percentile per-packet one-way delay: 12.122 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 140.40 Mbit/s
95th percentile per-packet one-way delay: 9.448 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 142.59 Mbit/s
95th percentile per-packet one-way delay: 30.543 ms
Loss rate: 2.31%
-- Flow 3:
Average throughput: 150.66 Mbit/s
95th percentile per-packet one-way delay: 5.809 ms
Loss rate: 2.01%
```
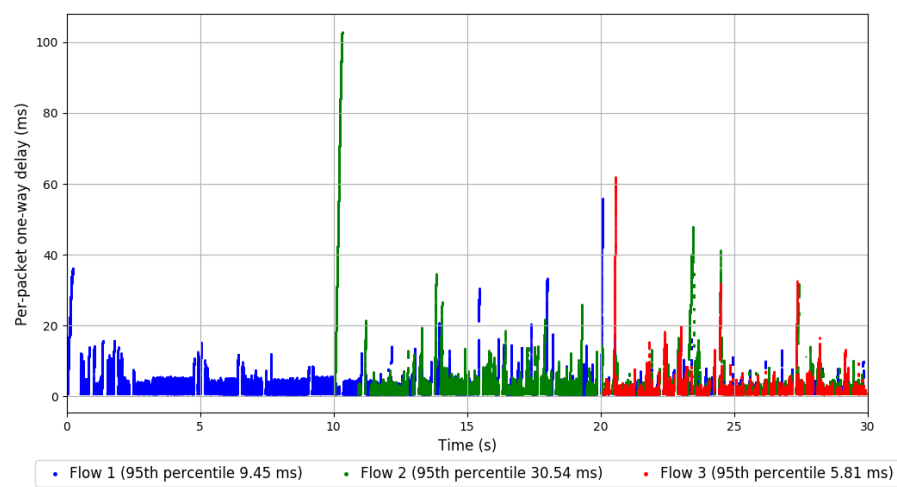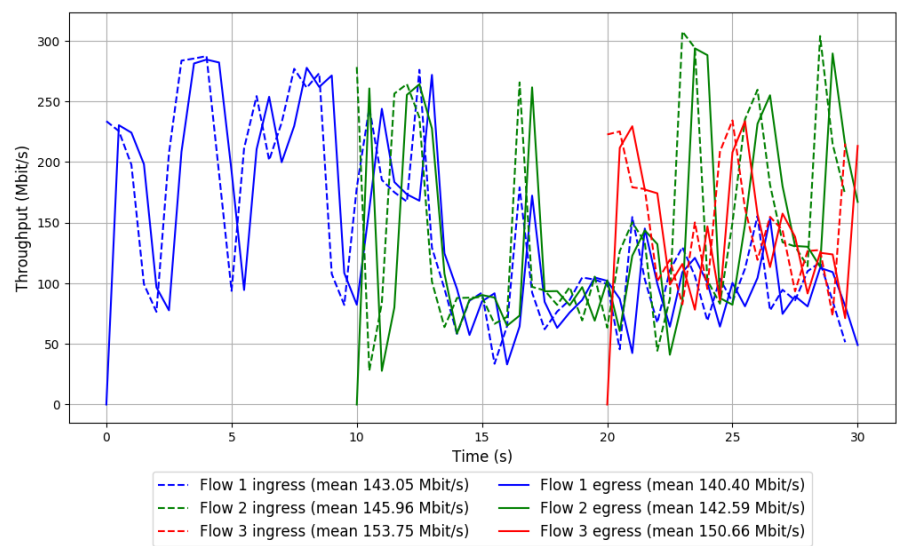
Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-07-17 23:01:40
End at: 2019-07-17 23:02:10
Local clock offset: 5.783 ms
Remote clock offset: 3.047 ms


# Below is generated by plot.py at 2019-07-18 02:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 320.11 Mbit/s
95th percentile per-packet one-way delay: 7.027 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 170.90 Mbit/s
95th percentile per-packet one-way delay: 10.110 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 164.39 Mbit/s
95th percentile per-packet one-way delay: 10.429 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 120.82 Mbit/s
95th percentile per-packet one-way delay: 1.623 ms
Loss rate: 0.01%
```
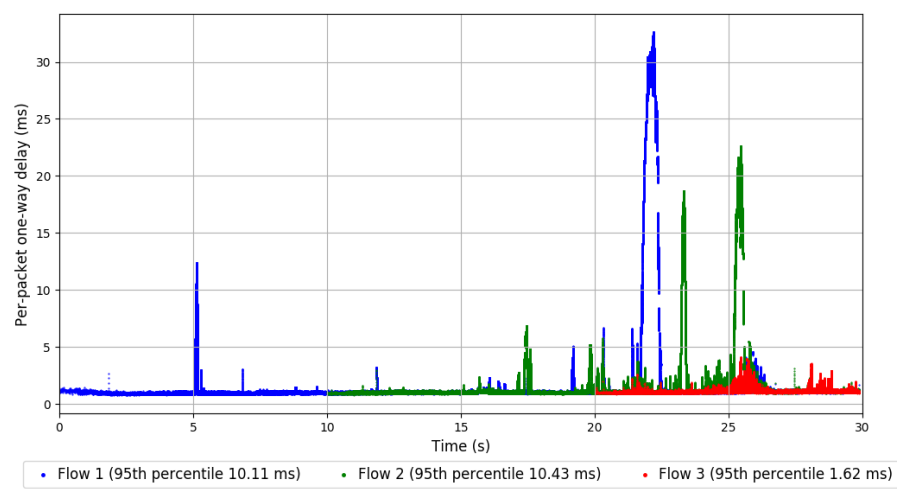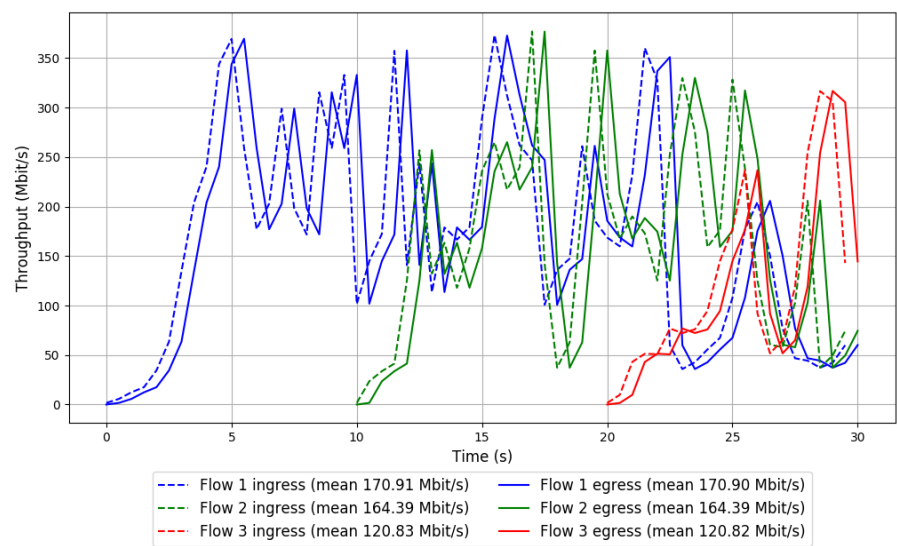
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-07-17 23:35:45
End at: 2019-07-17 23:36:15
Local clock offset: 5.658 ms
Remote clock offset: 0.743 ms


# Below is generated by plot.py at 2019-07-18 02:43:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.47 Mbit/s
95th percentile per-packet one-way delay: 1.538 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 178.36 Mbit/s
95th percentile per-packet one-way delay: 0.961 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 166.98 Mbit/s
95th percentile per-packet one-way delay: 3.326 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 148.61 Mbit/s
95th percentile per-packet one-way delay: 1.858 ms
Loss rate: 0.03%
```
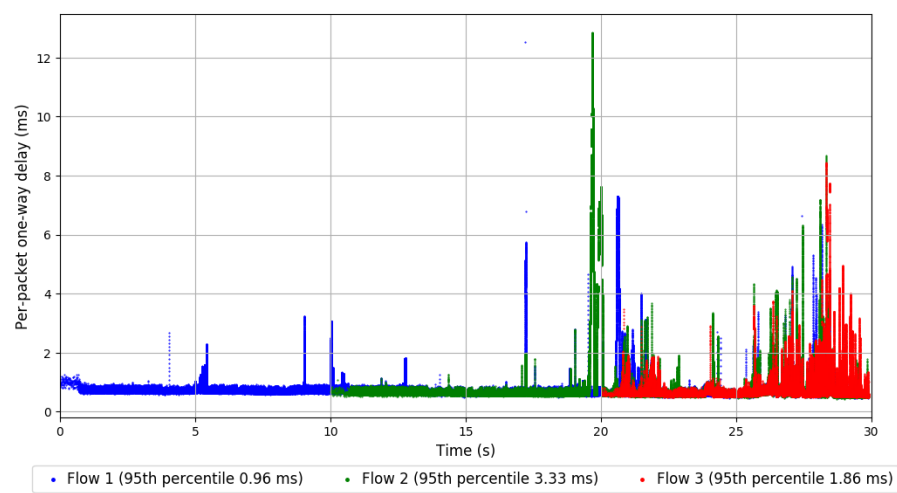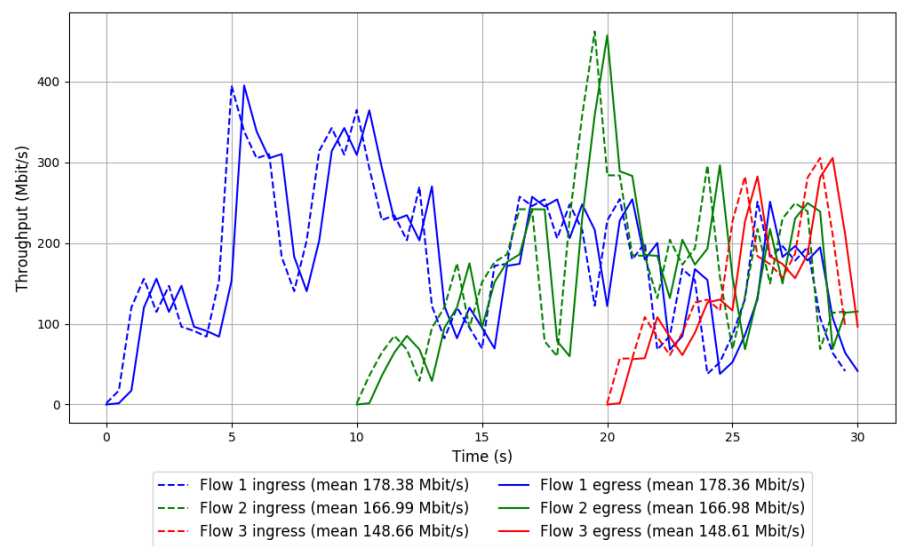
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-07-18 00:09:40
End at: 2019-07-18 00:10:10
Local clock offset: -0.357 ms
Remote clock offset: 2.664 ms


# Below is generated by plot.py at 2019-07-18 02:44:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.50 Mbit/s
95th percentile per-packet one-way delay: 115.263 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 187.81 Mbit/s
95th percentile per-packet one-way delay: 1.195 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 250.43 Mbit/s
95th percentile per-packet one-way delay: 149.958 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 218.56 Mbit/s
95th percentile per-packet one-way delay: 136.493 ms
Loss rate: 0.20%
```
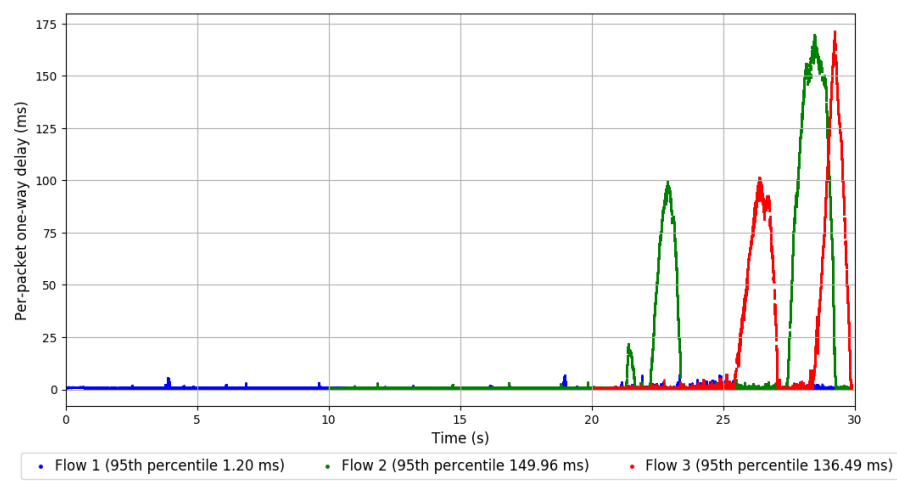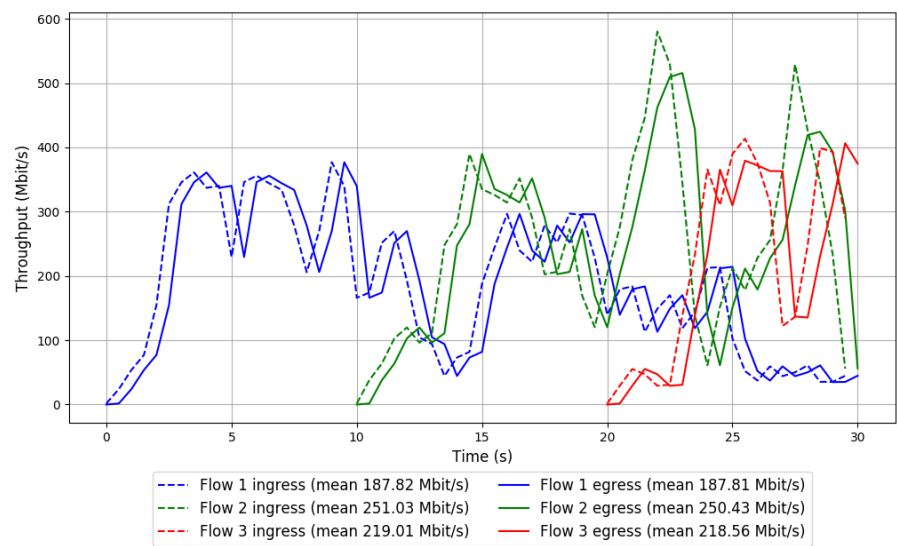
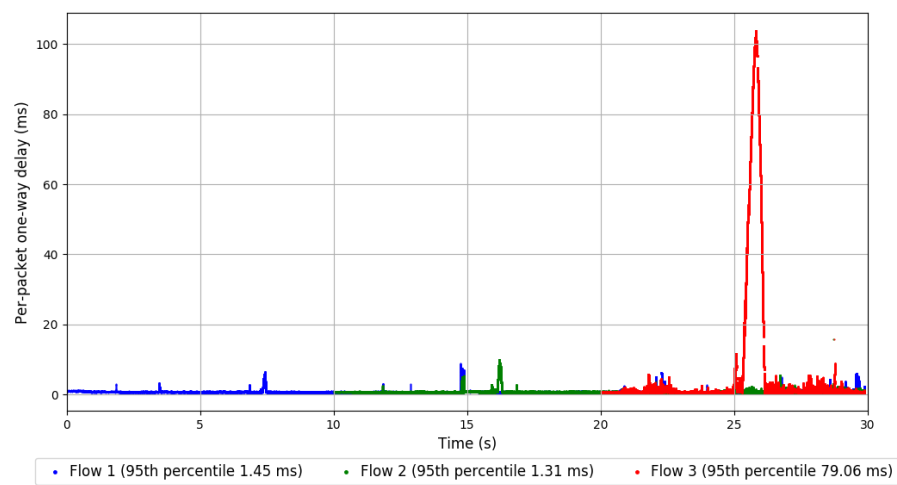## Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 187.82 Mbit/s) — — — Flow 1 egress (mean 187.81 Mbit/s)
Flow 2 ingress (mean 251.03 Mbit/s) — — — Flow 2 egress (mean 250.43 Mbit/s)
Flow 3 ingress (mean 219.01 Mbit/s) — — — Flow 3 egress (mean 218.56 Mbit/s)

Flow 1 (95th percentile 1.20 ms) Flow 2 (95th percentile 149.96 ms) Flow 3 (95th percentile 136.49 ms)
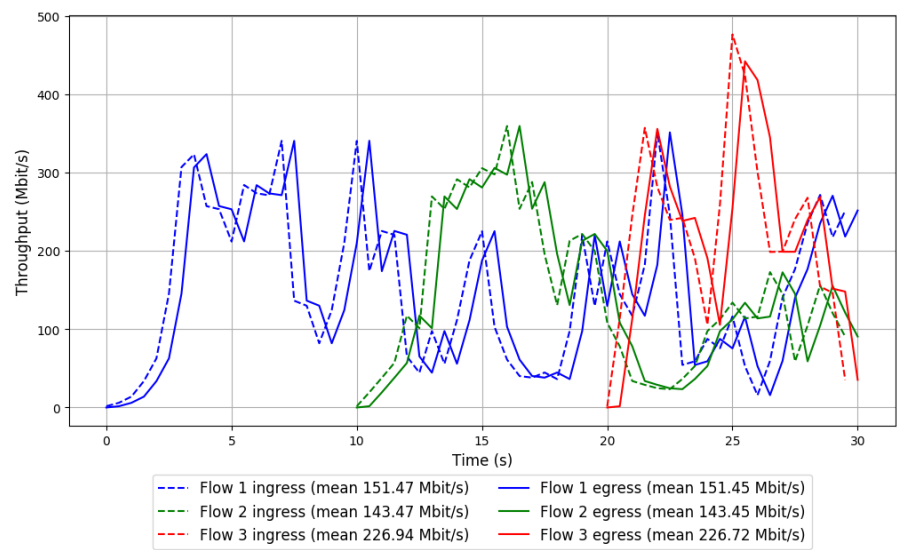
```
Run 4: Statistics of PCC-Vivace

Start at: 2019-07-18 00:43:37
End at: 2019-07-18 00:44:07
Local clock offset: -5.207 ms
Remote clock offset: -0.409 ms


# Below is generated by plot.py at 2019-07-18 02:44:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 321.73 Mbit/s
95th percentile per-packet one-way delay: 4.707 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 151.45 Mbit/s
95th percentile per-packet one-way delay: 1.448 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 143.45 Mbit/s
95th percentile per-packet one-way delay: 1.313 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 226.72 Mbit/s
95th percentile per-packet one-way delay: 79.060 ms
Loss rate: 0.10%
```

Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-07-18 01:17:34
End at: 2019-07-18 01:18:04
Local clock offset: -3.859 ms
Remote clock offset: 0.918 ms


# Below is generated by plot.py at 2019-07-18 02:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.42 Mbit/s
95th percentile per-packet one-way delay: 3.073 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 231.64 Mbit/s
95th percentile per-packet one-way delay: 13.244 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 215.37 Mbit/s
95th percentile per-packet one-way delay: 1.549 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 110.68 Mbit/s
95th percentile per-packet one-way delay: 1.855 ms
Loss rate: 0.03%
```
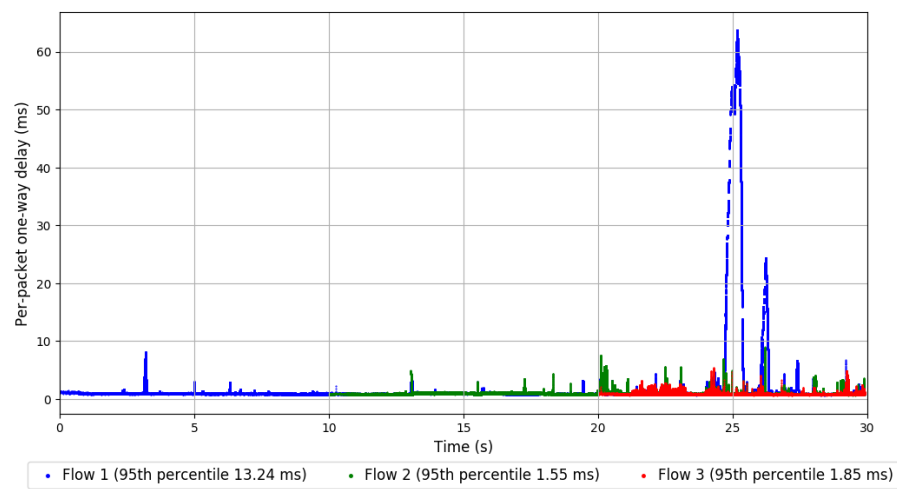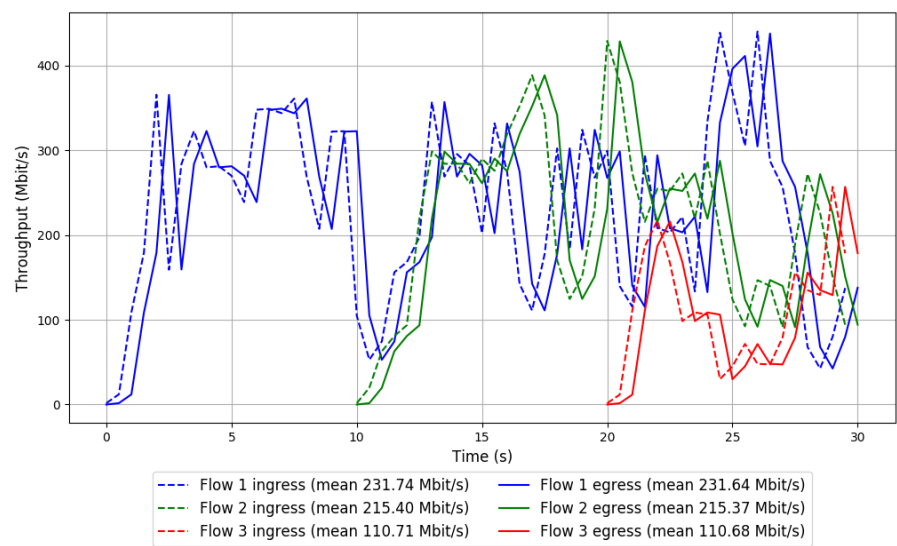
Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-07-17 23:13:51
End at: 2019-07-17 23:14:21
Local clock offset: 5.777 ms
Remote clock offset: 0.443 ms


# Below is generated by plot.py at 2019-07-18 02:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 1.329 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 1.922 ms
Loss rate: 0.00%
```
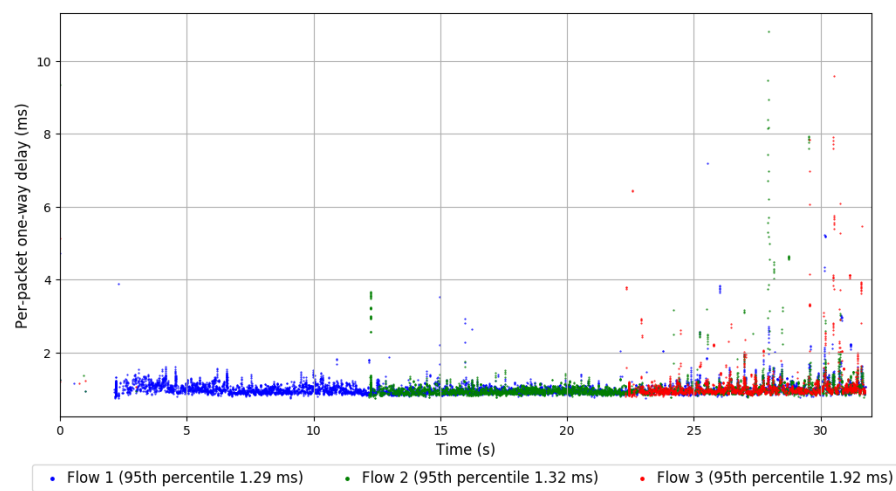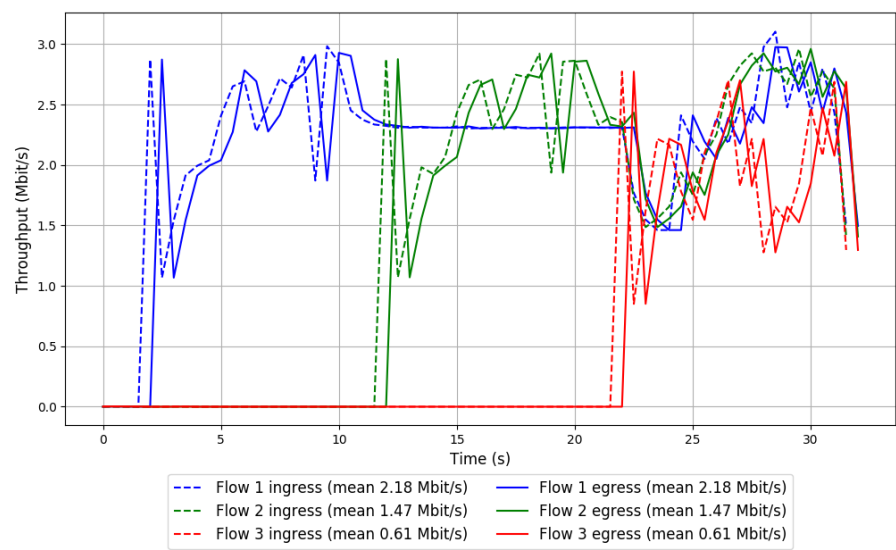
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-07-17 23:47:52
End at: 2019-07-17 23:48:22
Local clock offset: 5.526 ms
Remote clock offset: 2.73 ms


# Below is generated by plot.py at 2019-07-18 02:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 10.553 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.697 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 15.703 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.366 ms
Loss rate: 0.00%
```
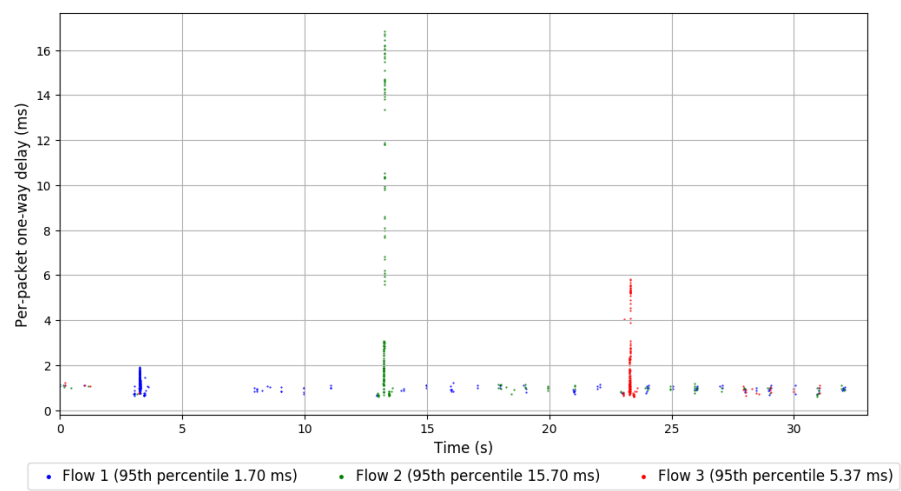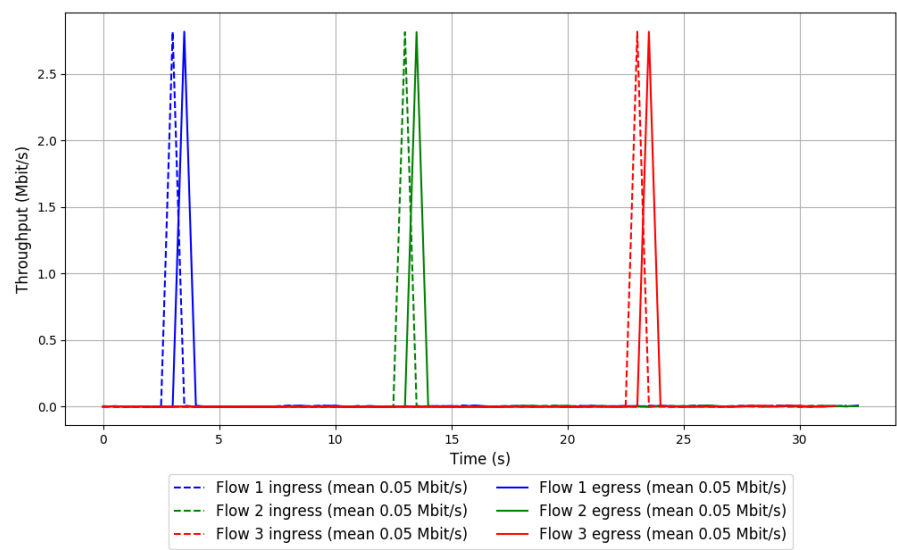
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-07-18 00:21:54
End at: 2019-07-18 00:22:24
Local clock offset: -2.491 ms
Remote clock offset: 0.401 ms


# Below is generated by plot.py at 2019-07-18 02:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.711 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.358 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.406 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.663 ms
Loss rate: 0.00%
```
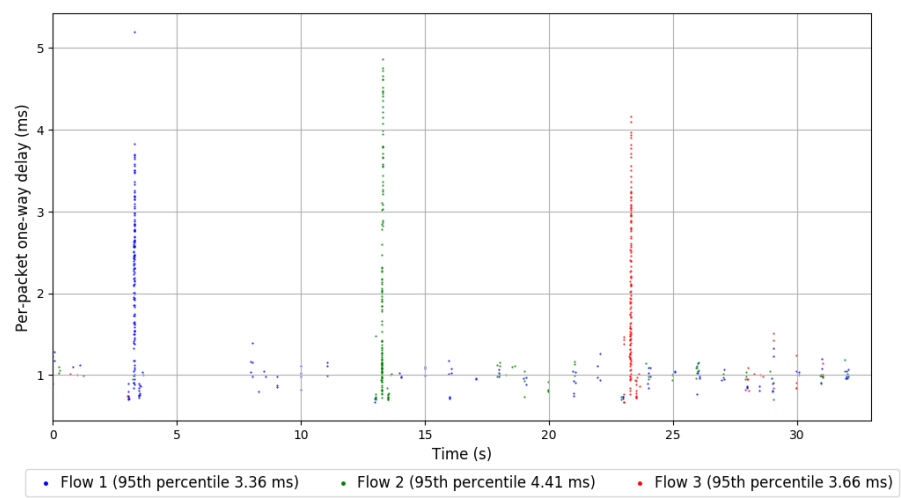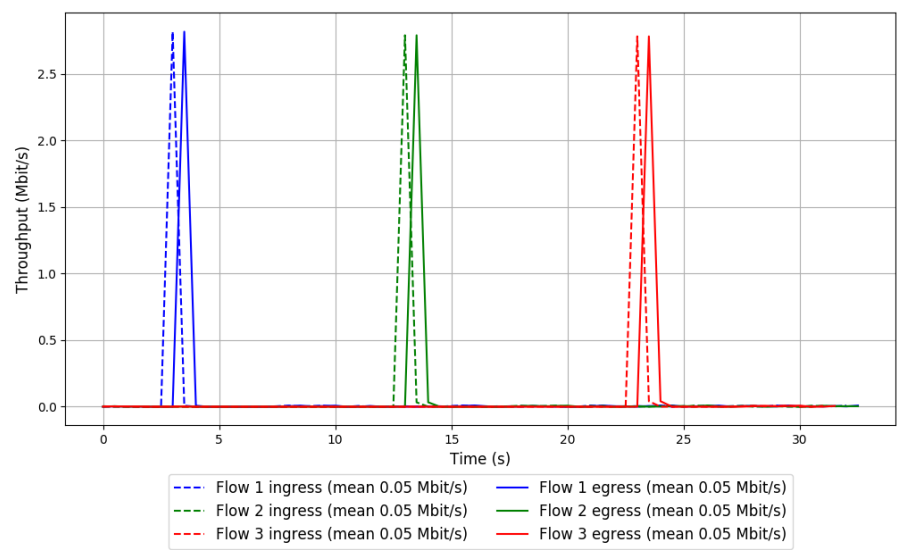
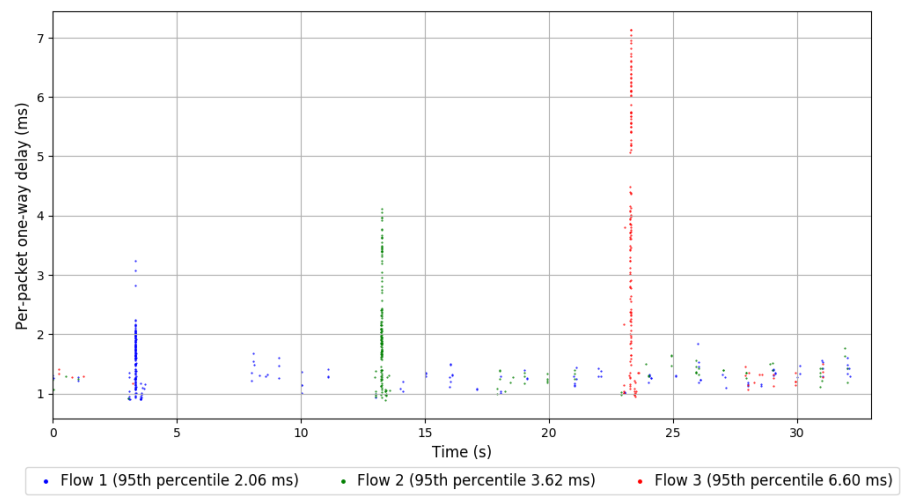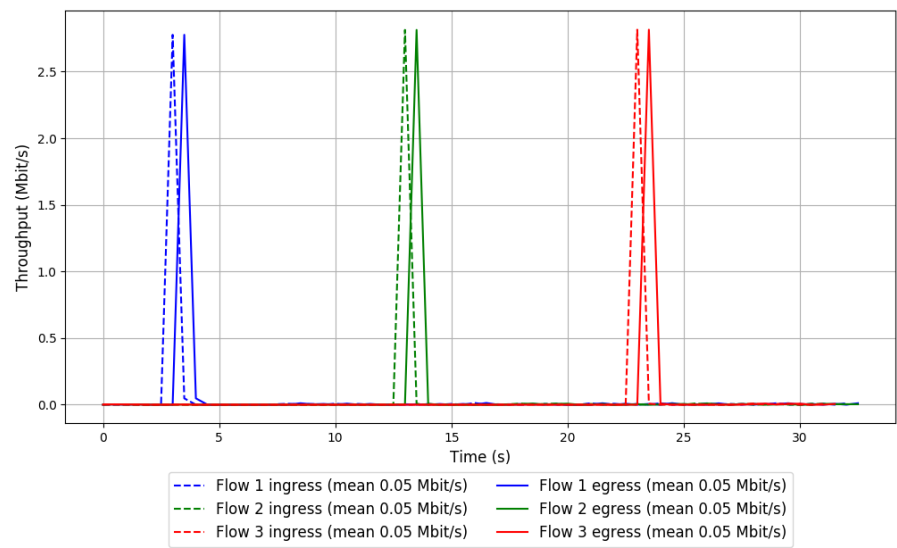Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-07-18 00:55:45
End at: 2019-07-18 00:56:15
Local clock offset: -6.237 ms
Remote clock offset: -0.221 ms


# Below is generated by plot.py at 2019-07-18 02:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 5.737 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.056 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.625 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.603 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-07-18 01:29:47
End at: 2019-07-18 01:30:17
Local clock offset: -1.889 ms
Remote clock offset: 2.821 ms


# Below is generated by plot.py at 2019-07-18 02:44:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.726 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.458 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.526 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.427 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link