Pantheon Report

Generated at 2018-10-02 13:21:14 (UTC).

Data path: AWS California 1 on **ens5** (*local*) →Stanford on **eno1** (*remote*).

Repeated the test of 18 congestion control schemes 5 times.

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.
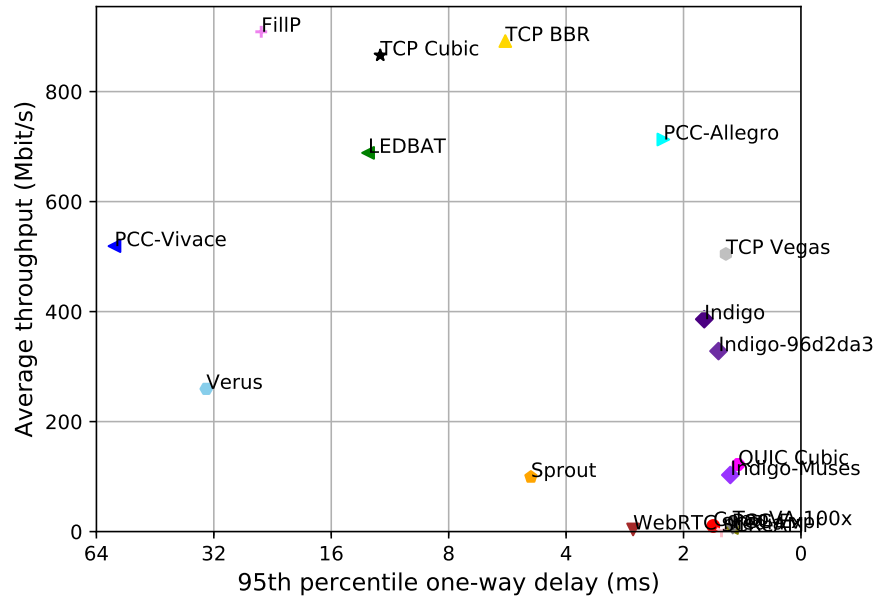
```
System info:
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 2e19c0464530faa92c63f8217c9971438a26a3be
third_party/fillp @ 5332fc9127c63565e13f4933b336c02d1aabdac6
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
```
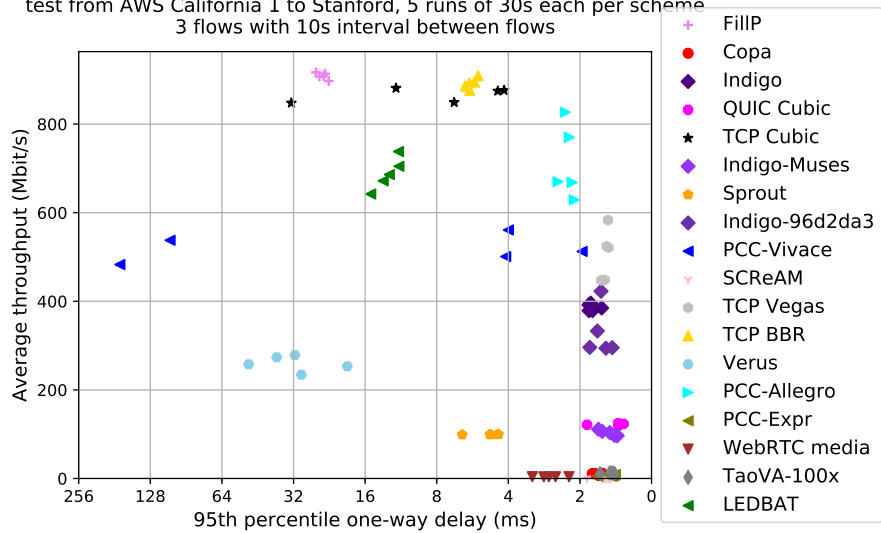
```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS California 1 to Stanford, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS California 1 to Stanford, 5 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	5	530.09	397.88	290.66	5.56	6.17	3.57	5.04	10.16	13.40
Copa	5	4.63	6.36	5.33	1.49	1.49	1.72	59.87	52.36	49.37
TCP Cubic	5	497.64	400.39	305.34	14.80	2.13	2.13	0.09	0.06	0.09
FillP	5	548.73	405.68	271.30	24.97	21.08	14.92	15.65	24.37	26.83
Indigo	5	200.76	188.98	184.88	1.53	1.59	1.95	0.00	0.01	0.01
Indigo-96d2da3	5	147.54	159.79	225.84	1.38	1.38	1.38	0.01	0.01	0.01
LEDBAT	5	409.79	289.66	281.48	13.57	8.75	6.53	0.12	0.26	0.33
Indigo-Muses	5	52.28	48.53	55.97	1.26	1.06	1.32	0.03	0.00	0.03
PCC-Allegro	5	519.54	272.03	37.79	2.22	2.23	2.21	0.13	0.15	0.17
PCC-Expr	5	0.77	6.38	7.05	1.22	1.18	1.14	85.71	21.79	22.00
QUIC Cubic	5	64.67	62.35	48.43	0.85	1.25	3.65	0.00	0.00	0.01
SCReAM	5	0.22	0.22	0.22	1.36	1.34	1.35	0.00	0.00	0.00
Sprout	5	49.90	49.78	49.41	4.86	4.86	5.17	0.09	0.14	0.17
TaoVA-100x	5	5.14	6.94	6.10	1.18	1.14	1.13	59.51	76.44	86.19
TCP Vegas	5	205.73	262.43	373.75	1.27	1.25	1.28	0.01	0.01	0.01
Verus	5	142.25	107.96	138.81	33.40	31.46	45.19	3.82	5.83	5.89
PCC-Vivace	5	296.94	256.40	156.21	70.05	2.67	17.96	0.44	0.12	0.30
WebRTC media	5	2.02	1.36	0.51	2.71	2.54	2.85	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-10-02 10:23:36
End at: 2018-10-02 10:24:06
Local clock offset: 4.349 ms
Remote clock offset: 6.127 ms

# Below is generated by plot.py at 2018-10-02 12:41:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 894.78 Mbit/s
95th percentile per-packet one-way delay: 5.560 ms
Loss rate: 6.81%
-- Flow 1:
Average throughput: 580.35 Mbit/s
95th percentile per-packet one-way delay: 5.644 ms
Loss rate: 4.01%
-- Flow 2:
Average throughput: 366.05 Mbit/s
95th percentile per-packet one-way delay: 5.301 ms
Loss rate: 10.87%
-- Flow 3:
Average throughput: 212.28 Mbit/s
95th percentile per-packet one-way delay: 2.484 ms
Loss rate: 13.92%
```
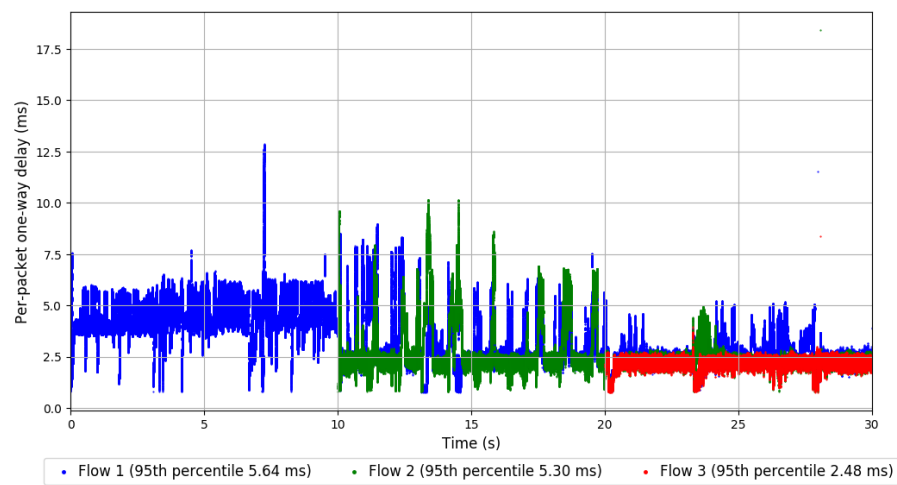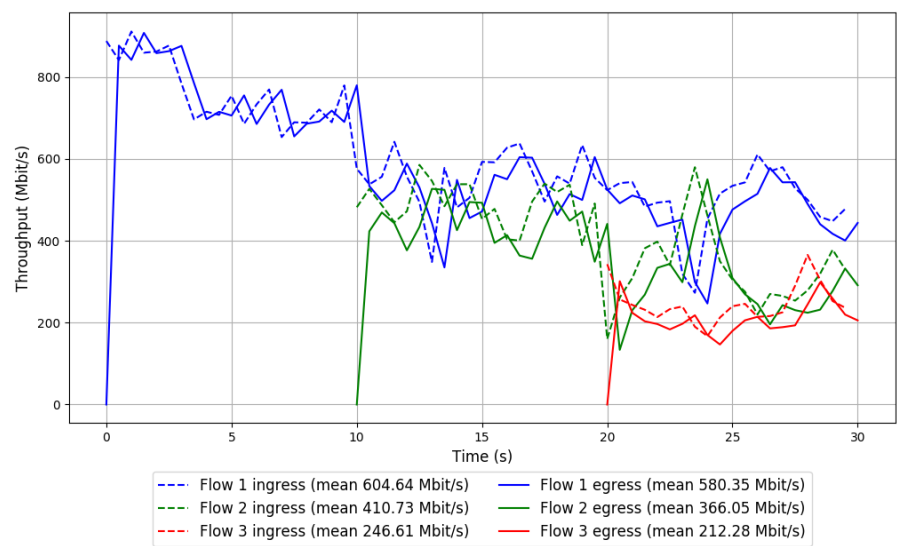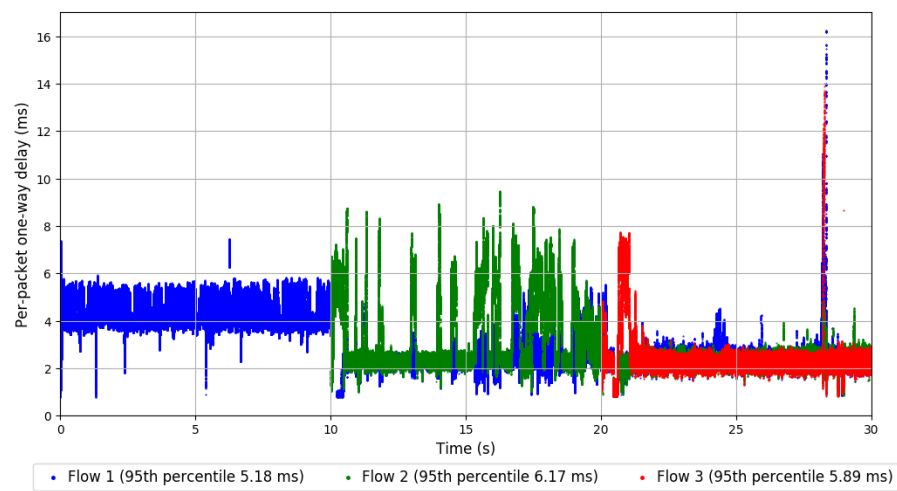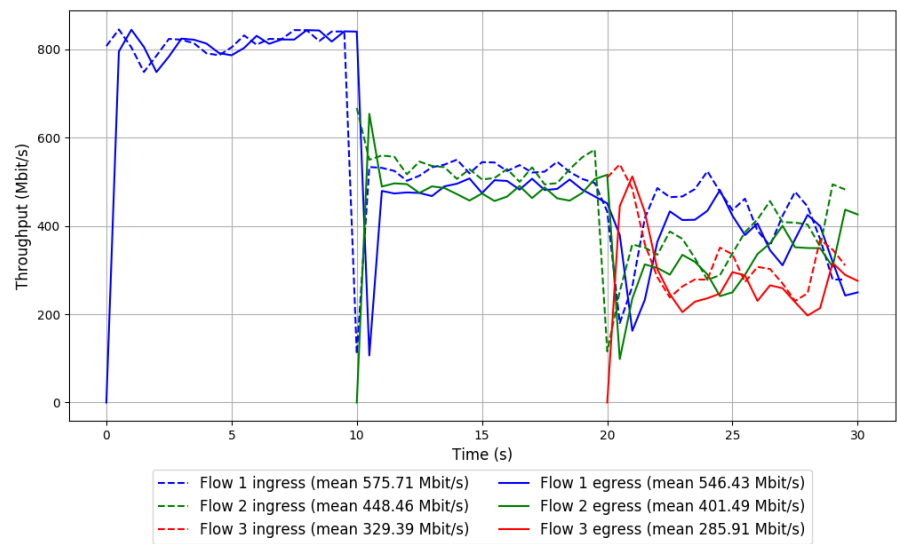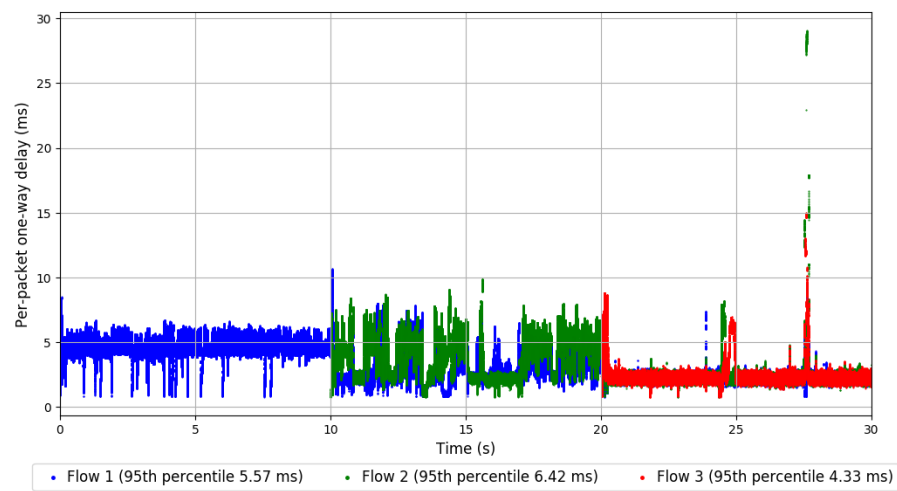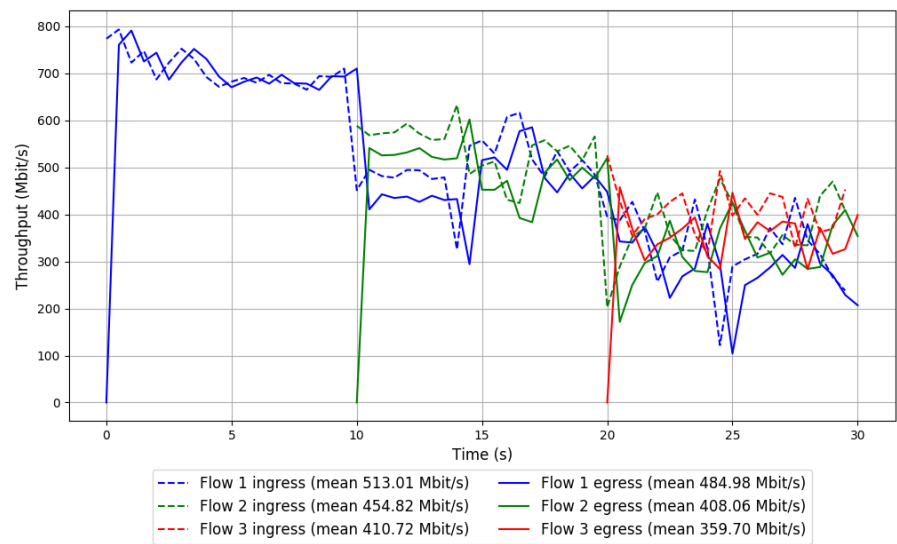
Run 1: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 604.64 Mbit/s) ── Flow 1 egress (mean 580.35 Mbit/s)
- - - Flow 2 ingress (mean 410.73 Mbit/s) ── Flow 2 egress (mean 366.05 Mbit/s)
- - - Flow 3 ingress (mean 246.61 Mbit/s) ── Flow 3 egress (mean 212.28 Mbit/s)

• Flow 1 (95th percentile 5.64 ms)   • Flow 2 (95th percentile 5.30 ms)   • Flow 3 (95th percentile 2.48 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-10-02 10:51:11
End at: 2018-10-02 10:51:41
Local clock offset: 4.496 ms
Remote clock offset: 0.236 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 909.14 Mbit/s
95th percentile per-packet one-way delay: 5.366 ms
Loss rate: 7.62%
-- Flow 1:
Average throughput: 546.43 Mbit/s
95th percentile per-packet one-way delay: 5.183 ms
Loss rate: 5.08%
-- Flow 2:
Average throughput: 401.49 Mbit/s
95th percentile per-packet one-way delay: 6.165 ms
Loss rate: 10.47%
-- Flow 3:
Average throughput: 285.91 Mbit/s
95th percentile per-packet one-way delay: 5.891 ms
Loss rate: 13.19%
```
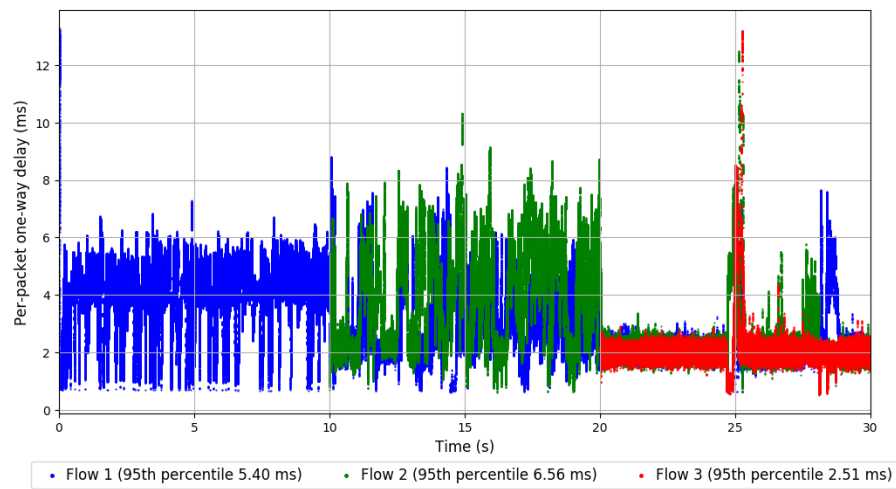
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-10-02 11:18:53
End at: 2018-10-02 11:19:23
Local clock offset: 4.285 ms
Remote clock offset: -0.666 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 876.48 Mbit/s
95th percentile per-packet one-way delay: 5.817 ms
Loss rate: 7.99%
-- Flow 1:
Average throughput: 484.98 Mbit/s
95th percentile per-packet one-way delay: 5.566 ms
Loss rate: 5.46%
-- Flow 2:
Average throughput: 408.06 Mbit/s
95th percentile per-packet one-way delay: 6.422 ms
Loss rate: 10.27%
-- Flow 3:
Average throughput: 359.70 Mbit/s
95th percentile per-packet one-way delay: 4.328 ms
Loss rate: 12.43%
```
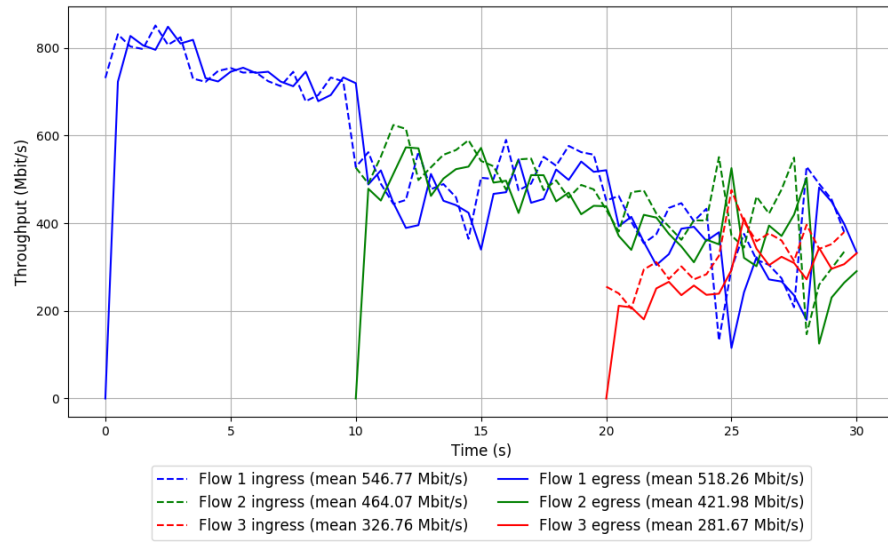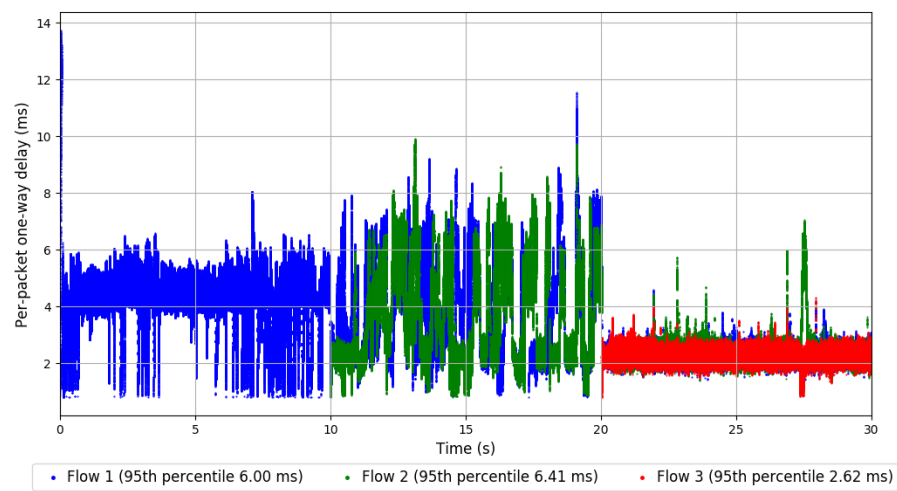
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 513.01 Mbit/s) — — — Flow 1 egress (mean 484.98 Mbit/s)
Flow 2 ingress (mean 454.82 Mbit/s) — — — Flow 2 egress (mean 408.06 Mbit/s)
Flow 3 ingress (mean 410.72 Mbit/s) — — — Flow 3 egress (mean 359.70 Mbit/s)

Flow 1 (95th percentile 5.57 ms)   Flow 2 (95th percentile 6.42 ms)   Flow 3 (95th percentile 4.33 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2018-10-02 11:46:44
End at: 2018-10-02 11:47:14
Local clock offset: 3.95 ms
Remote clock offset: 0.586 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 893.15 Mbit/s
95th percentile per-packet one-way delay: 5.827 ms
Loss rate: 7.41%
-- Flow 1:
Average throughput: 518.26 Mbit/s
95th percentile per-packet one-way delay: 5.399 ms
Loss rate: 5.21%
-- Flow 2:
Average throughput: 421.98 Mbit/s
95th percentile per-packet one-way delay: 6.562 ms
Loss rate: 9.06%
-- Flow 3:
Average throughput: 281.67 Mbit/s
95th percentile per-packet one-way delay: 2.514 ms
Loss rate: 13.80%
```
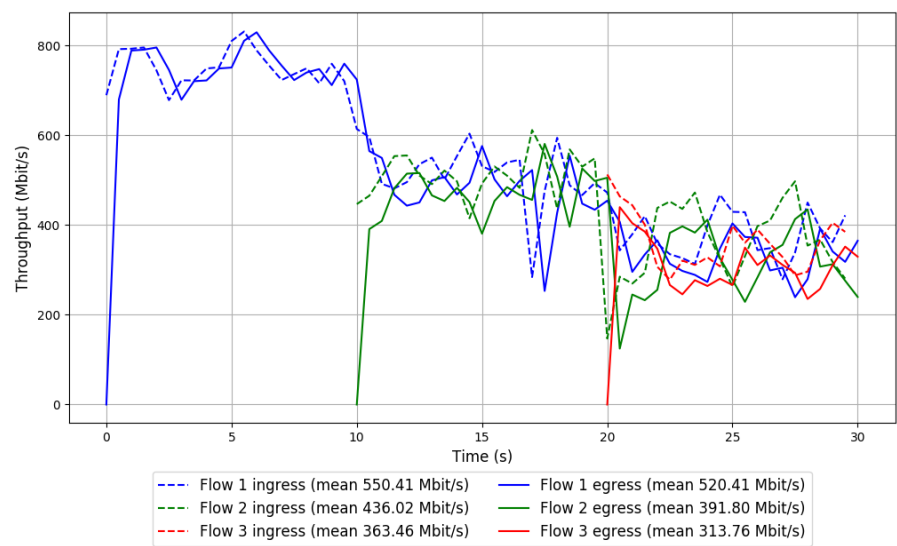
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-10-02 12:14:20
End at: 2018-10-02 12:14:50
Local clock offset: 3.717 ms
Remote clock offset: 4.672 ms

# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 885.81 Mbit/s
95th percentile per-packet one-way delay: 6.065 ms
Loss rate: 7.90%
-- Flow 1:
Average throughput: 520.41 Mbit/s
95th percentile per-packet one-way delay: 5.998 ms
Loss rate: 5.45%
-- Flow 2:
Average throughput: 391.80 Mbit/s
95th percentile per-packet one-way delay: 6.410 ms
Loss rate: 10.14%
-- Flow 3:
Average throughput: 313.76 Mbit/s
95th percentile per-packet one-way delay: 2.621 ms
Loss rate: 13.68%
```
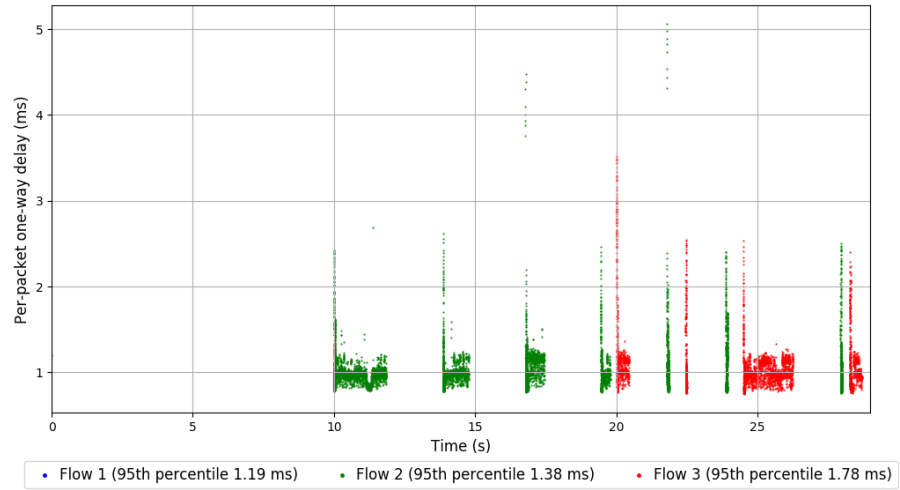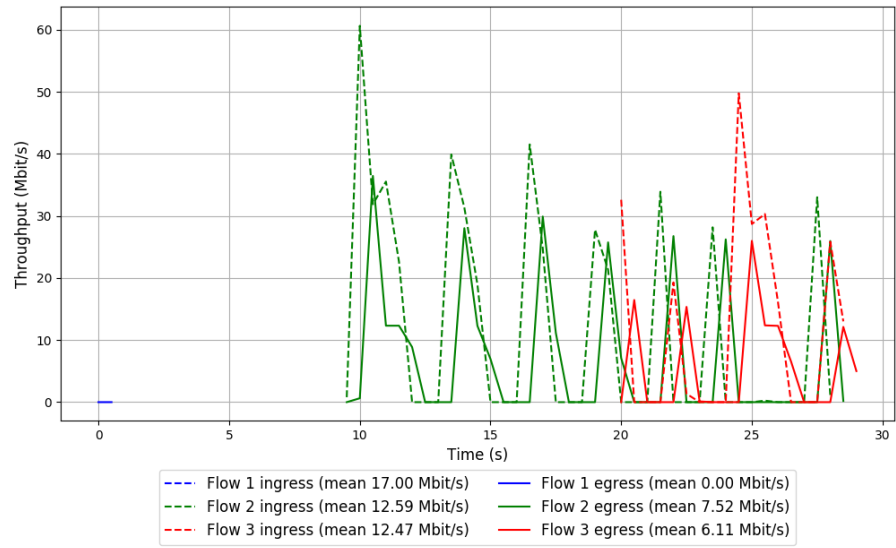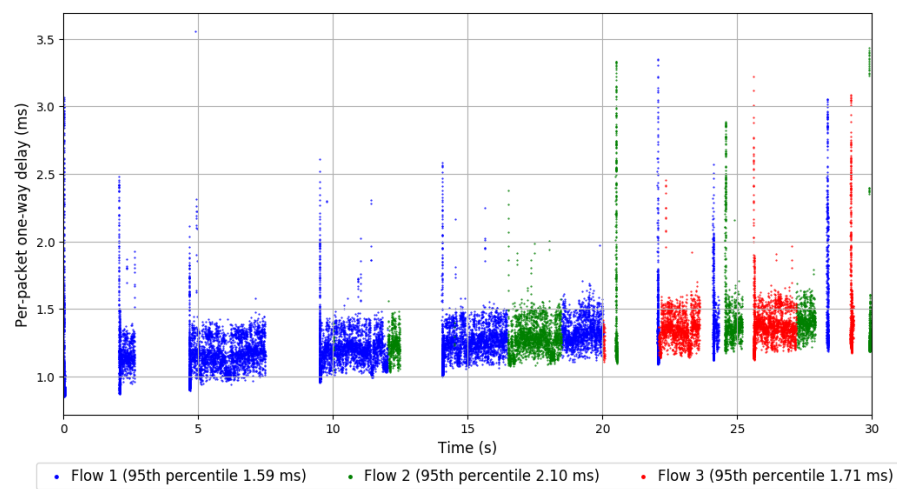
Run 5: Report of TCP BBR — Data Link

- Flow 1 ingress (mean 550.41 Mbit/s) — Flow 1 egress (mean 520.41 Mbit/s)
- Flow 2 ingress (mean 436.02 Mbit/s) — Flow 2 egress (mean 391.80 Mbit/s)
- Flow 3 ingress (mean 363.46 Mbit/s) — Flow 3 egress (mean 313.76 Mbit/s)

- Flow 1 (95th percentile 6.00 ms)   • Flow 2 (95th percentile 6.41 ms)   • Flow 3 (95th percentile 2.62 ms)

```
Run 1: Statistics of Copa

Start at: 2018-10-02 10:09:28
End at: 2018-10-02 10:09:58
Local clock offset: 4.062 ms
Remote clock offset: 5.218 ms

# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 1.471 ms
Loss rate: 43.76%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.193 ms
Loss rate: 98.95%
-- Flow 2:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 1.382 ms
Loss rate: 40.27%
-- Flow 3:
Average throughput: 6.11 Mbit/s
95th percentile per-packet one-way delay: 1.780 ms
Loss rate: 51.03%
```
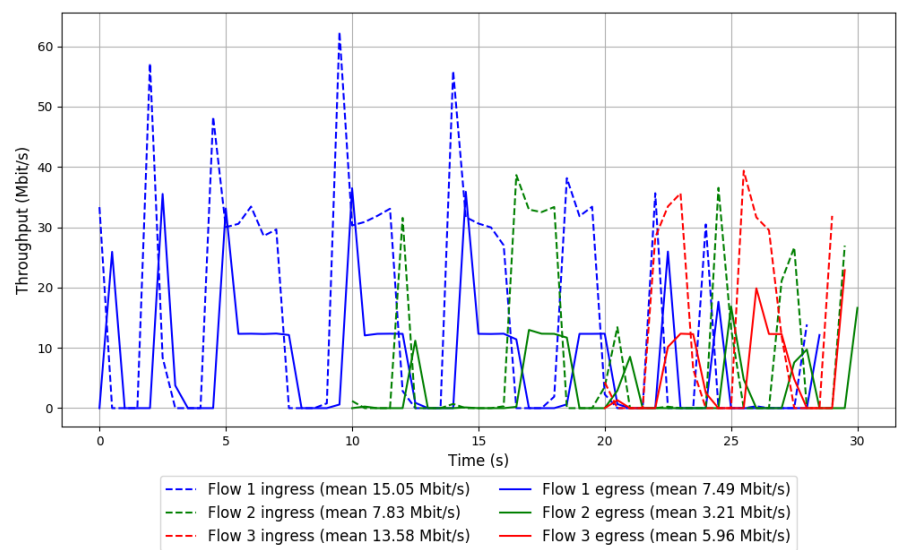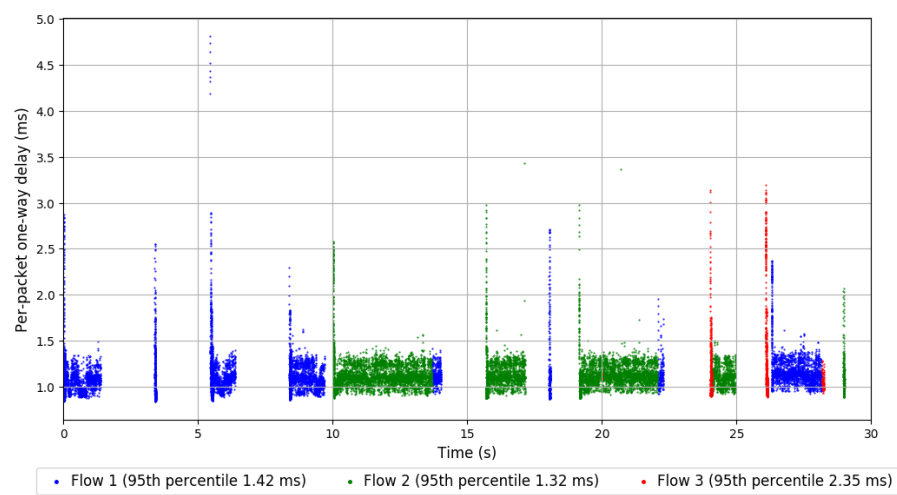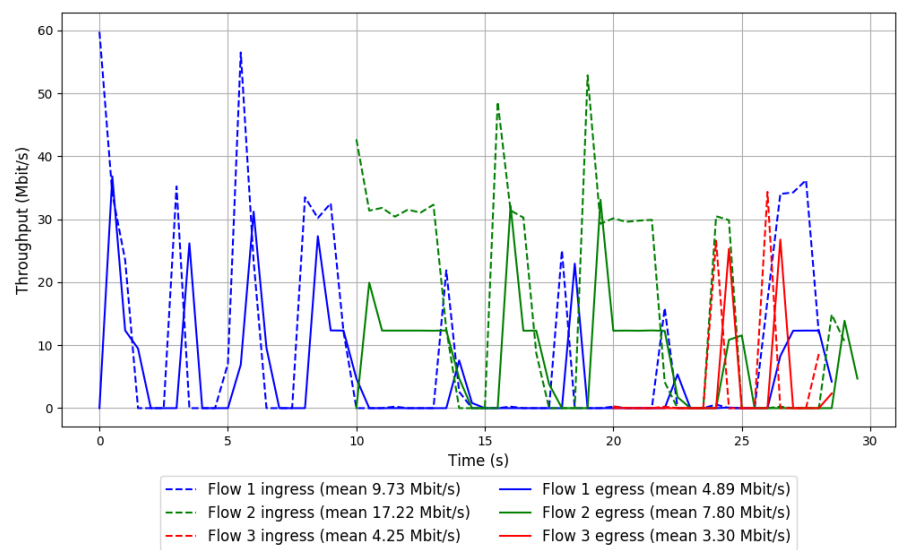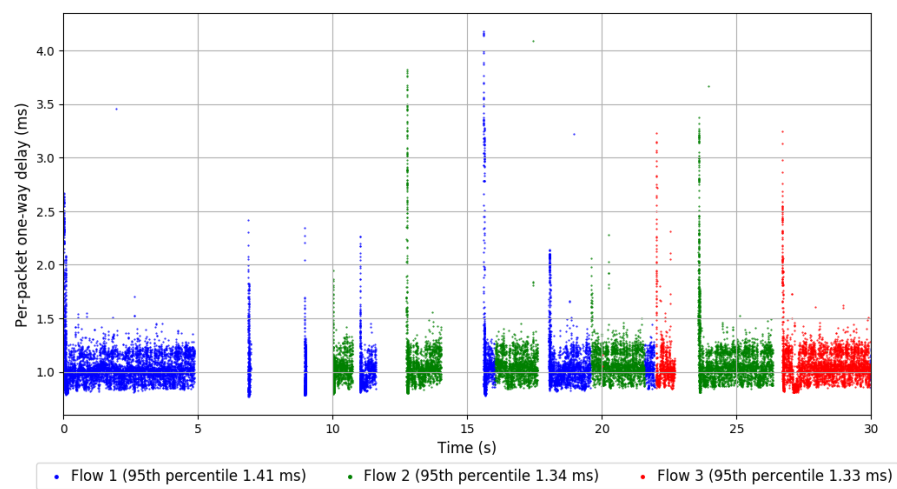
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 17.00 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s
Flow 2 ingress (mean 12.59 Mbit/s)   Flow 2 egress (mean 7.52 Mbit/s)
Flow 3 ingress (mean 12.47 Mbit/s)   Flow 3 egress (mean 6.11 Mbit/s)

Flow 1 (95th percentile 1.19 ms)   Flow 2 (95th percentile 1.38 ms)   Flow 3 (95th percentile 1.78 ms)

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```
Run 2: Statistics of Copa

Start at: 2018-10-02 10:37:09
End at: 2018-10-02 10:37:39
Local clock offset: 4.573 ms
Remote clock offset: 5.399 ms

# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.07 Mbit/s
95th percentile per-packet one-way delay: 1.655 ms
Loss rate: 53.24%
-- Flow 1:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 1.586 ms
Loss rate: 50.26%
-- Flow 2:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 2.098 ms
Loss rate: 59.05%
-- Flow 3:
Average throughput: 5.96 Mbit/s
95th percentile per-packet one-way delay: 1.705 ms
Loss rate: 56.13%
```
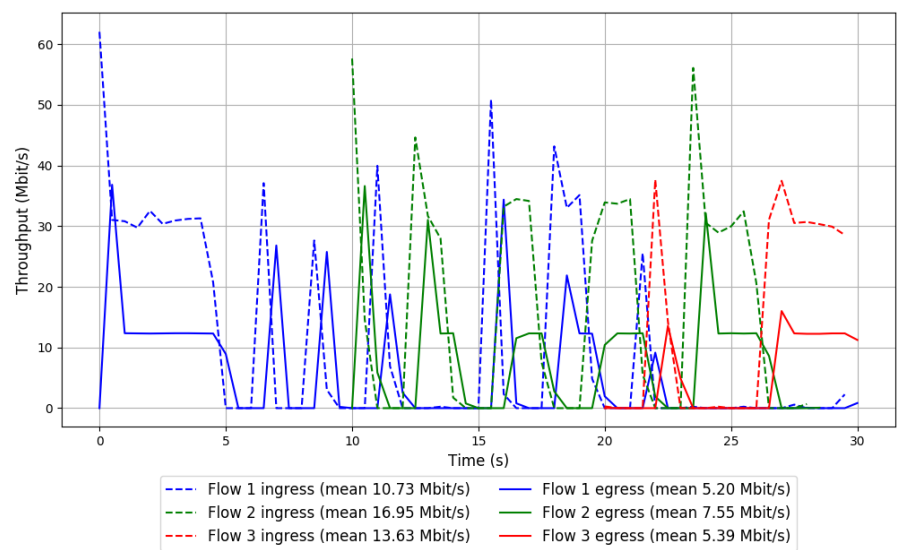
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-10-02 11:04:45
End at: 2018-10-02 11:05:15
Local clock offset: 4.337 ms
Remote clock offset: -1.269 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.80 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 50.78%
-- Flow 1:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 1.419 ms
Loss rate: 49.74%
-- Flow 2:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 1.321 ms
Loss rate: 54.70%
-- Flow 3:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 2.350 ms
Loss rate: 22.31%
```
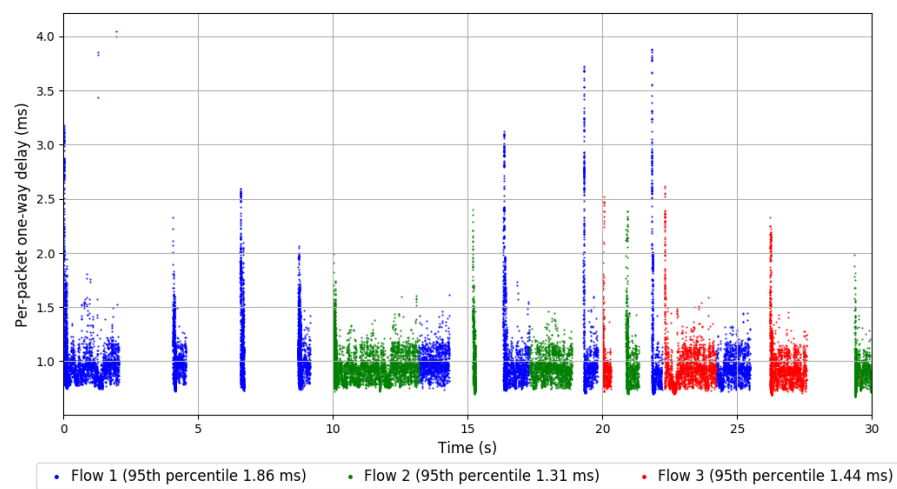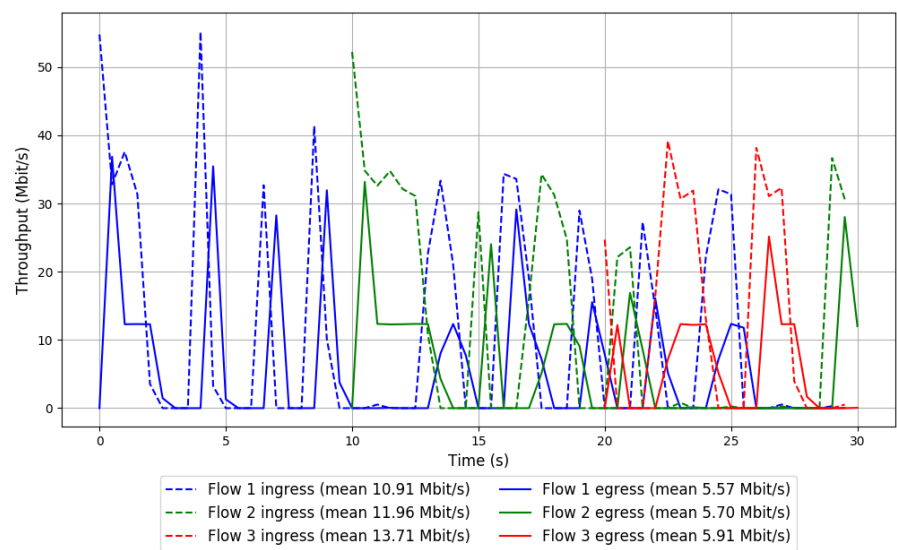
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-10-02 11:32:42
End at: 2018-10-02 11:33:12
Local clock offset: 4.027 ms
Remote clock offset: -0.557 ms

# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 1.373 ms
Loss rate: 54.67%
-- Flow 1:
Average throughput: 5.20 Mbit/s
95th percentile per-packet one-way delay: 1.411 ms
Loss rate: 51.51%
-- Flow 2:
Average throughput: 7.55 Mbit/s
95th percentile per-packet one-way delay: 1.344 ms
Loss rate: 55.43%
-- Flow 3:
Average throughput: 5.39 Mbit/s
95th percentile per-packet one-way delay: 1.332 ms
Loss rate: 60.45%
```
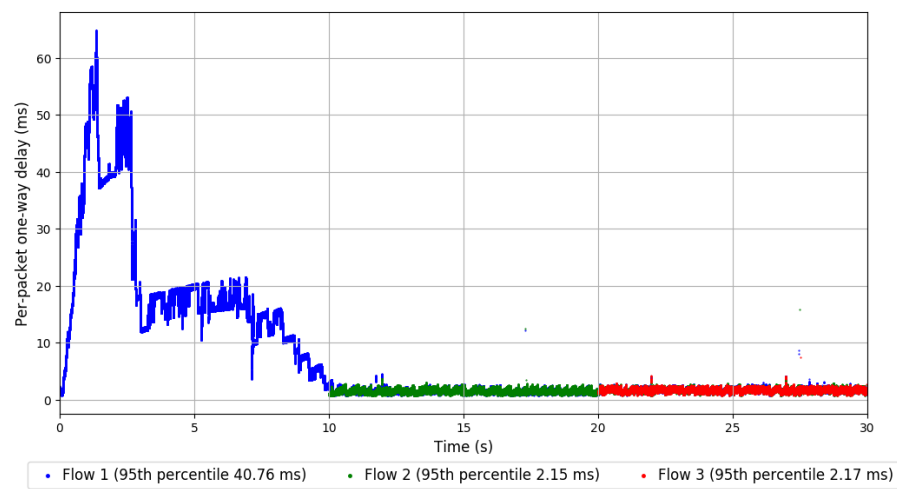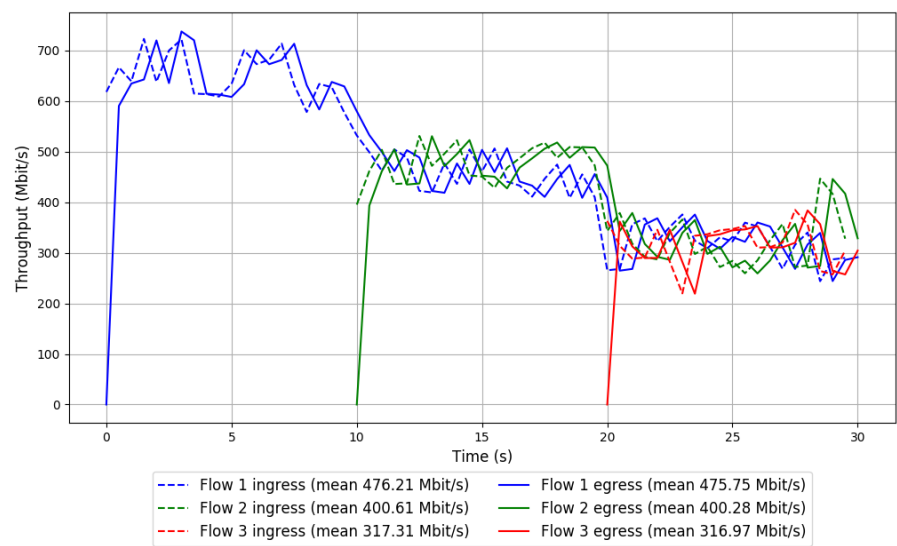
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-10-02 12:00:16
End at: 2018-10-02 12:00:46
Local clock offset: 3.767 ms
Remote clock offset: 3.486 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 1.580 ms
Loss rate: 51.61%
-- Flow 1:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 1.863 ms
Loss rate: 48.90%
-- Flow 2:
Average throughput: 5.70 Mbit/s
95th percentile per-packet one-way delay: 1.306 ms
Loss rate: 52.36%
-- Flow 3:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 1.438 ms
Loss rate: 56.91%
```
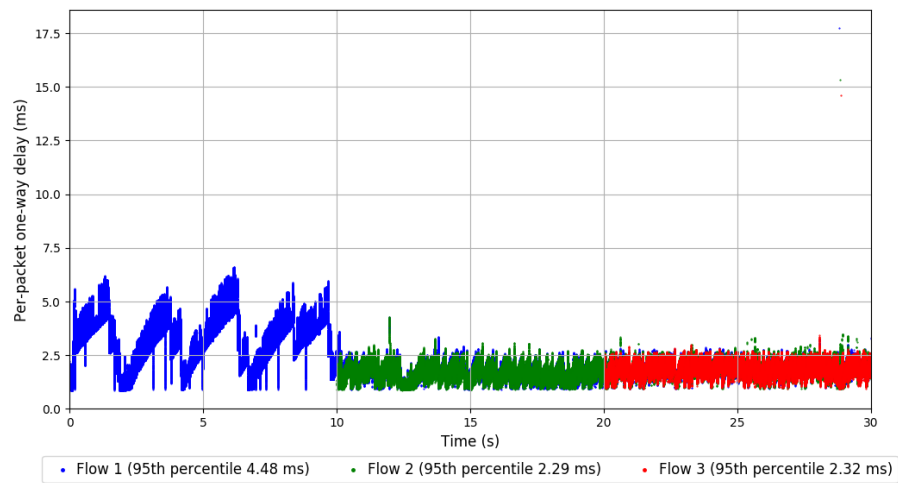
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-10-02 10:20:26
End at: 2018-10-02 10:20:56
Local clock offset: 4.257 ms
Remote clock offset: 5.878 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 847.79 Mbit/s
95th percentile per-packet one-way delay: 32.685 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 475.75 Mbit/s
95th percentile per-packet one-way delay: 40.764 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 400.28 Mbit/s
95th percentile per-packet one-way delay: 2.151 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 316.97 Mbit/s
95th percentile per-packet one-way delay: 2.171 ms
Loss rate: 0.09%
```
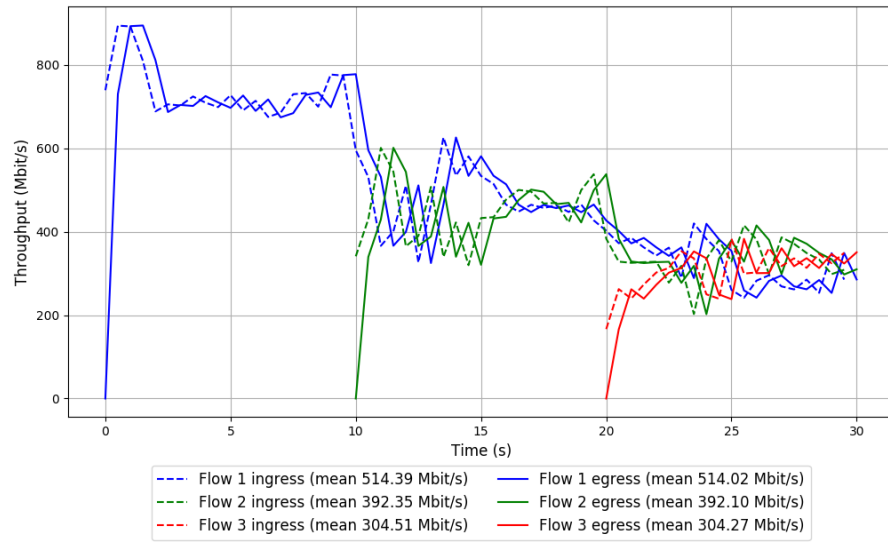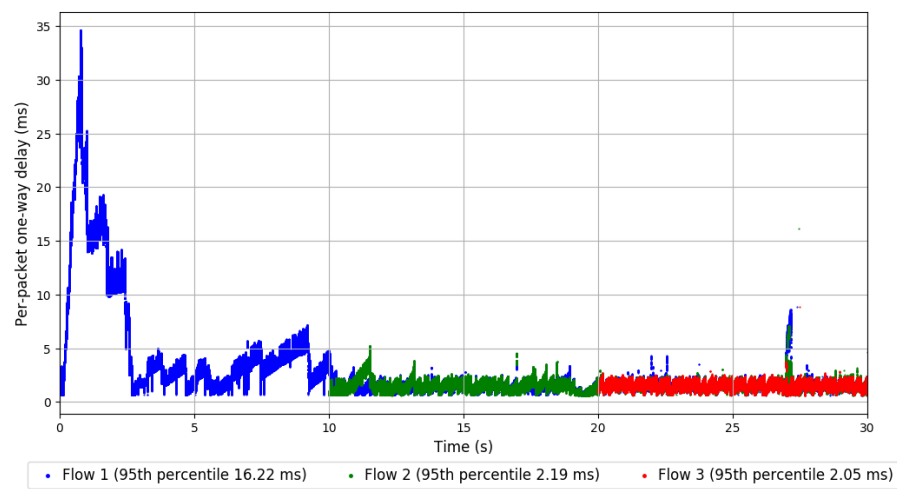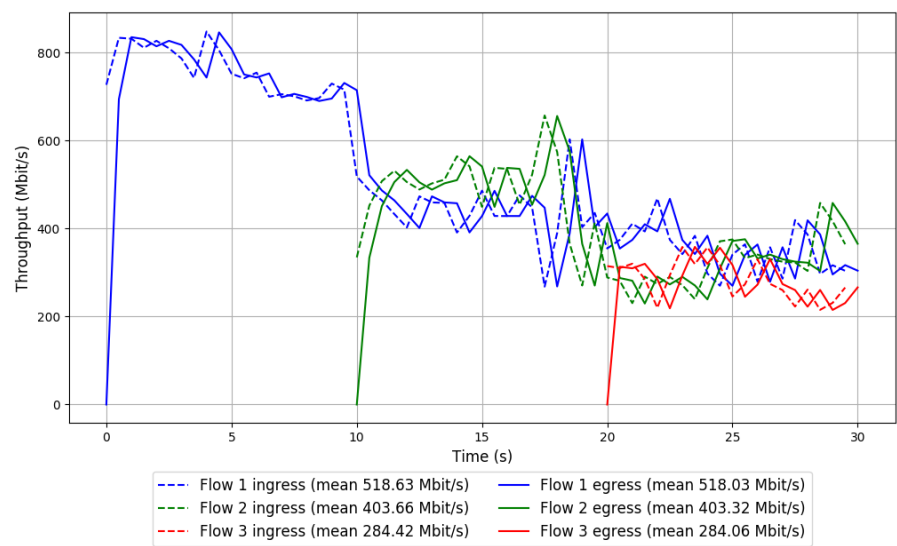
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-10-02 10:48:00
End at: 2018-10-02 10:48:30
Local clock offset: 4.596 ms
Remote clock offset: 0.96 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 876.34 Mbit/s
95th percentile per-packet one-way delay: 4.168 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 514.02 Mbit/s
95th percentile per-packet one-way delay: 4.483 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 392.10 Mbit/s
95th percentile per-packet one-way delay: 2.294 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 304.27 Mbit/s
95th percentile per-packet one-way delay: 2.321 ms
Loss rate: 0.07%
```
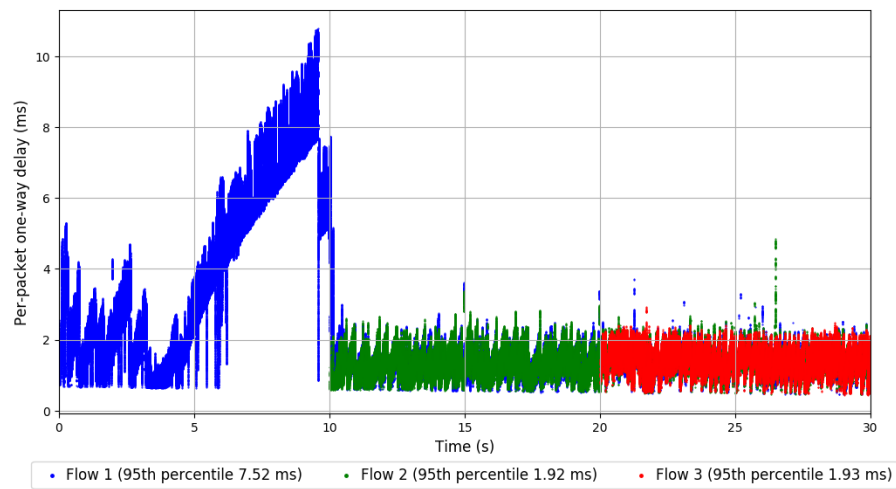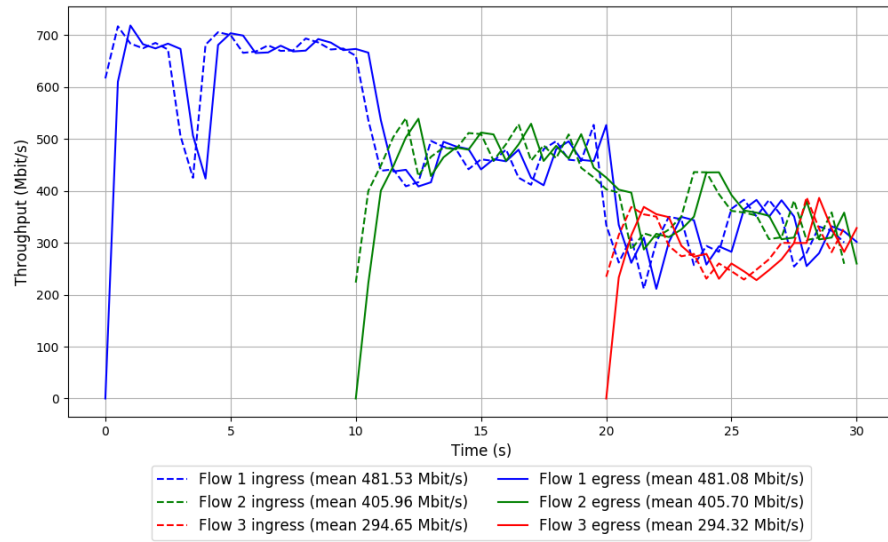
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 514.39 Mbit/s) --- Flow 1 egress (mean 514.02 Mbit/s)
Flow 2 ingress (mean 392.35 Mbit/s) --- Flow 2 egress (mean 392.10 Mbit/s)
Flow 3 ingress (mean 304.51 Mbit/s) --- Flow 3 egress (mean 304.27 Mbit/s)

Flow 1 (95th percentile 4.48 ms)   Flow 2 (95th percentile 2.29 ms)   Flow 3 (95th percentile 2.32 ms)

28

```
Run 3: Statistics of TCP Cubic

Start at: 2018-10-02 11:15:42
End at: 2018-10-02 11:16:12
Local clock offset: 4.405 ms
Remote clock offset: -0.967 ms


# Below is generated by plot.py at 2018-10-02 12:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 881.30 Mbit/s
95th percentile per-packet one-way delay: 11.867 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 518.03 Mbit/s
95th percentile per-packet one-way delay: 16.222 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 403.32 Mbit/s
95th percentile per-packet one-way delay: 2.187 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 284.06 Mbit/s
95th percentile per-packet one-way delay: 2.053 ms
Loss rate: 0.12%
```
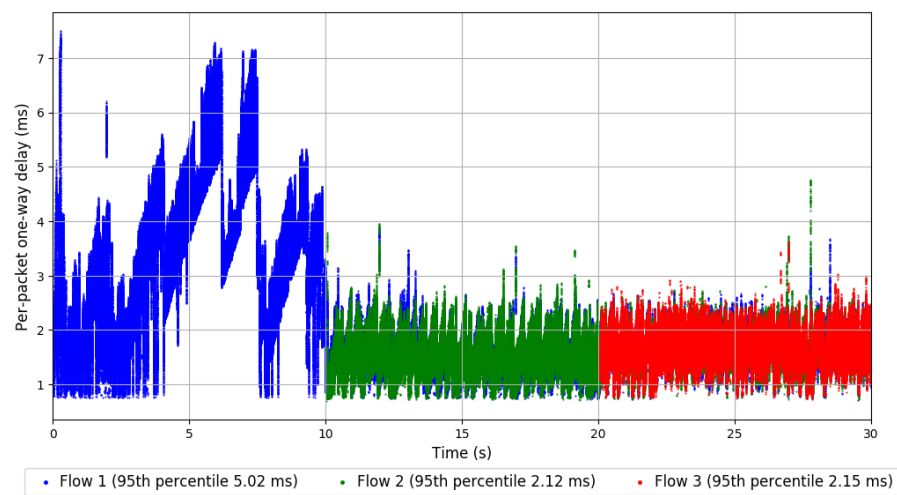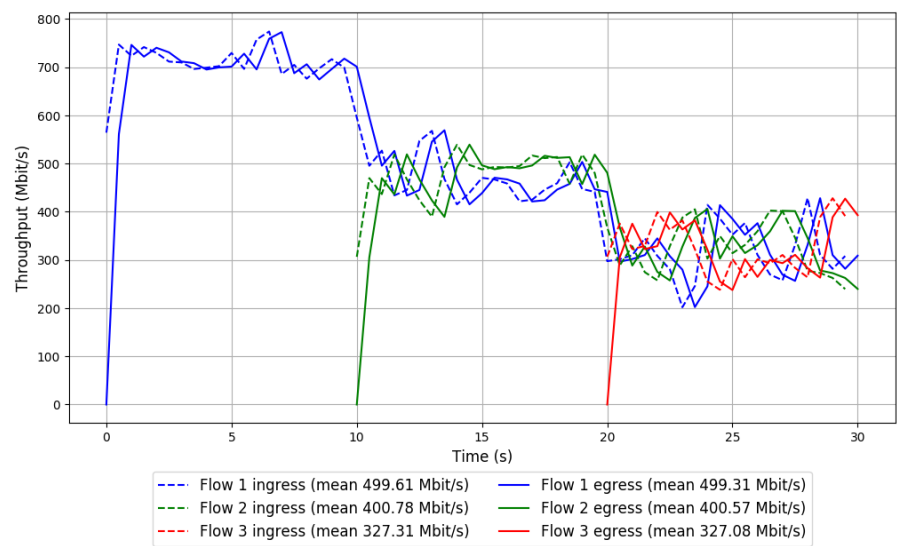
Run 3: Report of TCP Cubic — Data Link

- - - - Flow 1 ingress (mean 518.63 Mbit/s) ——— Flow 1 egress (mean 518.03 Mbit/s)
- - - - Flow 2 ingress (mean 403.66 Mbit/s) ——— Flow 2 egress (mean 403.32 Mbit/s)
- - - - Flow 3 ingress (mean 284.42 Mbit/s) ——— Flow 3 egress (mean 284.06 Mbit/s)

- Flow 1 (95th percentile 16.22 ms)   • Flow 2 (95th percentile 2.19 ms)   • Flow 3 (95th percentile 2.05 ms)

30

```
Run 4: Statistics of TCP Cubic

Start at: 2018-10-02 11:43:33
End at: 2018-10-02 11:44:03
Local clock offset: 3.997 ms
Remote clock offset: -0.802 ms


# Below is generated by plot.py at 2018-10-02 12:48:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 849.20 Mbit/s
95th percentile per-packet one-way delay: 6.757 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 481.08 Mbit/s
95th percentile per-packet one-way delay: 7.523 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 405.70 Mbit/s
95th percentile per-packet one-way delay: 1.915 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 294.32 Mbit/s
95th percentile per-packet one-way delay: 1.932 ms
Loss rate: 0.12%
```
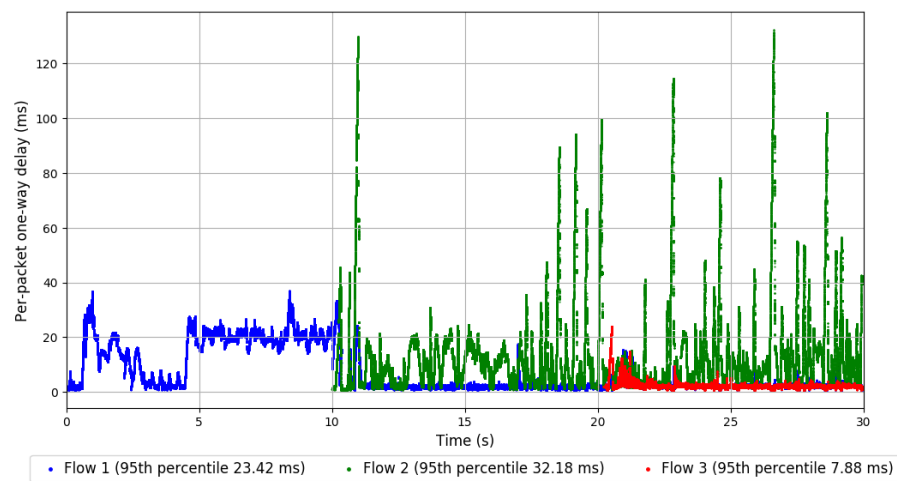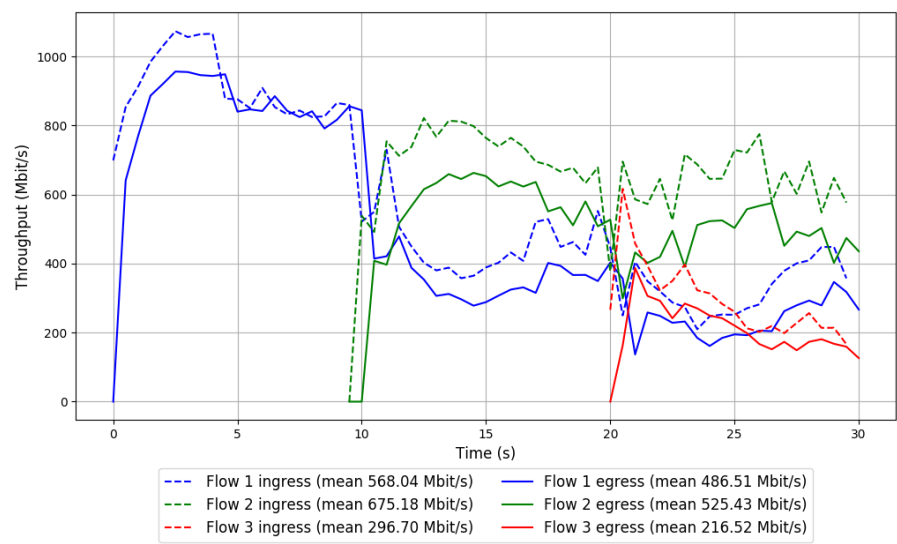
Run 4: Report of TCP Cubic — Data Link
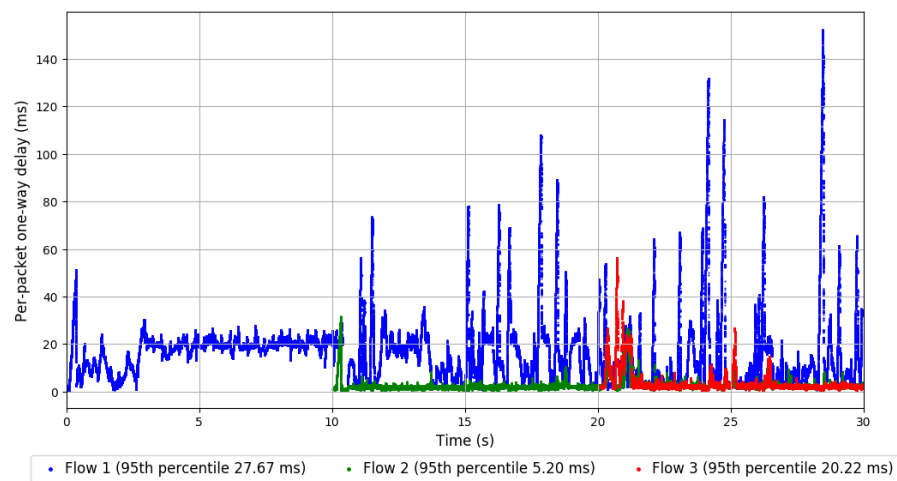
```
Run 5: Statistics of TCP Cubic

Start at: 2018-10-02 12:11:09
End at: 2018-10-02 12:11:39
Local clock offset: 3.719 ms
Remote clock offset: 4.413 ms


# Below is generated by plot.py at 2018-10-02 12:49:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 874.83 Mbit/s
95th percentile per-packet one-way delay: 4.431 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 499.31 Mbit/s
95th percentile per-packet one-way delay: 5.018 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 400.57 Mbit/s
95th percentile per-packet one-way delay: 2.122 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 327.08 Mbit/s
95th percentile per-packet one-way delay: 2.155 ms
Loss rate: 0.06%
```

Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 499.61 Mbit/s)   Flow 1 egress (mean 499.31 Mbit/s)
Flow 2 ingress (mean 400.78 Mbit/s)   Flow 2 egress (mean 400.57 Mbit/s)
Flow 3 ingress (mean 327.31 Mbit/s)   Flow 3 egress (mean 327.08 Mbit/s)

Flow 1 (95th percentile 5.02 ms)   Flow 2 (95th percentile 2.12 ms)   Flow 3 (95th percentile 2.15 ms)
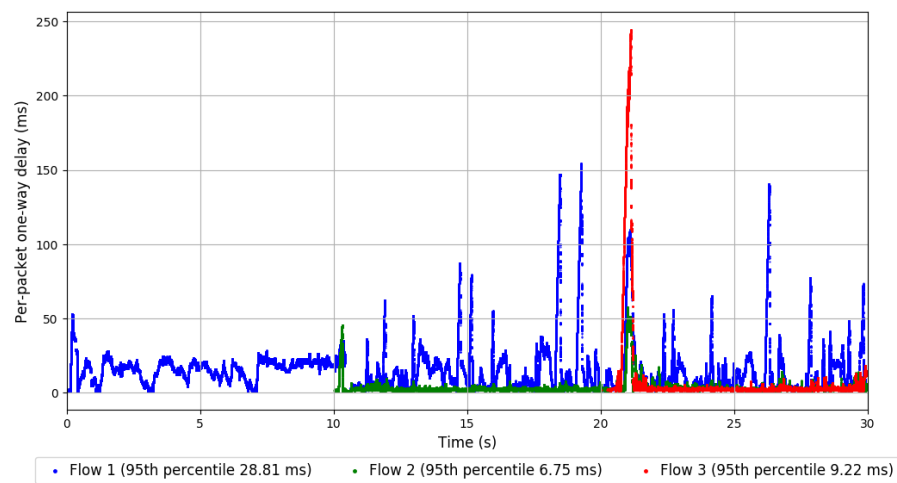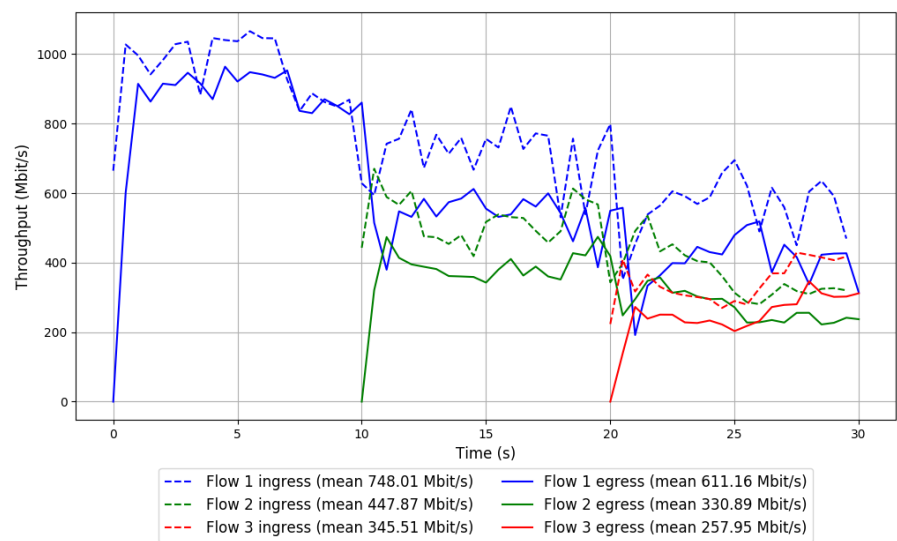
```
Run 1: Statistics of FillP

Start at: 2018-10-02 10:25:31
End at: 2018-10-02 10:26:01
Local clock offset: 4.393 ms
Remote clock offset: 6.279 ms


# Below is generated by plot.py at 2018-10-02 12:54:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 908.42 Mbit/s
95th percentile per-packet one-way delay: 23.942 ms
Loss rate: 18.62%
-- Flow 1:
Average throughput: 486.51 Mbit/s
95th percentile per-packet one-way delay: 23.422 ms
Loss rate: 14.35%
-- Flow 2:
Average throughput: 525.43 Mbit/s
95th percentile per-packet one-way delay: 32.184 ms
Loss rate: 22.17%
-- Flow 3:
Average throughput: 216.52 Mbit/s
95th percentile per-packet one-way delay: 7.878 ms
Loss rate: 27.02%
```

Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 568.04 Mbit/s)   Flow 1 egress (mean 486.51 Mbit/s)
Flow 2 ingress (mean 675.18 Mbit/s)   Flow 2 egress (mean 525.43 Mbit/s)
Flow 3 ingress (mean 296.70 Mbit/s)   Flow 3 egress (mean 216.52 Mbit/s)

Flow 1 (95th percentile 23.42 ms)   Flow 2 (95th percentile 32.18 ms)   Flow 3 (95th percentile 7.88 ms)

```
Run 2: Statistics of FillP

Start at: 2018-10-02 10:53:07
End at: 2018-10-02 10:53:37
Local clock offset: 4.442 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-10-02 12:54:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 907.35 Mbit/s
95th percentile per-packet one-way delay: 24.900 ms
Loss rate: 19.26%
-- Flow 1:
Average throughput: 619.88 Mbit/s
95th percentile per-packet one-way delay: 27.671 ms
Loss rate: 15.40%
-- Flow 2:
Average throughput: 297.43 Mbit/s
95th percentile per-packet one-way delay: 5.201 ms
Loss rate: 26.04%
-- Flow 3:
Average throughput: 270.44 Mbit/s
95th percentile per-packet one-way delay: 20.216 ms
Loss rate: 27.47%
```
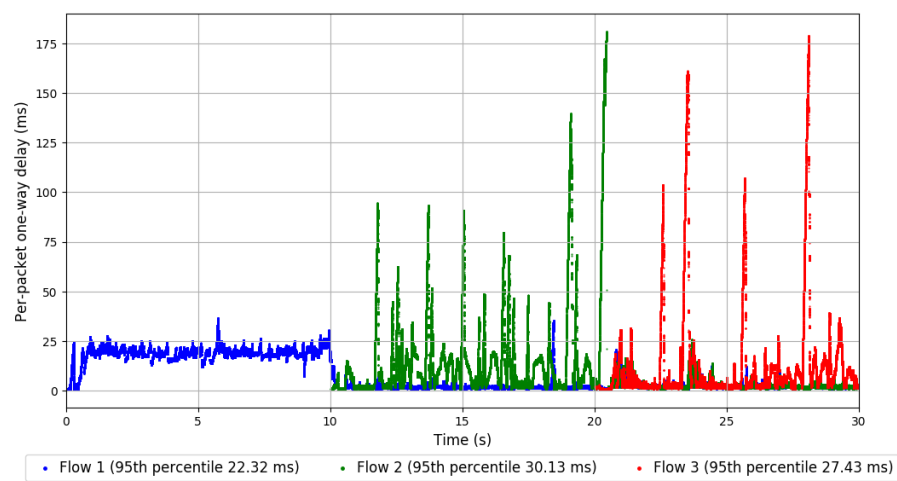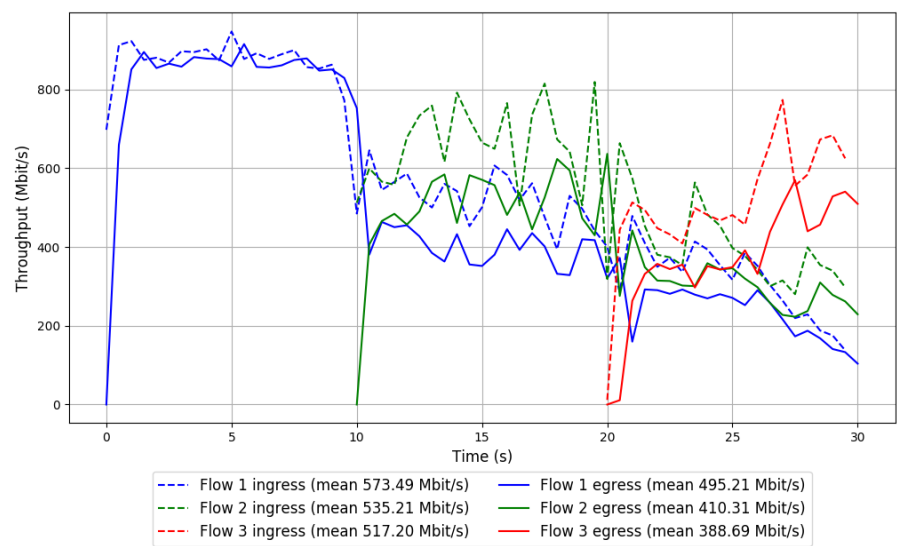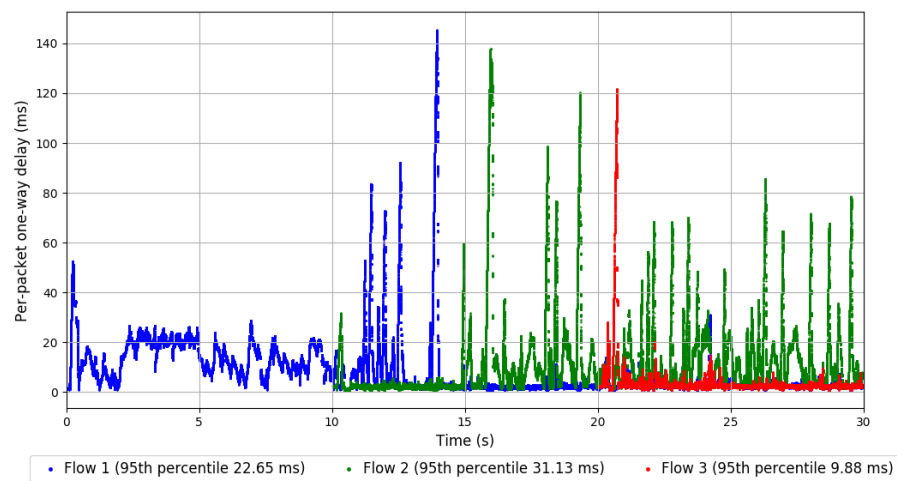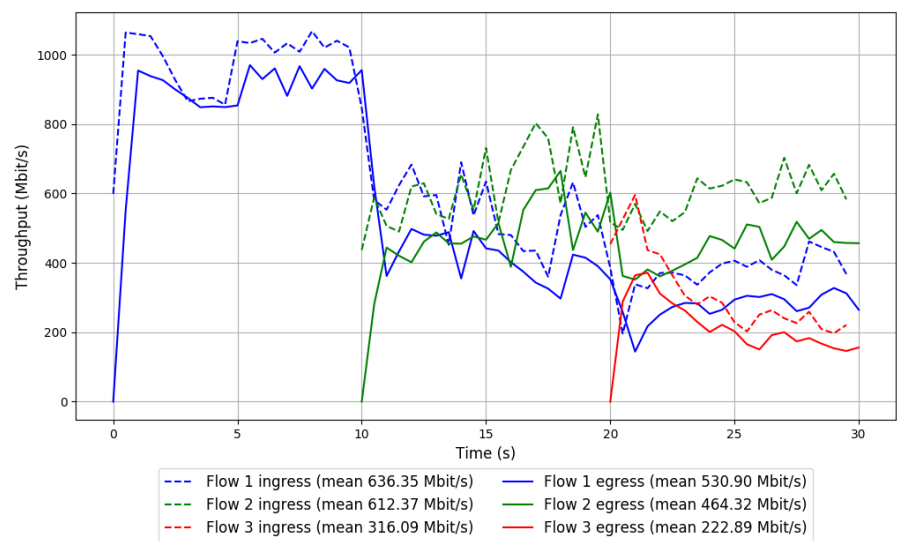
Run 2: Report of FillP — Data Link

- - - Flow 1 ingress (mean 732.75 Mbit/s)   —— Flow 1 egress (mean 619.88 Mbit/s)
- - - Flow 2 ingress (mean 402.15 Mbit/s)   —— Flow 2 egress (mean 297.43 Mbit/s)
- - - Flow 3 ingress (mean 372.82 Mbit/s)   —— Flow 3 egress (mean 270.44 Mbit/s)

• Flow 1 (95th percentile 27.67 ms)   • Flow 2 (95th percentile 5.20 ms)   • Flow 3 (95th percentile 20.22 ms)

```
Run 3: Statistics of FillP

Start at: 2018-10-02 11:20:48
End at: 2018-10-02 11:21:18
Local clock offset: 4.213 ms
Remote clock offset: -0.648 ms


# Below is generated by plot.py at 2018-10-02 12:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 916.78 Mbit/s
95th percentile per-packet one-way delay: 25.759 ms
Loss rate: 21.00%
-- Flow 1:
Average throughput: 611.16 Mbit/s
95th percentile per-packet one-way delay: 28.811 ms
Loss rate: 18.29%
-- Flow 2:
Average throughput: 330.89 Mbit/s
95th percentile per-packet one-way delay: 6.752 ms
Loss rate: 26.12%
-- Flow 3:
Average throughput: 257.95 Mbit/s
95th percentile per-packet one-way delay: 9.217 ms
Loss rate: 25.34%
```
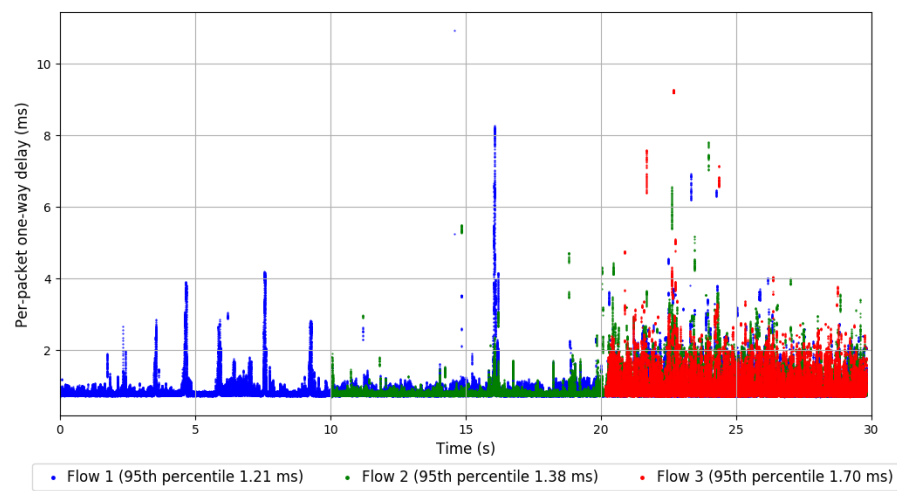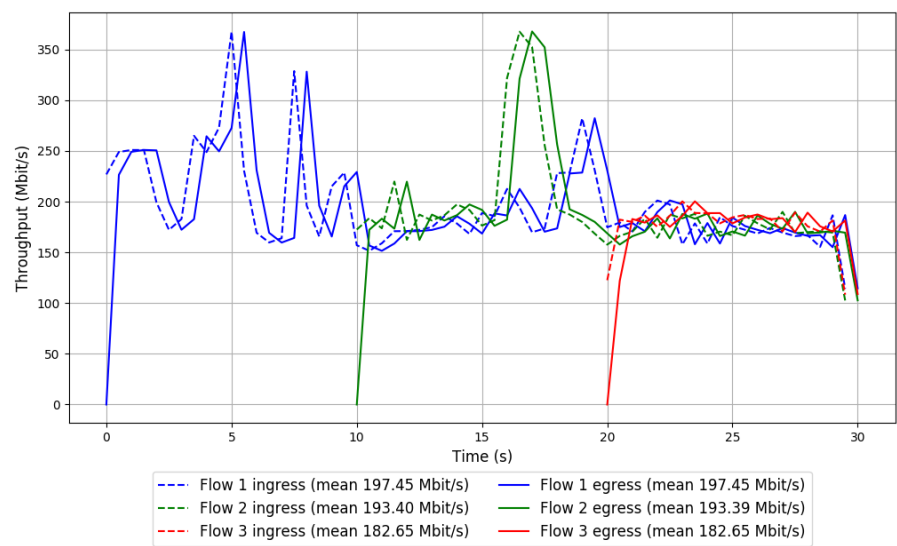
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-10-02 11:48:39
End at: 2018-10-02 11:49:09
Local clock offset: 3.922 ms
Remote clock offset: 1.304 ms


# Below is generated by plot.py at 2018-10-02 12:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 897.26 Mbit/s
95th percentile per-packet one-way delay: 22.751 ms
Loss rate: 18.52%
-- Flow 1:
Average throughput: 495.21 Mbit/s
95th percentile per-packet one-way delay: 22.315 ms
Loss rate: 13.65%
-- Flow 2:
Average throughput: 410.31 Mbit/s
95th percentile per-packet one-way delay: 30.128 ms
Loss rate: 23.33%
-- Flow 3:
Average throughput: 388.69 Mbit/s
95th percentile per-packet one-way delay: 27.425 ms
Loss rate: 24.84%
```
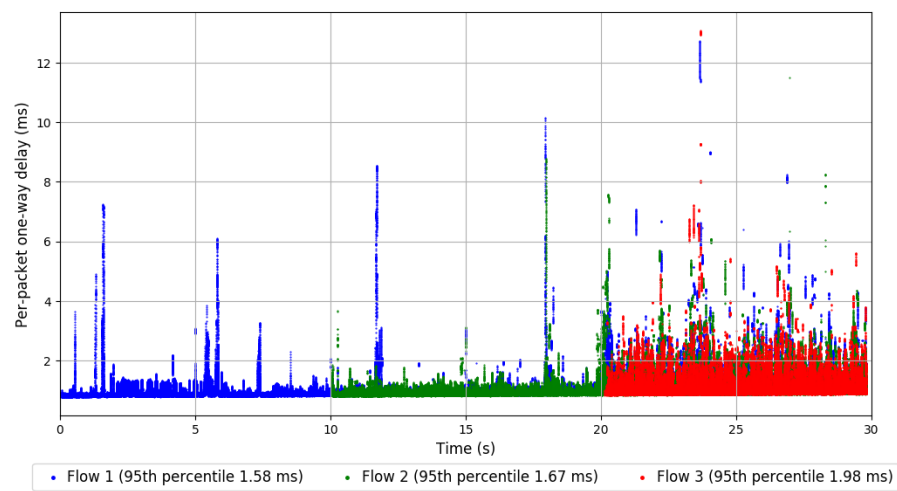
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-10-02 12:16:15
End at: 2018-10-02 12:16:45
Local clock offset: 3.743 ms
Remote clock offset: 4.734 ms

# Below is generated by plot.py at 2018-10-02 12:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 913.89 Mbit/s
95th percentile per-packet one-way delay: 23.580 ms
Loss rate: 20.44%
-- Flow 1:
Average throughput: 530.90 Mbit/s
95th percentile per-packet one-way delay: 22.646 ms
Loss rate: 16.57%
-- Flow 2:
Average throughput: 464.32 Mbit/s
95th percentile per-packet one-way delay: 31.130 ms
Loss rate: 24.17%
-- Flow 3:
Average throughput: 222.89 Mbit/s
95th percentile per-packet one-way delay: 9.878 ms
Loss rate: 29.48%
```
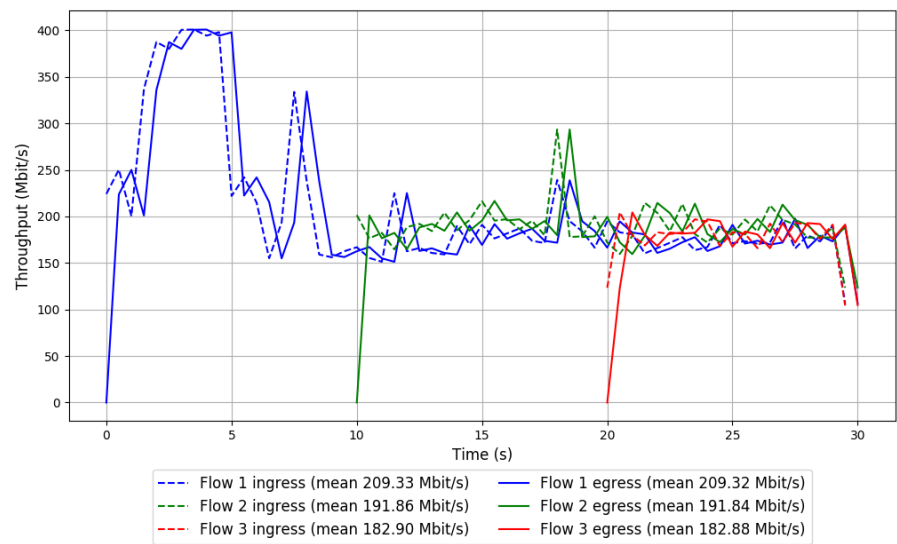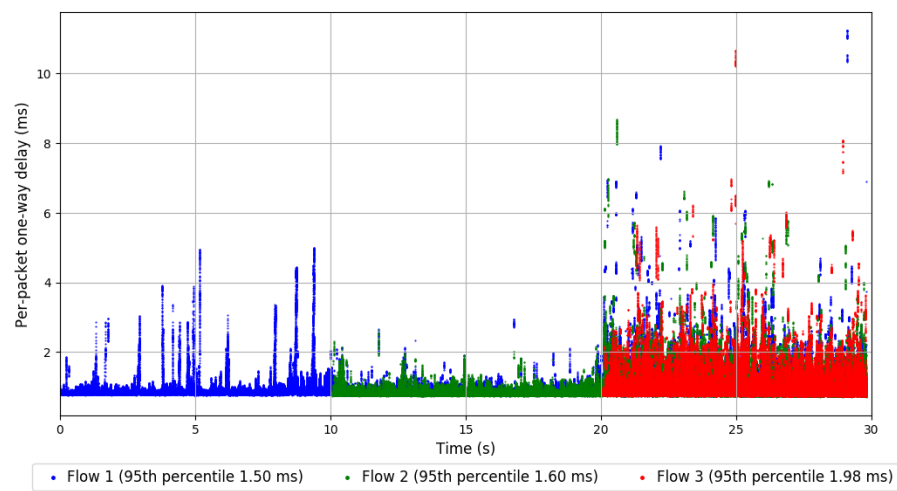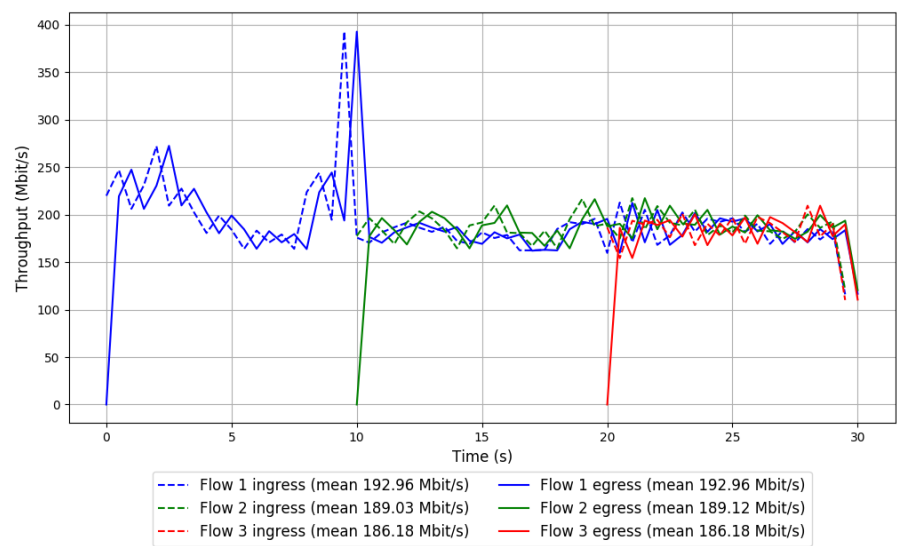
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 636.35 Mbit/s) --- Flow 1 egress (mean 530.90 Mbit/s)
Flow 2 ingress (mean 612.37 Mbit/s) --- Flow 2 egress (mean 464.32 Mbit/s)
Flow 3 ingress (mean 316.09 Mbit/s) --- Flow 3 egress (mean 222.89 Mbit/s)

• Flow 1 (95th percentile 22.65 ms)   • Flow 2 (95th percentile 31.13 ms)   • Flow 3 (95th percentile 9.88 ms)

44

```
Run 1: Statistics of Indigo

Start at: 2018-10-02 10:18:50
End at: 2018-10-02 10:19:20
Local clock offset: 4.195 ms
Remote clock offset: 5.739 ms


# Below is generated by plot.py at 2018-10-02 12:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.91 Mbit/s
95th percentile per-packet one-way delay: 1.394 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 197.45 Mbit/s
95th percentile per-packet one-way delay: 1.207 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.39 Mbit/s
95th percentile per-packet one-way delay: 1.377 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 182.65 Mbit/s
95th percentile per-packet one-way delay: 1.701 ms
Loss rate: 0.00%
```
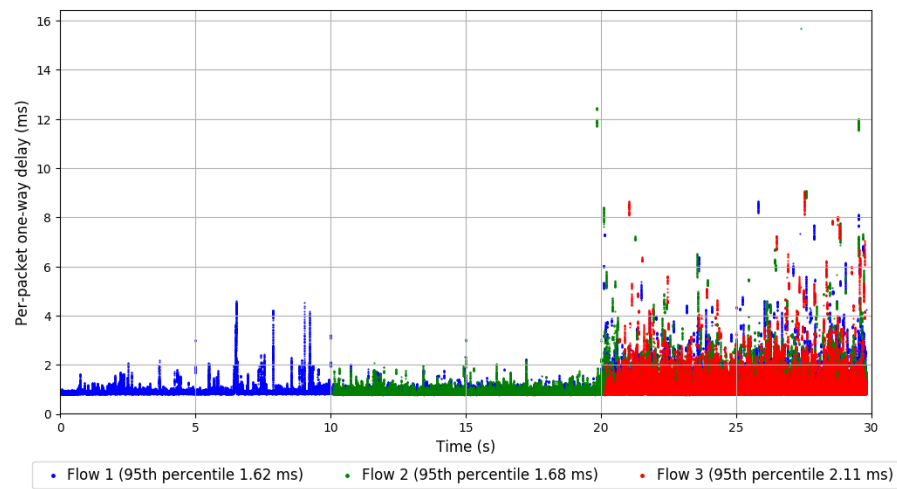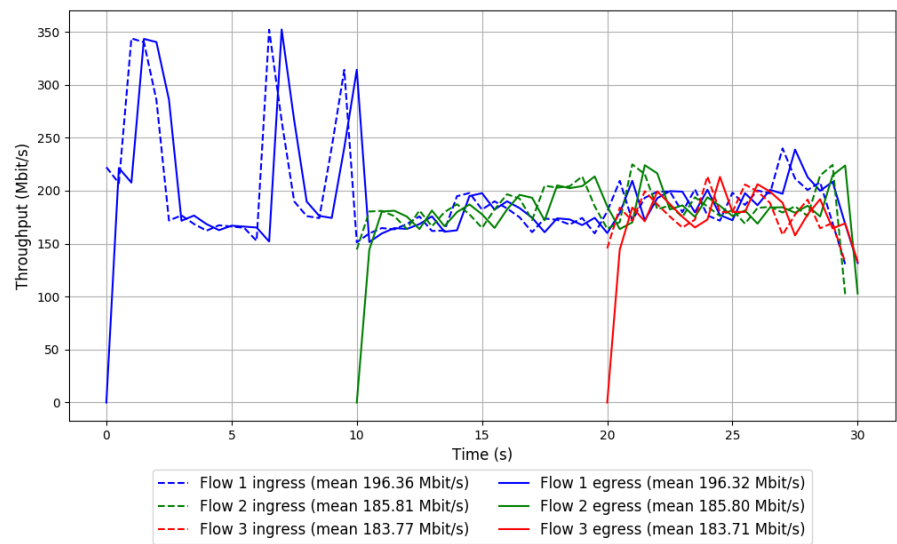
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-10-02 10:46:24
End at: 2018-10-02 10:46:54
Local clock offset: 4.679 ms
Remote clock offset: 1.31 ms


# Below is generated by plot.py at 2018-10-02 12:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.89 Mbit/s
95th percentile per-packet one-way delay: 1.698 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 209.32 Mbit/s
95th percentile per-packet one-way delay: 1.576 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 191.84 Mbit/s
95th percentile per-packet one-way delay: 1.667 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 182.88 Mbit/s
95th percentile per-packet one-way delay: 1.981 ms
Loss rate: 0.01%
```
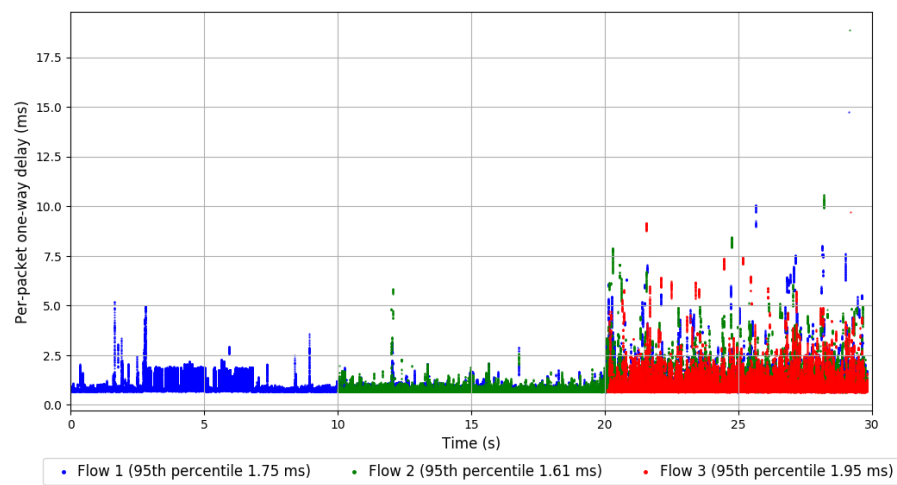
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-10-02 11:14:06
End at: 2018-10-02 11:14:36
Local clock offset: 4.386 ms
Remote clock offset: -1.028 ms

# Below is generated by plot.py at 2018-10-02 12:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 378.99 Mbit/s
95th percentile per-packet one-way delay: 1.647 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 192.96 Mbit/s
95th percentile per-packet one-way delay: 1.498 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.12 Mbit/s
95th percentile per-packet one-way delay: 1.598 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.18 Mbit/s
95th percentile per-packet one-way delay: 1.984 ms
Loss rate: 0.00%
```
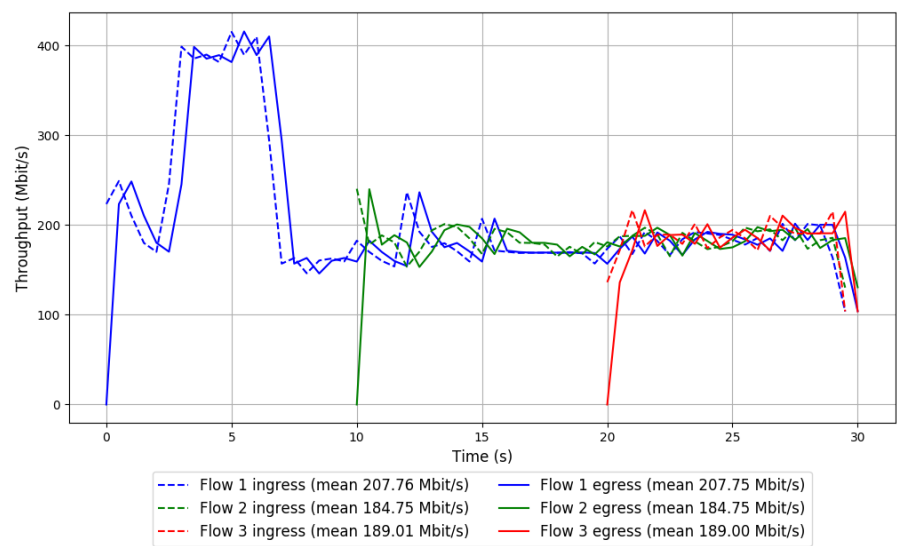
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-10-02 11:41:57
End at: 2018-10-02 11:42:27
Local clock offset: 4.0 ms
Remote clock offset: -0.744 ms


# Below is generated by plot.py at 2018-10-02 12:55:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 378.96 Mbit/s
95th percentile per-packet one-way delay: 1.748 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 196.32 Mbit/s
95th percentile per-packet one-way delay: 1.624 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 185.80 Mbit/s
95th percentile per-packet one-way delay: 1.680 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 183.71 Mbit/s
95th percentile per-packet one-way delay: 2.111 ms
Loss rate: 0.03%
```
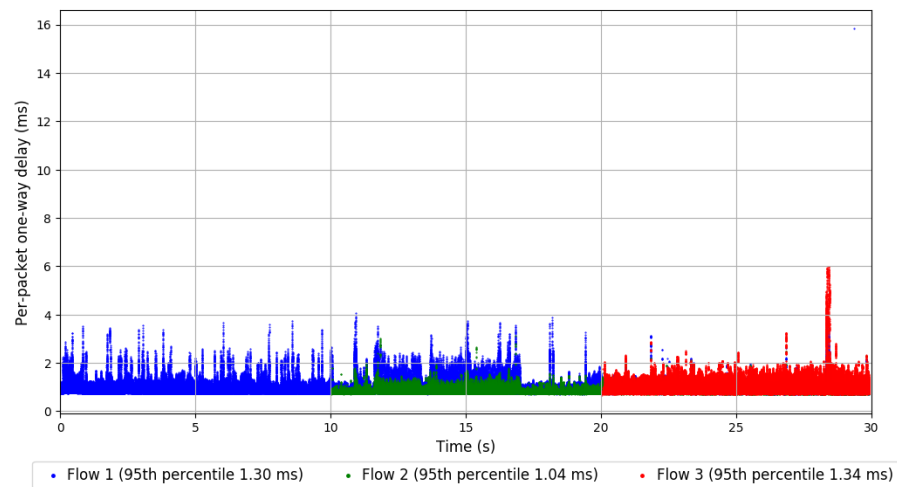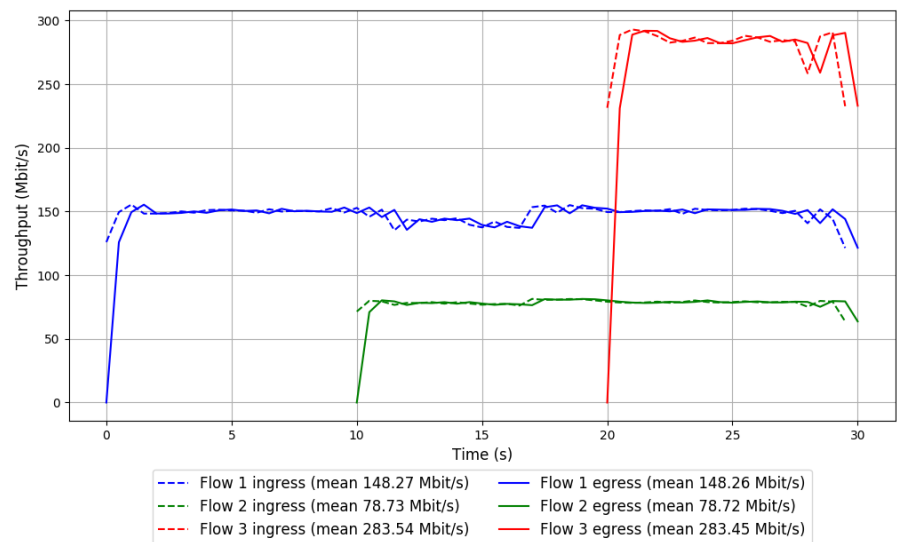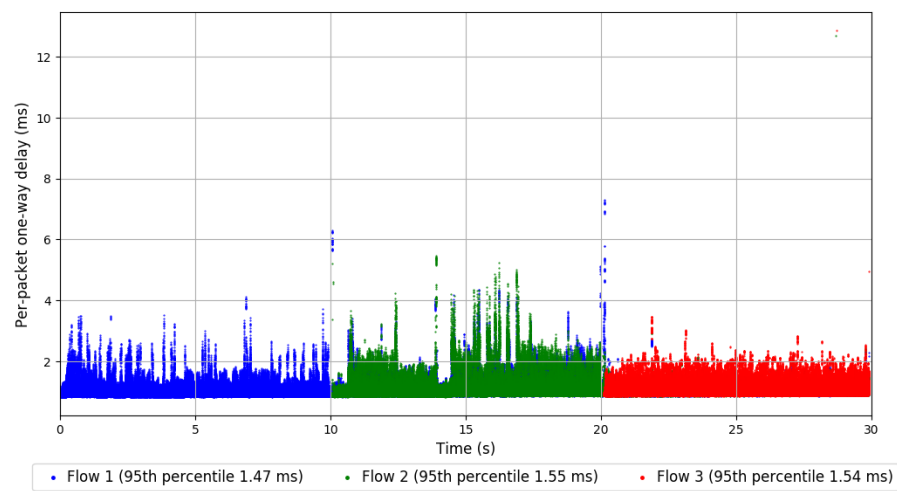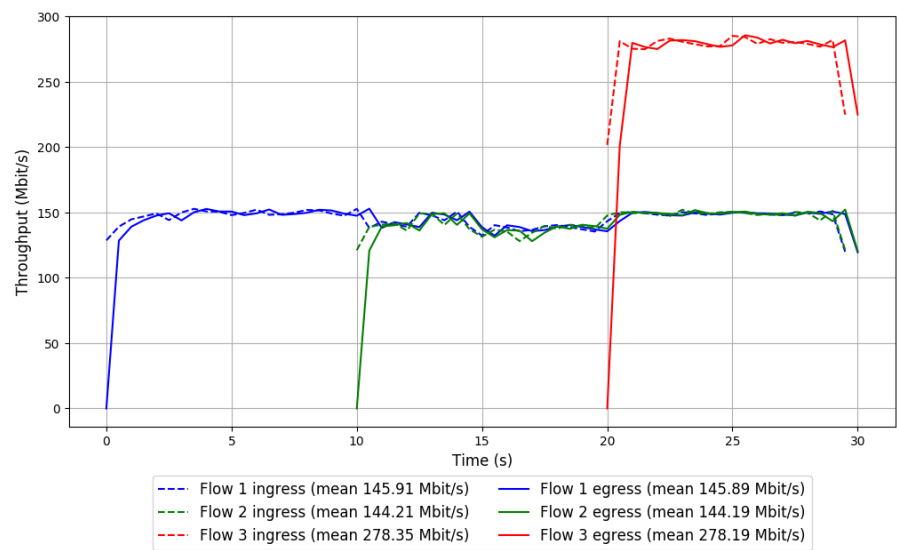
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-10-02 12:09:33
End at: 2018-10-02 12:10:03
Local clock offset: 3.712 ms
Remote clock offset: 4.23 ms


# Below is generated by plot.py at 2018-10-02 12:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.98 Mbit/s
95th percentile per-packet one-way delay: 1.749 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 207.75 Mbit/s
95th percentile per-packet one-way delay: 1.750 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 184.75 Mbit/s
95th percentile per-packet one-way delay: 1.606 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 189.00 Mbit/s
95th percentile per-packet one-way delay: 1.954 ms
Loss rate: 0.00%
```
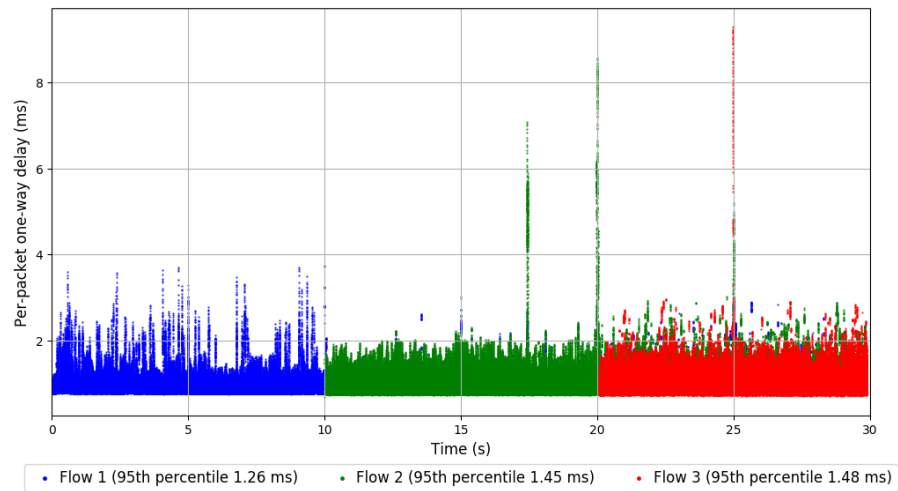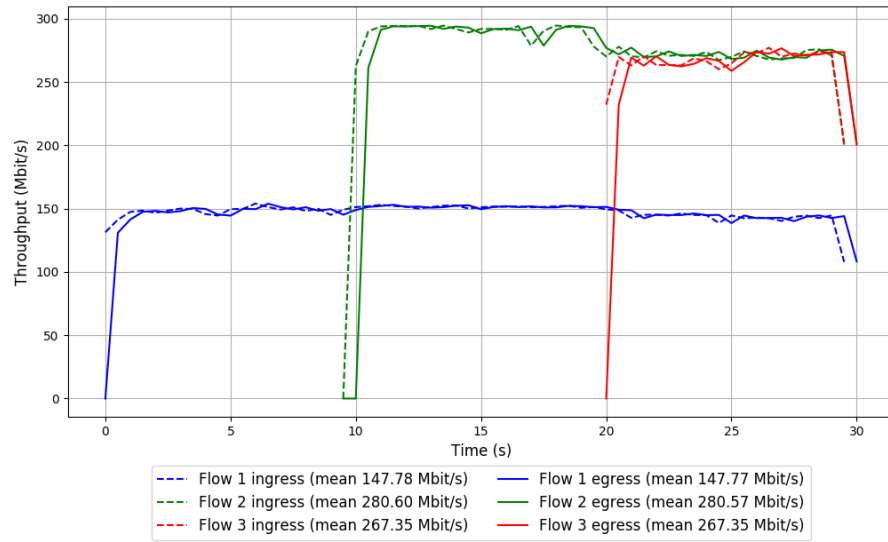
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-96d2da3

Start at: 2018-10-02 10:27:22
End at: 2018-10-02 10:27:52
Local clock offset: 4.425 ms
Remote clock offset: 6.378 ms

# Below is generated by plot.py at 2018-10-02 12:57:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.05 Mbit/s
95th percentile per-packet one-way delay: 1.275 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 148.26 Mbit/s
95th percentile per-packet one-way delay: 1.298 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 78.72 Mbit/s
95th percentile per-packet one-way delay: 1.038 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 283.45 Mbit/s
95th percentile per-packet one-way delay: 1.343 ms
Loss rate: 0.02%
```

Run 1: Report of Indigo-96d2da3 — Data Link

```
Run 2: Statistics of Indigo-96d2da3

Start at: 2018-10-02 10:54:59
End at: 2018-10-02 10:55:29
Local clock offset: 4.403 ms
Remote clock offset: -0.287 ms


# Below is generated by plot.py at 2018-10-02 12:58:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.93 Mbit/s
95th percentile per-packet one-way delay: 1.513 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 145.89 Mbit/s
95th percentile per-packet one-way delay: 1.474 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 144.19 Mbit/s
95th percentile per-packet one-way delay: 1.549 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 278.19 Mbit/s
95th percentile per-packet one-way delay: 1.539 ms
Loss rate: 0.02%
```
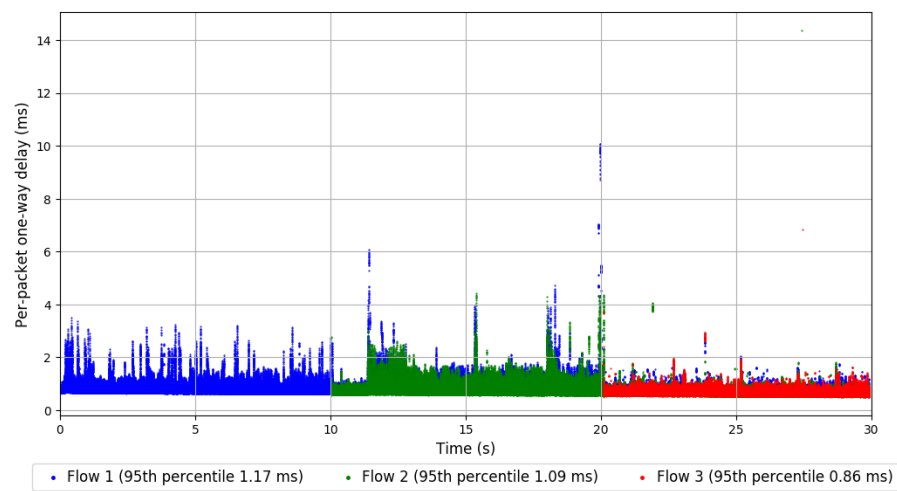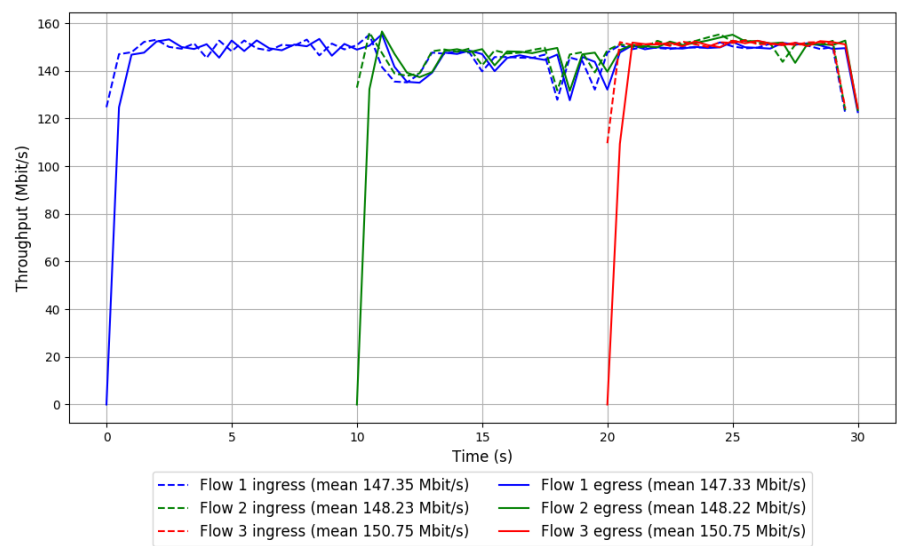
Run 2: Report of Indigo-96d2da3 — Data Link

```
Run 3: Statistics of Indigo-96d2da3

Start at: 2018-10-02 11:22:42
End at: 2018-10-02 11:23:12
Local clock offset: 4.158 ms
Remote clock offset: -0.558 ms


# Below is generated by plot.py at 2018-10-02 12:59:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.68 Mbit/s
95th percentile per-packet one-way delay: 1.411 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 147.77 Mbit/s
95th percentile per-packet one-way delay: 1.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 280.57 Mbit/s
95th percentile per-packet one-way delay: 1.449 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 267.35 Mbit/s
95th percentile per-packet one-way delay: 1.484 ms
Loss rate: 0.00%
```
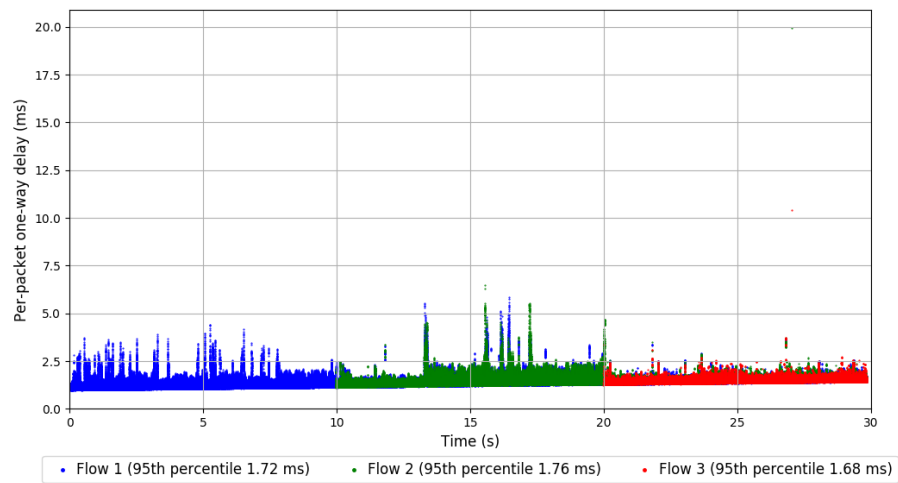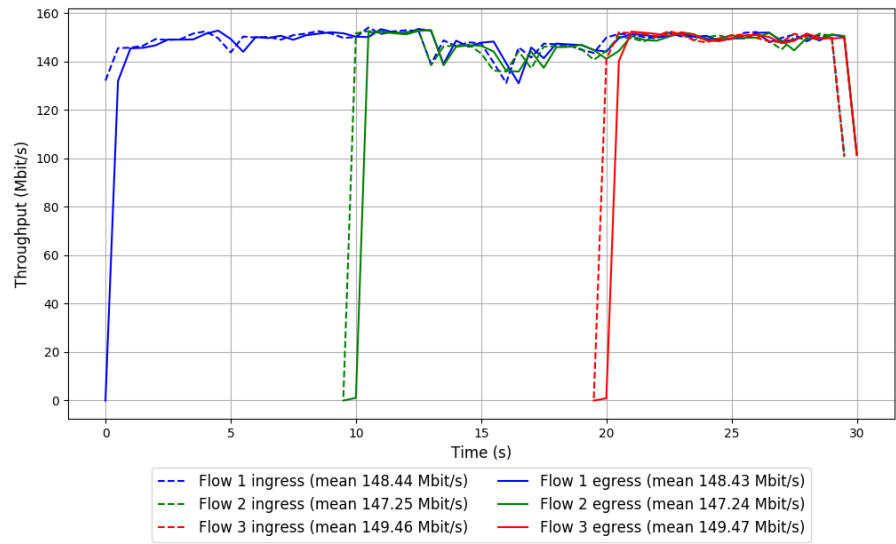
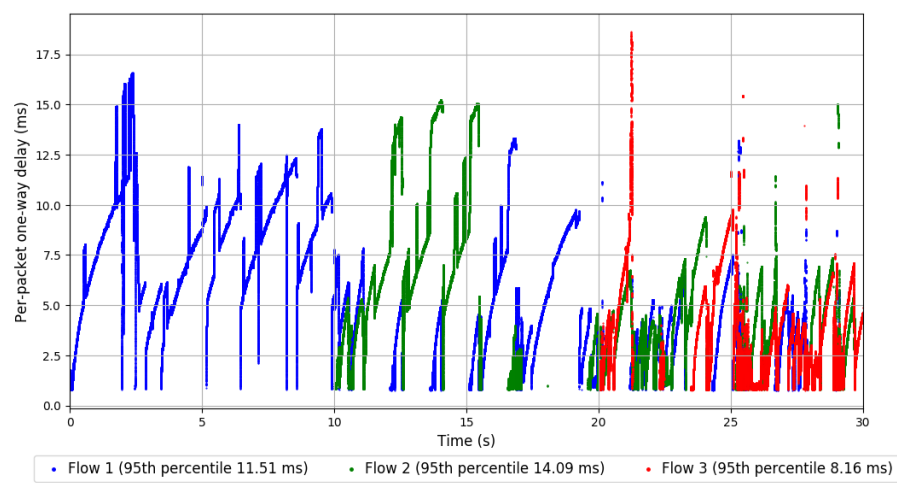Run 3: Report of Indigo-96d2da3 — Data Link

```
Run 4: Statistics of Indigo-96d2da3

Start at: 2018-10-02 11:50:31
End at: 2018-10-02 11:51:01
Local clock offset: 3.883 ms
Remote clock offset: 1.727 ms


# Below is generated by plot.py at 2018-10-02 12:59:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.36 Mbit/s
95th percentile per-packet one-way delay: 1.099 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 147.33 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 148.22 Mbit/s
95th percentile per-packet one-way delay: 1.088 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 150.75 Mbit/s
95th percentile per-packet one-way delay: 0.862 ms
Loss rate: 0.00%
```

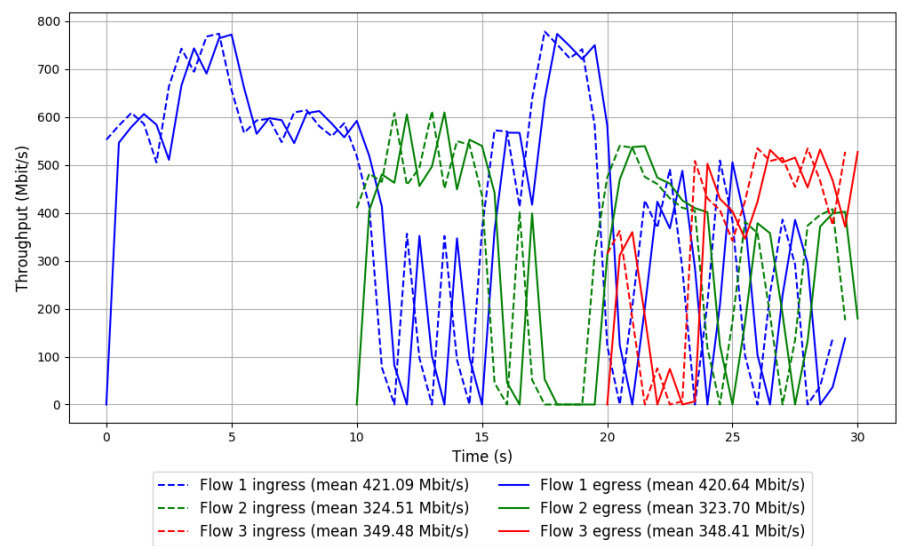Run 4: Report of Indigo-96d2da3 — Data Link

```
Run 5: Statistics of Indigo-96d2da3

Start at: 2018-10-02 12:18:08
End at: 2018-10-02 12:18:38
Local clock offset: 3.768 ms
Remote clock offset: 4.469 ms


# Below is generated by plot.py at 2018-10-02 12:59:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.95 Mbit/s
95th percentile per-packet one-way delay: 1.725 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 148.43 Mbit/s
95th percentile per-packet one-way delay: 1.717 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 147.24 Mbit/s
95th percentile per-packet one-way delay: 1.765 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 149.47 Mbit/s
95th percentile per-packet one-way delay: 1.681 ms
Loss rate: 0.00%
```
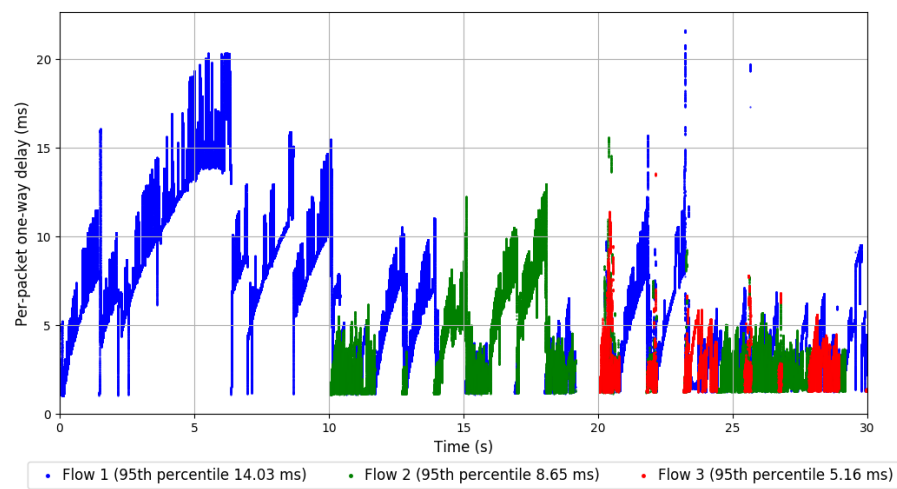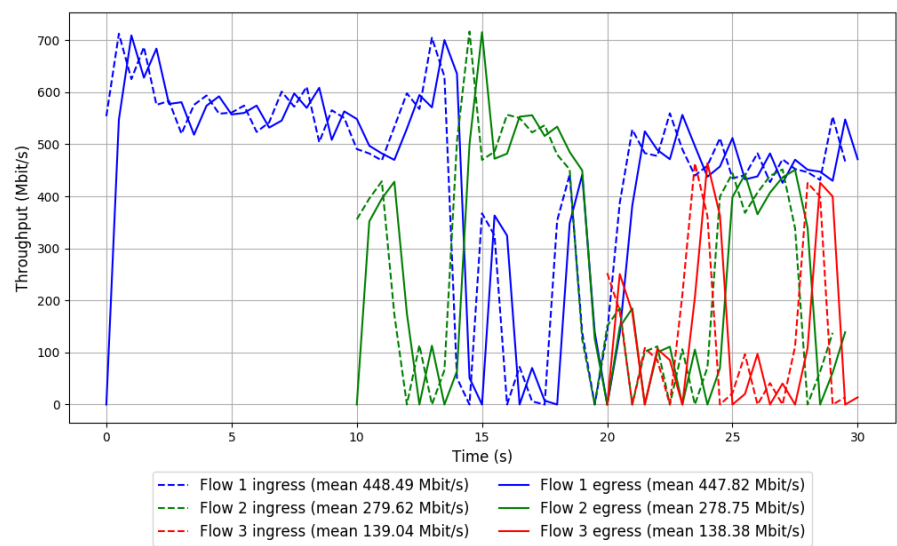
Run 5: Report of Indigo-96d2da3 — Data Link

Flow 1 ingress (mean 148.44 Mbit/s) --- Flow 1 egress (mean 148.43 Mbit/s)
Flow 2 ingress (mean 147.25 Mbit/s) --- Flow 2 egress (mean 147.24 Mbit/s)
Flow 3 ingress (mean 149.46 Mbit/s) --- Flow 3 egress (mean 149.47 Mbit/s)

Flow 1 (95th percentile 1.72 ms)   Flow 2 (95th percentile 1.76 ms)   Flow 3 (95th percentile 1.68 ms)

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```
Run 1: Statistics of LEDBAT

Start at: 2018-10-02 10:12:07
End at: 2018-10-02 10:12:37
Local clock offset: 4.043 ms
Remote clock offset: 5.366 ms

# Below is generated by plot.py at 2018-10-02 13:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 738.09 Mbit/s
95th percentile per-packet one-way delay: 11.585 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 420.64 Mbit/s
95th percentile per-packet one-way delay: 11.506 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 323.70 Mbit/s
95th percentile per-packet one-way delay: 14.088 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 348.41 Mbit/s
95th percentile per-packet one-way delay: 8.165 ms
Loss rate: 0.30%
```
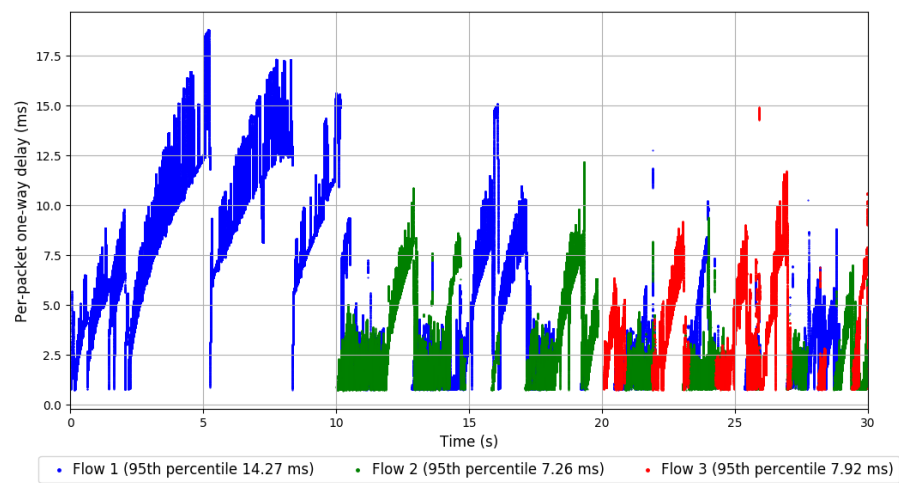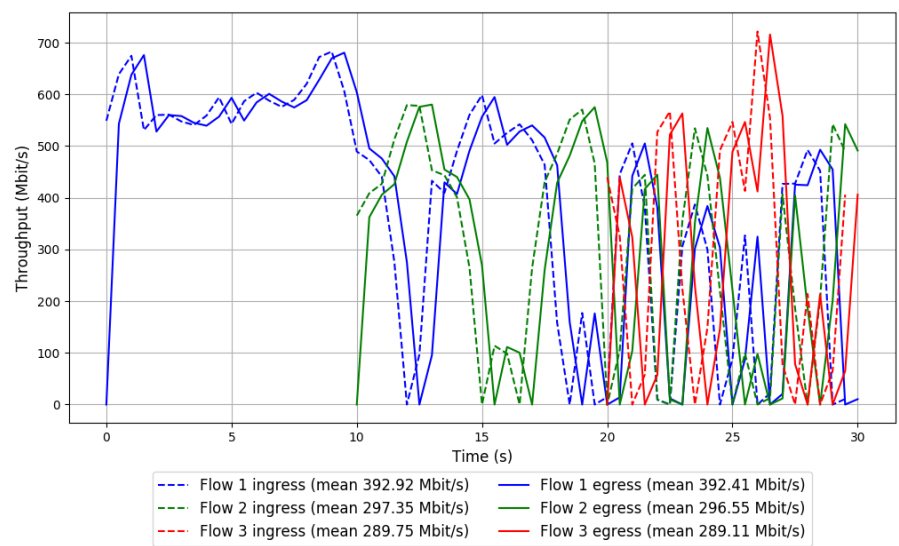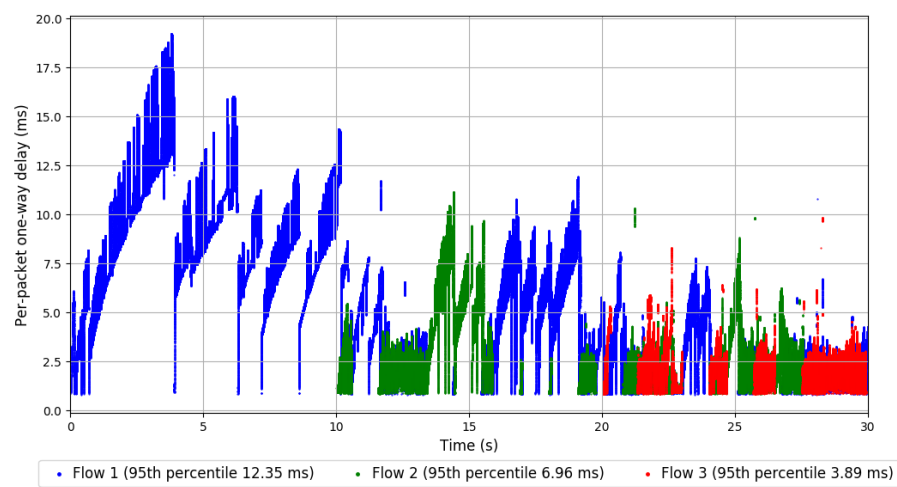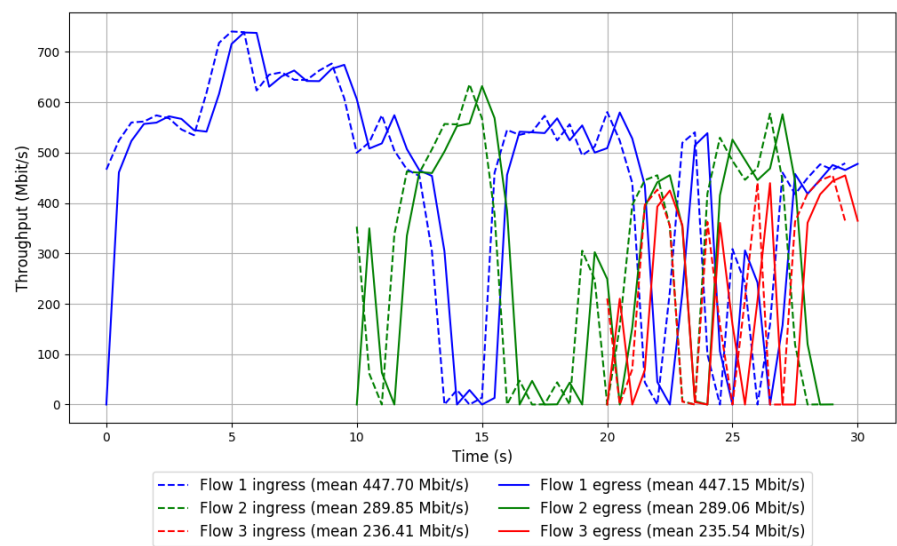
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 421.09 Mbit/s) --- Flow 1 egress (mean 420.64 Mbit/s)
Flow 2 ingress (mean 324.51 Mbit/s) --- Flow 2 egress (mean 323.70 Mbit/s)
Flow 3 ingress (mean 349.48 Mbit/s) --- Flow 3 egress (mean 348.41 Mbit/s)

Flow 1 (95th percentile 11.51 ms)   •   Flow 2 (95th percentile 14.09 ms)   •   Flow 3 (95th percentile 8.16 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2018-10-02 10:39:49
End at: 2018-10-02 10:40:19
Local clock offset: 4.595 ms
Remote clock offset: 3.968 ms


# Below is generated by plot.py at 2018-10-02 13:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 671.83 Mbit/s
95th percentile per-packet one-way delay: 13.434 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 447.82 Mbit/s
95th percentile per-packet one-way delay: 14.027 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 278.75 Mbit/s
95th percentile per-packet one-way delay: 8.648 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 138.38 Mbit/s
95th percentile per-packet one-way delay: 5.158 ms
Loss rate: 0.48%
```

Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-10-02 11:07:25
End at: 2018-10-02 11:07:55
Local clock offset: 4.358 ms
Remote clock offset: -1.6 ms


# Below is generated by plot.py at 2018-10-02 13:03:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 686.08 Mbit/s
95th percentile per-packet one-way delay: 12.658 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 392.41 Mbit/s
95th percentile per-packet one-way delay: 14.267 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 296.55 Mbit/s
95th percentile per-packet one-way delay: 7.264 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 289.11 Mbit/s
95th percentile per-packet one-way delay: 7.925 ms
Loss rate: 0.22%
```
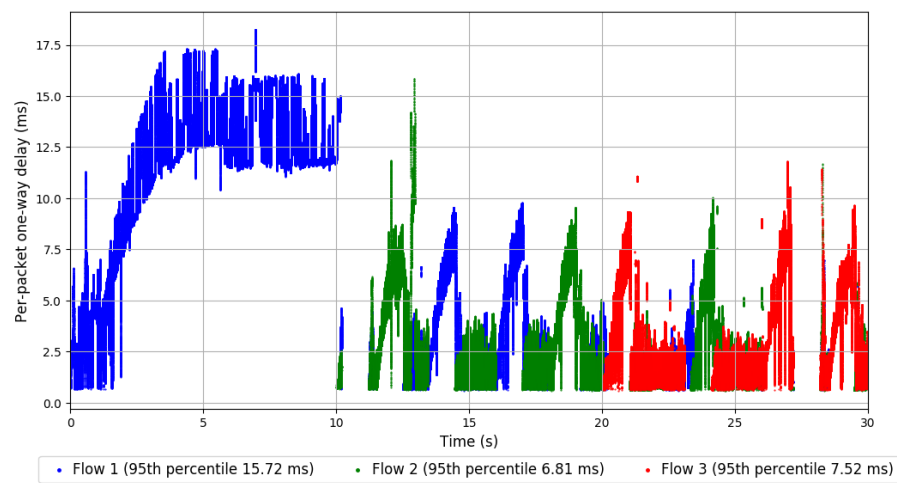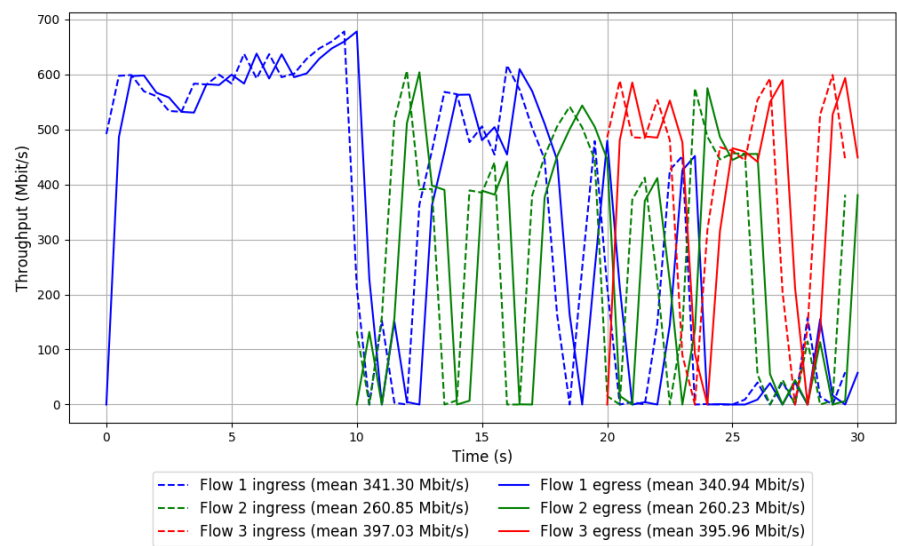
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-10-02 11:35:22
End at: 2018-10-02 11:35:52
Local clock offset: 4.025 ms
Remote clock offset: -0.583 ms

# Below is generated by plot.py at 2018-10-02 13:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 704.74 Mbit/s
95th percentile per-packet one-way delay: 11.540 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 447.15 Mbit/s
95th percentile per-packet one-way delay: 12.354 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 289.06 Mbit/s
95th percentile per-packet one-way delay: 6.960 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 235.54 Mbit/s
95th percentile per-packet one-way delay: 3.890 ms
Loss rate: 0.37%
```
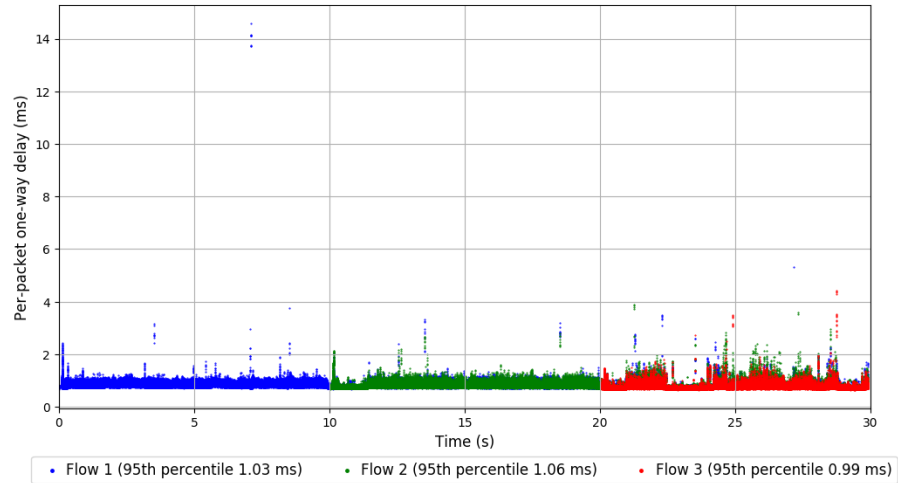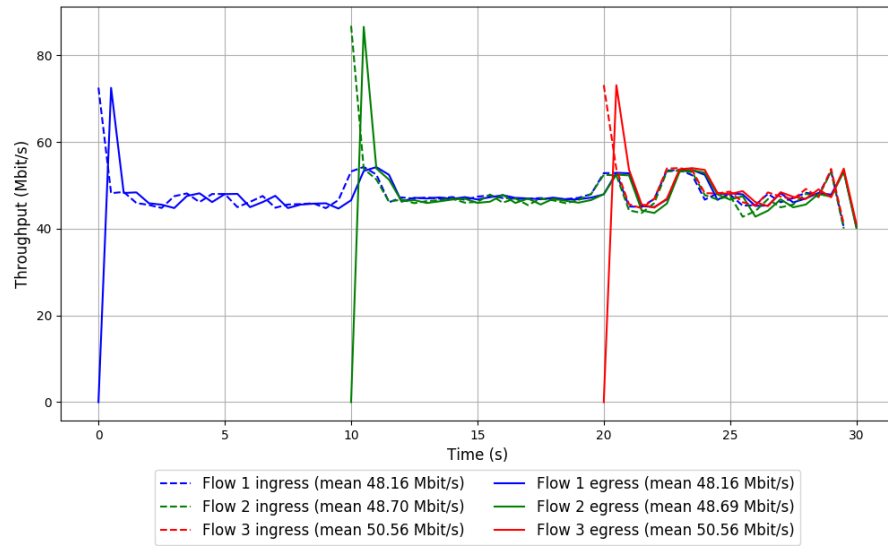
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-10-02 12:02:56
End at: 2018-10-02 12:03:26
Local clock offset: 3.723 ms
Remote clock offset: 3.676 ms

# Below is generated by plot.py at 2018-10-02 13:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 642.22 Mbit/s
95th percentile per-packet one-way delay: 15.160 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 340.94 Mbit/s
95th percentile per-packet one-way delay: 15.716 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 260.23 Mbit/s
95th percentile per-packet one-way delay: 6.809 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 395.96 Mbit/s
95th percentile per-packet one-way delay: 7.522 ms
Loss rate: 0.26%
```
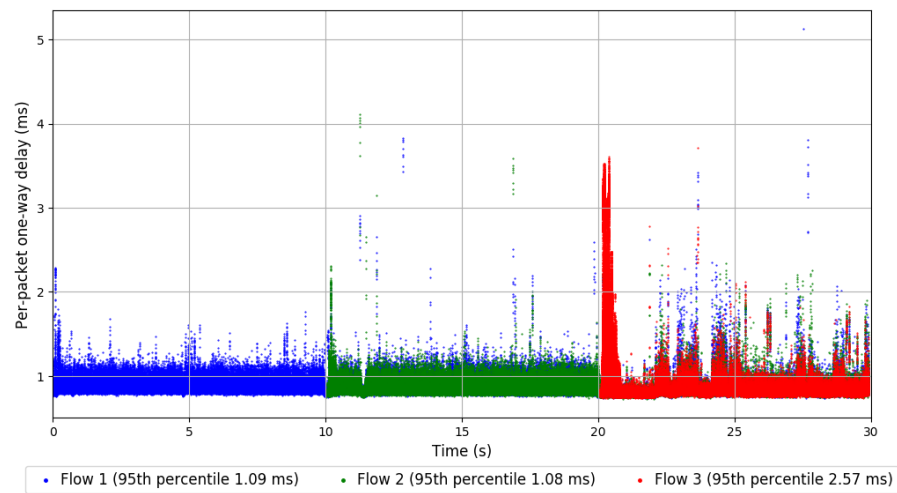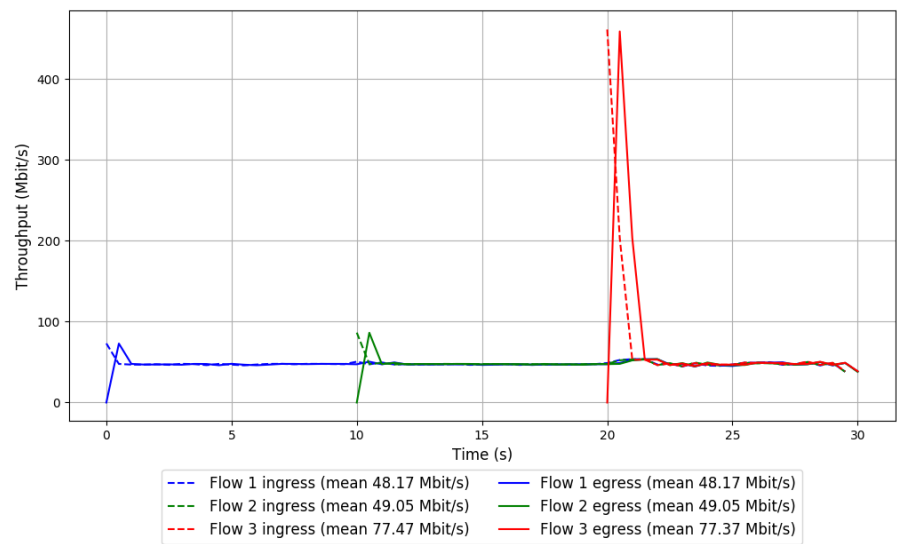
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Indigo-Muses

Start at: 2018-10-02 10:06:46
End at: 2018-10-02 10:07:17
Local clock offset: 4.048 ms
Remote clock offset: 4.971 ms


# Below is generated by plot.py at 2018-10-02 13:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.16 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.69 Mbit/s
95th percentile per-packet one-way delay: 1.062 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 0.00%
```
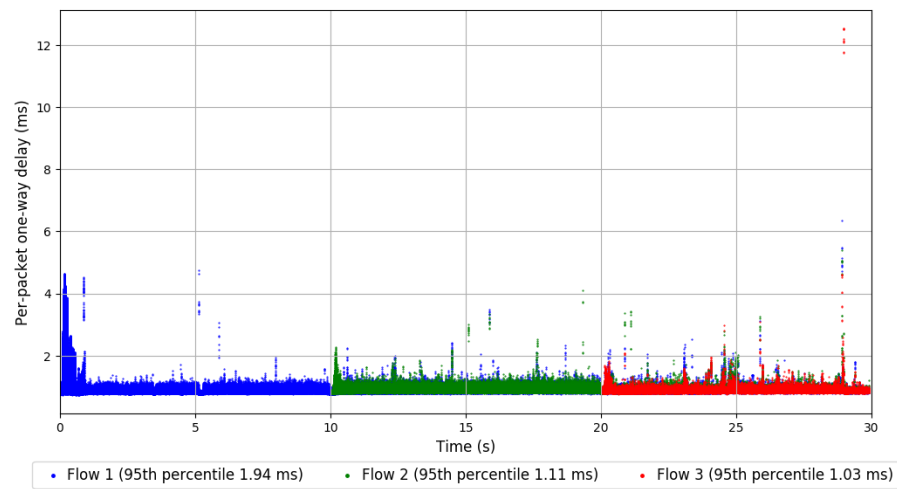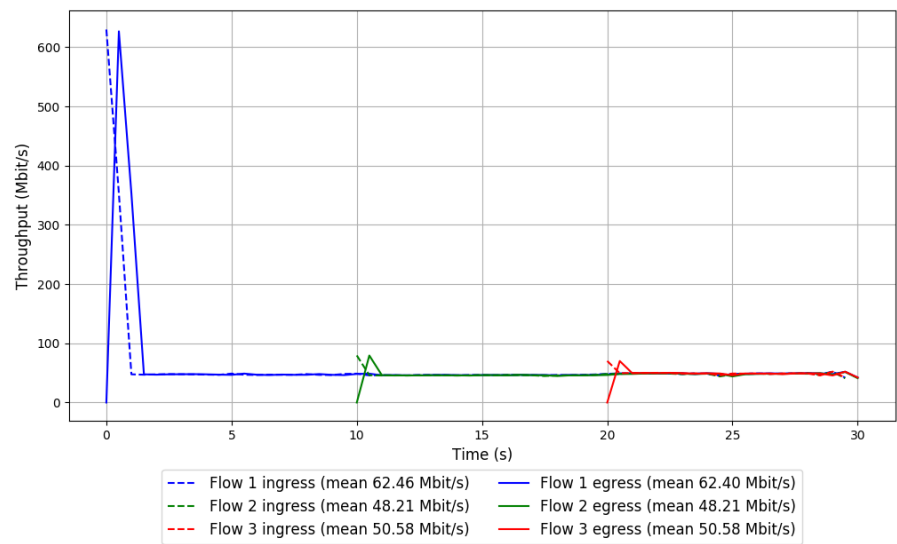
Run 1: Report of Indigo-Muses — Data Link

```
Run 2: Statistics of Indigo-Muses

Start at: 2018-10-02 10:34:28
End at: 2018-10-02 10:34:58
Local clock offset: 4.555 ms
Remote clock offset: 6.885 ms


# Below is generated by plot.py at 2018-10-02 13:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.25 Mbit/s
95th percentile per-packet one-way delay: 1.375 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 48.17 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 49.05 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 77.37 Mbit/s
95th percentile per-packet one-way delay: 2.568 ms
Loss rate: 0.13%
```
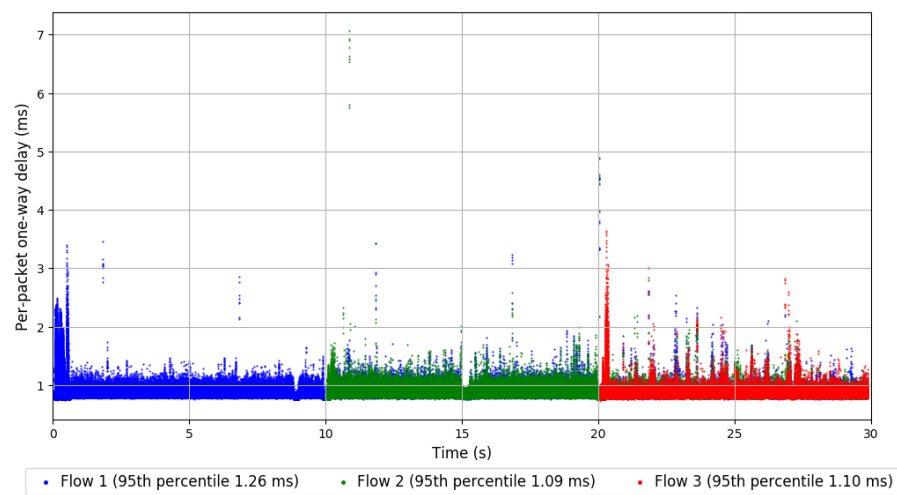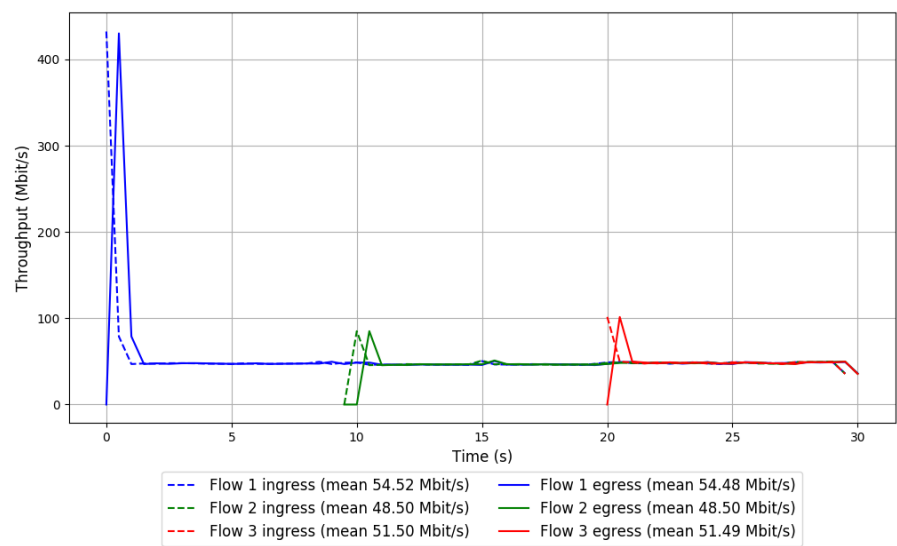
Run 2: Report of Indigo-Muses — Data Link

- - - - Flow 1 ingress (mean 48.17 Mbit/s) ——— Flow 1 egress (mean 48.17 Mbit/s)
- - - - Flow 2 ingress (mean 49.05 Mbit/s) ——— Flow 2 egress (mean 49.05 Mbit/s)
- - - - Flow 3 ingress (mean 77.47 Mbit/s) ——— Flow 3 egress (mean 77.37 Mbit/s)

• Flow 1 (95th percentile 1.09 ms)　　• Flow 2 (95th percentile 1.08 ms)　　• Flow 3 (95th percentile 2.57 ms)

```
Run 3: Statistics of Indigo-Muses

Start at: 2018-10-02 11:02:04
End at: 2018-10-02 11:02:34
Local clock offset: 4.336 ms
Remote clock offset: -1.148 ms


# Below is generated by plot.py at 2018-10-02 13:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.08 Mbit/s
95th percentile per-packet one-way delay: 1.483 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 62.40 Mbit/s
95th percentile per-packet one-way delay: 1.935 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 48.21 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.58 Mbit/s
95th percentile per-packet one-way delay: 1.035 ms
Loss rate: 0.00%
```
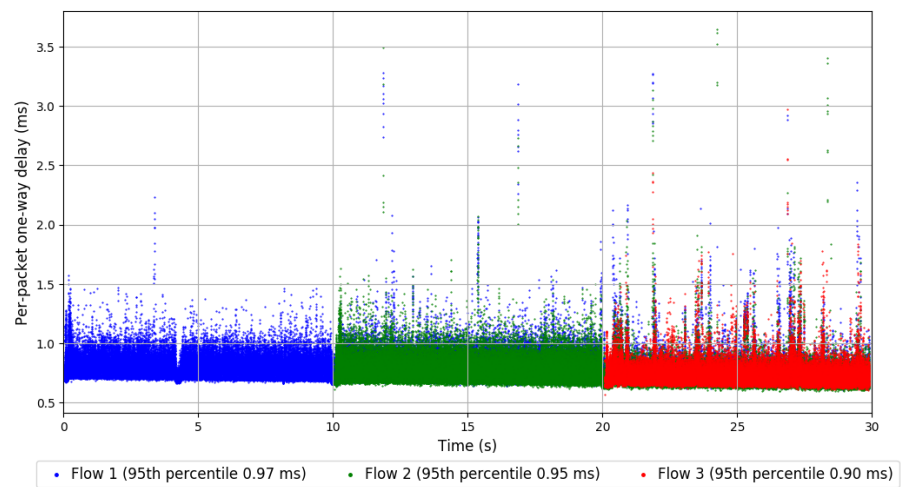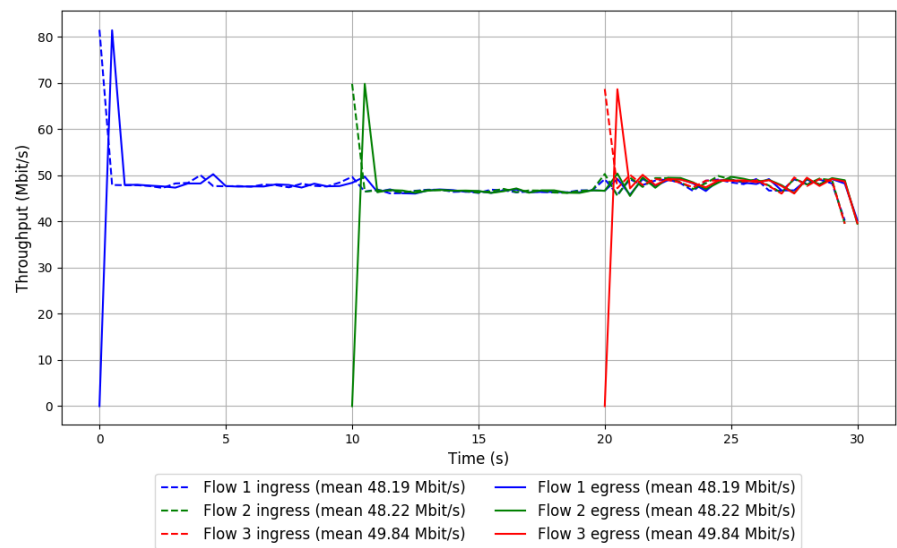
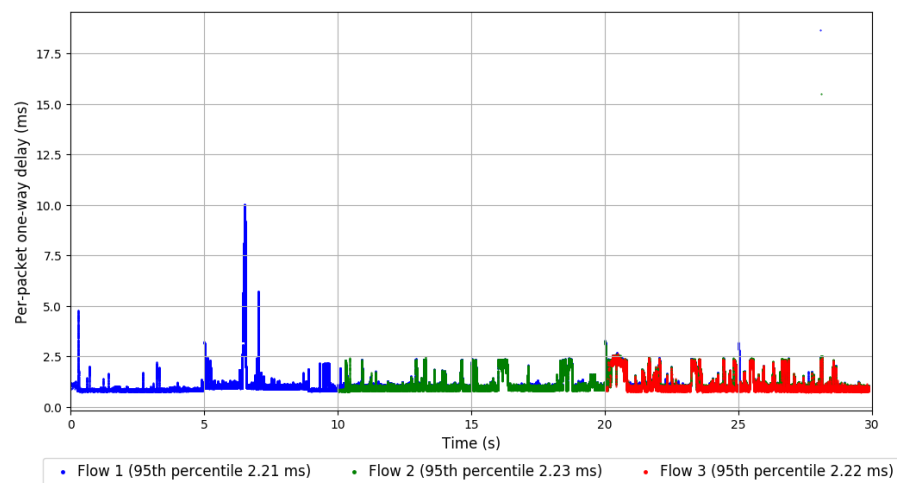Run 3: Report of Indigo-Muses — Data Link

```
Run 4: Statistics of Indigo-Muses

Start at: 2018-10-02 11:30:00
End at: 2018-10-02 11:30:30
Local clock offset: 4.047 ms
Remote clock offset: -0.545 ms


# Below is generated by plot.py at 2018-10-02 13:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.64 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 54.48 Mbit/s
95th percentile per-packet one-way delay: 1.260 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 48.50 Mbit/s
95th percentile per-packet one-way delay: 1.088 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.49 Mbit/s
95th percentile per-packet one-way delay: 1.096 ms
Loss rate: 0.01%
```
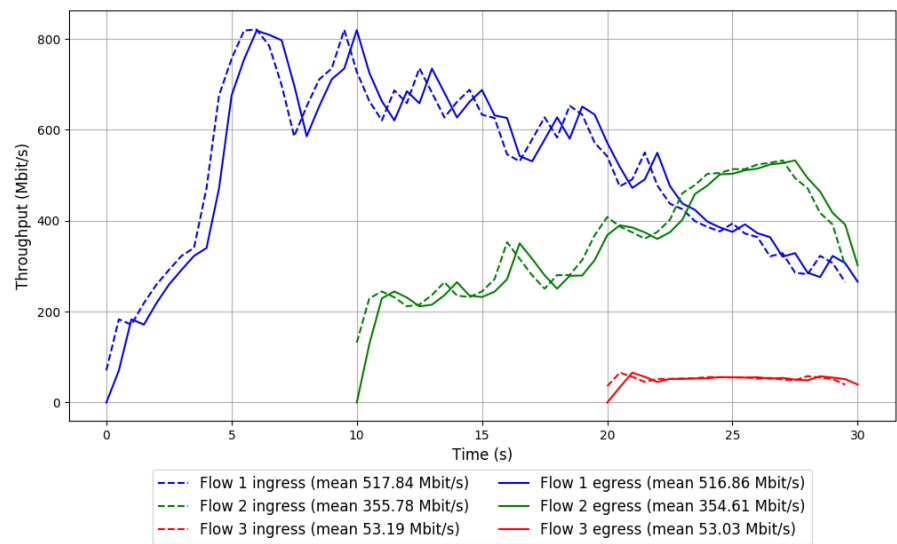
Run 4: Report of Indigo-Muses — Data Link

```
Run 5: Statistics of Indigo-Muses

Start at: 2018-10-02 11:57:35
End at: 2018-10-02 11:58:05
Local clock offset: 3.792 ms
Remote clock offset: 3.085 ms


# Below is generated by plot.py at 2018-10-02 13:06:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.60 Mbit/s
95th percentile per-packet one-way delay: 0.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.19 Mbit/s
95th percentile per-packet one-way delay: 0.971 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.22 Mbit/s
95th percentile per-packet one-way delay: 0.953 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.84 Mbit/s
95th percentile per-packet one-way delay: 0.904 ms
Loss rate: 0.00%
```
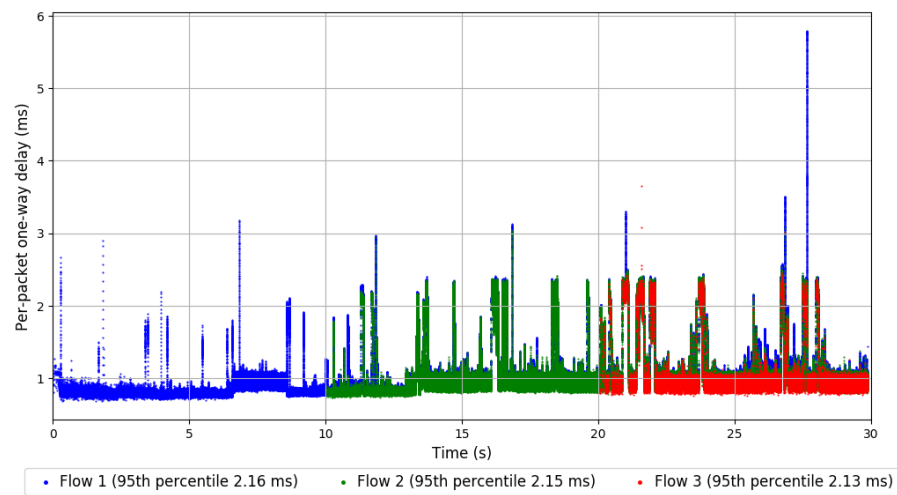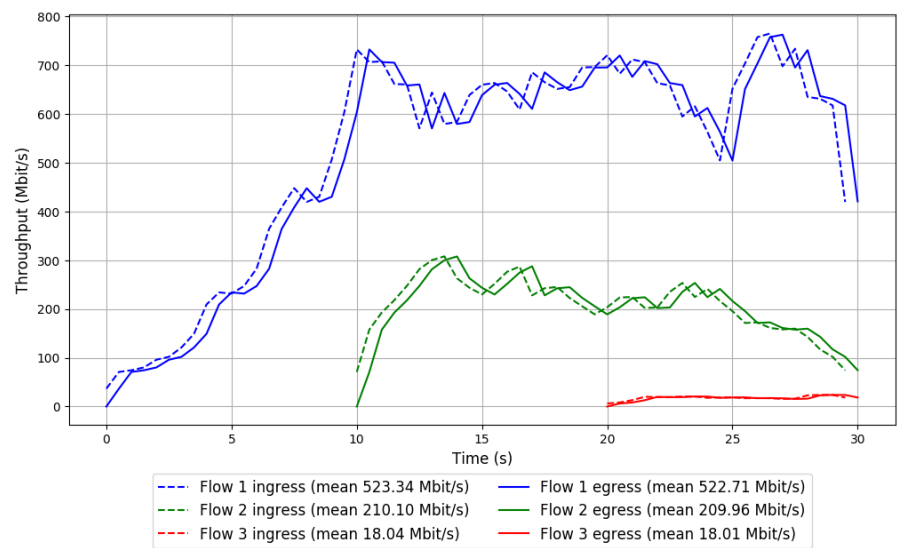
Run 5: Report of Indigo-Muses — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-10-02 10:28:51
End at: 2018-10-02 10:29:21
Local clock offset: 4.458 ms
Remote clock offset: 6.522 ms


# Below is generated by plot.py at 2018-10-02 13:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 770.19 Mbit/s
95th percentile per-packet one-way delay: 2.218 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 516.86 Mbit/s
95th percentile per-packet one-way delay: 2.207 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 354.61 Mbit/s
95th percentile per-packet one-way delay: 2.234 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 53.03 Mbit/s
95th percentile per-packet one-way delay: 2.224 ms
Loss rate: 0.31%
```
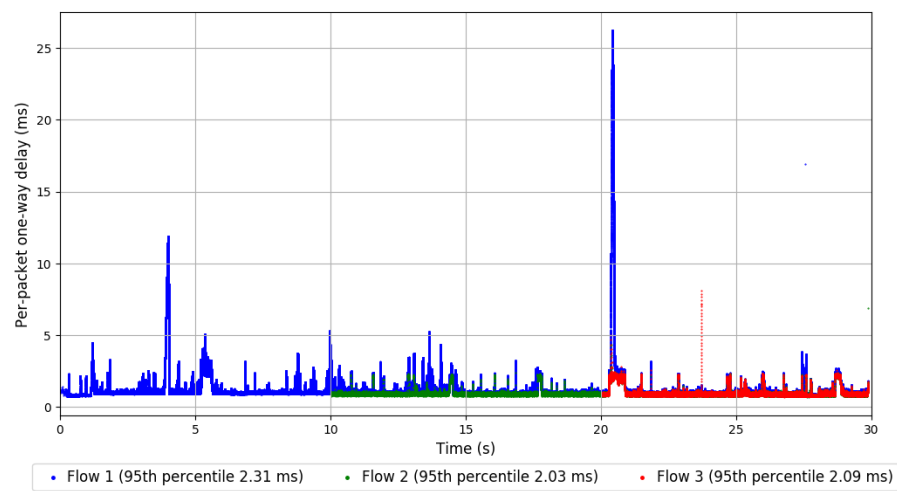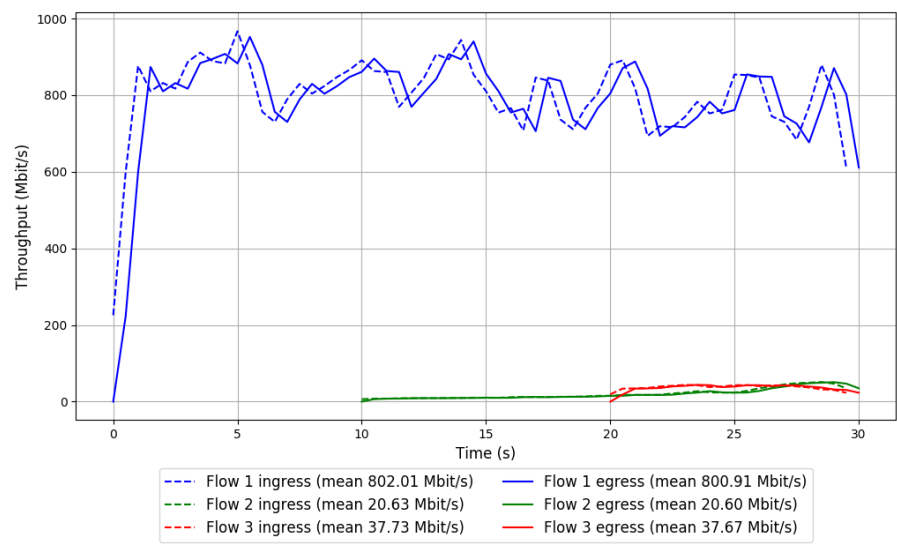
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-10-02 10:56:29
End at: 2018-10-02 10:56:59
Local clock offset: 4.391 ms
Remote clock offset: -0.548 ms


# Below is generated by plot.py at 2018-10-02 13:10:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 668.24 Mbit/s
95th percentile per-packet one-way delay: 2.158 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 522.71 Mbit/s
95th percentile per-packet one-way delay: 2.163 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 209.96 Mbit/s
95th percentile per-packet one-way delay: 2.151 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 18.01 Mbit/s
95th percentile per-packet one-way delay: 2.126 ms
Loss rate: 0.20%
```

Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-10-02 11:24:15
End at: 2018-10-02 11:24:45
Local clock offset: 4.13 ms
Remote clock offset: -0.514 ms


# Below is generated by plot.py at 2018-10-02 13:11:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 826.86 Mbit/s
95th percentile per-packet one-way delay: 2.303 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 800.91 Mbit/s
95th percentile per-packet one-way delay: 2.310 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 20.60 Mbit/s
95th percentile per-packet one-way delay: 2.029 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 2.088 ms
Loss rate: 0.14%
```
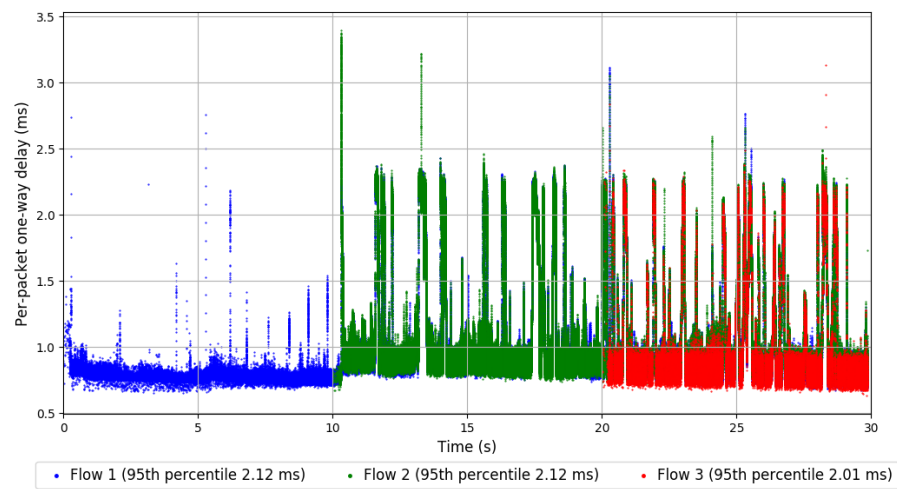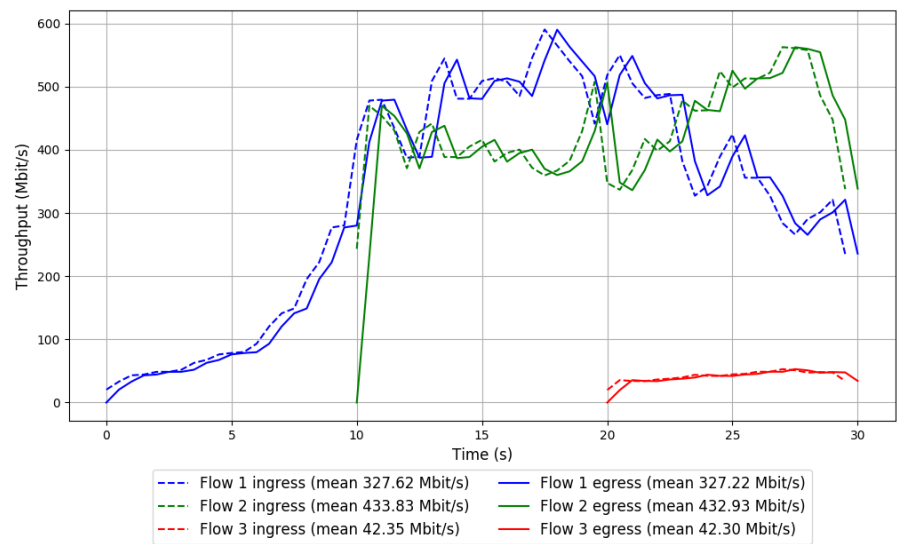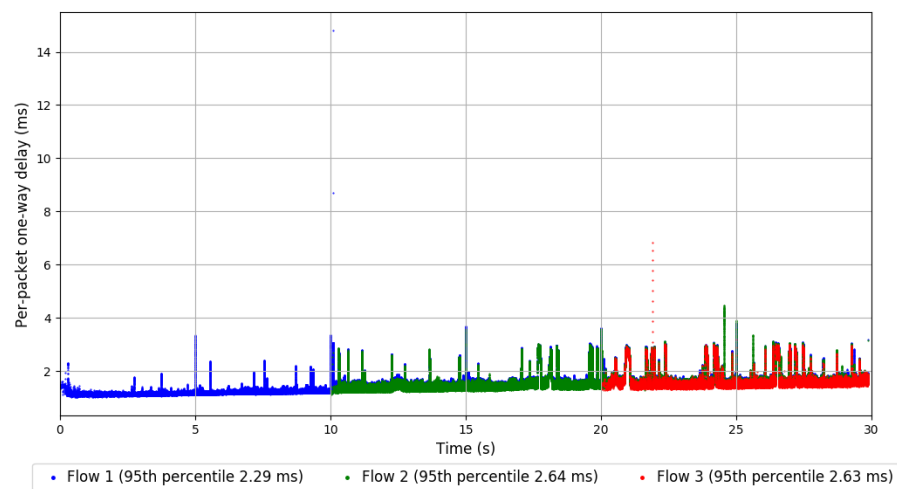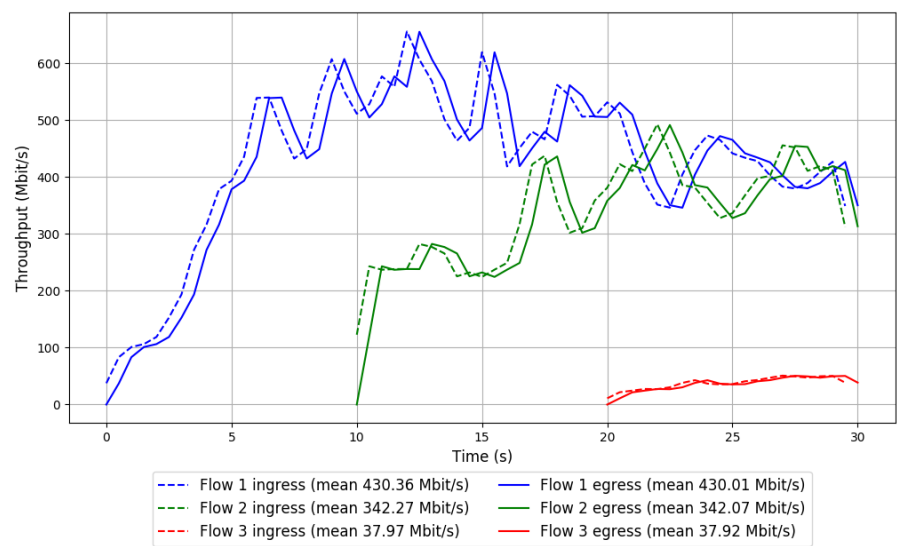
Run 3: Report of PCC-Allegro — Data Link

- - - Flow 1 ingress (mean 802.01 Mbit/s)   —— Flow 1 egress (mean 800.91 Mbit/s)
- - - Flow 2 ingress (mean 20.63 Mbit/s)   —— Flow 2 egress (mean 20.60 Mbit/s)
- - - Flow 3 ingress (mean 37.73 Mbit/s)   —— Flow 3 egress (mean 37.67 Mbit/s)

• Flow 1 (95th percentile 2.31 ms)   • Flow 2 (95th percentile 2.03 ms)   • Flow 3 (95th percentile 2.09 ms)

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```
Run 4: Statistics of PCC-Allegro

Start at: 2018-10-02 11:52:00
End at: 2018-10-02 11:52:30
Local clock offset: 3.857 ms
Remote clock offset: 2.178 ms


# Below is generated by plot.py at 2018-10-02 13:11:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 629.01 Mbit/s
95th percentile per-packet one-way delay: 2.113 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 327.22 Mbit/s
95th percentile per-packet one-way delay: 2.115 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 432.93 Mbit/s
95th percentile per-packet one-way delay: 2.115 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 42.30 Mbit/s
95th percentile per-packet one-way delay: 2.007 ms
Loss rate: 0.10%
```
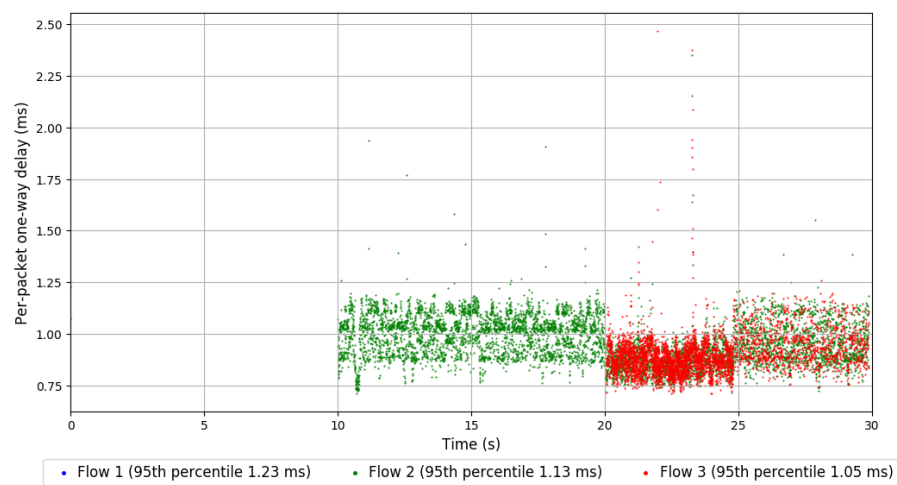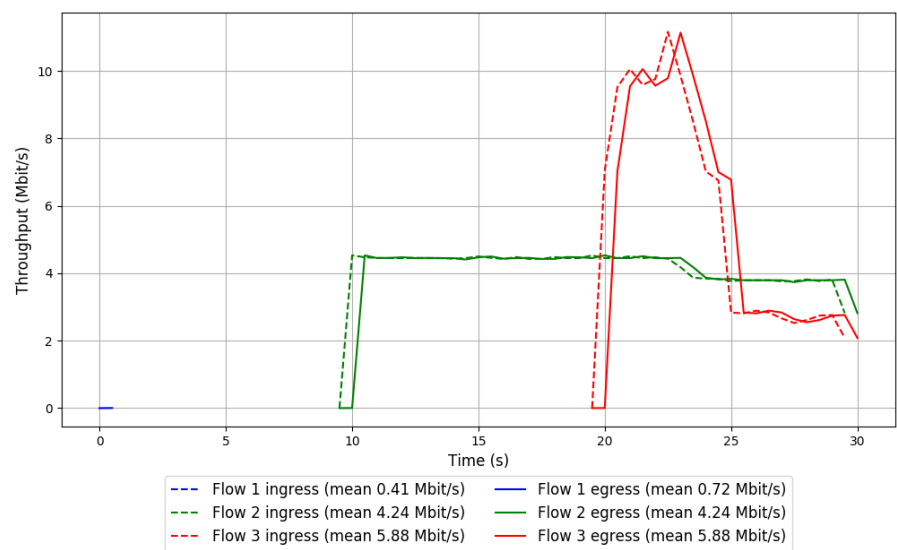
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-10-02 12:19:37
End at: 2018-10-02 12:20:07
Local clock offset: 3.763 ms
Remote clock offset: 3.268 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 669.97 Mbit/s
95th percentile per-packet one-way delay: 2.473 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 430.01 Mbit/s
95th percentile per-packet one-way delay: 2.290 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 342.07 Mbit/s
95th percentile per-packet one-way delay: 2.644 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 37.92 Mbit/s
95th percentile per-packet one-way delay: 2.630 ms
Loss rate: 0.12%
```
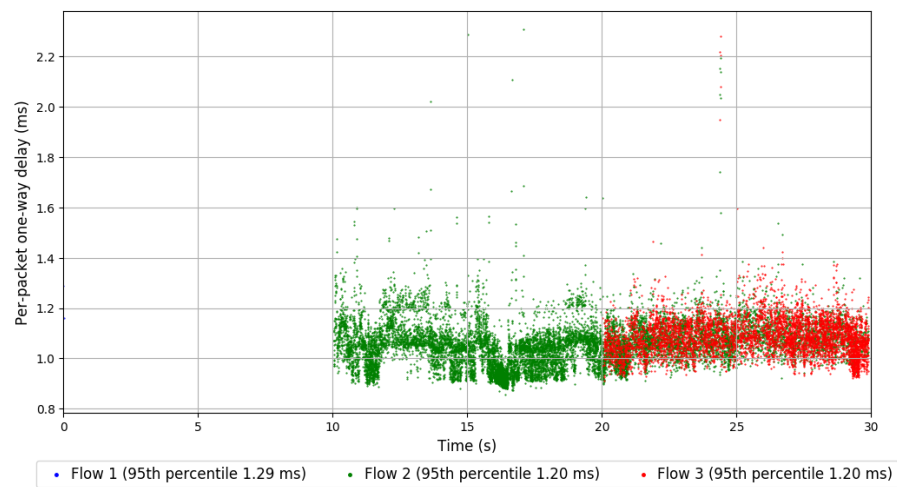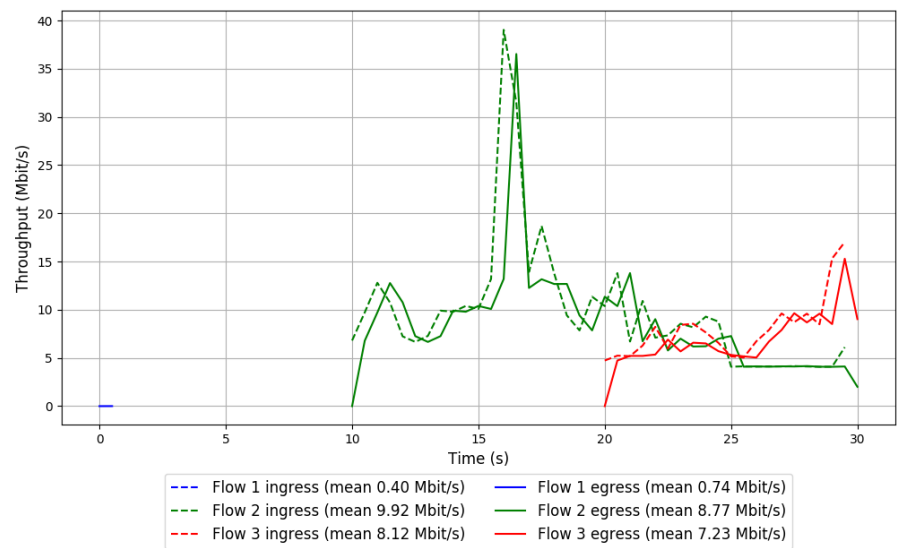
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 430.36 Mbit/s) --- Flow 1 egress (mean 430.01 Mbit/s)
Flow 2 ingress (mean 342.27 Mbit/s) --- Flow 2 egress (mean 342.07 Mbit/s)
Flow 3 ingress (mean 37.97 Mbit/s) --- Flow 3 egress (mean 37.92 Mbit/s)

Flow 1 (95th percentile 2.29 ms)   Flow 2 (95th percentile 2.64 ms)   Flow 3 (95th percentile 2.63 ms)

94

```
Run 1: Statistics of PCC-Expr

Start at: 2018-10-02 10:30:28
End at: 2018-10-02 10:30:58
Local clock offset: 4.474 ms
Remote clock offset: 6.531 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 1.121 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 1.228 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 1.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.88 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.00%
```
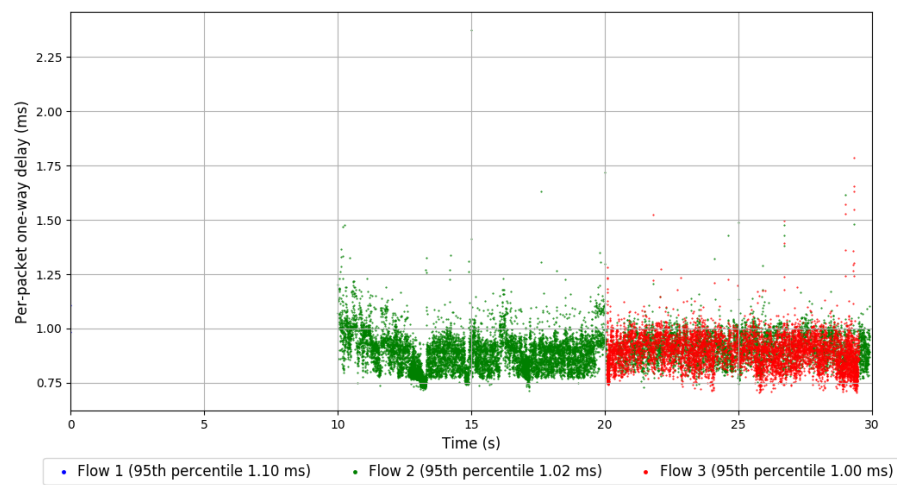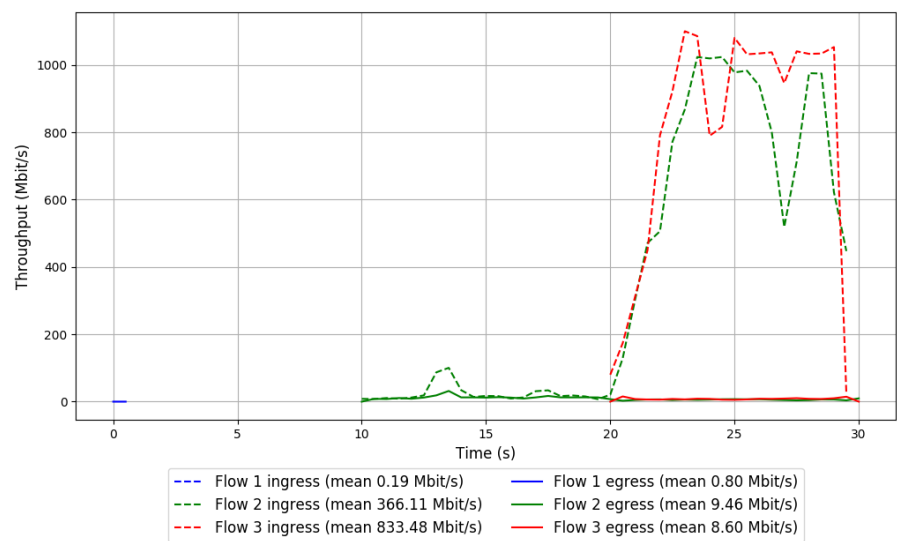
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-10-02 10:58:04
End at: 2018-10-02 10:58:34
Local clock offset: 4.366 ms
Remote clock offset: -0.652 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 11.37%
-- Flow 1:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 1.288 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 8.77 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 11.51%
-- Flow 3:
Average throughput: 7.23 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 11.00%
```
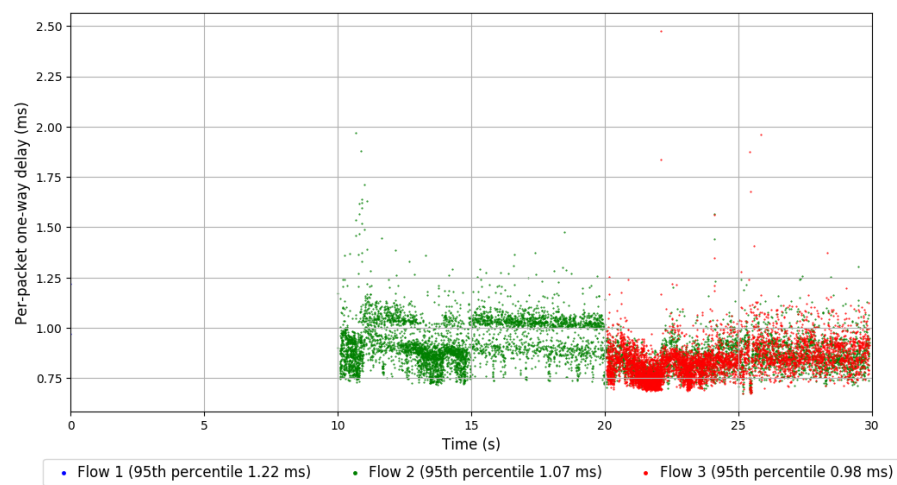
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-10-02 11:25:54
End at: 2018-10-02 11:26:24
Local clock offset: 4.09 ms
Remote clock offset: -0.557 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 1.010 ms
Loss rate: 98.22%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 1.105 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 1.016 ms
Loss rate: 97.42%
-- Flow 3:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 1.001 ms
Loss rate: 98.97%
```
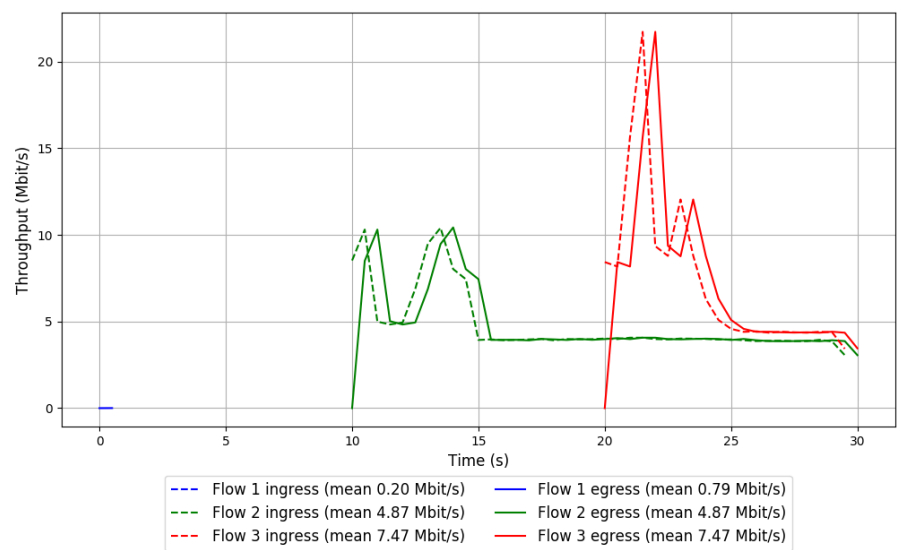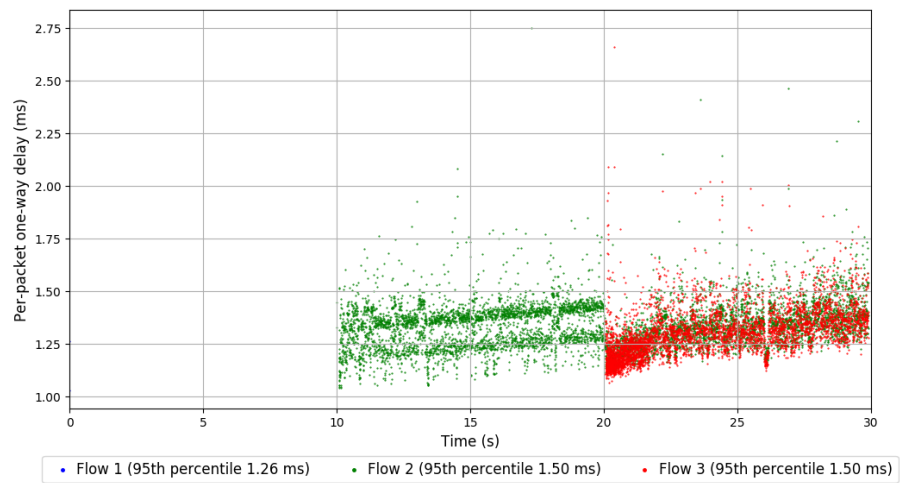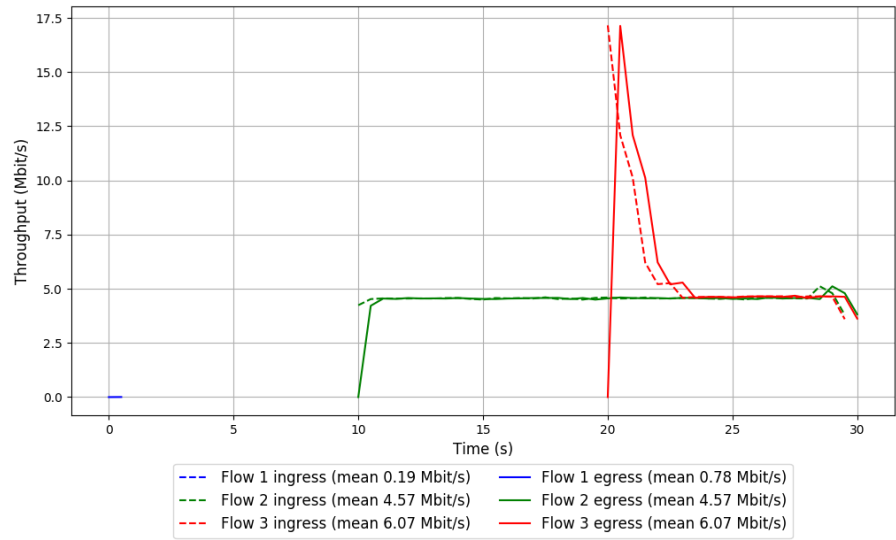
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 0.19 Mbit/s) --- Flow 1 egress (mean 0.80 Mbit/s)
Flow 2 ingress (mean 366.11 Mbit/s) --- Flow 2 egress (mean 9.46 Mbit/s)
Flow 3 ingress (mean 833.48 Mbit/s) --- Flow 3 egress (mean 8.60 Mbit/s)

Flow 1 (95th percentile 1.10 ms) • Flow 2 (95th percentile 1.02 ms) • Flow 3 (95th percentile 1.00 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2018-10-02 11:53:34
End at: 2018-10-02 11:54:04
Local clock offset: 3.841 ms
Remote clock offset: 2.46 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.70 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 1.219 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 4.87 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 0.978 ms
Loss rate: 0.05%
```
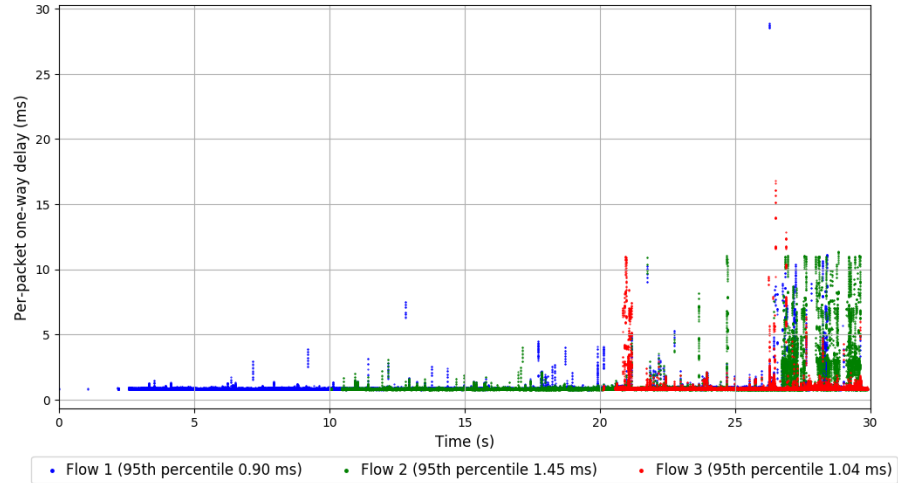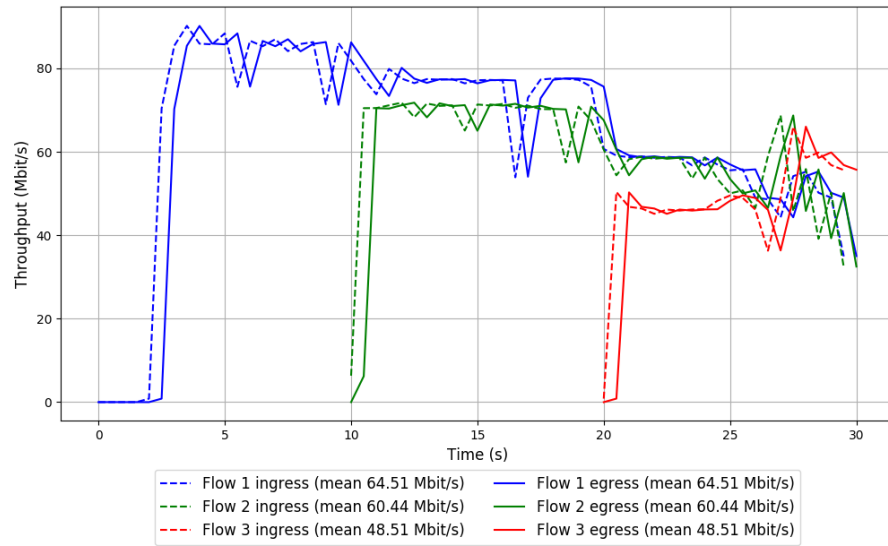
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2018-10-02 12:21:13
End at: 2018-10-02 12:21:43
Local clock offset: 3.785 ms
Remote clock offset: 1.995 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 1.498 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 1.260 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 1.498 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.07 Mbit/s
95th percentile per-packet one-way delay: 1.498 ms
Loss rate: 0.00%
```
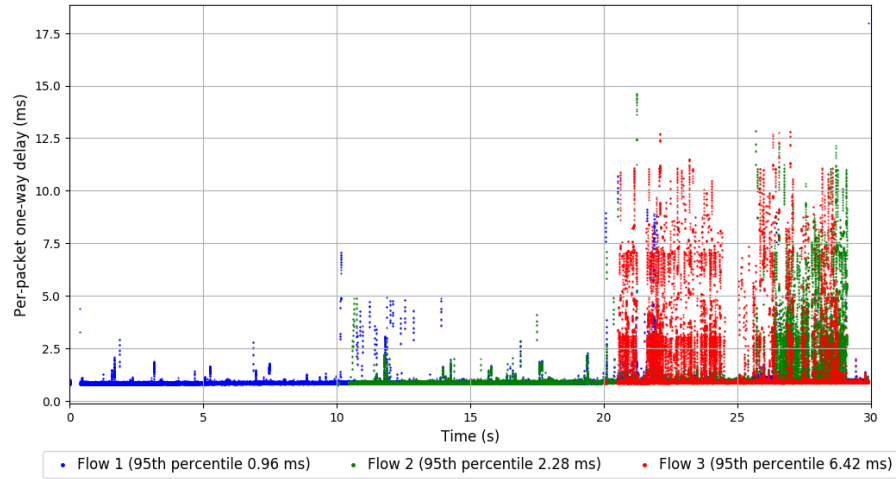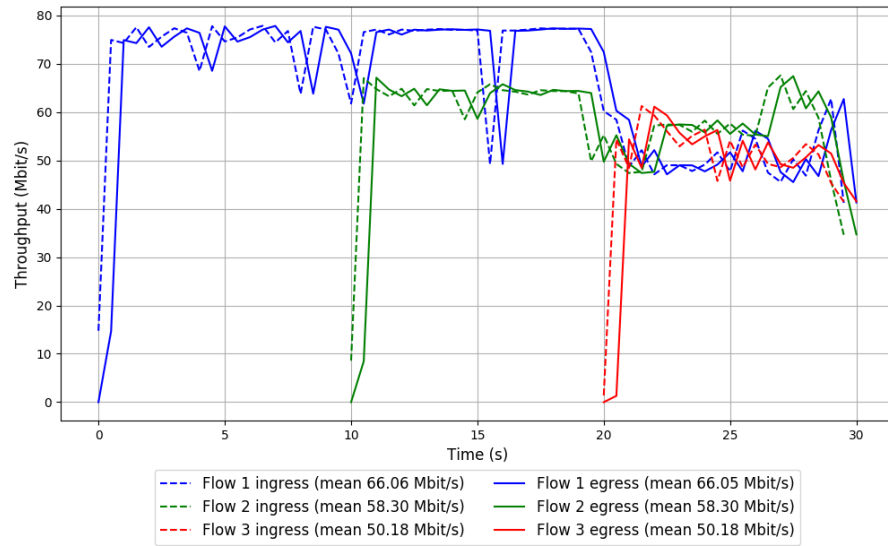
Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-10-02 10:22:12
End at: 2018-10-02 10:22:42
Local clock offset: 4.311 ms
Remote clock offset: 6.025 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.53 Mbit/s
95th percentile per-packet one-way delay: 0.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.51 Mbit/s
95th percentile per-packet one-way delay: 0.895 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 1.446 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.51 Mbit/s
95th percentile per-packet one-way delay: 1.038 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-10-02 10:49:48
End at: 2018-10-02 10:50:18
Local clock offset: 4.531 ms
Remote clock offset: 0.512 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.27 Mbit/s
95th percentile per-packet one-way delay: 1.801 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 66.05 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.30 Mbit/s
95th percentile per-packet one-way delay: 2.278 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.18 Mbit/s
95th percentile per-packet one-way delay: 6.423 ms
Loss rate: 0.02%
```
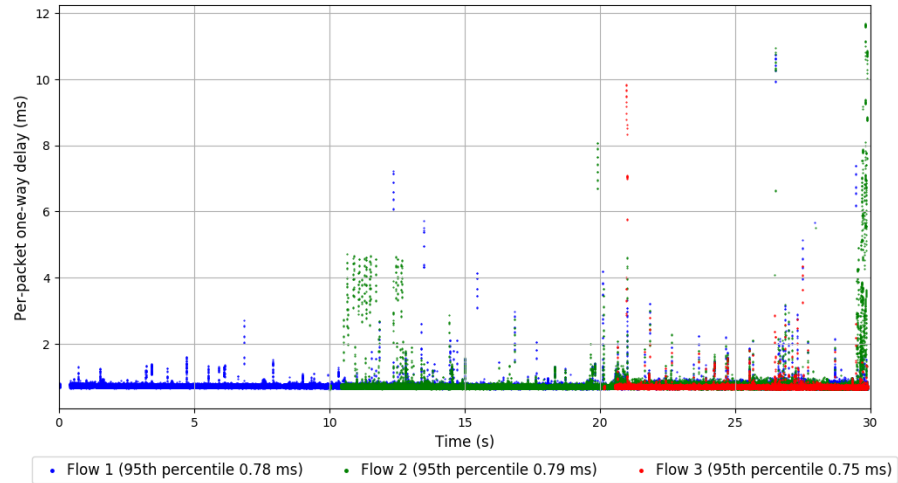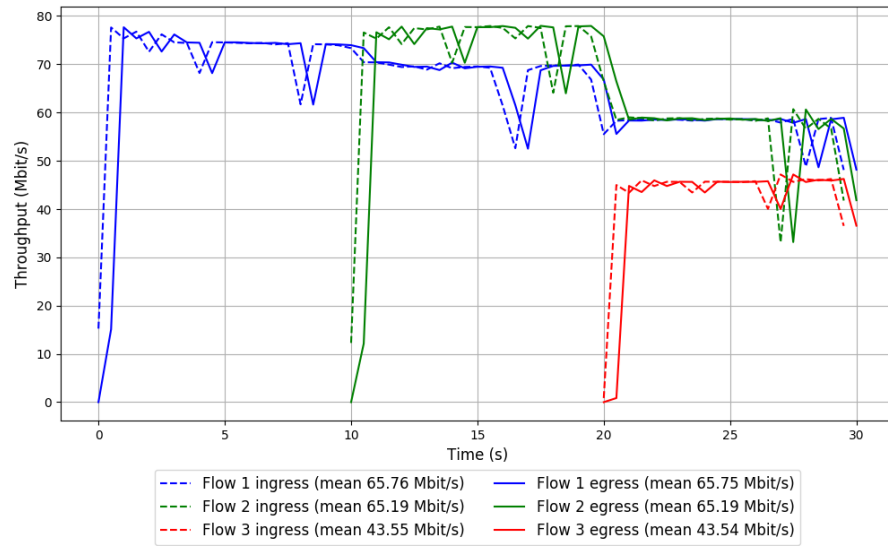
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-10-02 11:17:30
End at: 2018-10-02 11:18:00
Local clock offset: 4.332 ms
Remote clock offset: -0.83 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.34 Mbit/s
95th percentile per-packet one-way delay: 0.779 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 65.75 Mbit/s
95th percentile per-packet one-way delay: 0.780 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 65.19 Mbit/s
95th percentile per-packet one-way delay: 0.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.54 Mbit/s
95th percentile per-packet one-way delay: 0.750 ms
Loss rate: 0.02%
```
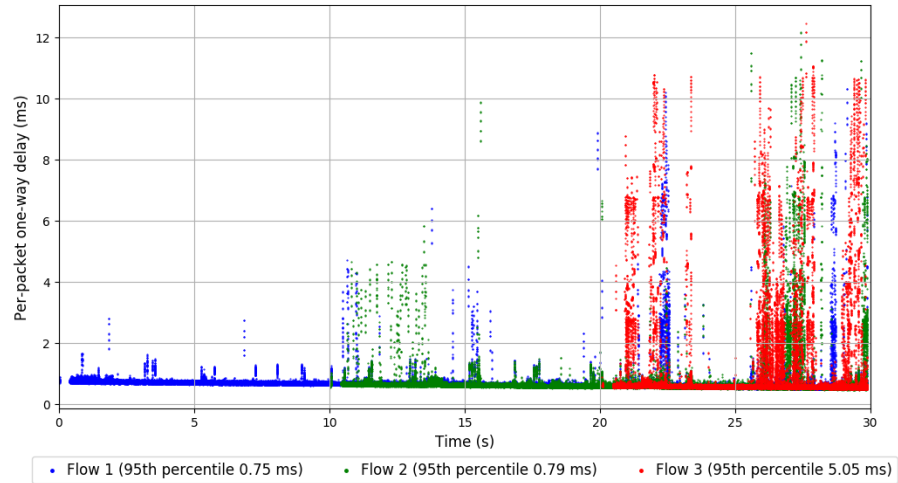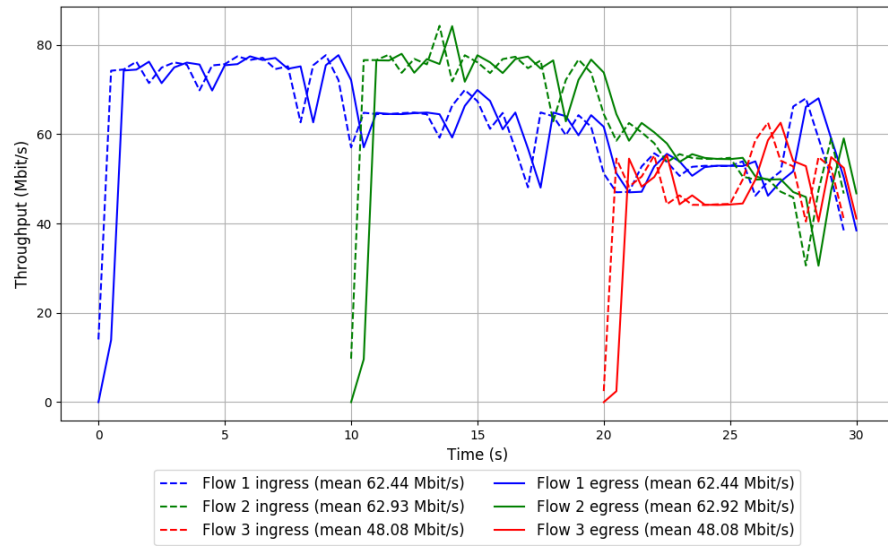
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-10-02 11:45:20
End at: 2018-10-02 11:45:50
Local clock offset: 3.962 ms
Remote clock offset: 0.006 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.07 Mbit/s
95th percentile per-packet one-way delay: 0.905 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.44 Mbit/s
95th percentile per-packet one-way delay: 0.754 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.92 Mbit/s
95th percentile per-packet one-way delay: 0.787 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 48.08 Mbit/s
95th percentile per-packet one-way delay: 5.055 ms
Loss rate: 0.00%
```
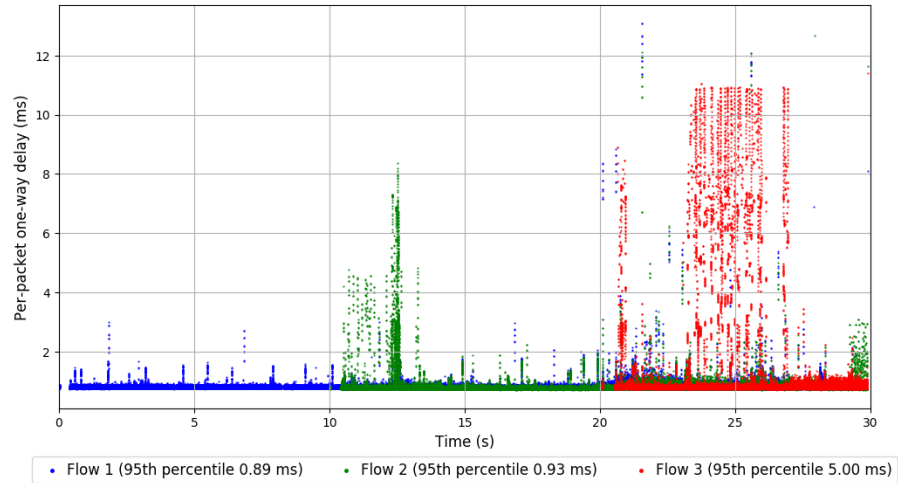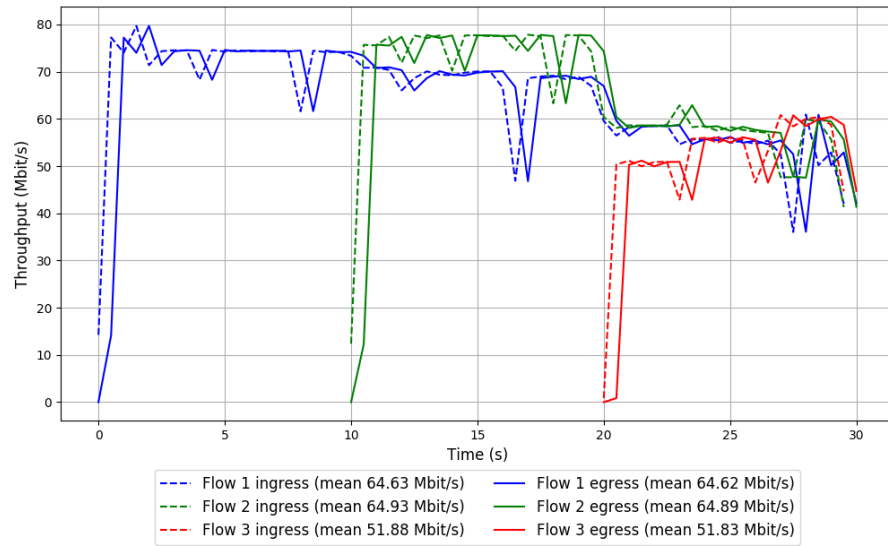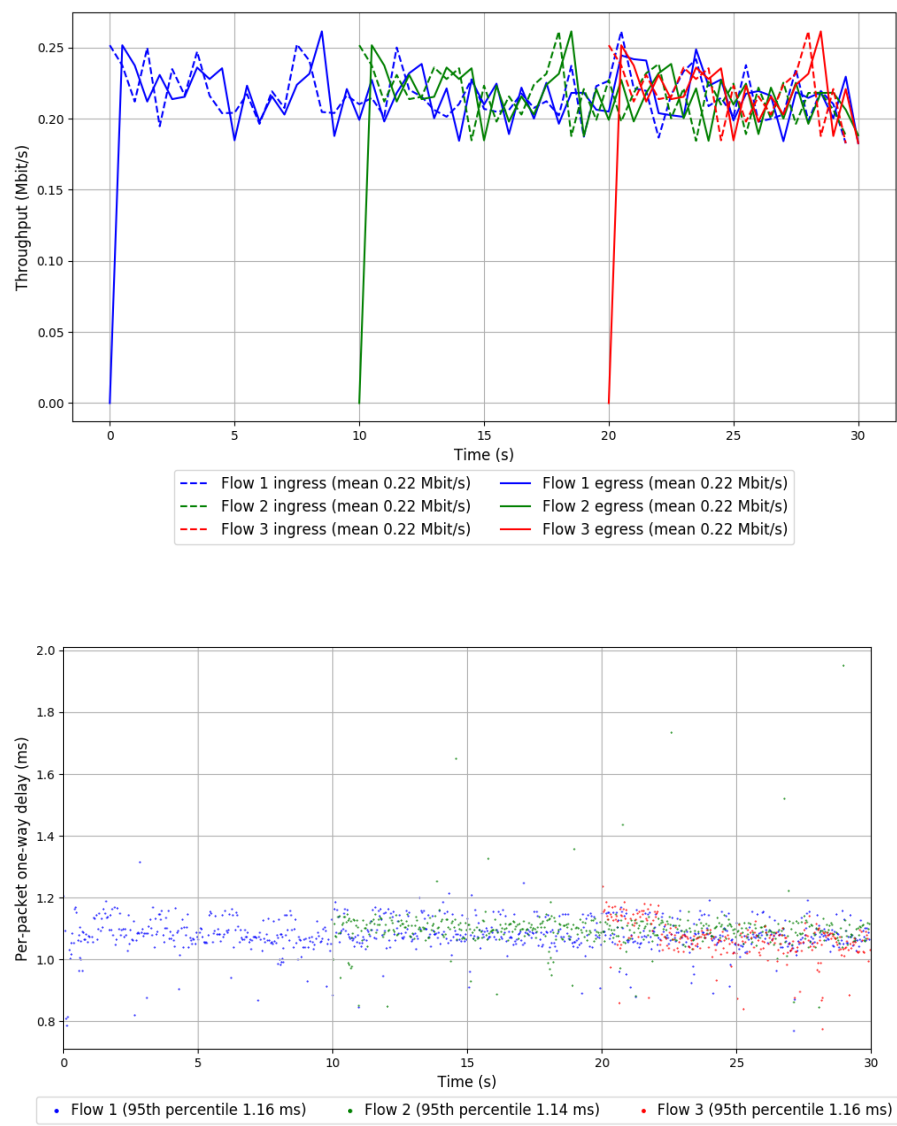
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 62.44 Mbit/s) --- Flow 1 egress (mean 62.44 Mbit/s)
Flow 2 ingress (mean 62.93 Mbit/s) --- Flow 2 egress (mean 62.92 Mbit/s)
Flow 3 ingress (mean 48.08 Mbit/s) --- Flow 3 egress (mean 48.08 Mbit/s)

Flow 1 (95th percentile 0.75 ms)   Flow 2 (95th percentile 0.79 ms)   Flow 3 (95th percentile 5.05 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-10-02 12:12:56
End at: 2018-10-02 12:13:26
Local clock offset: 3.704 ms
Remote clock offset: 4.507 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.79 Mbit/s
95th percentile per-packet one-way delay: 0.933 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.62 Mbit/s
95th percentile per-packet one-way delay: 0.885 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.89 Mbit/s
95th percentile per-packet one-way delay: 0.930 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.83 Mbit/s
95th percentile per-packet one-way delay: 5.003 ms
Loss rate: 0.00%
```
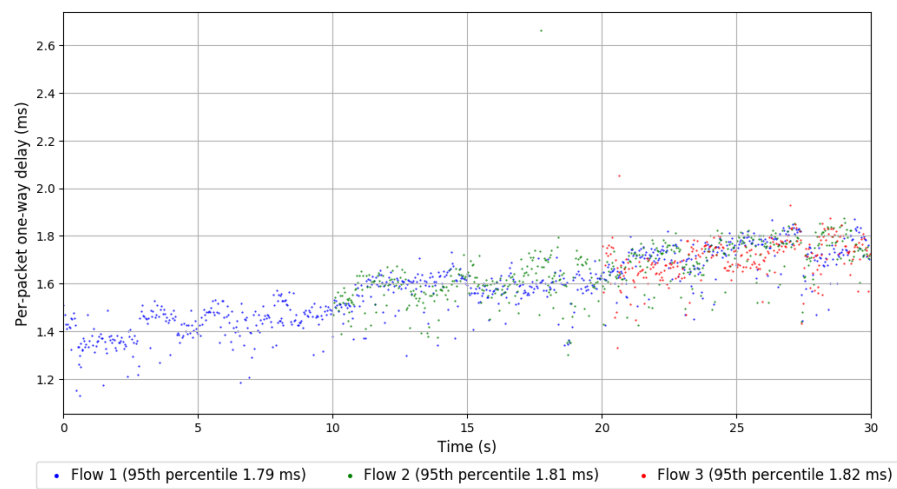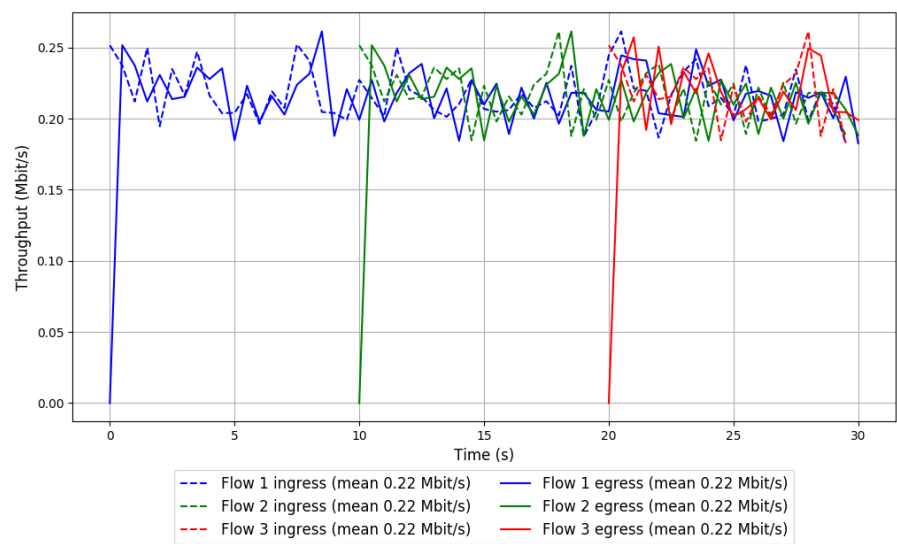
Run 5: Report of QUIC Cubic — Data Link

Legend:
- Flow 1 ingress (mean 64.63 Mbit/s) — Flow 1 egress (mean 64.62 Mbit/s)
- Flow 2 ingress (mean 64.93 Mbit/s) — Flow 2 egress (mean 64.89 Mbit/s)
- Flow 3 ingress (mean 51.88 Mbit/s) — Flow 3 egress (mean 51.83 Mbit/s)

Legend:
- Flow 1 (95th percentile 0.89 ms)
- Flow 2 (95th percentile 0.93 ms)
- Flow 3 (95th percentile 5.00 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-10-02 10:08:09
End at: 2018-10-02 10:08:39
Local clock offset: 4.057 ms
Remote clock offset: 5.082 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.154 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.138 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.159 ms
Loss rate: 0.00%
```
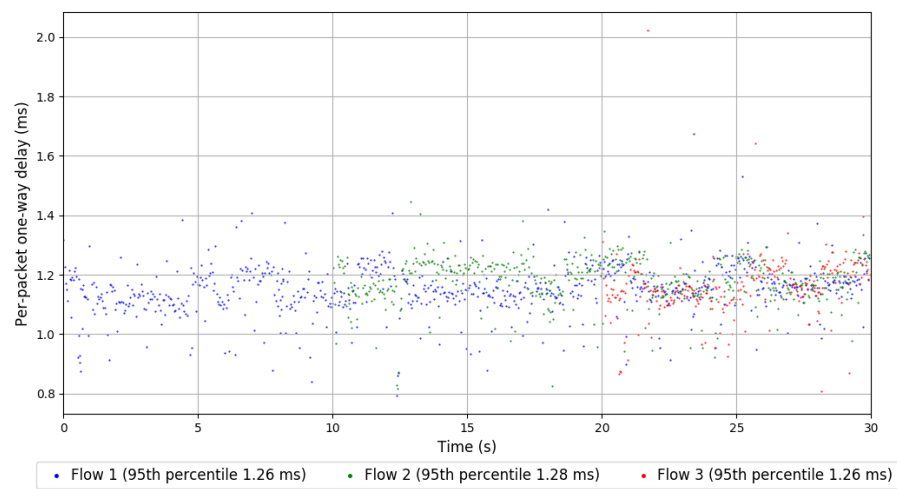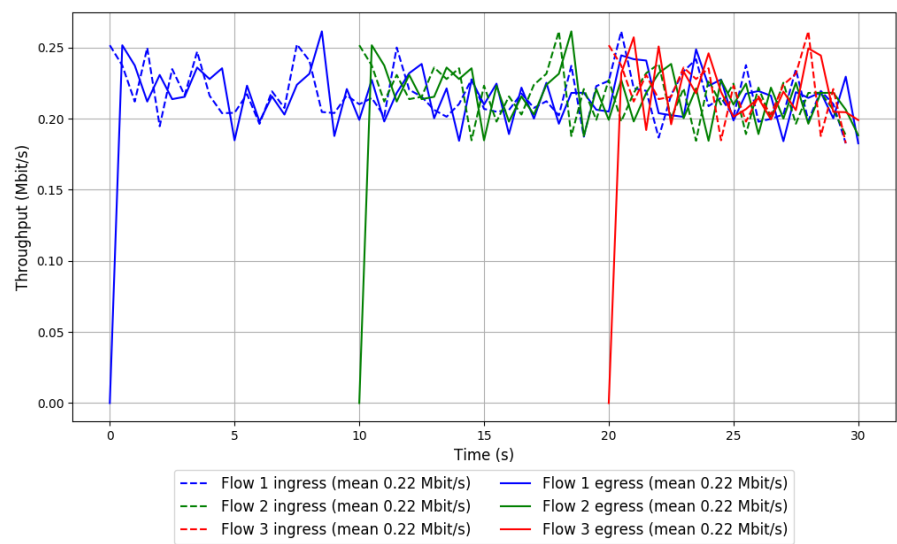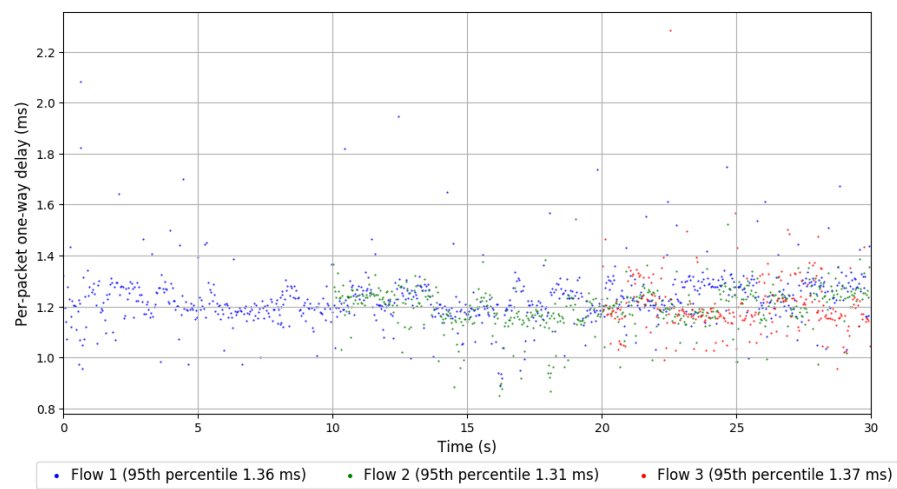
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-10-02 10:35:50
End at: 2018-10-02 10:36:20
Local clock offset: 4.553 ms
Remote clock offset: 6.531 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.804 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.791 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.815 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.821 ms
Loss rate: 0.00%
```
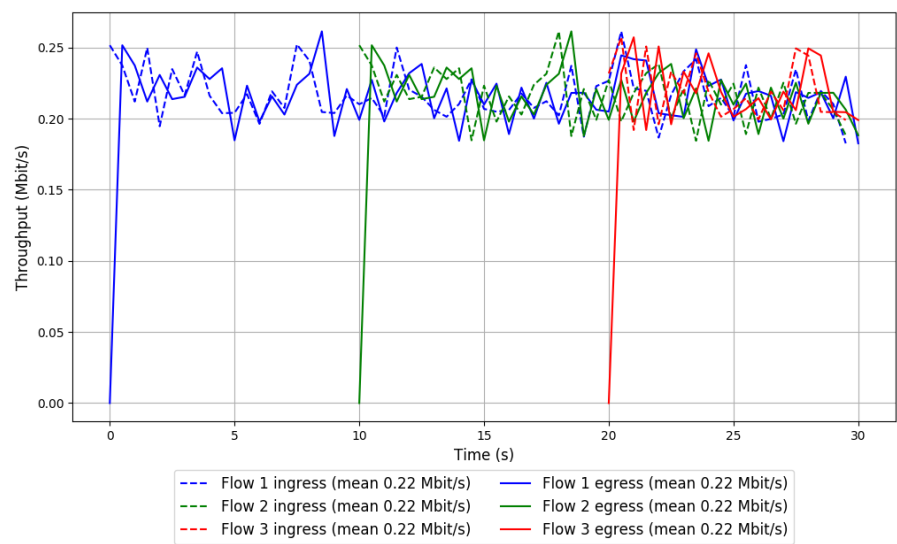
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-10-02 11:03:27
End at: 2018-10-02 11:03:57
Local clock offset: 4.345 ms
Remote clock offset: -1.242 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.270 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.262 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.279 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.260 ms
Loss rate: 0.00%
```
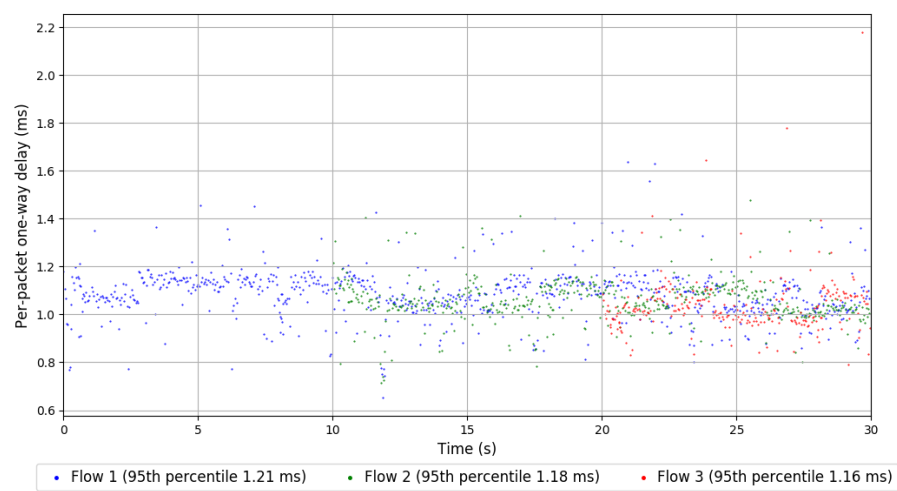
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-10-02 11:31:23
End at: 2018-10-02 11:31:53
Local clock offset: 4.036 ms
Remote clock offset: -0.507 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.361 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.307 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.373 ms
Loss rate: 0.00%
```
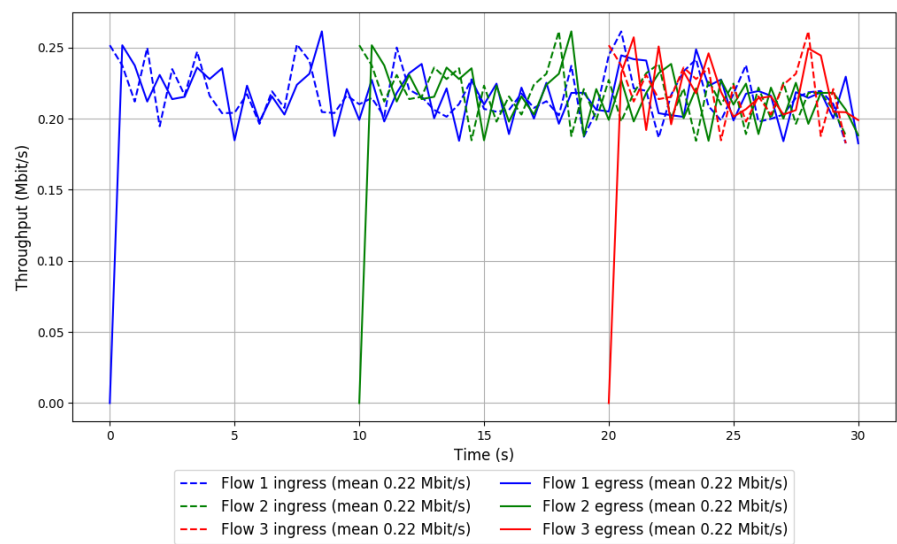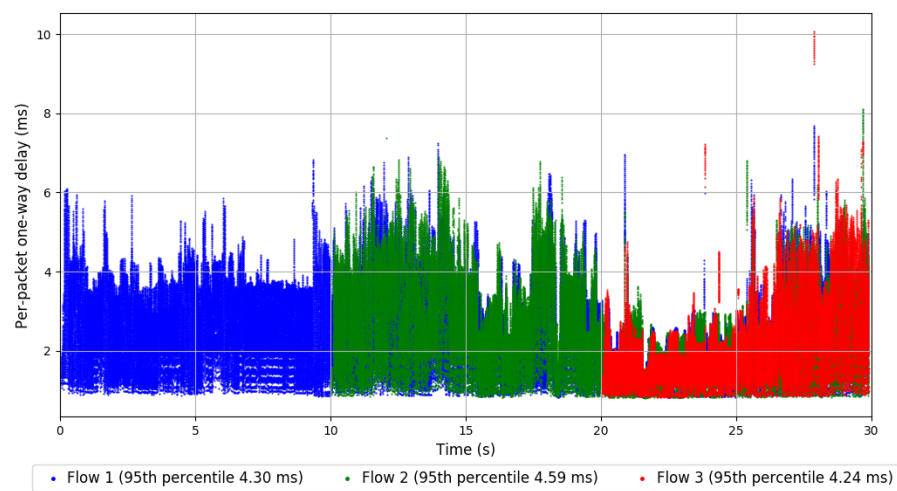
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-10-02 11:58:57
End at: 2018-10-02 11:59:27
Local clock offset: 3.772 ms
Remote clock offset: 3.324 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.177 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.159 ms
Loss rate: 0.00%
```
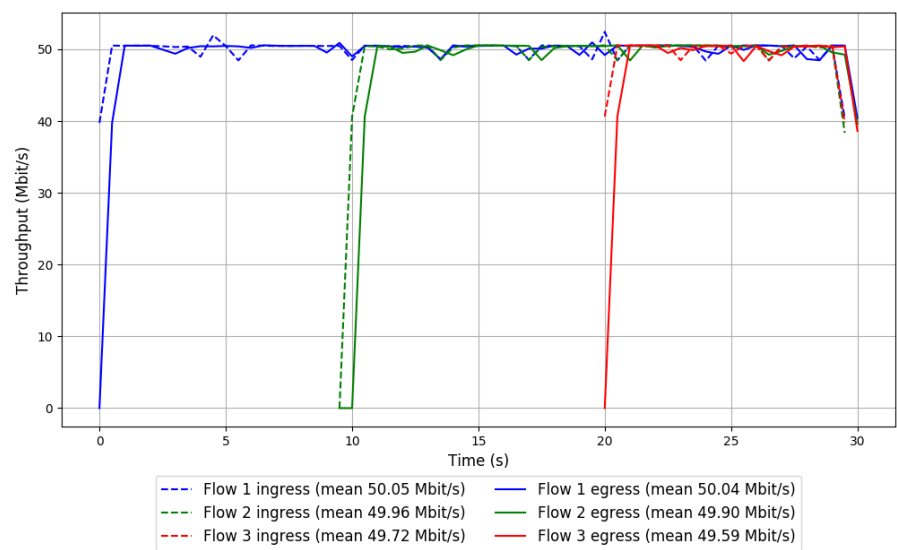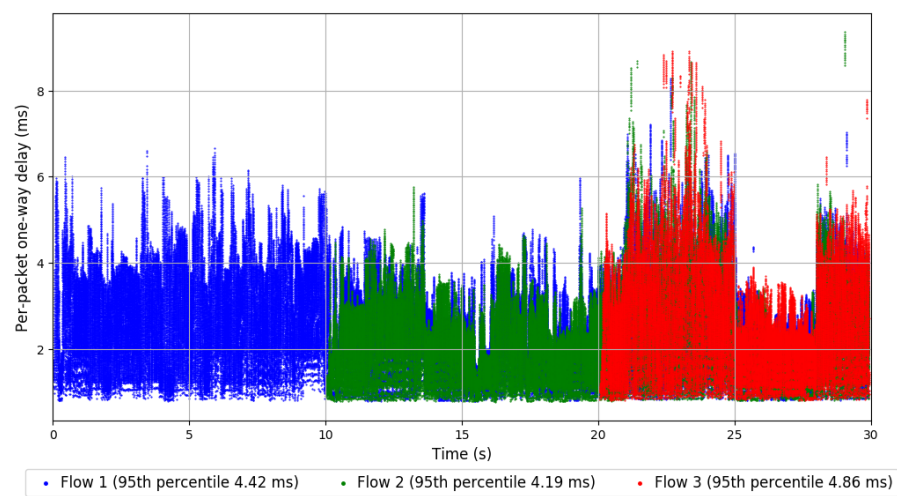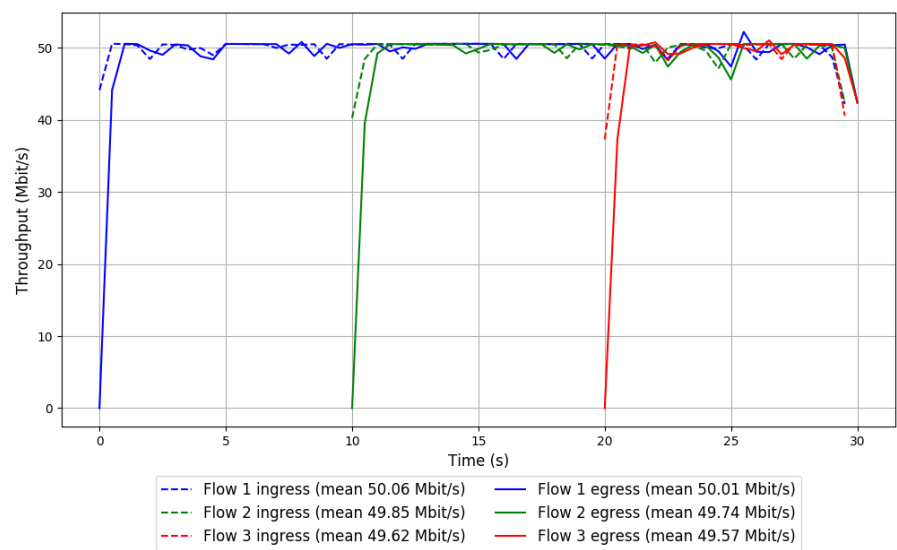
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-10-02 10:31:47
End at: 2018-10-02 10:32:17
Local clock offset: 4.498 ms
Remote clock offset: 6.748 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.64 Mbit/s
95th percentile per-packet one-way delay: 4.398 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 50.04 Mbit/s
95th percentile per-packet one-way delay: 4.296 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 49.90 Mbit/s
95th percentile per-packet one-way delay: 4.589 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 49.59 Mbit/s
95th percentile per-packet one-way delay: 4.236 ms
Loss rate: 0.25%
```
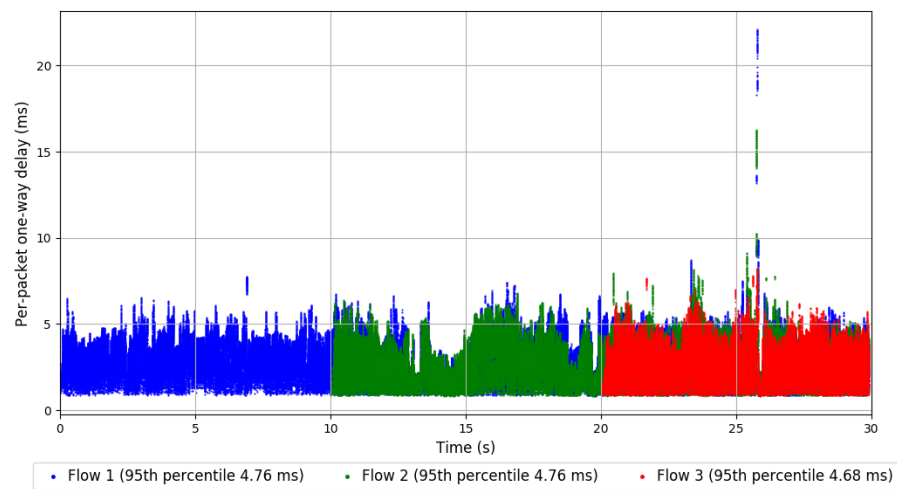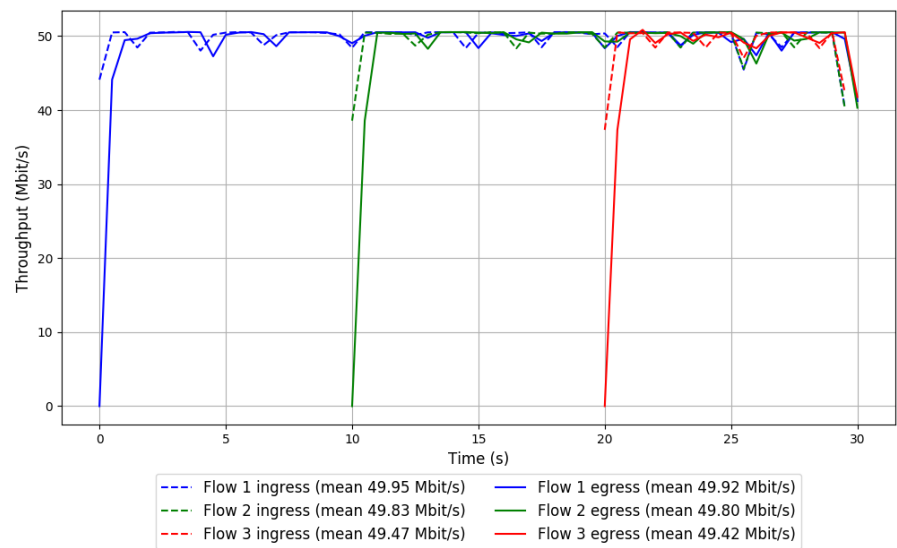
Run 1: Report of Sprout — Data Link

Flow 1 ingress (mean 50.05 Mbit/s) — — — Flow 1 egress (mean 50.04 Mbit/s) ———
Flow 2 ingress (mean 49.96 Mbit/s) — — — Flow 2 egress (mean 49.90 Mbit/s) ———
Flow 3 ingress (mean 49.72 Mbit/s) — — — Flow 3 egress (mean 49.59 Mbit/s) ———

Flow 1 (95th percentile 4.30 ms)   Flow 2 (95th percentile 4.59 ms)   Flow 3 (95th percentile 4.24 ms)

```
Run 2: Statistics of Sprout

Start at: 2018-10-02 10:59:23
End at: 2018-10-02 10:59:53
Local clock offset: 4.366 ms
Remote clock offset: -0.871 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.47 Mbit/s
95th percentile per-packet one-way delay: 4.440 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 50.01 Mbit/s
95th percentile per-packet one-way delay: 4.417 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 4.194 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 4.863 ms
Loss rate: 0.07%
```
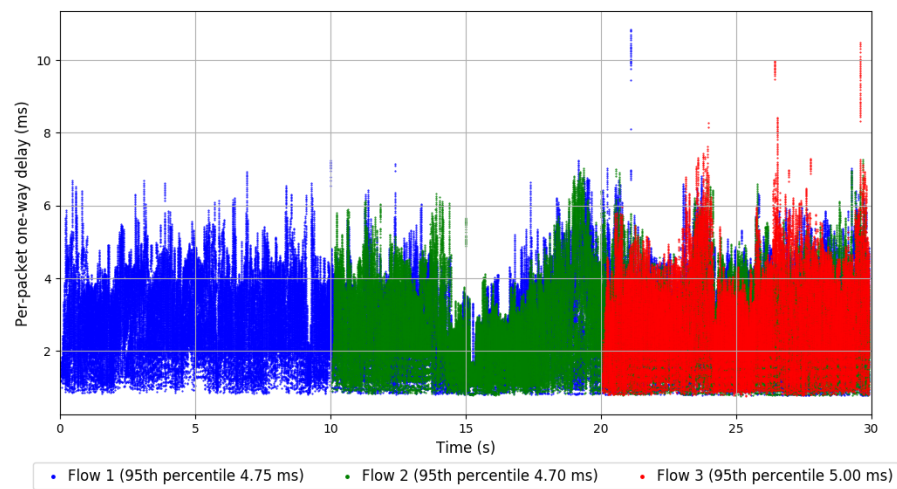
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-10-02 11:27:19
End at: 2018-10-02 11:27:49
Local clock offset: 4.078 ms
Remote clock offset: -0.474 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.35 Mbit/s
95th percentile per-packet one-way delay: 4.750 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 49.92 Mbit/s
95th percentile per-packet one-way delay: 4.763 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 49.80 Mbit/s
95th percentile per-packet one-way delay: 4.764 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 49.42 Mbit/s
95th percentile per-packet one-way delay: 4.681 ms
Loss rate: 0.07%
```
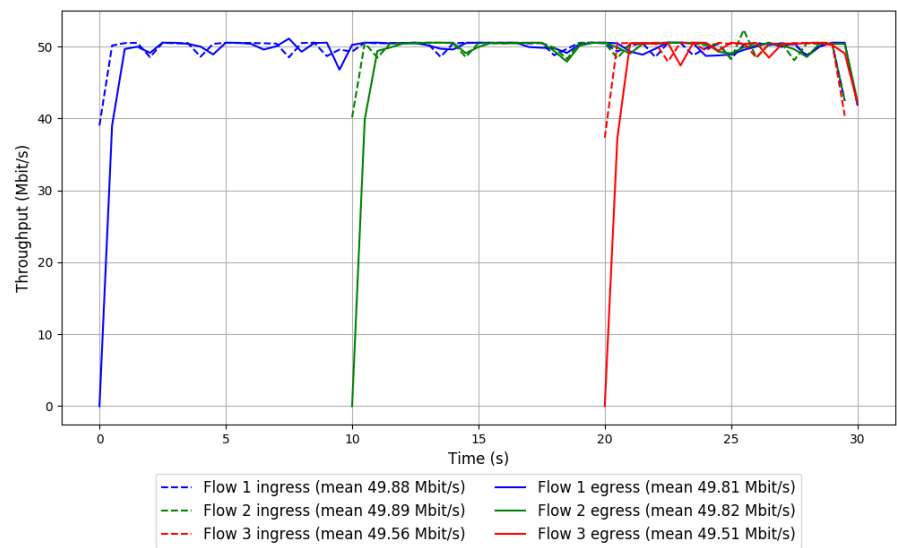
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-10-02 11:54:54
End at: 2018-10-02 11:55:24
Local clock offset: 3.816 ms
Remote clock offset: 2.782 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.34 Mbit/s
95th percentile per-packet one-way delay: 4.780 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 49.81 Mbit/s
95th percentile per-packet one-way delay: 4.755 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 49.82 Mbit/s
95th percentile per-packet one-way delay: 4.701 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 49.51 Mbit/s
95th percentile per-packet one-way delay: 5.003 ms
Loss rate: 0.06%
```
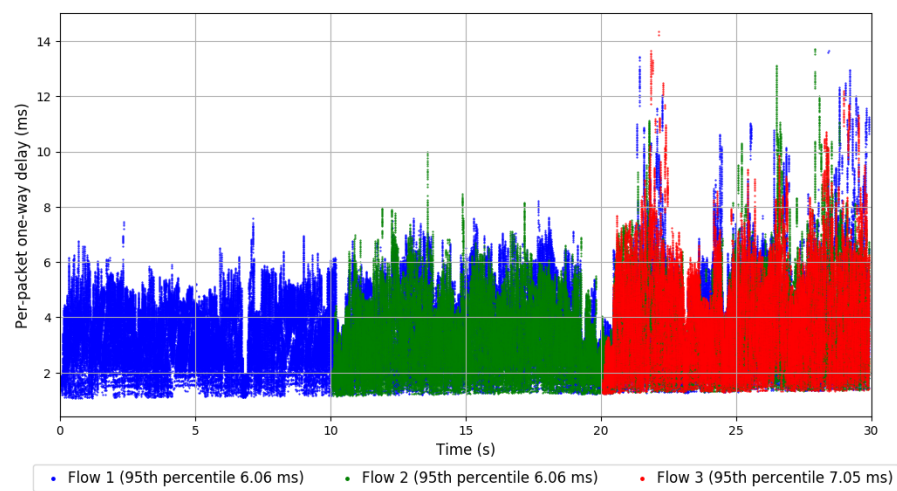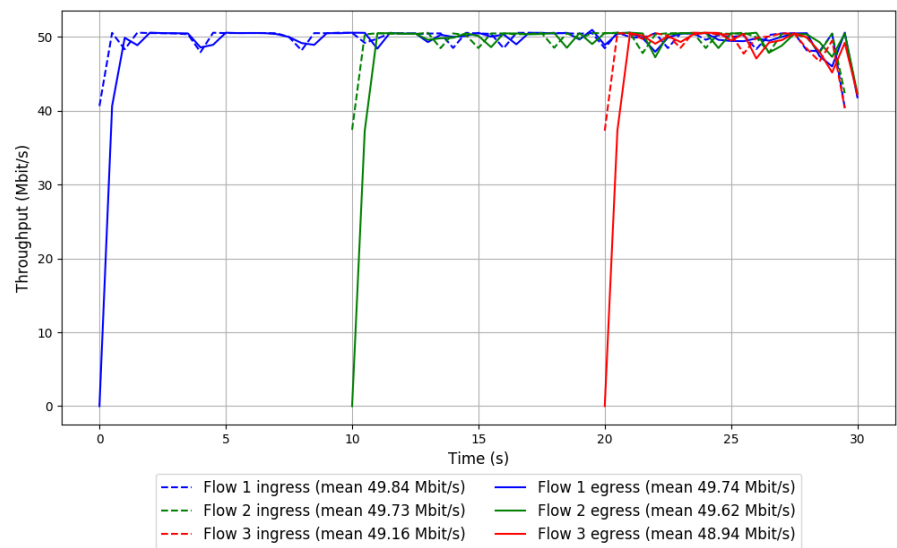
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-10-02 12:22:32
End at: 2018-10-02 12:23:02
Local clock offset: 3.756 ms
Remote clock offset: 1.334 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.94 Mbit/s
95th percentile per-packet one-way delay: 6.250 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 6.064 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 49.62 Mbit/s
95th percentile per-packet one-way delay: 6.062 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 7.051 ms
Loss rate: 0.39%
```
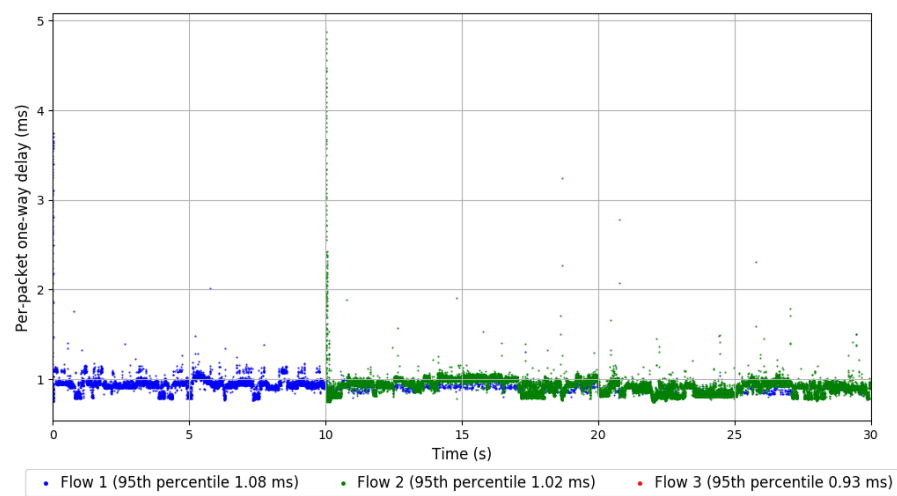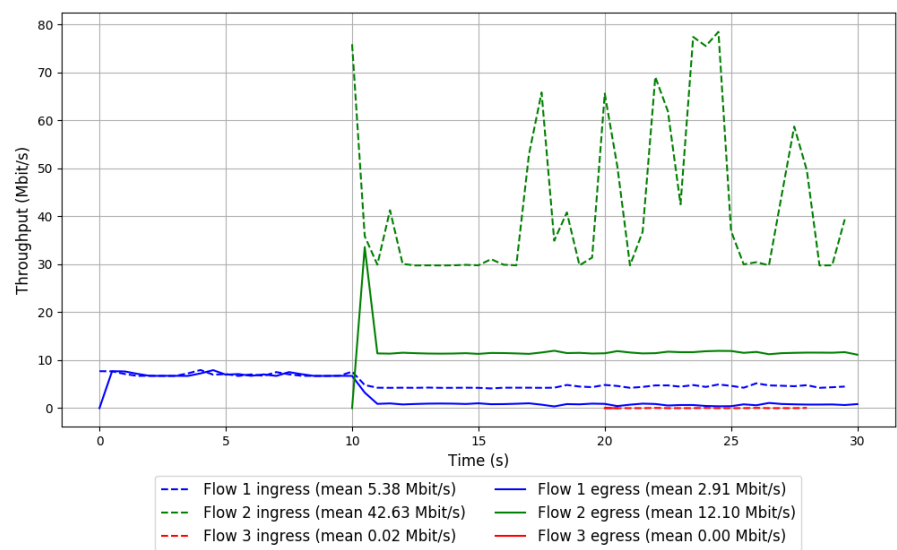
Run 5: Report of Sprout — Data Link

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

Start at: 2018-10-02 10:10:47
End at: 2018-10-02 10:11:17
Local clock offset: 4.049 ms
Remote clock offset: 5.244 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 67.54%
-- Flow 1:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 1.085 ms
Loss rate: 46.01%
-- Flow 2:
Average throughput: 12.10 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 71.61%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.934 ms
Loss rate: 99.16%
```
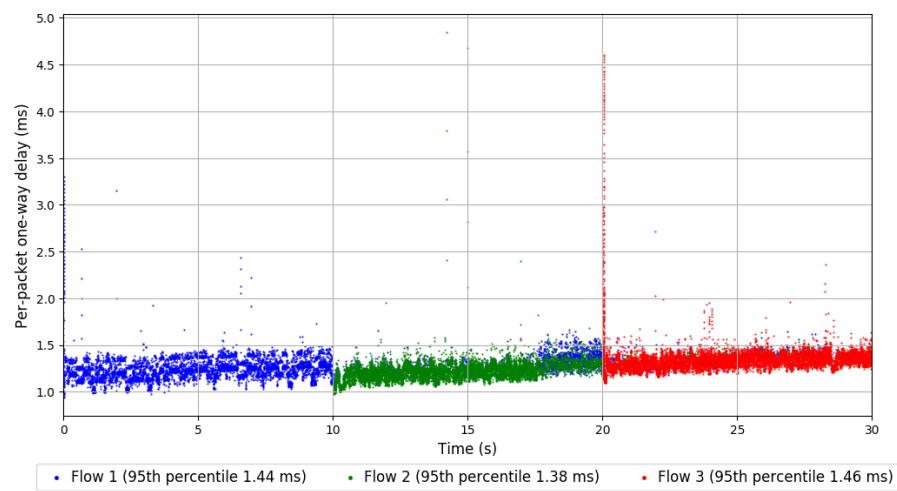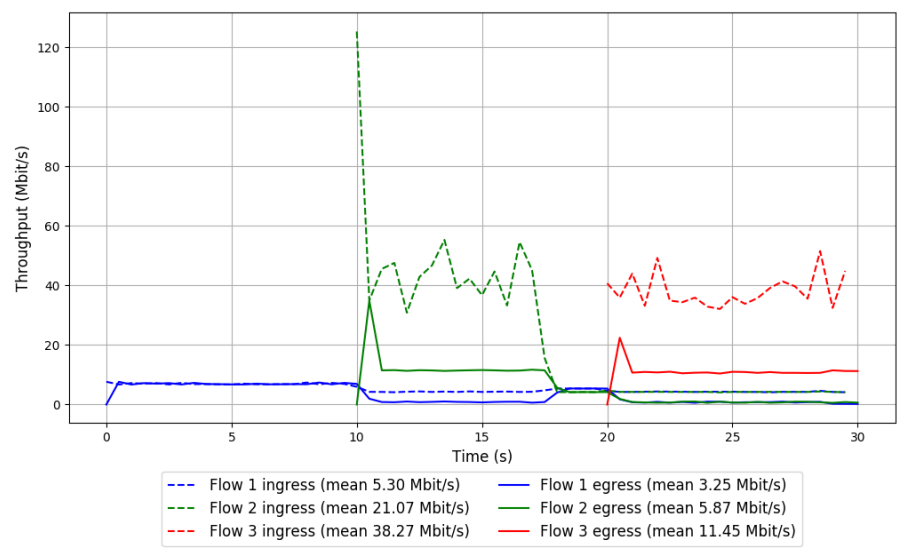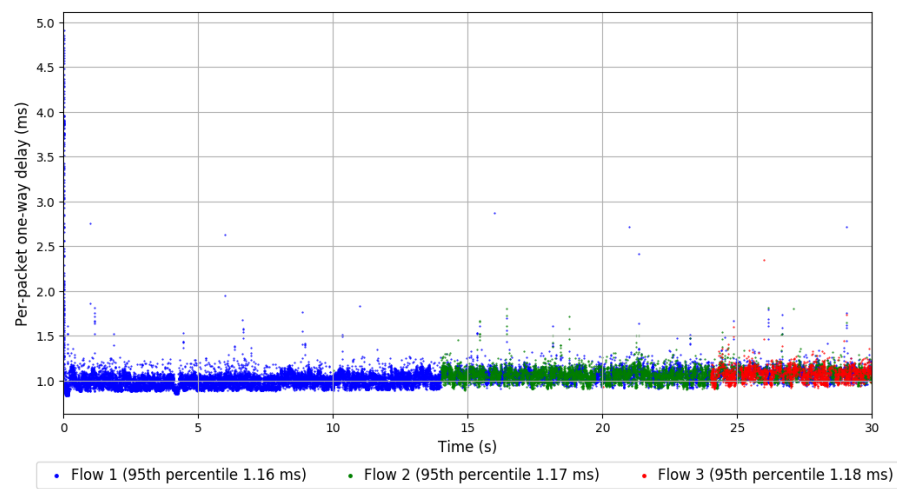
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-02 10:38:29
End at: 2018-10-02 10:38:59
Local clock offset: 4.595 ms
Remote clock offset: 4.6 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.95 Mbit/s
95th percentile per-packet one-way delay: 1.437 ms
Loss rate: 65.84%
-- Flow 1:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 1.439 ms
Loss rate: 38.84%
-- Flow 2:
Average throughput: 5.87 Mbit/s
95th percentile per-packet one-way delay: 1.376 ms
Loss rate: 72.17%
-- Flow 3:
Average throughput: 11.45 Mbit/s
95th percentile per-packet one-way delay: 1.462 ms
Loss rate: 70.10%
```
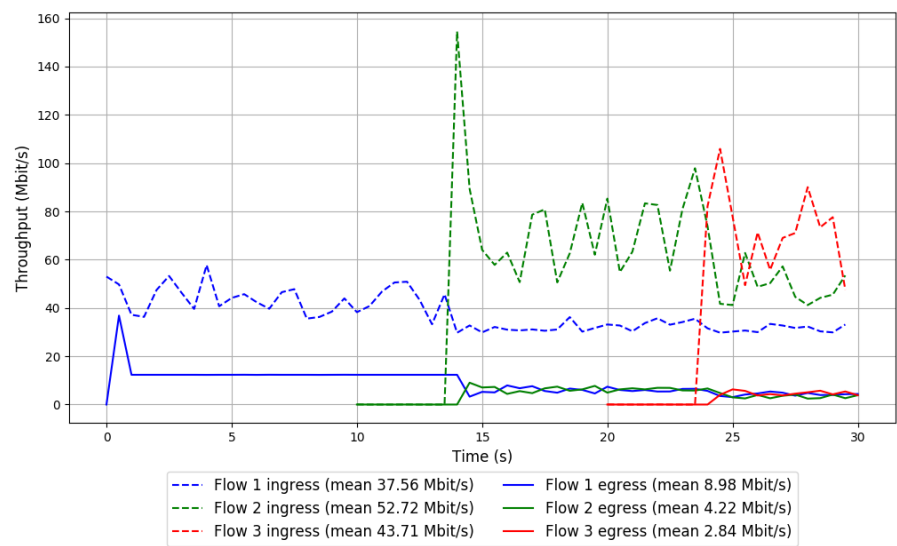
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 5.30 Mbit/s) ---- Flow 1 egress (mean 3.25 Mbit/s)
Flow 2 ingress (mean 21.07 Mbit/s) ---- Flow 2 egress (mean 5.87 Mbit/s)
Flow 3 ingress (mean 38.27 Mbit/s) ---- Flow 3 egress (mean 11.45 Mbit/s)

Flow 1 (95th percentile 1.44 ms) • Flow 2 (95th percentile 1.38 ms) • Flow 3 (95th percentile 1.46 ms)

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

Start at: 2018-10-02 11:06:05
End at: 2018-10-02 11:06:35
Local clock offset: 4.337 ms
Remote clock offset: -1.415 ms


# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 1.164 ms
Loss rate: 85.40%
-- Flow 1:
Average throughput: 8.98 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 76.10%
-- Flow 2:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 91.99%
-- Flow 3:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 1.182 ms
Loss rate: 93.50%
```
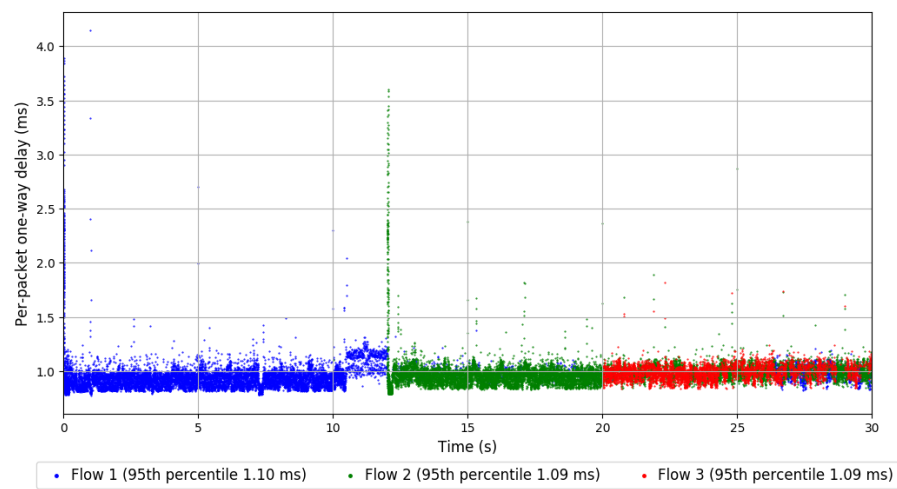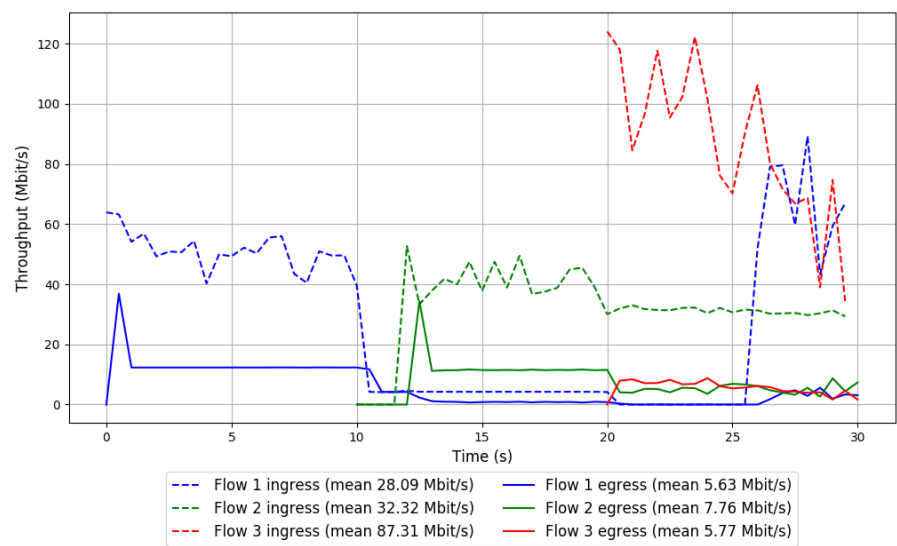
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-02 11:34:02
End at: 2018-10-02 11:34:32
Local clock offset: 4.027 ms
Remote clock offset: -0.6 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.72 Mbit/s
95th percentile per-packet one-way delay: 1.090 ms
Loss rate: 83.83%
-- Flow 1:
Average throughput: 5.63 Mbit/s
95th percentile per-packet one-way delay: 1.098 ms
Loss rate: 79.95%
-- Flow 2:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 75.98%
-- Flow 3:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 1.089 ms
Loss rate: 93.40%
```
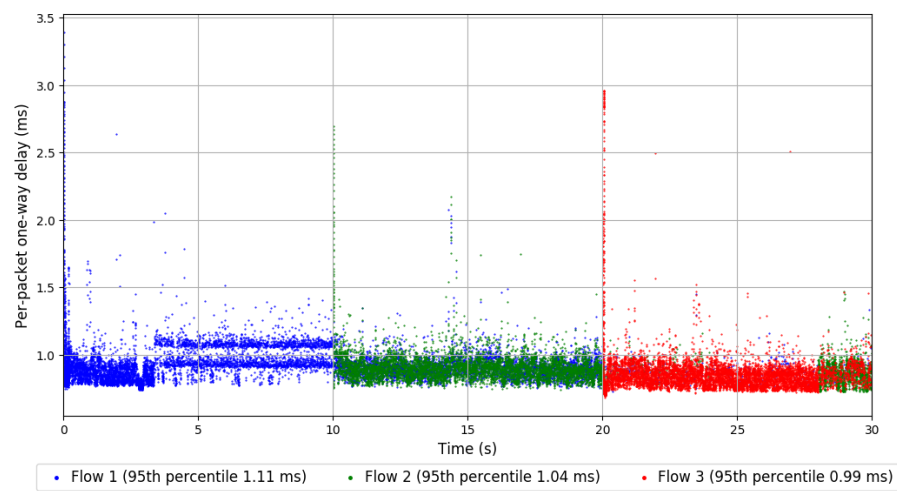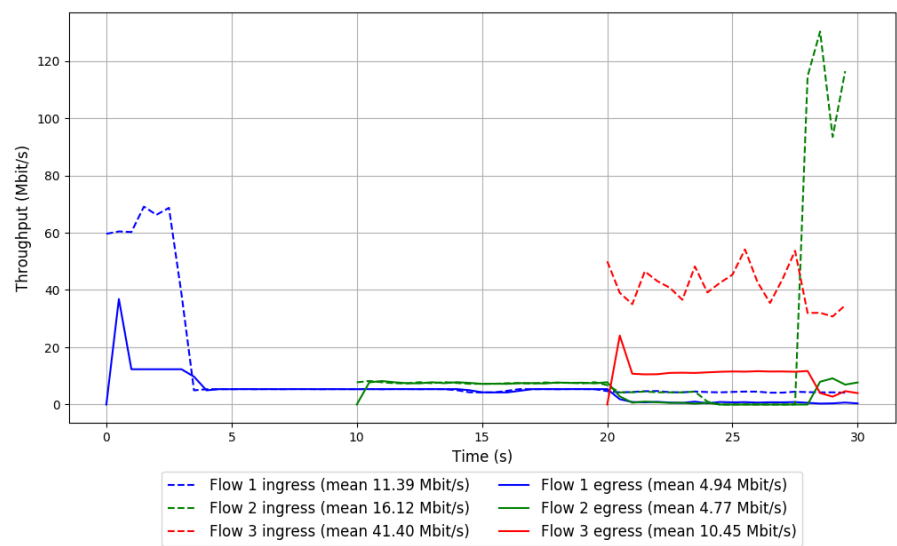
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-02 12:01:36
End at: 2018-10-02 12:02:06
Local clock offset: 3.746 ms
Remote clock offset: 3.617 ms

# Below is generated by plot.py at 2018-10-02 13:12:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 67.73%
-- Flow 1:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 1.110 ms
Loss rate: 56.66%
-- Flow 2:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 1.040 ms
Loss rate: 70.44%
-- Flow 3:
Average throughput: 10.45 Mbit/s
95th percentile per-packet one-way delay: 0.994 ms
Loss rate: 74.78%
```
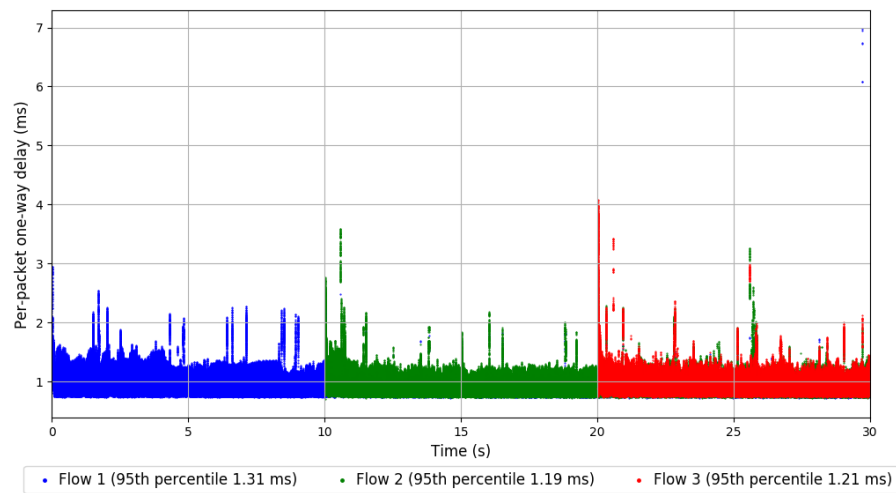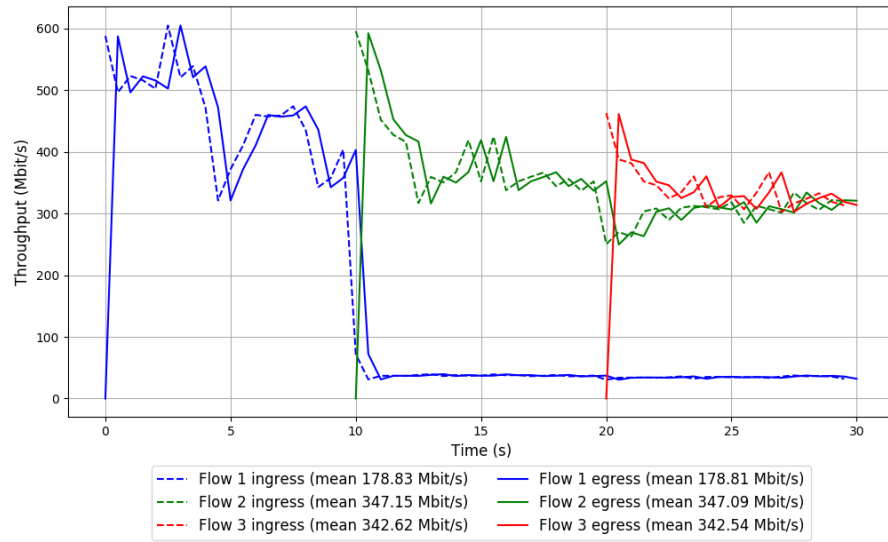
Run 5: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2018-10-02 10:15:43
End at: 2018-10-02 10:16:13
Local clock offset: 4.064 ms
Remote clock offset: 5.544 ms


# Below is generated by plot.py at 2018-10-02 13:16:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 523.95 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 178.81 Mbit/s
95th percentile per-packet one-way delay: 1.309 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 347.09 Mbit/s
95th percentile per-packet one-way delay: 1.188 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 342.54 Mbit/s
95th percentile per-packet one-way delay: 1.208 ms
Loss rate: 0.02%
```
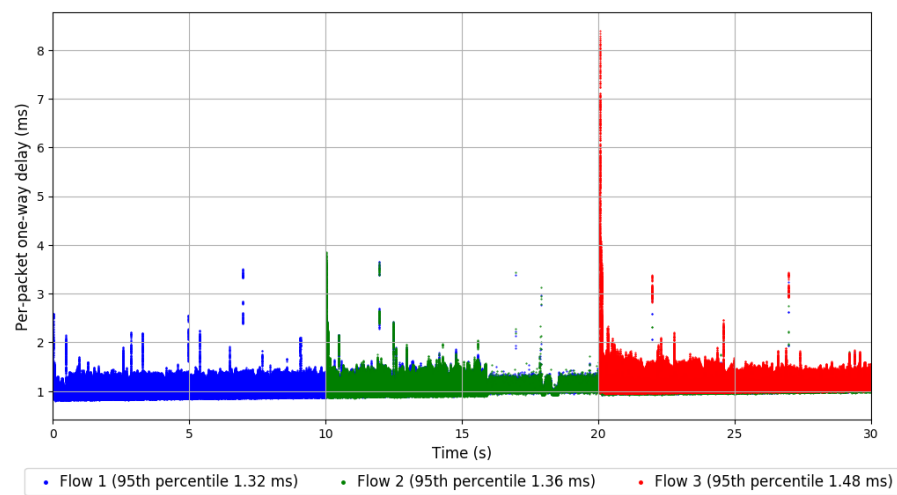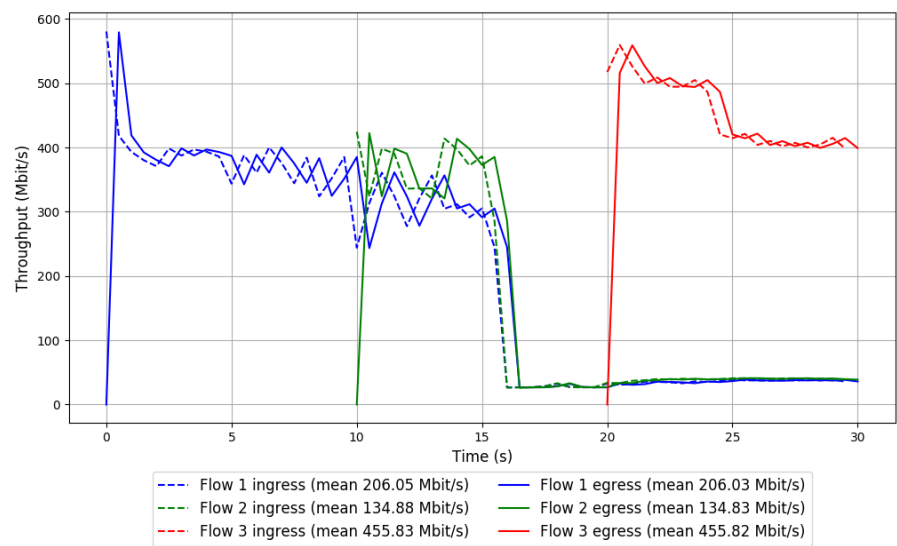
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-10-02 10:43:21
End at: 2018-10-02 10:43:51
Local clock offset: 4.654 ms
Remote clock offset: 2.25 ms

# Below is generated by plot.py at 2018-10-02 13:16:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.41 Mbit/s
95th percentile per-packet one-way delay: 1.410 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 206.03 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 134.83 Mbit/s
95th percentile per-packet one-way delay: 1.365 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 455.82 Mbit/s
95th percentile per-packet one-way delay: 1.483 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-10-02 11:10:57
End at: 2018-10-02 11:11:27
Local clock offset: 4.368 ms
Remote clock offset: -1.428 ms


# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 583.16 Mbit/s
95th percentile per-packet one-way delay: 1.216 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 312.59 Mbit/s
95th percentile per-packet one-way delay: 1.220 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 261.74 Mbit/s
95th percentile per-packet one-way delay: 1.229 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 289.36 Mbit/s
95th percentile per-packet one-way delay: 1.179 ms
Loss rate: 0.01%
```
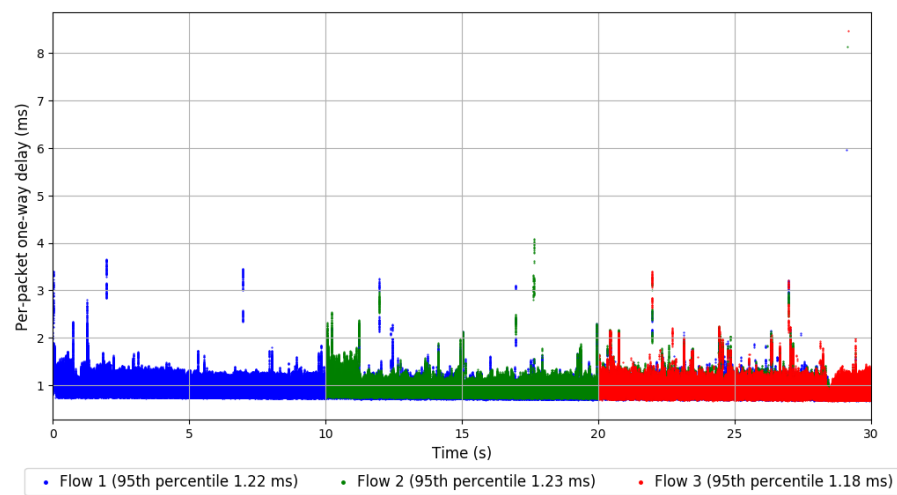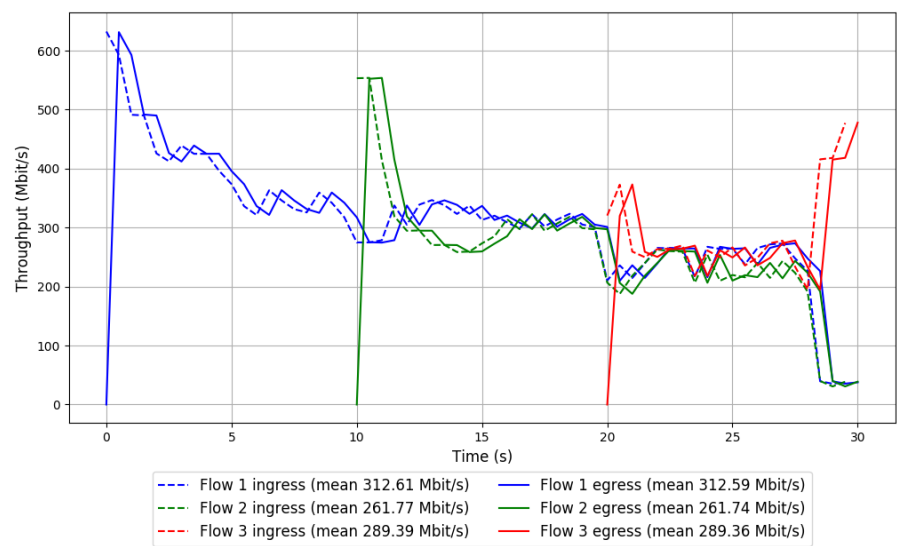
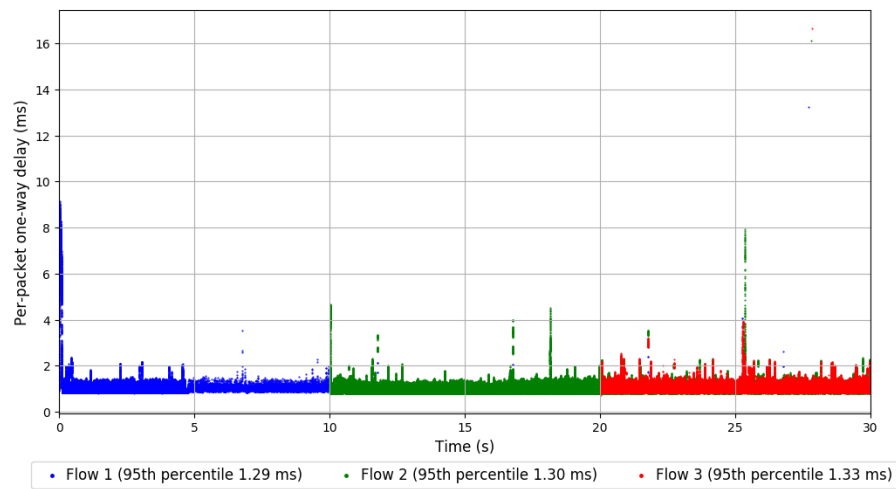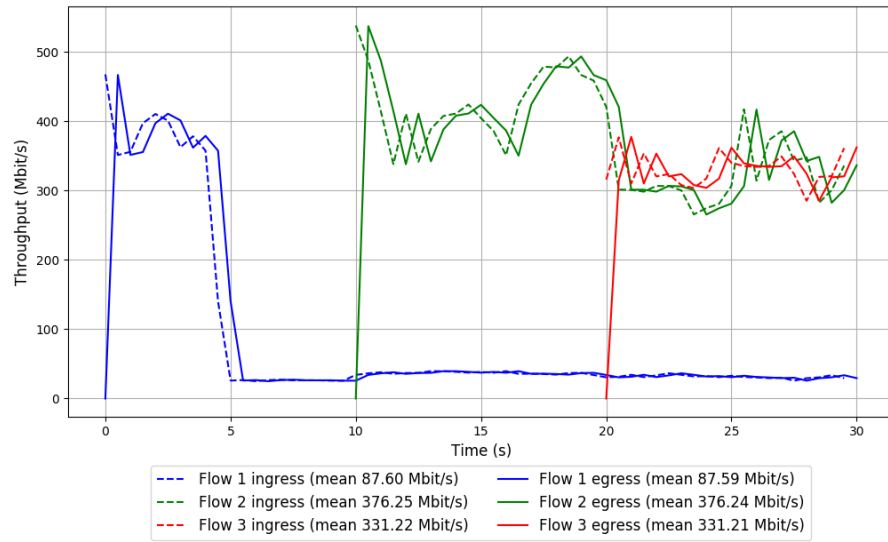Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-10-02 11:38:53
End at: 2018-10-02 11:39:23
Local clock offset: 4.019 ms
Remote clock offset: -0.662 ms


# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 448.29 Mbit/s
95th percentile per-packet one-way delay: 1.307 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 1.294 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 376.24 Mbit/s
95th percentile per-packet one-way delay: 1.300 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 331.21 Mbit/s
95th percentile per-packet one-way delay: 1.332 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-10-02 12:06:26
End at: 2018-10-02 12:06:56
Local clock offset: 3.714 ms
Remote clock offset: 4.046 ms


# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 521.42 Mbit/s
95th percentile per-packet one-way delay: 1.200 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 243.65 Mbit/s
95th percentile per-packet one-way delay: 1.204 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 192.24 Mbit/s
95th percentile per-packet one-way delay: 1.181 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 449.84 Mbit/s
95th percentile per-packet one-way delay: 1.200 ms
Loss rate: 0.02%
```
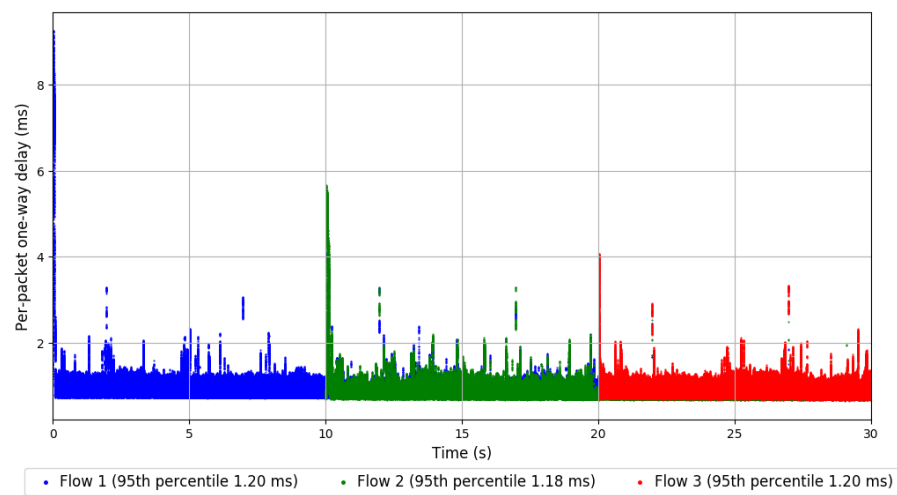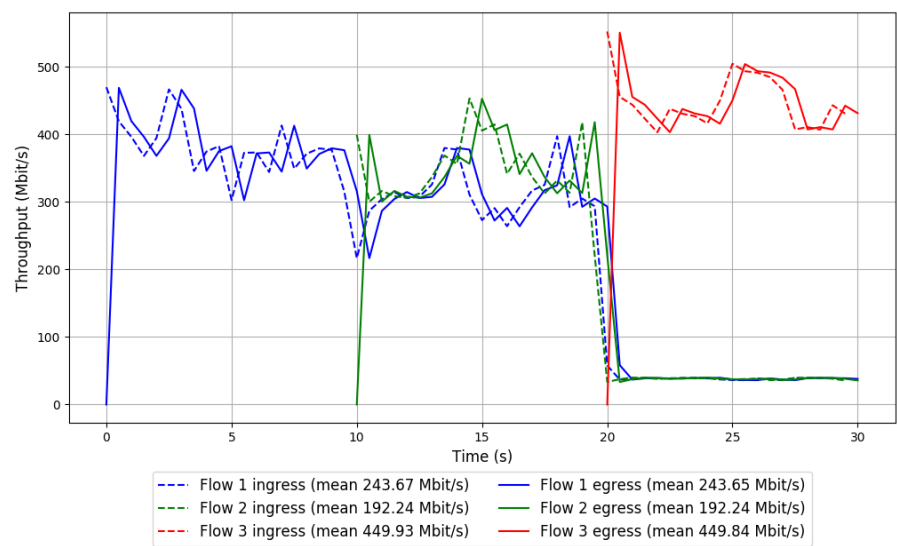
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-10-02 10:17:19
End at: 2018-10-02 10:17:49
Local clock offset: 4.144 ms
Remote clock offset: 5.655 ms

# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 257.83 Mbit/s
95th percentile per-packet one-way delay: 49.374 ms
Loss rate: 4.56%
-- Flow 1:
Average throughput: 163.41 Mbit/s
95th percentile per-packet one-way delay: 59.294 ms
Loss rate: 3.85%
-- Flow 2:
Average throughput: 92.88 Mbit/s
95th percentile per-packet one-way delay: 27.981 ms
Loss rate: 5.57%
-- Flow 3:
Average throughput: 99.59 Mbit/s
95th percentile per-packet one-way delay: 55.693 ms
Loss rate: 6.12%
```
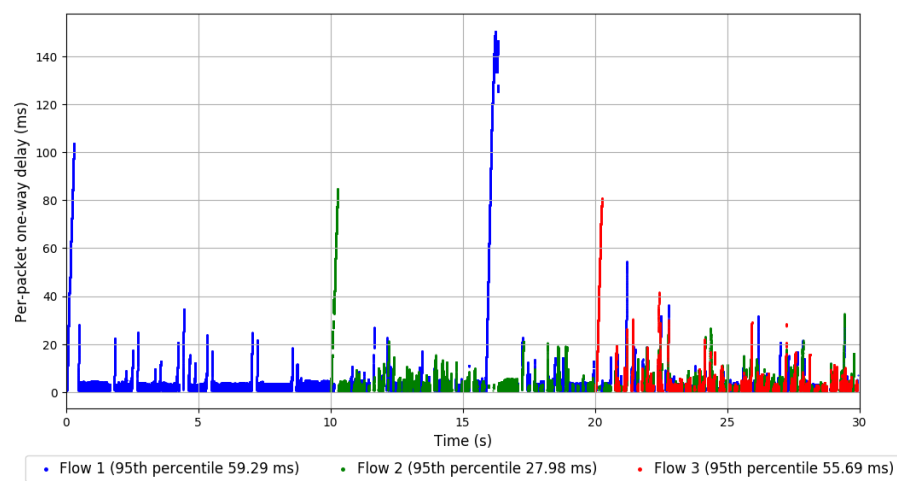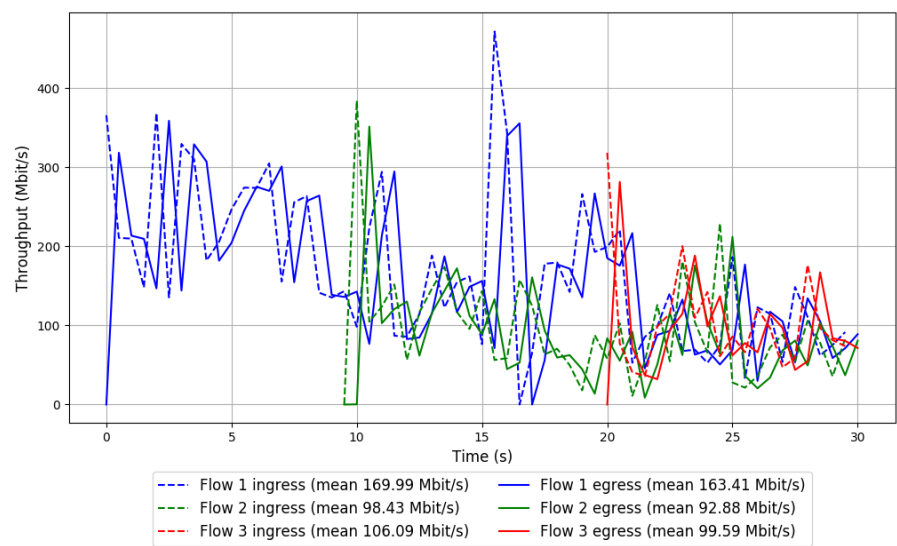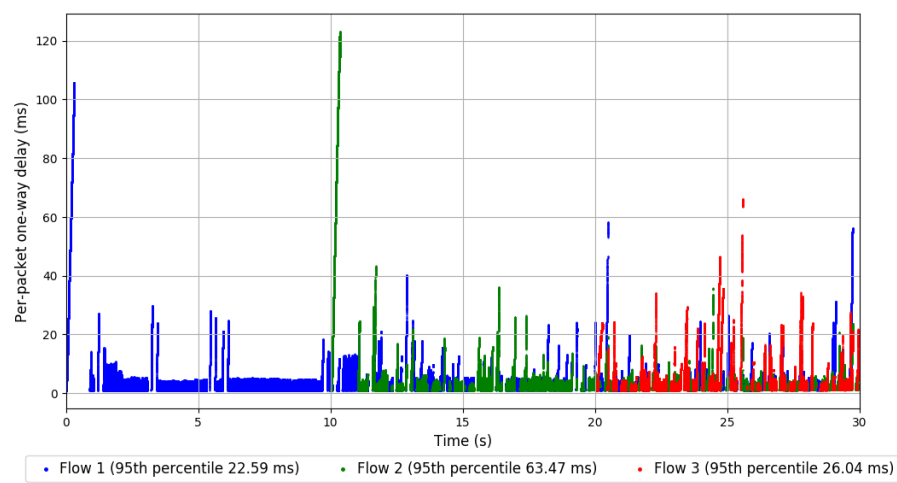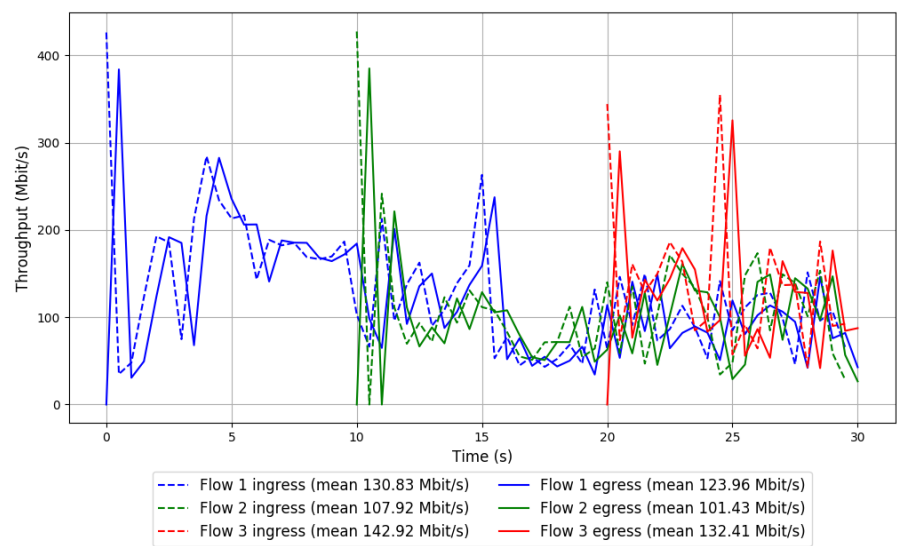
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-10-02 10:44:54
End at: 2018-10-02 10:45:24
Local clock offset: 4.67 ms
Remote clock offset: 1.785 ms

# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 234.29 Mbit/s
95th percentile per-packet one-way delay: 29.665 ms
Loss rate: 5.74%
-- Flow 1:
Average throughput: 123.96 Mbit/s
95th percentile per-packet one-way delay: 22.591 ms
Loss rate: 5.08%
-- Flow 2:
Average throughput: 101.43 Mbit/s
95th percentile per-packet one-way delay: 63.472 ms
Loss rate: 6.01%
-- Flow 3:
Average throughput: 132.41 Mbit/s
95th percentile per-packet one-way delay: 26.037 ms
Loss rate: 7.18%
```

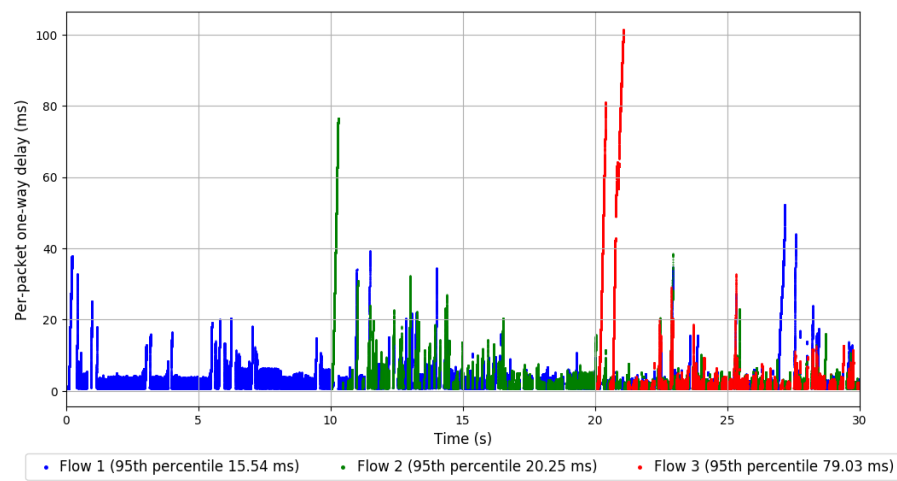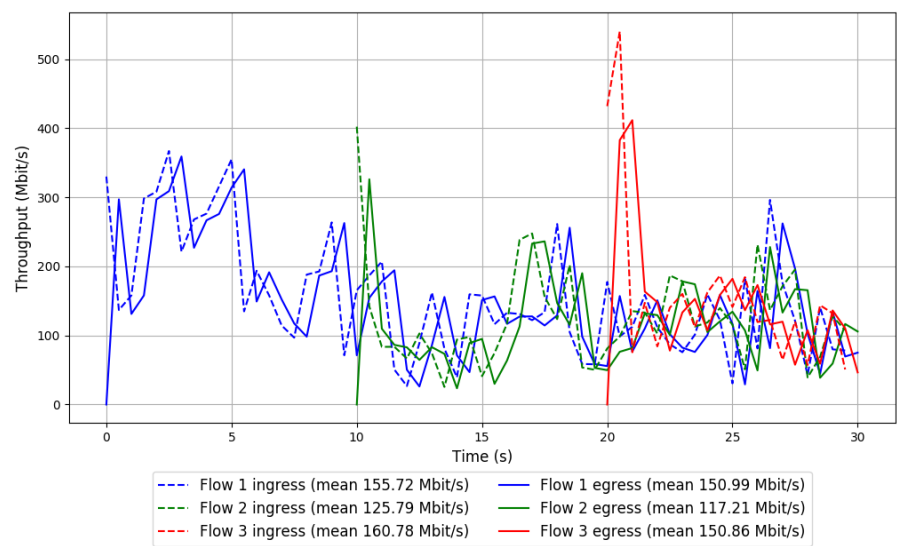# Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-10-02 11:12:35
End at: 2018-10-02 11:13:05
Local clock offset: 4.377 ms
Remote clock offset: -1.213 ms


# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.70 Mbit/s
95th percentile per-packet one-way delay: 31.568 ms
Loss rate: 4.68%
-- Flow 1:
Average throughput: 150.99 Mbit/s
95th percentile per-packet one-way delay: 15.544 ms
Loss rate: 3.03%
-- Flow 2:
Average throughput: 117.21 Mbit/s
95th percentile per-packet one-way delay: 20.250 ms
Loss rate: 6.82%
-- Flow 3:
Average throughput: 150.86 Mbit/s
95th percentile per-packet one-way delay: 79.027 ms
Loss rate: 6.16%
```
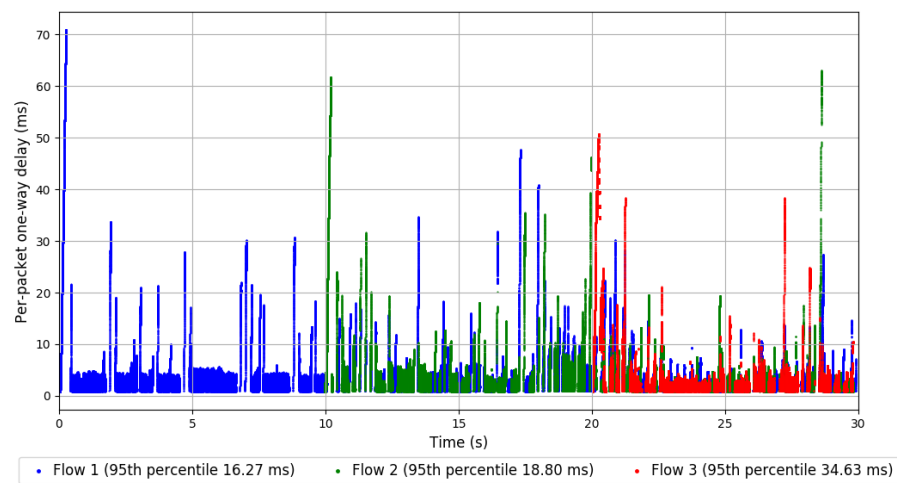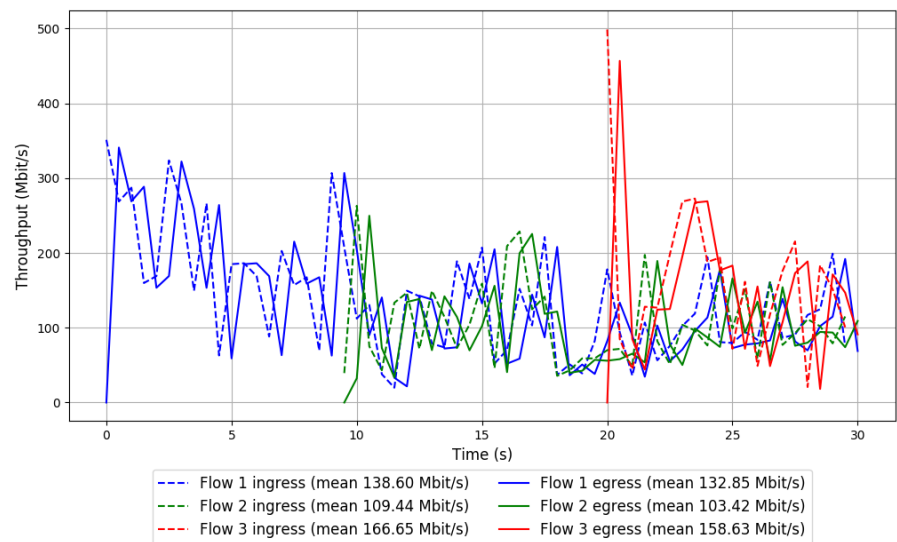
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-10-02 11:40:26
End at: 2018-10-02 11:40:56
Local clock offset: 4.008 ms
Remote clock offset: -0.715 ms


# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.27 Mbit/s
95th percentile per-packet one-way delay: 19.020 ms
Loss rate: 4.63%
-- Flow 1:
Average throughput: 132.85 Mbit/s
95th percentile per-packet one-way delay: 16.270 ms
Loss rate: 4.14%
-- Flow 2:
Average throughput: 103.42 Mbit/s
95th percentile per-packet one-way delay: 18.796 ms
Loss rate: 5.50%
-- Flow 3:
Average throughput: 158.63 Mbit/s
95th percentile per-packet one-way delay: 34.635 ms
Loss rate: 4.72%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-10-02 12:08:01
End at: 2018-10-02 12:08:31
Local clock offset: 3.736 ms
Remote clock offset: 4.211 ms


# Below is generated by plot.py at 2018-10-02 13:17:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 273.63 Mbit/s
95th percentile per-packet one-way delay: 37.647 ms
Loss rate: 4.11%
-- Flow 1:
Average throughput: 140.05 Mbit/s
95th percentile per-packet one-way delay: 53.296 ms
Loss rate: 3.00%
-- Flow 2:
Average throughput: 124.85 Mbit/s
95th percentile per-packet one-way delay: 26.788 ms
Loss rate: 5.25%
-- Flow 3:
Average throughput: 152.54 Mbit/s
95th percentile per-packet one-way delay: 30.535 ms
Loss rate: 5.27%
```
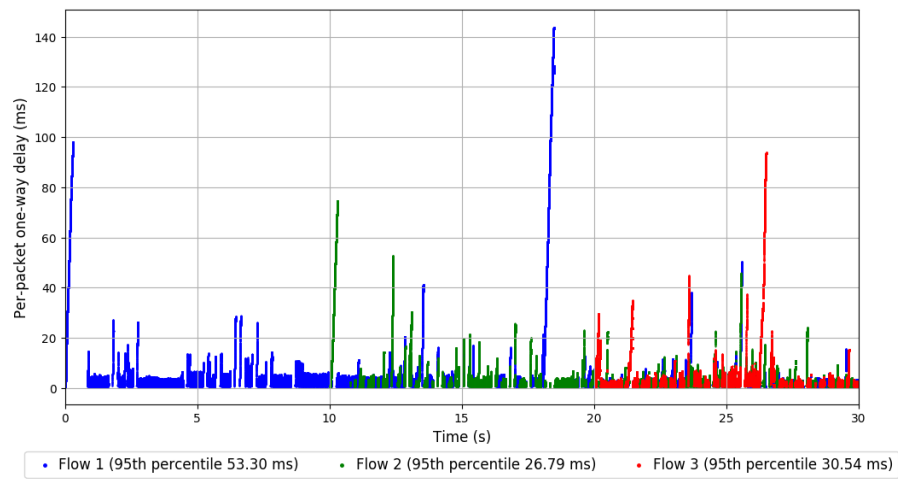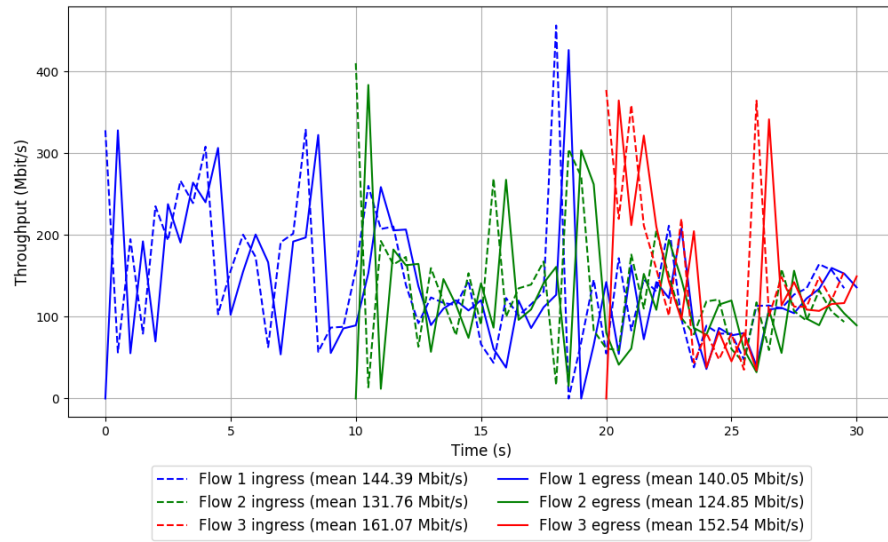
Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-10-02 10:13:58
End at: 2018-10-02 10:14:28
Local clock offset: 4.056 ms
Remote clock offset: 5.442 ms


# Below is generated by plot.py at 2018-10-02 13:20:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.98 Mbit/s
95th percentile per-packet one-way delay: 3.999 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 328.20 Mbit/s
95th percentile per-packet one-way delay: 6.010 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 296.78 Mbit/s
95th percentile per-packet one-way delay: 2.523 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 107.10 Mbit/s
95th percentile per-packet one-way delay: 1.810 ms
Loss rate: 0.26%
```
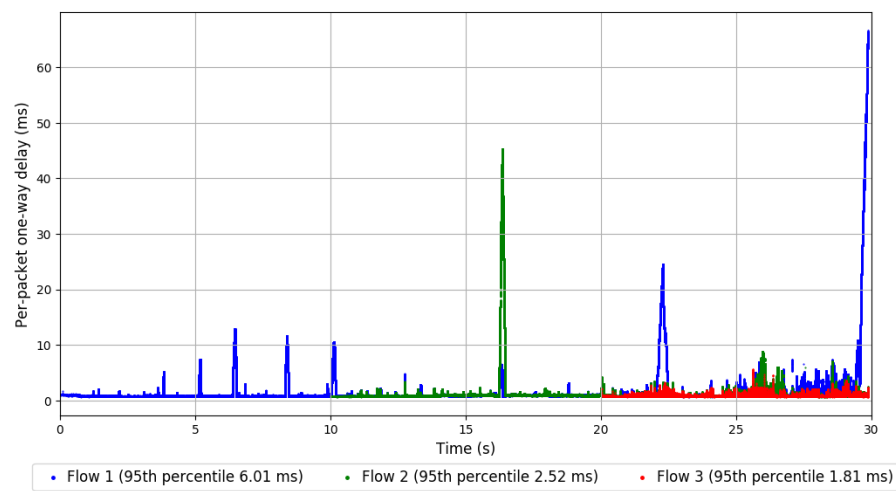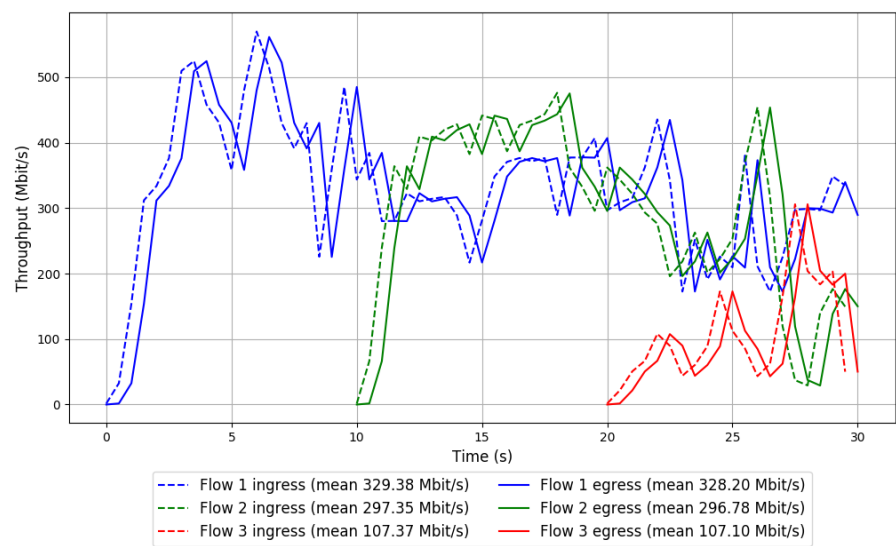
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-10-02 10:41:37
End at: 2018-10-02 10:42:07
Local clock offset: 4.632 ms
Remote clock offset: 2.883 ms


# Below is generated by plot.py at 2018-10-02 13:21:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.76 Mbit/s
95th percentile per-packet one-way delay: 105.730 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 301.73 Mbit/s
95th percentile per-packet one-way delay: 140.433 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 257.13 Mbit/s
95th percentile per-packet one-way delay: 4.056 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 197.03 Mbit/s
95th percentile per-packet one-way delay: 81.688 ms
Loss rate: 0.55%
```
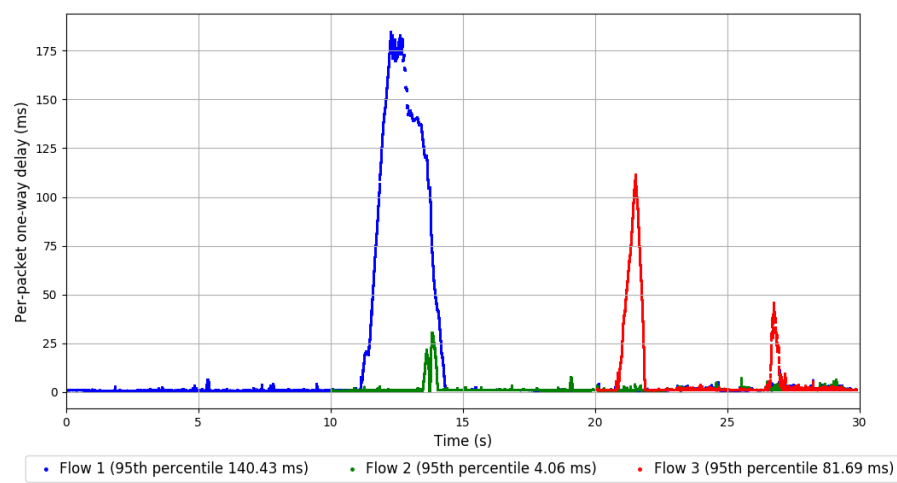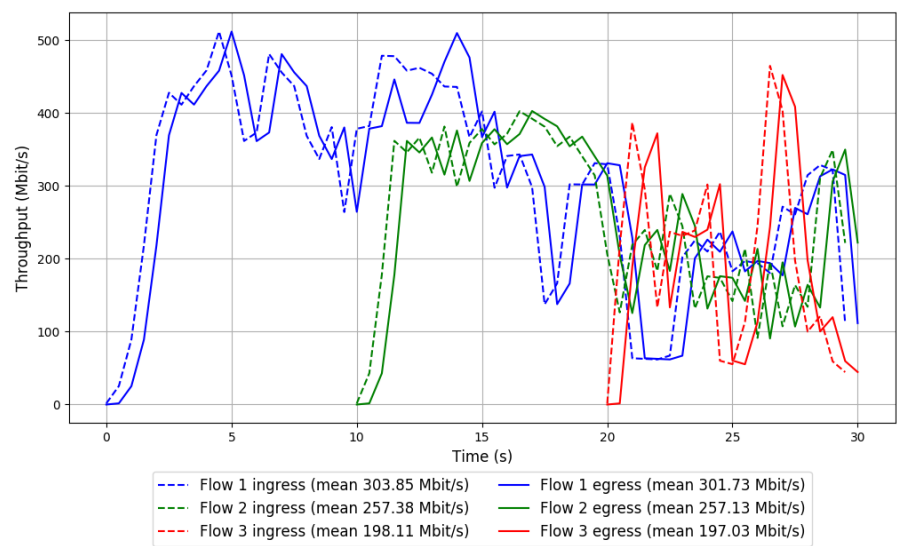
Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 303.85 Mbit/s) --- Flow 1 egress (mean 301.73 Mbit/s) ---
Flow 2 ingress (mean 257.38 Mbit/s) --- Flow 2 egress (mean 257.13 Mbit/s) ---
Flow 3 ingress (mean 198.11 Mbit/s) --- Flow 3 egress (mean 197.03 Mbit/s) ---

Flow 1 (95th percentile 140.43 ms) • Flow 2 (95th percentile 4.06 ms) • Flow 3 (95th percentile 81.69 ms)
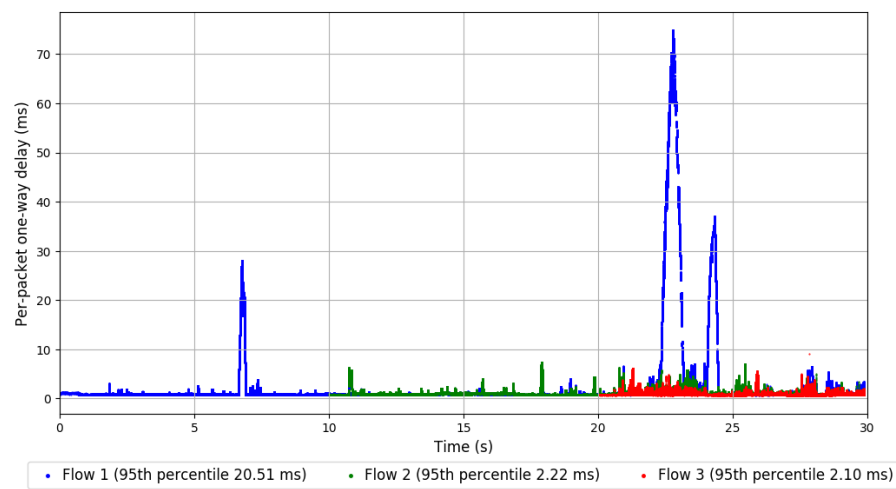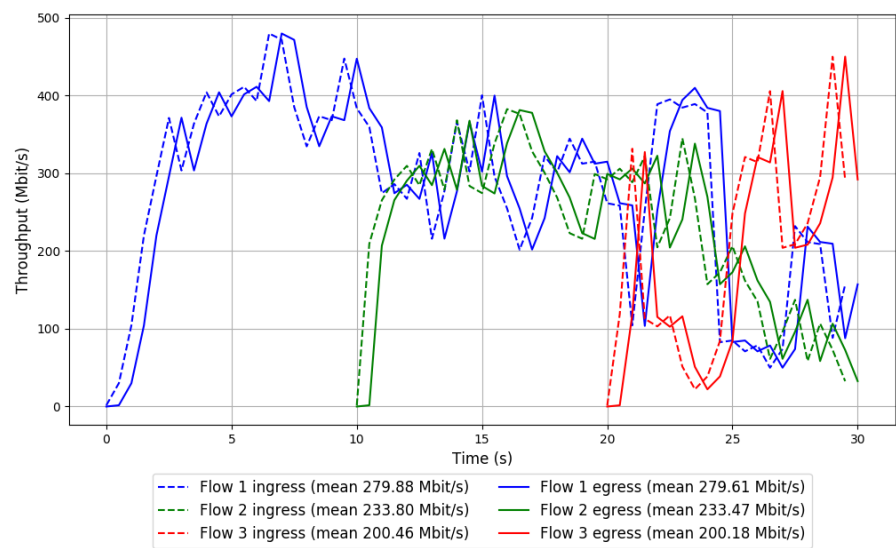
```
Run 3: Statistics of PCC-Vivace

Start at: 2018-10-02 11:09:14
End at: 2018-10-02 11:09:44
Local clock offset: 4.36 ms
Remote clock offset: -1.711 ms


# Below is generated by plot.py at 2018-10-02 13:21:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 500.98 Mbit/s
95th percentile per-packet one-way delay: 4.104 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 279.61 Mbit/s
95th percentile per-packet one-way delay: 20.508 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 233.47 Mbit/s
95th percentile per-packet one-way delay: 2.216 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 200.18 Mbit/s
95th percentile per-packet one-way delay: 2.099 ms
Loss rate: 0.13%
```

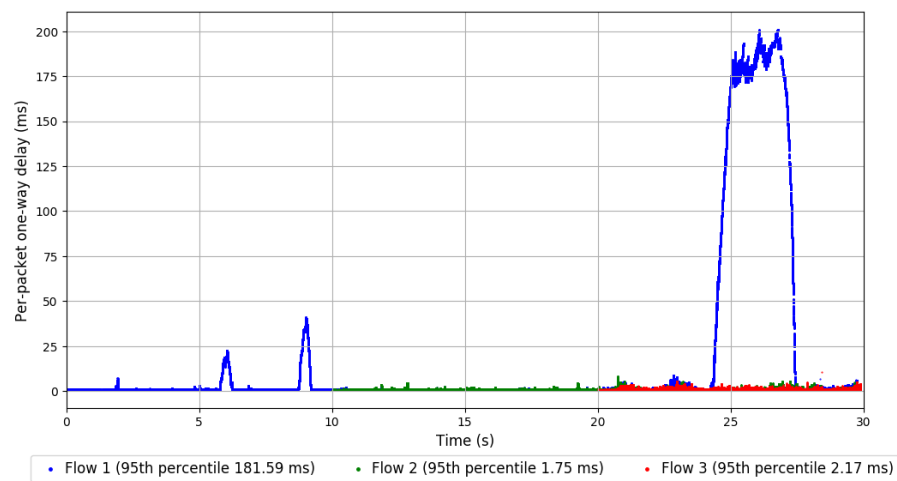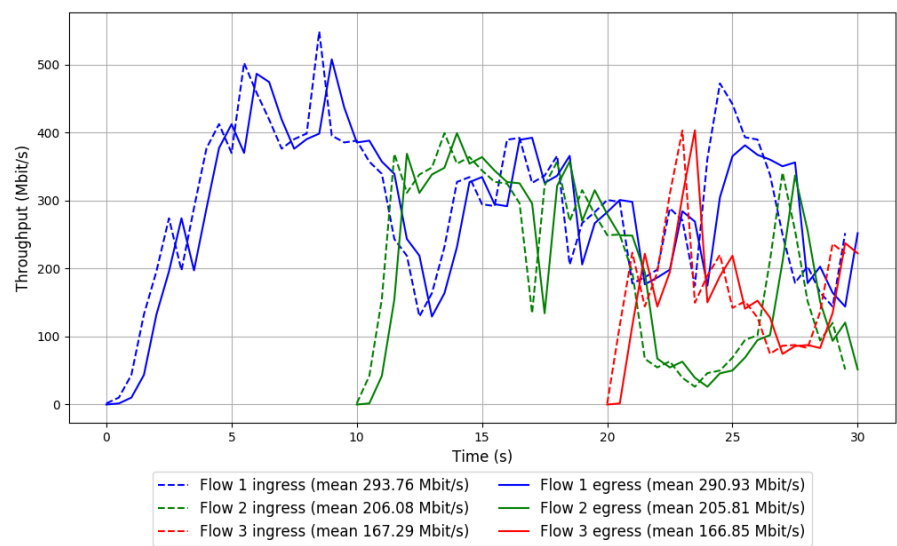Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-10-02 11:37:11
End at: 2018-10-02 11:37:41
Local clock offset: 4.016 ms
Remote clock offset: -0.742 ms


# Below is generated by plot.py at 2018-10-02 13:21:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 482.93 Mbit/s
95th percentile per-packet one-way delay: 171.870 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 290.93 Mbit/s
95th percentile per-packet one-way delay: 181.585 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 205.81 Mbit/s
95th percentile per-packet one-way delay: 1.750 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 166.85 Mbit/s
95th percentile per-packet one-way delay: 2.173 ms
Loss rate: 0.26%
```

Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-10-02 12:04:42
End at: 2018-10-02 12:05:12
Local clock offset: 3.717 ms
Remote clock offset: 3.853 ms


# Below is generated by plot.py at 2018-10-02 13:21:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 512.58 Mbit/s
95th percentile per-packet one-way delay: 1.940 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 284.24 Mbit/s
95th percentile per-packet one-way delay: 1.724 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 288.81 Mbit/s
95th percentile per-packet one-way delay: 2.818 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 109.88 Mbit/s
95th percentile per-packet one-way delay: 2.008 ms
Loss rate: 0.28%
```
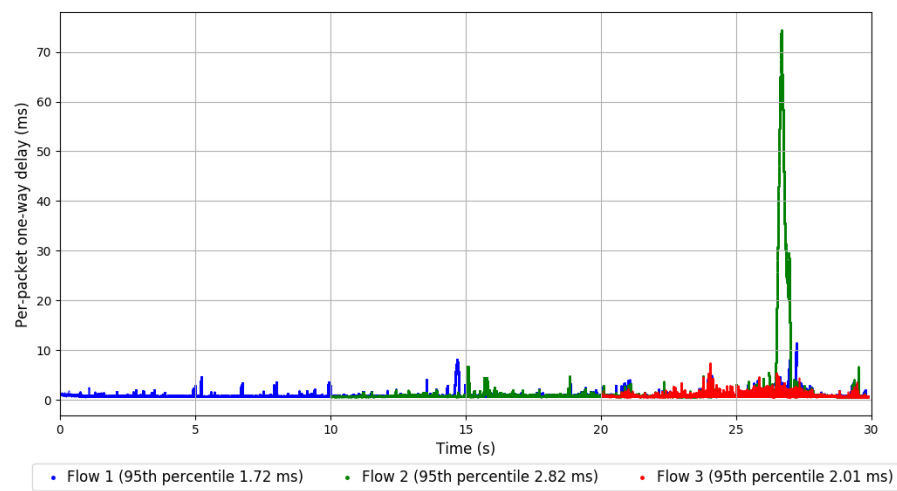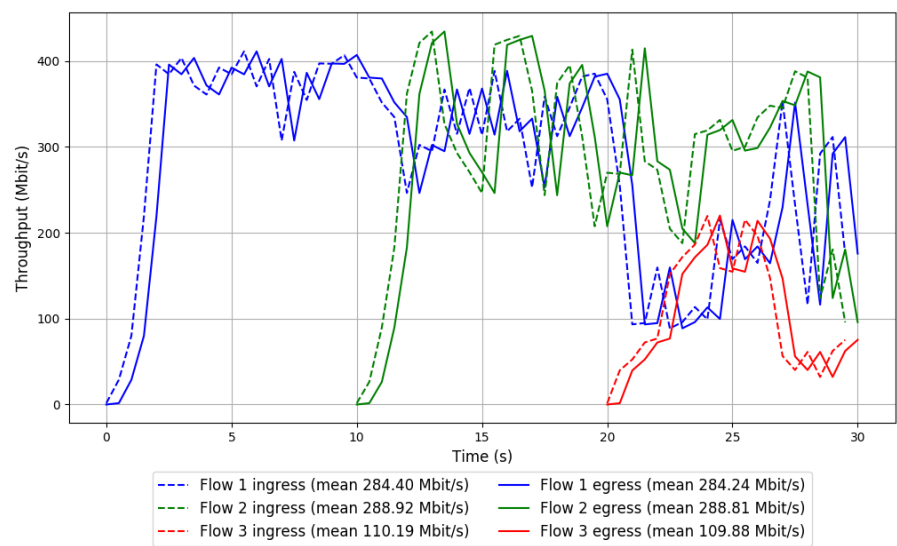
Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 284.40 Mbit/s) Flow 1 egress (mean 284.24 Mbit/s)
Flow 2 ingress (mean 288.92 Mbit/s) Flow 2 egress (mean 288.81 Mbit/s)
Flow 3 ingress (mean 110.19 Mbit/s) Flow 3 egress (mean 109.88 Mbit/s)

Flow 1 (95th percentile 1.72 ms)   Flow 2 (95th percentile 2.82 ms)   Flow 3 (95th percentile 2.01 ms)

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```
Run 1: Statistics of WebRTC media

Start at: 2018-10-02 10:05:27
End at: 2018-10-02 10:05:57
Local clock offset: 4.065 ms
Remote clock offset: 5.044 ms

# Below is generated by plot.py at 2018-10-02 13:21:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 3.171 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 2.789 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 3.301 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 4.107 ms
Loss rate: 0.00%
```
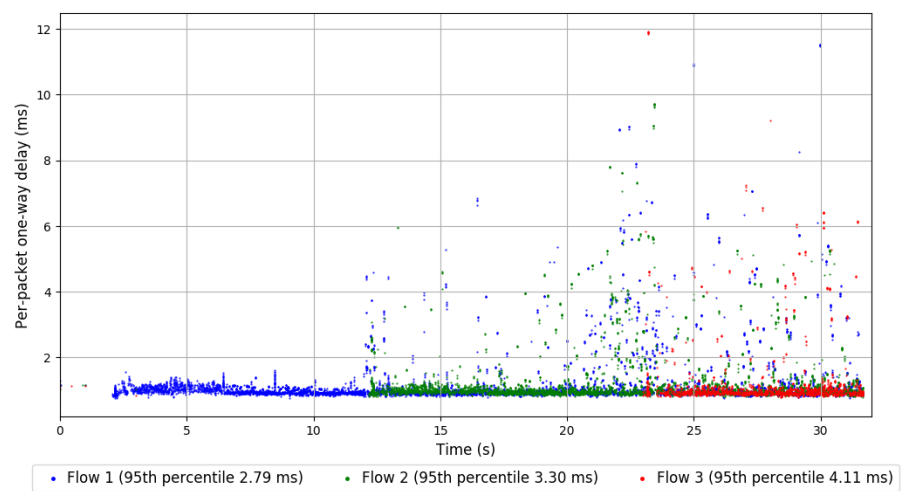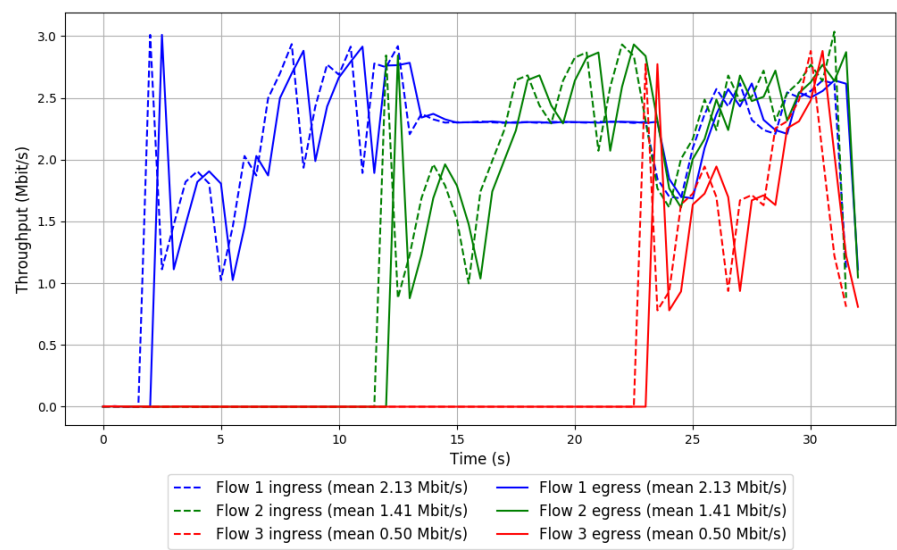
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.13 Mbit/s)   Flow 1 egress (mean 2.13 Mbit/s)
Flow 2 ingress (mean 1.41 Mbit/s)   Flow 2 egress (mean 1.41 Mbit/s)
Flow 3 ingress (mean 0.50 Mbit/s)   Flow 3 egress (mean 0.50 Mbit/s)

Flow 1 (95th percentile 2.79 ms)   Flow 2 (95th percentile 3.30 ms)   Flow 3 (95th percentile 4.11 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2018-10-02 10:33:09
End at: 2018-10-02 10:33:39
Local clock offset: 4.531 ms
Remote clock offset: 6.815 ms


# Below is generated by plot.py at 2018-10-02 13:21:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 2.702 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 2.831 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 2.583 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 2.648 ms
Loss rate: 0.00%
```
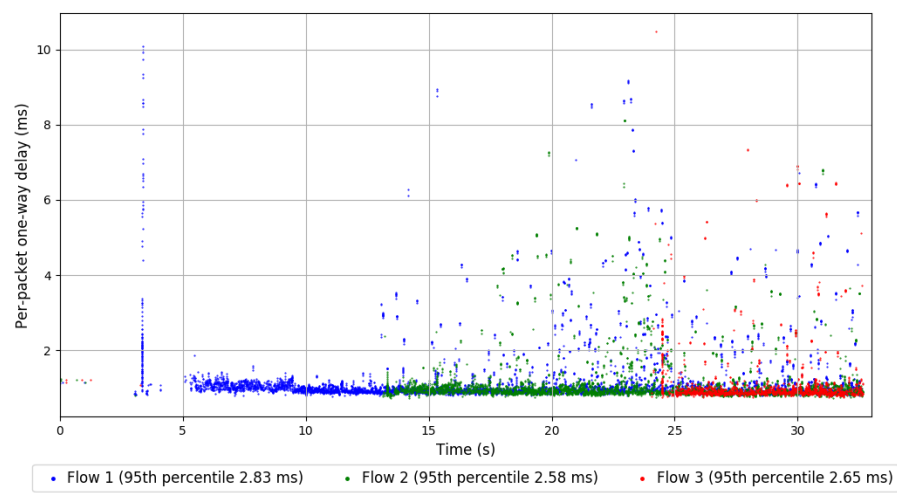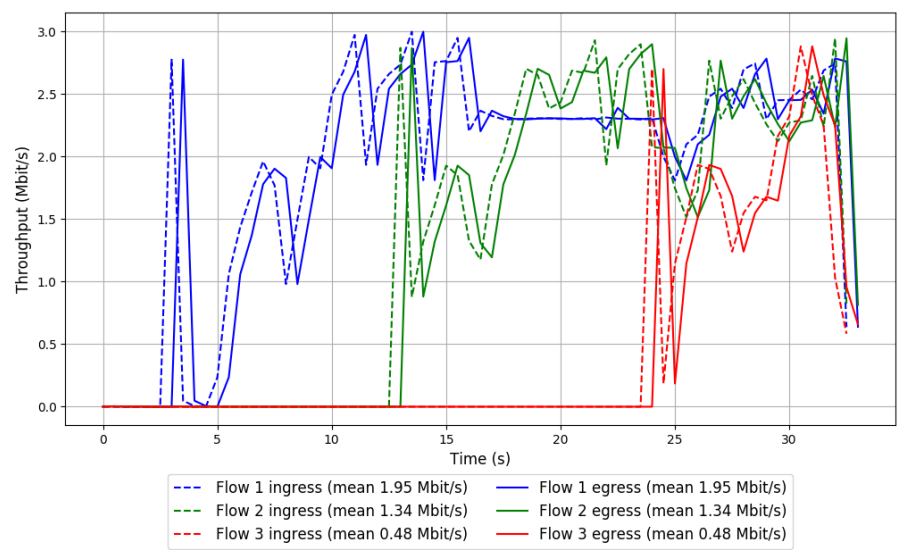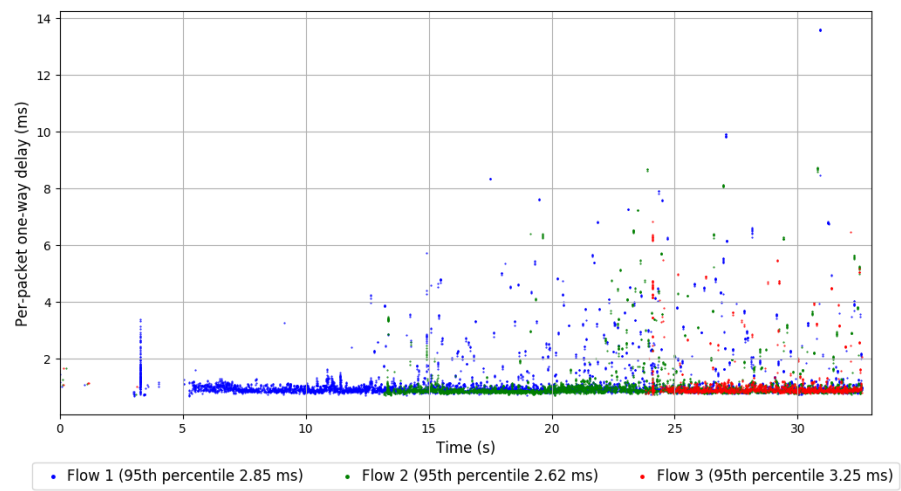
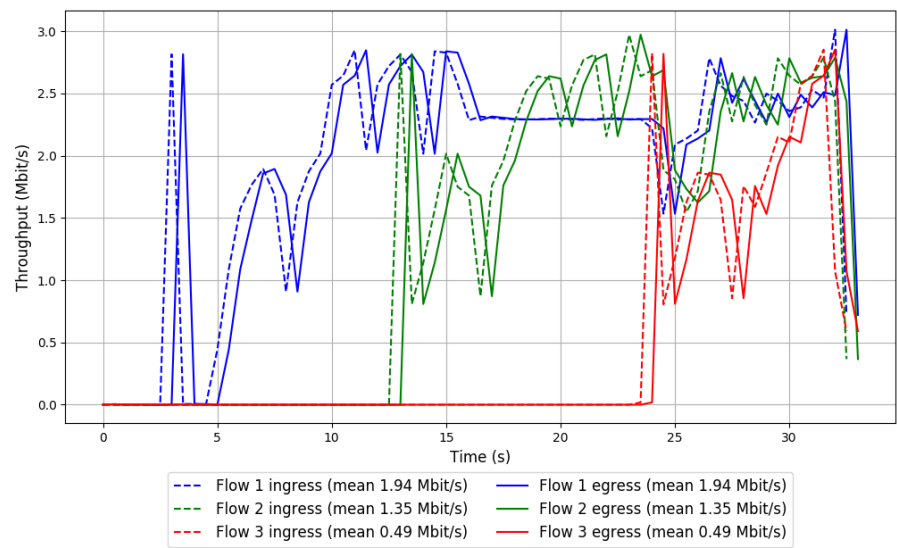Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-10-02 11:00:45
End at: 2018-10-02 11:01:15
Local clock offset: 4.362 ms
Remote clock offset: -1.003 ms


# Below is generated by plot.py at 2018-10-02 13:21:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 2.838 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 2.846 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 2.620 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 3.245 ms
Loss rate: 0.00%
```

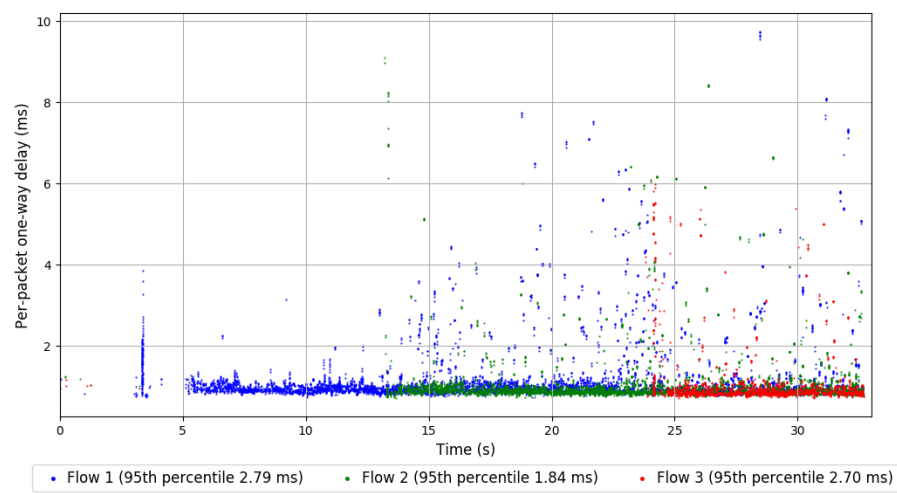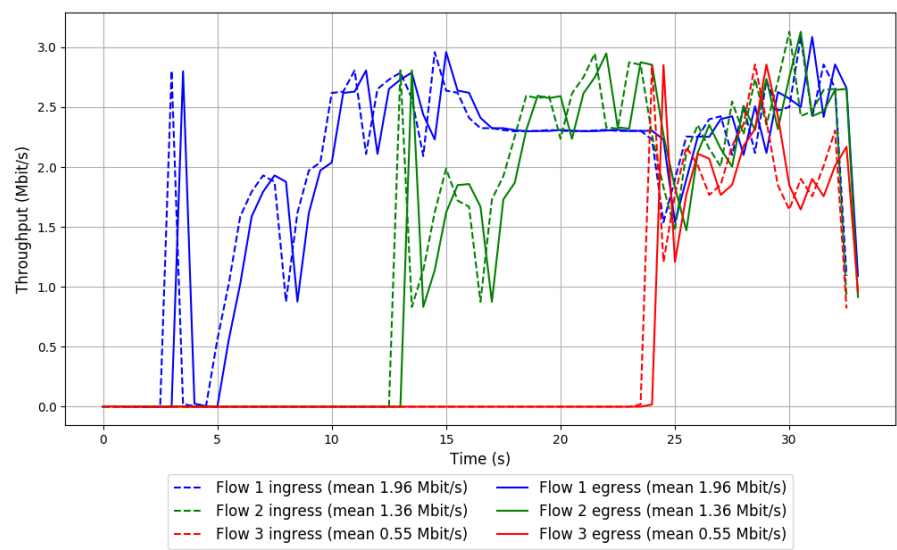Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-10-02 11:28:41
End at: 2018-10-02 11:29:11
Local clock offset: 4.051 ms
Remote clock offset: -0.553 ms


# Below is generated by plot.py at 2018-10-02 13:21:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 2.534 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 2.785 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 1.837 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 2.701 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-10-02 11:56:15
End at: 2018-10-02 11:56:45
Local clock offset: 3.805 ms
Remote clock offset: 2.935 ms


# Below is generated by plot.py at 2018-10-02 13:21:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.97 Mbit/s
95th percentile per-packet one-way delay: 2.223 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 2.283 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 2.351 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 1.560 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link