Pantheon Report

Generated at 2017-08-31 18:28:12 (UTC).

Data path: GCE London Ethernet (*local*) →GCE Tokyo Ethernet (*remote*).

Repeated the test of 15 congestion control schemes 10 times.

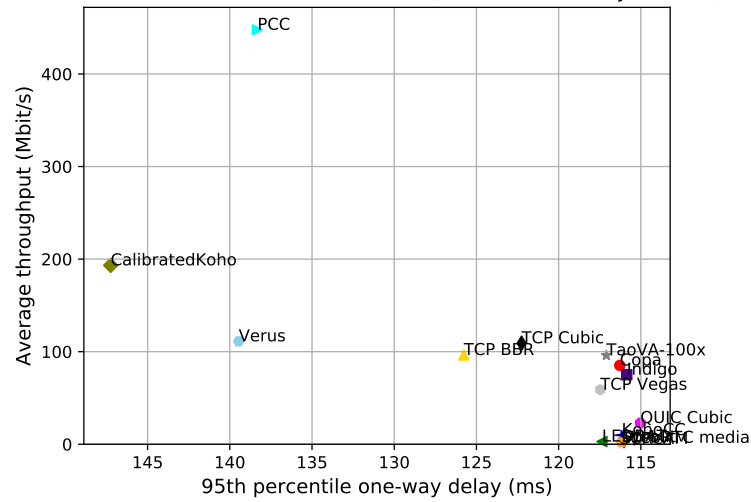Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

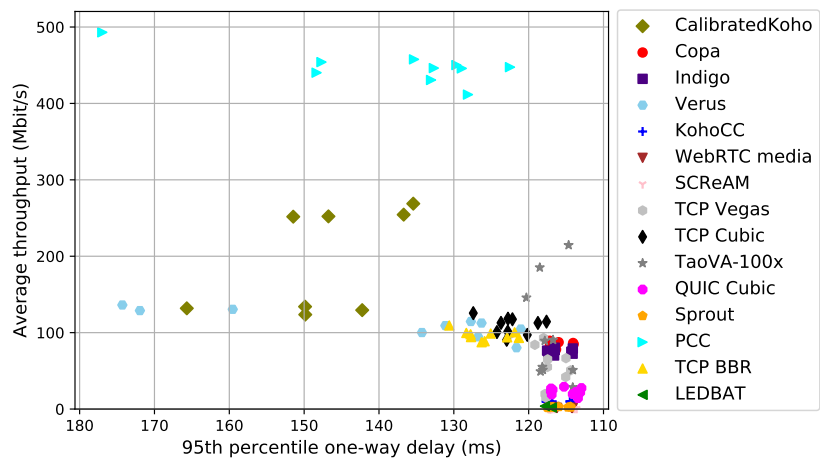Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

```
Git summary:
branch: master @ 5ea146acdebe79f5b9acfb2d9044554a7d2582ea
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 7ddb4adf480966042c0438984cb22a298bfa635f
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
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/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 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/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE London Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from GCE London Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows

2

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	10	47.13	47.01	54.81	125.10	125.59	127.31	0.07	0.01	0.00
CalibratedKoho	8	92.32	134.72	23.70	1044.65	144.03	122.99	0.01	0.14	0.08
Copa	10	50.42	42.26	35.41	116.11	116.03	115.66	0.00	0.00	0.01
TCP Cubic	10	52.91	61.60	46.13	120.54	121.18	125.11	0.00	0.01	0.03
Indigo	10	26.14	55.79	35.88	115.82	115.92	115.88	0.00	0.00	0.00
KohoCC	10	5.05	4.94	4.70	116.14	116.22	116.17	0.01	0.02	0.02
LEDBAT	2	2.48	5.05	1.23	117.37	2704.33	117.27	0.07	0.00	0.00
PCC	10	286.86	172.96	127.81	155.29	124.70	121.84	0.34	0.02	0.06
QUIC Cubic	10	0.05	21.33	27.36	114.19	114.53	114.81	0.00	0.00	0.01
SCReAM	9	0.21	0.19	0.22	115.33	115.07	114.81	0.00	0.00	0.00
Sprout	10	1.05	1.43	1.14	115.84	116.16	116.05	0.01	0.04	0.00
TaoVA-100x	10	55.87	35.99	65.97	116.70	116.13	117.10	0.01	0.00	0.01
TCP Vegas	10	29.05	33.58	22.50	116.84	118.50	118.73	0.00	0.00	0.06
Verus	10	65.99	53.98	30.36	139.02	135.38	123.36	0.05	0.00	0.00
WebRTC media	10	0.22	1.34	0.23	116.41	114.53	116.68	0.00	0.00	0.00

3

```
Run 1: Statistics of TCP BBR

Start at: 2017-08-31 14:34:41
End at: 2017-08-31 14:35:11


# Below is generated by plot.py at 2017-08-31 18:04:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.38 Mbit/s
95th percentile per-packet one-way delay: 130.609 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.56 Mbit/s
95th percentile per-packet one-way delay: 130.365 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 129.812 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 88.98 Mbit/s
95th percentile per-packet one-way delay: 131.784 ms
Loss rate: 0.00%
```
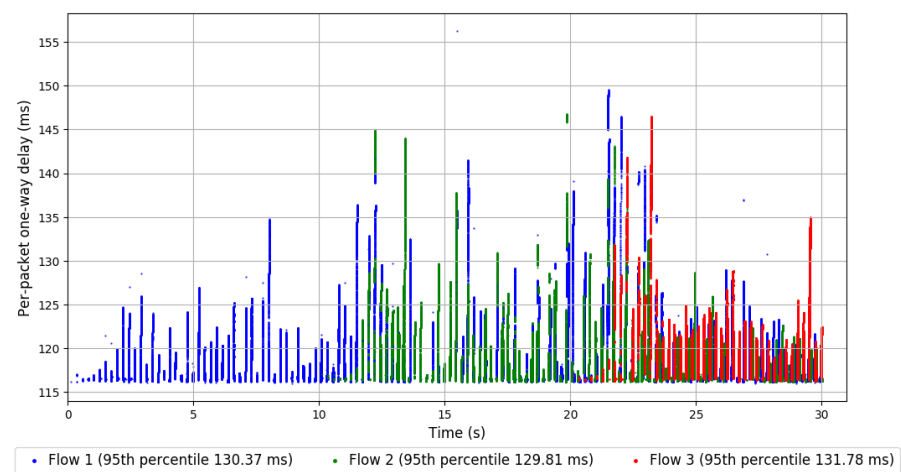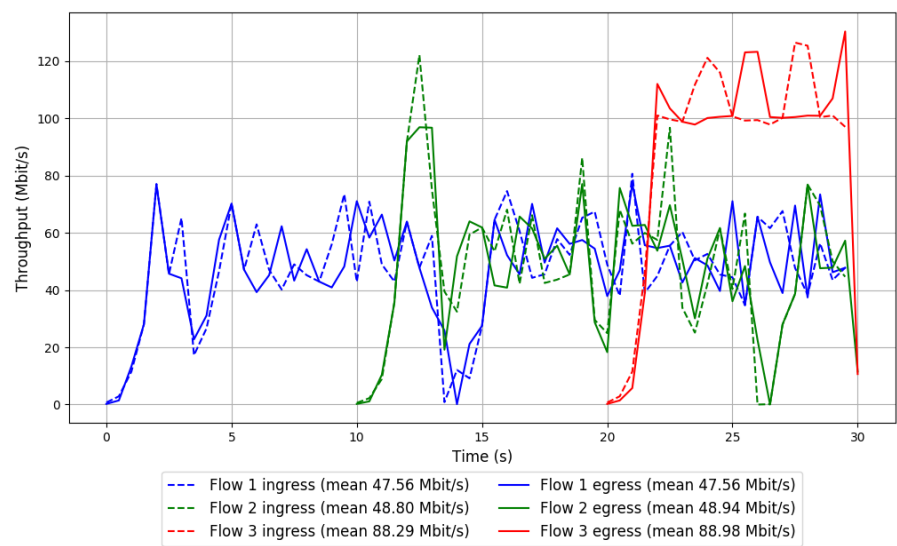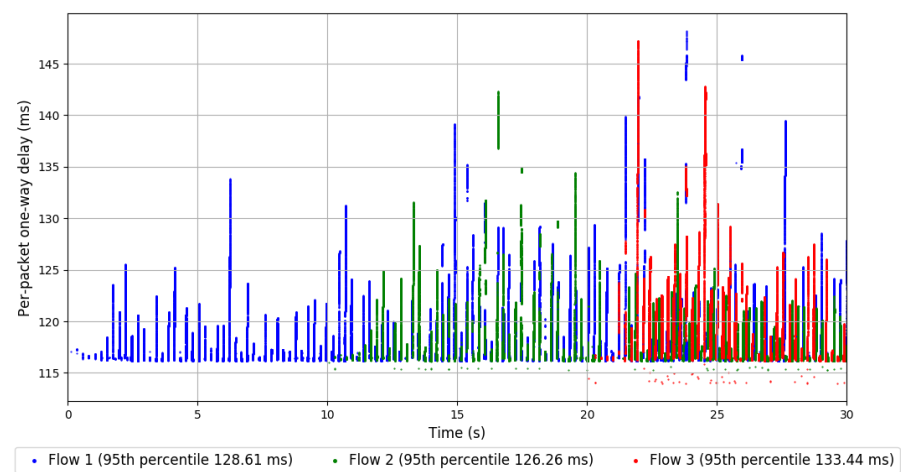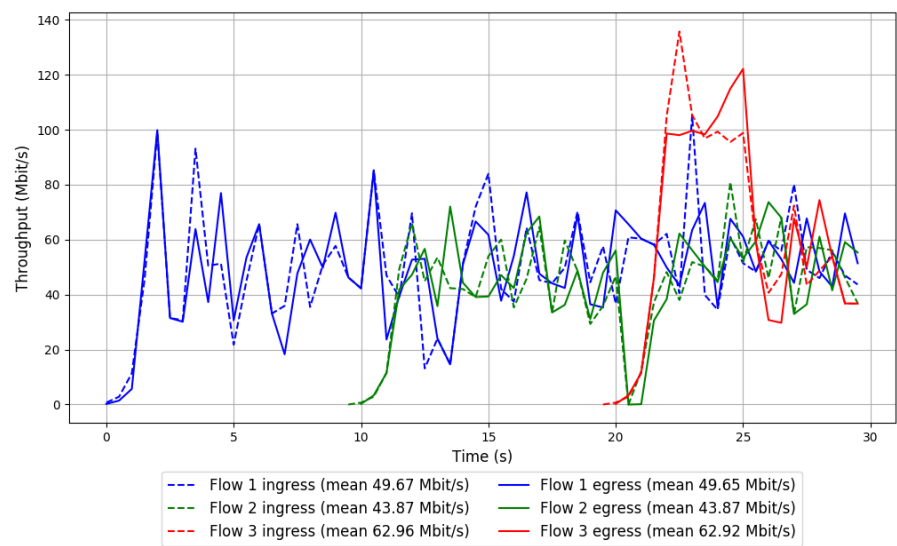
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2017-08-31 14:47:47
End at: 2017-08-31 14:48:17

# Below is generated by plot.py at 2017-08-31 18:04:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.61 Mbit/s
95th percentile per-packet one-way delay: 128.327 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 49.65 Mbit/s
95th percentile per-packet one-way delay: 128.613 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 43.87 Mbit/s
95th percentile per-packet one-way delay: 126.261 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 62.92 Mbit/s
95th percentile per-packet one-way delay: 133.435 ms
Loss rate: 0.01%
```
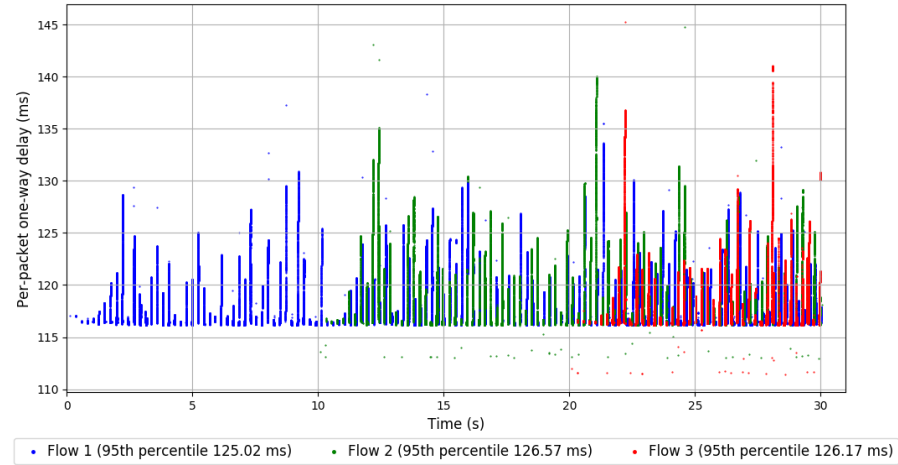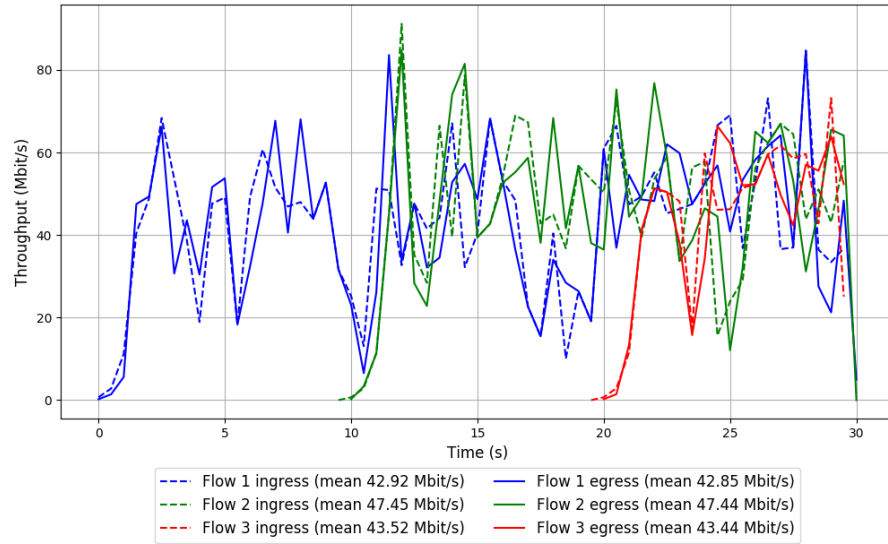
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 49.67 Mbit/s)   Flow 1 egress (mean 49.65 Mbit/s)
Flow 2 ingress (mean 43.87 Mbit/s)   Flow 2 egress (mean 43.87 Mbit/s)
Flow 3 ingress (mean 62.96 Mbit/s)   Flow 3 egress (mean 62.92 Mbit/s)

Flow 1 (95th percentile 128.61 ms)   Flow 2 (95th percentile 126.26 ms)   Flow 3 (95th percentile 133.44 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2017-08-31 15:01:13
End at: 2017-08-31 15:01:43

# Below is generated by plot.py at 2017-08-31 18:04:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.84 Mbit/s
95th percentile per-packet one-way delay: 125.887 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 42.85 Mbit/s
95th percentile per-packet one-way delay: 125.023 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 47.44 Mbit/s
95th percentile per-packet one-way delay: 126.572 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 43.44 Mbit/s
95th percentile per-packet one-way delay: 126.175 ms
Loss rate: 0.00%
```
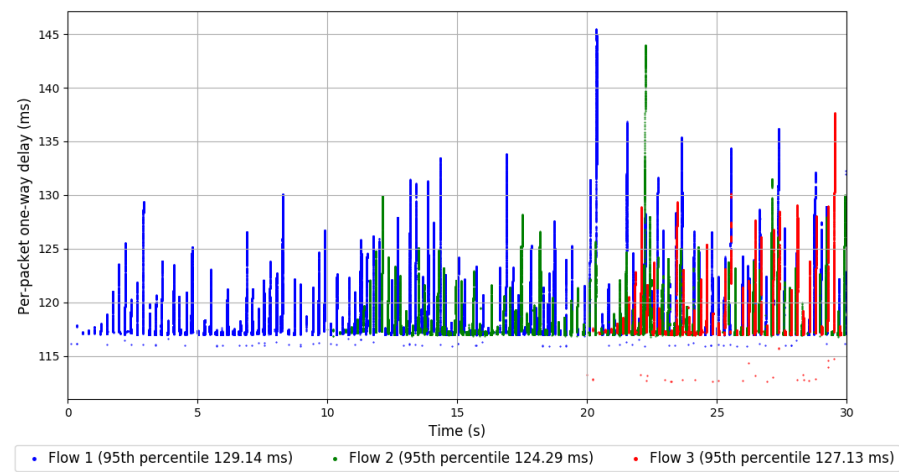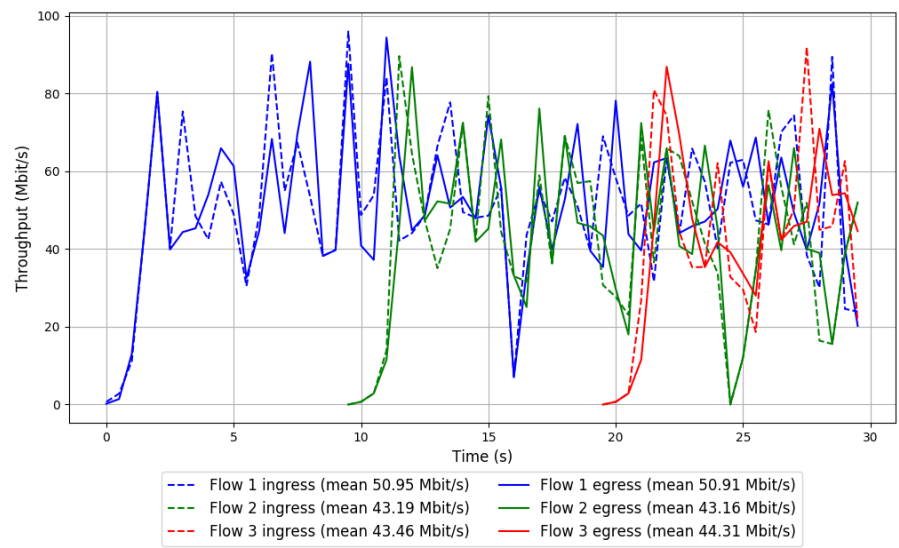
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 42.92 Mbit/s) --- Flow 1 egress (mean 42.85 Mbit/s)
Flow 2 ingress (mean 47.45 Mbit/s) --- Flow 2 egress (mean 47.44 Mbit/s)
Flow 3 ingress (mean 43.52 Mbit/s) --- Flow 3 egress (mean 43.44 Mbit/s)

Flow 1 (95th percentile 125.02 ms) · Flow 2 (95th percentile 126.57 ms) · Flow 3 (95th percentile 126.17 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2017-08-31 15:14:34
End at: 2017-08-31 15:15:04

# Below is generated by plot.py at 2017-08-31 18:04:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.23 Mbit/s
95th percentile per-packet one-way delay: 127.703 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 50.91 Mbit/s
95th percentile per-packet one-way delay: 129.144 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 43.16 Mbit/s
95th percentile per-packet one-way delay: 124.294 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.31 Mbit/s
95th percentile per-packet one-way delay: 127.126 ms
Loss rate: 0.00%
```
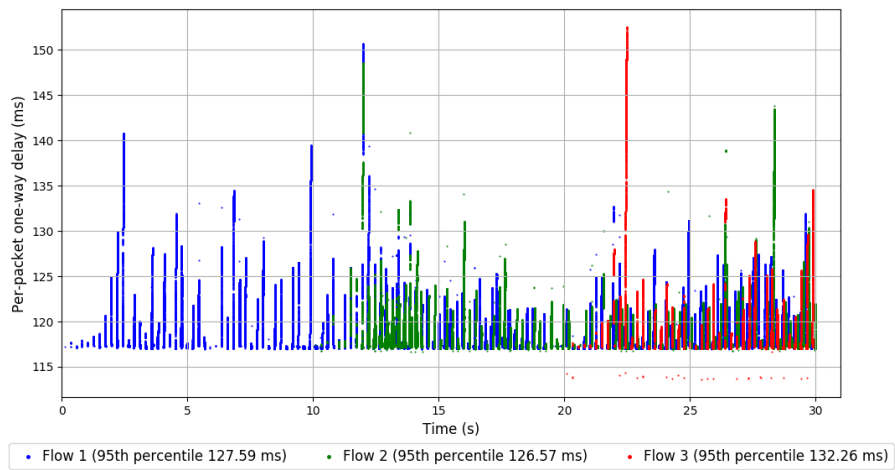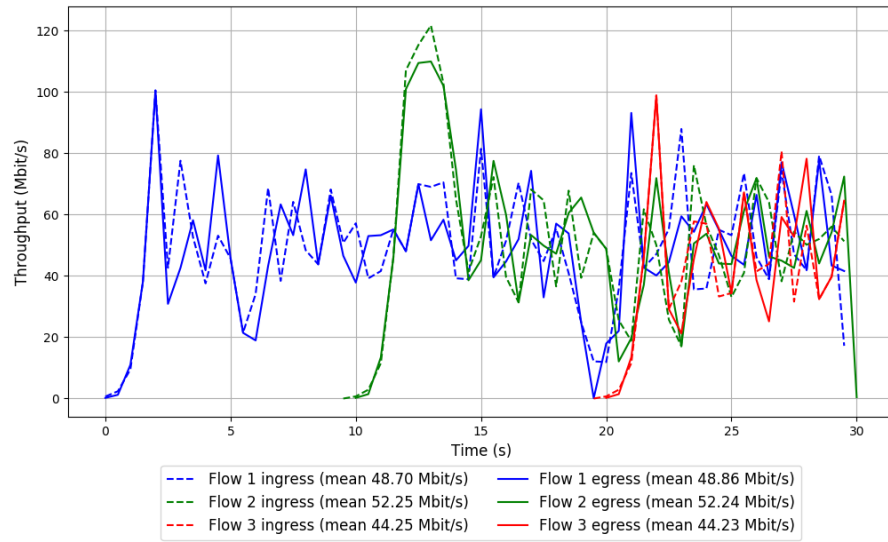
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2017-08-31 15:27:43
End at: 2017-08-31 15:28:13


# Below is generated by plot.py at 2017-08-31 18:04:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.90 Mbit/s
95th percentile per-packet one-way delay: 127.767 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 48.86 Mbit/s
95th percentile per-packet one-way delay: 127.592 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 52.24 Mbit/s
95th percentile per-packet one-way delay: 126.572 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.23 Mbit/s
95th percentile per-packet one-way delay: 132.263 ms
Loss rate: 0.00%
```
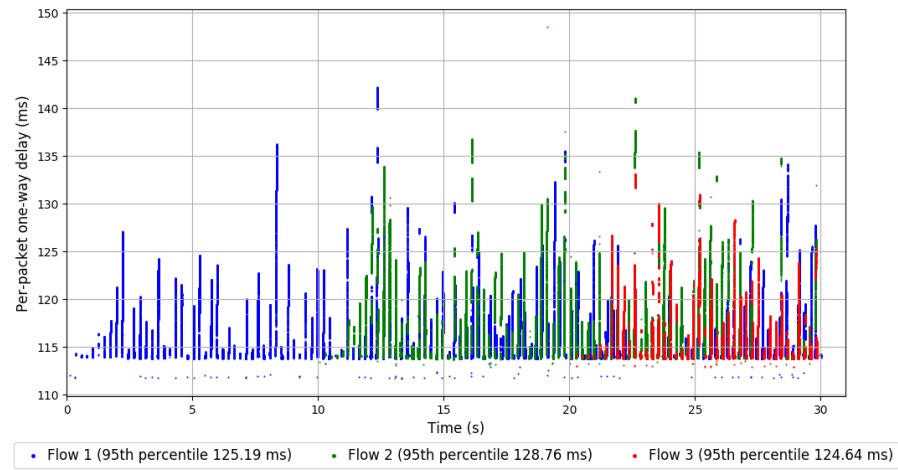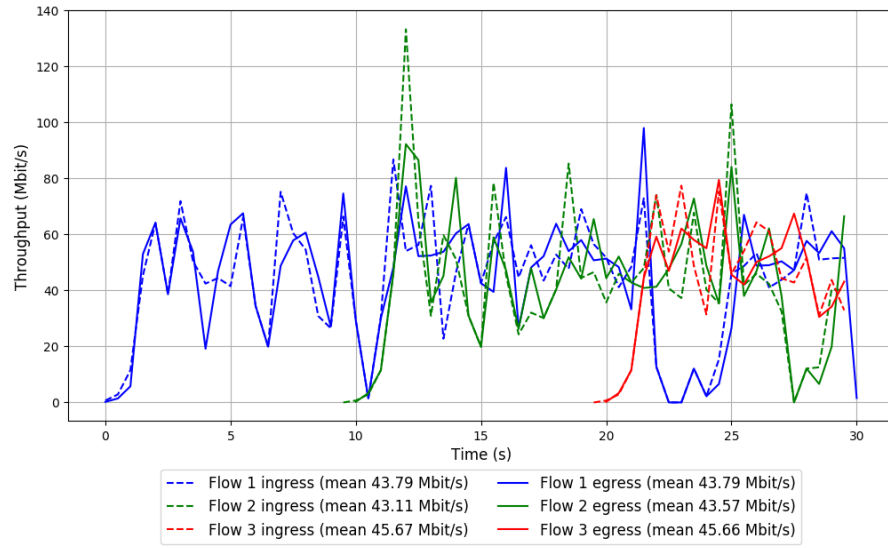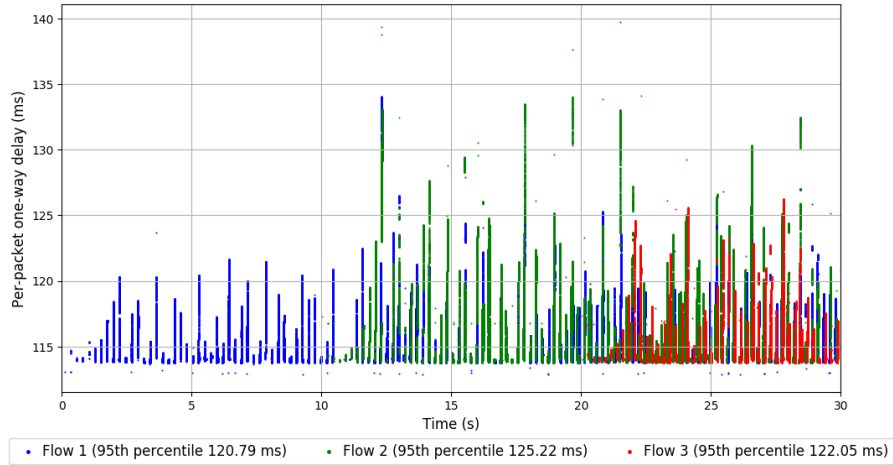
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 48.70 Mbit/s) — — — Flow 1 egress (mean 48.86 Mbit/s)
Flow 2 ingress (mean 52.25 Mbit/s) — — — Flow 2 egress (mean 52.24 Mbit/s)
Flow 3 ingress (mean 44.25 Mbit/s) — — — Flow 3 egress (mean 44.23 Mbit/s)

Flow 1 (95th percentile 127.59 ms)   •   Flow 2 (95th percentile 126.57 ms)   •   Flow 3 (95th percentile 132.26 ms)

13

```
Run 6: Statistics of TCP BBR

Start at: 2017-08-31 15:40:42
End at: 2017-08-31 15:41:12

# Below is generated by plot.py at 2017-08-31 18:04:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.49 Mbit/s
95th percentile per-packet one-way delay: 126.284 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.79 Mbit/s
95th percentile per-packet one-way delay: 125.190 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.57 Mbit/s
95th percentile per-packet one-way delay: 128.756 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.66 Mbit/s
95th percentile per-packet one-way delay: 124.637 ms
Loss rate: 0.00%
```
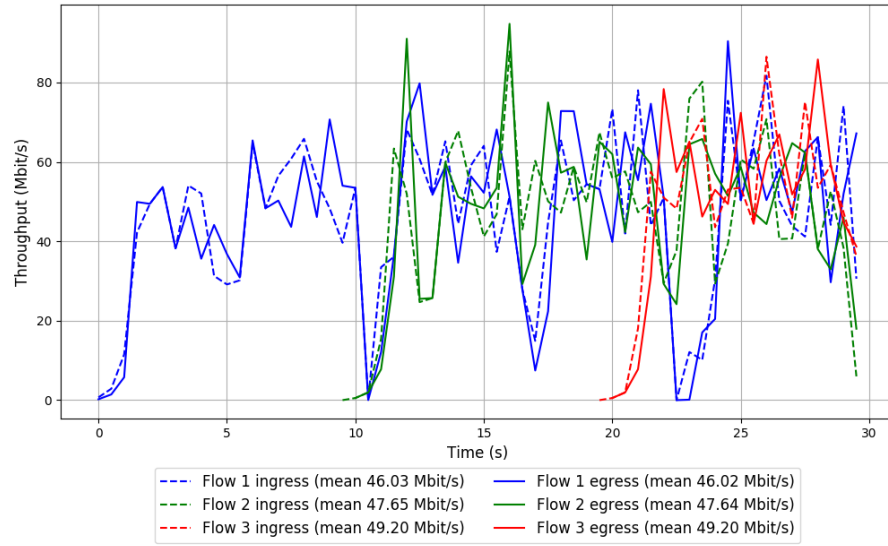
Run 6: Report of TCP BBR — Data Link

```
Run 7: Statistics of TCP BBR

Start at: 2017-08-31 15:54:01
End at: 2017-08-31 15:54:31


# Below is generated by plot.py at 2017-08-31 18:05:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.90 Mbit/s
95th percentile per-packet one-way delay: 122.875 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 120.792 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.64 Mbit/s
95th percentile per-packet one-way delay: 125.215 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 122.052 ms
Loss rate: 0.00%
```
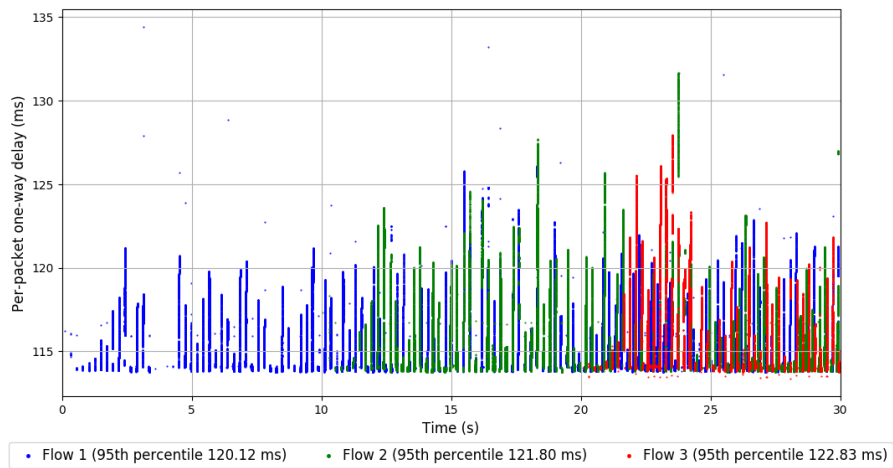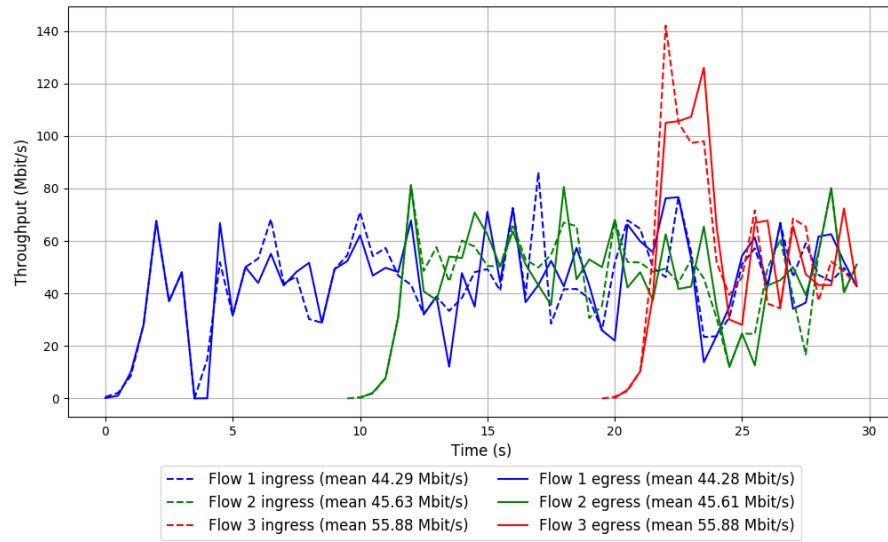
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2017-08-31 16:07:10
End at: 2017-08-31 16:07:40


# Below is generated by plot.py at 2017-08-31 18:05:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.13 Mbit/s
95th percentile per-packet one-way delay: 121.308 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 44.28 Mbit/s
95th percentile per-packet one-way delay: 120.122 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 45.61 Mbit/s
95th percentile per-packet one-way delay: 121.801 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 122.828 ms
Loss rate: 0.01%
```
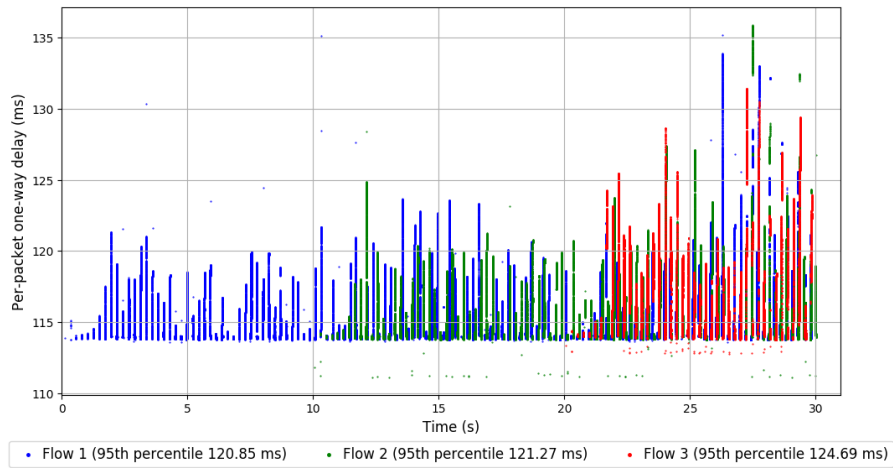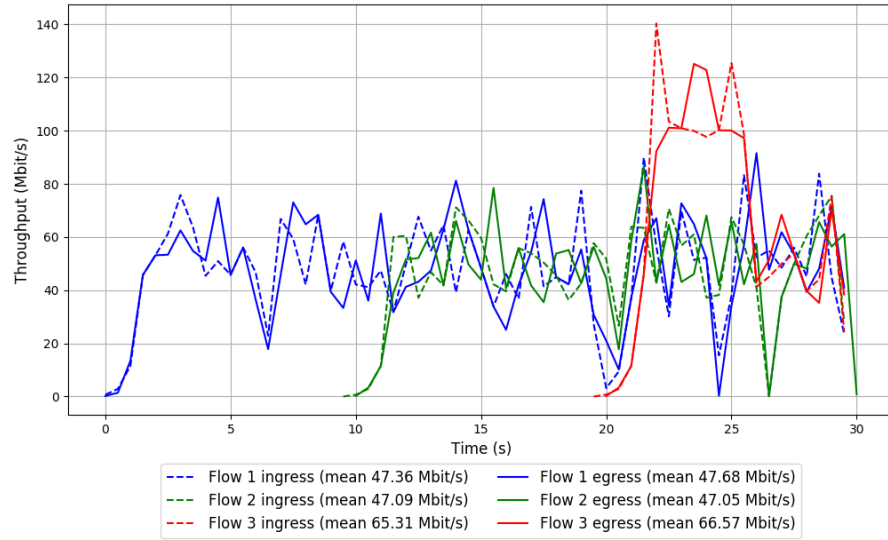
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 44.29 Mbit/s)   Flow 1 egress (mean 44.28 Mbit/s)
Flow 2 ingress (mean 45.63 Mbit/s)   Flow 2 egress (mean 45.61 Mbit/s)
Flow 3 ingress (mean 55.88 Mbit/s)   Flow 3 egress (mean 55.88 Mbit/s)

Flow 1 (95th percentile 120.12 ms)   Flow 2 (95th percentile 121.80 ms)   Flow 3 (95th percentile 122.83 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2017-08-31 16:20:29
End at: 2017-08-31 16:20:59

# Below is generated by plot.py at 2017-08-31 18:05:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.48 Mbit/s
95th percentile per-packet one-way delay: 121.875 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.68 Mbit/s
95th percentile per-packet one-way delay: 120.854 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 47.05 Mbit/s
95th percentile per-packet one-way delay: 121.267 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 66.57 Mbit/s
95th percentile per-packet one-way delay: 124.692 ms
Loss rate: 0.00%
```
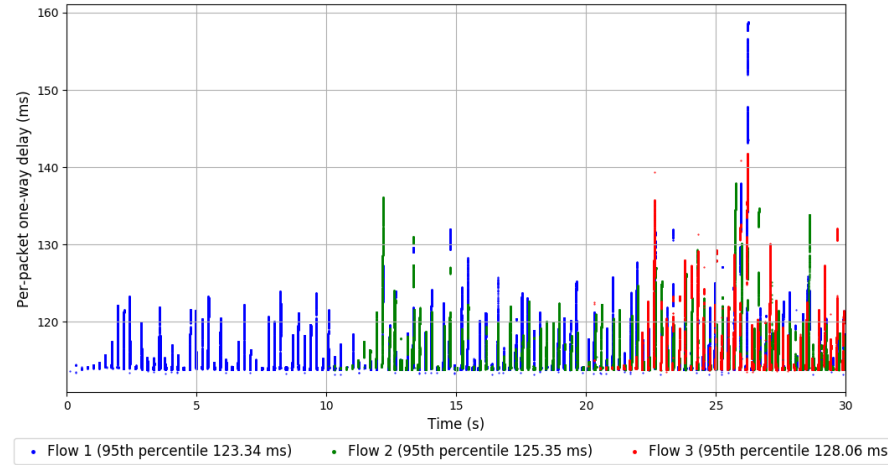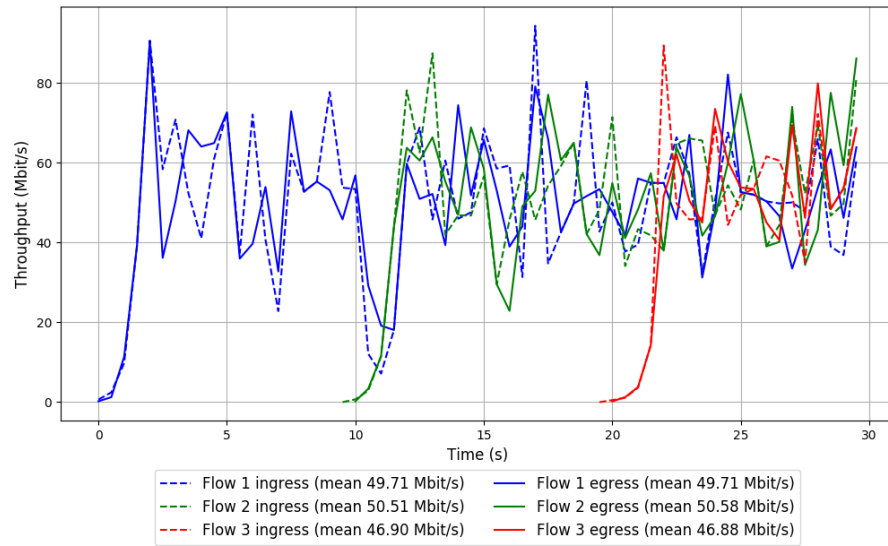
Run 9: Report of TCP BBR — Data Link

```
Run 10: Statistics of TCP BBR

Start at: 2017-08-31 16:33:45
End at: 2017-08-31 16:34:15


# Below is generated by plot.py at 2017-08-31 18:05:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.85 Mbit/s
95th percentile per-packet one-way delay: 125.077 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 49.71 Mbit/s
95th percentile per-packet one-way delay: 123.337 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.58 Mbit/s
95th percentile per-packet one-way delay: 125.346 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 46.88 Mbit/s
95th percentile per-packet one-way delay: 128.060 ms
Loss rate: 0.00%
```
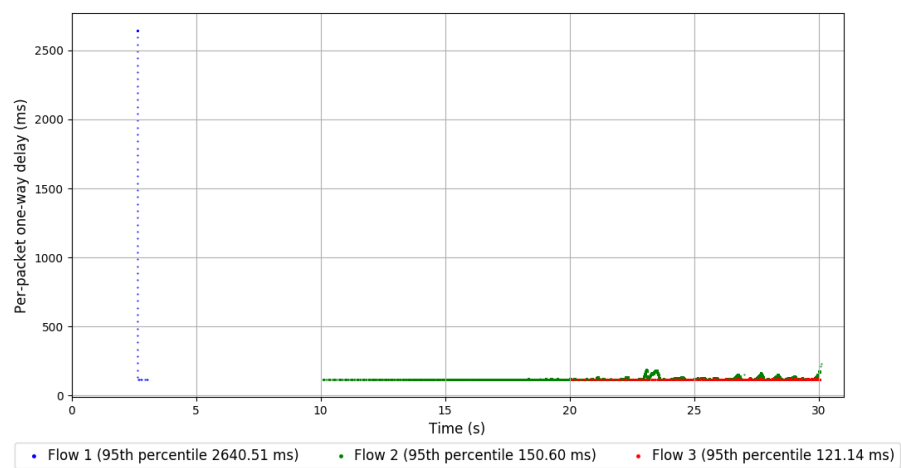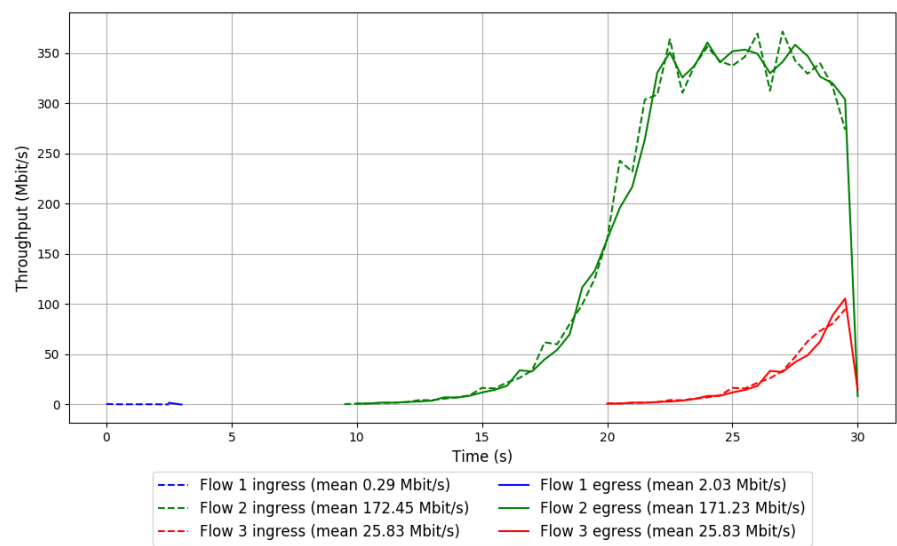
Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of CalibratedKoho

Start at: 2017-08-31 14:40:12
End at: 2017-08-31 14:40:42


# Below is generated by plot.py at 2017-08-31 18:05:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.03 Mbit/s
95th percentile per-packet one-way delay: 149.876 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 2640.506 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 171.23 Mbit/s
95th percentile per-packet one-way delay: 150.600 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 25.83 Mbit/s
95th percentile per-packet one-way delay: 121.144 ms
Loss rate: 0.00%
```
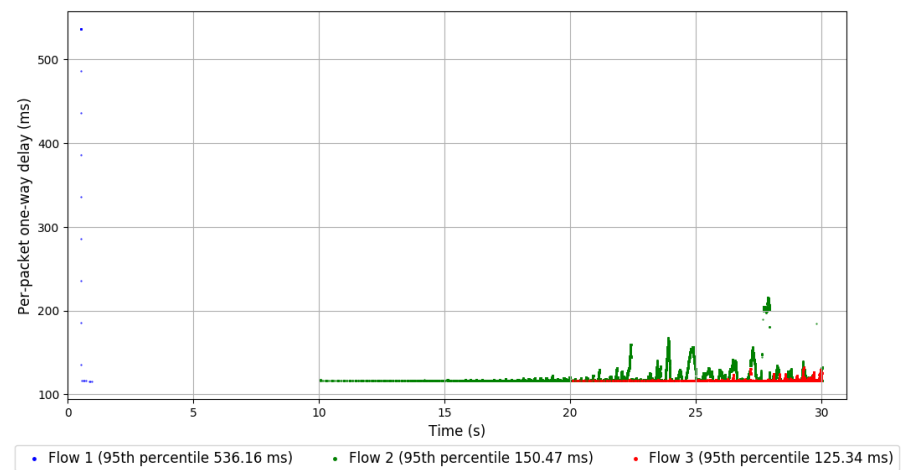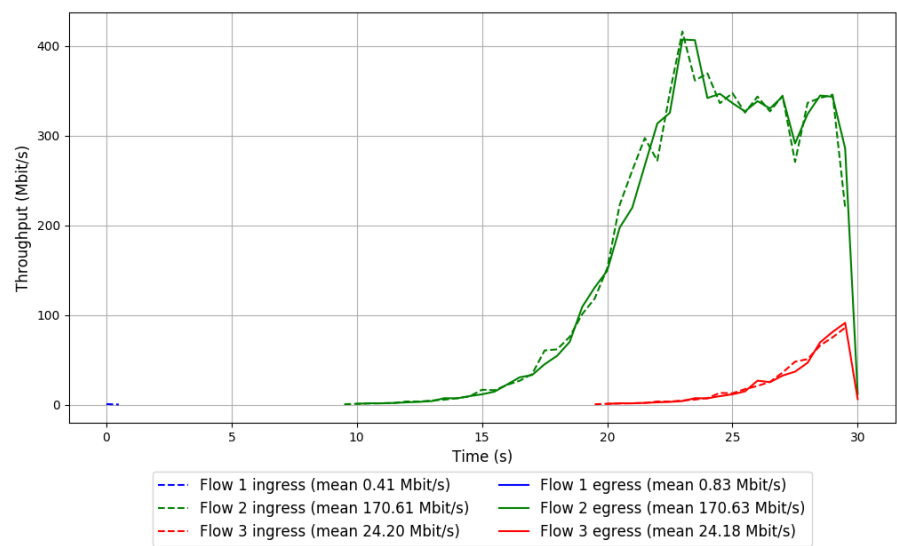
Run 1: Report of CalibratedKoho — Data Link

```
Run 2: Statistics of CalibratedKoho

Start at: 2017-08-31 14:53:19
End at: 2017-08-31 14:53:49

# Below is generated by plot.py at 2017-08-31 18:05:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.61 Mbit/s
95th percentile per-packet one-way delay: 149.853 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 536.159 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 170.63 Mbit/s
95th percentile per-packet one-way delay: 150.470 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 24.18 Mbit/s
95th percentile per-packet one-way delay: 125.343 ms
Loss rate: 0.00%
```
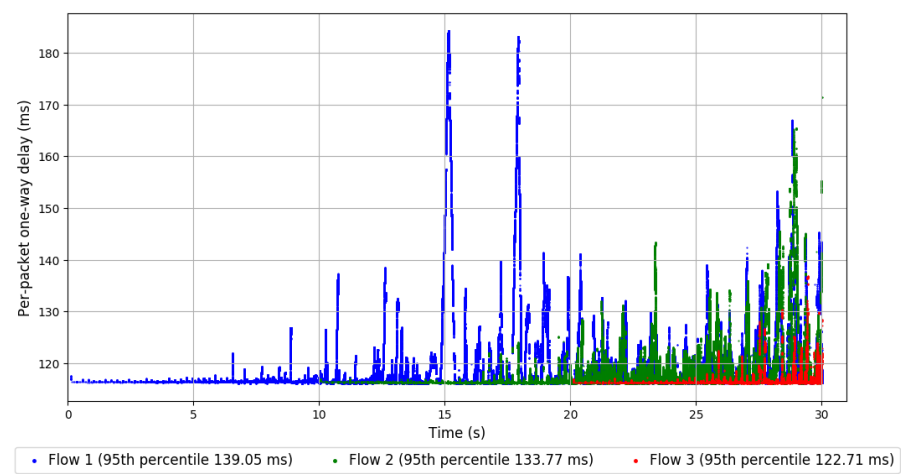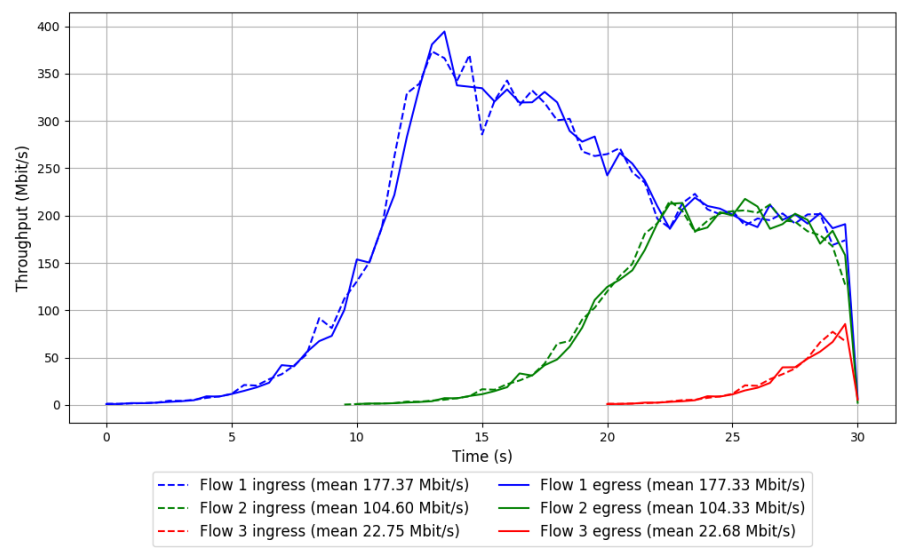
Run 2: Report of CalibratedKoho — Data Link

```
Run 3: Statistics of CalibratedKoho

Start at: 2017-08-31 15:06:43
End at: 2017-08-31 15:07:13


# Below is generated by plot.py at 2017-08-31 18:06:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.43 Mbit/s
95th percentile per-packet one-way delay: 136.701 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 177.33 Mbit/s
95th percentile per-packet one-way delay: 139.054 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 104.33 Mbit/s
95th percentile per-packet one-way delay: 133.771 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 22.68 Mbit/s
95th percentile per-packet one-way delay: 122.713 ms
Loss rate: 0.34%
```
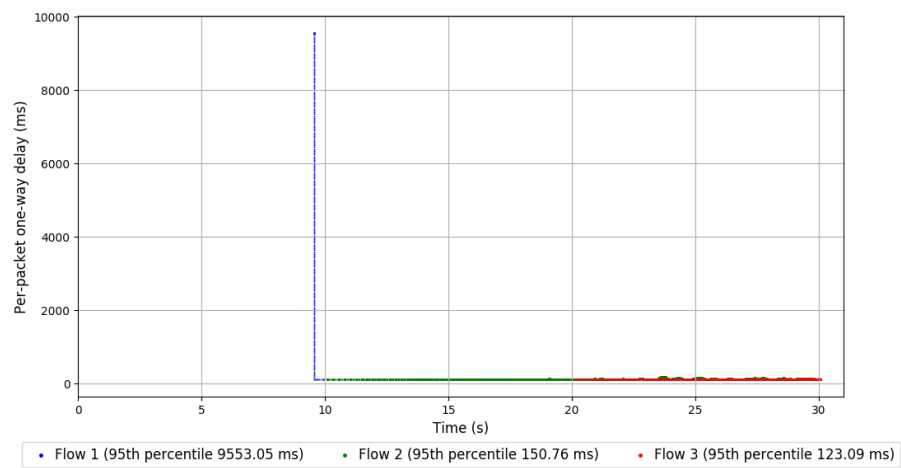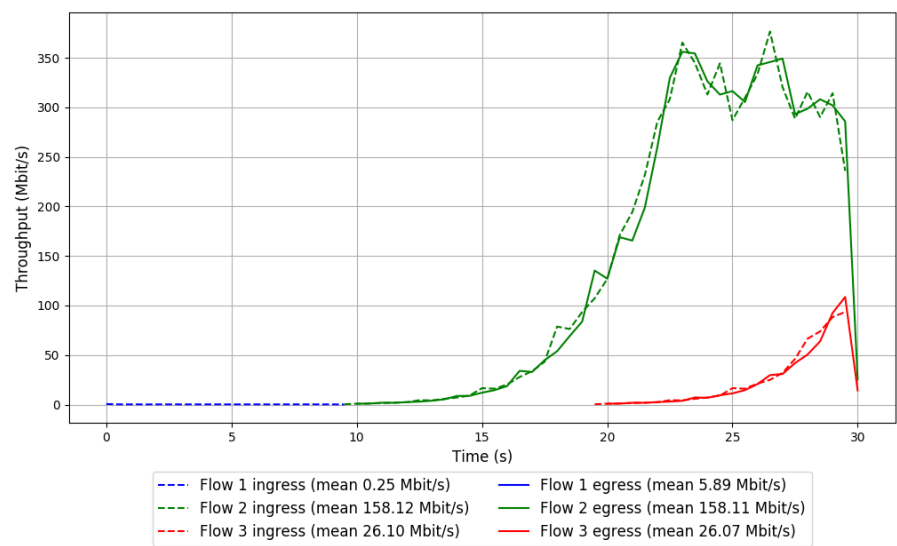
Run 3: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 177.37 Mbit/s) --- Flow 1 egress (mean 177.33 Mbit/s)
Flow 2 ingress (mean 104.60 Mbit/s) --- Flow 2 egress (mean 104.33 Mbit/s)
Flow 3 ingress (mean 22.75 Mbit/s) --- Flow 3 egress (mean 22.68 Mbit/s)

Flow 1 (95th percentile 139.05 ms)   Flow 2 (95th percentile 133.77 ms)   Flow 3 (95th percentile 122.71 ms)

29

Run 4: Statistics of CalibratedKoho

Start at: 2017-08-31 15:19:58
End at: 2017-08-31 15:20:28

Run 4: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 0.25 Mbit/s)   Flow 1 egress (mean 5.89 Mbit/s)
Flow 2 ingress (mean 158.12 Mbit/s)   Flow 2 egress (mean 158.11 Mbit/s)
Flow 3 ingress (mean 26.10 Mbit/s)   Flow 3 egress (mean 26.07 Mbit/s)

Flow 1 (95th percentile 9553.05 ms)   Flow 2 (95th percentile 150.76 ms)   Flow 3 (95th percentile 123.09 ms)

Run 5: Statistics of CalibratedKoho

Start at: 2017-08-31 15:33:06
End at: 2017-08-31 15:33:36

Run 5: Report of CalibratedKoho — Data Link

```
Run 6: Statistics of CalibratedKoho

Start at: 2017-08-31 15:46:12
End at: 2017-08-31 15:46:42

# Below is generated by plot.py at 2017-08-31 18:06:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.46 Mbit/s
95th percentile per-packet one-way delay: 142.243 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 1692.668 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 171.04 Mbit/s
95th percentile per-packet one-way delay: 143.165 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.70 Mbit/s
95th percentile per-packet one-way delay: 117.281 ms
Loss rate: 0.04%
```
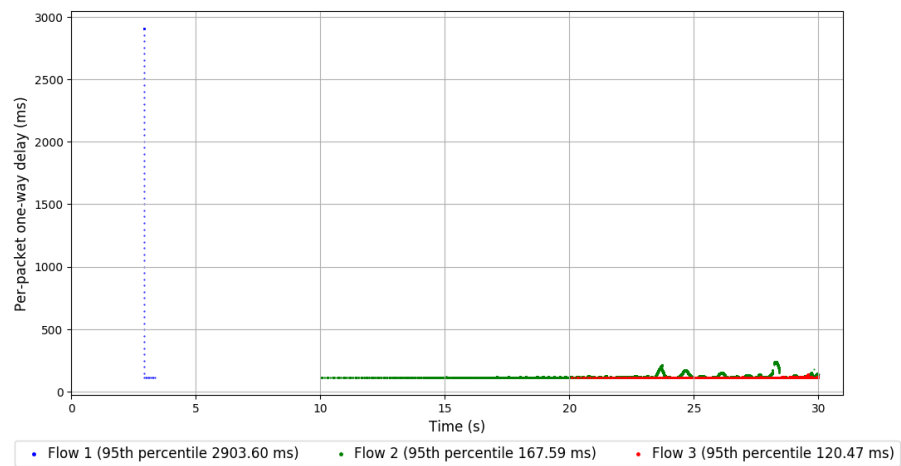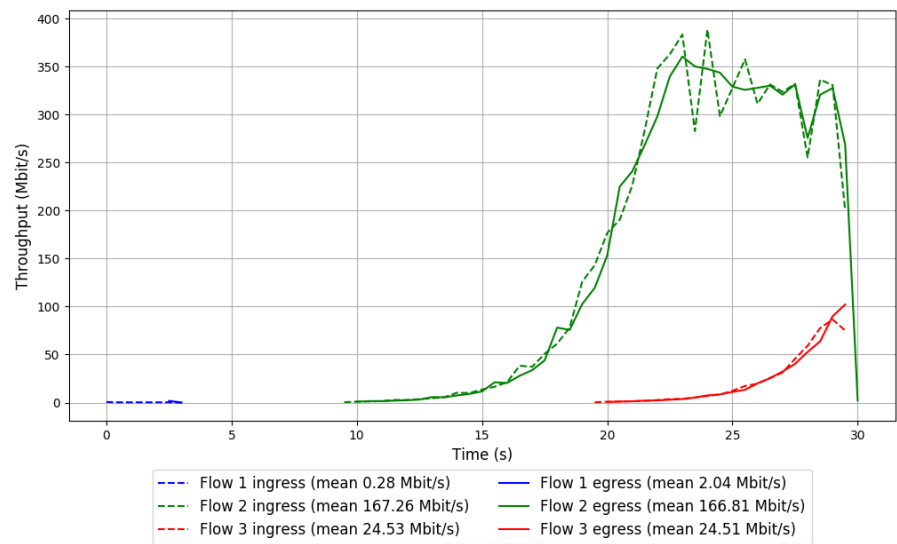
Run 6: Report of CalibratedKoho — Data Link

- Flow 1 ingress (mean 0.31 Mbit/s) --- Flow 1 egress (mean 1.36 Mbit/s)
- Flow 2 ingress (mean 171.09 Mbit/s) --- Flow 2 egress (mean 171.04 Mbit/s)
- Flow 3 ingress (mean 25.71 Mbit/s) --- Flow 3 egress (mean 25.70 Mbit/s)

- Flow 1 (95th percentile 1692.67 ms)
- Flow 2 (95th percentile 143.16 ms)
- Flow 3 (95th percentile 117.28 ms)

```
Run 7: Statistics of CalibratedKoho

Start at: 2017-08-31 15:59:28
End at: 2017-08-31 15:59:58

# Below is generated by plot.py at 2017-08-31 18:07:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 131.84 Mbit/s
95th percentile per-packet one-way delay: 165.680 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 2903.603 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 166.81 Mbit/s
95th percentile per-packet one-way delay: 167.594 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 120.470 ms
Loss rate: 0.04%
```
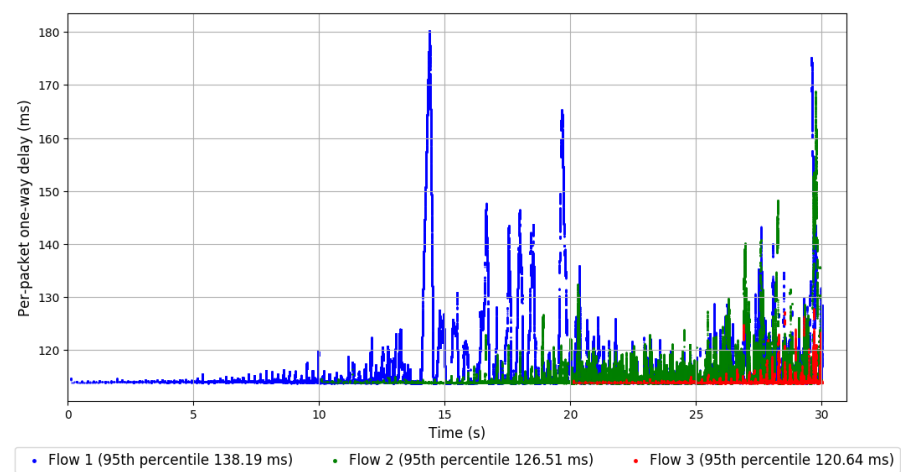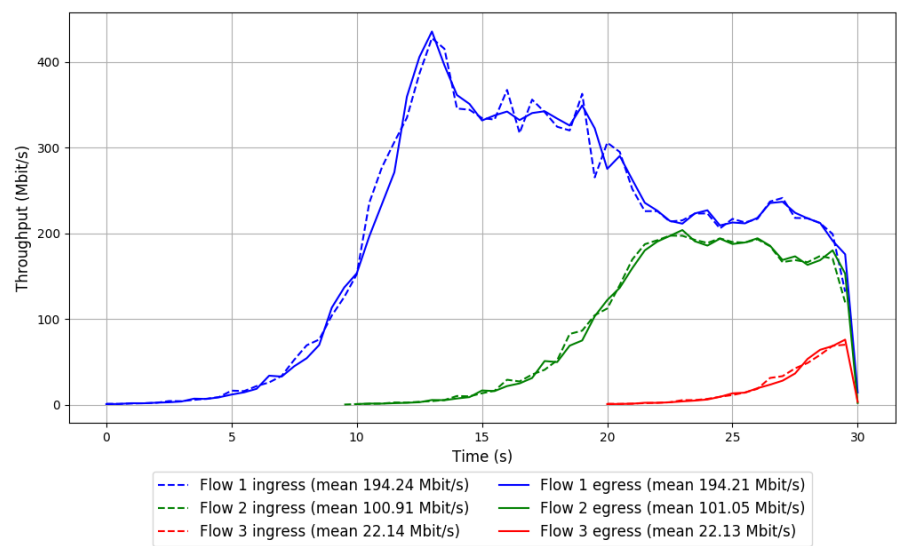
Run 7: Report of CalibratedKoho — Data Link

```
Run 8: Statistics of CalibratedKoho

Start at: 2017-08-31 16:12:40
End at: 2017-08-31 16:13:10


# Below is generated by plot.py at 2017-08-31 18:07:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.81 Mbit/s
95th percentile per-packet one-way delay: 135.419 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 194.21 Mbit/s
95th percentile per-packet one-way delay: 138.195 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 101.05 Mbit/s
95th percentile per-packet one-way delay: 126.514 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 22.13 Mbit/s
95th percentile per-packet one-way delay: 120.637 ms
Loss rate: 0.02%
```
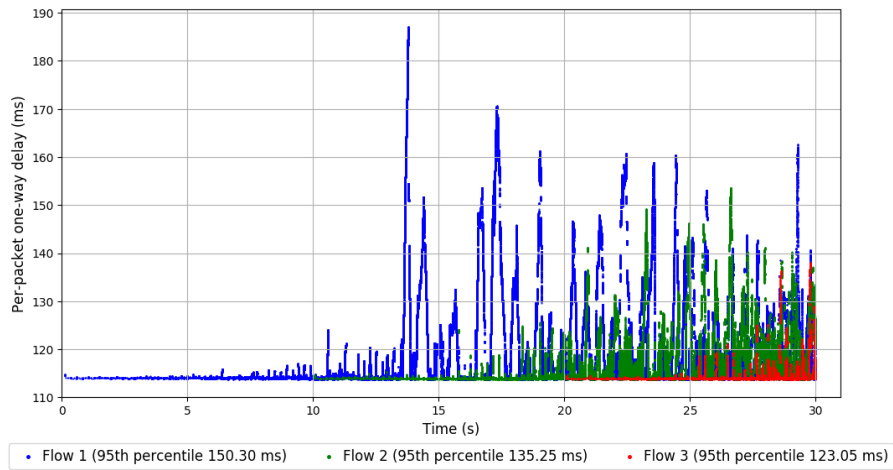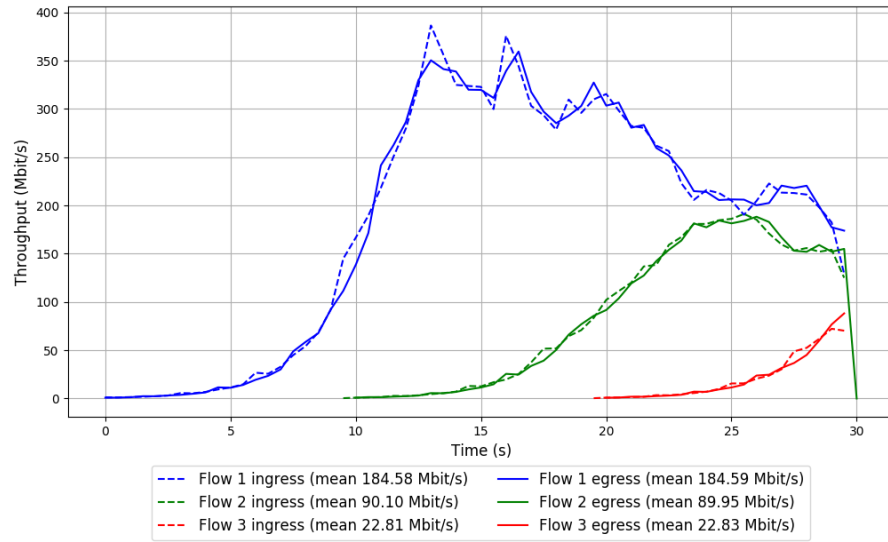
Run 8: Report of CalibratedKoho — Data Link

```
Run 9: Statistics of CalibratedKoho

Start at: 2017-08-31 16:26:01
End at: 2017-08-31 16:26:31


# Below is generated by plot.py at 2017-08-31 18:07:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.17 Mbit/s
95th percentile per-packet one-way delay: 146.754 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 184.59 Mbit/s
95th percentile per-packet one-way delay: 150.302 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 89.95 Mbit/s
95th percentile per-packet one-way delay: 135.248 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 22.83 Mbit/s
95th percentile per-packet one-way delay: 123.046 ms
Loss rate: 0.01%
```
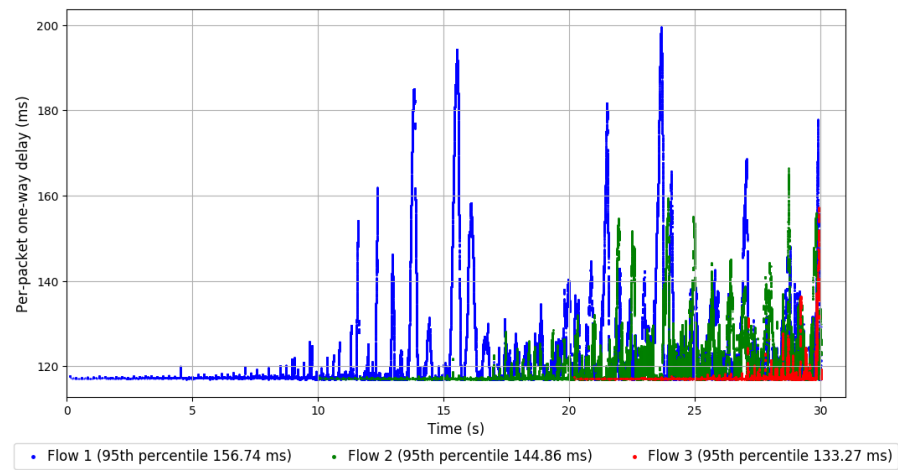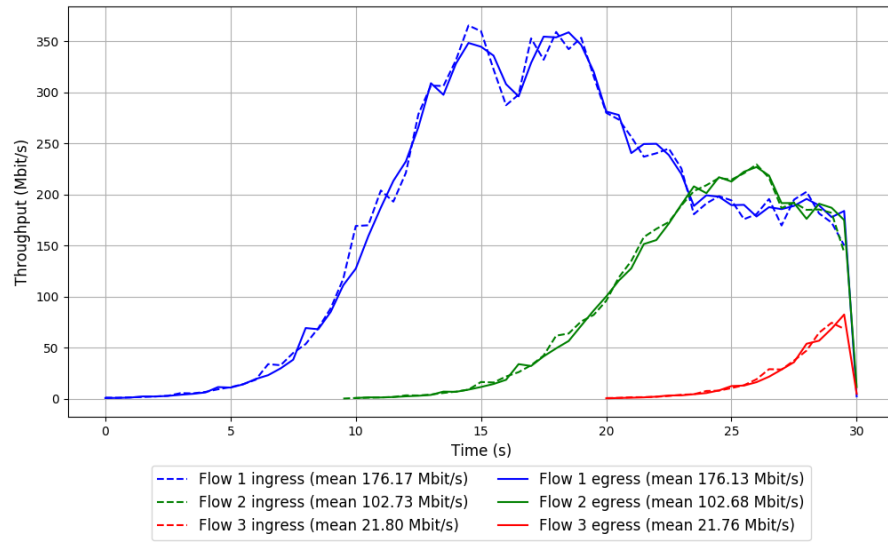
Run 9: Report of CalibratedKoho — Data Link

```
Run 10: Statistics of CalibratedKoho

Start at: 2017-08-31 16:39:17
End at: 2017-08-31 16:39:47

# Below is generated by plot.py at 2017-08-31 18:08:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.76 Mbit/s
95th percentile per-packet one-way delay: 151.456 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 176.13 Mbit/s
95th percentile per-packet one-way delay: 156.739 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 102.68 Mbit/s
95th percentile per-packet one-way delay: 144.856 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 21.76 Mbit/s
95th percentile per-packet one-way delay: 133.272 ms
Loss rate: 0.19%
```
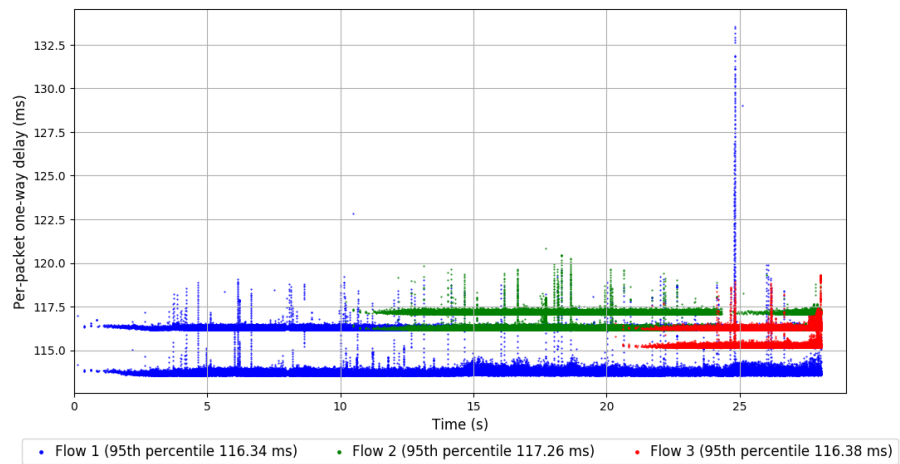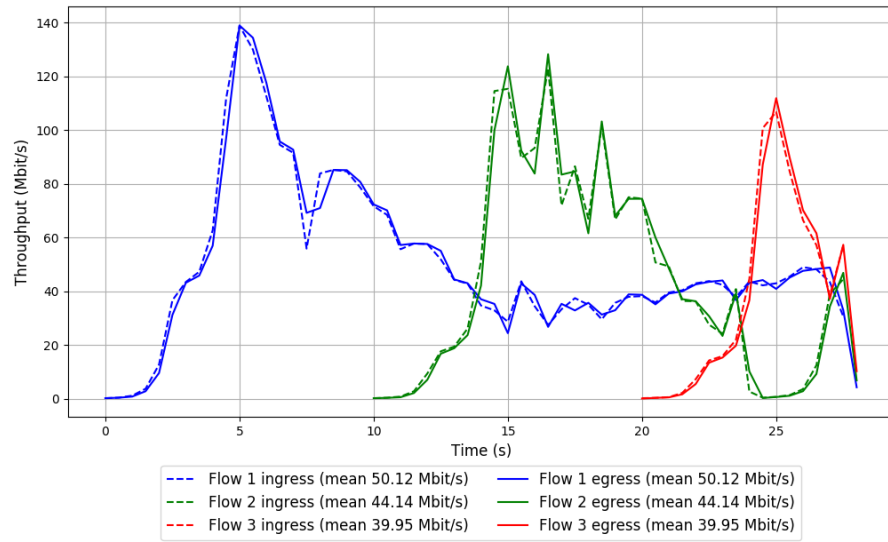
Run 10: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 176.17 Mbit/s)   Flow 1 egress (mean 176.13 Mbit/s)
Flow 2 ingress (mean 102.73 Mbit/s)   Flow 2 egress (mean 102.68 Mbit/s)
Flow 3 ingress (mean 21.80 Mbit/s)   Flow 3 egress (mean 21.76 Mbit/s)

Flow 1 (95th percentile 156.74 ms)   Flow 2 (95th percentile 144.86 ms)   Flow 3 (95th percentile 133.27 ms)

```
Run 1: Statistics of Copa

Start at: 2017-08-31 14:37:22
End at: 2017-08-31 14:37:52


# Below is generated by plot.py at 2017-08-31 18:08:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.37 Mbit/s
95th percentile per-packet one-way delay: 117.192 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.12 Mbit/s
95th percentile per-packet one-way delay: 116.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.14 Mbit/s
95th percentile per-packet one-way delay: 117.256 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 116.379 ms
Loss rate: 0.00%
```
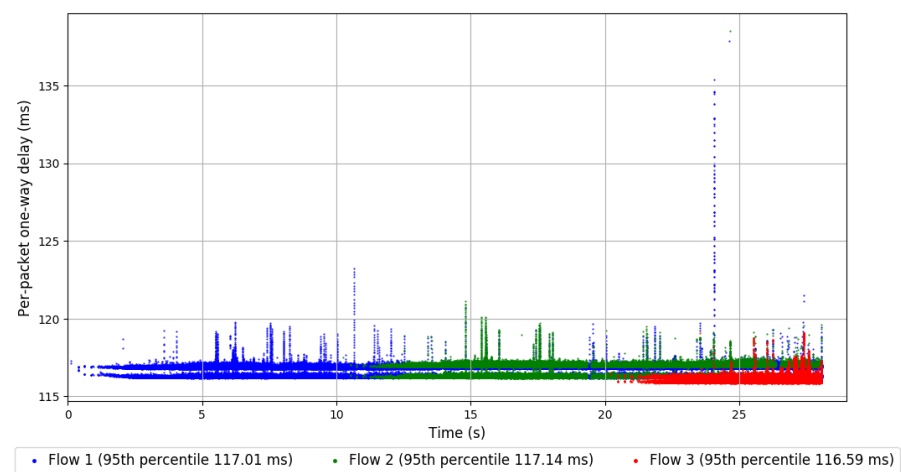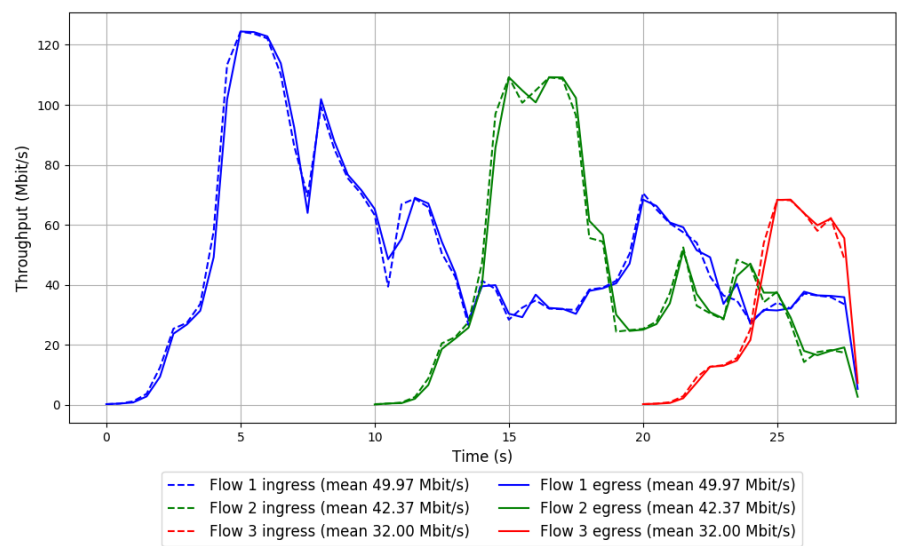
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 50.12 Mbit/s) --- Flow 1 egress (mean 50.12 Mbit/s)
Flow 2 ingress (mean 44.14 Mbit/s) --- Flow 2 egress (mean 44.14 Mbit/s)
Flow 3 ingress (mean 39.95 Mbit/s) --- Flow 3 egress (mean 39.95 Mbit/s)

Flow 1 (95th percentile 116.34 ms)   Flow 2 (95th percentile 117.26 ms)   Flow 3 (95th percentile 116.38 ms)

```
Run 2: Statistics of Copa

Start at: 2017-08-31 14:50:26
End at: 2017-08-31 14:50:56


# Below is generated by plot.py at 2017-08-31 18:08:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.98 Mbit/s
95th percentile per-packet one-way delay: 117.074 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.97 Mbit/s
95th percentile per-packet one-way delay: 117.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.37 Mbit/s
95th percentile per-packet one-way delay: 117.135 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.00 Mbit/s
95th percentile per-packet one-way delay: 116.590 ms
Loss rate: 0.00%
```
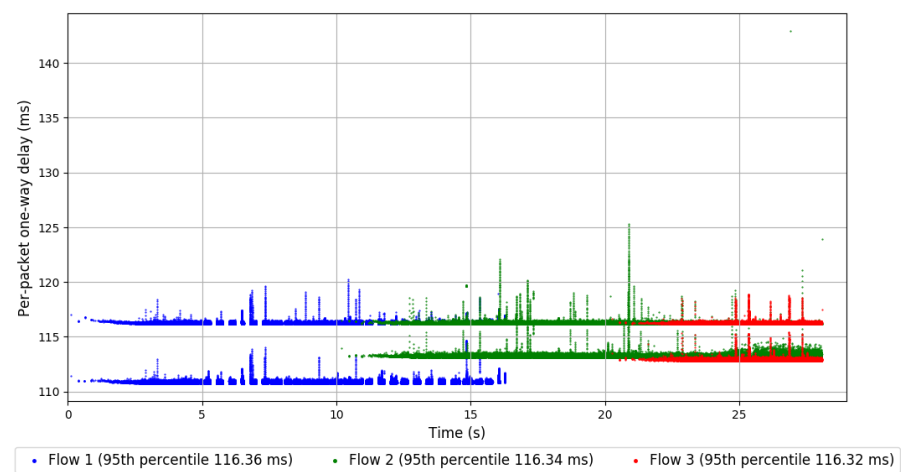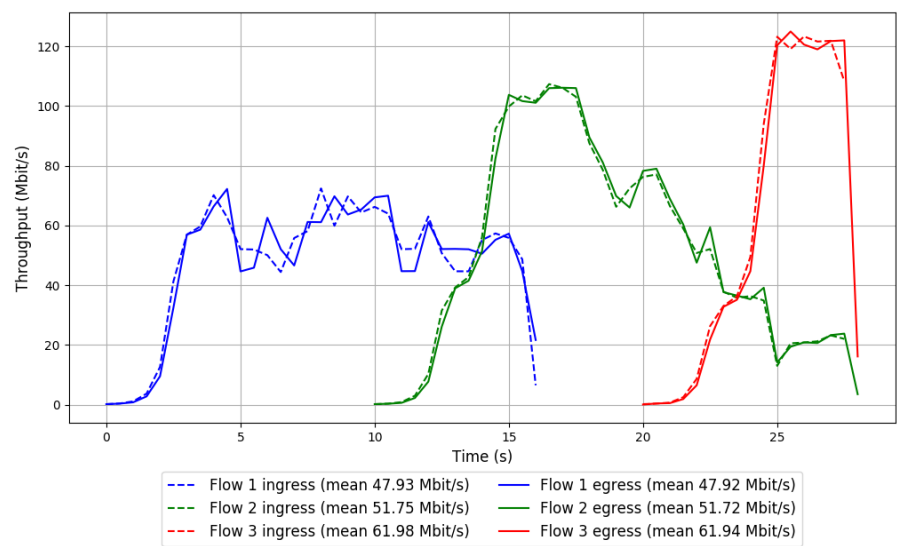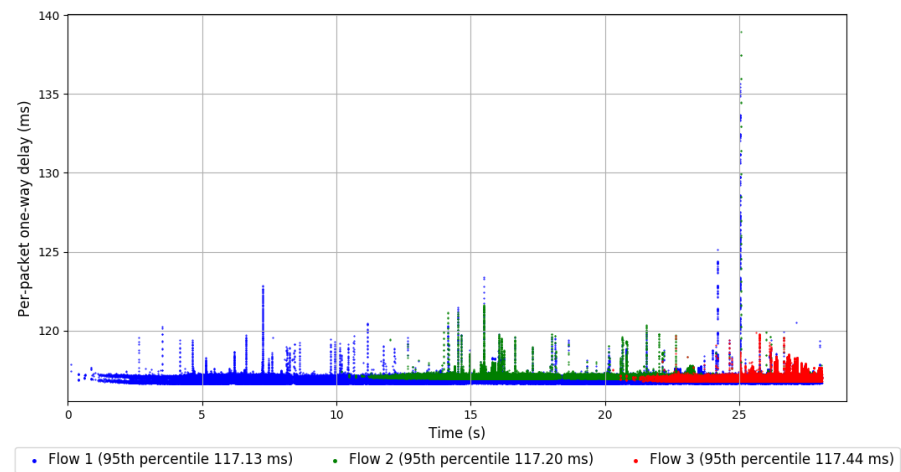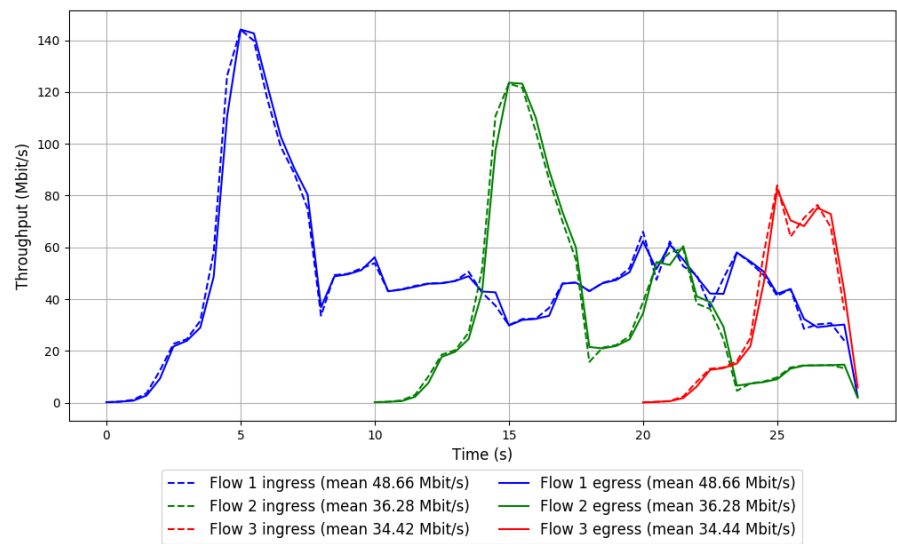
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 49.97 Mbit/s)   Flow 1 egress (mean 49.97 Mbit/s)
Flow 2 ingress (mean 42.37 Mbit/s)   Flow 2 egress (mean 42.37 Mbit/s)
Flow 3 ingress (mean 32.00 Mbit/s)   Flow 3 egress (mean 32.00 Mbit/s)

Flow 1 (95th percentile 117.01 ms)   Flow 2 (95th percentile 117.14 ms)   Flow 3 (95th percentile 116.59 ms)

47

```
Run 3: Statistics of Copa

Start at: 2017-08-31 15:03:53
End at: 2017-08-31 15:04:23


# Below is generated by plot.py at 2017-08-31 18:09:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.07 Mbit/s
95th percentile per-packet one-way delay: 116.341 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.92 Mbit/s
95th percentile per-packet one-way delay: 116.359 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.72 Mbit/s
95th percentile per-packet one-way delay: 116.336 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 61.94 Mbit/s
95th percentile per-packet one-way delay: 116.319 ms
Loss rate: 0.03%
```
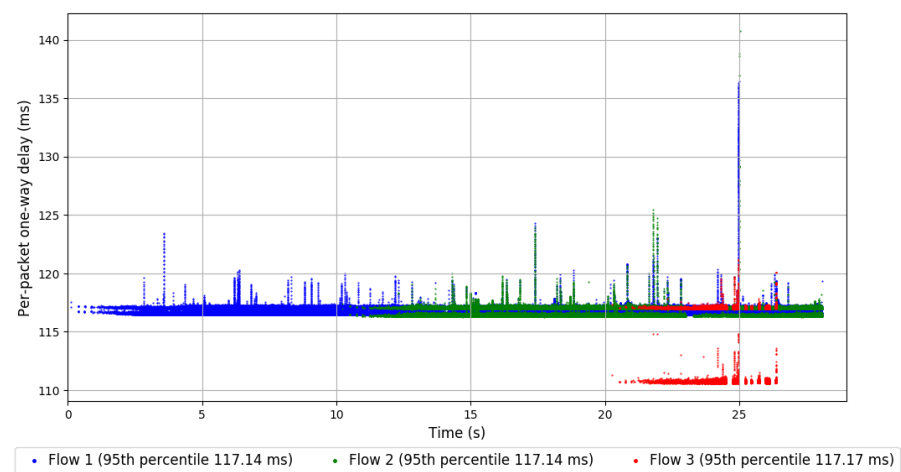
Run 3: Report of Copa — Data Link

49

```
Run 4: Statistics of Copa

Start at: 2017-08-31 15:17:10
End at: 2017-08-31 15:17:40


# Below is generated by plot.py at 2017-08-31 18:09:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.44 Mbit/s
95th percentile per-packet one-way delay: 117.175 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.66 Mbit/s
95th percentile per-packet one-way delay: 117.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 117.202 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.44 Mbit/s
95th percentile per-packet one-way delay: 117.441 ms
Loss rate: 0.00%
```
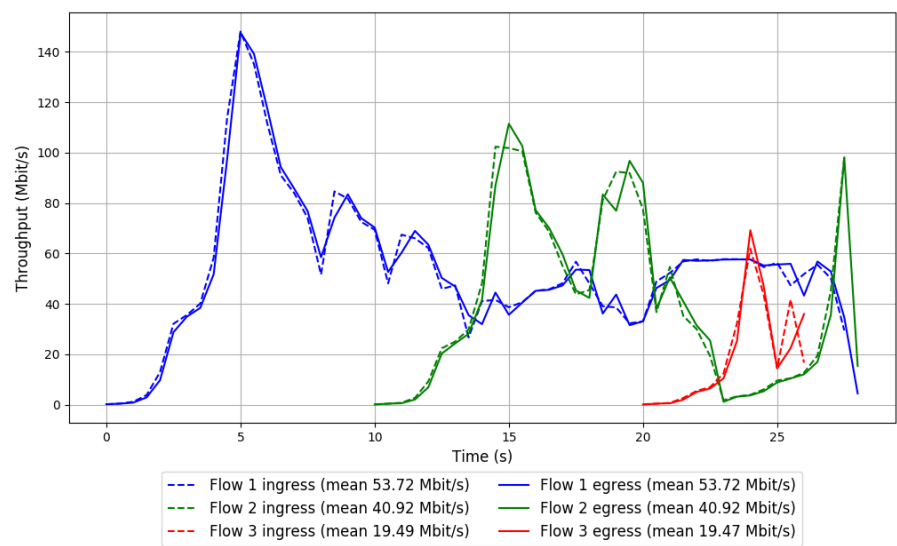
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2017-08-31 15:30:19
End at: 2017-08-31 15:30:49


# Below is generated by plot.py at 2017-08-31 18:09:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.11 Mbit/s
95th percentile per-packet one-way delay: 117.142 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.72 Mbit/s
95th percentile per-packet one-way delay: 117.143 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 117.135 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.47 Mbit/s
95th percentile per-packet one-way delay: 117.172 ms
Loss rate: 0.00%
```
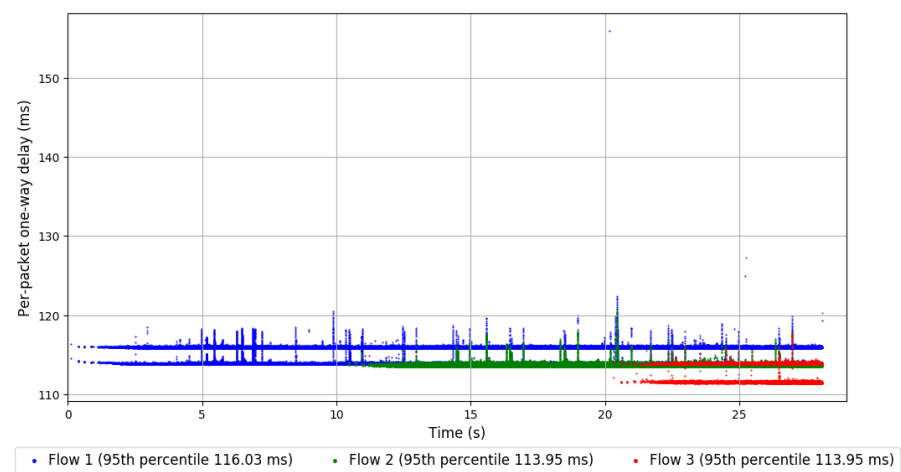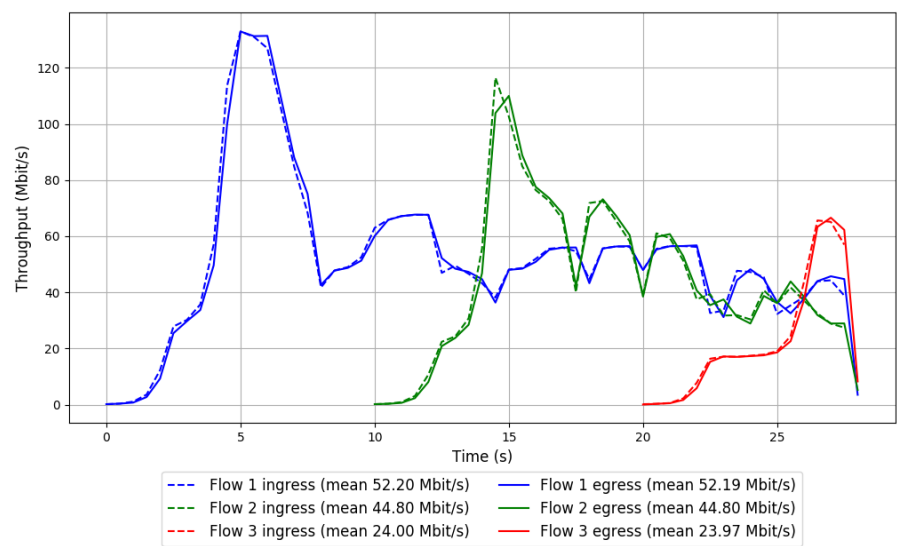
Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2017-08-31 15:43:21
End at: 2017-08-31 15:43:51


# Below is generated by plot.py at 2017-08-31 18:09:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.46 Mbit/s
95th percentile per-packet one-way delay: 115.999 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 52.19 Mbit/s
95th percentile per-packet one-way delay: 116.026 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.80 Mbit/s
95th percentile per-packet one-way delay: 113.950 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 113.946 ms
Loss rate: 0.06%
```
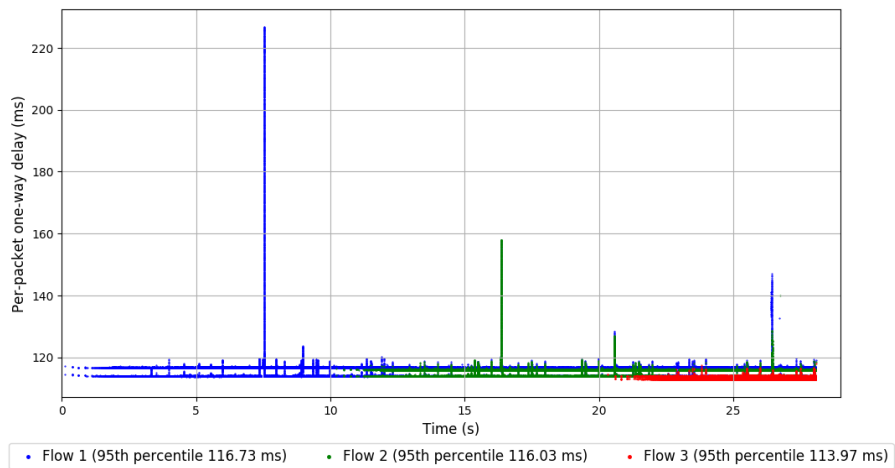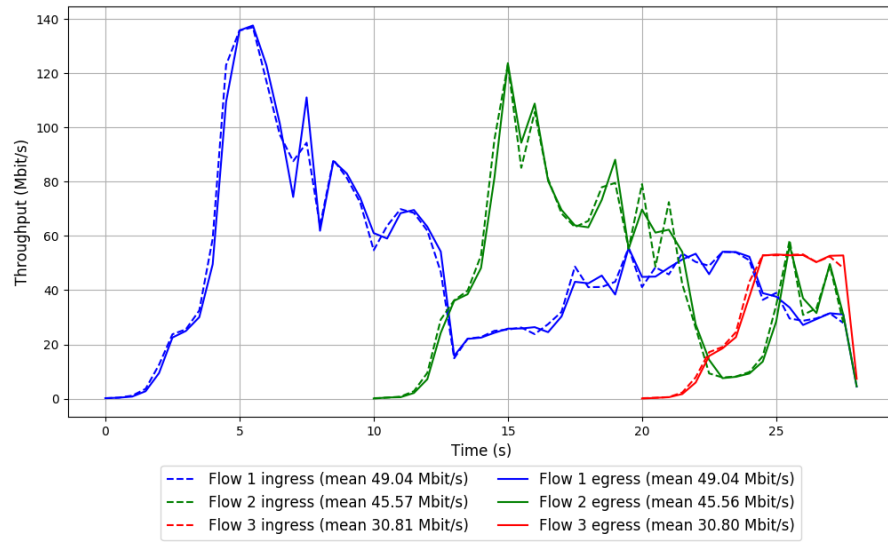
Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 52.20 Mbit/s)   Flow 1 egress (mean 52.19 Mbit/s)
Flow 2 ingress (mean 44.80 Mbit/s)   Flow 2 egress (mean 44.80 Mbit/s)
Flow 3 ingress (mean 24.00 Mbit/s)   Flow 3 egress (mean 23.97 Mbit/s)

Flow 1 (95th percentile 116.03 ms)   Flow 2 (95th percentile 113.95 ms)   Flow 3 (95th percentile 113.95 ms)

```
Run 7: Statistics of Copa

Start at: 2017-08-31 15:56:38
End at: 2017-08-31 15:57:08


# Below is generated by plot.py at 2017-08-31 18:09:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.65 Mbit/s
95th percentile per-packet one-way delay: 116.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.04 Mbit/s
95th percentile per-packet one-way delay: 116.733 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.56 Mbit/s
95th percentile per-packet one-way delay: 116.035 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 30.80 Mbit/s
95th percentile per-packet one-way delay: 113.965 ms
Loss rate: 0.00%
```
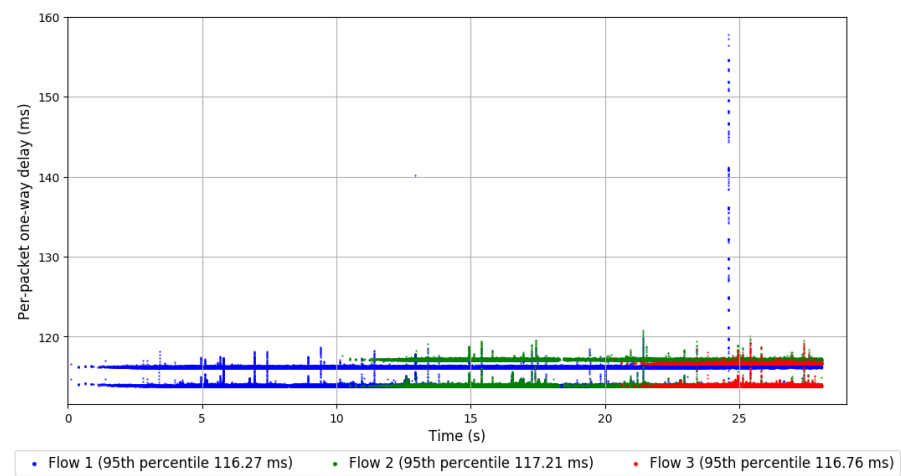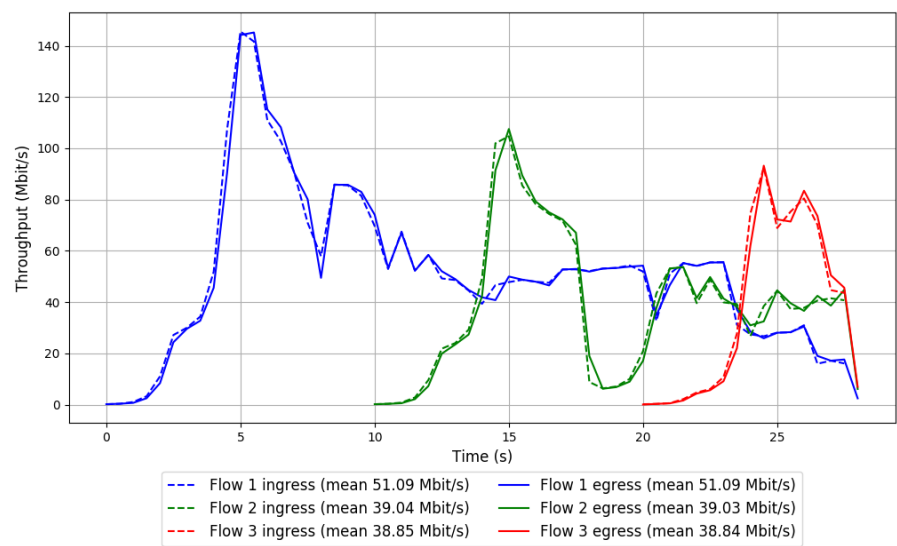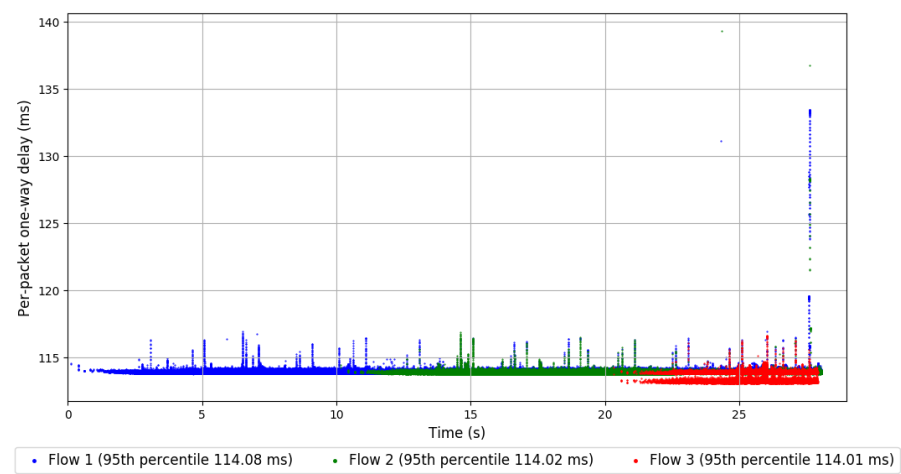
Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2017-08-31 16:09:49
End at: 2017-08-31 16:10:19


# Below is generated by plot.py at 2017-08-31 18:10:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.80 Mbit/s
95th percentile per-packet one-way delay: 117.142 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 51.09 Mbit/s
95th percentile per-packet one-way delay: 116.272 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.03 Mbit/s
95th percentile per-packet one-way delay: 117.212 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 116.756 ms
Loss rate: 0.03%
```
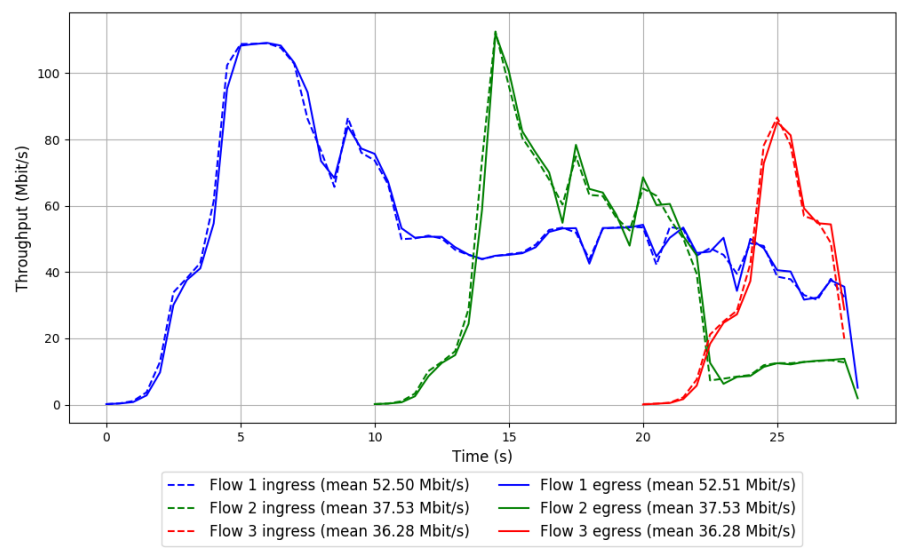
Run 8: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 51.09 Mbit/s) —— Flow 1 egress (mean 51.09 Mbit/s)
- - - - Flow 2 ingress (mean 39.04 Mbit/s) —— Flow 2 egress (mean 39.03 Mbit/s)
- - - - Flow 3 ingress (mean 38.85 Mbit/s) —— Flow 3 egress (mean 38.84 Mbit/s)

• Flow 1 (95th percentile 116.27 ms)   • Flow 2 (95th percentile 117.21 ms)   • Flow 3 (95th percentile 116.76 ms)

```
Run 9: Statistics of Copa

Start at: 2017-08-31 16:23:09
End at: 2017-08-31 16:23:39


# Below is generated by plot.py at 2017-08-31 18:10:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.43 Mbit/s
95th percentile per-packet one-way delay: 114.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.51 Mbit/s
95th percentile per-packet one-way delay: 114.083 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.53 Mbit/s
95th percentile per-packet one-way delay: 114.017 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 114.009 ms
Loss rate: 0.00%
```
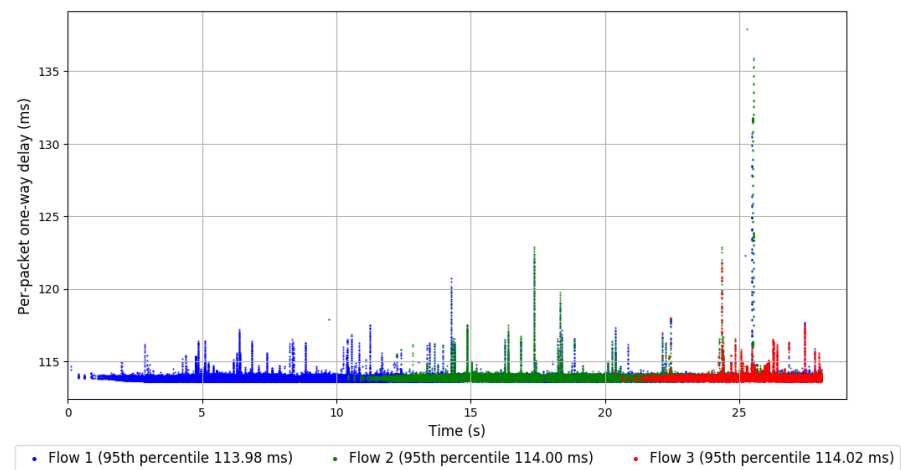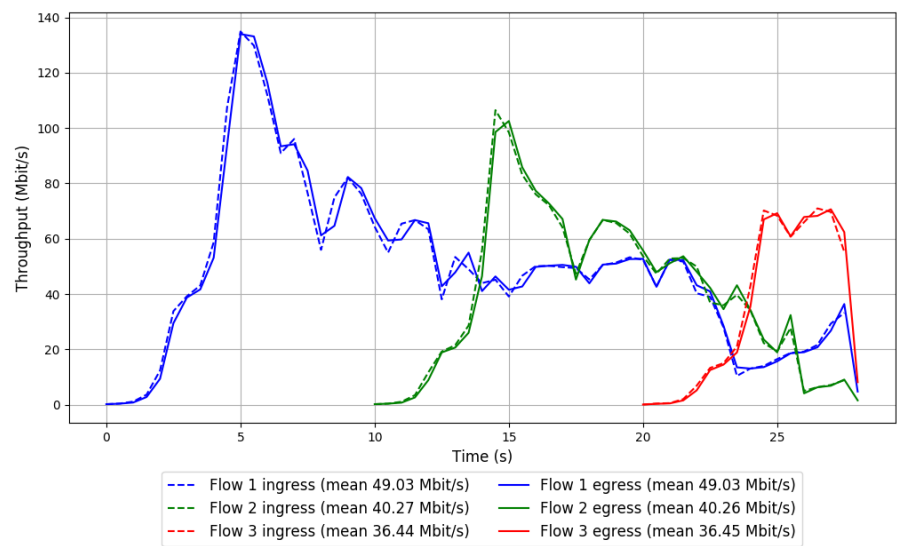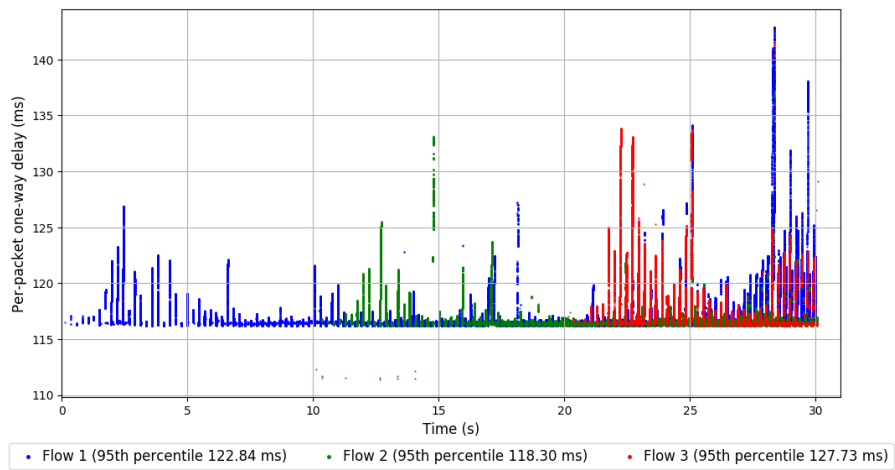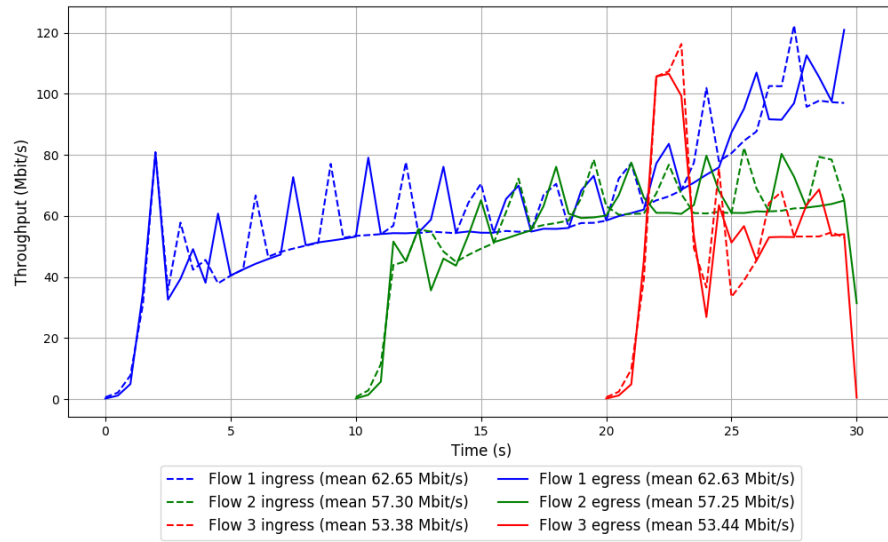
Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2017-08-31 16:36:25
End at: 2017-08-31 16:36:55


# Below is generated by plot.py at 2017-08-31 18:10:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.89 Mbit/s
95th percentile per-packet one-way delay: 113.992 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 49.03 Mbit/s
95th percentile per-packet one-way delay: 113.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.26 Mbit/s
95th percentile per-packet one-way delay: 114.000 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 36.45 Mbit/s
95th percentile per-packet one-way delay: 114.024 ms
Loss rate: 0.00%
```

Run 10: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2017-08-31 14:35:35
End at: 2017-08-31 14:36:05


# Below is generated by plot.py at 2017-08-31 18:10:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.27 Mbit/s
95th percentile per-packet one-way delay: 122.765 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.63 Mbit/s
95th percentile per-packet one-way delay: 122.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.25 Mbit/s
95th percentile per-packet one-way delay: 118.297 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.44 Mbit/s
95th percentile per-packet one-way delay: 127.726 ms
Loss rate: 0.01%
```
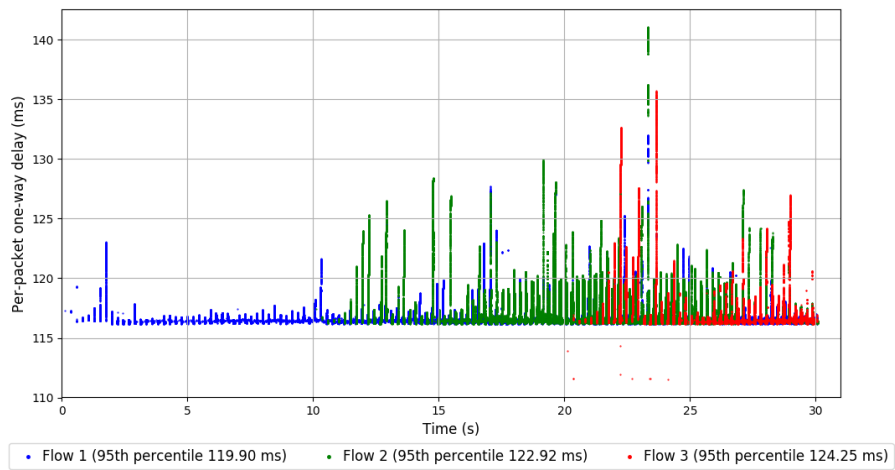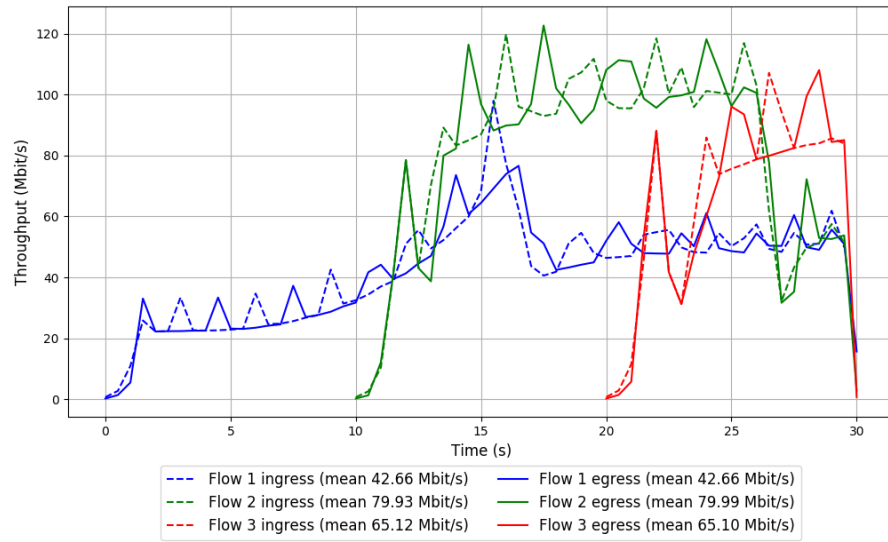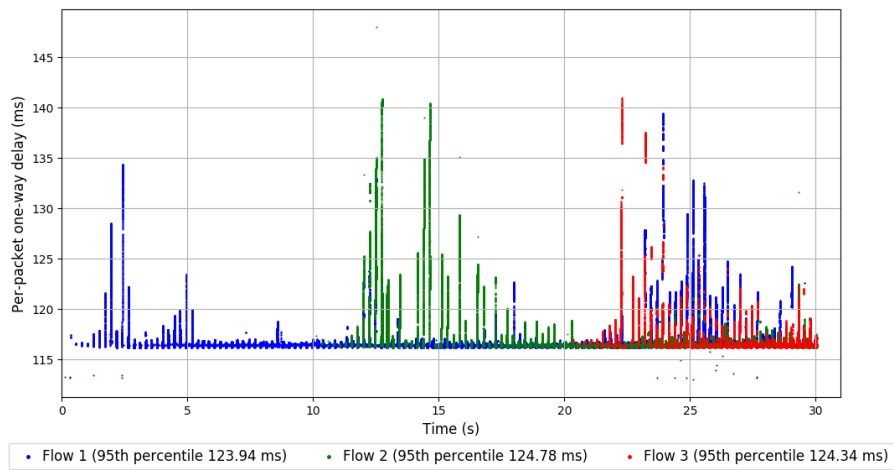
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 62.65 Mbit/s) — Flow 1 egress (mean 62.63 Mbit/s)
Flow 2 ingress (mean 57.30 Mbit/s) — Flow 2 egress (mean 57.25 Mbit/s)
Flow 3 ingress (mean 53.38 Mbit/s) — Flow 3 egress (mean 53.44 Mbit/s)

Flow 1 (95th percentile 122.84 ms) · Flow 2 (95th percentile 118.30 ms) · Flow 3 (95th percentile 127.73 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2017-08-31 14:48:42
End at: 2017-08-31 14:49:12


# Below is generated by plot.py at 2017-08-31 18:11:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.51 Mbit/s
95th percentile per-packet one-way delay: 122.168 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.66 Mbit/s
95th percentile per-packet one-way delay: 119.899 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 79.99 Mbit/s
95th percentile per-packet one-way delay: 122.925 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.10 Mbit/s
95th percentile per-packet one-way delay: 124.255 ms
Loss rate: 0.00%
```
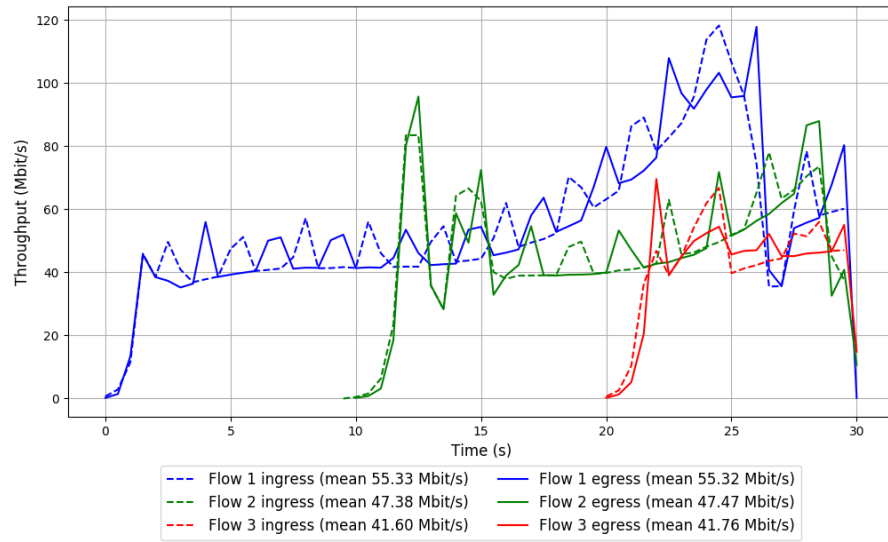
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2017-08-31 15:02:06
End at: 2017-08-31 15:02:36


# Below is generated by plot.py at 2017-08-31 18:11:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.76 Mbit/s
95th percentile per-packet one-way delay: 124.239 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 123.935 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 47.47 Mbit/s
95th percentile per-packet one-way delay: 124.785 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 41.76 Mbit/s
95th percentile per-packet one-way delay: 124.337 ms
Loss rate: 0.03%
```
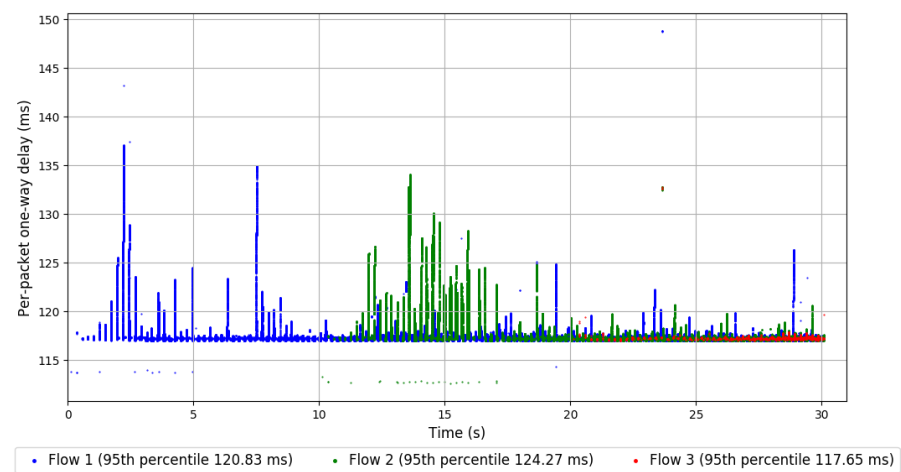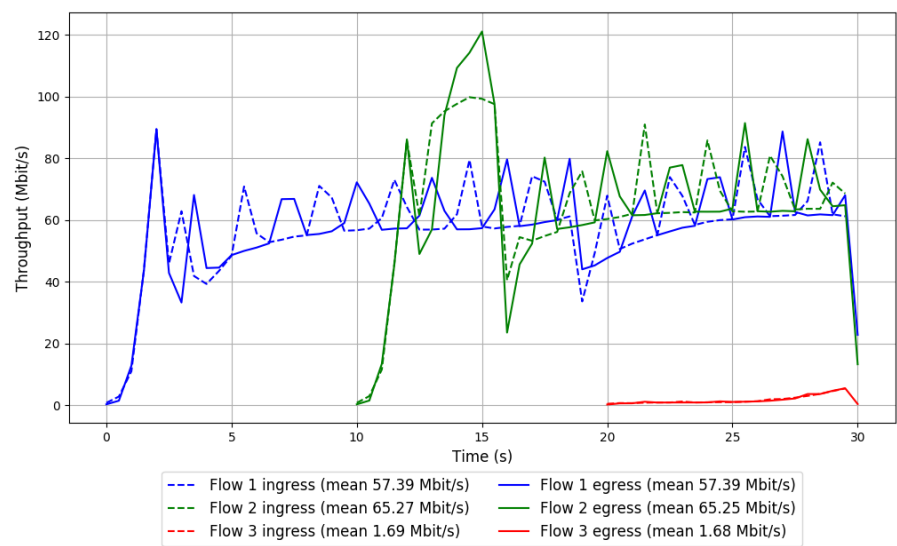
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 55.33 Mbit/s) --- Flow 1 egress (mean 55.32 Mbit/s)
Flow 2 ingress (mean 47.38 Mbit/s) --- Flow 2 egress (mean 47.47 Mbit/s)
Flow 3 ingress (mean 41.60 Mbit/s) --- Flow 3 egress (mean 41.76 Mbit/s)

Flow 1 (95th percentile 123.94 ms)   Flow 2 (95th percentile 124.78 ms)   Flow 3 (95th percentile 124.34 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2017-08-31 15:15:28
End at: 2017-08-31 15:15:58

# Below is generated by plot.py at 2017-08-31 18:11:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.36 Mbit/s
95th percentile per-packet one-way delay: 122.793 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 57.39 Mbit/s
95th percentile per-packet one-way delay: 120.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.25 Mbit/s
95th percentile per-packet one-way delay: 124.267 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 117.652 ms
Loss rate: 0.21%
```
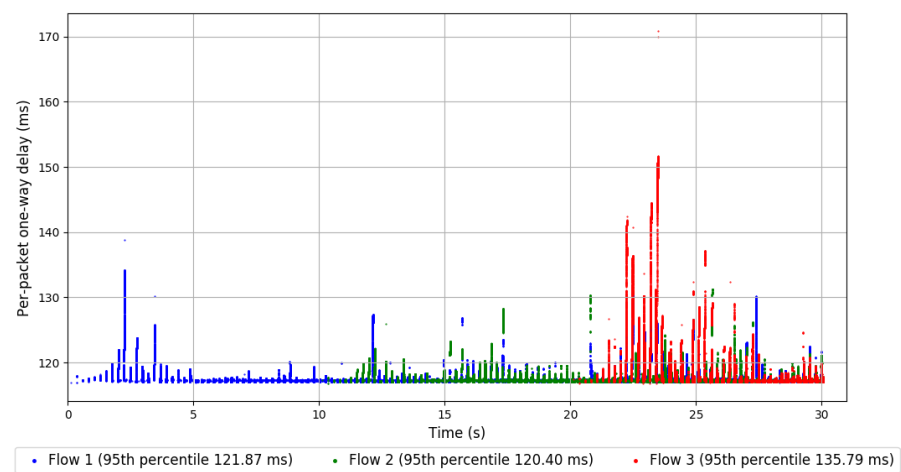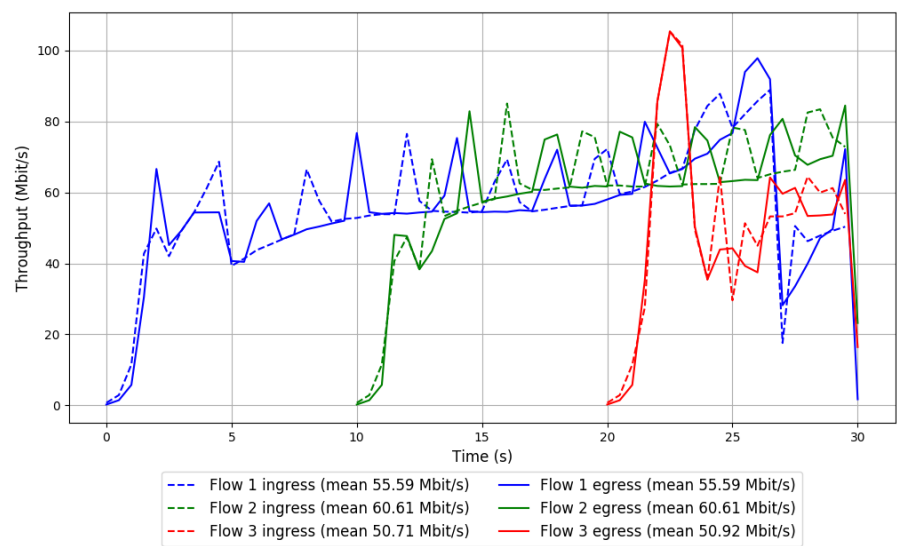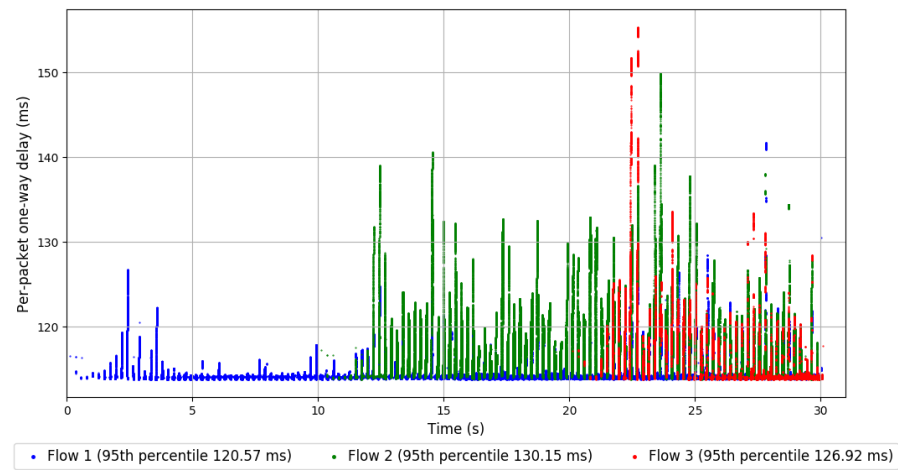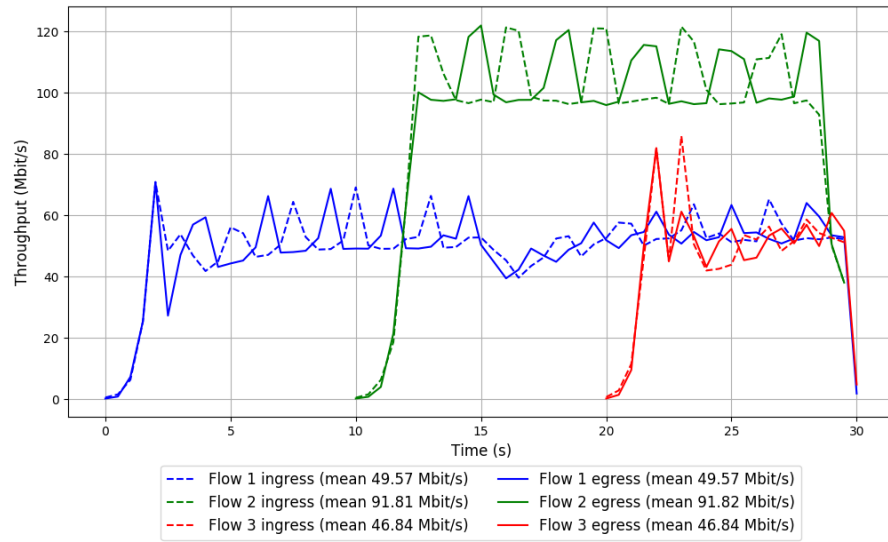
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 57.39 Mbit/s) — Flow 1 egress (mean 57.39 Mbit/s)
Flow 2 ingress (mean 65.27 Mbit/s) — Flow 2 egress (mean 65.25 Mbit/s)
Flow 3 ingress (mean 1.69 Mbit/s) — Flow 3 egress (mean 1.68 Mbit/s)

Flow 1 (95th percentile 120.83 ms)   Flow 2 (95th percentile 124.27 ms)   Flow 3 (95th percentile 117.65 ms)

71

```
Run 5: Statistics of TCP Cubic

Start at: 2017-08-31 15:28:37
End at: 2017-08-31 15:29:07


# Below is generated by plot.py at 2017-08-31 18:11:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.79 Mbit/s
95th percentile per-packet one-way delay: 123.696 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.59 Mbit/s
95th percentile per-packet one-way delay: 121.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.61 Mbit/s
95th percentile per-packet one-way delay: 120.397 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.92 Mbit/s
95th percentile per-packet one-way delay: 135.790 ms
Loss rate: 0.00%
```
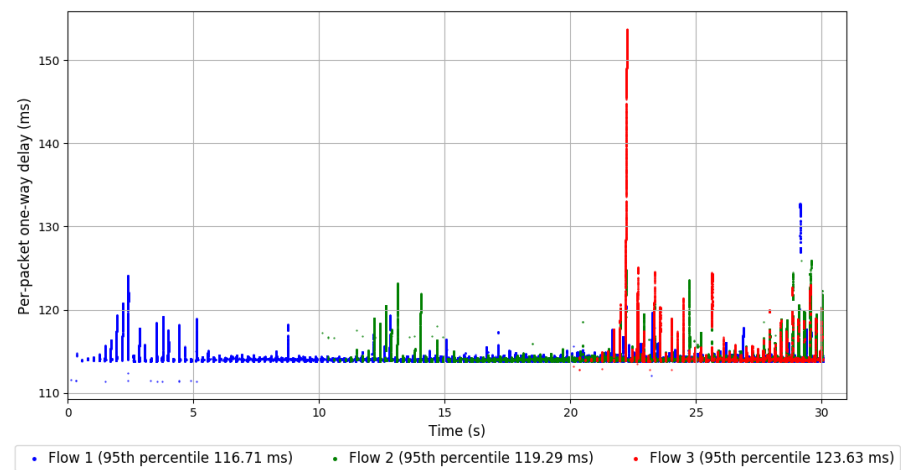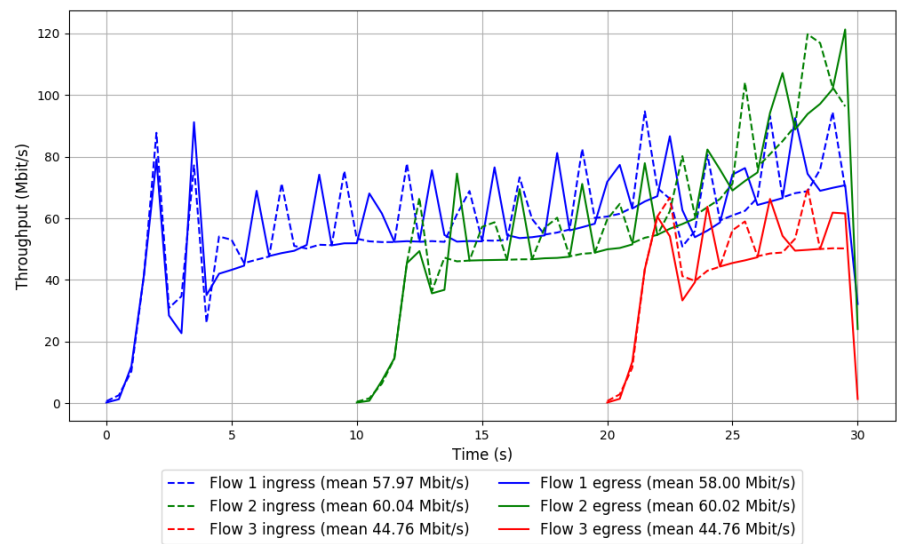
Run 5: Report of TCP Cubic — Data Link

Throughput (Mbit/s) vs Time (s)

- - - Flow 1 ingress (mean 55.59 Mbit/s) — Flow 1 egress (mean 55.59 Mbit/s)
- - - Flow 2 ingress (mean 60.61 Mbit/s) — Flow 2 egress (mean 60.61 Mbit/s)
- - - Flow 3 ingress (mean 50.71 Mbit/s) — Flow 3 egress (mean 50.92 Mbit/s)

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

- Flow 1 (95th percentile 121.87 ms)   • Flow 2 (95th percentile 120.40 ms)   • Flow 3 (95th percentile 135.79 ms)

73

```
Run 6: Statistics of TCP Cubic

Start at: 2017-08-31 15:41:36
End at: 2017-08-31 15:42:06


# Below is generated by plot.py at 2017-08-31 18:12:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.54 Mbit/s
95th percentile per-packet one-way delay: 127.399 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 120.570 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.82 Mbit/s
95th percentile per-packet one-way delay: 130.146 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.84 Mbit/s
95th percentile per-packet one-way delay: 126.919 ms
Loss rate: 0.00%
```
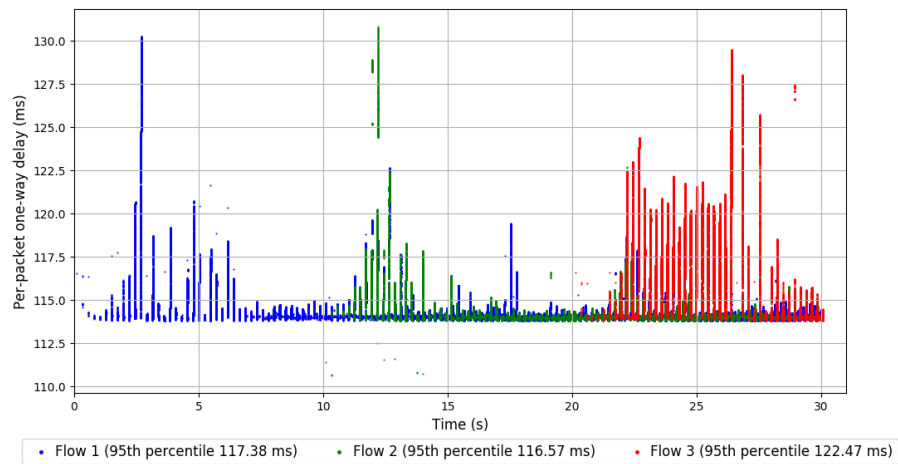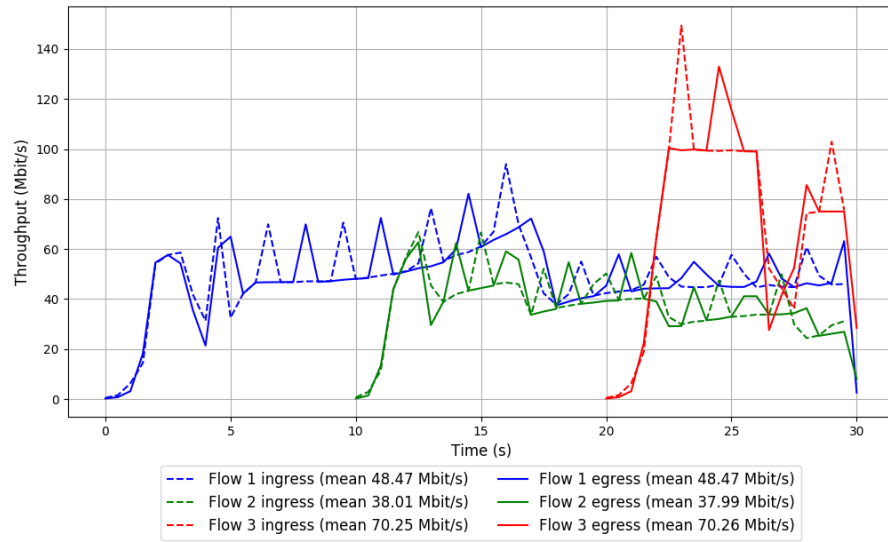
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2017-08-31 15:54:55
End at: 2017-08-31 15:55:25


# Below is generated by plot.py at 2017-08-31 18:12:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.71 Mbit/s
95th percentile per-packet one-way delay: 118.763 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 116.709 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 119.286 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.76 Mbit/s
95th percentile per-packet one-way delay: 123.634 ms
Loss rate: 0.00%
```
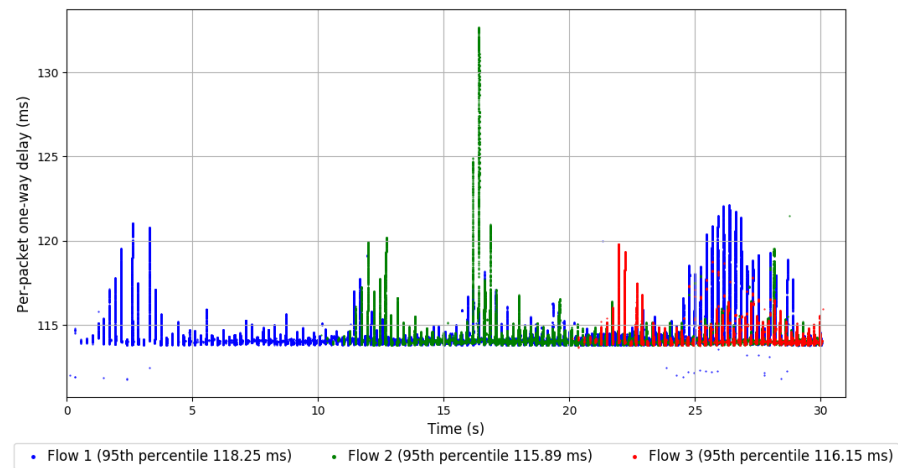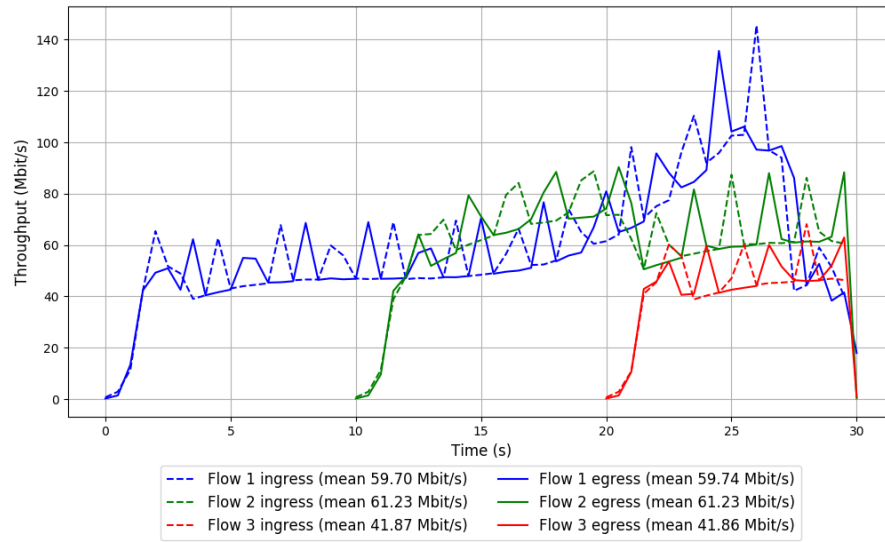
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 57.97 Mbit/s) --- Flow 1 egress (mean 58.00 Mbit/s)
Flow 2 ingress (mean 60.04 Mbit/s) --- Flow 2 egress (mean 60.02 Mbit/s)
Flow 3 ingress (mean 44.76 Mbit/s) --- Flow 3 egress (mean 44.76 Mbit/s)

Flow 1 (95th percentile 116.71 ms)   Flow 2 (95th percentile 119.29 ms)   Flow 3 (95th percentile 123.63 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2017-08-31 16:08:04
End at: 2017-08-31 16:08:34


# Below is generated by plot.py at 2017-08-31 18:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.05 Mbit/s
95th percentile per-packet one-way delay: 120.183 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 48.47 Mbit/s
95th percentile per-packet one-way delay: 117.378 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 116.574 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 70.26 Mbit/s
95th percentile per-packet one-way delay: 122.470 ms
Loss rate: 0.01%
```
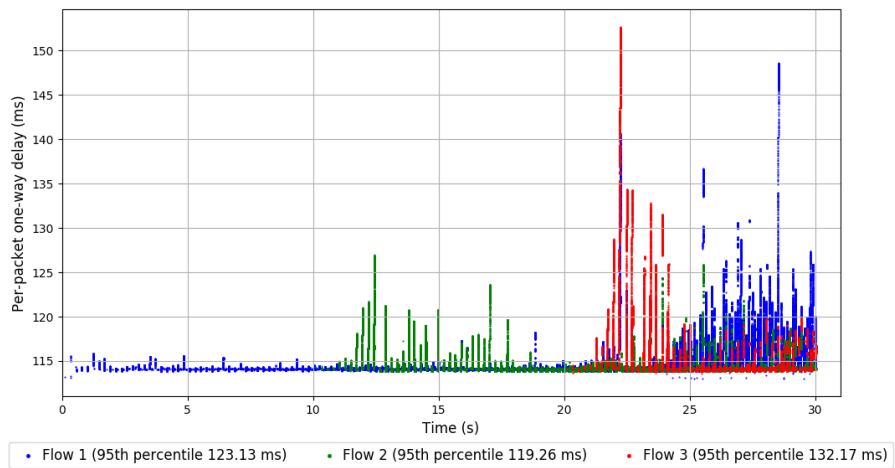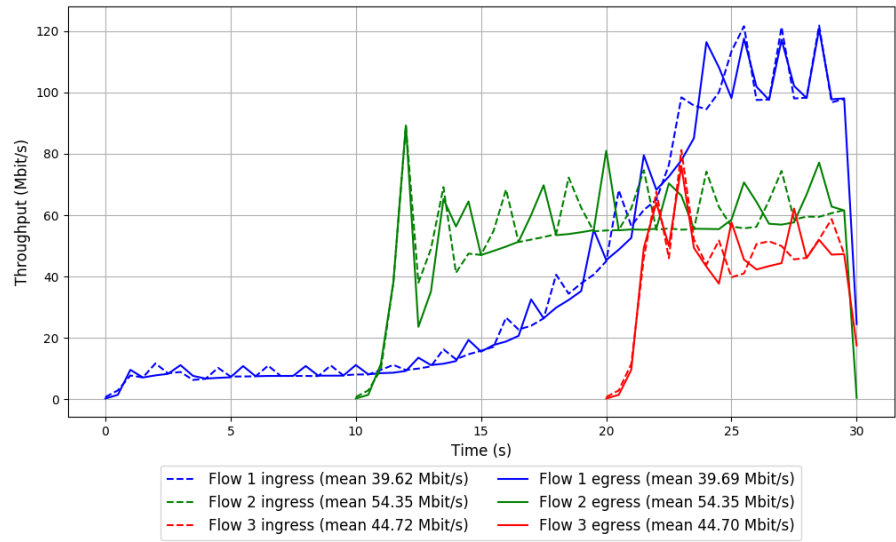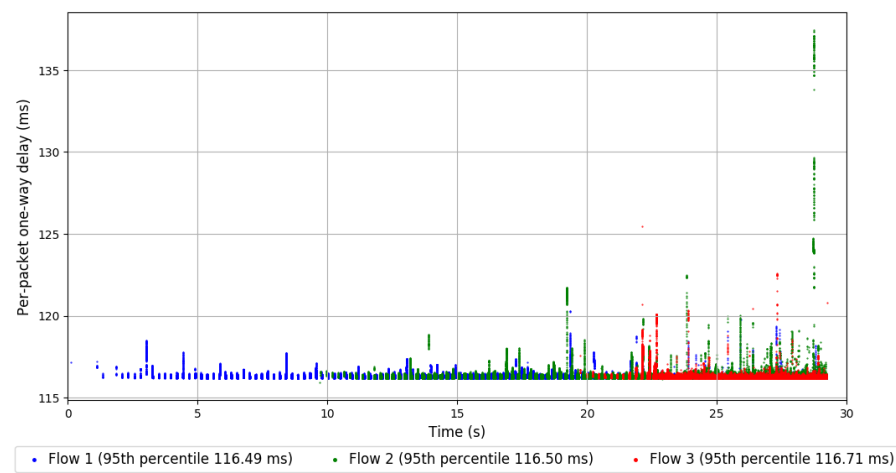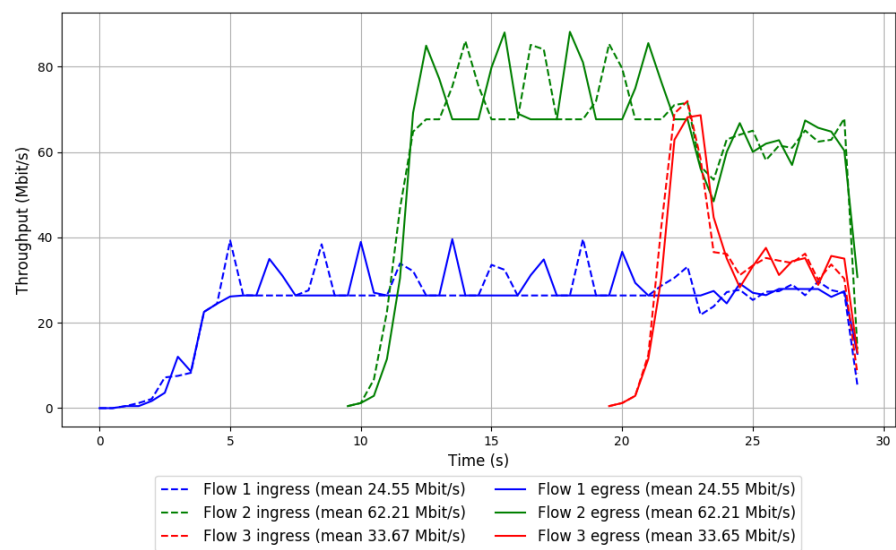
Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2017-08-31 16:21:24
End at: 2017-08-31 16:21:54


# Below is generated by plot.py at 2017-08-31 18:12:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.37 Mbit/s
95th percentile per-packet one-way delay: 117.616 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.74 Mbit/s
95th percentile per-packet one-way delay: 118.250 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.23 Mbit/s
95th percentile per-packet one-way delay: 115.887 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.86 Mbit/s
95th percentile per-packet one-way delay: 116.149 ms
Loss rate: 0.00%
```
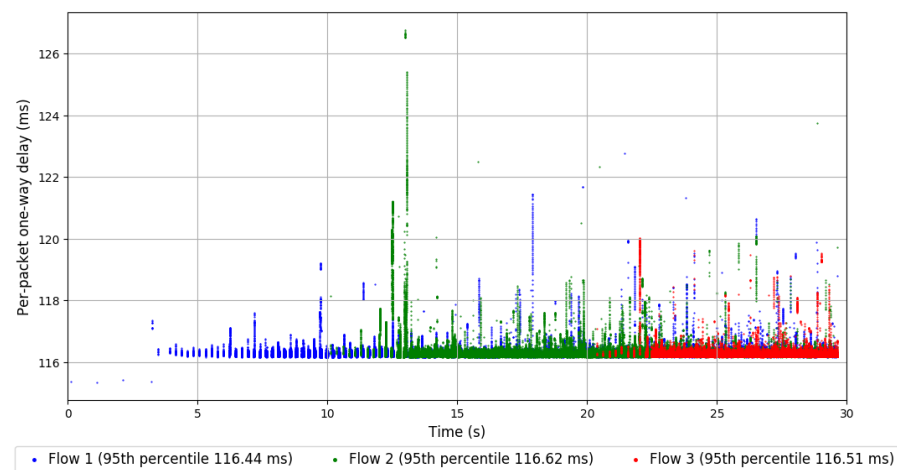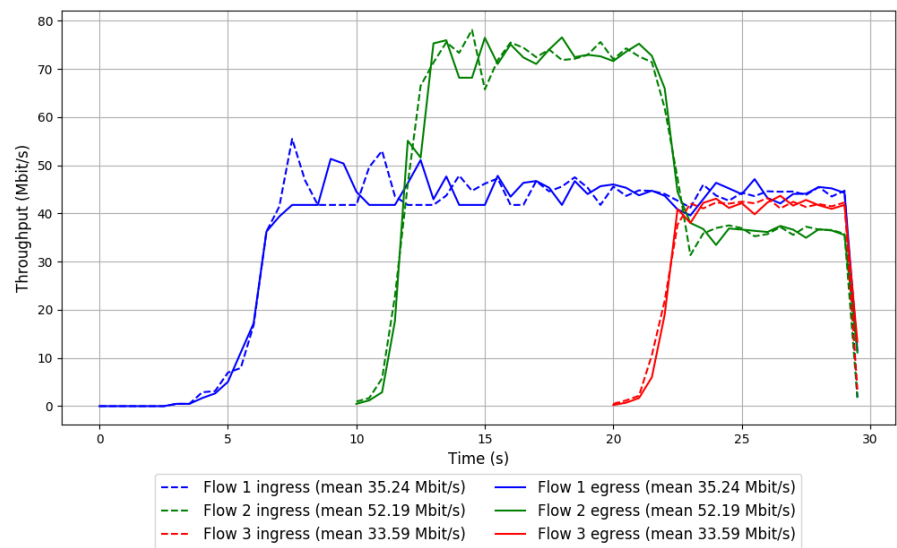
Run 9: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 59.70 Mbit/s)   —— Flow 1 egress (mean 59.74 Mbit/s)
- - - Flow 2 ingress (mean 61.23 Mbit/s)   —— Flow 2 egress (mean 61.23 Mbit/s)
- - - Flow 3 ingress (mean 41.87 Mbit/s)   —— Flow 3 egress (mean 41.86 Mbit/s)

- Flow 1 (95th percentile 118.25 ms)   • Flow 2 (95th percentile 115.89 ms)   • Flow 3 (95th percentile 116.15 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2017-08-31 16:34:39
End at: 2017-08-31 16:35:09


# Below is generated by plot.py at 2017-08-31 18:12:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.64 Mbit/s
95th percentile per-packet one-way delay: 122.938 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 39.69 Mbit/s
95th percentile per-packet one-way delay: 123.129 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 119.256 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.70 Mbit/s
95th percentile per-packet one-way delay: 132.171 ms
Loss rate: 0.02%
```
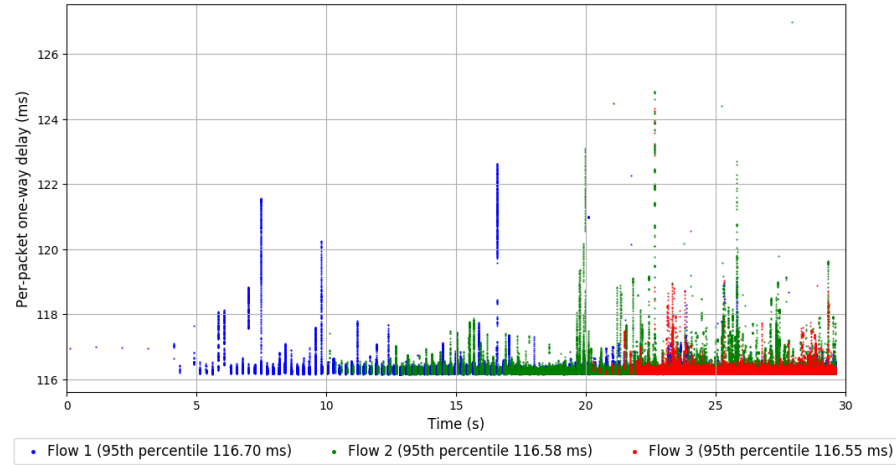
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 39.62 Mbit/s) --- Flow 1 egress (mean 39.69 Mbit/s)
Flow 2 ingress (mean 54.35 Mbit/s) --- Flow 2 egress (mean 54.35 Mbit/s)
Flow 3 ingress (mean 44.72 Mbit/s) --- Flow 3 egress (mean 44.70 Mbit/s)

Flow 1 (95th percentile 123.13 ms)   Flow 2 (95th percentile 119.26 ms)   Flow 3 (95th percentile 132.17 ms)

83

```
Run 1: Statistics of Indigo

Start at: 2017-08-31 14:41:09
End at: 2017-08-31 14:41:39


# Below is generated by plot.py at 2017-08-31 18:12:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.18 Mbit/s
95th percentile per-packet one-way delay: 116.512 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.55 Mbit/s
95th percentile per-packet one-way delay: 116.489 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.21 Mbit/s
95th percentile per-packet one-way delay: 116.499 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.65 Mbit/s
95th percentile per-packet one-way delay: 116.713 ms
Loss rate: 0.01%
```
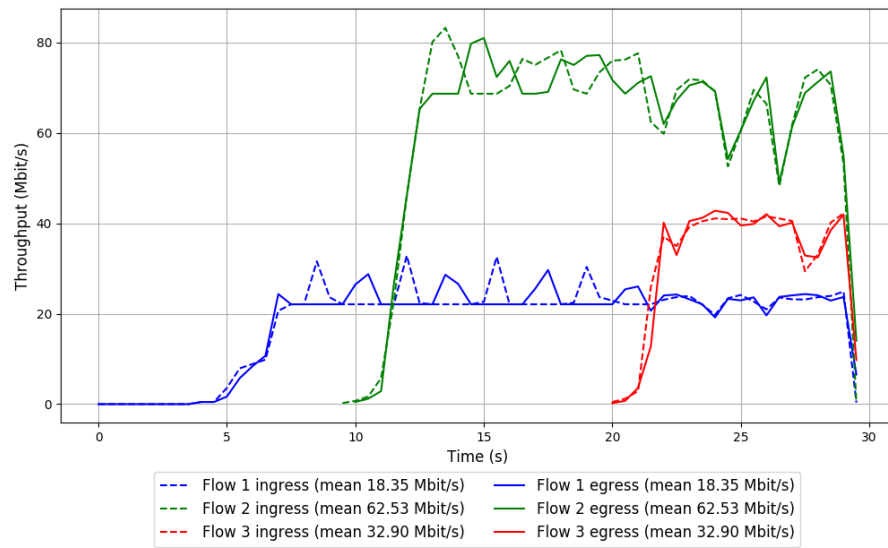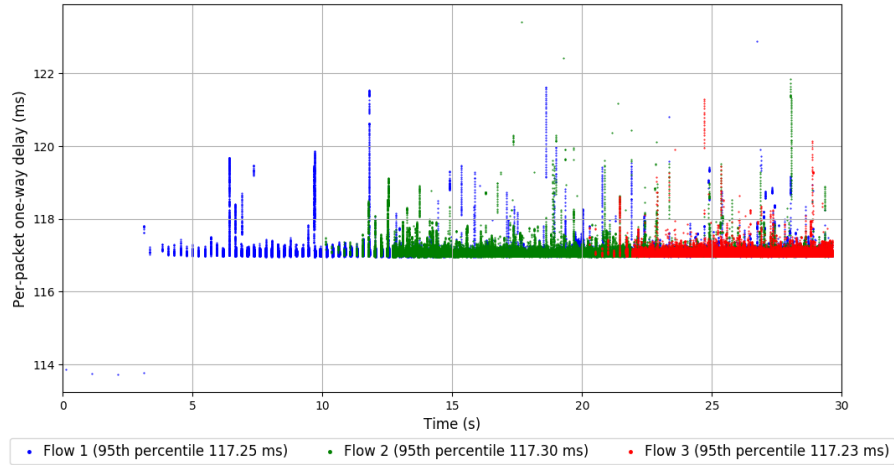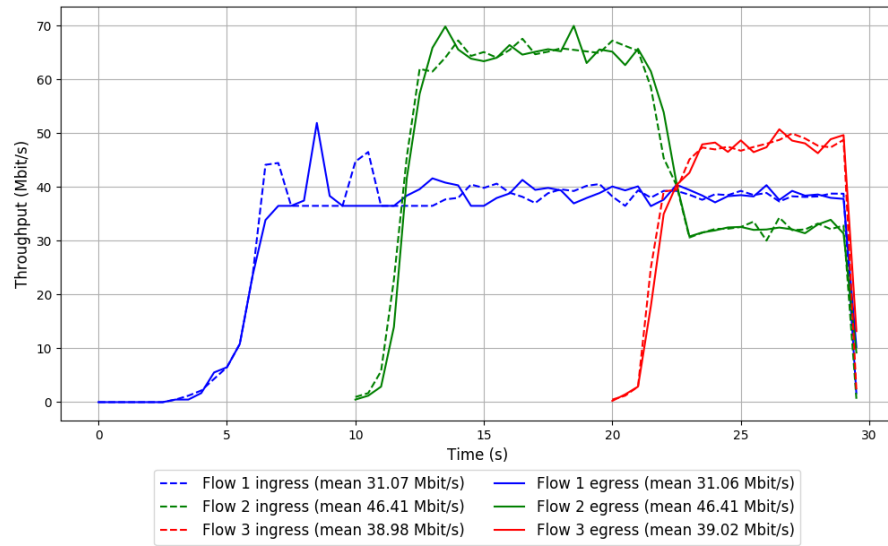
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2017-08-31 14:54:16
End at: 2017-08-31 14:54:46


# Below is generated by plot.py at 2017-08-31 18:12:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.28 Mbit/s
95th percentile per-packet one-way delay: 116.503 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 35.24 Mbit/s
95th percentile per-packet one-way delay: 116.444 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 52.19 Mbit/s
95th percentile per-packet one-way delay: 116.623 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.59 Mbit/s
95th percentile per-packet one-way delay: 116.506 ms
Loss rate: 0.00%
```
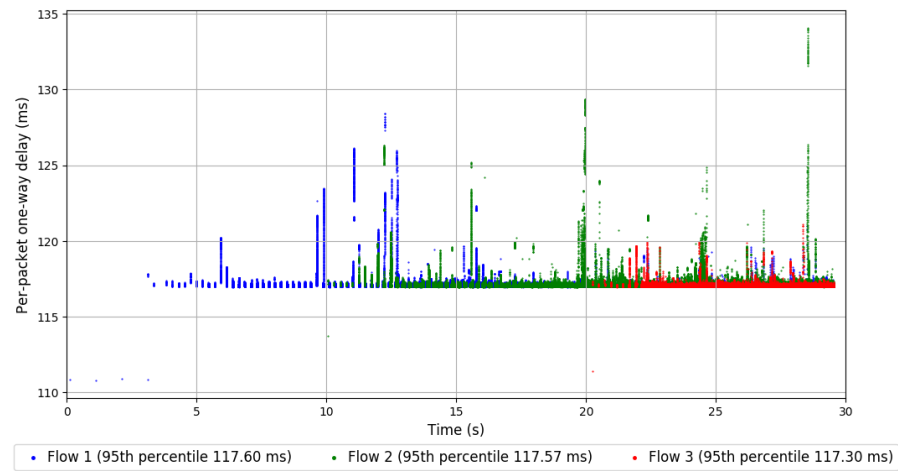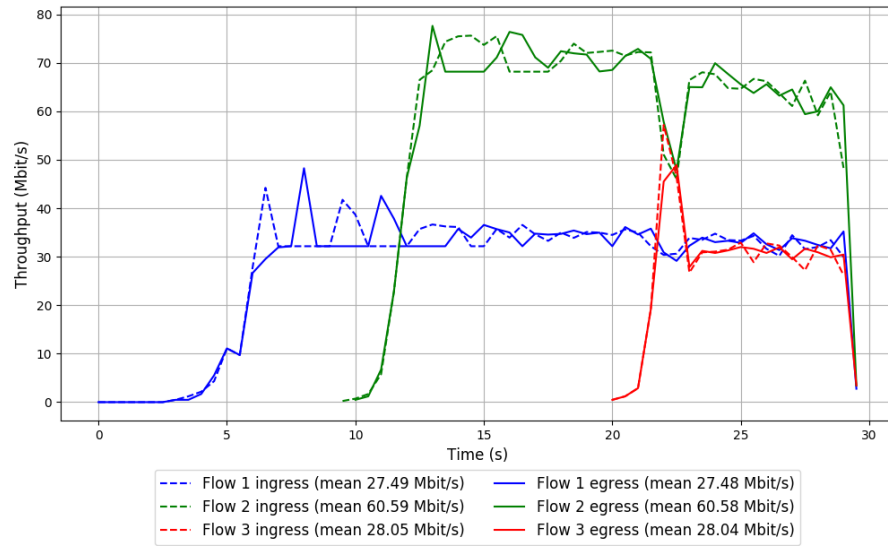
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2017-08-31 15:07:52
End at: 2017-08-31 15:08:22


# Below is generated by plot.py at 2017-08-31 18:12:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.10 Mbit/s
95th percentile per-packet one-way delay: 116.604 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 116.704 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.53 Mbit/s
95th percentile per-packet one-way delay: 116.580 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 116.549 ms
Loss rate: 0.00%
```
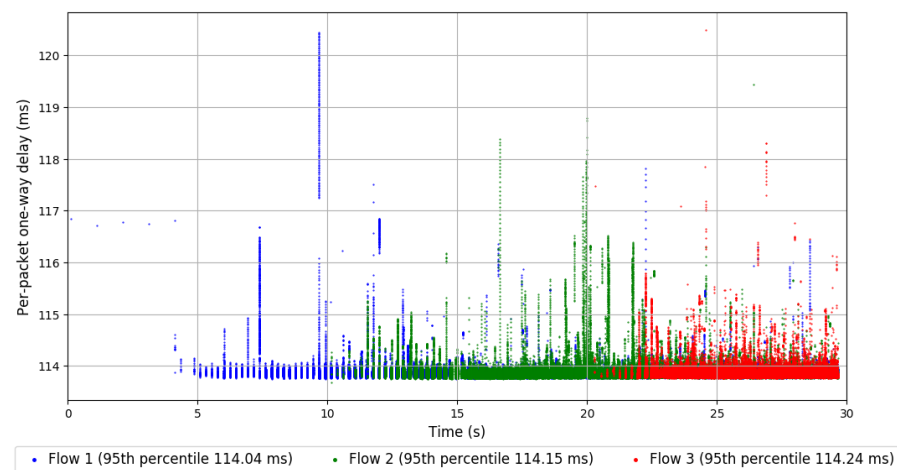
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2017-08-31 15:20:54
End at: 2017-08-31 15:21:24


# Below is generated by plot.py at 2017-08-31 18:13:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.12 Mbit/s
95th percentile per-packet one-way delay: 117.263 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 117.250 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.41 Mbit/s
95th percentile per-packet one-way delay: 117.295 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.02 Mbit/s
95th percentile per-packet one-way delay: 117.230 ms
Loss rate: 0.00%
```
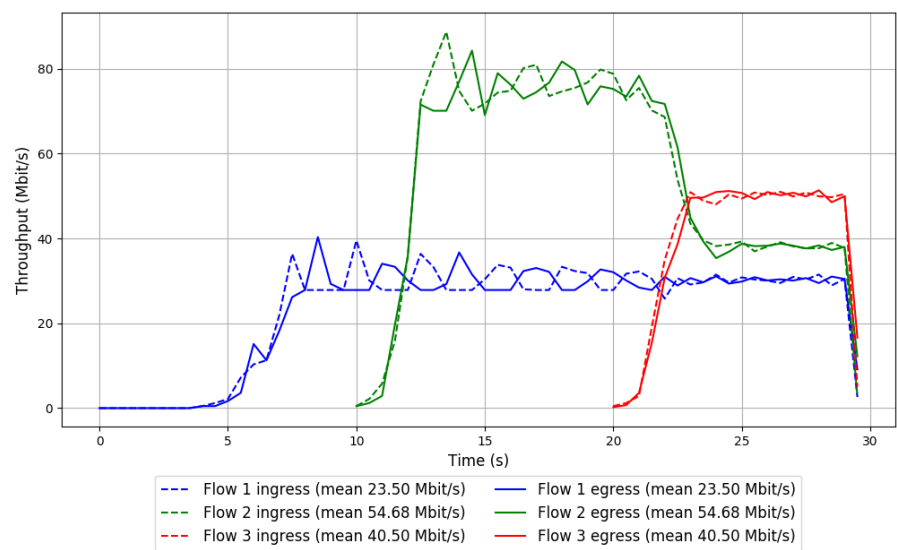
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2017-08-31 15:34:03
End at: 2017-08-31 15:34:33


# Below is generated by plot.py at 2017-08-31 18:13:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.45 Mbit/s
95th percentile per-packet one-way delay: 117.538 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.48 Mbit/s
95th percentile per-packet one-way delay: 117.598 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.58 Mbit/s
95th percentile per-packet one-way delay: 117.566 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 117.296 ms
Loss rate: 0.00%
```
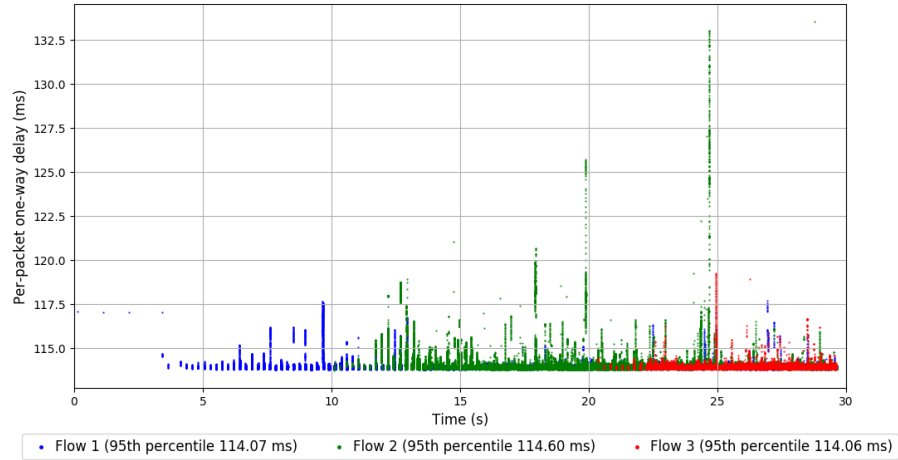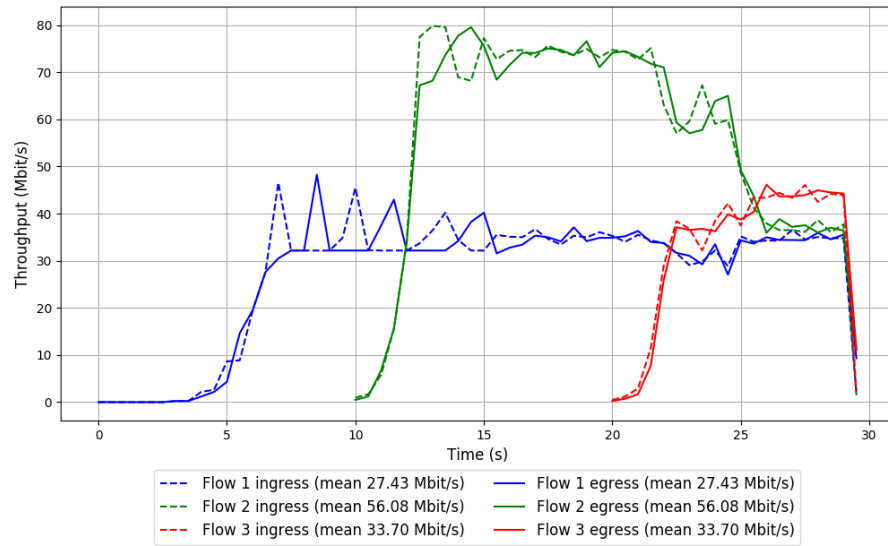
Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 27.49 Mbit/s) ---- Flow 1 egress (mean 27.48 Mbit/s) ——
Flow 2 ingress (mean 60.59 Mbit/s) ---- Flow 2 egress (mean 60.58 Mbit/s) ——
Flow 3 ingress (mean 28.05 Mbit/s) ---- Flow 3 egress (mean 28.04 Mbit/s) ——

• Flow 1 (95th percentile 117.60 ms)   • Flow 2 (95th percentile 117.57 ms)   • Flow 3 (95th percentile 117.30 ms)

93

```
Run 6: Statistics of Indigo

Start at: 2017-08-31 15:47:09
End at: 2017-08-31 15:47:39


# Below is generated by plot.py at 2017-08-31 18:13:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.46 Mbit/s
95th percentile per-packet one-way delay: 114.125 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.50 Mbit/s
95th percentile per-packet one-way delay: 114.038 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.68 Mbit/s
95th percentile per-packet one-way delay: 114.149 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.50 Mbit/s
95th percentile per-packet one-way delay: 114.238 ms
Loss rate: 0.00%
```
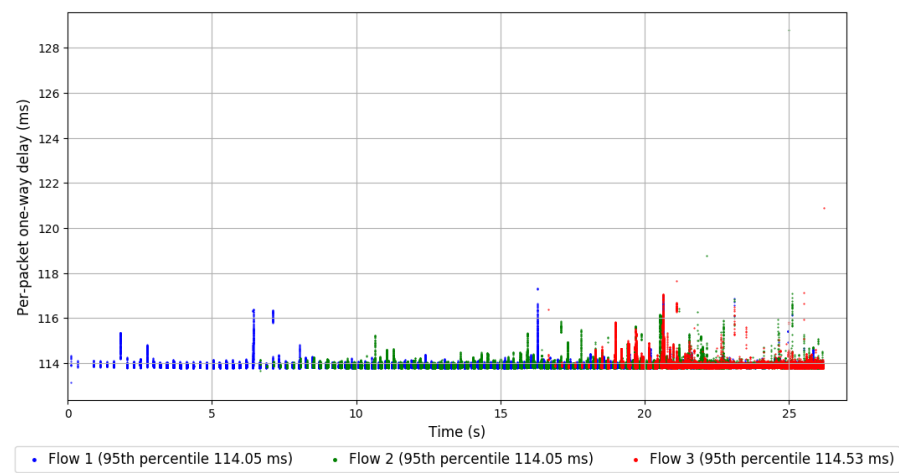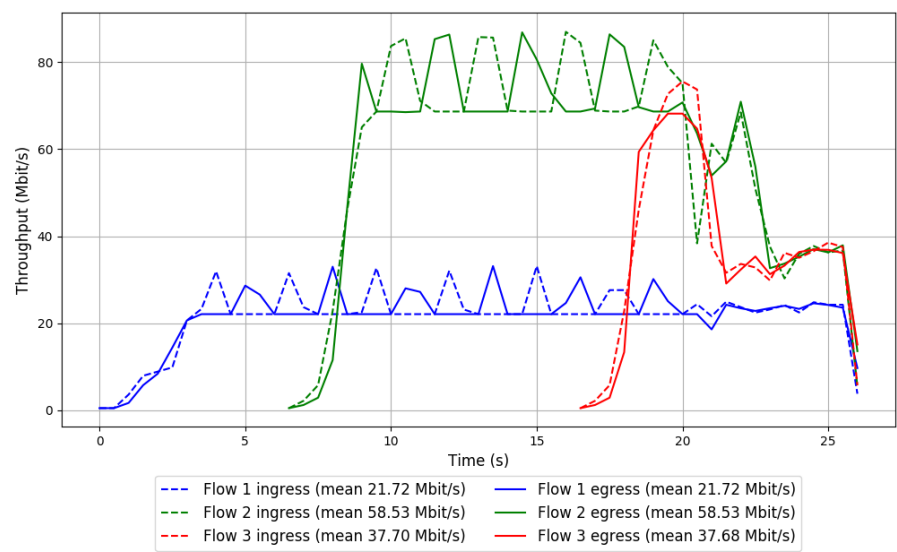
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2017-08-31 16:00:25
End at: 2017-08-31 16:00:55


# Below is generated by plot.py at 2017-08-31 18:13:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.08 Mbit/s
95th percentile per-packet one-way delay: 114.255 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.43 Mbit/s
95th percentile per-packet one-way delay: 114.070 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.08 Mbit/s
95th percentile per-packet one-way delay: 114.599 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.70 Mbit/s
95th percentile per-packet one-way delay: 114.065 ms
Loss rate: 0.00%
```
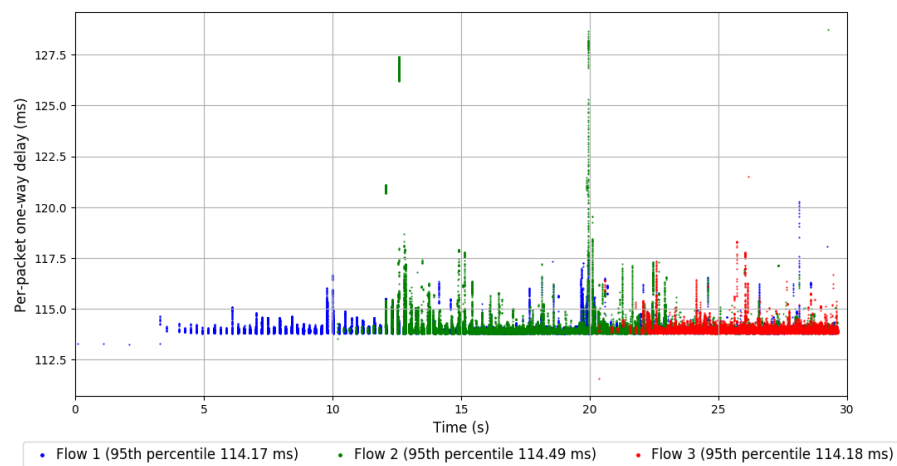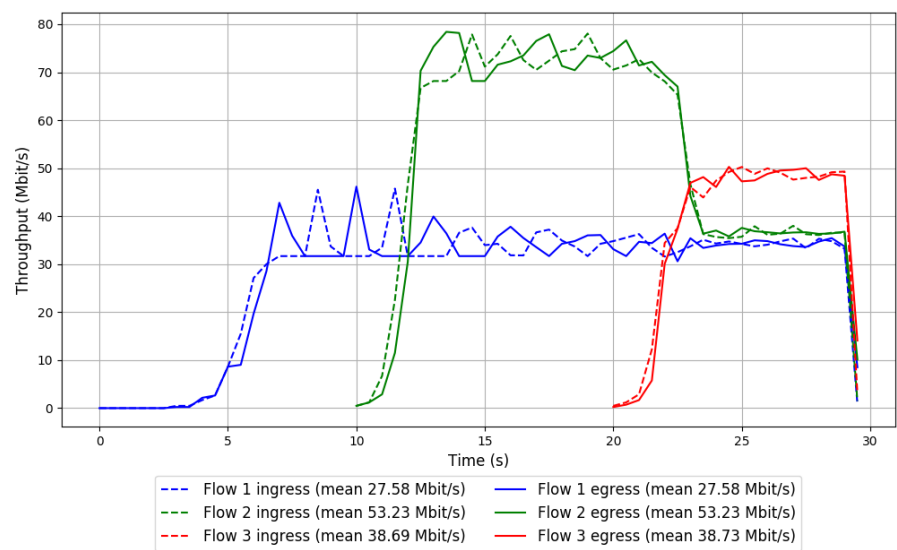
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2017-08-31 16:13:49
End at: 2017-08-31 16:14:19


# Below is generated by plot.py at 2017-08-31 18:13:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 114.101 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 21.72 Mbit/s
95th percentile per-packet one-way delay: 114.053 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 58.53 Mbit/s
95th percentile per-packet one-way delay: 114.053 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 37.68 Mbit/s
95th percentile per-packet one-way delay: 114.525 ms
Loss rate: 0.00%
```
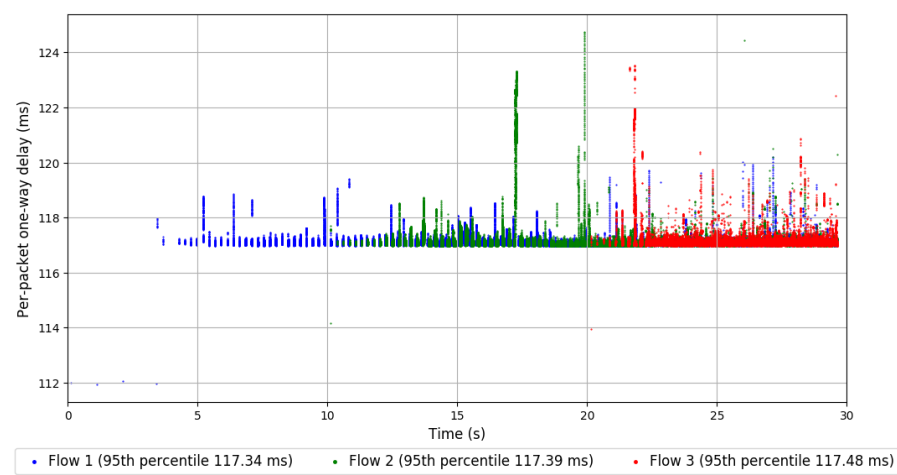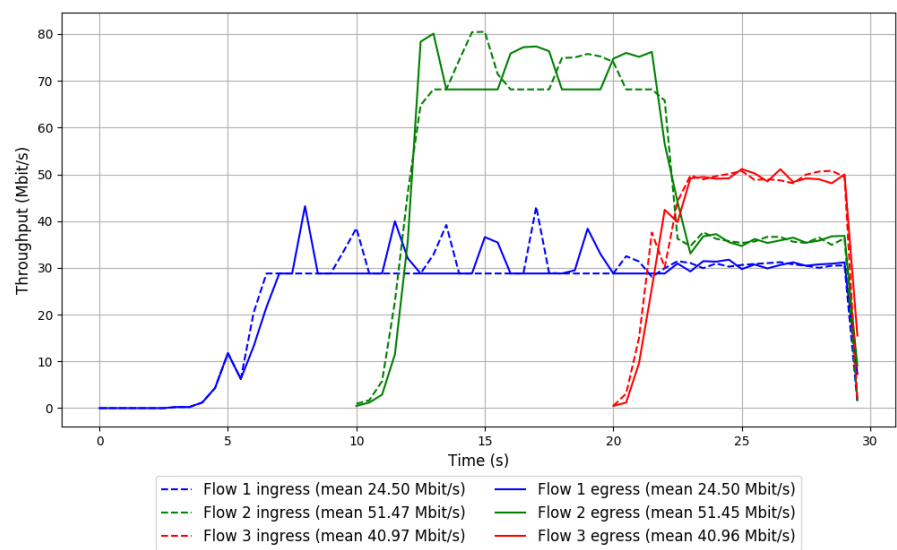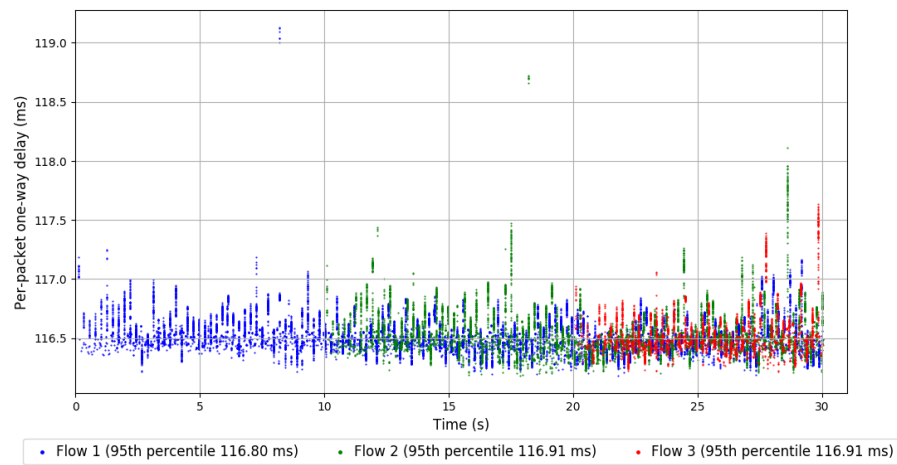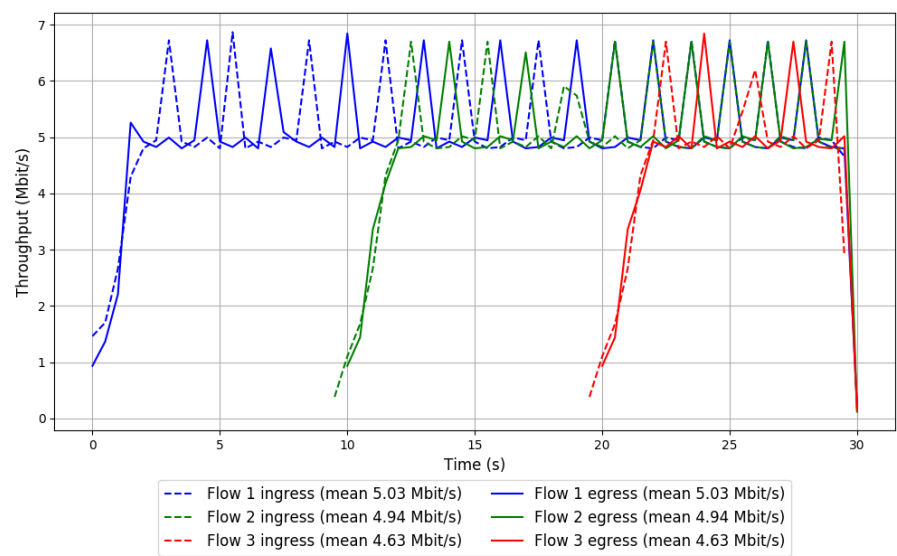
Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2017-08-31 16:27:09
End at: 2017-08-31 16:27:39

# Below is generated by plot.py at 2017-08-31 18:13:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.79 Mbit/s
95th percentile per-packet one-way delay: 114.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.58 Mbit/s
95th percentile per-packet one-way delay: 114.170 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.23 Mbit/s
95th percentile per-packet one-way delay: 114.492 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 114.179 ms
Loss rate: 0.00%
```
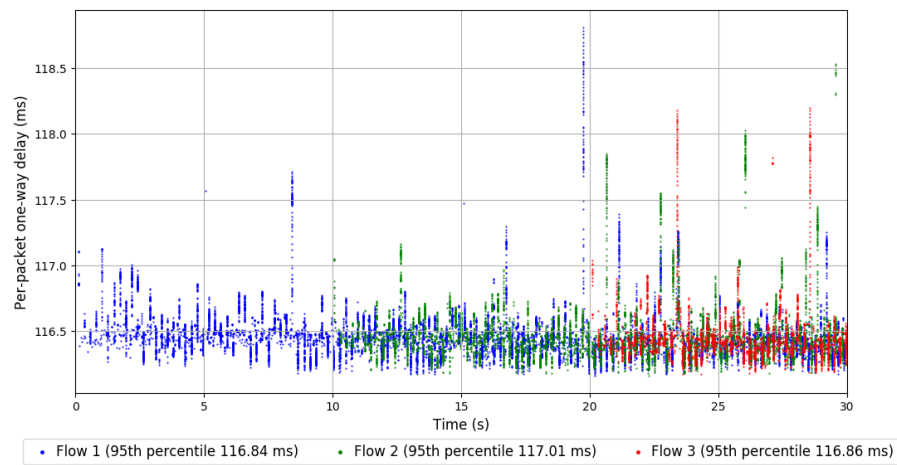
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2017-08-31 16:40:25
End at: 2017-08-31 16:40:55


# Below is generated by plot.py at 2017-08-31 18:14:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.64 Mbit/s
95th percentile per-packet one-way delay: 117.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 117.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.45 Mbit/s
95th percentile per-packet one-way delay: 117.394 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 117.477 ms
Loss rate: 0.00%
```

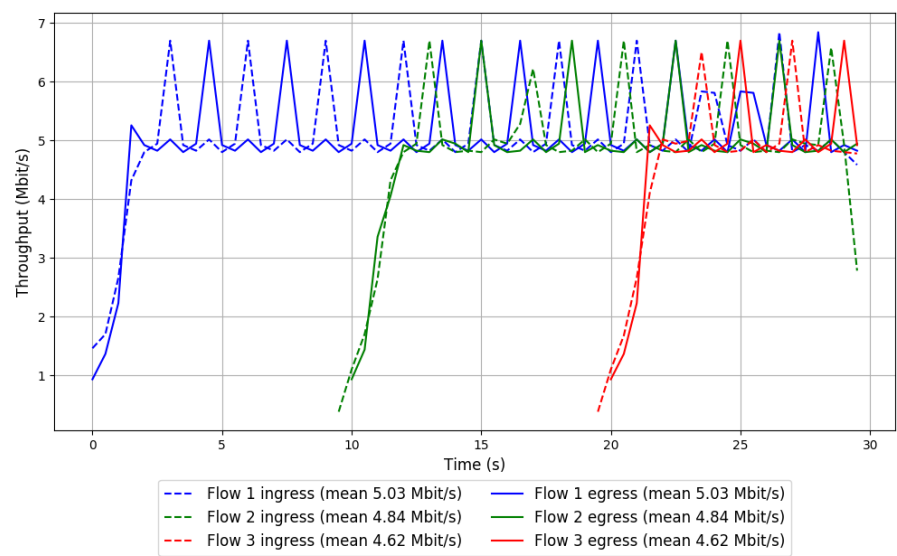## Run 10: Report of Indigo — Data Link

```
Run 1: Statistics of KohoCC

Start at: 2017-08-31 14:44:34
End at: 2017-08-31 14:45:04

# Below is generated by plot.py at 2017-08-31 18:14:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 116.852 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 116.795 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 116.909 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 116.909 ms
Loss rate: 0.00%
```
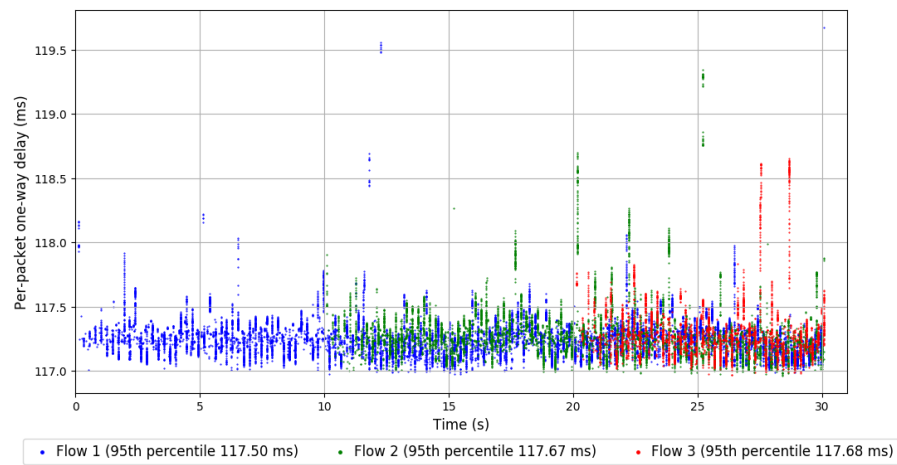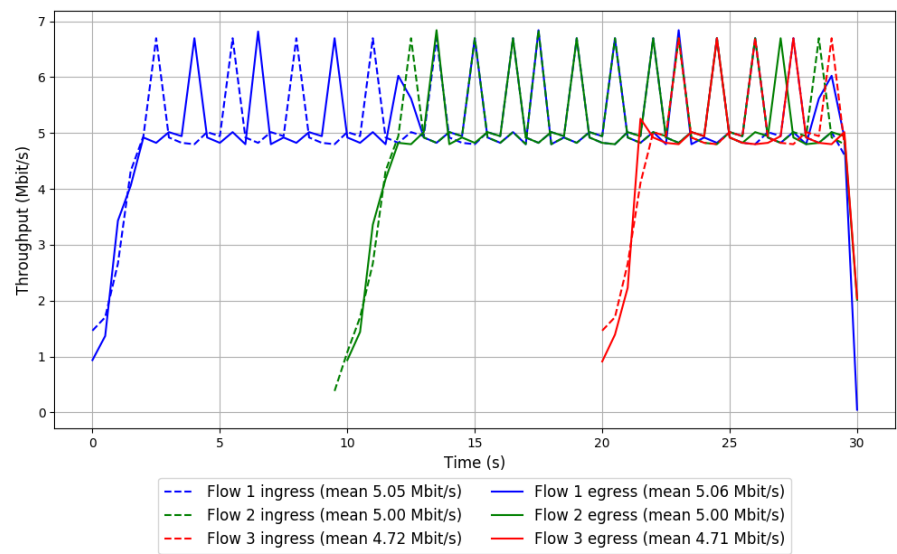
Run 1: Report of KohoCC — Data Link

Flow 1 ingress (mean 5.03 Mbit/s)   Flow 1 egress (mean 5.03 Mbit/s)
Flow 2 ingress (mean 4.94 Mbit/s)   Flow 2 egress (mean 4.94 Mbit/s)
Flow 3 ingress (mean 4.63 Mbit/s)   Flow 3 egress (mean 4.63 Mbit/s)

Flow 1 (95th percentile 116.80 ms)   Flow 2 (95th percentile 116.91 ms)   Flow 3 (95th percentile 116.91 ms)
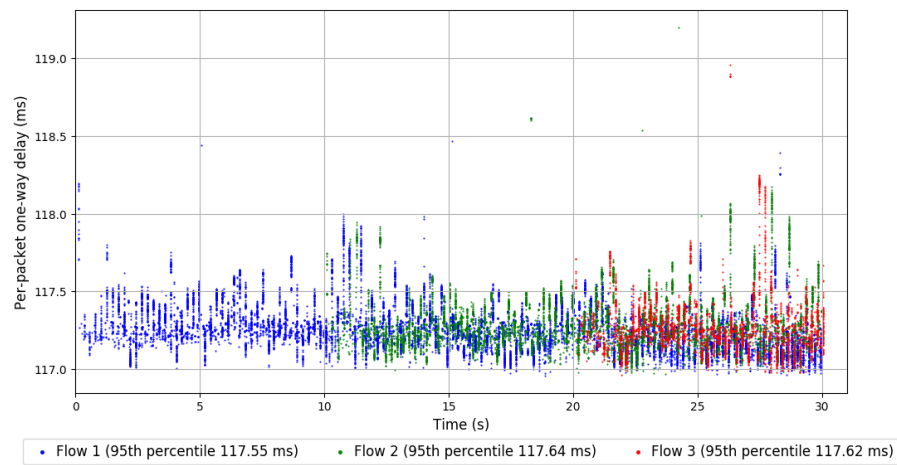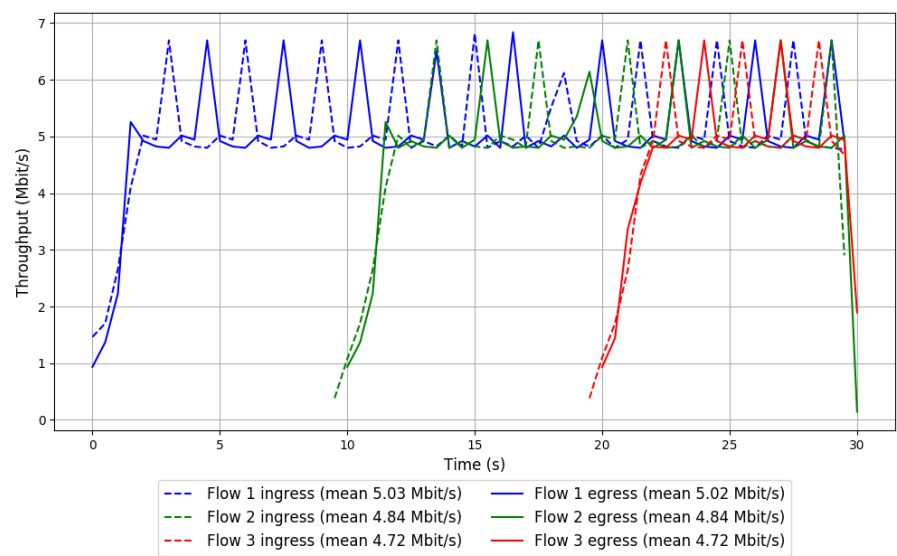
```
Run 2: Statistics of KohoCC

Start at: 2017-08-31 14:57:45
End at: 2017-08-31 14:58:15


# Below is generated by plot.py at 2017-08-31 18:14:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.78 Mbit/s
95th percentile per-packet one-way delay: 116.898 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 116.838 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 117.006 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 116.864 ms
Loss rate: 0.00%
```

Run 2: Report of KohoCC — Data Link

Flow 1 ingress (mean 5.03 Mbit/s)   Flow 1 egress (mean 5.03 Mbit/s)
Flow 2 ingress (mean 4.84 Mbit/s)   Flow 2 egress (mean 4.84 Mbit/s)
Flow 3 ingress (mean 4.62 Mbit/s)   Flow 3 egress (mean 4.62 Mbit/s)

Flow 1 (95th percentile 116.84 ms)   Flow 2 (95th percentile 117.01 ms)   Flow 3 (95th percentile 116.86 ms)

```
Run 3: Statistics of KohoCC

Start at: 2017-08-31 15:11:20
End at: 2017-08-31 15:11:50


# Below is generated by plot.py at 2017-08-31 18:14:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.95 Mbit/s
95th percentile per-packet one-way delay: 117.563 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 117.497 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 5.00 Mbit/s
95th percentile per-packet one-way delay: 117.665 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.71 Mbit/s
95th percentile per-packet one-way delay: 117.681 ms
Loss rate: 0.20%
```
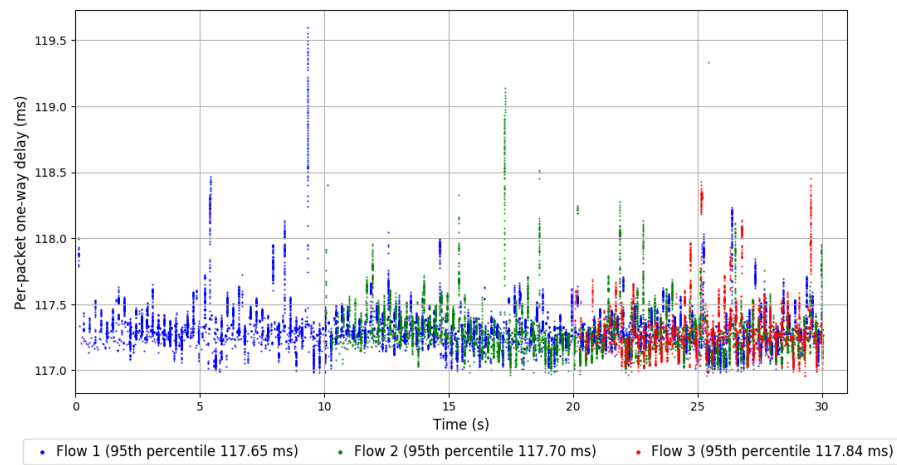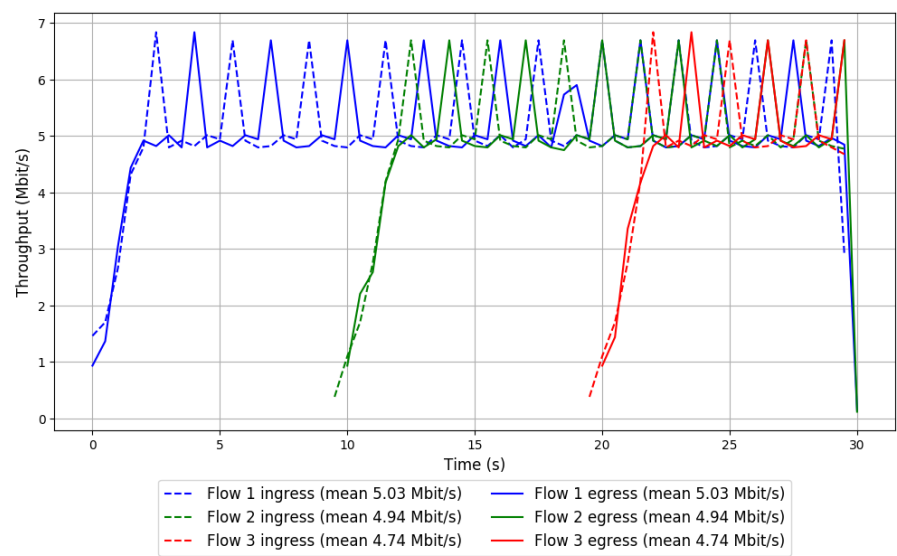
Run 3: Report of KohoCC — Data Link

```
Run 4: Statistics of KohoCC

Start at: 2017-08-31 15:24:19
End at: 2017-08-31 15:24:49

# Below is generated by plot.py at 2017-08-31 18:14:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.81 Mbit/s
95th percentile per-packet one-way delay: 117.595 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 117.550 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 117.642 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 117.617 ms
Loss rate: 0.00%
```
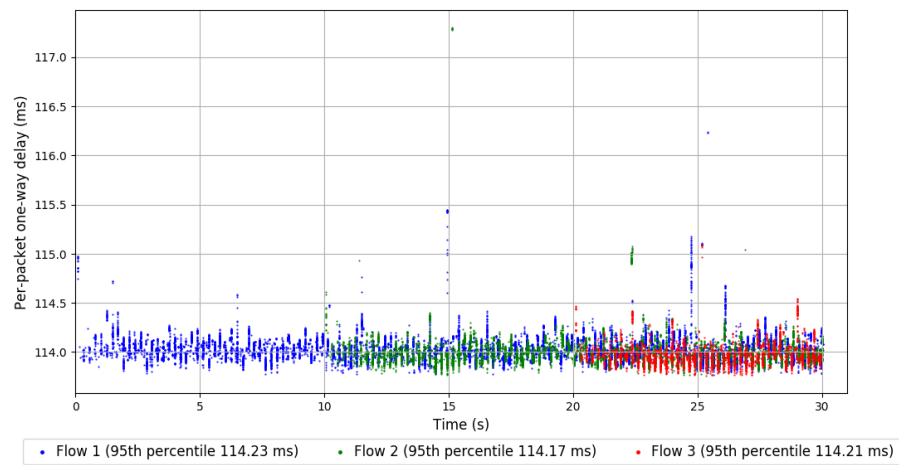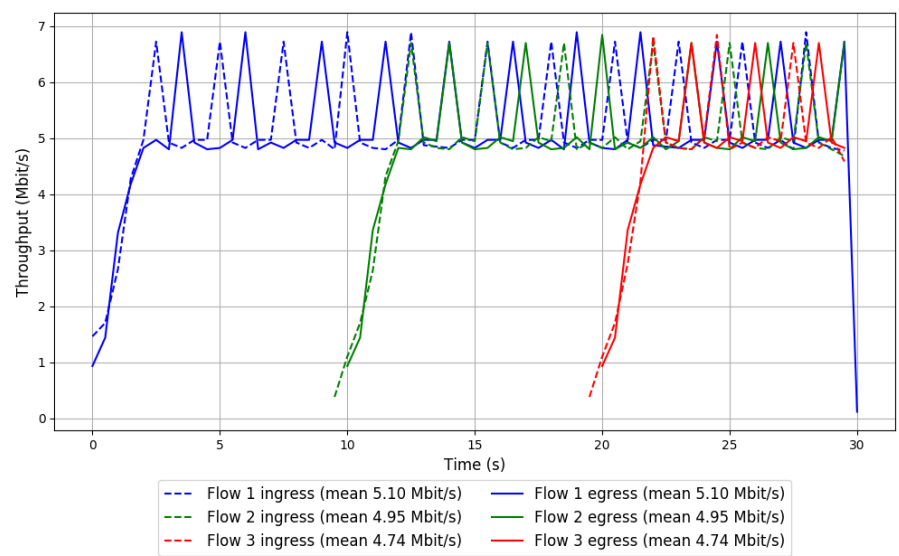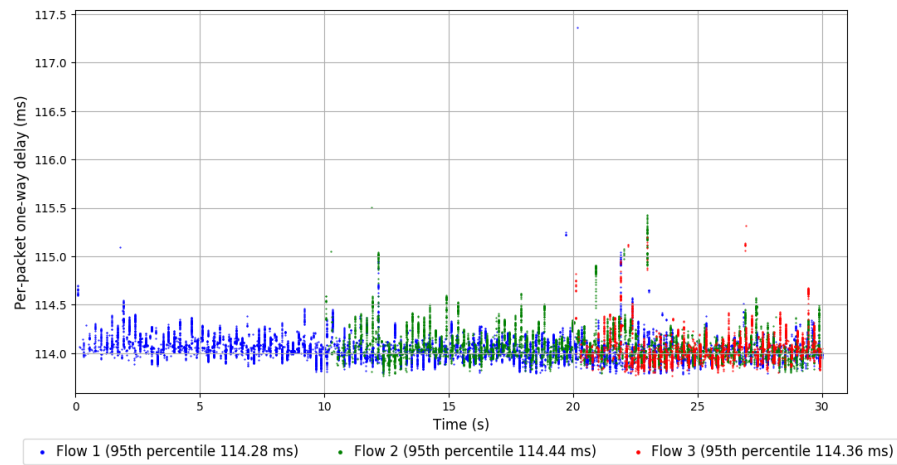
Run 4: Report of KohoCC — Data Link

- Flow 1 ingress (mean 5.03 Mbit/s)
- Flow 1 egress (mean 5.02 Mbit/s)
- Flow 2 ingress (mean 4.84 Mbit/s)
- Flow 2 egress (mean 4.84 Mbit/s)
- Flow 3 ingress (mean 4.72 Mbit/s)
- Flow 3 egress (mean 4.72 Mbit/s)

- Flow 1 (95th percentile 117.55 ms)
- Flow 2 (95th percentile 117.64 ms)
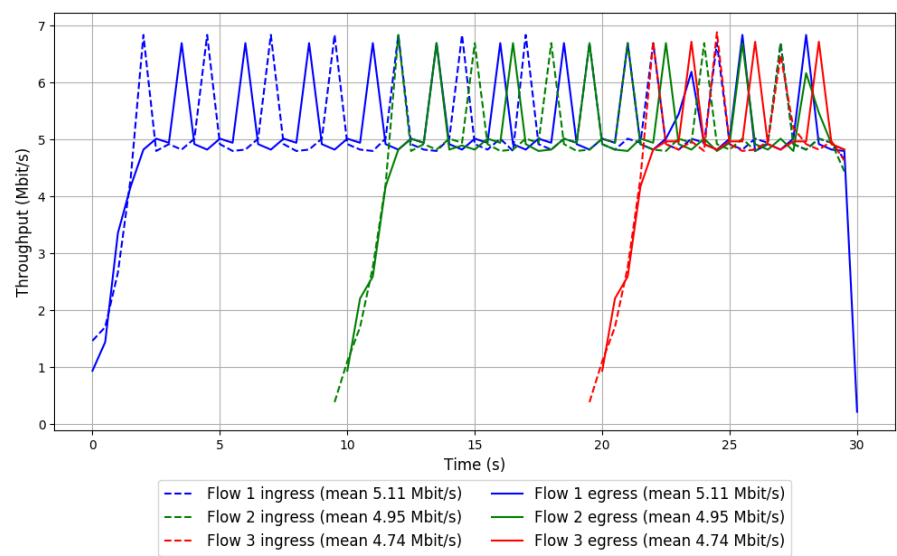- Flow 3 (95th percentile 117.62 ms)

```
Run 5: Statistics of KohoCC

Start at: 2017-08-31 15:37:29
End at: 2017-08-31 15:37:59

# Below is generated by plot.py at 2017-08-31 18:14:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.89 Mbit/s
95th percentile per-packet one-way delay: 117.689 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 117.654 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 117.696 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 117.845 ms
Loss rate: 0.00%
```

Run 5: Report of KohoCC — Data Link

```
Run 6: Statistics of KohoCC

Start at: 2017-08-31 15:50:31
End at: 2017-08-31 15:51:01

# Below is generated by plot.py at 2017-08-31 18:14:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 114.215 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 5.10 Mbit/s
95th percentile per-packet one-way delay: 114.231 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 4.95 Mbit/s
95th percentile per-packet one-way delay: 114.174 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 114.208 ms
Loss rate: 0.00%
```
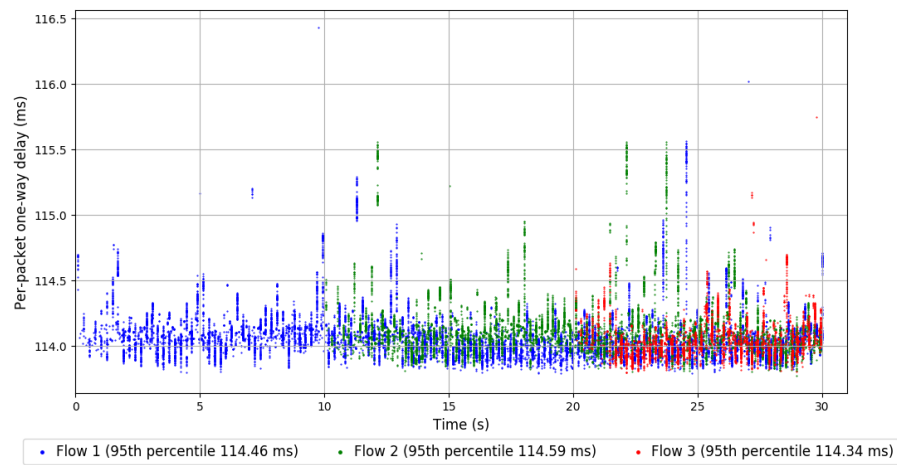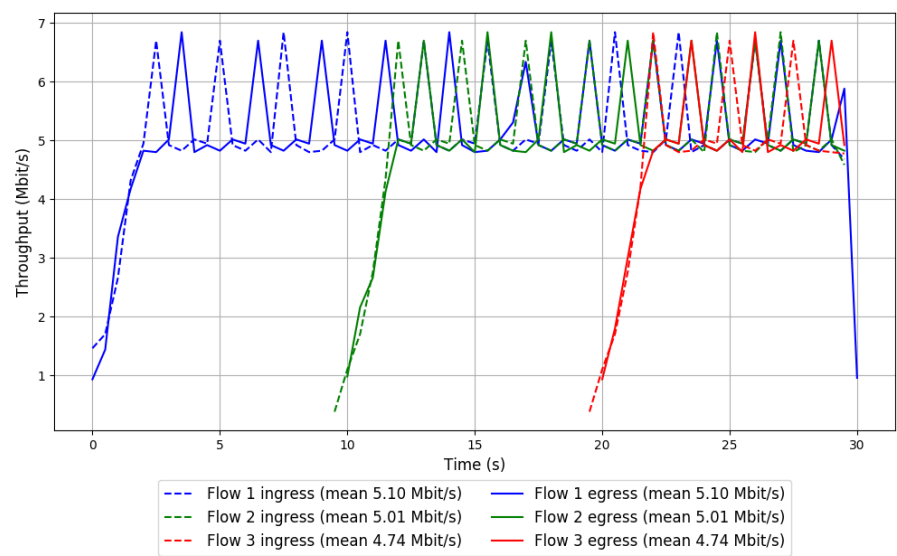
Run 6: Report of KohoCC — Data Link

Flow 1 ingress (mean 5.10 Mbit/s)   Flow 1 egress (mean 5.10 Mbit/s)
Flow 2 ingress (mean 4.95 Mbit/s)   Flow 2 egress (mean 4.95 Mbit/s)
Flow 3 ingress (mean 4.74 Mbit/s)   Flow 3 egress (mean 4.74 Mbit/s)

Flow 1 (95th percentile 114.23 ms)   Flow 2 (95th percentile 114.17 ms)   Flow 3 (95th percentile 114.21 ms)

```
Run 7: Statistics of KohoCC

Start at: 2017-08-31 16:03:52
End at: 2017-08-31 16:04:22


# Below is generated by plot.py at 2017-08-31 18:14:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 114.344 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 114.278 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.95 Mbit/s
95th percentile per-packet one-way delay: 114.443 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 114.363 ms
Loss rate: 0.00%
```
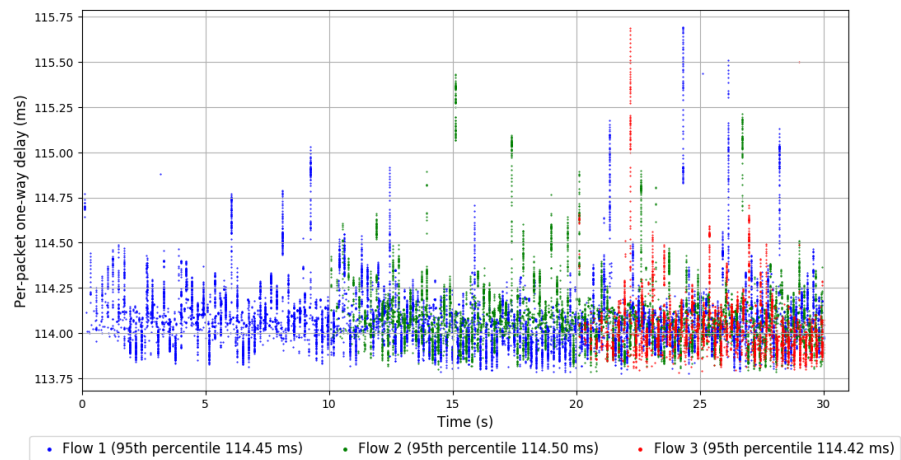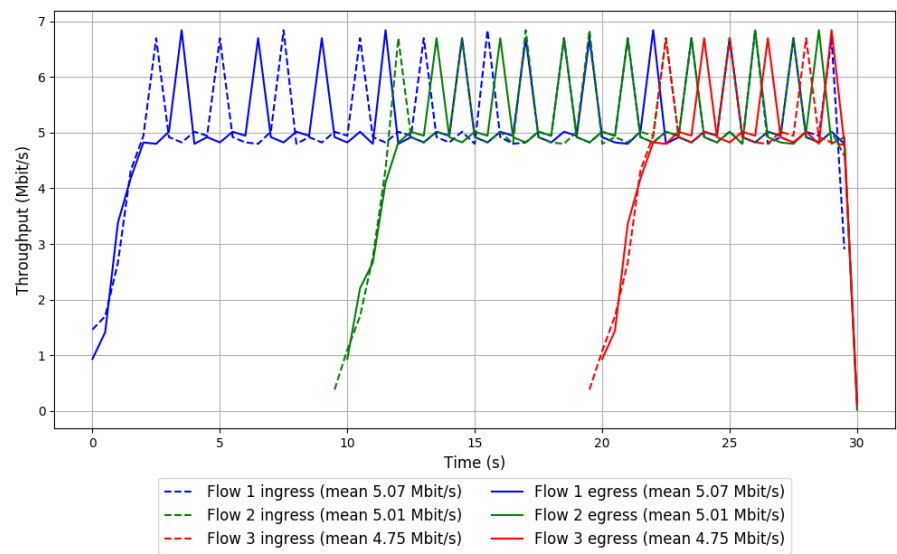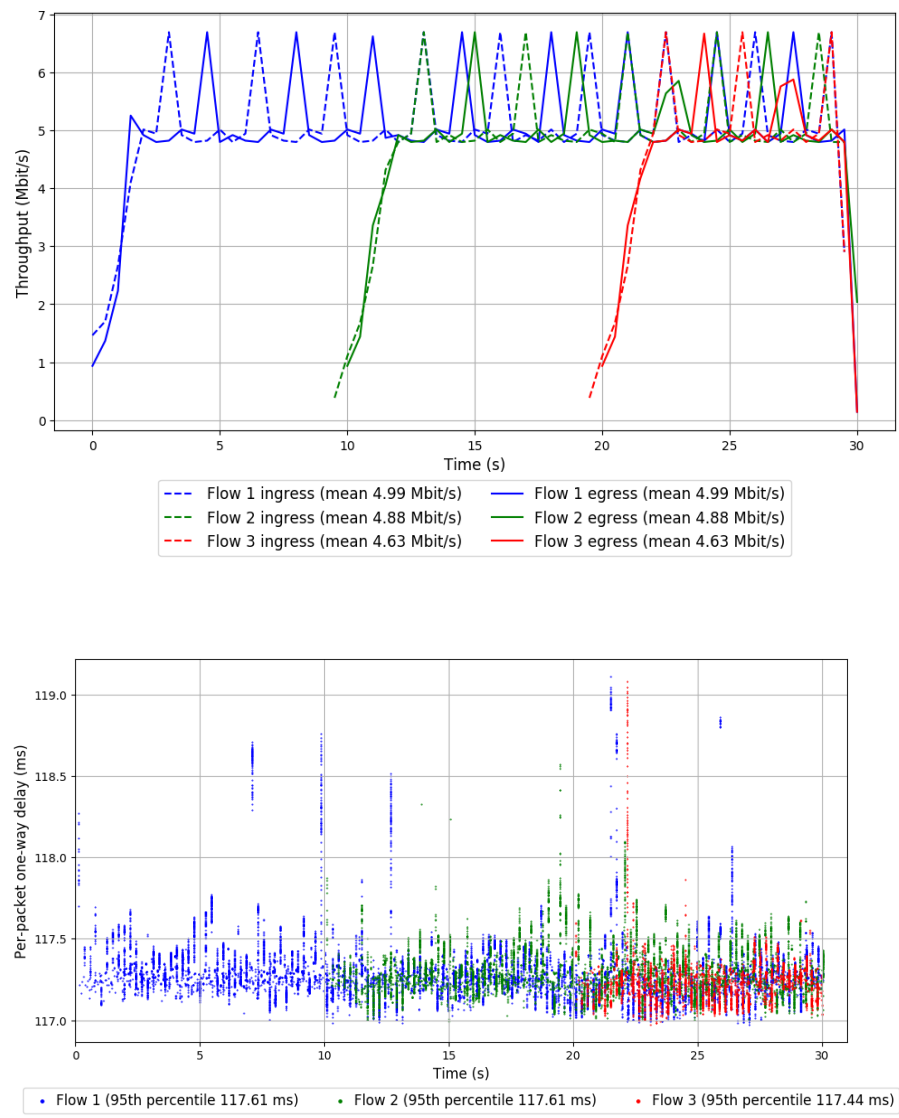
Run 7: Report of KohoCC — Data Link

```
Run 8: Statistics of KohoCC

Start at: 2017-08-31 16:17:14
End at: 2017-08-31 16:17:44


# Below is generated by plot.py at 2017-08-31 18:14:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.01 Mbit/s
95th percentile per-packet one-way delay: 114.488 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.10 Mbit/s
95th percentile per-packet one-way delay: 114.457 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 114.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 114.336 ms
Loss rate: 0.00%
```
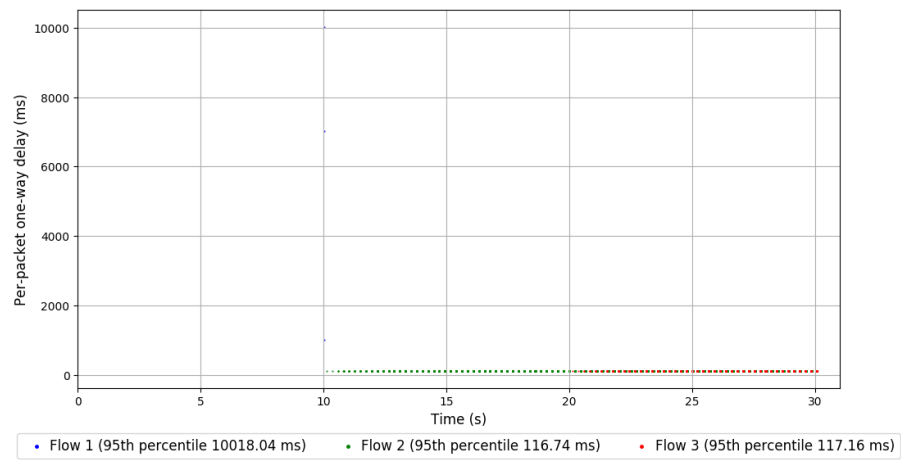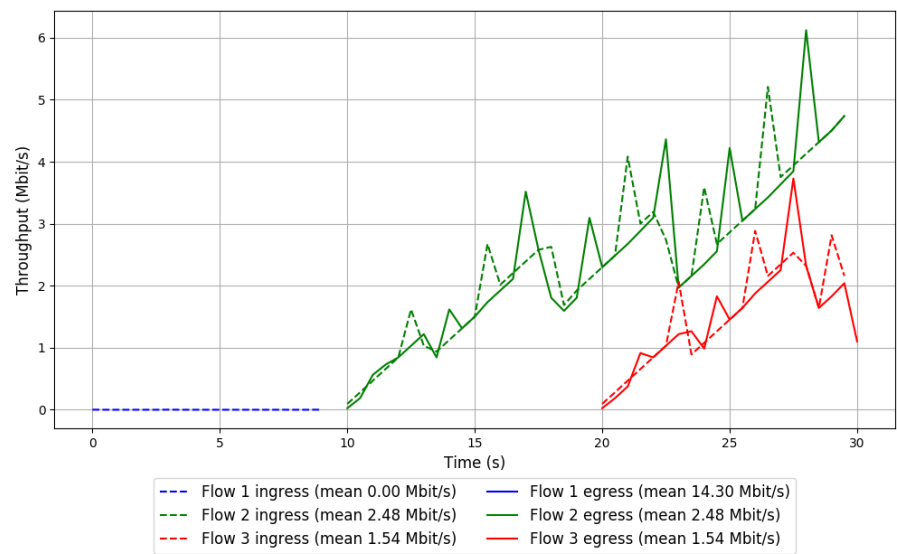
Run 8: Report of KohoCC — Data Link

```
Run 9: Statistics of KohoCC

Start at: 2017-08-31 16:30:33
End at: 2017-08-31 16:31:03


# Below is generated by plot.py at 2017-08-31 18:14:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 114.465 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 114.453 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 114.505 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.75 Mbit/s
95th percentile per-packet one-way delay: 114.419 ms
Loss rate: 0.00%
```
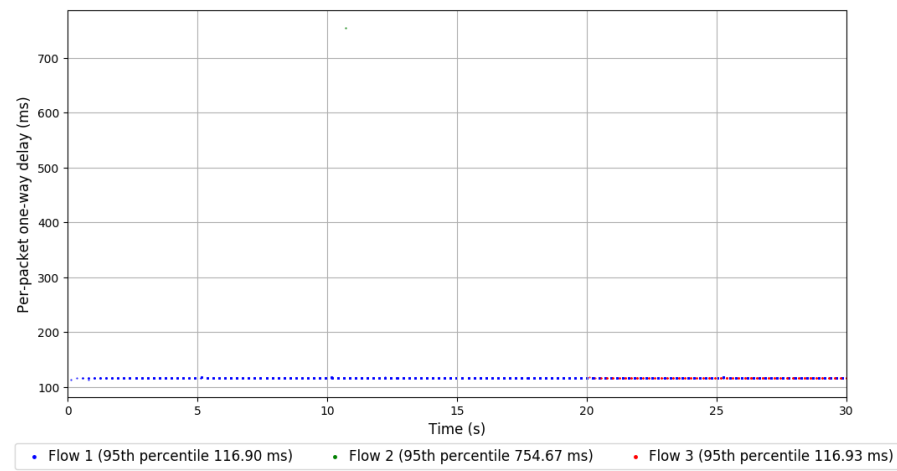
Run 9: Report of KohoCC — Data Link

Legend:
- Flow 1 ingress (mean 5.07 Mbit/s)
- Flow 1 egress (mean 5.07 Mbit/s)
- Flow 2 ingress (mean 5.01 Mbit/s)
- Flow 2 egress (mean 5.01 Mbit/s)
- Flow 3 ingress (mean 4.75 Mbit/s)
- Flow 3 egress (mean 4.75 Mbit/s)

Legend:
- Flow 1 (95th percentile 114.45 ms)
- Flow 2 (95th percentile 114.50 ms)
- Flow 3 (95th percentile 114.42 ms)

```
Run 10: Statistics of KohoCC

Start at: 2017-08-31 16:43:50
End at: 2017-08-31 16:44:20

# Below is generated by plot.py at 2017-08-31 18:14:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.77 Mbit/s
95th percentile per-packet one-way delay: 117.595 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 117.609 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.88 Mbit/s
95th percentile per-packet one-way delay: 117.611 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 117.441 ms
Loss rate: 0.03%
```
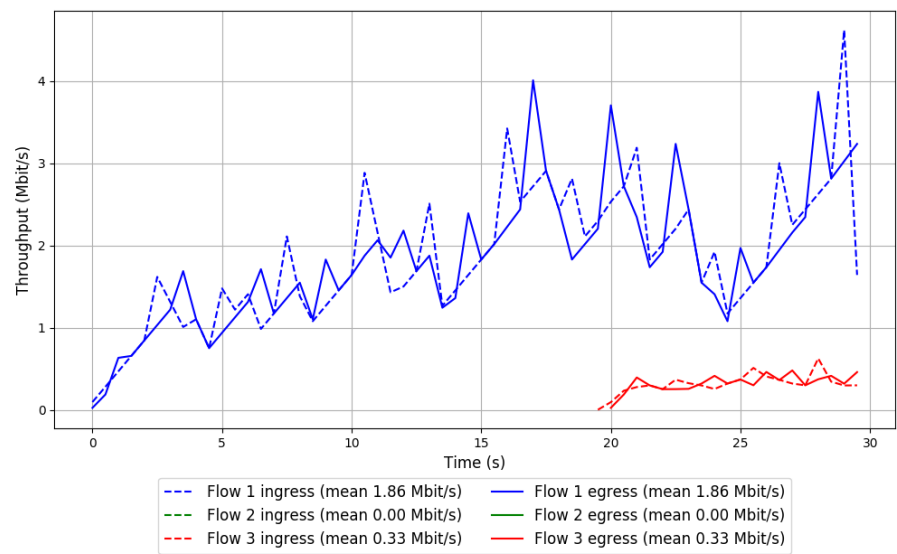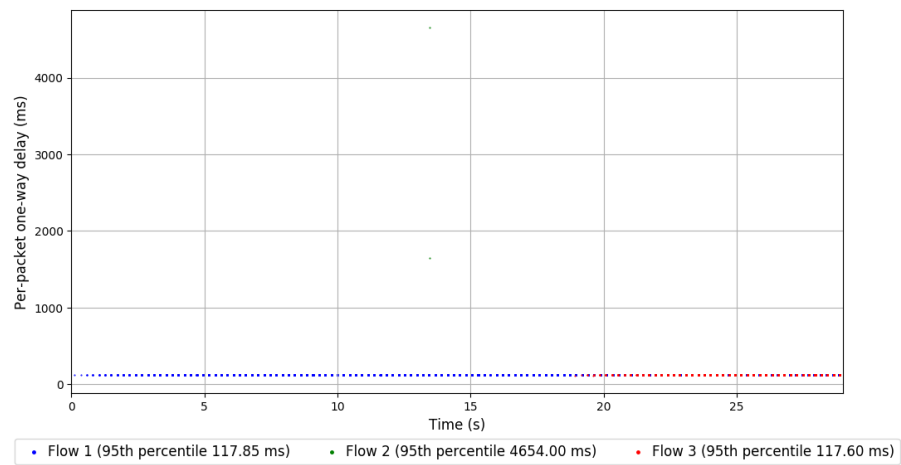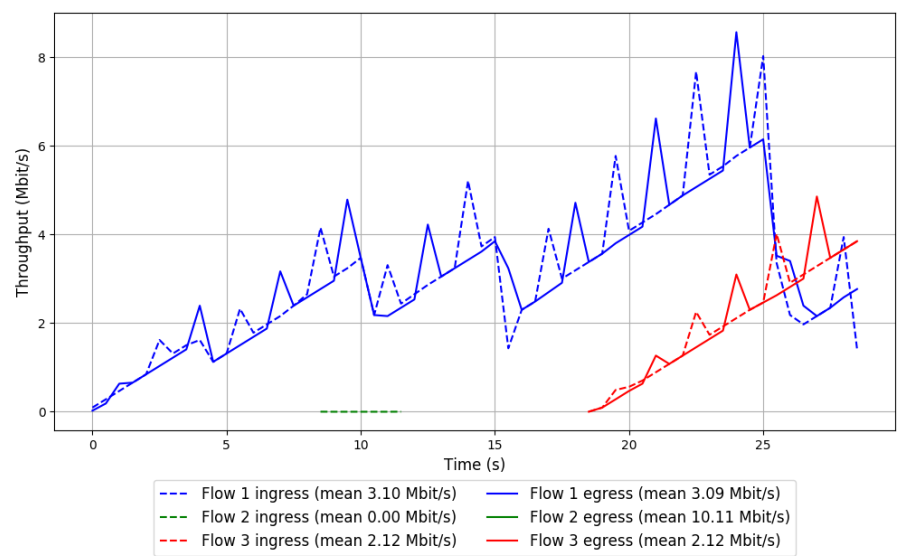
Run 10: Report of KohoCC — Data Link

Run 1: Statistics of LEDBAT

Start at: 2017-08-31 14:38:19
End at: 2017-08-31 14:38:49

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) — Flow 1 egress (mean 14.30 Mbit/s)
Flow 2 ingress (mean 2.48 Mbit/s) — Flow 2 egress (mean 2.48 Mbit/s)
Flow 3 ingress (mean 1.54 Mbit/s) — Flow 3 egress (mean 1.54 Mbit/s)

Flow 1 (95th percentile 10018.04 ms)   Flow 2 (95th percentile 116.74 ms)   Flow 3 (95th percentile 117.16 ms)
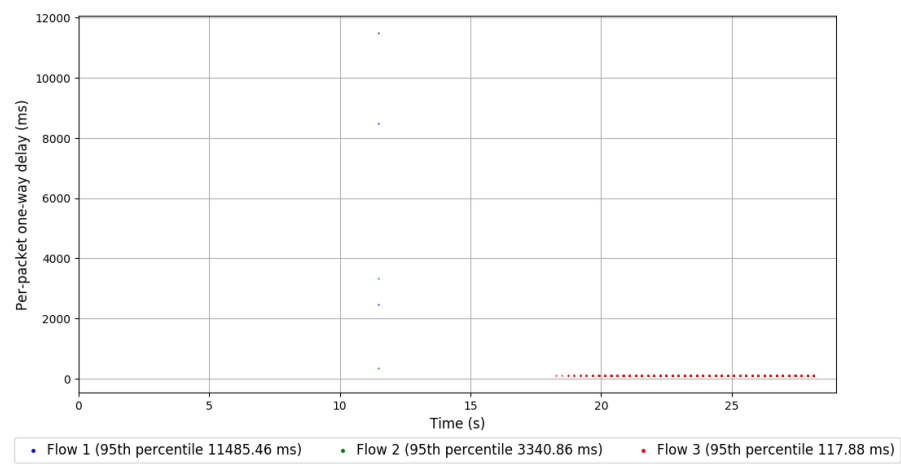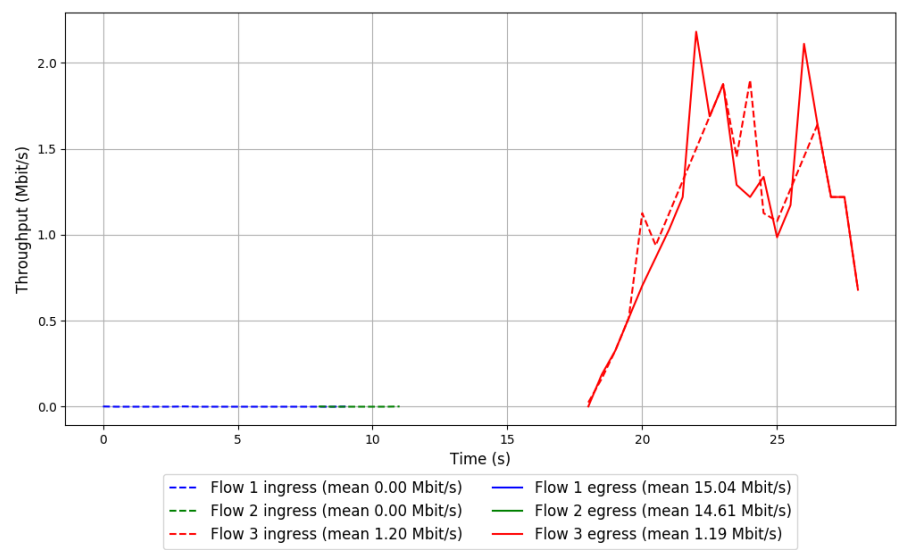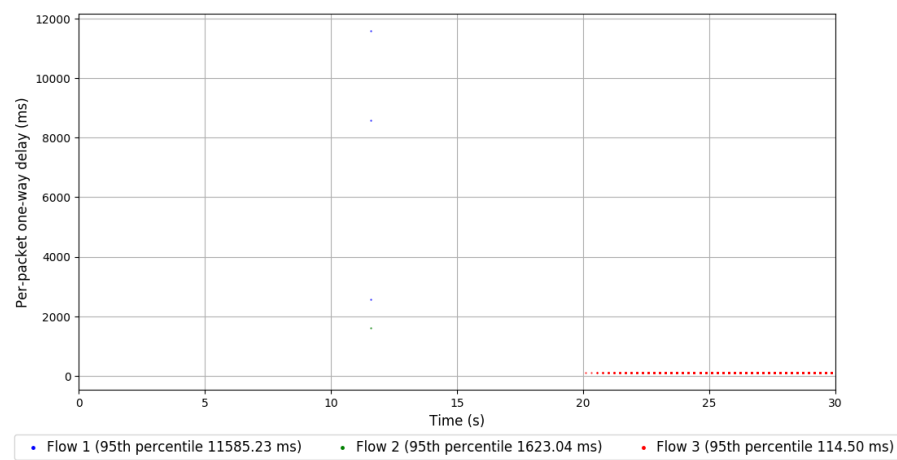
125

Run 2: Statistics of LEDBAT

Start at: 2017-08-31 14:51:22
End at: 2017-08-31 14:51:52

Run 2: Report of LEDBAT — Data Link

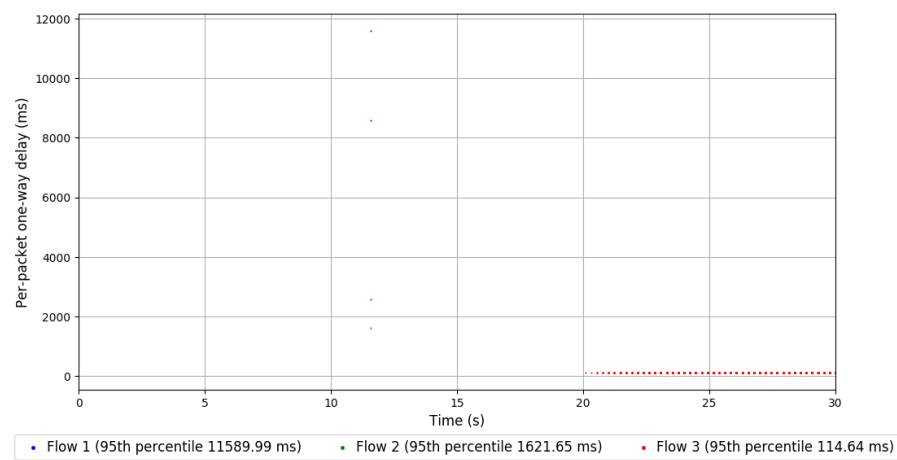Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 15.16 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) --- Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 1.63 Mbit/s) --- Flow 3 egress (mean 1.63 Mbit/s)

Flow 1 (95th percentile 12839.51 ms) • Flow 2 (95th percentile 2883.18 ms) • Flow 3 (95th percentile 116.93 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2017-08-31 15:04:47
End at: 2017-08-31 15:05:17

# Below is generated by plot.py at 2017-08-31 18:14:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 116.908 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 116.898 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 754.667 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 116.932 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2017-08-31 15:18:06
End at: 2017-08-31 15:18:36

# Below is generated by plot.py at 2017-08-31 18:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 117.827 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 117.846 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 10.11 Mbit/s
95th percentile per-packet one-way delay: 4653.997 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 117.600 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

Run 5: Statistics of LEDBAT

Start at: 2017-08-31 15:31:16
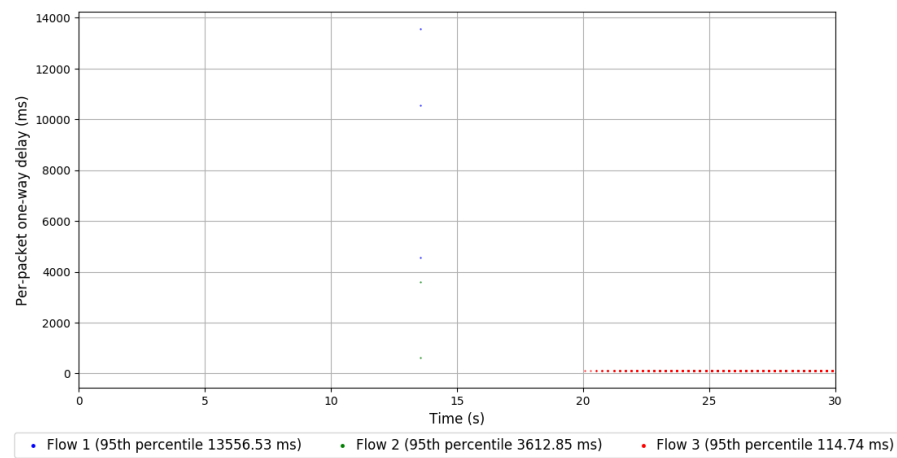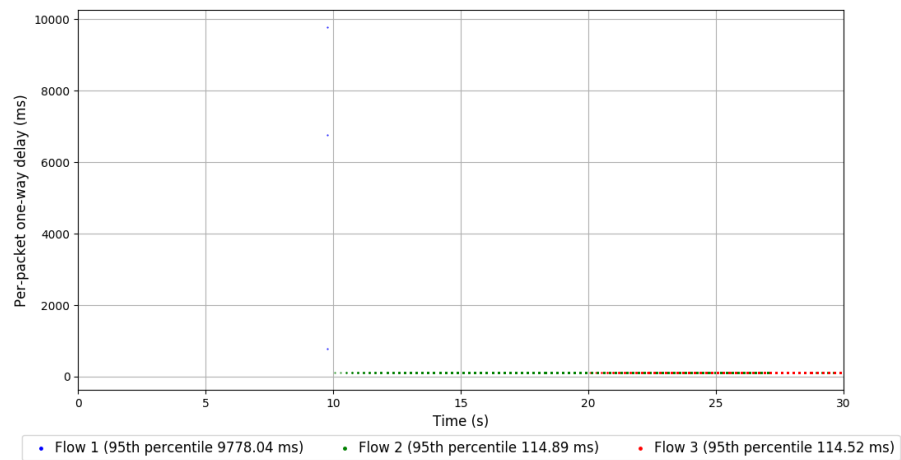End at: 2017-08-31 15:31:46
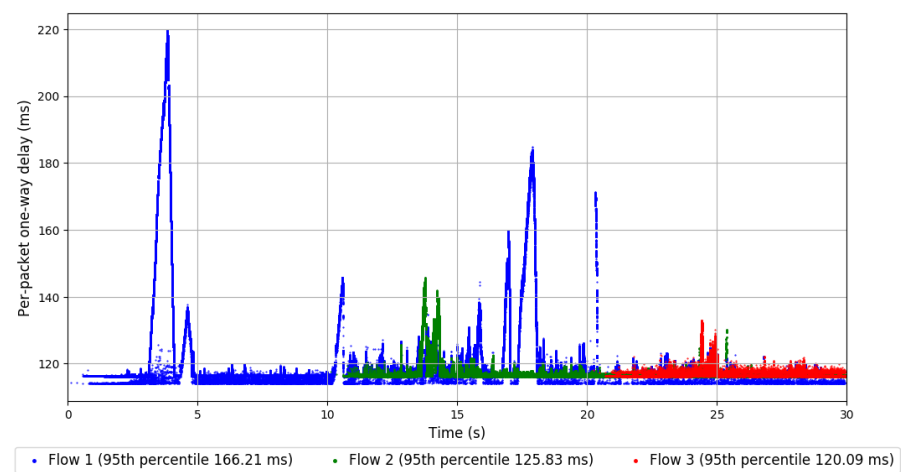
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) — Flow 1 egress (mean 15.04 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) — Flow 2 egress (mean 14.61 Mbit/s)
Flow 3 ingress (mean 1.20 Mbit/s) — Flow 3 egress (mean 1.19 Mbit/s)

Flow 1 (95th percentile 11485.46 ms)   Flow 2 (95th percentile 3340.86 ms)   Flow 3 (95th percentile 117.88 ms)

133

Run 6: Statistics of LEDBAT

Start at: 2017-08-31 15:44:18
End at: 2017-08-31 15:44:48

Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 13.53 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) --- Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 1.57 Mbit/s) --- Flow 3 egress (mean 1.57 Mbit/s)

Flow 1 (95th percentile 11585.23 ms)   Flow 2 (95th percentile 1623.04 ms)   Flow 3 (95th percentile 114.50 ms)

Run 7: Statistics of LEDBAT

Start at: 2017-08-31 15:57:34
End at: 2017-08-31 15:58:04

Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) — — — Flow 1 egress (mean 13.90 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) — — — Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 1.12 Mbit/s) — — — Flow 3 egress (mean 1.12 Mbit/s)

Flow 1 (95th percentile 11589.99 ms)   Flow 2 (95th percentile 1621.65 ms)   Flow 3 (95th percentile 114.64 ms)

137

Run 8: Statistics of LEDBAT

Start at: 2017-08-31 16:10:46
End at: 2017-08-31 16:11:16

Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 14.93 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) --- Flow 2 egress (mean 0.00 Mbit/s)
Flow 3 ingress (mean 1.35 Mbit/s) --- Flow 3 egress (mean 1.35 Mbit/s)

• Flow 1 (95th percentile 10677.47 ms)   • Flow 2 (95th percentile 744.43 ms)   • Flow 3 (95th percentile 114.60 ms)

Run 9: Statistics of LEDBAT

Start at: 2017-08-31 16:24:06
End at: 2017-08-31 16:24:36

Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) --- Flow 1 egress (mean 14.00 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) --- Flow 2 egress (mean 16.19 Mbit/s)
Flow 3 ingress (mean 1.73 Mbit/s) --- Flow 3 egress (mean 1.73 Mbit/s)

• Flow 1 (95th percentile 13556.53 ms)   • Flow 2 (95th percentile 3612.85 ms)   • Flow 3 (95th percentile 114.74 ms)

Run 10: Statistics of LEDBAT

Start at: 2017-08-31 16:37:22
End at: 2017-08-31 16:37:52

Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2017-08-31 14:39:05
End at: 2017-08-31 14:39:35


# Below is generated by plot.py at 2017-08-31 18:15:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 440.24 Mbit/s
95th percentile per-packet one-way delay: 148.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 315.92 Mbit/s
95th percentile per-packet one-way delay: 166.211 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 134.60 Mbit/s
95th percentile per-packet one-way delay: 125.825 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 107.48 Mbit/s
95th percentile per-packet one-way delay: 120.090 ms
Loss rate: 0.00%
```
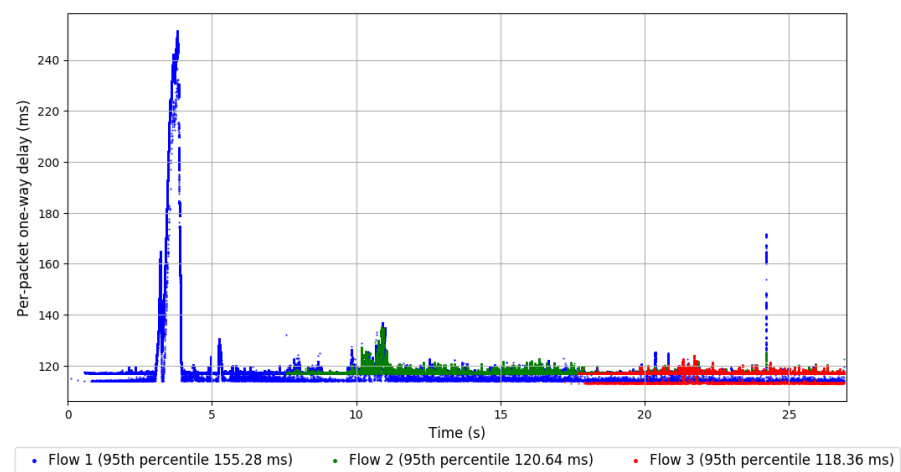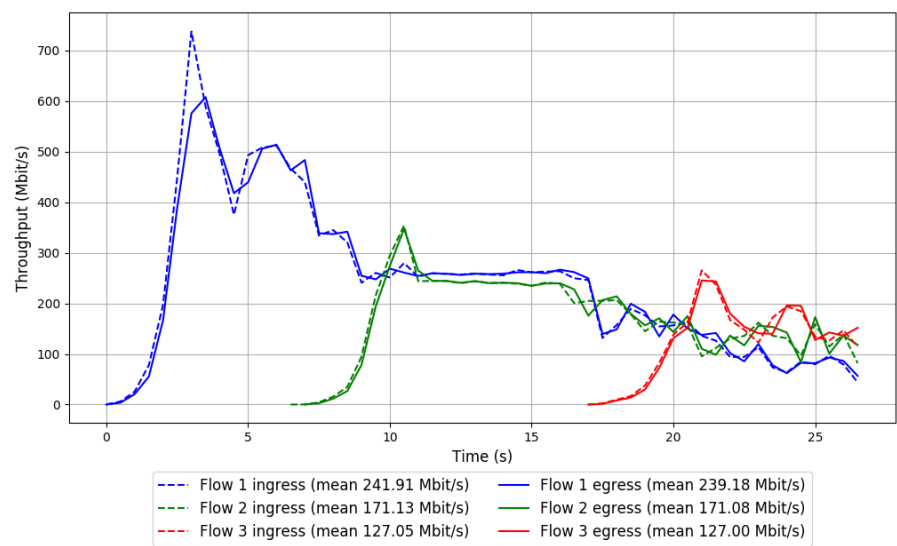
Run 1: Report of PCC — Data Link

- - - Flow 1 ingress (mean 315.94 Mbit/s)   —— Flow 1 egress (mean 315.92 Mbit/s)
- - - Flow 2 ingress (mean 134.60 Mbit/s)   —— Flow 2 egress (mean 134.60 Mbit/s)
- - - Flow 3 ingress (mean 107.46 Mbit/s)   —— Flow 3 egress (mean 107.48 Mbit/s)

- Flow 1 (95th percentile 166.21 ms)   • Flow 2 (95th percentile 125.83 ms)   • Flow 3 (95th percentile 120.09 ms)

```
Run 2: Statistics of PCC

Start at: 2017-08-31 14:52:08
End at: 2017-08-31 14:52:38


# Below is generated by plot.py at 2017-08-31 18:15:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 493.04 Mbit/s
95th percentile per-packet one-way delay: 176.965 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 304.36 Mbit/s
95th percentile per-packet one-way delay: 189.398 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 216.24 Mbit/s
95th percentile per-packet one-way delay: 133.363 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 139.62 Mbit/s
95th percentile per-packet one-way delay: 142.192 ms
Loss rate: 0.55%
```
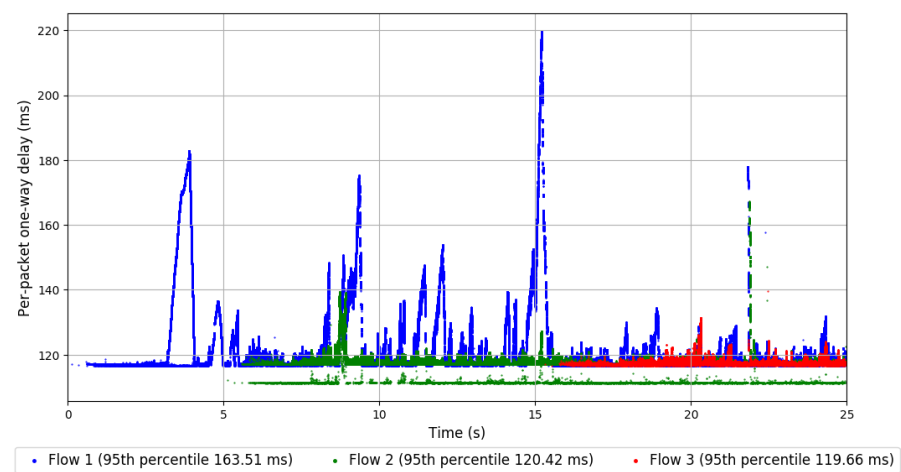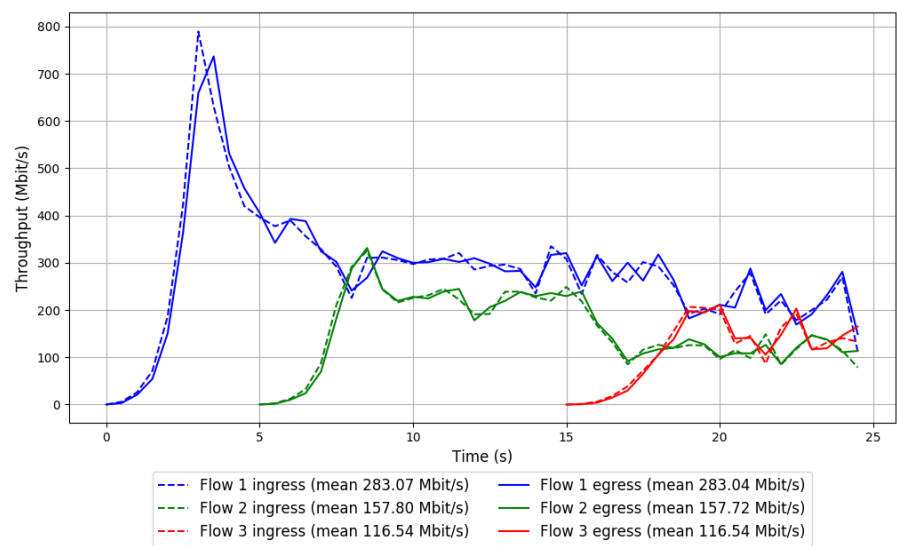
Run 2: Report of PCC — Data Link

```
Run 3: Statistics of PCC

Start at: 2017-08-31 15:05:34
End at: 2017-08-31 15:06:04

# Below is generated by plot.py at 2017-08-31 18:17:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.14 Mbit/s
95th percentile per-packet one-way delay: 129.652 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 287.34 Mbit/s
95th percentile per-packet one-way delay: 159.121 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 165.47 Mbit/s
95th percentile per-packet one-way delay: 119.578 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 163.21 Mbit/s
95th percentile per-packet one-way delay: 122.484 ms
Loss rate: 0.01%
```
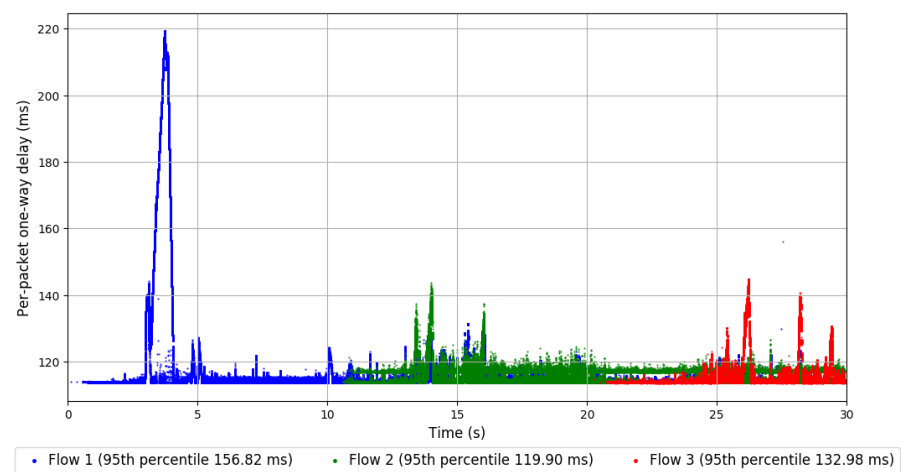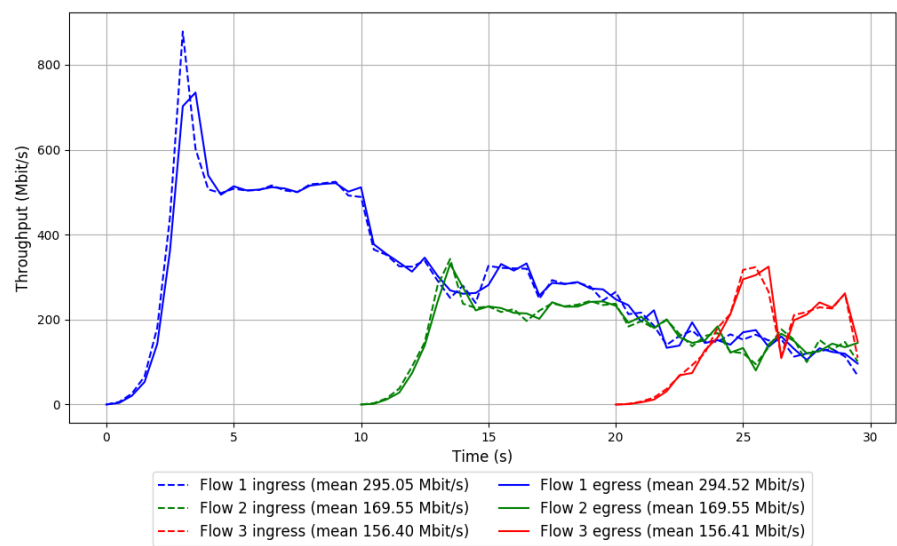
Run 3: Report of PCC — Data Link

```
Run 4: Statistics of PCC

Start at: 2017-08-31 15:18:53
End at: 2017-08-31 15:19:23


# Below is generated by plot.py at 2017-08-31 18:17:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.56 Mbit/s
95th percentile per-packet one-way delay: 128.109 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 239.18 Mbit/s
95th percentile per-packet one-way delay: 155.282 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 171.08 Mbit/s
95th percentile per-packet one-way delay: 120.637 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 127.00 Mbit/s
95th percentile per-packet one-way delay: 118.361 ms
Loss rate: 0.00%
```
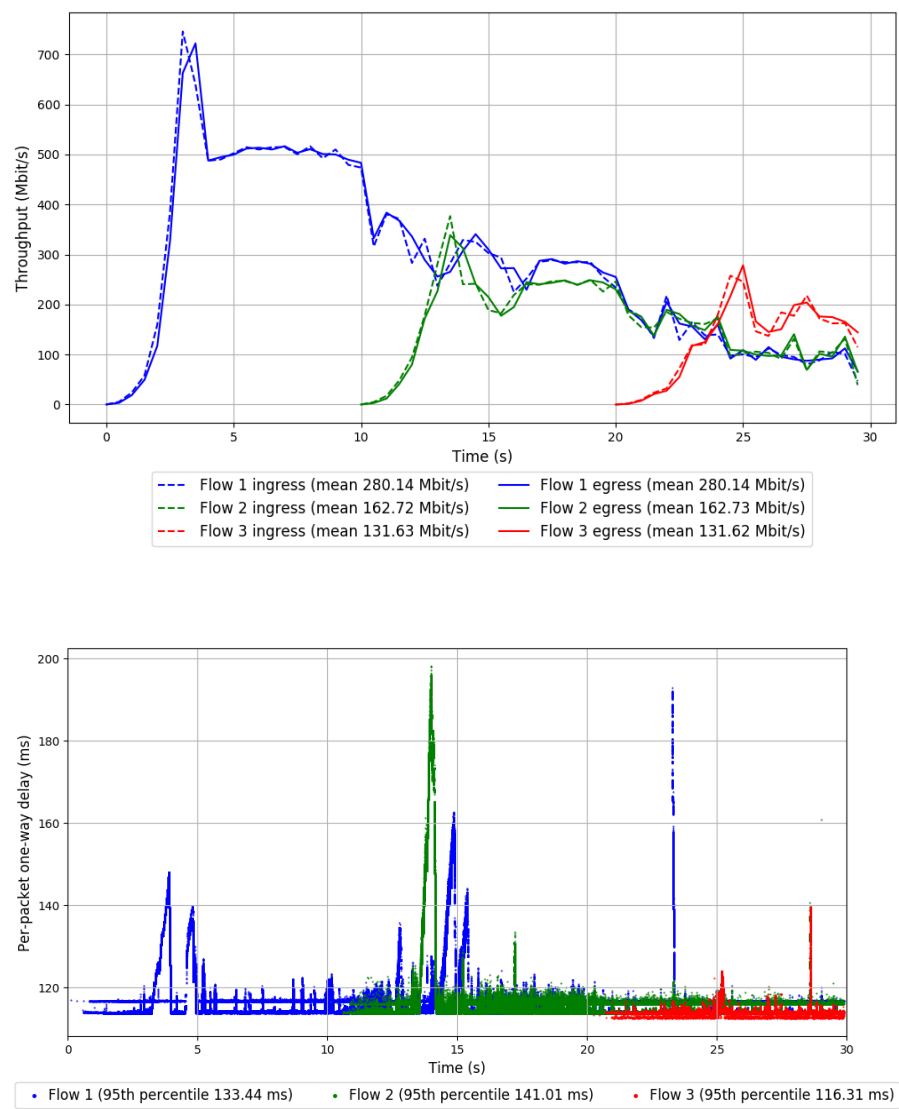
Run 4: Report of PCC — Data Link

Legend:
- Flow 1 ingress (mean 241.91 Mbit/s)
- Flow 1 egress (mean 239.18 Mbit/s)
- Flow 2 ingress (mean 171.13 Mbit/s)
- Flow 2 egress (mean 171.08 Mbit/s)
- Flow 3 ingress (mean 127.05 Mbit/s)
- Flow 3 egress (mean 127.00 Mbit/s)

Legend:
- Flow 1 (95th percentile 155.28 ms)
- Flow 2 (95th percentile 120.64 ms)
- Flow 3 (95th percentile 118.36 ms)

151

```
Run 5: Statistics of PCC

Start at: 2017-08-31 15:32:02
End at: 2017-08-31 15:32:32

# Below is generated by plot.py at 2017-08-31 18:18:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.10 Mbit/s
95th percentile per-packet one-way delay: 147.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 283.04 Mbit/s
95th percentile per-packet one-way delay: 163.509 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 157.72 Mbit/s
95th percentile per-packet one-way delay: 120.423 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 116.54 Mbit/s
95th percentile per-packet one-way delay: 119.658 ms
Loss rate: 0.00%
```
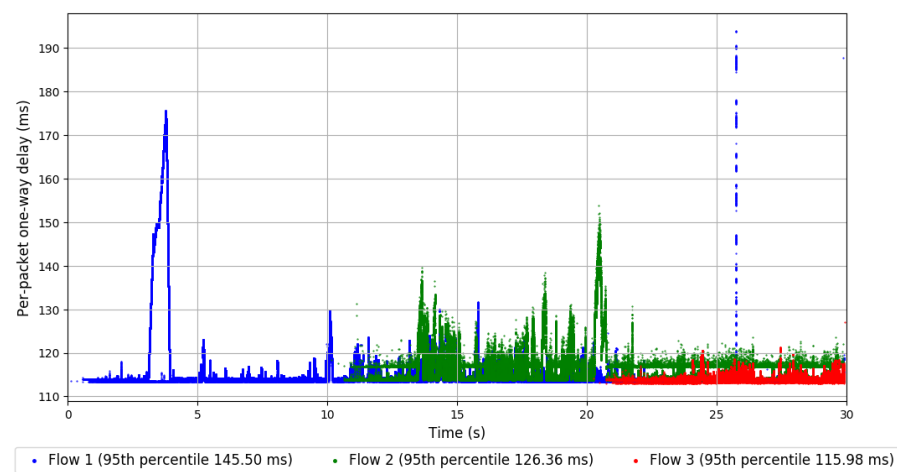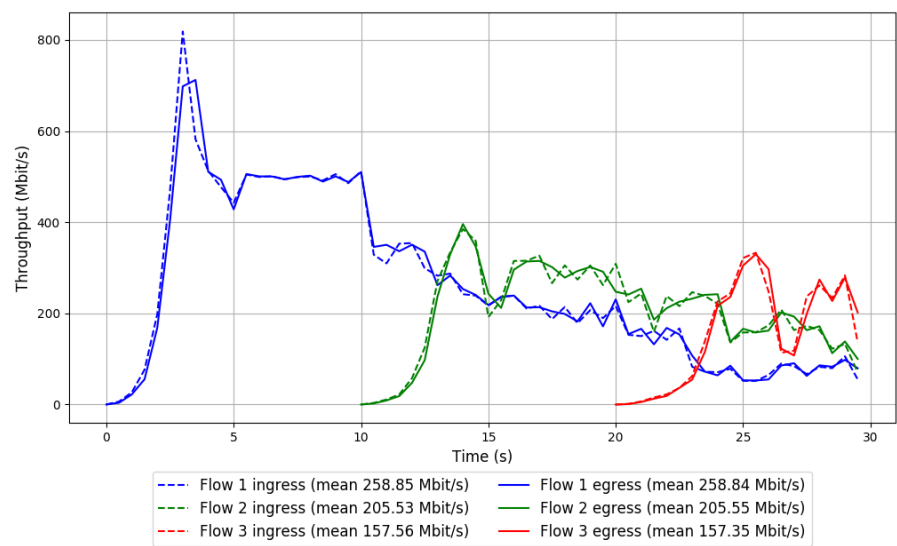
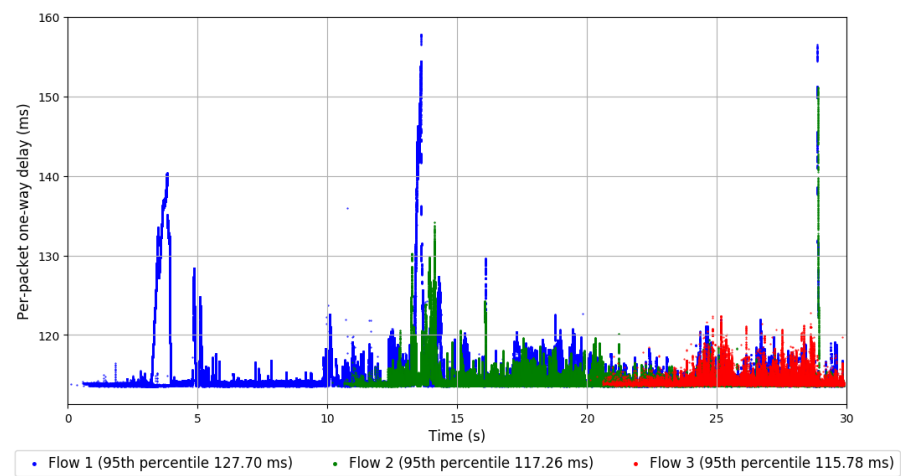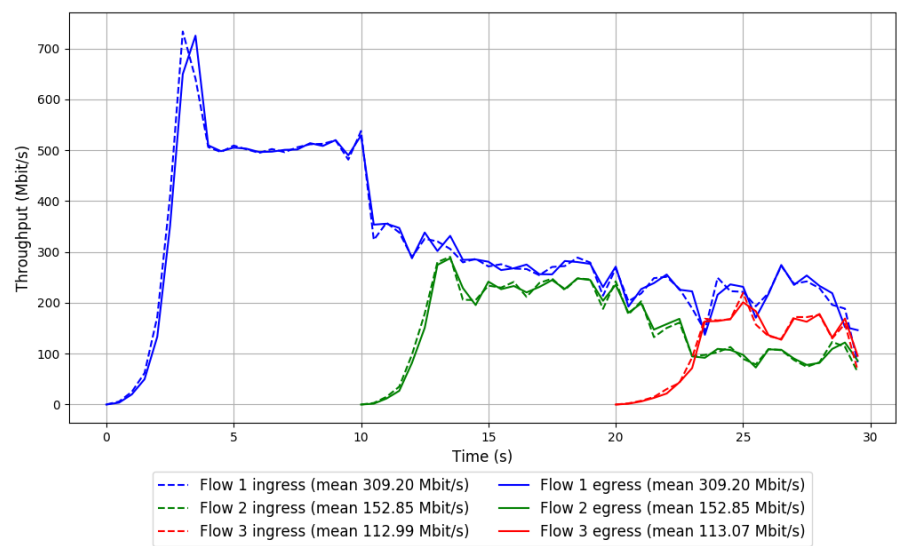## Run 5: Report of PCC — Data Link

```
Run 6: Statistics of PCC

Start at: 2017-08-31 15:45:04
End at: 2017-08-31 15:45:34


# Below is generated by plot.py at 2017-08-31 18:18:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 457.67 Mbit/s
95th percentile per-packet one-way delay: 135.318 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 294.52 Mbit/s
95th percentile per-packet one-way delay: 156.823 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 169.55 Mbit/s
95th percentile per-packet one-way delay: 119.903 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 156.41 Mbit/s
95th percentile per-packet one-way delay: 132.982 ms
Loss rate: 0.00%
```
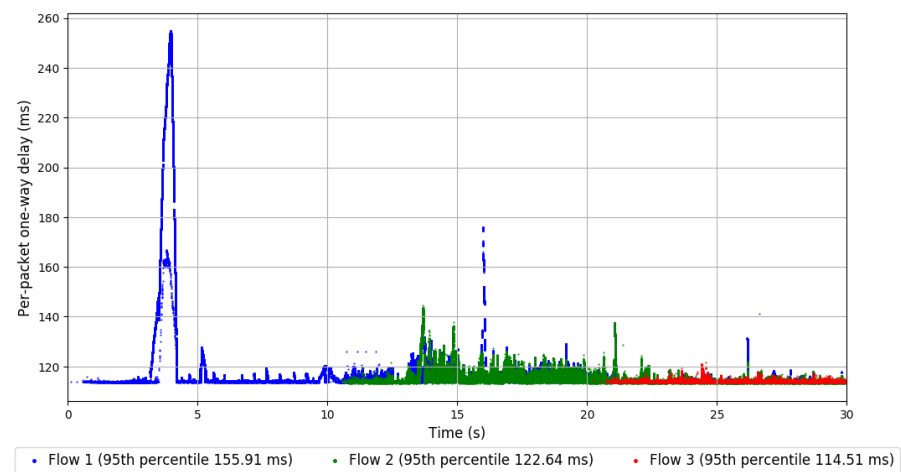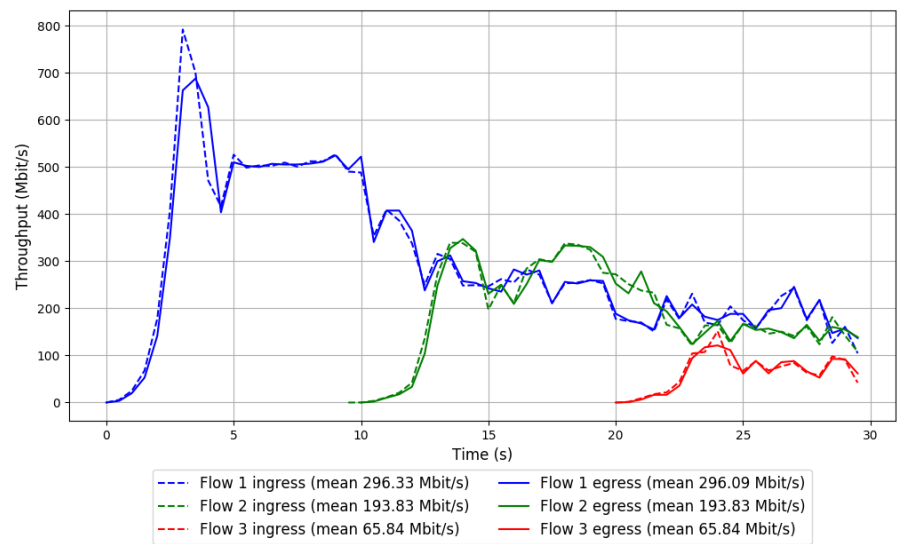
Run 6: Report of PCC — Data Link

Flow 1 ingress (mean 295.05 Mbit/s) --- Flow 1 egress (mean 294.52 Mbit/s)
Flow 2 ingress (mean 169.55 Mbit/s) --- Flow 2 egress (mean 169.55 Mbit/s)
Flow 3 ingress (mean 156.40 Mbit/s) --- Flow 3 egress (mean 156.41 Mbit/s)

Flow 1 (95th percentile 156.82 ms)   Flow 2 (95th percentile 119.90 ms)   Flow 3 (95th percentile 132.98 ms)

155

```
Run 7: Statistics of PCC

Start at: 2017-08-31 15:58:21
End at: 2017-08-31 15:58:51


# Below is generated by plot.py at 2017-08-31 18:19:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 430.68 Mbit/s
95th percentile per-packet one-way delay: 133.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 280.14 Mbit/s
95th percentile per-packet one-way delay: 133.443 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 162.73 Mbit/s
95th percentile per-packet one-way delay: 141.012 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 131.62 Mbit/s
95th percentile per-packet one-way delay: 116.308 ms
Loss rate: 0.00%
```
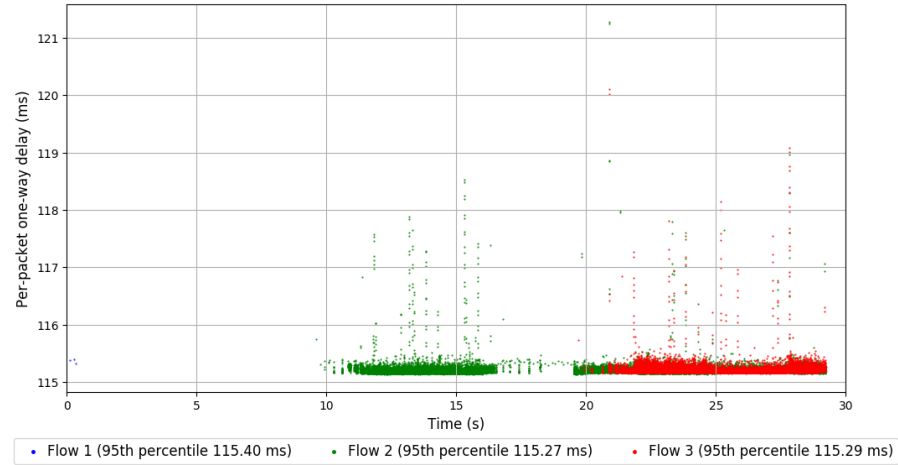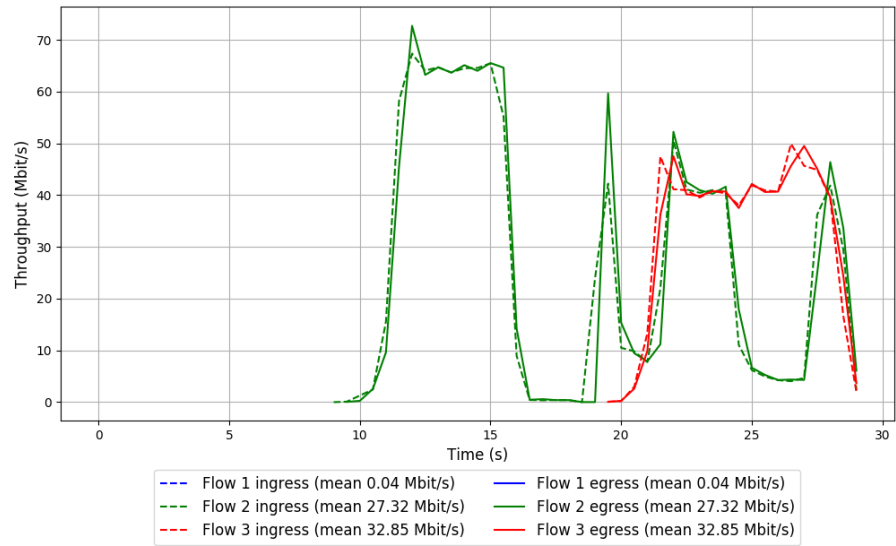
Run 7: Report of PCC — Data Link

157

```
Run 8: Statistics of PCC

Start at: 2017-08-31 16:11:32
End at: 2017-08-31 16:12:02


# Below is generated by plot.py at 2017-08-31 18:20:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 445.81 Mbit/s
95th percentile per-packet one-way delay: 128.932 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 258.84 Mbit/s
95th percentile per-packet one-way delay: 145.500 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 205.55 Mbit/s
95th percentile per-packet one-way delay: 126.364 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 157.35 Mbit/s
95th percentile per-packet one-way delay: 115.981 ms
Loss rate: 0.00%
```

Run 8: Report of PCC — Data Link

Flow 1 ingress (mean 258.85 Mbit/s)   Flow 1 egress (mean 258.84 Mbit/s)
Flow 2 ingress (mean 205.53 Mbit/s)   Flow 2 egress (mean 205.55 Mbit/s)
Flow 3 ingress (mean 157.56 Mbit/s)   Flow 3 egress (mean 157.35 Mbit/s)

Flow 1 (95th percentile 145.50 ms)   Flow 2 (95th percentile 126.36 ms)   Flow 3 (95th percentile 115.98 ms)

159

```
Run 9: Statistics of PCC

Start at: 2017-08-31 16:24:52
End at: 2017-08-31 16:25:22


# Below is generated by plot.py at 2017-08-31 18:21:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.48 Mbit/s
95th percentile per-packet one-way delay: 122.496 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 309.20 Mbit/s
95th percentile per-packet one-way delay: 127.703 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 152.85 Mbit/s
95th percentile per-packet one-way delay: 117.256 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 113.07 Mbit/s
95th percentile per-packet one-way delay: 115.782 ms
Loss rate: 0.00%
```
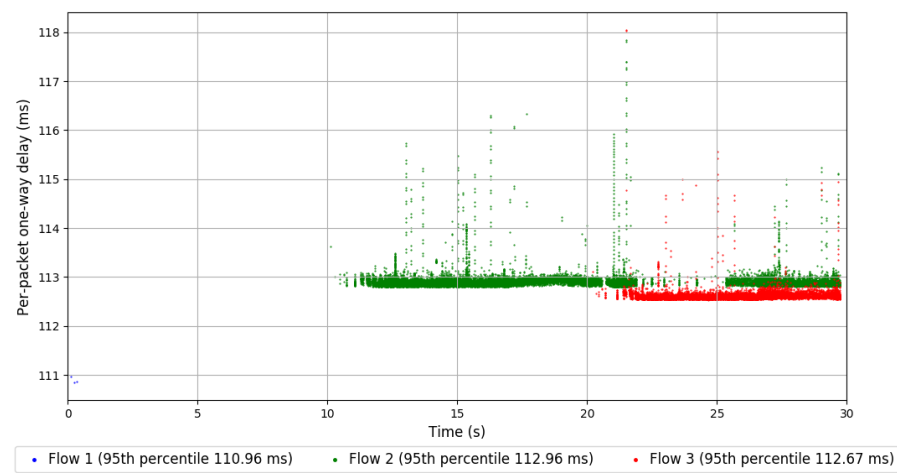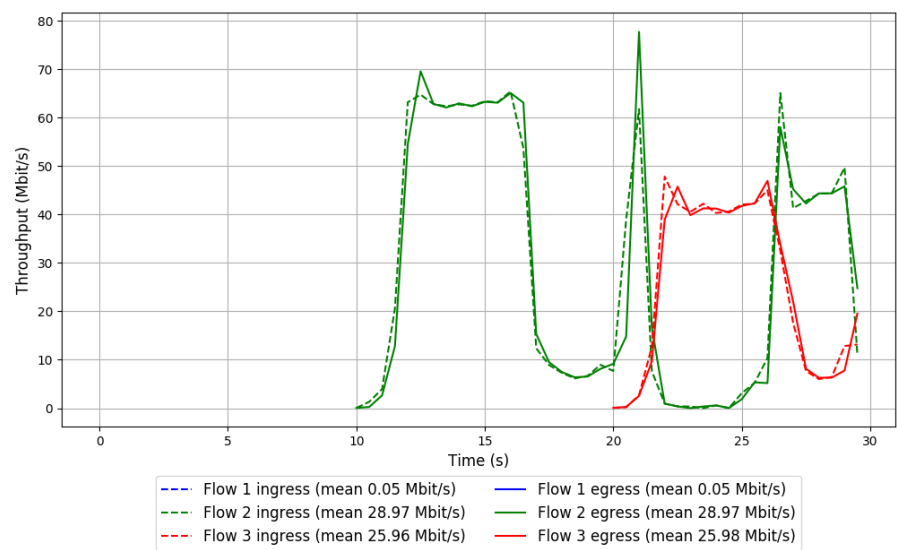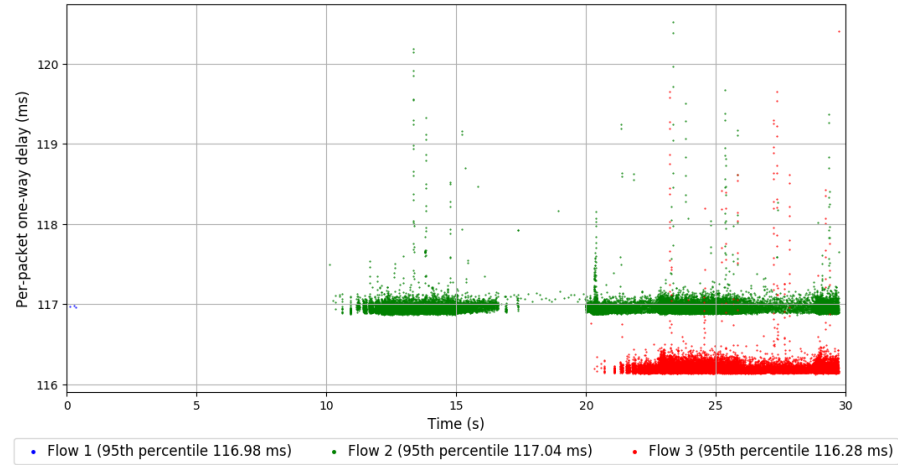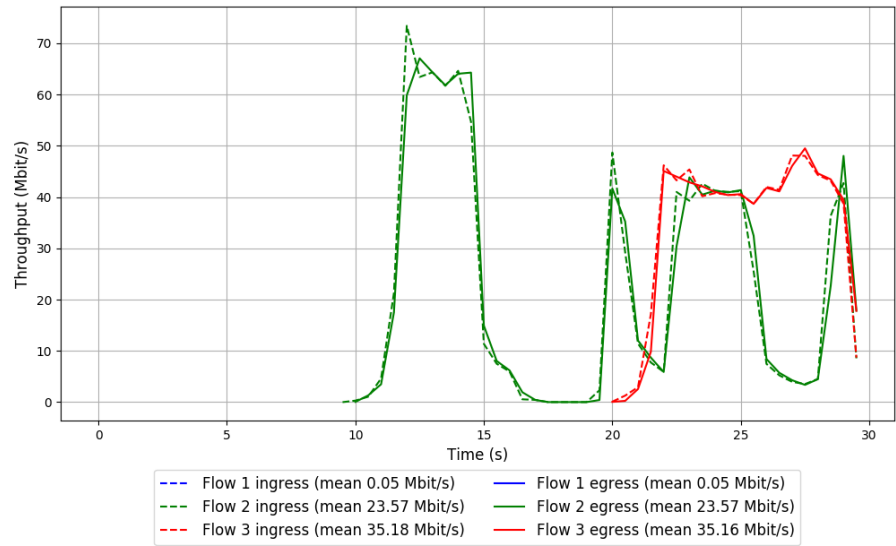
Run 9: Report of PCC — Data Link

```
Run 10: Statistics of PCC

Start at: 2017-08-31 16:38:09
End at: 2017-08-31 16:38:39


# Below is generated by plot.py at 2017-08-31 18:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.26 Mbit/s
95th percentile per-packet one-way delay: 132.668 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 296.09 Mbit/s
95th percentile per-packet one-way delay: 155.911 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 193.83 Mbit/s
95th percentile per-packet one-way delay: 122.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.84 Mbit/s
95th percentile per-packet one-way delay: 114.514 ms
Loss rate: 0.00%
```
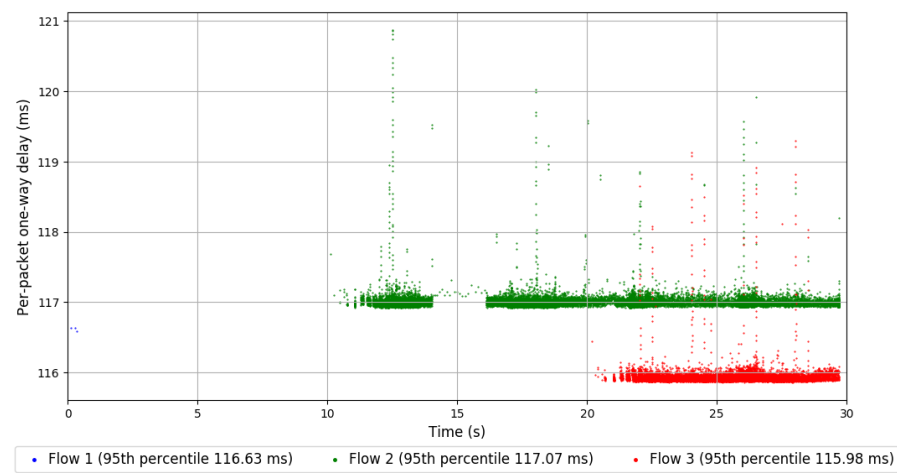
Run 10: Report of PCC — Data Link

Flow 1 ingress (mean 296.33 Mbit/s) — — — Flow 1 egress (mean 296.09 Mbit/s)
Flow 2 ingress (mean 193.83 Mbit/s) — — — Flow 2 egress (mean 193.83 Mbit/s)
Flow 3 ingress (mean 65.84 Mbit/s) — — — Flow 3 egress (mean 65.84 Mbit/s)

Flow 1 (95th percentile 155.91 ms)　　Flow 2 (95th percentile 122.64 ms)　　Flow 3 (95th percentile 114.51 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-31 14:43:44
End at: 2017-08-31 14:44:14

# Below is generated by plot.py at 2017-08-31 18:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 115.279 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 115.400 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.32 Mbit/s
95th percentile per-packet one-way delay: 115.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.85 Mbit/s
95th percentile per-packet one-way delay: 115.290 ms
Loss rate: 0.00%
```
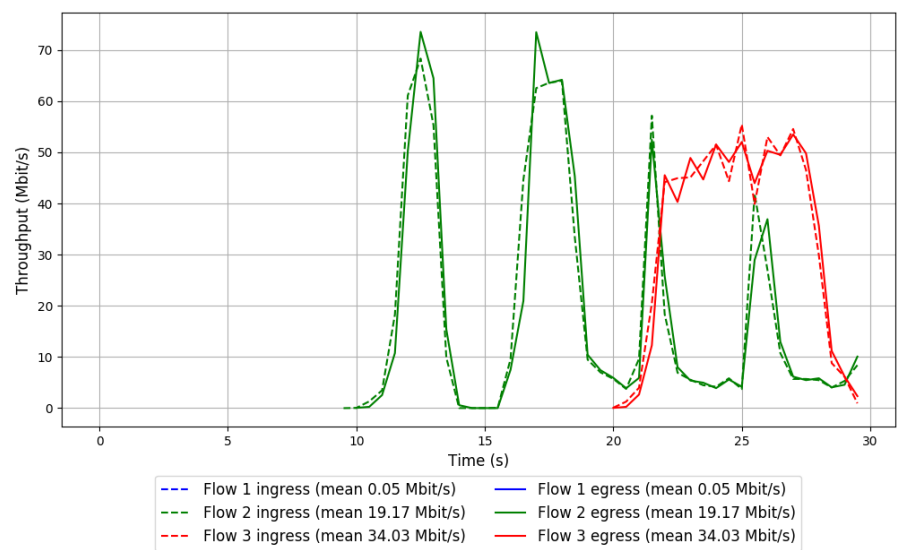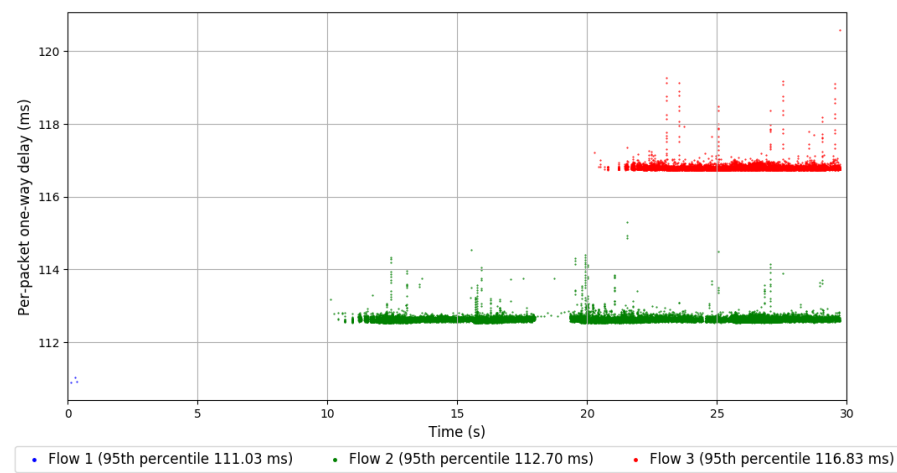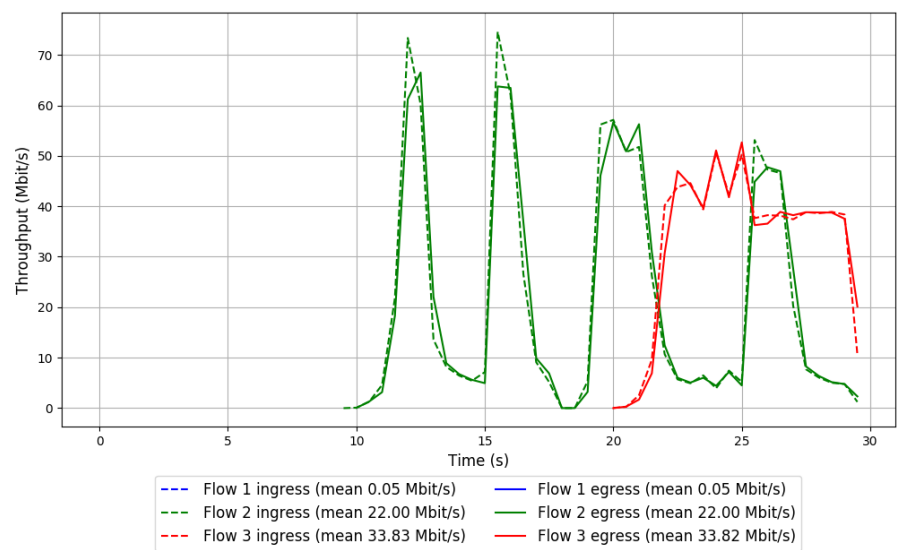
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2017-08-31 14:56:54
End at: 2017-08-31 14:57:24


# Below is generated by plot.py at 2017-08-31 18:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.54 Mbit/s
95th percentile per-packet one-way delay: 112.945 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.958 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.97 Mbit/s
95th percentile per-packet one-way delay: 112.964 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.98 Mbit/s
95th percentile per-packet one-way delay: 112.671 ms
Loss rate: 0.00%
```
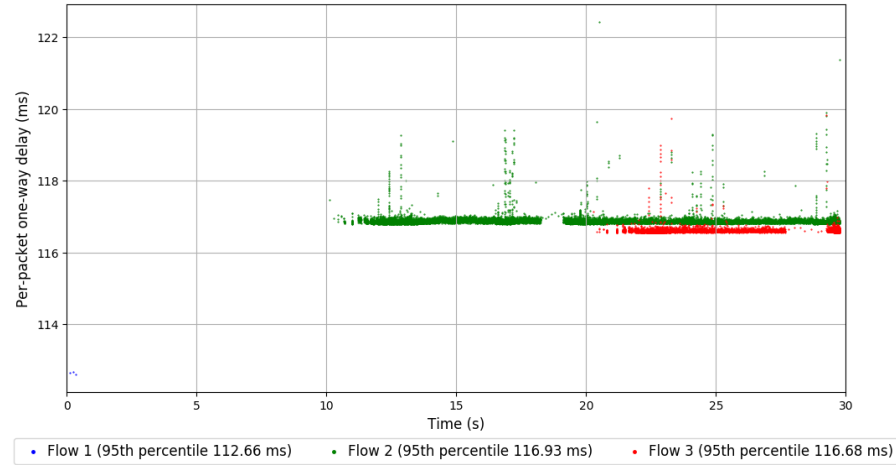
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2017-08-31 15:10:30
End at: 2017-08-31 15:11:00


# Below is generated by plot.py at 2017-08-31 18:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 117.011 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 116.977 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.57 Mbit/s
95th percentile per-packet one-way delay: 117.038 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.16 Mbit/s
95th percentile per-packet one-way delay: 116.278 ms
Loss rate: 0.00%
```
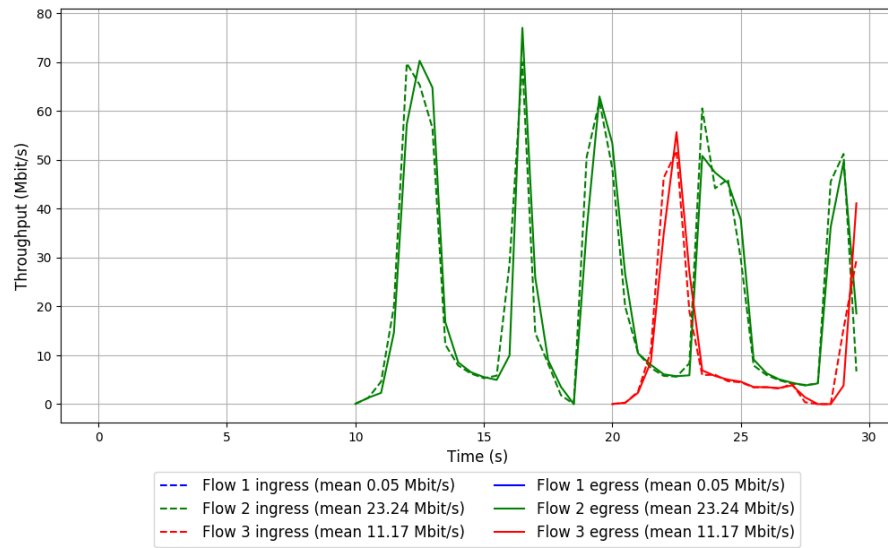
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.05 Mbit/s) --- Flow 1 egress (mean 0.05 Mbit/s)
Flow 2 ingress (mean 23.57 Mbit/s) --- Flow 2 egress (mean 23.57 Mbit/s)
Flow 3 ingress (mean 35.18 Mbit/s) --- Flow 3 egress (mean 35.16 Mbit/s)

Flow 1 (95th percentile 116.98 ms)   Flow 2 (95th percentile 117.04 ms)   Flow 3 (95th percentile 116.28 ms)

169

```
Run 4: Statistics of QUIC Cubic

Start at: 2017-08-31 15:23:29
End at: 2017-08-31 15:23:59


# Below is generated by plot.py at 2017-08-31 18:21:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 117.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 116.633 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.17 Mbit/s
95th percentile per-packet one-way delay: 117.070 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 34.03 Mbit/s
95th percentile per-packet one-way delay: 115.977 ms
Loss rate: 0.00%
```
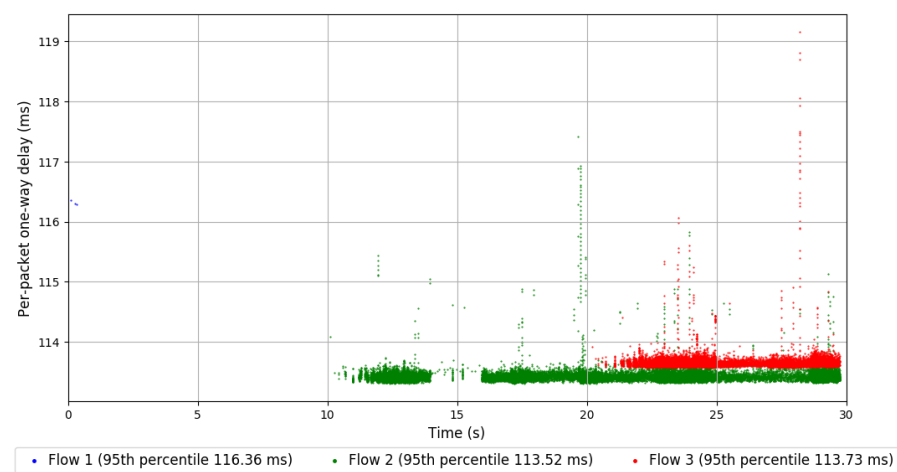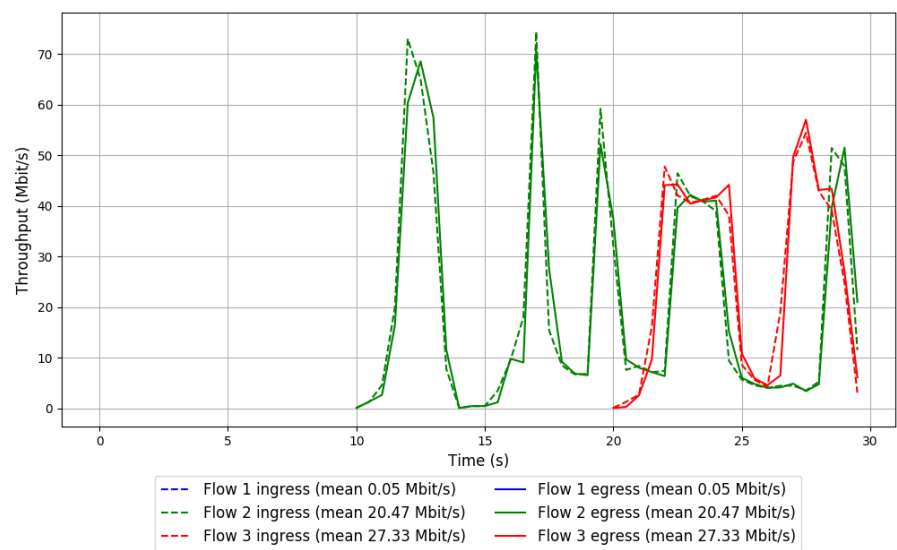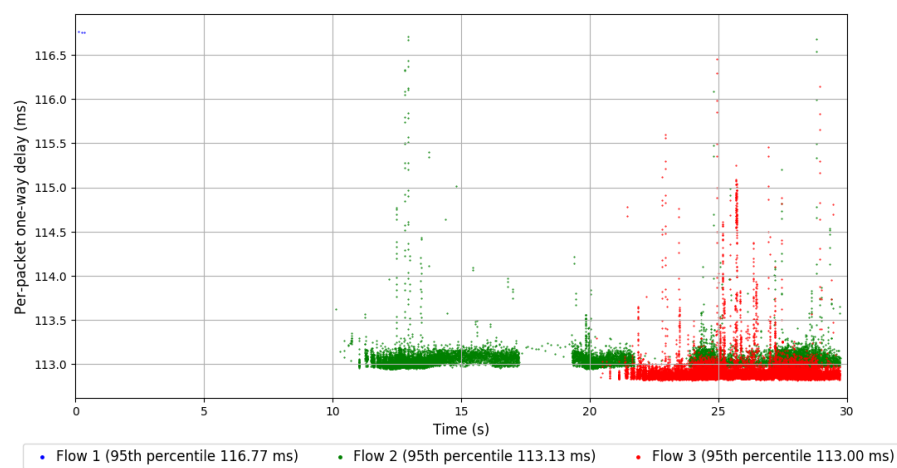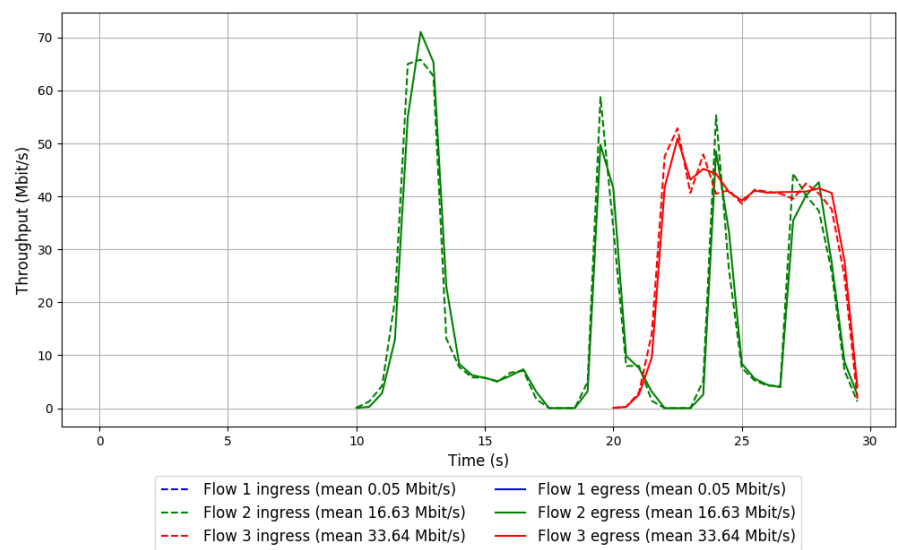
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.05 Mbit/s) --- Flow 1 egress (mean 0.05 Mbit/s)
Flow 2 ingress (mean 19.17 Mbit/s) --- Flow 2 egress (mean 19.17 Mbit/s)
Flow 3 ingress (mean 34.03 Mbit/s) --- Flow 3 egress (mean 34.03 Mbit/s)

Flow 1 (95th percentile 116.63 ms) • Flow 2 (95th percentile 117.07 ms) • Flow 3 (95th percentile 115.98 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2017-08-31 15:36:38
End at: 2017-08-31 15:37:08

# Below is generated by plot.py at 2017-08-31 18:21:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.37 Mbit/s
95th percentile per-packet one-way delay: 116.802 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 111.028 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.00 Mbit/s
95th percentile per-packet one-way delay: 112.697 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 33.82 Mbit/s
95th percentile per-packet one-way delay: 116.832 ms
Loss rate: 0.06%
```
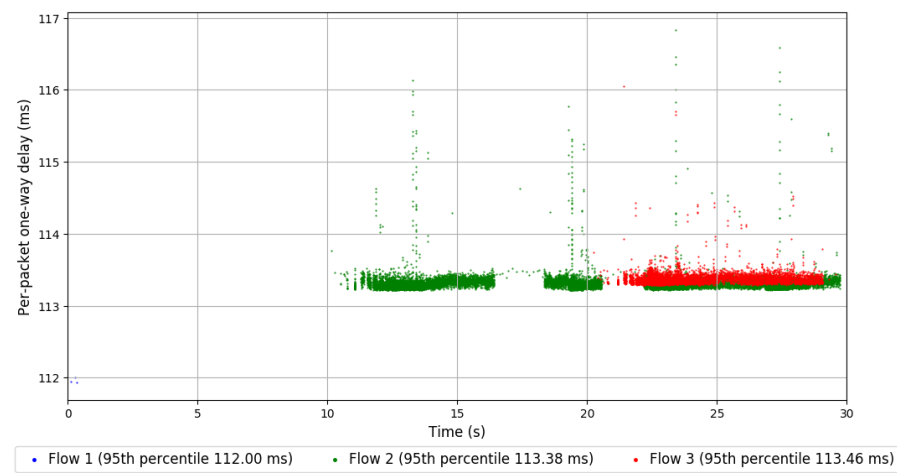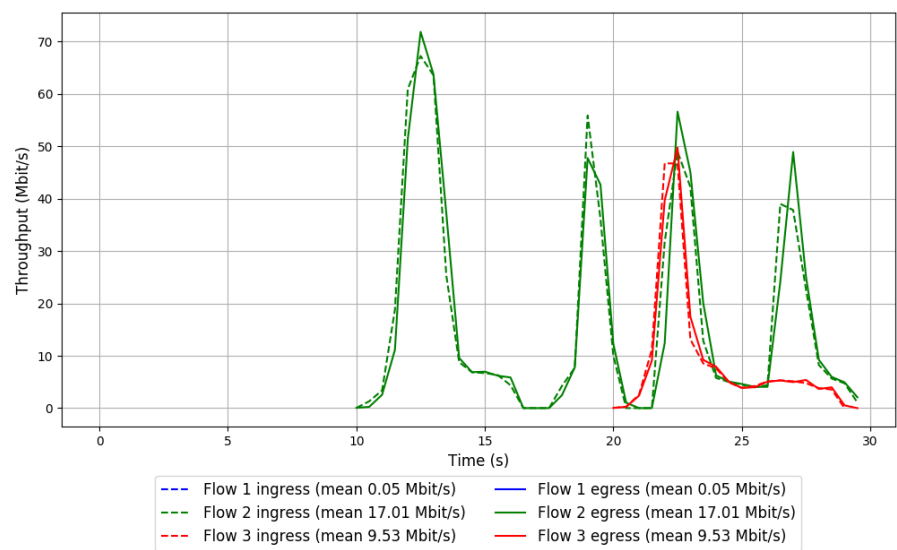
Run 5: Report of QUIC Cubic — Data Link

```
Run 6: Statistics of QUIC Cubic

Start at: 2017-08-31 15:49:41
End at: 2017-08-31 15:50:11


# Below is generated by plot.py at 2017-08-31 18:21:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.96 Mbit/s
95th percentile per-packet one-way delay: 116.924 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 112.664 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.24 Mbit/s
95th percentile per-packet one-way delay: 116.933 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 11.17 Mbit/s
95th percentile per-packet one-way delay: 116.679 ms
Loss rate: 0.00%
```
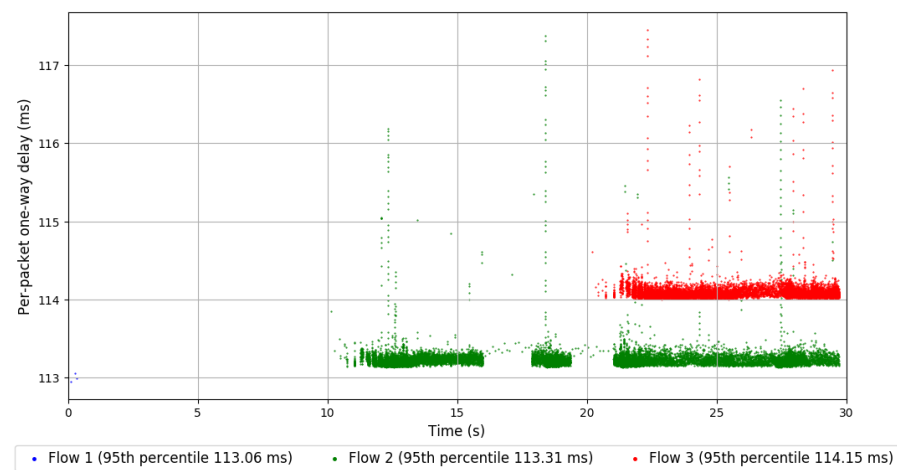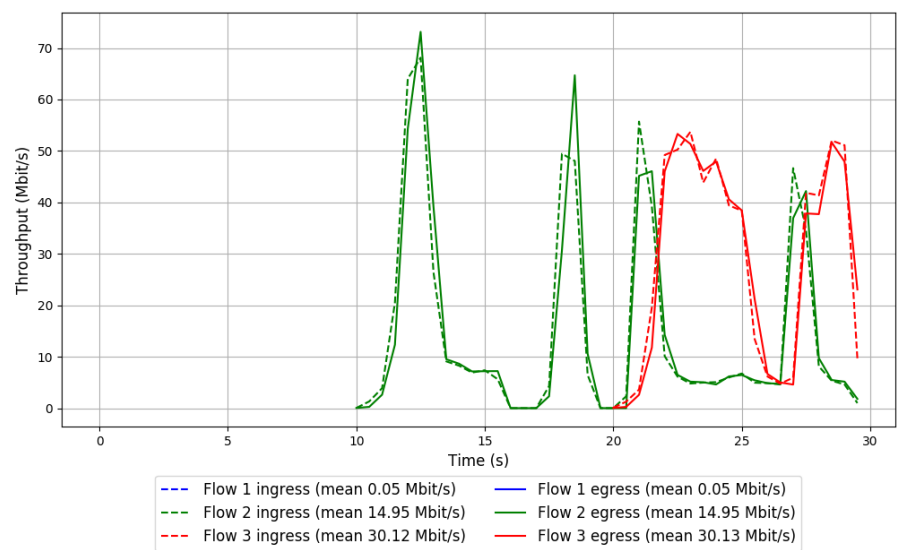
Run 6: Report of QUIC Cubic — Data Link

```
Run 7: Statistics of QUIC Cubic

Start at: 2017-08-31 16:03:02
End at: 2017-08-31 16:03:32


# Below is generated by plot.py at 2017-08-31 18:21:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.37 Mbit/s
95th percentile per-packet one-way delay: 113.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 116.362 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.47 Mbit/s
95th percentile per-packet one-way delay: 113.515 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.33 Mbit/s
95th percentile per-packet one-way delay: 113.727 ms
Loss rate: 0.01%
```

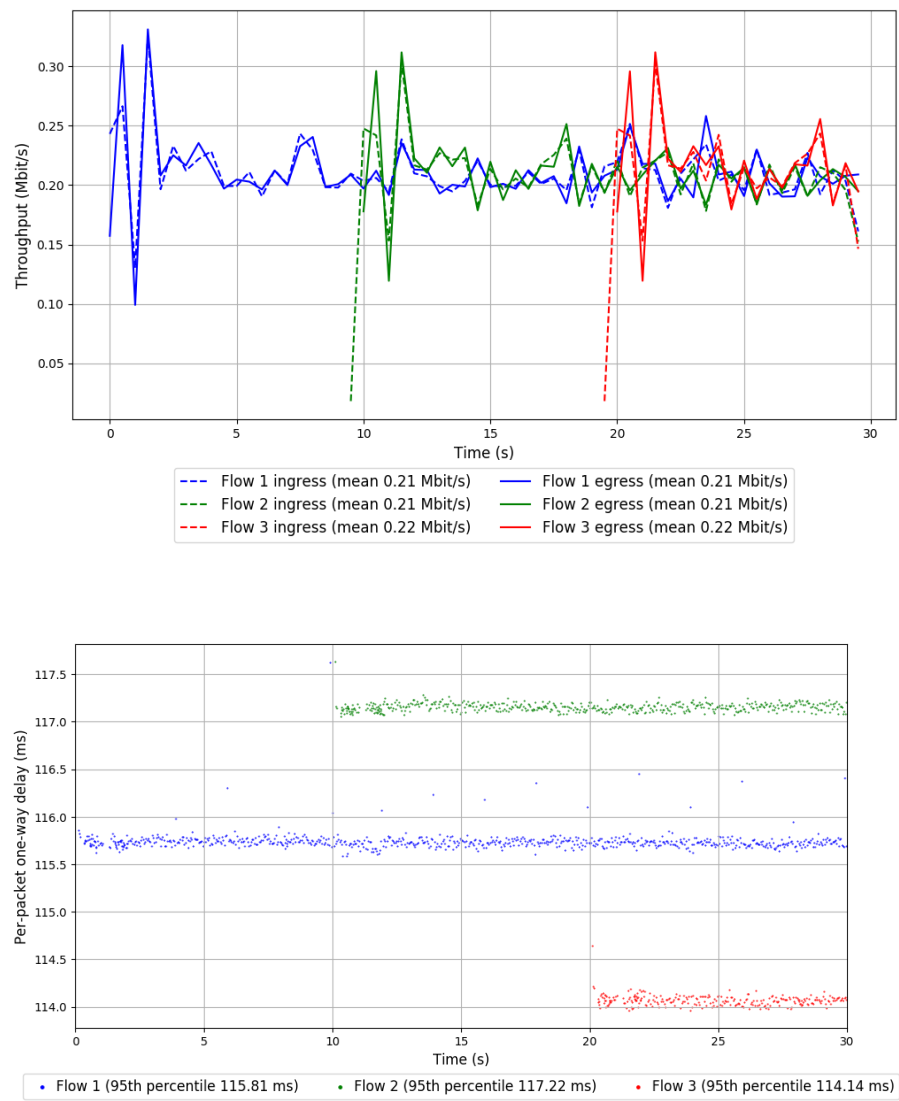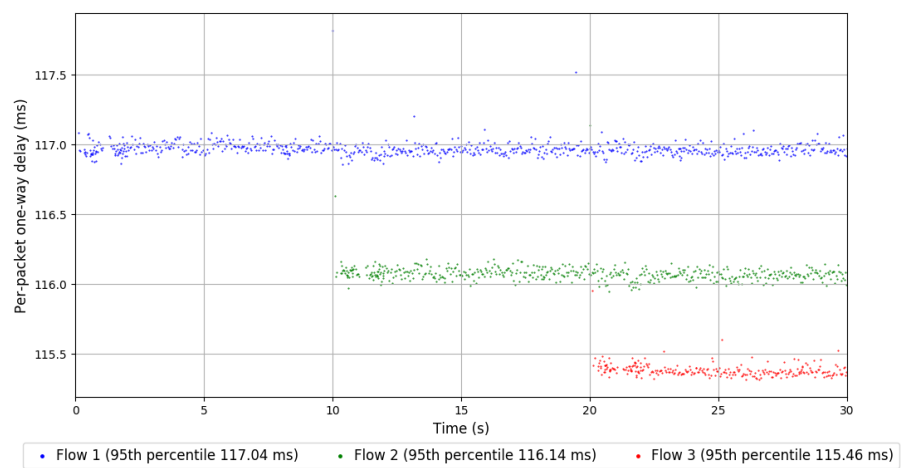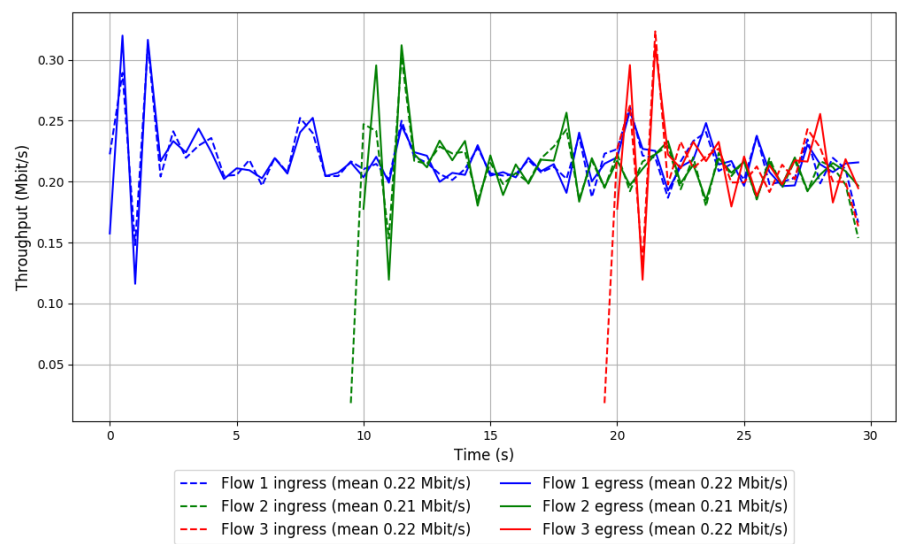# Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.05 Mbit/s)
Flow 2 ingress (mean 20.47 Mbit/s)
Flow 3 ingress (mean 27.33 Mbit/s)
Flow 1 egress (mean 0.05 Mbit/s)
Flow 2 egress (mean 20.47 Mbit/s)
Flow 3 egress (mean 27.33 Mbit/s)

Flow 1 (95th percentile 116.36 ms)
Flow 2 (95th percentile 113.52 ms)
Flow 3 (95th percentile 113.73 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2017-08-31 16:16:24
End at: 2017-08-31 16:16:54


# Below is generated by plot.py at 2017-08-31 18:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 21.75 Mbit/s
95th percentile per-packet one-way delay: 113.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 116.765 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 16.63 Mbit/s
95th percentile per-packet one-way delay: 113.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.64 Mbit/s
95th percentile per-packet one-way delay: 113.005 ms
Loss rate: 0.00%
```

Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2017-08-31 16:29:44
End at: 2017-08-31 16:30:14


# Below is generated by plot.py at 2017-08-31 18:21:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.24 Mbit/s
95th percentile per-packet one-way delay: 113.411 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 112.004 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.01 Mbit/s
95th percentile per-packet one-way delay: 113.380 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 113.458 ms
Loss rate: 0.00%
```
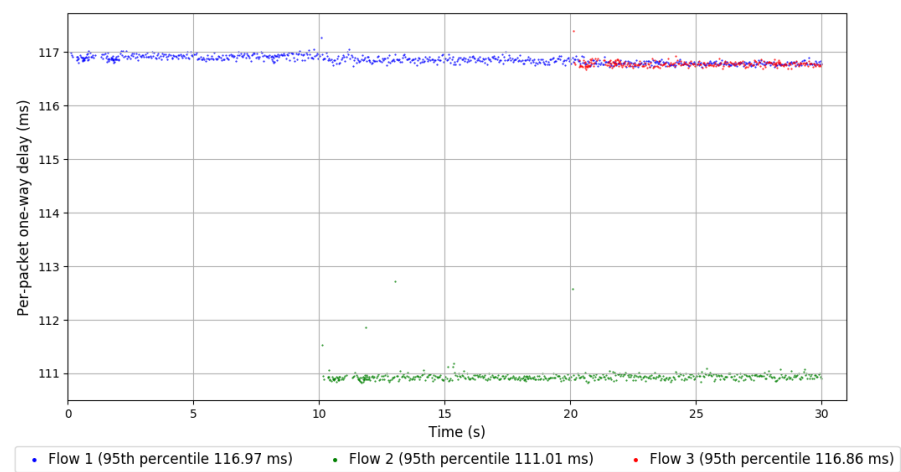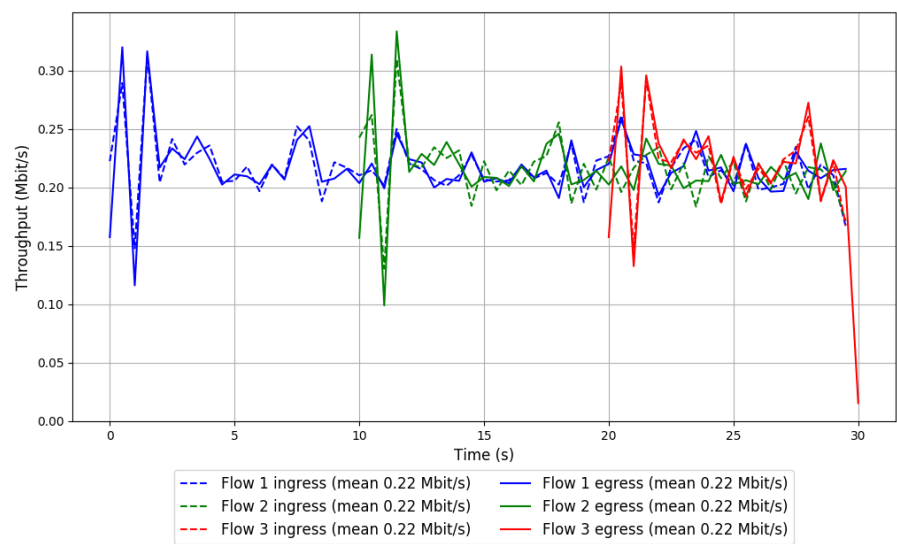
Run 9: Report of QUIC Cubic — Data Link

```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-31 16:43:00
End at: 2017-08-31 16:43:30


# Below is generated by plot.py at 2017-08-31 18:21:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.59 Mbit/s
95th percentile per-packet one-way delay: 114.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 113.060 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.95 Mbit/s
95th percentile per-packet one-way delay: 113.310 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 114.151 ms
Loss rate: 0.00%
```
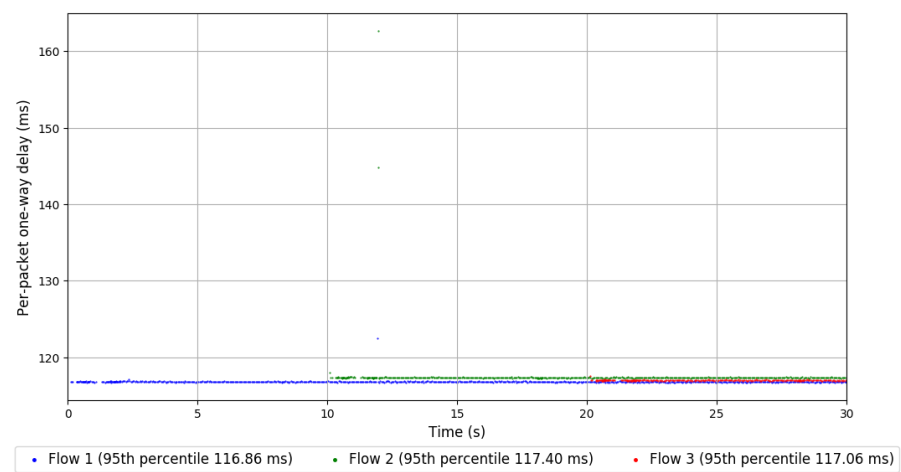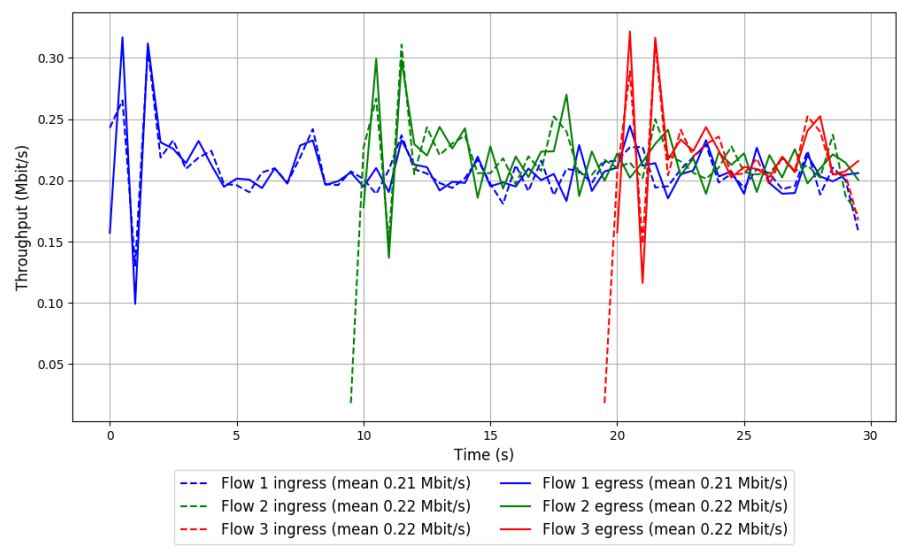
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.05 Mbit/s) --- Flow 1 egress (mean 0.05 Mbit/s) ---
Flow 2 ingress (mean 14.95 Mbit/s) --- Flow 2 egress (mean 14.95 Mbit/s) ---
Flow 3 ingress (mean 30.12 Mbit/s) --- Flow 3 egress (mean 30.13 Mbit/s) ---

Flow 1 (95th percentile 113.06 ms)   Flow 2 (95th percentile 113.31 ms)   Flow 3 (95th percentile 114.15 ms)

```
Run 1: Statistics of SCReAM

Start at: 2017-08-31 14:42:02
End at: 2017-08-31 14:42:32

# Below is generated by plot.py at 2017-08-31 18:21:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 117.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 115.805 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 117.216 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 114.145 ms
Loss rate: 0.00%
```
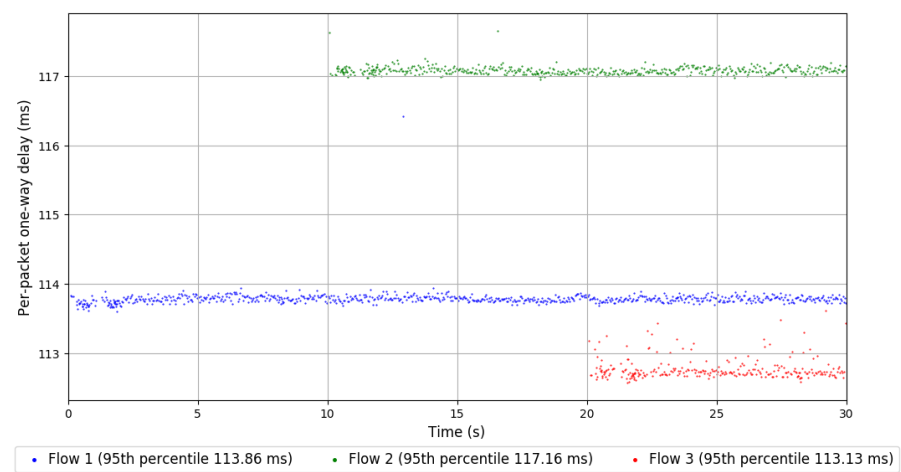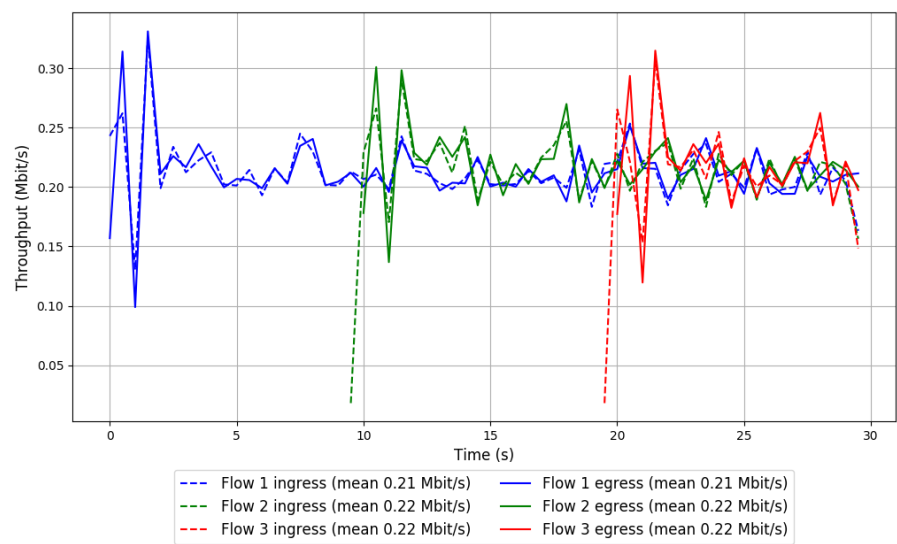
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2017-08-31 14:55:09
End at: 2017-08-31 14:55:39

# Below is generated by plot.py at 2017-08-31 18:21:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 117.018 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 117.039 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 116.138 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 115.457 ms
Loss rate: 0.00%
```
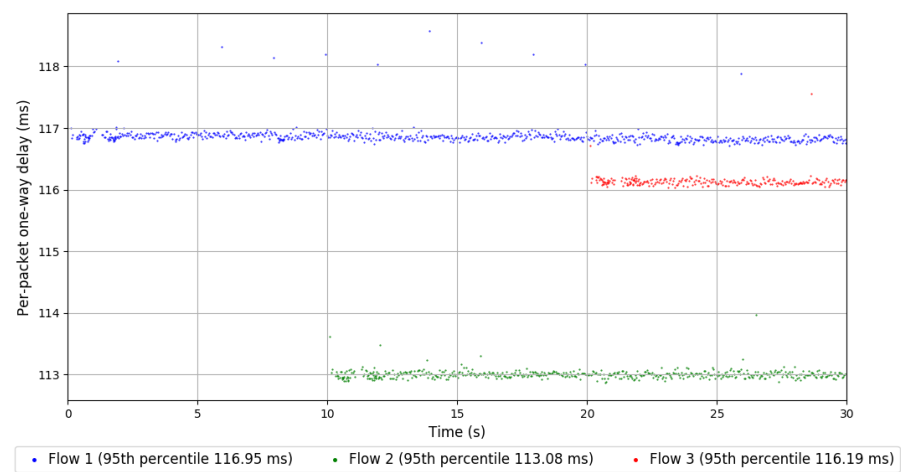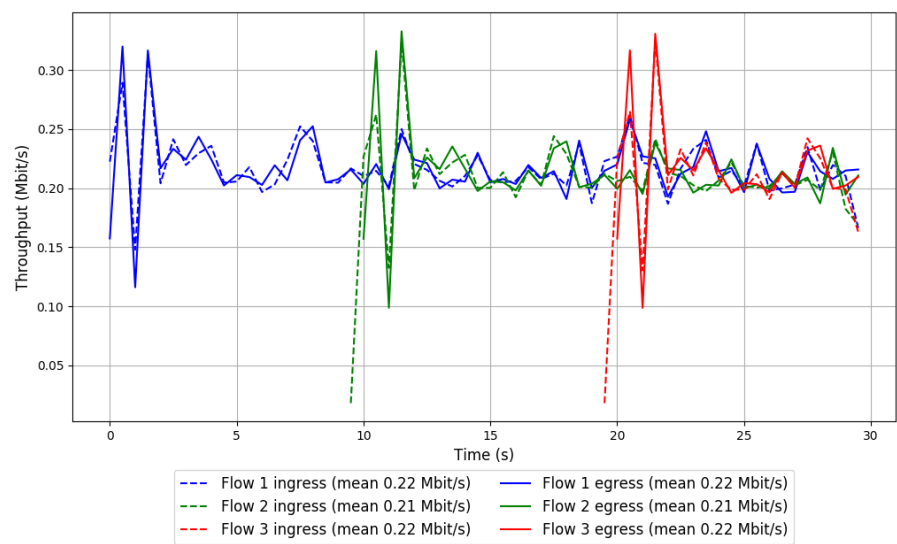
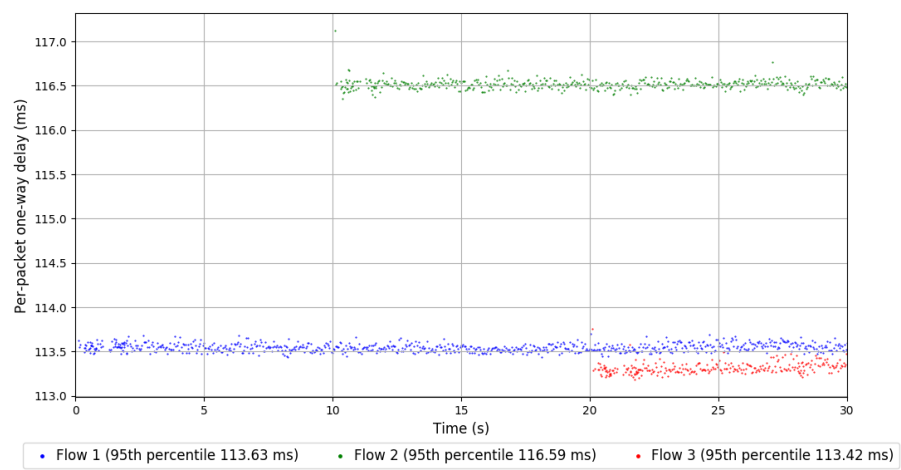# Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2017-08-31 15:08:45
End at: 2017-08-31 15:09:15


# Below is generated by plot.py at 2017-08-31 18:22:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 116.952 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 116.972 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.006 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 116.855 ms
Loss rate: 0.00%
```
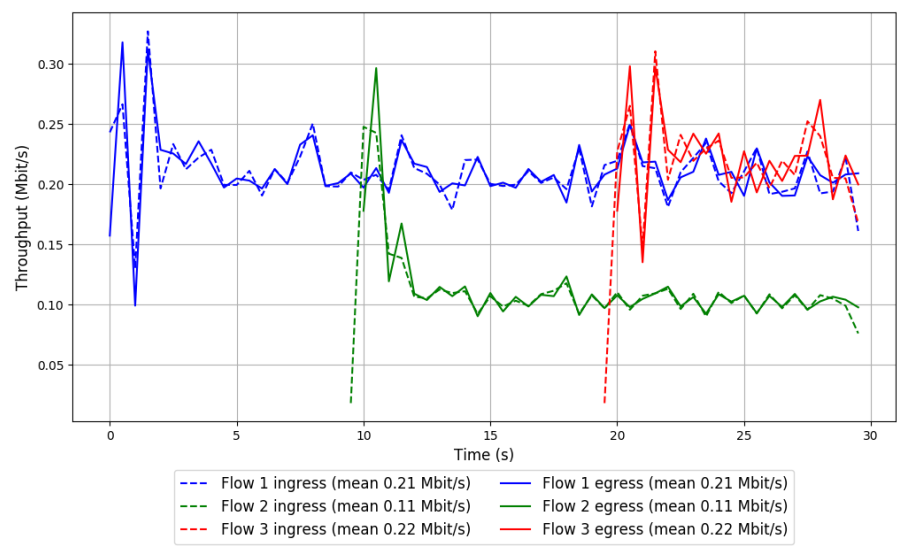
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2017-08-31 15:21:47
End at: 2017-08-31 15:22:17


# Below is generated by plot.py at 2017-08-31 18:22:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 117.377 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 116.864 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 117.402 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 117.056 ms
Loss rate: 0.00%
```
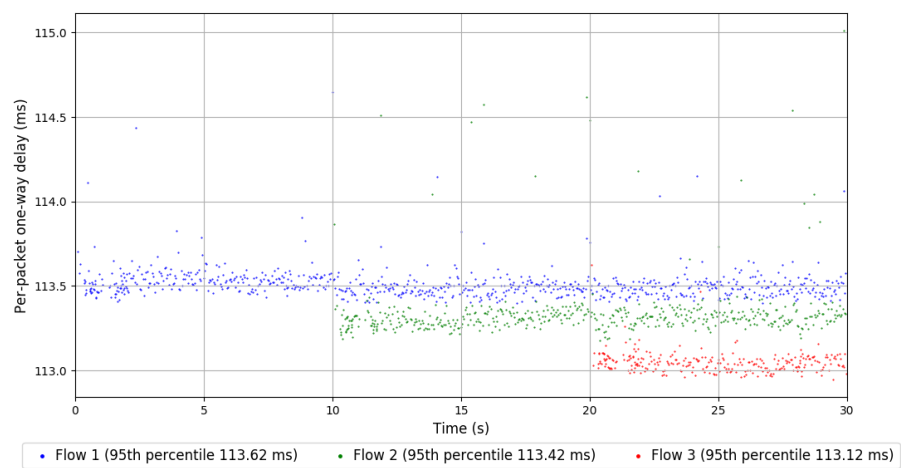
Run 4: Report of SCReAM — Data Link

191

```
Run 5: Statistics of SCReAM

Start at: 2017-08-31 15:34:56
End at: 2017-08-31 15:35:26


# Below is generated by plot.py at 2017-08-31 18:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 117.126 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.862 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 117.162 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.131 ms
Loss rate: 0.00%
```
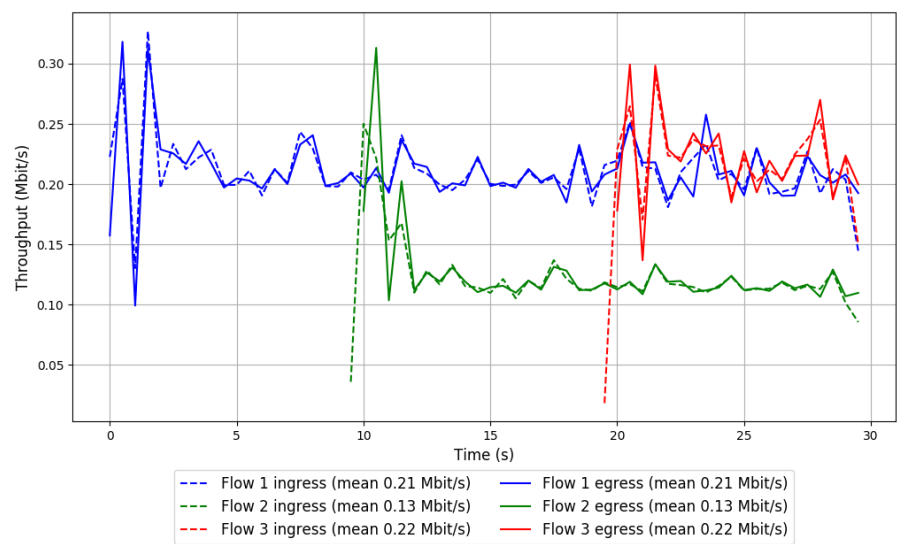
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2017-08-31 15:48:02
End at: 2017-08-31 15:48:32


# Below is generated by plot.py at 2017-08-31 18:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 116.925 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 116.949 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 116.193 ms
Loss rate: 0.00%
```
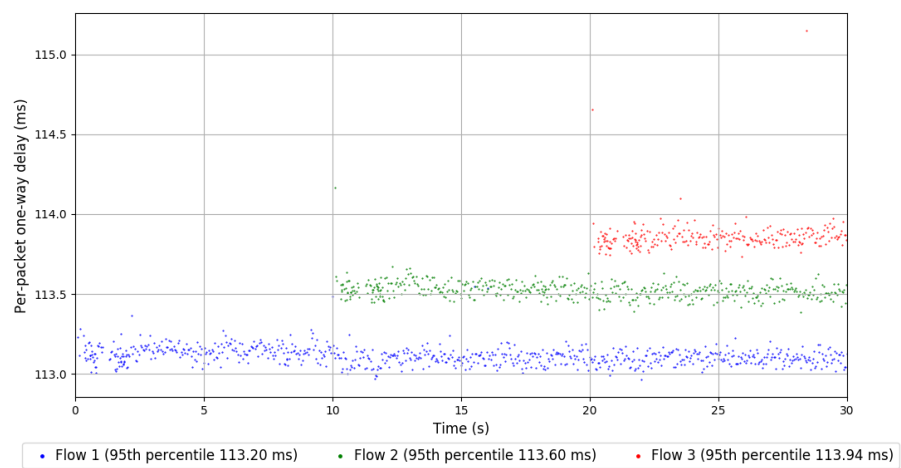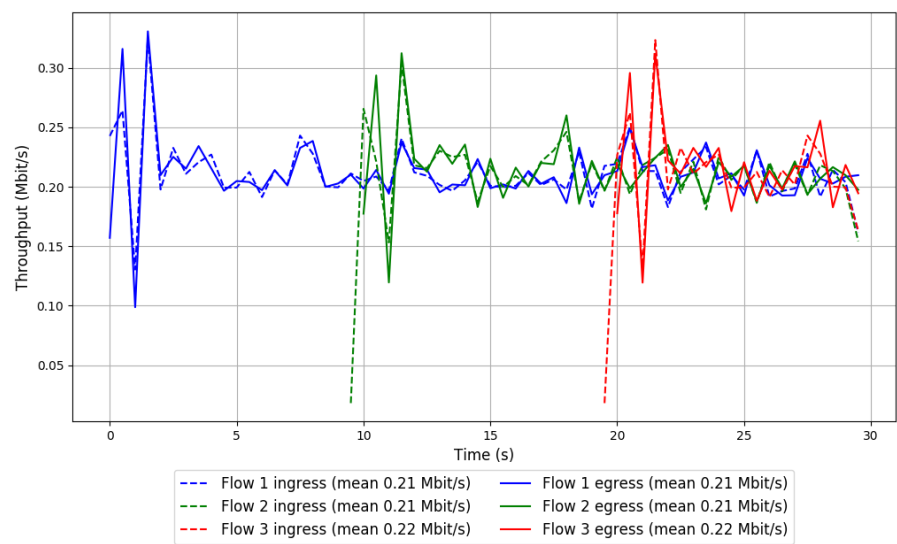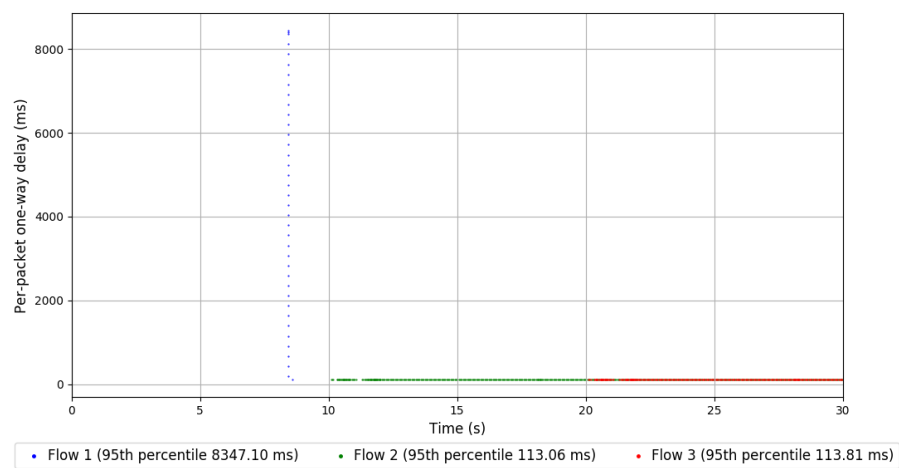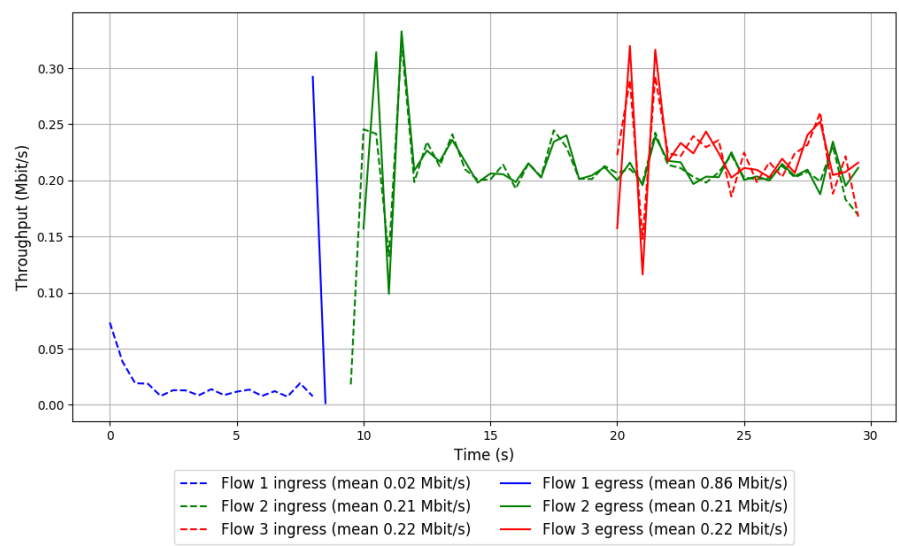
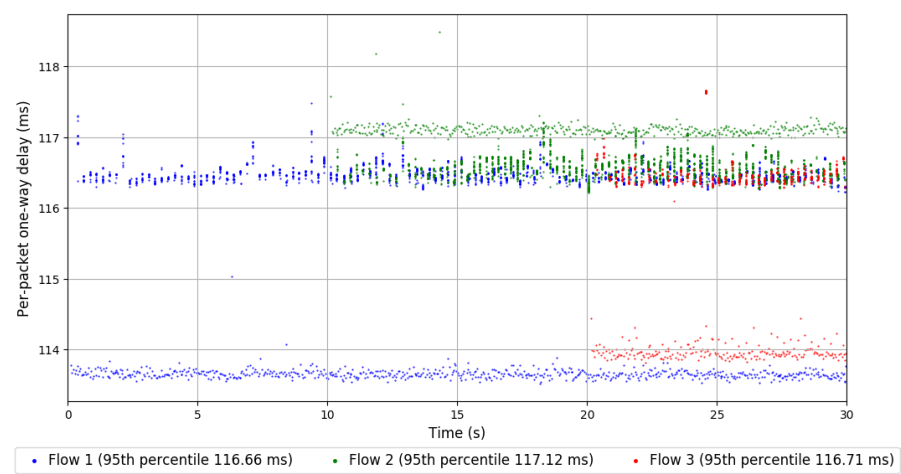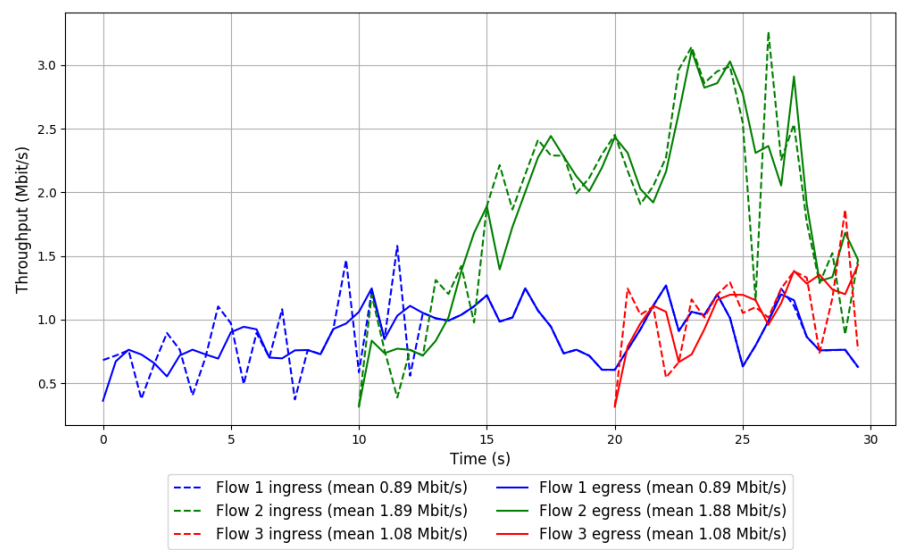# Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2017-08-31 16:01:17
End at: 2017-08-31 16:01:47


# Below is generated by plot.py at 2017-08-31 18:22:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 116.560 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.627 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 116.589 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.423 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link

197

```
Run 8: Statistics of SCReAM

Start at: 2017-08-31 16:14:42
End at: 2017-08-31 16:15:12


# Below is generated by plot.py at 2017-08-31 18:22:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 113.591 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.623 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 113.416 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.121 ms
Loss rate: 0.00%
```
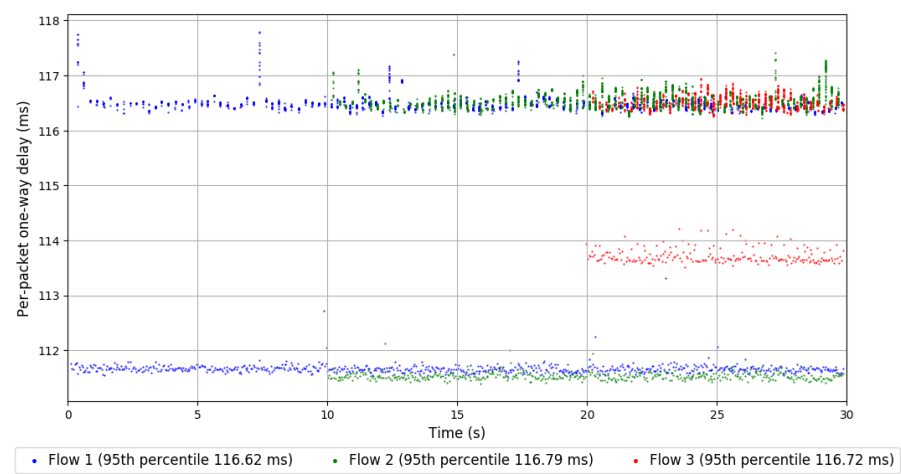
Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2017-08-31 16:28:02
End at: 2017-08-31 16:28:32


# Below is generated by plot.py at 2017-08-31 18:22:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.872 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.197 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.598 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.941 ms
Loss rate: 0.00%
```
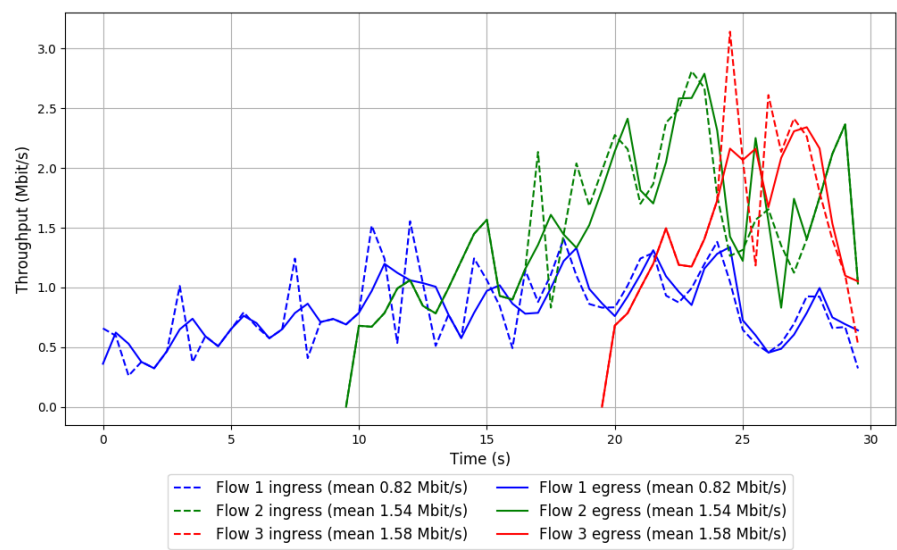
Run 9: Report of SCReAM — Data Link

201

Run 10: Statistics of SCReAM

Start at: 2017-08-31 16:41:17
End at: 2017-08-31 16:41:47

Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2017-08-31 14:33:54
End at: 2017-08-31 14:34:24


# Below is generated by plot.py at 2017-08-31 18:22:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 117.068 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 116.664 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 117.118 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 116.712 ms
Loss rate: 0.00%
```
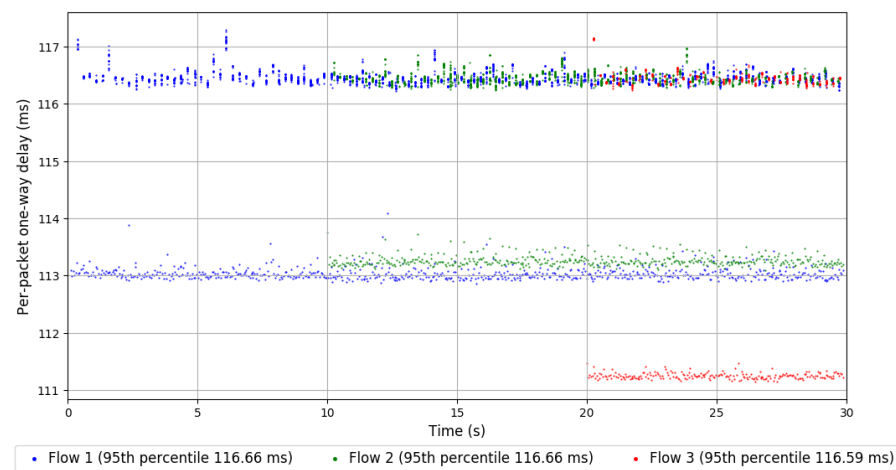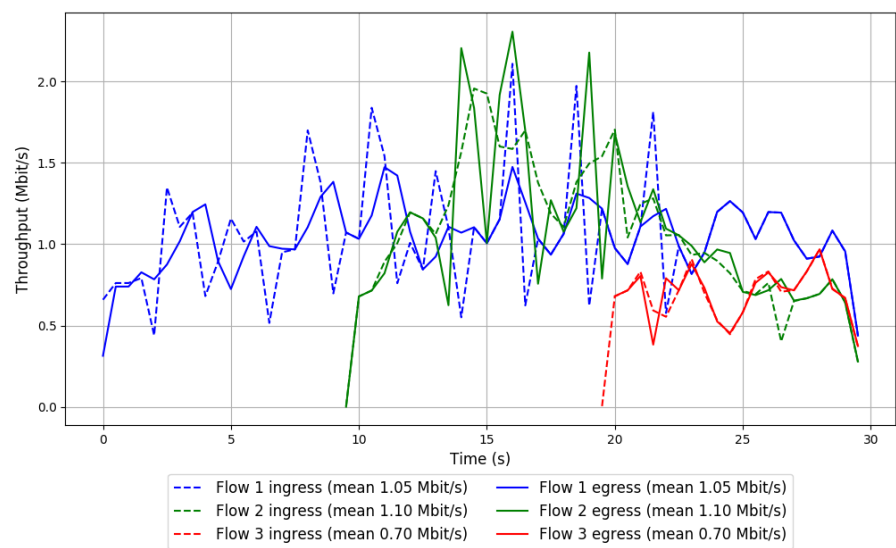
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2017-08-31 14:47:00
End at: 2017-08-31 14:47:30


# Below is generated by plot.py at 2017-08-31 18:22:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 116.750 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 116.617 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 116.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 116.718 ms
Loss rate: 0.00%
```
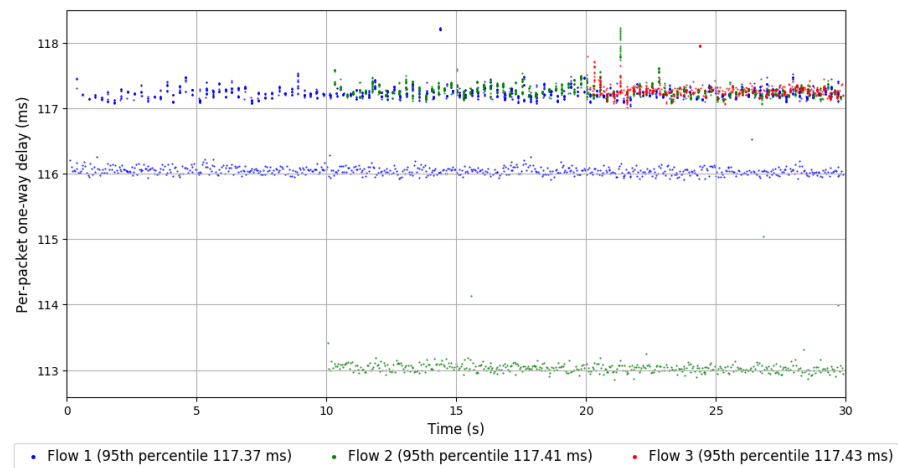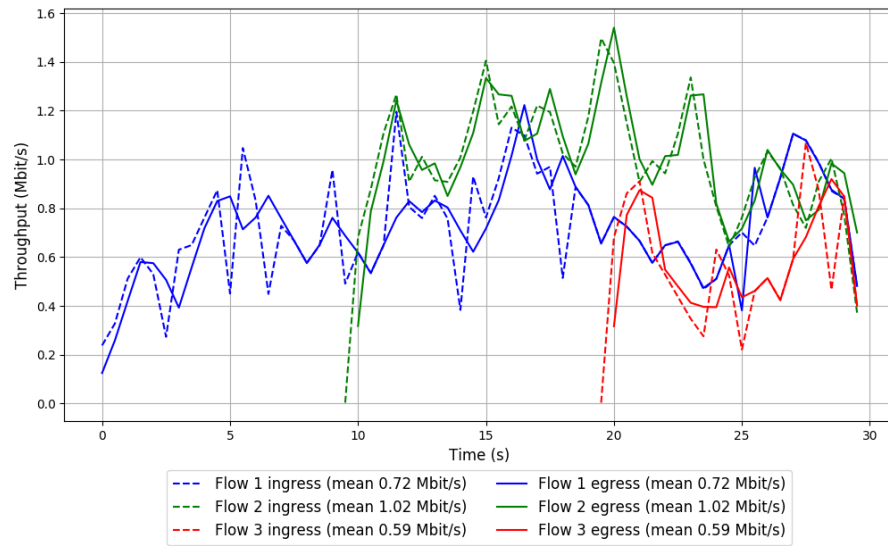
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2017-08-31 15:00:26
End at: 2017-08-31 15:00:56


# Below is generated by plot.py at 2017-08-31 18:22:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 116.645 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 116.658 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 116.658 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 116.593 ms
Loss rate: 0.00%
```
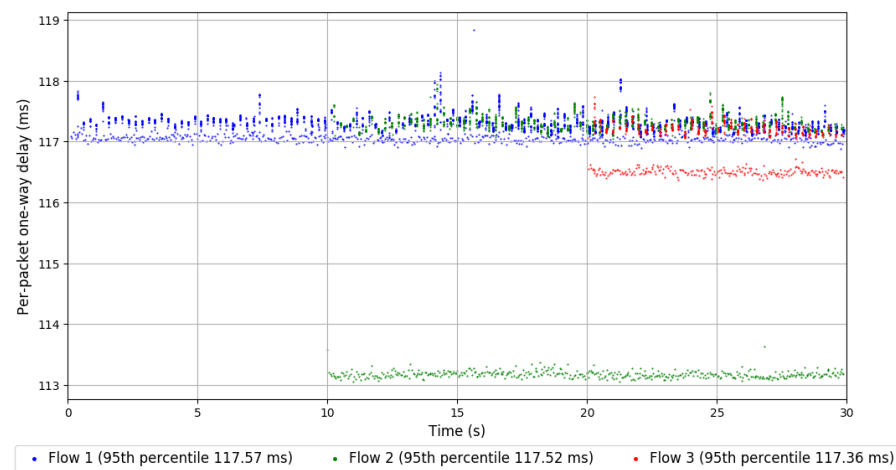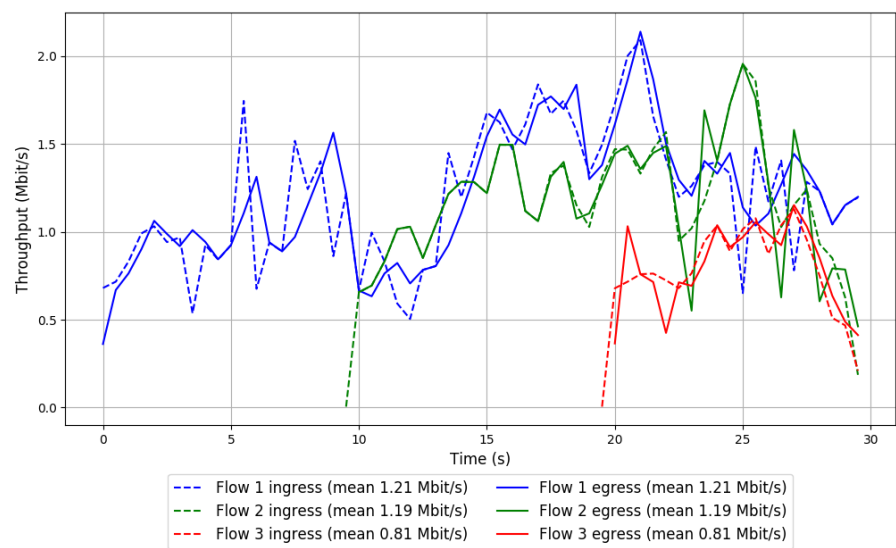
Run 3: Report of Sprout — Data Link

209

```
Run 4: Statistics of Sprout

Start at: 2017-08-31 15:13:47
End at: 2017-08-31 15:14:17

# Below is generated by plot.py at 2017-08-31 18:22:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 117.401 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 117.367 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 117.409 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 117.427 ms
Loss rate: 0.00%
```
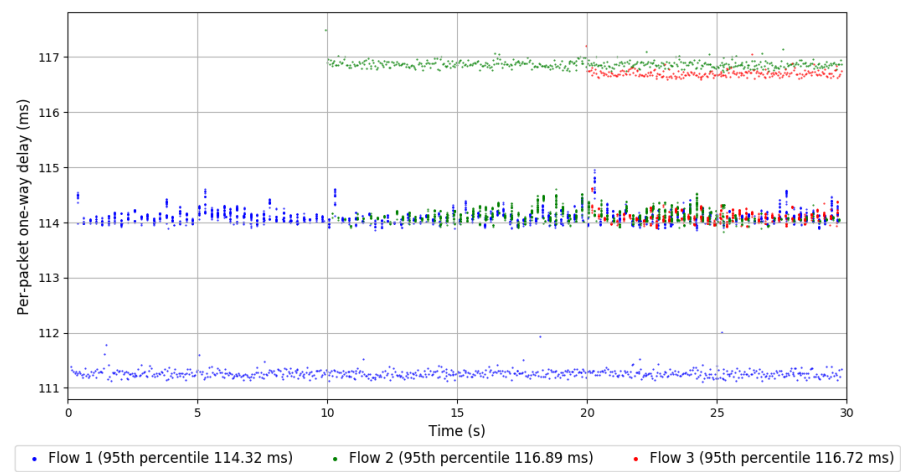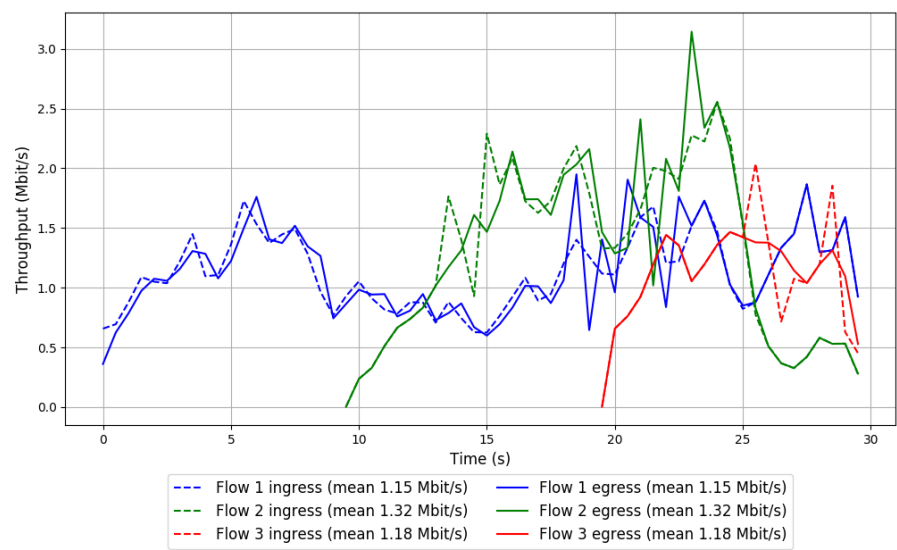
Run 4: Report of Sprout — Data Link

211

```
Run 5: Statistics of Sprout

Start at: 2017-08-31 15:26:56
End at: 2017-08-31 15:27:26


# Below is generated by plot.py at 2017-08-31 18:22:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 117.533 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 117.571 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 117.523 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 117.361 ms
Loss rate: 0.00%
```
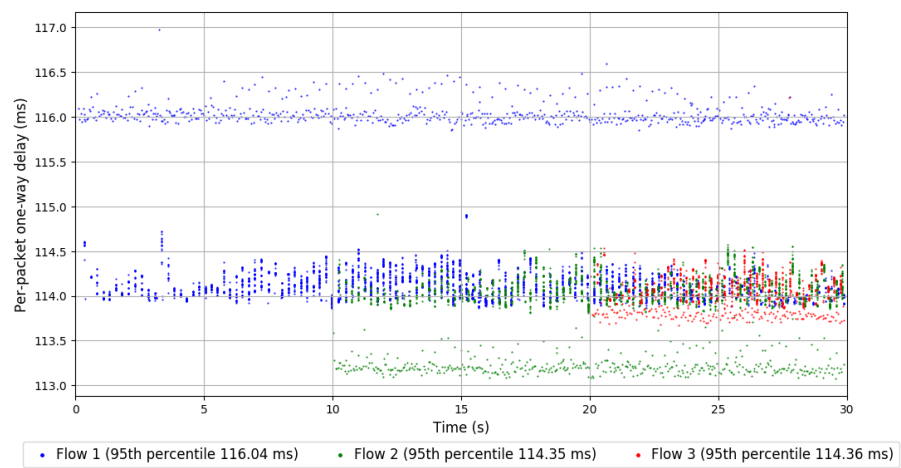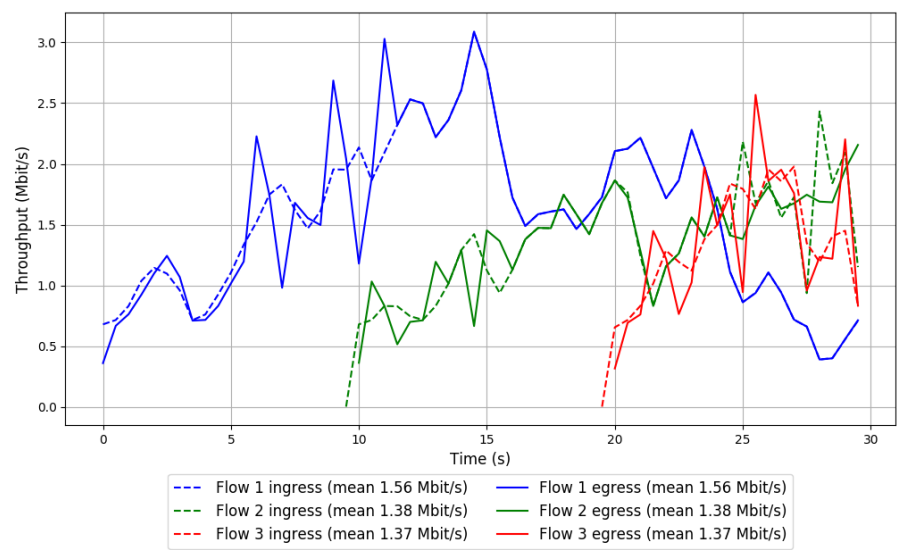
Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 1.21 Mbit/s)   Flow 1 egress (mean 1.21 Mbit/s)
Flow 2 ingress (mean 1.19 Mbit/s)   Flow 2 egress (mean 1.19 Mbit/s)
Flow 3 ingress (mean 0.81 Mbit/s)   Flow 3 egress (mean 0.81 Mbit/s)

Flow 1 (95th percentile 117.57 ms)   Flow 2 (95th percentile 117.52 ms)   Flow 3 (95th percentile 117.36 ms)

```
Run 6: Statistics of Sprout

Start at: 2017-08-31 15:39:55
End at: 2017-08-31 15:40:25


# Below is generated by plot.py at 2017-08-31 18:22:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 116.819 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 114.323 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 116.887 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 116.719 ms
Loss rate: 0.00%
```
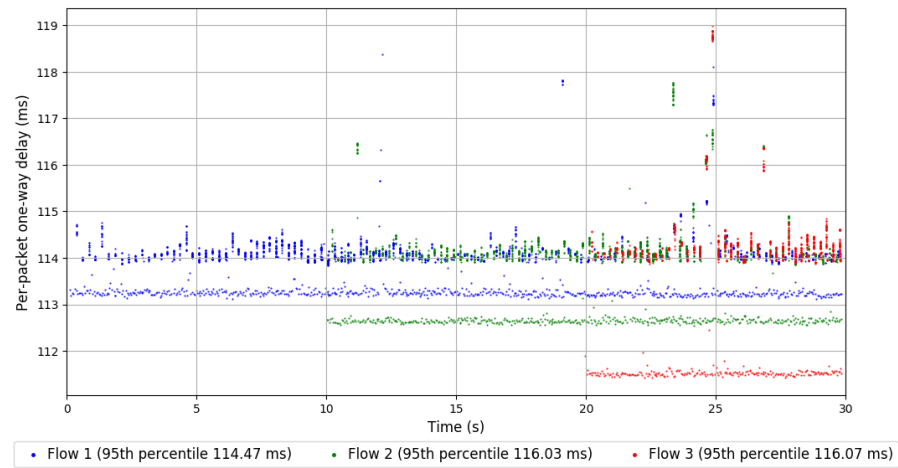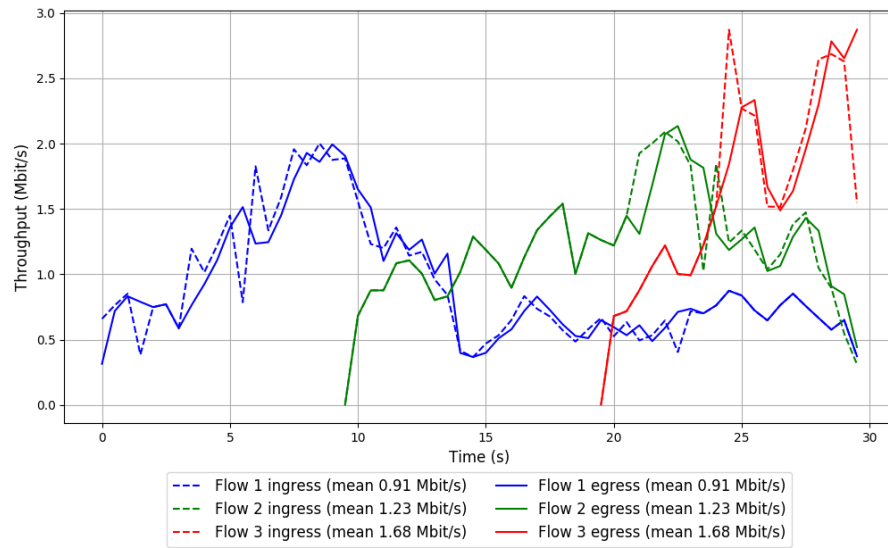
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2017-08-31 15:53:14
End at: 2017-08-31 15:53:44


# Below is generated by plot.py at 2017-08-31 18:22:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 115.986 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 116.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 114.352 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 114.361 ms
Loss rate: 0.00%
```
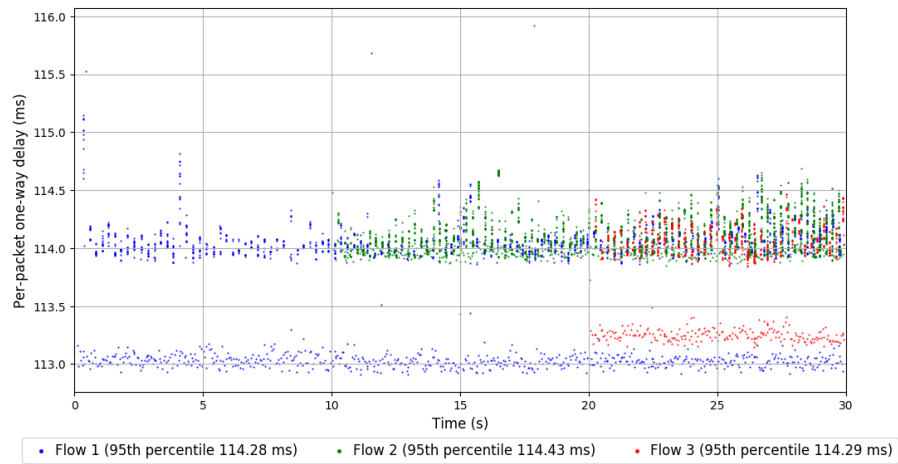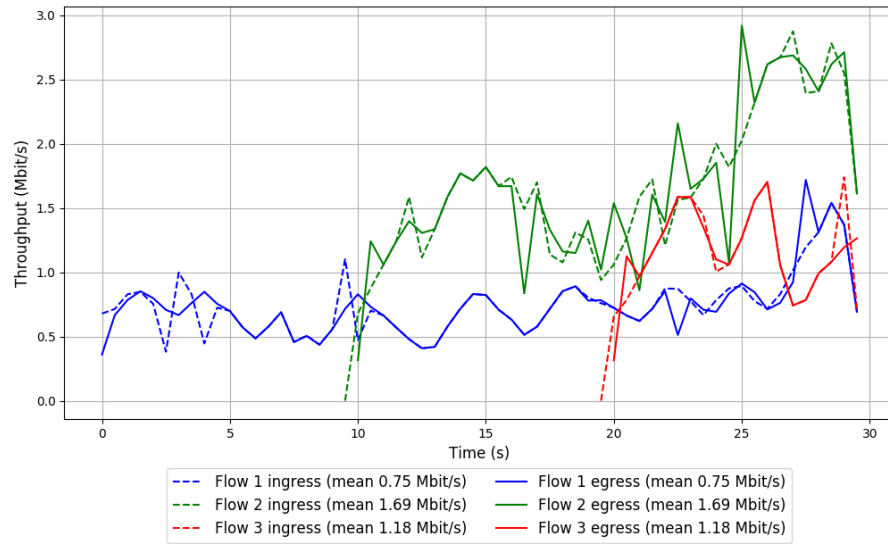
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2017-08-31 16:06:23
End at: 2017-08-31 16:06:53


# Below is generated by plot.py at 2017-08-31 18:22:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 114.737 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 114.471 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 116.033 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 116.072 ms
Loss rate: 0.00%
```
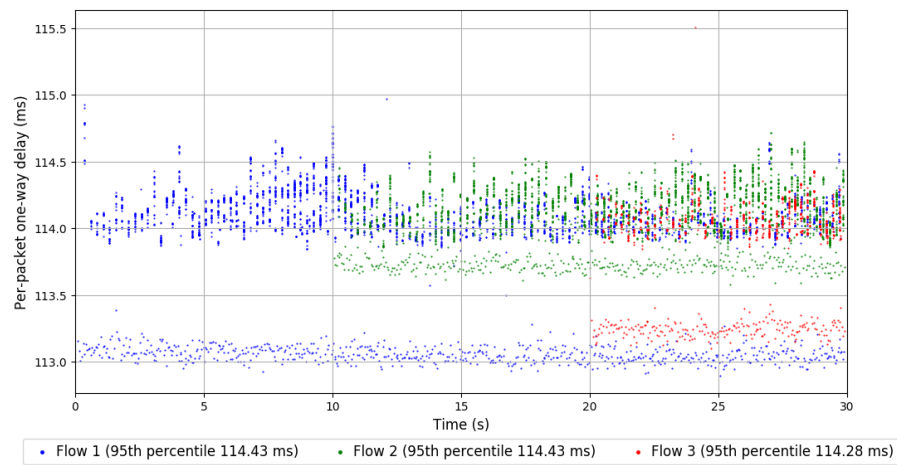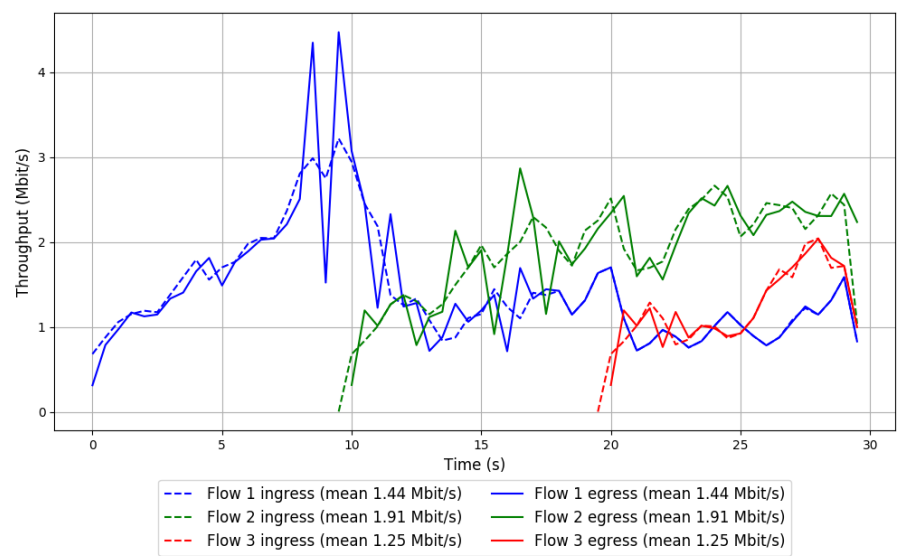
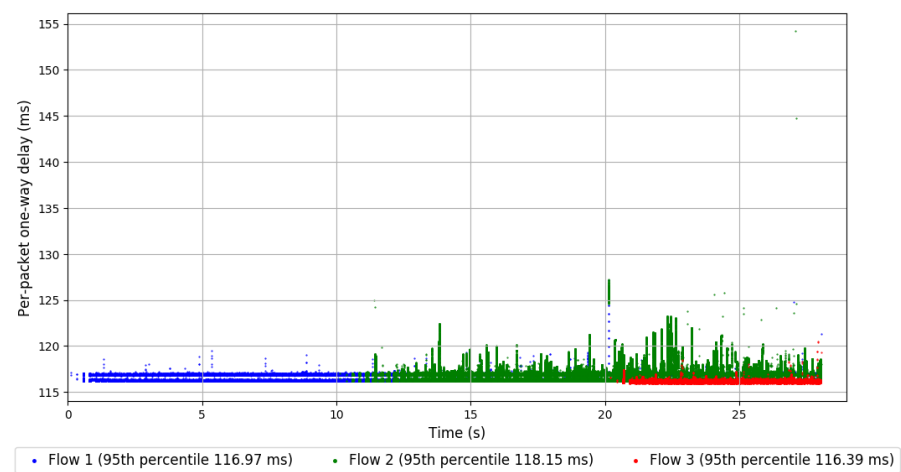## Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2017-08-31 16:19:42
End at: 2017-08-31 16:20:12


# Below is generated by plot.py at 2017-08-31 18:22:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 114.373 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 114.280 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 114.429 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 114.292 ms
Loss rate: 0.00%
```
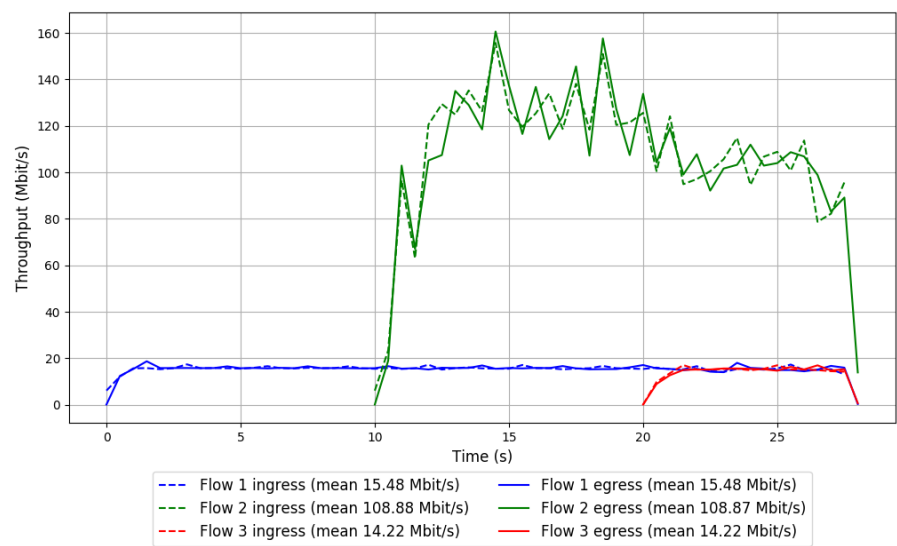
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2017-08-31 16:32:58
End at: 2017-08-31 16:33:28


# Below is generated by plot.py at 2017-08-31 18:22:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 114.417 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 114.428 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 114.431 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 114.279 ms
Loss rate: 0.00%
```
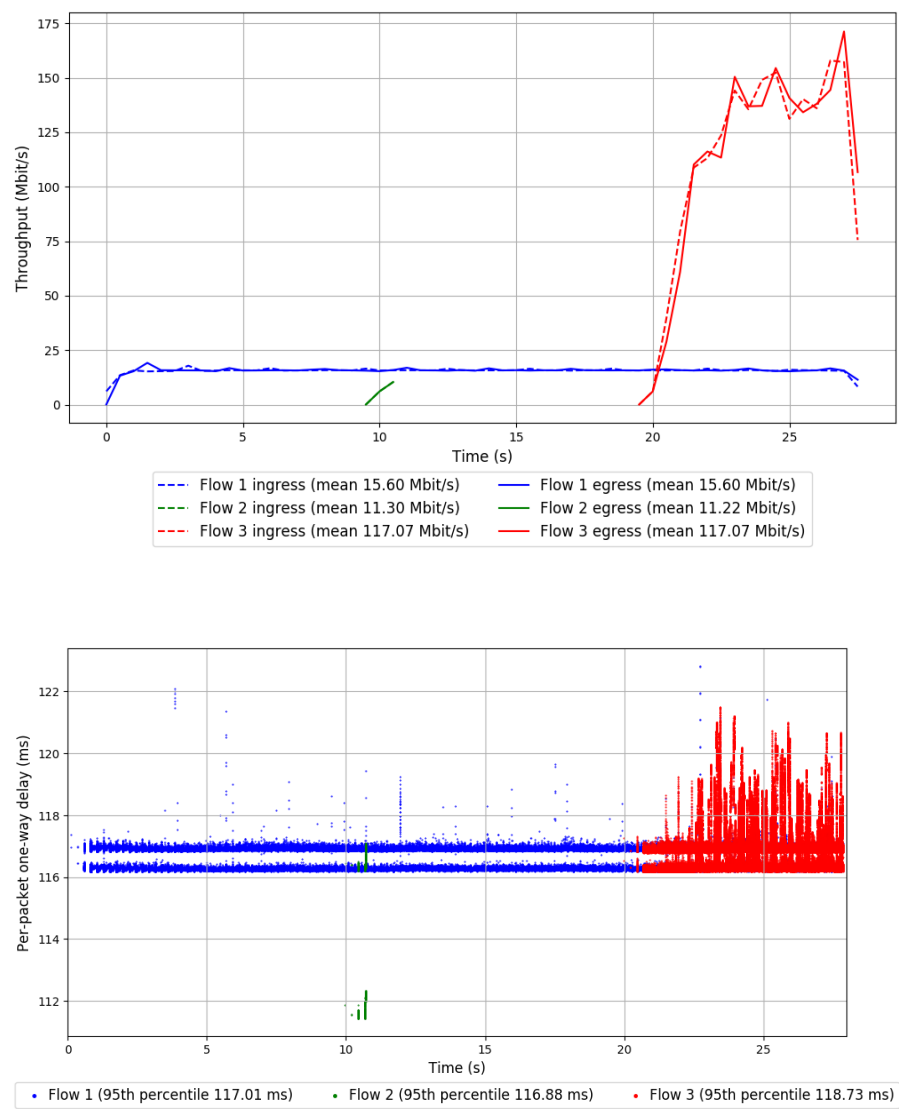
Run 10: Report of Sprout — Data Link

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

Start at: 2017-08-31 14:32:11
End at: 2017-08-31 14:32:41

# Below is generated by plot.py at 2017-08-31 18:22:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.30 Mbit/s
95th percentile per-packet one-way delay: 117.849 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.48 Mbit/s
95th percentile per-packet one-way delay: 116.966 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 108.87 Mbit/s
95th percentile per-packet one-way delay: 118.146 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.22 Mbit/s
95th percentile per-packet one-way delay: 116.389 ms
Loss rate: 0.00%
```
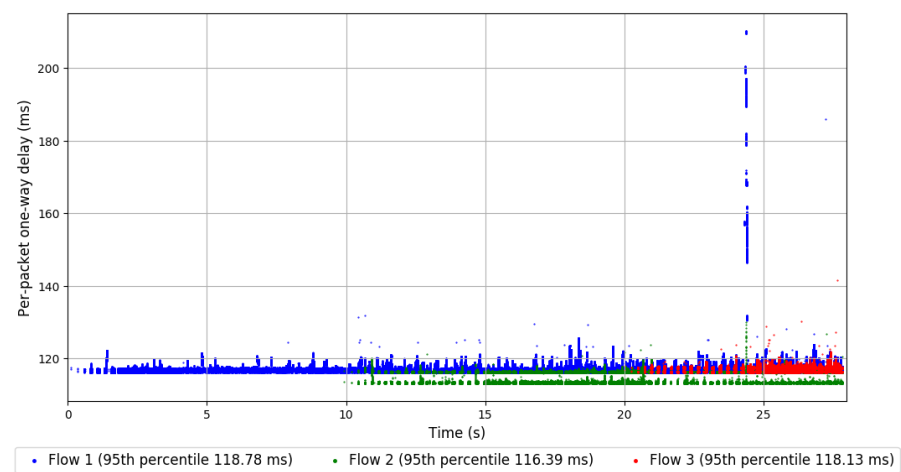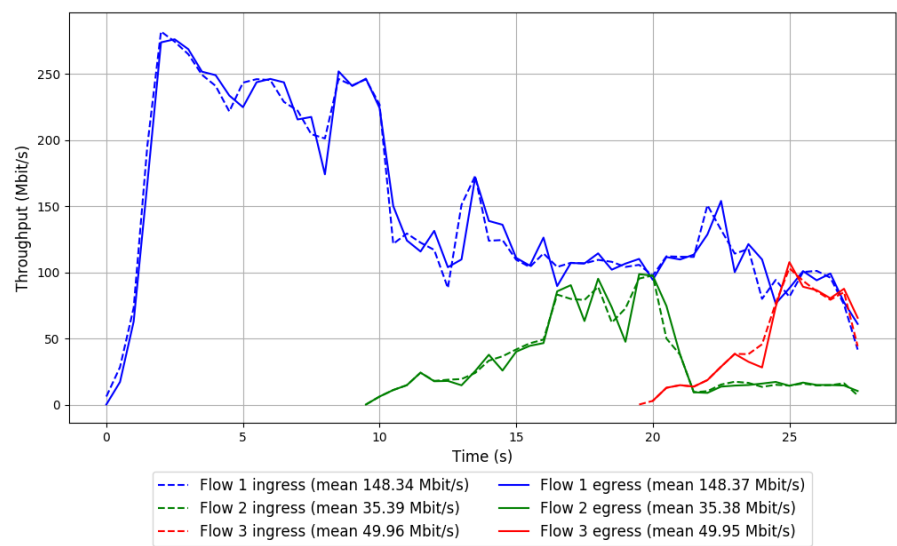
Run 1: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 15.48 Mbit/s) ——— Flow 1 egress (mean 15.48 Mbit/s)
- - - - Flow 2 ingress (mean 108.88 Mbit/s) ——— Flow 2 egress (mean 108.87 Mbit/s)
- - - - Flow 3 ingress (mean 14.22 Mbit/s) ——— Flow 3 egress (mean 14.22 Mbit/s)

- Flow 1 (95th percentile 116.97 ms)   • Flow 2 (95th percentile 118.15 ms)   • Flow 3 (95th percentile 116.39 ms)

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

Start at: 2017-08-31 14:45:22
End at: 2017-08-31 14:45:52

# Below is generated by plot.py at 2017-08-31 18:22:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 118.412 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.60 Mbit/s
95th percentile per-packet one-way delay: 117.013 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 116.878 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 117.07 Mbit/s
95th percentile per-packet one-way delay: 118.729 ms
Loss rate: 0.00%
```
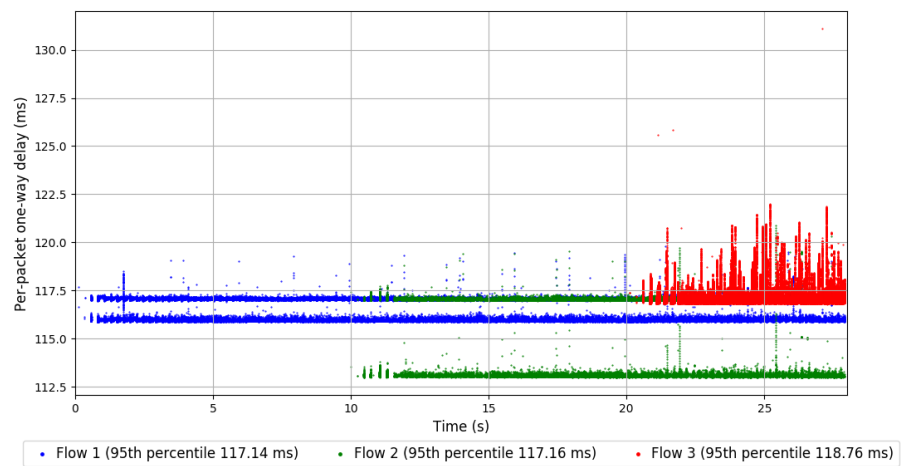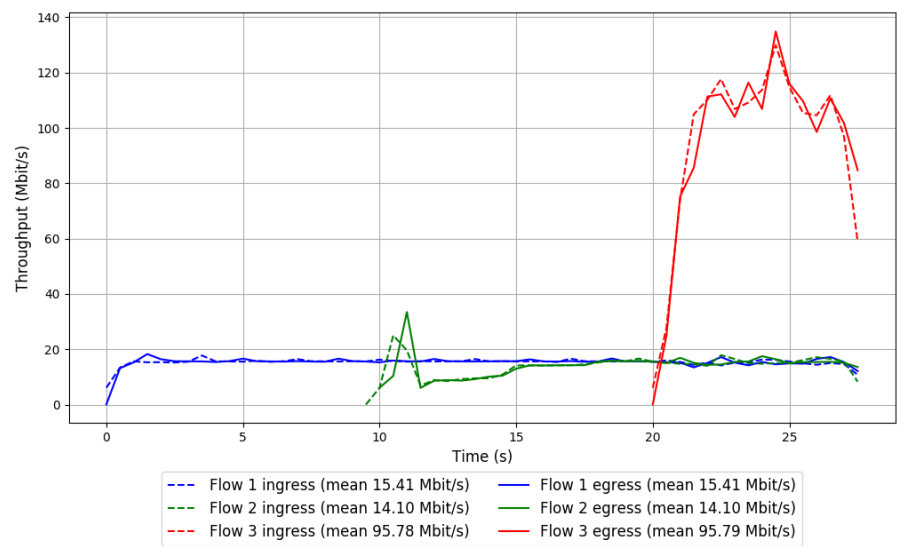
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 15.60 Mbit/s) --- Flow 1 egress (mean 15.60 Mbit/s)
Flow 2 ingress (mean 11.30 Mbit/s) --- Flow 2 egress (mean 11.22 Mbit/s)
Flow 3 ingress (mean 117.07 Mbit/s) --- Flow 3 egress (mean 117.07 Mbit/s)

Flow 1 (95th percentile 117.01 ms) • Flow 2 (95th percentile 116.88 ms) • Flow 3 (95th percentile 118.73 ms)

227

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

Start at: 2017-08-31 14:58:33
End at: 2017-08-31 14:59:03

# Below is generated by plot.py at 2017-08-31 18:23:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 185.25 Mbit/s
95th percentile per-packet one-way delay: 118.516 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 148.37 Mbit/s
95th percentile per-packet one-way delay: 118.783 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 35.38 Mbit/s
95th percentile per-packet one-way delay: 116.390 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.95 Mbit/s
95th percentile per-packet one-way delay: 118.126 ms
Loss rate: 0.00%
```
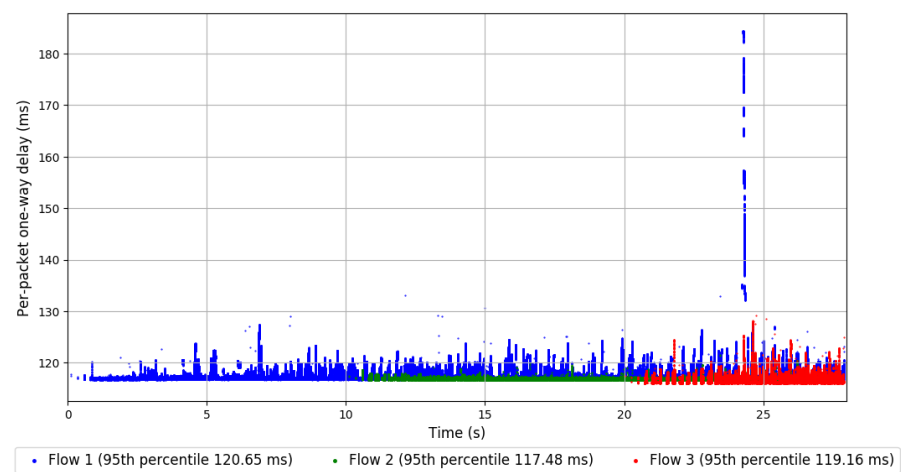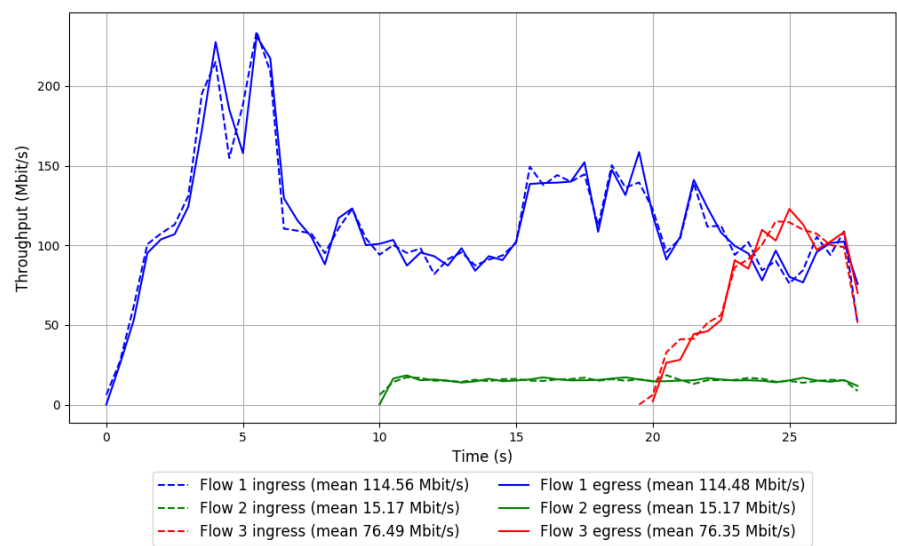
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2017-08-31 15:12:08
End at: 2017-08-31 15:12:38

# Below is generated by plot.py at 2017-08-31 18:23:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.33 Mbit/s
95th percentile per-packet one-way delay: 118.103 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 117.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.10 Mbit/s
95th percentile per-packet one-way delay: 117.164 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 118.764 ms
Loss rate: 0.00%
```
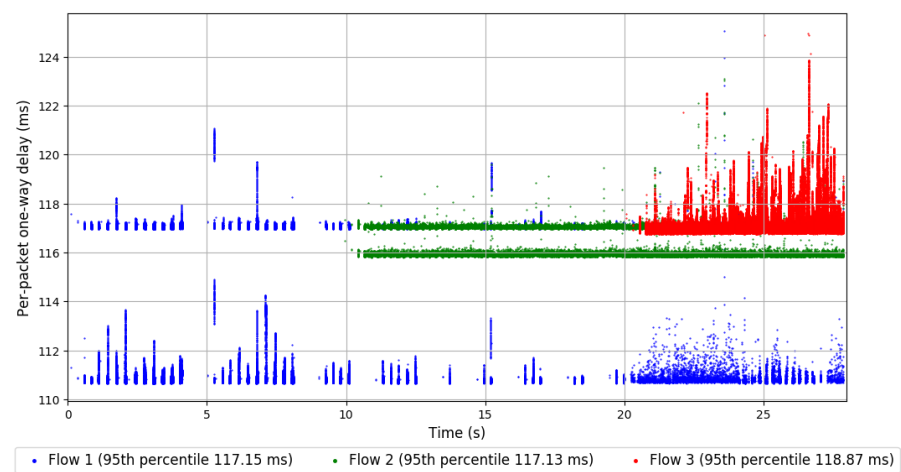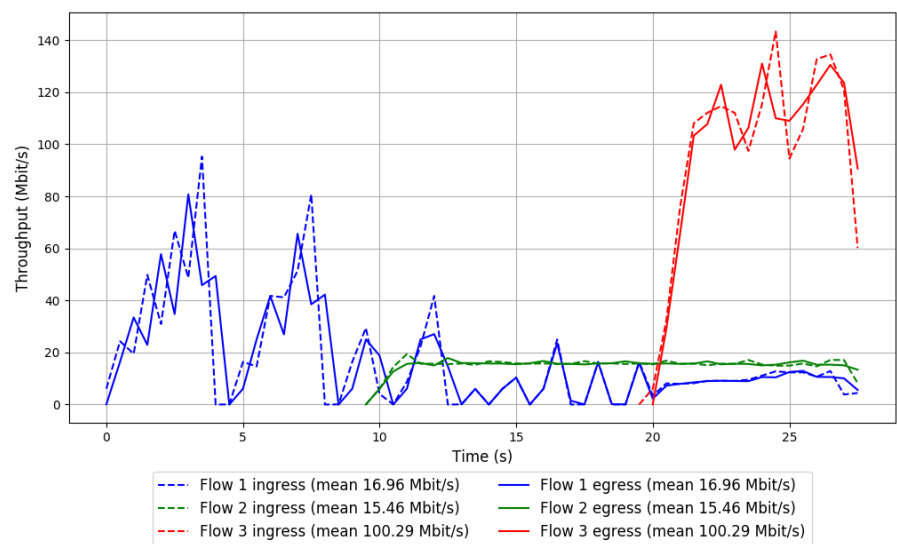
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 15.41 Mbit/s) --- Flow 1 egress (mean 15.41 Mbit/s)
Flow 2 ingress (mean 14.10 Mbit/s) --- Flow 2 egress (mean 14.10 Mbit/s)
Flow 3 ingress (mean 95.78 Mbit/s) --- Flow 3 egress (mean 95.79 Mbit/s)

Flow 1 (95th percentile 117.14 ms)   Flow 2 (95th percentile 117.16 ms)   Flow 3 (95th percentile 118.76 ms)
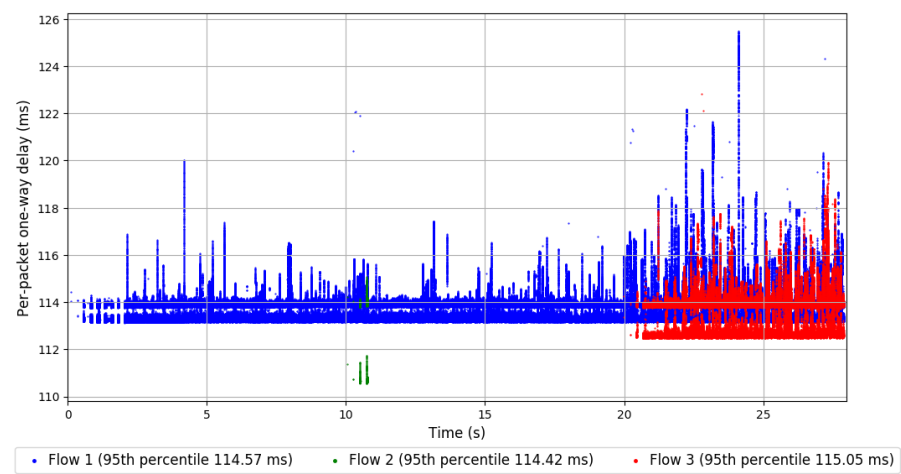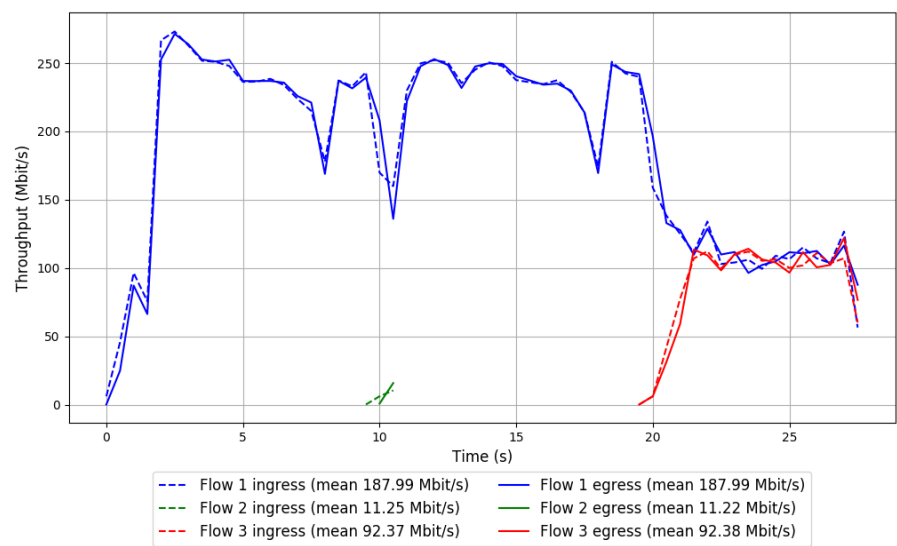
231

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

Start at: 2017-08-31 15:25:07
End at: 2017-08-31 15:25:37

# Below is generated by plot.py at 2017-08-31 18:23:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 145.79 Mbit/s
95th percentile per-packet one-way delay: 120.303 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 114.48 Mbit/s
95th percentile per-packet one-way delay: 120.653 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 15.17 Mbit/s
95th percentile per-packet one-way delay: 117.477 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.35 Mbit/s
95th percentile per-packet one-way delay: 119.163 ms
Loss rate: 0.11%
```

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

Flow 1 ingress (mean 114.56 Mbit/s) --- Flow 1 egress (mean 114.48 Mbit/s)
Flow 2 ingress (mean 15.17 Mbit/s) --- Flow 2 egress (mean 15.17 Mbit/s)
Flow 3 ingress (mean 76.49 Mbit/s) --- Flow 3 egress (mean 76.35 Mbit/s)

Flow 1 (95th percentile 120.65 ms)   Flow 2 (95th percentile 117.48 ms)   Flow 3 (95th percentile 119.16 ms)

233

```
Run 6: Statistics of TaoVA-100x

Start at: 2017-08-31 15:38:17
End at: 2017-08-31 15:38:47


# Below is generated by plot.py at 2017-08-31 18:23:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.13 Mbit/s
95th percentile per-packet one-way delay: 118.170 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 16.96 Mbit/s
95th percentile per-packet one-way delay: 117.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.46 Mbit/s
95th percentile per-packet one-way delay: 117.129 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 100.29 Mbit/s
95th percentile per-packet one-way delay: 118.867 ms
Loss rate: 0.00%
```
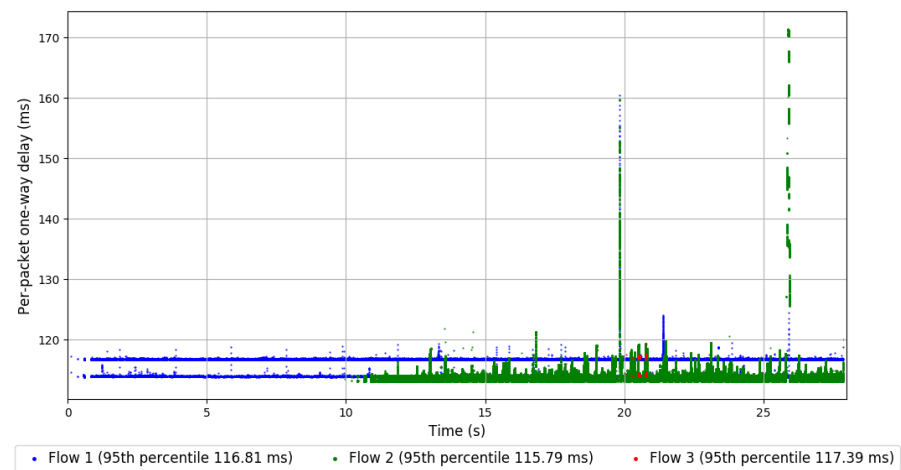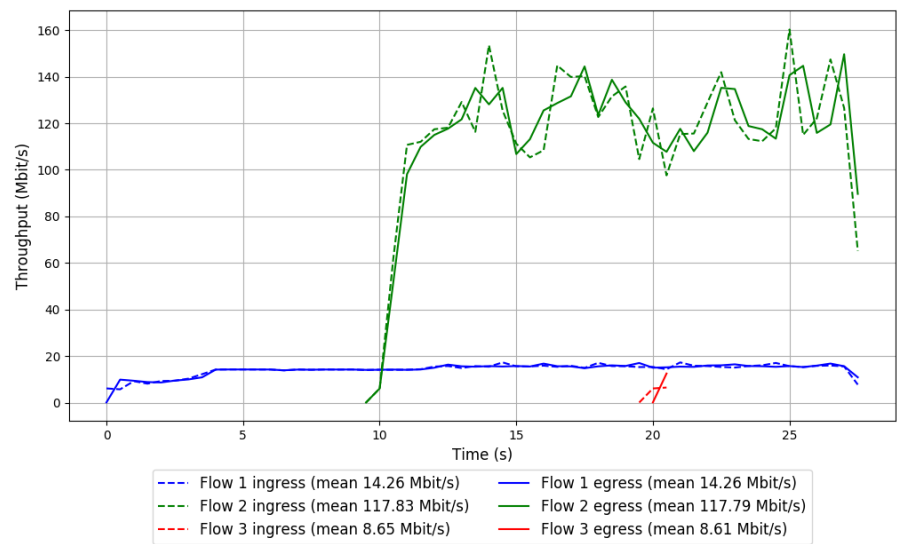
Run 6: Report of TaoVA-100x — Data Link

```
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-31 15:51:19
End at: 2017-08-31 15:51:49


# Below is generated by plot.py at 2017-08-31 18:25:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 214.55 Mbit/s
95th percentile per-packet one-way delay: 114.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 187.99 Mbit/s
95th percentile per-packet one-way delay: 114.571 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 114.419 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.38 Mbit/s
95th percentile per-packet one-way delay: 115.047 ms
Loss rate: 0.00%
```
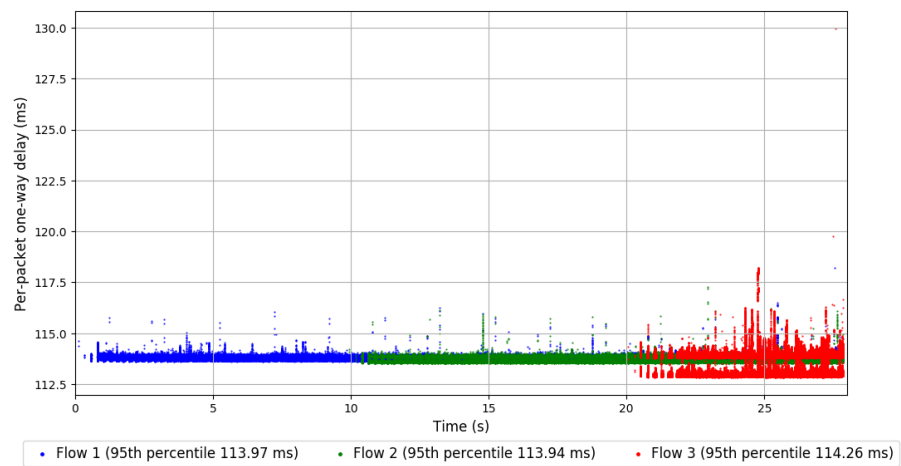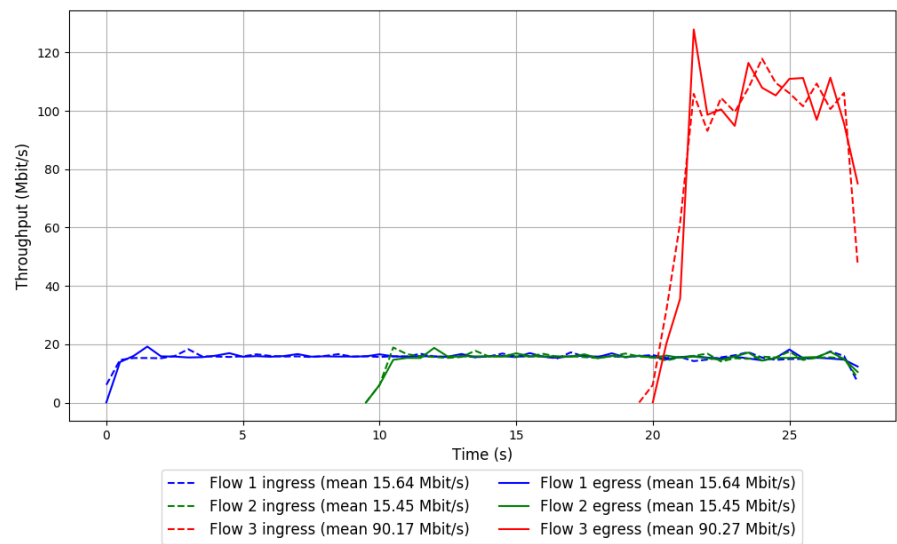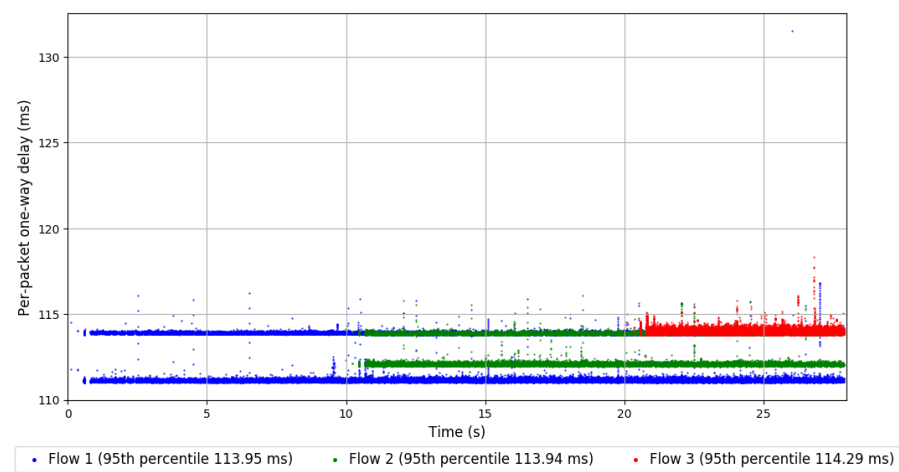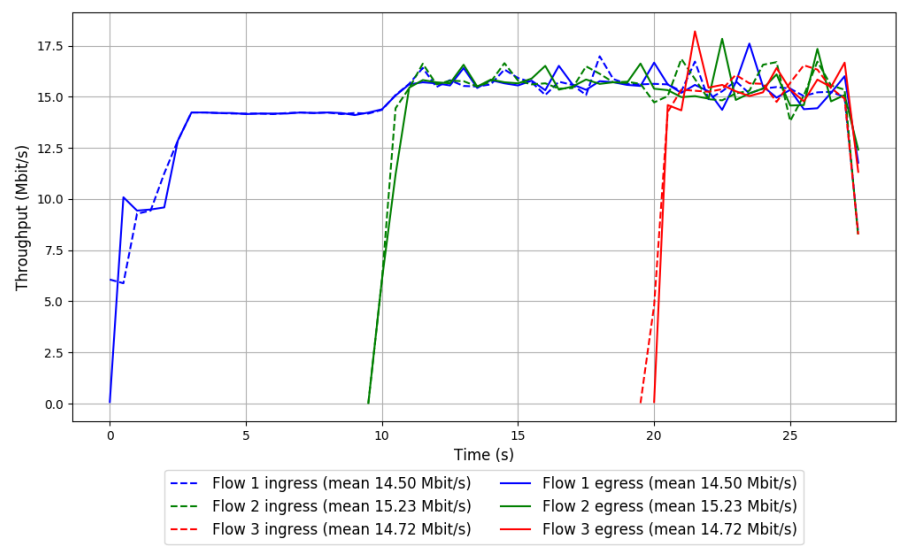
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 187.99 Mbit/s) --- Flow 1 egress (mean 187.99 Mbit/s)
Flow 2 ingress (mean 11.25 Mbit/s) --- Flow 2 egress (mean 11.22 Mbit/s)
Flow 3 ingress (mean 92.37 Mbit/s) --- Flow 3 egress (mean 92.38 Mbit/s)

Flow 1 (95th percentile 114.57 ms)   Flow 2 (95th percentile 114.42 ms)   Flow 3 (95th percentile 115.05 ms)

237

```
Run 8: Statistics of TaoVA-100x

Start at: 2017-08-31 16:04:40
End at: 2017-08-31 16:05:10


# Below is generated by plot.py at 2017-08-31 18:25:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 116.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.26 Mbit/s
95th percentile per-packet one-way delay: 116.806 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 117.79 Mbit/s
95th percentile per-packet one-way delay: 115.790 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.61 Mbit/s
95th percentile per-packet one-way delay: 117.389 ms
Loss rate: 0.00%
```
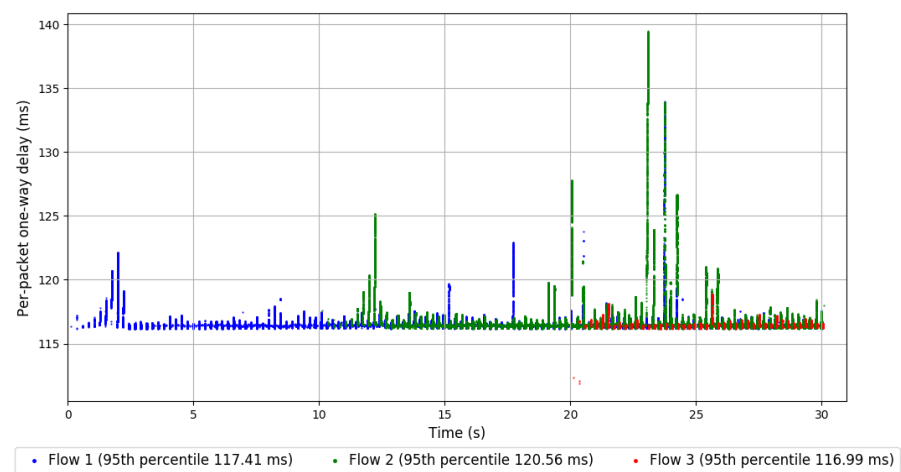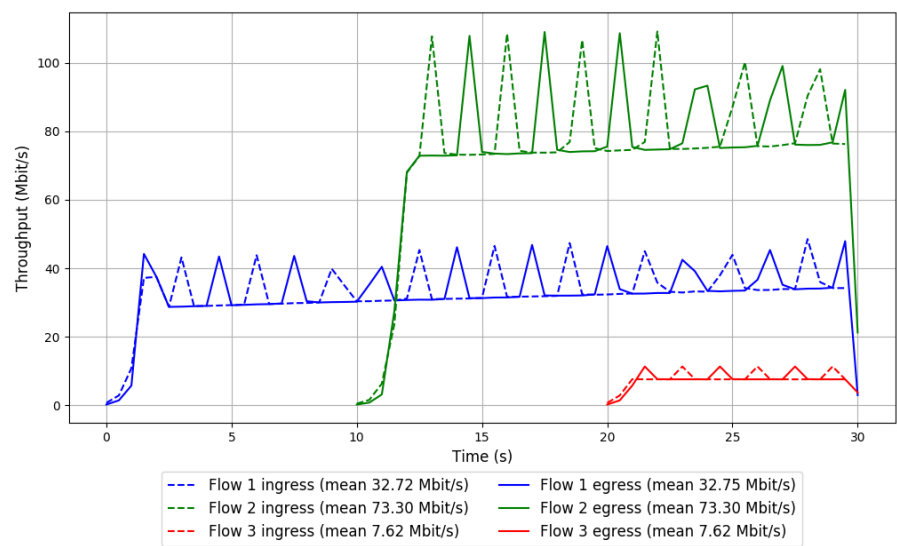
Run 8: Report of TaoVA-100x — Data Link

- --- Flow 1 ingress (mean 14.26 Mbit/s)   —— Flow 1 egress (mean 14.26 Mbit/s)
- --- Flow 2 ingress (mean 117.83 Mbit/s)   —— Flow 2 egress (mean 117.79 Mbit/s)
- --- Flow 3 ingress (mean 8.65 Mbit/s)   —— Flow 3 egress (mean 8.61 Mbit/s)

- Flow 1 (95th percentile 116.81 ms)   • Flow 2 (95th percentile 115.79 ms)   • Flow 3 (95th percentile 117.39 ms)

239

```
Run 9: Statistics of TaoVA-100x

Start at: 2017-08-31 16:18:03
End at: 2017-08-31 16:18:33

# Below is generated by plot.py at 2017-08-31 18:25:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.02 Mbit/s
95th percentile per-packet one-way delay: 114.095 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.64 Mbit/s
95th percentile per-packet one-way delay: 113.966 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.45 Mbit/s
95th percentile per-packet one-way delay: 113.945 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 90.27 Mbit/s
95th percentile per-packet one-way delay: 114.260 ms
Loss rate: 0.00%
```
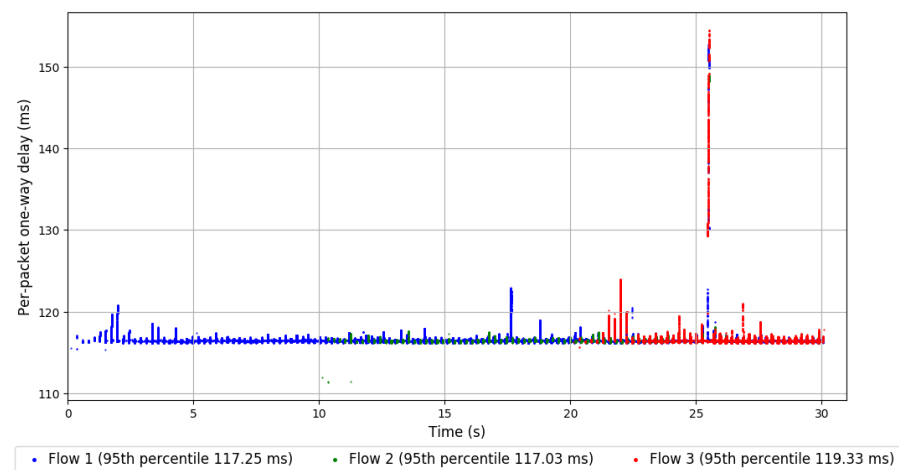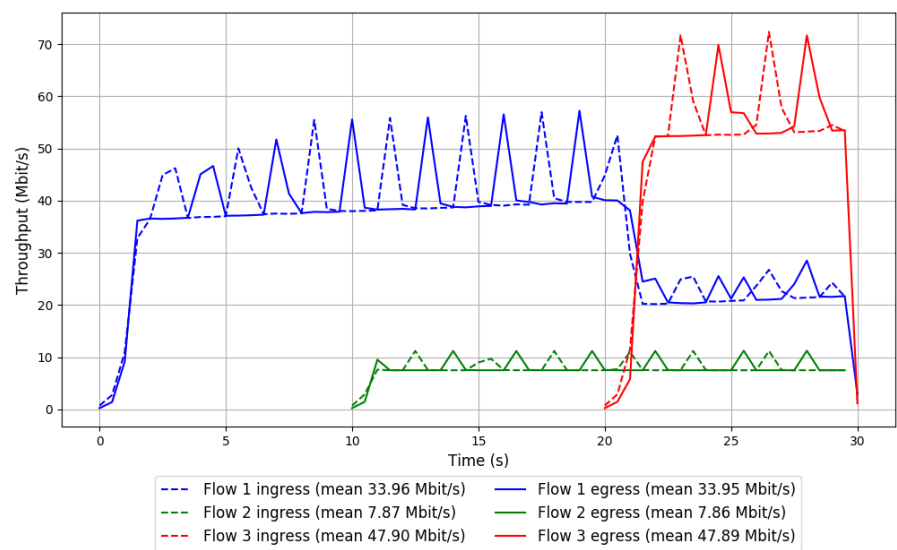
Run 9: Report of TaoVA-100x — Data Link

```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-31 16:31:21
End at: 2017-08-31 16:31:51

# Below is generated by plot.py at 2017-08-31 18:25:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.45 Mbit/s
95th percentile per-packet one-way delay: 114.113 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.50 Mbit/s
95th percentile per-packet one-way delay: 113.953 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.23 Mbit/s
95th percentile per-packet one-way delay: 113.944 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.72 Mbit/s
95th percentile per-packet one-way delay: 114.292 ms
Loss rate: 0.00%
```
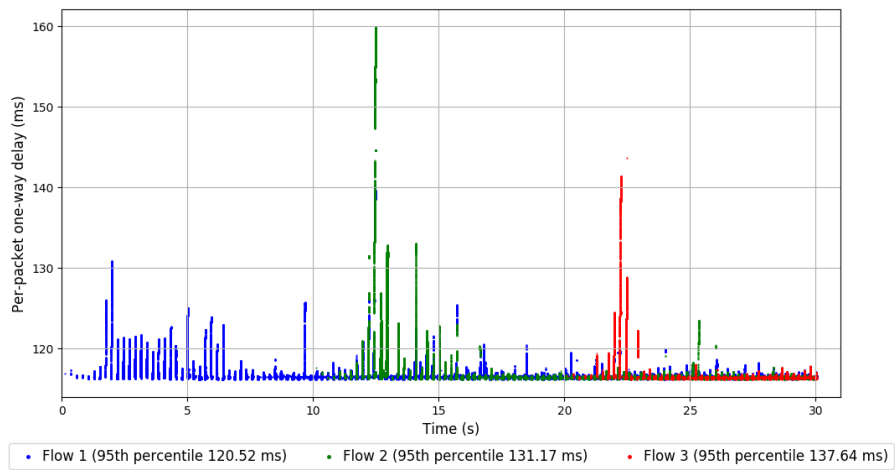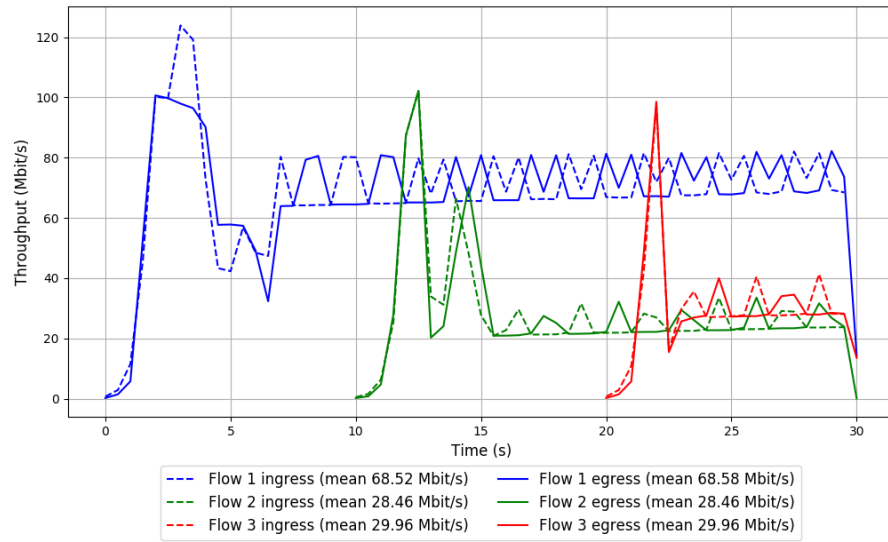
Run 10: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 14.50 Mbit/s)   —— Flow 1 egress (mean 14.50 Mbit/s)
- - - - Flow 2 ingress (mean 15.23 Mbit/s)   —— Flow 2 egress (mean 15.23 Mbit/s)
- - - - Flow 3 ingress (mean 14.72 Mbit/s)   —— Flow 3 egress (mean 14.72 Mbit/s)

- Flow 1 (95th percentile 113.95 ms)   • Flow 2 (95th percentile 113.94 ms)   • Flow 3 (95th percentile 114.29 ms)

243

```
Run 1: Statistics of TCP Vegas

Start at: 2017-08-31 14:36:30
End at: 2017-08-31 14:37:00

# Below is generated by plot.py at 2017-08-31 18:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.06 Mbit/s
95th percentile per-packet one-way delay: 119.170 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.75 Mbit/s
95th percentile per-packet one-way delay: 117.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.30 Mbit/s
95th percentile per-packet one-way delay: 120.562 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.62 Mbit/s
95th percentile per-packet one-way delay: 116.986 ms
Loss rate: 0.00%
```
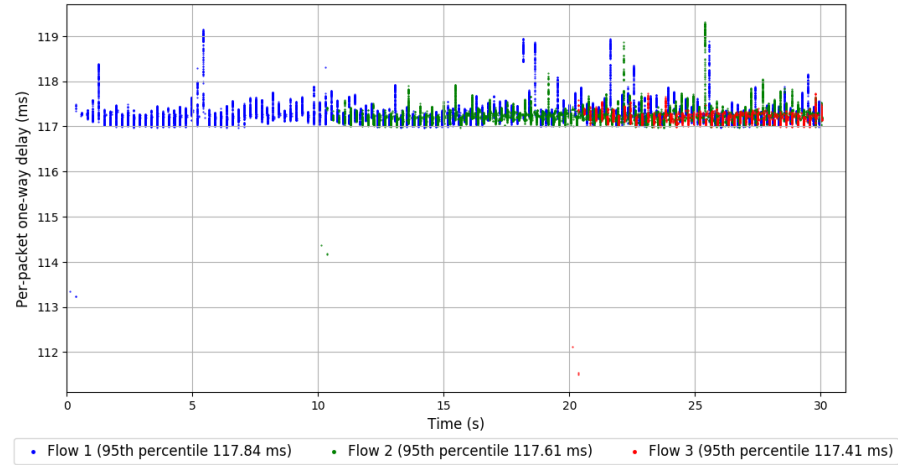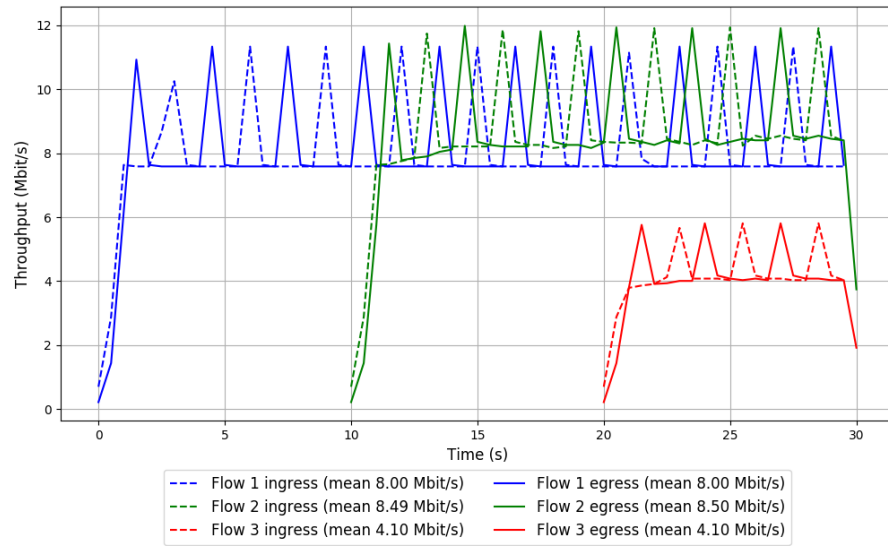
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2017-08-31 14:49:36
End at: 2017-08-31 14:50:06

# Below is generated by plot.py at 2017-08-31 18:25:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.03 Mbit/s
95th percentile per-packet one-way delay: 117.491 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 117.252 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 117.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.89 Mbit/s
95th percentile per-packet one-way delay: 119.333 ms
Loss rate: 0.00%
```
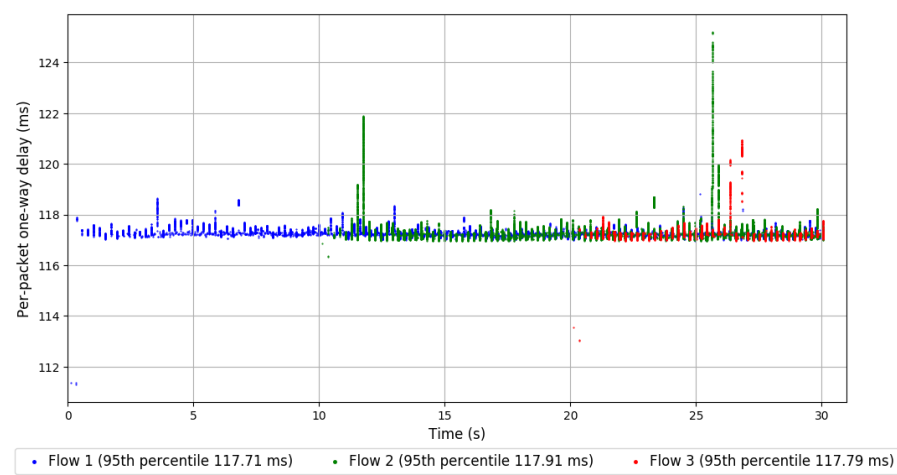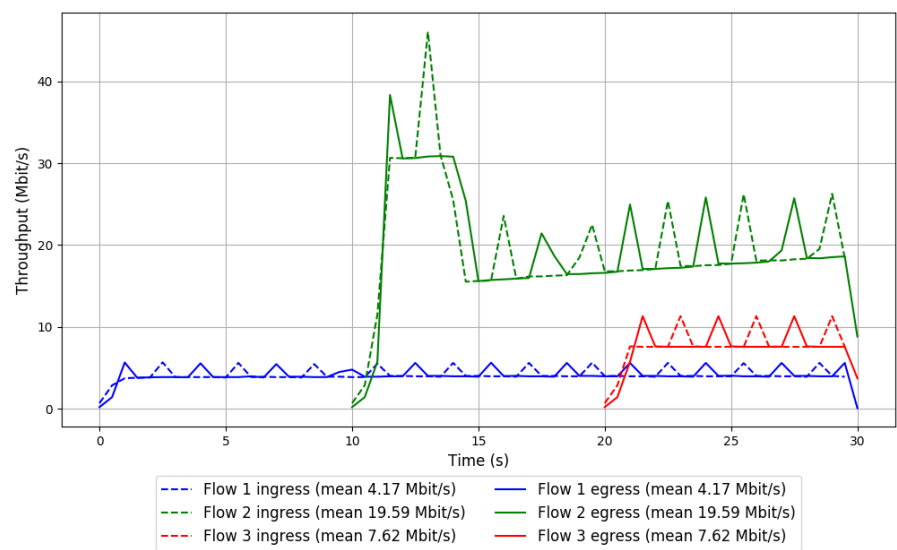
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2017-08-31 15:03:00
End at: 2017-08-31 15:03:30


# Below is generated by plot.py at 2017-08-31 18:25:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 122.590 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.58 Mbit/s
95th percentile per-packet one-way delay: 120.519 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.46 Mbit/s
95th percentile per-packet one-way delay: 131.170 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 137.639 ms
Loss rate: 0.00%
```
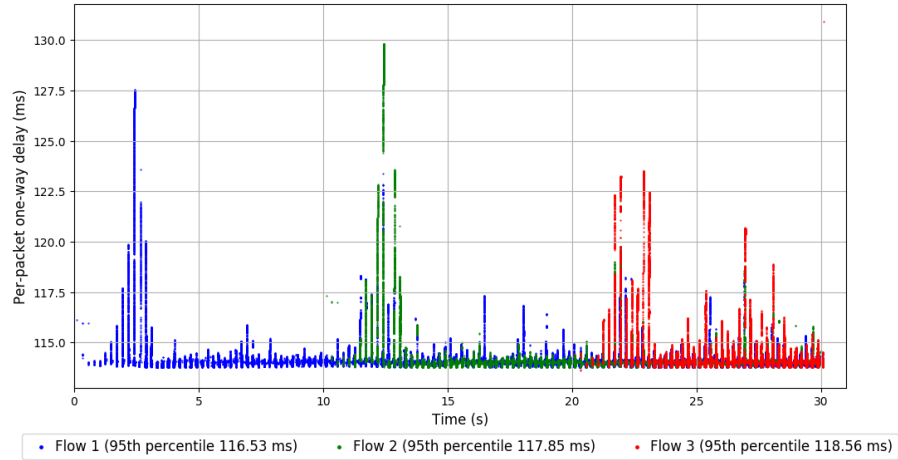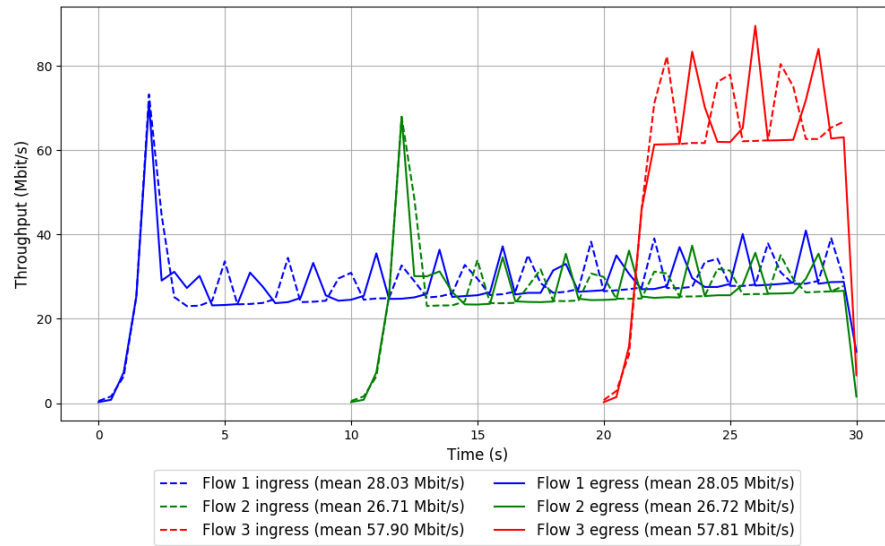
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2017-08-31 15:16:22
End at: 2017-08-31 15:16:52


# Below is generated by plot.py at 2017-08-31 18:25:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.99 Mbit/s
95th percentile per-packet one-way delay: 117.702 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 117.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 117.612 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 4.10 Mbit/s
95th percentile per-packet one-way delay: 117.405 ms
Loss rate: 0.00%
```
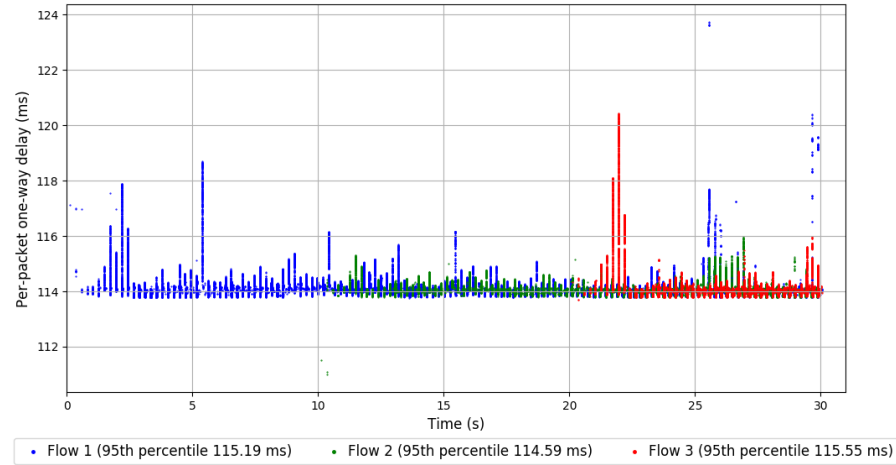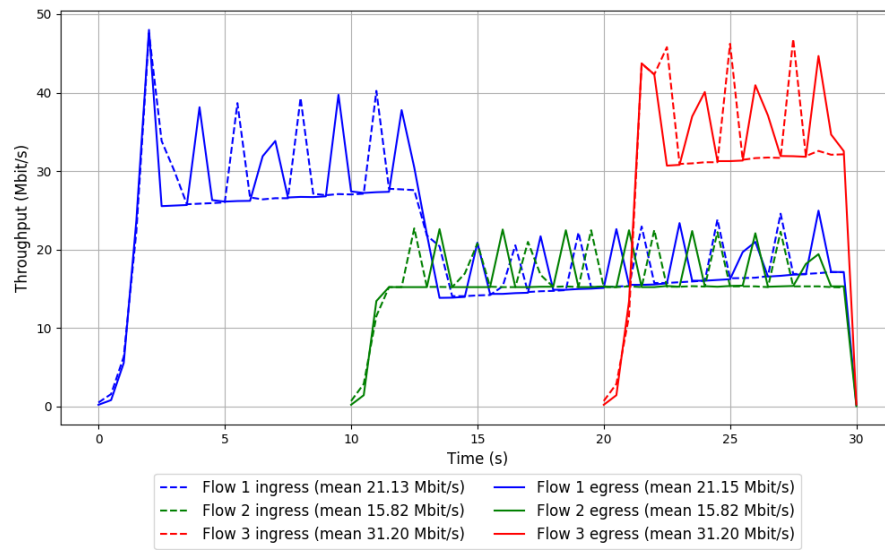
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2017-08-31 15:29:31
End at: 2017-08-31 15:30:01


# Below is generated by plot.py at 2017-08-31 18:25:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.72 Mbit/s
95th percentile per-packet one-way delay: 117.810 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 117.709 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.59 Mbit/s
95th percentile per-packet one-way delay: 117.912 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 7.62 Mbit/s
95th percentile per-packet one-way delay: 117.786 ms
Loss rate: 0.00%
```
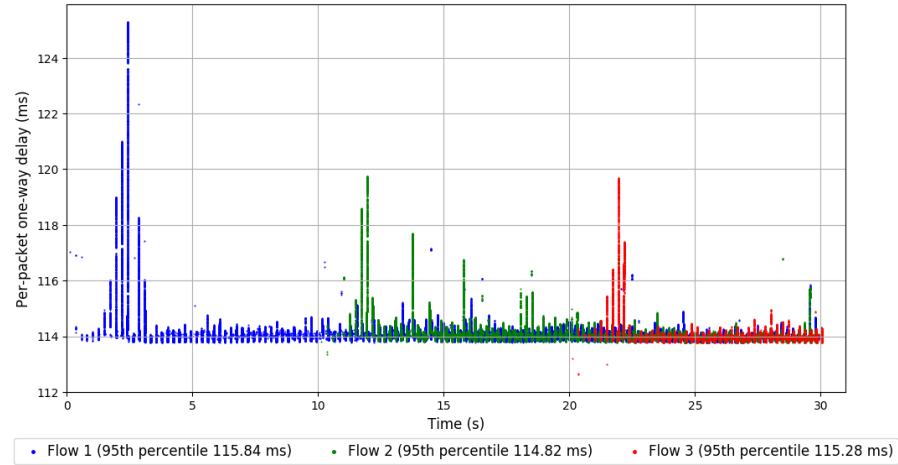
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2017-08-31 15:42:30
End at: 2017-08-31 15:43:00

# Below is generated by plot.py at 2017-08-31 18:25:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.06 Mbit/s
95th percentile per-packet one-way delay: 117.468 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.05 Mbit/s
95th percentile per-packet one-way delay: 116.531 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.72 Mbit/s
95th percentile per-packet one-way delay: 117.846 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.81 Mbit/s
95th percentile per-packet one-way delay: 118.562 ms
Loss rate: 0.00%
```
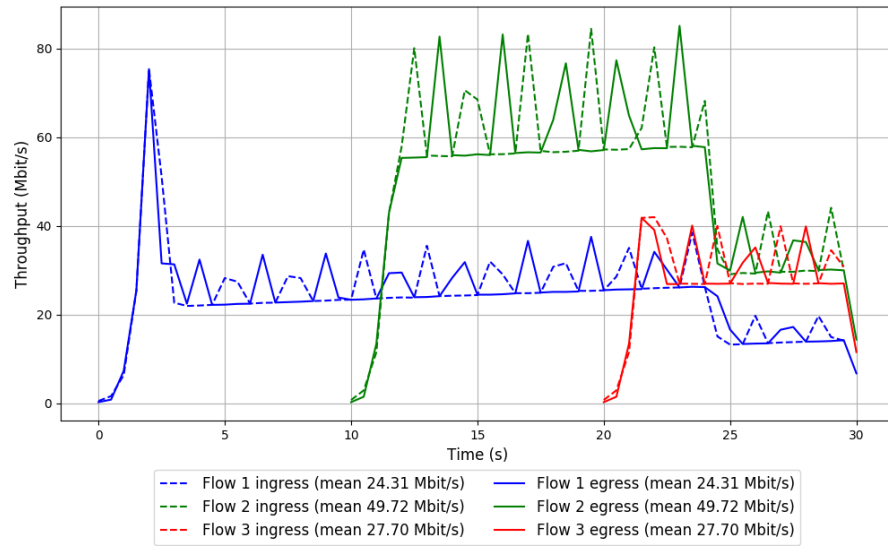
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2017-08-31 15:55:49
End at: 2017-08-31 15:56:19

# Below is generated by plot.py at 2017-08-31 18:25:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.01 Mbit/s
95th percentile per-packet one-way delay: 115.048 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 21.15 Mbit/s
95th percentile per-packet one-way delay: 115.195 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 15.82 Mbit/s
95th percentile per-packet one-way delay: 114.588 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 115.545 ms
Loss rate: 0.00%
```
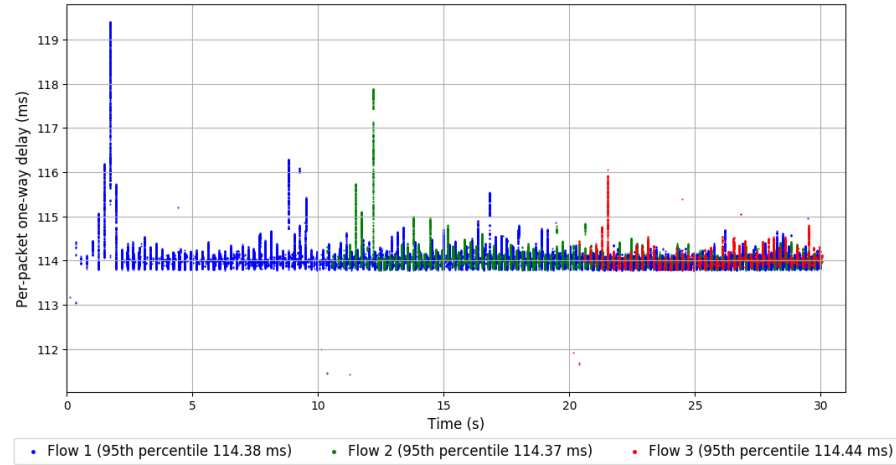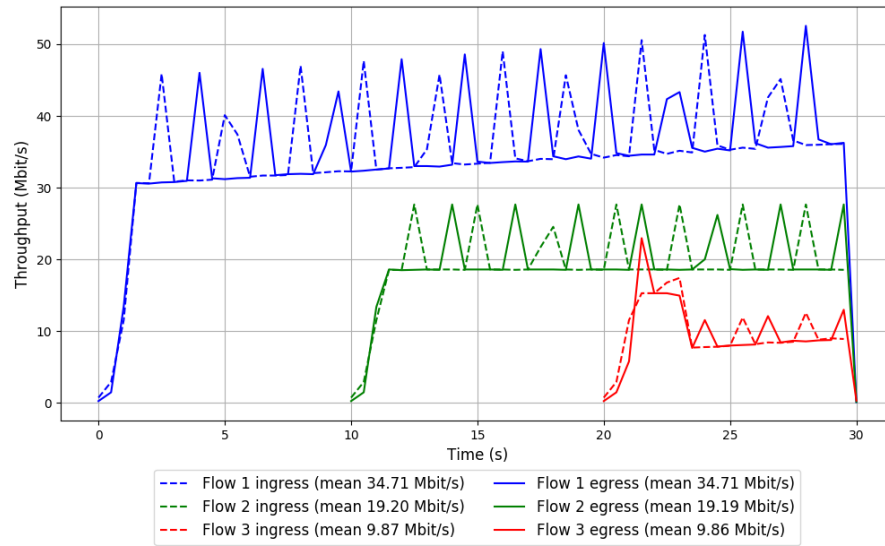
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2017-08-31 16:08:58
End at: 2017-08-31 16:09:28


# Below is generated by plot.py at 2017-08-31 18:25:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.55 Mbit/s
95th percentile per-packet one-way delay: 115.017 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.31 Mbit/s
95th percentile per-packet one-way delay: 115.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.72 Mbit/s
95th percentile per-packet one-way delay: 114.820 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 115.281 ms
Loss rate: 0.00%
```
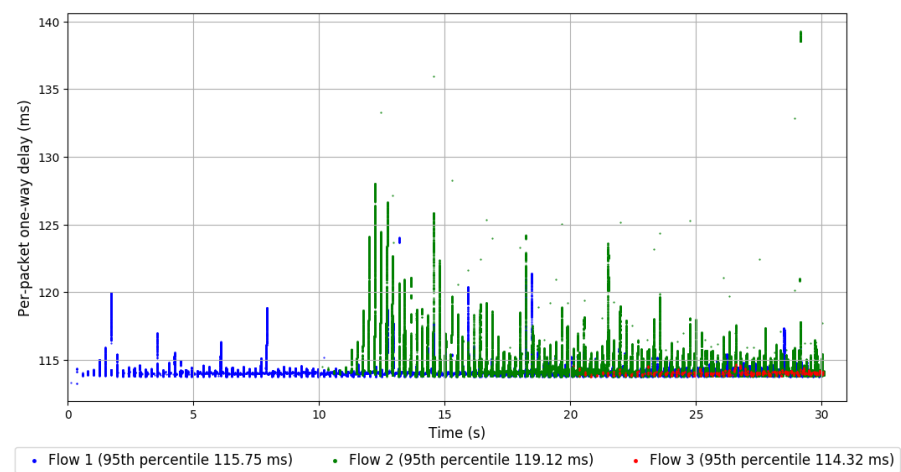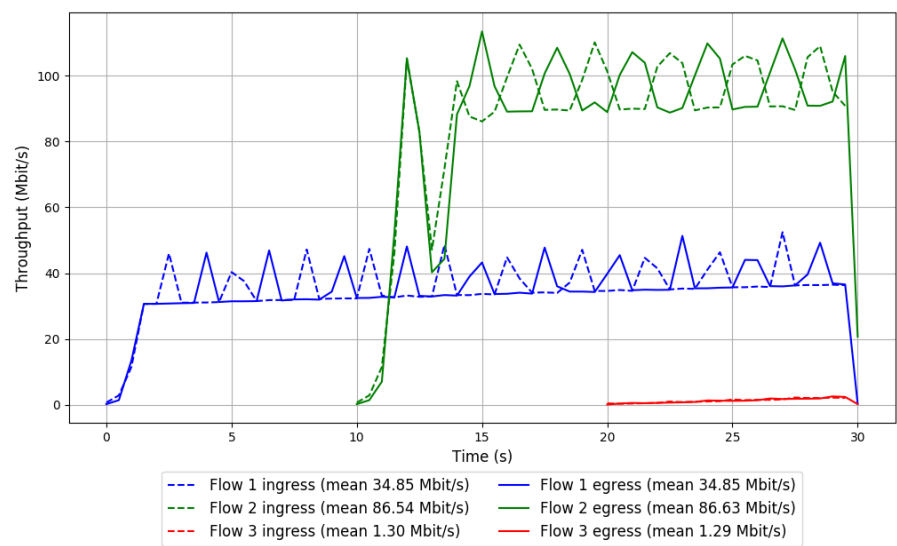
Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2017-08-31 16:22:19
End at: 2017-08-31 16:22:49

# Below is generated by plot.py at 2017-08-31 18:25:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 50.72 Mbit/s
95th percentile per-packet one-way delay: 114.388 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 34.71 Mbit/s
95th percentile per-packet one-way delay: 114.378 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.19 Mbit/s
95th percentile per-packet one-way delay: 114.374 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.86 Mbit/s
95th percentile per-packet one-way delay: 114.443 ms
Loss rate: 0.09%
```
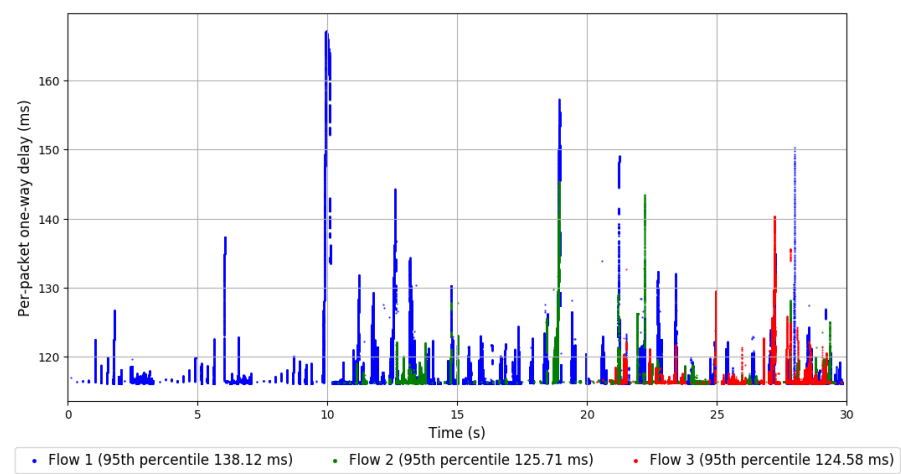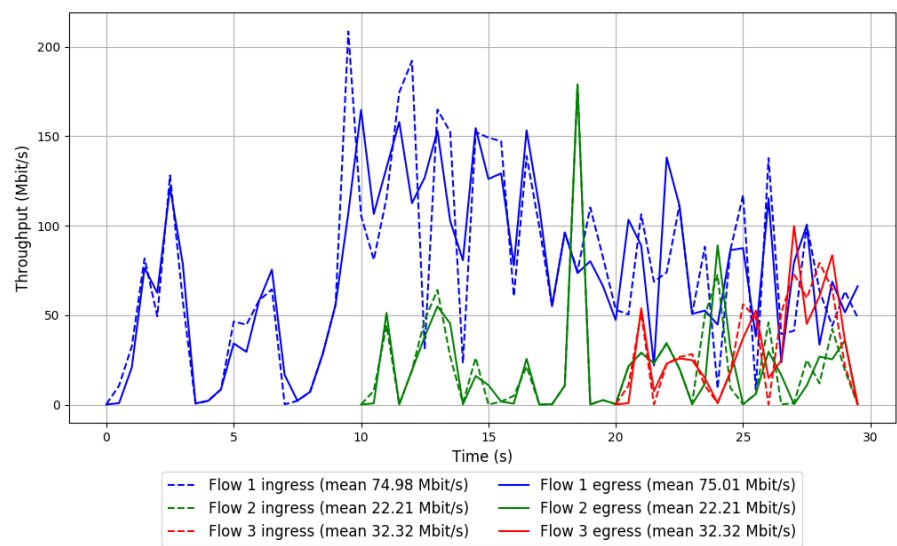
Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2017-08-31 16:35:32
End at: 2017-08-31 16:36:02


# Below is generated by plot.py at 2017-08-31 18:26:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.98 Mbit/s
95th percentile per-packet one-way delay: 118.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.85 Mbit/s
95th percentile per-packet one-way delay: 115.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.63 Mbit/s
95th percentile per-packet one-way delay: 119.122 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 114.319 ms
Loss rate: 0.47%
```
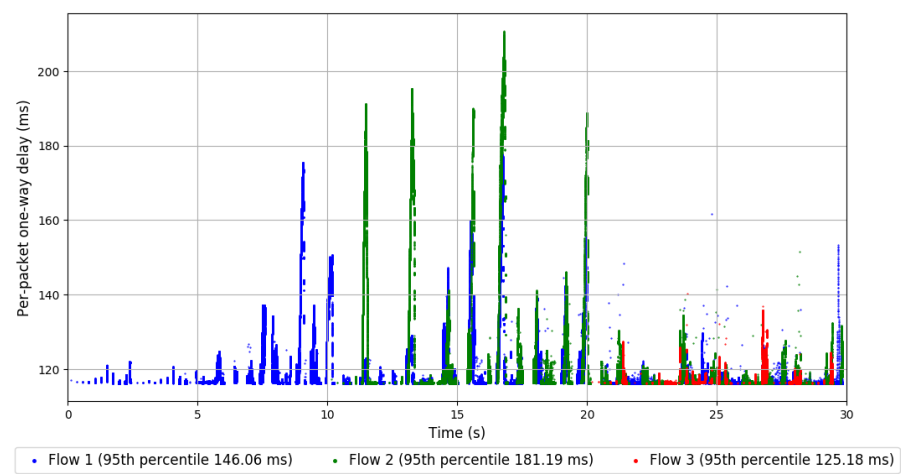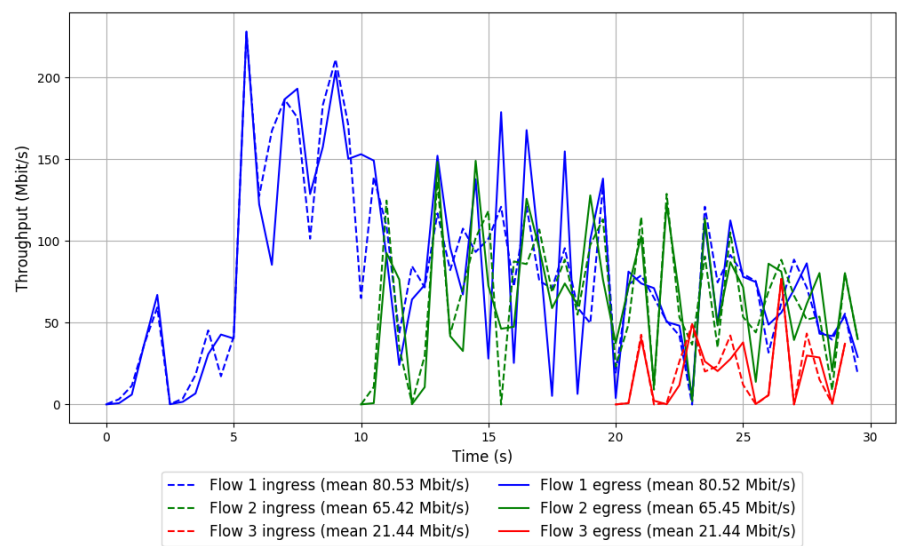
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2017-08-31 14:42:48
End at: 2017-08-31 14:43:18

# Below is generated by plot.py at 2017-08-31 18:26:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.13 Mbit/s
95th percentile per-packet one-way delay: 134.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.01 Mbit/s
95th percentile per-packet one-way delay: 138.125 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.21 Mbit/s
95th percentile per-packet one-way delay: 125.714 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 124.581 ms
Loss rate: 0.00%
```
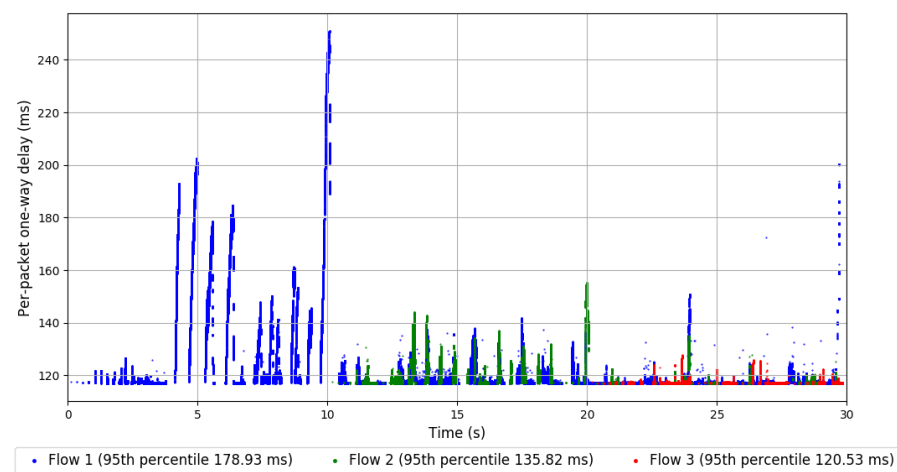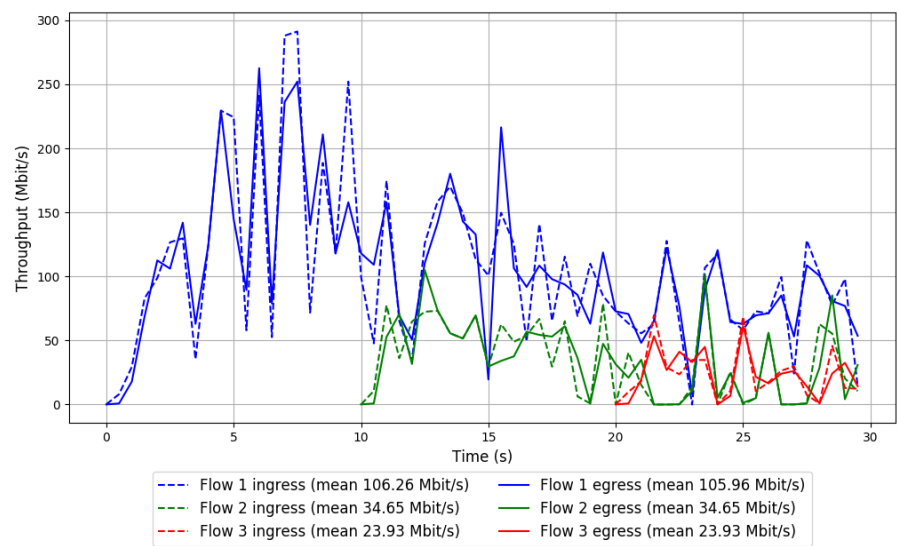
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2017-08-31 14:55:55
End at: 2017-08-31 14:56:25


# Below is generated by plot.py at 2017-08-31 18:26:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.55 Mbit/s
95th percentile per-packet one-way delay: 159.541 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.52 Mbit/s
95th percentile per-packet one-way delay: 146.059 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 65.45 Mbit/s
95th percentile per-packet one-way delay: 181.193 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.44 Mbit/s
95th percentile per-packet one-way delay: 125.176 ms
Loss rate: 0.00%
```
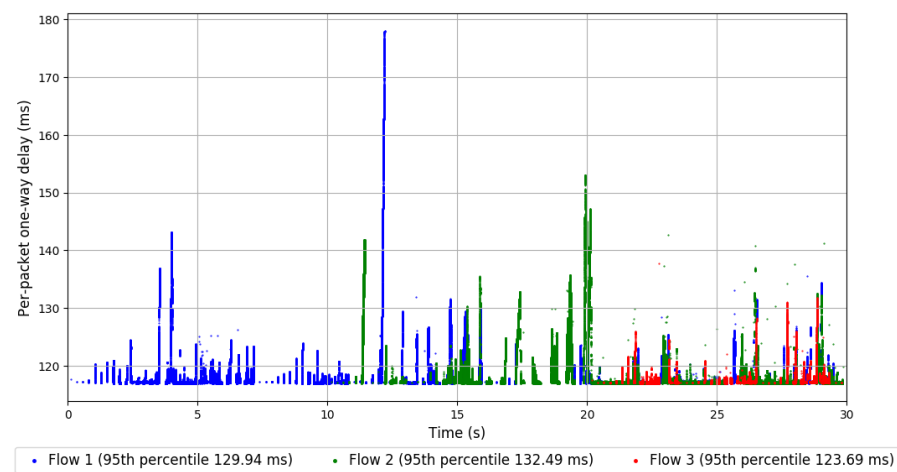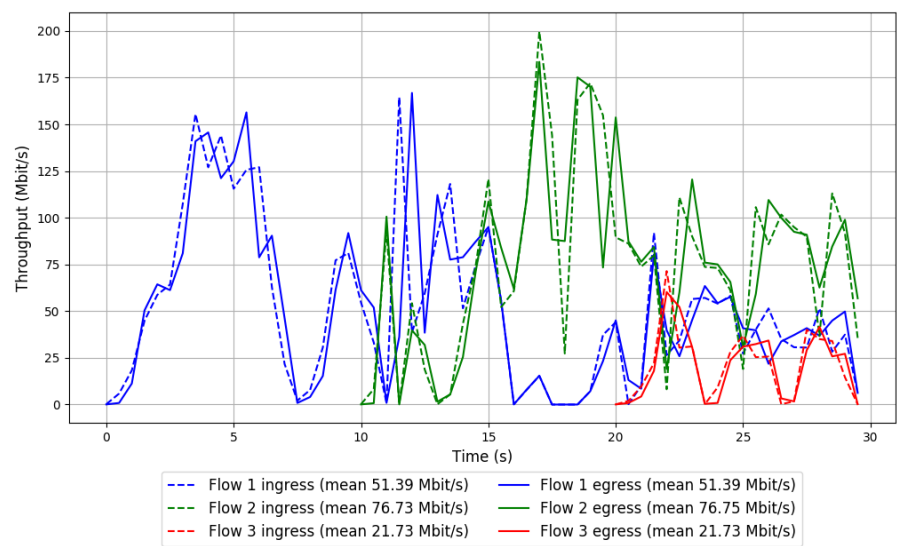
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2017-08-31 15:09:31
End at: 2017-08-31 15:10:01


# Below is generated by plot.py at 2017-08-31 18:26:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.19 Mbit/s
95th percentile per-packet one-way delay: 174.291 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 105.96 Mbit/s
95th percentile per-packet one-way delay: 178.930 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 34.65 Mbit/s
95th percentile per-packet one-way delay: 135.816 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 120.528 ms
Loss rate: 0.00%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2017-08-31 15:22:33
End at: 2017-08-31 15:23:03


# Below is generated by plot.py at 2017-08-31 18:27:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.21 Mbit/s
95th percentile per-packet one-way delay: 131.131 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 51.39 Mbit/s
95th percentile per-packet one-way delay: 129.945 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 76.75 Mbit/s
95th percentile per-packet one-way delay: 132.489 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 21.73 Mbit/s
95th percentile per-packet one-way delay: 123.688 ms
Loss rate: 0.00%
```
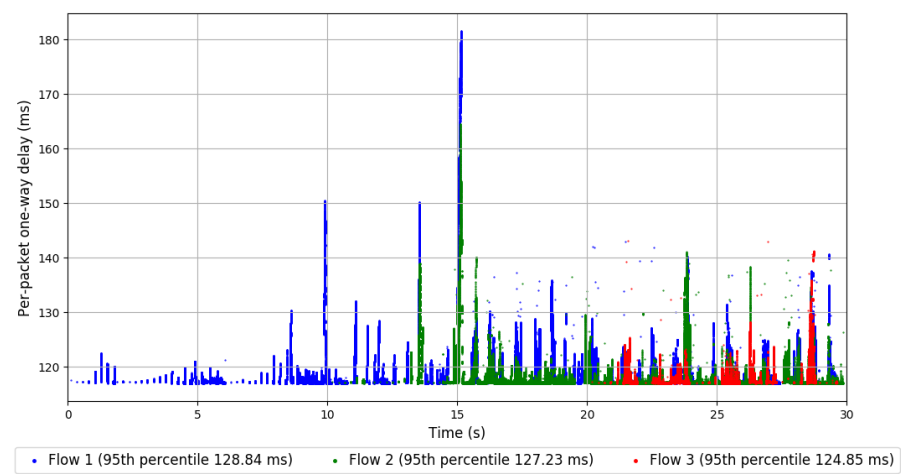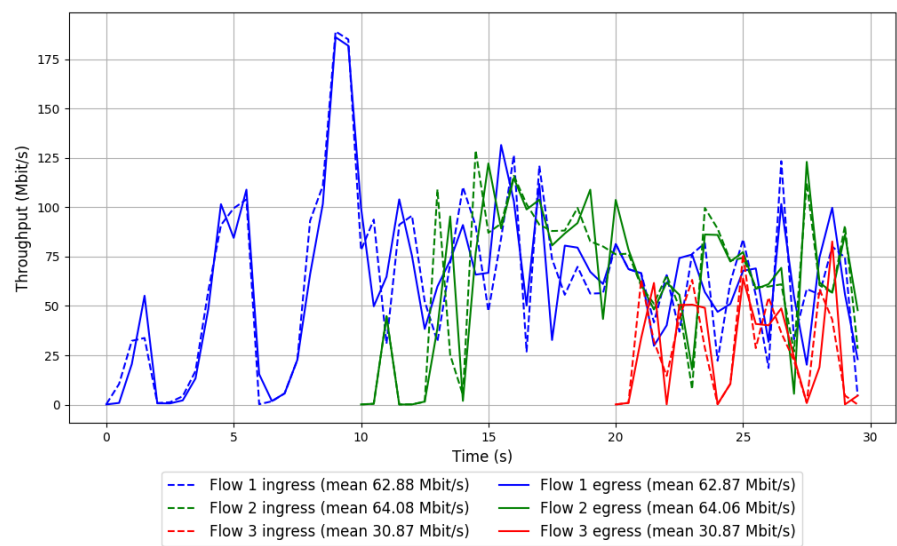
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2017-08-31 15:35:42
End at: 2017-08-31 15:36:12


# Below is generated by plot.py at 2017-08-31 18:27:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.58 Mbit/s
95th percentile per-packet one-way delay: 127.724 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 62.87 Mbit/s
95th percentile per-packet one-way delay: 128.841 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 64.06 Mbit/s
95th percentile per-packet one-way delay: 127.231 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.87 Mbit/s
95th percentile per-packet one-way delay: 124.854 ms
Loss rate: 0.00%
```
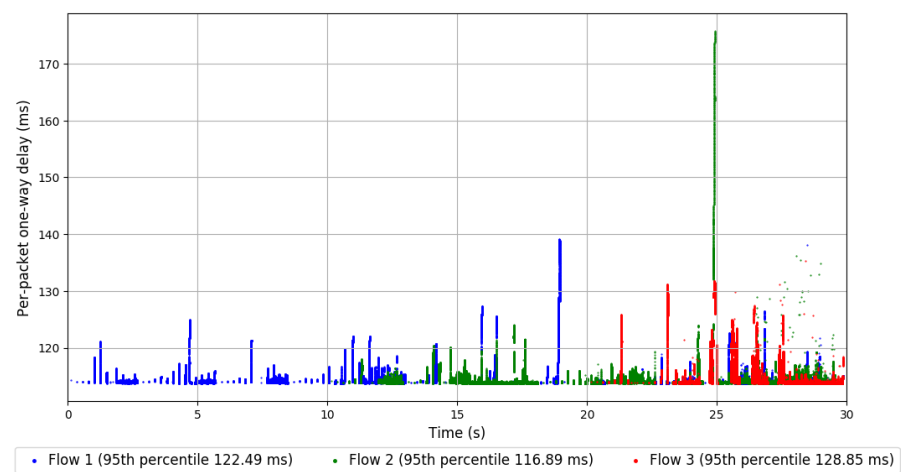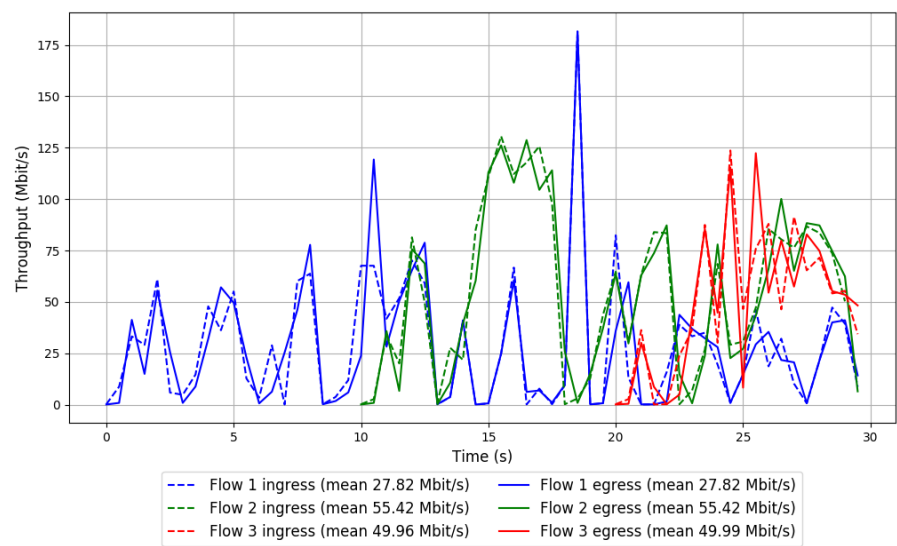
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2017-08-31 15:48:48
End at: 2017-08-31 15:49:18


# Below is generated by plot.py at 2017-08-31 18:27:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.26 Mbit/s
95th percentile per-packet one-way delay: 121.624 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.82 Mbit/s
95th percentile per-packet one-way delay: 122.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.42 Mbit/s
95th percentile per-packet one-way delay: 116.892 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.99 Mbit/s
95th percentile per-packet one-way delay: 128.855 ms
Loss rate: 0.00%
```
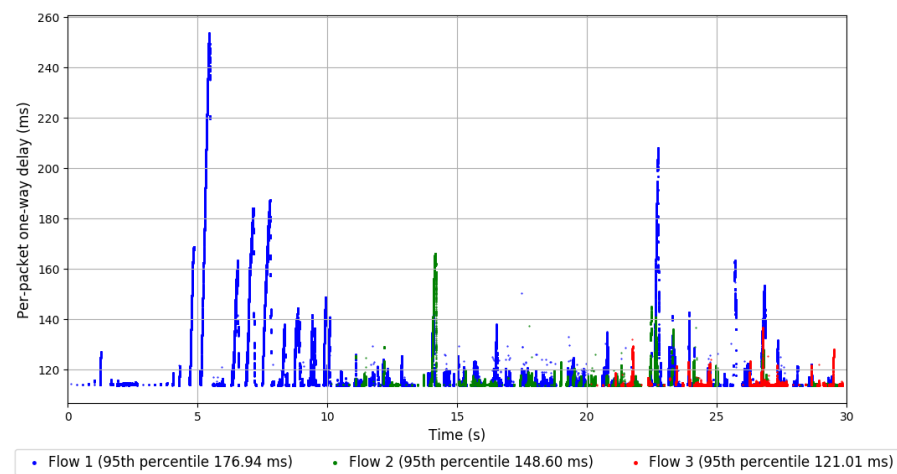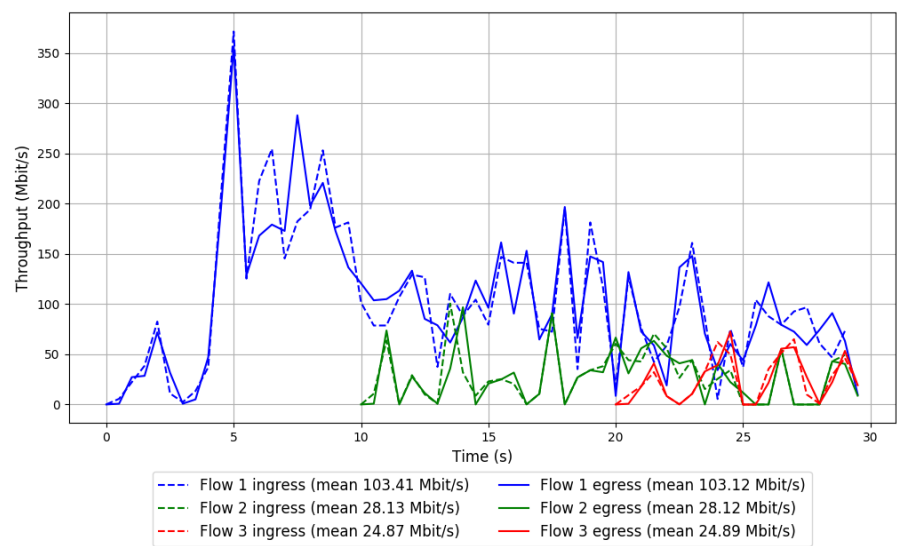
Run 6: Report of Verus — Data Link

275

```
Run 7: Statistics of Verus

Start at: 2017-08-31 16:02:04
End at: 2017-08-31 16:02:34


# Below is generated by plot.py at 2017-08-31 18:27:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.86 Mbit/s
95th percentile per-packet one-way delay: 171.945 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 103.12 Mbit/s
95th percentile per-packet one-way delay: 176.941 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 28.12 Mbit/s
95th percentile per-packet one-way delay: 148.596 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.89 Mbit/s
95th percentile per-packet one-way delay: 121.012 ms
Loss rate: 0.01%
```
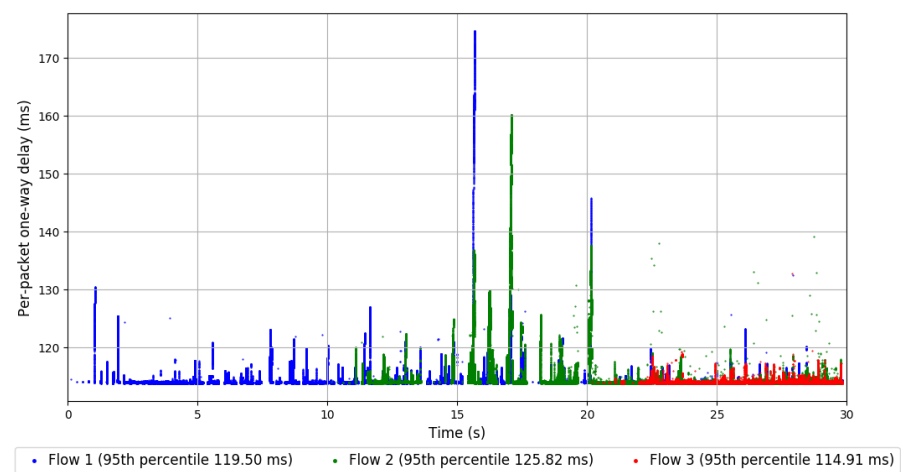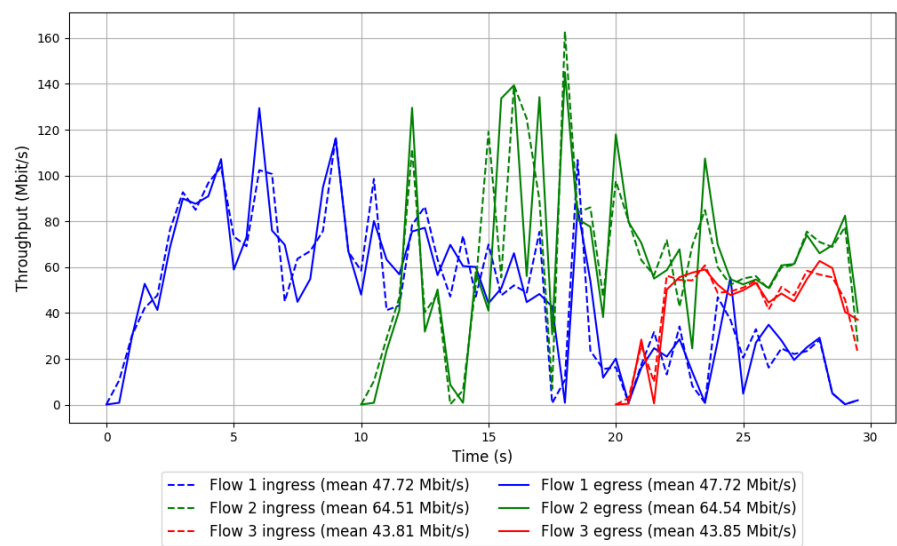
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2017-08-31 16:15:28
End at: 2017-08-31 16:15:58


# Below is generated by plot.py at 2017-08-31 18:27:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.71 Mbit/s
95th percentile per-packet one-way delay: 121.045 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.72 Mbit/s
95th percentile per-packet one-way delay: 119.504 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 64.54 Mbit/s
95th percentile per-packet one-way delay: 125.819 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 43.85 Mbit/s
95th percentile per-packet one-way delay: 114.912 ms
Loss rate: 0.01%
```
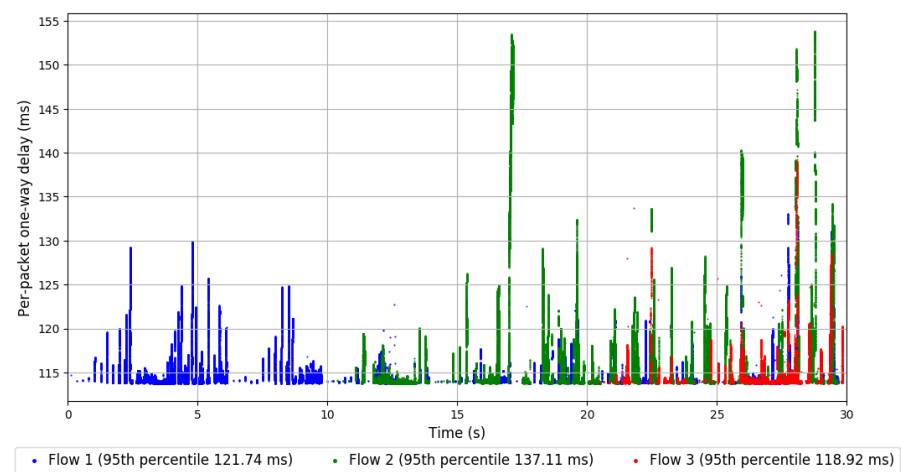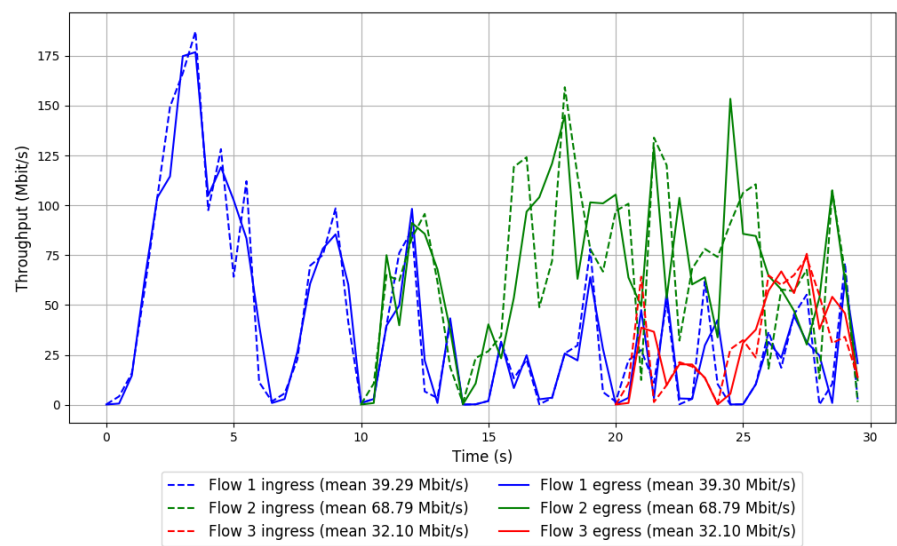
Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 47.72 Mbit/s) --- Flow 1 egress (mean 47.72 Mbit/s)
Flow 2 ingress (mean 64.51 Mbit/s) --- Flow 2 egress (mean 64.54 Mbit/s)
Flow 3 ingress (mean 43.81 Mbit/s) --- Flow 3 egress (mean 43.85 Mbit/s)

Flow 1 (95th percentile 119.50 ms) • Flow 2 (95th percentile 125.82 ms) • Flow 3 (95th percentile 114.91 ms)

```
Run 9: Statistics of Verus

Start at: 2017-08-31 16:28:48
End at: 2017-08-31 16:29:18


# Below is generated by plot.py at 2017-08-31 18:27:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.58 Mbit/s
95th percentile per-packet one-way delay: 126.753 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 39.30 Mbit/s
95th percentile per-packet one-way delay: 121.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.79 Mbit/s
95th percentile per-packet one-way delay: 137.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.10 Mbit/s
95th percentile per-packet one-way delay: 118.919 ms
Loss rate: 0.00%
```
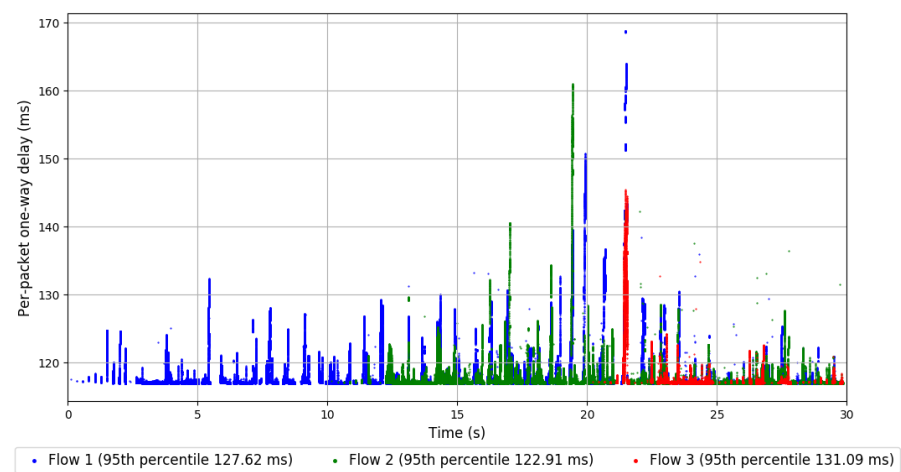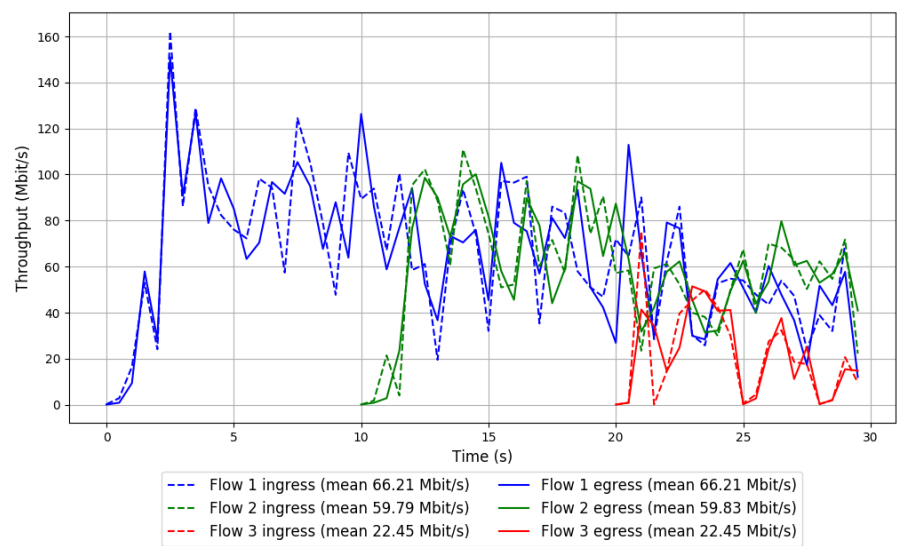
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2017-08-31 16:42:03
End at: 2017-08-31 16:42:33


# Below is generated by plot.py at 2017-08-31 18:28:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.56 Mbit/s
95th percentile per-packet one-way delay: 126.294 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.21 Mbit/s
95th percentile per-packet one-way delay: 127.618 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.83 Mbit/s
95th percentile per-packet one-way delay: 122.913 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.45 Mbit/s
95th percentile per-packet one-way delay: 131.090 ms
Loss rate: 0.00%
```

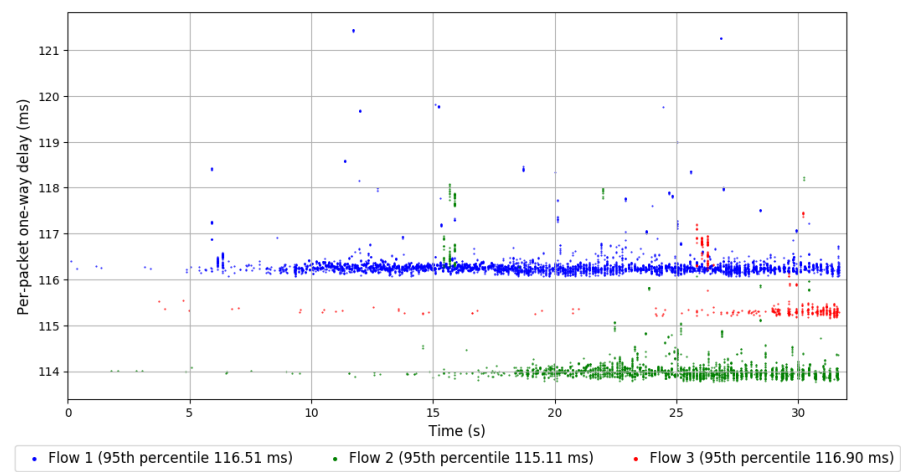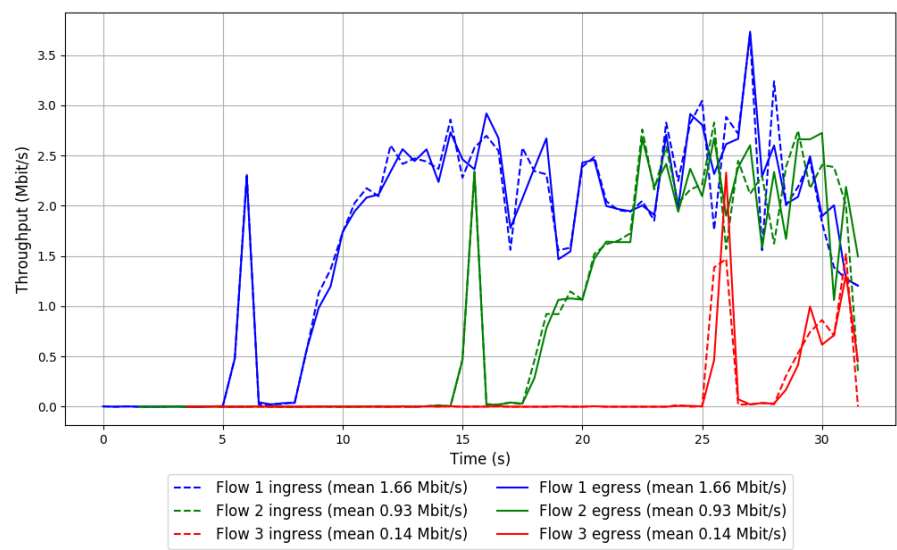Run 10: Report of Verus — Data Link

283

```
Run 1: Statistics of WebRTC media

Start at: 2017-08-31 14:33:07
End at: 2017-08-31 14:33:37

# Below is generated by plot.py at 2017-08-31 18:28:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 116.515 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 116.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 115.112 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 116.903 ms
Loss rate: 0.00%
```
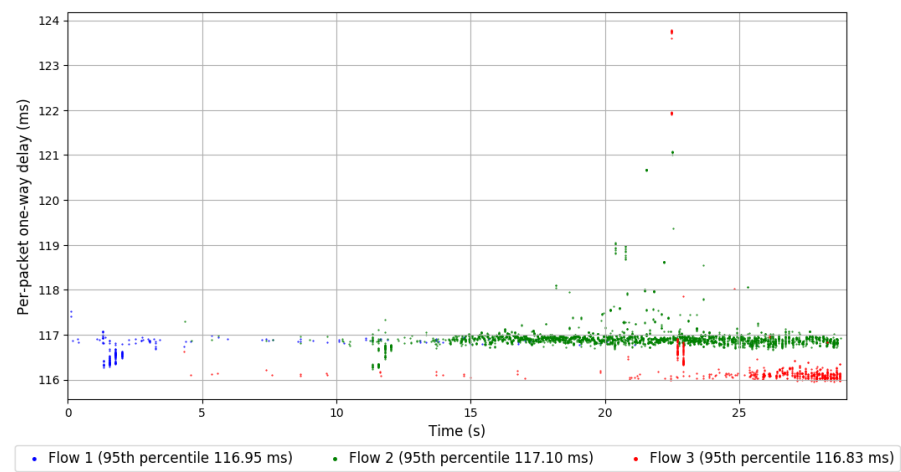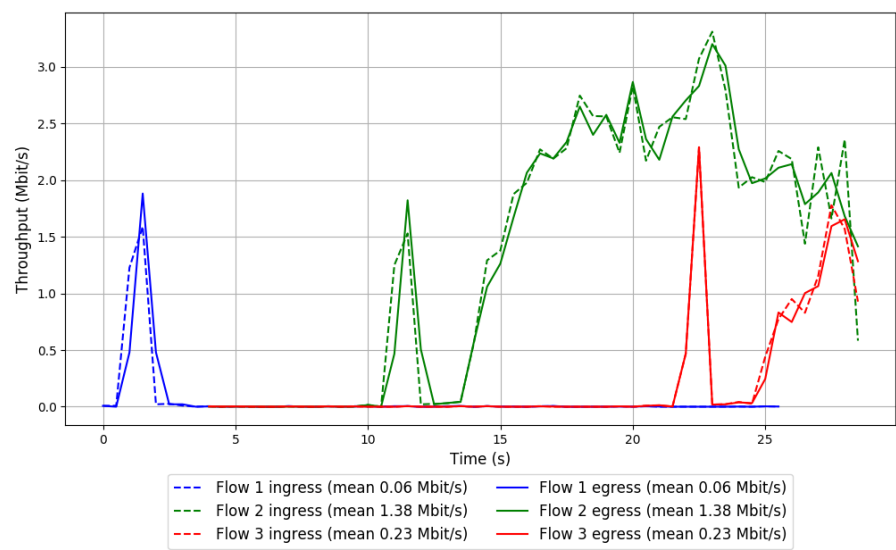
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.66 Mbit/s) --- Flow 1 egress (mean 1.66 Mbit/s)
Flow 2 ingress (mean 0.93 Mbit/s) --- Flow 2 egress (mean 0.93 Mbit/s)
Flow 3 ingress (mean 0.14 Mbit/s) --- Flow 3 egress (mean 0.14 Mbit/s)

Flow 1 (95th percentile 116.51 ms) • Flow 2 (95th percentile 115.11 ms) • Flow 3 (95th percentile 116.90 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2017-08-31 14:46:14
End at: 2017-08-31 14:46:44

# Below is generated by plot.py at 2017-08-31 18:28:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 117.079 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 116.947 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 117.100 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 116.825 ms
Loss rate: 0.00%
```
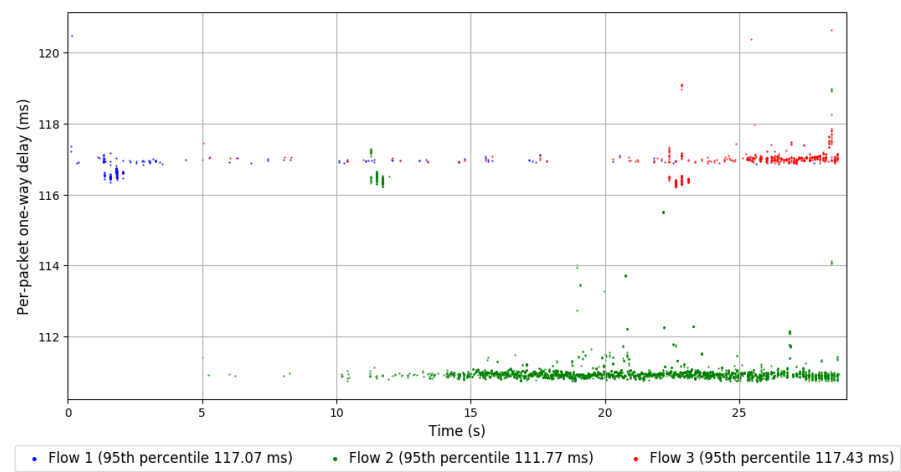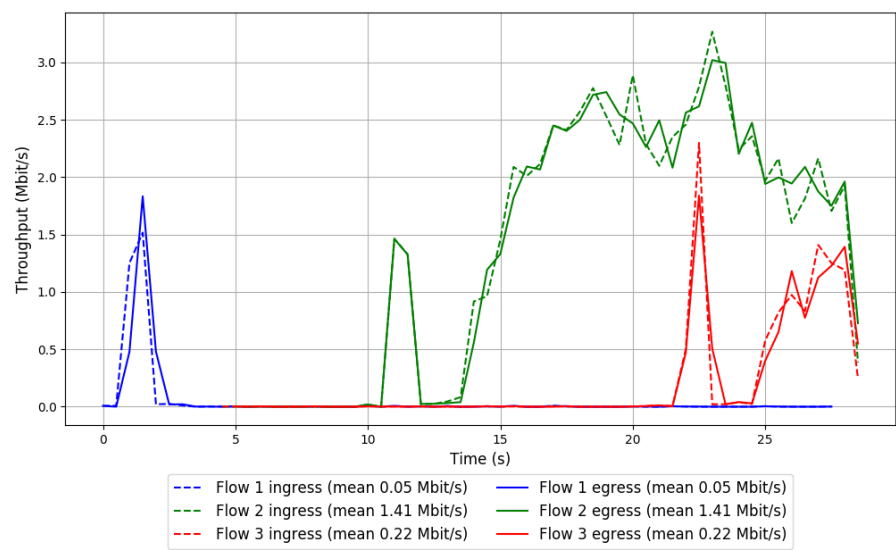
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2017-08-31 14:59:39
End at: 2017-08-31 15:00:09

# Below is generated by plot.py at 2017-08-31 18:28:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 117.042 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 117.072 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 111.765 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 117.432 ms
Loss rate: 0.00%
```
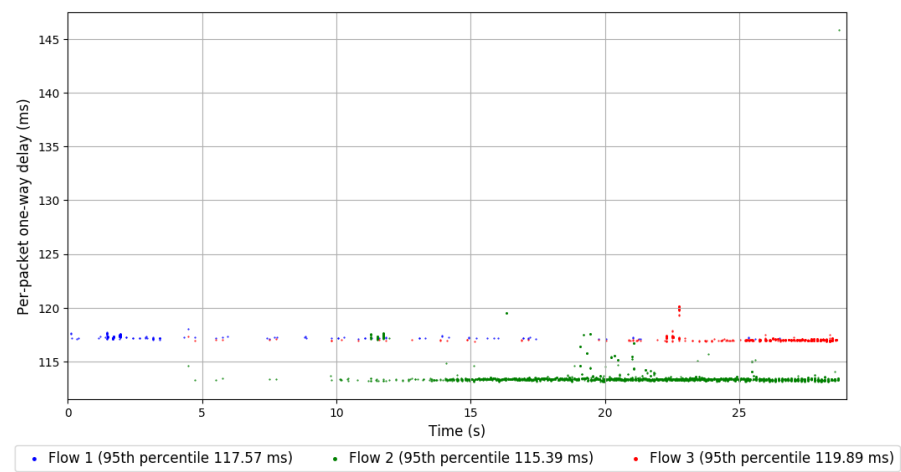
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2017-08-31 15:13:01
End at: 2017-08-31 15:13:31


# Below is generated by plot.py at 2017-08-31 18:28:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 117.312 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 117.569 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 115.395 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 119.891 ms
Loss rate: 0.00%
```
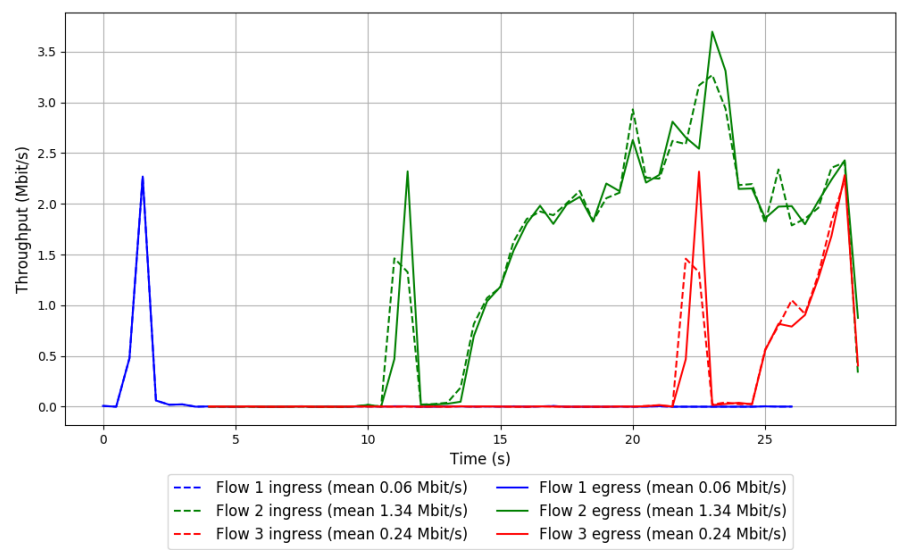
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2017-08-31 15:26:10
End at: 2017-08-31 15:26:40

# Below is generated by plot.py at 2017-08-31 18:28:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 117.249 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 117.869 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 115.363 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 117.279 ms
Loss rate: 0.00%
```
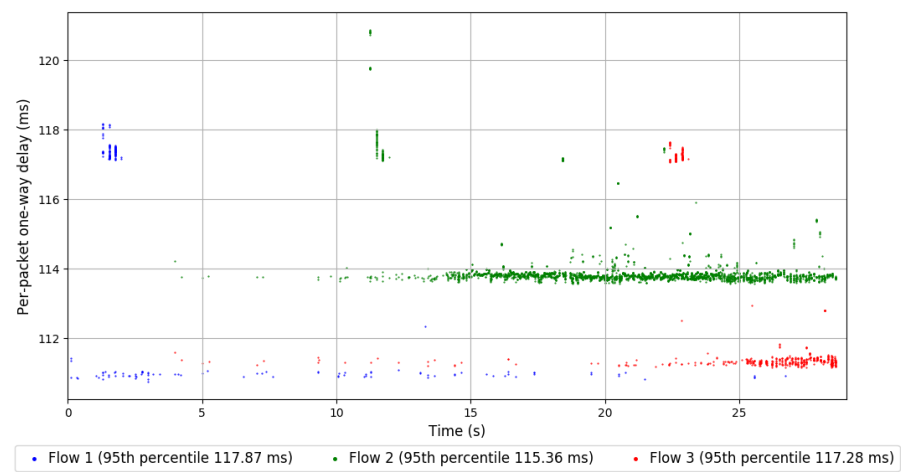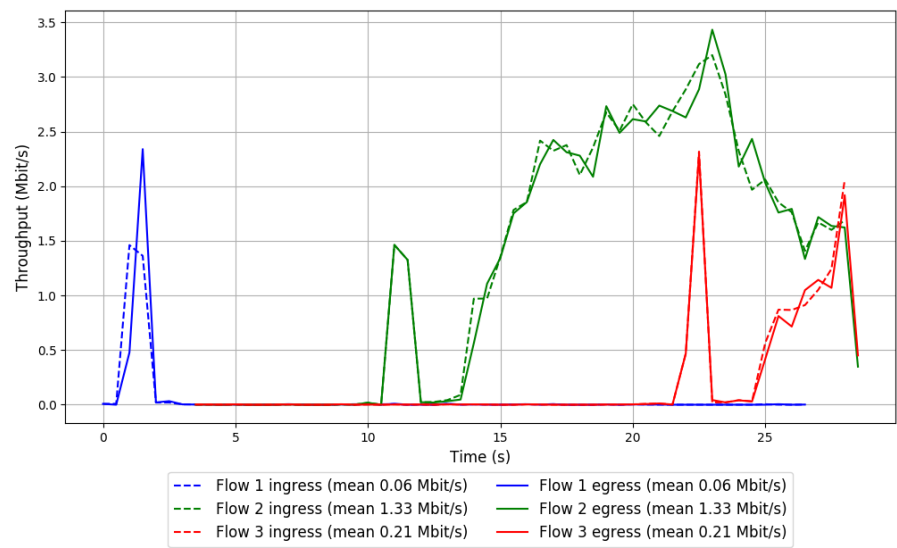
Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2017-08-31 15:39:09
End at: 2017-08-31 15:39:39


# Below is generated by plot.py at 2017-08-31 18:28:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 116.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 117.821 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 113.481 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 116.353 ms
Loss rate: 0.00%
```
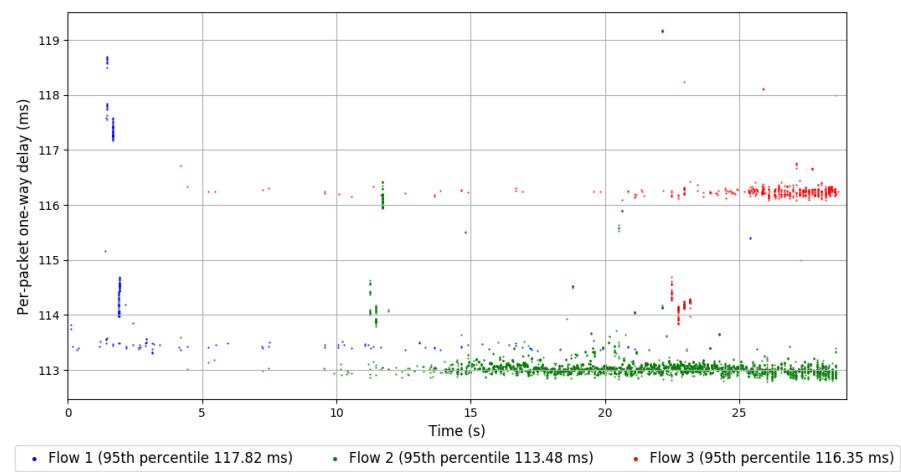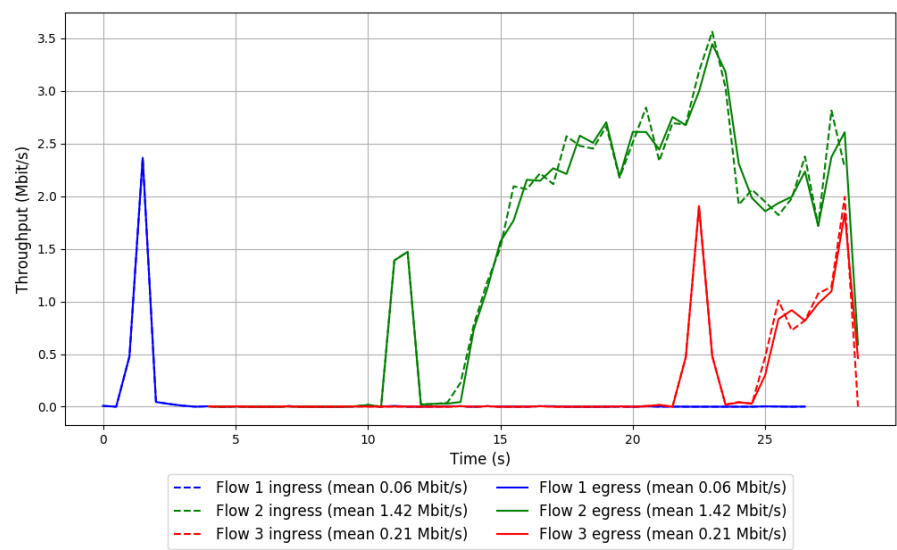
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2017-08-31 15:52:28
End at: 2017-08-31 15:52:58


# Below is generated by plot.py at 2017-08-31 18:28:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 114.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 116.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 112.774 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 117.481 ms
Loss rate: 0.00%
```
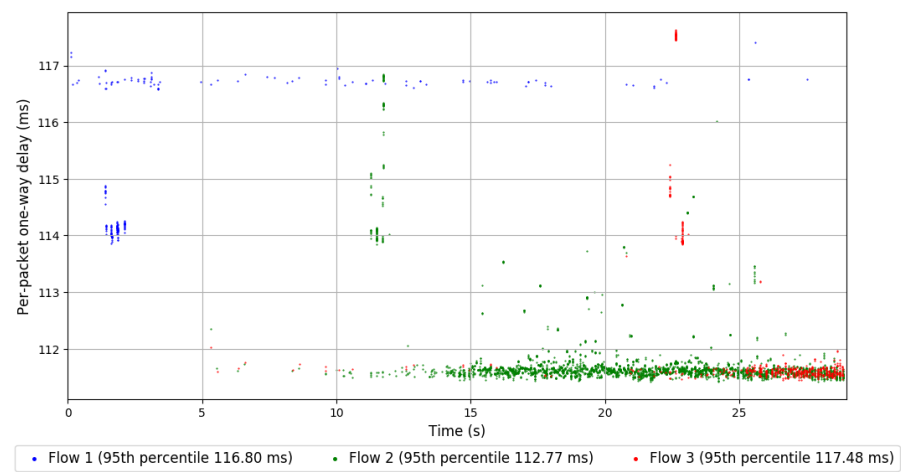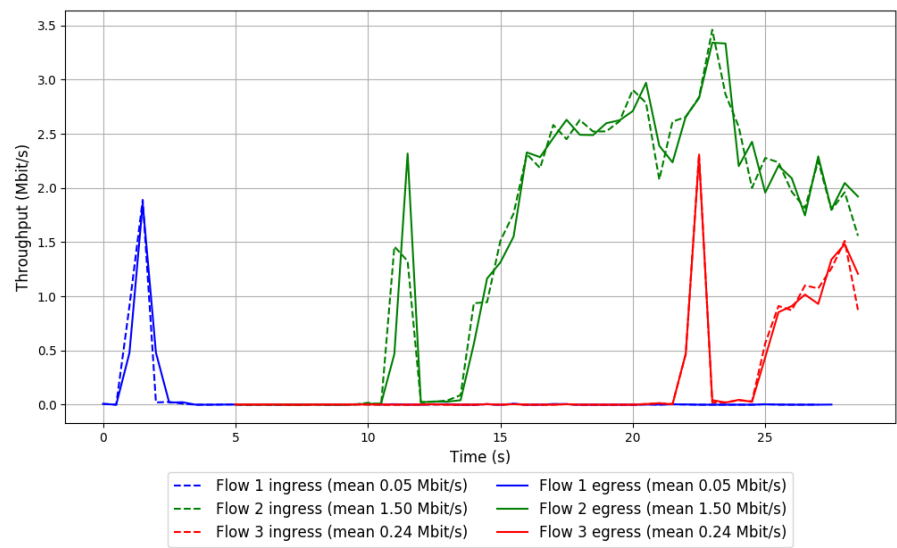
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2017-08-31 16:05:36
End at: 2017-08-31 16:06:06

# Below is generated by plot.py at 2017-08-31 18:28:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 116.204 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 114.729 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 116.221 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 115.575 ms
Loss rate: 0.00%
```
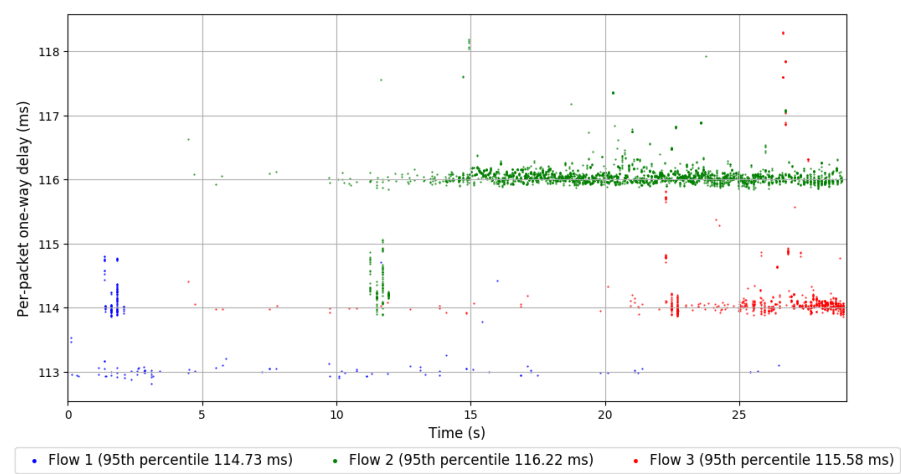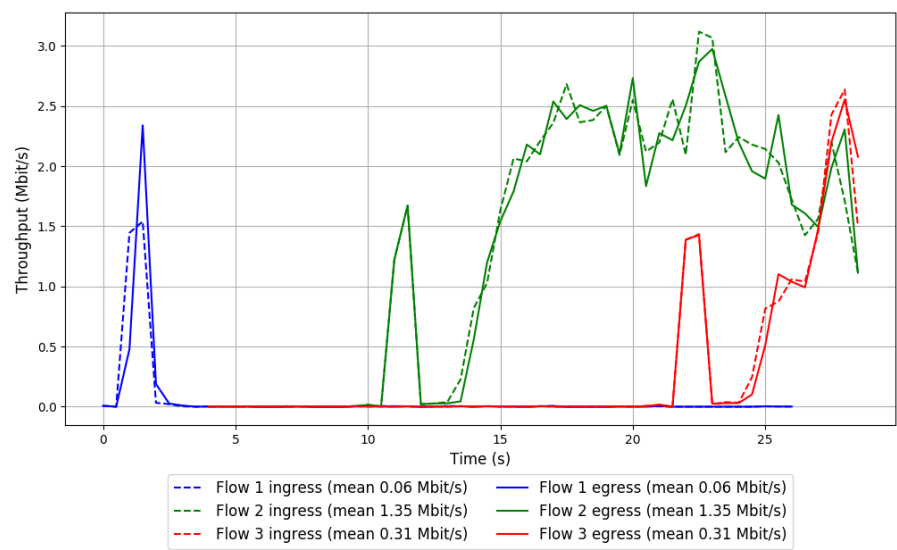
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2017-08-31 16:18:55
End at: 2017-08-31 16:19:25


# Below is generated by plot.py at 2017-08-31 18:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 114.114 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 114.444 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 113.921 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 114.754 ms
Loss rate: 0.00%
```
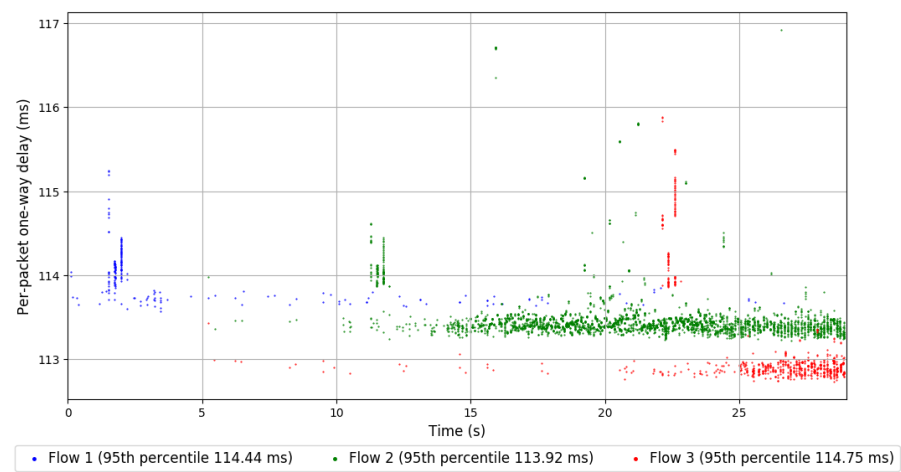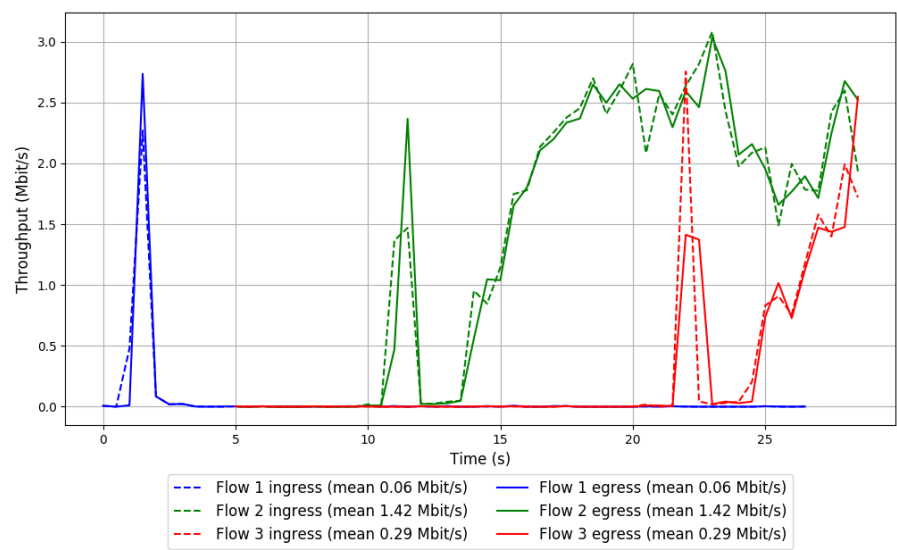
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2017-08-31 16:32:12
End at: 2017-08-31 16:32:42

# Below is generated by plot.py at 2017-08-31 18:28:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 114.193 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 114.357 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 114.151 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 114.272 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link