Pantheon Report

Generated at 2018-03-21 12:06:39 (UTC).

Data path: Stanford Ethernet (*remote*) →AWS California 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.

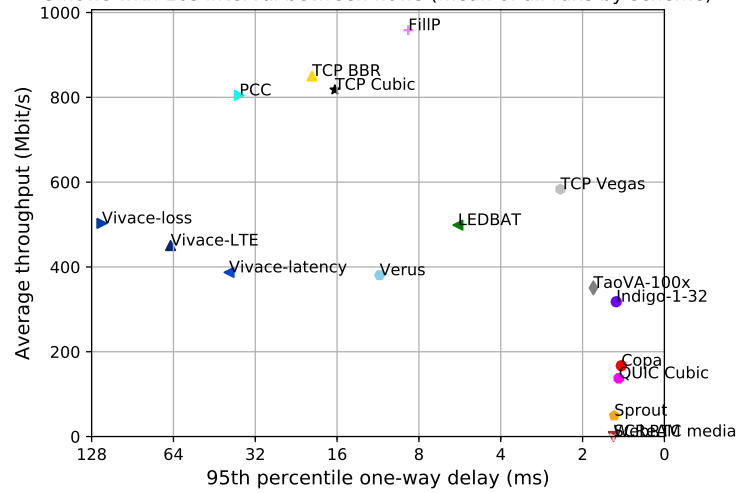Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

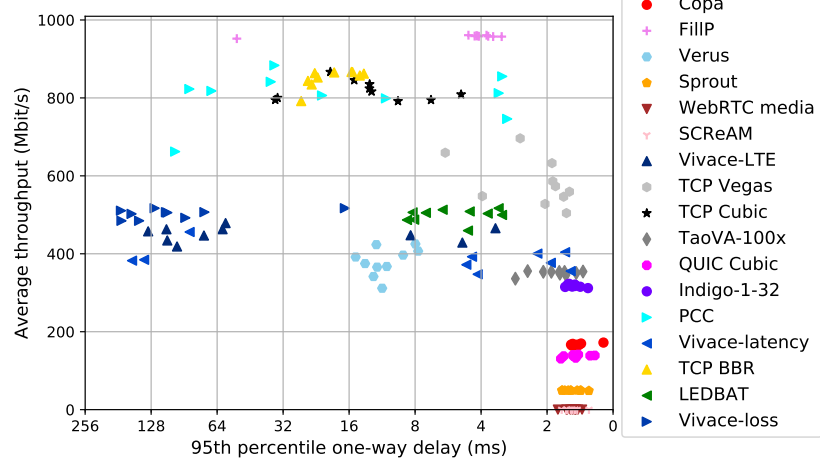NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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

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

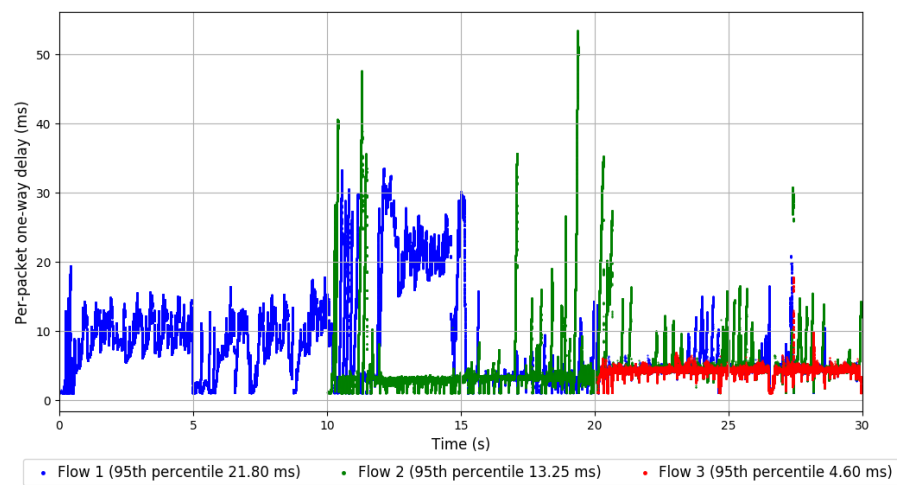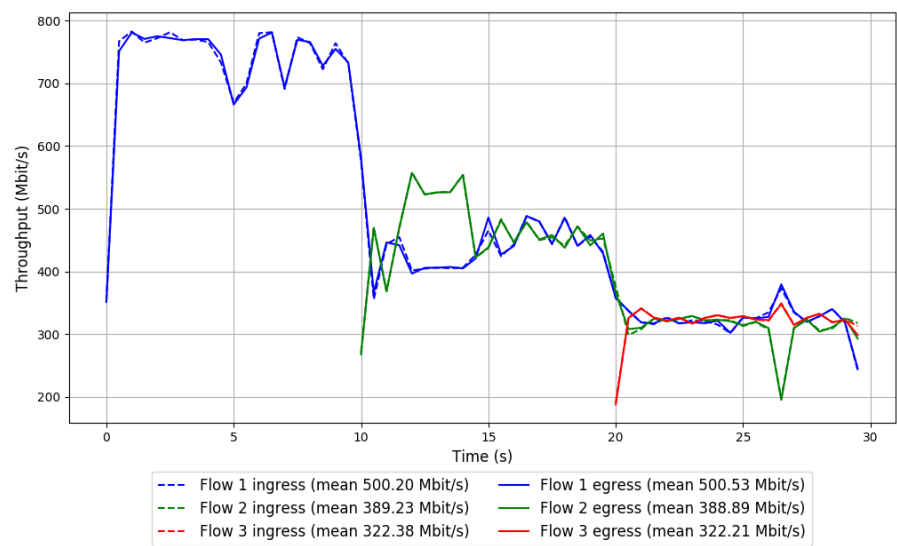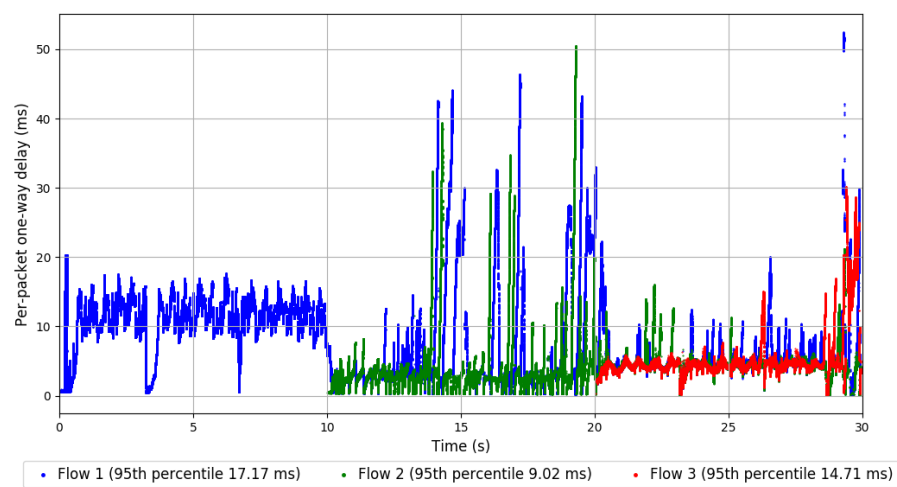| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	488.38	385.47	319.62	20.09	18.78	5.60	0.05	0.12	0.22
TCP Cubic	10	453.18	391.82	313.77	16.87	7.47	4.46	0.06	0.10	0.25
LEDBAT	10	280.64	240.33	176.53	6.26	5.24	2.92	0.04	0.10	0.31
PCC	10	602.55	218.28	174.08	46.32	2.89	2.69	2.14	0.12	0.27
QUIC Cubic	10	72.80	68.95	57.04	1.11	1.11	1.11	0.06	0.11	0.18
SCReAM	10	0.22	0.22	0.22	1.25	1.24	1.23	0.03	0.00	0.32
WebRTC media	10	0.05	0.05	0.05	1.23	1.23	1.24	0.01	0.01	0.01
Sprout	10	24.82	24.71	24.58	1.23	1.21	1.21	0.07	0.09	0.20
TaoVA-100x	10	199.65	172.40	109.83	1.53	2.06	1.71	0.03	0.06	0.24
TCP Vegas	10	266.06	323.59	308.28	1.86	2.64	2.64	0.05	0.08	0.21
Verus	10	225.91	172.53	121.16	12.98	8.36	4.24	0.06	0.05	0.24
Copa	10	86.29	84.33	74.62	1.05	1.03	1.06	0.04	0.07	0.16
FillP	10	587.55	400.32	316.52	8.73	4.14	3.96	0.15	0.09	0.23
Indigo-1-32	10	170.68	152.21	141.33	1.14	1.28	1.26	0.05	0.09	0.21
Vivace-latency	10	268.84	134.14	89.10	55.39	4.15	1.16	0.73	0.10	0.27
Vivace-loss	10	303.61	226.31	149.05	110.31	54.35	3.16	2.56	0.45	0.25
Vivace-LTE	10	295.72	172.65	122.17	86.50	2.02	1.27	0.92	0.08	0.24

```
Run 1: Statistics of TCP BBR

Start at: 2018-03-21 00:02:44
End at: 2018-03-21 00:03:14
Local clock offset: -0.625 ms
Remote clock offset: -4.816 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 865.42 Mbit/s
95th percentile per-packet one-way delay: 18.709 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 500.53 Mbit/s
95th percentile per-packet one-way delay: 21.805 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 388.89 Mbit/s
95th percentile per-packet one-way delay: 13.249 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 322.21 Mbit/s
95th percentile per-packet one-way delay: 4.601 ms
Loss rate: 0.27%
```

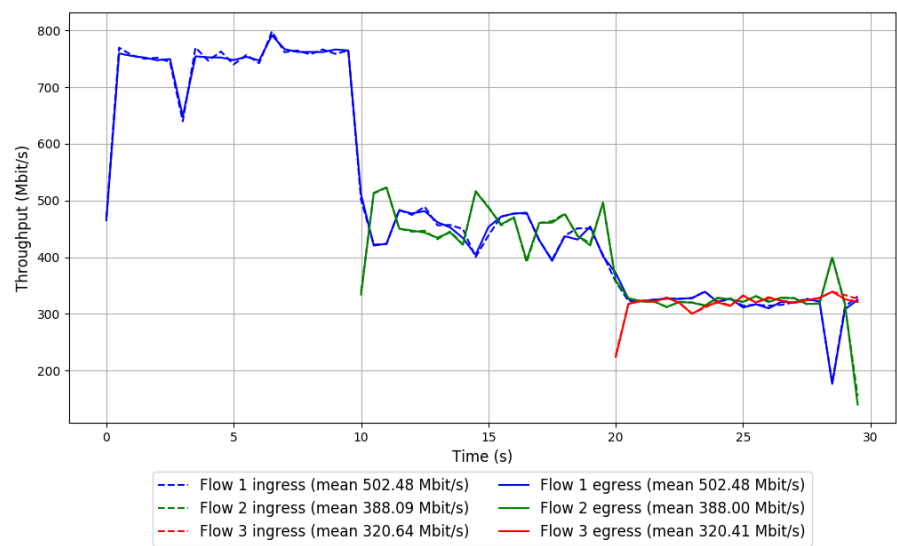Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-03-21 00:31:45
End at: 2018-03-21 00:32:15
Local clock offset: -1.549 ms
Remote clock offset: -4.507 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 866.73 Mbit/s
95th percentile per-packet one-way delay: 15.599 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 502.48 Mbit/s
95th percentile per-packet one-way delay: 17.167 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 388.00 Mbit/s
95th percentile per-packet one-way delay: 9.024 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 320.41 Mbit/s
95th percentile per-packet one-way delay: 14.713 ms
Loss rate: 0.29%
```
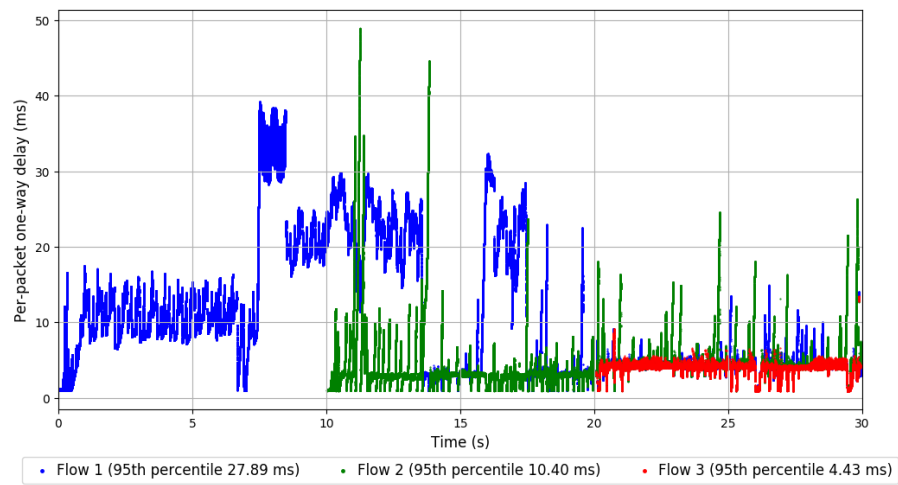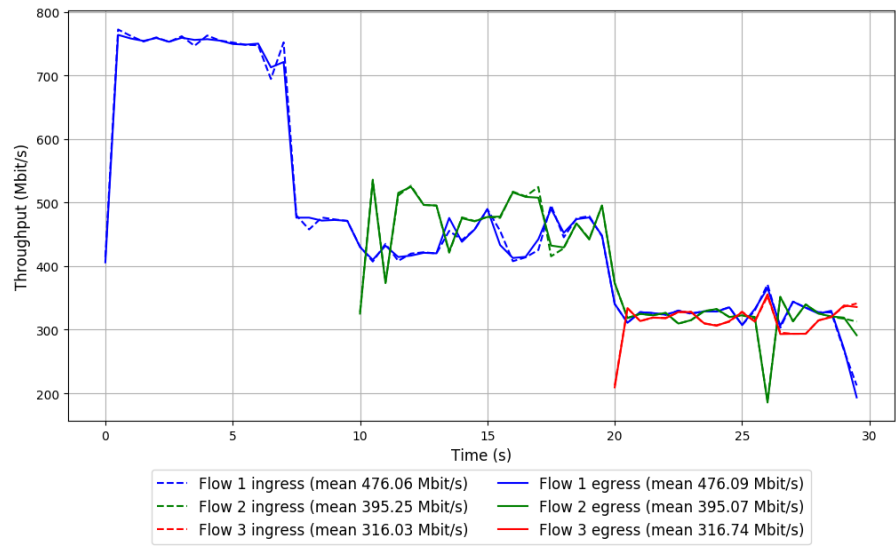
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 502.48 Mbit/s) --- Flow 1 egress (mean 502.48 Mbit/s)
Flow 2 ingress (mean 388.09 Mbit/s) --- Flow 2 egress (mean 388.00 Mbit/s)
Flow 3 ingress (mean 320.64 Mbit/s) --- Flow 3 egress (mean 320.41 Mbit/s)

Flow 1 (95th percentile 17.17 ms)   Flow 2 (95th percentile 9.02 ms)   Flow 3 (95th percentile 14.71 ms)
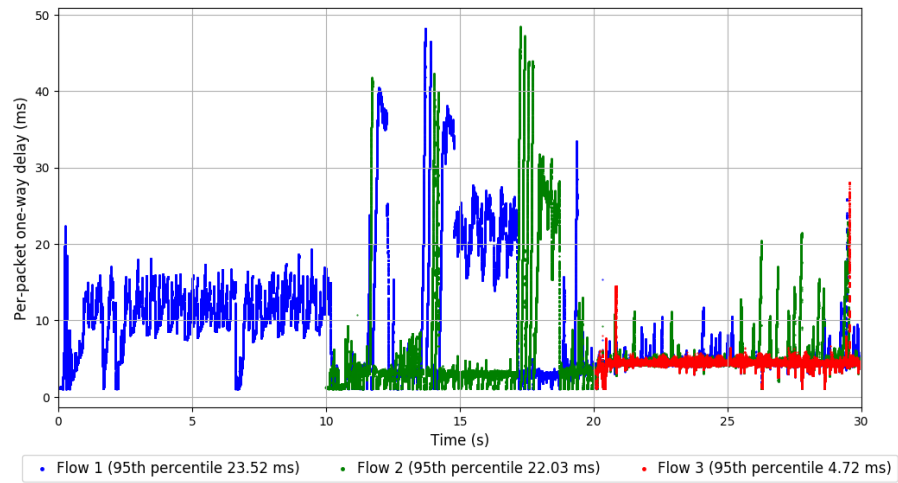
```
Run 3: Statistics of TCP BBR

Start at: 2018-03-21 01:00:51
End at: 2018-03-21 01:01:21
Local clock offset: 7.007 ms
Remote clock offset: -4.954 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 843.75 Mbit/s
95th percentile per-packet one-way delay: 24.657 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 476.09 Mbit/s
95th percentile per-packet one-way delay: 27.895 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 395.07 Mbit/s
95th percentile per-packet one-way delay: 10.400 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 316.74 Mbit/s
95th percentile per-packet one-way delay: 4.429 ms
Loss rate: 0.10%
```

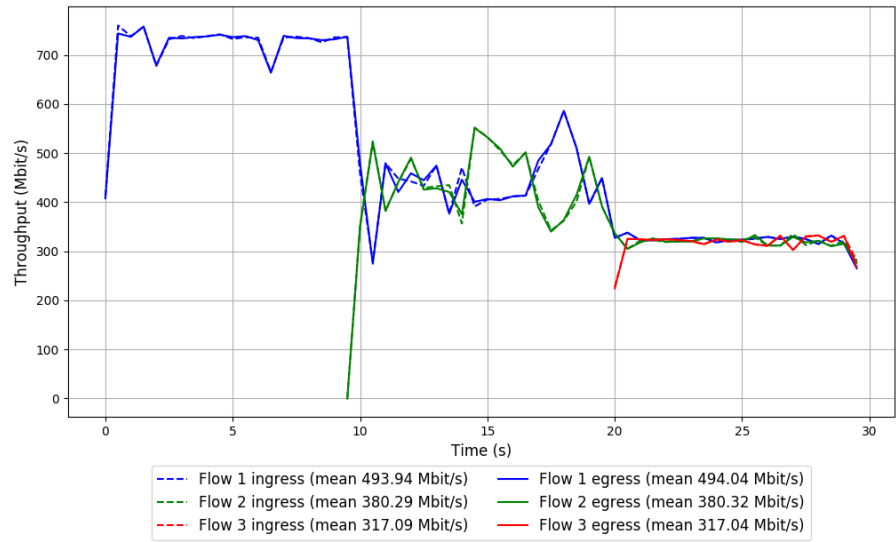Run 3: Report of TCP BBR — Data Link

9

```
Run 4: Statistics of TCP BBR

Start at: 2018-03-21 01:29:47
End at: 2018-03-21 01:30:17
Local clock offset: 0.33 ms
Remote clock offset: -4.983 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 852.47 Mbit/s
95th percentile per-packet one-way delay: 22.262 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 494.04 Mbit/s
95th percentile per-packet one-way delay: 23.522 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 380.32 Mbit/s
95th percentile per-packet one-way delay: 22.029 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 317.04 Mbit/s
95th percentile per-packet one-way delay: 4.716 ms
Loss rate: 0.24%
```

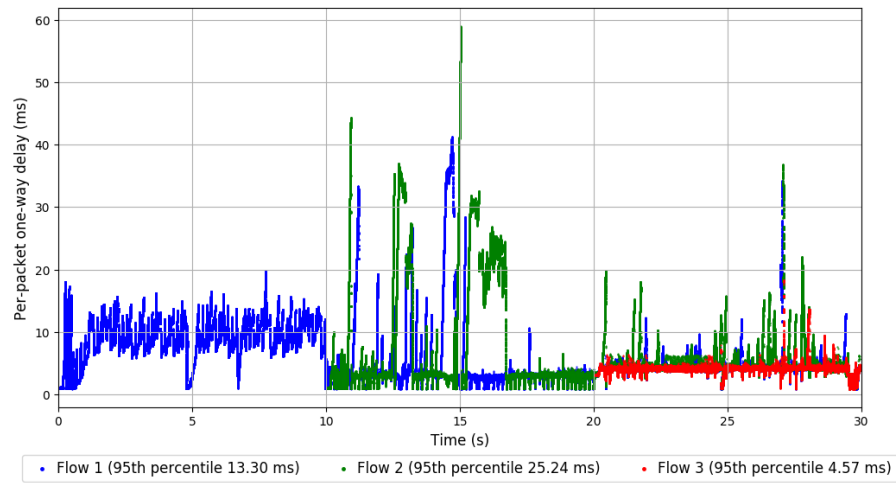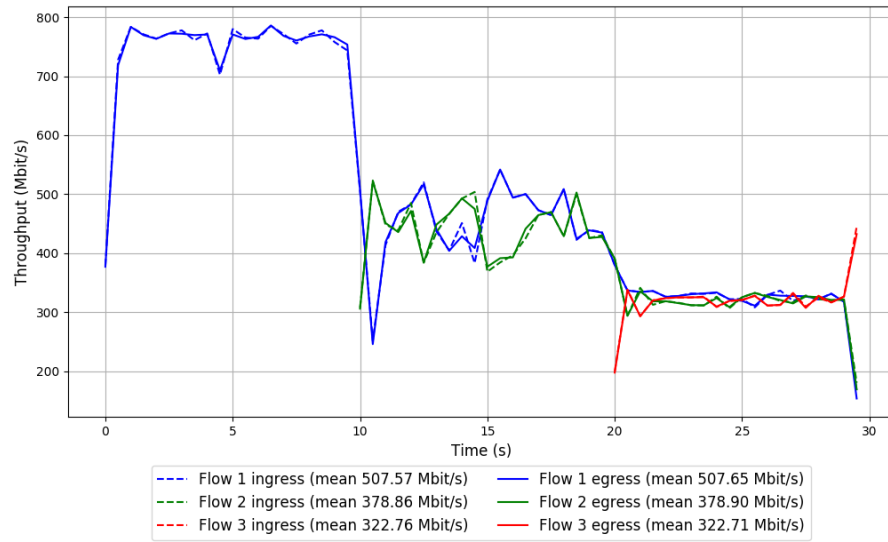Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-03-21 01:58:42
End at: 2018-03-21 01:59:12
Local clock offset: 6.306 ms
Remote clock offset: -5.674 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 866.26 Mbit/s
95th percentile per-packet one-way delay: 15.442 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 507.65 Mbit/s
95th percentile per-packet one-way delay: 13.296 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 378.90 Mbit/s
95th percentile per-packet one-way delay: 25.241 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 322.71 Mbit/s
95th percentile per-packet one-way delay: 4.573 ms
Loss rate: 0.24%
```
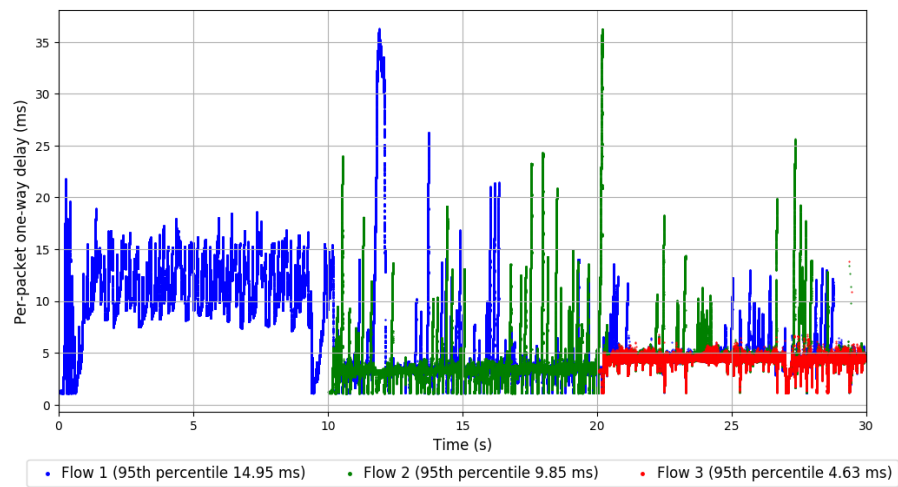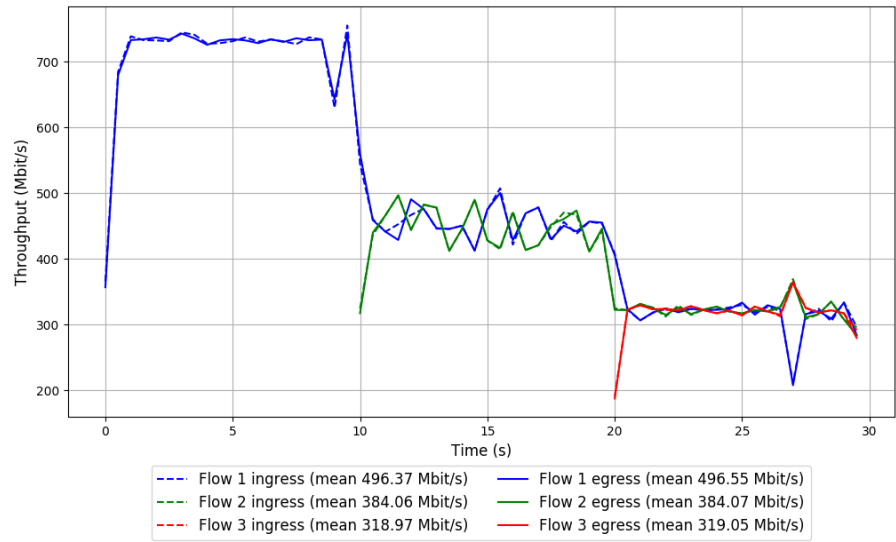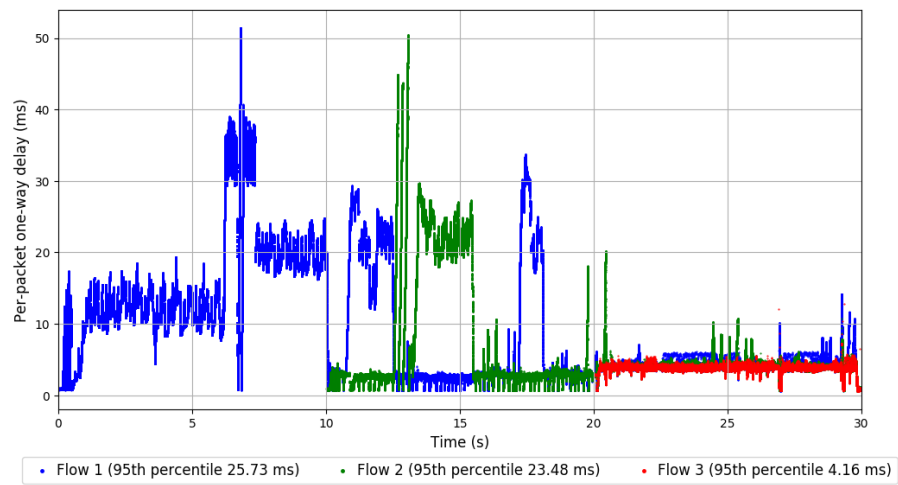
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 507.57 Mbit/s) --- Flow 1 egress (mean 507.65 Mbit/s)
Flow 2 ingress (mean 378.86 Mbit/s) --- Flow 2 egress (mean 378.90 Mbit/s)
Flow 3 ingress (mean 322.76 Mbit/s) --- Flow 3 egress (mean 322.71 Mbit/s)

Flow 1 (95th percentile 13.30 ms) • Flow 2 (95th percentile 25.24 ms) • Flow 3 (95th percentile 4.57 ms)

13

```
Run 6: Statistics of TCP BBR

Start at: 2018-03-21 02:27:37
End at: 2018-03-21 02:28:07
Local clock offset: 1.535 ms
Remote clock offset: -6.201 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 857.49 Mbit/s
95th percentile per-packet one-way delay: 14.304 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 496.55 Mbit/s
95th percentile per-packet one-way delay: 14.952 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 384.07 Mbit/s
95th percentile per-packet one-way delay: 9.852 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 319.05 Mbit/s
95th percentile per-packet one-way delay: 4.634 ms
Loss rate: 0.24%
```
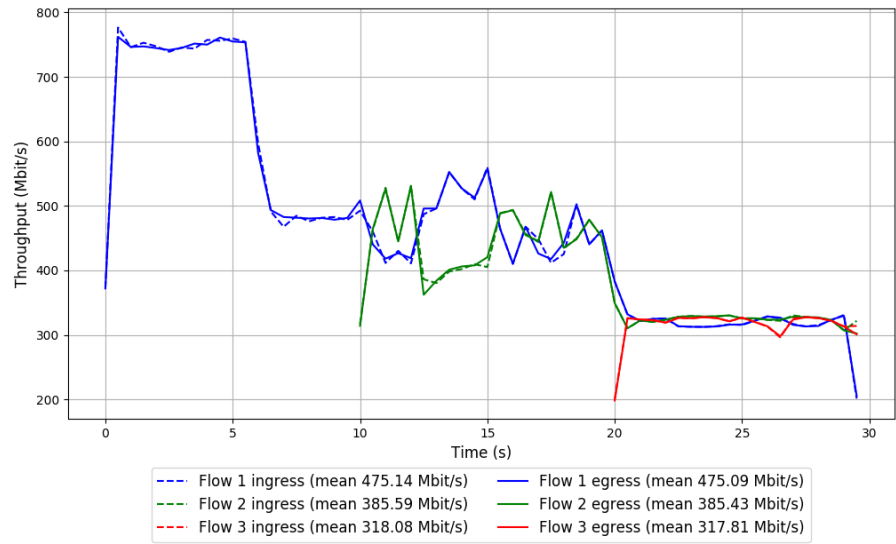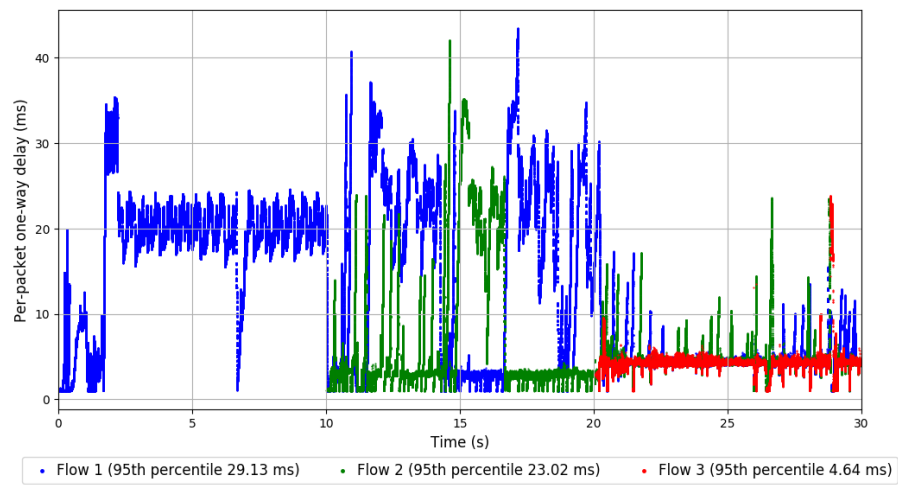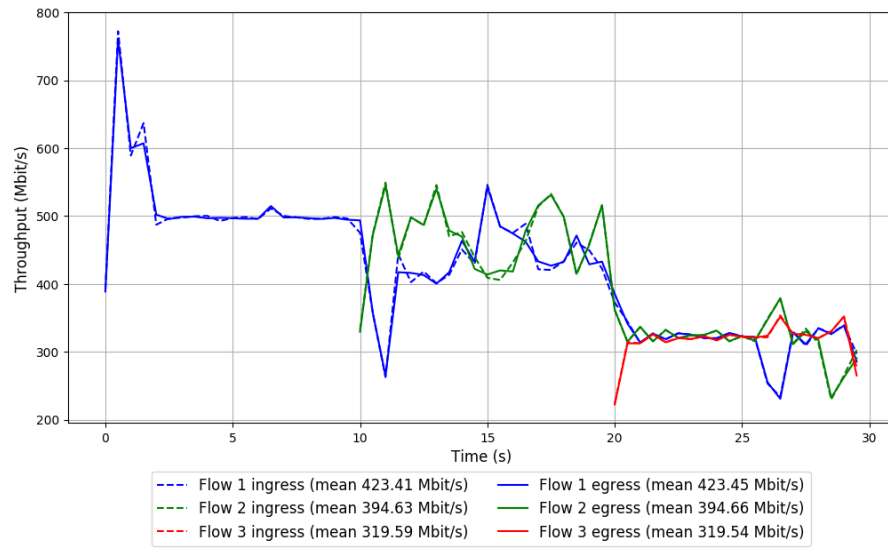
Run 6: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 496.37 Mbit/s) —— Flow 1 egress (mean 496.55 Mbit/s)
- - - Flow 2 ingress (mean 384.06 Mbit/s) —— Flow 2 egress (mean 384.07 Mbit/s)
- - - Flow 3 ingress (mean 318.97 Mbit/s) —— Flow 3 egress (mean 319.05 Mbit/s)

• Flow 1 (95th percentile 14.95 ms)   • Flow 2 (95th percentile 9.85 ms)   • Flow 3 (95th percentile 4.63 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-03-21 02:56:29
End at: 2018-03-21 02:56:59
Local clock offset: 6.052 ms
Remote clock offset: -5.391 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 834.58 Mbit/s
95th percentile per-packet one-way delay: 23.697 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 475.09 Mbit/s
95th percentile per-packet one-way delay: 25.734 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 385.43 Mbit/s
95th percentile per-packet one-way delay: 23.477 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 317.81 Mbit/s
95th percentile per-packet one-way delay: 4.156 ms
Loss rate: 0.25%
```
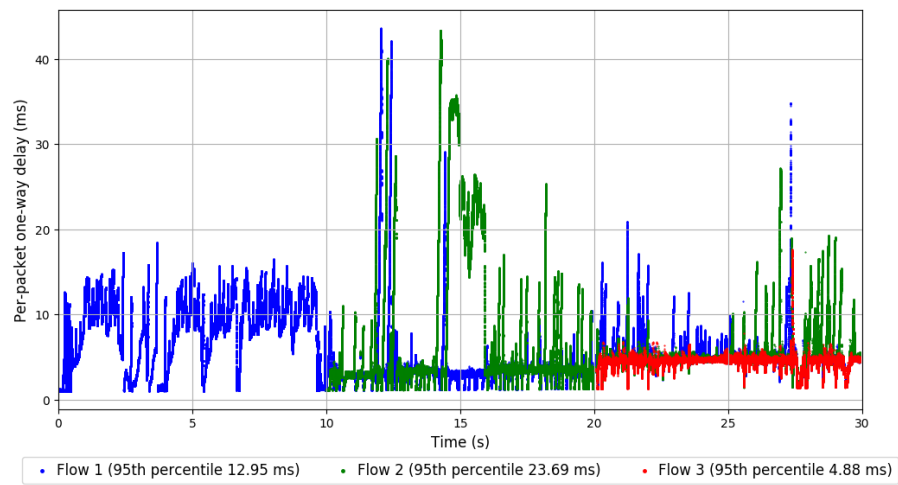
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 475.14 Mbit/s) —— Flow 1 egress (mean 475.09 Mbit/s)
Flow 2 ingress (mean 385.59 Mbit/s) —— Flow 2 egress (mean 385.43 Mbit/s)
Flow 3 ingress (mean 318.08 Mbit/s) —— Flow 3 egress (mean 317.81 Mbit/s)

• Flow 1 (95th percentile 25.73 ms)   • Flow 2 (95th percentile 23.48 ms)   • Flow 3 (95th percentile 4.16 ms)
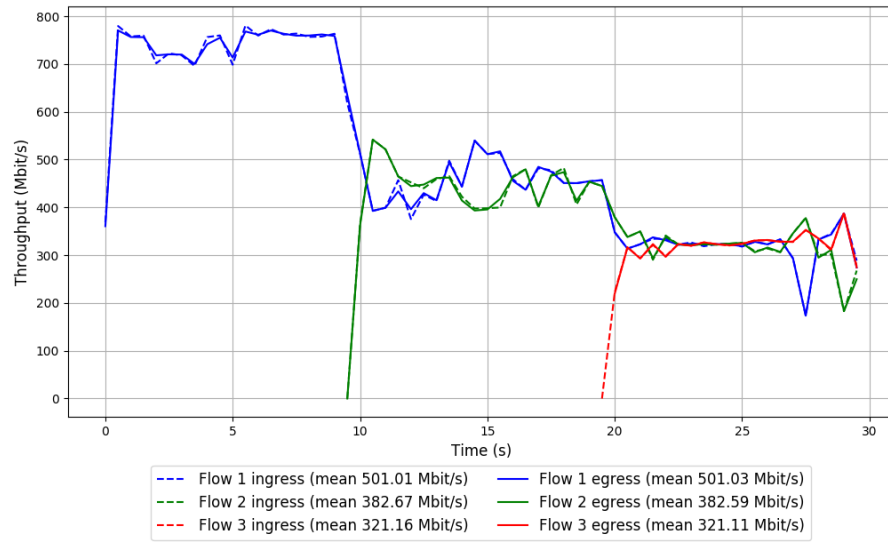
17

```
Run 8: Statistics of TCP BBR

Start at: 2018-03-21 03:25:29
End at: 2018-03-21 03:25:59
Local clock offset: 10.517 ms
Remote clock offset: -5.183 ms


# Below is generated by plot.py at 2018-03-21 09:56:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 791.92 Mbit/s
95th percentile per-packet one-way delay: 26.469 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 423.45 Mbit/s
95th percentile per-packet one-way delay: 29.133 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 394.66 Mbit/s
95th percentile per-packet one-way delay: 23.021 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 319.54 Mbit/s
95th percentile per-packet one-way delay: 4.638 ms
Loss rate: 0.24%
```
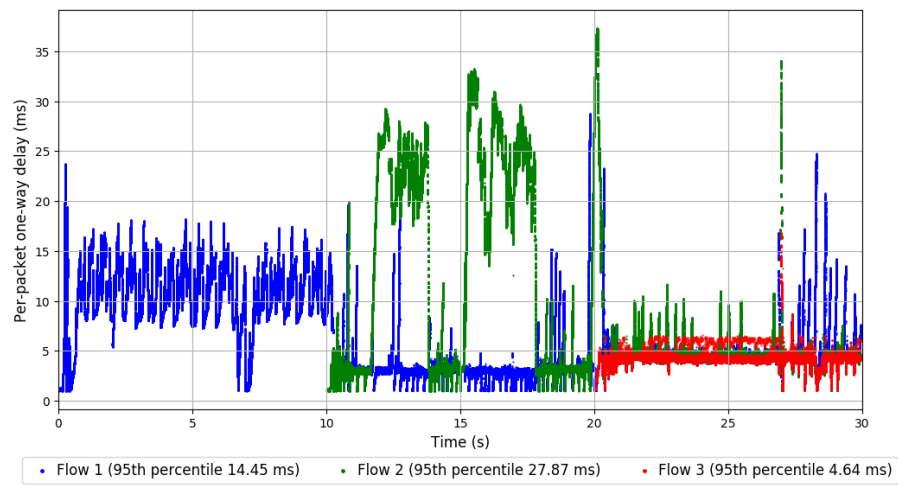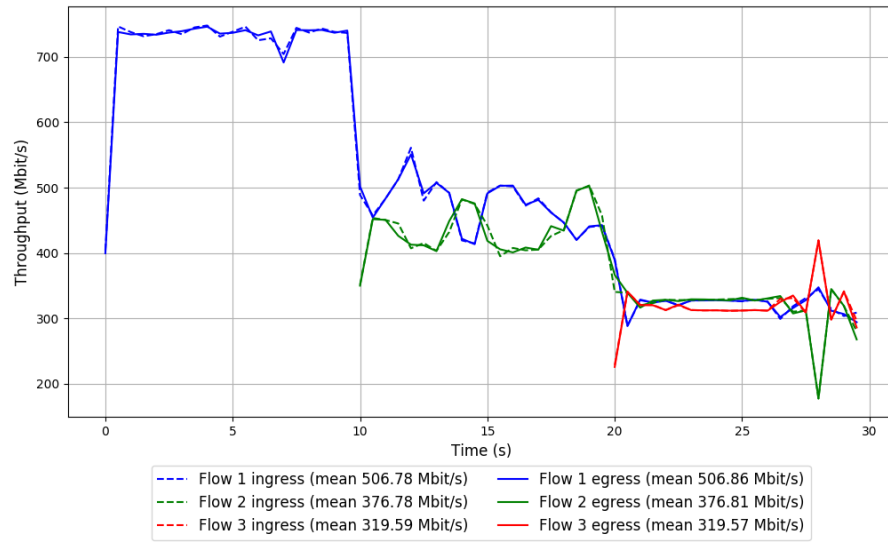
Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2018-03-21 03:54:15
End at: 2018-03-21 03:54:45
Local clock offset: 11.537 ms
Remote clock offset: -5.921 ms


# Below is generated by plot.py at 2018-03-21 10:07:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 862.38 Mbit/s
95th percentile per-packet one-way delay: 13.707 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 501.03 Mbit/s
95th percentile per-packet one-way delay: 12.954 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 382.59 Mbit/s
95th percentile per-packet one-way delay: 23.686 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 321.11 Mbit/s
95th percentile per-packet one-way delay: 4.885 ms
Loss rate: 0.10%
```
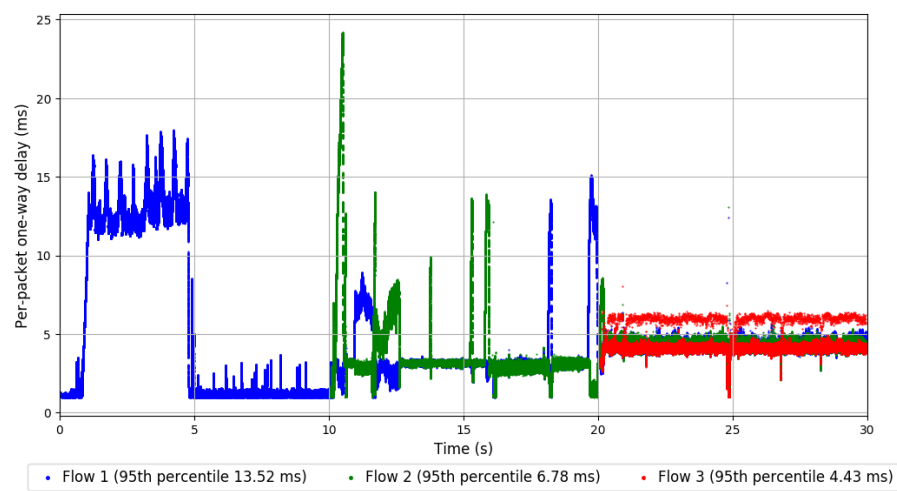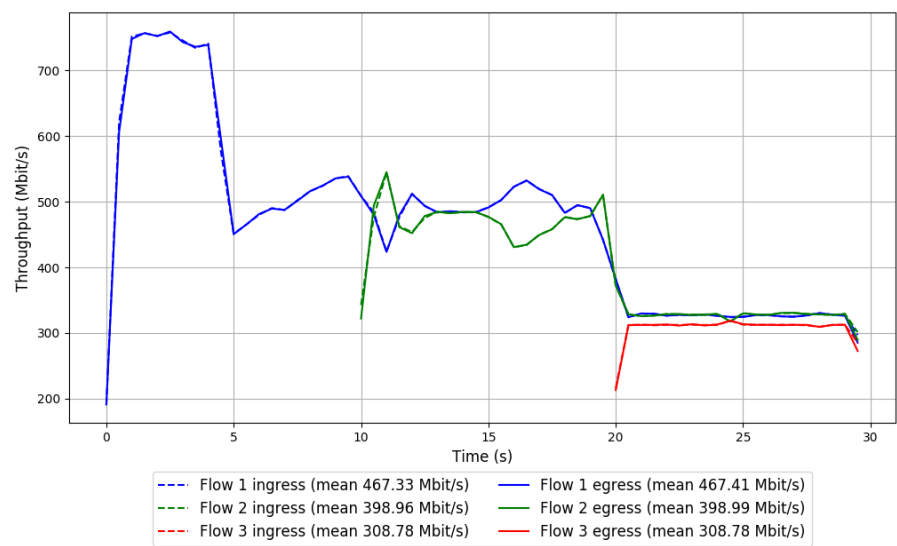
Run 9: Report of TCP BBR — Data Link

```
Run 10: Statistics of TCP BBR

Start at: 2018-03-21 04:23:17
End at: 2018-03-21 04:23:47
Local clock offset: 1.258 ms
Remote clock offset: -5.009 ms


# Below is generated by plot.py at 2018-03-21 10:08:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 863.63 Mbit/s
95th percentile per-packet one-way delay: 22.950 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 506.86 Mbit/s
95th percentile per-packet one-way delay: 14.452 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 376.81 Mbit/s
95th percentile per-packet one-way delay: 27.868 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 319.57 Mbit/s
95th percentile per-packet one-way delay: 4.643 ms
Loss rate: 0.21%
```
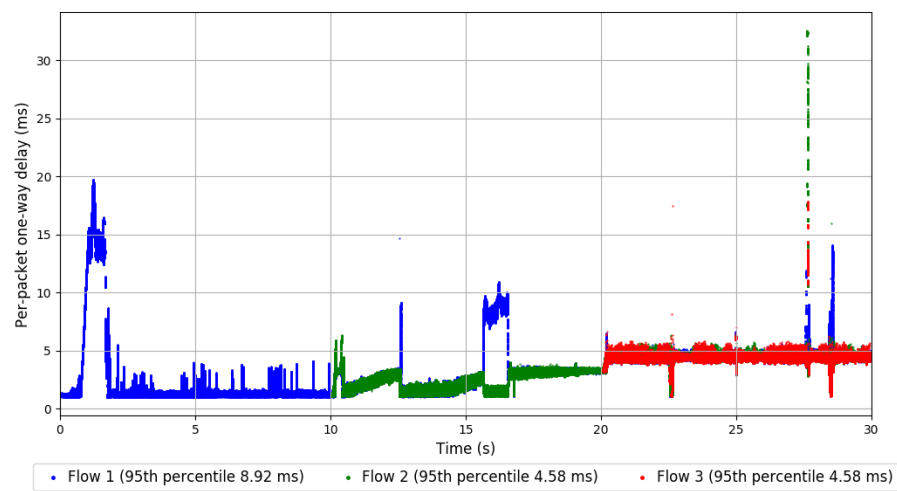
Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-03-20 23:59:24
End at: 2018-03-20 23:59:54
Local clock offset: -0.537 ms
Remote clock offset: -4.818 ms


# Below is generated by plot.py at 2018-03-21 10:08:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 835.14 Mbit/s
95th percentile per-packet one-way delay: 12.899 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 467.41 Mbit/s
95th percentile per-packet one-way delay: 13.516 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 398.99 Mbit/s
95th percentile per-packet one-way delay: 6.781 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 308.78 Mbit/s
95th percentile per-packet one-way delay: 4.432 ms
Loss rate: 0.24%
```
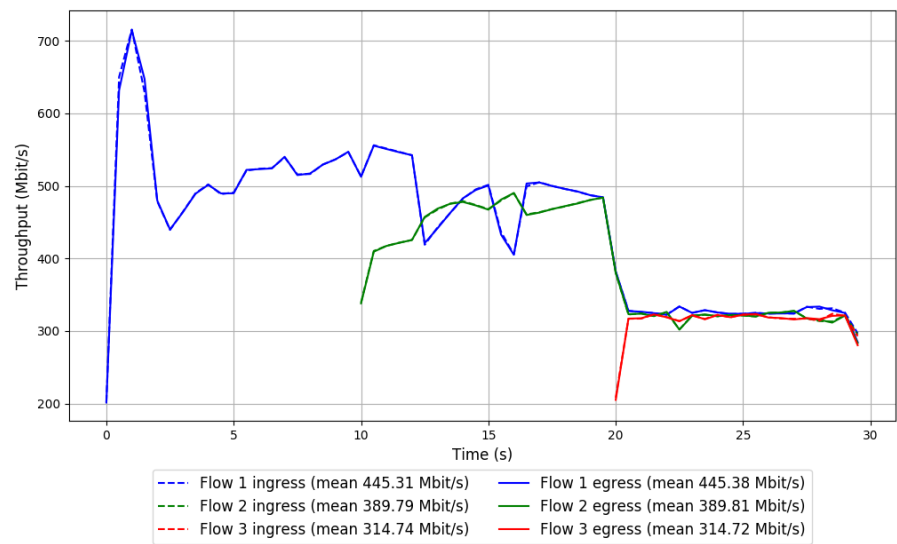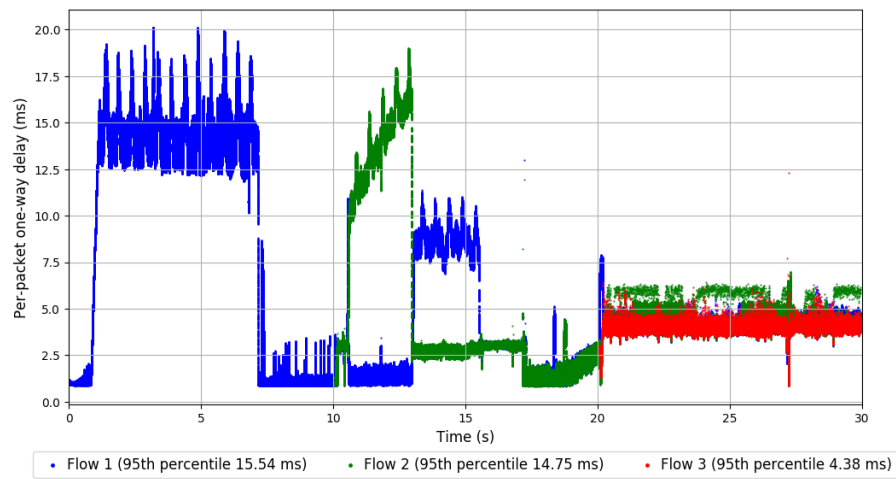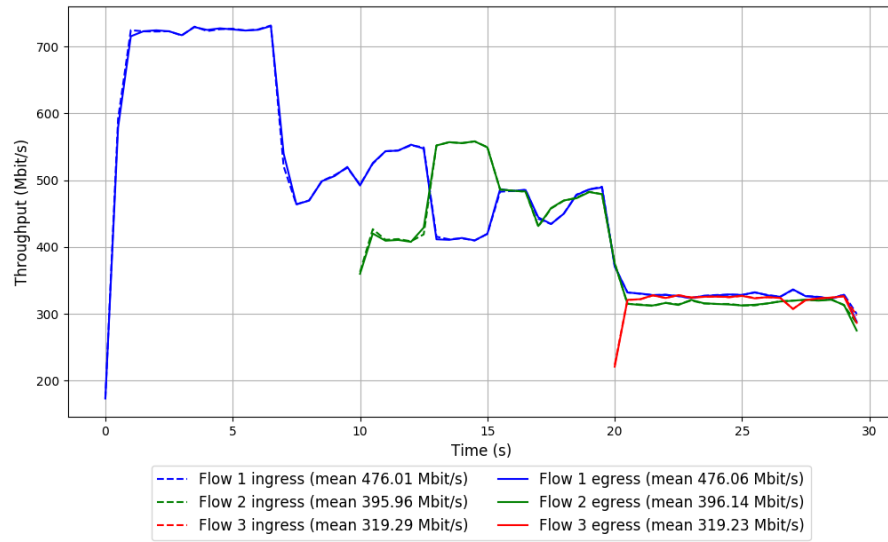
Run 1: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 467.33 Mbit/s) ——— Flow 1 egress (mean 467.41 Mbit/s)
- - - Flow 2 ingress (mean 398.96 Mbit/s) ——— Flow 2 egress (mean 398.99 Mbit/s)
- - - Flow 3 ingress (mean 308.78 Mbit/s) ——— Flow 3 egress (mean 308.78 Mbit/s)

• Flow 1 (95th percentile 13.52 ms)   • Flow 2 (95th percentile 6.78 ms)   • Flow 3 (95th percentile 4.43 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2018-03-21 00:28:26
End at: 2018-03-21 00:28:56
Local clock offset: -3.056 ms
Remote clock offset: -4.325 ms


# Below is generated by plot.py at 2018-03-21 10:08:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 808.94 Mbit/s
95th percentile per-packet one-way delay: 4.934 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 445.38 Mbit/s
95th percentile per-packet one-way delay: 8.924 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 389.81 Mbit/s
95th percentile per-packet one-way delay: 4.583 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 314.72 Mbit/s
95th percentile per-packet one-way delay: 4.581 ms
Loss rate: 0.24%
```
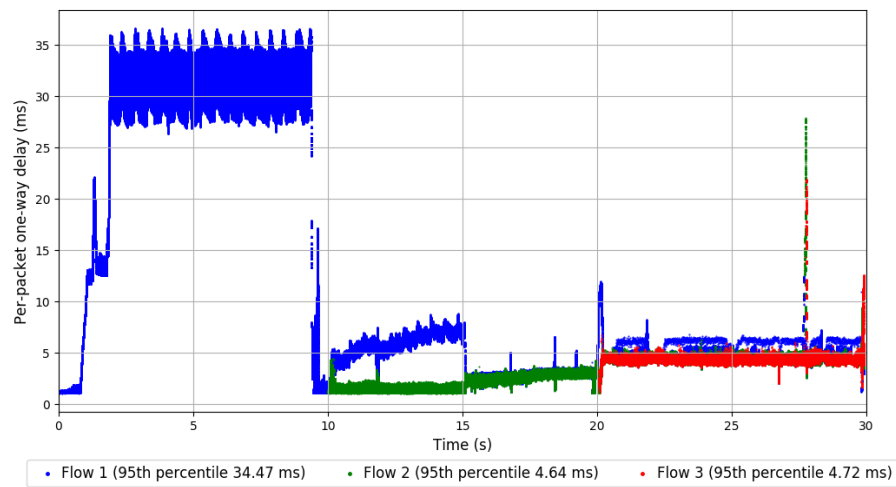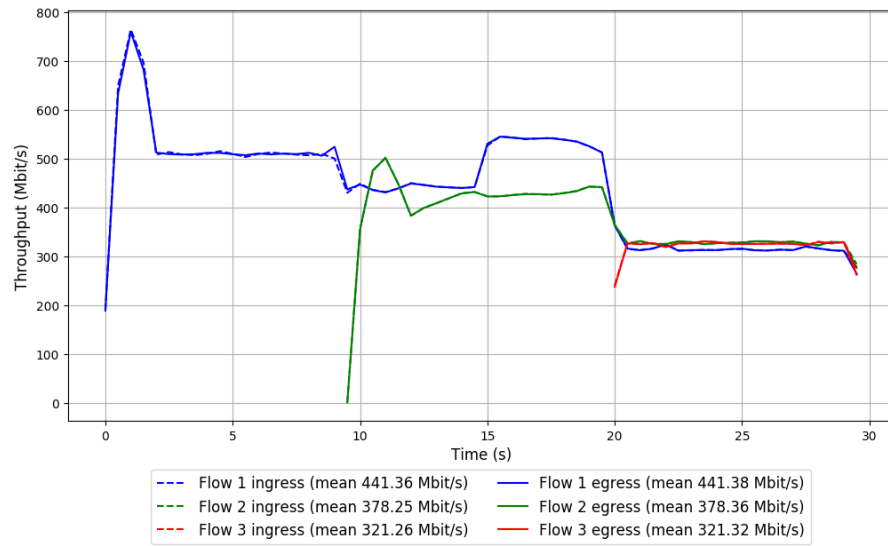
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 445.31 Mbit/s) --- Flow 1 egress (mean 445.38 Mbit/s)
Flow 2 ingress (mean 389.79 Mbit/s) --- Flow 2 egress (mean 389.81 Mbit/s)
Flow 3 ingress (mean 314.74 Mbit/s) --- Flow 3 egress (mean 314.72 Mbit/s)

Flow 1 (95th percentile 8.92 ms)   Flow 2 (95th percentile 4.58 ms)   Flow 3 (95th percentile 4.58 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-03-21 00:57:31
End at: 2018-03-21 00:58:01
Local clock offset: 6.64 ms
Remote clock offset: -4.922 ms


# Below is generated by plot.py at 2018-03-21 10:08:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 845.51 Mbit/s
95th percentile per-packet one-way delay: 15.161 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 476.06 Mbit/s
95th percentile per-packet one-way delay: 15.537 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 396.14 Mbit/s
95th percentile per-packet one-way delay: 14.750 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 319.23 Mbit/s
95th percentile per-packet one-way delay: 4.383 ms
Loss rate: 0.22%
```
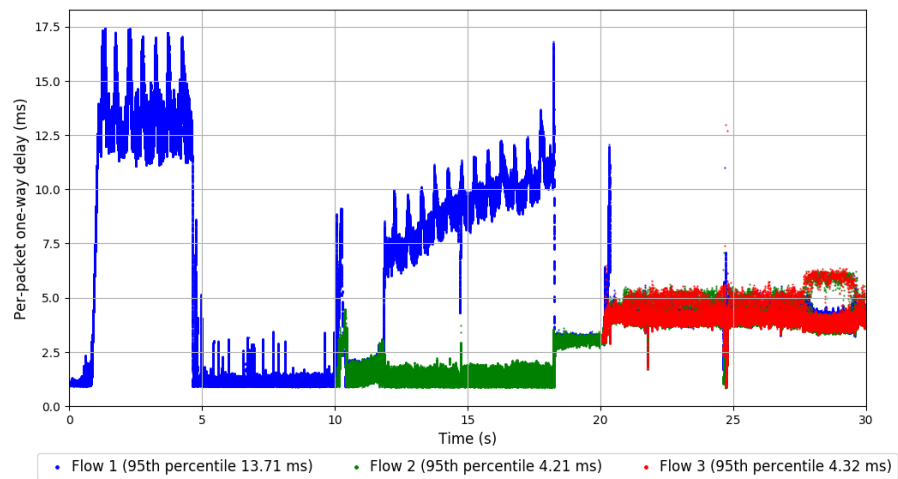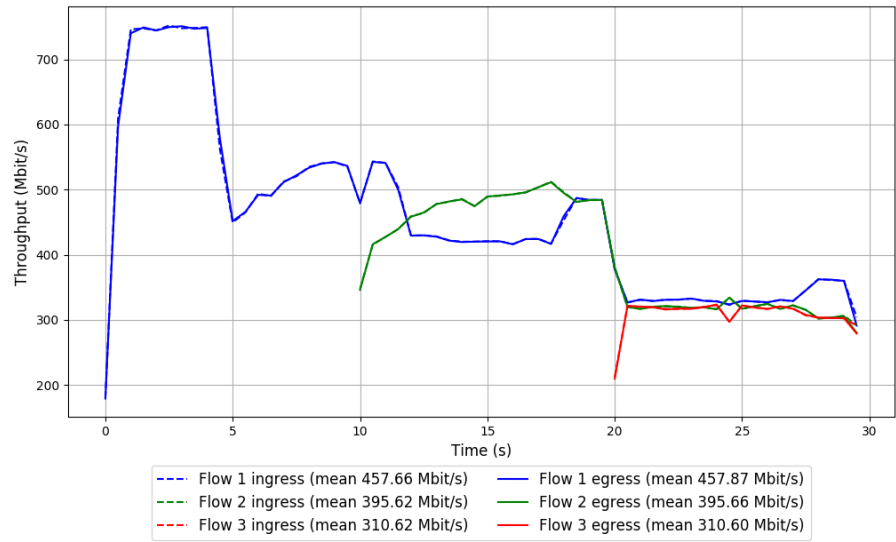
Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2018-03-21 01:26:27
End at: 2018-03-21 01:26:57
Local clock offset: 0.579 ms
Remote clock offset: -4.977 ms


# Below is generated by plot.py at 2018-03-21 10:08:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 799.99 Mbit/s
95th percentile per-packet one-way delay: 33.925 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 441.38 Mbit/s
95th percentile per-packet one-way delay: 34.473 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 378.36 Mbit/s
95th percentile per-packet one-way delay: 4.639 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 321.32 Mbit/s
95th percentile per-packet one-way delay: 4.722 ms
Loss rate: 0.20%
```
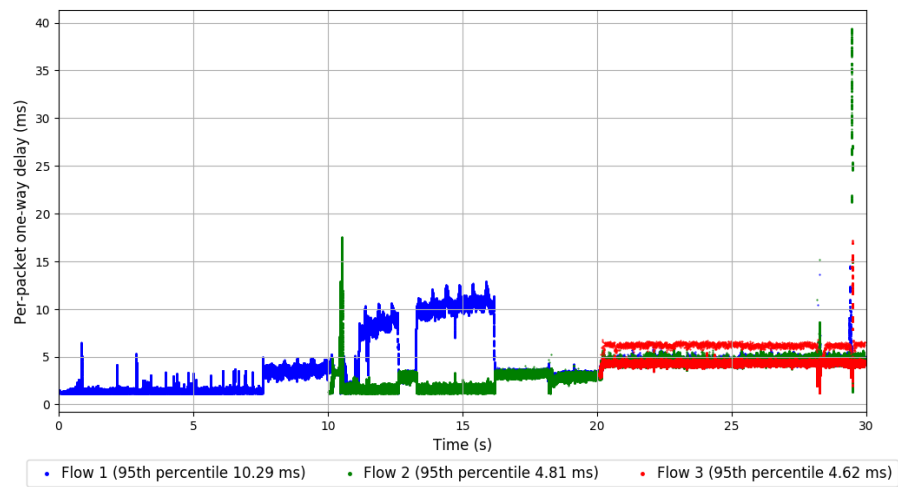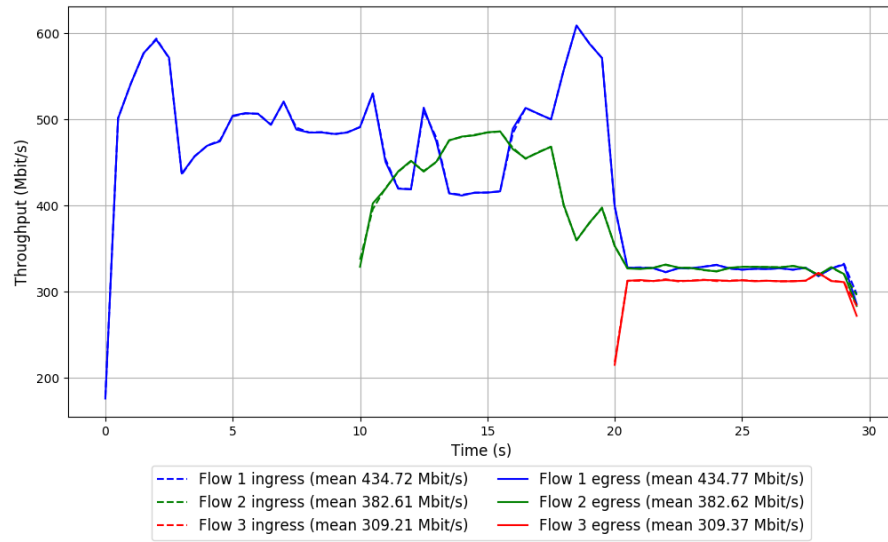
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 441.36 Mbit/s) --- Flow 1 egress (mean 441.38 Mbit/s)
Flow 2 ingress (mean 378.25 Mbit/s) --- Flow 2 egress (mean 378.36 Mbit/s)
Flow 3 ingress (mean 321.26 Mbit/s) --- Flow 3 egress (mean 321.32 Mbit/s)

Flow 1 (95th percentile 34.47 ms) • Flow 2 (95th percentile 4.64 ms) • Flow 3 (95th percentile 4.72 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-03-21 01:55:22
End at: 2018-03-21 01:55:52
Local clock offset: 5.868 ms
Remote clock offset: -5.622 ms


# Below is generated by plot.py at 2018-03-21 10:08:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 823.96 Mbit/s
95th percentile per-packet one-way delay: 12.925 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 457.87 Mbit/s
95th percentile per-packet one-way delay: 13.706 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 395.66 Mbit/s
95th percentile per-packet one-way delay: 4.212 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 310.60 Mbit/s
95th percentile per-packet one-way delay: 4.320 ms
Loss rate: 0.24%
```
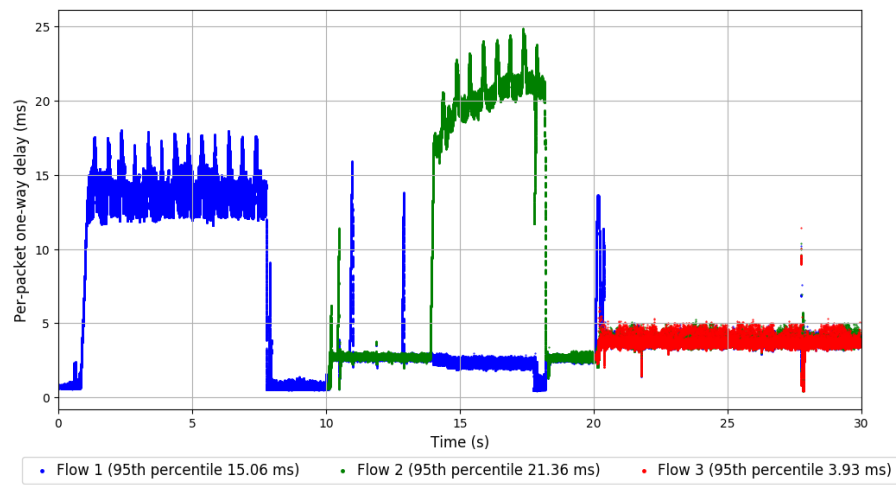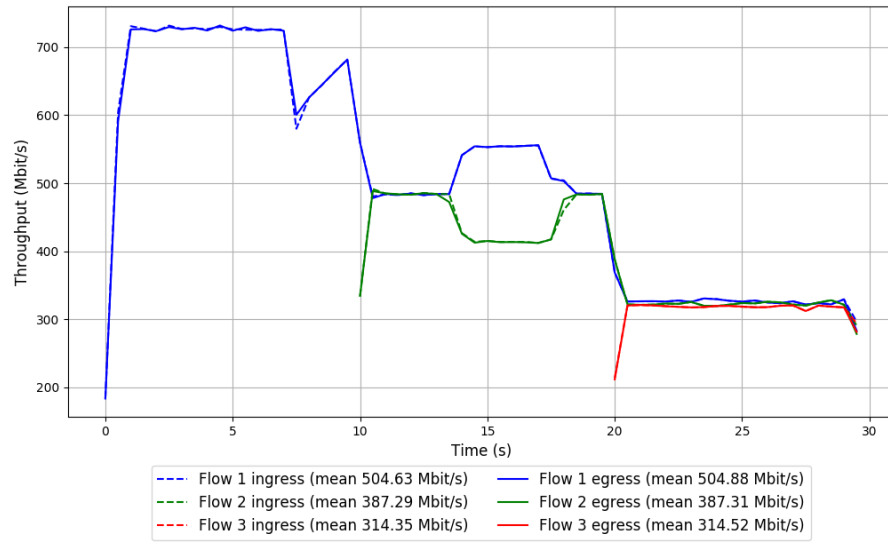
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 457.66 Mbit/s)   Flow 1 egress (mean 457.87 Mbit/s)
Flow 2 ingress (mean 395.62 Mbit/s)   Flow 2 egress (mean 395.66 Mbit/s)
Flow 3 ingress (mean 310.62 Mbit/s)   Flow 3 egress (mean 310.60 Mbit/s)

Flow 1 (95th percentile 13.71 ms)   Flow 2 (95th percentile 4.21 ms)   Flow 3 (95th percentile 4.32 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-03-21 02:24:18
End at: 2018-03-21 02:24:48
Local clock offset: 2.193 ms
Remote clock offset: -6.136 ms


# Below is generated by plot.py at 2018-03-21 10:08:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 791.86 Mbit/s
95th percentile per-packet one-way delay: 9.573 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 434.77 Mbit/s
95th percentile per-packet one-way delay: 10.295 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 382.62 Mbit/s
95th percentile per-packet one-way delay: 4.807 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 309.37 Mbit/s
95th percentile per-packet one-way delay: 4.620 ms
Loss rate: 0.24%
```
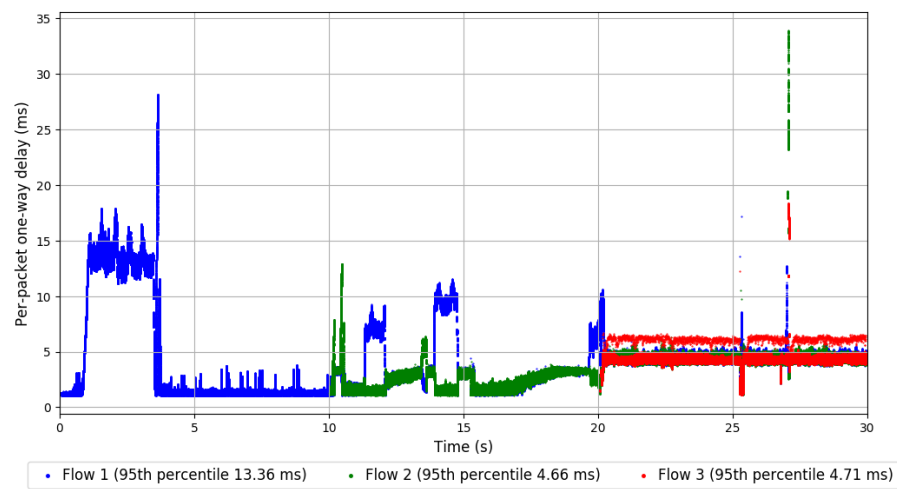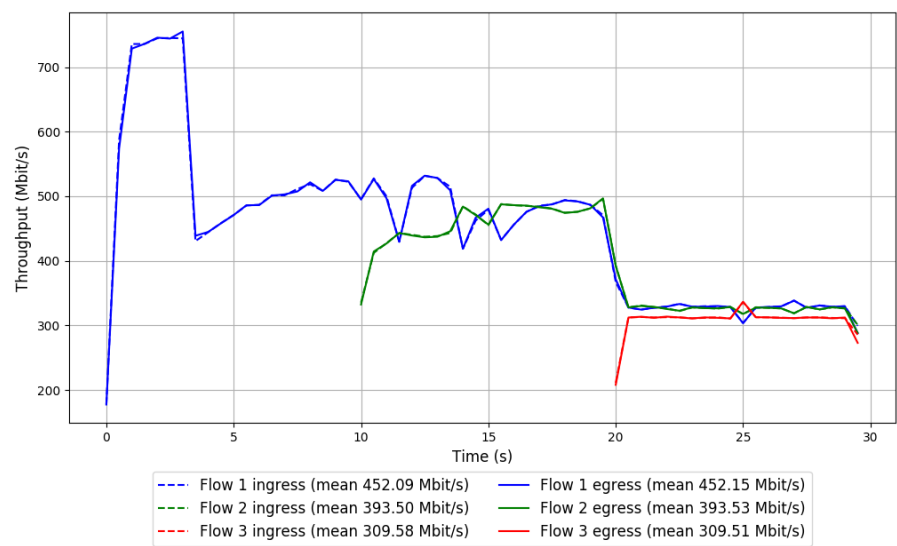
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-03-21 02:53:08
End at: 2018-03-21 02:53:38
Local clock offset: 4.346 ms
Remote clock offset: -5.693 ms


# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 866.73 Mbit/s
95th percentile per-packet one-way delay: 19.481 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 504.88 Mbit/s
95th percentile per-packet one-way delay: 15.065 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 387.31 Mbit/s
95th percentile per-packet one-way delay: 21.359 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 314.52 Mbit/s
95th percentile per-packet one-way delay: 3.930 ms
Loss rate: 0.24%
```
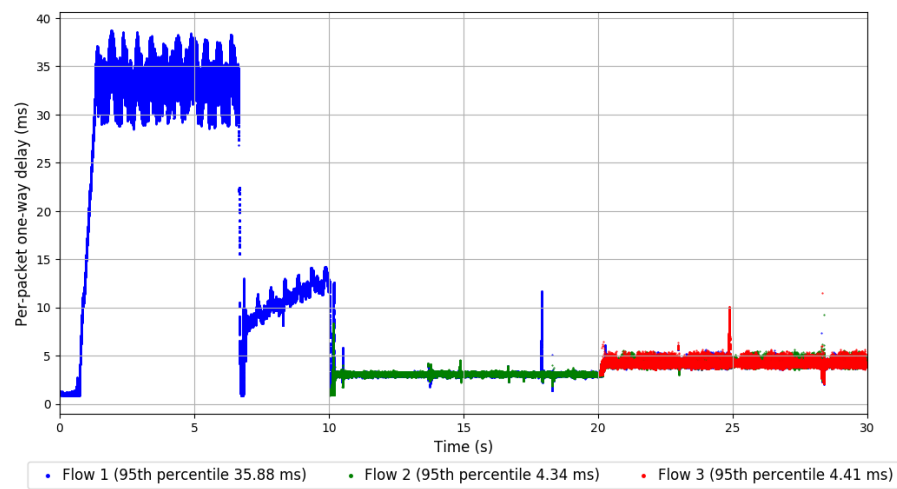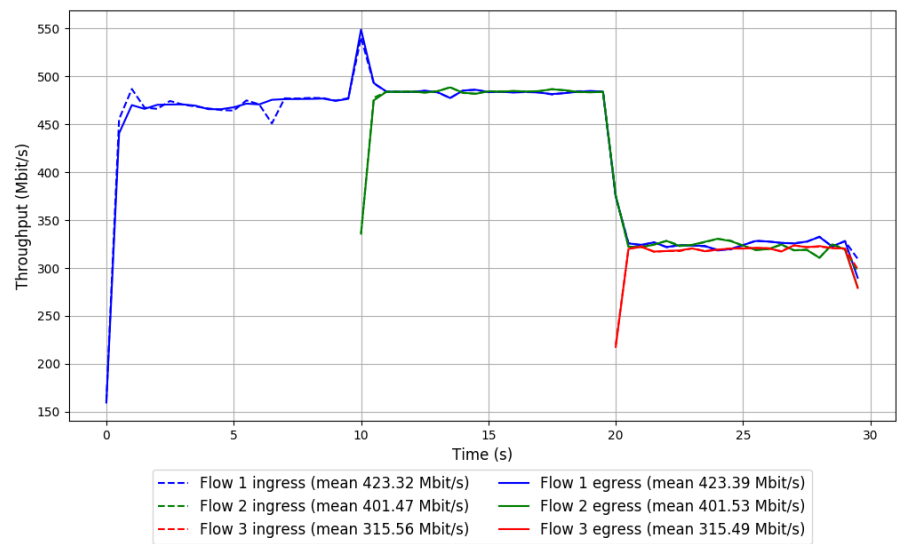
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2018-03-21 03:22:10
End at: 2018-03-21 03:22:40
Local clock offset: 10.958 ms
Remote clock offset: -5.009 ms


# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 816.41 Mbit/s
95th percentile per-packet one-way delay: 12.640 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 452.15 Mbit/s
95th percentile per-packet one-way delay: 13.361 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 393.53 Mbit/s
95th percentile per-packet one-way delay: 4.663 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 309.51 Mbit/s
95th percentile per-packet one-way delay: 4.711 ms
Loss rate: 0.24%
```

Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2018-03-21 03:50:57
End at: 2018-03-21 03:51:27
Local clock offset: 11.179 ms
Remote clock offset: -5.888 ms


# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 795.01 Mbit/s
95th percentile per-packet one-way delay: 34.760 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 423.39 Mbit/s
95th percentile per-packet one-way delay: 35.883 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 401.53 Mbit/s
95th percentile per-packet one-way delay: 4.337 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 315.49 Mbit/s
95th percentile per-packet one-way delay: 4.411 ms
Loss rate: 0.35%
```
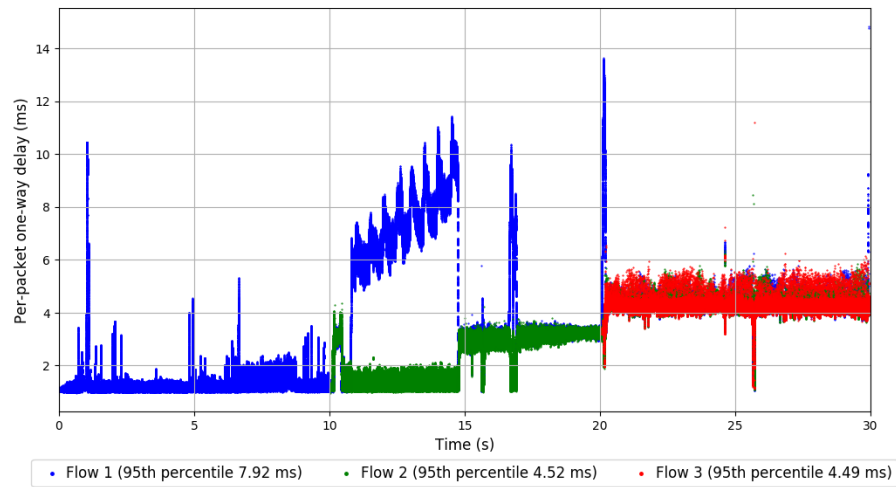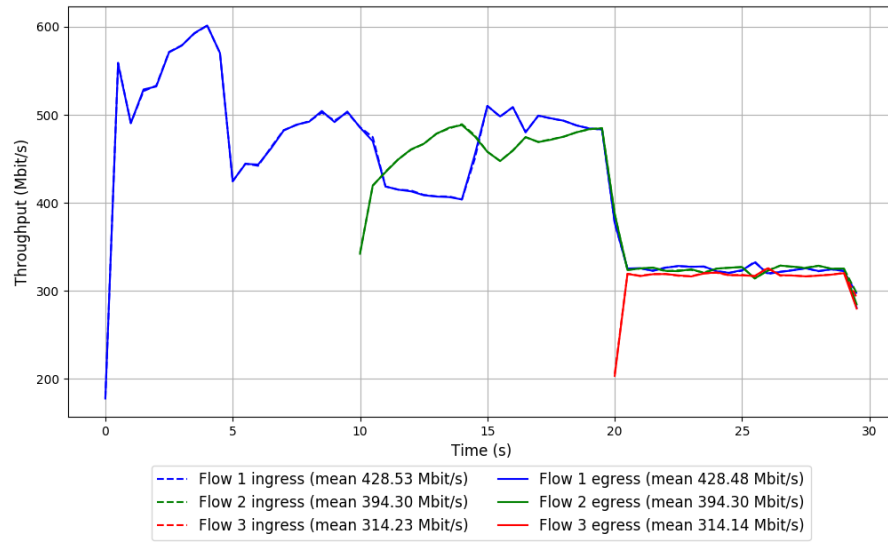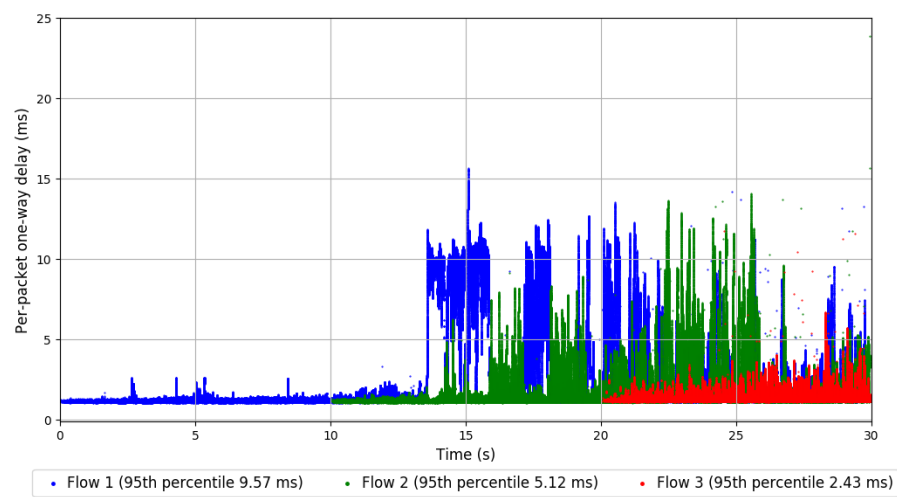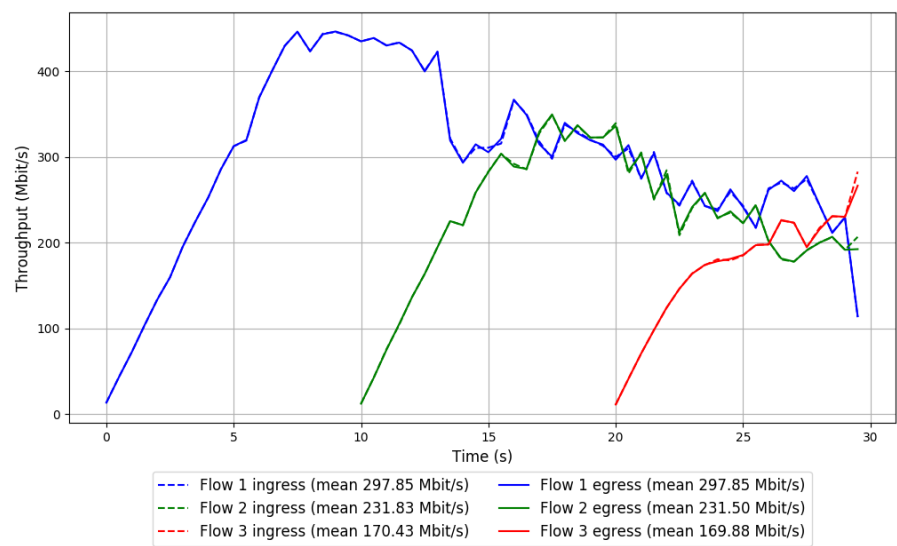
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 423.32 Mbit/s) — Flow 1 egress (mean 423.39 Mbit/s)
Flow 2 ingress (mean 401.47 Mbit/s) — Flow 2 egress (mean 401.53 Mbit/s)
Flow 3 ingress (mean 315.56 Mbit/s) — Flow 3 egress (mean 315.49 Mbit/s)

Flow 1 (95th percentile 35.88 ms)   Flow 2 (95th percentile 4.34 ms)   Flow 3 (95th percentile 4.41 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-03-21 04:19:59
End at: 2018-03-21 04:20:29
Local clock offset: 1.668 ms
Remote clock offset: -4.92 ms


# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 794.77 Mbit/s
95th percentile per-packet one-way delay: 6.769 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 428.48 Mbit/s
95th percentile per-packet one-way delay: 7.921 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 394.30 Mbit/s
95th percentile per-packet one-way delay: 4.522 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 314.14 Mbit/s
95th percentile per-packet one-way delay: 4.485 ms
Loss rate: 0.25%
```

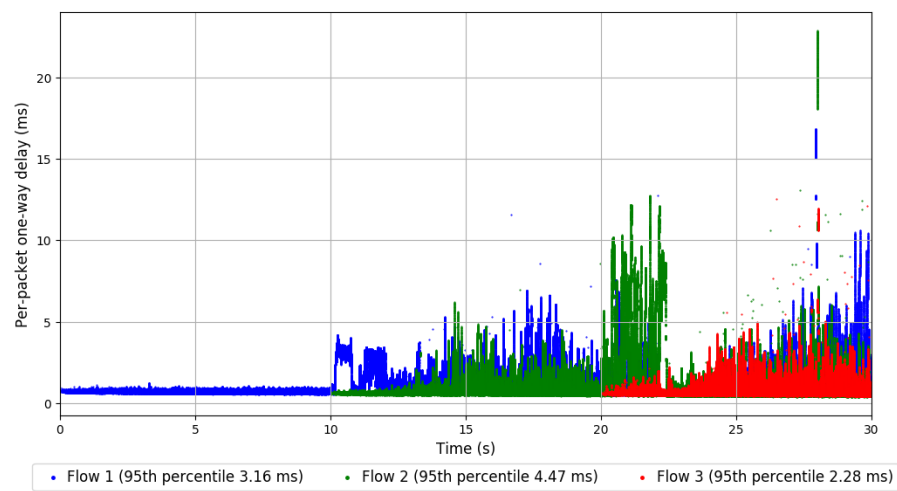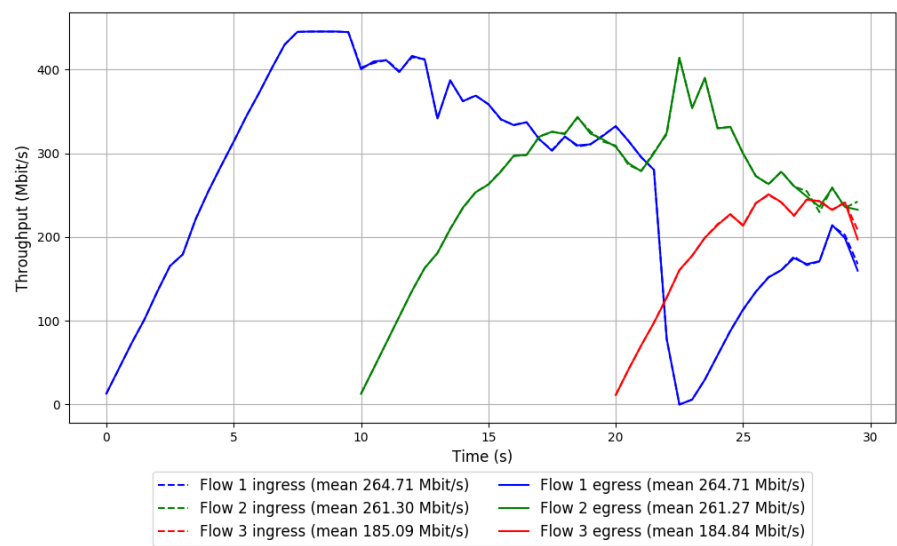Run 10: Report of TCP Cubic — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-03-21 00:09:46
End at: 2018-03-21 00:10:16
Local clock offset: -1.147 ms
Remote clock offset: -4.762 ms

# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.21 Mbit/s
95th percentile per-packet one-way delay: 8.218 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 297.85 Mbit/s
95th percentile per-packet one-way delay: 9.570 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 231.50 Mbit/s
95th percentile per-packet one-way delay: 5.125 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 169.88 Mbit/s
95th percentile per-packet one-way delay: 2.430 ms
Loss rate: 0.52%
```
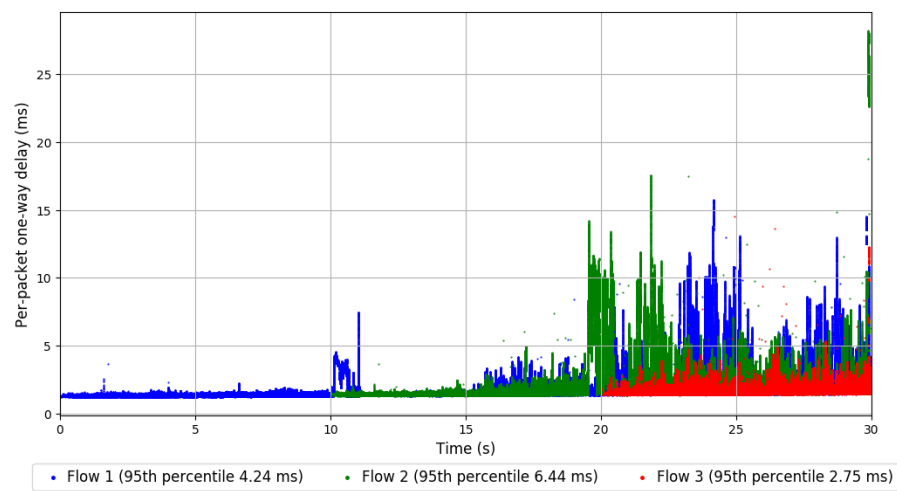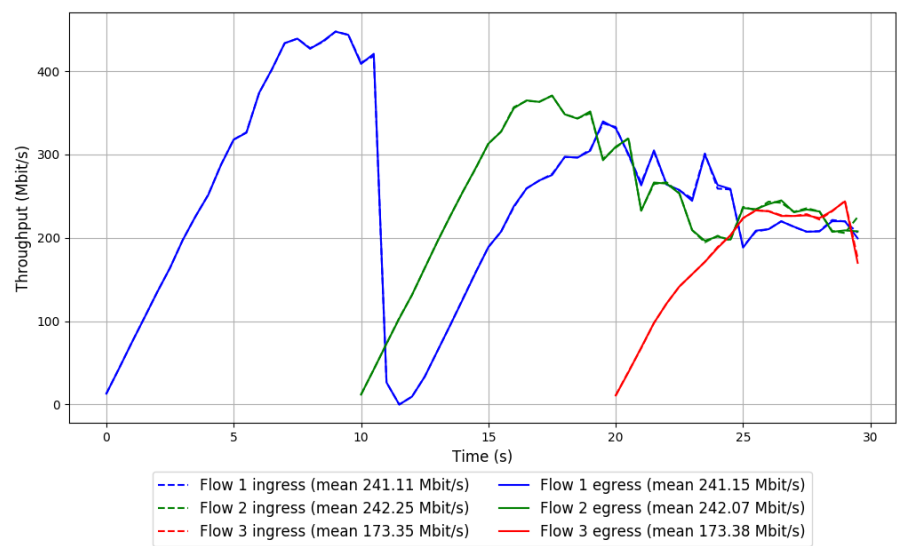
Run 1: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 297.85 Mbit/s) ——— Flow 1 egress (mean 297.85 Mbit/s)
- - - Flow 2 ingress (mean 231.83 Mbit/s) ——— Flow 2 egress (mean 231.50 Mbit/s)
- - - Flow 3 ingress (mean 170.43 Mbit/s) ——— Flow 3 egress (mean 169.88 Mbit/s)

• Flow 1 (95th percentile 9.57 ms)   • Flow 2 (95th percentile 5.12 ms)   • Flow 3 (95th percentile 2.43 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2018-03-21 00:38:45
End at: 2018-03-21 00:39:15
Local clock offset: 2.561 ms
Remote clock offset: -4.839 ms


# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.63 Mbit/s
95th percentile per-packet one-way delay: 3.211 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 264.71 Mbit/s
95th percentile per-packet one-way delay: 3.162 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 261.27 Mbit/s
95th percentile per-packet one-way delay: 4.475 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 184.84 Mbit/s
95th percentile per-packet one-way delay: 2.282 ms
Loss rate: 0.33%
```
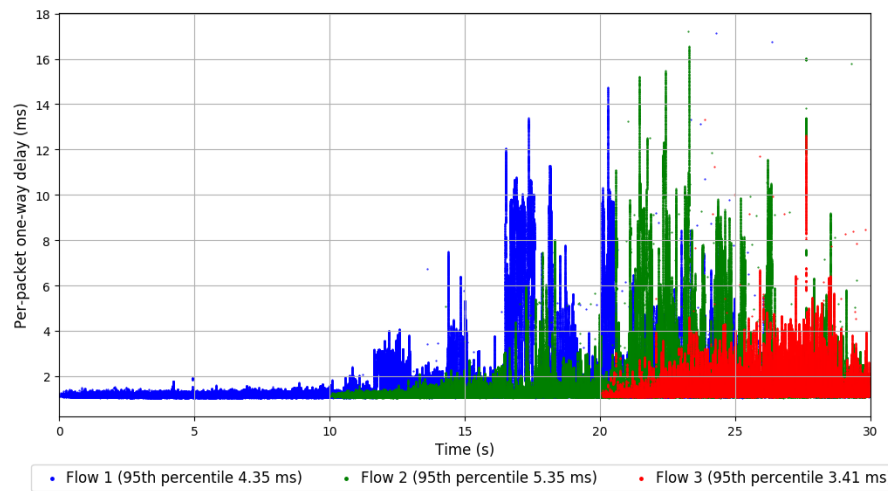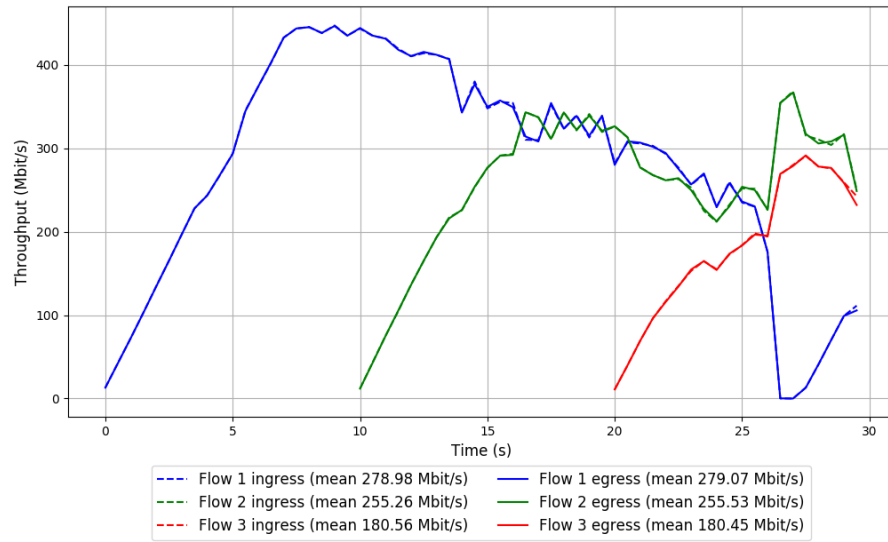
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 264.71 Mbit/s) --- Flow 1 egress (mean 264.71 Mbit/s)
Flow 2 ingress (mean 261.30 Mbit/s) --- Flow 2 egress (mean 261.27 Mbit/s)
Flow 3 ingress (mean 185.09 Mbit/s) --- Flow 3 egress (mean 184.84 Mbit/s)

• Flow 1 (95th percentile 3.16 ms)   • Flow 2 (95th percentile 4.47 ms)   • Flow 3 (95th percentile 2.28 ms)
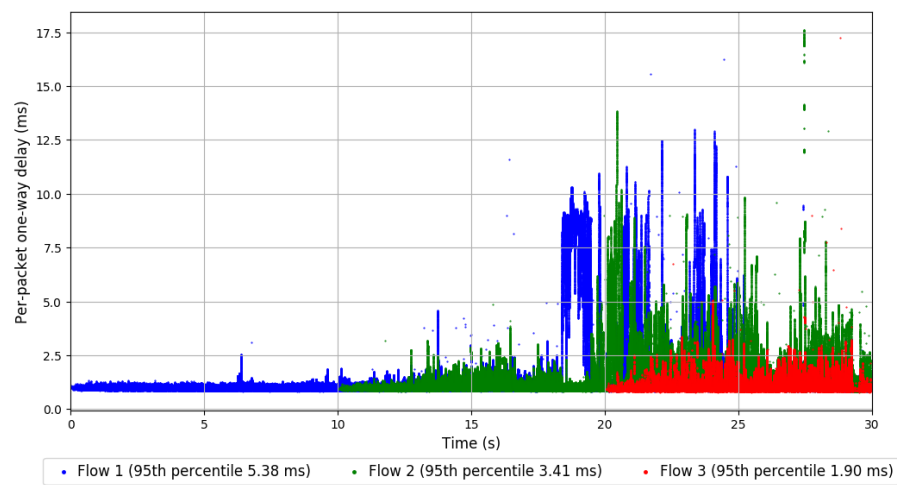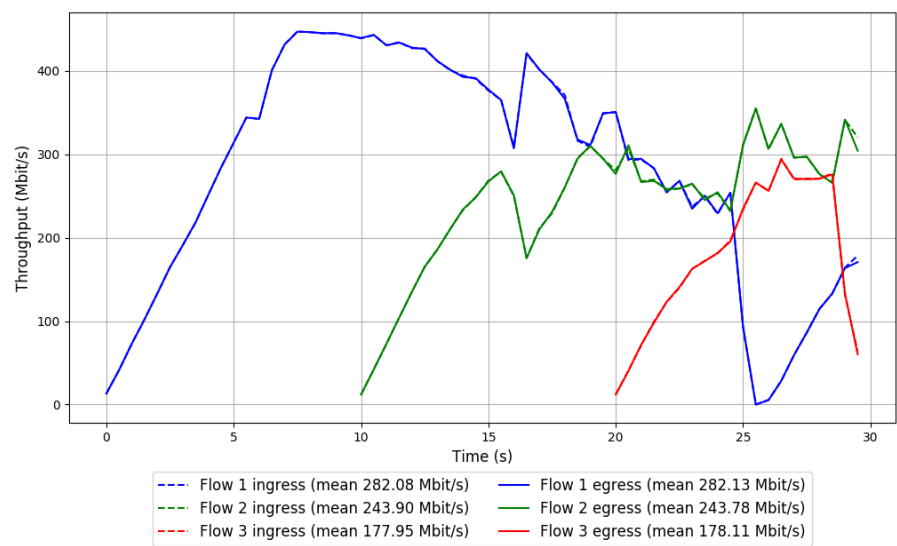
```
Run 3: Statistics of LEDBAT

Start at: 2018-03-21 01:07:47
End at: 2018-03-21 01:08:17
Local clock offset: 4.902 ms
Remote clock offset: -4.926 ms


# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.48 Mbit/s
95th percentile per-packet one-way delay: 4.593 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 241.15 Mbit/s
95th percentile per-packet one-way delay: 4.237 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 242.07 Mbit/s
95th percentile per-packet one-way delay: 6.436 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 173.38 Mbit/s
95th percentile per-packet one-way delay: 2.753 ms
Loss rate: 0.19%
```
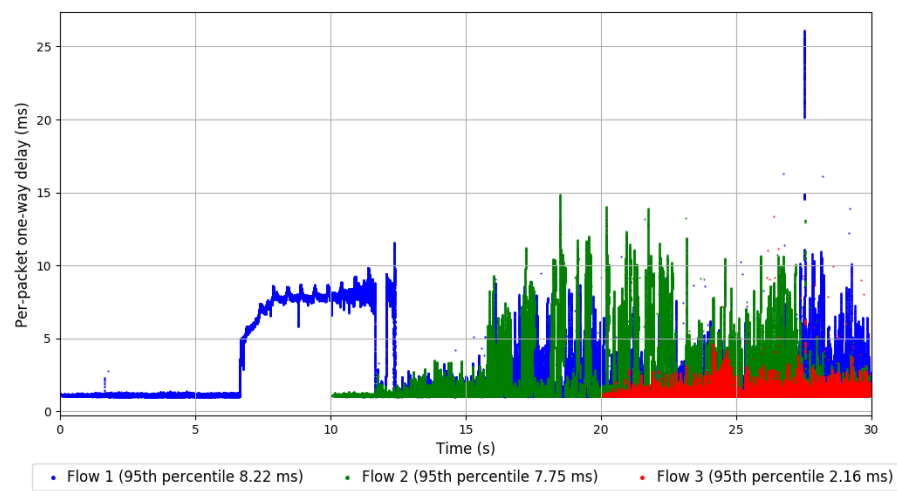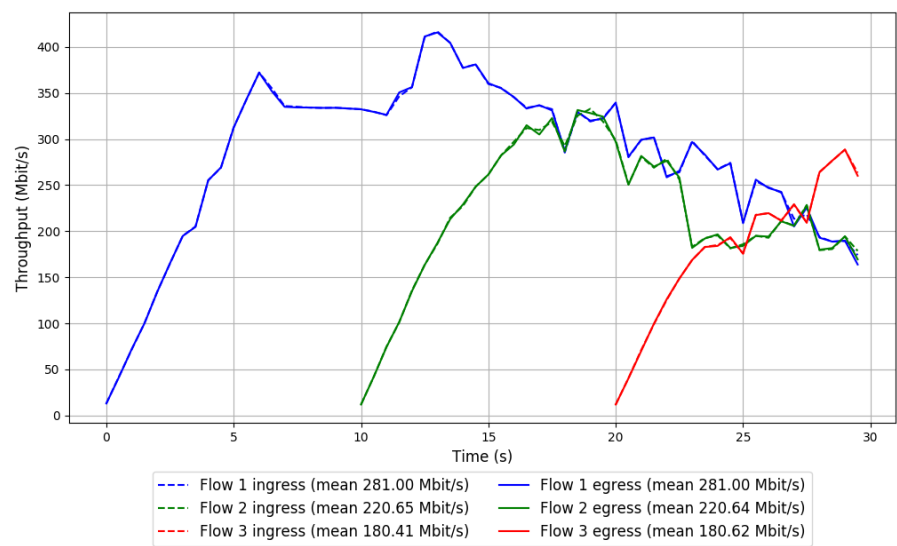
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-03-21 01:36:43
End at: 2018-03-21 01:37:13
Local clock offset: -0.023 ms
Remote clock offset: -4.94 ms

# Below is generated by plot.py at 2018-03-21 10:19:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 508.66 Mbit/s
95th percentile per-packet one-way delay: 4.511 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 279.07 Mbit/s
95th percentile per-packet one-way delay: 4.350 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 255.53 Mbit/s
95th percentile per-packet one-way delay: 5.354 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 180.45 Mbit/s
95th percentile per-packet one-way delay: 3.410 ms
Loss rate: 0.31%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 278.98 Mbit/s) — — — Flow 1 egress (mean 279.07 Mbit/s)
Flow 2 ingress (mean 255.26 Mbit/s) — — — Flow 2 egress (mean 255.53 Mbit/s)
Flow 3 ingress (mean 180.56 Mbit/s) — — — Flow 3 egress (mean 180.45 Mbit/s)

Flow 1 (95th percentile 4.35 ms) • Flow 2 (95th percentile 5.35 ms) • Flow 3 (95th percentile 3.41 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-03-21 02:05:40
End at: 2018-03-21 02:06:10
Local clock offset: 7.014 ms
Remote clock offset: -5.647 ms


# Below is generated by plot.py at 2018-03-21 10:22:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.13 Mbit/s
95th percentile per-packet one-way delay: 3.733 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 282.13 Mbit/s
95th percentile per-packet one-way delay: 5.379 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 243.78 Mbit/s
95th percentile per-packet one-way delay: 3.411 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 178.11 Mbit/s
95th percentile per-packet one-way delay: 1.895 ms
Loss rate: 0.09%
```
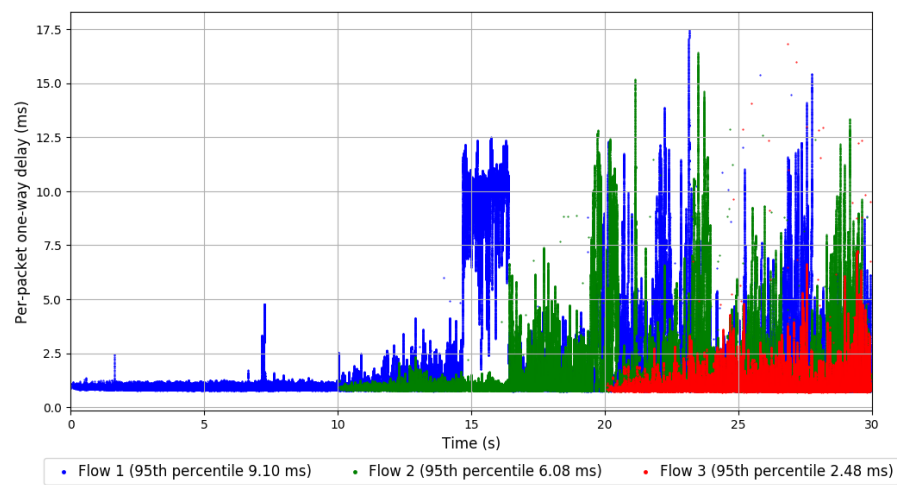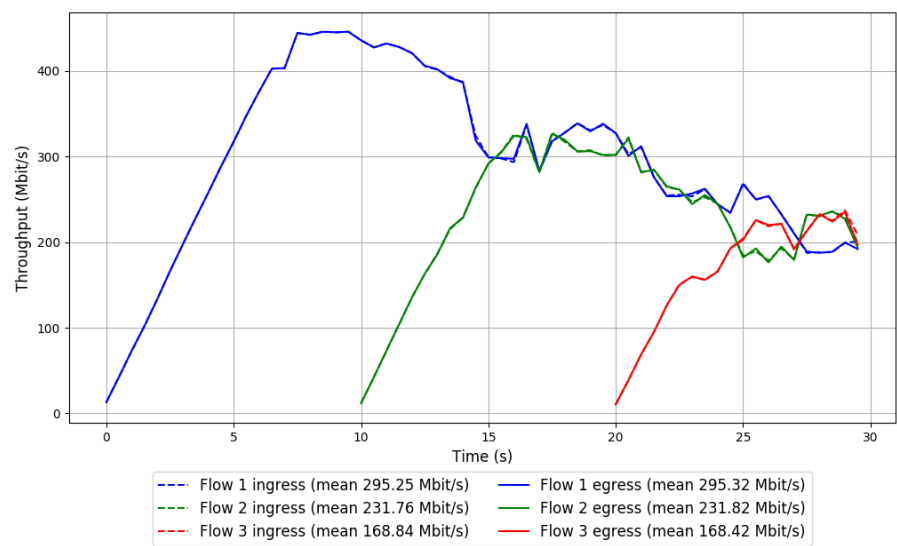
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 282.08 Mbit/s) --- Flow 1 egress (mean 282.13 Mbit/s)
Flow 2 ingress (mean 243.90 Mbit/s) --- Flow 2 egress (mean 243.78 Mbit/s)
Flow 3 ingress (mean 177.95 Mbit/s) --- Flow 3 egress (mean 178.11 Mbit/s)

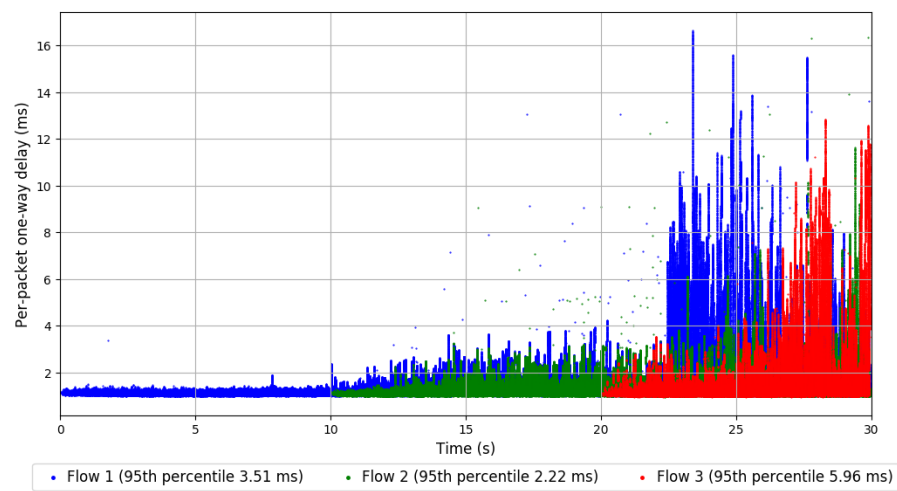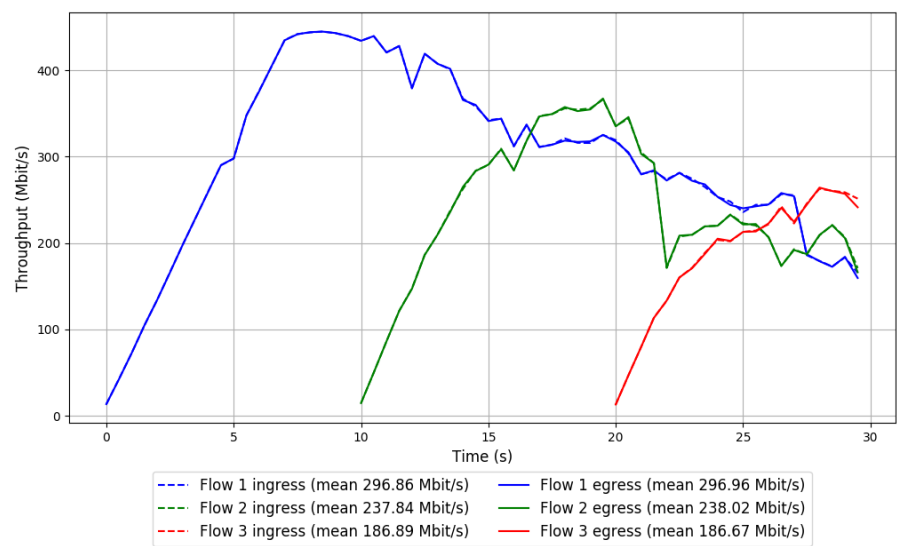Flow 1 (95th percentile 5.38 ms)   Flow 2 (95th percentile 3.41 ms)   Flow 3 (95th percentile 1.90 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-03-21 02:34:34
End at: 2018-03-21 02:35:04
Local clock offset: 0.63 ms
Remote clock offset: -6.278 ms


# Below is generated by plot.py at 2018-03-21 10:22:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.47 Mbit/s
95th percentile per-packet one-way delay: 8.080 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 281.00 Mbit/s
95th percentile per-packet one-way delay: 8.220 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 220.64 Mbit/s
95th percentile per-packet one-way delay: 7.746 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 180.62 Mbit/s
95th percentile per-packet one-way delay: 2.159 ms
Loss rate: 0.09%
```

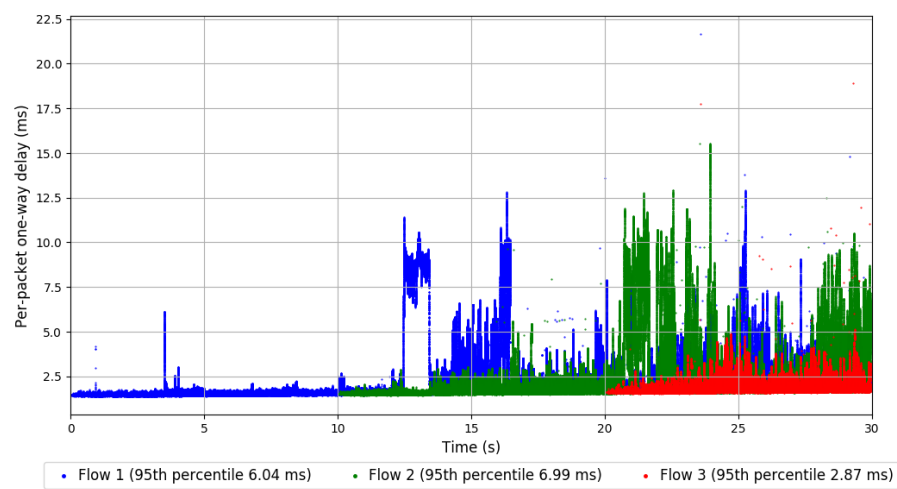## Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2018-03-21 03:03:28
End at: 2018-03-21 03:03:58
Local clock offset: 8.097 ms
Remote clock offset: -5.185 ms

# Below is generated by plot.py at 2018-03-21 10:22:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.07 Mbit/s
95th percentile per-packet one-way delay: 7.146 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 295.32 Mbit/s
95th percentile per-packet one-way delay: 9.102 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 231.82 Mbit/s
95th percentile per-packet one-way delay: 6.084 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 168.42 Mbit/s
95th percentile per-packet one-way delay: 2.484 ms
Loss rate: 0.45%
```
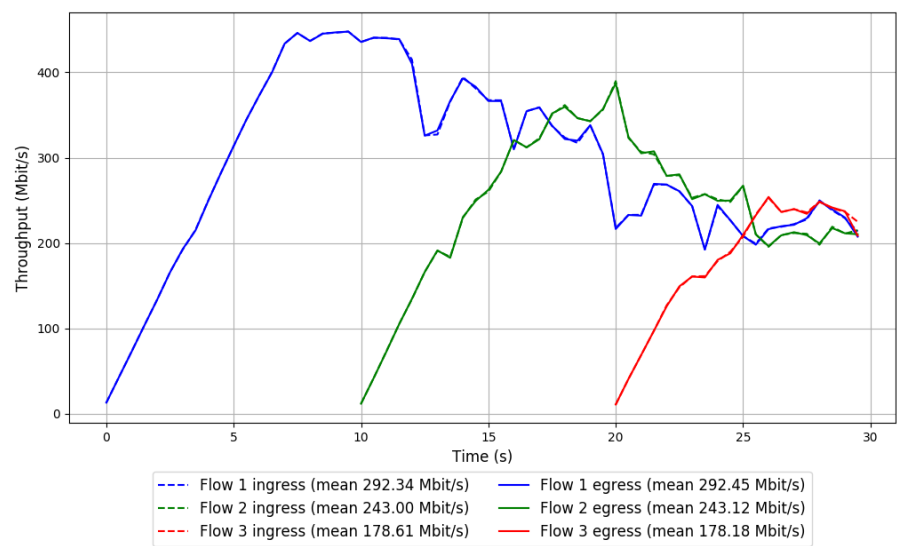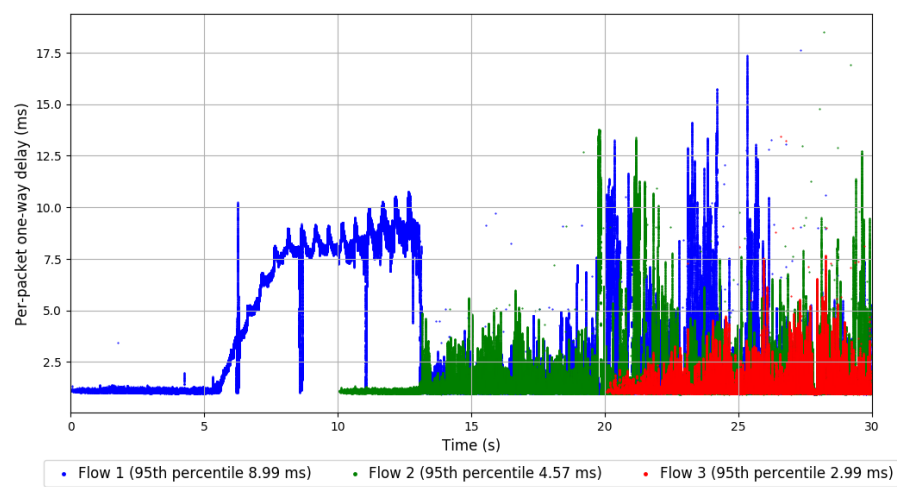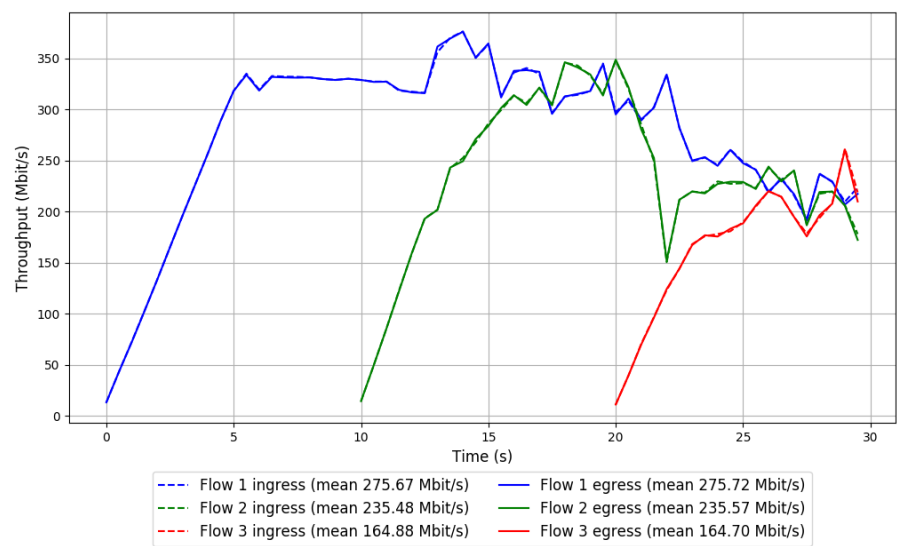
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 295.25 Mbit/s)   Flow 1 egress (mean 295.32 Mbit/s)
Flow 2 ingress (mean 231.76 Mbit/s)   Flow 2 egress (mean 231.82 Mbit/s)
Flow 3 ingress (mean 168.84 Mbit/s)   Flow 3 egress (mean 168.42 Mbit/s)

Flow 1 (95th percentile 9.10 ms)   Flow 2 (95th percentile 6.08 ms)   Flow 3 (95th percentile 2.48 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-03-21 03:32:23
End at: 2018-03-21 03:32:53
Local clock offset: 10.221 ms
Remote clock offset: -5.572 ms


# Below is generated by plot.py at 2018-03-21 10:23:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.89 Mbit/s
95th percentile per-packet one-way delay: 3.328 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 296.96 Mbit/s
95th percentile per-packet one-way delay: 3.513 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 238.02 Mbit/s
95th percentile per-packet one-way delay: 2.219 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 186.67 Mbit/s
95th percentile per-packet one-way delay: 5.964 ms
Loss rate: 0.32%
```
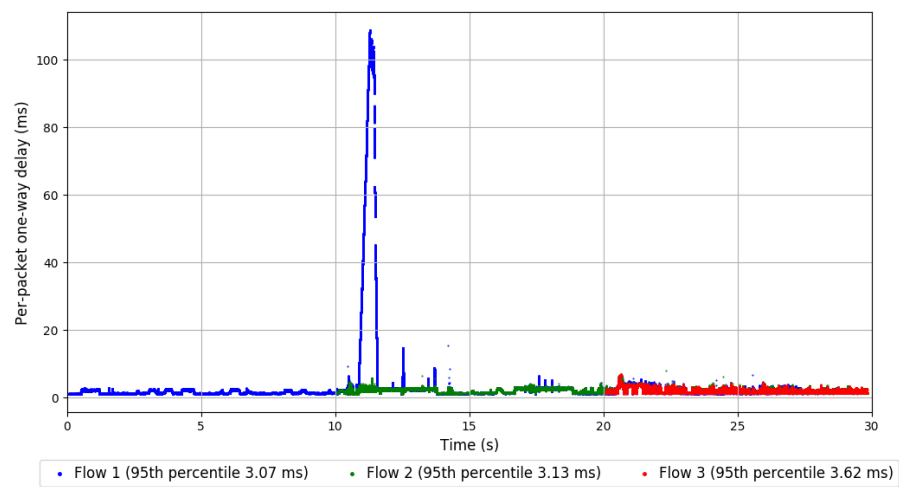
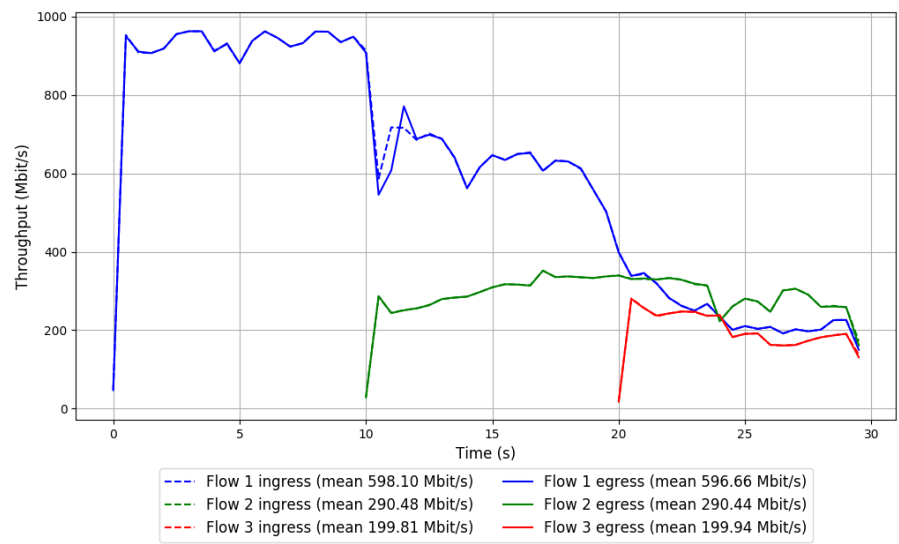# Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2018-03-21 04:01:11
End at: 2018-03-21 04:01:41
Local clock offset: 6.534 ms
Remote clock offset: -5.414 ms


# Below is generated by plot.py at 2018-03-21 10:26:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 512.98 Mbit/s
95th percentile per-packet one-way delay: 5.993 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 292.45 Mbit/s
95th percentile per-packet one-way delay: 6.037 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 243.12 Mbit/s
95th percentile per-packet one-way delay: 6.986 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 178.18 Mbit/s
95th percentile per-packet one-way delay: 2.873 ms
Loss rate: 0.47%
```

Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 292.34 Mbit/s) ---- Flow 1 egress (mean 292.45 Mbit/s)
Flow 2 ingress (mean 243.00 Mbit/s) ---- Flow 2 egress (mean 243.12 Mbit/s)
Flow 3 ingress (mean 178.61 Mbit/s) ---- Flow 3 egress (mean 178.18 Mbit/s)

Flow 1 (95th percentile 6.04 ms)   Flow 2 (95th percentile 6.99 ms)   Flow 3 (95th percentile 2.87 ms)

61

```
Run 10: Statistics of LEDBAT

Start at: 2018-03-21 04:30:16
End at: 2018-03-21 04:30:46
Local clock offset: 0.891 ms
Remote clock offset: -5.186 ms

# Below is generated by plot.py at 2018-03-21 10:26:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 486.80 Mbit/s
95th percentile per-packet one-way delay: 8.713 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 275.72 Mbit/s
95th percentile per-packet one-way delay: 8.994 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 235.57 Mbit/s
95th percentile per-packet one-way delay: 4.567 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 164.70 Mbit/s
95th percentile per-packet one-way delay: 2.986 ms
Loss rate: 0.32%
```

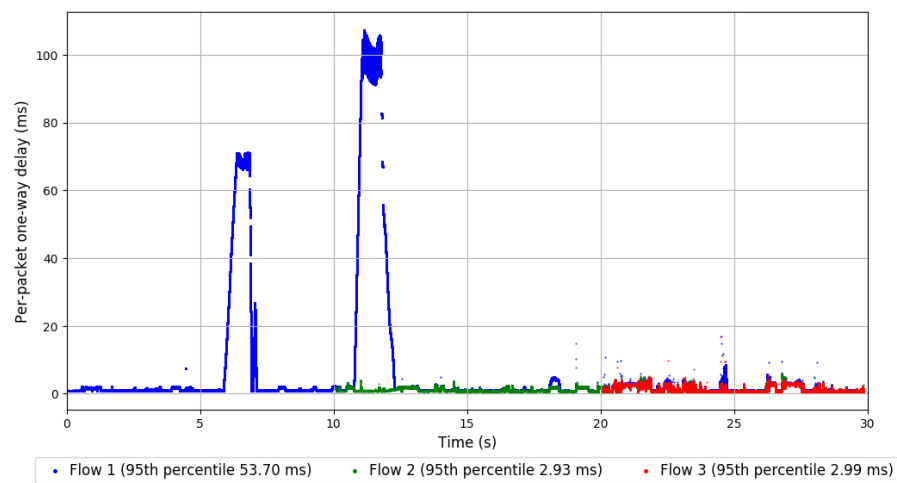Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2018-03-20 23:50:05
End at: 2018-03-20 23:50:35
Local clock offset: 0.413 ms
Remote clock offset: -4.887 ms


# Below is generated by plot.py at 2018-03-21 10:31:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 855.21 Mbit/s
95th percentile per-packet one-way delay: 3.202 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 596.66 Mbit/s
95th percentile per-packet one-way delay: 3.071 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 290.44 Mbit/s
95th percentile per-packet one-way delay: 3.133 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 199.94 Mbit/s
95th percentile per-packet one-way delay: 3.624 ms
Loss rate: 0.20%
```
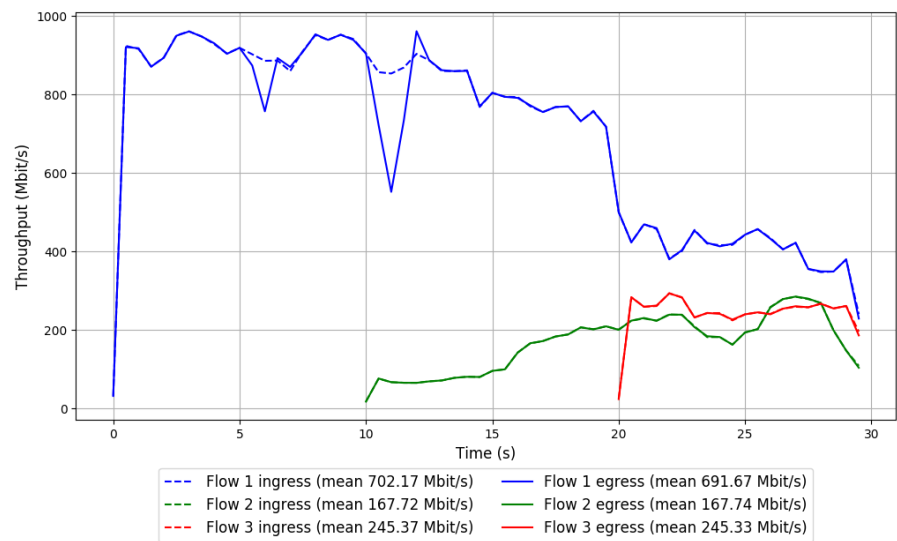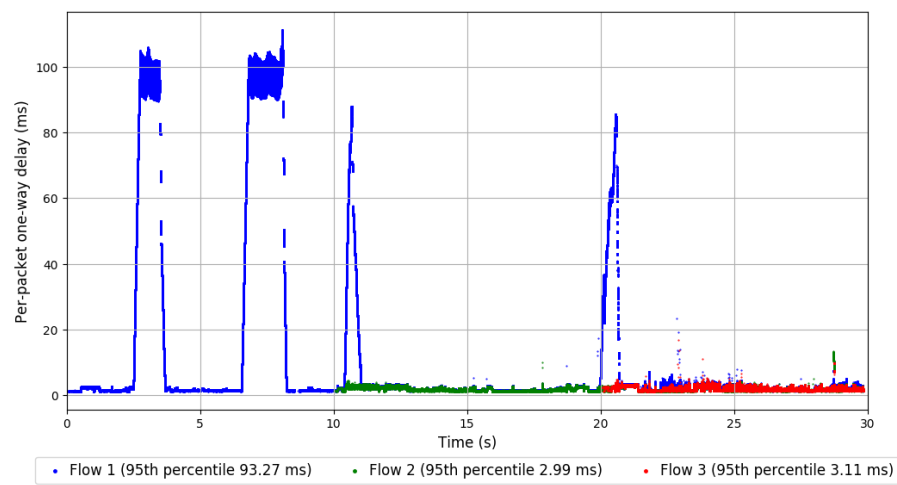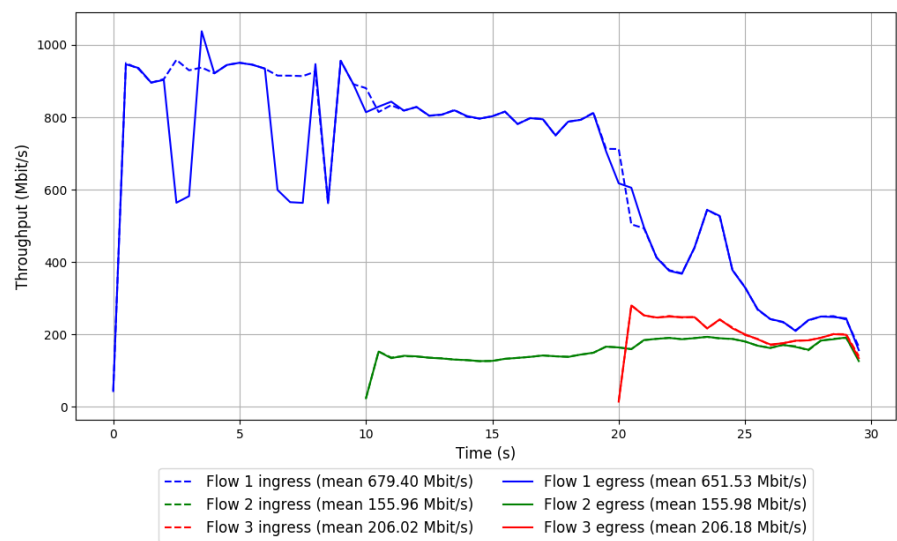
Run 1: Report of PCC — Data Link

```
Run 2: Statistics of PCC

Start at: 2018-03-21 00:19:08
End at: 2018-03-21 00:19:38
Local clock offset: -2.006 ms
Remote clock offset: -4.478 ms


# Below is generated by plot.py at 2018-03-21 10:31:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 798.87 Mbit/s
95th percentile per-packet one-way delay: 10.863 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 642.46 Mbit/s
95th percentile per-packet one-way delay: 22.487 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 86.60 Mbit/s
95th percentile per-packet one-way delay: 3.001 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 301.04 Mbit/s
95th percentile per-packet one-way delay: 3.192 ms
Loss rate: 0.16%
```

Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 654.60 Mbit/s) —— Flow 1 egress (mean 642.46 Mbit/s)
Flow 2 ingress (mean 86.65 Mbit/s) —— Flow 2 egress (mean 86.60 Mbit/s)
Flow 3 ingress (mean 300.94 Mbit/s) —— Flow 3 egress (mean 301.04 Mbit/s)

Flow 1 (95th percentile 22.49 ms)   Flow 2 (95th percentile 3.00 ms)   Flow 3 (95th percentile 3.19 ms)
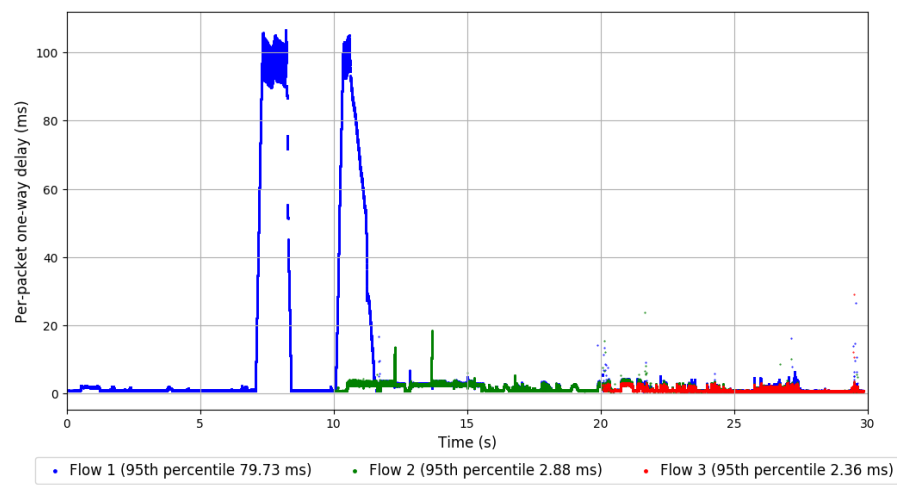
```
Run 3: Statistics of PCC

Start at: 2018-03-21 00:48:13
End at: 2018-03-21 00:48:43
Local clock offset: 5.259 ms
Remote clock offset: -4.971 ms


# Below is generated by plot.py at 2018-03-21 10:35:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 883.48 Mbit/s
95th percentile per-packet one-way delay: 35.059 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 691.67 Mbit/s
95th percentile per-packet one-way delay: 53.700 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 167.74 Mbit/s
95th percentile per-packet one-way delay: 2.929 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 245.33 Mbit/s
95th percentile per-packet one-way delay: 2.991 ms
Loss rate: 0.21%
```
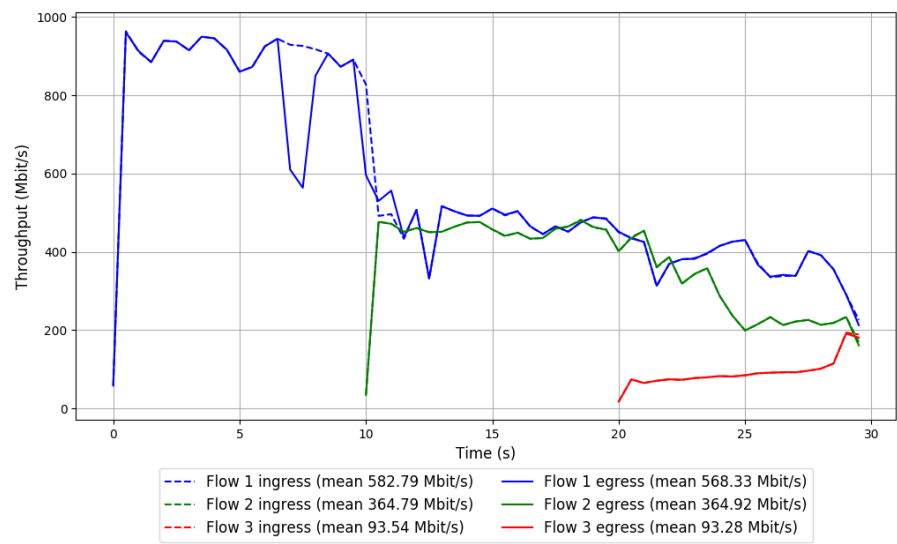
Run 3: Report of PCC — Data Link

- - - - Flow 1 ingress (mean 702.17 Mbit/s)   —— Flow 1 egress (mean 691.67 Mbit/s)
- - - - Flow 2 ingress (mean 167.72 Mbit/s)   —— Flow 2 egress (mean 167.74 Mbit/s)
- - - - Flow 3 ingress (mean 245.37 Mbit/s)   —— Flow 3 egress (mean 245.33 Mbit/s)

• Flow 1 (95th percentile 53.70 ms)   • Flow 2 (95th percentile 2.93 ms)   • Flow 3 (95th percentile 2.99 ms)
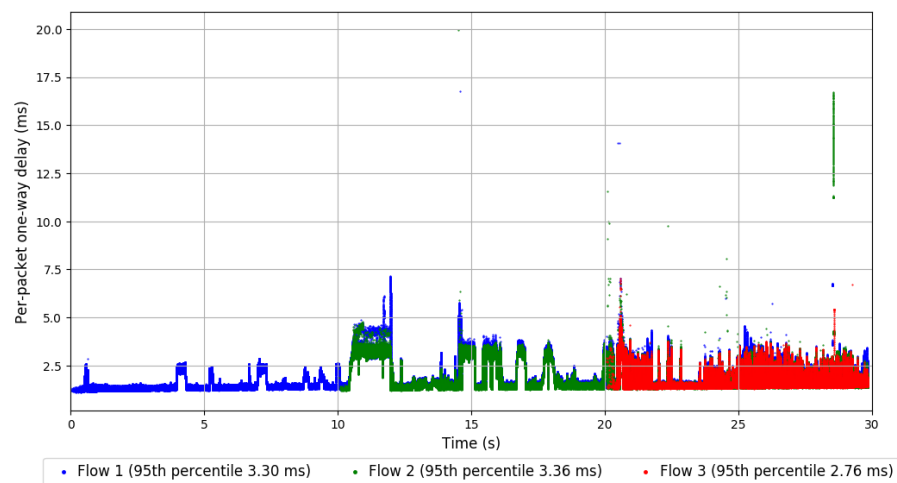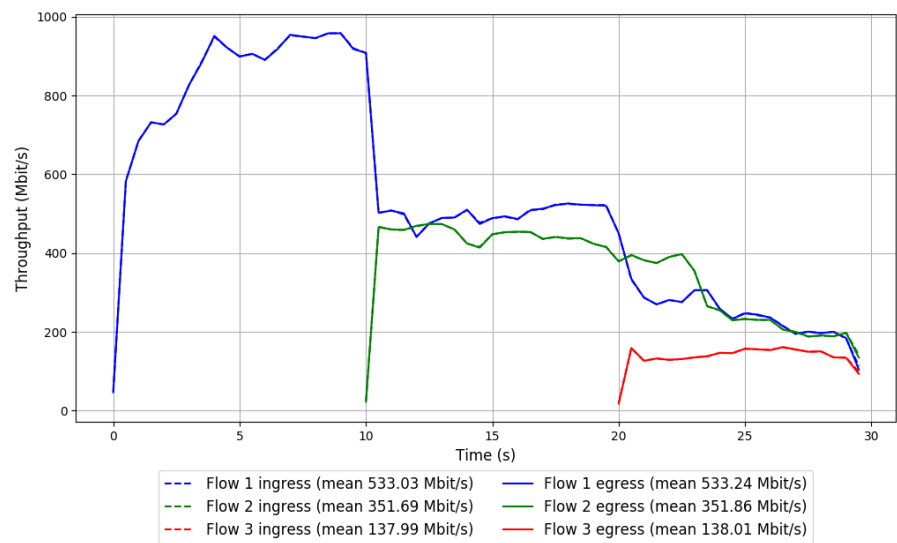
69

```
Run 4: Statistics of PCC

Start at: 2018-03-21 01:17:10
End at: 2018-03-21 01:17:40
Local clock offset: 1.749 ms
Remote clock offset: -5.001 ms

# Below is generated by plot.py at 2018-03-21 10:35:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 822.77 Mbit/s
95th percentile per-packet one-way delay: 85.643 ms
Loss rate: 3.36%
-- Flow 1:
Average throughput: 651.53 Mbit/s
95th percentile per-packet one-way delay: 93.271 ms
Loss rate: 4.17%
-- Flow 2:
Average throughput: 155.98 Mbit/s
95th percentile per-packet one-way delay: 2.990 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 206.18 Mbit/s
95th percentile per-packet one-way delay: 3.110 ms
Loss rate: 0.21%
```
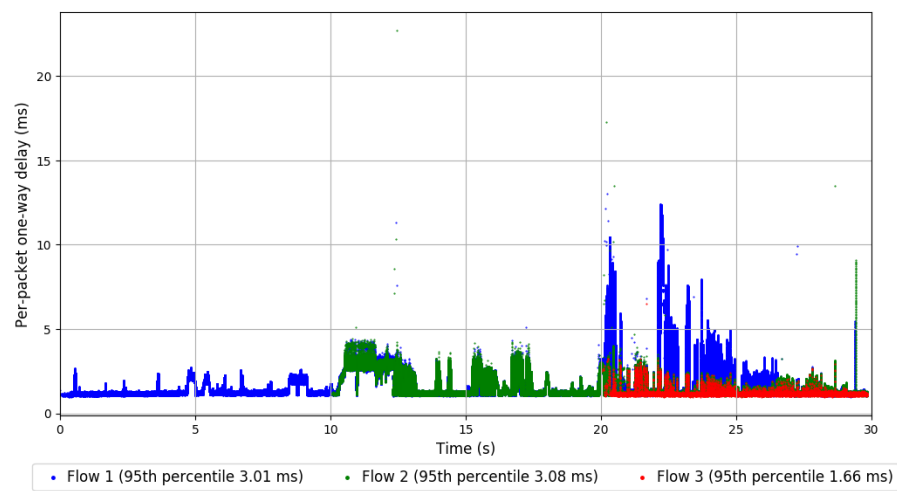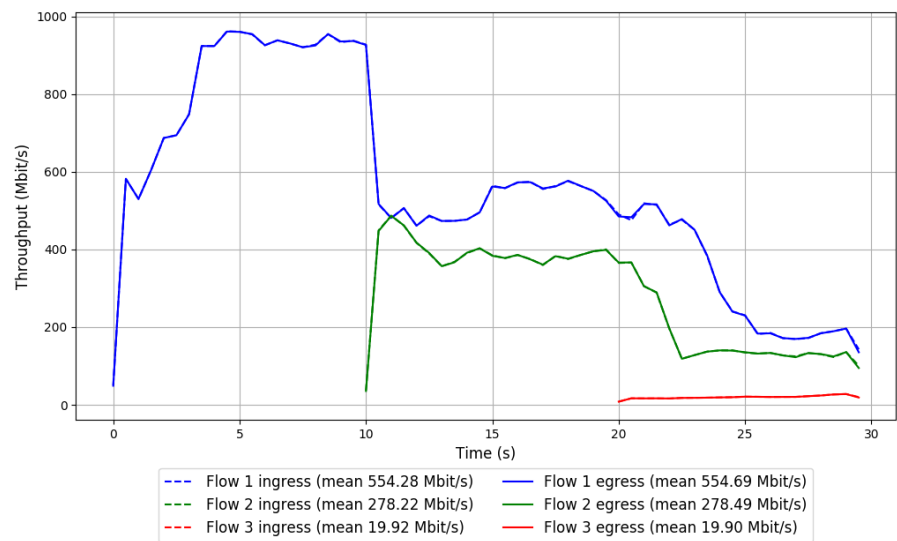
Run 4: Report of PCC — Data Link

- - - Flow 1 ingress (mean 679.40 Mbit/s) —— Flow 1 egress (mean 651.53 Mbit/s)
- - - Flow 2 ingress (mean 155.96 Mbit/s) —— Flow 2 egress (mean 155.98 Mbit/s)
- - - Flow 3 ingress (mean 206.02 Mbit/s) —— Flow 3 egress (mean 206.18 Mbit/s)

• Flow 1 (95th percentile 93.27 ms)   • Flow 2 (95th percentile 2.99 ms)   • Flow 3 (95th percentile 3.11 ms)

71

```
Run 5: Statistics of PCC

Start at: 2018-03-21 01:46:05
End at: 2018-03-21 01:46:35
Local clock offset: 3.766 ms
Remote clock offset: -5.393 ms


# Below is generated by plot.py at 2018-03-21 10:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 841.35 Mbit/s
95th percentile per-packet one-way delay: 36.439 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 568.33 Mbit/s
95th percentile per-packet one-way delay: 79.732 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 364.92 Mbit/s
95th percentile per-packet one-way delay: 2.882 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 2.358 ms
Loss rate: 0.58%
```
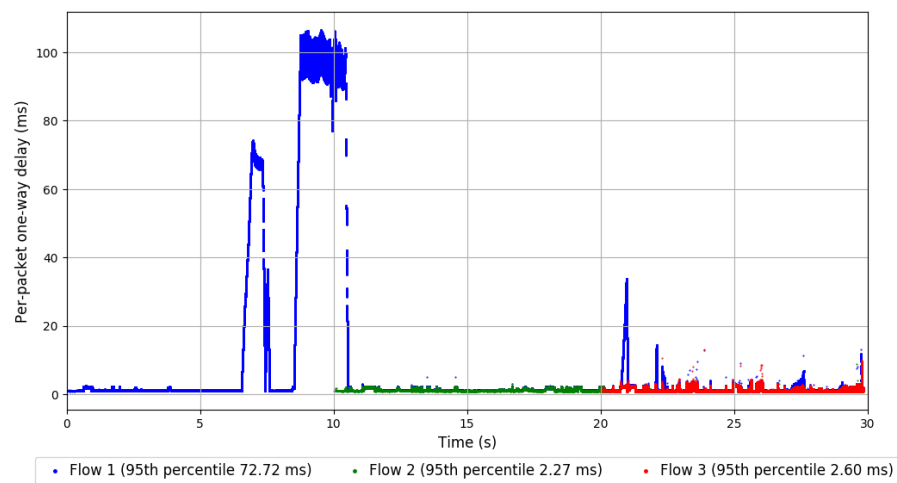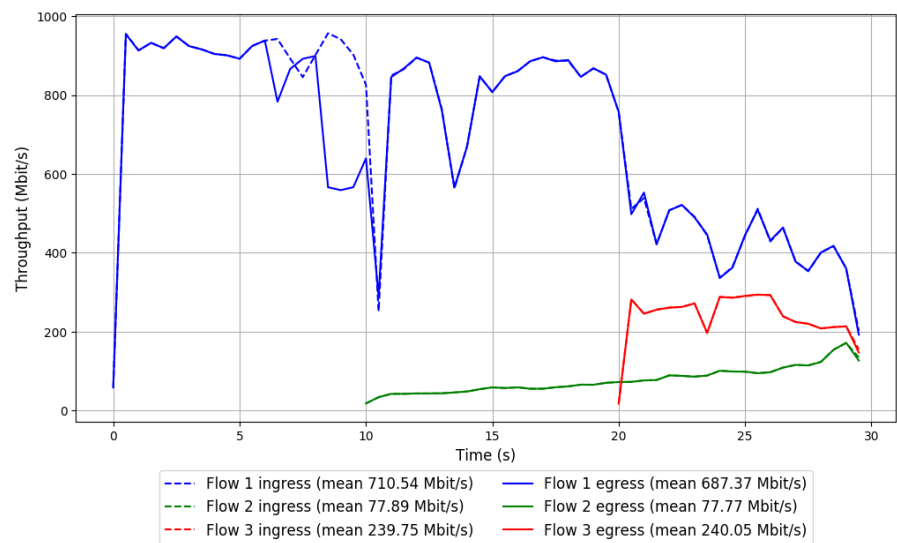
Run 5: Report of PCC — Data Link

Flow 1 ingress (mean 582.79 Mbit/s)   Flow 1 egress (mean 568.33 Mbit/s)
Flow 2 ingress (mean 364.79 Mbit/s)   Flow 2 egress (mean 364.92 Mbit/s)
Flow 3 ingress (mean 93.54 Mbit/s)   Flow 3 egress (mean 93.28 Mbit/s)

Flow 1 (95th percentile 79.73 ms)   Flow 2 (95th percentile 2.88 ms)   Flow 3 (95th percentile 2.36 ms)
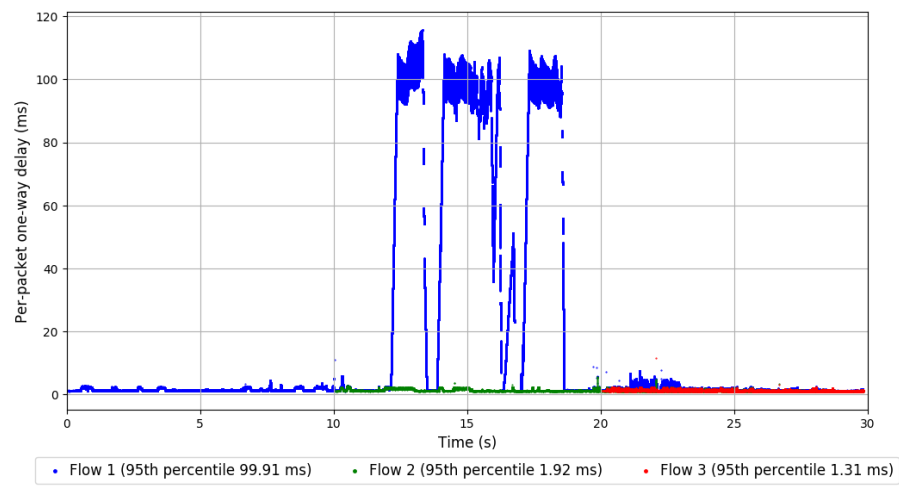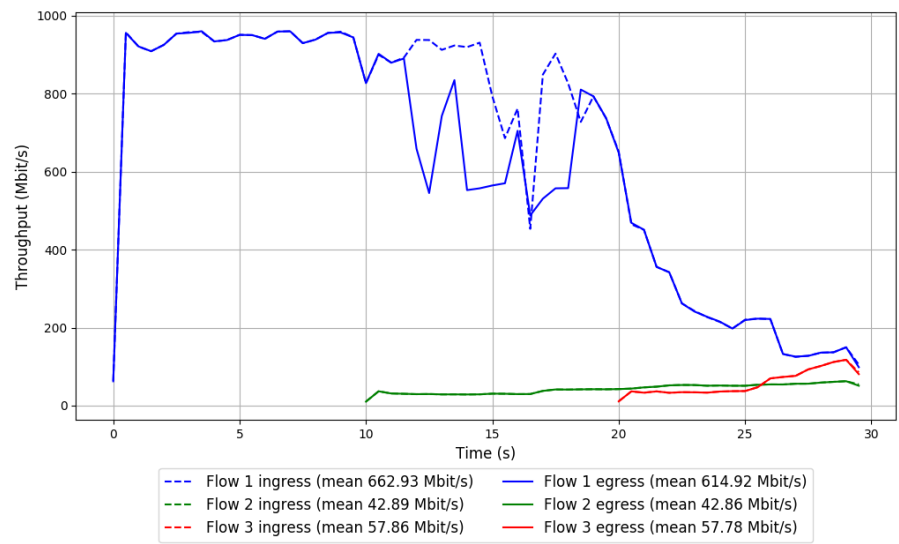
```
Run 6: Statistics of PCC

Start at: 2018-03-21 02:15:02
End at: 2018-03-21 02:15:32
Local clock offset: 5.626 ms
Remote clock offset: -5.816 ms


# Below is generated by plot.py at 2018-03-21 10:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 812.16 Mbit/s
95th percentile per-packet one-way delay: 3.323 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 533.24 Mbit/s
95th percentile per-packet one-way delay: 3.301 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 351.86 Mbit/s
95th percentile per-packet one-way delay: 3.360 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 138.01 Mbit/s
95th percentile per-packet one-way delay: 2.756 ms
Loss rate: 0.25%
```
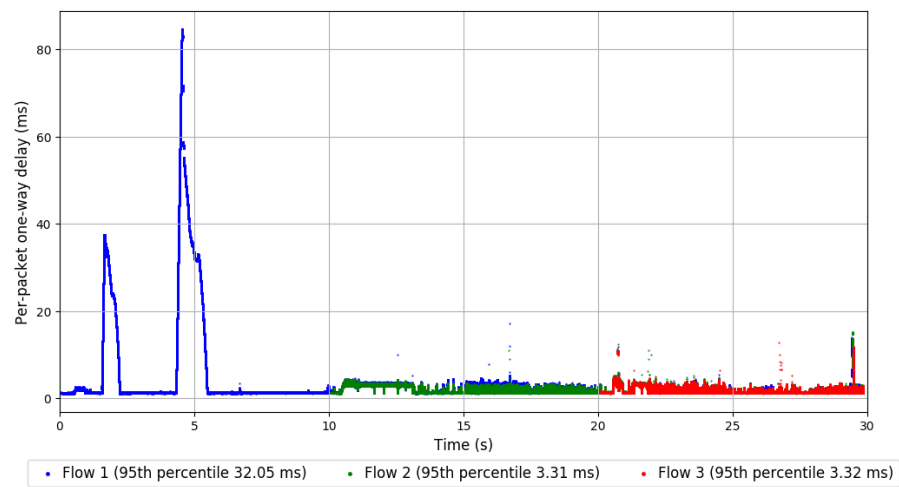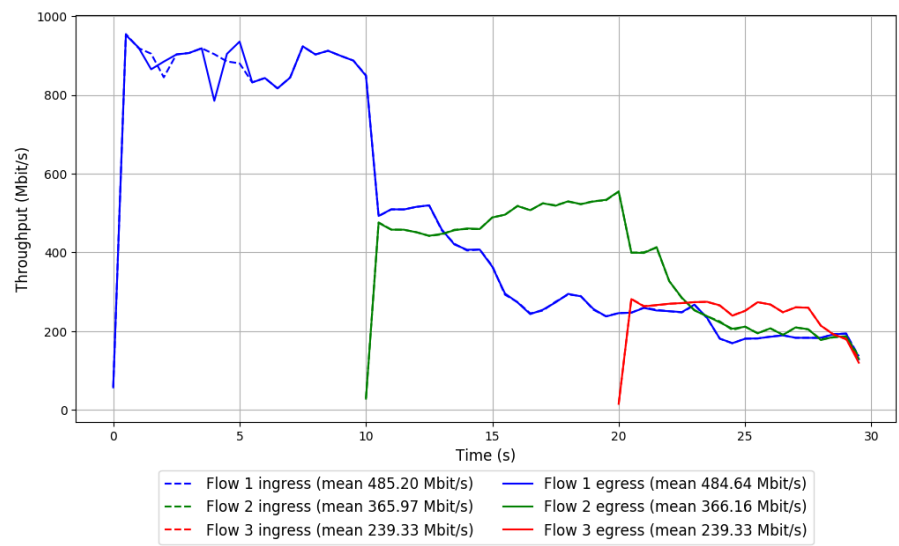
Run 6: Report of PCC — Data Link

- - - Flow 1 ingress (mean 533.03 Mbit/s)   —— Flow 1 egress (mean 533.24 Mbit/s)
- - - Flow 2 ingress (mean 351.69 Mbit/s)   —— Flow 2 egress (mean 351.86 Mbit/s)
- - - Flow 3 ingress (mean 137.99 Mbit/s)   —— Flow 3 egress (mean 138.01 Mbit/s)

- Flow 1 (95th percentile 3.30 ms)   • Flow 2 (95th percentile 3.36 ms)   • Flow 3 (95th percentile 2.76 ms)

75

```
Run 7: Statistics of PCC

Start at: 2018-03-21 02:43:54
End at: 2018-03-21 02:44:24
Local clock offset: -0.071 ms
Remote clock offset: -6.455 ms


# Below is generated by plot.py at 2018-03-21 10:37:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 746.17 Mbit/s
95th percentile per-packet one-way delay: 3.040 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 554.69 Mbit/s
95th percentile per-packet one-way delay: 3.011 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 278.49 Mbit/s
95th percentile per-packet one-way delay: 3.079 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 1.656 ms
Loss rate: 0.29%
```
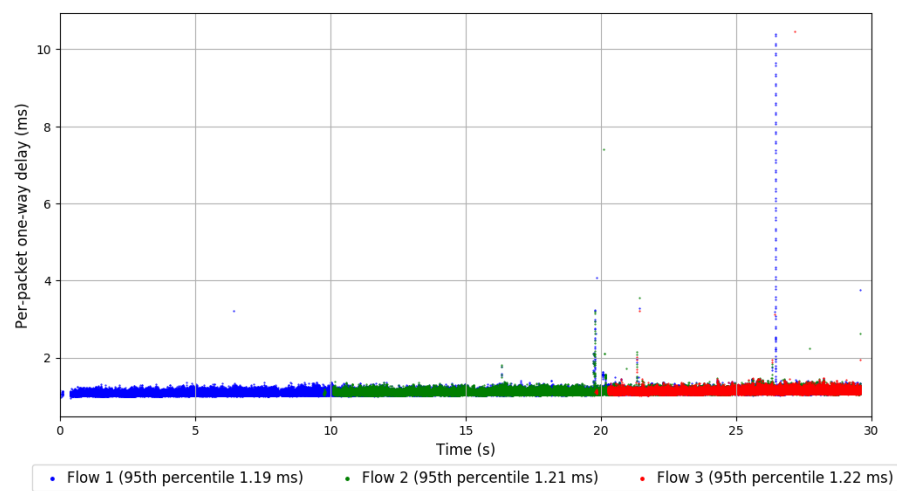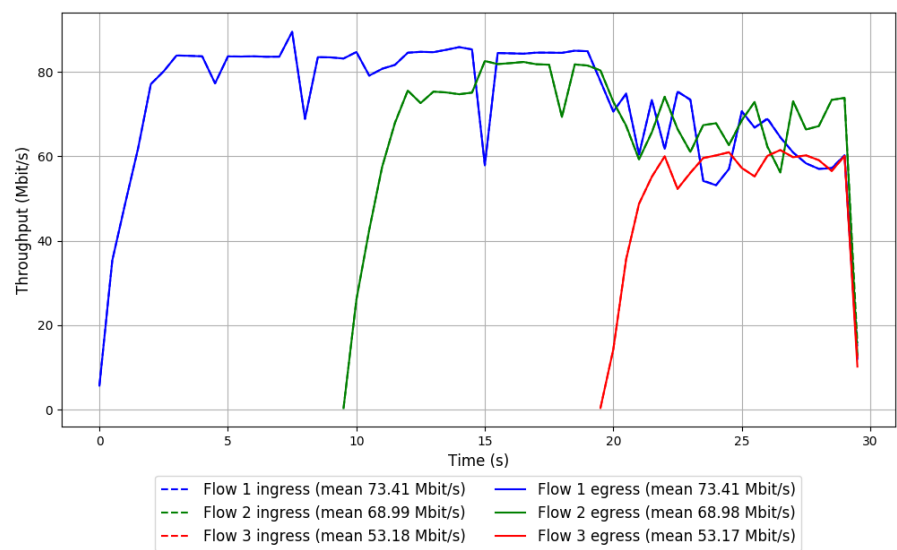
Run 7: Report of PCC — Data Link

Flow 1 ingress (mean 554.28 Mbit/s) --- Flow 1 egress (mean 554.69 Mbit/s)
Flow 2 ingress (mean 278.22 Mbit/s) --- Flow 2 egress (mean 278.49 Mbit/s)
Flow 3 ingress (mean 19.92 Mbit/s) --- Flow 3 egress (mean 19.90 Mbit/s)

Flow 1 (95th percentile 3.01 ms)   Flow 2 (95th percentile 3.08 ms)   Flow 3 (95th percentile 1.66 ms)

77

```
Run 8: Statistics of PCC

Start at: 2018-03-21 03:12:52
End at: 2018-03-21 03:13:22
Local clock offset: 9.978 ms
Remote clock offset: -4.967 ms


# Below is generated by plot.py at 2018-03-21 10:38:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 817.96 Mbit/s
95th percentile per-packet one-way delay: 67.930 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 687.37 Mbit/s
95th percentile per-packet one-way delay: 72.717 ms
Loss rate: 3.33%
-- Flow 2:
Average throughput: 77.77 Mbit/s
95th percentile per-packet one-way delay: 2.274 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 240.05 Mbit/s
95th percentile per-packet one-way delay: 2.595 ms
Loss rate: 0.18%
```
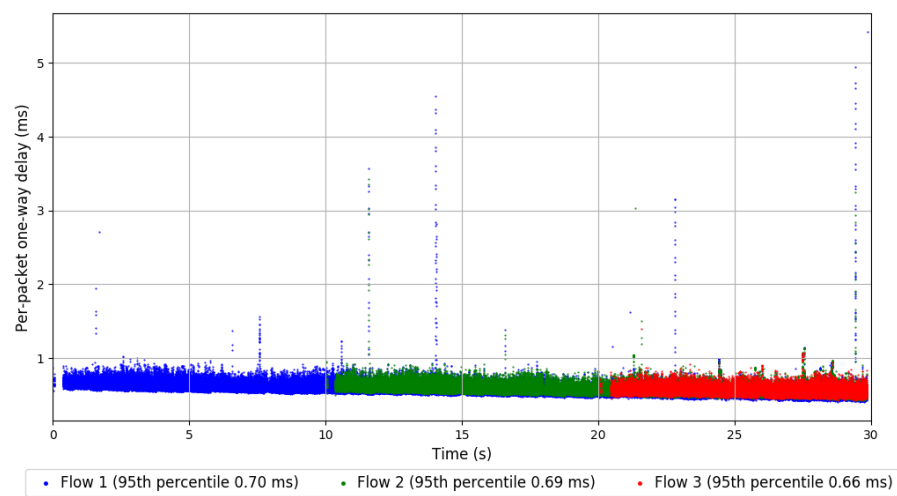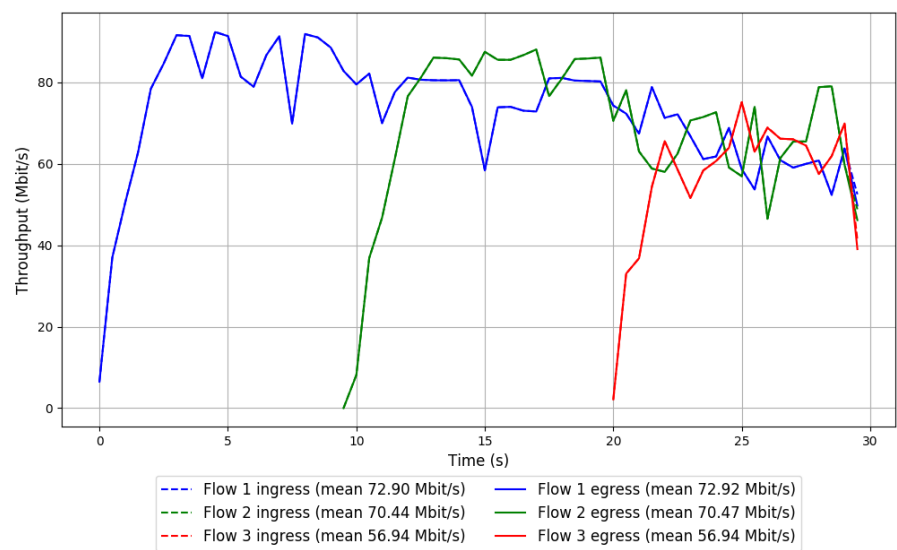
Run 8: Report of PCC — Data Link

Flow 1 ingress (mean 710.54 Mbit/s) Flow 1 egress (mean 687.37 Mbit/s)
Flow 2 ingress (mean 77.89 Mbit/s) Flow 2 egress (mean 77.77 Mbit/s)
Flow 3 ingress (mean 239.75 Mbit/s) Flow 3 egress (mean 240.05 Mbit/s)

Flow 1 (95th percentile 72.72 ms) Flow 2 (95th percentile 2.27 ms) Flow 3 (95th percentile 2.60 ms)

```
Run 9: Statistics of PCC

Start at: 2018-03-21 03:41:45
End at: 2018-03-21 03:42:15
Local clock offset: 10.602 ms
Remote clock offset: -5.766 ms


# Below is generated by plot.py at 2018-03-21 10:42:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 662.24 Mbit/s
95th percentile per-packet one-way delay: 99.457 ms
Loss rate: 6.85%
-- Flow 1:
Average throughput: 614.92 Mbit/s
95th percentile per-packet one-way delay: 99.909 ms
Loss rate: 7.32%
-- Flow 2:
Average throughput: 42.86 Mbit/s
95th percentile per-packet one-way delay: 1.922 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 1.306 ms
Loss rate: 0.41%
```
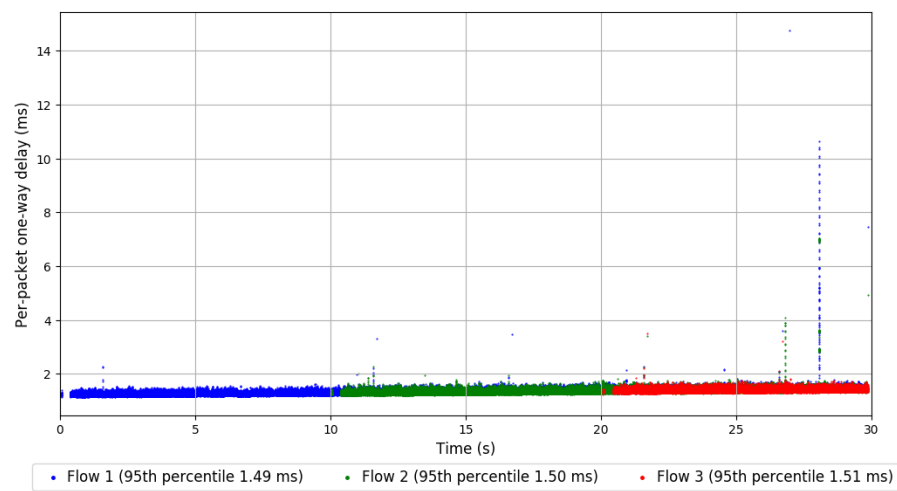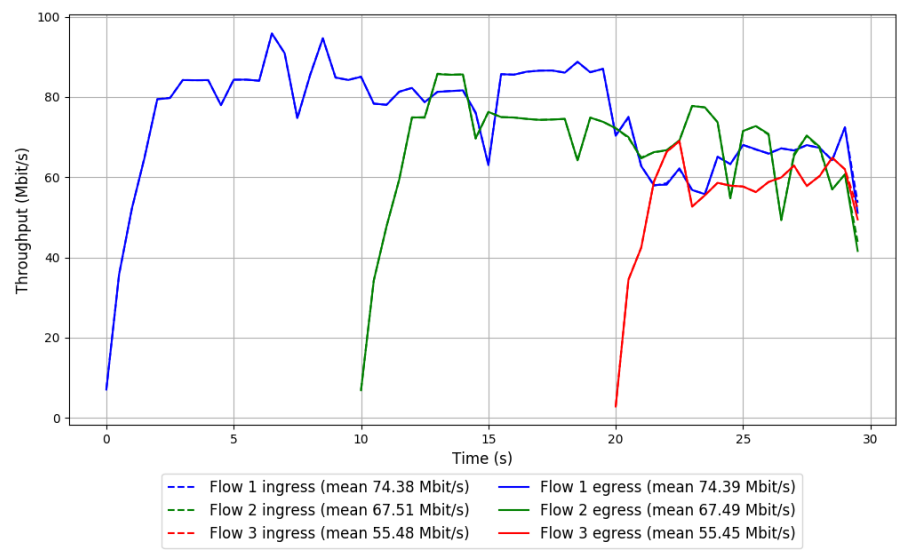
Run 9: Report of PCC — Data Link

- - - - Flow 1 ingress (mean 662.93 Mbit/s) —— Flow 1 egress (mean 614.92 Mbit/s)
- - - - Flow 2 ingress (mean 42.89 Mbit/s) —— Flow 2 egress (mean 42.86 Mbit/s)
- - - - Flow 3 ingress (mean 57.86 Mbit/s) —— Flow 3 egress (mean 57.78 Mbit/s)

• Flow 1 (95th percentile 99.91 ms)   • Flow 2 (95th percentile 1.92 ms)   • Flow 3 (95th percentile 1.31 ms)

```
Run 10: Statistics of PCC

Start at: 2018-03-21 04:10:38
End at: 2018-03-21 04:11:08
Local clock offset: 3.098 ms
Remote clock offset: -5.093 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 806.25 Mbit/s
95th percentile per-packet one-way delay: 21.254 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 484.64 Mbit/s
95th percentile per-packet one-way delay: 32.046 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 366.16 Mbit/s
95th percentile per-packet one-way delay: 3.311 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 239.33 Mbit/s
95th percentile per-packet one-way delay: 3.319 ms
Loss rate: 0.19%
```
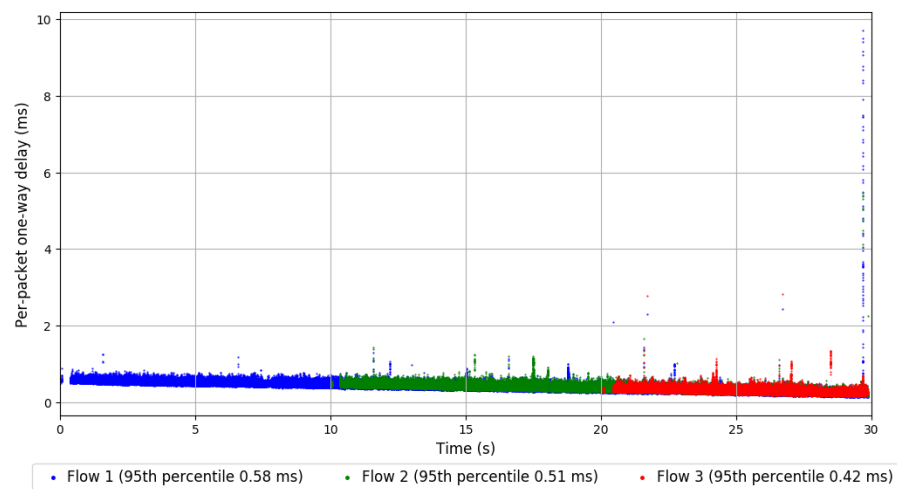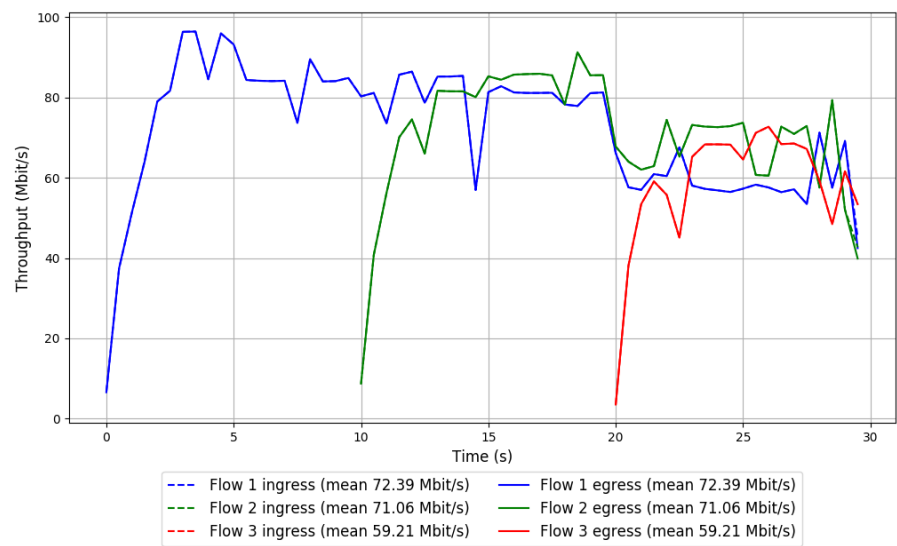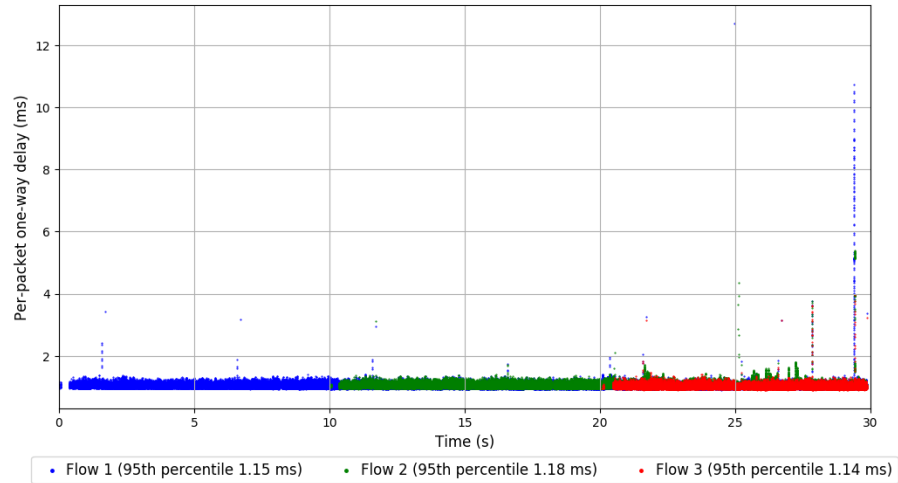
Run 10: Report of PCC — Data Link

Flow 1 ingress (mean 485.20 Mbit/s) --- Flow 1 egress (mean 484.64 Mbit/s)
Flow 2 ingress (mean 365.97 Mbit/s) --- Flow 2 egress (mean 366.16 Mbit/s)
Flow 3 ingress (mean 239.33 Mbit/s) --- Flow 3 egress (mean 239.33 Mbit/s)

Flow 1 (95th percentile 32.05 ms)   •   Flow 2 (95th percentile 3.31 ms)   •   Flow 3 (95th percentile 3.32 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-21 00:11:27
End at: 2018-03-21 00:11:57
Local clock offset: -1.295 ms
Remote clock offset: -4.654 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.33 Mbit/s
95th percentile per-packet one-way delay: 1.201 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 73.41 Mbit/s
95th percentile per-packet one-way delay: 1.192 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 68.98 Mbit/s
95th percentile per-packet one-way delay: 1.205 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 53.17 Mbit/s
95th percentile per-packet one-way delay: 1.222 ms
Loss rate: 0.21%
```
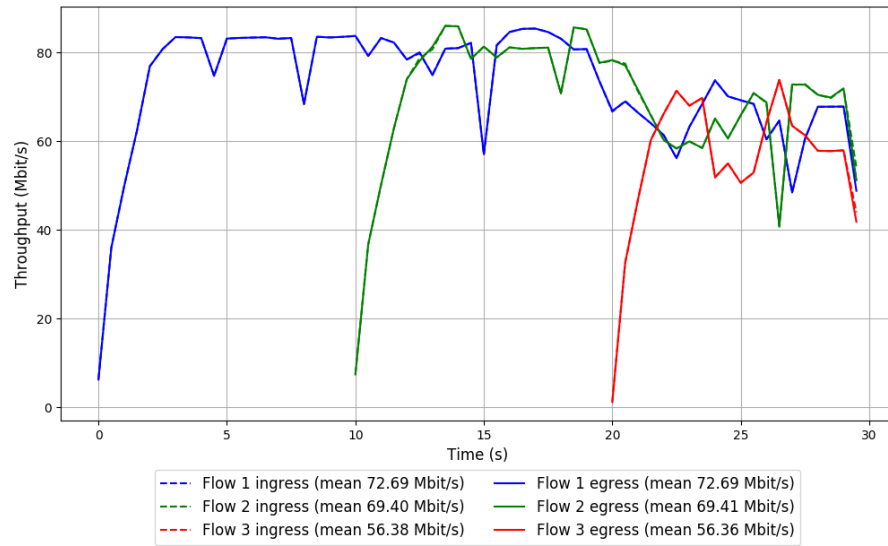
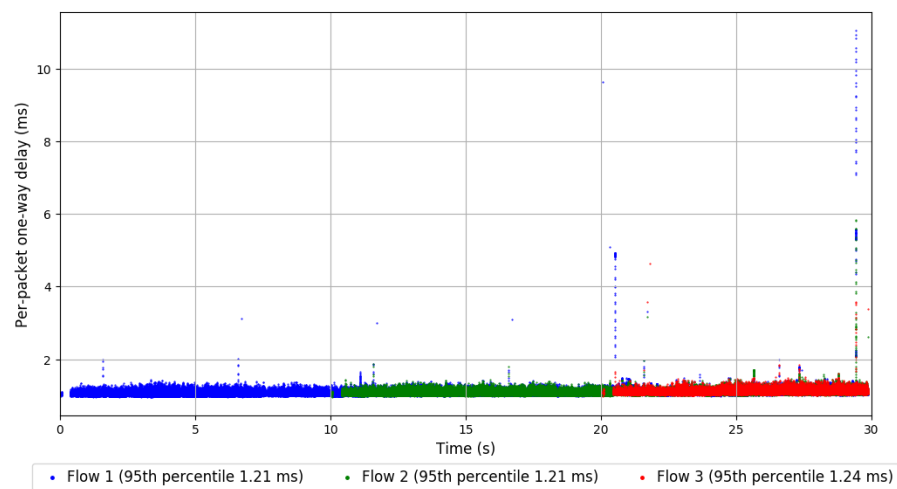Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-21 00:40:27
End at: 2018-03-21 00:40:57
Local clock offset: 3.256 ms
Remote clock offset: -4.806 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.49 Mbit/s
95th percentile per-packet one-way delay: 0.694 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 72.92 Mbit/s
95th percentile per-packet one-way delay: 0.703 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 70.47 Mbit/s
95th percentile per-packet one-way delay: 0.689 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 56.94 Mbit/s
95th percentile per-packet one-way delay: 0.660 ms
Loss rate: 0.20%
```
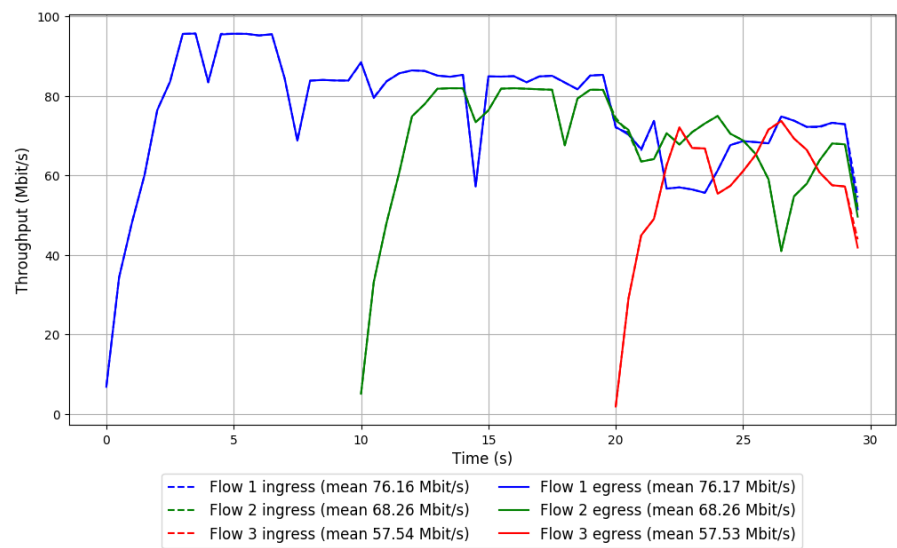
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-03-21 01:09:26
End at: 2018-03-21 01:09:56
Local clock offset: 4.103 ms
Remote clock offset: -4.91 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.49 Mbit/s
95th percentile per-packet one-way delay: 1.497 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 74.39 Mbit/s
95th percentile per-packet one-way delay: 1.487 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 67.49 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 55.45 Mbit/s
95th percentile per-packet one-way delay: 1.515 ms
Loss rate: 0.27%
```
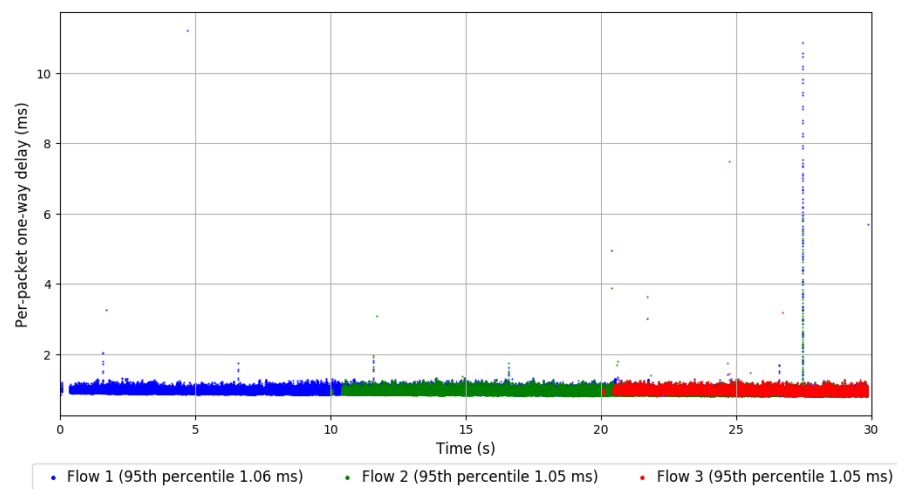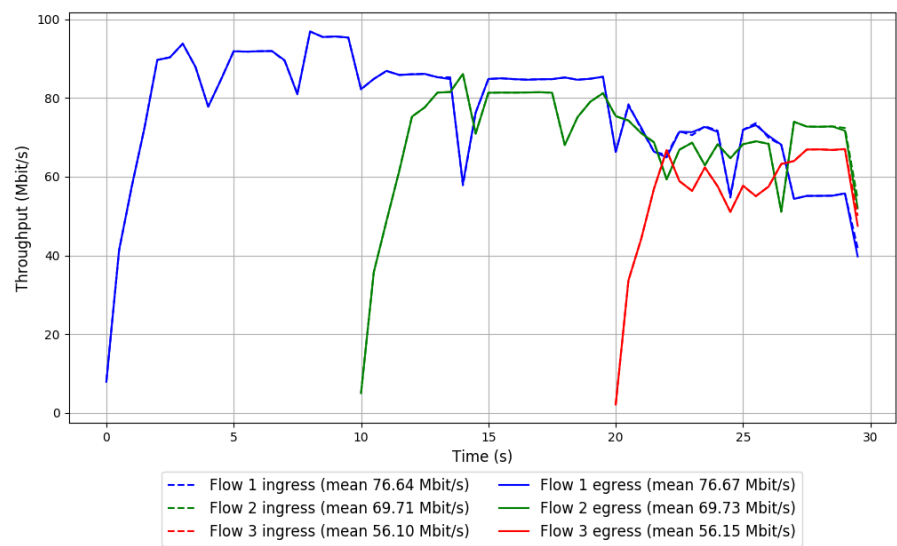
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 74.38 Mbit/s) — Flow 1 egress (mean 74.39 Mbit/s)
Flow 2 ingress (mean 67.51 Mbit/s) — Flow 2 egress (mean 67.49 Mbit/s)
Flow 3 ingress (mean 55.48 Mbit/s) — Flow 3 egress (mean 55.45 Mbit/s)

Flow 1 (95th percentile 1.49 ms)   Flow 2 (95th percentile 1.50 ms)   Flow 3 (95th percentile 1.51 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-03-21 01:38:24
End at: 2018-03-21 01:38:54
Local clock offset: -0.131 ms
Remote clock offset: -4.976 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.06 Mbit/s
95th percentile per-packet one-way delay: 0.553 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 72.39 Mbit/s
95th percentile per-packet one-way delay: 0.576 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 71.06 Mbit/s
95th percentile per-packet one-way delay: 0.508 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 59.21 Mbit/s
95th percentile per-packet one-way delay: 0.419 ms
Loss rate: 0.00%
```
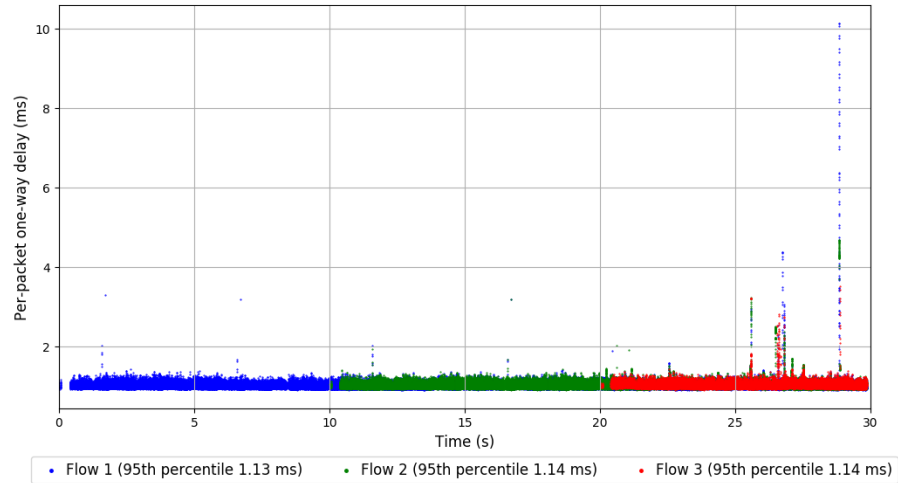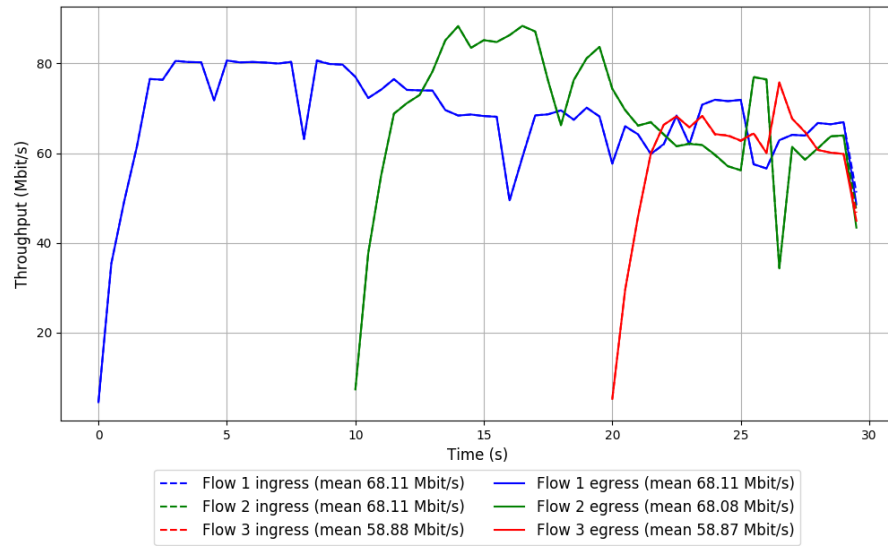
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-03-21 02:07:22
End at: 2018-03-21 02:07:52
Local clock offset: 7.157 ms
Remote clock offset: -5.745 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.32 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 72.69 Mbit/s
95th percentile per-packet one-way delay: 1.148 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 69.41 Mbit/s
95th percentile per-packet one-way delay: 1.176 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 56.36 Mbit/s
95th percentile per-packet one-way delay: 1.138 ms
Loss rate: 0.20%
```
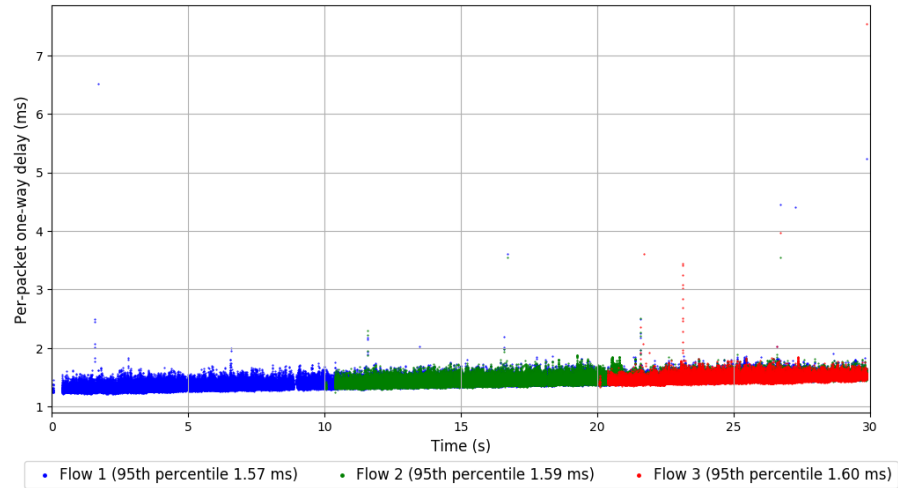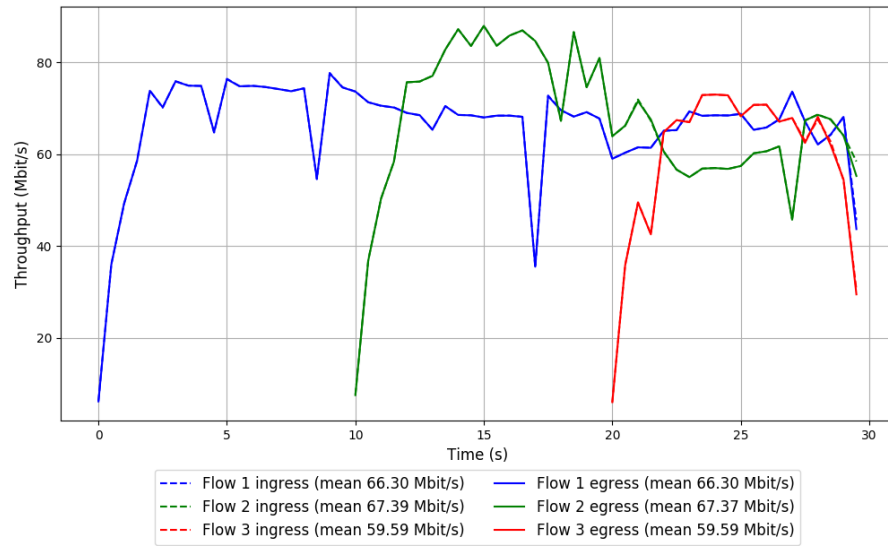
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 72.69 Mbit/s) --- Flow 1 egress (mean 72.69 Mbit/s)
Flow 2 ingress (mean 69.40 Mbit/s) --- Flow 2 egress (mean 69.41 Mbit/s)
Flow 3 ingress (mean 56.38 Mbit/s) --- Flow 3 egress (mean 56.36 Mbit/s)

Flow 1 (95th percentile 1.15 ms)   Flow 2 (95th percentile 1.18 ms)   Flow 3 (95th percentile 1.14 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-03-21 02:36:15
End at: 2018-03-21 02:36:45
Local clock offset: 0.477 ms
Remote clock offset: -6.286 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.46 Mbit/s
95th percentile per-packet one-way delay: 1.213 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 76.17 Mbit/s
95th percentile per-packet one-way delay: 1.205 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 68.26 Mbit/s
95th percentile per-packet one-way delay: 1.213 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 57.53 Mbit/s
95th percentile per-packet one-way delay: 1.236 ms
Loss rate: 0.20%
```
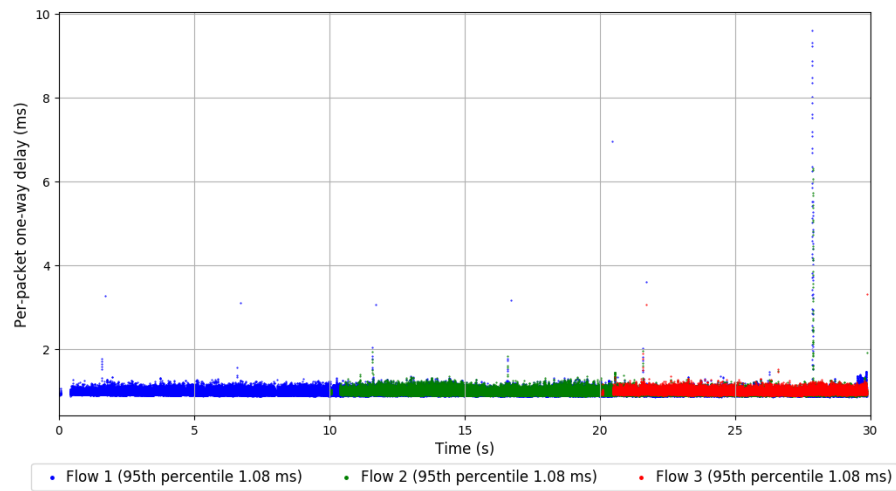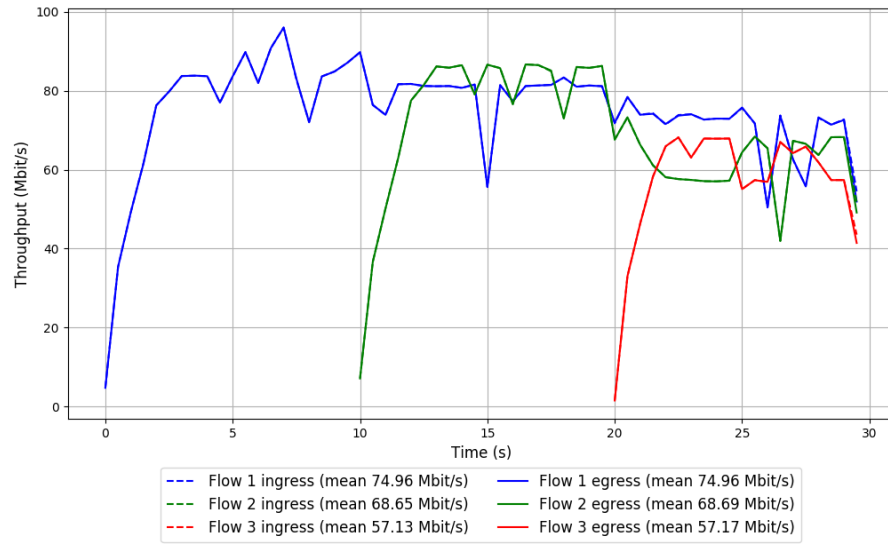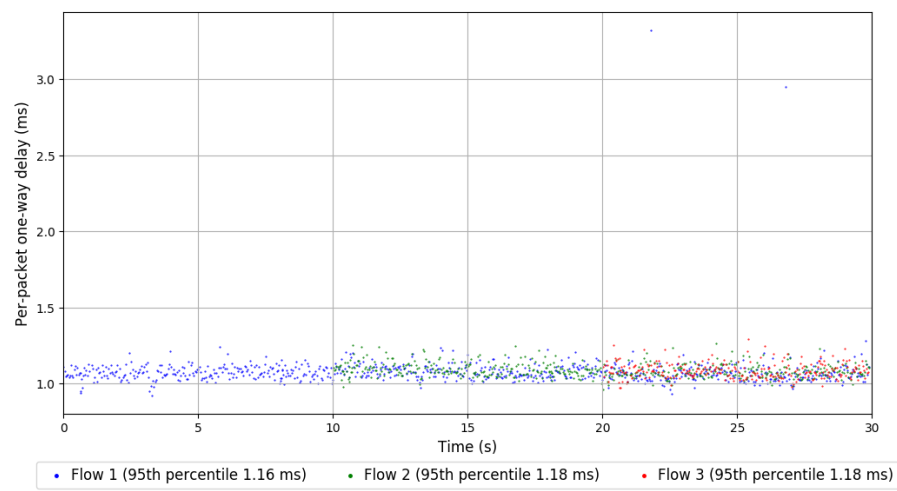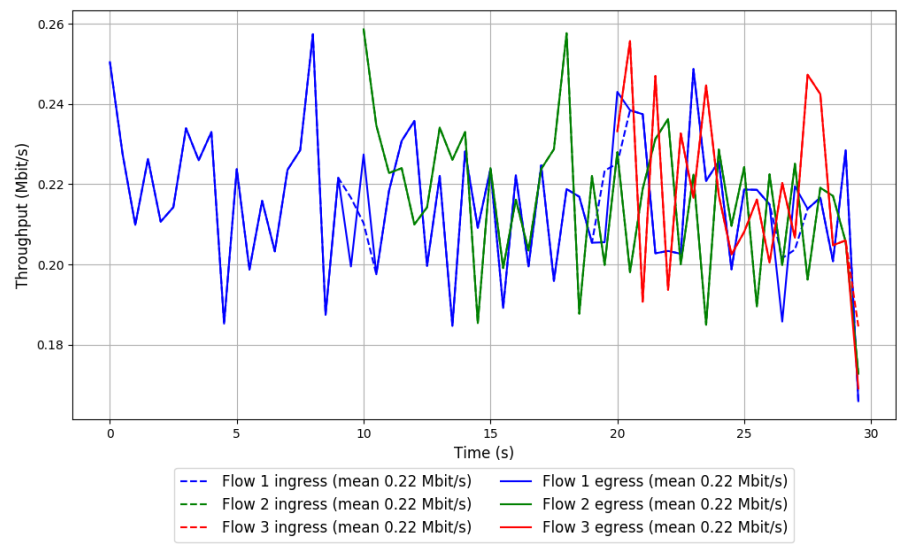
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 76.16 Mbit/s)   Flow 1 egress (mean 76.17 Mbit/s)
Flow 2 ingress (mean 68.26 Mbit/s)   Flow 2 egress (mean 68.26 Mbit/s)
Flow 3 ingress (mean 57.54 Mbit/s)   Flow 3 egress (mean 57.53 Mbit/s)

Flow 1 (95th percentile 1.21 ms)   Flow 2 (95th percentile 1.21 ms)   Flow 3 (95th percentile 1.24 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-03-21 03:05:11
End at: 2018-03-21 03:05:41
Local clock offset: 8.562 ms
Remote clock offset: -5.129 ms

# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.47 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 76.67 Mbit/s
95th percentile per-packet one-way delay: 1.059 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 69.73 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 56.15 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.24%
```

Run 7: Report of QUIC Cubic — Data Link

- Flow 1 ingress (mean 76.64 Mbit/s)
- Flow 1 egress (mean 76.67 Mbit/s)
- Flow 2 ingress (mean 69.71 Mbit/s)
- Flow 2 egress (mean 69.73 Mbit/s)
- Flow 3 ingress (mean 56.10 Mbit/s)
- Flow 3 egress (mean 56.15 Mbit/s)

- Flow 1 (95th percentile 1.06 ms)
- Flow 2 (95th percentile 1.05 ms)
- Flow 3 (95th percentile 1.05 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-03-21 03:34:04
End at: 2018-03-21 03:34:34
Local clock offset: 10.243 ms
Remote clock offset: -5.586 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.76 Mbit/s
95th percentile per-packet one-way delay: 1.133 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 68.11 Mbit/s
95th percentile per-packet one-way delay: 1.127 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 68.08 Mbit/s
95th percentile per-packet one-way delay: 1.138 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 58.87 Mbit/s
95th percentile per-packet one-way delay: 1.141 ms
Loss rate: 0.17%
```

Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-03-21 04:02:53
End at: 2018-03-21 04:03:23
Local clock offset: 5.62 ms
Remote clock offset: -5.285 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.71 Mbit/s
95th percentile per-packet one-way delay: 1.582 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 66.30 Mbit/s
95th percentile per-packet one-way delay: 1.574 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 67.37 Mbit/s
95th percentile per-packet one-way delay: 1.587 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 59.59 Mbit/s
95th percentile per-packet one-way delay: 1.596 ms
Loss rate: 0.13%
```

Run 9: Report of QUIC Cubic — Data Link

101

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-21 04:31:58
End at: 2018-03-21 04:32:28
Local clock offset: 0.912 ms
Remote clock offset: -5.242 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.44 Mbit/s
95th percentile per-packet one-way delay: 1.080 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 74.96 Mbit/s
95th percentile per-packet one-way delay: 1.077 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 68.69 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.20%
```
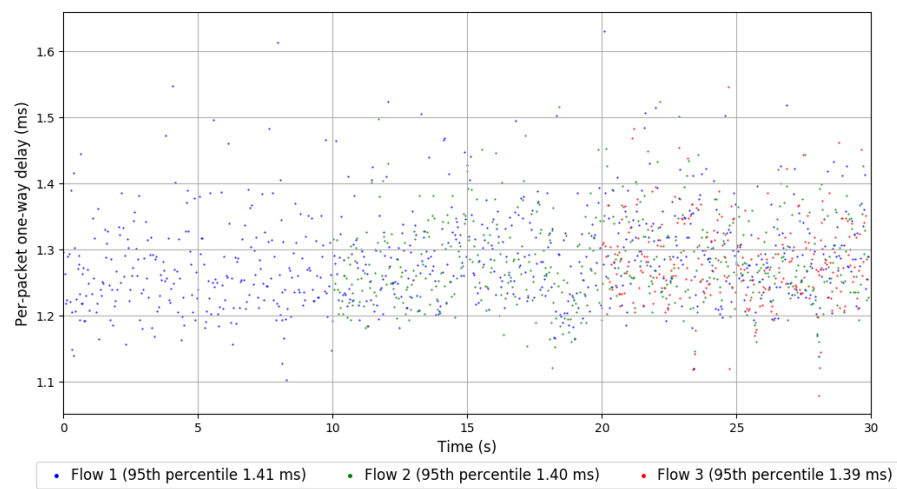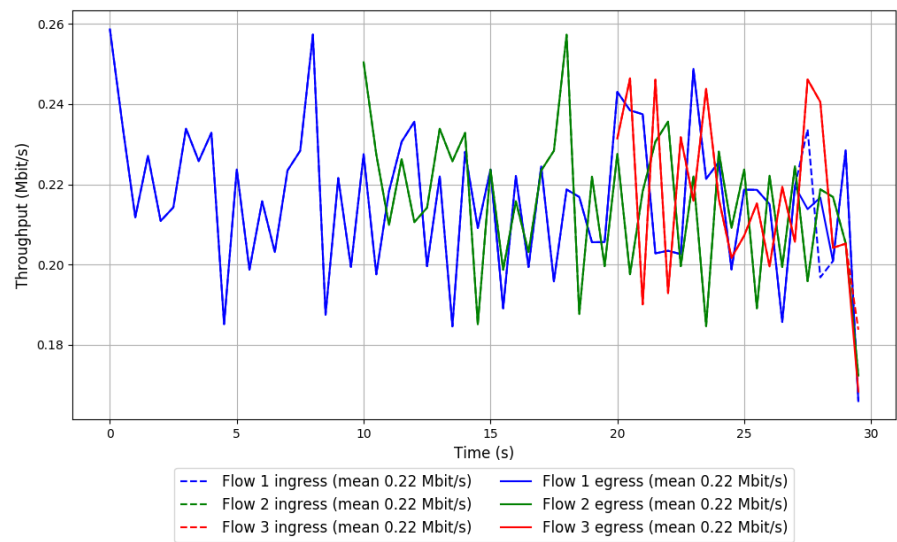
Run 10: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-03-20 23:58:05
End at: 2018-03-20 23:58:35
Local clock offset: -0.6 ms
Remote clock offset: -4.834 ms

# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.169 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.176 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.177 ms
Loss rate: 0.35%
```
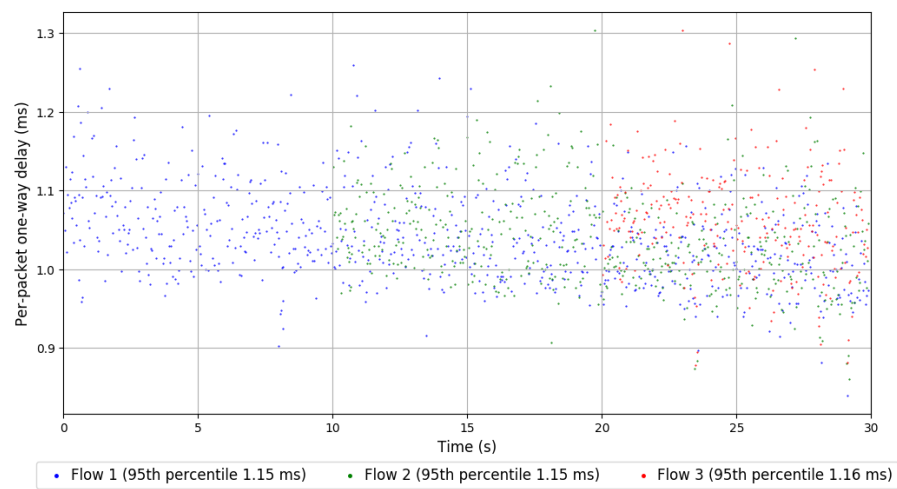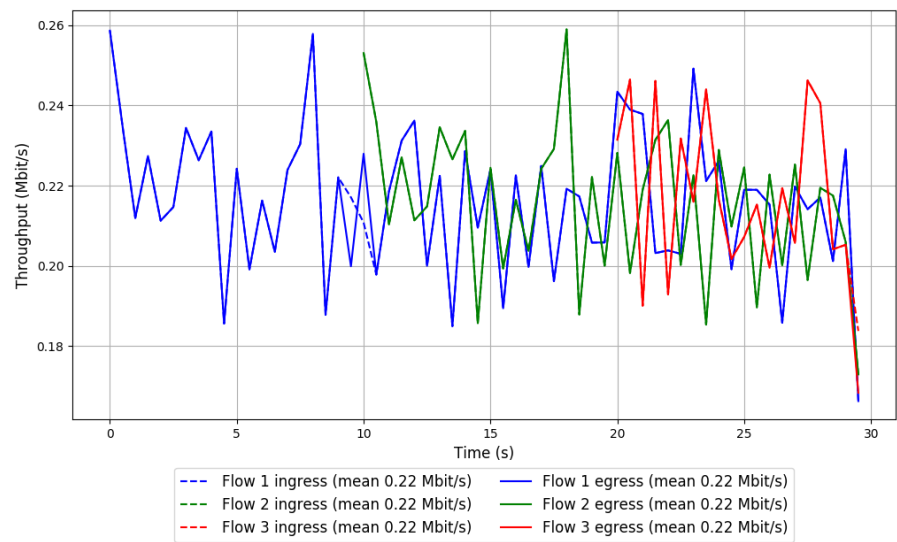
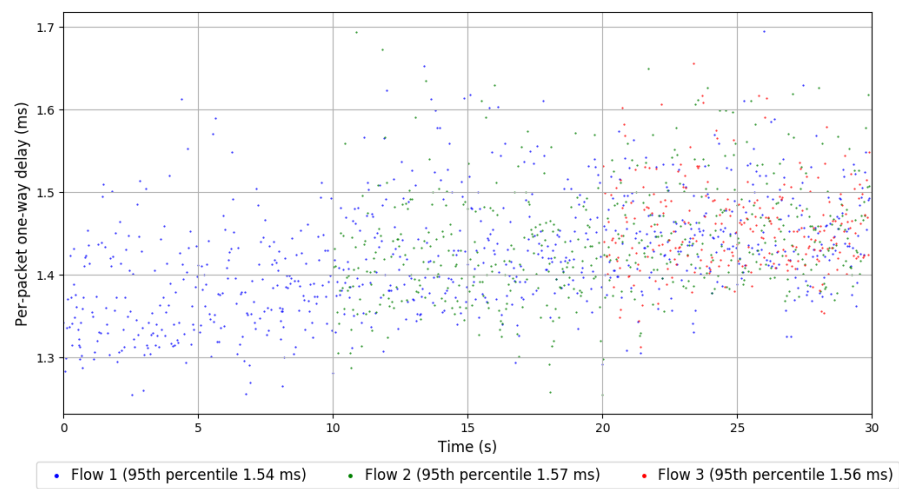# Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-03-21 00:27:07
End at: 2018-03-21 00:27:37
Local clock offset: -2.914 ms
Remote clock offset: -4.274 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.281 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.290 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.263 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.35%
```
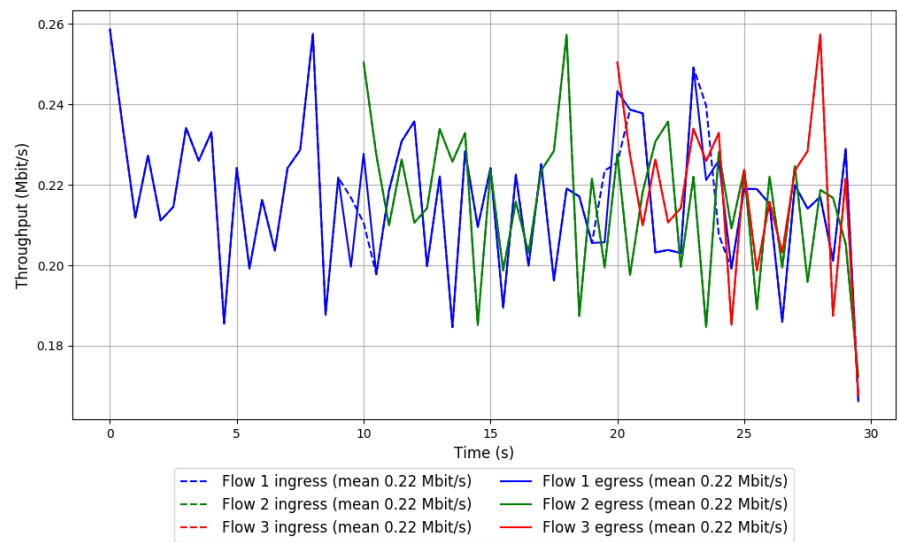
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-03-21 00:56:12
End at: 2018-03-21 00:56:42
Local clock offset: 6.482 ms
Remote clock offset: -4.908 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.057 ms
Loss rate: 0.35%
```
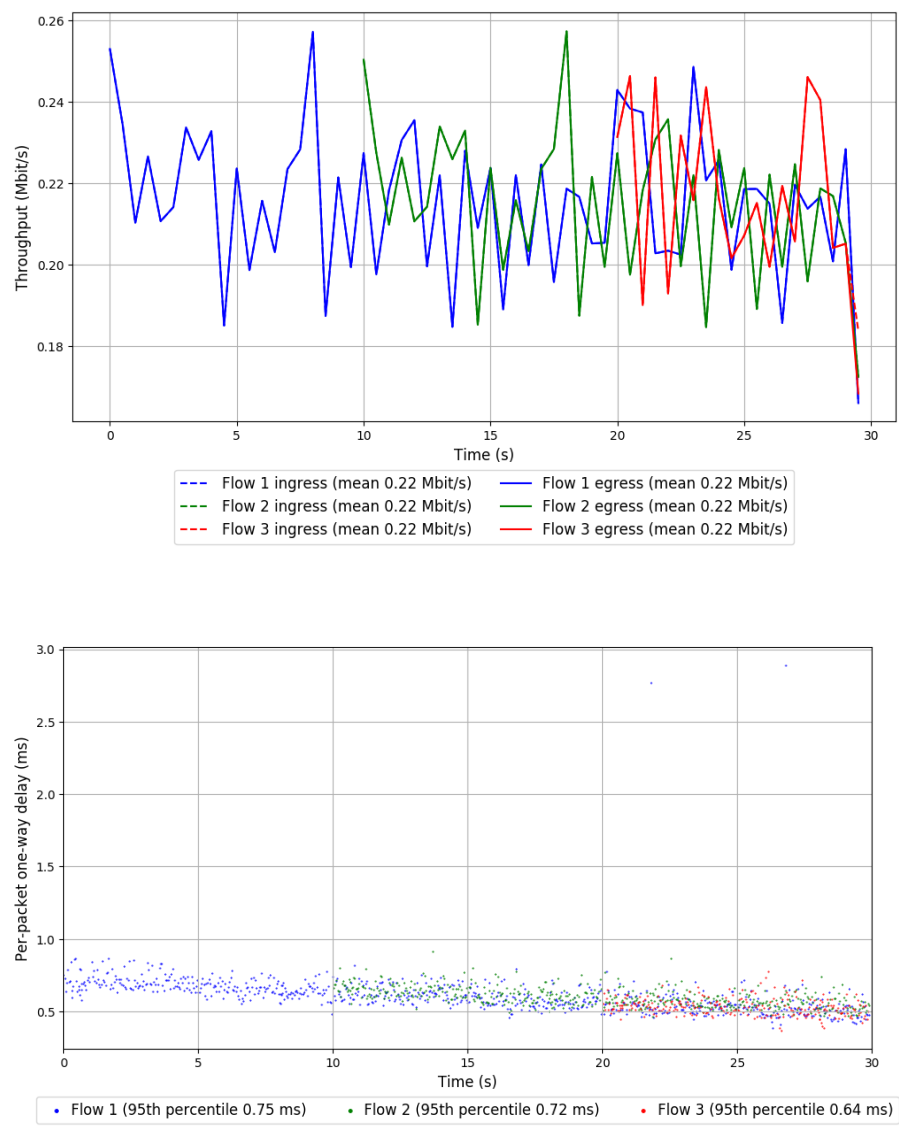
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-03-21 01:25:09
End at: 2018-03-21 01:25:39
Local clock offset: 0.694 ms
Remote clock offset: -4.98 ms

# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.404 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.412 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.35%
```
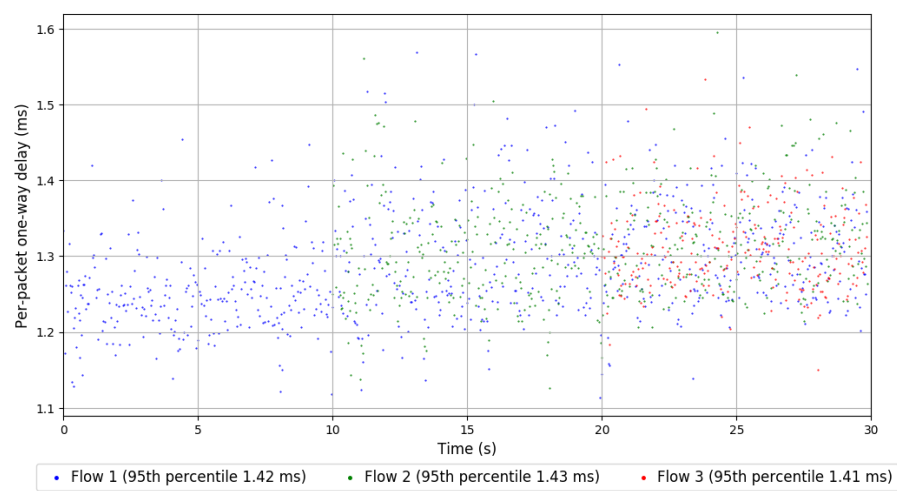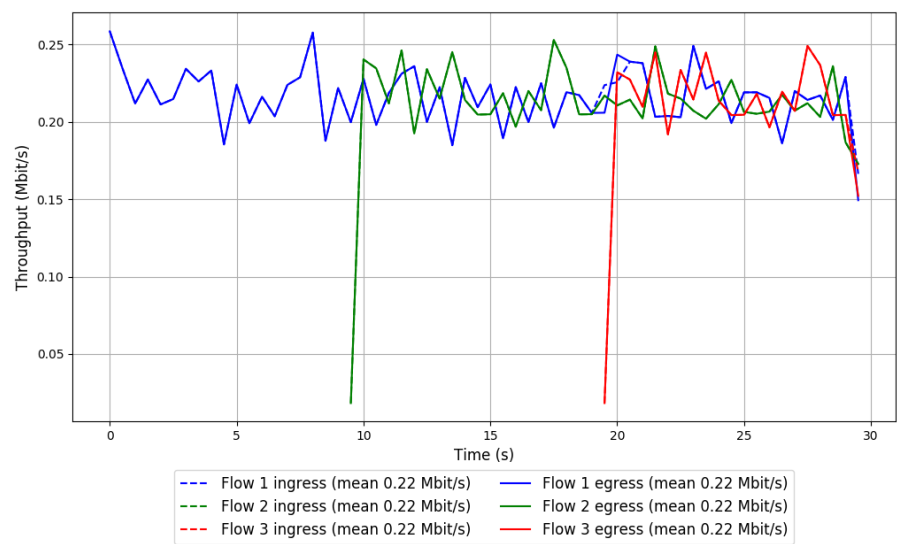
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-03-21 01:54:03
End at: 2018-03-21 01:54:33
Local clock offset: 5.65 ms
Remote clock offset: -5.607 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.154 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.149 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.152 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.160 ms
Loss rate: 0.35%
```

Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-03-21 02:22:59
End at: 2018-03-21 02:23:29
Local clock offset: 2.479 ms
Remote clock offset: -6.168 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.556 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.541 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.569 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.563 ms
Loss rate: 0.00%
```
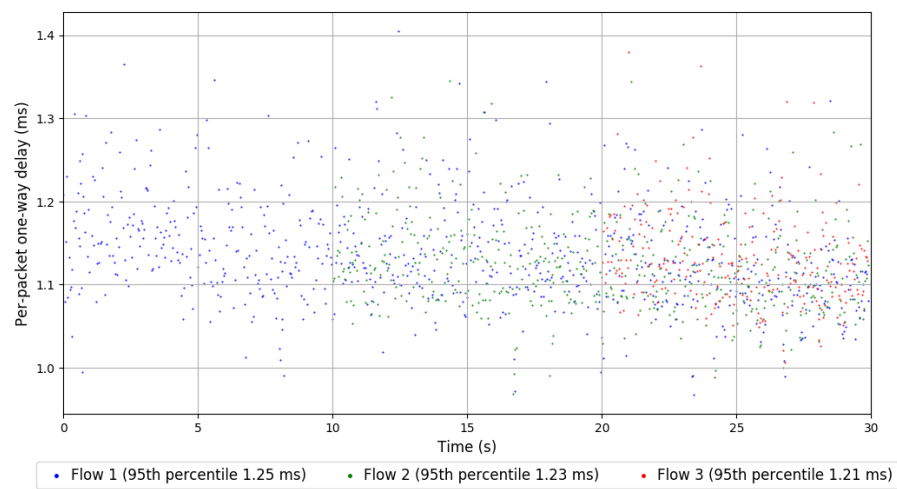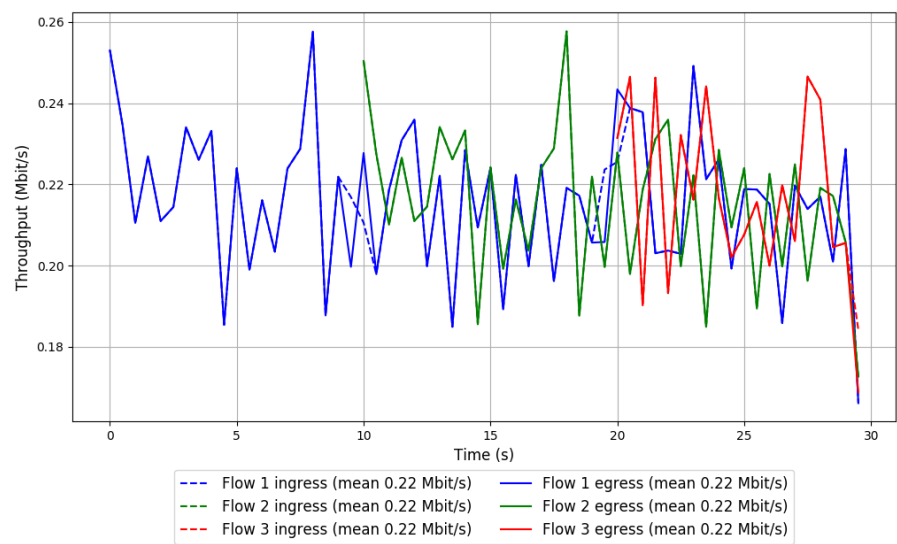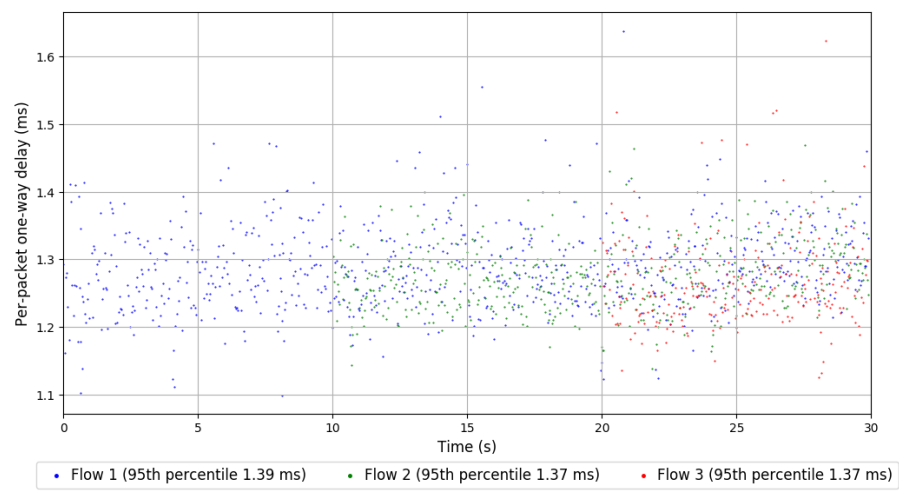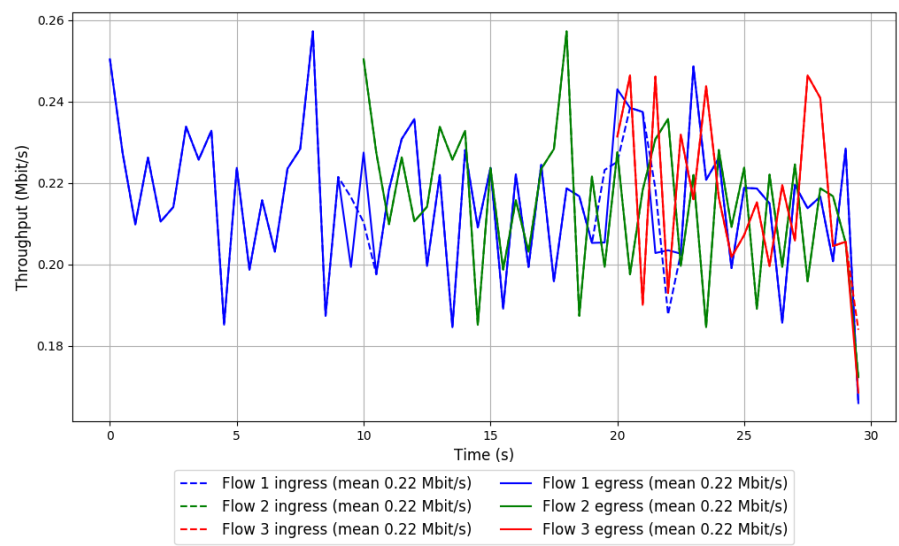
Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2018-03-21 02:51:49
End at: 2018-03-21 02:52:19
Local clock offset: 3.713 ms
Remote clock offset: -5.686 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 0.731 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.750 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.720 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.636 ms
Loss rate: 0.35%
```
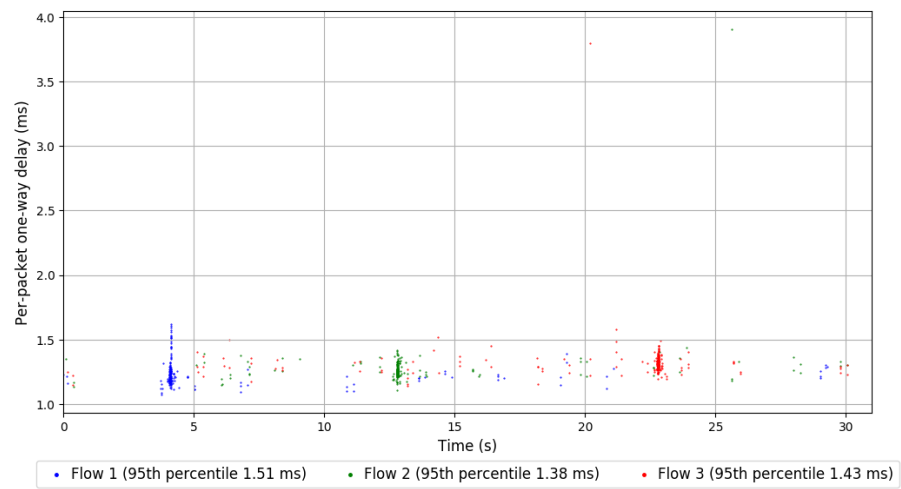
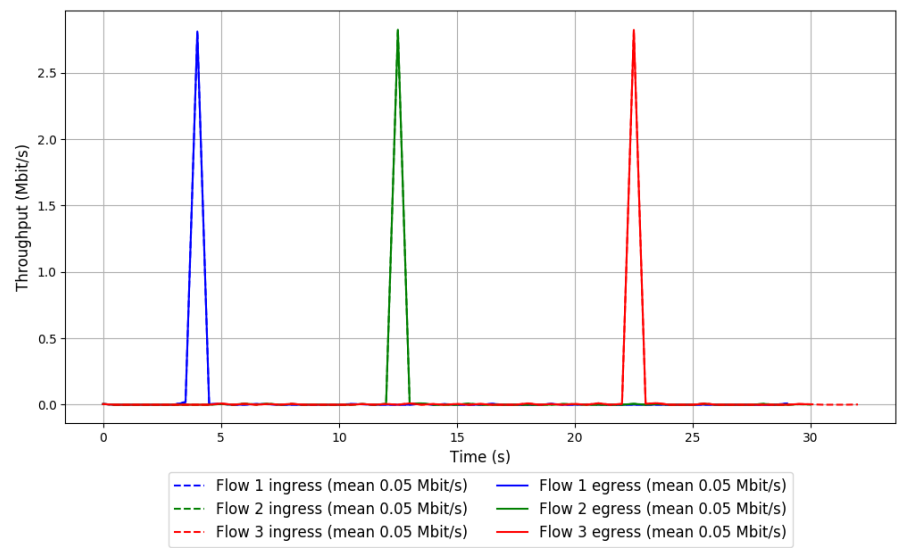# Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2018-03-21 03:20:51
End at: 2018-03-21 03:21:21
Local clock offset: 11.22 ms
Remote clock offset: -4.853 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.423 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.420 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.433 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.411 ms
Loss rate: 0.35%
```
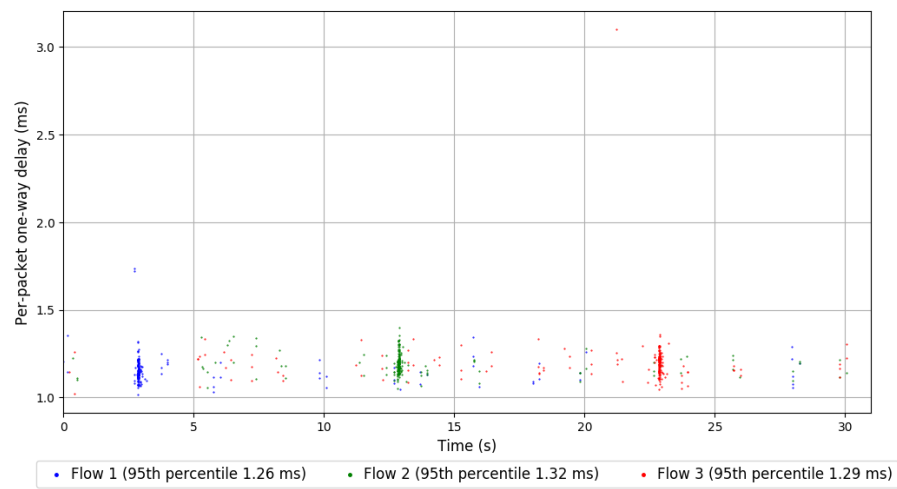
Run 8: Report of SCReAM — Data Link

119

```
Run 9: Statistics of SCReAM

Start at: 2018-03-21 03:49:38
End at: 2018-03-21 03:50:08
Local clock offset: 11.18 ms
Remote clock offset: -5.86 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.239 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.254 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.214 ms
Loss rate: 0.35%
```
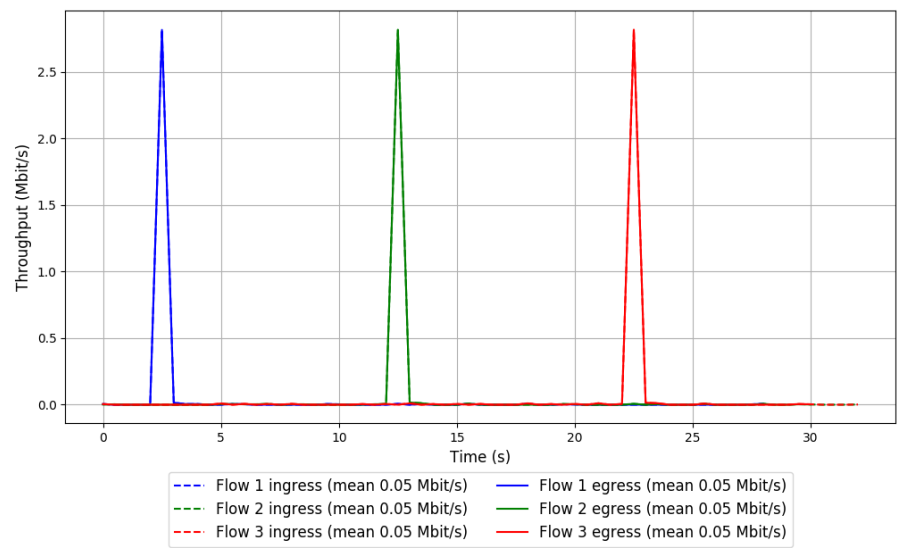
Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-03-21 04:18:40
End at: 2018-03-21 04:19:10
Local clock offset: 1.833 ms
Remote clock offset: -4.961 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.382 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.386 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.369 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.370 ms
Loss rate: 0.35%
```
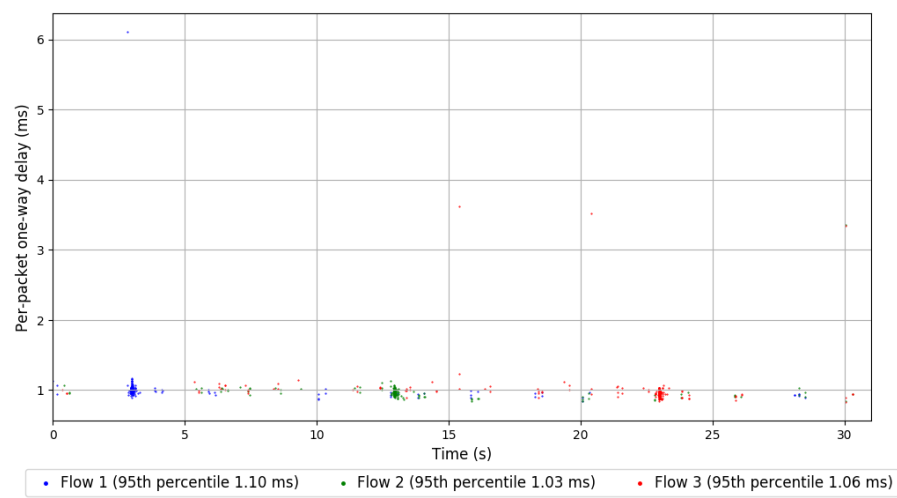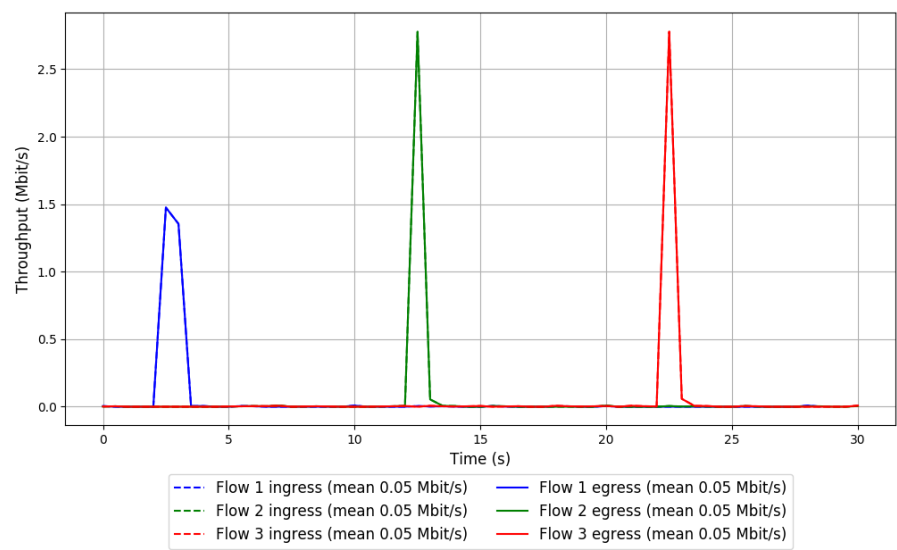
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-03-20 23:51:47
End at: 2018-03-20 23:52:17
Local clock offset: 0.183 ms
Remote clock offset: -4.878 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.419 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.377 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.428 ms
Loss rate: 0.05%
```
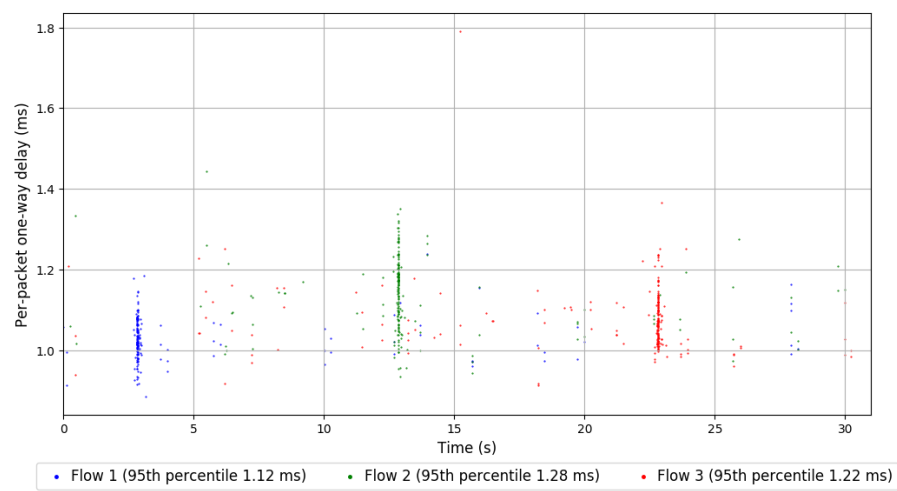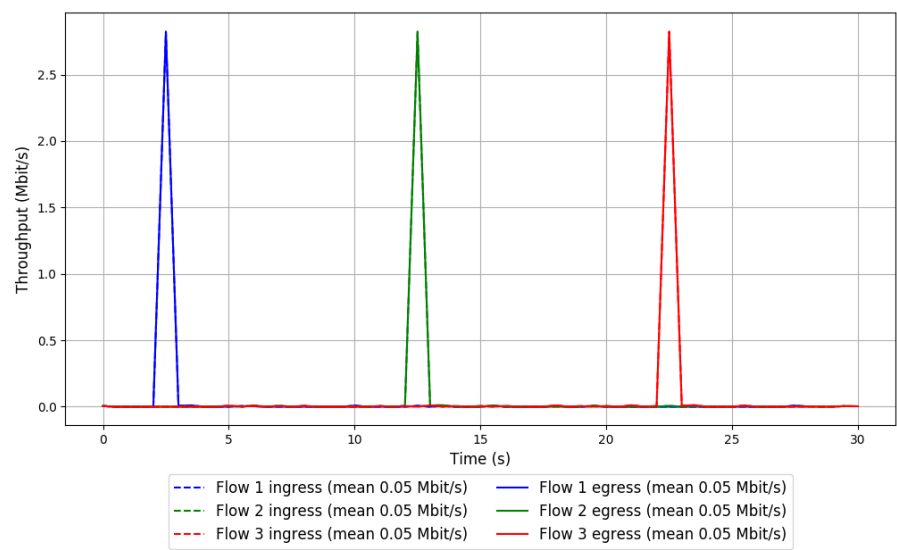
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-03-21 00:20:48
End at: 2018-03-21 00:21:18
Local clock offset: -2.176 ms
Remote clock offset: -4.437 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.298 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.264 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.294 ms
Loss rate: 0.05%
```
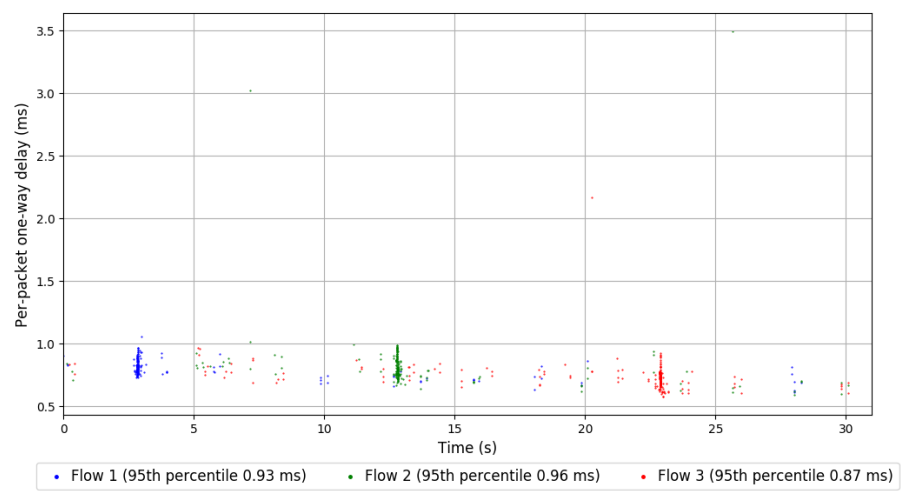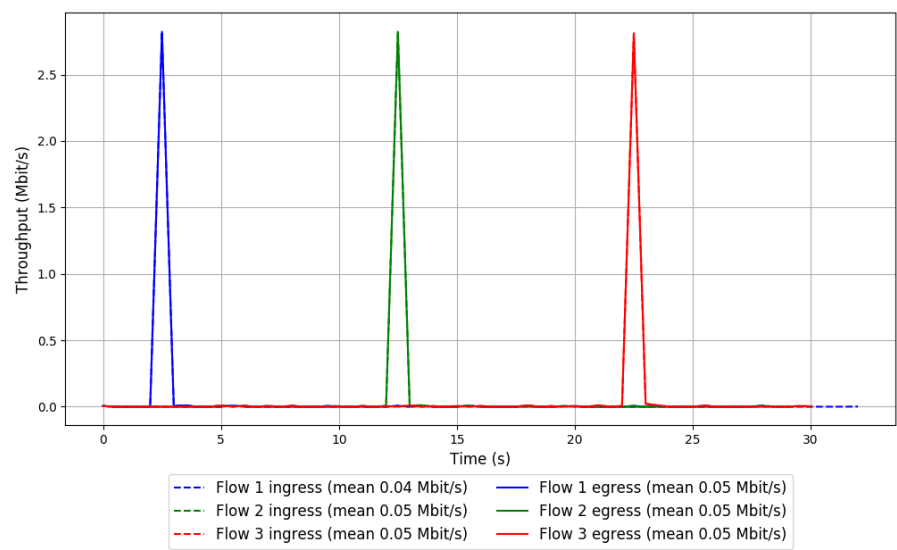
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-03-21 00:49:56
End at: 2018-03-21 00:50:26
Local clock offset: 5.637 ms
Remote clock offset: -4.986 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.034 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.00%
```
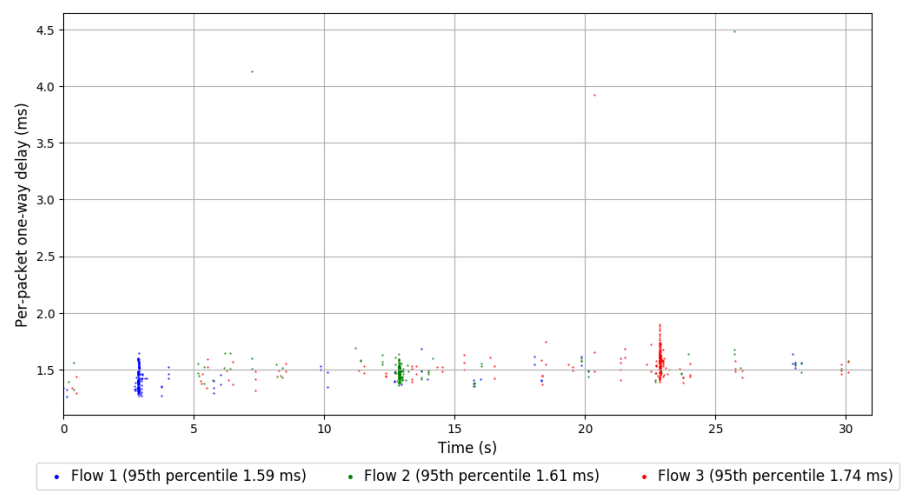
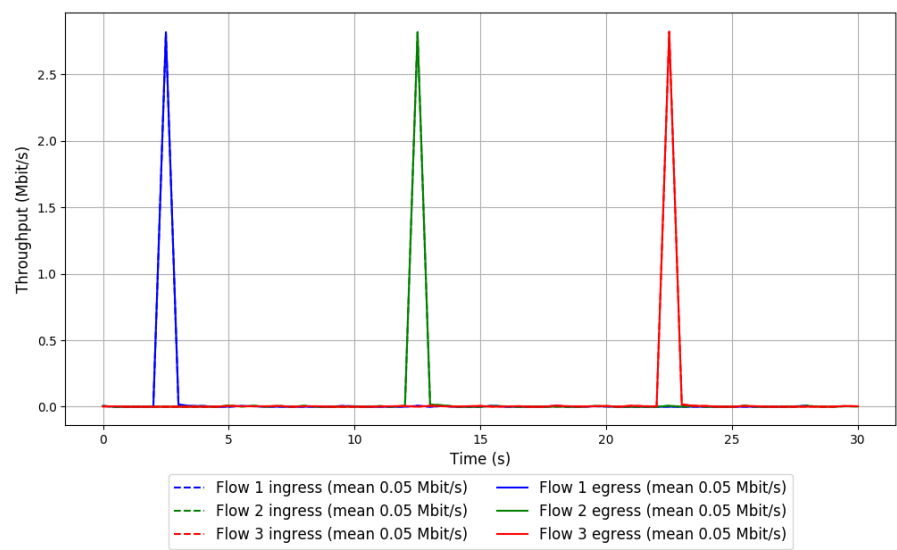Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-03-21 01:18:51
End at: 2018-03-21 01:19:21
Local clock offset: 1.404 ms
Remote clock offset: -4.896 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.237 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.222 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-03-21 01:47:46
End at: 2018-03-21 01:48:16
Local clock offset: 4.206 ms
Remote clock offset: -5.388 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 0.939 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.933 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.965 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.867 ms
Loss rate: 0.00%
```
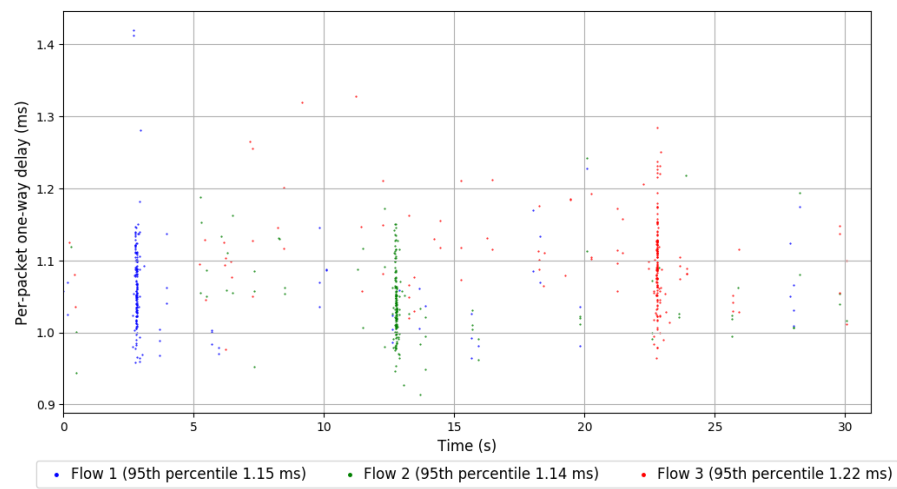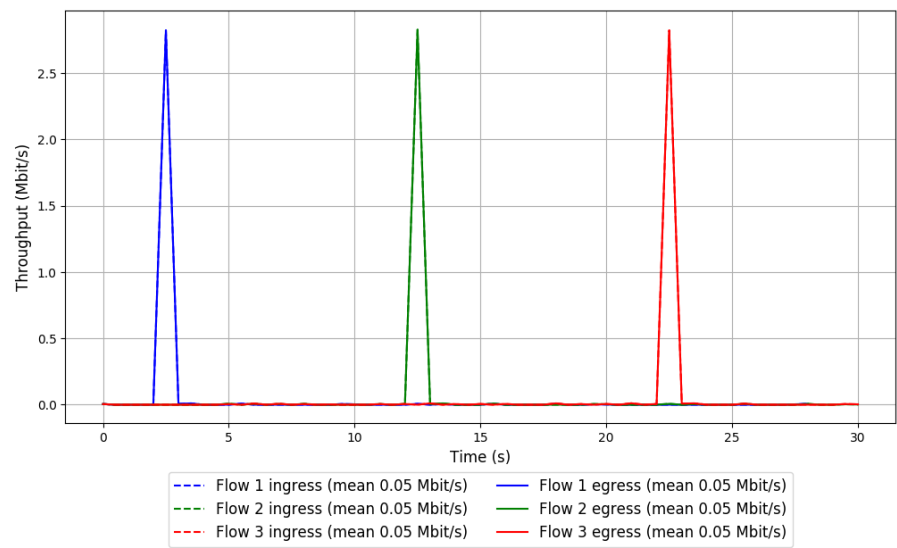
Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-03-21 02:16:42
End at: 2018-03-21 02:17:12
Local clock offset: 4.798 ms
Remote clock offset: -5.974 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.672 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.594 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.606 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.737 ms
Loss rate: 0.00%
```
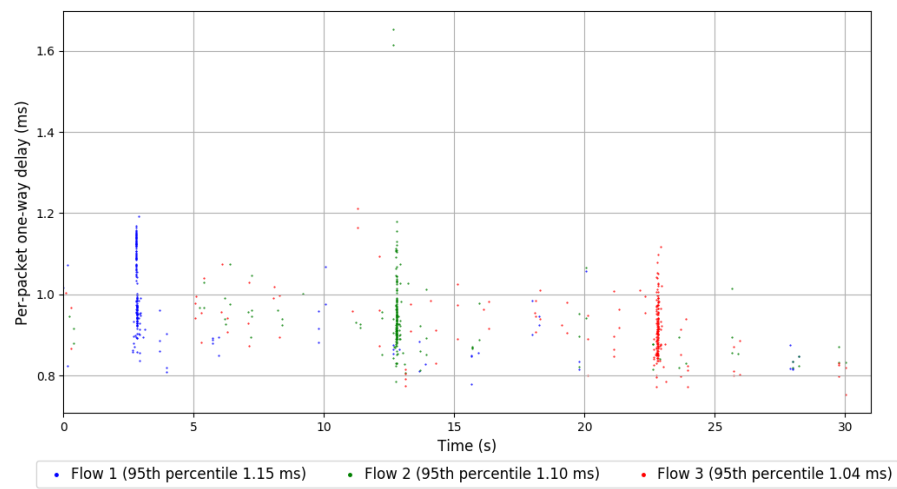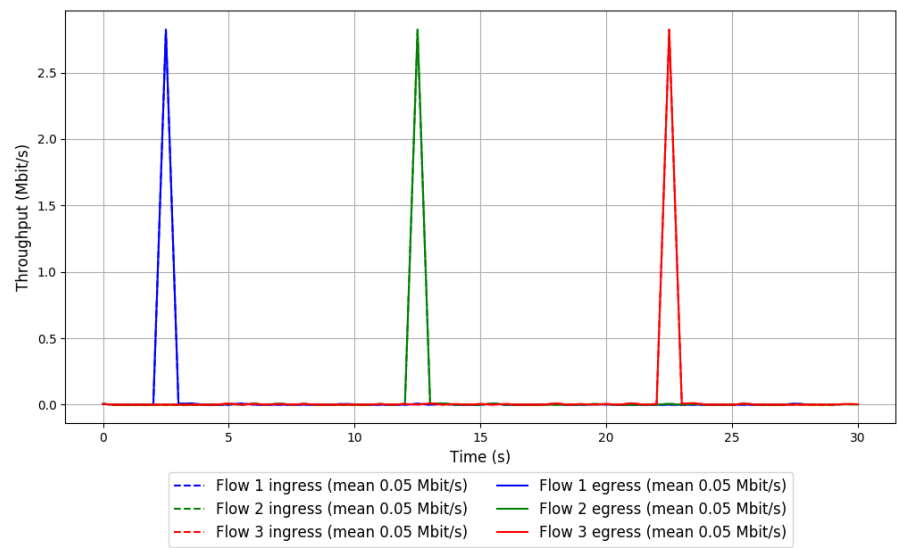
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-03-21 02:45:33
End at: 2018-03-21 02:46:03
Local clock offset: -0.262 ms
Remote clock offset: -6.49 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.180 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.142 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.221 ms
Loss rate: 0.00%
```
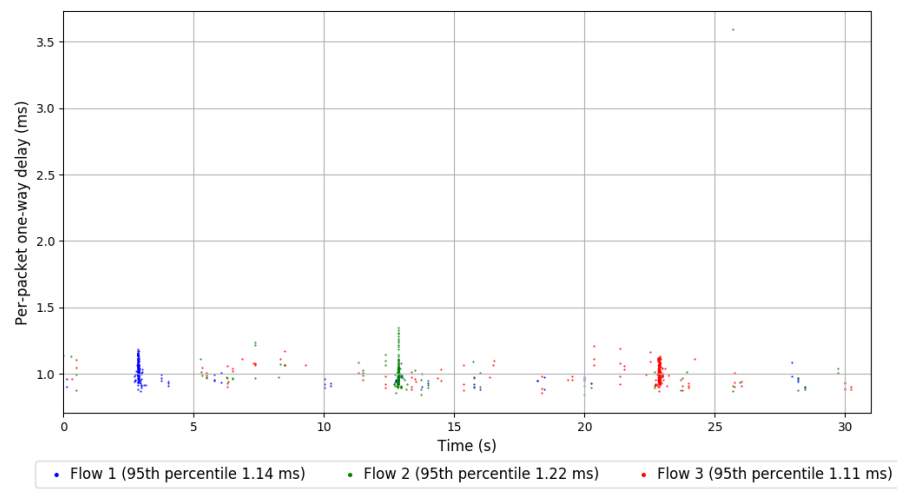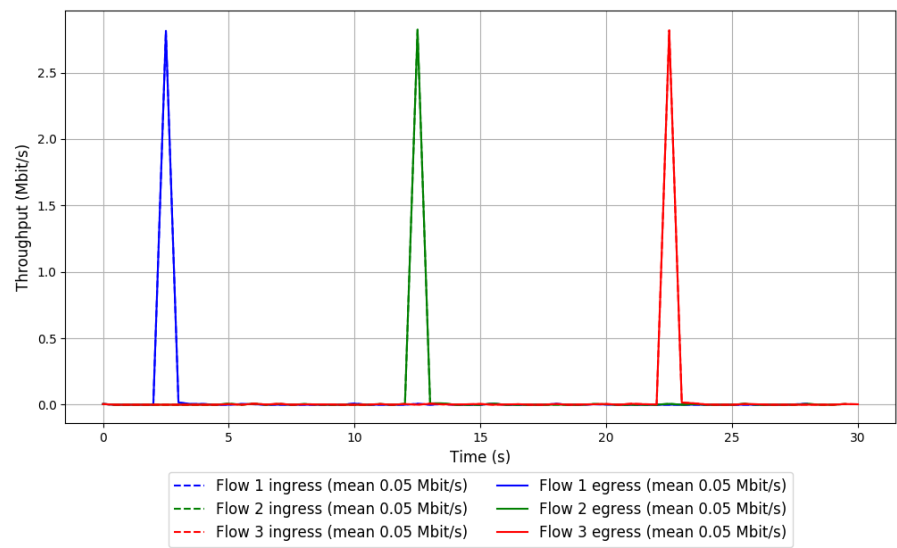
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-03-21 03:14:33
End at: 2018-03-21 03:15:03
Local clock offset: 10.176 ms
Remote clock offset: -4.939 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.126 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.039 ms
Loss rate: 0.00%
```
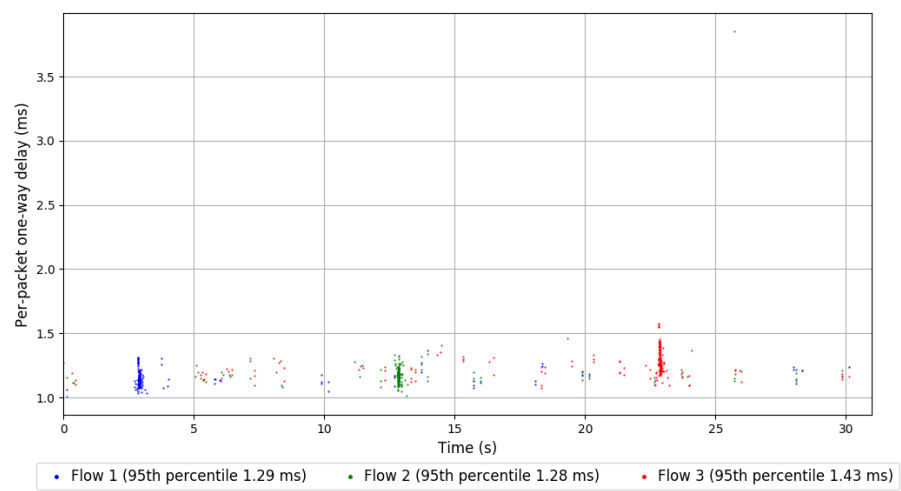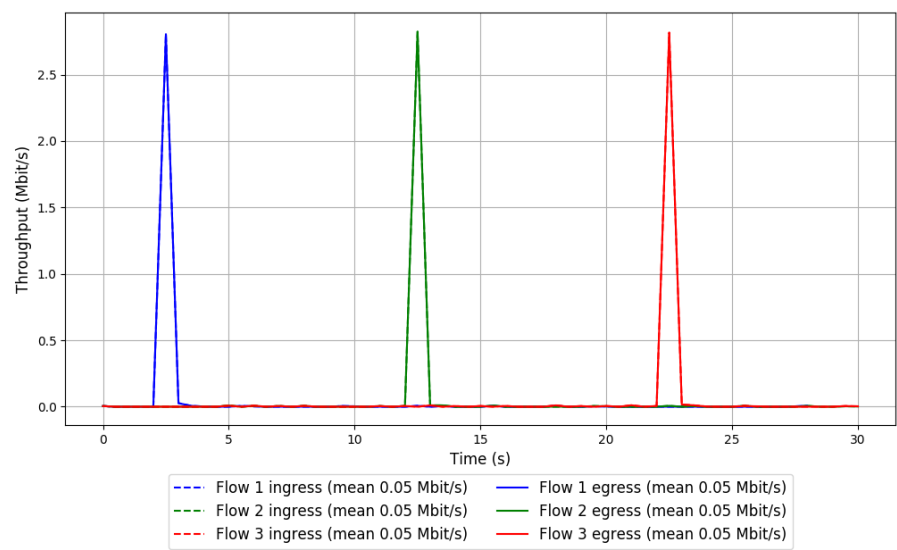
Run 8: Report of WebRTC media — Data Link

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

Flow 1 (95th percentile 1.15 ms)   Flow 2 (95th percentile 1.10 ms)   Flow 3 (95th percentile 1.04 ms)

```
Run 9: Statistics of WebRTC media

Start at: 2018-03-21 03:43:22
End at: 2018-03-21 03:43:52
Local clock offset: 10.685 ms
Remote clock offset: -5.713 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.140 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.142 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.217 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.110 ms
Loss rate: 0.00%
```
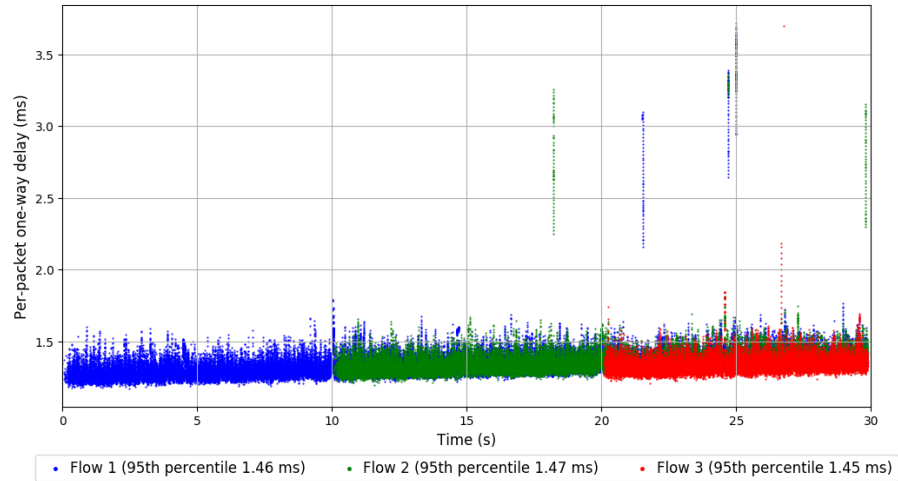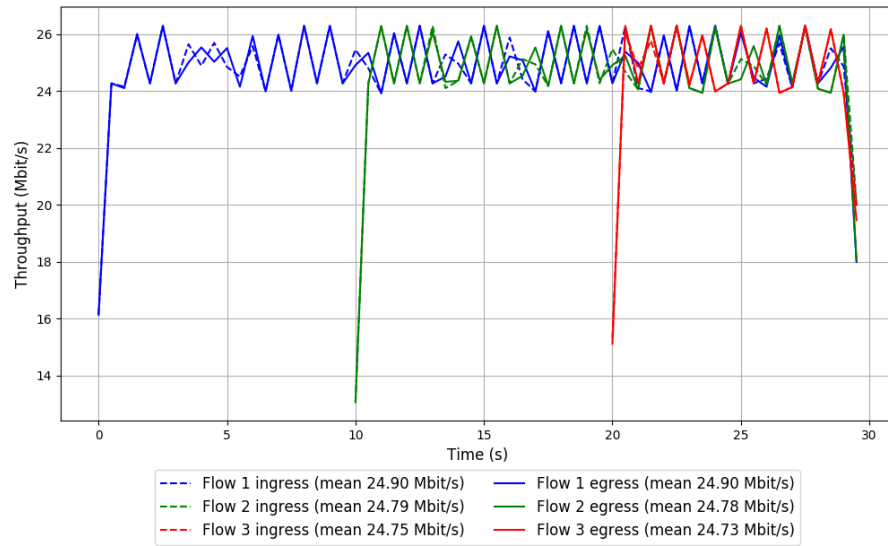
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-03-21 04:12:19
End at: 2018-03-21 04:12:49
Local clock offset: 2.725 ms
Remote clock offset: -5.054 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.295 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.284 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.434 ms
Loss rate: 0.00%
```
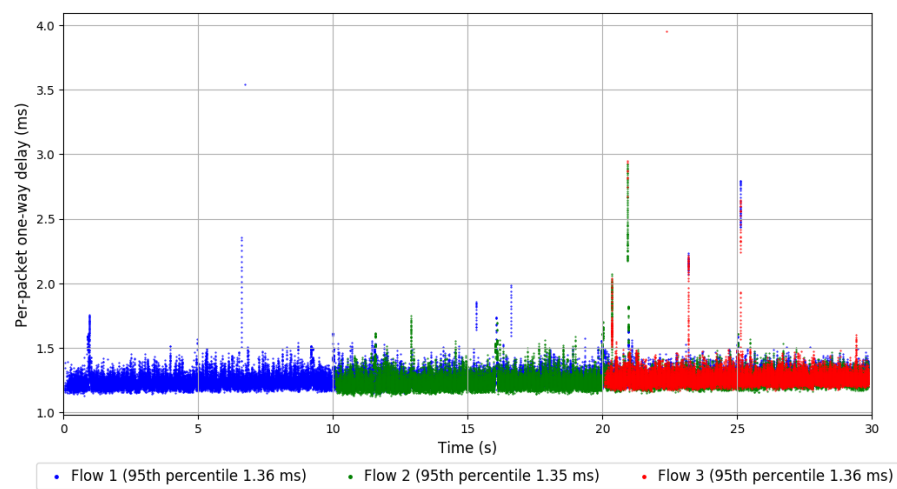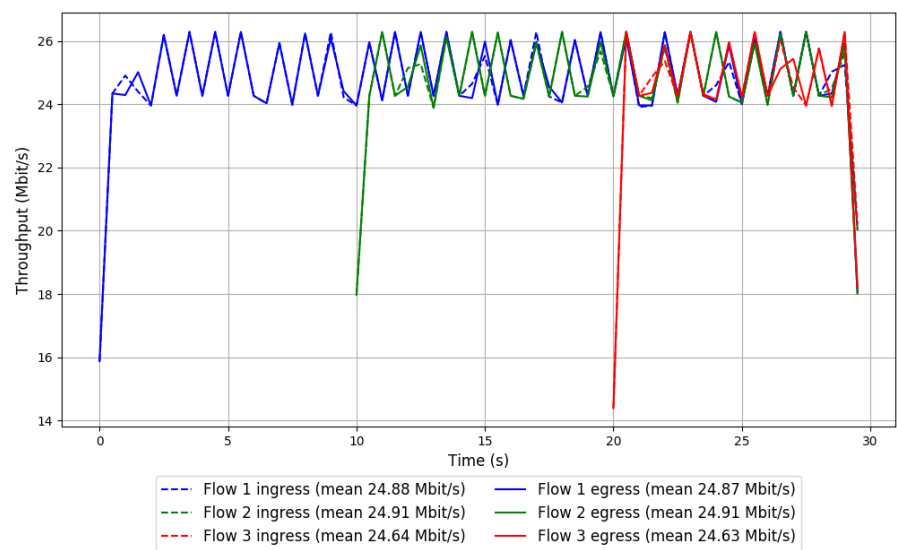
Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-03-20 23:47:04
End at: 2018-03-20 23:47:34
Local clock offset: 1.145 ms
Remote clock offset: -5.003 ms

# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.43 Mbit/s
95th percentile per-packet one-way delay: 1.464 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 24.90 Mbit/s
95th percentile per-packet one-way delay: 1.464 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 1.472 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 24.73 Mbit/s
95th percentile per-packet one-way delay: 1.446 ms
Loss rate: 0.11%
```

Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-03-21 00:16:07
End at: 2018-03-21 00:16:38
Local clock offset: -1.703 ms
Remote clock offset: -4.607 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 1.359 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 1.361 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.91 Mbit/s
95th percentile per-packet one-way delay: 1.355 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 1.357 ms
Loss rate: 0.42%
```
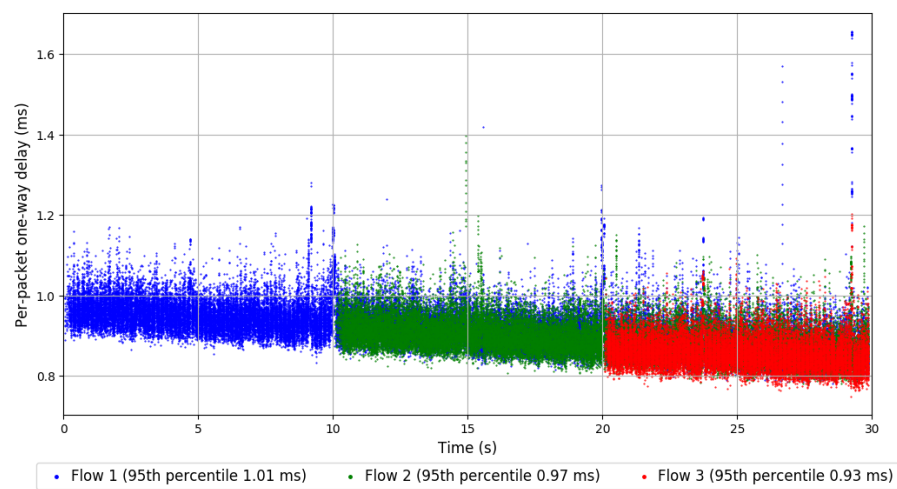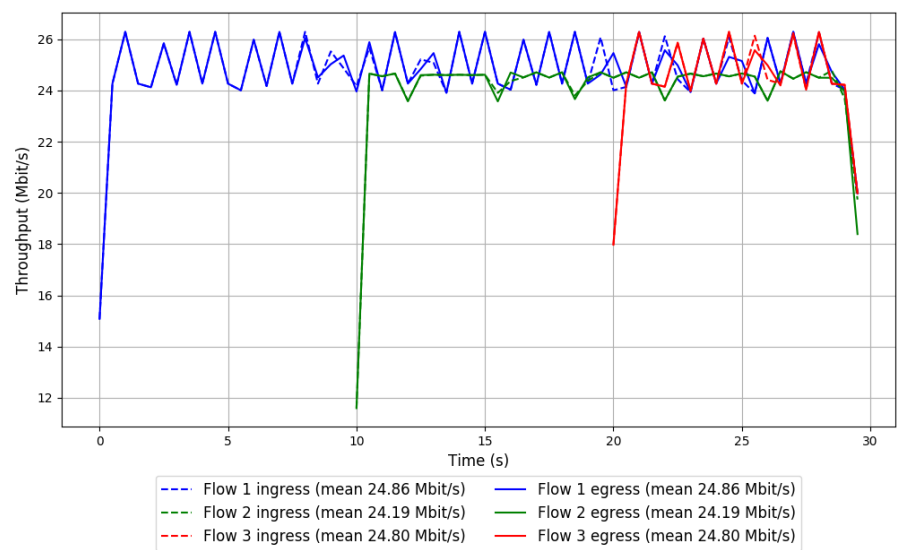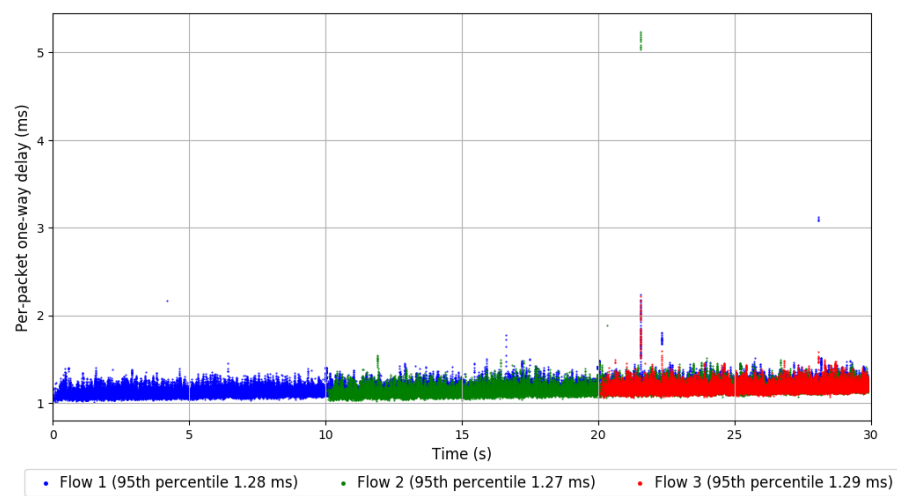
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-03-21 00:45:09
End at: 2018-03-21 00:45:39
Local clock offset: 4.701 ms
Remote clock offset: -4.96 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.07 Mbit/s
95th percentile per-packet one-way delay: 0.990 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 24.86 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 0.968 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 0.928 ms
Loss rate: 0.00%
```
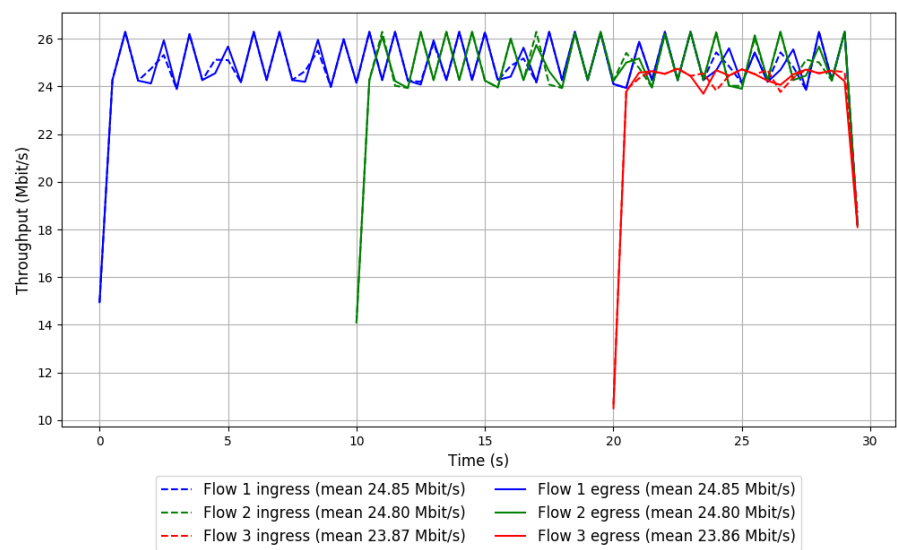
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-03-21 01:14:07
End at: 2018-03-21 01:14:37
Local clock offset: 2.39 ms
Remote clock offset: -4.907 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.15 Mbit/s
95th percentile per-packet one-way delay: 1.281 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 24.85 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 1.271 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.86 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.21%
```
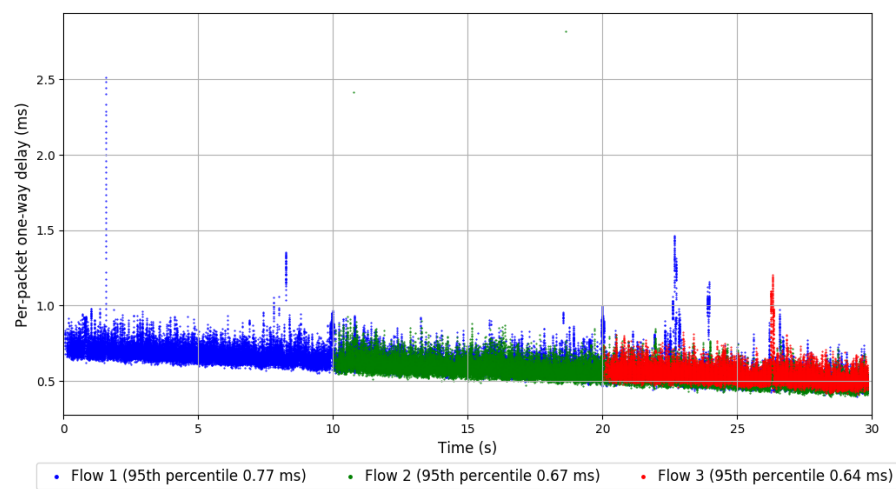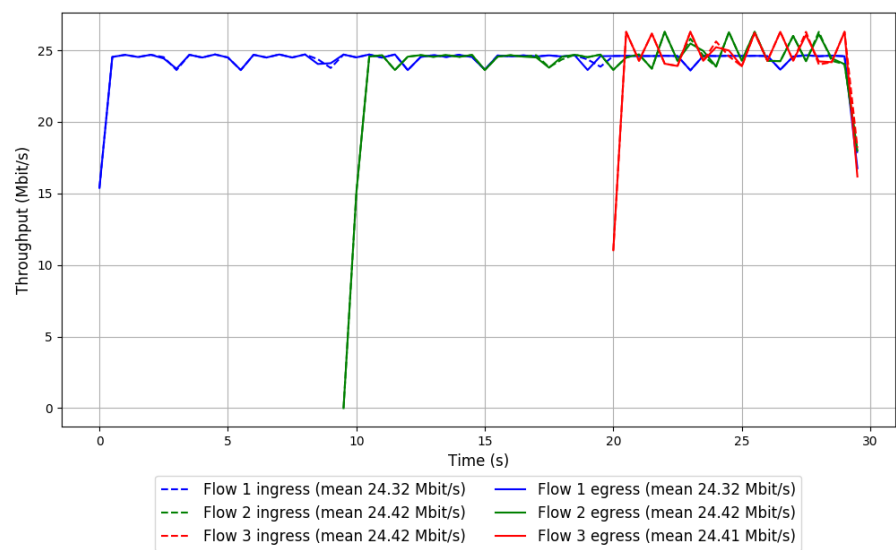
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-03-21 01:43:06
End at: 2018-03-21 01:43:36
Local clock offset: 2.55 ms
Remote clock offset: -5.193 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.57 Mbit/s
95th percentile per-packet one-way delay: 0.734 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 0.767 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 24.42 Mbit/s
95th percentile per-packet one-way delay: 0.674 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.41 Mbit/s
95th percentile per-packet one-way delay: 0.642 ms
Loss rate: 0.42%
```
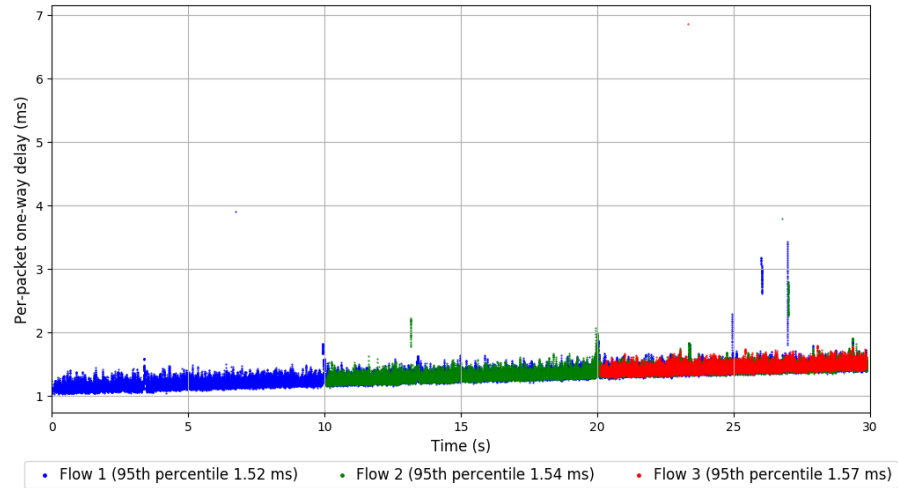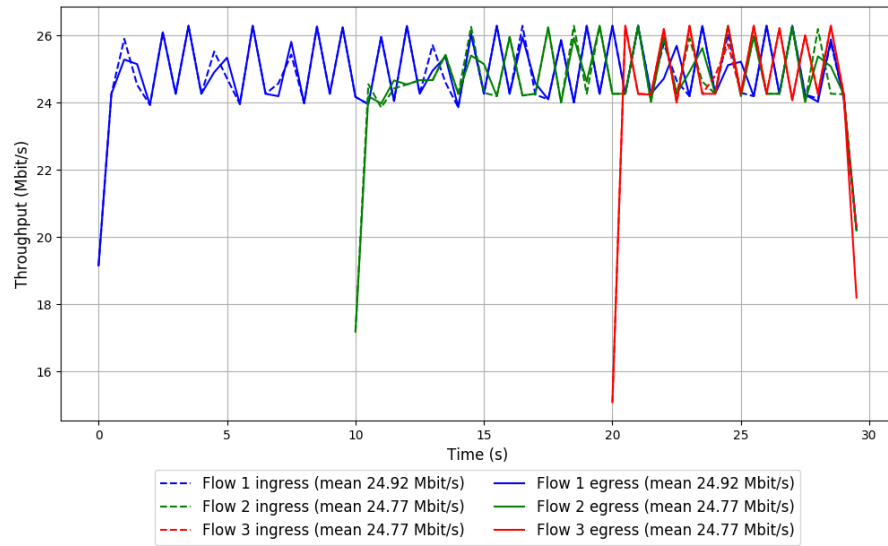
Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 24.32 Mbit/s) --- Flow 1 egress (mean 24.32 Mbit/s)
Flow 2 ingress (mean 24.42 Mbit/s) --- Flow 2 egress (mean 24.42 Mbit/s)
Flow 3 ingress (mean 24.42 Mbit/s) --- Flow 3 egress (mean 24.41 Mbit/s)

Flow 1 (95th percentile 0.77 ms)   Flow 2 (95th percentile 0.67 ms)   Flow 3 (95th percentile 0.64 ms)

```
Run 6: Statistics of Sprout

Start at: 2018-03-21 02:12:03
End at: 2018-03-21 02:12:33
Local clock offset: 7.49 ms
Remote clock offset: -5.722 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.51 Mbit/s
95th percentile per-packet one-way delay: 1.542 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 1.521 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.77 Mbit/s
95th percentile per-packet one-way delay: 1.540 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.77 Mbit/s
95th percentile per-packet one-way delay: 1.569 ms
Loss rate: 0.41%
```
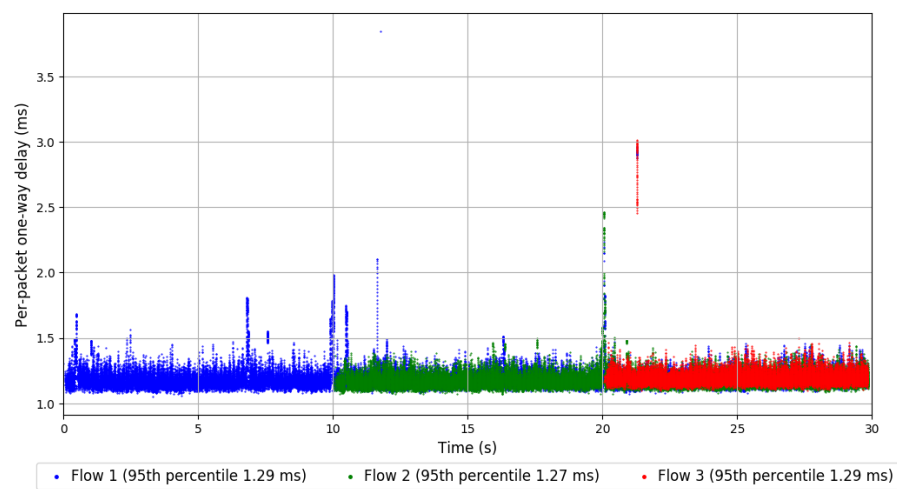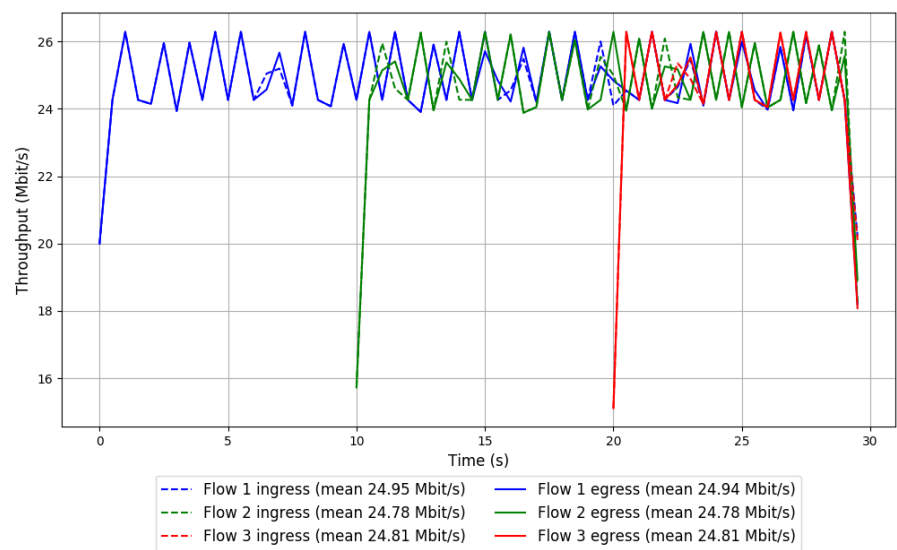
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-03-21 02:40:56
End at: 2018-03-21 02:41:26
Local clock offset: 0.112 ms
Remote clock offset: -6.418 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.53 Mbit/s
95th percentile per-packet one-way delay: 1.284 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 24.94 Mbit/s
95th percentile per-packet one-way delay: 1.292 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 1.275 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.81 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.41%
```
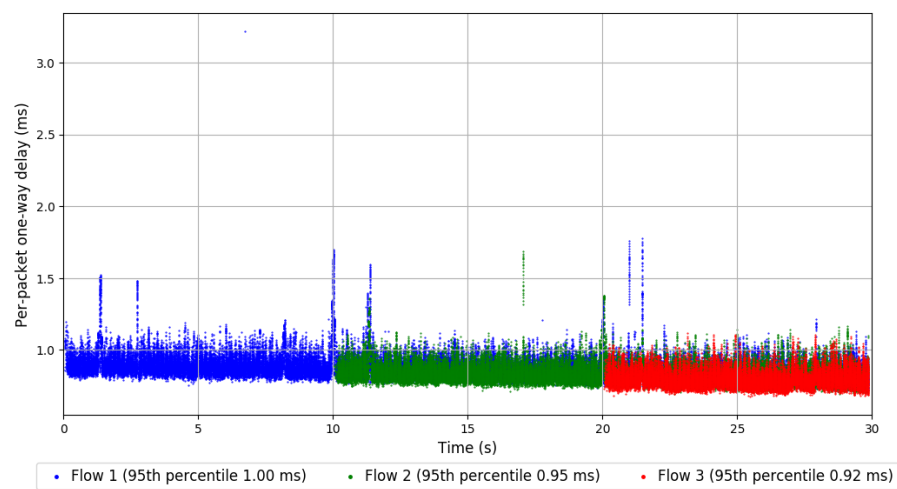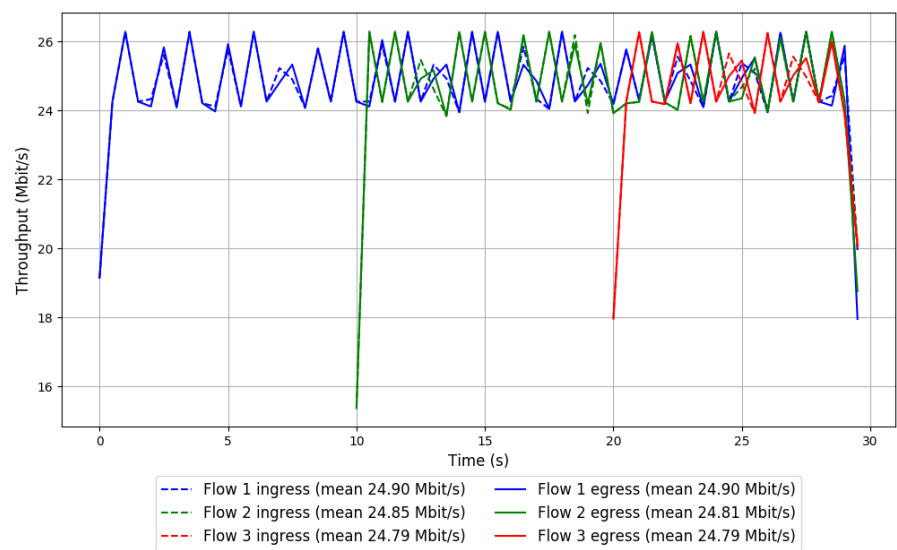
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-03-21 03:09:54
End at: 2018-03-21 03:10:24
Local clock offset: 9.391 ms
Remote clock offset: -4.947 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.51 Mbit/s
95th percentile per-packet one-way delay: 0.978 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 24.90 Mbit/s
95th percentile per-packet one-way delay: 1.002 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.81 Mbit/s
95th percentile per-packet one-way delay: 0.955 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.79 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.00%
```
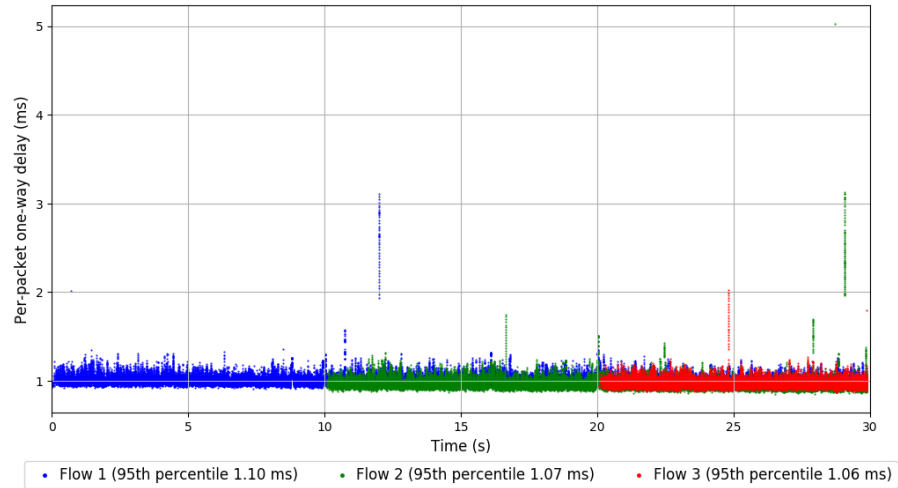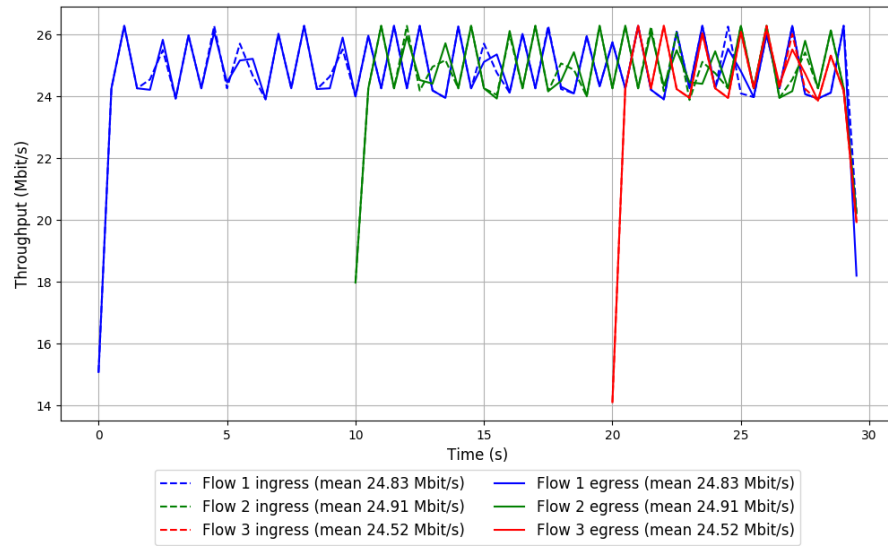
Run 8: Report of Sprout — Data Link

- - - - Flow 1 ingress (mean 24.90 Mbit/s) ——— Flow 1 egress (mean 24.90 Mbit/s)
- - - - Flow 2 ingress (mean 24.85 Mbit/s) ——— Flow 2 egress (mean 24.81 Mbit/s)
- - - - Flow 3 ingress (mean 24.79 Mbit/s) ——— Flow 3 egress (mean 24.79 Mbit/s)

- Flow 1 (95th percentile 1.00 ms)   • Flow 2 (95th percentile 0.95 ms)   • Flow 3 (95th percentile 0.92 ms)

```
Run 9: Statistics of Sprout

Start at: 2018-03-21 03:38:46
End at: 2018-03-21 03:39:16
Local clock offset: 10.42 ms
Remote clock offset: -5.625 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.42 Mbit/s
95th percentile per-packet one-way delay: 1.088 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 24.83 Mbit/s
95th percentile per-packet one-way delay: 1.103 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 24.91 Mbit/s
95th percentile per-packet one-way delay: 1.068 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 1.064 ms
Loss rate: 0.00%
```
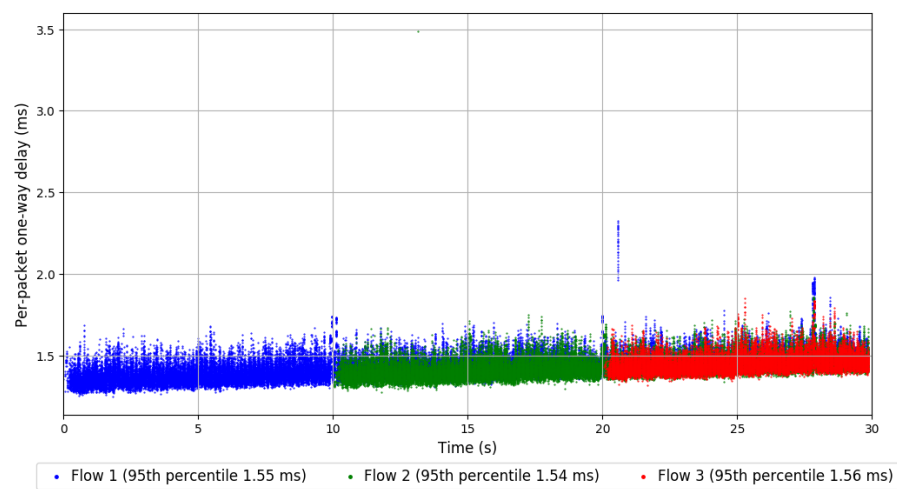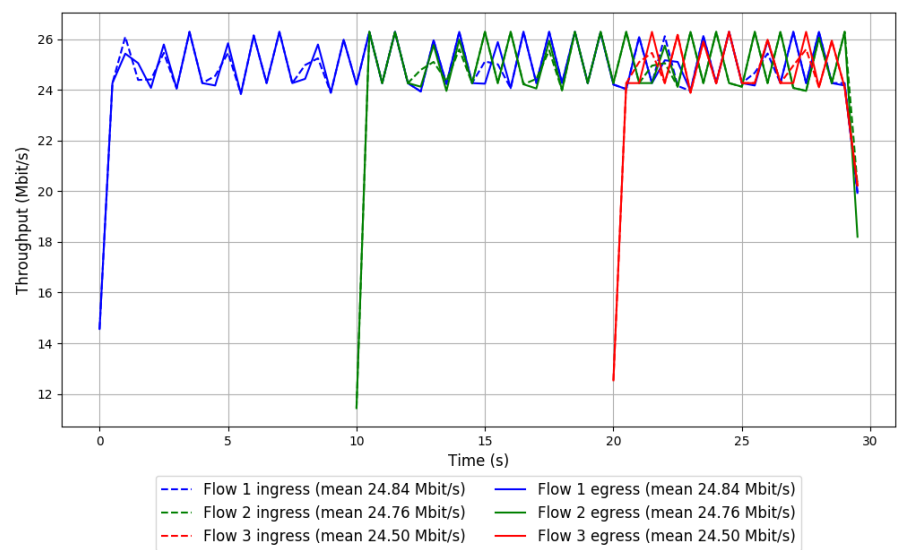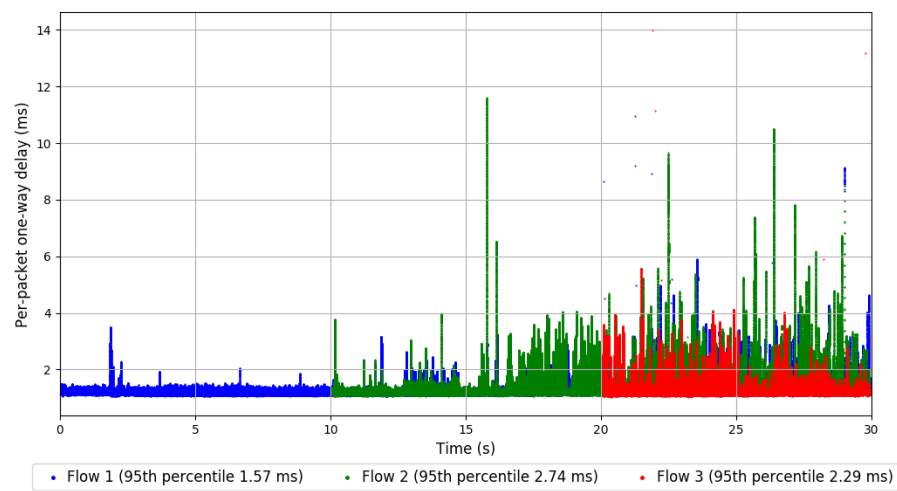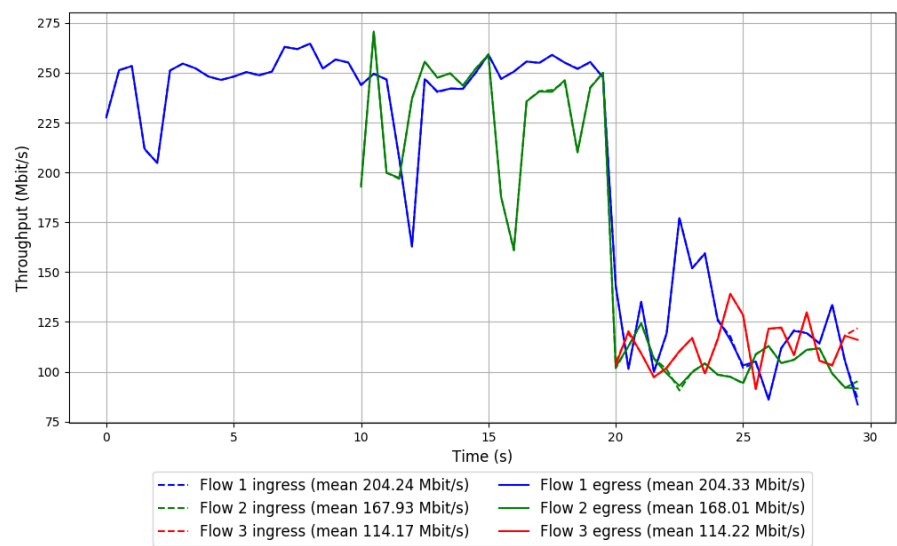
Run 9: Report of Sprout — Data Link

Throughput (Mbit/s) vs Time (s)

- - - Flow 1 ingress (mean 24.83 Mbit/s) ——— Flow 1 egress (mean 24.83 Mbit/s)
- - - Flow 2 ingress (mean 24.91 Mbit/s) ——— Flow 2 egress (mean 24.91 Mbit/s)
- - - Flow 3 ingress (mean 24.52 Mbit/s) ——— Flow 3 egress (mean 24.52 Mbit/s)

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

• Flow 1 (95th percentile 1.10 ms)   • Flow 2 (95th percentile 1.07 ms)   • Flow 3 (95th percentile 1.06 ms)

161

```
Run 10: Statistics of Sprout

Start at: 2018-03-21 04:07:34
End at: 2018-03-21 04:08:04
Local clock offset: 3.909 ms
Remote clock offset: -5.199 ms


# Below is generated by plot.py at 2018-03-21 10:43:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 1.547 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 24.84 Mbit/s
95th percentile per-packet one-way delay: 1.548 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 1.542 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 1.557 ms
Loss rate: 0.00%
```

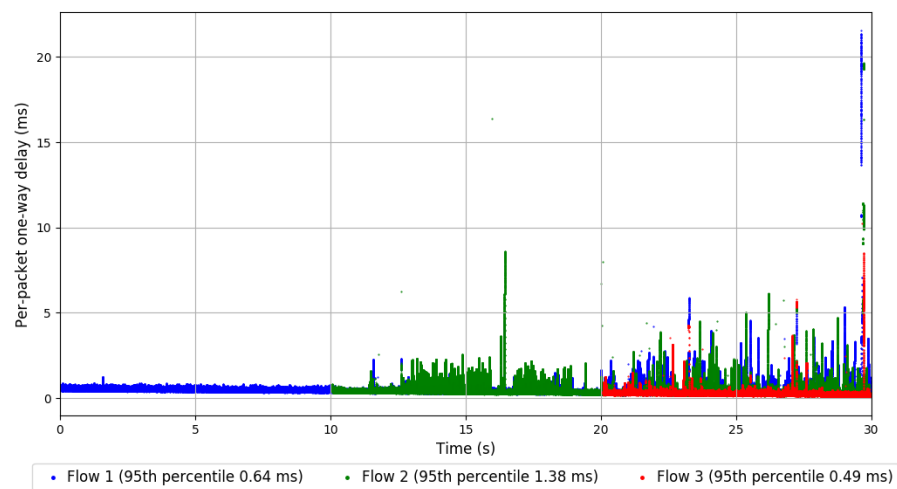Run 10: Report of Sprout — Data Link

163

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

Start at: 2018-03-21 00:06:17
End at: 2018-03-21 00:06:47
Local clock offset: -0.857 ms
Remote clock offset: -4.823 ms

# Below is generated by plot.py at 2018-03-21 10:50:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.78 Mbit/s
95th percentile per-packet one-way delay: 2.080 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 204.33 Mbit/s
95th percentile per-packet one-way delay: 1.568 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 168.01 Mbit/s
95th percentile per-packet one-way delay: 2.738 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 114.22 Mbit/s
95th percentile per-packet one-way delay: 2.287 ms
Loss rate: 0.27%
```
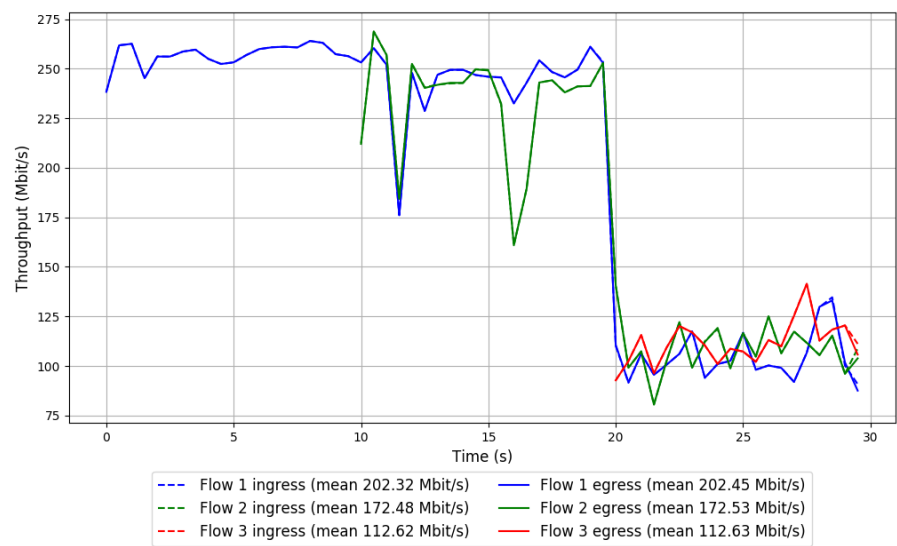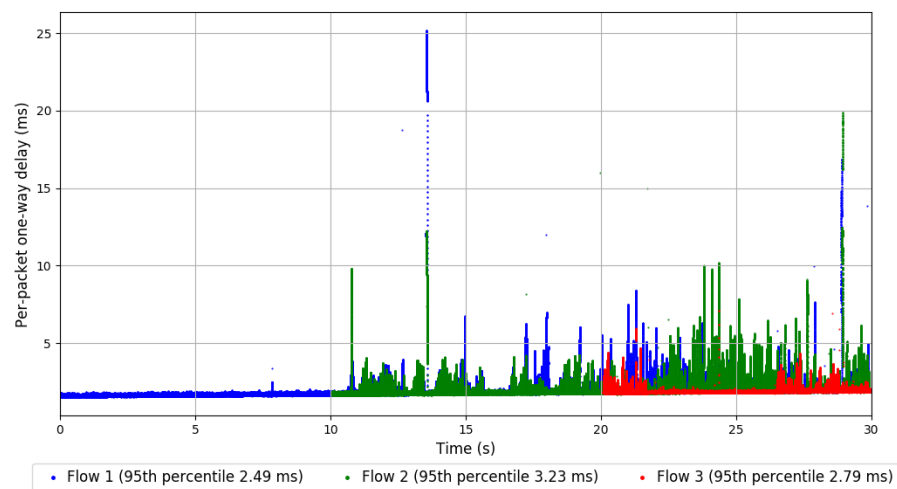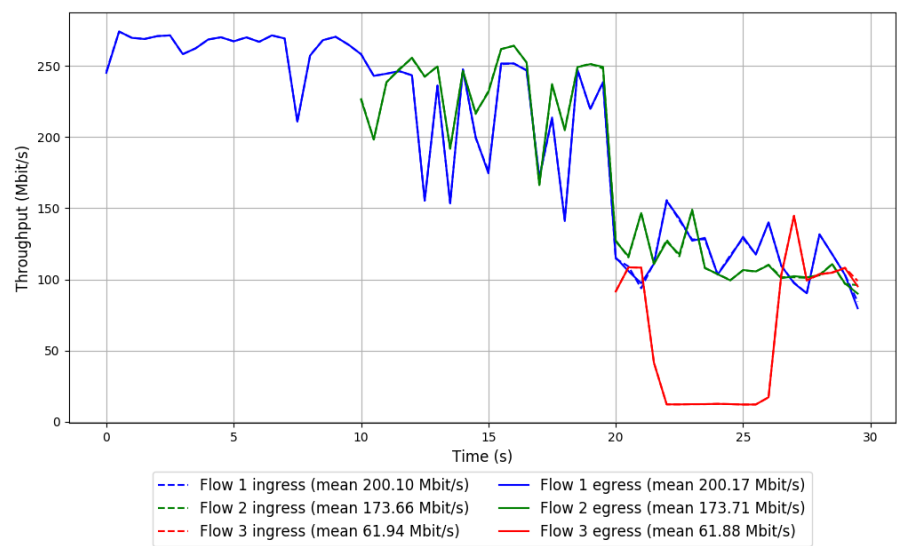
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 204.24 Mbit/s) --- Flow 1 egress (mean 204.33 Mbit/s) ---
Flow 2 ingress (mean 167.93 Mbit/s) --- Flow 2 egress (mean 168.01 Mbit/s) ---
Flow 3 ingress (mean 114.17 Mbit/s) --- Flow 3 egress (mean 114.22 Mbit/s) ---

Flow 1 (95th percentile 1.57 ms) • Flow 2 (95th percentile 2.74 ms) • Flow 3 (95th percentile 2.29 ms)

165

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

Start at: 2018-03-21 00:35:17
End at: 2018-03-21 00:35:47
Local clock offset: 0.82 ms
Remote clock offset: -4.643 ms


# Below is generated by plot.py at 2018-03-21 10:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.41 Mbit/s
95th percentile per-packet one-way delay: 0.910 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 202.45 Mbit/s
95th percentile per-packet one-way delay: 0.644 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 172.53 Mbit/s
95th percentile per-packet one-way delay: 1.377 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 112.63 Mbit/s
95th percentile per-packet one-way delay: 0.486 ms
Loss rate: 0.25%
```

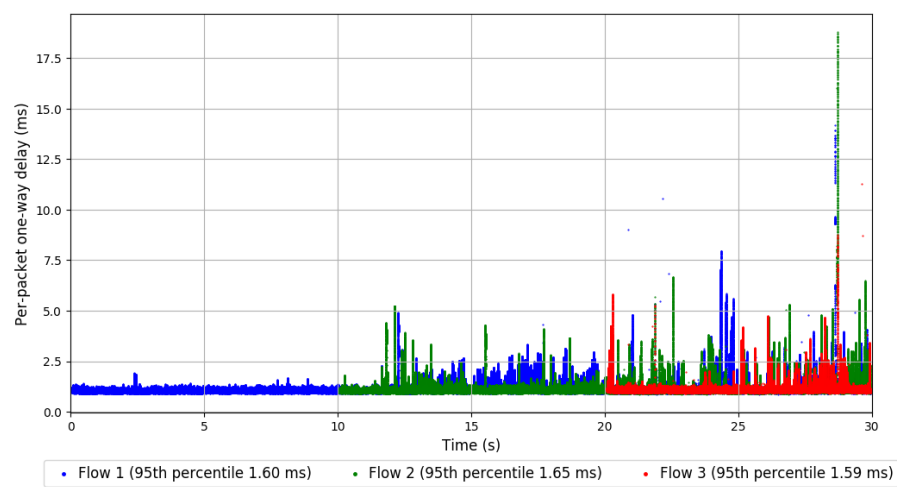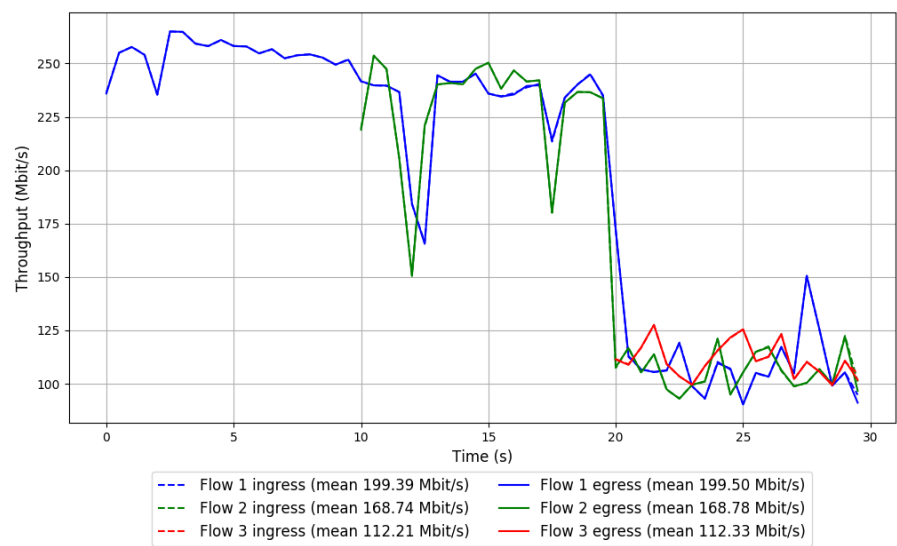Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-03-21 01:04:20
End at: 2018-03-21 01:04:50
Local clock offset: 7.305 ms
Remote clock offset: -4.943 ms

# Below is generated by plot.py at 2018-03-21 10:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 336.12 Mbit/s
95th percentile per-packet one-way delay: 2.790 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 200.17 Mbit/s
95th percentile per-packet one-way delay: 2.487 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 173.71 Mbit/s
95th percentile per-packet one-way delay: 3.233 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 2.788 ms
Loss rate: 0.35%
```
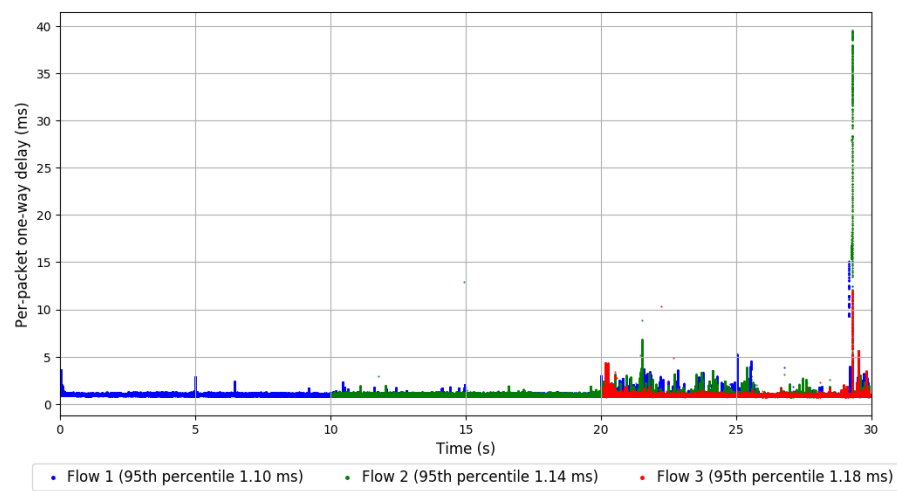
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2018-03-21 01:33:15
End at: 2018-03-21 01:33:45
Local clock offset: 0.058 ms
Remote clock offset: -4.921 ms


# Below is generated by plot.py at 2018-03-21 10:50:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 348.91 Mbit/s
95th percentile per-packet one-way delay: 1.612 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 199.50 Mbit/s
95th percentile per-packet one-way delay: 1.596 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 168.78 Mbit/s
95th percentile per-packet one-way delay: 1.651 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 112.33 Mbit/s
95th percentile per-packet one-way delay: 1.586 ms
Loss rate: 0.14%
```
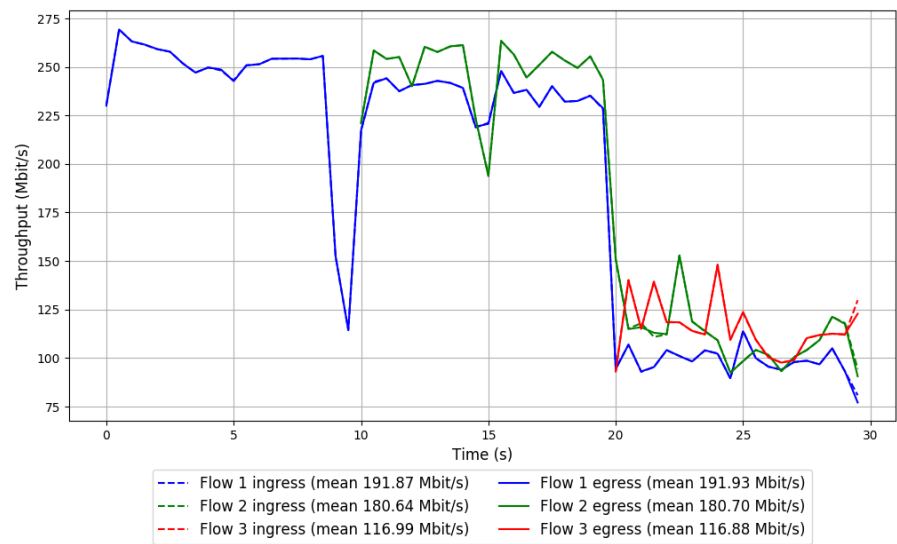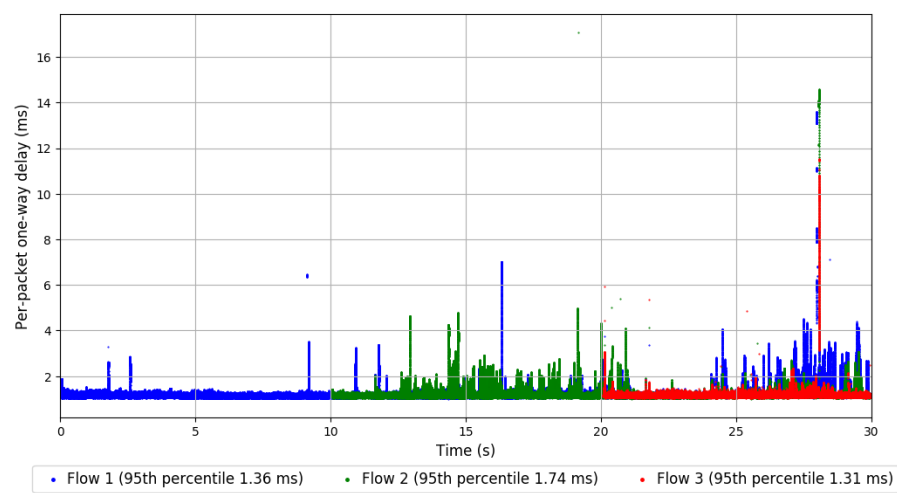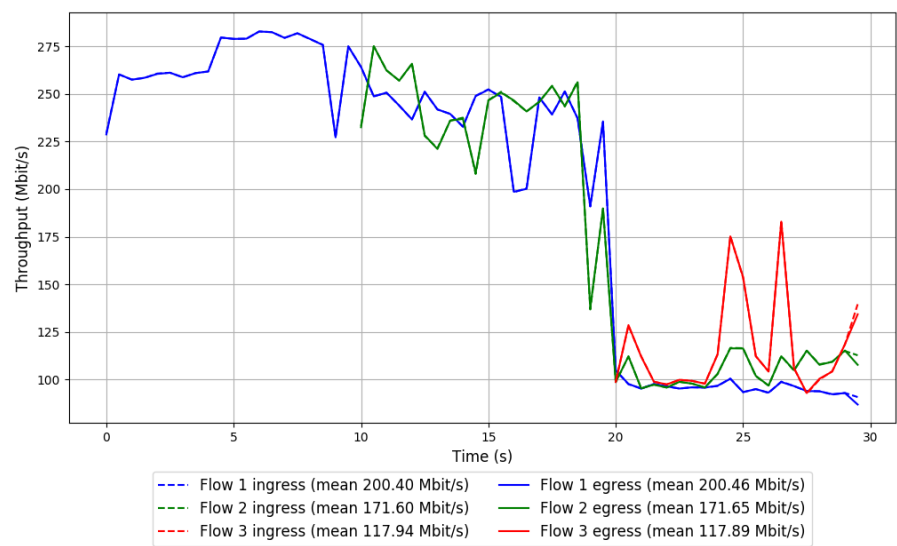
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 199.39 Mbit/s)   Flow 1 egress (mean 199.50 Mbit/s)
Flow 2 ingress (mean 168.74 Mbit/s)   Flow 2 egress (mean 168.78 Mbit/s)
Flow 3 ingress (mean 112.21 Mbit/s)   Flow 3 egress (mean 112.33 Mbit/s)

Flow 1 (95th percentile 1.60 ms)   Flow 2 (95th percentile 1.65 ms)   Flow 3 (95th percentile 1.59 ms)

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

Start at: 2018-03-21 02:02:12
End at: 2018-03-21 02:02:42
Local clock offset: 6.598 ms
Remote clock offset: -5.717 ms


# Below is generated by plot.py at 2018-03-21 10:50:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 350.67 Mbit/s
95th percentile per-packet one-way delay: 1.116 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 191.93 Mbit/s
95th percentile per-packet one-way delay: 1.098 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 180.70 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 116.88 Mbit/s
95th percentile per-packet one-way delay: 1.181 ms
Loss rate: 0.30%
```
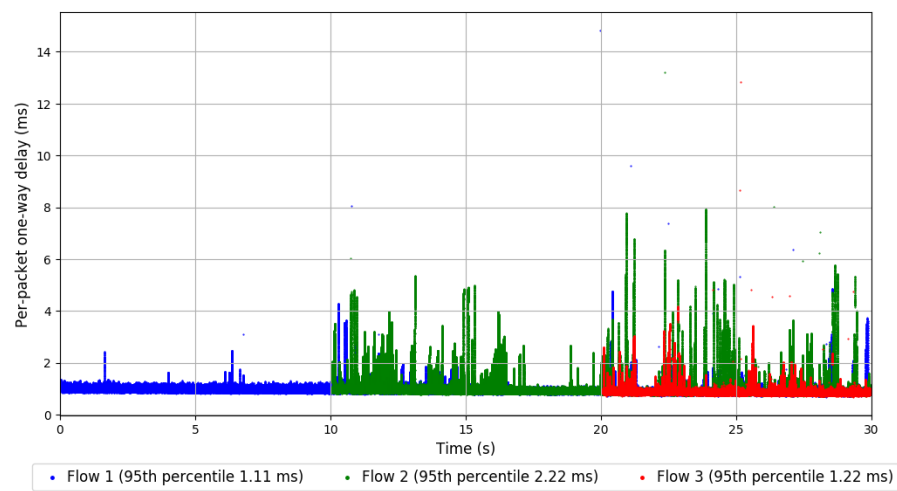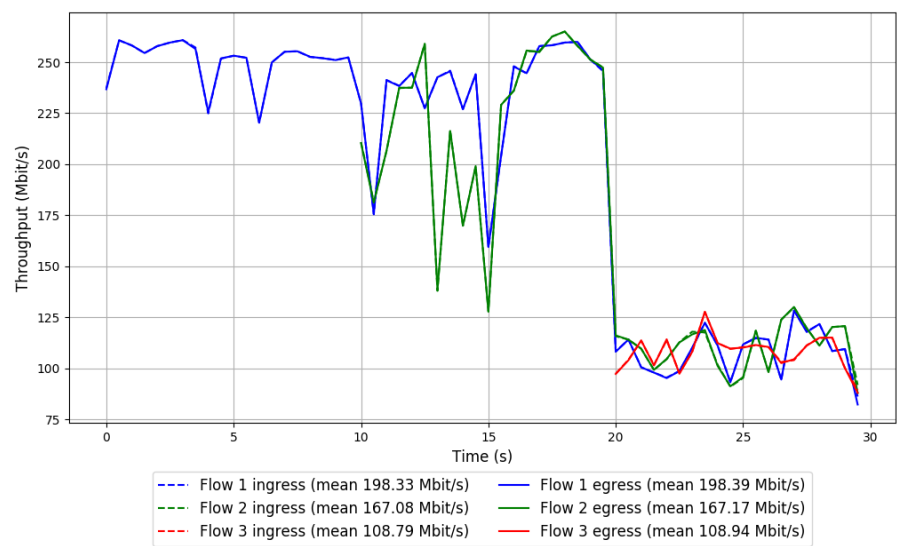
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 191.87 Mbit/s) --- Flow 1 egress (mean 191.93 Mbit/s)
Flow 2 ingress (mean 180.64 Mbit/s) --- Flow 2 egress (mean 180.70 Mbit/s)
Flow 3 ingress (mean 116.99 Mbit/s) --- Flow 3 egress (mean 116.88 Mbit/s)

Flow 1 (95th percentile 1.10 ms)   Flow 2 (95th percentile 1.14 ms)   Flow 3 (95th percentile 1.18 ms)

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

Start at: 2018-03-21 02:31:07
End at: 2018-03-21 02:31:37
Local clock offset: 1.031 ms
Remote clock offset: -6.232 ms

# Below is generated by plot.py at 2018-03-21 10:50:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.50 Mbit/s
95th percentile per-packet one-way delay: 1.470 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 200.46 Mbit/s
95th percentile per-packet one-way delay: 1.357 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 171.65 Mbit/s
95th percentile per-packet one-way delay: 1.741 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 117.89 Mbit/s
95th percentile per-packet one-way delay: 1.313 ms
Loss rate: 0.23%
```
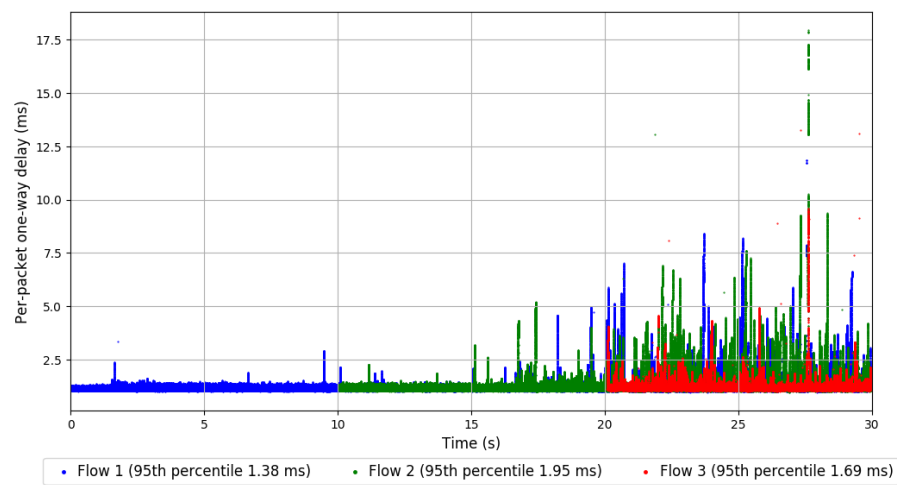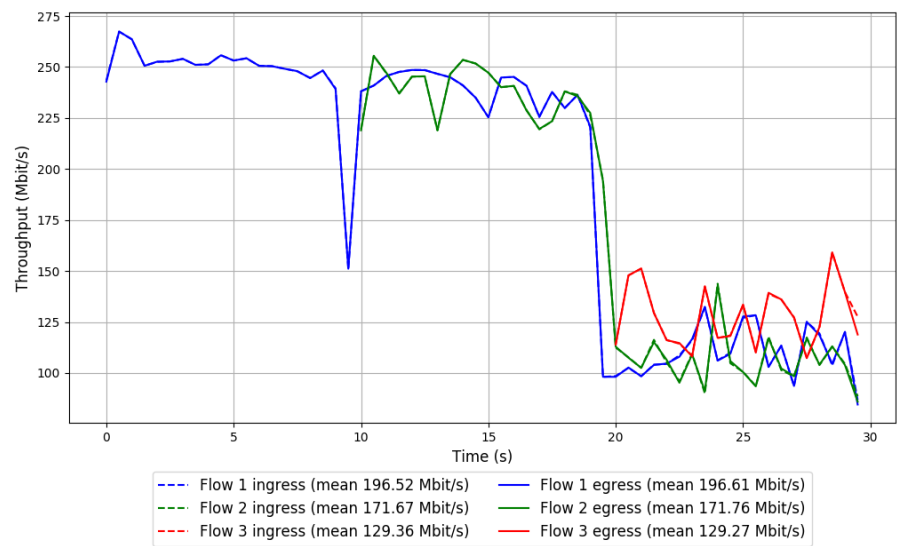
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 200.40 Mbit/s) --- Flow 1 egress (mean 200.46 Mbit/s)
Flow 2 ingress (mean 171.60 Mbit/s) --- Flow 2 egress (mean 171.65 Mbit/s)
Flow 3 ingress (mean 117.94 Mbit/s) --- Flow 3 egress (mean 117.89 Mbit/s)

Flow 1 (95th percentile 1.36 ms)   Flow 2 (95th percentile 1.74 ms)   Flow 3 (95th percentile 1.31 ms)
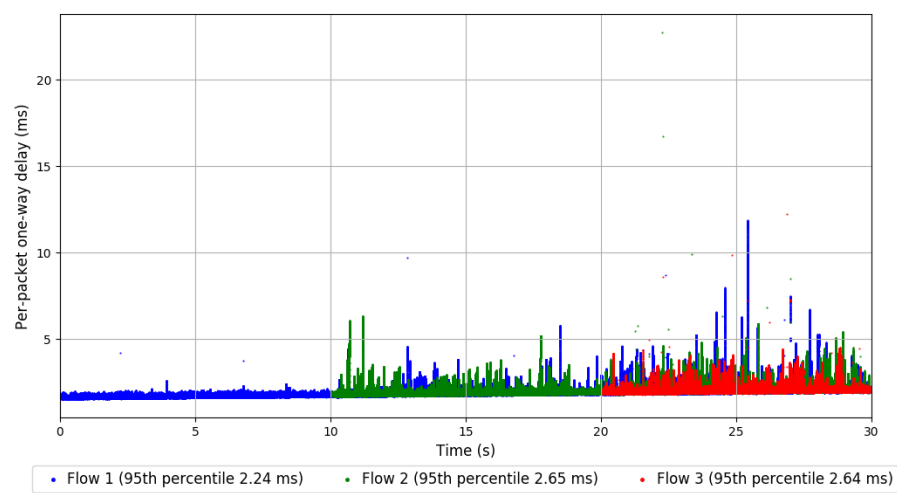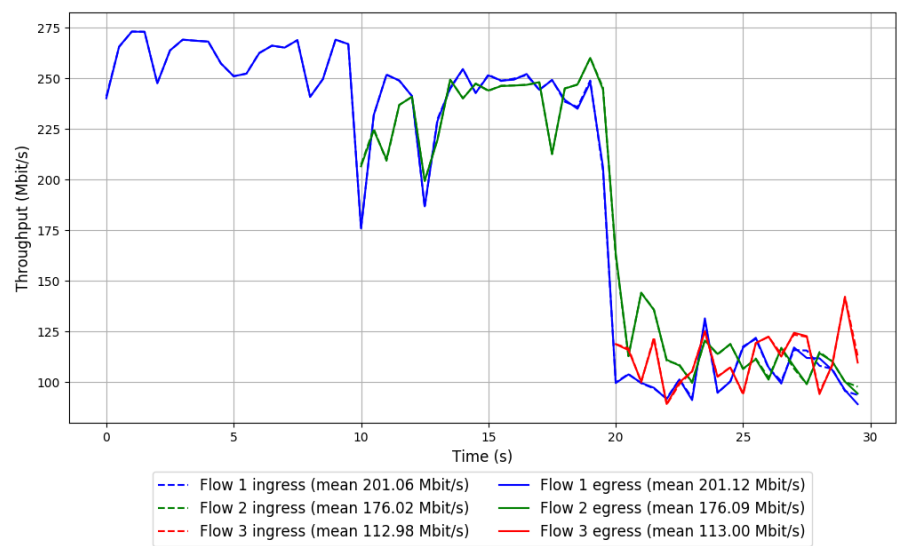
```
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-21 03:00:01
End at: 2018-03-21 03:00:31
Local clock offset: 7.251 ms
Remote clock offset: -5.288 ms


# Below is generated by plot.py at 2018-03-21 10:51:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.54 Mbit/s
95th percentile per-packet one-way delay: 1.428 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 198.39 Mbit/s
95th percentile per-packet one-way delay: 1.110 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 167.17 Mbit/s
95th percentile per-packet one-way delay: 2.222 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 108.94 Mbit/s
95th percentile per-packet one-way delay: 1.215 ms
Loss rate: 0.08%
```

Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 198.33 Mbit/s) --- Flow 1 egress (mean 198.39 Mbit/s)
Flow 2 ingress (mean 167.08 Mbit/s) --- Flow 2 egress (mean 167.17 Mbit/s)
Flow 3 ingress (mean 108.79 Mbit/s) --- Flow 3 egress (mean 108.94 Mbit/s)

Flow 1 (95th percentile 1.11 ms)   Flow 2 (95th percentile 2.22 ms)   Flow 3 (95th percentile 1.22 ms)
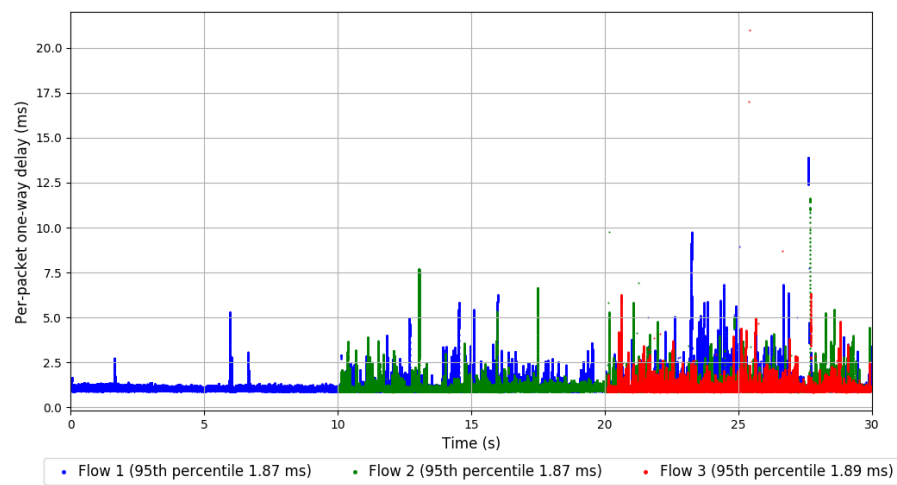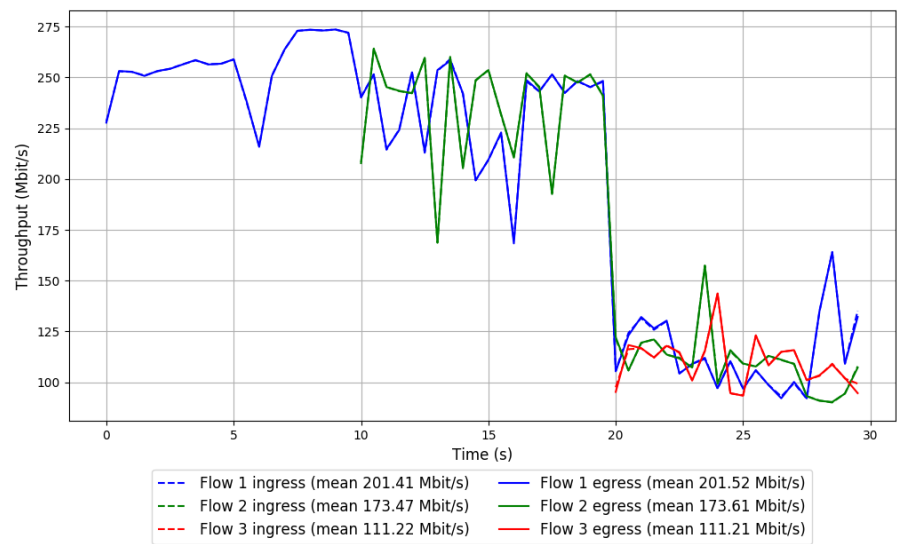
```
Run 8: Statistics of TaoVA-100x

Start at: 2018-03-21 03:28:56
End at: 2018-03-21 03:29:26
Local clock offset: 10.286 ms
Remote clock offset: -5.468 ms

# Below is generated by plot.py at 2018-03-21 10:53:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.46 Mbit/s
95th percentile per-packet one-way delay: 1.630 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 196.61 Mbit/s
95th percentile per-packet one-way delay: 1.380 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 171.76 Mbit/s
95th percentile per-packet one-way delay: 1.947 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 129.27 Mbit/s
95th percentile per-packet one-way delay: 1.687 ms
Loss rate: 0.34%
```
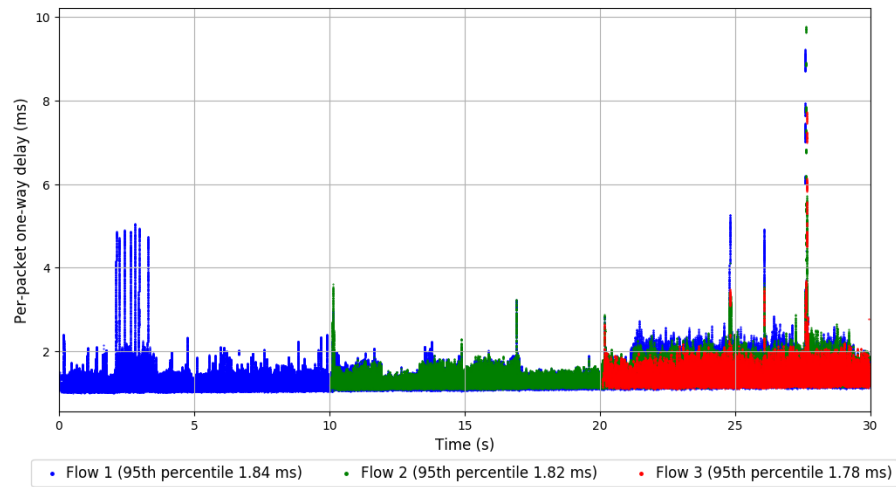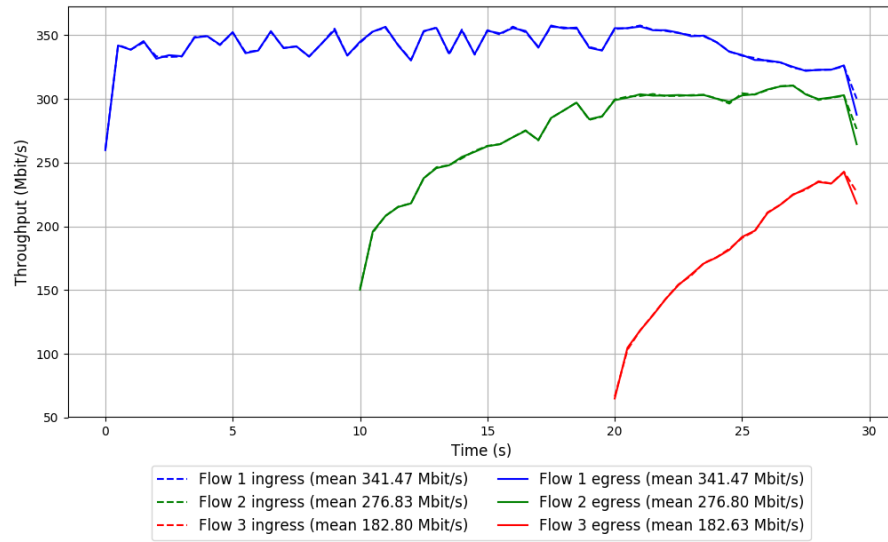
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 196.52 Mbit/s) — — — Flow 1 egress (mean 196.61 Mbit/s)
Flow 2 ingress (mean 171.67 Mbit/s) — — — Flow 2 egress (mean 171.76 Mbit/s)
Flow 3 ingress (mean 129.36 Mbit/s) — — — Flow 3 egress (mean 129.27 Mbit/s)

Flow 1 (95th percentile 1.38 ms) • Flow 2 (95th percentile 1.95 ms) • Flow 3 (95th percentile 1.69 ms)

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

Start at: 2018-03-21 03:57:43
End at: 2018-03-21 03:58:13
Local clock offset: 8.984 ms
Remote clock offset: -5.575 ms


# Below is generated by plot.py at 2018-03-21 10:59:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 355.53 Mbit/s
95th percentile per-packet one-way delay: 2.453 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 201.12 Mbit/s
95th percentile per-packet one-way delay: 2.241 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 176.09 Mbit/s
95th percentile per-packet one-way delay: 2.649 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 113.00 Mbit/s
95th percentile per-packet one-way delay: 2.640 ms
Loss rate: 0.18%
```
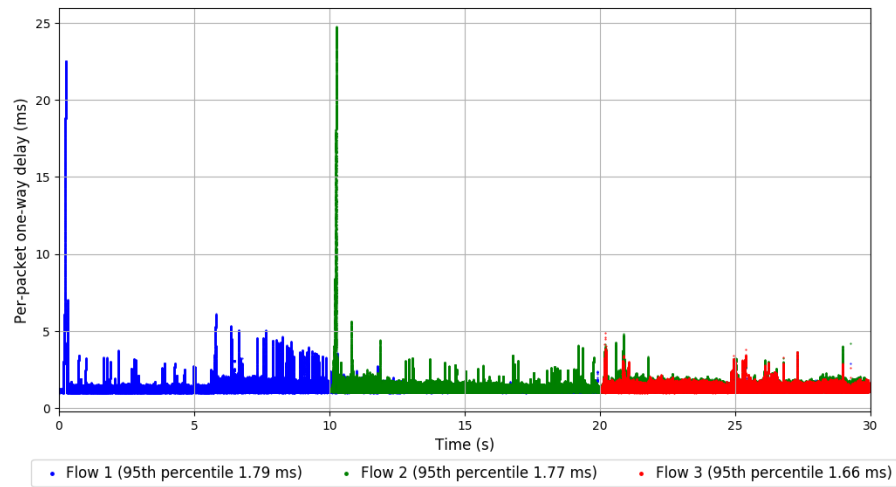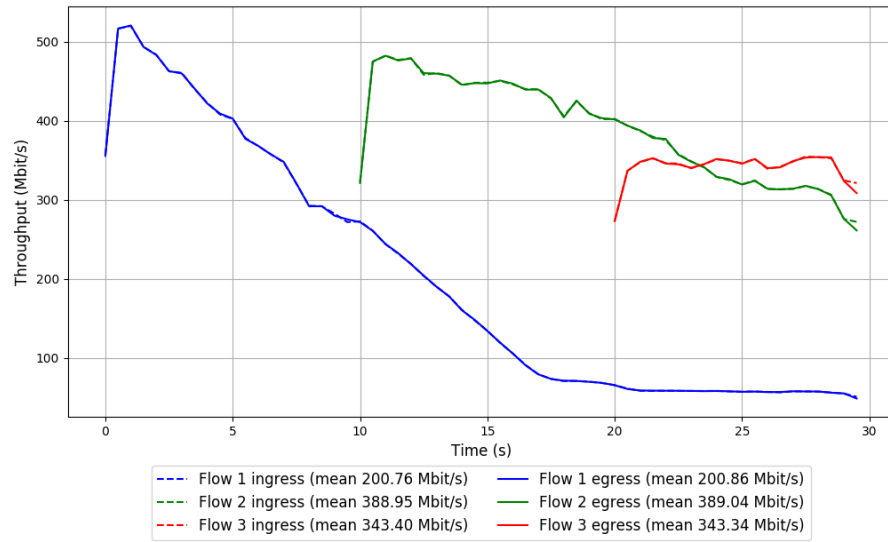
Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 201.06 Mbit/s) Flow 1 egress (mean 201.12 Mbit/s)
Flow 2 ingress (mean 176.02 Mbit/s) Flow 2 egress (mean 176.09 Mbit/s)
Flow 3 ingress (mean 112.98 Mbit/s) Flow 3 egress (mean 113.00 Mbit/s)

Flow 1 (95th percentile 2.24 ms)   Flow 2 (95th percentile 2.65 ms)   Flow 3 (95th percentile 2.64 ms)

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

Start at: 2018-03-21 04:26:48
End at: 2018-03-21 04:27:18
Local clock offset: 0.948 ms
Remote clock offset: -4.851 ms


# Below is generated by plot.py at 2018-03-21 10:59:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.76 Mbit/s
95th percentile per-packet one-way delay: 1.870 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 201.52 Mbit/s
95th percentile per-packet one-way delay: 1.867 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 173.61 Mbit/s
95th percentile per-packet one-way delay: 1.868 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 111.21 Mbit/s
95th percentile per-packet one-way delay: 1.890 ms
Loss rate: 0.22%
```

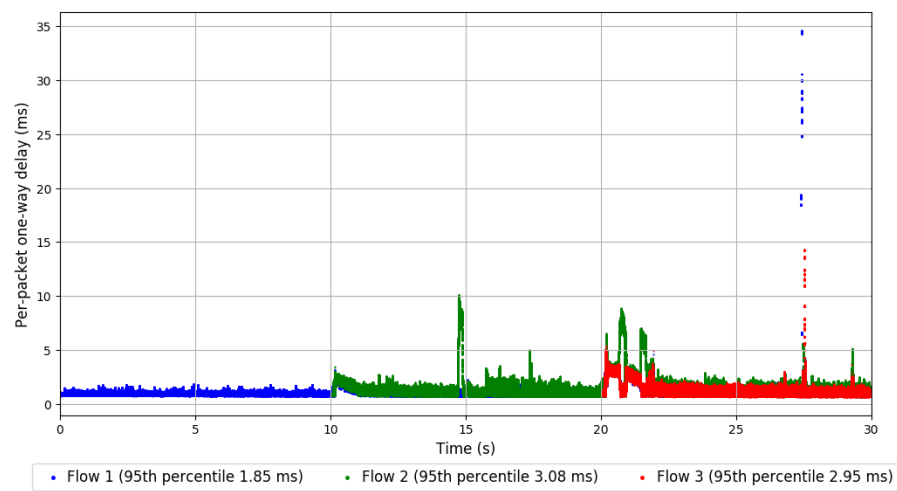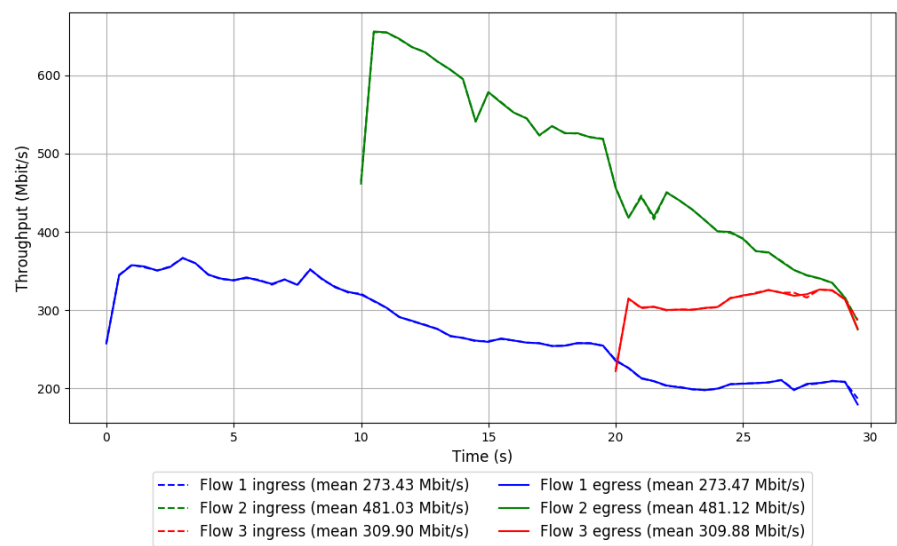# Run 10: Report of TaoVA-100x — Data Link

183

```
Run 1: Statistics of TCP Vegas

Start at: 2018-03-20 23:48:24
End at: 2018-03-20 23:48:54
Local clock offset: 0.743 ms
Remote clock offset: -4.975 ms


# Below is generated by plot.py at 2018-03-21 10:59:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.91 Mbit/s
95th percentile per-packet one-way delay: 1.827 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 341.47 Mbit/s
95th percentile per-packet one-way delay: 1.840 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 276.80 Mbit/s
95th percentile per-packet one-way delay: 1.822 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 182.63 Mbit/s
95th percentile per-packet one-way delay: 1.779 ms
Loss rate: 0.28%
```

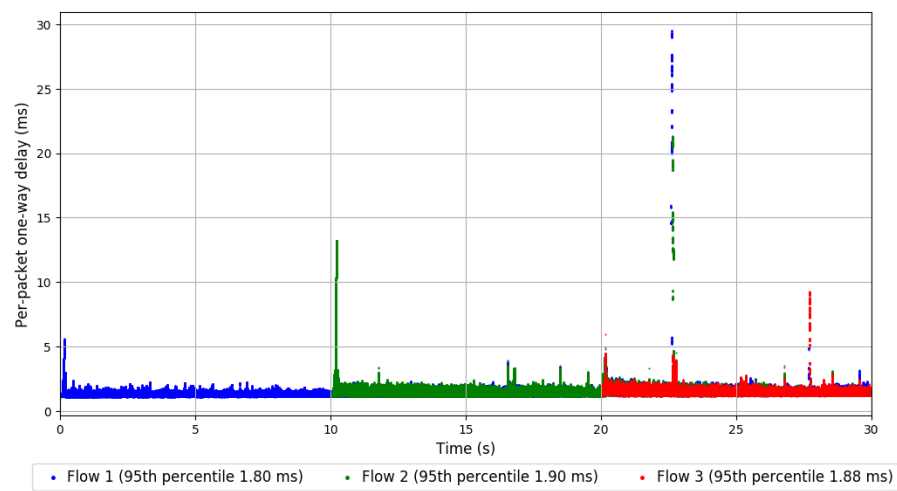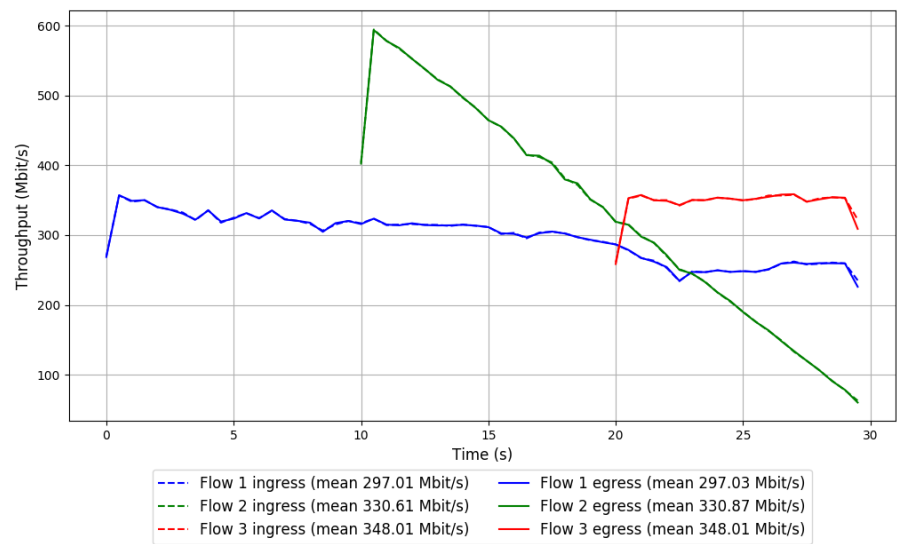Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-03-21 00:17:28
End at: 2018-03-21 00:17:58
Local clock offset: -1.941 ms
Remote clock offset: -4.534 ms


# Below is generated by plot.py at 2018-03-21 10:59:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 573.44 Mbit/s
95th percentile per-packet one-way delay: 1.746 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 200.86 Mbit/s
95th percentile per-packet one-way delay: 1.789 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 389.04 Mbit/s
95th percentile per-packet one-way delay: 1.769 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 343.34 Mbit/s
95th percentile per-packet one-way delay: 1.657 ms
Loss rate: 0.20%
```

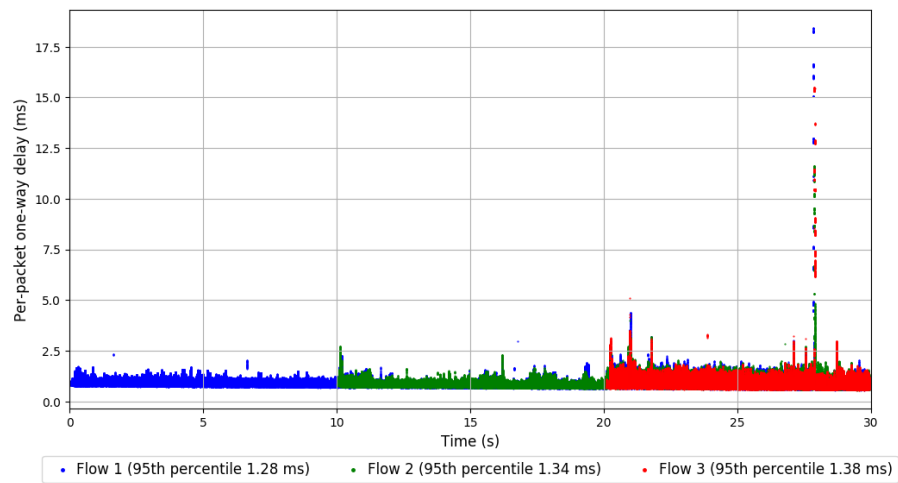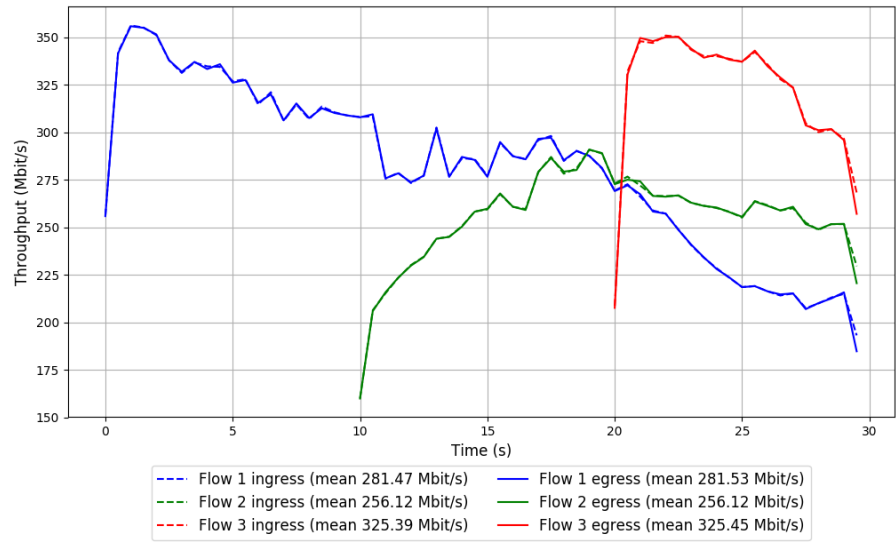Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-03-21 00:46:29
End at: 2018-03-21 00:46:59
Local clock offset: 4.968 ms
Remote clock offset: -4.887 ms


# Below is generated by plot.py at 2018-03-21 11:00:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 696.24 Mbit/s
95th percentile per-packet one-way delay: 2.653 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 273.47 Mbit/s
95th percentile per-packet one-way delay: 1.846 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 481.12 Mbit/s
95th percentile per-packet one-way delay: 3.077 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 309.88 Mbit/s
95th percentile per-packet one-way delay: 2.947 ms
Loss rate: 0.19%
```

Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-03-21 01:15:27
End at: 2018-03-21 01:15:57
Local clock offset: 2.17 ms
Remote clock offset: -4.914 ms


# Below is generated by plot.py at 2018-03-21 11:00:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 632.60 Mbit/s
95th percentile per-packet one-way delay: 1.851 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 297.03 Mbit/s
95th percentile per-packet one-way delay: 1.799 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 330.87 Mbit/s
95th percentile per-packet one-way delay: 1.895 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 348.01 Mbit/s
95th percentile per-packet one-way delay: 1.878 ms
Loss rate: 0.20%
```
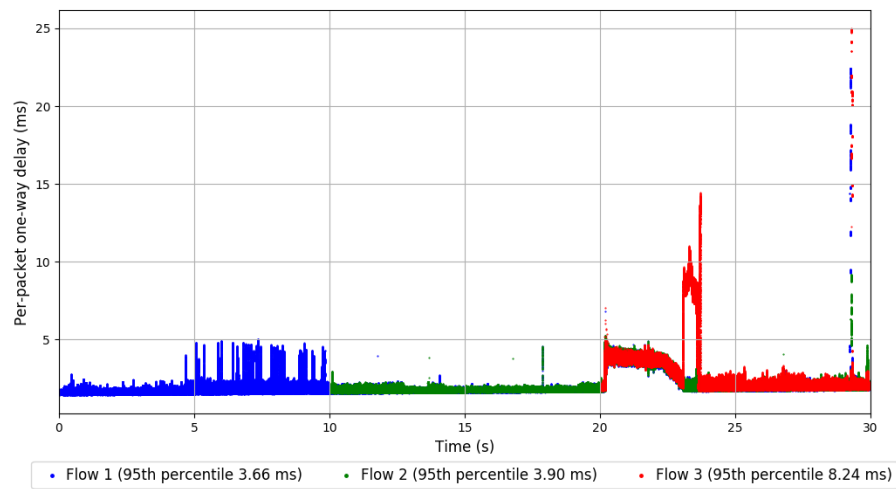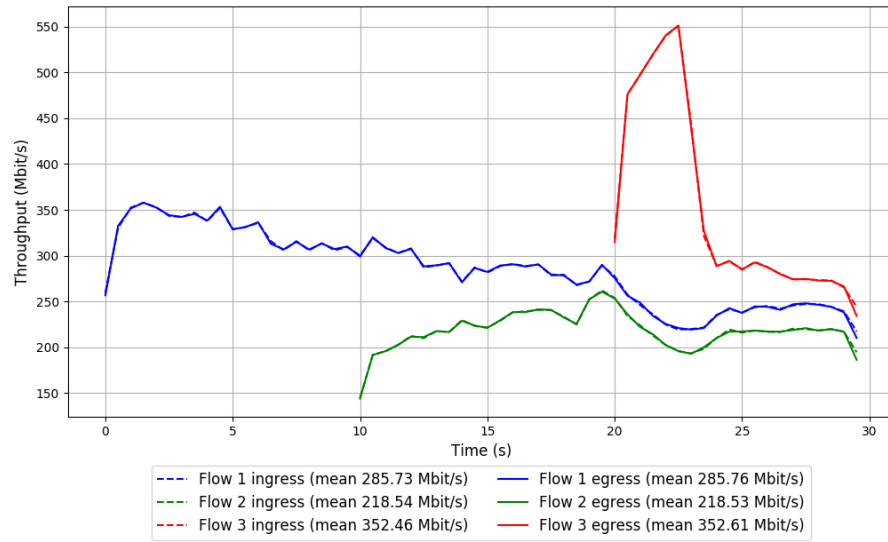
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-03-21 01:44:26
End at: 2018-03-21 01:44:56
Local clock offset: 3.166 ms
Remote clock offset: -5.328 ms


# Below is generated by plot.py at 2018-03-21 11:00:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.33 Mbit/s
95th percentile per-packet one-way delay: 1.323 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 281.53 Mbit/s
95th percentile per-packet one-way delay: 1.276 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 256.12 Mbit/s
95th percentile per-packet one-way delay: 1.342 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 325.45 Mbit/s
95th percentile per-packet one-way delay: 1.376 ms
Loss rate: 0.18%
```
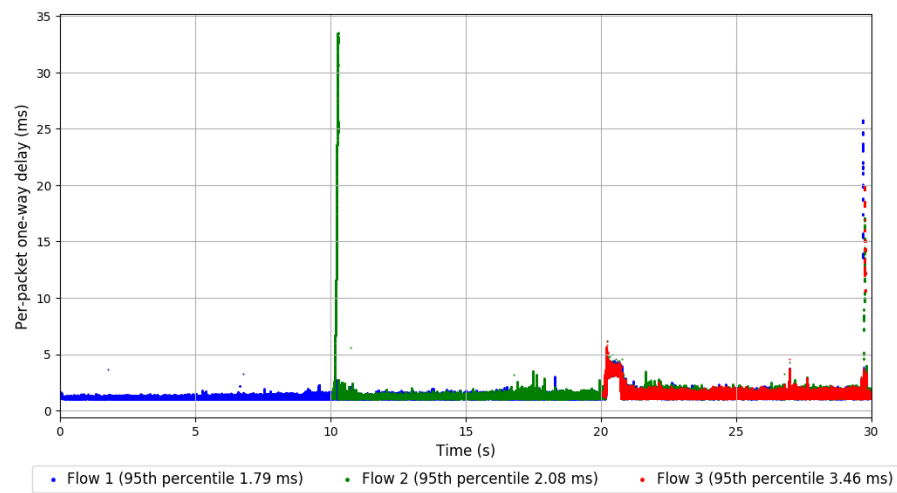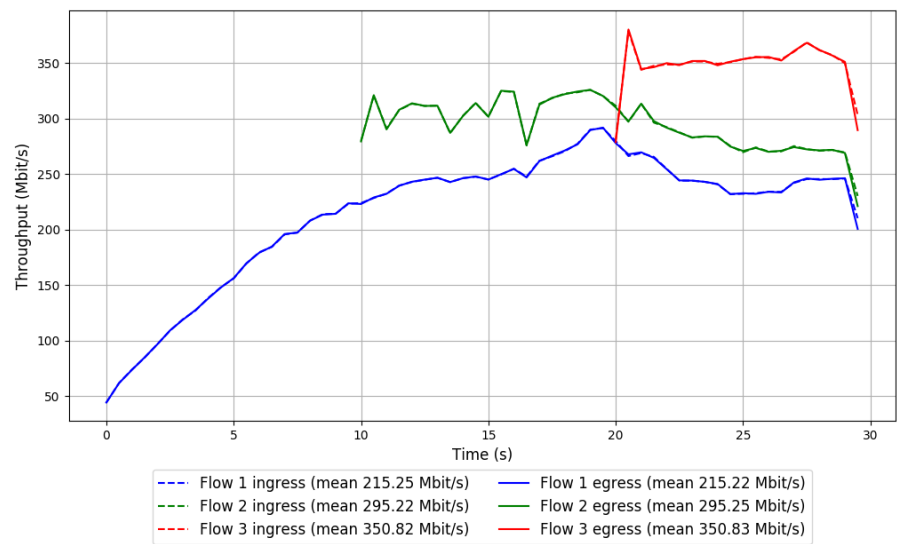
Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2018-03-21 02:13:23
End at: 2018-03-21 02:13:53
Local clock offset: 6.893 ms
Remote clock offset: -5.837 ms


# Below is generated by plot.py at 2018-03-21 11:01:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 547.96 Mbit/s
95th percentile per-packet one-way delay: 3.947 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 285.76 Mbit/s
95th percentile per-packet one-way delay: 3.656 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 218.53 Mbit/s
95th percentile per-packet one-way delay: 3.897 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 352.61 Mbit/s
95th percentile per-packet one-way delay: 8.244 ms
Loss rate: 0.16%
```
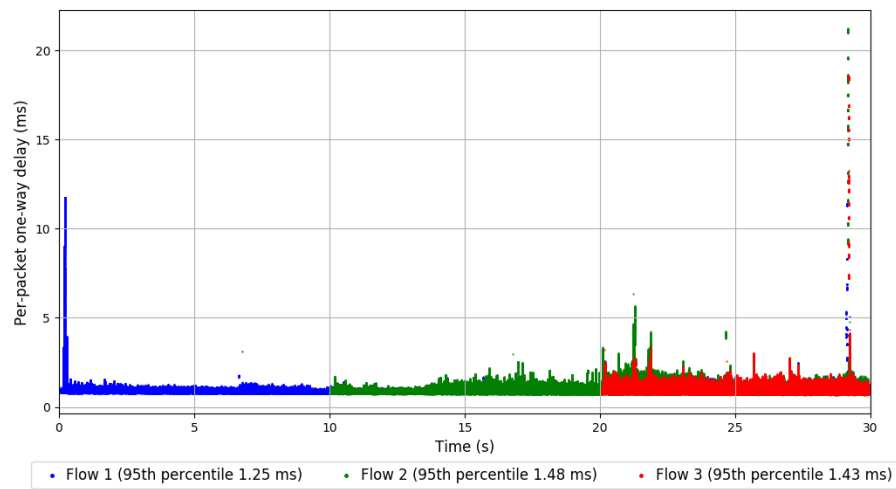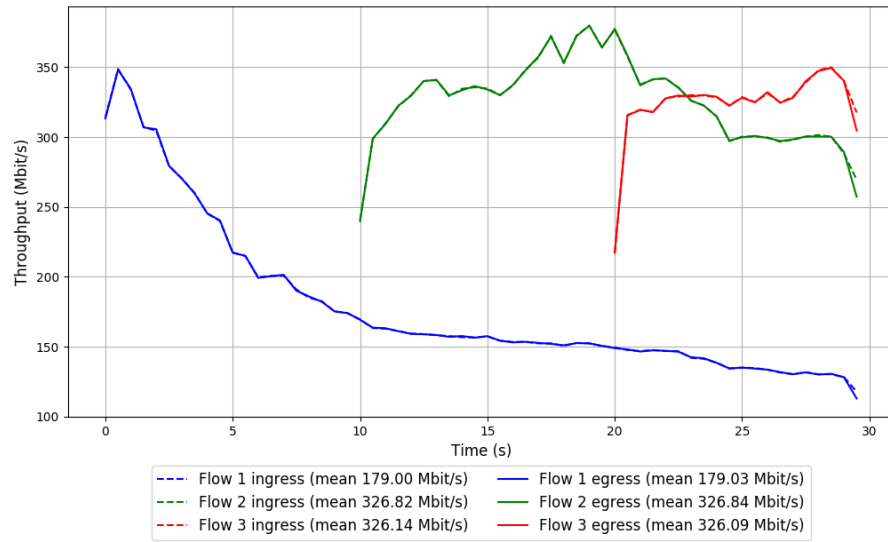
Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 285.73 Mbit/s) — Flow 1 egress (mean 285.76 Mbit/s)
Flow 2 ingress (mean 218.54 Mbit/s) — Flow 2 egress (mean 218.53 Mbit/s)
Flow 3 ingress (mean 352.46 Mbit/s) — Flow 3 egress (mean 352.61 Mbit/s)

Flow 1 (95th percentile 3.66 ms)   Flow 2 (95th percentile 3.90 ms)   Flow 3 (95th percentile 8.24 ms)

```
Run 7: Statistics of TCP Vegas

Start at: 2018-03-21 02:42:15
End at: 2018-03-21 02:42:45
Local clock offset: 0.053 ms
Remote clock offset: -6.377 ms


# Below is generated by plot.py at 2018-03-21 11:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 527.88 Mbit/s
95th percentile per-packet one-way delay: 2.044 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 215.22 Mbit/s
95th percentile per-packet one-way delay: 1.789 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 295.25 Mbit/s
95th percentile per-packet one-way delay: 2.084 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 350.83 Mbit/s
95th percentile per-packet one-way delay: 3.463 ms
Loss rate: 0.20%
```
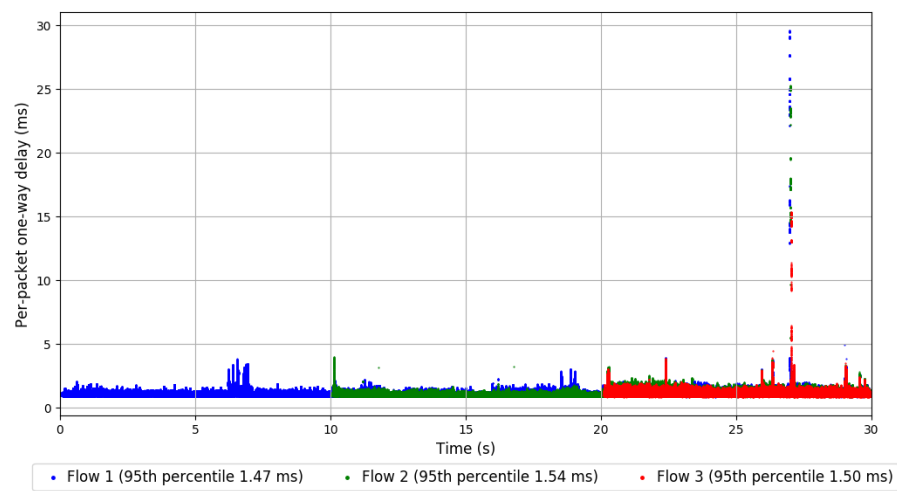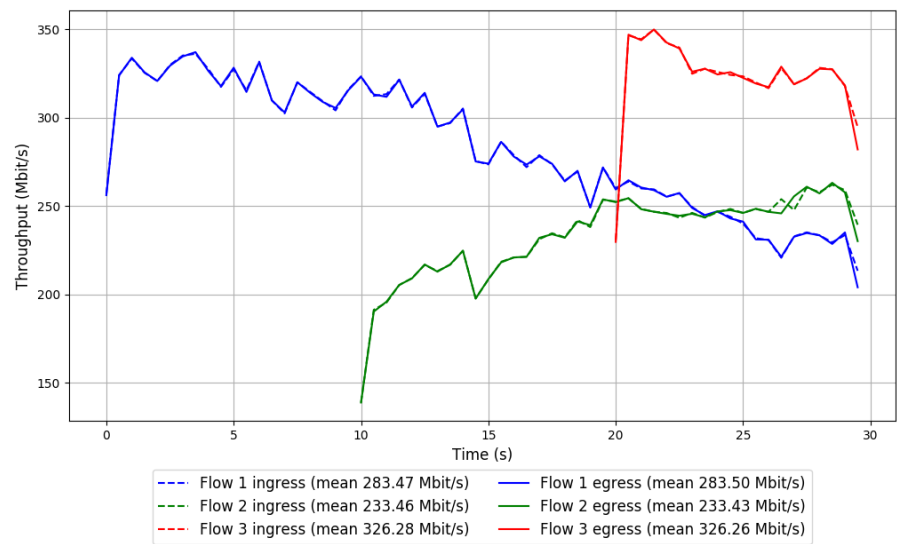
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-03-21 03:11:14
End at: 2018-03-21 03:11:44
Local clock offset: 9.698 ms
Remote clock offset: -4.875 ms


# Below is generated by plot.py at 2018-03-21 11:06:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.42 Mbit/s
95th percentile per-packet one-way delay: 1.413 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 179.03 Mbit/s
95th percentile per-packet one-way delay: 1.250 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 326.84 Mbit/s
95th percentile per-packet one-way delay: 1.482 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 326.09 Mbit/s
95th percentile per-packet one-way delay: 1.431 ms
Loss rate: 0.21%
```
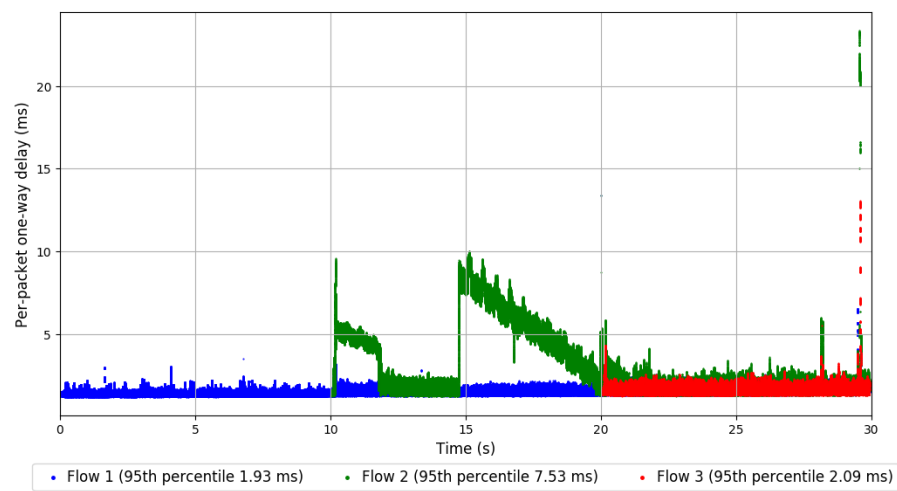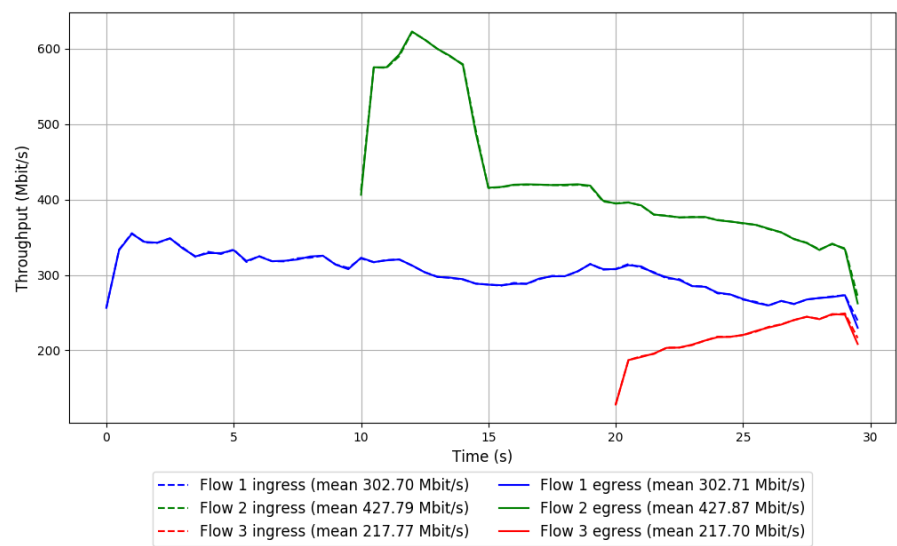
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 179.00 Mbit/s) --- Flow 1 egress (mean 179.03 Mbit/s) ---
Flow 2 ingress (mean 326.82 Mbit/s) --- Flow 2 egress (mean 326.84 Mbit/s) ---
Flow 3 ingress (mean 326.14 Mbit/s) --- Flow 3 egress (mean 326.09 Mbit/s) ---

• Flow 1 (95th percentile 1.25 ms)   • Flow 2 (95th percentile 1.48 ms)   • Flow 3 (95th percentile 1.43 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-03-21 03:40:06
End at: 2018-03-21 03:40:36
Local clock offset: 10.472 ms
Remote clock offset: -5.667 ms


# Below is generated by plot.py at 2018-03-21 11:07:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.40 Mbit/s
95th percentile per-packet one-way delay: 1.498 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 283.50 Mbit/s
95th percentile per-packet one-way delay: 1.470 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 233.43 Mbit/s
95th percentile per-packet one-way delay: 1.538 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 326.26 Mbit/s
95th percentile per-packet one-way delay: 1.505 ms
Loss rate: 0.20%
```
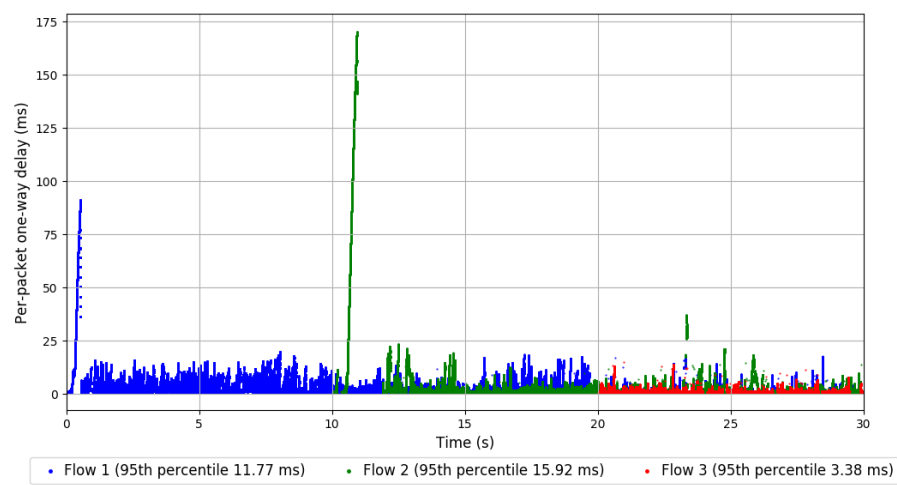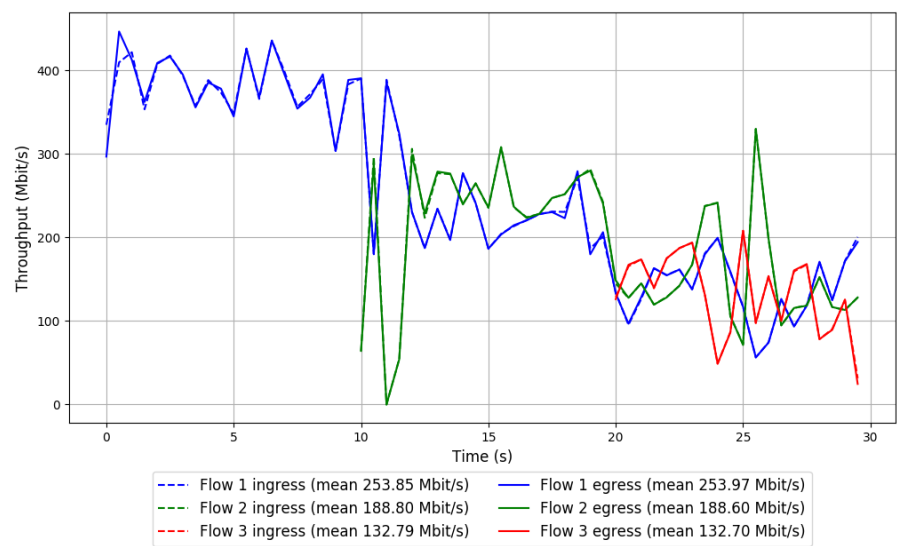
Run 9: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 283.47 Mbit/s)   Flow 1 egress (mean 283.50 Mbit/s)
Flow 2 ingress (mean 233.46 Mbit/s)   Flow 2 egress (mean 233.43 Mbit/s)
Flow 3 ingress (mean 326.28 Mbit/s)   Flow 3 egress (mean 326.26 Mbit/s)

Flow 1 (95th percentile 1.47 ms)   Flow 2 (95th percentile 1.54 ms)   Flow 3 (95th percentile 1.50 ms)

```
Run 10: Statistics of TCP Vegas

Start at: 2018-03-21 04:08:55
End at: 2018-03-21 04:09:25
Local clock offset: 3.508 ms
Remote clock offset: -5.175 ms


# Below is generated by plot.py at 2018-03-21 11:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 659.34 Mbit/s
95th percentile per-packet one-way delay: 5.829 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 302.71 Mbit/s
95th percentile per-packet one-way delay: 1.931 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 427.87 Mbit/s
95th percentile per-packet one-way delay: 7.526 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 217.70 Mbit/s
95th percentile per-packet one-way delay: 2.088 ms
Loss rate: 0.24%
```
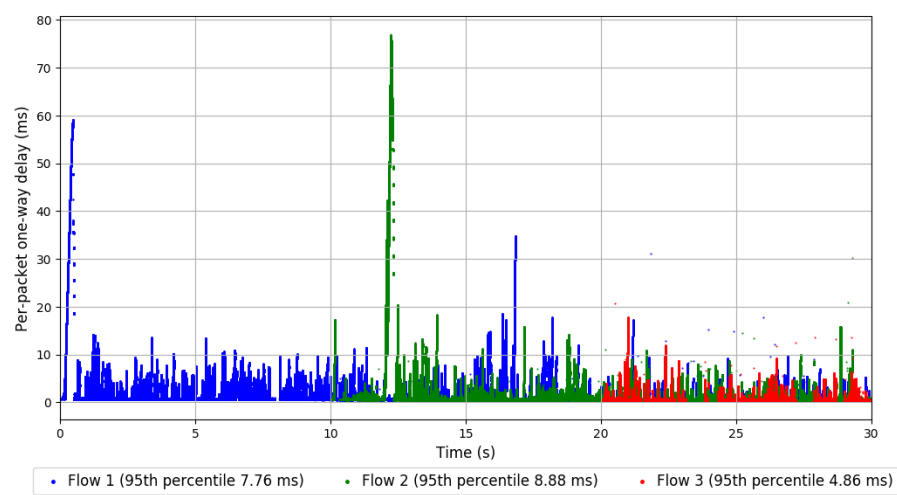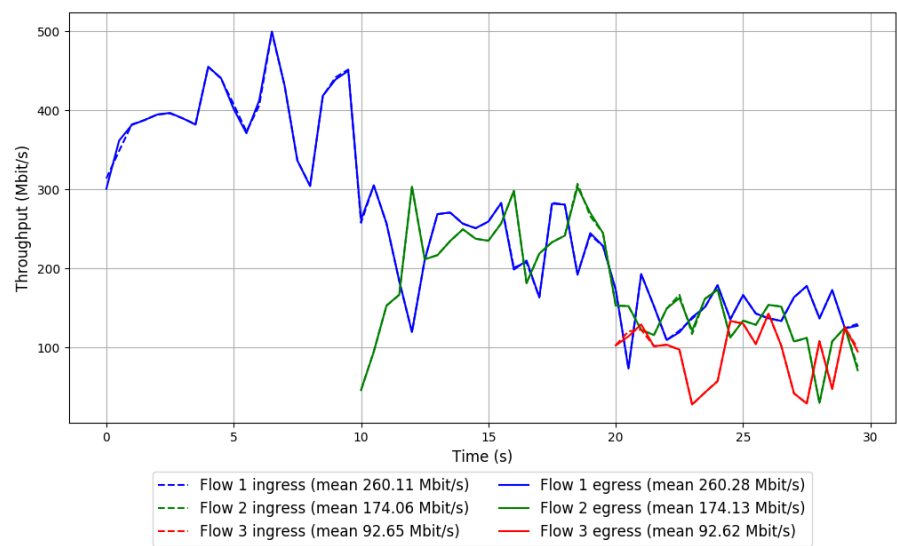
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-03-21 00:04:37
End at: 2018-03-21 00:05:07
Local clock offset: -0.748 ms
Remote clock offset: -4.773 ms


# Below is generated by plot.py at 2018-03-21 11:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.46 Mbit/s
95th percentile per-packet one-way delay: 12.018 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 253.97 Mbit/s
95th percentile per-packet one-way delay: 11.772 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 188.60 Mbit/s
95th percentile per-packet one-way delay: 15.922 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 132.70 Mbit/s
95th percentile per-packet one-way delay: 3.378 ms
Loss rate: 0.26%
```
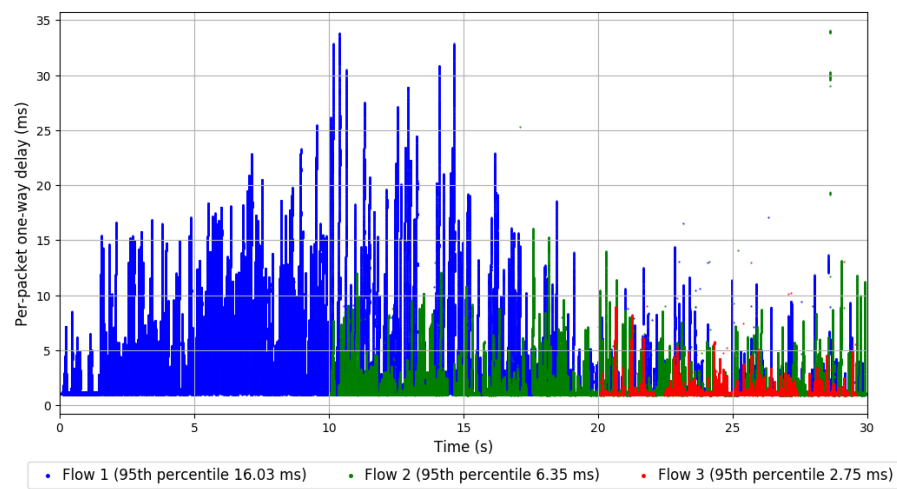
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-03-21 00:33:38
End at: 2018-03-21 00:34:08
Local clock offset: -0.078 ms
Remote clock offset: -4.65 ms


# Below is generated by plot.py at 2018-03-21 11:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 406.85 Mbit/s
95th percentile per-packet one-way delay: 7.747 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 260.28 Mbit/s
95th percentile per-packet one-way delay: 7.761 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 174.13 Mbit/s
95th percentile per-packet one-way delay: 8.877 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 4.859 ms
Loss rate: 0.26%
```
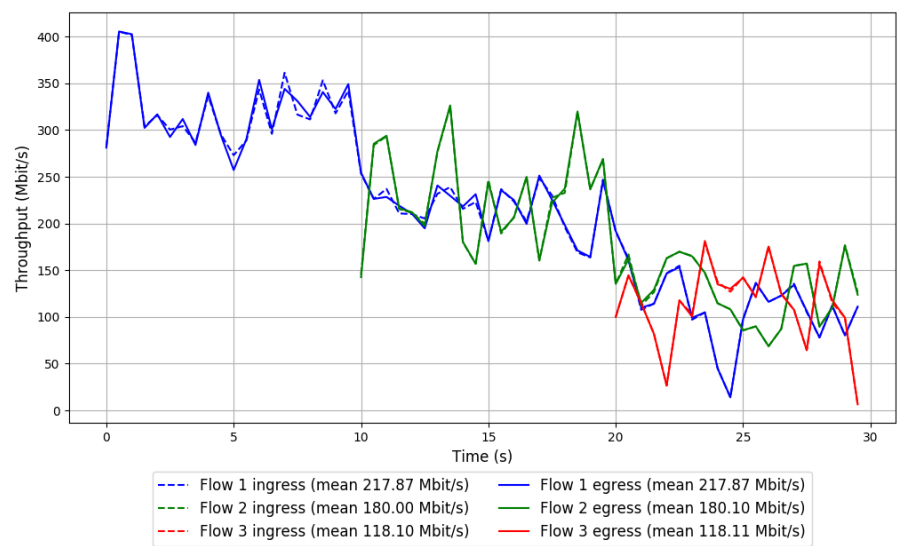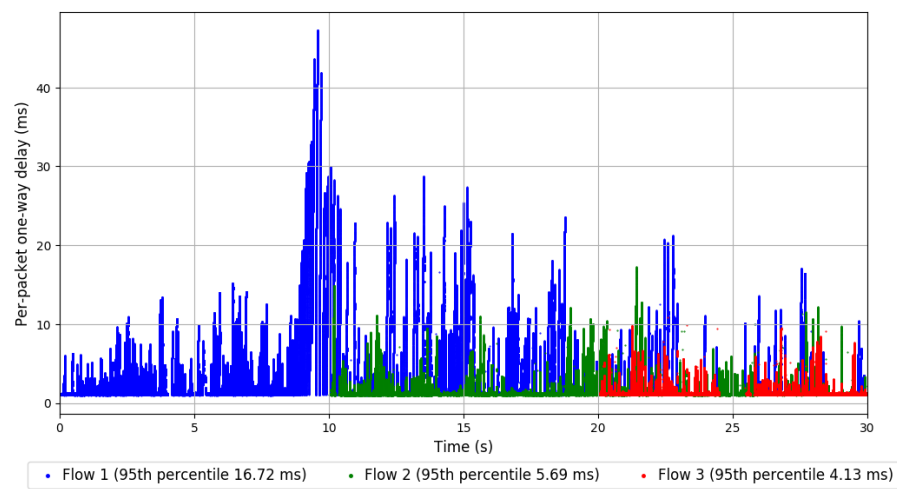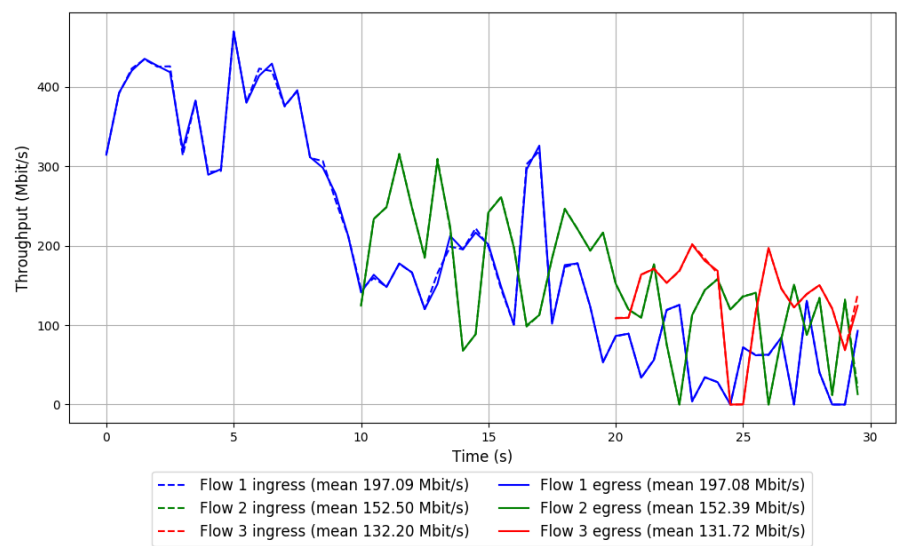
Run 2: Report of Verus — Data Link

- - - Flow 1 ingress (mean 260.11 Mbit/s) —— Flow 1 egress (mean 260.28 Mbit/s)
- - - Flow 2 ingress (mean 174.06 Mbit/s) —— Flow 2 egress (mean 174.13 Mbit/s)
- - - Flow 3 ingress (mean 92.65 Mbit/s) —— Flow 3 egress (mean 92.62 Mbit/s)

• Flow 1 (95th percentile 7.76 ms)   • Flow 2 (95th percentile 8.88 ms)   • Flow 3 (95th percentile 4.86 ms)

207

```
Run 3: Statistics of Verus

Start at: 2018-03-21 01:02:42
End at: 2018-03-21 01:03:12
Local clock offset: 7.189 ms
Remote clock offset: -4.92 ms


# Below is generated by plot.py at 2018-03-21 11:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.93 Mbit/s
95th percentile per-packet one-way delay: 13.530 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 217.87 Mbit/s
95th percentile per-packet one-way delay: 16.027 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.10 Mbit/s
95th percentile per-packet one-way delay: 6.346 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 118.11 Mbit/s
95th percentile per-packet one-way delay: 2.752 ms
Loss rate: 0.00%
```
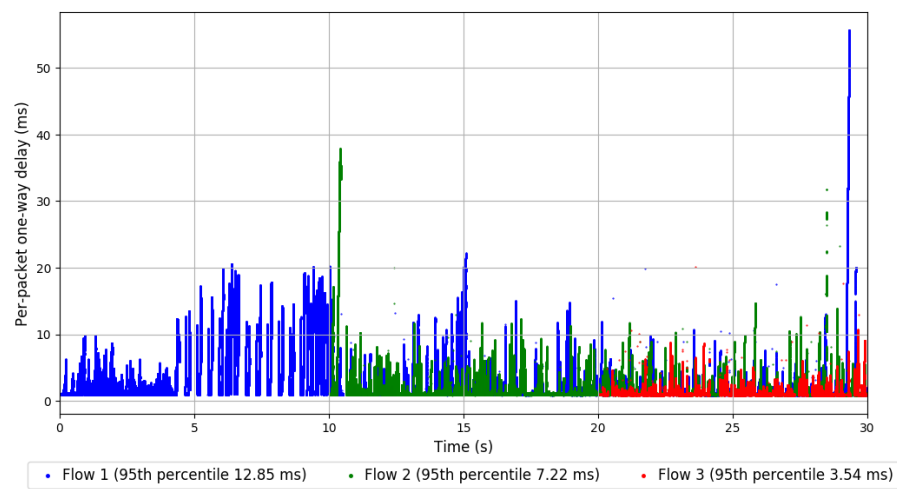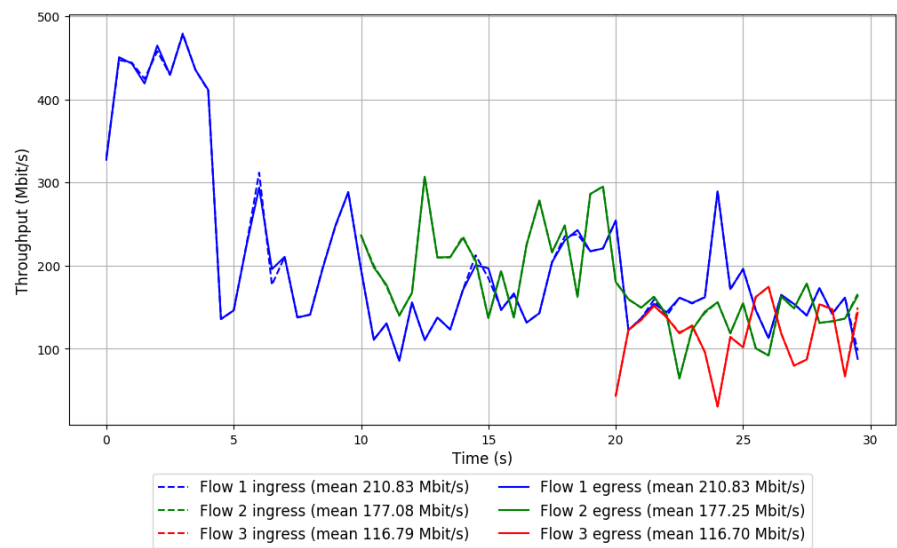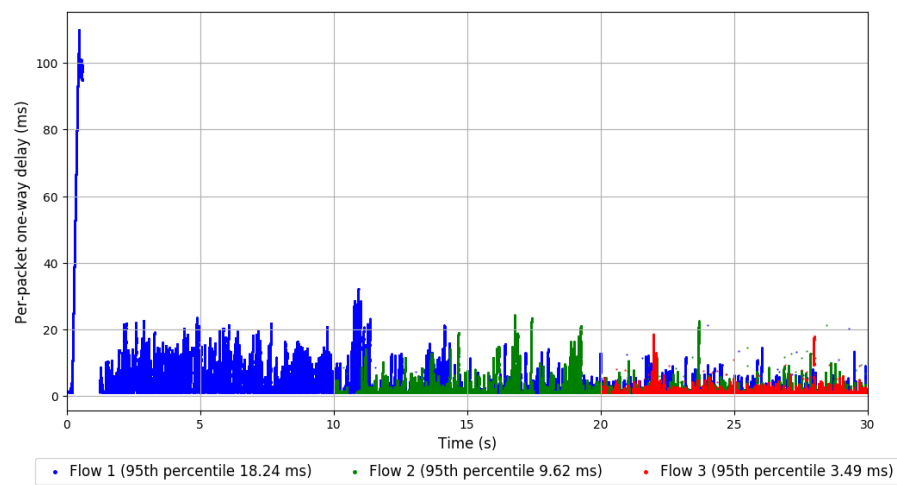
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-03-21 01:31:39
End at: 2018-03-21 01:32:09
Local clock offset: 0.243 ms
Remote clock offset: -4.883 ms


# Below is generated by plot.py at 2018-03-21 11:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 341.63 Mbit/s
95th percentile per-packet one-way delay: 12.385 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 197.08 Mbit/s
95th percentile per-packet one-way delay: 16.719 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 152.39 Mbit/s
95th percentile per-packet one-way delay: 5.694 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 131.72 Mbit/s
95th percentile per-packet one-way delay: 4.134 ms
Loss rate: 0.57%
```
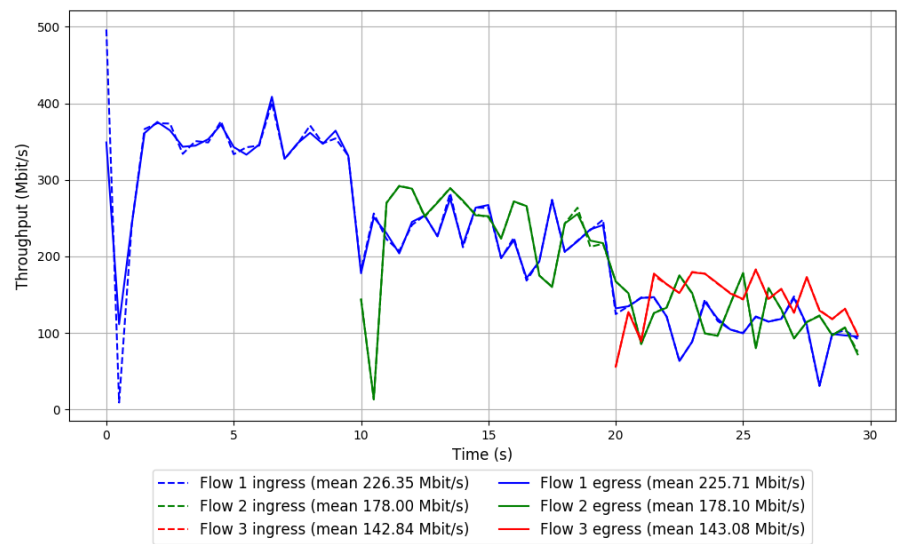
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-03-21 02:00:34
End at: 2018-03-21 02:01:04
Local clock offset: 6.532 ms
Remote clock offset: -5.649 ms

# Below is generated by plot.py at 2018-03-21 11:11:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.38 Mbit/s
95th percentile per-packet one-way delay: 10.767 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 210.83 Mbit/s
95th percentile per-packet one-way delay: 12.851 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 177.25 Mbit/s
95th percentile per-packet one-way delay: 7.224 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 116.70 Mbit/s
95th percentile per-packet one-way delay: 3.544 ms
Loss rate: 0.27%
```
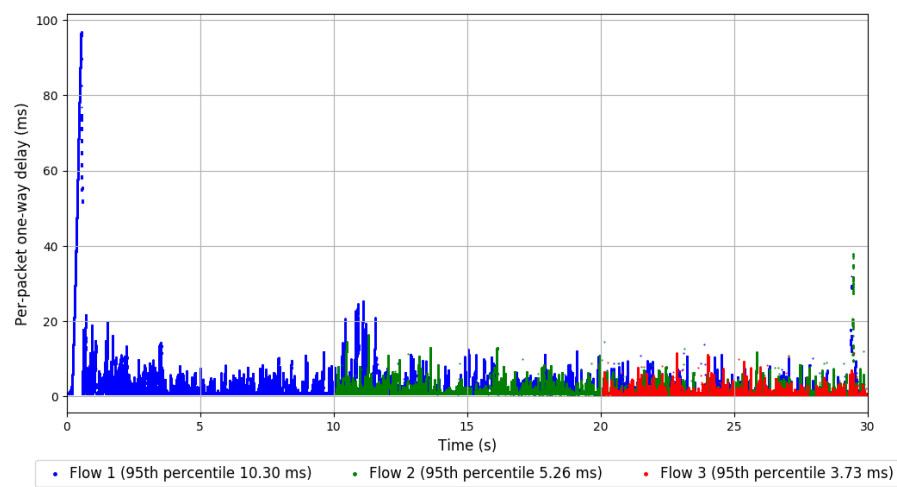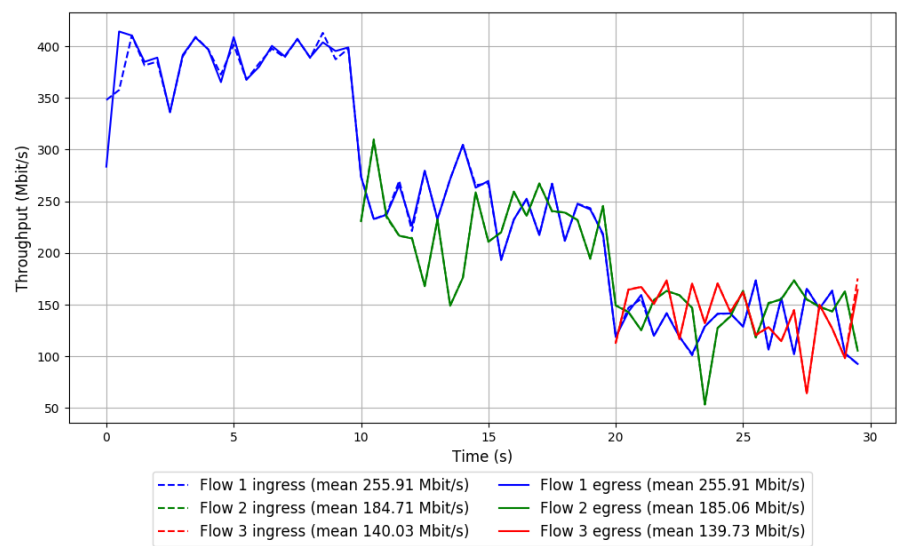
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 210.83 Mbit/s) --- Flow 1 egress (mean 210.83 Mbit/s)
Flow 2 ingress (mean 177.08 Mbit/s) --- Flow 2 egress (mean 177.25 Mbit/s)
Flow 3 ingress (mean 116.79 Mbit/s) --- Flow 3 egress (mean 116.70 Mbit/s)

Flow 1 (95th percentile 12.85 ms) • Flow 2 (95th percentile 7.22 ms) • Flow 3 (95th percentile 3.54 ms)

```
Run 6: Statistics of Verus

Start at: 2018-03-21 02:29:29
End at: 2018-03-21 02:29:59
Local clock offset: 1.24 ms
Remote clock offset: -6.301 ms


# Below is generated by plot.py at 2018-03-21 11:11:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.73 Mbit/s
95th percentile per-packet one-way delay: 14.939 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 225.71 Mbit/s
95th percentile per-packet one-way delay: 18.239 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 178.10 Mbit/s
95th percentile per-packet one-way delay: 9.622 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 143.08 Mbit/s
95th percentile per-packet one-way delay: 3.486 ms
Loss rate: 0.06%
```
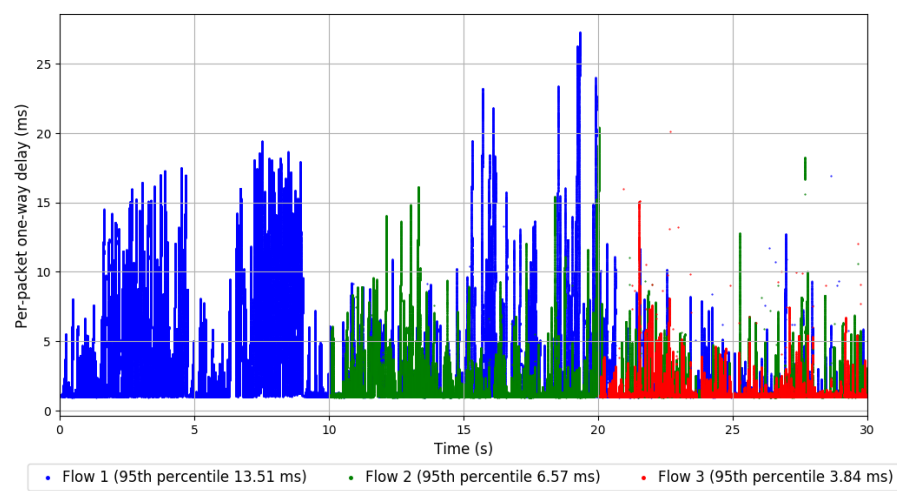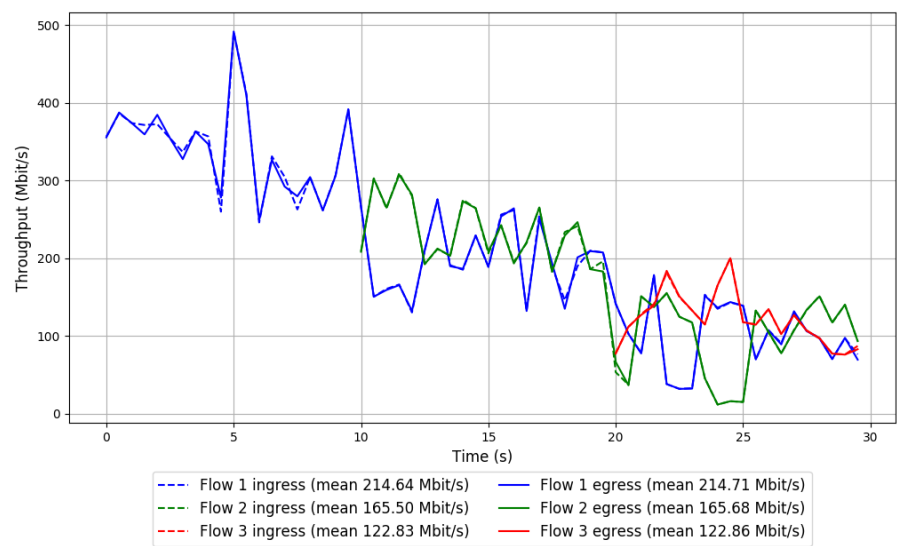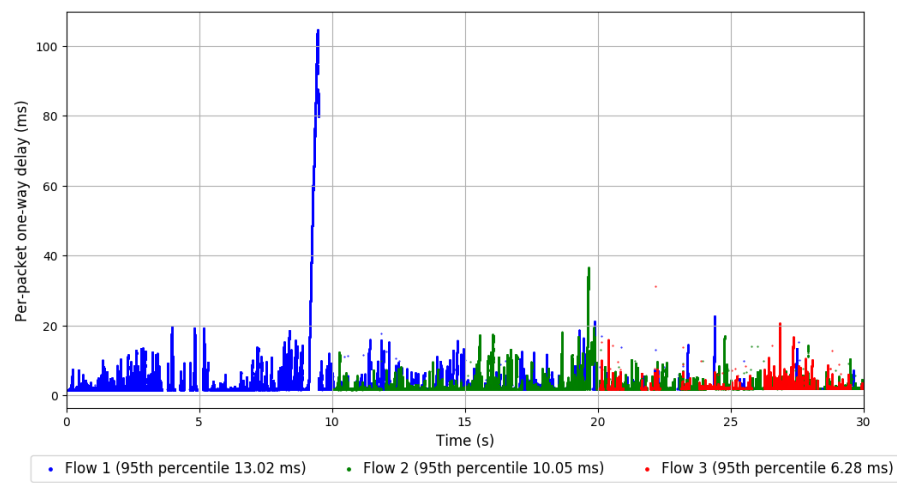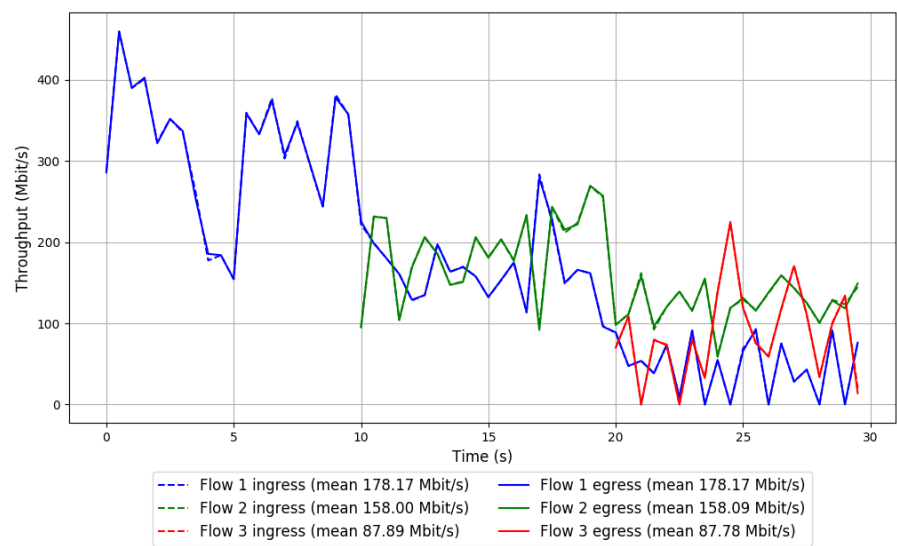
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-03-21 02:58:20
End at: 2018-03-21 02:58:50
Local clock offset: 6.671 ms
Remote clock offset: -5.267 ms

# Below is generated by plot.py at 2018-03-21 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 425.13 Mbit/s
95th percentile per-packet one-way delay: 7.974 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 255.91 Mbit/s
95th percentile per-packet one-way delay: 10.305 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 185.06 Mbit/s
95th percentile per-packet one-way delay: 5.264 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 139.73 Mbit/s
95th percentile per-packet one-way delay: 3.734 ms
Loss rate: 0.40%
```

Run 7: Report of Verus — Data Link

Flow 1 ingress (mean 255.91 Mbit/s) --- Flow 1 egress (mean 255.91 Mbit/s)
Flow 2 ingress (mean 184.71 Mbit/s) --- Flow 2 egress (mean 185.06 Mbit/s)
Flow 3 ingress (mean 140.03 Mbit/s) --- Flow 3 egress (mean 139.73 Mbit/s)

Flow 1 (95th percentile 10.30 ms)   Flow 2 (95th percentile 5.26 ms)   Flow 3 (95th percentile 3.73 ms)
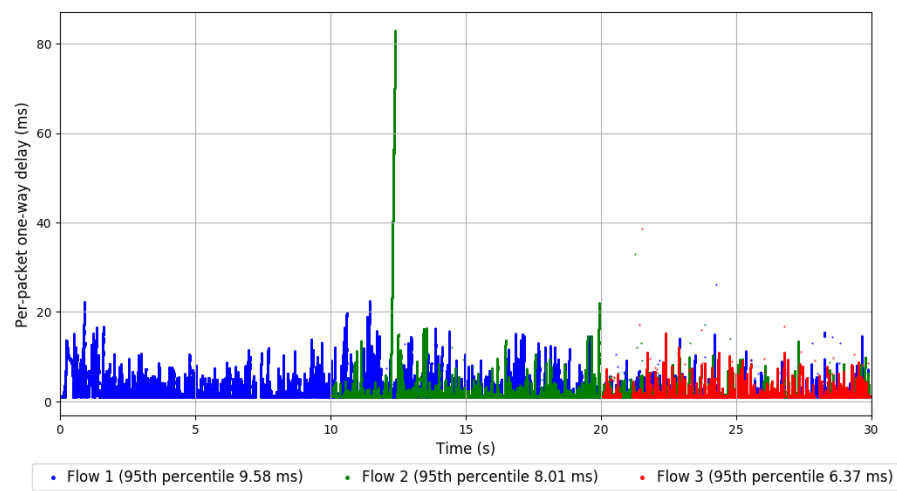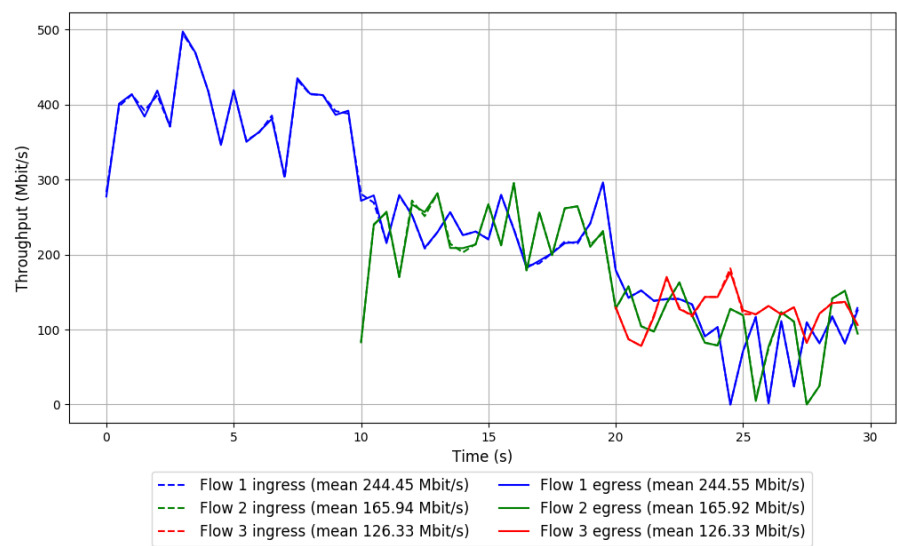
217

```
Run 8: Statistics of Verus

Start at: 2018-03-21 03:27:19
End at: 2018-03-21 03:27:49
Local clock offset: 10.293 ms
Remote clock offset: -5.383 ms


# Below is generated by plot.py at 2018-03-21 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 365.71 Mbit/s
95th percentile per-packet one-way delay: 11.920 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 214.71 Mbit/s
95th percentile per-packet one-way delay: 13.511 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 165.68 Mbit/s
95th percentile per-packet one-way delay: 6.568 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 122.86 Mbit/s
95th percentile per-packet one-way delay: 3.839 ms
Loss rate: 0.18%
```

Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-03-21 03:56:08
End at: 2018-03-21 03:56:38
Local clock offset: 10.333 ms
Remote clock offset: -5.655 ms

# Below is generated by plot.py at 2018-03-21 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.58 Mbit/s
95th percentile per-packet one-way delay: 11.306 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 178.17 Mbit/s
95th percentile per-packet one-way delay: 13.022 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 158.09 Mbit/s
95th percentile per-packet one-way delay: 10.046 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 87.78 Mbit/s
95th percentile per-packet one-way delay: 6.284 ms
Loss rate: 0.40%
```
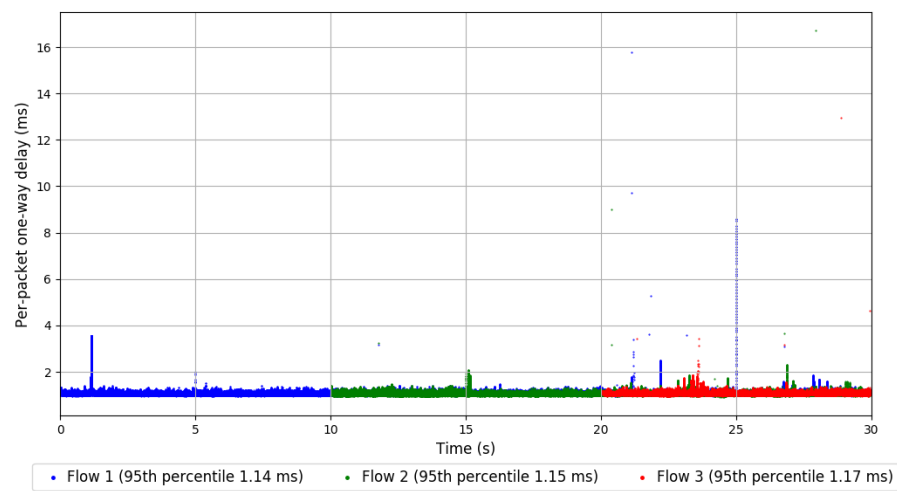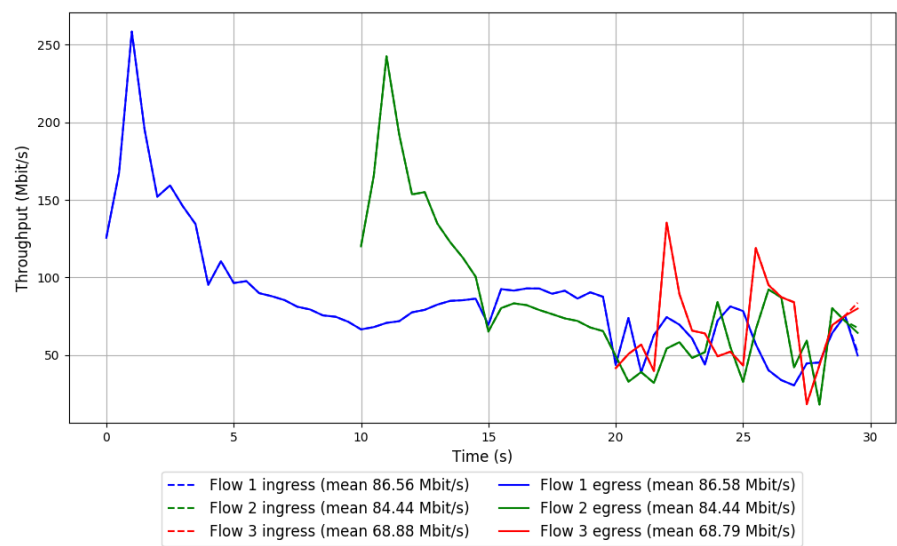
Run 9: Report of Verus — Data Link

221

```
Run 10: Statistics of Verus

Start at: 2018-03-21 04:25:10
End at: 2018-03-21 04:25:40
Local clock offset: 1.104 ms
Remote clock offset: -4.988 ms


# Below is generated by plot.py at 2018-03-21 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 396.56 Mbit/s
95th percentile per-packet one-way delay: 9.072 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 244.55 Mbit/s
95th percentile per-packet one-way delay: 9.580 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 165.92 Mbit/s
95th percentile per-packet one-way delay: 8.008 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 126.33 Mbit/s
95th percentile per-packet one-way delay: 6.372 ms
Loss rate: 0.00%
```

Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-03-21 00:01:14
End at: 2018-03-21 00:01:44
Local clock offset: -0.662 ms
Remote clock offset: -4.878 ms


# Below is generated by plot.py at 2018-03-21 11:12:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.47 Mbit/s
95th percentile per-packet one-way delay: 1.149 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 1.143 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 84.44 Mbit/s
95th percentile per-packet one-way delay: 1.147 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 68.79 Mbit/s
95th percentile per-packet one-way delay: 1.169 ms
Loss rate: 0.29%
```
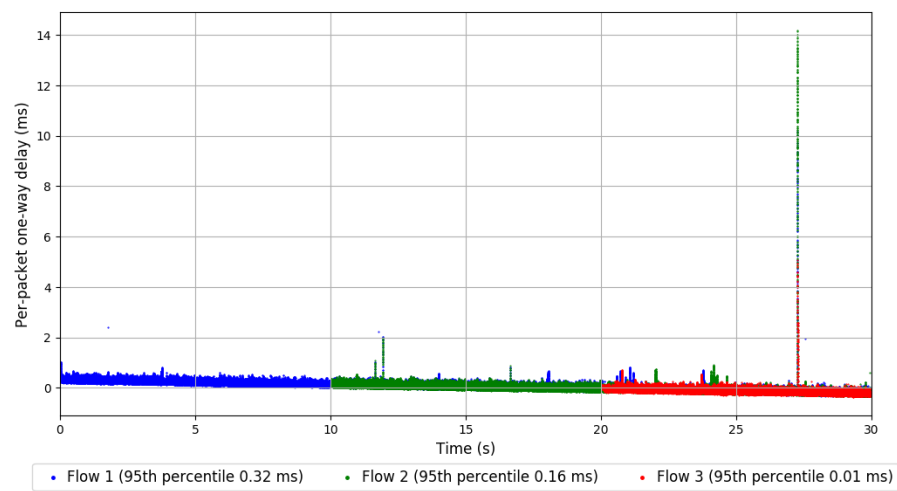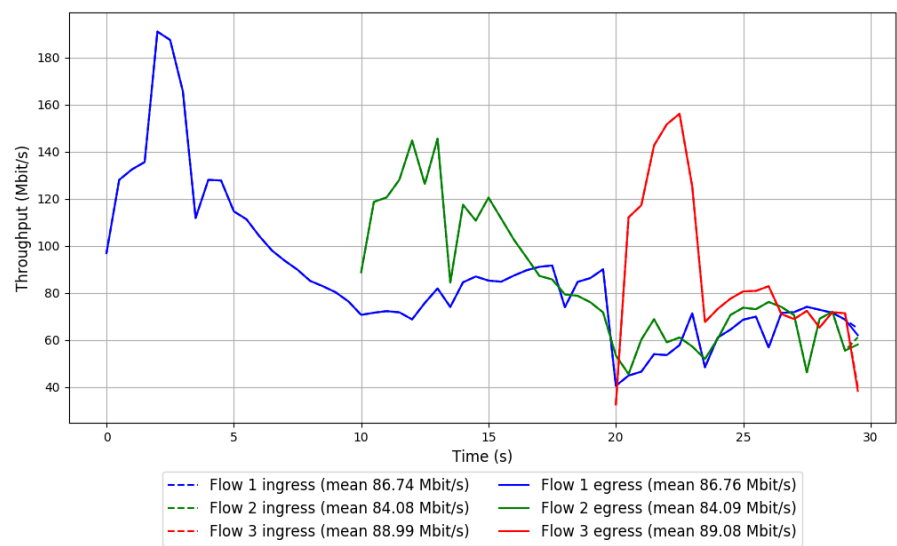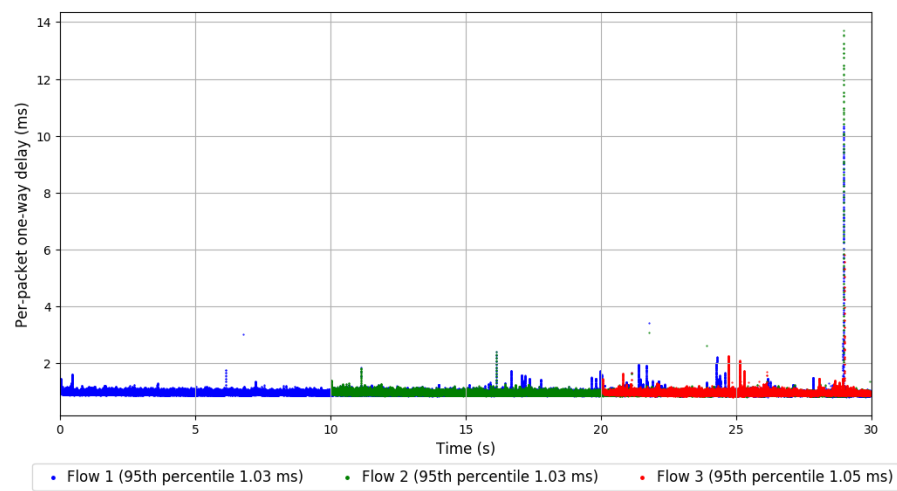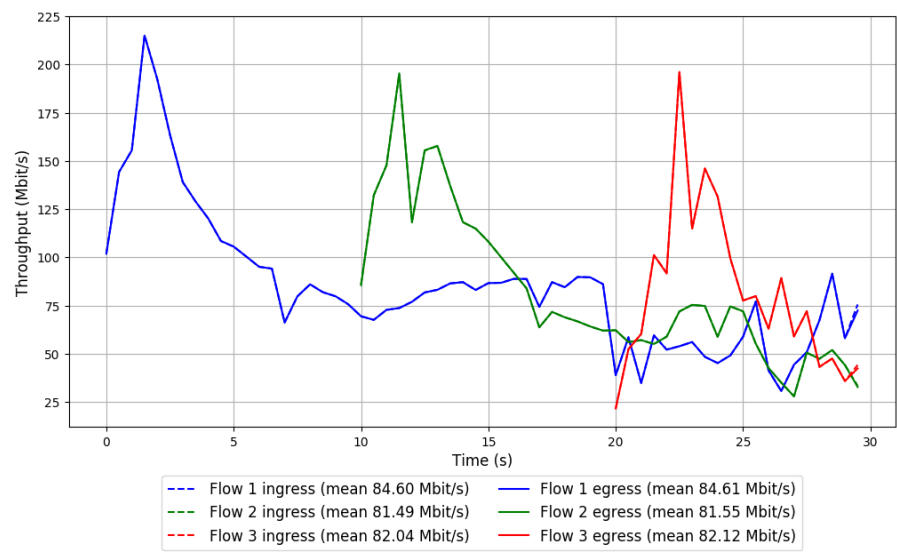
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 86.56 Mbit/s) — — — Flow 1 egress (mean 86.58 Mbit/s)
Flow 2 ingress (mean 84.44 Mbit/s) — — — Flow 2 egress (mean 84.44 Mbit/s)
Flow 3 ingress (mean 68.88 Mbit/s) — — — Flow 3 egress (mean 68.79 Mbit/s)

Flow 1 (95th percentile 1.14 ms)   Flow 2 (95th percentile 1.15 ms)   Flow 3 (95th percentile 1.17 ms)

```
Run 2: Statistics of Copa

Start at: 2018-03-21 00:30:14
End at: 2018-03-21 00:30:44
Local clock offset: -3.11 ms
Remote clock offset: -4.264 ms


# Below is generated by plot.py at 2018-03-21 11:13:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.10 Mbit/s
95th percentile per-packet one-way delay: 0.291 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 86.76 Mbit/s
95th percentile per-packet one-way delay: 0.324 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 84.09 Mbit/s
95th percentile per-packet one-way delay: 0.164 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 89.08 Mbit/s
95th percentile per-packet one-way delay: 0.013 ms
Loss rate: 0.09%
```
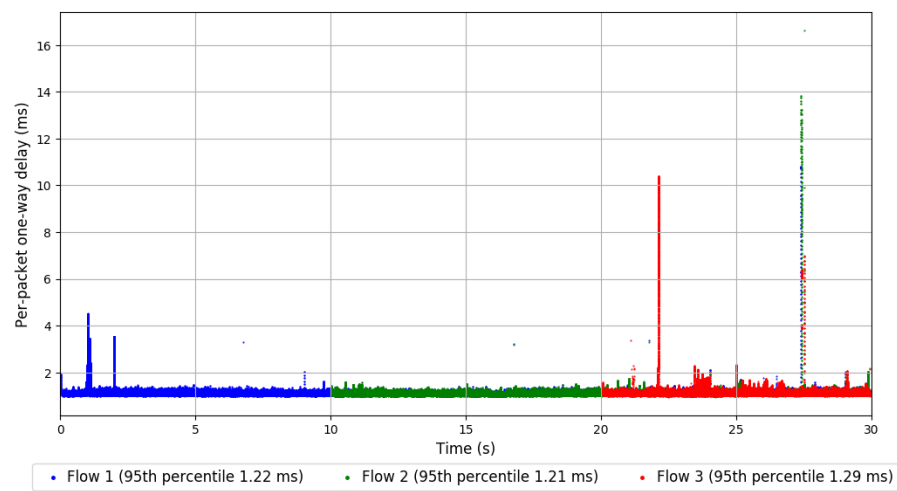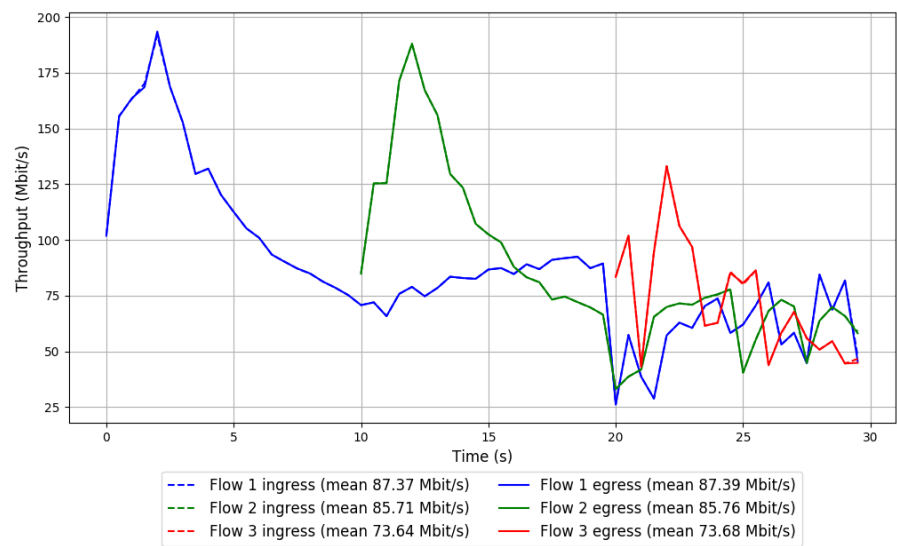
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-03-21 00:59:20
End at: 2018-03-21 00:59:50
Local clock offset: 6.869 ms
Remote clock offset: -4.912 ms


# Below is generated by plot.py at 2018-03-21 11:15:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.97 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 84.61 Mbit/s
95th percentile per-packet one-way delay: 1.034 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 81.55 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 82.12 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.11%
```
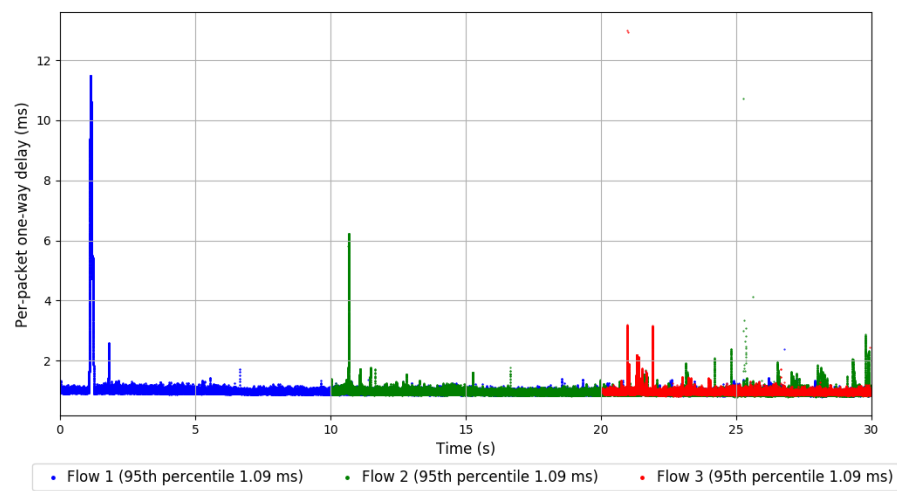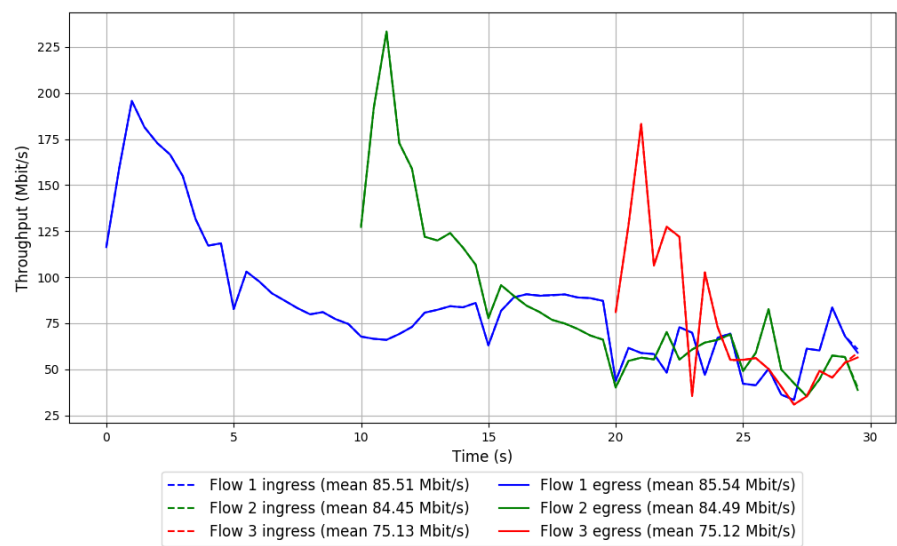
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-03-21 01:28:16
End at: 2018-03-21 01:28:46
Local clock offset: 0.459 ms
Remote clock offset: -4.902 ms


# Below is generated by plot.py at 2018-03-21 11:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.77 Mbit/s
95th percentile per-packet one-way delay: 1.223 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 1.219 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 85.76 Mbit/s
95th percentile per-packet one-way delay: 1.205 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 73.68 Mbit/s
95th percentile per-packet one-way delay: 1.295 ms
Loss rate: 0.13%
```
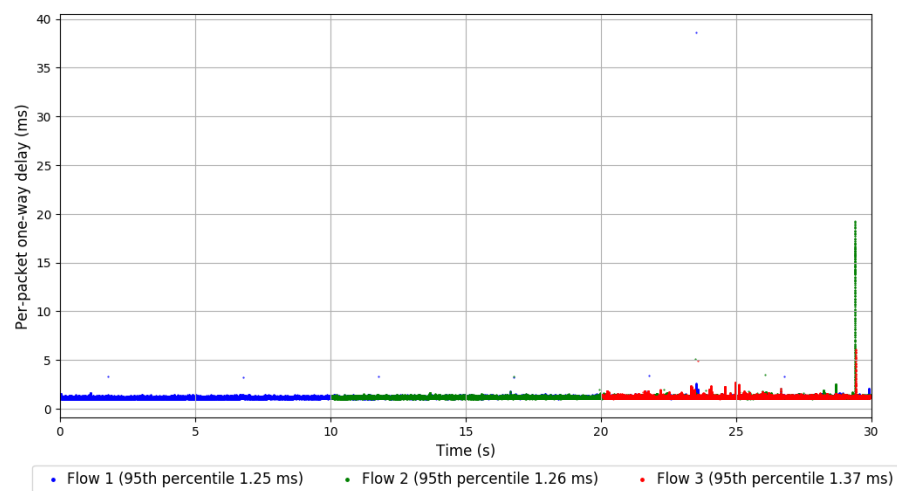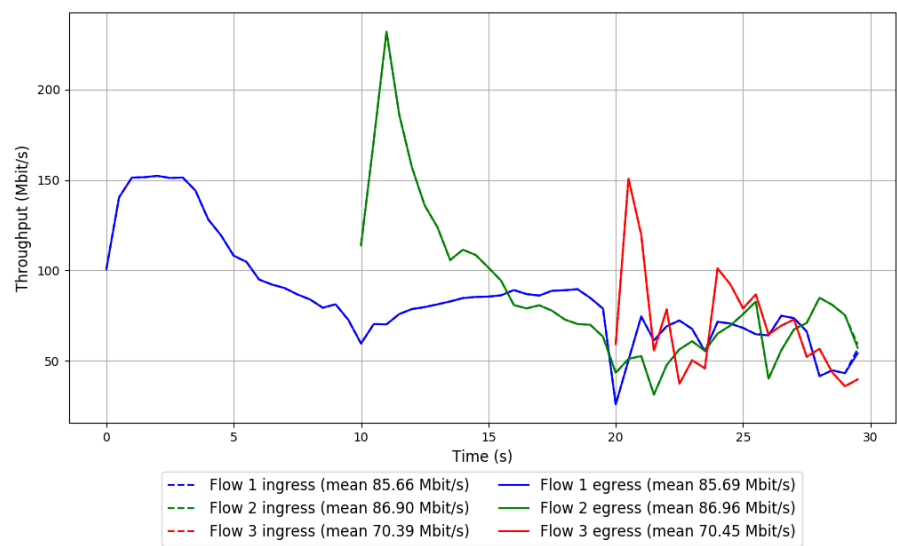
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-03-21 01:57:11
End at: 2018-03-21 01:57:41
Local clock offset: 6.11 ms
Remote clock offset: -5.668 ms


# Below is generated by plot.py at 2018-03-21 11:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 166.58 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 85.54 Mbit/s
95th percentile per-packet one-way delay: 1.093 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 84.49 Mbit/s
95th percentile per-packet one-way delay: 1.090 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 75.12 Mbit/s
95th percentile per-packet one-way delay: 1.090 ms
Loss rate: 0.19%
```
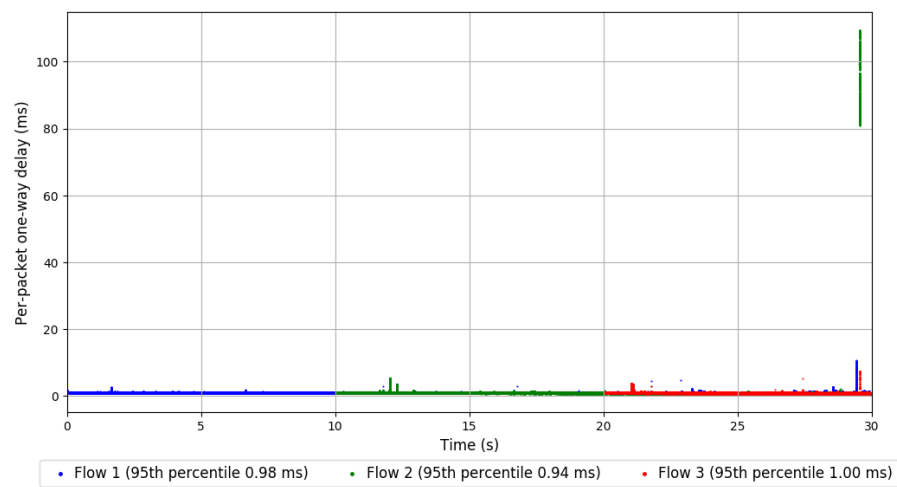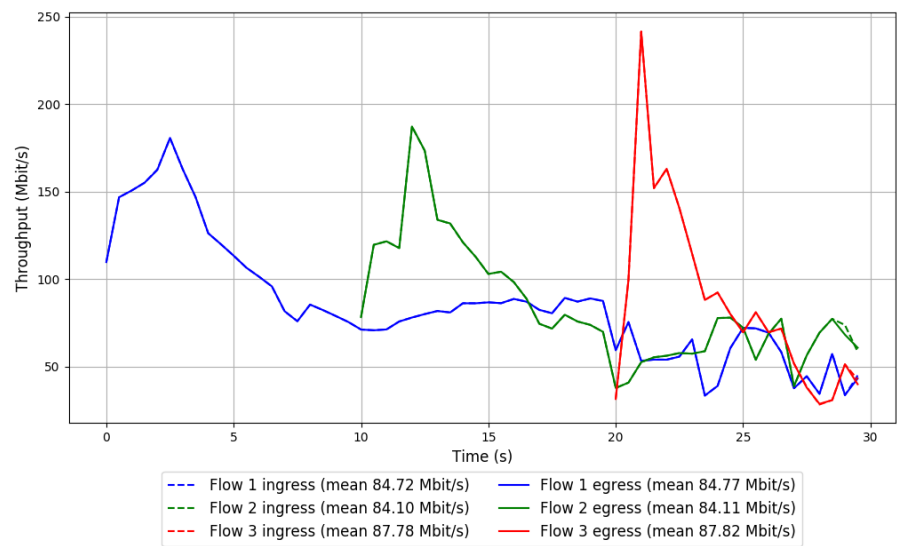
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 85.51 Mbit/s) — — — — Flow 1 egress (mean 85.54 Mbit/s)
Flow 2 ingress (mean 84.45 Mbit/s) — — — — Flow 2 egress (mean 84.49 Mbit/s)
Flow 3 ingress (mean 75.13 Mbit/s) — — — — Flow 3 egress (mean 75.12 Mbit/s)

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

233

```
Run 6: Statistics of Copa

Start at: 2018-03-21 02:26:06
End at: 2018-03-21 02:26:36
Local clock offset: 1.701 ms
Remote clock offset: -6.203 ms


# Below is generated by plot.py at 2018-03-21 11:16:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 166.70 Mbit/s
95th percentile per-packet one-way delay: 1.274 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 85.69 Mbit/s
95th percentile per-packet one-way delay: 1.248 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 86.96 Mbit/s
95th percentile per-packet one-way delay: 1.265 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 70.45 Mbit/s
95th percentile per-packet one-way delay: 1.373 ms
Loss rate: 0.01%
```
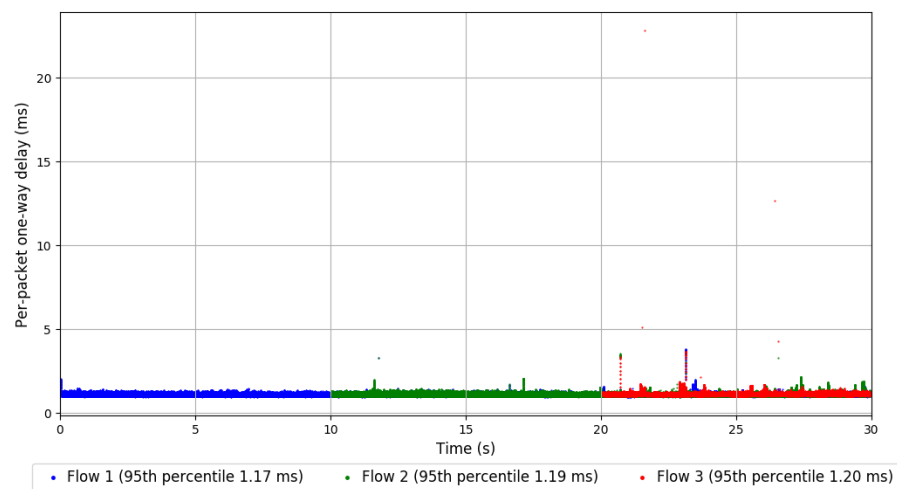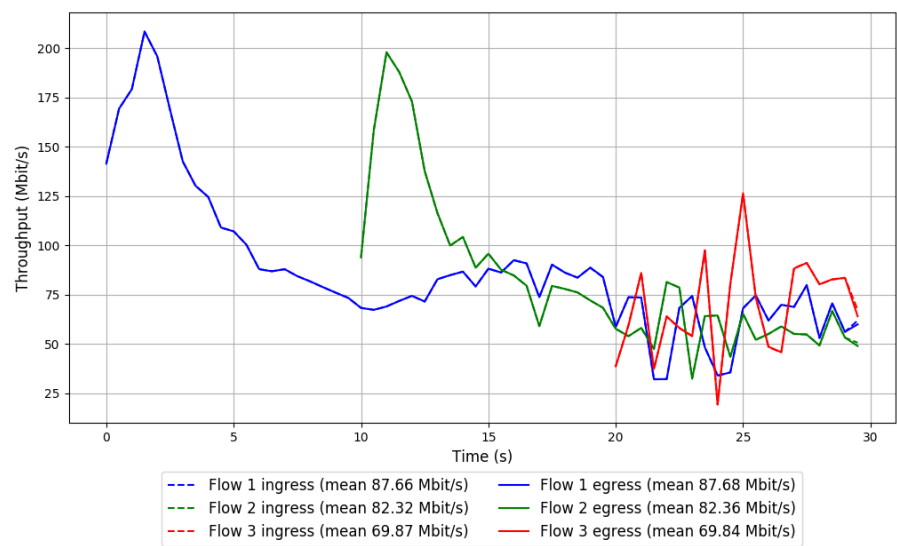
Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-03-21 02:54:58
End at: 2018-03-21 02:55:28
Local clock offset: 5.418 ms
Remote clock offset: -5.565 ms


# Below is generated by plot.py at 2018-03-21 11:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.67 Mbit/s
95th percentile per-packet one-way delay: 0.970 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 84.77 Mbit/s
95th percentile per-packet one-way delay: 0.979 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 84.11 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 87.82 Mbit/s
95th percentile per-packet one-way delay: 1.000 ms
Loss rate: 0.16%
```
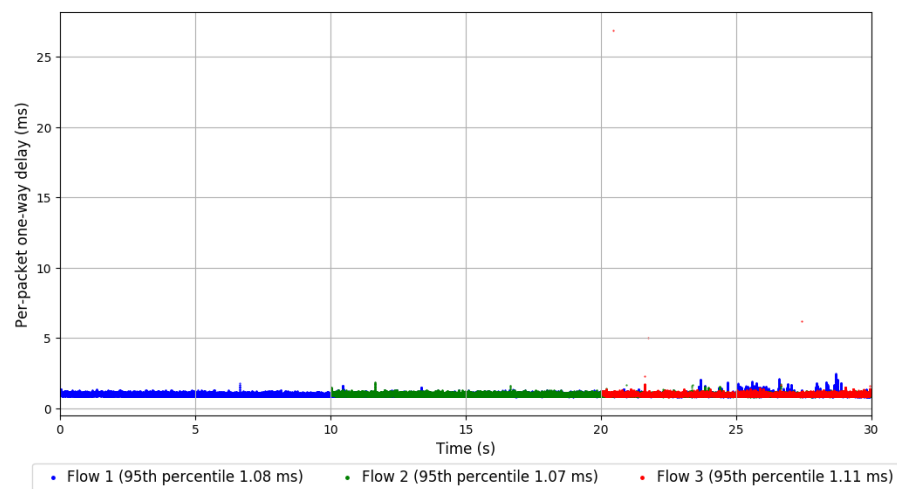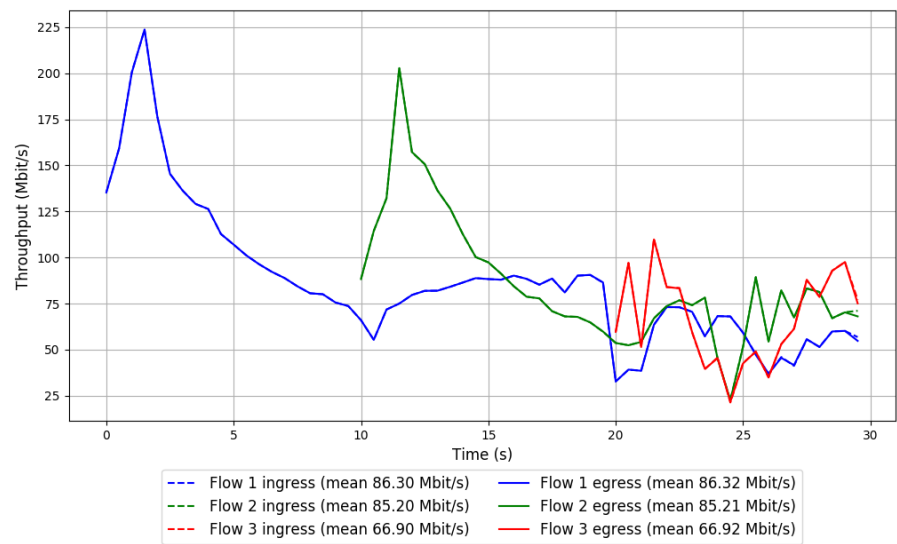
Run 7: Report of Copa — Data Link

Flow 1 ingress (mean 84.72 Mbit/s) --- Flow 1 egress (mean 84.77 Mbit/s)
Flow 2 ingress (mean 84.10 Mbit/s) --- Flow 2 egress (mean 84.11 Mbit/s)
Flow 3 ingress (mean 87.78 Mbit/s) --- Flow 3 egress (mean 87.82 Mbit/s)

Flow 1 (95th percentile 0.98 ms) Flow 2 (95th percentile 0.94 ms) Flow 3 (95th percentile 1.00 ms)

237

```
Run 8: Statistics of Copa

Start at: 2018-03-21 03:23:59
End at: 2018-03-21 03:24:29
Local clock offset: 10.681 ms
Remote clock offset: -5.096 ms


# Below is generated by plot.py at 2018-03-21 11:17:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.53 Mbit/s
95th percentile per-packet one-way delay: 1.180 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 87.68 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 82.36 Mbit/s
95th percentile per-packet one-way delay: 1.189 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 69.84 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.24%
```
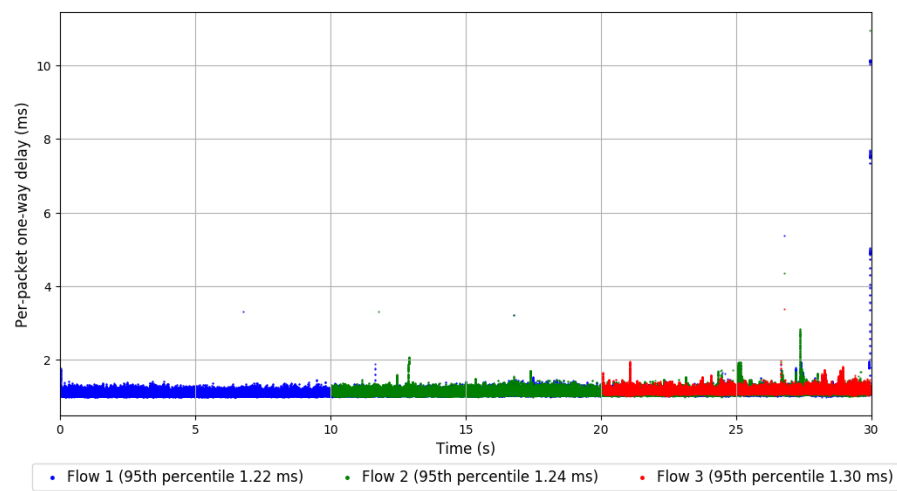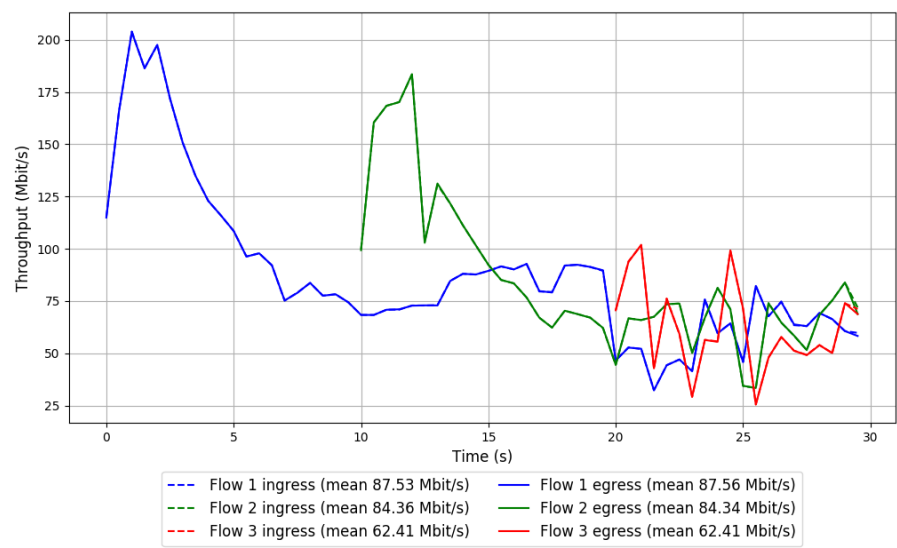
Run 8: Report of Copa — Data Link

- - - Flow 1 ingress (mean 87.66 Mbit/s)   —— Flow 1 egress (mean 87.68 Mbit/s)
- - - Flow 2 ingress (mean 82.32 Mbit/s)   —— Flow 2 egress (mean 82.36 Mbit/s)
- - - Flow 3 ingress (mean 69.87 Mbit/s)   —— Flow 3 egress (mean 69.84 Mbit/s)

- Flow 1 (95th percentile 1.17 ms)   • Flow 2 (95th percentile 1.19 ms)   • Flow 3 (95th percentile 1.20 ms)

239

```
Run 9: Statistics of Copa

Start at: 2018-03-21 03:52:44
End at: 2018-03-21 03:53:14
Local clock offset: 11.332 ms
Remote clock offset: -5.916 ms


# Below is generated by plot.py at 2018-03-21 11:17:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.11 Mbit/s
95th percentile per-packet one-way delay: 1.084 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 86.32 Mbit/s
95th percentile per-packet one-way delay: 1.084 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 85.21 Mbit/s
95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 66.92 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.16%
```
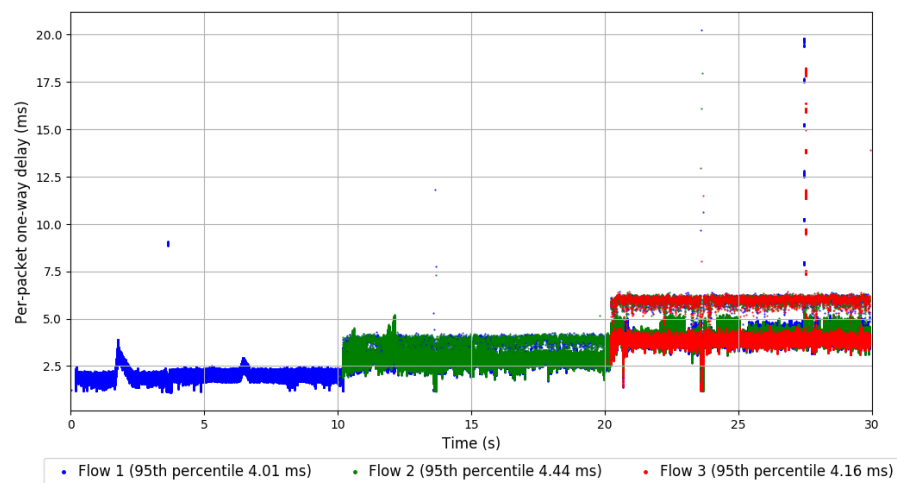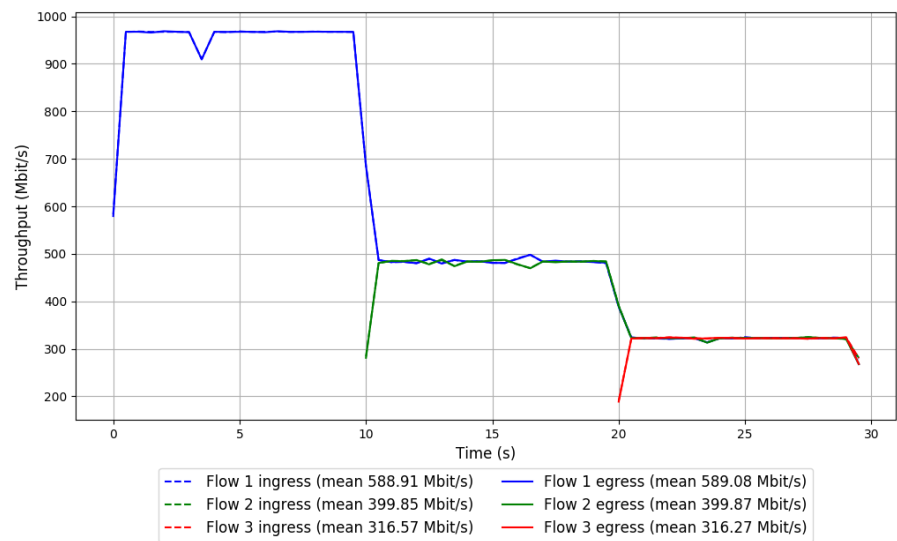
Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2018-03-21 04:21:47
End at: 2018-03-21 04:22:17
Local clock offset: 1.475 ms
Remote clock offset: -4.974 ms


# Below is generated by plot.py at 2018-03-21 11:17:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.28 Mbit/s
95th percentile per-packet one-way delay: 1.244 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 1.220 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 84.34 Mbit/s
95th percentile per-packet one-way delay: 1.244 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 62.41 Mbit/s
95th percentile per-packet one-way delay: 1.296 ms
Loss rate: 0.21%
```
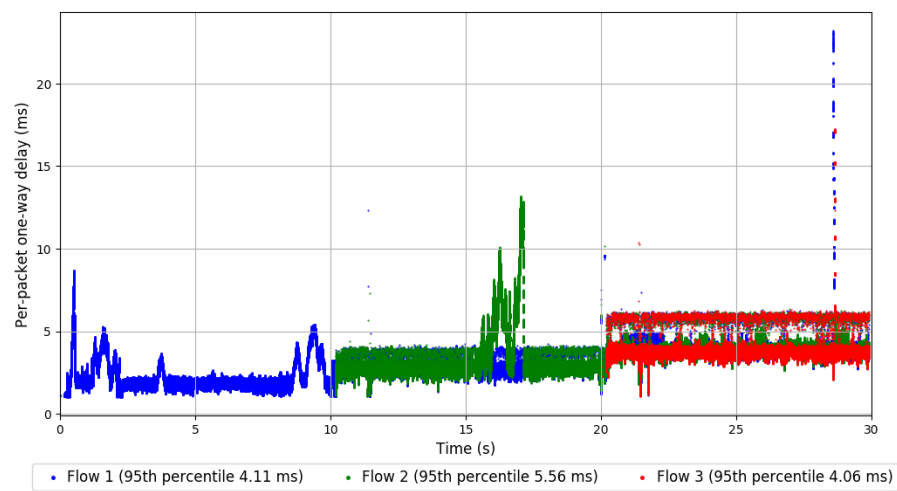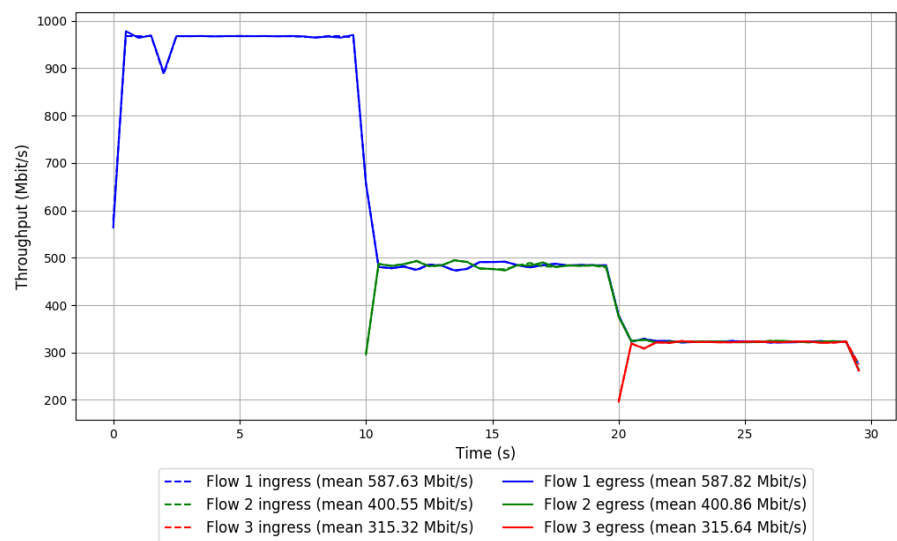
Run 10: Report of Copa — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-03-20 23:54:45
End at: 2018-03-20 23:55:15
Local clock offset: -0.319 ms
Remote clock offset: -4.801 ms


# Below is generated by plot.py at 2018-03-21 11:29:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 959.21 Mbit/s
95th percentile per-packet one-way delay: 4.165 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 589.08 Mbit/s
95th percentile per-packet one-way delay: 4.015 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 399.87 Mbit/s
95th percentile per-packet one-way delay: 4.442 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 316.27 Mbit/s
95th percentile per-packet one-way delay: 4.162 ms
Loss rate: 0.23%
```
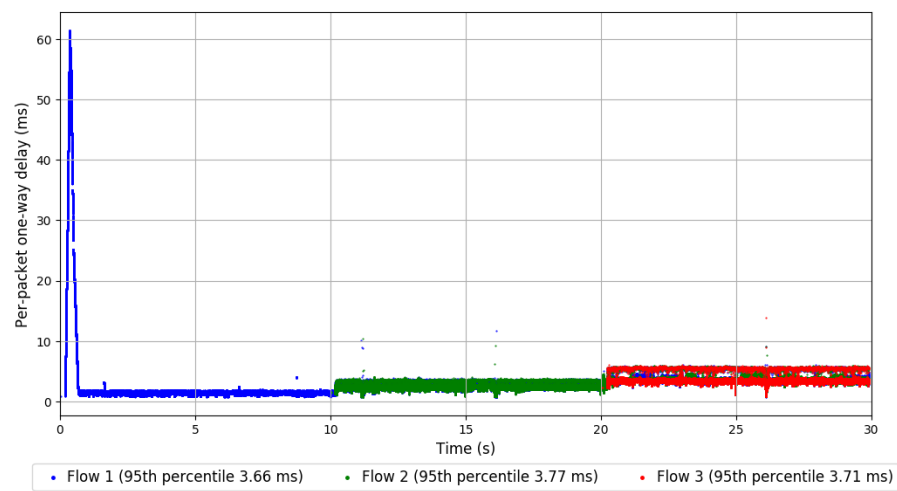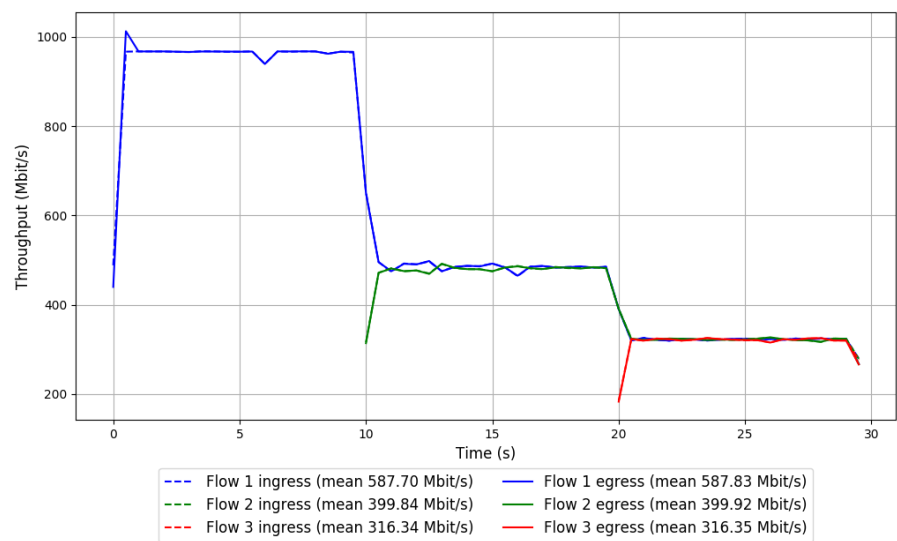
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-03-21 00:23:47
End at: 2018-03-21 00:24:17
Local clock offset: -2.47 ms
Remote clock offset: -4.331 ms


# Below is generated by plot.py at 2018-03-21 11:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 958.66 Mbit/s
95th percentile per-packet one-way delay: 4.280 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 587.82 Mbit/s
95th percentile per-packet one-way delay: 4.112 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 400.86 Mbit/s
95th percentile per-packet one-way delay: 5.562 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 315.64 Mbit/s
95th percentile per-packet one-way delay: 4.061 ms
Loss rate: 0.25%
```
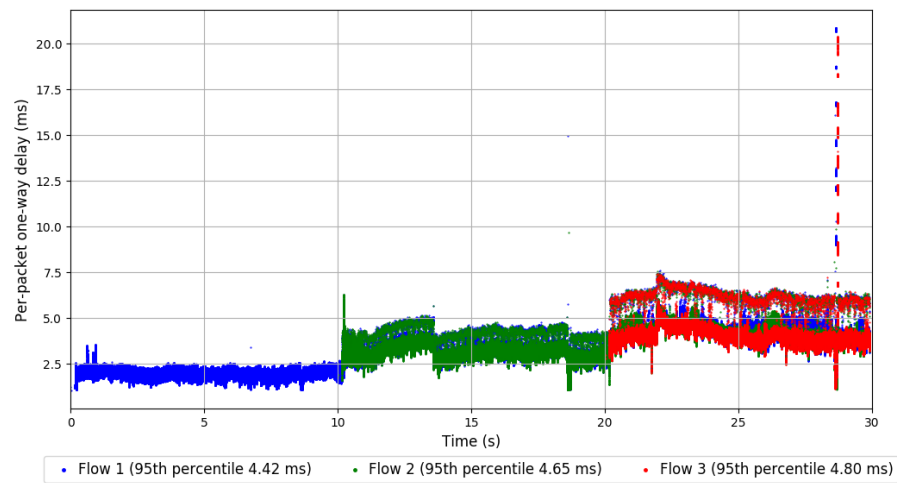
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-03-21 00:52:52
End at: 2018-03-21 00:53:22
Local clock offset: 6.008 ms
Remote clock offset: -4.888 ms


# Below is generated by plot.py at 2018-03-21 11:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 958.18 Mbit/s
95th percentile per-packet one-way delay: 3.712 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 587.83 Mbit/s
95th percentile per-packet one-way delay: 3.659 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 399.92 Mbit/s
95th percentile per-packet one-way delay: 3.767 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 316.35 Mbit/s
95th percentile per-packet one-way delay: 3.713 ms
Loss rate: 0.20%
```
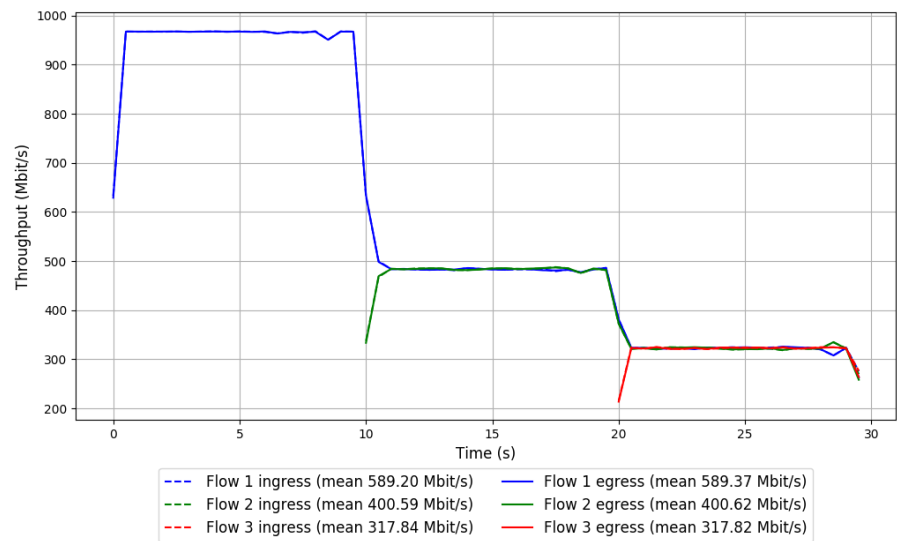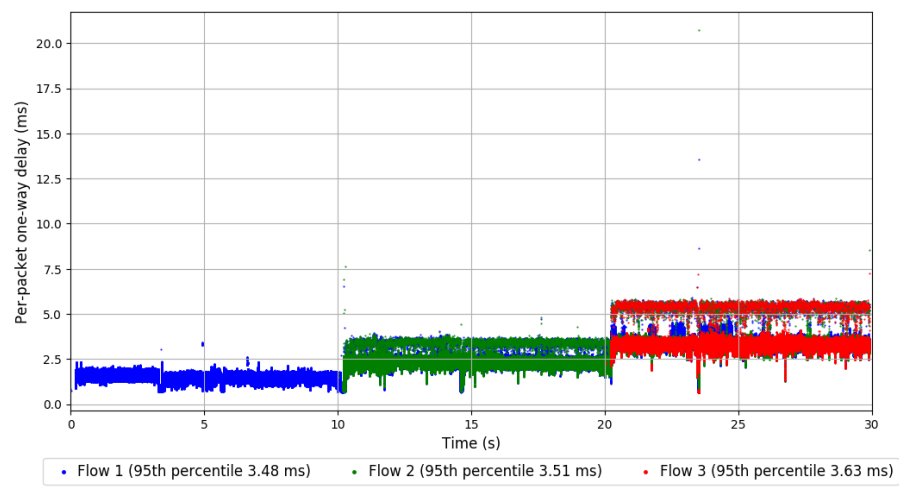
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-03-21 01:21:49
End at: 2018-03-21 01:22:19
Local clock offset: 0.999 ms
Remote clock offset: -5.016 ms


# Below is generated by plot.py at 2018-03-21 11:31:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 961.00 Mbit/s
95th percentile per-packet one-way delay: 4.568 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 589.37 Mbit/s
95th percentile per-packet one-way delay: 4.421 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 400.62 Mbit/s
95th percentile per-packet one-way delay: 4.651 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 317.82 Mbit/s
95th percentile per-packet one-way delay: 4.797 ms
Loss rate: 0.25%
```
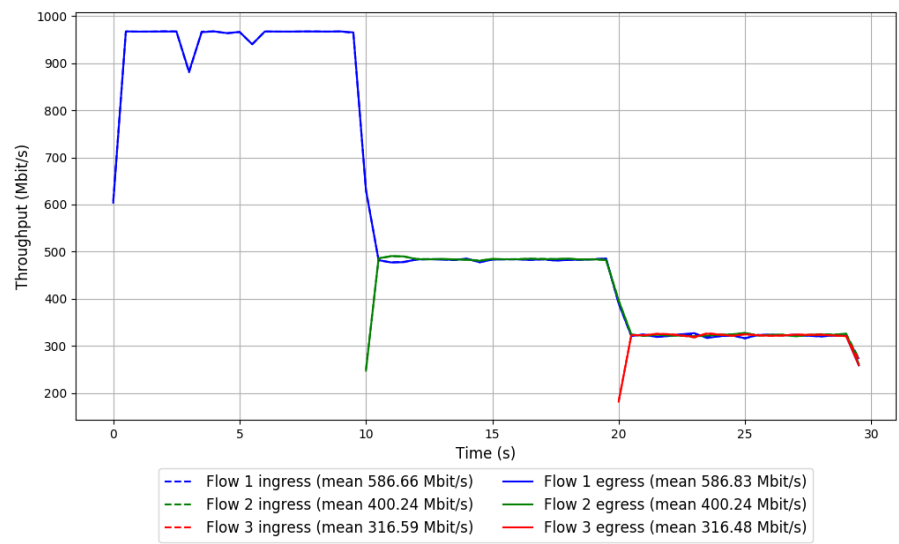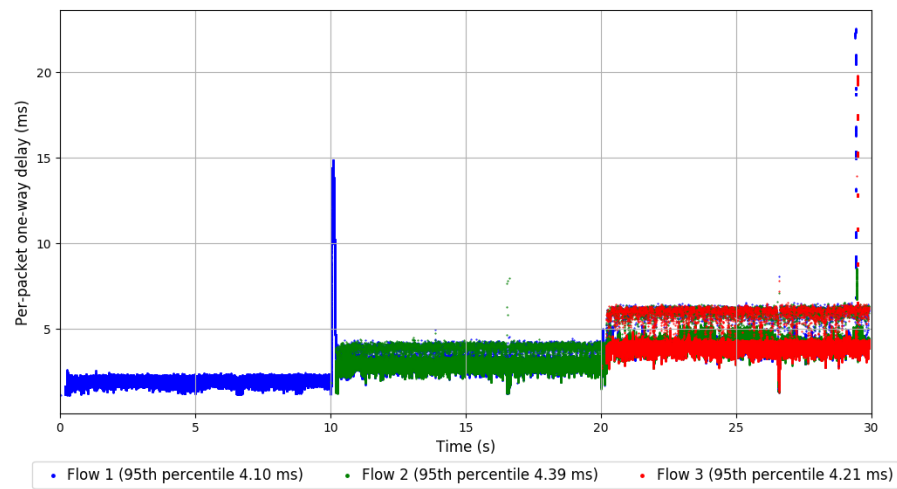
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 589.20 Mbit/s) — Flow 1 egress (mean 589.37 Mbit/s)
Flow 2 ingress (mean 400.59 Mbit/s) — Flow 2 egress (mean 400.62 Mbit/s)
Flow 3 ingress (mean 317.84 Mbit/s) — Flow 3 egress (mean 317.82 Mbit/s)

Flow 1 (95th percentile 4.42 ms) — Flow 2 (95th percentile 4.65 ms) — Flow 3 (95th percentile 4.80 ms)

```
Run 5: Statistics of FillP

Start at: 2018-03-21 01:50:43
End at: 2018-03-21 01:51:13
Local clock offset: 4.908 ms
Remote clock offset: -5.475 ms

# Below is generated by plot.py at 2018-03-21 11:31:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 957.44 Mbit/s
95th percentile per-packet one-way delay: 3.524 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 586.83 Mbit/s
95th percentile per-packet one-way delay: 3.475 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 400.24 Mbit/s
95th percentile per-packet one-way delay: 3.512 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 316.48 Mbit/s
95th percentile per-packet one-way delay: 3.626 ms
Loss rate: 0.23%
```
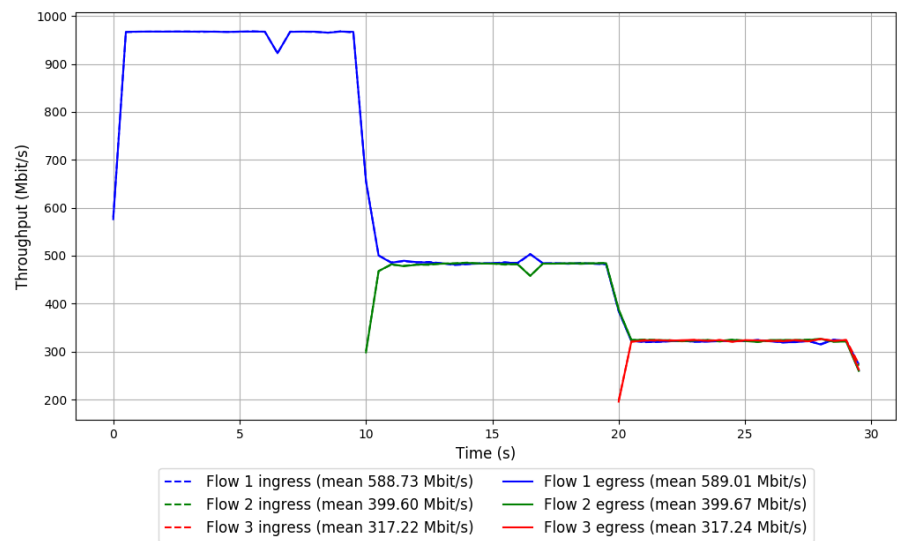
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 586.66 Mbit/s) --- Flow 1 egress (mean 586.83 Mbit/s)
Flow 2 ingress (mean 400.24 Mbit/s) --- Flow 2 egress (mean 400.24 Mbit/s)
Flow 3 ingress (mean 316.59 Mbit/s) --- Flow 3 egress (mean 316.48 Mbit/s)

Flow 1 (95th percentile 3.48 ms)　Flow 2 (95th percentile 3.51 ms)　Flow 3 (95th percentile 3.63 ms)
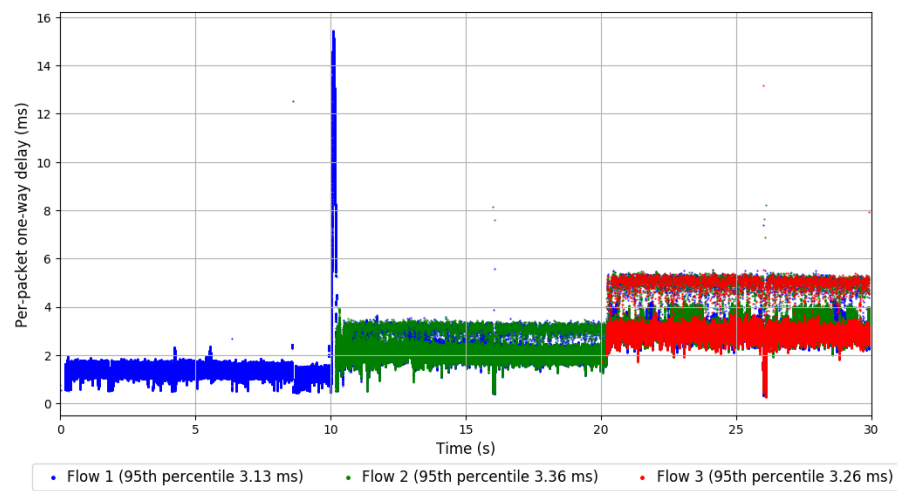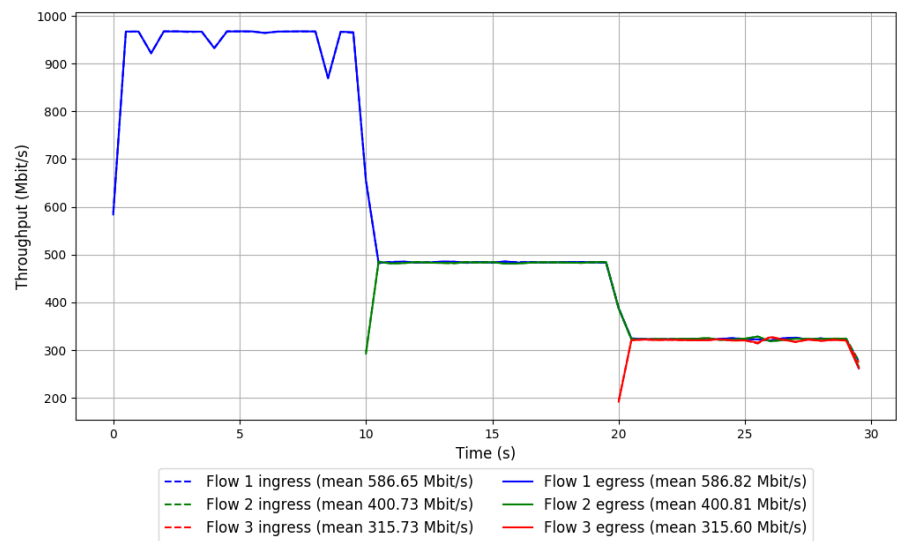
```
Run 6: Statistics of FillP

Start at: 2018-03-21 02:19:40
End at: 2018-03-21 02:20:10
Local clock offset: 3.452 ms
Remote clock offset: -6.041 ms


# Below is generated by plot.py at 2018-03-21 11:32:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 959.66 Mbit/s
95th percentile per-packet one-way delay: 4.200 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 589.01 Mbit/s
95th percentile per-packet one-way delay: 4.096 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 399.67 Mbit/s
95th percentile per-packet one-way delay: 4.393 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 317.24 Mbit/s
95th percentile per-packet one-way delay: 4.211 ms
Loss rate: 0.22%
```
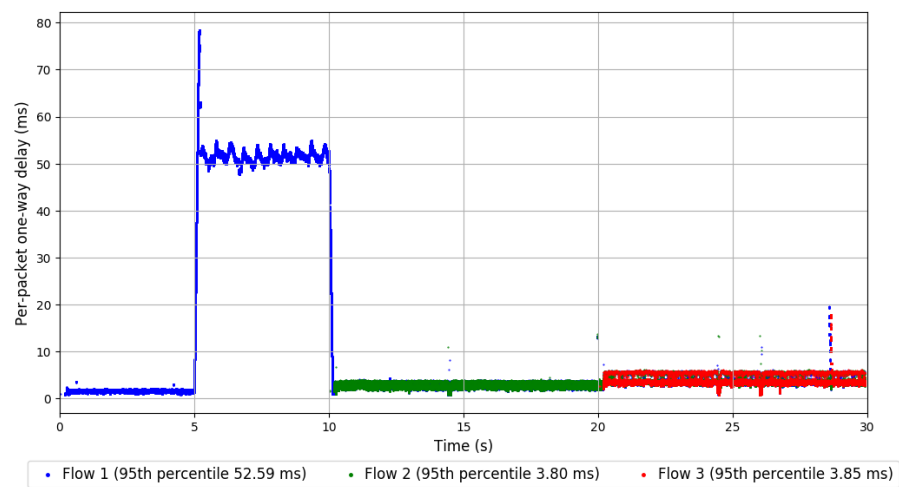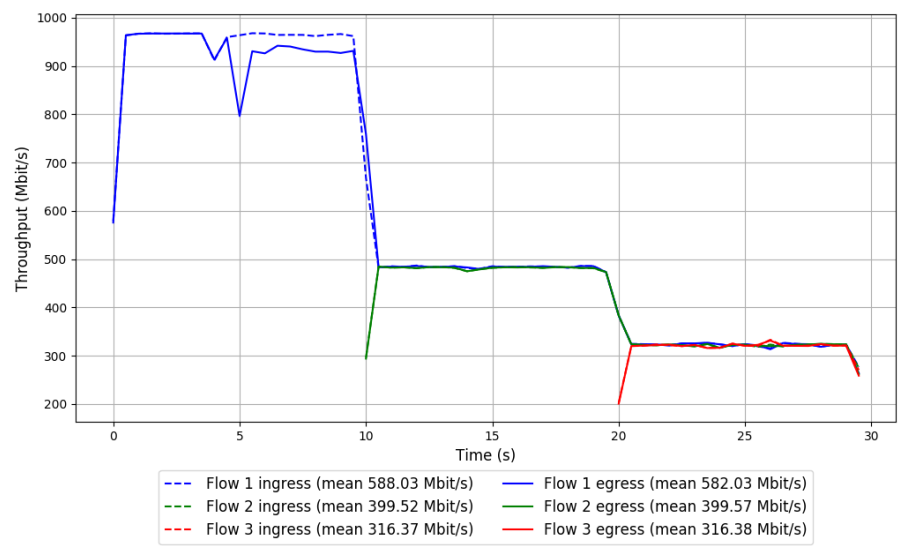
Run 6: Report of FillP — Data Link

255

```
Run 7: Statistics of FillP

Start at: 2018-03-21 02:48:30
End at: 2018-03-21 02:49:00
Local clock offset: 1.423 ms
Remote clock offset: -6.091 ms


# Below is generated by plot.py at 2018-03-21 11:32:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 957.35 Mbit/s
95th percentile per-packet one-way delay: 3.222 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 586.82 Mbit/s
95th percentile per-packet one-way delay: 3.126 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 400.81 Mbit/s
95th percentile per-packet one-way delay: 3.359 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 315.60 Mbit/s
95th percentile per-packet one-way delay: 3.258 ms
Loss rate: 0.23%
```
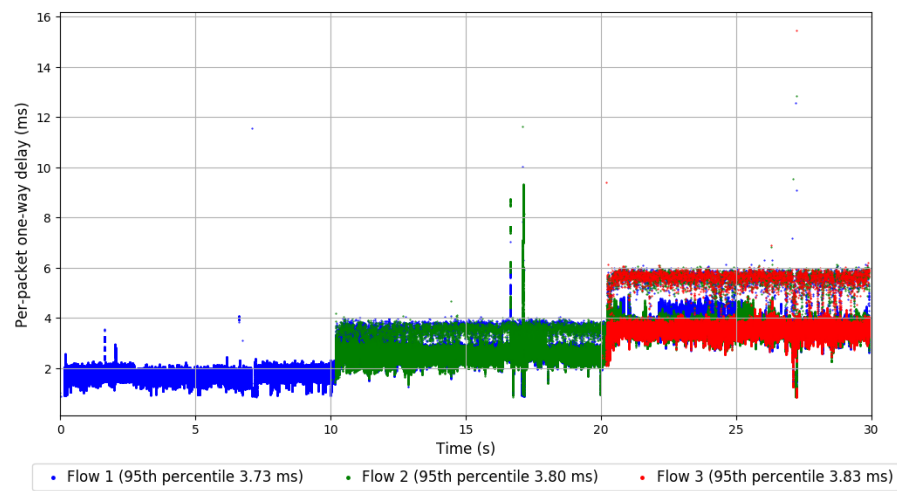
Run 7: Report of FillP — Data Link

257

```
Run 8: Statistics of FillP

Start at: 2018-03-21 03:17:31
End at: 2018-03-21 03:18:01
Local clock offset: 10.737 ms
Remote clock offset: -4.854 ms


# Below is generated by plot.py at 2018-03-21 11:32:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 952.13 Mbit/s
95th percentile per-packet one-way delay: 52.042 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 582.03 Mbit/s
95th percentile per-packet one-way delay: 52.594 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 399.57 Mbit/s
95th percentile per-packet one-way delay: 3.796 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 316.38 Mbit/s
95th percentile per-packet one-way delay: 3.849 ms
Loss rate: 0.23%
```

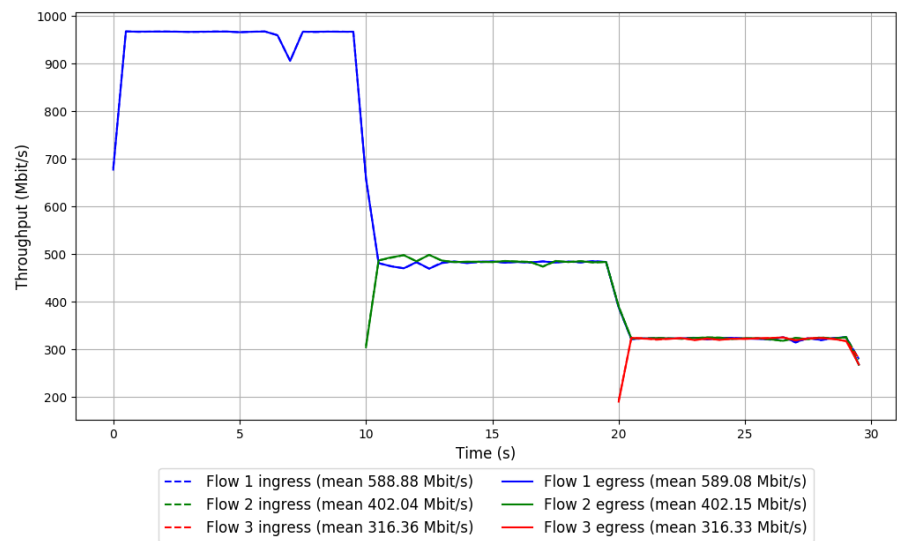Run 8: Report of FillP — Data Link

259

```
Run 9: Statistics of FillP

Start at: 2018-03-21 03:46:18
End at: 2018-03-21 03:46:48
Local clock offset: 10.808 ms
Remote clock offset: -5.841 ms


# Below is generated by plot.py at 2018-03-21 11:45:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 960.92 Mbit/s
95th percentile per-packet one-way delay: 3.778 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 589.08 Mbit/s
95th percentile per-packet one-way delay: 3.733 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 402.15 Mbit/s
95th percentile per-packet one-way delay: 3.803 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 316.33 Mbit/s
95th percentile per-packet one-way delay: 3.829 ms
Loss rate: 0.25%
```
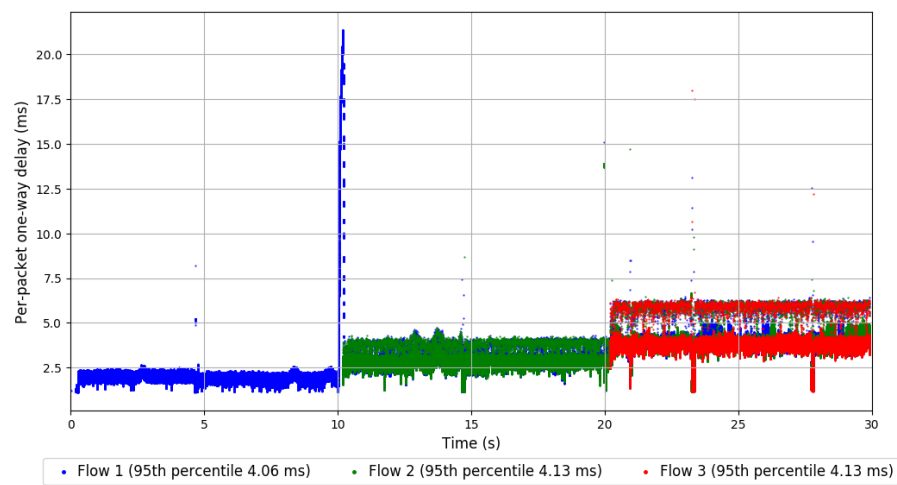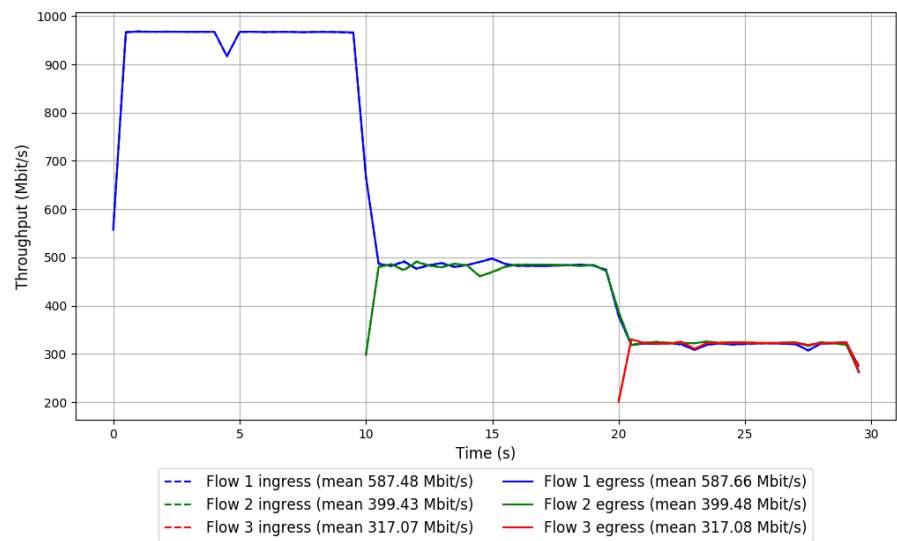
Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-03-21 04:15:20
End at: 2018-03-21 04:15:50
Local clock offset: 2.238 ms
Remote clock offset: -5.093 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 958.12 Mbit/s
95th percentile per-packet one-way delay: 4.096 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 587.66 Mbit/s
95th percentile per-packet one-way delay: 4.058 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 399.48 Mbit/s
95th percentile per-packet one-way delay: 4.129 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 317.08 Mbit/s
95th percentile per-packet one-way delay: 4.127 ms
Loss rate: 0.23%
```

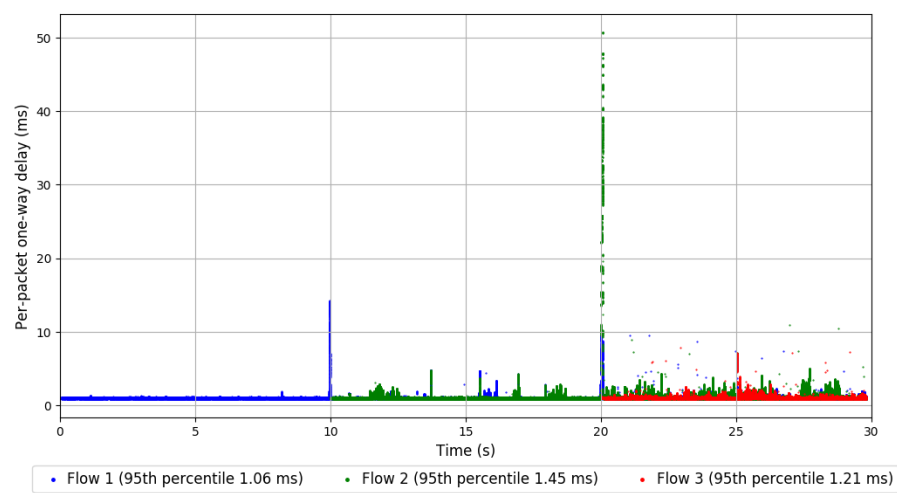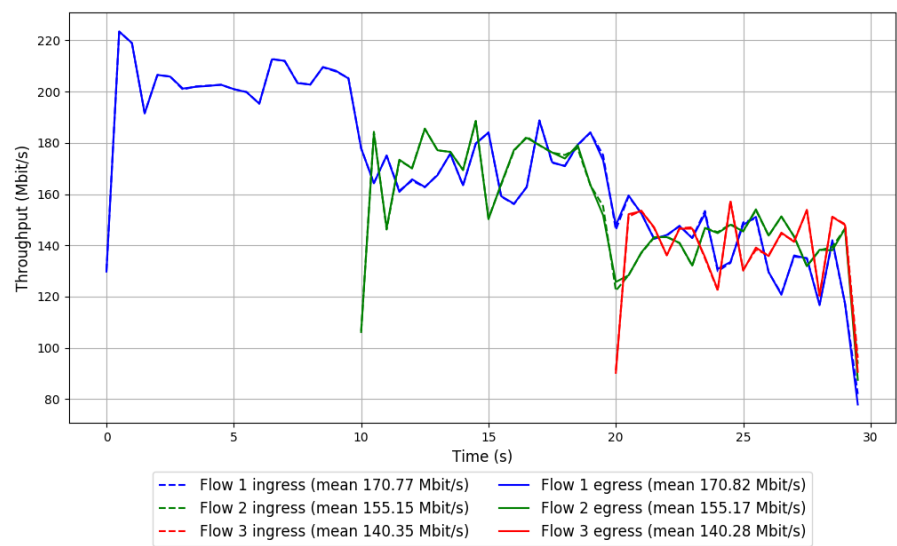Run 10: Report of FillP — Data Link

263

```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-20 23:56:31
End at: 2018-03-20 23:57:01
Local clock offset: -0.62 ms
Remote clock offset: -4.806 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 319.87 Mbit/s
95th percentile per-packet one-way delay: 1.154 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 170.82 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 155.17 Mbit/s
95th percentile per-packet one-way delay: 1.446 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 140.28 Mbit/s
95th percentile per-packet one-way delay: 1.213 ms
Loss rate: 0.21%
```

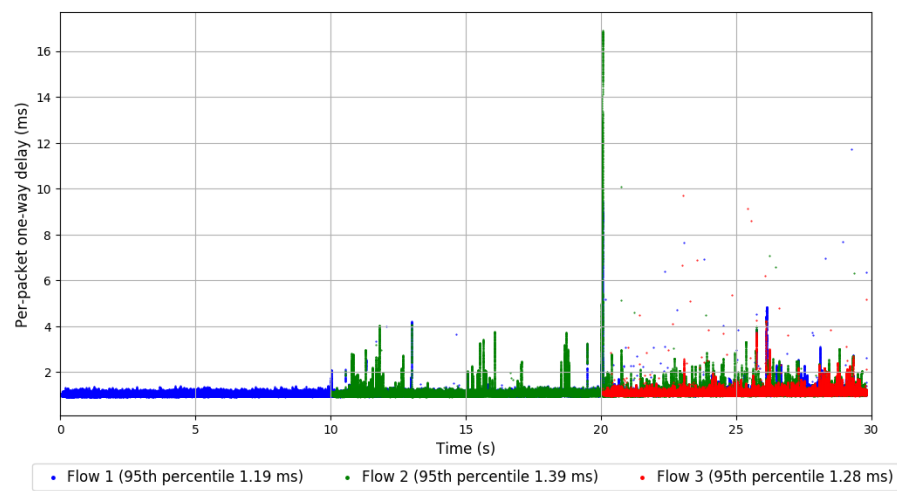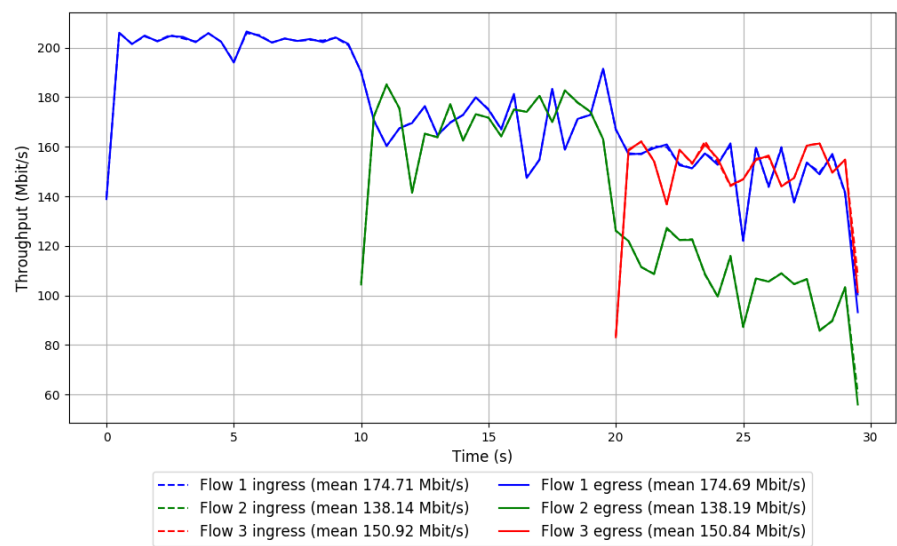Run 1: Report of Indigo-1-32 — Data Link

```
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-21 00:25:33
End at: 2018-03-21 00:26:03
Local clock offset: -2.749 ms
Remote clock offset: -4.315 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 315.84 Mbit/s
95th percentile per-packet one-way delay: 1.239 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 174.69 Mbit/s
95th percentile per-packet one-way delay: 1.192 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 138.19 Mbit/s
95th percentile per-packet one-way delay: 1.385 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 150.84 Mbit/s
95th percentile per-packet one-way delay: 1.283 ms
Loss rate: 0.23%
```
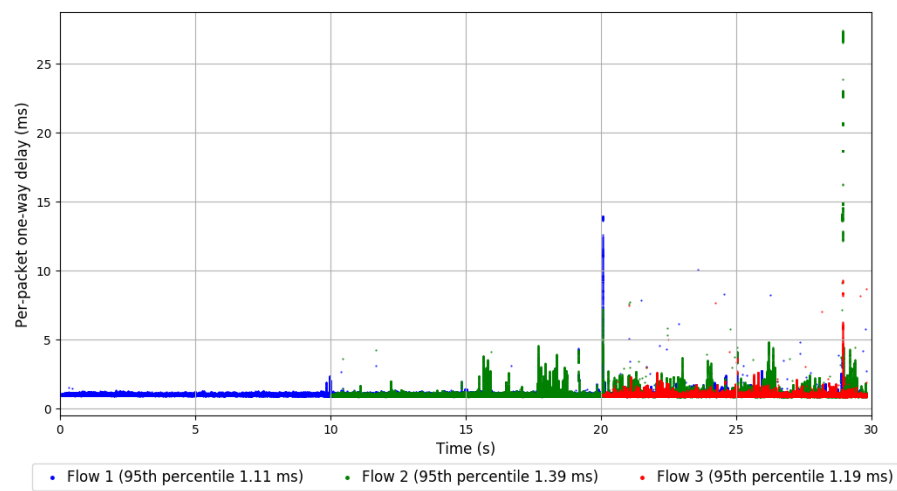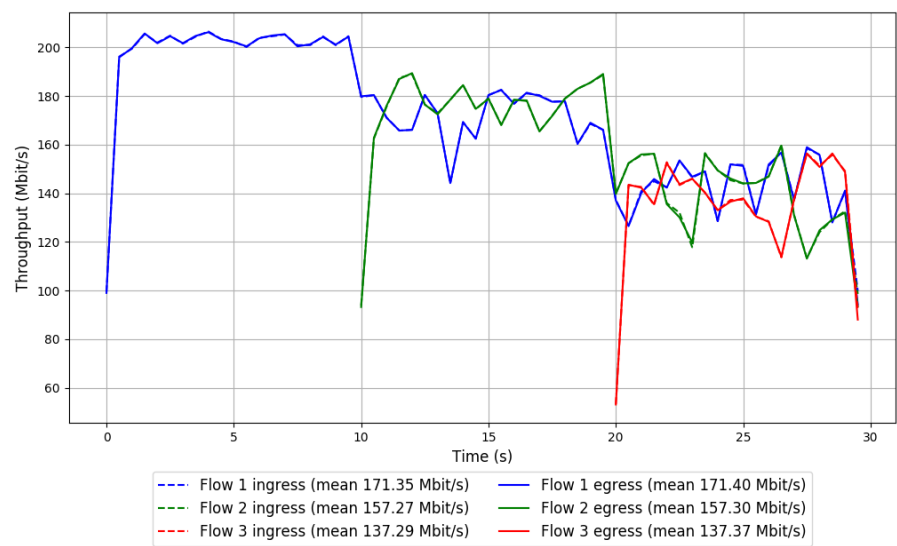
Run 2: Report of Indigo-1-32 — Data Link

- - - - Flow 1 ingress (mean 174.71 Mbit/s) —— Flow 1 egress (mean 174.69 Mbit/s)
- - - - Flow 2 ingress (mean 138.14 Mbit/s) —— Flow 2 egress (mean 138.19 Mbit/s)
- - - - Flow 3 ingress (mean 150.92 Mbit/s) —— Flow 3 egress (mean 150.84 Mbit/s)

- Flow 1 (95th percentile 1.19 ms) • Flow 2 (95th percentile 1.39 ms) • Flow 3 (95th percentile 1.28 ms)

```
Run 3: Statistics of Indigo-1-32

Start at: 2018-03-21 00:54:37
End at: 2018-03-21 00:55:07
Local clock offset: 6.312 ms
Remote clock offset: -4.983 ms

# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 320.73 Mbit/s
95th percentile per-packet one-way delay: 1.161 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 171.40 Mbit/s
95th percentile per-packet one-way delay: 1.113 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 157.30 Mbit/s
95th percentile per-packet one-way delay: 1.394 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 137.37 Mbit/s
95th percentile per-packet one-way delay: 1.188 ms
Loss rate: 0.17%
```
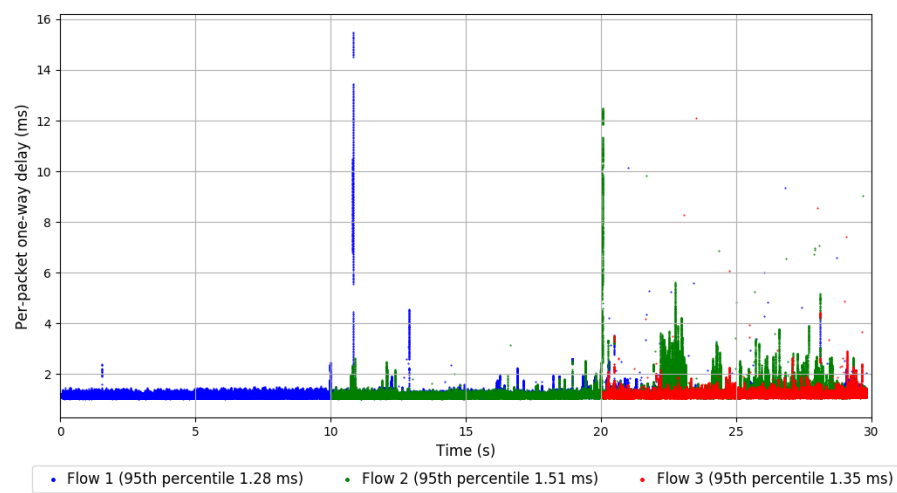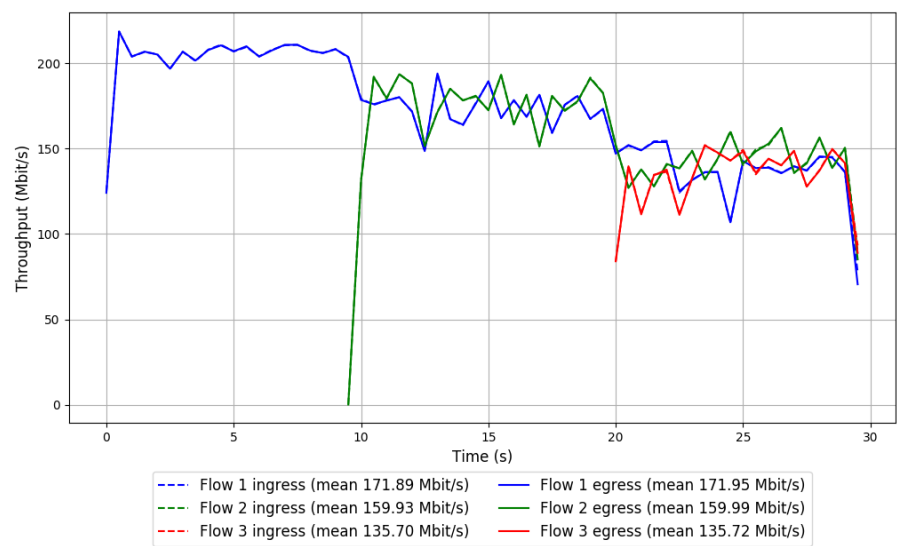
Run 3: Report of Indigo-1-32 — Data Link

- - - - Flow 1 ingress (mean 171.35 Mbit/s) ——— Flow 1 egress (mean 171.40 Mbit/s)
- - - - Flow 2 ingress (mean 157.27 Mbit/s) ——— Flow 2 egress (mean 157.30 Mbit/s)
- - - - Flow 3 ingress (mean 137.29 Mbit/s) ——— Flow 3 egress (mean 137.37 Mbit/s)

- Flow 1 (95th percentile 1.11 ms) - Flow 2 (95th percentile 1.39 ms) - Flow 3 (95th percentile 1.19 ms)

```
Run 4: Statistics of Indigo-1-32

Start at: 2018-03-21 01:23:34
End at: 2018-03-21 01:24:04
Local clock offset: 0.788 ms
Remote clock offset: -5.007 ms

# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 322.79 Mbit/s
95th percentile per-packet one-way delay: 1.329 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 171.95 Mbit/s
95th percentile per-packet one-way delay: 1.280 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 159.99 Mbit/s
95th percentile per-packet one-way delay: 1.510 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 135.72 Mbit/s
95th percentile per-packet one-way delay: 1.353 ms
Loss rate: 0.19%
```

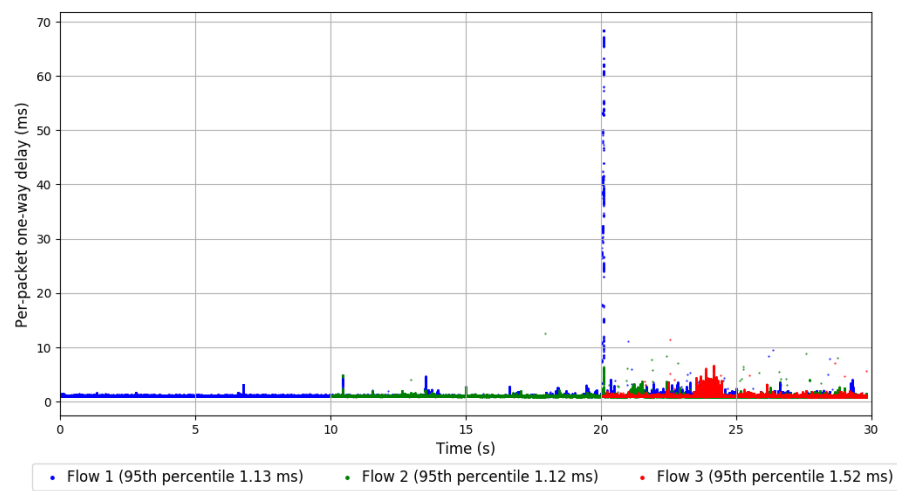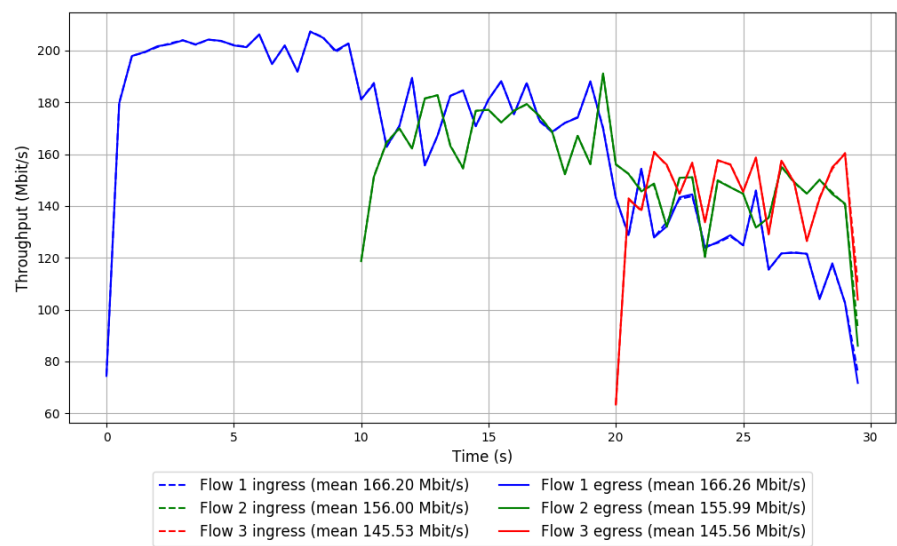Run 4: Report of Indigo-1-32 — Data Link

```
Run 5: Statistics of Indigo-1-32

Start at: 2018-03-21 01:52:29
End at: 2018-03-21 01:52:59
Local clock offset: 5.402 ms
Remote clock offset: -5.576 ms

# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 317.42 Mbit/s
95th percentile per-packet one-way delay: 1.153 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 166.26 Mbit/s
95th percentile per-packet one-way delay: 1.126 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 155.99 Mbit/s
95th percentile per-packet one-way delay: 1.123 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 145.56 Mbit/s
95th percentile per-packet one-way delay: 1.523 ms
Loss rate: 0.21%
```

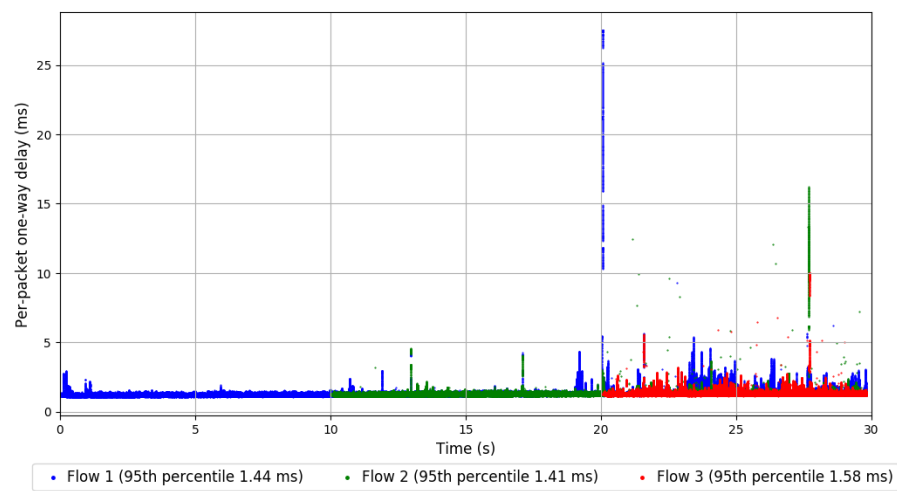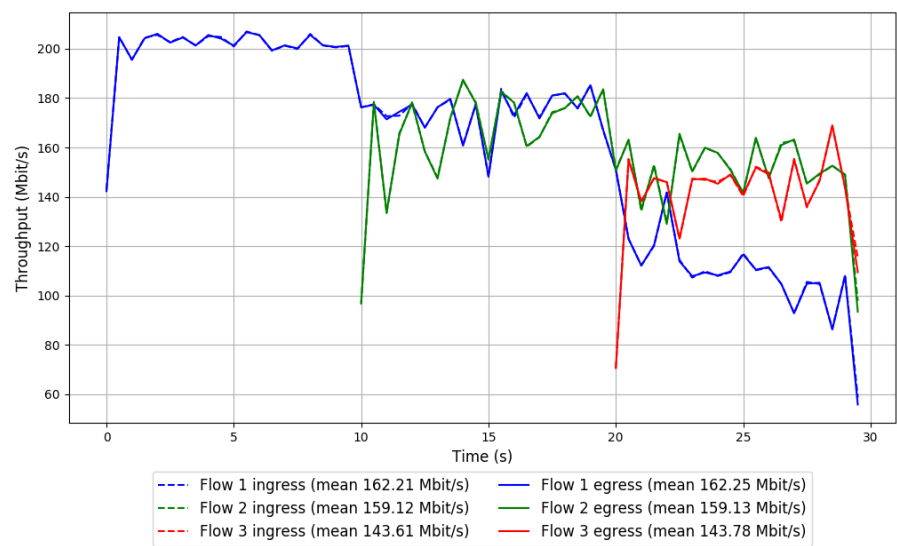Run 5: Report of Indigo-1-32 — Data Link

```
Run 6: Statistics of Indigo-1-32

Start at: 2018-03-21 02:21:25
End at: 2018-03-21 02:21:55
Local clock offset: 2.907 ms
Remote clock offset: -6.018 ms

# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.93 Mbit/s
95th percentile per-packet one-way delay: 1.452 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 162.25 Mbit/s
95th percentile per-packet one-way delay: 1.444 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 159.13 Mbit/s
95th percentile per-packet one-way delay: 1.413 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 143.78 Mbit/s
95th percentile per-packet one-way delay: 1.582 ms
Loss rate: 0.21%
```
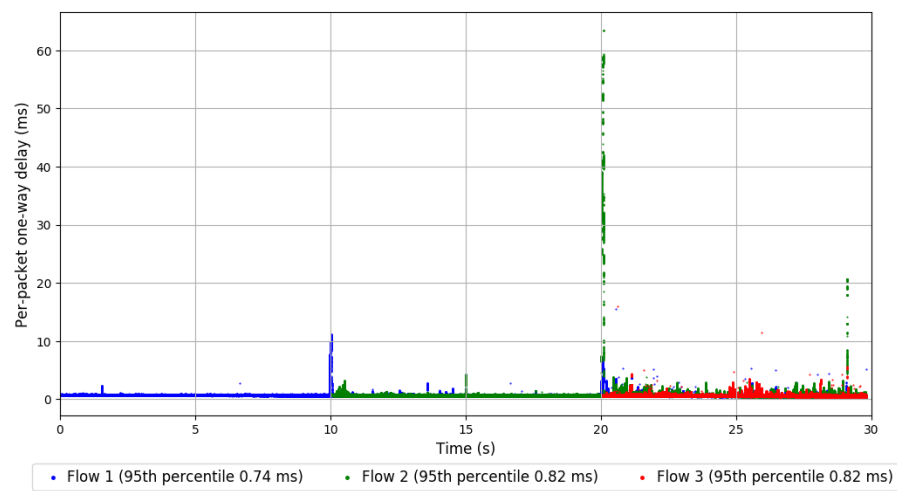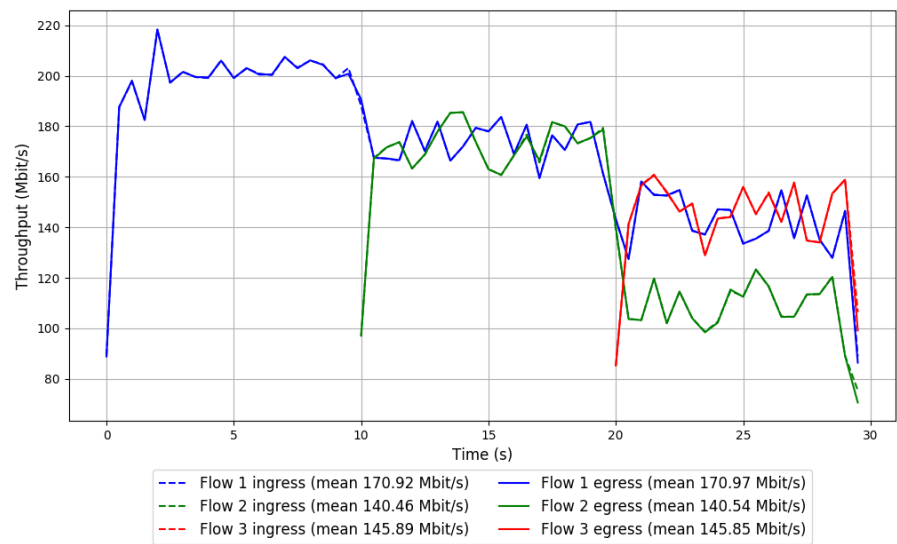
Run 6: Report of Indigo-1-32 — Data Link

- Flow 1 ingress (mean 162.21 Mbit/s)
- Flow 1 egress (mean 162.25 Mbit/s)
- Flow 2 ingress (mean 159.12 Mbit/s)
- Flow 2 egress (mean 159.13 Mbit/s)
- Flow 3 ingress (mean 143.61 Mbit/s)
- Flow 3 egress (mean 143.78 Mbit/s)

- Flow 1 (95th percentile 1.44 ms)
- Flow 2 (95th percentile 1.41 ms)
- Flow 3 (95th percentile 1.58 ms)

275

```
Run 7: Statistics of Indigo-1-32

Start at: 2018-03-21 02:50:15
End at: 2018-03-21 02:50:45
Local clock offset: 2.762 ms
Remote clock offset: -5.92 ms

# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.93 Mbit/s
95th percentile per-packet one-way delay: 0.761 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 170.97 Mbit/s
95th percentile per-packet one-way delay: 0.740 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 140.54 Mbit/s
95th percentile per-packet one-way delay: 0.822 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 145.85 Mbit/s
95th percentile per-packet one-way delay: 0.825 ms
Loss rate: 0.26%
```

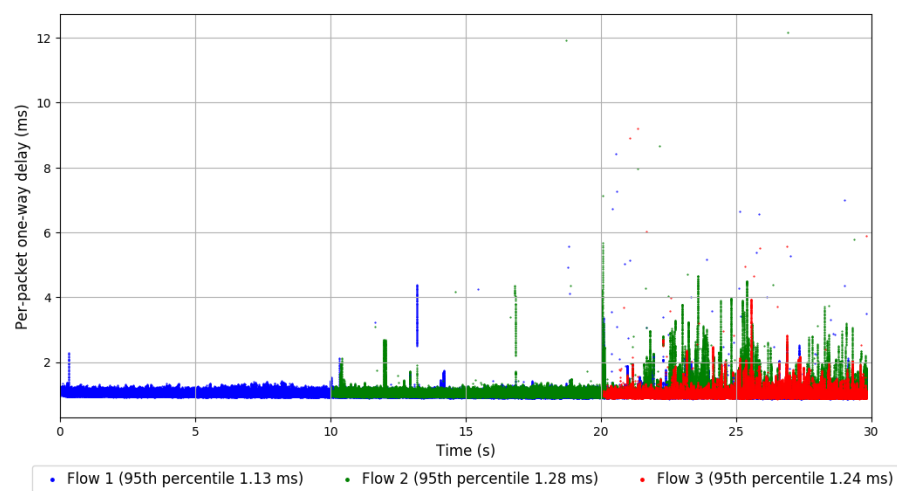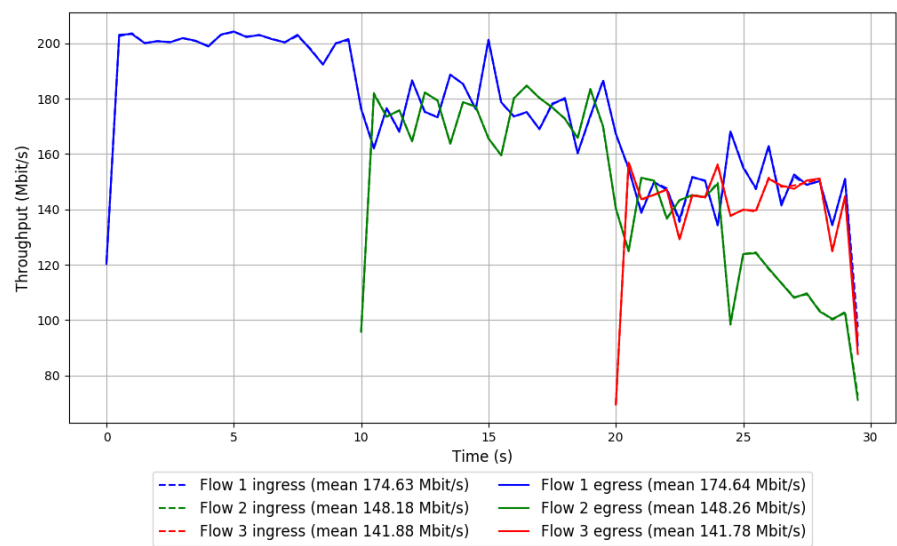Run 7: Report of Indigo-1-32 — Data Link

```
Run 8: Statistics of Indigo-1-32

Start at: 2018-03-21 03:19:17
End at: 2018-03-21 03:19:47
Local clock offset: 11.016 ms
Remote clock offset: -4.855 ms

# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 319.32 Mbit/s
95th percentile per-packet one-way delay: 1.170 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 174.64 Mbit/s
95th percentile per-packet one-way delay: 1.130 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 148.26 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 141.78 Mbit/s
95th percentile per-packet one-way delay: 1.244 ms
Loss rate: 0.23%
```

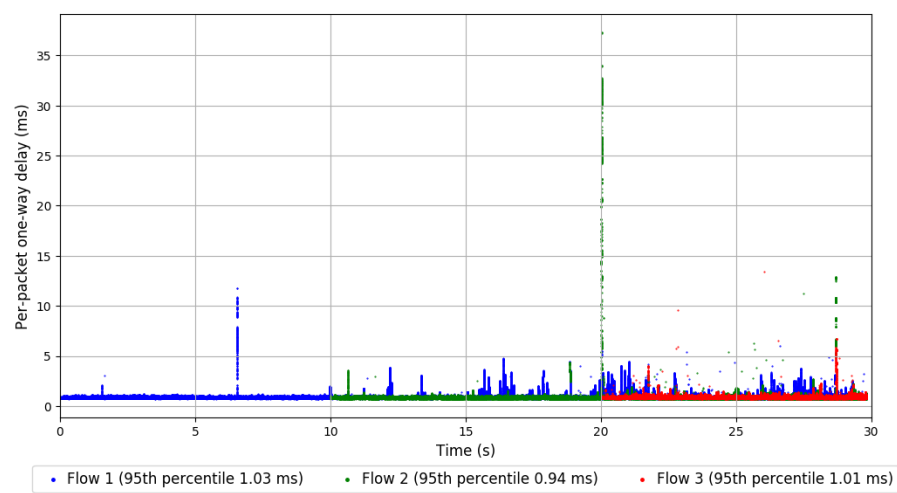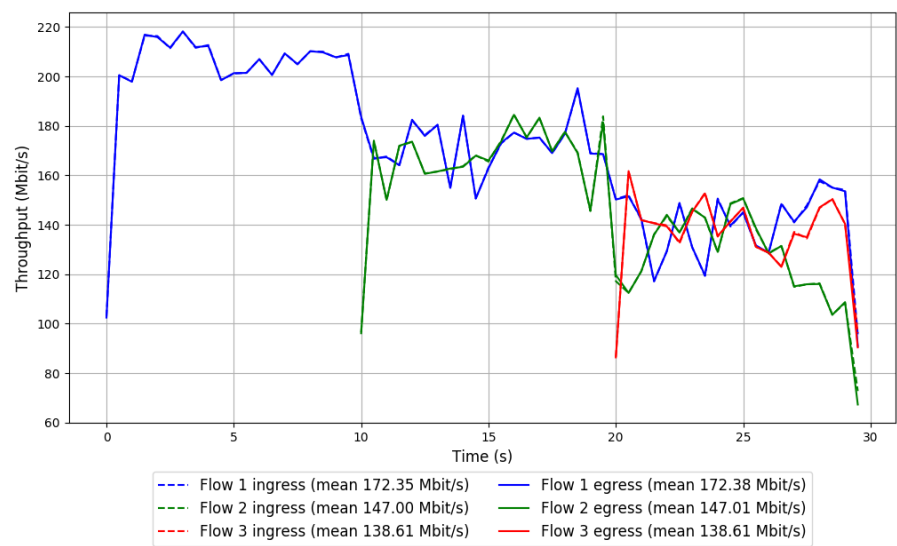Run 8: Report of Indigo-1-32 — Data Link

```
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-21 03:48:03
End at: 2018-03-21 03:48:33
Local clock offset: 10.932 ms
Remote clock offset: -5.748 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 315.39 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 172.38 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 147.01 Mbit/s
95th percentile per-packet one-way delay: 0.944 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 138.61 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.22%
```
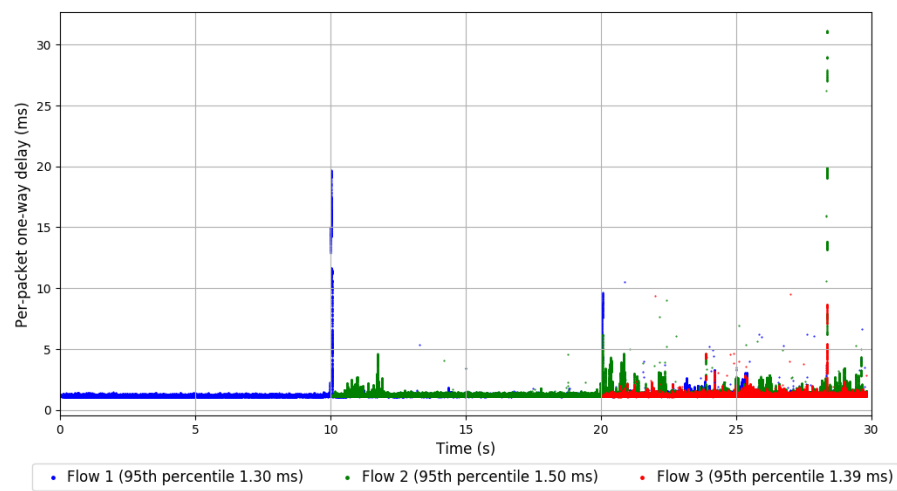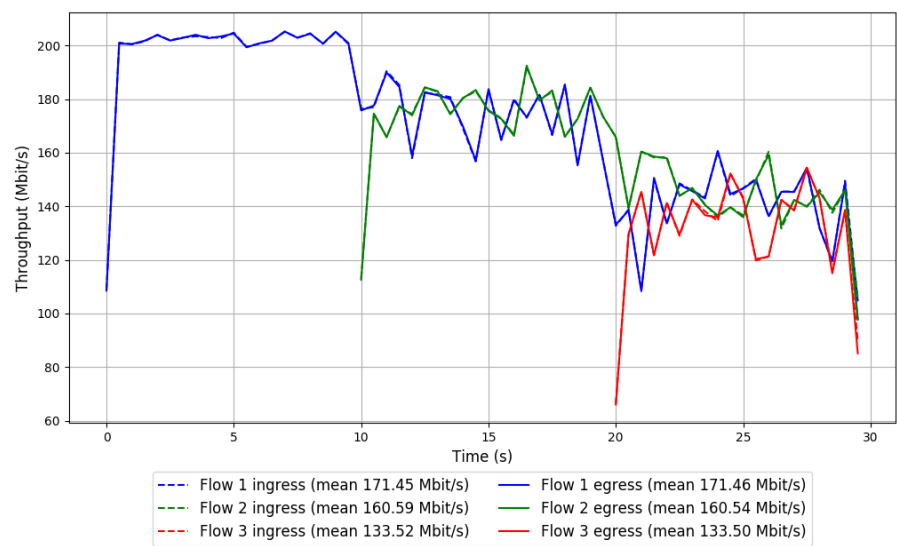
Run 9: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 172.35 Mbit/s) --- Flow 1 egress (mean 172.38 Mbit/s)
Flow 2 ingress (mean 147.00 Mbit/s) --- Flow 2 egress (mean 147.01 Mbit/s)
Flow 3 ingress (mean 138.61 Mbit/s) --- Flow 3 egress (mean 138.61 Mbit/s)

Flow 1 (95th percentile 1.03 ms)   Flow 2 (95th percentile 0.94 ms)   Flow 3 (95th percentile 1.01 ms)

```
Run 10: Statistics of Indigo-1-32

Start at: 2018-03-21 04:17:06
End at: 2018-03-21 04:17:36
Local clock offset: 2.013 ms
Remote clock offset: -5.002 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 321.57 Mbit/s
95th percentile per-packet one-way delay: 1.369 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 171.46 Mbit/s
95th percentile per-packet one-way delay: 1.298 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 160.54 Mbit/s
95th percentile per-packet one-way delay: 1.501 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 133.50 Mbit/s
95th percentile per-packet one-way delay: 1.387 ms
Loss rate: 0.19%
```

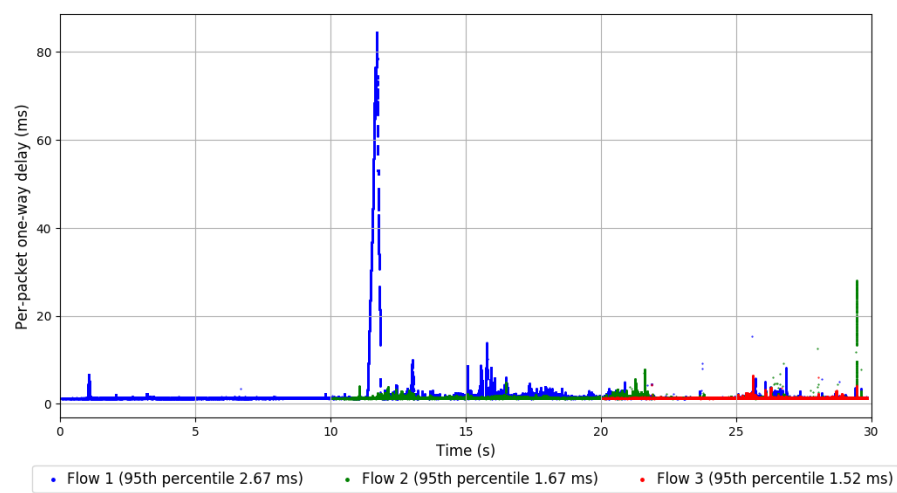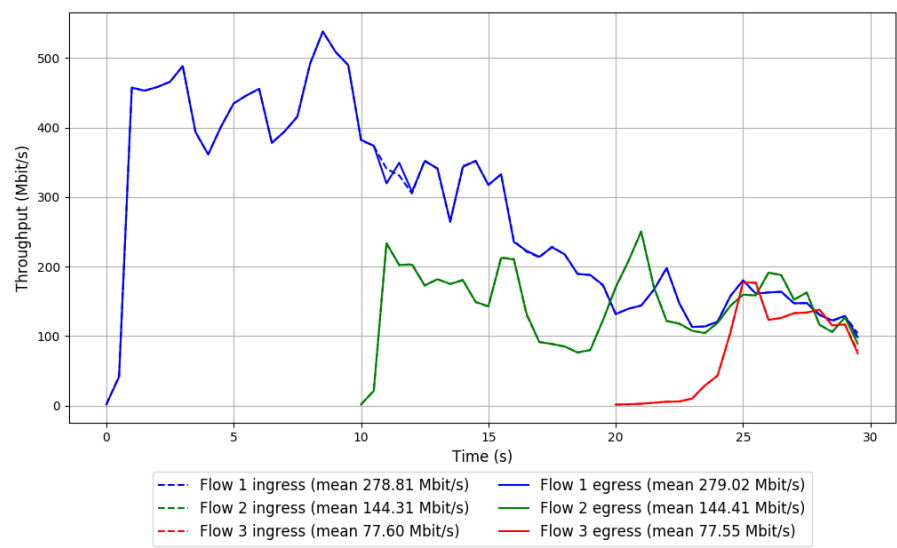Run 10: Report of Indigo-1-32 — Data Link

```
Run 1: Statistics of Vivace-latency

Start at: 2018-03-20 23:53:05
End at: 2018-03-20 23:53:35
Local clock offset: -0.03 ms
Remote clock offset: -4.859 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 400.40 Mbit/s
95th percentile per-packet one-way delay: 2.215 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 279.02 Mbit/s
95th percentile per-packet one-way delay: 2.674 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 144.41 Mbit/s
95th percentile per-packet one-way delay: 1.670 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 77.55 Mbit/s
95th percentile per-packet one-way delay: 1.519 ms
Loss rate: 0.26%
```

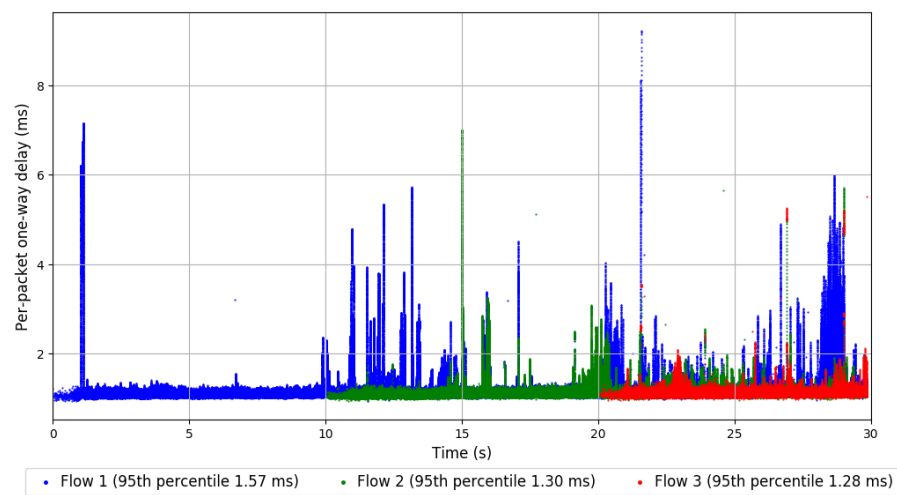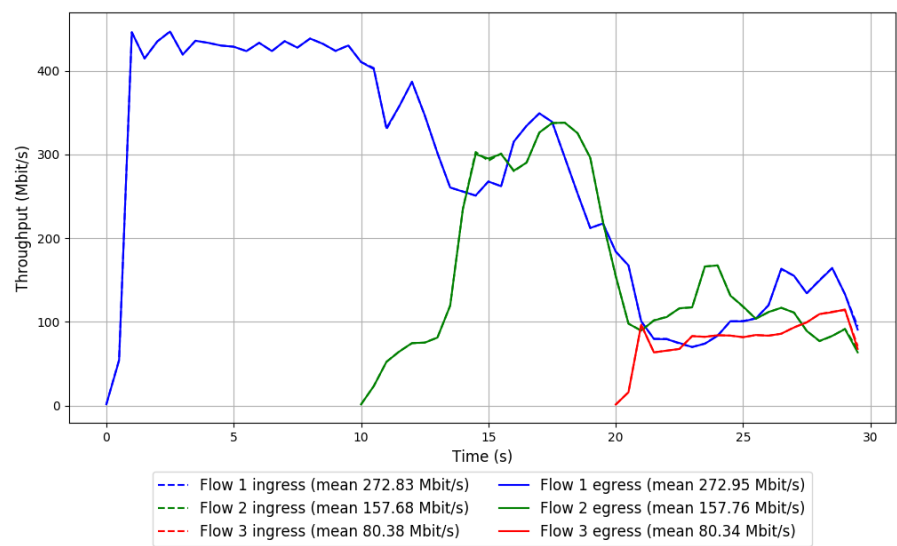Run 1: Report of Vivace-latency — Data Link

```
Run 2: Statistics of Vivace-latency

Start at: 2018-03-21 00:22:07
End at: 2018-03-21 00:22:37
Local clock offset: -2.322 ms
Remote clock offset: -4.371 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 404.02 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 272.95 Mbit/s
95th percentile per-packet one-way delay: 1.574 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 157.76 Mbit/s
95th percentile per-packet one-way delay: 1.300 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 80.34 Mbit/s
95th percentile per-packet one-way delay: 1.277 ms
Loss rate: 0.21%
```

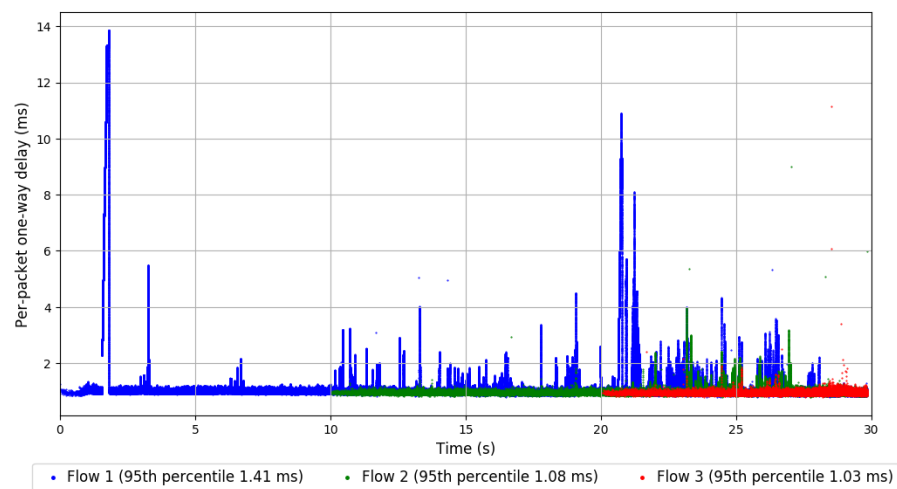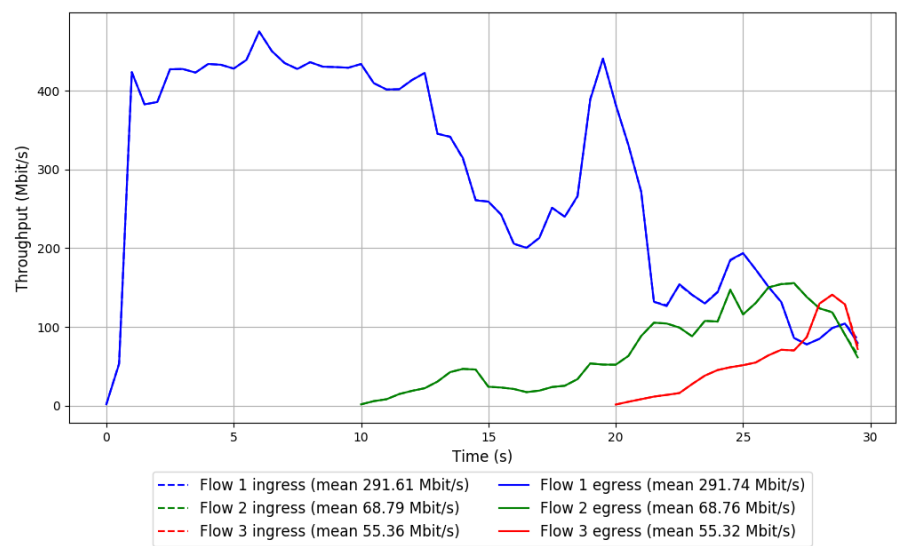Run 2: Report of Vivace-latency — Data Link

```
Run 3: Statistics of Vivace-latency

Start at: 2018-03-21 00:51:15
End at: 2018-03-21 00:51:45
Local clock offset: 5.856 ms
Remote clock offset: -4.986 ms


# Below is generated by plot.py at 2018-03-21 11:46:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 355.50 Mbit/s
95th percentile per-packet one-way delay: 1.286 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 291.74 Mbit/s
95th percentile per-packet one-way delay: 1.414 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 68.76 Mbit/s
95th percentile per-packet one-way delay: 1.078 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 55.32 Mbit/s
95th percentile per-packet one-way delay: 1.033 ms
Loss rate: 0.37%
```

Run 3: Report of Vivace-latency — Data Link

```
Run 4: Statistics of Vivace-latency

Start at: 2018-03-21 01:20:09
End at: 2018-03-21 01:20:39
Local clock offset: 1.311 ms
Remote clock offset: -4.99 ms


# Below is generated by plot.py at 2018-03-21 11:46:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 392.43 Mbit/s
95th percentile per-packet one-way delay: 4.401 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 283.26 Mbit/s
95th percentile per-packet one-way delay: 8.538 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 99.35 Mbit/s
95th percentile per-packet one-way delay: 1.436 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 131.31 Mbit/s
95th percentile per-packet one-way delay: 1.469 ms
Loss rate: 0.17%
```
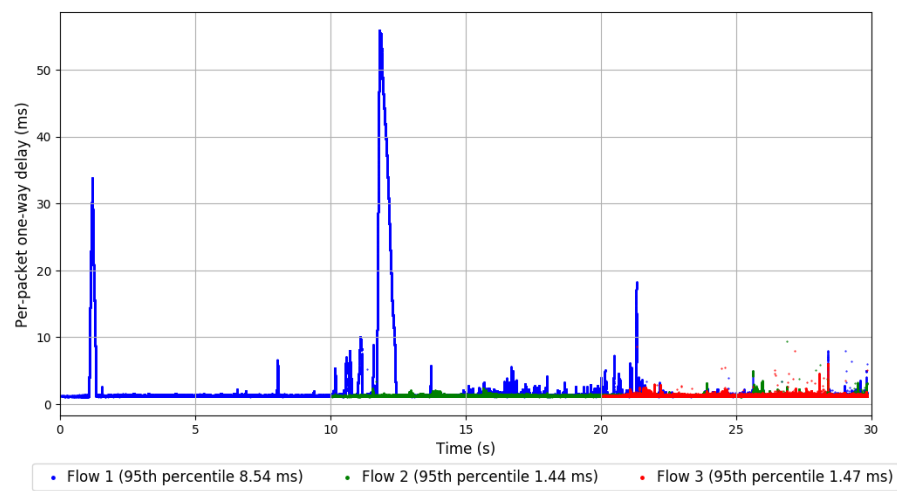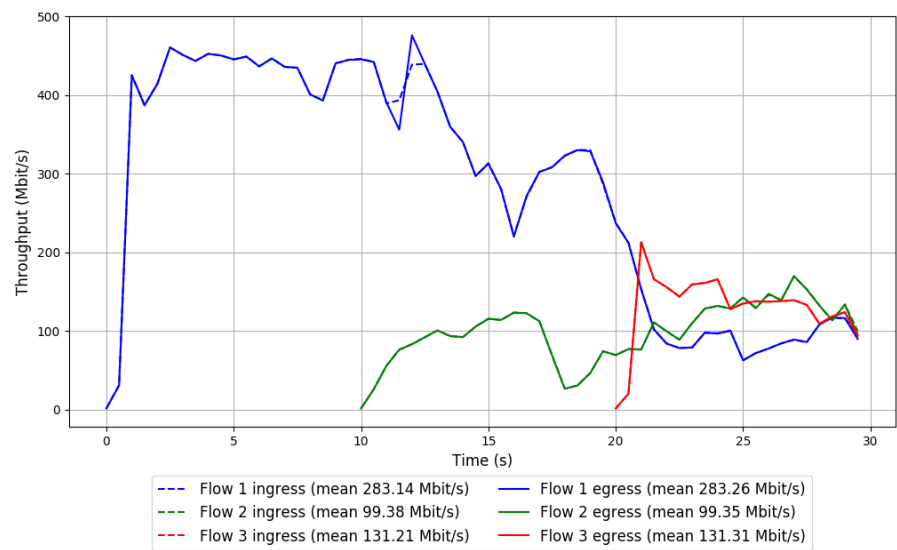
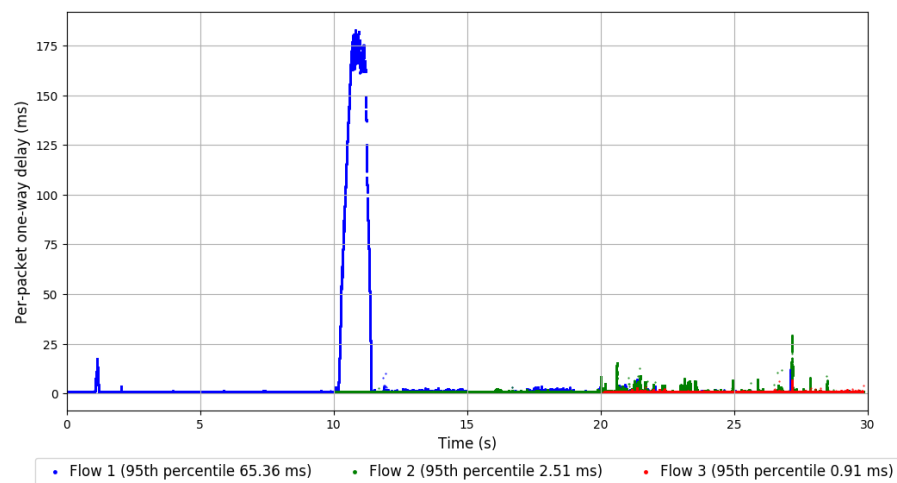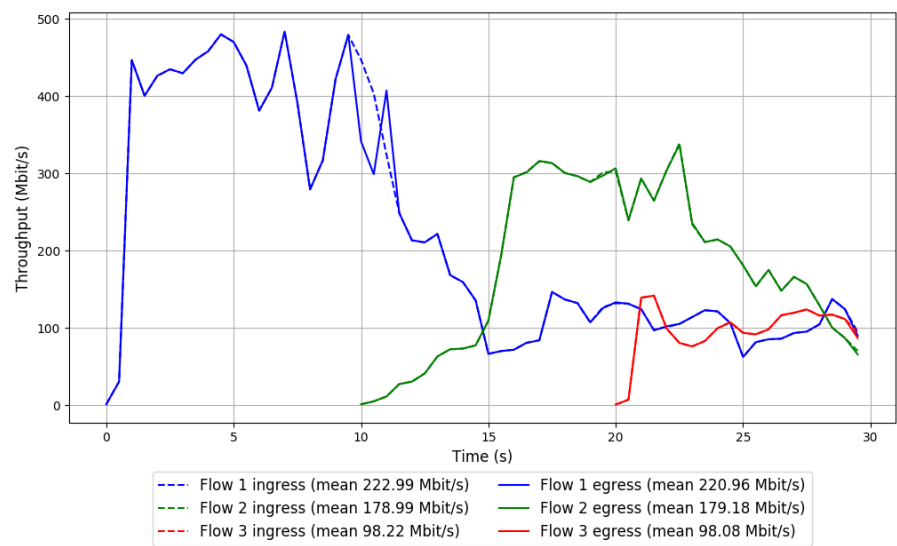Run 4: Report of Vivace-latency — Data Link

```
Run 5: Statistics of Vivace-latency

Start at: 2018-03-21 01:49:05
End at: 2018-03-21 01:49:35
Local clock offset: 4.6 ms
Remote clock offset: -5.502 ms


# Below is generated by plot.py at 2018-03-21 11:46:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.93 Mbit/s
95th percentile per-packet one-way delay: 4.672 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 220.96 Mbit/s
95th percentile per-packet one-way delay: 65.364 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 179.18 Mbit/s
95th percentile per-packet one-way delay: 2.506 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 98.08 Mbit/s
95th percentile per-packet one-way delay: 0.914 ms
Loss rate: 0.37%
```

Run 5: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 222.99 Mbit/s)   Flow 1 egress (mean 220.96 Mbit/s)
Flow 2 ingress (mean 178.99 Mbit/s)   Flow 2 egress (mean 179.18 Mbit/s)
Flow 3 ingress (mean 98.22 Mbit/s)   Flow 3 egress (mean 98.08 Mbit/s)

Flow 1 (95th percentile 65.36 ms)   Flow 2 (95th percentile 2.51 ms)   Flow 3 (95th percentile 0.91 ms)
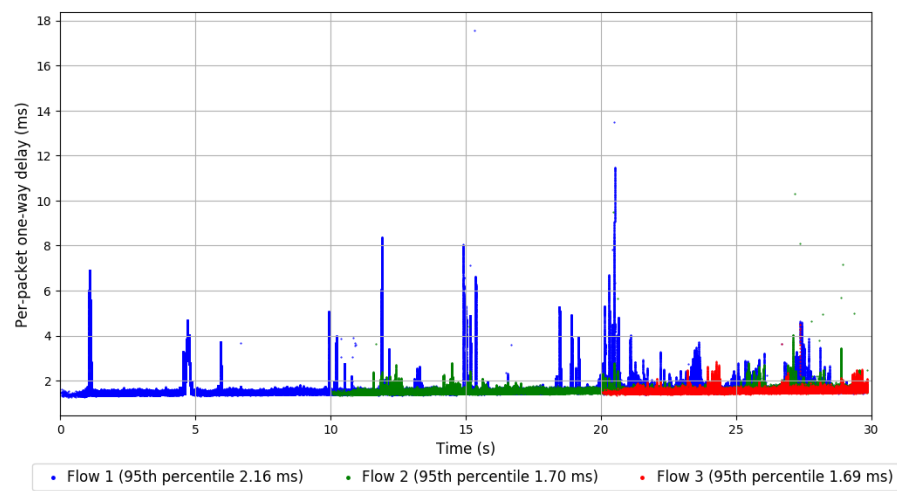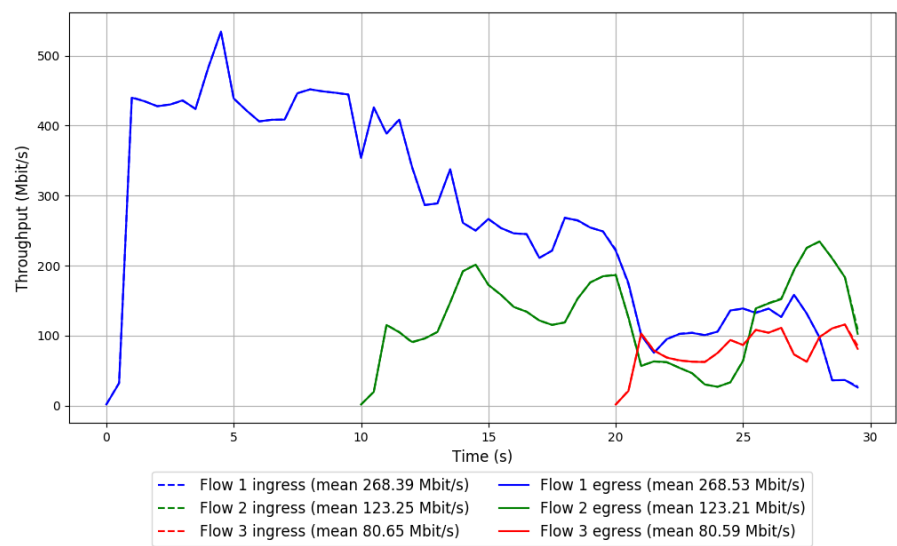
```
Run 6: Statistics of Vivace-latency

Start at: 2018-03-21 02:18:01
End at: 2018-03-21 02:18:31
Local clock offset: 4.246 ms
Remote clock offset: -6.029 ms


# Below is generated by plot.py at 2018-03-21 11:46:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.80 Mbit/s
95th percentile per-packet one-way delay: 1.888 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 268.53 Mbit/s
95th percentile per-packet one-way delay: 2.163 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 123.21 Mbit/s
95th percentile per-packet one-way delay: 1.699 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 80.59 Mbit/s
95th percentile per-packet one-way delay: 1.688 ms
Loss rate: 0.28%
```

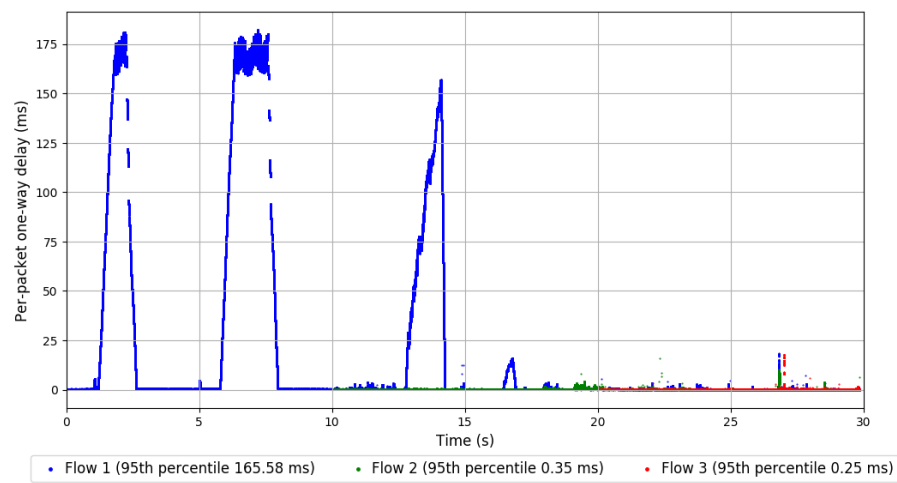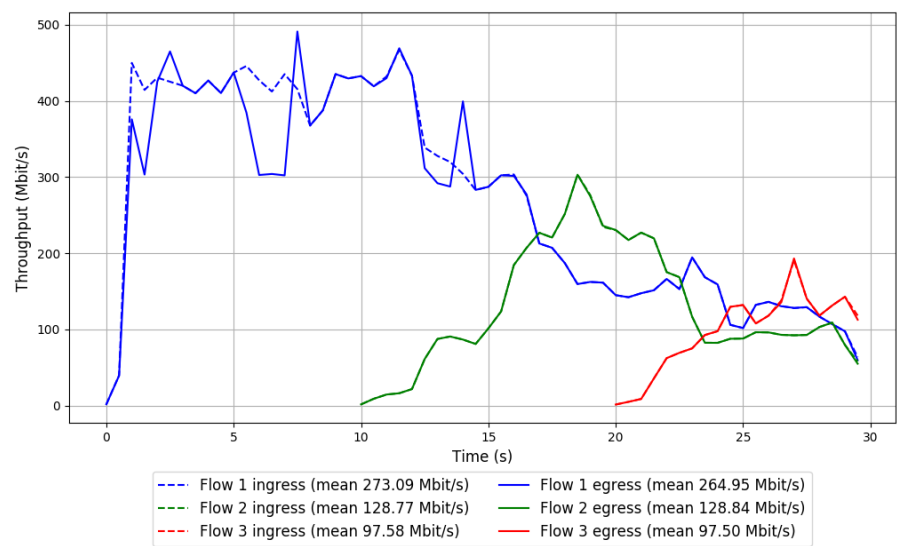Run 6: Report of Vivace-latency — Data Link

```
Run 7: Statistics of Vivace-latency

Start at: 2018-03-21 02:46:51
End at: 2018-03-21 02:47:21
Local clock offset: -0.132 ms
Remote clock offset: -6.277 ms


# Below is generated by plot.py at 2018-03-21 11:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.39 Mbit/s
95th percentile per-packet one-way delay: 156.455 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 264.95 Mbit/s
95th percentile per-packet one-way delay: 165.584 ms
Loss rate: 3.10%
-- Flow 2:
Average throughput: 128.84 Mbit/s
95th percentile per-packet one-way delay: 0.350 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 97.50 Mbit/s
95th percentile per-packet one-way delay: 0.250 ms
Loss rate: 0.28%
```

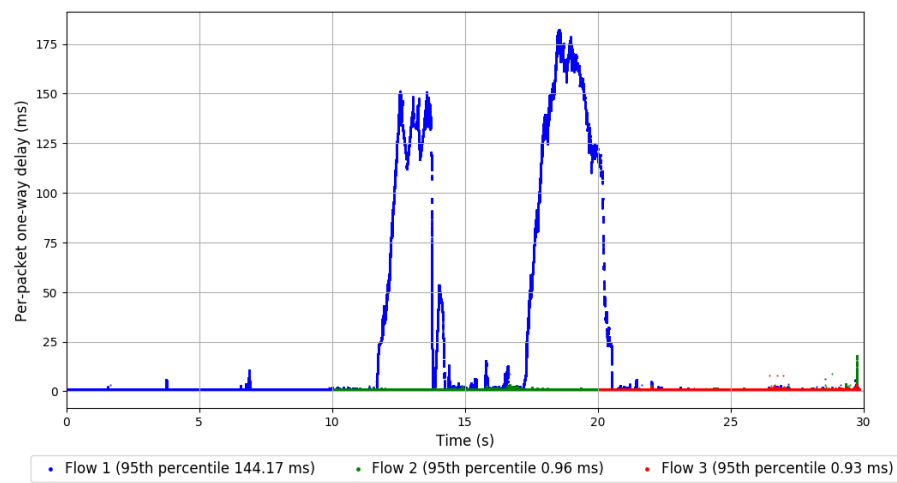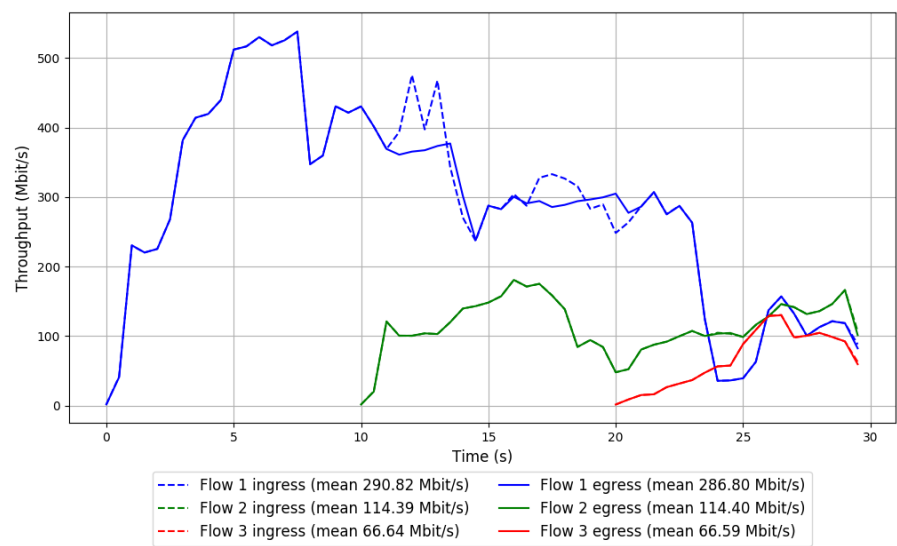Run 7: Report of Vivace-latency — Data Link

```
Run 8: Statistics of Vivace-latency

Start at: 2018-03-21 03:15:52
End at: 2018-03-21 03:16:22
Local clock offset: 10.372 ms
Remote clock offset: -4.865 ms


# Below is generated by plot.py at 2018-03-21 11:49:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.59 Mbit/s
95th percentile per-packet one-way delay: 137.824 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 286.80 Mbit/s
95th percentile per-packet one-way delay: 144.173 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 114.40 Mbit/s
95th percentile per-packet one-way delay: 0.960 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 66.59 Mbit/s
95th percentile per-packet one-way delay: 0.929 ms
Loss rate: 0.27%
```

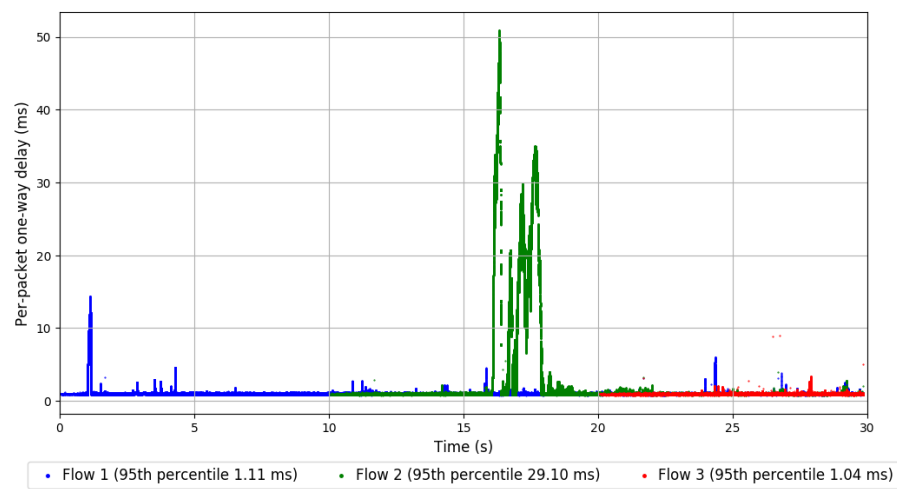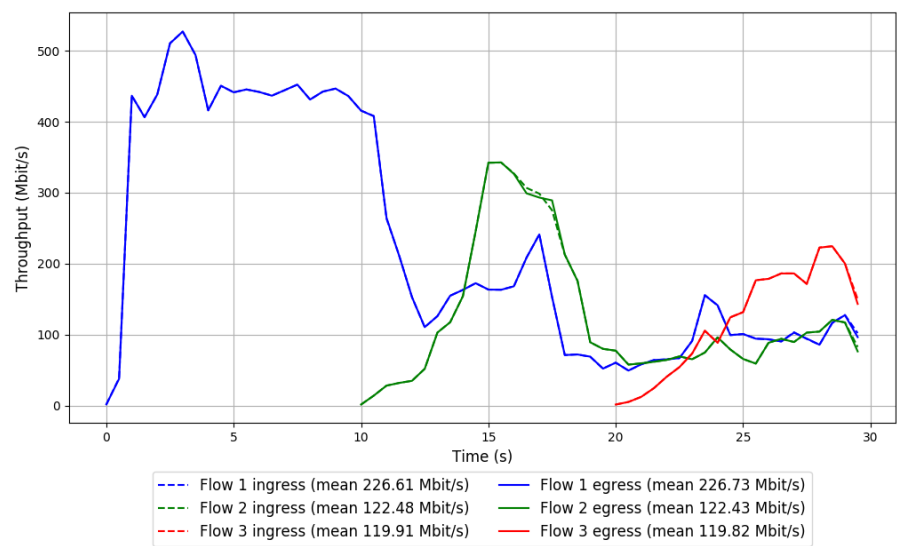Run 8: Report of Vivace-latency — Data Link

299

```
Run 9: Statistics of Vivace-latency

Start at: 2018-03-21 03:44:41
End at: 2018-03-21 03:45:11
Local clock offset: 10.705 ms
Remote clock offset: -5.777 ms


# Below is generated by plot.py at 2018-03-21 11:50:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.40 Mbit/s
95th percentile per-packet one-way delay: 4.148 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 226.73 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 122.43 Mbit/s
95th percentile per-packet one-way delay: 29.097 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 119.82 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.30%
```

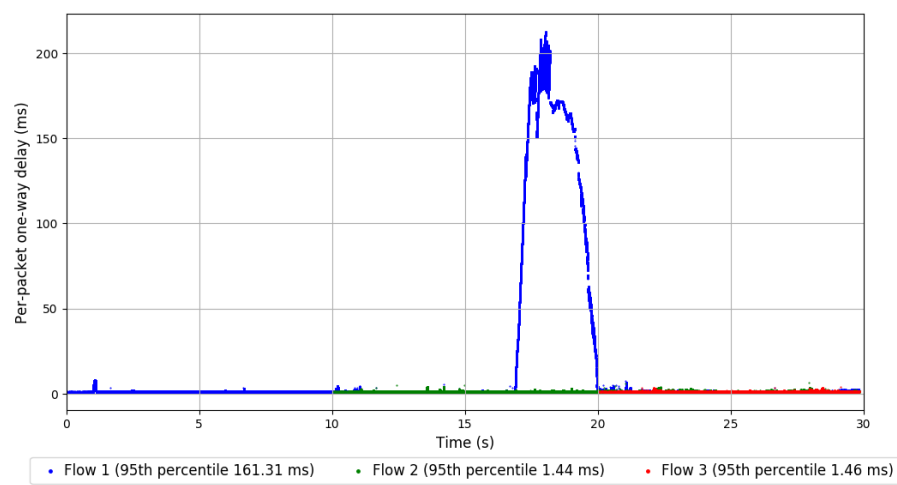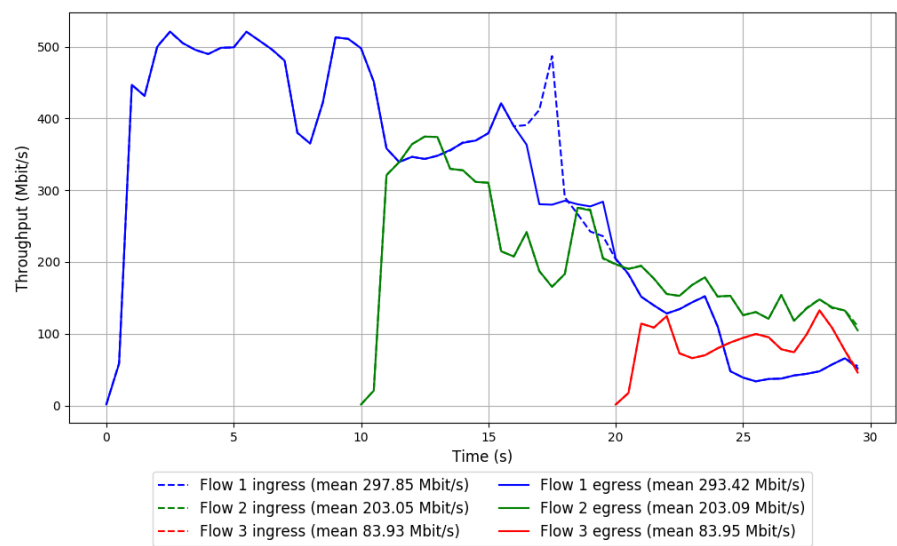Run 9: Report of Vivace-latency — Data Link

301

```
Run 10: Statistics of Vivace-latency

Start at: 2018-03-21 04:13:37
End at: 2018-03-21 04:14:07
Local clock offset: 2.455 ms
Remote clock offset: -5.097 ms


# Below is generated by plot.py at 2018-03-21 11:52:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.91 Mbit/s
95th percentile per-packet one-way delay: 85.473 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 293.42 Mbit/s
95th percentile per-packet one-way delay: 161.315 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 203.09 Mbit/s
95th percentile per-packet one-way delay: 1.440 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 83.95 Mbit/s
95th percentile per-packet one-way delay: 1.457 ms
Loss rate: 0.17%
```

Run 10: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 297.85 Mbit/s) — Flow 1 egress (mean 293.42 Mbit/s)
Flow 2 ingress (mean 203.05 Mbit/s) — Flow 2 egress (mean 203.09 Mbit/s)
Flow 3 ingress (mean 83.93 Mbit/s) — Flow 3 egress (mean 83.95 Mbit/s)

Flow 1 (95th percentile 161.31 ms) • Flow 2 (95th percentile 1.44 ms) • Flow 3 (95th percentile 1.46 ms)
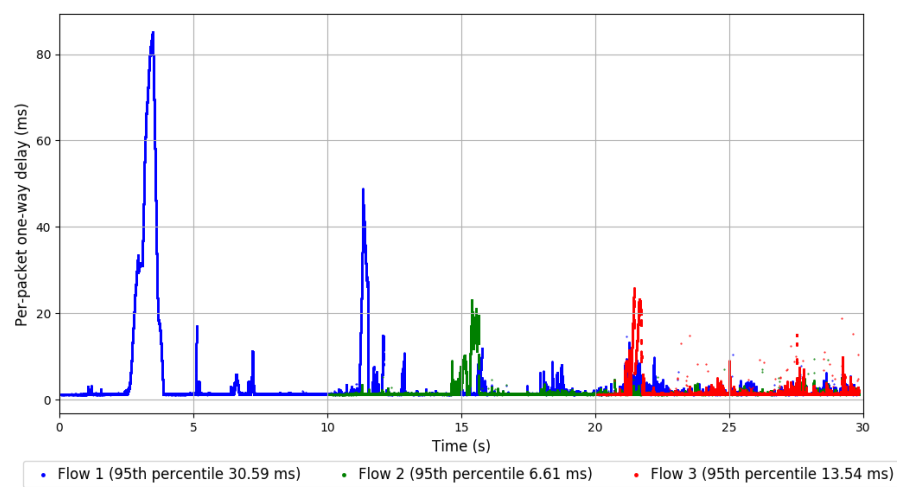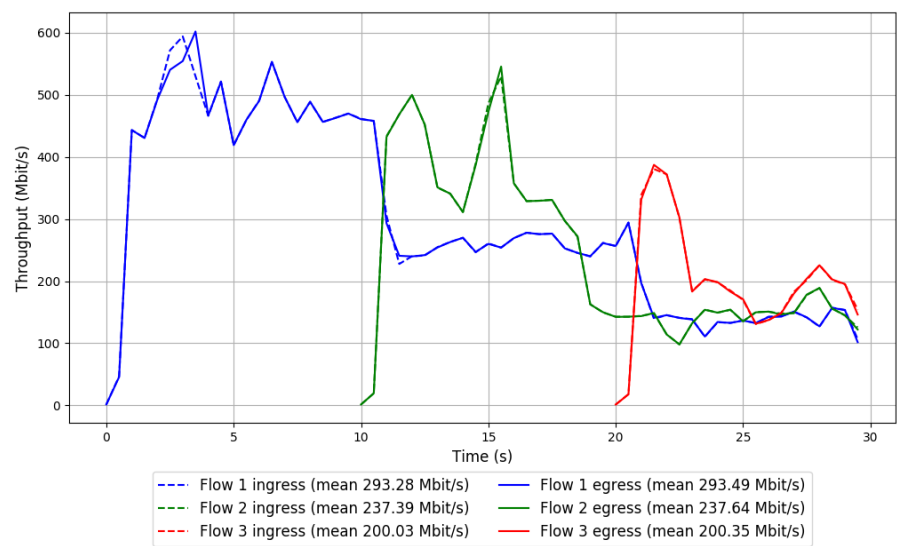
303

```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-21 00:07:59
End at: 2018-03-21 00:08:29
Local clock offset: -0.989 ms
Remote clock offset: -4.802 ms


# Below is generated by plot.py at 2018-03-21 11:53:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.95 Mbit/s
95th percentile per-packet one-way delay: 16.723 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 293.49 Mbit/s
95th percentile per-packet one-way delay: 30.589 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 237.64 Mbit/s
95th percentile per-packet one-way delay: 6.613 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 200.35 Mbit/s
95th percentile per-packet one-way delay: 13.540 ms
Loss rate: 0.20%
```

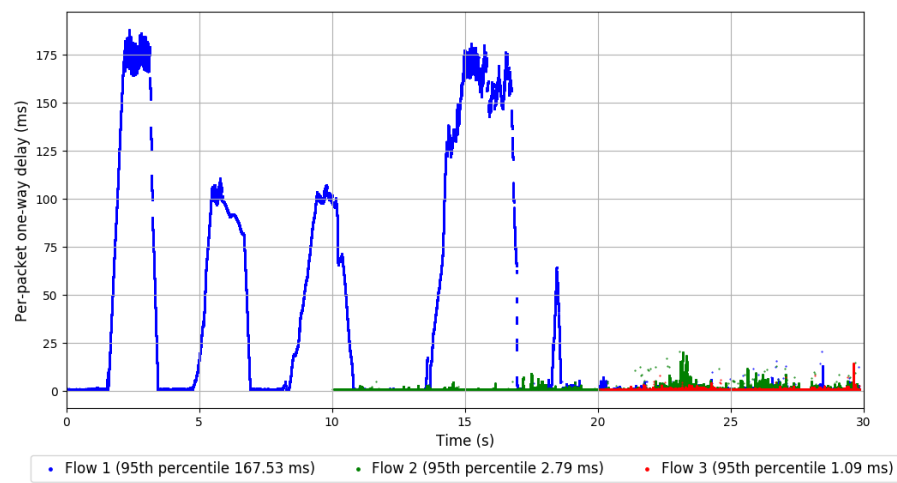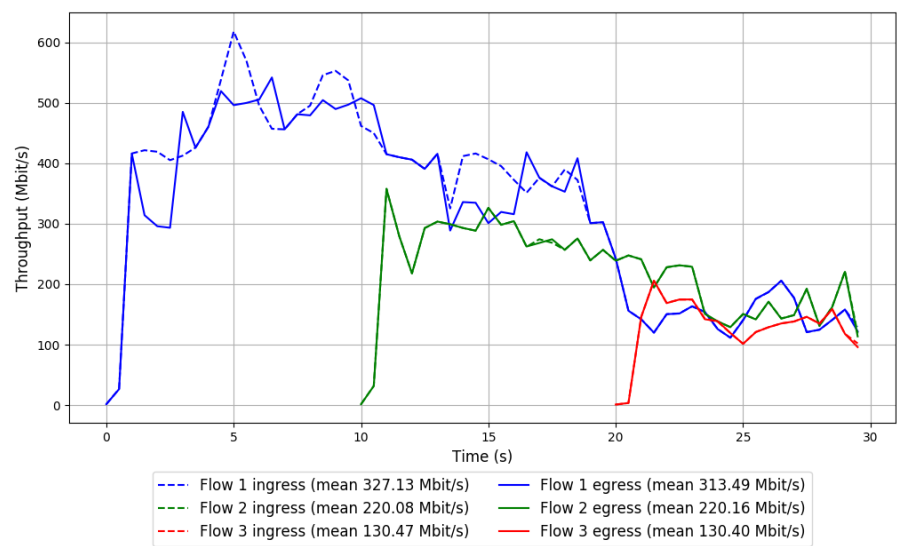Run 1: Report of Vivace-loss — Data Link

```
Run 2: Statistics of Vivace-loss

Start at: 2018-03-21 00:37:00
End at: 2018-03-21 00:37:30
Local clock offset: 1.878 ms
Remote clock offset: -4.836 ms


# Below is generated by plot.py at 2018-03-21 11:53:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 502.41 Mbit/s
95th percentile per-packet one-way delay: 157.195 ms
Loss rate: 2.72%
-- Flow 1:
Average throughput: 313.49 Mbit/s
95th percentile per-packet one-way delay: 167.535 ms
Loss rate: 4.24%
-- Flow 2:
Average throughput: 220.16 Mbit/s
95th percentile per-packet one-way delay: 2.785 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 130.40 Mbit/s
95th percentile per-packet one-way delay: 1.092 ms
Loss rate: 0.25%
```

Run 2: Report of Vivace-loss — Data Link

- - - Flow 1 ingress (mean 327.13 Mbit/s) — Flow 1 egress (mean 313.49 Mbit/s)
- - - Flow 2 ingress (mean 220.08 Mbit/s) — Flow 2 egress (mean 220.16 Mbit/s)
- - - Flow 3 ingress (mean 130.47 Mbit/s) — Flow 3 egress (mean 130.40 Mbit/s)

- Flow 1 (95th percentile 167.53 ms)   • Flow 2 (95th percentile 2.79 ms)   • Flow 3 (95th percentile 1.09 ms)
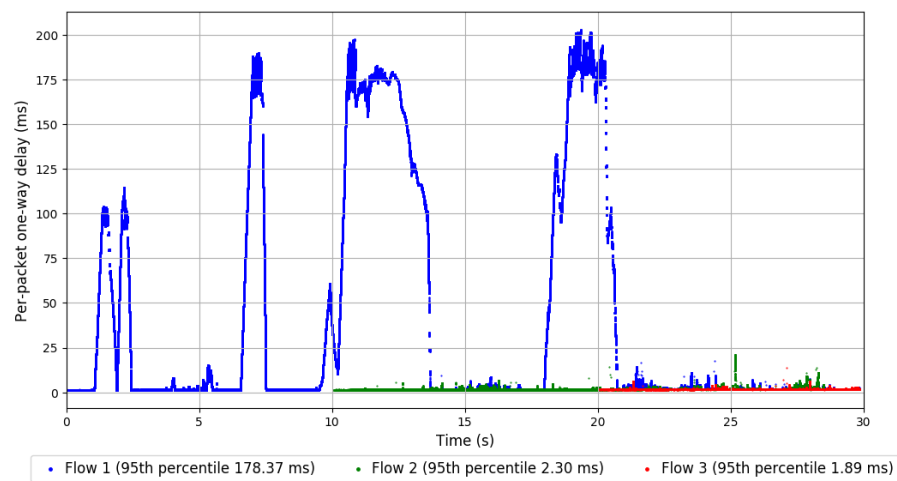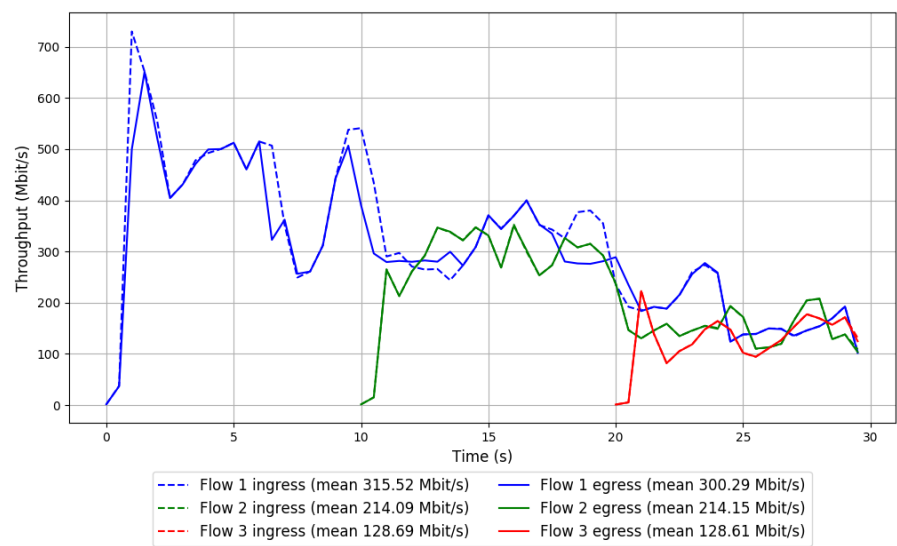
```
Run 3: Statistics of Vivace-loss

Start at: 2018-03-21 01:06:02
End at: 2018-03-21 01:06:32
Local clock offset: 6.035 ms
Remote clock offset: -4.856 ms


# Below is generated by plot.py at 2018-03-21 11:53:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.69 Mbit/s
95th percentile per-packet one-way delay: 174.745 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 300.29 Mbit/s
95th percentile per-packet one-way delay: 178.371 ms
Loss rate: 4.88%
-- Flow 2:
Average throughput: 214.15 Mbit/s
95th percentile per-packet one-way delay: 2.297 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 128.61 Mbit/s
95th percentile per-packet one-way delay: 1.889 ms
Loss rate: 0.29%
```

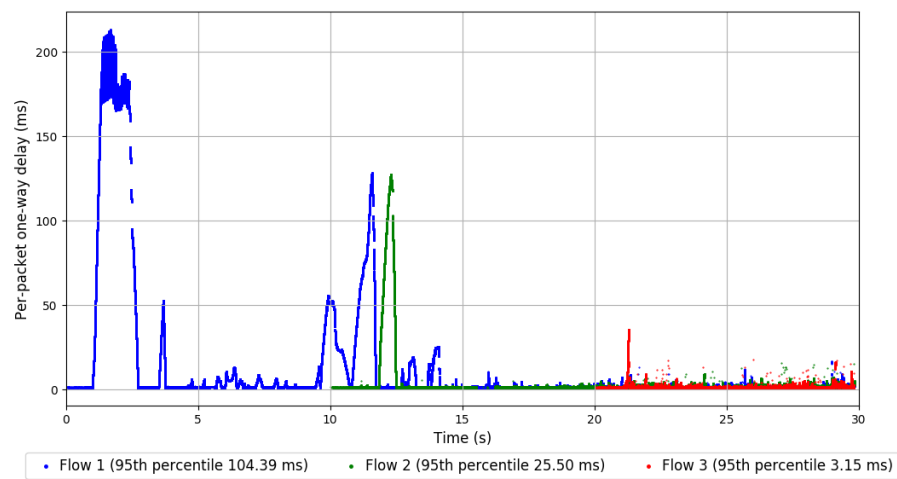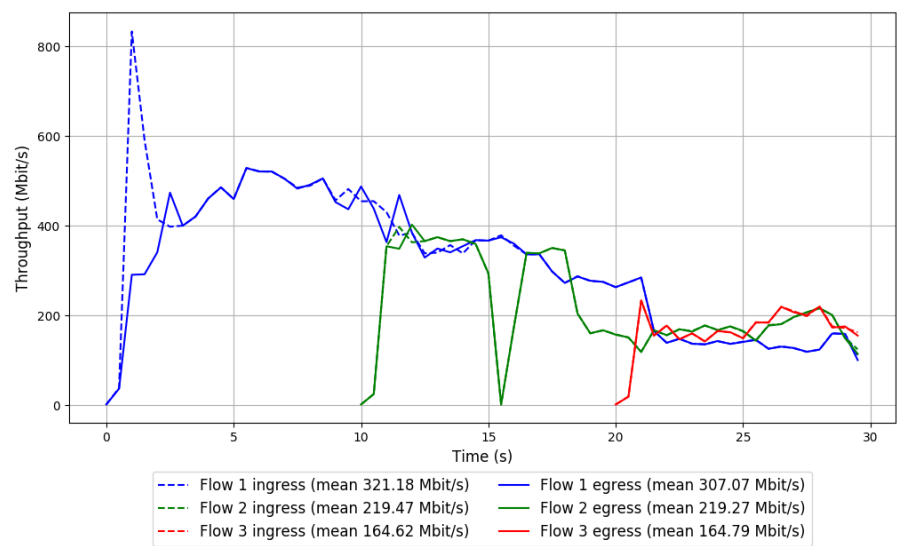# Run 3: Report of Vivace-loss — Data Link

```
Run 4: Statistics of Vivace-loss

Start at: 2018-03-21 01:34:58
End at: 2018-03-21 01:35:28
Local clock offset: 0.055 ms
Remote clock offset: -4.898 ms


# Below is generated by plot.py at 2018-03-21 11:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.84 Mbit/s
95th percentile per-packet one-way delay: 73.113 ms
Loss rate: 2.85%
-- Flow 1:
Average throughput: 307.07 Mbit/s
95th percentile per-packet one-way delay: 104.393 ms
Loss rate: 4.49%
-- Flow 2:
Average throughput: 219.27 Mbit/s
95th percentile per-packet one-way delay: 25.499 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 164.79 Mbit/s
95th percentile per-packet one-way delay: 3.155 ms
Loss rate: 0.23%
```

Run 4: Report of Vivace-loss — Data Link

```
Run 5: Statistics of Vivace-loss

Start at: 2018-03-21 02:03:55
End at: 2018-03-21 02:04:25
Local clock offset: 6.763 ms
Remote clock offset: -5.74 ms


# Below is generated by plot.py at 2018-03-21 11:55:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 510.59 Mbit/s
95th percentile per-packet one-way delay: 175.719 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 336.05 Mbit/s
95th percentile per-packet one-way delay: 180.323 ms
Loss rate: 3.26%
-- Flow 2:
Average throughput: 207.85 Mbit/s
95th percentile per-packet one-way delay: 13.048 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 111.76 Mbit/s
95th percentile per-packet one-way delay: 1.273 ms
Loss rate: 0.28%
```
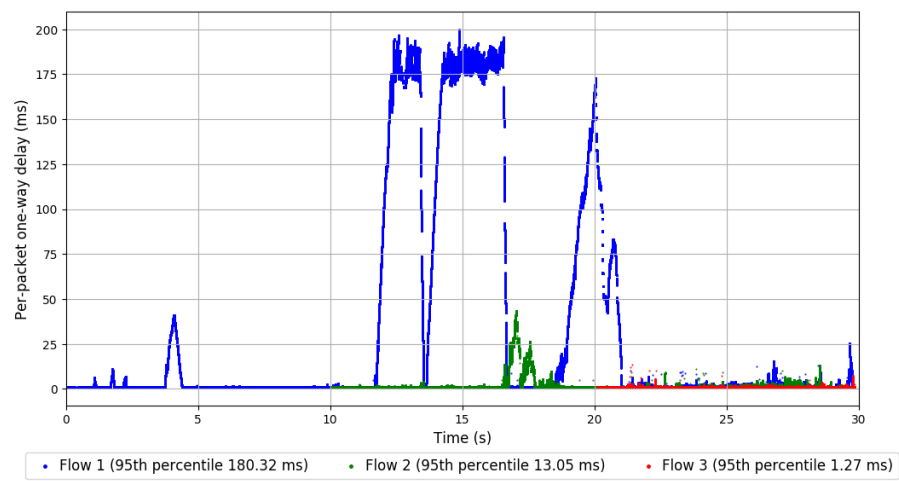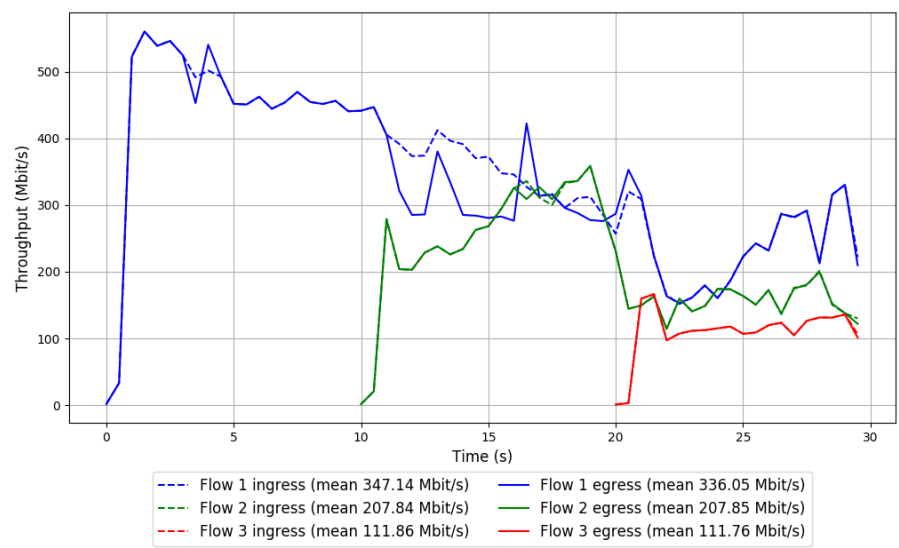
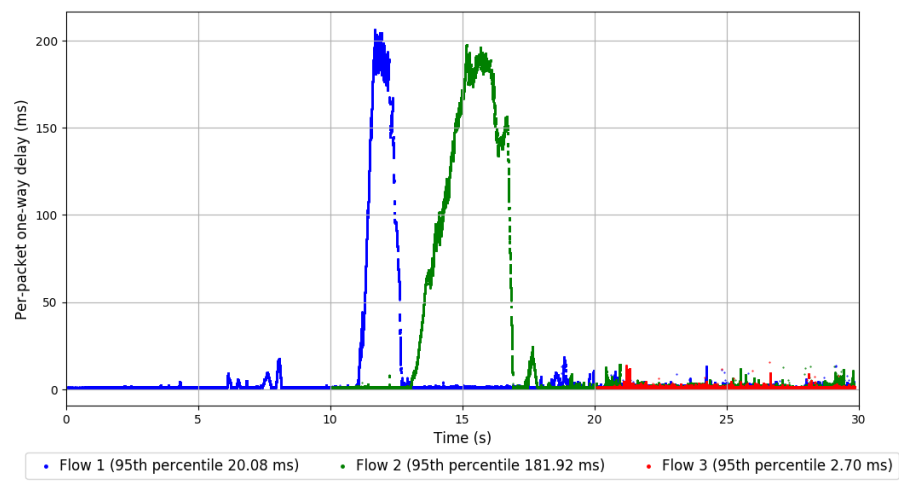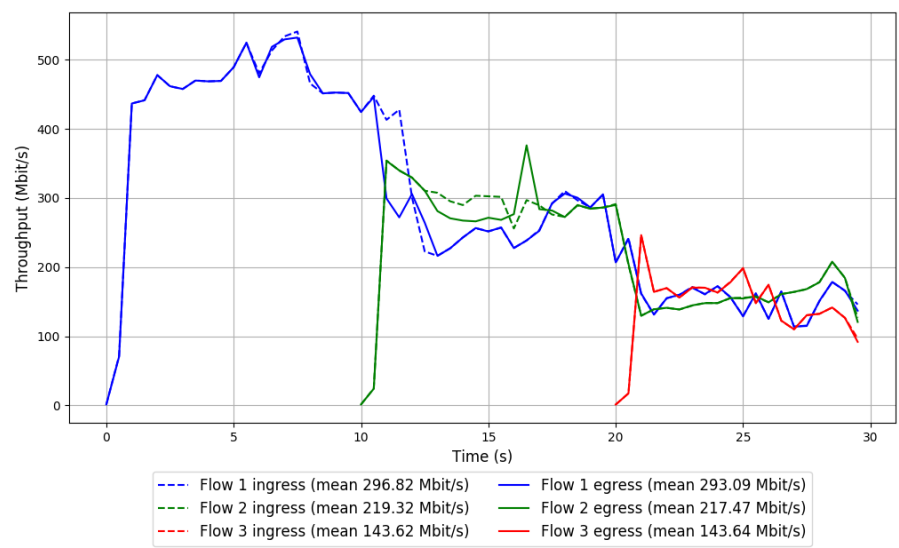Run 5: Report of Vivace-loss — Data Link

313

```
Run 6: Statistics of Vivace-loss

Start at: 2018-03-21 02:32:50
End at: 2018-03-21 02:33:20
Local clock offset: 0.821 ms
Remote clock offset: -6.288 ms


# Below is generated by plot.py at 2018-03-21 11:56:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.71 Mbit/s
95th percentile per-packet one-way delay: 145.232 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 293.09 Mbit/s
95th percentile per-packet one-way delay: 20.079 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 217.47 Mbit/s
95th percentile per-packet one-way delay: 181.920 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 143.64 Mbit/s
95th percentile per-packet one-way delay: 2.704 ms
Loss rate: 0.18%
```

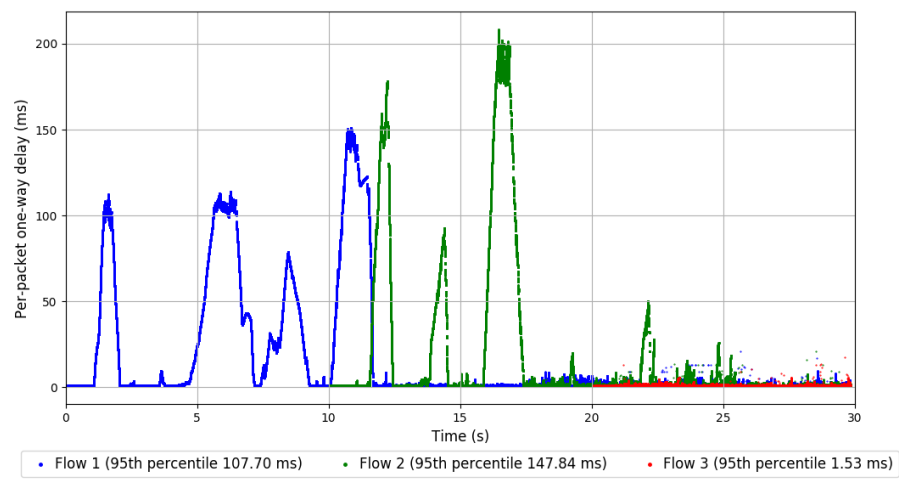Run 6: Report of Vivace-loss — Data Link

```
Run 7: Statistics of Vivace-loss

Start at: 2018-03-21 03:01:43
End at: 2018-03-21 03:02:13
Local clock offset: 7.708 ms
Remote clock offset: -5.247 ms


# Below is generated by plot.py at 2018-03-21 11:58:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.68 Mbit/s
95th percentile per-packet one-way delay: 109.578 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 291.46 Mbit/s
95th percentile per-packet one-way delay: 107.703 ms
Loss rate: 2.16%
-- Flow 2:
Average throughput: 251.45 Mbit/s
95th percentile per-packet one-way delay: 147.842 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 146.88 Mbit/s
95th percentile per-packet one-way delay: 1.529 ms
Loss rate: 0.27%
```

Run 7: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 297.70 Mbit/s) Flow 1 egress (mean 291.46 Mbit/s)
Flow 2 ingress (mean 255.86 Mbit/s) Flow 2 egress (mean 251.45 Mbit/s)
Flow 3 ingress (mean 147.00 Mbit/s) Flow 3 egress (mean 146.88 Mbit/s)

Flow 1 (95th percentile 107.70 ms) Flow 2 (95th percentile 147.84 ms) Flow 3 (95th percentile 1.53 ms)

317

```
Run 8: Statistics of Vivace-loss

Start at: 2018-03-21 03:30:38
End at: 2018-03-21 03:31:08
Local clock offset: 10.245 ms
Remote clock offset: -5.519 ms


# Below is generated by plot.py at 2018-03-21 11:59:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 492.31 Mbit/s
95th percentile per-packet one-way delay: 89.349 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 303.66 Mbit/s
95th percentile per-packet one-way delay: 96.508 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 208.37 Mbit/s
95th percentile per-packet one-way delay: 3.517 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 153.03 Mbit/s
95th percentile per-packet one-way delay: 2.008 ms
Loss rate: 0.27%
```
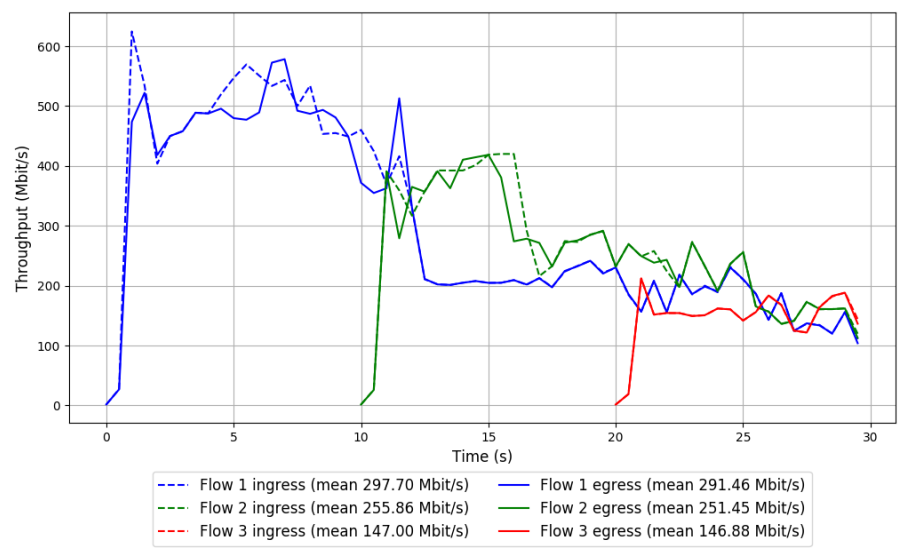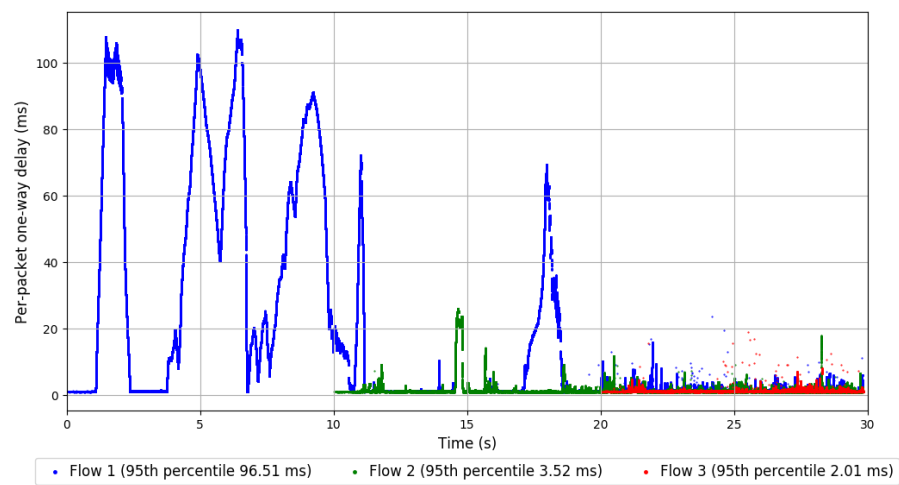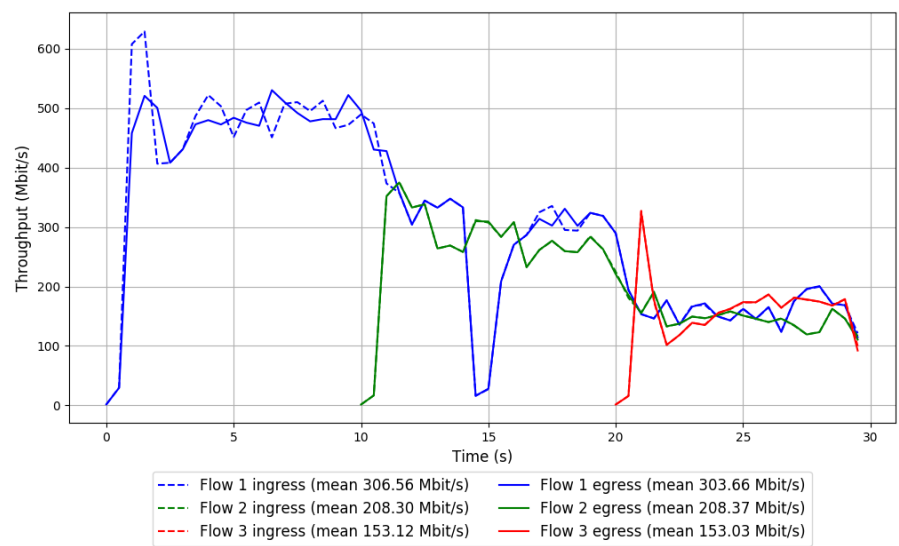
Run 8: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 306.56 Mbit/s) — — — Flow 1 egress (mean 303.66 Mbit/s)
Flow 2 ingress (mean 208.30 Mbit/s) — — — Flow 2 egress (mean 208.37 Mbit/s)
Flow 3 ingress (mean 153.12 Mbit/s) — — — Flow 3 egress (mean 153.03 Mbit/s)

Flow 1 (95th percentile 96.51 ms)   Flow 2 (95th percentile 3.52 ms)   Flow 3 (95th percentile 2.01 ms)
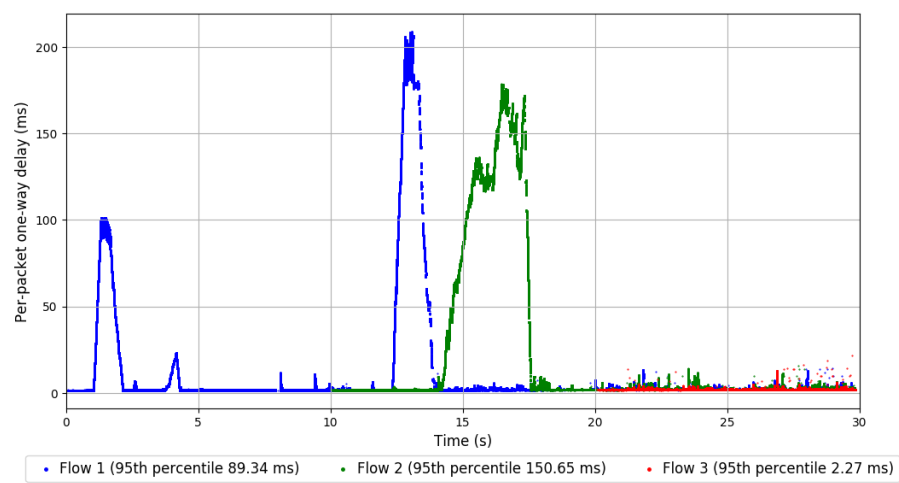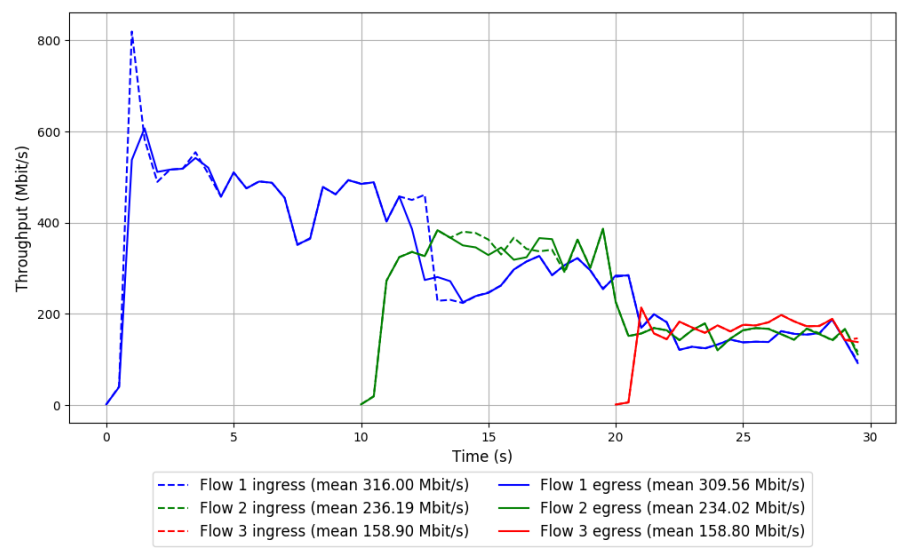
319

```
Run 9: Statistics of Vivace-loss

Start at: 2018-03-21 03:59:26
End at: 2018-03-21 03:59:56
Local clock offset: 7.568 ms
Remote clock offset: -5.518 ms


# Below is generated by plot.py at 2018-03-21 12:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.90 Mbit/s
95th percentile per-packet one-way delay: 123.362 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 309.56 Mbit/s
95th percentile per-packet one-way delay: 89.337 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 234.02 Mbit/s
95th percentile per-packet one-way delay: 150.646 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 158.80 Mbit/s
95th percentile per-packet one-way delay: 2.270 ms
Loss rate: 0.27%
```

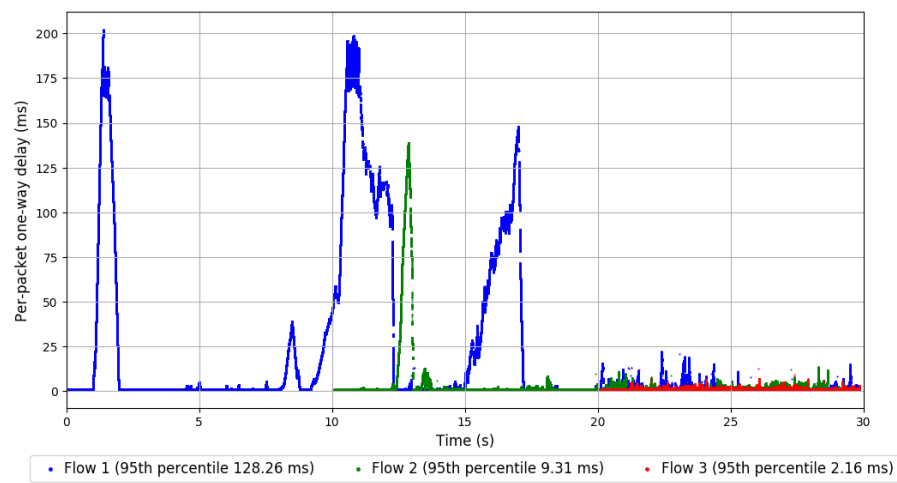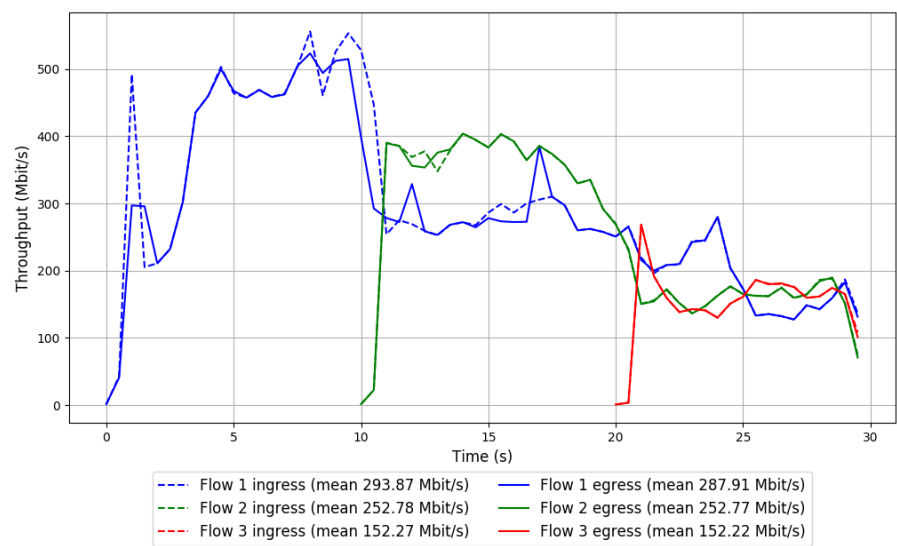Run 9: Report of Vivace-loss — Data Link

321

```
Run 10: Statistics of Vivace-loss

Start at: 2018-03-21 04:28:31
End at: 2018-03-21 04:29:01
Local clock offset: 0.916 ms
Remote clock offset: -4.884 ms


# Below is generated by plot.py at 2018-03-21 12:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.60 Mbit/s
95th percentile per-packet one-way delay: 107.947 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 287.91 Mbit/s
95th percentile per-packet one-way delay: 128.262 ms
Loss rate: 2.11%
-- Flow 2:
Average throughput: 252.77 Mbit/s
95th percentile per-packet one-way delay: 9.306 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 152.22 Mbit/s
95th percentile per-packet one-way delay: 2.163 ms
Loss rate: 0.25%
```

Run 10: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 293.87 Mbit/s) --- Flow 1 egress (mean 287.91 Mbit/s)
Flow 2 ingress (mean 252.78 Mbit/s) --- Flow 2 egress (mean 252.77 Mbit/s)
Flow 3 ingress (mean 152.27 Mbit/s) --- Flow 3 egress (mean 152.22 Mbit/s)

• Flow 1 (95th percentile 128.26 ms)   • Flow 2 (95th percentile 9.31 ms)   • Flow 3 (95th percentile 2.16 ms)
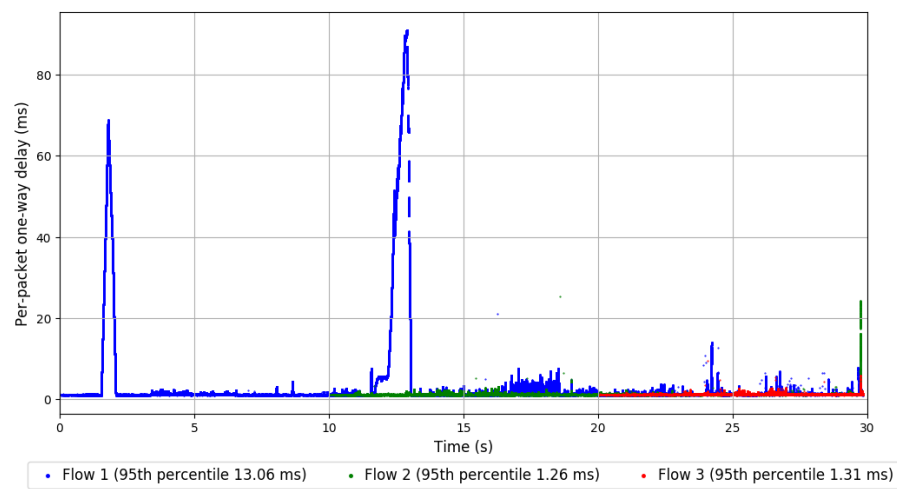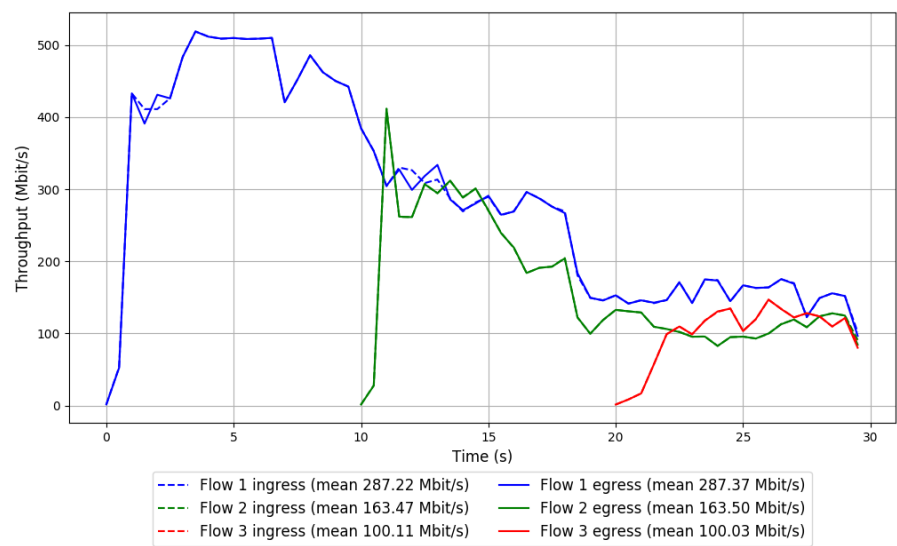
```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-21 00:12:51
End at: 2018-03-21 00:13:21
Local clock offset: -1.503 ms
Remote clock offset: -4.672 ms


# Below is generated by plot.py at 2018-03-21 12:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 428.80 Mbit/s
95th percentile per-packet one-way delay: 4.869 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 287.37 Mbit/s
95th percentile per-packet one-way delay: 13.059 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 163.50 Mbit/s
95th percentile per-packet one-way delay: 1.262 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 100.03 Mbit/s
95th percentile per-packet one-way delay: 1.307 ms
Loss rate: 0.28%
```

Run 1: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 287.22 Mbit/s) --- Flow 1 egress (mean 287.37 Mbit/s)
Flow 2 ingress (mean 163.47 Mbit/s) --- Flow 2 egress (mean 163.50 Mbit/s)
Flow 3 ingress (mean 100.11 Mbit/s) --- Flow 3 egress (mean 100.03 Mbit/s)

Flow 1 (95th percentile 13.06 ms) • Flow 2 (95th percentile 1.26 ms) • Flow 3 (95th percentile 1.31 ms)
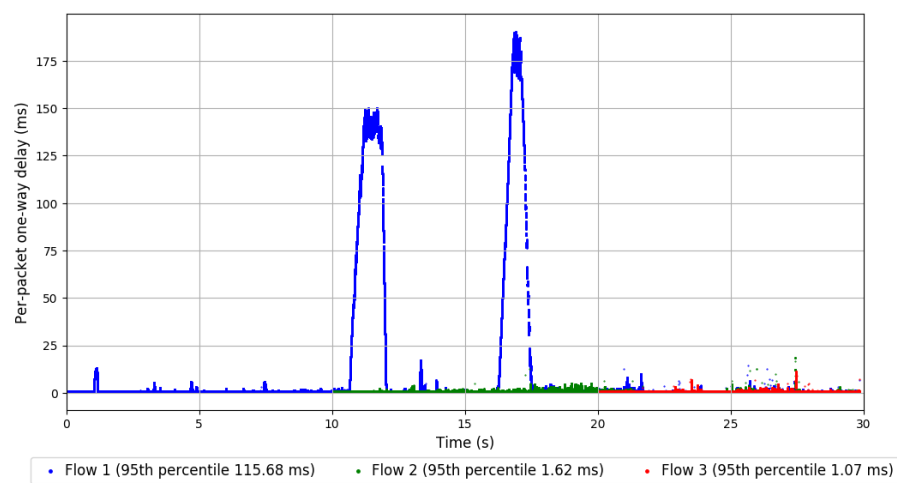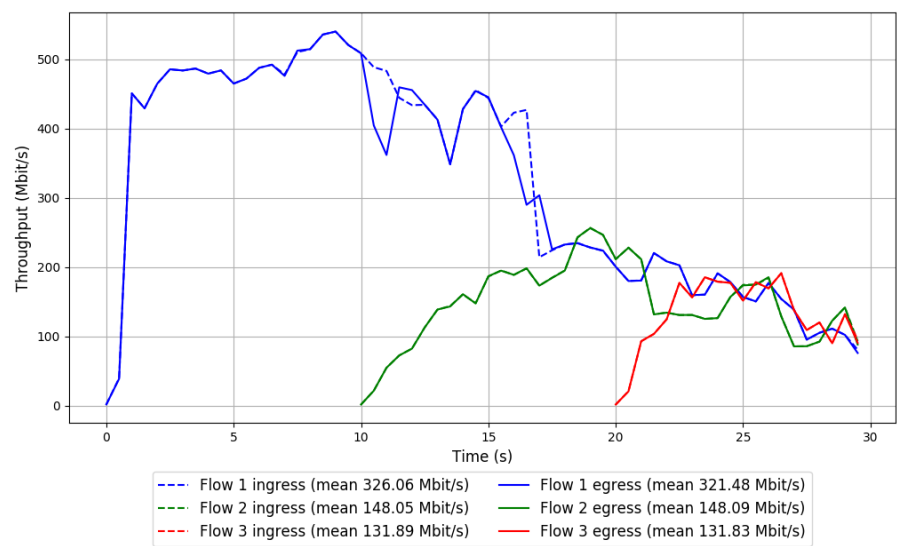
```
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-21 00:41:51
End at: 2018-03-21 00:42:21
Local clock offset: 3.688 ms
Remote clock offset: -4.923 ms


# Below is generated by plot.py at 2018-03-21 12:01:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 463.10 Mbit/s
95th percentile per-packet one-way delay: 60.442 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 321.48 Mbit/s
95th percentile per-packet one-way delay: 115.682 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 148.09 Mbit/s
95th percentile per-packet one-way delay: 1.623 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 131.83 Mbit/s
95th percentile per-packet one-way delay: 1.066 ms
Loss rate: 0.18%
```

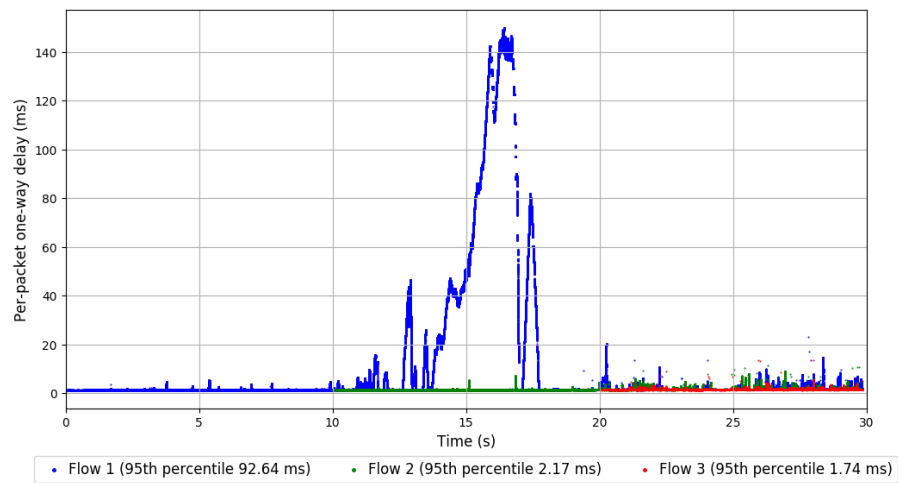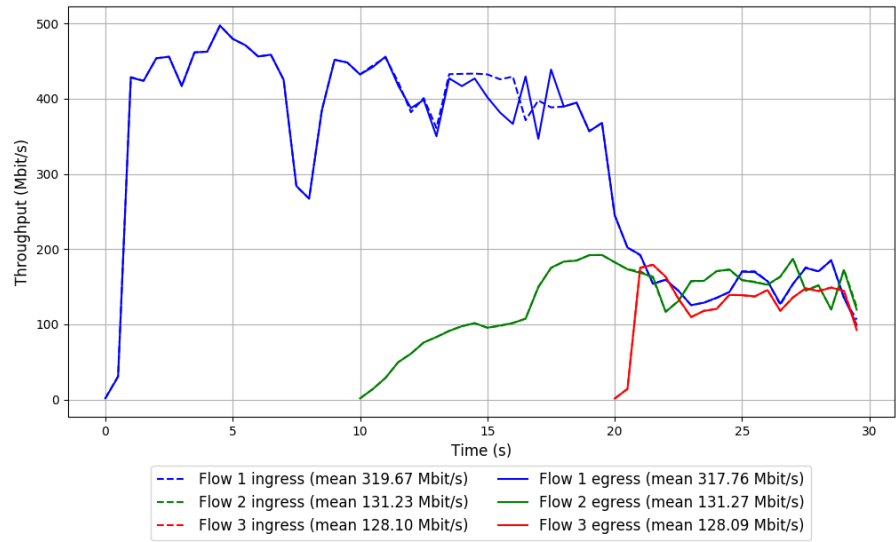Run 2: Report of Vivace-LTE — Data Link

```
Run 3: Statistics of Vivace-LTE

Start at: 2018-03-21 01:10:51
End at: 2018-03-21 01:11:21
Local clock offset: 3.532 ms
Remote clock offset: -4.986 ms


# Below is generated by plot.py at 2018-03-21 12:02:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.90 Mbit/s
95th percentile per-packet one-way delay: 73.511 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 317.76 Mbit/s
95th percentile per-packet one-way delay: 92.642 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 131.27 Mbit/s
95th percentile per-packet one-way delay: 2.169 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 128.09 Mbit/s
95th percentile per-packet one-way delay: 1.744 ms
Loss rate: 0.17%
```

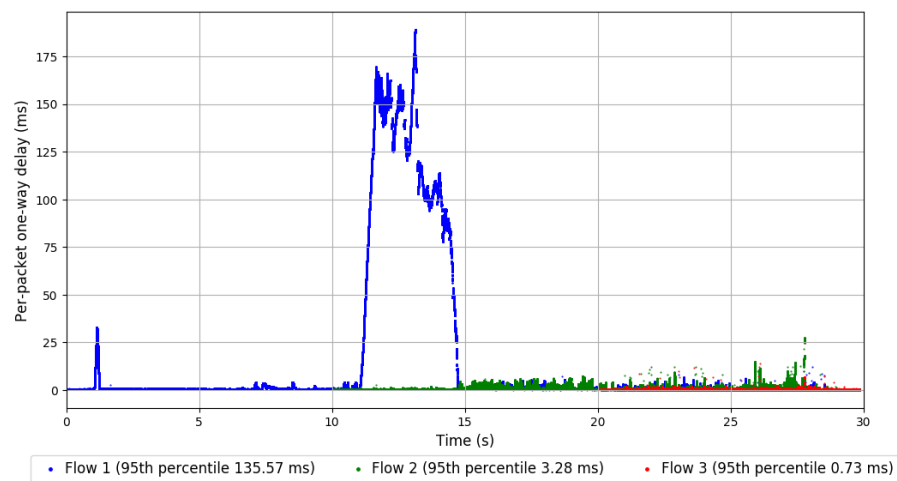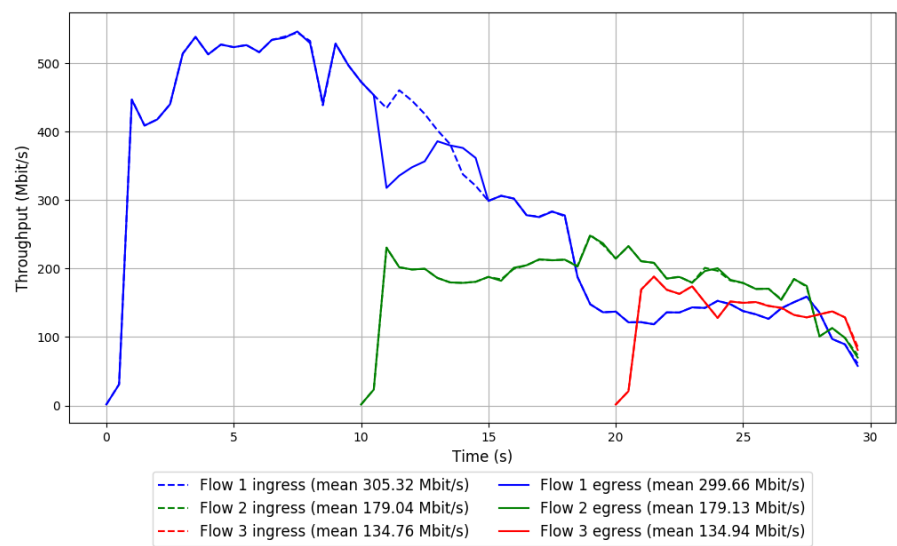# Run 3: Report of Vivace-LTE — Data Link

```
Run 4: Statistics of Vivace-LTE

Start at: 2018-03-21 01:39:48
End at: 2018-03-21 01:40:18
Local clock offset: 0.71 ms
Remote clock offset: -5.056 ms


# Below is generated by plot.py at 2018-03-21 12:03:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.98 Mbit/s
95th percentile per-packet one-way delay: 108.976 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 299.66 Mbit/s
95th percentile per-packet one-way delay: 135.575 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 179.13 Mbit/s
95th percentile per-packet one-way delay: 3.277 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 134.94 Mbit/s
95th percentile per-packet one-way delay: 0.726 ms
Loss rate: 0.18%
```

Run 4: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 305.32 Mbit/s) --- Flow 1 egress (mean 299.66 Mbit/s)
Flow 2 ingress (mean 179.04 Mbit/s) --- Flow 2 egress (mean 179.13 Mbit/s)
Flow 3 ingress (mean 134.76 Mbit/s) --- Flow 3 egress (mean 134.94 Mbit/s)

Flow 1 (95th percentile 135.57 ms)   Flow 2 (95th percentile 3.28 ms)   Flow 3 (95th percentile 0.73 ms)
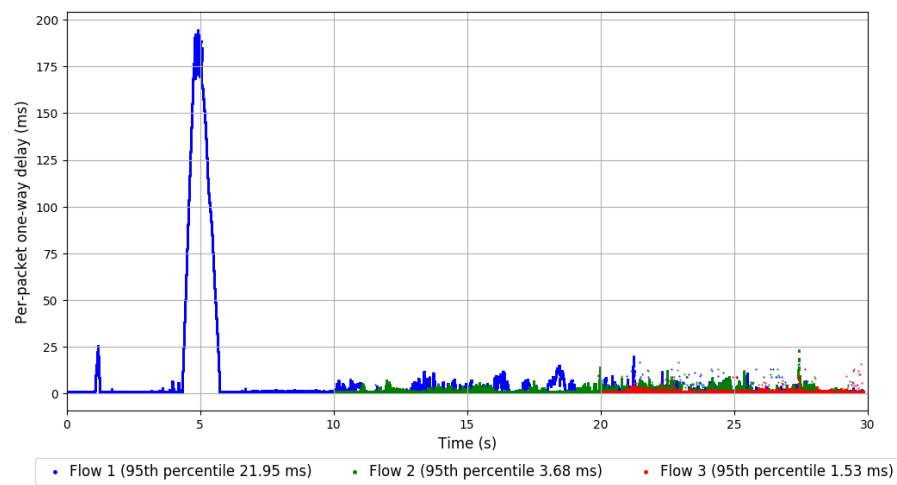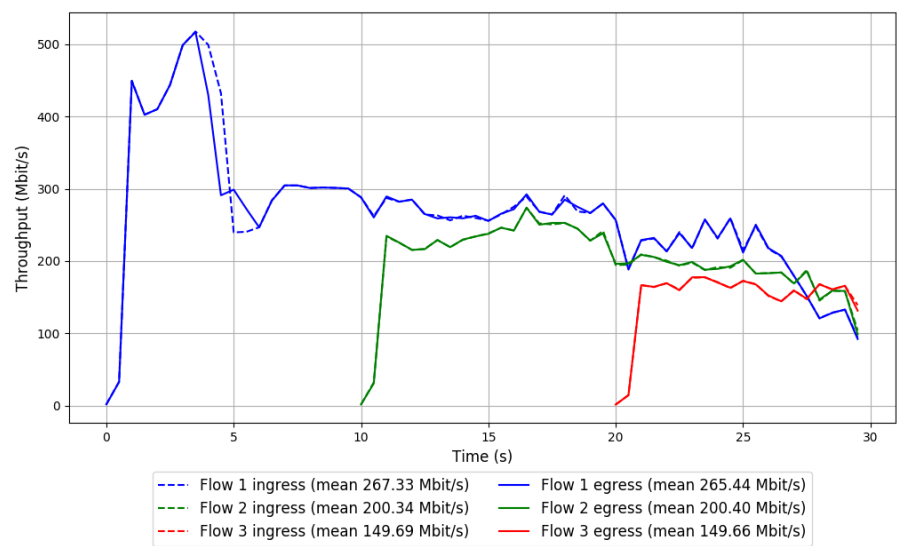
```
Run 5: Statistics of Vivace-LTE

Start at: 2018-03-21 02:08:46
End at: 2018-03-21 02:09:16
Local clock offset: 7.187 ms
Remote clock offset: -5.697 ms


# Below is generated by plot.py at 2018-03-21 12:04:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.62 Mbit/s
95th percentile per-packet one-way delay: 8.386 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 265.44 Mbit/s
95th percentile per-packet one-way delay: 21.953 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 200.40 Mbit/s
95th percentile per-packet one-way delay: 3.677 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 149.66 Mbit/s
95th percentile per-packet one-way delay: 1.529 ms
Loss rate: 0.26%
```

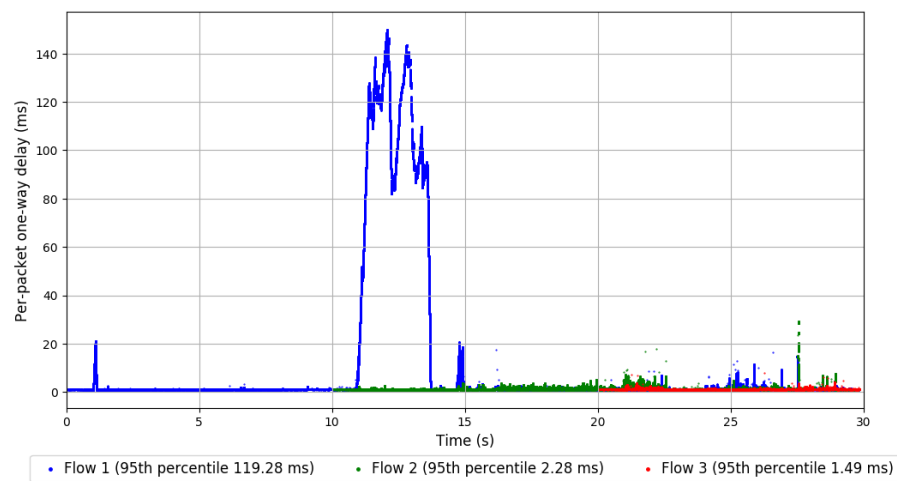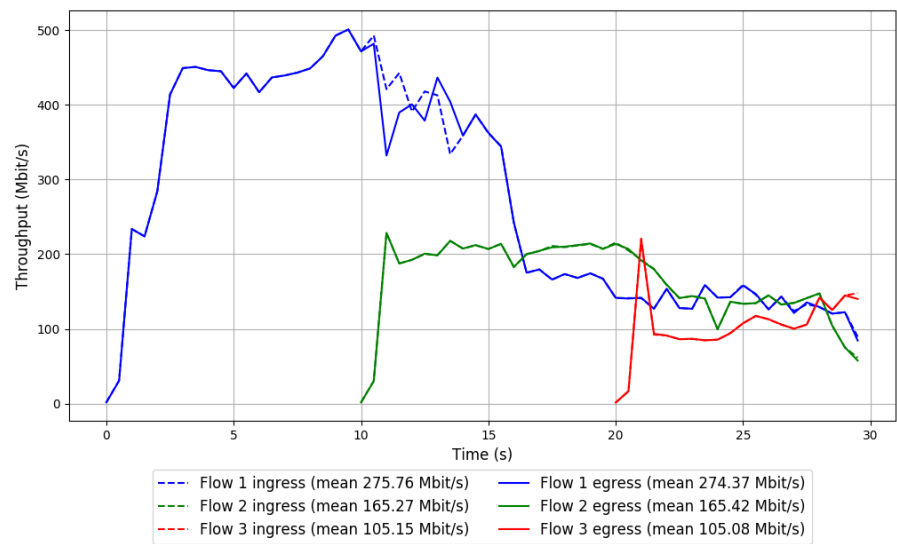Run 5: Report of Vivace-LTE — Data Link

```
Run 6: Statistics of Vivace-LTE

Start at: 2018-03-21 02:37:40
End at: 2018-03-21 02:38:10
Local clock offset: 0.373 ms
Remote clock offset: -6.277 ms


# Below is generated by plot.py at 2018-03-21 12:05:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.78 Mbit/s
95th percentile per-packet one-way delay: 97.503 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 274.37 Mbit/s
95th percentile per-packet one-way delay: 119.281 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 165.42 Mbit/s
95th percentile per-packet one-way delay: 2.277 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 105.08 Mbit/s
95th percentile per-packet one-way delay: 1.485 ms
Loss rate: 0.39%
```

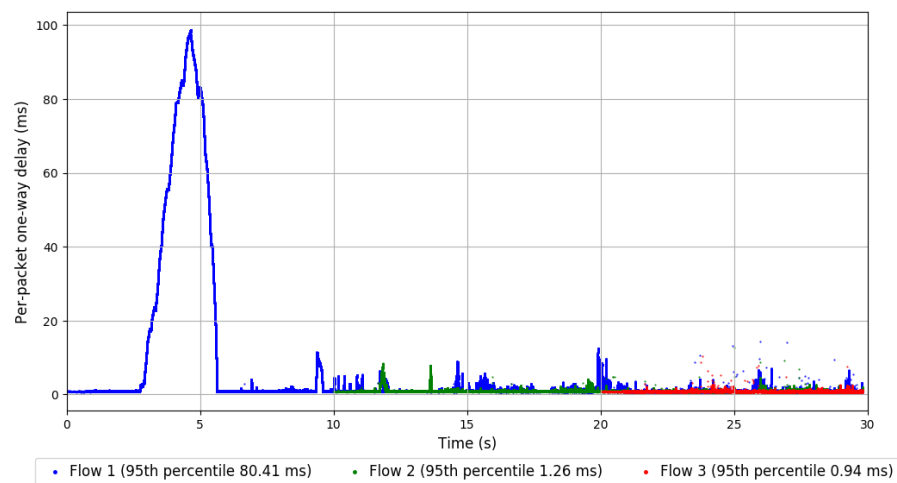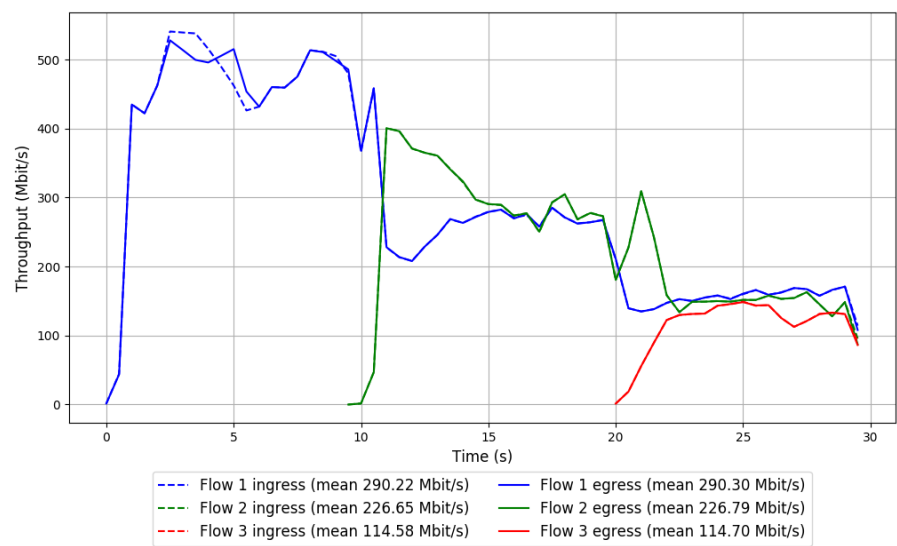# Run 6: Report of Vivace-LTE — Data Link

```
Run 7: Statistics of Vivace-LTE

Start at: 2018-03-21 03:06:35
End at: 2018-03-21 03:07:05
Local clock offset: 8.767 ms
Remote clock offset: -5.001 ms


# Below is generated by plot.py at 2018-03-21 12:06:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 478.78 Mbit/s
95th percentile per-packet one-way delay: 58.561 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 290.30 Mbit/s
95th percentile per-packet one-way delay: 80.412 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 226.79 Mbit/s
95th percentile per-packet one-way delay: 1.257 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 114.70 Mbit/s
95th percentile per-packet one-way delay: 0.943 ms
Loss rate: 0.24%
```

Run 7: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 290.22 Mbit/s)   Flow 1 egress (mean 290.30 Mbit/s)
Flow 2 ingress (mean 226.65 Mbit/s)   Flow 2 egress (mean 226.79 Mbit/s)
Flow 3 ingress (mean 114.58 Mbit/s)   Flow 3 egress (mean 114.70 Mbit/s)

Flow 1 (95th percentile 80.41 ms)   Flow 2 (95th percentile 1.26 ms)   Flow 3 (95th percentile 0.94 ms)
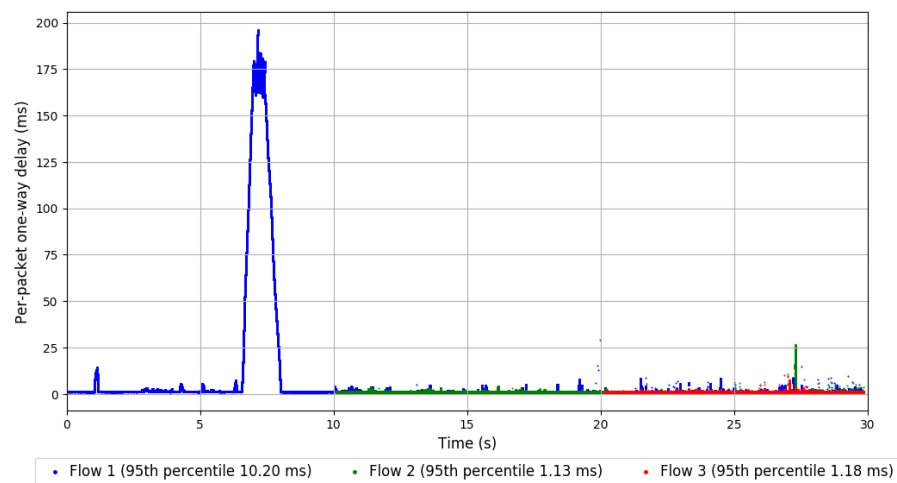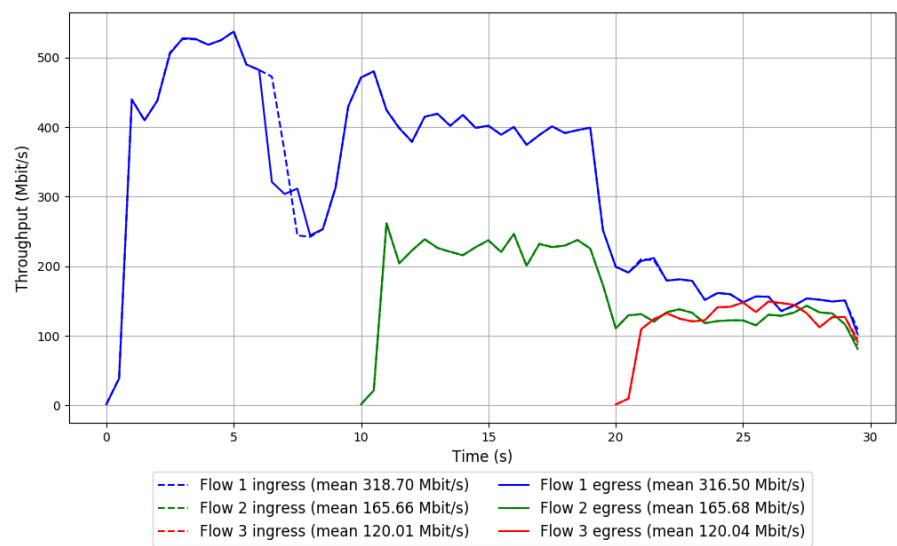
```
Run 8: Statistics of Vivace-LTE

Start at: 2018-03-21 03:35:28
End at: 2018-03-21 03:35:58
Local clock offset: 10.293 ms
Remote clock offset: -5.619 ms


# Below is generated by plot.py at 2018-03-21 12:06:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 465.66 Mbit/s
95th percentile per-packet one-way delay: 3.439 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 316.50 Mbit/s
95th percentile per-packet one-way delay: 10.197 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 165.68 Mbit/s
95th percentile per-packet one-way delay: 1.131 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 120.04 Mbit/s
95th percentile per-packet one-way delay: 1.184 ms
Loss rate: 0.19%
```

Run 8: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 318.70 Mbit/s) — Flow 1 egress (mean 316.50 Mbit/s)
Flow 2 ingress (mean 165.66 Mbit/s) — Flow 2 egress (mean 165.68 Mbit/s)
Flow 3 ingress (mean 120.01 Mbit/s) — Flow 3 egress (mean 120.04 Mbit/s)

Flow 1 (95th percentile 10.20 ms)   •   Flow 2 (95th percentile 1.13 ms)   •   Flow 3 (95th percentile 1.18 ms)
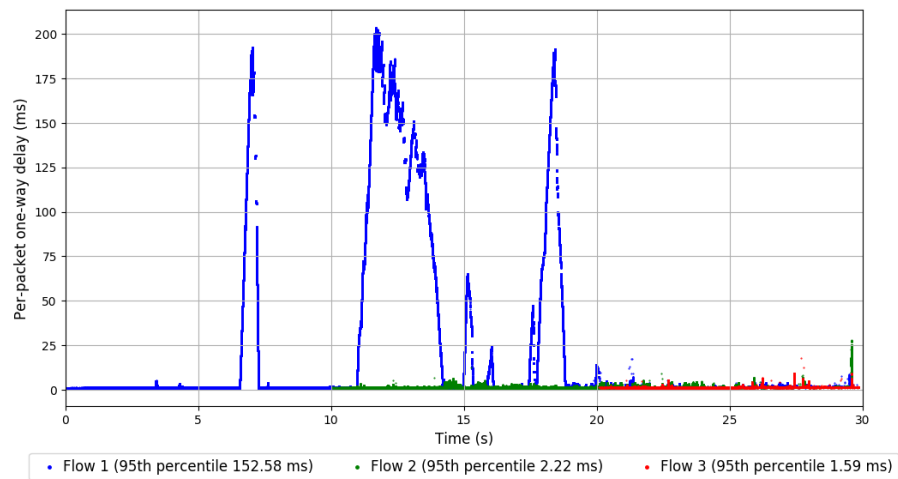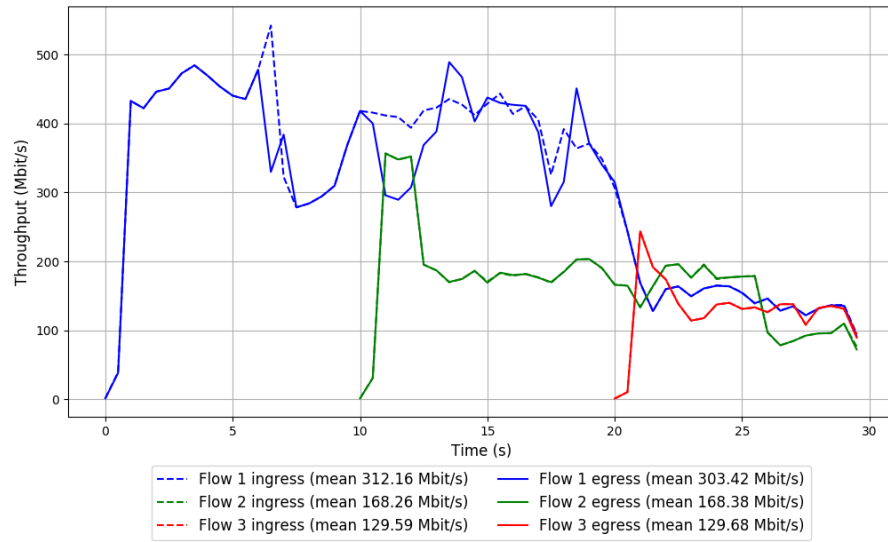
```
Run 9: Statistics of Vivace-LTE

Start at: 2018-03-21 04:04:17
End at: 2018-03-21 04:04:47
Local clock offset: 4.9 ms
Remote clock offset: -5.261 ms

# Below is generated by plot.py at 2018-03-21 12:06:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 457.67 Mbit/s
95th percentile per-packet one-way delay: 132.061 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 303.42 Mbit/s
95th percentile per-packet one-way delay: 152.578 ms
Loss rate: 2.89%
-- Flow 2:
Average throughput: 168.38 Mbit/s
95th percentile per-packet one-way delay: 2.222 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 129.68 Mbit/s
95th percentile per-packet one-way delay: 1.591 ms
Loss rate: 0.21%
```

Run 9: Report of Vivace-LTE — Data Link

```
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-21 04:33:22
End at: 2018-03-21 04:33:52
Local clock offset: 0.892 ms
Remote clock offset: -5.359 ms


# Below is generated by plot.py at 2018-03-21 12:06:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 434.24 Mbit/s
95th percentile per-packet one-way delay: 108.019 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 280.87 Mbit/s
95th percentile per-packet one-way delay: 123.585 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 177.86 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 107.63 Mbit/s
95th percentile per-packet one-way delay: 1.105 ms
Loss rate: 0.28%
```

Run 10: Report of Vivace-LTE — Data Link