Pantheon Report

Generated at 2019-01-19 14:04:21 (UTC).

Data path: Colombia on `p4p1` (*remote*) →AWS Brazil 2 on `ens5` (*local*).

Repeated the test of 21 congestion control schemes 5 times.

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

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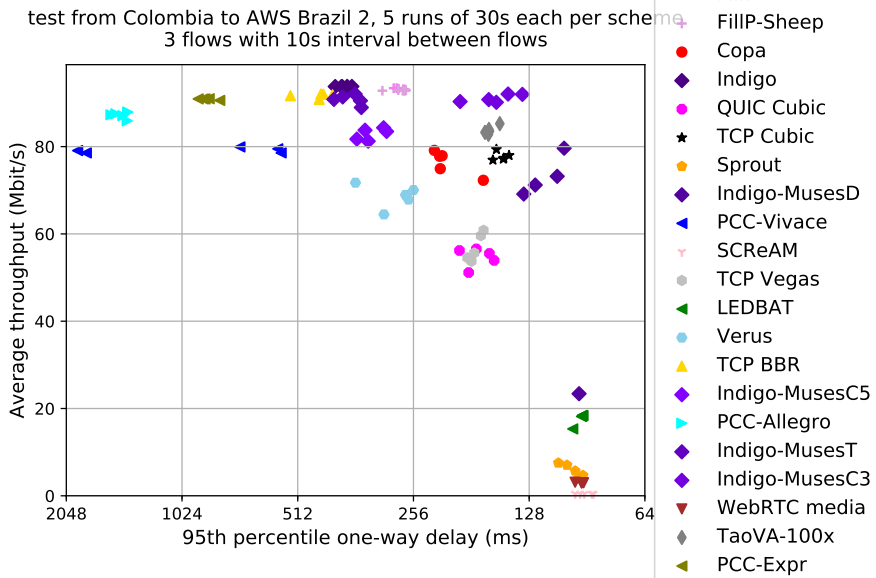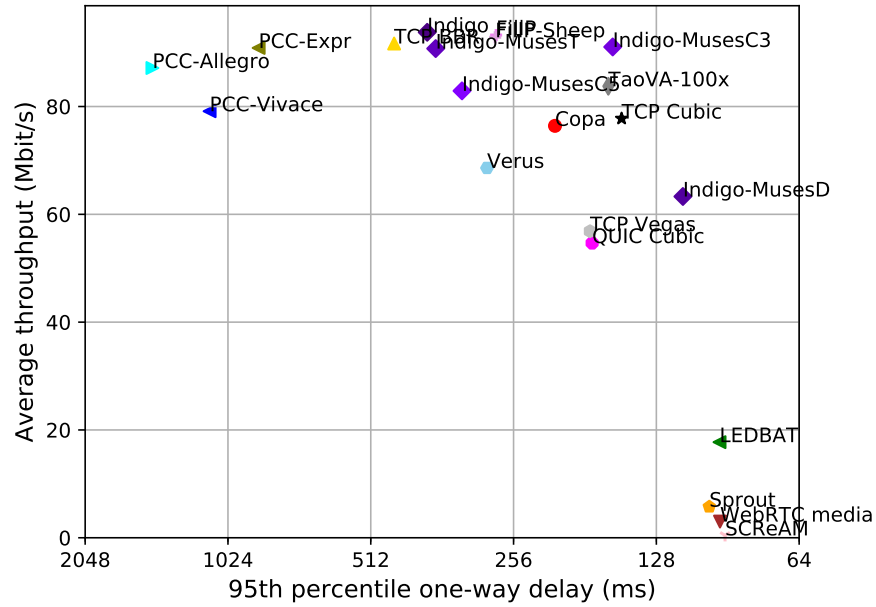
```
System info:
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

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

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

test from Colombia to AWS Brazil 2, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from Colombia to AWS Brazil 2, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

3

scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	55.79	38.83	30.81	407.63	531.54	507.57	2.62	4.92	8.50
Copa	5	46.57	31.93	26.18	207.62	141.48	190.67	0.53	0.85	1.87
TCP Cubic	5	42.19	35.85	35.79	178.23	144.48	127.47	0.53	0.75	2.16
FillP	5	57.66	38.82	29.85	294.94	239.77	287.64	1.80	2.23	3.89
FillP-Sheep	5	56.91	39.09	30.37	287.92	247.96	341.77	0.85	1.84	3.44
Indigo	5	58.56	38.74	29.30	420.21	142.96	142.59	6.62	1.27	3.00
Indigo-MusesC3	5	60.61	37.07	21.88	172.02	139.60	139.14	2.84	5.04	4.66
Indigo-MusesC5	5	54.63	32.13	25.88	299.35	391.52	376.86	4.41	5.35	6.41
Indigo-MusesD	5	48.81	15.68	15.07	113.28	92.95	95.68	1.52	1.42	4.49
Indigo-MusesT	5	59.27	37.87	24.24	267.26	332.09	443.43	5.54	8.60	6.79
LEDBAT	5	11.36	7.77	3.81	92.86	94.48	92.71	1.12	1.75	3.51
PCC-Allegro	5	54.70	34.41	29.53	1518.63	1201.62	1450.61	26.38	13.82	20.53
PCC-Expr	5	56.77	38.33	26.58	869.66	819.08	253.81	27.82	6.51	3.56
QUIC Cubic	5	34.28	21.44	18.87	129.16	223.19	272.50	0.58	1.16	2.24
SCReAM	5	0.22	0.22	0.22	90.30	89.12	89.16	0.56	0.91	1.85
Sprout	5	3.28	2.63	2.27	98.83	96.64	96.06	0.67	1.05	1.40
TaoVA-100x	5	49.48	37.02	29.44	156.23	167.19	155.48	0.50	0.89	2.11
TCP Vegas	5	33.20	23.99	23.55	190.99	169.79	157.98	0.45	0.78	2.08
Verus	5	40.30	30.74	24.29	289.94	283.61	403.00	0.86	1.82	2.55
PCC-Vivace	5	51.18	30.97	22.66	1187.78	645.89	334.08	3.64	3.88	3.31
WebRTC media	5	1.71	0.93	0.37	92.83	91.53	91.62	0.32	0.75	1.63

```
Run 1: Statistics of TCP BBR

Start at: 2019-01-19 11:37:19
End at: 2019-01-19 11:37:49
Local clock offset: -9.78 ms
Remote clock offset: 3.066 ms


# Below is generated by plot.py at 2019-01-19 13:52:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.84 Mbit/s
95th percentile per-packet one-way delay: 450.223 ms
Loss rate: 4.82%
-- Flow 1:
Average throughput: 55.00 Mbit/s
95th percentile per-packet one-way delay: 416.232 ms
Loss rate: 2.87%
-- Flow 2:
Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 528.281 ms
Loss rate: 5.62%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 495.046 ms
Loss rate: 12.39%
```
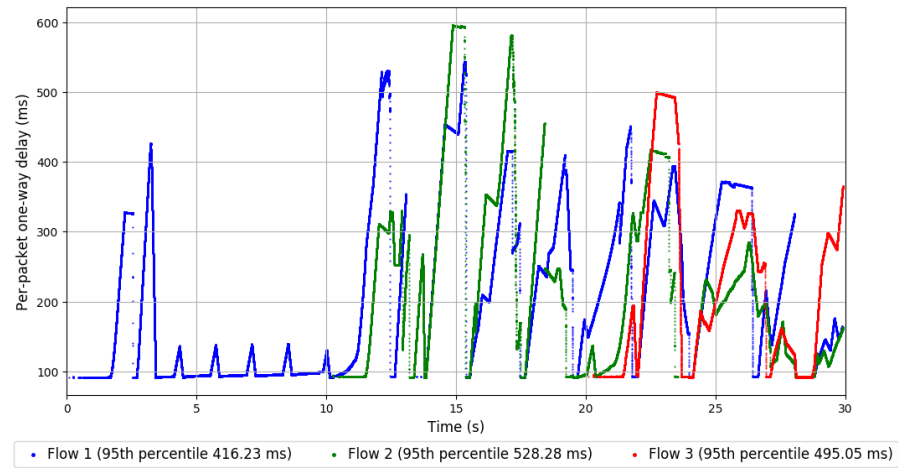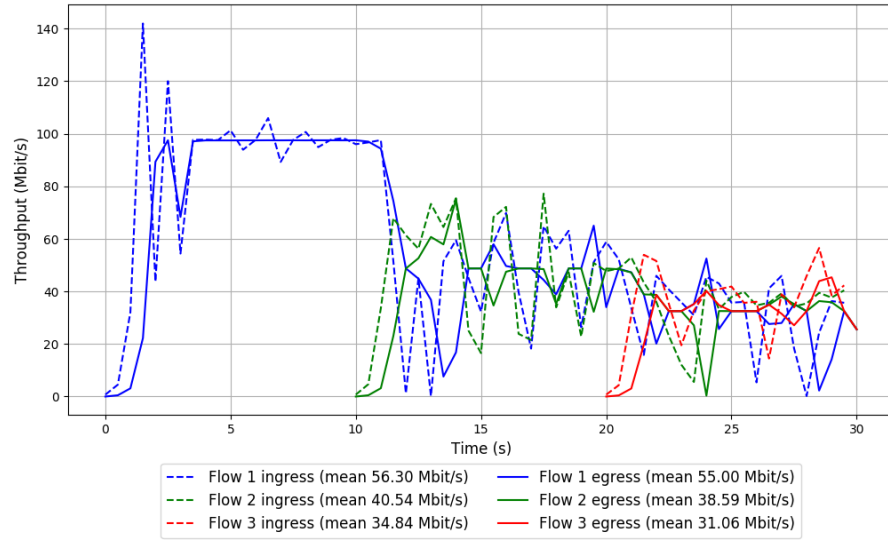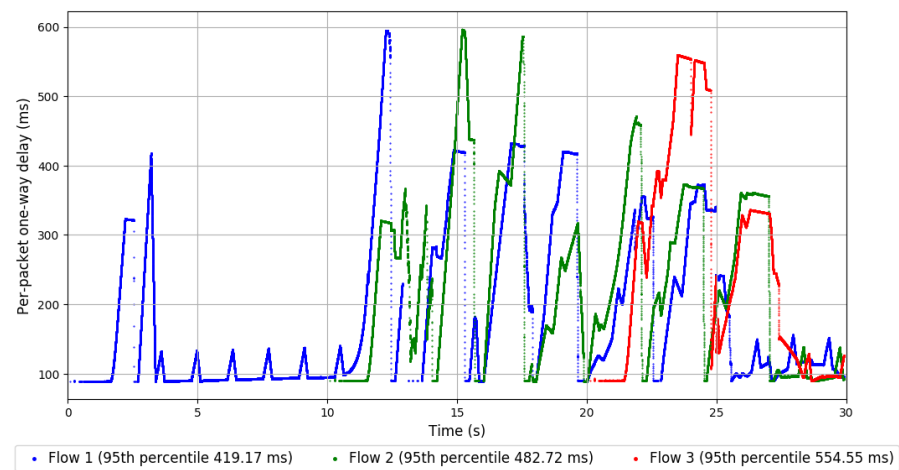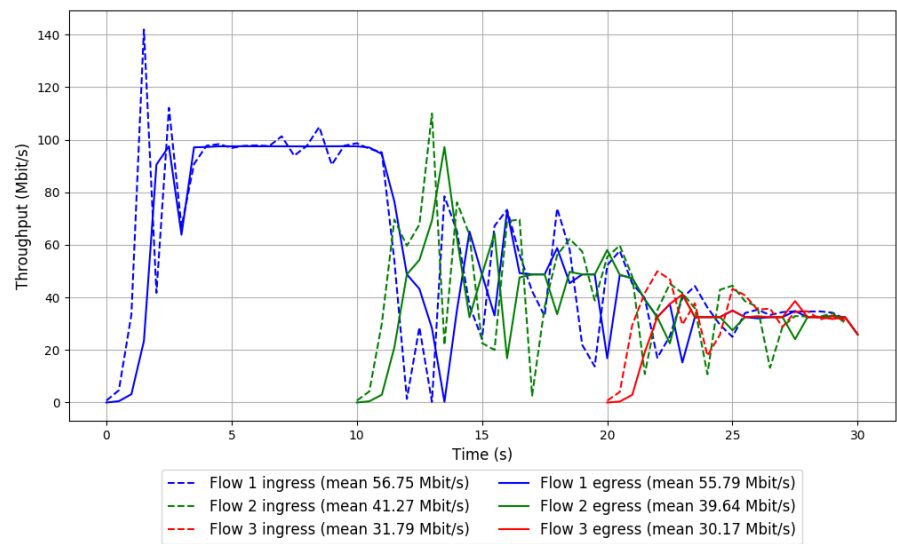
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 56.30 Mbit/s) — Flow 1 egress (mean 55.00 Mbit/s)
Flow 2 ingress (mean 40.54 Mbit/s) — Flow 2 egress (mean 38.59 Mbit/s)
Flow 3 ingress (mean 34.84 Mbit/s) — Flow 3 egress (mean 31.06 Mbit/s)

Flow 1 (95th percentile 416.23 ms) • Flow 2 (95th percentile 528.28 ms) • Flow 3 (95th percentile 495.05 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-01-19 12:04:14
End at: 2019-01-19 12:04:44
Local clock offset: -6.981 ms
Remote clock offset: 5.744 ms


# Below is generated by plot.py at 2019-01-19 13:53:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.02 Mbit/s
95th percentile per-packet one-way delay: 439.184 ms
Loss rate: 3.49%
-- Flow 1:
Average throughput: 55.79 Mbit/s
95th percentile per-packet one-way delay: 419.168 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 39.64 Mbit/s
95th percentile per-packet one-way delay: 482.722 ms
Loss rate: 4.80%
-- Flow 3:
Average throughput: 30.17 Mbit/s
95th percentile per-packet one-way delay: 554.554 ms
Loss rate: 6.75%
```
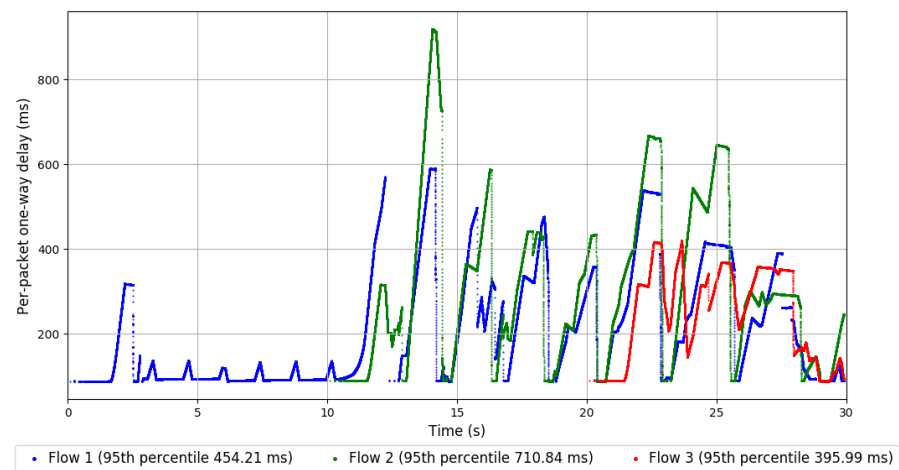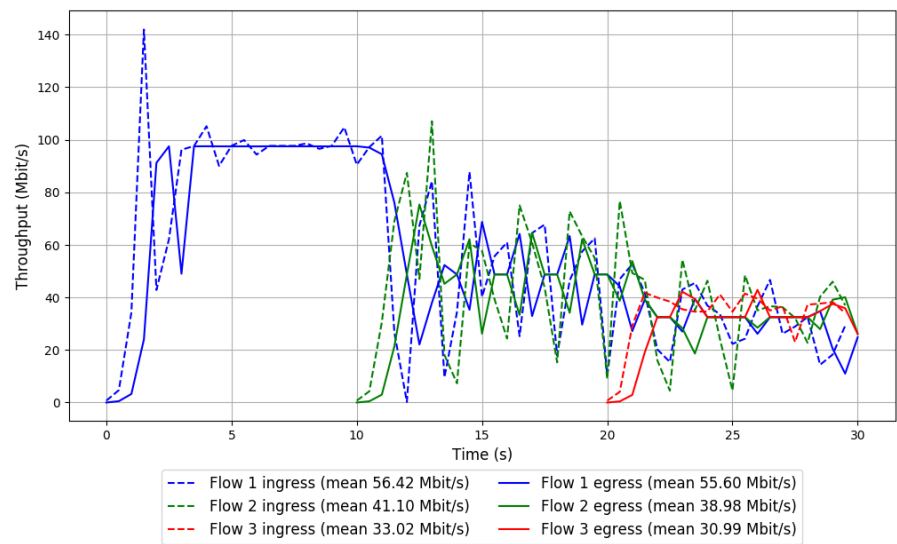
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-01-19 12:31:10
End at: 2019-01-19 12:31:40
Local clock offset: -6.252 ms
Remote clock offset: 5.983 ms


# Below is generated by plot.py at 2019-01-19 13:53:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.66 Mbit/s
95th percentile per-packet one-way delay: 534.898 ms
Loss rate: 3.83%
-- Flow 1:
Average throughput: 55.60 Mbit/s
95th percentile per-packet one-way delay: 454.211 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 710.839 ms
Loss rate: 5.97%
-- Flow 3:
Average throughput: 30.99 Mbit/s
95th percentile per-packet one-way delay: 395.990 ms
Loss rate: 7.78%
```
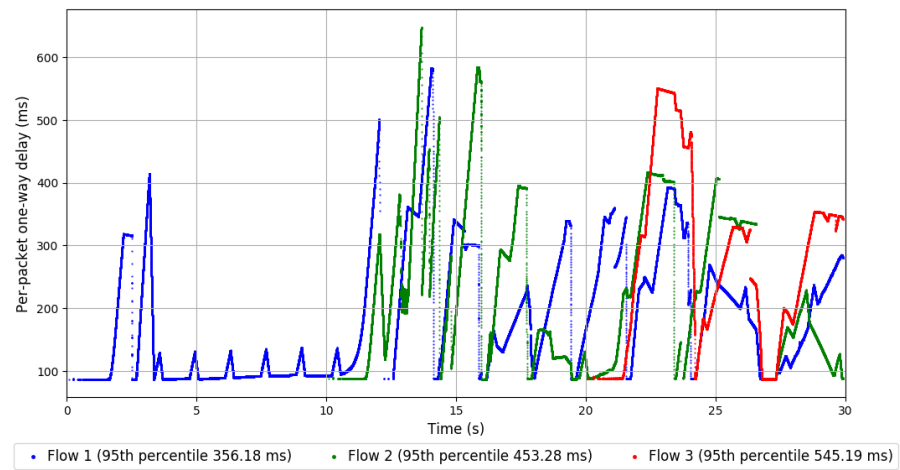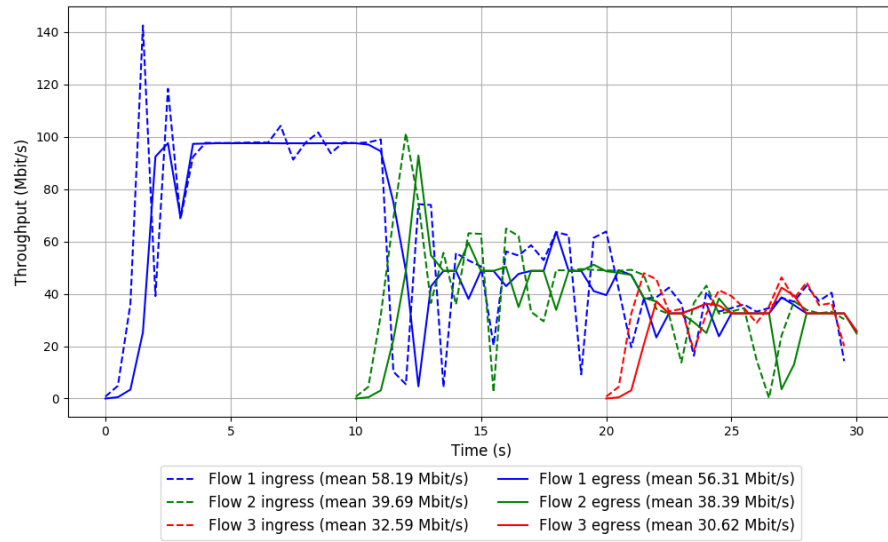
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 56.42 Mbit/s) --- Flow 1 egress (mean 55.60 Mbit/s)
Flow 2 ingress (mean 41.10 Mbit/s) --- Flow 2 egress (mean 38.98 Mbit/s)
Flow 3 ingress (mean 33.02 Mbit/s) --- Flow 3 egress (mean 30.99 Mbit/s)

Flow 1 (95th percentile 454.21 ms)   Flow 2 (95th percentile 710.84 ms)   Flow 3 (95th percentile 395.99 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-01-19 12:58:04
End at: 2019-01-19 12:58:34
Local clock offset: -7.111 ms
Remote clock offset: 6.401 ms


# Below is generated by plot.py at 2019-01-19 13:53:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 415.717 ms
Loss rate: 3.76%
-- Flow 1:
Average throughput: 56.31 Mbit/s
95th percentile per-packet one-way delay: 356.180 ms
Loss rate: 2.86%
-- Flow 2:
Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: 453.284 ms
Loss rate: 4.12%
-- Flow 3:
Average throughput: 30.62 Mbit/s
95th percentile per-packet one-way delay: 545.186 ms
Loss rate: 7.67%
```
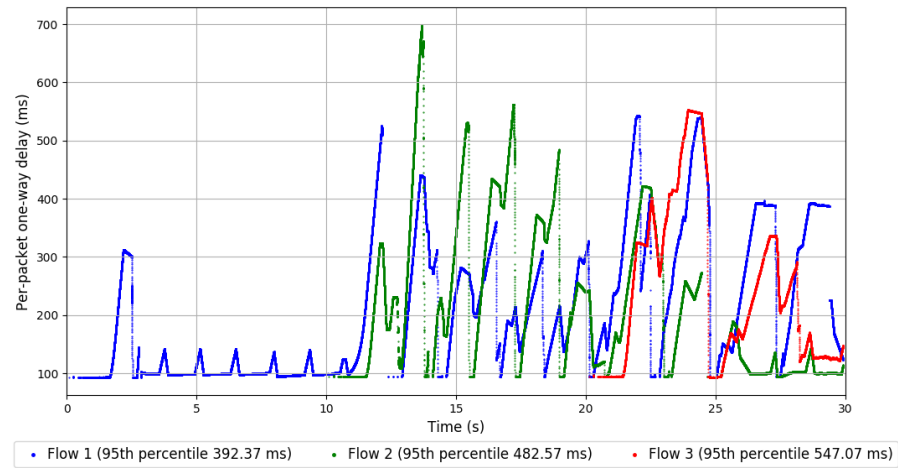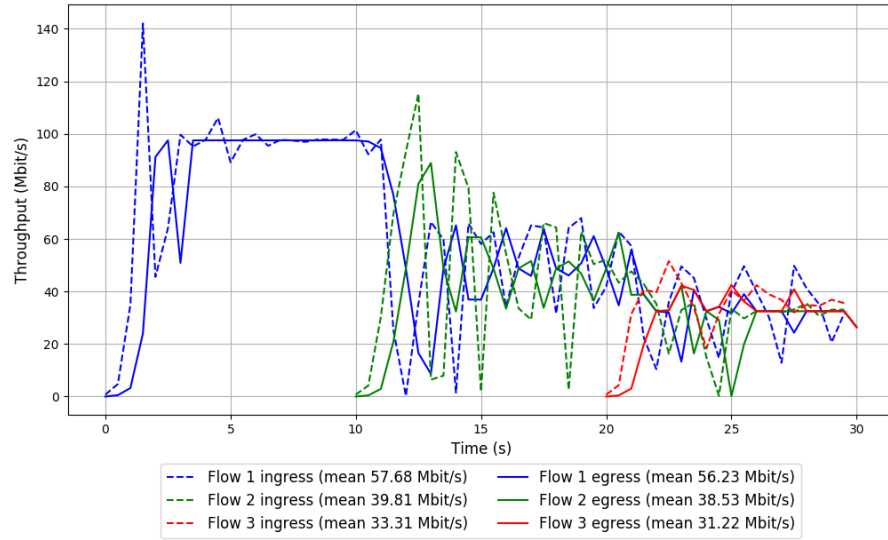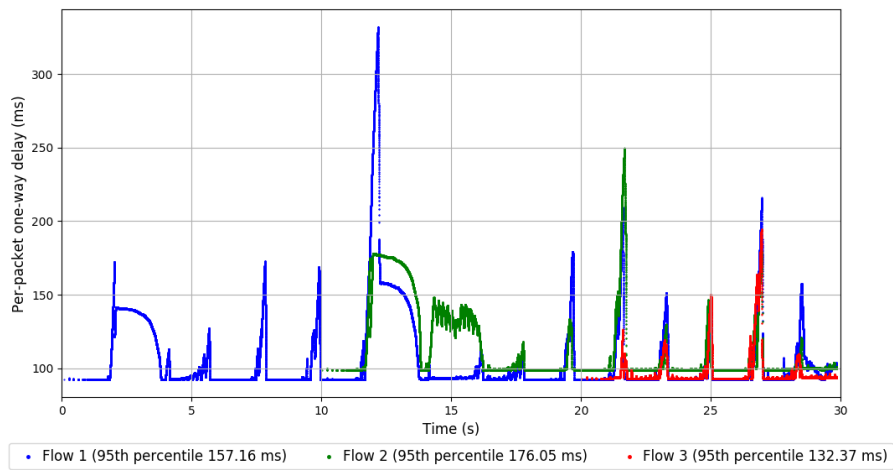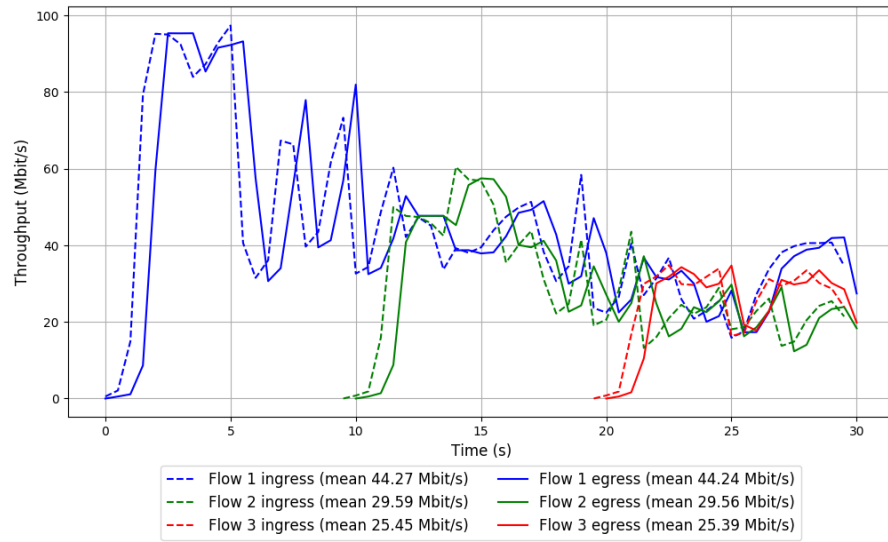
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 58.19 Mbit/s) — Flow 1 egress (mean 56.31 Mbit/s)
Flow 2 ingress (mean 39.69 Mbit/s) — Flow 2 egress (mean 38.39 Mbit/s)
Flow 3 ingress (mean 32.59 Mbit/s) — Flow 3 egress (mean 30.62 Mbit/s)

Flow 1 (95th percentile 356.18 ms) • Flow 2 (95th percentile 453.28 ms) • Flow 3 (95th percentile 545.19 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-01-19 13:25:01
End at: 2019-01-19 13:25:31
Local clock offset: -5.771 ms
Remote clock offset: 3.263 ms


# Below is generated by plot.py at 2019-01-19 13:53:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.07 Mbit/s
95th percentile per-packet one-way delay: 445.470 ms
Loss rate: 3.91%
-- Flow 1:
Average throughput: 56.23 Mbit/s
95th percentile per-packet one-way delay: 392.371 ms
Loss rate: 3.08%
-- Flow 2:
Average throughput: 38.53 Mbit/s
95th percentile per-packet one-way delay: 482.571 ms
Loss rate: 4.07%
-- Flow 3:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 547.067 ms
Loss rate: 7.89%
```
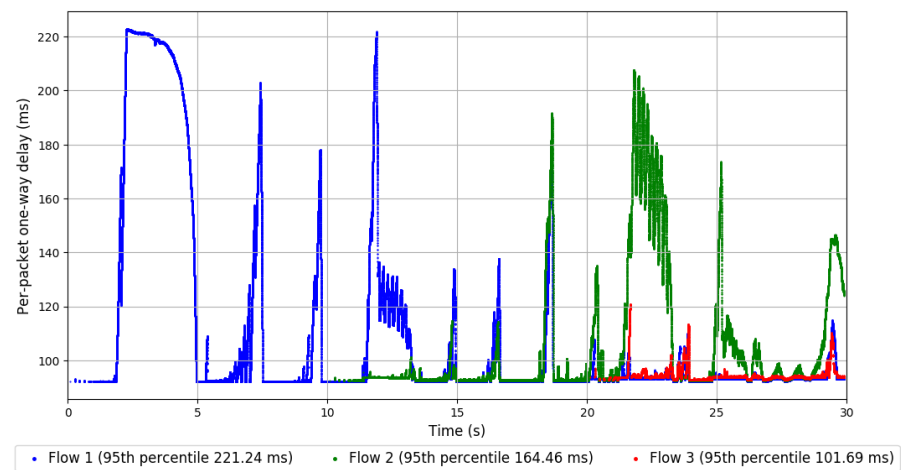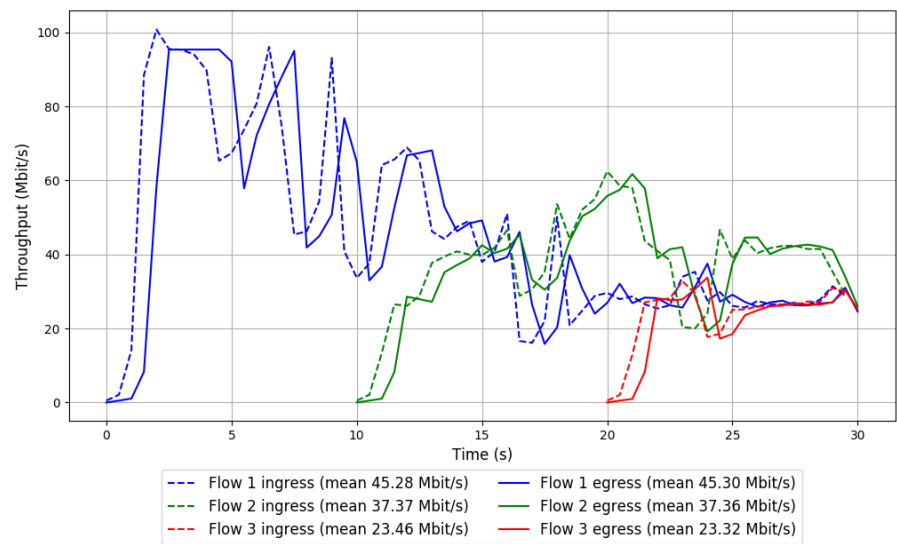
Run 5: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 57.68 Mbit/s) — Flow 1 egress (mean 56.23 Mbit/s)
- - - Flow 2 ingress (mean 39.81 Mbit/s) — Flow 2 egress (mean 38.53 Mbit/s)
- - - Flow 3 ingress (mean 33.31 Mbit/s) — Flow 3 egress (mean 31.22 Mbit/s)

• Flow 1 (95th percentile 392.37 ms)   • Flow 2 (95th percentile 482.57 ms)   • Flow 3 (95th percentile 547.07 ms)

```
Run 1: Statistics of Copa

Start at: 2019-01-19 11:42:23
End at: 2019-01-19 11:42:53
Local clock offset: -10.024 ms
Remote clock offset: 1.746 ms


# Below is generated by plot.py at 2019-01-19 13:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.29 Mbit/s
95th percentile per-packet one-way delay: 168.459 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 44.24 Mbit/s
95th percentile per-packet one-way delay: 157.161 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 29.56 Mbit/s
95th percentile per-packet one-way delay: 176.052 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 25.39 Mbit/s
95th percentile per-packet one-way delay: 132.374 ms
Loss rate: 1.94%
```
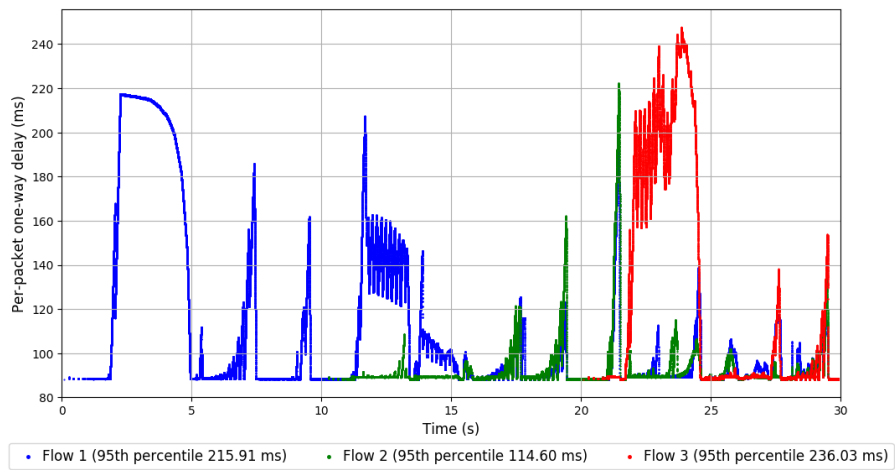
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-01-19 12:09:18
End at: 2019-01-19 12:09:48
Local clock offset: -6.772 ms
Remote clock offset: 1.986 ms


# Below is generated by plot.py at 2019-01-19 13:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.79 Mbit/s
95th percentile per-packet one-way delay: 218.836 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 45.30 Mbit/s
95th percentile per-packet one-way delay: 221.238 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 37.36 Mbit/s
95th percentile per-packet one-way delay: 164.461 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 23.32 Mbit/s
95th percentile per-packet one-way delay: 101.687 ms
Loss rate: 2.29%
```
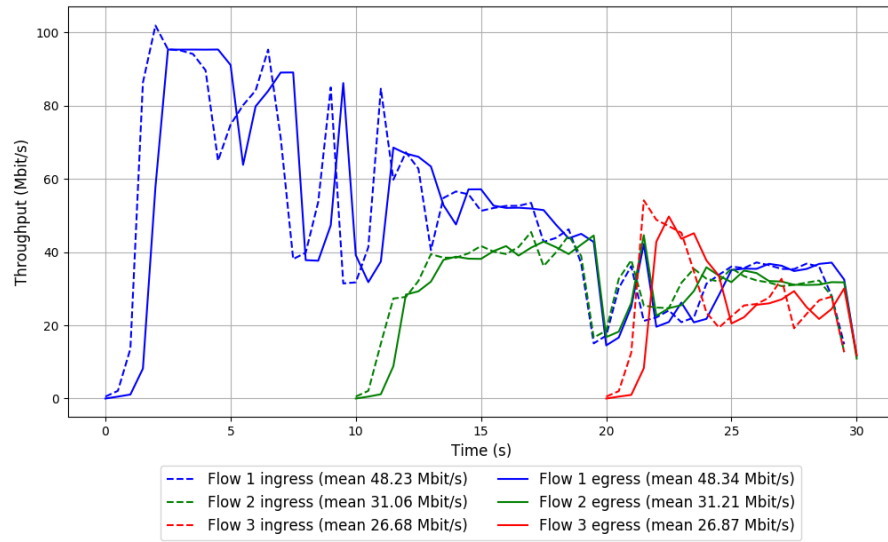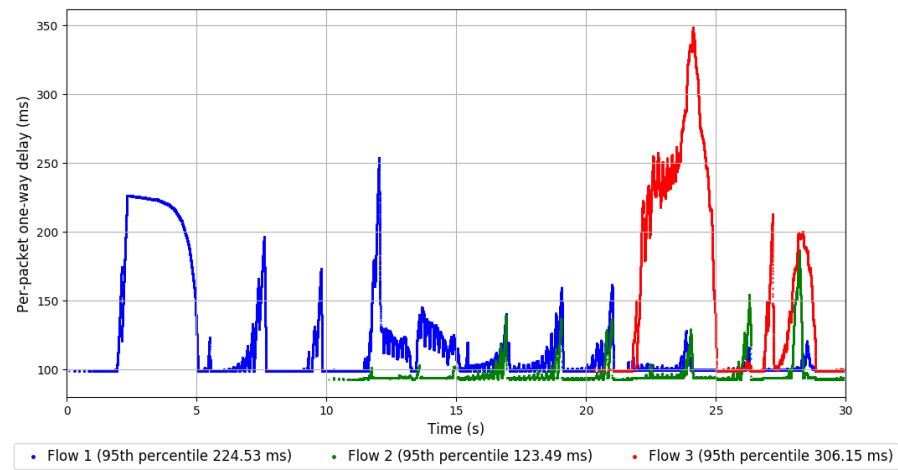
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-01-19 12:36:14
End at: 2019-01-19 12:36:44
Local clock offset: -6.038 ms
Remote clock offset: 5.487 ms


# Below is generated by plot.py at 2019-01-19 13:53:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.91 Mbit/s
95th percentile per-packet one-way delay: 215.622 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 48.34 Mbit/s
95th percentile per-packet one-way delay: 215.907 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 114.596 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 26.87 Mbit/s
95th percentile per-packet one-way delay: 236.033 ms
Loss rate: 1.01%
```
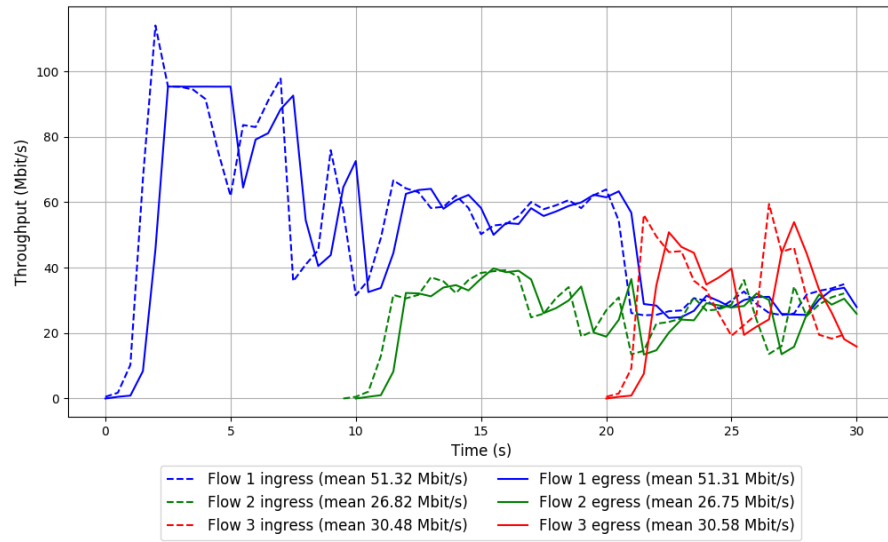
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-01-19 13:03:09
End at: 2019-01-19 13:03:39
Local clock offset: -6.672 ms
Remote clock offset: 1.288 ms


# Below is generated by plot.py at 2019-01-19 13:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.14 Mbit/s
95th percentile per-packet one-way delay: 225.887 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 51.31 Mbit/s
95th percentile per-packet one-way delay: 224.529 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 26.75 Mbit/s
95th percentile per-packet one-way delay: 123.487 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 30.58 Mbit/s
95th percentile per-packet one-way delay: 306.153 ms
Loss rate: 1.45%
```
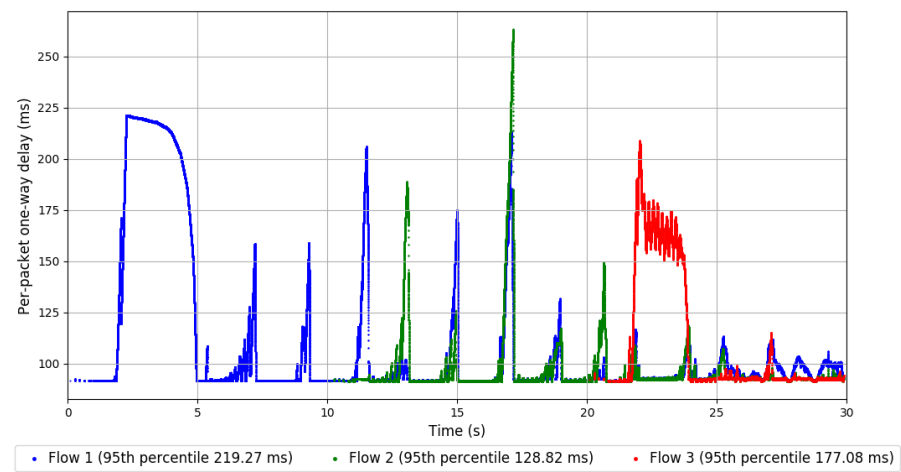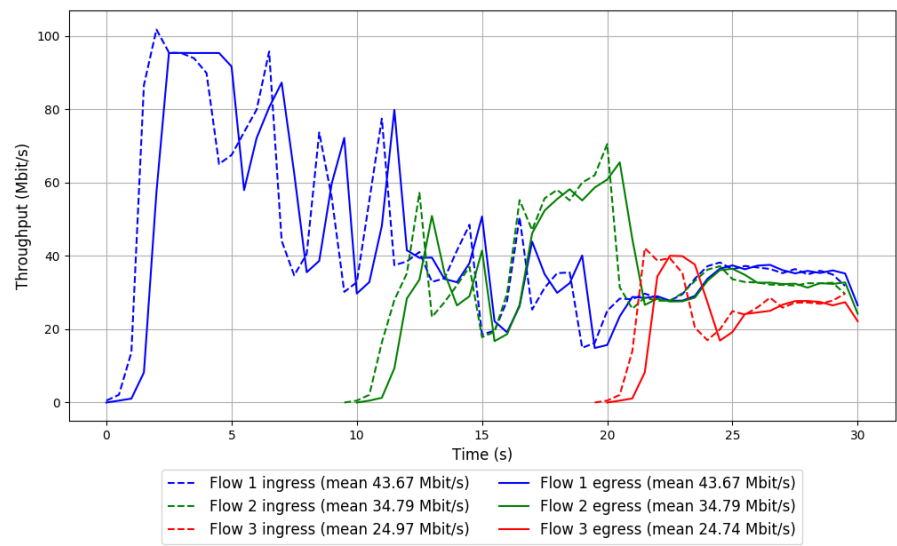
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 51.32 Mbit/s) --- Flow 1 egress (mean 51.31 Mbit/s)
Flow 2 ingress (mean 26.82 Mbit/s) --- Flow 2 egress (mean 26.75 Mbit/s)
Flow 3 ingress (mean 30.48 Mbit/s) --- Flow 3 egress (mean 30.58 Mbit/s)

Flow 1 (95th percentile 224.53 ms) • Flow 2 (95th percentile 123.49 ms) • Flow 3 (95th percentile 306.15 ms)

```
Run 5: Statistics of Copa

Start at: 2019-01-19 13:30:06
End at: 2019-01-19 13:30:36
Local clock offset: -5.431 ms
Remote clock offset: 4.826 ms


# Below is generated by plot.py at 2019-01-19 13:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.94 Mbit/s
95th percentile per-packet one-way delay: 218.010 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 43.67 Mbit/s
95th percentile per-packet one-way delay: 219.268 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 128.819 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 177.080 ms
Loss rate: 2.66%
```
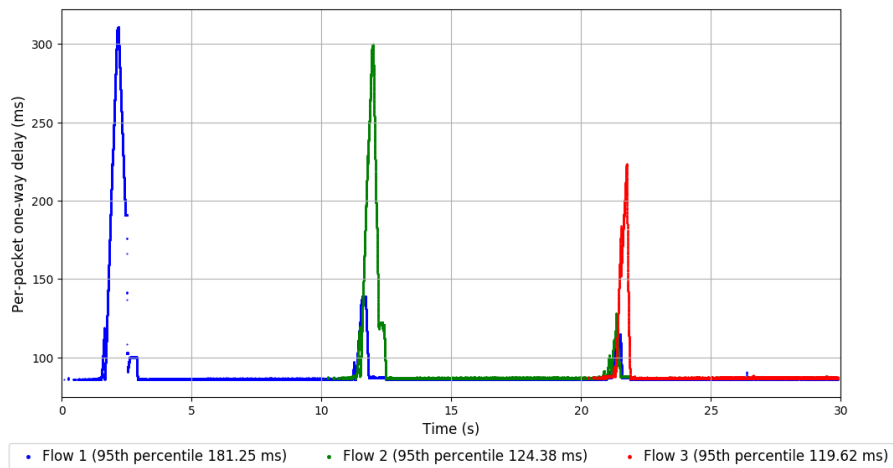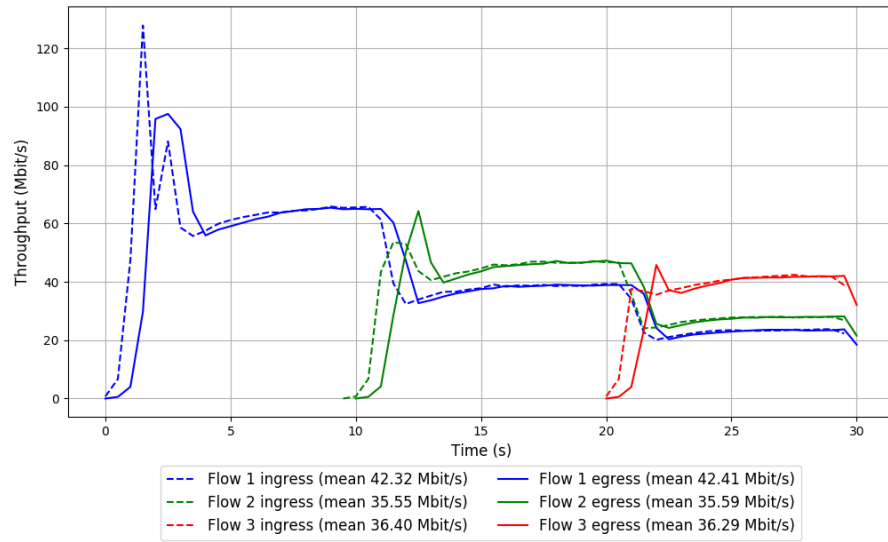
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-01-19 11:53:55
End at: 2019-01-19 11:54:25
Local clock offset: -8.227 ms
Remote clock offset: 7.611 ms


# Below is generated by plot.py at 2019-01-19 13:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.98 Mbit/s
95th percentile per-packet one-way delay: 144.399 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 42.41 Mbit/s
95th percentile per-packet one-way delay: 181.251 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.59 Mbit/s
95th percentile per-packet one-way delay: 124.383 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 36.29 Mbit/s
95th percentile per-packet one-way delay: 119.619 ms
Loss rate: 2.01%
```
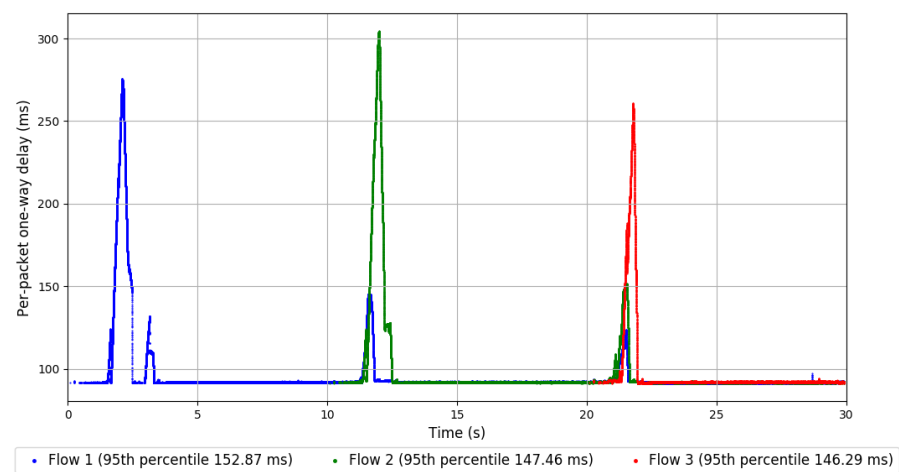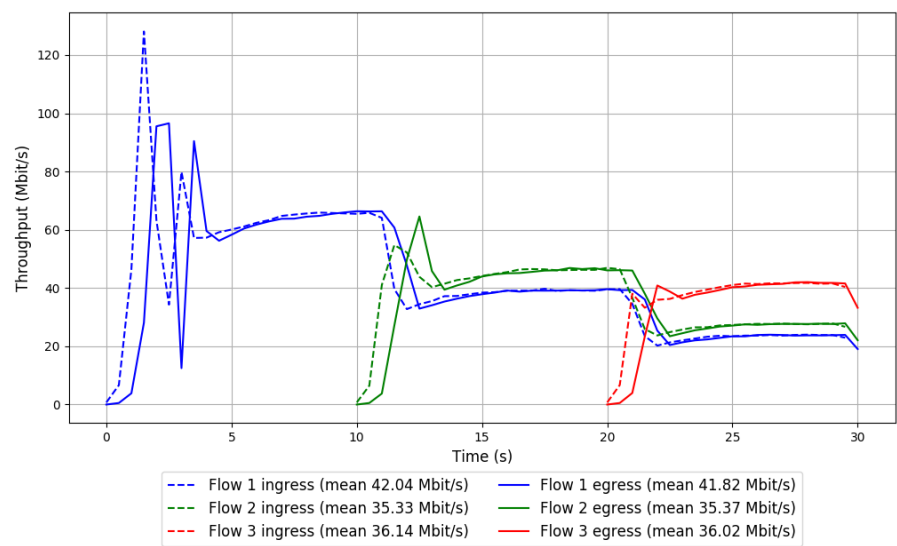
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 42.32 Mbit/s) — Flow 1 egress (mean 42.41 Mbit/s)
Flow 2 ingress (mean 35.55 Mbit/s) — Flow 2 egress (mean 35.59 Mbit/s)
Flow 3 ingress (mean 36.40 Mbit/s) — Flow 3 egress (mean 36.29 Mbit/s)

Flow 1 (95th percentile 181.25 ms) • Flow 2 (95th percentile 124.38 ms) • Flow 3 (95th percentile 119.62 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2019-01-19 12:20:51
End at: 2019-01-19 12:21:21
Local clock offset: -6.095 ms
Remote clock offset: 3.33 ms


# Below is generated by plot.py at 2019-01-19 13:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.17 Mbit/s
95th percentile per-packet one-way delay: 149.435 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 41.82 Mbit/s
95th percentile per-packet one-way delay: 152.866 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 147.460 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 36.02 Mbit/s
95th percentile per-packet one-way delay: 146.290 ms
Loss rate: 2.03%
```
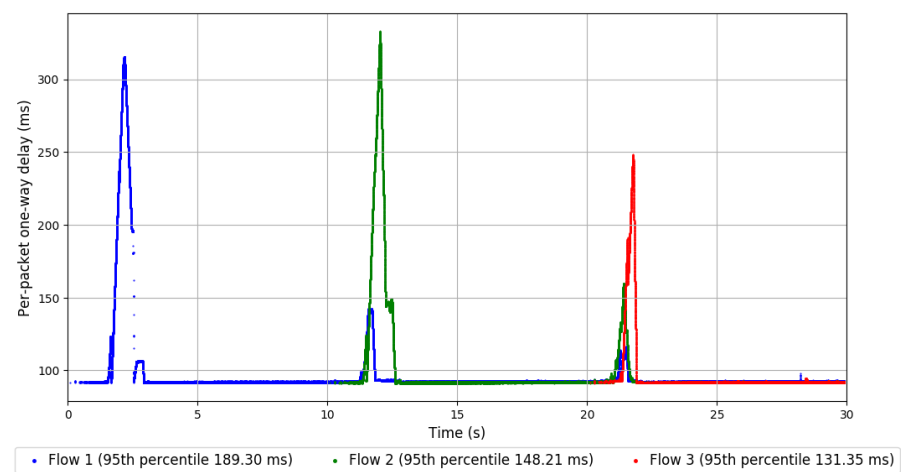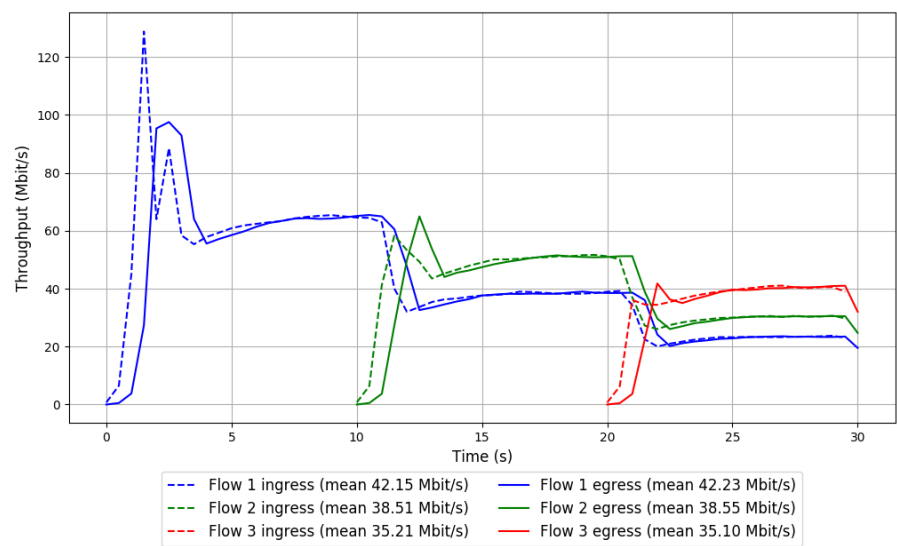
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2019-01-19 12:47:45
End at: 2019-01-19 12:48:15
Local clock offset: -5.097 ms
Remote clock offset: 2.604 ms


# Below is generated by plot.py at 2019-01-19 13:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.37 Mbit/s
95th percentile per-packet one-way delay: 155.731 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 42.23 Mbit/s
95th percentile per-packet one-way delay: 189.301 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 148.210 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 35.10 Mbit/s
95th percentile per-packet one-way delay: 131.353 ms
Loss rate: 2.02%
```
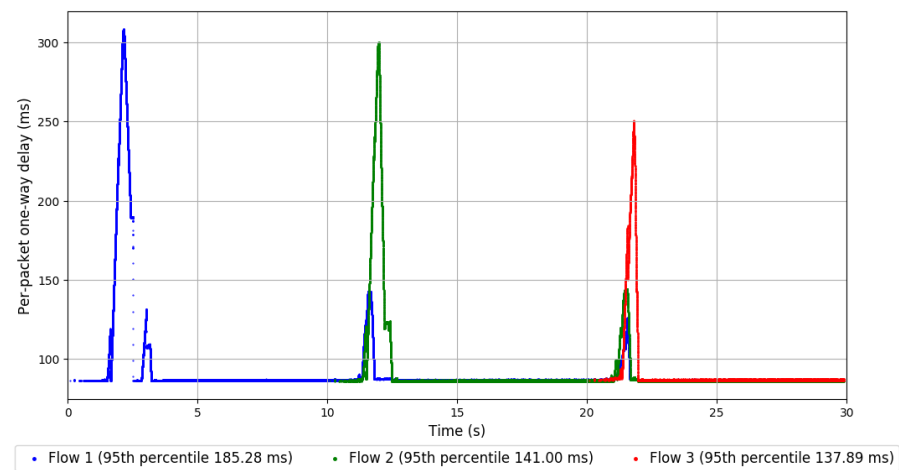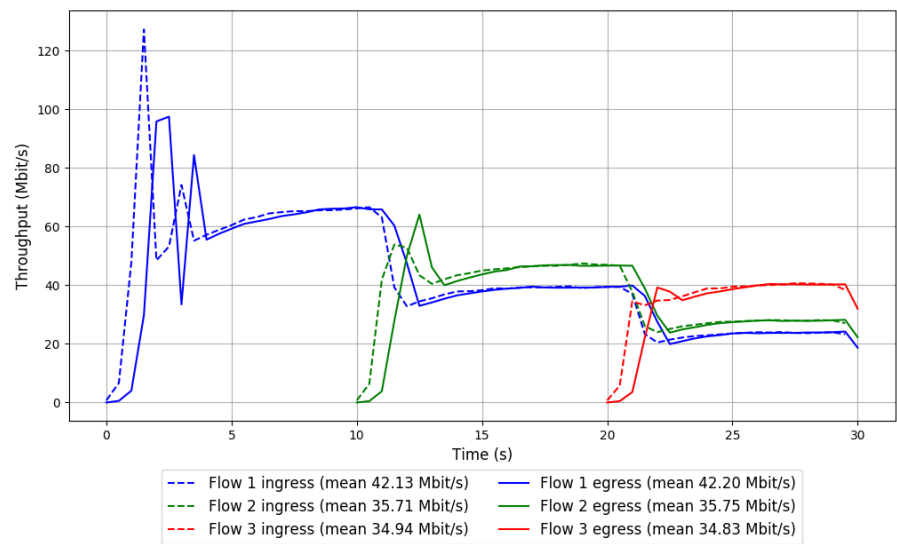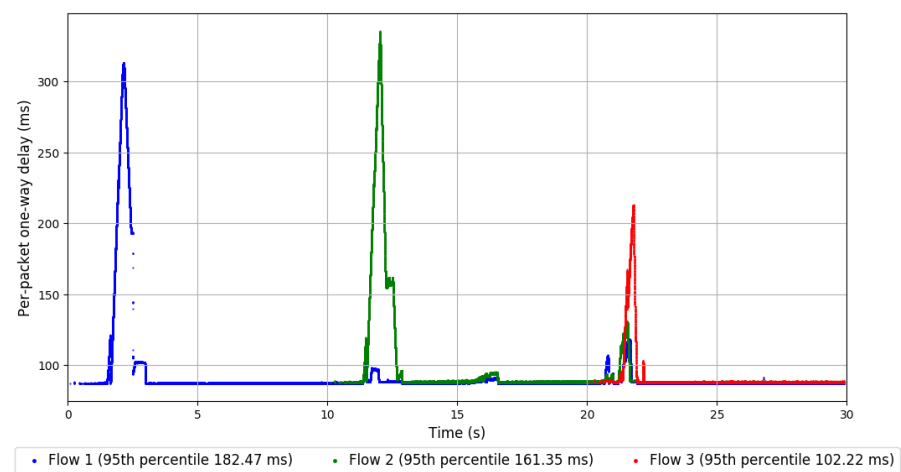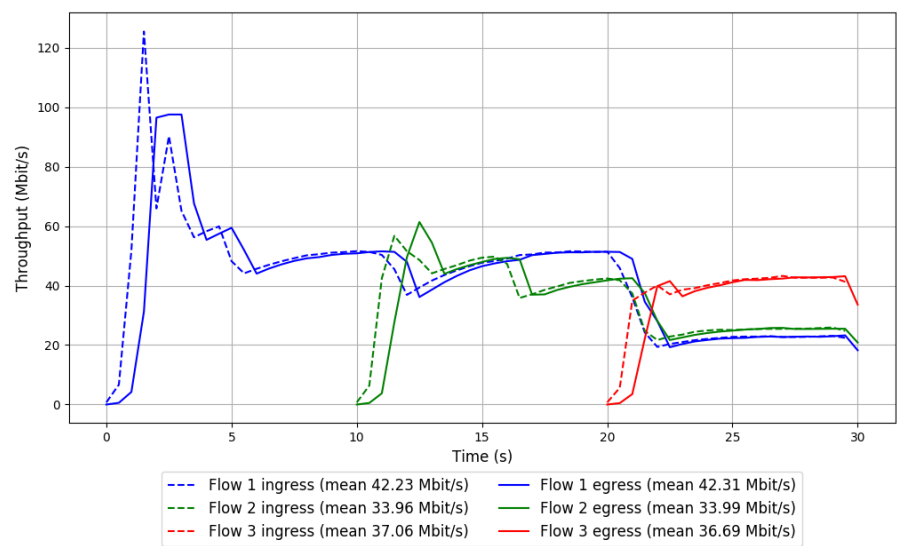
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 42.15 Mbit/s) — Flow 1 egress (mean 42.23 Mbit/s)
Flow 2 ingress (mean 38.51 Mbit/s) — Flow 2 egress (mean 38.55 Mbit/s)
Flow 3 ingress (mean 35.21 Mbit/s) — Flow 3 egress (mean 35.10 Mbit/s)

Flow 1 (95th percentile 189.30 ms) • Flow 2 (95th percentile 148.21 ms) • Flow 3 (95th percentile 131.35 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-01-19 13:14:42
End at: 2019-01-19 13:15:12
Local clock offset: -6.857 ms
Remote clock offset: 9.196 ms


# Below is generated by plot.py at 2019-01-19 13:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.37 Mbit/s
95th percentile per-packet one-way delay: 149.023 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 42.20 Mbit/s
95th percentile per-packet one-way delay: 185.285 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 35.75 Mbit/s
95th percentile per-packet one-way delay: 140.999 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 34.83 Mbit/s
95th percentile per-packet one-way delay: 137.888 ms
Loss rate: 2.03%
```
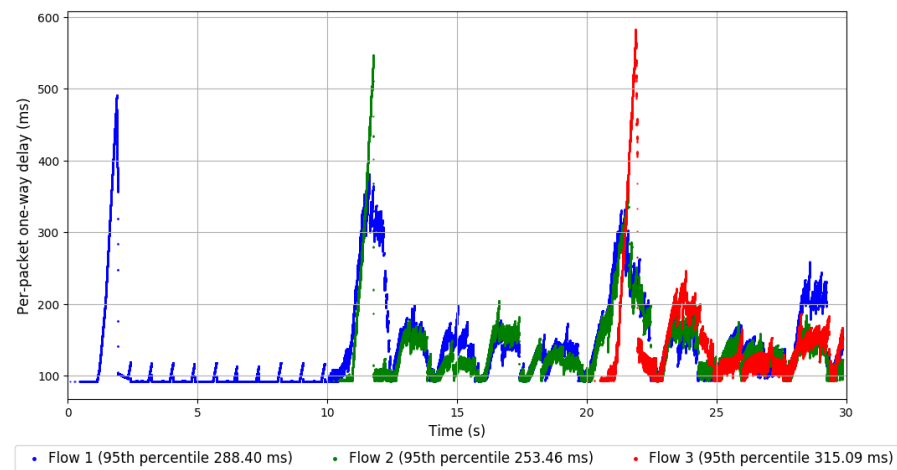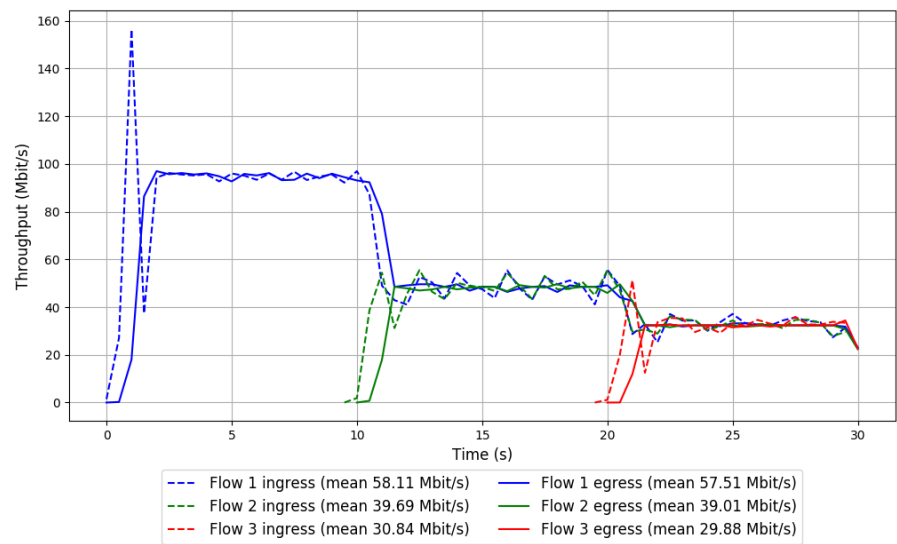
Run 4: Report of TCP Cubic — Data Link

- - - - Flow 1 ingress (mean 42.13 Mbit/s)   —— Flow 1 egress (mean 42.20 Mbit/s)
- - - - Flow 2 ingress (mean 35.71 Mbit/s)   —— Flow 2 egress (mean 35.75 Mbit/s)
- - - - Flow 3 ingress (mean 34.94 Mbit/s)   —— Flow 3 egress (mean 34.83 Mbit/s)

- Flow 1 (95th percentile 185.28 ms)   • Flow 2 (95th percentile 141.00 ms)   • Flow 3 (95th percentile 137.89 ms)
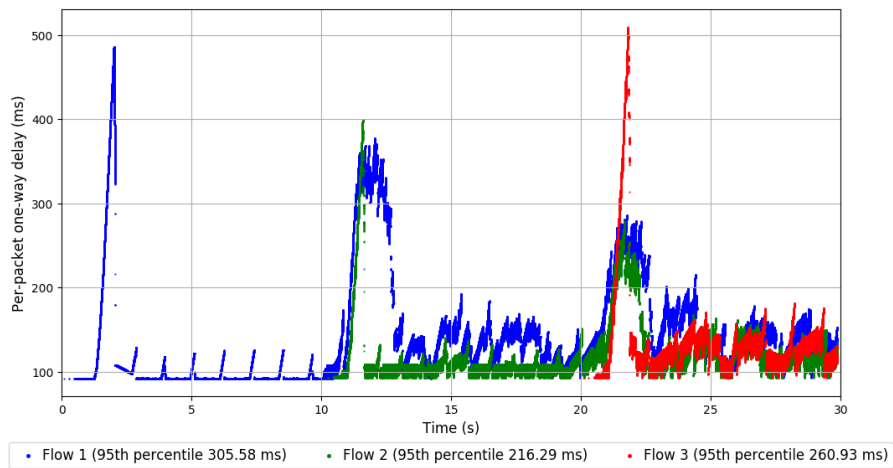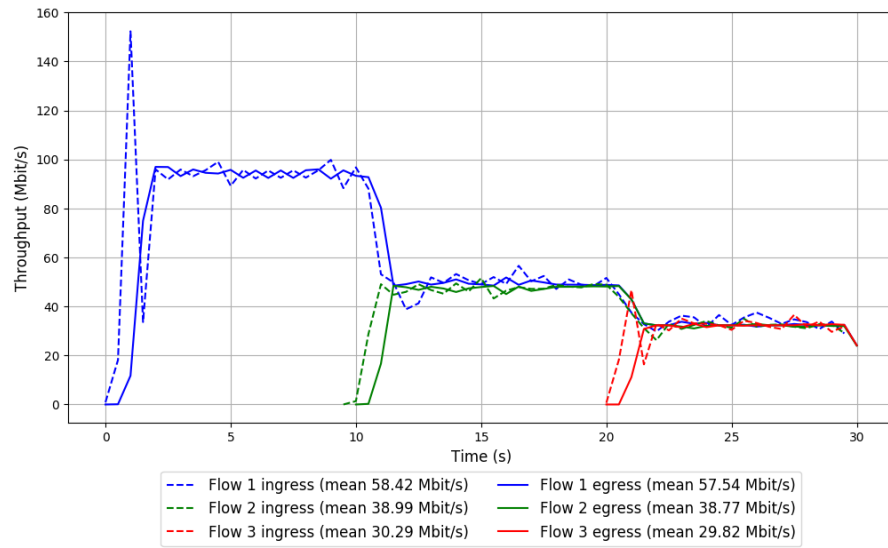
```
Run 5: Statistics of TCP Cubic

Start at: 2019-01-19 13:41:40
End at: 2019-01-19 13:42:10
Local clock offset: -4.942 ms
Remote clock offset: 8.584 ms


# Below is generated by plot.py at 2019-01-19 13:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.94 Mbit/s
95th percentile per-packet one-way delay: 159.055 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 42.31 Mbit/s
95th percentile per-packet one-way delay: 182.465 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 161.351 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 36.69 Mbit/s
95th percentile per-packet one-way delay: 102.219 ms
Loss rate: 2.71%
```

Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 42.23 Mbit/s) — Flow 1 egress (mean 42.31 Mbit/s)
Flow 2 ingress (mean 33.96 Mbit/s) — Flow 2 egress (mean 33.99 Mbit/s)
Flow 3 ingress (mean 37.06 Mbit/s) — Flow 3 egress (mean 36.69 Mbit/s)

Flow 1 (95th percentile 182.47 ms) · Flow 2 (95th percentile 161.35 ms) · Flow 3 (95th percentile 102.22 ms)

```
Run 1: Statistics of FillP

Start at: 2019-01-19 11:52:38
End at: 2019-01-19 11:53:08
Local clock offset: -8.486 ms
Remote clock offset: 1.591 ms


# Below is generated by plot.py at 2019-01-19 13:54:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.27 Mbit/s
95th percentile per-packet one-way delay: 279.964 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 57.51 Mbit/s
95th percentile per-packet one-way delay: 288.405 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 253.458 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: 315.088 ms
Loss rate: 4.65%
```
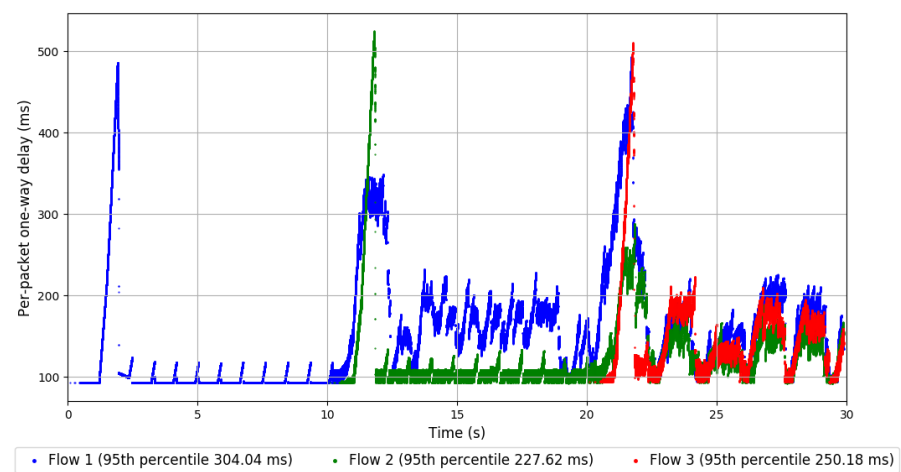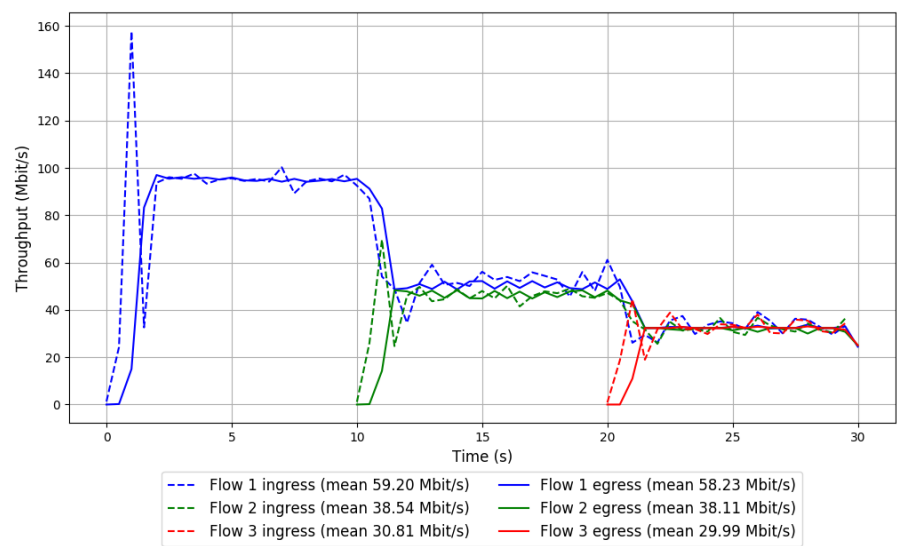
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 58.11 Mbit/s) — Flow 1 egress (mean 57.51 Mbit/s)
Flow 2 ingress (mean 39.69 Mbit/s) — Flow 2 egress (mean 39.01 Mbit/s)
Flow 3 ingress (mean 30.84 Mbit/s) — Flow 3 egress (mean 29.88 Mbit/s)

Flow 1 (95th percentile 288.40 ms)   Flow 2 (95th percentile 253.46 ms)   Flow 3 (95th percentile 315.09 ms)

```
Run 2: Statistics of FillP

Start at: 2019-01-19 12:19:34
End at: 2019-01-19 12:20:04
Local clock offset: -6.957 ms
Remote clock offset: 2.115 ms


# Below is generated by plot.py at 2019-01-19 13:55:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.09 Mbit/s
95th percentile per-packet one-way delay: 269.377 ms
Loss rate: 1.96%
-- Flow 1:
Average throughput: 57.54 Mbit/s
95th percentile per-packet one-way delay: 305.577 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 38.77 Mbit/s
95th percentile per-packet one-way delay: 216.287 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 29.82 Mbit/s
95th percentile per-packet one-way delay: 260.925 ms
Loss rate: 3.26%
```
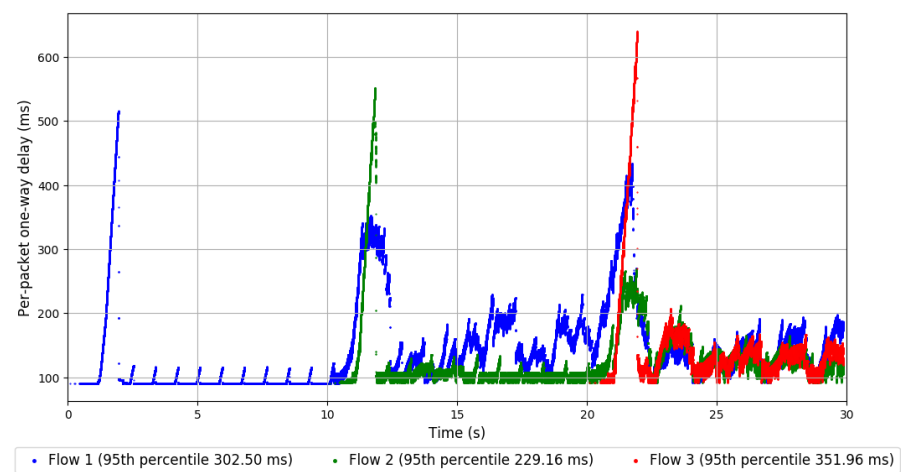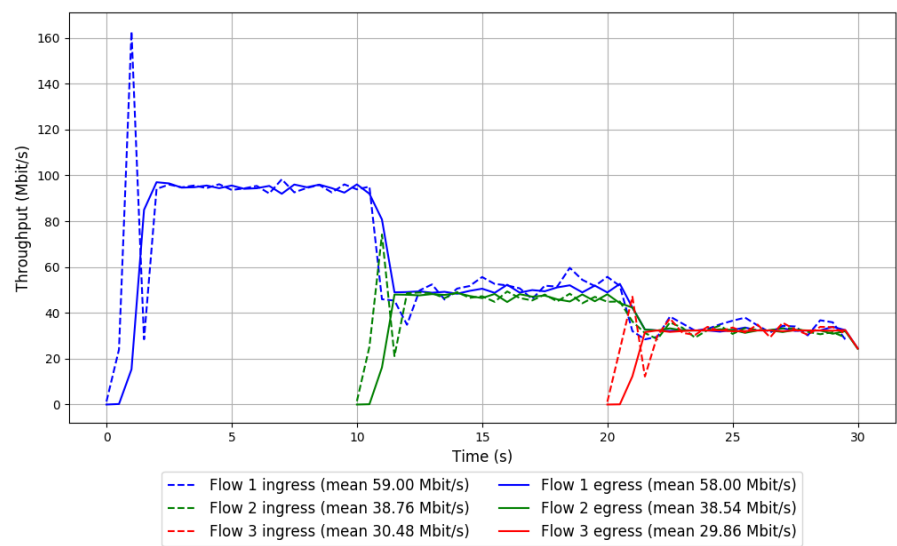
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 58.42 Mbit/s) Flow 1 egress (mean 57.54 Mbit/s)
Flow 2 ingress (mean 38.99 Mbit/s) Flow 2 egress (mean 38.77 Mbit/s)
Flow 3 ingress (mean 30.29 Mbit/s) Flow 3 egress (mean 29.82 Mbit/s)

Flow 1 (95th percentile 305.58 ms)   Flow 2 (95th percentile 216.29 ms)   Flow 3 (95th percentile 260.93 ms)

```
Run 3: Statistics of FillP

Start at: 2019-01-19 12:46:28
End at: 2019-01-19 12:46:58
Local clock offset: -4.985 ms
Remote clock offset: 1.51 ms


# Below is generated by plot.py at 2019-01-19 13:55:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.40 Mbit/s
95th percentile per-packet one-way delay: 283.261 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 58.23 Mbit/s
95th percentile per-packet one-way delay: 304.036 ms
Loss rate: 2.17%
-- Flow 2:
Average throughput: 38.11 Mbit/s
95th percentile per-packet one-way delay: 227.625 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 250.177 ms
Loss rate: 4.17%
```
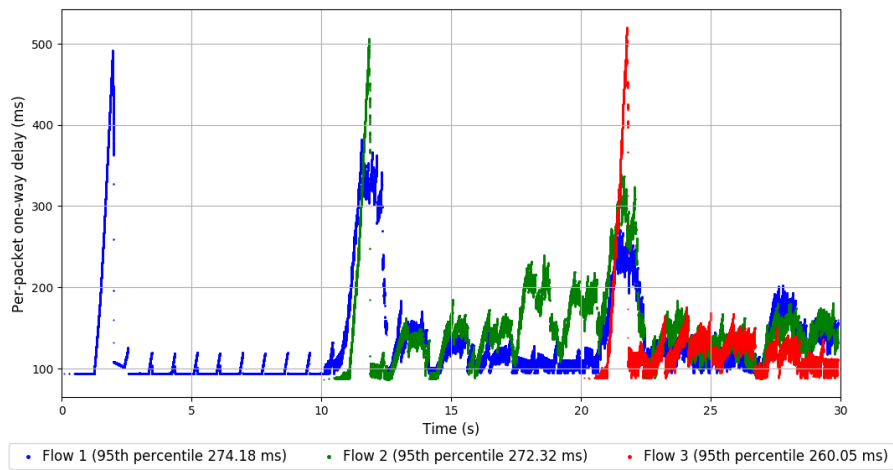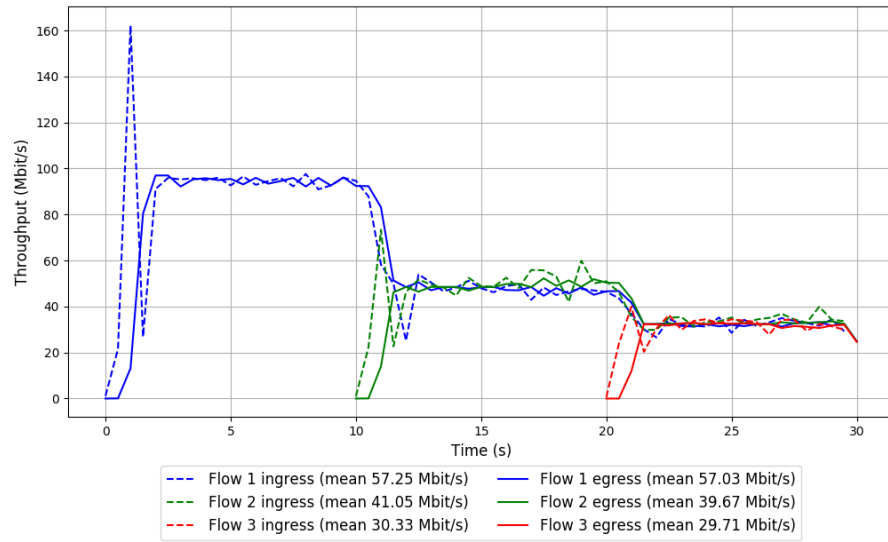
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2019-01-19 13:13:25
End at: 2019-01-19 13:13:55
Local clock offset: -7.602 ms
Remote clock offset: 3.819 ms


# Below is generated by plot.py at 2019-01-19 13:55:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.39 Mbit/s
95th percentile per-packet one-way delay: 288.180 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 302.502 ms
Loss rate: 2.25%
-- Flow 2:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 229.164 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 351.964 ms
Loss rate: 3.71%
```
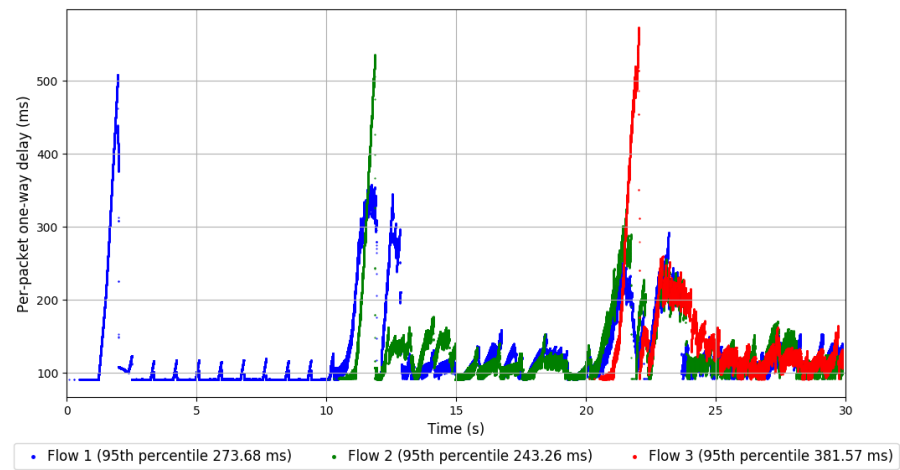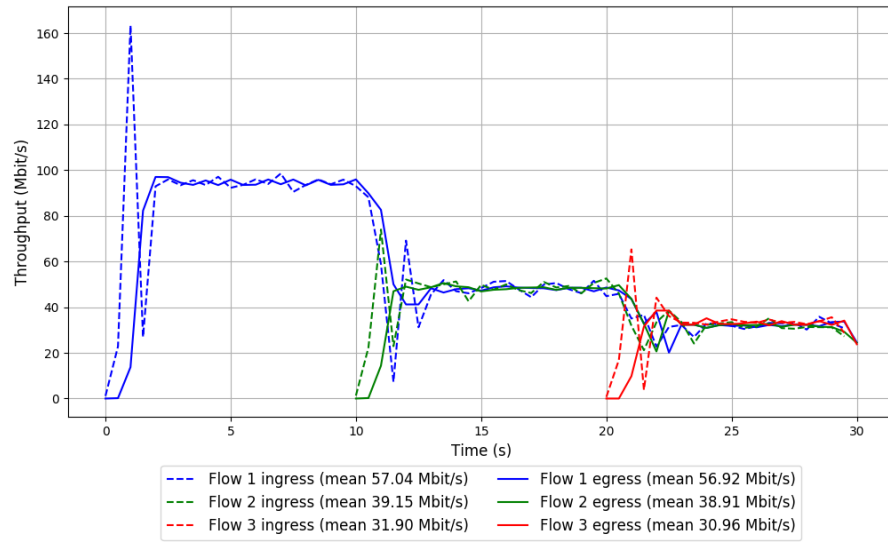
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-01-19 13:40:23
End at: 2019-01-19 13:40:53
Local clock offset: -5.027 ms
Remote clock offset: 8.825 ms


# Below is generated by plot.py at 2019-01-19 13:55:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.13 Mbit/s
95th percentile per-packet one-way delay: 272.153 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 57.03 Mbit/s
95th percentile per-packet one-way delay: 274.183 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 272.321 ms
Loss rate: 4.09%
-- Flow 3:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 260.045 ms
Loss rate: 3.65%
```
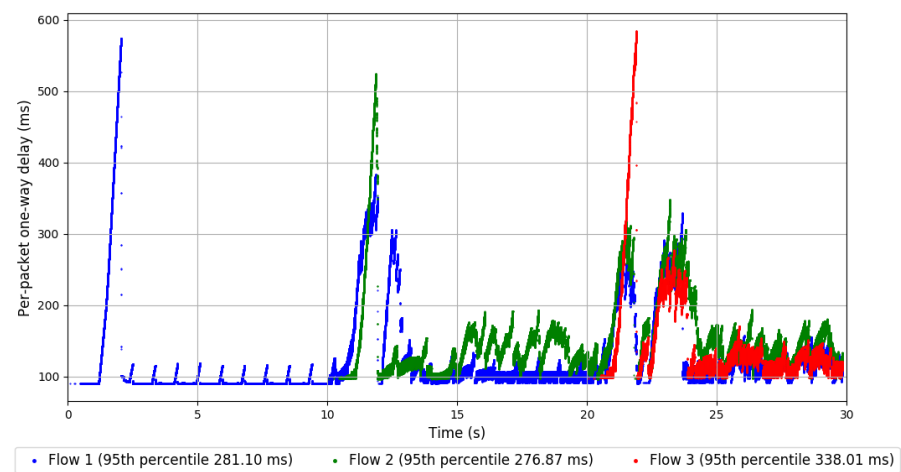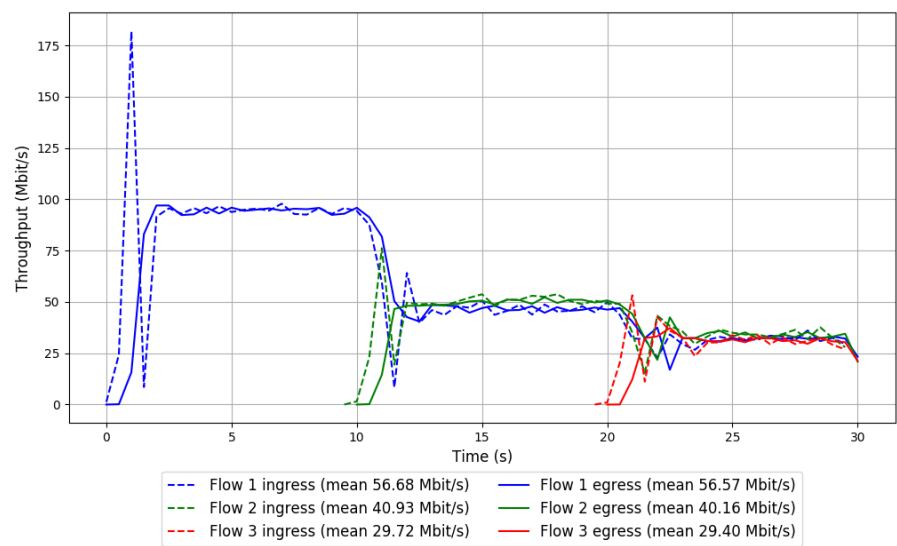
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 57.25 Mbit/s) --- Flow 1 egress (mean 57.03 Mbit/s)
Flow 2 ingress (mean 41.05 Mbit/s) --- Flow 2 egress (mean 39.67 Mbit/s)
Flow 3 ingress (mean 30.33 Mbit/s) --- Flow 3 egress (mean 29.71 Mbit/s)

Flow 1 (95th percentile 274.18 ms)   Flow 2 (95th percentile 272.32 ms)   Flow 3 (95th percentile 260.05 ms)

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```
Run 1: Statistics of FillP-Sheep

Start at: 2019-01-19 11:36:02
End at: 2019-01-19 11:36:32
Local clock offset: -9.734 ms
Remote clock offset: 3.248 ms


# Below is generated by plot.py at 2019-01-19 13:55:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.91 Mbit/s
95th percentile per-packet one-way delay: 267.762 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 56.92 Mbit/s
95th percentile per-packet one-way delay: 273.675 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 243.257 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 30.96 Mbit/s
95th percentile per-packet one-way delay: 381.568 ms
Loss rate: 4.47%
```
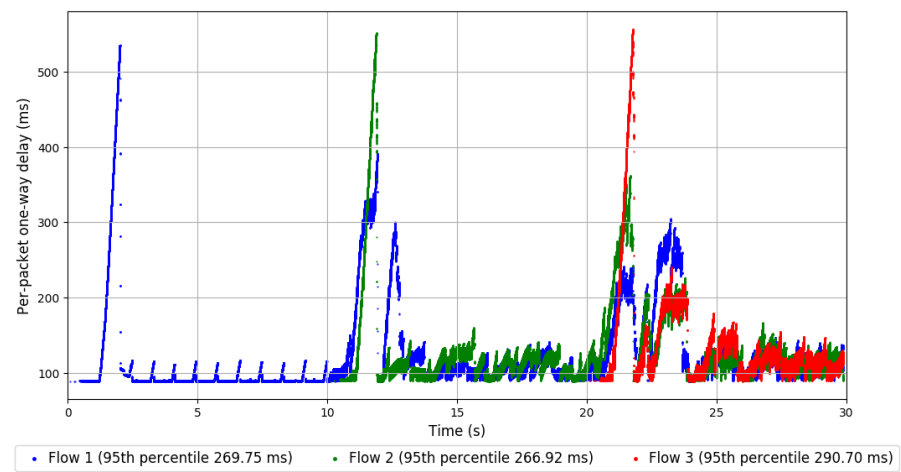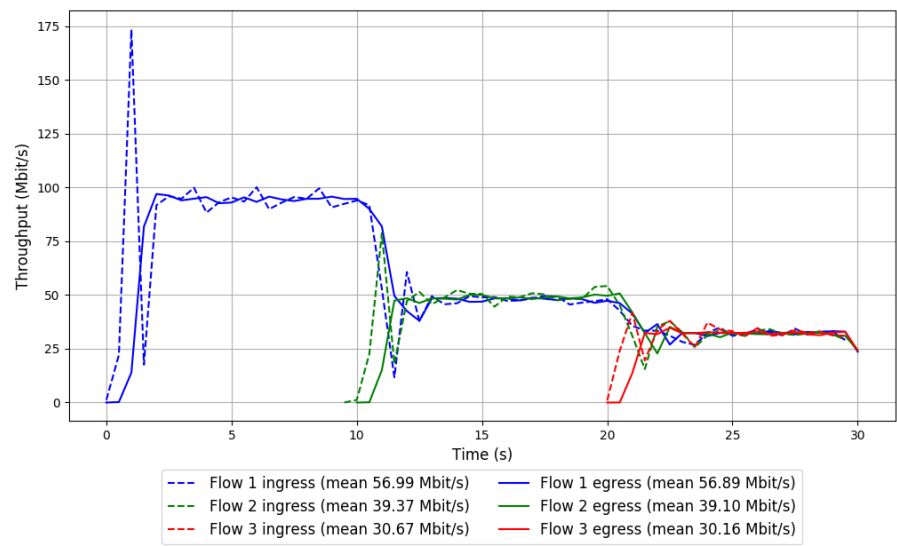
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-01-19 12:02:57
End at: 2019-01-19 12:03:27
Local clock offset: -7.908 ms
Remote clock offset: 3.099 ms


# Below is generated by plot.py at 2019-01-19 13:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 280.459 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 56.57 Mbit/s
95th percentile per-packet one-way delay: 281.096 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 276.871 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 29.40 Mbit/s
95th percentile per-packet one-way delay: 338.009 ms
Loss rate: 2.82%
```
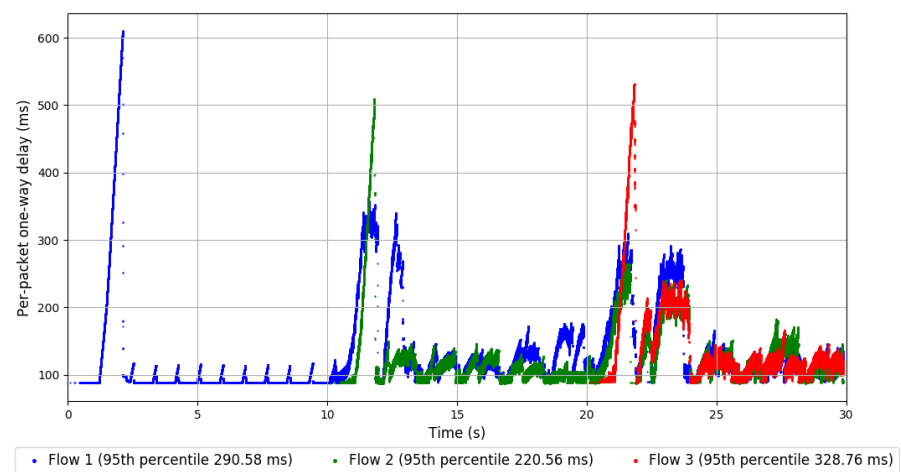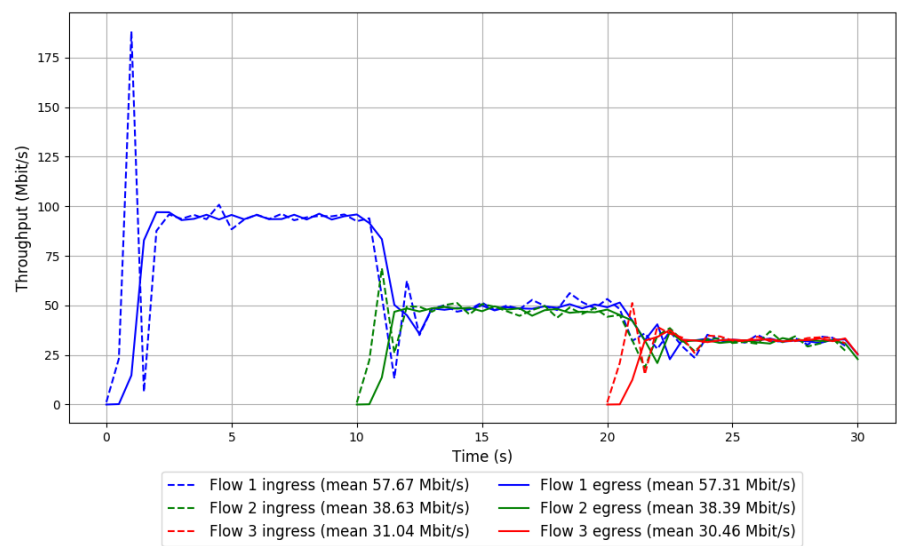
Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-01-19 12:29:53
End at: 2019-01-19 12:30:23
Local clock offset: -5.535 ms
Remote clock offset: 5.969 ms


# Below is generated by plot.py at 2019-01-19 13:56:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.77 Mbit/s
95th percentile per-packet one-way delay: 269.723 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 269.754 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 266.917 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 30.16 Mbit/s
95th percentile per-packet one-way delay: 290.700 ms
Loss rate: 3.31%
```
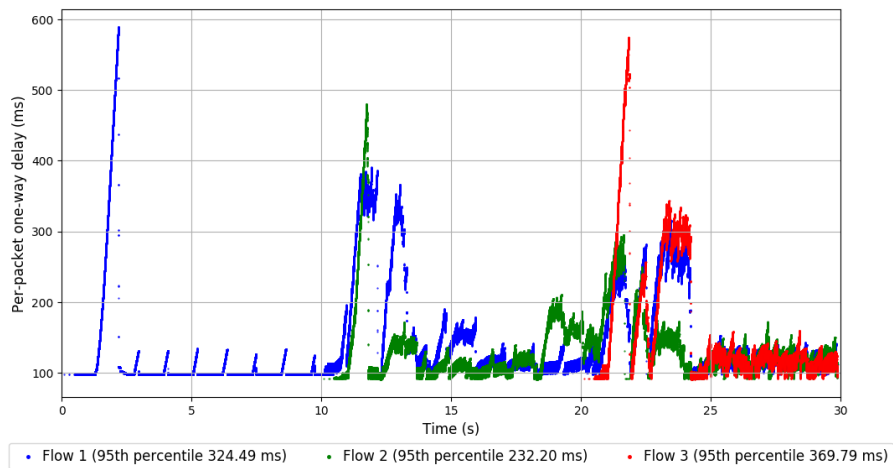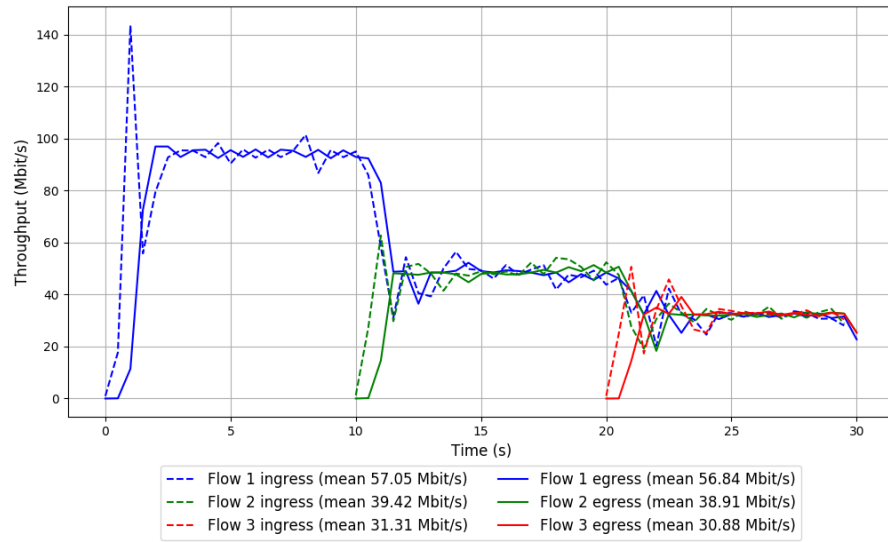
Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-01-19 12:56:47
End at: 2019-01-19 12:57:17
Local clock offset: -6.267 ms
Remote clock offset: 6.226 ms


# Below is generated by plot.py at 2019-01-19 13:56:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.82 Mbit/s
95th percentile per-packet one-way delay: 272.970 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 57.31 Mbit/s
95th percentile per-packet one-way delay: 290.577 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: 220.560 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 30.46 Mbit/s
95th percentile per-packet one-way delay: 328.764 ms
Loss rate: 3.58%
```

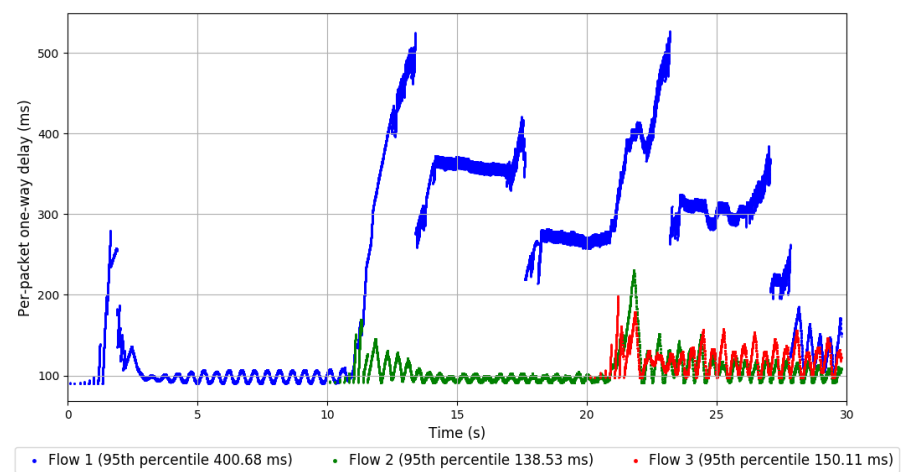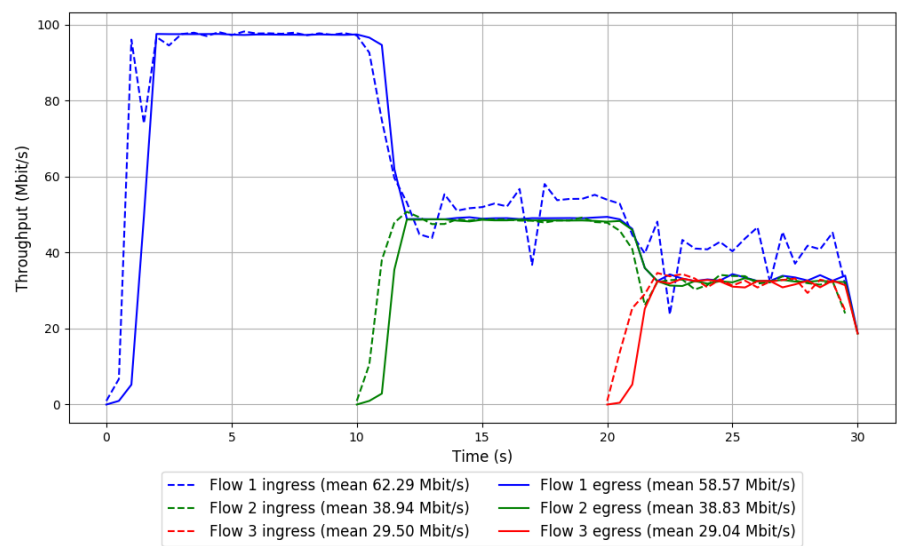Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-01-19 13:23:44
End at: 2019-01-19 13:24:14
Local clock offset: -6.689 ms
Remote clock offset: 4.623 ms


# Below is generated by plot.py at 2019-01-19 13:56:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.81 Mbit/s
95th percentile per-packet one-way delay: 308.342 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 56.84 Mbit/s
95th percentile per-packet one-way delay: 324.493 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 232.202 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 30.88 Mbit/s
95th percentile per-packet one-way delay: 369.788 ms
Loss rate: 3.00%
```
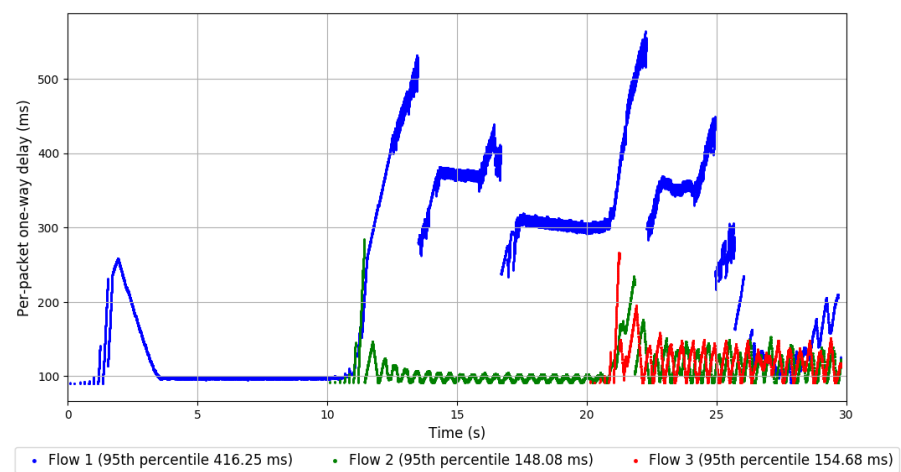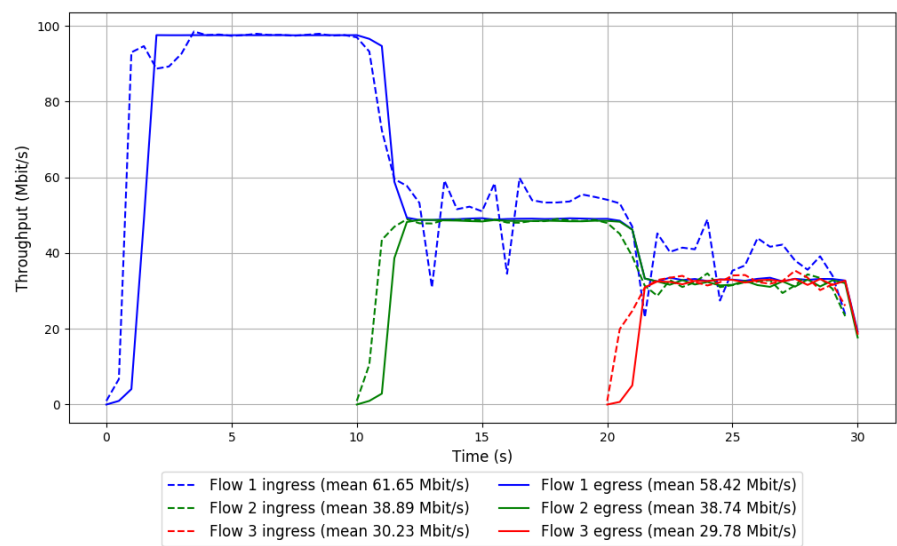
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.05 Mbit/s) --- Flow 1 egress (mean 56.84 Mbit/s)
Flow 2 ingress (mean 39.42 Mbit/s) --- Flow 2 egress (mean 38.91 Mbit/s)
Flow 3 ingress (mean 31.31 Mbit/s) --- Flow 3 egress (mean 30.88 Mbit/s)

Flow 1 (95th percentile 324.49 ms)   Flow 2 (95th percentile 232.20 ms)   Flow 3 (95th percentile 369.79 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-01-19 11:48:52
End at: 2019-01-19 11:49:22
Local clock offset: -10.385 ms
Remote clock offset: 2.746 ms


# Below is generated by plot.py at 2019-01-19 13:56:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.78 Mbit/s
95th percentile per-packet one-way delay: 370.184 ms
Loss rate: 4.77%
-- Flow 1:
Average throughput: 58.57 Mbit/s
95th percentile per-packet one-way delay: 400.680 ms
Loss rate: 6.51%
-- Flow 2:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 138.528 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 29.04 Mbit/s
95th percentile per-packet one-way delay: 150.110 ms
Loss rate: 3.32%
```
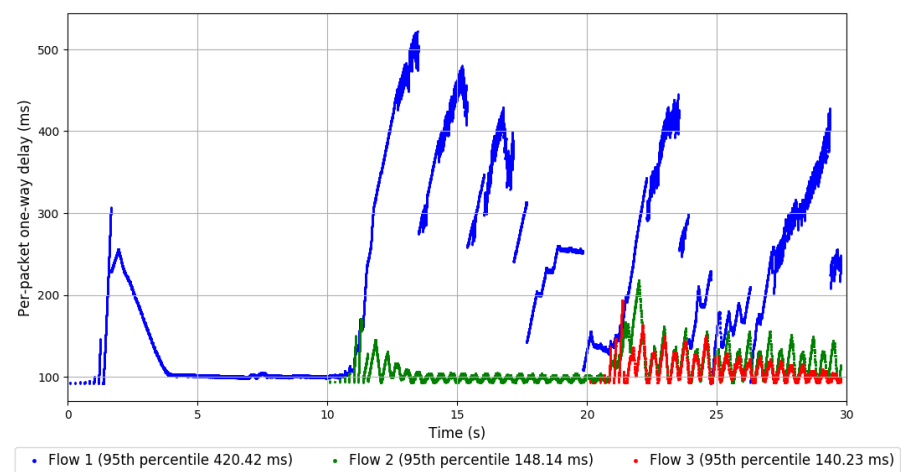
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-01-19 12:15:48
End at: 2019-01-19 12:16:18
Local clock offset: -7.272 ms
Remote clock offset: 3.25 ms


# Below is generated by plot.py at 2019-01-19 13:56:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 380.810 ms
Loss rate: 4.31%
-- Flow 1:
Average throughput: 58.42 Mbit/s
95th percentile per-packet one-way delay: 416.253 ms
Loss rate: 5.78%
-- Flow 2:
Average throughput: 38.74 Mbit/s
95th percentile per-packet one-way delay: 148.084 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 29.78 Mbit/s
95th percentile per-packet one-way delay: 154.679 ms
Loss rate: 3.21%
```
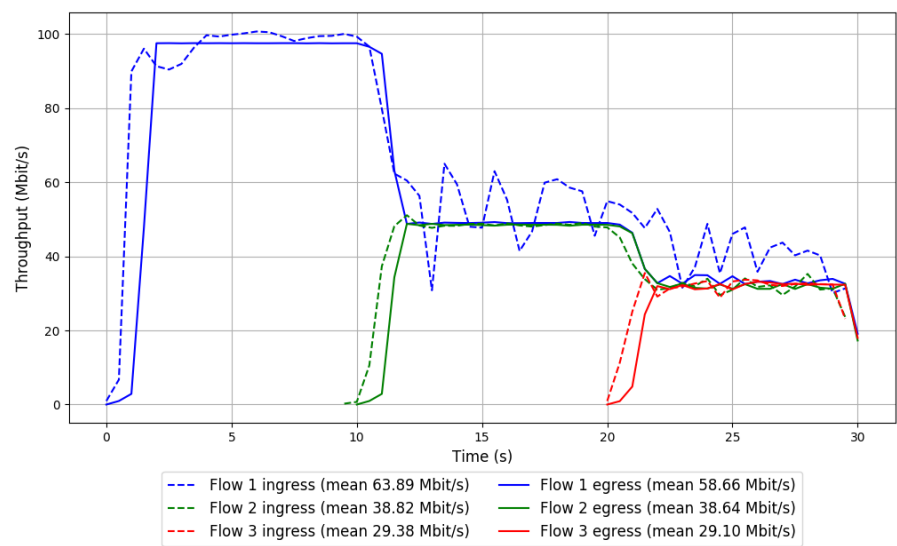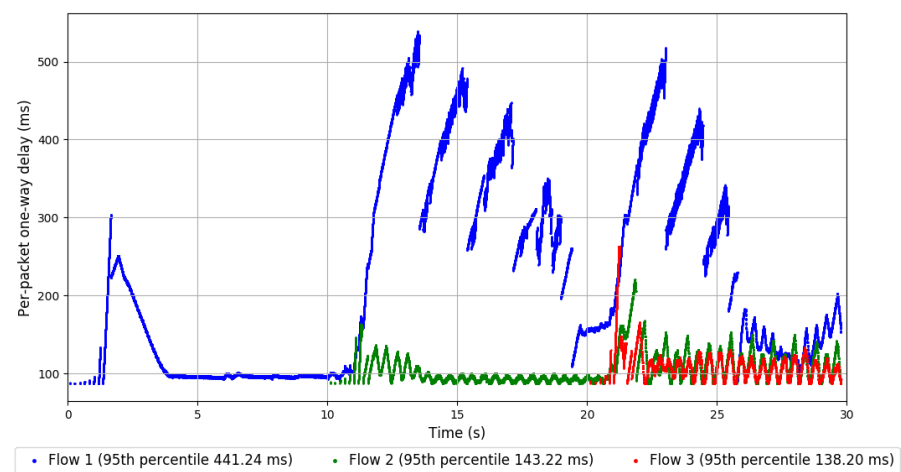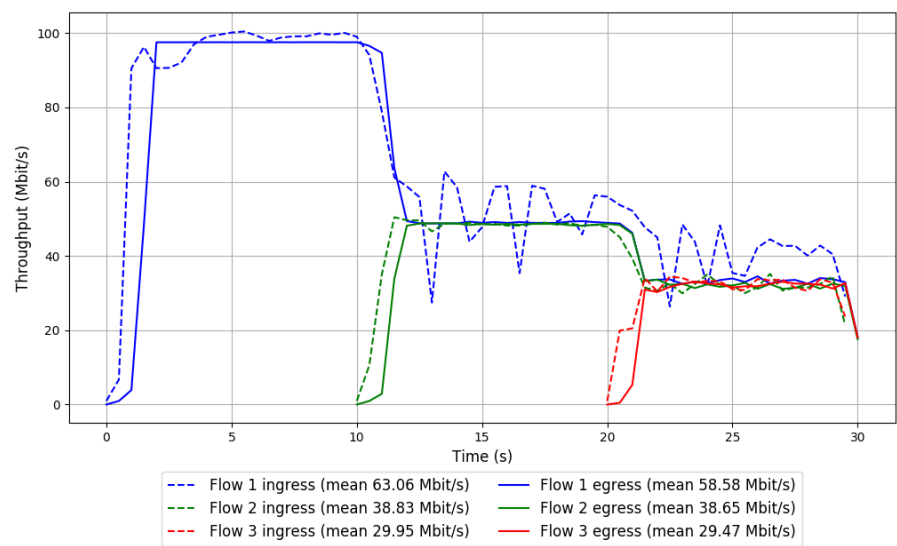
Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 61.65 Mbit/s) --- Flow 1 egress (mean 58.42 Mbit/s)
Flow 2 ingress (mean 38.89 Mbit/s) --- Flow 2 egress (mean 38.74 Mbit/s)
Flow 3 ingress (mean 30.23 Mbit/s) --- Flow 3 egress (mean 29.78 Mbit/s)

Flow 1 (95th percentile 416.25 ms)   Flow 2 (95th percentile 148.08 ms)   Flow 3 (95th percentile 154.68 ms)

```
Run 3: Statistics of Indigo

Start at: 2019-01-19 12:42:42
End at: 2019-01-19 12:43:12
Local clock offset: -5.077 ms
Remote clock offset: 1.639 ms


# Below is generated by plot.py at 2019-01-19 13:56:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.75 Mbit/s
95th percentile per-packet one-way delay: 394.051 ms
Loss rate: 6.18%
-- Flow 1:
Average throughput: 58.66 Mbit/s
95th percentile per-packet one-way delay: 420.420 ms
Loss rate: 8.67%
-- Flow 2:
Average throughput: 38.64 Mbit/s
95th percentile per-packet one-way delay: 148.137 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 29.10 Mbit/s
95th percentile per-packet one-way delay: 140.232 ms
Loss rate: 2.66%
```
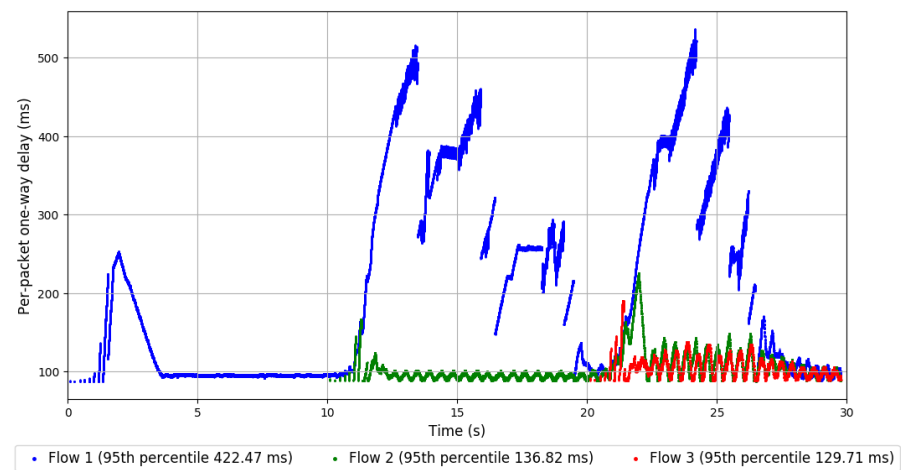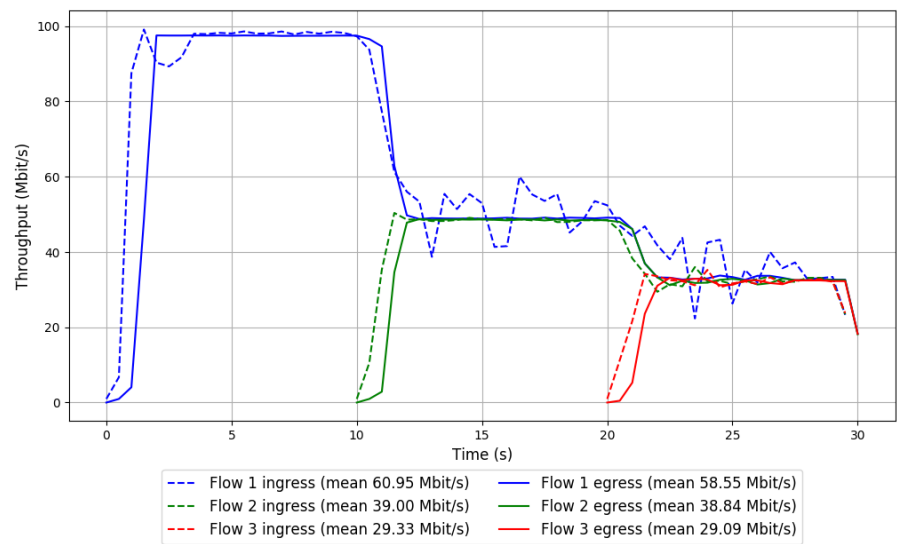
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-01-19 13:09:39
End at: 2019-01-19 13:10:09
Local clock offset: -7.544 ms
Remote clock offset: 7.286 ms


# Below is generated by plot.py at 2019-01-19 13:56:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.76 Mbit/s
95th percentile per-packet one-way delay: 409.044 ms
Loss rate: 5.55%
-- Flow 1:
Average throughput: 58.58 Mbit/s
95th percentile per-packet one-way delay: 441.236 ms
Loss rate: 7.63%
-- Flow 2:
Average throughput: 38.65 Mbit/s
95th percentile per-packet one-way delay: 143.215 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 29.47 Mbit/s
95th percentile per-packet one-way delay: 138.200 ms
Loss rate: 3.27%
```
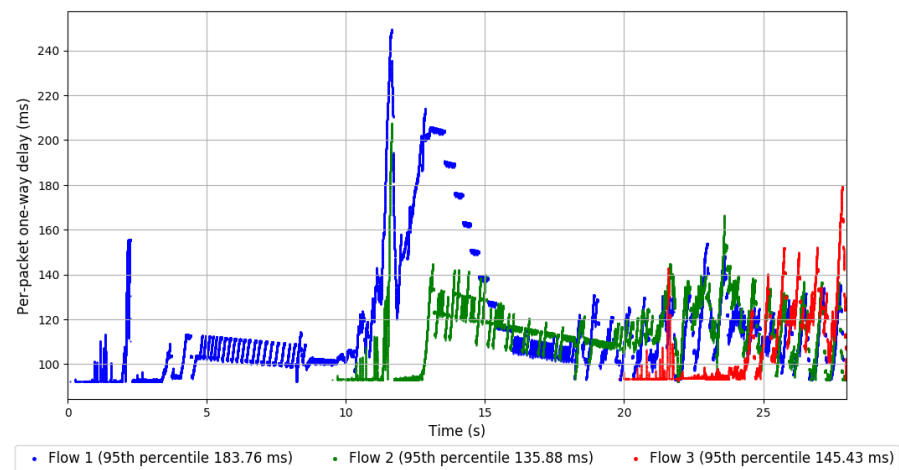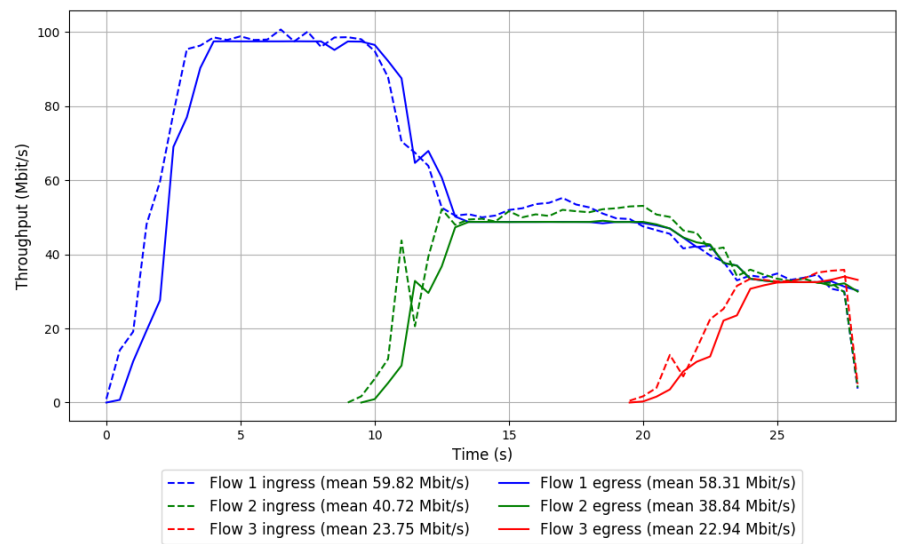
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-01-19 13:36:37
End at: 2019-01-19 13:37:07
Local clock offset: -5.193 ms
Remote clock offset: 8.725 ms


# Below is generated by plot.py at 2019-01-19 13:56:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.77 Mbit/s
95th percentile per-packet one-way delay: 392.471 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 58.55 Mbit/s
95th percentile per-packet one-way delay: 422.474 ms
Loss rate: 4.49%
-- Flow 2:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 136.818 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 129.709 ms
Loss rate: 2.56%
```

Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-19 11:43:42
End at: 2019-01-19 11:44:12
Local clock offset: -10.097 ms
Remote clock offset: 1.687 ms


# Below is generated by plot.py at 2019-01-19 13:56:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.77 Mbit/s
95th percentile per-packet one-way delay: 163.048 ms
Loss rate: 3.97%
-- Flow 1:
Average throughput: 58.31 Mbit/s
95th percentile per-packet one-way delay: 183.765 ms
Loss rate: 3.11%
-- Flow 2:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 135.884 ms
Loss rate: 5.48%
-- Flow 3:
Average throughput: 22.94 Mbit/s
95th percentile per-packet one-way delay: 145.431 ms
Loss rate: 5.41%
```
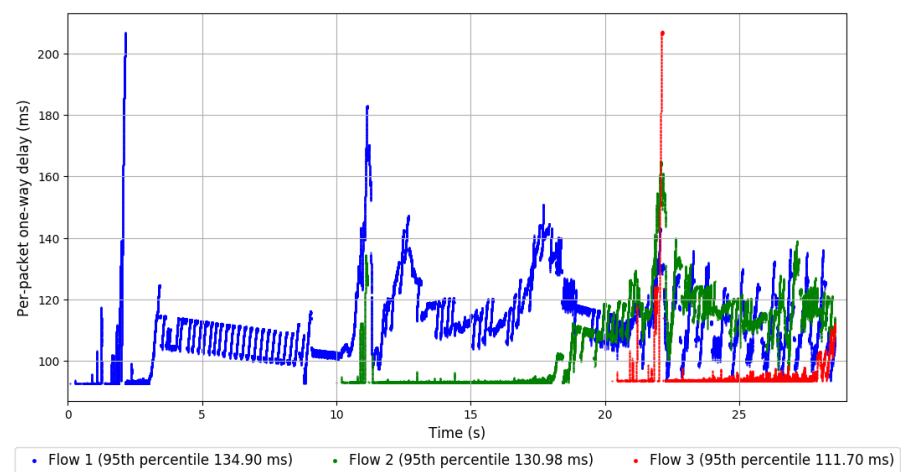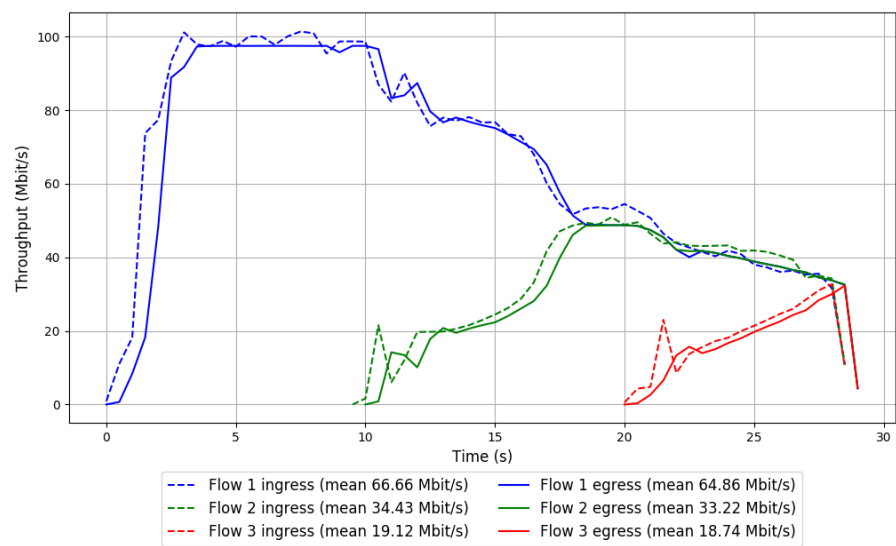
Run 1: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 59.82 Mbit/s)   —— Flow 1 egress (mean 58.31 Mbit/s)
- - - Flow 2 ingress (mean 40.72 Mbit/s)   —— Flow 2 egress (mean 38.84 Mbit/s)
- - - Flow 3 ingress (mean 23.75 Mbit/s)   —— Flow 3 egress (mean 22.94 Mbit/s)

• Flow 1 (95th percentile 183.76 ms)   • Flow 2 (95th percentile 135.88 ms)   • Flow 3 (95th percentile 145.43 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-19 12:10:38
End at: 2019-01-19 12:11:08
Local clock offset: -6.635 ms
Remote clock offset: 2.092 ms


# Below is generated by plot.py at 2019-01-19 13:57:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.97 Mbit/s
95th percentile per-packet one-way delay: 133.310 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 64.86 Mbit/s
95th percentile per-packet one-way delay: 134.904 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 33.22 Mbit/s
95th percentile per-packet one-way delay: 130.984 ms
Loss rate: 4.39%
-- Flow 3:
Average throughput: 18.74 Mbit/s
95th percentile per-packet one-way delay: 111.703 ms
Loss rate: 3.91%
```
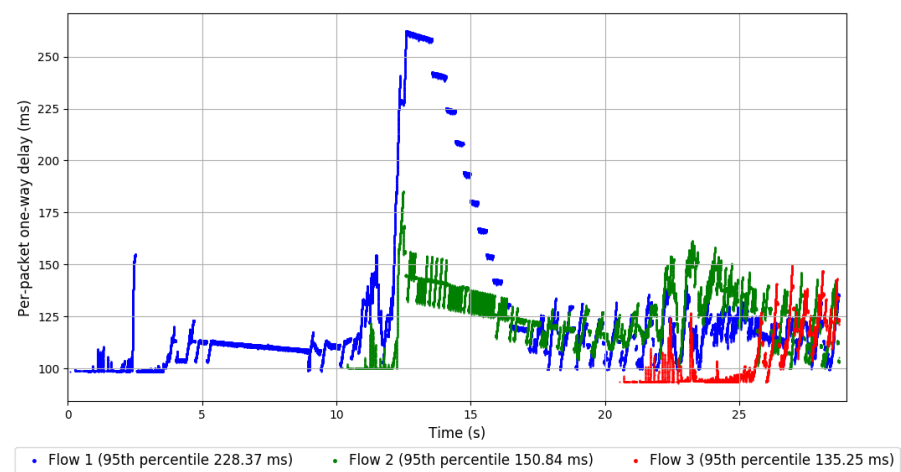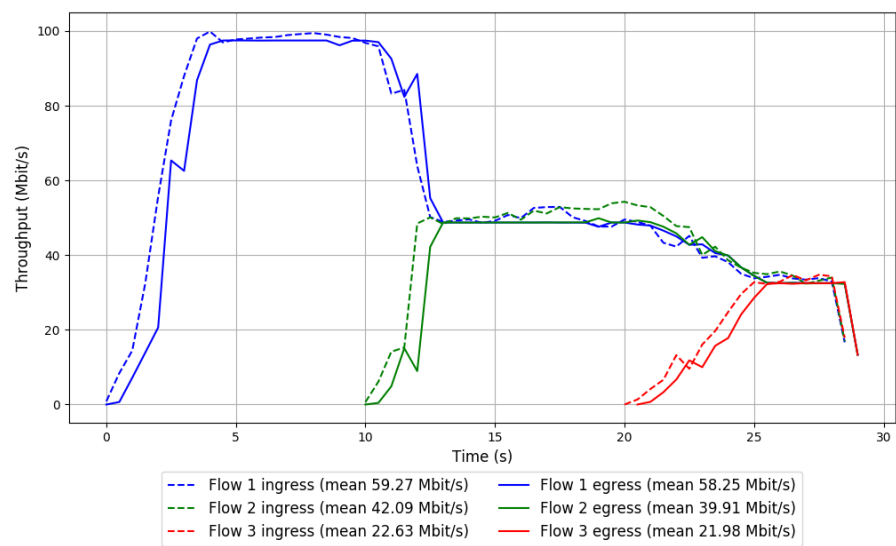
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-19 12:37:34
End at: 2019-01-19 12:38:04
Local clock offset: -5.234 ms
Remote clock offset: 1.615 ms


# Below is generated by plot.py at 2019-01-19 13:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.32 Mbit/s
95th percentile per-packet one-way delay: 193.590 ms
Loss rate: 3.60%
-- Flow 1:
Average throughput: 58.25 Mbit/s
95th percentile per-packet one-way delay: 228.368 ms
Loss rate: 2.32%
-- Flow 2:
Average throughput: 39.91 Mbit/s
95th percentile per-packet one-way delay: 150.837 ms
Loss rate: 6.09%
-- Flow 3:
Average throughput: 21.98 Mbit/s
95th percentile per-packet one-way delay: 135.247 ms
Loss rate: 4.87%
```
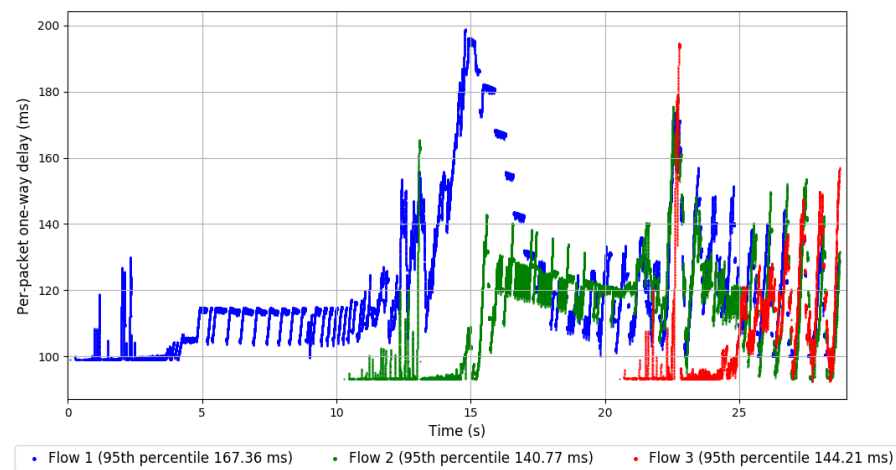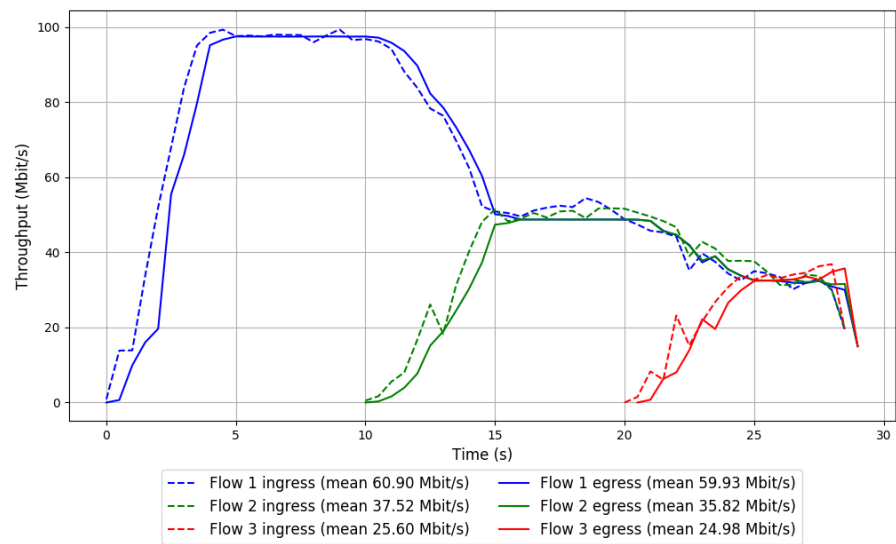
Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 59.27 Mbit/s) --- Flow 1 egress (mean 58.25 Mbit/s)
Flow 2 ingress (mean 42.09 Mbit/s) --- Flow 2 egress (mean 39.91 Mbit/s)
Flow 3 ingress (mean 22.63 Mbit/s) --- Flow 3 egress (mean 21.98 Mbit/s)

Flow 1 (95th percentile 228.37 ms)   Flow 2 (95th percentile 150.84 ms)   Flow 3 (95th percentile 135.25 ms)

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```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-19 13:04:29
End at: 2019-01-19 13:04:59
Local clock offset: -6.65 ms
Remote clock offset: 1.228 ms


# Below is generated by plot.py at 2019-01-19 13:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.15 Mbit/s
95th percentile per-packet one-way delay: 155.833 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 59.93 Mbit/s
95th percentile per-packet one-way delay: 167.358 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 35.82 Mbit/s
95th percentile per-packet one-way delay: 140.771 ms
Loss rate: 5.41%
-- Flow 3:
Average throughput: 24.98 Mbit/s
95th percentile per-packet one-way delay: 144.211 ms
Loss rate: 4.40%
```
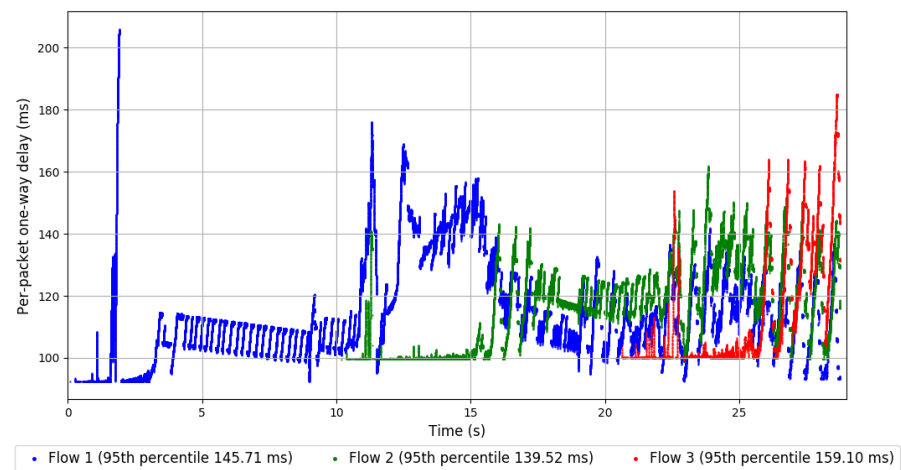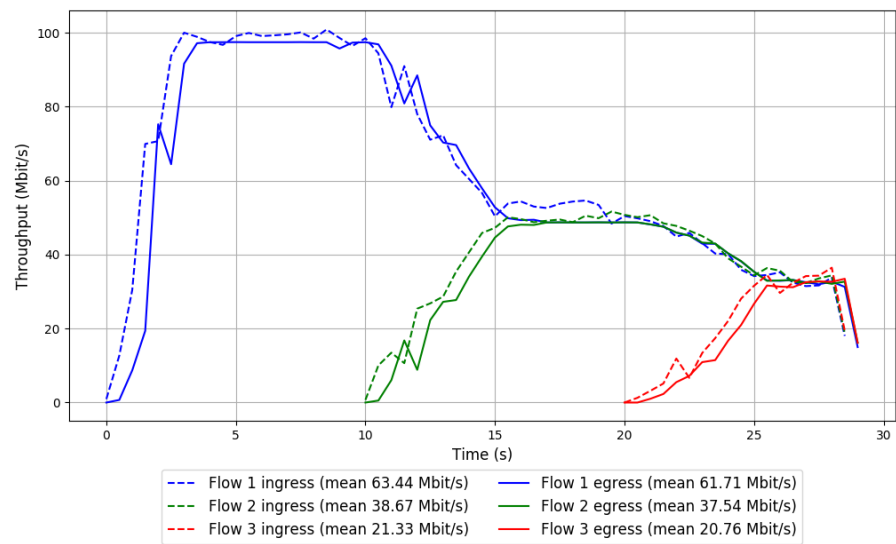
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-19 13:31:26
End at: 2019-01-19 13:31:56
Local clock offset: -5.333 ms
Remote clock offset: 3.61 ms


# Below is generated by plot.py at 2019-01-19 13:57:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.04 Mbit/s
95th percentile per-packet one-way delay: 145.248 ms
Loss rate: 3.54%
-- Flow 1:
Average throughput: 61.71 Mbit/s
95th percentile per-packet one-way delay: 145.710 ms
Loss rate: 3.30%
-- Flow 2:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 139.522 ms
Loss rate: 3.84%
-- Flow 3:
Average throughput: 20.76 Mbit/s
95th percentile per-packet one-way delay: 159.097 ms
Loss rate: 4.71%
```
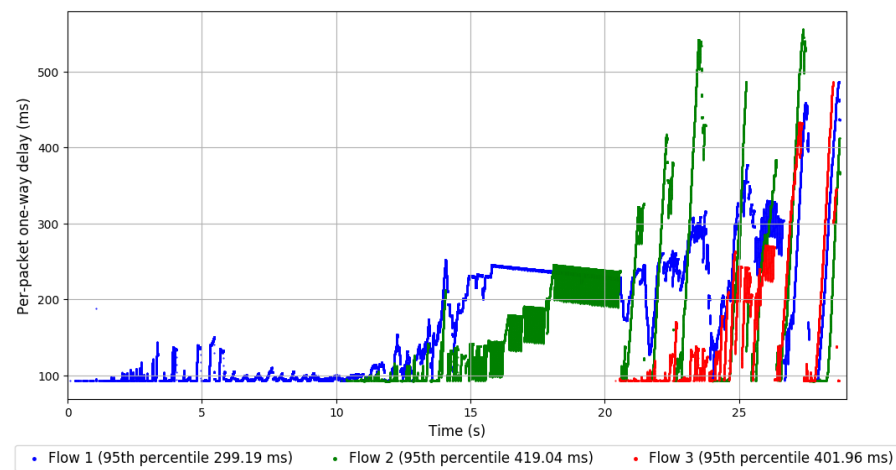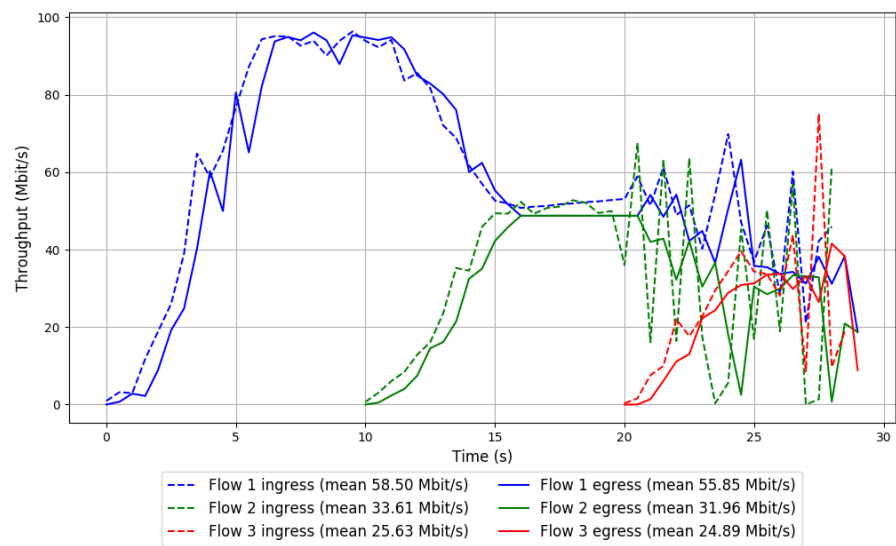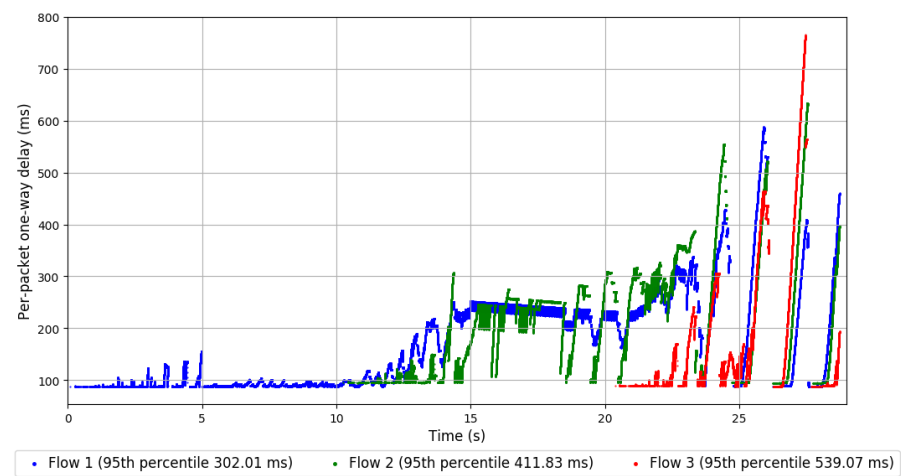
Run 5: Report of Indigo-MusesC3 — Data Link

- - - Flow 1 ingress (mean 63.44 Mbit/s)   —— Flow 1 egress (mean 61.71 Mbit/s)
- - - Flow 2 ingress (mean 38.67 Mbit/s)   —— Flow 2 egress (mean 37.54 Mbit/s)
- - - Flow 3 ingress (mean 21.33 Mbit/s)   —— Flow 3 egress (mean 20.76 Mbit/s)

• Flow 1 (95th percentile 145.71 ms)   • Flow 2 (95th percentile 139.52 ms)   • Flow 3 (95th percentile 159.10 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-19 11:57:45
End at: 2019-01-19 11:58:15
Local clock offset: -7.609 ms
Remote clock offset: 1.575 ms


# Below is generated by plot.py at 2019-01-19 13:57:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.76 Mbit/s
95th percentile per-packet one-way delay: 342.150 ms
Loss rate: 4.04%
-- Flow 1:
Average throughput: 55.85 Mbit/s
95th percentile per-packet one-way delay: 299.194 ms
Loss rate: 4.01%
-- Flow 2:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 419.042 ms
Loss rate: 3.69%
-- Flow 3:
Average throughput: 24.89 Mbit/s
95th percentile per-packet one-way delay: 401.956 ms
Loss rate: 5.19%
```
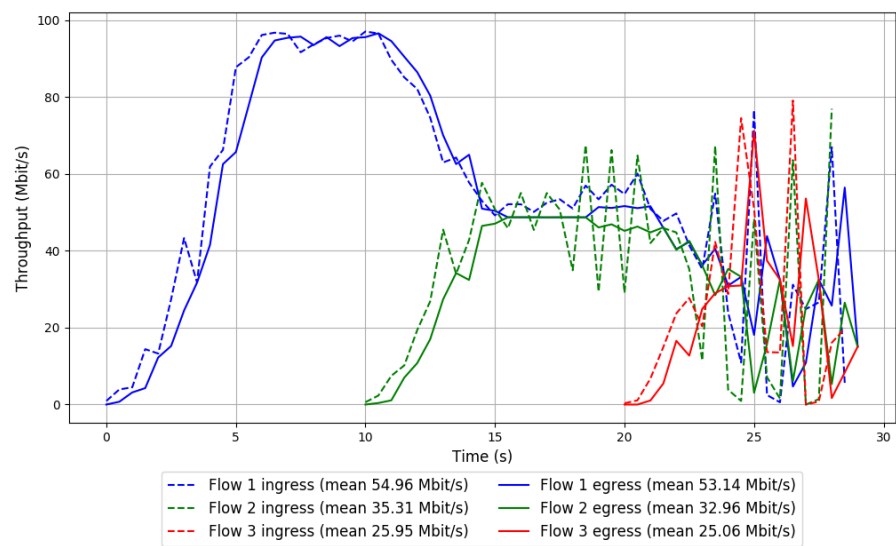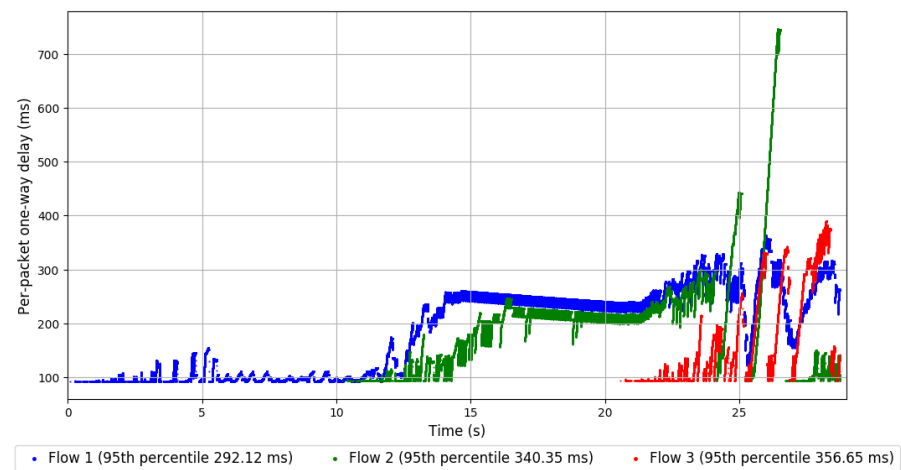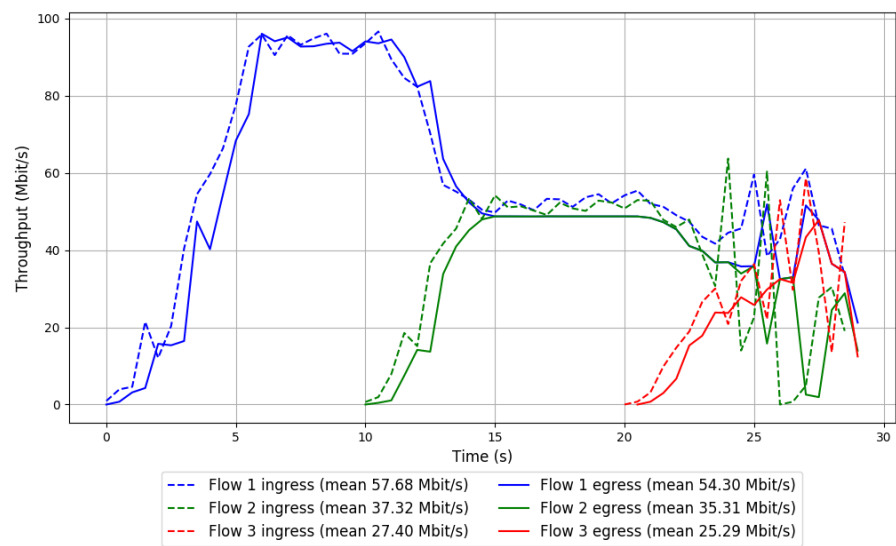
Run 1: Report of Indigo-MusesC5 — Data Link

- Flow 1 ingress (mean 58.50 Mbit/s)   Flow 1 egress (mean 55.85 Mbit/s)
- Flow 2 ingress (mean 33.61 Mbit/s)   Flow 2 egress (mean 31.96 Mbit/s)
- Flow 3 ingress (mean 25.63 Mbit/s)   Flow 3 egress (mean 24.89 Mbit/s)

- Flow 1 (95th percentile 299.19 ms)   • Flow 2 (95th percentile 419.04 ms)   • Flow 3 (95th percentile 401.96 ms)

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-19 12:24:41
End at: 2019-01-19 12:25:11
Local clock offset: -5.878 ms
Remote clock offset: 7.112 ms


# Below is generated by plot.py at 2019-01-19 13:57:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.72 Mbit/s
95th percentile per-packet one-way delay: 359.341 ms
Loss rate: 4.24%
-- Flow 1:
Average throughput: 53.14 Mbit/s
95th percentile per-packet one-way delay: 302.009 ms
Loss rate: 3.74%
-- Flow 2:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 411.832 ms
Loss rate: 5.71%
-- Flow 3:
Average throughput: 25.06 Mbit/s
95th percentile per-packet one-way delay: 539.066 ms
Loss rate: 3.55%
```
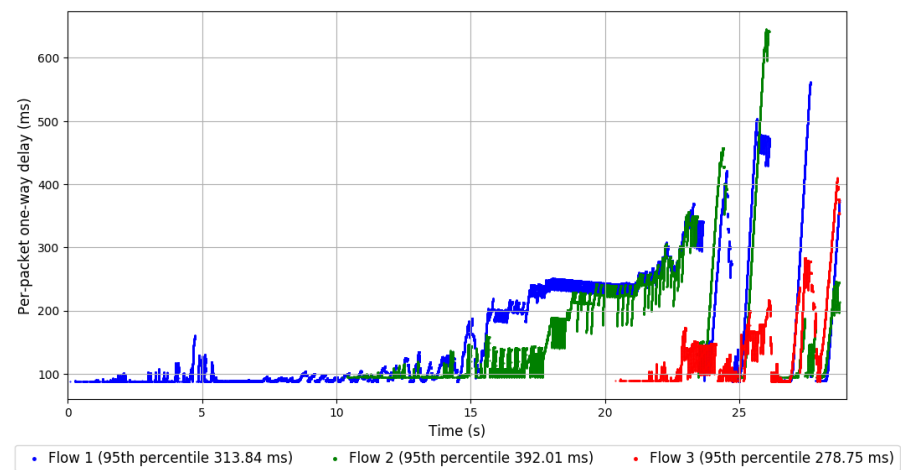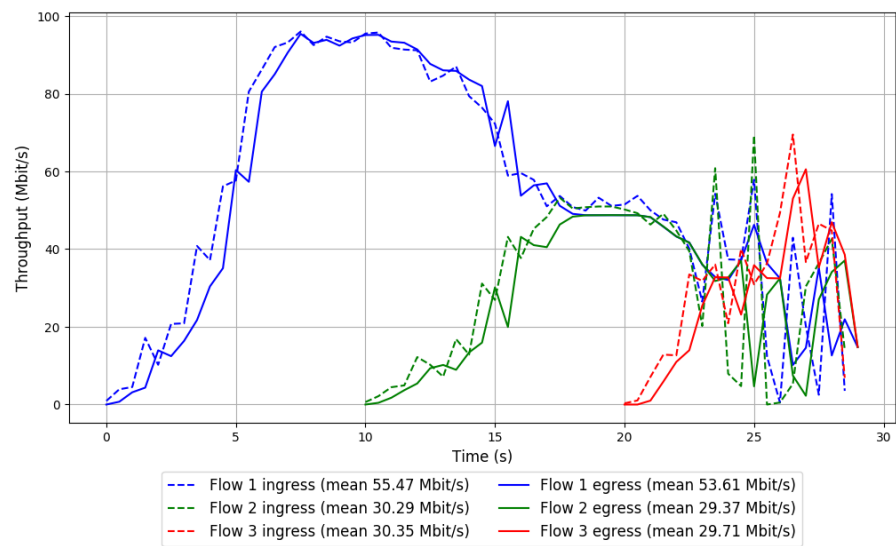
Run 2: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 54.96 Mbit/s)   —— Flow 1 egress (mean 53.14 Mbit/s)
- - - Flow 2 ingress (mean 35.31 Mbit/s)   —— Flow 2 egress (mean 32.96 Mbit/s)
- - - Flow 3 ingress (mean 25.95 Mbit/s)   —— Flow 3 egress (mean 25.06 Mbit/s)

• Flow 1 (95th percentile 302.01 ms)   • Flow 2 (95th percentile 411.83 ms)   • Flow 3 (95th percentile 539.07 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-19 12:51:35
End at: 2019-01-19 12:52:05
Local clock offset: -5.802 ms
Remote clock offset: 1.39 ms


# Below is generated by plot.py at 2019-01-19 13:58:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.32 Mbit/s
95th percentile per-packet one-way delay: 306.157 ms
Loss rate: 6.66%
-- Flow 1:
Average throughput: 54.30 Mbit/s
95th percentile per-packet one-way delay: 292.116 ms
Loss rate: 6.42%
-- Flow 2:
Average throughput: 35.31 Mbit/s
95th percentile per-packet one-way delay: 340.352 ms
Loss rate: 6.26%
-- Flow 3:
Average throughput: 25.29 Mbit/s
95th percentile per-packet one-way delay: 356.653 ms
Loss rate: 9.61%
```
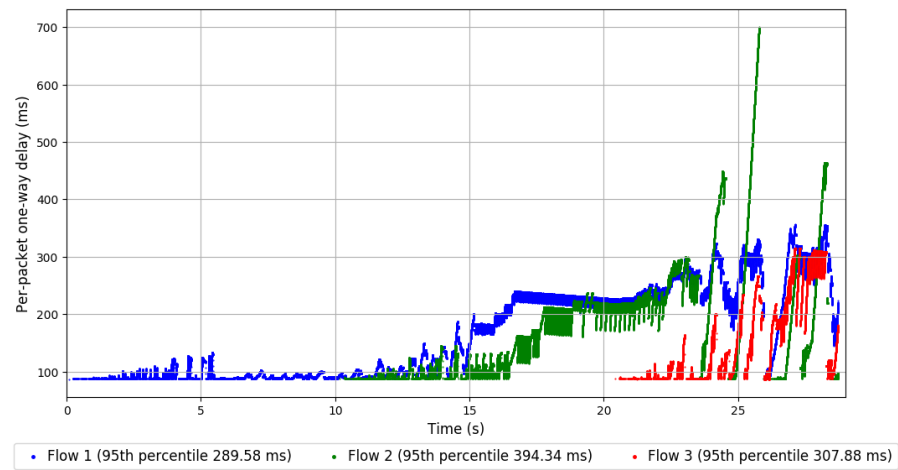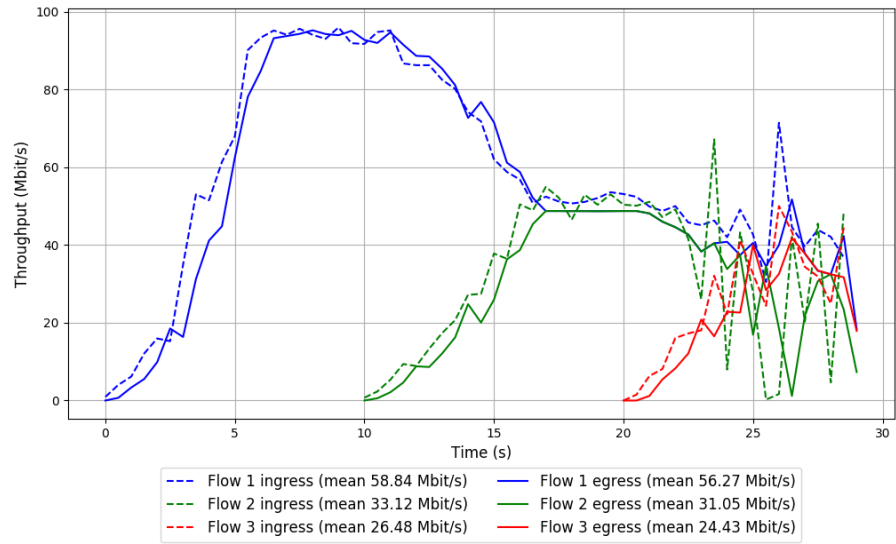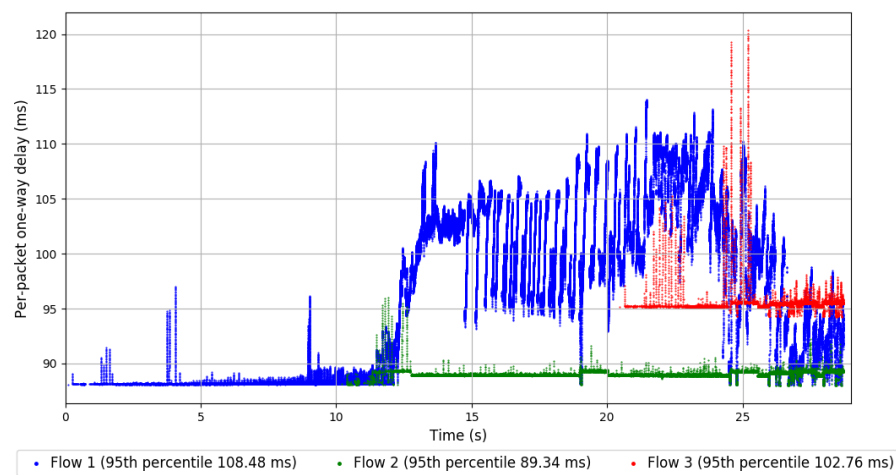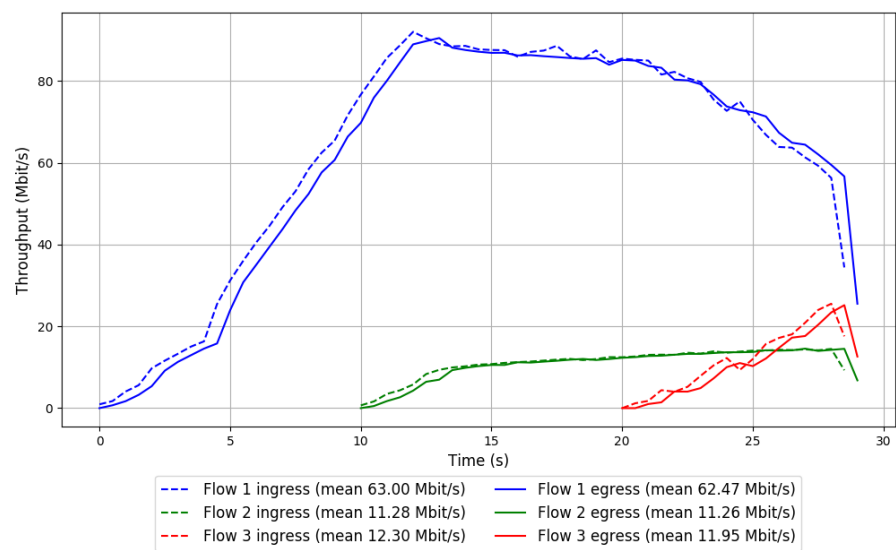
Run 3: Report of Indigo-MusesC5 — Data Link

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```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-19 13:18:32
End at: 2019-01-19 13:19:02
Local clock offset: -6.607 ms
Remote clock offset: 7.845 ms


# Below is generated by plot.py at 2019-01-19 13:58:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.25 Mbit/s
95th percentile per-packet one-way delay: 335.697 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 53.61 Mbit/s
95th percentile per-packet one-way delay: 313.842 ms
Loss rate: 2.98%
-- Flow 2:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 392.014 ms
Loss rate: 3.96%
-- Flow 3:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 278.746 ms
Loss rate: 4.09%
```

Run 4: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 55.47 Mbit/s)   Flow 1 egress (mean 53.61 Mbit/s)
Flow 2 ingress (mean 30.29 Mbit/s)   Flow 2 egress (mean 29.37 Mbit/s)
Flow 3 ingress (mean 30.35 Mbit/s)   Flow 3 egress (mean 29.71 Mbit/s)

Flow 1 (95th percentile 313.84 ms)   Flow 2 (95th percentile 392.01 ms)   Flow 3 (95th percentile 278.75 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-19 13:45:30
End at: 2019-01-19 13:46:00
Local clock offset: -5.601 ms
Remote clock offset: 8.325 ms


# Below is generated by plot.py at 2019-01-19 13:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.47 Mbit/s
95th percentile per-packet one-way delay: 300.683 ms
Loss rate: 5.86%
-- Flow 1:
Average throughput: 56.27 Mbit/s
95th percentile per-packet one-way delay: 289.581 ms
Loss rate: 4.89%
-- Flow 2:
Average throughput: 31.05 Mbit/s
95th percentile per-packet one-way delay: 394.342 ms
Loss rate: 7.14%
-- Flow 3:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 307.882 ms
Loss rate: 9.60%
```
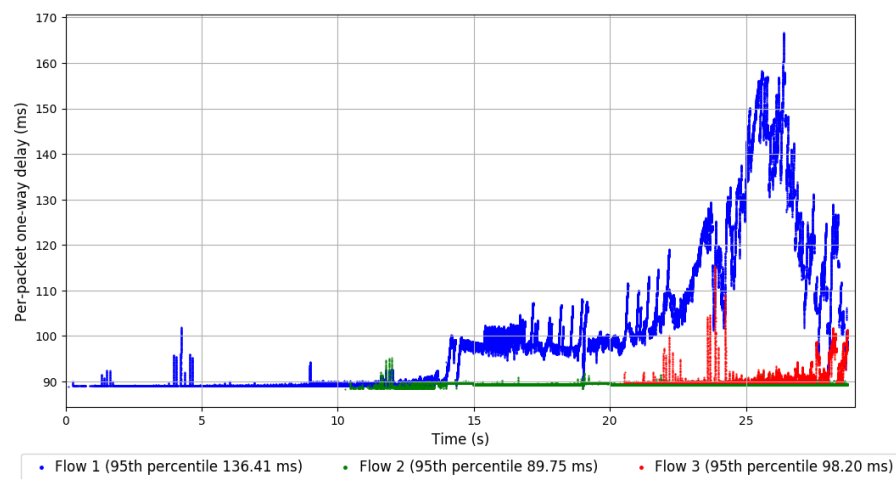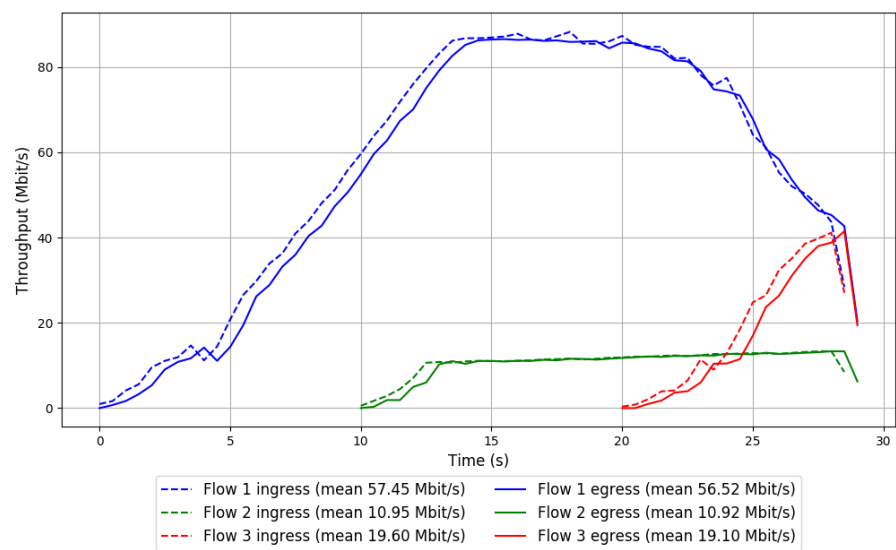
Run 5: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 58.84 Mbit/s)   —— Flow 1 egress (mean 56.27 Mbit/s)
- - - - Flow 2 ingress (mean 33.12 Mbit/s)   —— Flow 2 egress (mean 31.05 Mbit/s)
- - - - Flow 3 ingress (mean 26.48 Mbit/s)   —— Flow 3 egress (mean 24.43 Mbit/s)

• Flow 1 (95th percentile 289.58 ms)   • Flow 2 (95th percentile 394.34 ms)   • Flow 3 (95th percentile 307.88 ms)

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```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-19 11:46:18
End at: 2019-01-19 11:46:48
Local clock offset: -11.035 ms
Remote clock offset: 5.646 ms


# Below is generated by plot.py at 2019-01-19 13:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.19 Mbit/s
95th percentile per-packet one-way delay: 108.223 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 62.47 Mbit/s
95th percentile per-packet one-way delay: 108.479 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 89.345 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 11.95 Mbit/s
95th percentile per-packet one-way delay: 102.764 ms
Loss rate: 4.85%
```
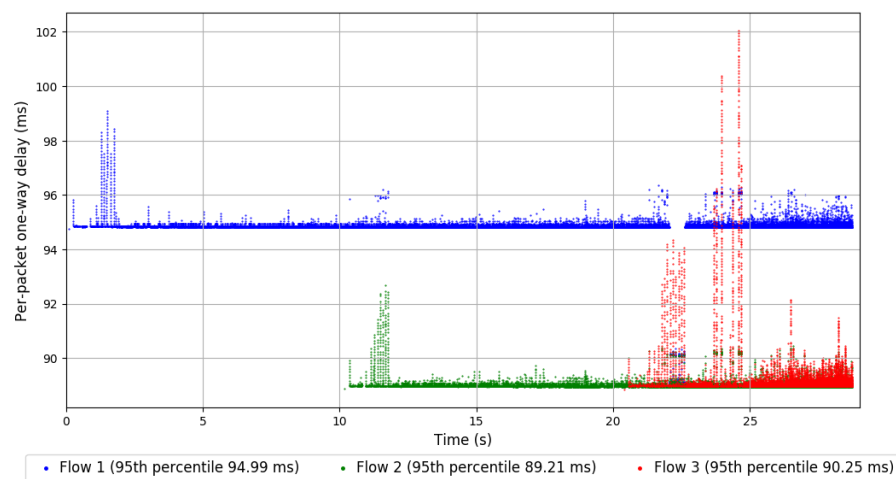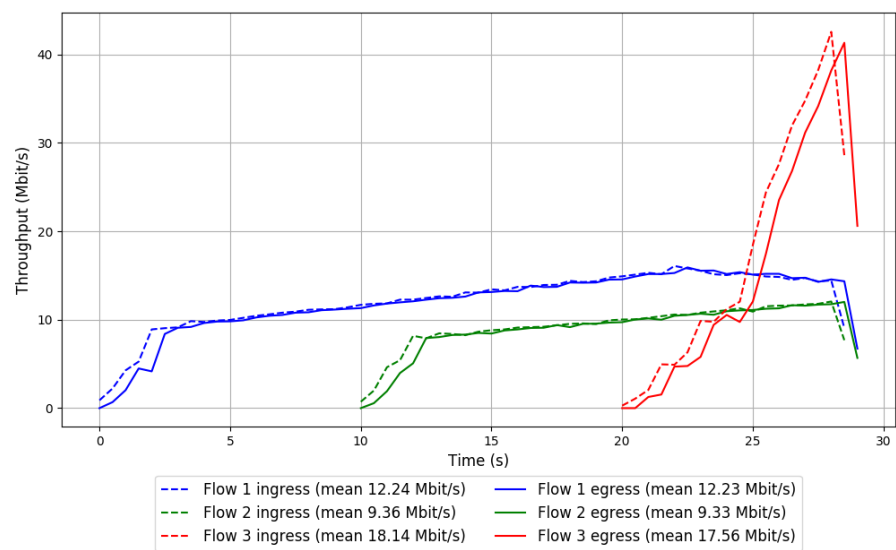
Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 63.00 Mbit/s) — Flow 1 egress (mean 62.47 Mbit/s)
Flow 2 ingress (mean 11.28 Mbit/s) — Flow 2 egress (mean 11.26 Mbit/s)
Flow 3 ingress (mean 12.30 Mbit/s) — Flow 3 egress (mean 11.95 Mbit/s)

Flow 1 (95th percentile 108.48 ms) • Flow 2 (95th percentile 89.34 ms) • Flow 3 (95th percentile 102.76 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-19 12:13:14
End at: 2019-01-19 12:13:44
Local clock offset: -6.638 ms
Remote clock offset: 5.824 ms


# Below is generated by plot.py at 2019-01-19 13:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.13 Mbit/s
95th percentile per-packet one-way delay: 132.206 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 56.52 Mbit/s
95th percentile per-packet one-way delay: 136.413 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 89.748 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 19.10 Mbit/s
95th percentile per-packet one-way delay: 98.197 ms
Loss rate: 4.53%
```
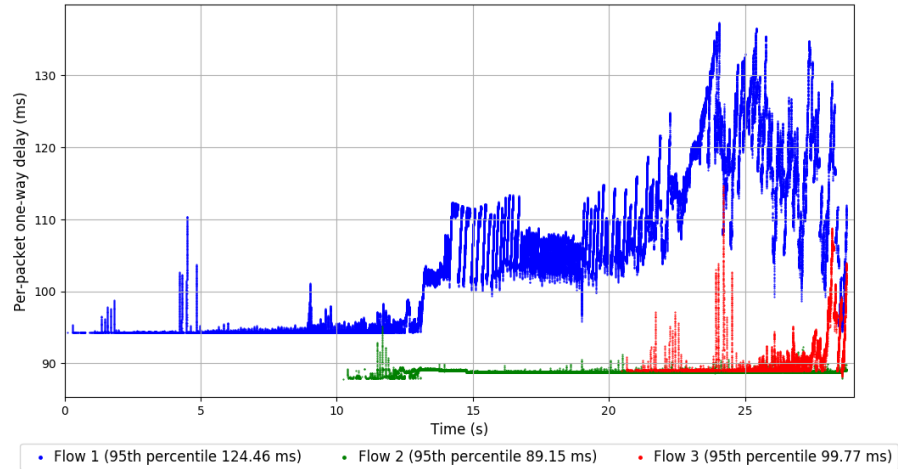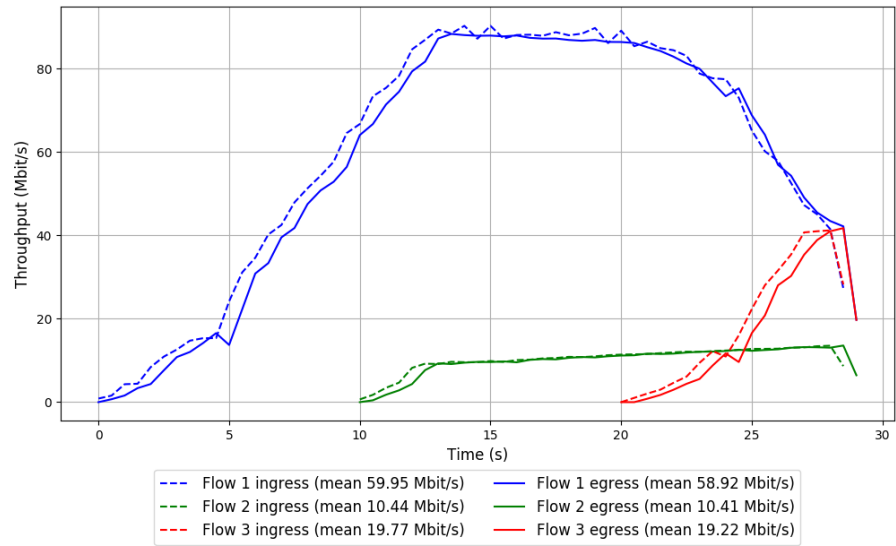
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-19 12:40:10
End at: 2019-01-19 12:40:40
Local clock offset: -5.16 ms
Remote clock offset: 5.423 ms


# Below is generated by plot.py at 2019-01-19 13:58:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.39 Mbit/s
95th percentile per-packet one-way delay: 94.930 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 12.23 Mbit/s
95th percentile per-packet one-way delay: 94.986 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 89.208 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 17.56 Mbit/s
95th percentile per-packet one-way delay: 90.248 ms
Loss rate: 5.16%
```
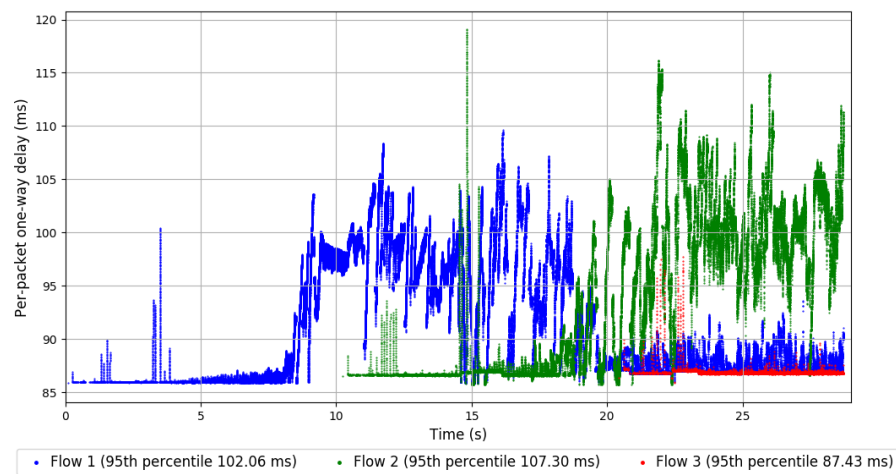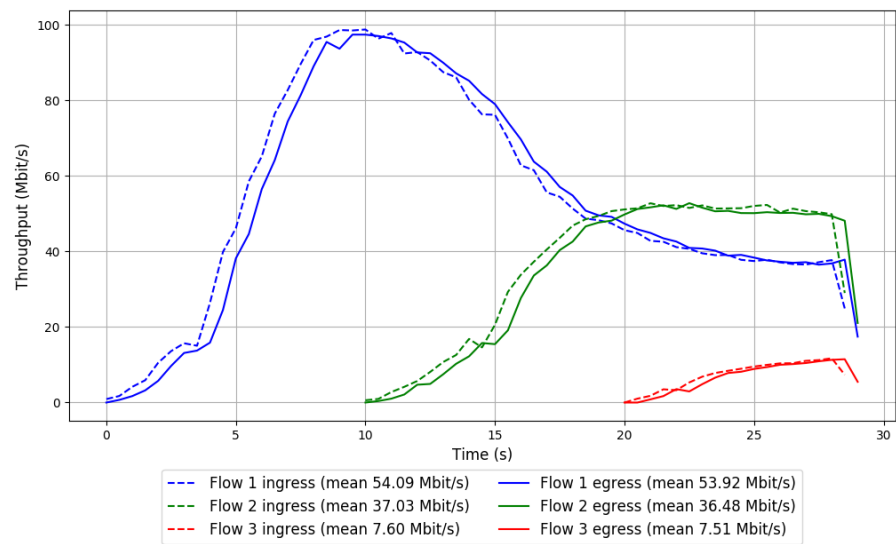
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-19 13:07:05
End at: 2019-01-19 13:07:35
Local clock offset: -6.721 ms
Remote clock offset: 6.659 ms


# Below is generated by plot.py at 2019-01-19 13:58:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.20 Mbit/s
95th percentile per-packet one-way delay: 123.439 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 124.458 ms
Loss rate: 2.31%
-- Flow 2:
Average throughput: 10.41 Mbit/s
95th percentile per-packet one-way delay: 89.154 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 19.22 Mbit/s
95th percentile per-packet one-way delay: 99.767 ms
Loss rate: 4.80%
```
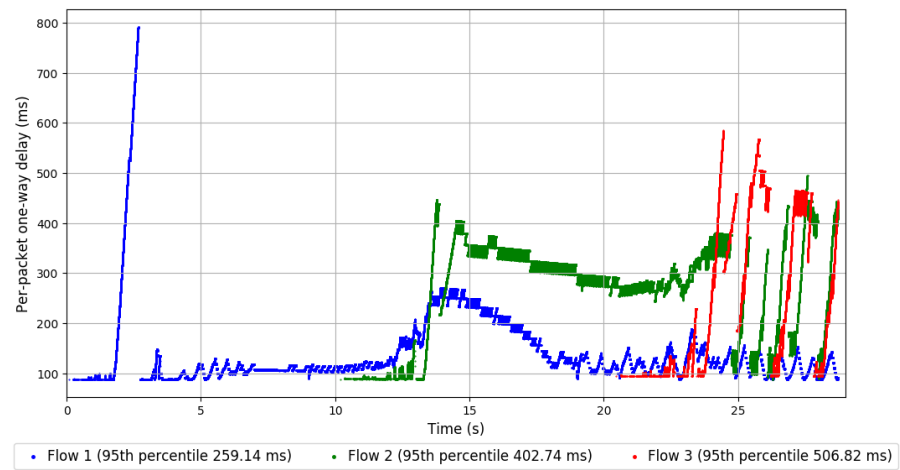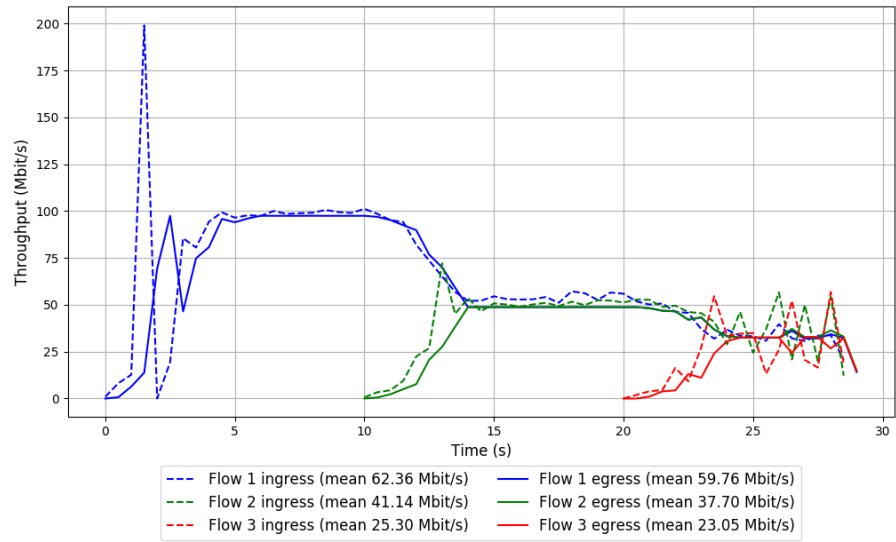
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-19 13:34:02
End at: 2019-01-19 13:34:32
Local clock offset: -5.97 ms
Remote clock offset: 9.894 ms


# Below is generated by plot.py at 2019-01-19 13:58:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.63 Mbit/s
95th percentile per-packet one-way delay: 103.821 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 53.92 Mbit/s
95th percentile per-packet one-way delay: 102.056 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 36.48 Mbit/s
95th percentile per-packet one-way delay: 107.302 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 7.51 Mbit/s
95th percentile per-packet one-way delay: 87.434 ms
Loss rate: 3.11%
```
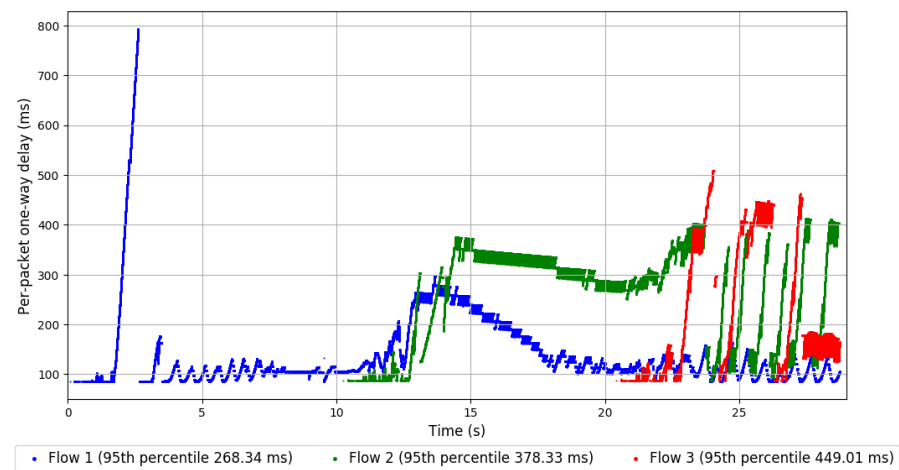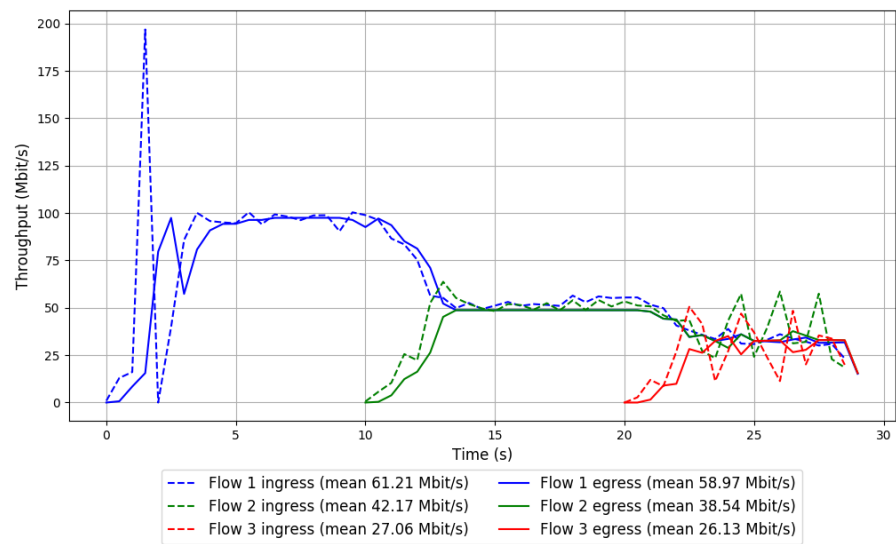
Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-19 11:59:02
End at: 2019-01-19 11:59:32
Local clock offset: -7.43 ms
Remote clock offset: 6.644 ms


# Below is generated by plot.py at 2019-01-19 13:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.82 Mbit/s
95th percentile per-packet one-way delay: 412.311 ms
Loss rate: 6.21%
-- Flow 1:
Average throughput: 59.76 Mbit/s
95th percentile per-packet one-way delay: 259.143 ms
Loss rate: 4.73%
-- Flow 2:
Average throughput: 37.70 Mbit/s
95th percentile per-packet one-way delay: 402.739 ms
Loss rate: 8.58%
-- Flow 3:
Average throughput: 23.05 Mbit/s
95th percentile per-packet one-way delay: 506.822 ms
Loss rate: 10.13%
```
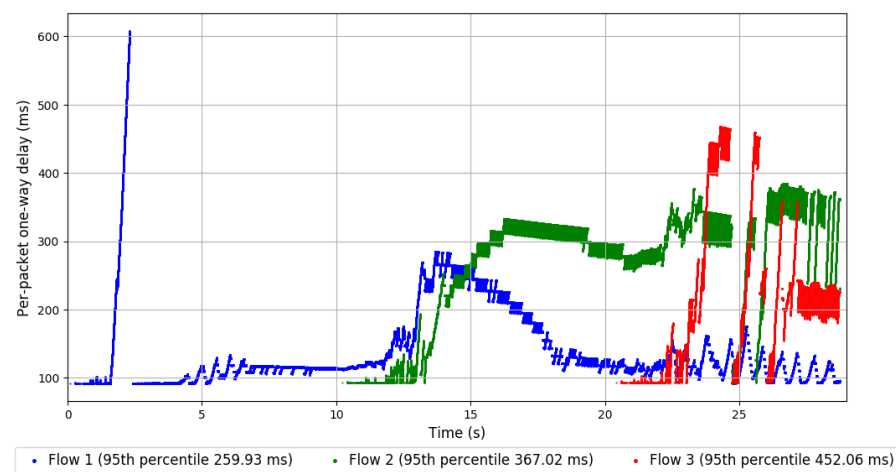
Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-19 12:25:58
End at: 2019-01-19 12:26:28
Local clock offset: -6.562 ms
Remote clock offset: 8.205 ms


# Below is generated by plot.py at 2019-01-19 13:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.39 Mbit/s
95th percentile per-packet one-way delay: 391.123 ms
Loss rate: 5.72%
-- Flow 1:
Average throughput: 58.97 Mbit/s
95th percentile per-packet one-way delay: 268.340 ms
Loss rate: 4.23%
-- Flow 2:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 378.331 ms
Loss rate: 9.28%
-- Flow 3:
Average throughput: 26.13 Mbit/s
95th percentile per-packet one-way delay: 449.015 ms
Loss rate: 5.02%
```
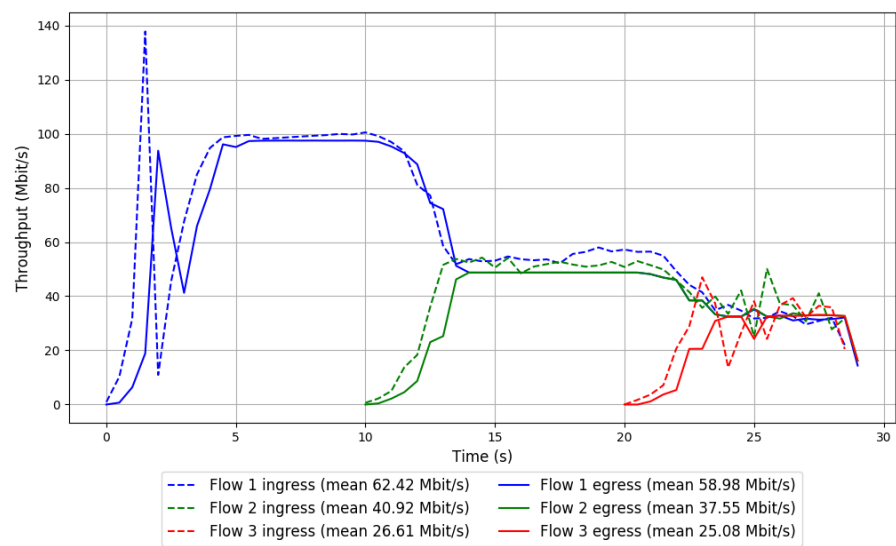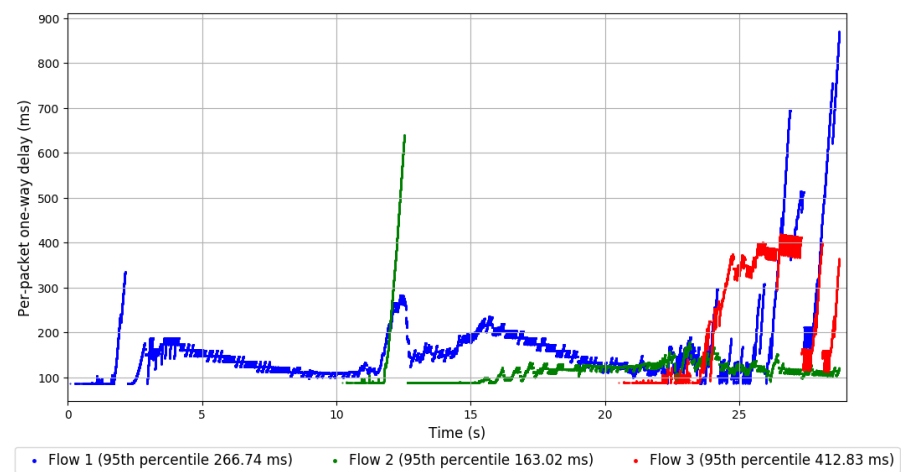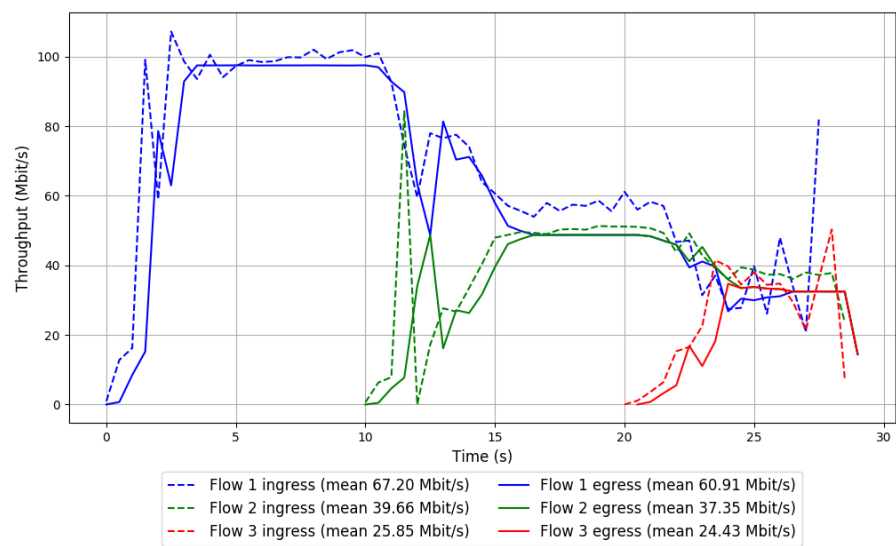
Run 2: Report of Indigo-MusesT — Data Link

- - - Flow 1 ingress (mean 61.21 Mbit/s)   —— Flow 1 egress (mean 58.97 Mbit/s)
- - - Flow 2 ingress (mean 42.17 Mbit/s)   —— Flow 2 egress (mean 38.54 Mbit/s)
- - - Flow 3 ingress (mean 27.06 Mbit/s)   —— Flow 3 egress (mean 26.13 Mbit/s)

• Flow 1 (95th percentile 268.34 ms) • Flow 2 (95th percentile 378.33 ms) • Flow 3 (95th percentile 449.01 ms)

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-19 12:52:52
End at: 2019-01-19 12:53:22
Local clock offset: -6.65 ms
Remote clock offset: 1.425 ms


# Below is generated by plot.py at 2019-01-19 13:59:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.52 Mbit/s
95th percentile per-packet one-way delay: 351.696 ms
Loss rate: 6.97%
-- Flow 1:
Average throughput: 58.98 Mbit/s
95th percentile per-packet one-way delay: 259.932 ms
Loss rate: 6.06%
-- Flow 2:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 367.017 ms
Loss rate: 9.01%
-- Flow 3:
Average throughput: 25.08 Mbit/s
95th percentile per-packet one-way delay: 452.065 ms
Loss rate: 7.26%
```
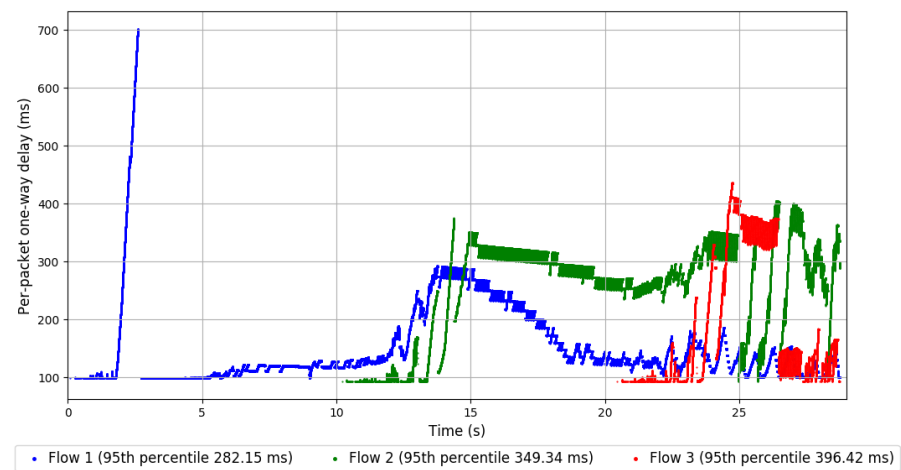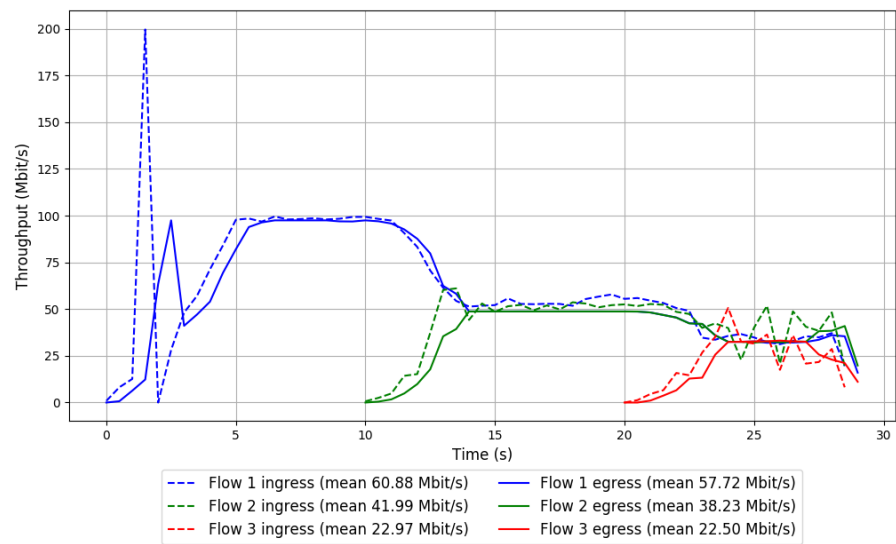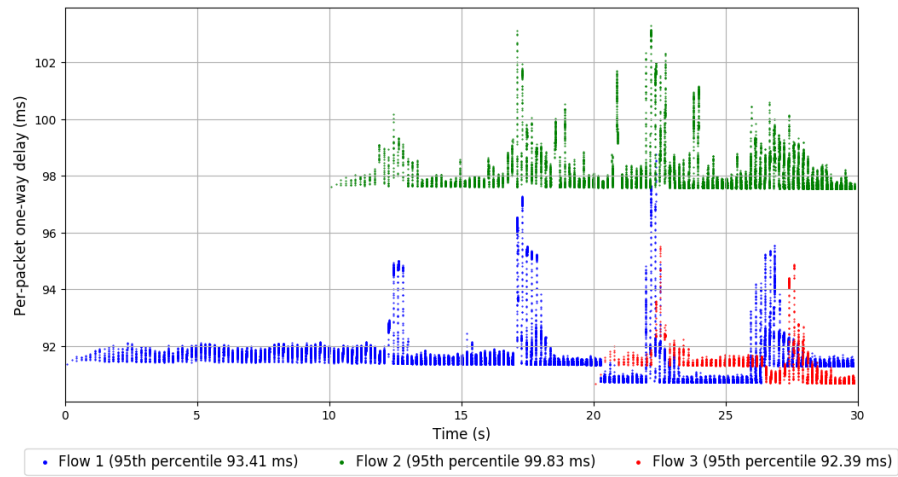
Run 3: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 62.42 Mbit/s) --- Flow 1 egress (mean 58.98 Mbit/s)
Flow 2 ingress (mean 40.92 Mbit/s) --- Flow 2 egress (mean 37.55 Mbit/s)
Flow 3 ingress (mean 26.61 Mbit/s) --- Flow 3 egress (mean 25.08 Mbit/s)

Flow 1 (95th percentile 259.93 ms)   Flow 2 (95th percentile 367.02 ms)   Flow 3 (95th percentile 452.06 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-19 13:19:49
End at: 2019-01-19 13:20:19
Local clock offset: -7.237 ms
Remote clock offset: 8.338 ms


# Below is generated by plot.py at 2019-01-19 13:59:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.05 Mbit/s
95th percentile per-packet one-way delay: 363.113 ms
Loss rate: 6.88%
-- Flow 1:
Average throughput: 60.91 Mbit/s
95th percentile per-packet one-way delay: 266.738 ms
Loss rate: 6.89%
-- Flow 2:
Average throughput: 37.35 Mbit/s
95th percentile per-packet one-way delay: 163.017 ms
Loss rate: 6.70%
-- Flow 3:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 412.829 ms
Loss rate: 7.45%
```

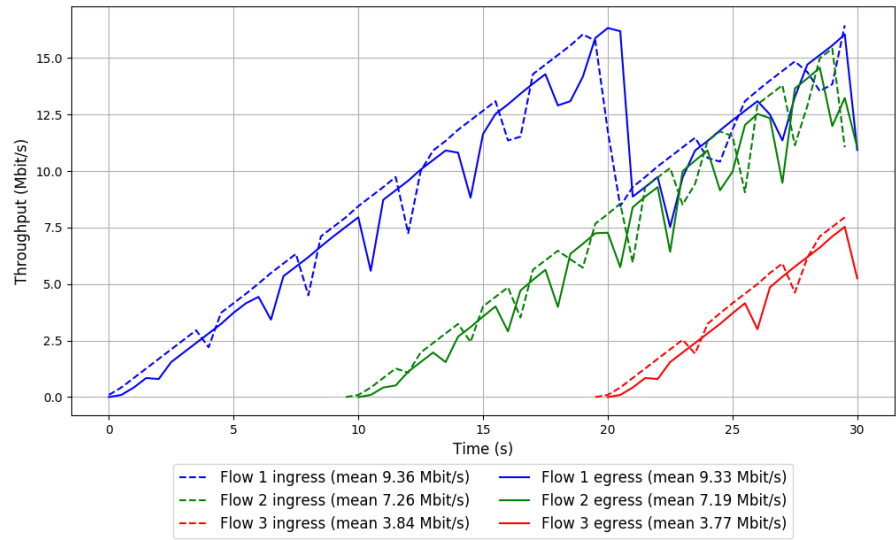Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-19 13:46:47
End at: 2019-01-19 13:47:17
Local clock offset: -4.798 ms
Remote clock offset: 4.453 ms


# Below is generated by plot.py at 2019-01-19 13:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.95 Mbit/s
95th percentile per-packet one-way delay: 349.851 ms
Loss rate: 6.70%
-- Flow 1:
Average throughput: 57.72 Mbit/s
95th percentile per-packet one-way delay: 282.151 ms
Loss rate: 5.78%
-- Flow 2:
Average throughput: 38.23 Mbit/s
95th percentile per-packet one-way delay: 349.340 ms
Loss rate: 9.43%
-- Flow 3:
Average throughput: 22.50 Mbit/s
95th percentile per-packet one-way delay: 396.421 ms
Loss rate: 4.11%
```
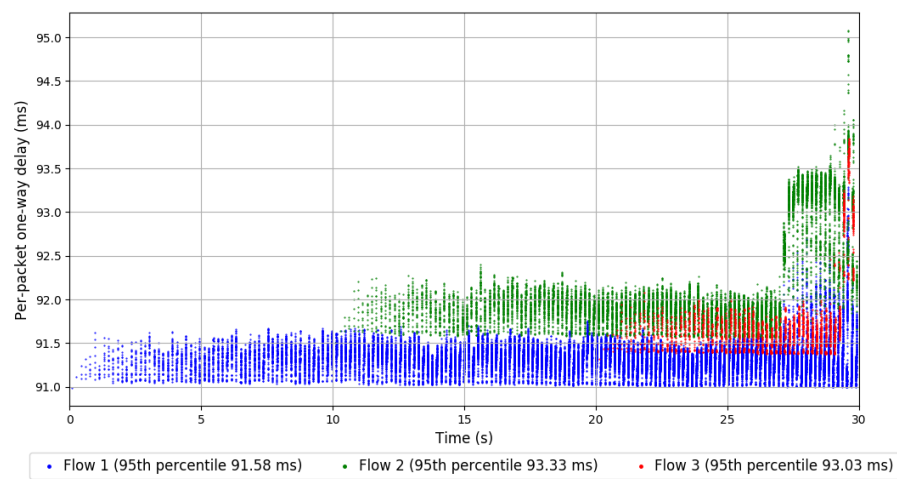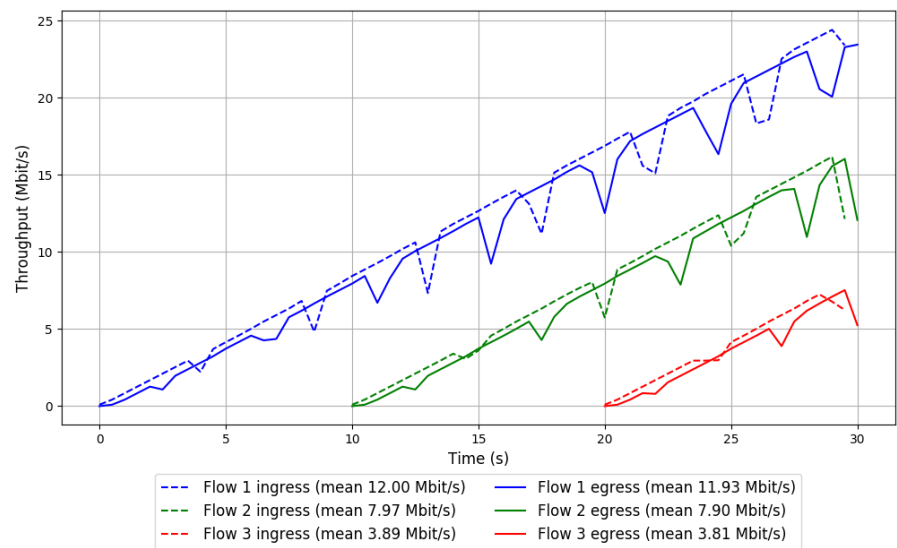
Run 5: Report of Indigo-MusesT — Data Link

- Flow 1 ingress (mean 60.88 Mbit/s) — Flow 1 egress (mean 57.72 Mbit/s)
- Flow 2 ingress (mean 41.99 Mbit/s) — Flow 2 egress (mean 38.23 Mbit/s)
- Flow 3 ingress (mean 22.97 Mbit/s) — Flow 3 egress (mean 22.50 Mbit/s)

- Flow 1 (95th percentile 282.15 ms)   - Flow 2 (95th percentile 349.34 ms)   - Flow 3 (95th percentile 396.42 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2019-01-19 11:50:11
End at: 2019-01-19 11:50:41
Local clock offset: -9.211 ms
Remote clock offset: 2.802 ms


# Below is generated by plot.py at 2019-01-19 13:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.32 Mbit/s
95th percentile per-packet one-way delay: 98.625 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 93.414 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 7.19 Mbit/s
95th percentile per-packet one-way delay: 99.831 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 92.393 ms
Loss rate: 3.53%
```
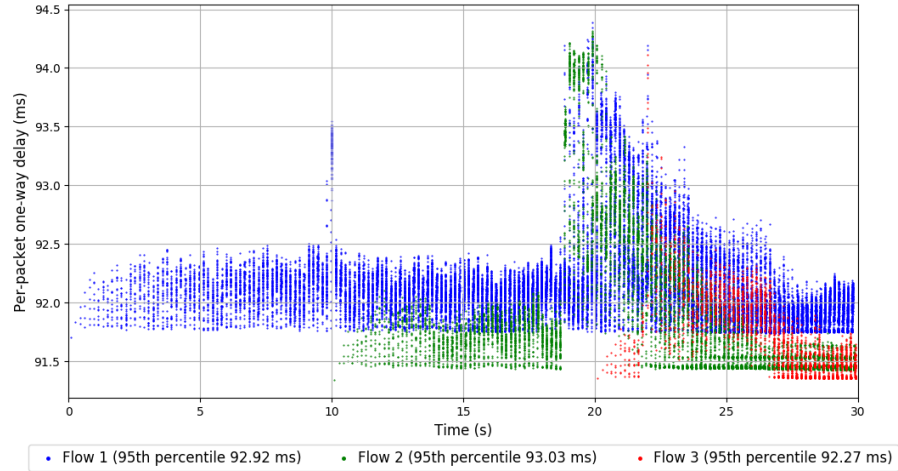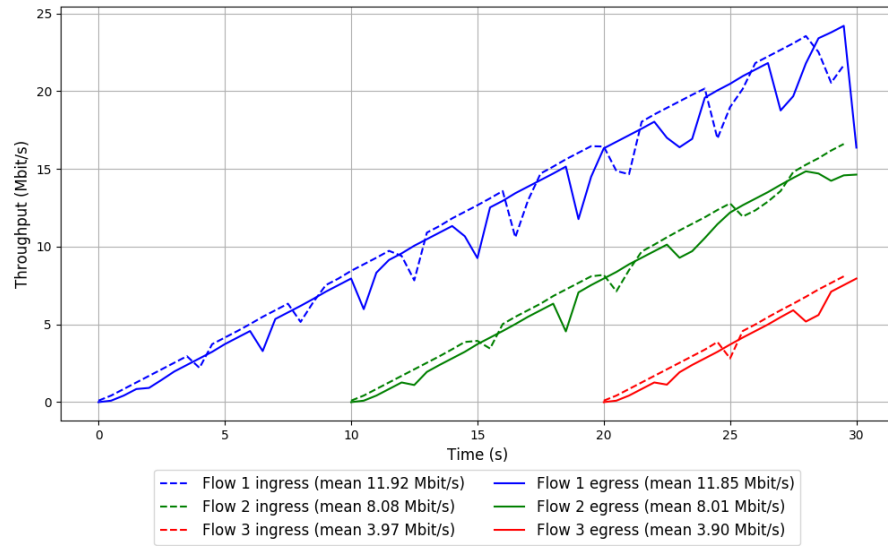
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.36 Mbit/s) — — — Flow 1 egress (mean 9.33 Mbit/s)
Flow 2 ingress (mean 7.26 Mbit/s) — — — Flow 2 egress (mean 7.19 Mbit/s)
Flow 3 ingress (mean 3.84 Mbit/s) — — — Flow 3 egress (mean 3.77 Mbit/s)

Flow 1 (95th percentile 93.41 ms) · Flow 2 (95th percentile 99.83 ms) · Flow 3 (95th percentile 92.39 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-01-19 12:17:07
End at: 2019-01-19 12:17:37
Local clock offset: -6.468 ms
Remote clock offset: 3.266 ms


# Below is generated by plot.py at 2019-01-19 13:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.42 Mbit/s
95th percentile per-packet one-way delay: 93.071 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 11.93 Mbit/s
95th percentile per-packet one-way delay: 91.576 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 93.333 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 93.031 ms
Loss rate: 3.53%
```
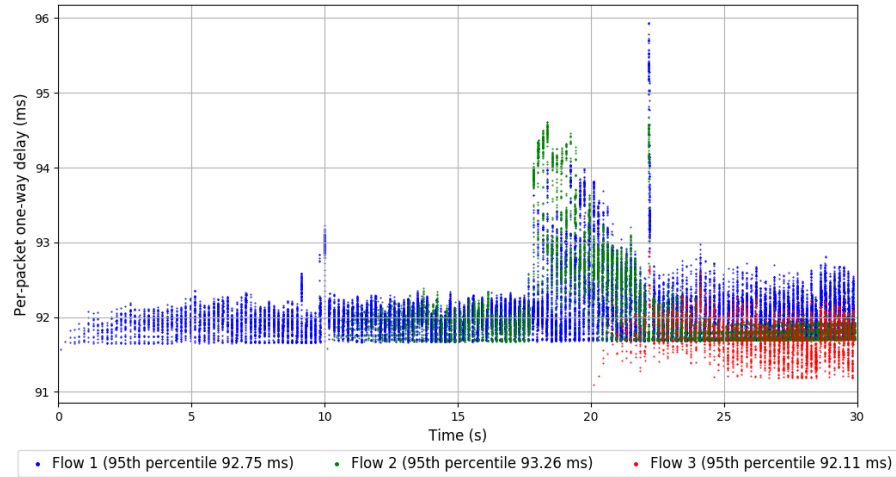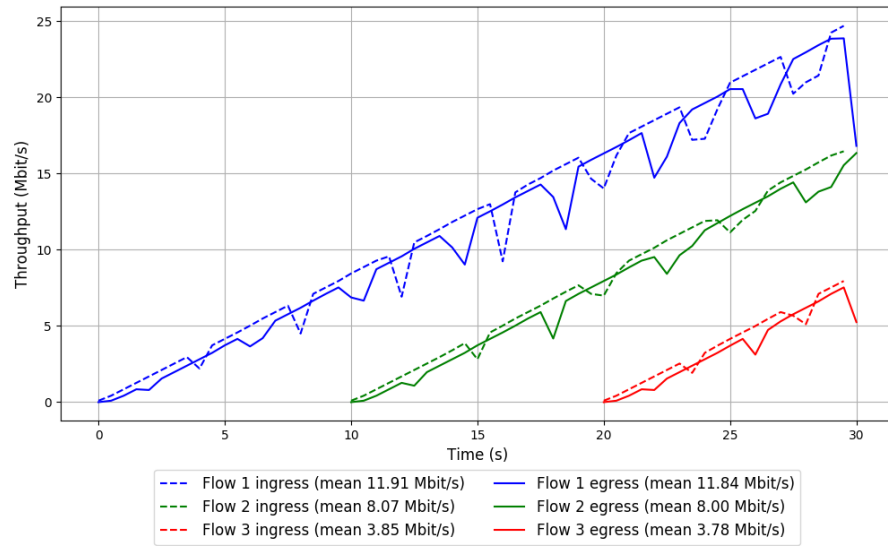
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-01-19 12:44:01
End at: 2019-01-19 12:44:31
Local clock offset: -5.884 ms
Remote clock offset: 1.581 ms


# Below is generated by plot.py at 2019-01-19 13:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.40 Mbit/s
95th percentile per-packet one-way delay: 92.923 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 92.916 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 93.035 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 92.269 ms
Loss rate: 3.47%
```
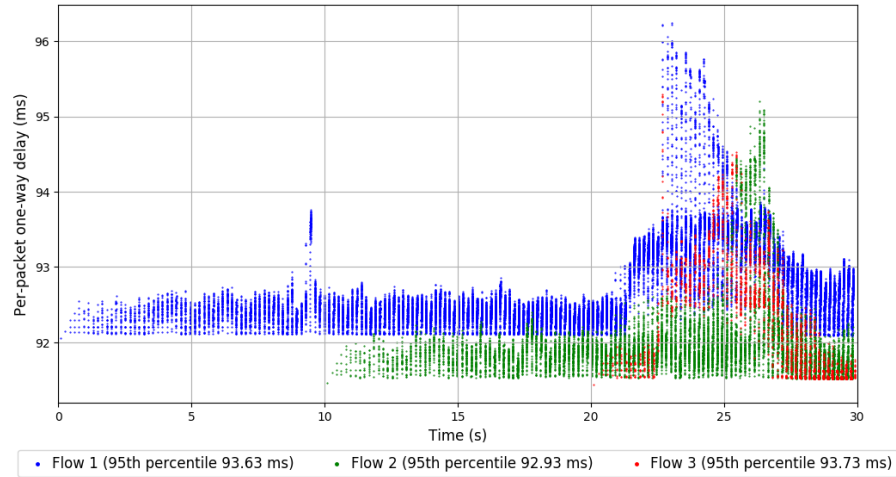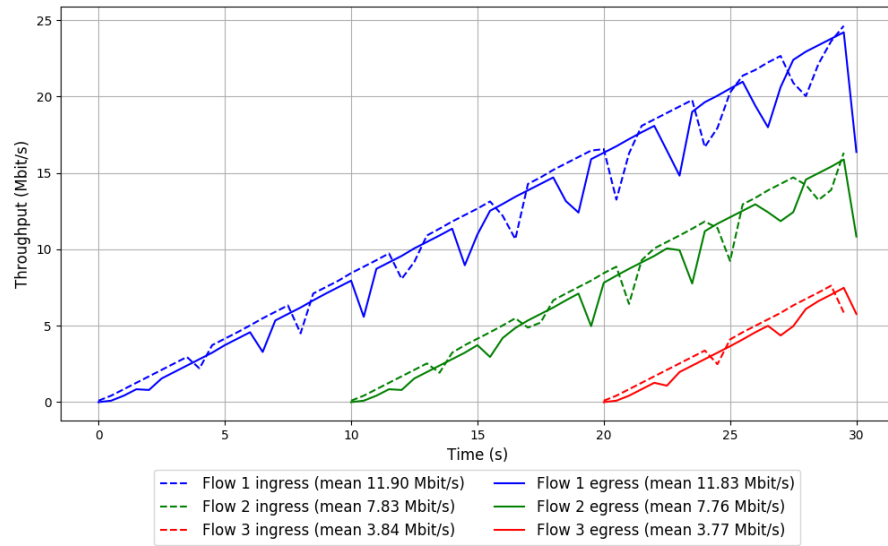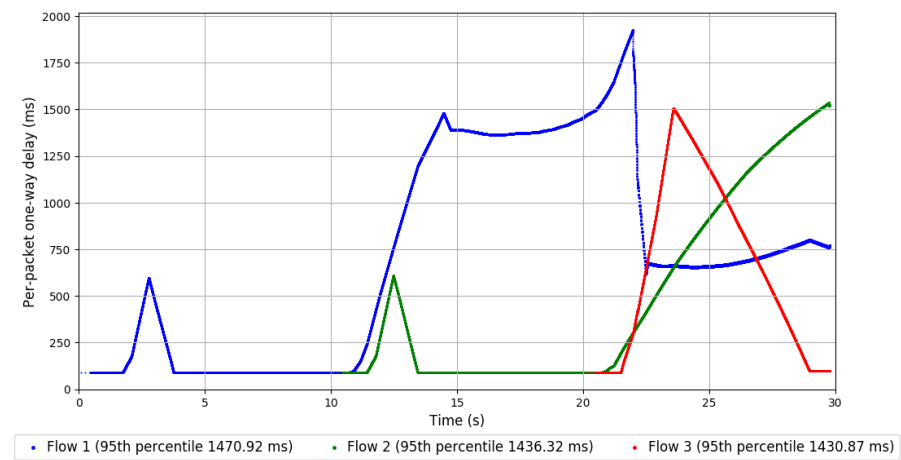
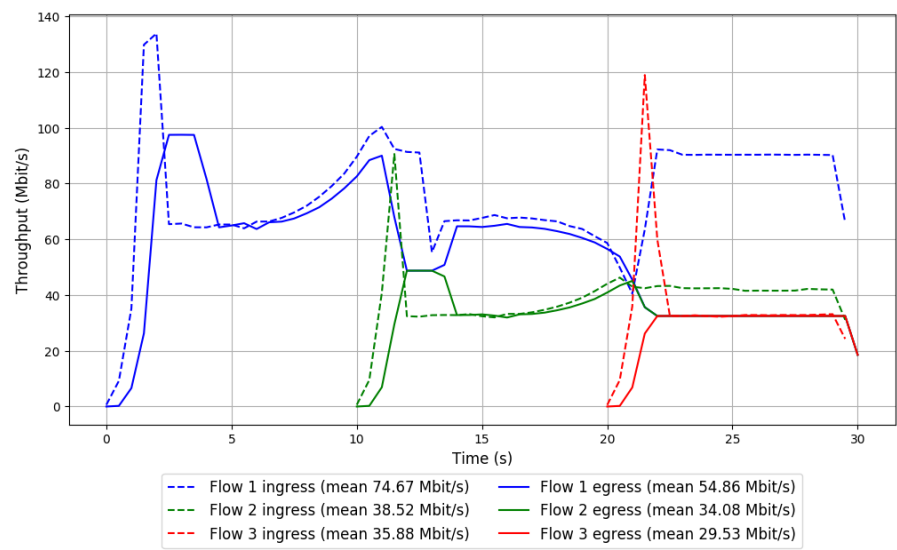# Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-01-19 13:10:58
End at: 2019-01-19 13:11:28
Local clock offset: -6.801 ms
Remote clock offset: 3.71 ms


# Below is generated by plot.py at 2019-01-19 13:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.36 Mbit/s
95th percentile per-packet one-way delay: 92.848 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 92.746 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 93.256 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 92.110 ms
Loss rate: 3.54%
```

Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-01-19 13:37:56
End at: 2019-01-19 13:38:26
Local clock offset: -5.814 ms
Remote clock offset: 3.83 ms


# Below is generated by plot.py at 2019-01-19 13:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.18 Mbit/s
95th percentile per-packet one-way delay: 93.611 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 93.633 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 92.929 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 93.734 ms
Loss rate: 3.50%
```

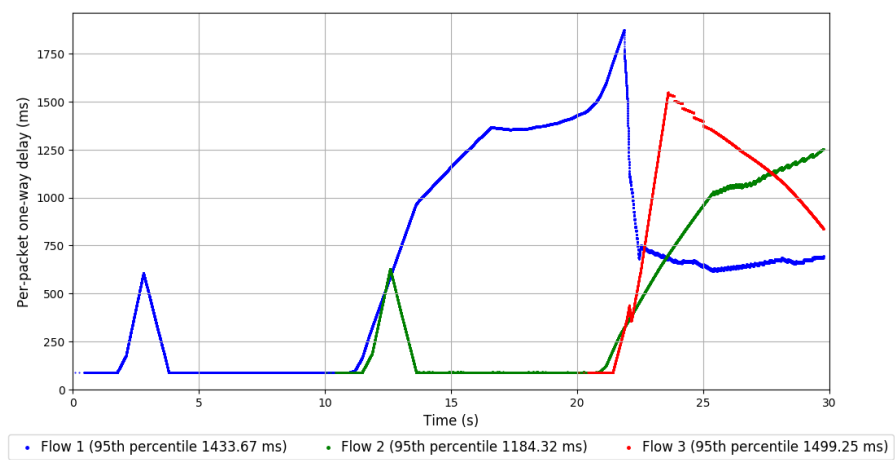Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-19 11:38:37
End at: 2019-01-19 11:39:07
Local clock offset: -10.571 ms
Remote clock offset: 2.986 ms


# Below is generated by plot.py at 2019-01-19 13:59:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.09 Mbit/s
95th percentile per-packet one-way delay: 1458.889 ms
Loss rate: 22.78%
-- Flow 1:
Average throughput: 54.86 Mbit/s
95th percentile per-packet one-way delay: 1470.920 ms
Loss rate: 26.96%
-- Flow 2:
Average throughput: 34.08 Mbit/s
95th percentile per-packet one-way delay: 1436.321 ms
Loss rate: 12.31%
-- Flow 3:
Average throughput: 29.53 Mbit/s
95th percentile per-packet one-way delay: 1430.873 ms
Loss rate: 19.13%
```
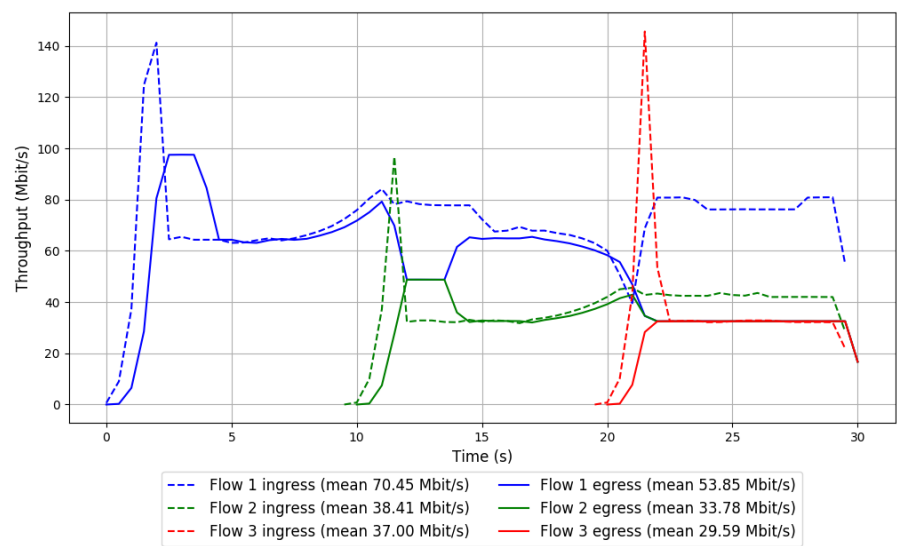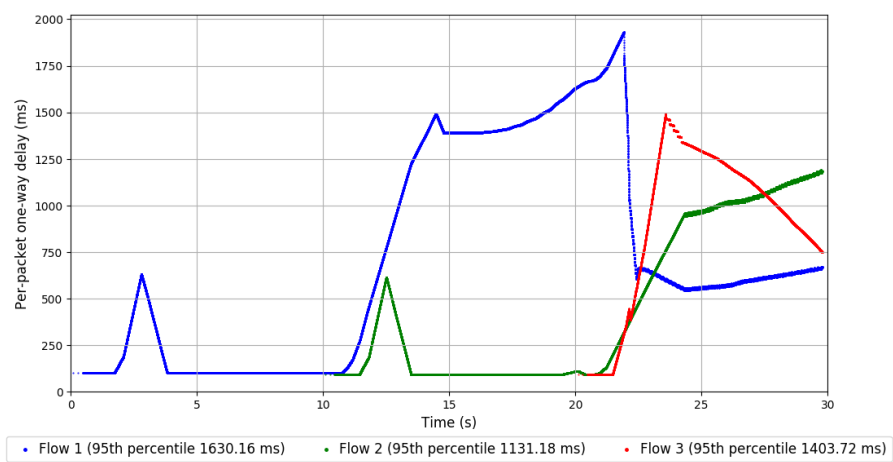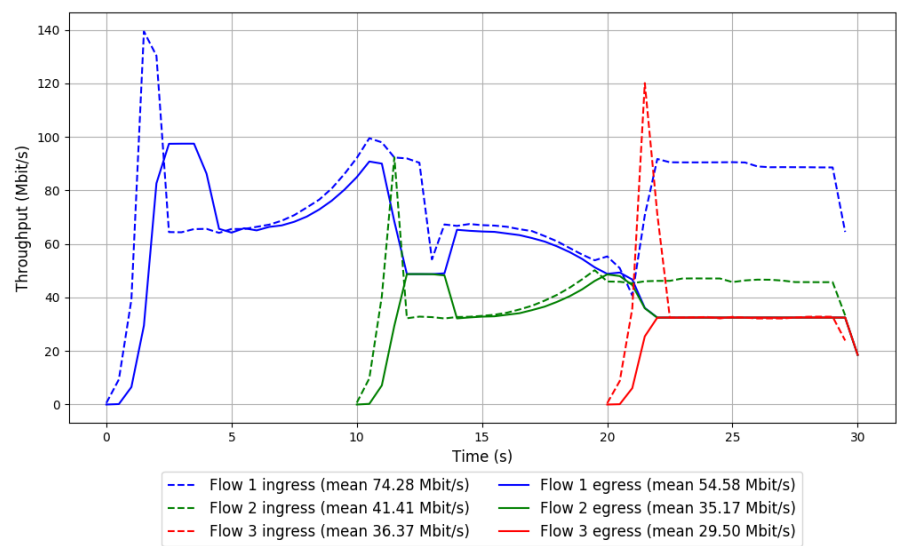
Run 1: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 74.67 Mbit/s)   —— Flow 1 egress (mean 54.86 Mbit/s)
- - - Flow 2 ingress (mean 38.52 Mbit/s)   —— Flow 2 egress (mean 34.08 Mbit/s)
- - - Flow 3 ingress (mean 35.88 Mbit/s)   —— Flow 3 egress (mean 29.53 Mbit/s)

• Flow 1 (95th percentile 1470.92 ms)   • Flow 2 (95th percentile 1436.32 ms)   • Flow 3 (95th percentile 1430.87 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-01-19 12:05:33
End at: 2019-01-19 12:06:03
Local clock offset: -6.906 ms
Remote clock offset: 5.74 ms


# Below is generated by plot.py at 2019-01-19 13:59:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.92 Mbit/s
95th percentile per-packet one-way delay: 1421.492 ms
Loss rate: 21.07%
-- Flow 1:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 1433.671 ms
Loss rate: 24.00%
-- Flow 2:
Average throughput: 33.78 Mbit/s
95th percentile per-packet one-way delay: 1184.322 ms
Loss rate: 12.83%
-- Flow 3:
Average throughput: 29.59 Mbit/s
95th percentile per-packet one-way delay: 1499.249 ms
Loss rate: 21.42%
```
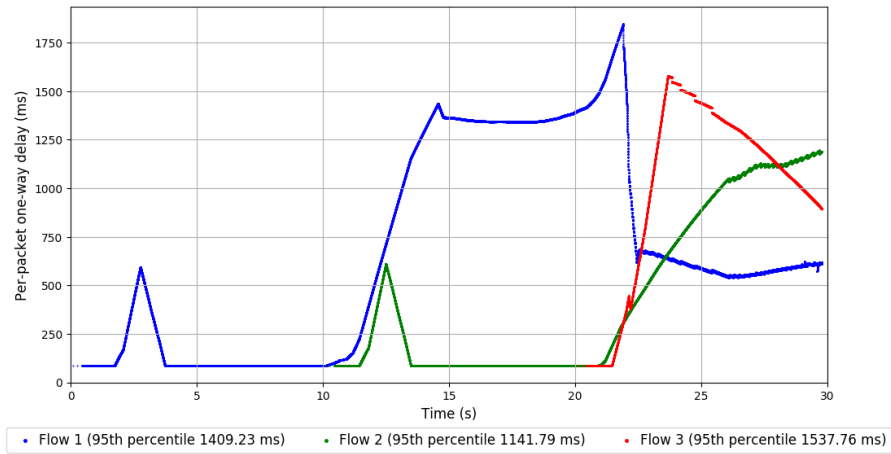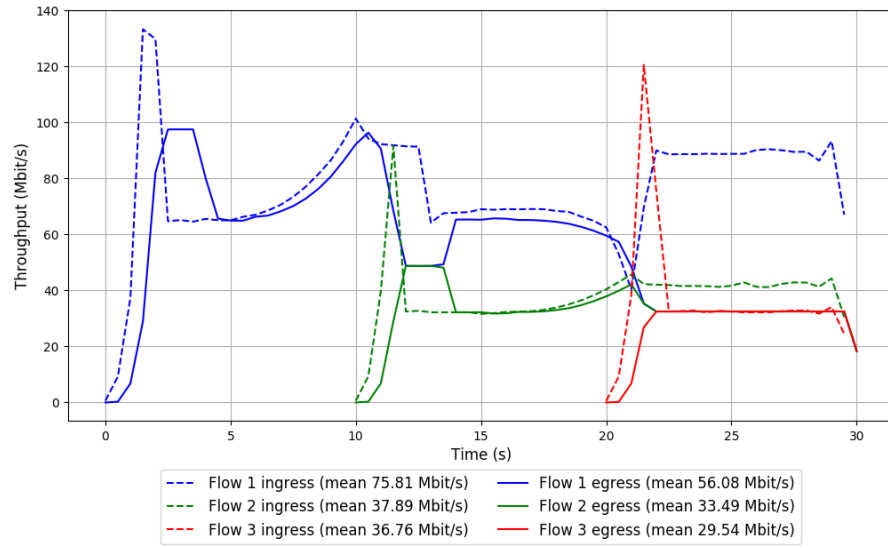
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 70.45 Mbit/s)   Flow 1 egress (mean 53.85 Mbit/s)
Flow 2 ingress (mean 38.41 Mbit/s)   Flow 2 egress (mean 33.78 Mbit/s)
Flow 3 ingress (mean 37.00 Mbit/s)   Flow 3 egress (mean 29.59 Mbit/s)

Flow 1 (95th percentile 1433.67 ms)   Flow 2 (95th percentile 1184.32 ms)   Flow 3 (95th percentile 1499.25 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-01-19 12:32:28
End at: 2019-01-19 12:32:58
Local clock offset: -5.475 ms
Remote clock offset: 1.756 ms


# Below is generated by plot.py at 2019-01-19 14:00:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.50 Mbit/s
95th percentile per-packet one-way delay: 1521.851 ms
Loss rate: 23.55%
-- Flow 1:
Average throughput: 54.58 Mbit/s
95th percentile per-packet one-way delay: 1630.158 ms
Loss rate: 26.96%
-- Flow 2:
Average throughput: 35.17 Mbit/s
95th percentile per-packet one-way delay: 1131.177 ms
Loss rate: 15.78%
-- Flow 3:
Average throughput: 29.50 Mbit/s
95th percentile per-packet one-way delay: 1403.720 ms
Loss rate: 20.30%
```
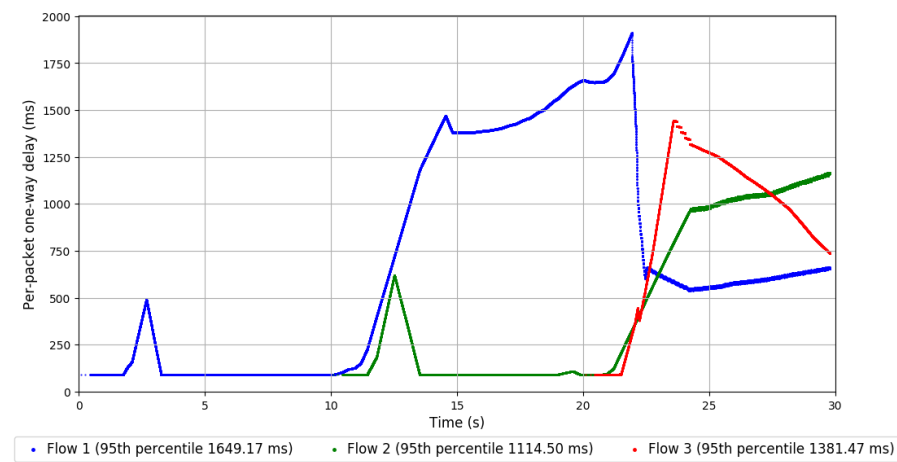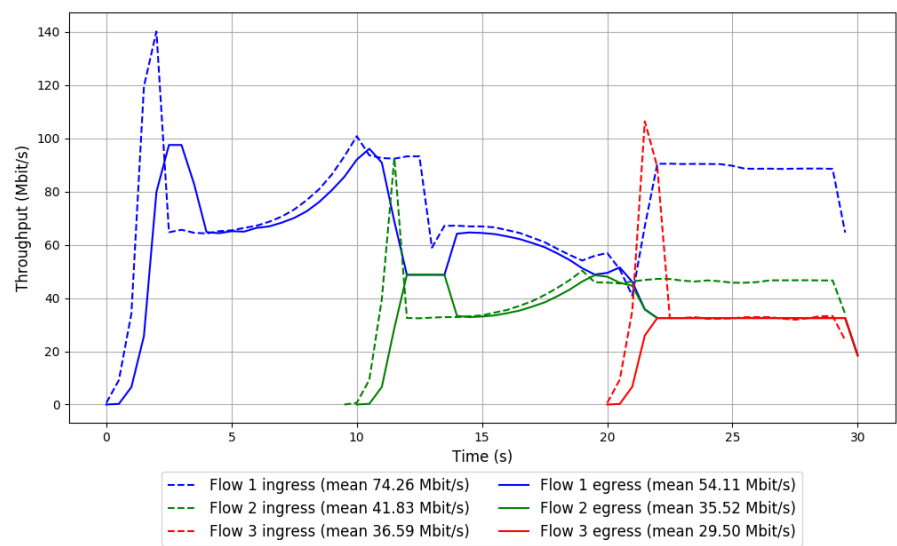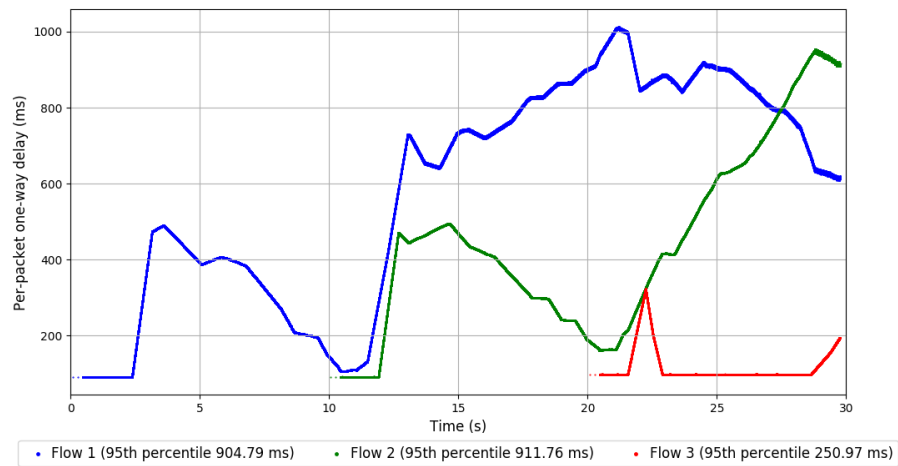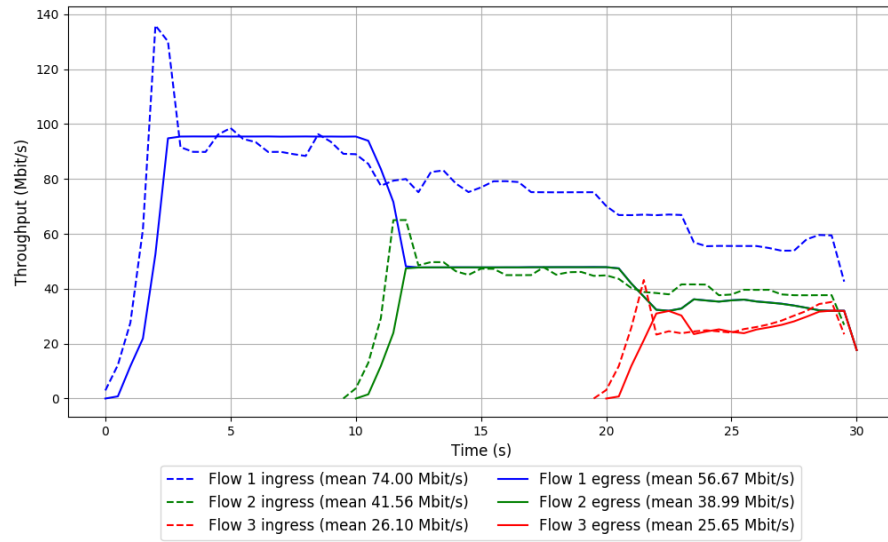
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 74.28 Mbit/s) — Flow 1 egress (mean 54.58 Mbit/s)
Flow 2 ingress (mean 41.41 Mbit/s) — Flow 2 egress (mean 35.17 Mbit/s)
Flow 3 ingress (mean 36.37 Mbit/s) — Flow 3 egress (mean 29.50 Mbit/s)

Flow 1 (95th percentile 1630.16 ms)   Flow 2 (95th percentile 1131.18 ms)   Flow 3 (95th percentile 1403.72 ms)

120

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-01-19 12:59:23
End at: 2019-01-19 12:59:53
Local clock offset: -6.434 ms
Remote clock offset: 7.33 ms


# Below is generated by plot.py at 2019-01-19 14:00:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.92 Mbit/s
95th percentile per-packet one-way delay: 1417.630 ms
Loss rate: 22.73%
-- Flow 1:
Average throughput: 56.08 Mbit/s
95th percentile per-packet one-way delay: 1409.227 ms
Loss rate: 26.45%
-- Flow 2:
Average throughput: 33.49 Mbit/s
95th percentile per-packet one-way delay: 1141.786 ms
Loss rate: 12.37%
-- Flow 3:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 1537.759 ms
Loss rate: 21.03%
```

Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-01-19 13:26:20
End at: 2019-01-19 13:26:50
Local clock offset: -6.506 ms
Remote clock offset: 4.667 ms


# Below is generated by plot.py at 2019-01-19 14:00:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.29 Mbit/s
95th percentile per-packet one-way delay: 1566.979 ms
Loss rate: 23.97%
-- Flow 1:
Average throughput: 54.11 Mbit/s
95th percentile per-packet one-way delay: 1649.172 ms
Loss rate: 27.55%
-- Flow 2:
Average throughput: 35.52 Mbit/s
95th percentile per-packet one-way delay: 1114.504 ms
Loss rate: 15.81%
-- Flow 3:
Average throughput: 29.50 Mbit/s
95th percentile per-packet one-way delay: 1381.471 ms
Loss rate: 20.77%
```
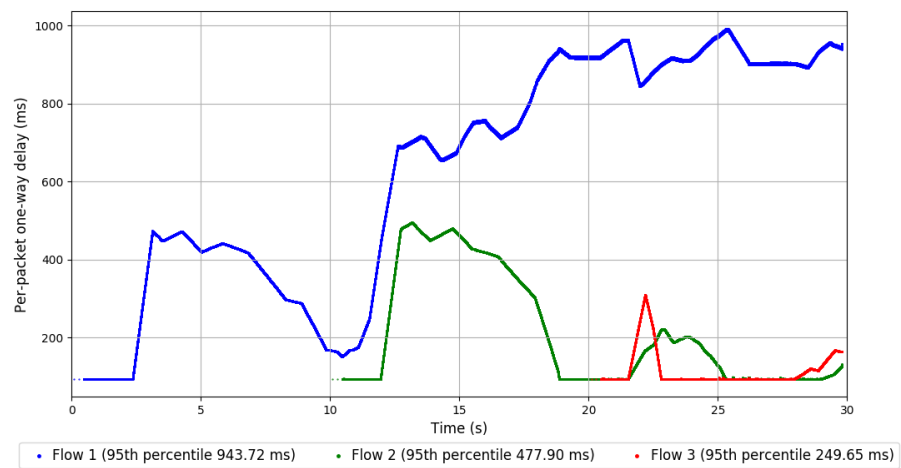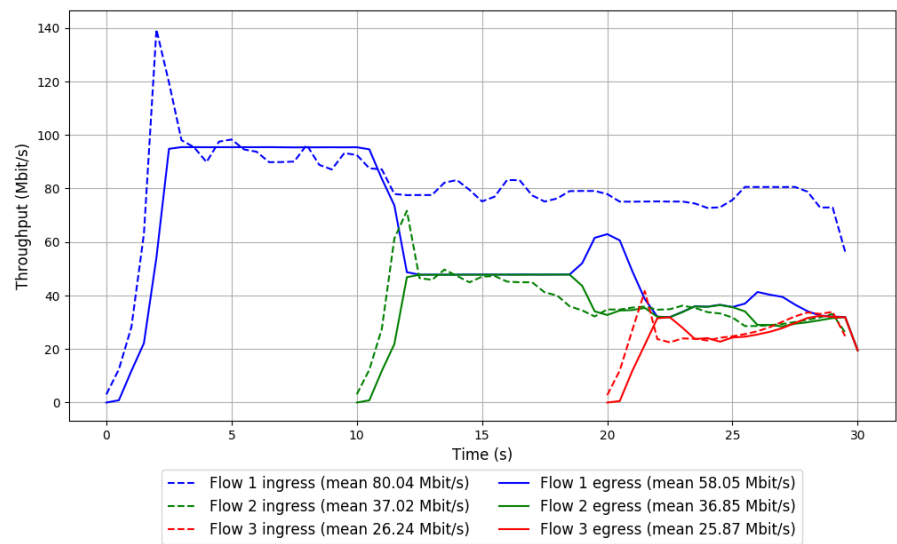
Run 5: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 74.26 Mbit/s) —— Flow 1 egress (mean 54.11 Mbit/s)
- - - Flow 2 ingress (mean 41.83 Mbit/s) —— Flow 2 egress (mean 35.52 Mbit/s)
- - - Flow 3 ingress (mean 36.59 Mbit/s) —— Flow 3 egress (mean 29.50 Mbit/s)

• Flow 1 (95th percentile 1649.17 ms)   • Flow 2 (95th percentile 1114.50 ms)   • Flow 3 (95th percentile 1381.47 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-19 12:01:36
End at: 2019-01-19 12:02:06
Local clock offset: -7.272 ms
Remote clock offset: 2.913 ms


# Below is generated by plot.py at 2019-01-19 14:01:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 902.424 ms
Loss rate: 18.04%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 904.787 ms
Loss rate: 23.86%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 911.757 ms
Loss rate: 6.99%
-- Flow 3:
Average throughput: 25.65 Mbit/s
95th percentile per-packet one-way delay: 250.973 ms
Loss rate: 3.49%
```
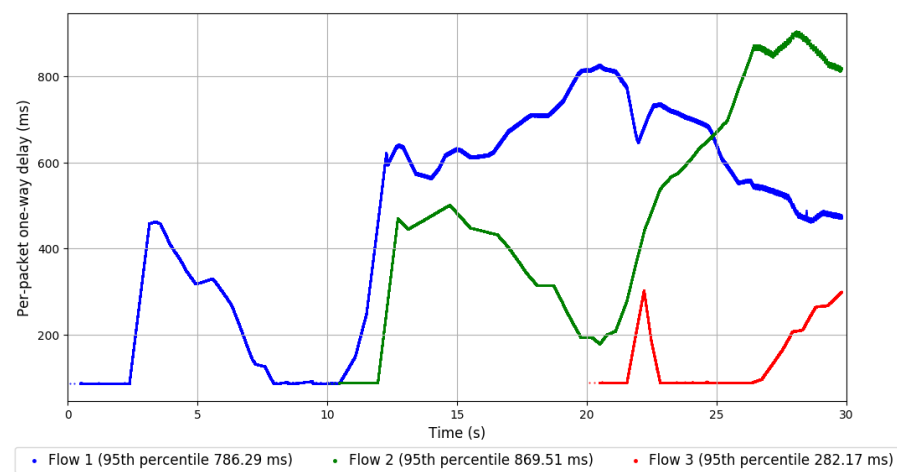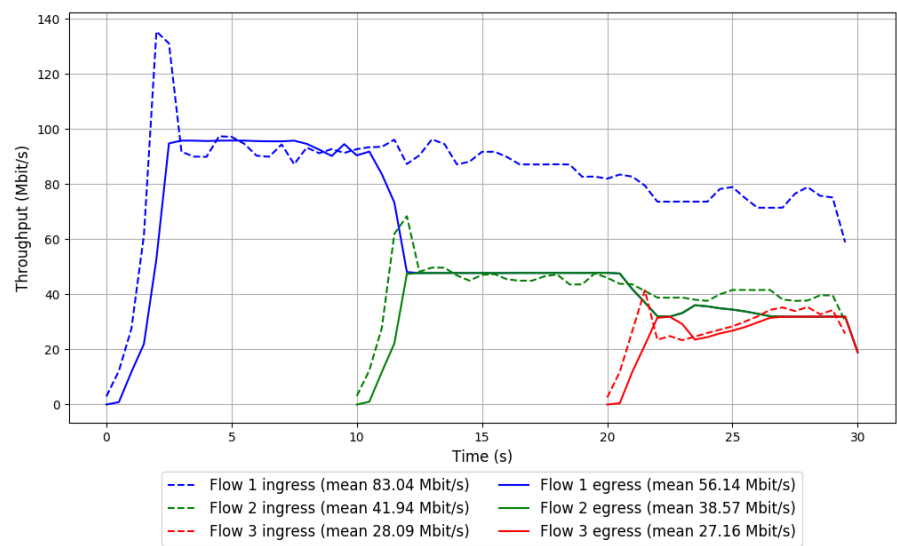
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-01-19 12:28:31
End at: 2019-01-19 12:29:01
Local clock offset: -5.586 ms
Remote clock offset: 1.972 ms


# Below is generated by plot.py at 2019-01-19 14:01:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.93 Mbit/s
95th percentile per-packet one-way delay: 929.869 ms
Loss rate: 20.22%
-- Flow 1:
Average throughput: 58.05 Mbit/s
95th percentile per-packet one-way delay: 943.724 ms
Loss rate: 27.89%
-- Flow 2:
Average throughput: 36.85 Mbit/s
95th percentile per-packet one-way delay: 477.905 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 25.87 Mbit/s
95th percentile per-packet one-way delay: 249.651 ms
Loss rate: 3.15%
```
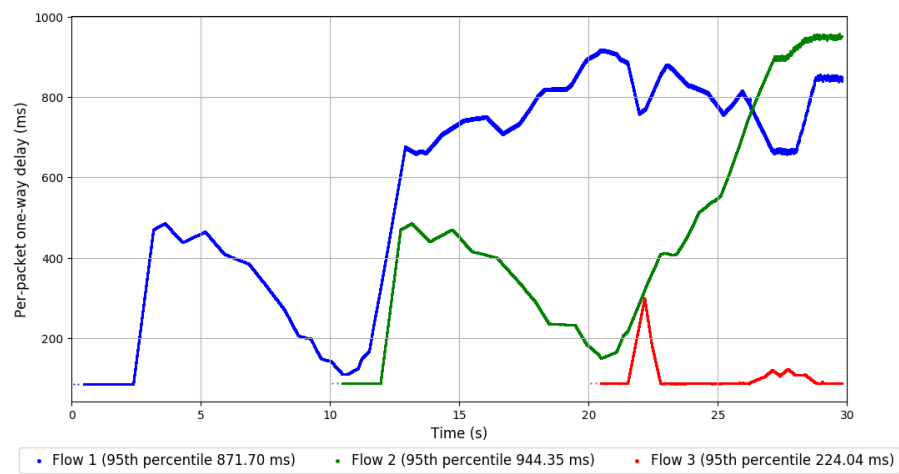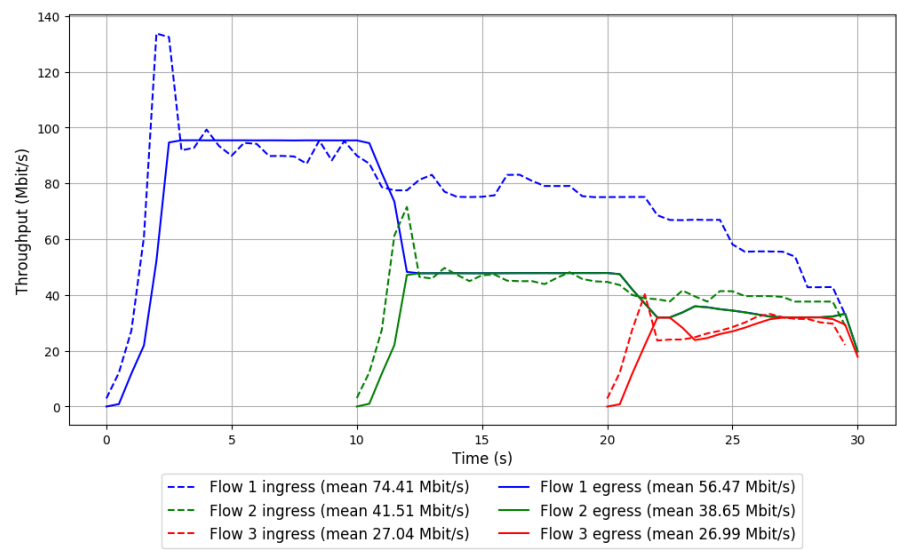
Run 2: Report of PCC-Expr — Data Link

- - - Flow 1 ingress (mean 80.04 Mbit/s)   ——— Flow 1 egress (mean 58.05 Mbit/s)
- - - Flow 2 ingress (mean 37.02 Mbit/s)   ——— Flow 2 egress (mean 36.85 Mbit/s)
- - - Flow 3 ingress (mean 26.24 Mbit/s)   ——— Flow 3 egress (mean 25.87 Mbit/s)

• Flow 1 (95th percentile 943.72 ms)   • Flow 2 (95th percentile 477.90 ms)   • Flow 3 (95th percentile 249.65 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-01-19 12:55:25
End at: 2019-01-19 12:55:55
Local clock offset: -6.988 ms
Remote clock offset: 6.249 ms


# Below is generated by plot.py at 2019-01-19 14:01:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.58 Mbit/s
95th percentile per-packet one-way delay: 816.967 ms
Loss rate: 25.07%
-- Flow 1:
Average throughput: 56.14 Mbit/s
95th percentile per-packet one-way delay: 786.295 ms
Loss rate: 32.77%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 869.515 ms
Loss rate: 8.81%
-- Flow 3:
Average throughput: 27.16 Mbit/s
95th percentile per-packet one-way delay: 282.165 ms
Loss rate: 5.00%
```
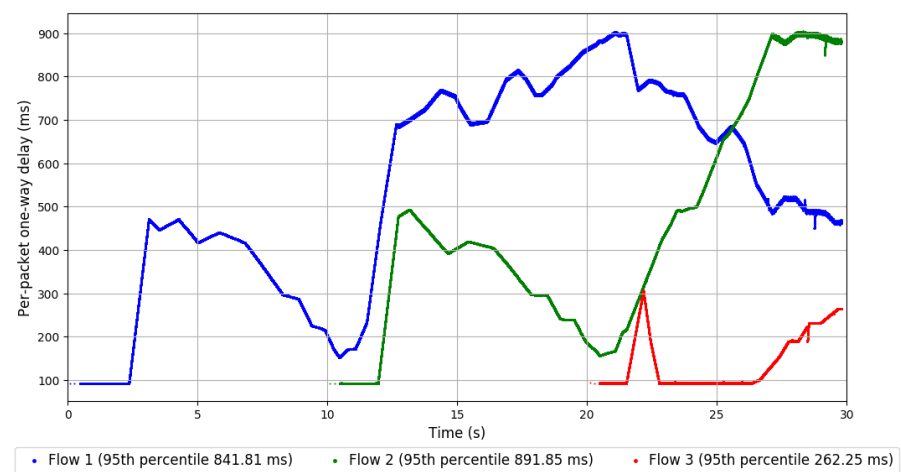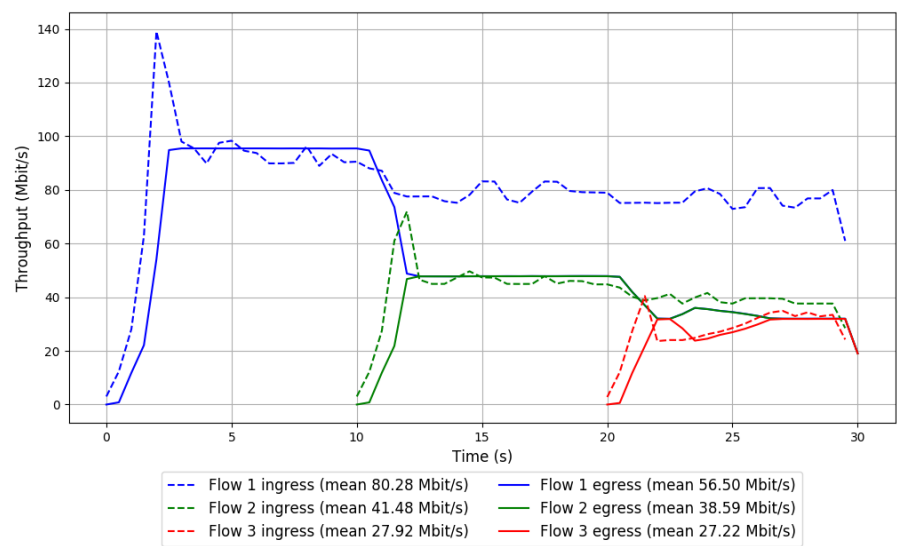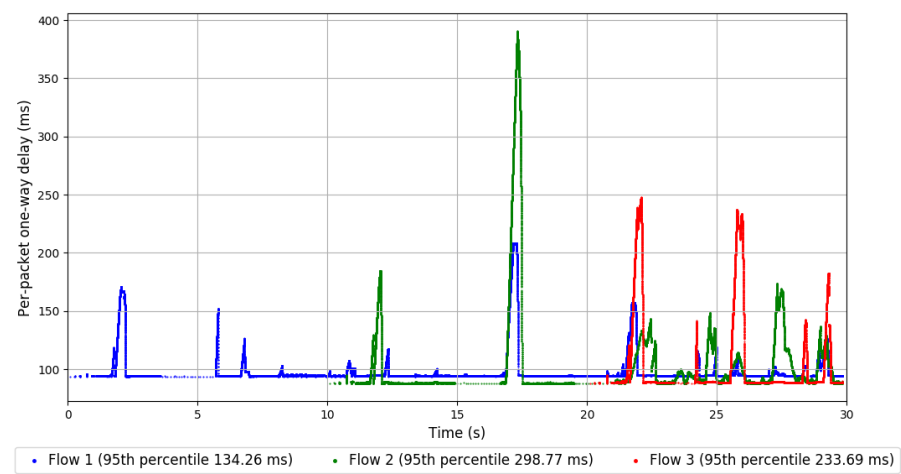
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 83.04 Mbit/s) — Flow 1 egress (mean 56.14 Mbit/s)
Flow 2 ingress (mean 41.94 Mbit/s) — Flow 2 egress (mean 38.57 Mbit/s)
Flow 3 ingress (mean 28.09 Mbit/s) — Flow 3 egress (mean 27.16 Mbit/s)

Flow 1 (95th percentile 786.29 ms) • Flow 2 (95th percentile 869.51 ms) • Flow 3 (95th percentile 282.17 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-01-19 13:22:23
End at: 2019-01-19 13:22:53
Local clock offset: -6.836 ms
Remote clock offset: 9.533 ms


# Below is generated by plot.py at 2019-01-19 14:01:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 892.240 ms
Loss rate: 18.53%
-- Flow 1:
Average throughput: 56.47 Mbit/s
95th percentile per-packet one-way delay: 871.701 ms
Loss rate: 24.55%
-- Flow 2:
Average throughput: 38.65 Mbit/s
95th percentile per-packet one-way delay: 944.347 ms
Loss rate: 7.69%
-- Flow 3:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 224.038 ms
Loss rate: 1.94%
```
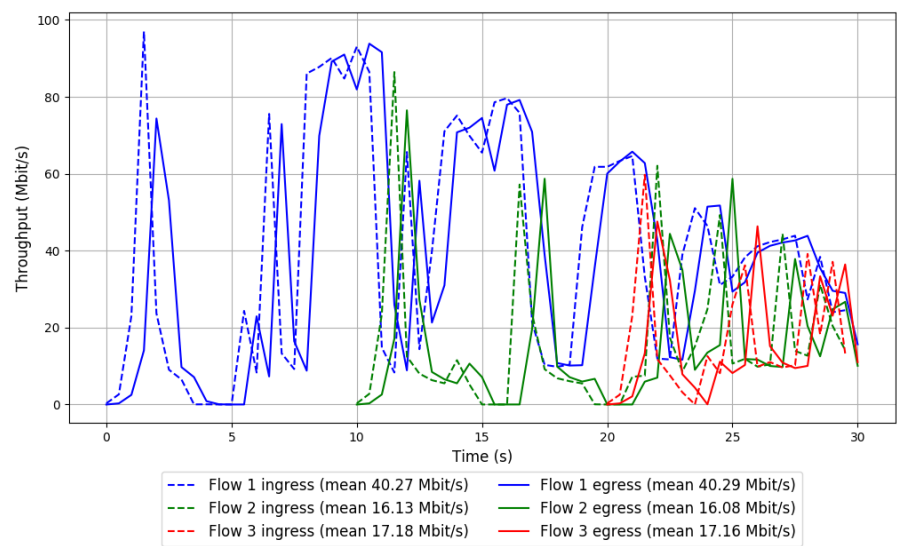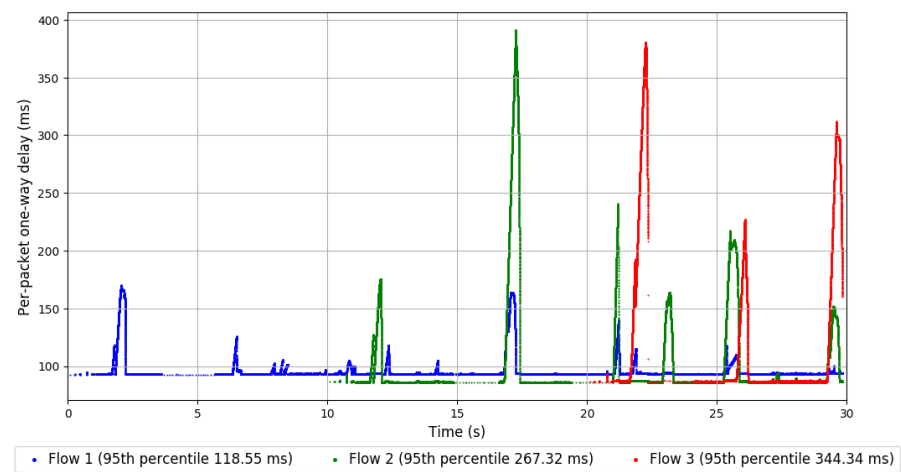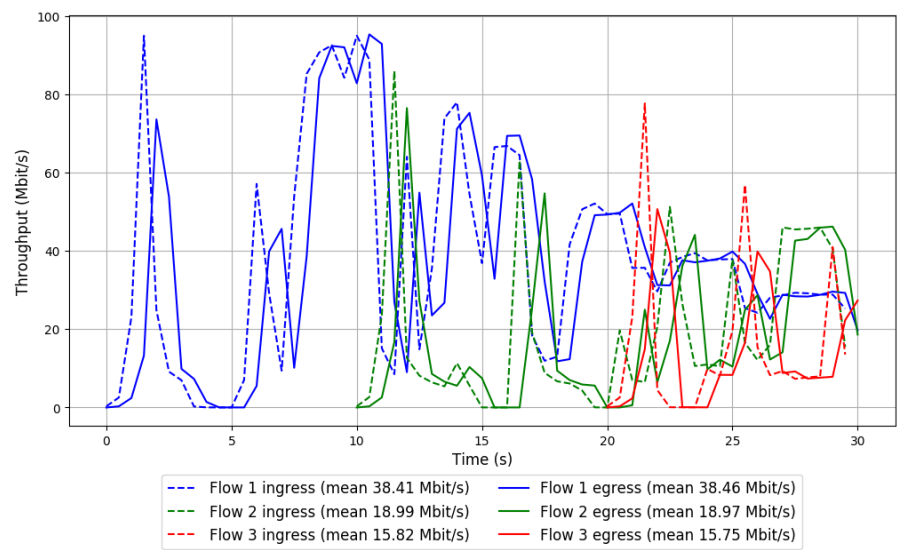
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 74.41 Mbit/s)   Flow 1 egress (mean 56.47 Mbit/s)
Flow 2 ingress (mean 41.51 Mbit/s)   Flow 2 egress (mean 38.65 Mbit/s)
Flow 3 ingress (mean 27.04 Mbit/s)   Flow 3 egress (mean 26.99 Mbit/s)

Flow 1 (95th percentile 871.70 ms)   Flow 2 (95th percentile 944.35 ms)   Flow 3 (95th percentile 224.04 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2019-01-19 13:49:20
End at: 2019-01-19 13:49:50
Local clock offset: -5.198 ms
Remote clock offset: 4.175 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 870.602 ms
Loss rate: 22.75%
-- Flow 1:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 841.809 ms
Loss rate: 30.03%
-- Flow 2:
Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 891.852 ms
Loss rate: 7.76%
-- Flow 3:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 262.246 ms
Loss rate: 4.20%
```
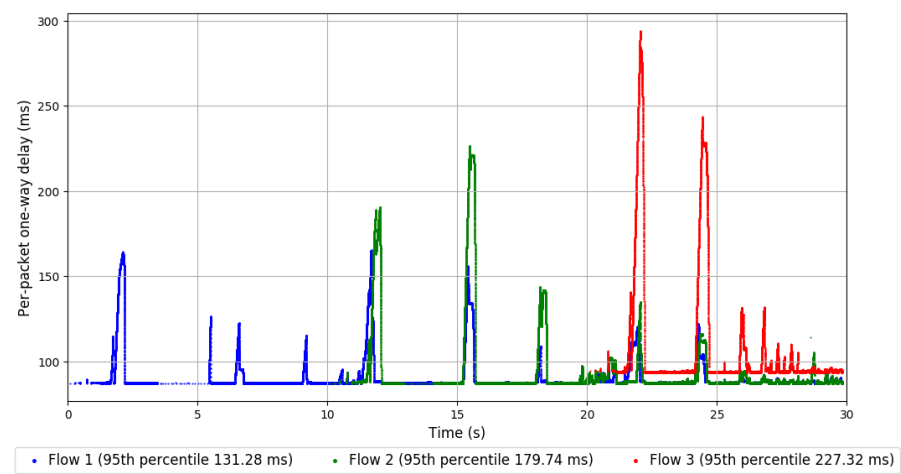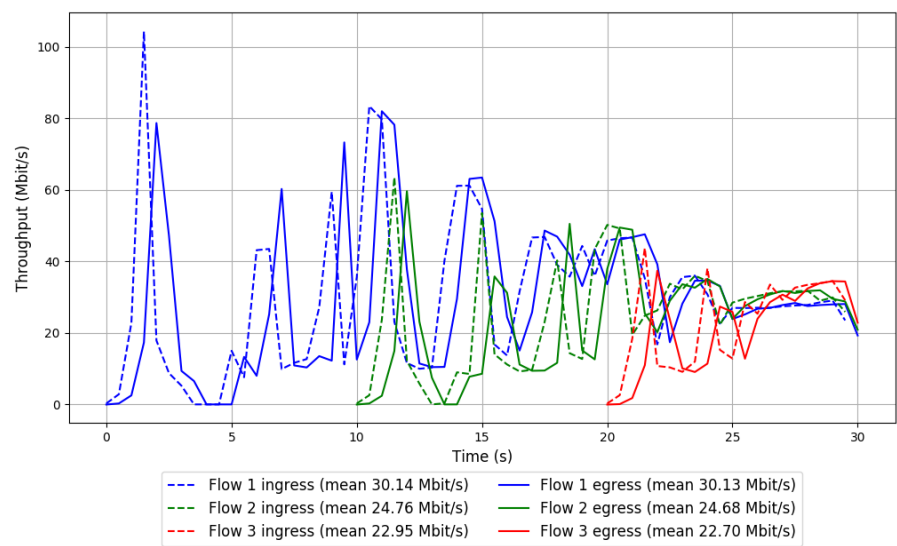
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 80.28 Mbit/s) --- Flow 1 egress (mean 56.50 Mbit/s)
Flow 2 ingress (mean 41.48 Mbit/s) --- Flow 2 egress (mean 38.59 Mbit/s)
Flow 3 ingress (mean 27.92 Mbit/s) --- Flow 3 egress (mean 27.22 Mbit/s)

Flow 1 (95th percentile 841.81 ms) Flow 2 (95th percentile 891.85 ms) Flow 3 (95th percentile 262.25 ms)

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```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-19 11:41:07
End at: 2019-01-19 11:41:37
Local clock offset: -9.968 ms
Remote clock offset: 6.578 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.57 Mbit/s
95th percentile per-packet one-way delay: 175.632 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 40.29 Mbit/s
95th percentile per-packet one-way delay: 134.258 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 16.08 Mbit/s
95th percentile per-packet one-way delay: 298.772 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 17.16 Mbit/s
95th percentile per-packet one-way delay: 233.686 ms
Loss rate: 1.85%
```
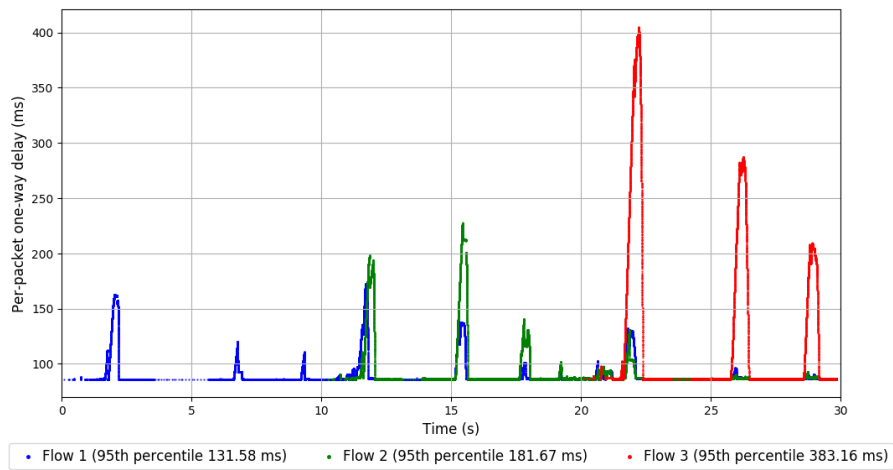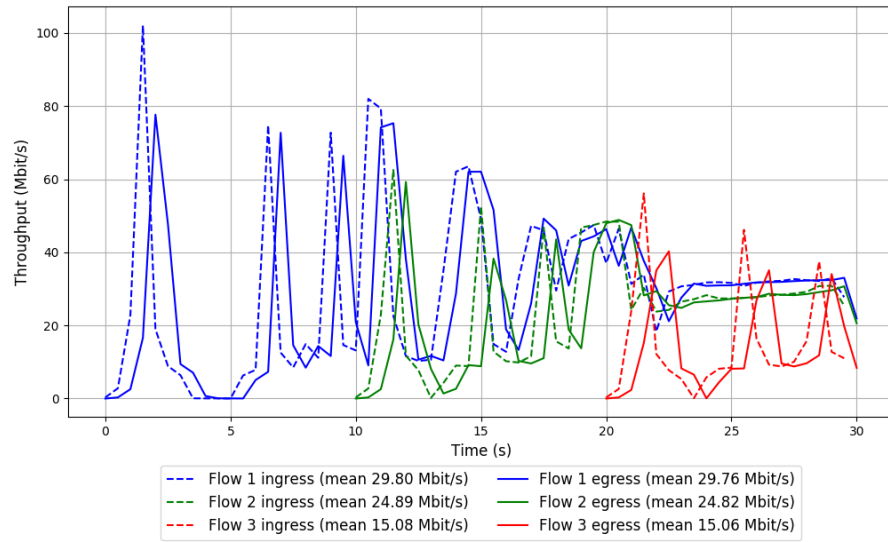
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-01-19 12:08:02
End at: 2019-01-19 12:08:32
Local clock offset: -6.758 ms
Remote clock offset: 8.15 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.19 Mbit/s
95th percentile per-packet one-way delay: 194.338 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 118.552 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 18.97 Mbit/s
95th percentile per-packet one-way delay: 267.325 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 15.75 Mbit/s
95th percentile per-packet one-way delay: 344.341 ms
Loss rate: 2.17%
```
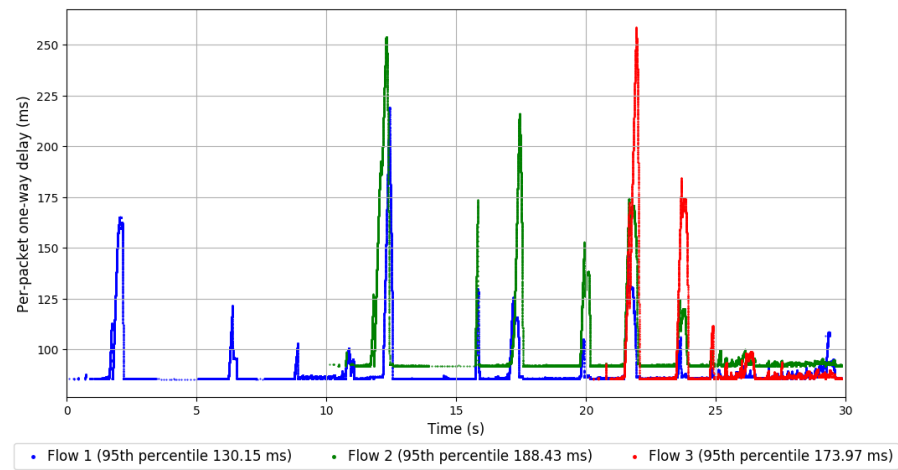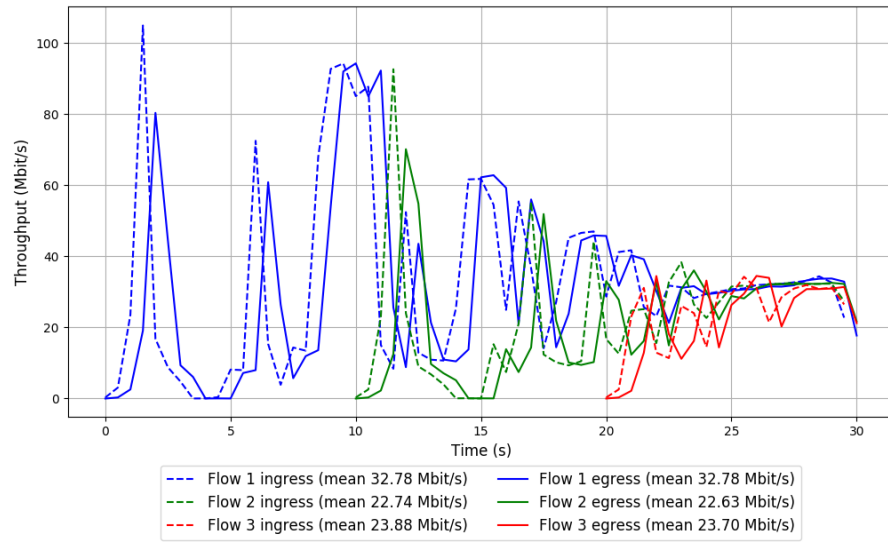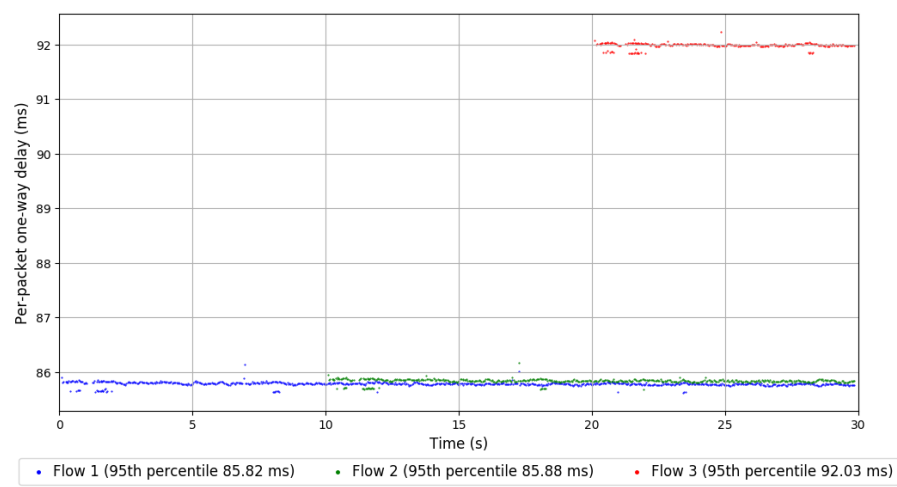
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 38.41 Mbit/s)
Flow 1 egress (mean 38.46 Mbit/s)
Flow 2 ingress (mean 18.99 Mbit/s)
Flow 2 egress (mean 18.97 Mbit/s)
Flow 3 ingress (mean 15.82 Mbit/s)
Flow 3 egress (mean 15.75 Mbit/s)

Flow 1 (95th percentile 118.55 ms)
Flow 2 (95th percentile 267.32 ms)
Flow 3 (95th percentile 344.34 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-01-19 12:34:58
End at: 2019-01-19 12:35:28
Local clock offset: -5.374 ms
Remote clock offset: 6.739 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.92 Mbit/s
95th percentile per-packet one-way delay: 157.902 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 131.276 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 179.739 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 22.70 Mbit/s
95th percentile per-packet one-way delay: 227.324 ms
Loss rate: 2.85%
```
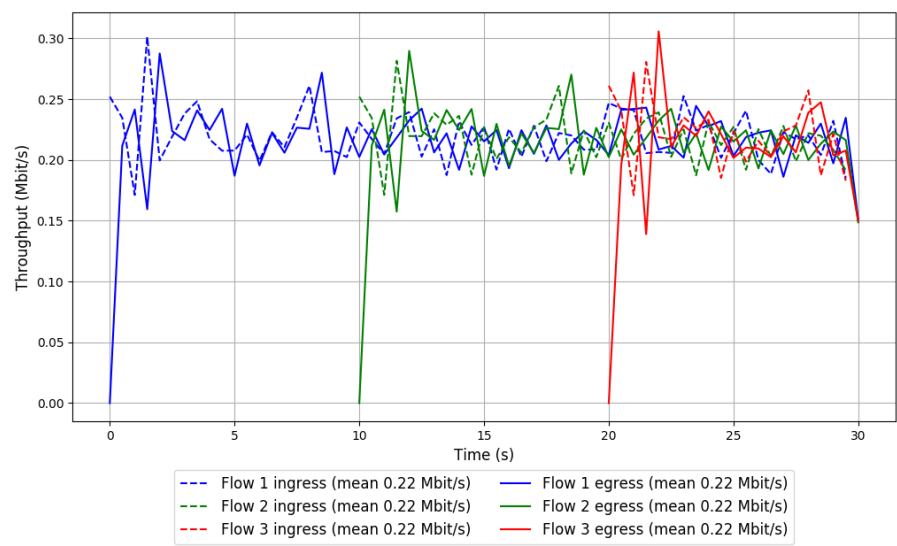
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 30.14 Mbit/s)   Flow 1 egress (mean 30.13 Mbit/s)
Flow 2 ingress (mean 24.76 Mbit/s)   Flow 2 egress (mean 24.68 Mbit/s)
Flow 3 ingress (mean 22.95 Mbit/s)   Flow 3 egress (mean 22.70 Mbit/s)

Flow 1 (95th percentile 131.28 ms)   Flow 2 (95th percentile 179.74 ms)   Flow 3 (95th percentile 227.32 ms)

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```
Run 4: Statistics of QUIC Cubic

Start at: 2019-01-19 13:01:53
End at: 2019-01-19 13:02:23
Local clock offset: -7.315 ms
Remote clock offset: 7.31 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.15 Mbit/s
95th percentile per-packet one-way delay: 183.912 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 29.76 Mbit/s
95th percentile per-packet one-way delay: 131.580 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 24.82 Mbit/s
95th percentile per-packet one-way delay: 181.667 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 15.06 Mbit/s
95th percentile per-packet one-way delay: 383.157 ms
Loss rate: 1.86%
```
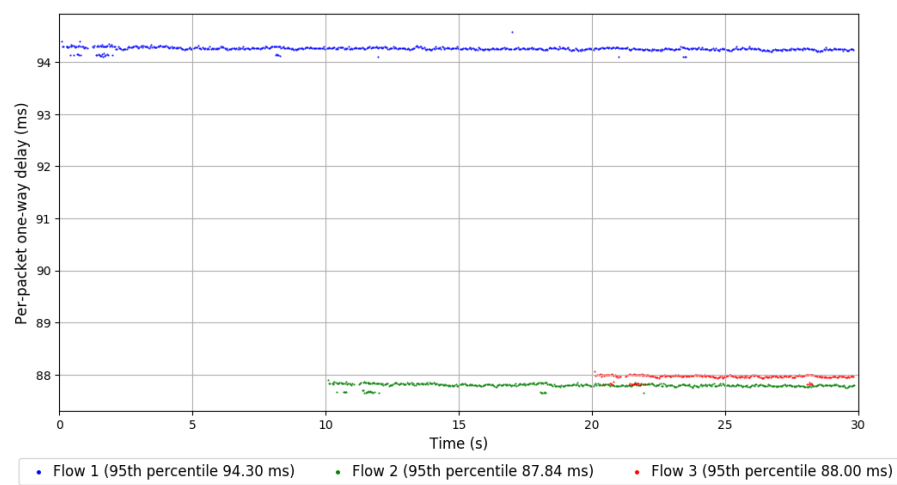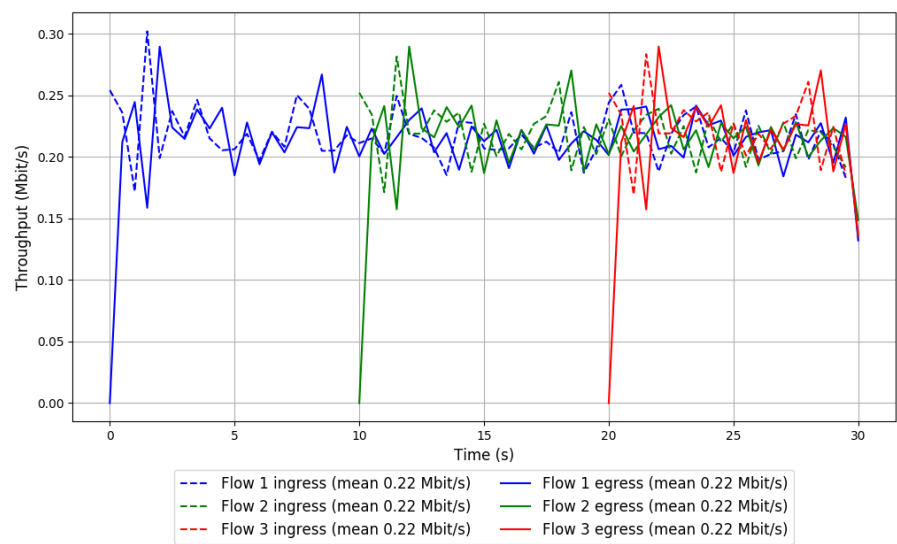
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-01-19 13:28:50
End at: 2019-01-19 13:29:20
Local clock offset: -6.243 ms
Remote clock offset: 9.515 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.53 Mbit/s
95th percentile per-packet one-way delay: 162.409 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 32.78 Mbit/s
95th percentile per-packet one-way delay: 130.147 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 22.63 Mbit/s
95th percentile per-packet one-way delay: 188.434 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 23.70 Mbit/s
95th percentile per-packet one-way delay: 173.973 ms
Loss rate: 2.46%
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 32.78 Mbit/s) —— Flow 1 egress (mean 32.78 Mbit/s)
Flow 2 ingress (mean 22.74 Mbit/s) —— Flow 2 egress (mean 22.63 Mbit/s)
Flow 3 ingress (mean 23.88 Mbit/s) —— Flow 3 egress (mean 23.70 Mbit/s)

Flow 1 (95th percentile 130.15 ms) • Flow 2 (95th percentile 188.43 ms) • Flow 3 (95th percentile 173.97 ms)
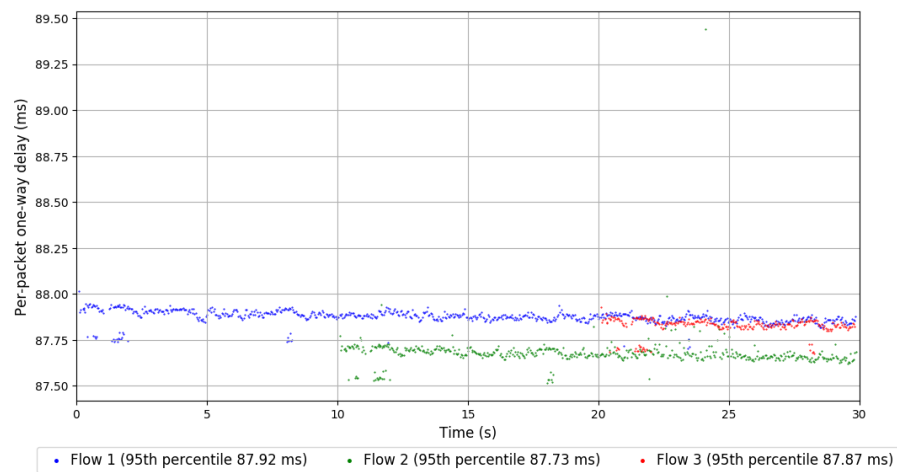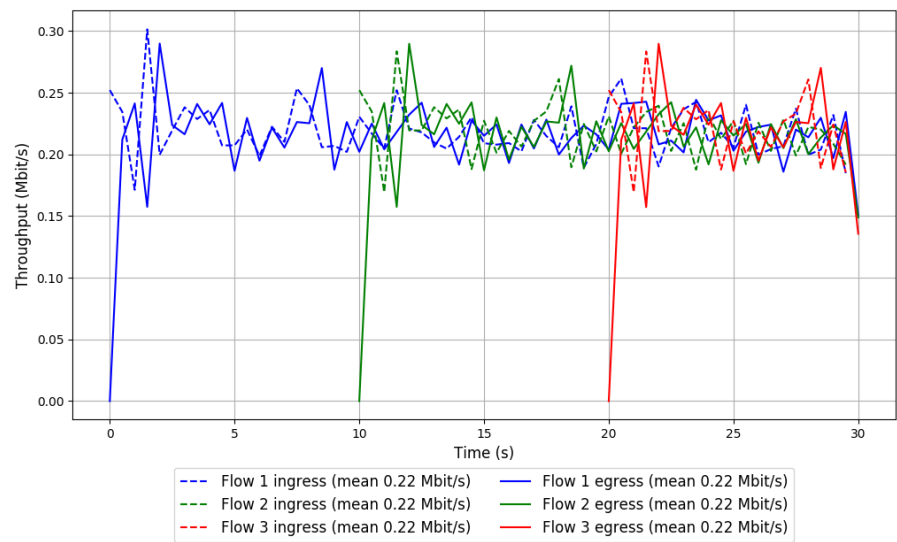
```
Run 1: Statistics of SCReAM

Start at: 2019-01-19 11:56:33
End at: 2019-01-19 11:57:03
Local clock offset: -8.543 ms
Remote clock offset: 7.749 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 92.010 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.824 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.876 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.030 ms
Loss rate: 1.84%
```
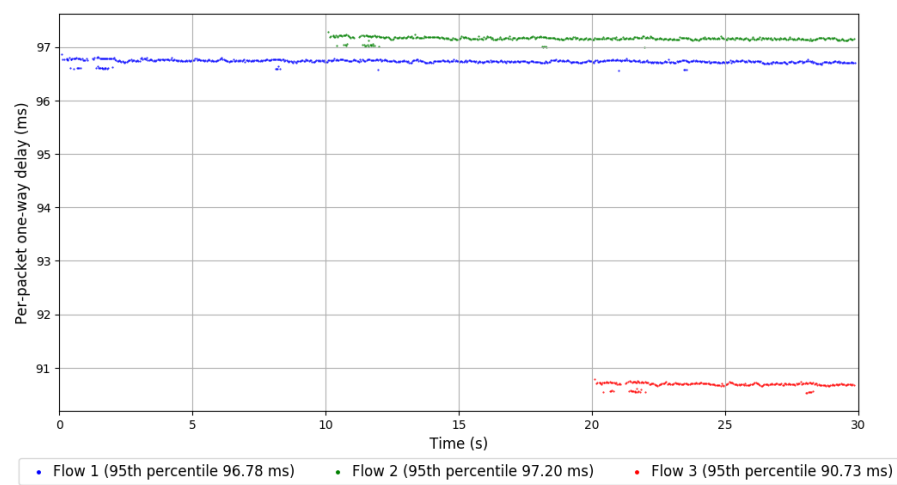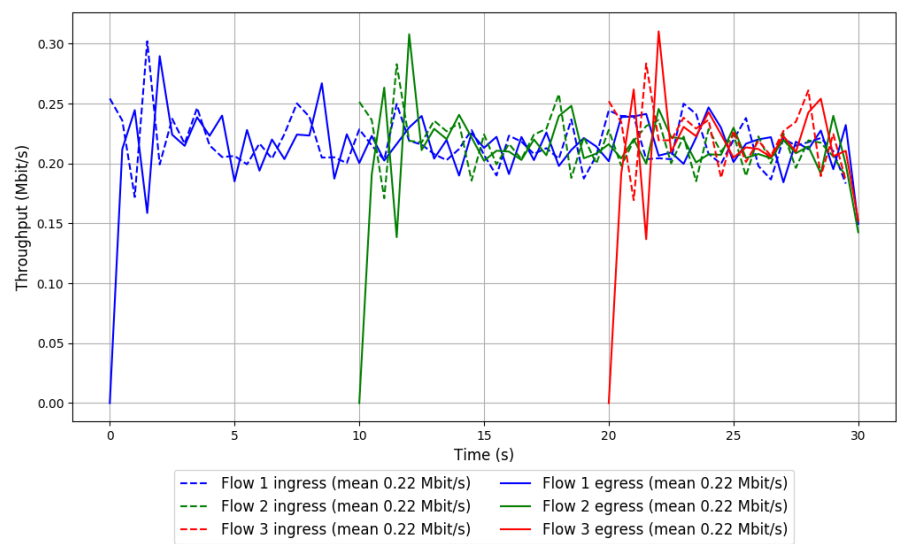
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-01-19 12:23:29
End at: 2019-01-19 12:23:59
Local clock offset: -5.88 ms
Remote clock offset: 6.916 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 94.296 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 94.303 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.843 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.002 ms
Loss rate: 1.85%
```
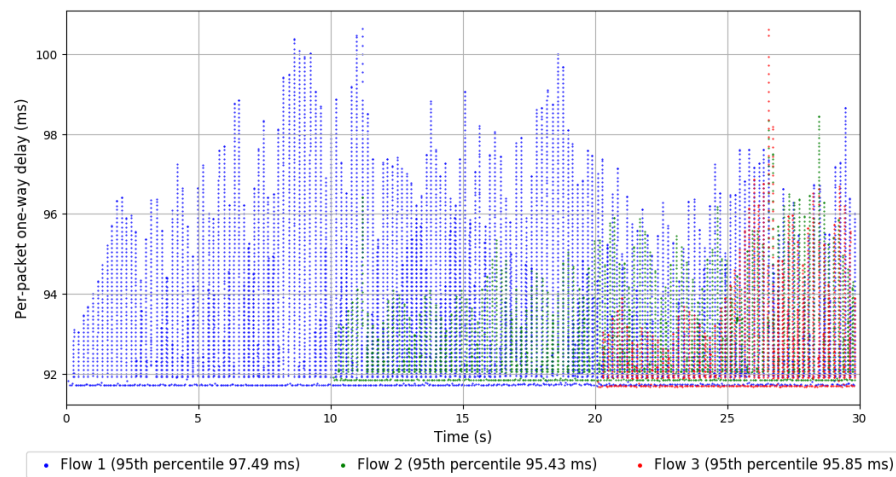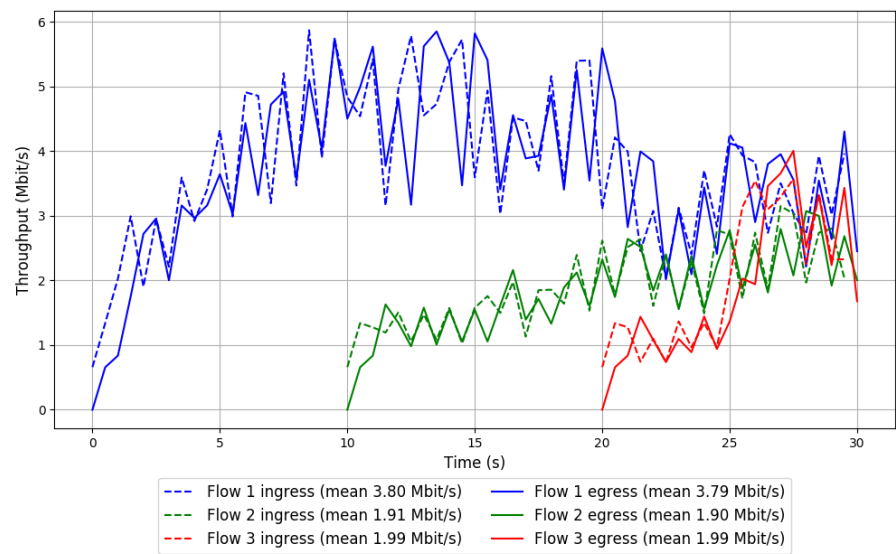
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-01-19 12:50:22
End at: 2019-01-19 12:50:52
Local clock offset: -6.407 ms
Remote clock offset: 6.397 ms

# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.134 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.662 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.948 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.151 ms
Loss rate: 1.85%
```

Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-01-19 13:17:20
End at: 2019-01-19 13:17:50
Local clock offset: -6.786 ms
Remote clock offset: 7.96 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.915 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.924 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.727 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.870 ms
Loss rate: 1.85%
```
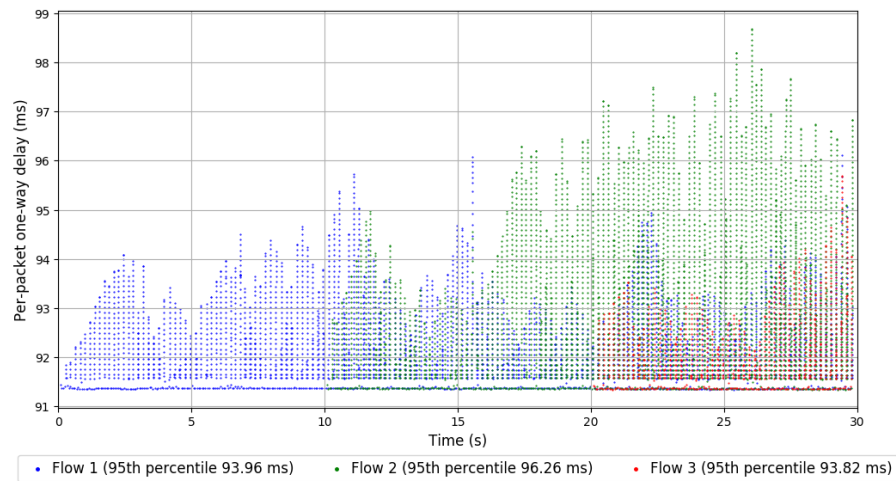
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-01-19 13:44:17
End at: 2019-01-19 13:44:47
Local clock offset: -5.646 ms
Remote clock offset: 4.542 ms

# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 97.184 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.779 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.201 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 90.733 ms
Loss rate: 1.85%
```
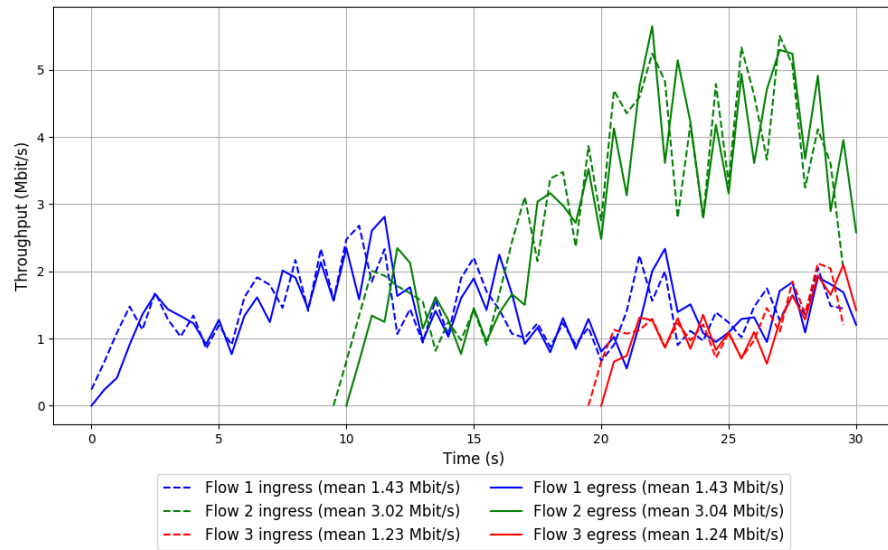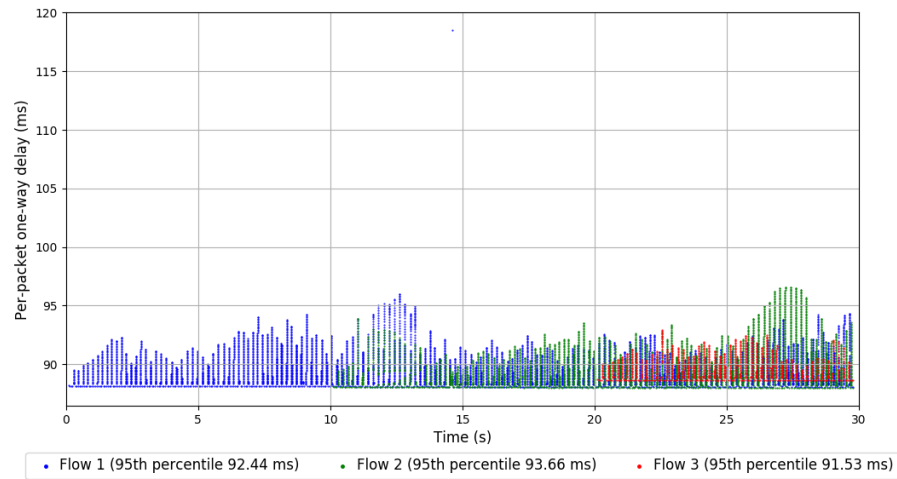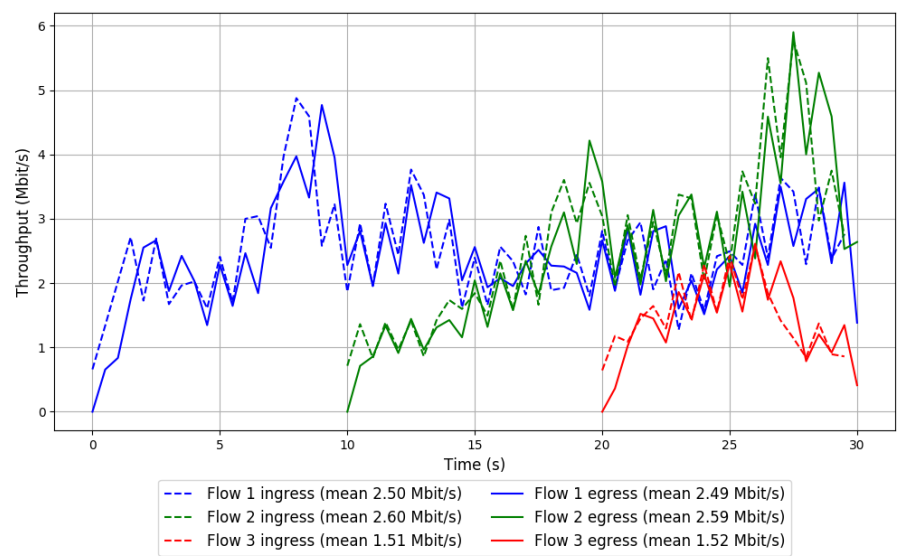
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-01-19 11:39:54
End at: 2019-01-19 11:40:24
Local clock offset: -10.646 ms
Remote clock offset: 1.822 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.70 Mbit/s
95th percentile per-packet one-way delay: 97.139 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 97.488 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 95.427 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 95.847 ms
Loss rate: 1.65%
```
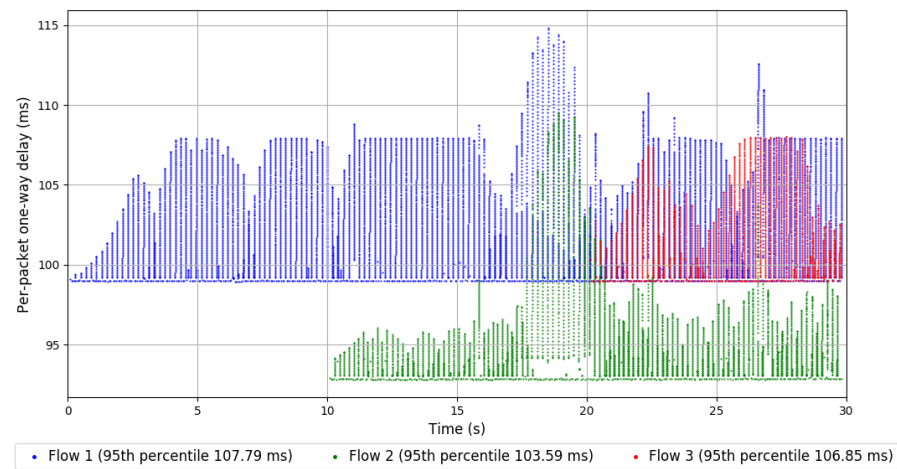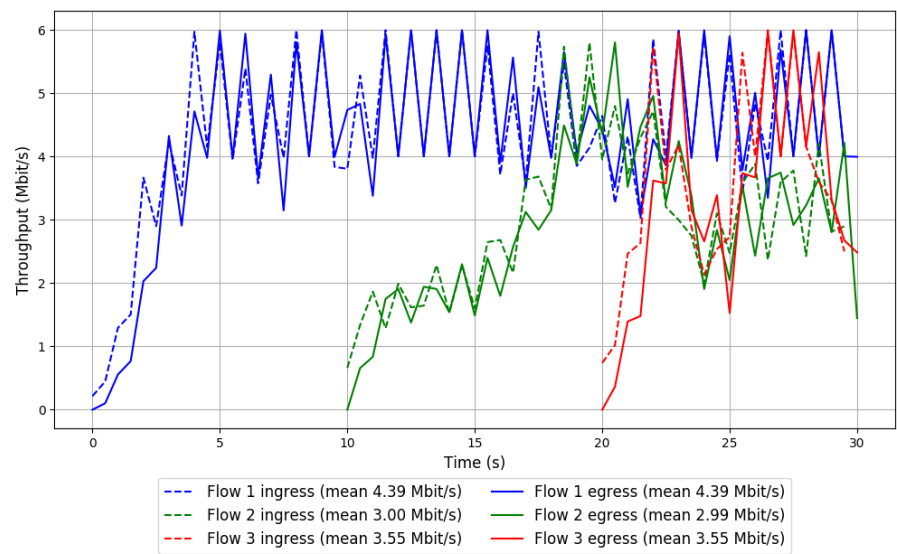
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-01-19 12:06:49
End at: 2019-01-19 12:07:19
Local clock offset: -6.817 ms
Remote clock offset: 3.239 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 95.652 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 93.964 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 96.262 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 93.821 ms
Loss rate: 0.81%
```
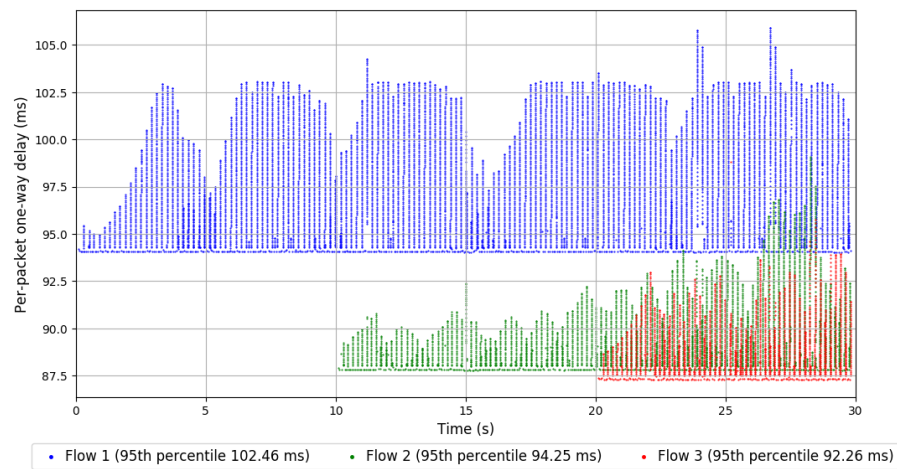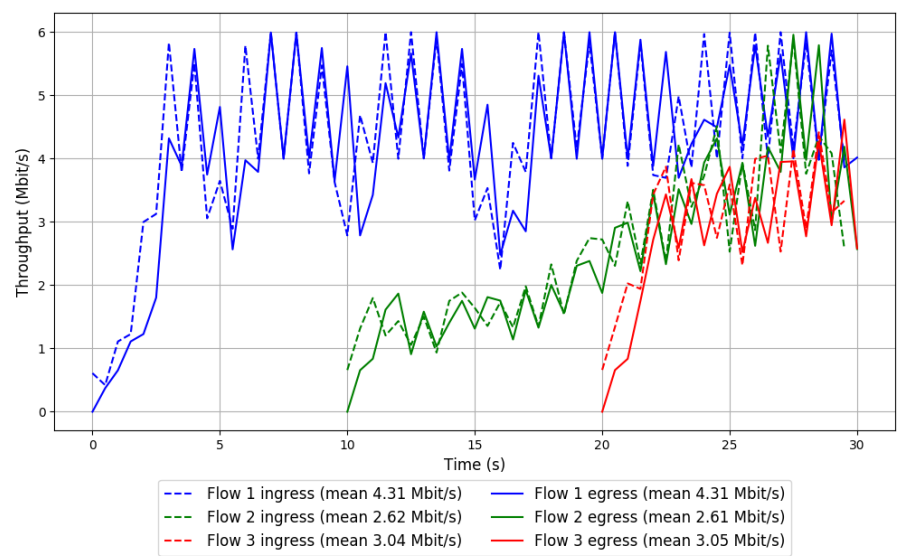
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-01-19 12:33:45
End at: 2019-01-19 12:34:15
Local clock offset: -5.382 ms
Remote clock offset: 5.918 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.70 Mbit/s
95th percentile per-packet one-way delay: 92.737 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 2.49 Mbit/s
95th percentile per-packet one-way delay: 92.438 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 93.657 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 91.526 ms
Loss rate: 1.51%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-01-19 13:00:40
End at: 2019-01-19 13:01:10
Local clock offset: -6.489 ms
Remote clock offset: 1.258 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.53 Mbit/s
95th percentile per-packet one-way delay: 107.446 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 107.788 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 103.595 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 106.850 ms
Loss rate: 1.79%
```
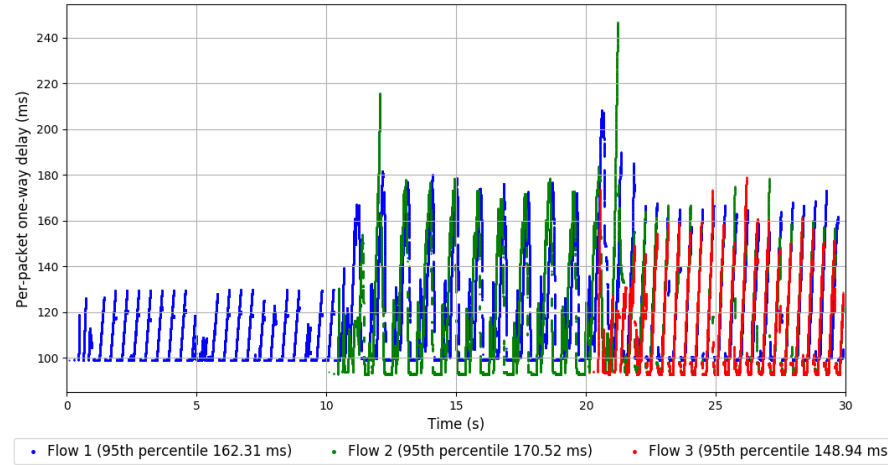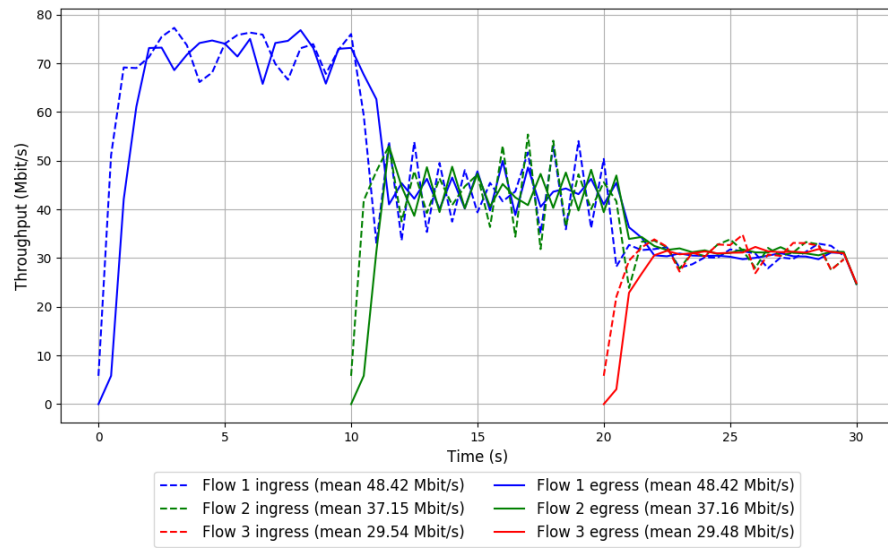
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-01-19 13:27:37
End at: 2019-01-19 13:28:07
Local clock offset: -5.573 ms
Remote clock offset: 8.38 ms


# Below is generated by plot.py at 2019-01-19 14:02:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 102.044 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 102.460 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 94.245 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 92.260 ms
Loss rate: 1.26%
```
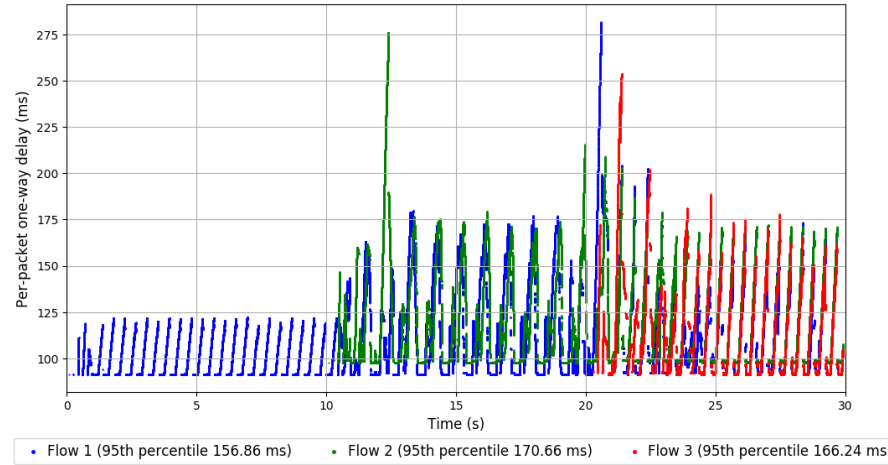
Run 5: Report of Sprout — Data Link

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

Start at: 2019-01-19 11:55:12
End at: 2019-01-19 11:55:42
Local clock offset: -7.999 ms
Remote clock offset: 1.482 ms


# Below is generated by plot.py at 2019-01-19 14:02:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.81 Mbit/s
95th percentile per-packet one-way delay: 163.356 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 48.42 Mbit/s
95th percentile per-packet one-way delay: 162.314 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 37.16 Mbit/s
95th percentile per-packet one-way delay: 170.521 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 29.48 Mbit/s
95th percentile per-packet one-way delay: 148.941 ms
Loss rate: 1.91%
```
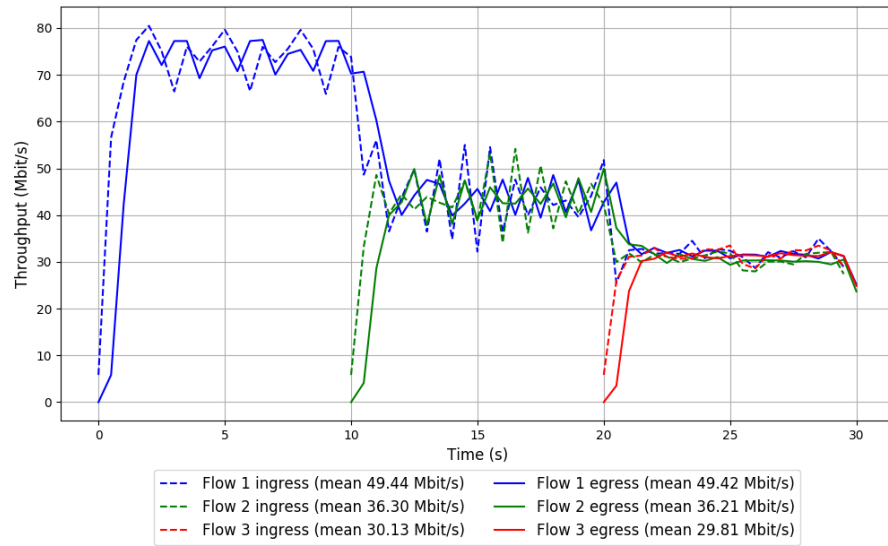
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-01-19 12:22:08
End at: 2019-01-19 12:22:38
Local clock offset: -5.987 ms
Remote clock offset: 2.99 ms


# Below is generated by plot.py at 2019-01-19 14:02:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.26 Mbit/s
95th percentile per-packet one-way delay: 166.808 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 49.42 Mbit/s
95th percentile per-packet one-way delay: 156.862 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 36.21 Mbit/s
95th percentile per-packet one-way delay: 170.657 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 166.239 ms
Loss rate: 2.42%
```
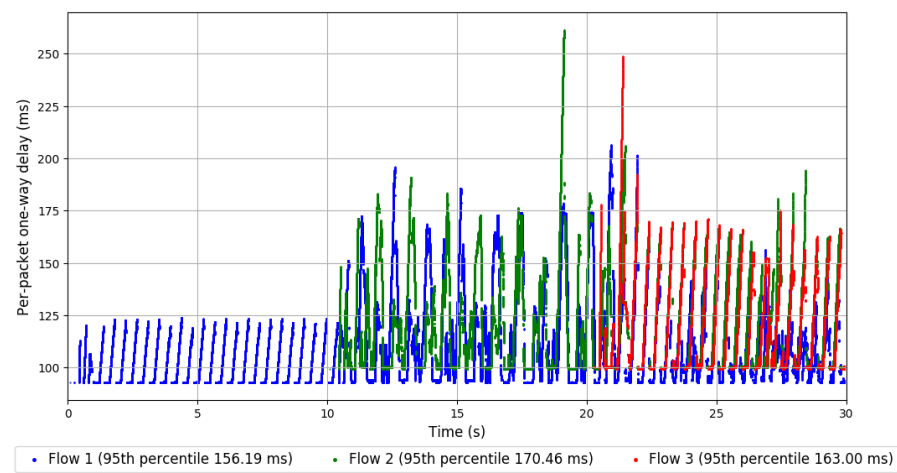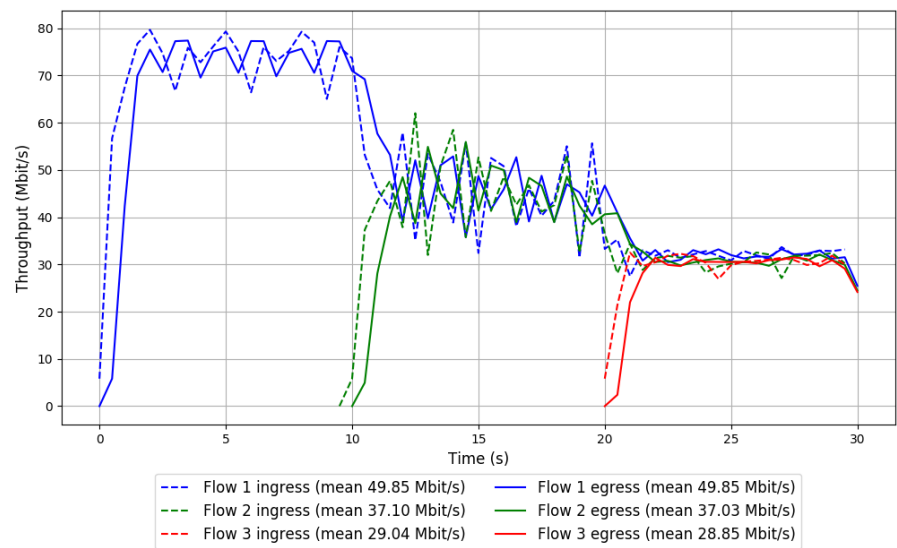
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-01-19 12:49:02
End at: 2019-01-19 12:49:32
Local clock offset: -5.409 ms
Remote clock offset: 1.438 ms


# Below is generated by plot.py at 2019-01-19 14:03:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.94 Mbit/s
95th percentile per-packet one-way delay: 162.900 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 49.85 Mbit/s
95th percentile per-packet one-way delay: 156.194 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 170.464 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 162.999 ms
Loss rate: 2.43%
```
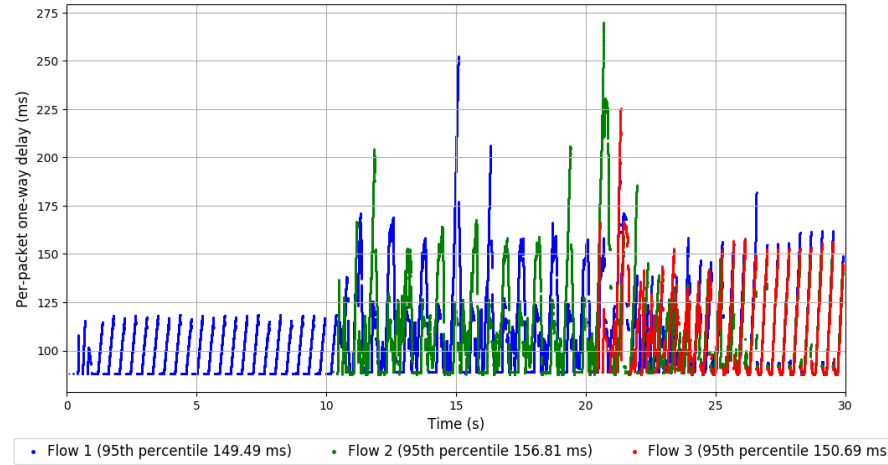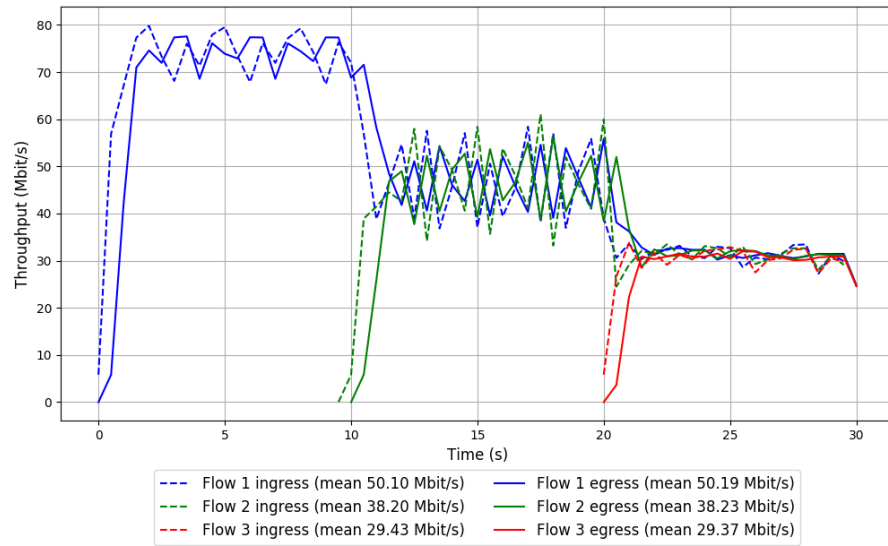
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 49.85 Mbit/s)   Flow 1 egress (mean 49.85 Mbit/s)
Flow 2 ingress (mean 37.10 Mbit/s)   Flow 2 egress (mean 37.03 Mbit/s)
Flow 3 ingress (mean 29.04 Mbit/s)   Flow 3 egress (mean 28.85 Mbit/s)

Flow 1 (95th percentile 156.19 ms)   Flow 2 (95th percentile 170.46 ms)   Flow 3 (95th percentile 163.00 ms)

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

Start at: 2019-01-19 13:15:59
End at: 2019-01-19 13:16:29
Local clock offset: -6.851 ms
Remote clock offset: 7.927 ms


# Below is generated by plot.py at 2019-01-19 14:03:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.25 Mbit/s
95th percentile per-packet one-way delay: 152.628 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 149.494 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 38.23 Mbit/s
95th percentile per-packet one-way delay: 156.806 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 29.37 Mbit/s
95th percentile per-packet one-way delay: 150.688 ms
Loss rate: 1.90%
```
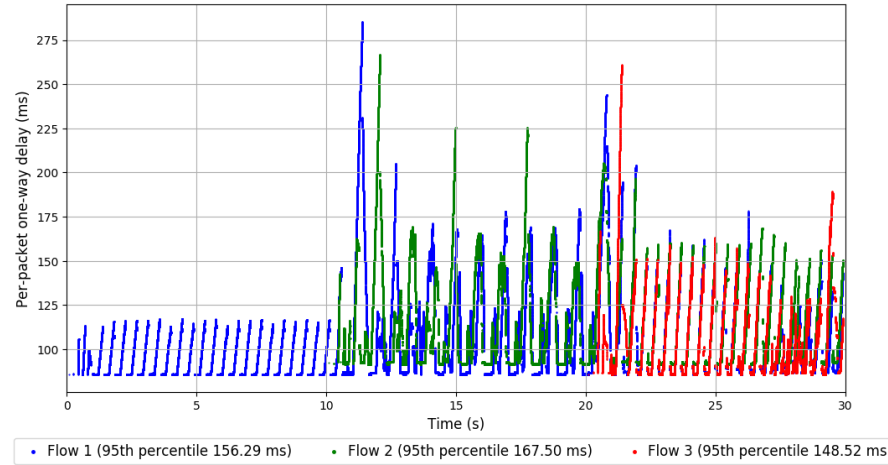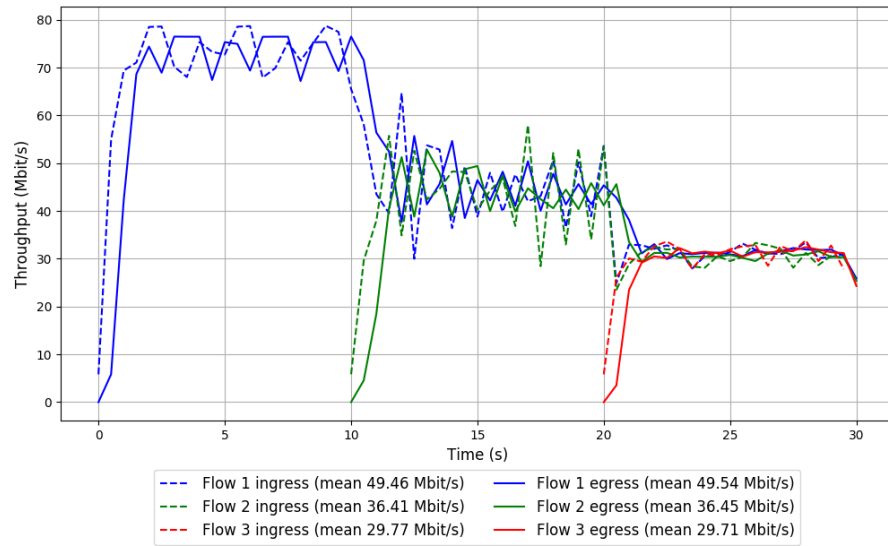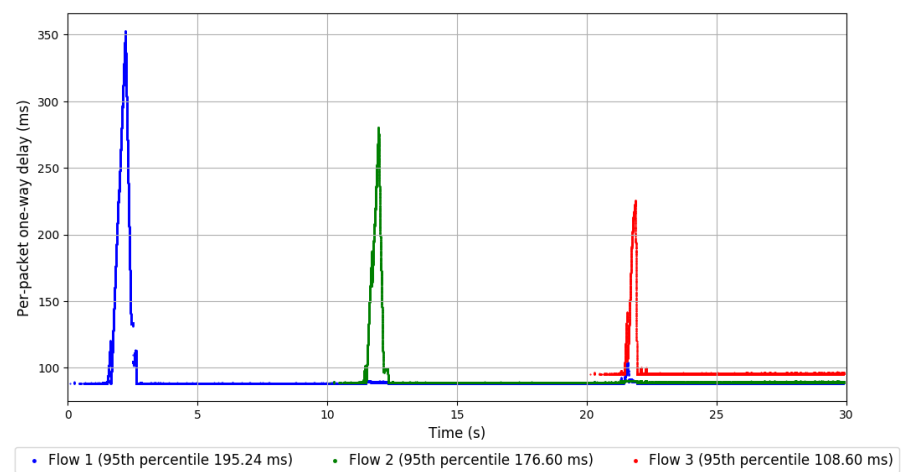
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 50.10 Mbit/s) --- Flow 1 egress (mean 50.19 Mbit/s)
Flow 2 ingress (mean 38.20 Mbit/s) --- Flow 2 egress (mean 38.23 Mbit/s)
Flow 3 ingress (mean 29.43 Mbit/s) --- Flow 3 egress (mean 29.37 Mbit/s)

Flow 1 (95th percentile 149.49 ms) • Flow 2 (95th percentile 156.81 ms) • Flow 3 (95th percentile 150.69 ms)

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

Start at: 2019-01-19 13:42:57
End at: 2019-01-19 13:43:27
Local clock offset: -5.673 ms
Remote clock offset: 9.686 ms


# Below is generated by plot.py at 2019-01-19 14:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.52 Mbit/s
95th percentile per-packet one-way delay: 162.354 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 49.54 Mbit/s
95th percentile per-packet one-way delay: 156.295 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 36.45 Mbit/s
95th percentile per-packet one-way delay: 167.498 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 148.523 ms
Loss rate: 1.91%
```
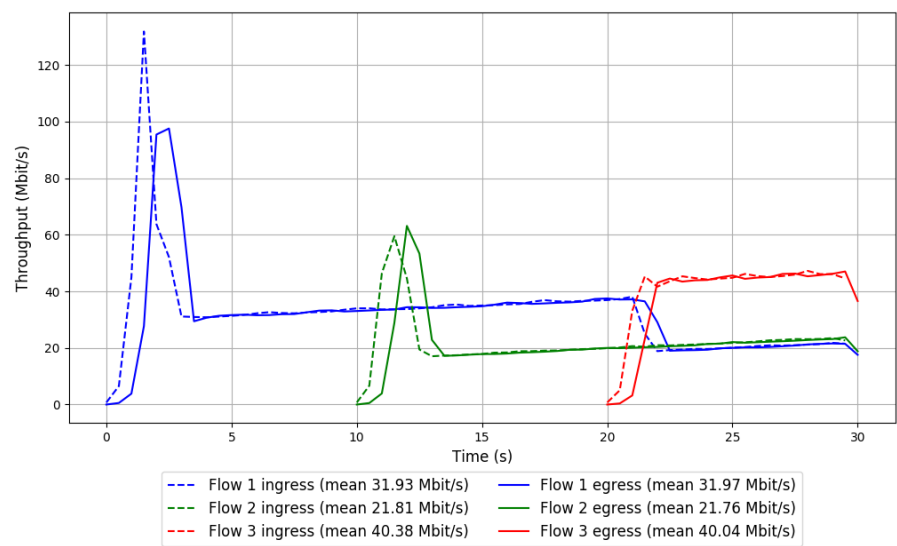
Run 5: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2019-01-19 12:00:20
End at: 2019-01-19 12:00:50
Local clock offset: -7.393 ms
Remote clock offset: 5.587 ms


# Below is generated by plot.py at 2019-01-19 14:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.57 Mbit/s
95th percentile per-packet one-way delay: 170.960 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 31.97 Mbit/s
95th percentile per-packet one-way delay: 195.239 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 21.76 Mbit/s
95th percentile per-packet one-way delay: 176.605 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 108.604 ms
Loss rate: 2.59%
```
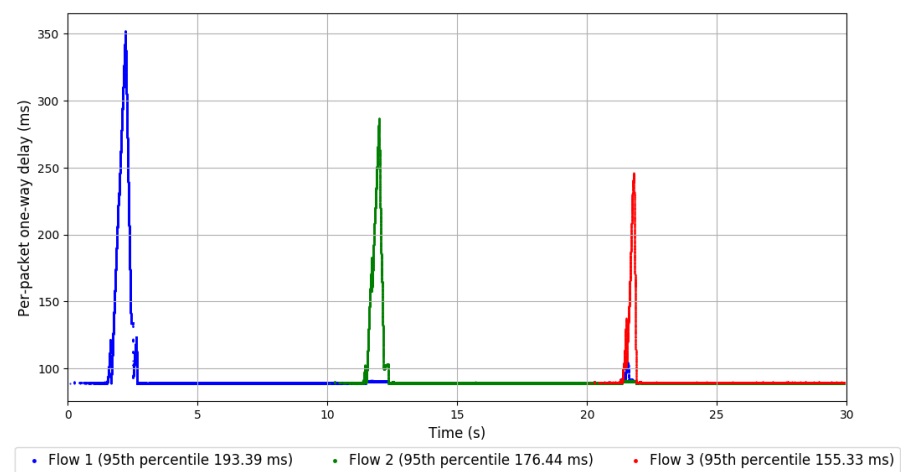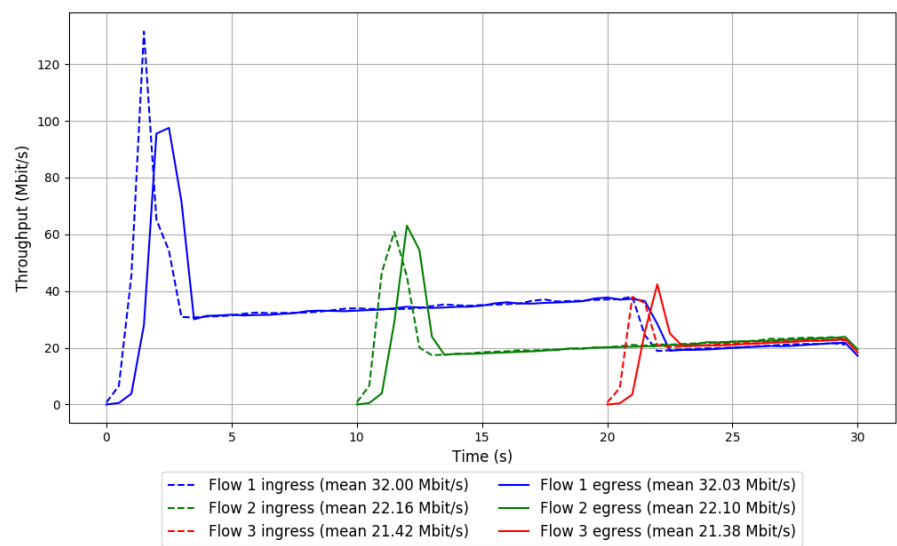
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-01-19 12:27:15
End at: 2019-01-19 12:27:45
Local clock offset: -5.733 ms
Remote clock offset: 5.979 ms


# Below is generated by plot.py at 2019-01-19 14:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.73 Mbit/s
95th percentile per-packet one-way delay: 180.813 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 32.03 Mbit/s
95th percentile per-packet one-way delay: 193.393 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 22.10 Mbit/s
95th percentile per-packet one-way delay: 176.439 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 21.38 Mbit/s
95th percentile per-packet one-way delay: 155.330 ms
Loss rate: 1.91%
```
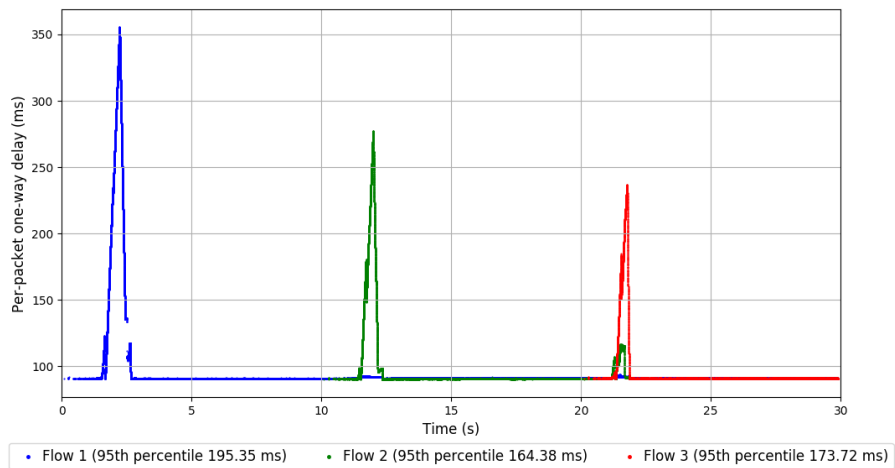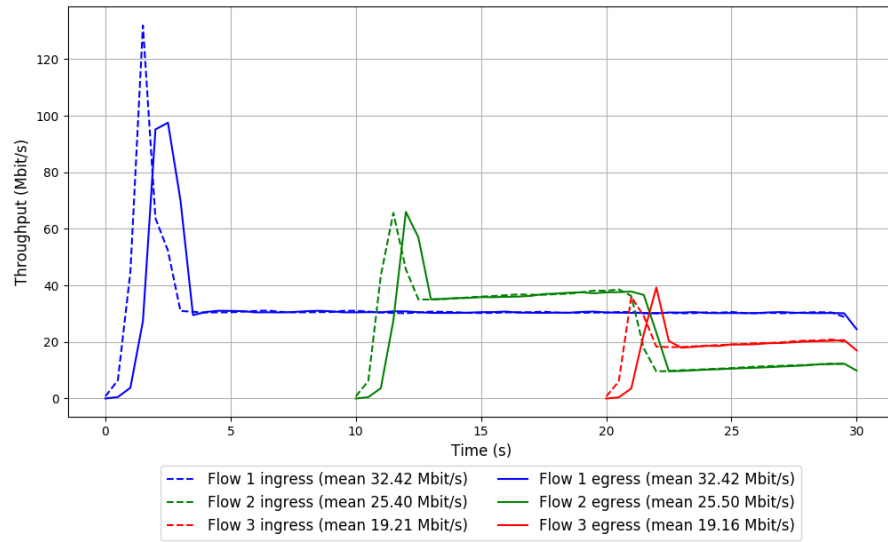
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-01-19 12:54:09
End at: 2019-01-19 12:54:39
Local clock offset: -6.815 ms
Remote clock offset: 2.55 ms


# Below is generated by plot.py at 2019-01-19 14:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.65 Mbit/s
95th percentile per-packet one-way delay: 177.824 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 32.42 Mbit/s
95th percentile per-packet one-way delay: 195.349 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 25.50 Mbit/s
95th percentile per-packet one-way delay: 164.375 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 19.16 Mbit/s
95th percentile per-packet one-way delay: 173.725 ms
Loss rate: 1.95%
```
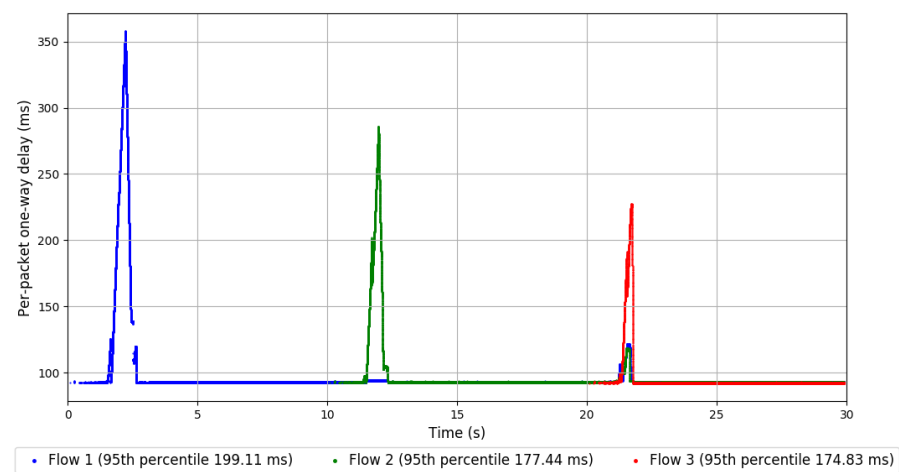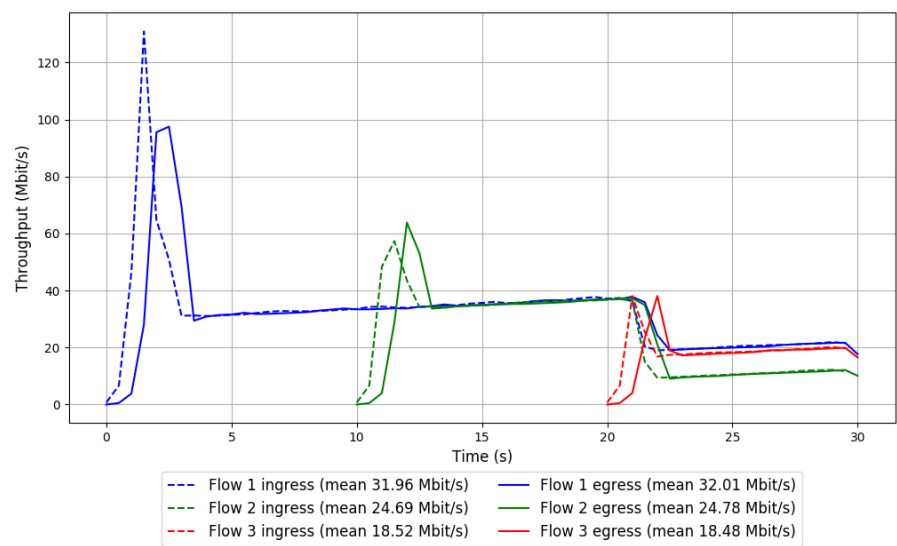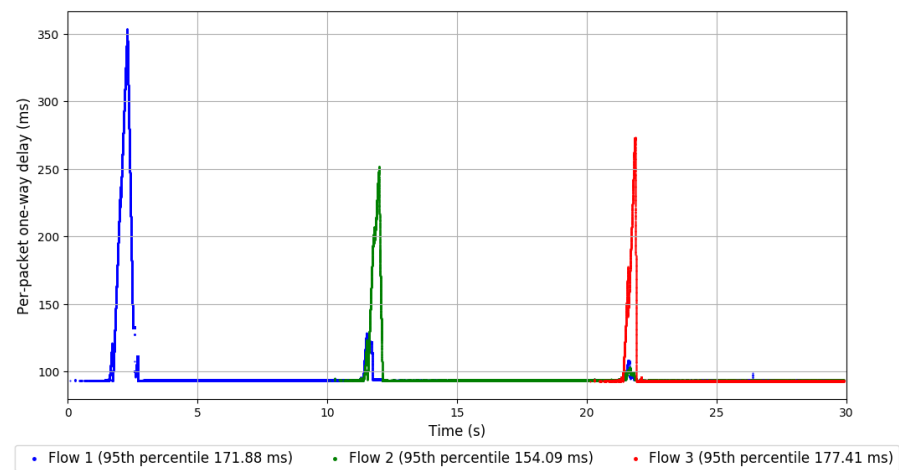
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-01-19 13:21:07
End at: 2019-01-19 13:21:37
Local clock offset: -6.211 ms
Remote clock offset: 3.338 ms


# Below is generated by plot.py at 2019-01-19 14:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.55 Mbit/s
95th percentile per-packet one-way delay: 185.376 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 199.109 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 177.437 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 18.48 Mbit/s
95th percentile per-packet one-way delay: 174.830 ms
Loss rate: 1.92%
```

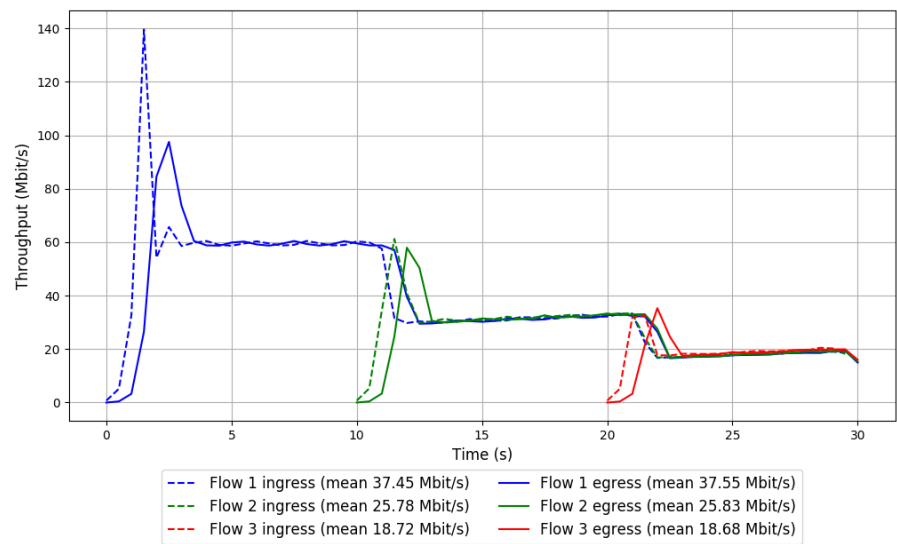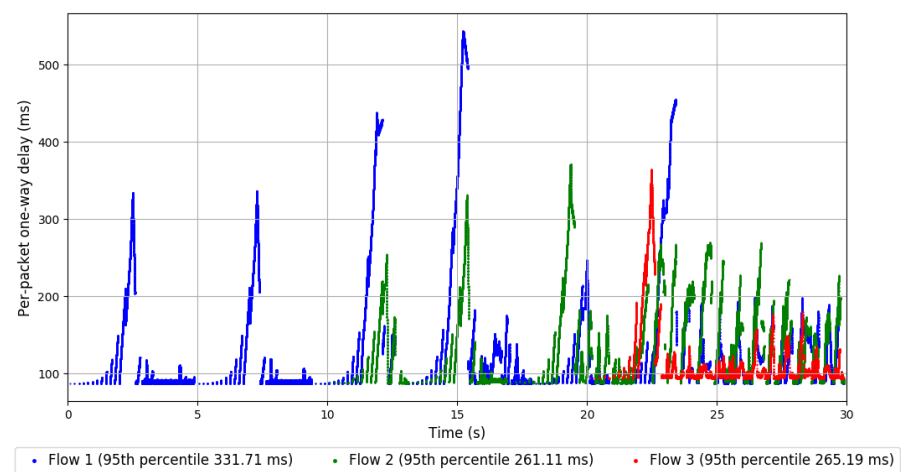Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-01-19 13:48:04
End at: 2019-01-19 13:48:34
Local clock offset: -5.849 ms
Remote clock offset: 8.241 ms


# Below is generated by plot.py at 2019-01-19 14:03:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.83 Mbit/s
95th percentile per-packet one-way delay: 168.212 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 37.55 Mbit/s
95th percentile per-packet one-way delay: 171.881 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 25.83 Mbit/s
95th percentile per-packet one-way delay: 154.086 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 18.68 Mbit/s
95th percentile per-packet one-way delay: 177.405 ms
Loss rate: 2.02%
```
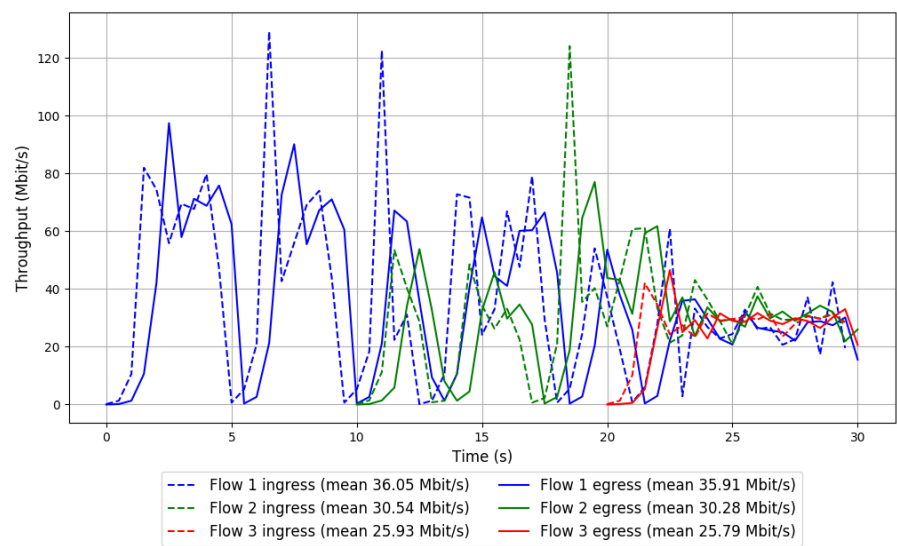
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 37.45 Mbit/s) --- Flow 1 egress (mean 37.55 Mbit/s)
Flow 2 ingress (mean 25.78 Mbit/s) --- Flow 2 egress (mean 25.83 Mbit/s)
Flow 3 ingress (mean 18.72 Mbit/s) --- Flow 3 egress (mean 18.68 Mbit/s)

Flow 1 (95th percentile 171.88 ms) • Flow 2 (95th percentile 154.09 ms) • Flow 3 (95th percentile 177.41 ms)

```
Run 1: Statistics of Verus

Start at: 2019-01-19 11:47:35
End at: 2019-01-19 11:48:05
Local clock offset: -10.078 ms
Remote clock offset: 6.298 ms


# Below is generated by plot.py at 2019-01-19 14:03:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.46 Mbit/s
95th percentile per-packet one-way delay: 305.458 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 35.91 Mbit/s
95th percentile per-packet one-way delay: 331.714 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 30.28 Mbit/s
95th percentile per-packet one-way delay: 261.107 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 25.79 Mbit/s
95th percentile per-packet one-way delay: 265.187 ms
Loss rate: 2.51%
```
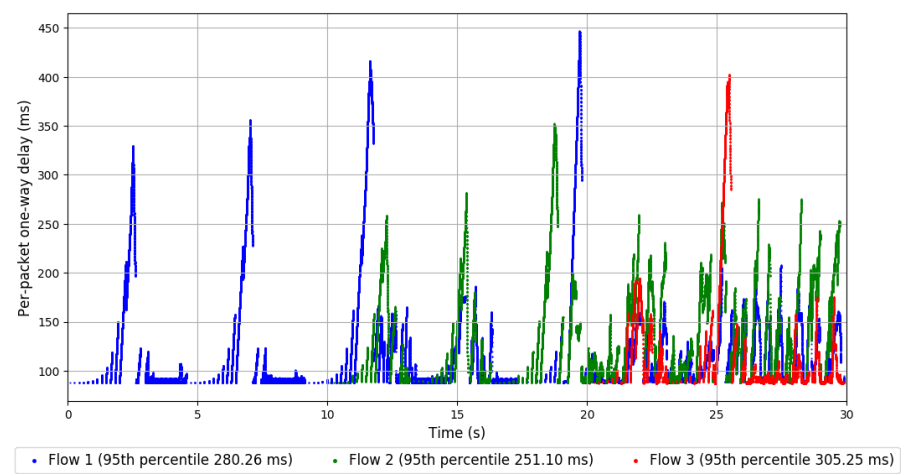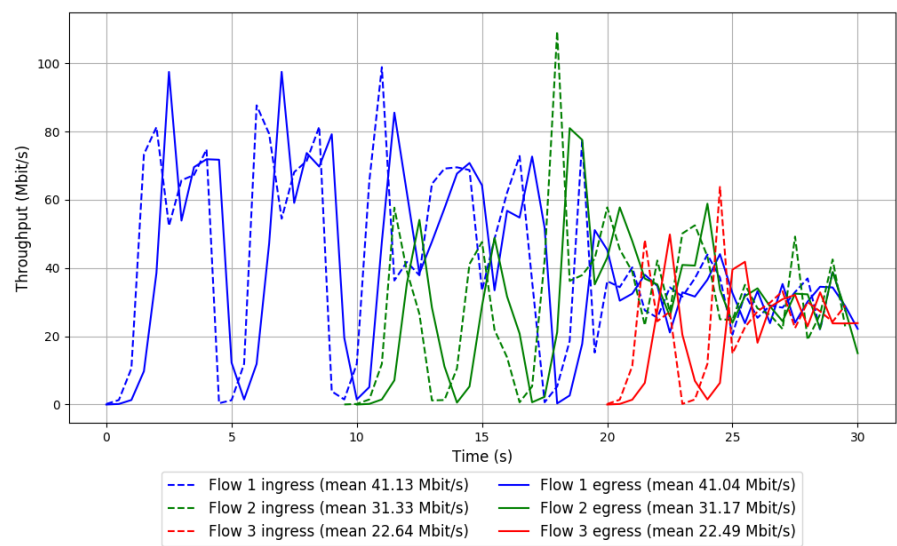
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-01-19 12:14:31
End at: 2019-01-19 12:15:01
Local clock offset: -6.533 ms
Remote clock offset: 7.057 ms


# Below is generated by plot.py at 2019-01-19 14:03:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.94 Mbit/s
95th percentile per-packet one-way delay: 268.581 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 41.04 Mbit/s
95th percentile per-packet one-way delay: 280.257 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 251.097 ms
Loss rate: 2.16%
-- Flow 3:
Average throughput: 22.49 Mbit/s
95th percentile per-packet one-way delay: 305.253 ms
Loss rate: 2.74%
```

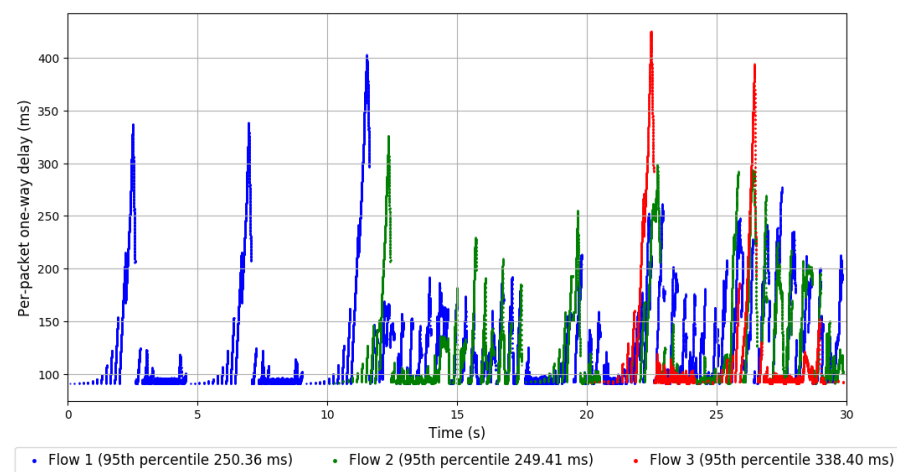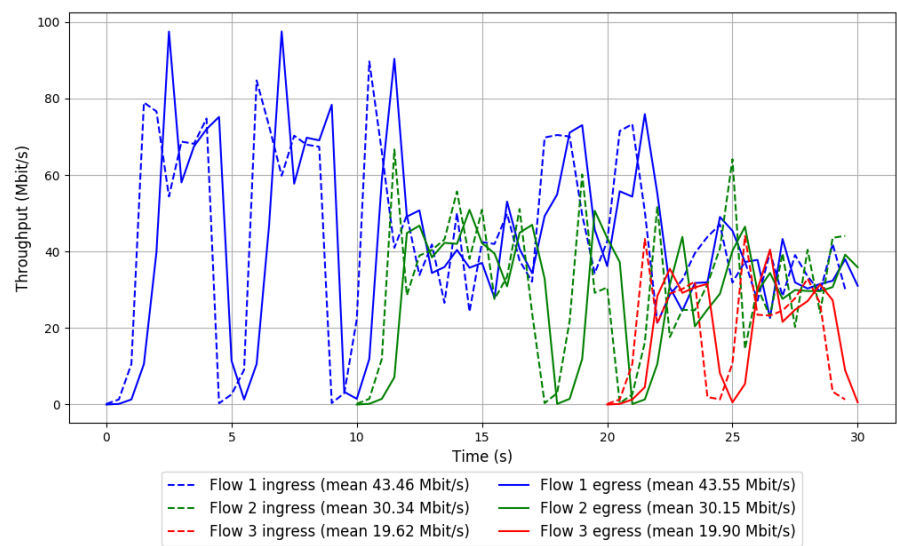Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-01-19 12:41:24
End at: 2019-01-19 12:41:54
Local clock offset: -5.129 ms
Remote clock offset: 2.809 ms


# Below is generated by plot.py at 2019-01-19 14:03:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.04 Mbit/s
95th percentile per-packet one-way delay: 255.957 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 43.55 Mbit/s
95th percentile per-packet one-way delay: 250.362 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 30.15 Mbit/s
95th percentile per-packet one-way delay: 249.408 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 338.400 ms
Loss rate: 0.38%
```
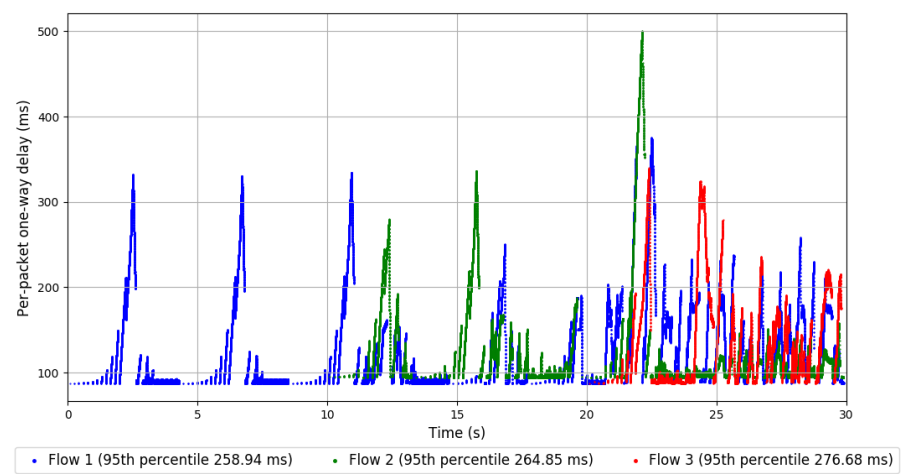
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-01-19 13:08:22
End at: 2019-01-19 13:08:52
Local clock offset: -7.54 ms
Remote clock offset: 6.835 ms


# Below is generated by plot.py at 2019-01-19 14:03:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.86 Mbit/s
95th percentile per-packet one-way delay: 263.688 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 38.27 Mbit/s
95th percentile per-packet one-way delay: 258.941 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 31.73 Mbit/s
95th percentile per-packet one-way delay: 264.849 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 26.30 Mbit/s
95th percentile per-packet one-way delay: 276.675 ms
Loss rate: 3.93%
```
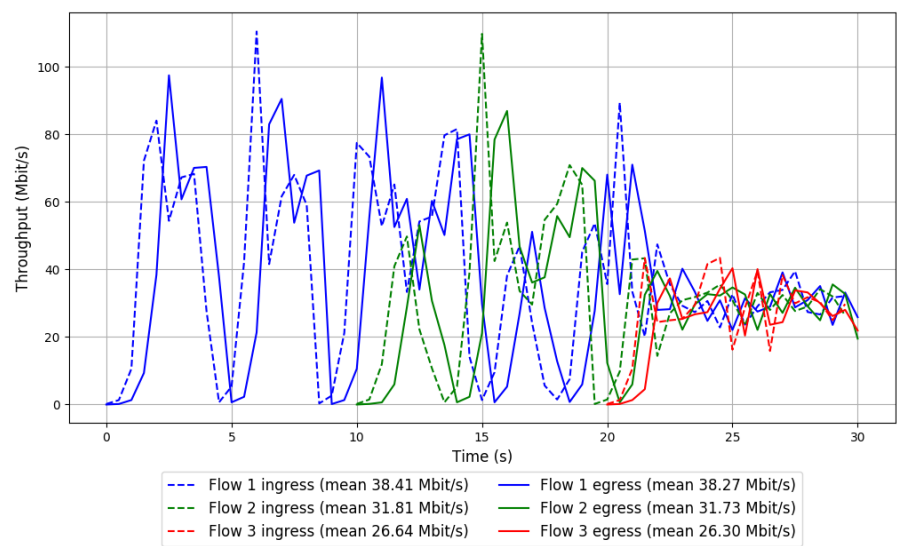
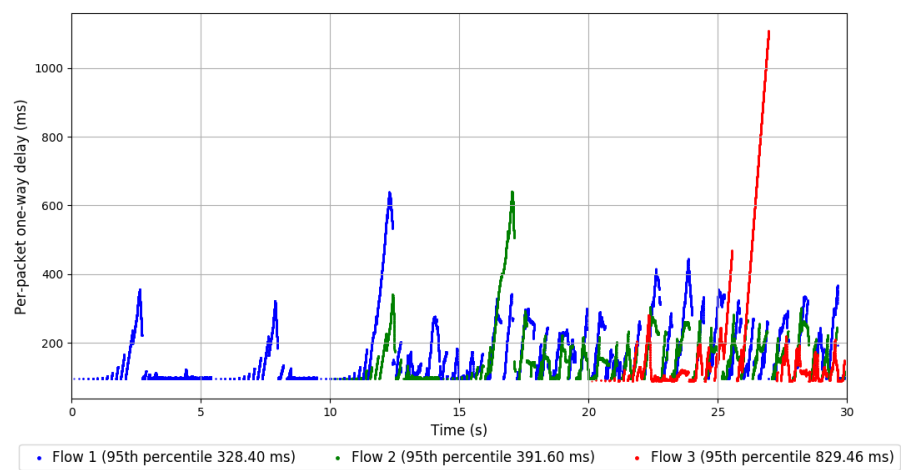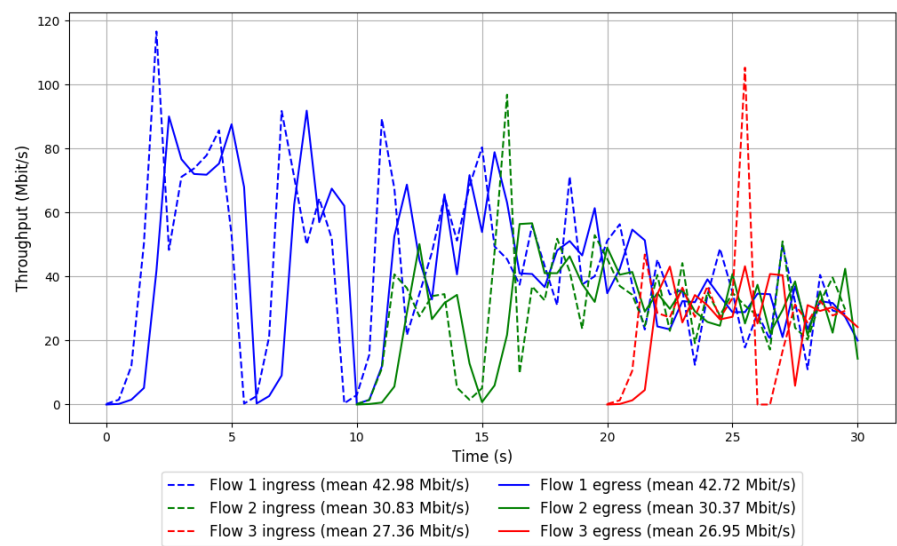Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-01-19 13:35:19
End at: 2019-01-19 13:35:49
Local clock offset: -5.155 ms
Remote clock offset: 8.71 ms


# Below is generated by plot.py at 2019-01-19 14:03:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.73 Mbit/s
95th percentile per-packet one-way delay: 362.305 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 42.72 Mbit/s
95th percentile per-packet one-way delay: 328.405 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 391.599 ms
Loss rate: 2.39%
-- Flow 3:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 829.462 ms
Loss rate: 3.20%
```

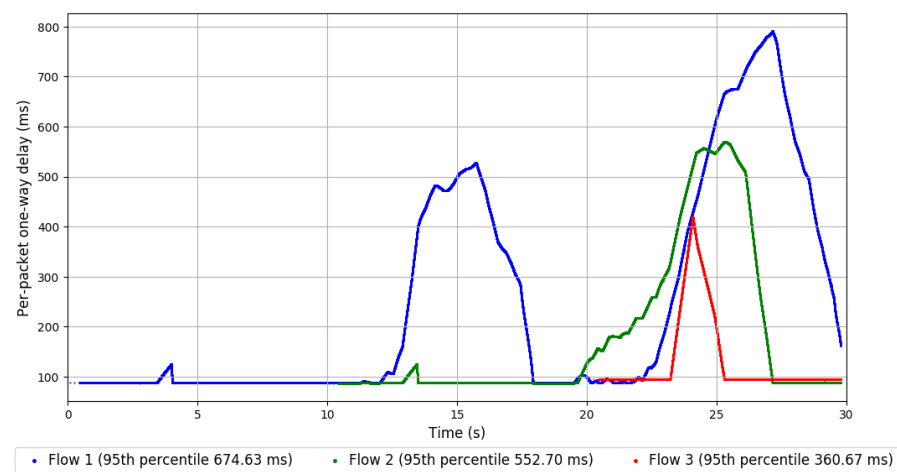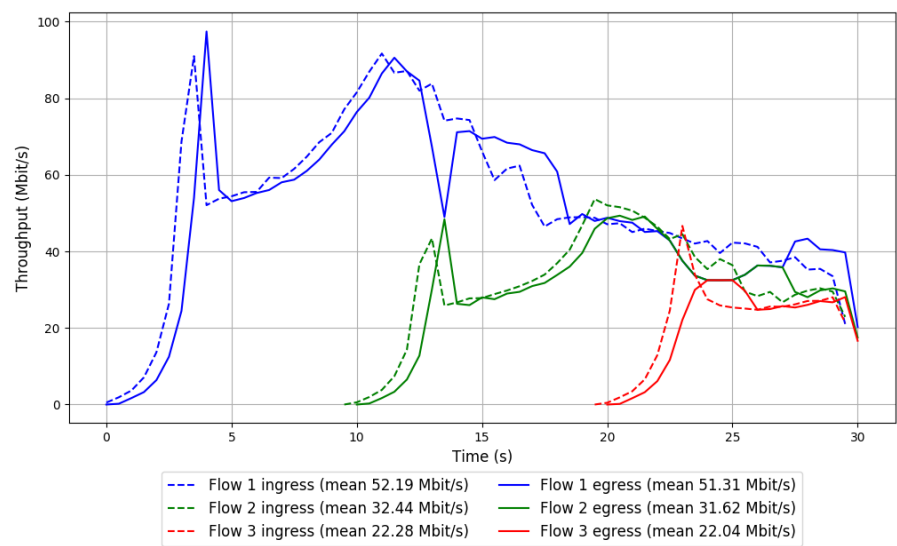## Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-01-19 11:45:00
End at: 2019-01-19 11:45:30
Local clock offset: -10.259 ms
Remote clock offset: 6.668 ms


# Below is generated by plot.py at 2019-01-19 14:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.49 Mbit/s
95th percentile per-packet one-way delay: 577.225 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 51.31 Mbit/s
95th percentile per-packet one-way delay: 674.629 ms
Loss rate: 2.25%
-- Flow 2:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 552.698 ms
Loss rate: 3.36%
-- Flow 3:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 360.665 ms
Loss rate: 2.88%
```

Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-01-19 12:11:56
End at: 2019-01-19 12:12:26
Local clock offset: -6.595 ms
Remote clock offset: 2.972 ms


# Below is generated by plot.py at 2019-01-19 14:04:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 565.659 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 51.68 Mbit/s
95th percentile per-packet one-way delay: 600.968 ms
Loss rate: 1.91%
-- Flow 2:
Average throughput: 29.14 Mbit/s
95th percentile per-packet one-way delay: 351.355 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 23.13 Mbit/s
95th percentile per-packet one-way delay: 358.030 ms
Loss rate: 2.98%
```
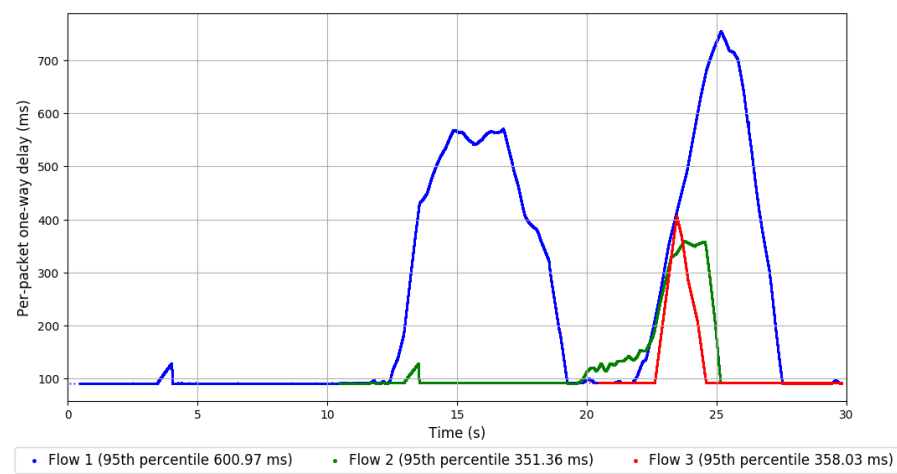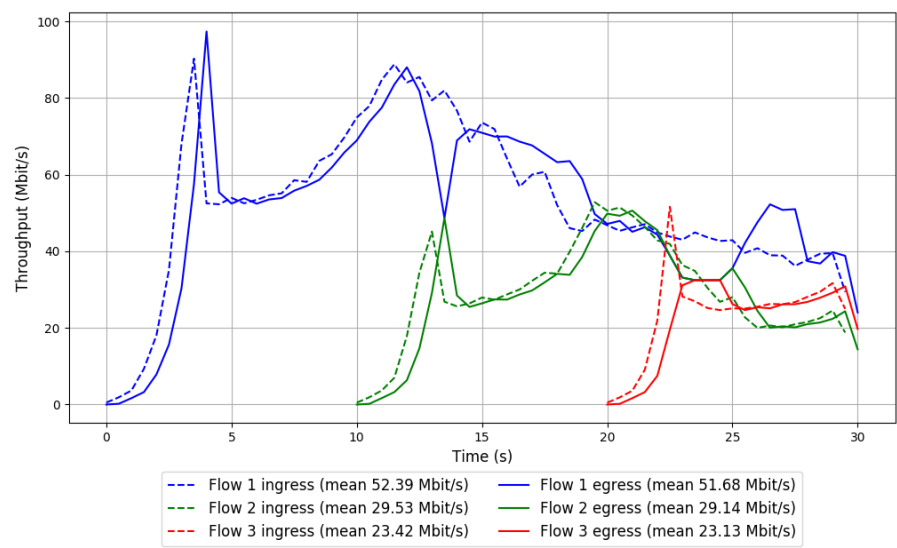
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-01-19 12:38:51
End at: 2019-01-19 12:39:21
Local clock offset: -5.26 ms
Remote clock offset: 7.943 ms


# Below is generated by plot.py at 2019-01-19 14:04:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 1817.177 ms
Loss rate: 4.55%
-- Flow 1:
Average throughput: 50.99 Mbit/s
95th percentile per-packet one-way delay: 1949.726 ms
Loss rate: 5.03%
-- Flow 2:
Average throughput: 30.64 Mbit/s
95th percentile per-packet one-way delay: 547.486 ms
Loss rate: 3.14%
-- Flow 3:
Average throughput: 22.17 Mbit/s
95th percentile per-packet one-way delay: 268.238 ms
Loss rate: 5.07%
```
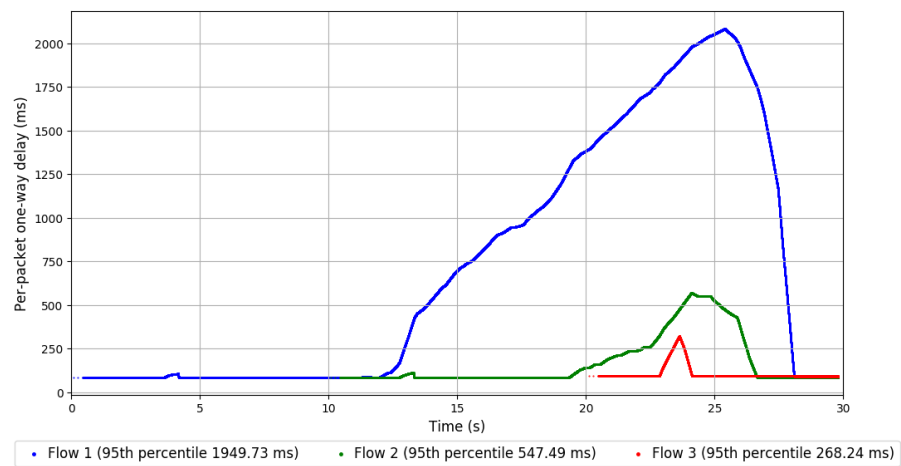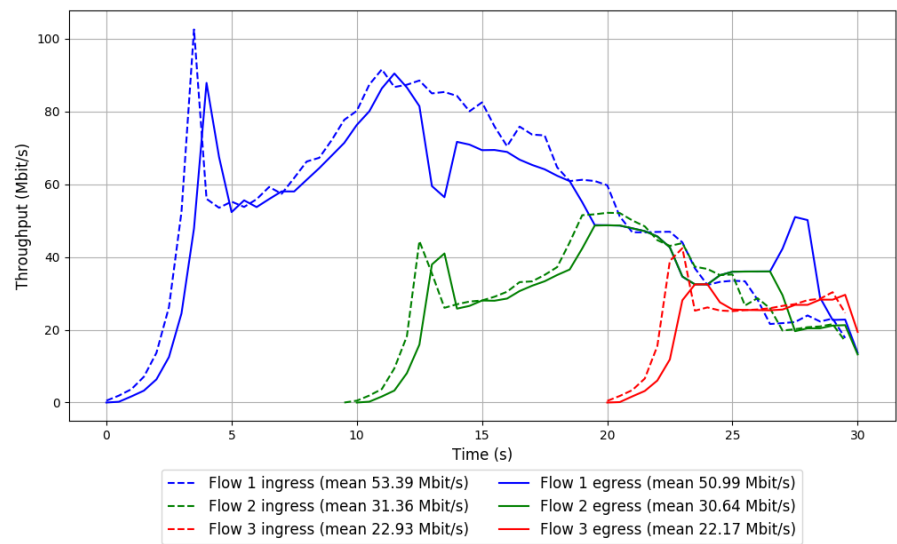
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 53.39 Mbit/s) --- Flow 1 egress (mean 50.99 Mbit/s)
Flow 2 ingress (mean 31.36 Mbit/s) --- Flow 2 egress (mean 30.64 Mbit/s)
Flow 3 ingress (mean 22.93 Mbit/s) --- Flow 3 egress (mean 22.17 Mbit/s)

Flow 1 (95th percentile 1949.73 ms) • Flow 2 (95th percentile 547.49 ms) • Flow 3 (95th percentile 268.24 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-01-19 13:05:47
End at: 2019-01-19 13:06:17
Local clock offset: -6.675 ms
Remote clock offset: 1.55 ms


# Below is generated by plot.py at 2019-01-19 14:04:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.09 Mbit/s
95th percentile per-packet one-way delay: 1913.842 ms
Loss rate: 6.14%
-- Flow 1:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 1990.266 ms
Loss rate: 6.54%
-- Flow 2:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 1004.010 ms
Loss rate: 6.35%
-- Flow 3:
Average throughput: 22.81 Mbit/s
95th percentile per-packet one-way delay: 343.448 ms
Loss rate: 2.73%
```
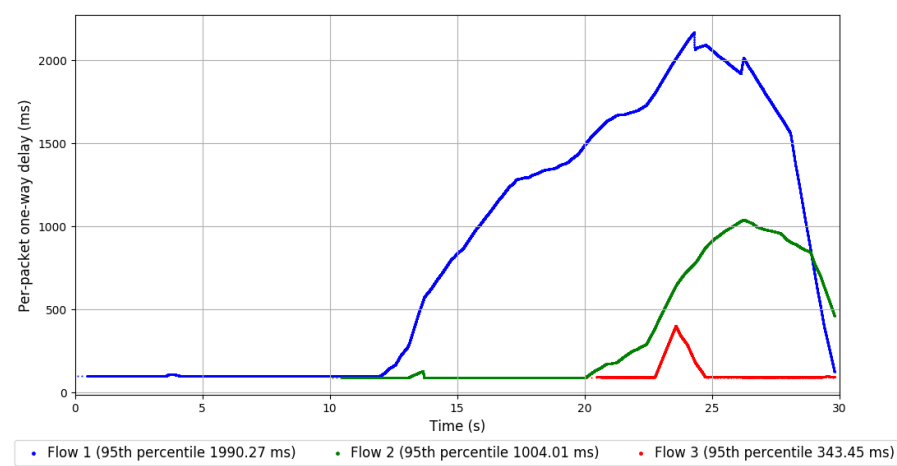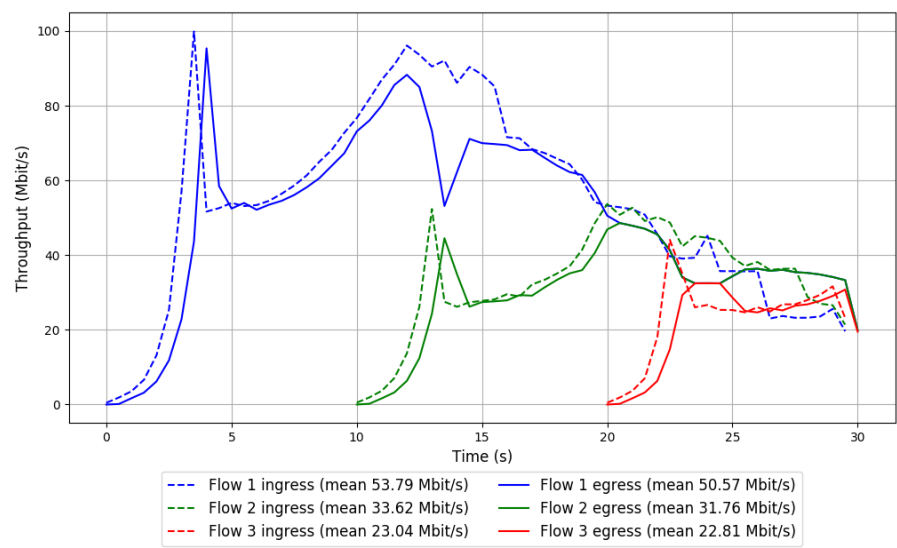
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 53.79 Mbit/s) --- Flow 1 egress (mean 50.57 Mbit/s)
Flow 2 ingress (mean 33.62 Mbit/s) --- Flow 2 egress (mean 31.76 Mbit/s)
Flow 3 ingress (mean 23.04 Mbit/s) --- Flow 3 egress (mean 22.81 Mbit/s)

Flow 1 (95th percentile 1990.27 ms) • Flow 2 (95th percentile 1004.01 ms) • Flow 3 (95th percentile 343.45 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-01-19 13:32:44
End at: 2019-01-19 13:33:14
Local clock offset: -6.055 ms
Remote clock offset: 9.742 ms


# Below is generated by plot.py at 2019-01-19 14:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.93 Mbit/s
95th percentile per-packet one-way delay: 724.089 ms
Loss rate: 3.01%
-- Flow 1:
Average throughput: 51.37 Mbit/s
95th percentile per-packet one-way delay: 723.320 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 773.920 ms
Loss rate: 4.35%
-- Flow 3:
Average throughput: 23.13 Mbit/s
95th percentile per-packet one-way delay: 340.044 ms
Loss rate: 2.88%
```
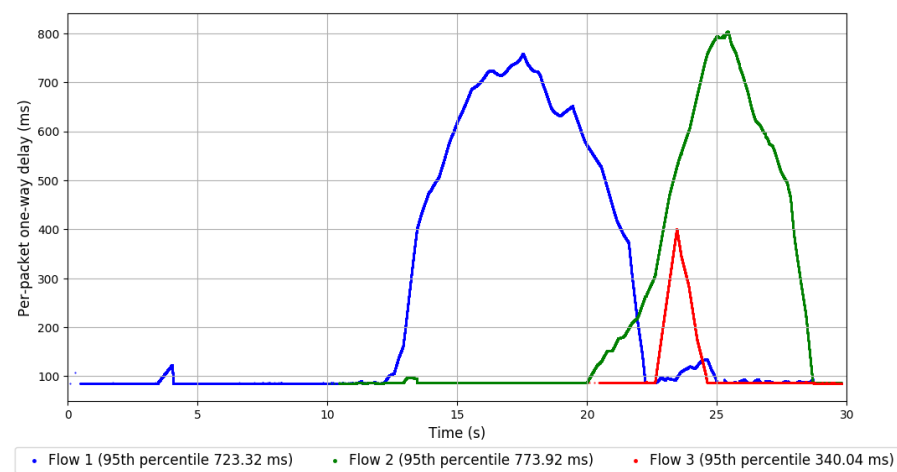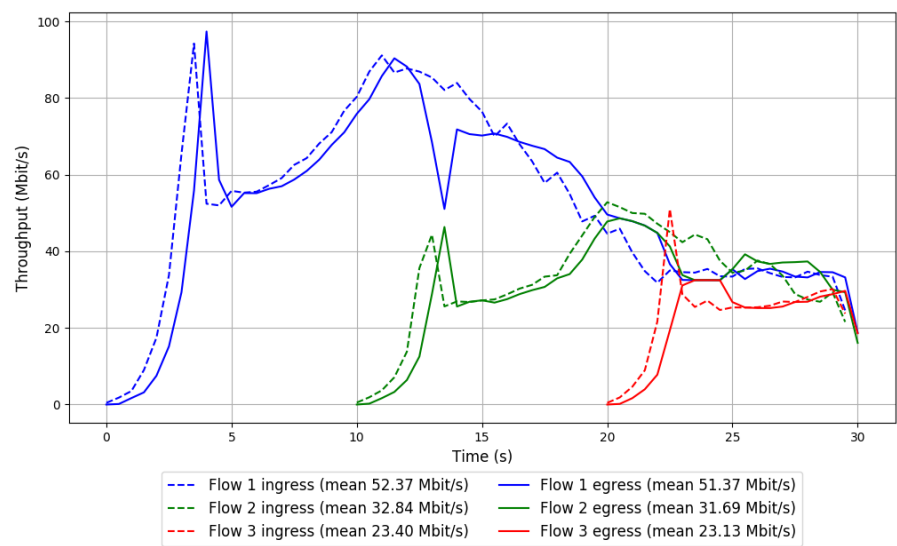
Run 5: Report of PCC-Vivace — Data Link

- - - - Flow 1 ingress (mean 52.37 Mbit/s) —— Flow 1 egress (mean 51.37 Mbit/s)
- - - - Flow 2 ingress (mean 32.84 Mbit/s) —— Flow 2 egress (mean 31.69 Mbit/s)
- - - - Flow 3 ingress (mean 23.40 Mbit/s) —— Flow 3 egress (mean 23.13 Mbit/s)

- Flow 1 (95th percentile 723.32 ms)   • Flow 2 (95th percentile 773.92 ms)   • Flow 3 (95th percentile 340.04 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2019-01-19 11:51:25
End at: 2019-01-19 11:51:55
Local clock offset: -9.595 ms
Remote clock offset: 2.743 ms


# Below is generated by plot.py at 2019-01-19 14:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 97.193 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 91.246 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 97.377 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 90.613 ms
Loss rate: 1.92%
```
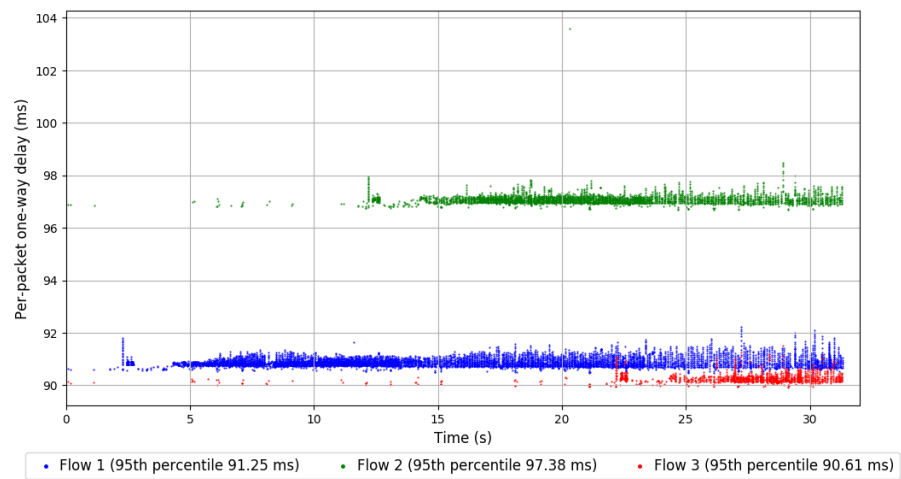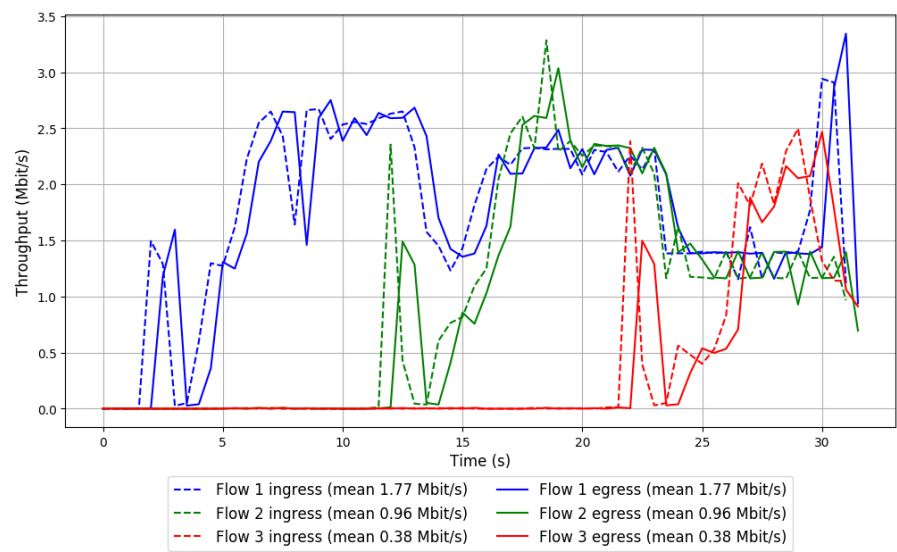
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-01-19 12:18:21
End at: 2019-01-19 12:18:51
Local clock offset: -6.373 ms
Remote clock offset: 3.015 ms


# Below is generated by plot.py at 2019-01-19 14:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 92.418 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 92.413 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 92.434 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 92.411 ms
Loss rate: 0.94%
```
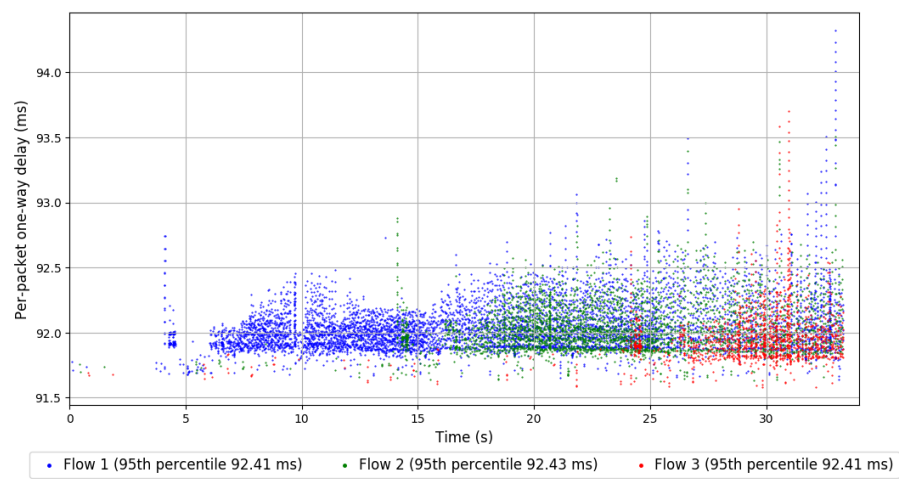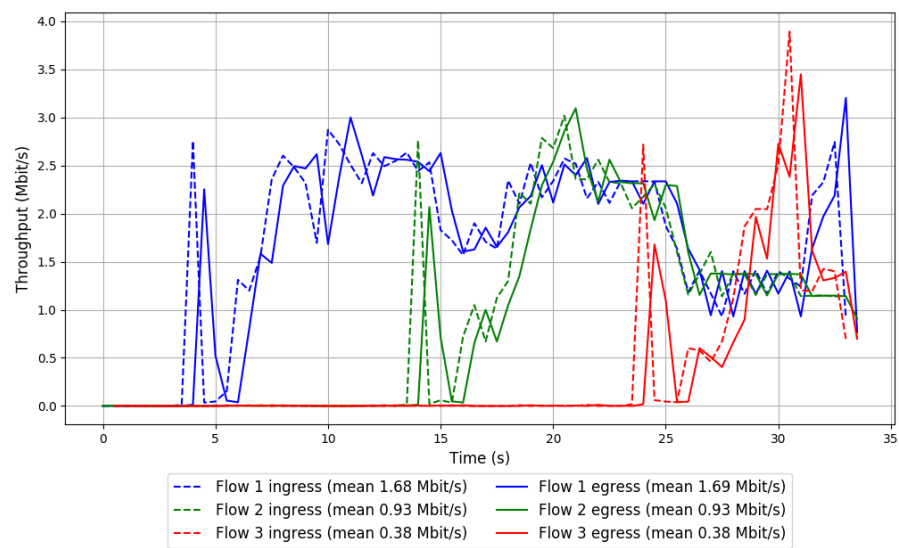
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-01-19 12:45:15
End at: 2019-01-19 12:45:45
Local clock offset: -5.019 ms
Remote clock offset: 1.412 ms


# Below is generated by plot.py at 2019-01-19 14:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 93.372 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 93.443 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 92.911 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 93.398 ms
Loss rate: 1.93%
```
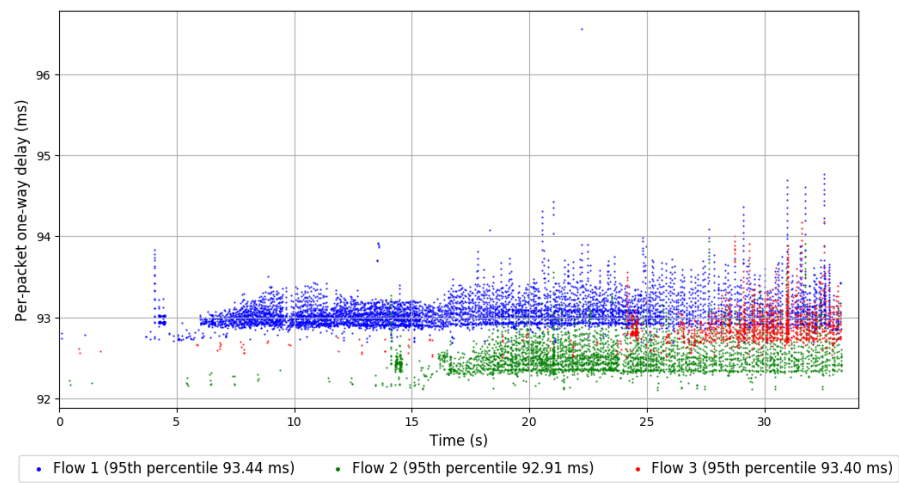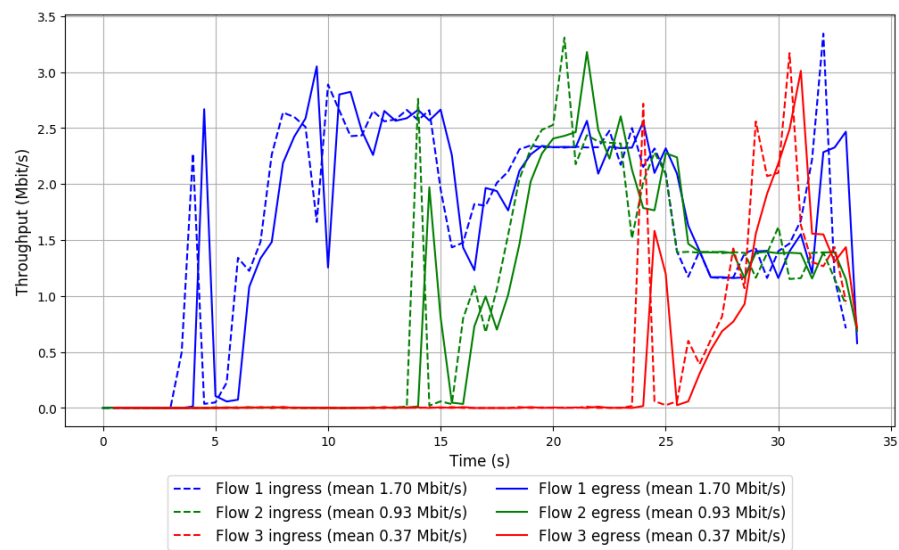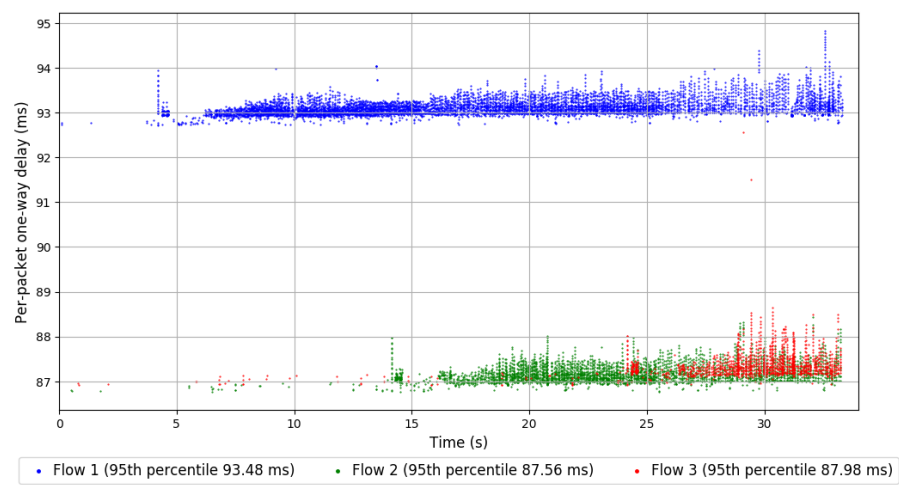
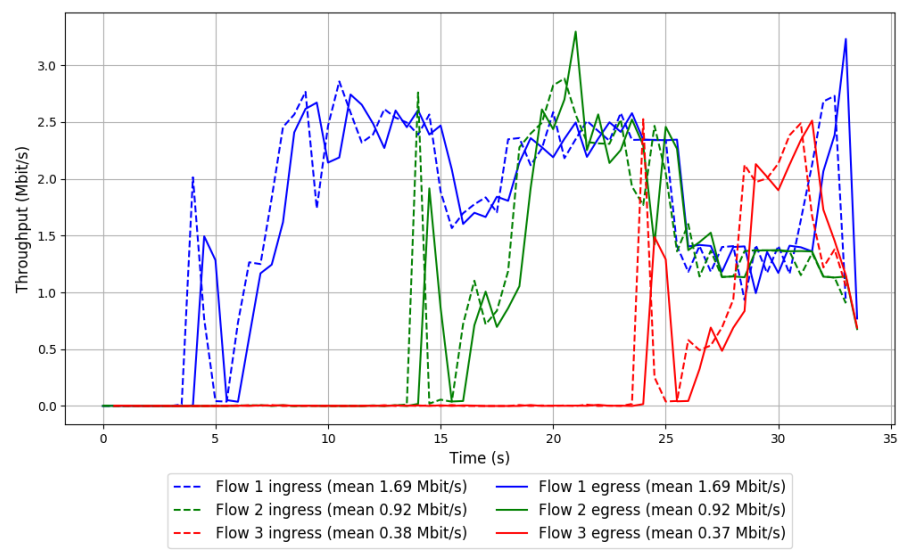Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-01-19 13:12:12
End at: 2019-01-19 13:12:42
Local clock offset: -7.643 ms
Remote clock offset: 7.556 ms


# Below is generated by plot.py at 2019-01-19 14:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 93.397 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 93.476 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 87.563 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 87.976 ms
Loss rate: 2.40%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-01-19 13:39:10
End at: 2019-01-19 13:39:40
Local clock offset: -5.022 ms
Remote clock offset: 9.806 ms


# Below is generated by plot.py at 2019-01-19 14:04:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 93.547 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 93.589 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 87.353 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 93.680 ms
Loss rate: 0.95%
```

Run 5: Report of WebRTC media — Data Link