Pantheon Report

Generated at 2020-02-18 09:46:11 (UTC).

Data path: GCE Tokyo on `ens4` (*local*) →GCE London on `ens4` (*remote*).

Repeated the test of 24 congestion control schemes 5 times.

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

NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

```
System info:
Linux 5.0.0-1026-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
```

```
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE Tokyo to GCE London, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)
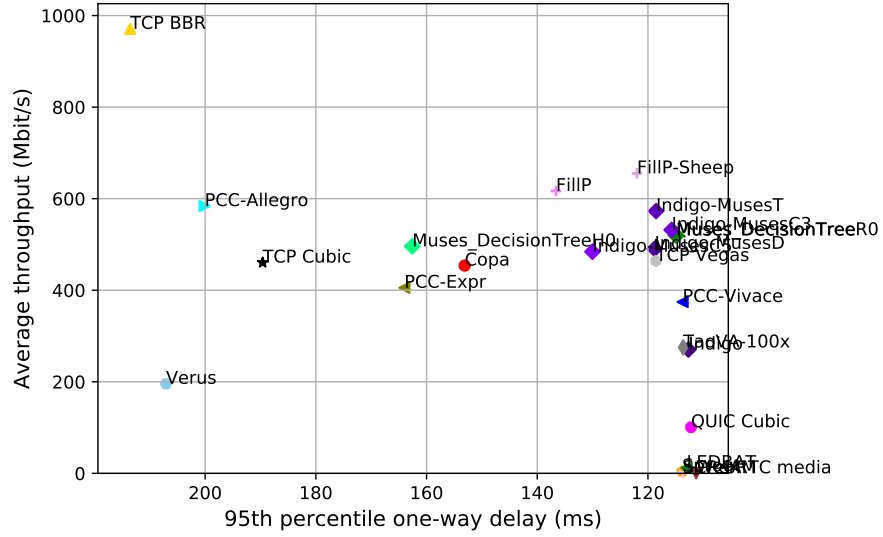
test from GCE Tokyo to GCE London, 5 runs of 30s each per scheme
## 3 flows with 10s interval between flows

3
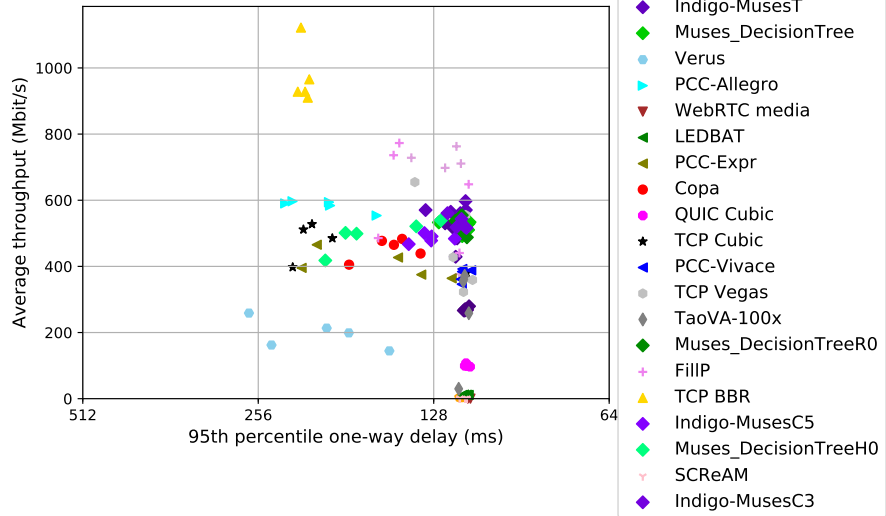
| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	559.39	459.76	316.91	209.38	195.78	228.21	1.96	1.14	2.87
Copa	5	258.82	225.98	134.48	152.97	167.23	116.21	0.00	0.00	0.01
TCP Cubic	5	265.51	225.42	134.74	155.89	185.07	121.99	0.11	0.38	0.03
FillP	5	329.53	306.37	252.21	141.20	114.89	112.42	0.29	0.00	0.00
FillP-Sheep	5	368.77	309.43	244.13	128.66	114.63	114.81	0.02	0.00	0.00
Indigo	5	145.68	133.71	113.88	111.06	111.20	112.00	0.00	0.00	0.00
Indigo-MusesC3	5	326.64	259.15	179.16	117.30	113.45	113.67	0.02	0.00	0.02
Indigo-MusesC5	5	293.49	267.98	89.63	136.54	117.11	113.52	0.00	0.00	0.03
Indigo-MusesD	4	334.05	222.52	68.60	121.37	113.68	111.07	0.00	0.00	0.00
Indigo-MusesT	5	366.46	281.78	113.48	121.27	113.65	111.45	0.00	0.00	0.01
LEDBAT	5	7.59	4.99	2.43	111.73	111.19	112.64	0.00	0.00	0.00
Muses_DecisionTree	5	308.02	233.78	159.60	115.58	110.42	111.42	0.00	0.00	0.00
Muses_DecisionTreeH0	5	278.75	253.98	158.99	172.62	123.47	121.80	1.31	0.00	0.03
Muses_DecisionTreeR0	5	318.16	235.89	148.04	115.67	113.66	111.89	0.00	0.00	0.00
PCC-Allegro	5	328.28	275.01	221.32	195.65	186.31	134.24	0.89	1.37	0.00
PCC-Expr	5	225.85	195.99	149.25	175.09	139.43	130.23	0.94	0.28	0.05
QUIC Cubic	5	51.75	48.59	51.85	110.62	110.57	111.32	0.00	0.00	0.00
SCReAM	5	0.19	0.22	0.22	112.98	112.08	111.49	0.00	0.00	0.07
Sprout	5	2.04	2.25	2.18	112.05	110.51	112.44	0.00	0.00	0.00
TaoVA-100x	5	157.64	116.33	119.94	111.53	114.66	115.90	0.00	0.00	0.01
TCP Vegas	5	246.96	201.90	248.29	115.79	112.30	129.57	0.00	0.00	0.00
Verus	5	112.99	100.01	51.07	185.20	180.53	167.53	1.11	0.39	1.23
PCC-Vivace	5	211.05	181.51	129.24	111.60	111.88	132.31	0.00	0.00	0.01
WebRTC media	2	0.67	0.10	0.93	111.34	110.34	109.73	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2020-02-18 03:27:20
End at: 2020-02-18 03:27:50
Local clock offset: 0.565 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1122.00 Mbit/s
95th percentile per-packet one-way delay: 216.266 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 643.07 Mbit/s
95th percentile per-packet one-way delay: 201.167 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 580.08 Mbit/s
95th percentile per-packet one-way delay: 219.298 ms
Loss rate: 2.62%
-- Flow 3:
Average throughput: 278.45 Mbit/s
95th percentile per-packet one-way delay: 255.858 ms
Loss rate: 3.82%
```

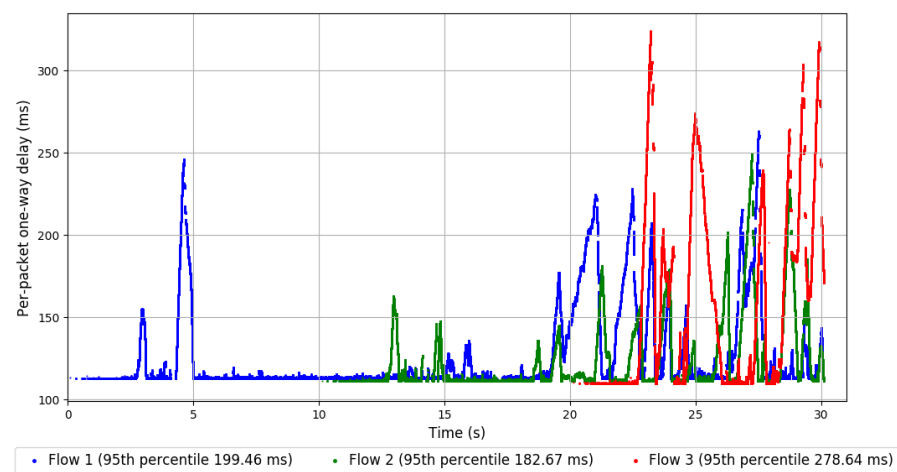Run 1: Report of TCP BBR — Data Link
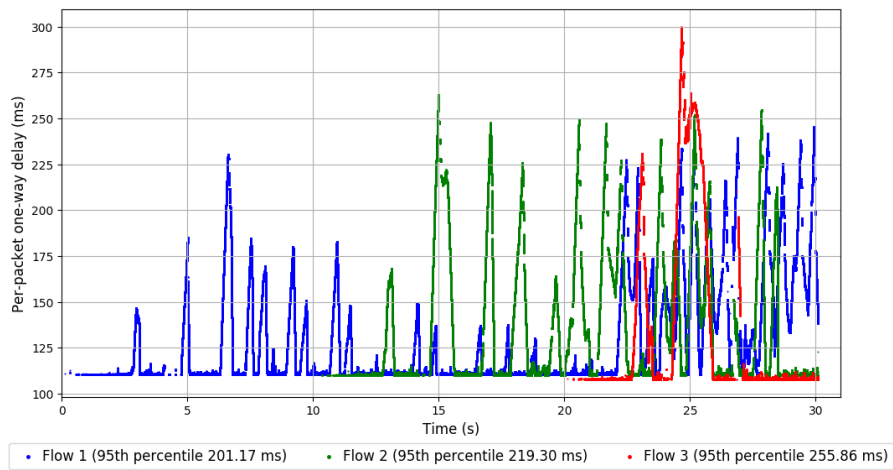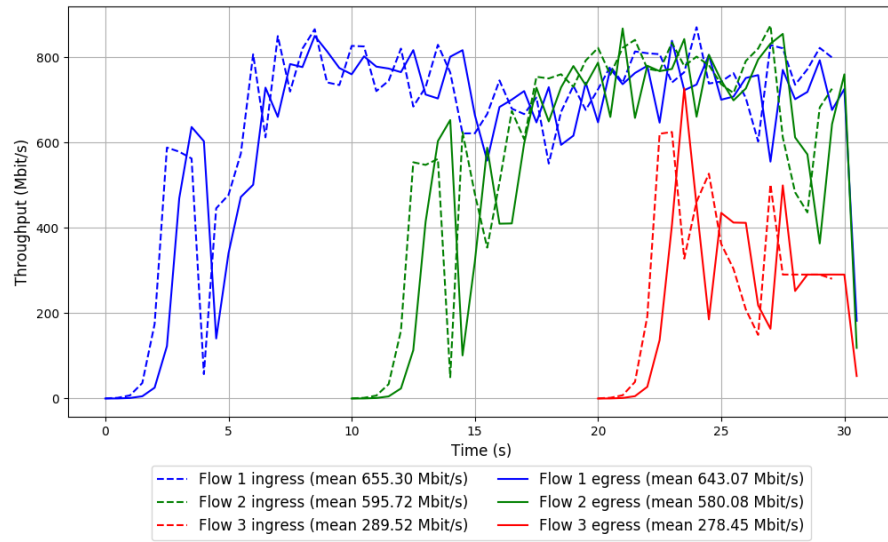
```
Run 2: Statistics of TCP BBR

Start at: 2020-02-18 04:09:15
End at: 2020-02-18 04:09:45
Local clock offset: 0.595 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 928.20 Mbit/s
95th percentile per-packet one-way delay: 218.999 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 541.28 Mbit/s
95th percentile per-packet one-way delay: 225.641 ms
Loss rate: 3.35%
-- Flow 2:
Average throughput: 433.69 Mbit/s
95th percentile per-packet one-way delay: 199.075 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 294.89 Mbit/s
95th percentile per-packet one-way delay: 189.506 ms
Loss rate: 0.06%
```

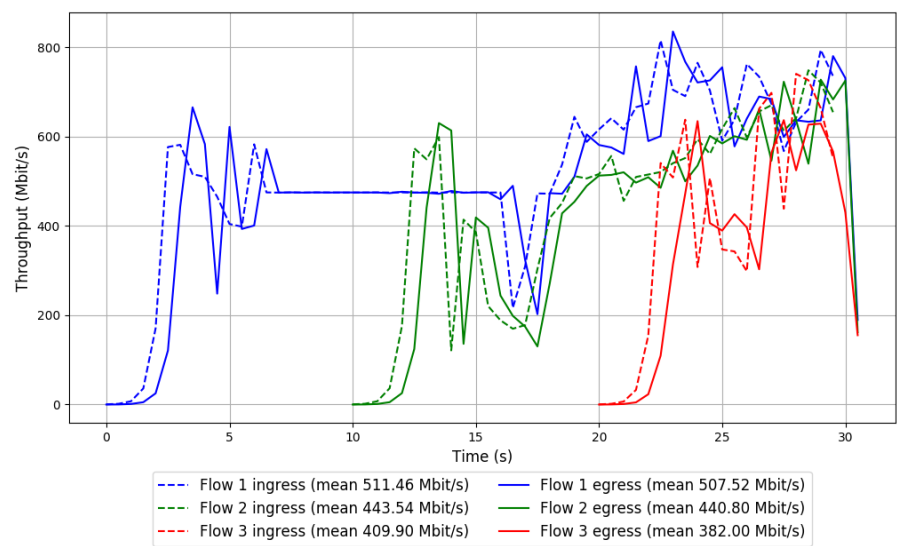Run 2: Report of TCP BBR — Data Link
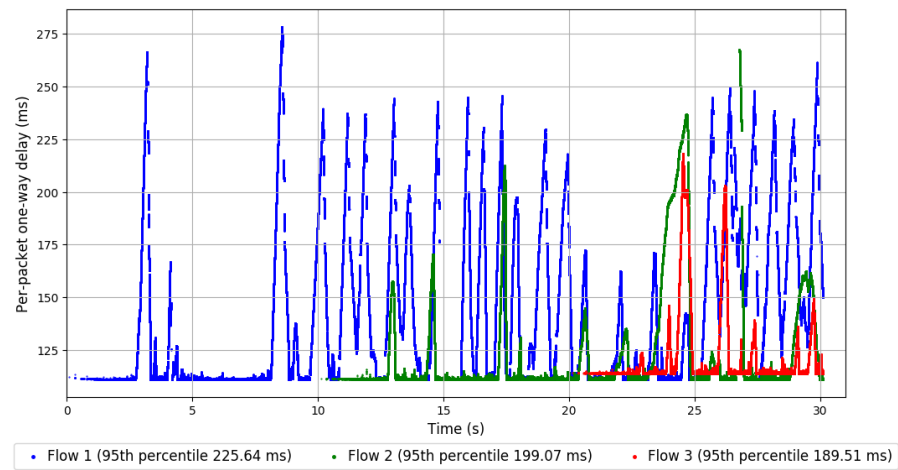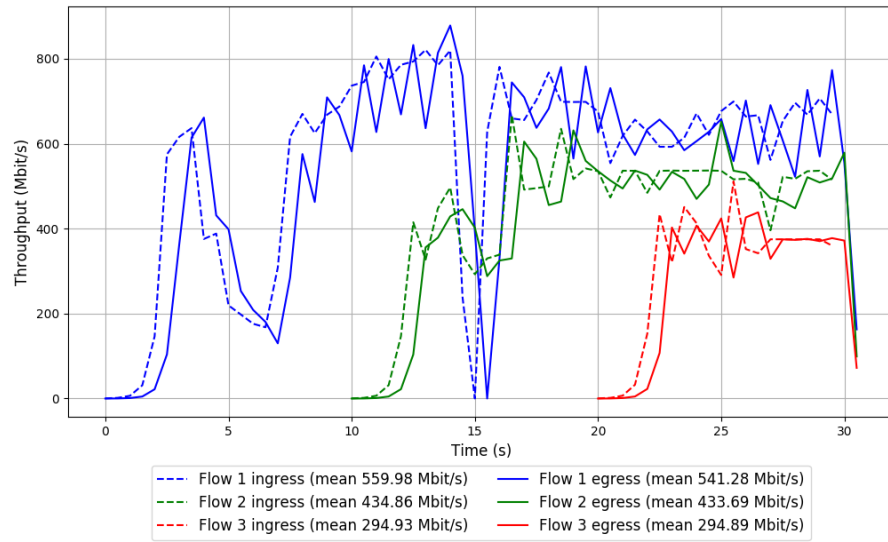
```
Run 3: Statistics of TCP BBR

Start at: 2020-02-18 04:50:47
End at: 2020-02-18 04:51:17
Local clock offset: 0.183 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 928.13 Mbit/s
95th percentile per-packet one-way delay: 212.726 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 507.52 Mbit/s
95th percentile per-packet one-way delay: 199.457 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 440.80 Mbit/s
95th percentile per-packet one-way delay: 182.666 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 382.00 Mbit/s
95th percentile per-packet one-way delay: 278.641 ms
Loss rate: 6.78%
```
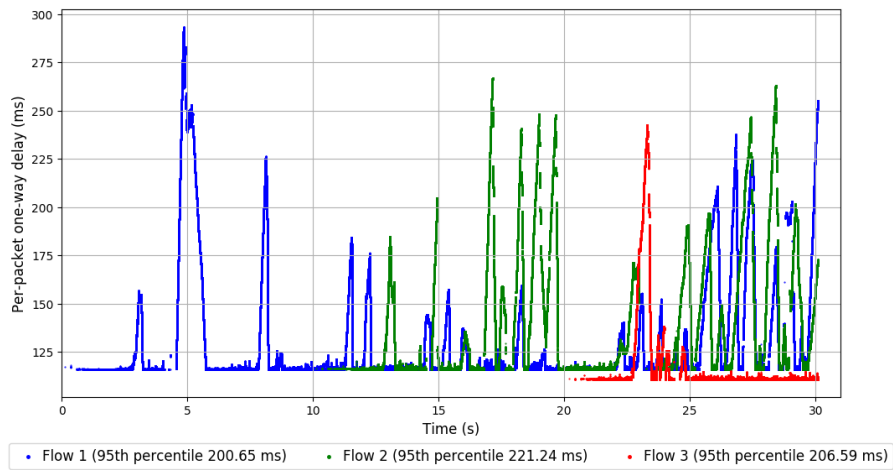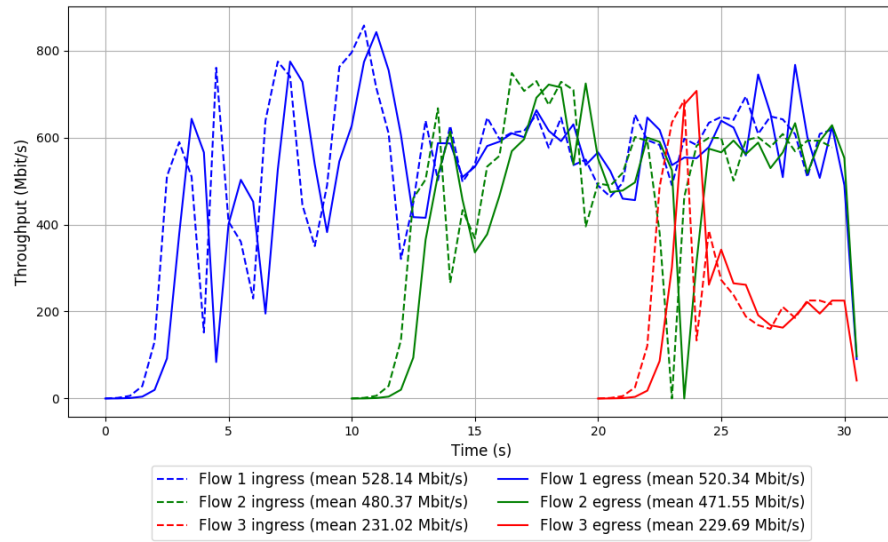
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 511.46 Mbit/s) --- Flow 1 egress (mean 507.52 Mbit/s)
Flow 2 ingress (mean 443.54 Mbit/s) --- Flow 2 egress (mean 440.80 Mbit/s)
Flow 3 ingress (mean 409.90 Mbit/s) --- Flow 3 egress (mean 382.00 Mbit/s)

Flow 1 (95th percentile 199.46 ms) • Flow 2 (95th percentile 182.67 ms) • Flow 3 (95th percentile 278.64 ms)
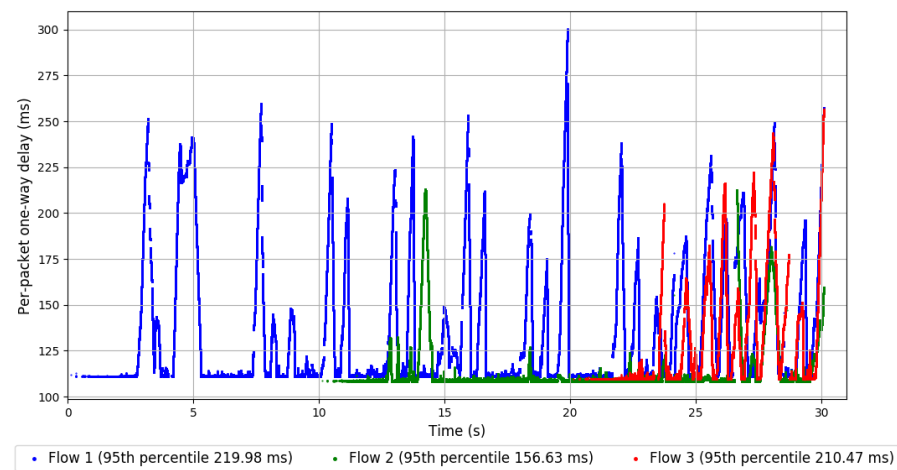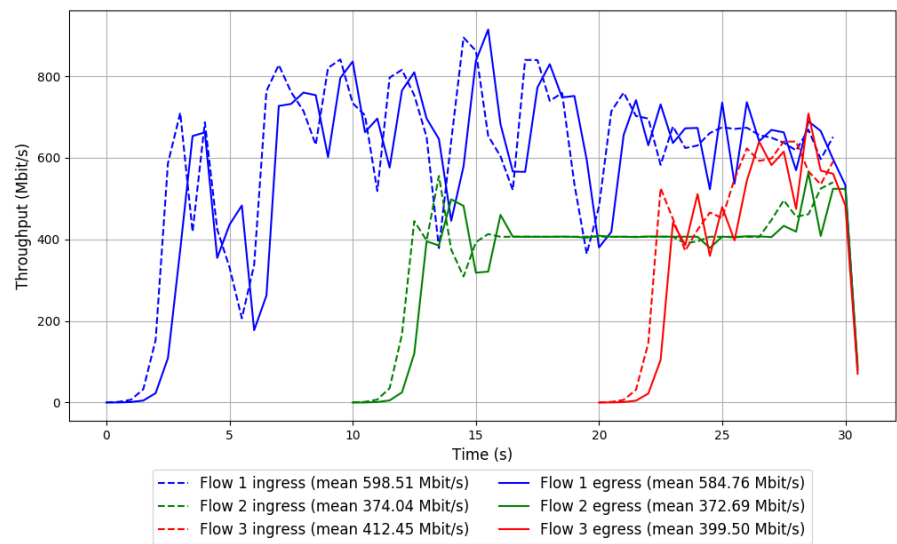
```
Run 4: Statistics of TCP BBR

Start at: 2020-02-18 05:32:40
End at: 2020-02-18 05:33:10
Local clock offset: -0.837 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 910.19 Mbit/s
95th percentile per-packet one-way delay: 210.502 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 520.34 Mbit/s
95th percentile per-packet one-way delay: 200.645 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 471.55 Mbit/s
95th percentile per-packet one-way delay: 221.241 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 229.69 Mbit/s
95th percentile per-packet one-way delay: 206.585 ms
Loss rate: 0.58%
```

Run 4: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 528.14 Mbit/s) —— Flow 1 egress (mean 520.34 Mbit/s)
- - - Flow 2 ingress (mean 480.37 Mbit/s) —— Flow 2 egress (mean 471.55 Mbit/s)
- - - Flow 3 ingress (mean 231.02 Mbit/s) —— Flow 3 egress (mean 229.69 Mbit/s)

- Flow 1 (95th percentile 200.65 ms)   - Flow 2 (95th percentile 221.24 ms)   - Flow 3 (95th percentile 206.59 ms)

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```
Run 5: Statistics of TCP BBR

Start at: 2020-02-18 06:14:20
End at: 2020-02-18 06:14:50
Local clock offset: 0.118 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 965.64 Mbit/s
95th percentile per-packet one-way delay: 209.259 ms
Loss rate: 1.92%
-- Flow 1:
Average throughput: 584.76 Mbit/s
95th percentile per-packet one-way delay: 219.983 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 372.69 Mbit/s
95th percentile per-packet one-way delay: 156.628 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 399.50 Mbit/s
95th percentile per-packet one-way delay: 210.474 ms
Loss rate: 3.11%
```
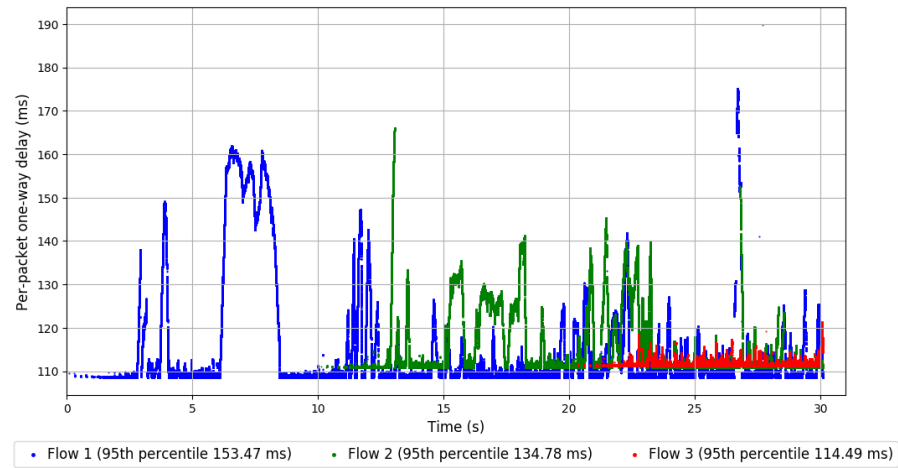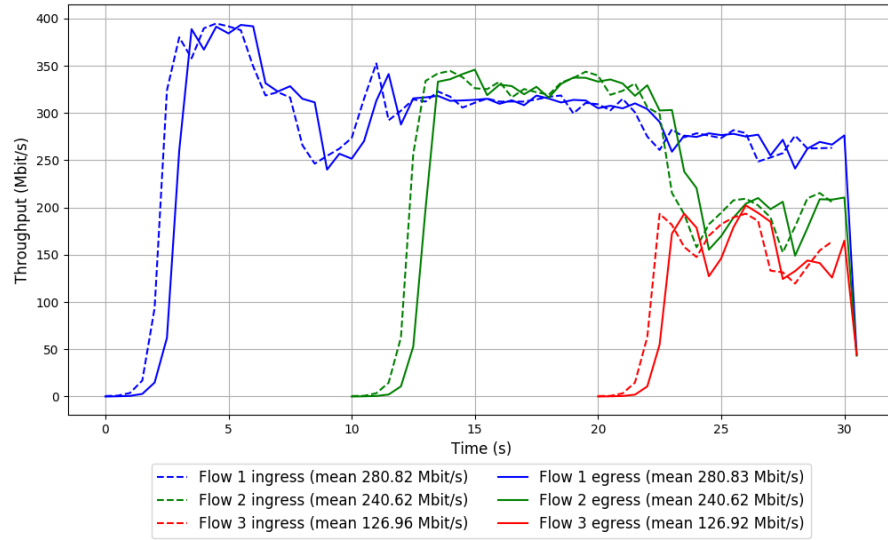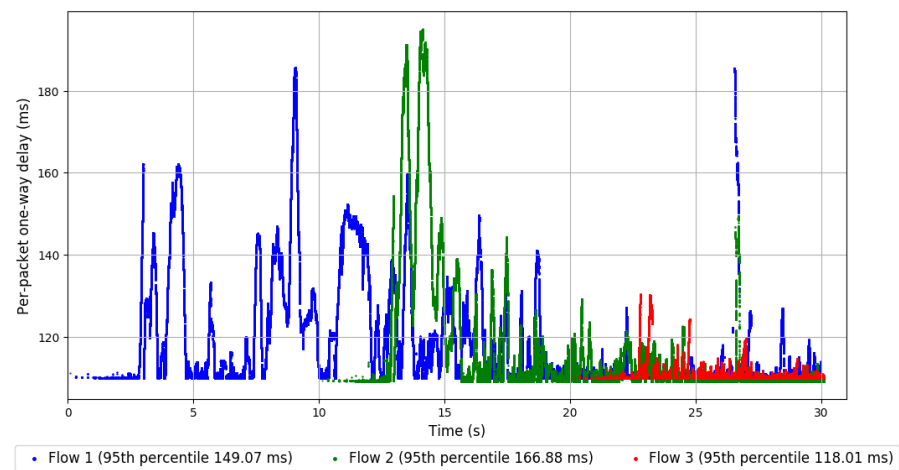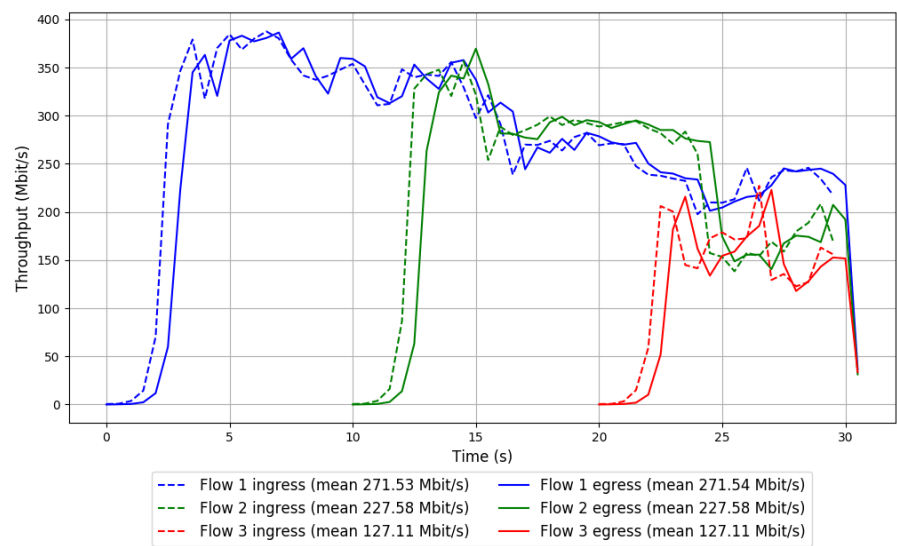
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 598.51 Mbit/s) --- Flow 1 egress (mean 584.76 Mbit/s)
Flow 2 ingress (mean 374.04 Mbit/s) --- Flow 2 egress (mean 372.69 Mbit/s)
Flow 3 ingress (mean 412.45 Mbit/s) --- Flow 3 egress (mean 399.50 Mbit/s)

Flow 1 (95th percentile 219.98 ms) Flow 2 (95th percentile 156.63 ms) Flow 3 (95th percentile 210.47 ms)

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```
Run 1: Statistics of Copa

Start at: 2020-02-18 03:41:20
End at: 2020-02-18 03:41:50
Local clock offset: -0.136 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.13 Mbit/s
95th percentile per-packet one-way delay: 145.001 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 280.83 Mbit/s
95th percentile per-packet one-way delay: 153.471 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 240.62 Mbit/s
95th percentile per-packet one-way delay: 134.779 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 126.92 Mbit/s
95th percentile per-packet one-way delay: 114.486 ms
Loss rate: 0.03%
```

Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 280.82 Mbit/s) — Flow 1 egress (mean 280.83 Mbit/s)
Flow 2 ingress (mean 240.62 Mbit/s) — Flow 2 egress (mean 240.62 Mbit/s)
Flow 3 ingress (mean 126.96 Mbit/s) — Flow 3 egress (mean 126.92 Mbit/s)

Flow 1 (95th percentile 153.47 ms) — Flow 2 (95th percentile 134.78 ms) — Flow 3 (95th percentile 114.49 ms)

```
Run 2: Statistics of Copa

Start at: 2020-02-18 04:23:06
End at: 2020-02-18 04:23:36
Local clock offset: -0.091 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 465.20 Mbit/s
95th percentile per-packet one-way delay: 149.794 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 271.54 Mbit/s
95th percentile per-packet one-way delay: 149.074 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 227.58 Mbit/s
95th percentile per-packet one-way delay: 166.881 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 127.11 Mbit/s
95th percentile per-packet one-way delay: 118.006 ms
Loss rate: 0.00%
```
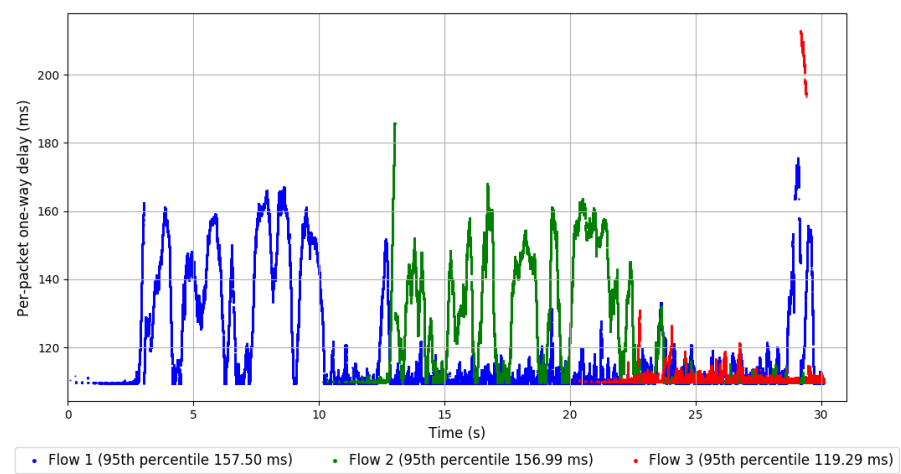
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 271.53 Mbit/s) --- Flow 1 egress (mean 271.54 Mbit/s) ---
Flow 2 ingress (mean 227.58 Mbit/s) --- Flow 2 egress (mean 227.58 Mbit/s) ---
Flow 3 ingress (mean 127.11 Mbit/s) --- Flow 3 egress (mean 127.11 Mbit/s) ---

Flow 1 (95th percentile 149.07 ms)   Flow 2 (95th percentile 166.88 ms)   Flow 3 (95th percentile 118.01 ms)

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```
Run 3: Statistics of Copa

Start at: 2020-02-18 05:04:42
End at: 2020-02-18 05:05:12
Local clock offset: -0.124 ms
Remote clock offset: 0.057 ms


# Below is generated by plot.py at 2020-02-18 07:13:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 405.17 Mbit/s
95th percentile per-packet one-way delay: 178.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.02 Mbit/s
95th percentile per-packet one-way delay: 170.926 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 218.39 Mbit/s
95th percentile per-packet one-way delay: 236.683 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 137.90 Mbit/s
95th percentile per-packet one-way delay: 113.143 ms
Loss rate: 0.00%
```
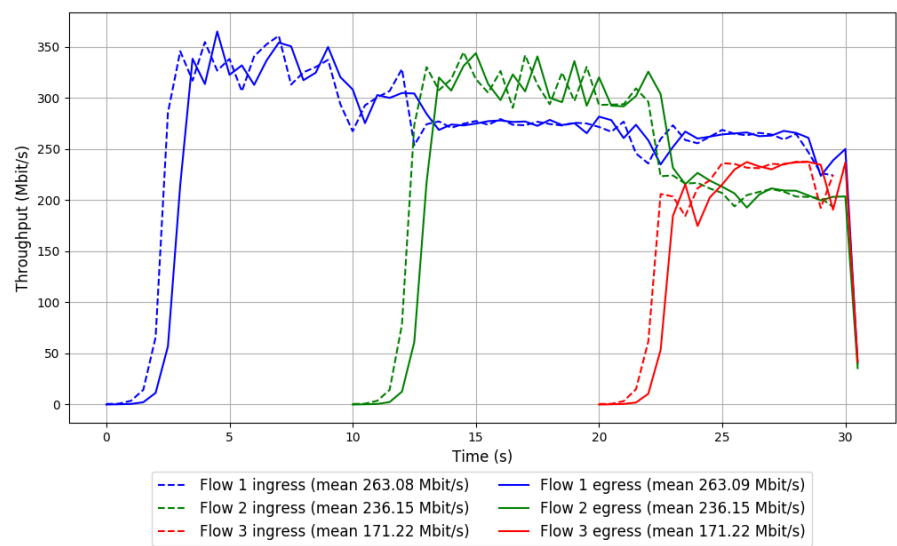
Run 3: Report of Copa — Data Link
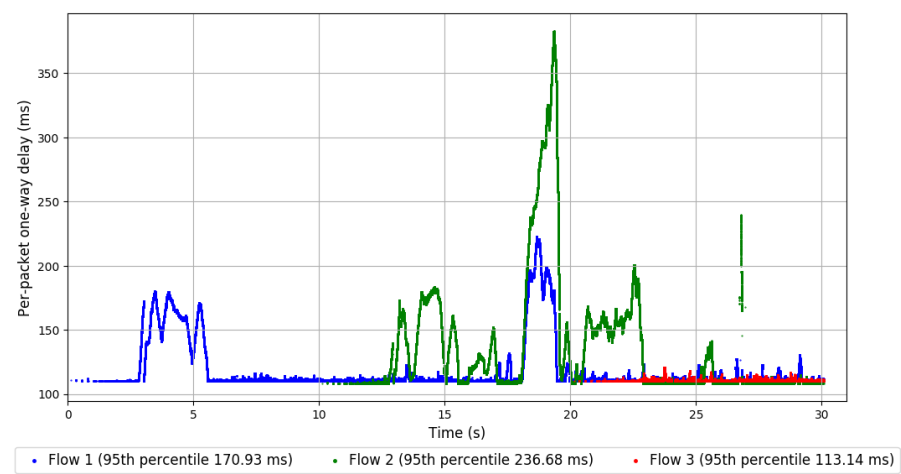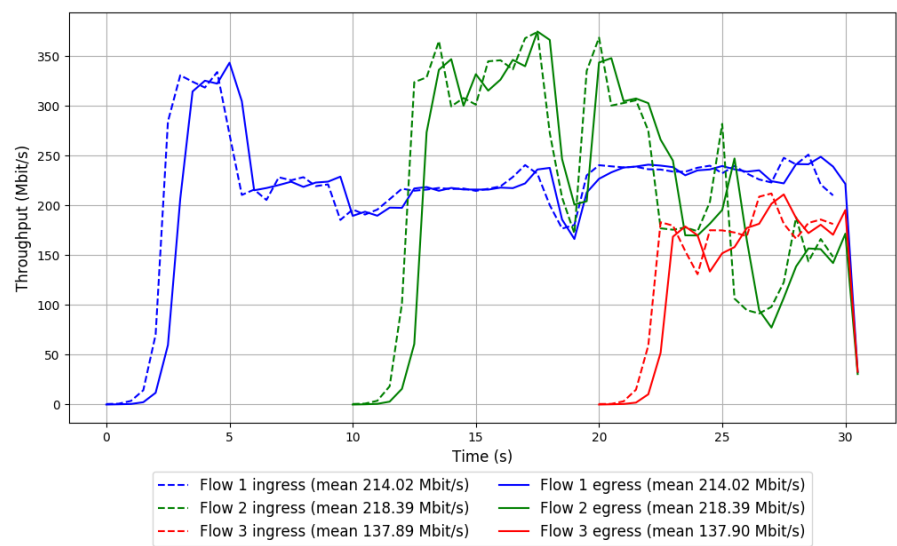
```
Run 4: Statistics of Copa

Start at: 2020-02-18 05:46:29
End at: 2020-02-18 05:46:59
Local clock offset: -0.082 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2020-02-18 07:25:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 438.86 Mbit/s
95th percentile per-packet one-way delay: 134.836 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 264.63 Mbit/s
95th percentile per-packet one-way delay: 133.887 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 207.14 Mbit/s
95th percentile per-packet one-way delay: 140.828 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 109.27 Mbit/s
95th percentile per-packet one-way delay: 116.137 ms
Loss rate: 0.00%
```
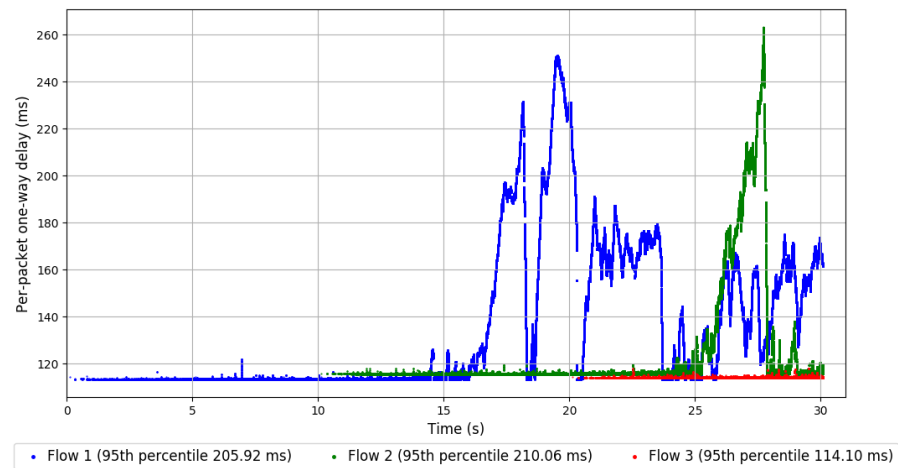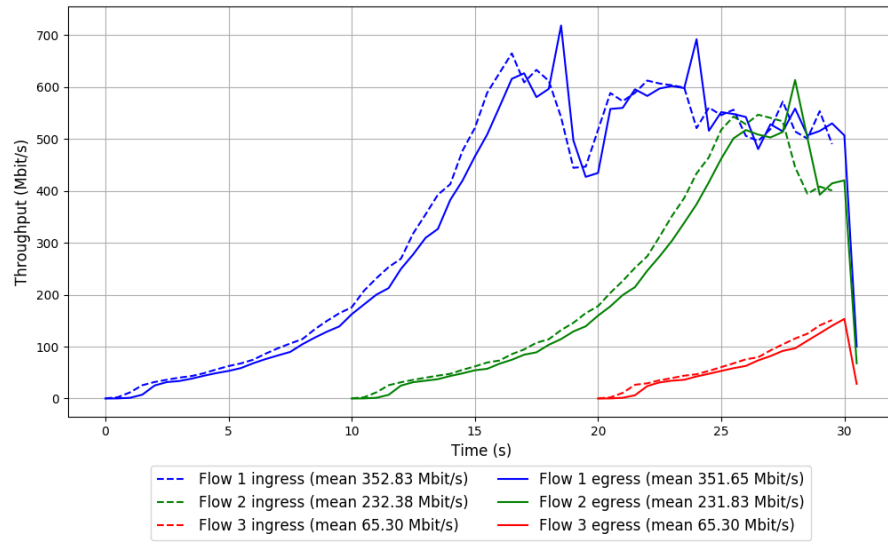
Run 4: Report of Copa — Data Link
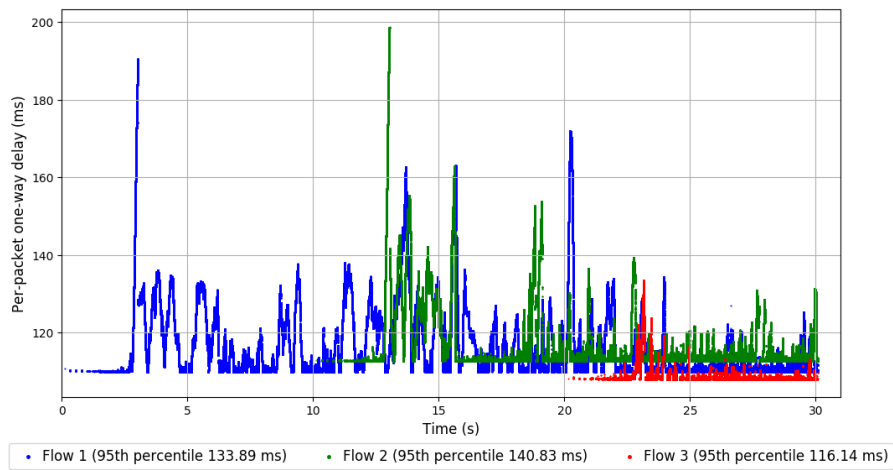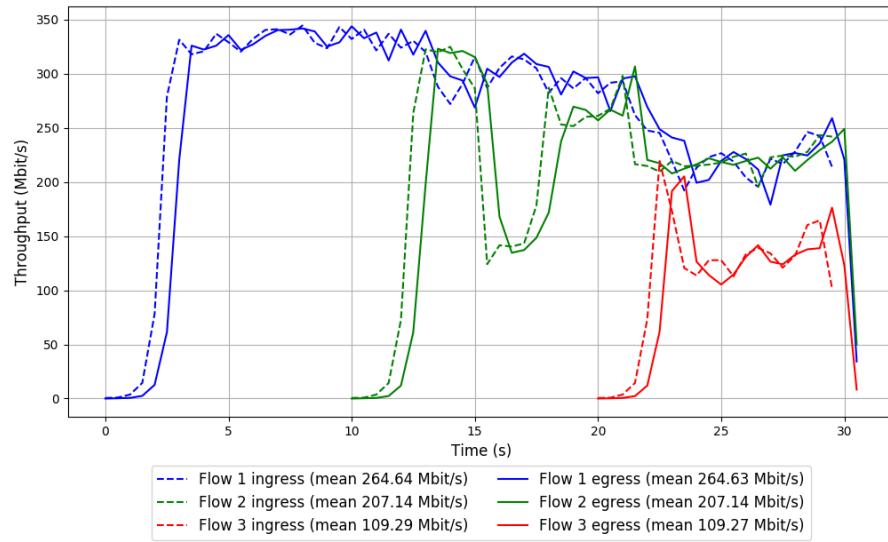
```
Run 5: Statistics of Copa

Start at: 2020-02-18 06:28:14
End at: 2020-02-18 06:28:44
Local clock offset: -0.225 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2020-02-18 07:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.14 Mbit/s
95th percentile per-packet one-way delay: 157.081 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 263.09 Mbit/s
95th percentile per-packet one-way delay: 157.498 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 236.15 Mbit/s
95th percentile per-packet one-way delay: 156.991 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 171.22 Mbit/s
95th percentile per-packet one-way delay: 119.291 ms
Loss rate: 0.00%
```

Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 263.08 Mbit/s) --- Flow 1 egress (mean 263.09 Mbit/s)
Flow 2 ingress (mean 236.15 Mbit/s) --- Flow 2 egress (mean 236.15 Mbit/s)
Flow 3 ingress (mean 171.22 Mbit/s) --- Flow 3 egress (mean 171.22 Mbit/s)

Flow 1 (95th percentile 157.50 ms)   Flow 2 (95th percentile 156.99 ms)   Flow 3 (95th percentile 119.29 ms)

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```
Run 1: Statistics of TCP Cubic

Start at: 2020-02-18 03:43:30
End at: 2020-02-18 03:44:00
Local clock offset: -0.601 ms
Remote clock offset: -0.109 ms


# Below is generated by plot.py at 2020-02-18 07:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.53 Mbit/s
95th percentile per-packet one-way delay: 223.443 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 137.01 Mbit/s
95th percentile per-packet one-way delay: 130.664 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 222.05 Mbit/s
95th percentile per-packet one-way delay: 239.074 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 339.10 Mbit/s
95th percentile per-packet one-way delay: 162.113 ms
Loss rate: 0.12%
```
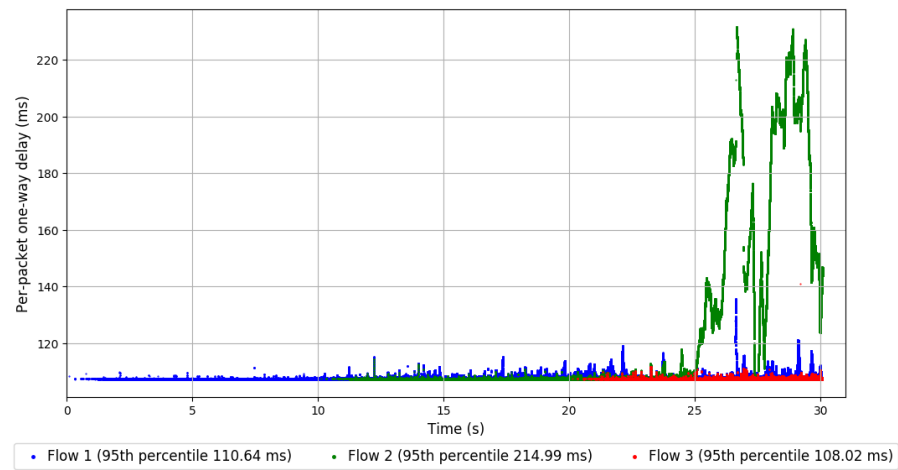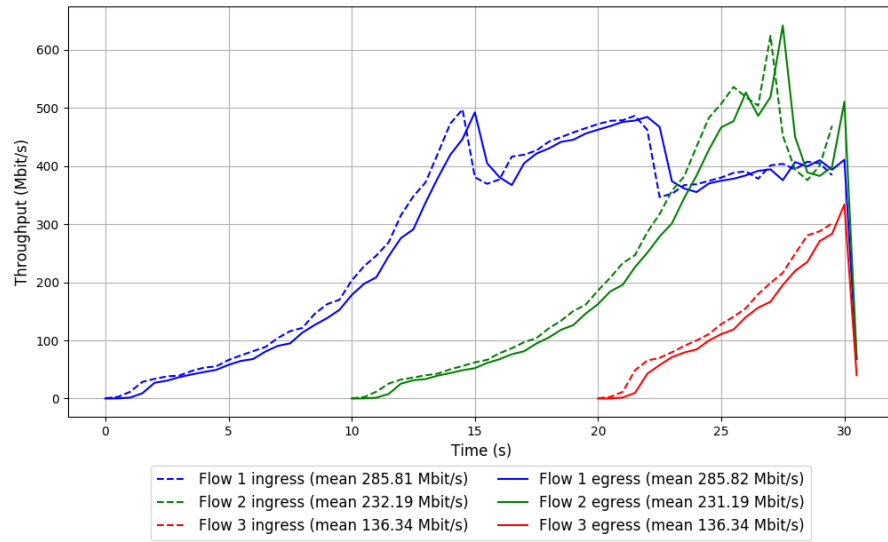
Run 1: Report of TCP Cubic — Data Link
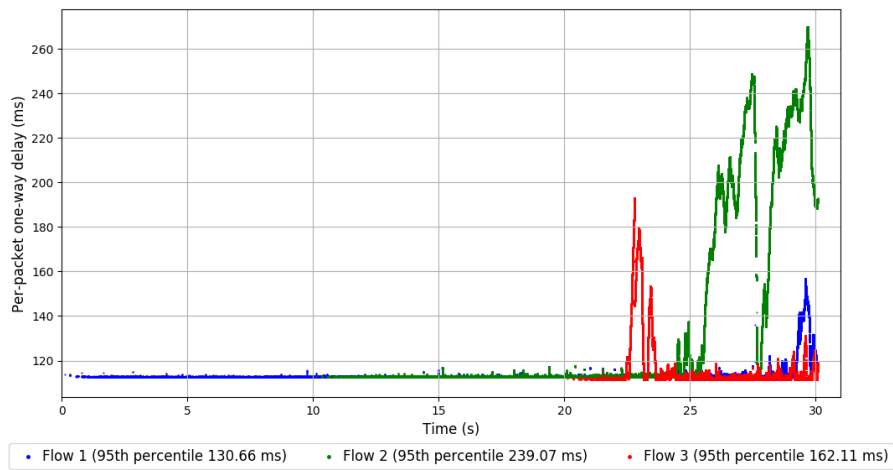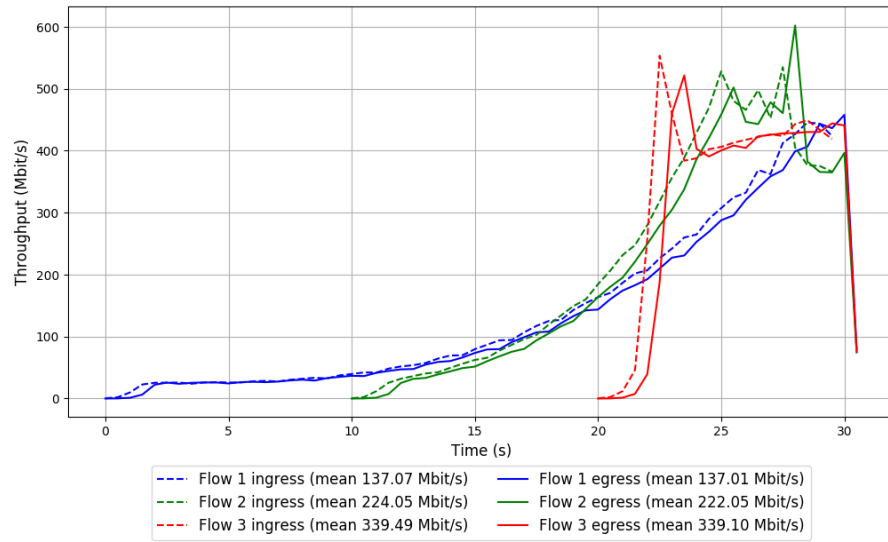
```
Run 2: Statistics of TCP Cubic

Start at: 2020-02-18 04:25:16
End at: 2020-02-18 04:25:46
Local clock offset: -0.89 ms
Remote clock offset: -0.095 ms


# Below is generated by plot.py at 2020-02-18 07:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 527.79 Mbit/s
95th percentile per-packet one-way delay: 207.030 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 351.65 Mbit/s
95th percentile per-packet one-way delay: 205.916 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 231.83 Mbit/s
95th percentile per-packet one-way delay: 210.057 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 114.098 ms
Loss rate: 0.00%
```
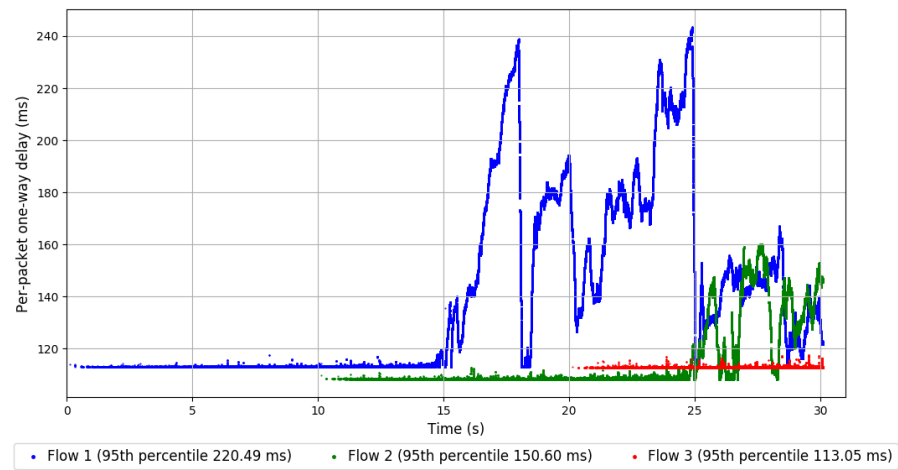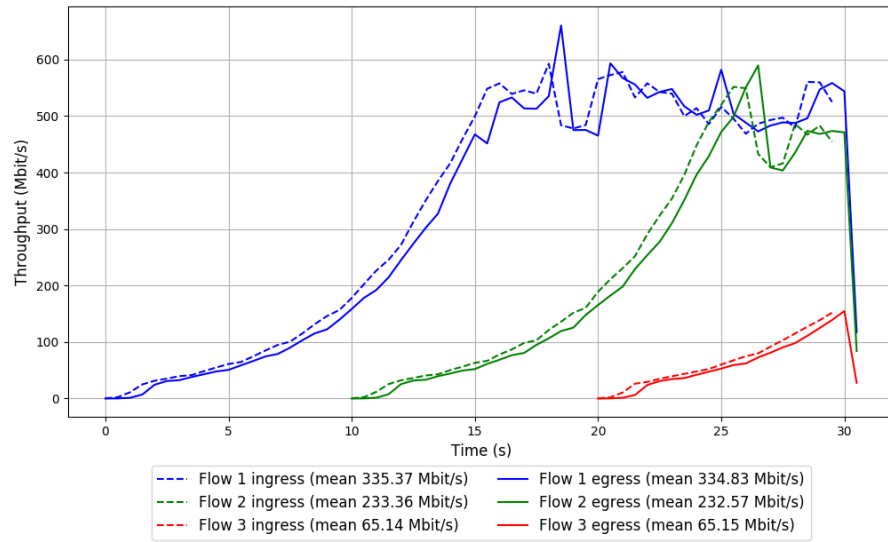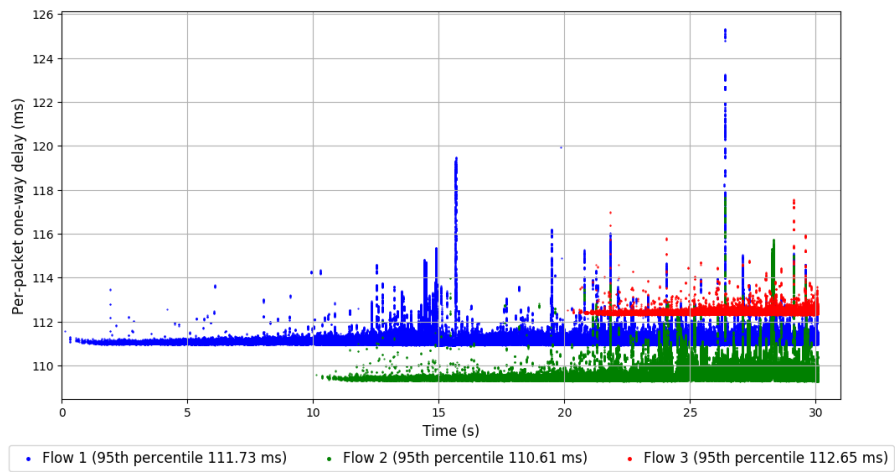
Run 2: Report of TCP Cubic — Data Link

- --- Flow 1 ingress (mean 352.83 Mbit/s) — Flow 1 egress (mean 351.65 Mbit/s)
- --- Flow 2 ingress (mean 232.38 Mbit/s) — Flow 2 egress (mean 231.83 Mbit/s)
- --- Flow 3 ingress (mean 65.30 Mbit/s) — Flow 3 egress (mean 65.30 Mbit/s)

- Flow 1 (95th percentile 205.92 ms)   • Flow 2 (95th percentile 210.06 ms)   • Flow 3 (95th percentile 114.10 ms)
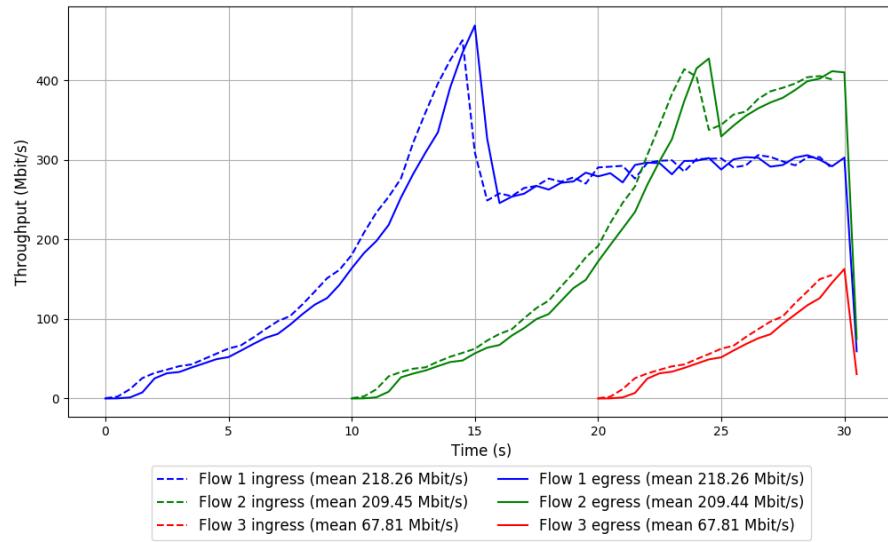
```
Run 3: Statistics of TCP Cubic

Start at: 2020-02-18 05:06:44
End at: 2020-02-18 05:07:14
Local clock offset: 0.677 ms
Remote clock offset: 0.021 ms


# Below is generated by plot.py at 2020-02-18 07:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 485.10 Mbit/s
95th percentile per-packet one-way delay: 191.036 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 285.82 Mbit/s
95th percentile per-packet one-way delay: 110.637 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 231.19 Mbit/s
95th percentile per-packet one-way delay: 214.994 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 136.34 Mbit/s
95th percentile per-packet one-way delay: 108.023 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 285.81 Mbit/s)   Flow 1 egress (mean 285.82 Mbit/s)
Flow 2 ingress (mean 232.19 Mbit/s)   Flow 2 egress (mean 231.19 Mbit/s)
Flow 3 ingress (mean 136.34 Mbit/s)   Flow 3 egress (mean 136.34 Mbit/s)

Flow 1 (95th percentile 110.64 ms)   Flow 2 (95th percentile 214.99 ms)   Flow 3 (95th percentile 108.02 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2020-02-18 05:48:34
End at: 2020-02-18 05:49:04
Local clock offset: 0.176 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2020-02-18 07:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.42 Mbit/s
95th percentile per-packet one-way delay: 214.159 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 334.83 Mbit/s
95th percentile per-packet one-way delay: 220.488 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 232.57 Mbit/s
95th percentile per-packet one-way delay: 150.601 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 65.15 Mbit/s
95th percentile per-packet one-way delay: 113.045 ms
Loss rate: 0.01%
```
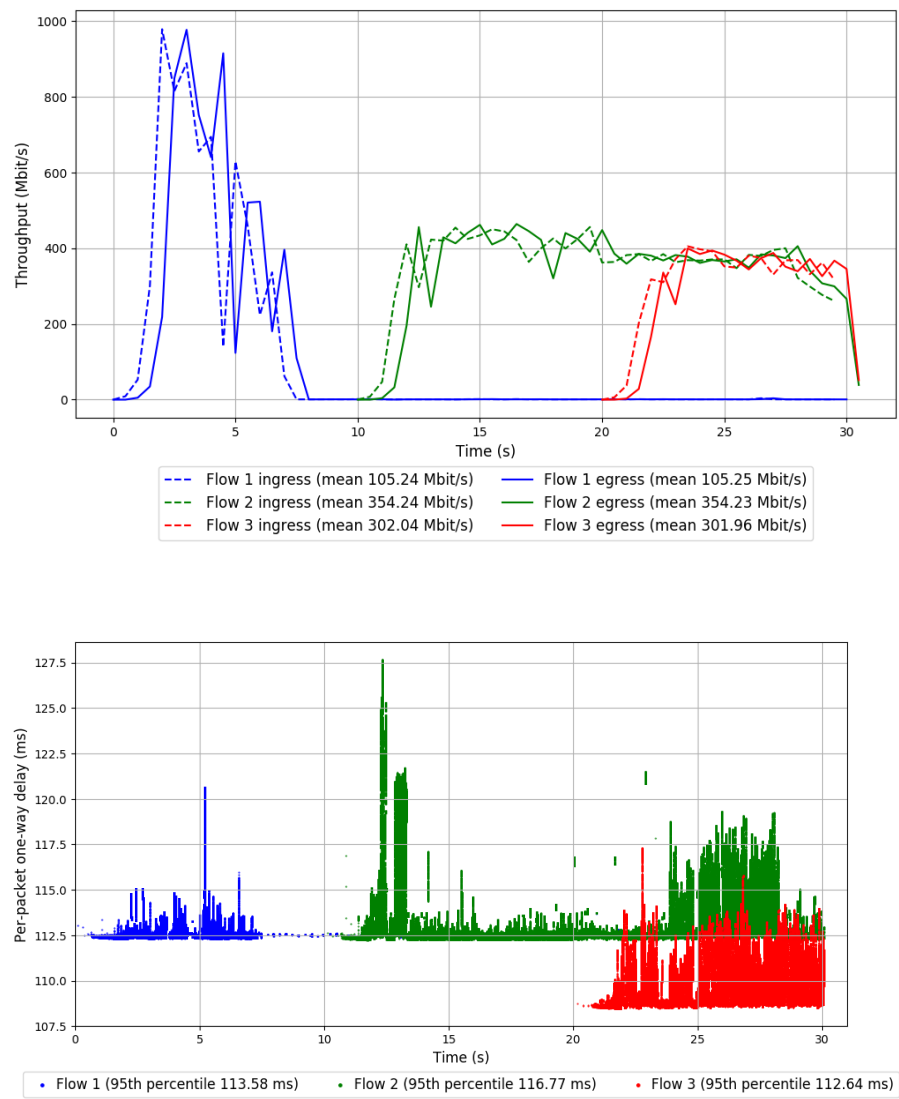
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 335.37 Mbit/s)   Flow 1 egress (mean 334.83 Mbit/s)
Flow 2 ingress (mean 233.36 Mbit/s)   Flow 2 egress (mean 232.57 Mbit/s)
Flow 3 ingress (mean 65.14 Mbit/s)   Flow 3 egress (mean 65.15 Mbit/s)

Flow 1 (95th percentile 220.49 ms)   Flow 2 (95th percentile 150.60 ms)   Flow 3 (95th percentile 113.05 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2020-02-18 06:30:24
End at: 2020-02-18 06:30:54
Local clock offset: -1.342 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2020-02-18 07:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 380.32 Mbit/s
95th percentile per-packet one-way delay: 112.426 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.26 Mbit/s
95th percentile per-packet one-way delay: 111.728 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 209.44 Mbit/s
95th percentile per-packet one-way delay: 110.605 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 67.81 Mbit/s
95th percentile per-packet one-way delay: 112.651 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Cubic — Data Link
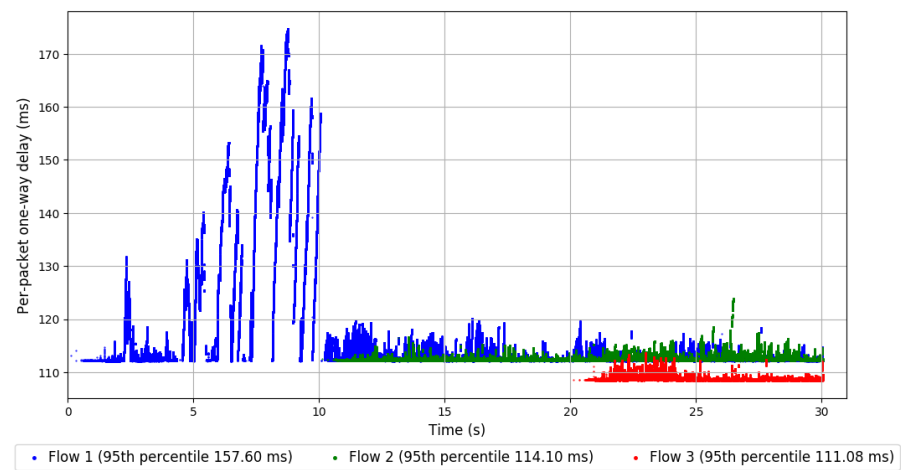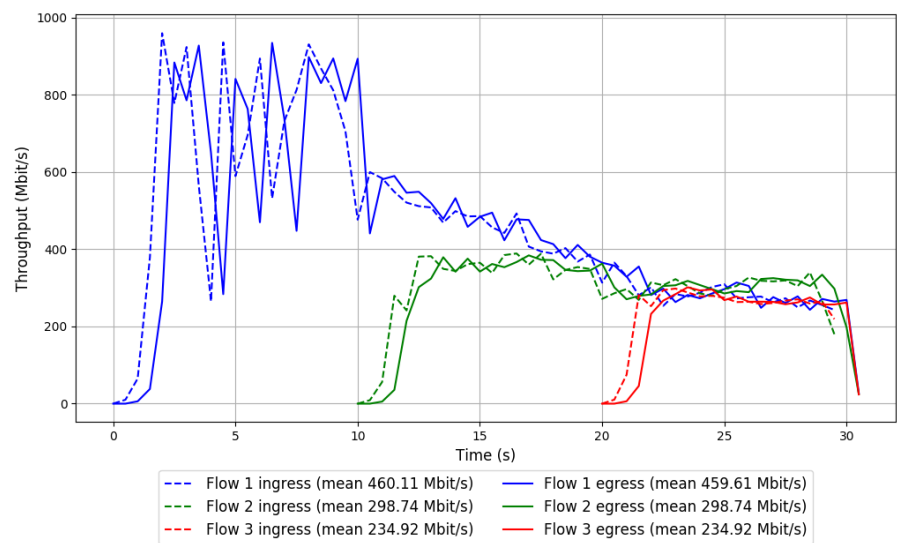

Flow 1 ingress (mean 218.26 Mbit/s) --- Flow 1 egress (mean 218.26 Mbit/s)
Flow 2 ingress (mean 209.45 Mbit/s) --- Flow 2 egress (mean 209.44 Mbit/s)
Flow 3 ingress (mean 67.81 Mbit/s) --- Flow 3 egress (mean 67.81 Mbit/s)

Flow 1 (95th percentile 111.73 ms)   Flow 2 (95th percentile 110.61 ms)   Flow 3 (95th percentile 112.65 ms)

```
Run 1: Statistics of FillP

Start at: 2020-02-18 03:08:35
End at: 2020-02-18 03:09:05
Local clock offset: -0.085 ms
Remote clock offset: 0.078 ms


# Below is generated by plot.py at 2020-02-18 07:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 440.47 Mbit/s
95th percentile per-packet one-way delay: 115.625 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 105.25 Mbit/s
95th percentile per-packet one-way delay: 113.585 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 354.23 Mbit/s
95th percentile per-packet one-way delay: 116.771 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 301.96 Mbit/s
95th percentile per-packet one-way delay: 112.642 ms
Loss rate: 0.00%
```
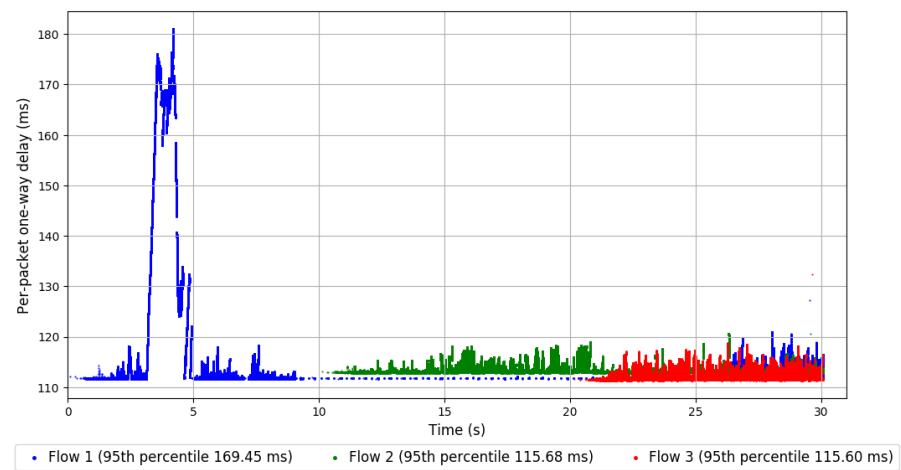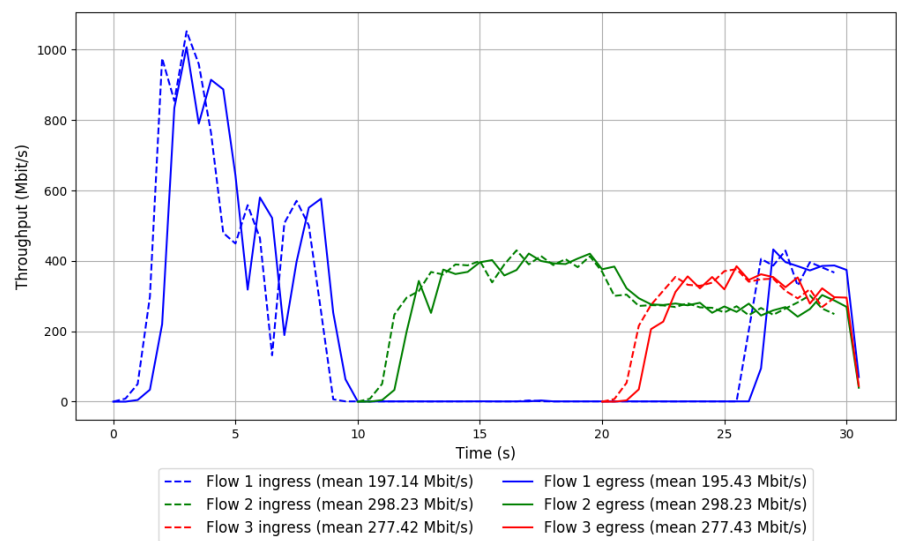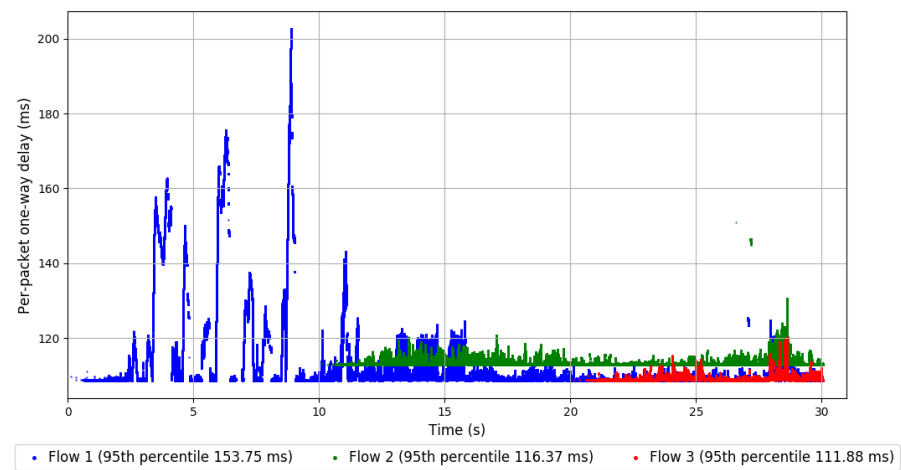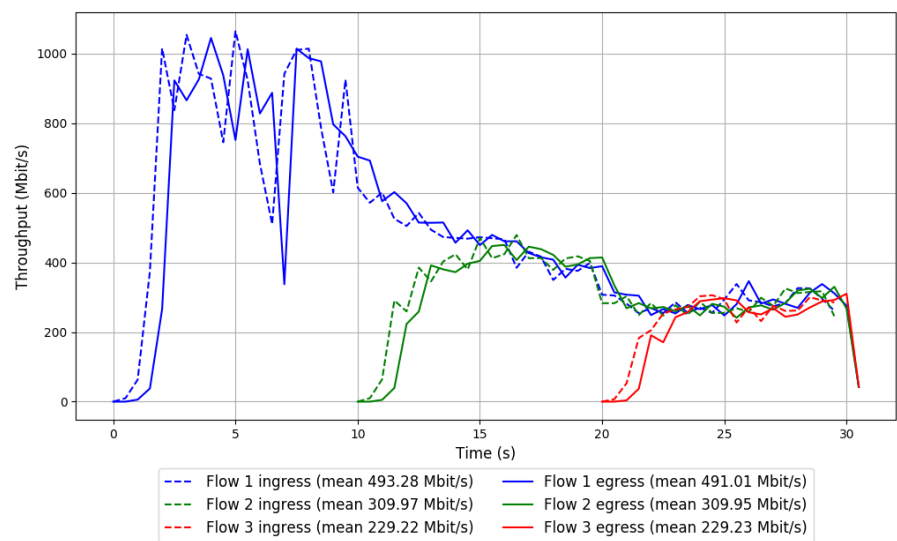
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 105.24 Mbit/s) --- Flow 1 egress (mean 105.25 Mbit/s)
Flow 2 ingress (mean 354.24 Mbit/s) --- Flow 2 egress (mean 354.23 Mbit/s)
Flow 3 ingress (mean 302.04 Mbit/s) --- Flow 3 egress (mean 301.96 Mbit/s)

Flow 1 (95th percentile 113.58 ms) • Flow 2 (95th percentile 116.77 ms) • Flow 3 (95th percentile 112.64 ms)

```
Run 2: Statistics of FillP

Start at: 2020-02-18 03:50:16
End at: 2020-02-18 03:50:46
Local clock offset: -0.183 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2020-02-18 07:37:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 648.21 Mbit/s
95th percentile per-packet one-way delay: 111.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 396.33 Mbit/s
95th percentile per-packet one-way delay: 111.591 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 270.70 Mbit/s
95th percentile per-packet one-way delay: 111.507 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 217.53 Mbit/s
95th percentile per-packet one-way delay: 110.917 ms
Loss rate: 0.00%
```

## Run 2: Report of FillP — Data Link
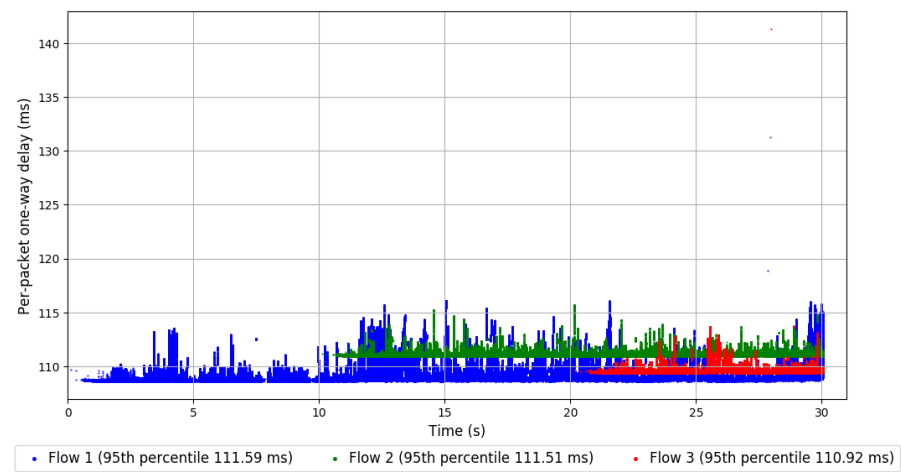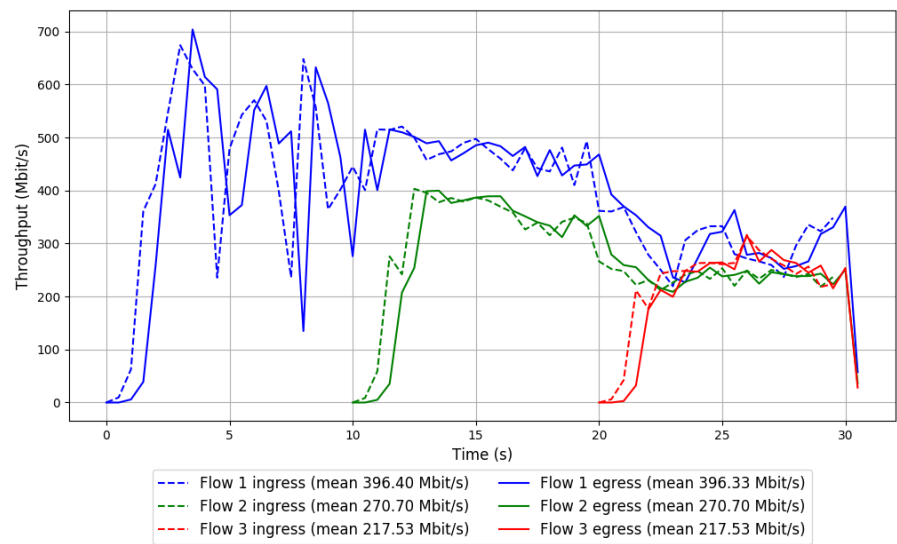
```
Run 3: Statistics of FillP

Start at: 2020-02-18 04:32:06
End at: 2020-02-18 04:32:36
Local clock offset: 0.002 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2020-02-18 07:41:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 736.16 Mbit/s
95th percentile per-packet one-way delay: 149.980 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 459.61 Mbit/s
95th percentile per-packet one-way delay: 157.604 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 298.74 Mbit/s
95th percentile per-packet one-way delay: 114.104 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 234.92 Mbit/s
95th percentile per-packet one-way delay: 111.076 ms
Loss rate: 0.00%
```
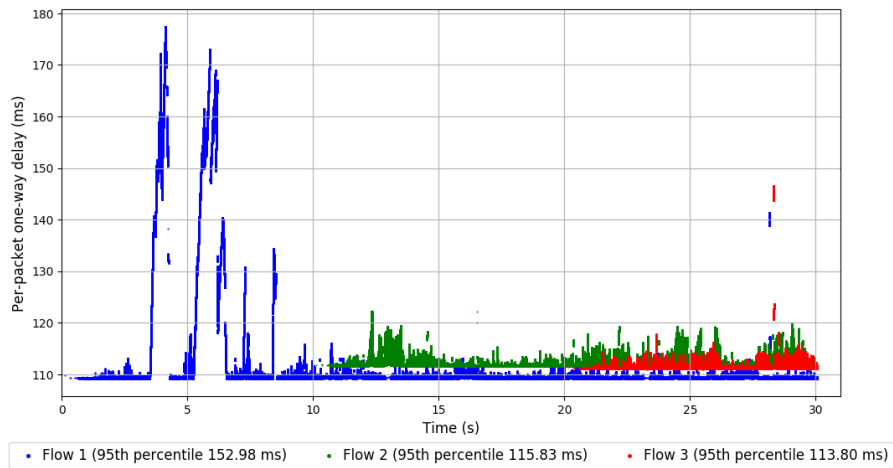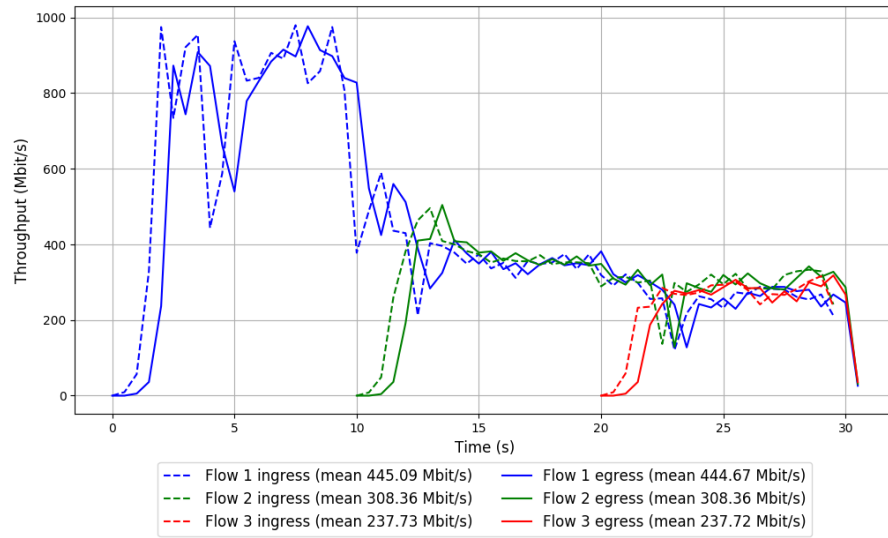
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 460.11 Mbit/s) --- Flow 1 egress (mean 459.61 Mbit/s)
Flow 2 ingress (mean 298.74 Mbit/s) --- Flow 2 egress (mean 298.74 Mbit/s)
Flow 3 ingress (mean 234.92 Mbit/s) --- Flow 3 egress (mean 234.92 Mbit/s)

Flow 1 (95th percentile 157.60 ms) • Flow 2 (95th percentile 114.10 ms) • Flow 3 (95th percentile 111.08 ms)

```
Run 4: Statistics of FillP

Start at: 2020-02-18 05:13:35
End at: 2020-02-18 05:14:05
Local clock offset: -0.08 ms
Remote clock offset: 0.037 ms


# Below is generated by plot.py at 2020-02-18 07:41:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 485.61 Mbit/s
95th percentile per-packet one-way delay: 159.365 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 195.43 Mbit/s
95th percentile per-packet one-way delay: 169.447 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 298.23 Mbit/s
95th percentile per-packet one-way delay: 115.676 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 277.43 Mbit/s
95th percentile per-packet one-way delay: 115.602 ms
Loss rate: 0.00%
```
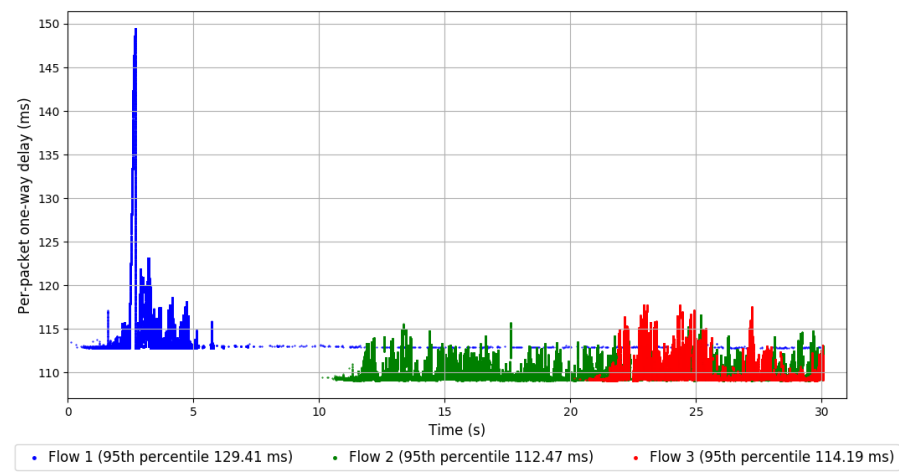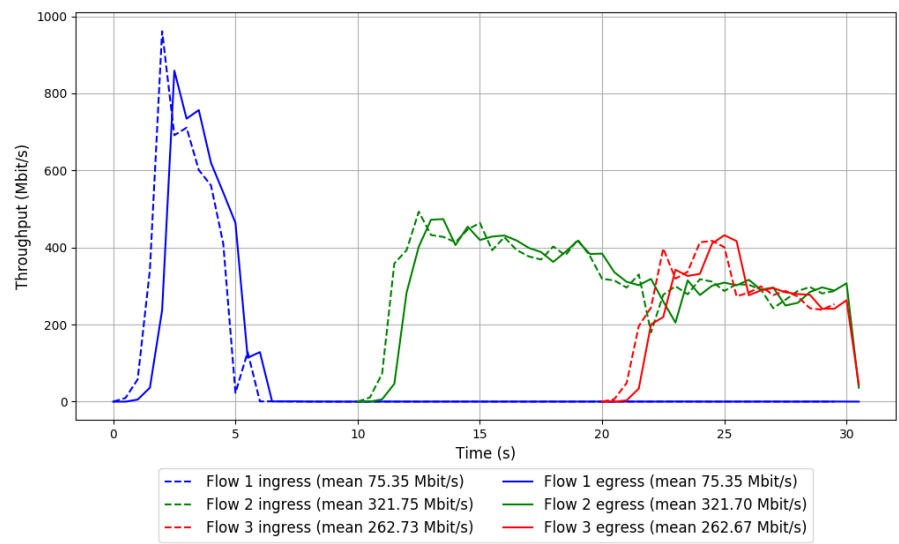
Run 4: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 197.14 Mbit/s)   —— Flow 1 egress (mean 195.43 Mbit/s)
- - - - Flow 2 ingress (mean 298.23 Mbit/s)   —— Flow 2 egress (mean 298.23 Mbit/s)
- - - - Flow 3 ingress (mean 277.42 Mbit/s)   —— Flow 3 egress (mean 277.43 Mbit/s)

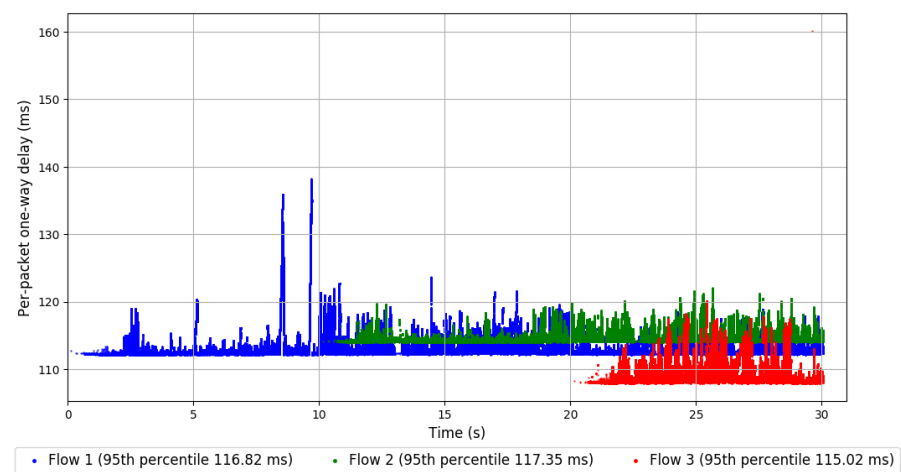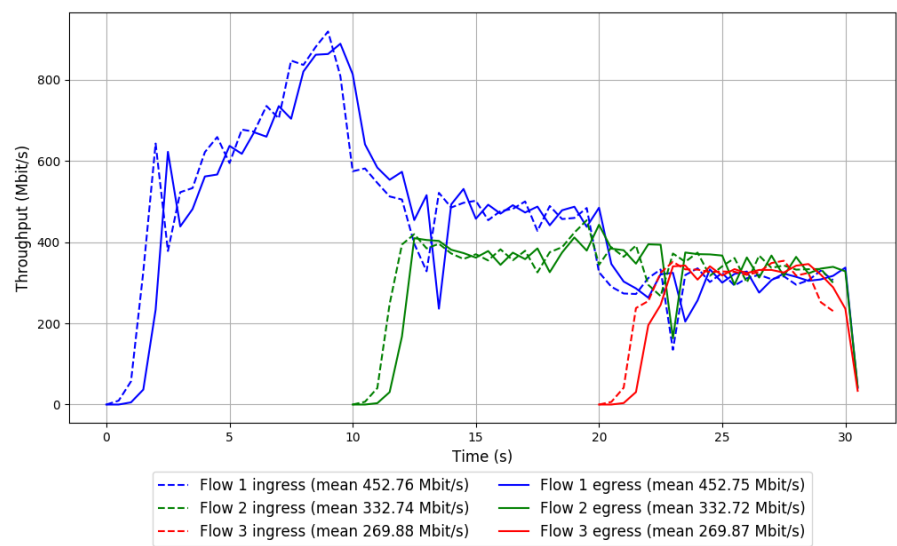- Flow 1 (95th percentile 169.45 ms)   • Flow 2 (95th percentile 115.68 ms)   • Flow 3 (95th percentile 115.60 ms)

```
Run 5: Statistics of FillP

Start at: 2020-02-18 05:55:24
End at: 2020-02-18 05:55:54
Local clock offset: -0.07 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2020-02-18 07:45:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 772.94 Mbit/s
95th percentile per-packet one-way delay: 146.636 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 491.01 Mbit/s
95th percentile per-packet one-way delay: 153.753 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 309.95 Mbit/s
95th percentile per-packet one-way delay: 116.373 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 229.23 Mbit/s
95th percentile per-packet one-way delay: 111.880 ms
Loss rate: 0.00%
```

Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 493.28 Mbit/s) --- Flow 1 egress (mean 491.01 Mbit/s)
Flow 2 ingress (mean 309.97 Mbit/s) --- Flow 2 egress (mean 309.95 Mbit/s)
Flow 3 ingress (mean 229.22 Mbit/s) --- Flow 3 egress (mean 229.23 Mbit/s)

Flow 1 (95th percentile 153.75 ms)   Flow 2 (95th percentile 116.37 ms)   Flow 3 (95th percentile 111.88 ms)

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```
Run 1: Statistics of FillP-Sheep

Start at: 2020-02-18 03:25:27
End at: 2020-02-18 03:25:57
Local clock offset: -0.19 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2020-02-18 07:45:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 710.90 Mbit/s
95th percentile per-packet one-way delay: 114.962 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 440.70 Mbit/s
95th percentile per-packet one-way delay: 116.865 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 288.21 Mbit/s
95th percentile per-packet one-way delay: 111.517 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 236.97 Mbit/s
95th percentile per-packet one-way delay: 115.779 ms
Loss rate: 0.00%
```

Run 1: Report of FillP-Sheep — Data Link

46
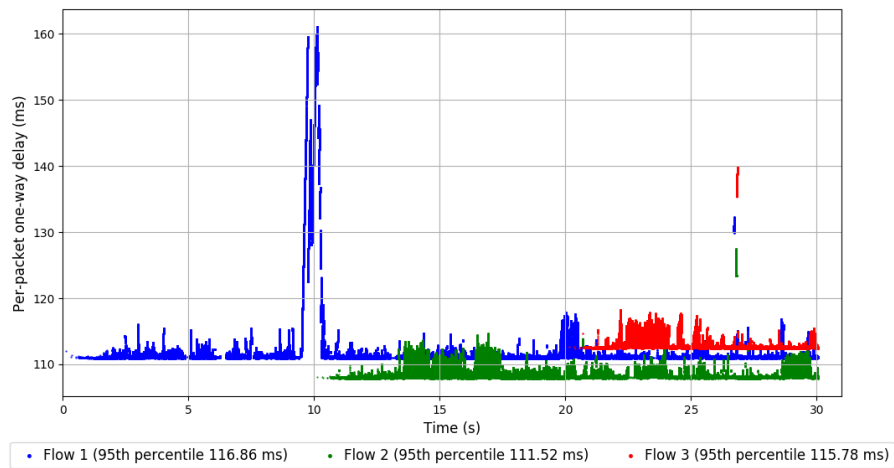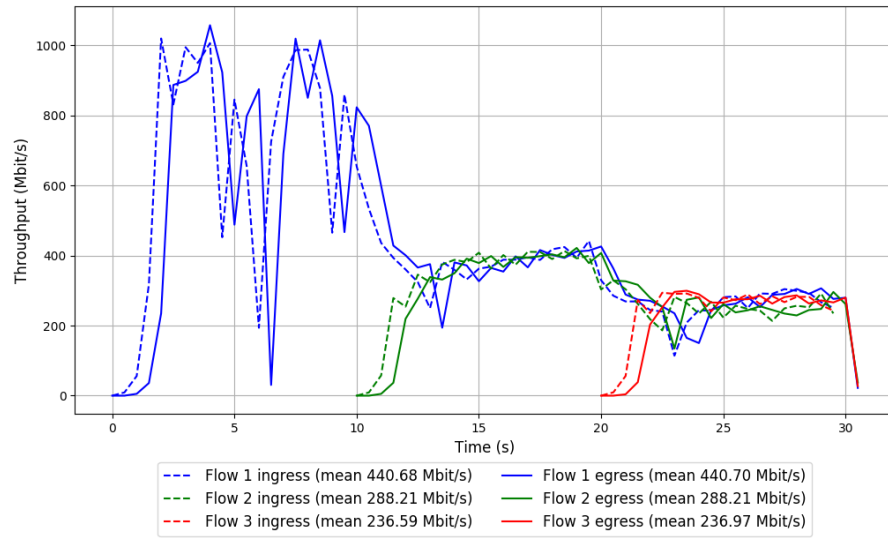
```
Run 2: Statistics of FillP-Sheep

Start at: 2020-02-18 04:07:22
End at: 2020-02-18 04:07:52
Local clock offset: 0.678 ms
Remote clock offset: -0.148 ms


# Below is generated by plot.py at 2020-02-18 07:47:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 728.36 Mbit/s
95th percentile per-packet one-way delay: 139.826 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 444.67 Mbit/s
95th percentile per-packet one-way delay: 152.979 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 308.36 Mbit/s
95th percentile per-packet one-way delay: 115.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 237.72 Mbit/s
95th percentile per-packet one-way delay: 113.800 ms
Loss rate: 0.00%
```

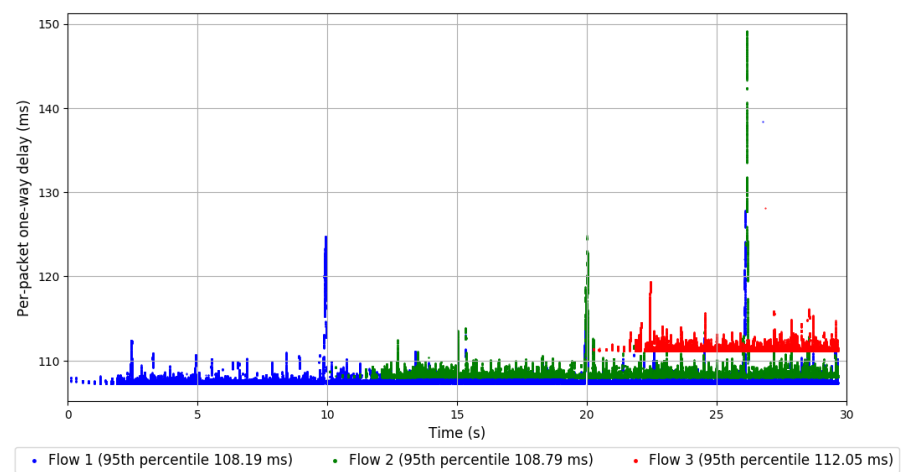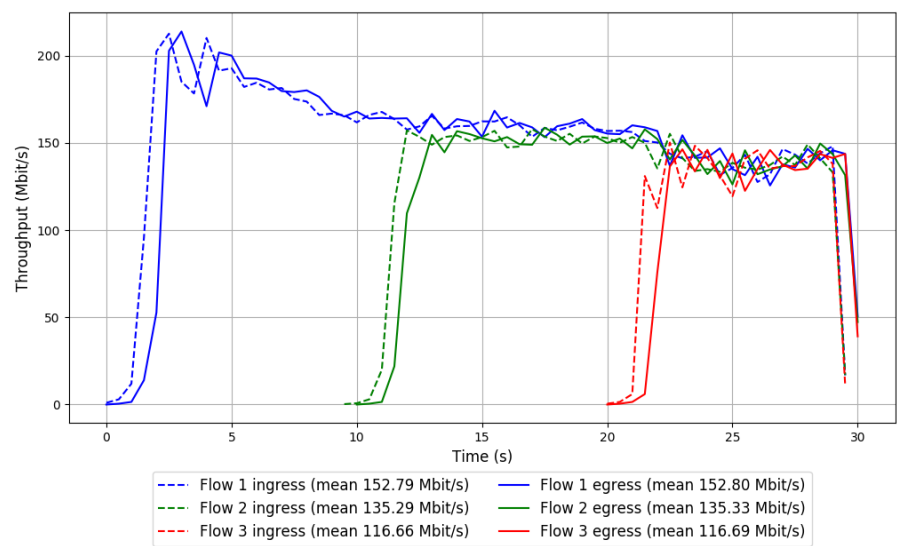Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 445.09 Mbit/s)   Flow 1 egress (mean 444.67 Mbit/s)
Flow 2 ingress (mean 308.36 Mbit/s)   Flow 2 egress (mean 308.36 Mbit/s)
Flow 3 ingress (mean 237.73 Mbit/s)   Flow 3 egress (mean 237.72 Mbit/s)

Flow 1 (95th percentile 152.98 ms)   Flow 2 (95th percentile 115.83 ms)   Flow 3 (95th percentile 113.80 ms)

48

```
Run 3: Statistics of FillP-Sheep

Start at: 2020-02-18 04:49:10
End at: 2020-02-18 04:49:40
Local clock offset: -0.04 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2020-02-18 07:47:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.34 Mbit/s
95th percentile per-packet one-way delay: 115.764 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.35 Mbit/s
95th percentile per-packet one-way delay: 129.413 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 321.70 Mbit/s
95th percentile per-packet one-way delay: 112.470 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 262.67 Mbit/s
95th percentile per-packet one-way delay: 114.194 ms
Loss rate: 0.00%
```

Run 3: Report of FillP-Sheep — Data Link


Flow 1 ingress (mean 75.35 Mbit/s)   Flow 1 egress (mean 75.35 Mbit/s)
Flow 2 ingress (mean 321.75 Mbit/s)   Flow 2 egress (mean 321.70 Mbit/s)
Flow 3 ingress (mean 262.73 Mbit/s)   Flow 3 egress (mean 262.67 Mbit/s)

Flow 1 (95th percentile 129.41 ms)   Flow 2 (95th percentile 112.47 ms)   Flow 3 (95th percentile 114.19 ms)

50

```
Run 4: Statistics of FillP-Sheep

Start at: 2020-02-18 05:30:45
End at: 2020-02-18 05:31:15
Local clock offset: 0.037 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2020-02-18 07:53:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 762.91 Mbit/s
95th percentile per-packet one-way delay: 117.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 452.75 Mbit/s
95th percentile per-packet one-way delay: 116.821 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 332.72 Mbit/s
95th percentile per-packet one-way delay: 117.348 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 269.87 Mbit/s
95th percentile per-packet one-way delay: 115.022 ms
Loss rate: 0.00%
```

Run 4: Report of FillP-Sheep — Data Link
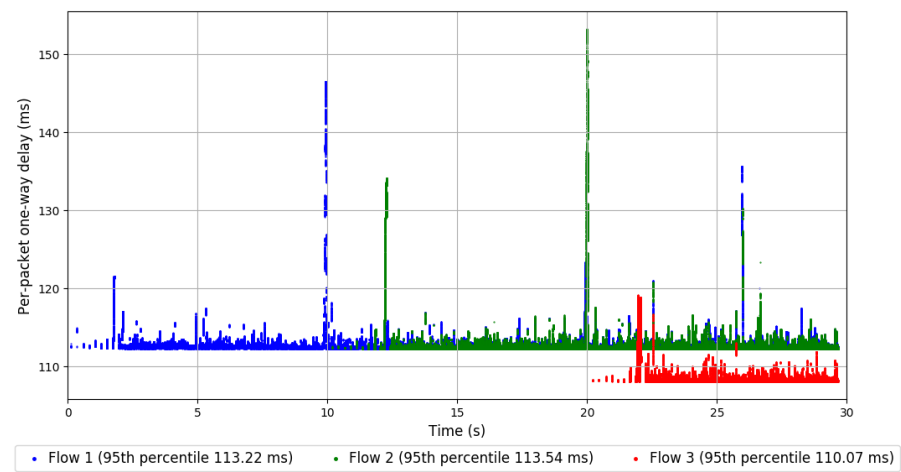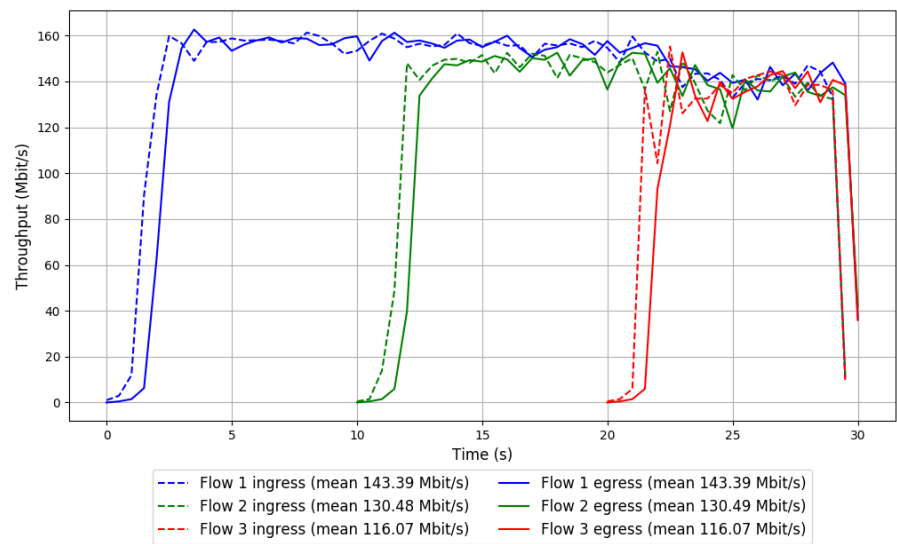

Flow 1 ingress (mean 452.76 Mbit/s) --- Flow 1 egress (mean 452.75 Mbit/s)
Flow 2 ingress (mean 332.74 Mbit/s) --- Flow 2 egress (mean 332.72 Mbit/s)
Flow 3 ingress (mean 269.88 Mbit/s) --- Flow 3 egress (mean 269.87 Mbit/s)

Flow 1 (95th percentile 116.82 ms)   Flow 2 (95th percentile 117.35 ms)   Flow 3 (95th percentile 115.02 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2020-02-18 06:12:29
End at: 2020-02-18 06:12:59
Local clock offset: -0.915 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2020-02-18 07:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 697.86 Mbit/s
95th percentile per-packet one-way delay: 122.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 430.38 Mbit/s
95th percentile per-packet one-way delay: 127.241 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 296.18 Mbit/s
95th percentile per-packet one-way delay: 115.998 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 213.43 Mbit/s
95th percentile per-packet one-way delay: 115.236 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link
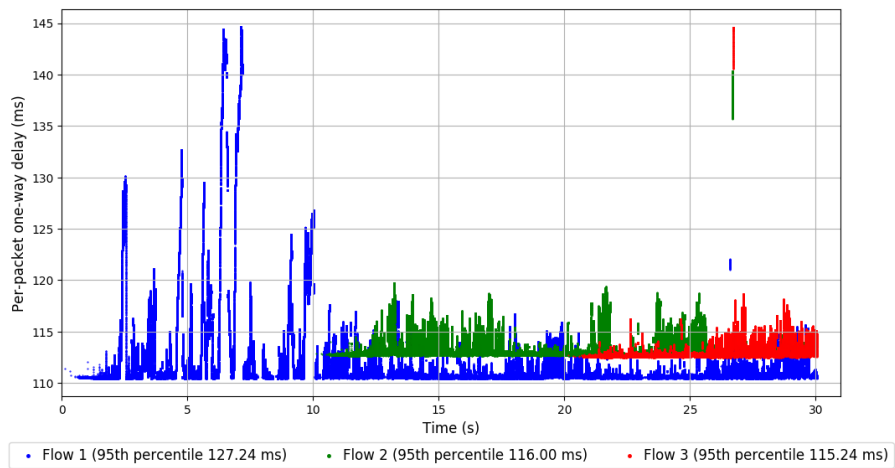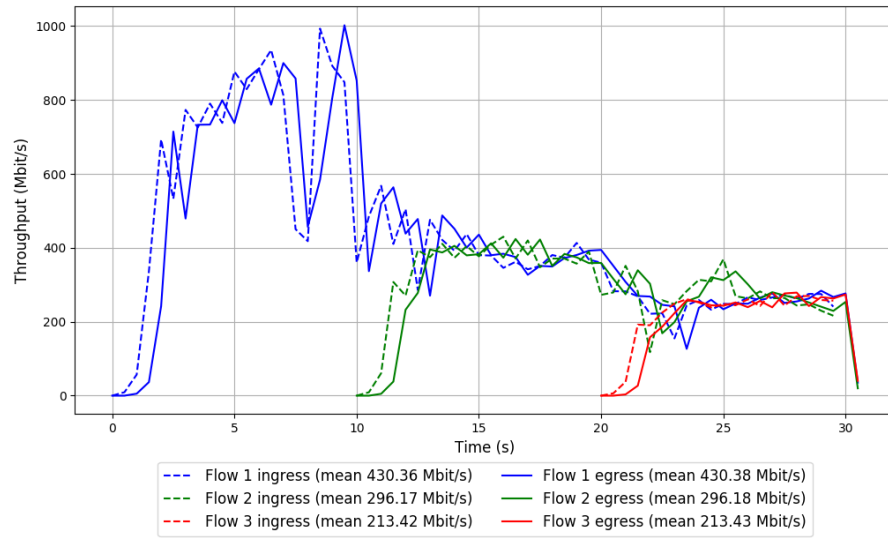
```
Run 1: Statistics of Indigo

Start at: 2020-02-18 03:36:27
End at: 2020-02-18 03:36:57
Local clock offset: 0.343 ms
Remote clock offset: -0.127 ms


# Below is generated by plot.py at 2020-02-18 07:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.50 Mbit/s
95th percentile per-packet one-way delay: 111.313 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 152.80 Mbit/s
95th percentile per-packet one-way delay: 108.185 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 135.33 Mbit/s
95th percentile per-packet one-way delay: 108.790 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 116.69 Mbit/s
95th percentile per-packet one-way delay: 112.053 ms
Loss rate: 0.00%
```
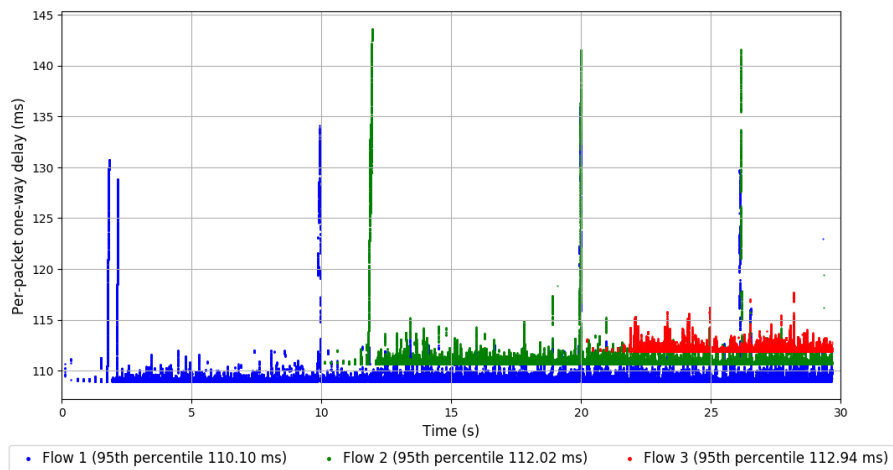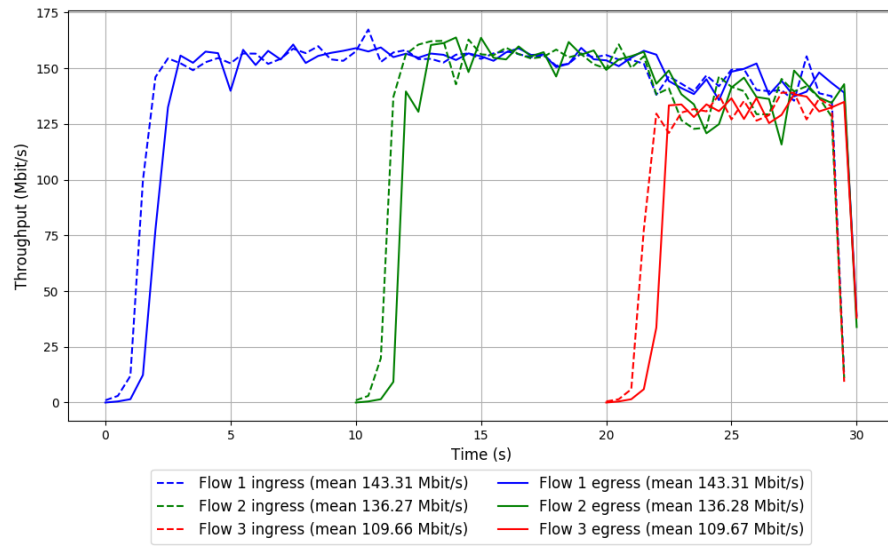
Run 1: Report of Indigo — Data Link

- - - - - Flow 1 ingress (mean 152.79 Mbit/s) ——— Flow 1 egress (mean 152.80 Mbit/s)
- - - - - Flow 2 ingress (mean 135.29 Mbit/s) ——— Flow 2 egress (mean 135.33 Mbit/s)
- - - - - Flow 3 ingress (mean 116.66 Mbit/s) ——— Flow 3 egress (mean 116.69 Mbit/s)

- Flow 1 (95th percentile 108.19 ms)　　- Flow 2 (95th percentile 108.79 ms)　　- Flow 3 (95th percentile 112.05 ms)

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```
Run 2: Statistics of Indigo

Start at: 2020-02-18 04:18:14
End at: 2020-02-18 04:18:44
Local clock offset: -1.335 ms
Remote clock offset: -0.149 ms


# Below is generated by plot.py at 2020-02-18 07:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.70 Mbit/s
95th percentile per-packet one-way delay: 113.683 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 141.51 Mbit/s
95th percentile per-packet one-way delay: 110.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 133.00 Mbit/s
95th percentile per-packet one-way delay: 111.566 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 116.88 Mbit/s
95th percentile per-packet one-way delay: 114.706 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link
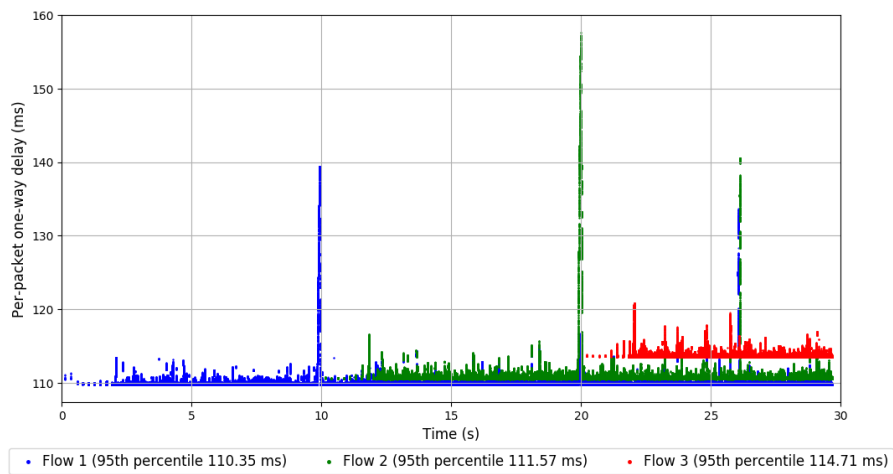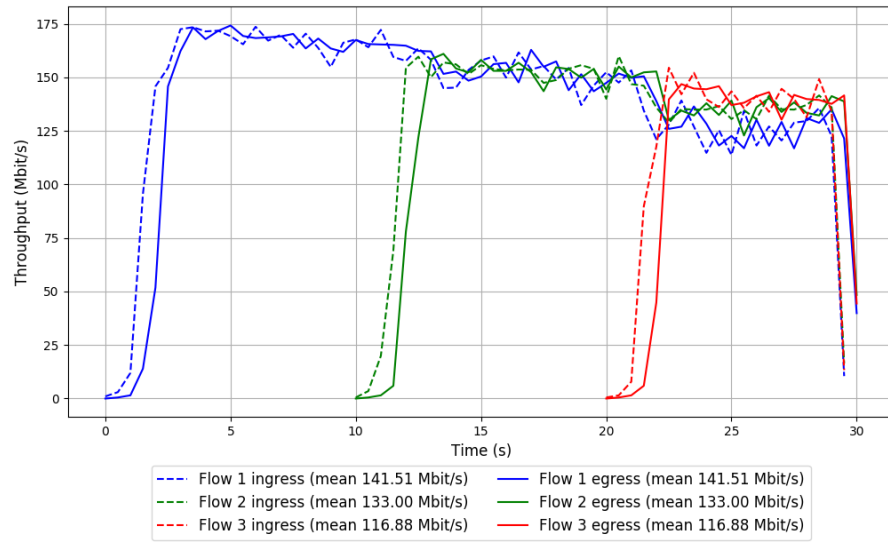
```
Run 3: Statistics of Indigo

Start at: 2020-02-18 04:59:46
End at: 2020-02-18 05:00:16
Local clock offset: -0.189 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2020-02-18 07:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 270.77 Mbit/s
95th percentile per-packet one-way delay: 113.043 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.39 Mbit/s
95th percentile per-packet one-way delay: 113.434 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 133.44 Mbit/s
95th percentile per-packet one-way delay: 110.067 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.11 Mbit/s
95th percentile per-packet one-way delay: 110.236 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link
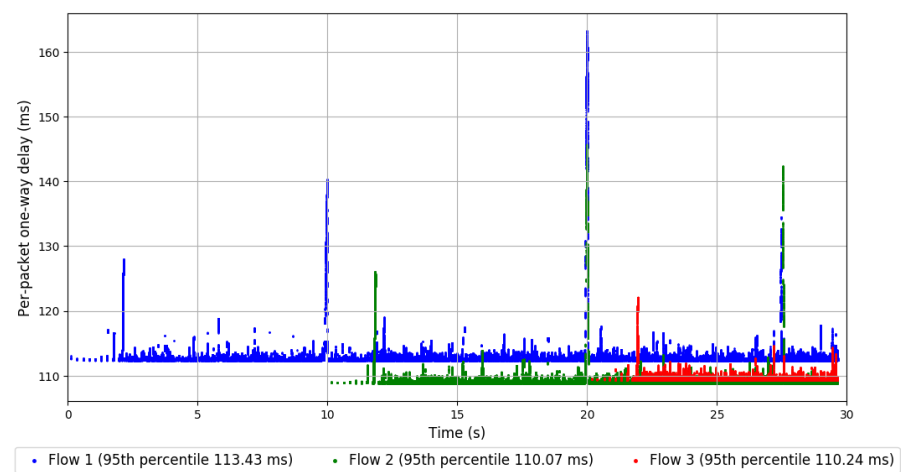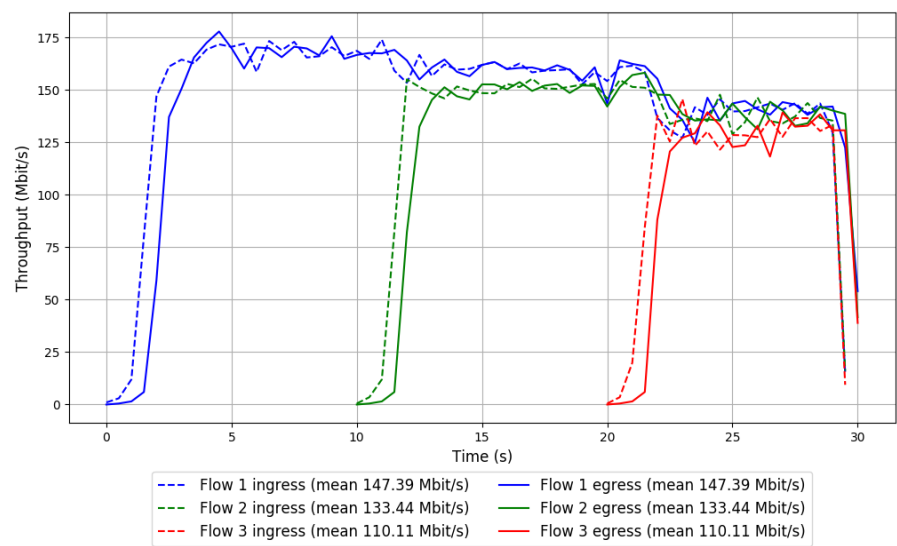
```
Run 4: Statistics of Indigo

Start at: 2020-02-18 05:41:35
End at: 2020-02-18 05:42:05
Local clock offset: 0.611 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2020-02-18 07:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.53 Mbit/s
95th percentile per-packet one-way delay: 113.240 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 143.39 Mbit/s
95th percentile per-packet one-way delay: 113.215 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 130.49 Mbit/s
95th percentile per-packet one-way delay: 113.538 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 116.07 Mbit/s
95th percentile per-packet one-way delay: 110.074 ms
Loss rate: 0.00%
```
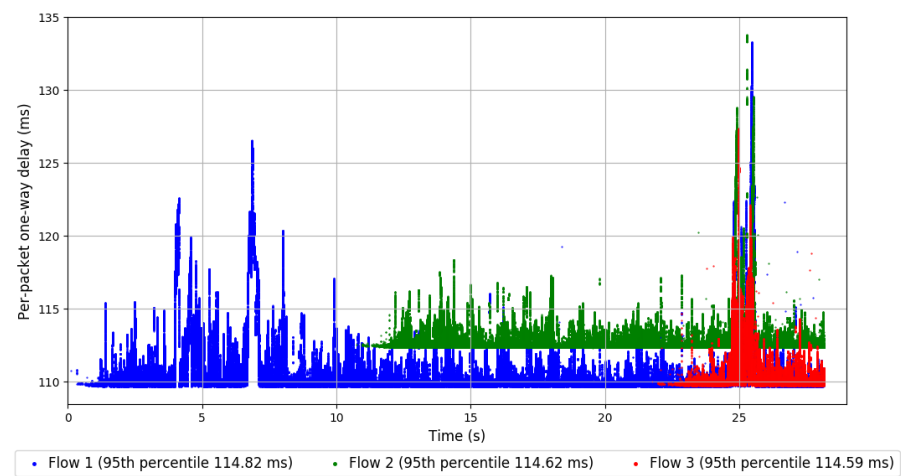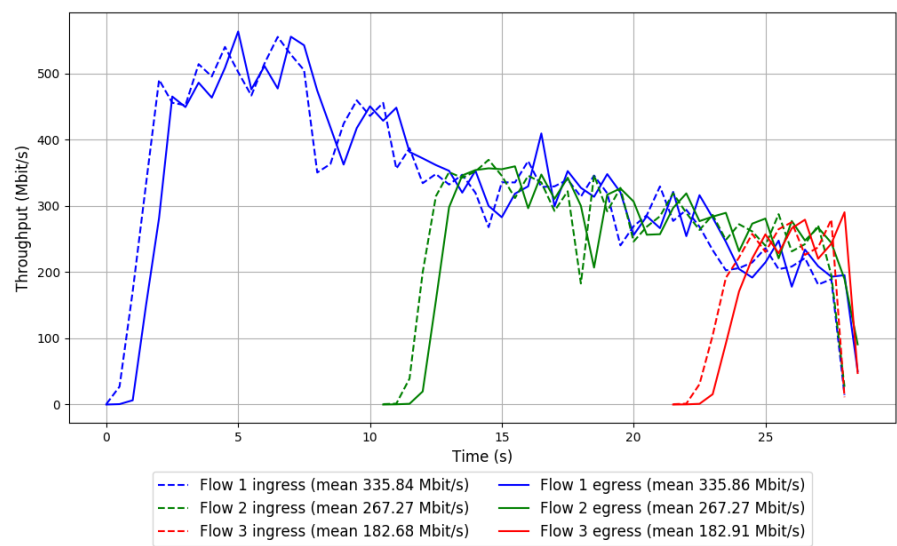
Run 4: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 143.39 Mbit/s) —— Flow 1 egress (mean 143.39 Mbit/s)
- - - Flow 2 ingress (mean 130.48 Mbit/s) —— Flow 2 egress (mean 130.49 Mbit/s)
- - - Flow 3 ingress (mean 116.07 Mbit/s) —— Flow 3 egress (mean 116.07 Mbit/s)

- Flow 1 (95th percentile 113.22 ms)　　- Flow 2 (95th percentile 113.54 ms)　　- Flow 3 (95th percentile 110.07 ms)

```
Run 5: Statistics of Indigo

Start at: 2020-02-18 06:23:21
End at: 2020-02-18 06:23:51
Local clock offset: 0.412 ms
Remote clock offset: 0.271 ms


# Below is generated by plot.py at 2020-02-18 07:58:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.43 Mbit/s
95th percentile per-packet one-way delay: 112.156 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 143.31 Mbit/s
95th percentile per-packet one-way delay: 110.102 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 136.28 Mbit/s
95th percentile per-packet one-way delay: 112.020 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 109.67 Mbit/s
95th percentile per-packet one-way delay: 112.937 ms
Loss rate: 0.01%
```

Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 143.31 Mbit/s) — — — Flow 1 egress (mean 143.31 Mbit/s)
Flow 2 ingress (mean 136.27 Mbit/s) — — — Flow 2 egress (mean 136.28 Mbit/s)
Flow 3 ingress (mean 109.66 Mbit/s) — — — Flow 3 egress (mean 109.67 Mbit/s)

Flow 1 (95th percentile 110.10 ms) · Flow 2 (95th percentile 112.02 ms) · Flow 3 (95th percentile 112.94 ms)
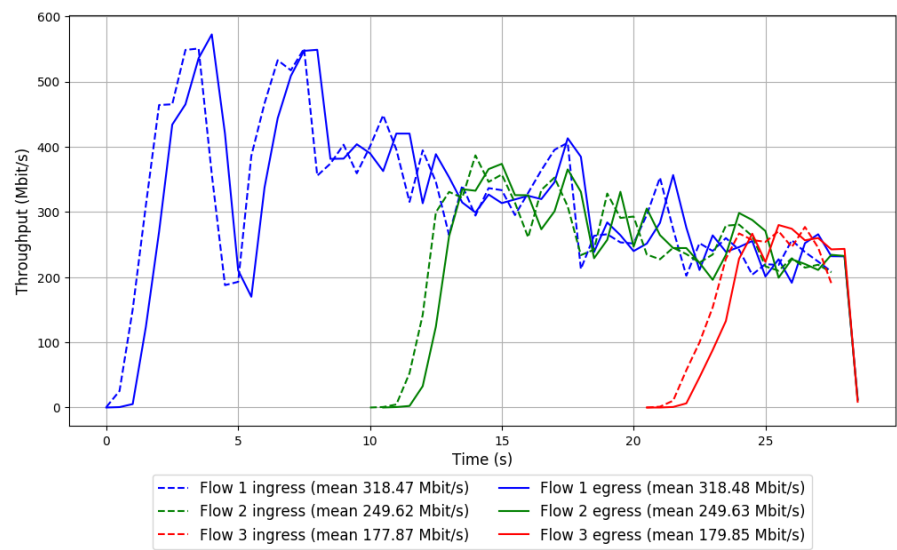
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```
Run 1: Statistics of Indigo-MusesC3

Start at: 2020-02-18 03:38:16
End at: 2020-02-18 03:38:46
Local clock offset: -1.34 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2020-02-18 07:59:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.12 Mbit/s
95th percentile per-packet one-way delay: 112.472 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 311.35 Mbit/s
95th percentile per-packet one-way delay: 111.674 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 254.05 Mbit/s
95th percentile per-packet one-way delay: 111.797 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.72 Mbit/s
95th percentile per-packet one-way delay: 113.954 ms
Loss rate: 0.08%
```
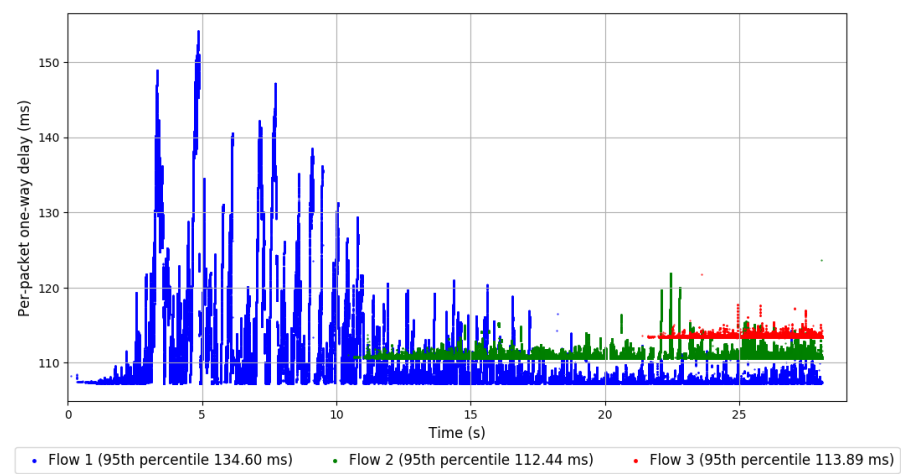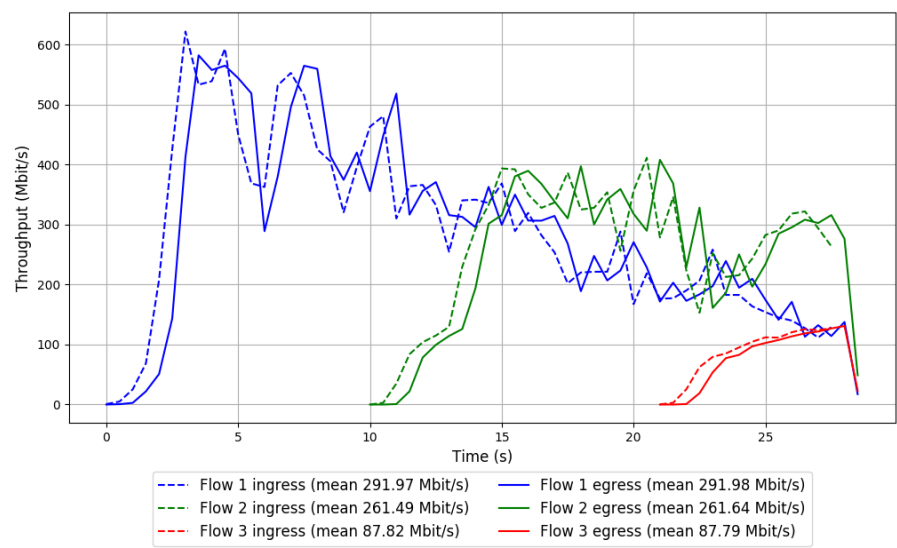
Run 1: Report of Indigo-MusesC3 — Data Link
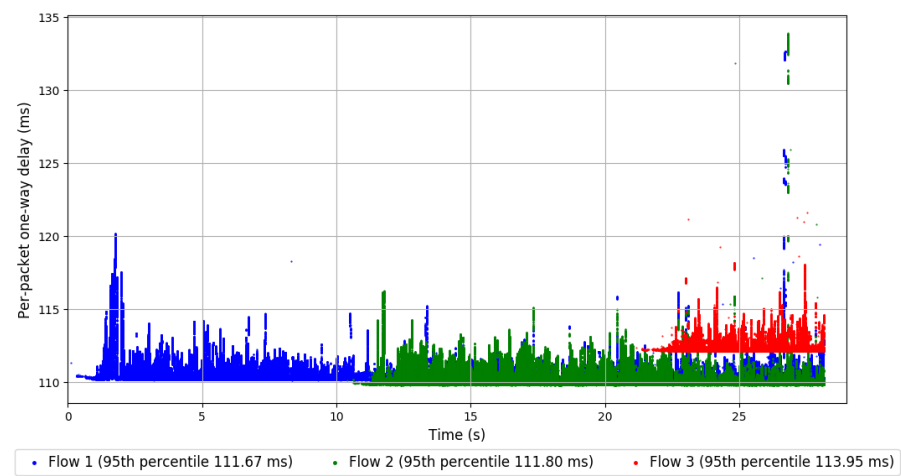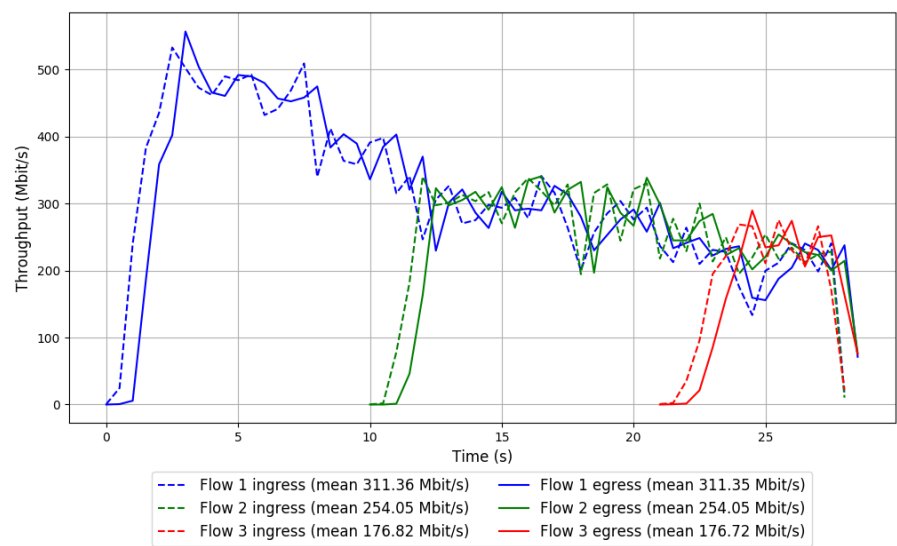
```
Run 2: Statistics of Indigo-MusesC3

Start at: 2020-02-18 04:20:01
End at: 2020-02-18 04:20:31
Local clock offset: -0.084 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2020-02-18 08:03:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 518.30 Mbit/s
95th percentile per-packet one-way delay: 117.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 329.01 Mbit/s
95th percentile per-packet one-way delay: 118.158 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 250.06 Mbit/s
95th percentile per-packet one-way delay: 114.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 163.24 Mbit/s
95th percentile per-packet one-way delay: 114.297 ms
Loss rate: 0.00%
```
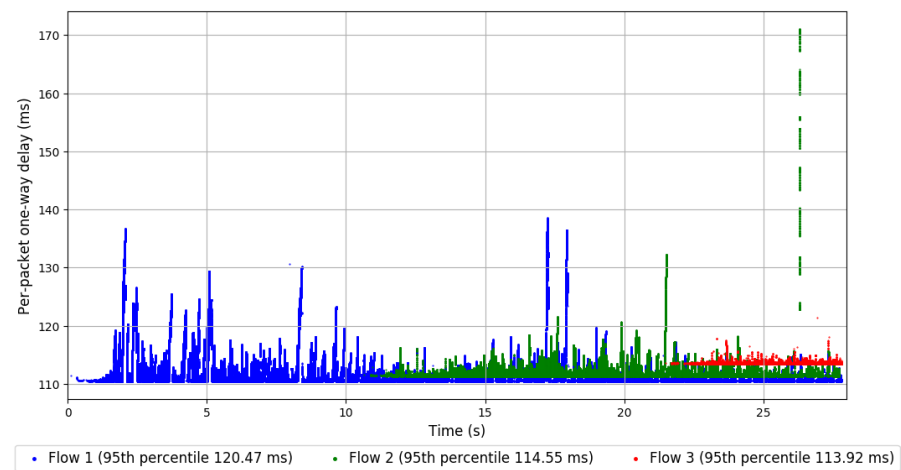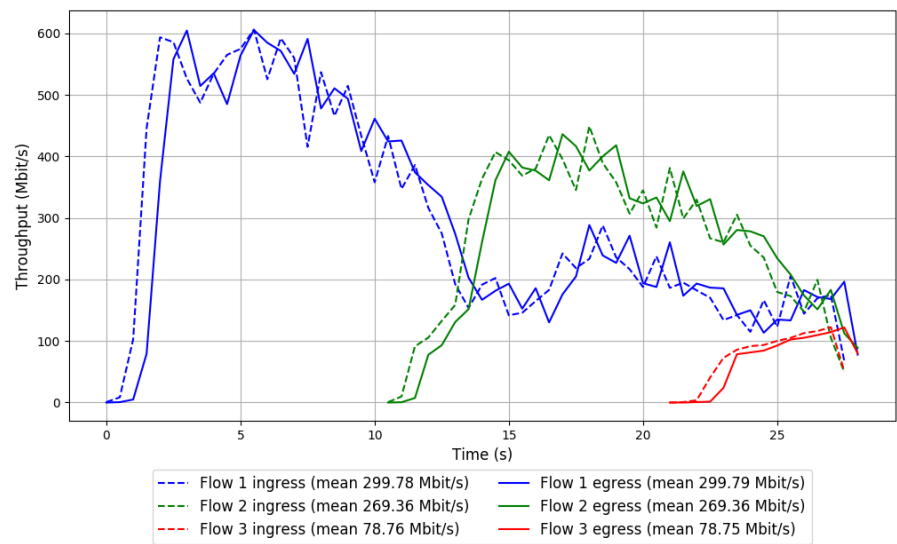
Run 2: Report of Indigo-MusesC3 — Data Link
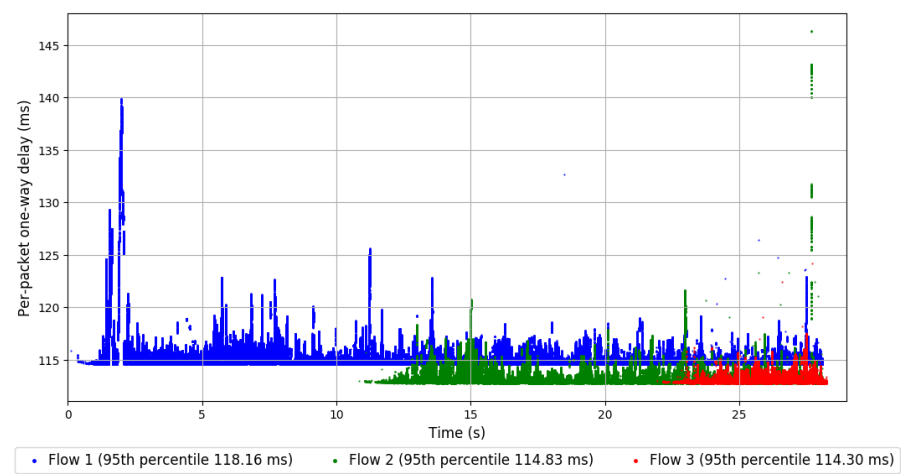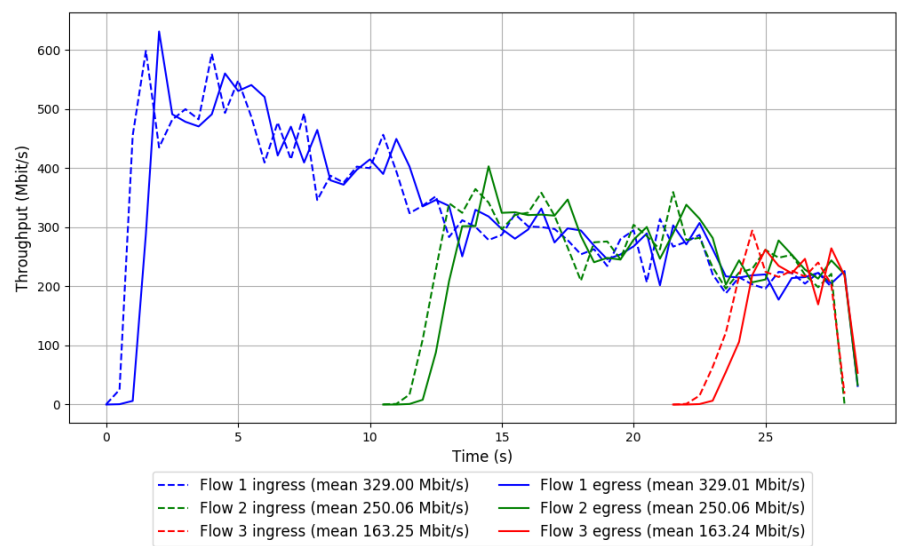
```
Run 3: Statistics of Indigo-MusesC3

Start at: 2020-02-18 05:01:34
End at: 2020-02-18 05:02:04
Local clock offset: 0.127 ms
Remote clock offset: 0.037 ms


# Below is generated by plot.py at 2020-02-18 08:04:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.96 Mbit/s
95th percentile per-packet one-way delay: 121.226 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 338.52 Mbit/s
95th percentile per-packet one-way delay: 126.683 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 274.75 Mbit/s
95th percentile per-packet one-way delay: 116.257 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 193.07 Mbit/s
95th percentile per-packet one-way delay: 112.477 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC3 — Data Link
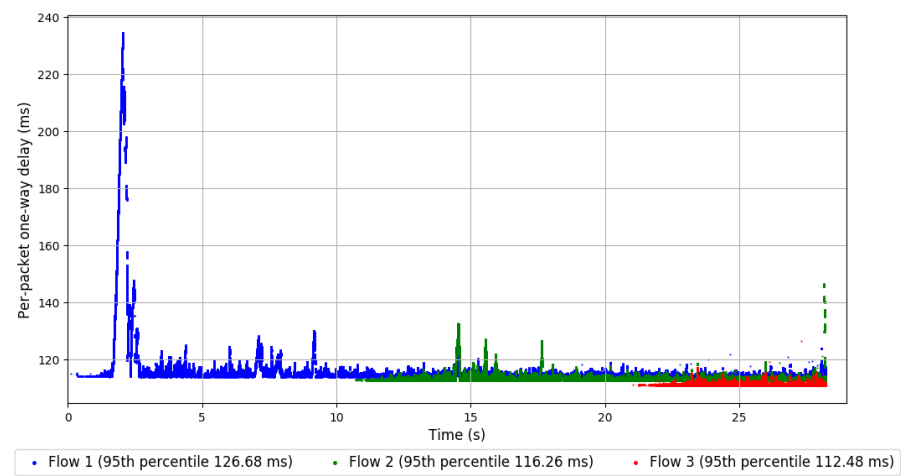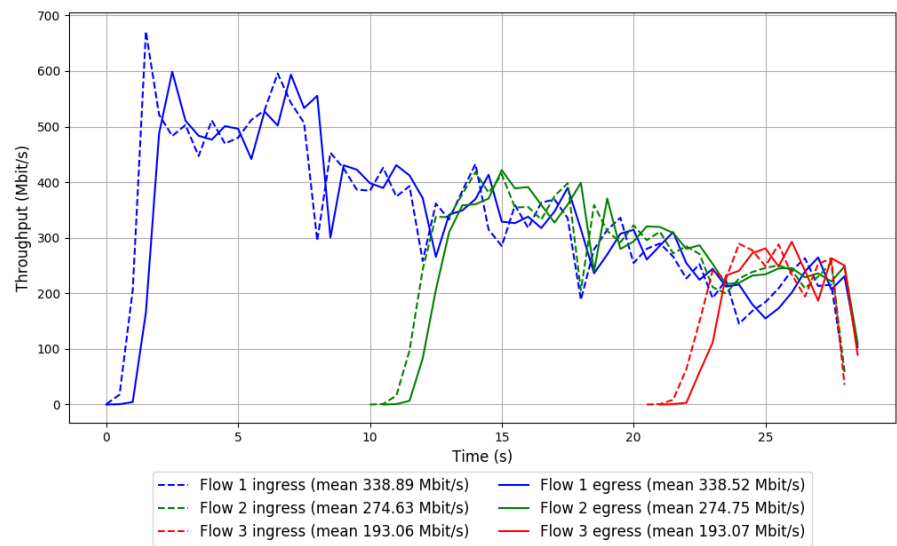
```
Run 4: Statistics of Indigo-MusesC3

Start at: 2020-02-18 05:43:22
End at: 2020-02-18 05:43:52
Local clock offset: -0.666 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2020-02-18 08:05:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.43 Mbit/s
95th percentile per-packet one-way delay: 114.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 335.86 Mbit/s
95th percentile per-packet one-way delay: 114.822 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 267.27 Mbit/s
95th percentile per-packet one-way delay: 114.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 182.91 Mbit/s
95th percentile per-packet one-way delay: 114.595 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 335.84 Mbit/s)   Flow 1 egress (mean 335.86 Mbit/s)
Flow 2 ingress (mean 267.27 Mbit/s)   Flow 2 egress (mean 267.27 Mbit/s)
Flow 3 ingress (mean 182.68 Mbit/s)   Flow 3 egress (mean 182.91 Mbit/s)

Flow 1 (95th percentile 114.82 ms)   Flow 2 (95th percentile 114.62 ms)   Flow 3 (95th percentile 114.59 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2020-02-18 06:25:09
End at: 2020-02-18 06:25:39
Local clock offset: 0.119 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2020-02-18 08:06:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 520.32 Mbit/s
95th percentile per-packet one-way delay: 113.211 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 318.48 Mbit/s
95th percentile per-packet one-way delay: 115.142 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 249.63 Mbit/s
95th percentile per-packet one-way delay: 109.771 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 179.85 Mbit/s
95th percentile per-packet one-way delay: 113.031 ms
Loss rate: 0.00%
```
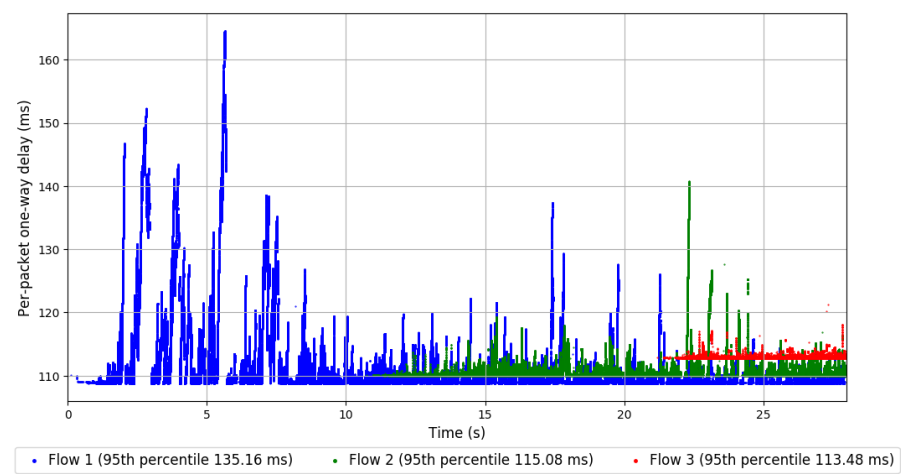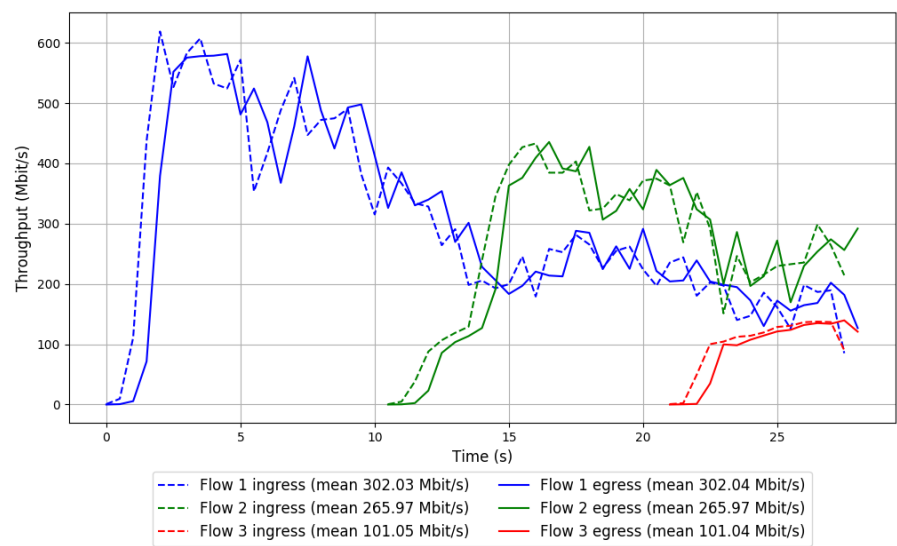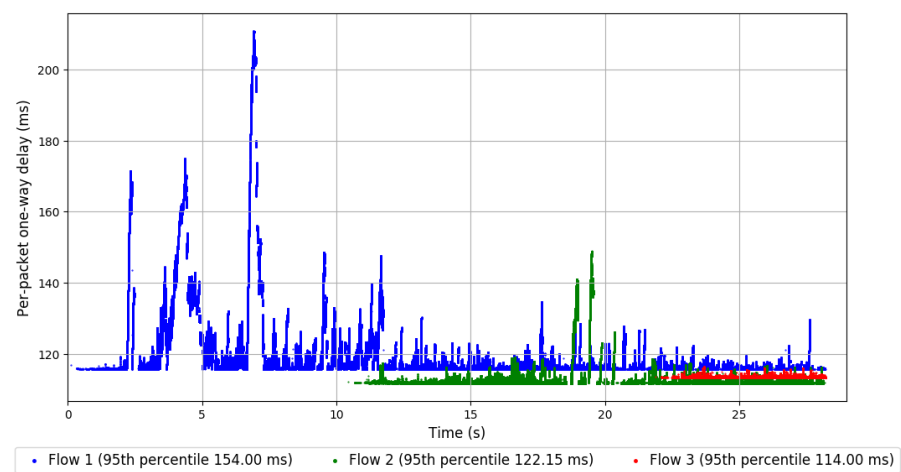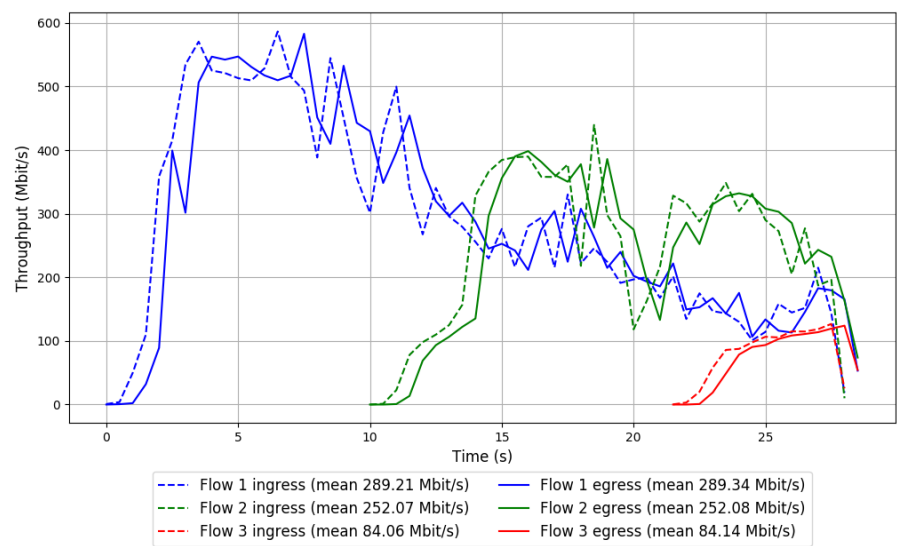
Run 5: Report of Indigo-MusesC3 — Data Link
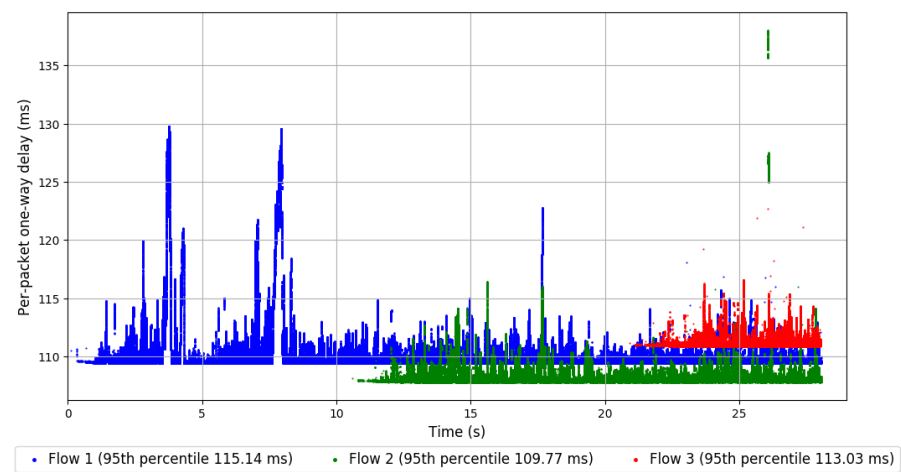
```
Run 1: Statistics of Indigo-MusesC5

Start at: 2020-02-18 03:31:23
End at: 2020-02-18 03:31:53
Local clock offset: 1.143 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2020-02-18 08:07:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 478.06 Mbit/s
95th percentile per-packet one-way delay: 129.288 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 291.98 Mbit/s
95th percentile per-packet one-way delay: 134.600 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 261.64 Mbit/s
95th percentile per-packet one-way delay: 112.438 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 87.79 Mbit/s
95th percentile per-packet one-way delay: 113.890 ms
Loss rate: 0.08%
```

Run 1: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 291.97 Mbit/s)   Flow 1 egress (mean 291.98 Mbit/s)
Flow 2 ingress (mean 261.49 Mbit/s)   Flow 2 egress (mean 261.64 Mbit/s)
Flow 3 ingress (mean 87.82 Mbit/s)   Flow 3 egress (mean 87.79 Mbit/s)

Flow 1 (95th percentile 134.60 ms)   Flow 2 (95th percentile 112.44 ms)   Flow 3 (95th percentile 113.89 ms)
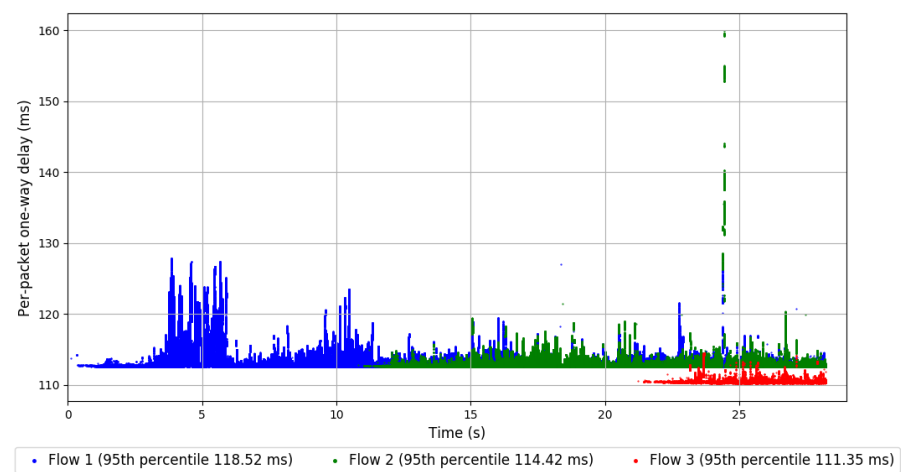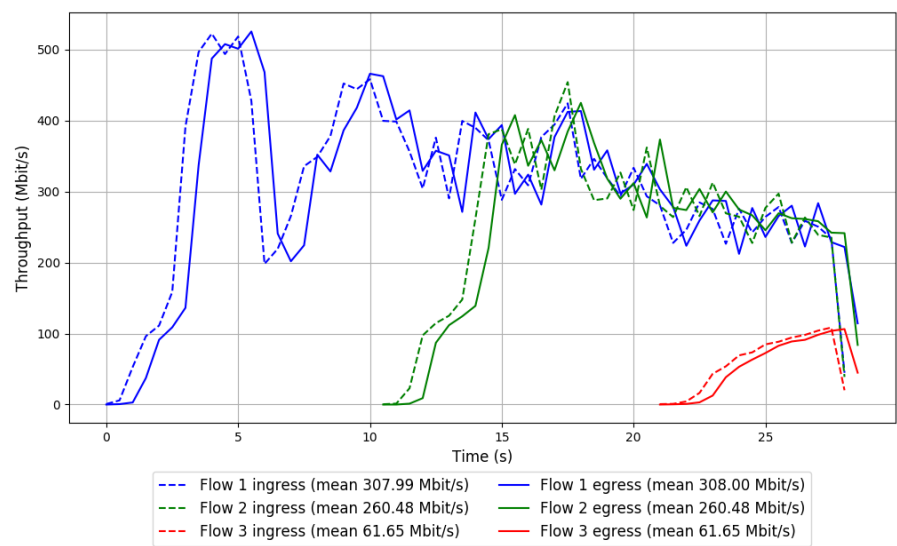
```
Run 2: Statistics of Indigo-MusesC5

Start at: 2020-02-18 04:13:09
End at: 2020-02-18 04:13:39
Local clock offset: -0.566 ms
Remote clock offset: -0.175 ms


# Below is generated by plot.py at 2020-02-18 08:08:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.80 Mbit/s
95th percentile per-packet one-way delay: 117.769 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 299.79 Mbit/s
95th percentile per-packet one-way delay: 120.465 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 269.36 Mbit/s
95th percentile per-packet one-way delay: 114.554 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 78.75 Mbit/s
95th percentile per-packet one-way delay: 113.923 ms
Loss rate: 0.02%
```
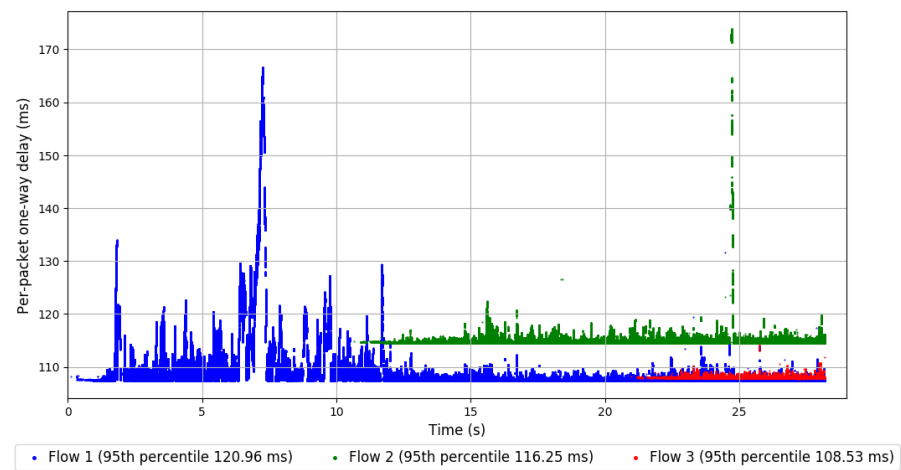
Run 2: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 299.78 Mbit/s) —— Flow 1 egress (mean 299.79 Mbit/s)
- - - - Flow 2 ingress (mean 269.36 Mbit/s) —— Flow 2 egress (mean 269.36 Mbit/s)
- - - - Flow 3 ingress (mean 78.76 Mbit/s) —— Flow 3 egress (mean 78.75 Mbit/s)

- Flow 1 (95th percentile 120.47 ms) • Flow 2 (95th percentile 114.55 ms) • Flow 3 (95th percentile 113.92 ms)
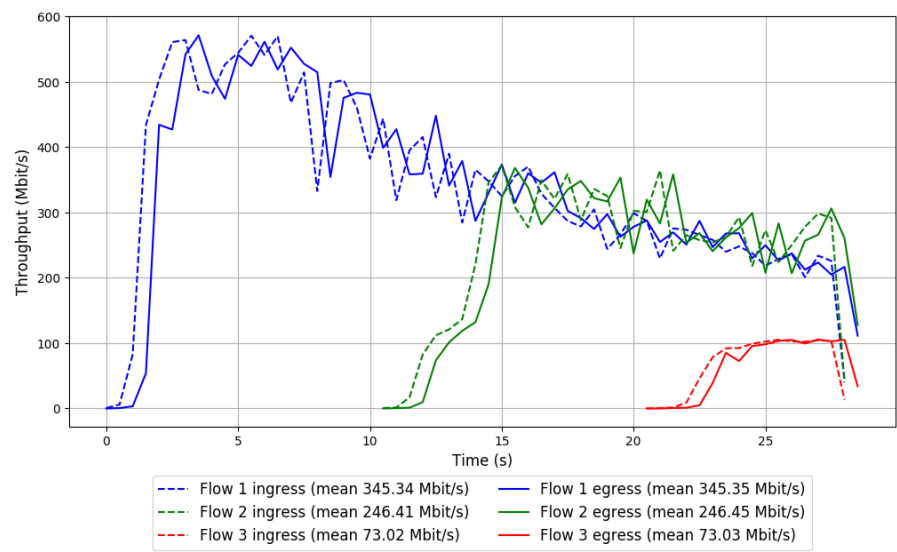
```
Run 3: Statistics of Indigo-MusesC5

Start at: 2020-02-18 04:54:43
End at: 2020-02-18 04:55:13
Local clock offset: -0.106 ms
Remote clock offset: 0.009 ms


# Below is generated by plot.py at 2020-02-18 08:10:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 500.77 Mbit/s
95th percentile per-packet one-way delay: 132.778 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 284.30 Mbit/s
95th percentile per-packet one-way delay: 138.487 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 290.87 Mbit/s
95th percentile per-packet one-way delay: 121.322 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 96.44 Mbit/s
95th percentile per-packet one-way delay: 112.309 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC5 — Data Link
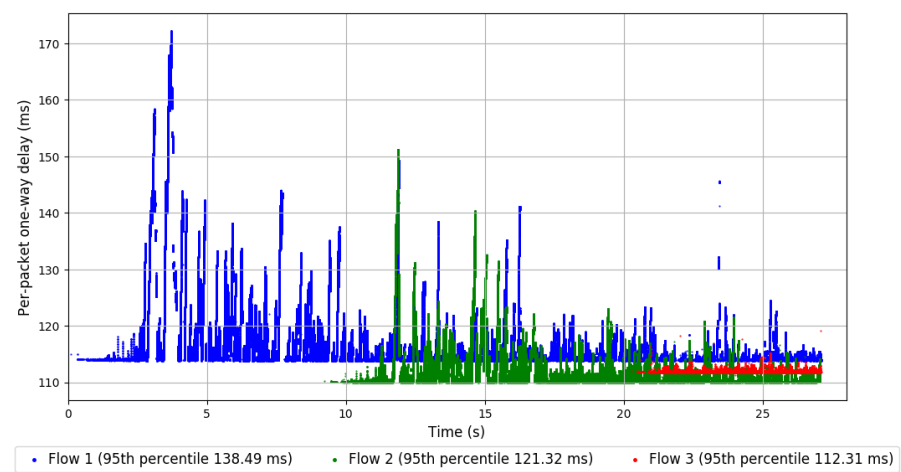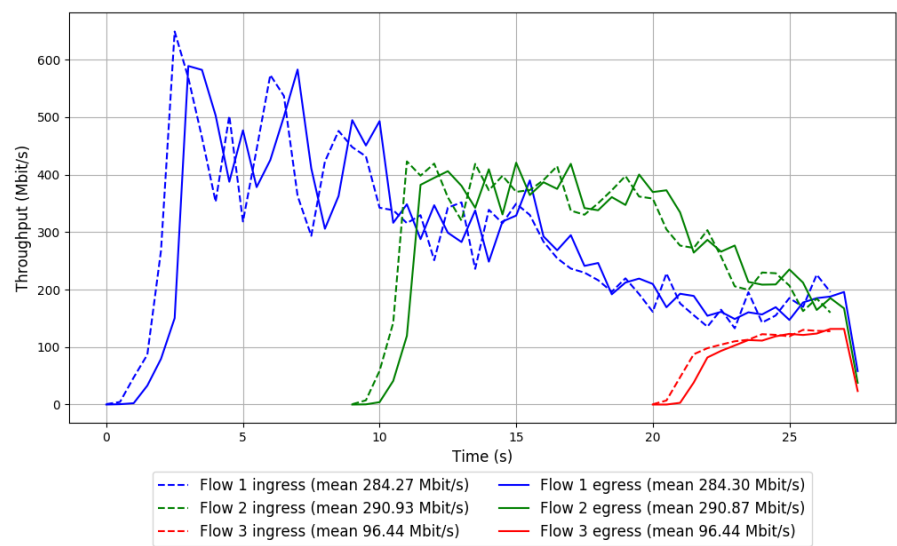
```
Run 4: Statistics of Indigo-MusesC5

Start at: 2020-02-18 05:36:29
End at: 2020-02-18 05:36:59
Local clock offset: 0.395 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2020-02-18 08:11:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 490.71 Mbit/s
95th percentile per-packet one-way delay: 129.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 302.04 Mbit/s
95th percentile per-packet one-way delay: 135.158 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 265.97 Mbit/s
95th percentile per-packet one-way delay: 115.080 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 101.04 Mbit/s
95th percentile per-packet one-way delay: 113.476 ms
Loss rate: 0.03%
```

Run 4: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 302.03 Mbit/s) — Flow 1 egress (mean 302.04 Mbit/s)
Flow 2 ingress (mean 265.97 Mbit/s) — Flow 2 egress (mean 265.97 Mbit/s)
Flow 3 ingress (mean 101.05 Mbit/s) — Flow 3 egress (mean 101.04 Mbit/s)

Flow 1 (95th percentile 135.16 ms) — Flow 2 (95th percentile 115.08 ms) — Flow 3 (95th percentile 113.48 ms)
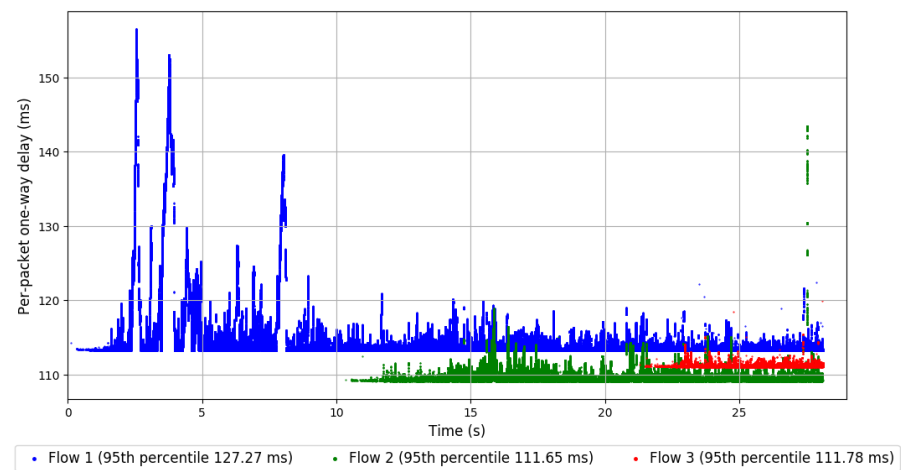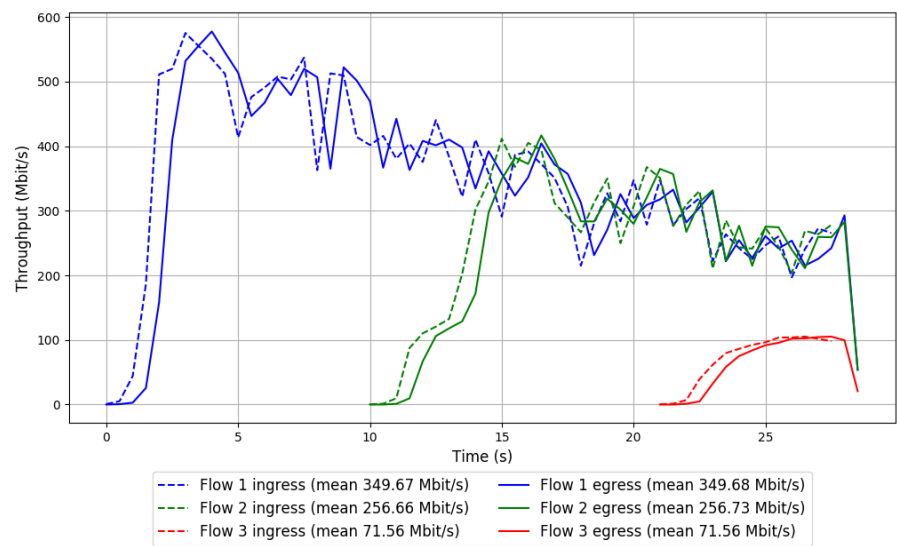
```
Run 5: Statistics of Indigo-MusesC5

Start at: 2020-02-18 06:18:17
End at: 2020-02-18 06:18:47
Local clock offset: -0.181 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2020-02-18 08:14:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.22 Mbit/s
95th percentile per-packet one-way delay: 141.267 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 289.34 Mbit/s
95th percentile per-packet one-way delay: 154.002 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 252.08 Mbit/s
95th percentile per-packet one-way delay: 122.151 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.14 Mbit/s
95th percentile per-packet one-way delay: 113.999 ms
Loss rate: 0.00%
```
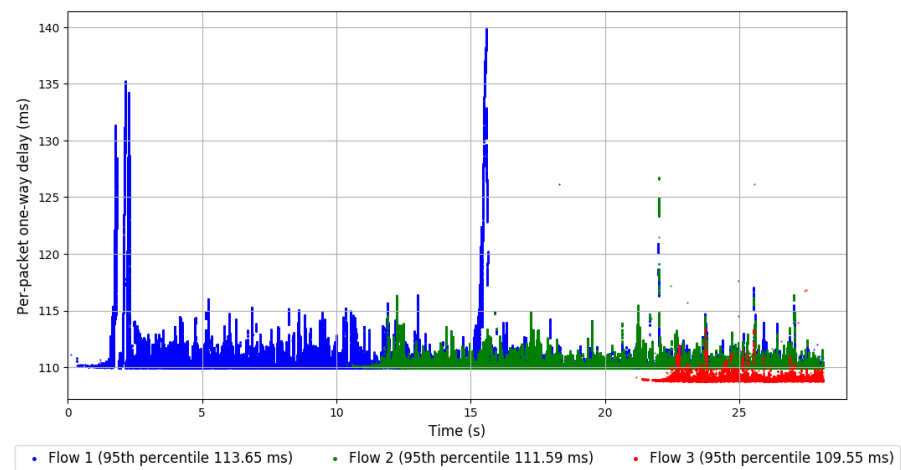
Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2020-02-18 03:14:32
End at: 2020-02-18 03:15:02
Local clock offset: -0.324 ms
Remote clock offset: 0.007 ms
```

Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 236.93 Mbit/s)   Flow 1 egress (mean 236.95 Mbit/s)
Flow 2 ingress (mean 229.20 Mbit/s)   Flow 2 egress (mean 229.20 Mbit/s)
Flow 3 ingress (mean 71.83 Mbit/s)   Flow 3 egress (mean 71.83 Mbit/s)

Flow 1 (95th percentile 112.67 ms)   Flow 2 (95th percentile 113.40 ms)   Flow 3 (95th percentile 113.55 ms)
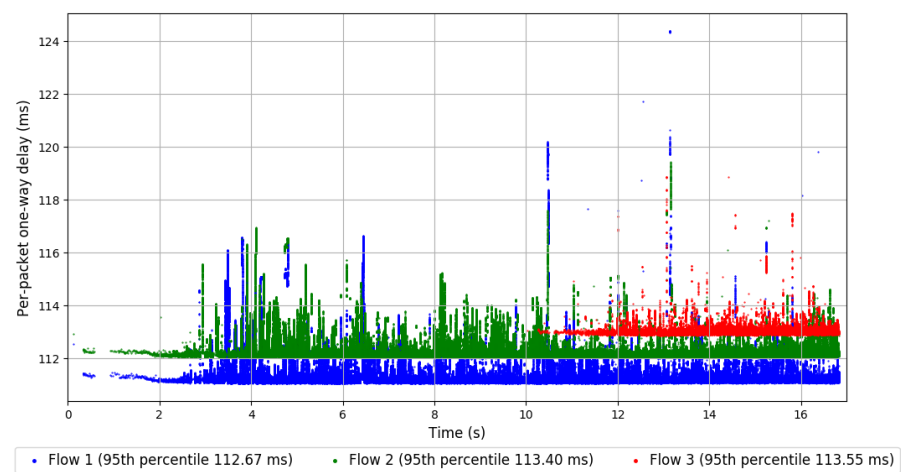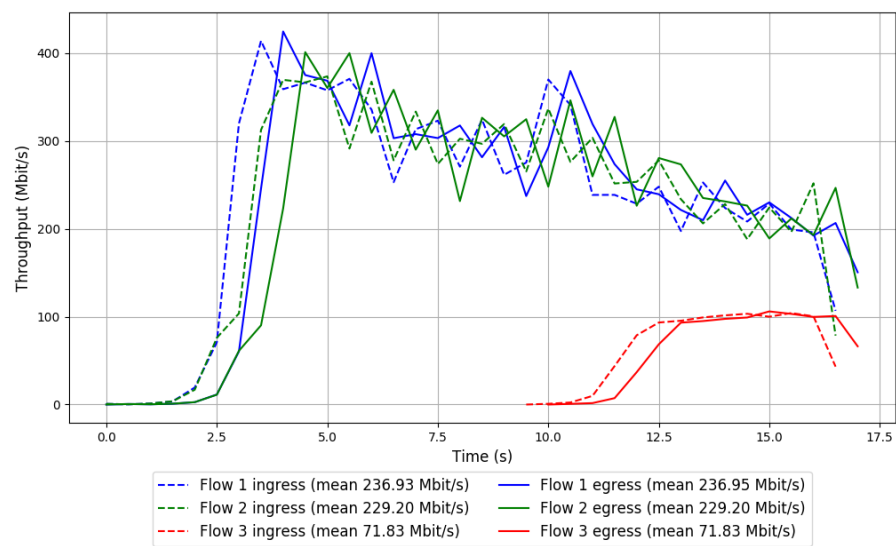
```
Run 2: Statistics of Indigo-MusesD

Start at: 2020-02-18 03:56:15
End at: 2020-02-18 03:56:45
Local clock offset: -0.357 ms
Remote clock offset: -0.155 ms


# Below is generated by plot.py at 2020-02-18 08:17:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.56 Mbit/s
95th percentile per-packet one-way delay: 116.668 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 308.00 Mbit/s
95th percentile per-packet one-way delay: 118.523 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 260.48 Mbit/s
95th percentile per-packet one-way delay: 114.421 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 61.65 Mbit/s
95th percentile per-packet one-way delay: 111.347 ms
Loss rate: 0.00%
```
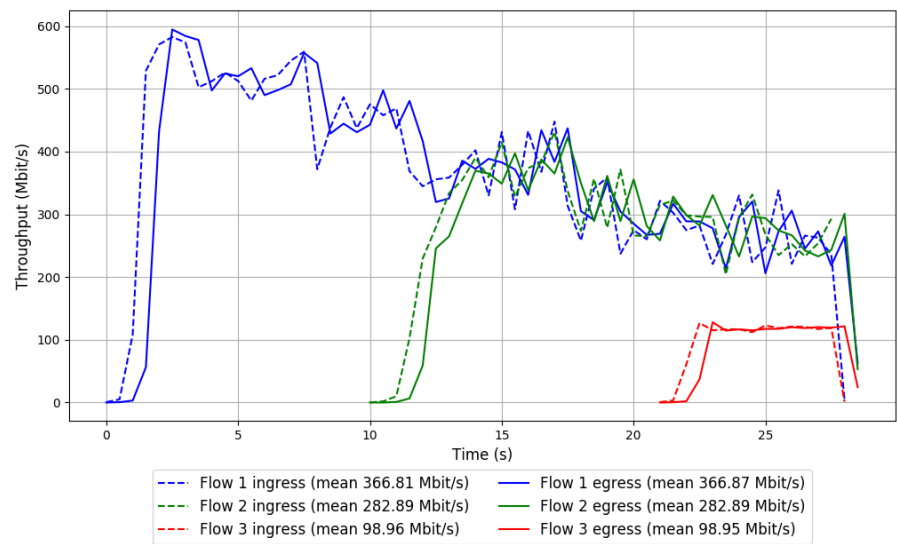
Run 2: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 307.99 Mbit/s)   Flow 1 egress (mean 308.00 Mbit/s)
Flow 2 ingress (mean 260.48 Mbit/s)   Flow 2 egress (mean 260.48 Mbit/s)
Flow 3 ingress (mean 61.65 Mbit/s)   Flow 3 egress (mean 61.65 Mbit/s)

Flow 1 (95th percentile 118.52 ms)   Flow 2 (95th percentile 114.42 ms)   Flow 3 (95th percentile 111.35 ms)

```
Run 3: Statistics of Indigo-MusesD

Start at: 2020-02-18 04:38:17
End at: 2020-02-18 04:38:47
Local clock offset: 0.647 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2020-02-18 08:18:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 517.82 Mbit/s
95th percentile per-packet one-way delay: 118.787 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 345.35 Mbit/s
95th percentile per-packet one-way delay: 120.960 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 246.45 Mbit/s
95th percentile per-packet one-way delay: 116.255 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.03 Mbit/s
95th percentile per-packet one-way delay: 108.527 ms
Loss rate: 0.00%
```
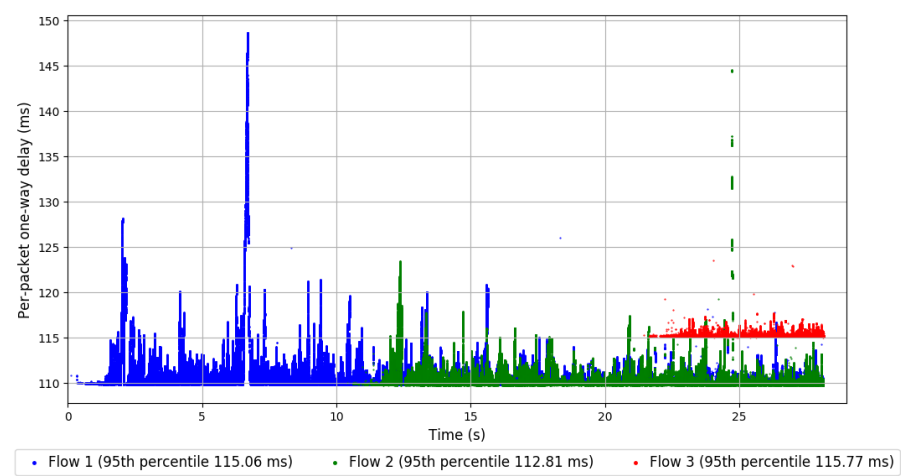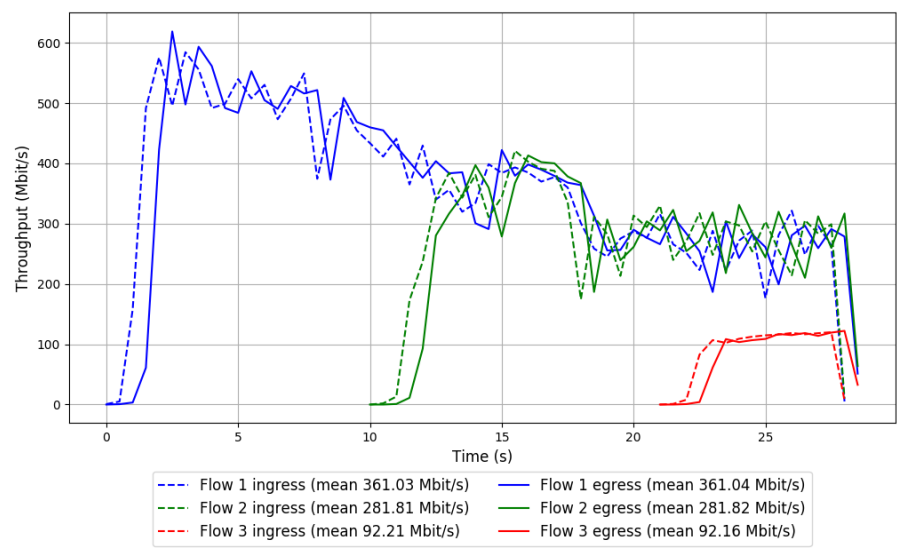
Run 3: Report of Indigo-MusesD — Data Link

- Flow 1 ingress (mean 345.34 Mbit/s)
- Flow 1 egress (mean 345.35 Mbit/s)
- Flow 2 ingress (mean 246.41 Mbit/s)
- Flow 2 egress (mean 246.45 Mbit/s)
- Flow 3 ingress (mean 73.02 Mbit/s)
- Flow 3 egress (mean 73.03 Mbit/s)

- Flow 1 (95th percentile 120.96 ms)
- Flow 2 (95th percentile 116.25 ms)
- Flow 3 (95th percentile 108.53 ms)

90

```
Run 4: Statistics of Indigo-MusesD

Start at: 2020-02-18 05:19:42
End at: 2020-02-18 05:20:12
Local clock offset: -0.089 ms
Remote clock offset: 0.046 ms


# Below is generated by plot.py at 2020-02-18 08:18:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 429.11 Mbit/s
95th percentile per-packet one-way delay: 117.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 333.16 Mbit/s
95th percentile per-packet one-way delay: 118.708 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 126.42 Mbit/s
95th percentile per-packet one-way delay: 112.381 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 68.16 Mbit/s
95th percentile per-packet one-way delay: 112.643 ms
Loss rate: 0.00%
```
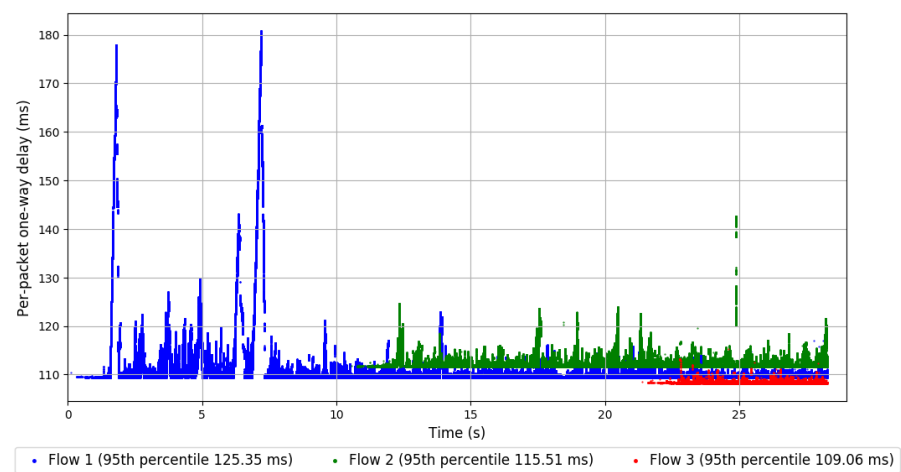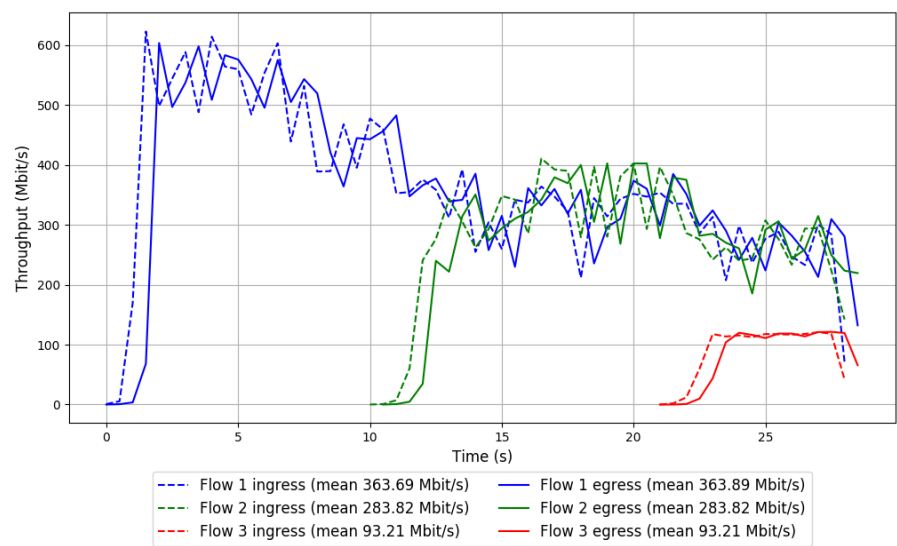
Run 4: Report of Indigo-MusesD — Data Link
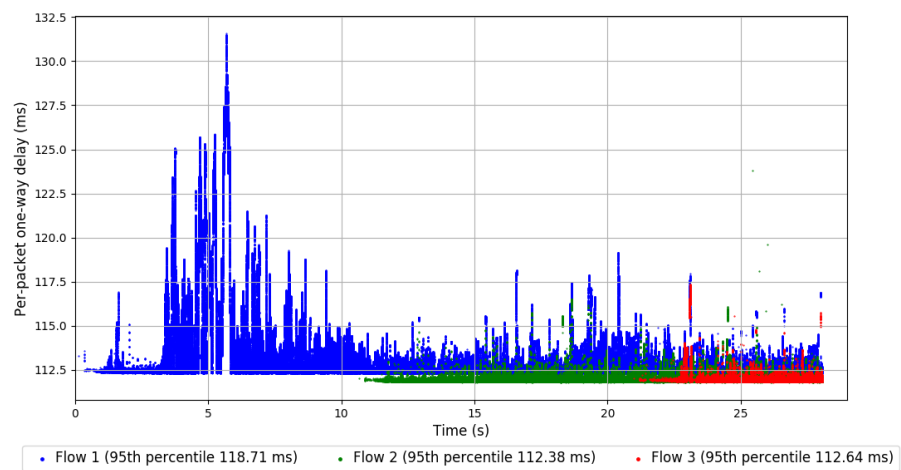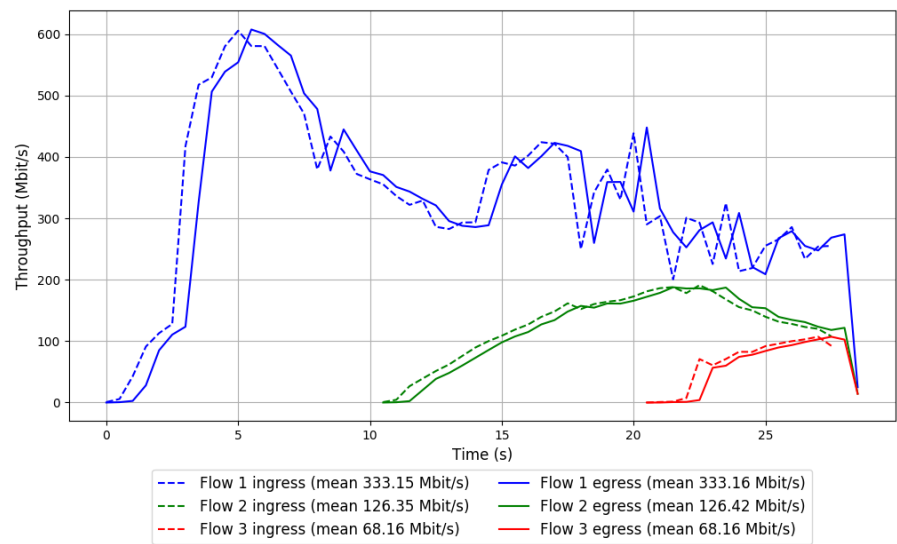
```
Run 5: Statistics of Indigo-MusesD

Start at: 2020-02-18 06:01:32
End at: 2020-02-18 06:02:02
Local clock offset: -0.104 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2020-02-18 08:21:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 530.11 Mbit/s
95th percentile per-packet one-way delay: 122.351 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 349.68 Mbit/s
95th percentile per-packet one-way delay: 127.273 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 256.73 Mbit/s
95th percentile per-packet one-way delay: 111.646 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.56 Mbit/s
95th percentile per-packet one-way delay: 111.782 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2020-02-18 03:23:37
End at: 2020-02-18 03:24:07
Local clock offset: -0.116 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2020-02-18 08:23:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.47 Mbit/s
95th percentile per-packet one-way delay: 112.752 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 366.87 Mbit/s
95th percentile per-packet one-way delay: 113.654 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 282.89 Mbit/s
95th percentile per-packet one-way delay: 111.589 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 98.95 Mbit/s
95th percentile per-packet one-way delay: 109.545 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesT — Data Link

- - - Flow 1 ingress (mean 366.81 Mbit/s) —— Flow 1 egress (mean 366.87 Mbit/s)
- - - Flow 2 ingress (mean 282.89 Mbit/s) —— Flow 2 egress (mean 282.89 Mbit/s)
- - - Flow 3 ingress (mean 98.96 Mbit/s) —— Flow 3 egress (mean 98.95 Mbit/s)

• Flow 1 (95th percentile 113.65 ms)   • Flow 2 (95th percentile 111.59 ms)   • Flow 3 (95th percentile 109.55 ms)

```
Run 2: Statistics of Indigo-MusesT

Start at: 2020-02-18 04:05:31
End at: 2020-02-18 04:06:01
Local clock offset: -0.079 ms
Remote clock offset: -0.151 ms


# Below is generated by plot.py at 2020-02-18 08:25:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.54 Mbit/s
95th percentile per-packet one-way delay: 112.869 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 371.22 Mbit/s
95th percentile per-packet one-way delay: 112.679 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 281.38 Mbit/s
95th percentile per-packet one-way delay: 113.282 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.05 Mbit/s
95th percentile per-packet one-way delay: 110.976 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesT — Data Link
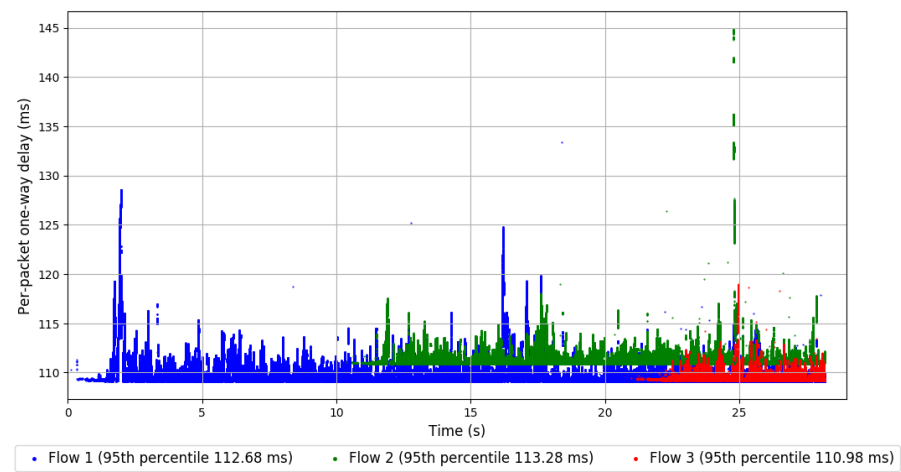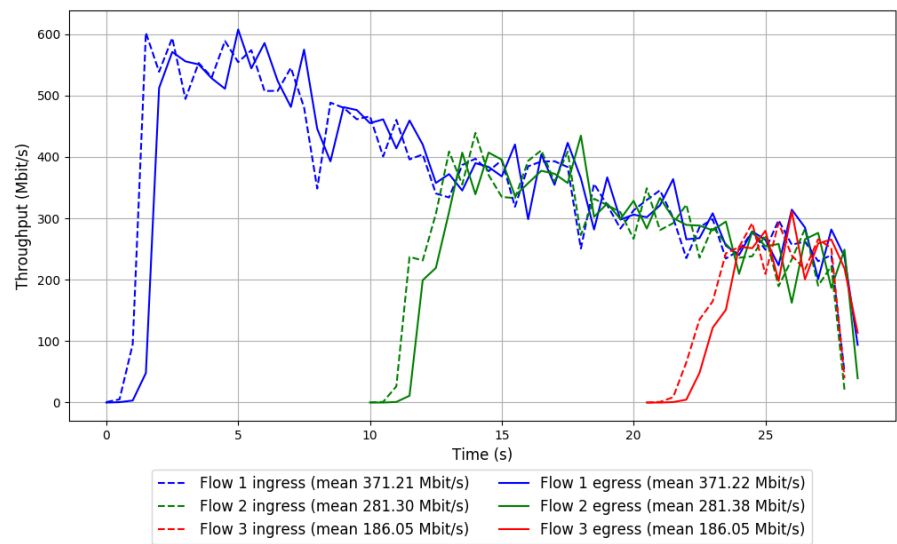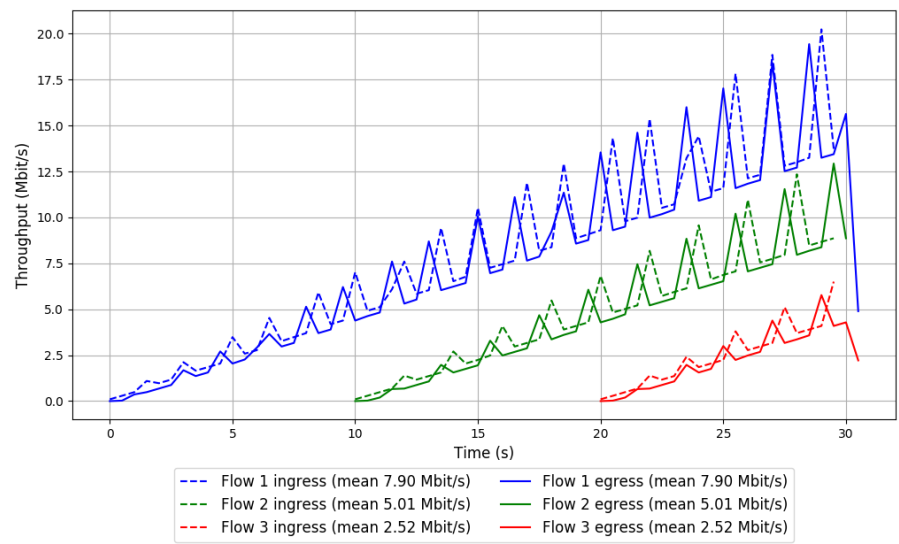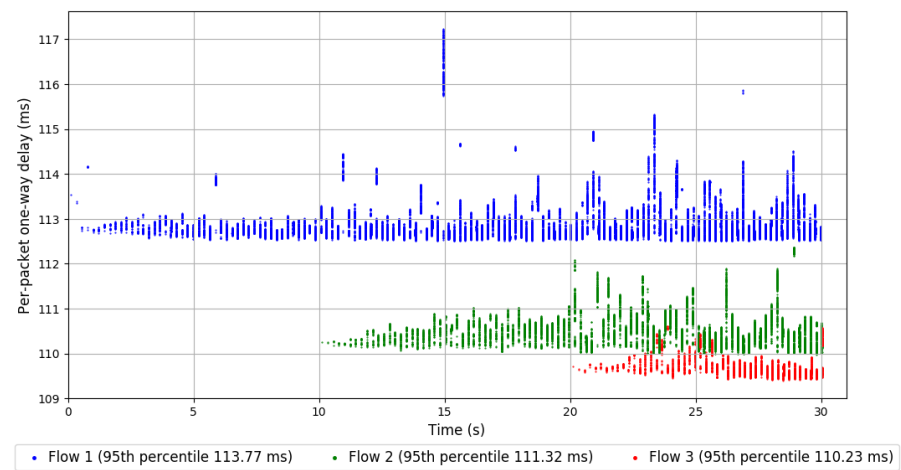
```
Run 3: Statistics of Indigo-MusesT

Start at: 2020-02-18 04:47:20
End at: 2020-02-18 04:47:50
Local clock offset: 0.114 ms
Remote clock offset: 0.019 ms


# Below is generated by plot.py at 2020-02-18 08:25:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 561.17 Mbit/s
95th percentile per-packet one-way delay: 115.212 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 361.04 Mbit/s
95th percentile per-packet one-way delay: 115.063 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 281.82 Mbit/s
95th percentile per-packet one-way delay: 112.809 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.16 Mbit/s
95th percentile per-packet one-way delay: 115.772 ms
Loss rate: 0.07%
```

Run 3: Report of Indigo-MusesT — Data Link


- Flow 1 ingress (mean 361.03 Mbit/s)
- Flow 1 egress (mean 361.04 Mbit/s)
- Flow 2 ingress (mean 281.81 Mbit/s)
- Flow 2 egress (mean 281.82 Mbit/s)
- Flow 3 ingress (mean 92.21 Mbit/s)
- Flow 3 egress (mean 92.16 Mbit/s)

- Flow 1 (95th percentile 115.06 ms)
- Flow 2 (95th percentile 112.81 ms)
- Flow 3 (95th percentile 115.77 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2020-02-18 05:28:56
End at: 2020-02-18 05:29:26
Local clock offset: -0.243 ms
Remote clock offset: 0.0 ms


# Below is generated by plot.py at 2020-02-18 08:28:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.13 Mbit/s
95th percentile per-packet one-way delay: 119.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 363.89 Mbit/s
95th percentile per-packet one-way delay: 125.347 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 283.82 Mbit/s
95th percentile per-packet one-way delay: 115.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 93.21 Mbit/s
95th percentile per-packet one-way delay: 109.057 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 363.69 Mbit/s) --- Flow 1 egress (mean 363.89 Mbit/s)
Flow 2 ingress (mean 283.82 Mbit/s) --- Flow 2 egress (mean 283.82 Mbit/s)
Flow 3 ingress (mean 93.21 Mbit/s) --- Flow 3 egress (mean 93.21 Mbit/s)

Flow 1 (95th percentile 125.35 ms)   Flow 2 (95th percentile 115.51 ms)   Flow 3 (95th percentile 109.06 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2020-02-18 06:10:39
End at: 2020-02-18 06:11:09
Local clock offset: 0.109 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2020-02-18 08:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.34 Mbit/s
95th percentile per-packet one-way delay: 132.174 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 369.29 Mbit/s
95th percentile per-packet one-way delay: 139.631 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 278.97 Mbit/s
95th percentile per-packet one-way delay: 115.080 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 97.01 Mbit/s
95th percentile per-packet one-way delay: 111.875 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesT — Data Link
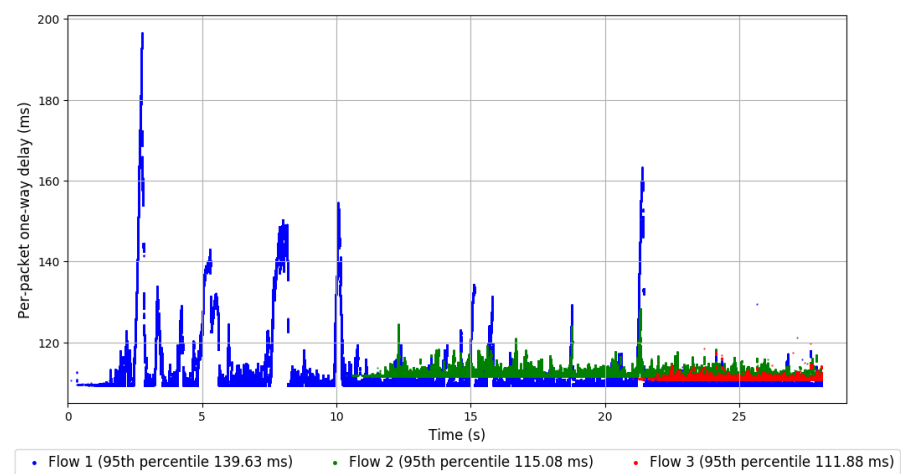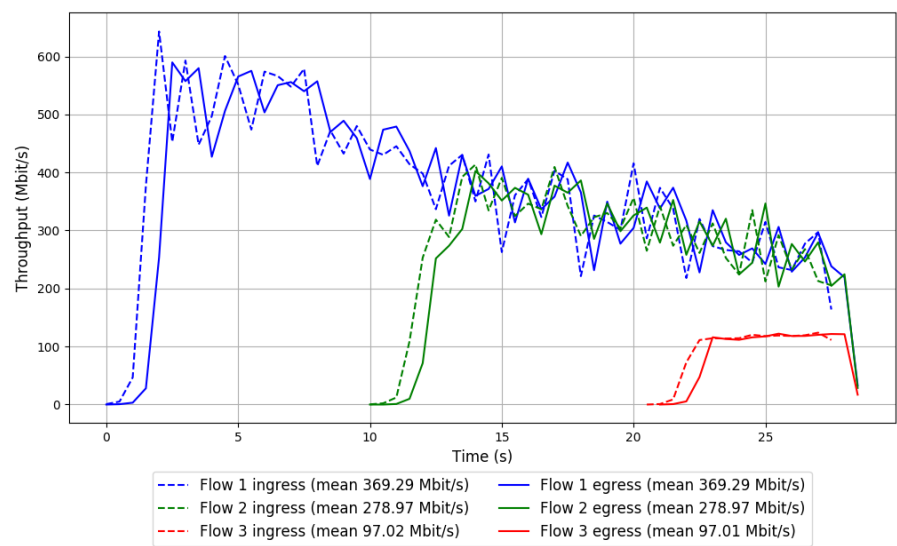
```
Run 1: Statistics of LEDBAT

Start at: 2020-02-18 03:11:56
End at: 2020-02-18 03:12:26
Local clock offset: -0.042 ms
Remote clock offset: 0.012 ms


# Below is generated by plot.py at 2020-02-18 08:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 111.504 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 111.390 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.00 Mbit/s
95th percentile per-packet one-way delay: 109.067 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 112.209 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link
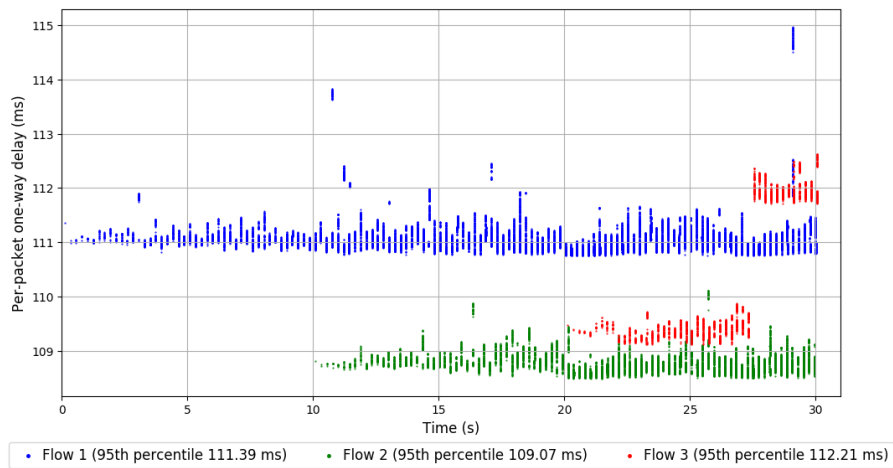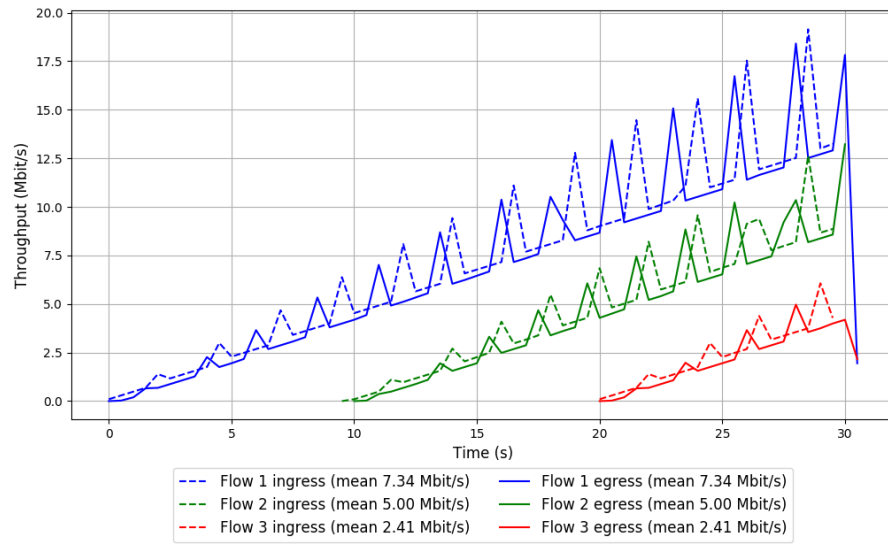
```
Run 2: Statistics of LEDBAT

Start at: 2020-02-18 03:53:40
End at: 2020-02-18 03:54:10
Local clock offset: -0.654 ms
Remote clock offset: -0.171 ms


# Below is generated by plot.py at 2020-02-18 08:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.03 Mbit/s
95th percentile per-packet one-way delay: 112.334 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 109.815 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 111.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 112.879 ms
Loss rate: 0.00%
```
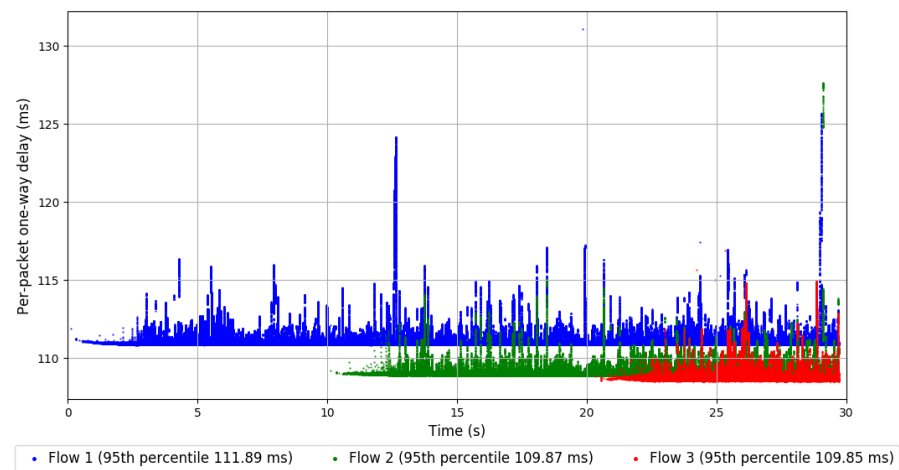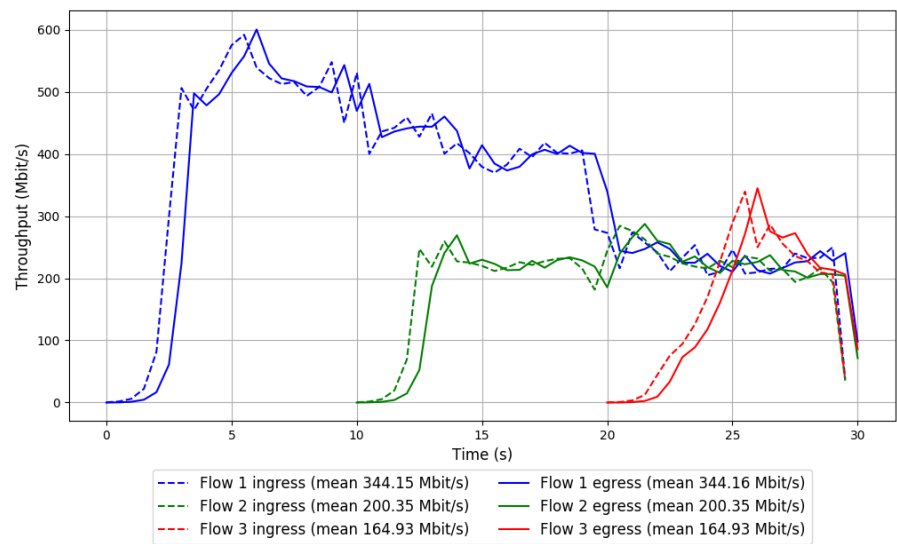
Run 2: Report of LEDBAT — Data Link
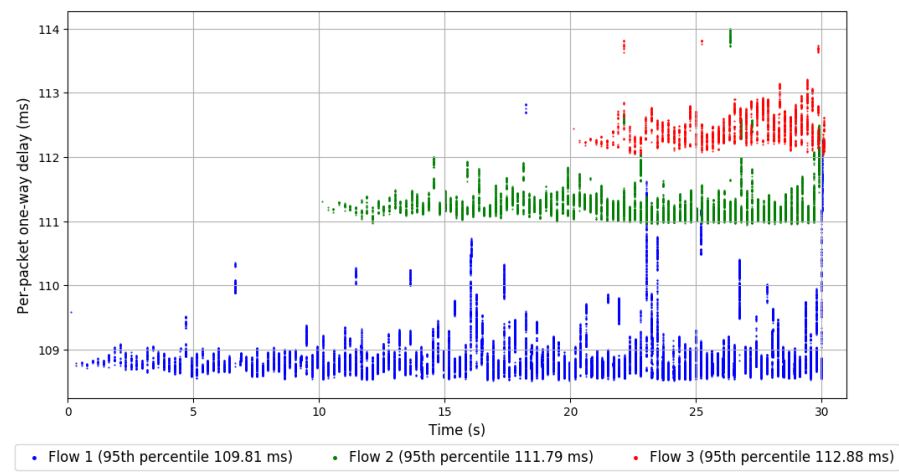
```
Run 3: Statistics of LEDBAT

Start at: 2020-02-18 04:35:42
End at: 2020-02-18 04:36:12
Local clock offset: -0.184 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2020-02-18 08:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 113.513 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 113.768 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.98 Mbit/s
95th percentile per-packet one-way delay: 111.321 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 110.229 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link
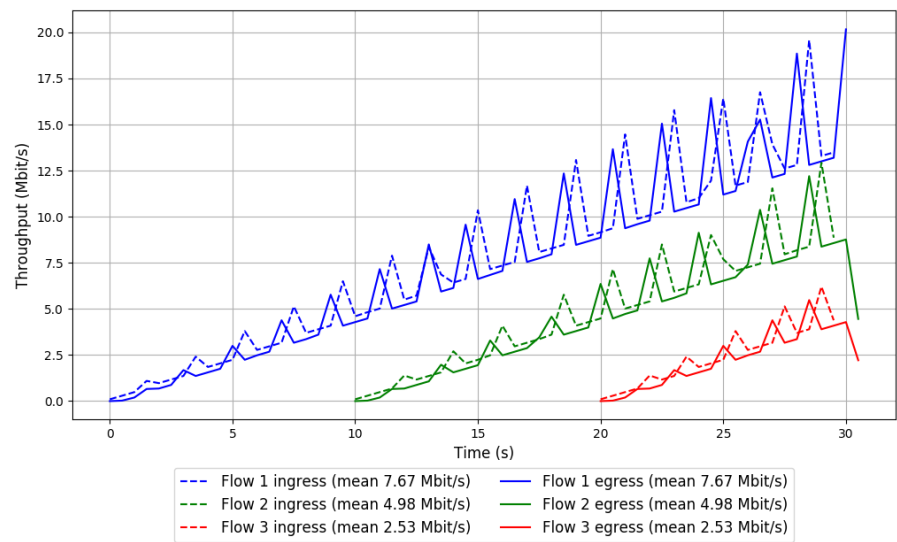
```
Run 4: Statistics of LEDBAT

Start at: 2020-02-18 05:17:06
End at: 2020-02-18 05:17:36
Local clock offset: -0.19 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2020-02-18 08:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.34 Mbit/s
95th percentile per-packet one-way delay: 114.235 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.33 Mbit/s
95th percentile per-packet one-way delay: 114.479 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 113.485 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 114.050 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link
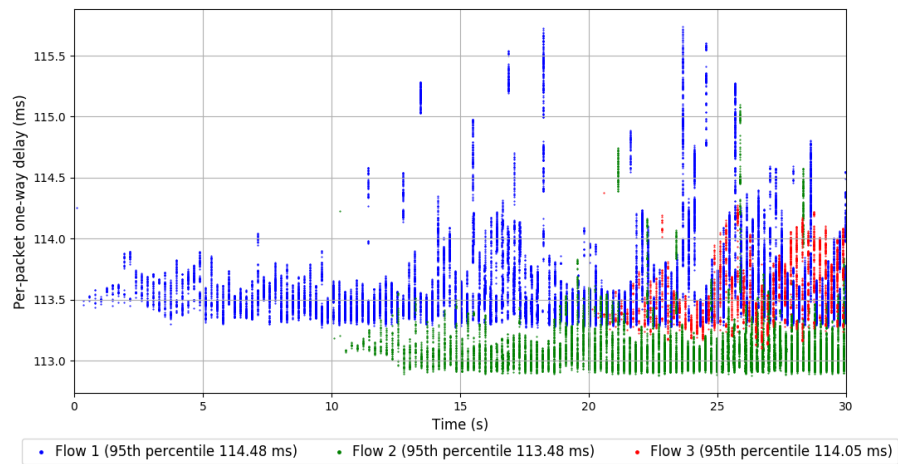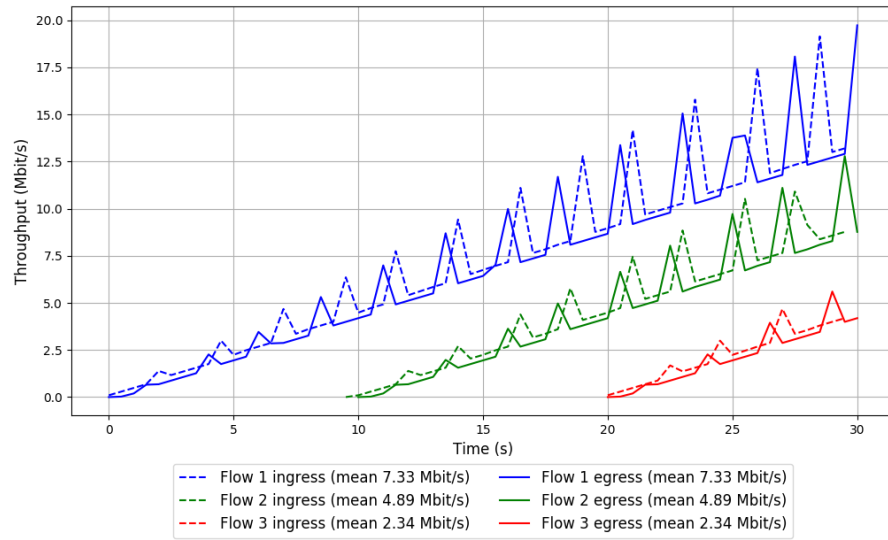
```
Run 5: Statistics of LEDBAT

Start at: 2020-02-18 05:58:56
End at: 2020-02-18 05:59:26
Local clock offset: -0.538 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2020-02-18 08:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 113.529 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.69 Mbit/s
95th percentile per-packet one-way delay: 109.200 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 110.291 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 113.840 ms
Loss rate: 0.00%
```
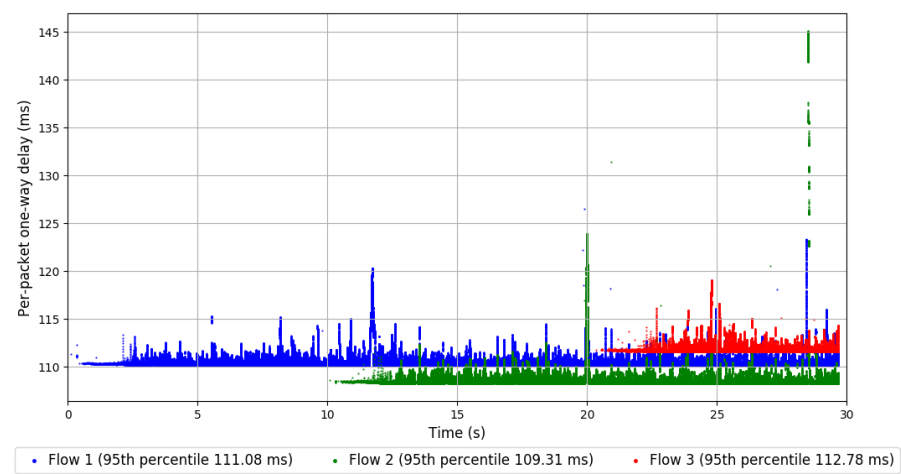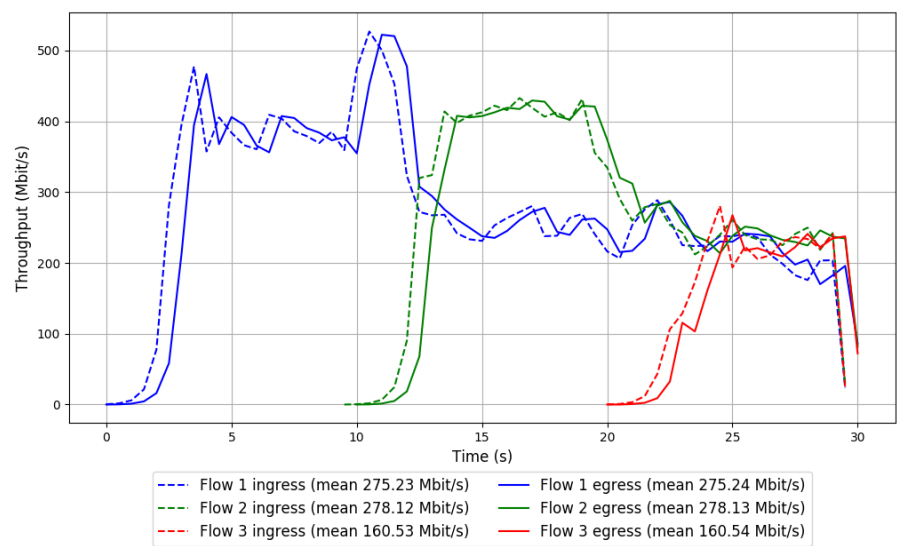
Run 5: Report of LEDBAT — Data Link
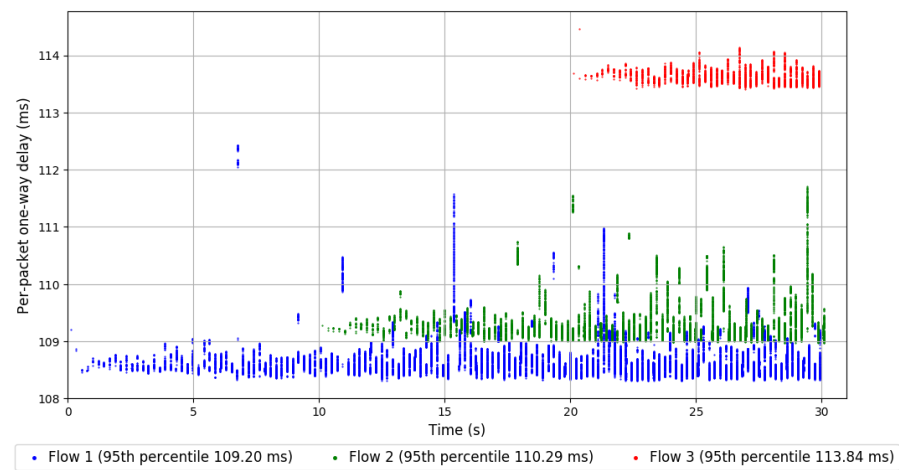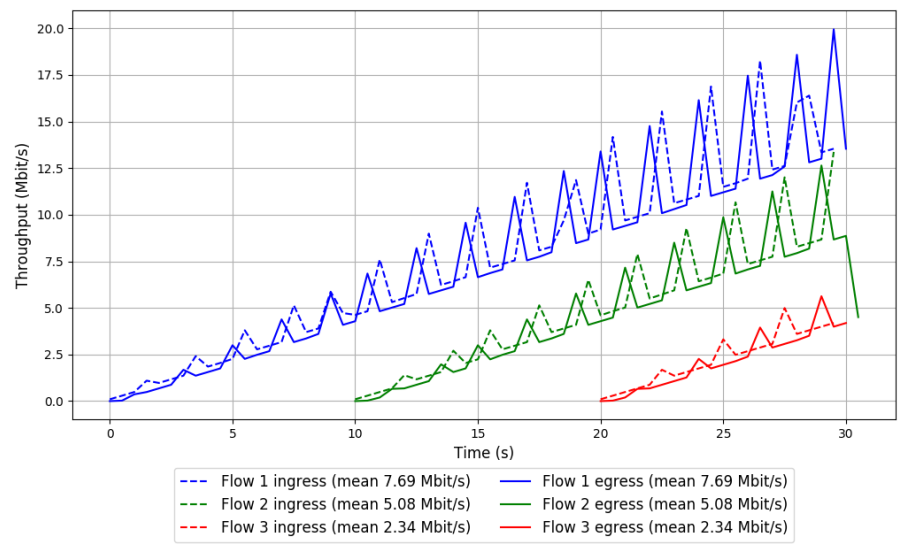
```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2020-02-18 03:05:03
End at: 2020-02-18 03:05:33
Local clock offset: 1.186 ms
Remote clock offset: 0.066 ms


# Below is generated by plot.py at 2020-02-18 08:31:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 533.74 Mbit/s
95th percentile per-packet one-way delay: 111.086 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 302.04 Mbit/s
95th percentile per-packet one-way delay: 111.570 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 230.73 Mbit/s
95th percentile per-packet one-way delay: 109.518 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 169.85 Mbit/s
95th percentile per-packet one-way delay: 110.204 ms
Loss rate: 0.01%
```
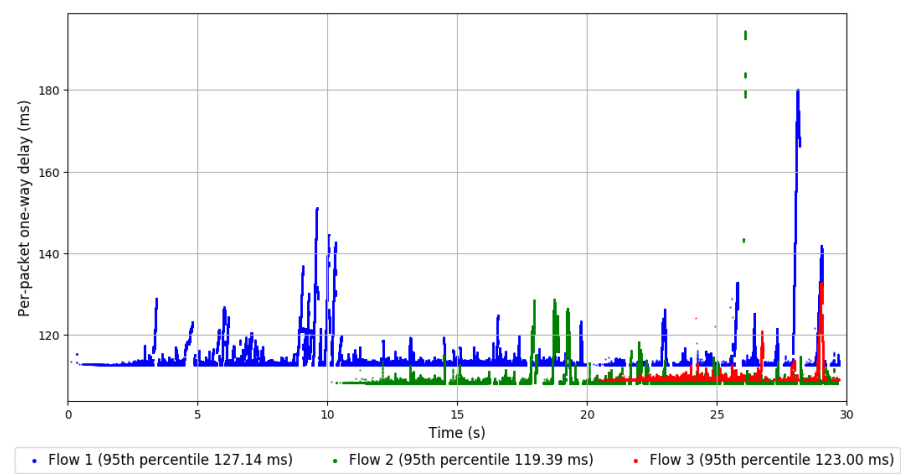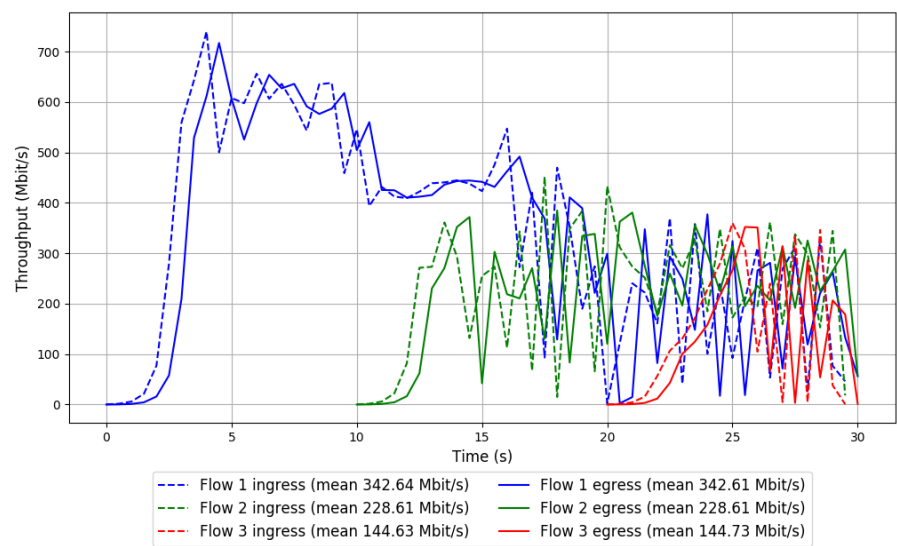
Run 1: Report of Muses_DecisionTree — Data Link
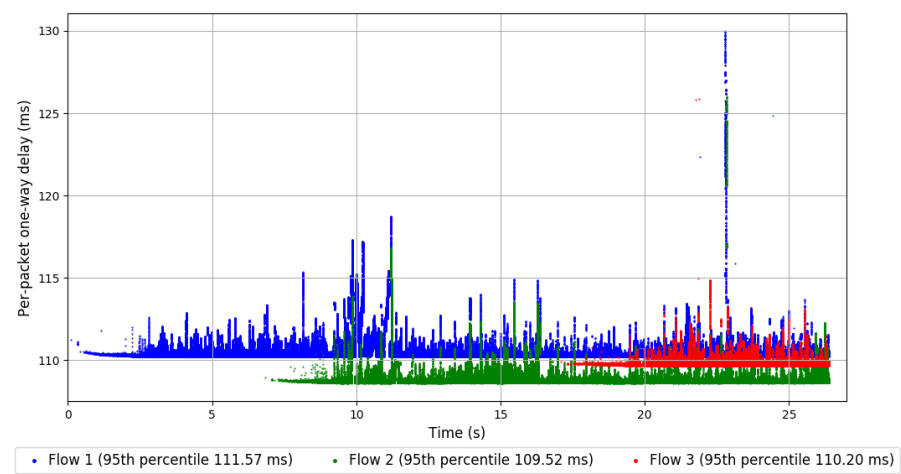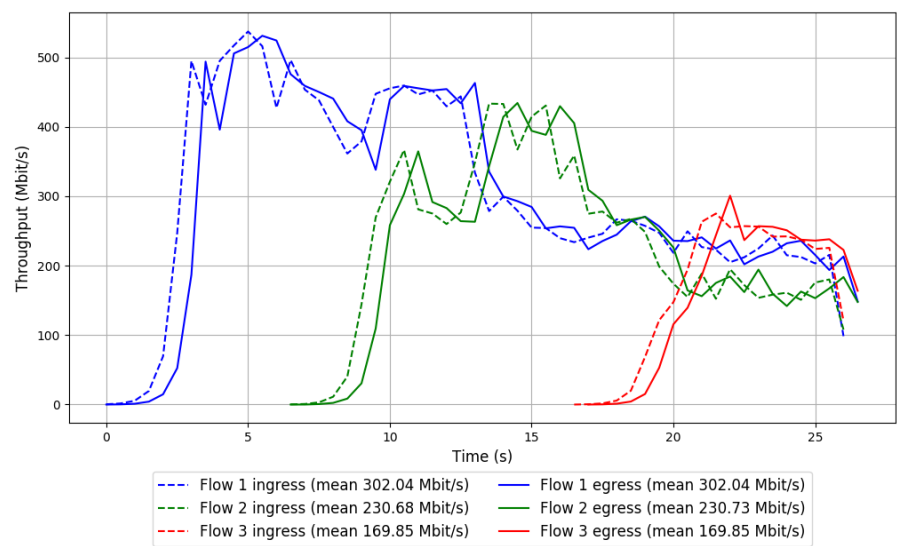
```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2020-02-18 03:46:37
End at: 2020-02-18 03:47:07
Local clock offset: -0.111 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2020-02-18 08:33:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 528.85 Mbit/s
95th percentile per-packet one-way delay: 111.567 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 344.16 Mbit/s
95th percentile per-packet one-way delay: 111.888 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 200.35 Mbit/s
95th percentile per-packet one-way delay: 109.867 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 164.93 Mbit/s
95th percentile per-packet one-way delay: 109.853 ms
Loss rate: 0.00%
```

Run 2: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 344.15 Mbit/s)   Flow 1 egress (mean 344.16 Mbit/s)
Flow 2 ingress (mean 200.35 Mbit/s)   Flow 2 egress (mean 200.35 Mbit/s)
Flow 3 ingress (mean 164.93 Mbit/s)   Flow 3 egress (mean 164.93 Mbit/s)

Flow 1 (95th percentile 111.89 ms)   Flow 2 (95th percentile 109.87 ms)   Flow 3 (95th percentile 109.85 ms)
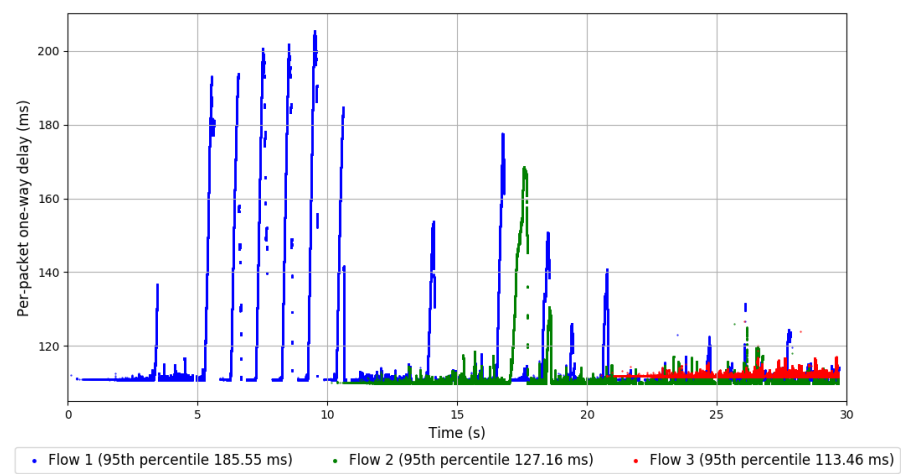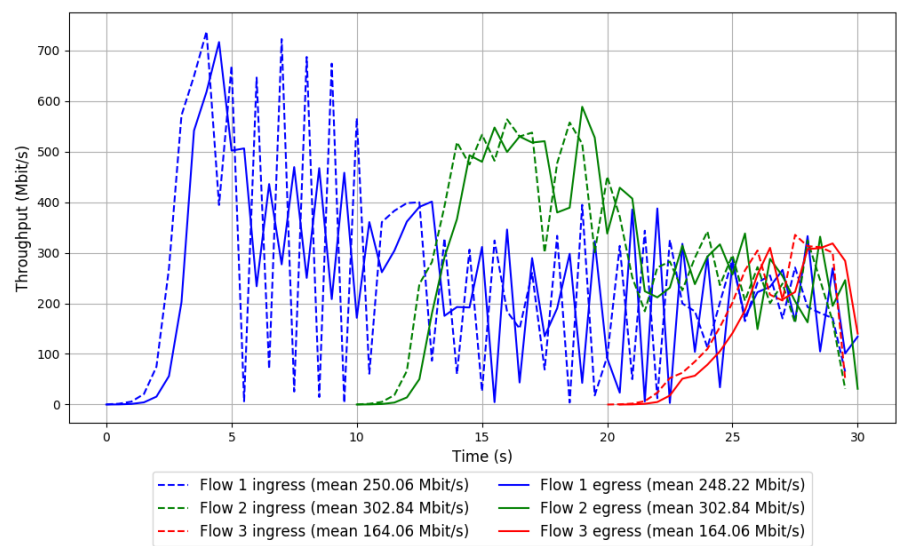
```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2020-02-18 04:28:31
End at: 2020-02-18 04:29:01
Local clock offset: 0.013 ms
Remote clock offset: 0.313 ms


# Below is generated by plot.py at 2020-02-18 08:33:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 491.43 Mbit/s
95th percentile per-packet one-way delay: 114.363 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 296.93 Mbit/s
95th percentile per-packet one-way delay: 114.787 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 211.16 Mbit/s
95th percentile per-packet one-way delay: 113.804 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 152.17 Mbit/s
95th percentile per-packet one-way delay: 114.223 ms
Loss rate: 0.00%
```

Run 3: Report of Muses_DecisionTree — Data Link
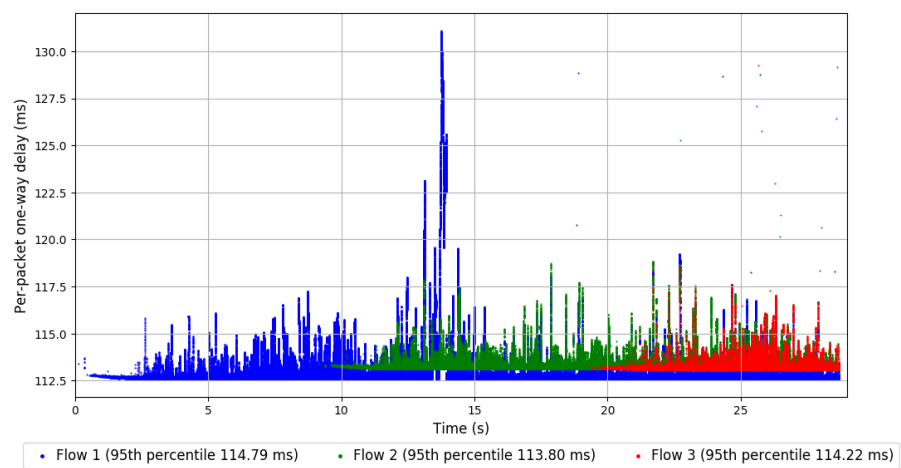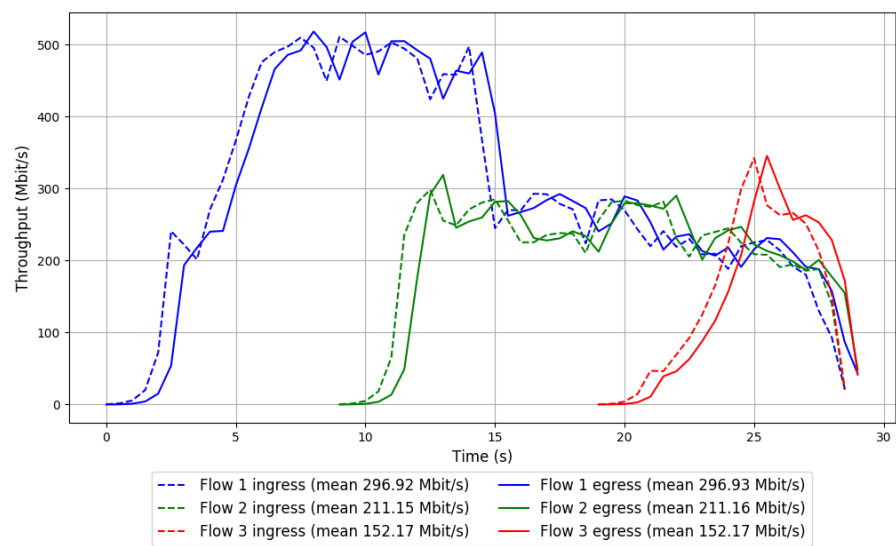
```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2020-02-18 05:09:57
End at: 2020-02-18 05:10:27
Local clock offset: -0.28 ms
Remote clock offset: 0.021 ms


# Below is generated by plot.py at 2020-02-18 08:36:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 510.19 Mbit/s
95th percentile per-packet one-way delay: 111.717 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 275.24 Mbit/s
95th percentile per-packet one-way delay: 111.075 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 278.13 Mbit/s
95th percentile per-packet one-way delay: 109.310 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 160.54 Mbit/s
95th percentile per-packet one-way delay: 112.778 ms
Loss rate: 0.00%
```
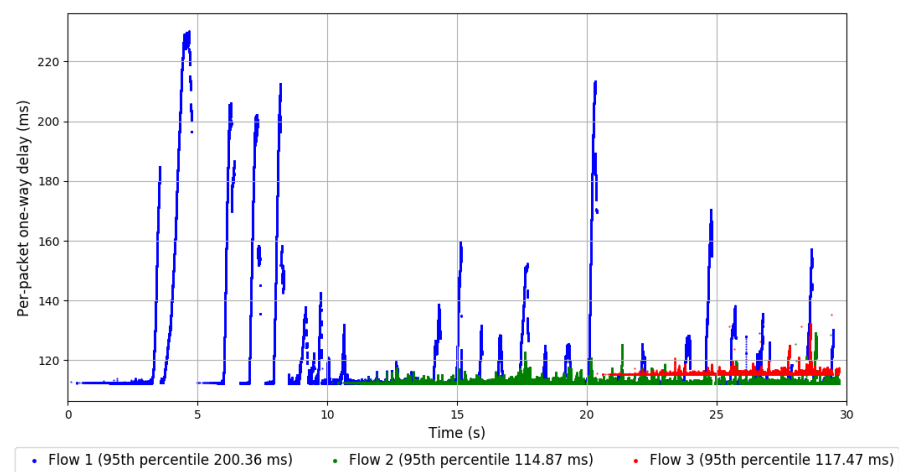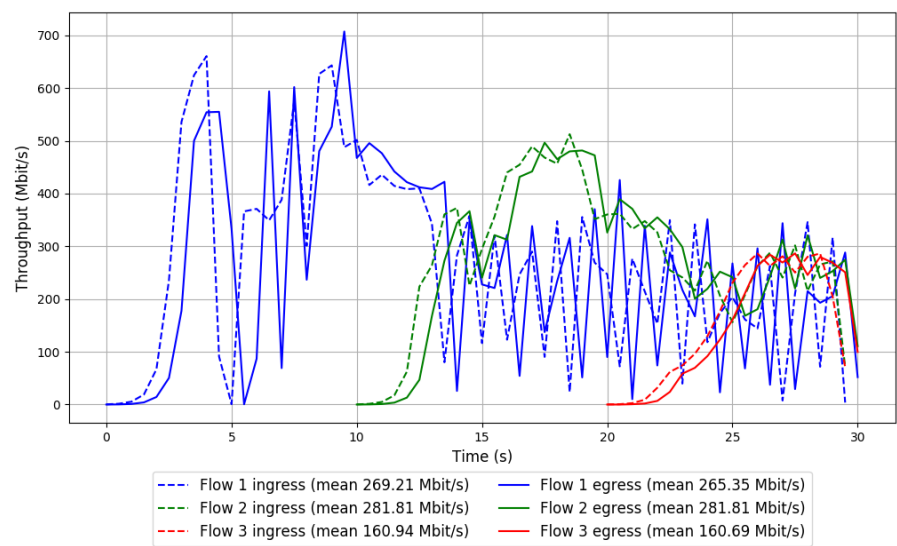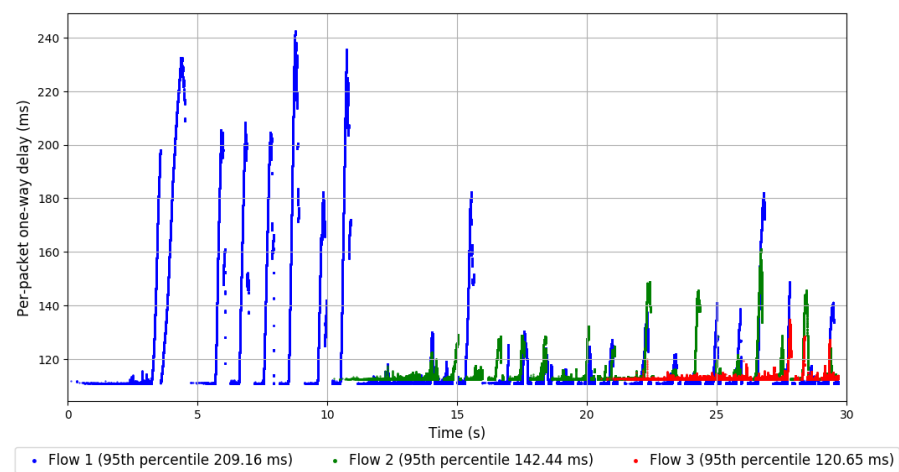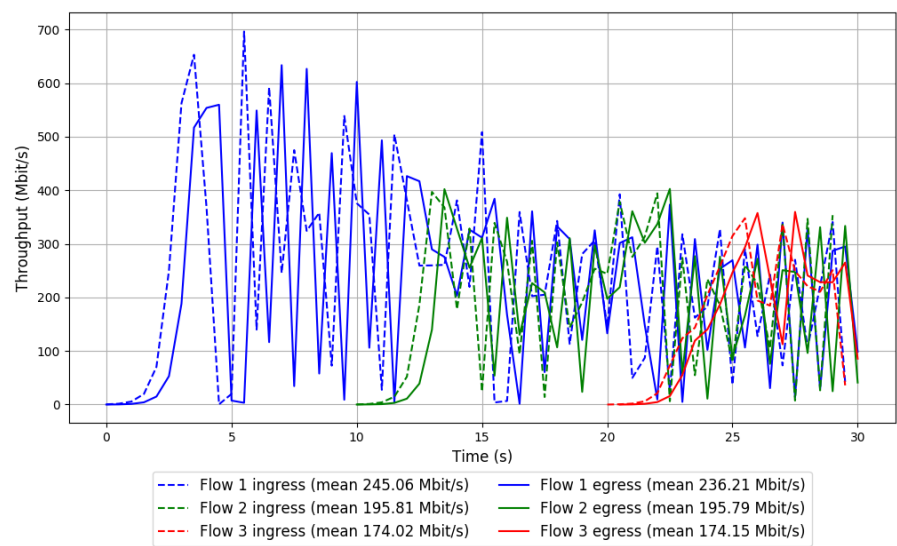
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2020-02-18 05:51:48
End at: 2020-02-18 05:52:18
Local clock offset: 0.131 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2020-02-18 08:38:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 532.88 Mbit/s
95th percentile per-packet one-way delay: 125.459 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 321.71 Mbit/s
95th percentile per-packet one-way delay: 128.593 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 248.54 Mbit/s
95th percentile per-packet one-way delay: 109.606 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.53 Mbit/s
95th percentile per-packet one-way delay: 110.051 ms
Loss rate: 0.00%
```

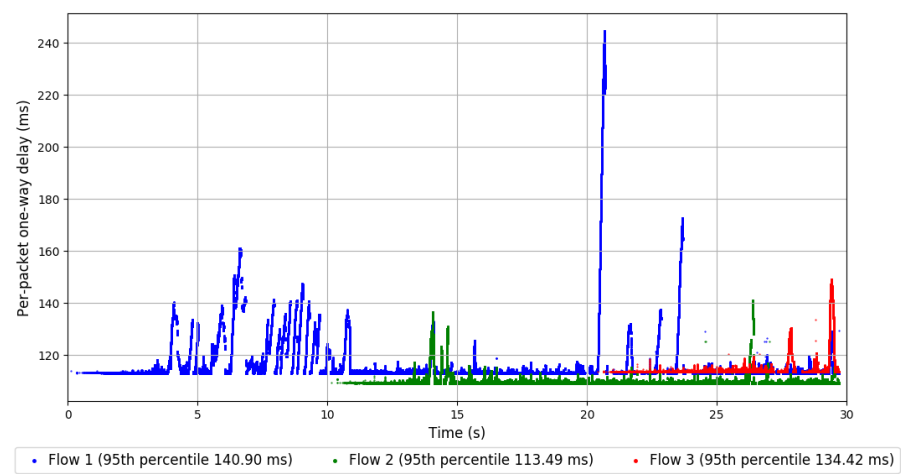# Run 5: Report of Muses_DecisionTree — Data Link
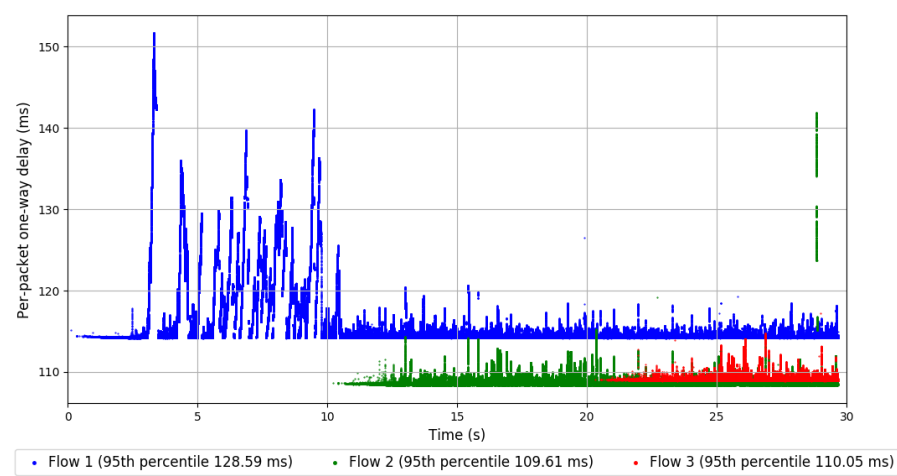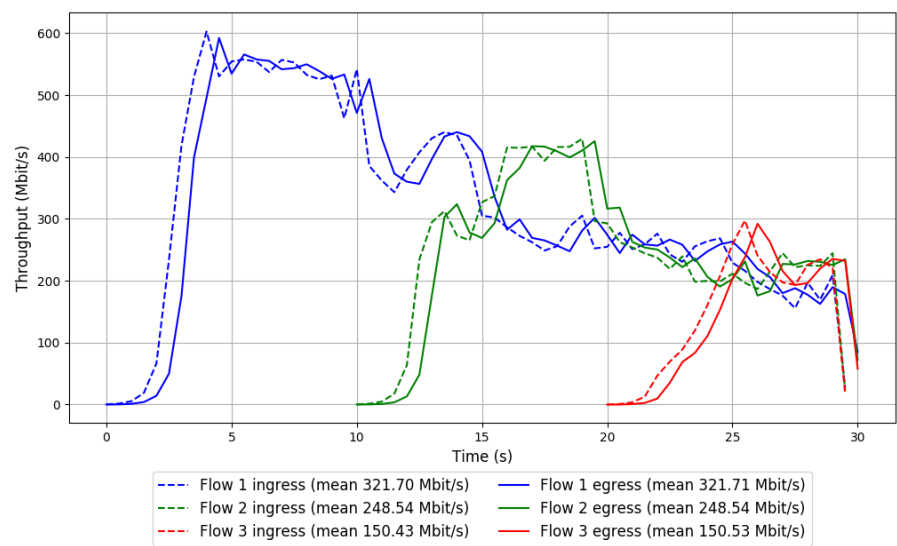
```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-18 03:29:32
End at: 2020-02-18 03:30:02
Local clock offset: -0.508 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2020-02-18 08:39:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 539.45 Mbit/s
95th percentile per-packet one-way delay: 124.388 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 342.61 Mbit/s
95th percentile per-packet one-way delay: 127.141 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 228.61 Mbit/s
95th percentile per-packet one-way delay: 119.393 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 144.73 Mbit/s
95th percentile per-packet one-way delay: 122.996 ms
Loss rate: 0.00%
```
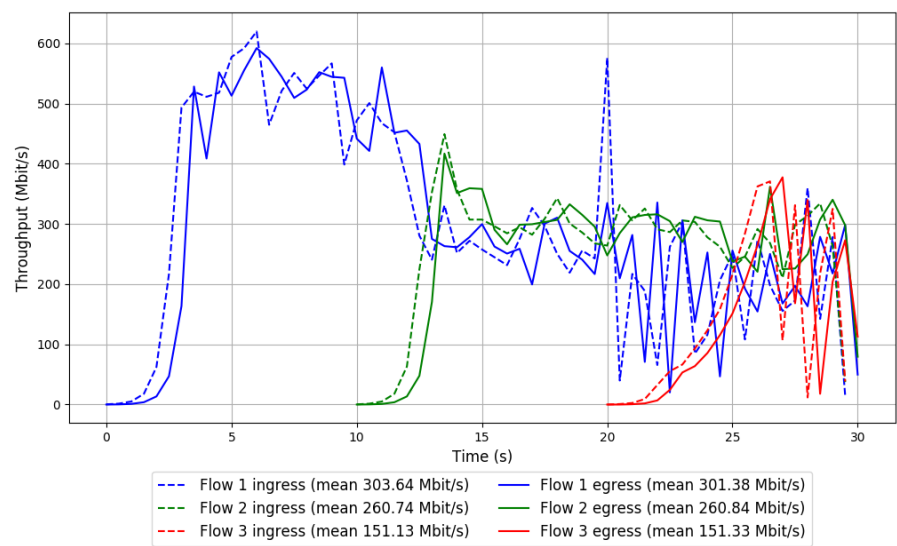
Run 1: Report of Muses_DecisionTreeH0 — Data Link

Run 2: Statistics of Muses_DecisionTreeH0

Start at: 2020-02-18 04:11:21
End at: 2020-02-18 04:11:51
Local clock offset: -0.1 ms
Remote clock offset: -0.176 ms

Below is generated by plot.py at 2020-02-18 08:40:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 498.95 Mbit/s
95th percentile per-packet one-way delay: 173.626 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 248.22 Mbit/s
95th percentile per-packet one-way delay: 185.554 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 302.84 Mbit/s
95th percentile per-packet one-way delay: 127.162 ms
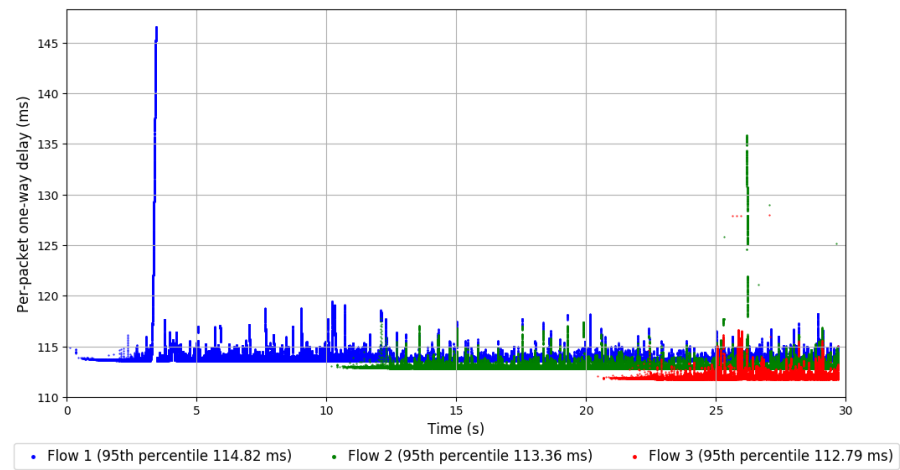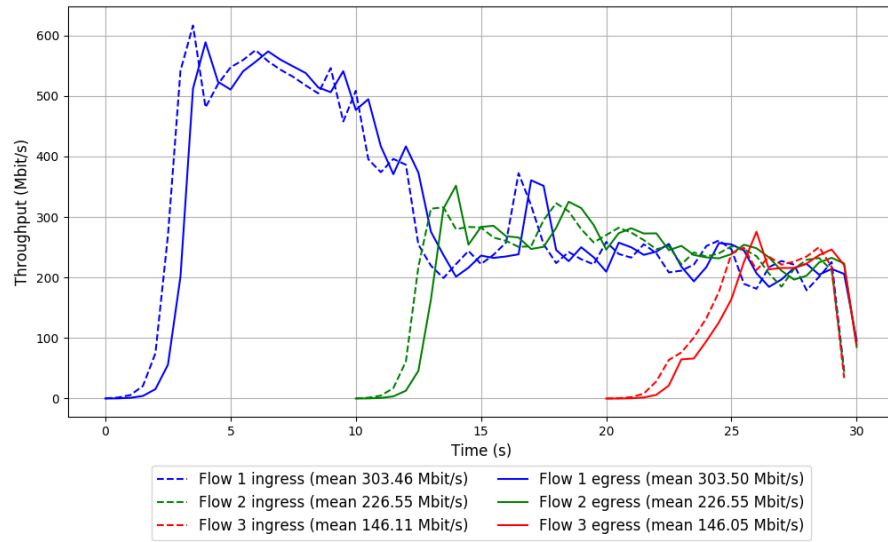Loss rate: 0.00%
-- Flow 3:
Average throughput: 164.06 Mbit/s
95th percentile per-packet one-way delay: 113.457 ms
Loss rate: 0.00%
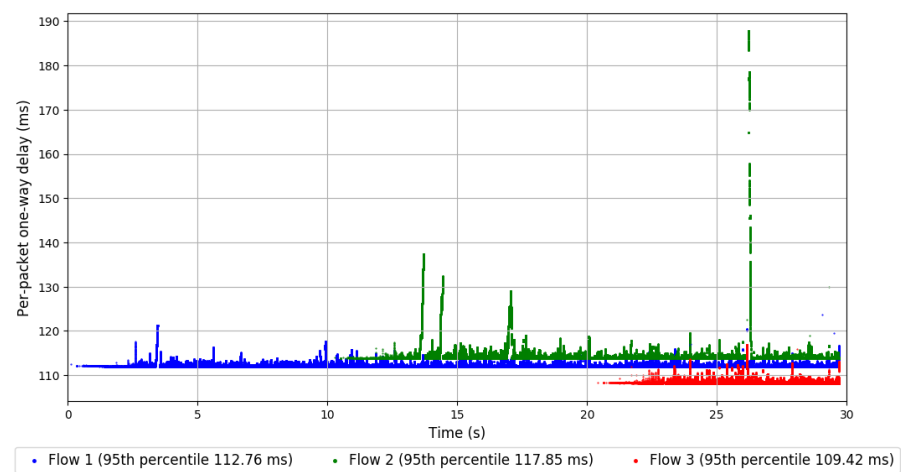
Run 2: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 250.06 Mbit/s)   Flow 1 egress (mean 248.22 Mbit/s)
Flow 2 ingress (mean 302.84 Mbit/s)   Flow 2 egress (mean 302.84 Mbit/s)
Flow 3 ingress (mean 164.06 Mbit/s)   Flow 3 egress (mean 164.06 Mbit/s)

Flow 1 (95th percentile 185.55 ms)   Flow 2 (95th percentile 127.16 ms)   Flow 3 (95th percentile 113.46 ms)
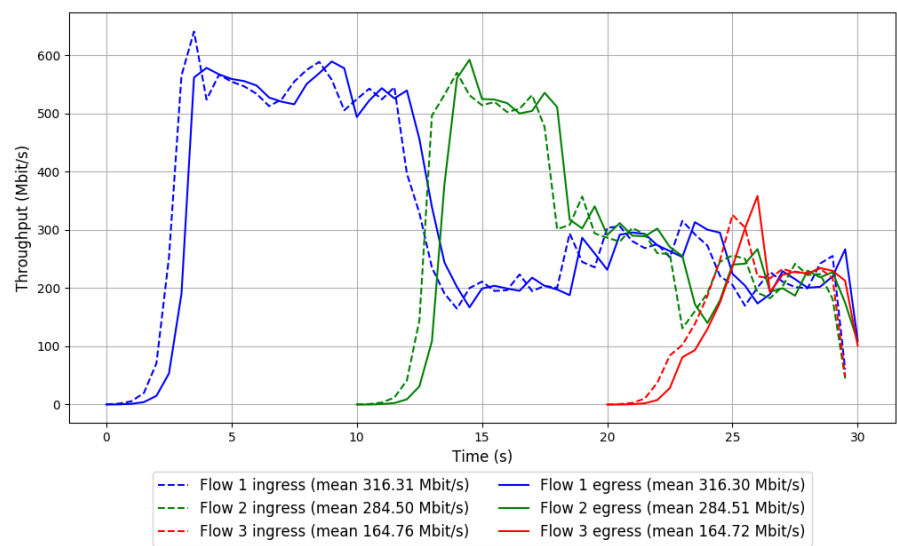
```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-18 04:52:56
End at: 2020-02-18 04:53:26
Local clock offset: 0.083 ms
Remote clock offset: 0.028 ms


# Below is generated by plot.py at 2020-02-18 08:43:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 501.38 Mbit/s
95th percentile per-packet one-way delay: 181.359 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 265.35 Mbit/s
95th percentile per-packet one-way delay: 200.363 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 281.81 Mbit/s
95th percentile per-packet one-way delay: 114.866 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 160.69 Mbit/s
95th percentile per-packet one-way delay: 117.468 ms
Loss rate: 0.17%
```

Run 3: Report of Muses_DecisionTreeH0 — Data Link

- - - Flow 1 ingress (mean 269.21 Mbit/s) ——— Flow 1 egress (mean 265.35 Mbit/s)
- - - Flow 2 ingress (mean 281.81 Mbit/s) ——— Flow 2 egress (mean 281.81 Mbit/s)
- - - Flow 3 ingress (mean 160.94 Mbit/s) ——— Flow 3 egress (mean 160.69 Mbit/s)

• Flow 1 (95th percentile 200.36 ms)   • Flow 2 (95th percentile 114.87 ms)   • Flow 3 (95th percentile 117.47 ms)
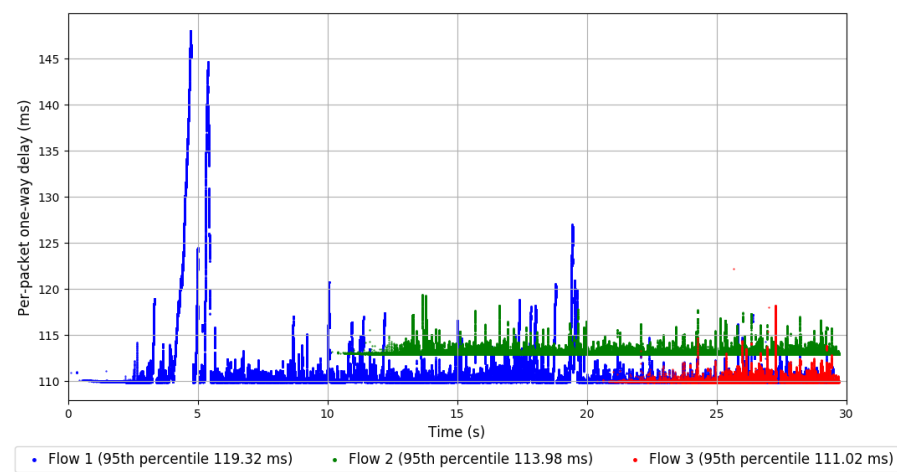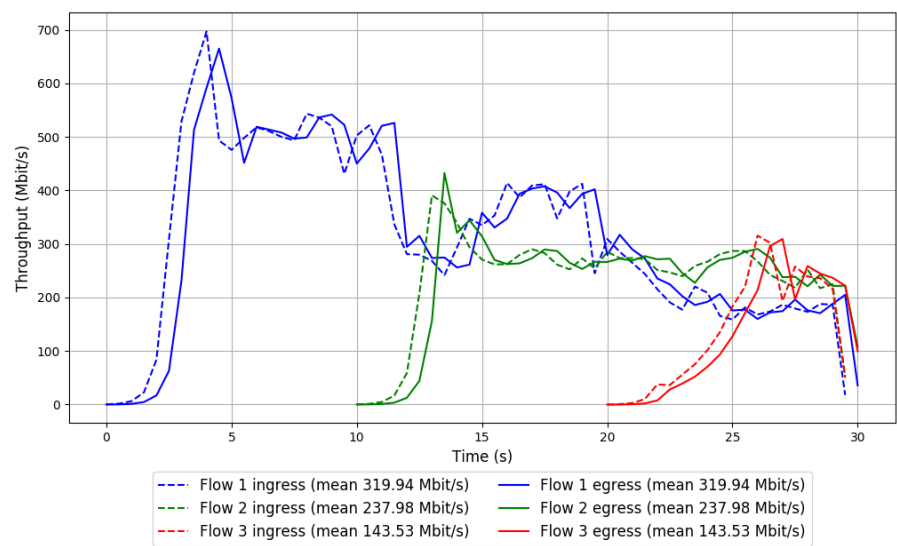
```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-18 05:34:46
End at: 2020-02-18 05:35:16
Local clock offset: 0.312 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2020-02-18 08:43:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.98 Mbit/s
95th percentile per-packet one-way delay: 196.417 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 236.21 Mbit/s
95th percentile per-packet one-way delay: 209.160 ms
Loss rate: 3.61%
-- Flow 2:
Average throughput: 195.79 Mbit/s
95th percentile per-packet one-way delay: 142.439 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 174.15 Mbit/s
95th percentile per-packet one-way delay: 120.646 ms
Loss rate: 0.00%
```

Run 4: Report of Muses_DecisionTreeH0 — Data Link

- - - - Flow 1 ingress (mean 245.06 Mbit/s)   —— Flow 1 egress (mean 236.21 Mbit/s)
- - - - Flow 2 ingress (mean 195.81 Mbit/s)   —— Flow 2 egress (mean 195.79 Mbit/s)
- - - - Flow 3 ingress (mean 174.02 Mbit/s)   —— Flow 3 egress (mean 174.15 Mbit/s)

- Flow 1 (95th percentile 209.16 ms)   • Flow 2 (95th percentile 142.44 ms)   • Flow 3 (95th percentile 120.65 ms)

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-18 06:16:29
End at: 2020-02-18 06:16:59
Local clock offset: -0.184 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2020-02-18 08:46:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 521.15 Mbit/s
95th percentile per-packet one-way delay: 137.138 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 301.38 Mbit/s
95th percentile per-packet one-way delay: 140.895 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 260.84 Mbit/s
95th percentile per-packet one-way delay: 113.490 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 151.33 Mbit/s
95th percentile per-packet one-way delay: 134.423 ms
Loss rate: 0.00%
```
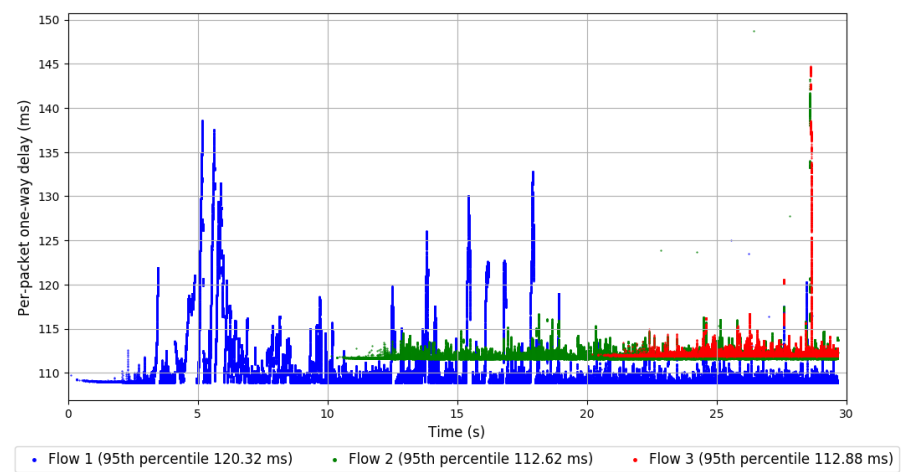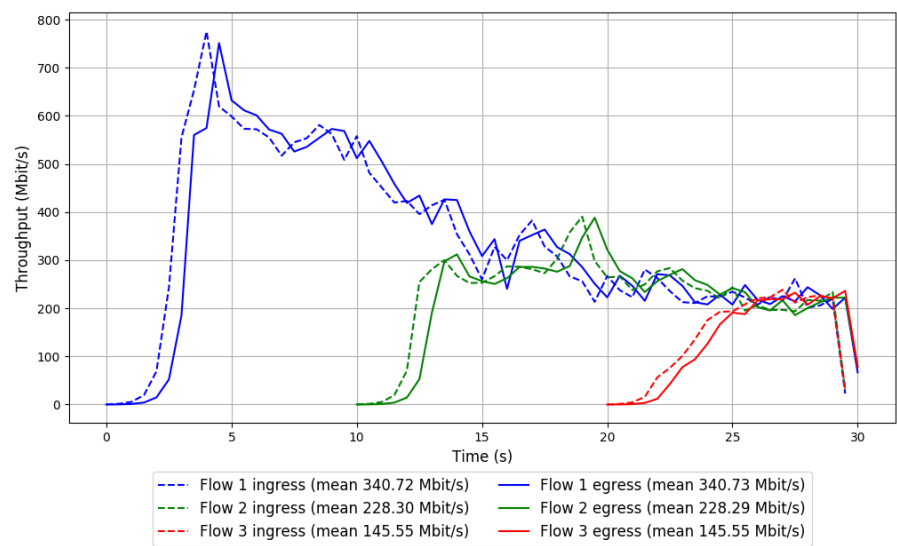
# Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-18 03:06:49
End at: 2020-02-18 03:07:19
Local clock offset: -0.749 ms
Remote clock offset: 0.07 ms


# Below is generated by plot.py at 2020-02-18 08:46:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 498.74 Mbit/s
95th percentile per-packet one-way delay: 114.452 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 303.50 Mbit/s
95th percentile per-packet one-way delay: 114.823 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 226.55 Mbit/s
95th percentile per-packet one-way delay: 113.361 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 146.05 Mbit/s
95th percentile per-packet one-way delay: 112.789 ms
Loss rate: 0.01%
```
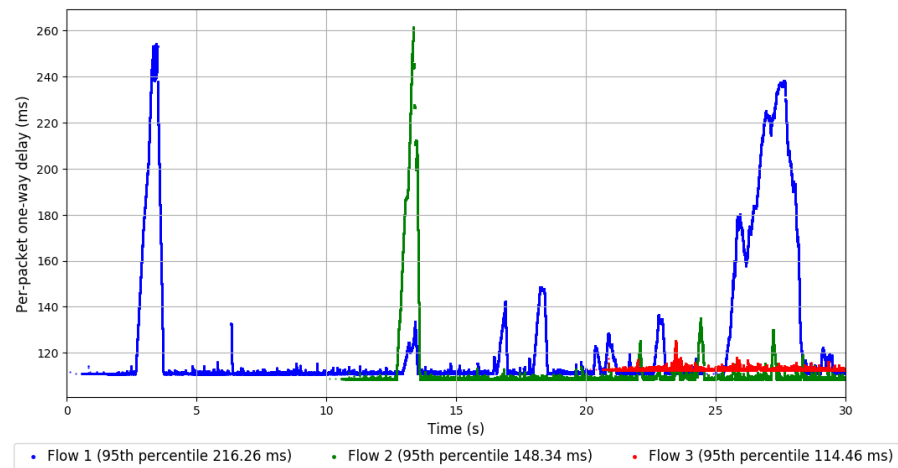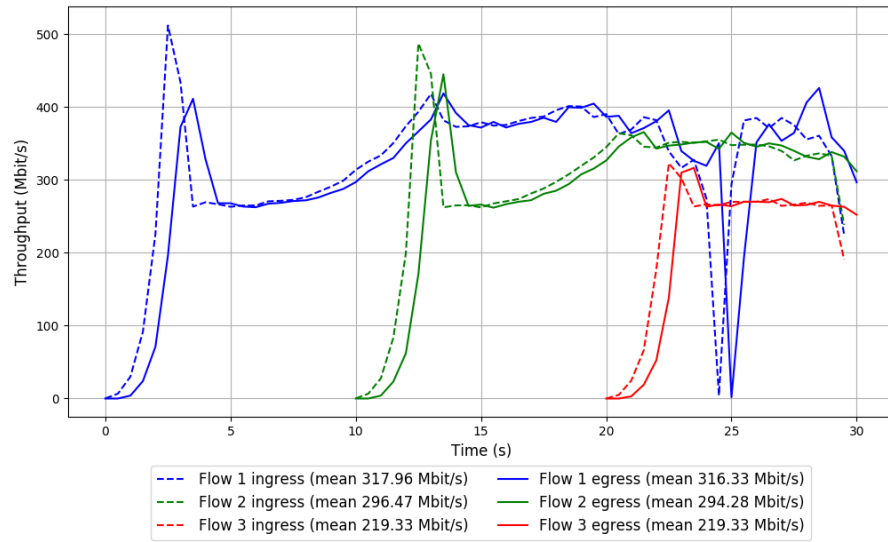
Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-18 03:48:26
End at: 2020-02-18 03:48:56
Local clock offset: 0.225 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2020-02-18 08:50:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 554.80 Mbit/s
95th percentile per-packet one-way delay: 114.544 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 316.30 Mbit/s
95th percentile per-packet one-way delay: 112.758 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 284.51 Mbit/s
95th percentile per-packet one-way delay: 117.849 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 164.72 Mbit/s
95th percentile per-packet one-way delay: 109.417 ms
Loss rate: 0.00%
```

Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-18 04:30:17
End at: 2020-02-18 04:30:47
Local clock offset: -0.104 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2020-02-18 08:51:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 522.06 Mbit/s
95th percentile per-packet one-way delay: 115.986 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 319.94 Mbit/s
95th percentile per-packet one-way delay: 119.318 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 237.98 Mbit/s
95th percentile per-packet one-way delay: 113.976 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 143.53 Mbit/s
95th percentile per-packet one-way delay: 111.018 ms
Loss rate: 0.00%
```

Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-18 05:11:45
End at: 2020-02-18 05:12:15
Local clock offset: -0.169 ms
Remote clock offset: 0.016 ms


# Below is generated by plot.py at 2020-02-18 08:52:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.87 Mbit/s
95th percentile per-packet one-way delay: 117.482 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 340.73 Mbit/s
95th percentile per-packet one-way delay: 120.317 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 228.29 Mbit/s
95th percentile per-packet one-way delay: 112.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 145.55 Mbit/s
95th percentile per-packet one-way delay: 112.877 ms
Loss rate: 0.00%
```
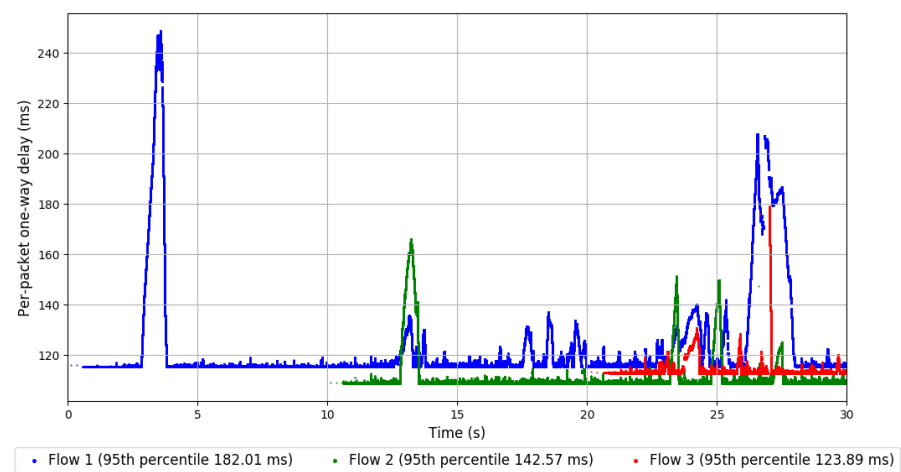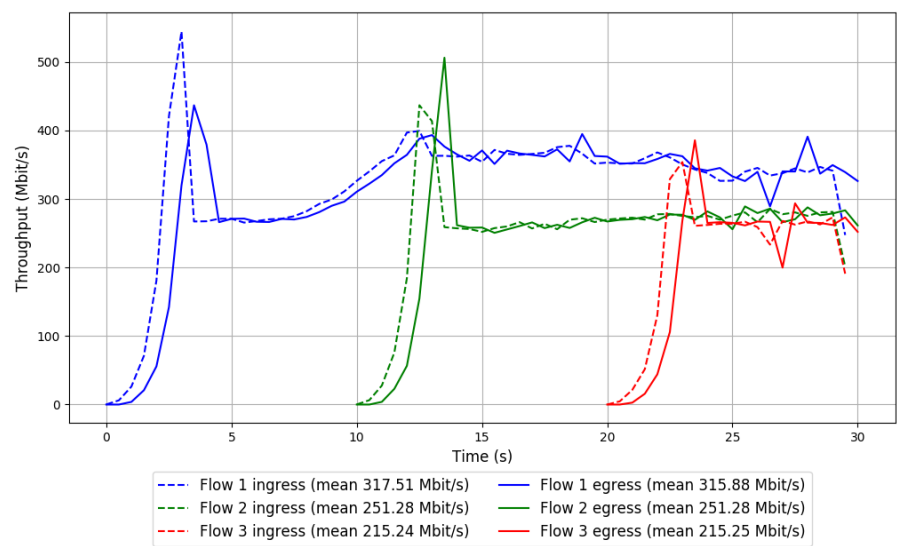
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-18 05:53:37
End at: 2020-02-18 05:54:07
Local clock offset: 0.7 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2020-02-18 08:52:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.85 Mbit/s
95th percentile per-packet one-way delay: 112.270 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 310.31 Mbit/s
95th percentile per-packet one-way delay: 111.150 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 202.11 Mbit/s
95th percentile per-packet one-way delay: 110.509 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 140.37 Mbit/s
95th percentile per-packet one-way delay: 113.358 ms
Loss rate: 0.01%
```

# Run 5: Report of Muses_DecisionTreeR0 — Data Link
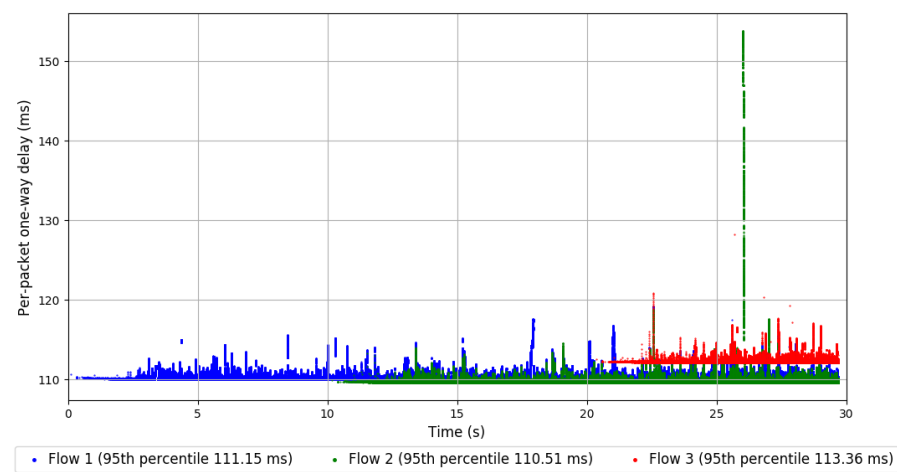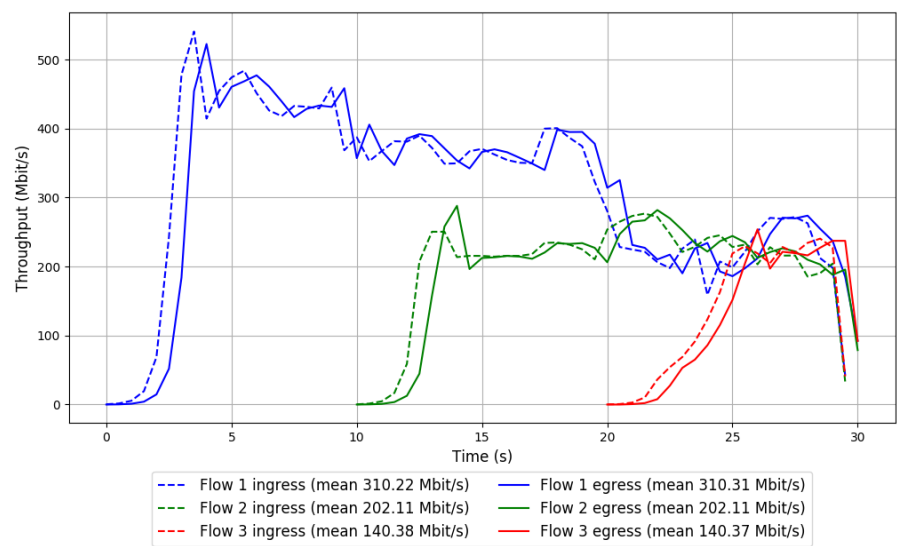
```
Run 1: Statistics of PCC-Allegro

Start at: 2020-02-18 03:34:24
End at: 2020-02-18 03:34:54
Local clock offset: -0.115 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2020-02-18 09:09:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 583.94 Mbit/s
95th percentile per-packet one-way delay: 192.779 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 316.33 Mbit/s
95th percentile per-packet one-way delay: 216.262 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 294.28 Mbit/s
95th percentile per-packet one-way delay: 148.338 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 219.33 Mbit/s
95th percentile per-packet one-way delay: 114.458 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 317.96 Mbit/s)   Flow 1 egress (mean 316.33 Mbit/s)
Flow 2 ingress (mean 296.47 Mbit/s)   Flow 2 egress (mean 294.28 Mbit/s)
Flow 3 ingress (mean 219.33 Mbit/s)   Flow 3 egress (mean 219.33 Mbit/s)

Flow 1 (95th percentile 216.26 ms)   Flow 2 (95th percentile 148.34 ms)   Flow 3 (95th percentile 114.46 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2020-02-18 04:16:10
End at: 2020-02-18 04:16:40
Local clock offset: -0.204 ms
Remote clock offset: -0.17 ms


# Below is generated by plot.py at 2020-02-18 09:11:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 590.31 Mbit/s
95th percentile per-packet one-way delay: 230.130 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 322.58 Mbit/s
95th percentile per-packet one-way delay: 148.657 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 293.69 Mbit/s
95th percentile per-packet one-way delay: 242.458 ms
Loss rate: 4.29%
-- Flow 3:
Average throughput: 221.39 Mbit/s
95th percentile per-packet one-way delay: 116.447 ms
Loss rate: 0.00%
```

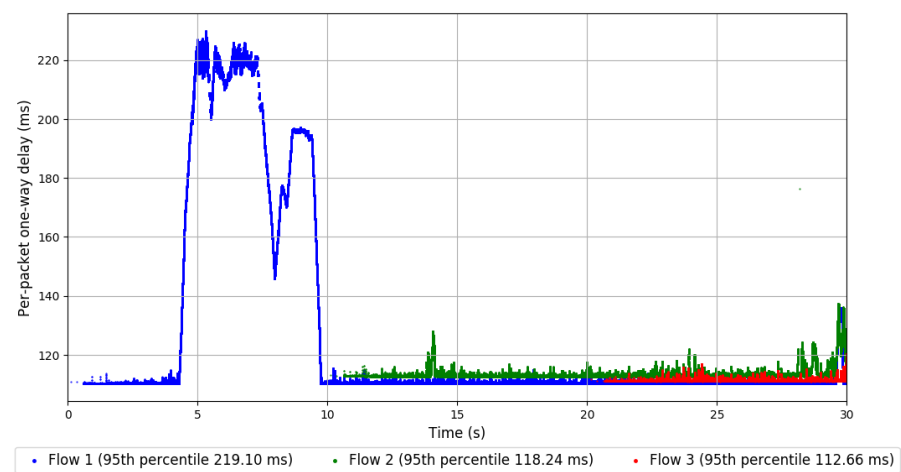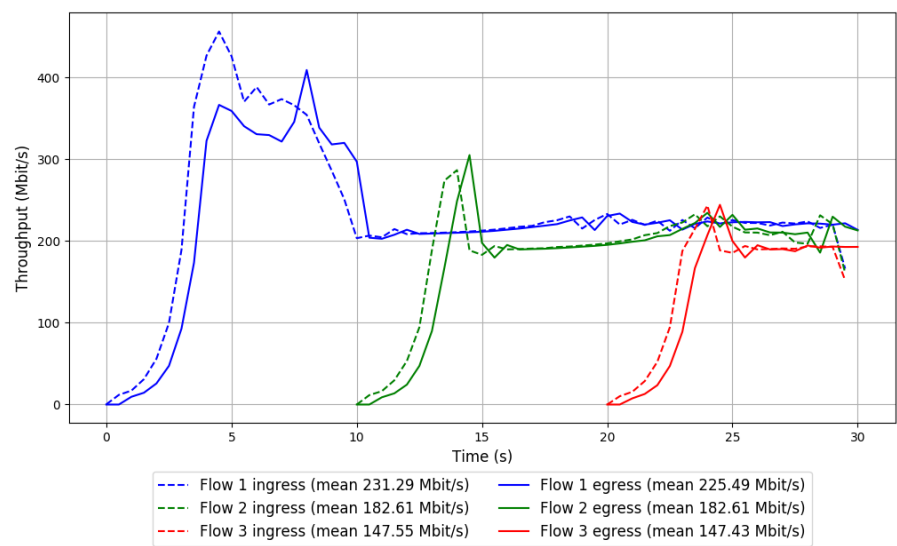Run 2: Report of PCC-Allegro — Data Link
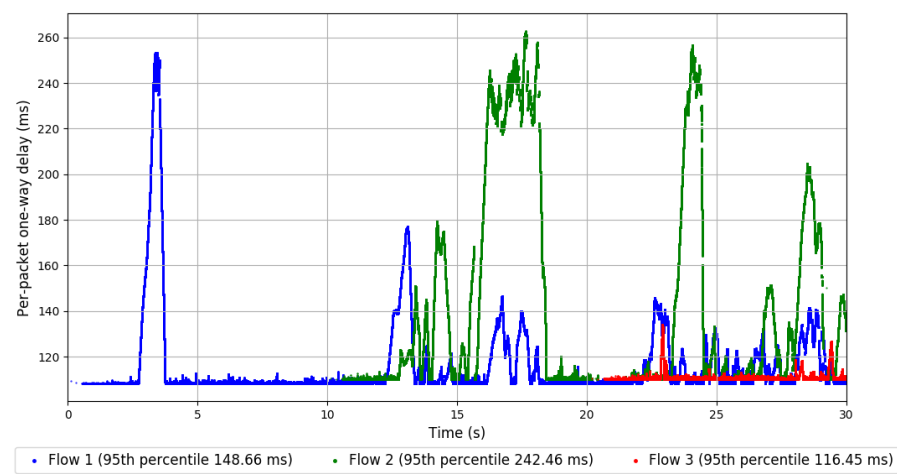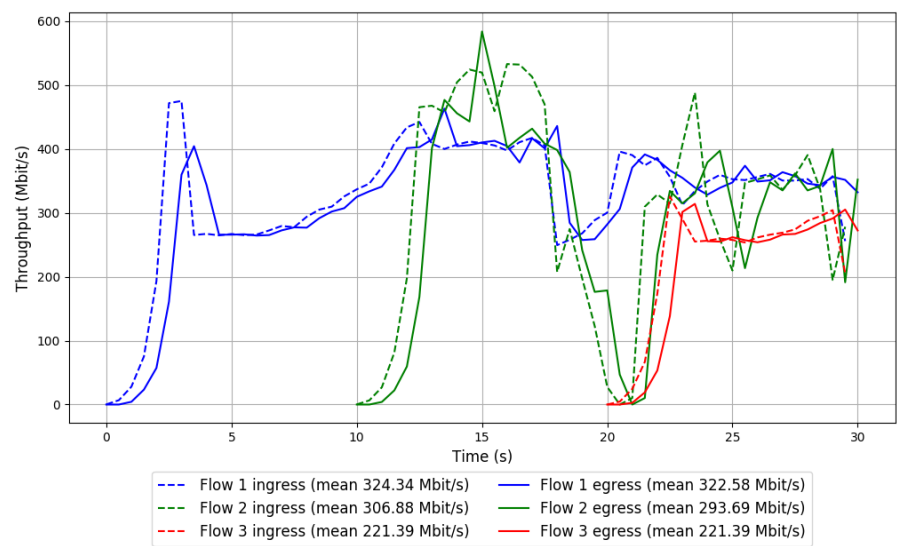
```
Run 3: Statistics of PCC-Allegro

Start at: 2020-02-18 04:57:45
End at: 2020-02-18 04:58:15
Local clock offset: -0.022 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2020-02-18 09:12:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 553.69 Mbit/s
95th percentile per-packet one-way delay: 160.369 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 315.88 Mbit/s
95th percentile per-packet one-way delay: 182.011 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 251.28 Mbit/s
95th percentile per-packet one-way delay: 142.569 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 215.25 Mbit/s
95th percentile per-packet one-way delay: 123.886 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 317.51 Mbit/s)   Flow 1 egress (mean 315.88 Mbit/s)
Flow 2 ingress (mean 251.28 Mbit/s)   Flow 2 egress (mean 251.28 Mbit/s)
Flow 3 ingress (mean 215.24 Mbit/s)   Flow 3 egress (mean 215.25 Mbit/s)

Flow 1 (95th percentile 182.01 ms)   Flow 2 (95th percentile 142.57 ms)   Flow 3 (95th percentile 123.89 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2020-02-18 05:39:31
End at: 2020-02-18 05:40:01
Local clock offset: -0.191 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2020-02-18 09:15:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 596.85 Mbit/s
95th percentile per-packet one-way delay: 223.549 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 348.15 Mbit/s
95th percentile per-packet one-way delay: 225.354 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 260.21 Mbit/s
95th percentile per-packet one-way delay: 214.054 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 230.29 Mbit/s
95th percentile per-packet one-way delay: 138.757 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Allegro — Data Link
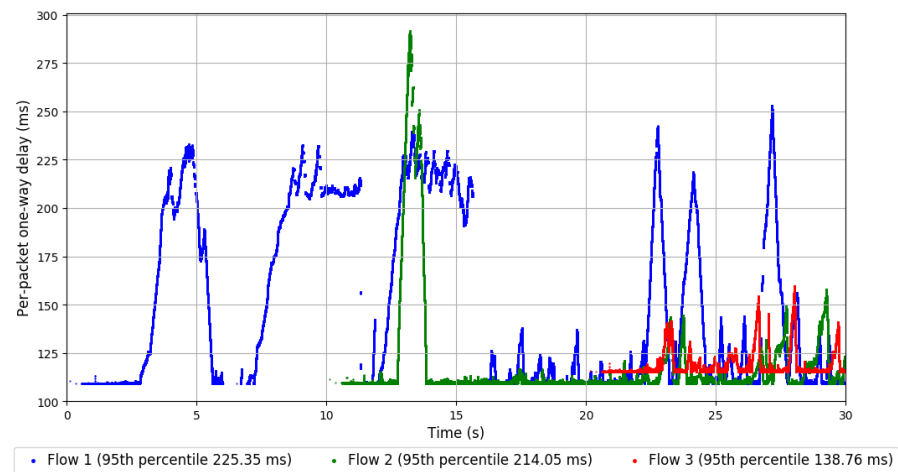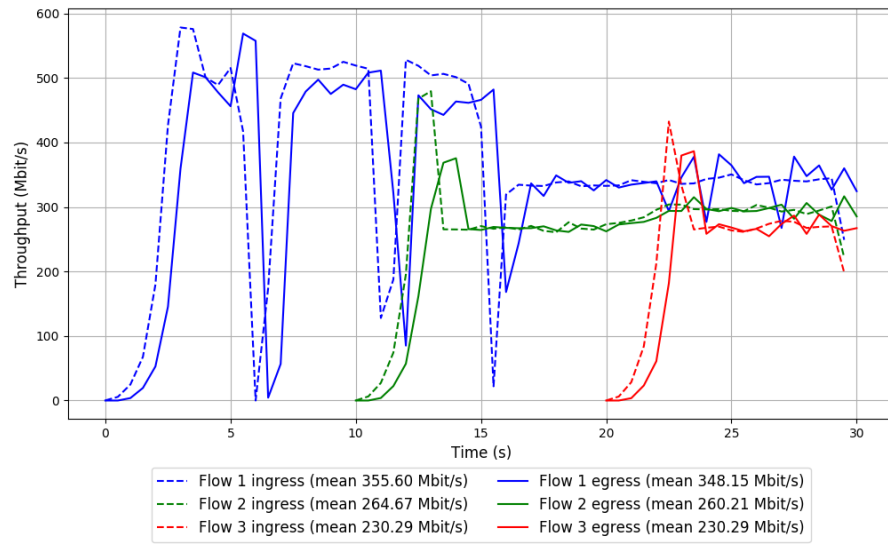
```
Run 5: Statistics of PCC-Allegro

Start at: 2020-02-18 06:21:18
End at: 2020-02-18 06:21:48
Local clock offset: 0.036 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2020-02-18 09:18:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 594.14 Mbit/s
95th percentile per-packet one-way delay: 193.591 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 338.45 Mbit/s
95th percentile per-packet one-way delay: 205.942 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 275.60 Mbit/s
95th percentile per-packet one-way delay: 184.135 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 220.36 Mbit/s
95th percentile per-packet one-way delay: 177.637 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link
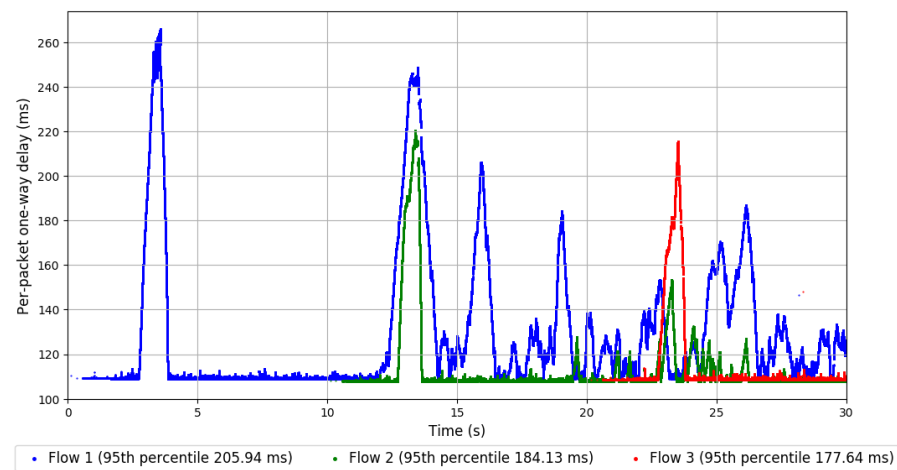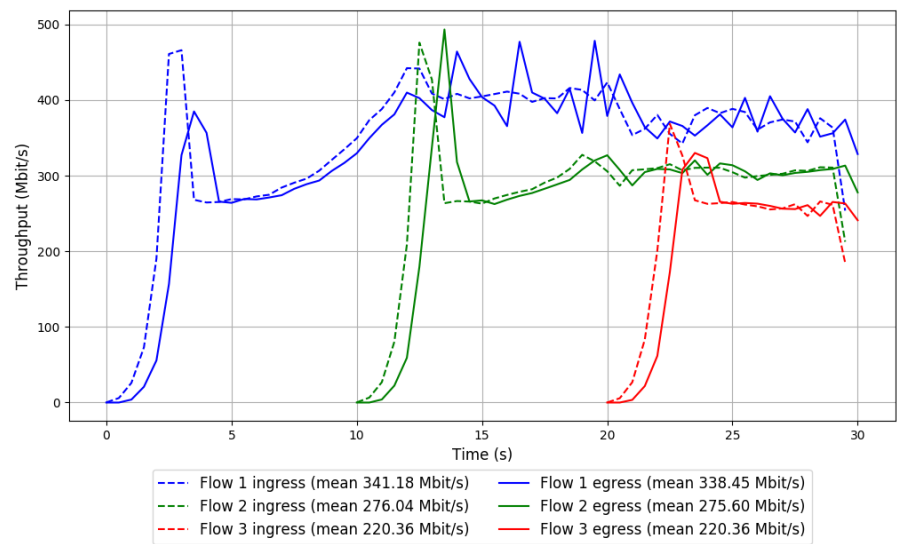
```
Run 1: Statistics of PCC-Expr

Start at: 2020-02-18 03:18:06
End at: 2020-02-18 03:18:36
Local clock offset: -0.09 ms
Remote clock offset: -0.0 ms


# Below is generated by plot.py at 2020-02-18 09:18:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.51 Mbit/s
95th percentile per-packet one-way delay: 215.727 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 225.49 Mbit/s
95th percentile per-packet one-way delay: 219.100 ms
Loss rate: 2.51%
-- Flow 2:
Average throughput: 182.61 Mbit/s
95th percentile per-packet one-way delay: 118.243 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 147.43 Mbit/s
95th percentile per-packet one-way delay: 112.656 ms
Loss rate: 0.09%
```

Run 1: Report of PCC-Expr — Data Link

- - - Flow 1 ingress (mean 231.29 Mbit/s) ——— Flow 1 egress (mean 225.49 Mbit/s)
- - - Flow 2 ingress (mean 182.61 Mbit/s) ——— Flow 2 egress (mean 182.61 Mbit/s)
- - - Flow 3 ingress (mean 147.55 Mbit/s) ——— Flow 3 egress (mean 147.43 Mbit/s)

- Flow 1 (95th percentile 219.10 ms)   - Flow 2 (95th percentile 118.24 ms)   - Flow 3 (95th percentile 112.66 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2020-02-18 03:59:46
End at: 2020-02-18 04:00:16
Local clock offset: -0.661 ms
Remote clock offset: -0.155 ms


# Below is generated by plot.py at 2020-02-18 09:18:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.86 Mbit/s
95th percentile per-packet one-way delay: 147.408 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 258.03 Mbit/s
95th percentile per-packet one-way delay: 181.165 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 176.99 Mbit/s
95th percentile per-packet one-way delay: 113.876 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 155.18 Mbit/s
95th percentile per-packet one-way delay: 136.027 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Expr — Data Link
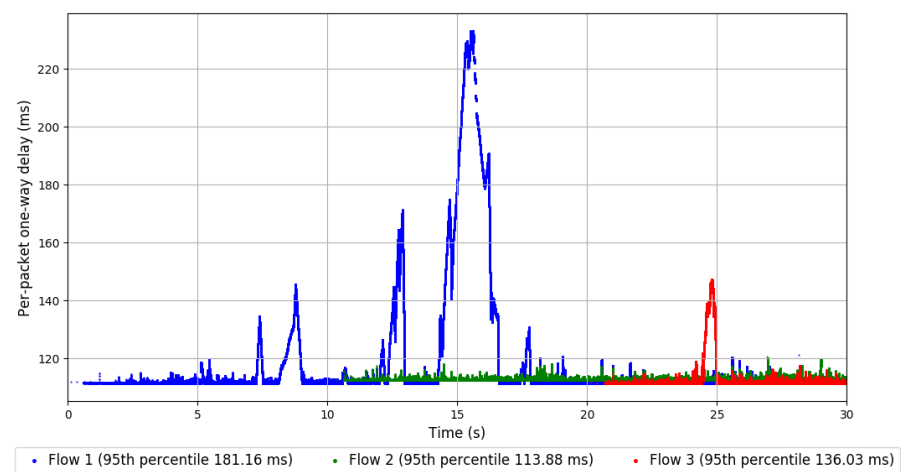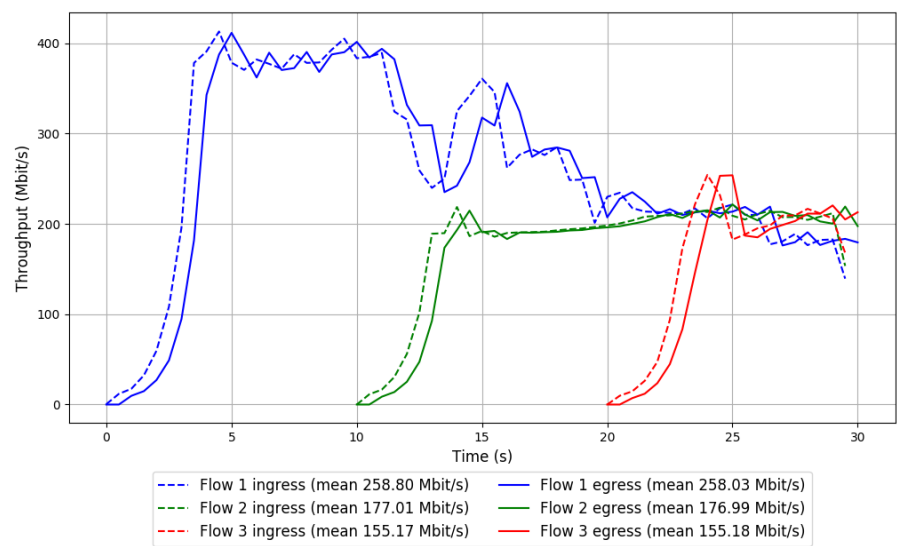
```
Run 3: Statistics of PCC-Expr

Start at: 2020-02-18 04:41:26
End at: 2020-02-18 04:41:56
Local clock offset: -0.219 ms
Remote clock offset: 0.028 ms


# Below is generated by plot.py at 2020-02-18 09:18:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 465.46 Mbit/s
95th percentile per-packet one-way delay: 203.208 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 242.27 Mbit/s
95th percentile per-packet one-way delay: 218.646 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 261.80 Mbit/s
95th percentile per-packet one-way delay: 199.934 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 149.10 Mbit/s
95th percentile per-packet one-way delay: 144.968 ms
Loss rate: 0.04%
```

Run 3: Report of PCC-Expr — Data Link
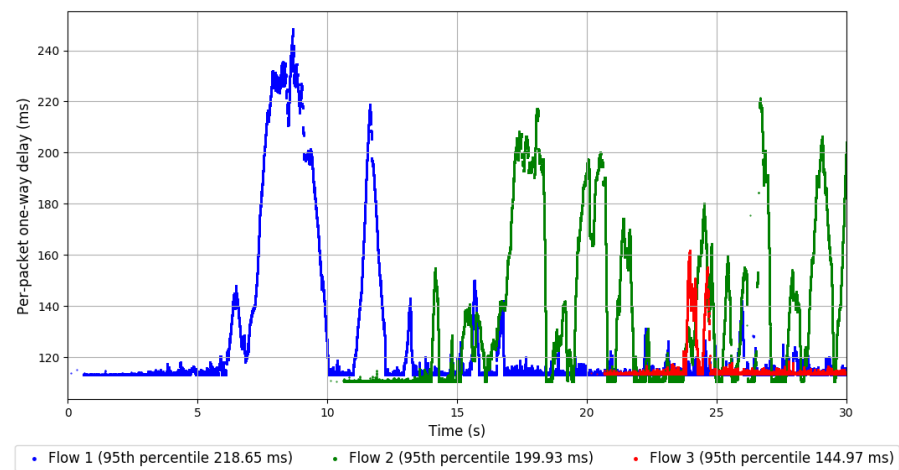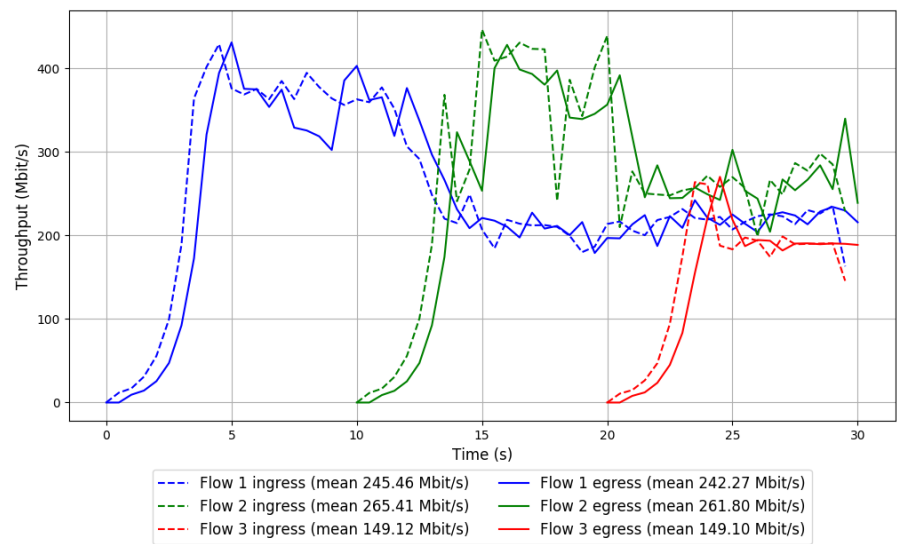
```
Run 4: Statistics of PCC-Expr

Start at: 2020-02-18 05:23:22
End at: 2020-02-18 05:23:52
Local clock offset: -0.162 ms
Remote clock offset: 0.009 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.05 Mbit/s
95th percentile per-packet one-way delay: 134.481 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 211.98 Mbit/s
95th percentile per-packet one-way delay: 138.949 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 173.38 Mbit/s
95th percentile per-packet one-way delay: 130.491 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 144.82 Mbit/s
95th percentile per-packet one-way delay: 140.136 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Expr — Data Link
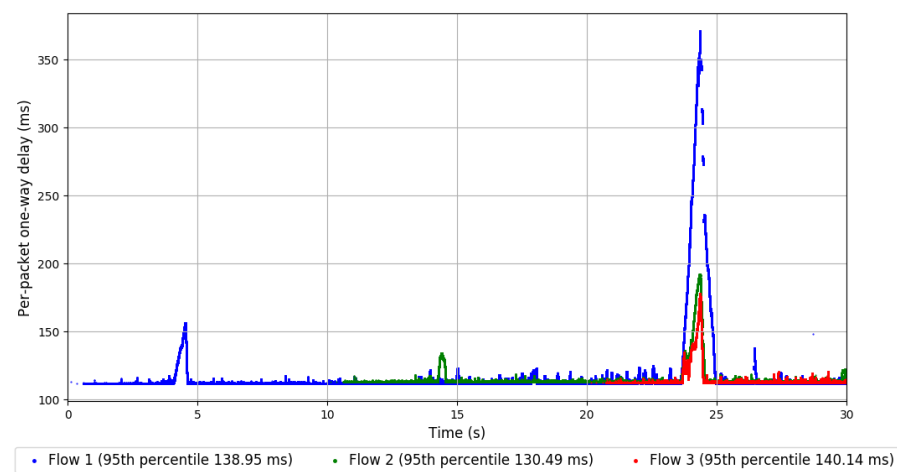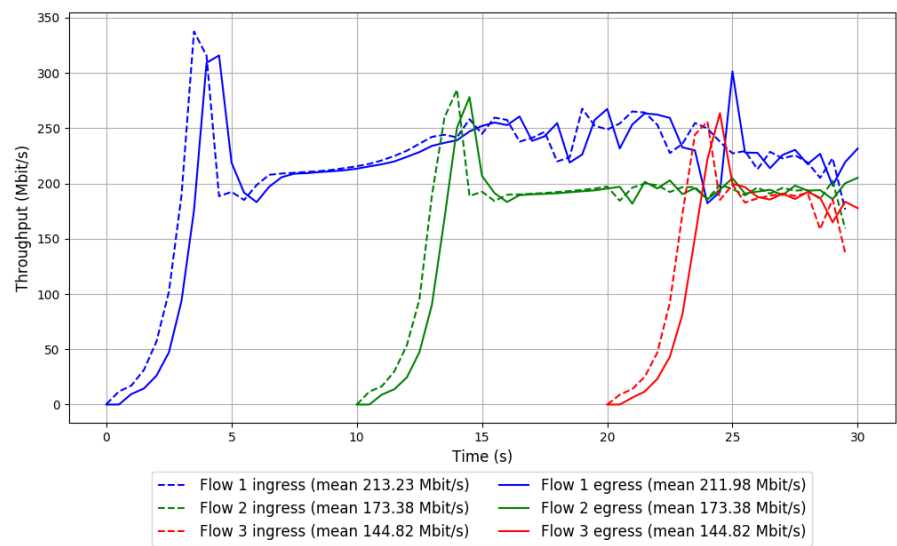
```
Run 5: Statistics of PCC-Expr

Start at: 2020-02-18 06:05:16
End at: 2020-02-18 06:05:46
Local clock offset: -0.898 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.93 Mbit/s
95th percentile per-packet one-way delay: 119.258 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 191.49 Mbit/s
95th percentile per-packet one-way delay: 117.578 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 185.15 Mbit/s
95th percentile per-packet one-way delay: 134.607 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 149.71 Mbit/s
95th percentile per-packet one-way delay: 117.378 ms
Loss rate: 0.12%
```
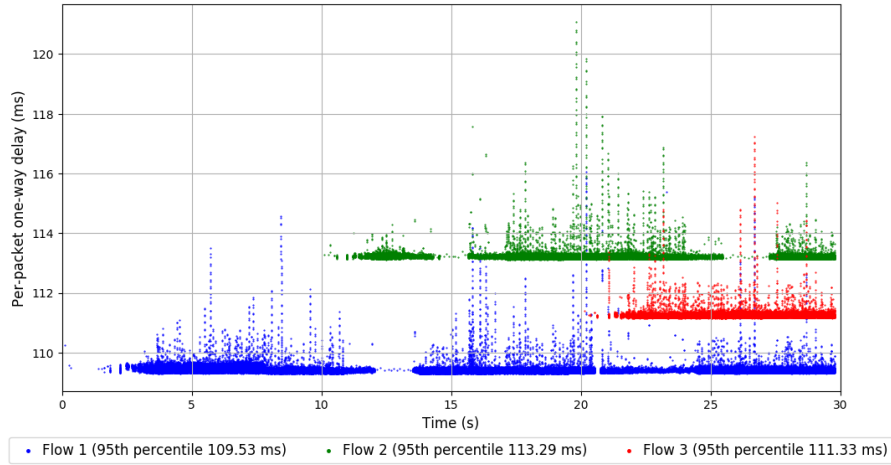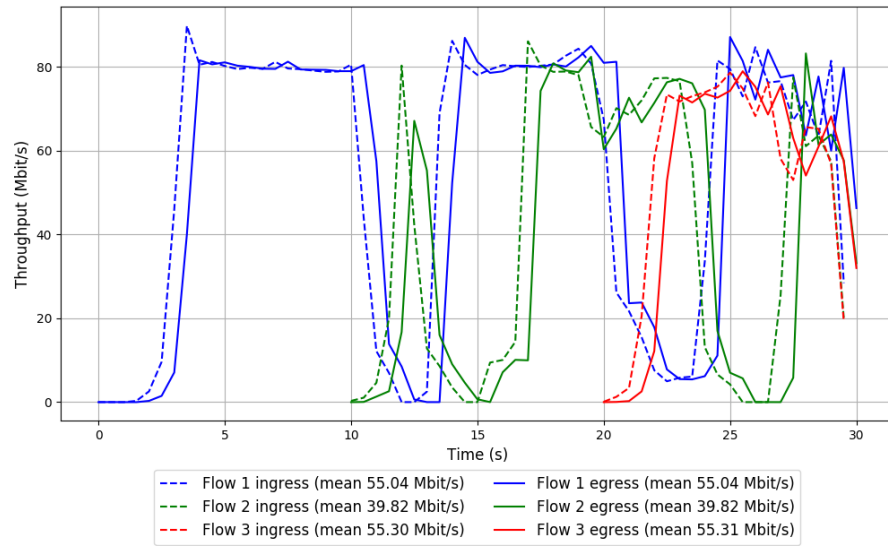
Run 5: Report of PCC-Expr — Data Link
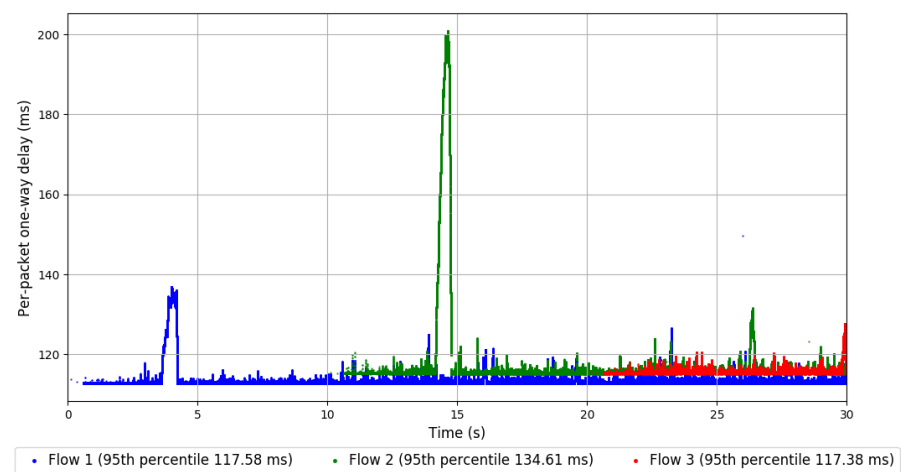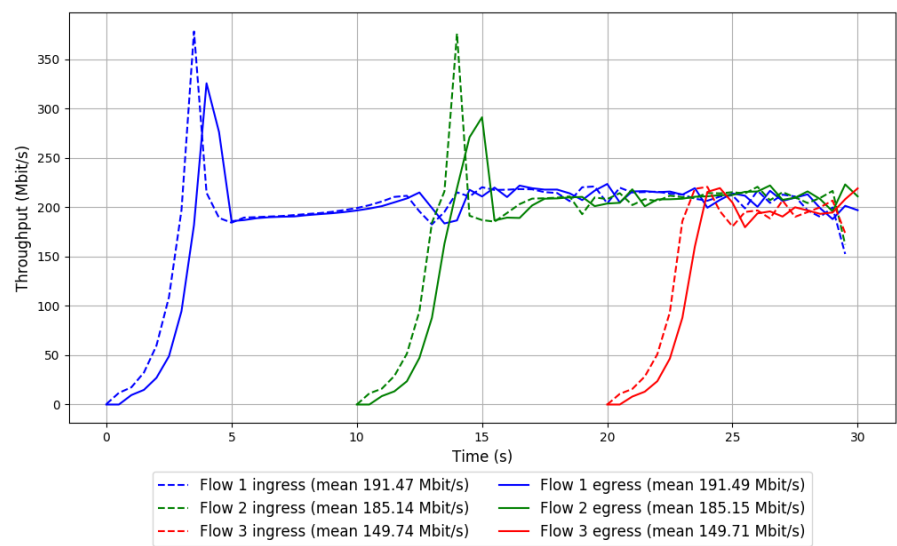
```
Run 1: Statistics of QUIC Cubic

Start at: 2020-02-18 03:45:13
End at: 2020-02-18 03:45:43
Local clock offset: 0.684 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.71 Mbit/s
95th percentile per-packet one-way delay: 110.858 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.55 Mbit/s
95th percentile per-packet one-way delay: 110.487 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.13 Mbit/s
95th percentile per-packet one-way delay: 108.206 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.20 Mbit/s
95th percentile per-packet one-way delay: 110.944 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link
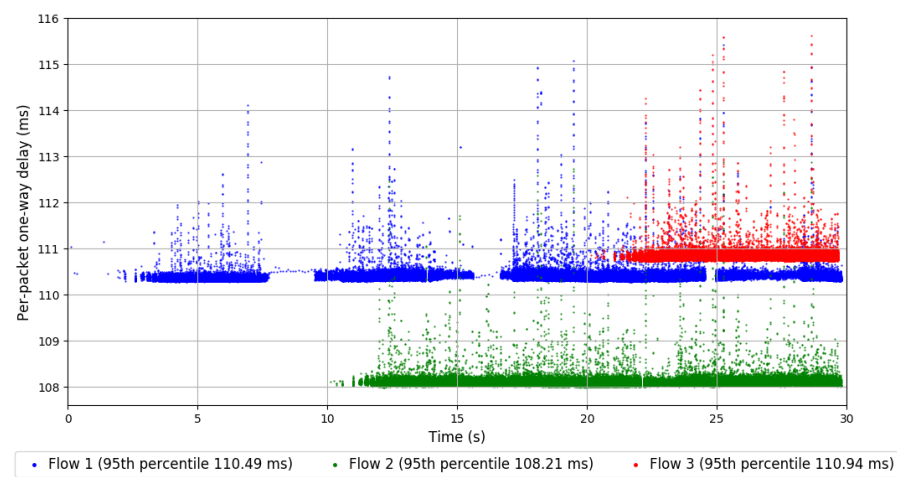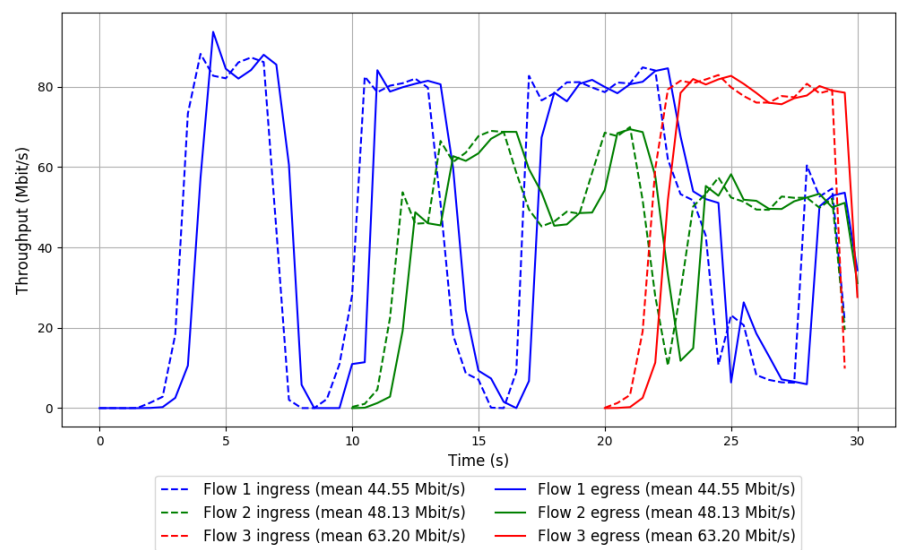
```
Run 2: Statistics of QUIC Cubic

Start at: 2020-02-18 04:27:06
End at: 2020-02-18 04:27:36
Local clock offset: -0.107 ms
Remote clock offset: -0.419 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.33 Mbit/s
95th percentile per-packet one-way delay: 112.659 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.91 Mbit/s
95th percentile per-packet one-way delay: 112.690 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.34 Mbit/s
95th percentile per-packet one-way delay: 111.606 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 112.194 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link
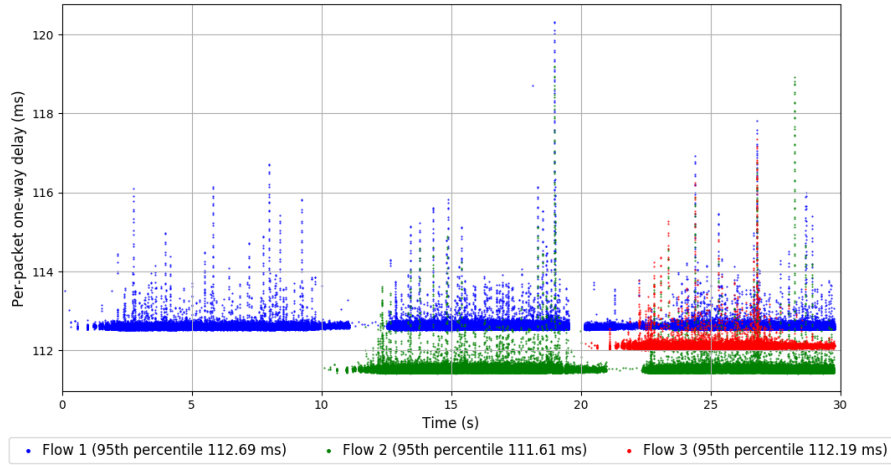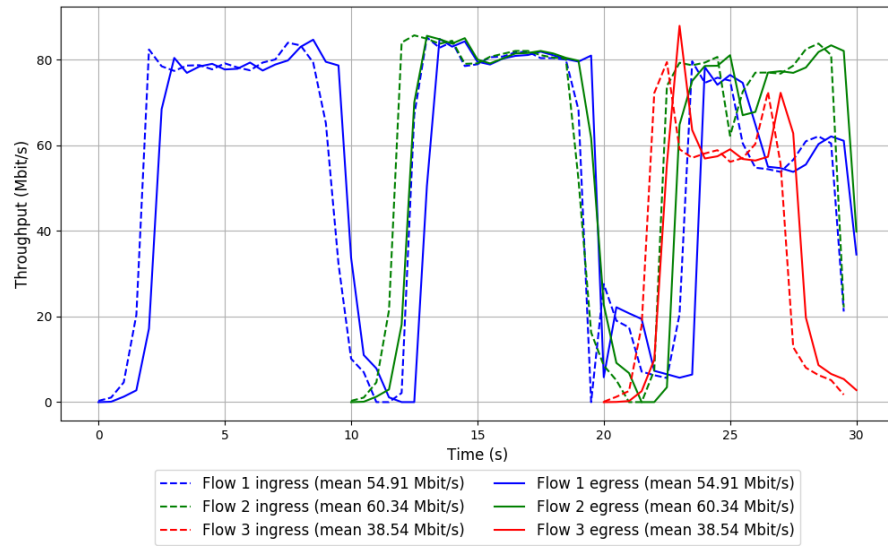
```
Run 3: Statistics of QUIC Cubic

Start at: 2020-02-18 05:08:32
End at: 2020-02-18 05:09:02
Local clock offset: 0.666 ms
Remote clock offset: 0.035 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.76 Mbit/s
95th percentile per-packet one-way delay: 112.200 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.41 Mbit/s
95th percentile per-packet one-way delay: 112.233 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.97 Mbit/s
95th percentile per-packet one-way delay: 107.530 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.91 Mbit/s
95th percentile per-packet one-way delay: 110.880 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link
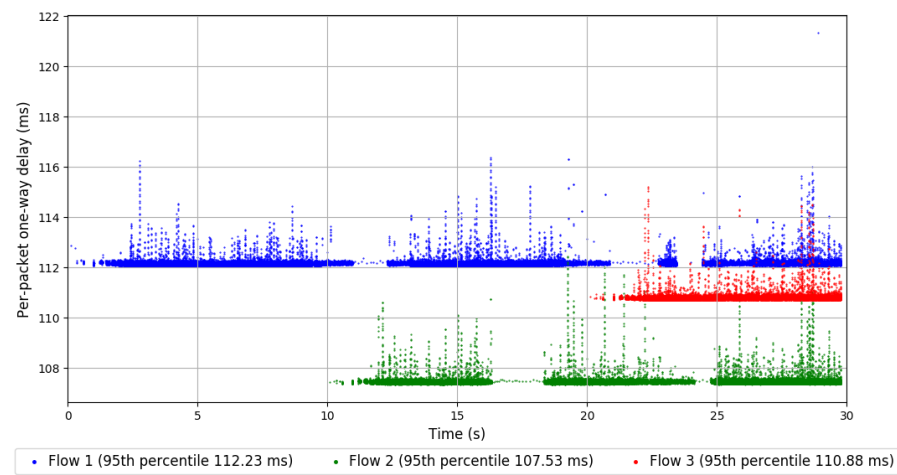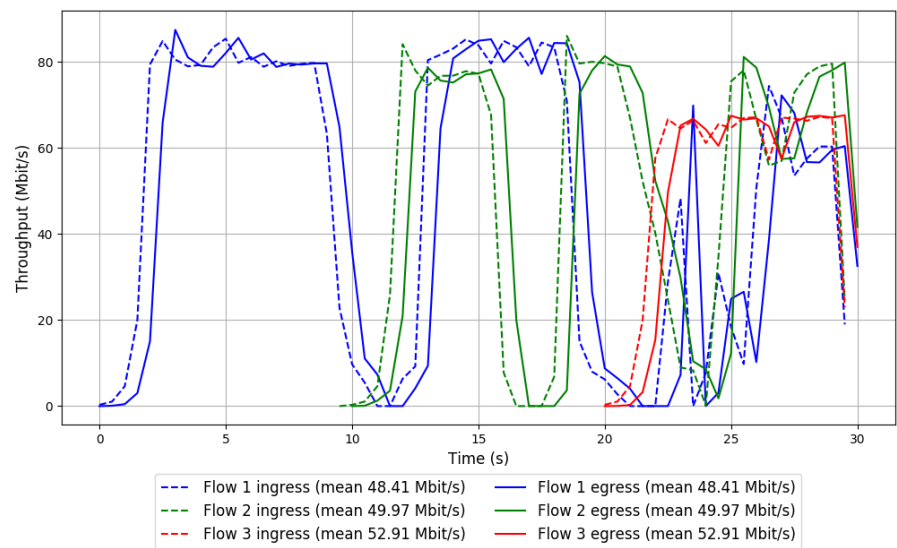
```
Run 4: Statistics of QUIC Cubic

Start at: 2020-02-18 05:50:23
End at: 2020-02-18 05:50:53
Local clock offset: -0.233 ms
Remote clock offset: -0.056 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.39 Mbit/s
95th percentile per-packet one-way delay: 113.230 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.04 Mbit/s
95th percentile per-packet one-way delay: 109.526 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.82 Mbit/s
95th percentile per-packet one-way delay: 113.290 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 55.31 Mbit/s
95th percentile per-packet one-way delay: 111.334 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

- Flow 1 ingress (mean 55.04 Mbit/s)
- Flow 1 egress (mean 55.04 Mbit/s)
- Flow 2 ingress (mean 39.82 Mbit/s)
- Flow 2 egress (mean 39.82 Mbit/s)
- Flow 3 ingress (mean 55.30 Mbit/s)
- Flow 3 egress (mean 55.31 Mbit/s)

- Flow 1 (95th percentile 109.53 ms)
- Flow 2 (95th percentile 113.29 ms)
- Flow 3 (95th percentile 111.33 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2020-02-18 06:32:06
End at: 2020-02-18 06:32:36
Local clock offset: -0.101 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.50 Mbit/s
95th percentile per-packet one-way delay: 112.170 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 108.182 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.71 Mbit/s
95th percentile per-packet one-way delay: 112.229 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 49.30 Mbit/s
95th percentile per-packet one-way delay: 111.230 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link
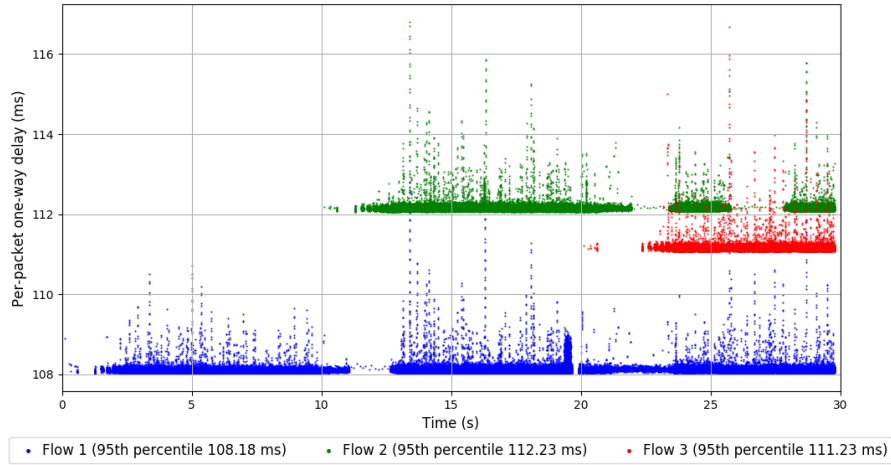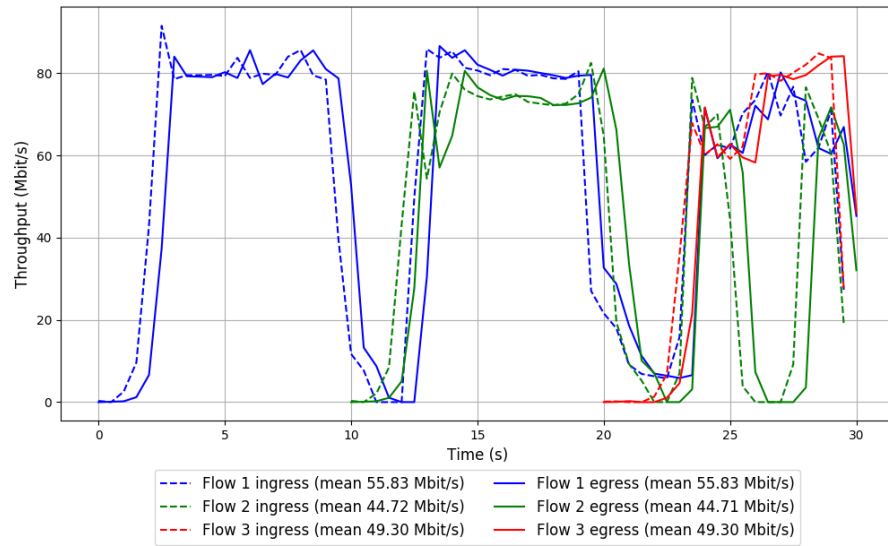
```
Run 1: Statistics of SCReAM

Start at: 2020-02-18 03:13:15
End at: 2020-02-18 03:13:45
Local clock offset: -0.212 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.265 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.283 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.076 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.156 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link
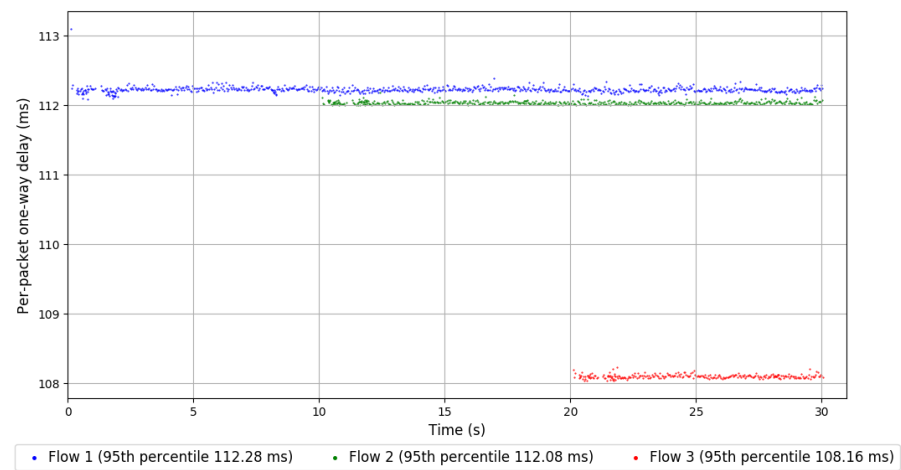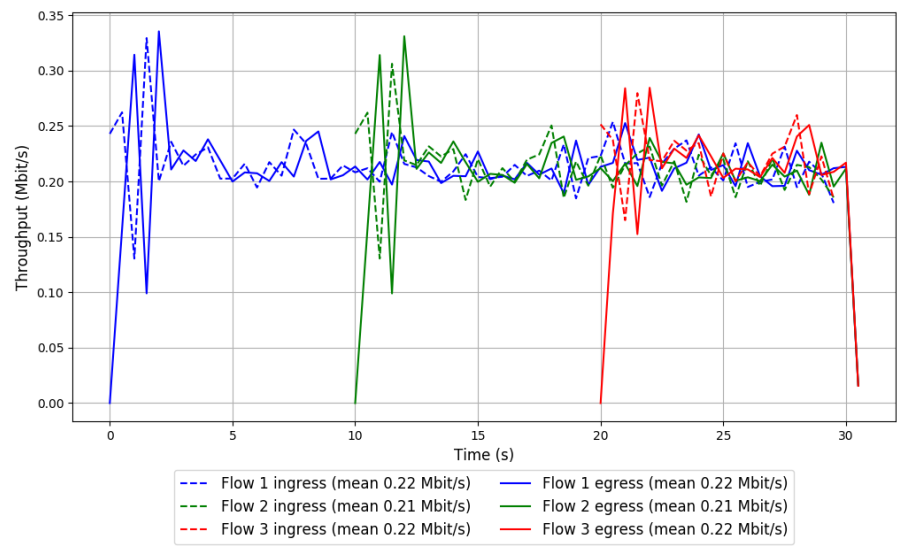
```
Run 2: Statistics of SCReAM

Start at: 2020-02-18 03:54:59
End at: 2020-02-18 03:55:29
Local clock offset: 0.033 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 112.265 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 108.647 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.967 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.317 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link
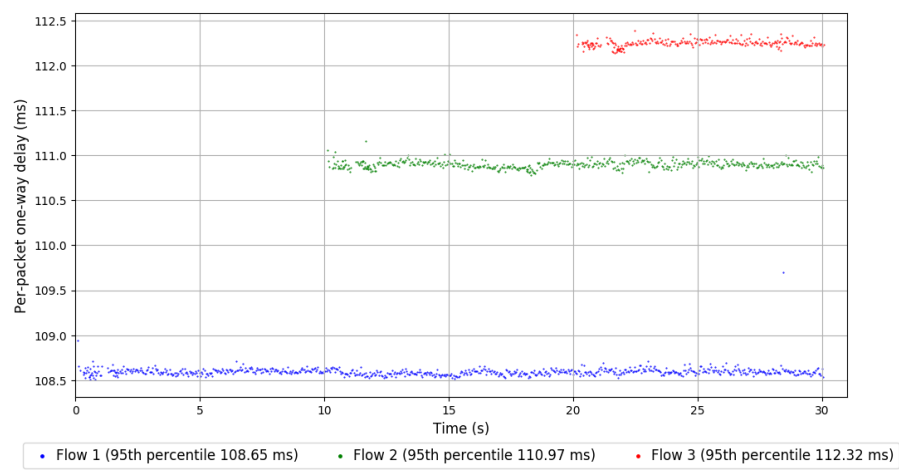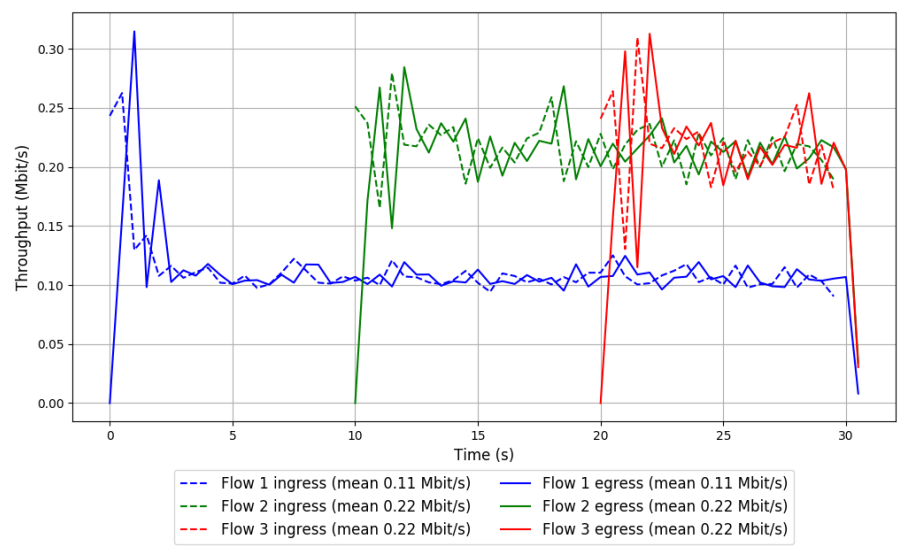
```
Run 3: Statistics of SCReAM

Start at: 2020-02-18 04:37:01
End at: 2020-02-18 04:37:31
Local clock offset: 0.039 ms
Remote clock offset: 0.009 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 115.516 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 115.408 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 115.540 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 115.501 ms
Loss rate: 0.35%
```

Run 3: Report of SCReAM — Data Link
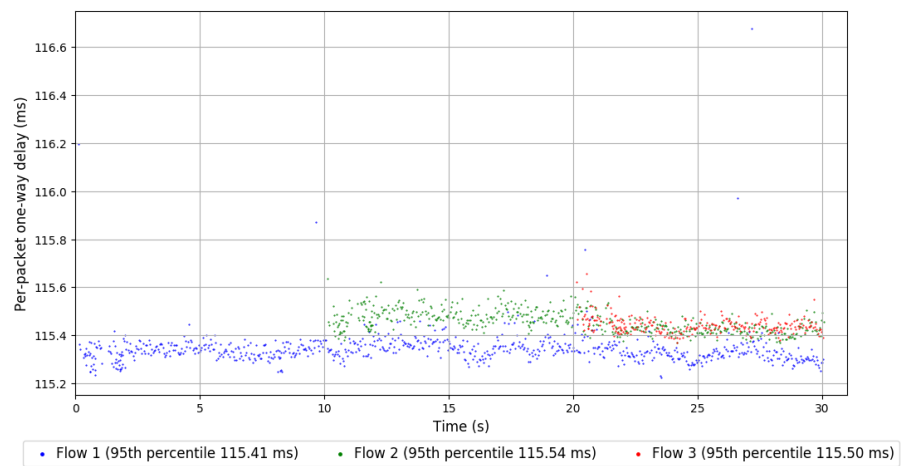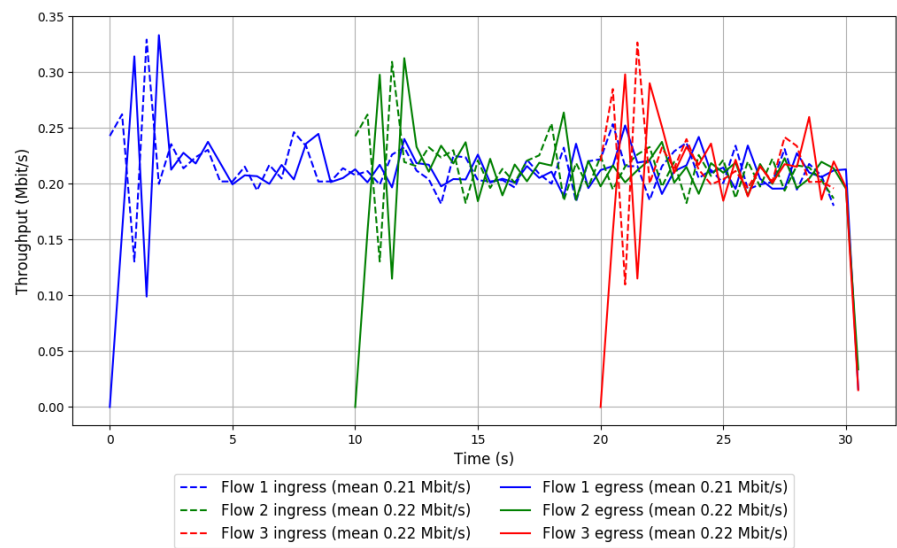
```
Run 4: Statistics of SCReAM

Start at: 2020-02-18 05:18:26
End at: 2020-02-18 05:18:56
Local clock offset: -1.449 ms
Remote clock offset: 0.037 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 115.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 115.427 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.011 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.067 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link
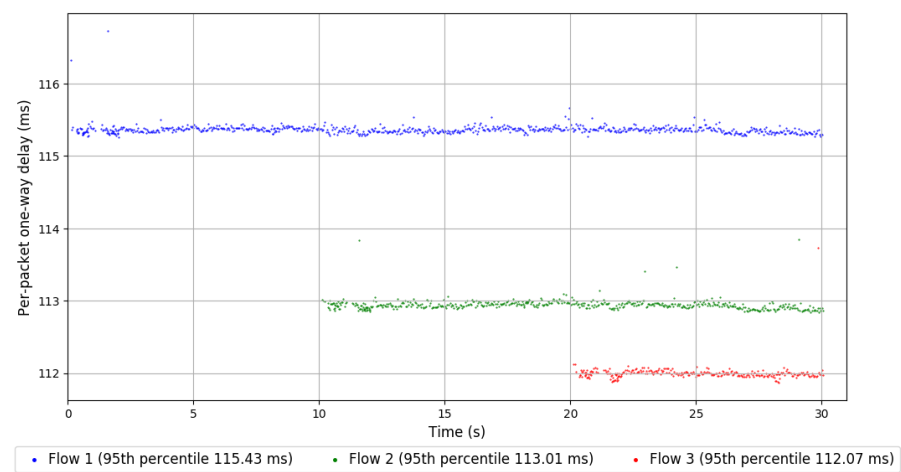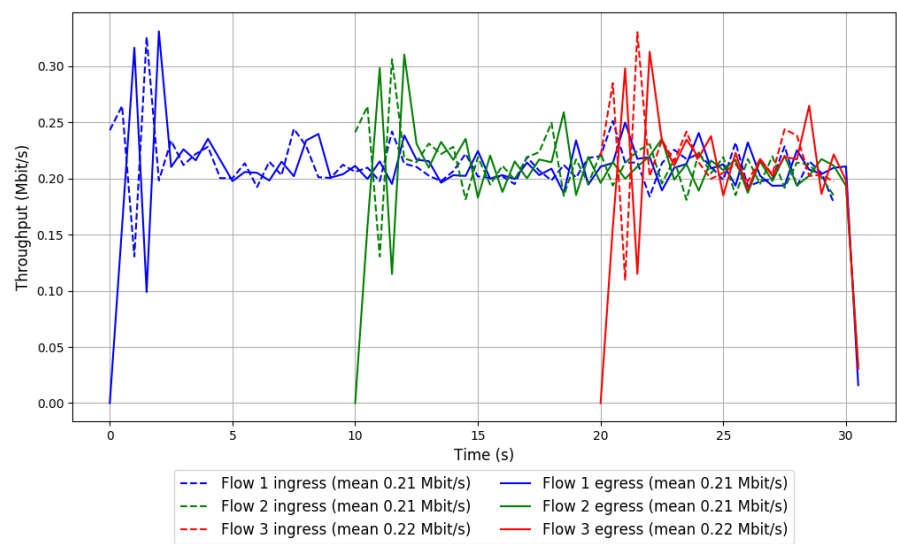
```
Run 5: Statistics of SCReAM

Start at: 2020-02-18 06:00:15
End at: 2020-02-18 06:00:45
Local clock offset: -0.086 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.092 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.115 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.821 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.419 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link
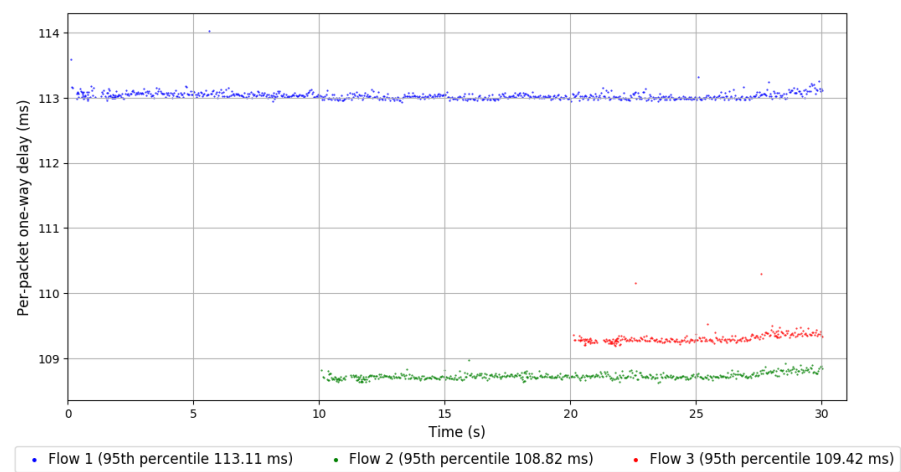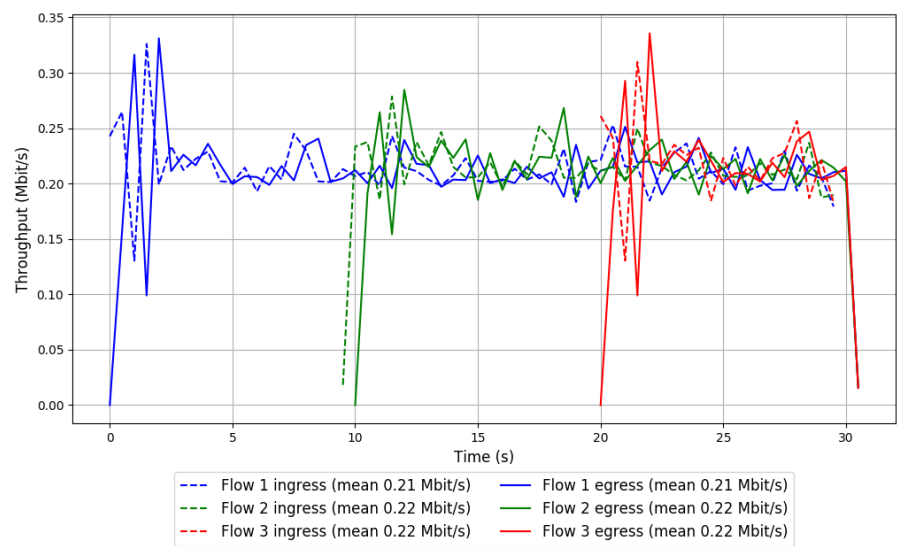
```
Run 1: Statistics of Sprout

Start at: 2020-02-18 03:40:02
End at: 2020-02-18 03:40:32
Local clock offset: 0.392 ms
Remote clock offset: -0.094 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 115.060 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 107.715 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 108.871 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 115.172 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link
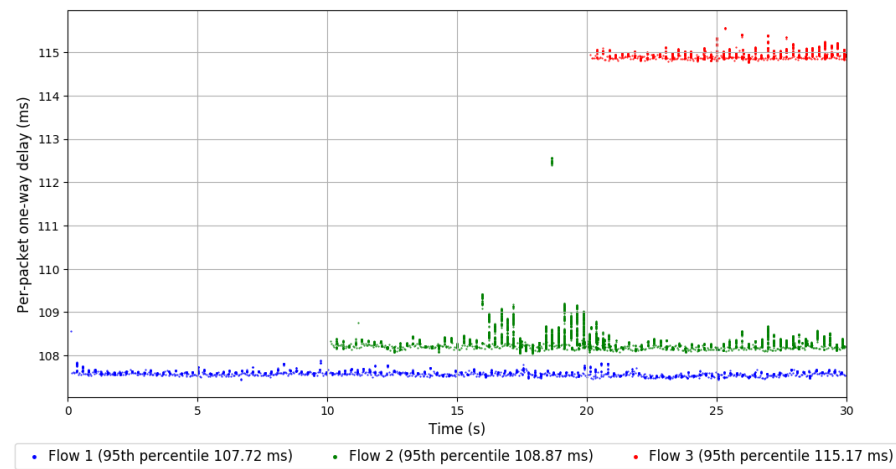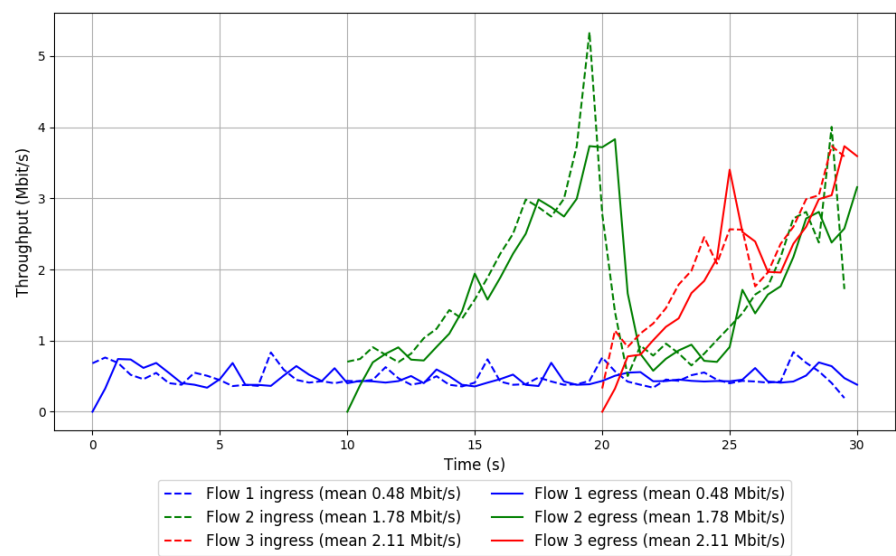
```
Run 2: Statistics of Sprout

Start at: 2020-02-18 04:21:48
End at: 2020-02-18 04:22:18
Local clock offset: -0.116 ms
Remote clock offset: -0.123 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 113.458 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 113.555 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 109.890 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 109.467 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link
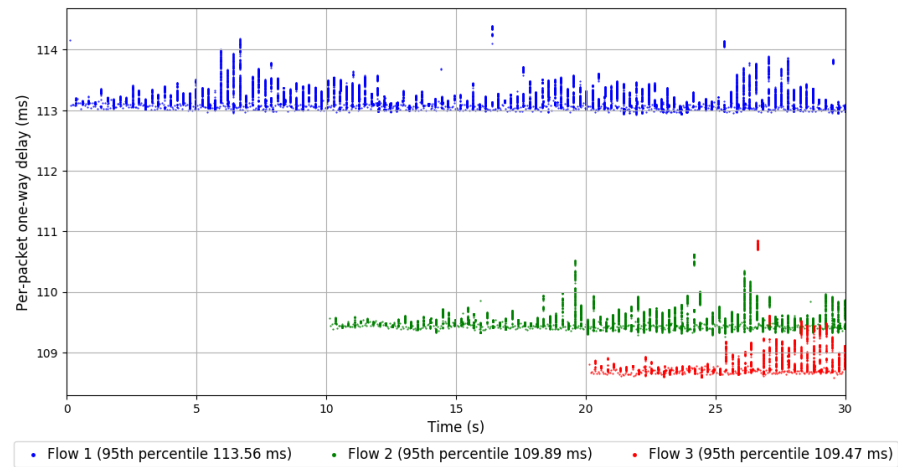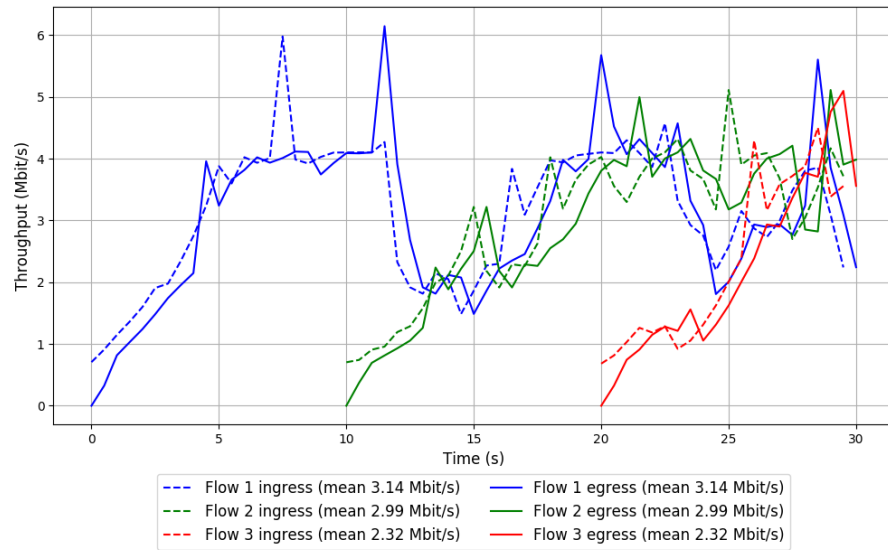
```
Run 3: Statistics of Sprout

Start at: 2020-02-18 05:03:24
End at: 2020-02-18 05:03:54
Local clock offset: 0.635 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 113.028 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 113.087 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 110.840 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 112.702 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link
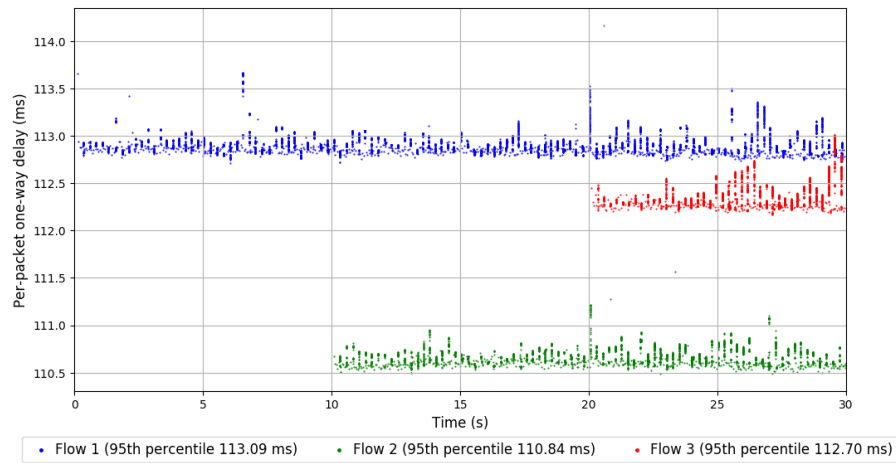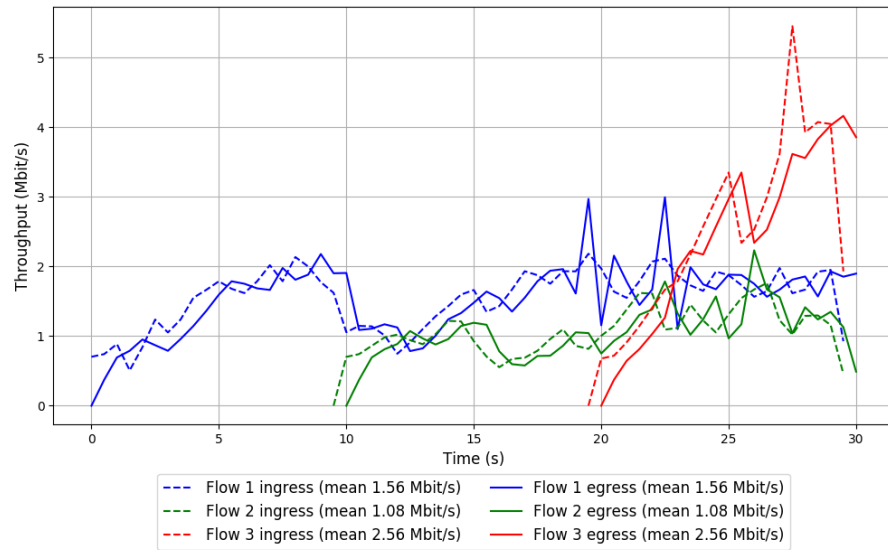
```
Run 4: Statistics of Sprout

Start at: 2020-02-18 05:45:11
End at: 2020-02-18 05:45:41
Local clock offset: -0.076 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 115.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 115.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 113.594 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 112.369 ms
Loss rate: 0.00%
```
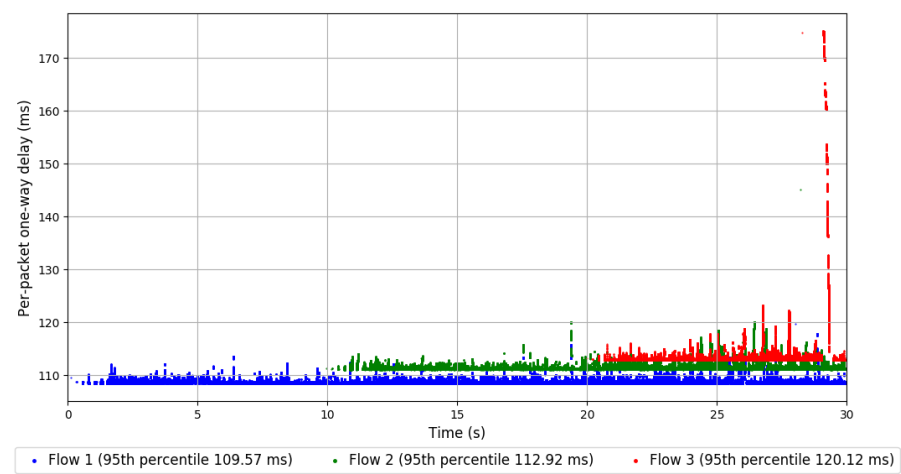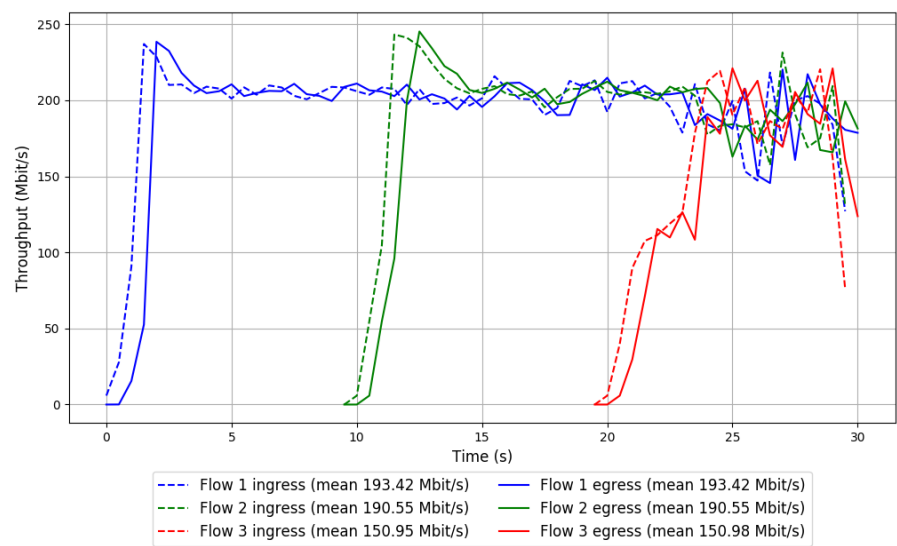
Run 4: Report of Sprout — Data Link

192
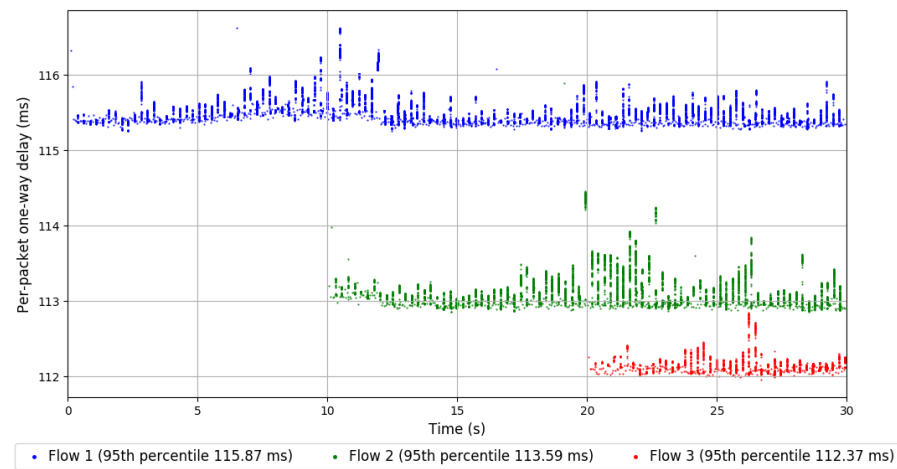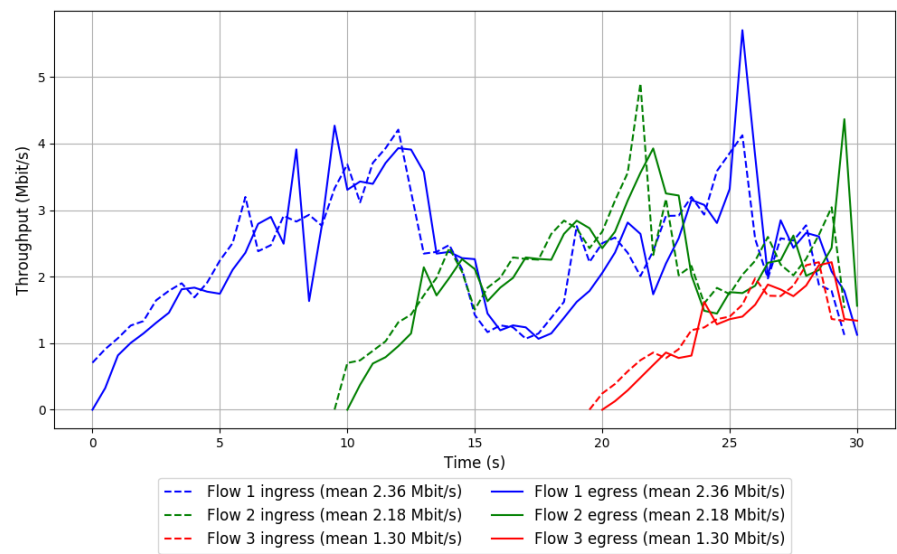
```
Run 5: Statistics of Sprout

Start at: 2020-02-18 06:26:56
End at: 2020-02-18 06:27:26
Local clock offset: -0.049 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2020-02-18 09:26:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 111.777 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 110.041 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.23 Mbit/s
95th percentile per-packet one-way delay: 109.363 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 112.504 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link
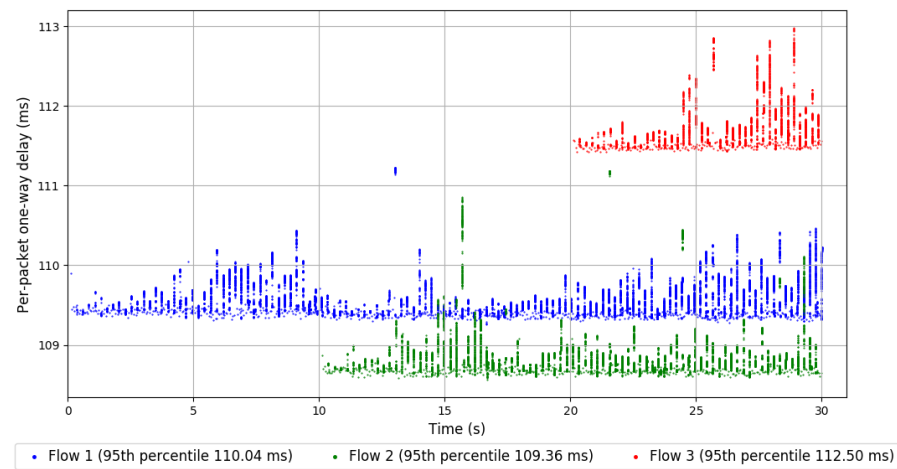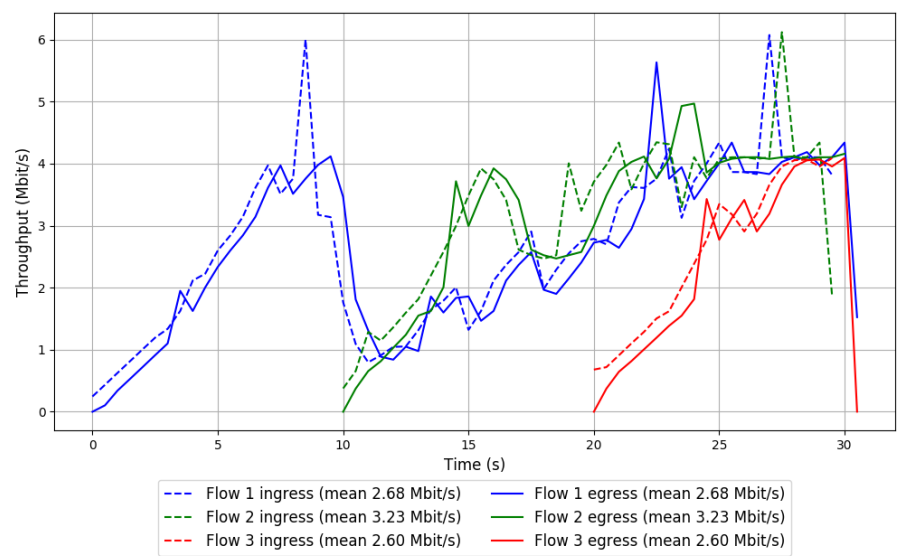
```
Run 1: Statistics of TaoVA-100x

Start at: 2020-02-18 03:16:07
End at: 2020-02-18 03:16:37
Local clock offset: -0.008 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2020-02-18 09:32:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.36 Mbit/s
95th percentile per-packet one-way delay: 113.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.42 Mbit/s
95th percentile per-packet one-way delay: 109.571 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 190.55 Mbit/s
95th percentile per-packet one-way delay: 112.924 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.98 Mbit/s
95th percentile per-packet one-way delay: 120.116 ms
Loss rate: 0.01%
```
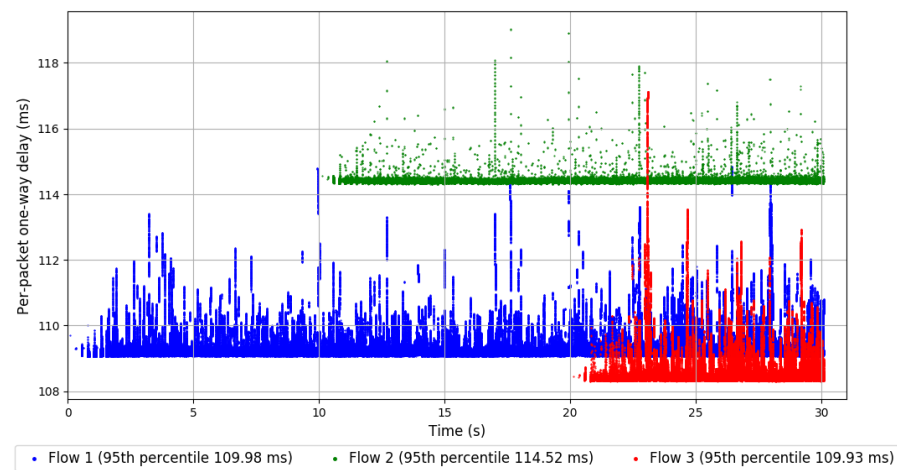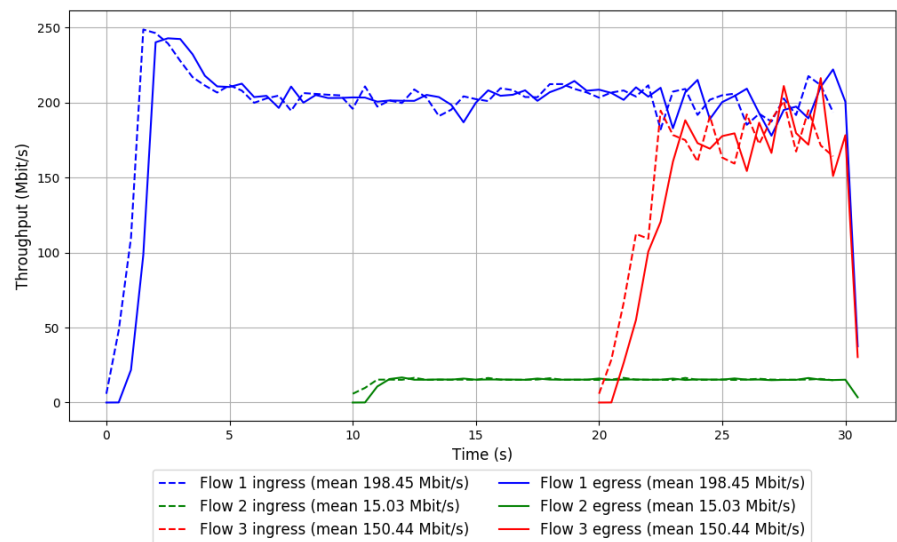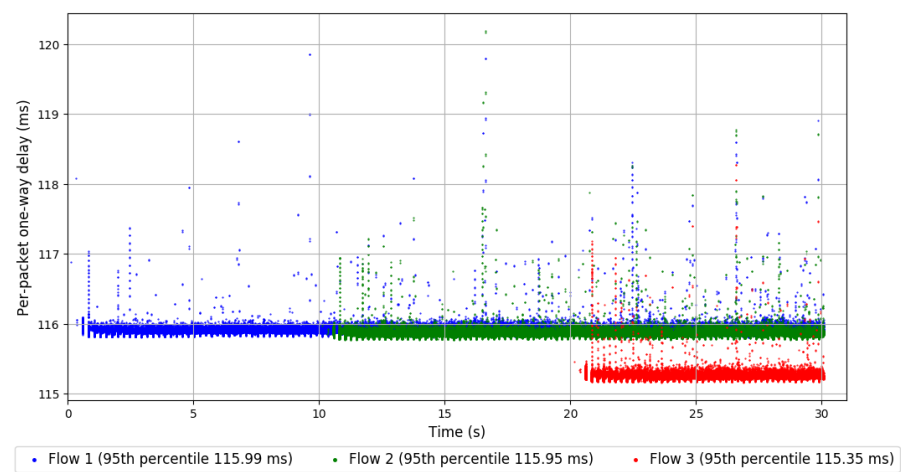
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 193.42 Mbit/s) --- Flow 1 egress (mean 193.42 Mbit/s)
Flow 2 ingress (mean 190.55 Mbit/s) --- Flow 2 egress (mean 190.55 Mbit/s)
Flow 3 ingress (mean 150.95 Mbit/s) --- Flow 3 egress (mean 150.98 Mbit/s)

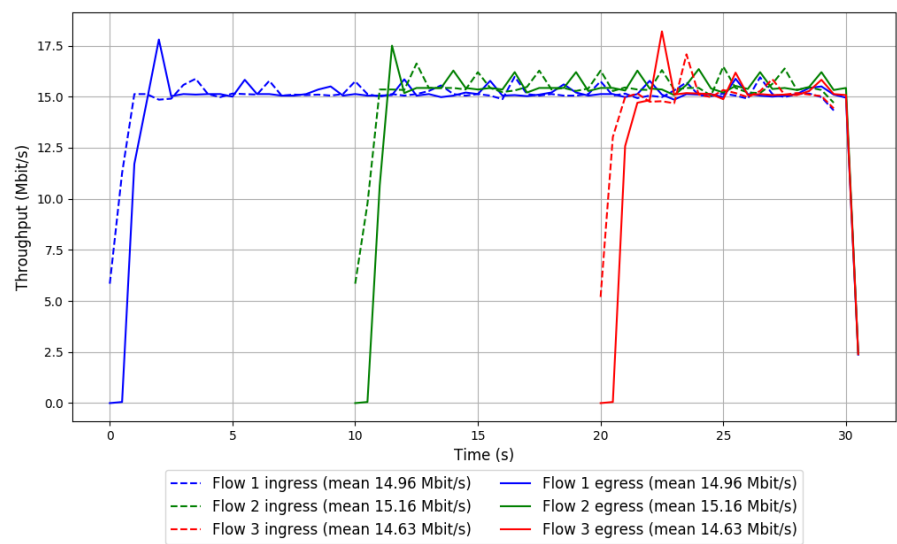Flow 1 (95th percentile 109.57 ms) • Flow 2 (95th percentile 112.92 ms) • Flow 3 (95th percentile 120.12 ms)

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

Start at: 2020-02-18 03:58:00
End at: 2020-02-18 03:58:30
Local clock offset: 0.197 ms
Remote clock offset: -0.12 ms


# Below is generated by plot.py at 2020-02-18 09:32:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.44 Mbit/s
95th percentile per-packet one-way delay: 111.424 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 198.45 Mbit/s
95th percentile per-packet one-way delay: 109.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.03 Mbit/s
95th percentile per-packet one-way delay: 114.520 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.44 Mbit/s
95th percentile per-packet one-way delay: 109.932 ms
Loss rate: 0.00%
```

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

Flow 1 ingress (mean 198.45 Mbit/s) --- Flow 1 egress (mean 198.45 Mbit/s) ——
Flow 2 ingress (mean 15.03 Mbit/s) --- Flow 2 egress (mean 15.03 Mbit/s) ——
Flow 3 ingress (mean 150.44 Mbit/s) --- Flow 3 egress (mean 150.44 Mbit/s) ——

Flow 1 (95th percentile 109.98 ms) • Flow 2 (95th percentile 114.52 ms) • Flow 3 (95th percentile 109.93 ms)

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

Start at: 2020-02-18 04:40:04
End at: 2020-02-18 04:40:34
Local clock offset: -0.692 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2020-02-18 09:32:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.91 Mbit/s
95th percentile per-packet one-way delay: 115.975 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 14.96 Mbit/s
95th percentile per-packet one-way delay: 115.990 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 15.16 Mbit/s
95th percentile per-packet one-way delay: 115.955 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 14.63 Mbit/s
95th percentile per-packet one-way delay: 115.350 ms
Loss rate: 0.01%
```

Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 14.96 Mbit/s) --- Flow 1 egress (mean 14.96 Mbit/s)
Flow 2 ingress (mean 15.16 Mbit/s) --- Flow 2 egress (mean 15.16 Mbit/s)
Flow 3 ingress (mean 14.63 Mbit/s) --- Flow 3 egress (mean 14.63 Mbit/s)

Flow 1 (95th percentile 115.99 ms)   Flow 2 (95th percentile 115.95 ms)   Flow 3 (95th percentile 115.35 ms)

200

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

Start at: 2020-02-18 05:21:25
End at: 2020-02-18 05:21:55
Local clock offset: 0.595 ms
Remote clock offset: 0.023 ms


# Below is generated by plot.py at 2020-02-18 09:33:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 360.54 Mbit/s
95th percentile per-packet one-way delay: 113.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.83 Mbit/s
95th percentile per-packet one-way delay: 110.792 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 174.89 Mbit/s
95th percentile per-packet one-way delay: 115.058 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.61 Mbit/s
95th percentile per-packet one-way delay: 115.743 ms
Loss rate: 0.00%
```

Run 4: Report of TaoVA-100x — Data Link

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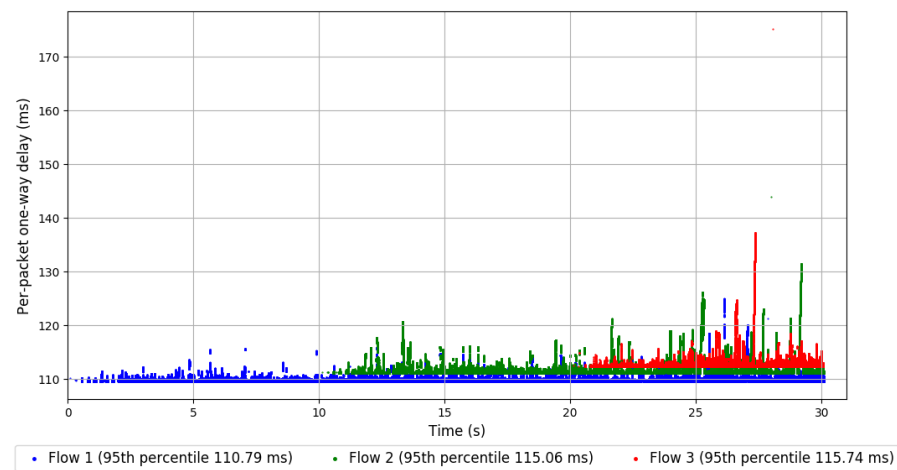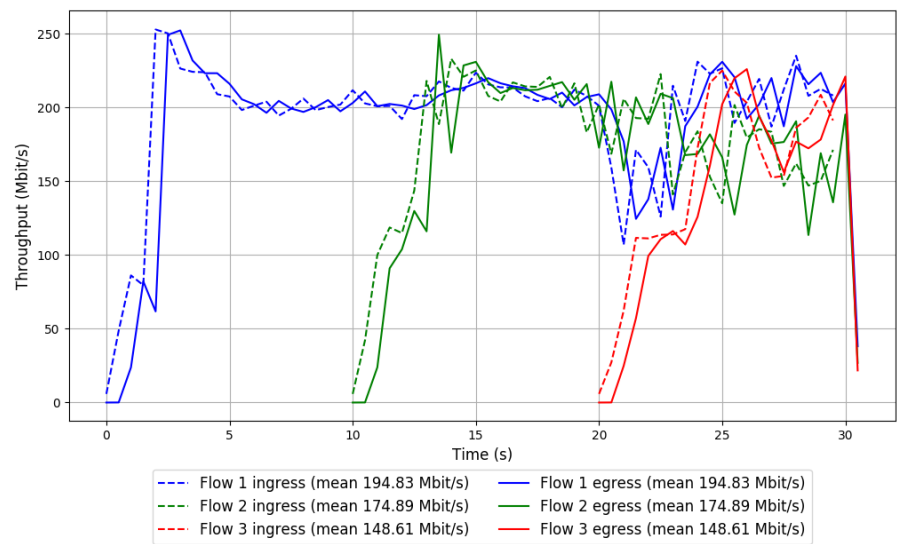
```
Run 5: Statistics of TaoVA-100x

Start at: 2020-02-18 06:03:20
End at: 2020-02-18 06:03:50
Local clock offset: 0.007 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2020-02-18 09:33:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 355.14 Mbit/s
95th percentile per-packet one-way delay: 113.890 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 186.52 Mbit/s
95th percentile per-packet one-way delay: 111.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.00 Mbit/s
95th percentile per-packet one-way delay: 114.846 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 135.05 Mbit/s
95th percentile per-packet one-way delay: 118.364 ms
Loss rate: 0.01%
```

Run 5: Report of TaoVA-100x — Data Link
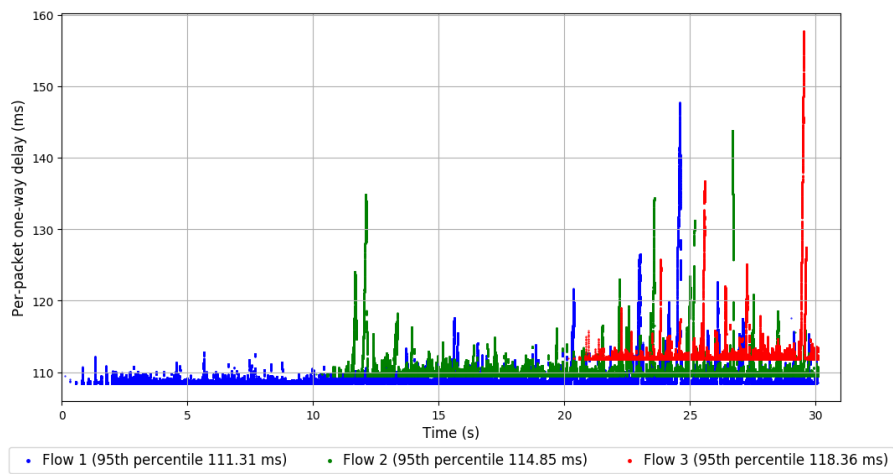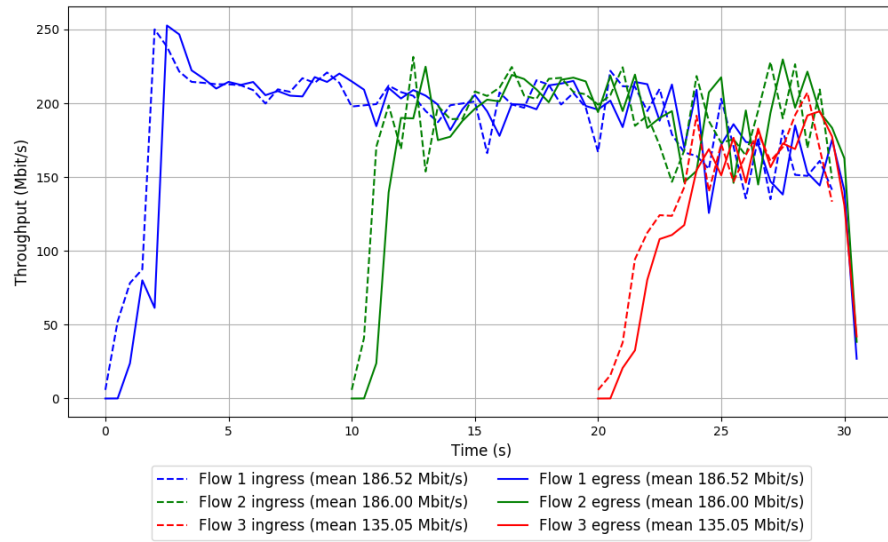
```
Run 1: Statistics of TCP Vegas

Start at: 2020-02-18 03:20:07
End at: 2020-02-18 03:20:37
Local clock offset: -0.184 ms
Remote clock offset: -0.11 ms


# Below is generated by plot.py at 2020-02-18 09:33:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 358.98 Mbit/s
95th percentile per-packet one-way delay: 109.814 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 191.14 Mbit/s
95th percentile per-packet one-way delay: 108.918 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 157.13 Mbit/s
95th percentile per-packet one-way delay: 109.209 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 189.77 Mbit/s
95th percentile per-packet one-way delay: 118.851 ms
Loss rate: 0.00%
```
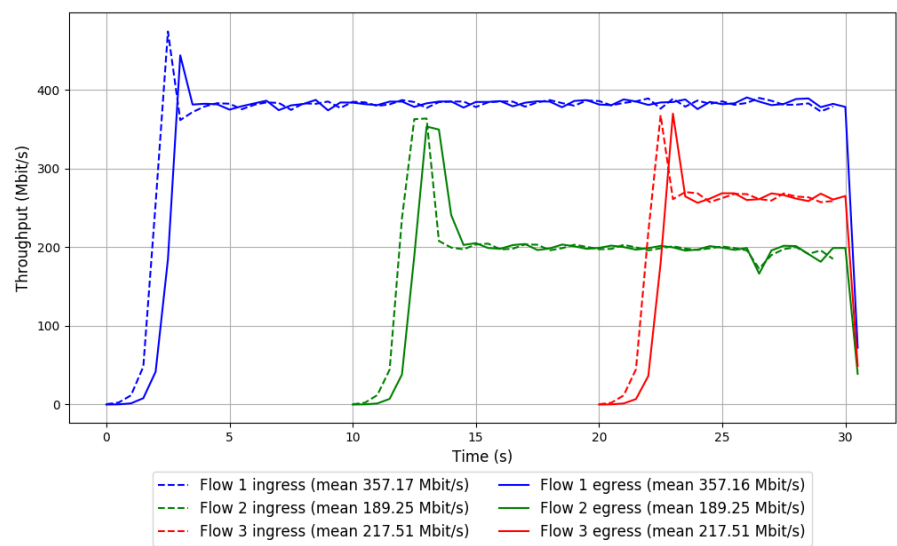
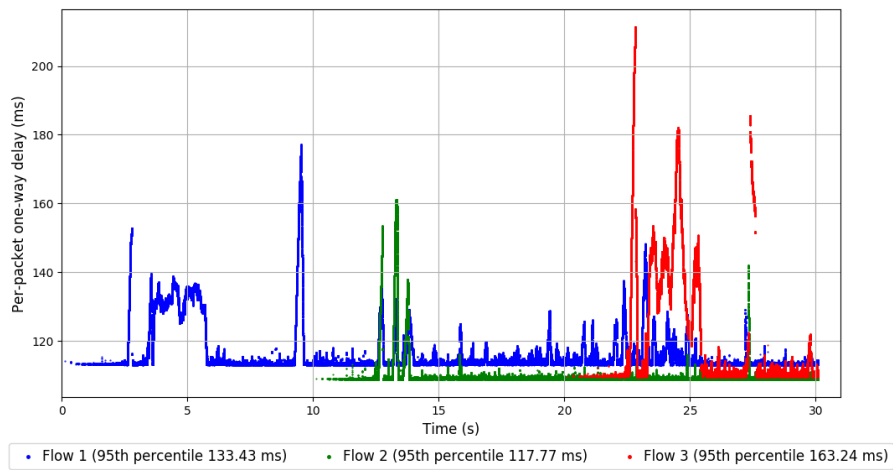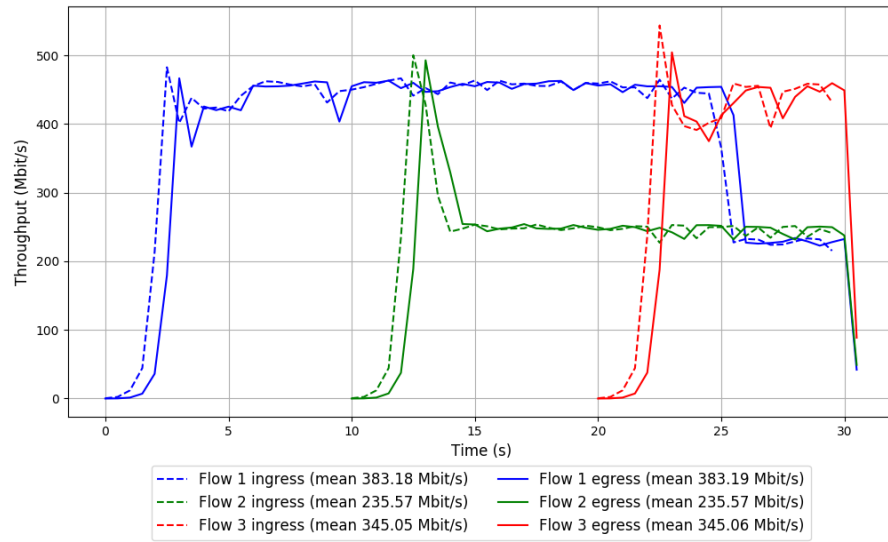# Run 1: Report of TCP Vegas — Data Link
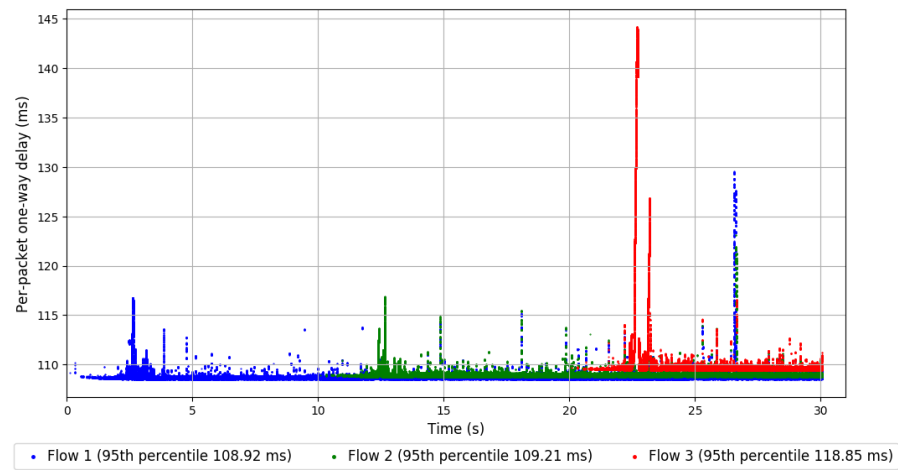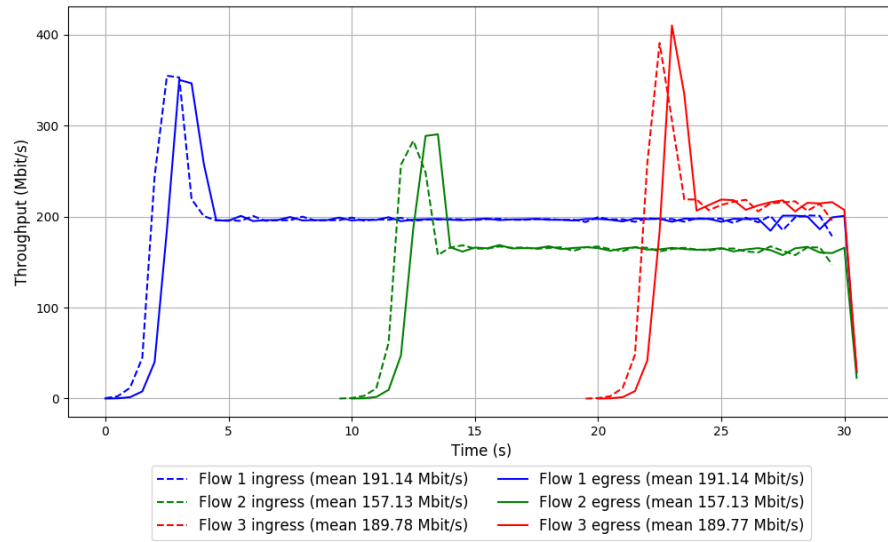
```
Run 2: Statistics of TCP Vegas

Start at: 2020-02-18 04:01:50
End at: 2020-02-18 04:02:20
Local clock offset: -0.117 ms
Remote clock offset: -0.14 ms


# Below is generated by plot.py at 2020-02-18 09:33:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 555.32 Mbit/s
95th percentile per-packet one-way delay: 112.835 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 357.16 Mbit/s
95th percentile per-packet one-way delay: 112.866 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 189.25 Mbit/s
95th percentile per-packet one-way delay: 112.811 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 217.51 Mbit/s
95th percentile per-packet one-way delay: 112.411 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link
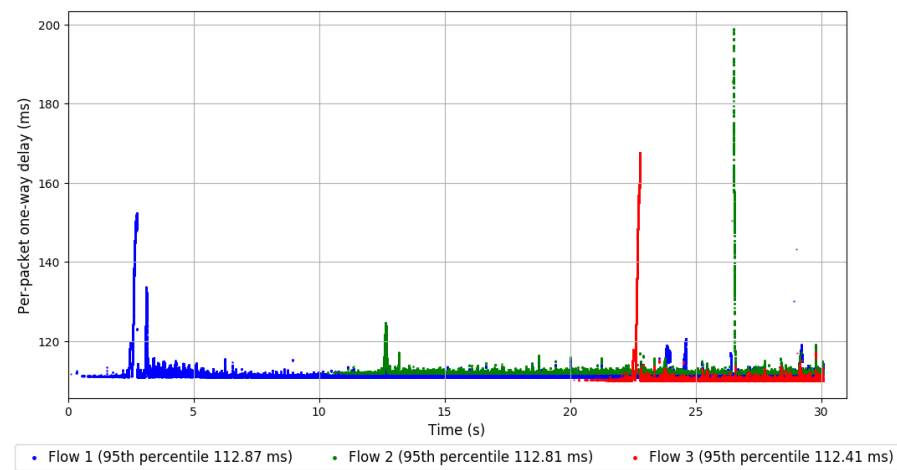
```
Run 3: Statistics of TCP Vegas

Start at: 2020-02-18 04:43:34
End at: 2020-02-18 04:44:04
Local clock offset: -0.01 ms
Remote clock offset: -0.379 ms


# Below is generated by plot.py at 2020-02-18 09:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 654.79 Mbit/s
95th percentile per-packet one-way delay: 137.906 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 383.19 Mbit/s
95th percentile per-packet one-way delay: 133.427 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 235.57 Mbit/s
95th percentile per-packet one-way delay: 117.770 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 345.06 Mbit/s
95th percentile per-packet one-way delay: 163.240 ms
Loss rate: 0.00%
```
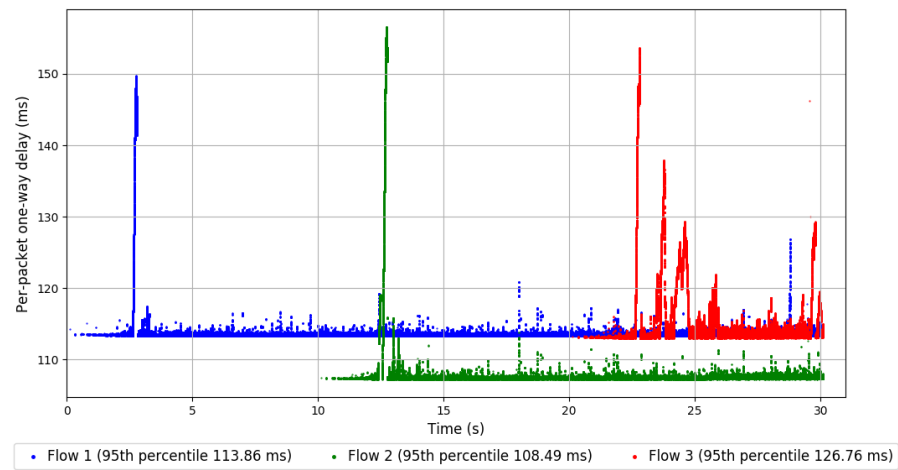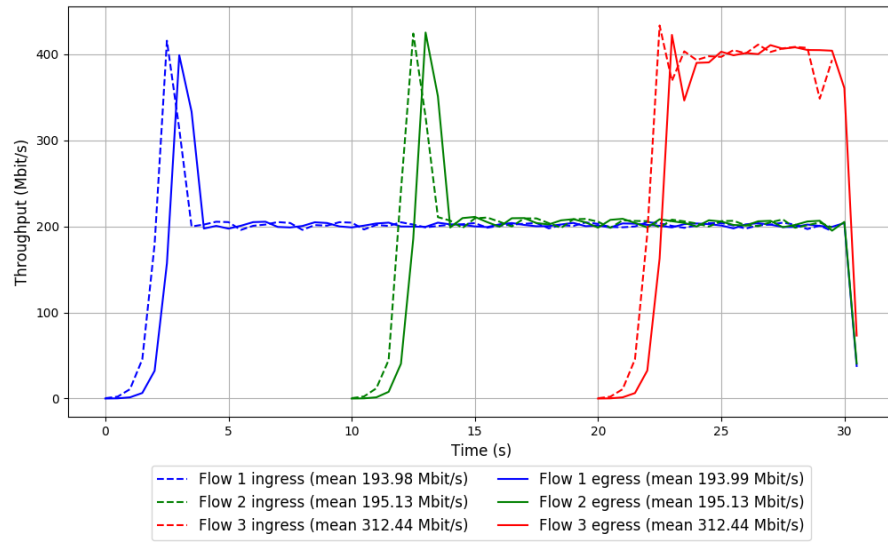
# Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2020-02-18 05:25:20
End at: 2020-02-18 05:25:50
Local clock offset: 0.738 ms
Remote clock offset: 0.03 ms


# Below is generated by plot.py at 2020-02-18 09:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.77 Mbit/s
95th percentile per-packet one-way delay: 118.508 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.99 Mbit/s
95th percentile per-packet one-way delay: 113.859 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 195.13 Mbit/s
95th percentile per-packet one-way delay: 108.493 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 312.44 Mbit/s
95th percentile per-packet one-way delay: 126.761 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 193.98 Mbit/s)   Flow 1 egress (mean 193.99 Mbit/s)
Flow 2 ingress (mean 195.13 Mbit/s)   Flow 2 egress (mean 195.13 Mbit/s)
Flow 3 ingress (mean 312.44 Mbit/s)   Flow 3 egress (mean 312.44 Mbit/s)

Flow 1 (95th percentile 113.86 ms)   Flow 2 (95th percentile 108.49 ms)   Flow 3 (95th percentile 126.76 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2020-02-18 06:07:14
End at: 2020-02-18 06:07:44
Local clock offset: -0.088 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2020-02-18 09:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 322.74 Mbit/s
95th percentile per-packet one-way delay: 113.798 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 109.31 Mbit/s
95th percentile per-packet one-way delay: 109.900 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 232.44 Mbit/s
95th percentile per-packet one-way delay: 113.212 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.67 Mbit/s
95th percentile per-packet one-way delay: 126.599 ms
Loss rate: 0.01%
```

Run 5: Report of TCP Vegas — Data Link
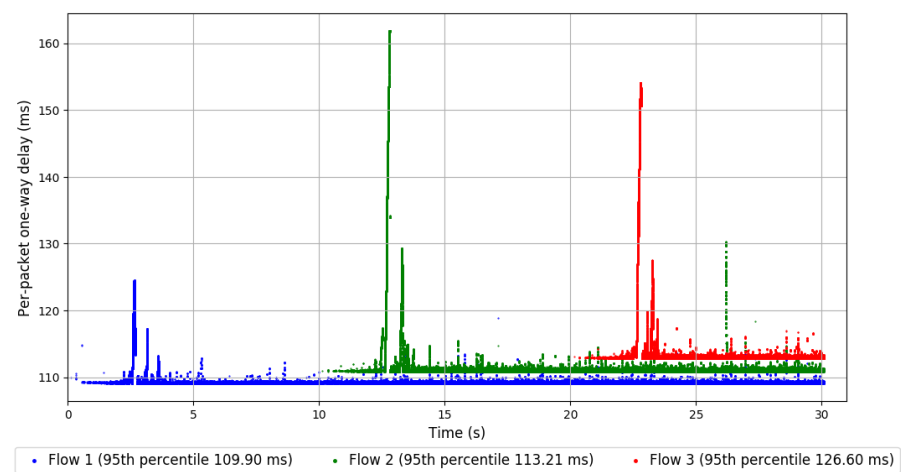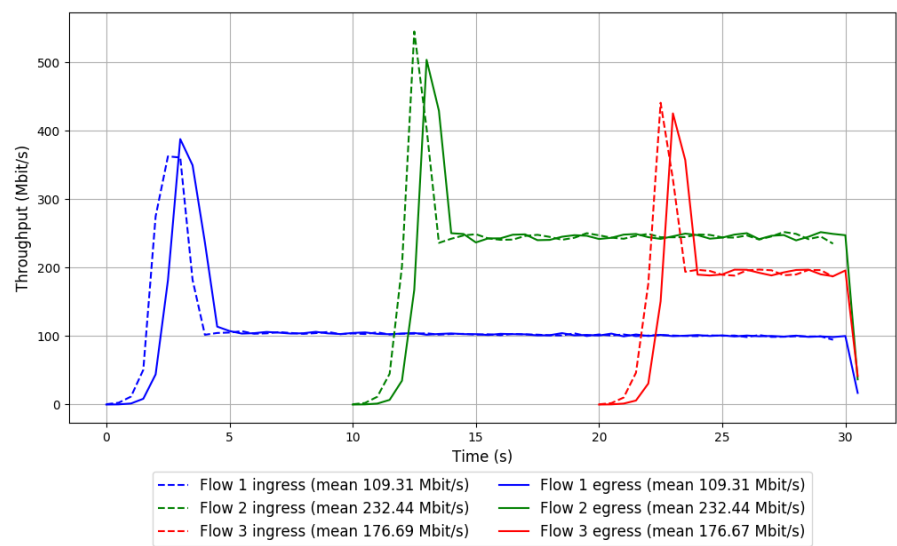
```
Run 1: Statistics of Verus

Start at: 2020-02-18 03:10:16
End at: 2020-02-18 03:10:46
Local clock offset: 0.006 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2020-02-18 09:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.00 Mbit/s
95th percentile per-packet one-way delay: 178.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 106.88 Mbit/s
95th percentile per-packet one-way delay: 166.881 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 129.82 Mbit/s
95th percentile per-packet one-way delay: 196.116 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 19.52 Mbit/s
95th percentile per-packet one-way delay: 152.533 ms
Loss rate: 0.00%
```
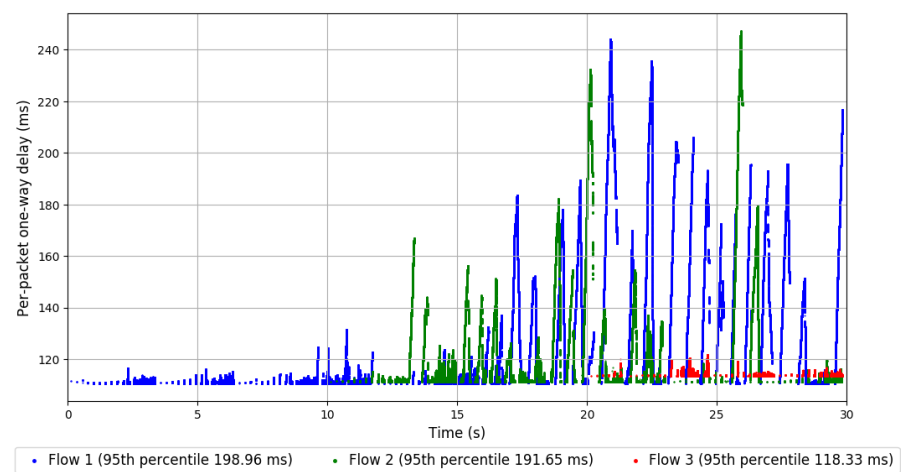
Run 1: Report of Verus — Data Link
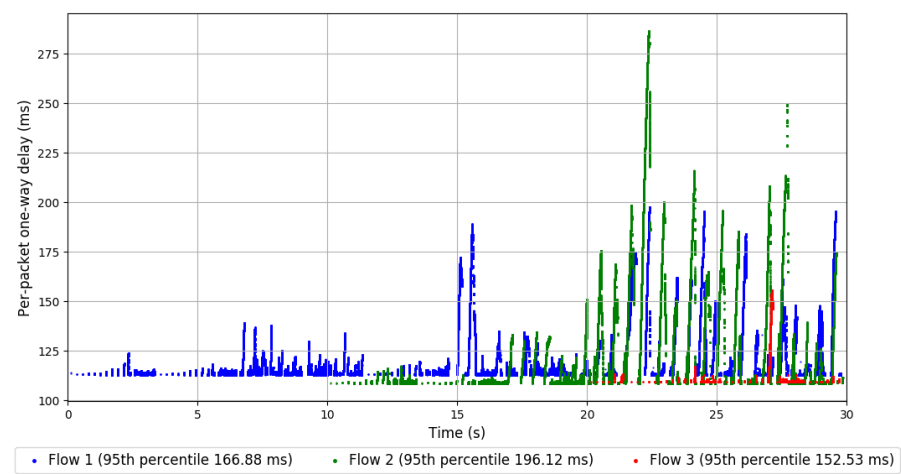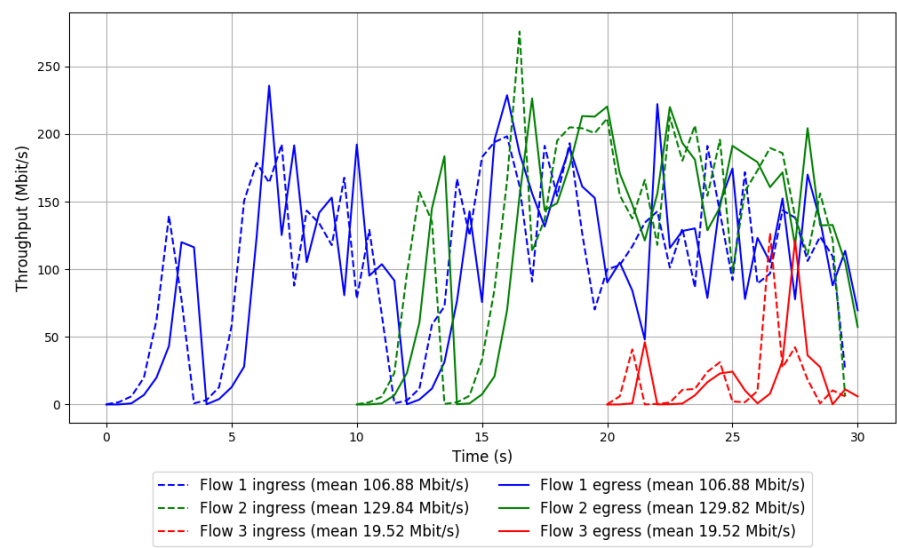
```
Run 2: Statistics of Verus

Start at: 2020-02-18 03:52:05
End at: 2020-02-18 03:52:35
Local clock offset: -0.099 ms
Remote clock offset: -0.142 ms


# Below is generated by plot.py at 2020-02-18 09:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.54 Mbit/s
95th percentile per-packet one-way delay: 152.508 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 108.08 Mbit/s
95th percentile per-packet one-way delay: 149.222 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.96 Mbit/s
95th percentile per-packet one-way delay: 112.897 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.73 Mbit/s
95th percentile per-packet one-way delay: 194.241 ms
Loss rate: 5.66%
```

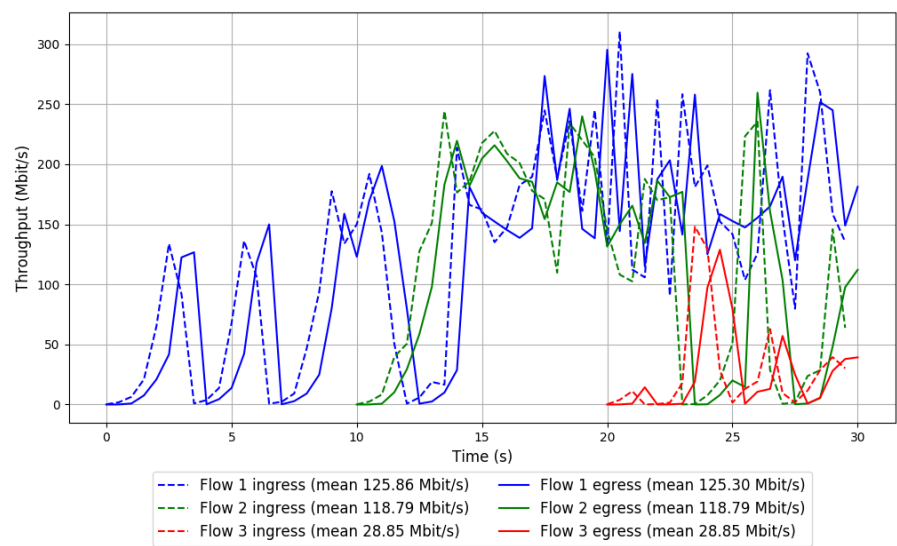Run 2: Report of Verus — Data Link
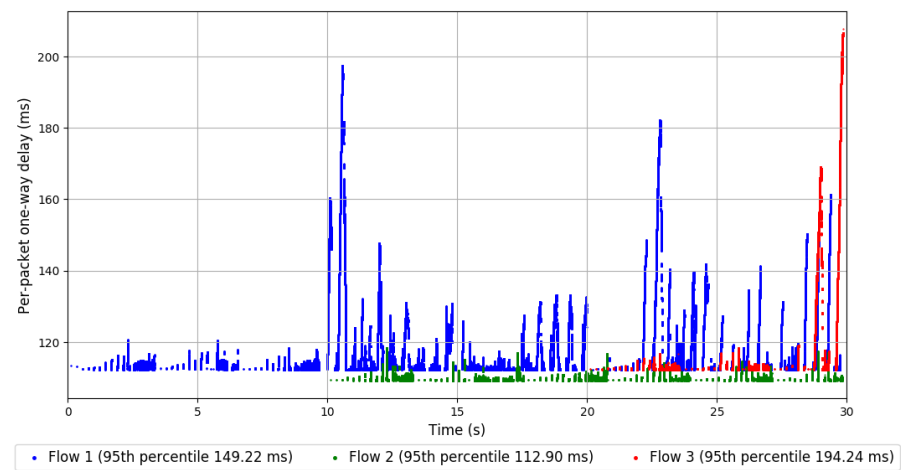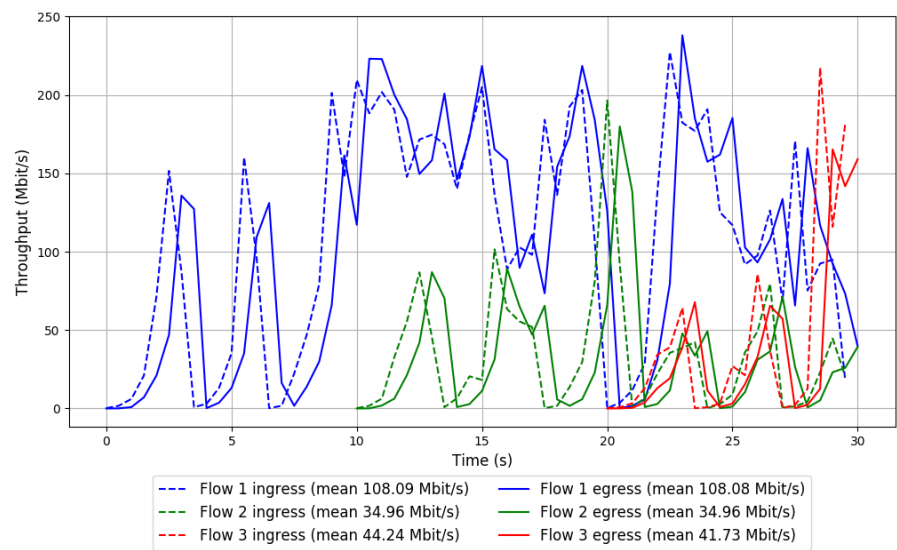
```
Run 3: Statistics of Verus

Start at: 2020-02-18 04:34:00
End at: 2020-02-18 04:34:30
Local clock offset: -1.347 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2020-02-18 09:43:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.35 Mbit/s
95th percentile per-packet one-way delay: 195.351 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 125.30 Mbit/s
95th percentile per-packet one-way delay: 198.962 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 118.79 Mbit/s
95th percentile per-packet one-way delay: 191.646 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 118.331 ms
Loss rate: 0.00%
```

Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 125.86 Mbit/s) --- Flow 1 egress (mean 125.30 Mbit/s)
Flow 2 ingress (mean 118.79 Mbit/s) --- Flow 2 egress (mean 118.79 Mbit/s)
Flow 3 ingress (mean 28.85 Mbit/s) --- Flow 3 egress (mean 28.85 Mbit/s)

Flow 1 (95th percentile 198.96 ms)   Flow 2 (95th percentile 191.65 ms)   Flow 3 (95th percentile 118.33 ms)
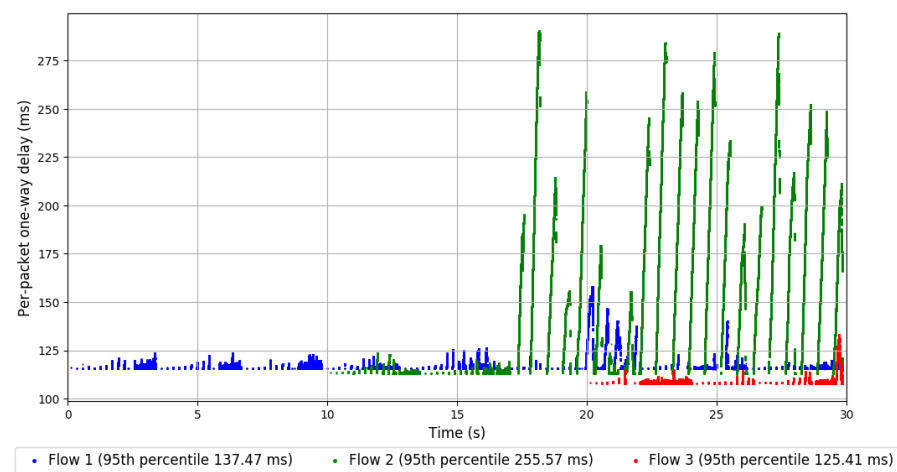
220

```
Run 4: Statistics of Verus

Start at: 2020-02-18 05:15:18
End at: 2020-02-18 05:15:48
Local clock offset: 0.24 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2020-02-18 09:45:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.82 Mbit/s
95th percentile per-packet one-way delay: 265.574 ms
Loss rate: 3.64%
-- Flow 1:
Average throughput: 171.27 Mbit/s
95th percentile per-packet one-way delay: 273.475 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 75.44 Mbit/s
95th percentile per-packet one-way delay: 146.411 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 118.45 Mbit/s
95th percentile per-packet one-way delay: 247.143 ms
Loss rate: 0.46%
```

Run 4: Report of Verus — Data Link
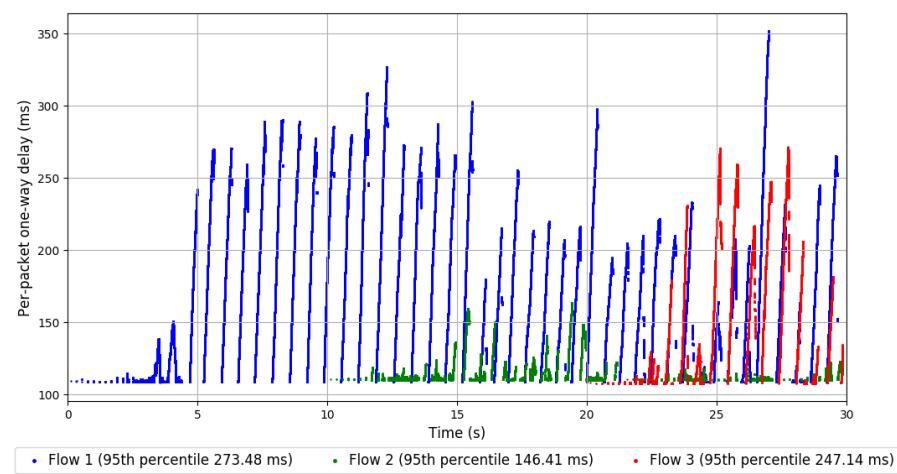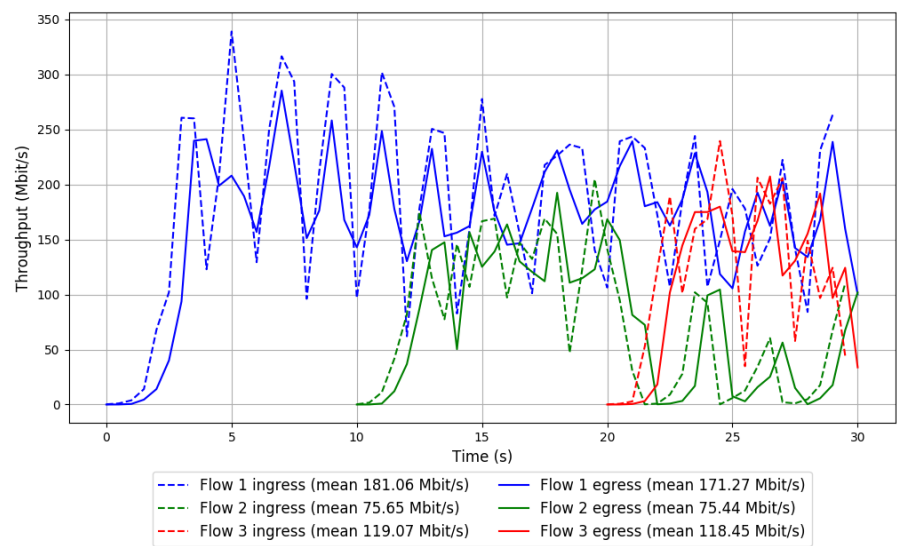
```
Run 5: Statistics of Verus

Start at: 2020-02-18 05:57:19
End at: 2020-02-18 05:57:49
Local clock offset: -0.18 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2020-02-18 09:45:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 162.24 Mbit/s
95th percentile per-packet one-way delay: 242.949 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 53.44 Mbit/s
95th percentile per-packet one-way delay: 137.471 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.06 Mbit/s
95th percentile per-packet one-way delay: 255.570 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 46.79 Mbit/s
95th percentile per-packet one-way delay: 125.411 ms
Loss rate: 0.01%
```

## Run 5: Report of Verus — Data Link
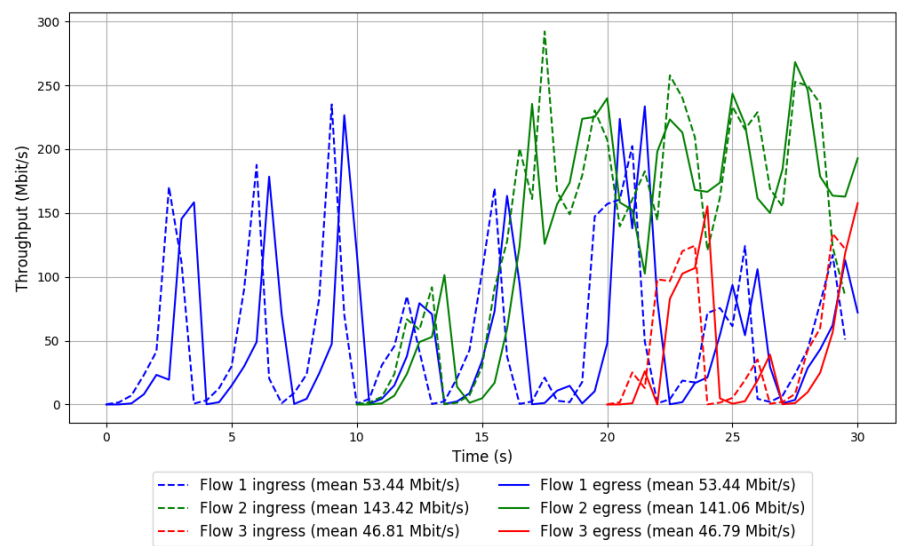
```
Run 1: Statistics of PCC-Vivace

Start at: 2020-02-18 03:21:47
End at: 2020-02-18 03:22:17
Local clock offset: 0.803 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2020-02-18 09:45:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 392.16 Mbit/s
95th percentile per-packet one-way delay: 114.332 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 234.64 Mbit/s
95th percentile per-packet one-way delay: 108.230 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 174.97 Mbit/s
95th percentile per-packet one-way delay: 107.662 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.40 Mbit/s
95th percentile per-packet one-way delay: 116.374 ms
Loss rate: 0.05%
```

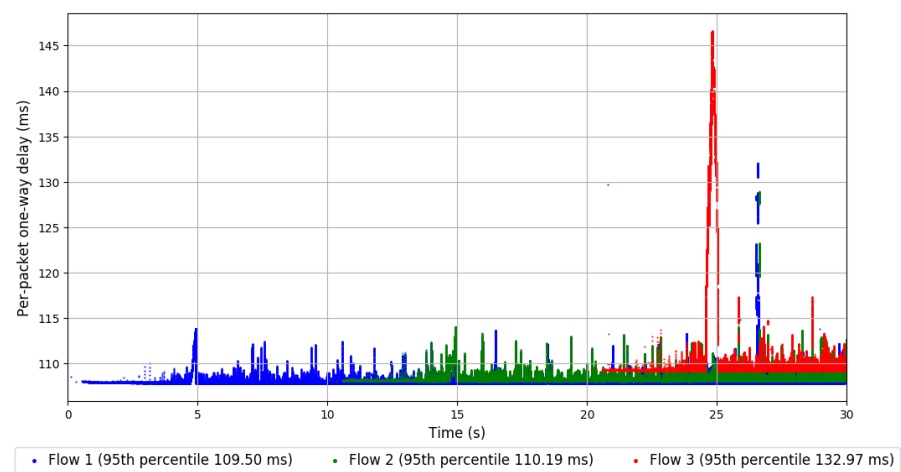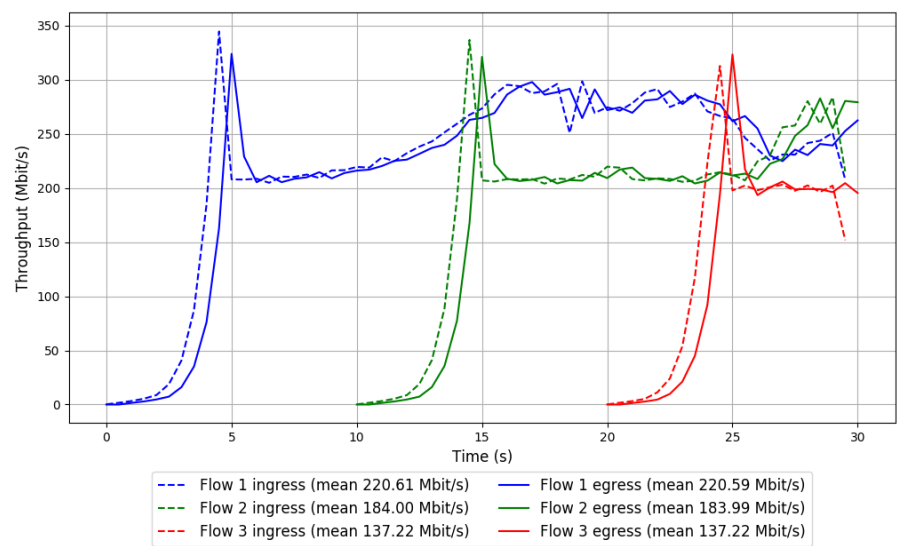Run 1: Report of PCC-Vivace — Data Link
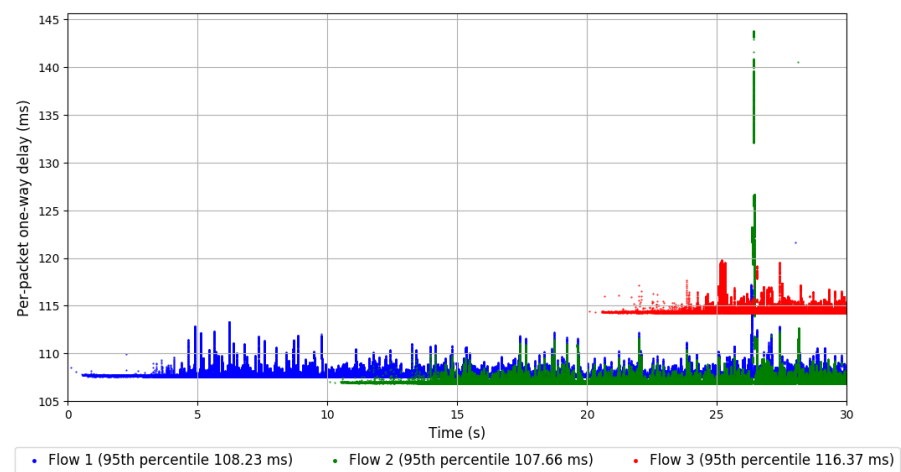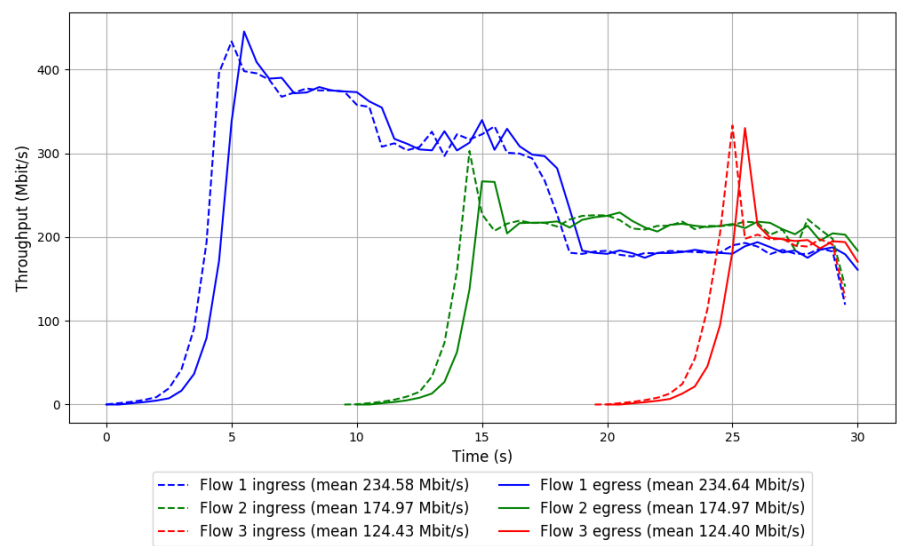
```
Run 2: Statistics of PCC-Vivace

Start at: 2020-02-18 04:03:41
End at: 2020-02-18 04:04:11
Local clock offset: 0.628 ms
Remote clock offset: -0.151 ms


# Below is generated by plot.py at 2020-02-18 09:45:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 388.19 Mbit/s
95th percentile per-packet one-way delay: 110.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.59 Mbit/s
95th percentile per-packet one-way delay: 109.495 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 183.99 Mbit/s
95th percentile per-packet one-way delay: 110.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 137.22 Mbit/s
95th percentile per-packet one-way delay: 132.975 ms
Loss rate: 0.00%
```

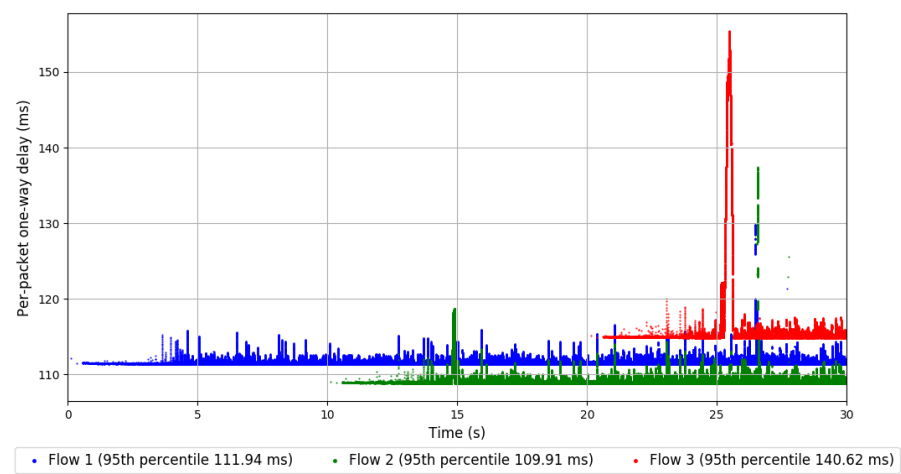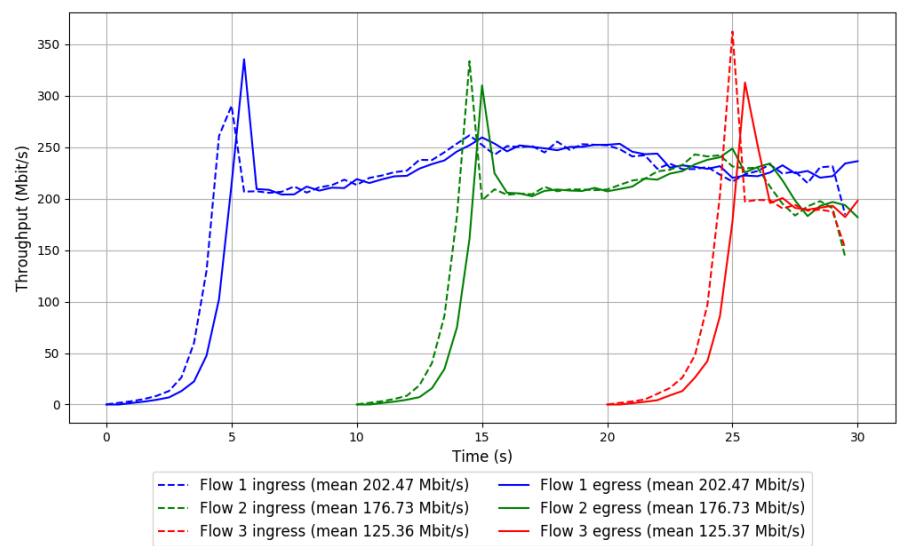Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2020-02-18 04:45:33
End at: 2020-02-18 04:46:03
Local clock offset: -0.101 ms
Remote clock offset: -0.377 ms


# Below is generated by plot.py at 2020-02-18 09:45:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.26 Mbit/s
95th percentile per-packet one-way delay: 114.966 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 202.47 Mbit/s
95th percentile per-packet one-way delay: 111.941 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 176.73 Mbit/s
95th percentile per-packet one-way delay: 109.914 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 125.37 Mbit/s
95th percentile per-packet one-way delay: 140.621 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link

Legend:
- Flow 1 ingress (mean 202.47 Mbit/s)
- Flow 1 egress (mean 202.47 Mbit/s)
- Flow 2 ingress (mean 176.73 Mbit/s)
- Flow 2 egress (mean 176.73 Mbit/s)
- Flow 3 ingress (mean 125.36 Mbit/s)
- Flow 3 egress (mean 125.37 Mbit/s)

Legend:
- Flow 1 (95th percentile 111.94 ms)
- Flow 2 (95th percentile 109.91 ms)
- Flow 3 (95th percentile 140.62 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2020-02-18 05:27:06
End at: 2020-02-18 05:27:36
Local clock offset: -0.031 ms
Remote clock offset: 0.033 ms


# Below is generated by plot.py at 2020-02-18 09:46:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.16 Mbit/s
95th percentile per-packet one-way delay: 114.465 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 211.35 Mbit/s
95th percentile per-packet one-way delay: 114.452 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 195.26 Mbit/s
95th percentile per-packet one-way delay: 112.624 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 130.45 Mbit/s
95th percentile per-packet one-way delay: 155.473 ms
Loss rate: 0.00%
```
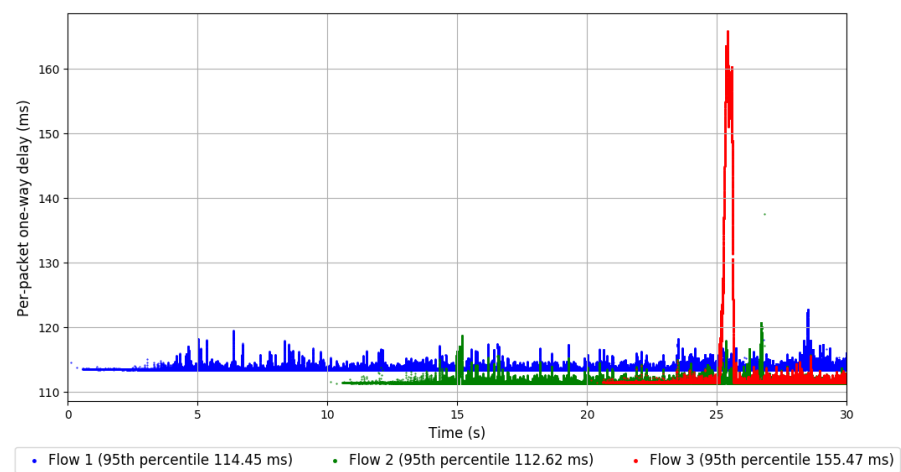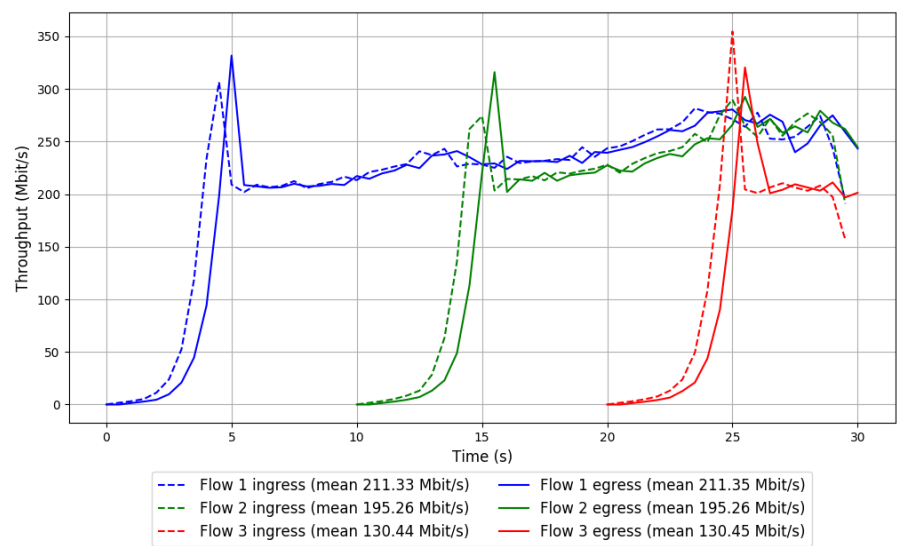
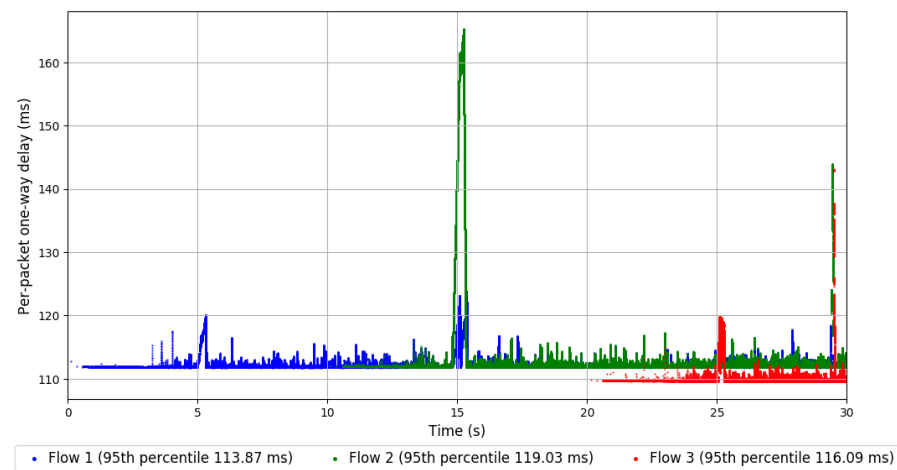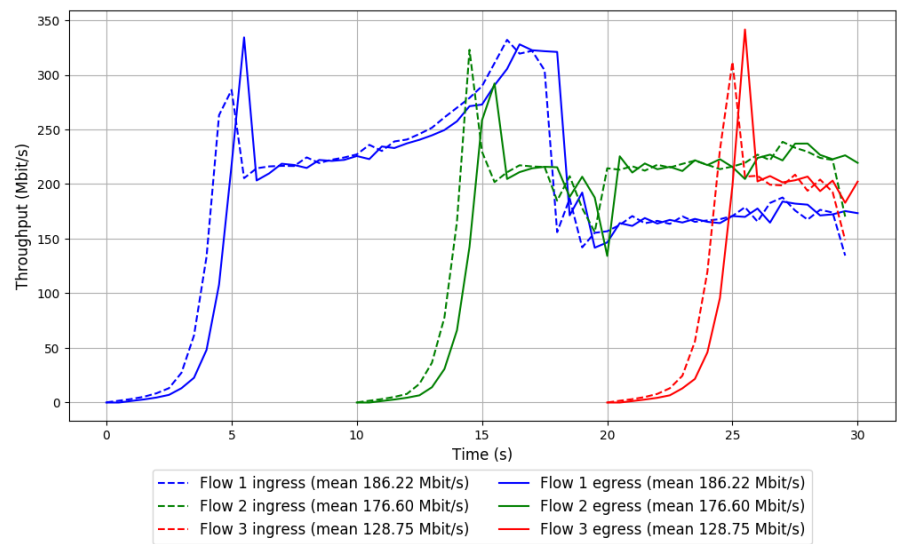# Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2020-02-18 06:08:53
End at: 2020-02-18 06:09:23
Local clock offset: -0.051 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2020-02-18 09:46:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 346.04 Mbit/s
95th percentile per-packet one-way delay: 114.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 186.22 Mbit/s
95th percentile per-packet one-way delay: 113.866 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 176.60 Mbit/s
95th percentile per-packet one-way delay: 119.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 128.75 Mbit/s
95th percentile per-packet one-way delay: 116.086 ms
Loss rate: 0.00%
```

# Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 186.22 Mbit/s)   Flow 1 egress (mean 186.22 Mbit/s)
Flow 2 ingress (mean 176.60 Mbit/s)   Flow 2 egress (mean 176.60 Mbit/s)
Flow 3 ingress (mean 128.75 Mbit/s)   Flow 3 egress (mean 128.75 Mbit/s)

Flow 1 (95th percentile 113.87 ms)   Flow 2 (95th percentile 119.03 ms)   Flow 3 (95th percentile 116.09 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2020-02-18 03:33:08
End at: 2020-02-18 03:33:38
Local clock offset: 0.736 ms
Remote clock offset: -0.098 ms
```

Run 1: Report of WebRTC media — Data Link
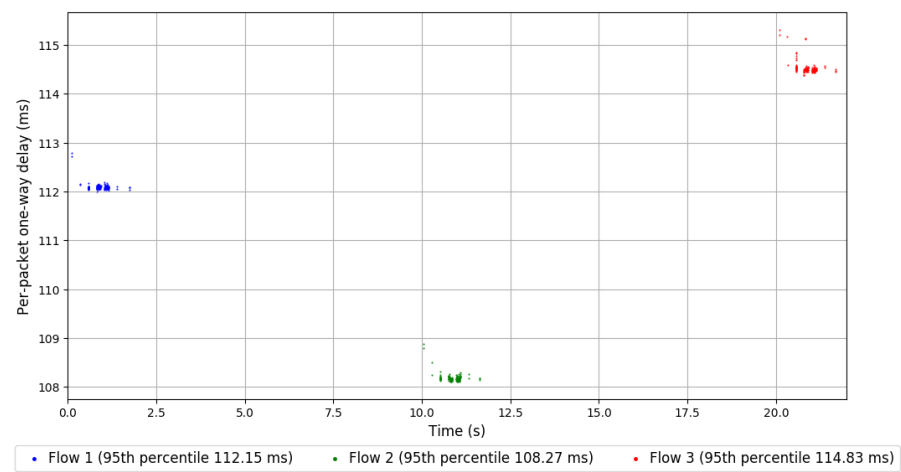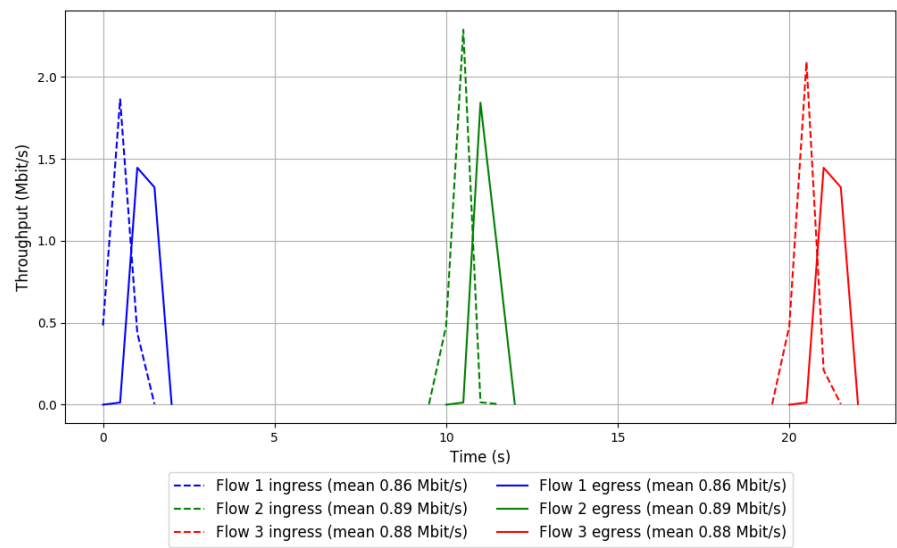
```
Run 2: Statistics of WebRTC media

Start at: 2020-02-18 04:14:54
End at: 2020-02-18 04:15:24
Local clock offset: -0.23 ms
Remote clock offset: 0.202 ms


# Below is generated by plot.py at 2020-02-18 09:46:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 110.719 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 110.740 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 110.701 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 110.115 ms
Loss rate: 0.00%
```
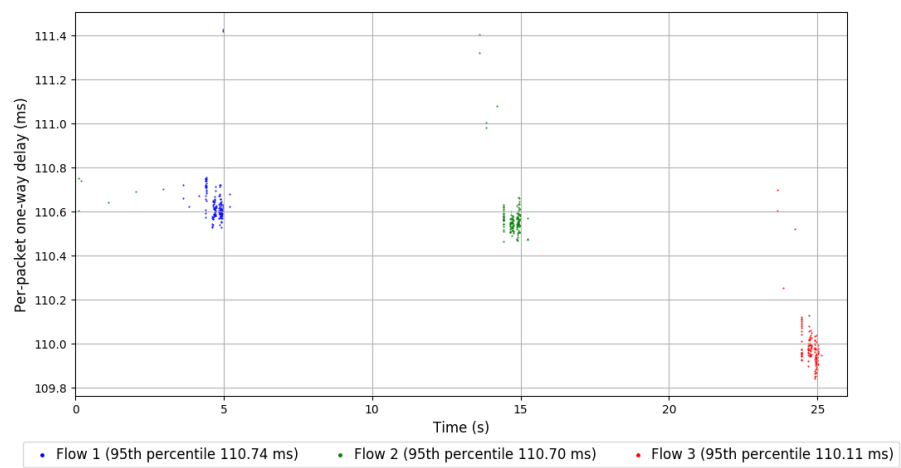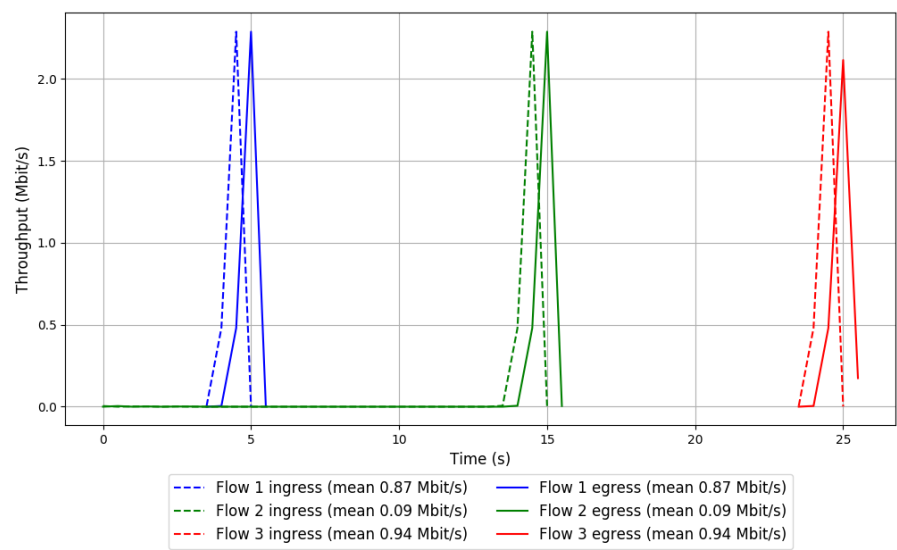
Run 2: Report of WebRTC media — Data Link
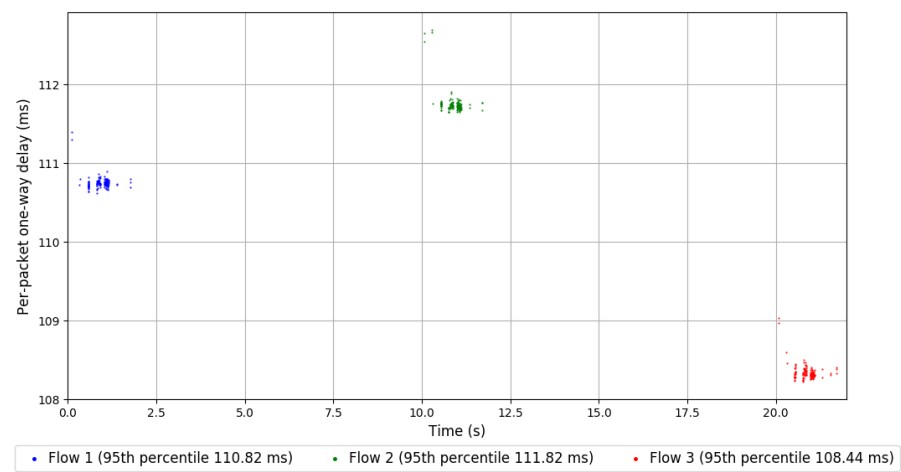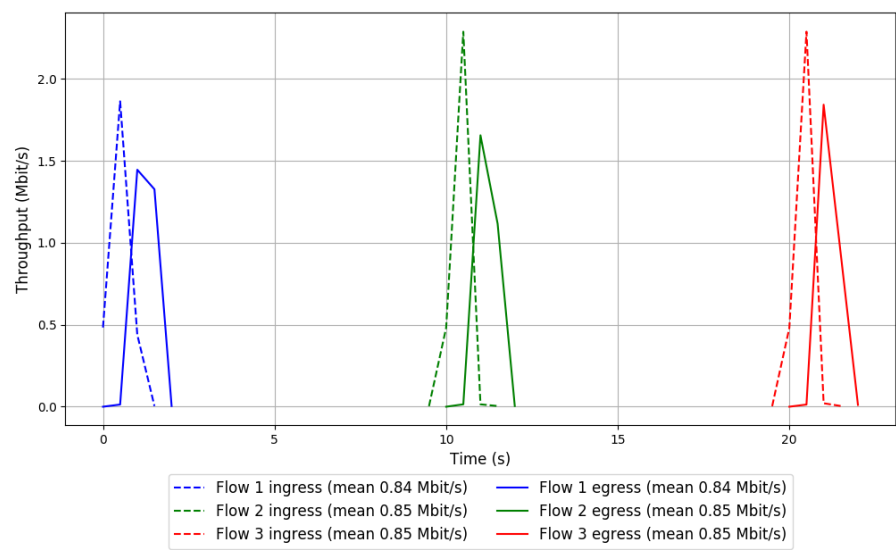
```
Run 3: Statistics of WebRTC media

Start at: 2020-02-18 04:56:28
End at: 2020-02-18 04:56:58
Local clock offset: -0.215 ms
Remote clock offset: 0.022 ms
```

Run 3: Report of WebRTC media — Data Link
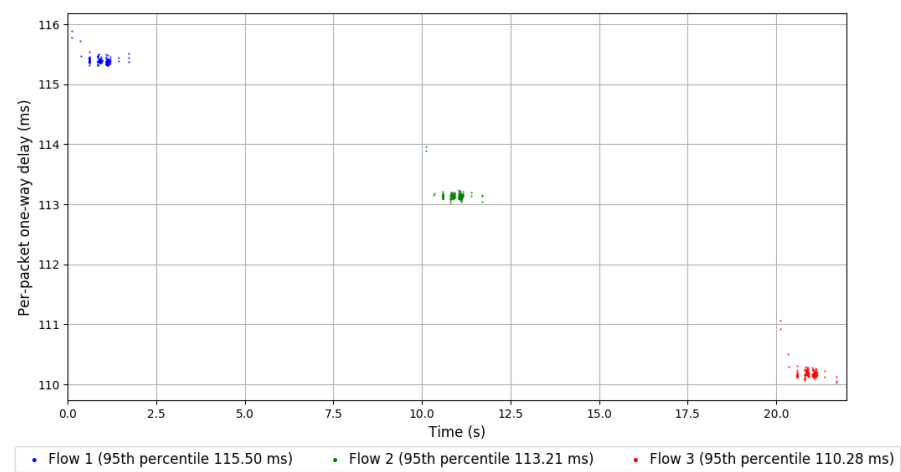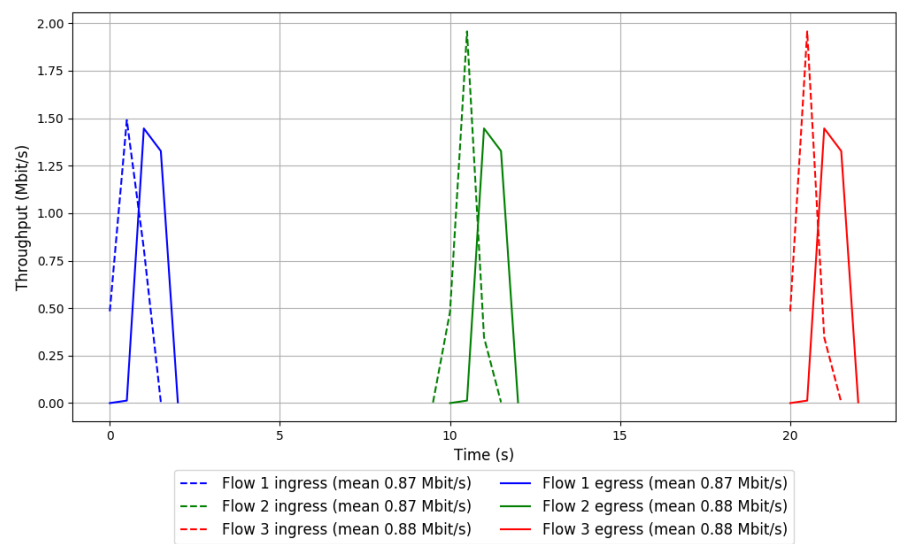
```
Run 4: Statistics of WebRTC media

Start at: 2020-02-18 05:38:15
End at: 2020-02-18 05:38:45
Local clock offset: -0.113 ms
Remote clock offset: -0.035 ms
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2020-02-18 06:20:02
End at: 2020-02-18 06:20:32
Local clock offset: -0.08 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2020-02-18 09:46:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 111.854 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 111.933 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 109.975 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 109.343 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link