Pantheon Report

Generated at 2018-07-04 14:29:04 (UTC).

Data path: Brazil Ethernet (*remote*) →AWS Brazil 1 Ethernet (*local*).

Repeated the test of 17 congestion control schemes 10 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
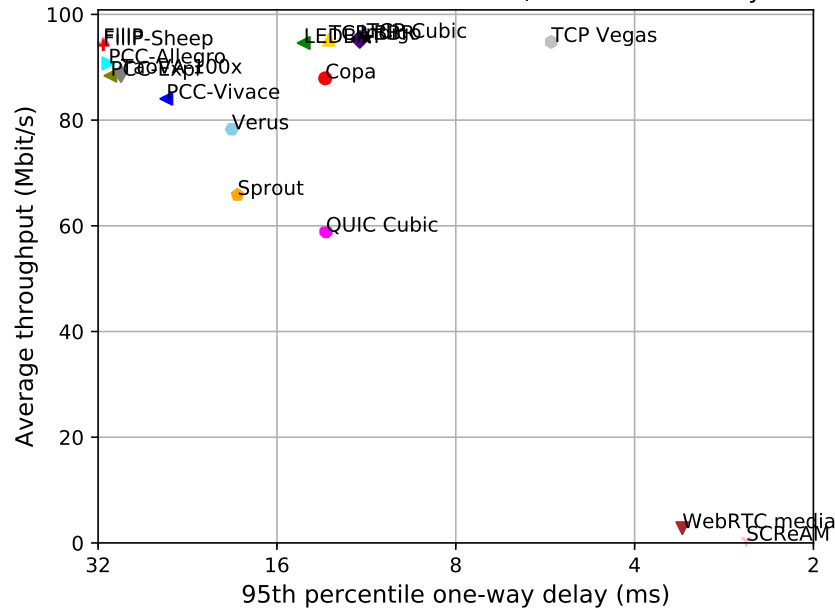
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.
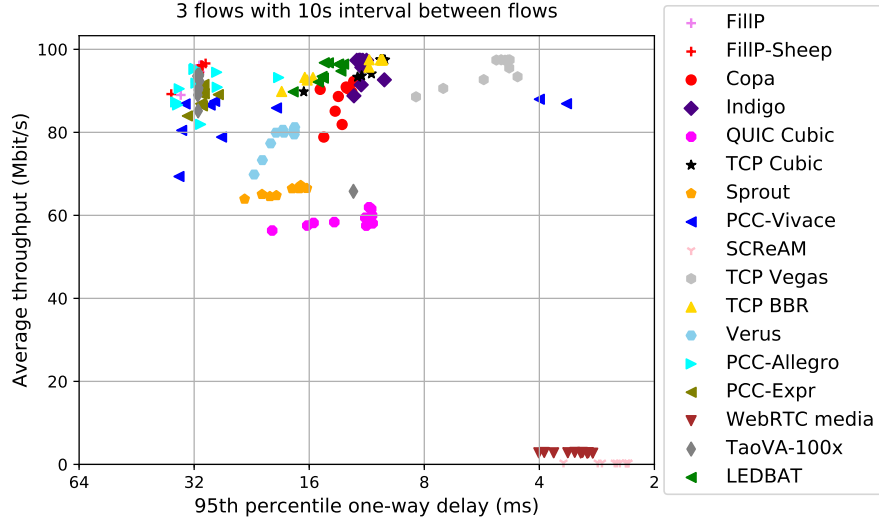
```
Git summary:
branch: master @ 9250dbeec7fb57193cdff1ba8c440b4e16ab30f0
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af85249aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

FillP-Sheep
PCC-Allegro
TaoVA-100x
PCC-Expr
PCC-Vivace
Verus
Sprout
QUIC Cubic
LEDBAT TCP BBR TCP Cubic
Copa
TCP Vegas
WebRTC media
SCReAM

Average throughput (Mbit/s)

95th percentile one-way delay (ms)

test from Brazil to AWS Brazil 1, 10 runs of 30s each per scheme
3 flows with 10s interval between flows

Average throughput (Mbit/s)

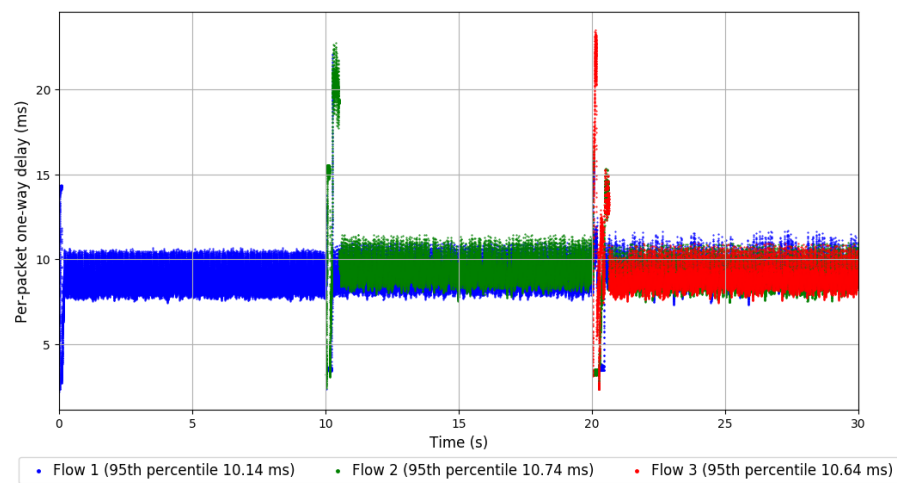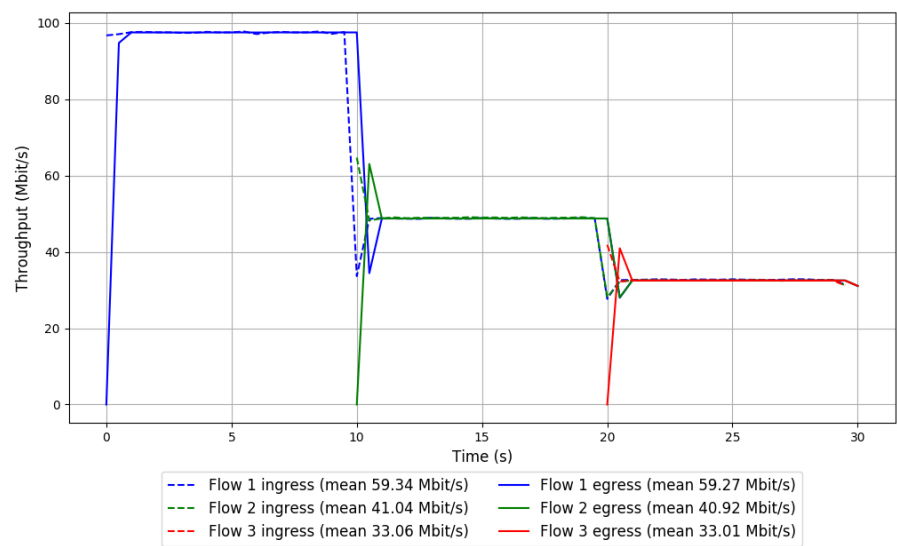95th percentile one-way delay (ms)

FillP
FillP-Sheep
Copa
Indigo
QUIC Cubic
TCP Cubic
Sprout
PCC-Vivace
SCReAM
TCP Vegas
TCP BBR
Verus
PCC-Allegro
PCC-Expr
WebRTC media
TaoVA-100x
LEDBAT

2

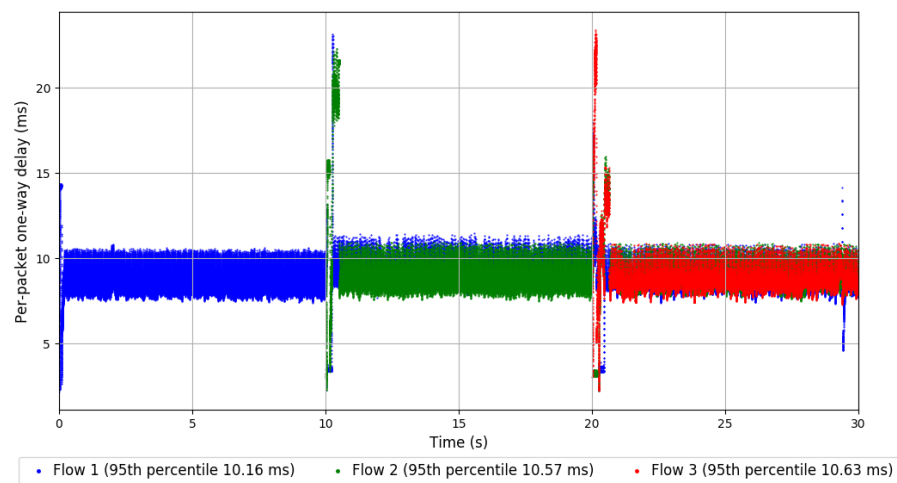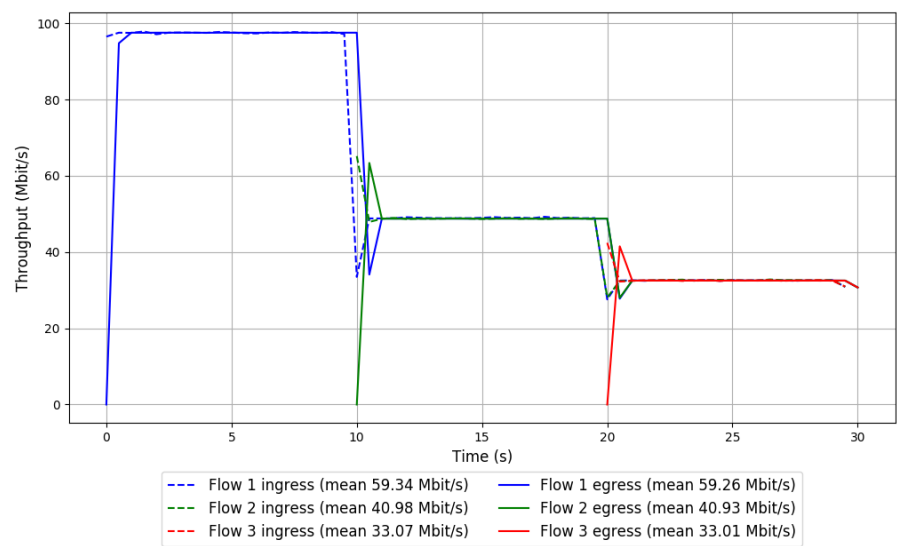| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	57.83	39.99	32.34	12.19	14.34	14.24	0.32	0.70	0.47
Copa	10	52.50	38.02	30.33	12.26	13.30	15.96	0.03	0.07	0.14
TCP Cubic	10	58.45	39.87	31.81	11.25	11.27	11.79	0.08	0.14	0.24
FillP	10	58.50	39.05	30.47	30.12	31.95	33.61	1.54	3.34	3.88
FillP-Sheep	10	58.00	38.87	31.10	30.03	31.83	34.96	2.04	3.83	3.99
Indigo	10	58.12	40.06	31.96	9.94	12.30	10.74	0.03	1.43	0.67
LEDBAT	10	57.66	39.63	31.74	14.16	14.59	14.46	0.13	0.22	0.37
PCC-Allegro	10	62.83	29.46	25.26	28.97	29.40	23.18	3.47	2.31	1.28
PCC-Expr	10	53.81	37.52	29.21	28.28	31.54	31.81	0.49	0.70	0.42
QUIC Cubic	10	1.13	65.34	46.60	2.47	13.30	13.13	0.00	0.12	0.32
SCReAM	10	0.22	0.22	0.22	2.59	2.67	2.68	0.01	0.00	0.10
Sprout	10	34.23	32.89	29.57	16.72	18.73	21.88	0.06	0.10	0.21
TaoVA-100x	10	51.73	39.52	32.34	28.44	29.29	31.18	0.29	0.62	1.52
TCP Vegas	10	52.37	46.31	34.86	4.69	5.39	6.23	0.01	0.02	0.06
Verus	10	46.25	33.69	28.86	16.81	20.10	24.89	0.02	0.05	0.15
PCC-Vivace	10	53.14	33.36	26.39	22.96	23.01	20.89	0.56	0.63	0.36
WebRTC media	10	1.52	0.88	0.41	3.26	3.31	4.14	0.00	0.02	0.03

```
Run 1: Statistics of TCP BBR

Start at: 2018-07-04 11:03:01
End at: 2018-07-04 11:03:31
Local clock offset: -3.014 ms
Remote clock offset: -2.876 ms


# Below is generated by plot.py at 2018-07-04 14:06:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.331 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 59.27 Mbit/s
95th percentile per-packet one-way delay: 10.142 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 10.744 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 33.01 Mbit/s
95th percentile per-packet one-way delay: 10.642 ms
Loss rate: 0.22%
```

Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-07-04 11:22:11
End at: 2018-07-04 11:22:41
Local clock offset: -2.604 ms
Remote clock offset: -6.215 ms


# Below is generated by plot.py at 2018-07-04 14:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 10.283 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 10.163 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 10.574 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 33.01 Mbit/s
95th percentile per-packet one-way delay: 10.630 ms
Loss rate: 0.24%
```

Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-07-04 11:41:21
End at: 2018-07-04 11:41:51
Local clock offset: -2.418 ms
Remote clock offset: -8.223 ms


# Below is generated by plot.py at 2018-07-04 14:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 10.307 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 59.25 Mbit/s
95th percentile per-packet one-way delay: 10.142 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 10.504 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 33.01 Mbit/s
95th percentile per-packet one-way delay: 11.875 ms
Loss rate: 0.31%
```
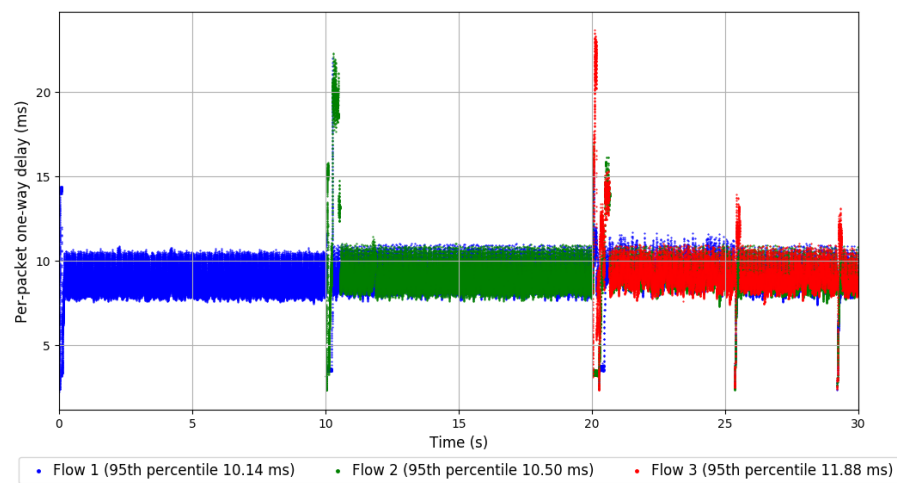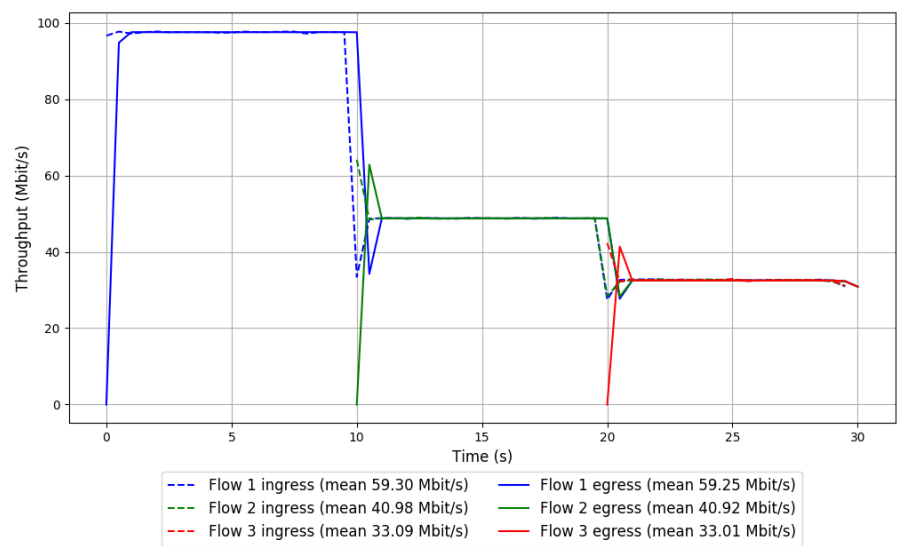
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-07-04 12:00:30
End at: 2018-07-04 12:01:00
Local clock offset: -2.232 ms
Remote clock offset: -1.369 ms


# Below is generated by plot.py at 2018-07-04 14:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 15.642 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 12.996 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 39.38 Mbit/s
95th percentile per-packet one-way delay: 17.616 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 17.712 ms
Loss rate: 1.39%
```
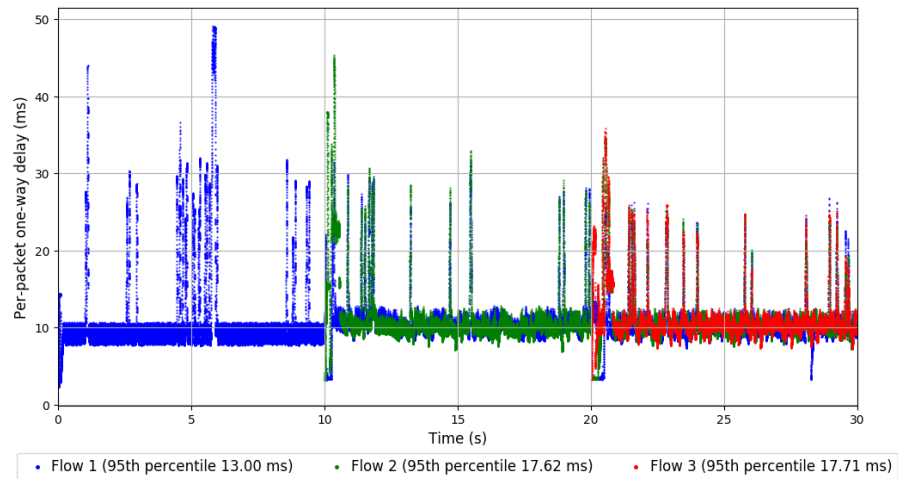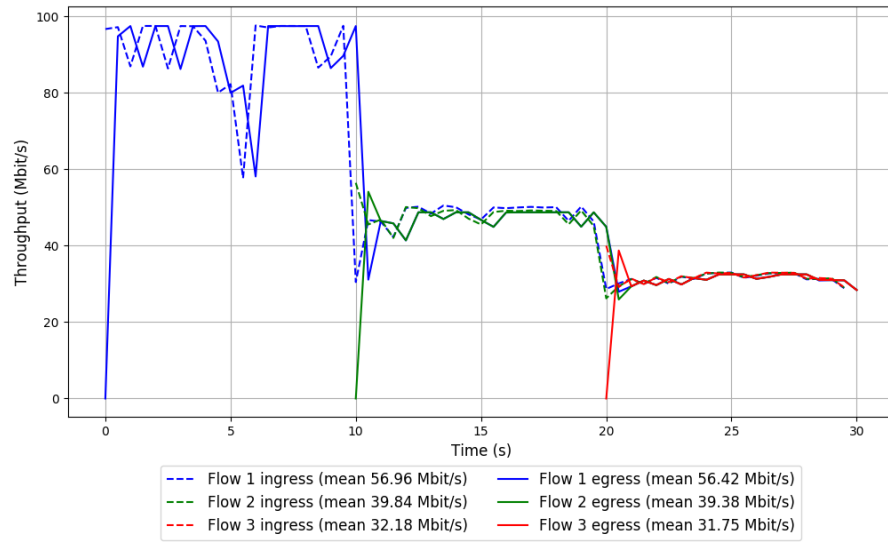
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-07-04 12:19:37
End at: 2018-07-04 12:20:07
Local clock offset: -2.533 ms
Remote clock offset: 1.483 ms


# Below is generated by plot.py at 2018-07-04 14:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.85 Mbit/s
95th percentile per-packet one-way delay: 18.891 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 54.44 Mbit/s
95th percentile per-packet one-way delay: 18.924 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 18.955 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 30.49 Mbit/s
95th percentile per-packet one-way delay: 18.606 ms
Loss rate: 0.24%
```
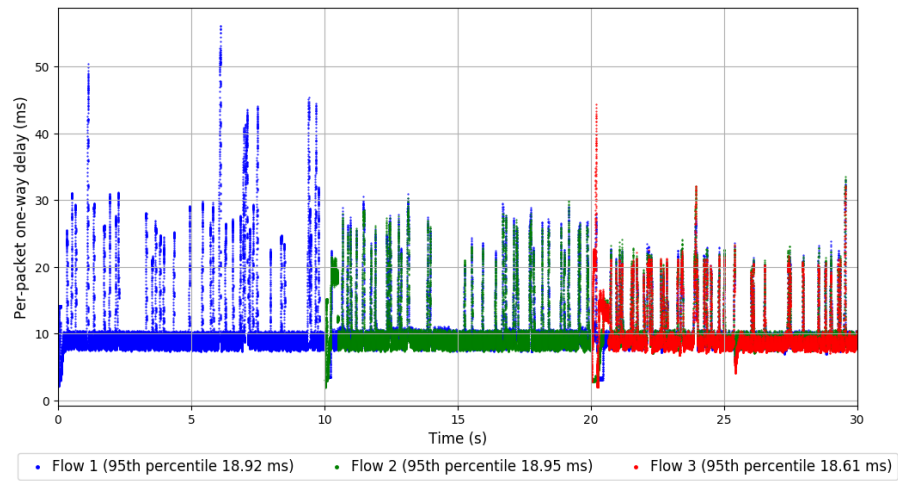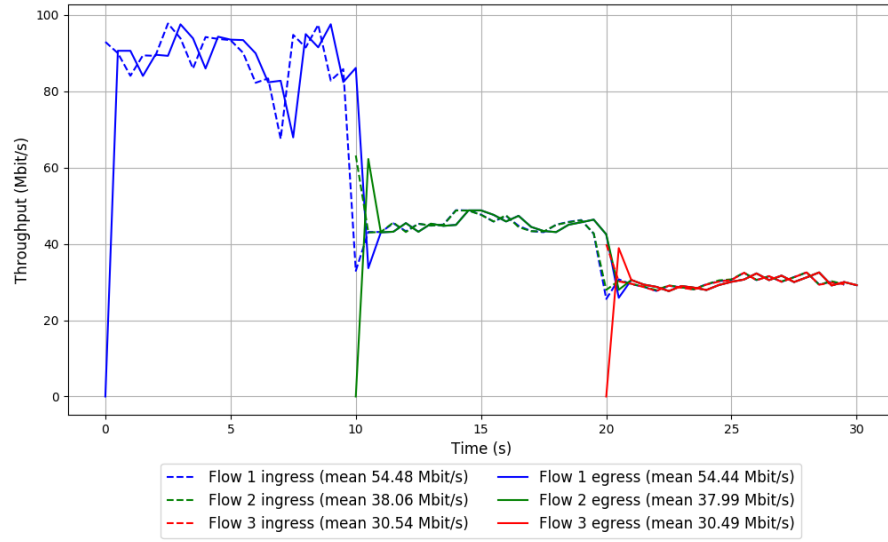
Run 5: Report of TCP BBR — Data Link

```
Run 6: Statistics of TCP BBR

Start at: 2018-07-04 12:38:43
End at: 2018-07-04 12:39:13
Local clock offset: -2.629 ms
Remote clock offset: -1.722 ms


# Below is generated by plot.py at 2018-07-04 14:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.24 Mbit/s
95th percentile per-packet one-way delay: 16.433 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 56.68 Mbit/s
95th percentile per-packet one-way delay: 13.563 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 38.97 Mbit/s
95th percentile per-packet one-way delay: 18.569 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 31.92 Mbit/s
95th percentile per-packet one-way delay: 20.086 ms
Loss rate: 0.44%
```
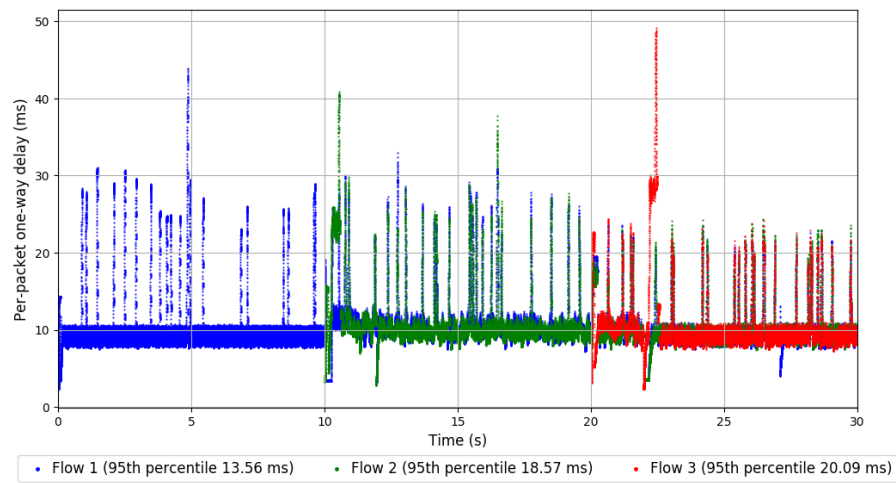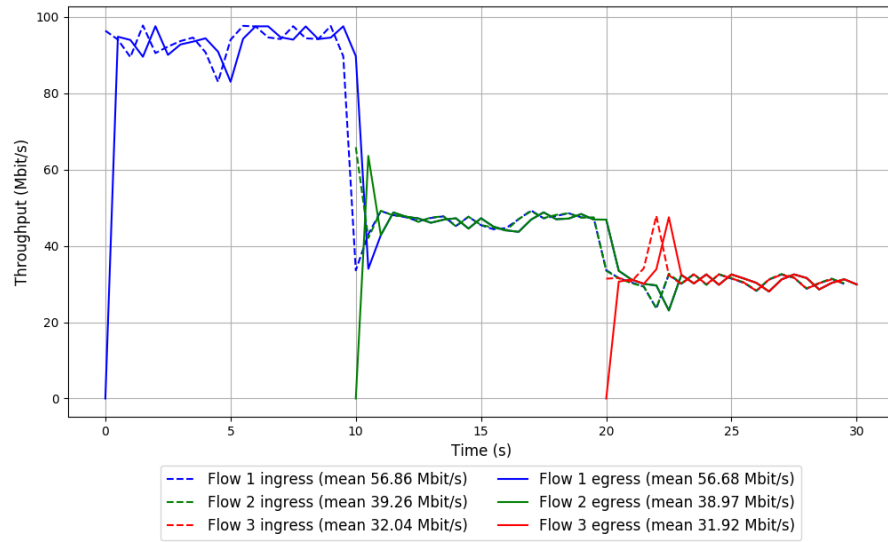
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 56.86 Mbit/s)   Flow 1 egress (mean 56.68 Mbit/s)
Flow 2 ingress (mean 39.26 Mbit/s)   Flow 2 egress (mean 38.97 Mbit/s)
Flow 3 ingress (mean 32.04 Mbit/s)   Flow 3 egress (mean 31.92 Mbit/s)

Flow 1 (95th percentile 13.56 ms)   Flow 2 (95th percentile 18.57 ms)   Flow 3 (95th percentile 20.09 ms)
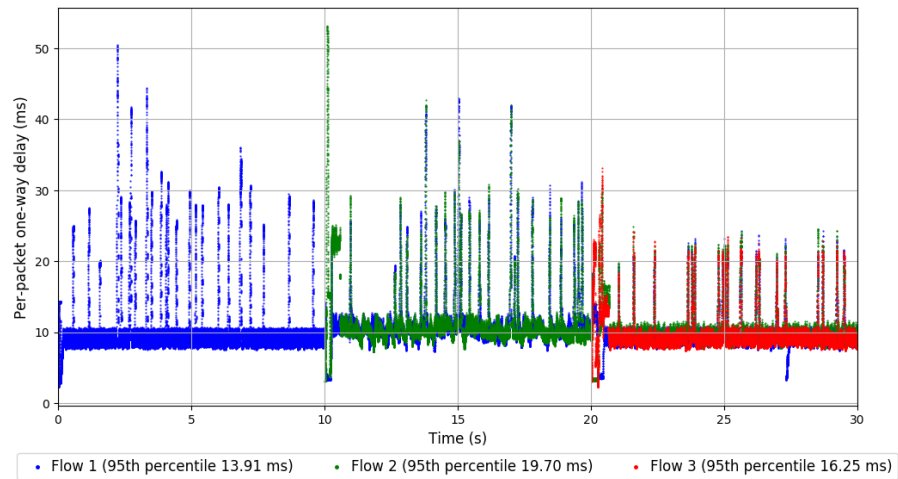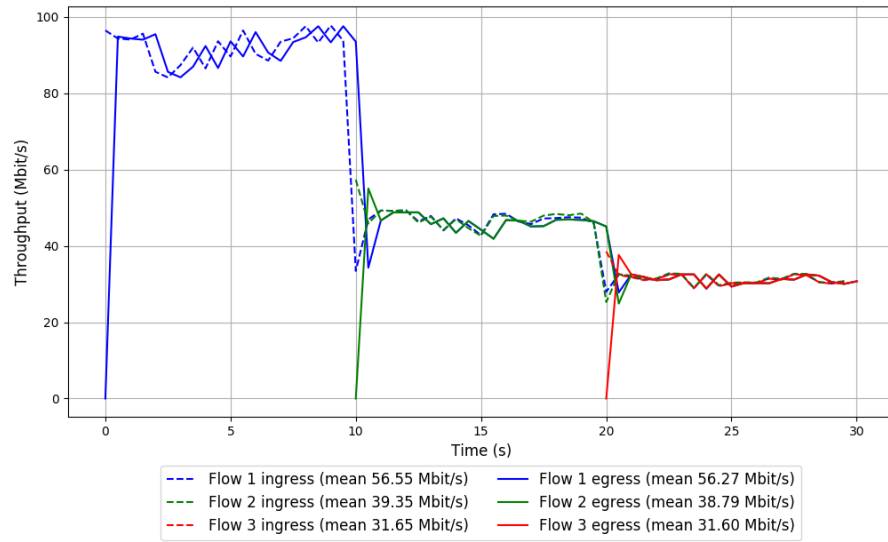
```
Run 7: Statistics of TCP BBR

Start at: 2018-07-04 12:57:51
End at: 2018-07-04 12:58:21
Local clock offset: -2.63 ms
Remote clock offset: -2.012 ms


# Below is generated by plot.py at 2018-07-04 14:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.60 Mbit/s
95th percentile per-packet one-way delay: 16.198 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 56.27 Mbit/s
95th percentile per-packet one-way delay: 13.914 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 38.79 Mbit/s
95th percentile per-packet one-way delay: 19.695 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 31.60 Mbit/s
95th percentile per-packet one-way delay: 16.245 ms
Loss rate: 0.22%
```

Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2018-07-04 13:17:00
End at: 2018-07-04 13:17:30
Local clock offset: -2.745 ms
Remote clock offset: -2.375 ms


# Below is generated by plot.py at 2018-07-04 14:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 11.169 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 58.16 Mbit/s
95th percentile per-packet one-way delay: 10.947 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 40.14 Mbit/s
95th percentile per-packet one-way delay: 14.426 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 32.57 Mbit/s
95th percentile per-packet one-way delay: 12.932 ms
Loss rate: 0.27%
```
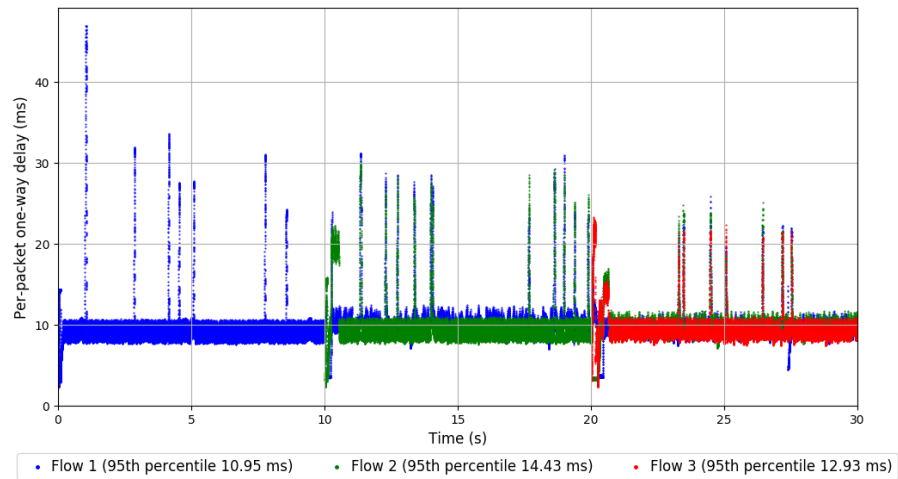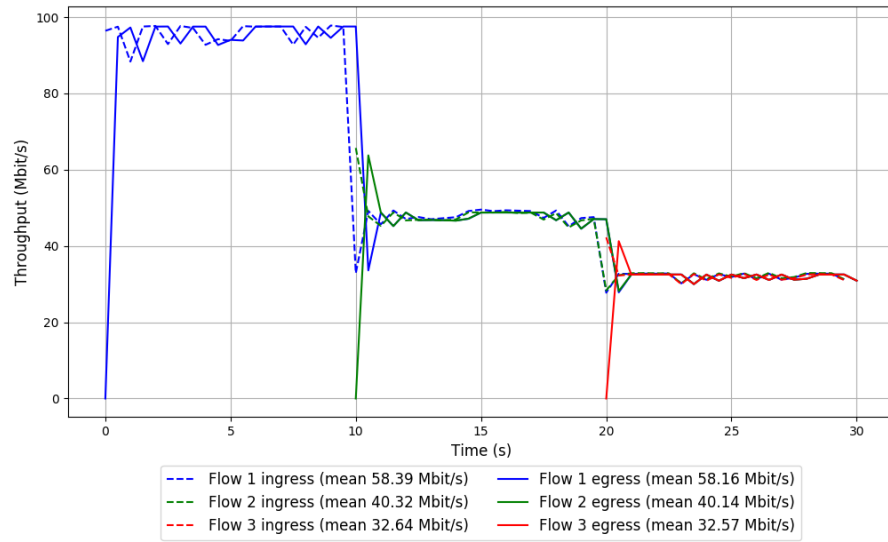
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 58.39 Mbit/s) — Flow 1 egress (mean 58.16 Mbit/s)
Flow 2 ingress (mean 40.32 Mbit/s) — Flow 2 egress (mean 40.14 Mbit/s)
Flow 3 ingress (mean 32.64 Mbit/s) — Flow 3 egress (mean 32.57 Mbit/s)

Flow 1 (95th percentile 10.95 ms)   Flow 2 (95th percentile 14.43 ms)   Flow 3 (95th percentile 12.93 ms)
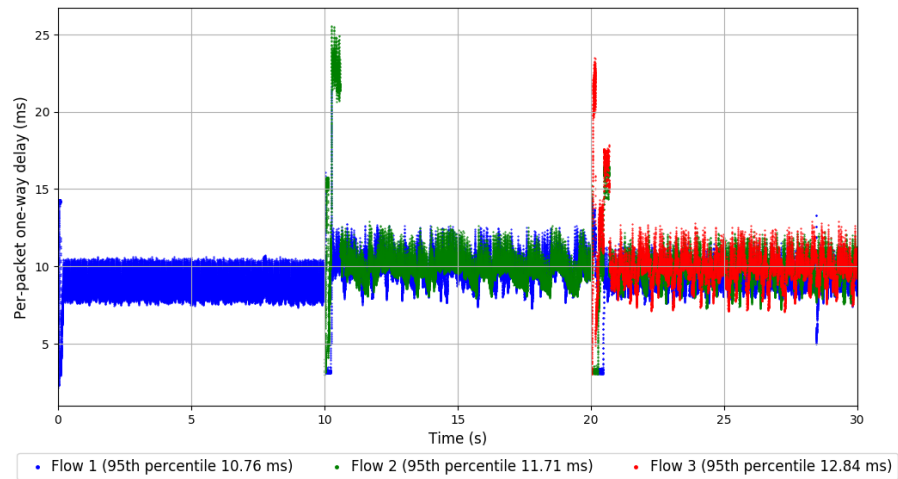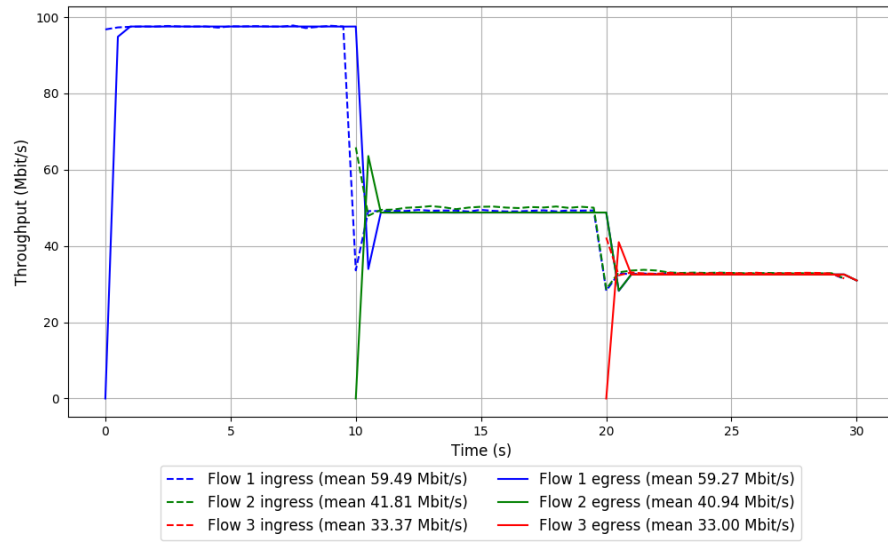
```
Run 9: Statistics of TCP BBR

Start at: 2018-07-04 13:36:10
End at: 2018-07-04 13:36:40
Local clock offset: -2.907 ms
Remote clock offset: -5.708 ms


# Below is generated by plot.py at 2018-07-04 14:07:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 11.147 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 59.27 Mbit/s
95th percentile per-packet one-way delay: 10.757 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 40.94 Mbit/s
95th percentile per-packet one-way delay: 11.715 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 12.838 ms
Loss rate: 1.15%
```

Run 9: Report of TCP BBR — Data Link

```
Run 10: Statistics of TCP BBR

Start at: 2018-07-04 13:55:21
End at: 2018-07-04 13:55:51
Local clock offset: -6.738 ms
Remote clock offset: -8.229 ms


# Below is generated by plot.py at 2018-07-04 14:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 10.419 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 10.311 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 10.627 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 33.02 Mbit/s
95th percentile per-packet one-way delay: 10.795 ms
Loss rate: 0.27%
```
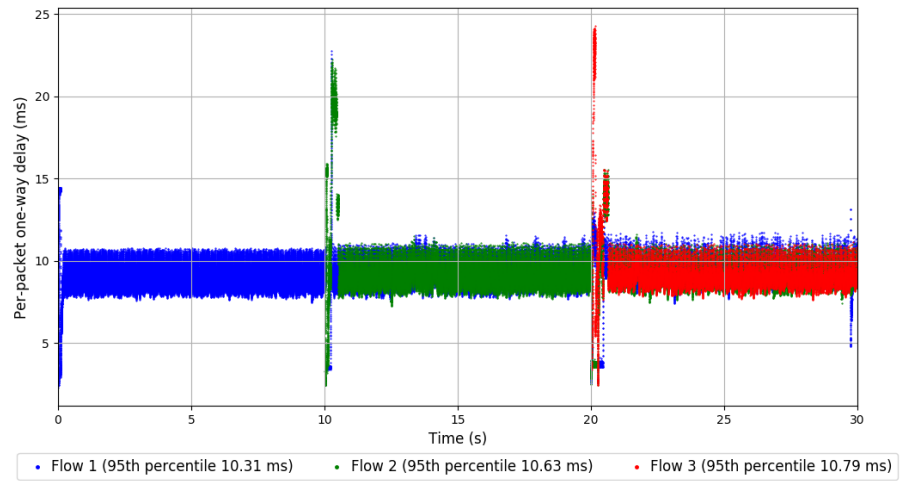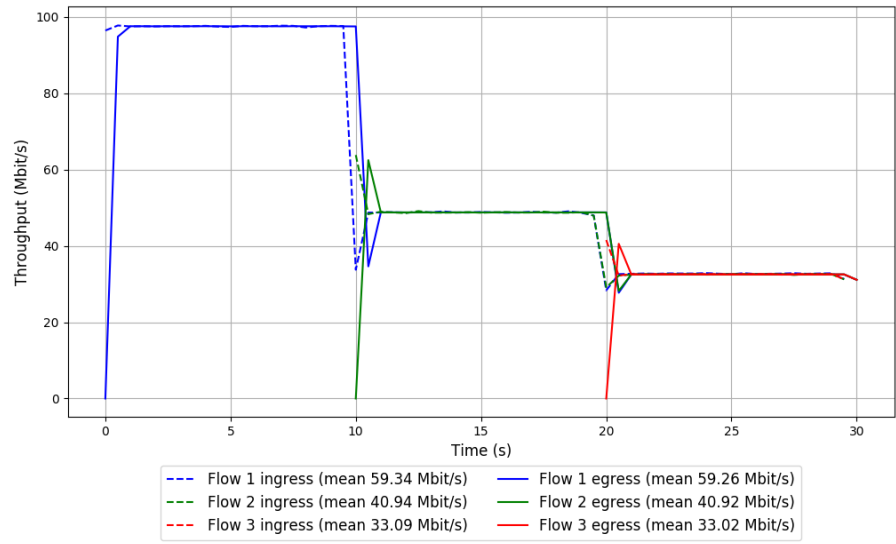
Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 59.34 Mbit/s)   Flow 1 egress (mean 59.26 Mbit/s)
Flow 2 ingress (mean 40.94 Mbit/s)   Flow 2 egress (mean 40.92 Mbit/s)
Flow 3 ingress (mean 33.09 Mbit/s)   Flow 3 egress (mean 33.02 Mbit/s)

Flow 1 (95th percentile 10.31 ms)   Flow 2 (95th percentile 10.63 ms)   Flow 3 (95th percentile 10.79 ms)
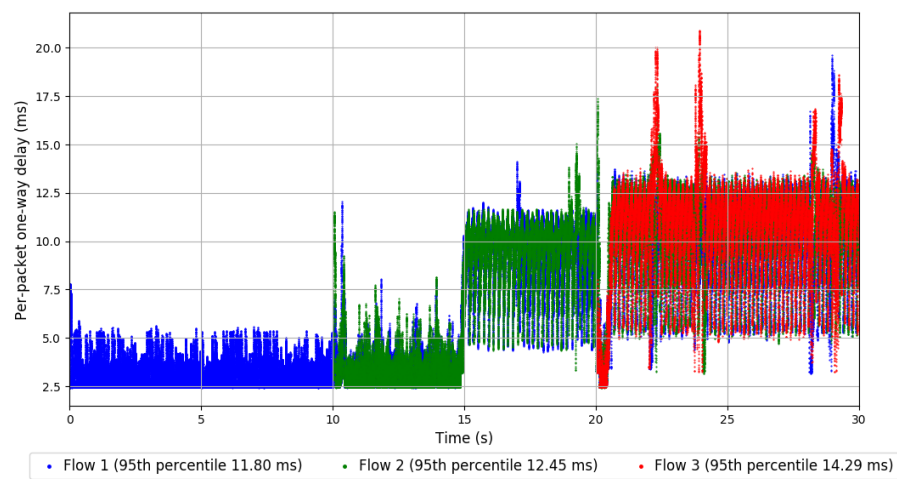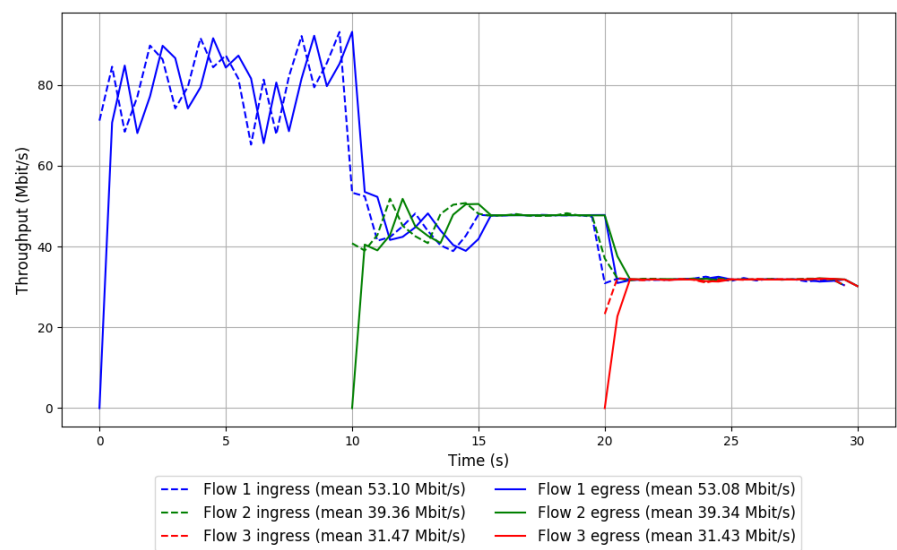
```
Run 1: Statistics of Copa

Start at: 2018-07-04 10:57:24
End at: 2018-07-04 10:57:54
Local clock offset: -2.917 ms
Remote clock offset: -2.902 ms


# Below is generated by plot.py at 2018-07-04 14:08:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.72 Mbit/s
95th percentile per-packet one-way delay: 12.377 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 53.08 Mbit/s
95th percentile per-packet one-way delay: 11.803 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 39.34 Mbit/s
95th percentile per-packet one-way delay: 12.453 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 14.286 ms
Loss rate: 0.17%
```
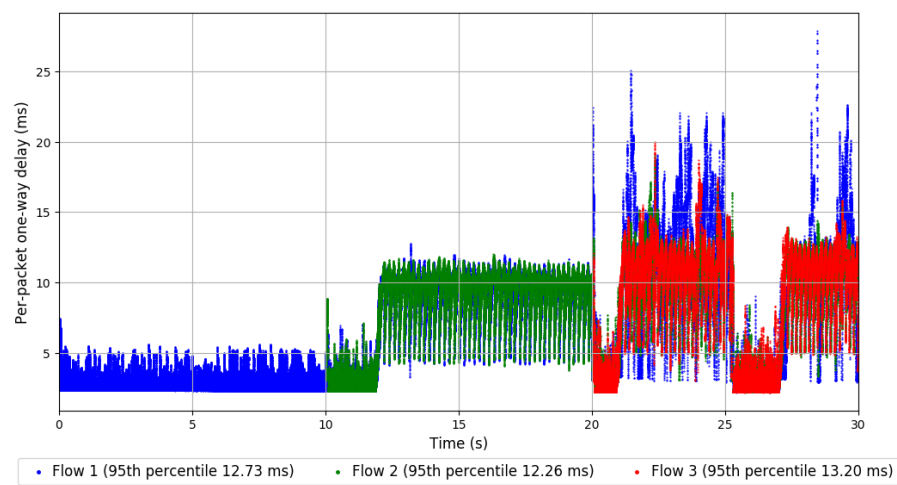
Run 1: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 53.10 Mbit/s)   —— Flow 1 egress (mean 53.08 Mbit/s)
- - - - Flow 2 ingress (mean 39.36 Mbit/s)   —— Flow 2 egress (mean 39.34 Mbit/s)
- - - - Flow 3 ingress (mean 31.47 Mbit/s)   —— Flow 3 egress (mean 31.43 Mbit/s)

- Flow 1 (95th percentile 11.80 ms)   • Flow 2 (95th percentile 12.45 ms)   • Flow 3 (95th percentile 14.29 ms)
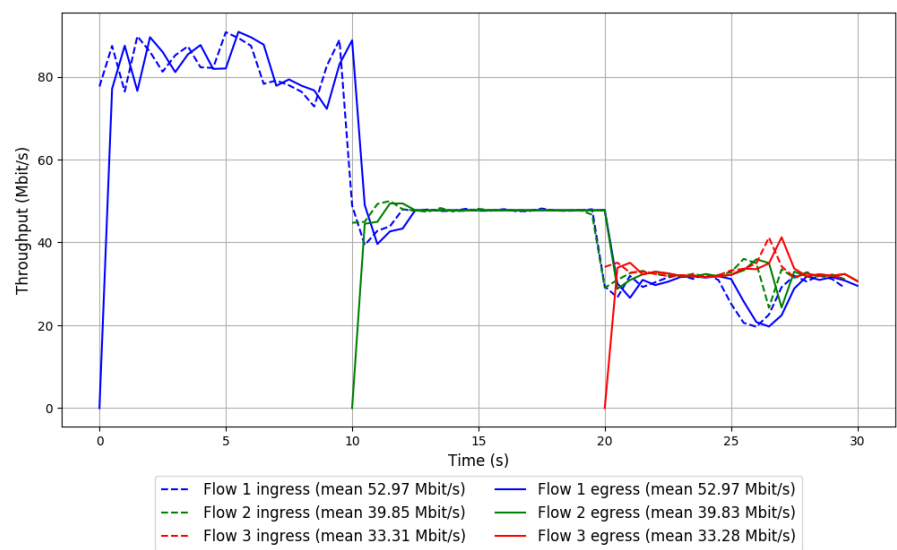
```
Run 2: Statistics of Copa

Start at: 2018-07-04 11:16:34
End at: 2018-07-04 11:17:04
Local clock offset: -2.721 ms
Remote clock offset: -4.999 ms


# Below is generated by plot.py at 2018-07-04 14:08:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.55 Mbit/s
95th percentile per-packet one-way delay: 12.649 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 52.97 Mbit/s
95th percentile per-packet one-way delay: 12.734 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 39.83 Mbit/s
95th percentile per-packet one-way delay: 12.260 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 33.28 Mbit/s
95th percentile per-packet one-way delay: 13.196 ms
Loss rate: 0.14%
```
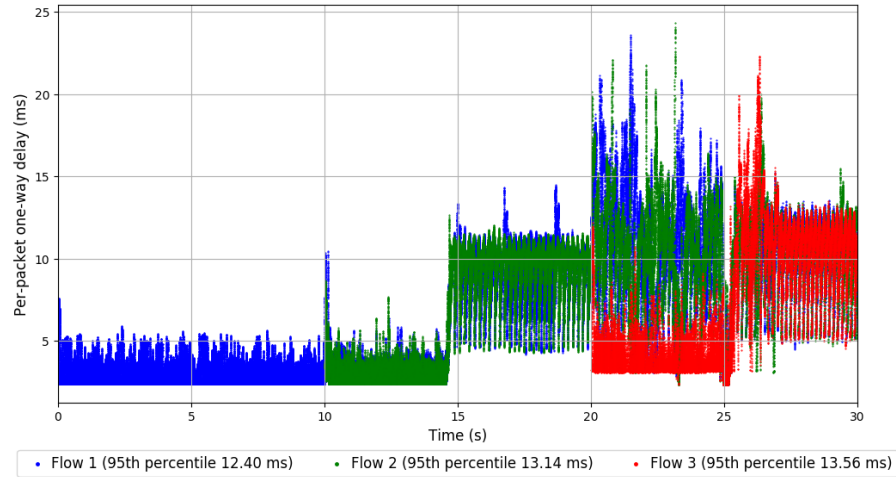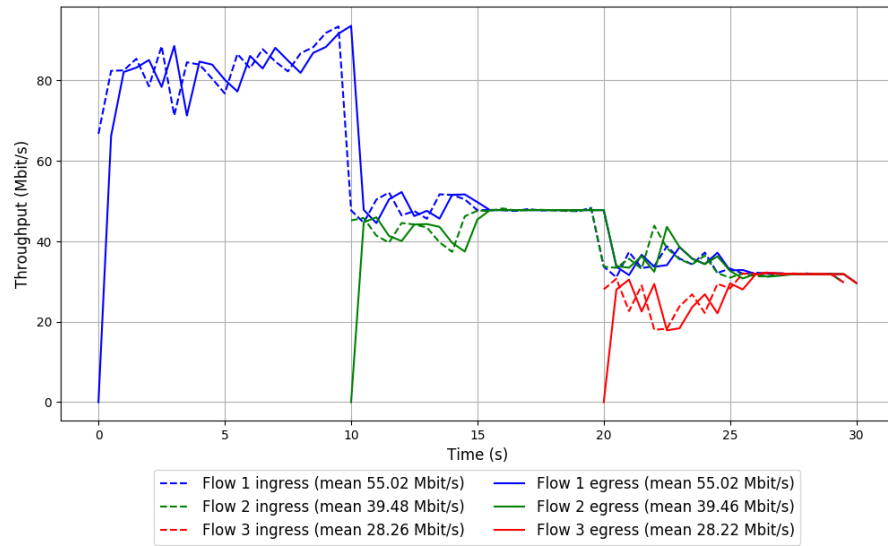
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-07-04 11:35:44
End at: 2018-07-04 11:36:14
Local clock offset: -2.468 ms
Remote clock offset: -7.847 ms


# Below is generated by plot.py at 2018-07-04 14:08:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 12.756 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 55.02 Mbit/s
95th percentile per-packet one-way delay: 12.402 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.46 Mbit/s
95th percentile per-packet one-way delay: 13.139 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 28.22 Mbit/s
95th percentile per-packet one-way delay: 13.560 ms
Loss rate: 0.17%
```
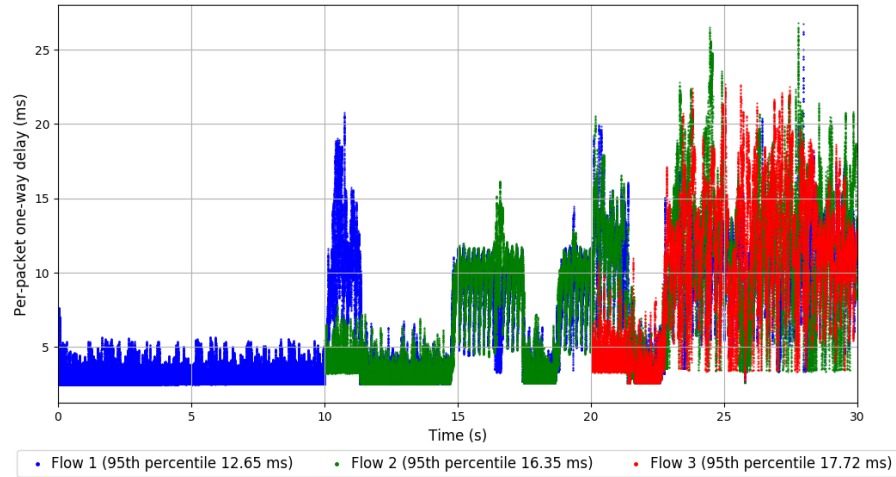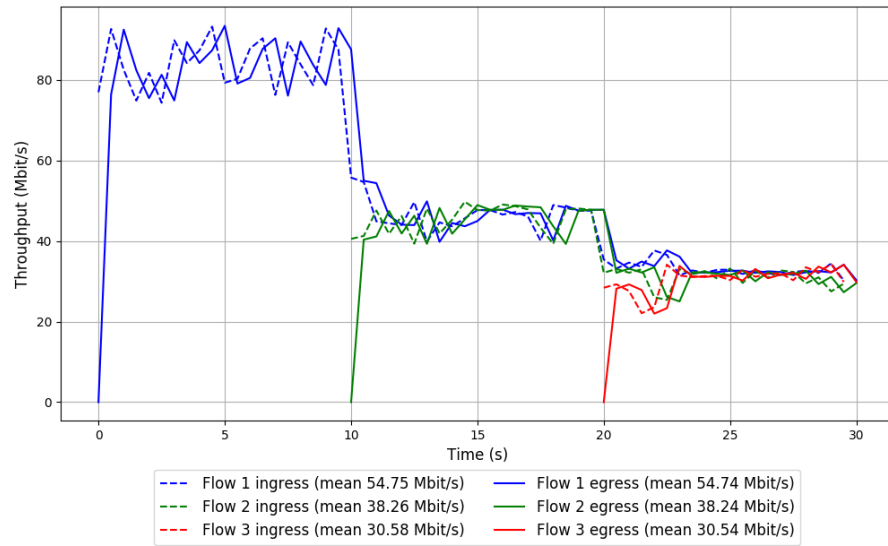
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 55.02 Mbit/s)   Flow 1 egress (mean 55.02 Mbit/s)
Flow 2 ingress (mean 39.48 Mbit/s)   Flow 2 egress (mean 39.46 Mbit/s)
Flow 3 ingress (mean 28.26 Mbit/s)   Flow 3 egress (mean 28.22 Mbit/s)

Flow 1 (95th percentile 12.40 ms)   Flow 2 (95th percentile 13.14 ms)   Flow 3 (95th percentile 13.56 ms)

```
Run 4: Statistics of Copa

Start at: 2018-07-04 11:54:54
End at: 2018-07-04 11:55:24
Local clock offset: -2.199 ms
Remote clock offset: -2.972 ms


# Below is generated by plot.py at 2018-07-04 14:08:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.35 Mbit/s
95th percentile per-packet one-way delay: 14.977 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 54.74 Mbit/s
95th percentile per-packet one-way delay: 12.649 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 38.24 Mbit/s
95th percentile per-packet one-way delay: 16.354 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 30.54 Mbit/s
95th percentile per-packet one-way delay: 17.717 ms
Loss rate: 0.17%
```

Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-07-04 12:14:02
End at: 2018-07-04 12:14:32
Local clock offset: -2.27 ms
Remote clock offset: 0.872 ms


# Below is generated by plot.py at 2018-07-04 14:08:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.85 Mbit/s
95th percentile per-packet one-way delay: 14.657 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 46.41 Mbit/s
95th percentile per-packet one-way delay: 12.707 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.77 Mbit/s
95th percentile per-packet one-way delay: 14.255 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 27.94 Mbit/s
95th percentile per-packet one-way delay: 20.292 ms
Loss rate: 0.07%
```
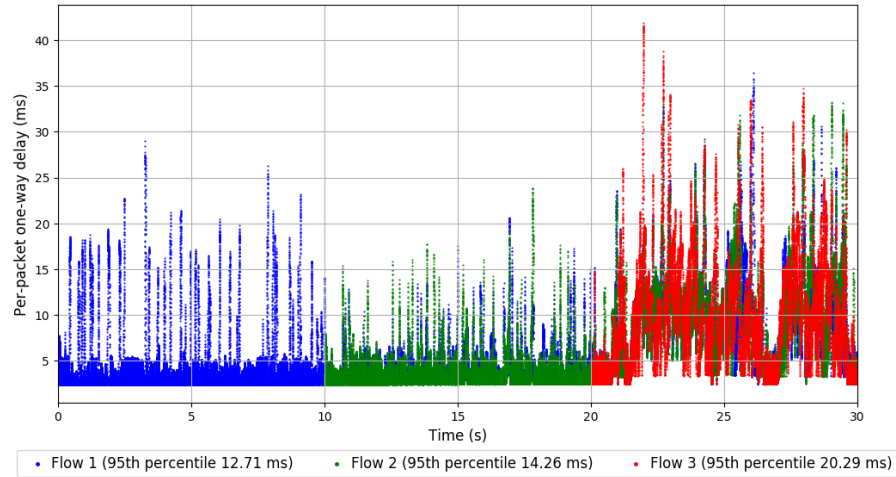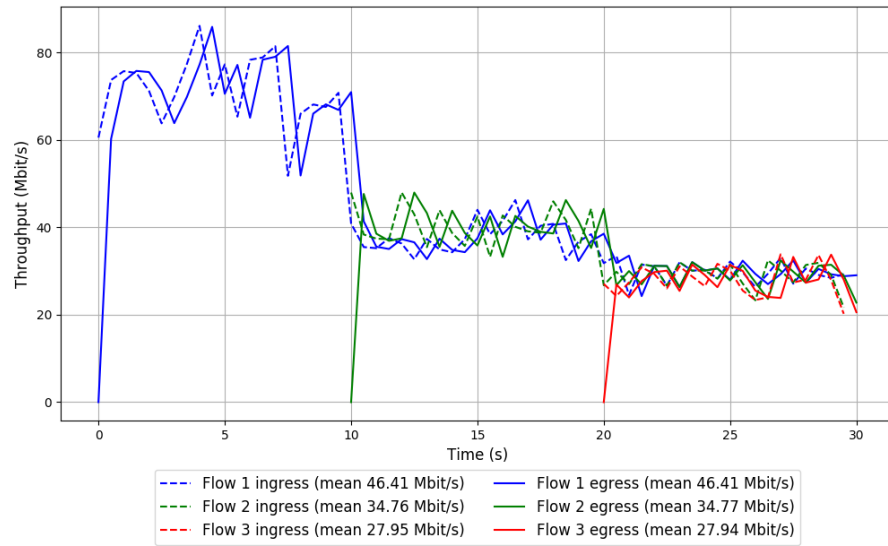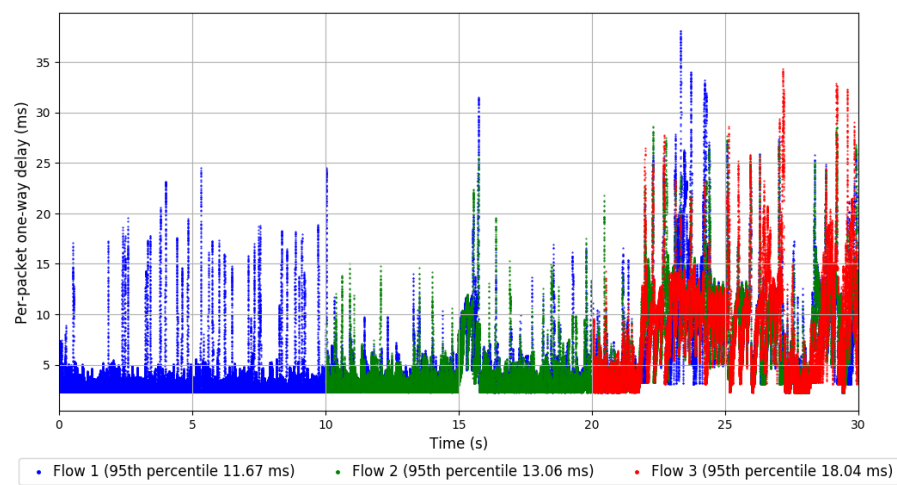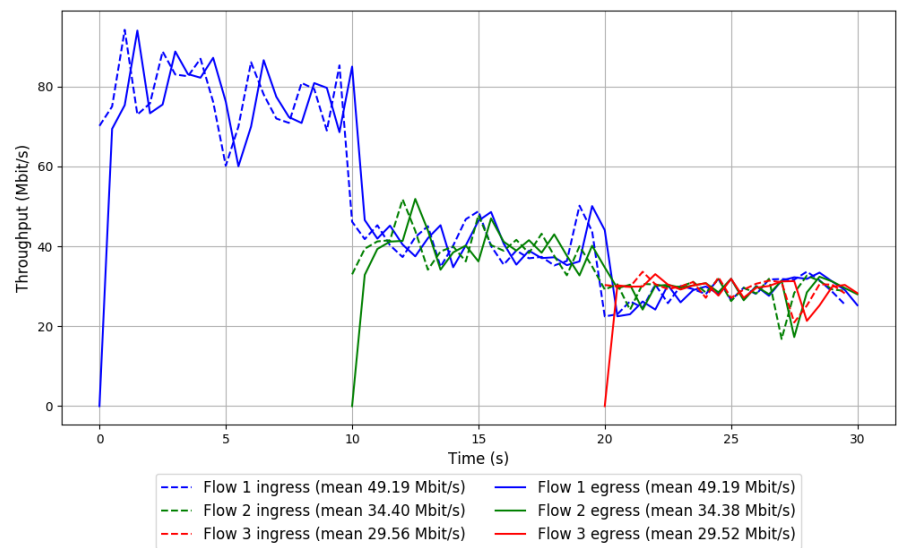
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 46.41 Mbit/s) --- Flow 1 egress (mean 46.41 Mbit/s)
Flow 2 ingress (mean 34.76 Mbit/s) --- Flow 2 egress (mean 34.77 Mbit/s)
Flow 3 ingress (mean 27.95 Mbit/s) --- Flow 3 egress (mean 27.94 Mbit/s)

Flow 1 (95th percentile 12.71 ms)   Flow 2 (95th percentile 14.26 ms)   Flow 3 (95th percentile 20.29 ms)

```
Run 6: Statistics of Copa

Start at: 2018-07-04 12:33:07
End at: 2018-07-04 12:33:37
Local clock offset: -2.604 ms
Remote clock offset: -1.468 ms


# Below is generated by plot.py at 2018-07-04 14:08:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.88 Mbit/s
95th percentile per-packet one-way delay: 13.123 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 49.19 Mbit/s
95th percentile per-packet one-way delay: 11.672 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 13.064 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 18.036 ms
Loss rate: 0.17%
```

Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-07-04 12:52:15
End at: 2018-07-04 12:52:45
Local clock offset: -2.7 ms
Remote clock offset: -1.66 ms


# Below is generated by plot.py at 2018-07-04 14:09:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.09 Mbit/s
95th percentile per-packet one-way delay: 13.685 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 50.34 Mbit/s
95th percentile per-packet one-way delay: 12.318 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 37.20 Mbit/s
95th percentile per-packet one-way delay: 13.346 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 16.835 ms
Loss rate: 0.04%
```
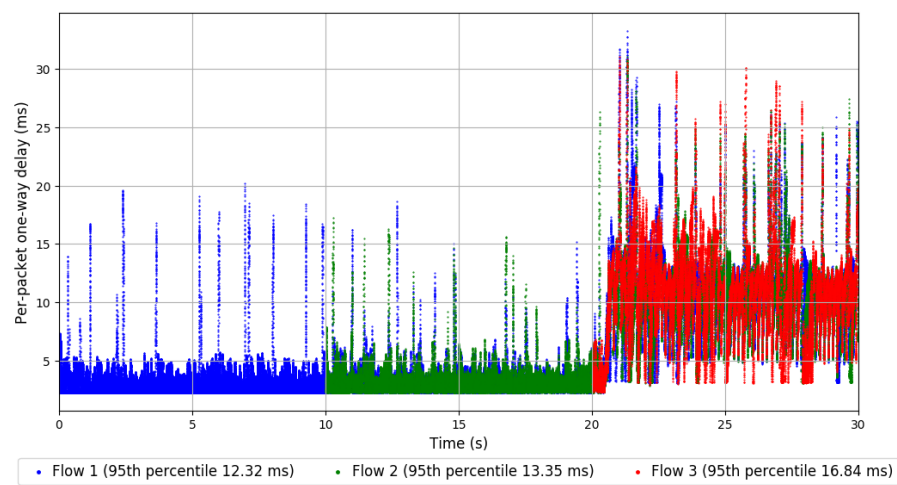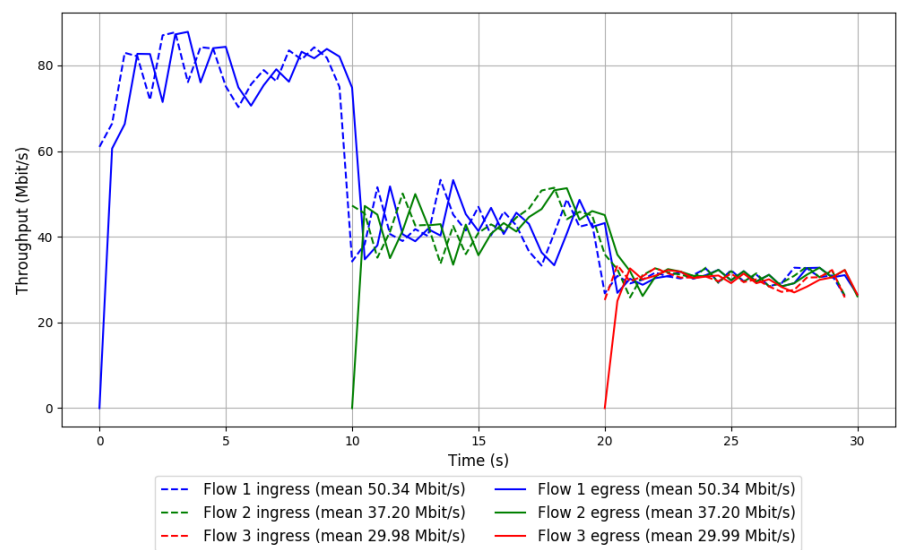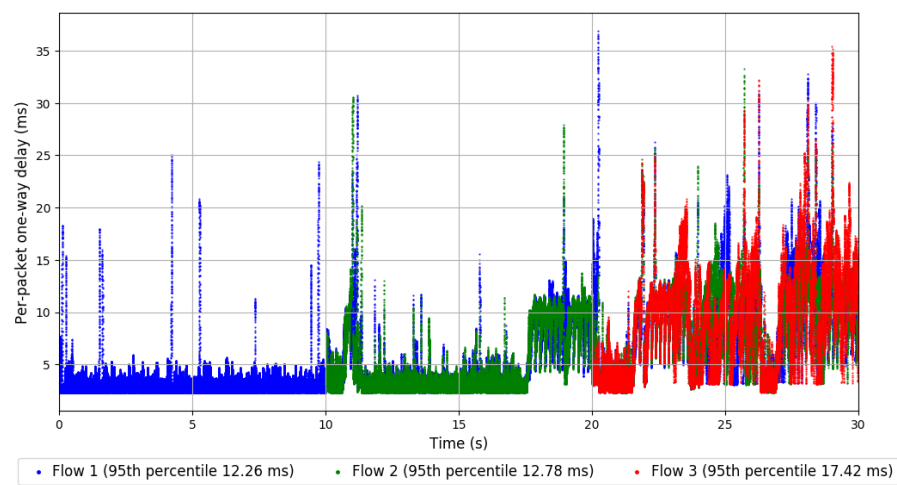
Run 7: Report of Copa — Data Link

Flow 1 ingress (mean 50.34 Mbit/s) --- Flow 1 egress (mean 50.34 Mbit/s)
Flow 2 ingress (mean 37.20 Mbit/s) --- Flow 2 egress (mean 37.20 Mbit/s)
Flow 3 ingress (mean 29.98 Mbit/s) --- Flow 3 egress (mean 29.99 Mbit/s)

Flow 1 (95th percentile 12.32 ms) • Flow 2 (95th percentile 13.35 ms) • Flow 3 (95th percentile 16.84 ms)
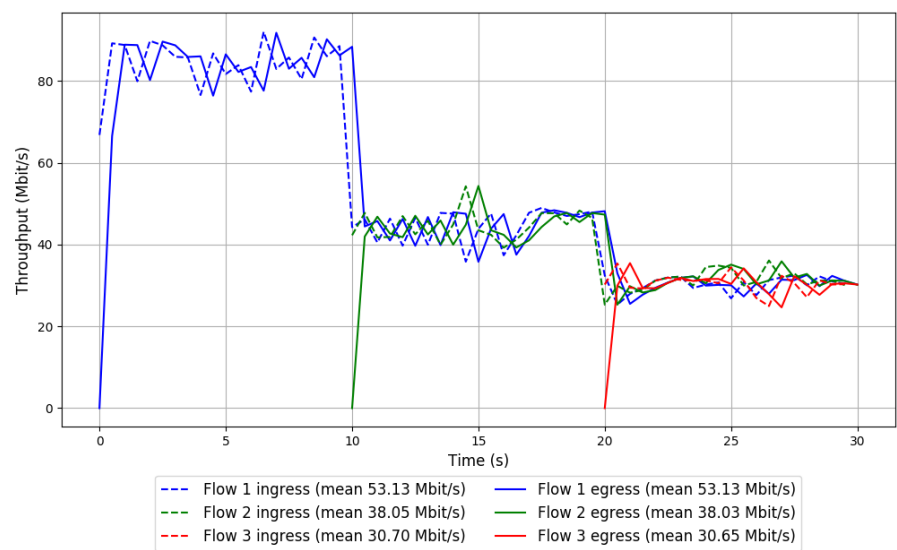
```
Run 8: Statistics of Copa

Start at: 2018-07-04 13:11:23
End at: 2018-07-04 13:11:53
Local clock offset: -2.659 ms
Remote clock offset: -2.389 ms


# Below is generated by plot.py at 2018-07-04 14:09:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.64 Mbit/s
95th percentile per-packet one-way delay: 13.425 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 53.13 Mbit/s
95th percentile per-packet one-way delay: 12.256 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.03 Mbit/s
95th percentile per-packet one-way delay: 12.780 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 30.65 Mbit/s
95th percentile per-packet one-way delay: 17.423 ms
Loss rate: 0.19%
```
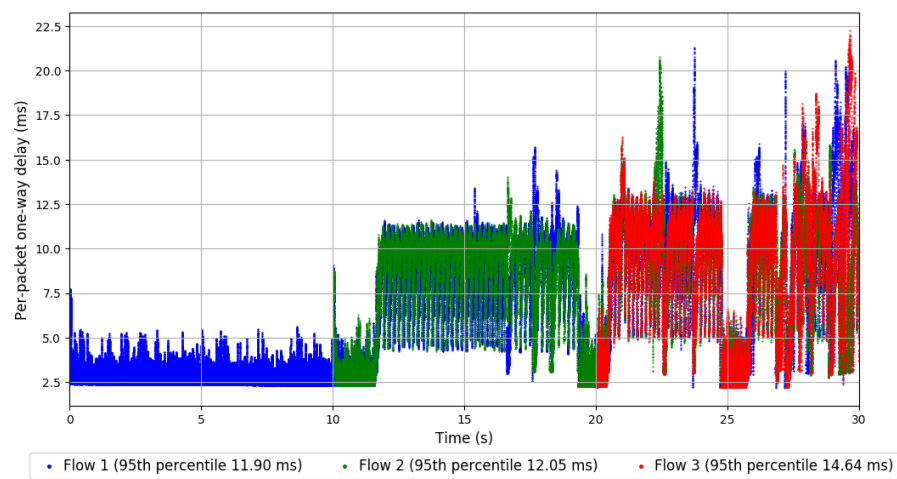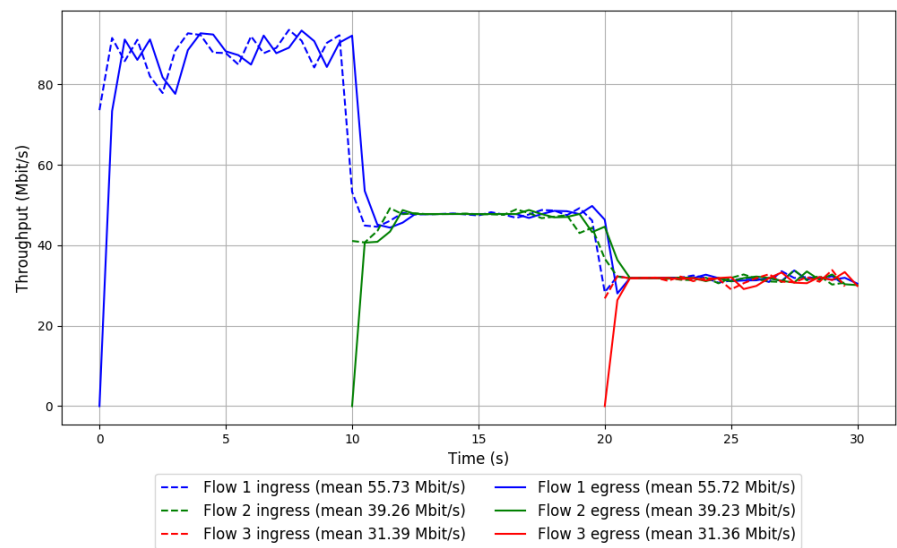
Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2018-07-04 13:30:33
End at: 2018-07-04 13:31:03
Local clock offset: -2.821 ms
Remote clock offset: -3.849 ms


# Below is generated by plot.py at 2018-07-04 14:10:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 12.242 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 55.72 Mbit/s
95th percentile per-packet one-way delay: 11.897 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 39.23 Mbit/s
95th percentile per-packet one-way delay: 12.053 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 14.642 ms
Loss rate: 0.13%
```
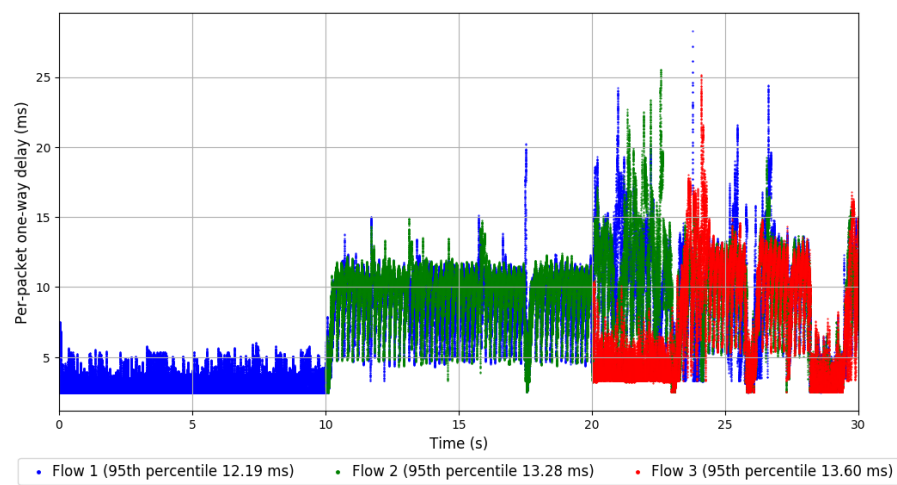
Run 9: Report of Copa — Data Link

Legend:
- Flow 1 ingress (mean 55.73 Mbit/s)
- Flow 1 egress (mean 55.72 Mbit/s)
- Flow 2 ingress (mean 39.26 Mbit/s)
- Flow 2 egress (mean 39.23 Mbit/s)
- Flow 3 ingress (mean 31.39 Mbit/s)
- Flow 3 egress (mean 31.36 Mbit/s)

Legend:
- Flow 1 (95th percentile 11.90 ms)
- Flow 2 (95th percentile 12.05 ms)
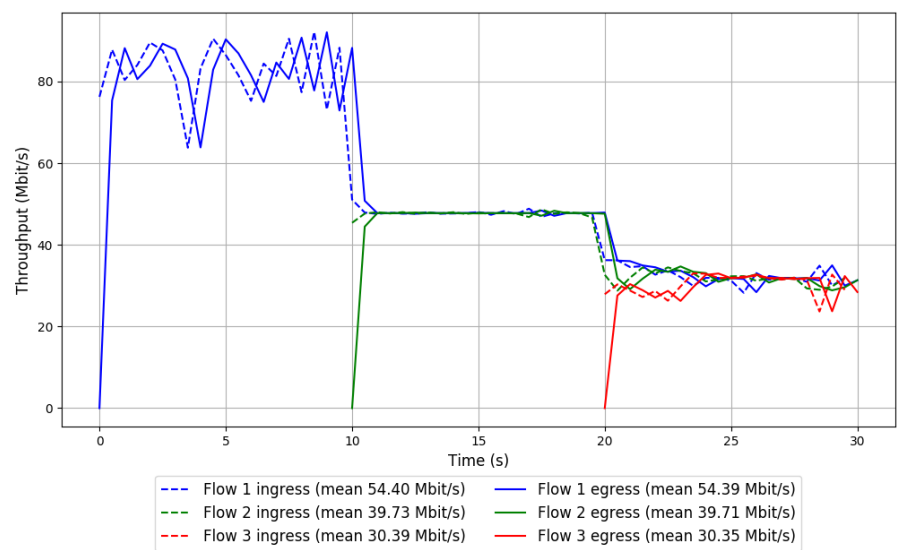- Flow 3 (95th percentile 14.64 ms)

```
Run 10: Statistics of Copa

Start at: 2018-07-04 13:49:45
End at: 2018-07-04 13:50:15
Local clock offset: -5.897 ms
Remote clock offset: -7.845 ms


# Below is generated by plot.py at 2018-07-04 14:10:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 12.807 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 54.39 Mbit/s
95th percentile per-packet one-way delay: 12.193 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 13.278 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 30.35 Mbit/s
95th percentile per-packet one-way delay: 13.599 ms
Loss rate: 0.19%
```
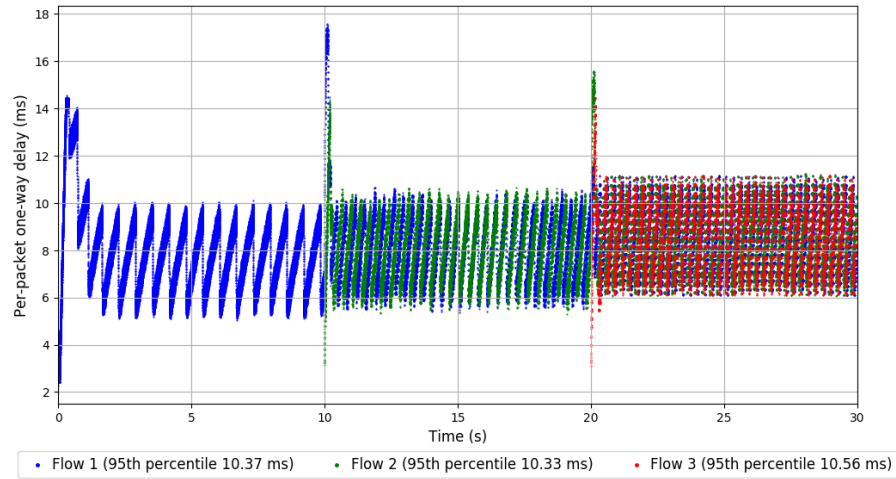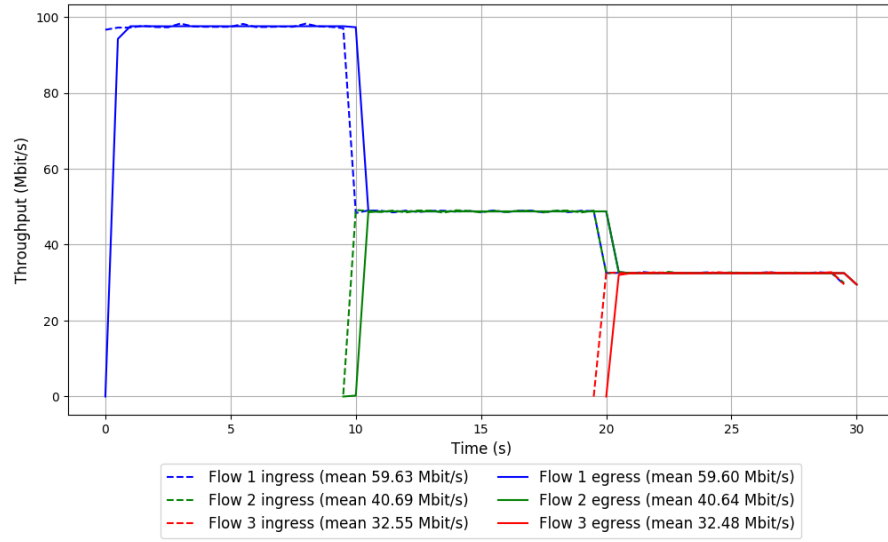
Run 10: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-07-04 11:05:15
End at: 2018-07-04 11:05:45
Local clock offset: -2.947 ms
Remote clock offset: -2.872 ms

# Below is generated by plot.py at 2018-07-04 14:10:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.376 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.60 Mbit/s
95th percentile per-packet one-way delay: 10.373 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.327 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 10.564 ms
Loss rate: 0.24%
```
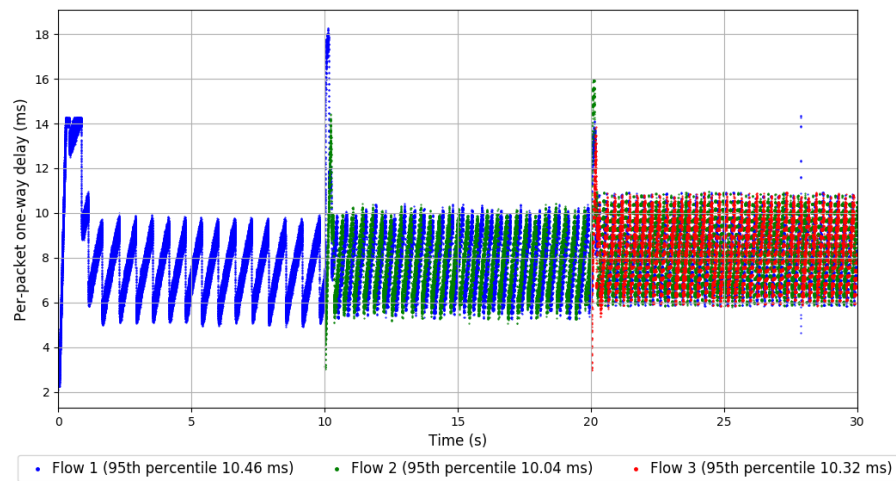
Run 1: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 59.63 Mbit/s) —— Flow 1 egress (mean 59.60 Mbit/s)
- - - Flow 2 ingress (mean 40.69 Mbit/s) —— Flow 2 egress (mean 40.64 Mbit/s)
- - - Flow 3 ingress (mean 32.55 Mbit/s) —— Flow 3 egress (mean 32.48 Mbit/s)

• Flow 1 (95th percentile 10.37 ms)   • Flow 2 (95th percentile 10.33 ms)   • Flow 3 (95th percentile 10.56 ms)
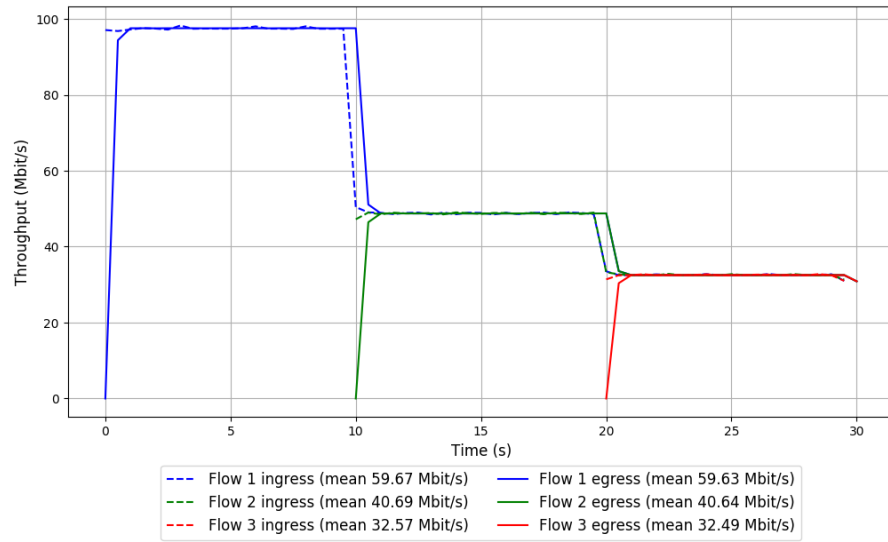
```
Run 2: Statistics of TCP Cubic

Start at: 2018-07-04 11:24:25
End at: 2018-07-04 11:24:55
Local clock offset: -2.632 ms
Remote clock offset: -6.535 ms


# Below is generated by plot.py at 2018-07-04 14:10:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 10.249 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 10.460 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.037 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.322 ms
Loss rate: 0.29%
```
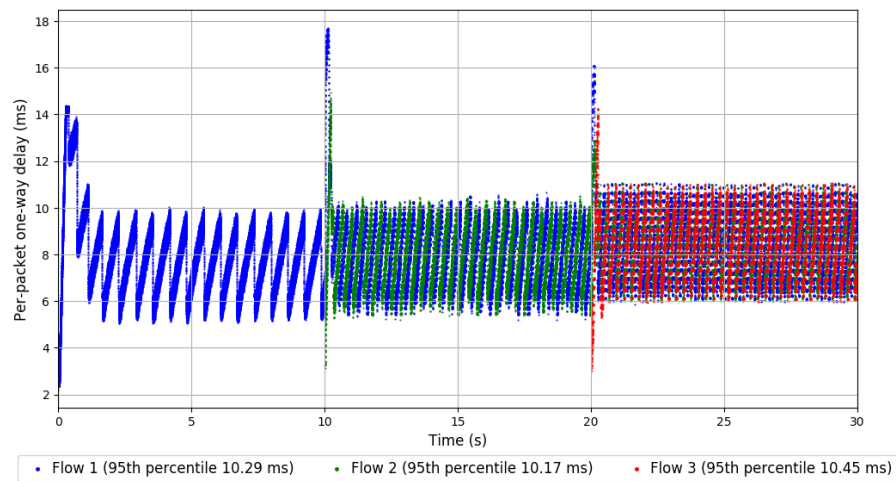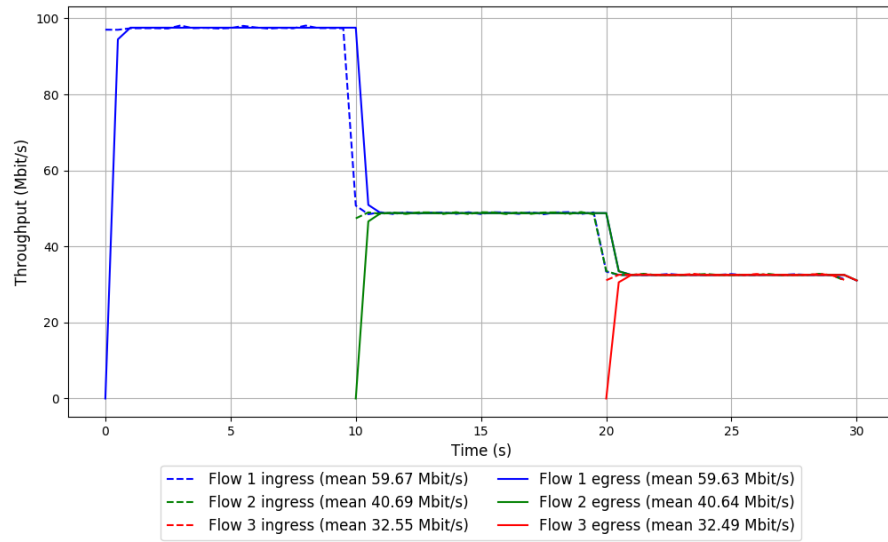
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 59.67 Mbit/s) — Flow 1 egress (mean 59.63 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s) — Flow 2 egress (mean 40.64 Mbit/s)
Flow 3 ingress (mean 32.57 Mbit/s) — Flow 3 egress (mean 32.49 Mbit/s)

Flow 1 (95th percentile 10.46 ms)   Flow 2 (95th percentile 10.04 ms)   Flow 3 (95th percentile 10.32 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-07-04 11:43:35
End at: 2018-07-04 11:44:05
Local clock offset: -2.383 ms
Remote clock offset: -8.355 ms


# Below is generated by plot.py at 2018-07-04 14:10:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 10.267 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 10.289 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.170 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.452 ms
Loss rate: 0.24%
```
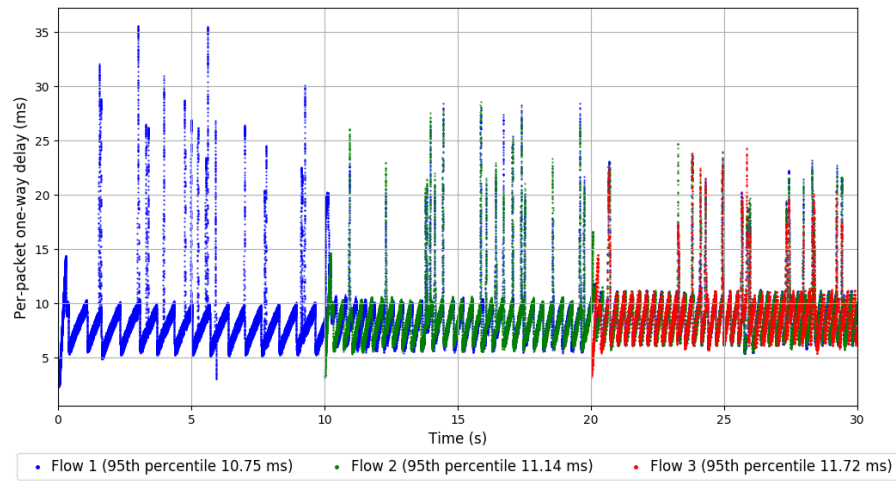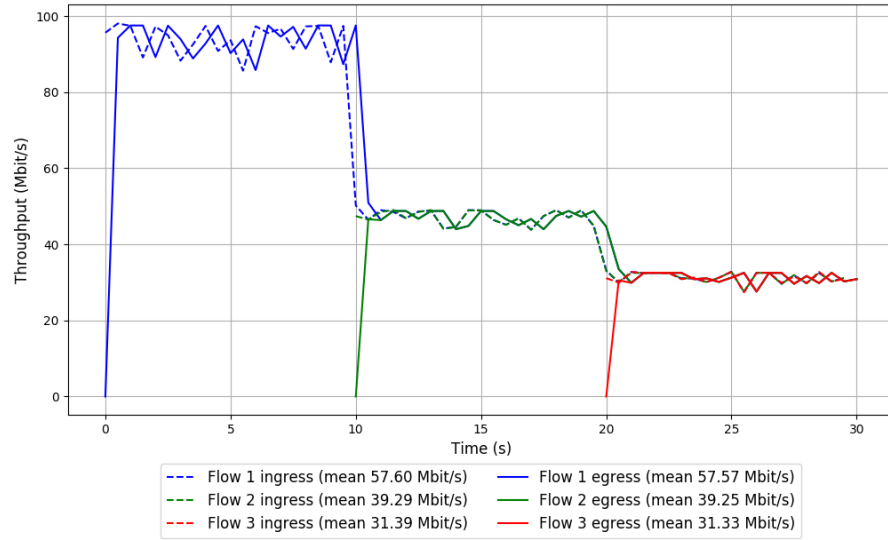
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 59.67 Mbit/s) --- Flow 1 egress (mean 59.63 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s) --- Flow 2 egress (mean 40.64 Mbit/s)
Flow 3 ingress (mean 32.55 Mbit/s) --- Flow 3 egress (mean 32.49 Mbit/s)

Flow 1 (95th percentile 10.29 ms)   Flow 2 (95th percentile 10.17 ms)   Flow 3 (95th percentile 10.45 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-07-04 12:02:44
End at: 2018-07-04 12:03:14
Local clock offset: -2.147 ms
Remote clock offset: -0.831 ms


# Below is generated by plot.py at 2018-07-04 14:10:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.11 Mbit/s
95th percentile per-packet one-way delay: 11.000 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 57.57 Mbit/s
95th percentile per-packet one-way delay: 10.753 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 39.25 Mbit/s
95th percentile per-packet one-way delay: 11.138 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 31.33 Mbit/s
95th percentile per-packet one-way delay: 11.721 ms
Loss rate: 0.23%
```
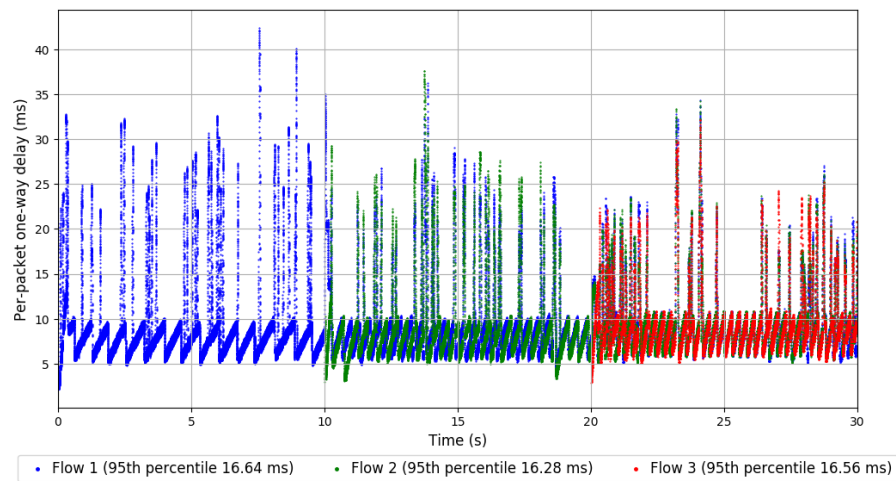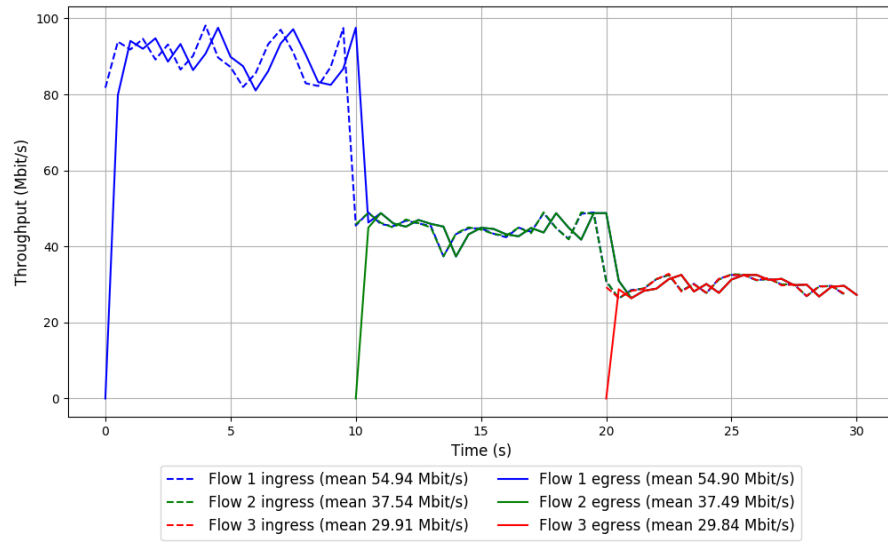
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 57.60 Mbit/s) --- Flow 1 egress (mean 57.57 Mbit/s)
Flow 2 ingress (mean 39.29 Mbit/s) --- Flow 2 egress (mean 39.25 Mbit/s)
Flow 3 ingress (mean 31.39 Mbit/s) --- Flow 3 egress (mean 31.33 Mbit/s)

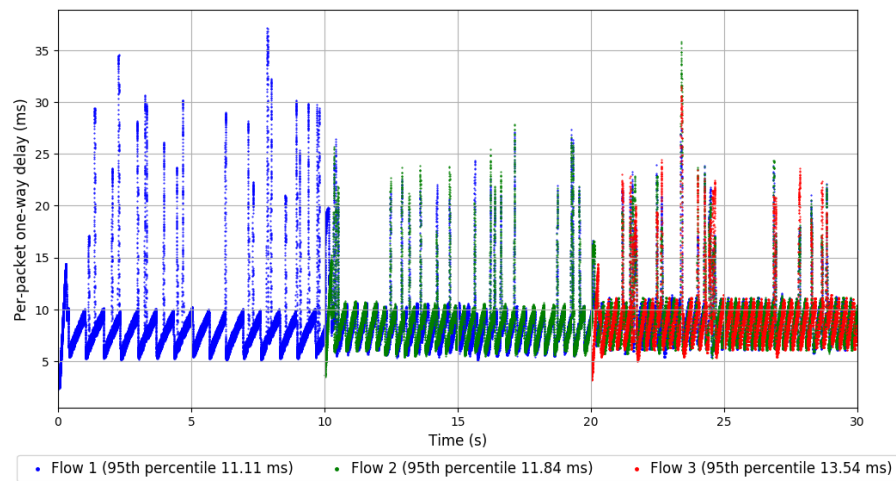Flow 1 (95th percentile 10.75 ms)   Flow 2 (95th percentile 11.14 ms)   Flow 3 (95th percentile 11.72 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-07-04 12:21:51
End at: 2018-07-04 12:22:21
Local clock offset: -2.491 ms
Remote clock offset: 0.587 ms


# Below is generated by plot.py at 2018-07-04 14:10:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.79 Mbit/s
95th percentile per-packet one-way delay: 16.532 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 54.90 Mbit/s
95th percentile per-packet one-way delay: 16.643 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 37.49 Mbit/s
95th percentile per-packet one-way delay: 16.278 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 29.84 Mbit/s
95th percentile per-packet one-way delay: 16.557 ms
Loss rate: 0.27%
```
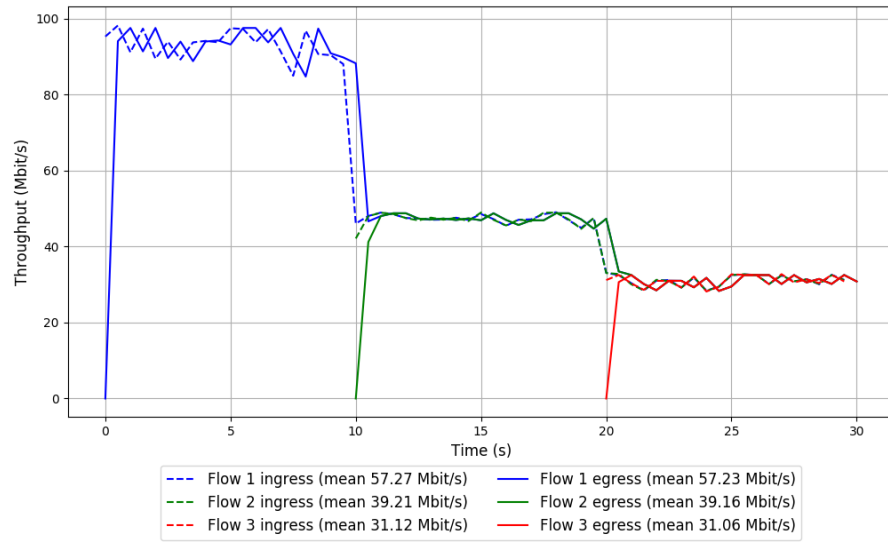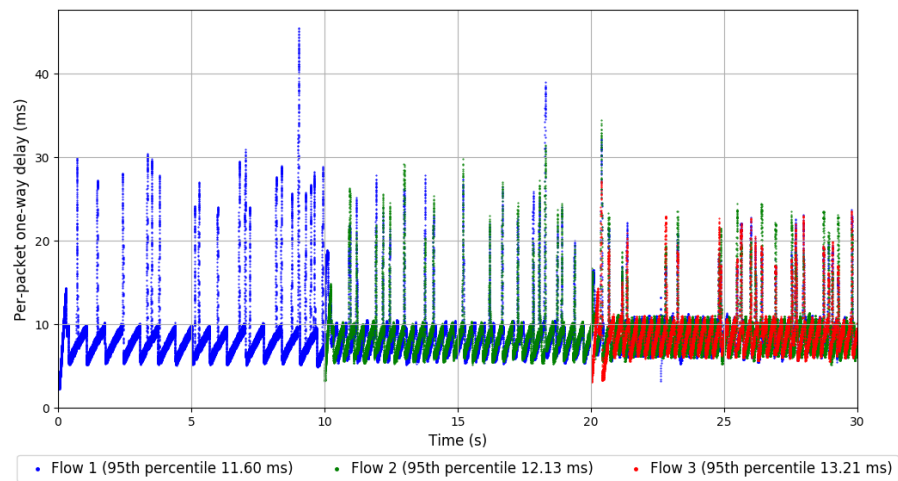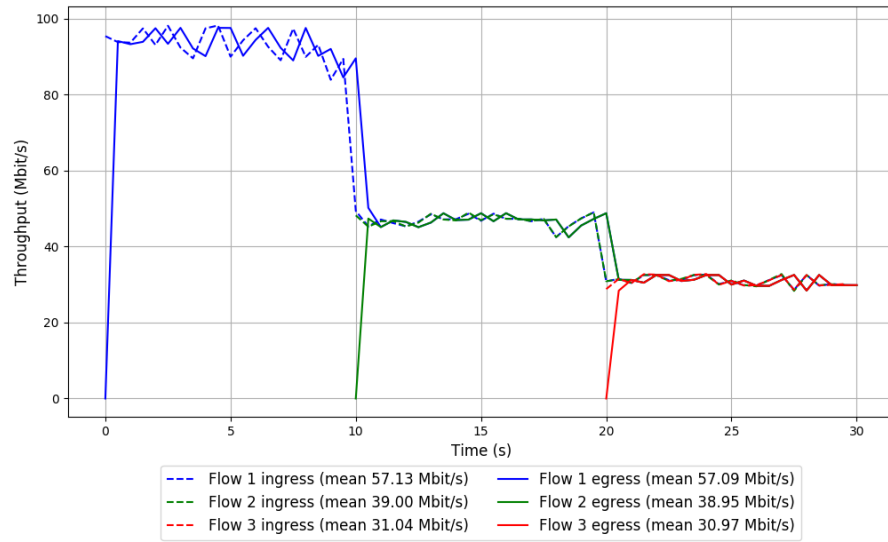
Run 5: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 54.94 Mbit/s) —— Flow 1 egress (mean 54.90 Mbit/s)
- - - Flow 2 ingress (mean 37.54 Mbit/s) —— Flow 2 egress (mean 37.49 Mbit/s)
- - - Flow 3 ingress (mean 29.91 Mbit/s) —— Flow 3 egress (mean 29.84 Mbit/s)

- Flow 1 (95th percentile 16.64 ms)   • Flow 2 (95th percentile 16.28 ms)   • Flow 3 (95th percentile 16.56 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-07-04 12:40:57
End at: 2018-07-04 12:41:27
Local clock offset: -2.635 ms
Remote clock offset: -1.817 ms


# Below is generated by plot.py at 2018-07-04 14:10:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 11.670 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 11.110 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 39.16 Mbit/s
95th percentile per-packet one-way delay: 11.842 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 13.540 ms
Loss rate: 0.24%
```
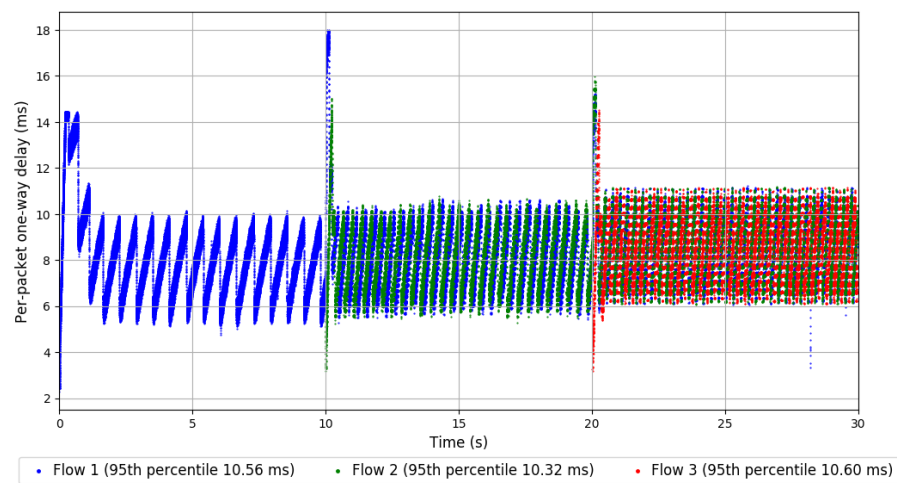
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-07-04 13:00:05
End at: 2018-07-04 13:00:35
Local clock offset: -2.692 ms
Remote clock offset: -2.198 ms


# Below is generated by plot.py at 2018-07-04 14:10:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.33 Mbit/s
95th percentile per-packet one-way delay: 11.959 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 57.09 Mbit/s
95th percentile per-packet one-way delay: 11.597 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 38.95 Mbit/s
95th percentile per-packet one-way delay: 12.135 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 30.97 Mbit/s
95th percentile per-packet one-way delay: 13.213 ms
Loss rate: 0.25%
```
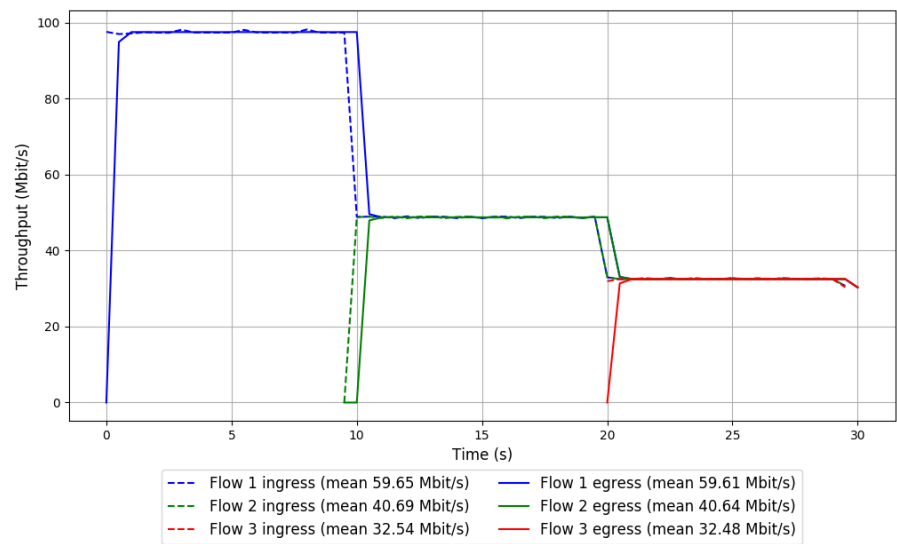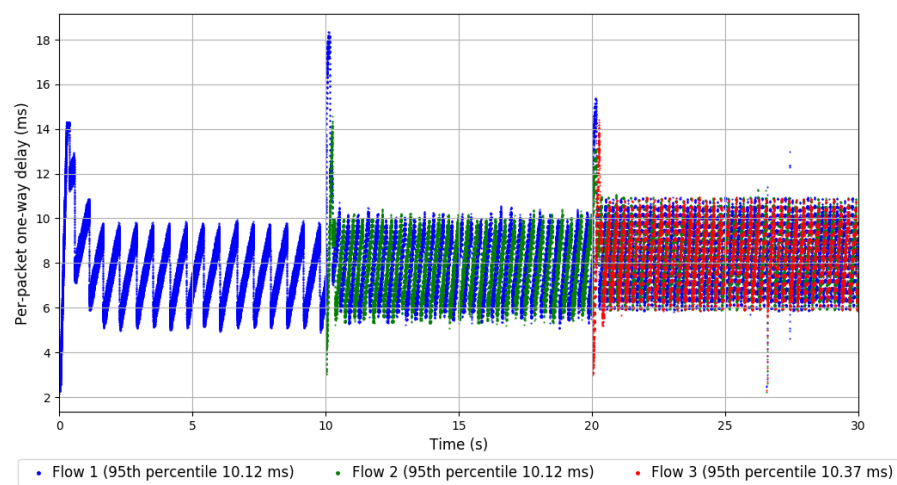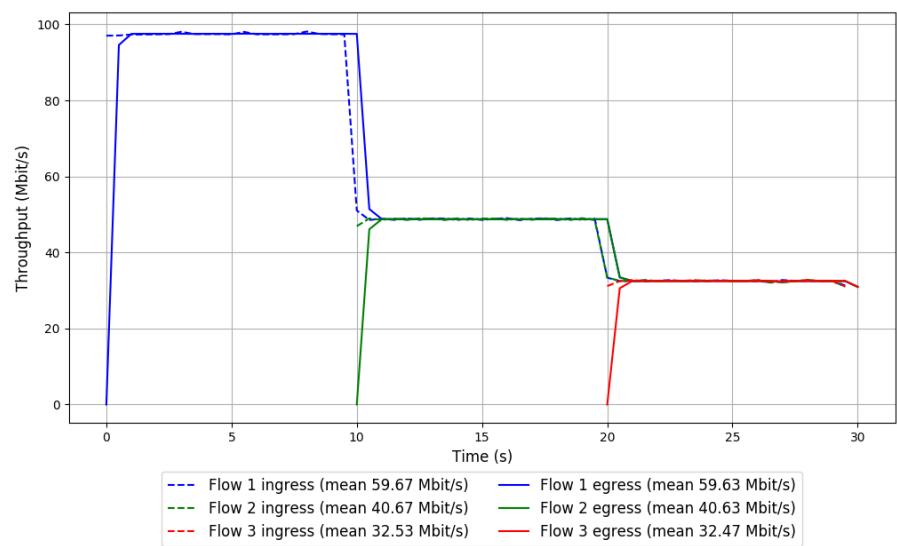
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 57.13 Mbit/s) --- Flow 1 egress (mean 57.09 Mbit/s)
Flow 2 ingress (mean 39.00 Mbit/s) --- Flow 2 egress (mean 38.95 Mbit/s)
Flow 3 ingress (mean 31.04 Mbit/s) --- Flow 3 egress (mean 30.97 Mbit/s)

Flow 1 (95th percentile 11.60 ms) • Flow 2 (95th percentile 12.13 ms) • Flow 3 (95th percentile 13.21 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2018-07-04 13:19:14
End at: 2018-07-04 13:19:44
Local clock offset: -2.749 ms
Remote clock offset: -2.401 ms


# Below is generated by plot.py at 2018-07-04 14:10:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 10.405 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 10.565 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.316 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 10.598 ms
Loss rate: 0.23%
```
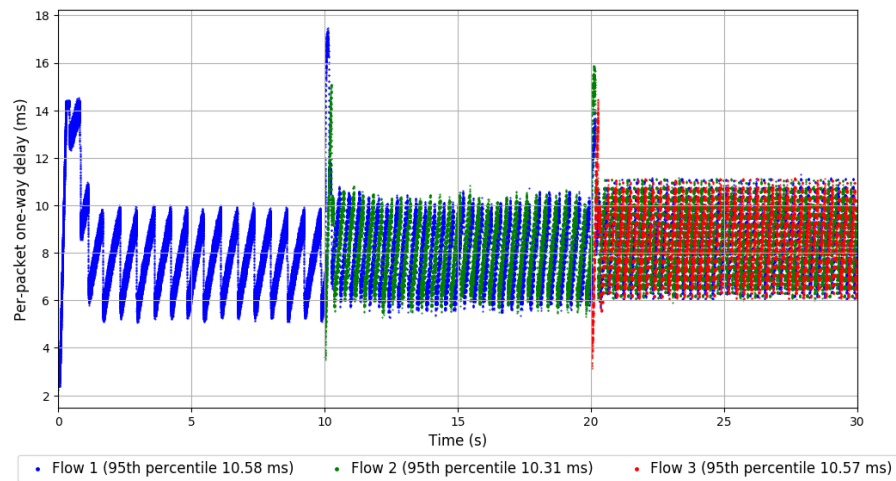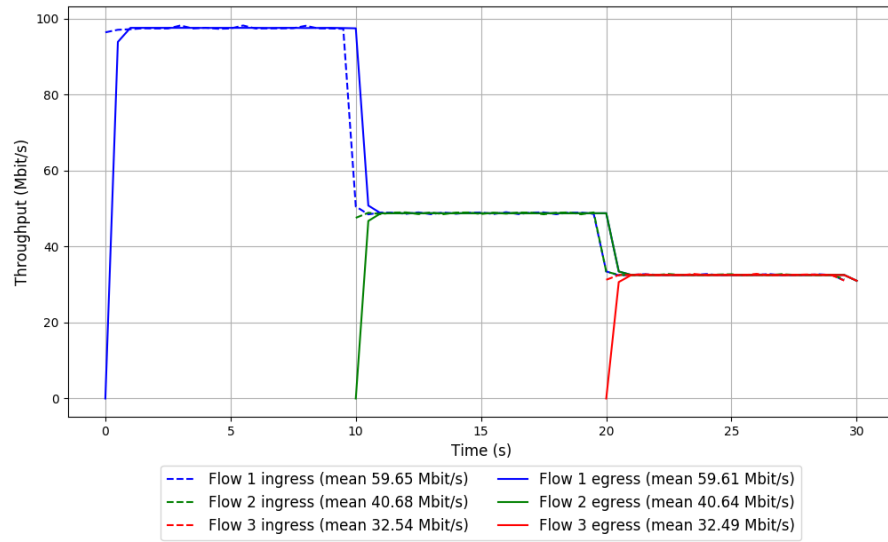
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 59.65 Mbit/s)   Flow 1 egress (mean 59.61 Mbit/s)
Flow 2 ingress (mean 40.69 Mbit/s)   Flow 2 egress (mean 40.64 Mbit/s)
Flow 3 ingress (mean 32.54 Mbit/s)   Flow 3 egress (mean 32.48 Mbit/s)

Flow 1 (95th percentile 10.56 ms)   Flow 2 (95th percentile 10.32 ms)   Flow 3 (95th percentile 10.60 ms)

59

```
Run 9: Statistics of TCP Cubic

Start at: 2018-07-04 13:38:25
End at: 2018-07-04 13:38:55
Local clock offset: -2.855 ms
Remote clock offset: -6.136 ms


# Below is generated by plot.py at 2018-07-04 14:10:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 10.148 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 10.123 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 40.63 Mbit/s
95th percentile per-packet one-way delay: 10.123 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 32.47 Mbit/s
95th percentile per-packet one-way delay: 10.373 ms
Loss rate: 0.22%
```
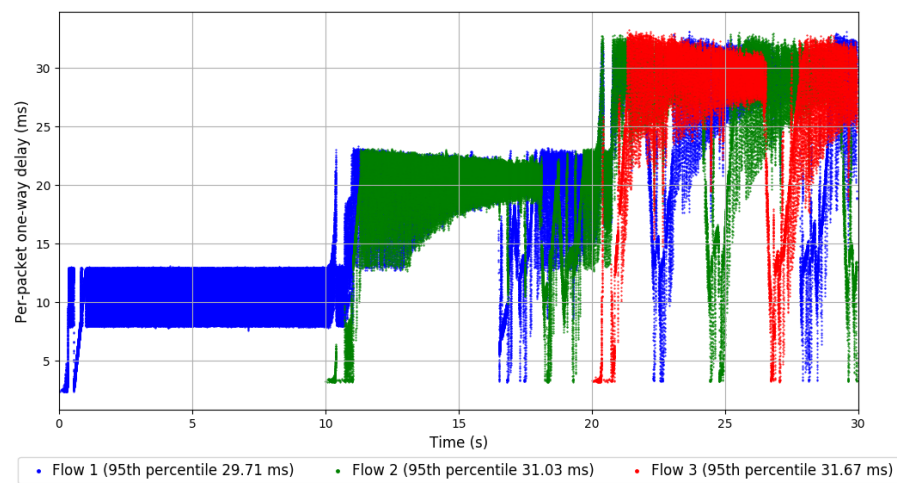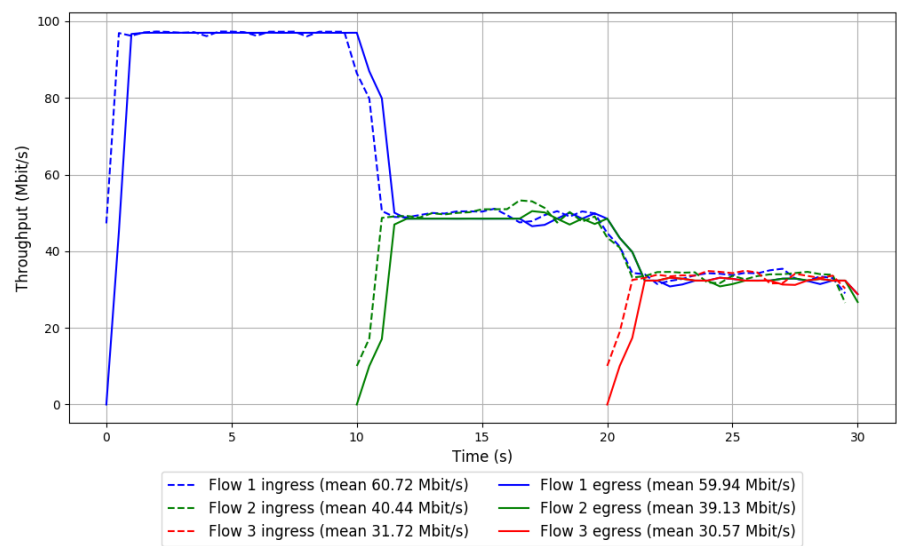
Run 9: Report of TCP Cubic — Data Link

- - - - Flow 1 ingress (mean 59.67 Mbit/s) ——— Flow 1 egress (mean 59.63 Mbit/s)
- - - - Flow 2 ingress (mean 40.67 Mbit/s) ——— Flow 2 egress (mean 40.63 Mbit/s)
- - - - Flow 3 ingress (mean 32.53 Mbit/s) ——— Flow 3 egress (mean 32.47 Mbit/s)

- Flow 1 (95th percentile 10.12 ms)   • Flow 2 (95th percentile 10.12 ms)   • Flow 3 (95th percentile 10.37 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-07-04 13:57:35
End at: 2018-07-04 13:58:05
Local clock offset: -7.013 ms
Remote clock offset: -8.362 ms


# Below is generated by plot.py at 2018-07-04 14:10:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 10.402 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 59.61 Mbit/s
95th percentile per-packet one-way delay: 10.576 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 10.313 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 32.49 Mbit/s
95th percentile per-packet one-way delay: 10.574 ms
Loss rate: 0.22%
```
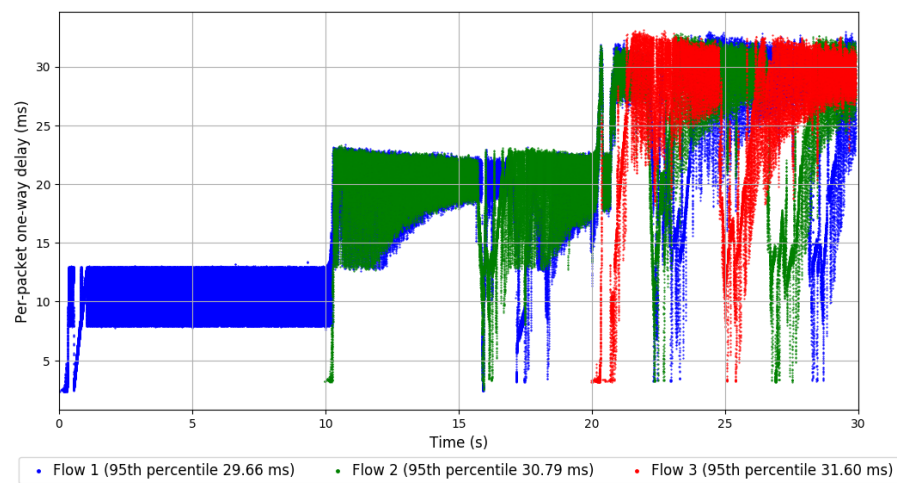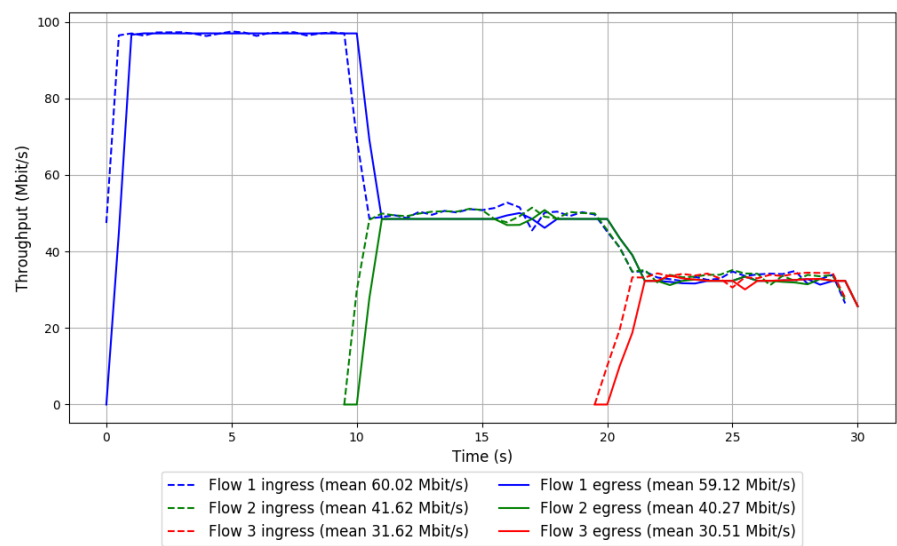
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 59.65 Mbit/s) — — — Flow 1 egress (mean 59.61 Mbit/s)
Flow 2 ingress (mean 40.68 Mbit/s) — — — Flow 2 egress (mean 40.64 Mbit/s)
Flow 3 ingress (mean 32.54 Mbit/s) — — — Flow 3 egress (mean 32.49 Mbit/s)

Flow 1 (95th percentile 10.58 ms) • Flow 2 (95th percentile 10.31 ms) • Flow 3 (95th percentile 10.57 ms)

```
Run 1: Statistics of FillP

Start at: 2018-07-04 10:50:34
End at: 2018-07-04 10:51:04
Local clock offset: -2.839 ms
Remote clock offset: -2.729 ms

# Below is generated by plot.py at 2018-07-04 14:11:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 30.767 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 59.94 Mbit/s
95th percentile per-packet one-way delay: 29.711 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 39.13 Mbit/s
95th percentile per-packet one-way delay: 31.026 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 31.669 ms
Loss rate: 3.72%
```
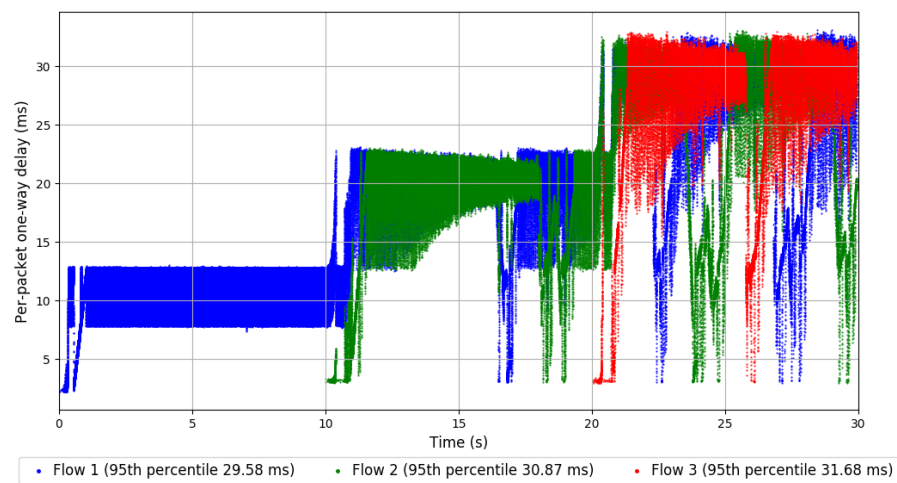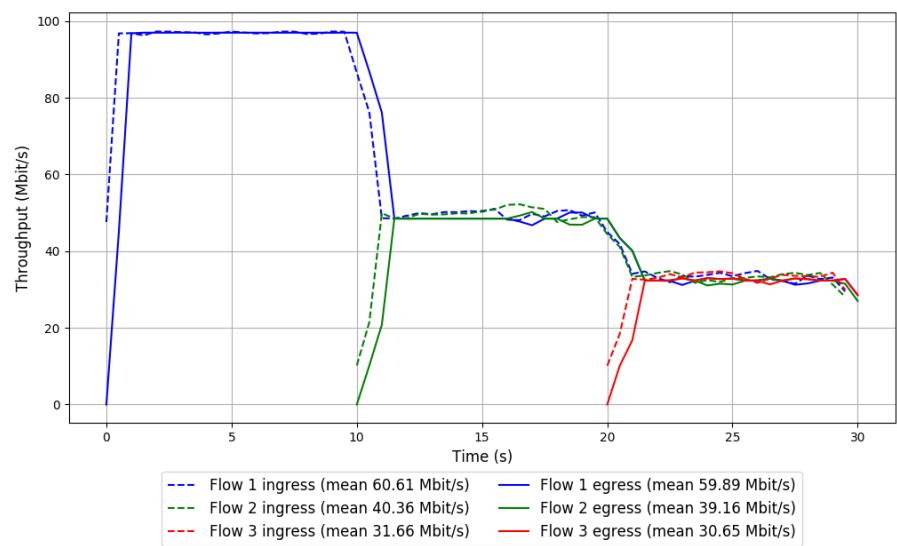
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-07-04 11:09:44
End at: 2018-07-04 11:10:14
Local clock offset: -2.955 ms
Remote clock offset: -2.926 ms


# Below is generated by plot.py at 2018-07-04 14:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.09 Mbit/s
95th percentile per-packet one-way delay: 30.659 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 59.12 Mbit/s
95th percentile per-packet one-way delay: 29.665 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 30.793 ms
Loss rate: 3.33%
-- Flow 3:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 31.598 ms
Loss rate: 3.68%
```
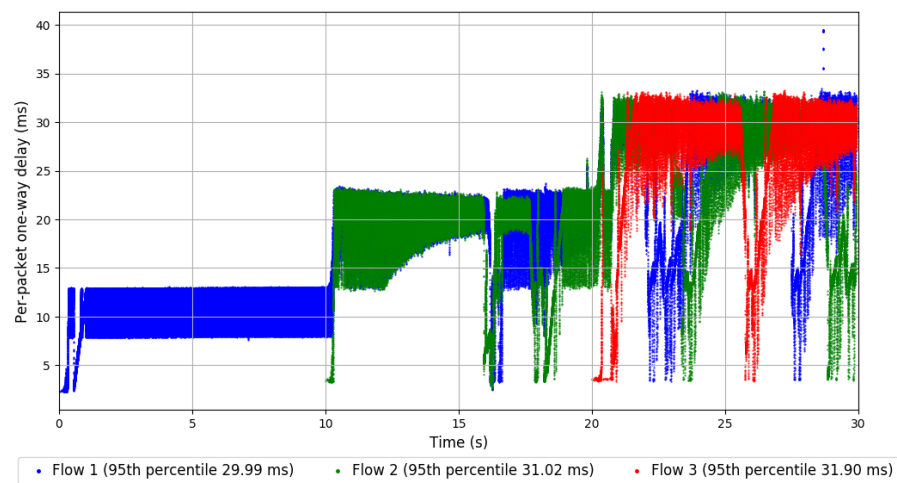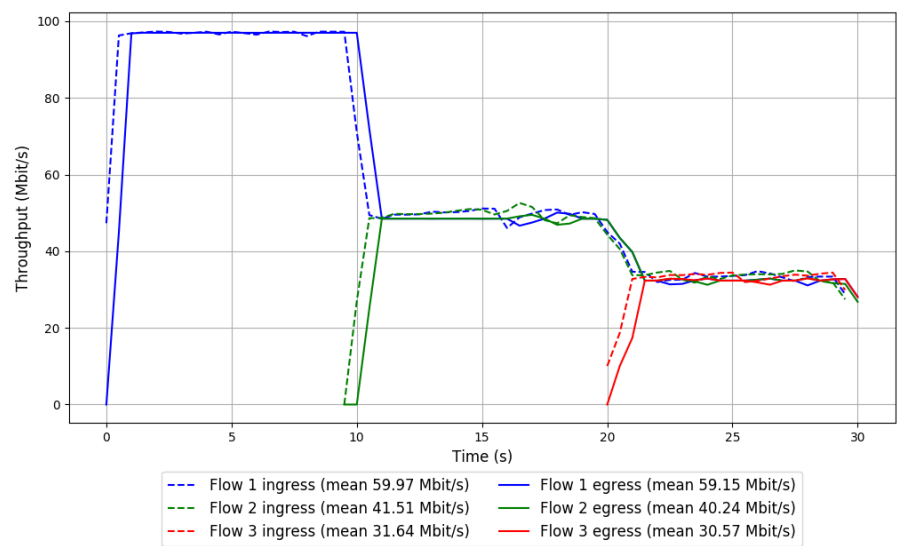
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 60.02 Mbit/s)   Flow 1 egress (mean 59.12 Mbit/s)
Flow 2 ingress (mean 41.62 Mbit/s)   Flow 2 egress (mean 40.27 Mbit/s)
Flow 3 ingress (mean 31.62 Mbit/s)   Flow 3 egress (mean 30.51 Mbit/s)

Flow 1 (95th percentile 29.66 ms)   Flow 2 (95th percentile 30.79 ms)   Flow 3 (95th percentile 31.60 ms)

```
Run 3: Statistics of FillP

Start at: 2018-07-04 11:28:54
End at: 2018-07-04 11:29:24
Local clock offset: -2.522 ms
Remote clock offset: -7.156 ms

# Below is generated by plot.py at 2018-07-04 14:11:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.10 Mbit/s
95th percentile per-packet one-way delay: 30.711 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 59.89 Mbit/s
95th percentile per-packet one-way delay: 29.580 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 39.16 Mbit/s
95th percentile per-packet one-way delay: 30.871 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 30.65 Mbit/s
95th percentile per-packet one-way delay: 31.685 ms
Loss rate: 3.26%
```
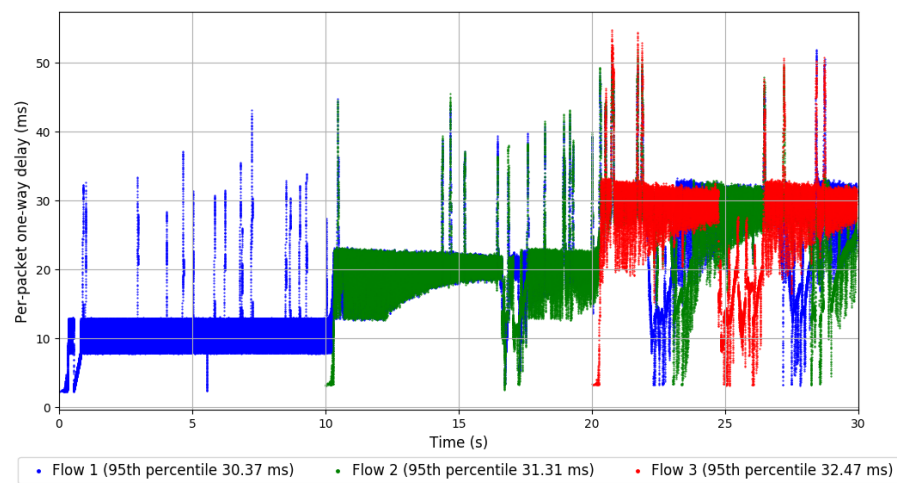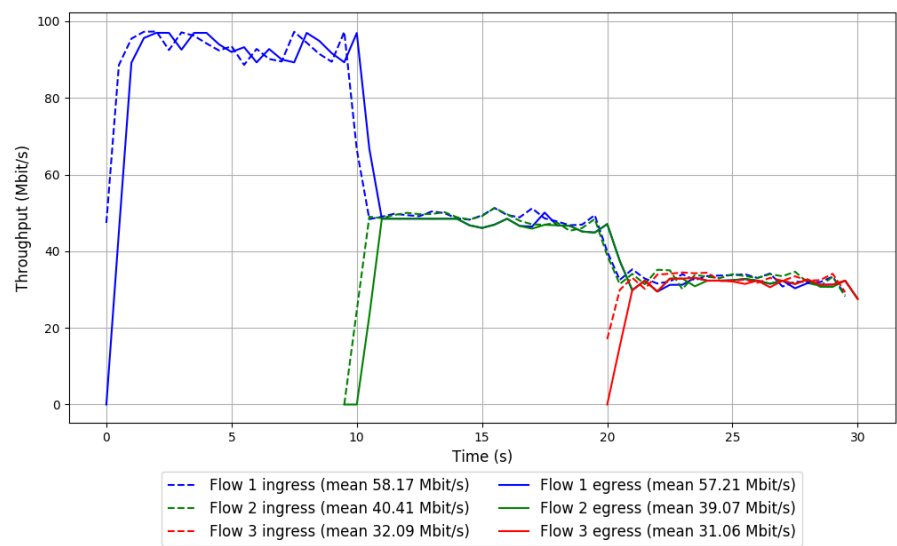
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-07-04 11:48:04
End at: 2018-07-04 11:48:34
Local clock offset: -2.357 ms
Remote clock offset: -6.316 ms


# Below is generated by plot.py at 2018-07-04 14:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.08 Mbit/s
95th percentile per-packet one-way delay: 30.969 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 59.15 Mbit/s
95th percentile per-packet one-way delay: 29.990 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 31.017 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 31.900 ms
Loss rate: 3.54%
```
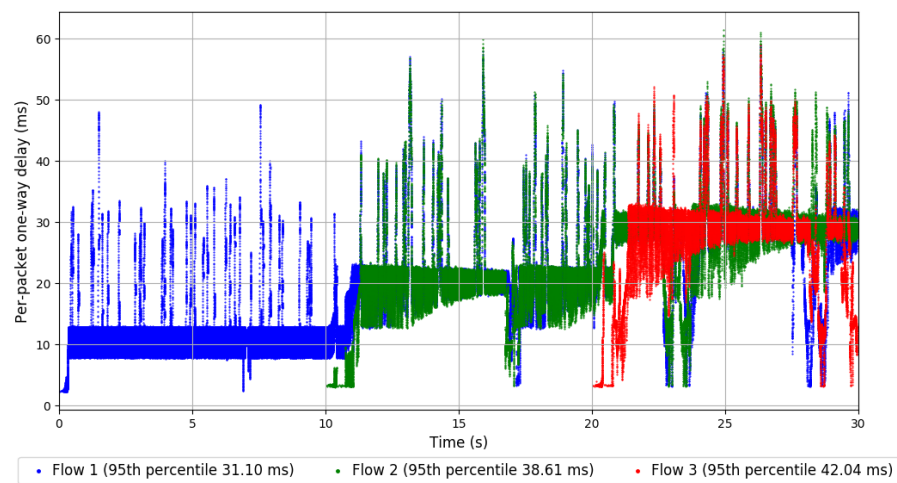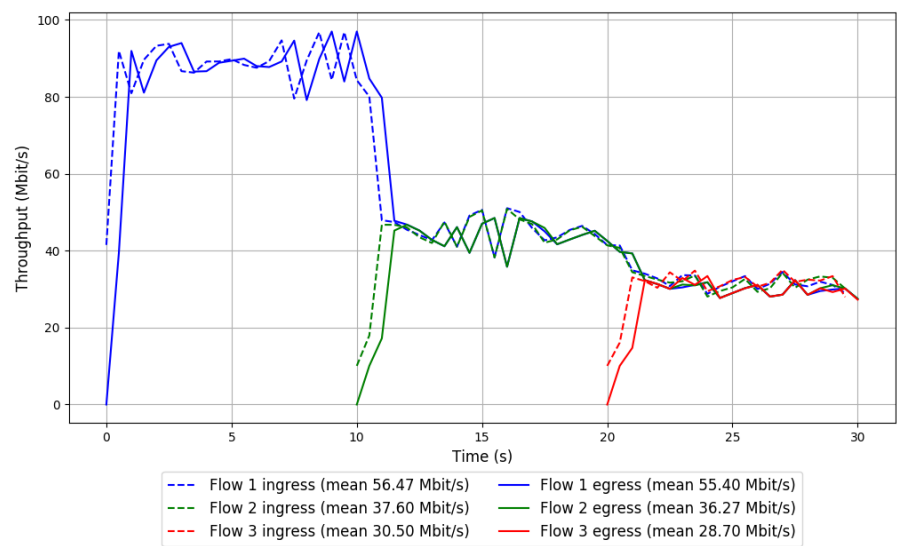
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 59.97 Mbit/s) --- Flow 1 egress (mean 59.15 Mbit/s)
Flow 2 ingress (mean 41.51 Mbit/s) --- Flow 2 egress (mean 40.24 Mbit/s)
Flow 3 ingress (mean 31.64 Mbit/s) --- Flow 3 egress (mean 30.57 Mbit/s)

Flow 1 (95th percentile 29.99 ms)   Flow 2 (95th percentile 31.02 ms)   Flow 3 (95th percentile 31.90 ms)

```
Run 5: Statistics of FillP

Start at: 2018-07-04 12:07:12
End at: 2018-07-04 12:07:42
Local clock offset: -2.099 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-07-04 14:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.52 Mbit/s
95th percentile per-packet one-way delay: 31.298 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 57.21 Mbit/s
95th percentile per-packet one-way delay: 30.374 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 39.07 Mbit/s
95th percentile per-packet one-way delay: 31.312 ms
Loss rate: 3.29%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 32.468 ms
Loss rate: 3.39%
```
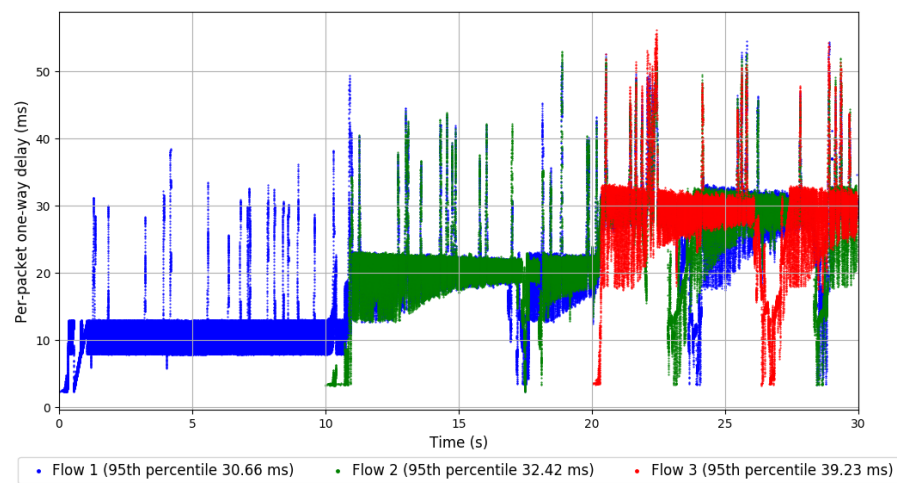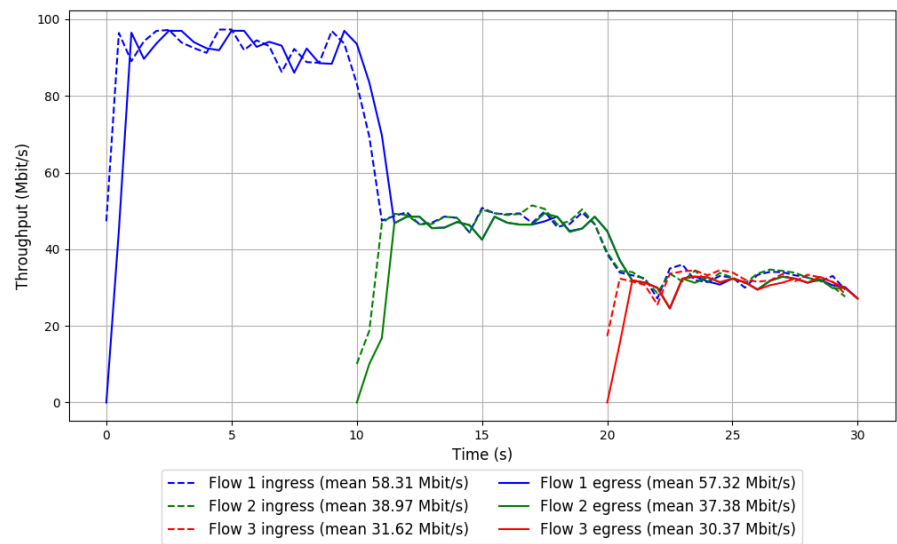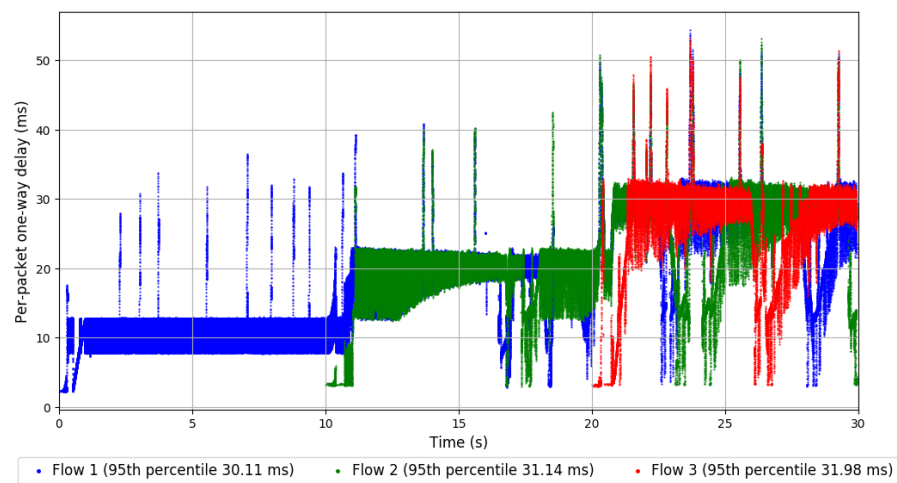
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 58.17 Mbit/s)   Flow 1 egress (mean 57.21 Mbit/s)
Flow 2 ingress (mean 40.41 Mbit/s)   Flow 2 egress (mean 39.07 Mbit/s)
Flow 3 ingress (mean 32.09 Mbit/s)   Flow 3 egress (mean 31.06 Mbit/s)

Flow 1 (95th percentile 30.37 ms)   Flow 2 (95th percentile 31.31 ms)   Flow 3 (95th percentile 32.47 ms)

```
Run 6: Statistics of FillP

Start at: 2018-07-04 12:26:19
End at: 2018-07-04 12:26:49
Local clock offset: -2.555 ms
Remote clock offset: -0.717 ms

# Below is generated by plot.py at 2018-07-04 14:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.00 Mbit/s
95th percentile per-packet one-way delay: 34.691 ms
Loss rate: 2.83%
-- Flow 1:
Average throughput: 55.40 Mbit/s
95th percentile per-packet one-way delay: 31.099 ms
Loss rate: 1.95%
-- Flow 2:
Average throughput: 36.27 Mbit/s
95th percentile per-packet one-way delay: 38.614 ms
Loss rate: 3.60%
-- Flow 3:
Average throughput: 28.70 Mbit/s
95th percentile per-packet one-way delay: 42.036 ms
Loss rate: 5.91%
```
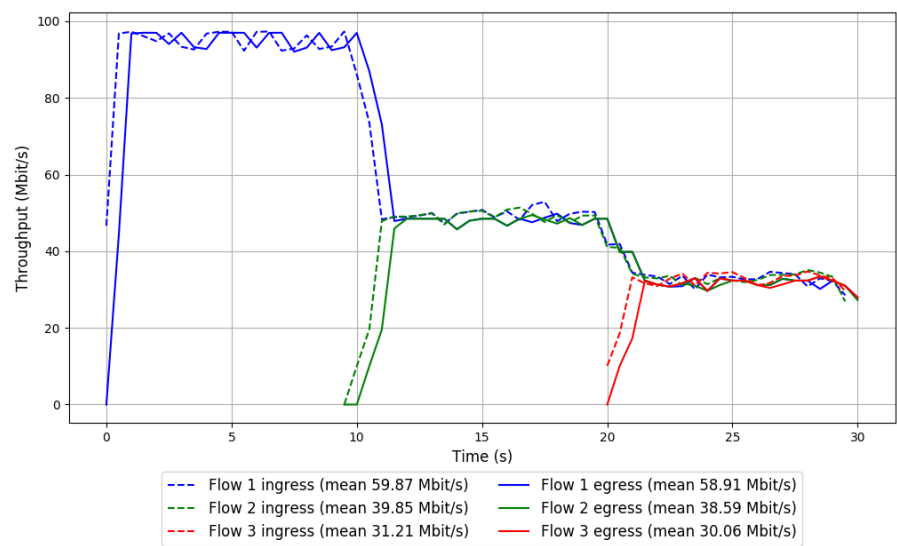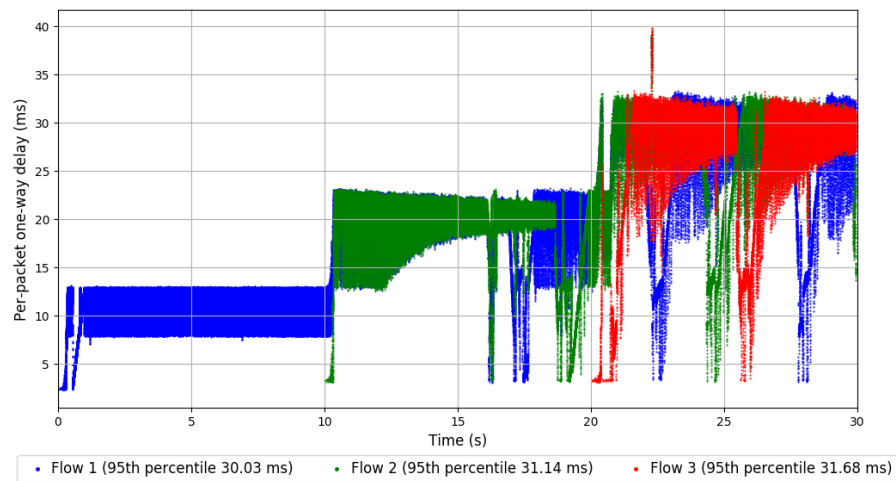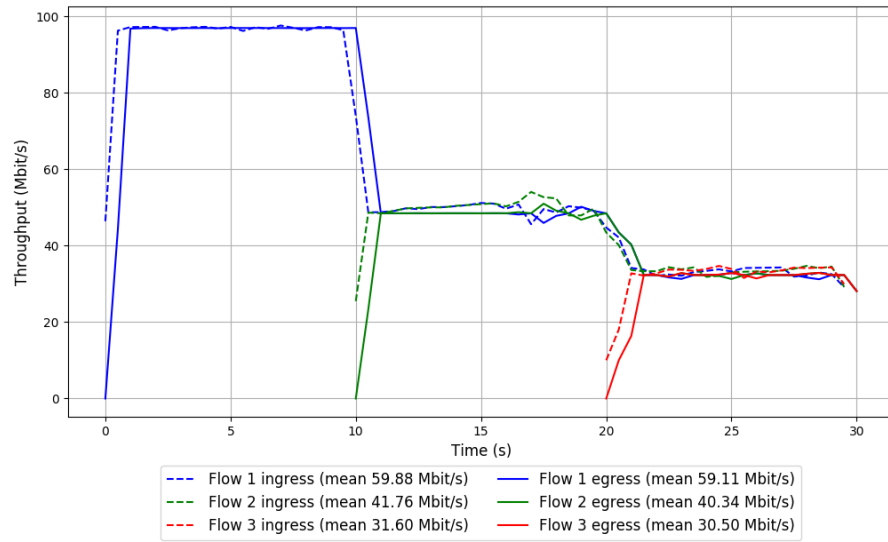
Run 6: Report of FillP — Data Link

- - - Flow 1 ingress (mean 56.47 Mbit/s) —— Flow 1 egress (mean 55.40 Mbit/s)
- - - Flow 2 ingress (mean 37.60 Mbit/s) —— Flow 2 egress (mean 36.27 Mbit/s)
- - - Flow 3 ingress (mean 30.50 Mbit/s) —— Flow 3 egress (mean 28.70 Mbit/s)

• Flow 1 (95th percentile 31.10 ms)   • Flow 2 (95th percentile 38.61 ms)   • Flow 3 (95th percentile 42.04 ms)

75

```
Run 7: Statistics of FillP

Start at: 2018-07-04 12:45:25
End at: 2018-07-04 12:45:55
Local clock offset: -2.62 ms
Remote clock offset: -1.812 ms

# Below is generated by plot.py at 2018-07-04 14:11:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.26 Mbit/s
95th percentile per-packet one-way delay: 31.711 ms
Loss rate: 2.65%
-- Flow 1:
Average throughput: 57.32 Mbit/s
95th percentile per-packet one-way delay: 30.662 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 37.38 Mbit/s
95th percentile per-packet one-way delay: 32.424 ms
Loss rate: 4.13%
-- Flow 3:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 39.232 ms
Loss rate: 4.10%
```

Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 58.31 Mbit/s) --- Flow 1 egress (mean 57.32 Mbit/s)
Flow 2 ingress (mean 38.97 Mbit/s) --- Flow 2 egress (mean 37.38 Mbit/s)
Flow 3 ingress (mean 31.62 Mbit/s) --- Flow 3 egress (mean 30.37 Mbit/s)

Flow 1 (95th percentile 30.66 ms)　　Flow 2 (95th percentile 32.42 ms)　　Flow 3 (95th percentile 39.23 ms)
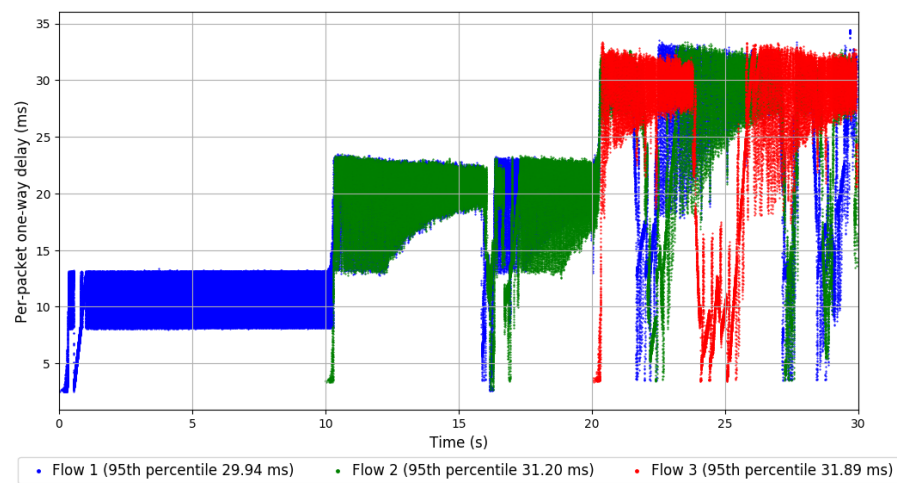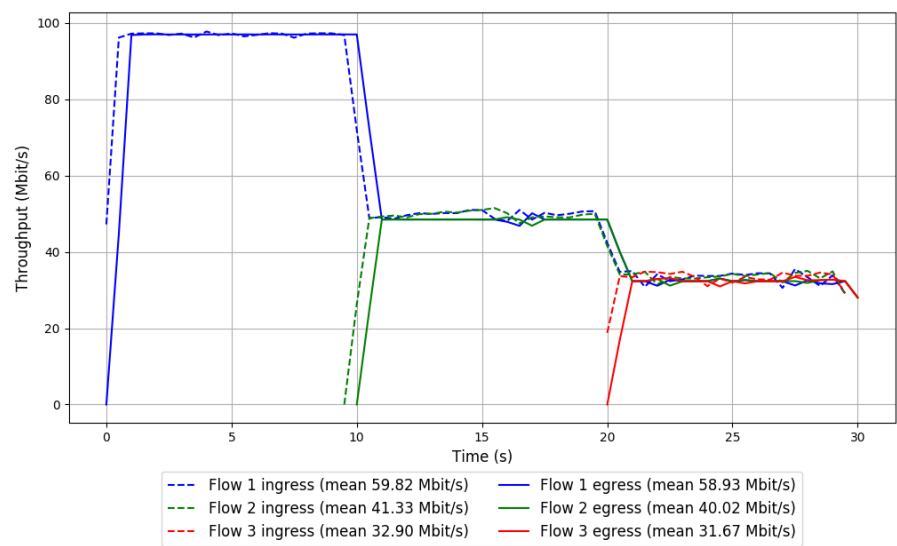
```
Run 8: Statistics of FillP

Start at: 2018-07-04 13:04:33
End at: 2018-07-04 13:05:03
Local clock offset: -2.635 ms
Remote clock offset: -2.301 ms

# Below is generated by plot.py at 2018-07-04 14:11:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 30.928 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 58.91 Mbit/s
95th percentile per-packet one-way delay: 30.115 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 31.143 ms
Loss rate: 3.17%
-- Flow 3:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 31.984 ms
Loss rate: 3.85%
```
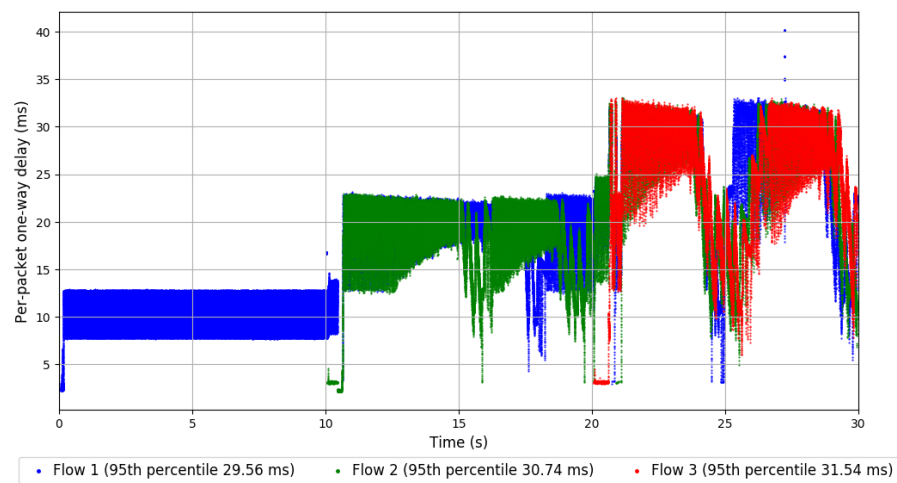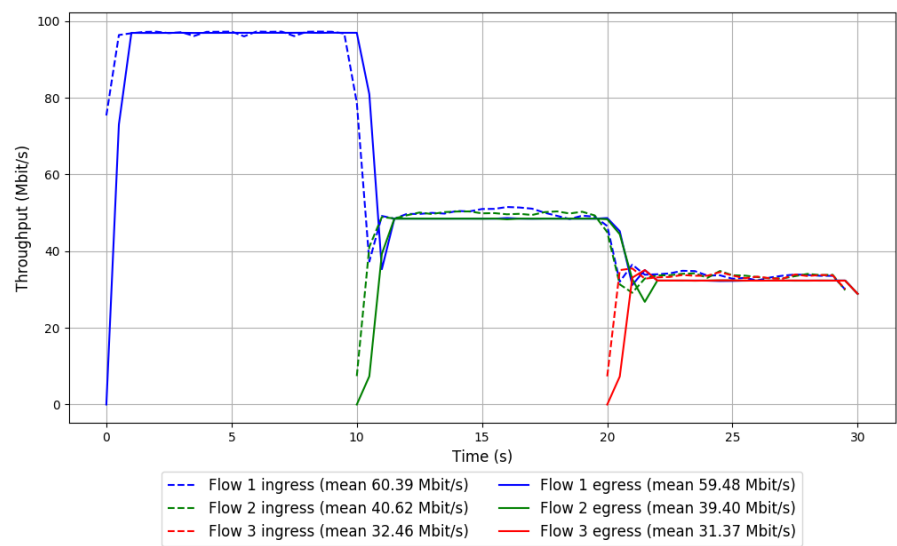
Run 8: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 59.87 Mbit/s)   —— Flow 1 egress (mean 58.91 Mbit/s)
- - - - Flow 2 ingress (mean 39.85 Mbit/s)   —— Flow 2 egress (mean 38.59 Mbit/s)
- - - - Flow 3 ingress (mean 31.21 Mbit/s)   —— Flow 3 egress (mean 30.06 Mbit/s)

- Flow 1 (95th percentile 30.11 ms)   • Flow 2 (95th percentile 31.14 ms)   • Flow 3 (95th percentile 31.98 ms)

79

```
Run 9: Statistics of FillP

Start at: 2018-07-04 13:23:43
End at: 2018-07-04 13:24:13
Local clock offset: -2.807 ms
Remote clock offset: -2.369 ms


# Below is generated by plot.py at 2018-07-04 14:12:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.05 Mbit/s
95th percentile per-packet one-way delay: 30.928 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 59.11 Mbit/s
95th percentile per-packet one-way delay: 30.027 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 40.34 Mbit/s
95th percentile per-packet one-way delay: 31.138 ms
Loss rate: 3.42%
-- Flow 3:
Average throughput: 30.50 Mbit/s
95th percentile per-packet one-way delay: 31.684 ms
Loss rate: 3.62%
```
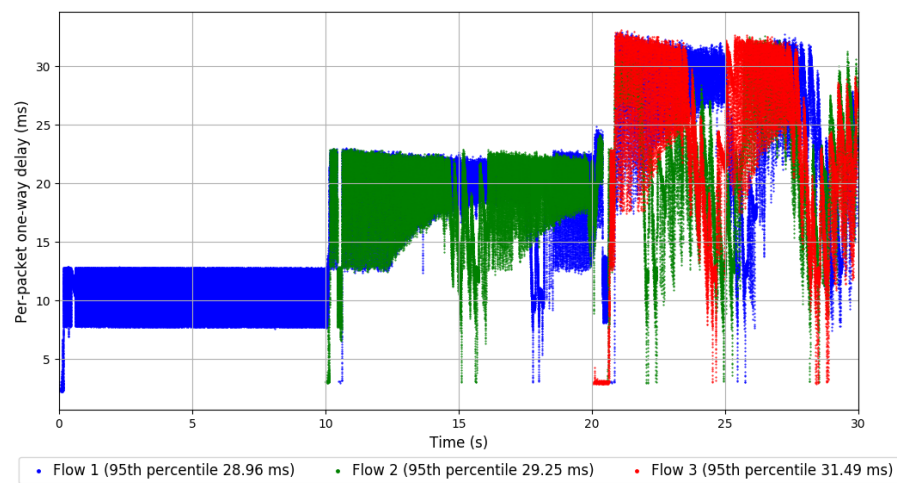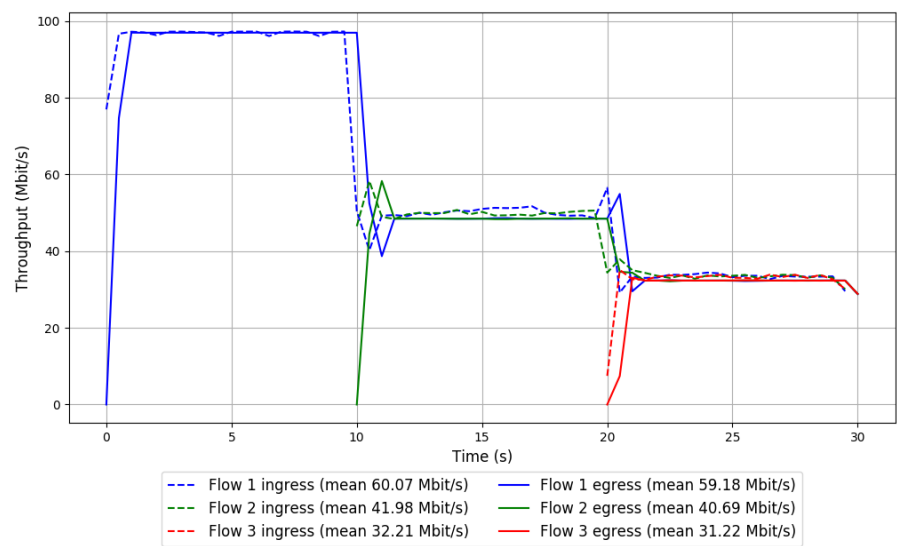
Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-07-04 13:42:54
End at: 2018-07-04 13:43:24
Local clock offset: -4.015 ms
Remote clock offset: -7.091 ms


# Below is generated by plot.py at 2018-07-04 14:12:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 31.005 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 58.93 Mbit/s
95th percentile per-packet one-way delay: 29.937 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 31.205 ms
Loss rate: 3.19%
-- Flow 3:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 31.888 ms
Loss rate: 3.73%
```
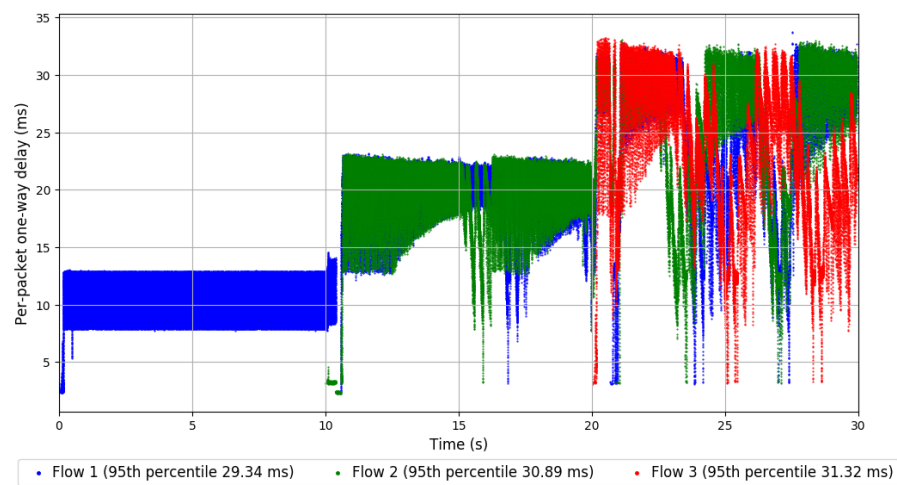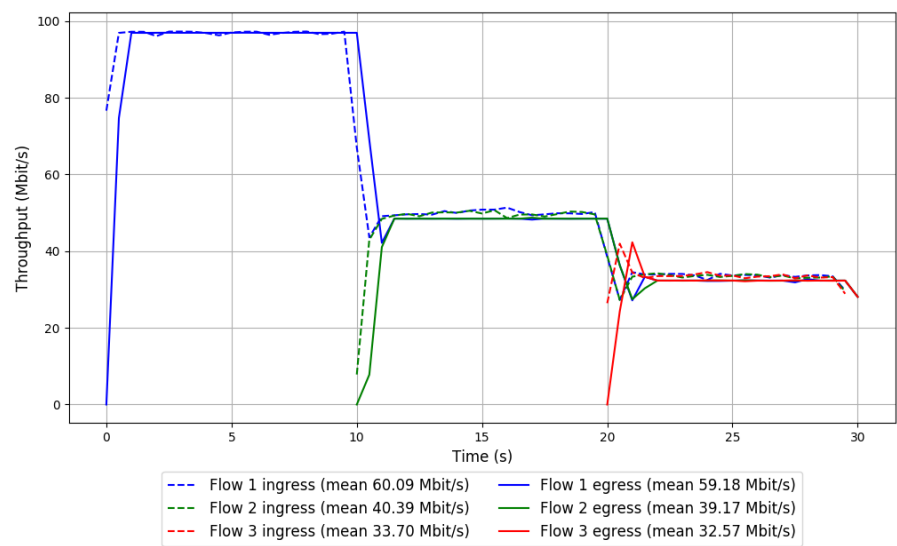
Run 10: Report of FillP — Data Link

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```
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-04 10:55:09
End at: 2018-07-04 10:55:39
Local clock offset: -2.971 ms
Remote clock offset: -2.765 ms


# Below is generated by plot.py at 2018-07-04 14:13:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 30.501 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 59.48 Mbit/s
95th percentile per-packet one-way delay: 29.558 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 30.741 ms
Loss rate: 3.02%
-- Flow 3:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 31.543 ms
Loss rate: 3.40%
```
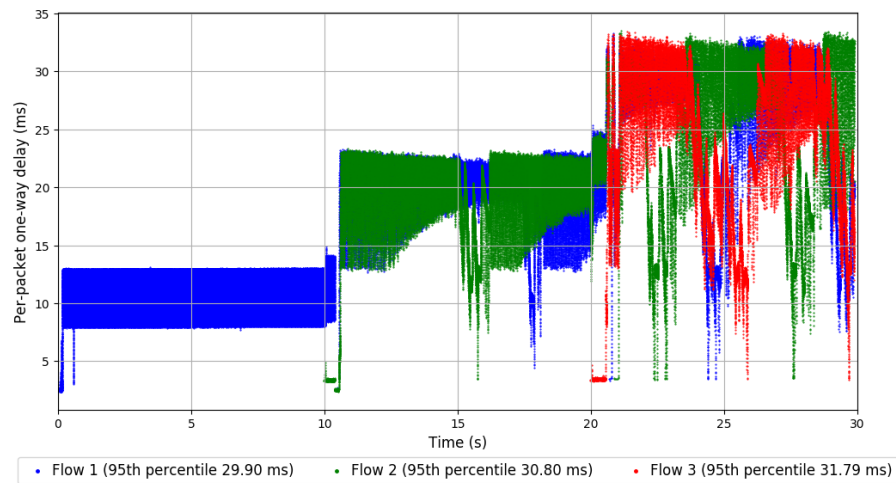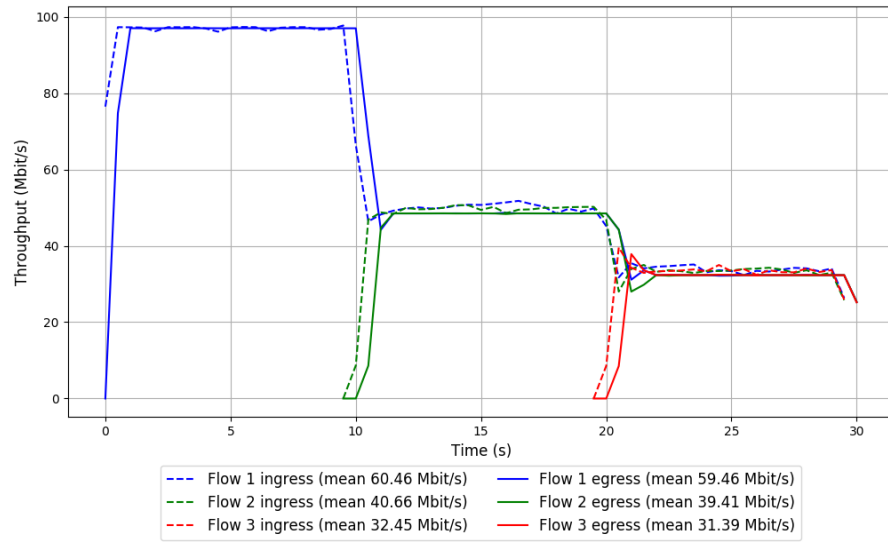
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 60.39 Mbit/s) --- Flow 1 egress (mean 59.48 Mbit/s)
Flow 2 ingress (mean 40.62 Mbit/s) --- Flow 2 egress (mean 39.40 Mbit/s)
Flow 3 ingress (mean 32.46 Mbit/s) --- Flow 3 egress (mean 31.37 Mbit/s)

Flow 1 (95th percentile 29.56 ms) • Flow 2 (95th percentile 30.74 ms) • Flow 3 (95th percentile 31.54 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-04 11:14:19
End at: 2018-07-04 11:14:49
Local clock offset: -2.791 ms
Remote clock offset: -4.234 ms


# Below is generated by plot.py at 2018-07-04 14:13:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.60 Mbit/s
95th percentile per-packet one-way delay: 29.867 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 28.960 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 29.253 ms
Loss rate: 3.08%
-- Flow 3:
Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 31.486 ms
Loss rate: 3.04%
```
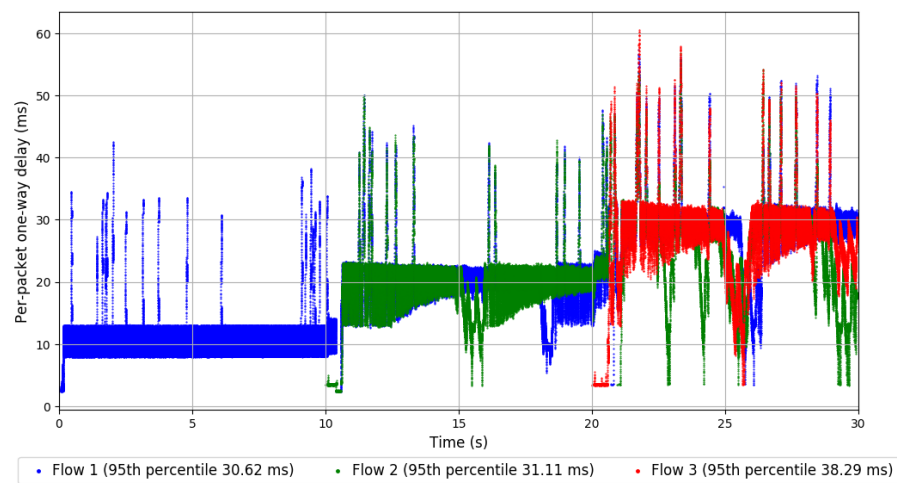
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 60.07 Mbit/s)   Flow 1 egress (mean 59.18 Mbit/s)
Flow 2 ingress (mean 41.98 Mbit/s)   Flow 2 egress (mean 40.69 Mbit/s)
Flow 3 ingress (mean 32.21 Mbit/s)   Flow 3 egress (mean 31.22 Mbit/s)

Flow 1 (95th percentile 28.96 ms)   Flow 2 (95th percentile 29.25 ms)   Flow 3 (95th percentile 31.49 ms)

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```
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-04 11:33:29
End at: 2018-07-04 11:33:59
Local clock offset: -2.48 ms
Remote clock offset: -7.681 ms


# Below is generated by plot.py at 2018-07-04 14:13:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.03 Mbit/s
95th percentile per-packet one-way delay: 30.411 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 29.343 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 39.17 Mbit/s
95th percentile per-packet one-way delay: 30.889 ms
Loss rate: 3.08%
-- Flow 3:
Average throughput: 32.57 Mbit/s
95th percentile per-packet one-way delay: 31.325 ms
Loss rate: 3.39%
```
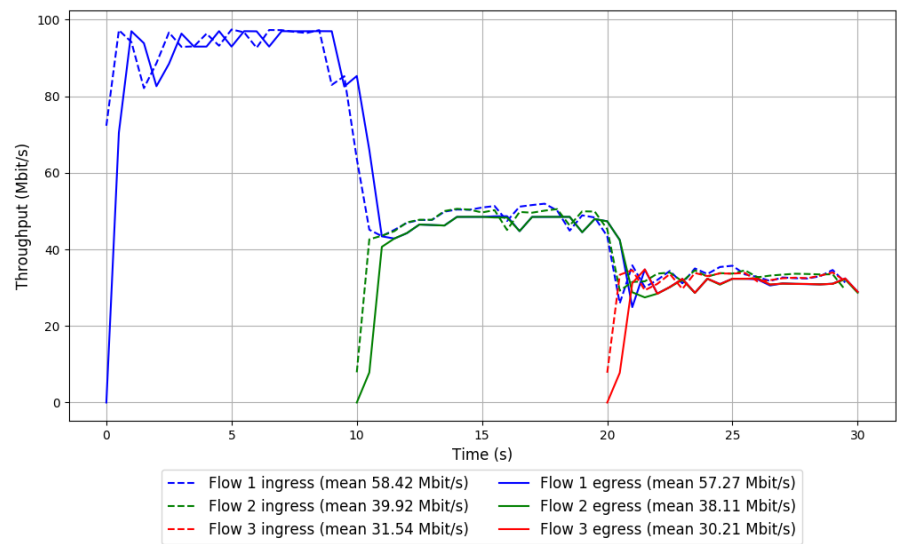
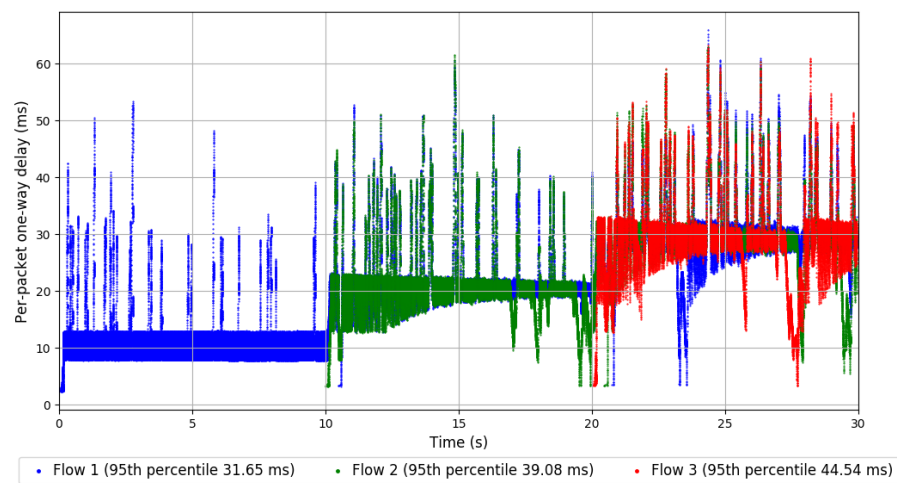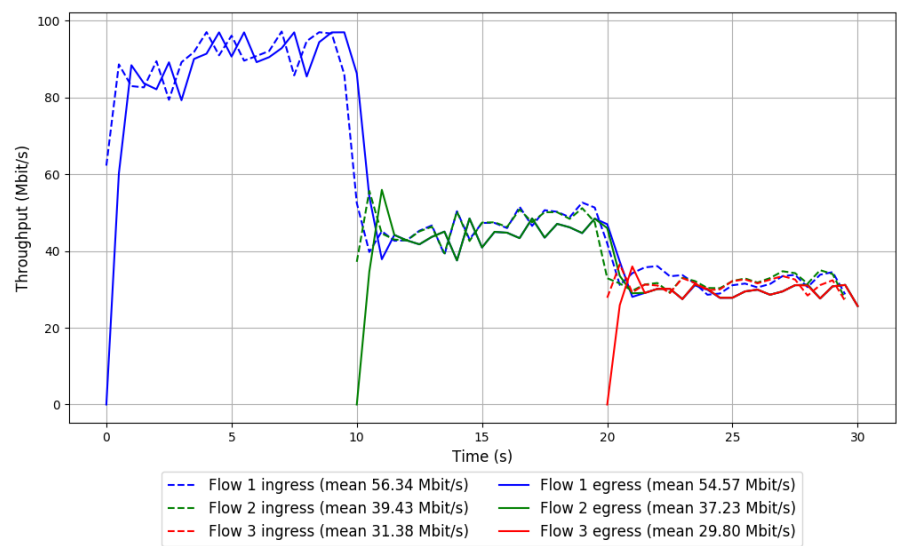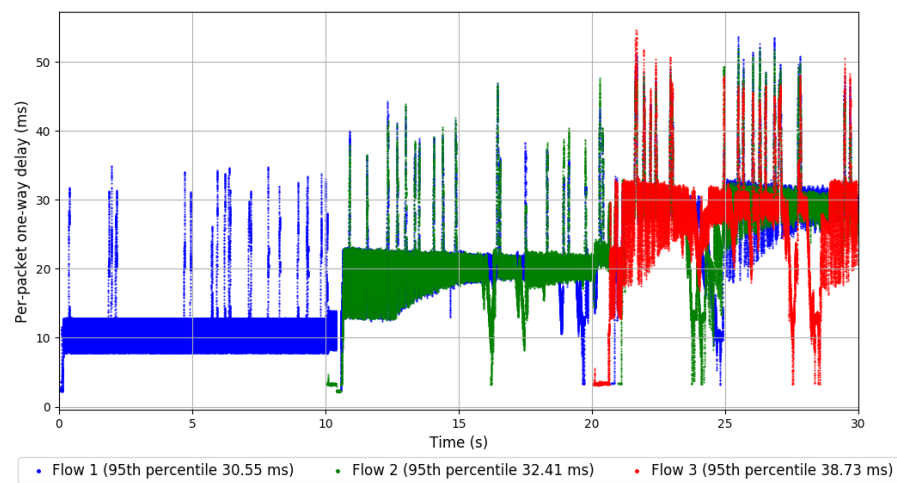Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-04 11:52:39
End at: 2018-07-04 11:53:09
Local clock offset: -2.292 ms
Remote clock offset: -3.918 ms


# Below is generated by plot.py at 2018-07-04 14:13:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.15 Mbit/s
95th percentile per-packet one-way delay: 30.632 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 59.46 Mbit/s
95th percentile per-packet one-way delay: 29.904 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 39.41 Mbit/s
95th percentile per-packet one-way delay: 30.799 ms
Loss rate: 3.13%
-- Flow 3:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 31.787 ms
Loss rate: 3.31%
```

Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 60.46 Mbit/s)   Flow 1 egress (mean 59.46 Mbit/s)
Flow 2 ingress (mean 40.66 Mbit/s)   Flow 2 egress (mean 39.41 Mbit/s)
Flow 3 ingress (mean 32.45 Mbit/s)   Flow 3 egress (mean 31.39 Mbit/s)

Flow 1 (95th percentile 29.90 ms)   Flow 2 (95th percentile 30.80 ms)   Flow 3 (95th percentile 31.79 ms)
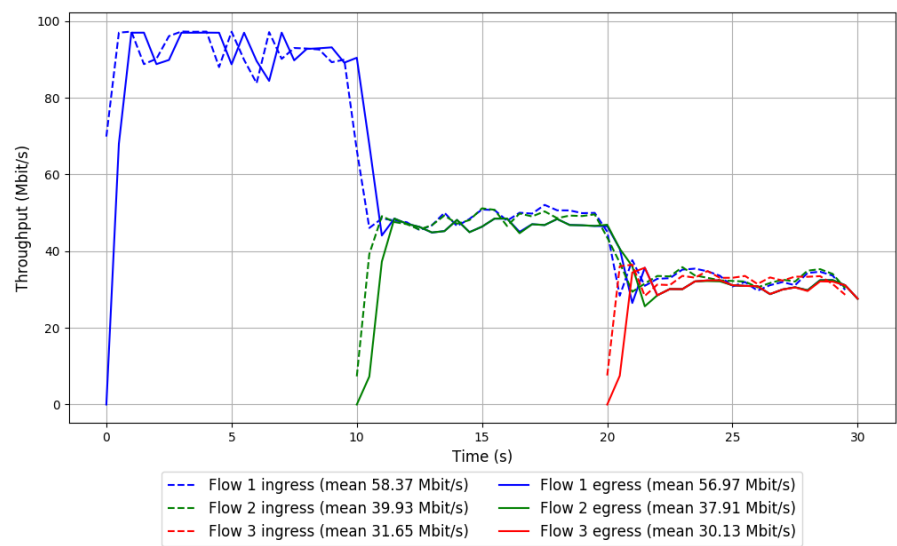
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```
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-04 12:11:47
End at: 2018-07-04 12:12:17
Local clock offset: -2.172 ms
Remote clock offset: 0.513 ms


# Below is generated by plot.py at 2018-07-04 14:13:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.67 Mbit/s
95th percentile per-packet one-way delay: 31.287 ms
Loss rate: 2.98%
-- Flow 1:
Average throughput: 57.27 Mbit/s
95th percentile per-packet one-way delay: 30.619 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 38.11 Mbit/s
95th percentile per-packet one-way delay: 31.114 ms
Loss rate: 4.56%
-- Flow 3:
Average throughput: 30.21 Mbit/s
95th percentile per-packet one-way delay: 38.293 ms
Loss rate: 4.27%
```
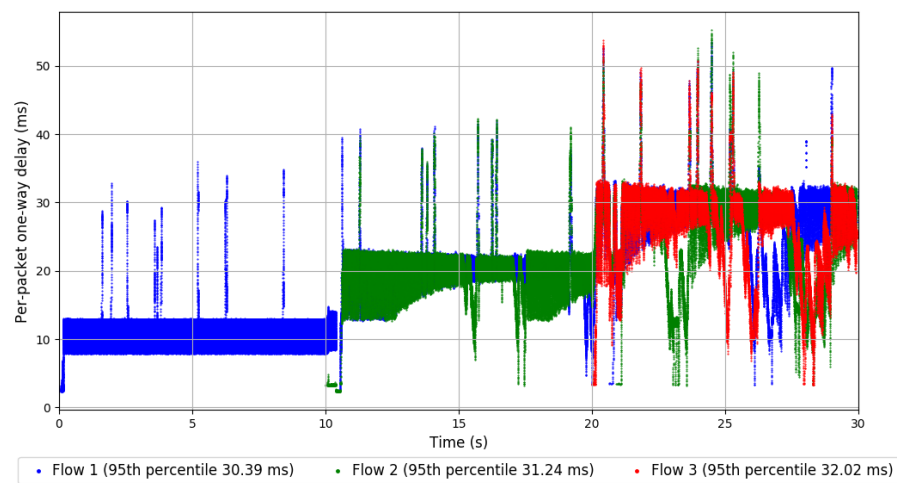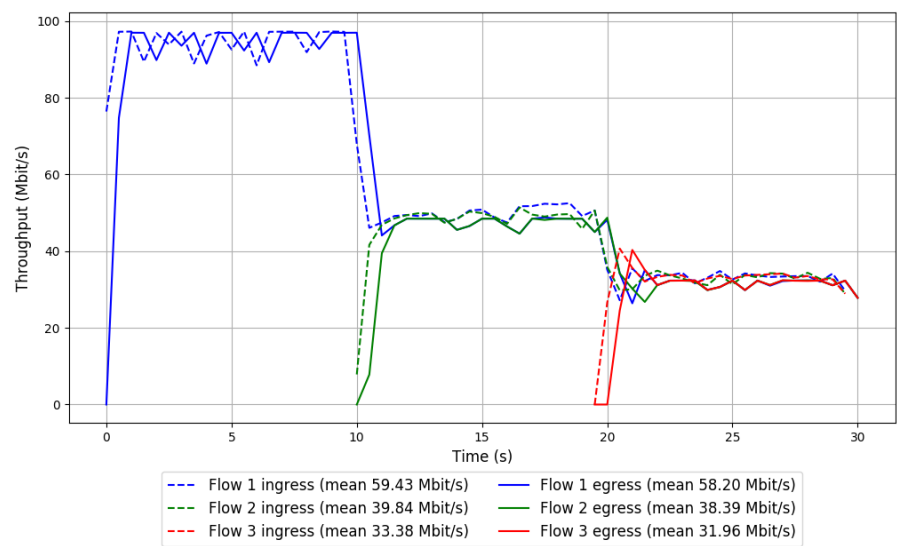
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 58.42 Mbit/s)   Flow 1 egress (mean 57.27 Mbit/s)
Flow 2 ingress (mean 39.92 Mbit/s)   Flow 2 egress (mean 38.11 Mbit/s)
Flow 3 ingress (mean 31.54 Mbit/s)   Flow 3 egress (mean 30.21 Mbit/s)

Flow 1 (95th percentile 30.62 ms)   Flow 2 (95th percentile 31.11 ms)   Flow 3 (95th percentile 38.29 ms)

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```
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-04 12:30:52
End at: 2018-07-04 12:31:22
Local clock offset: -2.579 ms
Remote clock offset: -1.295 ms


# Below is generated by plot.py at 2018-07-04 14:13:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.22 Mbit/s
95th percentile per-packet one-way delay: 36.741 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 54.57 Mbit/s
95th percentile per-packet one-way delay: 31.649 ms
Loss rate: 3.19%
-- Flow 2:
Average throughput: 37.23 Mbit/s
95th percentile per-packet one-way delay: 39.076 ms
Loss rate: 5.64%
-- Flow 3:
Average throughput: 29.80 Mbit/s
95th percentile per-packet one-way delay: 44.537 ms
Loss rate: 5.20%
```
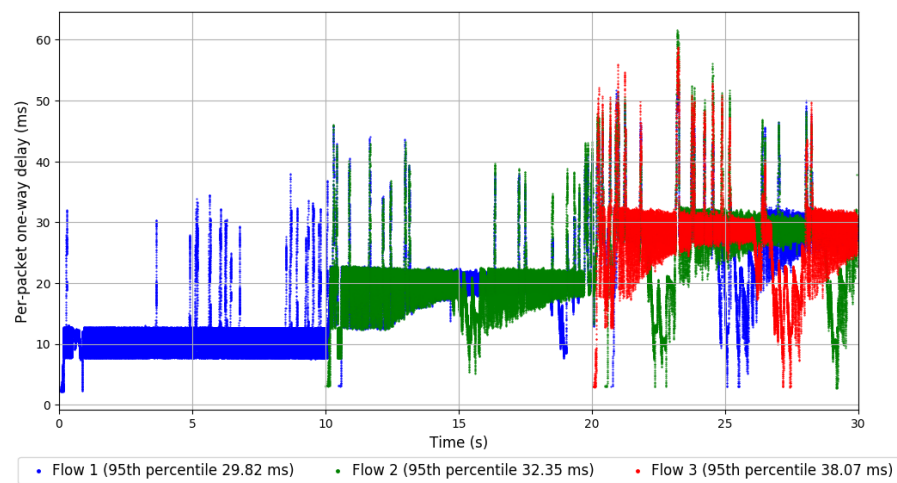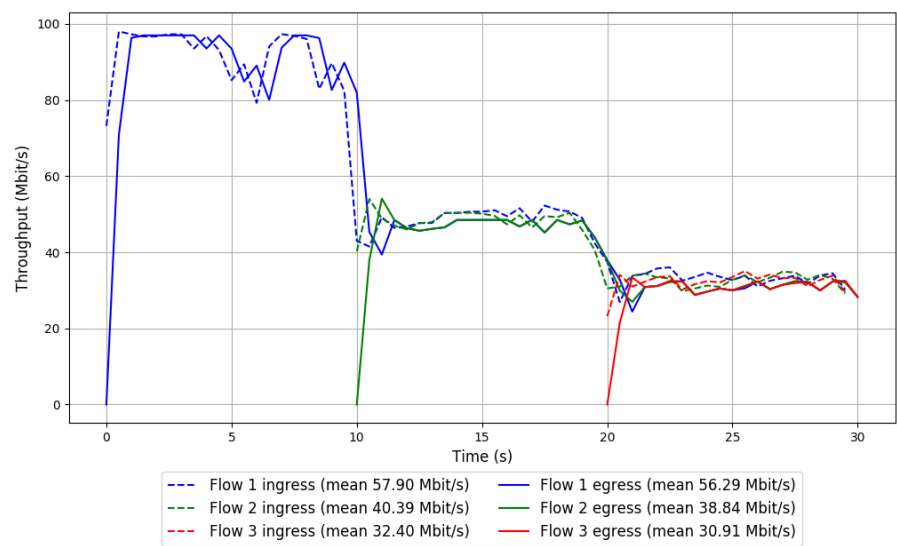
Run 6: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 56.34 Mbit/s)   Flow 1 egress (mean 54.57 Mbit/s)
Flow 2 ingress (mean 39.43 Mbit/s)   Flow 2 egress (mean 37.23 Mbit/s)
Flow 3 ingress (mean 31.38 Mbit/s)   Flow 3 egress (mean 29.80 Mbit/s)

Flow 1 (95th percentile 31.65 ms)   Flow 2 (95th percentile 39.08 ms)   Flow 3 (95th percentile 44.54 ms)

```
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-04 12:50:00
End at: 2018-07-04 12:50:30
Local clock offset: -2.62 ms
Remote clock offset: -1.692 ms


# Below is generated by plot.py at 2018-07-04 14:14:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.17 Mbit/s
95th percentile per-packet one-way delay: 31.441 ms
Loss rate: 3.45%
-- Flow 1:
Average throughput: 56.97 Mbit/s
95th percentile per-packet one-way delay: 30.546 ms
Loss rate: 2.44%
-- Flow 2:
Average throughput: 37.91 Mbit/s
95th percentile per-packet one-way delay: 32.410 ms
Loss rate: 5.08%
-- Flow 3:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 38.734 ms
Loss rate: 4.95%
```
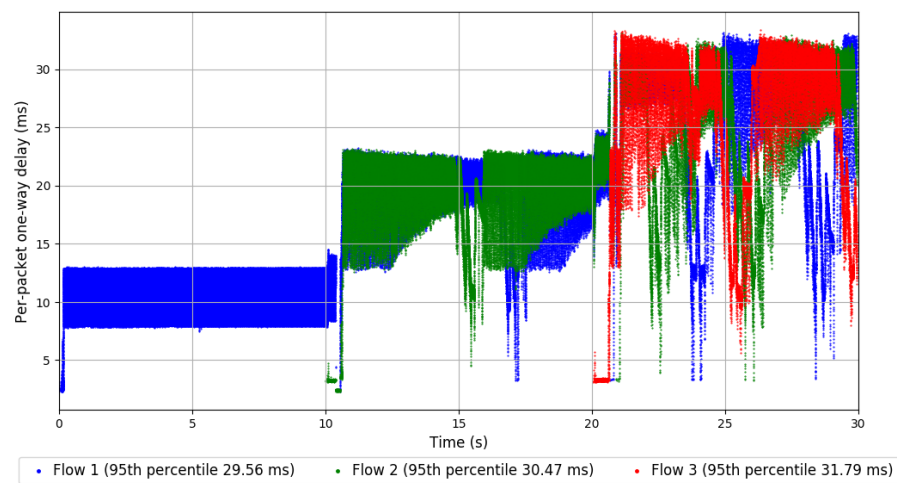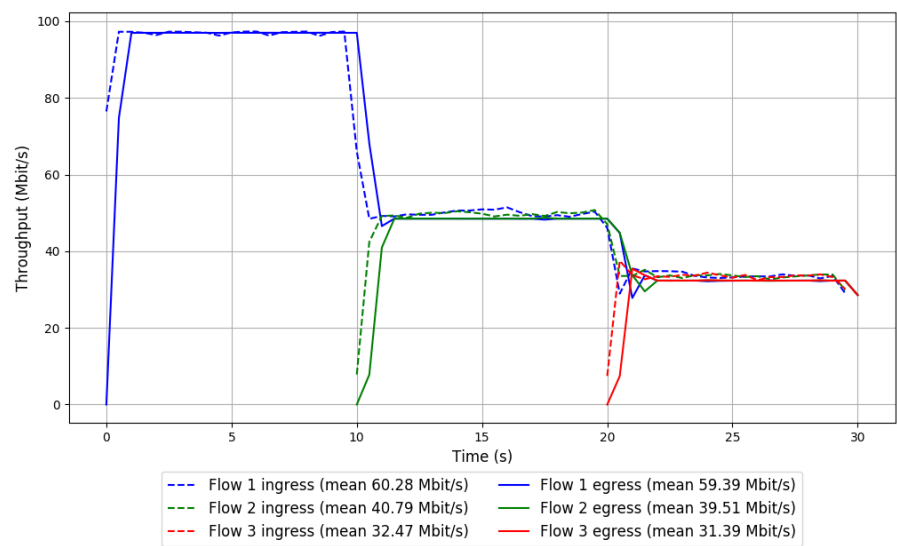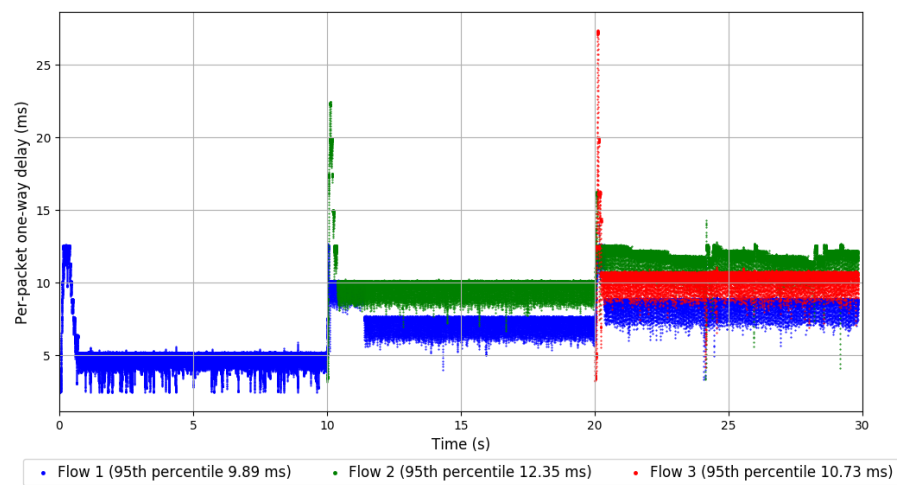
Run 7: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 58.37 Mbit/s) — Flow 1 egress (mean 56.97 Mbit/s)
Flow 2 ingress (mean 39.93 Mbit/s) — Flow 2 egress (mean 37.91 Mbit/s)
Flow 3 ingress (mean 31.65 Mbit/s) — Flow 3 egress (mean 30.13 Mbit/s)

Flow 1 (95th percentile 30.55 ms)   Flow 2 (95th percentile 32.41 ms)   Flow 3 (95th percentile 38.73 ms)

```
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-04 13:09:08
End at: 2018-07-04 13:09:38
Local clock offset: -2.622 ms
Remote clock offset: -2.449 ms


# Below is generated by plot.py at 2018-07-04 14:14:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 31.035 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 58.20 Mbit/s
95th percentile per-packet one-way delay: 30.386 ms
Loss rate: 2.12%
-- Flow 2:
Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: 31.236 ms
Loss rate: 3.68%
-- Flow 3:
Average throughput: 31.96 Mbit/s
95th percentile per-packet one-way delay: 32.018 ms
Loss rate: 4.24%
```
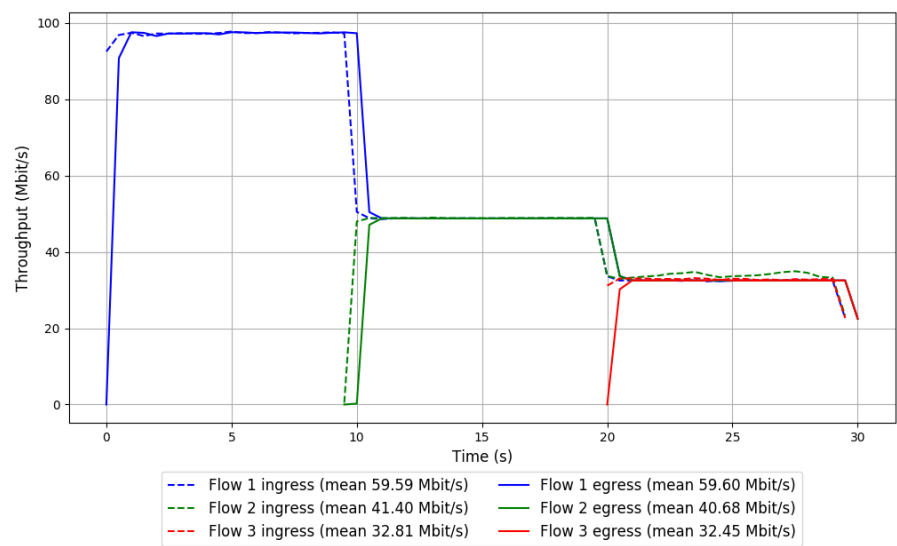
Run 8: Report of FillP-Sheep — Data Link

- - - - Flow 1 ingress (mean 59.43 Mbit/s)   —— Flow 1 egress (mean 58.20 Mbit/s)
- - - - Flow 2 ingress (mean 39.84 Mbit/s)   —— Flow 2 egress (mean 38.39 Mbit/s)
- - - - Flow 3 ingress (mean 33.38 Mbit/s)   —— Flow 3 egress (mean 31.96 Mbit/s)

- Flow 1 (95th percentile 30.39 ms)   • Flow 2 (95th percentile 31.24 ms)   • Flow 3 (95th percentile 32.02 ms)

```
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-04 13:28:18
End at: 2018-07-04 13:28:48
Local clock offset: -2.815 ms
Remote clock offset: -2.58 ms


# Below is generated by plot.py at 2018-07-04 14:14:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.38 Mbit/s
95th percentile per-packet one-way delay: 31.131 ms
Loss rate: 3.34%
-- Flow 1:
Average throughput: 56.29 Mbit/s
95th percentile per-packet one-way delay: 29.822 ms
Loss rate: 2.83%
-- Flow 2:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 32.352 ms
Loss rate: 3.87%
-- Flow 3:
Average throughput: 30.91 Mbit/s
95th percentile per-packet one-way delay: 38.066 ms
Loss rate: 4.75%
```

Run 9: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 57.90 Mbit/s) --- Flow 1 egress (mean 56.29 Mbit/s)
Flow 2 ingress (mean 40.39 Mbit/s) --- Flow 2 egress (mean 38.84 Mbit/s)
Flow 3 ingress (mean 32.40 Mbit/s) --- Flow 3 egress (mean 30.91 Mbit/s)

Flow 1 (95th percentile 29.82 ms)   Flow 2 (95th percentile 32.35 ms)   Flow 3 (95th percentile 38.07 ms)

```
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-04 13:47:29
End at: 2018-07-04 13:47:59
Local clock offset: -5.416 ms
Remote clock offset: -7.534 ms


# Below is generated by plot.py at 2018-07-04 14:14:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.08 Mbit/s
95th percentile per-packet one-way delay: 30.565 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 59.39 Mbit/s
95th percentile per-packet one-way delay: 29.560 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 30.468 ms
Loss rate: 3.15%
-- Flow 3:
Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 31.787 ms
Loss rate: 3.37%
```
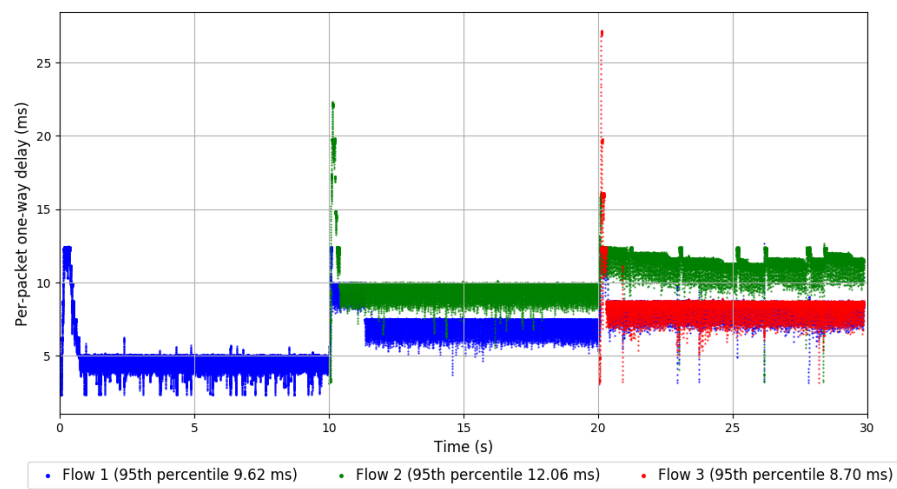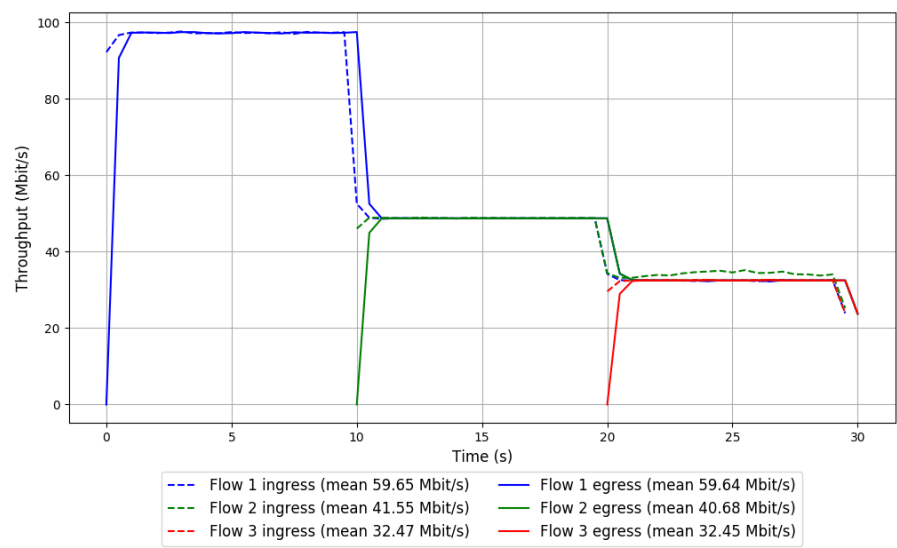
Run 10: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 60.28 Mbit/s)   Flow 1 egress (mean 59.39 Mbit/s)
Flow 2 ingress (mean 40.79 Mbit/s)   Flow 2 egress (mean 39.51 Mbit/s)
Flow 3 ingress (mean 32.47 Mbit/s)   Flow 3 egress (mean 31.39 Mbit/s)

Flow 1 (95th percentile 29.56 ms)   Flow 2 (95th percentile 30.47 ms)   Flow 3 (95th percentile 31.79 ms)

```
Run 1: Statistics of Indigo

Start at: 2018-07-04 10:52:51
End at: 2018-07-04 10:53:21
Local clock offset: -2.89 ms
Remote clock offset: -2.874 ms


# Below is generated by plot.py at 2018-07-04 14:14:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 12.011 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 59.60 Mbit/s
95th percentile per-packet one-way delay: 9.891 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 12.347 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 10.727 ms
Loss rate: 1.16%
```
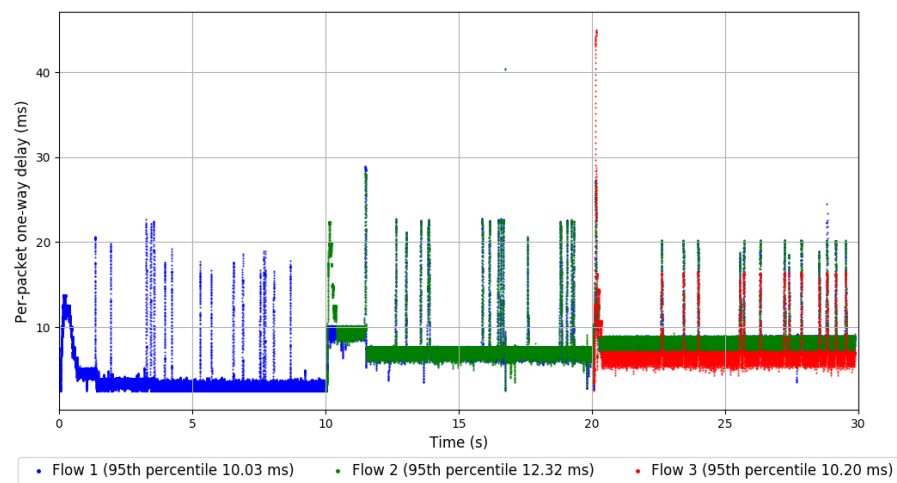
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-07-04 11:12:01
End at: 2018-07-04 11:12:31
Local clock offset: -2.89 ms
Remote clock offset: -3.207 ms


# Below is generated by plot.py at 2018-07-04 14:14:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 11.329 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 59.63 Mbit/s
95th percentile per-packet one-way delay: 9.511 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 11.765 ms
Loss rate: 2.89%
-- Flow 3:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 10.234 ms
Loss rate: 1.71%
```
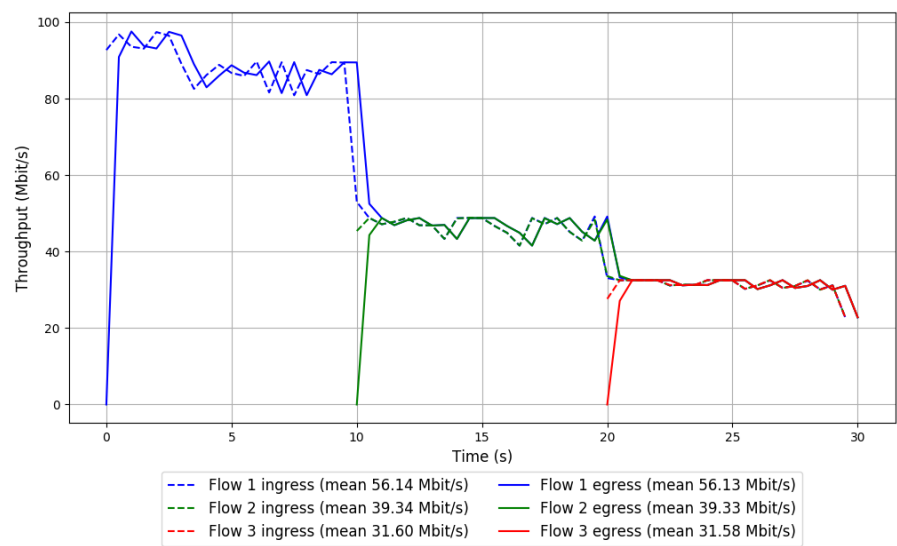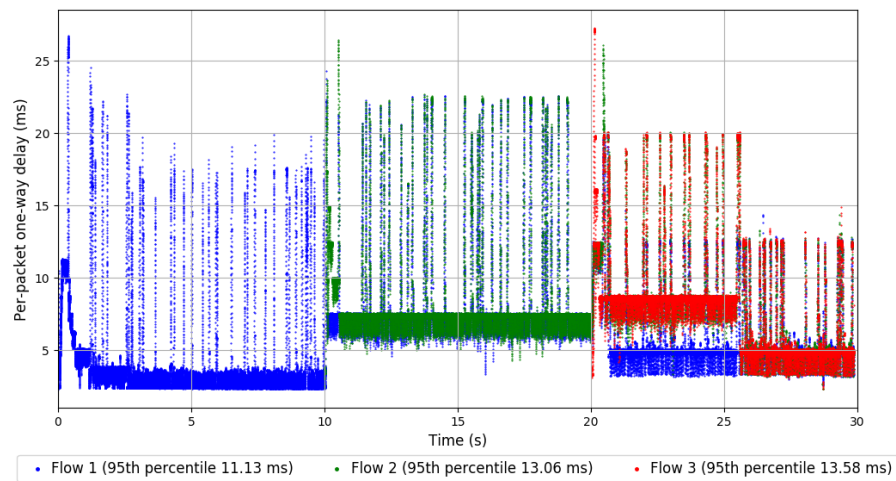
Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 59.64 Mbit/s) — Flow 1 egress (mean 59.63 Mbit/s)
Flow 2 ingress (mean 41.88 Mbit/s) — Flow 2 egress (mean 40.67 Mbit/s)
Flow 3 ingress (mean 33.01 Mbit/s) — Flow 3 egress (mean 32.46 Mbit/s)

Flow 1 (95th percentile 9.51 ms)   Flow 2 (95th percentile 11.77 ms)   Flow 3 (95th percentile 10.23 ms)

```
Run 3: Statistics of Indigo

Start at: 2018-07-04 11:31:11
End at: 2018-07-04 11:31:41
Local clock offset: -2.492 ms
Remote clock offset: -7.38 ms

# Below is generated by plot.py at 2018-07-04 14:14:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 11.583 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 9.615 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.68 Mbit/s
95th percentile per-packet one-way delay: 12.056 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 8.695 ms
Loss rate: 0.12%
```
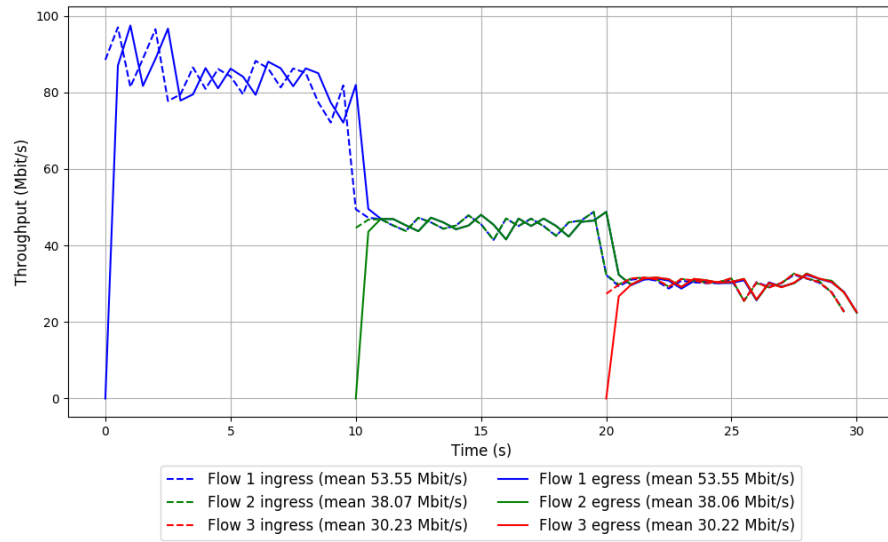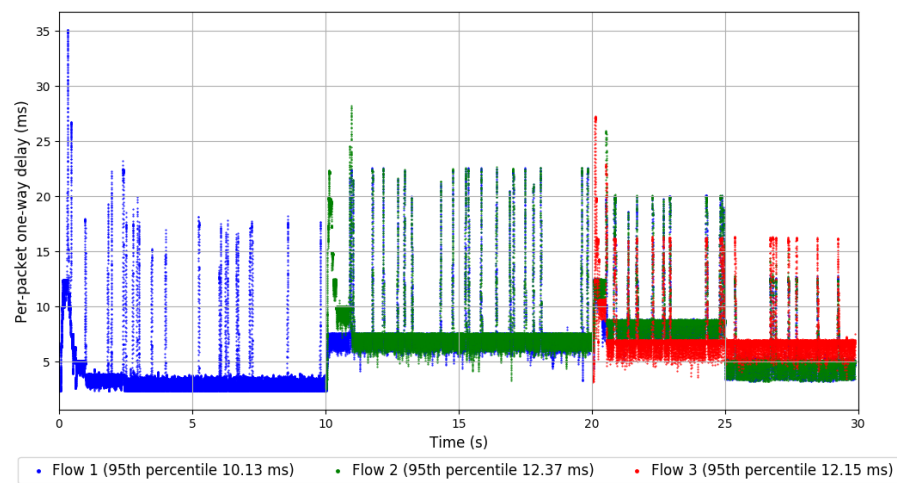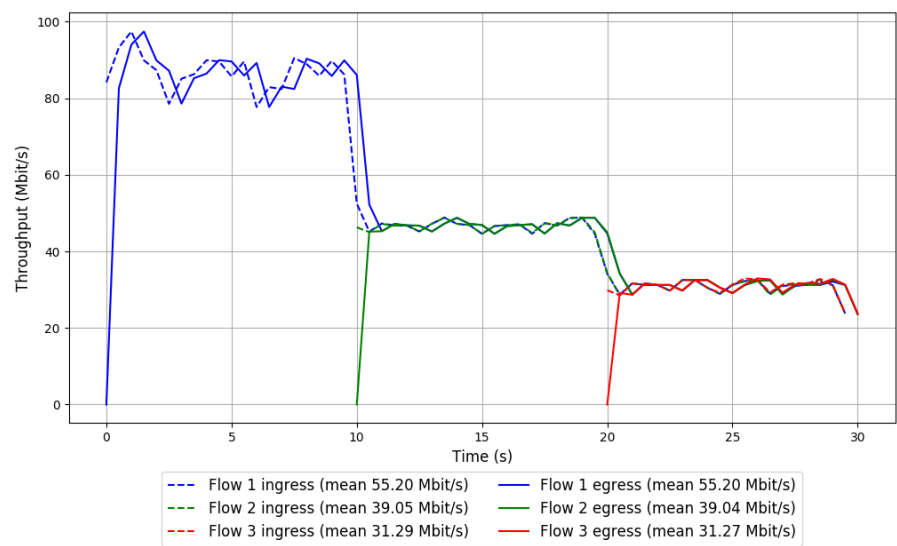
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-07-04 11:50:21
End at: 2018-07-04 11:50:51
Local clock offset: -2.319 ms
Remote clock offset: -4.946 ms


# Below is generated by plot.py at 2018-07-04 14:14:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 11.854 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 9.835 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 12.331 ms
Loss rate: 2.88%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 10.833 ms
Loss rate: 1.17%
```
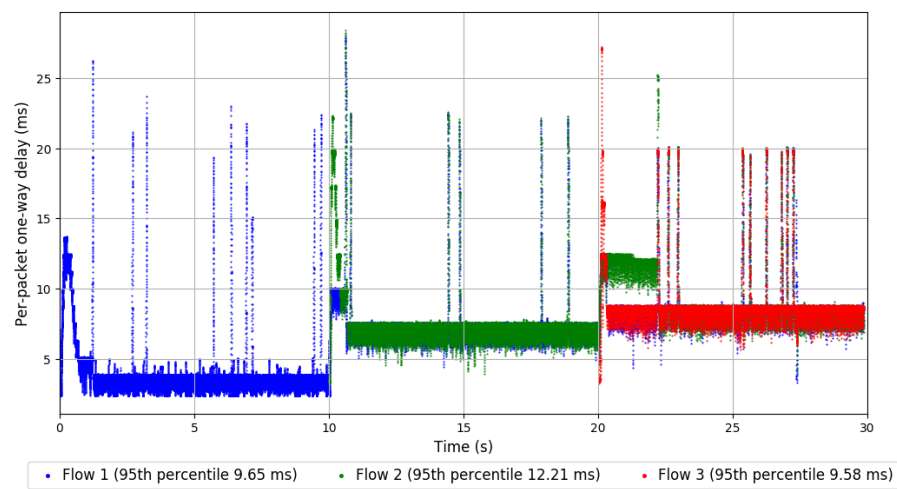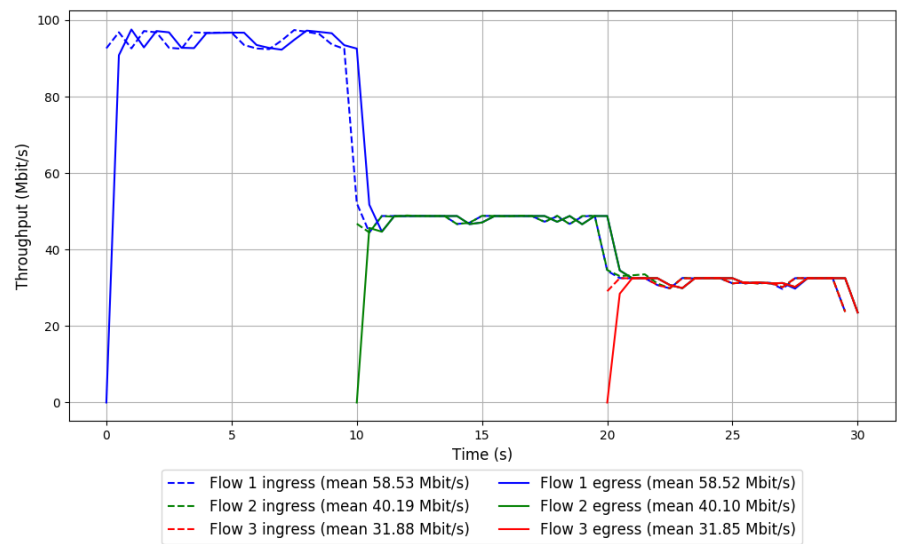
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-07-04 12:09:30
End at: 2018-07-04 12:10:00
Local clock offset: -2.097 ms
Remote clock offset: 0.223 ms


# Below is generated by plot.py at 2018-07-04 14:15:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.65 Mbit/s
95th percentile per-packet one-way delay: 10.175 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 56.13 Mbit/s
95th percentile per-packet one-way delay: 10.028 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.33 Mbit/s
95th percentile per-packet one-way delay: 12.324 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 10.203 ms
Loss rate: 0.10%
```
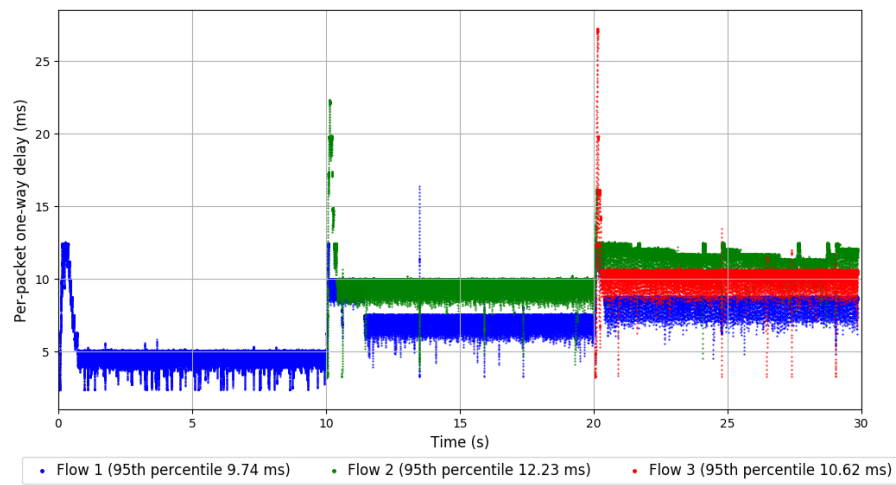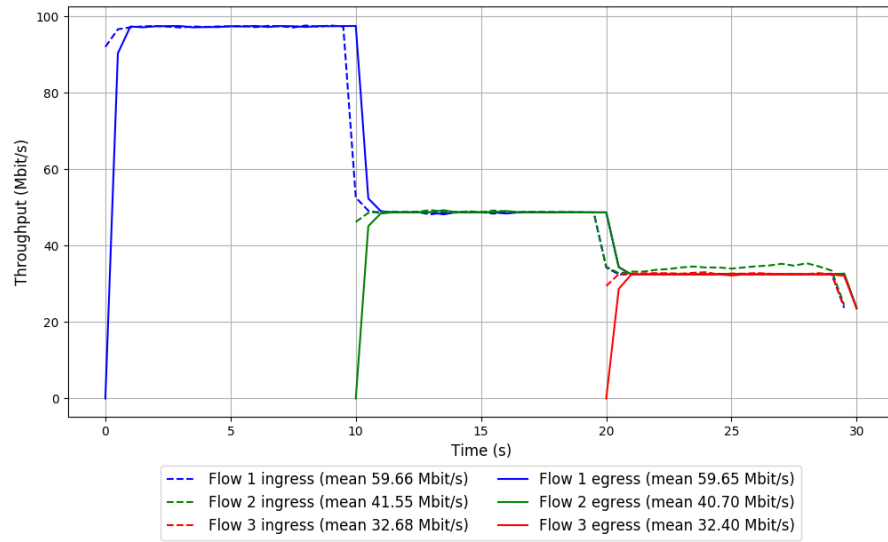
Run 5: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 56.14 Mbit/s)   —— Flow 1 egress (mean 56.13 Mbit/s)
- - - Flow 2 ingress (mean 39.34 Mbit/s)   —— Flow 2 egress (mean 39.33 Mbit/s)
- - - Flow 3 ingress (mean 31.60 Mbit/s)   —— Flow 3 egress (mean 31.58 Mbit/s)

• Flow 1 (95th percentile 10.03 ms)   • Flow 2 (95th percentile 12.32 ms)   • Flow 3 (95th percentile 10.20 ms)

```
Run 6: Statistics of Indigo

Start at: 2018-07-04 12:28:35
End at: 2018-07-04 12:29:05
Local clock offset: -2.558 ms
Remote clock offset: -1.07 ms


# Below is generated by plot.py at 2018-07-04 14:15:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.79 Mbit/s
95th percentile per-packet one-way delay: 12.224 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 53.55 Mbit/s
95th percentile per-packet one-way delay: 11.133 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 38.06 Mbit/s
95th percentile per-packet one-way delay: 13.065 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 13.576 ms
Loss rate: 0.07%
```
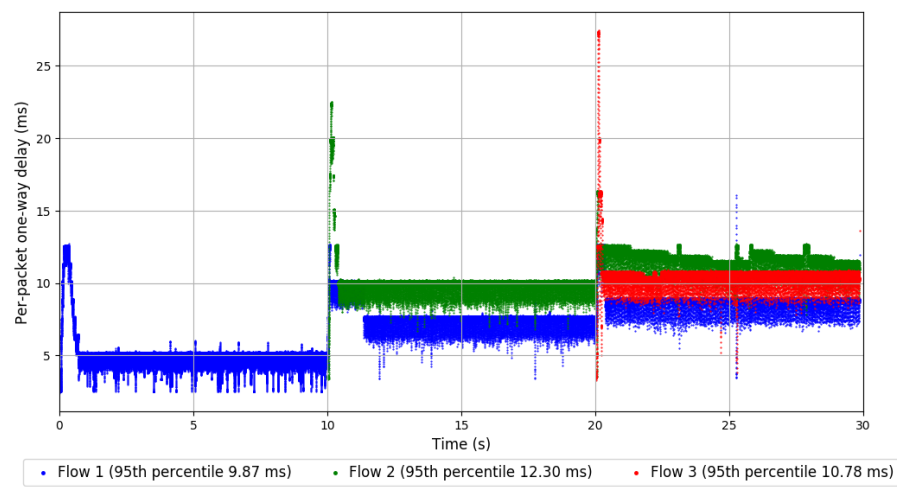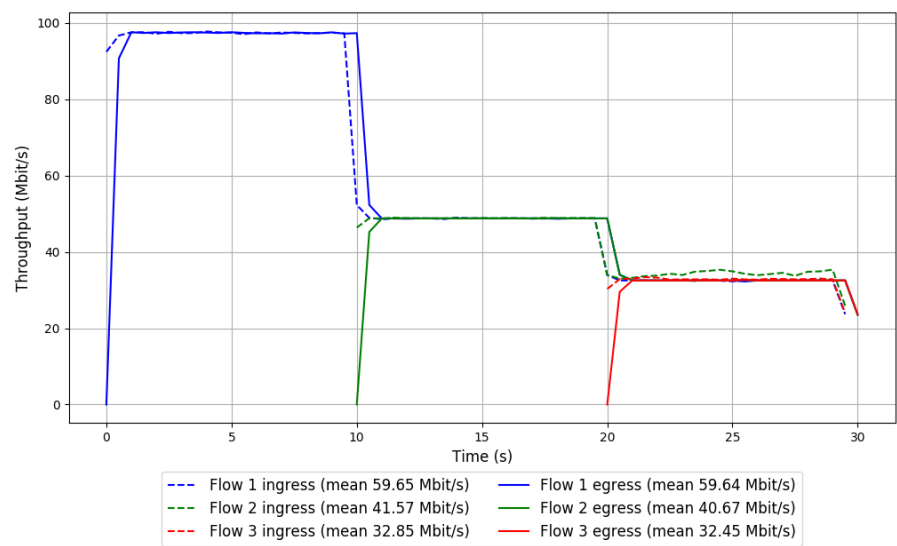
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-07-04 12:47:42
End at: 2018-07-04 12:48:12
Local clock offset: -2.628 ms
Remote clock offset: -1.734 ms


# Below is generated by plot.py at 2018-07-04 14:15:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.44 Mbit/s
95th percentile per-packet one-way delay: 11.697 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 55.20 Mbit/s
95th percentile per-packet one-way delay: 10.128 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 39.04 Mbit/s
95th percentile per-packet one-way delay: 12.367 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 31.27 Mbit/s
95th percentile per-packet one-way delay: 12.149 ms
Loss rate: 0.11%
```
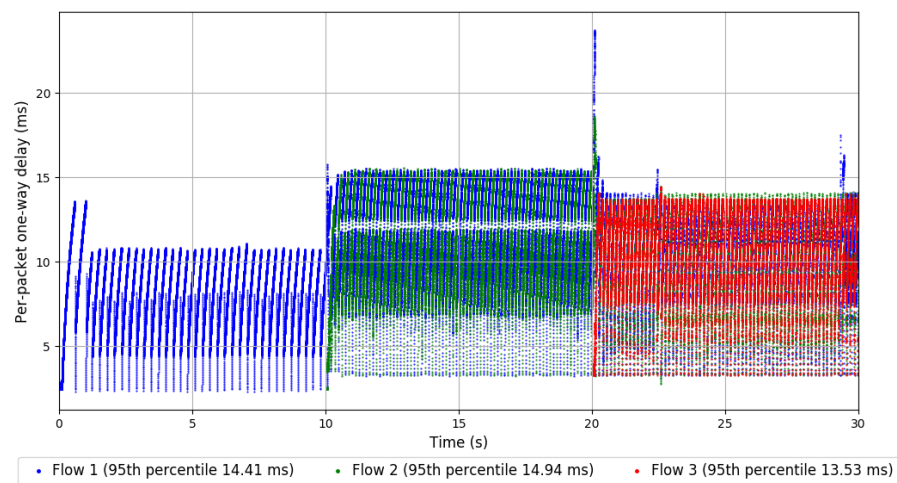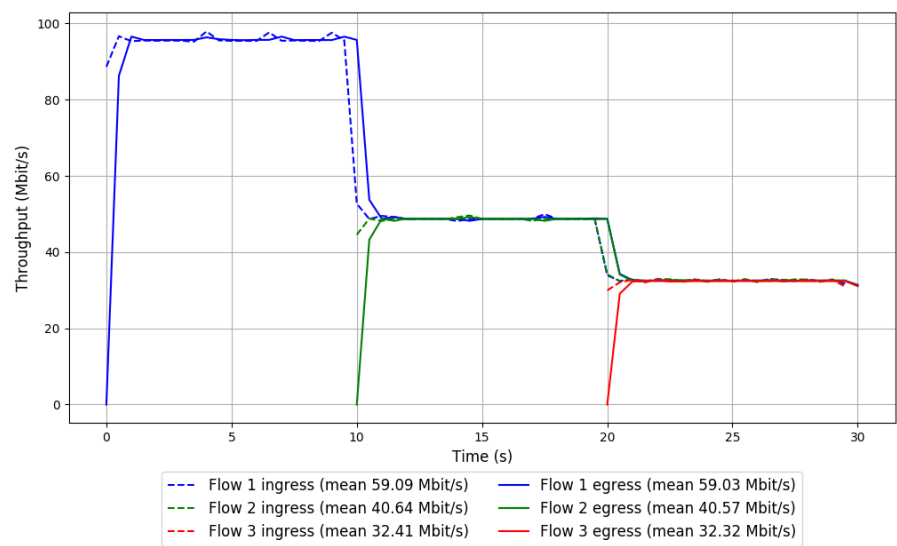
Run 7: Report of Indigo — Data Link

Flow 1 ingress (mean 55.20 Mbit/s)   Flow 1 egress (mean 55.20 Mbit/s)
Flow 2 ingress (mean 39.05 Mbit/s)   Flow 2 egress (mean 39.04 Mbit/s)
Flow 3 ingress (mean 31.29 Mbit/s)   Flow 3 egress (mean 31.27 Mbit/s)

• Flow 1 (95th percentile 10.13 ms)   • Flow 2 (95th percentile 12.37 ms)   • Flow 3 (95th percentile 12.15 ms)

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```
Run 8: Statistics of Indigo

Start at: 2018-07-04 13:06:51
End at: 2018-07-04 13:07:21
Local clock offset: -2.629 ms
Remote clock offset: -2.387 ms

# Below is generated by plot.py at 2018-07-04 14:15:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 11.655 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 58.52 Mbit/s
95th percentile per-packet one-way delay: 9.647 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.10 Mbit/s
95th percentile per-packet one-way delay: 12.210 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 9.578 ms
Loss rate: 0.13%
```
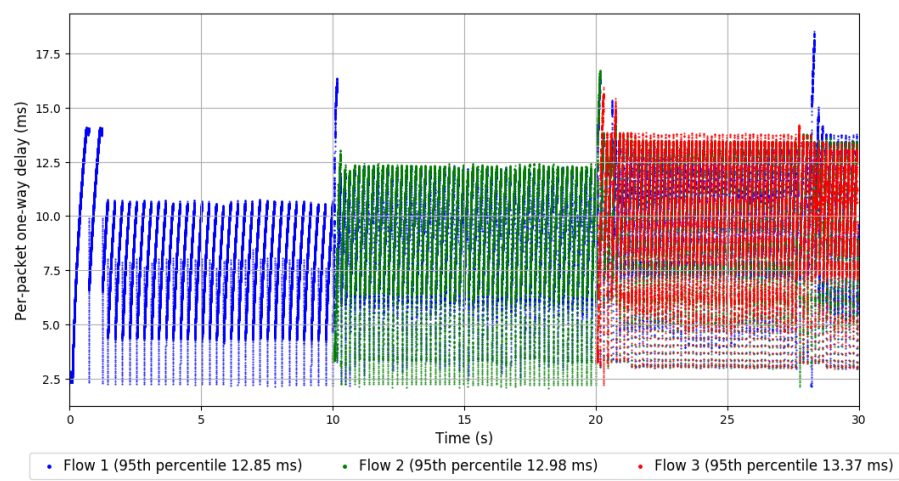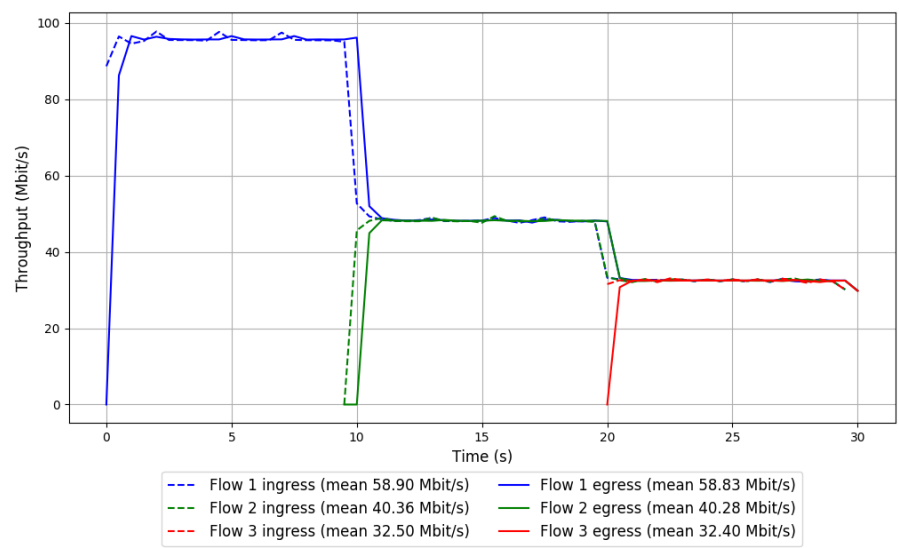
Run 8: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 58.53 Mbit/s)   —— Flow 1 egress (mean 58.52 Mbit/s)
- - - Flow 2 ingress (mean 40.19 Mbit/s)   —— Flow 2 egress (mean 40.10 Mbit/s)
- - - Flow 3 ingress (mean 31.88 Mbit/s)   —— Flow 3 egress (mean 31.85 Mbit/s)

• Flow 1 (95th percentile 9.65 ms)   • Flow 2 (95th percentile 12.21 ms)   • Flow 3 (95th percentile 9.58 ms)

```
Run 9: Statistics of Indigo

Start at: 2018-07-04 13:26:01
End at: 2018-07-04 13:26:31
Local clock offset: -2.816 ms
Remote clock offset: -2.317 ms


# Below is generated by plot.py at 2018-07-04 14:15:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 11.733 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 9.736 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.70 Mbit/s
95th percentile per-packet one-way delay: 12.235 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 32.40 Mbit/s
95th percentile per-packet one-way delay: 10.619 ms
Loss rate: 0.92%
```
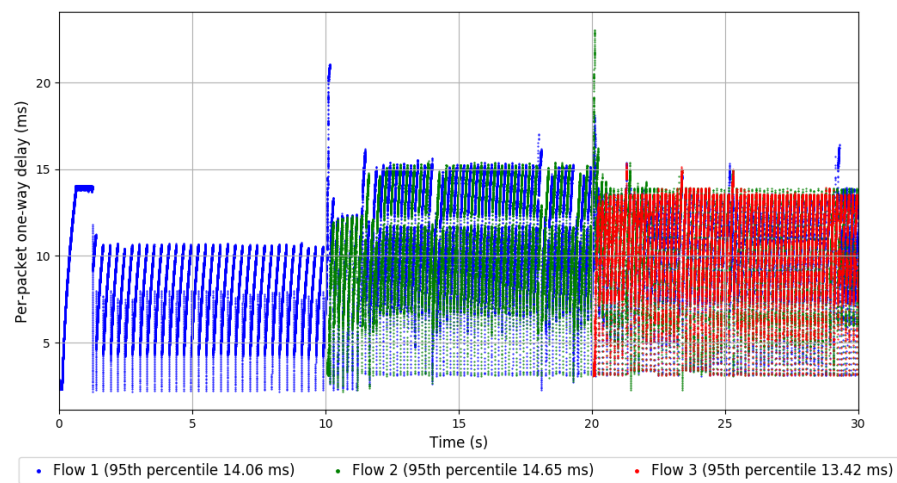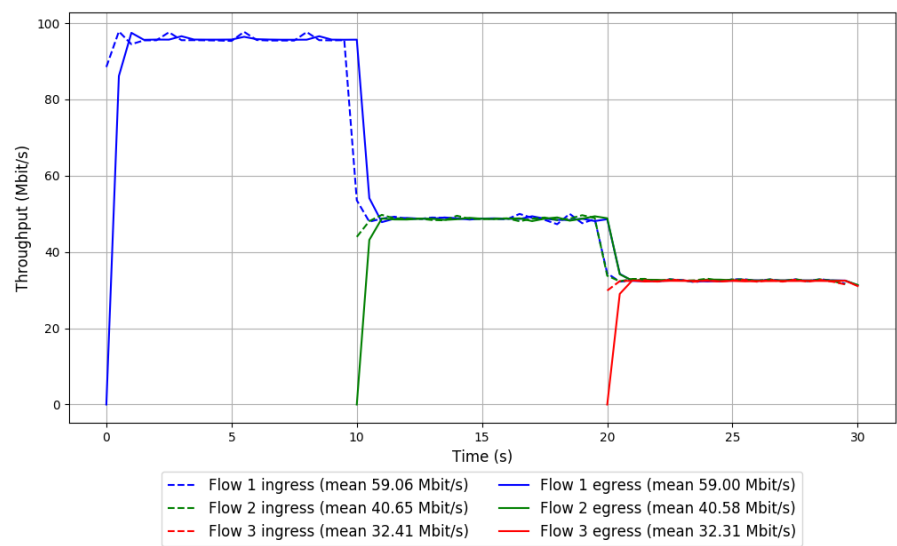
Run 9: Report of Indigo — Data Link

Flow 1 ingress (mean 59.66 Mbit/s) --- Flow 1 egress (mean 59.65 Mbit/s)
Flow 2 ingress (mean 41.55 Mbit/s) --- Flow 2 egress (mean 40.70 Mbit/s)
Flow 3 ingress (mean 32.68 Mbit/s) --- Flow 3 egress (mean 32.40 Mbit/s)

Flow 1 (95th percentile 9.74 ms)   Flow 2 (95th percentile 12.23 ms)   Flow 3 (95th percentile 10.62 ms)

```
Run 10: Statistics of Indigo

Start at: 2018-07-04 13:45:12
End at: 2018-07-04 13:45:42
Local clock offset: -4.742 ms
Remote clock offset: -7.278 ms

# Below is generated by plot.py at 2018-07-04 14:15:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 11.816 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 9.873 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 12.299 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 10.779 ms
Loss rate: 1.23%
```
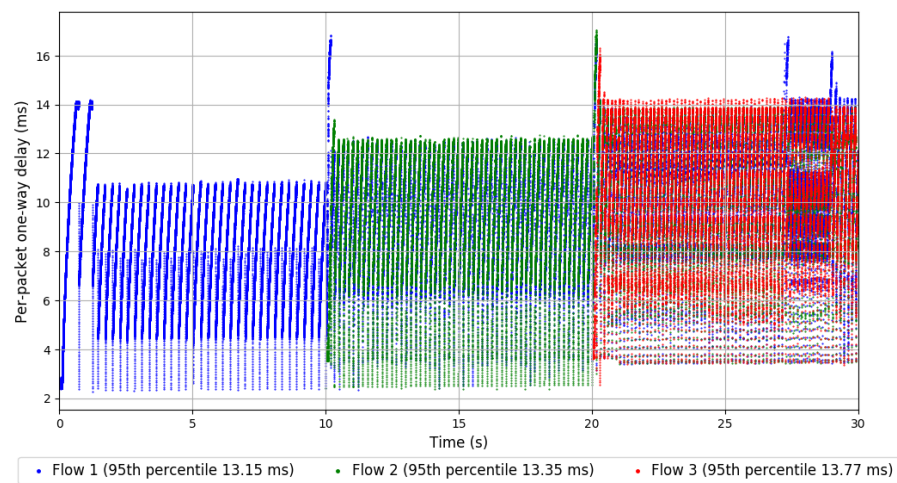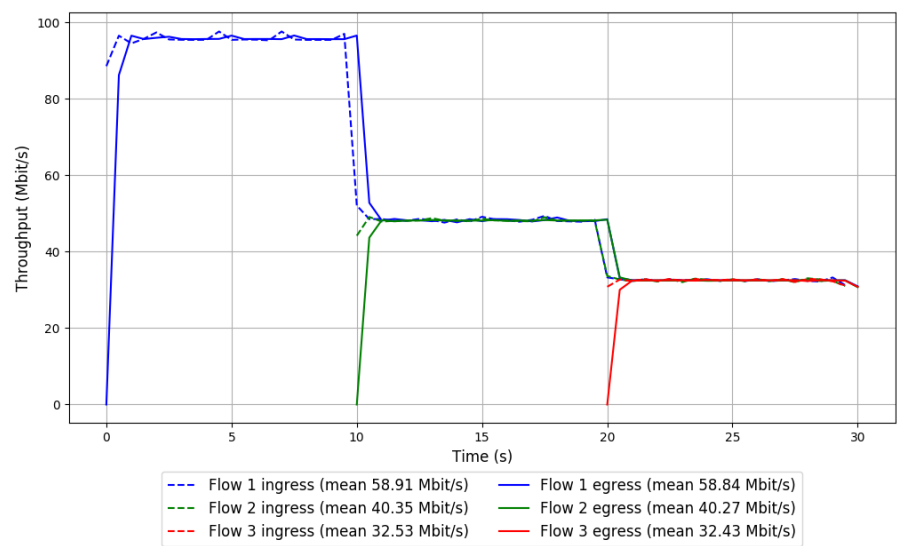
Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 59.65 Mbit/s)   Flow 1 egress (mean 59.64 Mbit/s)
Flow 2 ingress (mean 41.57 Mbit/s)   Flow 2 egress (mean 40.67 Mbit/s)
Flow 3 ingress (mean 32.85 Mbit/s)   Flow 3 egress (mean 32.45 Mbit/s)

Flow 1 (95th percentile 9.87 ms)   Flow 2 (95th percentile 12.30 ms)   Flow 3 (95th percentile 10.78 ms)

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```
Run 1: Statistics of LEDBAT

Start at: 2018-07-04 10:54:00
End at: 2018-07-04 10:54:30
Local clock offset: -2.891 ms
Remote clock offset: -2.808 ms

# Below is generated by plot.py at 2018-07-04 14:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.77 Mbit/s
95th percentile per-packet one-way delay: 14.617 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 59.03 Mbit/s
95th percentile per-packet one-way delay: 14.412 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.57 Mbit/s
95th percentile per-packet one-way delay: 14.940 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 13.527 ms
Loss rate: 0.35%
```
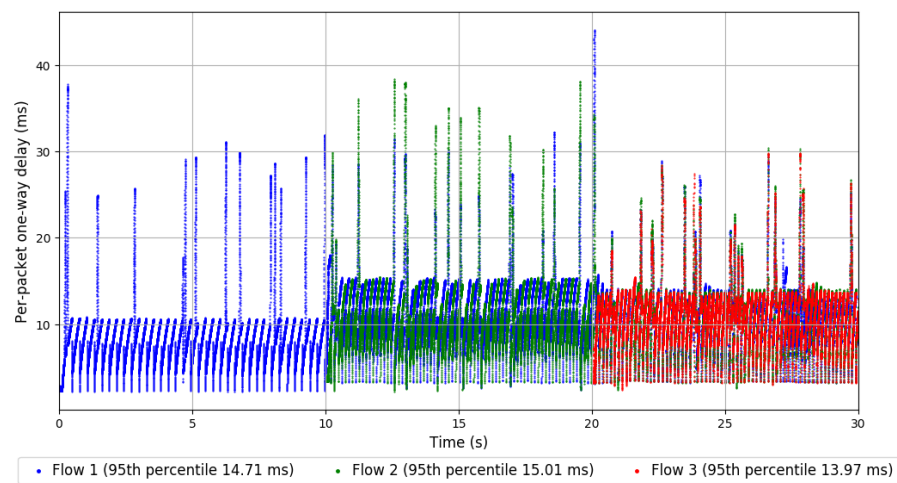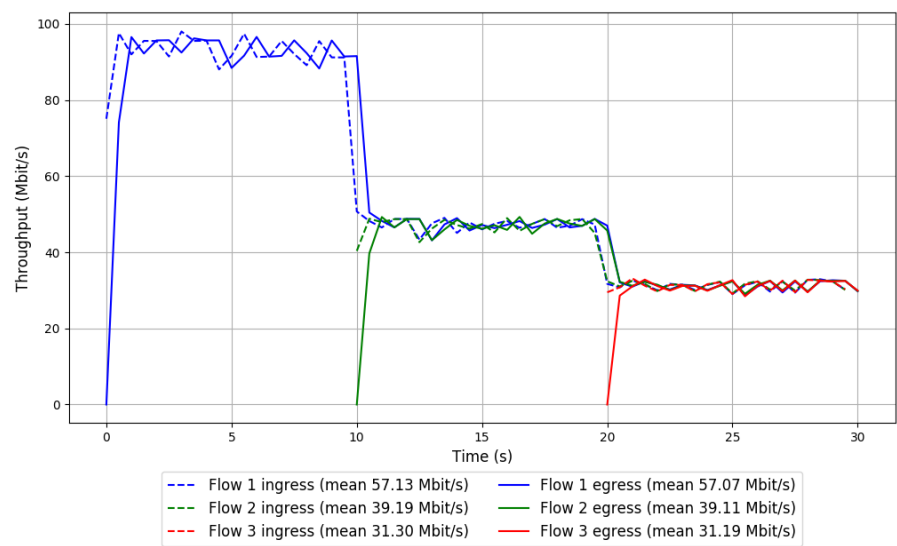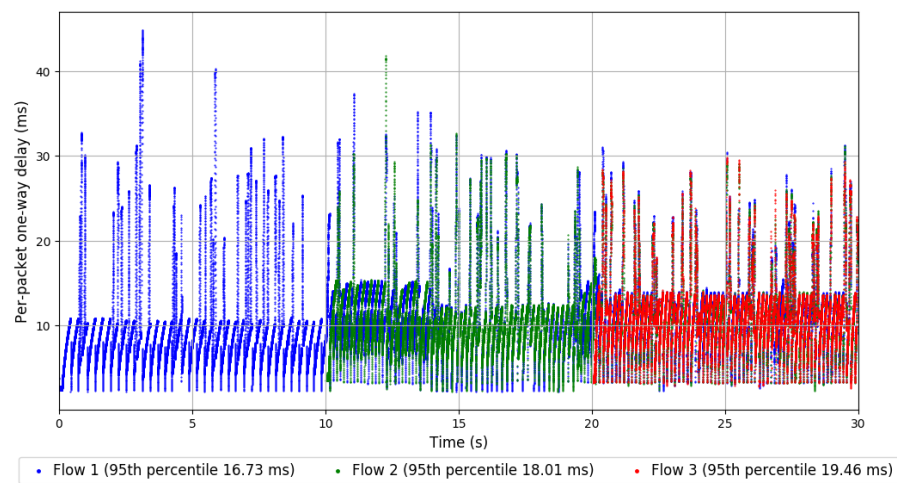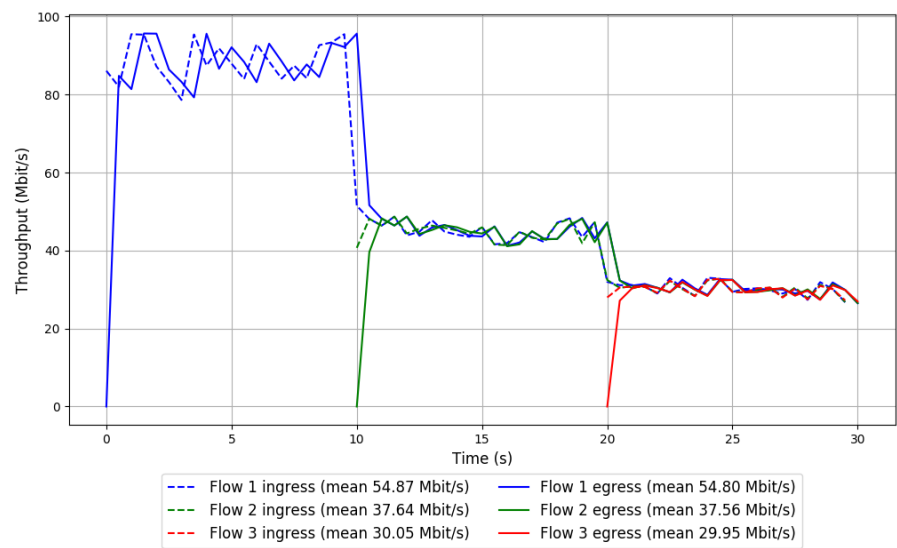
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 59.09 Mbit/s) — Flow 1 egress (mean 59.03 Mbit/s)
Flow 2 ingress (mean 40.64 Mbit/s) — Flow 2 egress (mean 40.57 Mbit/s)
Flow 3 ingress (mean 32.41 Mbit/s) — Flow 3 egress (mean 32.32 Mbit/s)

Flow 1 (95th percentile 14.41 ms)   Flow 2 (95th percentile 14.94 ms)   Flow 3 (95th percentile 13.53 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2018-07-04 11:13:10
End at: 2018-07-04 11:13:40
Local clock offset: -2.839 ms
Remote clock offset: -3.816 ms

# Below is generated by plot.py at 2018-07-04 14:15:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.43 Mbit/s
95th percentile per-packet one-way delay: 13.010 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 58.83 Mbit/s
95th percentile per-packet one-way delay: 12.845 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.28 Mbit/s
95th percentile per-packet one-way delay: 12.983 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 32.40 Mbit/s
95th percentile per-packet one-way delay: 13.367 ms
Loss rate: 0.36%
```
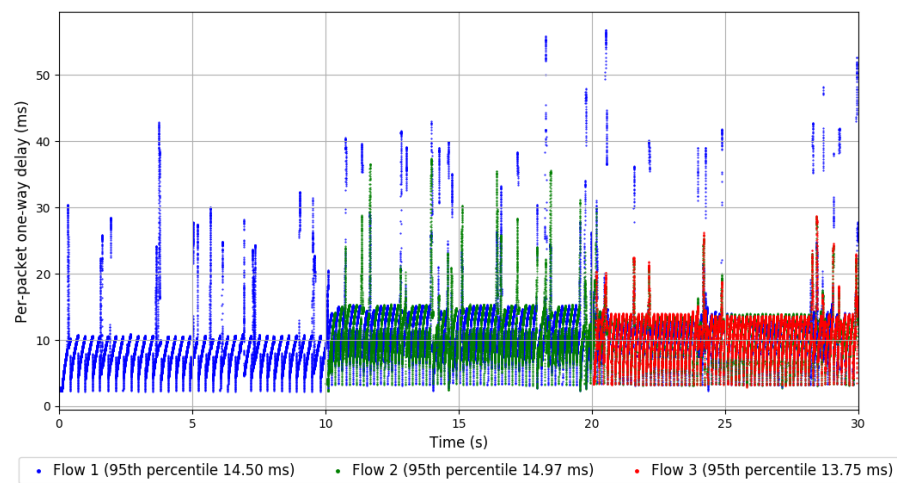
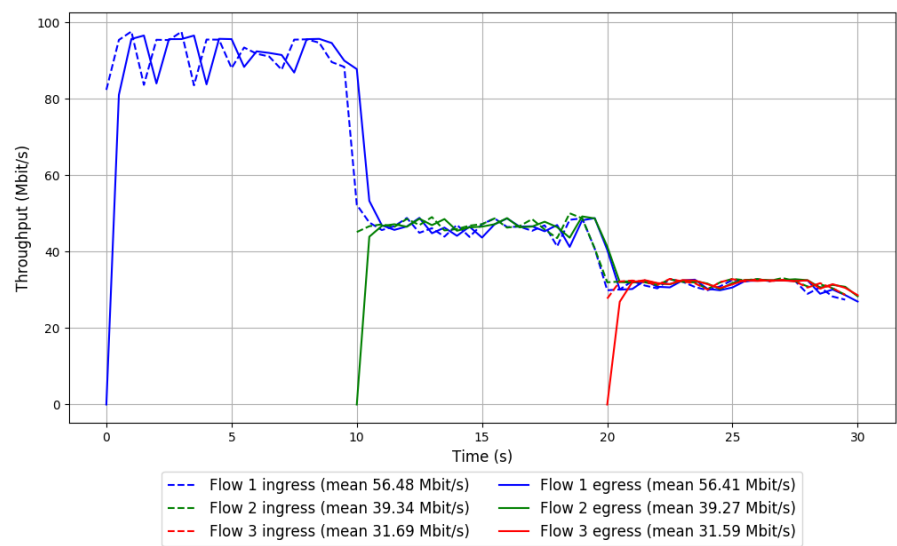# Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-07-04 11:32:20
End at: 2018-07-04 11:32:50
Local clock offset: -2.546 ms
Remote clock offset: -7.505 ms


# Below is generated by plot.py at 2018-07-04 14:16:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.74 Mbit/s
95th percentile per-packet one-way delay: 14.256 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 59.00 Mbit/s
95th percentile per-packet one-way delay: 14.065 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 40.58 Mbit/s
95th percentile per-packet one-way delay: 14.652 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 32.31 Mbit/s
95th percentile per-packet one-way delay: 13.421 ms
Loss rate: 0.36%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 59.06 Mbit/s)   Flow 1 egress (mean 59.00 Mbit/s)
Flow 2 ingress (mean 40.65 Mbit/s)   Flow 2 egress (mean 40.58 Mbit/s)
Flow 3 ingress (mean 32.41 Mbit/s)   Flow 3 egress (mean 32.31 Mbit/s)

Flow 1 (95th percentile 14.06 ms)   Flow 2 (95th percentile 14.65 ms)   Flow 3 (95th percentile 13.42 ms)

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```
Run 4: Statistics of LEDBAT

Start at: 2018-07-04 11:51:30
End at: 2018-07-04 11:52:00
Local clock offset: -2.315 ms
Remote clock offset: -4.367 ms


# Below is generated by plot.py at 2018-07-04 14:16:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.43 Mbit/s
95th percentile per-packet one-way delay: 13.400 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 58.84 Mbit/s
95th percentile per-packet one-way delay: 13.150 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.27 Mbit/s
95th percentile per-packet one-way delay: 13.353 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 13.769 ms
Loss rate: 0.38%
```
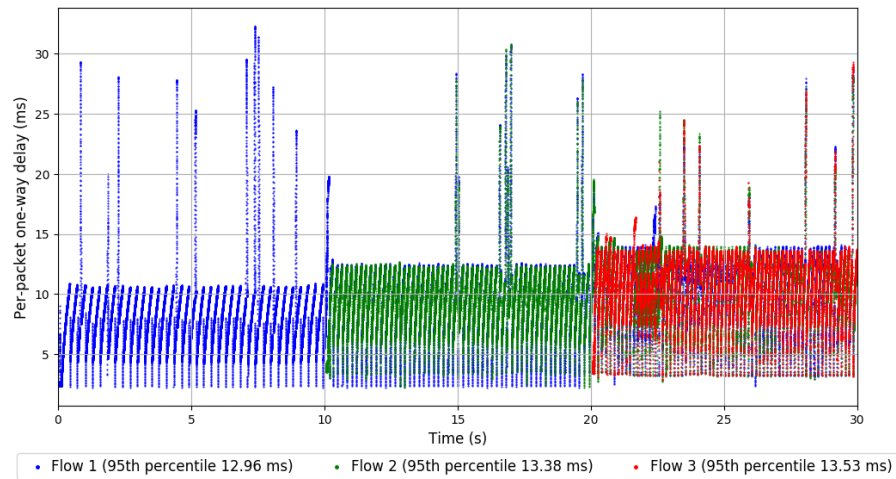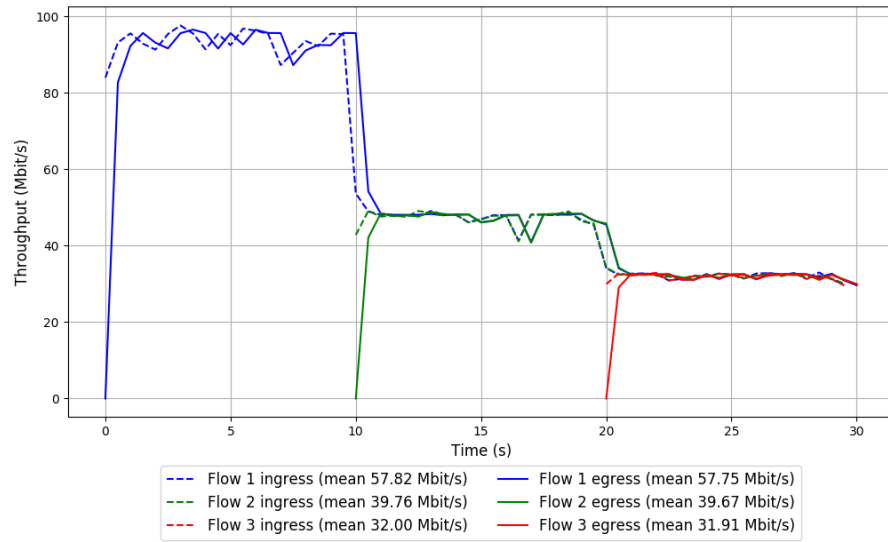
Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 58.91 Mbit/s)   Flow 1 egress (mean 58.84 Mbit/s)
Flow 2 ingress (mean 40.35 Mbit/s)   Flow 2 egress (mean 40.27 Mbit/s)
Flow 3 ingress (mean 32.53 Mbit/s)   Flow 3 egress (mean 32.43 Mbit/s)

Flow 1 (95th percentile 13.15 ms)   Flow 2 (95th percentile 13.35 ms)   Flow 3 (95th percentile 13.77 ms)
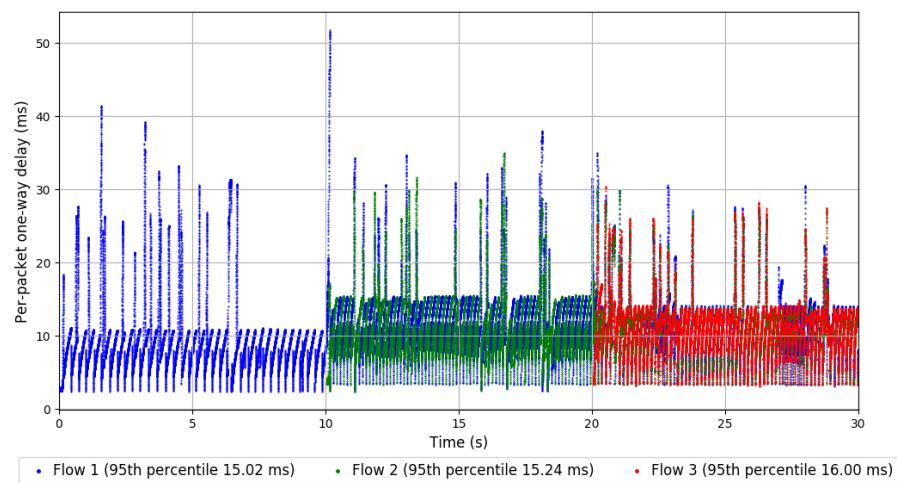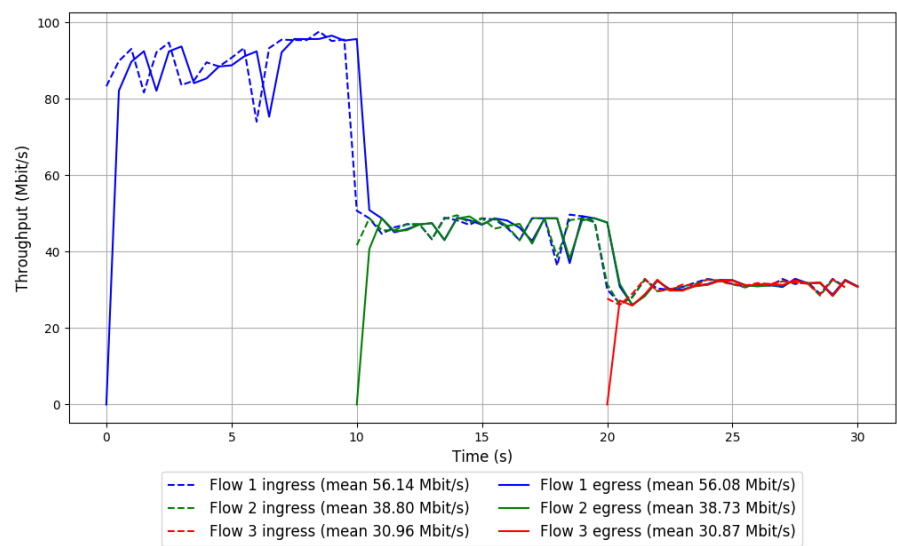
```
Run 5: Statistics of LEDBAT

Start at: 2018-07-04 12:10:38
End at: 2018-07-04 12:11:08
Local clock offset: -2.168 ms
Remote clock offset: 0.454 ms


# Below is generated by plot.py at 2018-07-04 14:16:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.47 Mbit/s
95th percentile per-packet one-way delay: 14.807 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 57.07 Mbit/s
95th percentile per-packet one-way delay: 14.705 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 39.11 Mbit/s
95th percentile per-packet one-way delay: 15.009 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 31.19 Mbit/s
95th percentile per-packet one-way delay: 13.967 ms
Loss rate: 0.40%
```
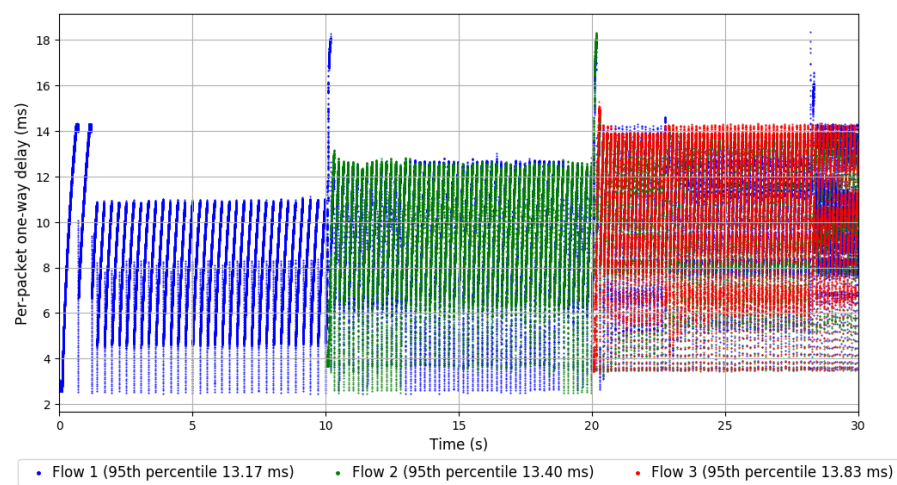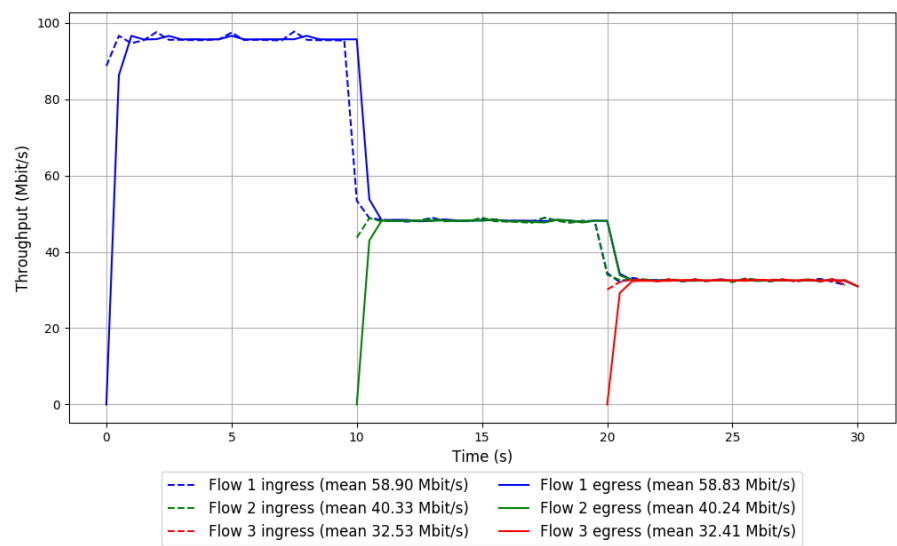
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 57.13 Mbit/s) --- Flow 1 egress (mean 57.07 Mbit/s)
Flow 2 ingress (mean 39.19 Mbit/s) --- Flow 2 egress (mean 39.11 Mbit/s)
Flow 3 ingress (mean 31.30 Mbit/s) --- Flow 3 egress (mean 31.19 Mbit/s)

Flow 1 (95th percentile 14.71 ms)   Flow 2 (95th percentile 15.01 ms)   Flow 3 (95th percentile 13.97 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-07-04 12:29:43
End at: 2018-07-04 12:30:13
Local clock offset: -2.586 ms
Remote clock offset: -1.221 ms

# Below is generated by plot.py at 2018-07-04 14:16:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.76 Mbit/s
95th percentile per-packet one-way delay: 17.628 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 16.734 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 37.56 Mbit/s
95th percentile per-packet one-way delay: 18.007 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 29.95 Mbit/s
95th percentile per-packet one-way delay: 19.461 ms
Loss rate: 0.41%
```
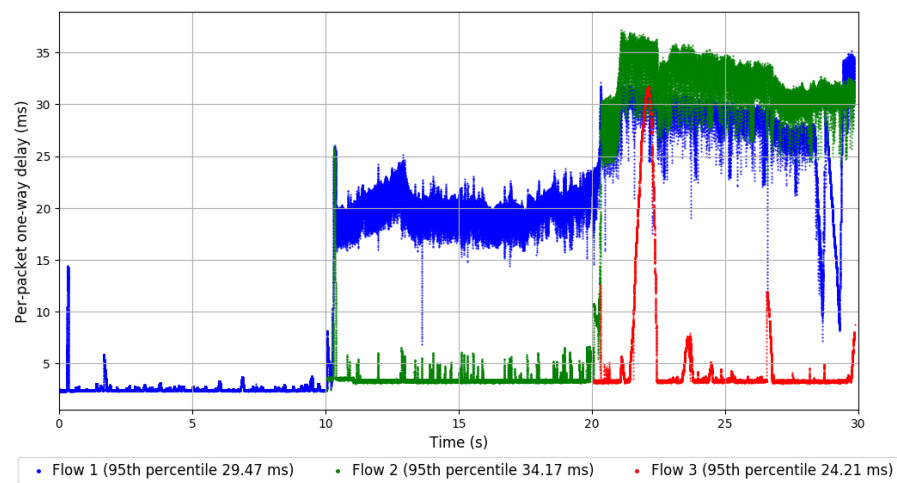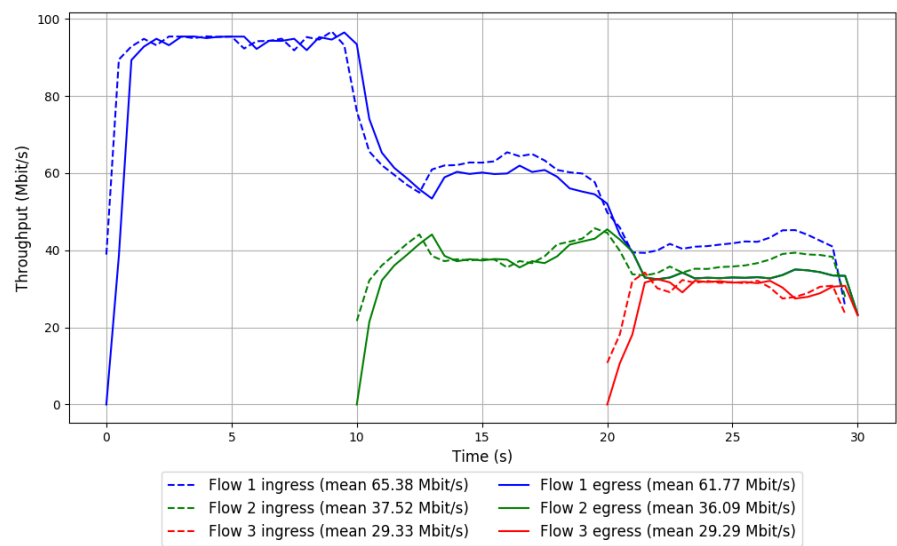
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 54.87 Mbit/s) --- Flow 1 egress (mean 54.80 Mbit/s)
Flow 2 ingress (mean 37.64 Mbit/s) --- Flow 2 egress (mean 37.56 Mbit/s)
Flow 3 ingress (mean 30.05 Mbit/s) --- Flow 3 egress (mean 29.95 Mbit/s)

Flow 1 (95th percentile 16.73 ms)   Flow 2 (95th percentile 18.01 ms)   Flow 3 (95th percentile 19.46 ms)

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```
Run 7: Statistics of LEDBAT

Start at: 2018-07-04 12:48:51
End at: 2018-07-04 12:49:21
Local clock offset: -2.685 ms
Remote clock offset: -1.711 ms


# Below is generated by plot.py at 2018-07-04 14:16:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 14.695 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.41 Mbit/s
95th percentile per-packet one-way delay: 14.497 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.27 Mbit/s
95th percentile per-packet one-way delay: 14.967 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 13.751 ms
Loss rate: 0.35%
```
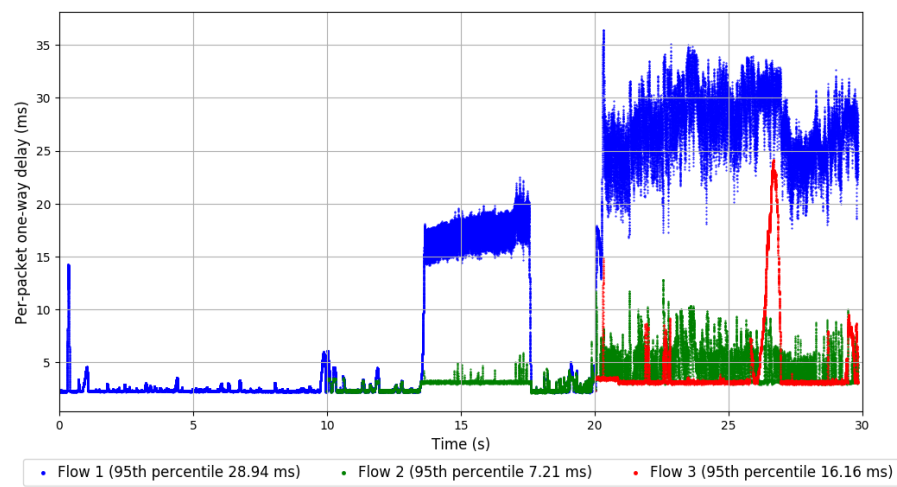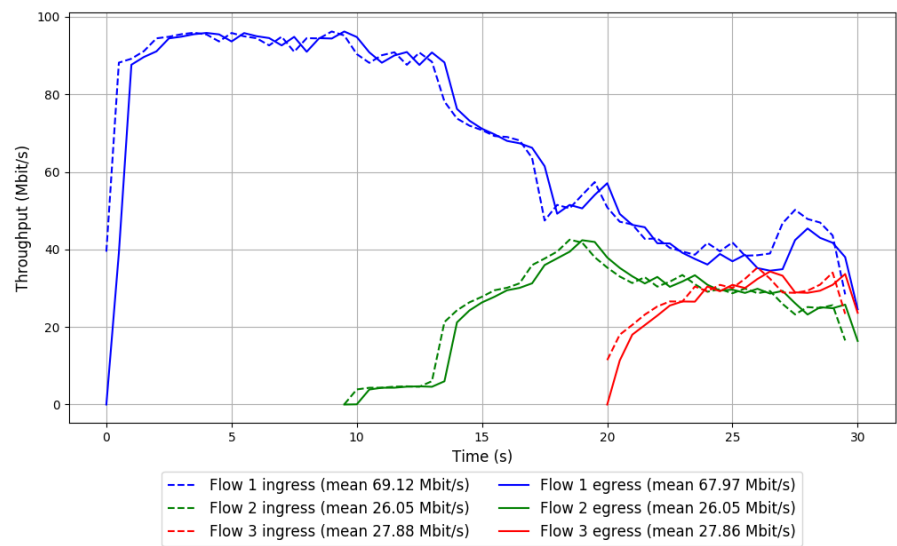
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 56.48 Mbit/s)   Flow 1 egress (mean 56.41 Mbit/s)
Flow 2 ingress (mean 39.34 Mbit/s)   Flow 2 egress (mean 39.27 Mbit/s)
Flow 3 ingress (mean 31.69 Mbit/s)   Flow 3 egress (mean 31.59 Mbit/s)

Flow 1 (95th percentile 14.50 ms)   Flow 2 (95th percentile 14.97 ms)   Flow 3 (95th percentile 13.75 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-07-04 13:07:59
End at: 2018-07-04 13:08:29
Local clock offset: -2.651 ms
Remote clock offset: -2.37 ms

# Below is generated by plot.py at 2018-07-04 14:16:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.76 Mbit/s
95th percentile per-packet one-way delay: 13.223 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 57.75 Mbit/s
95th percentile per-packet one-way delay: 12.961 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 13.382 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 13.528 ms
Loss rate: 0.31%
```
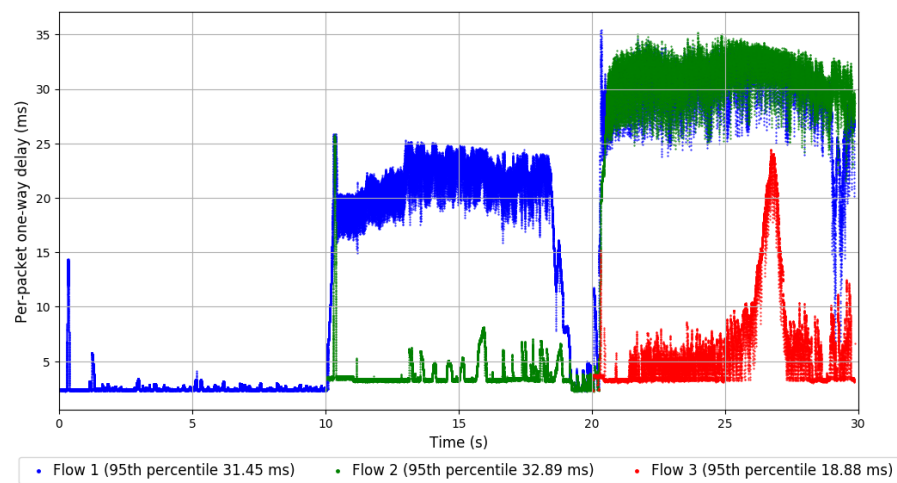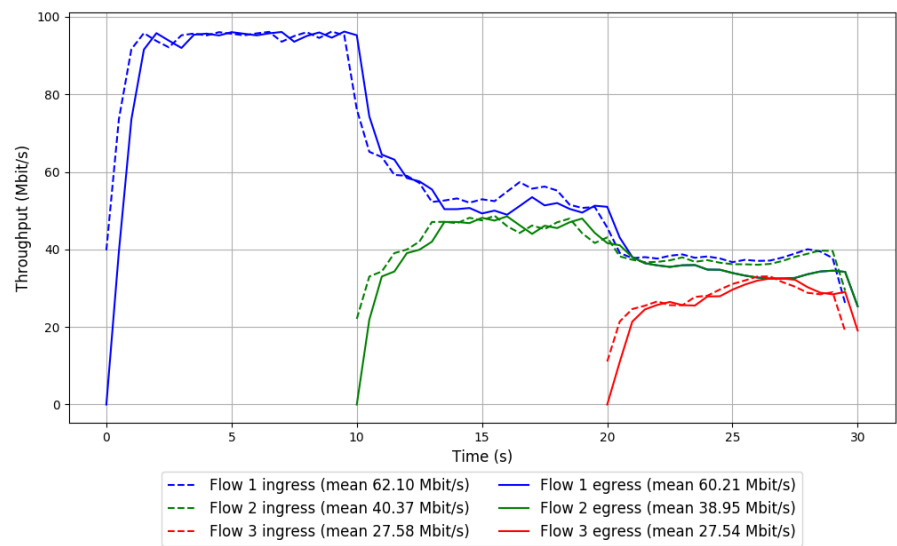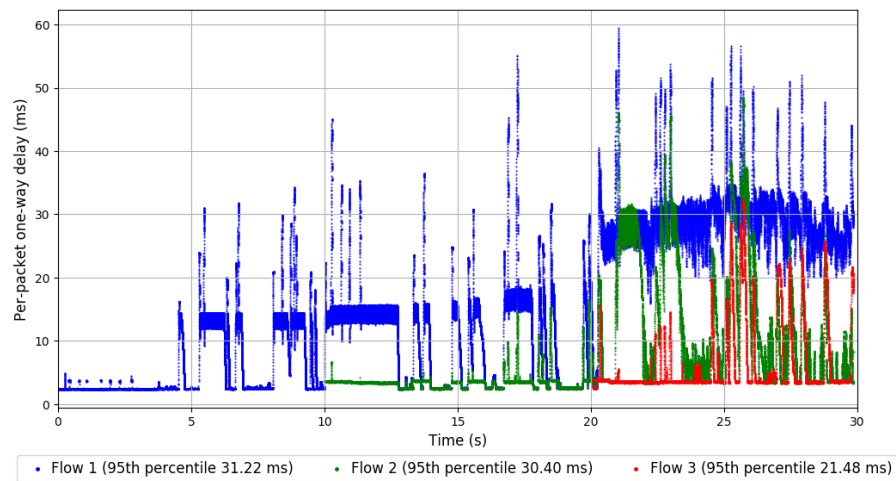
Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 57.82 Mbit/s) Flow 1 egress (mean 57.75 Mbit/s)
Flow 2 ingress (mean 39.76 Mbit/s) Flow 2 egress (mean 39.67 Mbit/s)
Flow 3 ingress (mean 32.00 Mbit/s) Flow 3 egress (mean 31.91 Mbit/s)

Flow 1 (95th percentile 12.96 ms)   Flow 2 (95th percentile 13.38 ms)   Flow 3 (95th percentile 13.53 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-07-04 13:27:10
End at: 2018-07-04 13:27:40
Local clock offset: -2.821 ms
Remote clock offset: -2.354 ms

# Below is generated by plot.py at 2018-07-04 14:16:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 15.140 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 56.08 Mbit/s
95th percentile per-packet one-way delay: 15.017 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 15.244 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 30.87 Mbit/s
95th percentile per-packet one-way delay: 16.000 ms
Loss rate: 0.36%
```
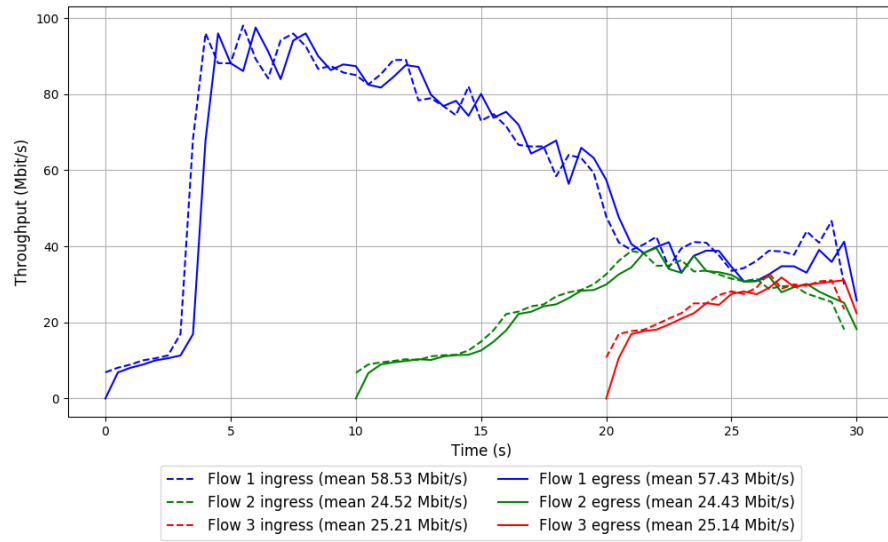
Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 56.14 Mbit/s)   Flow 1 egress (mean 56.08 Mbit/s)
Flow 2 ingress (mean 38.80 Mbit/s)   Flow 2 egress (mean 38.73 Mbit/s)
Flow 3 ingress (mean 30.96 Mbit/s)   Flow 3 egress (mean 30.87 Mbit/s)

Flow 1 (95th percentile 15.02 ms)   Flow 2 (95th percentile 15.24 ms)   Flow 3 (95th percentile 16.00 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-07-04 13:46:20
End at: 2018-07-04 13:46:50
Local clock offset: -5.068 ms
Remote clock offset: -7.506 ms


# Below is generated by plot.py at 2018-07-04 14:17:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 13.446 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 58.83 Mbit/s
95th percentile per-packet one-way delay: 13.167 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 13.396 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 32.41 Mbit/s
95th percentile per-packet one-way delay: 13.828 ms
Loss rate: 0.41%
```
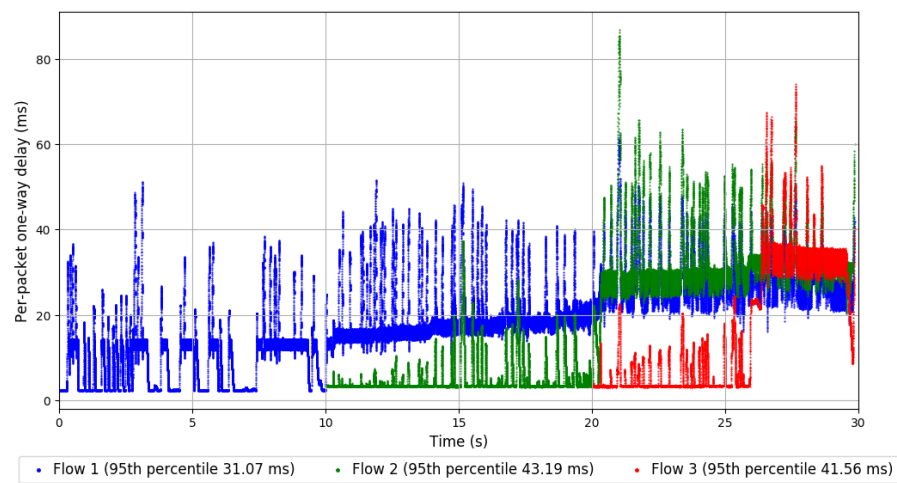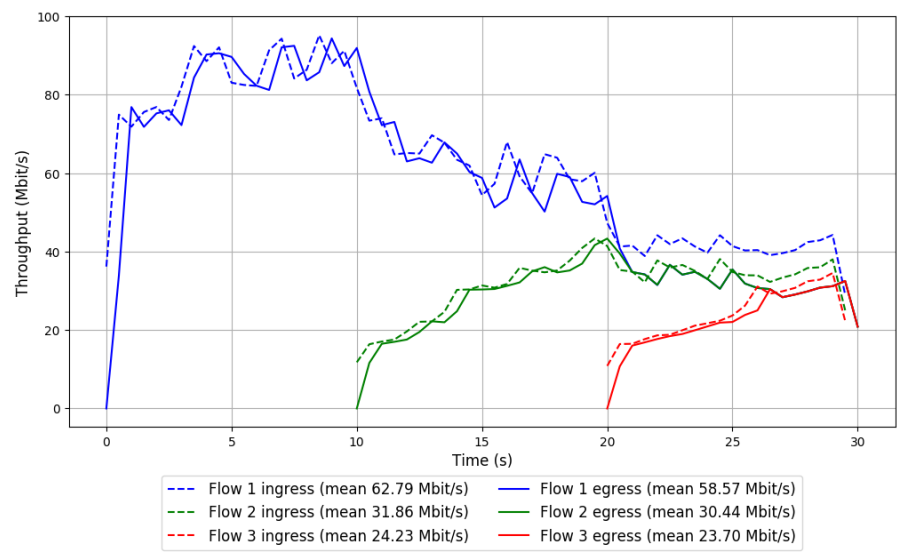
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 58.90 Mbit/s)   Flow 1 egress (mean 58.83 Mbit/s)
Flow 2 ingress (mean 40.33 Mbit/s)   Flow 2 egress (mean 40.24 Mbit/s)
Flow 3 ingress (mean 32.53 Mbit/s)   Flow 3 egress (mean 32.41 Mbit/s)

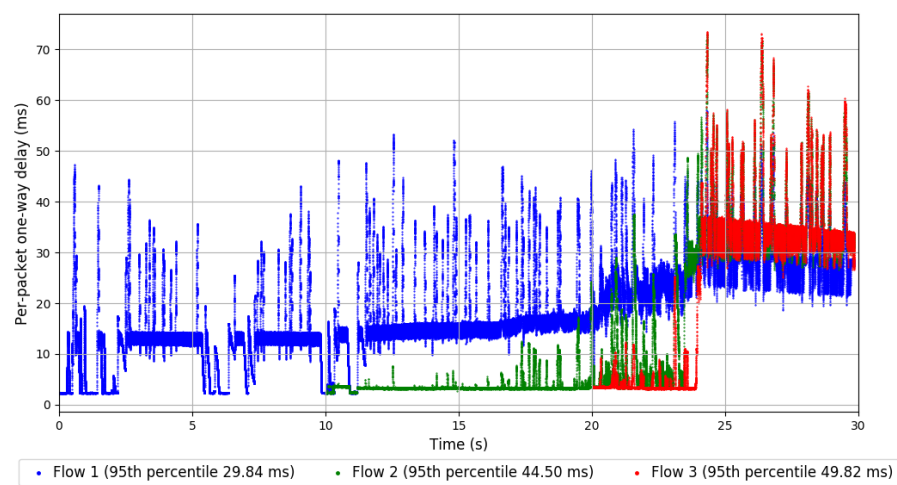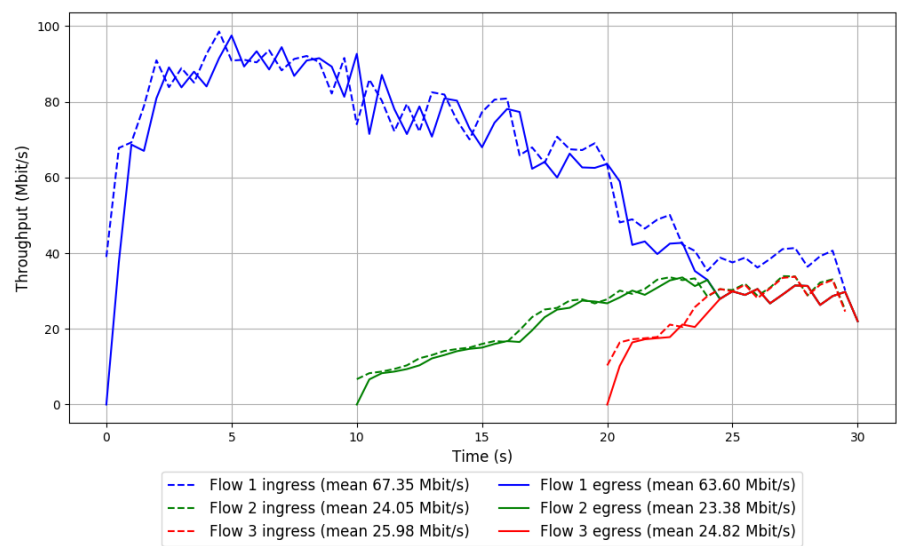Flow 1 (95th percentile 13.17 ms)   Flow 2 (95th percentile 13.40 ms)   Flow 3 (95th percentile 13.83 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-04 11:00:45
End at: 2018-07-04 11:01:15
Local clock offset: -3.0 ms
Remote clock offset: -2.932 ms


# Below is generated by plot.py at 2018-07-04 14:17:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 31.861 ms
Loss rate: 4.63%
-- Flow 1:
Average throughput: 61.77 Mbit/s
95th percentile per-packet one-way delay: 29.472 ms
Loss rate: 5.56%
-- Flow 2:
Average throughput: 36.09 Mbit/s
95th percentile per-packet one-way delay: 34.173 ms
Loss rate: 3.89%
-- Flow 3:
Average throughput: 29.29 Mbit/s
95th percentile per-packet one-way delay: 24.210 ms
Loss rate: 0.20%
```

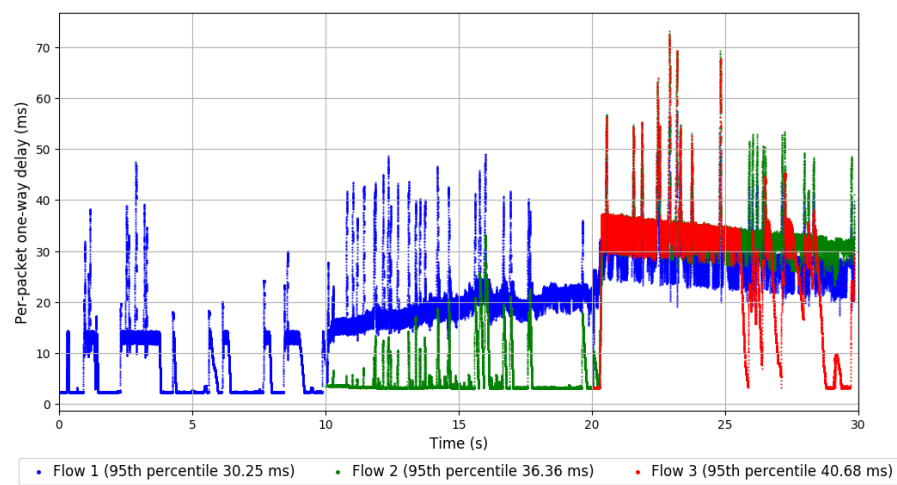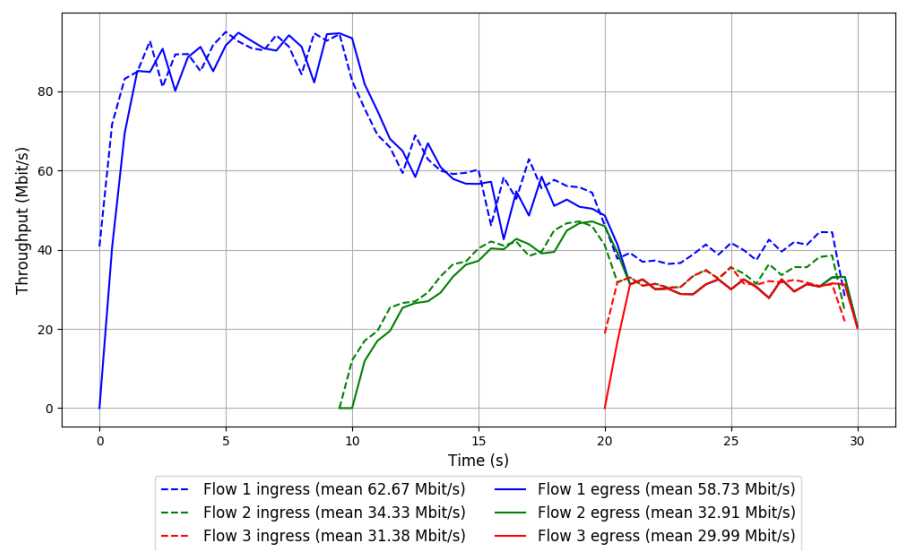Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-04 11:19:56
End at: 2018-07-04 11:20:26
Local clock offset: -2.643 ms
Remote clock offset: -5.769 ms

# Below is generated by plot.py at 2018-07-04 14:17:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.47 Mbit/s
95th percentile per-packet one-way delay: 27.940 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 67.97 Mbit/s
95th percentile per-packet one-way delay: 28.936 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 26.05 Mbit/s
95th percentile per-packet one-way delay: 7.215 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 27.86 Mbit/s
95th percentile per-packet one-way delay: 16.162 ms
Loss rate: 0.11%
```
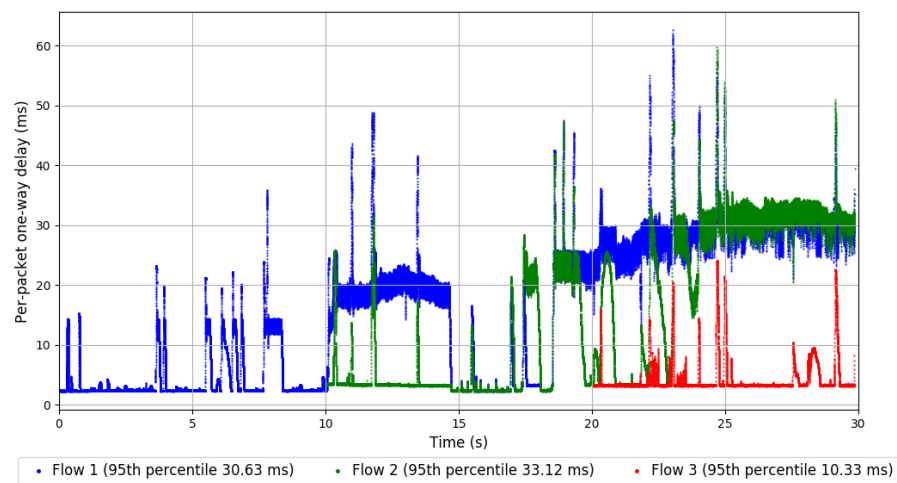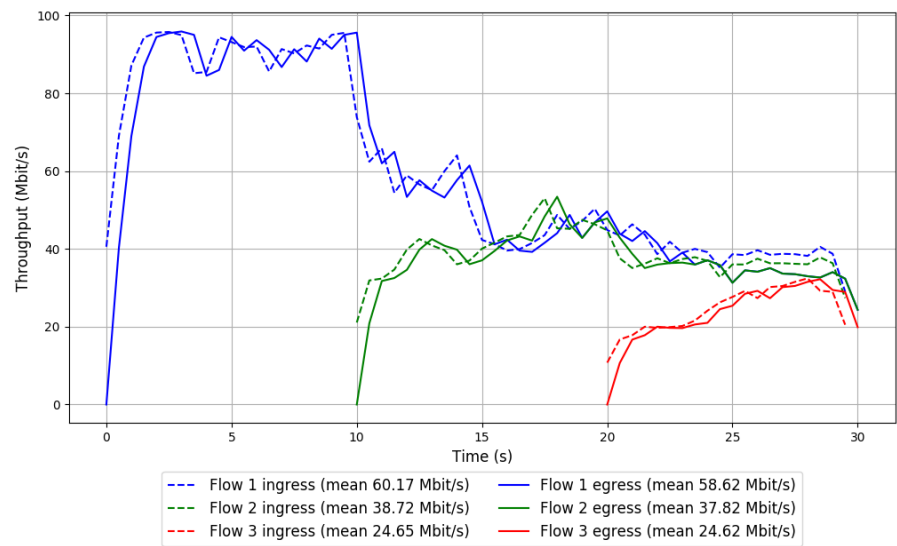
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-04 11:39:06
End at: 2018-07-04 11:39:36
Local clock offset: -2.45 ms
Remote clock offset: -8.121 ms


# Below is generated by plot.py at 2018-07-04 14:17:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.16 Mbit/s
95th percentile per-packet one-way delay: 32.044 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 60.21 Mbit/s
95th percentile per-packet one-way delay: 31.449 ms
Loss rate: 3.05%
-- Flow 2:
Average throughput: 38.95 Mbit/s
95th percentile per-packet one-way delay: 32.889 ms
Loss rate: 3.59%
-- Flow 3:
Average throughput: 27.54 Mbit/s
95th percentile per-packet one-way delay: 18.880 ms
Loss rate: 0.15%
```

Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 62.10 Mbit/s) --- Flow 1 egress (mean 60.21 Mbit/s)
Flow 2 ingress (mean 40.37 Mbit/s) --- Flow 2 egress (mean 38.95 Mbit/s)
Flow 3 ingress (mean 27.58 Mbit/s) --- Flow 3 egress (mean 27.54 Mbit/s)

Flow 1 (95th percentile 31.45 ms)   Flow 2 (95th percentile 32.89 ms)   Flow 3 (95th percentile 18.88 ms)
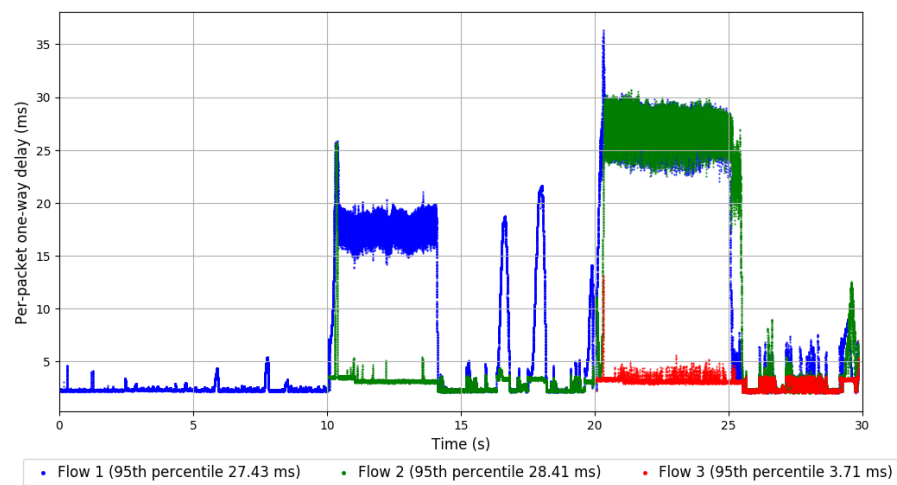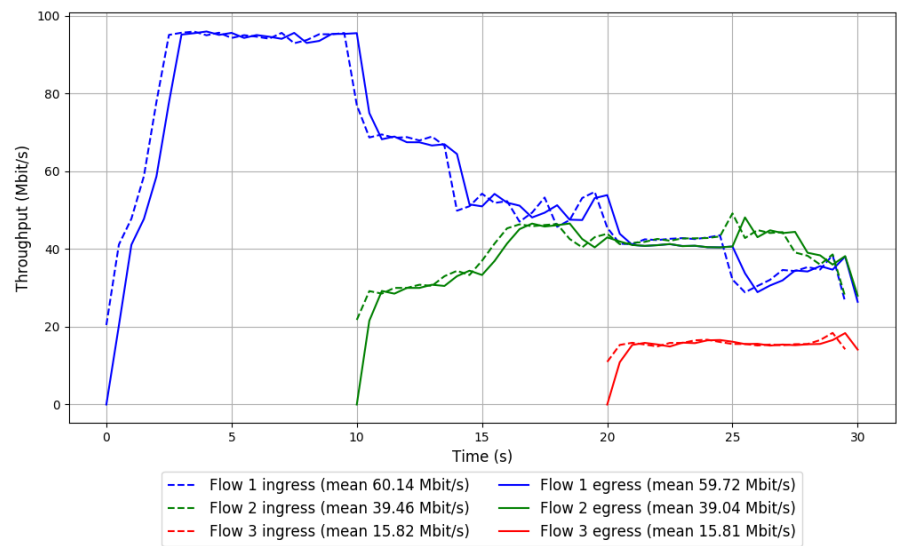
```
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-04 11:58:16
End at: 2018-07-04 11:58:46
Local clock offset: -2.185 ms
Remote clock offset: -1.924 ms

# Below is generated by plot.py at 2018-07-04 14:17:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.92 Mbit/s
95th percentile per-packet one-way delay: 30.778 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 57.43 Mbit/s
95th percentile per-packet one-way delay: 31.218 ms
Loss rate: 1.95%
-- Flow 2:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 30.402 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 25.14 Mbit/s
95th percentile per-packet one-way delay: 21.483 ms
Loss rate: 0.32%
```
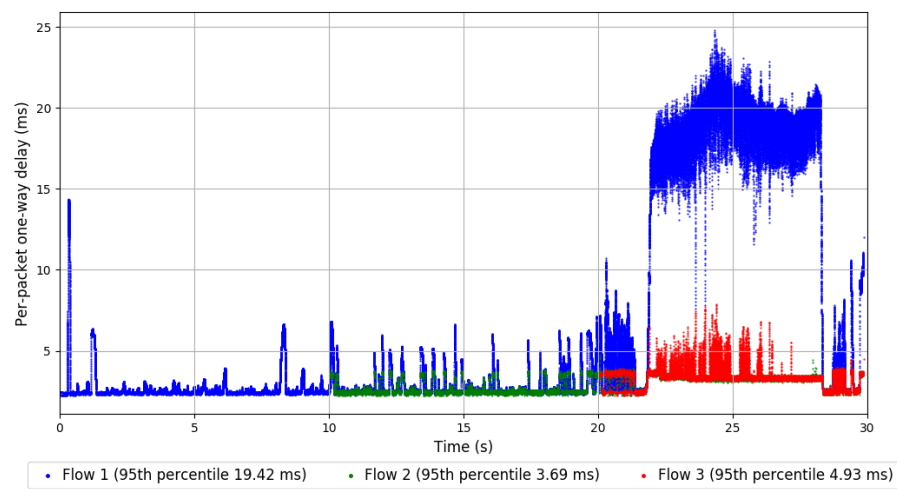
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-04 12:17:22
End at: 2018-07-04 12:17:52
Local clock offset: -2.456 ms
Remote clock offset: 1.253 ms

# Below is generated by plot.py at 2018-07-04 14:17:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.60 Mbit/s
95th percentile per-packet one-way delay: 35.361 ms
Loss rate: 5.89%
-- Flow 1:
Average throughput: 58.57 Mbit/s
95th percentile per-packet one-way delay: 31.070 ms
Loss rate: 6.77%
-- Flow 2:
Average throughput: 30.44 Mbit/s
95th percentile per-packet one-way delay: 43.186 ms
Loss rate: 4.57%
-- Flow 3:
Average throughput: 23.70 Mbit/s
95th percentile per-packet one-way delay: 41.561 ms
Loss rate: 2.44%
```
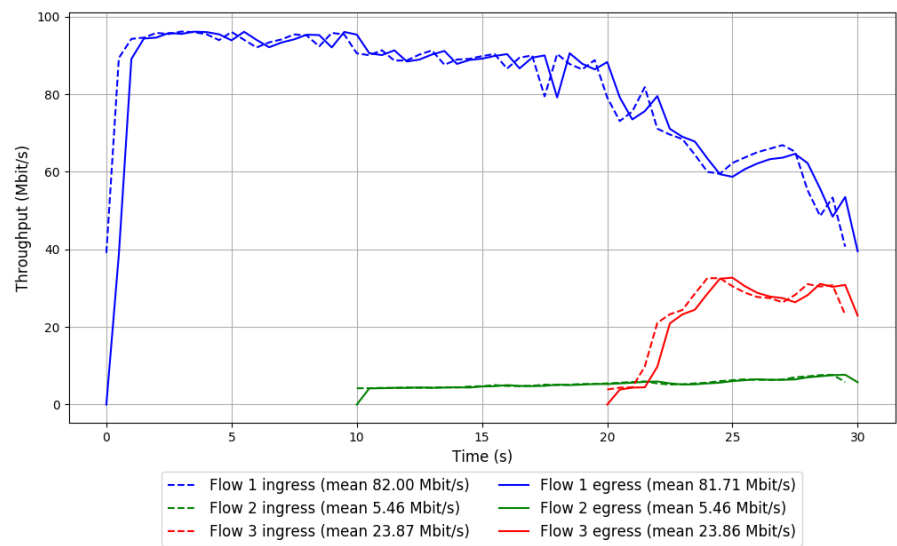
Run 5: Report of PCC-Allegro — Data Link

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-04 12:36:28
End at: 2018-07-04 12:36:58
Local clock offset: -2.609 ms
Remote clock offset: -1.639 ms


# Below is generated by plot.py at 2018-07-04 14:17:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.31 Mbit/s
95th percentile per-packet one-way delay: 35.767 ms
Loss rate: 5.05%
-- Flow 1:
Average throughput: 63.60 Mbit/s
95th percentile per-packet one-way delay: 29.837 ms
Loss rate: 5.62%
-- Flow 2:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 44.504 ms
Loss rate: 2.88%
-- Flow 3:
Average throughput: 24.82 Mbit/s
95th percentile per-packet one-way delay: 49.817 ms
Loss rate: 4.63%
```
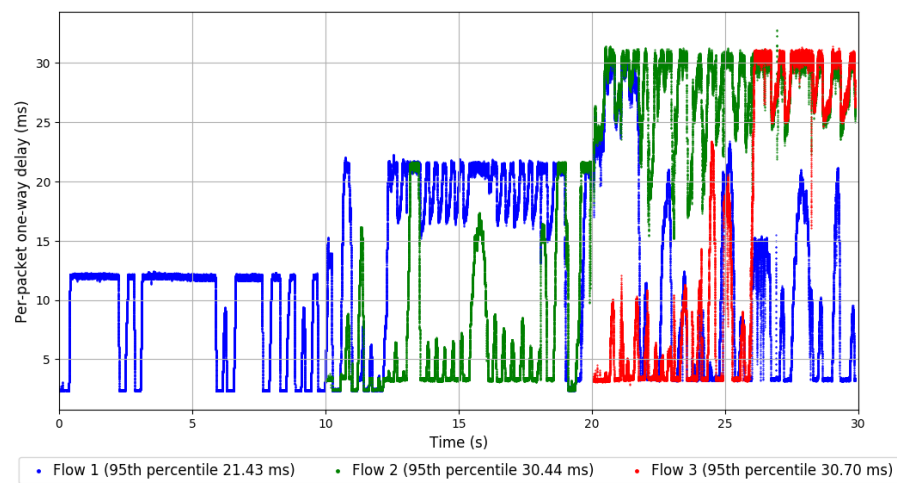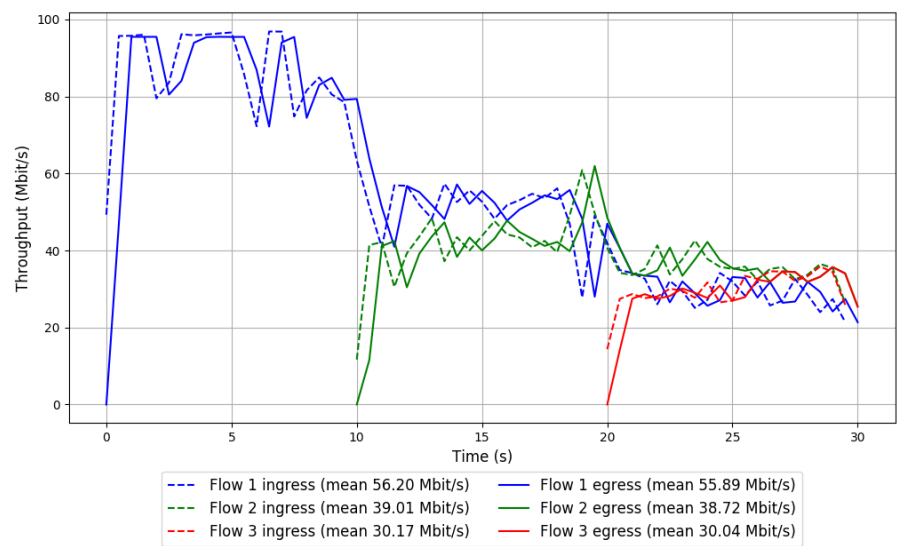
Run 6: Report of PCC-Allegro — Data Link

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-04 12:55:36
End at: 2018-07-04 12:56:06
Local clock offset: -2.637 ms
Remote clock offset: -1.921 ms


# Below is generated by plot.py at 2018-07-04 14:17:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.49 Mbit/s
95th percentile per-packet one-way delay: 35.010 ms
Loss rate: 5.64%
-- Flow 1:
Average throughput: 58.73 Mbit/s
95th percentile per-packet one-way delay: 30.245 ms
Loss rate: 6.32%
-- Flow 2:
Average throughput: 32.91 Mbit/s
95th percentile per-packet one-way delay: 36.364 ms
Loss rate: 4.24%
-- Flow 3:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 40.681 ms
Loss rate: 4.58%
```
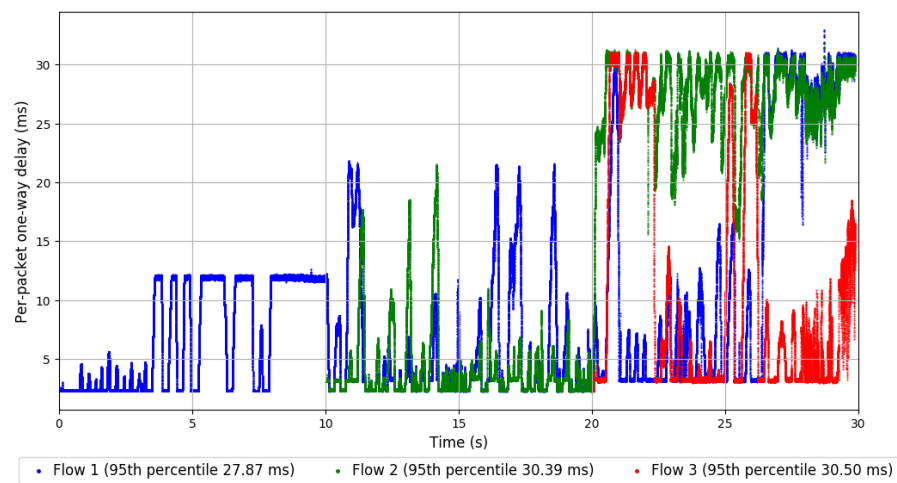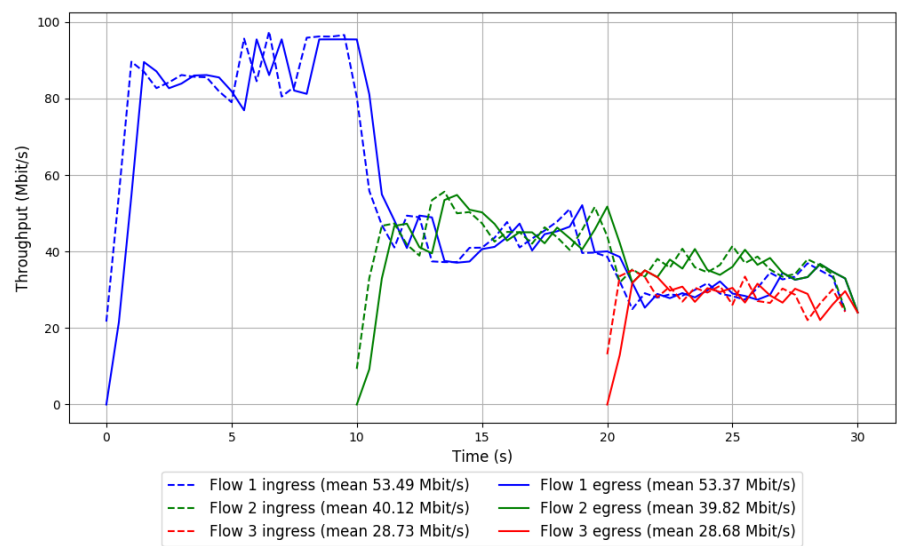
Run 7: Report of PCC-Allegro — Data Link

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-04 13:14:45
End at: 2018-07-04 13:15:15
Local clock offset: -2.716 ms
Remote clock offset: -2.398 ms


# Below is generated by plot.py at 2018-07-04 14:18:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.85 Mbit/s
95th percentile per-packet one-way delay: 31.659 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 58.62 Mbit/s
95th percentile per-packet one-way delay: 30.633 ms
Loss rate: 2.59%
-- Flow 2:
Average throughput: 37.82 Mbit/s
95th percentile per-packet one-way delay: 33.123 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 10.327 ms
Loss rate: 0.19%
```

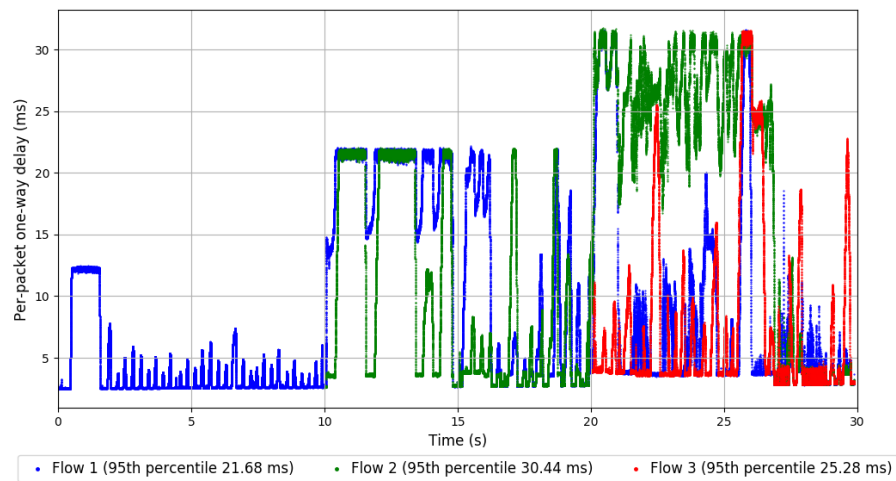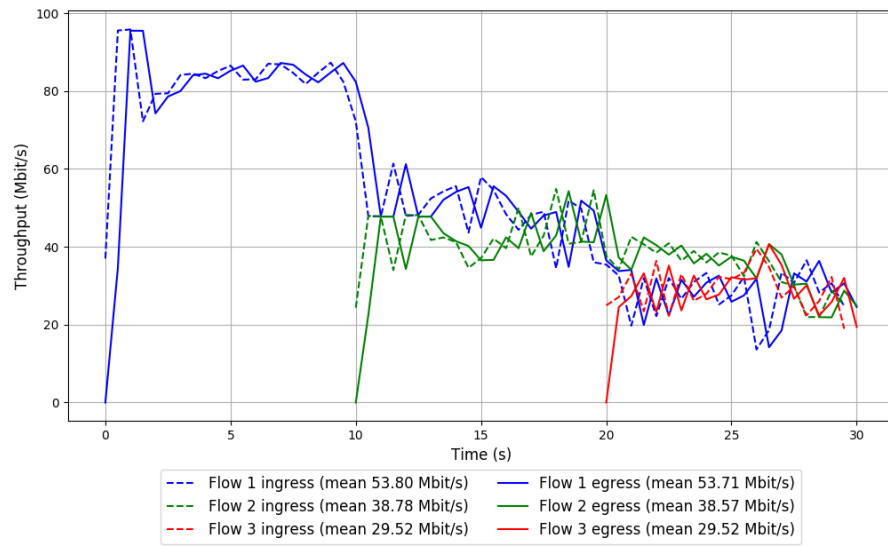Run 8: Report of PCC-Allegro — Data Link

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-04 13:33:55
End at: 2018-07-04 13:34:25
Local clock offset: -2.859 ms
Remote clock offset: -5.046 ms


# Below is generated by plot.py at 2018-07-04 14:18:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.86 Mbit/s
95th percentile per-packet one-way delay: 27.849 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 59.72 Mbit/s
95th percentile per-packet one-way delay: 27.435 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 39.04 Mbit/s
95th percentile per-packet one-way delay: 28.408 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 15.81 Mbit/s
95th percentile per-packet one-way delay: 3.714 ms
Loss rate: 0.07%
```
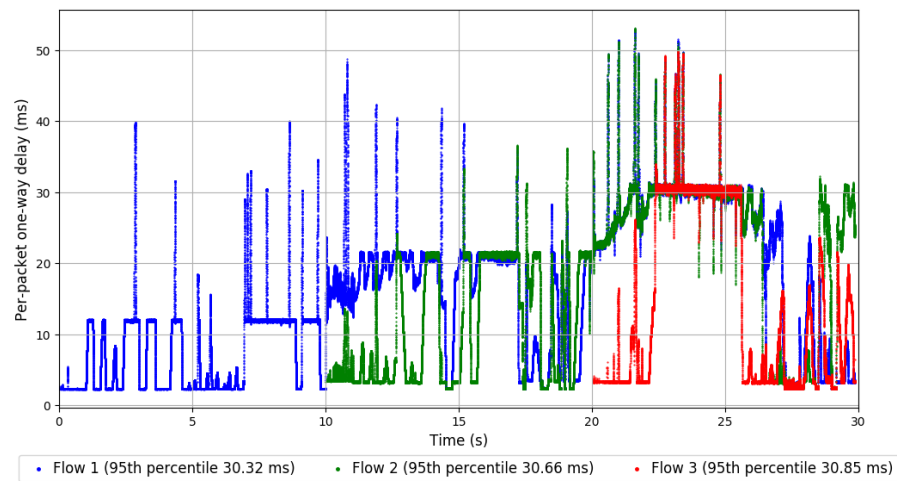
Run 9: Report of PCC-Allegro — Data Link

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-04 13:53:06
End at: 2018-07-04 13:53:36
Local clock offset: -6.429 ms
Remote clock offset: -8.043 ms


# Below is generated by plot.py at 2018-07-04 14:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 19.234 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 81.71 Mbit/s
95th percentile per-packet one-way delay: 19.416 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 3.689 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 23.86 Mbit/s
95th percentile per-packet one-way delay: 4.930 ms
Loss rate: 0.08%
```

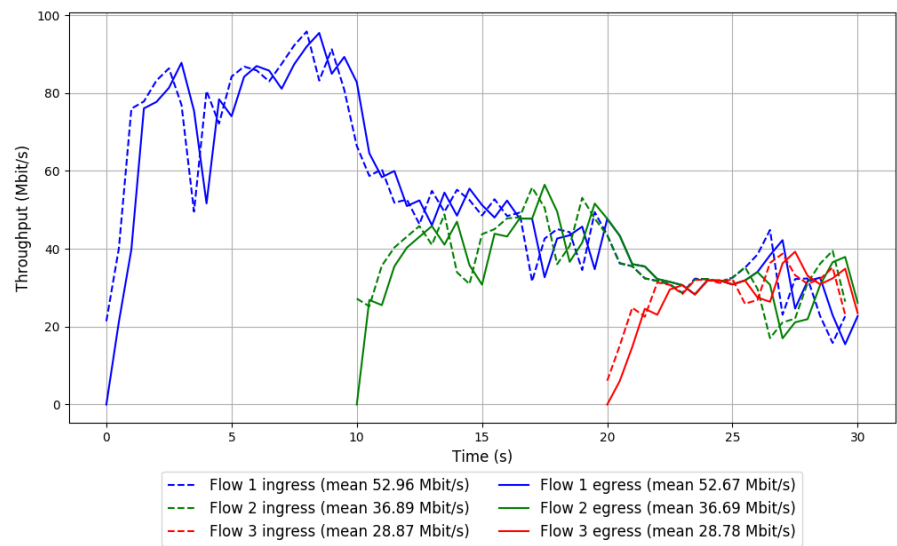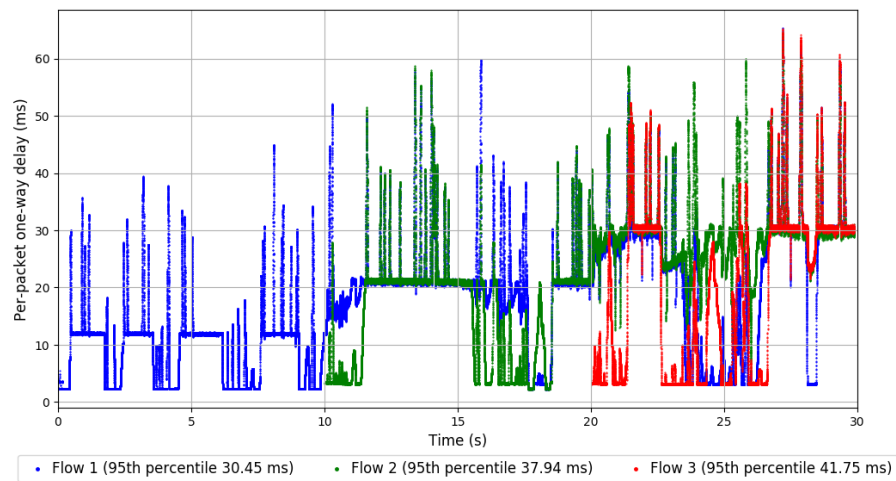Run 10: Report of PCC-Allegro — Data Link

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```
Run 1: Statistics of PCC-Expr

Start at: 2018-07-04 11:08:33
End at: 2018-07-04 11:09:03
Local clock offset: -2.969 ms
Remote clock offset: -2.868 ms


# Below is generated by plot.py at 2018-07-04 14:19:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.54 Mbit/s
95th percentile per-packet one-way delay: 30.171 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 55.89 Mbit/s
95th percentile per-packet one-way delay: 21.433 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 30.444 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 30.04 Mbit/s
95th percentile per-packet one-way delay: 30.702 ms
Loss rate: 0.60%
```
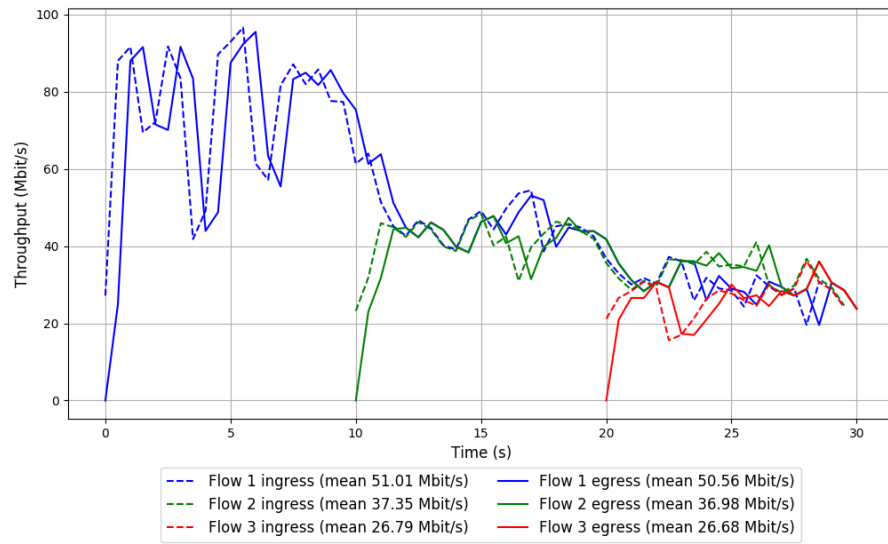
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 56.20 Mbit/s) --- Flow 1 egress (mean 55.89 Mbit/s)
Flow 2 ingress (mean 39.01 Mbit/s) --- Flow 2 egress (mean 38.72 Mbit/s)
Flow 3 ingress (mean 30.17 Mbit/s) --- Flow 3 egress (mean 30.04 Mbit/s)

Flow 1 (95th percentile 21.43 ms) • Flow 2 (95th percentile 30.44 ms) • Flow 3 (95th percentile 30.70 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2018-07-04 11:27:43
End at: 2018-07-04 11:28:13
Local clock offset: -2.541 ms
Remote clock offset: -7.022 ms


# Below is generated by plot.py at 2018-07-04 14:19:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.32 Mbit/s
95th percentile per-packet one-way delay: 30.116 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 27.872 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 39.82 Mbit/s
95th percentile per-packet one-way delay: 30.385 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 28.68 Mbit/s
95th percentile per-packet one-way delay: 30.496 ms
Loss rate: 0.24%
```
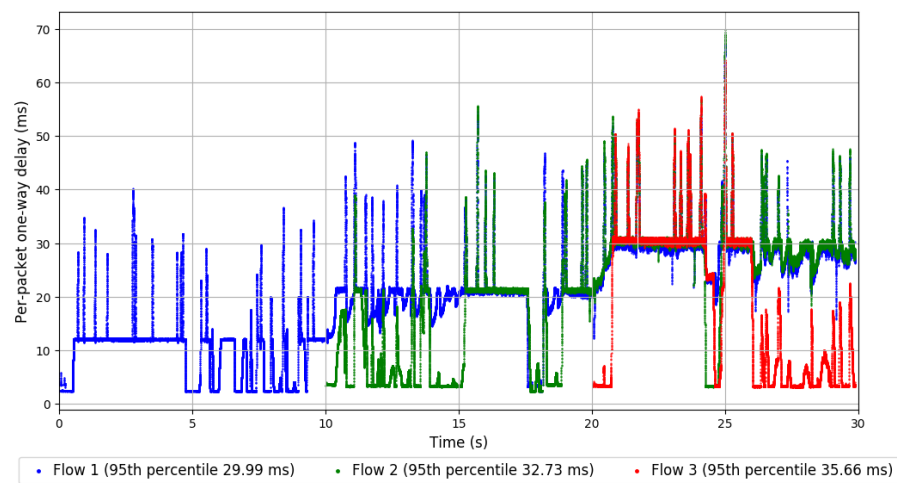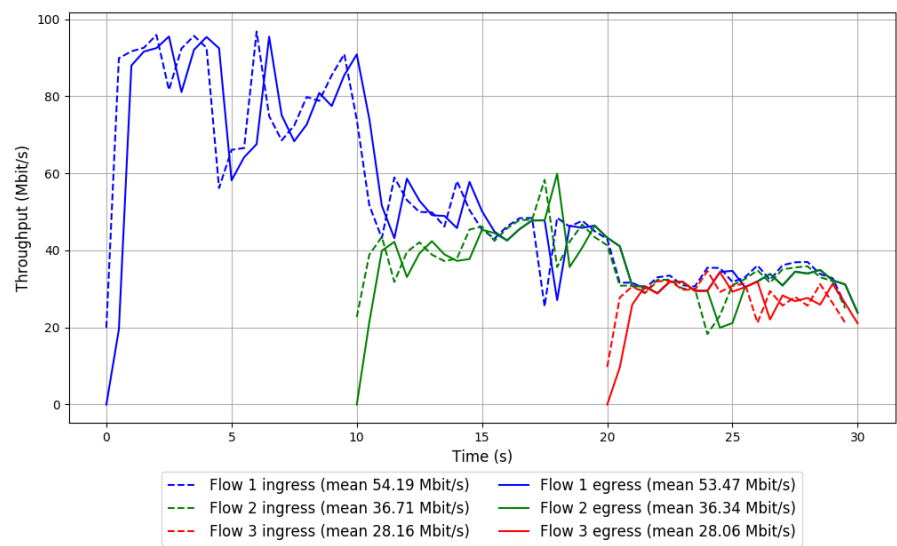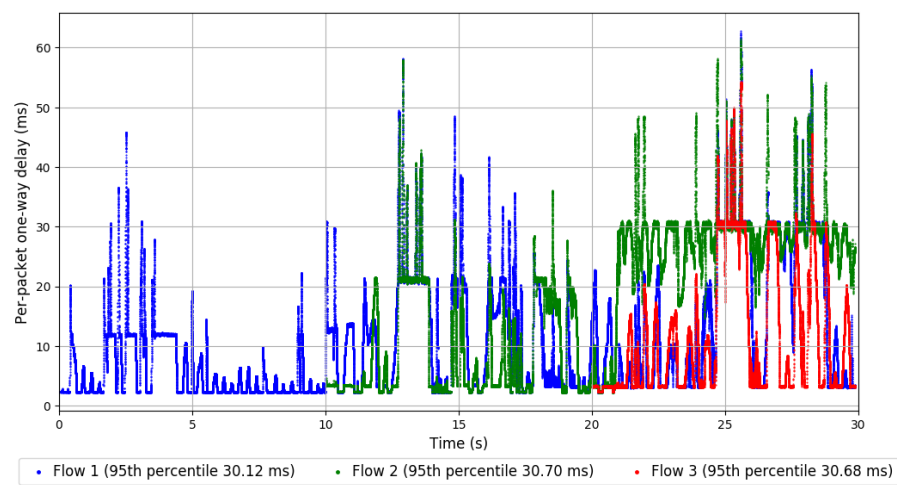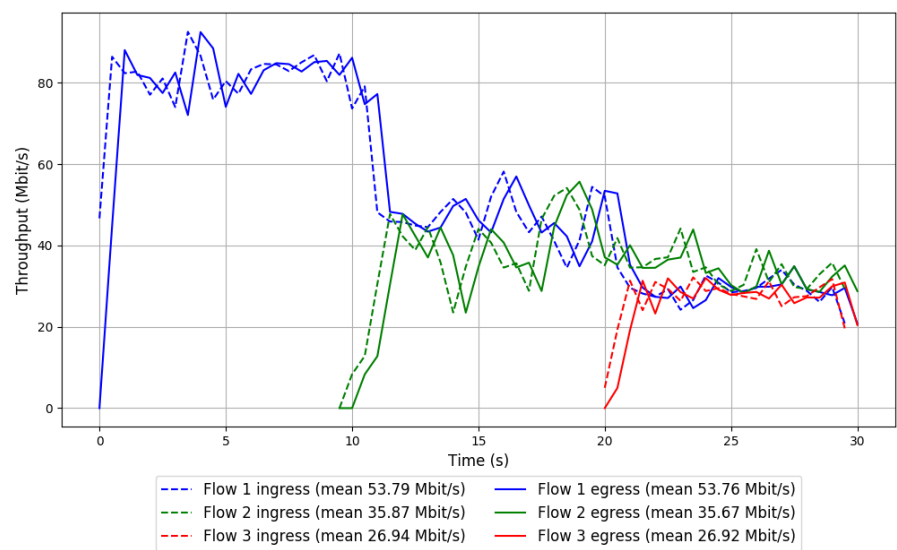
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 53.49 Mbit/s)   Flow 1 egress (mean 53.37 Mbit/s)
Flow 2 ingress (mean 40.12 Mbit/s)   Flow 2 egress (mean 39.82 Mbit/s)
Flow 3 ingress (mean 28.73 Mbit/s)   Flow 3 egress (mean 28.68 Mbit/s)

Flow 1 (95th percentile 27.87 ms)   Flow 2 (95th percentile 30.39 ms)   Flow 3 (95th percentile 30.50 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2018-07-04 11:46:53
End at: 2018-07-04 11:47:23
Local clock offset: -2.299 ms
Remote clock offset: -7.165 ms


# Below is generated by plot.py at 2018-07-04 14:19:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.09 Mbit/s
95th percentile per-packet one-way delay: 27.670 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 53.71 Mbit/s
95th percentile per-packet one-way delay: 21.683 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 38.57 Mbit/s
95th percentile per-packet one-way delay: 30.444 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 29.52 Mbit/s
95th percentile per-packet one-way delay: 25.282 ms
Loss rate: 0.04%
```
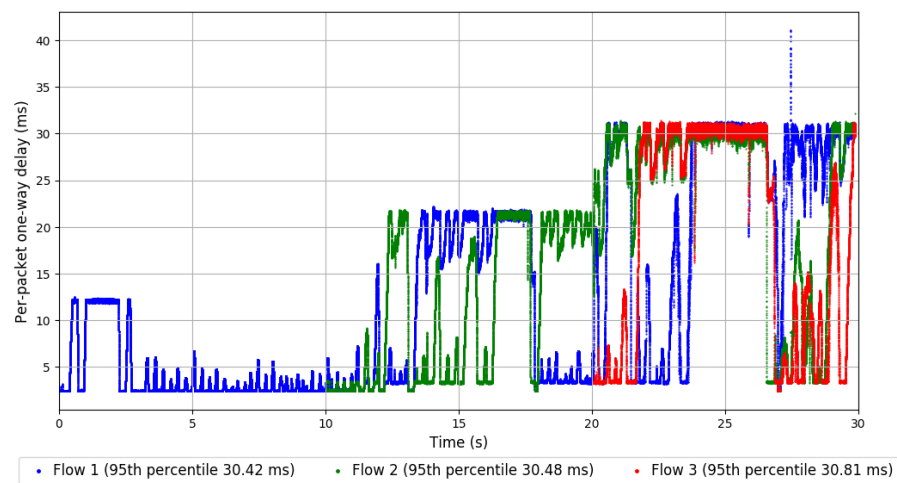
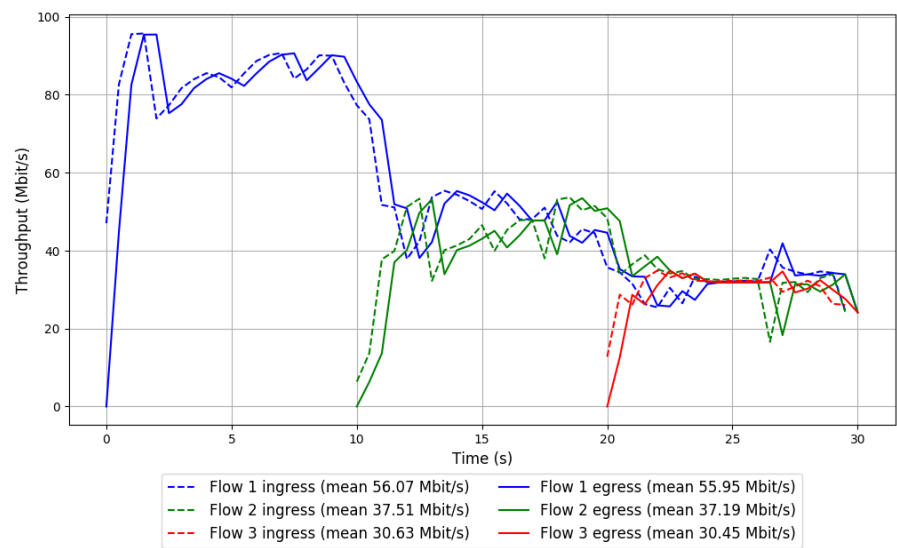Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-07-04 12:06:02
End at: 2018-07-04 12:06:32
Local clock offset: -2.122 ms
Remote clock offset: -0.196 ms


# Below is generated by plot.py at 2018-07-04 14:19:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.56 Mbit/s
95th percentile per-packet one-way delay: 30.585 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 52.67 Mbit/s
95th percentile per-packet one-way delay: 30.315 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 36.69 Mbit/s
95th percentile per-packet one-way delay: 30.664 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 28.78 Mbit/s
95th percentile per-packet one-way delay: 30.850 ms
Loss rate: 0.31%
```

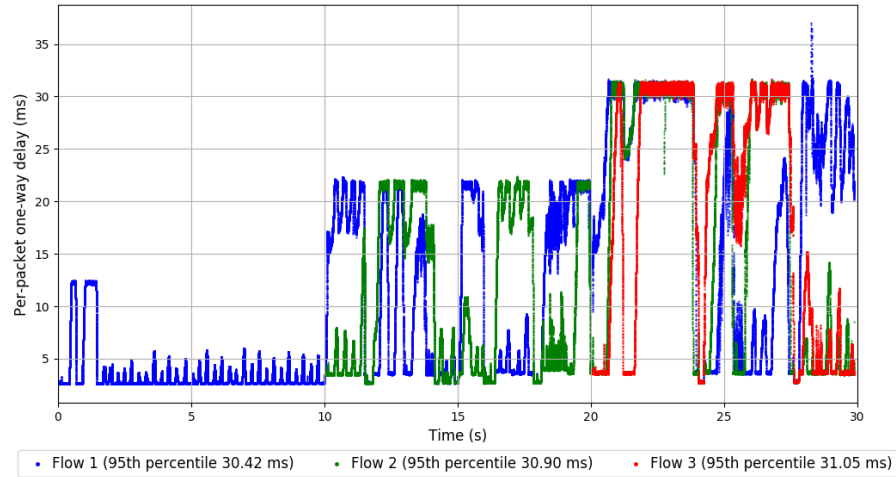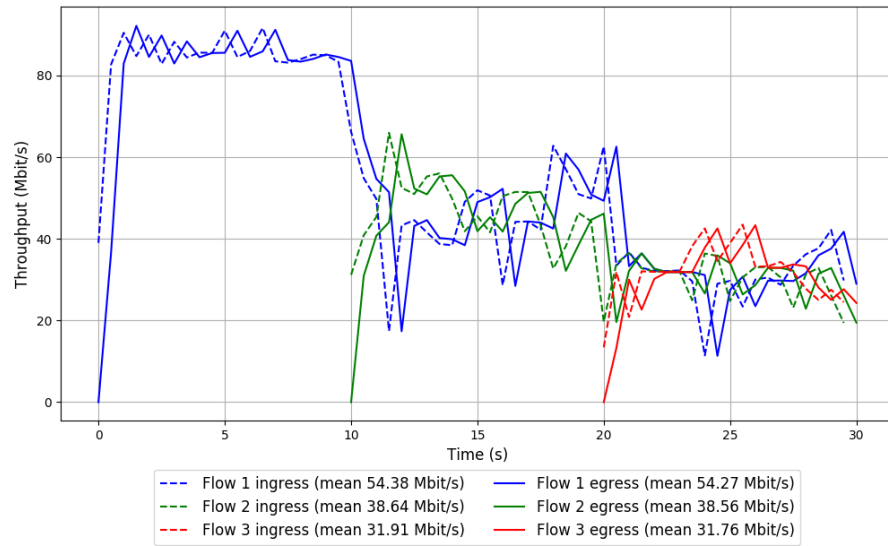Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2018-07-04 12:25:09
End at: 2018-07-04 12:25:39
Local clock offset: -2.553 ms
Remote clock offset: -0.412 ms


# Below is generated by plot.py at 2018-07-04 14:19:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.95 Mbit/s
95th percentile per-packet one-way delay: 33.342 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 30.449 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 37.944 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 26.68 Mbit/s
95th percentile per-packet one-way delay: 41.747 ms
Loss rate: 0.59%
```
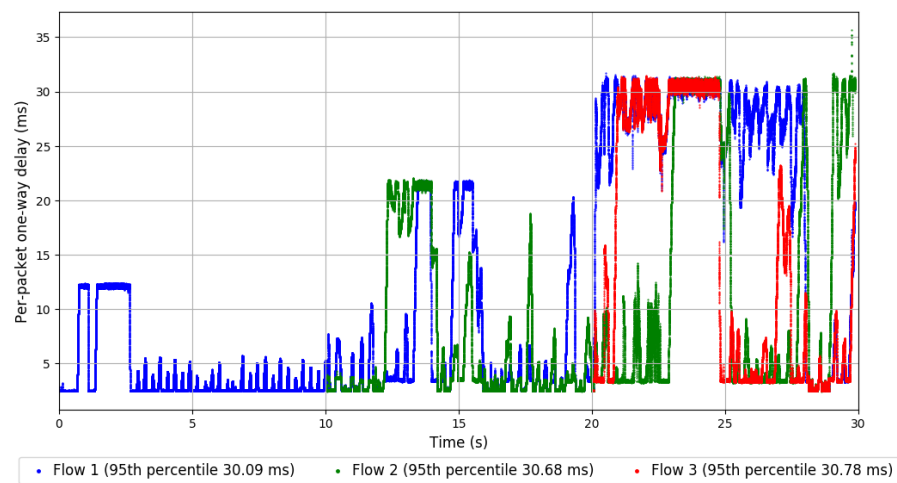
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 51.01 Mbit/s) — — —   Flow 1 egress (mean 50.56 Mbit/s)
Flow 2 ingress (mean 37.35 Mbit/s) — — —   Flow 2 egress (mean 36.98 Mbit/s)
Flow 3 ingress (mean 26.79 Mbit/s) — — —   Flow 3 egress (mean 26.68 Mbit/s)

Flow 1 (95th percentile 30.45 ms)   Flow 2 (95th percentile 37.94 ms)   Flow 3 (95th percentile 41.75 ms)

```
Run 6: Statistics of PCC-Expr

Start at: 2018-07-04 12:44:15
End at: 2018-07-04 12:44:45
Local clock offset: -2.64 ms
Remote clock offset: -1.84 ms


# Below is generated by plot.py at 2018-07-04 14:20:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.89 Mbit/s
95th percentile per-packet one-way delay: 30.795 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 29.994 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 36.34 Mbit/s
95th percentile per-packet one-way delay: 32.734 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 28.06 Mbit/s
95th percentile per-packet one-way delay: 35.660 ms
Loss rate: 0.42%
```
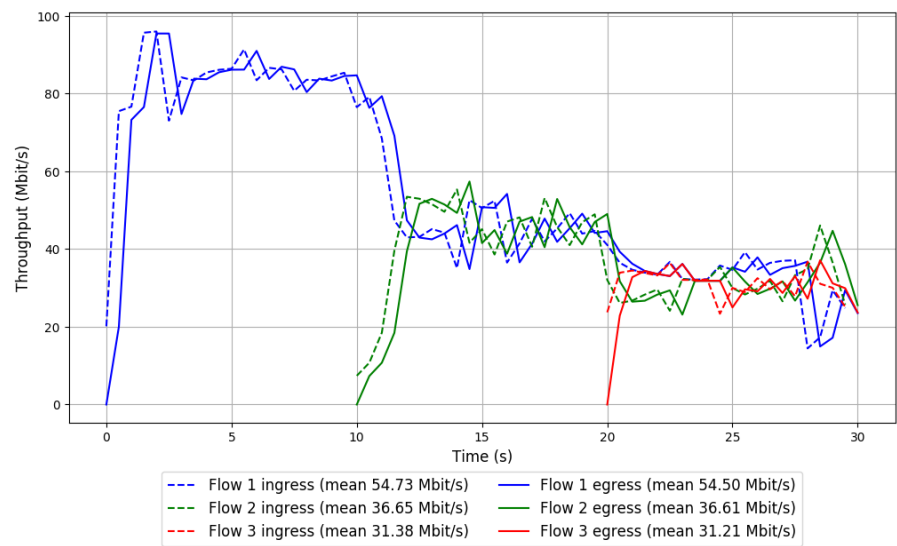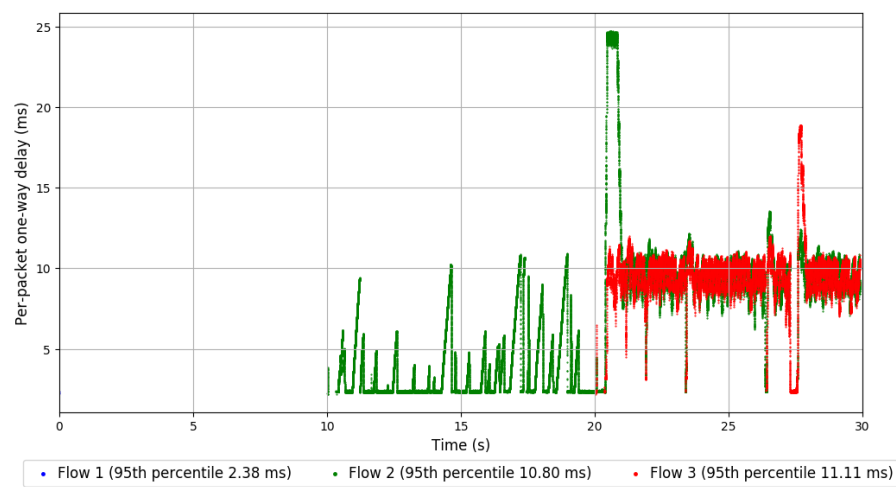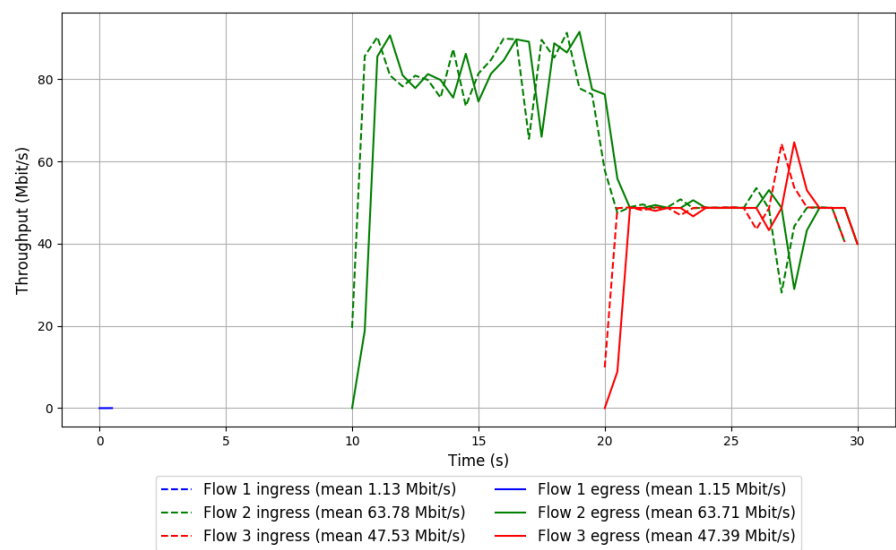
Run 6: Report of PCC-Expr — Data Link

Legend:
- Flow 1 ingress (mean 54.19 Mbit/s)
- Flow 1 egress (mean 53.47 Mbit/s)
- Flow 2 ingress (mean 36.71 Mbit/s)
- Flow 2 egress (mean 36.34 Mbit/s)
- Flow 3 ingress (mean 28.16 Mbit/s)
- Flow 3 egress (mean 28.06 Mbit/s)

Legend:
- Flow 1 (95th percentile 29.99 ms)
- Flow 2 (95th percentile 32.73 ms)
- Flow 3 (95th percentile 35.66 ms)

```
Run 7: Statistics of PCC-Expr

Start at: 2018-07-04 13:03:23
End at: 2018-07-04 13:03:53
Local clock offset: -2.695 ms
Remote clock offset: -2.271 ms


# Below is generated by plot.py at 2018-07-04 14:20:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.38 Mbit/s
95th percentile per-packet one-way delay: 30.446 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 53.76 Mbit/s
95th percentile per-packet one-way delay: 30.125 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 35.67 Mbit/s
95th percentile per-packet one-way delay: 30.700 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 26.92 Mbit/s
95th percentile per-packet one-way delay: 30.682 ms
Loss rate: 0.14%
```
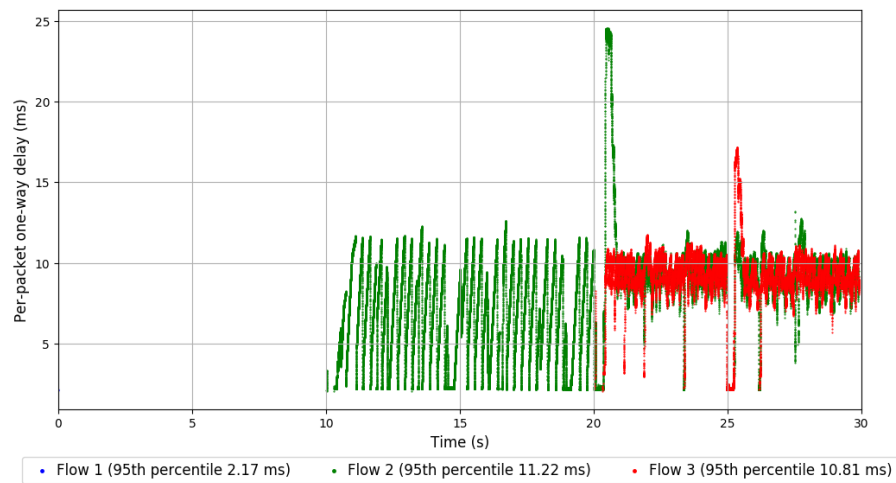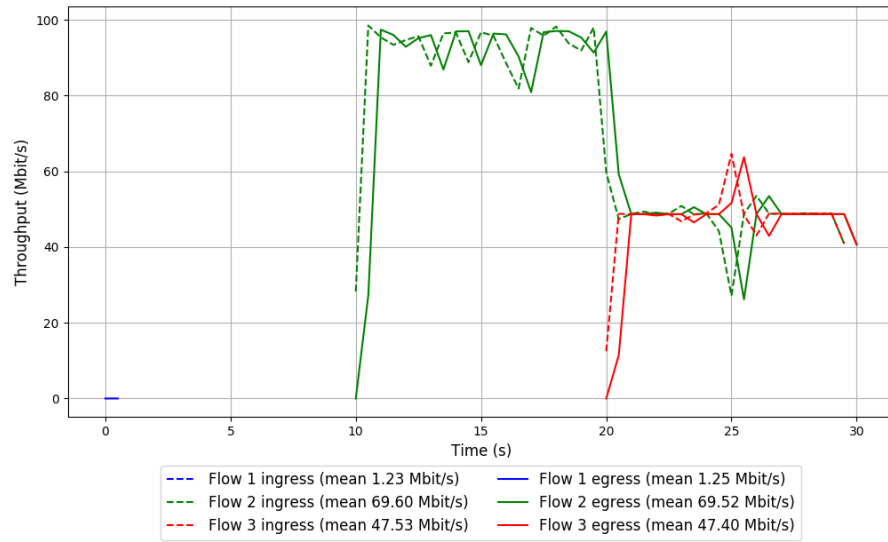
Run 7: Report of PCC-Expr — Data Link

```
Run 8: Statistics of PCC-Expr

Start at: 2018-07-04 13:22:33
End at: 2018-07-04 13:23:03
Local clock offset: -2.778 ms
Remote clock offset: -2.394 ms


# Below is generated by plot.py at 2018-07-04 14:20:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.73 Mbit/s
95th percentile per-packet one-way delay: 30.561 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 55.95 Mbit/s
95th percentile per-packet one-way delay: 30.422 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 37.19 Mbit/s
95th percentile per-packet one-way delay: 30.477 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 30.45 Mbit/s
95th percentile per-packet one-way delay: 30.812 ms
Loss rate: 0.79%
```
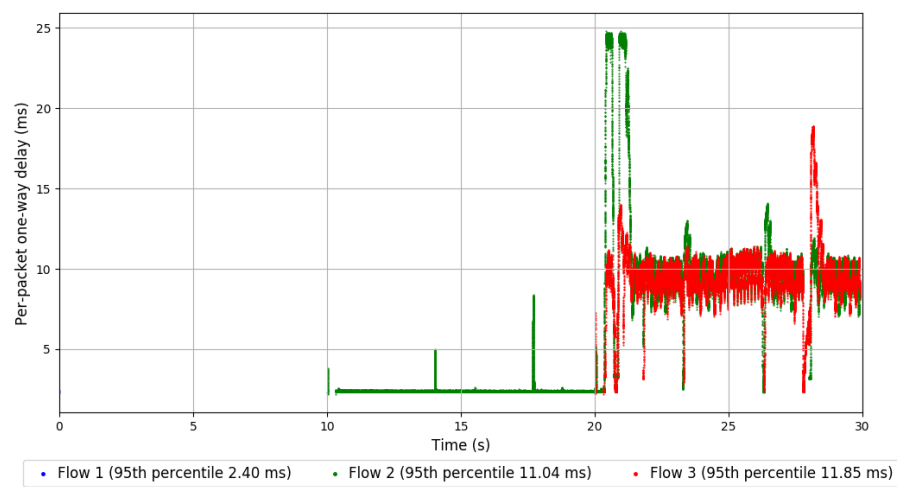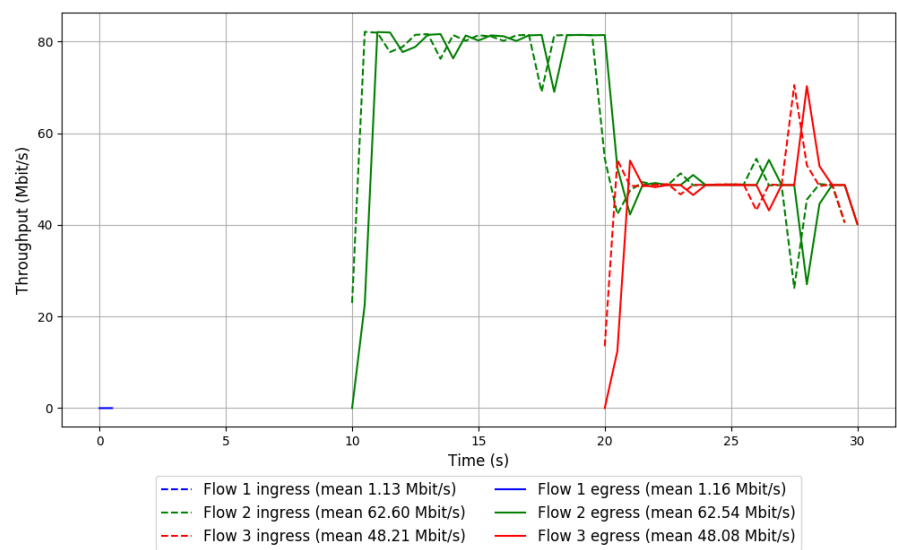
Run 8: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 56.07 Mbit/s)   Flow 1 egress (mean 55.95 Mbit/s)
Flow 2 ingress (mean 37.51 Mbit/s)   Flow 2 egress (mean 37.19 Mbit/s)
Flow 3 ingress (mean 30.63 Mbit/s)   Flow 3 egress (mean 30.45 Mbit/s)

Flow 1 (95th percentile 30.42 ms)   Flow 2 (95th percentile 30.48 ms)   Flow 3 (95th percentile 30.81 ms)

```
Run 9: Statistics of PCC-Expr

Start at: 2018-07-04 13:41:44
End at: 2018-07-04 13:42:14
Local clock offset: -3.525 ms
Remote clock offset: -6.853 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.37 Mbit/s
95th percentile per-packet one-way delay: 30.832 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 30.419 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 38.56 Mbit/s
95th percentile per-packet one-way delay: 30.896 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 31.76 Mbit/s
95th percentile per-packet one-way delay: 31.051 ms
Loss rate: 0.54%
```
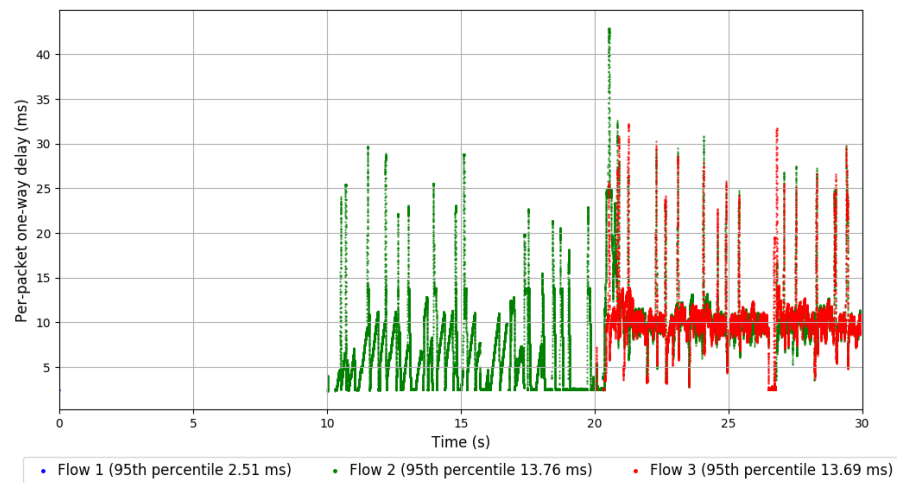
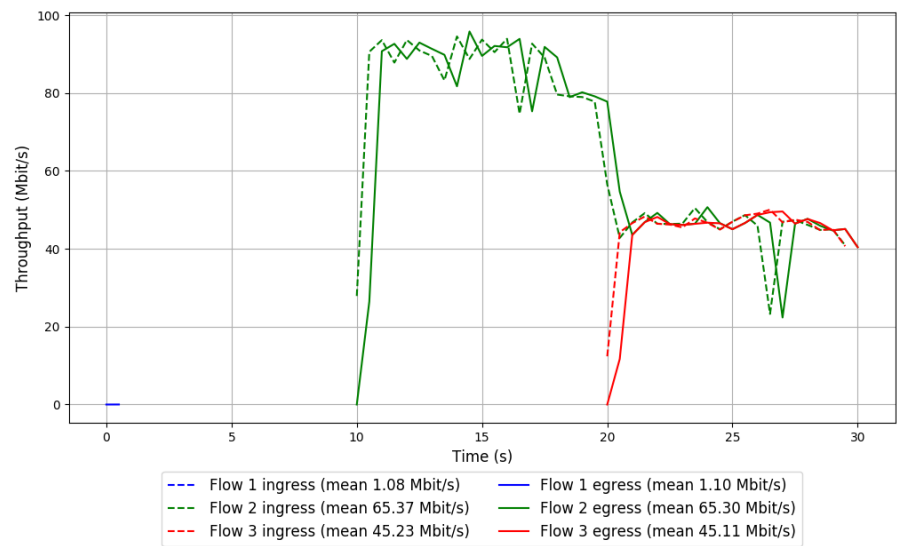Run 9: Report of PCC-Expr — Data Link

```
Run 10: Statistics of PCC-Expr

Start at: 2018-07-04 14:00:54
End at: 2018-07-04 14:01:24
Local clock offset: -7.346 ms
Remote clock offset: -8.693 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.15 Mbit/s
95th percentile per-packet one-way delay: 30.540 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 54.50 Mbit/s
95th percentile per-packet one-way delay: 30.086 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 30.685 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 30.780 ms
Loss rate: 0.58%
```

Run 10: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 54.73 Mbit/s) --- Flow 1 egress (mean 54.50 Mbit/s)
Flow 2 ingress (mean 36.65 Mbit/s) --- Flow 2 egress (mean 36.61 Mbit/s)
Flow 3 ingress (mean 31.38 Mbit/s) --- Flow 3 egress (mean 31.21 Mbit/s)

Flow 1 (95th percentile 30.09 ms)   Flow 2 (95th percentile 30.68 ms)   Flow 3 (95th percentile 30.78 ms)

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```
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-04 11:04:08
End at: 2018-07-04 11:04:38
Local clock offset: -2.946 ms
Remote clock offset: -2.822 ms

# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.07 Mbit/s
95th percentile per-packet one-way delay: 10.919 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 2.378 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.71 Mbit/s
95th percentile per-packet one-way delay: 10.798 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 47.39 Mbit/s
95th percentile per-packet one-way delay: 11.106 ms
Loss rate: 0.32%
```
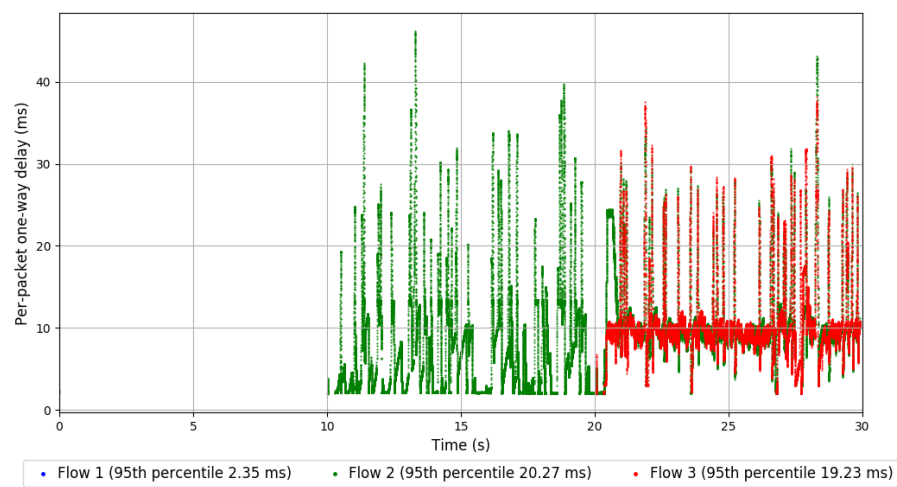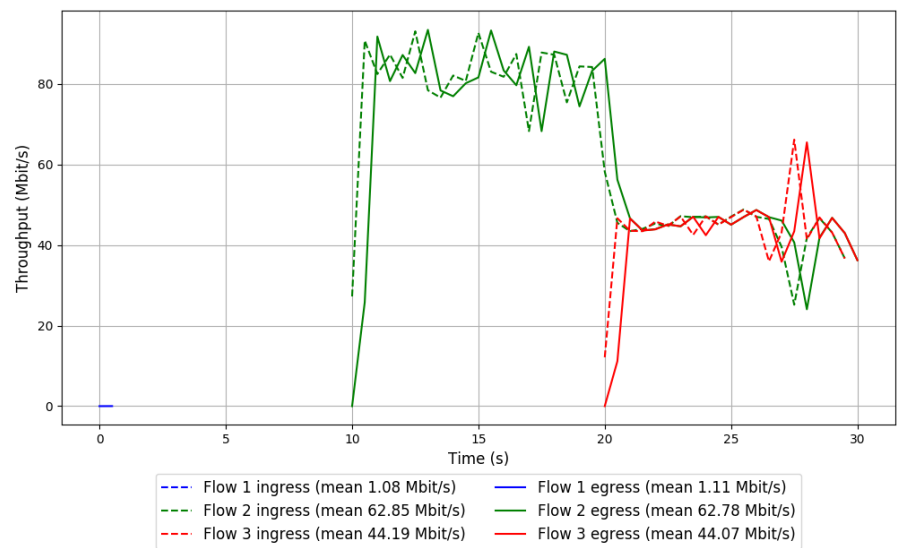
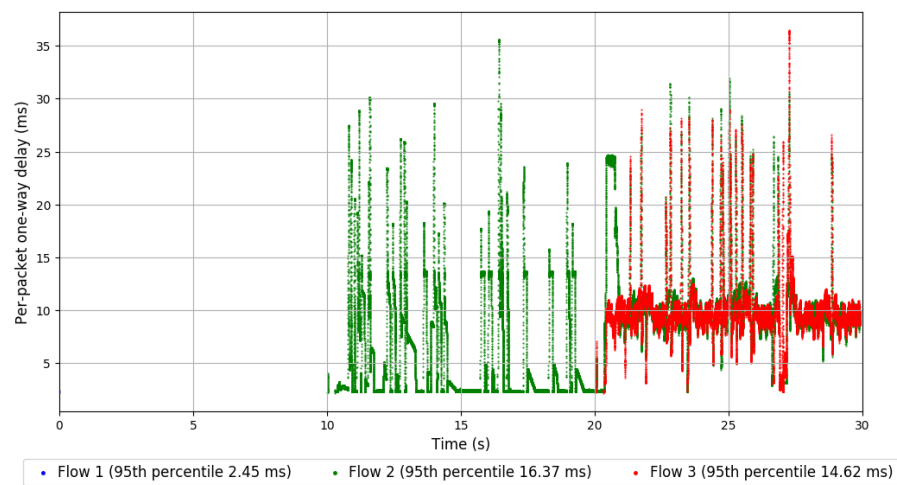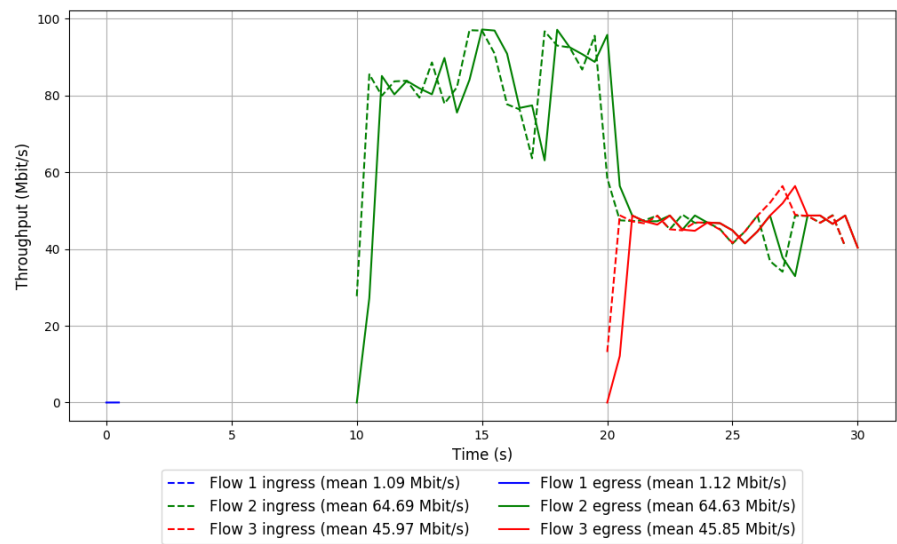Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-04 11:23:18
End at: 2018-07-04 11:23:48
Local clock offset: -2.647 ms
Remote clock offset: -6.377 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.95 Mbit/s
95th percentile per-packet one-way delay: 11.155 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 2.171 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.52 Mbit/s
95th percentile per-packet one-way delay: 11.218 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 47.40 Mbit/s
95th percentile per-packet one-way delay: 10.812 ms
Loss rate: 0.32%
```
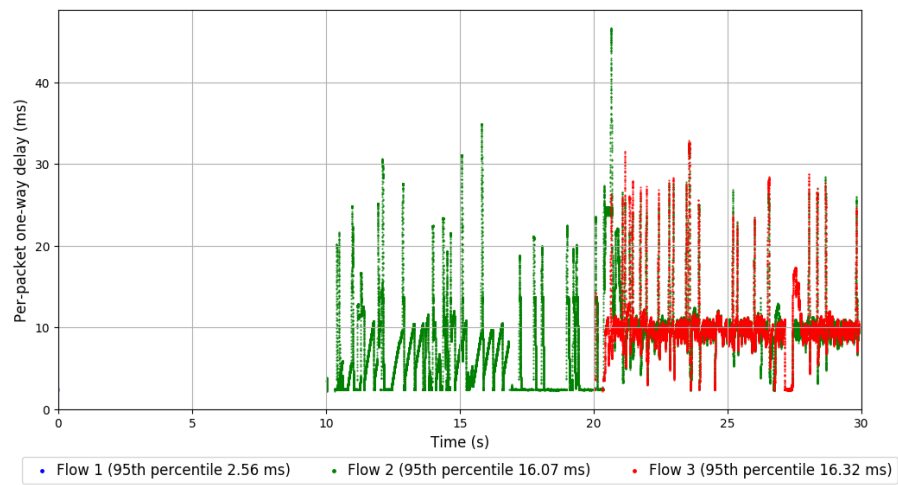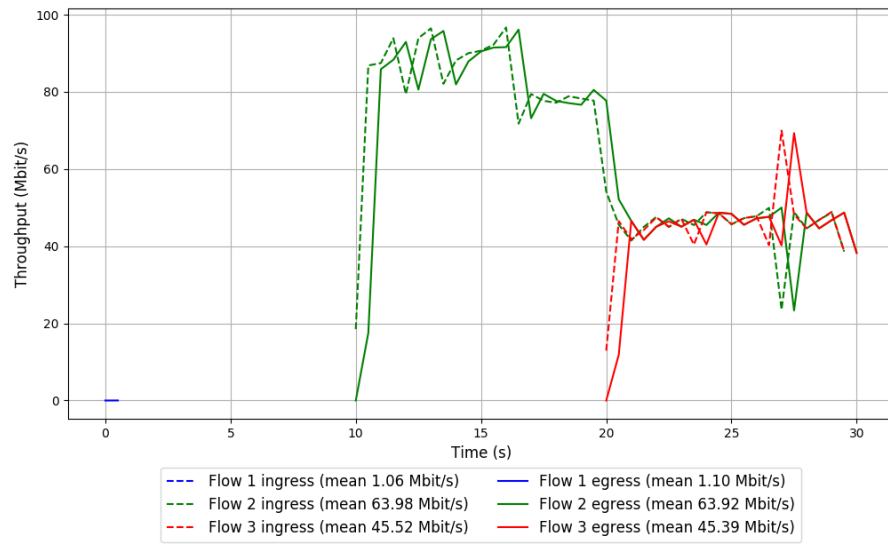
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.23 Mbit/s) --- Flow 1 egress (mean 1.25 Mbit/s)
Flow 2 ingress (mean 69.60 Mbit/s) --- Flow 2 egress (mean 69.52 Mbit/s)
Flow 3 ingress (mean 47.53 Mbit/s) --- Flow 3 egress (mean 47.40 Mbit/s)

Flow 1 (95th percentile 2.17 ms) Flow 2 (95th percentile 11.22 ms) Flow 3 (95th percentile 10.81 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-04 11:42:29
End at: 2018-07-04 11:42:59
Local clock offset: -2.407 ms
Remote clock offset: -8.306 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.53 Mbit/s
95th percentile per-packet one-way delay: 11.344 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 2.404 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.54 Mbit/s
95th percentile per-packet one-way delay: 11.035 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 48.08 Mbit/s
95th percentile per-packet one-way delay: 11.854 ms
Loss rate: 0.30%
```

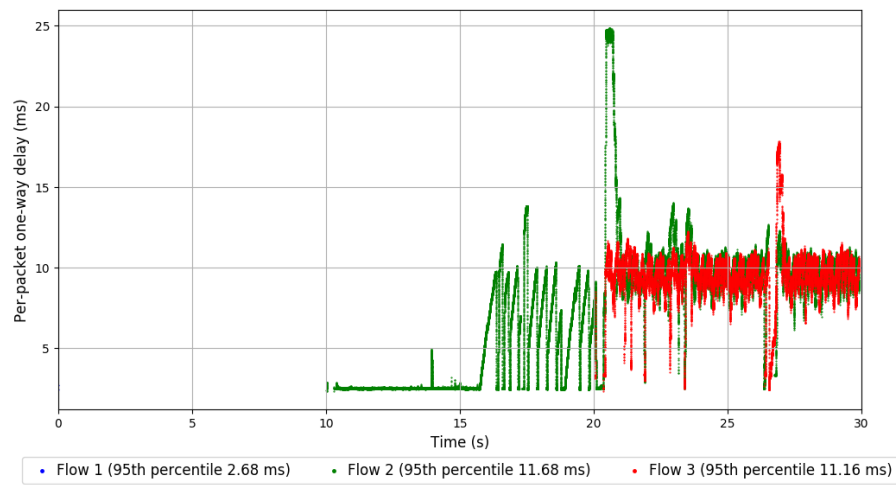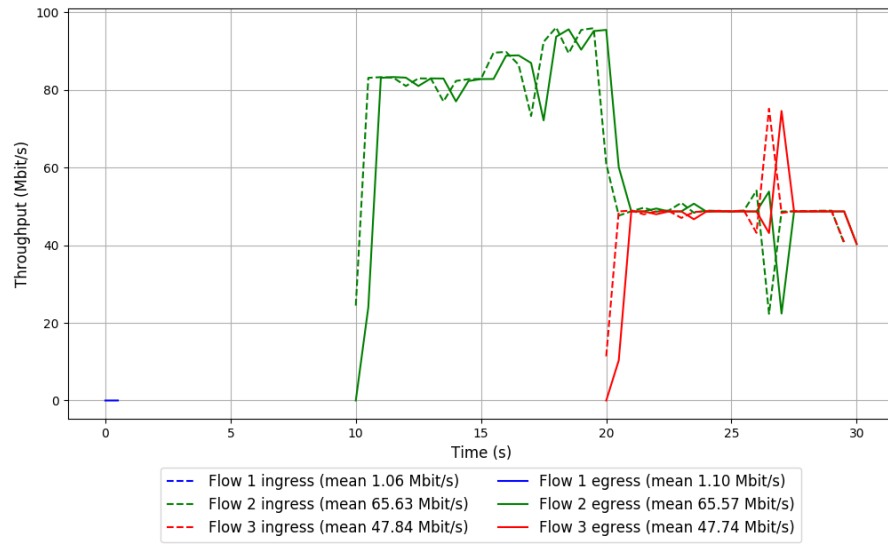Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-04 12:01:38
End at: 2018-07-04 12:02:08
Local clock offset: -2.154 ms
Remote clock offset: -1.096 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.37 Mbit/s
95th percentile per-packet one-way delay: 13.757 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 2.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 13.761 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 45.11 Mbit/s
95th percentile per-packet one-way delay: 13.691 ms
Loss rate: 0.30%
```

Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-04 12:20:45
End at: 2018-07-04 12:21:15
Local clock offset: -2.545 ms
Remote clock offset: 0.952 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.34 Mbit/s
95th percentile per-packet one-way delay: 19.999 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 2.348 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.78 Mbit/s
95th percentile per-packet one-way delay: 20.267 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 44.07 Mbit/s
95th percentile per-packet one-way delay: 19.231 ms
Loss rate: 0.32%
```
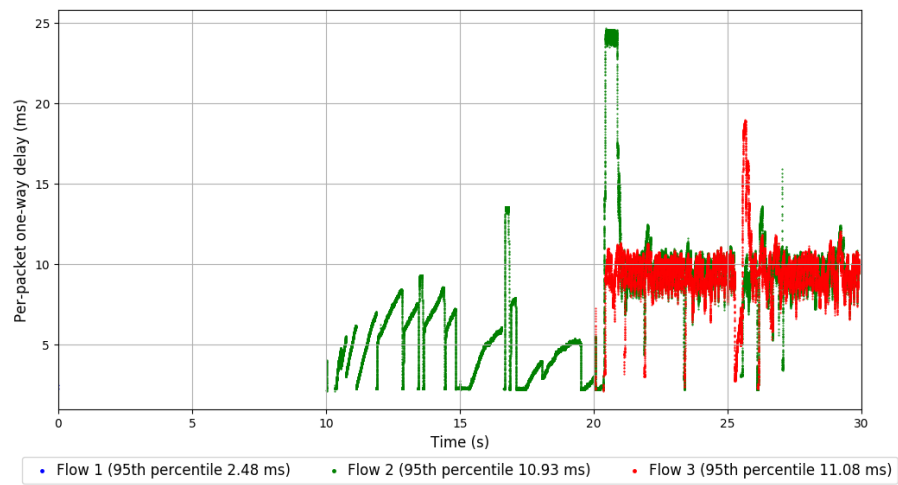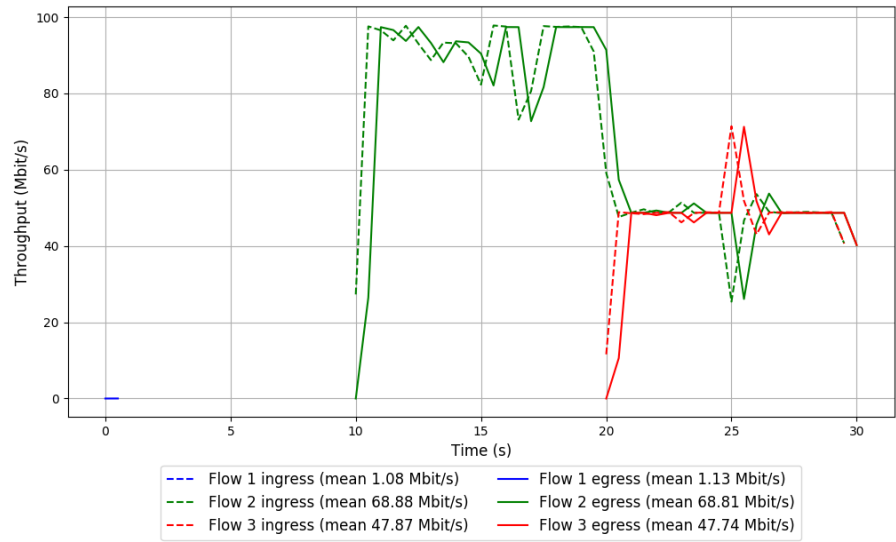
Run 5: Report of QUIC Cubic — Data Link

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-04 12:39:50
End at: 2018-07-04 12:40:20
Local clock offset: -2.622 ms
Remote clock offset: -1.726 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.17 Mbit/s
95th percentile per-packet one-way delay: 15.589 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 2.454 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.63 Mbit/s
95th percentile per-packet one-way delay: 16.366 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 45.85 Mbit/s
95th percentile per-packet one-way delay: 14.616 ms
Loss rate: 0.32%
```
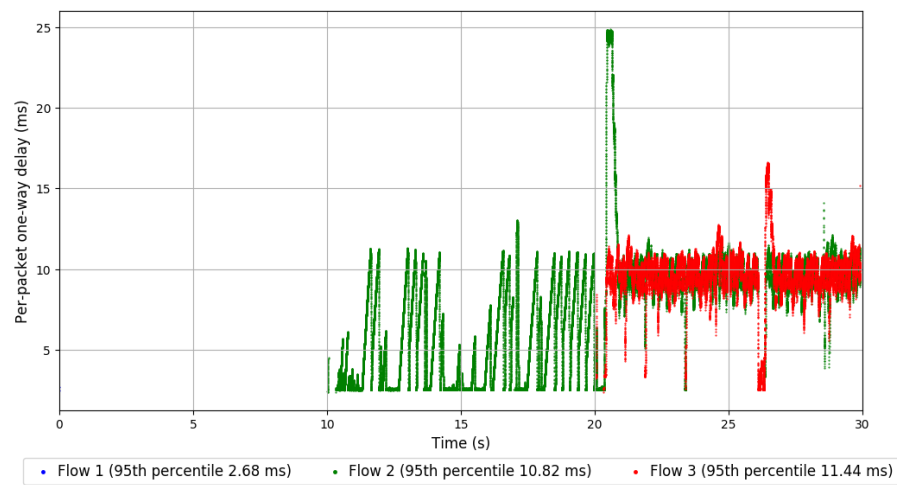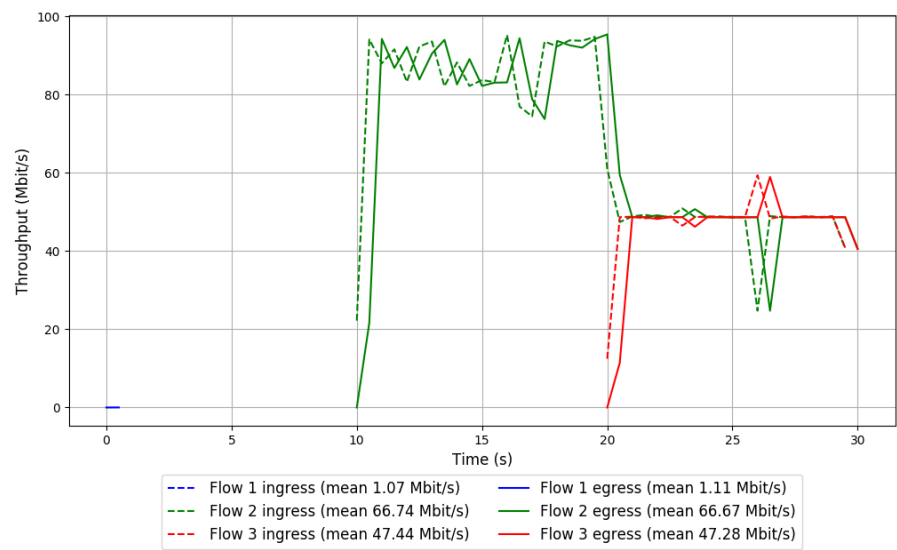
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.09 Mbit/s)   Flow 1 egress (mean 1.12 Mbit/s)
Flow 2 ingress (mean 64.69 Mbit/s)   Flow 2 egress (mean 64.63 Mbit/s)
Flow 3 ingress (mean 45.97 Mbit/s)   Flow 3 egress (mean 45.85 Mbit/s)

Flow 1 (95th percentile 2.45 ms)   Flow 2 (95th percentile 16.37 ms)   Flow 3 (95th percentile 14.62 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-04 12:58:58
End at: 2018-07-04 12:59:28
Local clock offset: -2.618 ms
Remote clock offset: -2.152 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.54 Mbit/s
95th percentile per-packet one-way delay: 16.189 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 2.559 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.92 Mbit/s
95th percentile per-packet one-way delay: 16.070 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 45.39 Mbit/s
95th percentile per-packet one-way delay: 16.321 ms
Loss rate: 0.32%
```
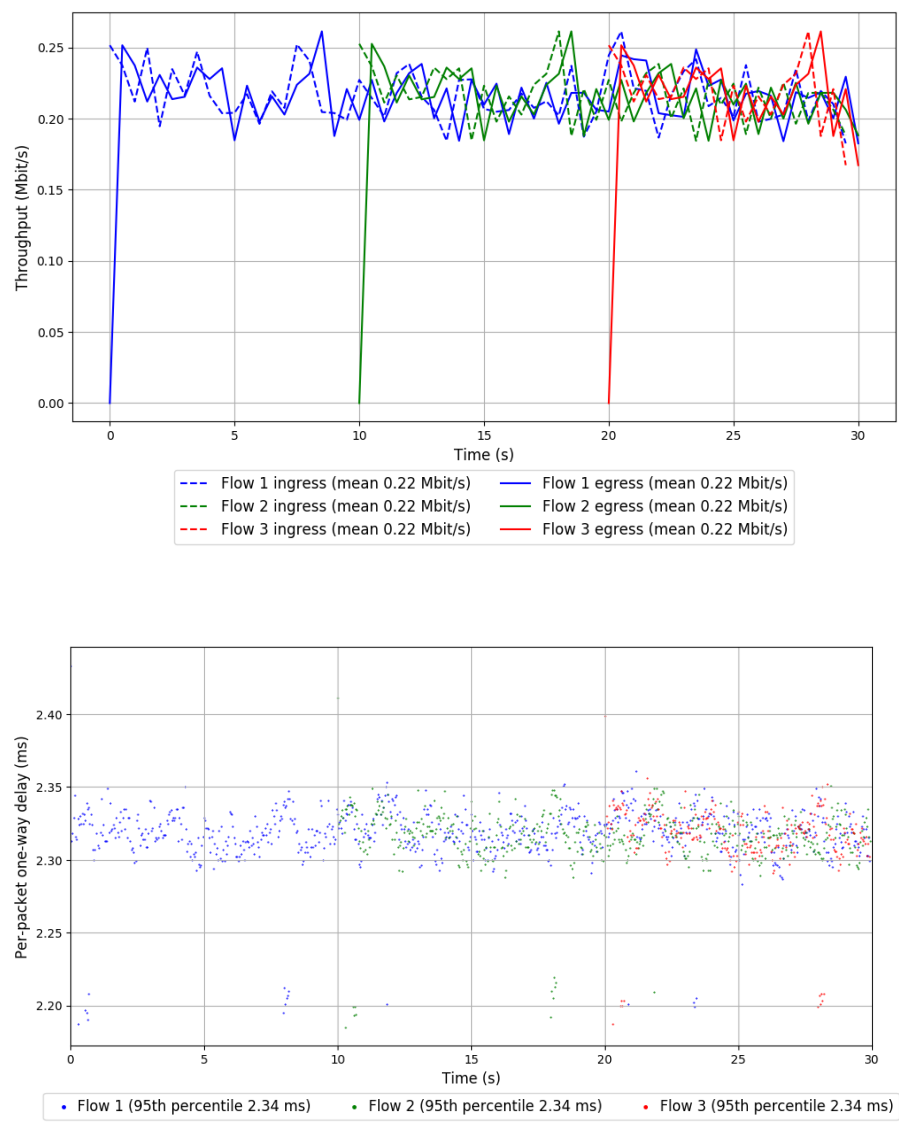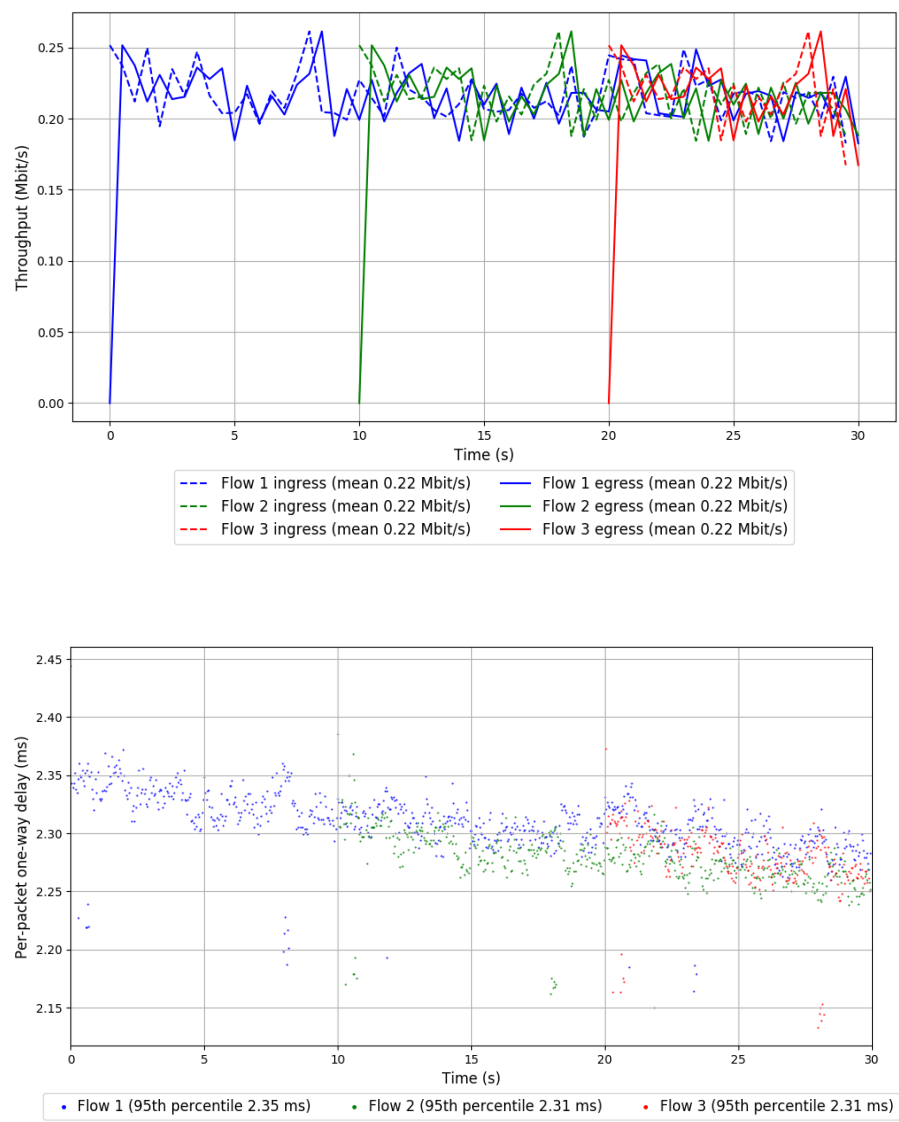
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 1.06 Mbit/s) Flow 1 egress (mean 1.10 Mbit/s)
Flow 2 ingress (mean 63.98 Mbit/s) Flow 2 egress (mean 63.92 Mbit/s)
Flow 3 ingress (mean 45.52 Mbit/s) Flow 3 egress (mean 45.39 Mbit/s)

Flow 1 (95th percentile 2.56 ms) Flow 2 (95th percentile 16.07 ms) Flow 3 (95th percentile 16.32 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-04 13:18:08
End at: 2018-07-04 13:18:38
Local clock offset: -2.757 ms
Remote clock offset: -2.474 ms


# Below is generated by plot.py at 2018-07-04 14:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.42 Mbit/s
95th percentile per-packet one-way delay: 11.414 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 2.681 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.57 Mbit/s
95th percentile per-packet one-way delay: 11.682 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 47.74 Mbit/s
95th percentile per-packet one-way delay: 11.163 ms
Loss rate: 0.32%
```

Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-04 13:37:19
End at: 2018-07-04 13:37:49
Local clock offset: -2.85 ms
Remote clock offset: -5.905 ms


# Below is generated by plot.py at 2018-07-04 14:21:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.57 Mbit/s
95th percentile per-packet one-way delay: 11.014 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 2.481 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.81 Mbit/s
95th percentile per-packet one-way delay: 10.934 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 47.74 Mbit/s
95th percentile per-packet one-way delay: 11.082 ms
Loss rate: 0.32%
```

Run 9: Report of QUIC Cubic — Data Link

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-04 13:56:29
End at: 2018-07-04 13:56:59
Local clock offset: -6.878 ms
Remote clock offset: -8.402 ms


# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.99 Mbit/s
95th percentile per-packet one-way delay: 10.957 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 2.680 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.67 Mbit/s
95th percentile per-packet one-way delay: 10.822 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 47.28 Mbit/s
95th percentile per-packet one-way delay: 11.435 ms
Loss rate: 0.32%
```
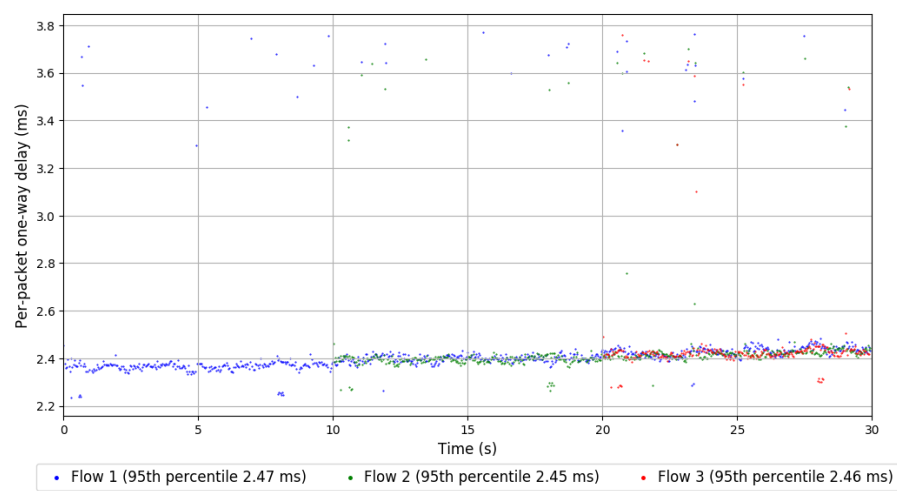
Run 10: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-07-04 11:07:29
End at: 2018-07-04 11:08:00
Local clock offset: -3.032 ms
Remote clock offset: -2.872 ms

# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.341 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.341 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.341 ms
Loss rate: 0.00%
```
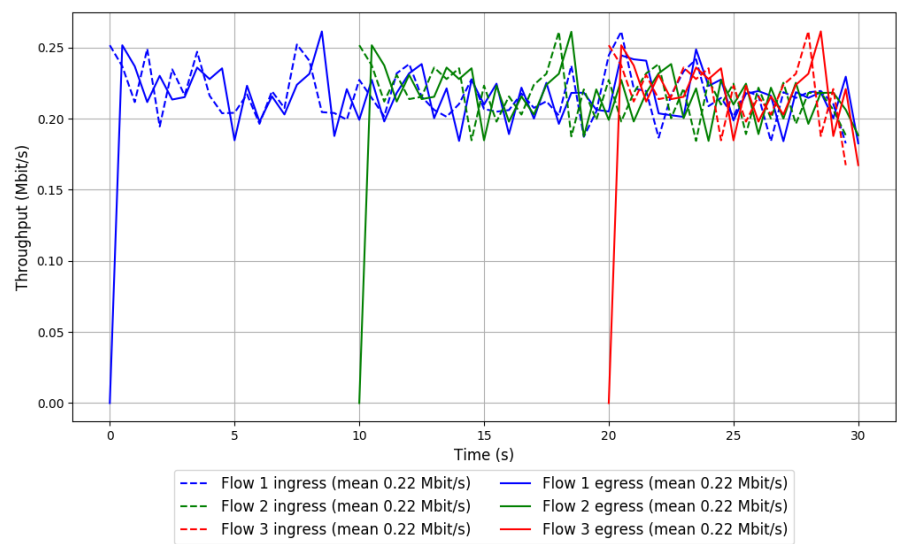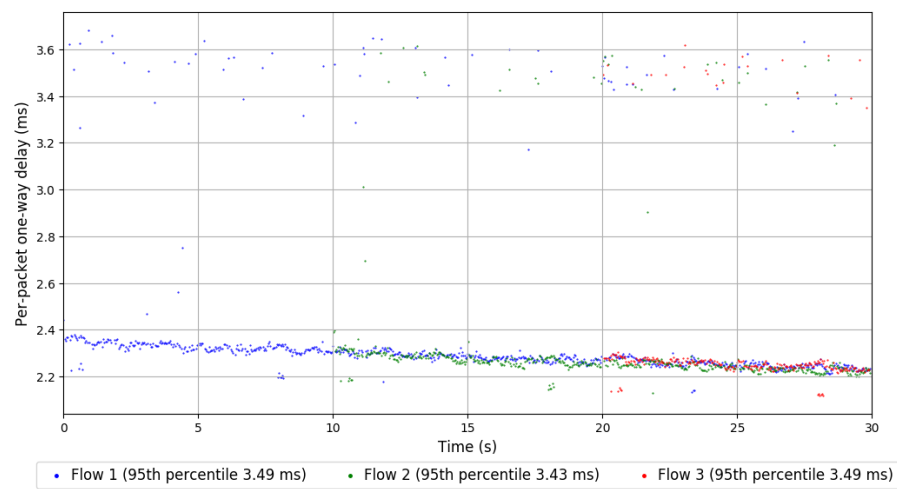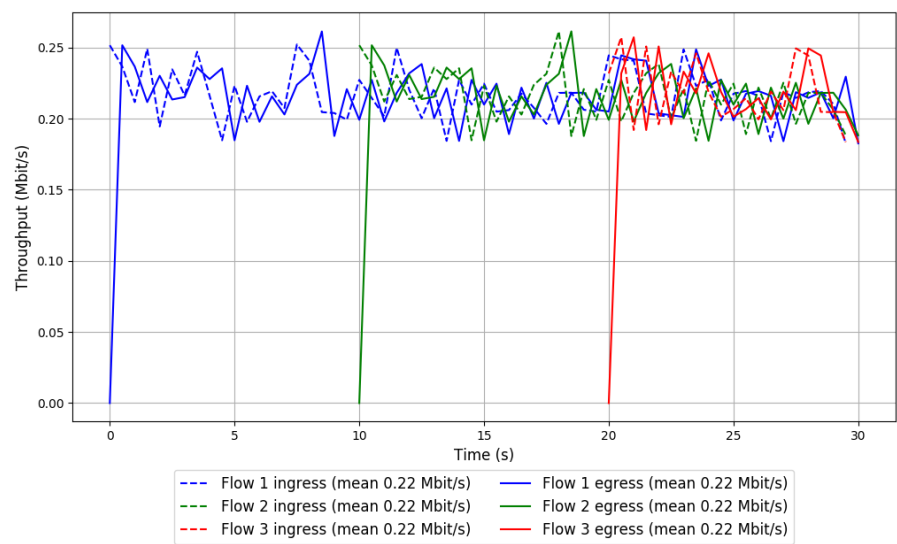
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-07-04 11:26:40
End at: 2018-07-04 11:27:10
Local clock offset: -2.539 ms
Remote clock offset: -6.873 ms


# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.340 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.349 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.312 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.312 ms
Loss rate: 0.00%
```
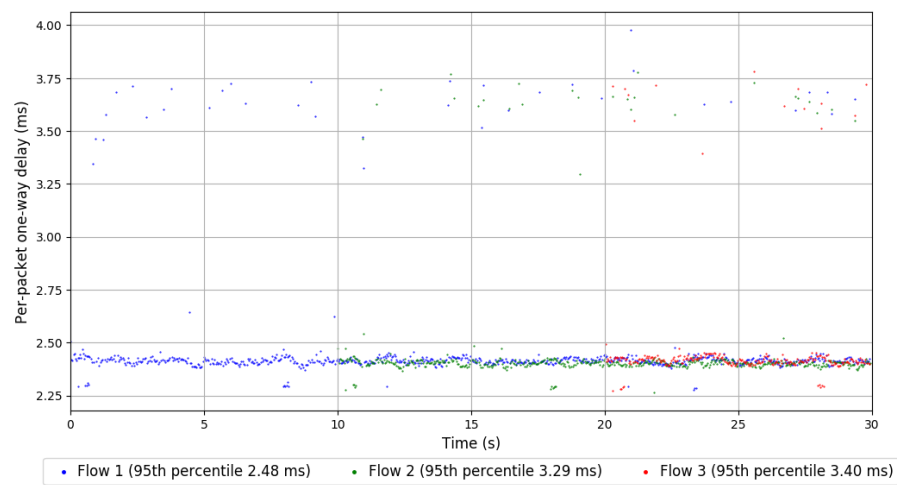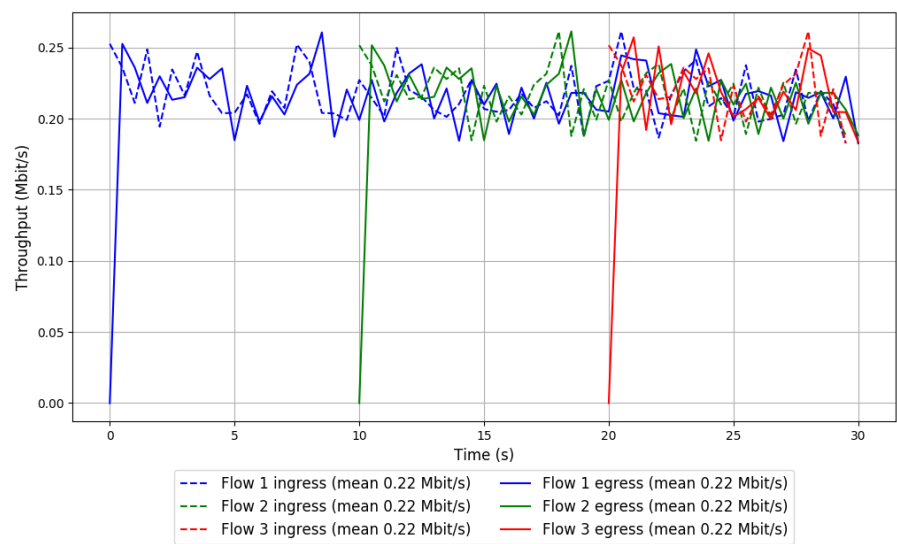
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-07-04 11:45:50
End at: 2018-07-04 11:46:20
Local clock offset: -2.325 ms
Remote clock offset: -7.952 ms


# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.814 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.813 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.815 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.814 ms
Loss rate: 0.00%
```
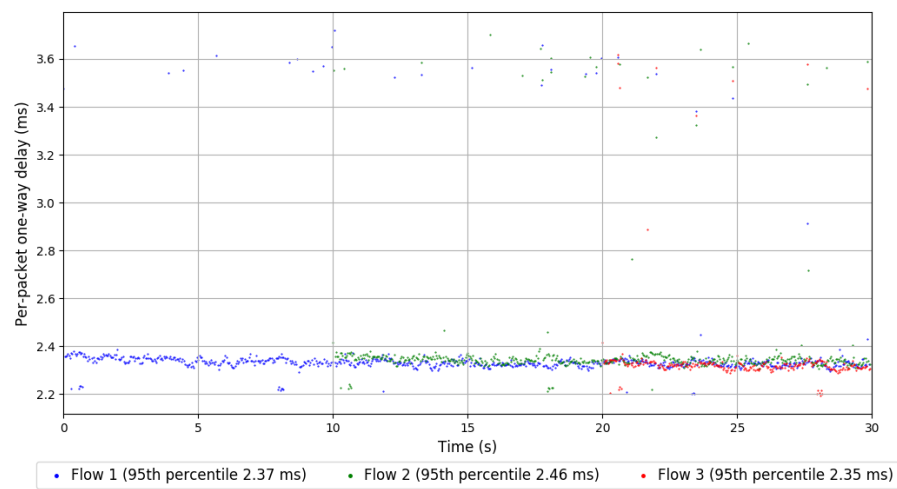
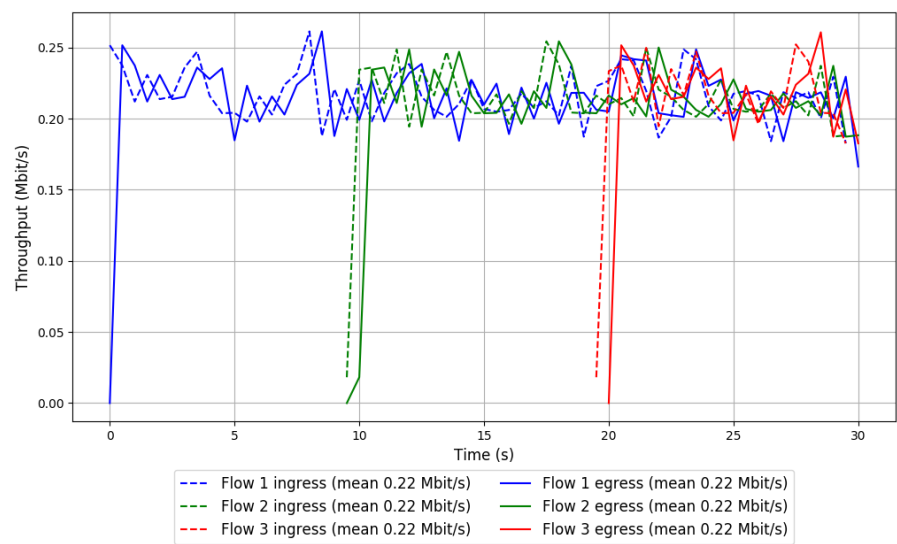# Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-07-04 12:04:59
End at: 2018-07-04 12:05:29
Local clock offset: -2.189 ms
Remote clock offset: -0.47 ms


# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.463 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.467 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.453 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.461 ms
Loss rate: 0.00%
```

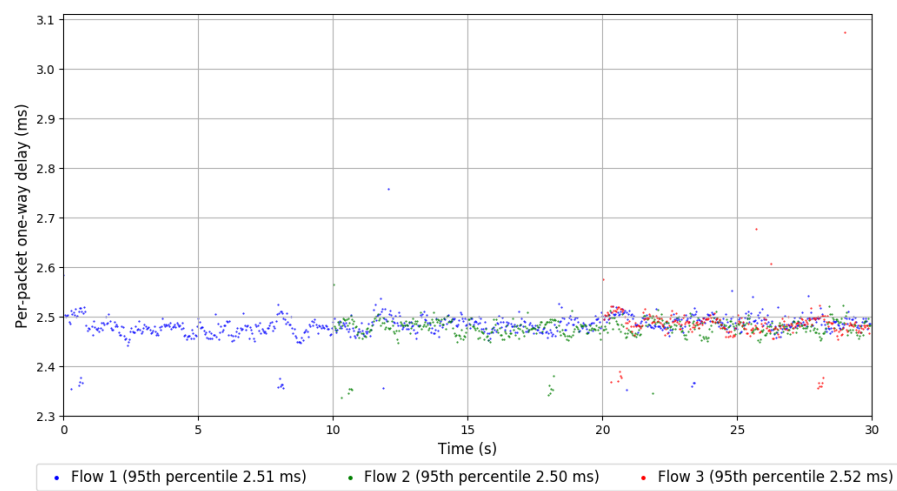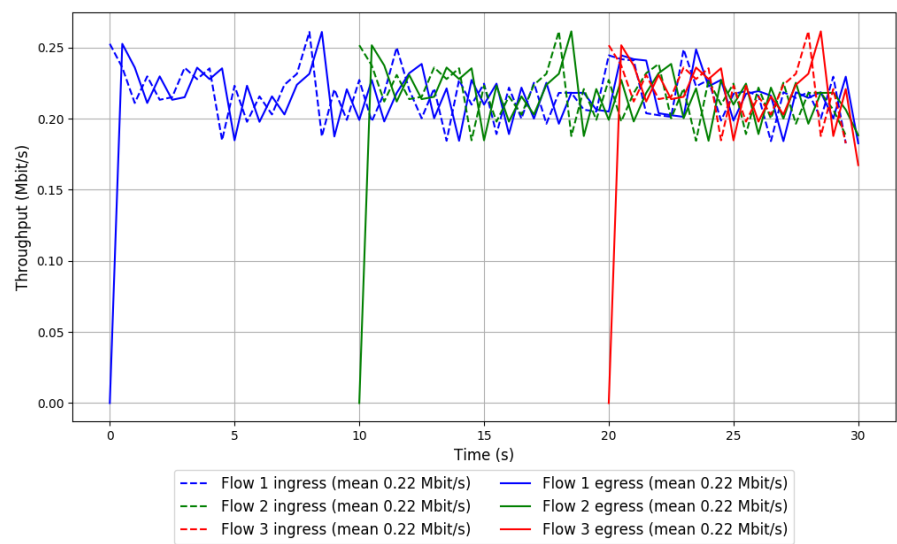# Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-07-04 12:24:06
End at: 2018-07-04 12:24:36
Local clock offset: -2.531 ms
Remote clock offset: -0.192 ms


# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.459 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.491 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.492 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-07-04 12:43:11
End at: 2018-07-04 12:43:41
Local clock offset: -2.622 ms
Remote clock offset: -1.819 ms

# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.540 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.478 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.295 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.395 ms
Loss rate: 0.35%
```
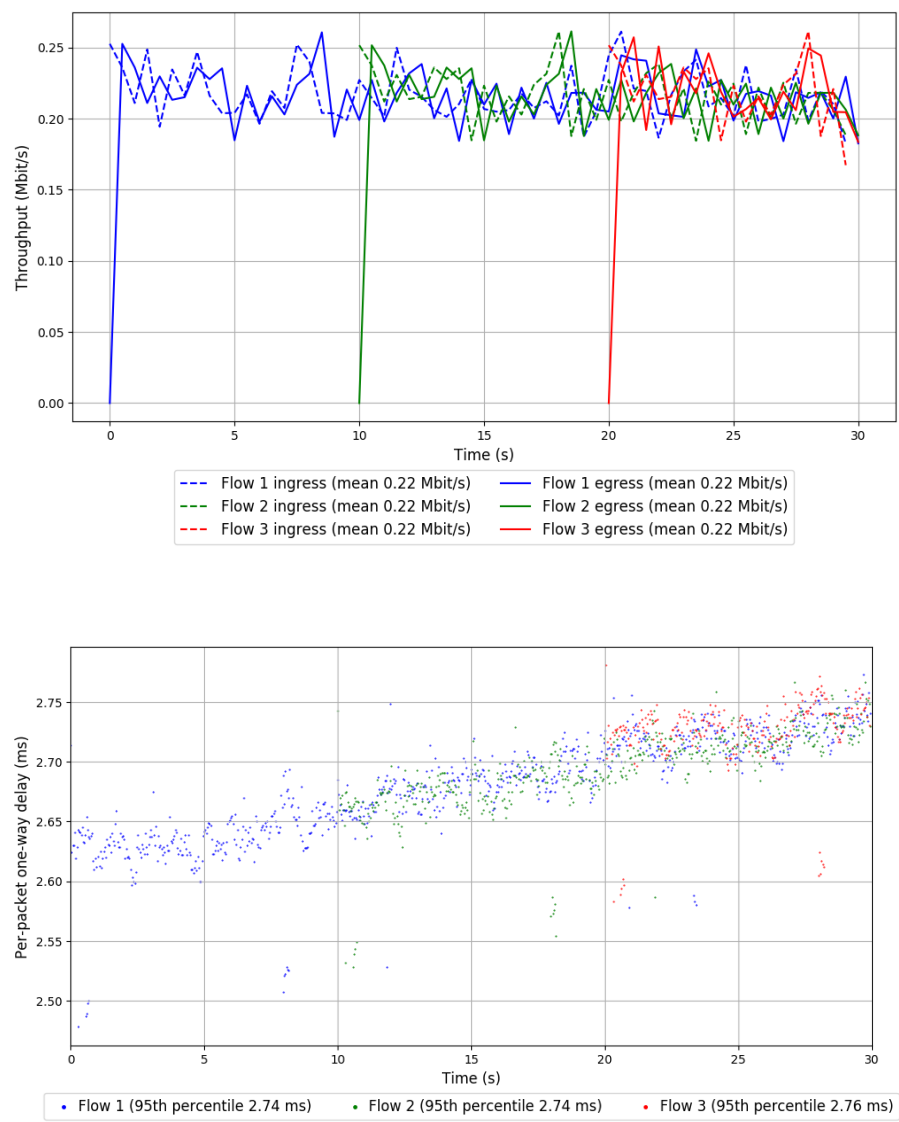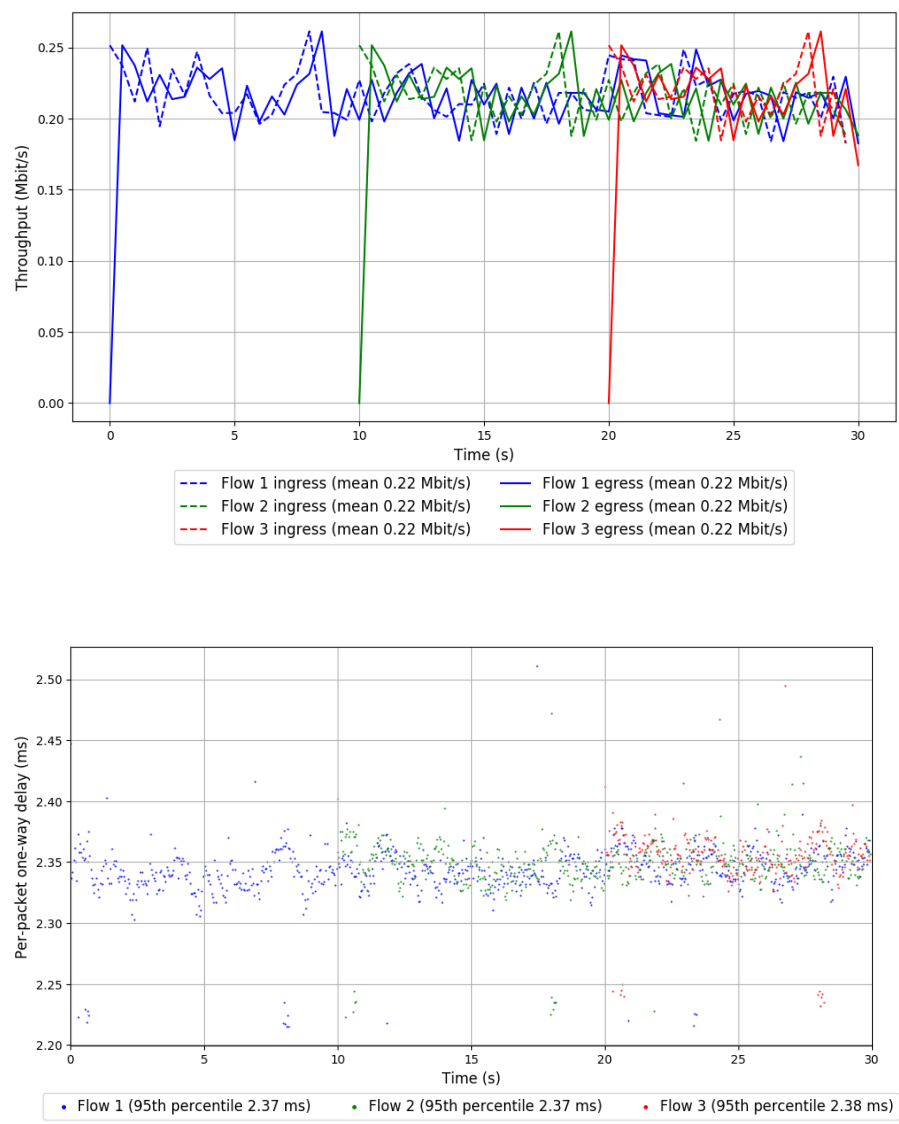
Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 2.48 ms)   Flow 2 (95th percentile 3.29 ms)   Flow 3 (95th percentile 3.40 ms)

215

```
Run 7: Statistics of SCReAM

Start at: 2018-07-04 13:02:19
End at: 2018-07-04 13:02:49
Local clock offset: -2.625 ms
Remote clock offset: -2.246 ms

# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.375 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.370 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.459 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.351 ms
Loss rate: 0.00%
```
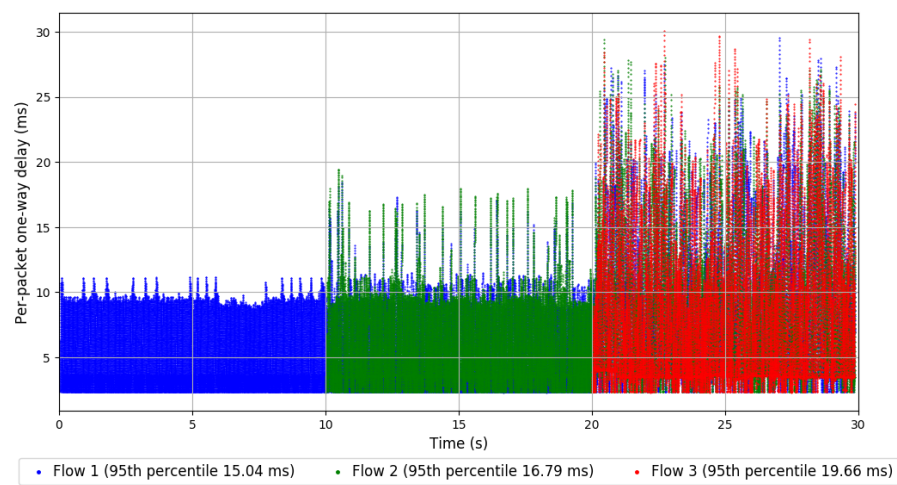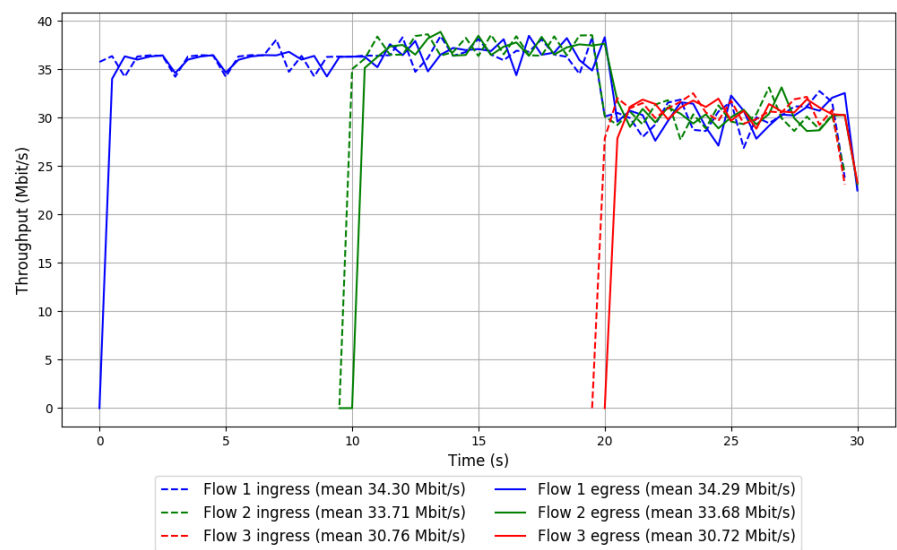
Run 7: Report of SCReAM — Data Link

217

```
Run 8: Statistics of SCReAM

Start at: 2018-07-04 13:21:29
End at: 2018-07-04 13:21:59
Local clock offset: -2.767 ms
Remote clock offset: -2.438 ms

# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.509 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.510 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.515 ms
Loss rate: 0.35%
```
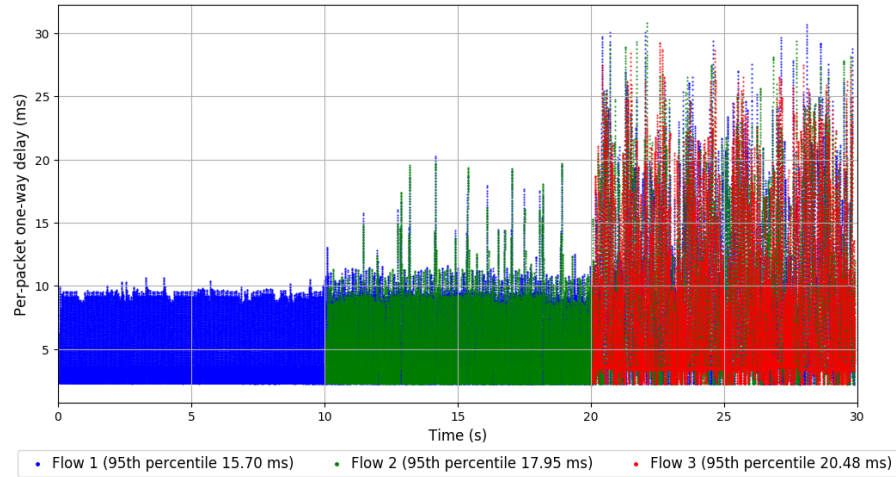
Run 8: Report of SCReAM — Data Link

219

```
Run 9: Statistics of SCReAM

Start at: 2018-07-04 13:40:40
End at: 2018-07-04 13:41:10
Local clock offset: -2.999 ms
Remote clock offset: -6.615 ms


# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.743 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.739 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.737 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.757 ms
Loss rate: 0.00%
```
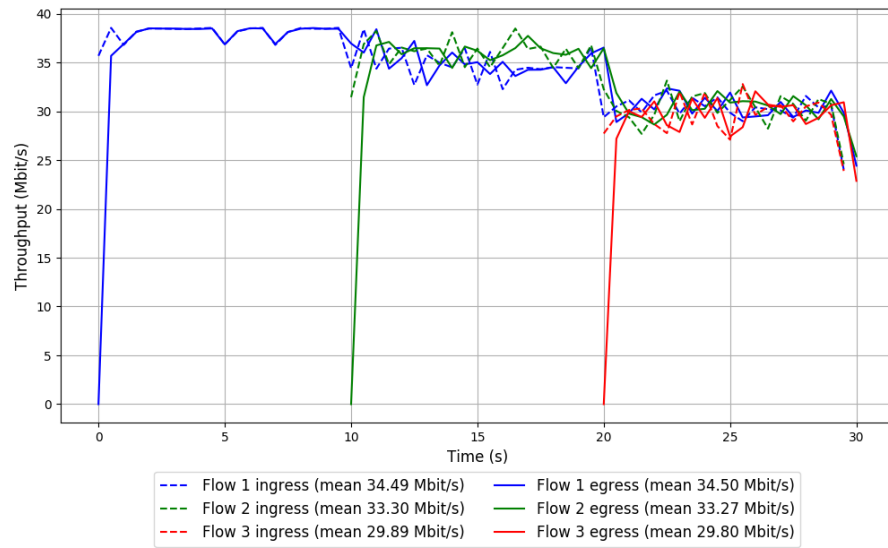
Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-07-04 13:59:50
End at: 2018-07-04 14:00:20
Local clock offset: -7.259 ms
Remote clock offset: -8.488 ms

# Below is generated by plot.py at 2018-07-04 14:21:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.372 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.368 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.372 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.380 ms
Loss rate: 0.35%
```
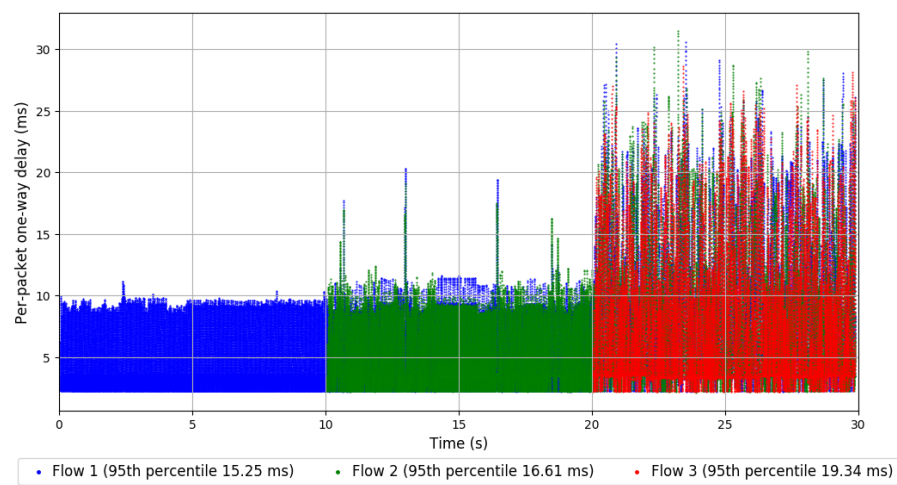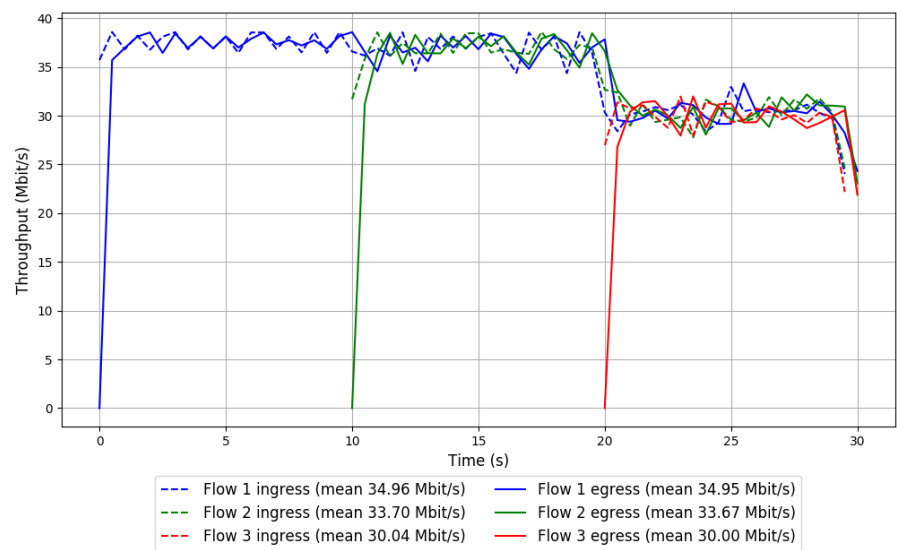
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-07-04 11:06:22
End at: 2018-07-04 11:06:52
Local clock offset: -2.948 ms
Remote clock offset: -2.831 ms


# Below is generated by plot.py at 2018-07-04 14:22:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.86 Mbit/s
95th percentile per-packet one-way delay: 16.913 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 34.29 Mbit/s
95th percentile per-packet one-way delay: 15.035 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 33.68 Mbit/s
95th percentile per-packet one-way delay: 16.787 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 30.72 Mbit/s
95th percentile per-packet one-way delay: 19.662 ms
Loss rate: 0.05%
```
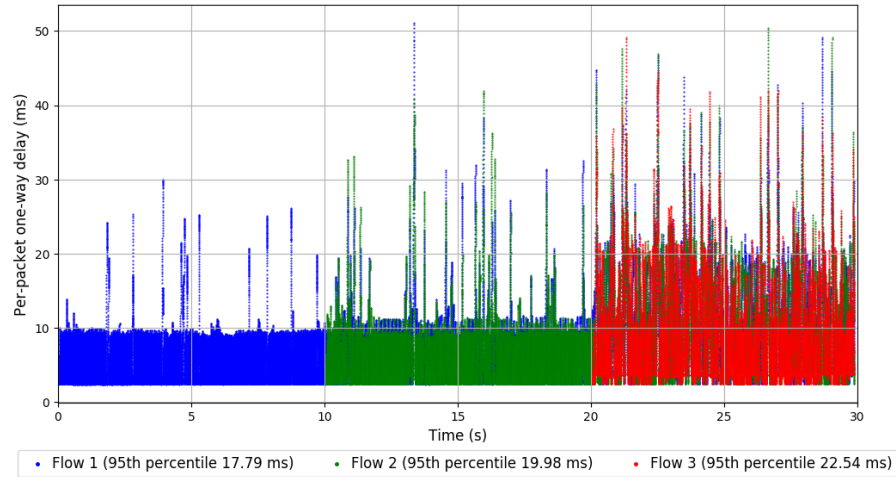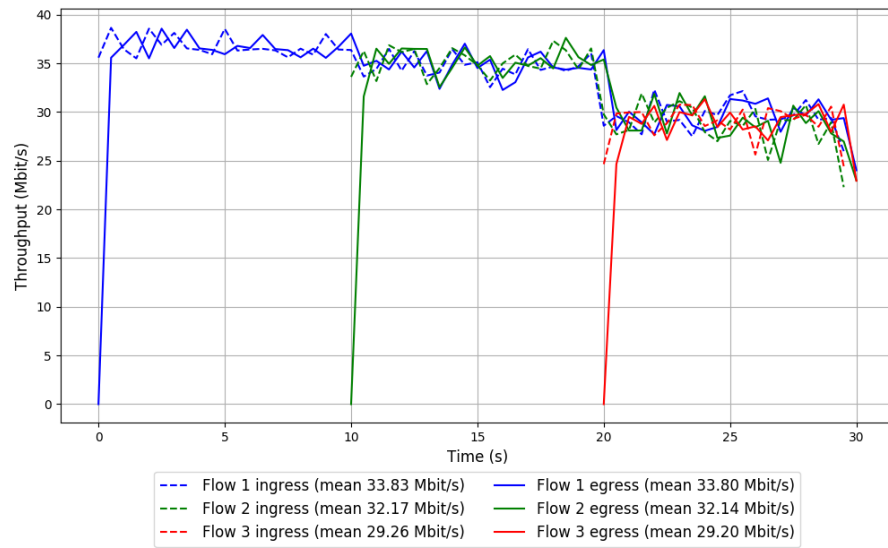
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-07-04 11:25:32
End at: 2018-07-04 11:26:02
Local clock offset: -2.552 ms
Remote clock offset: -6.719 ms


# Below is generated by plot.py at 2018-07-04 14:22:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.45 Mbit/s
95th percentile per-packet one-way delay: 17.735 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 34.50 Mbit/s
95th percentile per-packet one-way delay: 15.699 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 33.27 Mbit/s
95th percentile per-packet one-way delay: 17.945 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 29.80 Mbit/s
95th percentile per-packet one-way delay: 20.477 ms
Loss rate: 0.25%
```

Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 34.49 Mbit/s) ——— Flow 1 egress (mean 34.50 Mbit/s)
Flow 2 ingress (mean 33.30 Mbit/s) ——— Flow 2 egress (mean 33.27 Mbit/s)
Flow 3 ingress (mean 29.89 Mbit/s) ——— Flow 3 egress (mean 29.80 Mbit/s)

• Flow 1 (95th percentile 15.70 ms)   • Flow 2 (95th percentile 17.95 ms)   • Flow 3 (95th percentile 20.48 ms)

```
Run 3: Statistics of Sprout

Start at: 2018-07-04 11:44:42
End at: 2018-07-04 11:45:12
Local clock offset: -2.413 ms
Remote clock offset: -8.394 ms


# Below is generated by plot.py at 2018-07-04 14:22:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.22 Mbit/s
95th percentile per-packet one-way delay: 16.843 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 15.251 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 33.67 Mbit/s
95th percentile per-packet one-way delay: 16.605 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 30.00 Mbit/s
95th percentile per-packet one-way delay: 19.345 ms
Loss rate: 0.22%
```
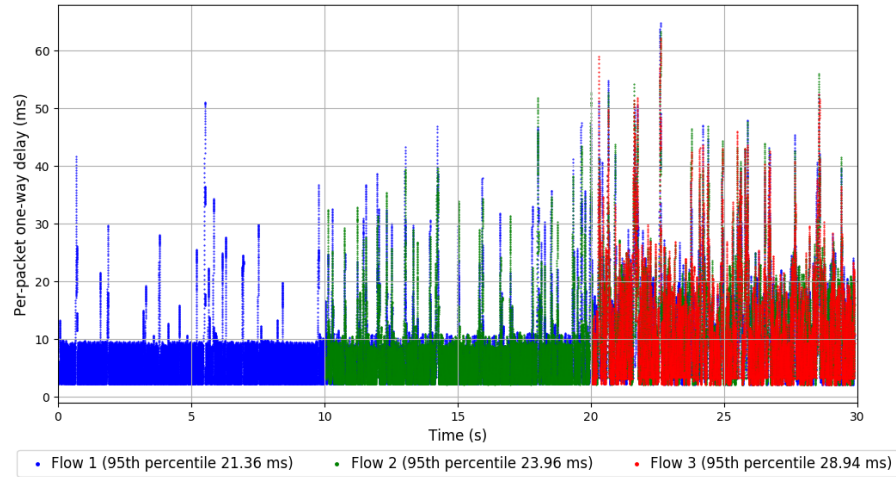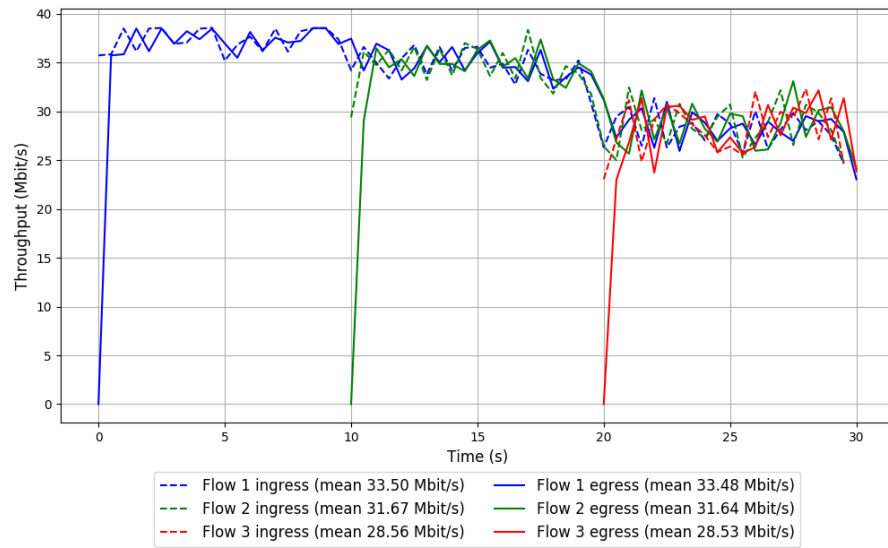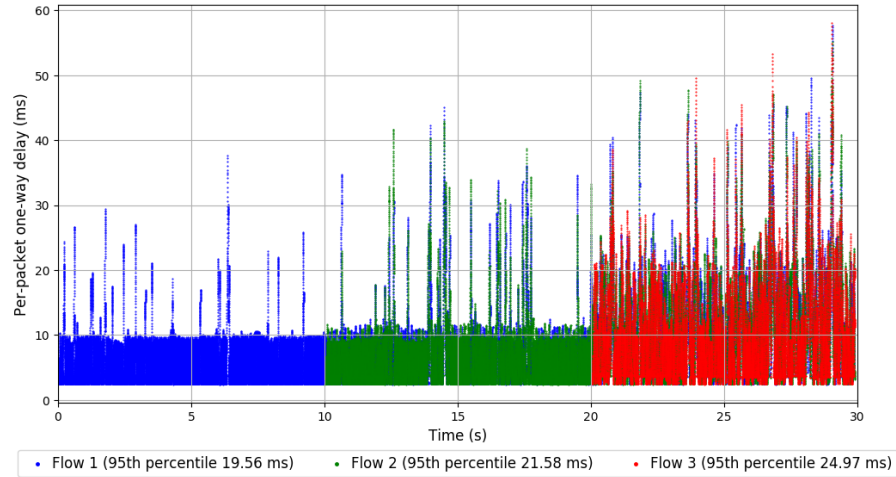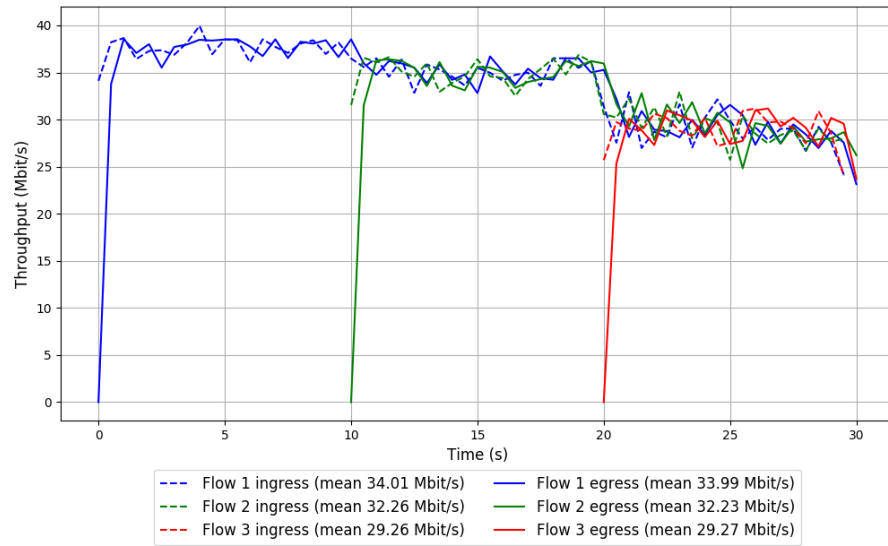
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-07-04 12:03:51
End at: 2018-07-04 12:04:21
Local clock offset: -2.149 ms
Remote clock offset: -0.627 ms


# Below is generated by plot.py at 2018-07-04 14:22:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.79 Mbit/s
95th percentile per-packet one-way delay: 19.502 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 33.80 Mbit/s
95th percentile per-packet one-way delay: 17.789 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 32.14 Mbit/s
95th percentile per-packet one-way delay: 19.981 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 29.20 Mbit/s
95th percentile per-packet one-way delay: 22.536 ms
Loss rate: 0.32%
```
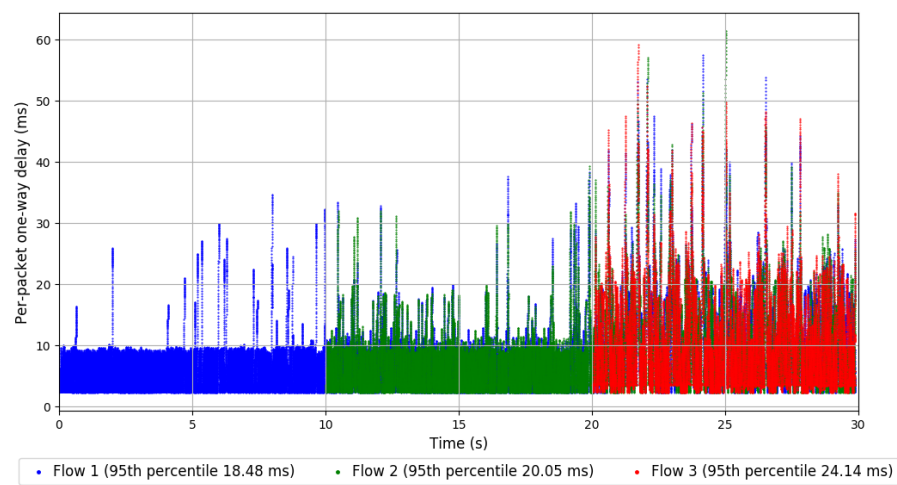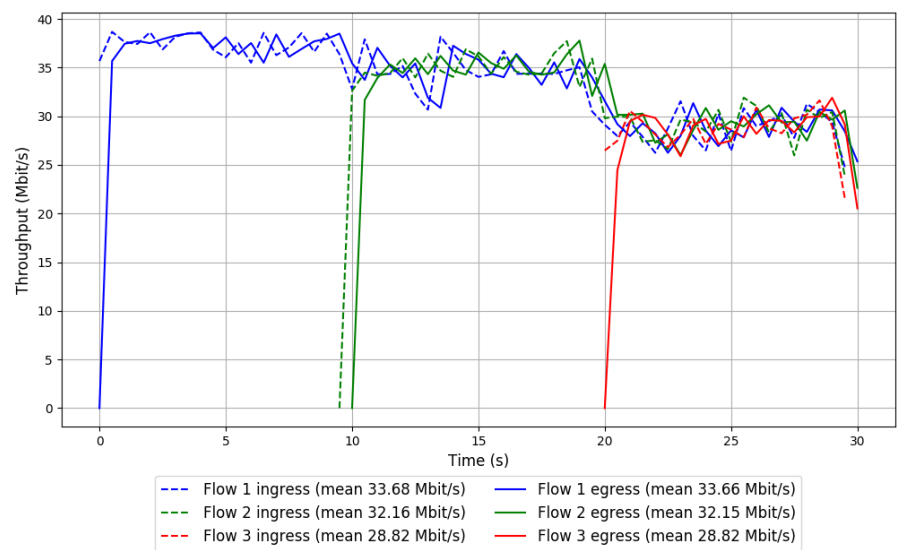
Run 4: Report of Sprout — Data Link

Flow 1 ingress (mean 33.83 Mbit/s) — Flow 1 egress (mean 33.80 Mbit/s)
Flow 2 ingress (mean 32.17 Mbit/s) — Flow 2 egress (mean 32.14 Mbit/s)
Flow 3 ingress (mean 29.26 Mbit/s) — Flow 3 egress (mean 29.20 Mbit/s)

Flow 1 (95th percentile 17.79 ms) • Flow 2 (95th percentile 19.98 ms) • Flow 3 (95th percentile 22.54 ms)

```
Run 5: Statistics of Sprout

Start at: 2018-07-04 12:22:58
End at: 2018-07-04 12:23:28
Local clock offset: -2.512 ms
Remote clock offset: 0.153 ms


# Below is generated by plot.py at 2018-07-04 14:22:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.93 Mbit/s
95th percentile per-packet one-way delay: 23.614 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 21.362 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 31.64 Mbit/s
95th percentile per-packet one-way delay: 23.963 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 28.53 Mbit/s
95th percentile per-packet one-way delay: 28.940 ms
Loss rate: 0.24%
```
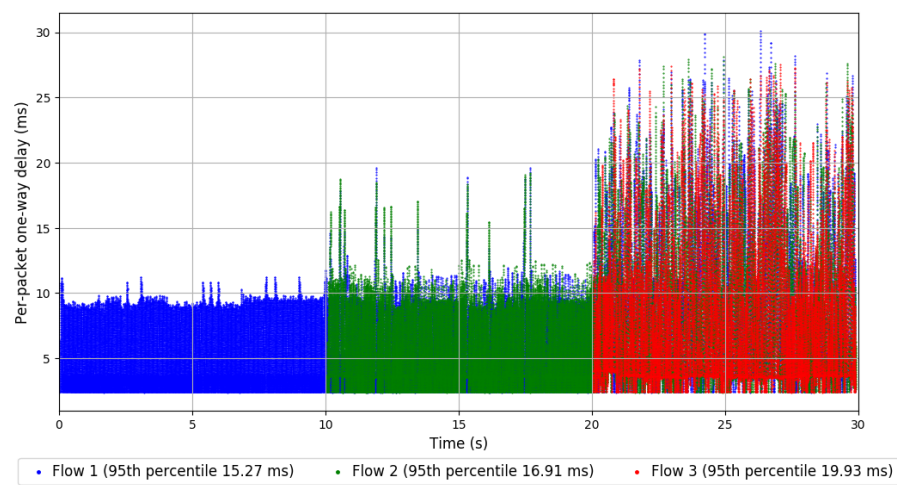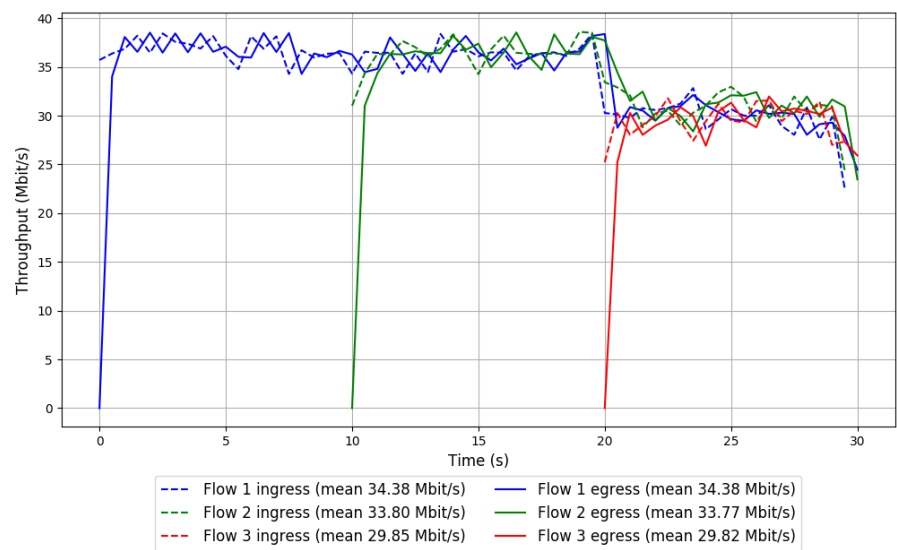
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-07-04 12:42:04
End at: 2018-07-04 12:42:34
Local clock offset: -2.626 ms
Remote clock offset: -1.834 ms


# Below is generated by plot.py at 2018-07-04 14:22:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.07 Mbit/s
95th percentile per-packet one-way delay: 21.265 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 19.558 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 32.23 Mbit/s
95th percentile per-packet one-way delay: 21.578 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 29.27 Mbit/s
95th percentile per-packet one-way delay: 24.967 ms
Loss rate: 0.07%
```
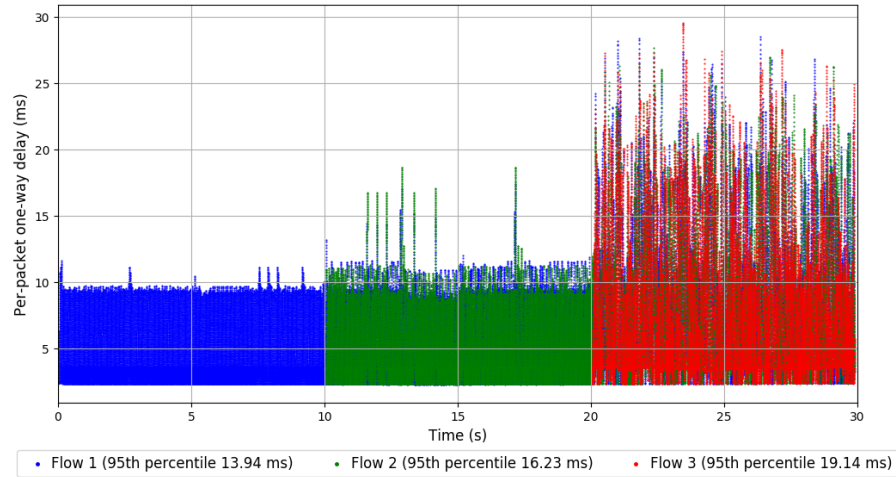
Run 6: Report of Sprout — Data Link

- - - - Flow 1 ingress (mean 34.01 Mbit/s) ——— Flow 1 egress (mean 33.99 Mbit/s)
- - - - Flow 2 ingress (mean 32.26 Mbit/s) ——— Flow 2 egress (mean 32.23 Mbit/s)
- - - - Flow 3 ingress (mean 29.26 Mbit/s) ——— Flow 3 egress (mean 29.27 Mbit/s)

- Flow 1 (95th percentile 19.56 ms)   - Flow 2 (95th percentile 21.58 ms)   - Flow 3 (95th percentile 24.97 ms)

```
Run 7: Statistics of Sprout

Start at: 2018-07-04 13:01:12
End at: 2018-07-04 13:01:42
Local clock offset: -2.614 ms
Remote clock offset: -2.205 ms


# Below is generated by plot.py at 2018-07-04 14:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.56 Mbit/s
95th percentile per-packet one-way delay: 20.283 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 18.481 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 32.15 Mbit/s
95th percentile per-packet one-way delay: 20.052 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 28.82 Mbit/s
95th percentile per-packet one-way delay: 24.142 ms
Loss rate: 0.19%
```
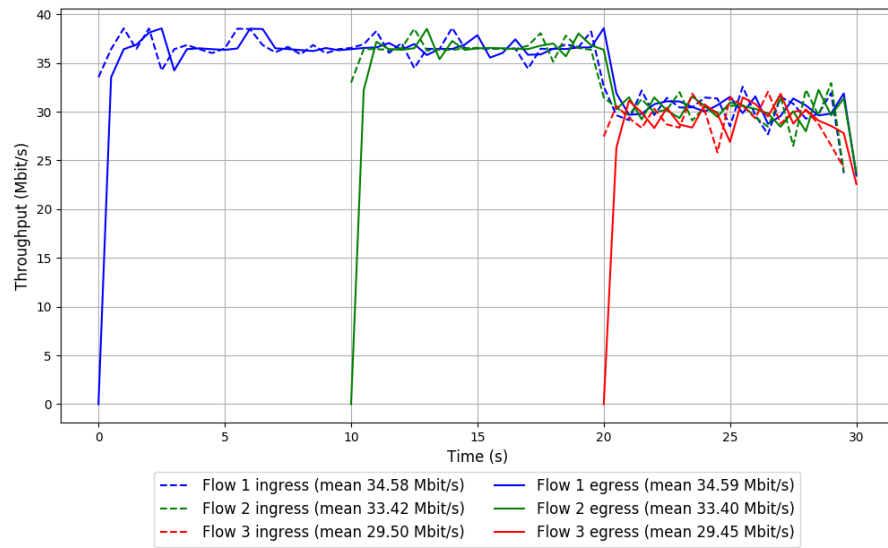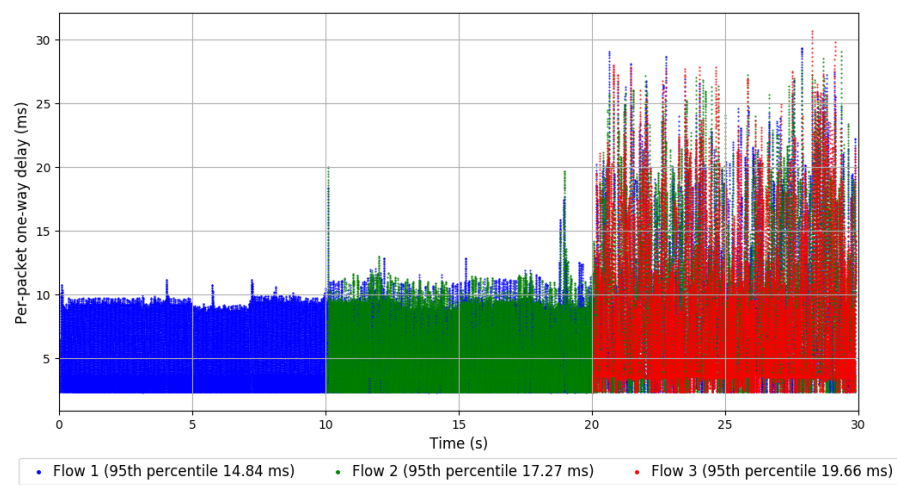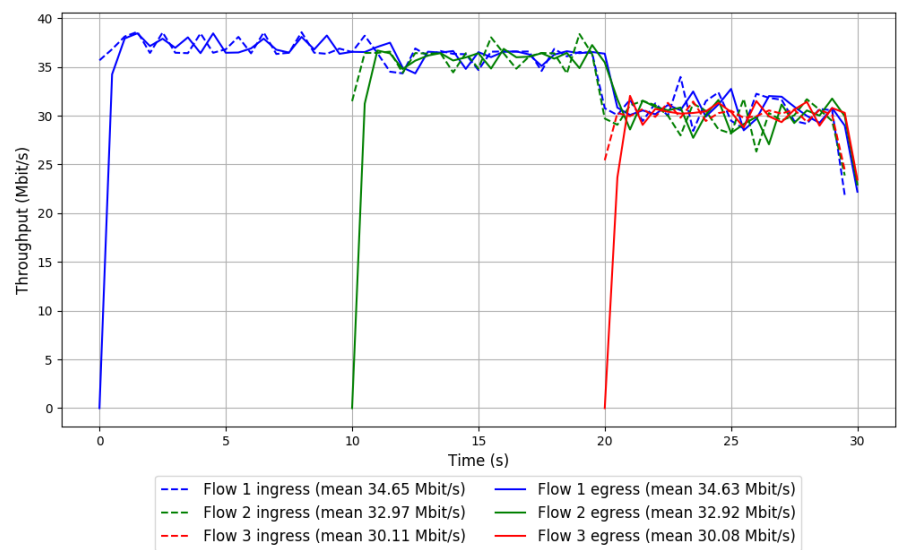
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-07-04 13:20:22
End at: 2018-07-04 13:20:52
Local clock offset: -2.77 ms
Remote clock offset: -2.391 ms


# Below is generated by plot.py at 2018-07-04 14:22:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.66 Mbit/s
95th percentile per-packet one-way delay: 17.061 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 15.266 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.77 Mbit/s
95th percentile per-packet one-way delay: 16.913 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 29.82 Mbit/s
95th percentile per-packet one-way delay: 19.930 ms
Loss rate: 0.30%
```
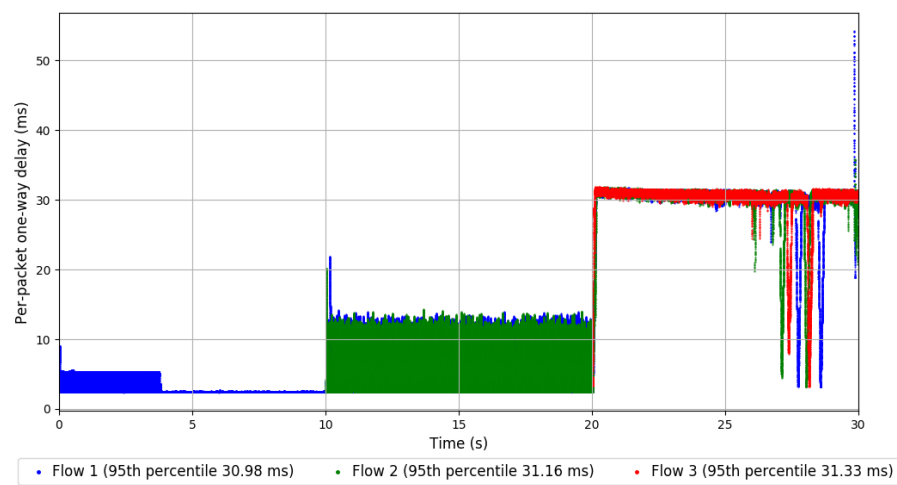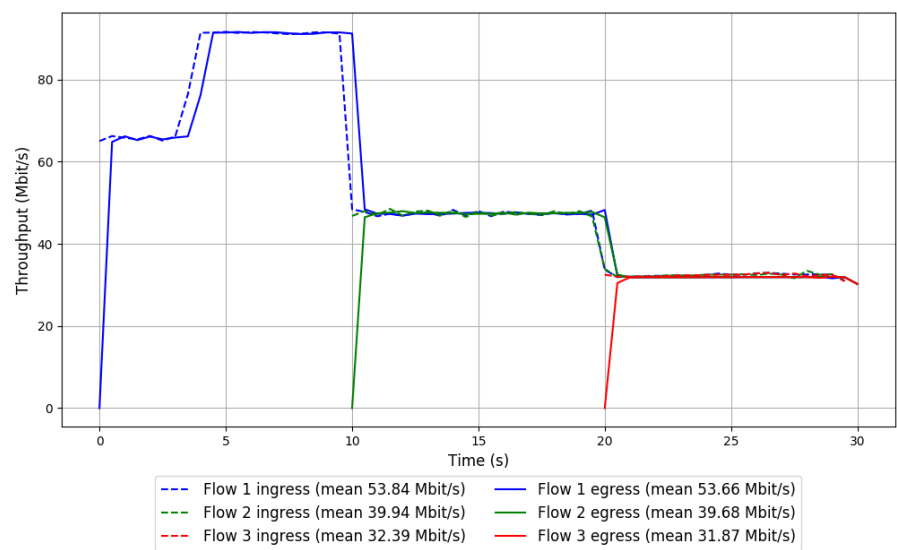
Run 8: Report of Sprout — Data Link

- - - Flow 1 ingress (mean 34.38 Mbit/s)   —— Flow 1 egress (mean 34.38 Mbit/s)
- - - Flow 2 ingress (mean 33.80 Mbit/s)   —— Flow 2 egress (mean 33.77 Mbit/s)
- - - Flow 3 ingress (mean 29.85 Mbit/s)   —— Flow 3 egress (mean 29.82 Mbit/s)

• Flow 1 (95th percentile 15.27 ms)   • Flow 2 (95th percentile 16.91 ms)   • Flow 3 (95th percentile 19.93 ms)

```
Run 9: Statistics of Sprout

Start at: 2018-07-04 13:39:32
End at: 2018-07-04 13:40:02
Local clock offset: -2.914 ms
Remote clock offset: -6.474 ms


# Below is generated by plot.py at 2018-07-04 14:22:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.52 Mbit/s
95th percentile per-packet one-way delay: 16.230 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 34.59 Mbit/s
95th percentile per-packet one-way delay: 13.944 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 33.40 Mbit/s
95th percentile per-packet one-way delay: 16.227 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 29.45 Mbit/s
95th percentile per-packet one-way delay: 19.145 ms
Loss rate: 0.29%
```
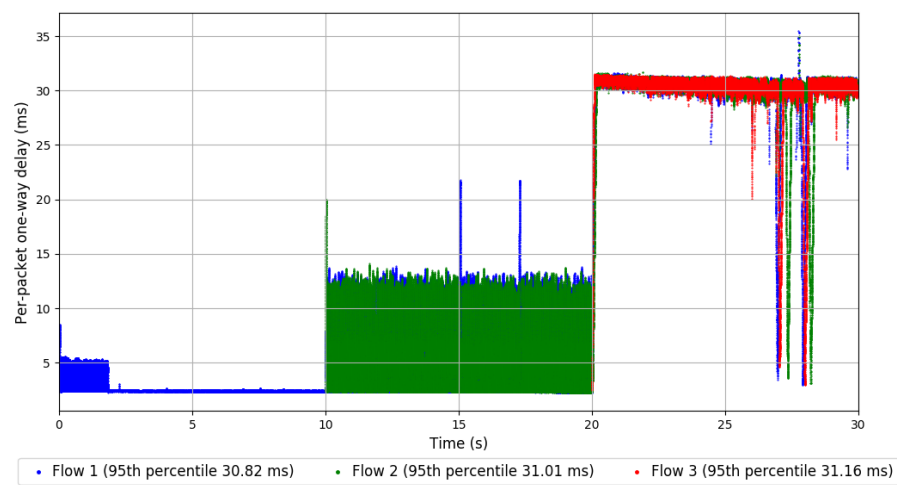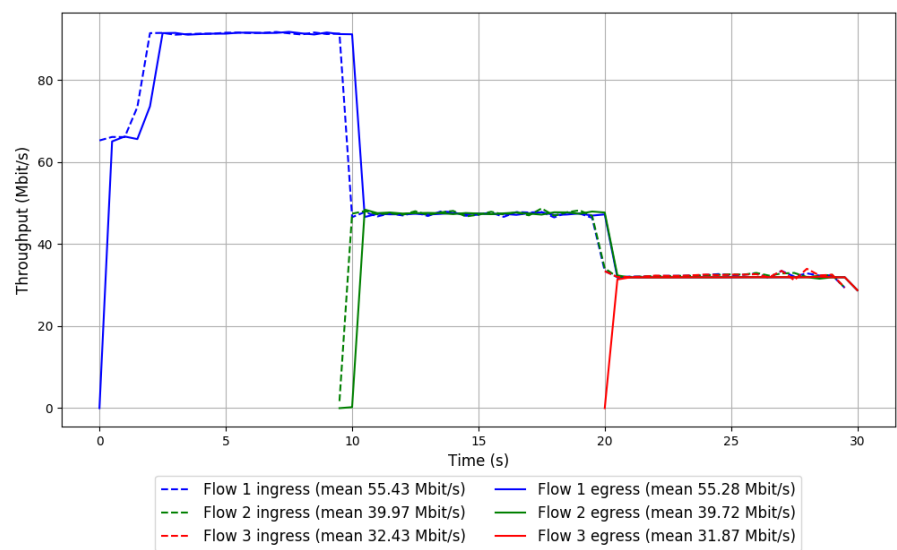
Run 9: Report of Sprout — Data Link

Flow 1 ingress (mean 34.58 Mbit/s) --- Flow 1 egress (mean 34.59 Mbit/s)
Flow 2 ingress (mean 33.42 Mbit/s) --- Flow 2 egress (mean 33.40 Mbit/s)
Flow 3 ingress (mean 29.50 Mbit/s) --- Flow 3 egress (mean 29.45 Mbit/s)

Flow 1 (95th percentile 13.94 ms)   Flow 2 (95th percentile 16.23 ms)   Flow 3 (95th percentile 19.14 ms)

```
Run 10: Statistics of Sprout

Start at: 2018-07-04 13:58:43
End at: 2018-07-04 13:59:13
Local clock offset: -7.159 ms
Remote clock offset: -8.465 ms


# Below is generated by plot.py at 2018-07-04 14:22:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.46 Mbit/s
95th percentile per-packet one-way delay: 16.987 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 34.63 Mbit/s
95th percentile per-packet one-way delay: 14.843 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 32.92 Mbit/s
95th percentile per-packet one-way delay: 17.274 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 30.08 Mbit/s
95th percentile per-packet one-way delay: 19.662 ms
Loss rate: 0.16%
```

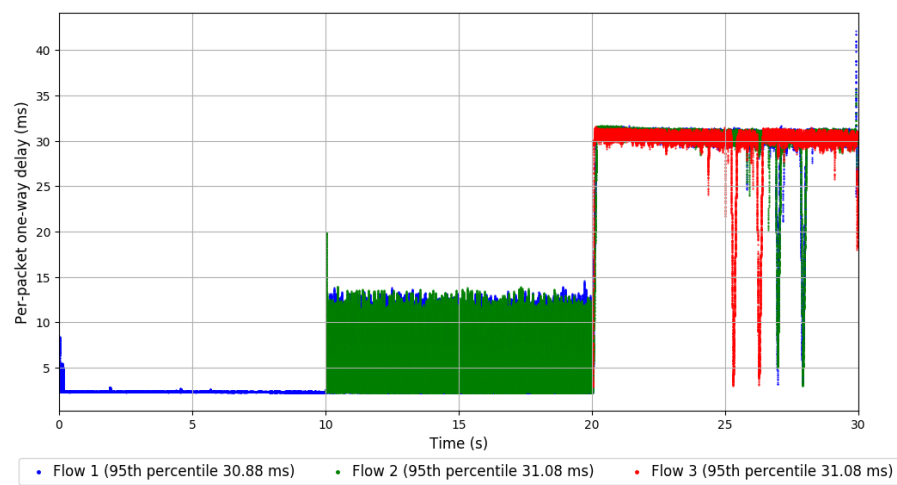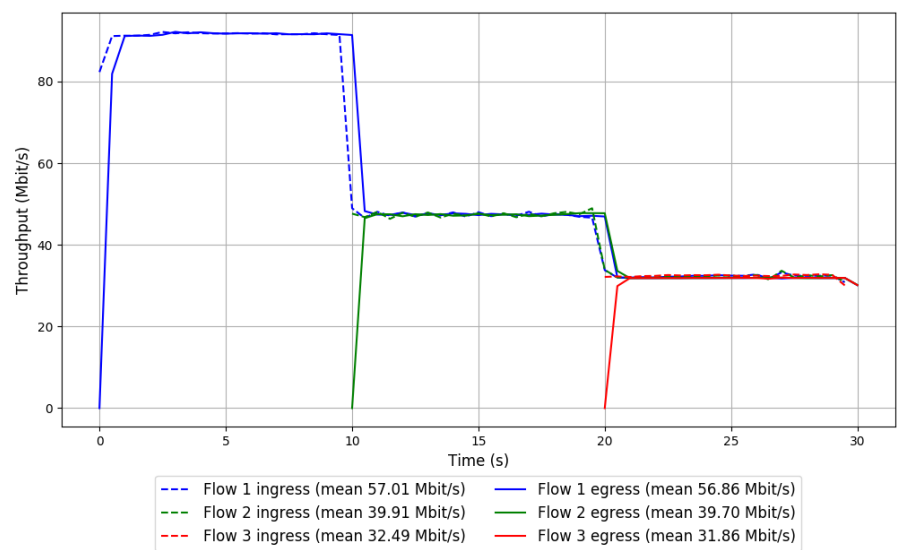Run 10: Report of Sprout — Data Link

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

Start at: 2018-07-04 10:51:41
End at: 2018-07-04 10:52:11
Local clock offset: -2.864 ms
Remote clock offset: -2.728 ms


# Below is generated by plot.py at 2018-07-04 14:24:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.68 Mbit/s
95th percentile per-packet one-way delay: 31.142 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 53.66 Mbit/s
95th percentile per-packet one-way delay: 30.980 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 39.68 Mbit/s
95th percentile per-packet one-way delay: 31.157 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 31.334 ms
Loss rate: 1.79%
```
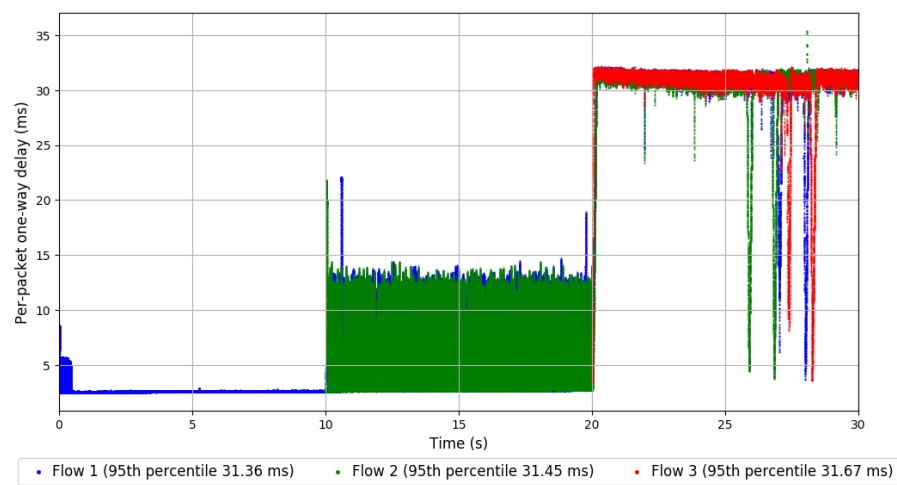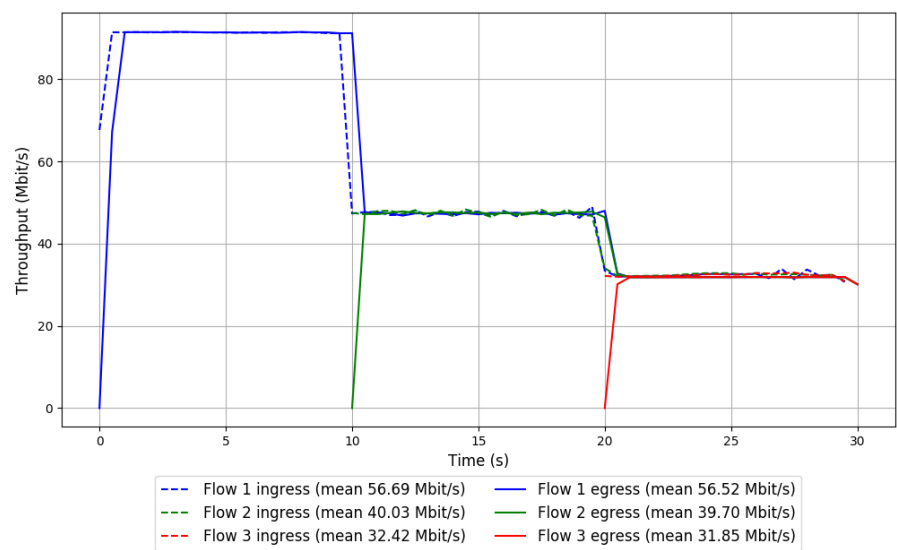
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 53.84 Mbit/s)   Flow 1 egress (mean 53.66 Mbit/s)
Flow 2 ingress (mean 39.94 Mbit/s)   Flow 2 egress (mean 39.68 Mbit/s)
Flow 3 ingress (mean 32.39 Mbit/s)   Flow 3 egress (mean 31.87 Mbit/s)

Flow 1 (95th percentile 30.98 ms)   Flow 2 (95th percentile 31.16 ms)   Flow 3 (95th percentile 31.33 ms)

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

Start at: 2018-07-04 11:10:51
End at: 2018-07-04 11:11:21
Local clock offset: -2.947 ms
Remote clock offset: -2.852 ms


# Below is generated by plot.py at 2018-07-04 14:24:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.34 Mbit/s
95th percentile per-packet one-way delay: 30.976 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 30.824 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 39.72 Mbit/s
95th percentile per-packet one-way delay: 31.009 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 31.156 ms
Loss rate: 1.82%
```

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

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

Start at: 2018-07-04 11:30:01
End at: 2018-07-04 11:30:31
Local clock offset: -2.58 ms
Remote clock offset: -7.318 ms


# Below is generated by plot.py at 2018-07-04 14:24:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.88 Mbit/s
95th percentile per-packet one-way delay: 30.994 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 56.86 Mbit/s
95th percentile per-packet one-way delay: 30.879 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 31.082 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 31.080 ms
Loss rate: 2.05%
```
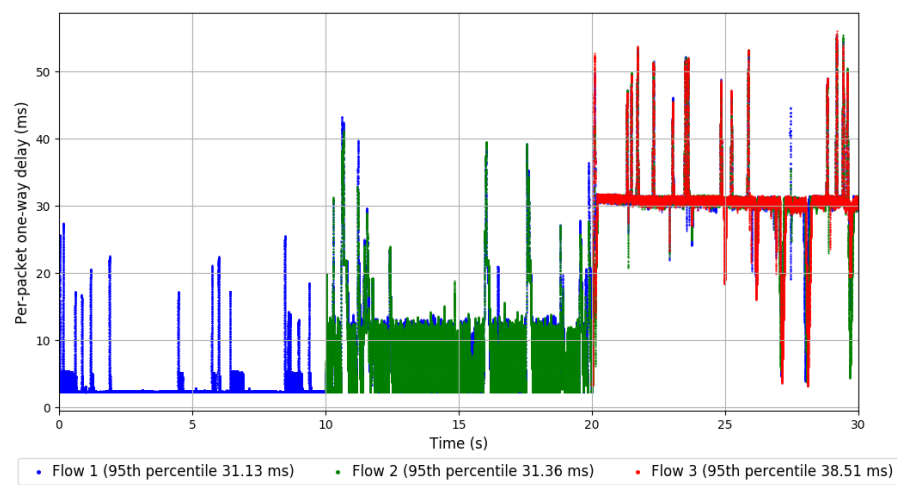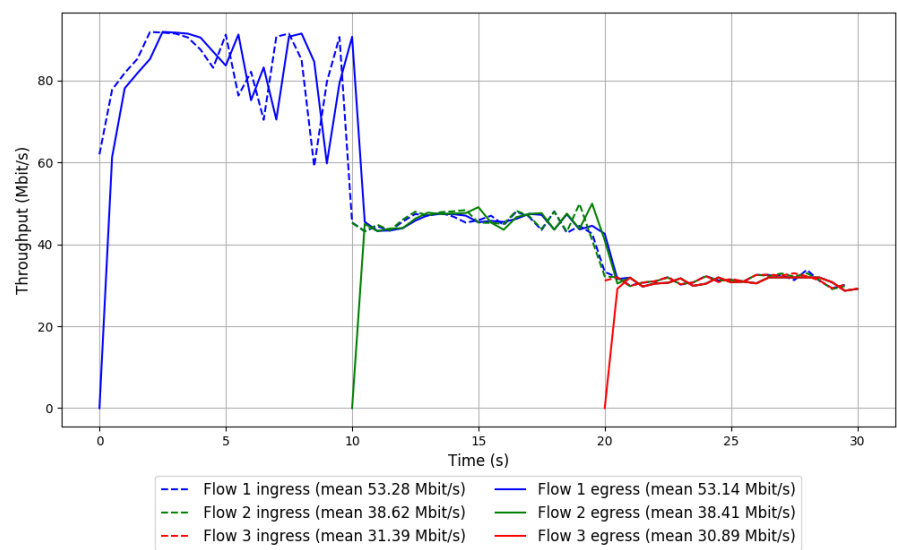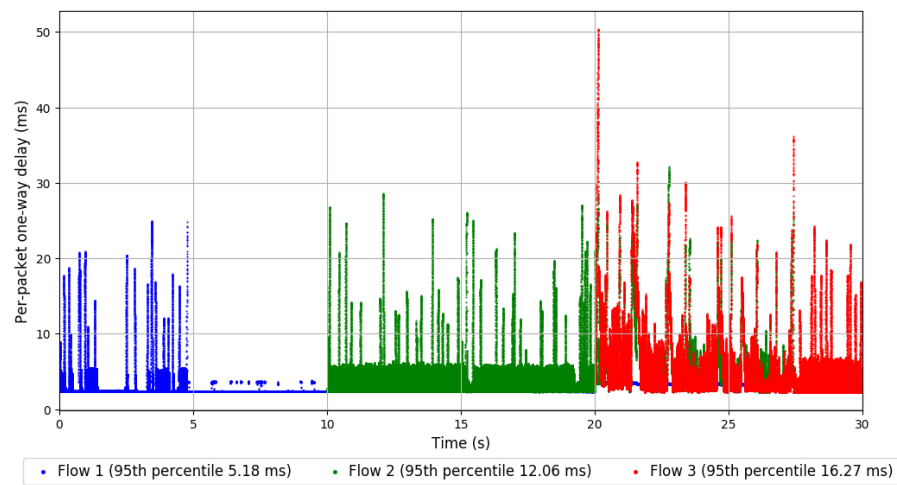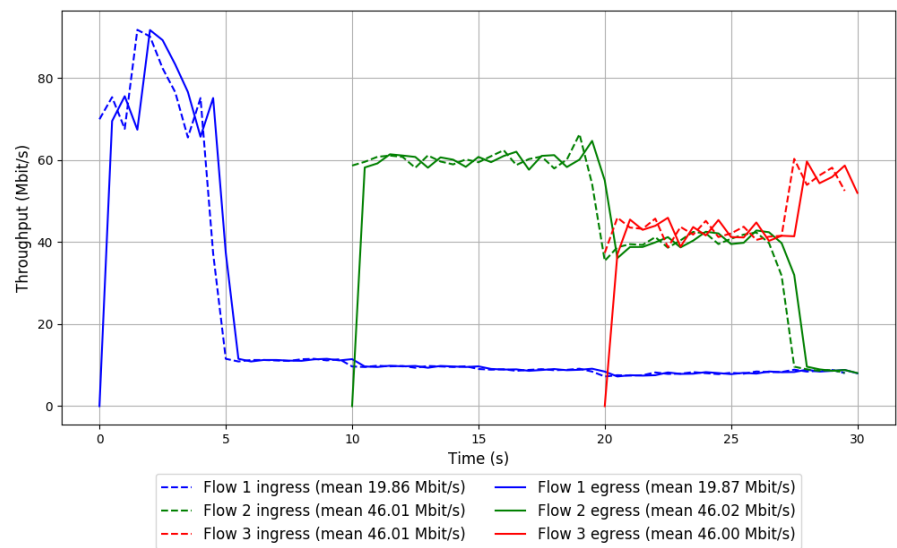
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 57.01 Mbit/s)   Flow 1 egress (mean 56.86 Mbit/s)
Flow 2 ingress (mean 39.91 Mbit/s)   Flow 2 egress (mean 39.70 Mbit/s)
Flow 3 ingress (mean 32.49 Mbit/s)   Flow 3 egress (mean 31.86 Mbit/s)

Flow 1 (95th percentile 30.88 ms)   Flow 2 (95th percentile 31.08 ms)   Flow 3 (95th percentile 31.08 ms)
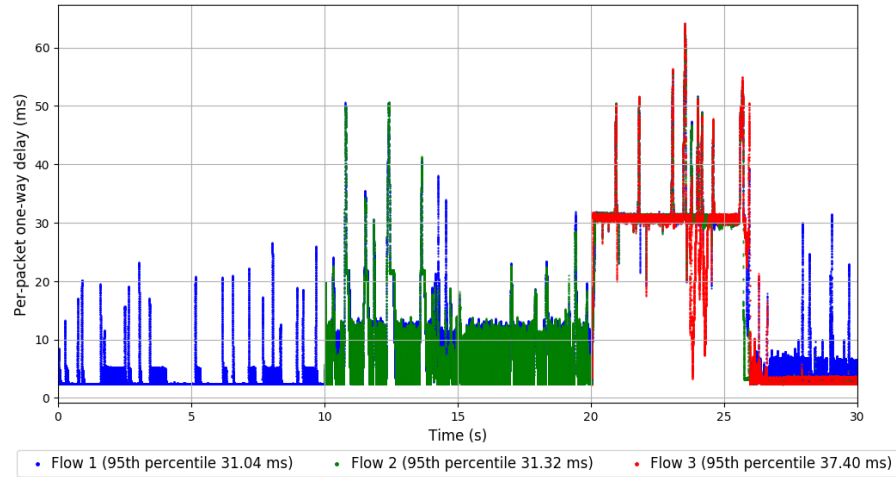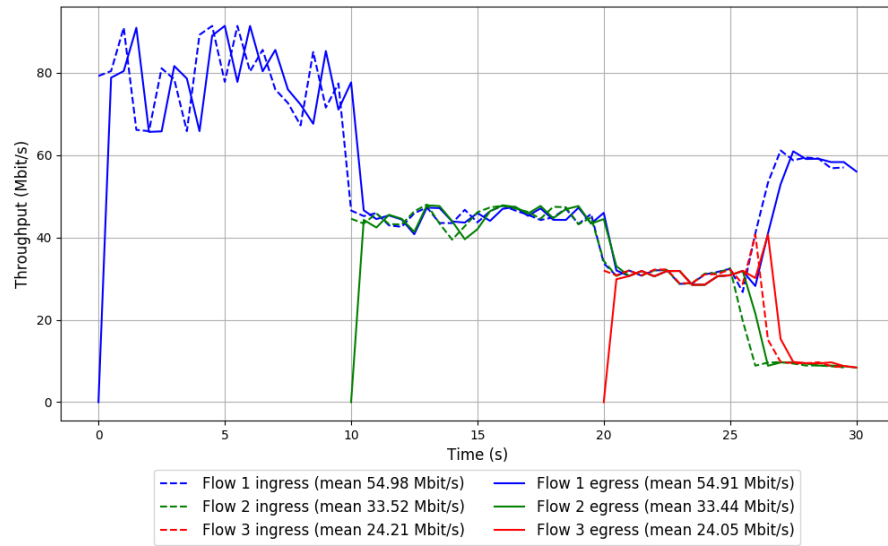
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-07-04 11:49:11
End at: 2018-07-04 11:49:41
Local clock offset: -2.273 ms
Remote clock offset: -5.656 ms


# Below is generated by plot.py at 2018-07-04 14:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.55 Mbit/s
95th percentile per-packet one-way delay: 31.472 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 56.52 Mbit/s
95th percentile per-packet one-way delay: 31.356 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 31.450 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 31.85 Mbit/s
95th percentile per-packet one-way delay: 31.668 ms
Loss rate: 1.93%
```

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

Flow 1 ingress (mean 56.69 Mbit/s) — — — Flow 1 egress (mean 56.52 Mbit/s)
Flow 2 ingress (mean 40.03 Mbit/s) — — — Flow 2 egress (mean 39.70 Mbit/s)
Flow 3 ingress (mean 32.42 Mbit/s) — — — Flow 3 egress (mean 31.85 Mbit/s)

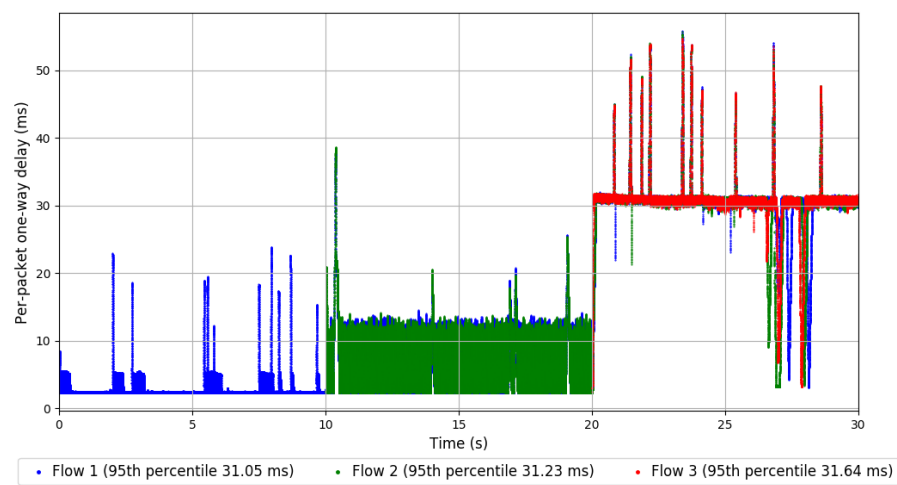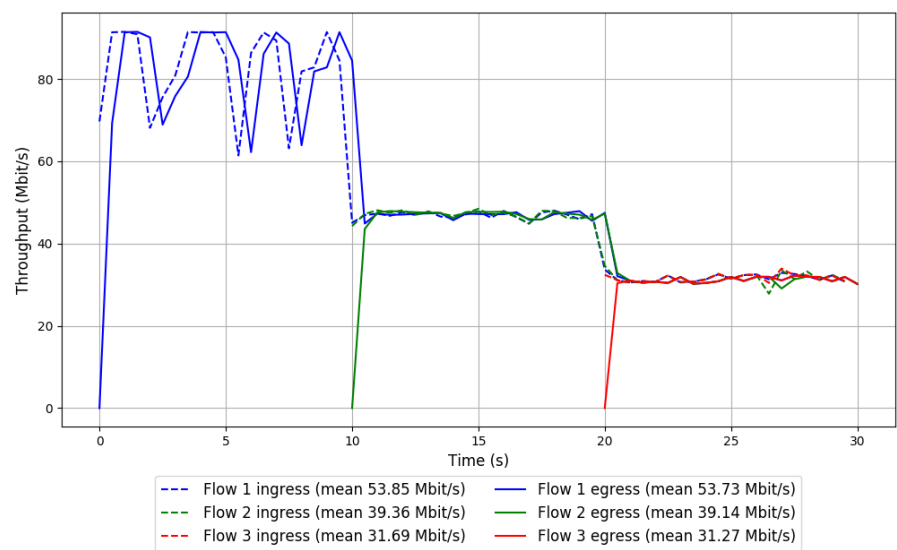Flow 1 (95th percentile 31.36 ms)   Flow 2 (95th percentile 31.45 ms)   Flow 3 (95th percentile 31.67 ms)

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

Start at: 2018-07-04 12:08:20
End at: 2018-07-04 12:08:50
Local clock offset: -2.103 ms
Remote clock offset: 0.146 ms

# Below is generated by plot.py at 2018-07-04 14:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.00 Mbit/s
95th percentile per-packet one-way delay: 31.308 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 53.14 Mbit/s
95th percentile per-packet one-way delay: 31.128 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 38.41 Mbit/s
95th percentile per-packet one-way delay: 31.365 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 30.89 Mbit/s
95th percentile per-packet one-way delay: 38.513 ms
Loss rate: 1.67%
```

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

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

Start at: 2018-07-04 12:27:26
End at: 2018-07-04 12:27:56
Local clock offset: -2.561 ms
Remote clock offset: -0.903 ms


# Below is generated by plot.py at 2018-07-04 14:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.79 Mbit/s
95th percentile per-packet one-way delay: 12.259 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 19.87 Mbit/s
95th percentile per-packet one-way delay: 5.179 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 12.060 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.00 Mbit/s
95th percentile per-packet one-way delay: 16.274 ms
Loss rate: 0.10%
```

Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2018-07-04 12:46:32
End at: 2018-07-04 12:47:02
Local clock offset: -2.624 ms
Remote clock offset: -1.757 ms


# Below is generated by plot.py at 2018-07-04 14:24:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.17 Mbit/s
95th percentile per-packet one-way delay: 31.242 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 54.91 Mbit/s
95th percentile per-packet one-way delay: 31.041 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 33.44 Mbit/s
95th percentile per-packet one-way delay: 31.323 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 37.397 ms
Loss rate: 0.74%
```
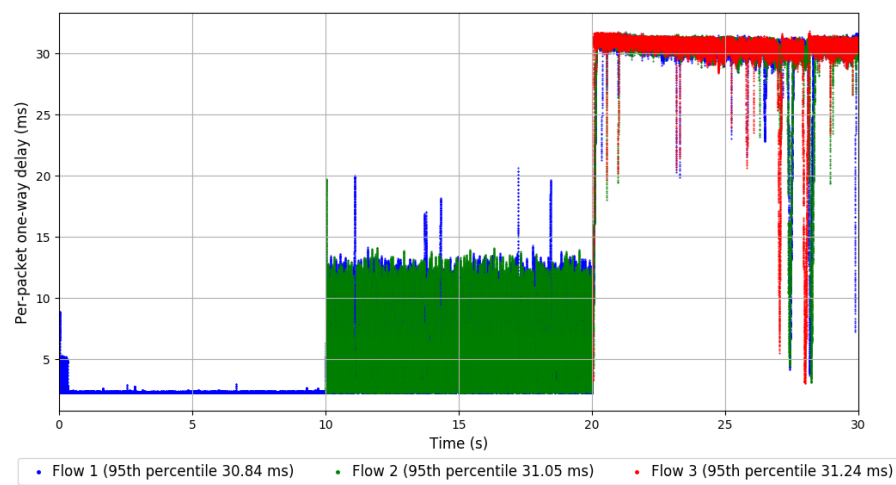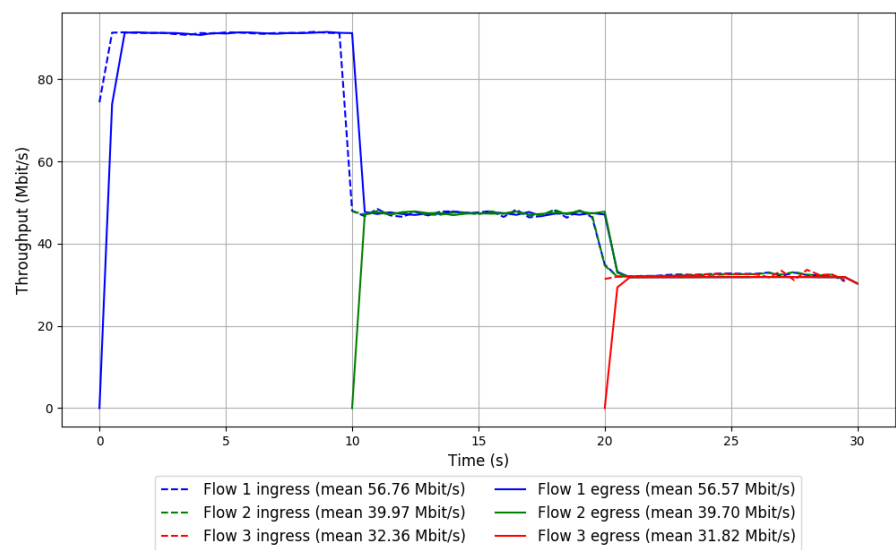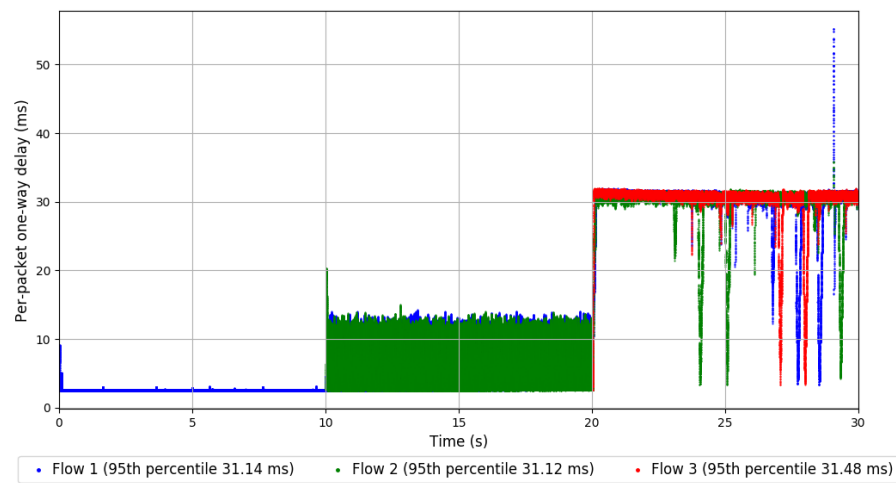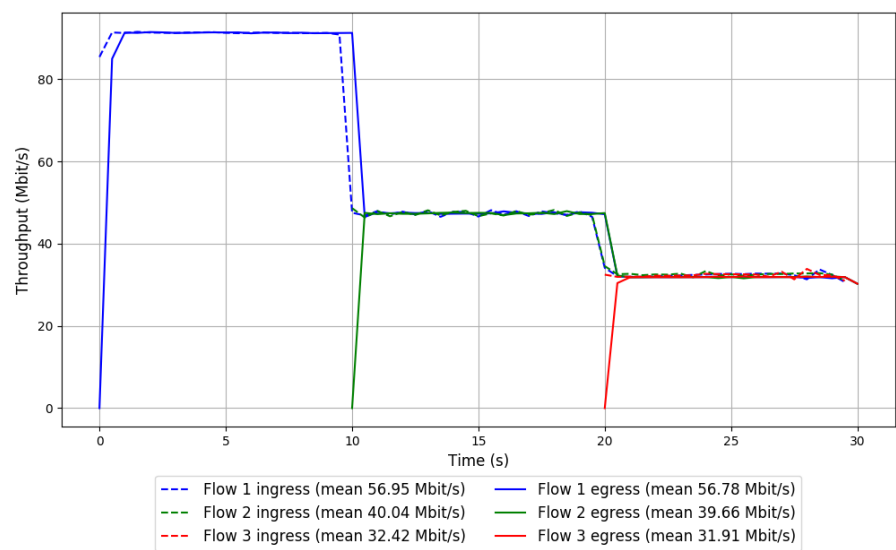
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 54.98 Mbit/s)   Flow 1 egress (mean 54.91 Mbit/s)
Flow 2 ingress (mean 33.52 Mbit/s)   Flow 2 egress (mean 33.44 Mbit/s)
Flow 3 ingress (mean 24.21 Mbit/s)   Flow 3 egress (mean 24.05 Mbit/s)

Flow 1 (95th percentile 31.04 ms)   Flow 2 (95th percentile 31.32 ms)   Flow 3 (95th percentile 37.40 ms)

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

Start at: 2018-07-04 13:05:40
End at: 2018-07-04 13:06:10
Local clock offset: -2.623 ms
Remote clock offset: -2.329 ms


# Below is generated by plot.py at 2018-07-04 14:24:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.19 Mbit/s
95th percentile per-packet one-way delay: 31.202 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 53.73 Mbit/s
95th percentile per-packet one-way delay: 31.051 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 31.235 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 31.27 Mbit/s
95th percentile per-packet one-way delay: 31.637 ms
Loss rate: 1.51%
```
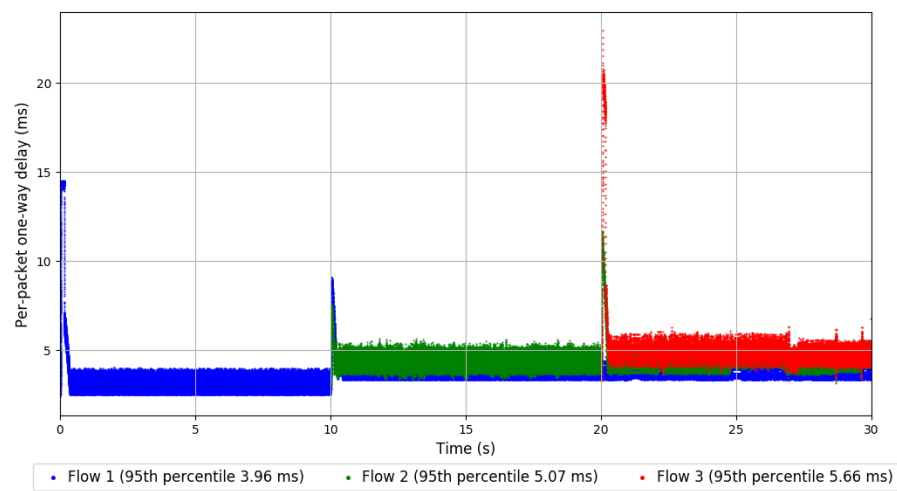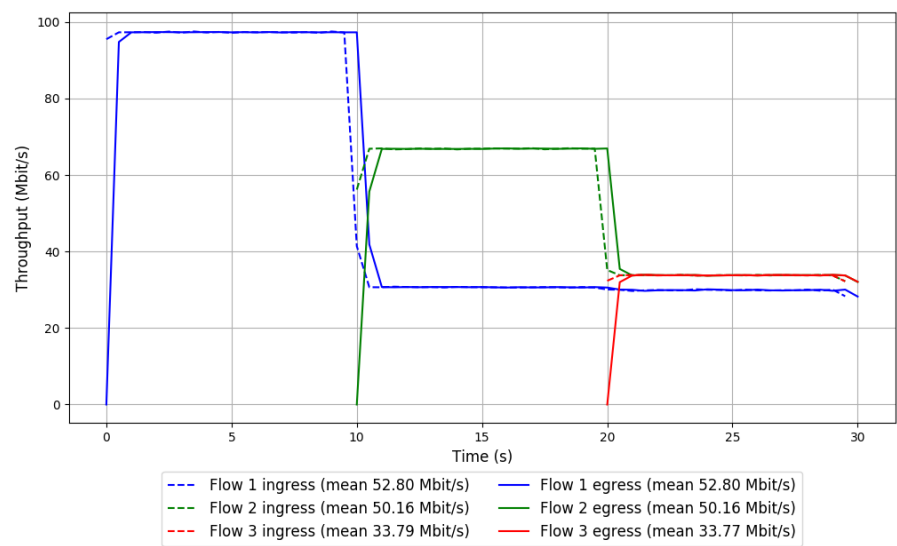
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 53.85 Mbit/s) Flow 1 egress (mean 53.73 Mbit/s)
Flow 2 ingress (mean 39.36 Mbit/s) Flow 2 egress (mean 39.14 Mbit/s)
Flow 3 ingress (mean 31.69 Mbit/s) Flow 3 egress (mean 31.27 Mbit/s)

Flow 1 (95th percentile 31.05 ms) Flow 2 (95th percentile 31.23 ms) Flow 3 (95th percentile 31.64 ms)

259

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

Start at: 2018-07-04 13:24:50
End at: 2018-07-04 13:25:20
Local clock offset: -2.862 ms
Remote clock offset: -2.28 ms


# Below is generated by plot.py at 2018-07-04 14:26:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.59 Mbit/s
95th percentile per-packet one-way delay: 31.026 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 56.57 Mbit/s
95th percentile per-packet one-way delay: 30.840 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 31.055 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 31.236 ms
Loss rate: 1.84%
```
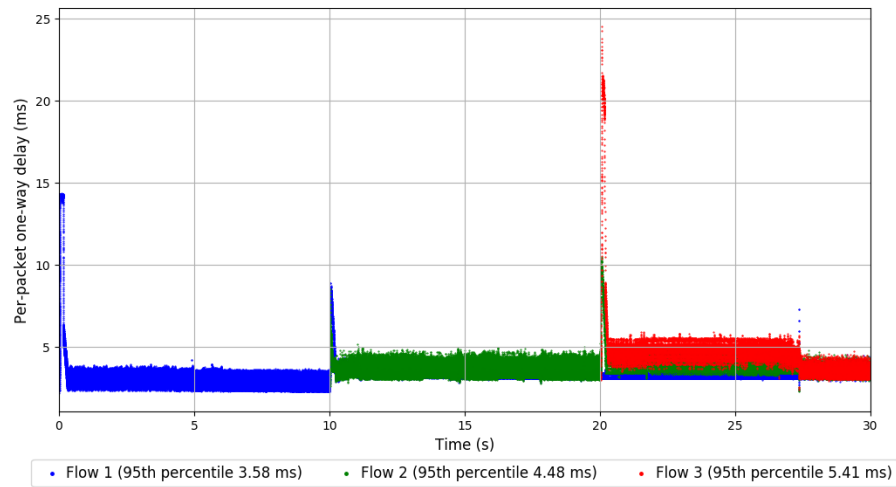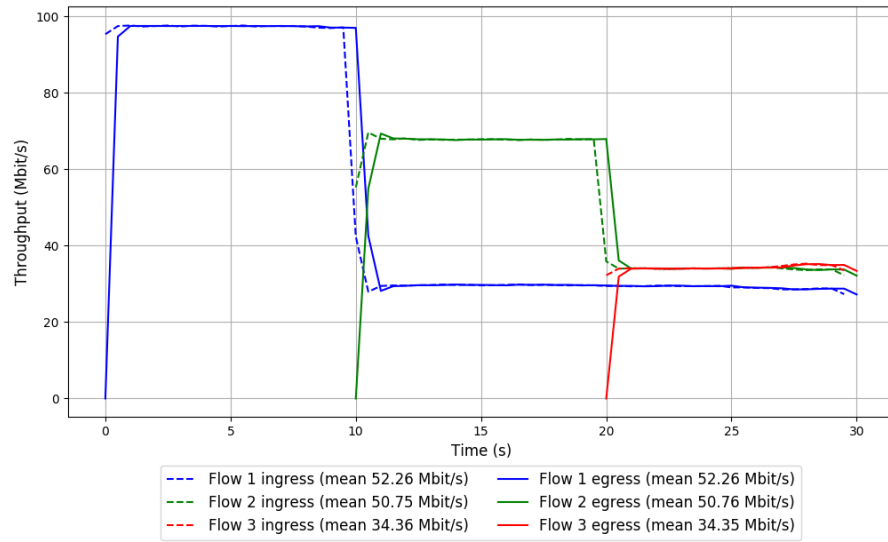
Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2018-07-04 13:44:01
End at: 2018-07-04 13:44:31
Local clock offset: -4.421 ms
Remote clock offset: -7.136 ms

# Below is generated by plot.py at 2018-07-04 14:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.80 Mbit/s
95th percentile per-packet one-way delay: 31.247 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 31.142 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 31.125 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 31.482 ms
Loss rate: 1.78%
```

Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 56.95 Mbit/s)   Flow 1 egress (mean 56.78 Mbit/s)
Flow 2 ingress (mean 40.04 Mbit/s)   Flow 2 egress (mean 39.66 Mbit/s)
Flow 3 ingress (mean 32.42 Mbit/s)   Flow 3 egress (mean 31.91 Mbit/s)

Flow 1 (95th percentile 31.14 ms)   Flow 2 (95th percentile 31.12 ms)   Flow 3 (95th percentile 31.48 ms)

263

```
Run 1: Statistics of TCP Vegas

Start at: 2018-07-04 10:59:38
End at: 2018-07-04 11:00:08
Local clock offset: -2.938 ms
Remote clock offset: -2.956 ms

# Below is generated by plot.py at 2018-07-04 14:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 5.183 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.80 Mbit/s
95th percentile per-packet one-way delay: 3.959 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 5.065 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.77 Mbit/s
95th percentile per-packet one-way delay: 5.656 ms
Loss rate: 0.07%
```
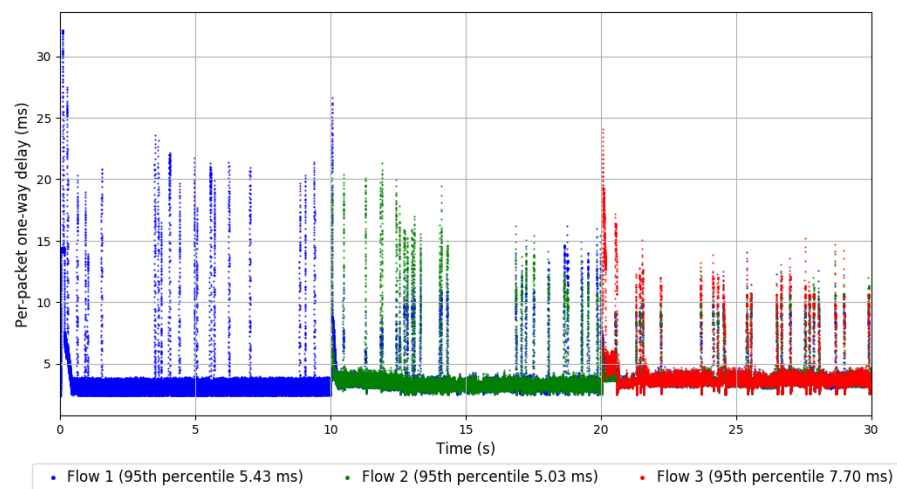
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-07-04 11:18:48
End at: 2018-07-04 11:19:18
Local clock offset: -2.737 ms
Remote clock offset: -5.587 ms


# Below is generated by plot.py at 2018-07-04 14:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 4.785 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.26 Mbit/s
95th percentile per-packet one-way delay: 3.583 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.76 Mbit/s
95th percentile per-packet one-way delay: 4.484 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 34.35 Mbit/s
95th percentile per-packet one-way delay: 5.406 ms
Loss rate: 0.06%
```
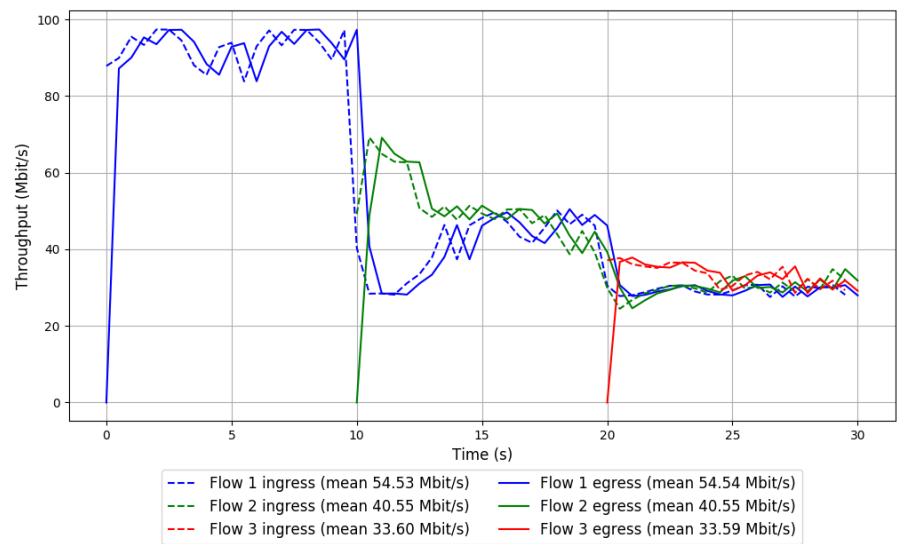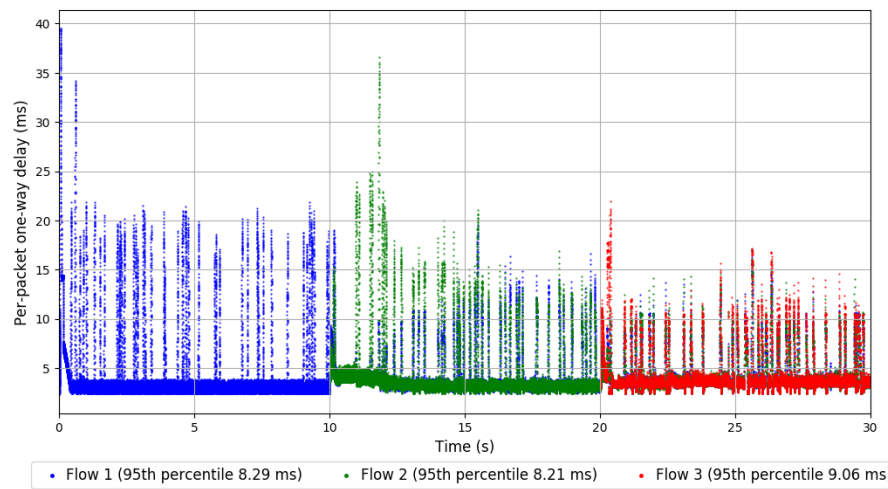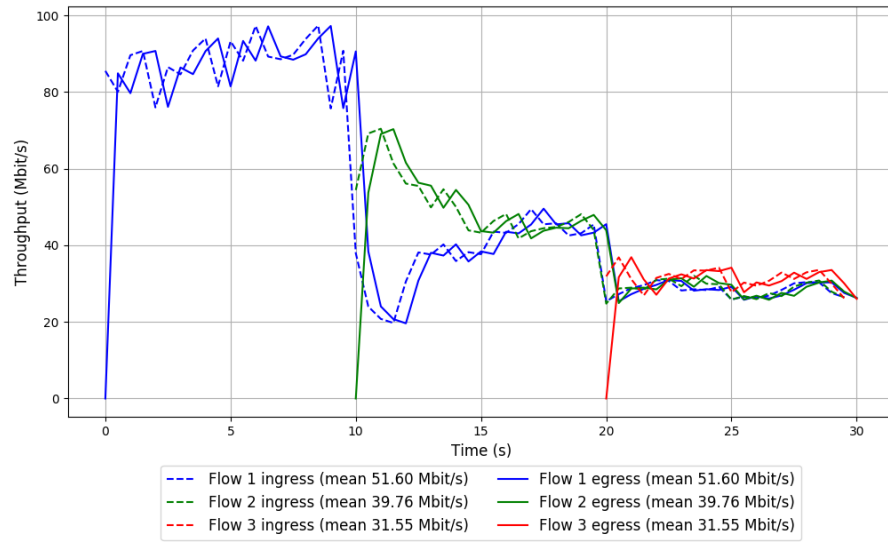
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 52.26 Mbit/s)   Flow 1 egress (mean 52.26 Mbit/s)
Flow 2 ingress (mean 50.75 Mbit/s)   Flow 2 egress (mean 50.76 Mbit/s)
Flow 3 ingress (mean 34.36 Mbit/s)   Flow 3 egress (mean 34.35 Mbit/s)

Flow 1 (95th percentile 3.58 ms)   Flow 2 (95th percentile 4.48 ms)   Flow 3 (95th percentile 5.41 ms)

267

```
Run 3: Statistics of TCP Vegas

Start at: 2018-07-04 11:37:58
End at: 2018-07-04 11:38:28
Local clock offset: -2.445 ms
Remote clock offset: -7.949 ms


# Below is generated by plot.py at 2018-07-04 14:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.42 Mbit/s
95th percentile per-packet one-way delay: 4.837 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.82 Mbit/s
95th percentile per-packet one-way delay: 3.760 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 4.905 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.75 Mbit/s
95th percentile per-packet one-way delay: 5.073 ms
Loss rate: 0.07%
```
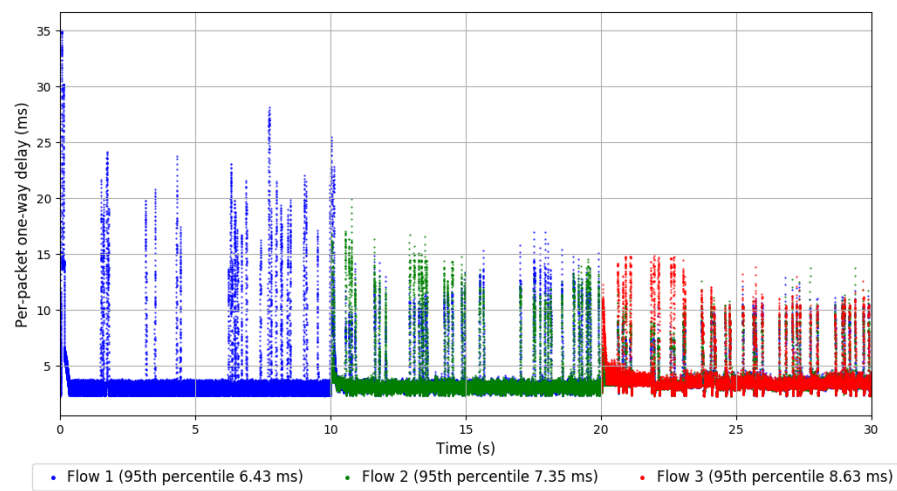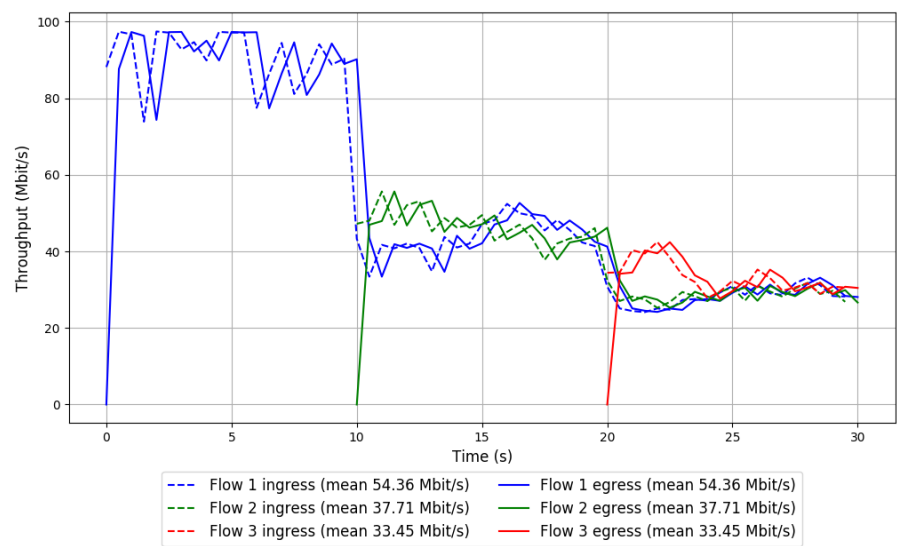
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 52.82 Mbit/s)   Flow 1 egress (mean 52.82 Mbit/s)
Flow 2 ingress (mean 50.16 Mbit/s)   Flow 2 egress (mean 50.16 Mbit/s)
Flow 3 ingress (mean 33.75 Mbit/s)   Flow 3 egress (mean 33.75 Mbit/s)

Flow 1 (95th percentile 3.76 ms)   Flow 2 (95th percentile 4.91 ms)   Flow 3 (95th percentile 5.07 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-07-04 11:57:08
End at: 2018-07-04 11:57:38
Local clock offset: -2.254 ms
Remote clock offset: -2.27 ms


# Below is generated by plot.py at 2018-07-04 14:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.70 Mbit/s
95th percentile per-packet one-way delay: 5.592 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 54.54 Mbit/s
95th percentile per-packet one-way delay: 5.432 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 40.55 Mbit/s
95th percentile per-packet one-way delay: 5.027 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 33.59 Mbit/s
95th percentile per-packet one-way delay: 7.703 ms
Loss rate: 0.05%
```
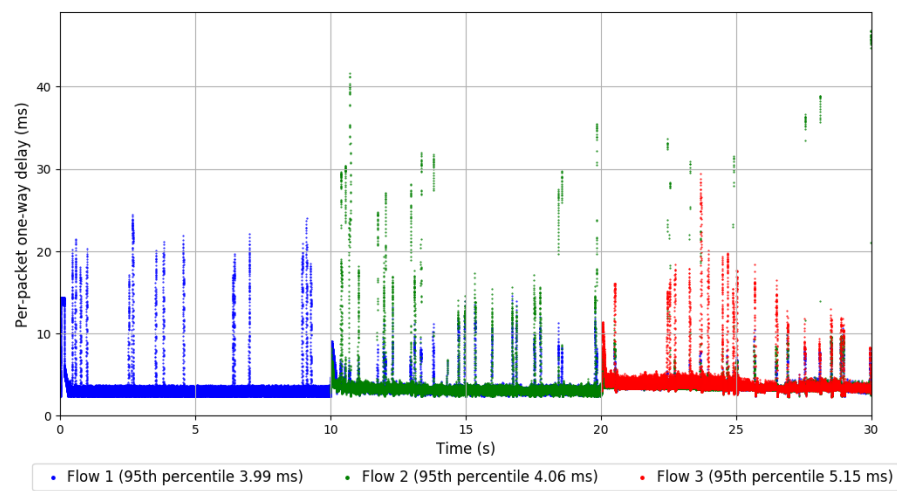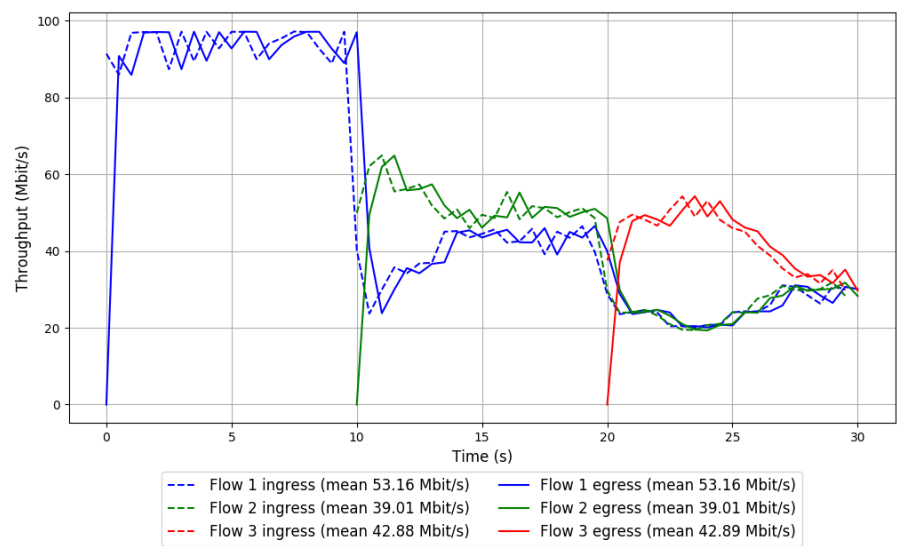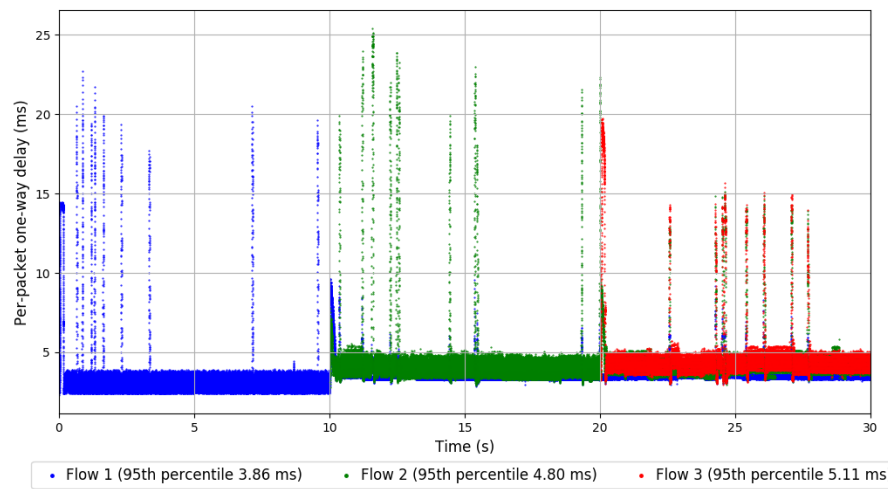
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 54.53 Mbit/s)   Flow 1 egress (mean 54.54 Mbit/s)
Flow 2 ingress (mean 40.55 Mbit/s)   Flow 2 egress (mean 40.55 Mbit/s)
Flow 3 ingress (mean 33.60 Mbit/s)   Flow 3 egress (mean 33.59 Mbit/s)

Flow 1 (95th percentile 5.43 ms)   Flow 2 (95th percentile 5.03 ms)   Flow 3 (95th percentile 7.70 ms)

271

```
Run 5: Statistics of TCP Vegas

Start at: 2018-07-04 12:16:15
End at: 2018-07-04 12:16:45
Local clock offset: -2.35 ms
Remote clock offset: 1.153 ms


# Below is generated by plot.py at 2018-07-04 14:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.56 Mbit/s
95th percentile per-packet one-way delay: 8.409 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 51.60 Mbit/s
95th percentile per-packet one-way delay: 8.294 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.76 Mbit/s
95th percentile per-packet one-way delay: 8.209 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 31.55 Mbit/s
95th percentile per-packet one-way delay: 9.061 ms
Loss rate: 0.06%
```
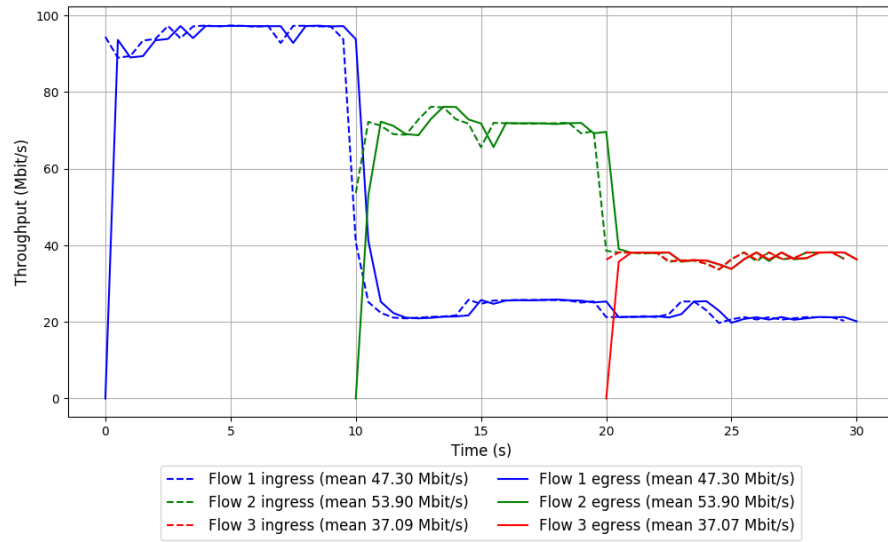
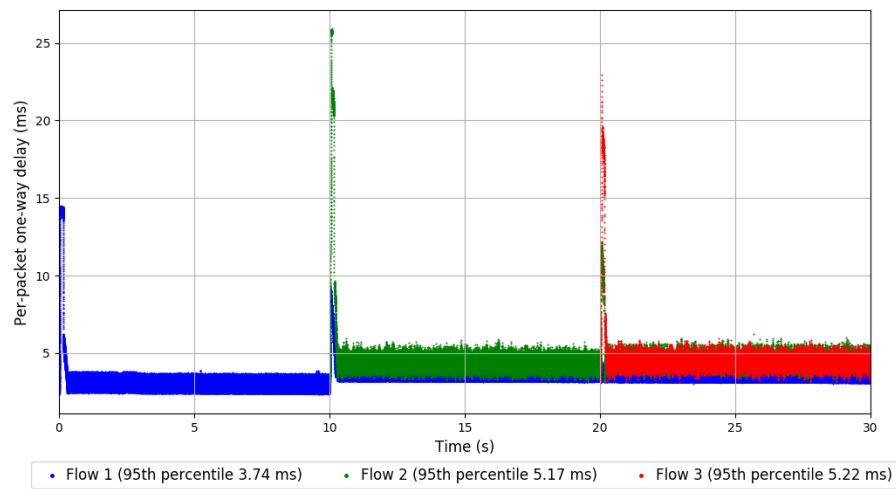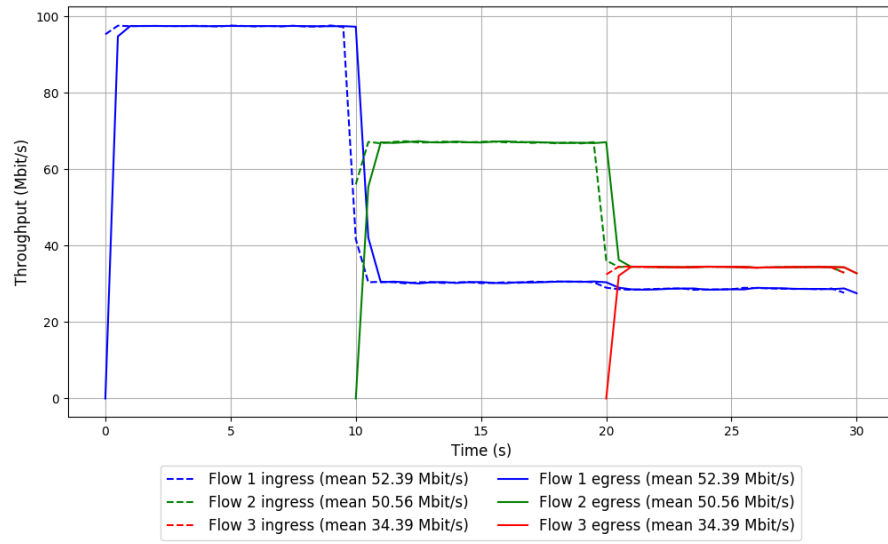Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2018-07-04 12:35:20
End at: 2018-07-04 12:35:50
Local clock offset: -2.603 ms
Remote clock offset: -1.636 ms


# Below is generated by plot.py at 2018-07-04 14:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.58 Mbit/s
95th percentile per-packet one-way delay: 7.137 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 54.36 Mbit/s
95th percentile per-packet one-way delay: 6.428 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 7.348 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.45 Mbit/s
95th percentile per-packet one-way delay: 8.632 ms
Loss rate: 0.06%
```

Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-07-04 12:54:28
End at: 2018-07-04 12:54:58
Local clock offset: -2.642 ms
Remote clock offset: -1.749 ms


# Below is generated by plot.py at 2018-07-04 14:26:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.39 Mbit/s
95th percentile per-packet one-way delay: 4.561 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.16 Mbit/s
95th percentile per-packet one-way delay: 3.994 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 4.062 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 42.89 Mbit/s
95th percentile per-packet one-way delay: 5.153 ms
Loss rate: 0.04%
```
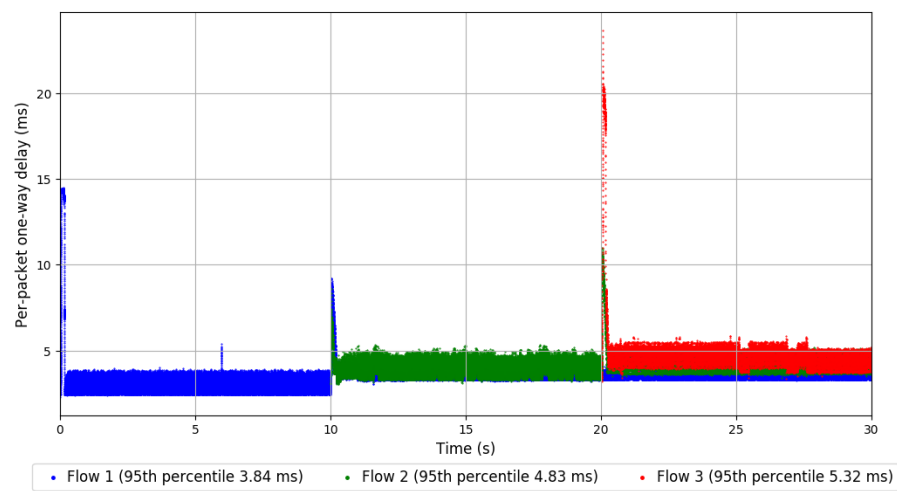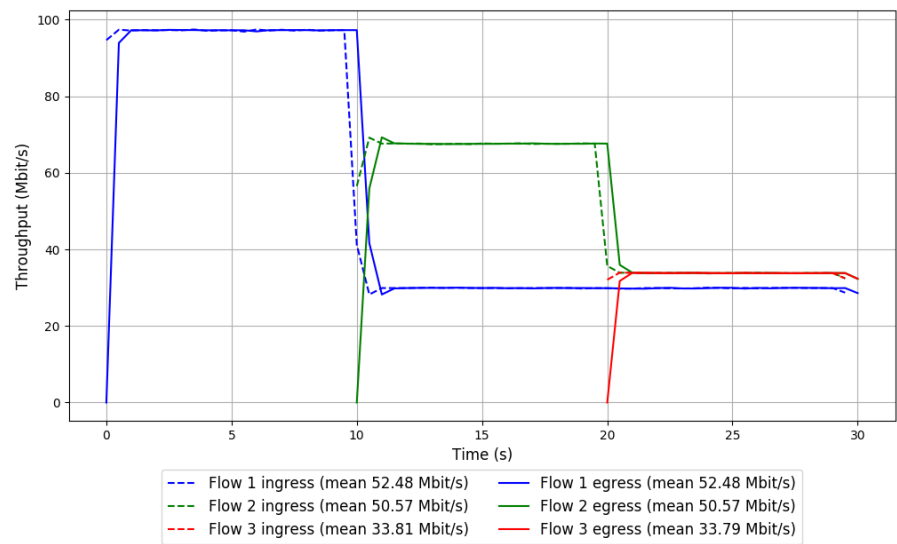
Run 7: Report of TCP Vegas — Data Link

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```
Run 8: Statistics of TCP Vegas

Start at: 2018-07-04 13:13:37
End at: 2018-07-04 13:14:08
Local clock offset: -2.704 ms
Remote clock offset: -2.452 ms


# Below is generated by plot.py at 2018-07-04 14:26:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.51 Mbit/s
95th percentile per-packet one-way delay: 4.796 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 47.30 Mbit/s
95th percentile per-packet one-way delay: 3.858 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 53.90 Mbit/s
95th percentile per-packet one-way delay: 4.805 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 37.07 Mbit/s
95th percentile per-packet one-way delay: 5.111 ms
Loss rate: 0.09%
```
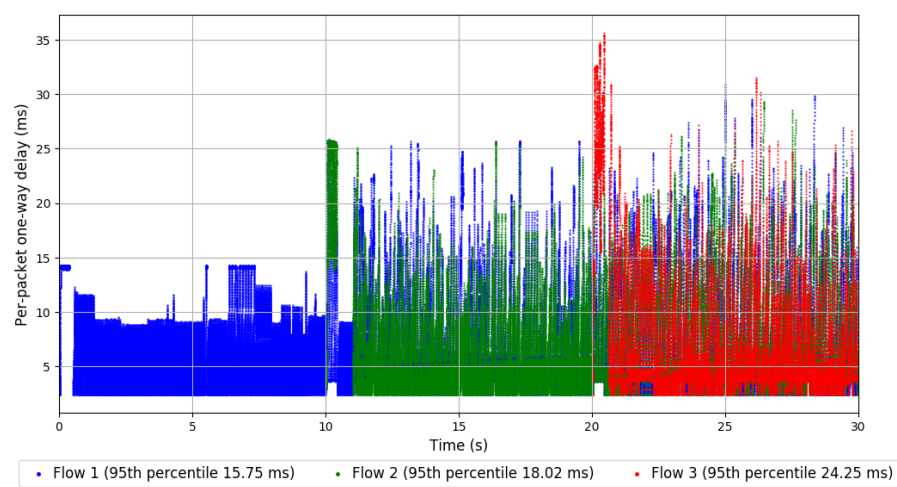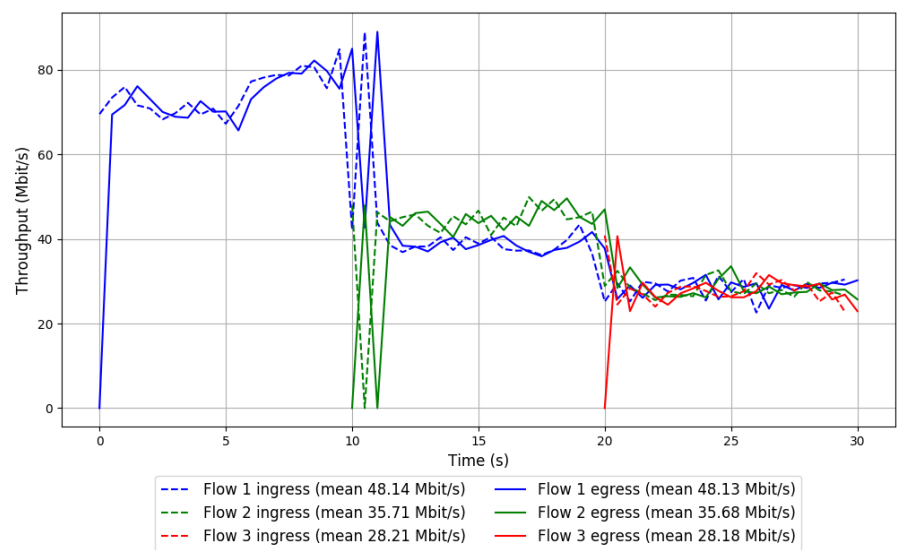
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 47.30 Mbit/s)   Flow 1 egress (mean 47.30 Mbit/s)
Flow 2 ingress (mean 53.90 Mbit/s)   Flow 2 egress (mean 53.90 Mbit/s)
Flow 3 ingress (mean 37.09 Mbit/s)   Flow 3 egress (mean 37.07 Mbit/s)

Flow 1 (95th percentile 3.86 ms)   Flow 2 (95th percentile 4.80 ms)   Flow 3 (95th percentile 5.11 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-07-04 13:32:48
End at: 2018-07-04 13:33:18
Local clock offset: -2.844 ms
Remote clock offset: -4.731 ms


# Below is generated by plot.py at 2018-07-04 14:26:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 5.035 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.39 Mbit/s
95th percentile per-packet one-way delay: 3.739 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 5.168 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 34.39 Mbit/s
95th percentile per-packet one-way delay: 5.225 ms
Loss rate: 0.06%
```
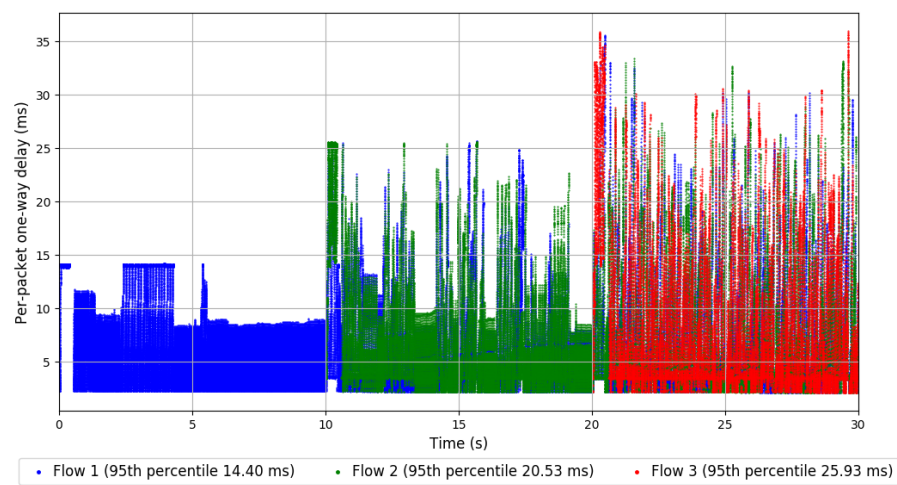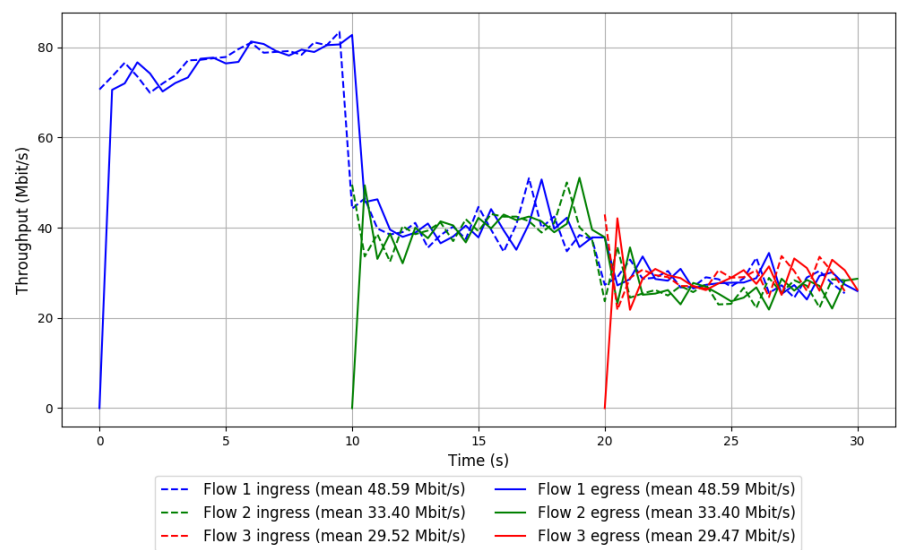
Run 9: Report of TCP Vegas — Data Link

- - - - Flow 1 ingress (mean 52.39 Mbit/s) ——— Flow 1 egress (mean 52.39 Mbit/s)
- - - - Flow 2 ingress (mean 50.56 Mbit/s) ——— Flow 2 egress (mean 50.56 Mbit/s)
- - - - Flow 3 ingress (mean 34.39 Mbit/s) ——— Flow 3 egress (mean 34.39 Mbit/s)

- Flow 1 (95th percentile 3.74 ms)   - Flow 2 (95th percentile 5.17 ms)   - Flow 3 (95th percentile 5.22 ms)

```
Run 10: Statistics of TCP Vegas

Start at: 2018-07-04 13:51:59
End at: 2018-07-04 13:52:29
Local clock offset: -6.24 ms
Remote clock offset: -7.955 ms


# Below is generated by plot.py at 2018-07-04 14:26:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 4.919 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.48 Mbit/s
95th percentile per-packet one-way delay: 3.837 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 4.833 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.79 Mbit/s
95th percentile per-packet one-way delay: 5.323 ms
Loss rate: 0.06%
```
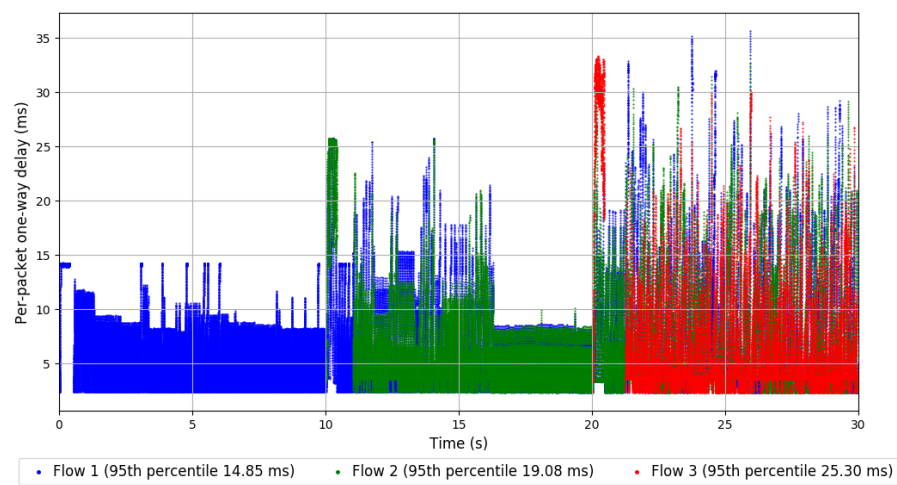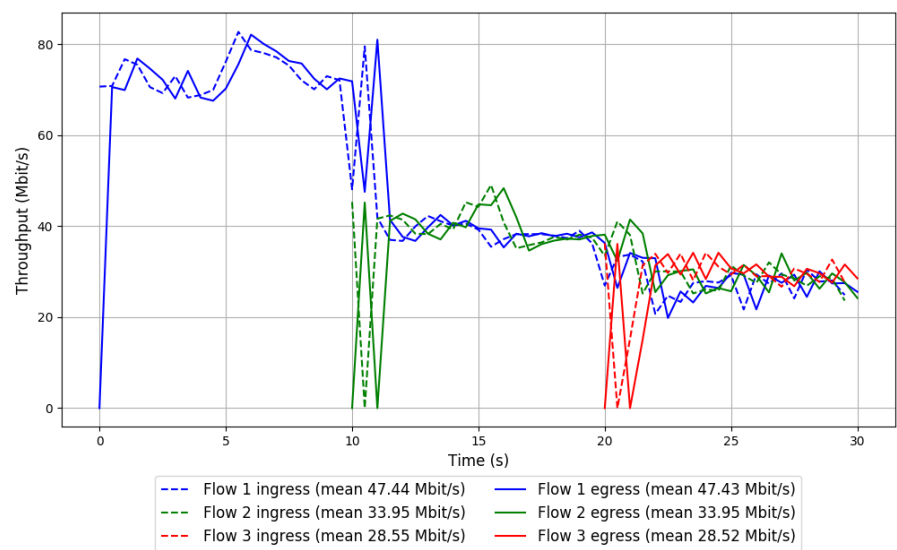
Run 10: Report of TCP Vegas — Data Link

- - - - Flow 1 ingress (mean 52.48 Mbit/s) —— Flow 1 egress (mean 52.48 Mbit/s)
- - - - Flow 2 ingress (mean 50.57 Mbit/s) —— Flow 2 egress (mean 50.57 Mbit/s)
- - - - Flow 3 ingress (mean 33.81 Mbit/s) —— Flow 3 egress (mean 33.79 Mbit/s)

- Flow 1 (95th percentile 3.84 ms)   • Flow 2 (95th percentile 4.83 ms)   • Flow 3 (95th percentile 5.32 ms)
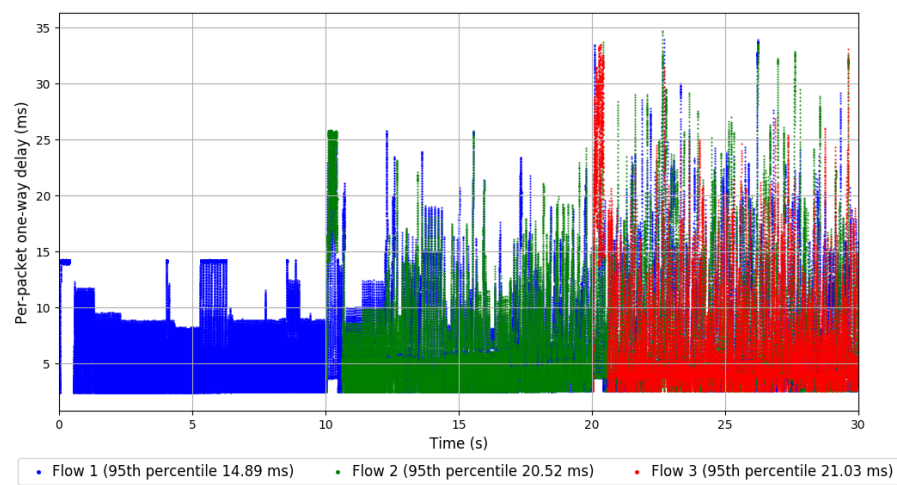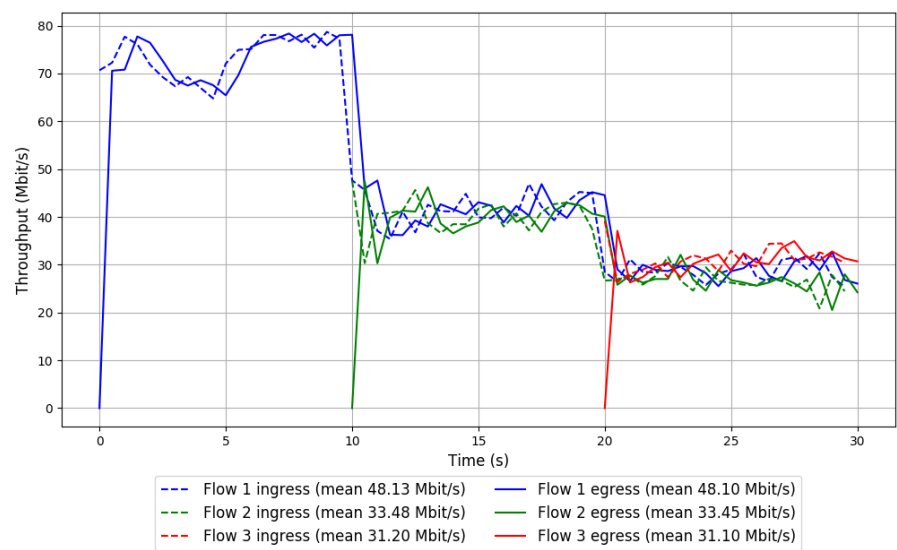
```
Run 1: Statistics of Verus

Start at: 2018-07-04 10:56:16
End at: 2018-07-04 10:56:46
Local clock offset: -2.927 ms
Remote clock offset: -2.839 ms


# Below is generated by plot.py at 2018-07-04 14:26:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.25 Mbit/s
95th percentile per-packet one-way delay: 17.460 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 48.13 Mbit/s
95th percentile per-packet one-way delay: 15.750 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 35.68 Mbit/s
95th percentile per-packet one-way delay: 18.016 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 28.18 Mbit/s
95th percentile per-packet one-way delay: 24.252 ms
Loss rate: 0.13%
```
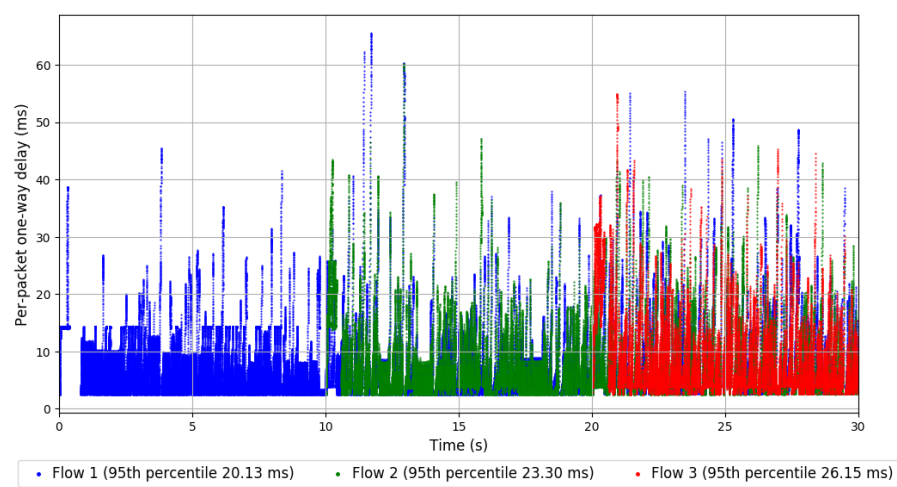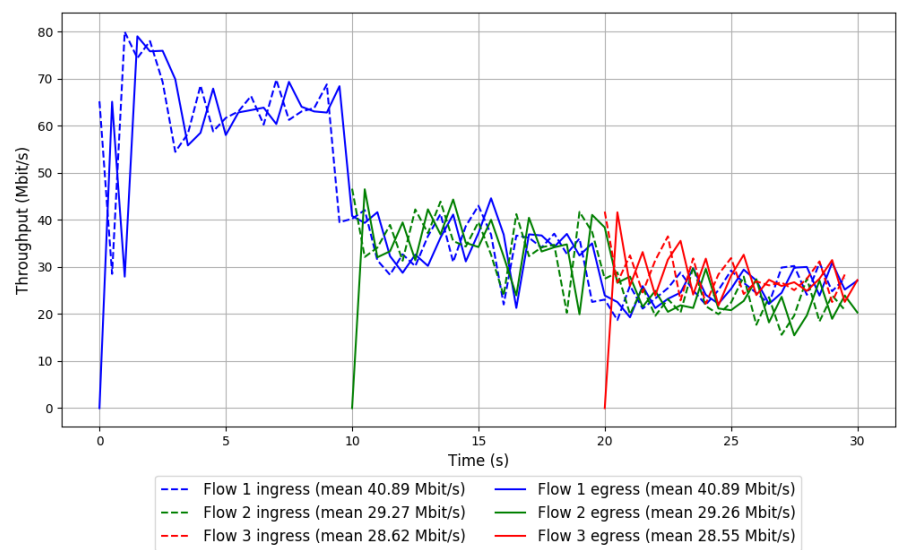
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-07-04 11:15:26
End at: 2018-07-04 11:15:56
Local clock offset: -2.815 ms
Remote clock offset: -4.629 ms


# Below is generated by plot.py at 2018-07-04 14:26:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.61 Mbit/s
95th percentile per-packet one-way delay: 18.753 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 14.405 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 33.40 Mbit/s
95th percentile per-packet one-way delay: 20.533 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 29.47 Mbit/s
95th percentile per-packet one-way delay: 25.935 ms
Loss rate: 0.15%
```
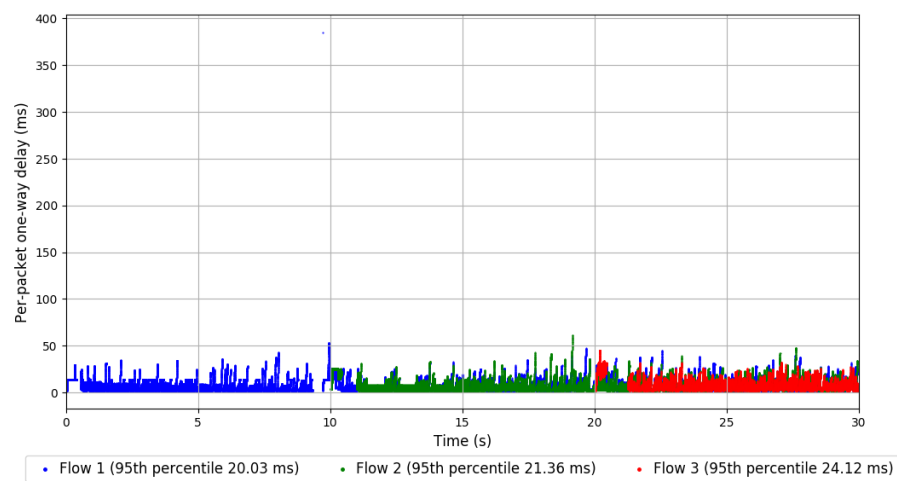
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-07-04 11:34:36
End at: 2018-07-04 11:35:06
Local clock offset: -2.462 ms
Remote clock offset: -7.733 ms


# Below is generated by plot.py at 2018-07-04 14:27:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.50 Mbit/s
95th percentile per-packet one-way delay: 17.512 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 47.43 Mbit/s
95th percentile per-packet one-way delay: 14.853 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 33.95 Mbit/s
95th percentile per-packet one-way delay: 19.080 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 28.52 Mbit/s
95th percentile per-packet one-way delay: 25.296 ms
Loss rate: 0.11%
```
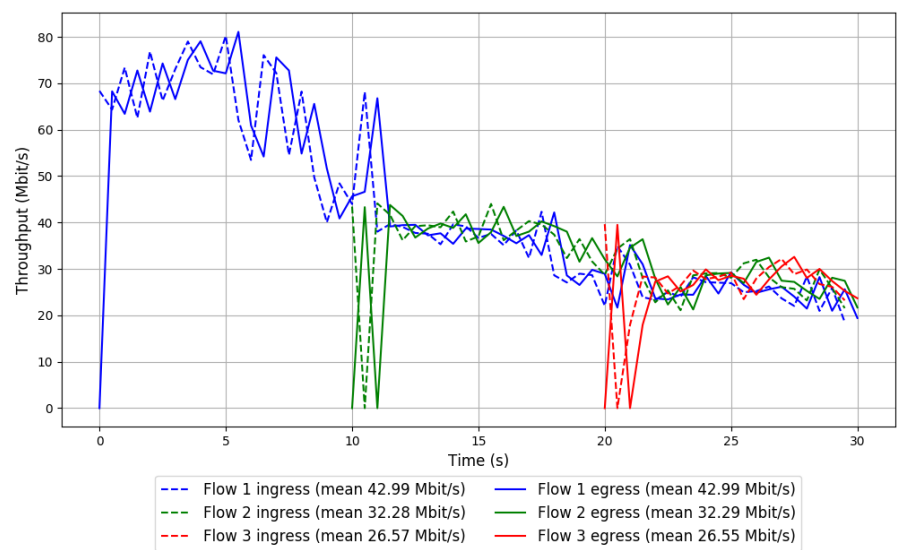
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 47.44 Mbit/s)   Flow 1 egress (mean 47.43 Mbit/s)
Flow 2 ingress (mean 33.95 Mbit/s)   Flow 2 egress (mean 33.95 Mbit/s)
Flow 3 ingress (mean 28.55 Mbit/s)   Flow 3 egress (mean 28.52 Mbit/s)

Flow 1 (95th percentile 14.85 ms)   Flow 2 (95th percentile 19.08 ms)   Flow 3 (95th percentile 25.30 ms)

```
Run 4: Statistics of Verus

Start at: 2018-07-04 11:53:46
End at: 2018-07-04 11:54:16
Local clock offset: -2.227 ms
Remote clock offset: -3.349 ms


# Below is generated by plot.py at 2018-07-04 14:27:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.70 Mbit/s
95th percentile per-packet one-way delay: 17.541 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 48.10 Mbit/s
95th percentile per-packet one-way delay: 14.893 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 33.45 Mbit/s
95th percentile per-packet one-way delay: 20.517 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 31.10 Mbit/s
95th percentile per-packet one-way delay: 21.034 ms
Loss rate: 0.40%
```
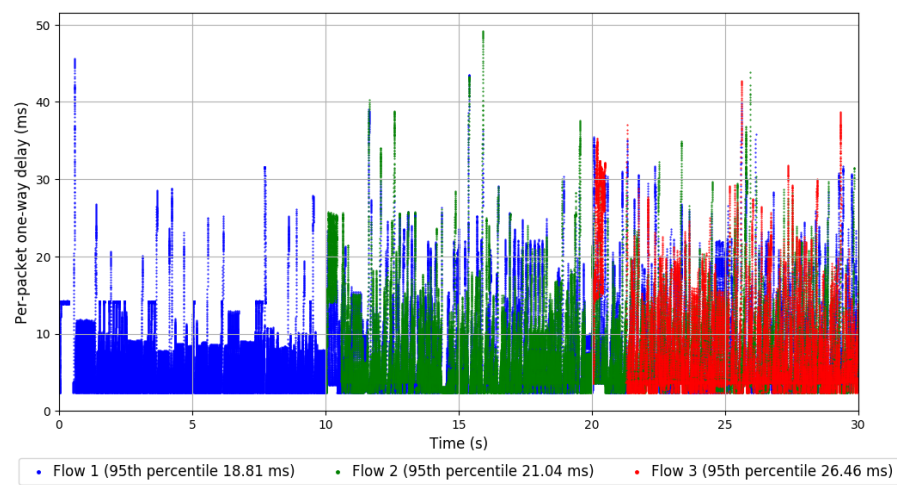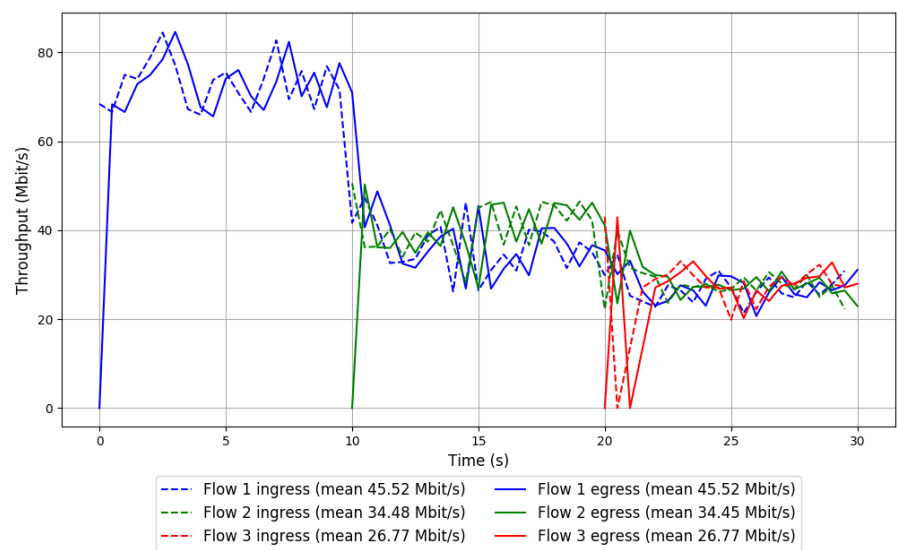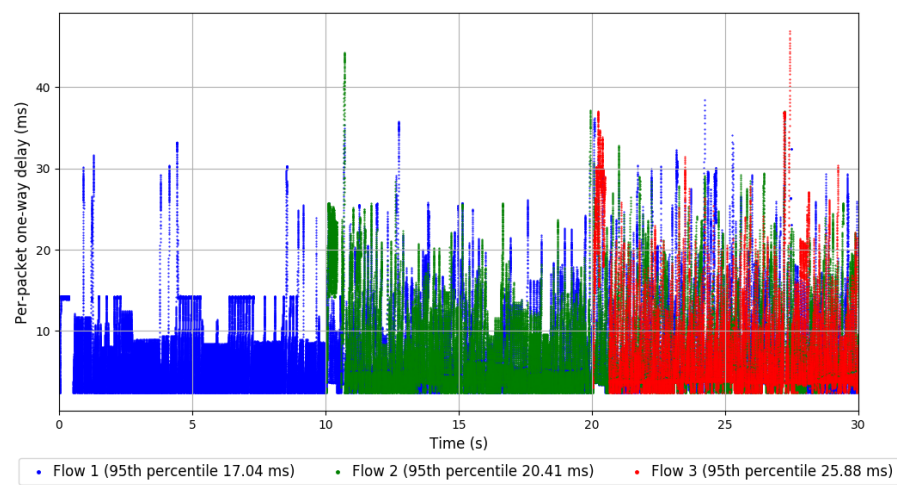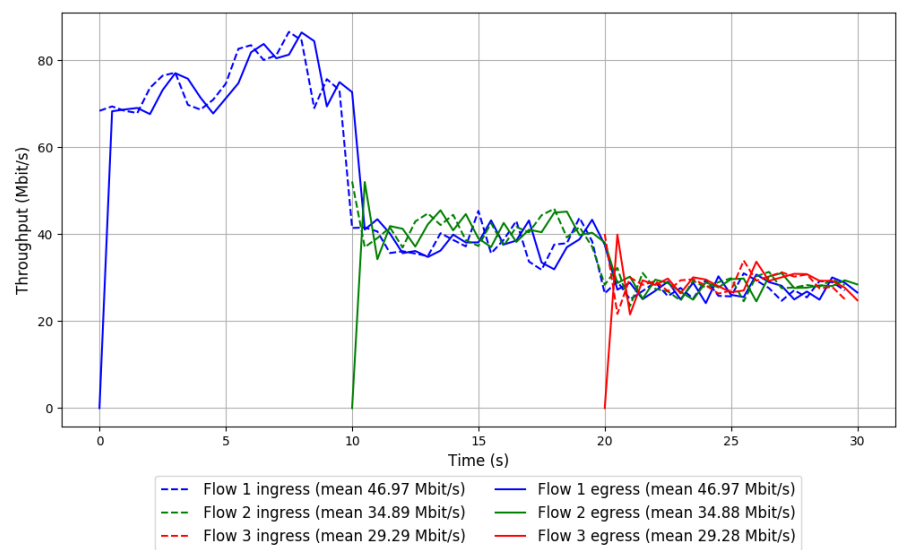
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-07-04 12:12:54
End at: 2018-07-04 12:13:24
Local clock offset: -2.224 ms
Remote clock offset: 0.652 ms


# Below is generated by plot.py at 2018-07-04 14:27:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.84 Mbit/s
95th percentile per-packet one-way delay: 22.295 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 40.89 Mbit/s
95th percentile per-packet one-way delay: 20.131 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 29.26 Mbit/s
95th percentile per-packet one-way delay: 23.296 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 28.55 Mbit/s
95th percentile per-packet one-way delay: 26.150 ms
Loss rate: 0.23%
```

Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-07-04 12:31:59
End at: 2018-07-04 12:32:29
Local clock offset: -2.663 ms
Remote clock offset: -1.411 ms


# Below is generated by plot.py at 2018-07-04 14:27:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.30 Mbit/s
95th percentile per-packet one-way delay: 21.217 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 20.033 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 21.365 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 26.55 Mbit/s
95th percentile per-packet one-way delay: 24.118 ms
Loss rate: 0.11%
```
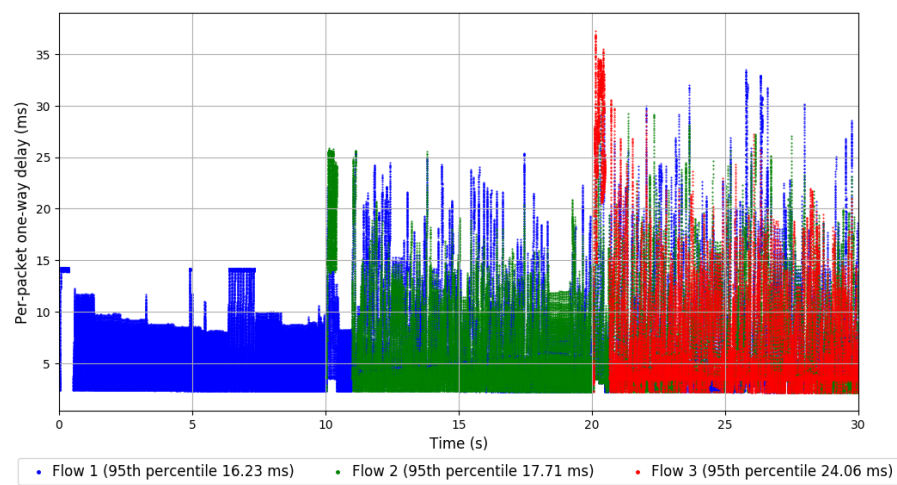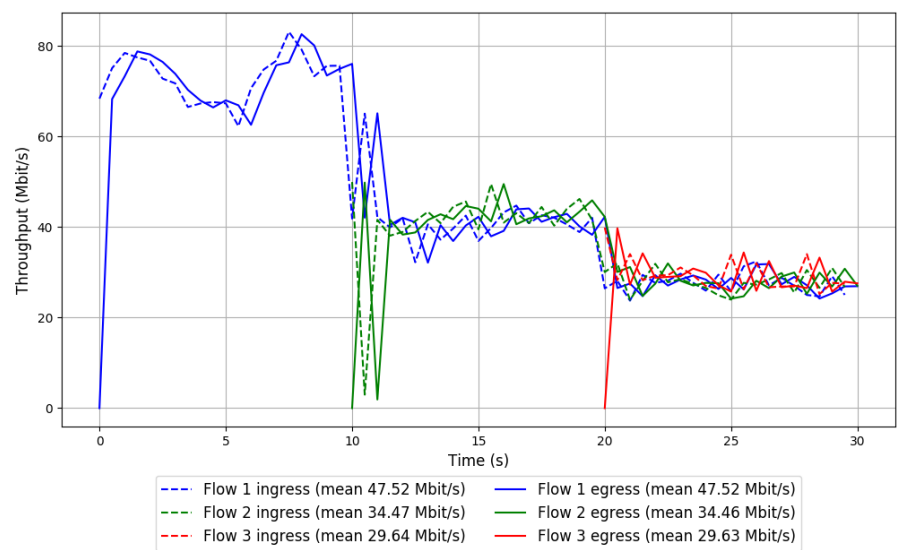
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-07-04 12:51:07
End at: 2018-07-04 12:51:37
Local clock offset: -2.614 ms
Remote clock offset: -1.706 ms


# Below is generated by plot.py at 2018-07-04 14:27:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.34 Mbit/s
95th percentile per-packet one-way delay: 20.180 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 45.52 Mbit/s
95th percentile per-packet one-way delay: 18.808 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 34.45 Mbit/s
95th percentile per-packet one-way delay: 21.044 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 26.77 Mbit/s
95th percentile per-packet one-way delay: 26.460 ms
Loss rate: 0.04%
```
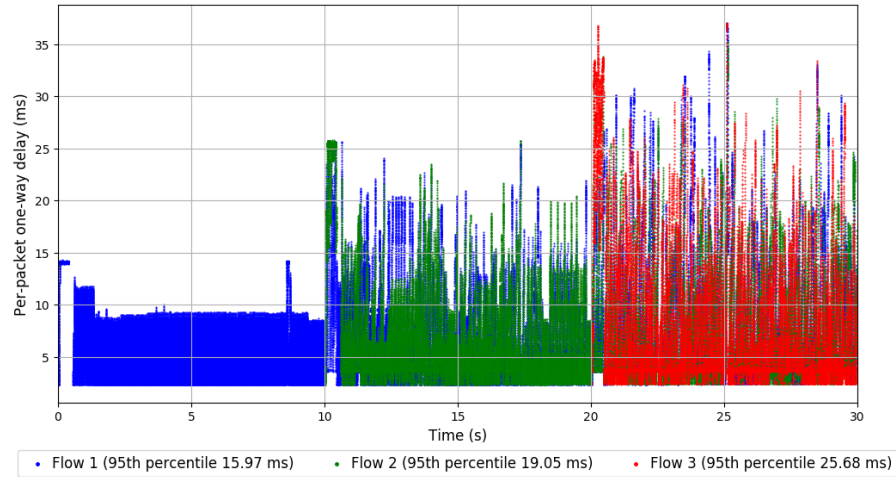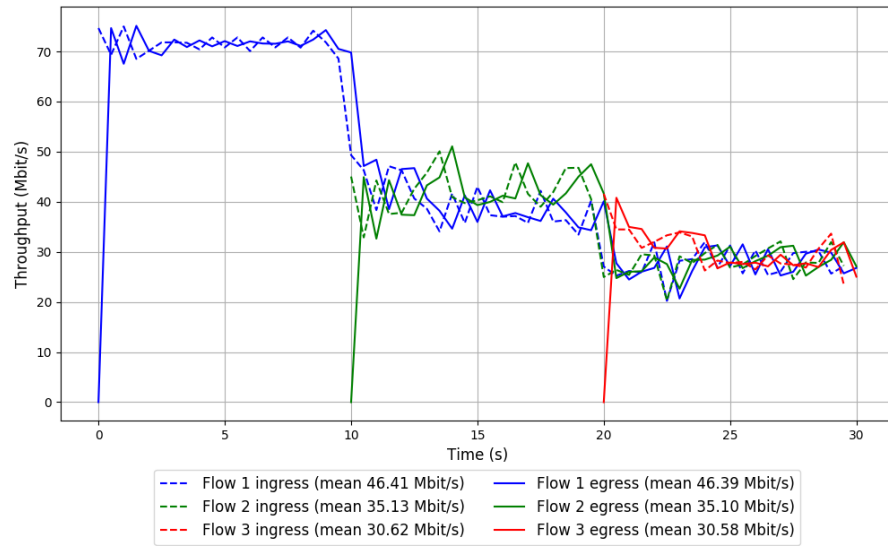
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-07-04 13:10:15
End at: 2018-07-04 13:10:45
Local clock offset: -2.63 ms
Remote clock offset: -2.385 ms


# Below is generated by plot.py at 2018-07-04 14:27:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.92 Mbit/s
95th percentile per-packet one-way delay: 19.541 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 46.97 Mbit/s
95th percentile per-packet one-way delay: 17.035 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 34.88 Mbit/s
95th percentile per-packet one-way delay: 20.415 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 29.28 Mbit/s
95th percentile per-packet one-way delay: 25.883 ms
Loss rate: 0.11%
```
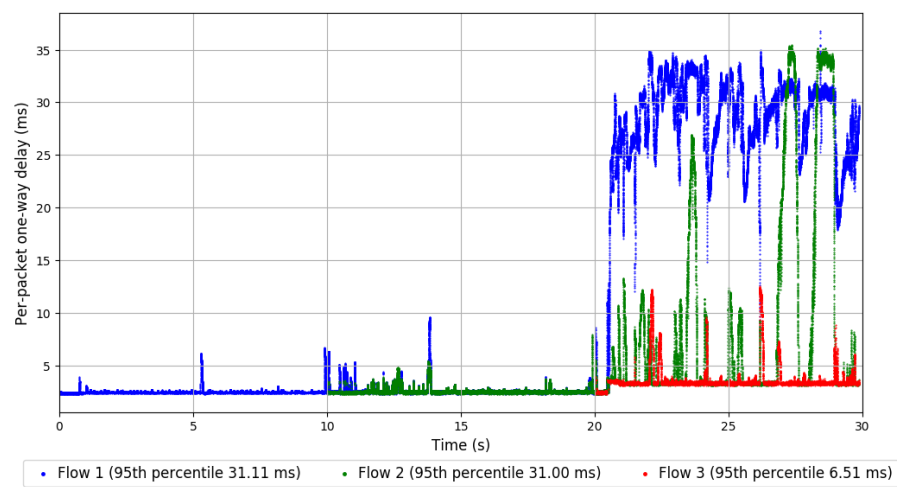
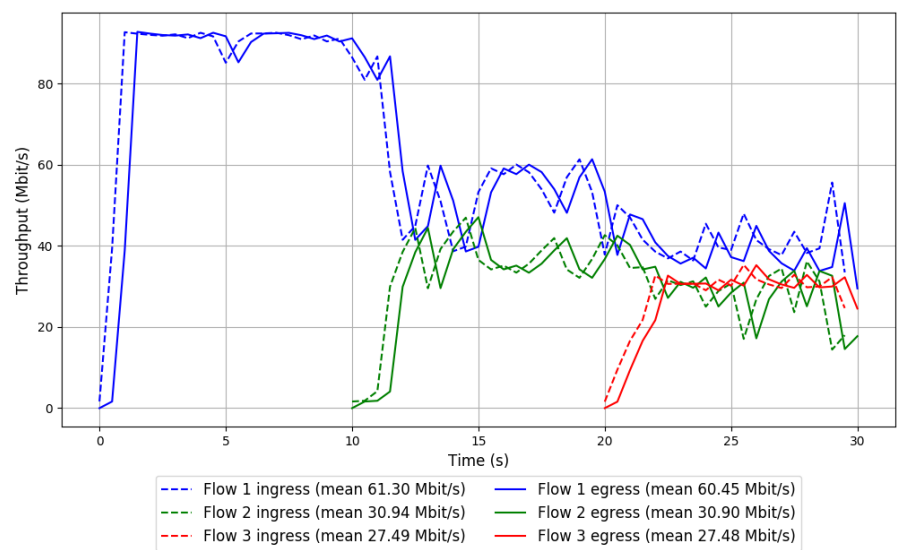## Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-07-04 13:29:26
End at: 2018-07-04 13:29:56
Local clock offset: -2.83 ms
Remote clock offset: -3.325 ms


# Below is generated by plot.py at 2018-07-04 14:27:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.30 Mbit/s
95th percentile per-packet one-way delay: 17.497 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 47.52 Mbit/s
95th percentile per-packet one-way delay: 16.235 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.46 Mbit/s
95th percentile per-packet one-way delay: 17.708 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 29.63 Mbit/s
95th percentile per-packet one-way delay: 24.059 ms
Loss rate: 0.09%
```
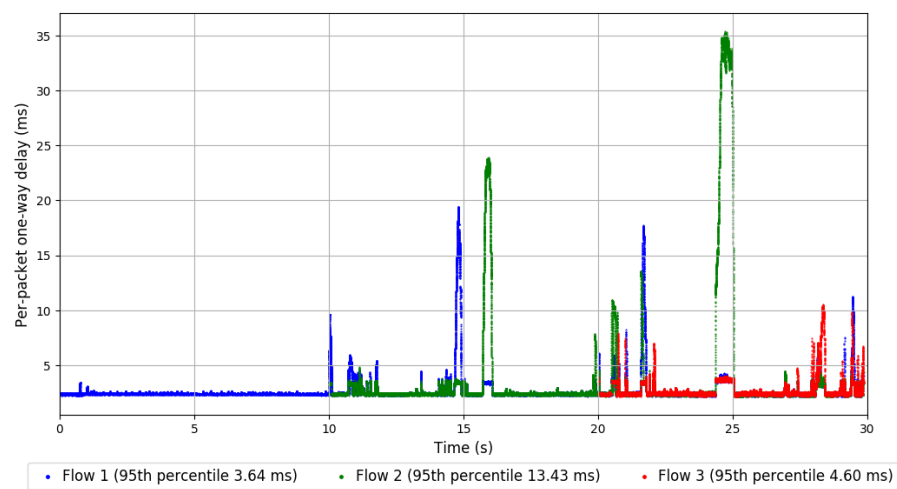
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2018-07-04 13:48:37
End at: 2018-07-04 13:49:07
Local clock offset: -5.705 ms
Remote clock offset: -7.634 ms


# Below is generated by plot.py at 2018-07-04 14:27:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.92 Mbit/s
95th percentile per-packet one-way delay: 18.631 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 46.39 Mbit/s
95th percentile per-packet one-way delay: 15.972 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 35.10 Mbit/s
95th percentile per-packet one-way delay: 19.053 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 30.58 Mbit/s
95th percentile per-packet one-way delay: 25.676 ms
Loss rate: 0.10%
```
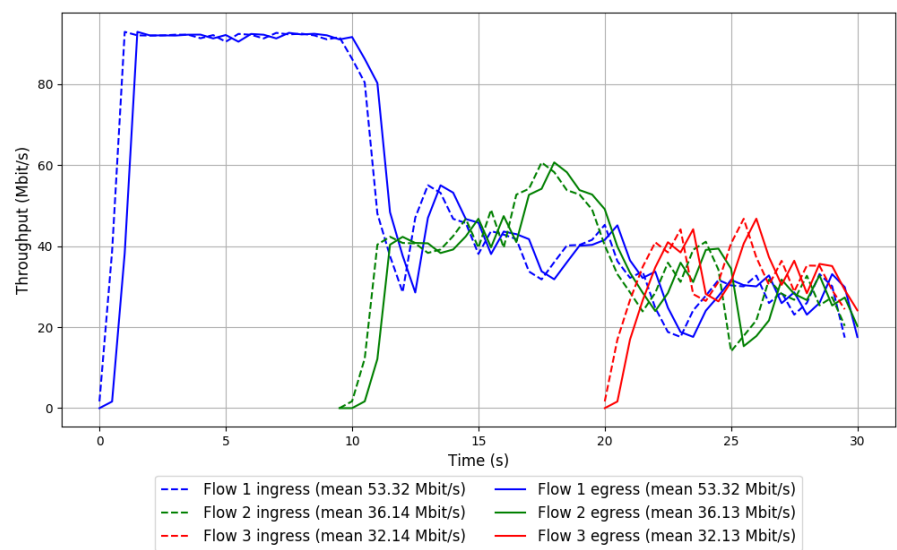
Run 10: Report of Verus — Data Link

Flow 1 ingress (mean 46.41 Mbit/s)   Flow 1 egress (mean 46.39 Mbit/s)
Flow 2 ingress (mean 35.13 Mbit/s)   Flow 2 egress (mean 35.10 Mbit/s)
Flow 3 ingress (mean 30.62 Mbit/s)   Flow 3 egress (mean 30.58 Mbit/s)

Flow 1 (95th percentile 15.97 ms)   Flow 2 (95th percentile 19.05 ms)   Flow 3 (95th percentile 25.68 ms)
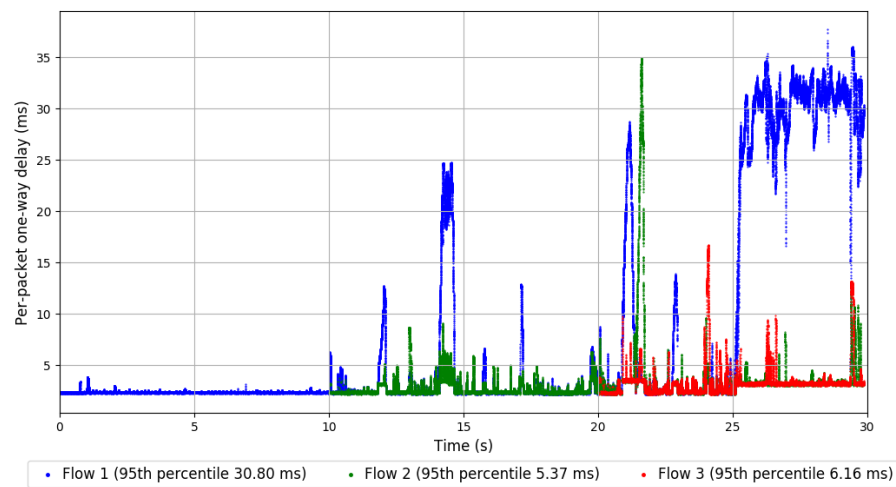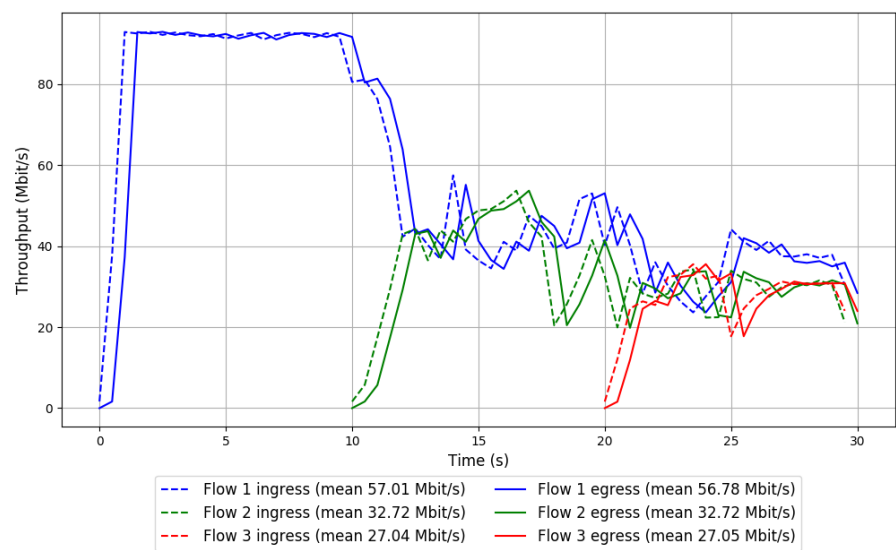
```
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-04 11:01:52
End at: 2018-07-04 11:02:22
Local clock offset: -2.951 ms
Remote clock offset: -2.926 ms


# Below is generated by plot.py at 2018-07-04 14:28:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.06 Mbit/s
95th percentile per-packet one-way delay: 30.906 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 60.45 Mbit/s
95th percentile per-packet one-way delay: 31.112 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 30.90 Mbit/s
95th percentile per-packet one-way delay: 31.004 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 27.48 Mbit/s
95th percentile per-packet one-way delay: 6.507 ms
Loss rate: 0.07%
```

Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 61.30 Mbit/s) Flow 1 egress (mean 60.45 Mbit/s)
Flow 2 ingress (mean 30.94 Mbit/s) Flow 2 egress (mean 30.90 Mbit/s)
Flow 3 ingress (mean 27.49 Mbit/s) Flow 3 egress (mean 27.48 Mbit/s)

Flow 1 (95th percentile 31.11 ms) Flow 2 (95th percentile 31.00 ms) Flow 3 (95th percentile 6.51 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-04 11:21:02
End at: 2018-07-04 11:21:32
Local clock offset: -2.645 ms
Remote clock offset: -6.111 ms


# Below is generated by plot.py at 2018-07-04 14:28:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.97 Mbit/s
95th percentile per-packet one-way delay: 4.001 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 53.32 Mbit/s
95th percentile per-packet one-way delay: 3.643 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 36.13 Mbit/s
95th percentile per-packet one-way delay: 13.430 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 32.13 Mbit/s
95th percentile per-packet one-way delay: 4.602 ms
Loss rate: 0.07%
```
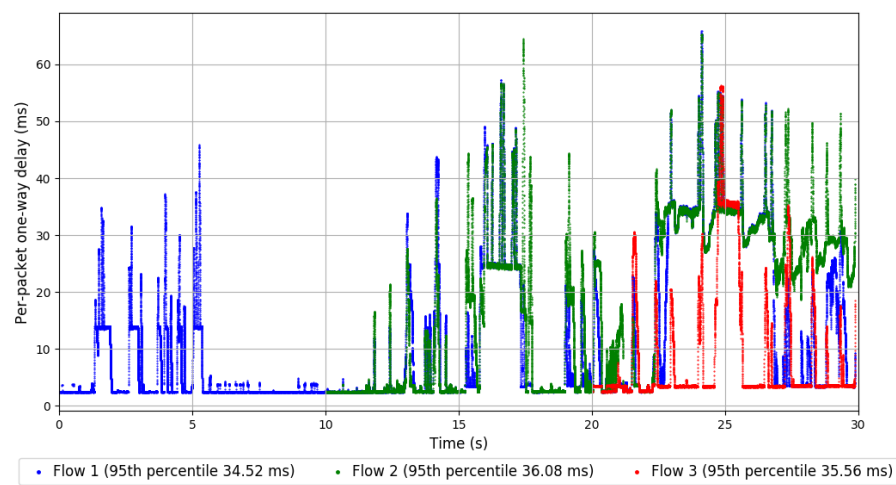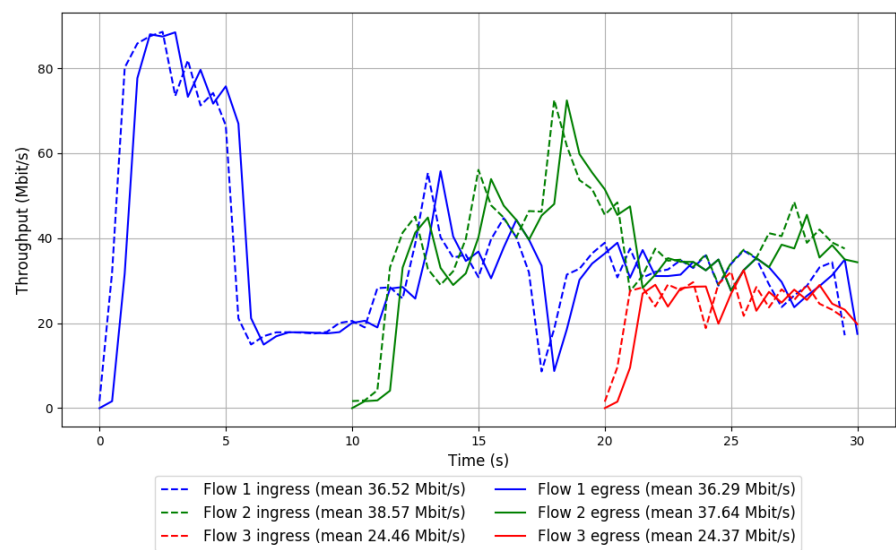
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-04 11:40:12
End at: 2018-07-04 11:40:42
Local clock offset: -2.436 ms
Remote clock offset: -8.134 ms


# Below is generated by plot.py at 2018-07-04 14:28:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.47 Mbit/s
95th percentile per-packet one-way delay: 28.289 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 30.799 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 32.72 Mbit/s
95th percentile per-packet one-way delay: 5.374 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 27.05 Mbit/s
95th percentile per-packet one-way delay: 6.155 ms
Loss rate: 0.06%
```
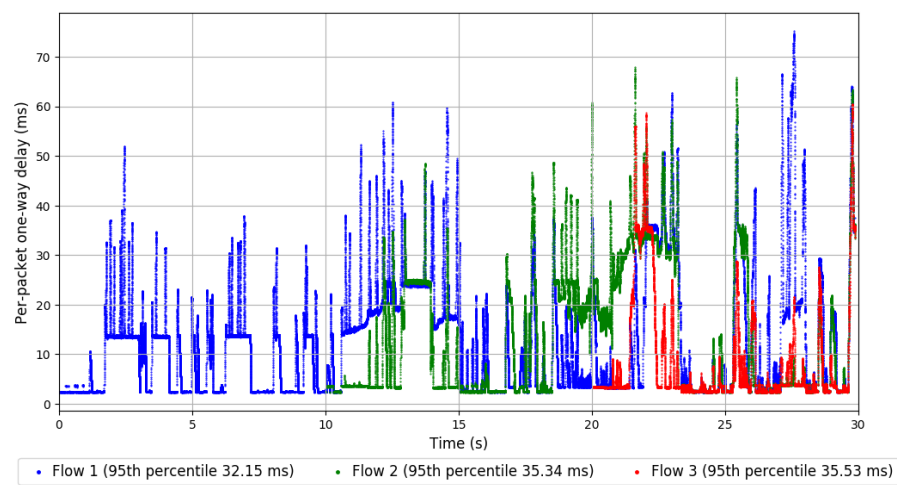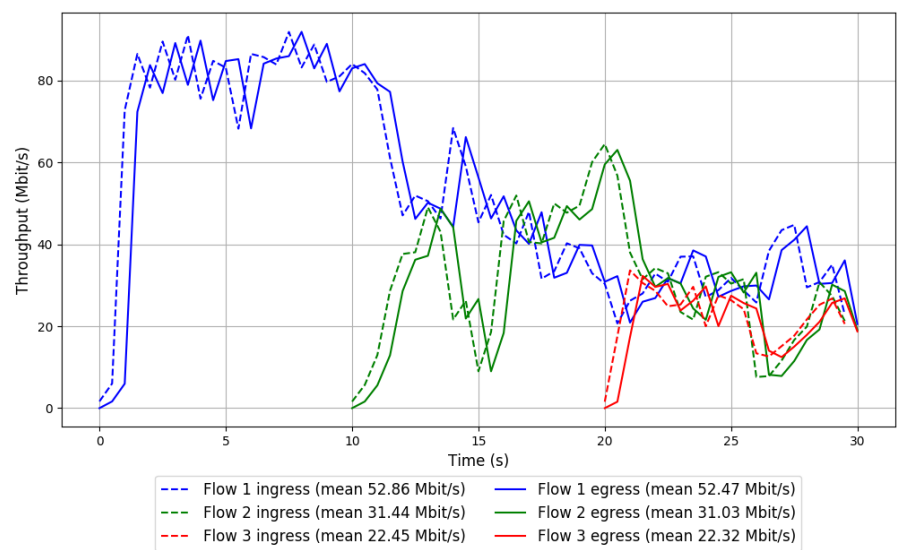
Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-04 11:59:22
End at: 2018-07-04 11:59:52
Local clock offset: -2.179 ms
Remote clock offset: -1.64 ms


# Below is generated by plot.py at 2018-07-04 14:28:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.36 Mbit/s
95th percentile per-packet one-way delay: 35.070 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 36.29 Mbit/s
95th percentile per-packet one-way delay: 34.521 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 37.64 Mbit/s
95th percentile per-packet one-way delay: 36.081 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 24.37 Mbit/s
95th percentile per-packet one-way delay: 35.558 ms
Loss rate: 0.51%
```
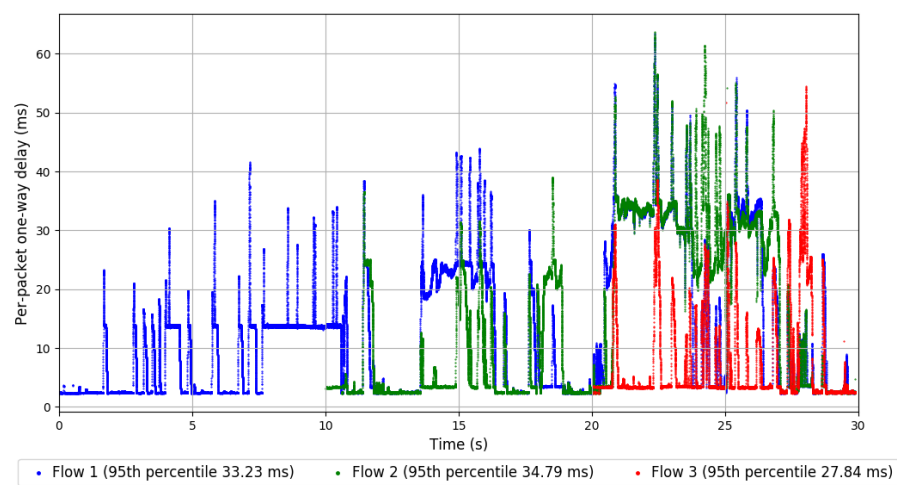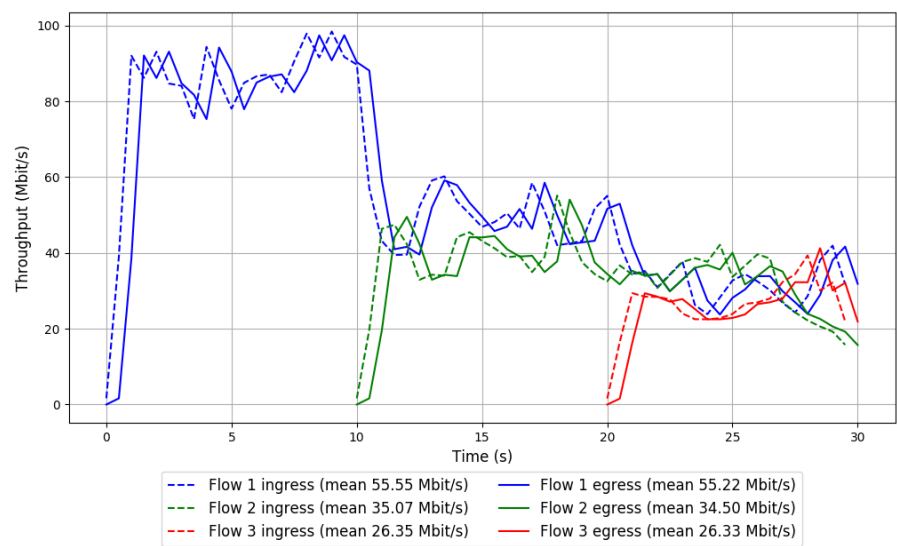
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 36.52 Mbit/s)   Flow 1 egress (mean 36.29 Mbit/s)
Flow 2 ingress (mean 38.57 Mbit/s)   Flow 2 egress (mean 37.64 Mbit/s)
Flow 3 ingress (mean 24.46 Mbit/s)   Flow 3 egress (mean 24.37 Mbit/s)

Flow 1 (95th percentile 34.52 ms)   Flow 2 (95th percentile 36.08 ms)   Flow 3 (95th percentile 35.56 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-04 12:18:29
End at: 2018-07-04 12:18:59
Local clock offset: -2.427 ms
Remote clock offset: 1.373 ms


# Below is generated by plot.py at 2018-07-04 14:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.46 Mbit/s
95th percentile per-packet one-way delay: 34.507 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 52.47 Mbit/s
95th percentile per-packet one-way delay: 32.147 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 35.341 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 35.527 ms
Loss rate: 0.63%
```
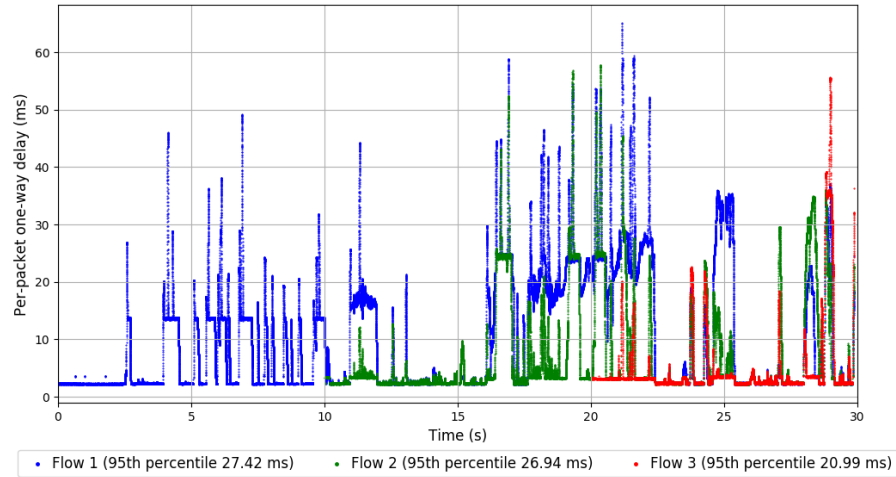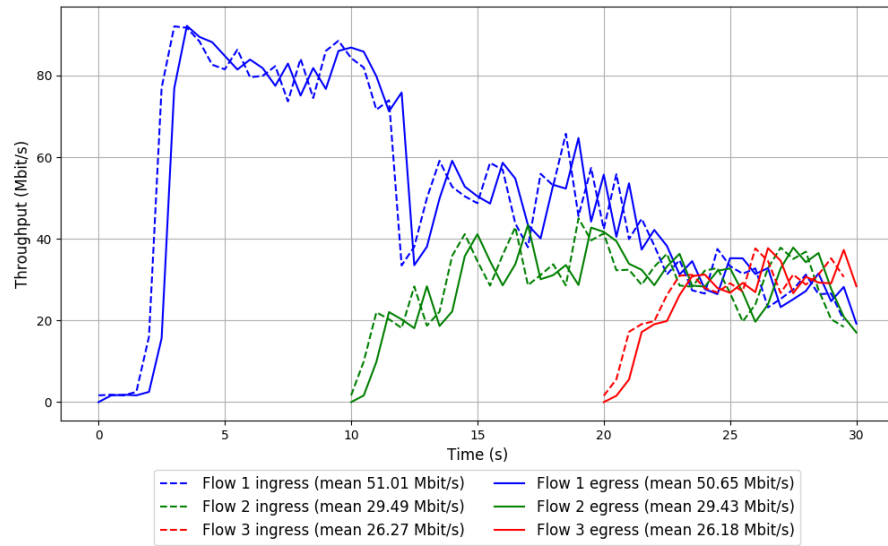
Run 5: Report of PCC-Vivace — Data Link

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-04 12:37:34
End at: 2018-07-04 12:38:04
Local clock offset: -2.623 ms
Remote clock offset: -1.793 ms


# Below is generated by plot.py at 2018-07-04 14:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.85 Mbit/s
95th percentile per-packet one-way delay: 33.797 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 55.22 Mbit/s
95th percentile per-packet one-way delay: 33.229 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 34.50 Mbit/s
95th percentile per-packet one-way delay: 34.786 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 26.33 Mbit/s
95th percentile per-packet one-way delay: 27.835 ms
Loss rate: 0.13%
```
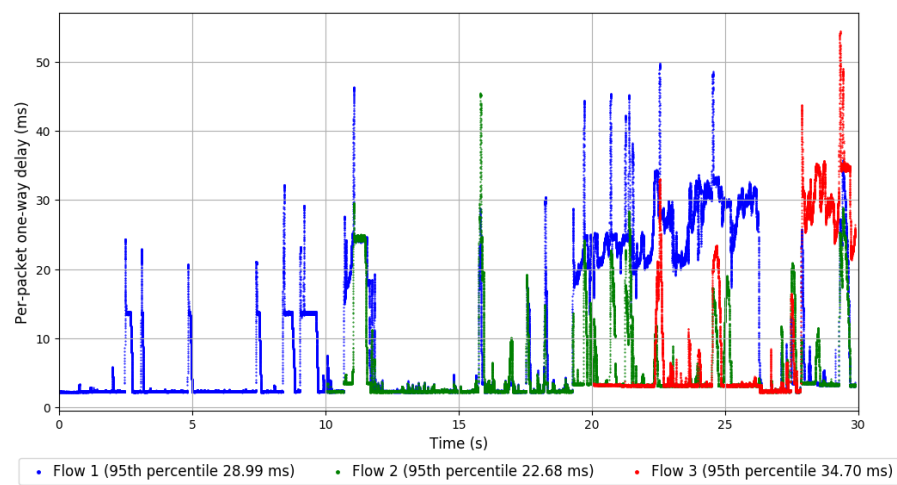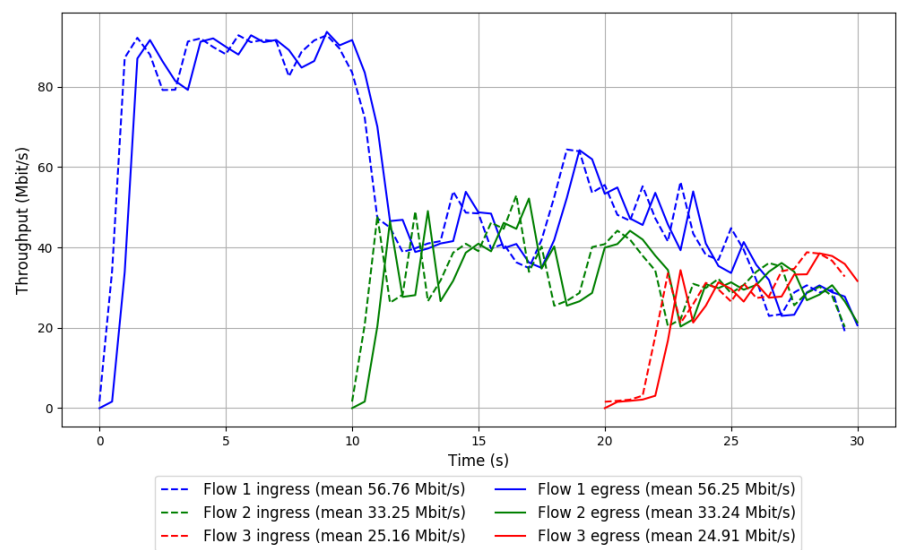
Run 6: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 55.55 Mbit/s) --- Flow 1 egress (mean 55.22 Mbit/s)
Flow 2 ingress (mean 35.07 Mbit/s) --- Flow 2 egress (mean 34.50 Mbit/s)
Flow 3 ingress (mean 26.35 Mbit/s) --- Flow 3 egress (mean 26.33 Mbit/s)

Flow 1 (95th percentile 33.23 ms)   Flow 2 (95th percentile 34.79 ms)   Flow 3 (95th percentile 27.84 ms)

315

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-04 12:56:42
End at: 2018-07-04 12:57:12
Local clock offset: -2.629 ms
Remote clock offset: -1.921 ms


# Below is generated by plot.py at 2018-07-04 14:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.86 Mbit/s
95th percentile per-packet one-way delay: 27.136 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 50.65 Mbit/s
95th percentile per-packet one-way delay: 27.420 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 26.938 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 26.18 Mbit/s
95th percentile per-packet one-way delay: 20.989 ms
Loss rate: 0.50%
```
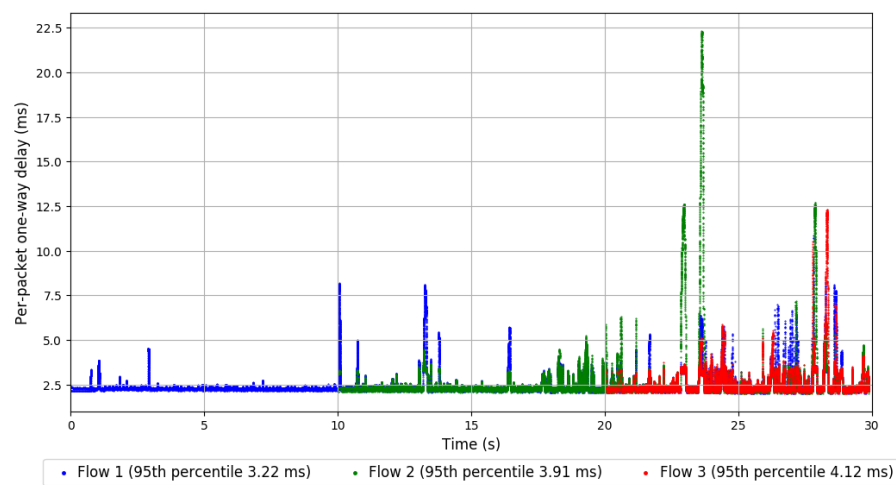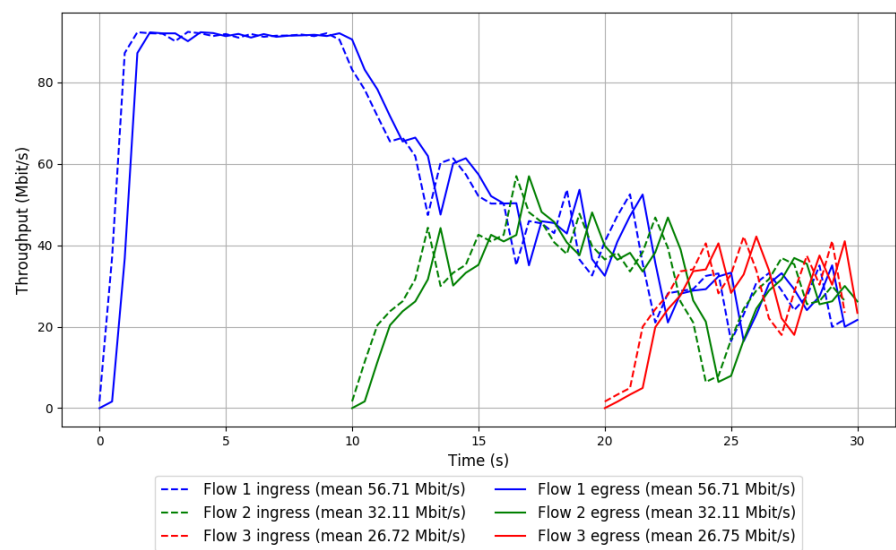
Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-04 13:15:52
End at: 2018-07-04 13:16:22
Local clock offset: -2.734 ms
Remote clock offset: -2.376 ms


# Below is generated by plot.py at 2018-07-04 14:28:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.57 Mbit/s
95th percentile per-packet one-way delay: 29.070 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 56.25 Mbit/s
95th percentile per-packet one-way delay: 28.990 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 33.24 Mbit/s
95th percentile per-packet one-way delay: 22.683 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 24.91 Mbit/s
95th percentile per-packet one-way delay: 34.704 ms
Loss rate: 1.07%
```
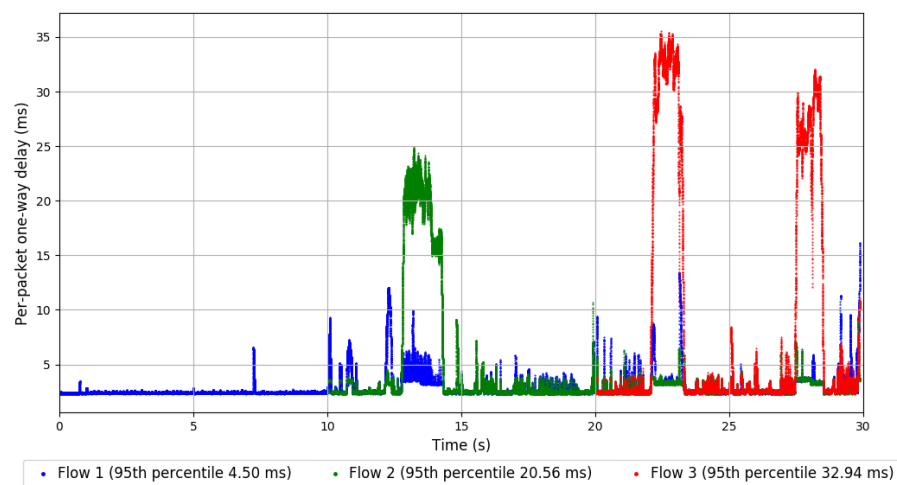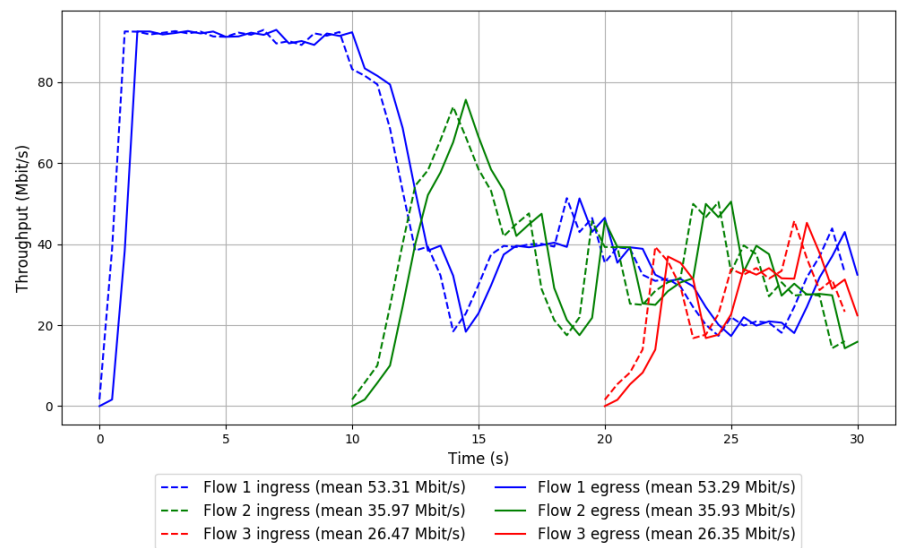
Run 8: Report of PCC-Vivace — Data Link

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-04 13:35:02
End at: 2018-07-04 13:35:32
Local clock offset: -2.86 ms
Remote clock offset: -5.35 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.90 Mbit/s
95th percentile per-packet one-way delay: 3.397 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 3.223 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 3.906 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 26.75 Mbit/s
95th percentile per-packet one-way delay: 4.123 ms
Loss rate: 0.04%
```
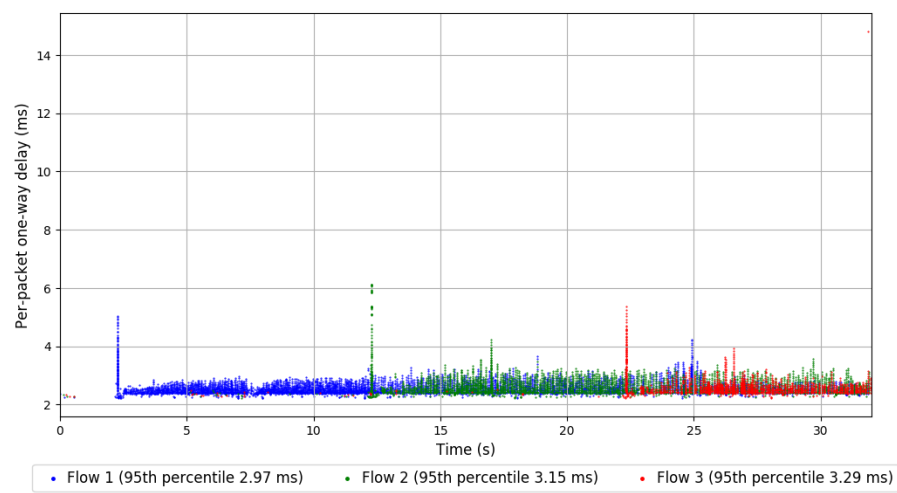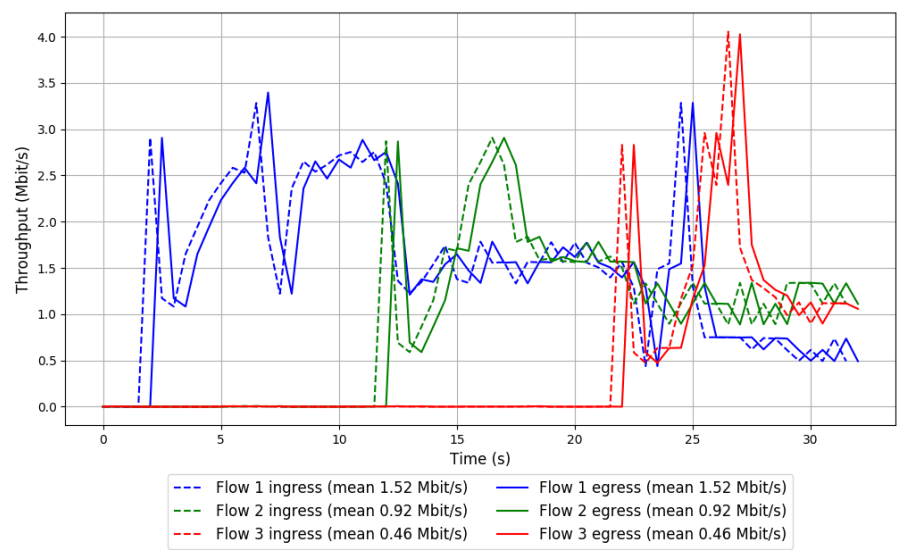
Run 9: Report of PCC-Vivace — Data Link

- --- Flow 1 ingress (mean 56.71 Mbit/s) — Flow 1 egress (mean 56.71 Mbit/s)
- --- Flow 2 ingress (mean 32.11 Mbit/s) — Flow 2 egress (mean 32.11 Mbit/s)
- --- Flow 3 ingress (mean 26.72 Mbit/s) — Flow 3 egress (mean 26.75 Mbit/s)

- Flow 1 (95th percentile 3.22 ms)   • Flow 2 (95th percentile 3.91 ms)   • Flow 3 (95th percentile 4.12 ms)

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-04 13:54:13
End at: 2018-07-04 13:54:43
Local clock offset: -6.639 ms
Remote clock offset: -8.221 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.87 Mbit/s
95th percentile per-packet one-way delay: 19.491 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 53.29 Mbit/s
95th percentile per-packet one-way delay: 4.496 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 35.93 Mbit/s
95th percentile per-packet one-way delay: 20.562 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 26.35 Mbit/s
95th percentile per-packet one-way delay: 32.941 ms
Loss rate: 0.50%
```
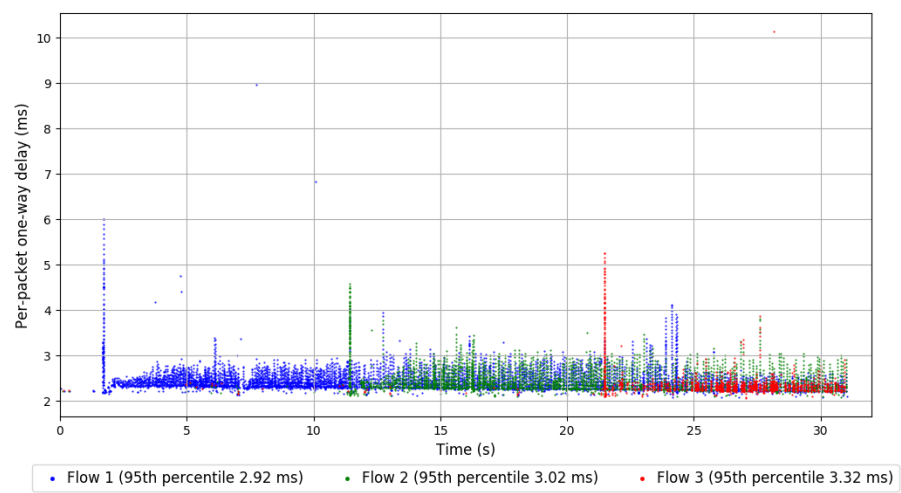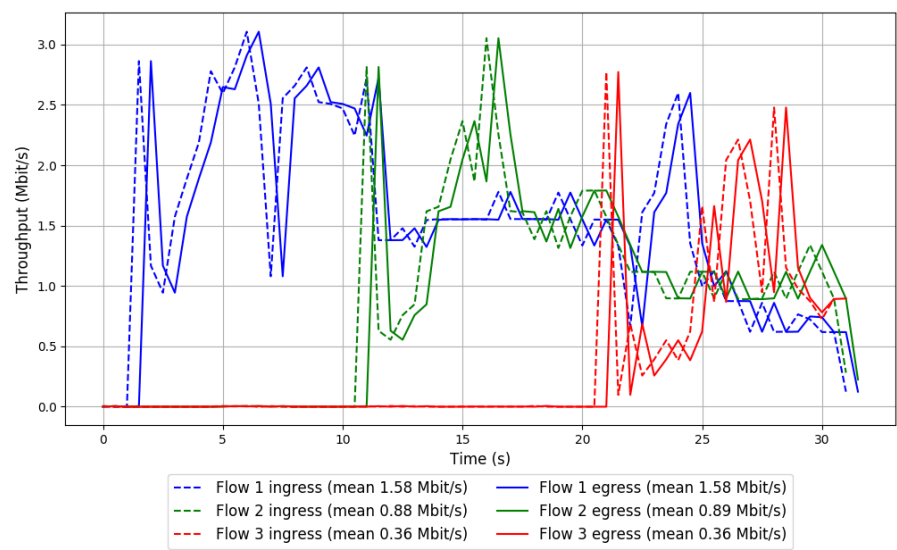
Run 10: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-07-04 10:58:34
End at: 2018-07-04 10:59:04
Local clock offset: -2.919 ms
Remote clock offset: -2.829 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 3.084 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 2.971 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 3.149 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 3.291 ms
Loss rate: 0.19%
```
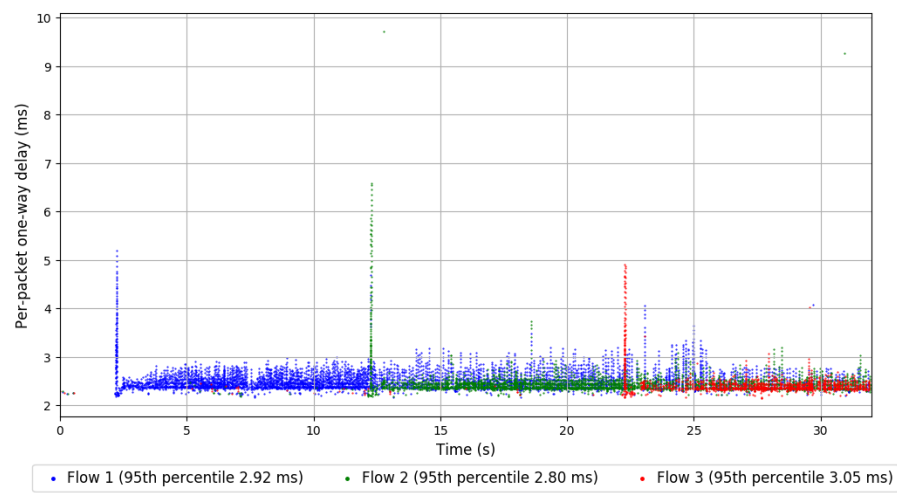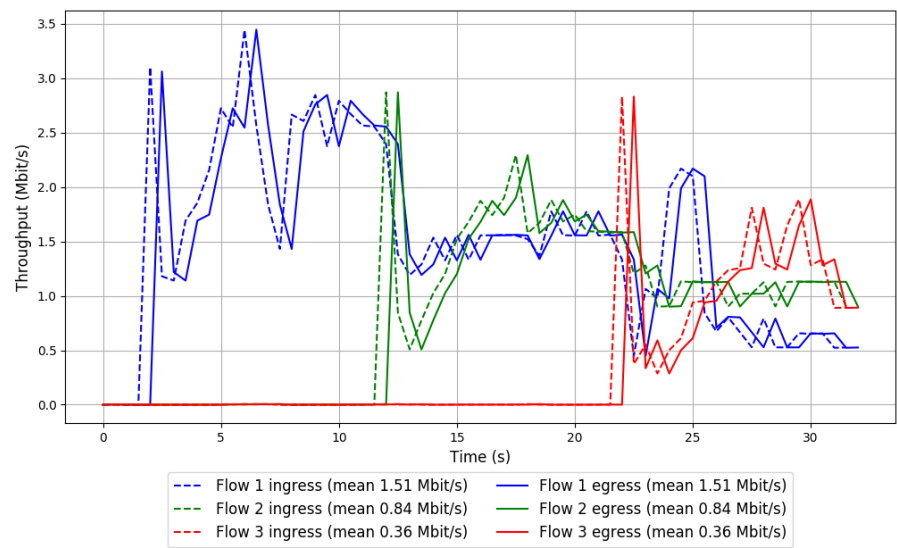
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-07-04 11:17:44
End at: 2018-07-04 11:18:14
Local clock offset: -2.703 ms
Remote clock offset: -5.283 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.82 Mbit/s
95th percentile per-packet one-way delay: 2.978 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 2.923 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 3.021 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 3.317 ms
Loss rate: 0.00%
```
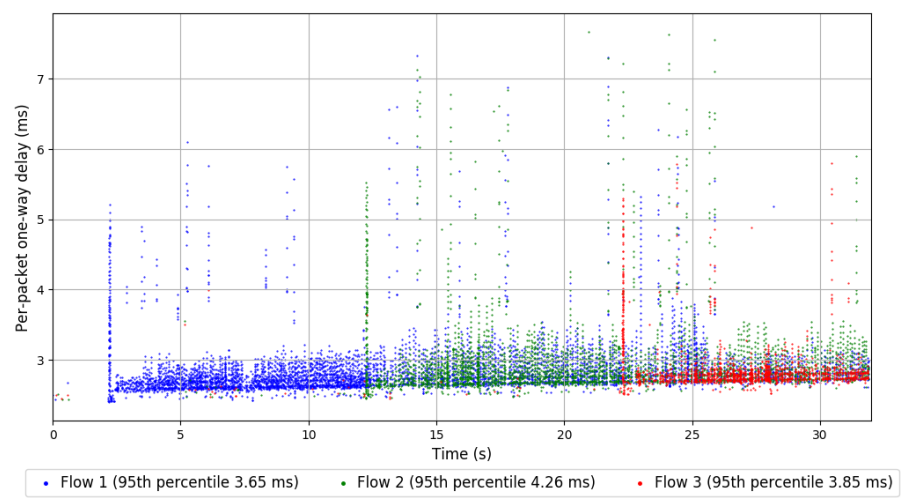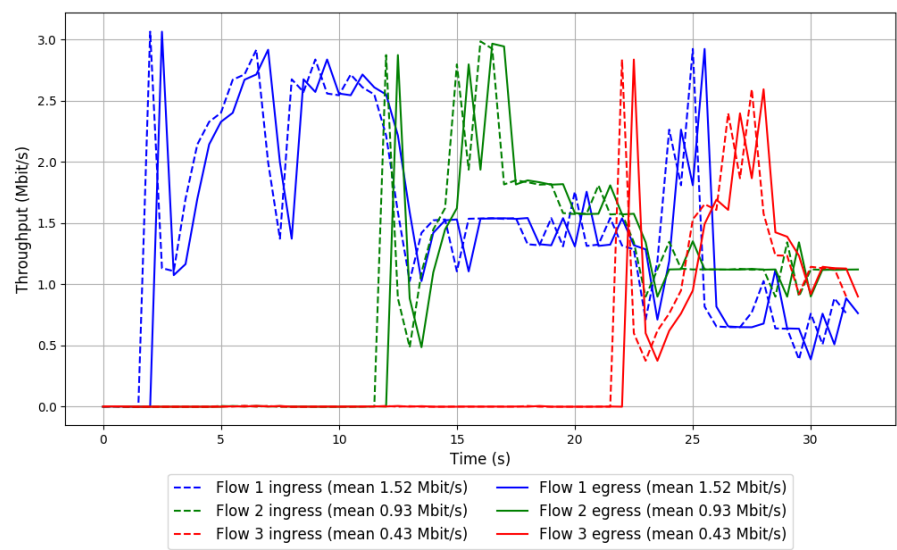
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-07-04 11:36:54
End at: 2018-07-04 11:37:24
Local clock offset: -2.452 ms
Remote clock offset: -7.885 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.70 Mbit/s
95th percentile per-packet one-way delay: 2.900 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 2.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 2.800 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 3.050 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-07-04 11:56:04
End at: 2018-07-04 11:56:34
Local clock offset: -2.194 ms
Remote clock offset: -2.671 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 3.884 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 3.652 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 4.265 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 3.854 ms
Loss rate: 0.00%
```
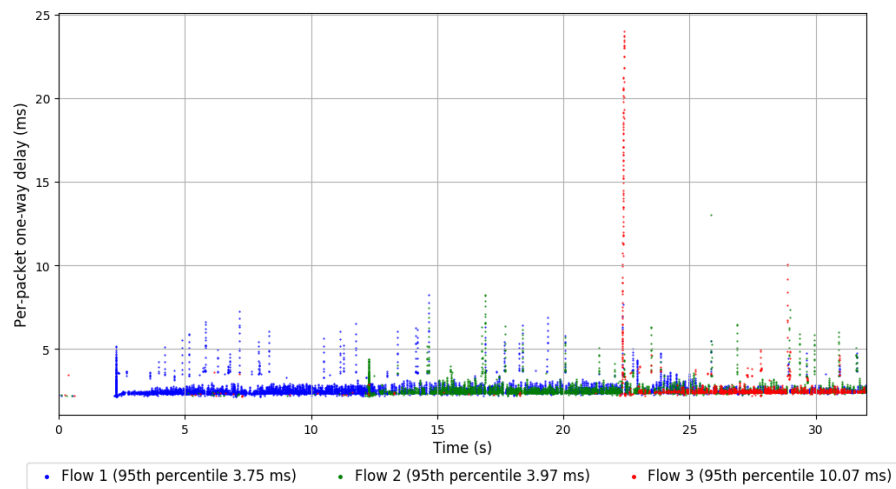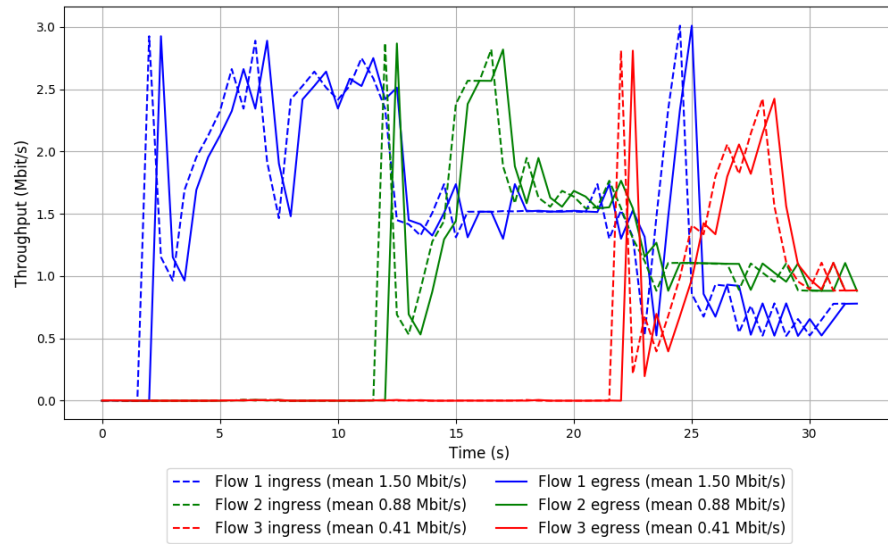
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-07-04 12:15:11
End at: 2018-07-04 12:15:41
Local clock offset: -2.377 ms
Remote clock offset: 1.034 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 4.013 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 3.754 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 3.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 10.069 ms
Loss rate: 0.00%
```

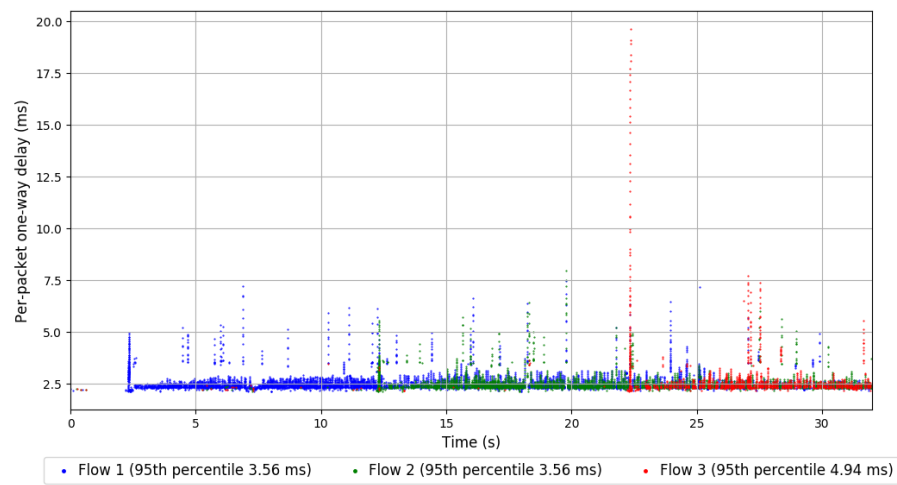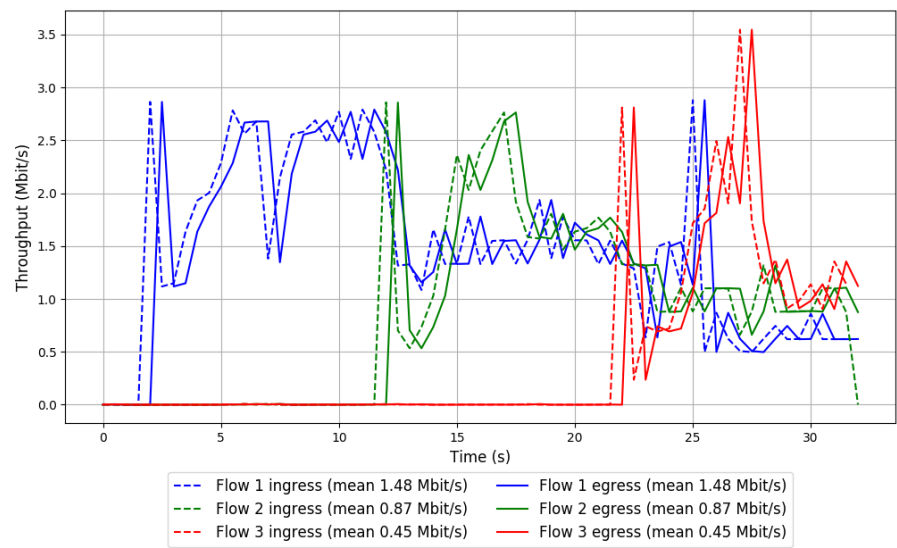Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-07-04 12:34:17
End at: 2018-07-04 12:34:47
Local clock offset: -2.67 ms
Remote clock offset: -1.575 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 3.670 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 3.556 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 3.556 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 4.941 ms
Loss rate: 0.07%
```

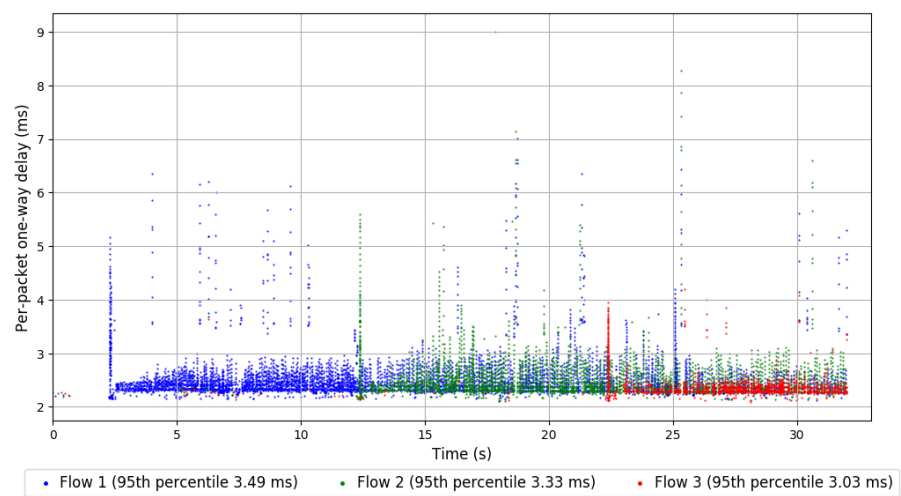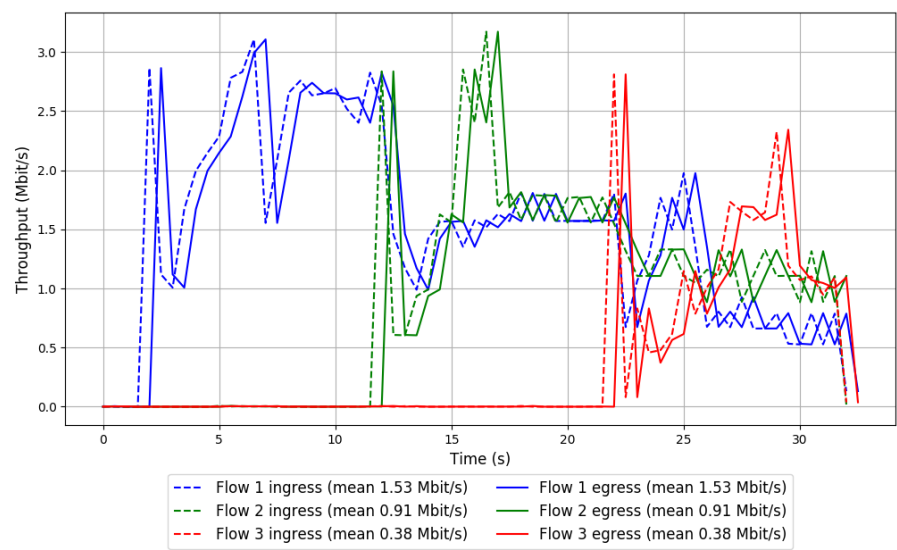Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-07-04 12:53:25
End at: 2018-07-04 12:53:55
Local clock offset: -2.7 ms
Remote clock offset: -1.642 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 3.370 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 1.53 Mbit/s
95th percentile per-packet one-way delay: 3.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 3.326 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 3.031 ms
Loss rate: 0.00%
```

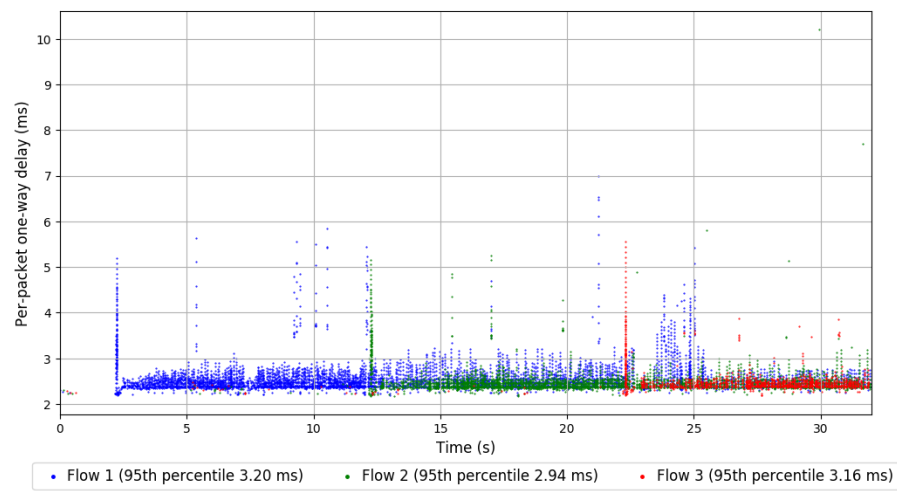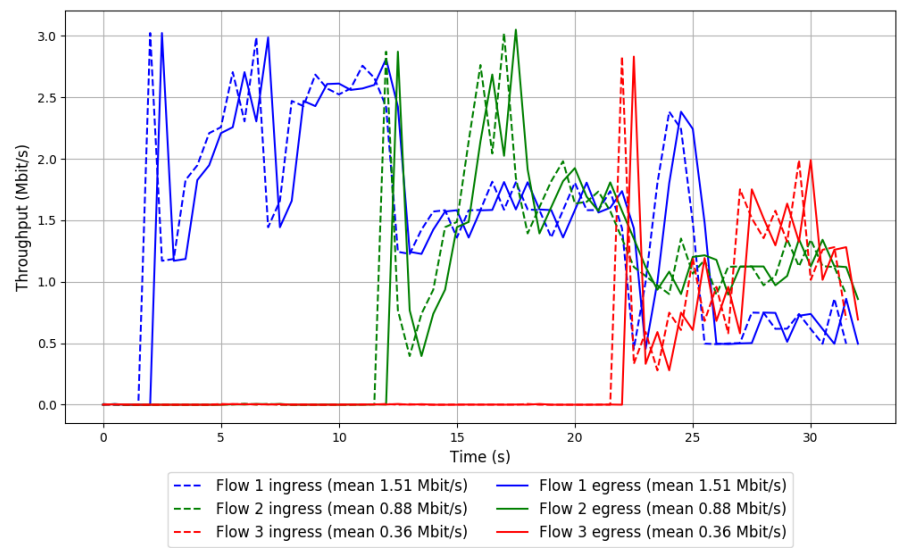Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-07-04 13:12:34
End at: 2018-07-04 13:13:04
Local clock offset: -2.682 ms
Remote clock offset: -2.376 ms

# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 3.118 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 3.196 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 2.939 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 3.164 ms
Loss rate: 0.00%
```

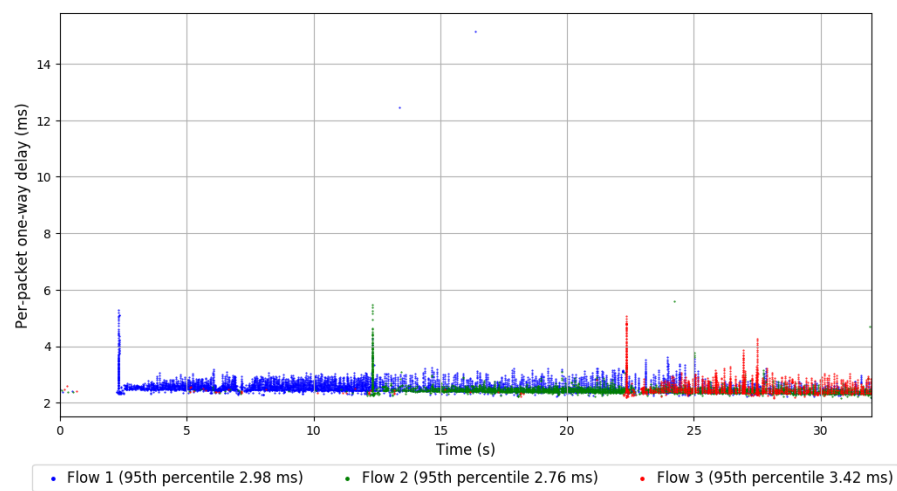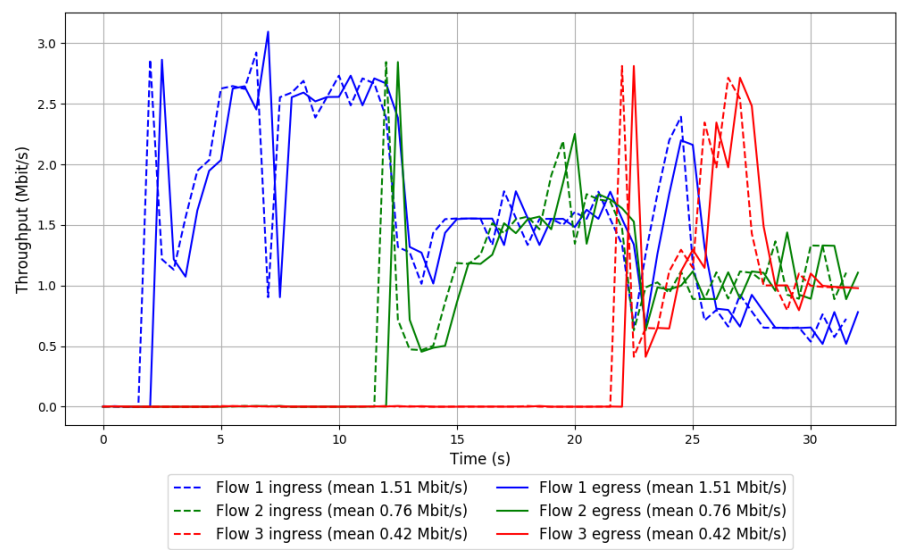Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-07-04 13:31:44
End at: 2018-07-04 13:32:14
Local clock offset: -2.831 ms
Remote clock offset: -4.413 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 2.998 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 2.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 2.759 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 3.420 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-07-04 13:50:55
End at: 2018-07-04 13:51:25
Local clock offset: -6.082 ms
Remote clock offset: -7.906 ms


# Below is generated by plot.py at 2018-07-04 14:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 3.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 3.144 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 3.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 3.295 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link