Pantheon Report

Generated at 2018-01-10 09:54:25 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

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

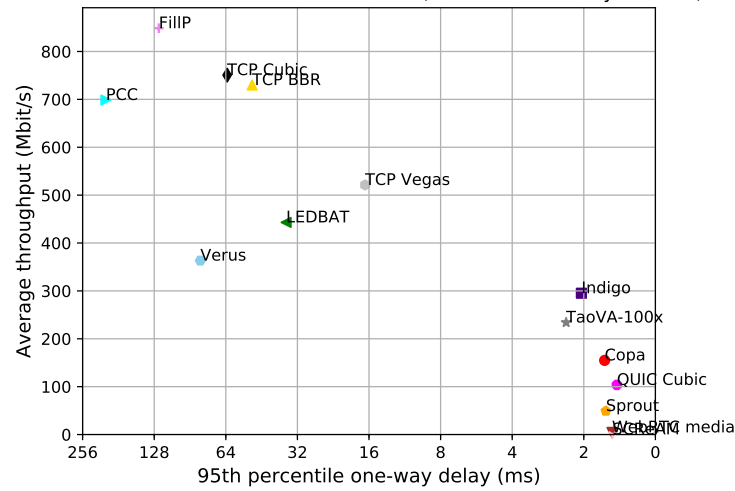Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

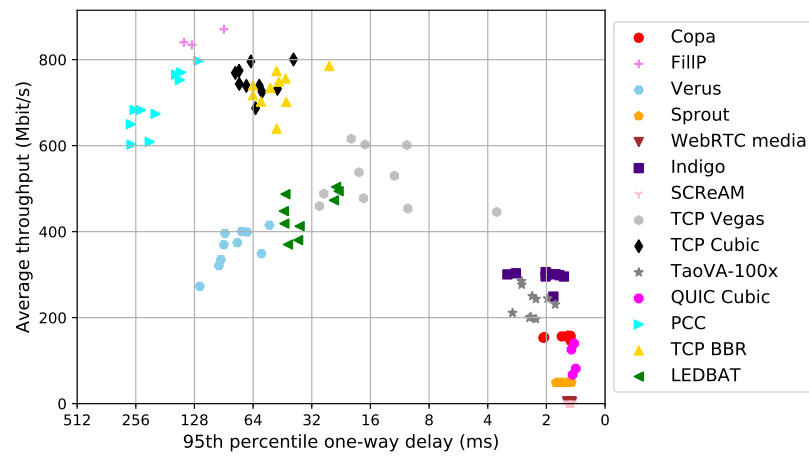NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 56d1792c316a5efca3f2d21342905405fedffb48
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
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/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
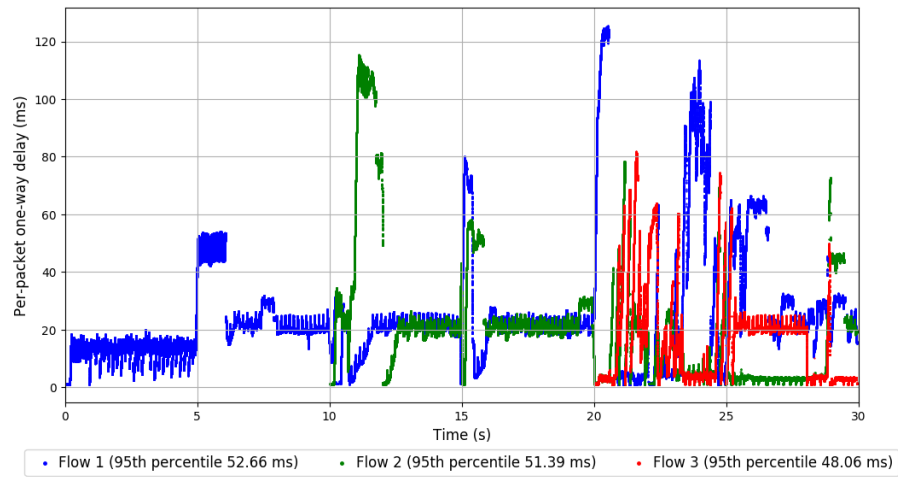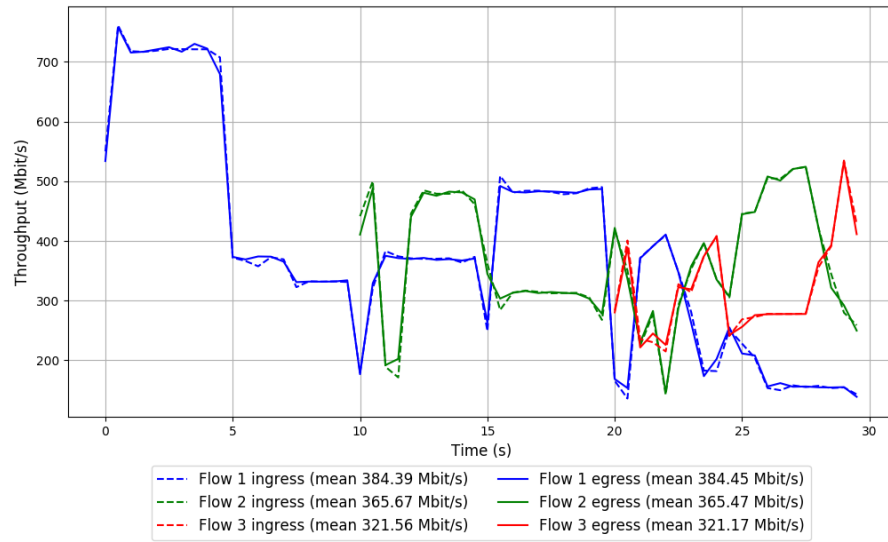3 flows with 10s interval between flows

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	395.83	361.54	282.02	42.76	57.07	69.84	0.09	0.17	0.36
TCP Cubic	10	412.29	351.45	315.12	62.92	63.57	61.32	0.11	0.18	0.36
LEDBAT	9	236.43	219.86	182.59	37.25	30.19	25.77	0.09	0.19	0.41
PCC	10	436.03	316.41	159.76	188.39	206.47	111.76	8.01	6.66	2.78
QUIC Cubic	4	154.07	70.77	64.81	1.06	1.08	1.08	0.03	0.10	0.23
SCReAM	10	0.22	0.22	0.22	1.20	1.20	1.20	0.03	0.00	0.28
WebRTC media	10	2.42	1.50	0.65	1.20	1.22	1.25	0.09	0.04	0.18
Sprout	10	24.72	24.63	24.54	1.33	1.43	1.28	0.07	0.13	0.27
TaoVA-100x	10	134.28	106.73	110.54	2.20	2.59	2.64	0.05	0.10	0.23
TCP Vegas	10	264.82	255.98	259.91	9.18	17.13	16.28	0.06	0.10	0.24
Verus	10	212.78	156.44	133.21	80.12	75.74	73.68	1.19	0.79	1.76
Copa	10	81.98	80.17	76.29	1.19	1.74	1.84	0.05	0.08	0.16
FillP	3	494.25	341.88	384.10	118.21	110.49	165.51	8.69	2.50	5.63
Indigo	10	164.38	149.57	97.05	1.82	2.60	1.40	0.06	0.09	0.22

```
Run 1: Statistics of TCP BBR

Start at: 2018-01-09 23:54:18
End at: 2018-01-09 23:54:48
Local clock offset: -1.101 ms
Remote clock offset: -3.211 ms


# Below is generated by plot.py at 2018-01-10 07:18:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 734.25 Mbit/s
95th percentile per-packet one-way delay: 52.253 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 384.45 Mbit/s
95th percentile per-packet one-way delay: 52.657 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 365.47 Mbit/s
95th percentile per-packet one-way delay: 51.391 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 321.17 Mbit/s
95th percentile per-packet one-way delay: 48.058 ms
Loss rate: 0.32%
```

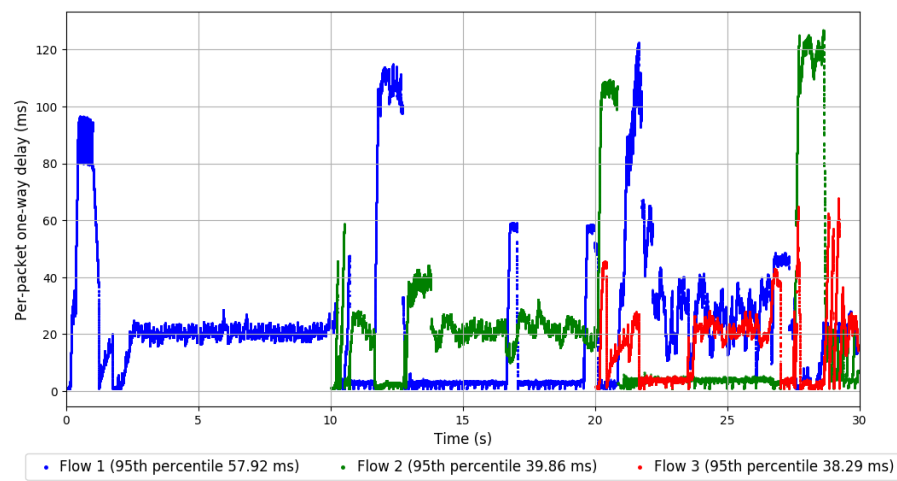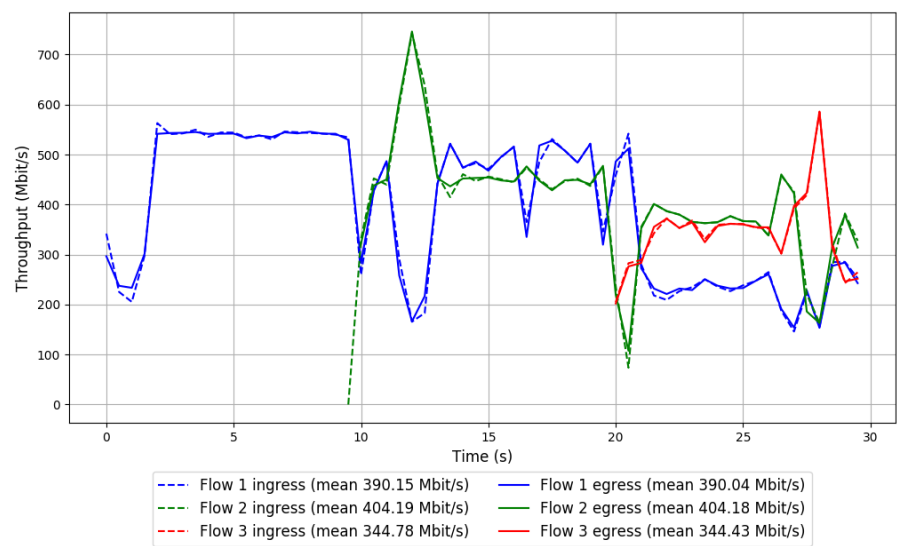Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-01-10 00:15:43
End at: 2018-01-10 00:16:13
Local clock offset: -1.28 ms
Remote clock offset: -2.495 ms


# Below is generated by plot.py at 2018-01-10 07:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 773.46 Mbit/s
95th percentile per-packet one-way delay: 48.566 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 390.04 Mbit/s
95th percentile per-packet one-way delay: 57.920 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 404.18 Mbit/s
95th percentile per-packet one-way delay: 39.859 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 344.43 Mbit/s
95th percentile per-packet one-way delay: 38.293 ms
Loss rate: 0.30%
```
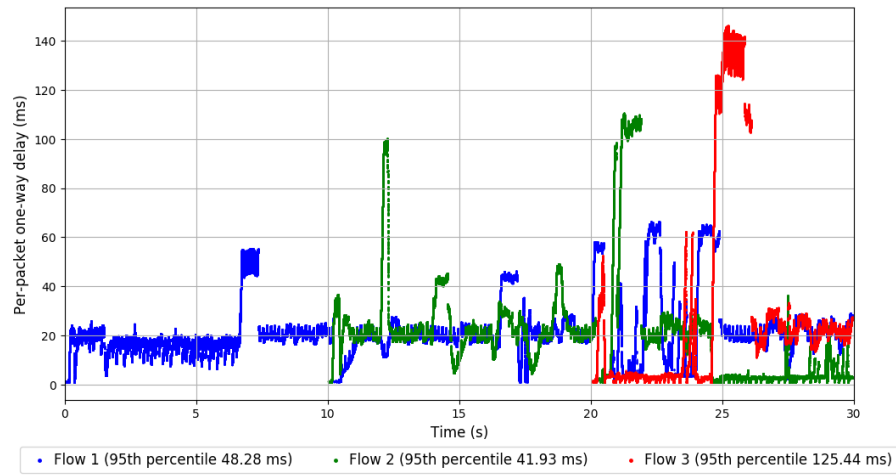
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 390.15 Mbit/s)   Flow 1 egress (mean 390.04 Mbit/s)
Flow 2 ingress (mean 404.19 Mbit/s)   Flow 2 egress (mean 404.18 Mbit/s)
Flow 3 ingress (mean 344.78 Mbit/s)   Flow 3 egress (mean 344.43 Mbit/s)

Flow 1 (95th percentile 57.92 ms)   Flow 2 (95th percentile 39.86 ms)   Flow 3 (95th percentile 38.29 ms)

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```
Run 3: Statistics of TCP BBR

Start at: 2018-01-10 00:37:10
End at: 2018-01-10 00:37:40
Local clock offset: -1.28 ms
Remote clock offset: -2.24 ms


# Below is generated by plot.py at 2018-01-10 07:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 748.68 Mbit/s
95th percentile per-packet one-way delay: 47.287 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 408.65 Mbit/s
95th percentile per-packet one-way delay: 48.281 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 371.56 Mbit/s
95th percentile per-packet one-way delay: 41.932 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 280.29 Mbit/s
95th percentile per-packet one-way delay: 125.443 ms
Loss rate: 0.24%
```
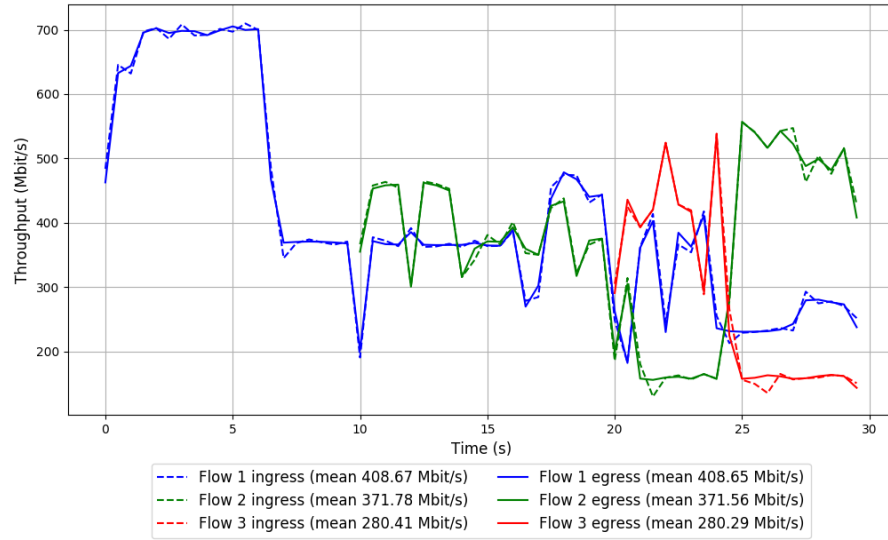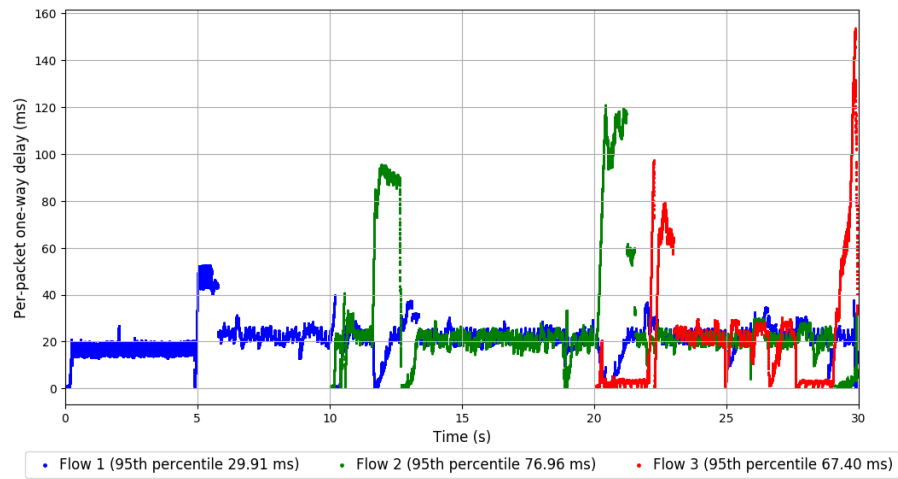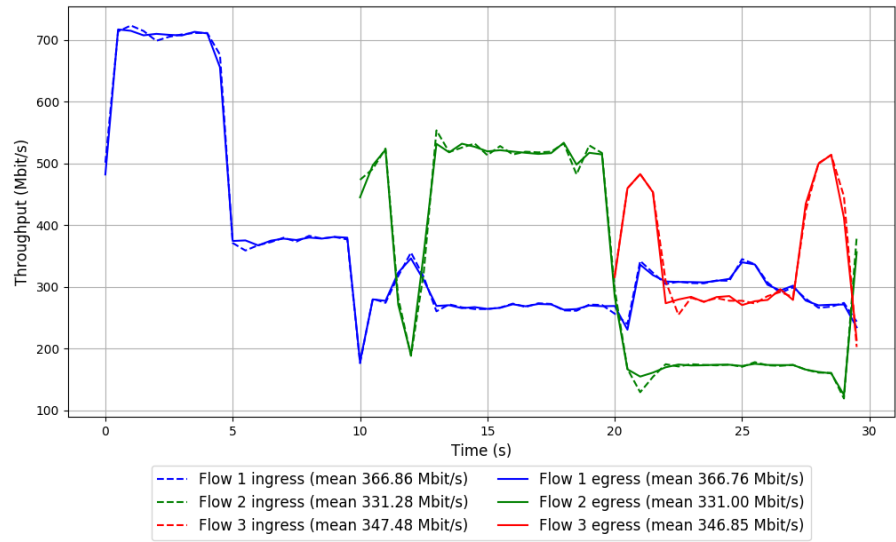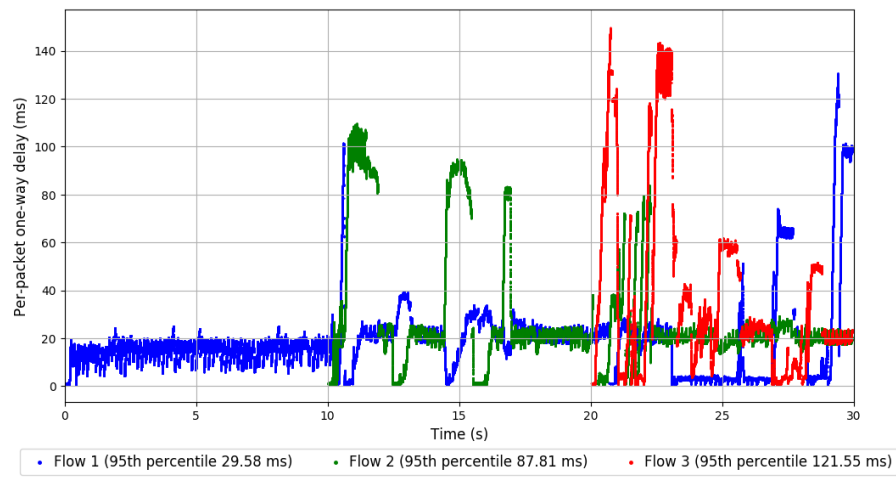
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 408.67 Mbit/s) --- Flow 1 egress (mean 408.65 Mbit/s)
Flow 2 ingress (mean 371.78 Mbit/s) --- Flow 2 egress (mean 371.56 Mbit/s)
Flow 3 ingress (mean 280.41 Mbit/s) --- Flow 3 egress (mean 280.29 Mbit/s)

Flow 1 (95th percentile 48.28 ms)   Flow 2 (95th percentile 41.93 ms)   Flow 3 (95th percentile 125.44 ms)

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```
Run 4: Statistics of TCP BBR

Start at: 2018-01-10 00:58:55
End at: 2018-01-10 00:59:25
Local clock offset: -1.679 ms
Remote clock offset: -1.677 ms


# Below is generated by plot.py at 2018-01-10 07:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 701.77 Mbit/s
95th percentile per-packet one-way delay: 43.230 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 366.76 Mbit/s
95th percentile per-packet one-way delay: 29.913 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 331.00 Mbit/s
95th percentile per-packet one-way delay: 76.964 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 346.85 Mbit/s
95th percentile per-packet one-way delay: 67.401 ms
Loss rate: 0.38%
```
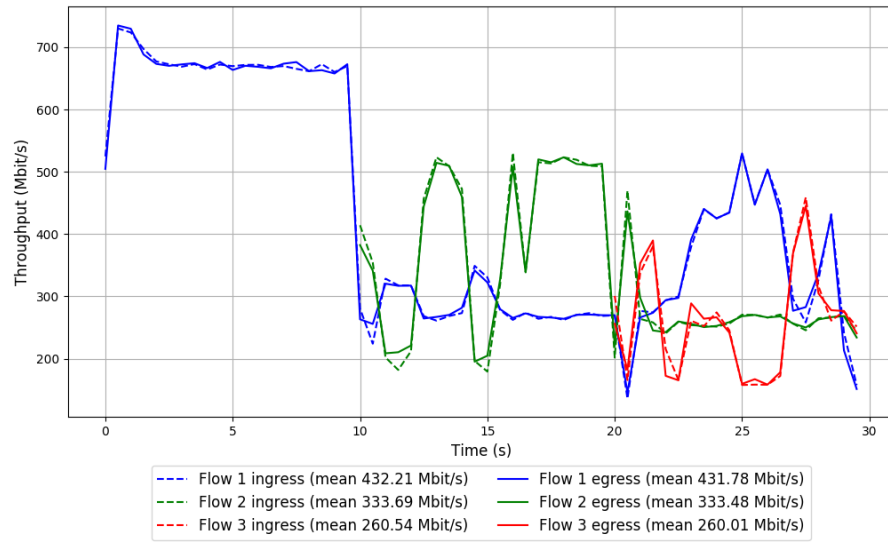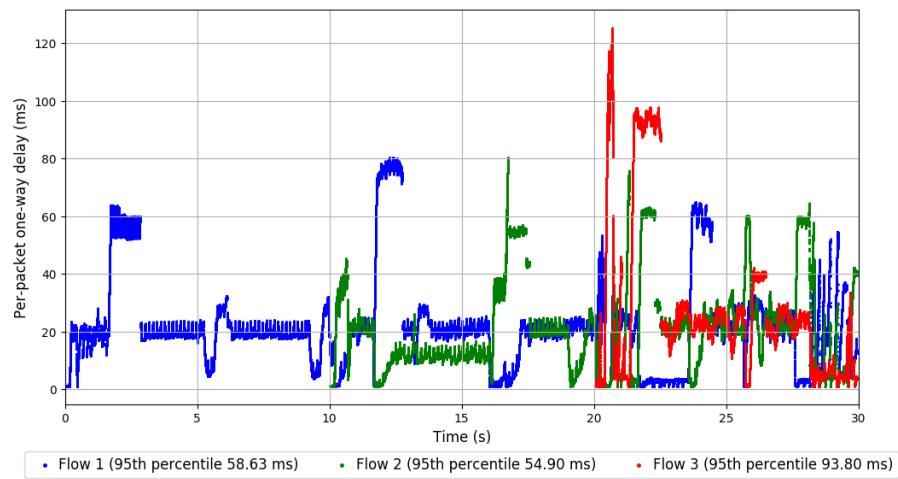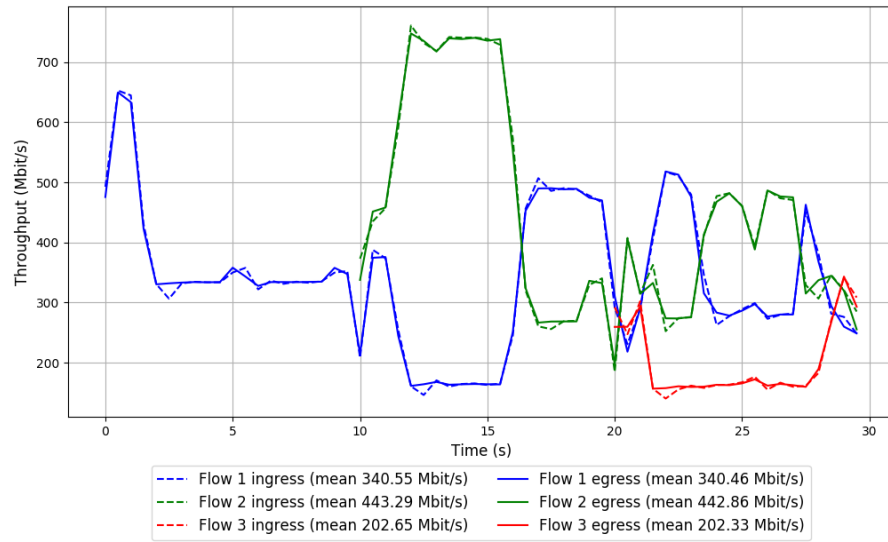
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 366.86 Mbit/s) --- Flow 1 egress (mean 366.76 Mbit/s)
Flow 2 ingress (mean 331.28 Mbit/s) --- Flow 2 egress (mean 331.00 Mbit/s)
Flow 3 ingress (mean 347.48 Mbit/s) --- Flow 3 egress (mean 346.85 Mbit/s)

Flow 1 (95th percentile 29.91 ms)   Flow 2 (95th percentile 76.96 ms)   Flow 3 (95th percentile 67.40 ms)

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```
Run 5: Statistics of TCP BBR

Start at: 2018-01-10 01:20:13
End at: 2018-01-10 01:20:43
Local clock offset: -1.803 ms
Remote clock offset: -1.315 ms


# Below is generated by plot.py at 2018-01-10 07:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 739.98 Mbit/s
95th percentile per-packet one-way delay: 64.180 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 431.78 Mbit/s
95th percentile per-packet one-way delay: 29.581 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 333.48 Mbit/s
95th percentile per-packet one-way delay: 87.805 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 260.01 Mbit/s
95th percentile per-packet one-way delay: 121.548 ms
Loss rate: 0.41%
```
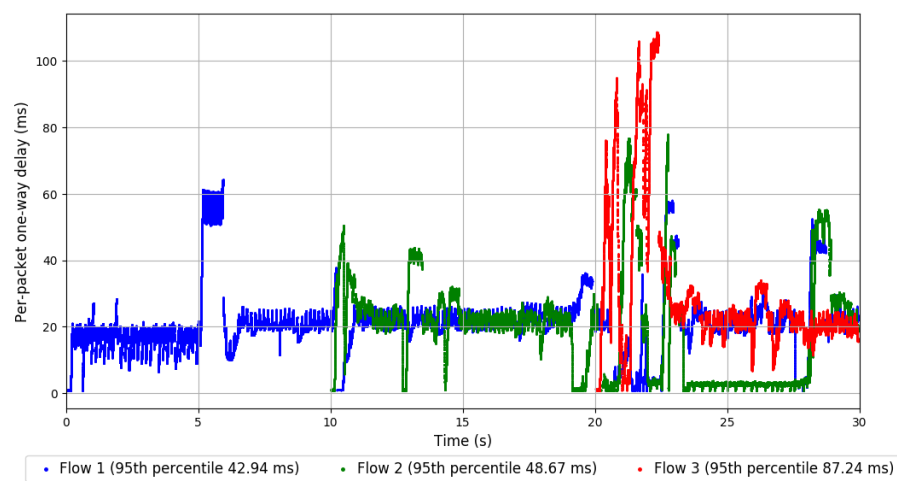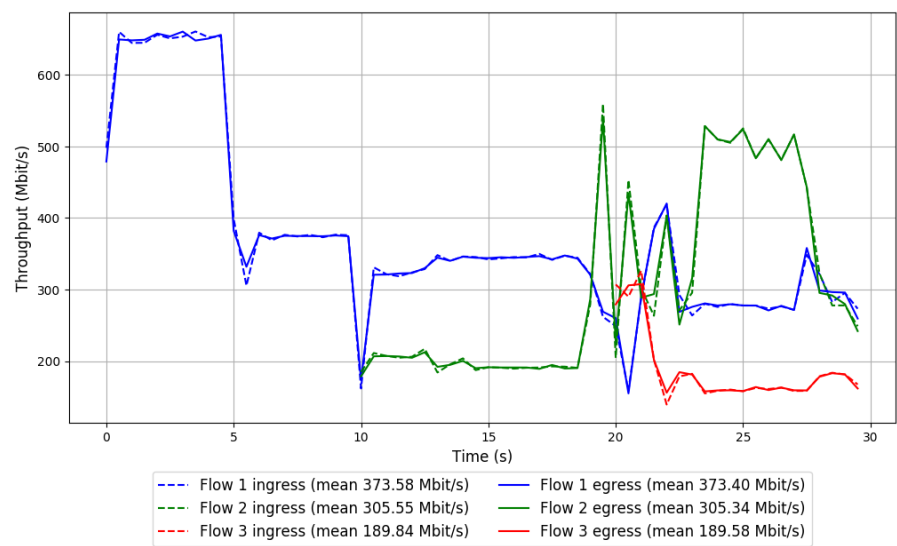
Run 5: Report of TCP BBR — Data Link

```
Run 6: Statistics of TCP BBR

Start at: 2018-01-10 01:41:04
End at: 2018-01-10 01:41:34
Local clock offset: -1.717 ms
Remote clock offset: -2.093 ms


# Below is generated by plot.py at 2018-01-10 07:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 702.36 Mbit/s
95th percentile per-packet one-way delay: 58.354 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 340.46 Mbit/s
95th percentile per-packet one-way delay: 58.626 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 442.86 Mbit/s
95th percentile per-packet one-way delay: 54.901 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 202.33 Mbit/s
95th percentile per-packet one-way delay: 93.795 ms
Loss rate: 0.44%
```
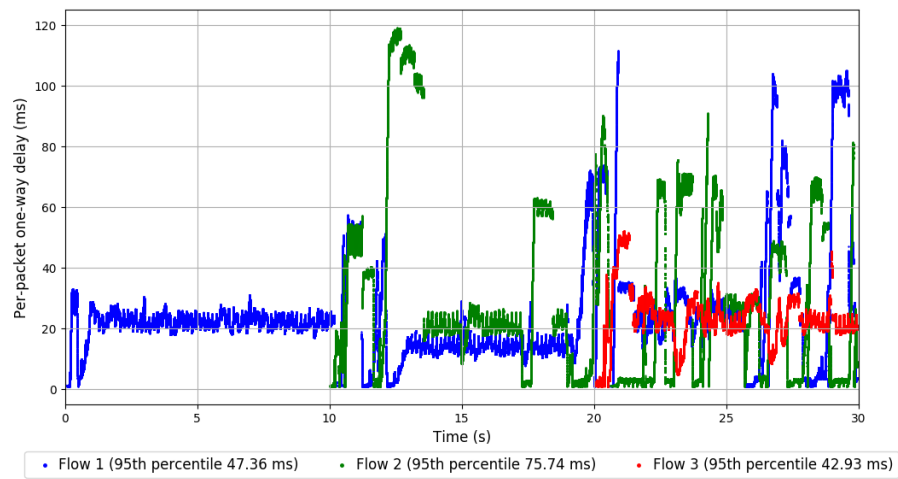
Run 6: Report of TCP BBR — Data Link

```
Run 7: Statistics of TCP BBR

Start at: 2018-01-10 02:02:35
End at: 2018-01-10 02:03:05
Local clock offset: -1.852 ms
Remote clock offset: -2.143 ms


# Below is generated by plot.py at 2018-01-10 07:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 639.44 Mbit/s
95th percentile per-packet one-way delay: 48.472 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 373.40 Mbit/s
95th percentile per-packet one-way delay: 42.935 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 305.34 Mbit/s
95th percentile per-packet one-way delay: 48.666 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 189.58 Mbit/s
95th percentile per-packet one-way delay: 87.244 ms
Loss rate: 0.34%
```

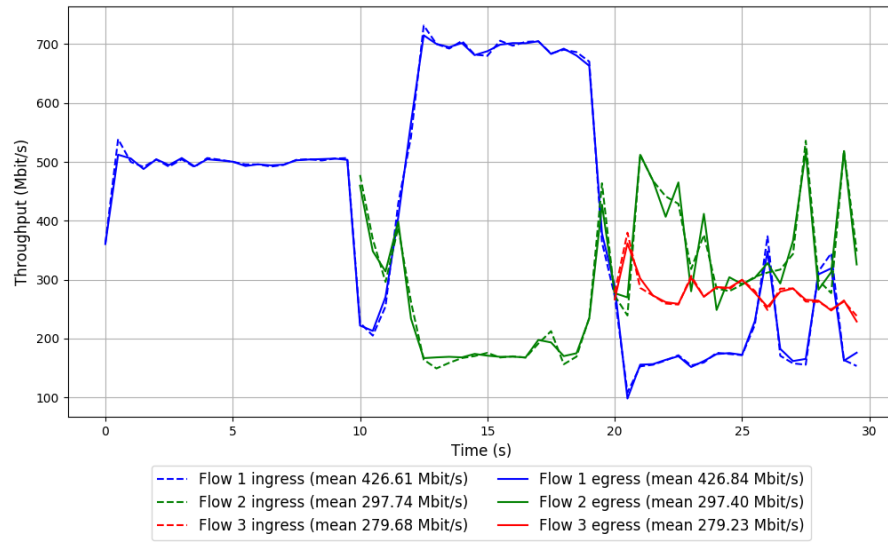Run 7: Report of TCP BBR — Data Link

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```
Run 8: Statistics of TCP BBR

Start at: 2018-01-10 02:24:02
End at: 2018-01-10 02:24:32
Local clock offset: -1.83 ms
Remote clock offset: -2.398 ms


# Below is generated by plot.py at 2018-01-10 07:19:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 717.34 Mbit/s
95th percentile per-packet one-way delay: 64.124 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 426.84 Mbit/s
95th percentile per-packet one-way delay: 47.356 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 297.40 Mbit/s
95th percentile per-packet one-way delay: 75.742 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 279.23 Mbit/s
95th percentile per-packet one-way delay: 42.927 ms
Loss rate: 0.36%
```
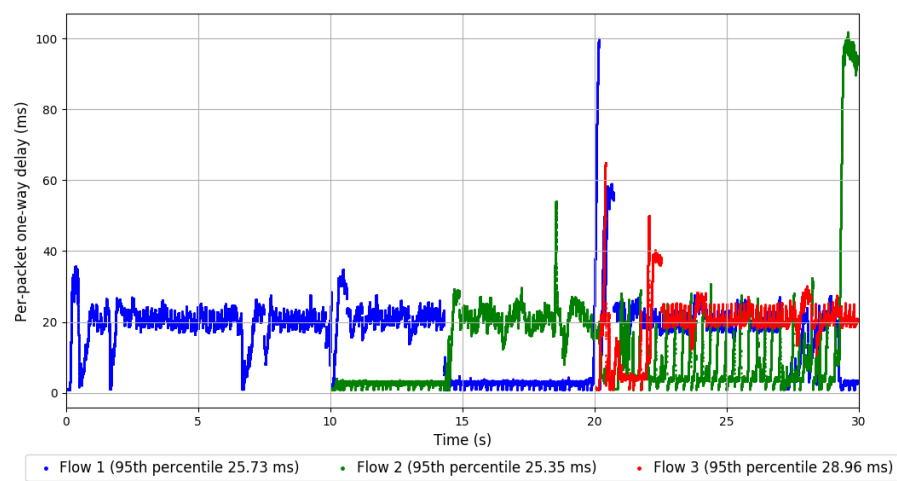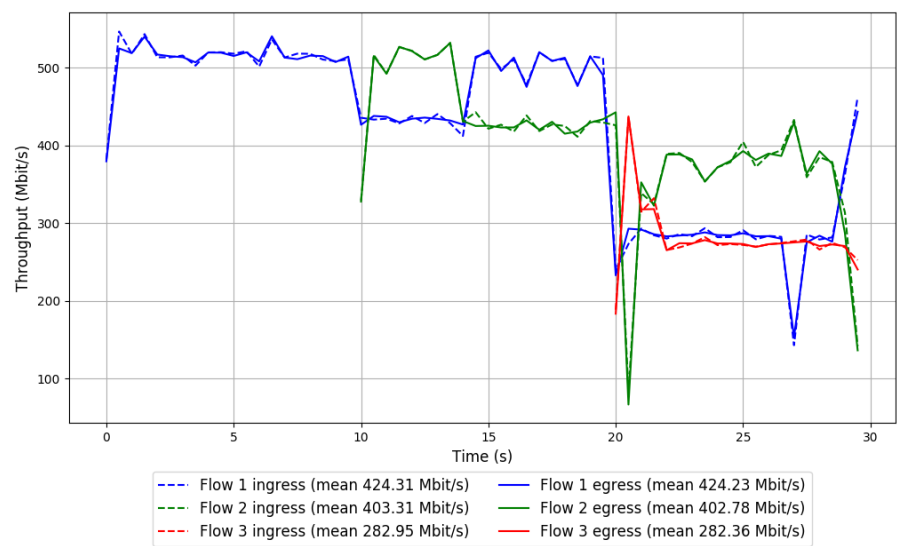
Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2018-01-10 02:45:45
End at: 2018-01-10 02:46:15
Local clock offset: -1.685 ms
Remote clock offset: -2.617 ms


# Below is generated by plot.py at 2018-01-10 07:36:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 785.42 Mbit/s
95th percentile per-packet one-way delay: 26.031 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 424.23 Mbit/s
95th percentile per-packet one-way delay: 25.731 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 402.78 Mbit/s
95th percentile per-packet one-way delay: 25.349 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 282.36 Mbit/s
95th percentile per-packet one-way delay: 28.958 ms
Loss rate: 0.41%
```

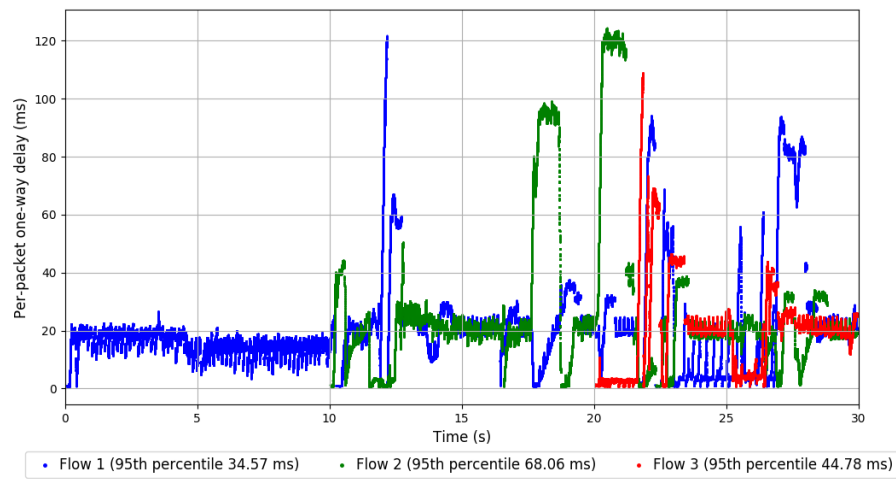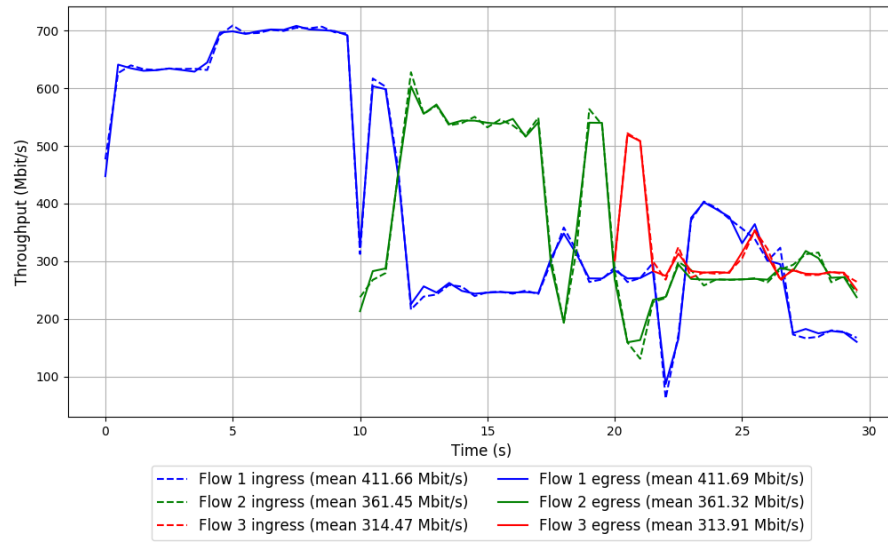Run 9: Report of TCP BBR — Data Link

```
Run 10: Statistics of TCP BBR

Start at: 2018-01-10 03:07:27
End at: 2018-01-10 03:07:57
Local clock offset: -1.207 ms
Remote clock offset: -2.791 ms


# Below is generated by plot.py at 2018-01-10 07:38:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 756.06 Mbit/s
95th percentile per-packet one-way delay: 43.610 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 411.69 Mbit/s
95th percentile per-packet one-way delay: 34.567 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 361.32 Mbit/s
95th percentile per-packet one-way delay: 68.057 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 313.91 Mbit/s
95th percentile per-packet one-way delay: 44.780 ms
Loss rate: 0.39%
```

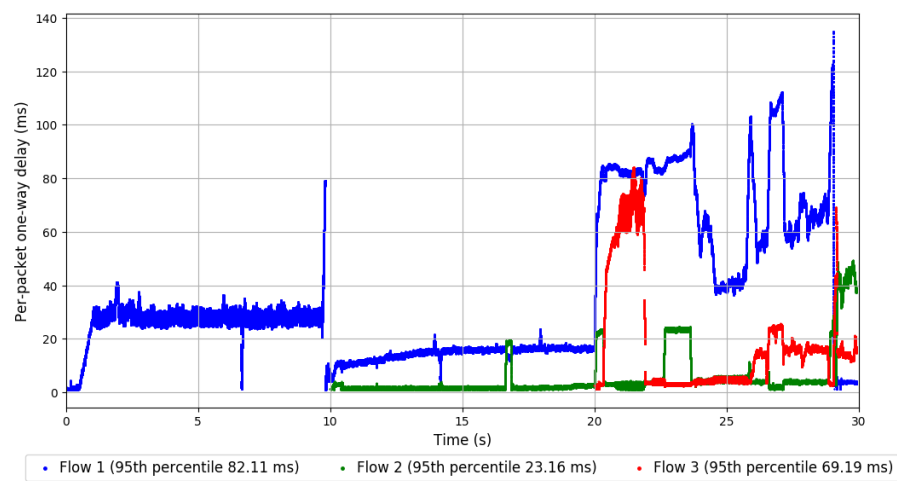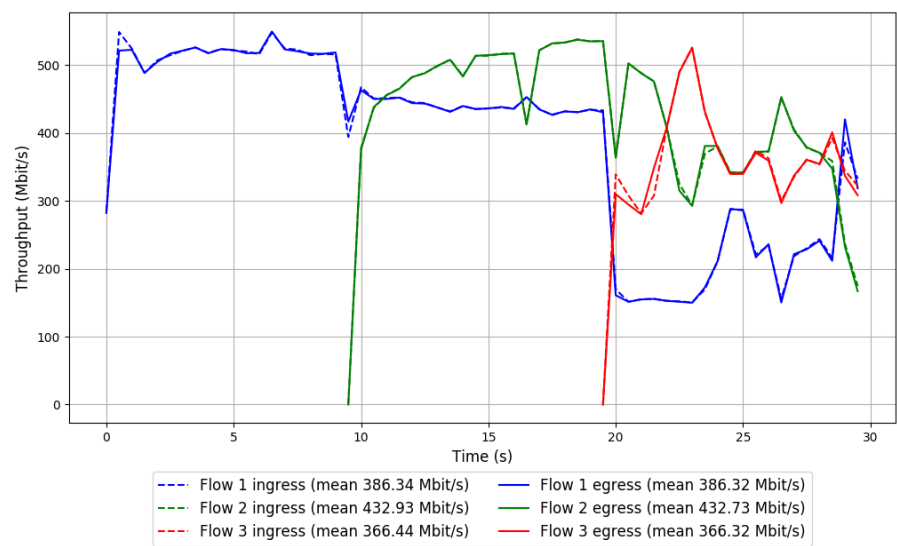Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-01-09 23:42:59
End at: 2018-01-09 23:43:29
Local clock offset: -0.864 ms
Remote clock offset: -3.615 ms


# Below is generated by plot.py at 2018-01-10 07:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 795.99 Mbit/s
95th percentile per-packet one-way delay: 65.680 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 386.32 Mbit/s
95th percentile per-packet one-way delay: 82.112 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 432.73 Mbit/s
95th percentile per-packet one-way delay: 23.157 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 366.32 Mbit/s
95th percentile per-packet one-way delay: 69.193 ms
Loss rate: 0.34%
```
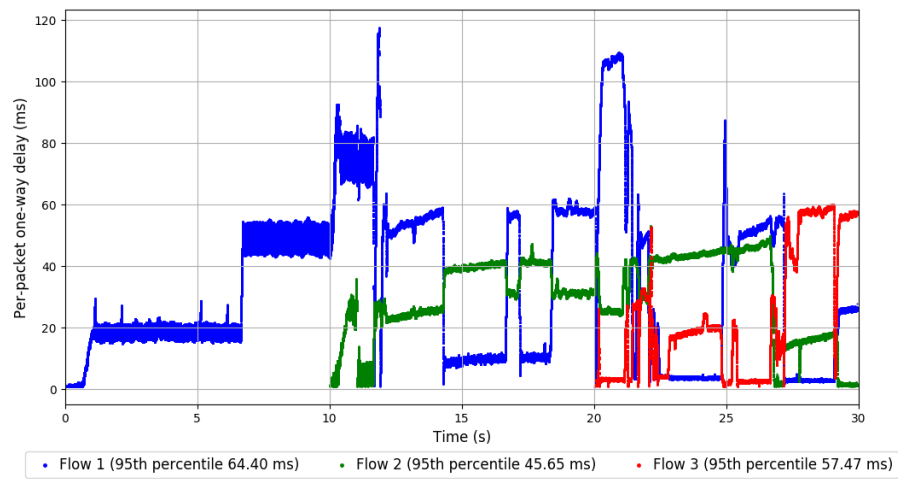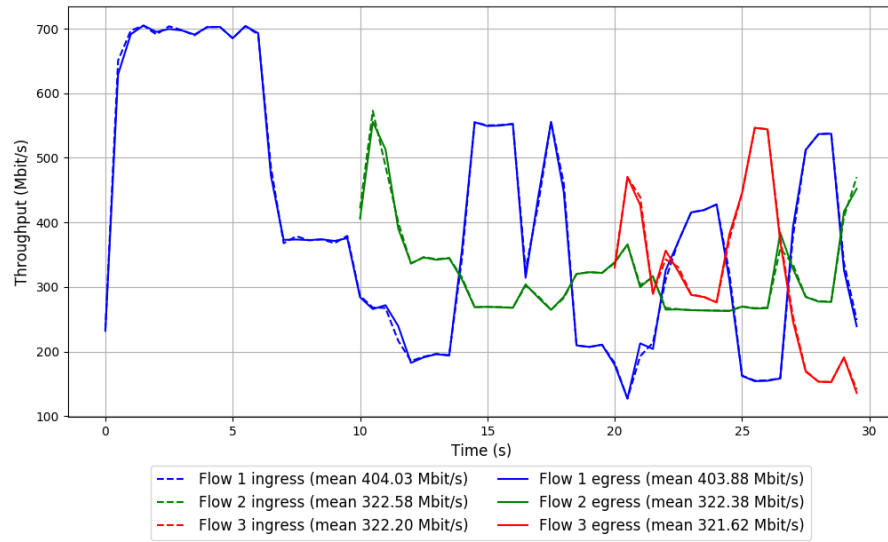
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 386.34 Mbit/s)   Flow 1 egress (mean 386.32 Mbit/s)
Flow 2 ingress (mean 432.93 Mbit/s)   Flow 2 egress (mean 432.73 Mbit/s)
Flow 3 ingress (mean 366.44 Mbit/s)   Flow 3 egress (mean 366.32 Mbit/s)

Flow 1 (95th percentile 82.11 ms)   Flow 2 (95th percentile 23.16 ms)   Flow 3 (95th percentile 69.19 ms)

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```
Run 2: Statistics of TCP Cubic

Start at: 2018-01-10 00:04:36
End at: 2018-01-10 00:05:06
Local clock offset: -1.19 ms
Remote clock offset: -2.883 ms


# Below is generated by plot.py at 2018-01-10 07:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 725.06 Mbit/s
95th percentile per-packet one-way delay: 57.613 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 403.88 Mbit/s
95th percentile per-packet one-way delay: 64.398 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 322.38 Mbit/s
95th percentile per-packet one-way delay: 45.649 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 321.62 Mbit/s
95th percentile per-packet one-way delay: 57.465 ms
Loss rate: 0.36%
```
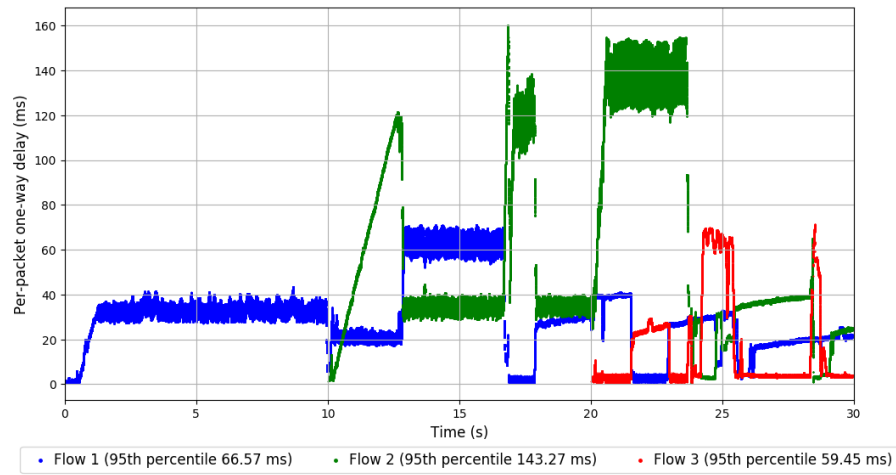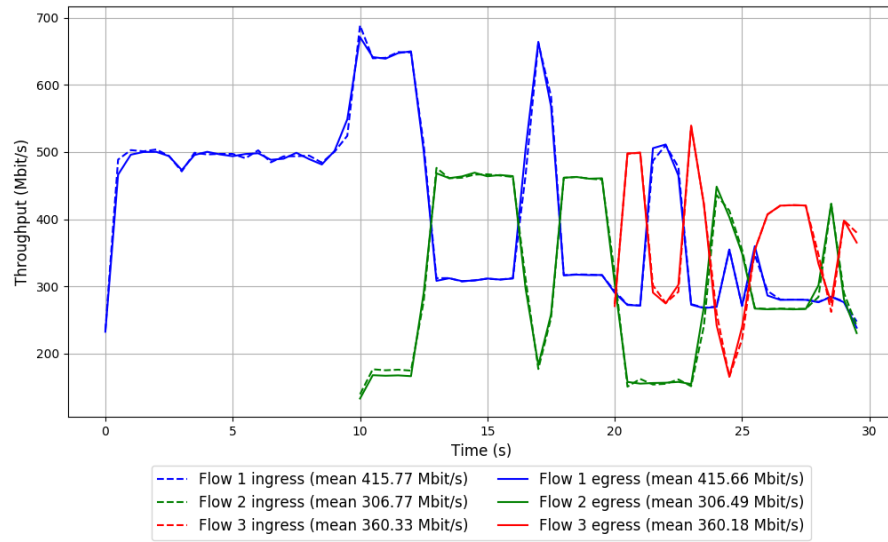
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 404.03 Mbit/s)   Flow 1 egress (mean 403.88 Mbit/s)
Flow 2 ingress (mean 322.58 Mbit/s)   Flow 2 egress (mean 322.38 Mbit/s)
Flow 3 ingress (mean 322.20 Mbit/s)   Flow 3 egress (mean 321.62 Mbit/s)

Flow 1 (95th percentile 64.40 ms)   Flow 2 (95th percentile 45.65 ms)   Flow 3 (95th percentile 57.47 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-01-10 00:26:00
End at: 2018-01-10 00:26:30
Local clock offset: -1.34 ms
Remote clock offset: -2.144 ms


# Below is generated by plot.py at 2018-01-10 07:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 739.03 Mbit/s
95th percentile per-packet one-way delay: 69.318 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 415.66 Mbit/s
95th percentile per-packet one-way delay: 66.572 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 306.49 Mbit/s
95th percentile per-packet one-way delay: 143.271 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 360.18 Mbit/s
95th percentile per-packet one-way delay: 59.447 ms
Loss rate: 0.25%
```
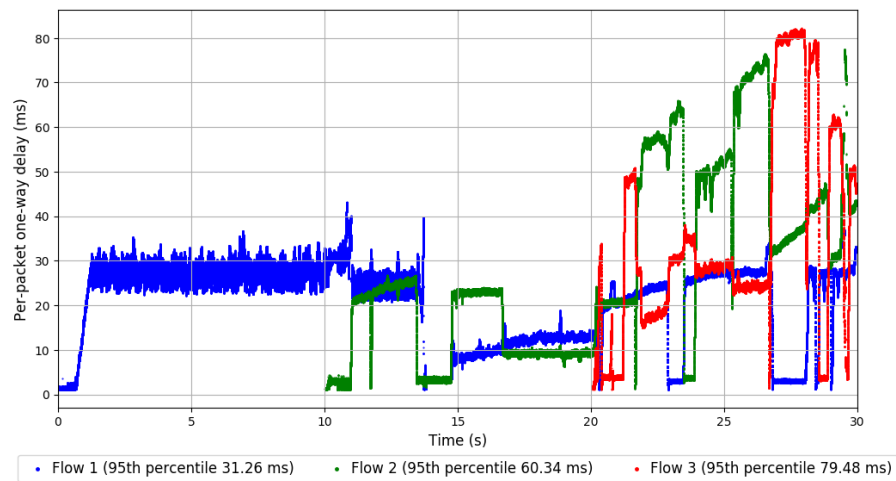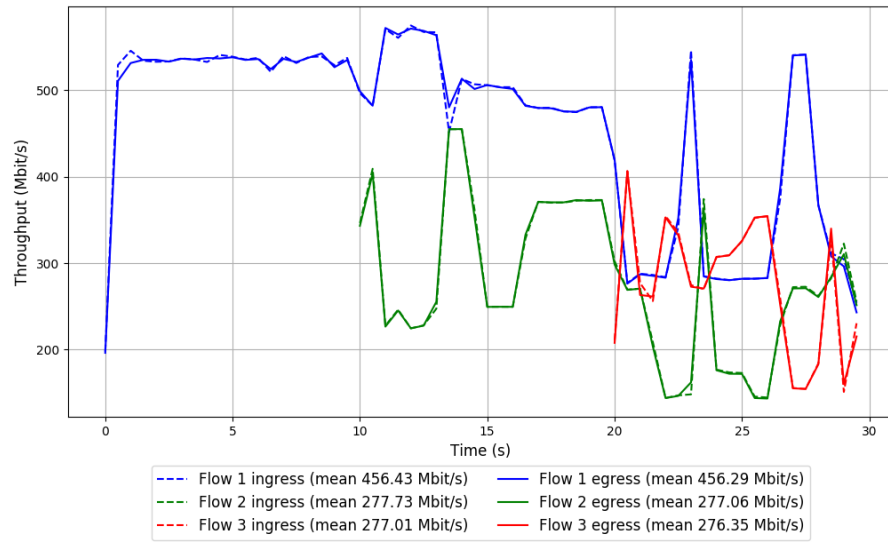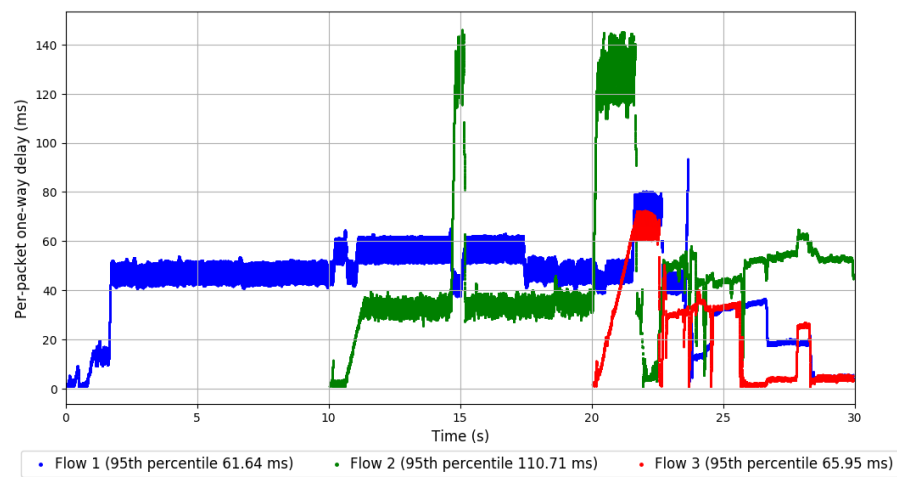
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 415.77 Mbit/s)   Flow 1 egress (mean 415.66 Mbit/s)
Flow 2 ingress (mean 306.77 Mbit/s)   Flow 2 egress (mean 306.49 Mbit/s)
Flow 3 ingress (mean 360.33 Mbit/s)   Flow 3 egress (mean 360.18 Mbit/s)

Flow 1 (95th percentile 66.57 ms)   Flow 2 (95th percentile 143.27 ms)   Flow 3 (95th percentile 59.45 ms)

29

```
Run 4: Statistics of TCP Cubic

Start at: 2018-01-10 00:47:26
End at: 2018-01-10 00:47:56
Local clock offset: -1.406 ms
Remote clock offset: -2.005 ms

# Below is generated by plot.py at 2018-01-10 07:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 732.22 Mbit/s
95th percentile per-packet one-way delay: 48.003 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 456.29 Mbit/s
95th percentile per-packet one-way delay: 31.264 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 277.06 Mbit/s
95th percentile per-packet one-way delay: 60.336 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 276.35 Mbit/s
95th percentile per-packet one-way delay: 79.482 ms
Loss rate: 0.42%
```
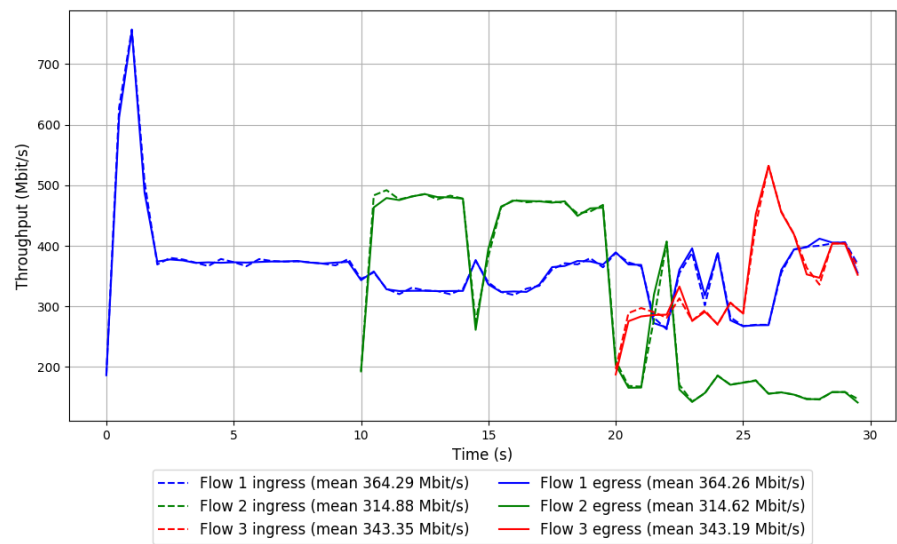
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 456.43 Mbit/s) --- Flow 1 egress (mean 456.29 Mbit/s)
Flow 2 ingress (mean 277.73 Mbit/s) --- Flow 2 egress (mean 277.06 Mbit/s)
Flow 3 ingress (mean 277.01 Mbit/s) --- Flow 3 egress (mean 276.35 Mbit/s)

Flow 1 (95th percentile 31.26 ms)   Flow 2 (95th percentile 60.34 ms)   Flow 3 (95th percentile 79.48 ms)
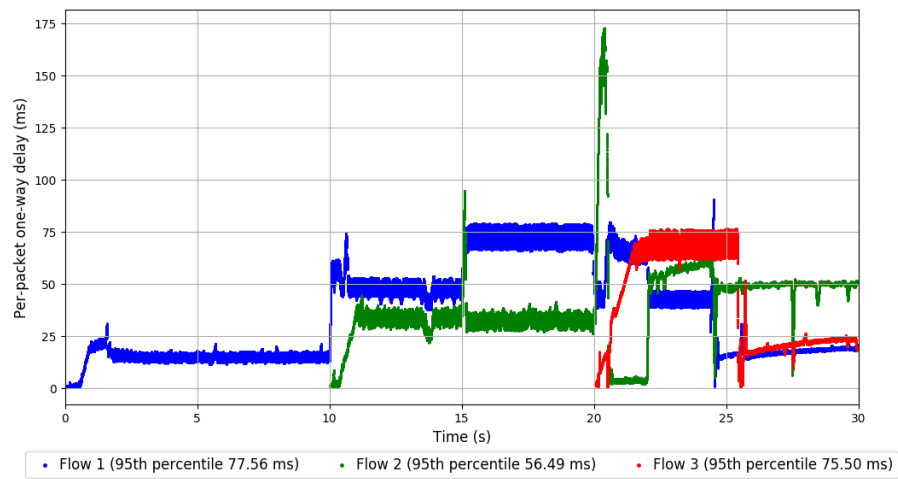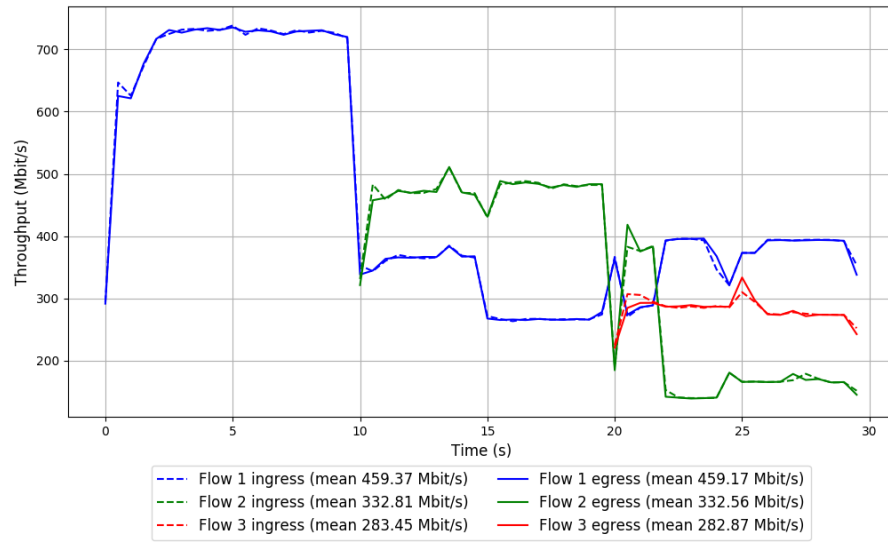
31

```
Run 5: Statistics of TCP Cubic

Start at: 2018-01-10 01:09:10
End at: 2018-01-10 01:09:40
Local clock offset: -1.668 ms
Remote clock offset: -1.421 ms


# Below is generated by plot.py at 2018-01-10 07:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.17 Mbit/s
95th percentile per-packet one-way delay: 62.194 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 364.26 Mbit/s
95th percentile per-packet one-way delay: 61.636 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 314.62 Mbit/s
95th percentile per-packet one-way delay: 110.710 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 343.19 Mbit/s
95th percentile per-packet one-way delay: 65.953 ms
Loss rate: 0.25%
```

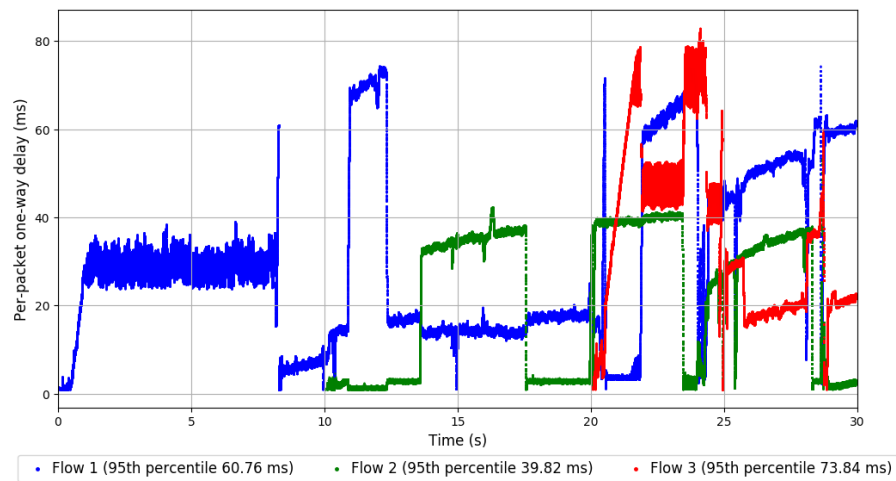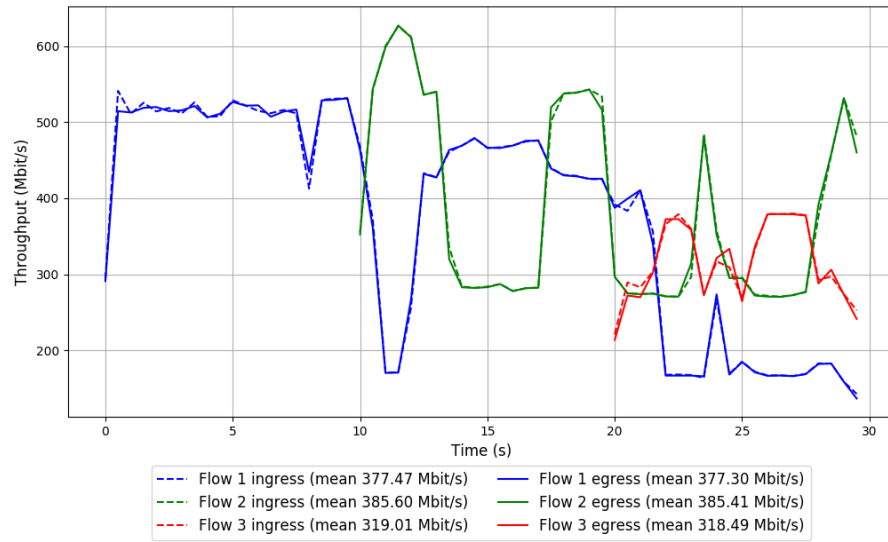Run 5: Report of TCP Cubic — Data Link

```
Run 6: Statistics of TCP Cubic

Start at: 2018-01-10 01:29:59
End at: 2018-01-10 01:30:29
Local clock offset: -1.699 ms
Remote clock offset: -1.578 ms


# Below is generated by plot.py at 2018-01-10 07:40:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 774.25 Mbit/s
95th percentile per-packet one-way delay: 75.540 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 459.17 Mbit/s
95th percentile per-packet one-way delay: 77.556 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 332.56 Mbit/s
95th percentile per-packet one-way delay: 56.490 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 282.87 Mbit/s
95th percentile per-packet one-way delay: 75.504 ms
Loss rate: 0.40%
```

Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 459.37 Mbit/s) --- Flow 1 egress (mean 459.17 Mbit/s)
Flow 2 ingress (mean 332.81 Mbit/s) --- Flow 2 egress (mean 332.56 Mbit/s)
Flow 3 ingress (mean 283.45 Mbit/s) --- Flow 3 egress (mean 282.87 Mbit/s)

Flow 1 (95th percentile 77.56 ms)   Flow 2 (95th percentile 56.49 ms)   Flow 3 (95th percentile 75.50 ms)

35

```
Run 7: Statistics of TCP Cubic

Start at: 2018-01-10 01:51:09
End at: 2018-01-10 01:51:39
Local clock offset: -1.716 ms
Remote clock offset: -2.195 ms


# Below is generated by plot.py at 2018-01-10 07:56:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 739.32 Mbit/s
95th percentile per-packet one-way delay: 59.506 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 377.30 Mbit/s
95th percentile per-packet one-way delay: 60.762 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 385.41 Mbit/s
95th percentile per-packet one-way delay: 39.819 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 318.49 Mbit/s
95th percentile per-packet one-way delay: 73.839 ms
Loss rate: 0.36%
```
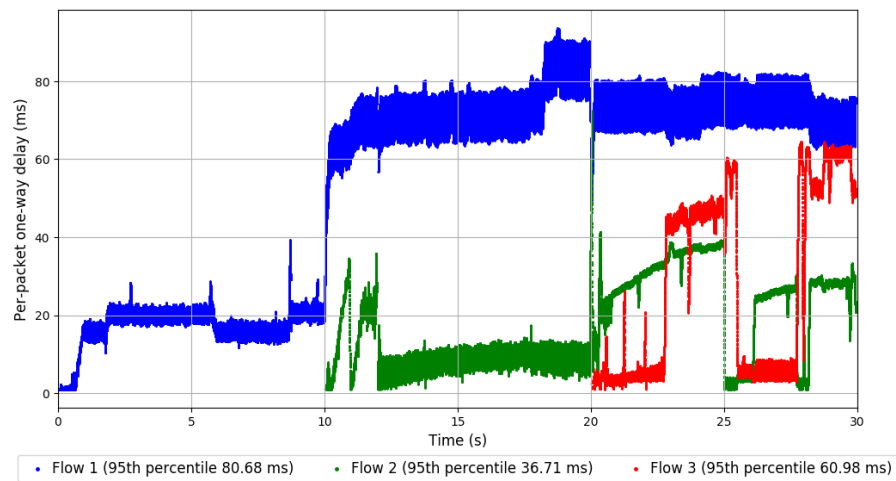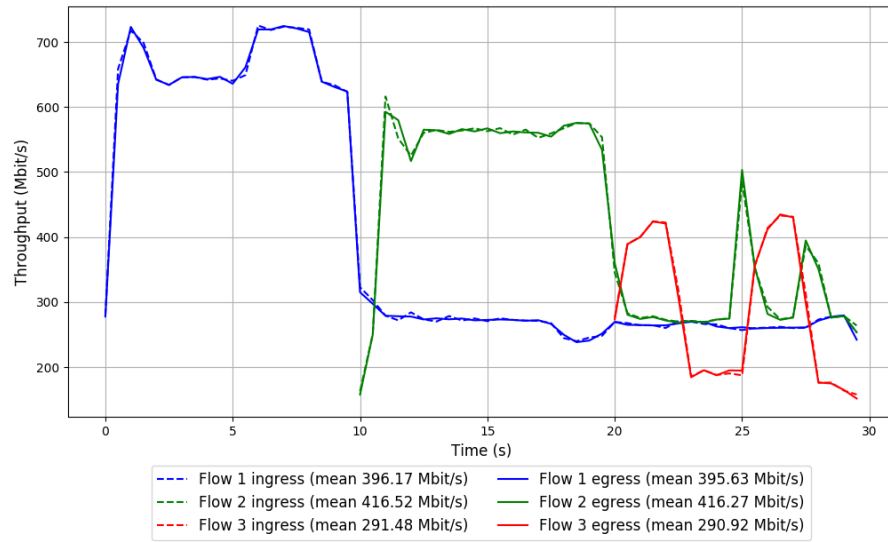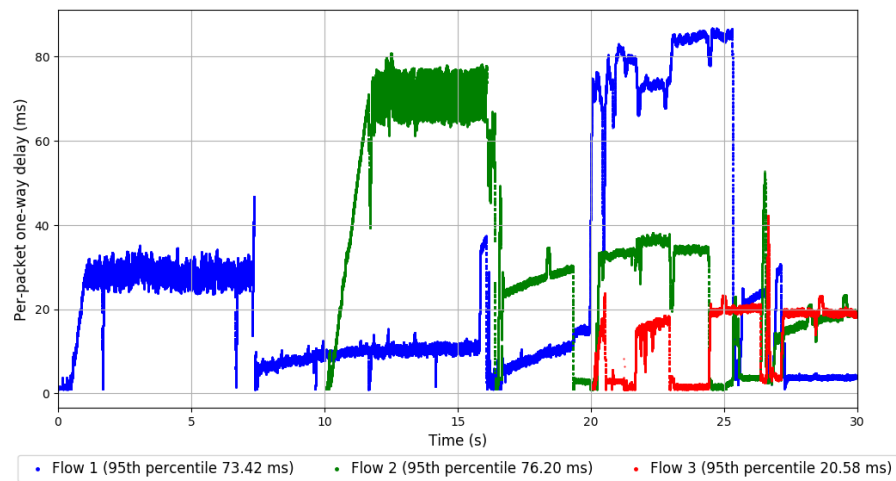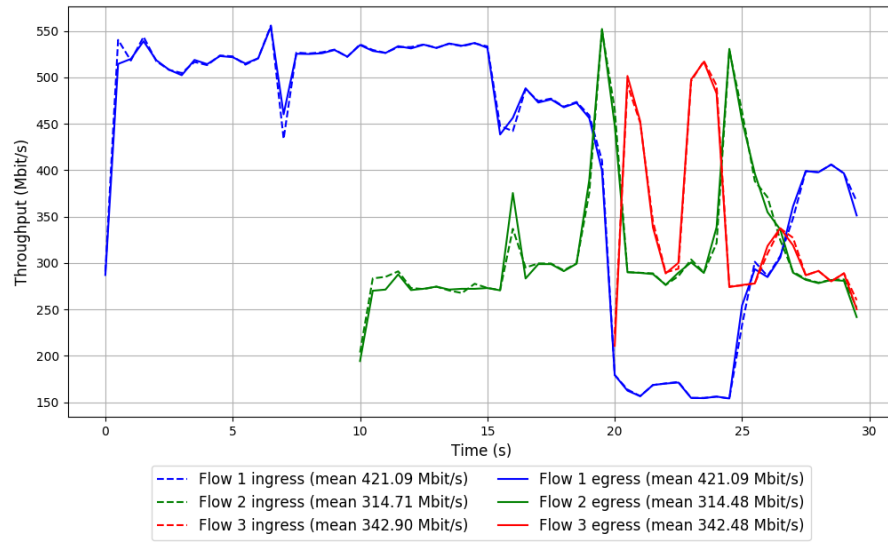
Run 7: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 377.47 Mbit/s) ——— Flow 1 egress (mean 377.30 Mbit/s)
- - - Flow 2 ingress (mean 385.60 Mbit/s) ——— Flow 2 egress (mean 385.41 Mbit/s)
- - - Flow 3 ingress (mean 319.01 Mbit/s) ——— Flow 3 egress (mean 318.49 Mbit/s)

• Flow 1 (95th percentile 60.76 ms)   • Flow 2 (95th percentile 39.82 ms)   • Flow 3 (95th percentile 73.84 ms)
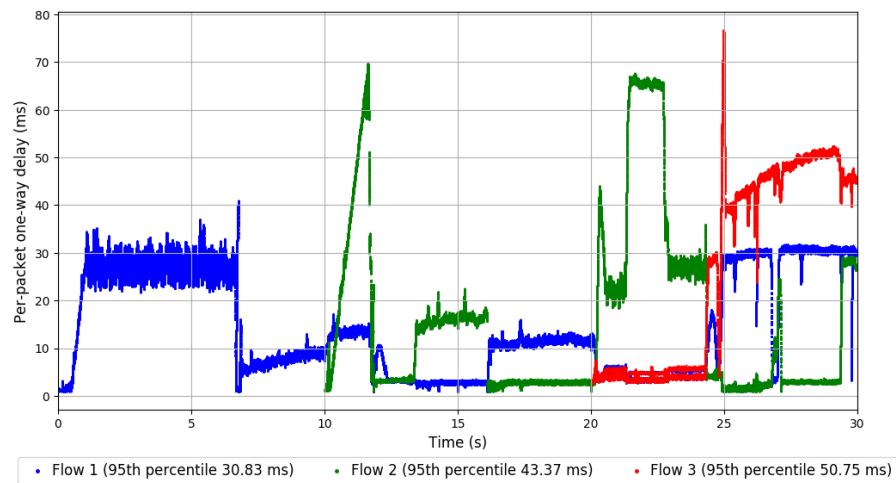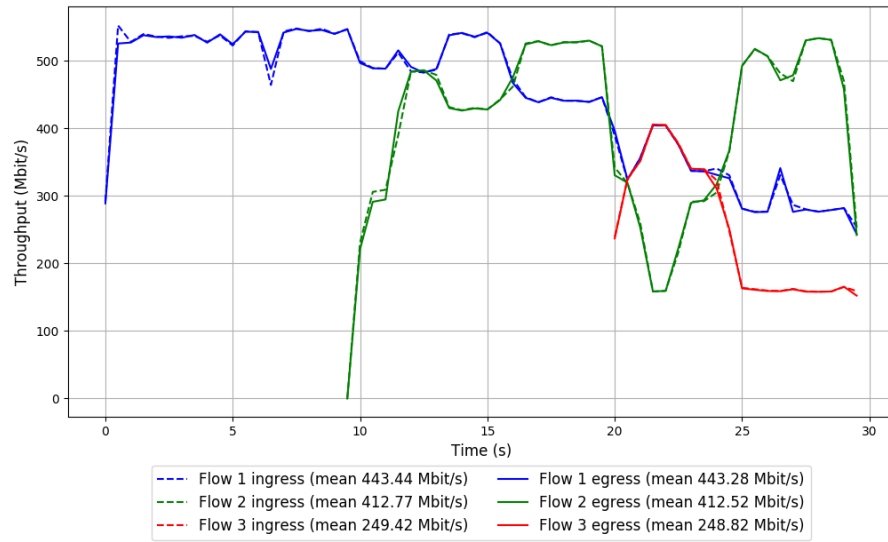
```
Run 8: Statistics of TCP Cubic

Start at: 2018-01-10 02:12:43
End at: 2018-01-10 02:13:13
Local clock offset: -1.837 ms
Remote clock offset: -2.18 ms


# Below is generated by plot.py at 2018-01-10 07:58:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 769.15 Mbit/s
95th percentile per-packet one-way delay: 78.970 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 395.63 Mbit/s
95th percentile per-packet one-way delay: 80.684 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 416.27 Mbit/s
95th percentile per-packet one-way delay: 36.706 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 290.92 Mbit/s
95th percentile per-packet one-way delay: 60.983 ms
Loss rate: 0.45%
```

Run 8: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 396.17 Mbit/s) —— Flow 1 egress (mean 395.63 Mbit/s)
- - - Flow 2 ingress (mean 416.52 Mbit/s) —— Flow 2 egress (mean 416.27 Mbit/s)
- - - Flow 3 ingress (mean 291.48 Mbit/s) —— Flow 3 egress (mean 290.92 Mbit/s)

- Flow 1 (95th percentile 80.68 ms)   - Flow 2 (95th percentile 36.71 ms)   - Flow 3 (95th percentile 60.98 ms)

39

```
Run 9: Statistics of TCP Cubic

Start at: 2018-01-10 02:34:13
End at: 2018-01-10 02:34:43
Local clock offset: -1.834 ms
Remote clock offset: -2.135 ms


# Below is generated by plot.py at 2018-01-10 07:58:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 743.65 Mbit/s
95th percentile per-packet one-way delay: 75.392 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 421.09 Mbit/s
95th percentile per-packet one-way delay: 73.424 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 314.48 Mbit/s
95th percentile per-packet one-way delay: 76.204 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 342.48 Mbit/s
95th percentile per-packet one-way delay: 20.579 ms
Loss rate: 0.31%
```
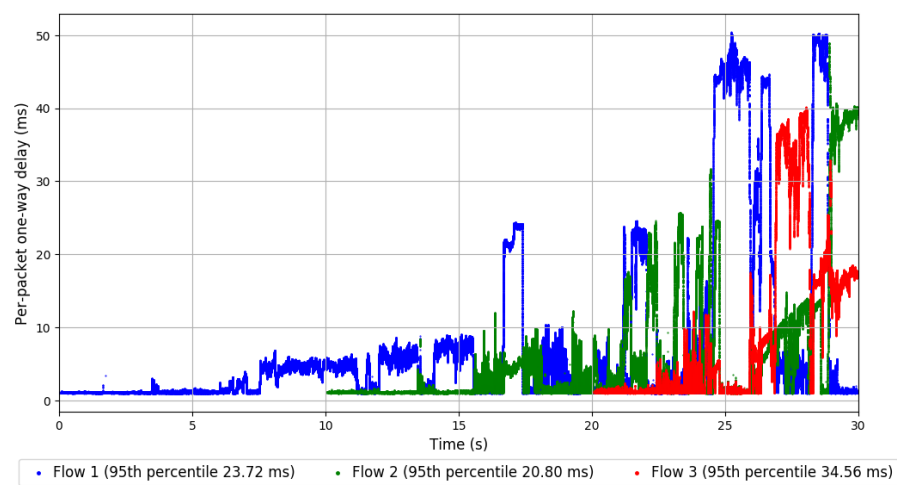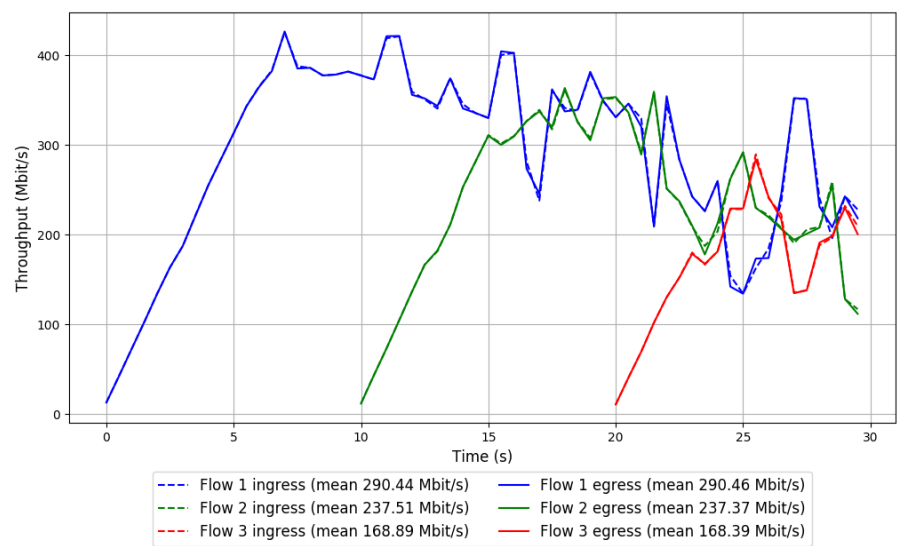
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 421.09 Mbit/s)   Flow 1 egress (mean 421.09 Mbit/s)
Flow 2 ingress (mean 314.71 Mbit/s)   Flow 2 egress (mean 314.48 Mbit/s)
Flow 3 ingress (mean 342.90 Mbit/s)   Flow 3 egress (mean 342.48 Mbit/s)

Flow 1 (95th percentile 73.42 ms)   Flow 2 (95th percentile 76.20 ms)   Flow 3 (95th percentile 20.58 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-01-10 02:55:48
End at: 2018-01-10 02:56:18
Local clock offset: -1.57 ms
Remote clock offset: -2.984 ms


# Below is generated by plot.py at 2018-01-10 07:59:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 800.50 Mbit/s
95th percentile per-packet one-way delay: 39.720 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 443.28 Mbit/s
95th percentile per-packet one-way delay: 30.826 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 412.52 Mbit/s
95th percentile per-packet one-way delay: 43.368 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 248.82 Mbit/s
95th percentile per-packet one-way delay: 50.749 ms
Loss rate: 0.45%
```
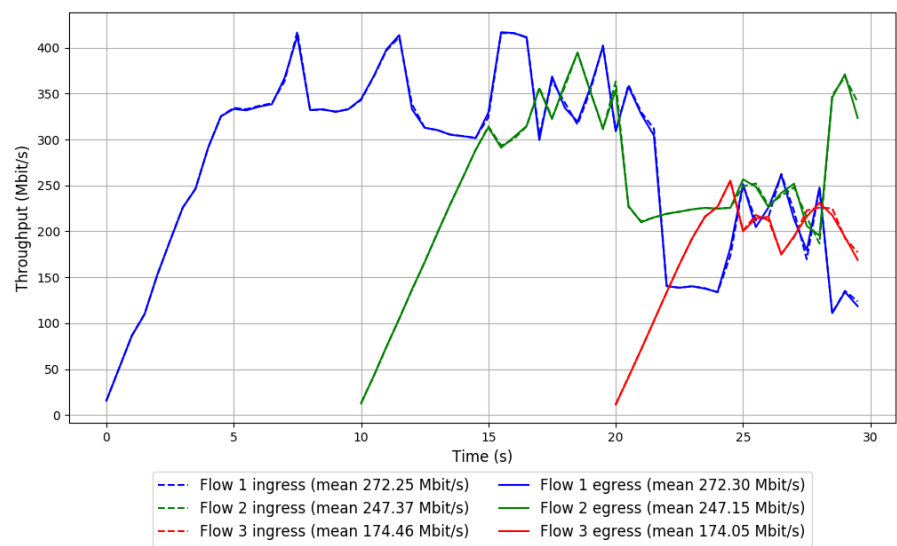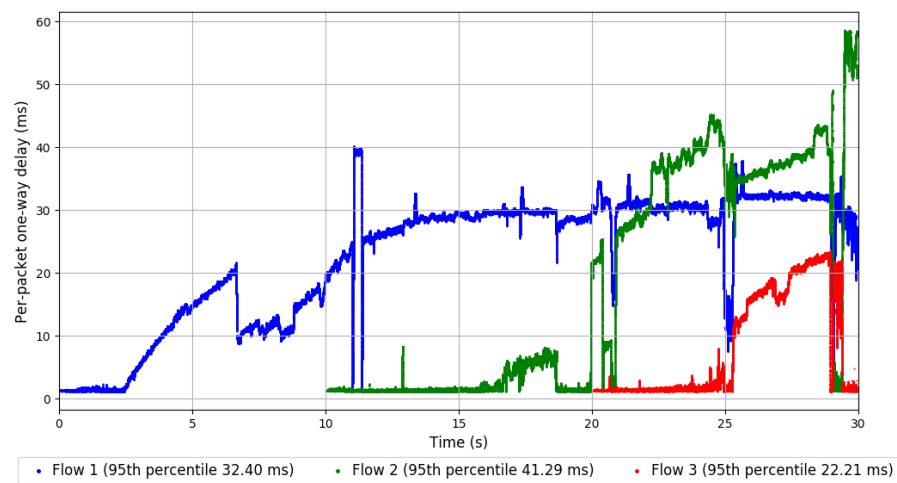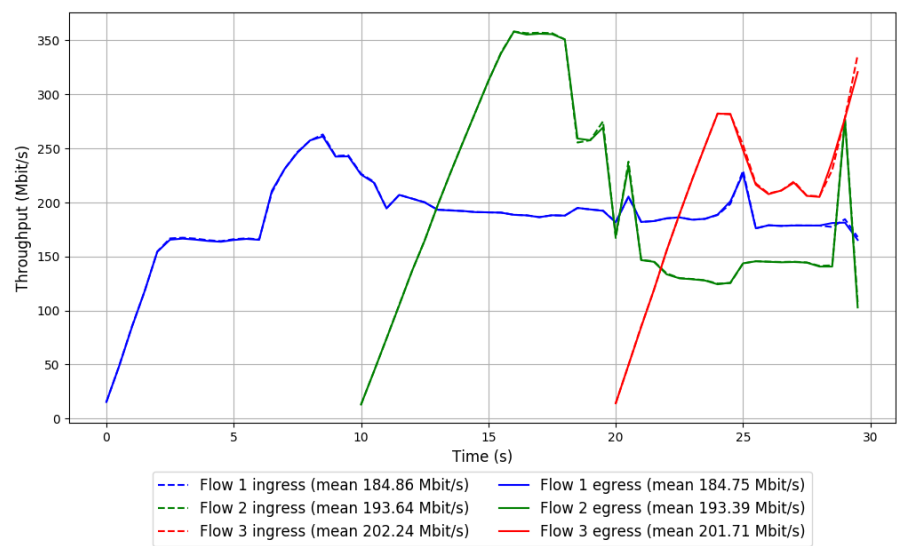
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 443.44 Mbit/s) --- Flow 1 egress (mean 443.28 Mbit/s)
Flow 2 ingress (mean 412.77 Mbit/s) --- Flow 2 egress (mean 412.52 Mbit/s)
Flow 3 ingress (mean 249.42 Mbit/s) --- Flow 3 egress (mean 248.82 Mbit/s)

Flow 1 (95th percentile 30.83 ms)   Flow 2 (95th percentile 43.37 ms)   Flow 3 (95th percentile 50.75 ms)

43

```
Run 1: Statistics of LEDBAT

Start at: 2018-01-09 23:37:20
End at: 2018-01-09 23:37:50
Local clock offset: -0.785 ms
Remote clock offset: -3.725 ms


# Below is generated by plot.py at 2018-01-10 07:59:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.00 Mbit/s
95th percentile per-packet one-way delay: 24.015 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 290.46 Mbit/s
95th percentile per-packet one-way delay: 23.722 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 237.37 Mbit/s
95th percentile per-packet one-way delay: 20.797 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 168.39 Mbit/s
95th percentile per-packet one-way delay: 34.557 ms
Loss rate: 0.50%
```
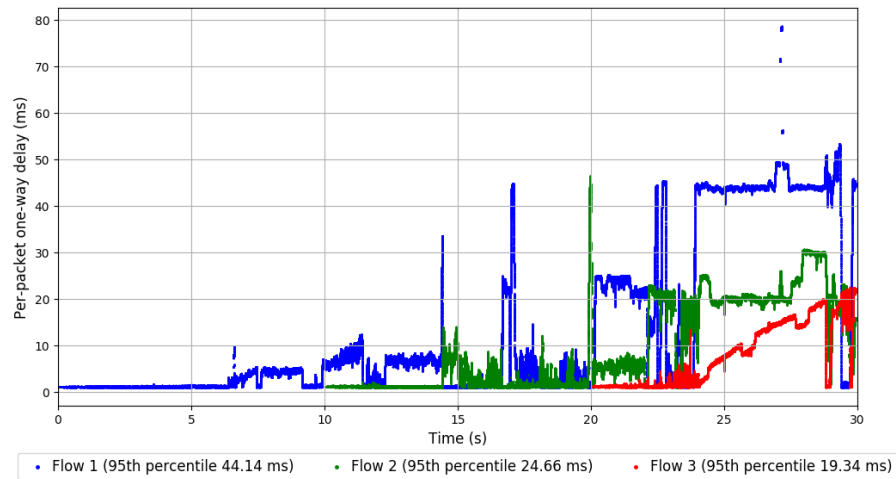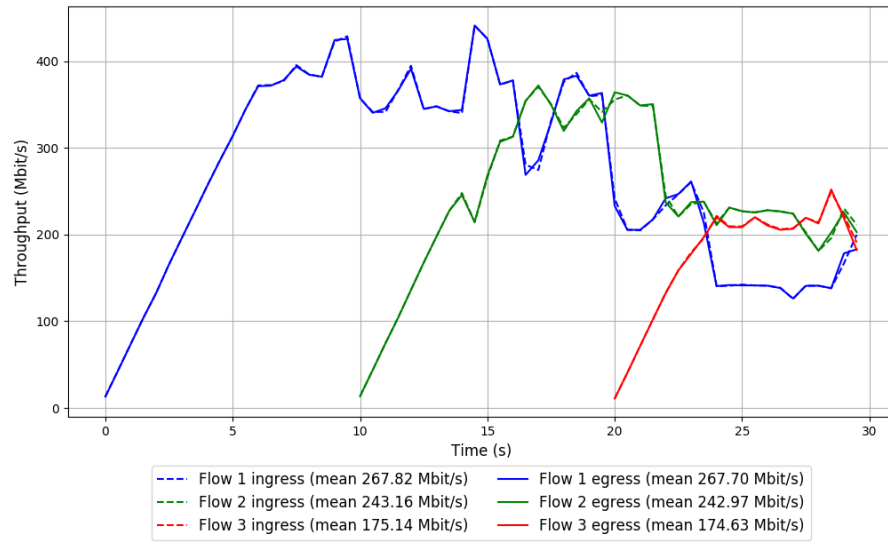
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-01-09 23:58:57
End at: 2018-01-09 23:59:27
Local clock offset: -1.183 ms
Remote clock offset: -3.117 ms


# Below is generated by plot.py at 2018-01-10 07:59:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 494.17 Mbit/s
95th percentile per-packet one-way delay: 23.306 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 272.30 Mbit/s
95th percentile per-packet one-way delay: 45.118 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 247.15 Mbit/s
95th percentile per-packet one-way delay: 21.877 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 174.05 Mbit/s
95th percentile per-packet one-way delay: 24.074 ms
Loss rate: 0.47%
```
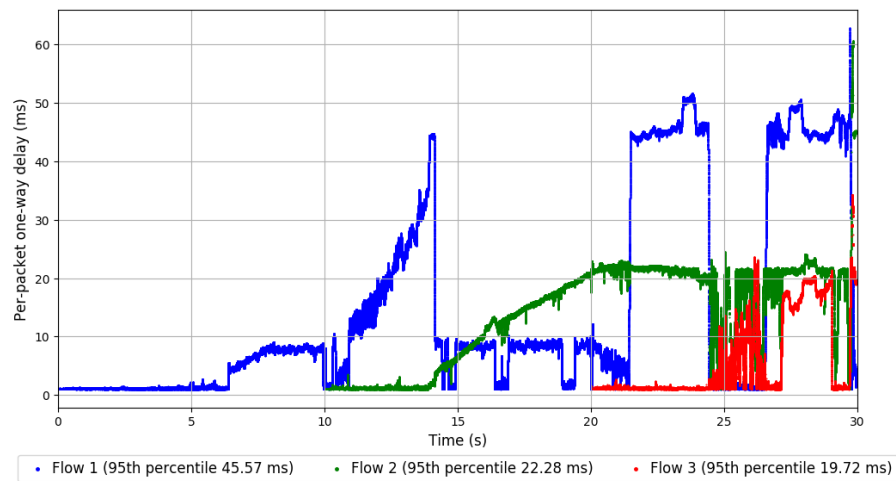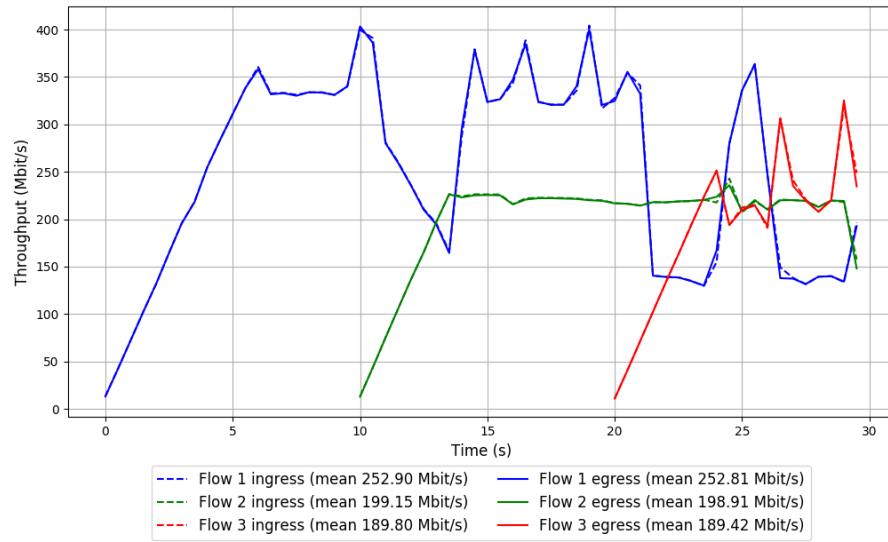
Run 2: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 272.25 Mbit/s) ——— Flow 1 egress (mean 272.30 Mbit/s)
- - - Flow 2 ingress (mean 247.37 Mbit/s) ——— Flow 2 egress (mean 247.15 Mbit/s)
- - - Flow 3 ingress (mean 174.46 Mbit/s) ——— Flow 3 egress (mean 174.05 Mbit/s)

• Flow 1 (95th percentile 45.12 ms)   • Flow 2 (95th percentile 21.88 ms)   • Flow 3 (95th percentile 24.07 ms)

47

```
Run 3: Statistics of LEDBAT

Start at: 2018-01-10 00:20:24
End at: 2018-01-10 00:20:54
Local clock offset: -1.266 ms
Remote clock offset: -2.435 ms

# Below is generated by plot.py at 2018-01-10 07:59:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 380.29 Mbit/s
95th percentile per-packet one-way delay: 37.611 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 184.75 Mbit/s
95th percentile per-packet one-way delay: 32.399 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 193.39 Mbit/s
95th percentile per-packet one-way delay: 41.290 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 201.71 Mbit/s
95th percentile per-packet one-way delay: 22.210 ms
Loss rate: 0.44%
```

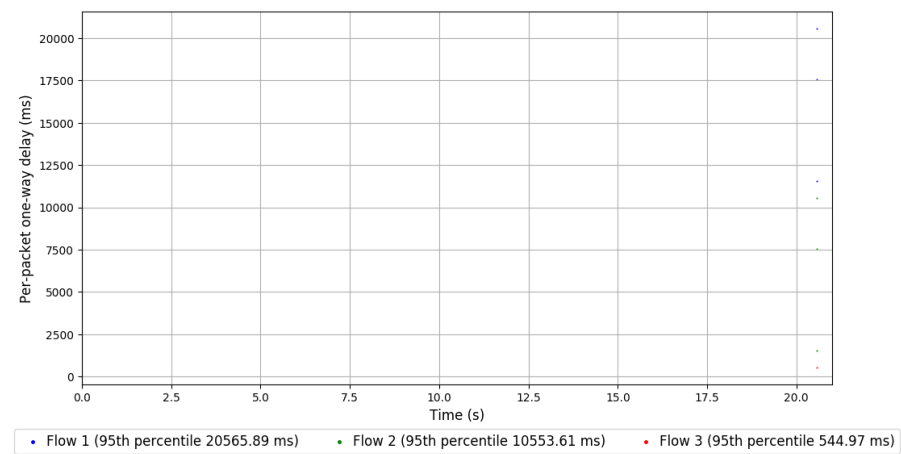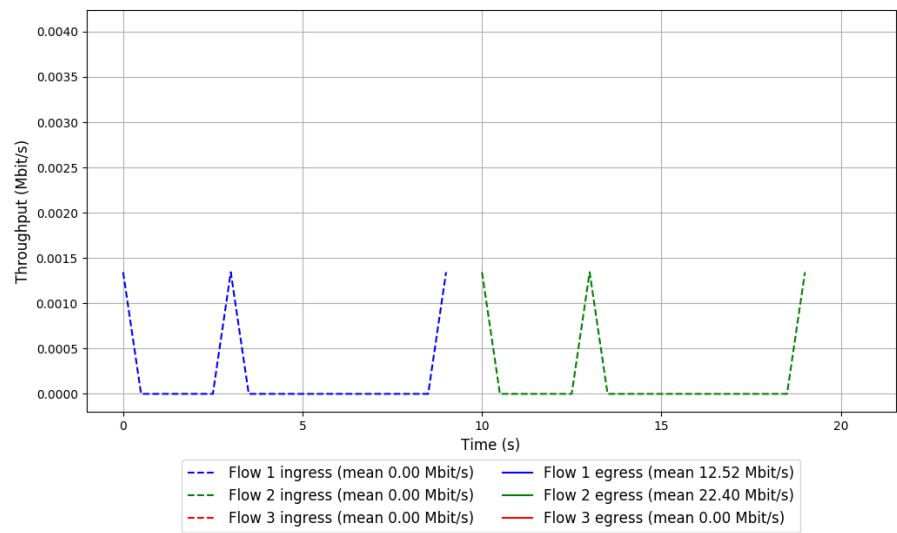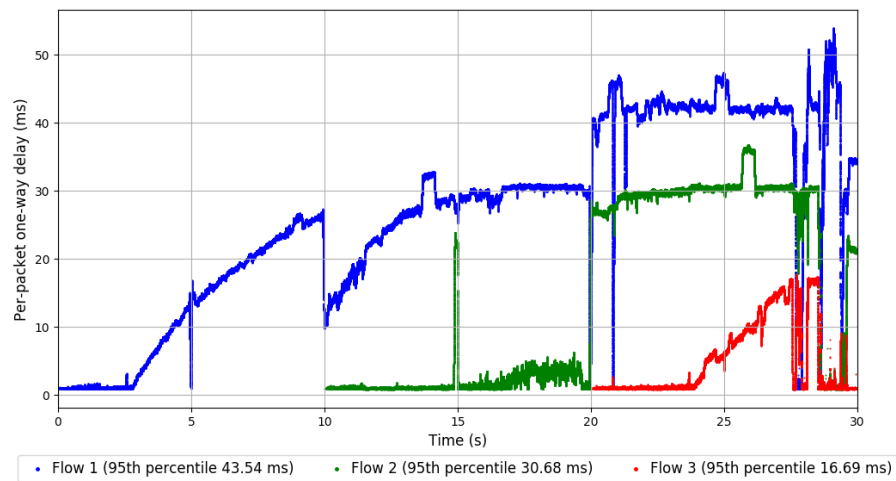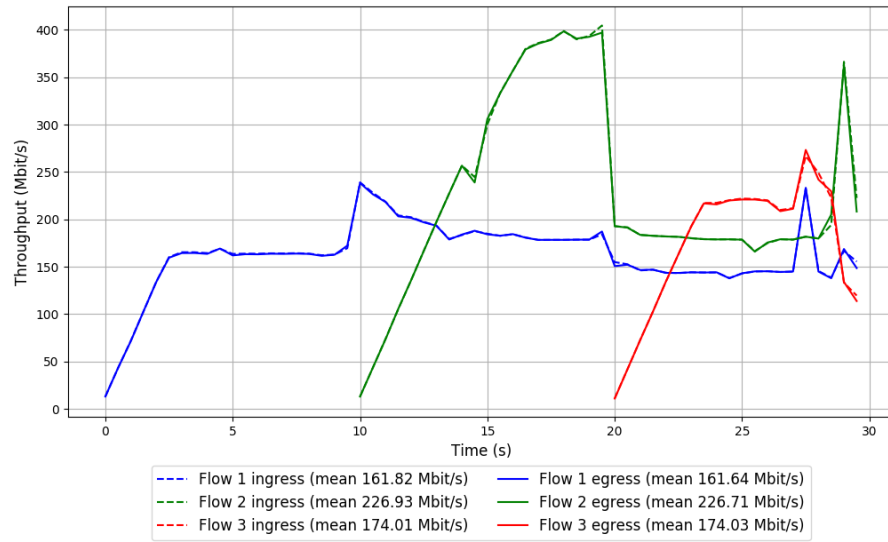Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-01-10 00:41:50
End at: 2018-01-10 00:42:20
Local clock offset: -1.335 ms
Remote clock offset: -2.165 ms


# Below is generated by plot.py at 2018-01-10 07:59:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.10 Mbit/s
95th percentile per-packet one-way delay: 43.696 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 267.70 Mbit/s
95th percentile per-packet one-way delay: 44.141 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 242.97 Mbit/s
95th percentile per-packet one-way delay: 24.664 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 174.63 Mbit/s
95th percentile per-packet one-way delay: 19.336 ms
Loss rate: 0.49%
```
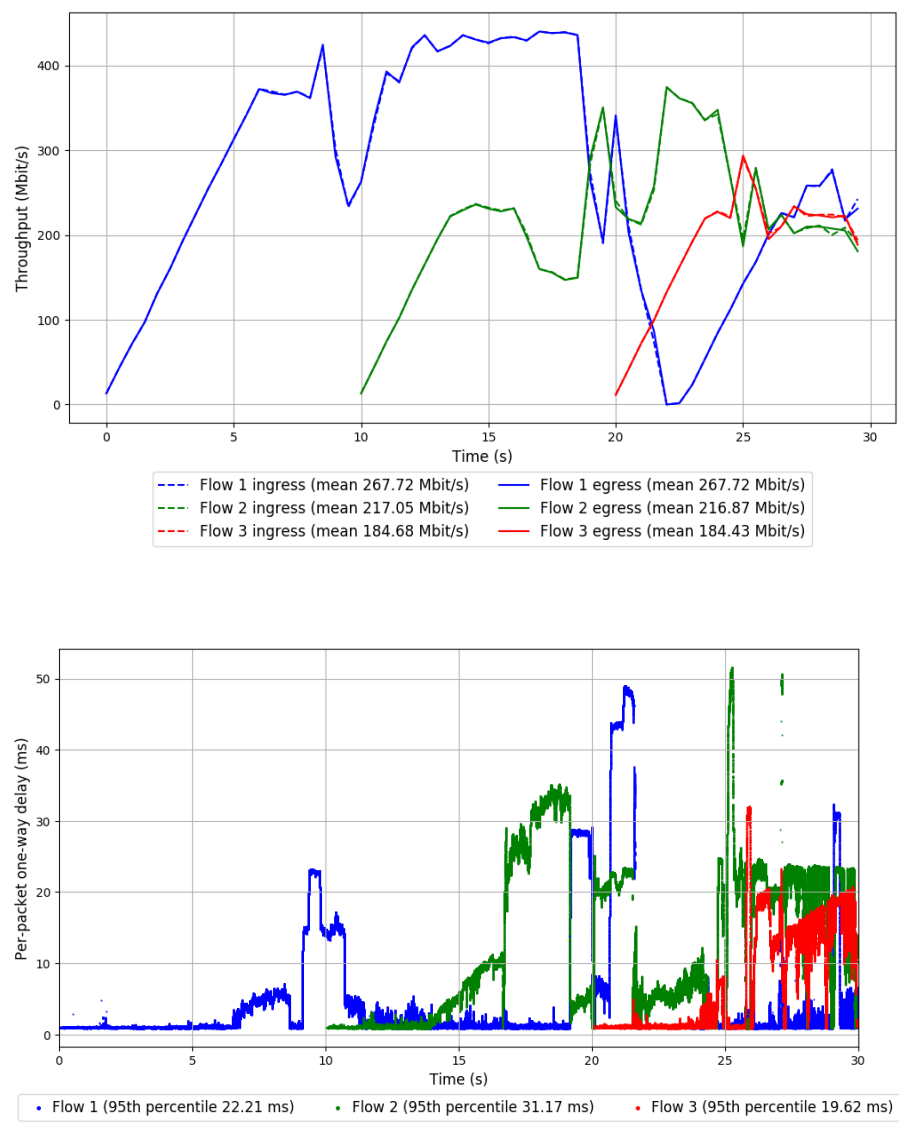
Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 267.82 Mbit/s) --- Flow 1 egress (mean 267.70 Mbit/s)
Flow 2 ingress (mean 243.16 Mbit/s) --- Flow 2 egress (mean 242.97 Mbit/s)
Flow 3 ingress (mean 175.14 Mbit/s) --- Flow 3 egress (mean 174.63 Mbit/s)

Flow 1 (95th percentile 44.14 ms)   Flow 2 (95th percentile 24.66 ms)   Flow 3 (95th percentile 19.34 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-01-10 01:03:33
End at: 2018-01-10 01:04:03
Local clock offset: -1.734 ms
Remote clock offset: -1.687 ms

# Below is generated by plot.py at 2018-01-10 08:02:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.76 Mbit/s
95th percentile per-packet one-way delay: 44.522 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 252.81 Mbit/s
95th percentile per-packet one-way delay: 45.574 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 198.91 Mbit/s
95th percentile per-packet one-way delay: 22.277 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 189.42 Mbit/s
95th percentile per-packet one-way delay: 19.721 ms
Loss rate: 0.43%
```
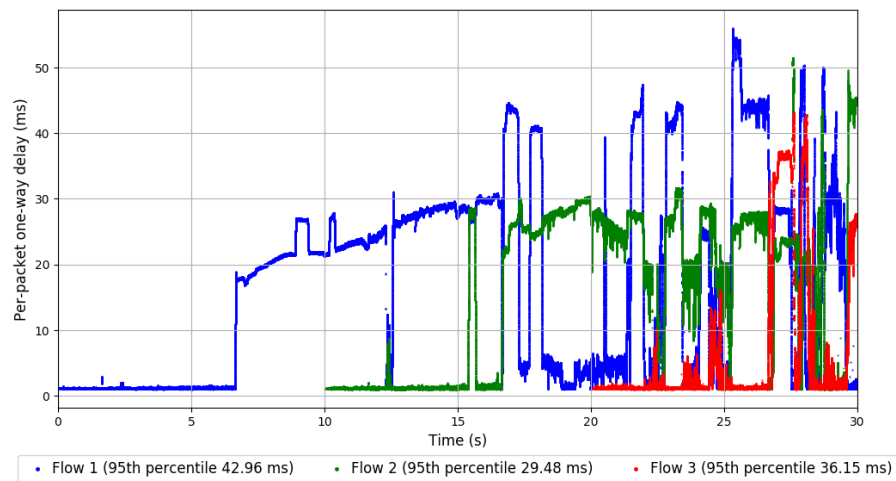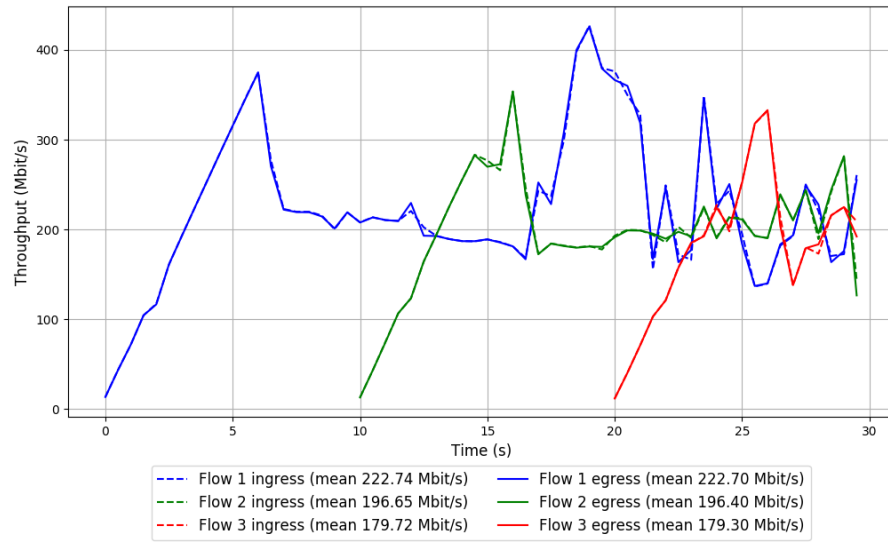
Run 5: Report of LEDBAT — Data Link

- - - Flow 1 ingress (mean 252.90 Mbit/s) —— Flow 1 egress (mean 252.81 Mbit/s)
- - - Flow 2 ingress (mean 199.15 Mbit/s) —— Flow 2 egress (mean 198.91 Mbit/s)
- - - Flow 3 ingress (mean 189.80 Mbit/s) —— Flow 3 egress (mean 189.42 Mbit/s)

• Flow 1 (95th percentile 45.57 ms)   • Flow 2 (95th percentile 22.28 ms)   • Flow 3 (95th percentile 19.72 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-01-10 01:24:49
End at: 2018-01-10 01:25:19
Local clock offset: -1.707 ms
Remote clock offset: -1.331 ms
```

Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 0.00 Mbit/s) — Flow 1 egress (mean 12.52 Mbit/s)
Flow 2 ingress (mean 0.00 Mbit/s) — Flow 2 egress (mean 22.40 Mbit/s)
Flow 3 ingress (mean 0.00 Mbit/s) — Flow 3 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 20565.89 ms) · Flow 2 (95th percentile 10553.61 ms) · Flow 3 (95th percentile 544.97 ms)
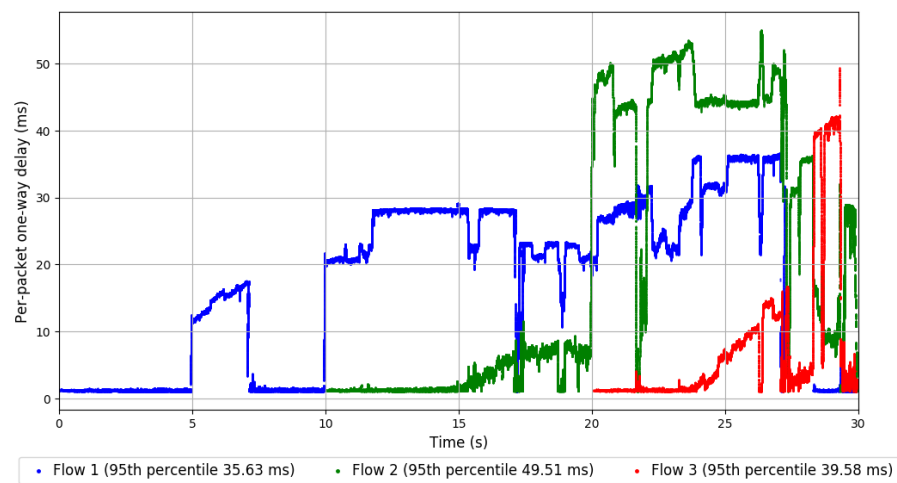
55

```
Run 7: Statistics of LEDBAT

Start at: 2018-01-10 01:45:36
End at: 2018-01-10 01:46:06
Local clock offset: -1.814 ms
Remote clock offset: -2.235 ms

# Below is generated by plot.py at 2018-01-10 08:02:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.03 Mbit/s
95th percentile per-packet one-way delay: 42.388 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 161.64 Mbit/s
95th percentile per-packet one-way delay: 43.538 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 226.71 Mbit/s
95th percentile per-packet one-way delay: 30.678 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 174.03 Mbit/s
95th percentile per-packet one-way delay: 16.693 ms
Loss rate: 0.17%
```
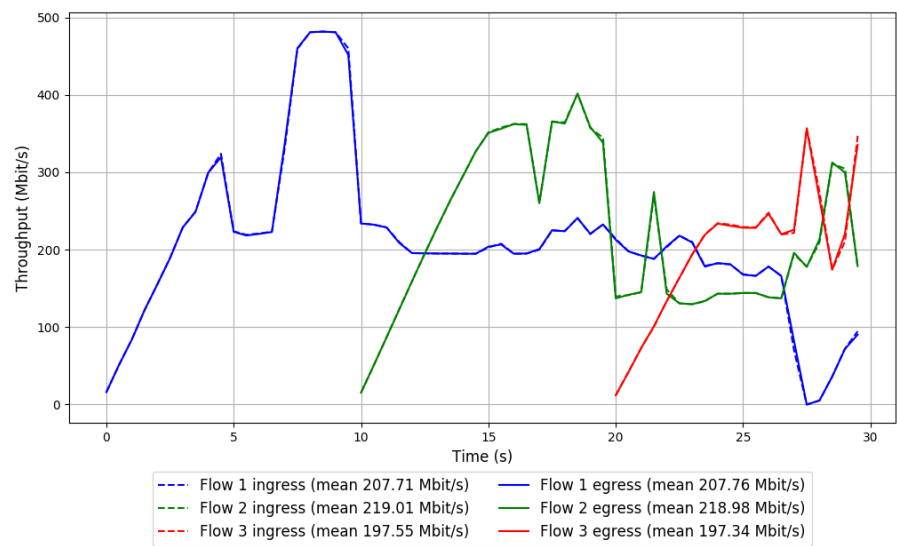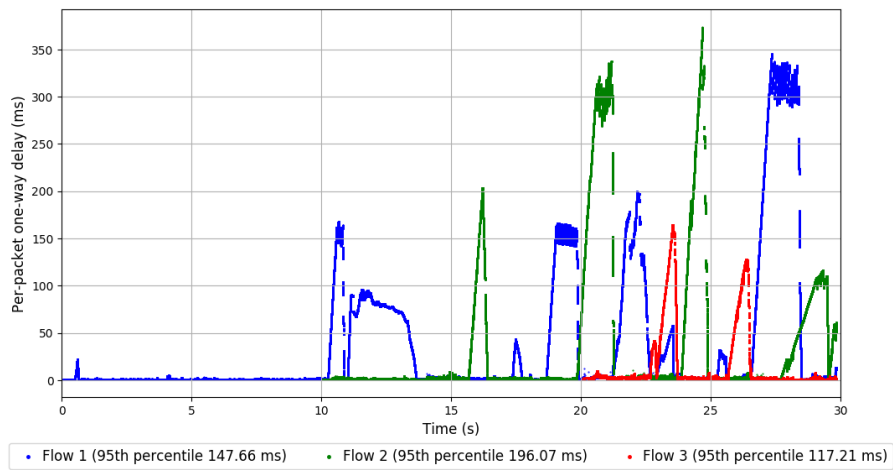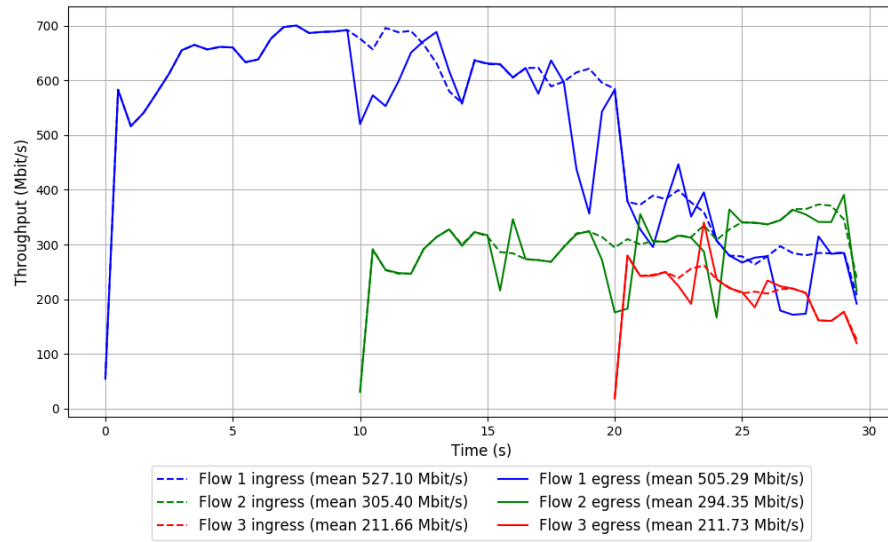
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 161.82 Mbit/s)   Flow 1 egress (mean 161.64 Mbit/s)
Flow 2 ingress (mean 226.93 Mbit/s)   Flow 2 egress (mean 226.71 Mbit/s)
Flow 3 ingress (mean 174.01 Mbit/s)   Flow 3 egress (mean 174.03 Mbit/s)

Flow 1 (95th percentile 43.54 ms)   Flow 2 (95th percentile 30.68 ms)   Flow 3 (95th percentile 16.69 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-01-10 02:07:07
End at: 2018-01-10 02:07:37
Local clock offset: -1.886 ms
Remote clock offset: -2.169 ms

# Below is generated by plot.py at 2018-01-10 08:05:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.92 Mbit/s
95th percentile per-packet one-way delay: 24.624 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 267.72 Mbit/s
95th percentile per-packet one-way delay: 22.215 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 216.87 Mbit/s
95th percentile per-packet one-way delay: 31.172 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 184.43 Mbit/s
95th percentile per-packet one-way delay: 19.618 ms
Loss rate: 0.34%
```
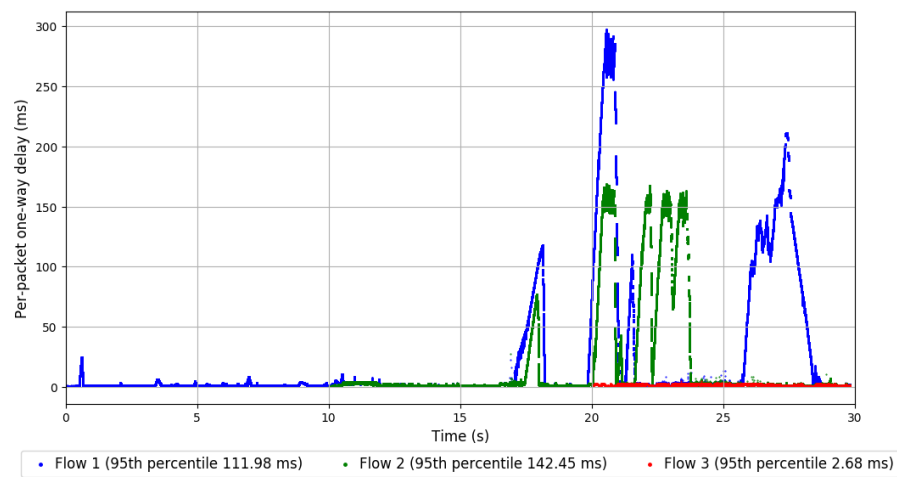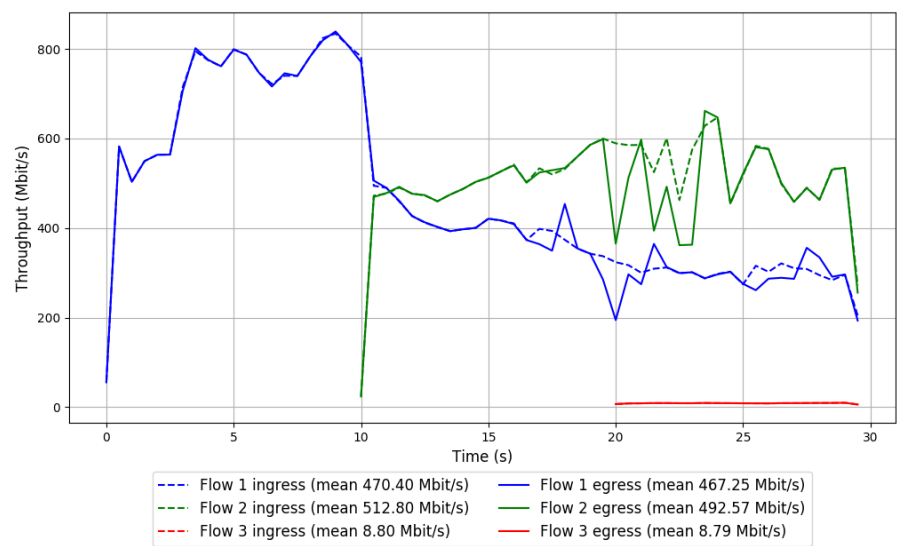
Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 267.72 Mbit/s)   Flow 1 egress (mean 267.72 Mbit/s)
Flow 2 ingress (mean 217.05 Mbit/s)   Flow 2 egress (mean 216.87 Mbit/s)
Flow 3 ingress (mean 184.68 Mbit/s)   Flow 3 egress (mean 184.43 Mbit/s)

Flow 1 (95th percentile 22.21 ms)   Flow 2 (95th percentile 31.17 ms)   Flow 3 (95th percentile 19.62 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-01-10 02:28:37
End at: 2018-01-10 02:29:07
Local clock offset: -1.821 ms
Remote clock offset: -2.287 ms


# Below is generated by plot.py at 2018-01-10 08:05:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 412.72 Mbit/s
95th percentile per-packet one-way delay: 36.958 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 222.70 Mbit/s
95th percentile per-packet one-way delay: 42.957 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 196.40 Mbit/s
95th percentile per-packet one-way delay: 29.485 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 179.30 Mbit/s
95th percentile per-packet one-way delay: 36.153 ms
Loss rate: 0.48%
```

Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2018-01-10 02:50:22
End at: 2018-01-10 02:50:52
Local clock offset: -1.646 ms
Remote clock offset: -2.871 ms


# Below is generated by plot.py at 2018-01-10 08:07:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.71 Mbit/s
95th percentile per-packet one-way delay: 44.242 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 207.76 Mbit/s
95th percentile per-packet one-way delay: 35.627 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 218.98 Mbit/s
95th percentile per-packet one-way delay: 49.506 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 197.34 Mbit/s
95th percentile per-packet one-way delay: 39.579 ms
Loss rate: 0.34%
```
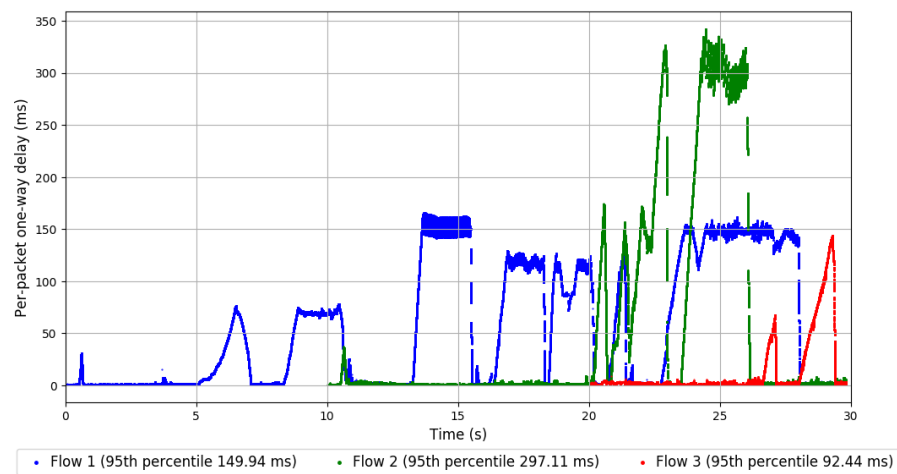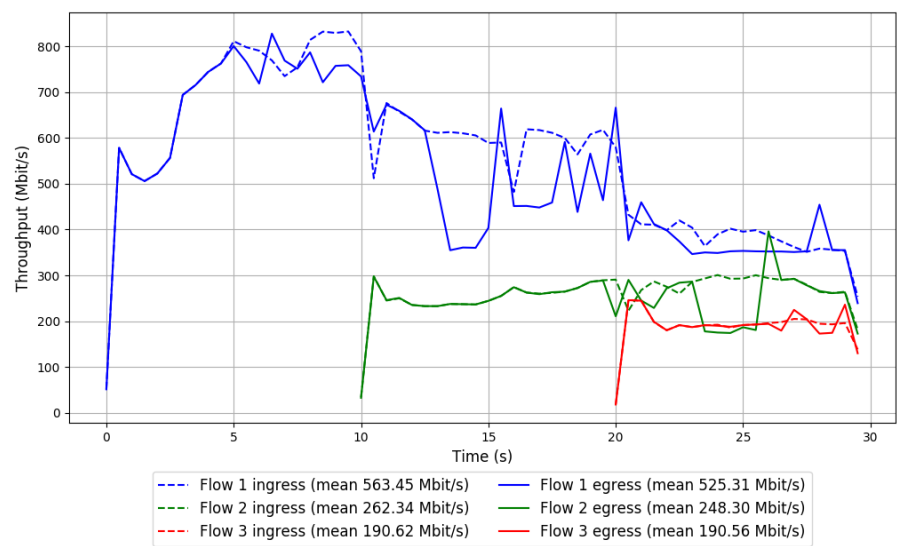
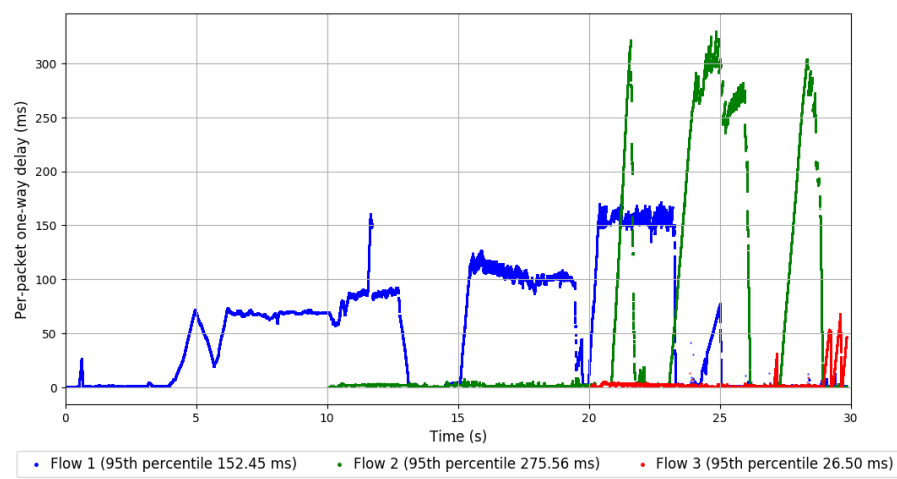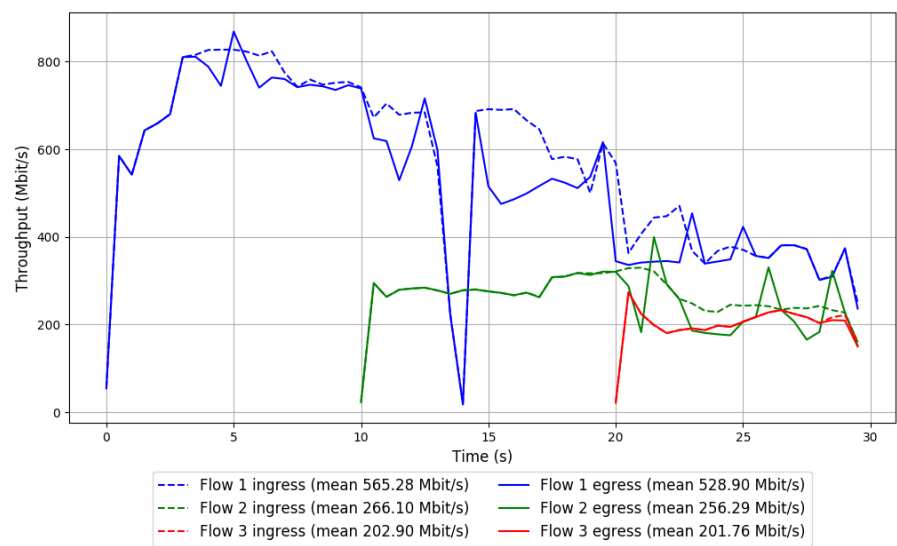## Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2018-01-09 23:56:00
End at: 2018-01-09 23:56:30
Local clock offset: -1.15 ms
Remote clock offset: -3.158 ms


# Below is generated by plot.py at 2018-01-10 08:19:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 770.31 Mbit/s
95th percentile per-packet one-way delay: 149.550 ms
Loss rate: 3.73%
-- Flow 1:
Average throughput: 505.29 Mbit/s
95th percentile per-packet one-way delay: 147.663 ms
Loss rate: 4.20%
-- Flow 2:
Average throughput: 294.35 Mbit/s
95th percentile per-packet one-way delay: 196.067 ms
Loss rate: 3.71%
-- Flow 3:
Average throughput: 211.73 Mbit/s
95th percentile per-packet one-way delay: 117.208 ms
Loss rate: 0.17%
```
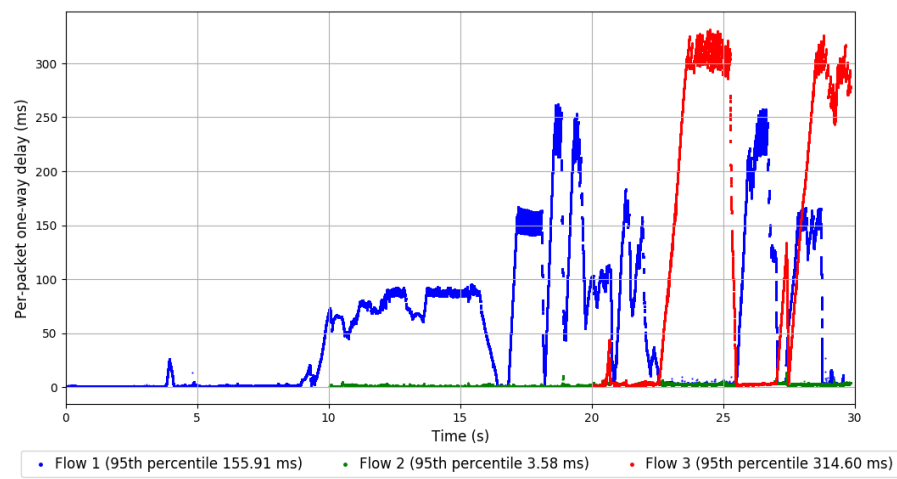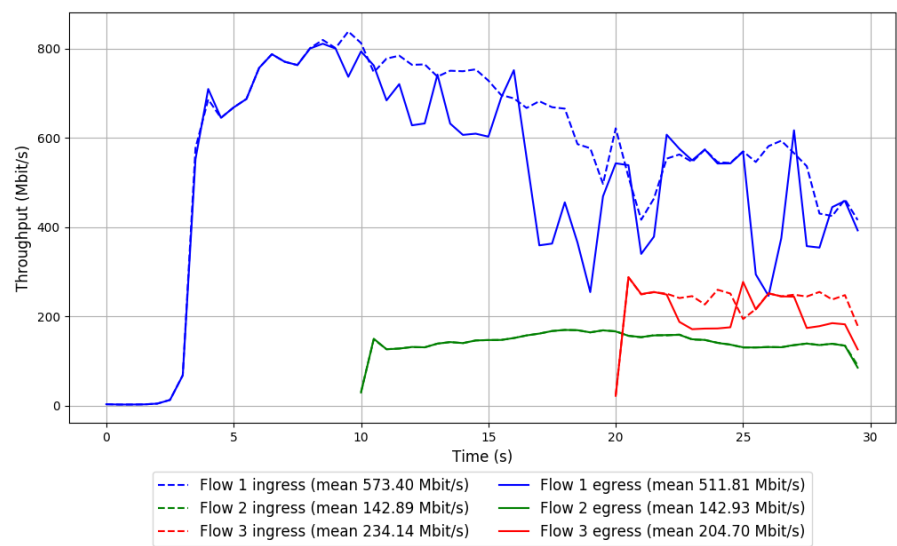
Run 1: Report of PCC — Data Link

- - - Flow 1 ingress (mean 527.10 Mbit/s) ——— Flow 1 egress (mean 505.29 Mbit/s)
- - - Flow 2 ingress (mean 305.40 Mbit/s) ——— Flow 2 egress (mean 294.35 Mbit/s)
- - - Flow 3 ingress (mean 211.66 Mbit/s) ——— Flow 3 egress (mean 211.73 Mbit/s)

• Flow 1 (95th percentile 147.66 ms)   • Flow 2 (95th percentile 196.07 ms)   • Flow 3 (95th percentile 117.21 ms)

```
Run 2: Statistics of PCC

Start at: 2018-01-10 00:17:27
End at: 2018-01-10 00:17:57
Local clock offset: -1.359 ms
Remote clock offset: -2.442 ms


# Below is generated by plot.py at 2018-01-10 08:20:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 797.17 Mbit/s
95th percentile per-packet one-way delay: 122.010 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 467.25 Mbit/s
95th percentile per-packet one-way delay: 111.978 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 492.57 Mbit/s
95th percentile per-packet one-way delay: 142.446 ms
Loss rate: 4.03%
-- Flow 3:
Average throughput: 8.79 Mbit/s
95th percentile per-packet one-way delay: 2.684 ms
Loss rate: 0.20%
```
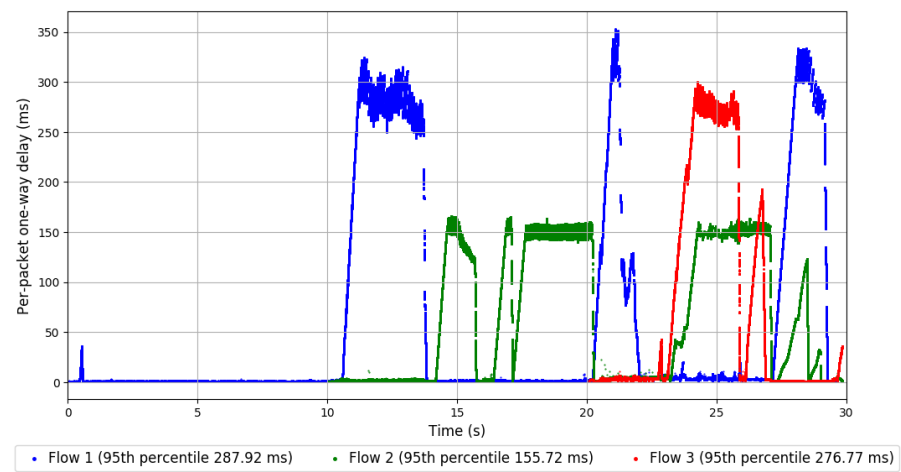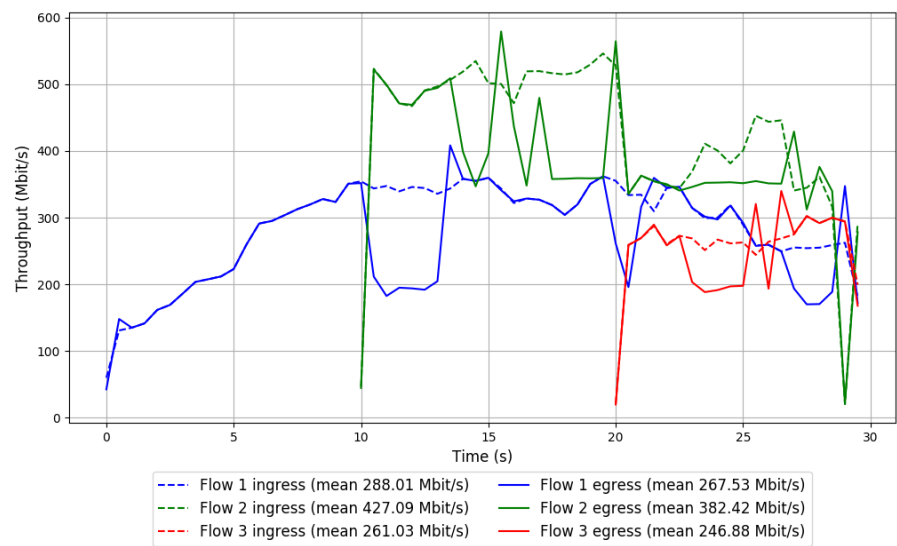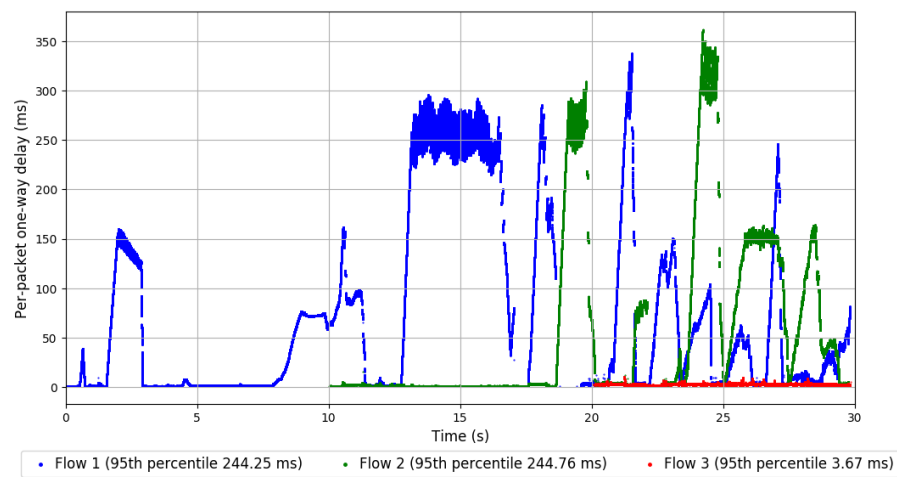
Run 2: Report of PCC — Data Link

```
Run 3: Statistics of PCC

Start at: 2018-01-10 00:38:53
End at: 2018-01-10 00:39:23
Local clock offset: -1.277 ms
Remote clock offset: -2.18 ms


# Below is generated by plot.py at 2018-01-10 08:21:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 752.82 Mbit/s
95th percentile per-packet one-way delay: 151.968 ms
Loss rate: 6.02%
-- Flow 1:
Average throughput: 525.31 Mbit/s
95th percentile per-packet one-way delay: 149.941 ms
Loss rate: 6.83%
-- Flow 2:
Average throughput: 248.30 Mbit/s
95th percentile per-packet one-way delay: 297.105 ms
Loss rate: 5.45%
-- Flow 3:
Average throughput: 190.56 Mbit/s
95th percentile per-packet one-way delay: 92.442 ms
Loss rate: 0.24%
```

Run 3: Report of PCC — Data Link

- - - - Flow 1 ingress (mean 563.45 Mbit/s)   —— Flow 1 egress (mean 525.31 Mbit/s)
- - - - Flow 2 ingress (mean 262.34 Mbit/s)   —— Flow 2 egress (mean 248.30 Mbit/s)
- - - - Flow 3 ingress (mean 190.62 Mbit/s)   —— Flow 3 egress (mean 190.56 Mbit/s)

• Flow 1 (95th percentile 149.94 ms)   • Flow 2 (95th percentile 297.11 ms)   • Flow 3 (95th percentile 92.44 ms)
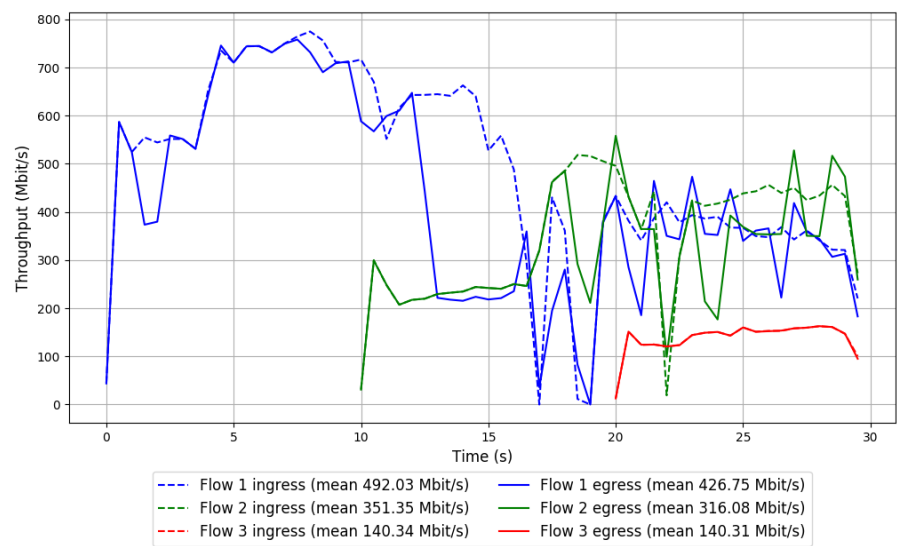
69

```
Run 4: Statistics of PCC

Start at: 2018-01-10 01:00:36
End at: 2018-01-10 01:01:06
Local clock offset: -1.632 ms
Remote clock offset: -1.673 ms


# Below is generated by plot.py at 2018-01-10 08:23:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 765.41 Mbit/s
95th percentile per-packet one-way delay: 158.791 ms
Loss rate: 5.43%
-- Flow 1:
Average throughput: 528.90 Mbit/s
95th percentile per-packet one-way delay: 152.454 ms
Loss rate: 6.50%
-- Flow 2:
Average throughput: 256.29 Mbit/s
95th percentile per-packet one-way delay: 275.564 ms
Loss rate: 3.78%
-- Flow 3:
Average throughput: 201.76 Mbit/s
95th percentile per-packet one-way delay: 26.500 ms
Loss rate: 0.77%
```
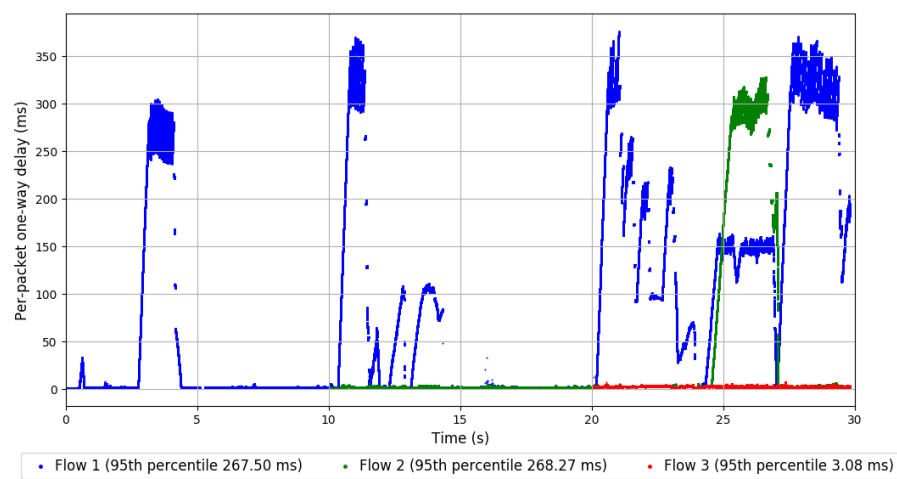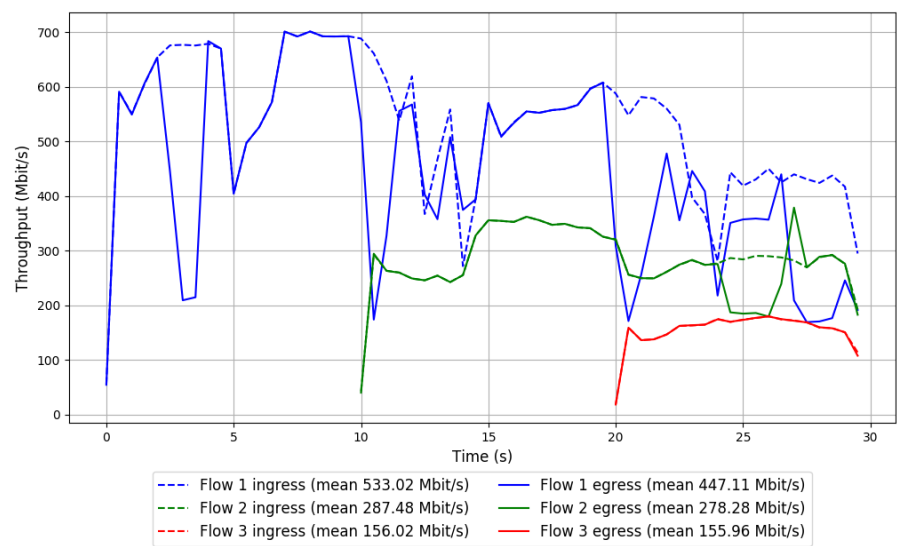
Run 4: Report of PCC — Data Link

Flow 1 ingress (mean 565.28 Mbit/s) --- Flow 1 egress (mean 528.90 Mbit/s)
Flow 2 ingress (mean 266.10 Mbit/s) --- Flow 2 egress (mean 256.29 Mbit/s)
Flow 3 ingress (mean 202.90 Mbit/s) --- Flow 3 egress (mean 201.76 Mbit/s)

Flow 1 (95th percentile 152.45 ms)   Flow 2 (95th percentile 275.56 ms)   Flow 3 (95th percentile 26.50 ms)
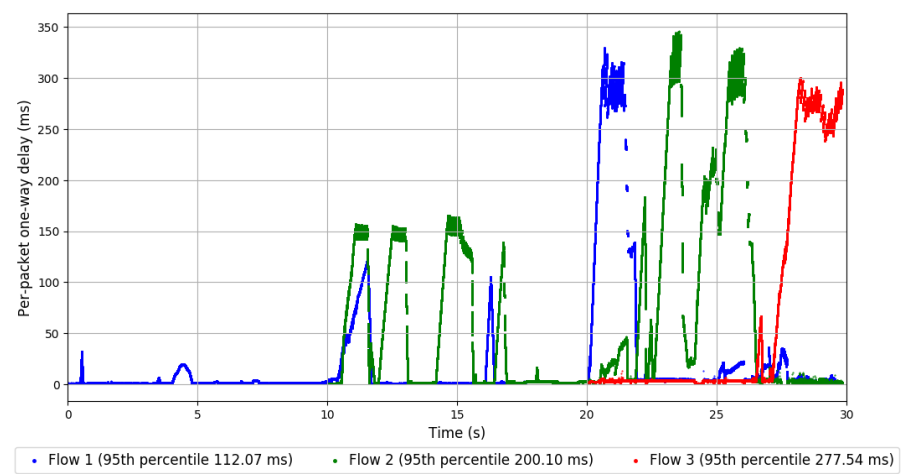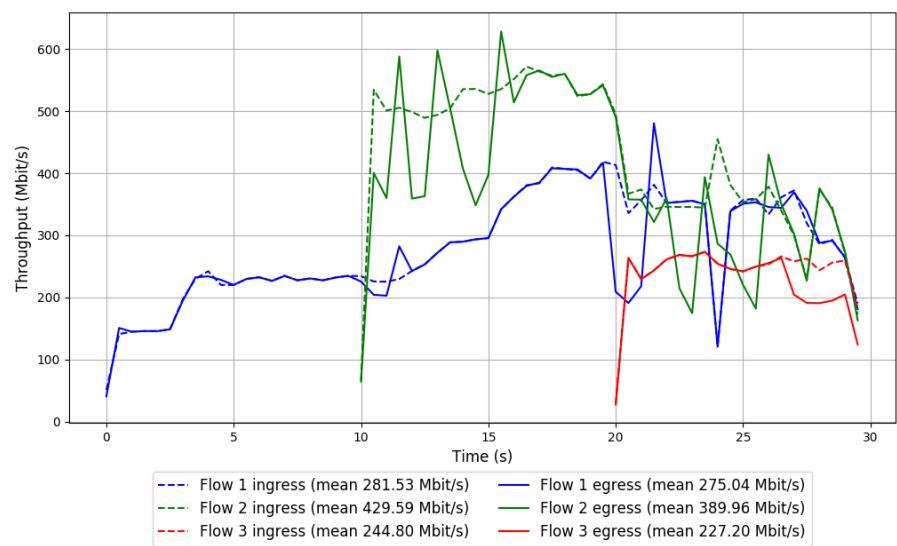
71

```
Run 5: Statistics of PCC

Start at: 2018-01-10 01:21:55
End at: 2018-01-10 01:22:25
Local clock offset: -1.719 ms
Remote clock offset: -1.282 ms


# Below is generated by plot.py at 2018-01-10 08:23:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 674.03 Mbit/s
95th percentile per-packet one-way delay: 202.497 ms
Loss rate: 9.64%
-- Flow 1:
Average throughput: 511.81 Mbit/s
95th percentile per-packet one-way delay: 155.910 ms
Loss rate: 10.80%
-- Flow 2:
Average throughput: 142.93 Mbit/s
95th percentile per-packet one-way delay: 3.583 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 204.70 Mbit/s
95th percentile per-packet one-way delay: 314.598 ms
Loss rate: 12.76%
```

Run 5: Report of PCC — Data Link

Flow 1 ingress (mean 573.40 Mbit/s) — — — Flow 1 egress (mean 511.81 Mbit/s)
Flow 2 ingress (mean 142.89 Mbit/s) — — — Flow 2 egress (mean 142.93 Mbit/s)
Flow 3 ingress (mean 234.14 Mbit/s) — — — Flow 3 egress (mean 204.70 Mbit/s)

Flow 1 (95th percentile 155.91 ms)   Flow 2 (95th percentile 3.58 ms)   Flow 3 (95th percentile 314.60 ms)
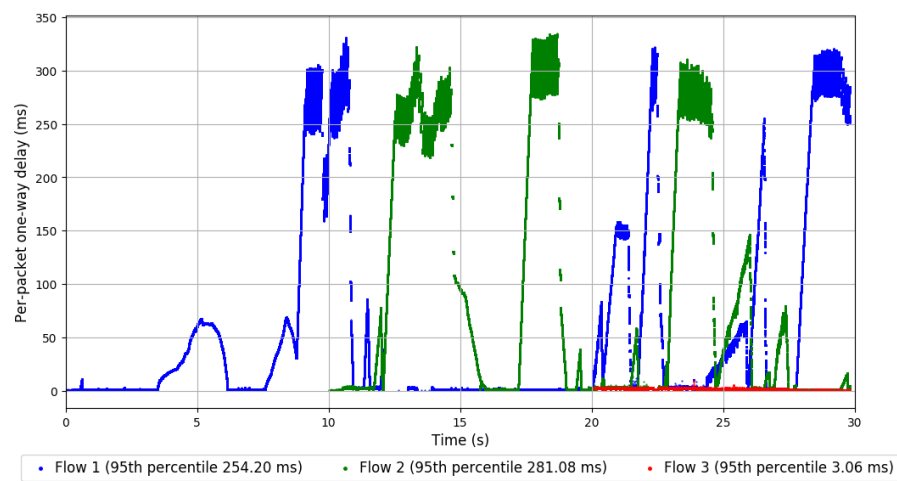
73

```
Run 6: Statistics of PCC

Start at: 2018-01-10 01:42:44
End at: 2018-01-10 01:43:14
Local clock offset: -1.797 ms
Remote clock offset: -2.103 ms

# Below is generated by plot.py at 2018-01-10 08:23:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 602.58 Mbit/s
95th percentile per-packet one-way delay: 269.383 ms
Loss rate: 8.44%
-- Flow 1:
Average throughput: 267.53 Mbit/s
95th percentile per-packet one-way delay: 287.915 ms
Loss rate: 7.20%
-- Flow 2:
Average throughput: 382.42 Mbit/s
95th percentile per-packet one-way delay: 155.724 ms
Loss rate: 10.55%
-- Flow 3:
Average throughput: 246.88 Mbit/s
95th percentile per-packet one-way delay: 276.775 ms
Loss rate: 5.66%
```
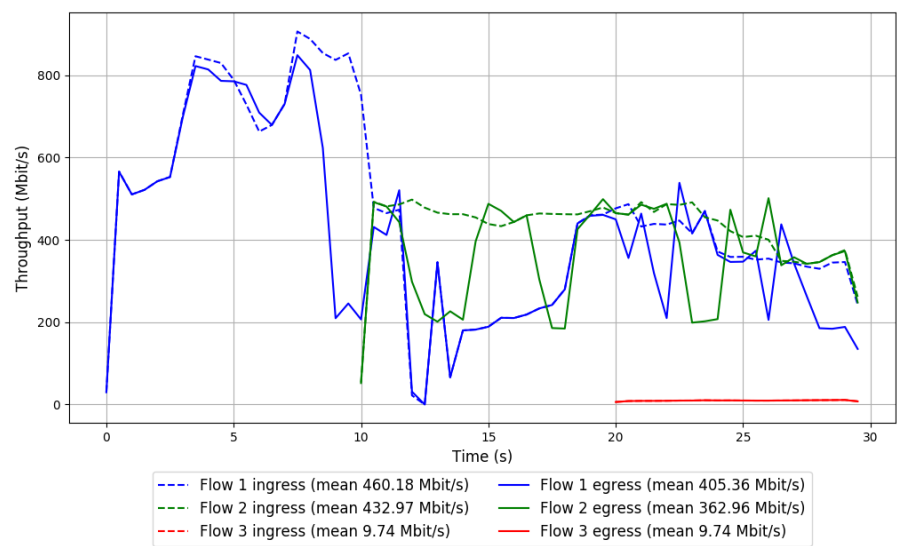
Run 6: Report of PCC — Data Link

Flow 1 ingress (mean 288.01 Mbit/s)   Flow 1 egress (mean 267.53 Mbit/s)
Flow 2 ingress (mean 427.09 Mbit/s)   Flow 2 egress (mean 382.42 Mbit/s)
Flow 3 ingress (mean 261.03 Mbit/s)   Flow 3 egress (mean 246.88 Mbit/s)

Flow 1 (95th percentile 287.92 ms)   Flow 2 (95th percentile 155.72 ms)   Flow 3 (95th percentile 276.77 ms)
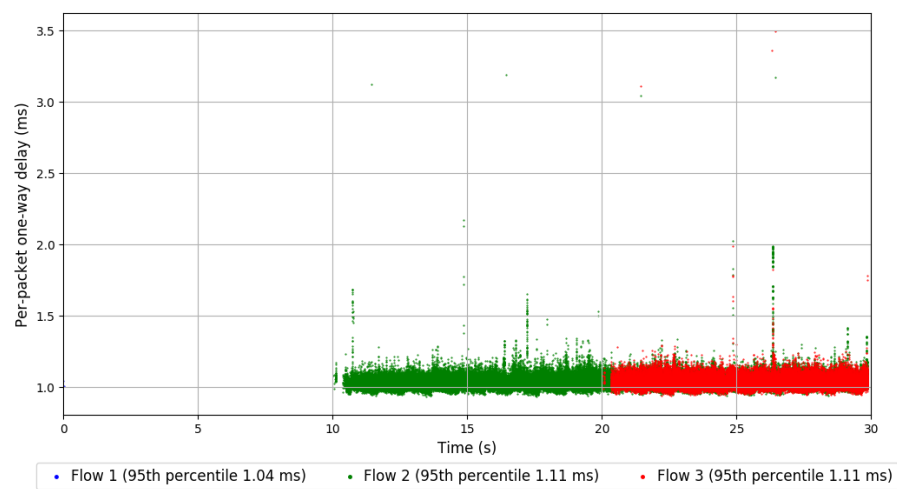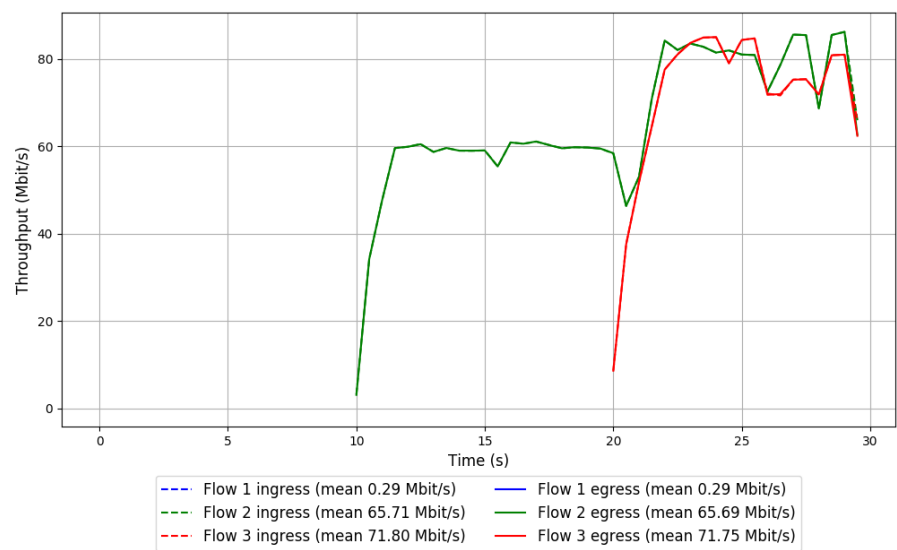
75

```
Run 7: Statistics of PCC

Start at: 2018-01-10 02:04:12
End at: 2018-01-10 02:04:42
Local clock offset: -1.864 ms
Remote clock offset: -2.256 ms


# Below is generated by plot.py at 2018-01-10 08:25:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 682.66 Mbit/s
95th percentile per-packet one-way delay: 241.034 ms
Loss rate: 11.58%
-- Flow 1:
Average throughput: 426.75 Mbit/s
95th percentile per-packet one-way delay: 244.249 ms
Loss rate: 13.33%
-- Flow 2:
Average throughput: 316.08 Mbit/s
95th percentile per-packet one-way delay: 244.760 ms
Loss rate: 10.13%
-- Flow 3:
Average throughput: 140.31 Mbit/s
95th percentile per-packet one-way delay: 3.672 ms
Loss rate: 0.21%
```

Run 7: Report of PCC — Data Link

Flow 1 ingress (mean 492.03 Mbit/s) Flow 1 egress (mean 426.75 Mbit/s)
Flow 2 ingress (mean 351.35 Mbit/s) Flow 2 egress (mean 316.08 Mbit/s)
Flow 3 ingress (mean 140.34 Mbit/s) Flow 3 egress (mean 140.31 Mbit/s)

Flow 1 (95th percentile 244.25 ms) Flow 2 (95th percentile 244.76 ms) Flow 3 (95th percentile 3.67 ms)
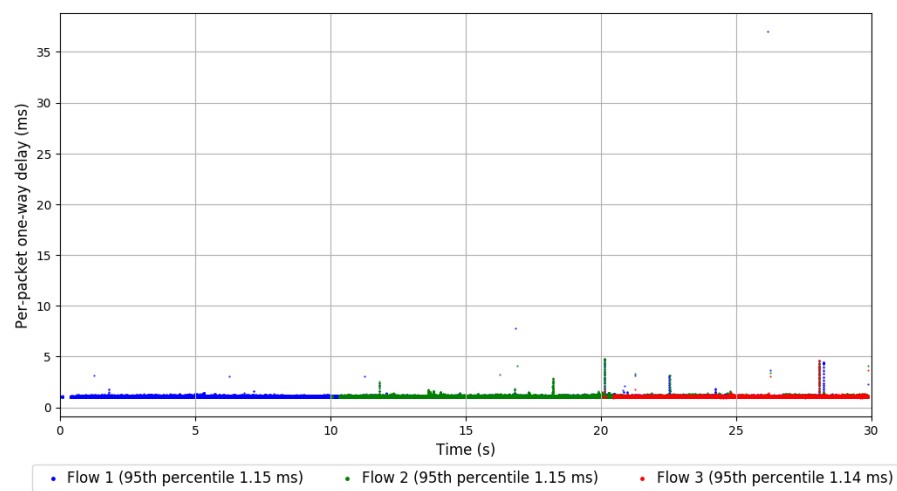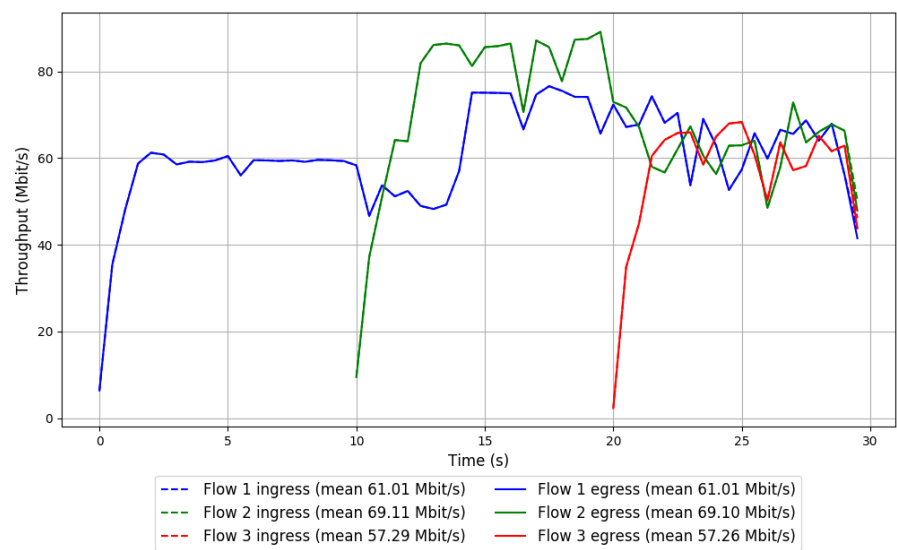
```
Run 8: Statistics of PCC

Start at: 2018-01-10 02:25:42
End at: 2018-01-10 02:26:12
Local clock offset: -1.834 ms
Remote clock offset: -2.351 ms


# Below is generated by plot.py at 2018-01-10 08:27:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 683.15 Mbit/s
95th percentile per-packet one-way delay: 259.423 ms
Loss rate: 11.95%
-- Flow 1:
Average throughput: 447.11 Mbit/s
95th percentile per-packet one-way delay: 267.503 ms
Loss rate: 16.17%
-- Flow 2:
Average throughput: 278.28 Mbit/s
95th percentile per-packet one-way delay: 268.271 ms
Loss rate: 3.30%
-- Flow 3:
Average throughput: 155.96 Mbit/s
95th percentile per-packet one-way delay: 3.083 ms
Loss rate: 0.21%
```

Run 8: Report of PCC — Data Link

Flow 1 ingress (mean 533.02 Mbit/s)   Flow 1 egress (mean 447.11 Mbit/s)
Flow 2 ingress (mean 287.48 Mbit/s)   Flow 2 egress (mean 278.28 Mbit/s)
Flow 3 ingress (mean 156.02 Mbit/s)   Flow 3 egress (mean 155.96 Mbit/s)

Flow 1 (95th percentile 267.50 ms)   Flow 2 (95th percentile 268.27 ms)   Flow 3 (95th percentile 3.08 ms)

79

```
Run 9: Statistics of PCC

Start at: 2018-01-10 02:47:29
End at: 2018-01-10 02:47:59
Local clock offset: -1.752 ms
Remote clock offset: -2.754 ms


# Below is generated by plot.py at 2018-01-10 08:37:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 608.84 Mbit/s
95th percentile per-packet one-way delay: 217.072 ms
Loss rate: 6.05%
-- Flow 1:
Average throughput: 275.04 Mbit/s
95th percentile per-packet one-way delay: 112.073 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 389.96 Mbit/s
95th percentile per-packet one-way delay: 200.102 ms
Loss rate: 9.31%
-- Flow 3:
Average throughput: 227.20 Mbit/s
95th percentile per-packet one-way delay: 277.535 ms
Loss rate: 7.38%
```

Run 9: Report of PCC — Data Link

Flow 1 ingress (mean 281.53 Mbit/s)   Flow 1 egress (mean 275.04 Mbit/s)
Flow 2 ingress (mean 429.59 Mbit/s)   Flow 2 egress (mean 389.96 Mbit/s)
Flow 3 ingress (mean 244.80 Mbit/s)   Flow 3 egress (mean 227.20 Mbit/s)

Flow 1 (95th percentile 112.07 ms)   Flow 2 (95th percentile 200.10 ms)   Flow 3 (95th percentile 277.54 ms)
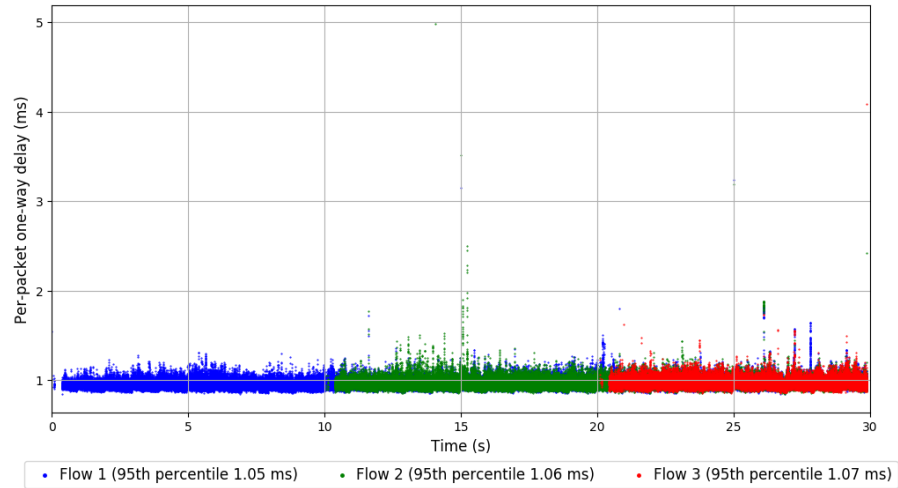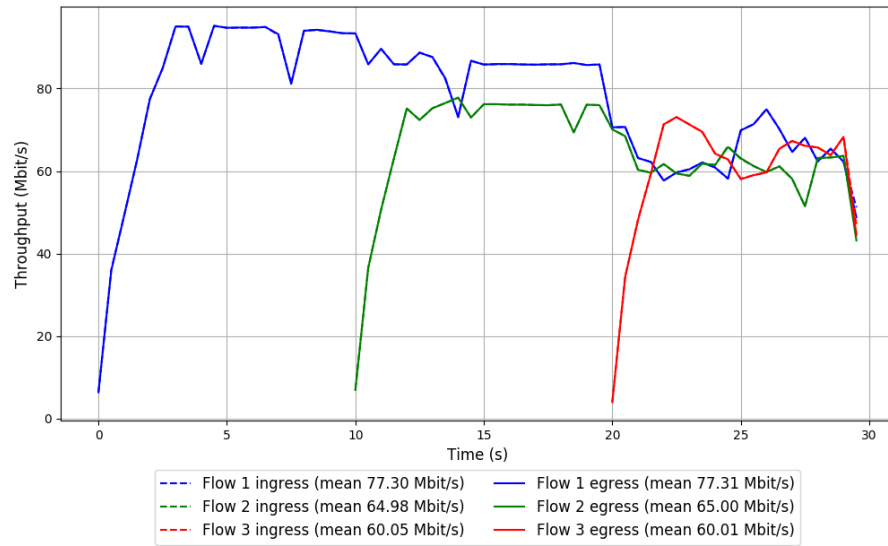
81

```
Run 10: Statistics of PCC

Start at: 2018-01-10 03:09:10
End at: 2018-01-10 03:09:40
Local clock offset: -1.043 ms
Remote clock offset: -2.799 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 649.74 Mbit/s
95th percentile per-packet one-way delay: 271.244 ms
Loss rate: 13.57%
-- Flow 1:
Average throughput: 405.36 Mbit/s
95th percentile per-packet one-way delay: 254.203 ms
Loss rate: 11.97%
-- Flow 2:
Average throughput: 362.96 Mbit/s
95th percentile per-packet one-way delay: 281.078 ms
Loss rate: 16.27%
-- Flow 3:
Average throughput: 9.74 Mbit/s
95th percentile per-packet one-way delay: 3.062 ms
Loss rate: 0.24%
```

Run 10: Report of PCC — Data Link

Flow 1 ingress (mean 460.18 Mbit/s)   Flow 1 egress (mean 405.36 Mbit/s)
Flow 2 ingress (mean 432.97 Mbit/s)   Flow 2 egress (mean 362.96 Mbit/s)
Flow 3 ingress (mean 9.74 Mbit/s)   Flow 3 egress (mean 9.74 Mbit/s)

Flow 1 (95th percentile 254.20 ms)   Flow 2 (95th percentile 281.08 ms)   Flow 3 (95th percentile 3.06 ms)
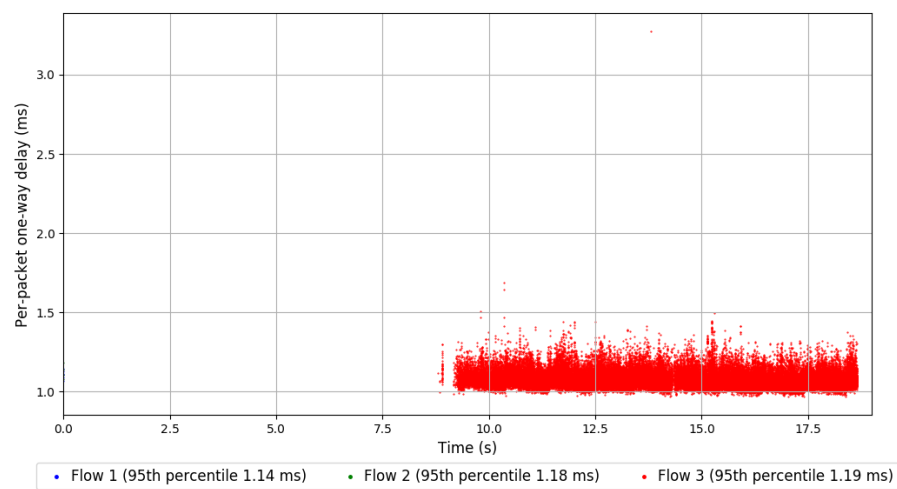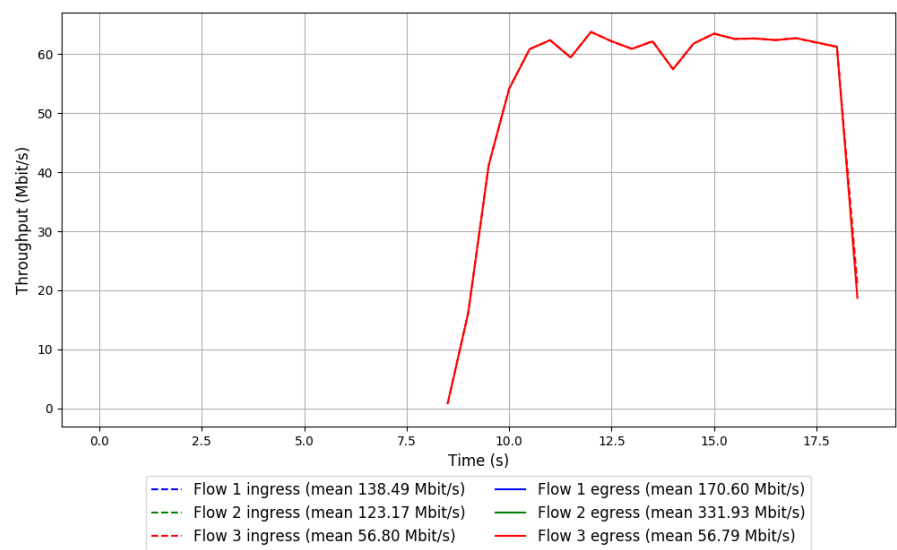
83

Run 1: Statistics of QUIC Cubic

Start at: 2018-01-09 23:45:53
End at: 2018-01-09 23:46:23
Local clock offset: -0.914 ms
Remote clock offset: -3.409 ms

Run 1: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 150.64 Mbit/s) ——— Flow 1 egress (mean 222.07 Mbit/s)
- - - Flow 2 ingress (mean 79.10 Mbit/s) ——— Flow 2 egress (mean 79.10 Mbit/s)
- - - Flow 3 ingress (mean 68.33 Mbit/s) ——— Flow 3 egress (mean 68.30 Mbit/s)

- Flow 1 (95th percentile 1.08 ms)   • Flow 2 (95th percentile 1.09 ms)   • Flow 3 (95th percentile 1.07 ms)
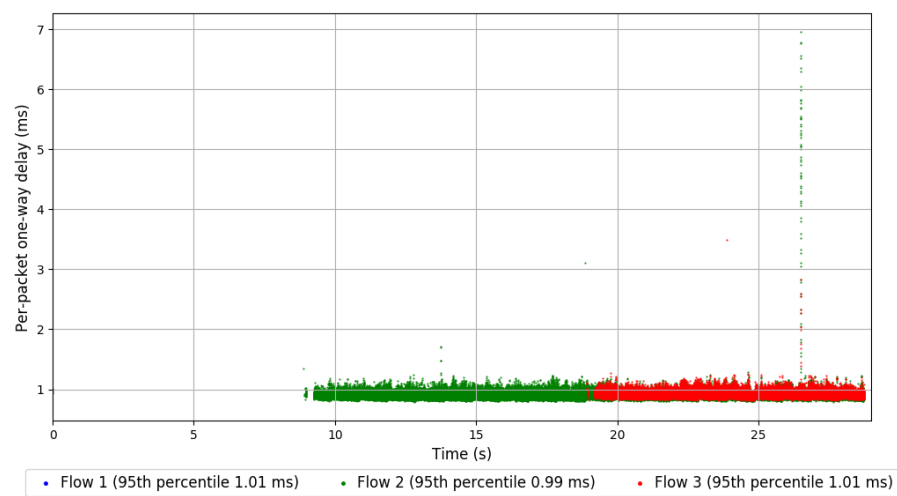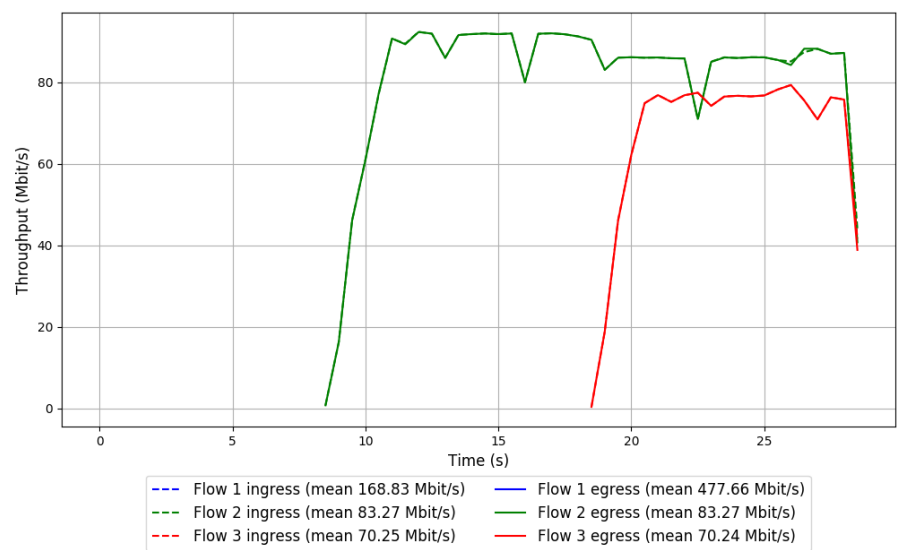
```
Run 2: Statistics of QUIC Cubic

Start at: 2018-01-10 00:07:27
End at: 2018-01-10 00:07:57
Local clock offset: -1.28 ms
Remote clock offset: -2.775 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.32 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 1.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 65.69 Mbit/s
95th percentile per-packet one-way delay: 1.109 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 71.75 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.26%
```
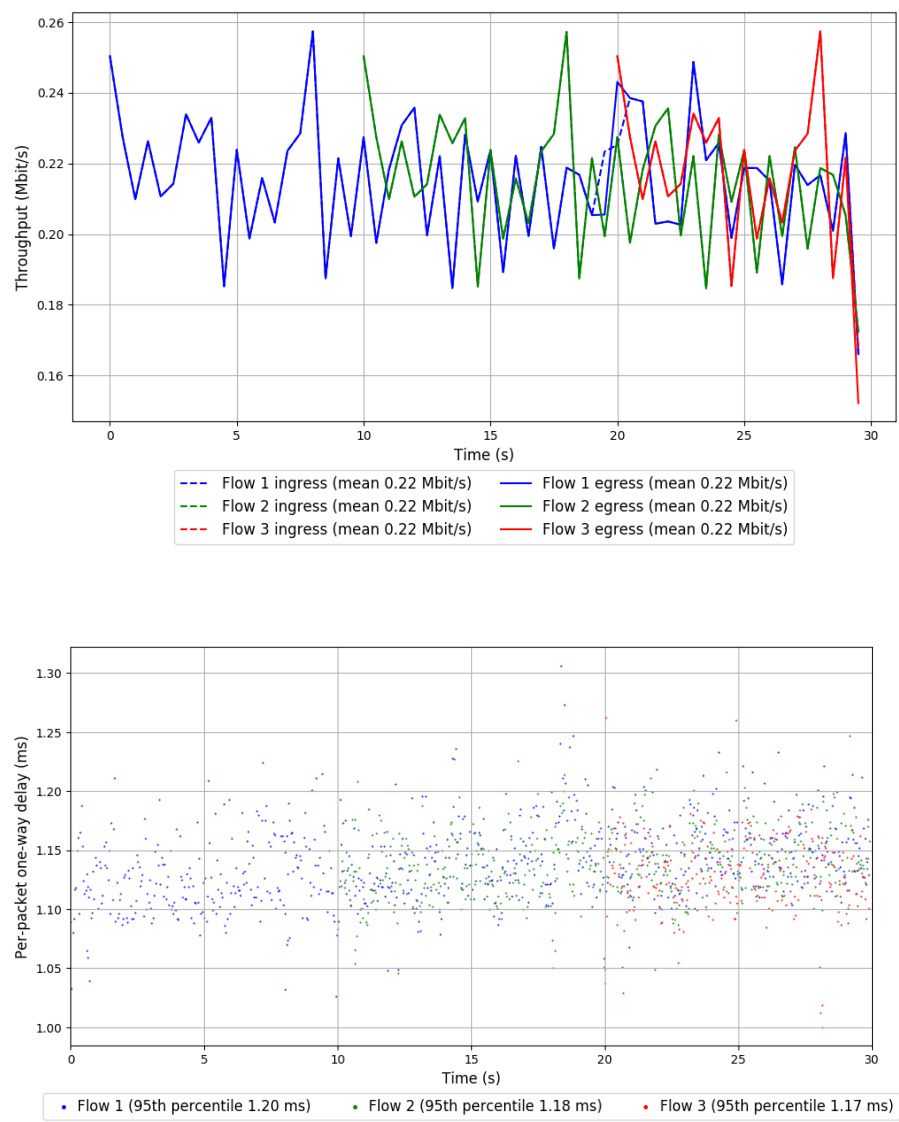
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.29 Mbit/s)   Flow 1 egress (mean 0.29 Mbit/s)
Flow 2 ingress (mean 65.71 Mbit/s)   Flow 2 egress (mean 65.69 Mbit/s)
Flow 3 ingress (mean 71.80 Mbit/s)   Flow 3 egress (mean 71.75 Mbit/s)

• Flow 1 (95th percentile 1.04 ms)   • Flow 2 (95th percentile 1.11 ms)   • Flow 3 (95th percentile 1.11 ms)

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```
Run 3: Statistics of QUIC Cubic

Start at: 2018-01-10 00:28:52
End at: 2018-01-10 00:29:22
Local clock offset: -1.358 ms
Remote clock offset: -2.005 ms
```

Run 3: Report of QUIC Cubic — Data Link

- - - Flow 1 ingress (mean 123.85 Mbit/s) ——— Flow 1 egress (mean 257.60 Mbit/s)
- - - Flow 2 ingress (mean 0.30 Mbit/s) ——— Flow 2 egress (mean 0.30 Mbit/s)
- - - Flow 3 ingress (mean 80.34 Mbit/s) ——— Flow 3 egress (mean 80.31 Mbit/s)

- Flow 1 (95th percentile 1.12 ms)   • Flow 2 (95th percentile 1.08 ms)   • Flow 3 (95th percentile 1.15 ms)

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```
Run 4: Statistics of QUIC Cubic

Start at: 2018-01-10 00:50:18
End at: 2018-01-10 00:50:48
Local clock offset: -1.447 ms
Remote clock offset: -1.842 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.73 Mbit/s
95th percentile per-packet one-way delay: 1.148 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 61.01 Mbit/s
95th percentile per-packet one-way delay: 1.148 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 69.10 Mbit/s
95th percentile per-packet one-way delay: 1.151 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 57.26 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.22%
```
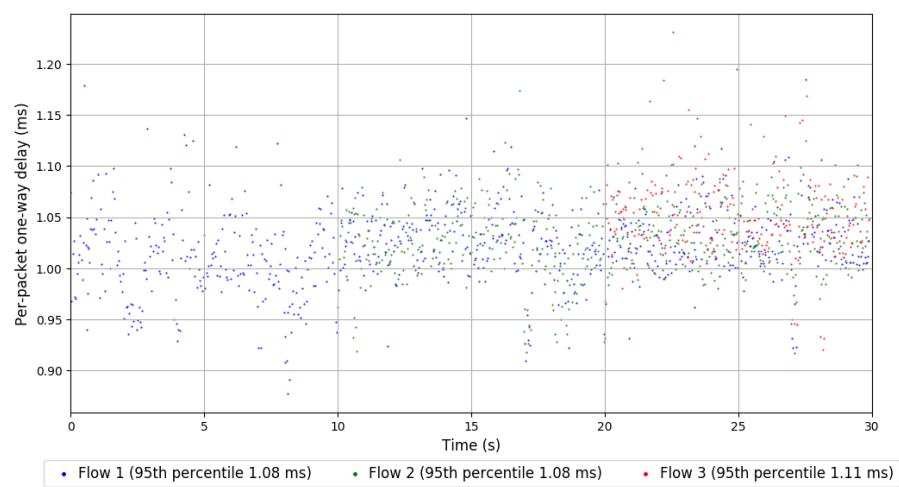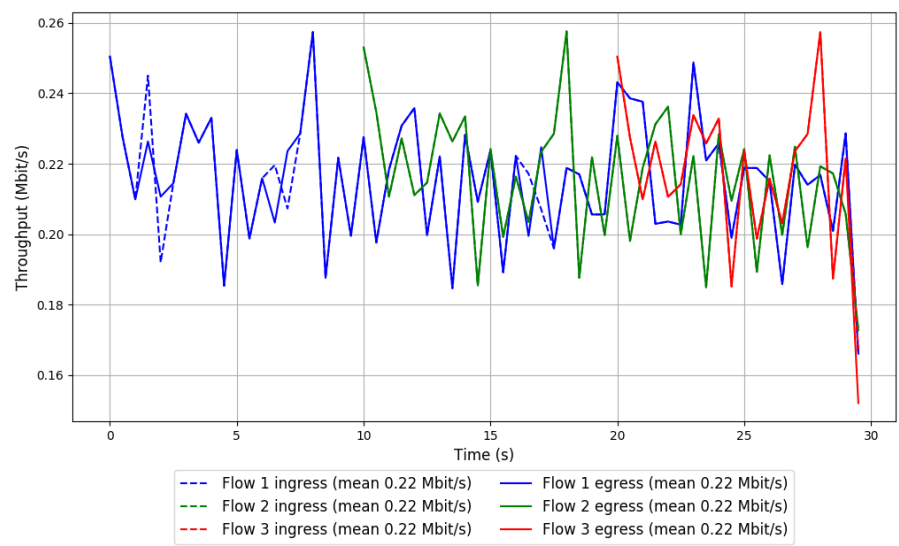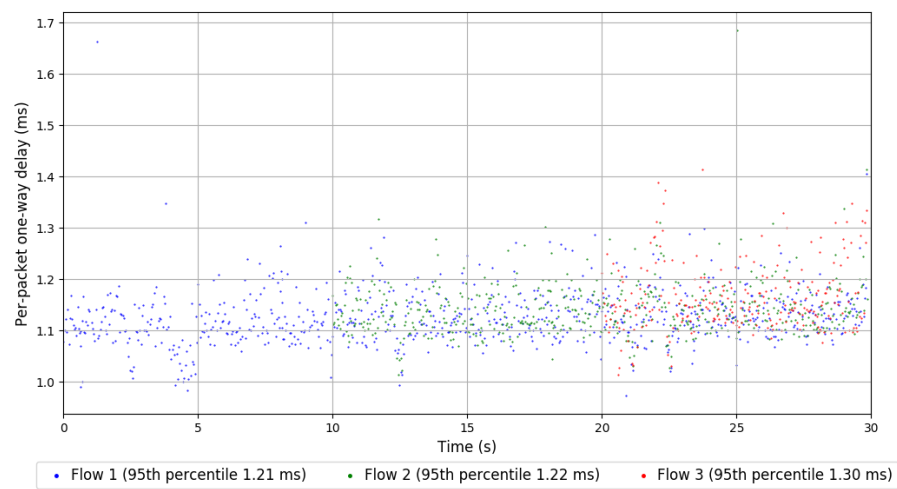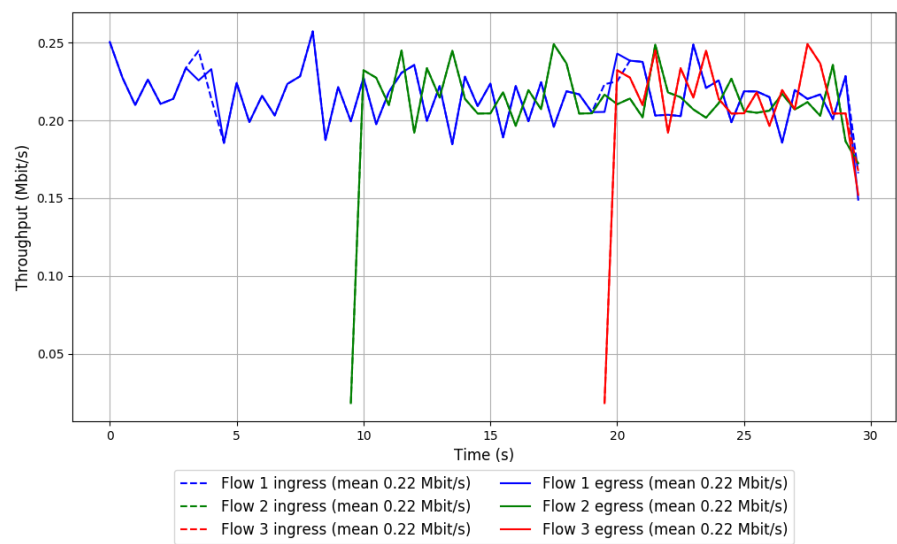
Run 4: Report of QUIC Cubic — Data Link

Run 5: Statistics of QUIC Cubic

Start at: 2018-01-10 01:12:00
End at: 2018-01-10 01:12:30
Local clock offset: -1.677 ms
Remote clock offset: -1.467 ms

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 78.78 Mbit/s) --- Flow 1 egress (mean 115.52 Mbit/s)
Flow 2 ingress (mean 145.71 Mbit/s) --- Flow 2 egress (mean 161.05 Mbit/s)
Flow 3 ingress (mean 74.81 Mbit/s) --- Flow 3 egress (mean 74.80 Mbit/s)

Flow 1 (95th percentile 1.17 ms)   Flow 2 (95th percentile 1.14 ms)   Flow 3 (95th percentile 1.25 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-01-10 01:32:53
End at: 2018-01-10 01:33:23
Local clock offset: -1.702 ms
Remote clock offset: -1.593 ms
```

Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 198.15 Mbit/s) --- Flow 1 egress (mean 310.36 Mbit/s)
Flow 2 ingress (mean 0.30 Mbit/s) --- Flow 2 egress (mean 0.30 Mbit/s)
Flow 3 ingress (mean 52.57 Mbit/s) --- Flow 3 egress (mean 52.57 Mbit/s)

• Flow 1 (95th percentile 1.03 ms) • Flow 2 (95th percentile 1.00 ms) • Flow 3 (95th percentile 1.06 ms)

Run 7: Statistics of QUIC Cubic

Start at: 2018-01-10 01:54:01
End at: 2018-01-10 01:54:31
Local clock offset: -1.717 ms
Remote clock offset: -2.121 ms

Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-01-10 02:15:37
End at: 2018-01-10 02:16:07
Local clock offset: -1.909 ms
Remote clock offset: -2.206 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.11 Mbit/s
95th percentile per-packet one-way delay: 1.053 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 77.31 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 65.00 Mbit/s
95th percentile per-packet one-way delay: 1.056 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 60.01 Mbit/s
95th percentile per-packet one-way delay: 1.068 ms
Loss rate: 0.23%
```
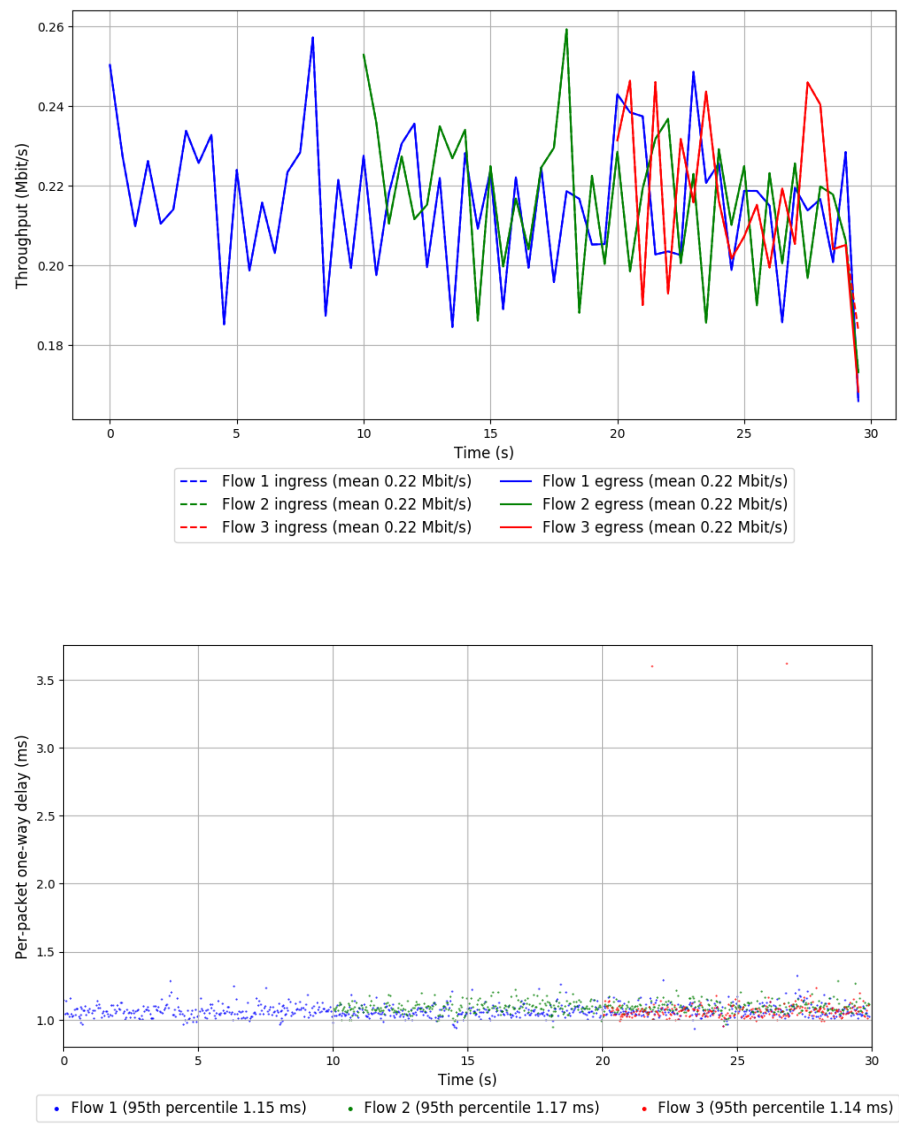
Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 77.30 Mbit/s)   Flow 1 egress (mean 77.31 Mbit/s)
Flow 2 ingress (mean 64.98 Mbit/s)   Flow 2 egress (mean 65.00 Mbit/s)
Flow 3 ingress (mean 60.05 Mbit/s)   Flow 3 egress (mean 60.01 Mbit/s)

Flow 1 (95th percentile 1.05 ms)   Flow 2 (95th percentile 1.06 ms)   Flow 3 (95th percentile 1.07 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-01-10 02:37:05
End at: 2018-01-10 02:37:35
Local clock offset: -1.824 ms
Remote clock offset: -2.359 ms
```

Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 138.49 Mbit/s)
Flow 2 ingress (mean 123.17 Mbit/s)
Flow 3 ingress (mean 56.80 Mbit/s)
Flow 1 egress (mean 170.60 Mbit/s)
Flow 2 egress (mean 331.93 Mbit/s)
Flow 3 egress (mean 56.79 Mbit/s)

Flow 1 (95th percentile 1.14 ms)
Flow 2 (95th percentile 1.18 ms)
Flow 3 (95th percentile 1.19 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-01-10 02:58:42
End at: 2018-01-10 02:59:12
Local clock offset: -1.54 ms
Remote clock offset: -3.008 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.62 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 477.66 Mbit/s
95th percentile per-packet one-way delay: 1.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.27 Mbit/s
95th percentile per-packet one-way delay: 0.993 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 70.24 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.21%
```
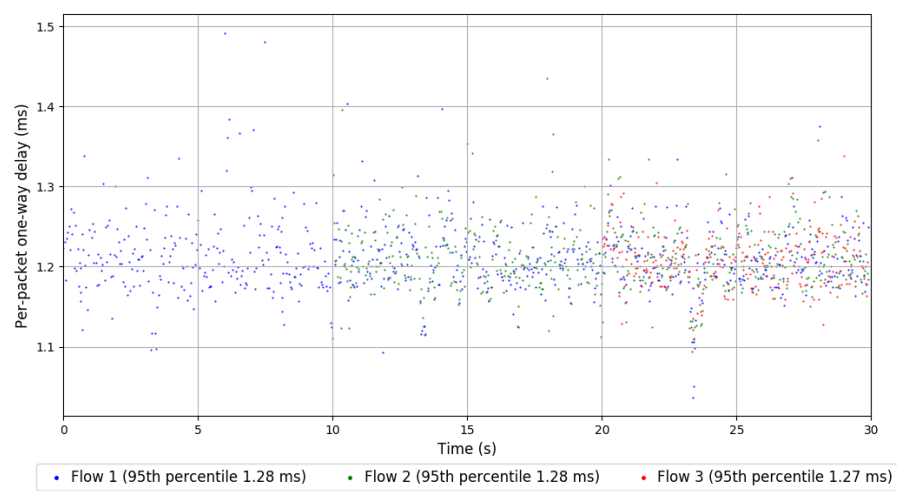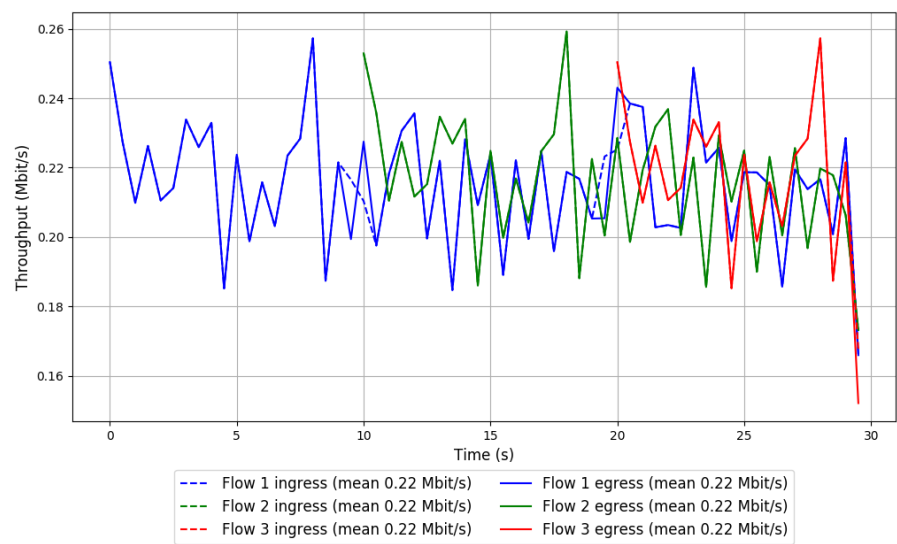
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 168.83 Mbit/s) --- Flow 1 egress (mean 477.66 Mbit/s)
Flow 2 ingress (mean 83.27 Mbit/s) --- Flow 2 egress (mean 83.27 Mbit/s)
Flow 3 ingress (mean 70.25 Mbit/s) --- Flow 3 egress (mean 70.24 Mbit/s)

Flow 1 (95th percentile 1.01 ms)   Flow 2 (95th percentile 0.99 ms)   Flow 3 (95th percentile 1.01 ms)

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```
Run 1: Statistics of SCReAM

Start at: 2018-01-09 23:44:43
End at: 2018-01-09 23:45:13
Local clock offset: -0.972 ms
Remote clock offset: -3.545 ms

# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.190 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.182 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.173 ms
Loss rate: 0.35%
```
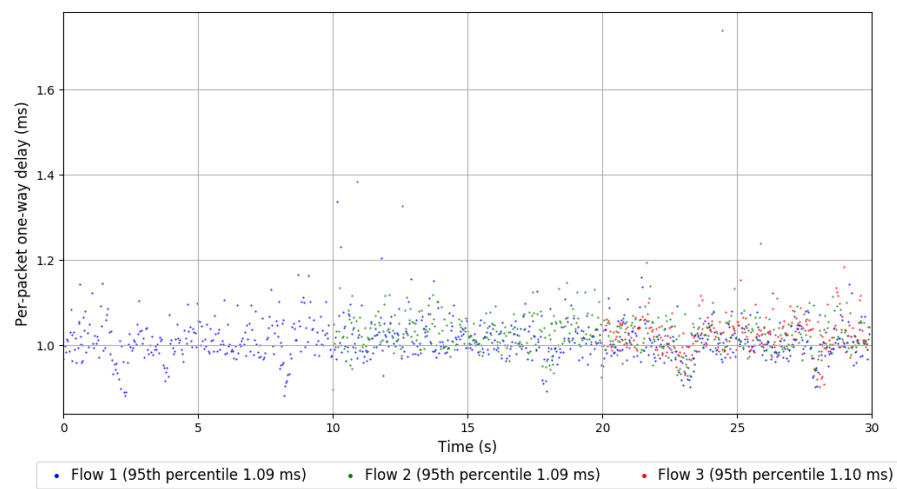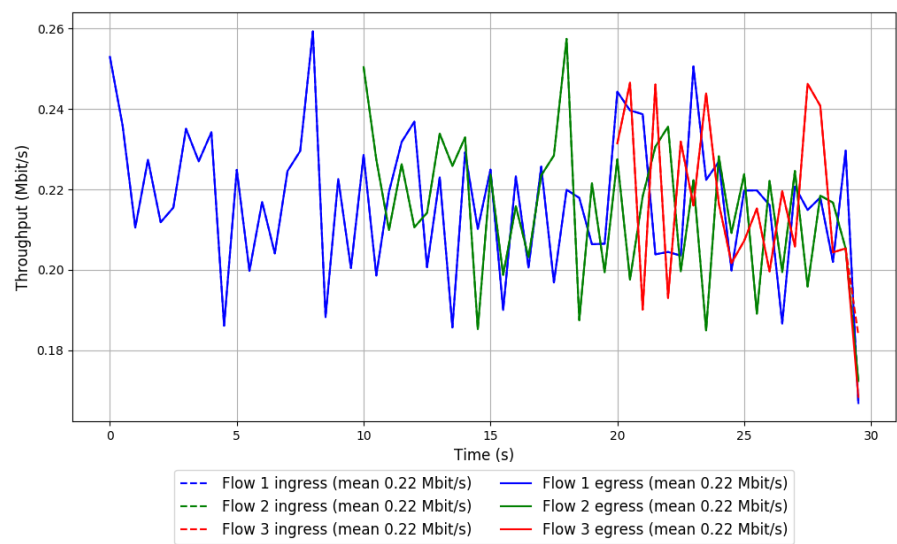
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-01-10 00:06:17
End at: 2018-01-10 00:06:47
Local clock offset: -1.318 ms
Remote clock offset: -2.811 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.089 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.080 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.112 ms
Loss rate: 0.35%
```
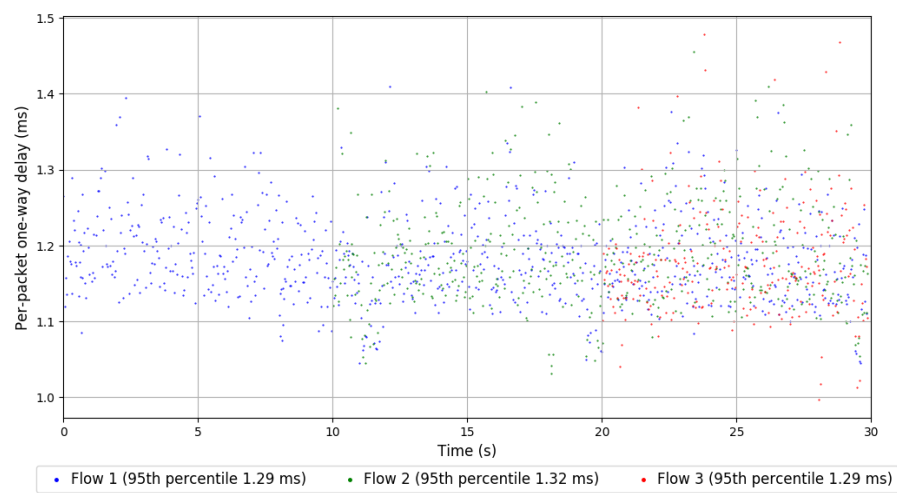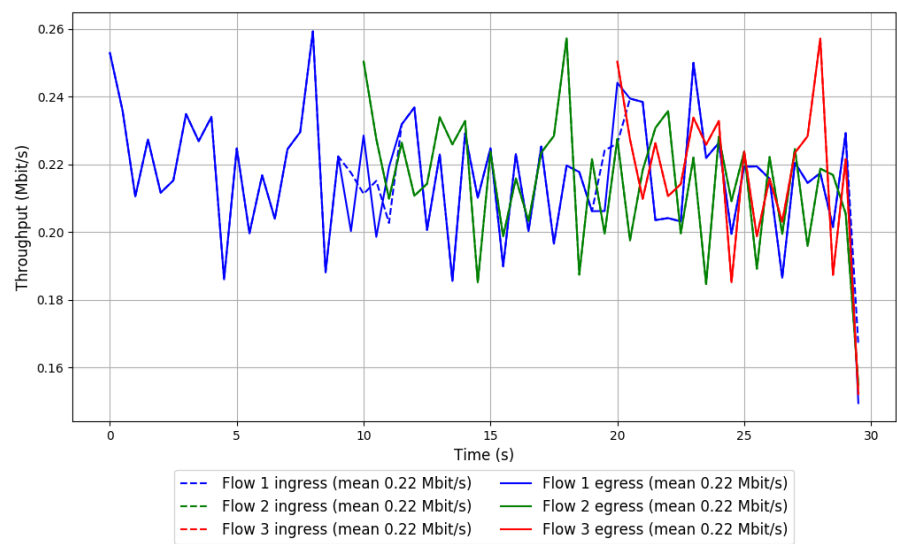
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-01-10 00:27:41
End at: 2018-01-10 00:28:11
Local clock offset: -1.429 ms
Remote clock offset: -2.13 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.239 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.224 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.296 ms
Loss rate: 0.35%
```
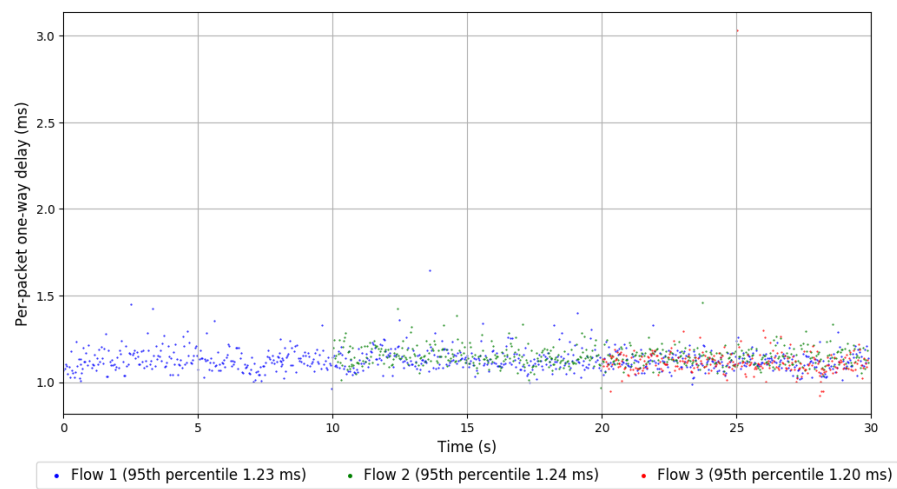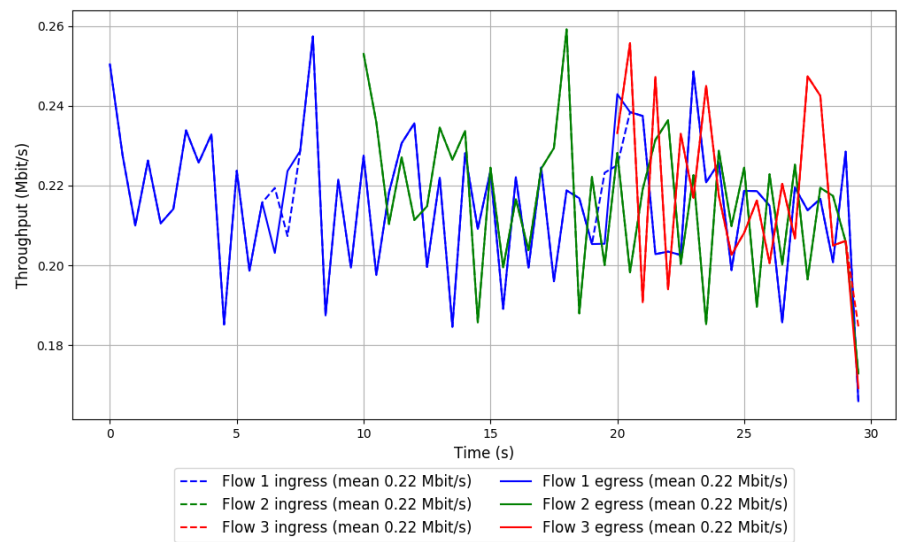
Run 3: Report of SCReAM — Data Link

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```
Run 4: Statistics of SCReAM

Start at: 2018-01-10 00:49:07
End at: 2018-01-10 00:49:37
Local clock offset: -1.436 ms
Remote clock offset: -1.965 ms

# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.278 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.277 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.278 ms
Loss rate: 0.00%
```
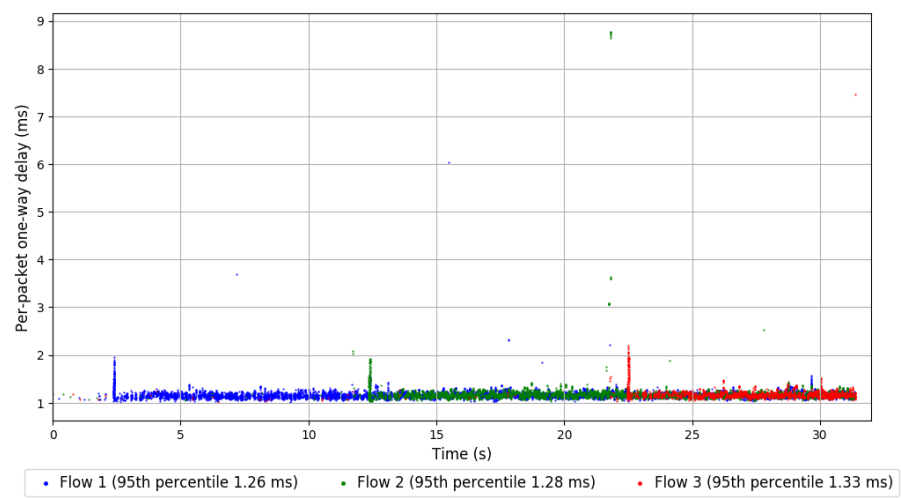
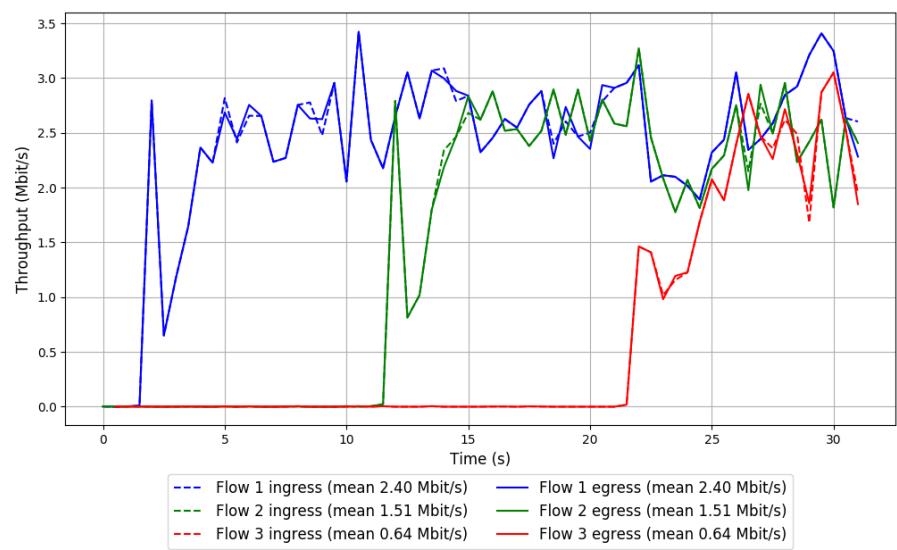# Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-01-10 01:10:49
End at: 2018-01-10 01:11:19
Local clock offset: -1.779 ms
Remote clock offset: -1.441 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.159 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.153 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.170 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.35%
```
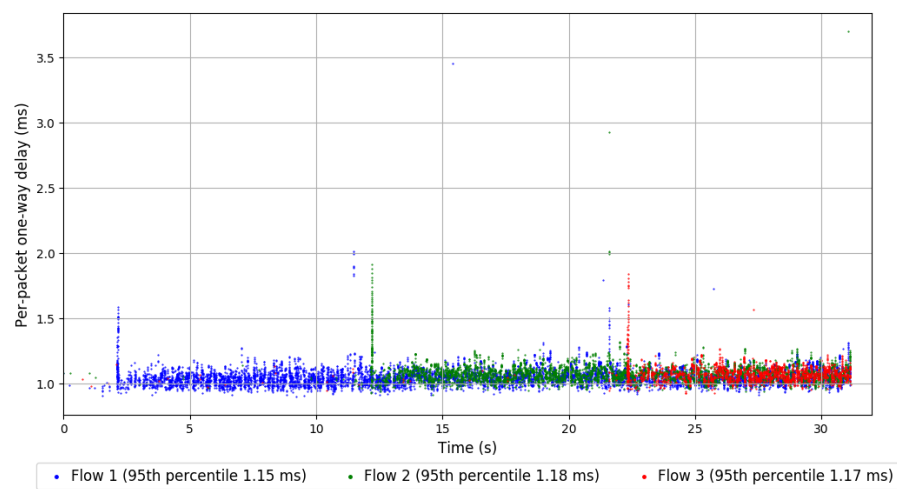
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-01-10 01:31:42
End at: 2018-01-10 01:32:12
Local clock offset: -1.682 ms
Remote clock offset: -1.533 ms

# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.150 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.142 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.140 ms
Loss rate: 0.35%
```
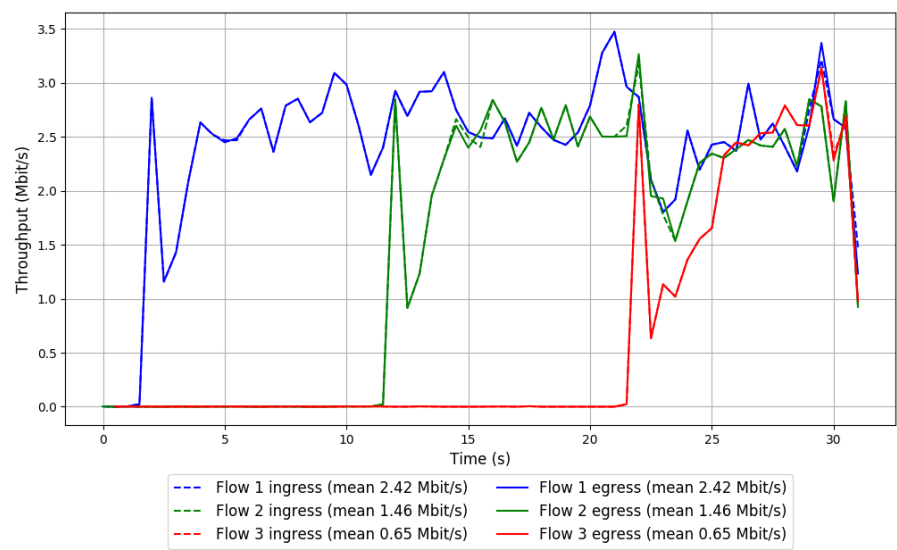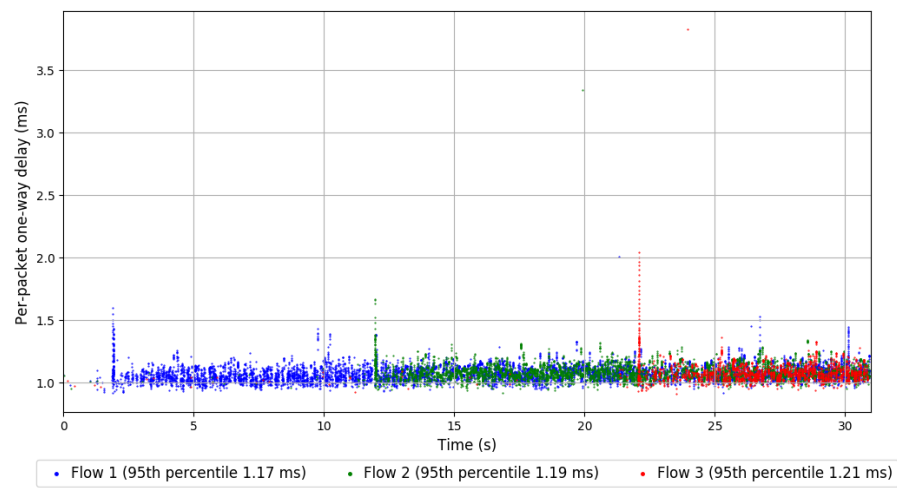
Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 1.16 ms)   Flow 2 (95th percentile 1.14 ms)   Flow 3 (95th percentile 1.14 ms)

```
Run 7: Statistics of SCReAM

Start at: 2018-01-10 01:52:51
End at: 2018-01-10 01:53:21
Local clock offset: -1.713 ms
Remote clock offset: -2.23 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.278 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.277 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.271 ms
Loss rate: 0.35%
```
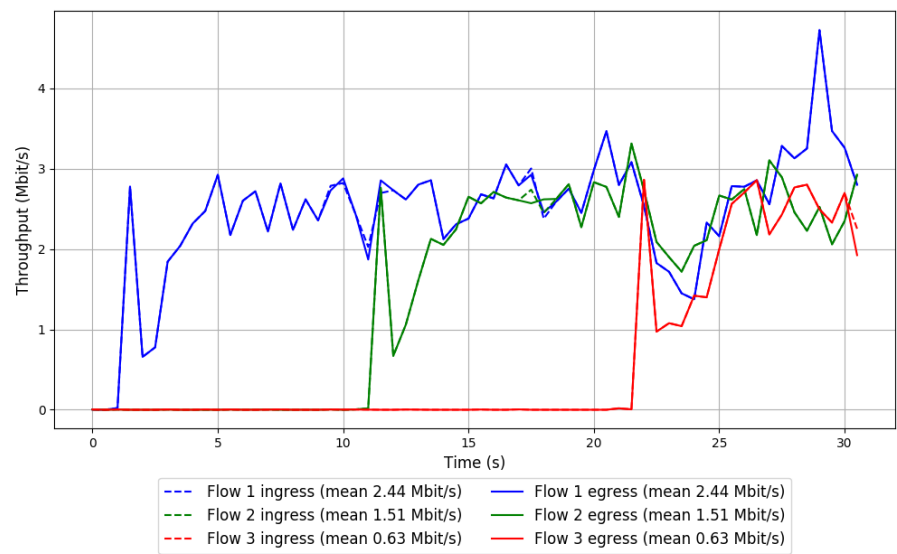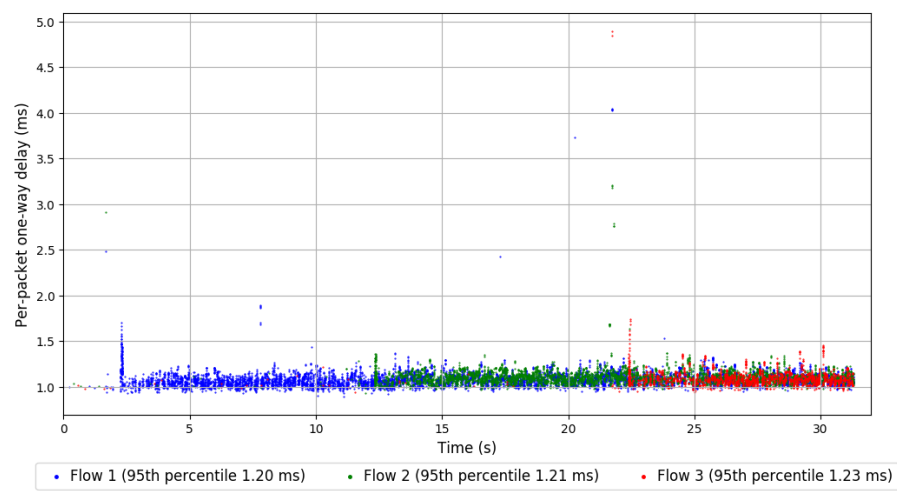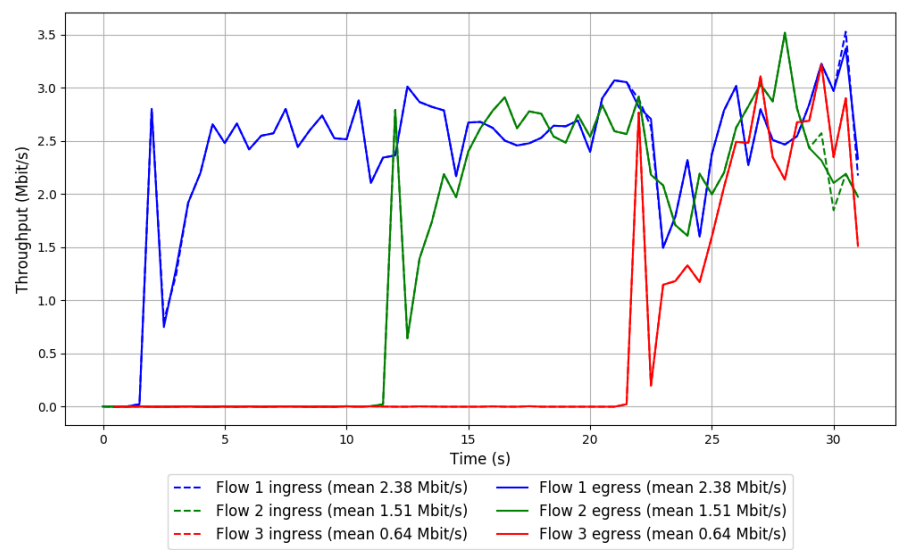
Run 7: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 1.28 ms)   Flow 2 (95th percentile 1.28 ms)   Flow 3 (95th percentile 1.27 ms)

```
Run 8: Statistics of SCReAM

Start at: 2018-01-10 02:14:26
End at: 2018-01-10 02:14:56
Local clock offset: -1.91 ms
Remote clock offset: -2.172 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.094 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.093 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.098 ms
Loss rate: 0.35%
```
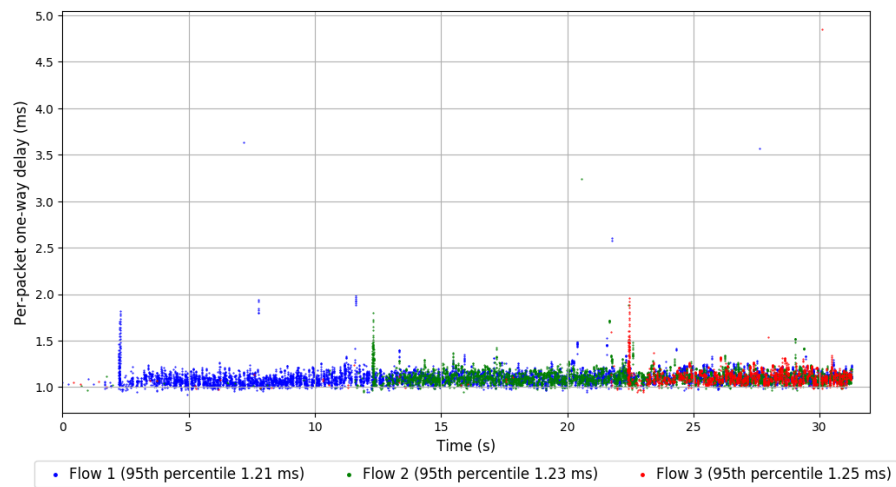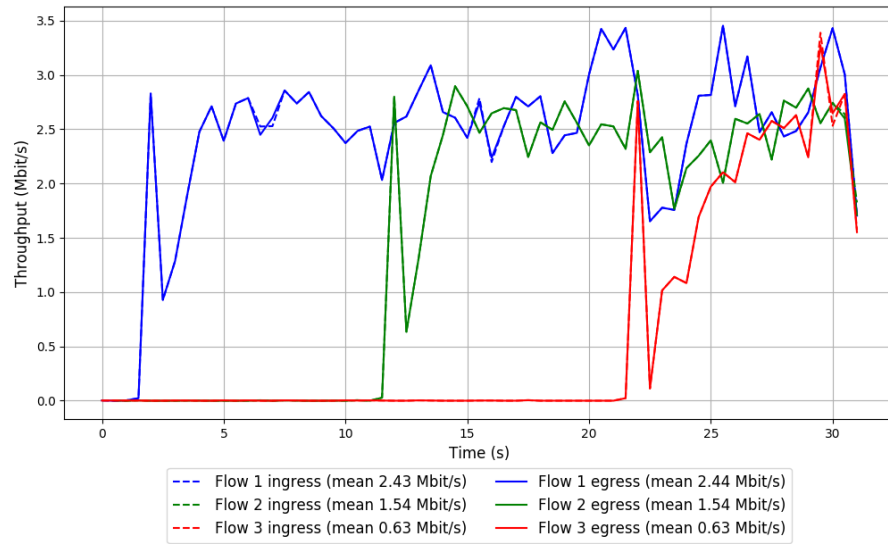
Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2018-01-10 02:35:54
End at: 2018-01-10 02:36:24
Local clock offset: -1.817 ms
Remote clock offset: -2.289 ms

# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.302 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.289 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.321 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.293 ms
Loss rate: 0.00%
```

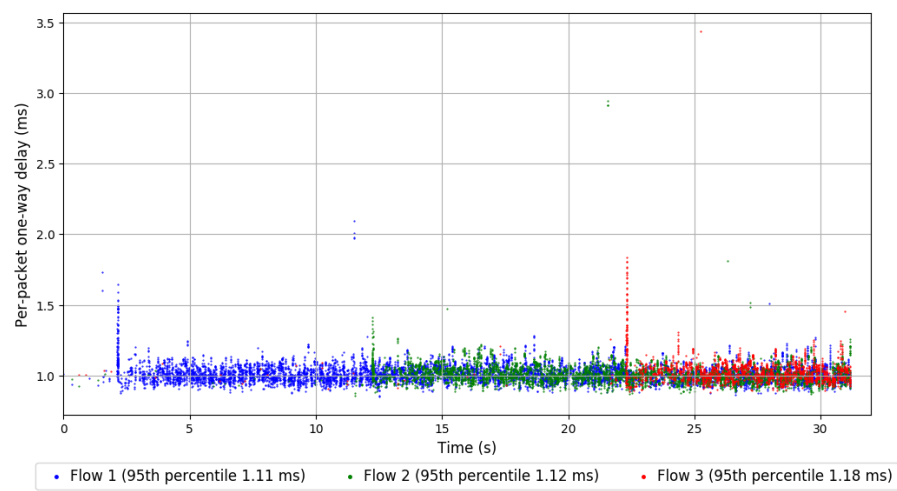# Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-01-10 02:57:31
End at: 2018-01-10 02:58:01
Local clock offset: -1.5 ms
Remote clock offset: -3.035 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1.236 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.233 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.201 ms
Loss rate: 0.35%
```
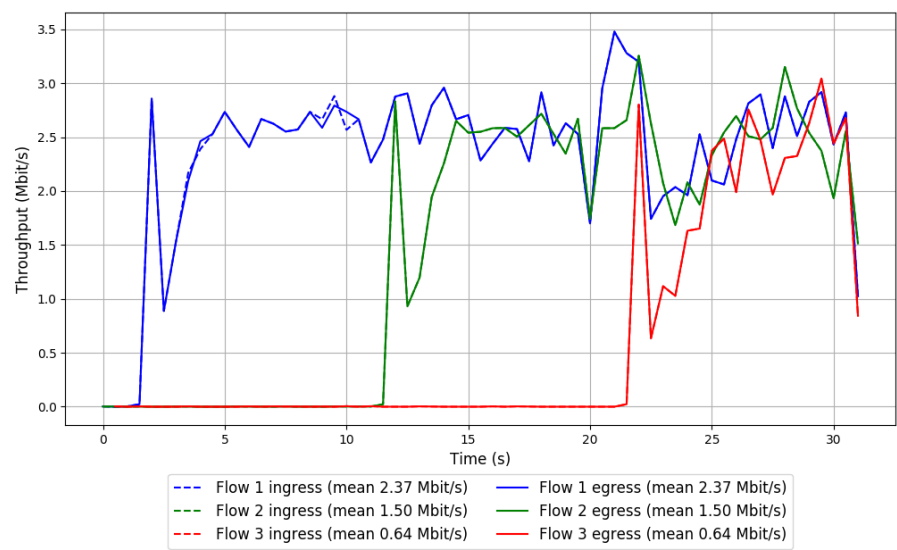
Run 10: Report of SCReAM — Data Link

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```
Run 1: Statistics of WebRTC media

Start at: 2018-01-09 23:38:57
End at: 2018-01-09 23:39:27
Local clock offset: -0.799 ms
Remote clock offset: -3.763 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 1.275 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 1.264 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1.278 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 1.335 ms
Loss rate: 0.25%
```
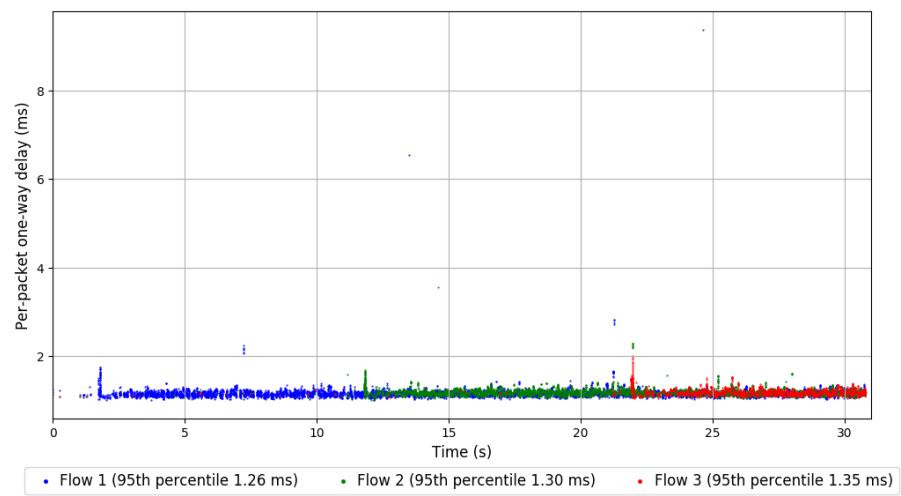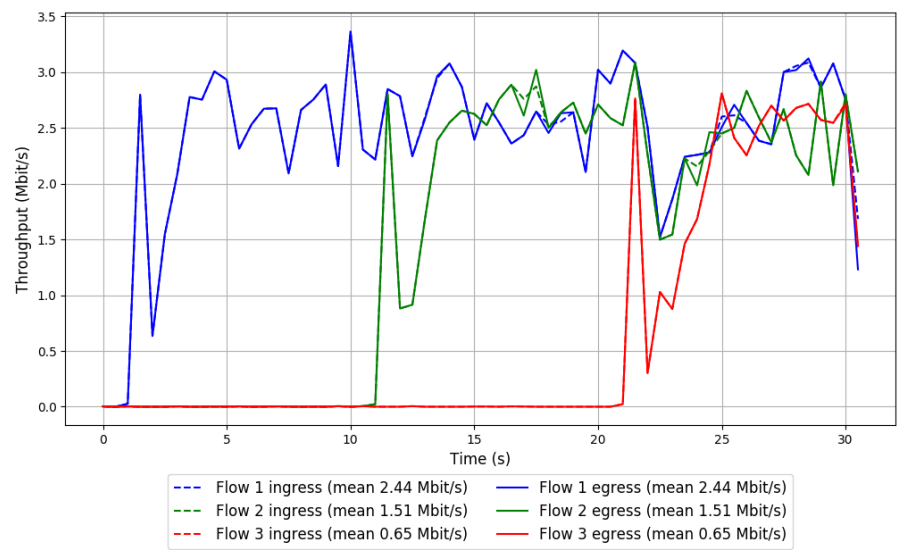
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-01-10 00:00:33
End at: 2018-01-10 00:01:03
Local clock offset: -1.198 ms
Remote clock offset: -3.056 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 1.162 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 1.151 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 1.180 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 0.00%
```
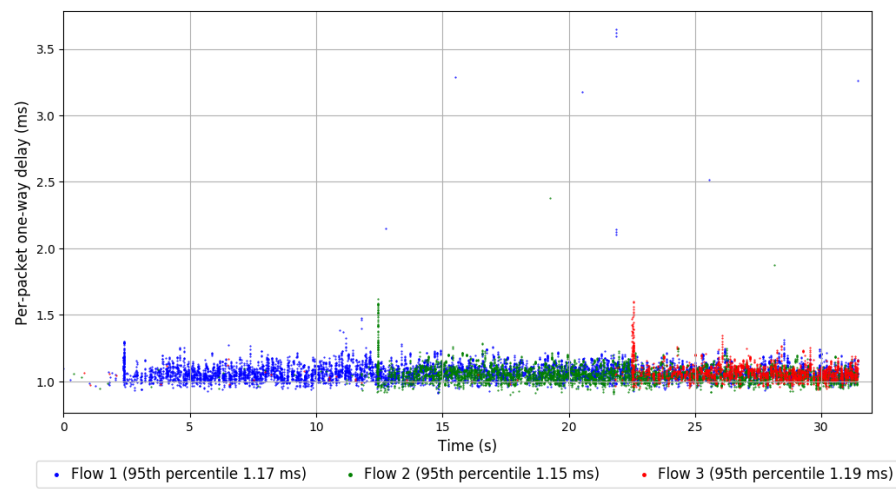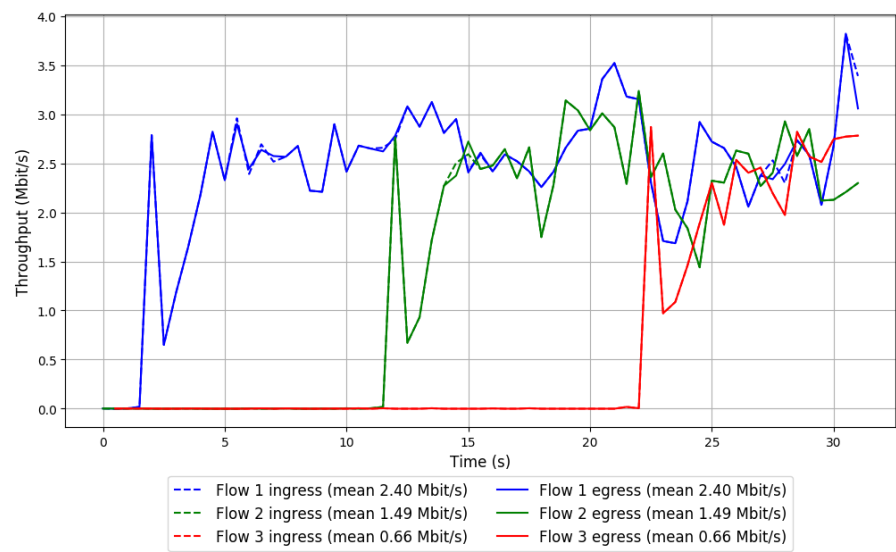
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-01-10 00:21:56
End at: 2018-01-10 00:22:26
Local clock offset: -1.371 ms
Remote clock offset: -2.321 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 1.184 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1.191 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 1.210 ms
Loss rate: 0.84%
```
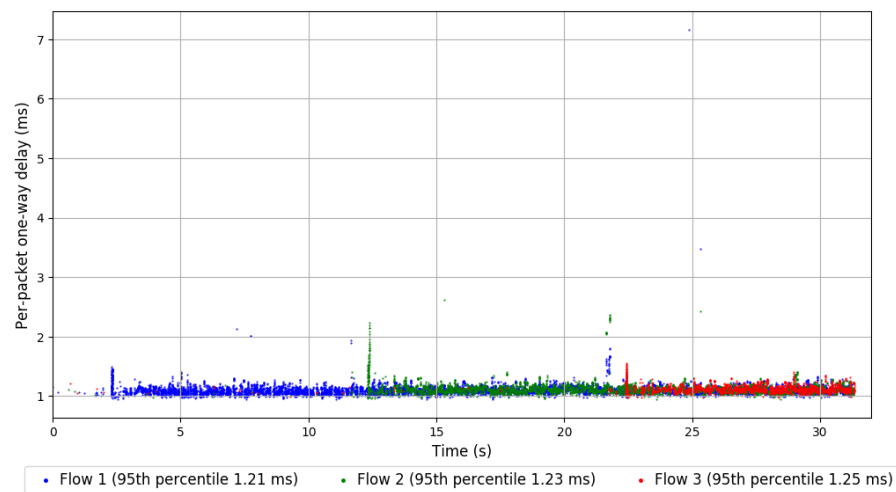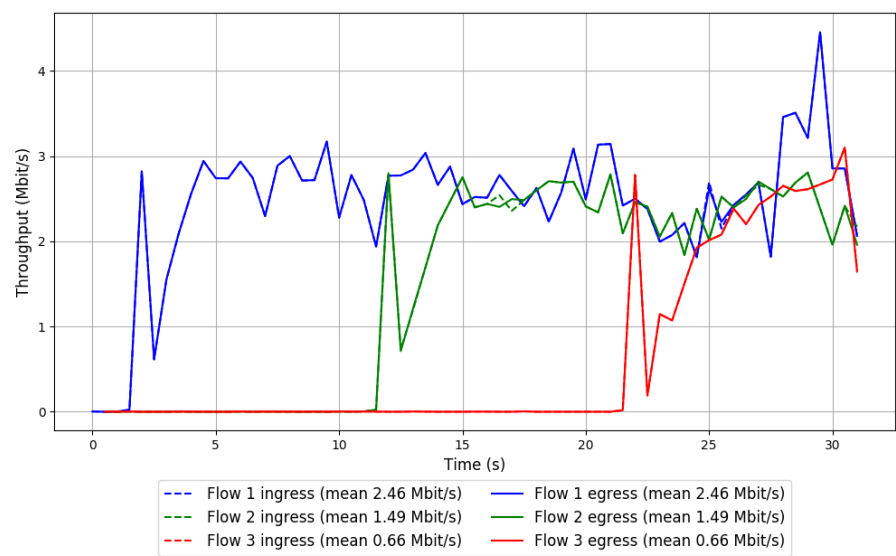
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-01-10 00:43:25
End at: 2018-01-10 00:43:55
Local clock offset: -1.352 ms
Remote clock offset: -2.011 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 1.206 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1.210 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 1.230 ms
Loss rate: 0.01%
```
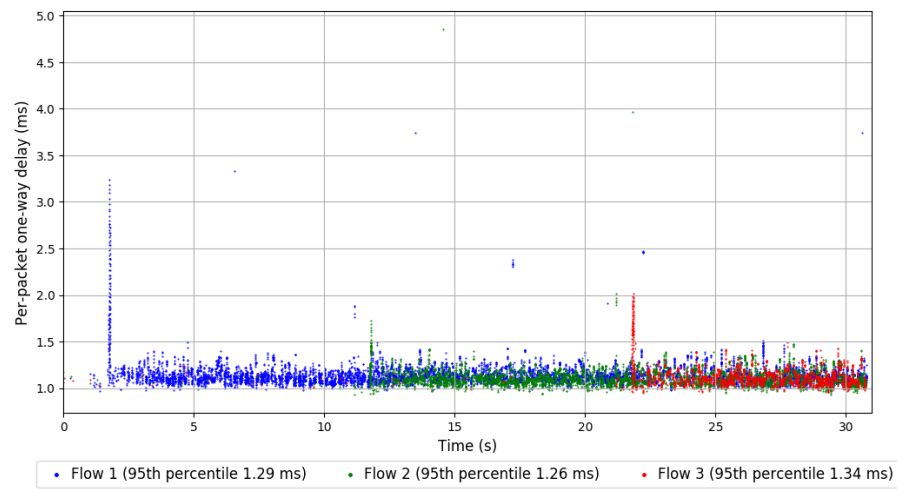
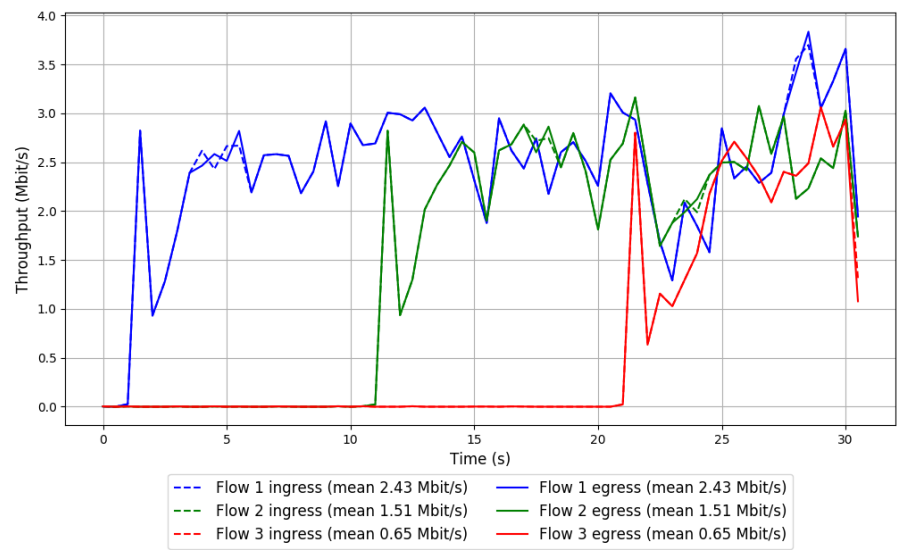Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-01-10 01:05:07
End at: 2018-01-10 01:05:37
Local clock offset: -1.672 ms
Remote clock offset: -1.543 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 1.220 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 1.205 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 1.255 ms
Loss rate: 0.06%
```

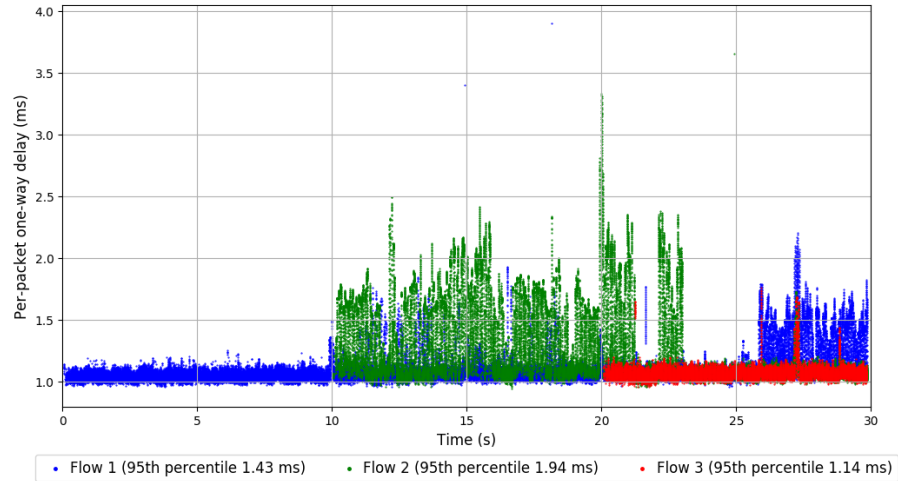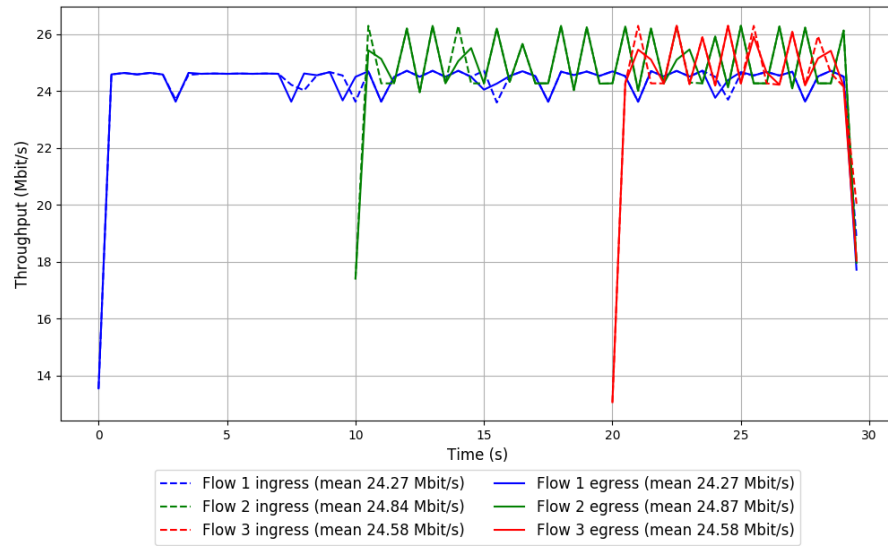Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-01-10 01:26:00
End at: 2018-01-10 01:26:30
Local clock offset: -1.725 ms
Remote clock offset: -1.291 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 1.122 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 1.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 1.117 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 1.181 ms
Loss rate: 0.00%
```
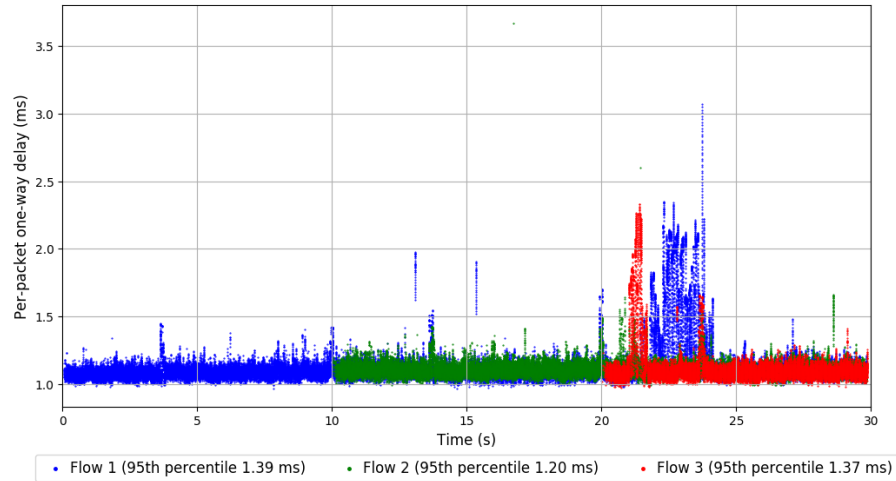
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-01-10 01:47:07
End at: 2018-01-10 01:47:37
Local clock offset: -1.717 ms
Remote clock offset: -2.352 ms

# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 1.291 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 1.265 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1.302 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1.348 ms
Loss rate: 0.00%
```
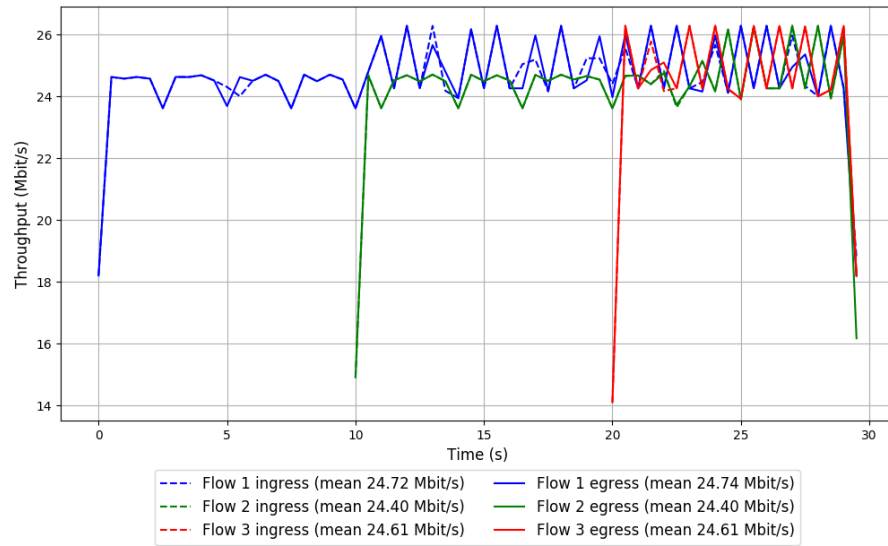
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-01-10 02:08:42
End at: 2018-01-10 02:09:12
Local clock offset: -1.907 ms
Remote clock offset: -2.267 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 1.166 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 1.169 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 1.150 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 1.189 ms
Loss rate: 0.00%
```
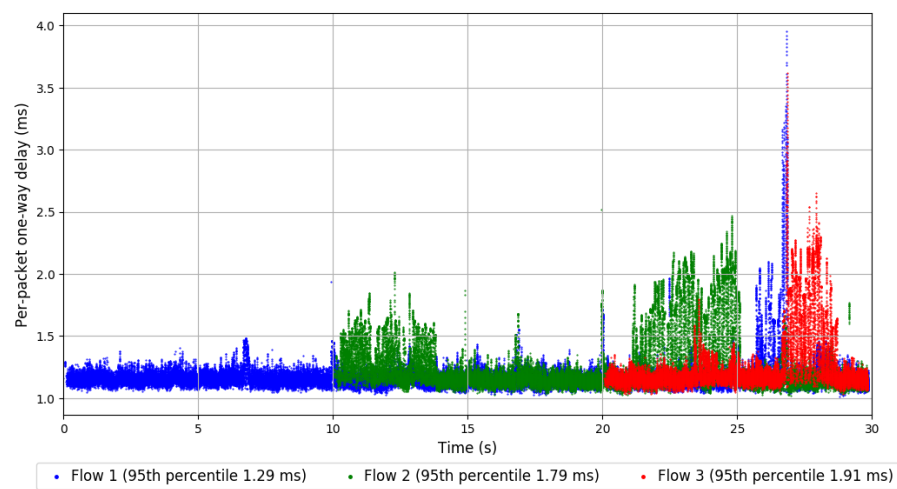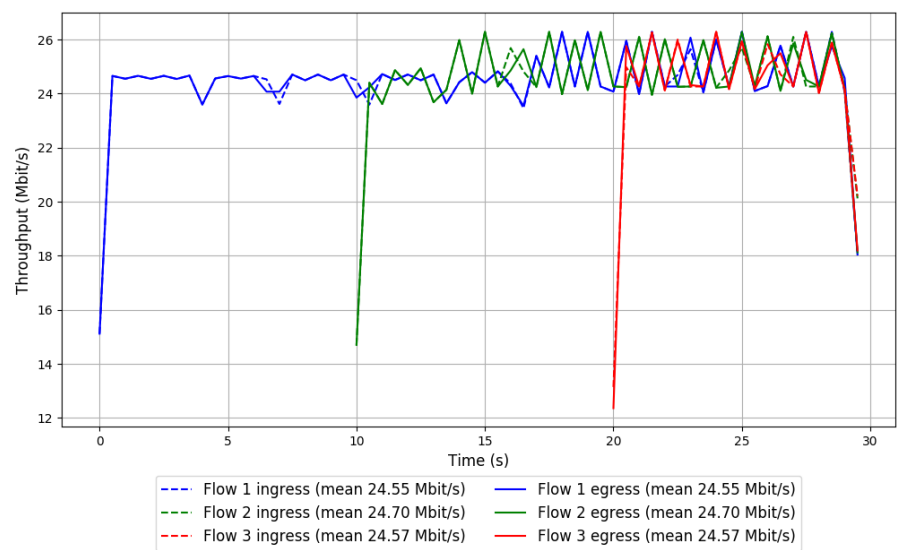
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-01-10 02:30:08
End at: 2018-01-10 02:30:38
Local clock offset: -1.919 ms
Remote clock offset: -2.354 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 1.225 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 1.207 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 1.233 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 1.251 ms
Loss rate: 0.05%
```
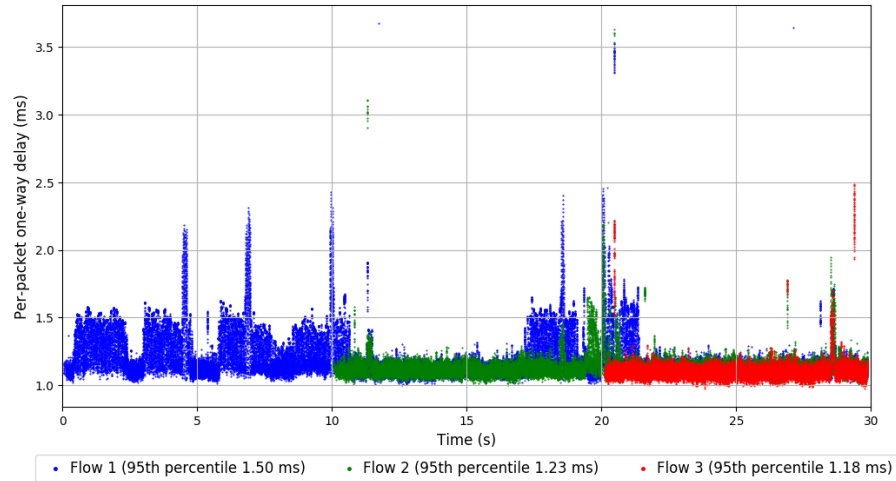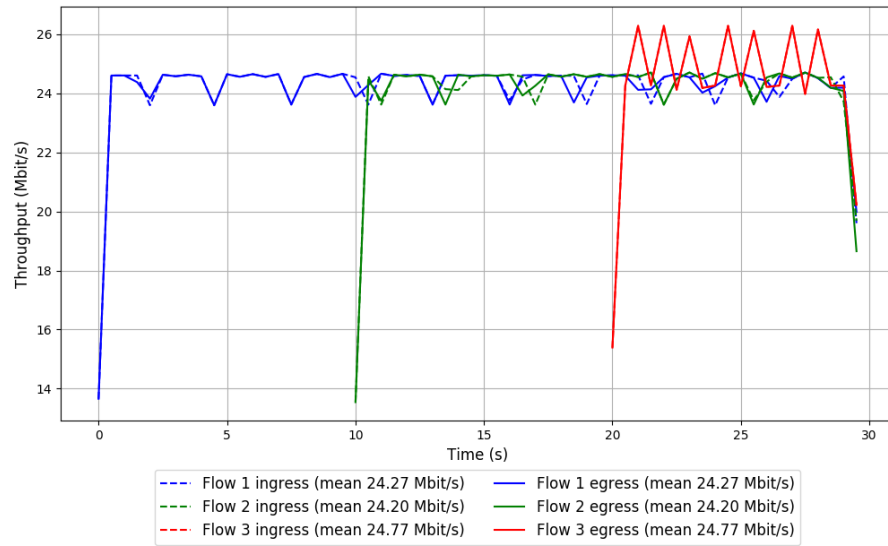
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-01-10 02:51:54
End at: 2018-01-10 02:52:24
Local clock offset: -1.634 ms
Remote clock offset: -2.879 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 1.287 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 1.294 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1.263 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1.339 ms
Loss rate: 0.57%
```

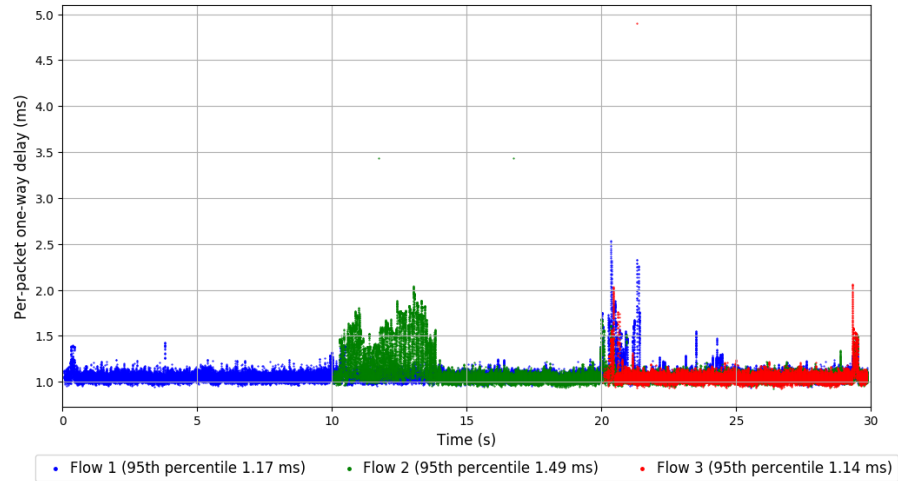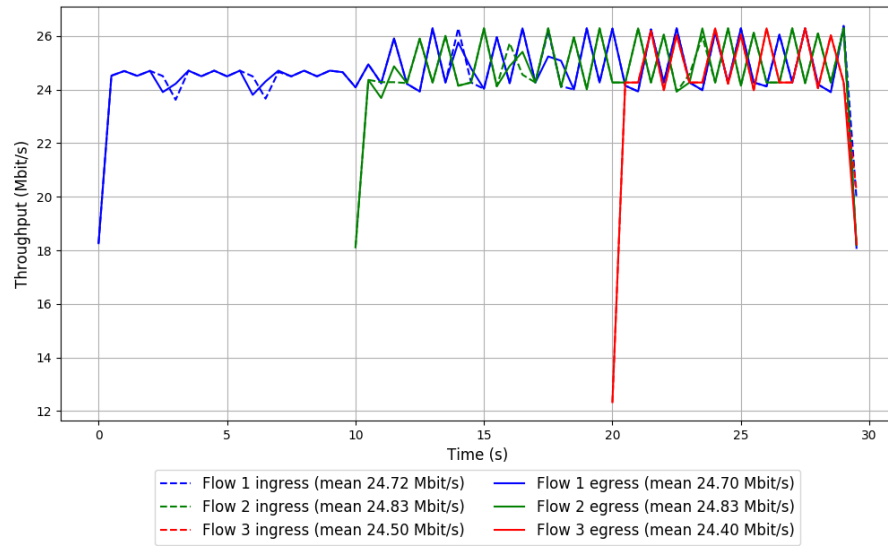## Run 10: Report of WebRTC media — Data Link

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```
Run 1: Statistics of Sprout

Start at: 2018-01-09 23:50:07
End at: 2018-01-09 23:50:37
Local clock offset: -1.053 ms
Remote clock offset: -3.341 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.86 Mbit/s
95th percentile per-packet one-way delay: 1.678 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 24.27 Mbit/s
95th percentile per-packet one-way delay: 1.427 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 1.935 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 1.136 ms
Loss rate: 0.41%
```
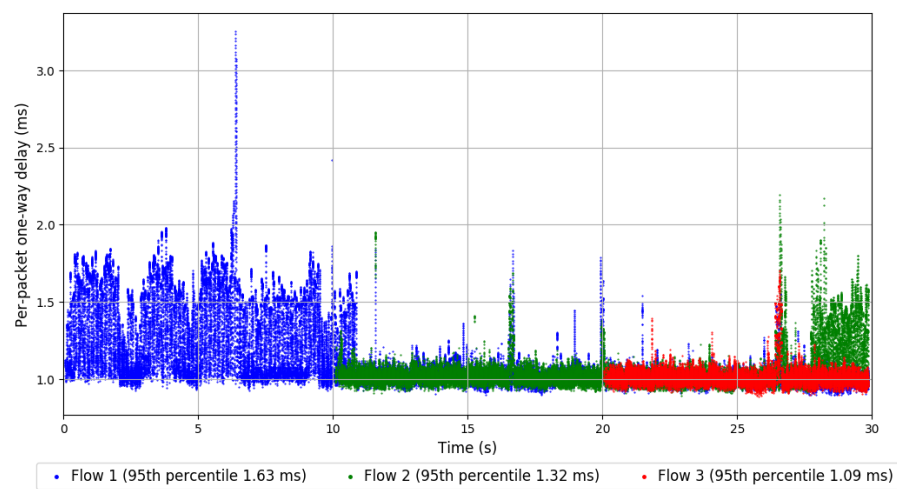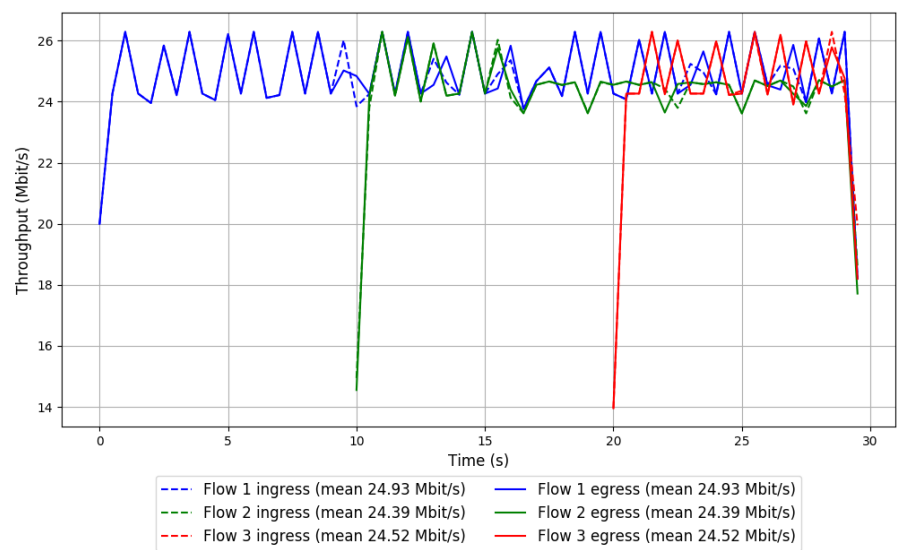
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-01-10 00:11:35
End at: 2018-01-10 00:12:05
Local clock offset: -1.288 ms
Remote clock offset: -2.624 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.03 Mbit/s
95th percentile per-packet one-way delay: 1.274 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 1.394 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 24.61 Mbit/s
95th percentile per-packet one-way delay: 1.372 ms
Loss rate: 0.00%
```
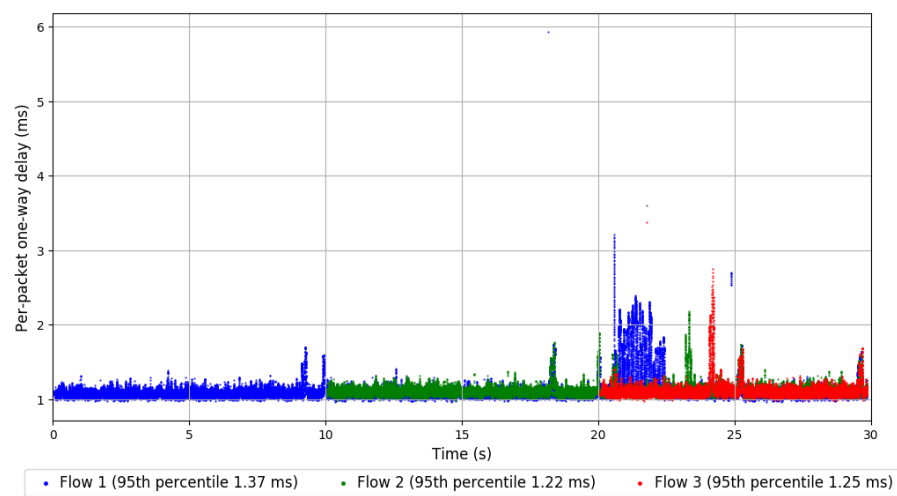
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-01-10 00:33:02
End at: 2018-01-10 00:33:32
Local clock offset: -1.325 ms
Remote clock offset: -2.051 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.99 Mbit/s
95th percentile per-packet one-way delay: 1.623 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 24.55 Mbit/s
95th percentile per-packet one-way delay: 1.289 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 1.788 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.57 Mbit/s
95th percentile per-packet one-way delay: 1.910 ms
Loss rate: 0.42%
```
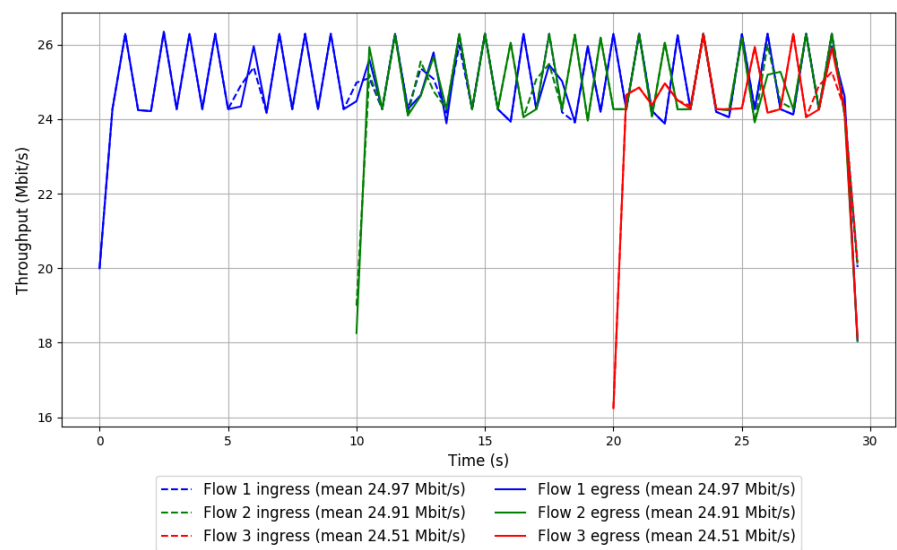
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-01-10 00:54:30
End at: 2018-01-10 00:55:00
Local clock offset: -1.529 ms
Remote clock offset: -1.791 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.49 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 24.27 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.20 Mbit/s
95th percentile per-packet one-way delay: 1.230 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.77 Mbit/s
95th percentile per-packet one-way delay: 1.175 ms
Loss rate: 0.00%
```
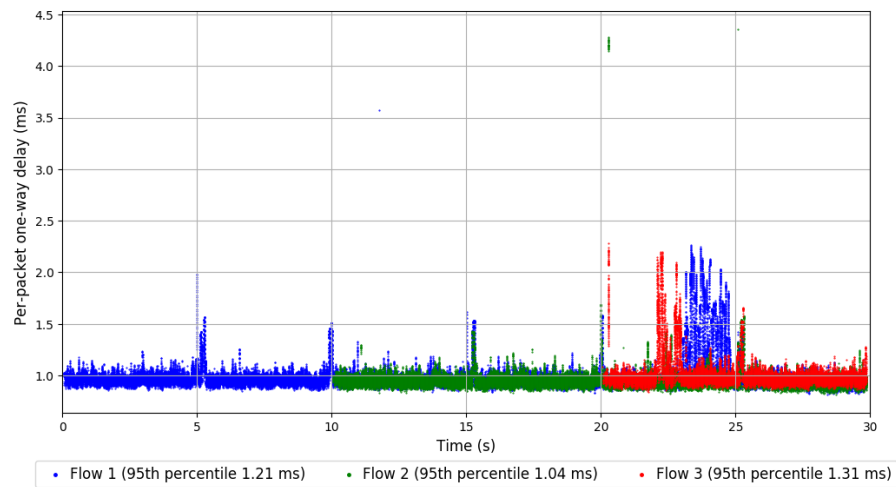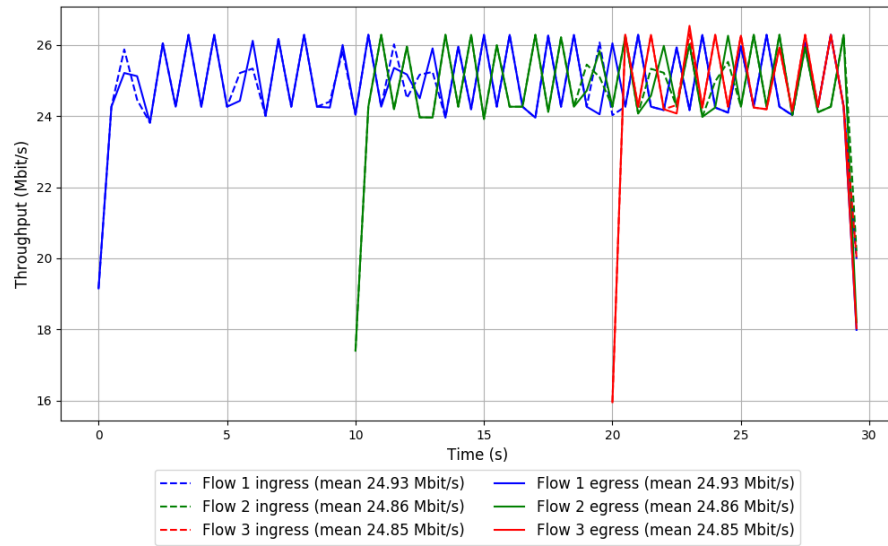
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-01-10 01:16:08
End at: 2018-01-10 01:16:38
Local clock offset: -1.795 ms
Remote clock offset: -1.381 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.22 Mbit/s
95th percentile per-packet one-way delay: 1.288 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.83 Mbit/s
95th percentile per-packet one-way delay: 1.486 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 1.141 ms
Loss rate: 0.41%
```
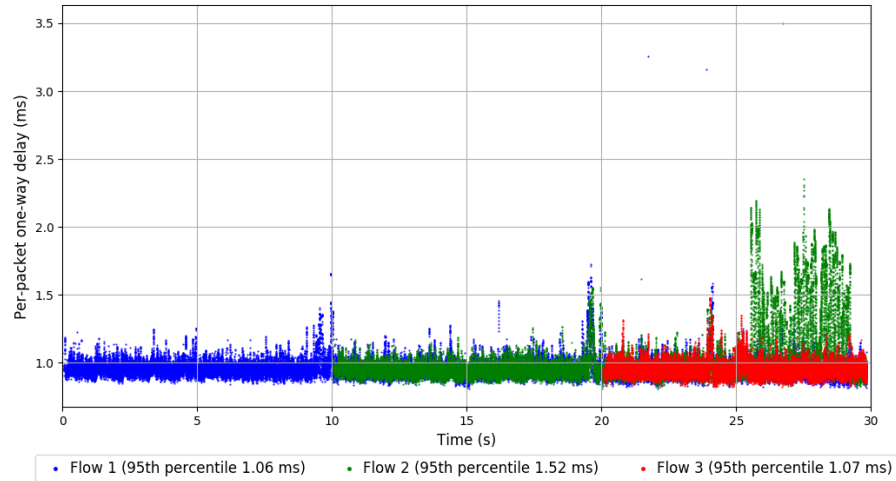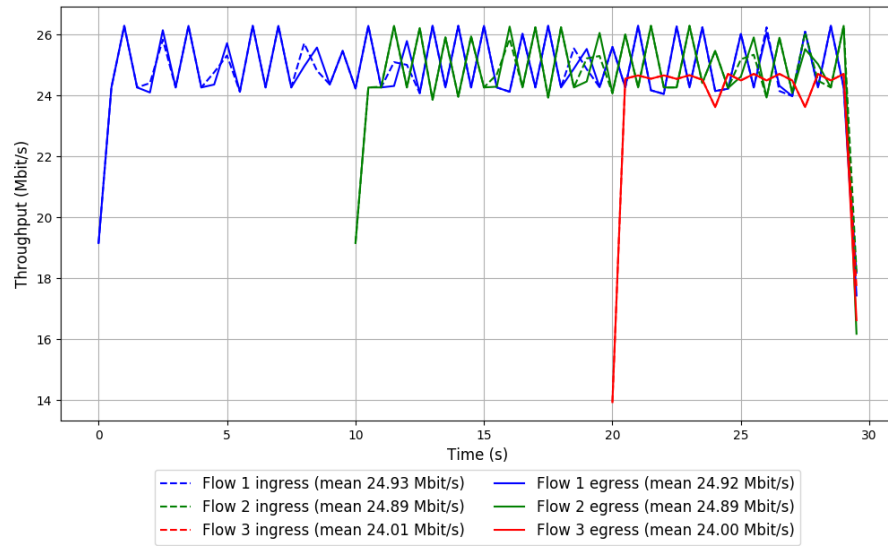
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-01-10 01:37:02
End at: 2018-01-10 01:37:32
Local clock offset: -1.715 ms
Remote clock offset: -1.802 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.18 Mbit/s
95th percentile per-packet one-way delay: 1.526 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 1.633 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 1.320 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 1.089 ms
Loss rate: 0.36%
```
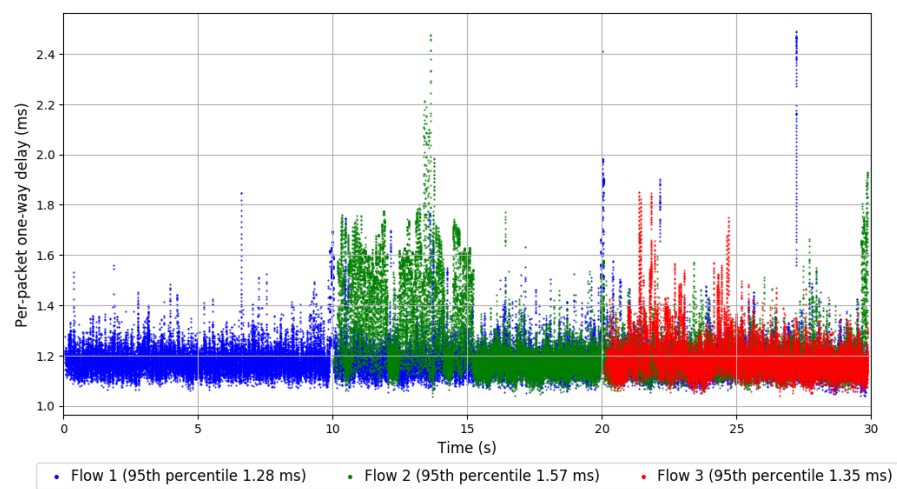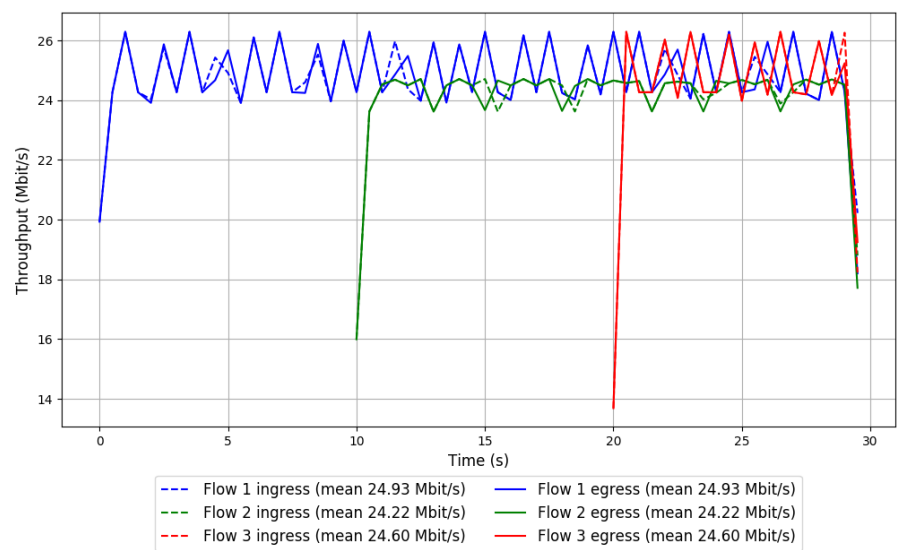
Run 6: Report of Sprout — Data Link

Flow 1 ingress (mean 24.93 Mbit/s)   Flow 1 egress (mean 24.93 Mbit/s)
Flow 2 ingress (mean 24.39 Mbit/s)   Flow 2 egress (mean 24.39 Mbit/s)
Flow 3 ingress (mean 24.52 Mbit/s)   Flow 3 egress (mean 24.52 Mbit/s)

• Flow 1 (95th percentile 1.63 ms)   • Flow 2 (95th percentile 1.32 ms)   • Flow 3 (95th percentile 1.09 ms)

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```
Run 7: Statistics of Sprout

Start at: 2018-01-10 01:58:20
End at: 2018-01-10 01:58:50
Local clock offset: -1.836 ms
Remote clock offset: -2.141 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 1.268 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 24.97 Mbit/s
95th percentile per-packet one-way delay: 1.373 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.91 Mbit/s
95th percentile per-packet one-way delay: 1.223 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 1.248 ms
Loss rate: 0.42%
```
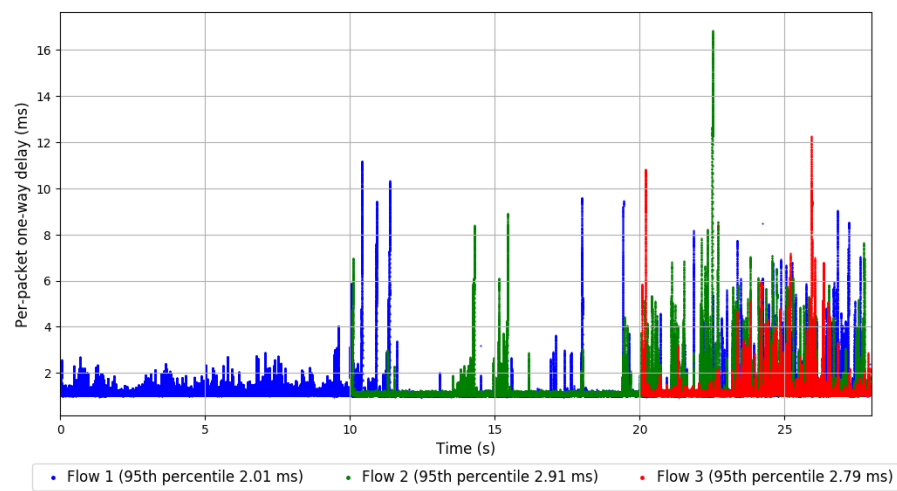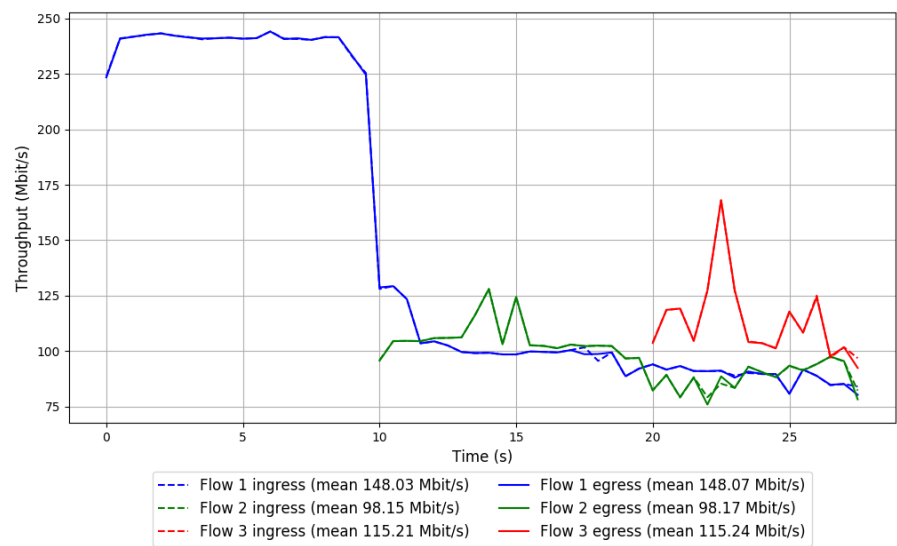
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-01-10 02:19:54
End at: 2018-01-10 02:20:24
Local clock offset: -1.906 ms
Remote clock offset: -2.285 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.60 Mbit/s
95th percentile per-packet one-way delay: 1.139 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 1.207 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.86 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.85 Mbit/s
95th percentile per-packet one-way delay: 1.315 ms
Loss rate: 0.41%
```

Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-01-10 02:41:19
End at: 2018-01-10 02:41:49
Local clock offset: -1.854 ms
Remote clock offset: -2.442 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 1.161 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 1.061 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 24.89 Mbit/s
95th percentile per-packet one-way delay: 1.516 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.00 Mbit/s
95th percentile per-packet one-way delay: 1.066 ms
Loss rate: 0.23%
```
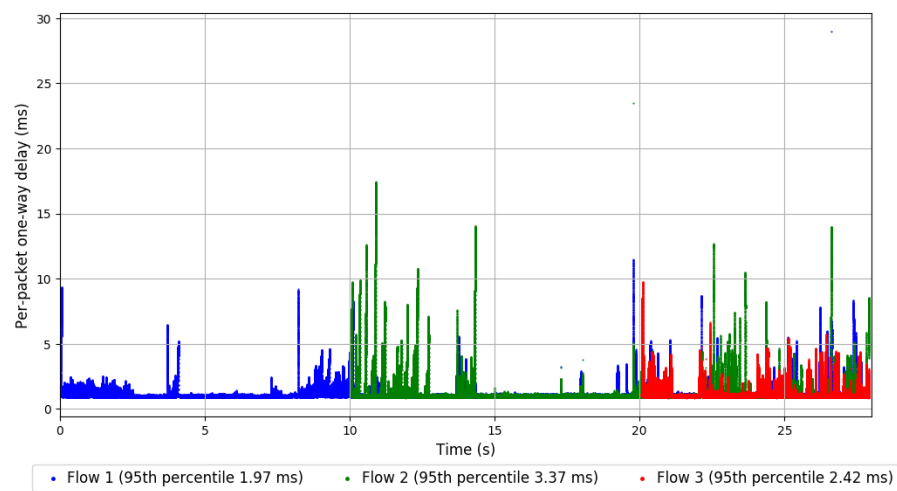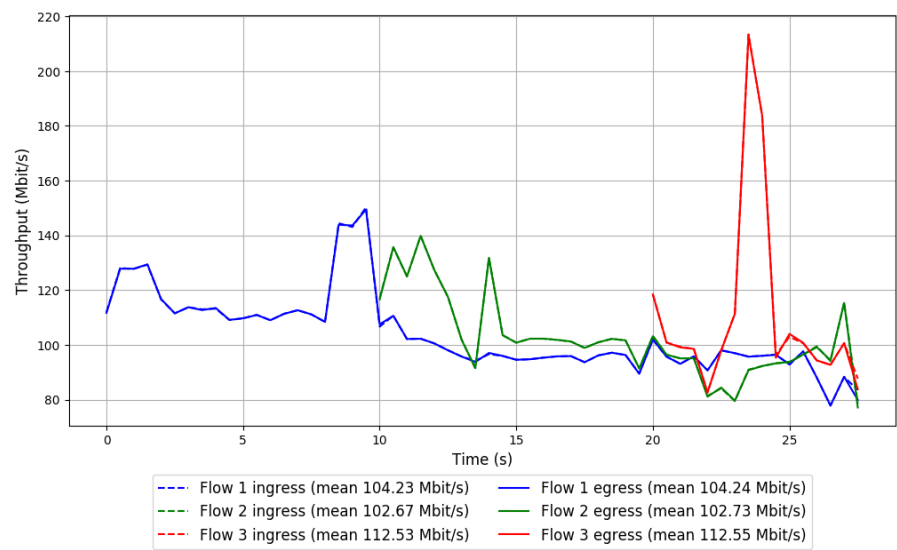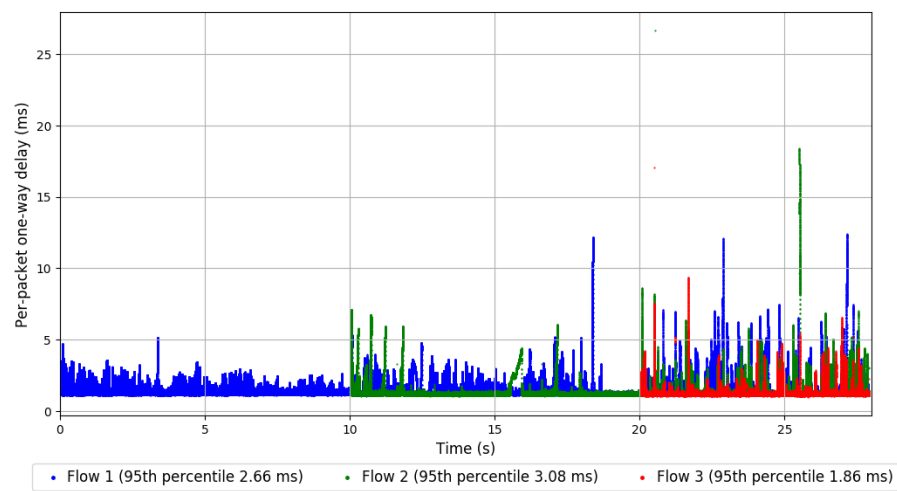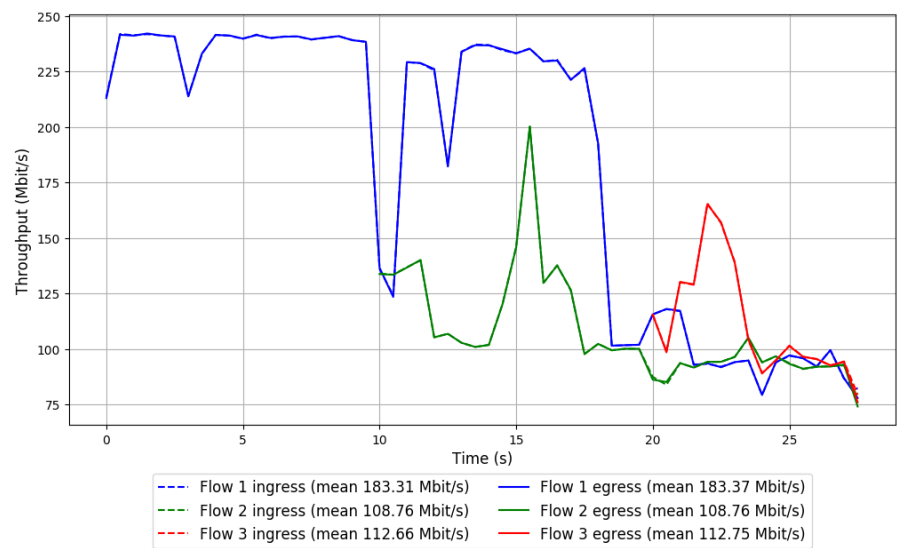
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-01-10 03:02:59
End at: 2018-01-10 03:03:29
Local clock offset: -1.276 ms
Remote clock offset: -3.019 ms


# Below is generated by plot.py at 2018-01-10 08:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.10 Mbit/s
95th percentile per-packet one-way delay: 1.422 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 1.283 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 24.22 Mbit/s
95th percentile per-packet one-way delay: 1.569 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.60 Mbit/s
95th percentile per-packet one-way delay: 1.352 ms
Loss rate: 0.00%
```
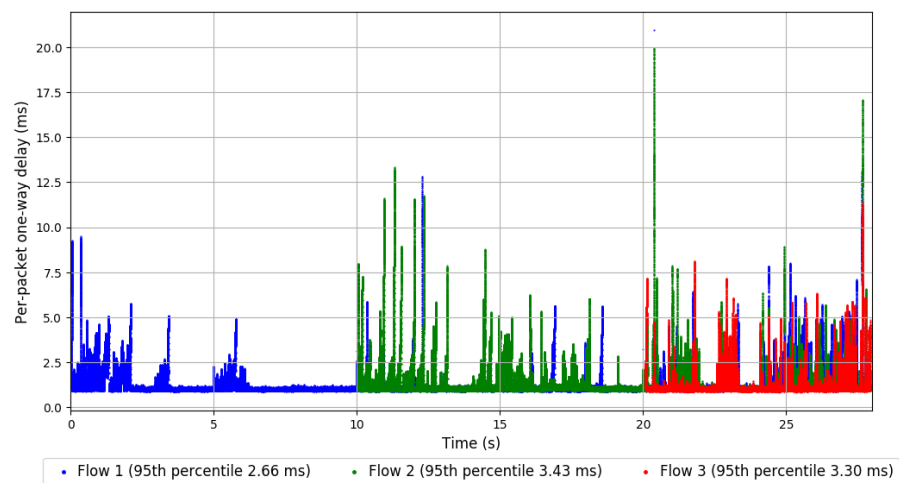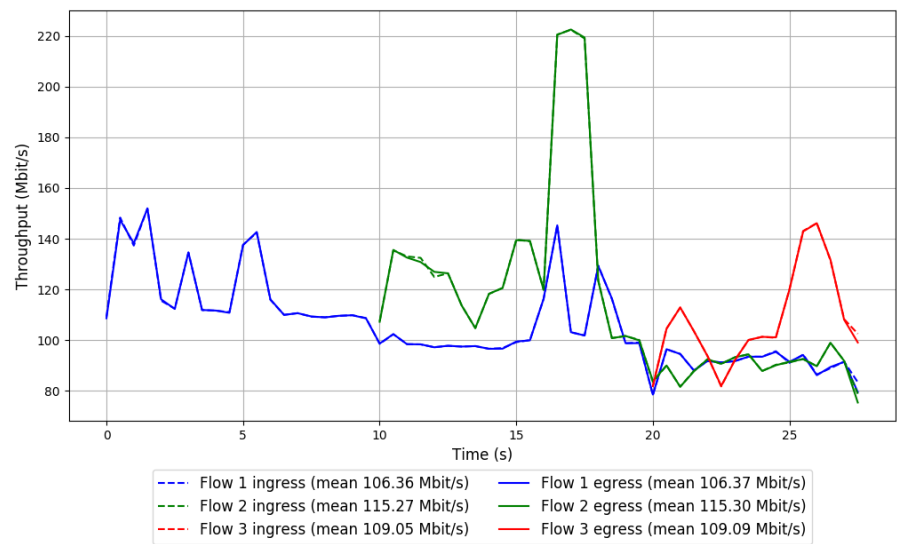
Run 10: Report of Sprout — Data Link

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

Start at: 2018-01-09 23:40:07
End at: 2018-01-09 23:40:37
Local clock offset: -0.801 ms
Remote clock offset: -3.651 ms


# Below is generated by plot.py at 2018-01-10 08:40:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 243.57 Mbit/s
95th percentile per-packet one-way delay: 2.264 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 148.07 Mbit/s
95th percentile per-packet one-way delay: 2.008 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 98.17 Mbit/s
95th percentile per-packet one-way delay: 2.909 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 115.24 Mbit/s
95th percentile per-packet one-way delay: 2.787 ms
Loss rate: 0.26%
```
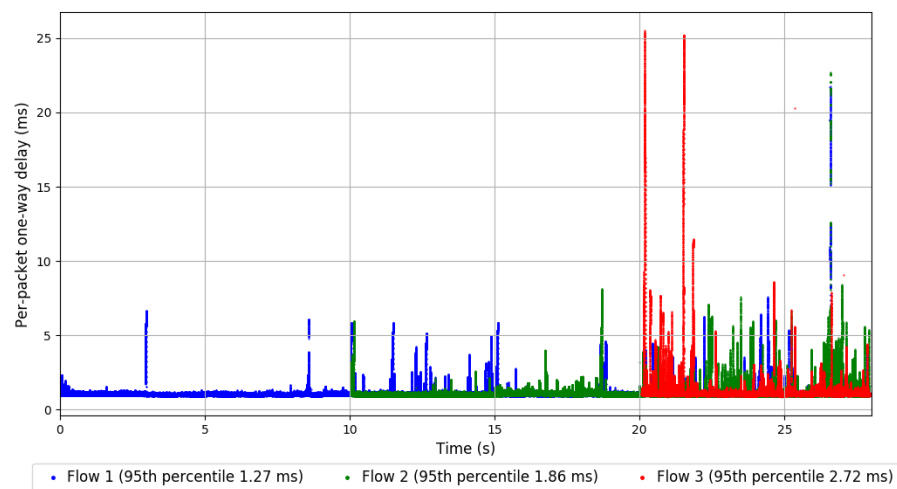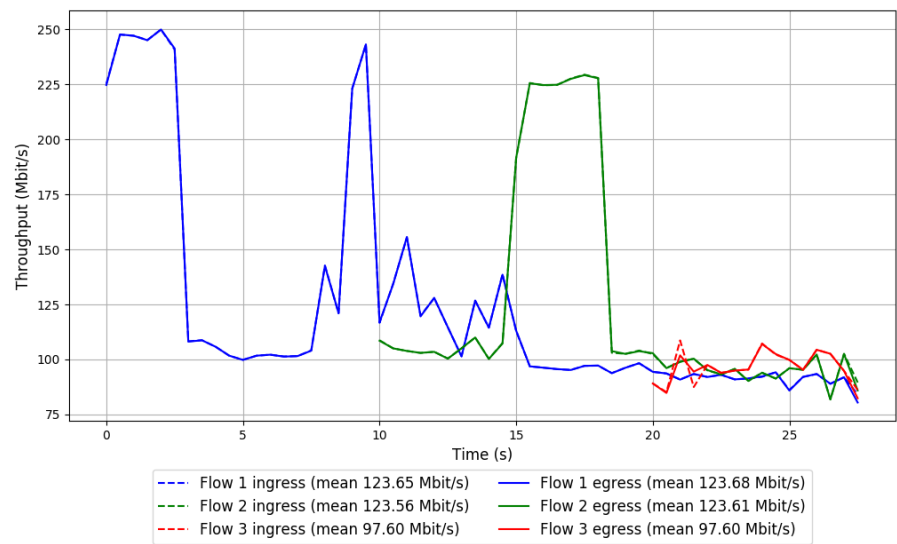
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 148.03 Mbit/s)   Flow 1 egress (mean 148.07 Mbit/s)
Flow 2 ingress (mean 98.15 Mbit/s)   Flow 2 egress (mean 98.17 Mbit/s)
Flow 3 ingress (mean 115.21 Mbit/s)   Flow 3 egress (mean 115.24 Mbit/s)

• Flow 1 (95th percentile 2.01 ms)   • Flow 2 (95th percentile 2.91 ms)   • Flow 3 (95th percentile 2.79 ms)

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

Start at: 2018-01-10 00:01:43
End at: 2018-01-10 00:02:13
Local clock offset: -1.241 ms
Remote clock offset: -3.02 ms


# Below is generated by plot.py at 2018-01-10 08:40:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 201.97 Mbit/s
95th percentile per-packet one-way delay: 2.410 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 104.24 Mbit/s
95th percentile per-packet one-way delay: 1.968 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 102.73 Mbit/s
95th percentile per-packet one-way delay: 3.372 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 112.55 Mbit/s
95th percentile per-packet one-way delay: 2.425 ms
Loss rate: 0.23%
```
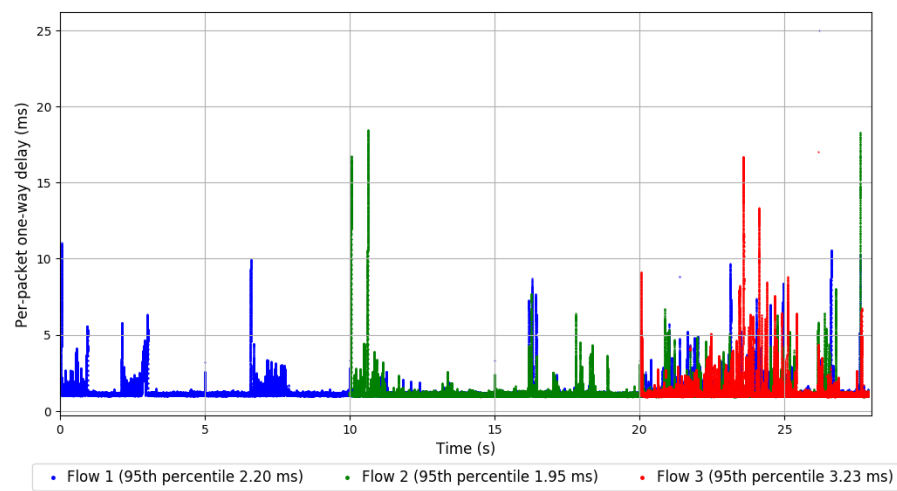
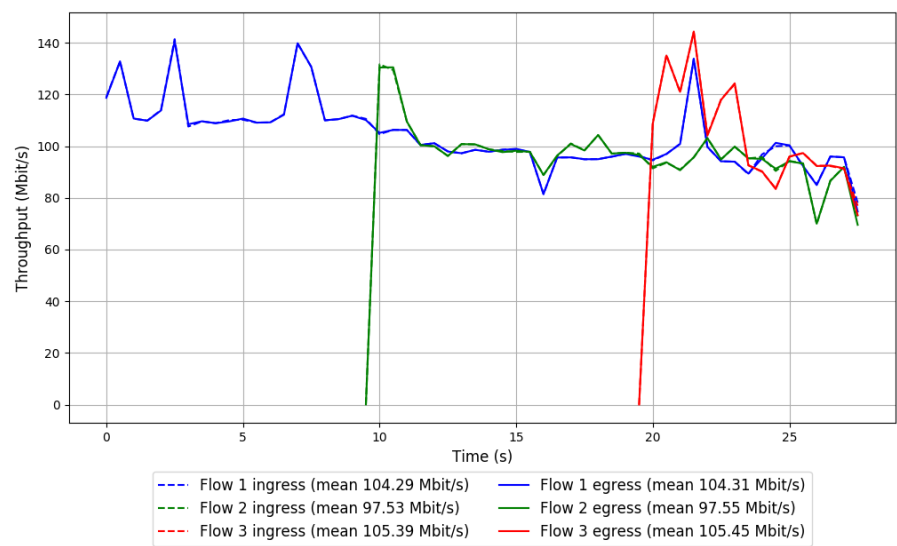Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-01-10 00:23:06
End at: 2018-01-10 00:23:36
Local clock offset: -1.312 ms
Remote clock offset: -2.331 ms


# Below is generated by plot.py at 2018-01-10 08:43:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.02 Mbit/s
95th percentile per-packet one-way delay: 2.681 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 183.37 Mbit/s
95th percentile per-packet one-way delay: 2.663 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 108.76 Mbit/s
95th percentile per-packet one-way delay: 3.079 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 112.75 Mbit/s
95th percentile per-packet one-way delay: 1.859 ms
Loss rate: 0.20%
```

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

- - - - Flow 1 ingress (mean 183.31 Mbit/s)   ——— Flow 1 egress (mean 183.37 Mbit/s)
- - - - Flow 2 ingress (mean 108.76 Mbit/s)   ——— Flow 2 egress (mean 108.76 Mbit/s)
- - - - Flow 3 ingress (mean 112.66 Mbit/s)   ——— Flow 3 egress (mean 112.75 Mbit/s)

- Flow 1 (95th percentile 2.66 ms)   • Flow 2 (95th percentile 3.08 ms)   • Flow 3 (95th percentile 1.86 ms)
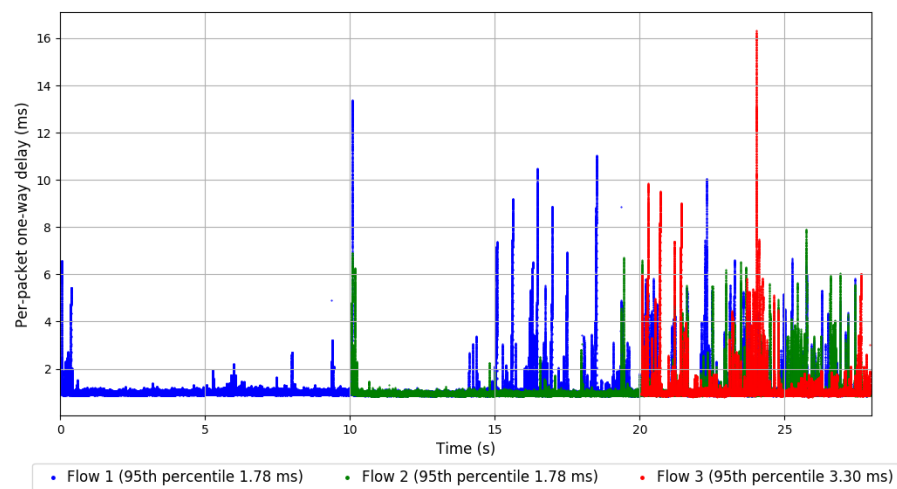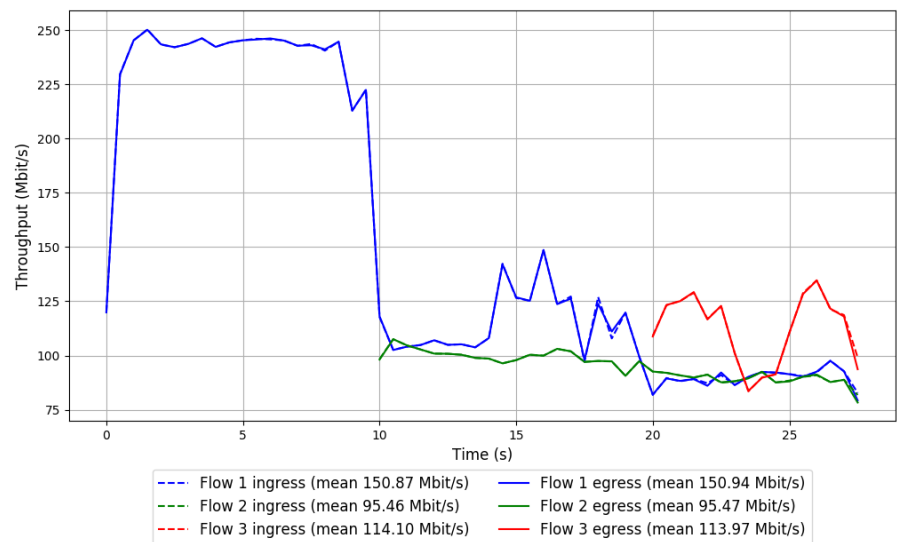
```
Run 4: Statistics of TaoVA-100x

Start at: 2018-01-10 00:44:36
End at: 2018-01-10 00:45:06
Local clock offset: -1.483 ms
Remote clock offset: -2.029 ms

# Below is generated by plot.py at 2018-01-10 08:43:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 211.17 Mbit/s
95th percentile per-packet one-way delay: 2.984 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 106.37 Mbit/s
95th percentile per-packet one-way delay: 2.659 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 115.30 Mbit/s
95th percentile per-packet one-way delay: 3.426 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 109.09 Mbit/s
95th percentile per-packet one-way delay: 3.299 ms
Loss rate: 0.21%
```
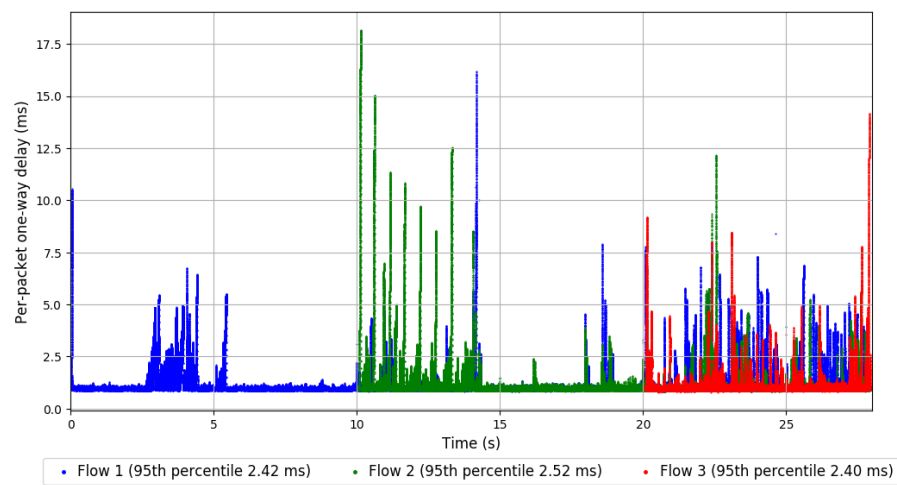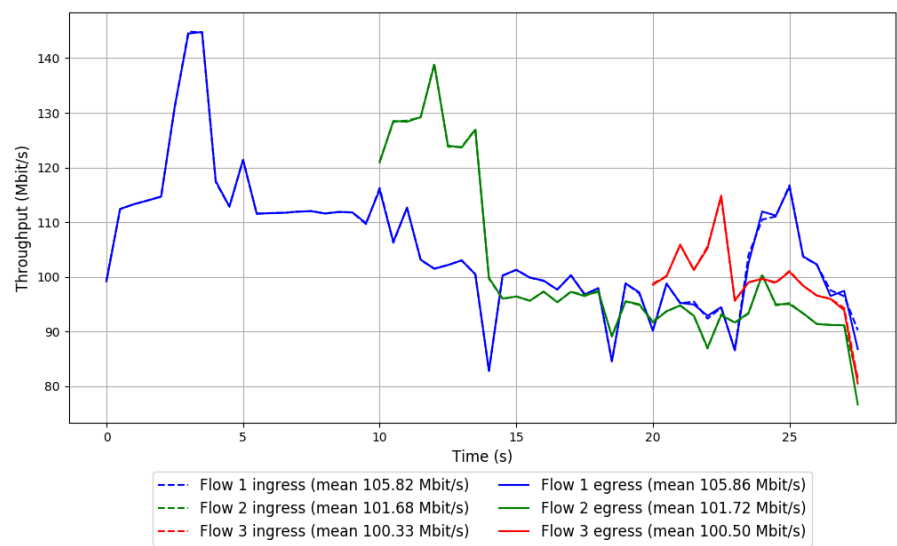
Run 4: Report of TaoVA-100x — Data Link

- Flow 1 ingress (mean 106.36 Mbit/s)
- Flow 1 egress (mean 106.37 Mbit/s)
- Flow 2 ingress (mean 115.27 Mbit/s)
- Flow 2 egress (mean 115.30 Mbit/s)
- Flow 3 ingress (mean 109.05 Mbit/s)
- Flow 3 egress (mean 109.09 Mbit/s)

- Flow 1 (95th percentile 2.66 ms)
- Flow 2 (95th percentile 3.43 ms)
- Flow 3 (95th percentile 3.30 ms)

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

Start at: 2018-01-10 01:06:18
End at: 2018-01-10 01:06:48
Local clock offset: -1.754 ms
Remote clock offset: -1.514 ms

# Below is generated by plot.py at 2018-01-10 08:43:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 230.54 Mbit/s
95th percentile per-packet one-way delay: 1.696 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 123.68 Mbit/s
95th percentile per-packet one-way delay: 1.270 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 123.61 Mbit/s
95th percentile per-packet one-way delay: 1.861 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 97.60 Mbit/s
95th percentile per-packet one-way delay: 2.723 ms
Loss rate: 0.26%
```
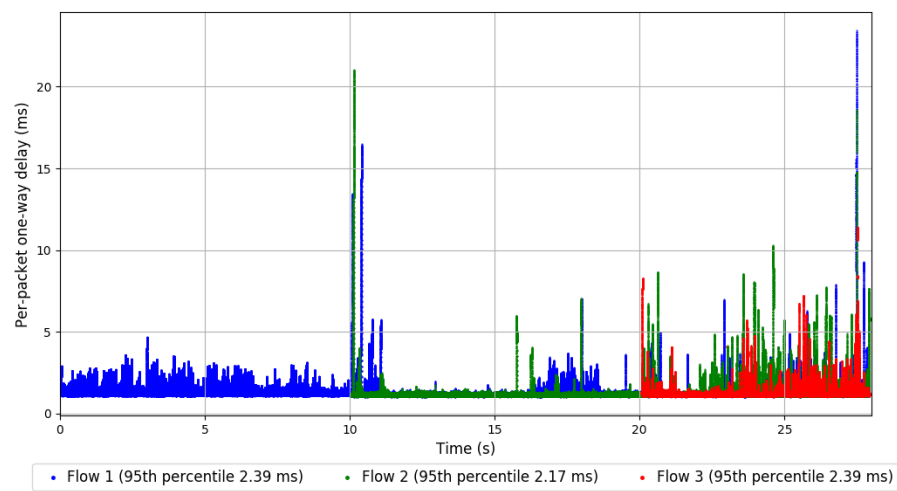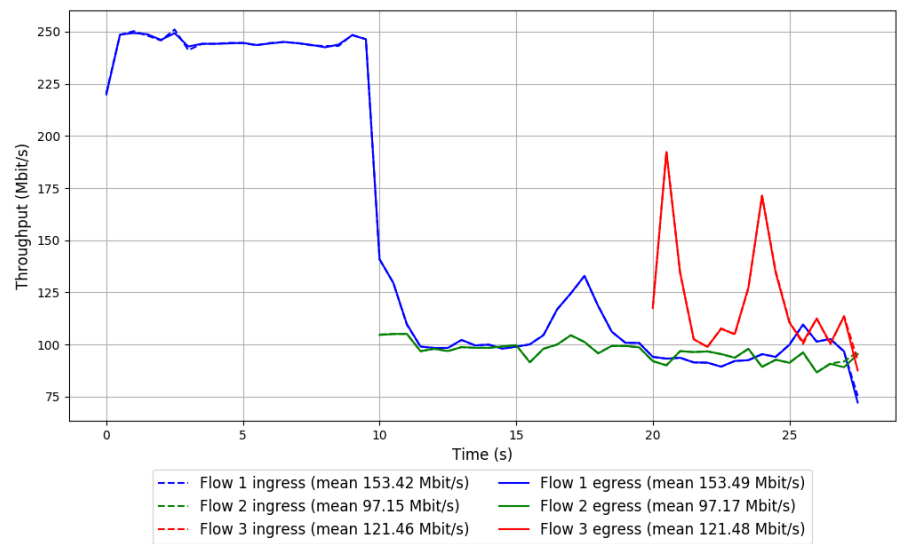
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 123.65 Mbit/s)   Flow 1 egress (mean 123.68 Mbit/s)
Flow 2 ingress (mean 123.56 Mbit/s)   Flow 2 egress (mean 123.61 Mbit/s)
Flow 3 ingress (mean 97.60 Mbit/s)   Flow 3 egress (mean 97.60 Mbit/s)

Flow 1 (95th percentile 1.27 ms)   Flow 2 (95th percentile 1.86 ms)   Flow 3 (95th percentile 2.72 ms)

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

Start at: 2018-01-10 01:27:11
End at: 2018-01-10 01:27:41
Local clock offset: -1.698 ms
Remote clock offset: -1.403 ms

# Below is generated by plot.py at 2018-01-10 08:43:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 196.85 Mbit/s
95th percentile per-packet one-way delay: 2.263 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 104.31 Mbit/s
95th percentile per-packet one-way delay: 2.196 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 97.55 Mbit/s
95th percentile per-packet one-way delay: 1.946 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 105.45 Mbit/s
95th percentile per-packet one-way delay: 3.225 ms
Loss rate: 0.22%
```
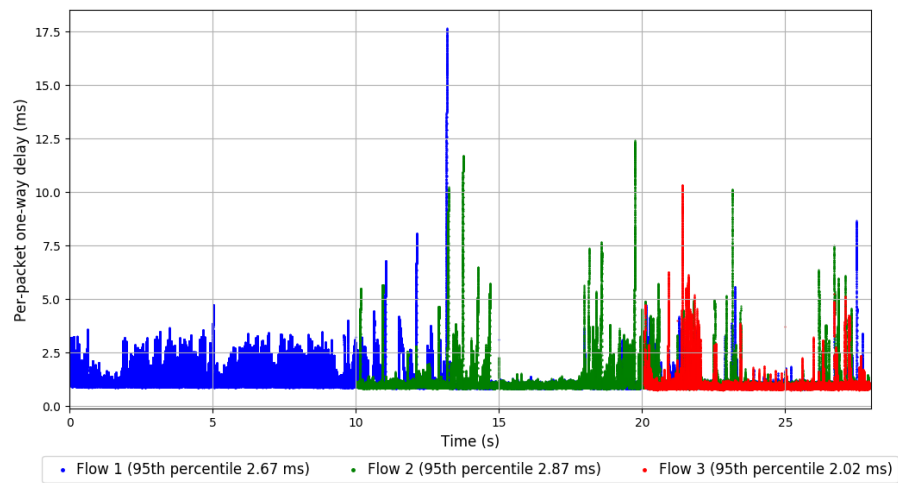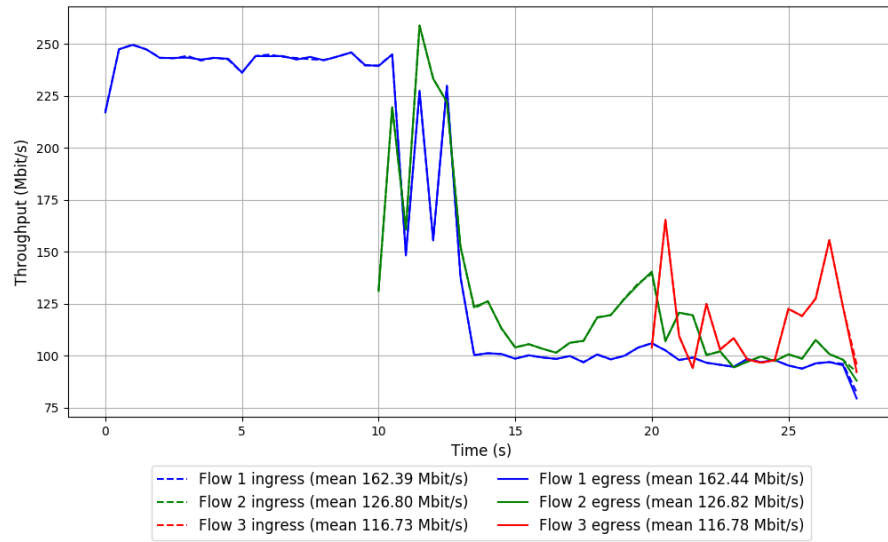
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 104.29 Mbit/s)   Flow 1 egress (mean 104.31 Mbit/s)
Flow 2 ingress (mean 97.53 Mbit/s)   Flow 2 egress (mean 97.55 Mbit/s)
Flow 3 ingress (mean 105.39 Mbit/s)   Flow 3 egress (mean 105.45 Mbit/s)

Flow 1 (95th percentile 2.20 ms)   Flow 2 (95th percentile 1.95 ms)   Flow 3 (95th percentile 3.23 ms)

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

Start at: 2018-01-10 01:48:17
End at: 2018-01-10 01:48:47
Local clock offset: -1.811 ms
Remote clock offset: -2.243 ms

# Below is generated by plot.py at 2018-01-10 08:48:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.35 Mbit/s
95th percentile per-packet one-way delay: 1.956 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 150.94 Mbit/s
95th percentile per-packet one-way delay: 1.782 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 1.776 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 113.97 Mbit/s
95th percentile per-packet one-way delay: 3.297 ms
Loss rate: 0.35%
```
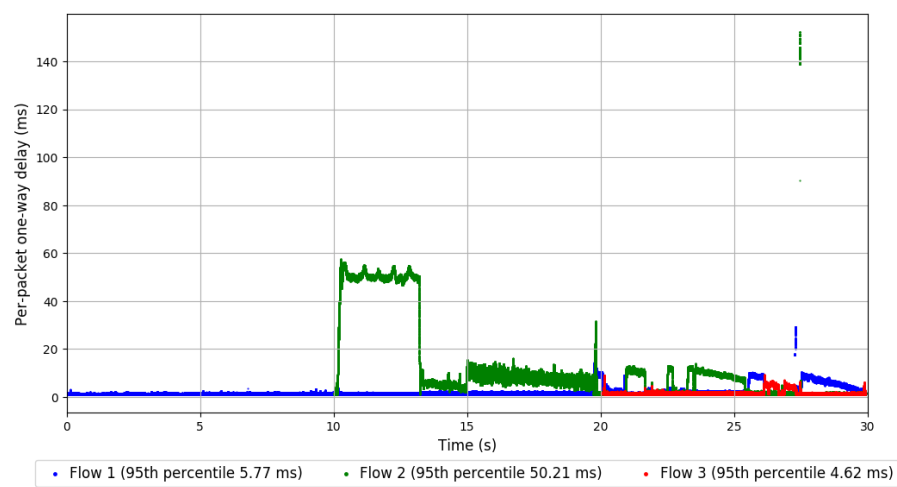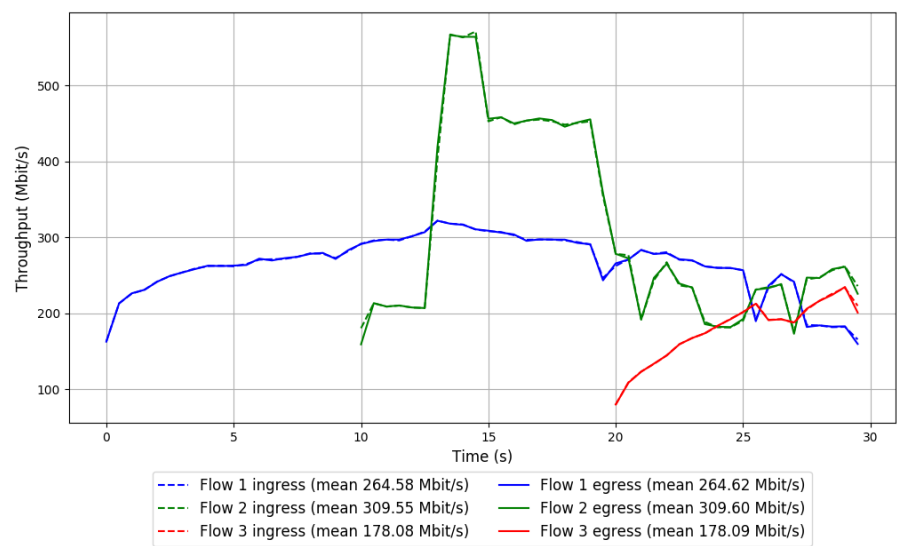
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 150.87 Mbit/s) --- Flow 1 egress (mean 150.94 Mbit/s)
Flow 2 ingress (mean 95.46 Mbit/s) --- Flow 2 egress (mean 95.47 Mbit/s)
Flow 3 ingress (mean 114.10 Mbit/s) --- Flow 3 egress (mean 113.97 Mbit/s)

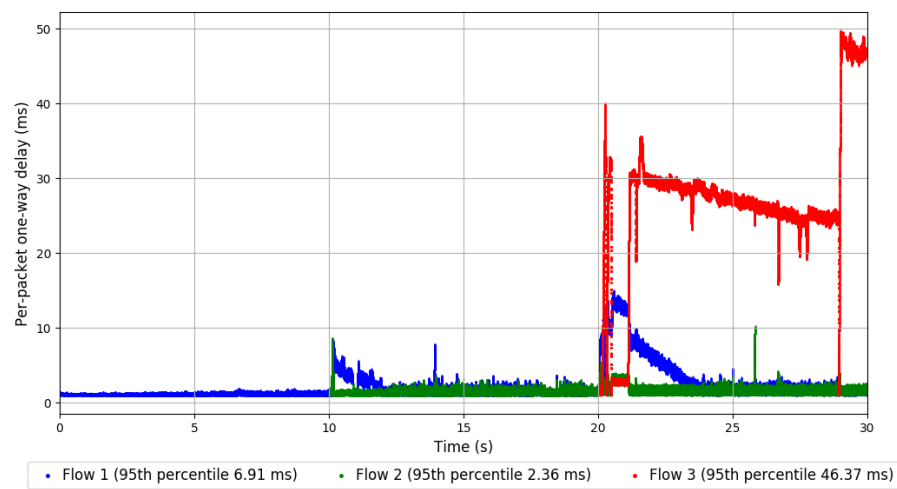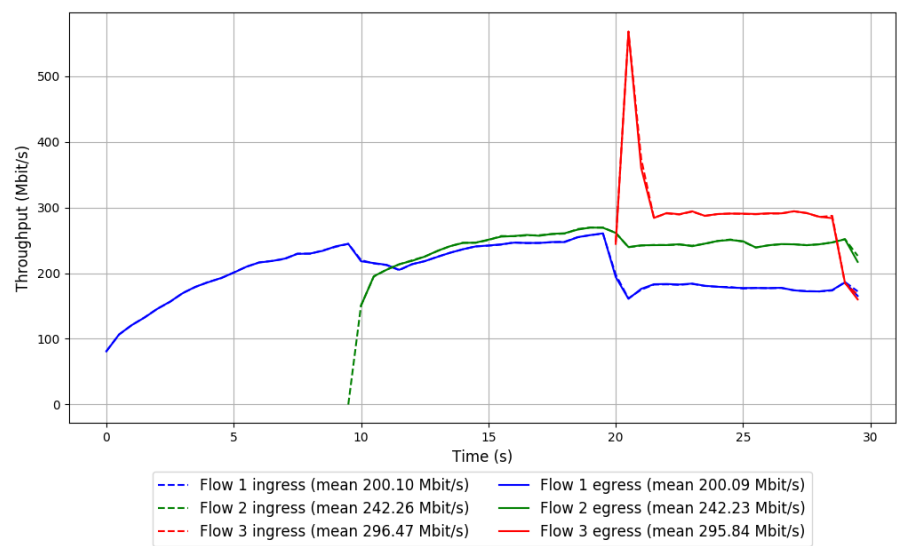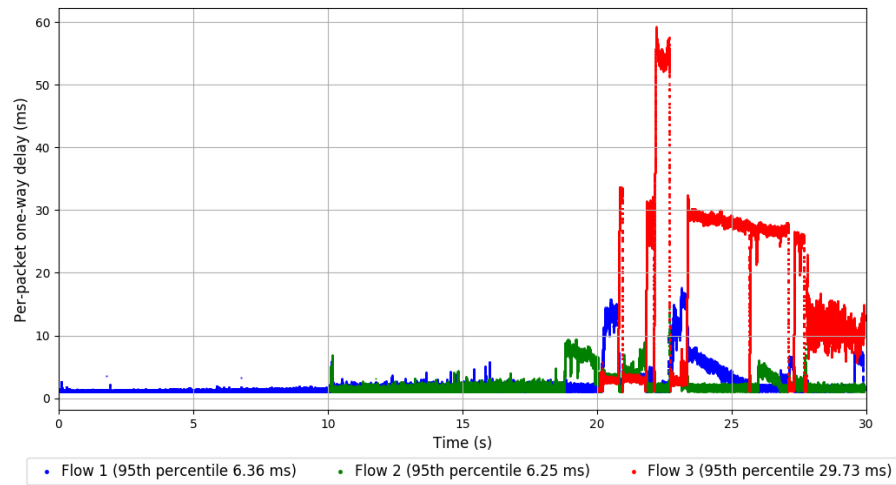Flow 1 (95th percentile 1.78 ms) • Flow 2 (95th percentile 1.78 ms) • Flow 3 (95th percentile 3.30 ms)

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

Start at: 2018-01-10 02:09:53
End at: 2018-01-10 02:10:23
Local clock offset: -1.912 ms
Remote clock offset: -2.179 ms


# Below is generated by plot.py at 2018-01-10 08:48:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.47 Mbit/s
95th percentile per-packet one-way delay: 2.442 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 105.86 Mbit/s
95th percentile per-packet one-way delay: 2.417 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 101.72 Mbit/s
95th percentile per-packet one-way delay: 2.517 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 100.50 Mbit/s
95th percentile per-packet one-way delay: 2.404 ms
Loss rate: 0.09%
```

Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 105.82 Mbit/s) --- Flow 1 egress (mean 105.86 Mbit/s)
Flow 2 ingress (mean 101.68 Mbit/s) --- Flow 2 egress (mean 101.72 Mbit/s)
Flow 3 ingress (mean 100.33 Mbit/s) --- Flow 3 egress (mean 100.50 Mbit/s)

Flow 1 (95th percentile 2.42 ms) • Flow 2 (95th percentile 2.52 ms) • Flow 3 (95th percentile 2.40 ms)
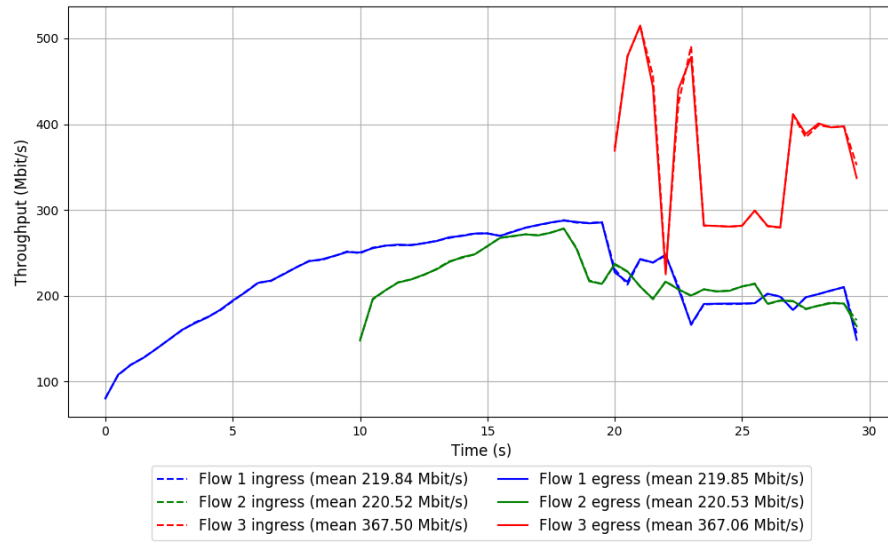
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```
Run 9: Statistics of TaoVA-100x

Start at: 2018-01-10 02:31:19
End at: 2018-01-10 02:31:49
Local clock offset: -1.849 ms
Remote clock offset: -2.31 ms


# Below is generated by plot.py at 2018-01-10 08:51:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.10 Mbit/s
95th percentile per-packet one-way delay: 2.363 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 153.49 Mbit/s
95th percentile per-packet one-way delay: 2.386 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 97.17 Mbit/s
95th percentile per-packet one-way delay: 2.167 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 121.48 Mbit/s
95th percentile per-packet one-way delay: 2.390 ms
Loss rate: 0.27%
```

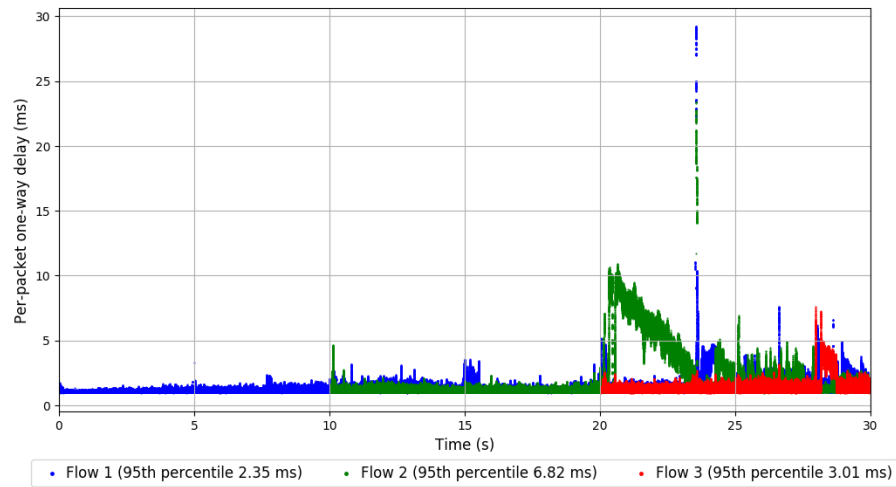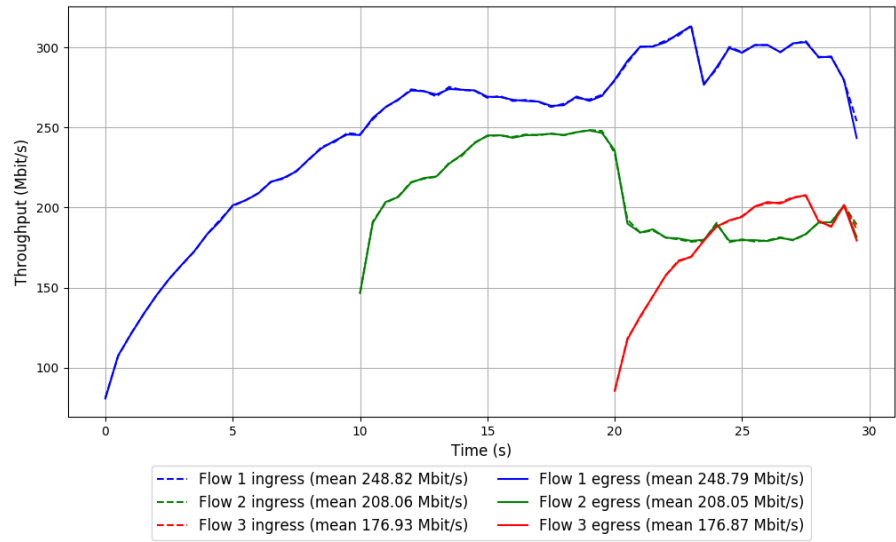Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2018-01-10 02:53:05
End at: 2018-01-10 02:53:35
Local clock offset: -1.726 ms
Remote clock offset: -2.877 ms

# Below is generated by plot.py at 2018-01-10 08:53:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 276.73 Mbit/s
95th percentile per-packet one-way delay: 2.674 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 162.44 Mbit/s
95th percentile per-packet one-way delay: 2.667 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 126.82 Mbit/s
95th percentile per-packet one-way delay: 2.873 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 116.78 Mbit/s
95th percentile per-packet one-way delay: 2.015 ms
Loss rate: 0.21%
```
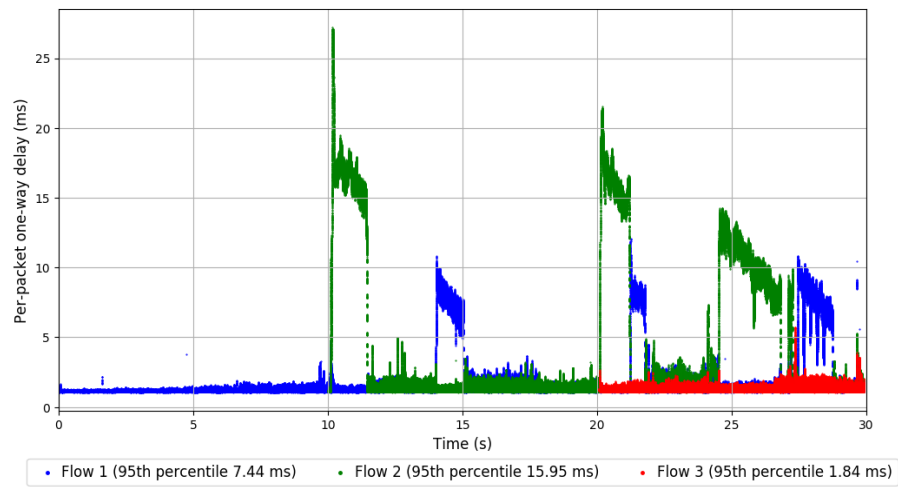
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 162.39 Mbit/s) --- Flow 1 egress (mean 162.44 Mbit/s)
Flow 2 ingress (mean 126.80 Mbit/s) --- Flow 2 egress (mean 126.82 Mbit/s)
Flow 3 ingress (mean 116.73 Mbit/s) --- Flow 3 egress (mean 116.78 Mbit/s)

Flow 1 (95th percentile 2.67 ms) • Flow 2 (95th percentile 2.87 ms) • Flow 3 (95th percentile 2.02 ms)
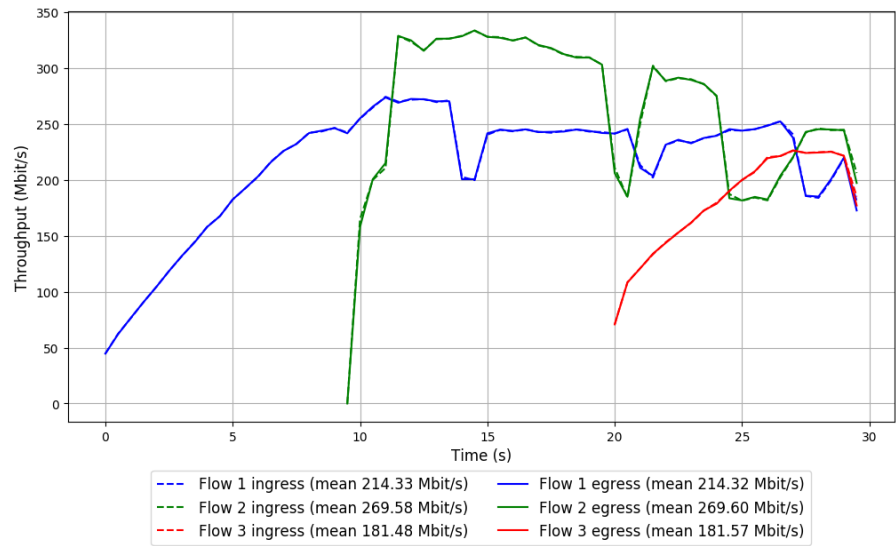
```
Run 1: Statistics of TCP Vegas

Start at: 2018-01-09 23:48:35
End at: 2018-01-09 23:49:05
Local clock offset: -0.923 ms
Remote clock offset: -3.398 ms


# Below is generated by plot.py at 2018-01-10 08:54:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 529.79 Mbit/s
95th percentile per-packet one-way delay: 12.053 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 264.62 Mbit/s
95th percentile per-packet one-way delay: 5.770 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 309.60 Mbit/s
95th percentile per-packet one-way delay: 50.207 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 178.09 Mbit/s
95th percentile per-packet one-way delay: 4.620 ms
Loss rate: 0.26%
```
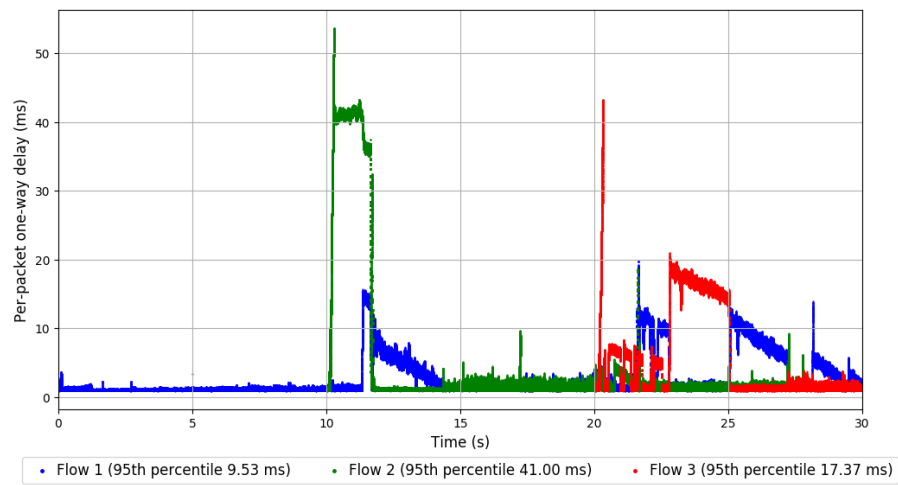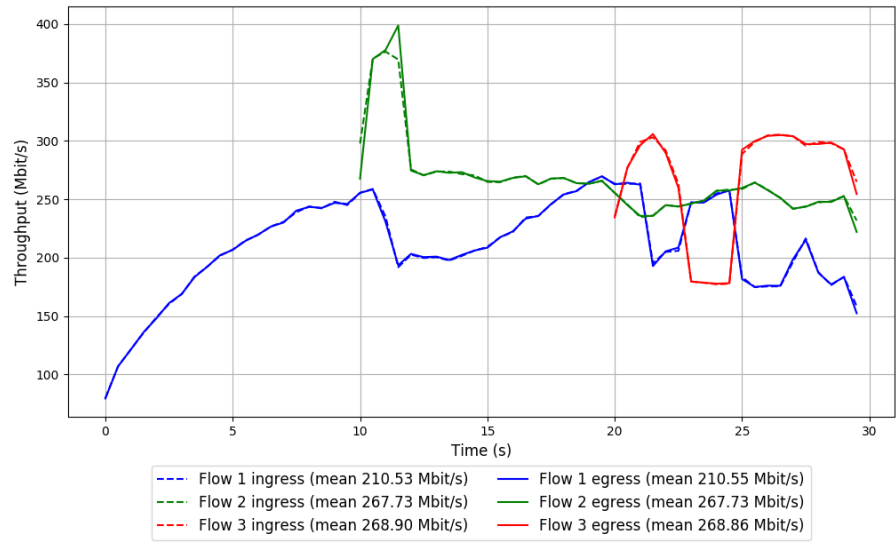
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-01-10 00:10:06
End at: 2018-01-10 00:10:36
Local clock offset: -1.366 ms
Remote clock offset: -2.782 ms

# Below is generated by plot.py at 2018-01-10 08:54:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.30 Mbit/s
95th percentile per-packet one-way delay: 29.232 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 200.09 Mbit/s
95th percentile per-packet one-way delay: 6.906 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 242.23 Mbit/s
95th percentile per-packet one-way delay: 2.359 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 295.84 Mbit/s
95th percentile per-packet one-way delay: 46.374 ms
Loss rate: 0.42%
```
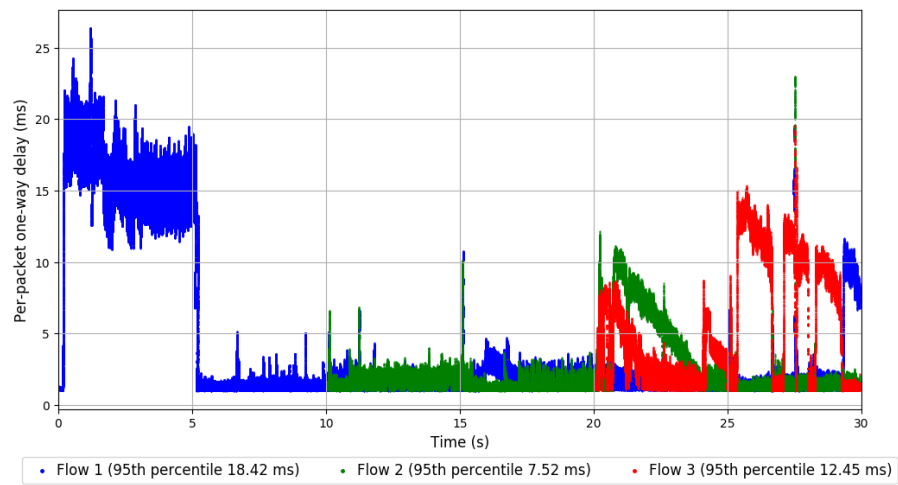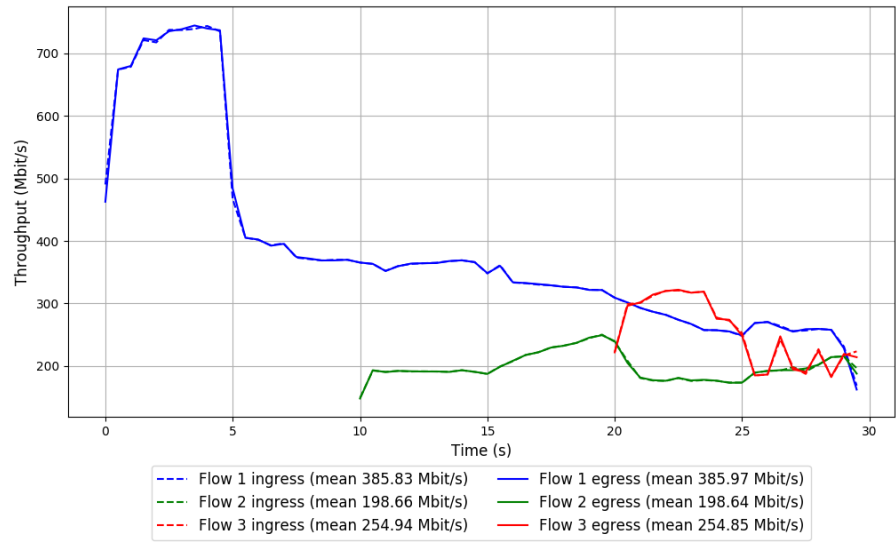
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-01-10 00:31:31
End at: 2018-01-10 00:32:01
Local clock offset: -1.357 ms
Remote clock offset: -2.042 ms


# Below is generated by plot.py at 2018-01-10 08:54:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.10 Mbit/s
95th percentile per-packet one-way delay: 27.750 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 219.85 Mbit/s
95th percentile per-packet one-way delay: 6.363 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 220.53 Mbit/s
95th percentile per-packet one-way delay: 6.255 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 367.06 Mbit/s
95th percentile per-packet one-way delay: 29.731 ms
Loss rate: 0.32%
```
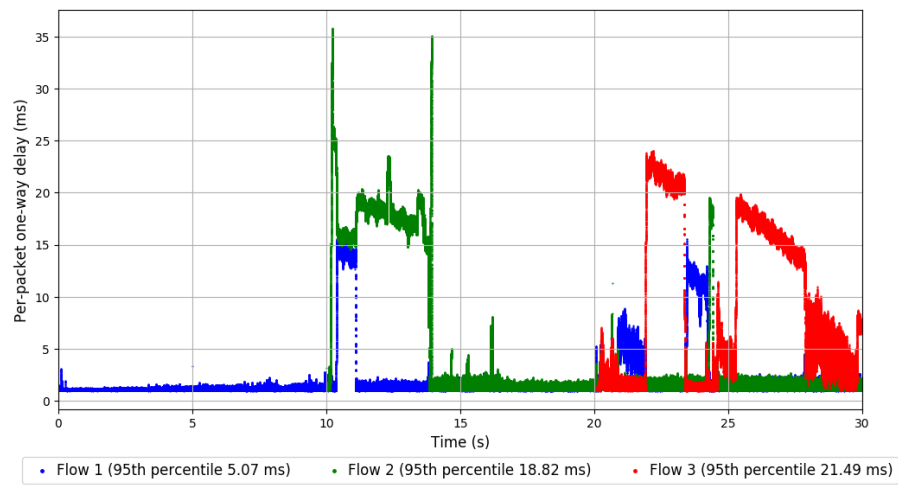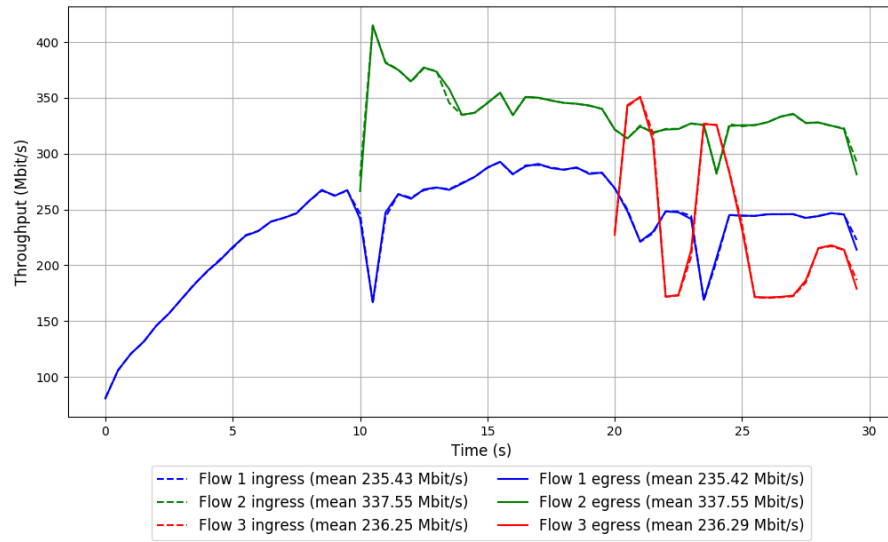
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-01-10 00:53:01
End at: 2018-01-10 00:53:31
Local clock offset: -1.519 ms
Remote clock offset: -1.796 ms


# Below is generated by plot.py at 2018-01-10 08:55:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 445.89 Mbit/s
95th percentile per-packet one-way delay: 3.600 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 248.79 Mbit/s
95th percentile per-packet one-way delay: 2.349 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 208.05 Mbit/s
95th percentile per-packet one-way delay: 6.819 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 176.87 Mbit/s
95th percentile per-packet one-way delay: 3.006 ms
Loss rate: 0.23%
```

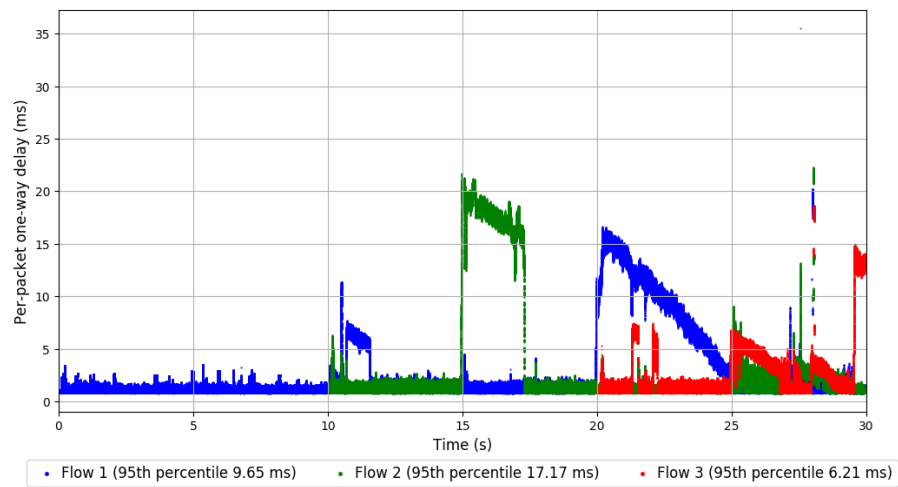Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-01-10 01:14:39
End at: 2018-01-10 01:15:09
Local clock offset: -1.707 ms
Remote clock offset: -1.435 ms


# Below is generated by plot.py at 2018-01-10 09:00:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 453.74 Mbit/s
95th percentile per-packet one-way delay: 10.278 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 214.32 Mbit/s
95th percentile per-packet one-way delay: 7.436 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 269.60 Mbit/s
95th percentile per-packet one-way delay: 15.951 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 181.57 Mbit/s
95th percentile per-packet one-way delay: 1.845 ms
Loss rate: 0.25%
```
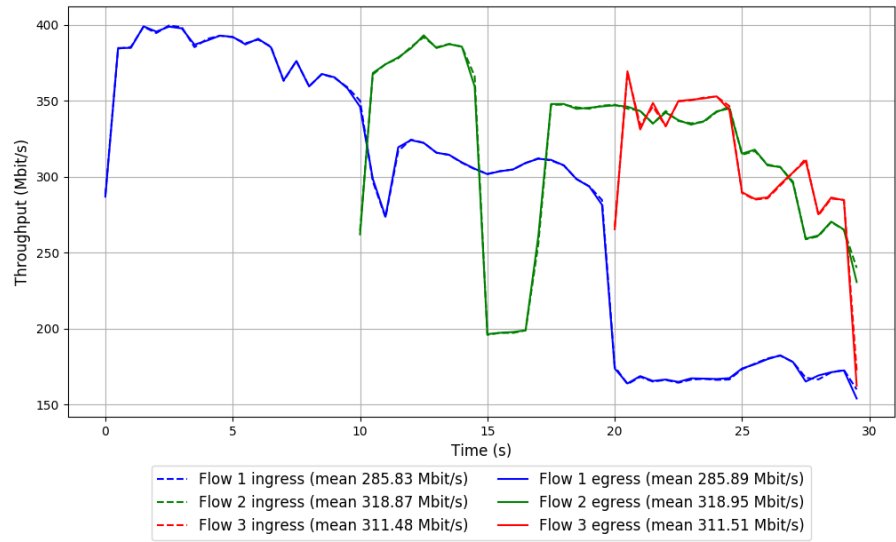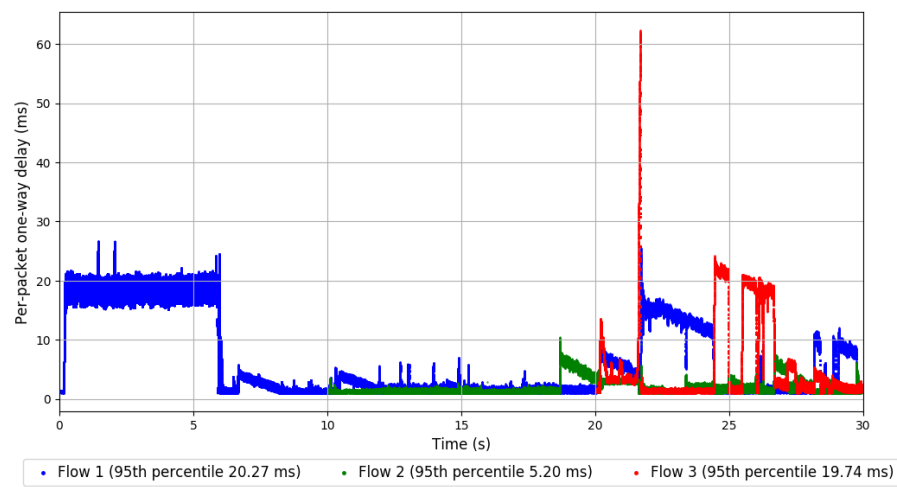
Run 5: Report of TCP Vegas — Data Link

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```
Run 6: Statistics of TCP Vegas

Start at: 2018-01-10 01:35:32
End at: 2018-01-10 01:36:02
Local clock offset: -1.719 ms
Remote clock offset: -1.765 ms


# Below is generated by plot.py at 2018-01-10 09:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.74 Mbit/s
95th percentile per-packet one-way delay: 17.353 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 210.55 Mbit/s
95th percentile per-packet one-way delay: 9.534 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 267.73 Mbit/s
95th percentile per-packet one-way delay: 41.000 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 268.86 Mbit/s
95th percentile per-packet one-way delay: 17.368 ms
Loss rate: 0.21%
```
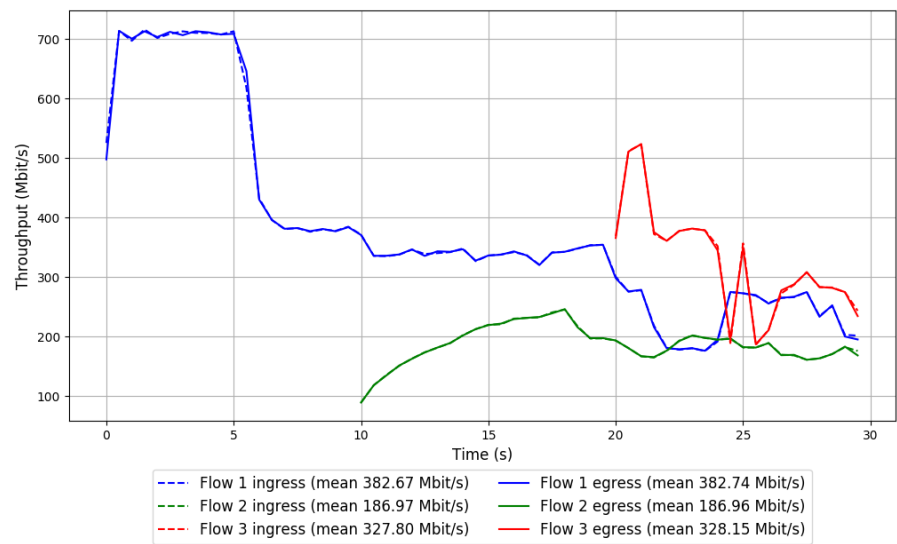
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-01-10 01:56:44
End at: 2018-01-10 01:57:14
Local clock offset: -1.745 ms
Remote clock offset: -2.115 ms


# Below is generated by plot.py at 2018-01-10 09:08:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 602.56 Mbit/s
95th percentile per-packet one-way delay: 17.046 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 385.97 Mbit/s
95th percentile per-packet one-way delay: 18.417 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 198.64 Mbit/s
95th percentile per-packet one-way delay: 7.517 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 254.85 Mbit/s
95th percentile per-packet one-way delay: 12.446 ms
Loss rate: 0.20%
```
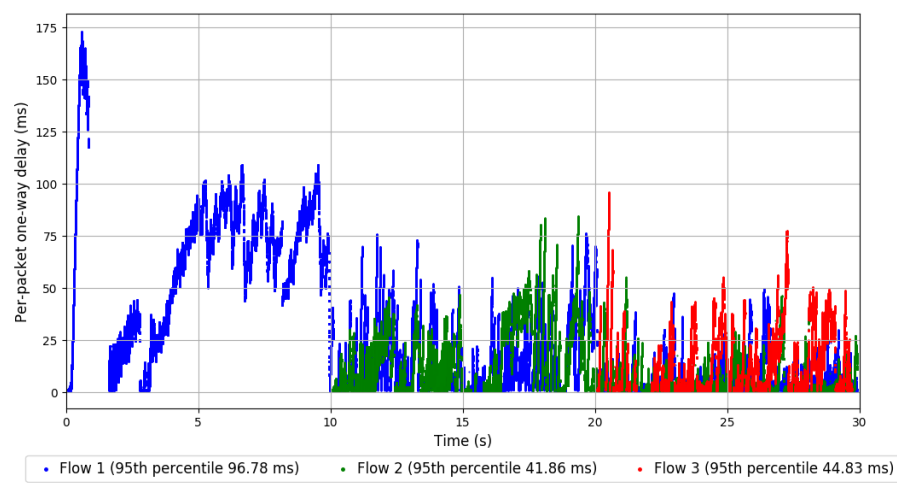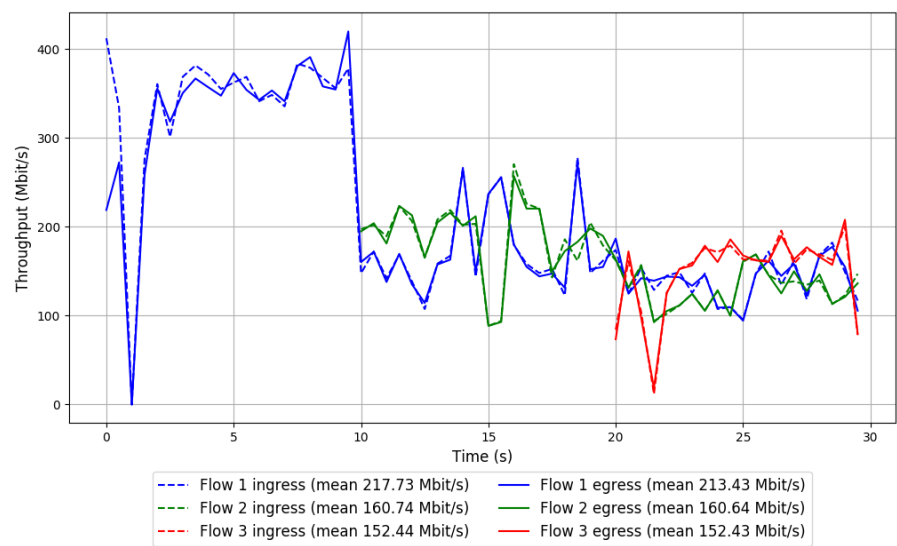
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-01-10 02:18:21
End at: 2018-01-10 02:18:51
Local clock offset: -1.902 ms
Remote clock offset: -2.318 ms

# Below is generated by plot.py at 2018-01-10 09:08:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.93 Mbit/s
95th percentile per-packet one-way delay: 18.312 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 235.42 Mbit/s
95th percentile per-packet one-way delay: 5.067 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 337.55 Mbit/s
95th percentile per-packet one-way delay: 18.824 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 236.29 Mbit/s
95th percentile per-packet one-way delay: 21.490 ms
Loss rate: 0.19%
```

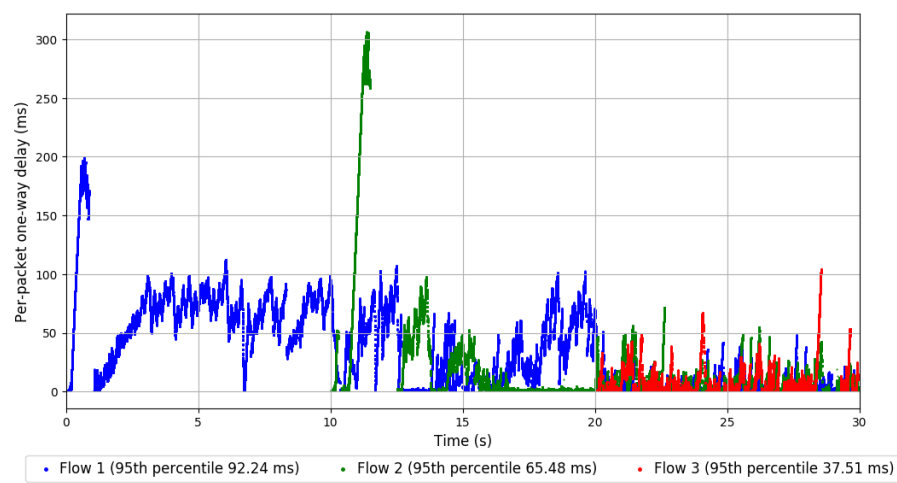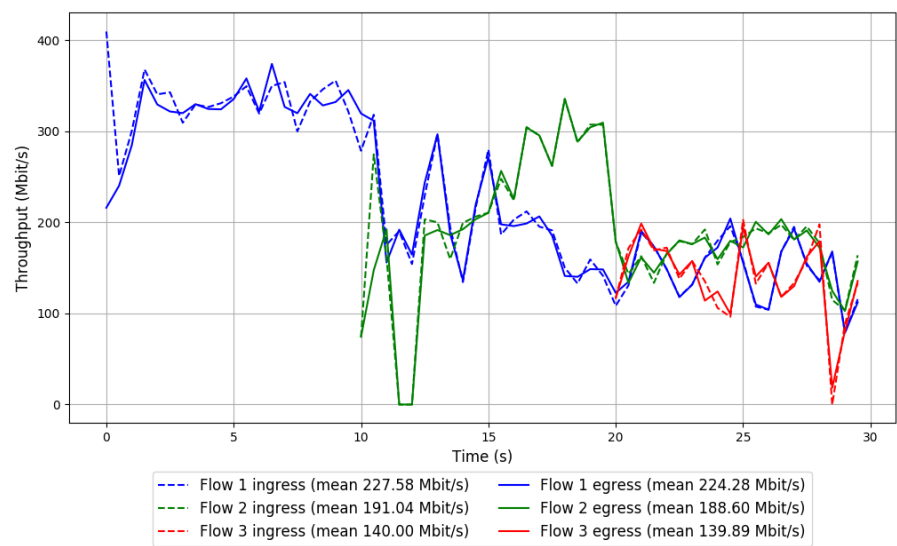Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-01-10 02:39:44
End at: 2018-01-10 02:40:14
Local clock offset: -1.866 ms
Remote clock offset: -2.348 ms


# Below is generated by plot.py at 2018-01-10 09:09:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 601.27 Mbit/s
95th percentile per-packet one-way delay: 10.411 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 285.89 Mbit/s
95th percentile per-packet one-way delay: 9.652 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 318.95 Mbit/s
95th percentile per-packet one-way delay: 17.169 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 311.51 Mbit/s
95th percentile per-packet one-way delay: 6.212 ms
Loss rate: 0.18%
```
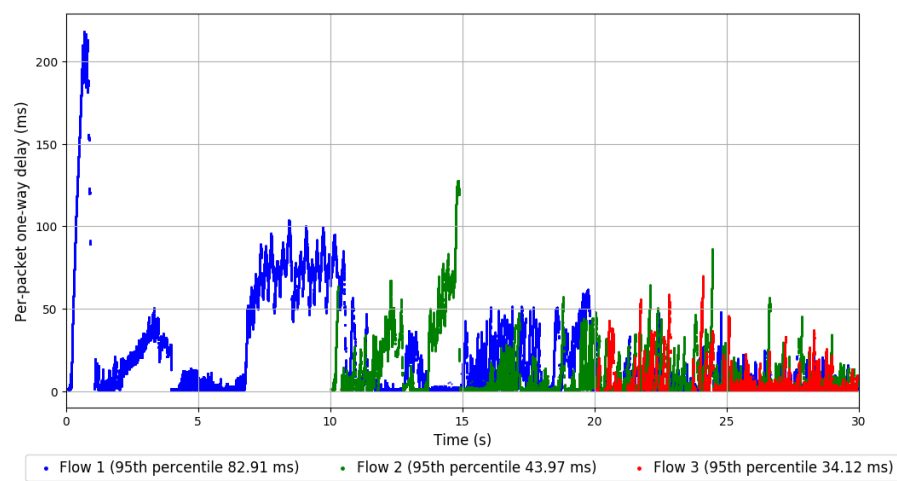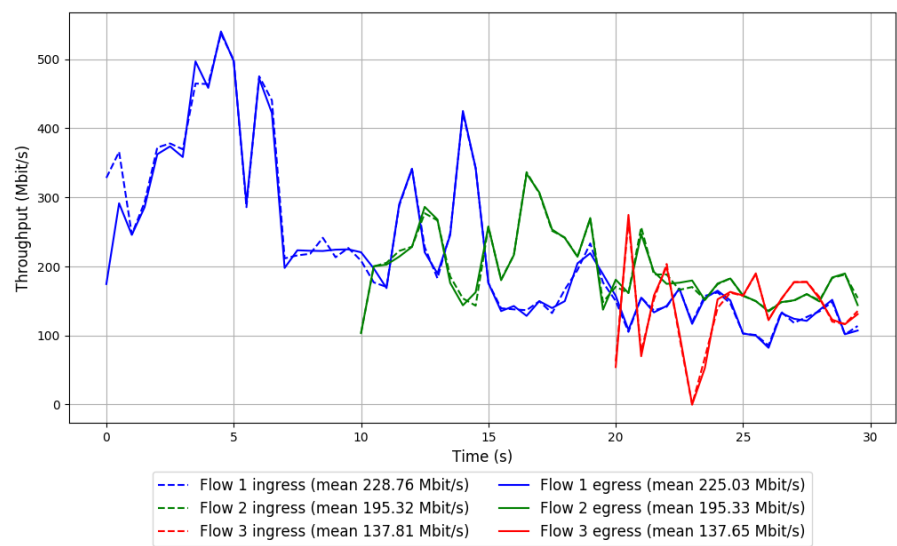
Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-01-10 03:01:23
End at: 2018-01-10 03:01:53
Local clock offset: -1.377 ms
Remote clock offset: -3.051 ms


# Below is generated by plot.py at 2018-01-10 09:11:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 615.95 Mbit/s
95th percentile per-packet one-way delay: 20.100 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 382.74 Mbit/s
95th percentile per-packet one-way delay: 20.271 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 186.96 Mbit/s
95th percentile per-packet one-way delay: 5.197 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 328.15 Mbit/s
95th percentile per-packet one-way delay: 19.740 ms
Loss rate: 0.16%
```
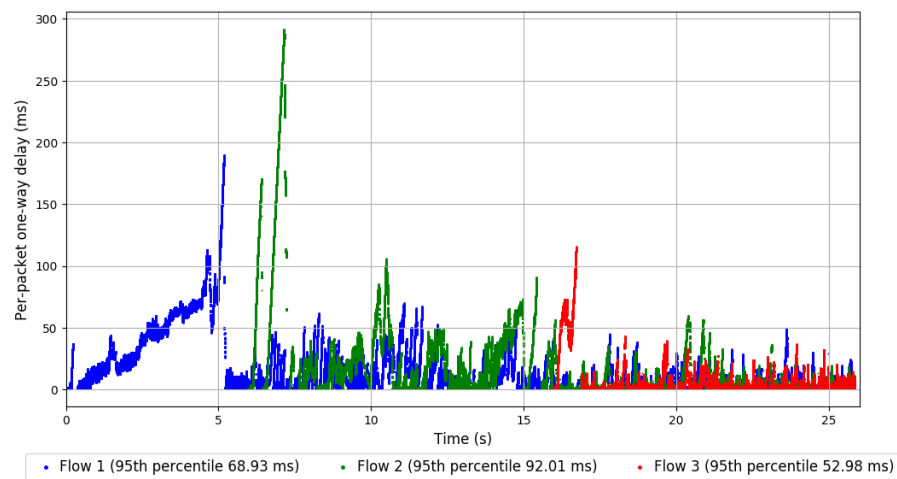
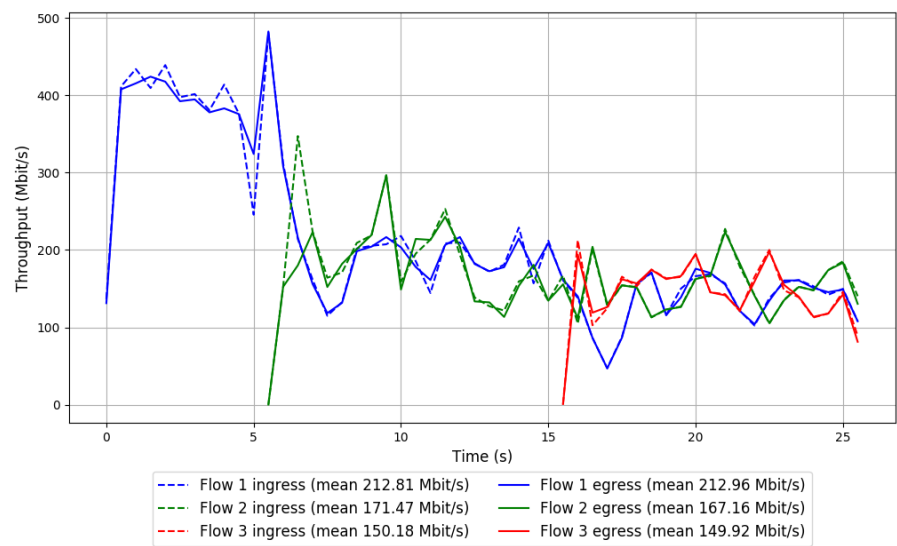Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-01-09 23:52:46
End at: 2018-01-09 23:53:16
Local clock offset: -1.067 ms
Remote clock offset: -3.188 ms


# Below is generated by plot.py at 2018-01-10 09:11:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 369.66 Mbit/s
95th percentile per-packet one-way delay: 90.428 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 213.43 Mbit/s
95th percentile per-packet one-way delay: 96.782 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 160.64 Mbit/s
95th percentile per-packet one-way delay: 41.862 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 152.43 Mbit/s
95th percentile per-packet one-way delay: 44.831 ms
Loss rate: 0.00%
```
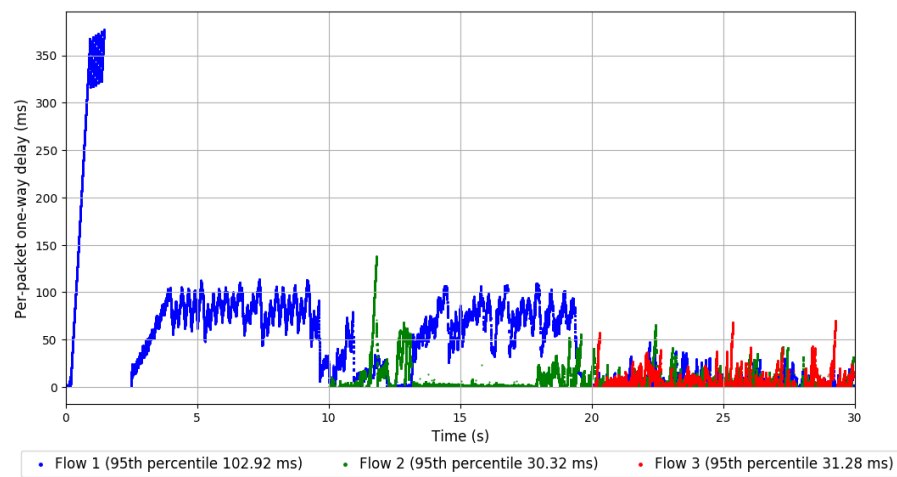
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-01-10 00:14:10
End at: 2018-01-10 00:14:40
Local clock offset: -1.272 ms
Remote clock offset: -2.644 ms

# Below is generated by plot.py at 2018-01-10 09:11:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 396.14 Mbit/s
95th percentile per-packet one-way delay: 89.217 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 224.28 Mbit/s
95th percentile per-packet one-way delay: 92.243 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 188.60 Mbit/s
95th percentile per-packet one-way delay: 65.480 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 139.89 Mbit/s
95th percentile per-packet one-way delay: 37.513 ms
Loss rate: 0.20%
```
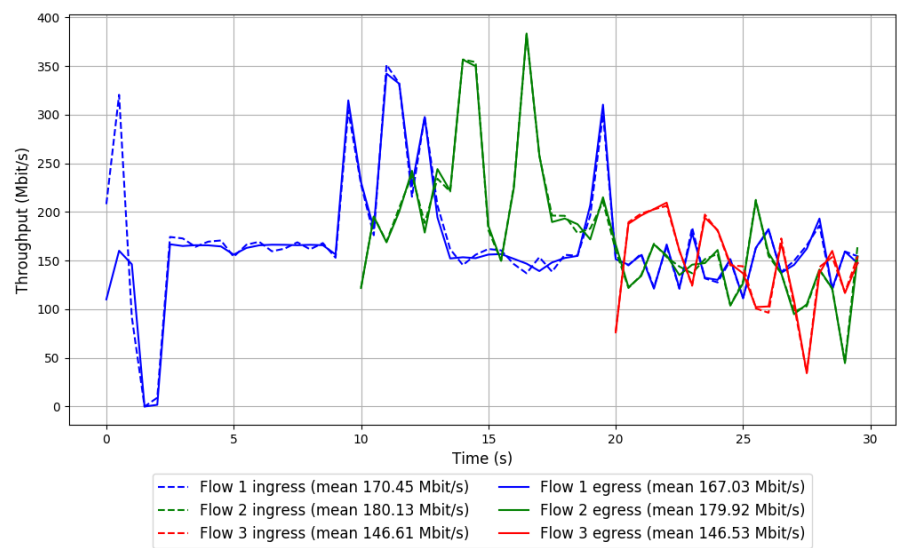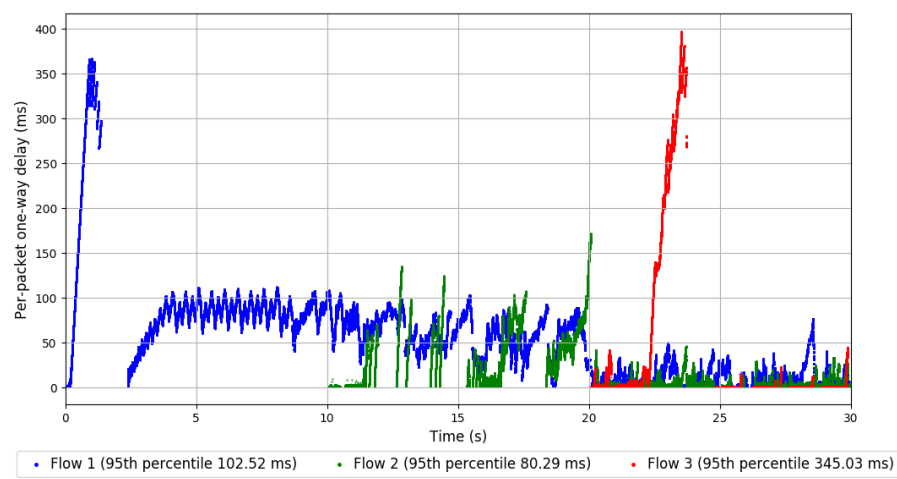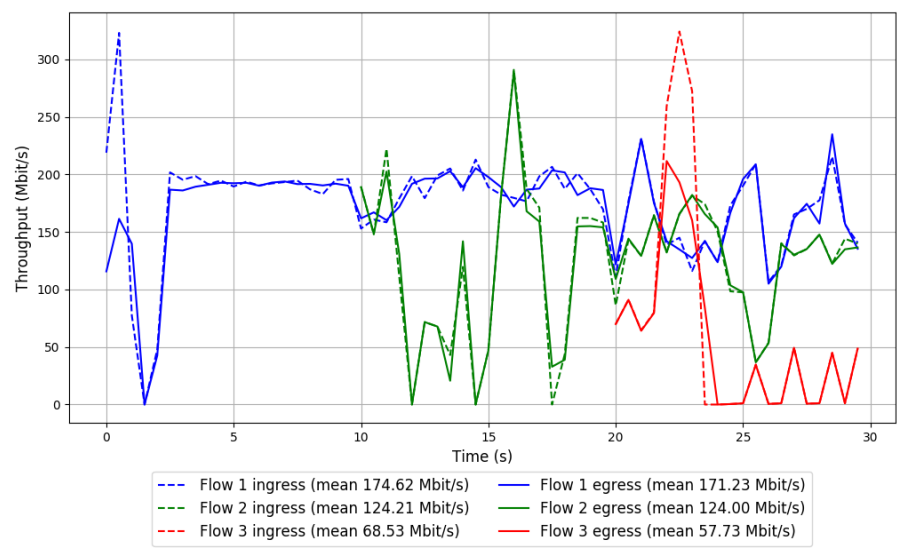
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-01-10 00:35:38
End at: 2018-01-10 00:36:08
Local clock offset: -1.31 ms
Remote clock offset: -2.141 ms


# Below is generated by plot.py at 2018-01-10 09:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 400.62 Mbit/s
95th percentile per-packet one-way delay: 73.425 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 225.03 Mbit/s
95th percentile per-packet one-way delay: 82.908 ms
Loss rate: 1.71%
-- Flow 2:
Average throughput: 195.33 Mbit/s
95th percentile per-packet one-way delay: 43.965 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 137.65 Mbit/s
95th percentile per-packet one-way delay: 34.120 ms
Loss rate: 0.19%
```

Run 3: Report of Verus — Data Link

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```
Run 4: Statistics of Verus

Start at: 2018-01-10 00:57:25
End at: 2018-01-10 00:57:55
Local clock offset: -1.642 ms
Remote clock offset: -1.716 ms


# Below is generated by plot.py at 2018-01-10 09:11:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 399.11 Mbit/s
95th percentile per-packet one-way delay: 68.524 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 212.96 Mbit/s
95th percentile per-packet one-way delay: 68.926 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 167.16 Mbit/s
95th percentile per-packet one-way delay: 92.010 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 149.92 Mbit/s
95th percentile per-packet one-way delay: 52.976 ms
Loss rate: 0.36%
```
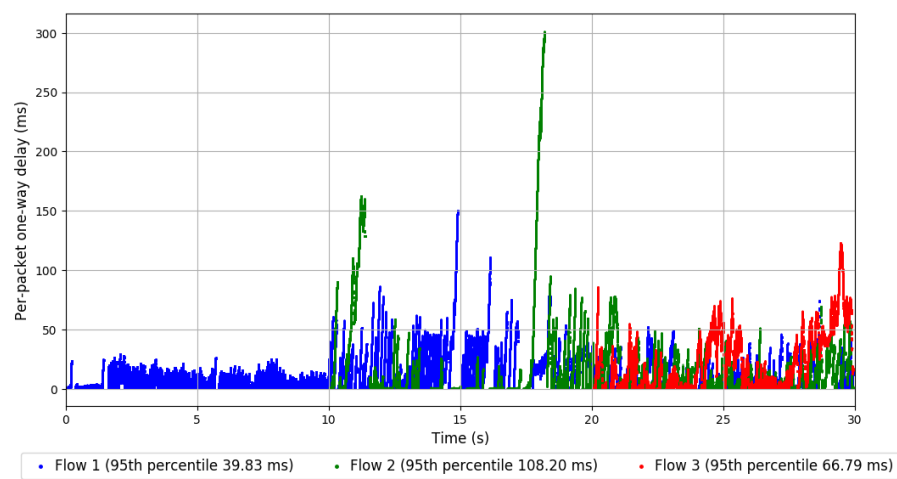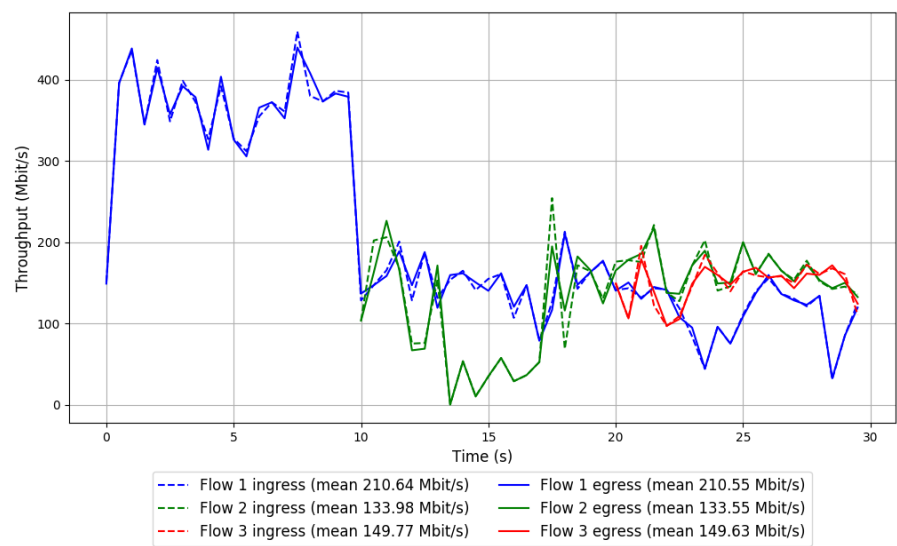
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-01-10 01:18:43
End at: 2018-01-10 01:19:13
Local clock offset: -1.707 ms
Remote clock offset: -1.369 ms


# Below is generated by plot.py at 2018-01-10 09:14:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 335.15 Mbit/s
95th percentile per-packet one-way delay: 93.641 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 167.03 Mbit/s
95th percentile per-packet one-way delay: 102.922 ms
Loss rate: 2.07%
-- Flow 2:
Average throughput: 179.92 Mbit/s
95th percentile per-packet one-way delay: 30.315 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 146.53 Mbit/s
95th percentile per-packet one-way delay: 31.281 ms
Loss rate: 0.25%
```
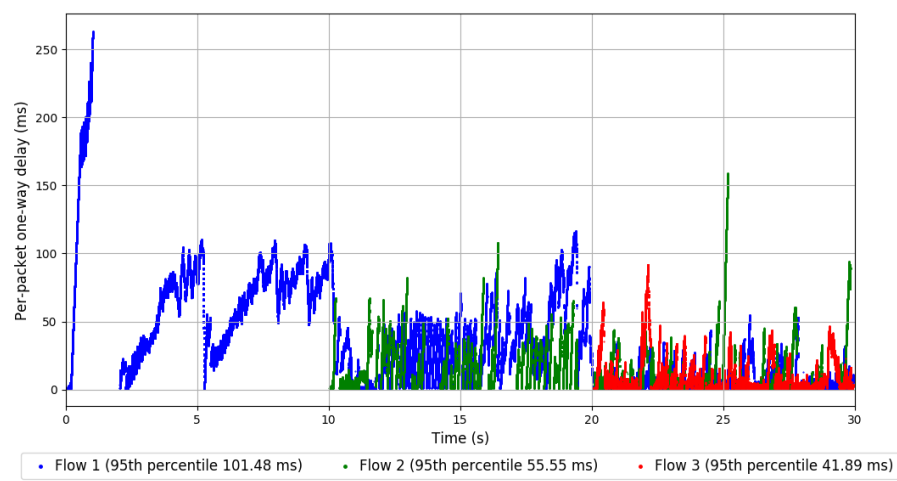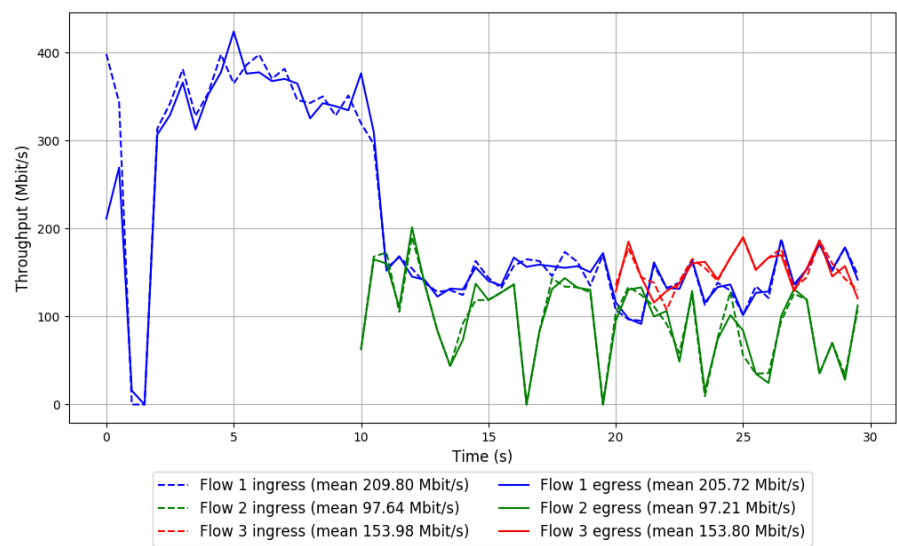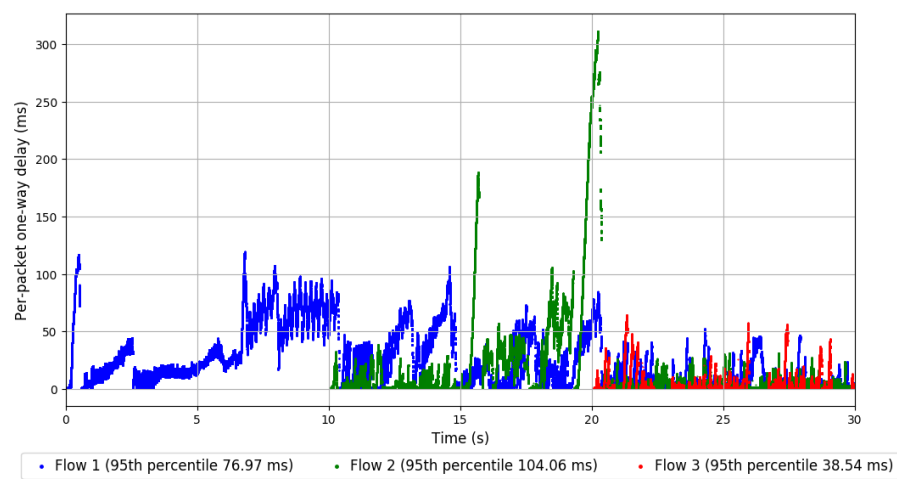
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-01-10 01:39:38
End at: 2018-01-10 01:40:08
Local clock offset: -1.718 ms
Remote clock offset: -1.943 ms


# Below is generated by plot.py at 2018-01-10 09:14:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 272.70 Mbit/s
95th percentile per-packet one-way delay: 120.221 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 171.23 Mbit/s
95th percentile per-packet one-way delay: 102.516 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 124.00 Mbit/s
95th percentile per-packet one-way delay: 80.287 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 57.73 Mbit/s
95th percentile per-packet one-way delay: 345.026 ms
Loss rate: 15.47%
```
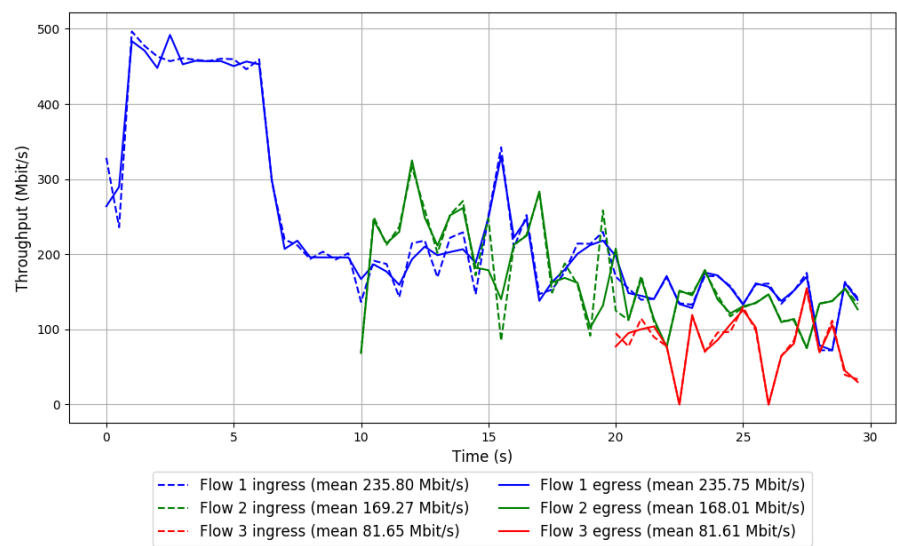
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-01-10 02:01:05
End at: 2018-01-10 02:01:35
Local clock offset: -1.844 ms
Remote clock offset: -2.142 ms


# Below is generated by plot.py at 2018-01-10 09:17:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 348.95 Mbit/s
95th percentile per-packet one-way delay: 57.982 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 210.55 Mbit/s
95th percentile per-packet one-way delay: 39.834 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 133.55 Mbit/s
95th percentile per-packet one-way delay: 108.196 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 149.63 Mbit/s
95th percentile per-packet one-way delay: 66.793 ms
Loss rate: 0.29%
```

Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-01-10 02:22:33
End at: 2018-01-10 02:23:03
Local clock offset: -1.791 ms
Remote clock offset: -2.497 ms


# Below is generated by plot.py at 2018-01-10 09:17:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 320.95 Mbit/s
95th percentile per-packet one-way delay: 95.918 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 205.72 Mbit/s
95th percentile per-packet one-way delay: 101.485 ms
Loss rate: 2.00%
-- Flow 2:
Average throughput: 97.21 Mbit/s
95th percentile per-packet one-way delay: 55.552 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 153.80 Mbit/s
95th percentile per-packet one-way delay: 41.891 ms
Loss rate: 0.32%
```
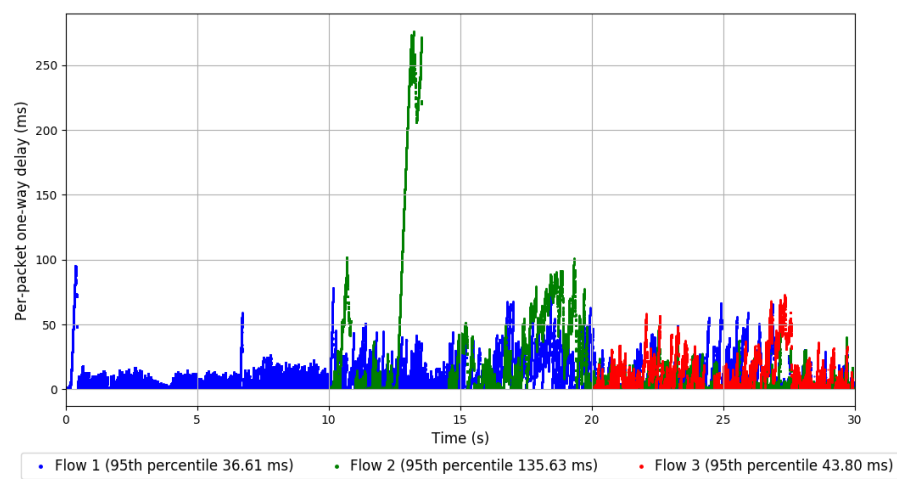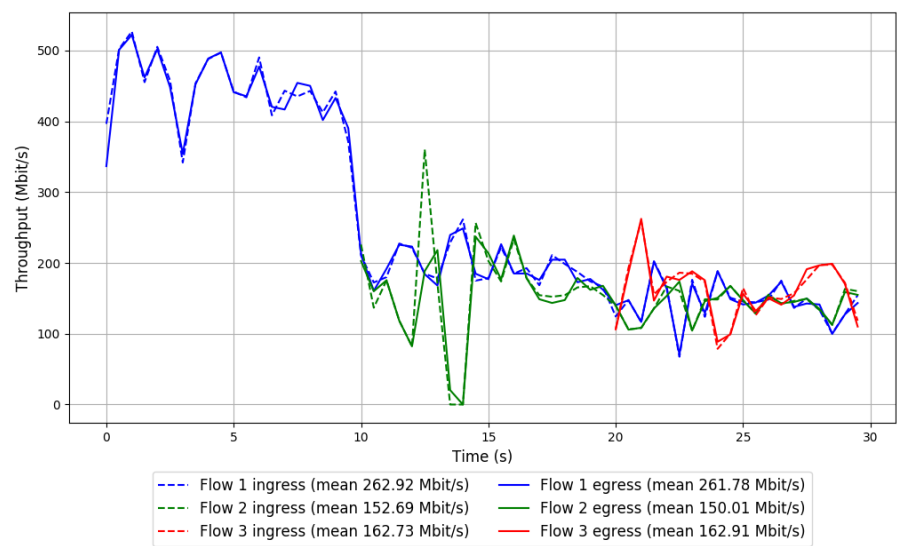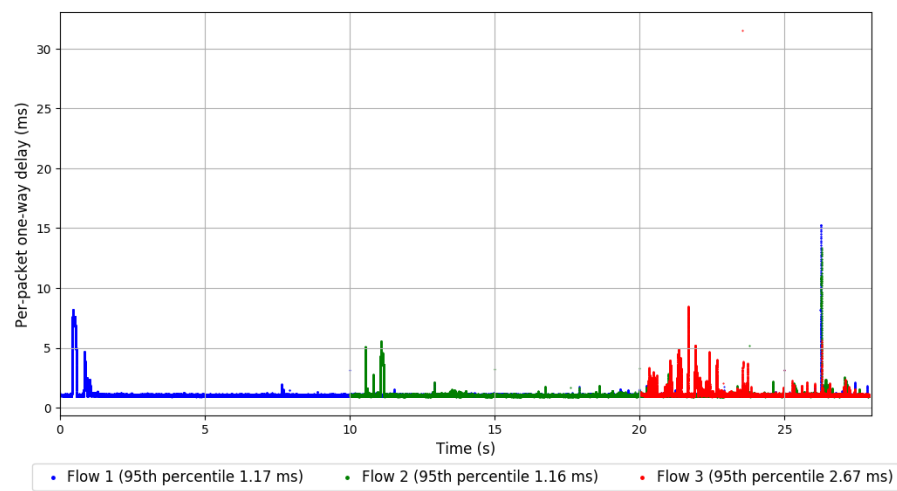
Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 209.80 Mbit/s) --- Flow 1 egress (mean 205.72 Mbit/s)
Flow 2 ingress (mean 97.64 Mbit/s) --- Flow 2 egress (mean 97.21 Mbit/s)
Flow 3 ingress (mean 153.98 Mbit/s) --- Flow 3 egress (mean 153.80 Mbit/s)

Flow 1 (95th percentile 101.48 ms)   Flow 2 (95th percentile 55.55 ms)   Flow 3 (95th percentile 41.89 ms)

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```
Run 9: Statistics of Verus

Start at: 2018-01-10 02:44:13
End at: 2018-01-10 02:44:43
Local clock offset: -1.68 ms
Remote clock offset: -2.665 ms


# Below is generated by plot.py at 2018-01-10 09:19:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.34 Mbit/s
95th percentile per-packet one-way delay: 77.127 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 235.75 Mbit/s
95th percentile per-packet one-way delay: 76.970 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 168.01 Mbit/s
95th percentile per-packet one-way delay: 104.059 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 81.61 Mbit/s
95th percentile per-packet one-way delay: 38.542 ms
Loss rate: 0.21%
```
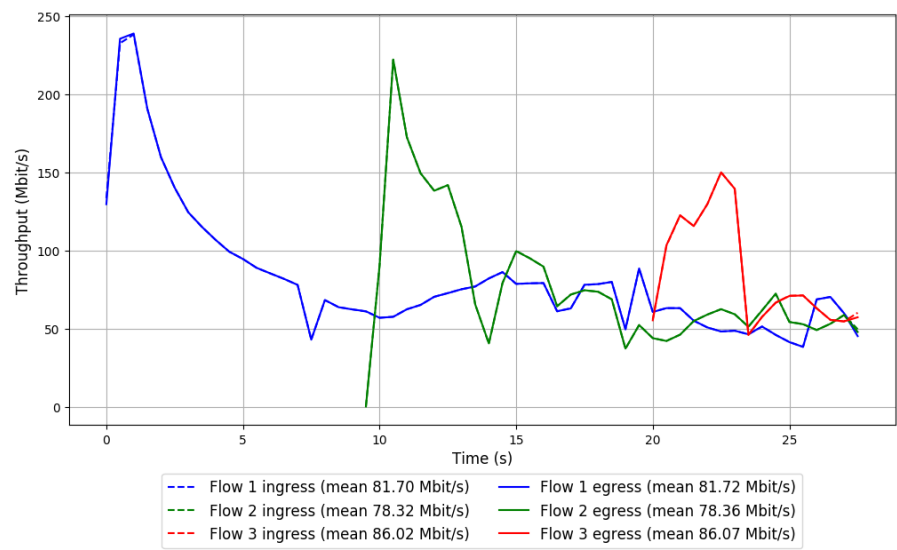
Run 9: Report of Verus — Data Link

Flow 1 ingress (mean 235.80 Mbit/s) — — Flow 1 egress (mean 235.75 Mbit/s)
Flow 2 ingress (mean 169.27 Mbit/s) — — Flow 2 egress (mean 168.01 Mbit/s)
Flow 3 ingress (mean 81.65 Mbit/s) — — Flow 3 egress (mean 81.61 Mbit/s)

Flow 1 (95th percentile 76.97 ms) • Flow 2 (95th percentile 104.06 ms) • Flow 3 (95th percentile 38.54 ms)
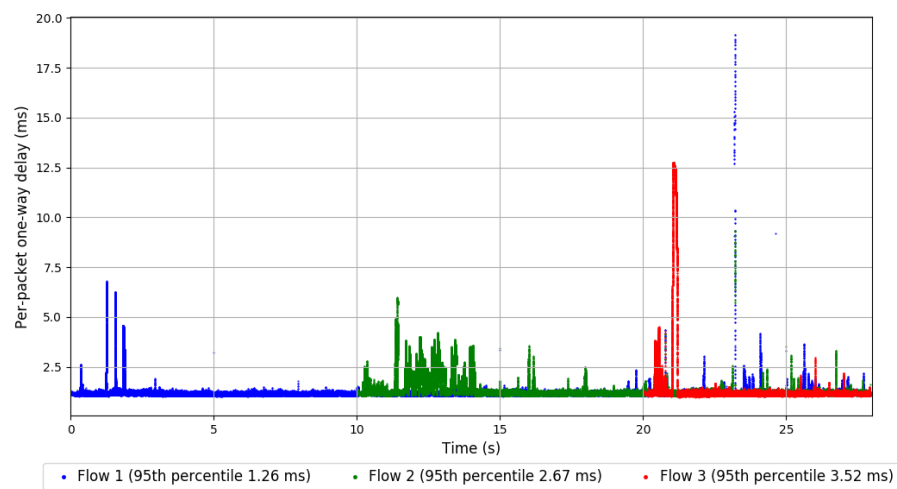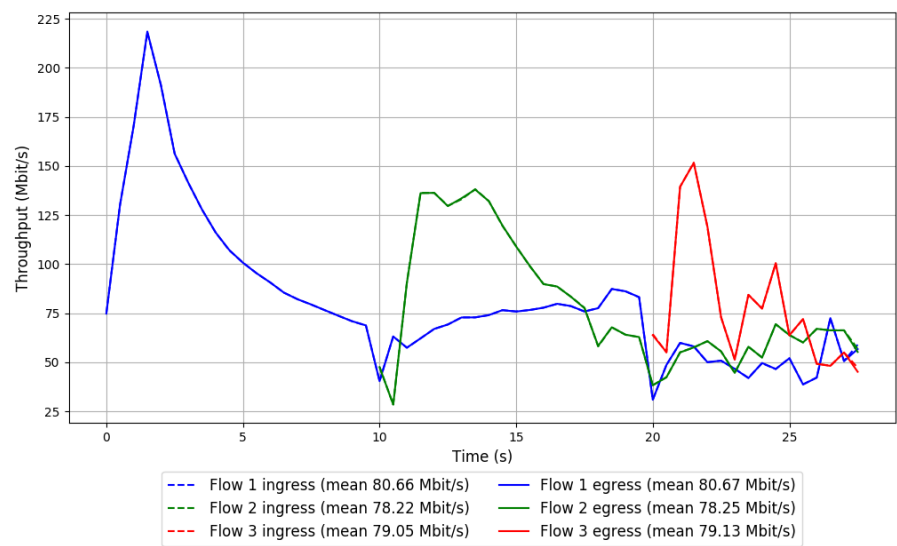
```
Run 10: Statistics of Verus

Start at: 2018-01-10 03:05:53
End at: 2018-01-10 03:06:23
Local clock offset: -1.168 ms
Remote clock offset: -2.9 ms


# Below is generated by plot.py at 2018-01-10 09:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 415.11 Mbit/s
95th percentile per-packet one-way delay: 52.793 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 261.78 Mbit/s
95th percentile per-packet one-way delay: 36.614 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 150.01 Mbit/s
95th percentile per-packet one-way delay: 135.632 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 162.91 Mbit/s
95th percentile per-packet one-way delay: 43.802 ms
Loss rate: 0.31%
```

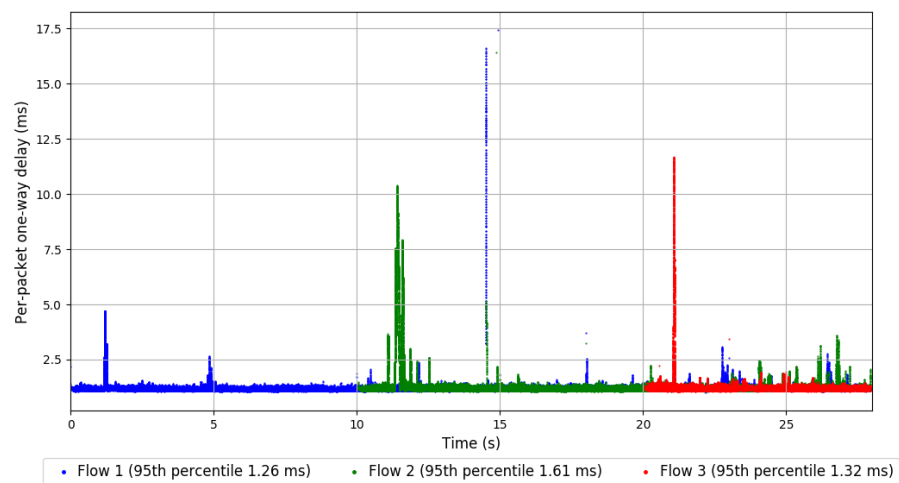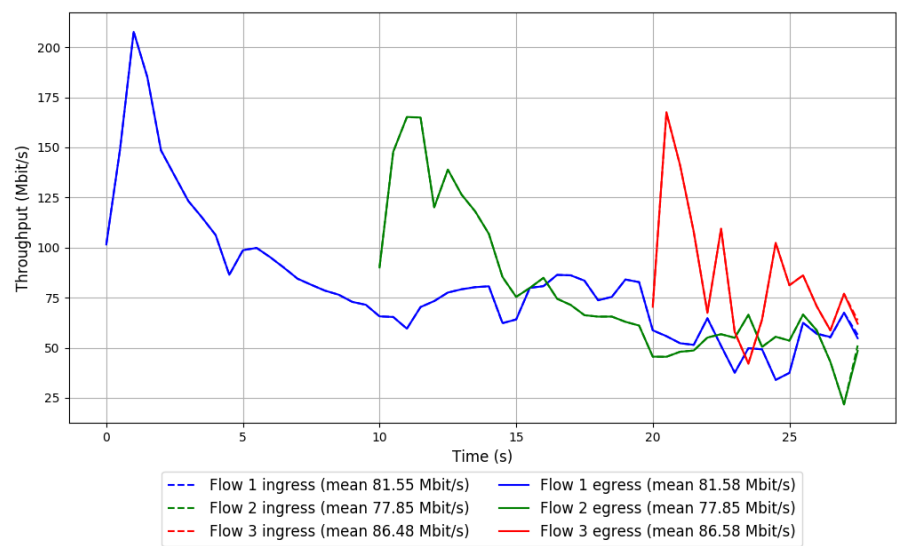## Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-01-09 23:57:34
End at: 2018-01-09 23:58:04
Local clock offset: -1.148 ms
Remote clock offset: -3.081 ms


# Below is generated by plot.py at 2018-01-10 09:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.36 Mbit/s
95th percentile per-packet one-way delay: 1.477 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 81.72 Mbit/s
95th percentile per-packet one-way delay: 1.169 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 78.36 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 86.07 Mbit/s
95th percentile per-packet one-way delay: 2.668 ms
Loss rate: 0.22%
```
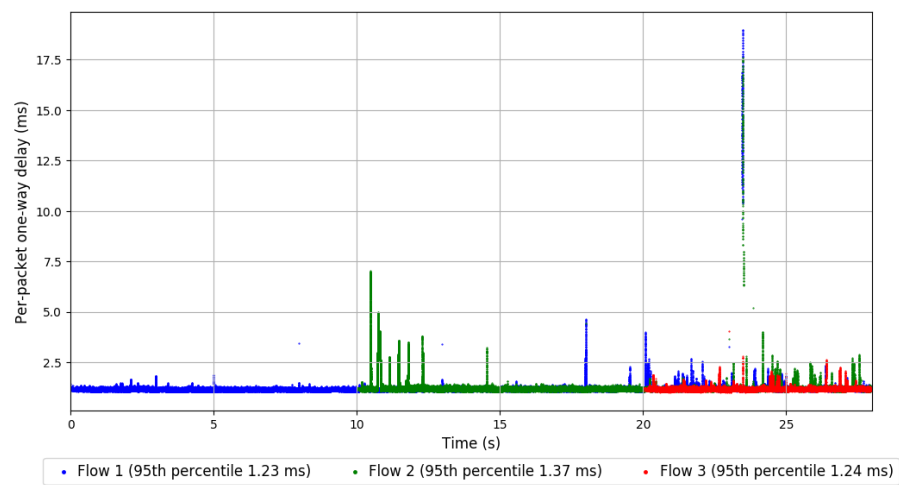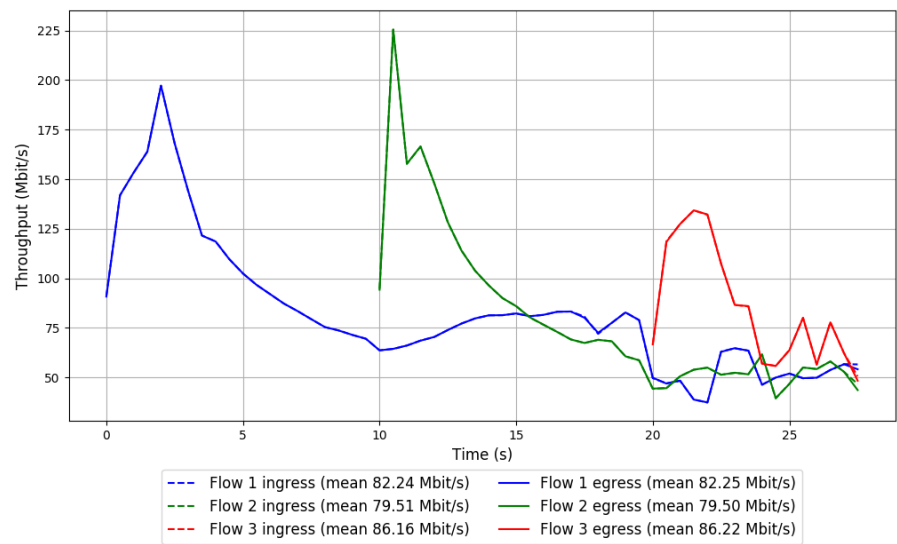
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-01-10 00:19:02
End at: 2018-01-10 00:19:32
Local clock offset: -1.281 ms
Remote clock offset: -2.467 ms


# Below is generated by plot.py at 2018-01-10 09:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 153.22 Mbit/s
95th percentile per-packet one-way delay: 2.073 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 80.67 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 78.25 Mbit/s
95th percentile per-packet one-way delay: 2.674 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 79.13 Mbit/s
95th percentile per-packet one-way delay: 3.518 ms
Loss rate: 0.17%
```

Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 80.66 Mbit/s) --- Flow 1 egress (mean 80.67 Mbit/s)
Flow 2 ingress (mean 78.22 Mbit/s) --- Flow 2 egress (mean 78.25 Mbit/s)
Flow 3 ingress (mean 79.05 Mbit/s) --- Flow 3 egress (mean 79.13 Mbit/s)

Flow 1 (95th percentile 1.26 ms)   Flow 2 (95th percentile 2.67 ms)   Flow 3 (95th percentile 3.52 ms)
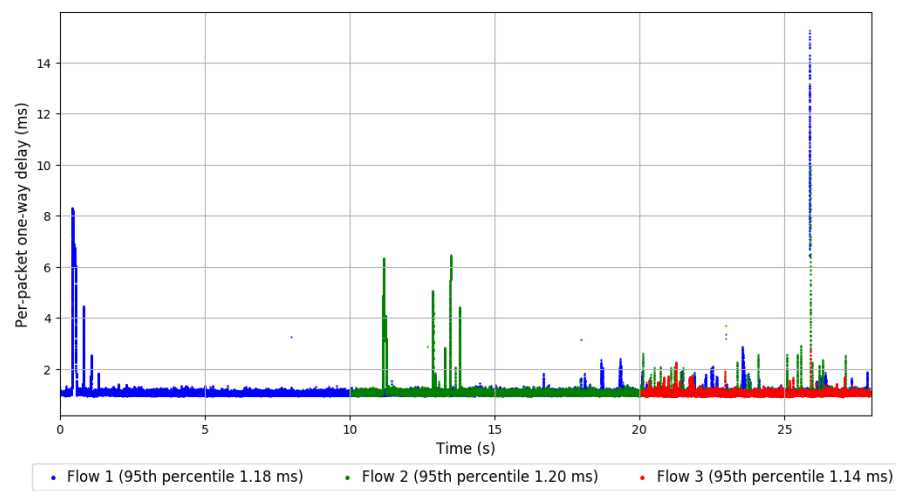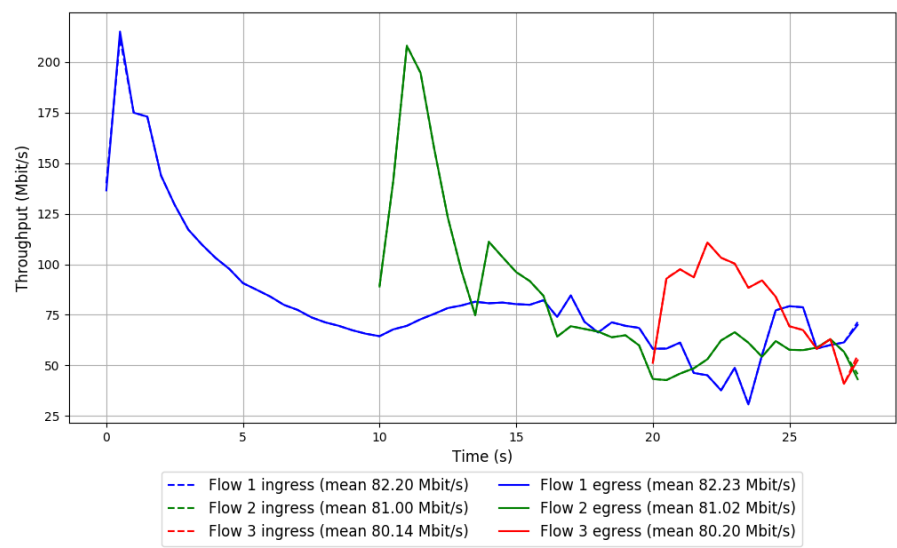
227

```
Run 3: Statistics of Copa

Start at: 2018-01-10 00:40:27
End at: 2018-01-10 00:40:57
Local clock offset: -1.31 ms
Remote clock offset: -2.208 ms


# Below is generated by plot.py at 2018-01-10 09:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 155.97 Mbit/s
95th percentile per-packet one-way delay: 1.303 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 81.58 Mbit/s
95th percentile per-packet one-way delay: 1.259 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 77.85 Mbit/s
95th percentile per-packet one-way delay: 1.610 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 86.58 Mbit/s
95th percentile per-packet one-way delay: 1.316 ms
Loss rate: 0.14%
```
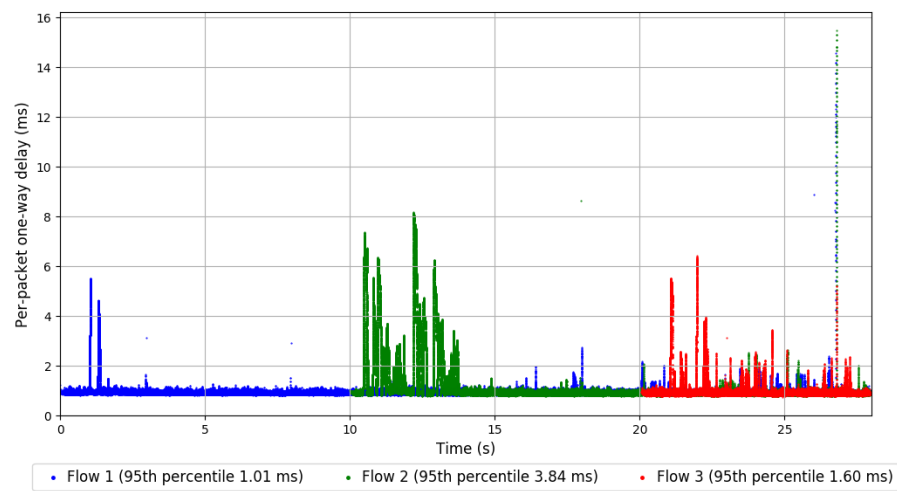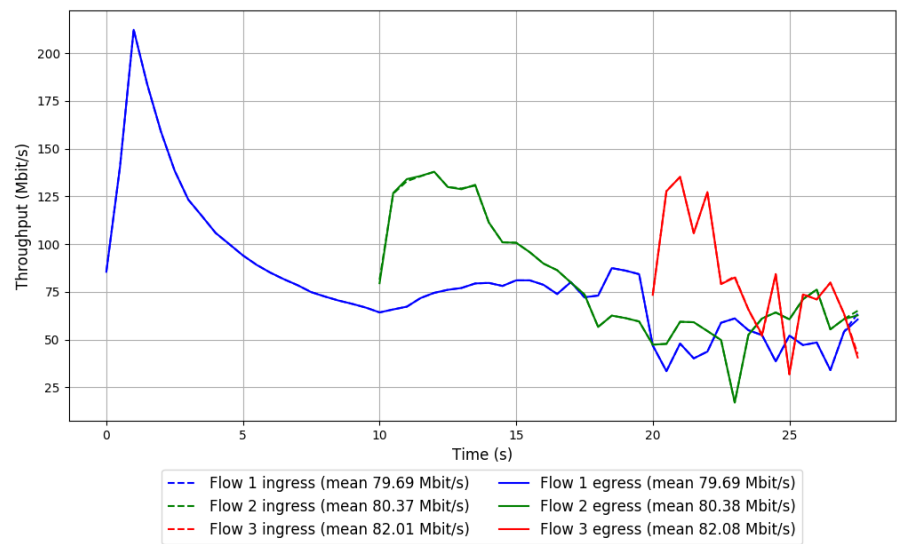
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-01-10 01:02:10
End at: 2018-01-10 01:02:40
Local clock offset: -1.638 ms
Remote clock offset: -1.72 ms


# Below is generated by plot.py at 2018-01-10 09:22:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.60 Mbit/s
95th percentile per-packet one-way delay: 1.253 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 82.25 Mbit/s
95th percentile per-packet one-way delay: 1.228 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 79.50 Mbit/s
95th percentile per-packet one-way delay: 1.374 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 86.22 Mbit/s
95th percentile per-packet one-way delay: 1.235 ms
Loss rate: 0.18%
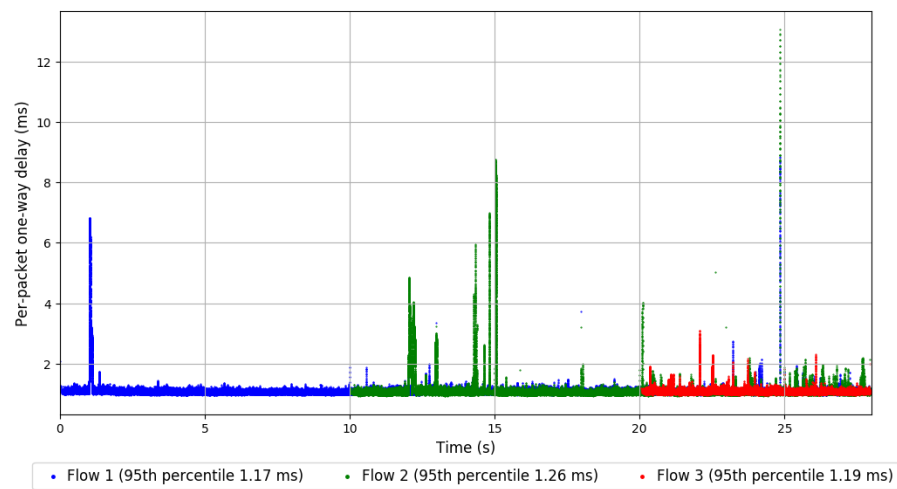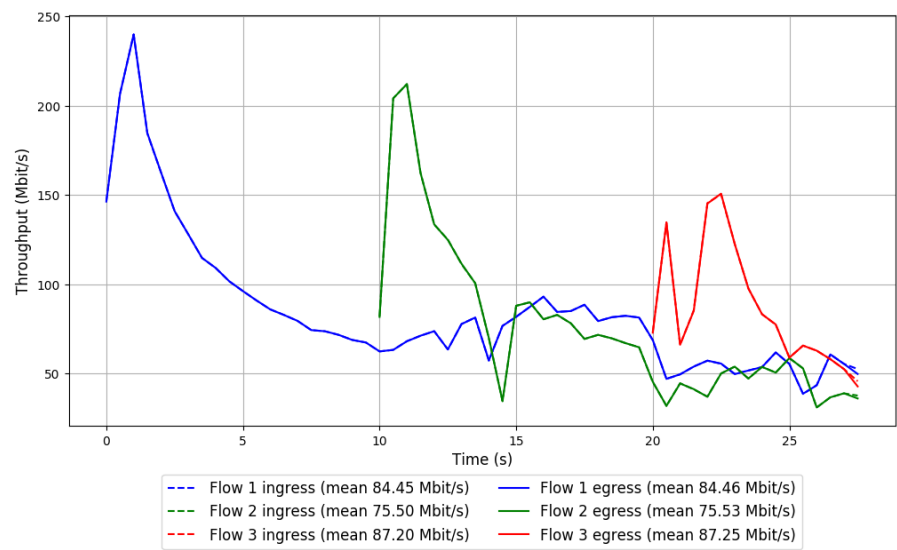```

Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-01-10 01:23:27
End at: 2018-01-10 01:23:57
Local clock offset: -1.713 ms
Remote clock offset: -1.222 ms


# Below is generated by plot.py at 2018-01-10 09:24:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.88 Mbit/s
95th percentile per-packet one-way delay: 1.179 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 82.23 Mbit/s
95th percentile per-packet one-way delay: 1.175 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 81.02 Mbit/s
95th percentile per-packet one-way delay: 1.201 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 80.20 Mbit/s
95th percentile per-packet one-way delay: 1.136 ms
Loss rate: 0.20%
```

Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 82.20 Mbit/s) --- Flow 1 egress (mean 82.23 Mbit/s)
Flow 2 ingress (mean 81.00 Mbit/s) --- Flow 2 egress (mean 81.02 Mbit/s)
Flow 3 ingress (mean 80.14 Mbit/s) --- Flow 3 egress (mean 80.20 Mbit/s)

Flow 1 (95th percentile 1.18 ms)   Flow 2 (95th percentile 1.20 ms)   Flow 3 (95th percentile 1.14 ms)

```
Run 6: Statistics of Copa

Start at: 2018-01-10 01:44:14
End at: 2018-01-10 01:44:44
Local clock offset: -1.823 ms
Remote clock offset: -2.119 ms

# Below is generated by plot.py at 2018-01-10 09:24:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.45 Mbit/s
95th percentile per-packet one-way delay: 2.053 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 79.69 Mbit/s
95th percentile per-packet one-way delay: 1.011 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 80.38 Mbit/s
95th percentile per-packet one-way delay: 3.839 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 82.08 Mbit/s
95th percentile per-packet one-way delay: 1.598 ms
Loss rate: 0.16%
```
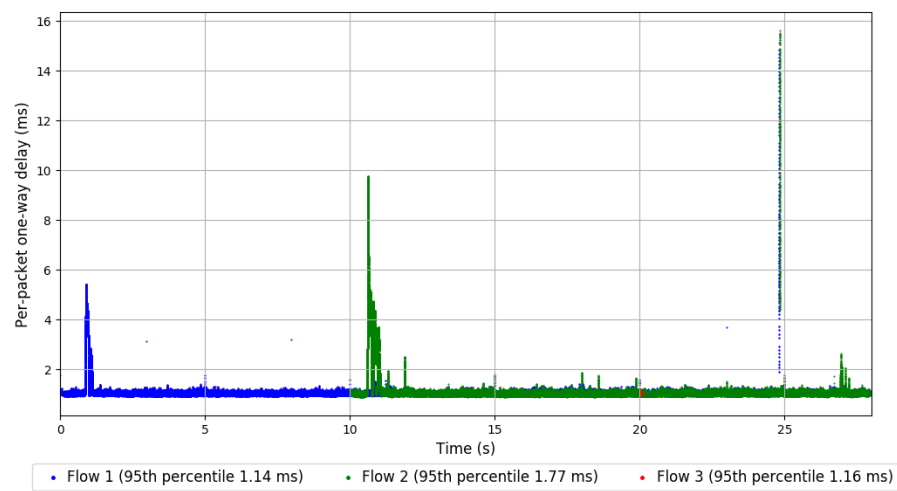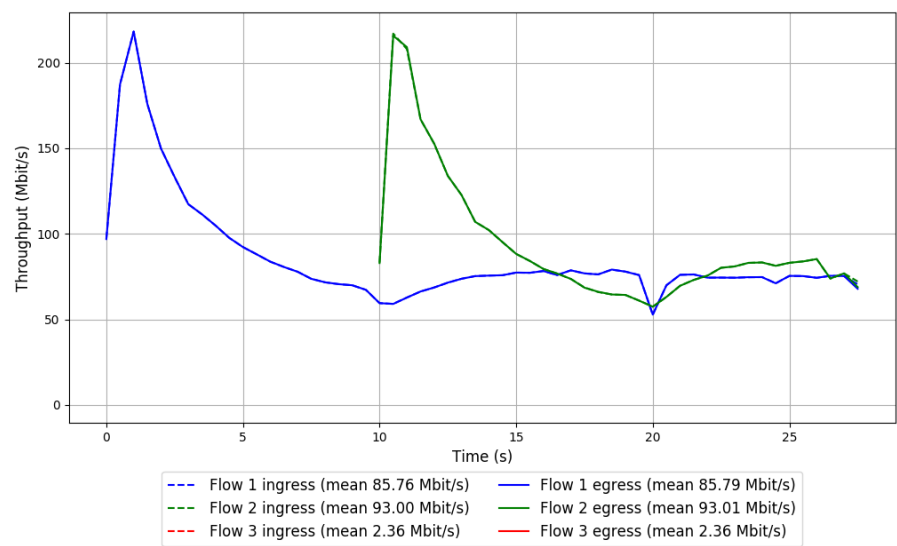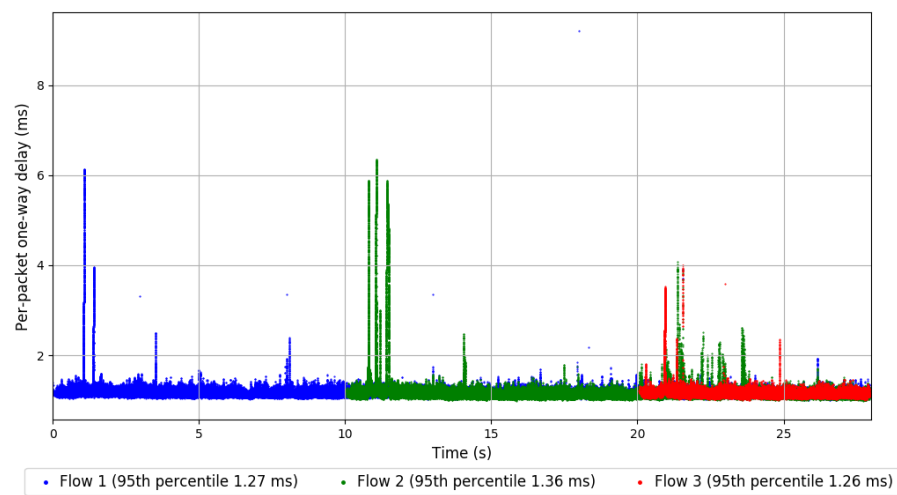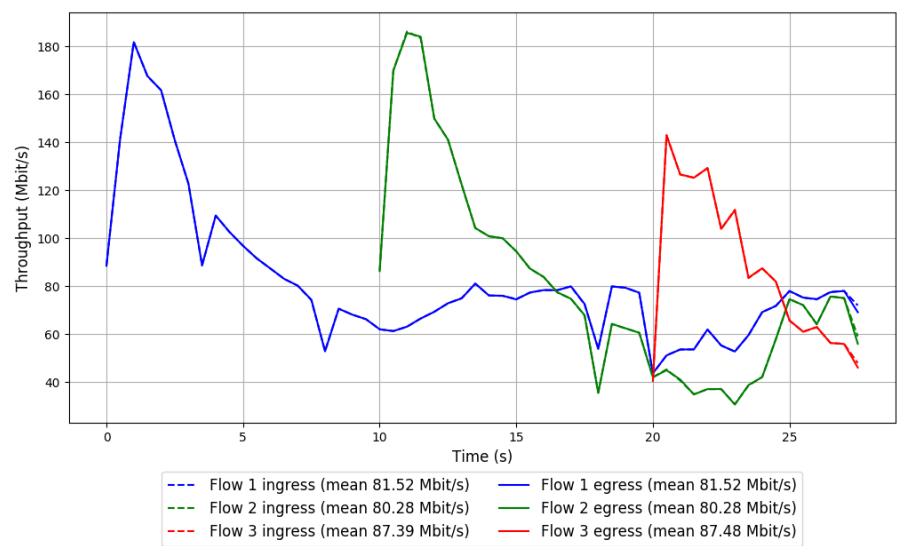
Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-01-10 02:05:45
End at: 2018-01-10 02:06:15
Local clock offset: -1.786 ms
Remote clock offset: -2.184 ms


# Below is generated by plot.py at 2018-01-10 09:26:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.54 Mbit/s
95th percentile per-packet one-way delay: 1.185 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 84.46 Mbit/s
95th percentile per-packet one-way delay: 1.172 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 75.53 Mbit/s
95th percentile per-packet one-way delay: 1.260 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 87.25 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.22%
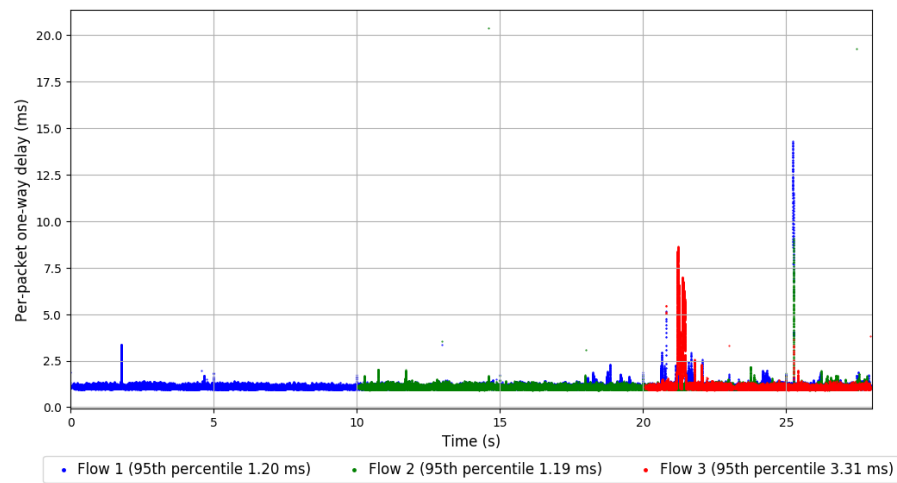```

Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-01-10 02:27:15
End at: 2018-01-10 02:27:45
Local clock offset: -1.925 ms
Remote clock offset: -2.37 ms

Below is generated by plot.py at 2018-01-10 09:26:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 145.49 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 85.79 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 93.01 Mbit/s
95th percentile per-packet one-way delay: 1.774 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 1.159 ms
Loss rate: 0.00%
```
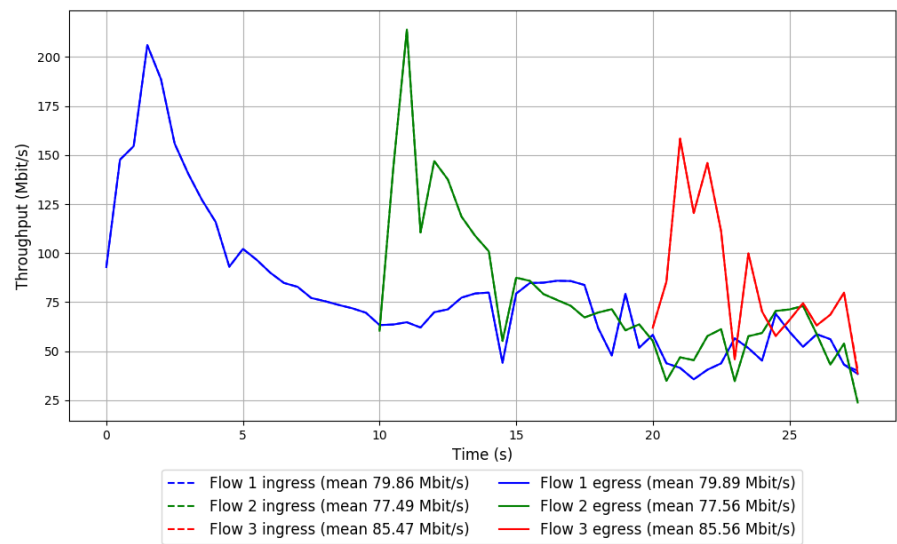
Run 8: Report of Copa — Data Link
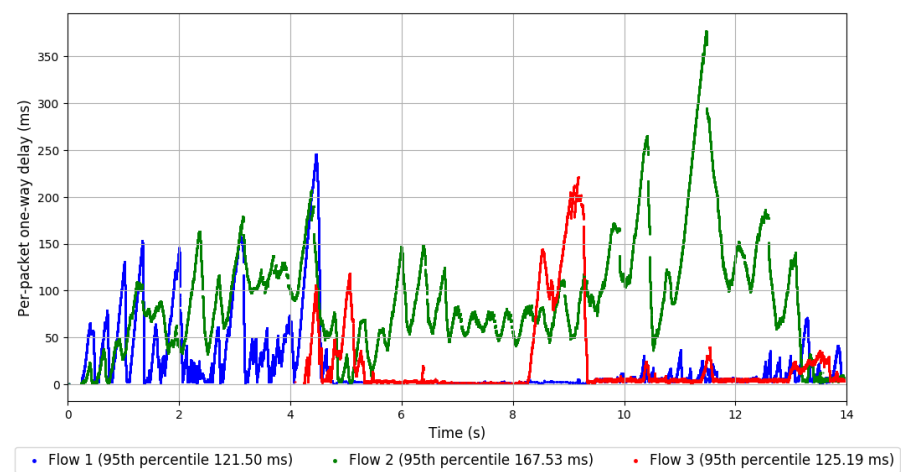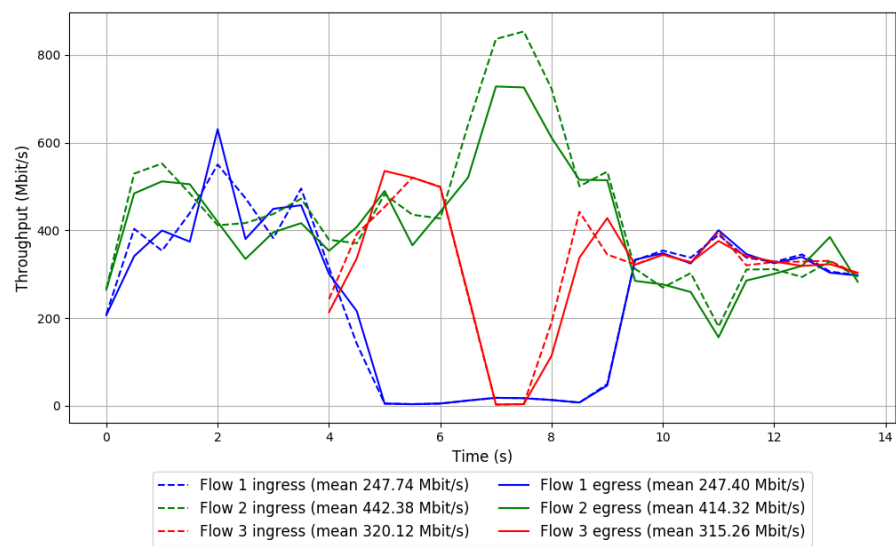
```
Run 9: Statistics of Copa

Start at: 2018-01-10 02:48:59
End at: 2018-01-10 02:49:29
Local clock offset: -1.639 ms
Remote clock offset: -2.813 ms

Below is generated by plot.py at 2018-01-10 09:27:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 157.70 Mbit/s
95th percentile per-packet one-way delay: 1.282 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 81.52 Mbit/s
95th percentile per-packet one-way delay: 1.268 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 80.28 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 87.48 Mbit/s
95th percentile per-packet one-way delay: 1.263 ms
Loss rate: 0.15%
```

Run 9: Report of Copa — Data Link

- - - Flow 1 ingress (mean 81.52 Mbit/s)   —— Flow 1 egress (mean 81.52 Mbit/s)
- - - Flow 2 ingress (mean 80.28 Mbit/s)   —— Flow 2 egress (mean 80.28 Mbit/s)
- - - Flow 3 ingress (mean 87.39 Mbit/s)   —— Flow 3 egress (mean 87.48 Mbit/s)

- Flow 1 (95th percentile 1.27 ms)   • Flow 2 (95th percentile 1.36 ms)   • Flow 3 (95th percentile 1.26 ms)

241

```
Run 10: Statistics of Copa

Start at: 2018-01-10 03:10:42
End at: 2018-01-10 03:11:12
Local clock offset: -0.993 ms
Remote clock offset: -2.766 ms


# Below is generated by plot.py at 2018-01-10 09:28:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 153.75 Mbit/s
95th percentile per-packet one-way delay: 1.214 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 79.89 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 77.56 Mbit/s
95th percentile per-packet one-way delay: 1.188 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 85.56 Mbit/s
95th percentile per-packet one-way delay: 3.307 ms
Loss rate: 0.12%
```

Run 10: Report of Copa — Data Link

243

```
Run 1: Statistics of FillP

Start at: 2018-01-09 23:51:19
End at: 2018-01-09 23:51:49
Local clock offset: -0.982 ms
Remote clock offset: -3.322 ms
```

Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-01-10 00:12:48
End at: 2018-01-10 00:13:18
Local clock offset: -1.295 ms
Remote clock offset: -2.598 ms
```
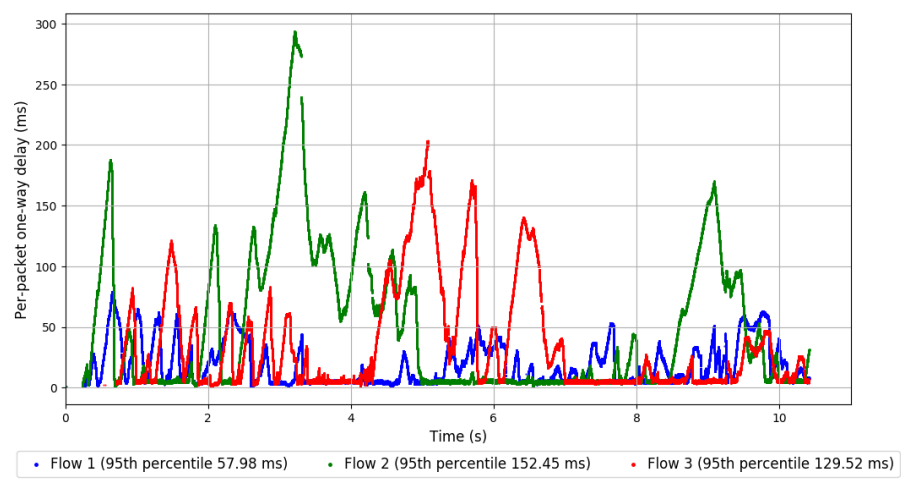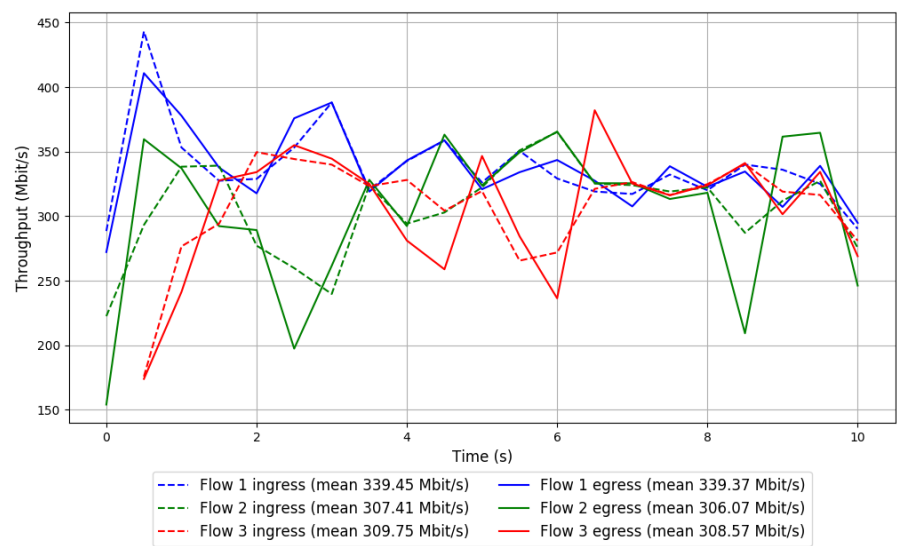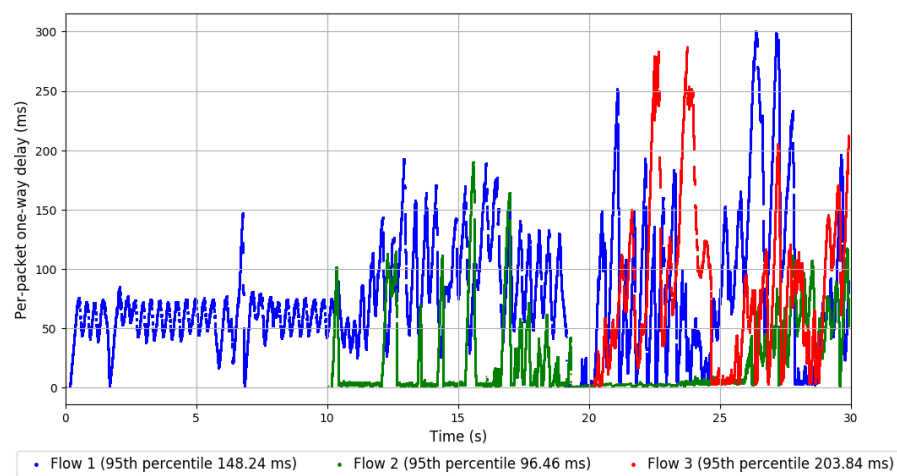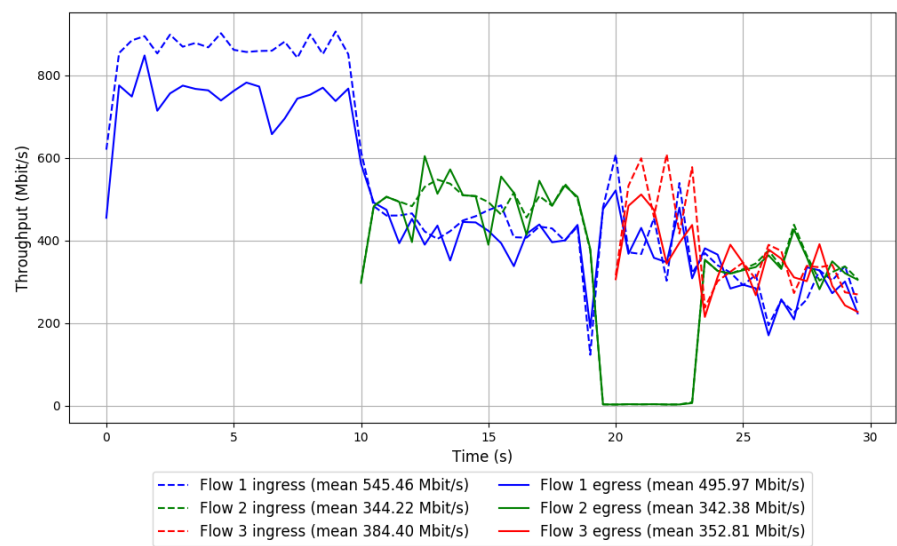
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 328.18 Mbit/s)   Flow 1 egress (mean 327.95 Mbit/s)
Flow 2 ingress (mean 303.24 Mbit/s)   Flow 2 egress (mean 294.14 Mbit/s)
Flow 3 ingress (mean 310.77 Mbit/s)   Flow 3 egress (mean 307.48 Mbit/s)

Flow 1 (95th percentile 70.58 ms)   Flow 2 (95th percentile 188.24 ms)   Flow 3 (95th percentile 158.33 ms)

247

```
Run 3: Statistics of FillP

Start at: 2018-01-10 00:34:14
End at: 2018-01-10 00:34:44
Local clock offset: -1.323 ms
Remote clock offset: -2.04 ms
```
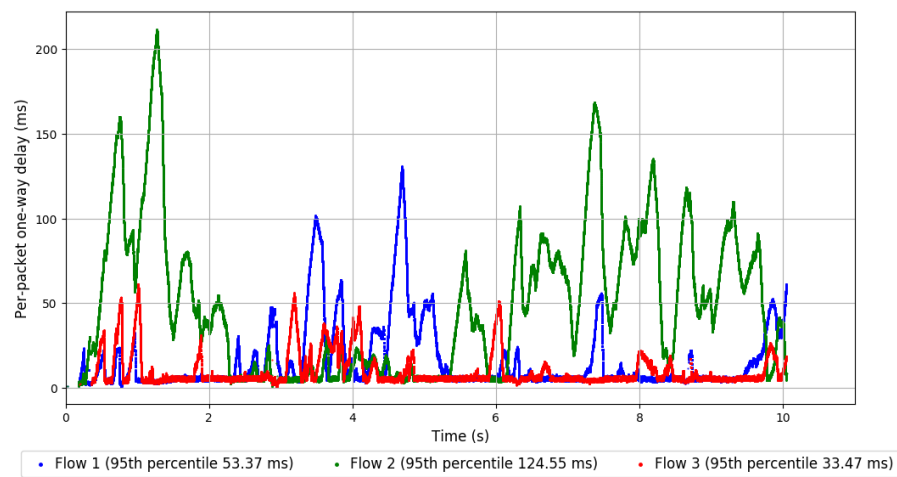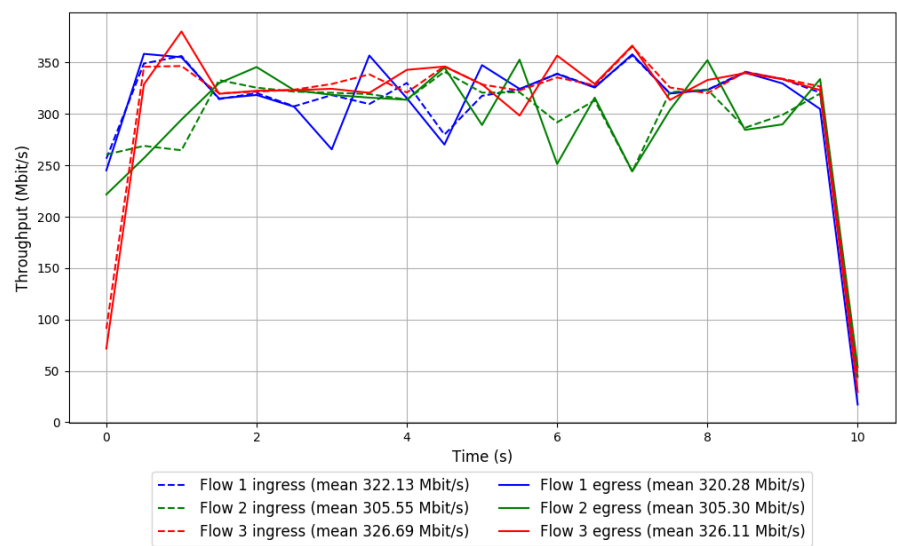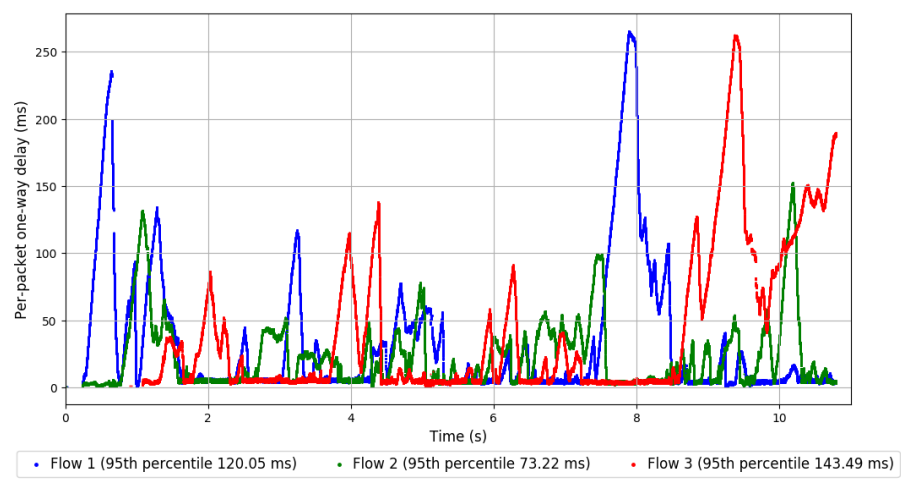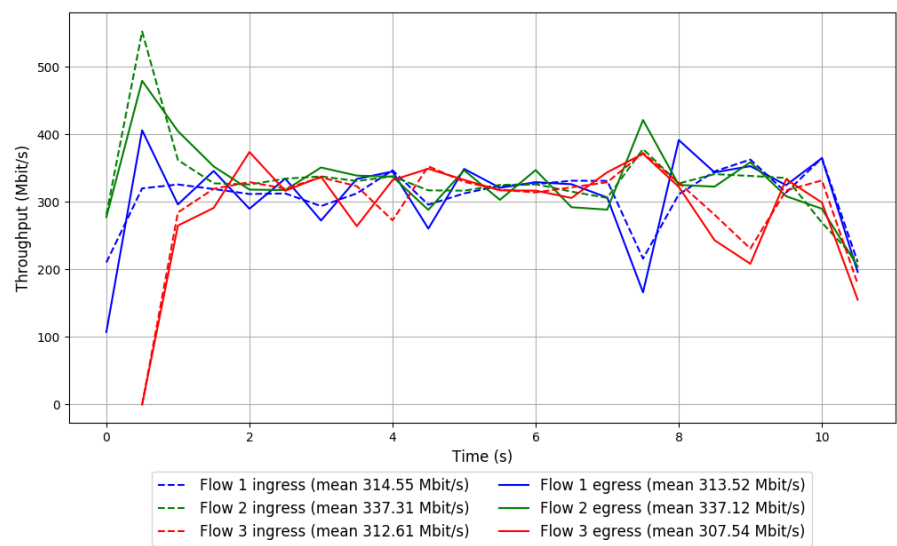
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 339.45 Mbit/s)   Flow 1 egress (mean 339.37 Mbit/s)
Flow 2 ingress (mean 307.41 Mbit/s)   Flow 2 egress (mean 306.07 Mbit/s)
Flow 3 ingress (mean 309.75 Mbit/s)   Flow 3 egress (mean 308.57 Mbit/s)

Flow 1 (95th percentile 57.98 ms)   Flow 2 (95th percentile 152.45 ms)   Flow 3 (95th percentile 129.52 ms)

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```
Run 4: Statistics of FillP

Start at: 2018-01-10 00:55:43
End at: 2018-01-10 00:56:13
Local clock offset: -1.544 ms
Remote clock offset: -1.809 ms


# Below is generated by plot.py at 2018-01-10 09:50:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 840.45 Mbit/s
95th percentile per-packet one-way delay: 144.990 ms
Loss rate: 6.87%
-- Flow 1:
Average throughput: 495.97 Mbit/s
95th percentile per-packet one-way delay: 148.235 ms
Loss rate: 9.13%
-- Flow 2:
Average throughput: 342.38 Mbit/s
95th percentile per-packet one-way delay: 96.457 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 352.81 Mbit/s
95th percentile per-packet one-way delay: 203.844 ms
Loss rate: 8.41%
```

Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-01-10 01:17:21
End at: 2018-01-10 01:17:51
Local clock offset: -1.718 ms
Remote clock offset: -1.33 ms
```

Run 5: Report of FillP — Data Link

```
Run 6: Statistics of FillP

Start at: 2018-01-10 01:38:15
End at: 2018-01-10 01:38:45
Local clock offset: -1.738 ms
Remote clock offset: -1.957 ms
```

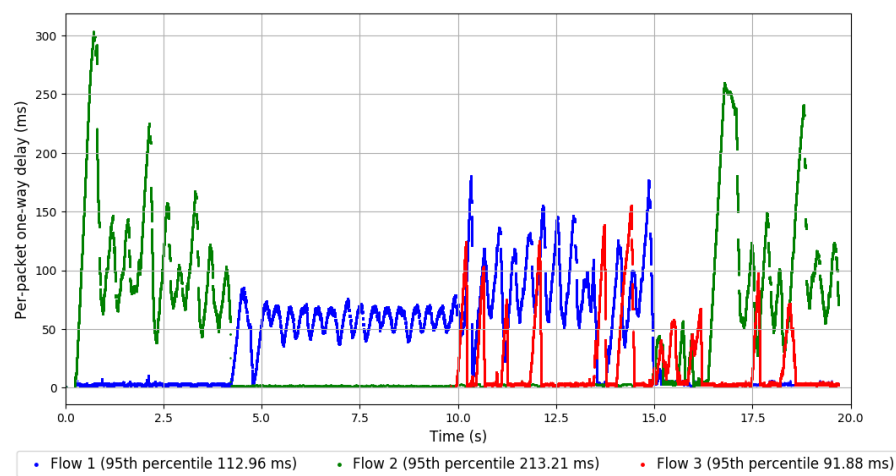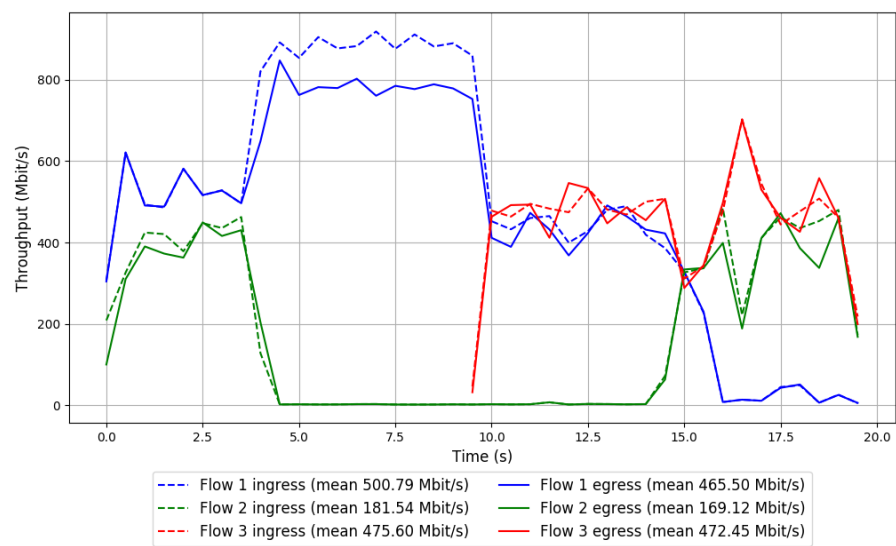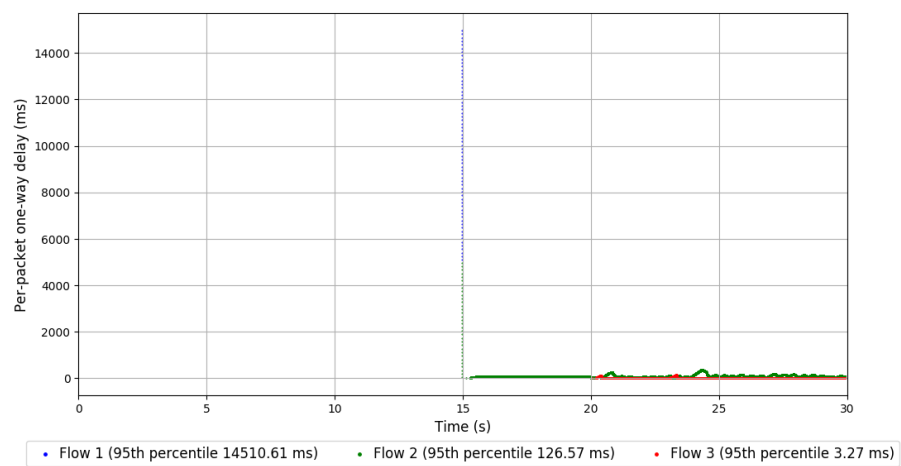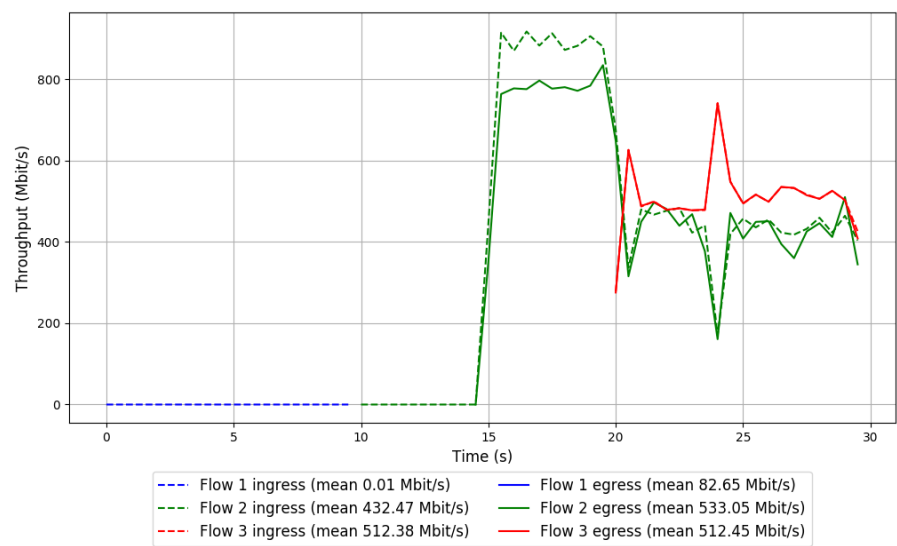Run 6: Report of FillP — Data Link

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Run 7: Statistics of FillP

Start at: 2018-01-10 01:59:32
End at: 2018-01-10 02:00:02
Local clock offset: -1.752 ms
Remote clock offset: -2.116 ms

Run 7: Report of FillP — Data Link

```
Run 8: Statistics of FillP

Start at: 2018-01-10 02:21:06
End at: 2018-01-10 02:21:36
Local clock offset: -1.93 ms
Remote clock offset: -2.456 ms
```
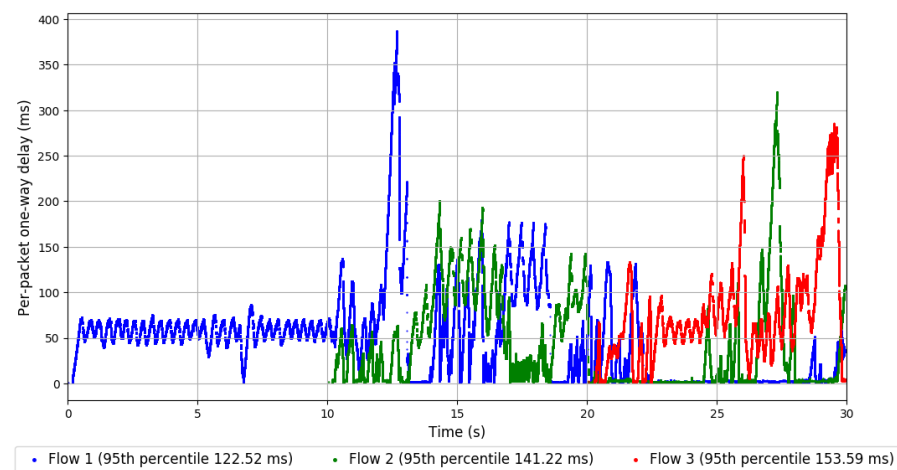
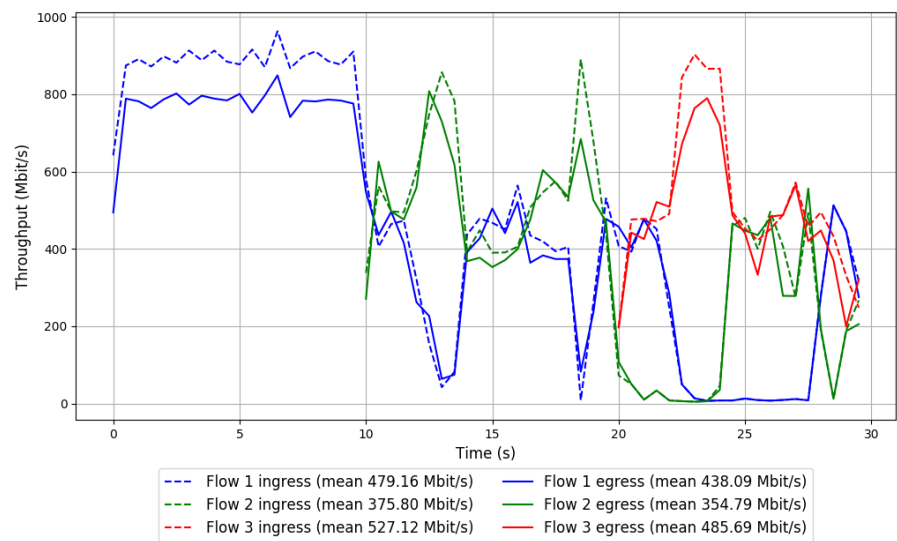## Run 8: Report of FillP — Data Link

```
Run 9: Statistics of FillP

Start at: 2018-01-10 02:42:32
End at: 2018-01-10 02:43:02
Local clock offset: -1.702 ms
Remote clock offset: -2.573 ms

# Below is generated by plot.py at 2018-01-10 09:53:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 834.44 Mbit/s
95th percentile per-packet one-way delay: 131.930 ms
Loss rate: 7.71%
-- Flow 1:
Average throughput: 438.09 Mbit/s
95th percentile per-packet one-way delay: 122.522 ms
Loss rate: 8.64%
-- Flow 2:
Average throughput: 354.79 Mbit/s
95th percentile per-packet one-way delay: 141.223 ms
Loss rate: 5.69%
-- Flow 3:
Average throughput: 485.69 Mbit/s
95th percentile per-packet one-way delay: 153.587 ms
Loss rate: 8.08%
```

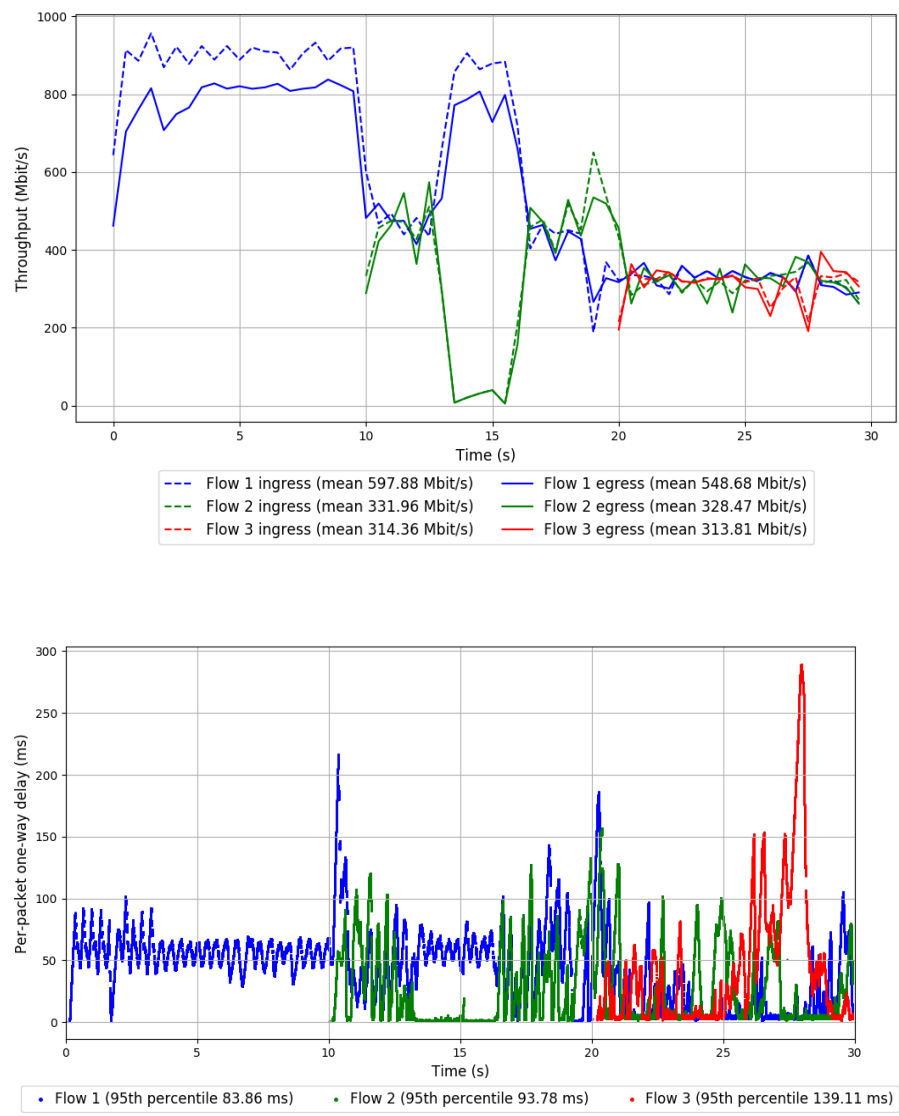# Run 9: Report of FillP — Data Link

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```
Run 10: Statistics of FillP

Start at: 2018-01-10 03:04:11
End at: 2018-01-10 03:04:41
Local clock offset: -1.263 ms
Remote clock offset: -2.978 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 870.87 Mbit/s
95th percentile per-packet one-way delay: 90.424 ms
Loss rate: 5.69%
-- Flow 1:
Average throughput: 548.68 Mbit/s
95th percentile per-packet one-way delay: 83.865 ms
Loss rate: 8.29%
-- Flow 2:
Average throughput: 328.47 Mbit/s
95th percentile per-packet one-way delay: 93.775 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 313.81 Mbit/s
95th percentile per-packet one-way delay: 139.109 ms
Loss rate: 0.39%
```

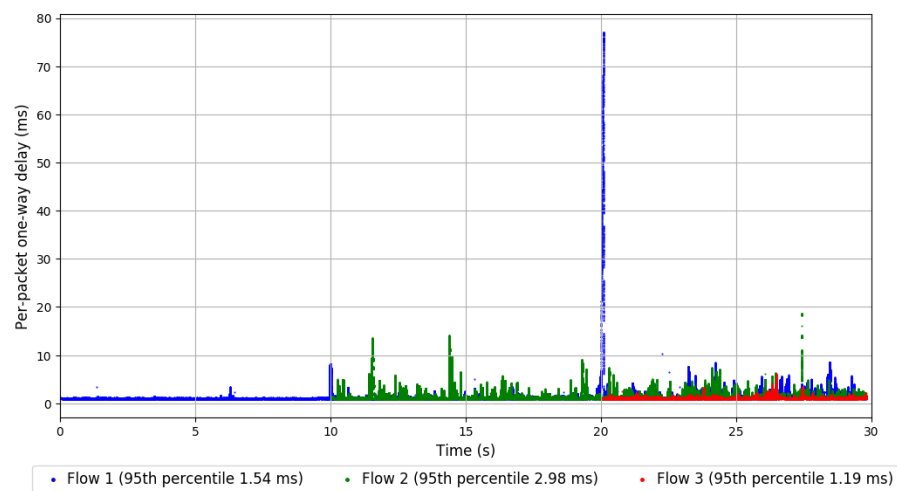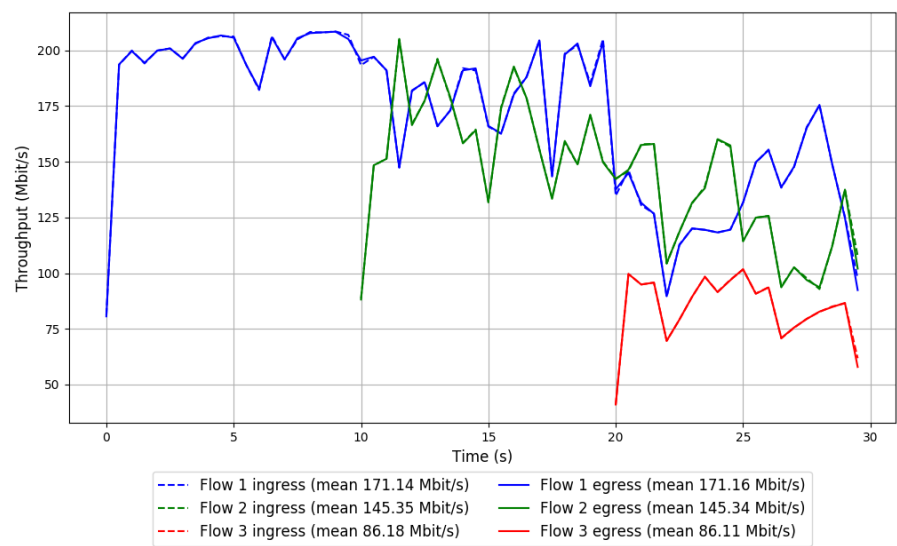## Run 10: Report of FillP — Data Link

```
Run 1: Statistics of Indigo

Start at: 2018-01-09 23:47:07
End at: 2018-01-09 23:47:37
Local clock offset: -0.928 ms
Remote clock offset: -3.355 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.74 Mbit/s
95th percentile per-packet one-way delay: 2.019 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 171.16 Mbit/s
95th percentile per-packet one-way delay: 1.543 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 145.34 Mbit/s
95th percentile per-packet one-way delay: 2.977 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 86.11 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.24%
```
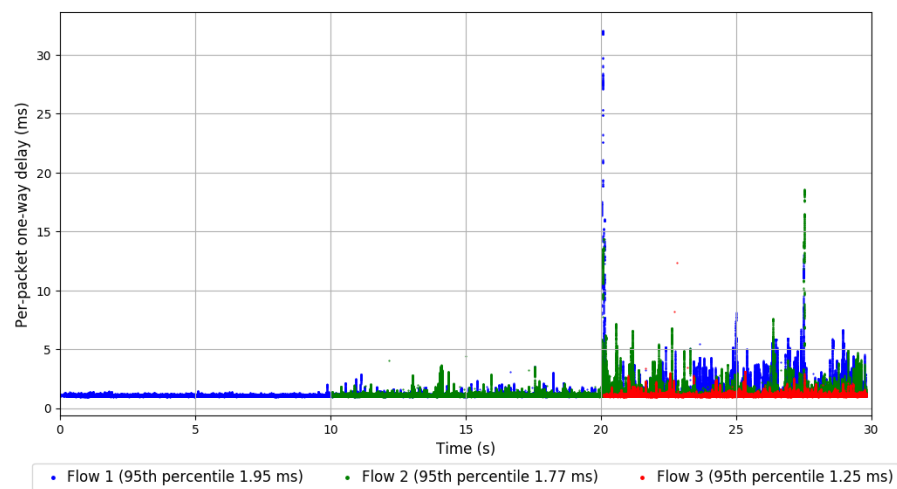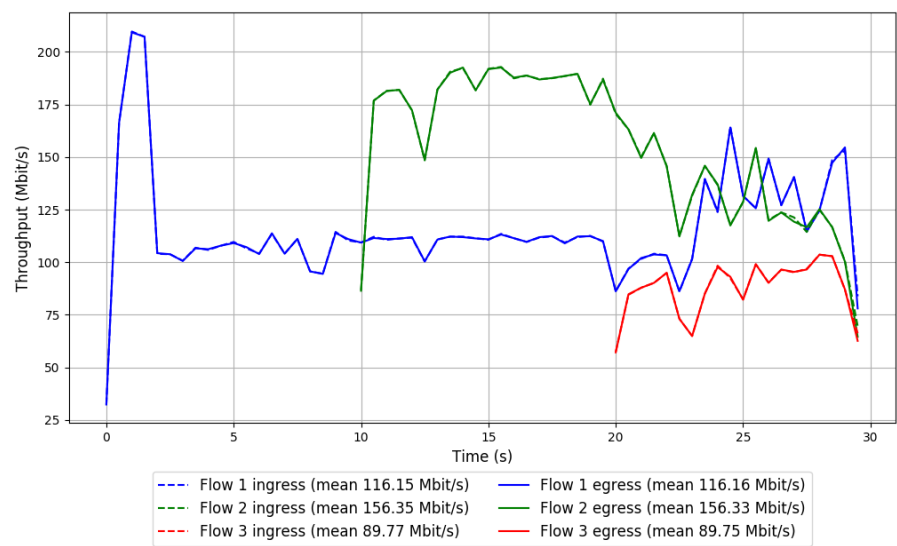
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-01-10 00:08:41
End at: 2018-01-10 00:09:11
Local clock offset: -1.26 ms
Remote clock offset: -2.731 ms

# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.97 Mbit/s
95th percentile per-packet one-way delay: 1.764 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 116.16 Mbit/s
95th percentile per-packet one-way delay: 1.946 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 156.33 Mbit/s
95th percentile per-packet one-way delay: 1.769 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 89.75 Mbit/s
95th percentile per-packet one-way delay: 1.255 ms
Loss rate: 0.22%
```
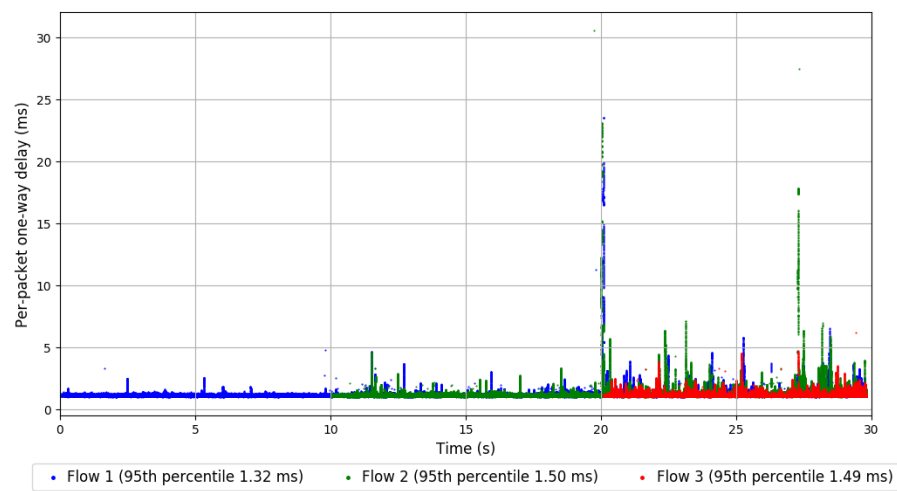
Run 2: Report of Indigo — Data Link

- - - Flow 1 ingress (mean 116.15 Mbit/s)   —— Flow 1 egress (mean 116.16 Mbit/s)
- - - Flow 2 ingress (mean 156.35 Mbit/s)   —— Flow 2 egress (mean 156.33 Mbit/s)
- - - Flow 3 ingress (mean 89.77 Mbit/s)   —— Flow 3 egress (mean 89.75 Mbit/s)

• Flow 1 (95th percentile 1.95 ms)   • Flow 2 (95th percentile 1.77 ms)   • Flow 3 (95th percentile 1.25 ms)
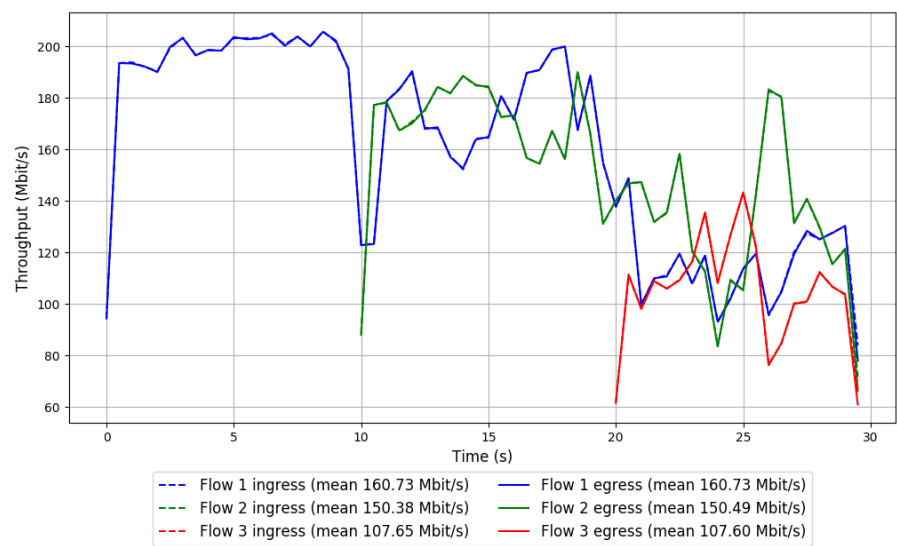
267

```
Run 3: Statistics of Indigo

Start at: 2018-01-10 00:30:04
End at: 2018-01-10 00:30:34
Local clock offset: -1.371 ms
Remote clock offset: -2.081 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.62 Mbit/s
95th percentile per-packet one-way delay: 1.403 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 160.73 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 150.49 Mbit/s
95th percentile per-packet one-way delay: 1.501 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 107.60 Mbit/s
95th percentile per-packet one-way delay: 1.492 ms
Loss rate: 0.24%
```

Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-01-10 00:51:34
End at: 2018-01-10 00:52:04
Local clock offset: -1.573 ms
Remote clock offset: -1.941 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 303.19 Mbit/s
95th percentile per-packet one-way delay: 2.870 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 173.34 Mbit/s
95th percentile per-packet one-way delay: 2.915 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 144.94 Mbit/s
95th percentile per-packet one-way delay: 3.210 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 103.37 Mbit/s
95th percentile per-packet one-way delay: 1.595 ms
Loss rate: 0.20%
```
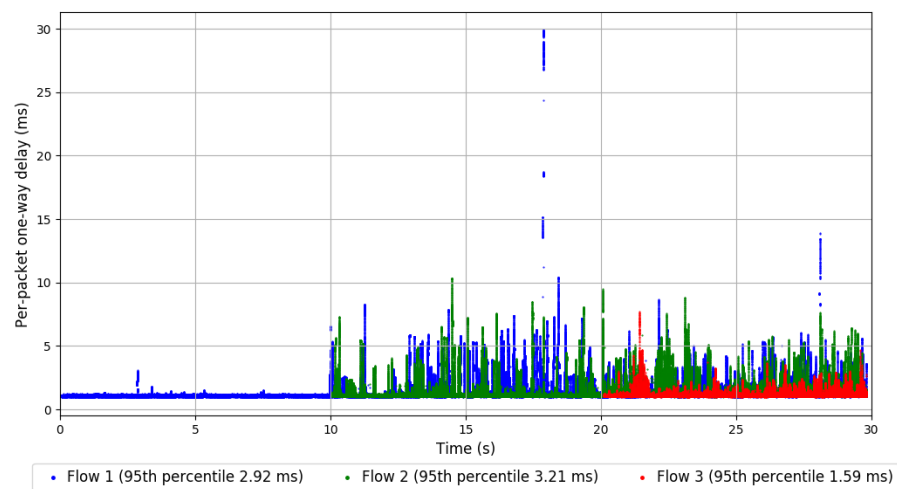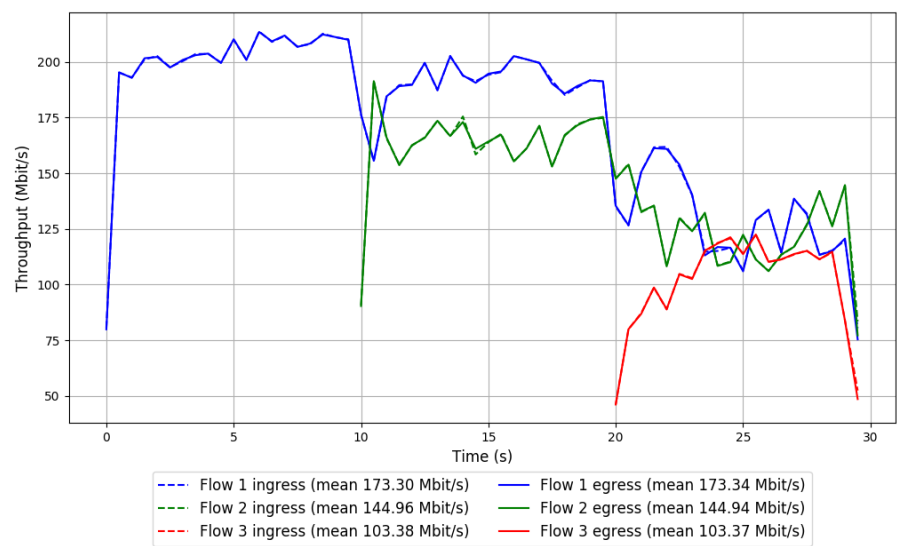
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-01-10 01:13:12
End at: 2018-01-10 01:13:42
Local clock offset: -1.693 ms
Remote clock offset: -1.433 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.86 Mbit/s
95th percentile per-packet one-way delay: 2.018 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 170.70 Mbit/s
95th percentile per-packet one-way delay: 1.537 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 151.37 Mbit/s
95th percentile per-packet one-way delay: 2.784 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 107.33 Mbit/s
95th percentile per-packet one-way delay: 1.507 ms
Loss rate: 0.23%
```
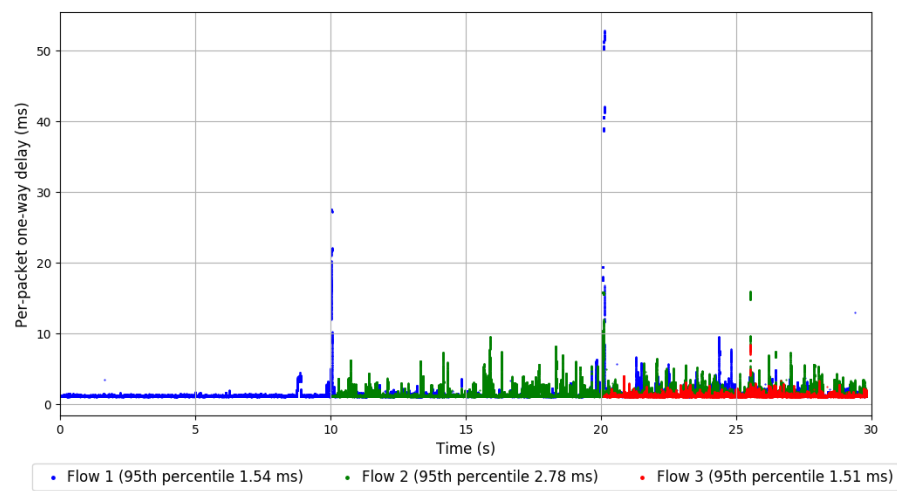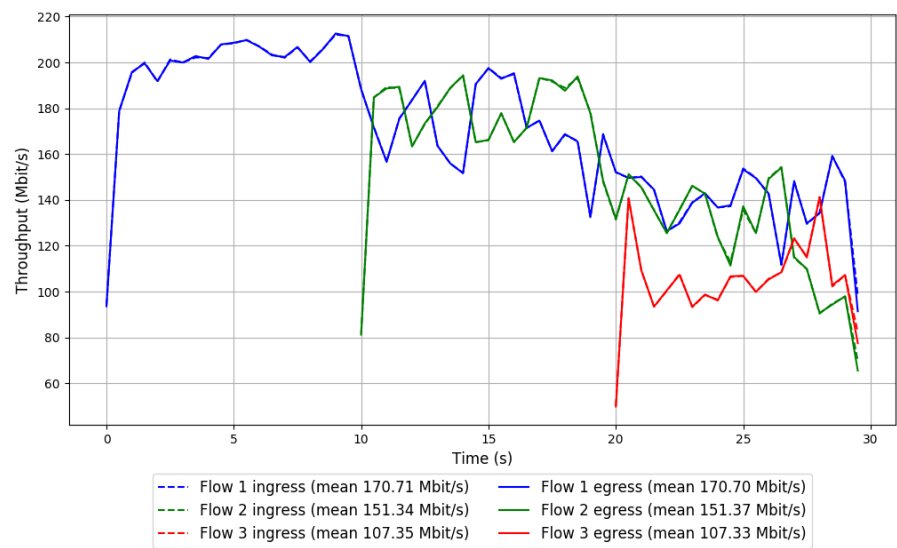
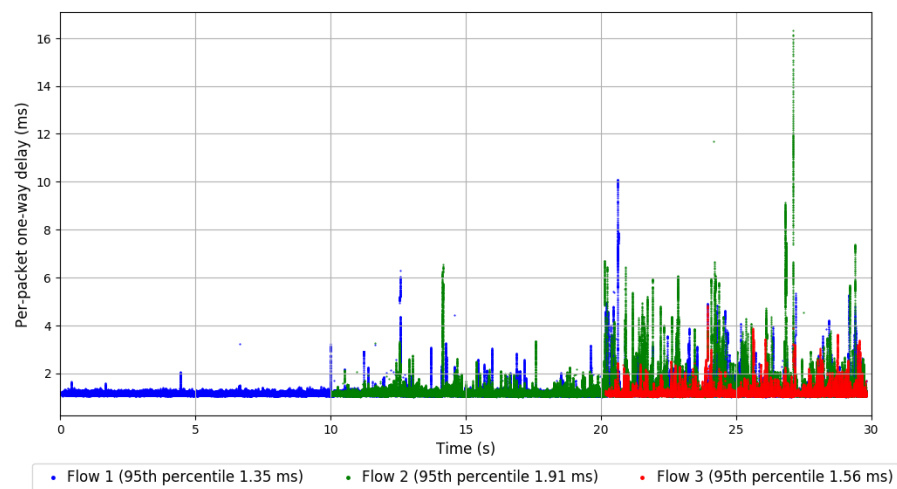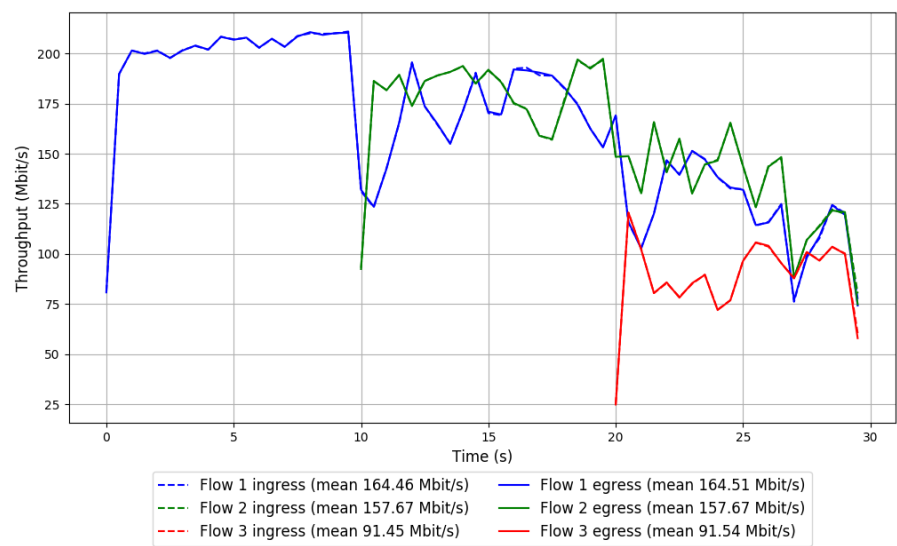Run 5: Report of Indigo — Data Link

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```
Run 6: Statistics of Indigo

Start at: 2018-01-10 01:34:04
End at: 2018-01-10 01:34:34
Local clock offset: -1.704 ms
Remote clock offset: -1.776 ms

# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.74 Mbit/s
95th percentile per-packet one-way delay: 1.559 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 164.51 Mbit/s
95th percentile per-packet one-way delay: 1.348 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 157.67 Mbit/s
95th percentile per-packet one-way delay: 1.906 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 91.54 Mbit/s
95th percentile per-packet one-way delay: 1.561 ms
Loss rate: 0.16%
```

Run 6: Report of Indigo — Data Link

Flow 1 ingress (mean 164.46 Mbit/s) --- Flow 1 egress (mean 164.51 Mbit/s)
Flow 2 ingress (mean 157.67 Mbit/s) --- Flow 2 egress (mean 157.67 Mbit/s)
Flow 3 ingress (mean 91.45 Mbit/s) --- Flow 3 egress (mean 91.54 Mbit/s)

• Flow 1 (95th percentile 1.35 ms)   • Flow 2 (95th percentile 1.91 ms)   • Flow 3 (95th percentile 1.56 ms)
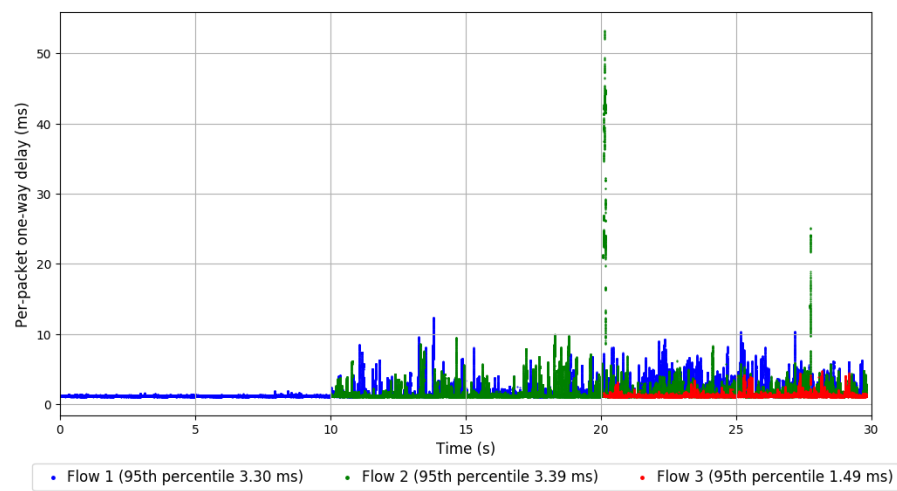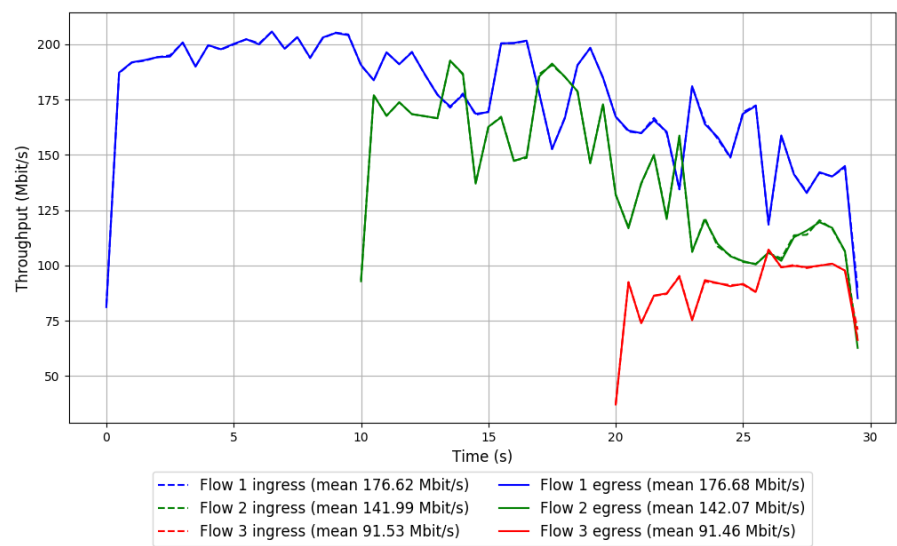
```
Run 7: Statistics of Indigo

Start at: 2018-01-10 01:55:16
End at: 2018-01-10 01:55:46
Local clock offset: -1.727 ms
Remote clock offset: -2.183 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.64 Mbit/s
95th percentile per-packet one-way delay: 3.172 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 176.68 Mbit/s
95th percentile per-packet one-way delay: 3.299 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 142.07 Mbit/s
95th percentile per-packet one-way delay: 3.392 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 91.46 Mbit/s
95th percentile per-packet one-way delay: 1.485 ms
Loss rate: 0.26%
```

Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-01-10 02:16:54
End at: 2018-01-10 02:17:24
Local clock offset: -1.831 ms
Remote clock offset: -2.287 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.31 Mbit/s
95th percentile per-packet one-way delay: 1.988 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 169.24 Mbit/s
95th percentile per-packet one-way delay: 1.438 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 153.55 Mbit/s
95th percentile per-packet one-way delay: 3.109 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 95.69 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 0.22%
```
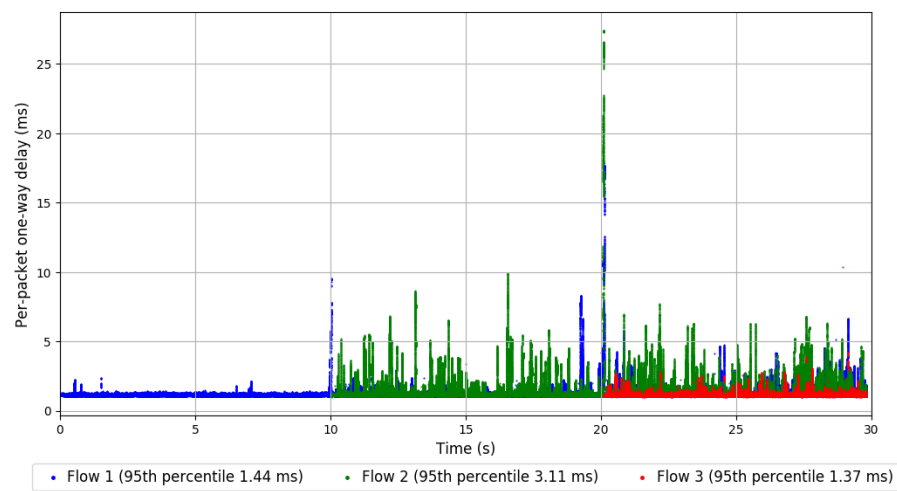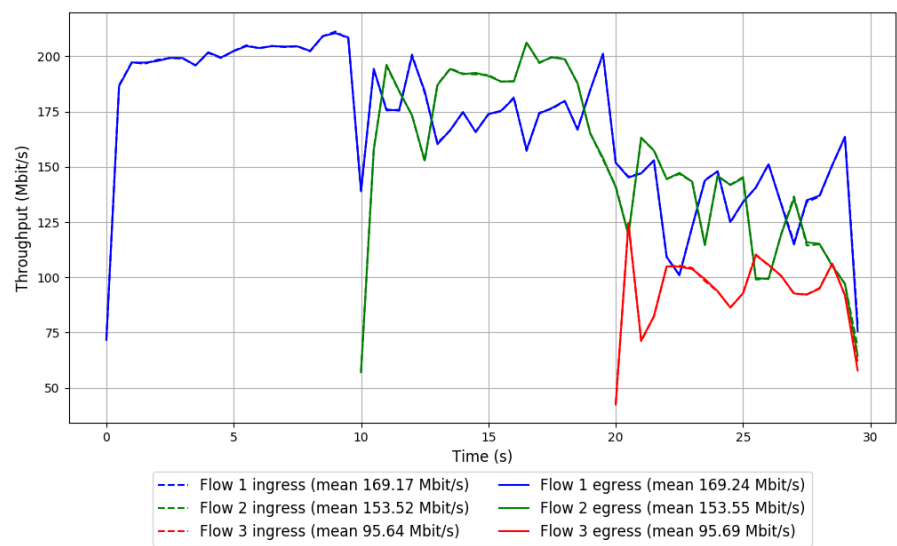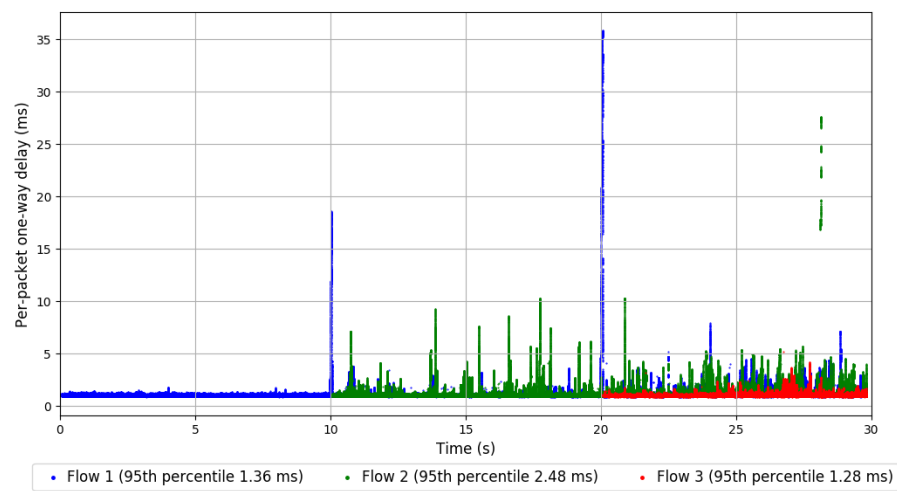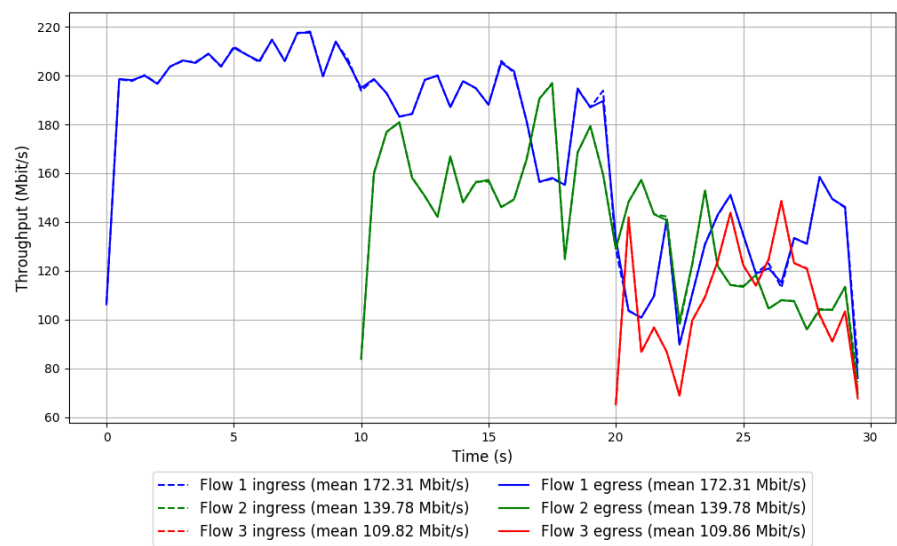
Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2018-01-10 02:38:16
End at: 2018-01-10 02:38:46
Local clock offset: -1.806 ms
Remote clock offset: -2.312 ms

# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.93 Mbit/s
95th percentile per-packet one-way delay: 1.683 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 172.31 Mbit/s
95th percentile per-packet one-way delay: 1.365 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 139.78 Mbit/s
95th percentile per-packet one-way delay: 2.477 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 109.86 Mbit/s
95th percentile per-packet one-way delay: 1.279 ms
Loss rate: 0.16%
```

Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2018-01-10 02:59:56
End at: 2018-01-10 03:00:26
Local clock offset: -1.422 ms
Remote clock offset: -3.07 ms


# Below is generated by plot.py at 2018-01-10 09:54:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 299.65 Mbit/s
95th percentile per-packet one-way delay: 1.997 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 169.02 Mbit/s
95th percentile per-packet one-way delay: 1.461 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 154.20 Mbit/s
95th percentile per-packet one-way delay: 2.863 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 87.77 Mbit/s
95th percentile per-packet one-way delay: 1.287 ms
Loss rate: 0.24%
```

Run 10: Report of Indigo — Data Link