Pantheon Report

Generated at 2018-10-26 06:07:19 (UTC).

Data path: AWS India 2 on `ens5` (*local*) →Saudi Arabia on `enp2s0` (*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 `nets.org.sg` and have been applied to correct the timestamps in logs.
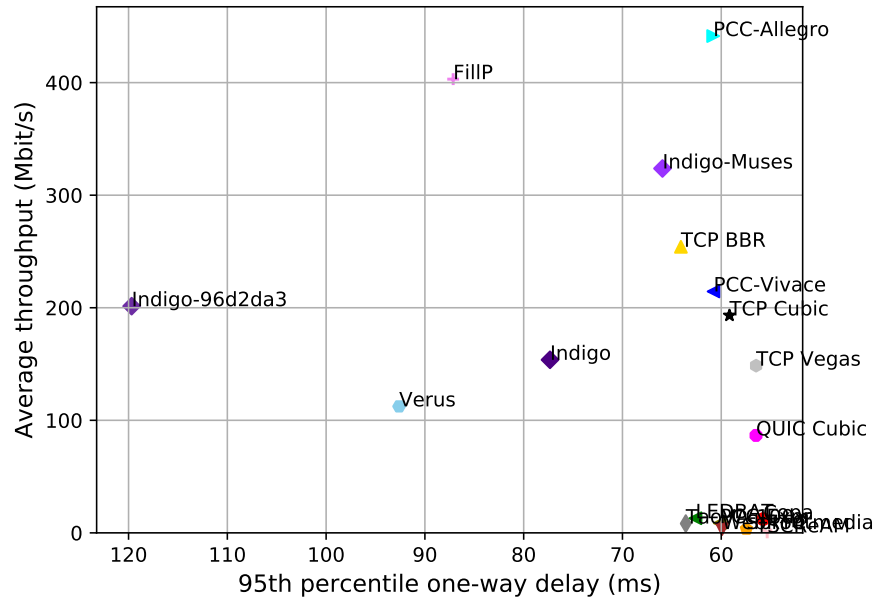
```
System info:
Linux 4.15.0-1023-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

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
```
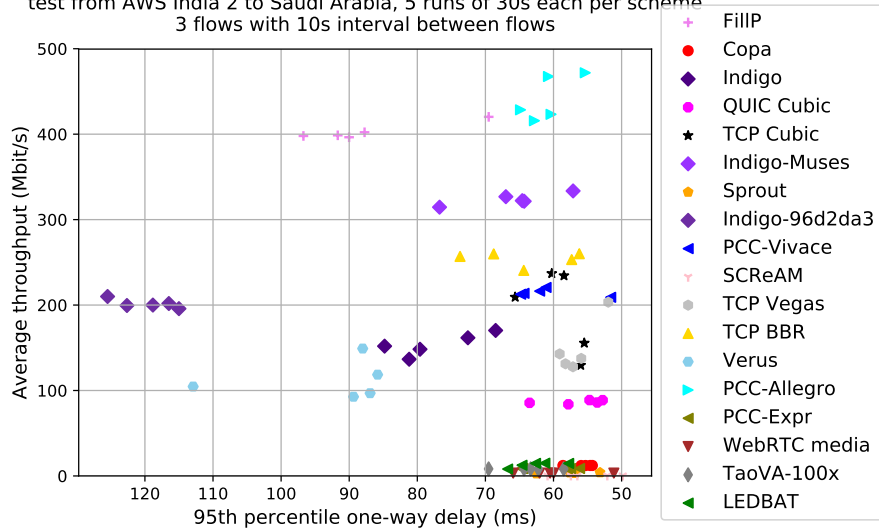
```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

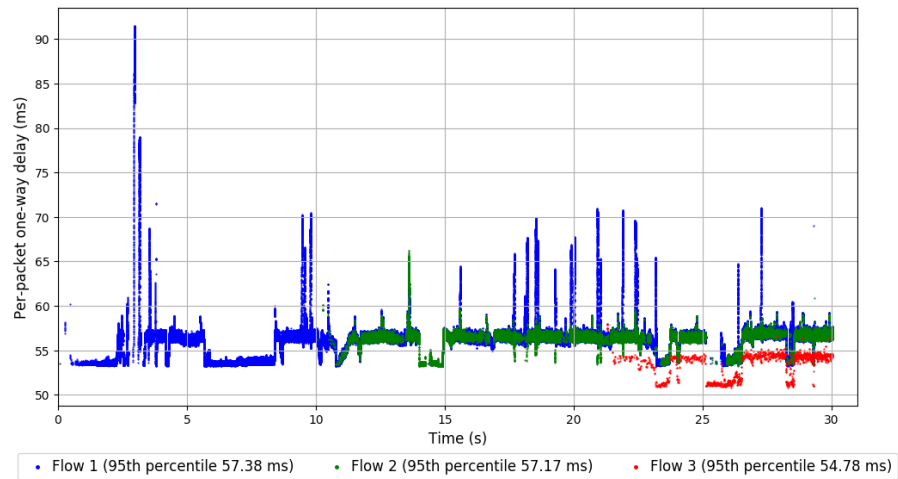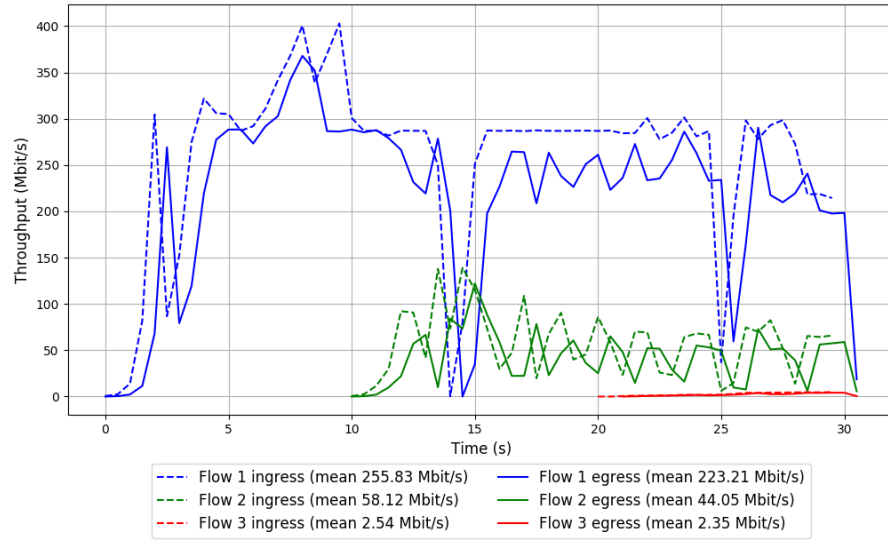| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	209.65	50.12	33.49	65.10	60.73	61.34	11.14	18.71	20.94
Copa	5	8.44	5.37	0.70	55.99	55.26	56.55	66.87	74.12	91.62
TCP Cubic	5	111.83	76.10	92.14	58.16	59.16	59.57	1.10	1.81	2.27
FillP	5	324.06	92.11	54.16	89.88	62.31	61.39	28.52	34.95	34.10
Indigo	5	77.03	87.07	61.36	71.78	81.45	81.68	9.86	16.74	30.67
Indigo-96d2da3	5	115.11	96.58	69.70	120.72	117.67	120.29	41.39	45.32	47.99
LEDBAT	5	8.40	5.42	3.05	62.53	61.84	62.04	0.01	0.01	0.00
Indigo-Muses	5	293.65	29.26	32.85	66.50	63.39	64.56	31.46	45.38	49.93
PCC-Allegro	5	410.24	32.76	28.33	60.76	59.61	60.58	5.34	2.39	3.33
PCC-Expr	5	0.01	10.72	4.54	60.99	60.13	60.19	82.28	34.88	32.91
QUIC Cubic	5	51.86	40.41	24.17	55.97	56.66	58.35	0.00	0.01	0.00
SCReAM	5	0.22	0.22	0.22	54.30	53.82	55.47	0.00	0.00	0.00
Sprout	5	1.94	1.59	1.46	57.11	56.77	57.26	0.00	0.10	0.00
TaoVA-100x	5	0.00	9.60	5.67	59.67	65.19	58.42	95.92	27.98	17.92
TCP Vegas	5	89.47	45.49	86.51	56.25	55.41	58.20	1.44	2.18	4.05
Verus	5	76.17	45.74	24.18	94.46	81.66	77.40	60.98	42.91	44.30
PCC-Vivace	5	191.88	27.83	12.46	60.65	60.28	59.85	1.39	1.05	1.94
WebRTC media	5	1.83	1.16	0.40	58.42	58.65	60.06	0.00	0.00	0.06

```
Run 1: Statistics of TCP BBR

Start at: 2018-10-26 02:51:15
End at: 2018-10-26 02:51:45
Local clock offset: 1.232 ms
Remote clock offset: -47.069 ms


# Below is generated by plot.py at 2018-10-26 05:48:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.26 Mbit/s
95th percentile per-packet one-way delay: 57.331 ms
Loss rate: 14.25%
-- Flow 1:
Average throughput: 223.21 Mbit/s
95th percentile per-packet one-way delay: 57.380 ms
Loss rate: 12.74%
-- Flow 2:
Average throughput: 44.05 Mbit/s
95th percentile per-packet one-way delay: 57.174 ms
Loss rate: 24.20%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 54.777 ms
Loss rate: 16.65%
```
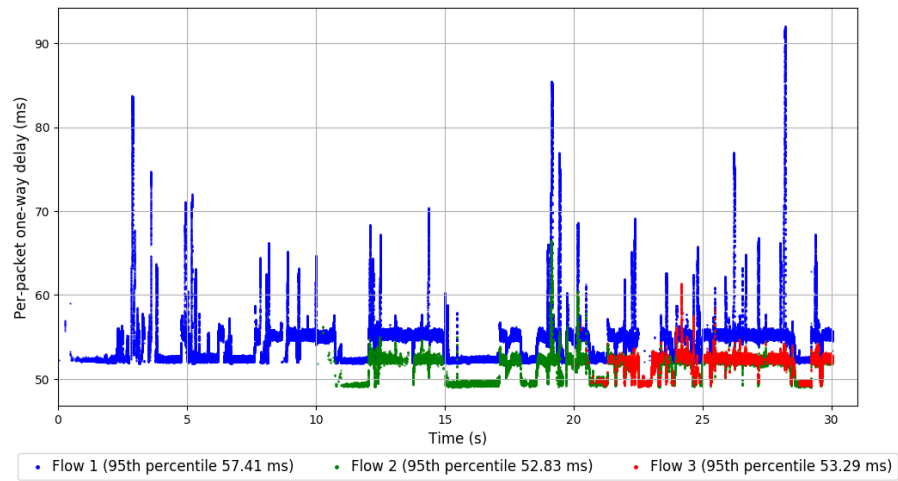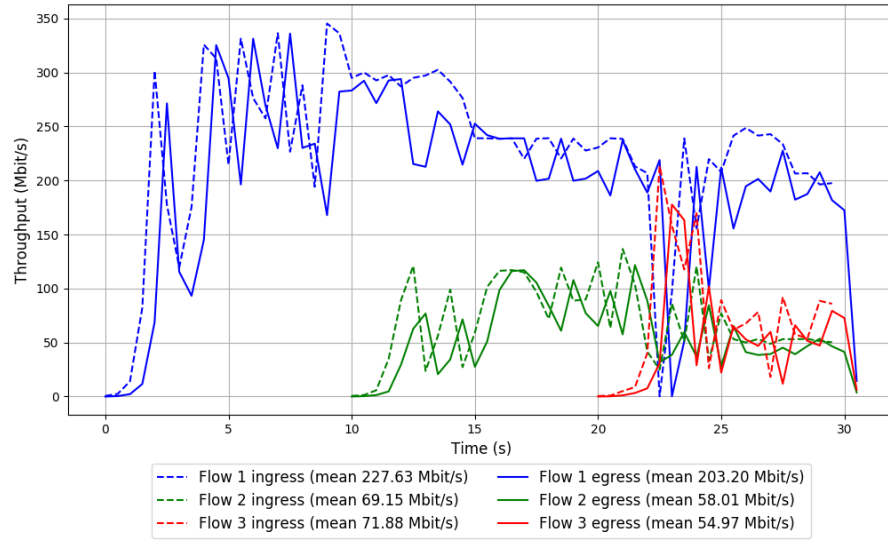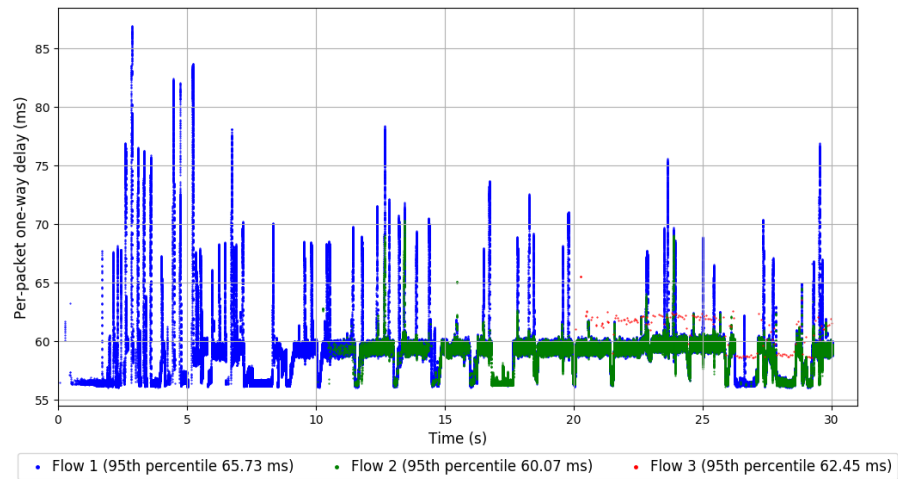
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-10-26 03:23:39
End at: 2018-10-26 03:24:09
Local clock offset: 1.512 ms
Remote clock offset: -47.6 ms


# Below is generated by plot.py at 2018-10-26 05:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.10 Mbit/s
95th percentile per-packet one-way delay: 56.210 ms
Loss rate: 12.59%
-- Flow 1:
Average throughput: 203.20 Mbit/s
95th percentile per-packet one-way delay: 57.413 ms
Loss rate: 10.73%
-- Flow 2:
Average throughput: 58.01 Mbit/s
95th percentile per-packet one-way delay: 52.826 ms
Loss rate: 16.11%
-- Flow 3:
Average throughput: 54.97 Mbit/s
95th percentile per-packet one-way delay: 53.293 ms
Loss rate: 23.53%
```

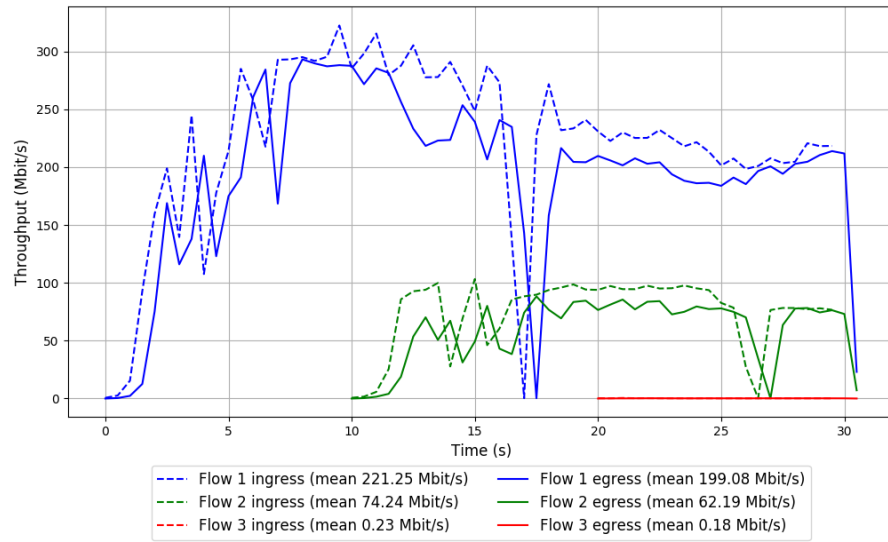Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-10-26 03:56:04
End at: 2018-10-26 03:56:34
Local clock offset: 2.377 ms
Remote clock offset: -41.867 ms


# Below is generated by plot.py at 2018-10-26 05:48:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 240.59 Mbit/s
95th percentile per-packet one-way delay: 64.367 ms
Loss rate: 11.15%
-- Flow 1:
Average throughput: 199.08 Mbit/s
95th percentile per-packet one-way delay: 65.728 ms
Loss rate: 10.01%
-- Flow 2:
Average throughput: 62.19 Mbit/s
95th percentile per-packet one-way delay: 60.074 ms
Loss rate: 16.22%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 62.451 ms
Loss rate: 21.64%
```
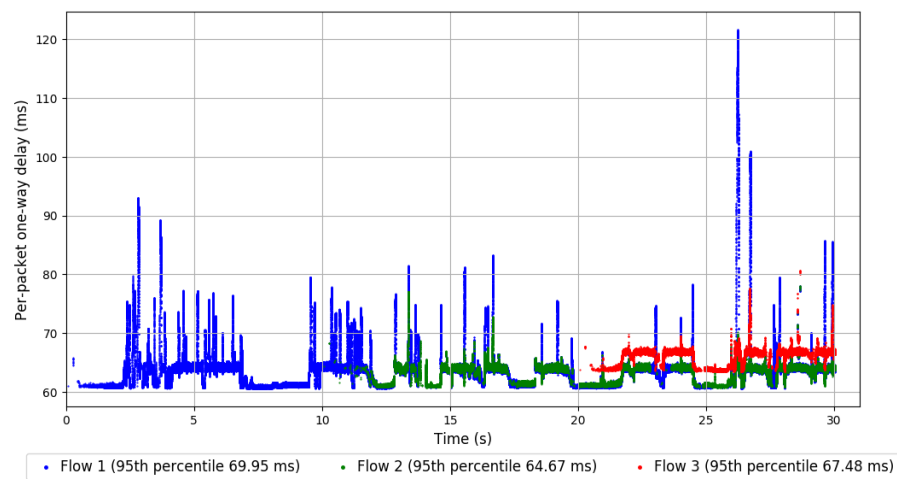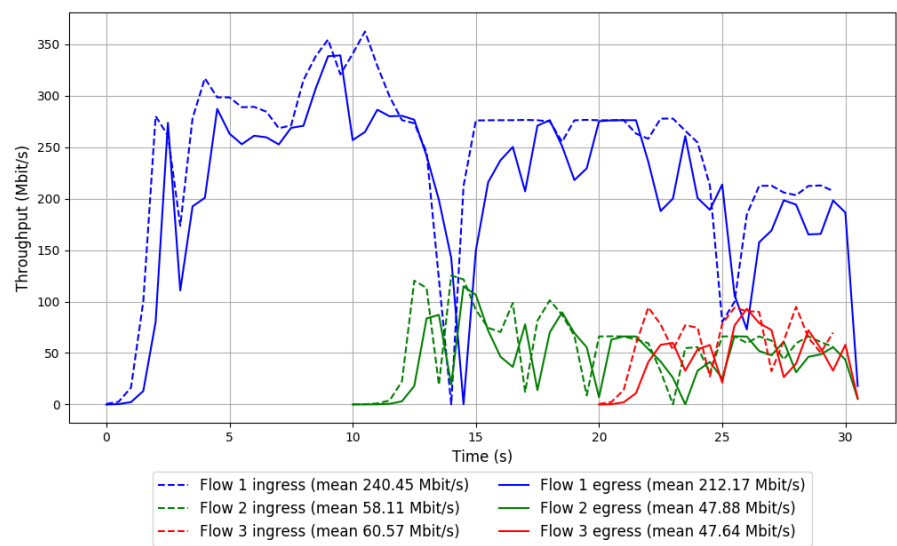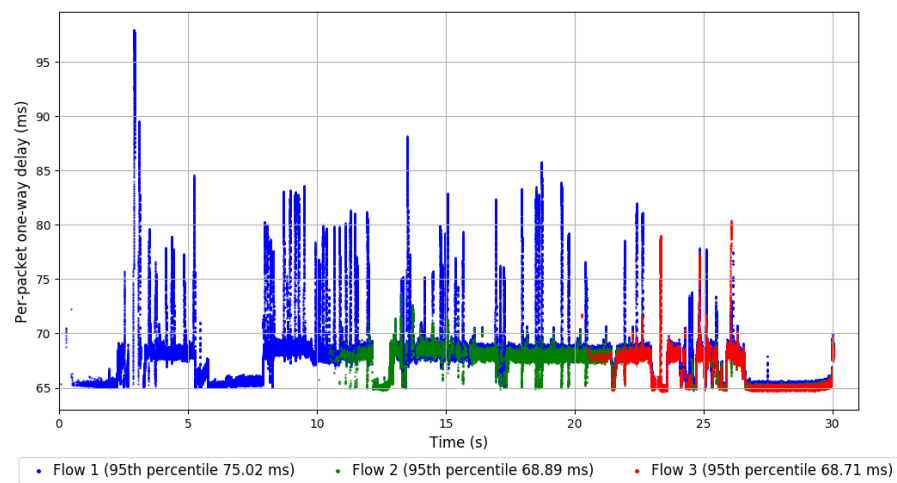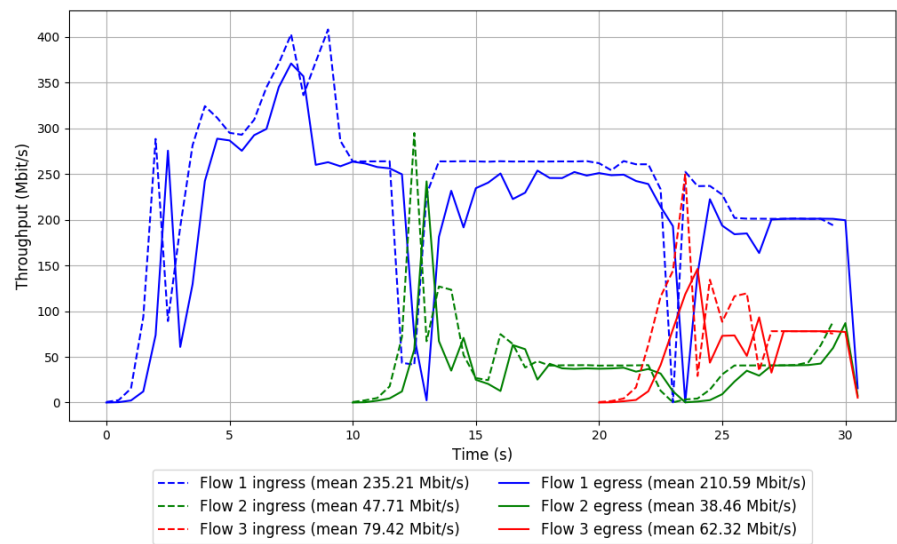
Run 3: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 221.25 Mbit/s) ——— Flow 1 egress (mean 199.08 Mbit/s)
- - - Flow 2 ingress (mean 74.24 Mbit/s) ——— Flow 2 egress (mean 62.19 Mbit/s)
- - - Flow 3 ingress (mean 0.23 Mbit/s) ——— Flow 3 egress (mean 0.18 Mbit/s)

• Flow 1 (95th percentile 65.73 ms)   • Flow 2 (95th percentile 60.07 ms)   • Flow 3 (95th percentile 62.45 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2018-10-26 04:34:04
End at: 2018-10-26 04:34:34
Local clock offset: 0.695 ms
Remote clock offset: -35.657 ms


# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.89 Mbit/s
95th percentile per-packet one-way delay: 68.783 ms
Loss rate: 13.16%
-- Flow 1:
Average throughput: 212.17 Mbit/s
95th percentile per-packet one-way delay: 69.948 ms
Loss rate: 11.75%
-- Flow 2:
Average throughput: 47.88 Mbit/s
95th percentile per-packet one-way delay: 64.673 ms
Loss rate: 17.61%
-- Flow 3:
Average throughput: 47.64 Mbit/s
95th percentile per-packet one-way delay: 67.482 ms
Loss rate: 21.34%
```
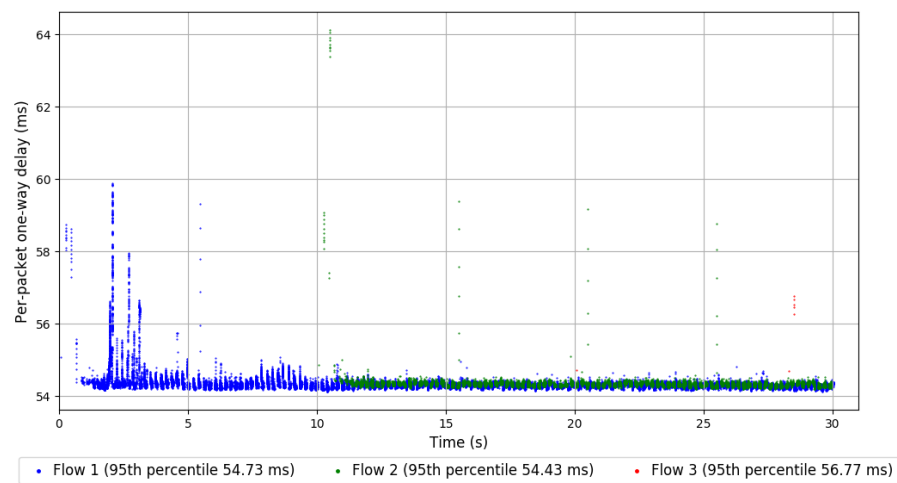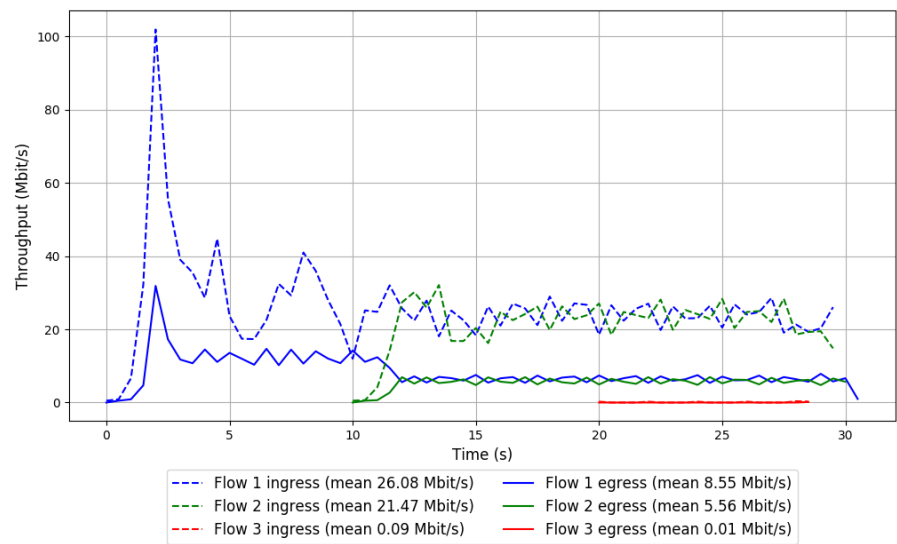
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 240.45 Mbit/s) ---
Flow 1 egress (mean 212.17 Mbit/s) —
Flow 2 ingress (mean 58.11 Mbit/s) ---
Flow 2 egress (mean 47.88 Mbit/s) —
Flow 3 ingress (mean 60.57 Mbit/s) ---
Flow 3 egress (mean 47.64 Mbit/s) —

Flow 1 (95th percentile 69.95 ms)   Flow 2 (95th percentile 64.67 ms)   Flow 3 (95th percentile 67.48 ms)
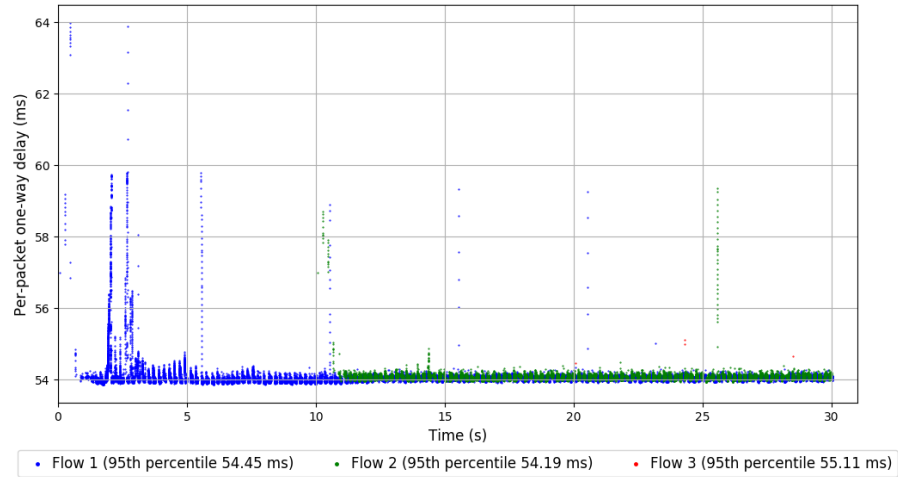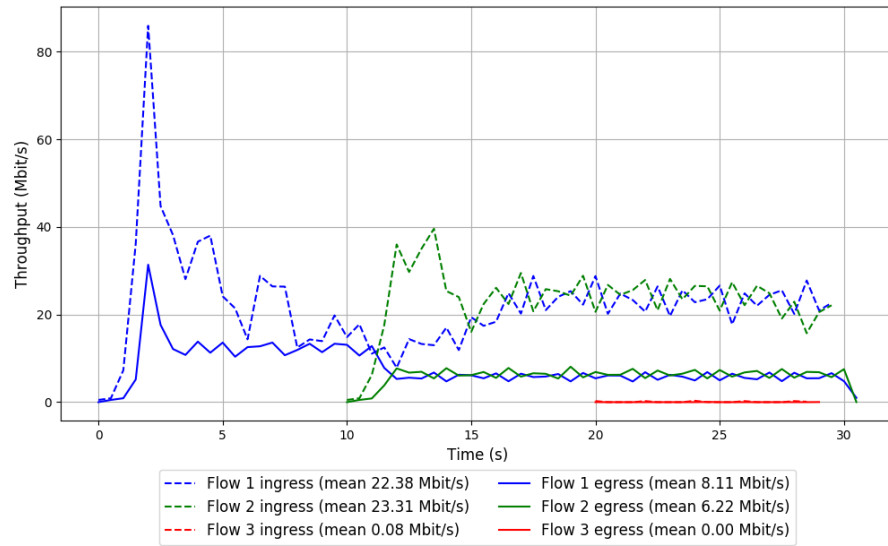
```
Run 5: Statistics of TCP BBR

Start at: 2018-10-26 05:06:35
End at: 2018-10-26 05:07:05
Local clock offset: 0.479 ms
Remote clock offset: -29.323 ms

# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.92 Mbit/s
95th percentile per-packet one-way delay: 73.723 ms
Loss rate: 12.42%
-- Flow 1:
Average throughput: 210.59 Mbit/s
95th percentile per-packet one-way delay: 75.018 ms
Loss rate: 10.46%
-- Flow 2:
Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 68.892 ms
Loss rate: 19.39%
-- Flow 3:
Average throughput: 62.32 Mbit/s
95th percentile per-packet one-way delay: 68.711 ms
Loss rate: 21.53%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 235.21 Mbit/s) — — — Flow 1 egress (mean 210.59 Mbit/s)
Flow 2 ingress (mean 47.71 Mbit/s) — — — Flow 2 egress (mean 38.46 Mbit/s)
Flow 3 ingress (mean 79.42 Mbit/s) — — — Flow 3 egress (mean 62.32 Mbit/s)

Flow 1 (95th percentile 75.02 ms)   Flow 2 (95th percentile 68.89 ms)   Flow 3 (95th percentile 68.71 ms)

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```
Run 1: Statistics of Copa

Start at: 2018-10-26 03:14:05
End at: 2018-10-26 03:14:35
Local clock offset: 0.575 ms
Remote clock offset: -44.483 ms


# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 54.622 ms
Loss rate: 69.67%
-- Flow 1:
Average throughput: 8.55 Mbit/s
95th percentile per-packet one-way delay: 54.727 ms
Loss rate: 67.23%
-- Flow 2:
Average throughput: 5.56 Mbit/s
95th percentile per-packet one-way delay: 54.428 ms
Loss rate: 74.10%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 56.775 ms
Loss rate: 90.79%
```
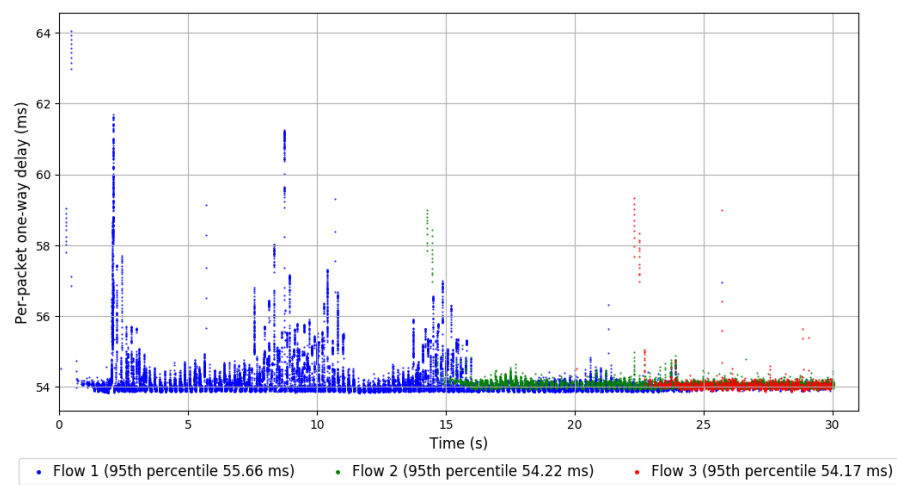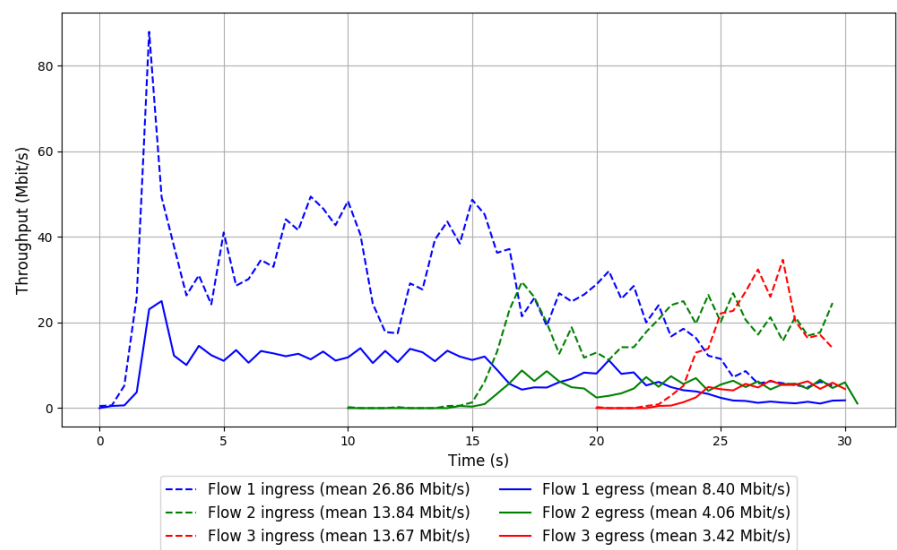
Run 1: Report of Copa — Data Link

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```
Run 2: Statistics of Copa

Start at: 2018-10-26 03:46:32
End at: 2018-10-26 03:47:02
Local clock offset: 2.301 ms
Remote clock offset: -43.645 ms


# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 54.298 ms
Loss rate: 67.70%
-- Flow 1:
Average throughput: 8.11 Mbit/s
95th percentile per-packet one-way delay: 54.449 ms
Loss rate: 63.77%
-- Flow 2:
Average throughput: 6.22 Mbit/s
95th percentile per-packet one-way delay: 54.190 ms
Loss rate: 73.32%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 55.109 ms
Loss rate: 94.60%
```
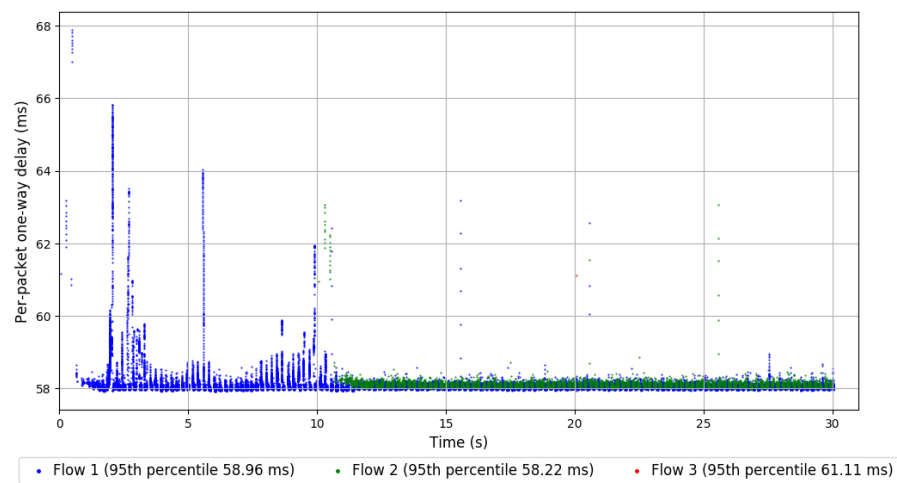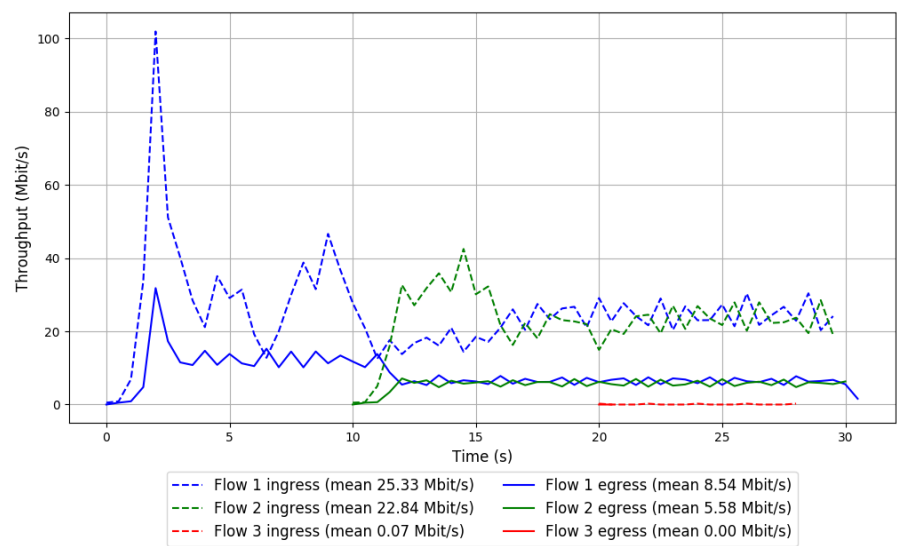
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-10-26 04:24:25
End at: 2018-10-26 04:24:55
Local clock offset: 1.934 ms
Remote clock offset: -42.382 ms


# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 55.296 ms
Loss rate: 69.93%
-- Flow 1:
Average throughput: 8.40 Mbit/s
95th percentile per-packet one-way delay: 55.659 ms
Loss rate: 68.83%
-- Flow 2:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 54.223 ms
Loss rate: 70.68%
-- Flow 3:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 54.170 ms
Loss rate: 74.96%
```
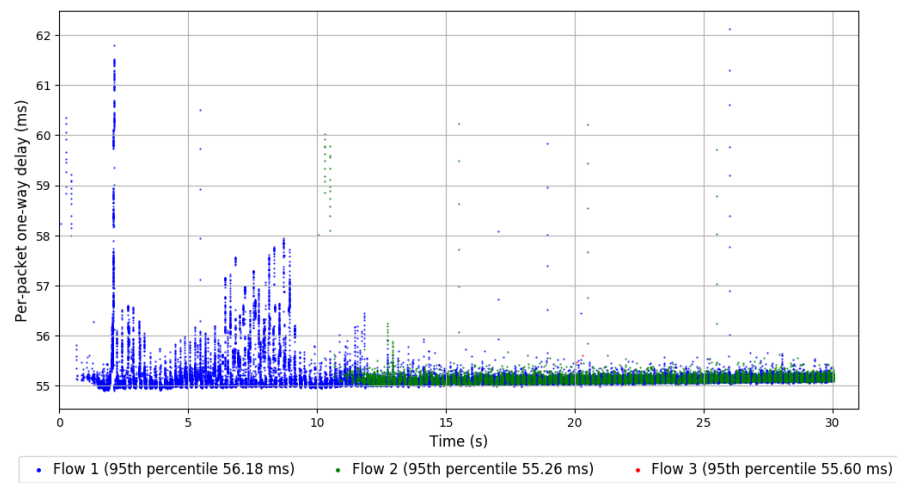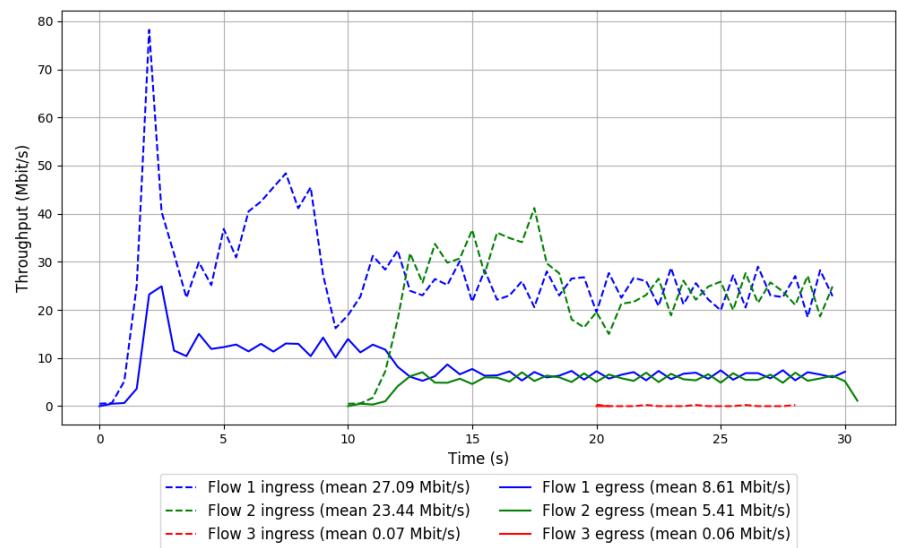
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-10-26 04:56:57
End at: 2018-10-26 04:57:27
Local clock offset: 1.751 ms
Remote clock offset: -35.173 ms


# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 58.619 ms
Loss rate: 69.79%
-- Flow 1:
Average throughput: 8.54 Mbit/s
95th percentile per-packet one-way delay: 58.958 ms
Loss rate: 66.30%
-- Flow 2:
Average throughput: 5.58 Mbit/s
95th percentile per-packet one-way delay: 58.217 ms
Loss rate: 75.58%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 61.110 ms
Loss rate: 99.83%
```
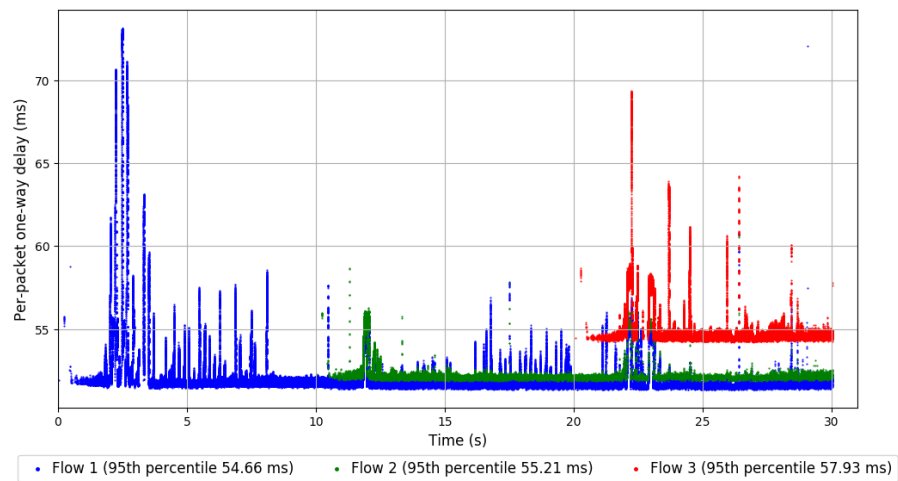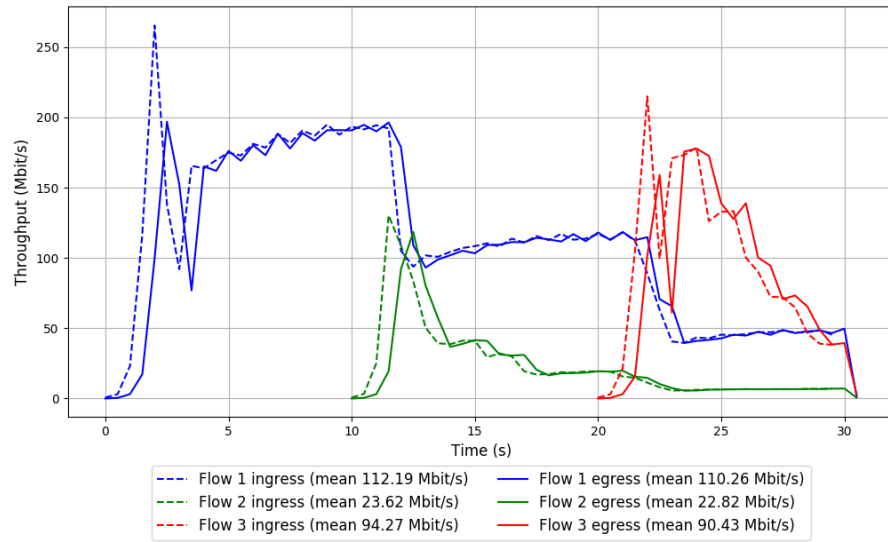
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 25.33 Mbit/s) — — — Flow 1 egress (mean 8.54 Mbit/s) ——
Flow 2 ingress (mean 22.84 Mbit/s) — — — Flow 2 egress (mean 5.58 Mbit/s) ——
Flow 3 ingress (mean 0.07 Mbit/s) — — — Flow 3 egress (mean 0.00 Mbit/s) ——

• Flow 1 (95th percentile 58.96 ms)   • Flow 2 (95th percentile 58.22 ms)   • Flow 3 (95th percentile 61.11 ms)

```
Run 5: Statistics of Copa

Start at: 2018-10-26 05:34:52
End at: 2018-10-26 05:35:22
Local clock offset: -0.661 ms
Remote clock offset: -41.219 ms


# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 55.947 ms
Loss rate: 71.42%
-- Flow 1:
Average throughput: 8.61 Mbit/s
95th percentile per-packet one-way delay: 56.179 ms
Loss rate: 68.22%
-- Flow 2:
Average throughput: 5.41 Mbit/s
95th percentile per-packet one-way delay: 55.262 ms
Loss rate: 76.91%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 55.596 ms
Loss rate: 97.92%
```
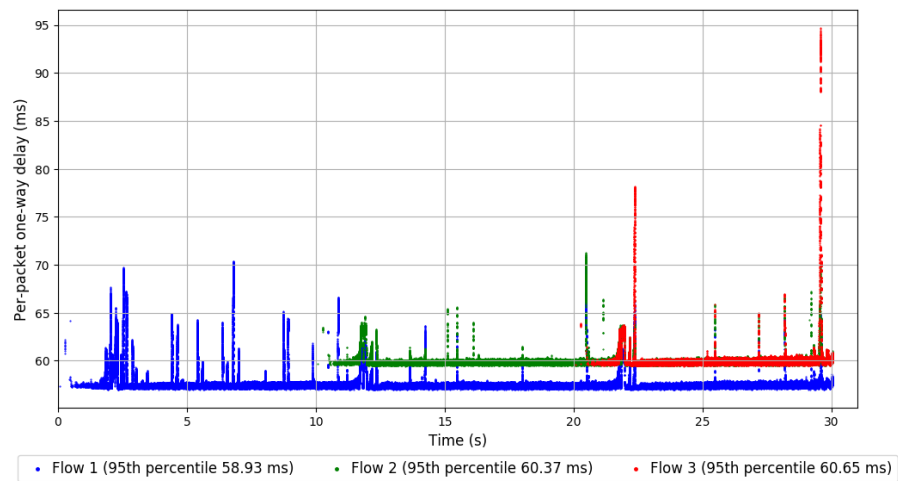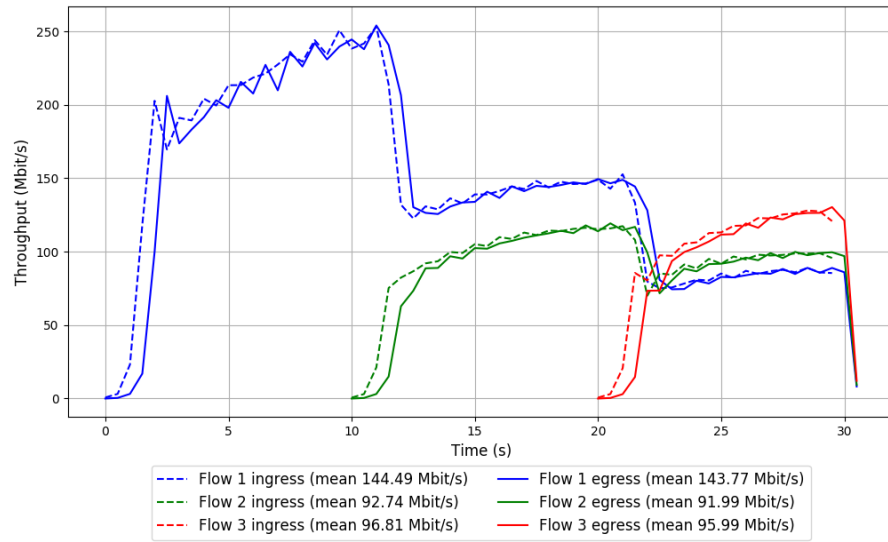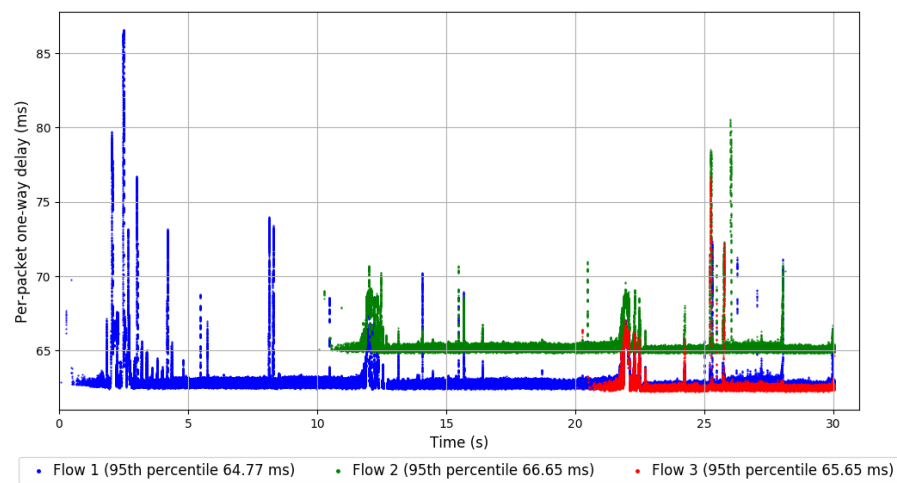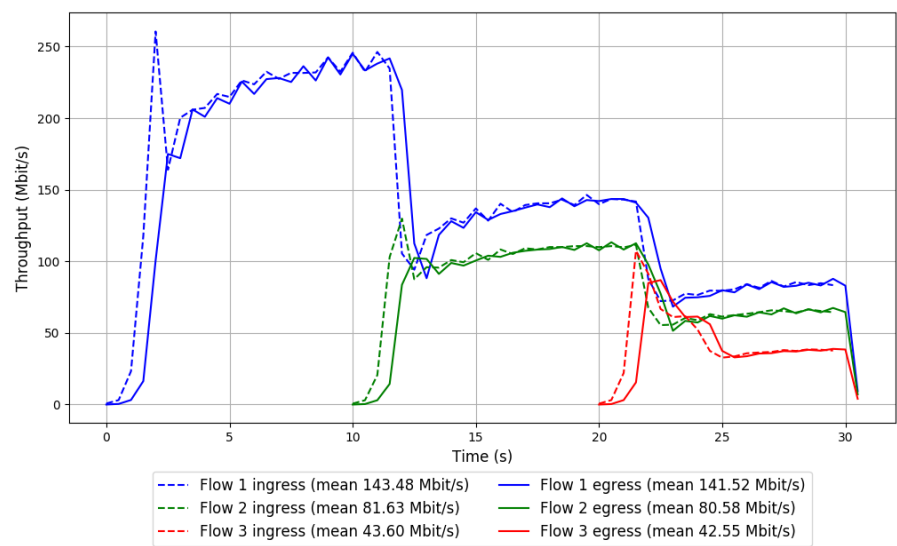
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-10-26 03:10:55
End at: 2018-10-26 03:11:25
Local clock offset: 1.678 ms
Remote clock offset: -46.173 ms


# Below is generated by plot.py at 2018-10-26 05:48:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 155.56 Mbit/s
95th percentile per-packet one-way delay: 55.481 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 110.26 Mbit/s
95th percentile per-packet one-way delay: 54.656 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 22.82 Mbit/s
95th percentile per-packet one-way delay: 55.214 ms
Loss rate: 3.36%
-- Flow 3:
Average throughput: 90.43 Mbit/s
95th percentile per-packet one-way delay: 57.929 ms
Loss rate: 4.05%
```

Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 112.19 Mbit/s)   Flow 1 egress (mean 110.26 Mbit/s)
Flow 2 ingress (mean 23.62 Mbit/s)   Flow 2 egress (mean 22.82 Mbit/s)
Flow 3 ingress (mean 94.27 Mbit/s)   Flow 3 egress (mean 90.43 Mbit/s)

Flow 1 (95th percentile 54.66 ms)   Flow 2 (95th percentile 55.21 ms)   Flow 3 (95th percentile 57.93 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2018-10-26 03:43:07
End at: 2018-10-26 03:43:37
Local clock offset: 1.703 ms
Remote clock offset: -41.115 ms


# Below is generated by plot.py at 2018-10-26 05:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.97 Mbit/s
95th percentile per-packet one-way delay: 60.253 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 143.77 Mbit/s
95th percentile per-packet one-way delay: 58.928 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 91.99 Mbit/s
95th percentile per-packet one-way delay: 60.368 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 95.99 Mbit/s
95th percentile per-packet one-way delay: 60.652 ms
Loss rate: 0.87%
```
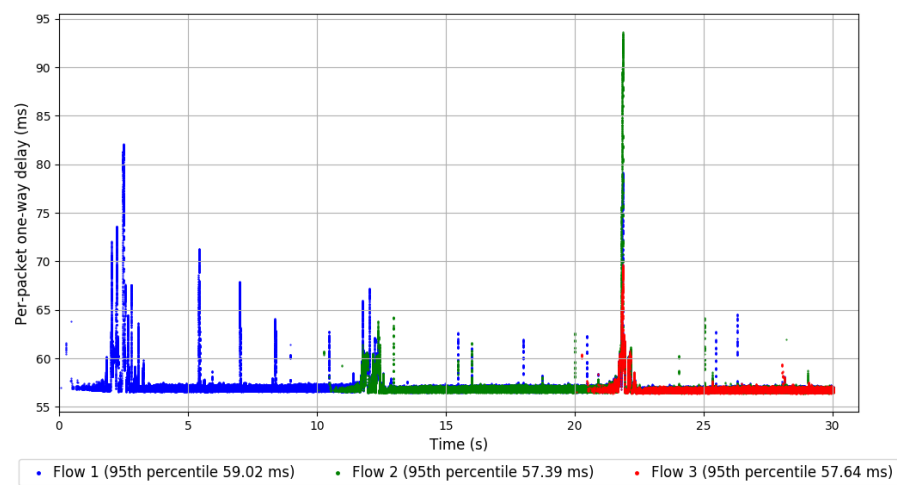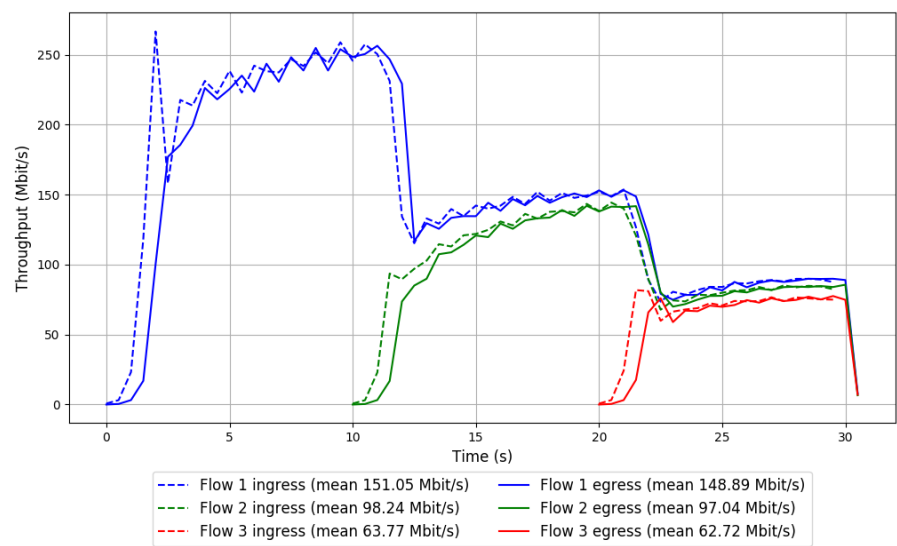
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-10-26 04:21:05
End at: 2018-10-26 04:21:35
Local clock offset: -0.57 ms
Remote clock offset: -36.612 ms


# Below is generated by plot.py at 2018-10-26 05:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 209.32 Mbit/s
95th percentile per-packet one-way delay: 65.629 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 141.52 Mbit/s
95th percentile per-packet one-way delay: 64.767 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 80.58 Mbit/s
95th percentile per-packet one-way delay: 66.651 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 42.55 Mbit/s
95th percentile per-packet one-way delay: 65.647 ms
Loss rate: 2.39%
```
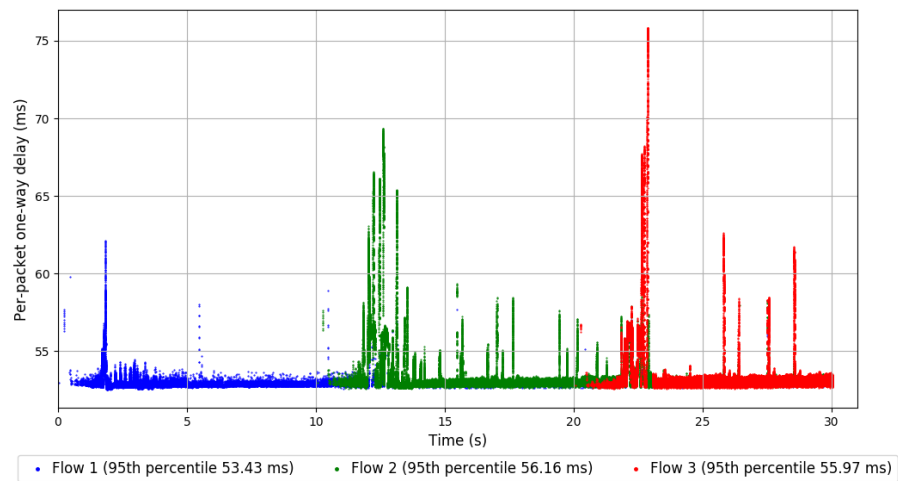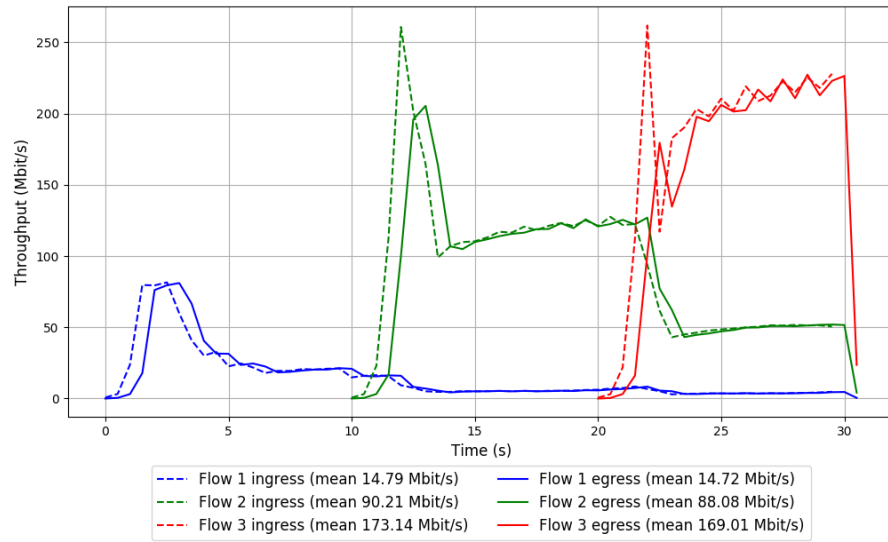
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 143.48 Mbit/s) —— Flow 1 egress (mean 141.52 Mbit/s)
Flow 2 ingress (mean 81.63 Mbit/s) —— Flow 2 egress (mean 80.58 Mbit/s)
Flow 3 ingress (mean 43.60 Mbit/s) —— Flow 3 egress (mean 42.55 Mbit/s)

• Flow 1 (95th percentile 64.77 ms)   • Flow 2 (95th percentile 66.65 ms)   • Flow 3 (95th percentile 65.65 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-10-26 04:53:33
End at: 2018-10-26 04:54:03
Local clock offset: 0.076 ms
Remote clock offset: -38.663 ms


# Below is generated by plot.py at 2018-10-26 05:50:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 234.39 Mbit/s
95th percentile per-packet one-way delay: 58.463 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 148.89 Mbit/s
95th percentile per-packet one-way delay: 59.022 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 97.04 Mbit/s
95th percentile per-packet one-way delay: 57.390 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 62.72 Mbit/s
95th percentile per-packet one-way delay: 57.637 ms
Loss rate: 1.65%
```
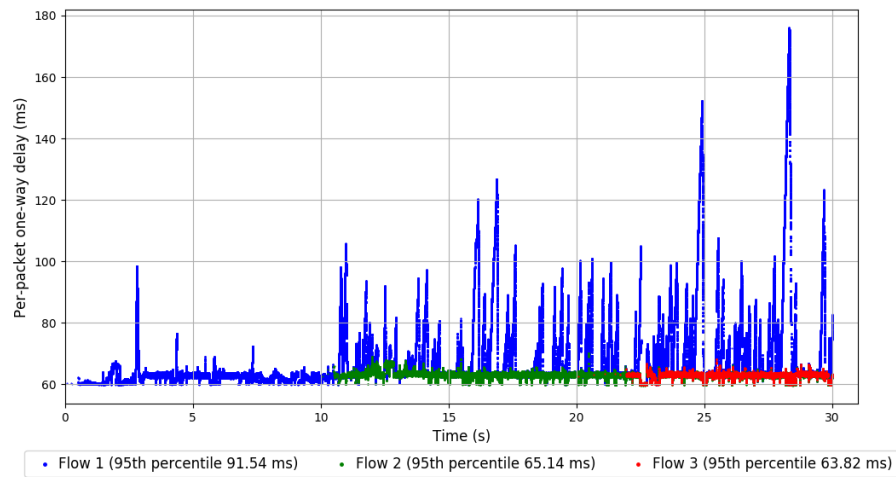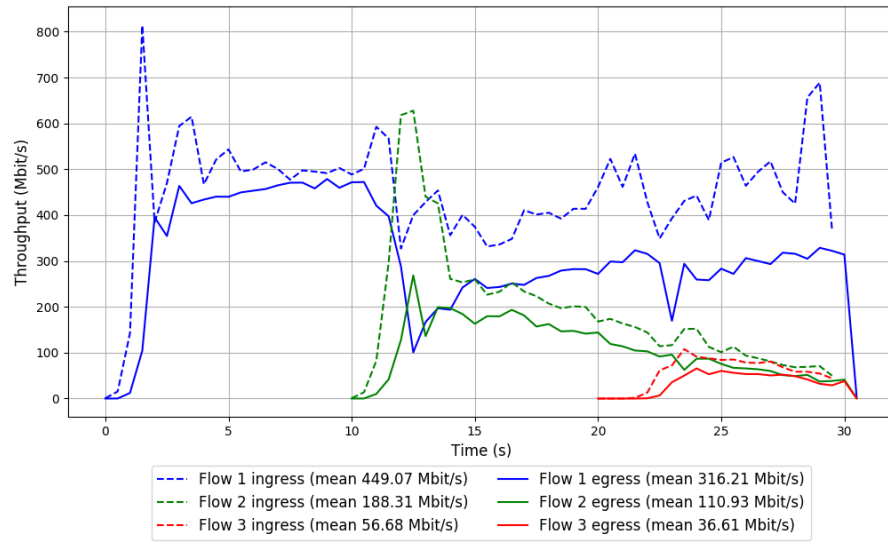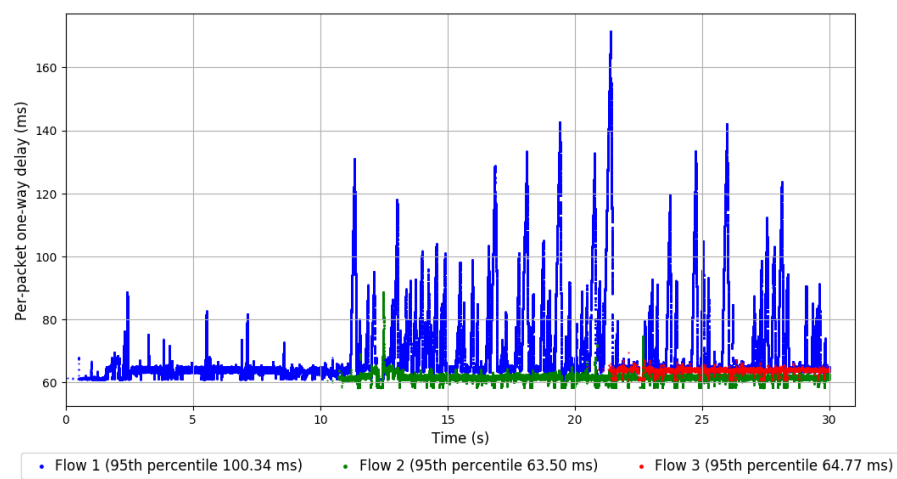
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 151.05 Mbit/s) --- Flow 1 egress (mean 148.89 Mbit/s)
Flow 2 ingress (mean 98.24 Mbit/s) --- Flow 2 egress (mean 97.04 Mbit/s)
Flow 3 ingress (mean 63.77 Mbit/s) --- Flow 3 egress (mean 62.72 Mbit/s)

Flow 1 (95th percentile 59.02 ms)   Flow 2 (95th percentile 57.39 ms)   Flow 3 (95th percentile 57.64 ms)

32

```
Run 5: Statistics of TCP Cubic

Start at: 2018-10-26 05:31:47
End at: 2018-10-26 05:32:17
Local clock offset: 1.064 ms
Remote clock offset: -40.905 ms


# Below is generated by plot.py at 2018-10-26 05:50:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.59 Mbit/s
95th percentile per-packet one-way delay: 56.006 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 14.72 Mbit/s
95th percentile per-packet one-way delay: 53.429 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 88.08 Mbit/s
95th percentile per-packet one-way delay: 56.162 ms
Loss rate: 2.36%
-- Flow 3:
Average throughput: 169.01 Mbit/s
95th percentile per-packet one-way delay: 55.967 ms
Loss rate: 2.38%
```

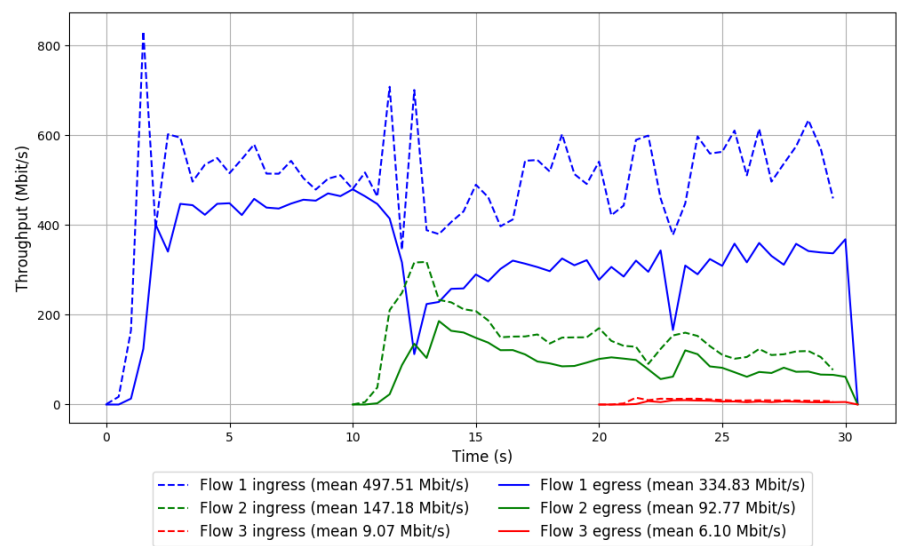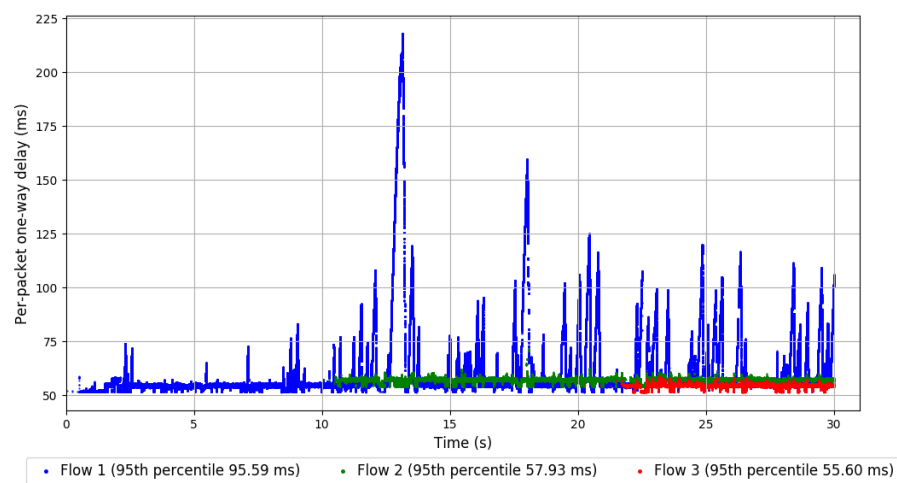Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-10-26 03:17:48
End at: 2018-10-26 03:18:18
Local clock offset: -0.777 ms
Remote clock offset: -39.484 ms

# Below is generated by plot.py at 2018-10-26 05:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 402.20 Mbit/s
95th percentile per-packet one-way delay: 87.745 ms
Loss rate: 32.20%
-- Flow 1:
Average throughput: 316.21 Mbit/s
95th percentile per-packet one-way delay: 91.541 ms
Loss rate: 29.58%
-- Flow 2:
Average throughput: 110.93 Mbit/s
95th percentile per-packet one-way delay: 65.138 ms
Loss rate: 41.09%
-- Flow 3:
Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 63.818 ms
Loss rate: 35.40%
```
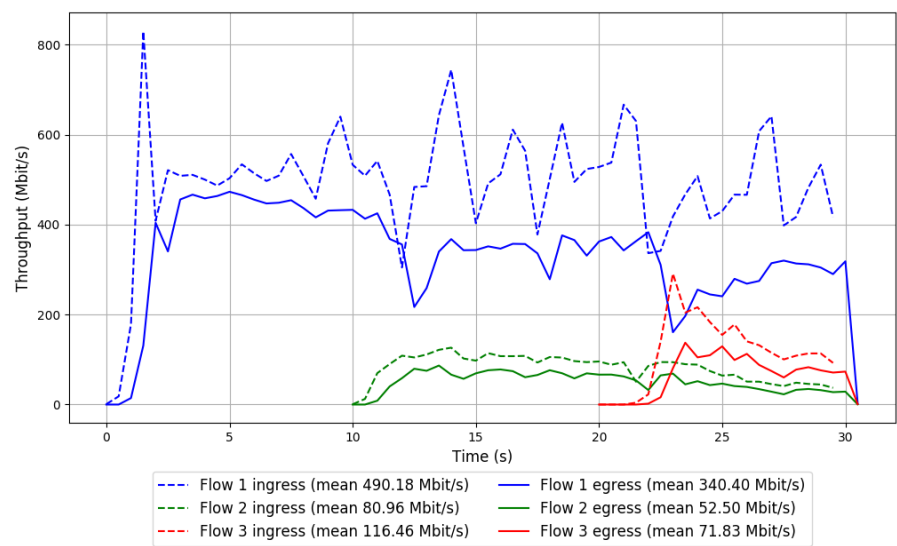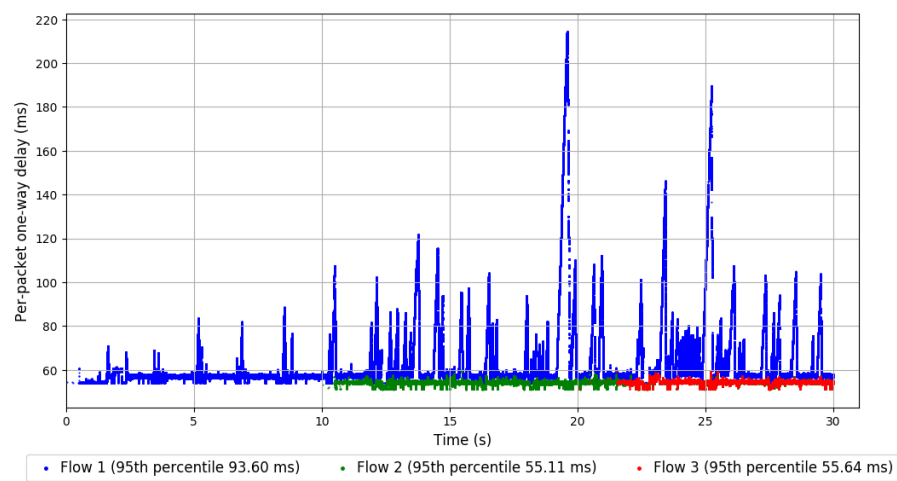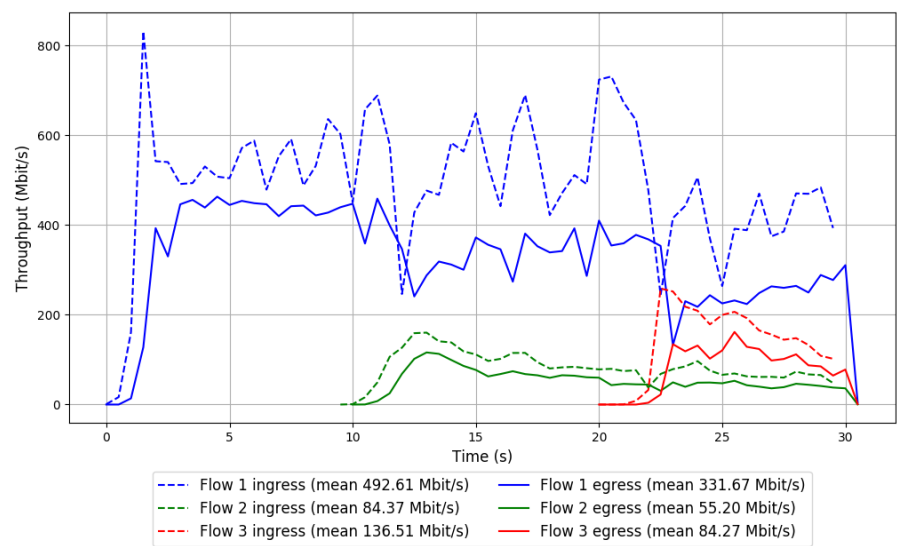
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-10-26 03:50:14
End at: 2018-10-26 03:50:44
Local clock offset: 0.917 ms
Remote clock offset: -40.87 ms

# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 397.90 Mbit/s
95th percentile per-packet one-way delay: 96.725 ms
Loss rate: 33.51%
-- Flow 1:
Average throughput: 334.83 Mbit/s
95th percentile per-packet one-way delay: 100.337 ms
Loss rate: 32.70%
-- Flow 2:
Average throughput: 92.77 Mbit/s
95th percentile per-packet one-way delay: 63.502 ms
Loss rate: 37.60%
-- Flow 3:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 64.772 ms
Loss rate: 35.55%
```

Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-10-26 04:28:15
End at: 2018-10-26 04:28:45
Local clock offset: 1.387 ms
Remote clock offset: -45.639 ms

# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 398.66 Mbit/s
95th percentile per-packet one-way delay: 91.682 ms
Loss rate: 31.57%
-- Flow 1:
Average throughput: 340.40 Mbit/s
95th percentile per-packet one-way delay: 95.594 ms
Loss rate: 30.55%
-- Flow 2:
Average throughput: 52.50 Mbit/s
95th percentile per-packet one-way delay: 57.934 ms
Loss rate: 35.16%
-- Flow 3:
Average throughput: 71.83 Mbit/s
95th percentile per-packet one-way delay: 55.605 ms
Loss rate: 39.58%
```
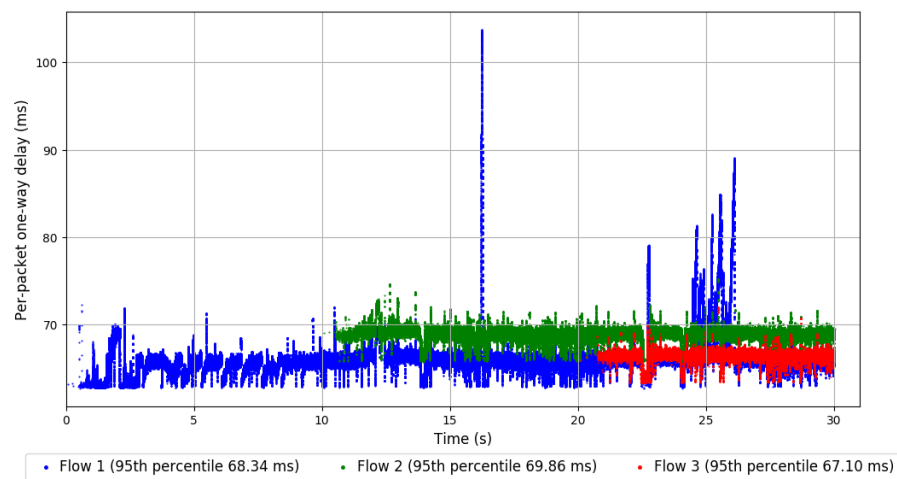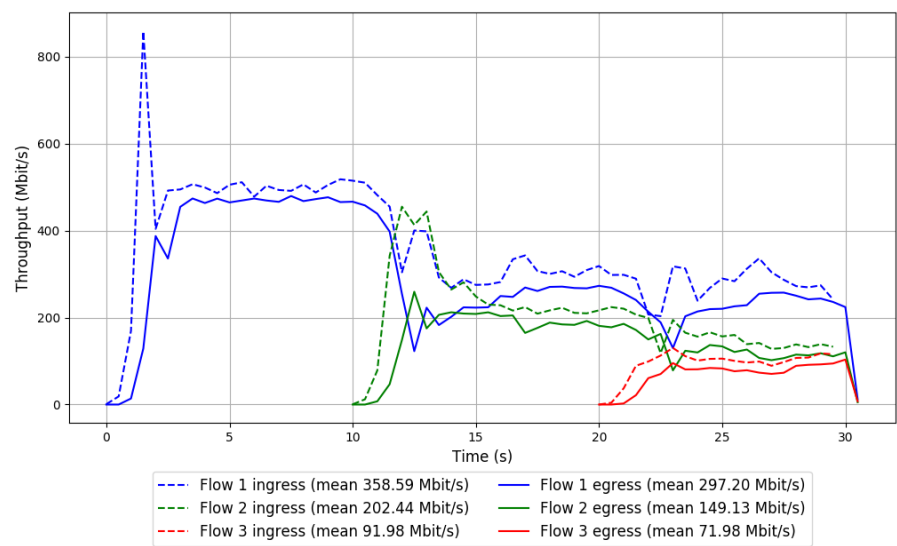
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-10-26 05:00:46
End at: 2018-10-26 05:01:16
Local clock offset: -0.318 ms
Remote clock offset: -43.916 ms


# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 396.40 Mbit/s
95th percentile per-packet one-way delay: 90.016 ms
Loss rate: 33.27%
-- Flow 1:
Average throughput: 331.67 Mbit/s
95th percentile per-packet one-way delay: 93.599 ms
Loss rate: 32.66%
-- Flow 2:
Average throughput: 55.20 Mbit/s
95th percentile per-packet one-way delay: 55.112 ms
Loss rate: 34.58%
-- Flow 3:
Average throughput: 84.27 Mbit/s
95th percentile per-packet one-way delay: 55.638 ms
Loss rate: 38.25%
```
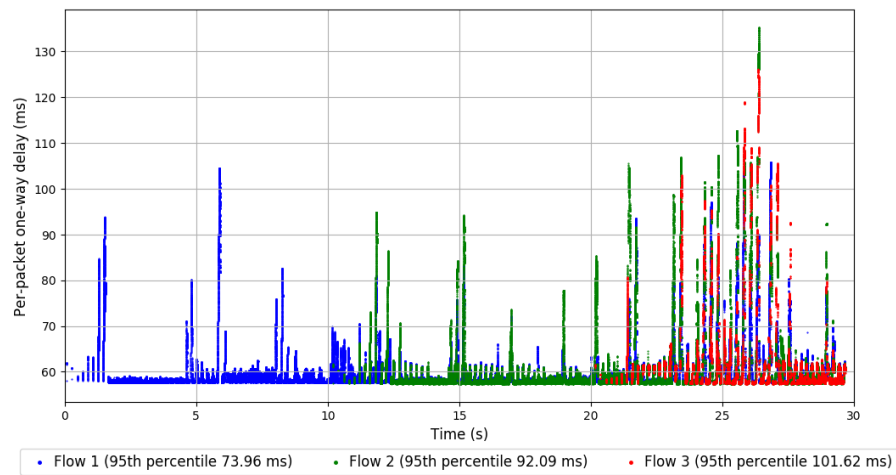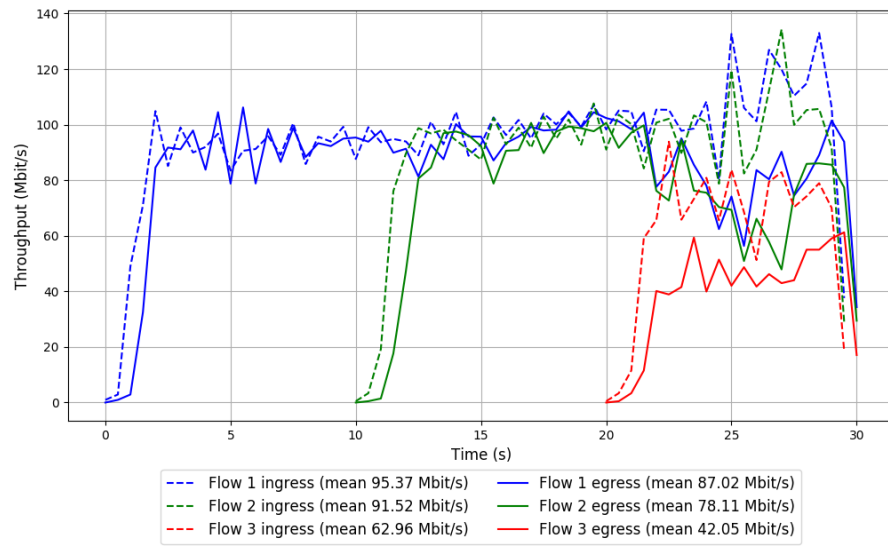
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 492.61 Mbit/s)   Flow 1 egress (mean 331.67 Mbit/s)
Flow 2 ingress (mean 84.37 Mbit/s)   Flow 2 egress (mean 55.20 Mbit/s)
Flow 3 ingress (mean 136.51 Mbit/s)   Flow 3 egress (mean 84.27 Mbit/s)

Flow 1 (95th percentile 93.60 ms)   Flow 2 (95th percentile 55.11 ms)   Flow 3 (95th percentile 55.64 ms)
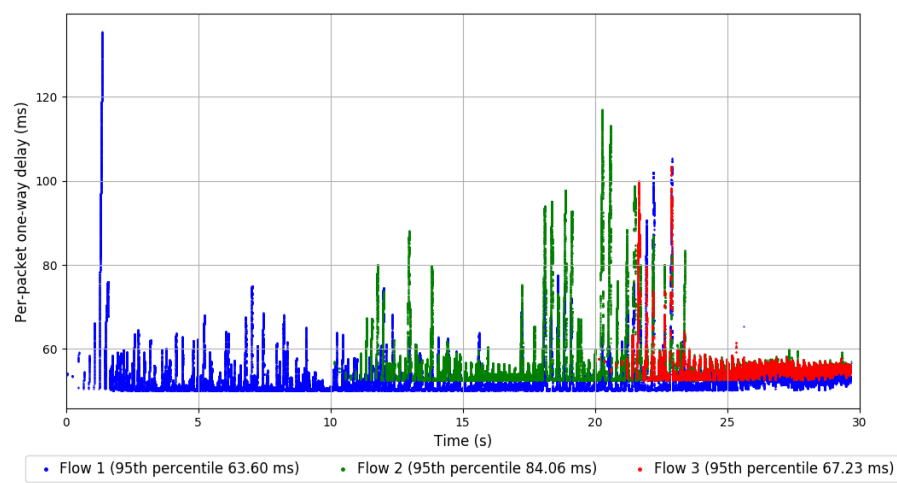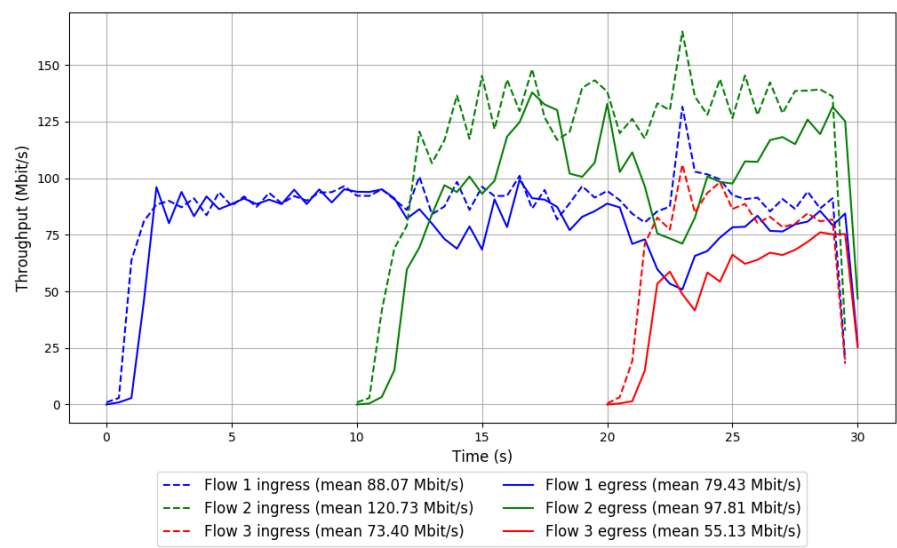
42

```
Run 5: Statistics of FillP

Start at: 2018-10-26 05:38:32
End at: 2018-10-26 05:39:02
Local clock offset: -0.355 ms
Remote clock offset: -33.43 ms


# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.26 Mbit/s
95th percentile per-packet one-way delay: 69.517 ms
Loss rate: 19.75%
-- Flow 1:
Average throughput: 297.20 Mbit/s
95th percentile per-packet one-way delay: 68.343 ms
Loss rate: 17.11%
-- Flow 2:
Average throughput: 149.13 Mbit/s
95th percentile per-packet one-way delay: 69.860 ms
Loss rate: 26.34%
-- Flow 3:
Average throughput: 71.98 Mbit/s
95th percentile per-packet one-way delay: 67.104 ms
Loss rate: 21.74%
```

Run 5: Report of FillP — Data Link

```
Run 1: Statistics of Indigo

Start at: 2018-10-26 03:05:22
End at: 2018-10-26 03:05:52
Local clock offset: 2.305 ms
Remote clock offset: -38.839 ms


# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.90 Mbit/s
95th percentile per-packet one-way delay: 84.805 ms
Loss rate: 13.58%
-- Flow 1:
Average throughput: 87.02 Mbit/s
95th percentile per-packet one-way delay: 73.960 ms
Loss rate: 8.75%
-- Flow 2:
Average throughput: 78.11 Mbit/s
95th percentile per-packet one-way delay: 92.088 ms
Loss rate: 14.64%
-- Flow 3:
Average throughput: 42.05 Mbit/s
95th percentile per-packet one-way delay: 101.623 ms
Loss rate: 33.22%
```
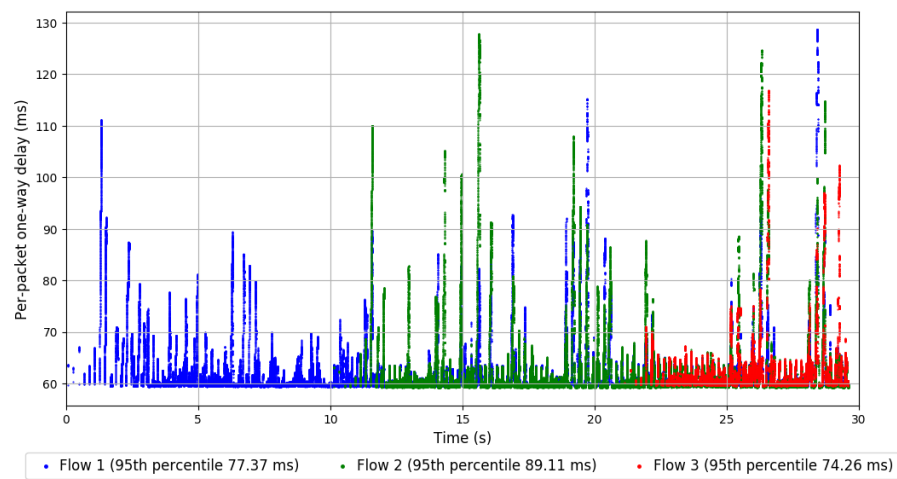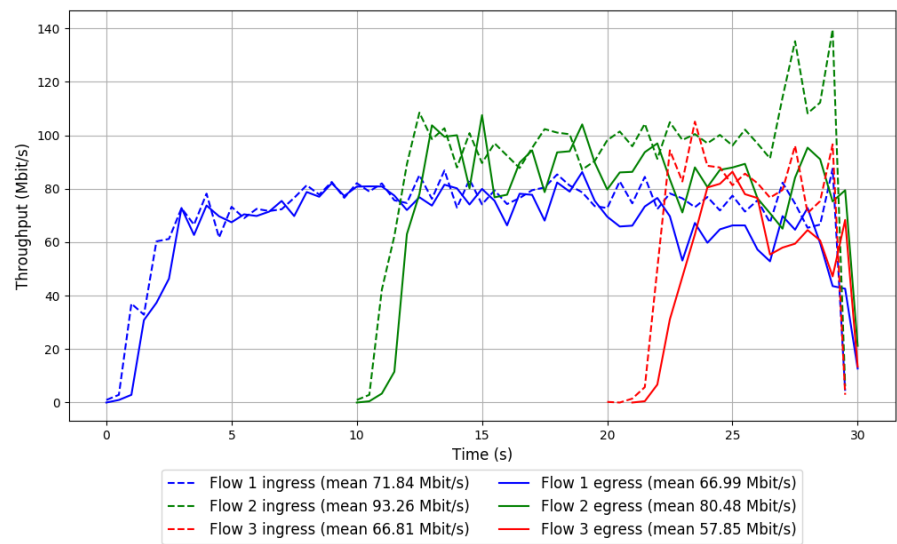
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-10-26 03:37:32
End at: 2018-10-26 03:38:02
Local clock offset: 1.387 ms
Remote clock offset: -47.877 ms

# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.70 Mbit/s
95th percentile per-packet one-way delay: 72.570 ms
Loss rate: 15.50%
-- Flow 1:
Average throughput: 79.43 Mbit/s
95th percentile per-packet one-way delay: 63.597 ms
Loss rate: 9.83%
-- Flow 2:
Average throughput: 97.81 Mbit/s
95th percentile per-packet one-way delay: 84.062 ms
Loss rate: 18.98%
-- Flow 3:
Average throughput: 55.13 Mbit/s
95th percentile per-packet one-way delay: 67.232 ms
Loss rate: 24.92%
```
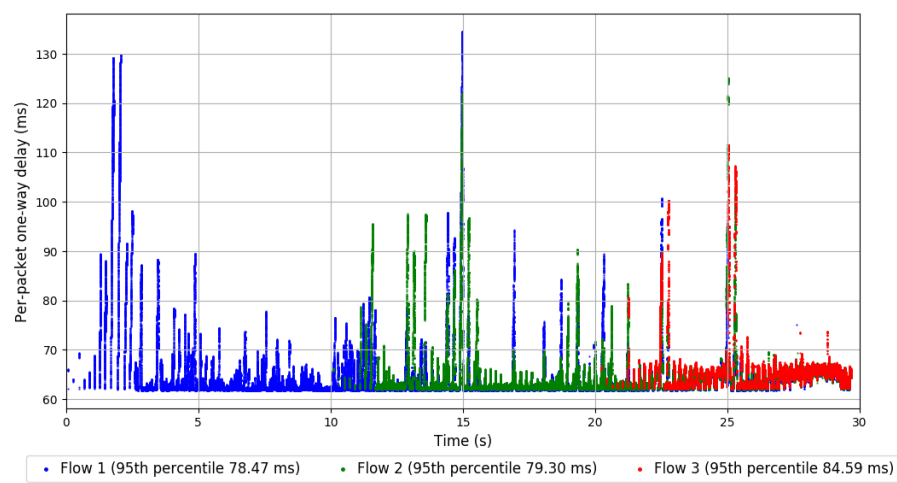
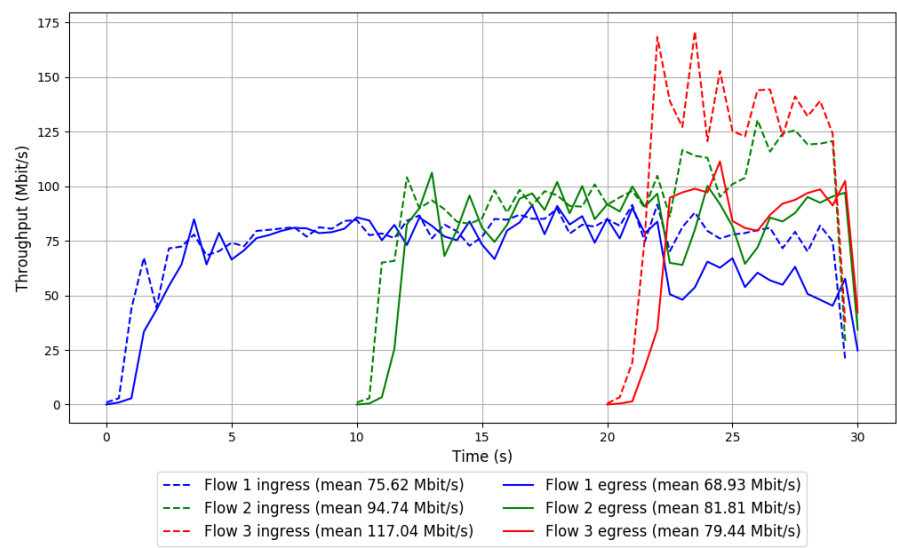Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-10-26 04:15:34
End at: 2018-10-26 04:16:04
Local clock offset: -1.617 ms
Remote clock offset: -40.838 ms


# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.59 Mbit/s
95th percentile per-packet one-way delay: 81.195 ms
Loss rate: 11.70%
-- Flow 1:
Average throughput: 66.99 Mbit/s
95th percentile per-packet one-way delay: 77.368 ms
Loss rate: 6.75%
-- Flow 2:
Average throughput: 80.48 Mbit/s
95th percentile per-packet one-way delay: 89.105 ms
Loss rate: 13.70%
-- Flow 3:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 74.256 ms
Loss rate: 22.56%
```
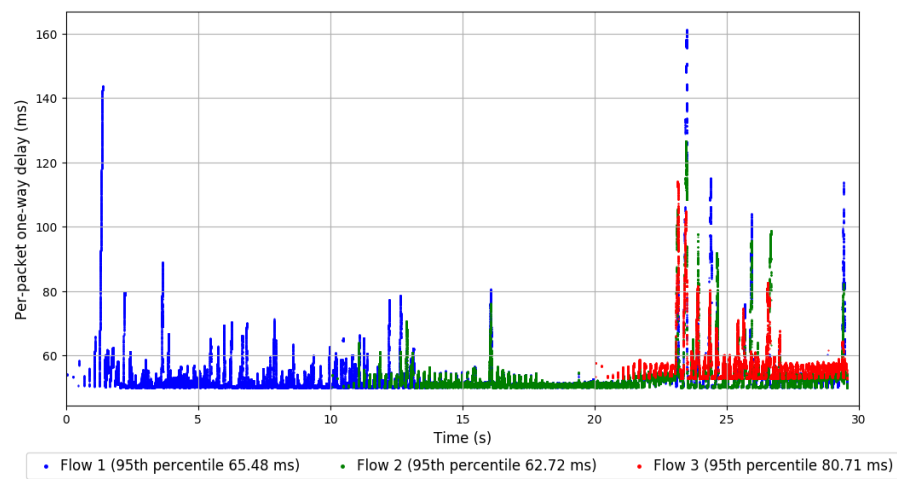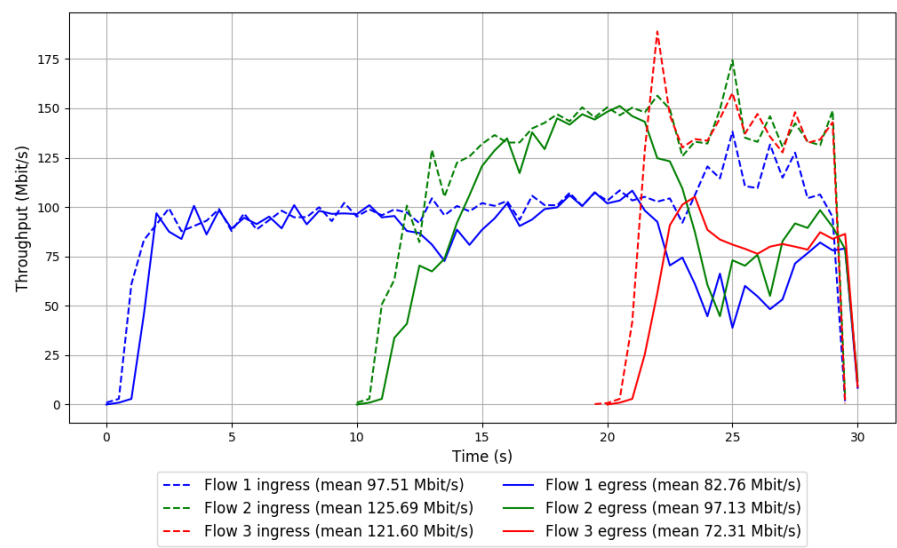
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-10-26 04:48:00
End at: 2018-10-26 04:48:30
Local clock offset: -0.097 ms
Remote clock offset: -34.135 ms


# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.28 Mbit/s
95th percentile per-packet one-way delay: 79.603 ms
Loss rate: 15.50%
-- Flow 1:
Average throughput: 68.93 Mbit/s
95th percentile per-packet one-way delay: 78.474 ms
Loss rate: 8.83%
-- Flow 2:
Average throughput: 81.81 Mbit/s
95th percentile per-packet one-way delay: 79.297 ms
Loss rate: 13.65%
-- Flow 3:
Average throughput: 79.44 Mbit/s
95th percentile per-packet one-way delay: 84.586 ms
Loss rate: 32.12%
```
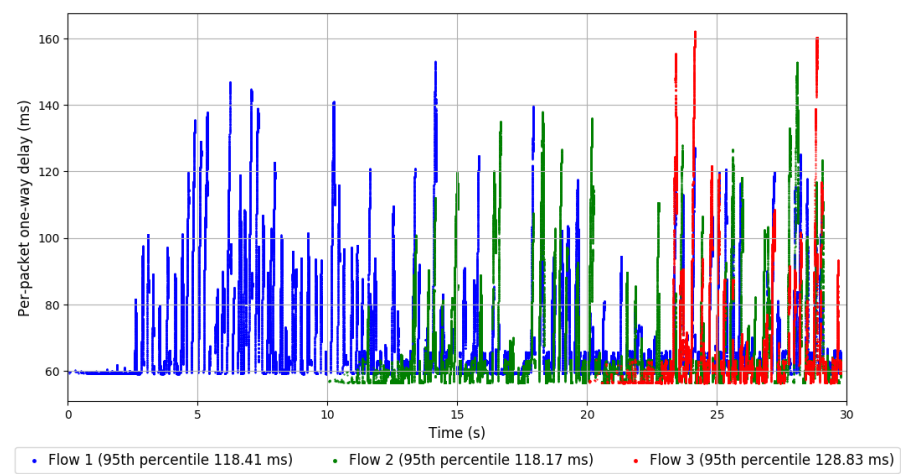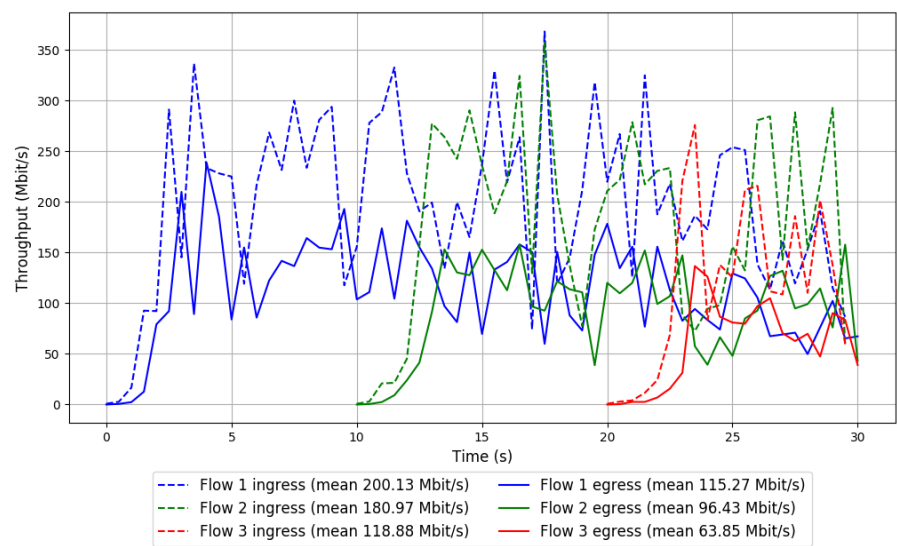
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-10-26 05:20:41
End at: 2018-10-26 05:21:11
Local clock offset: -0.278 ms
Remote clock offset: -44.501 ms


# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.29 Mbit/s
95th percentile per-packet one-way delay: 68.497 ms
Loss rate: 22.54%
-- Flow 1:
Average throughput: 82.76 Mbit/s
95th percentile per-packet one-way delay: 65.478 ms
Loss rate: 15.13%
-- Flow 2:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 62.717 ms
Loss rate: 22.72%
-- Flow 3:
Average throughput: 72.31 Mbit/s
95th percentile per-packet one-way delay: 80.710 ms
Loss rate: 40.54%
```
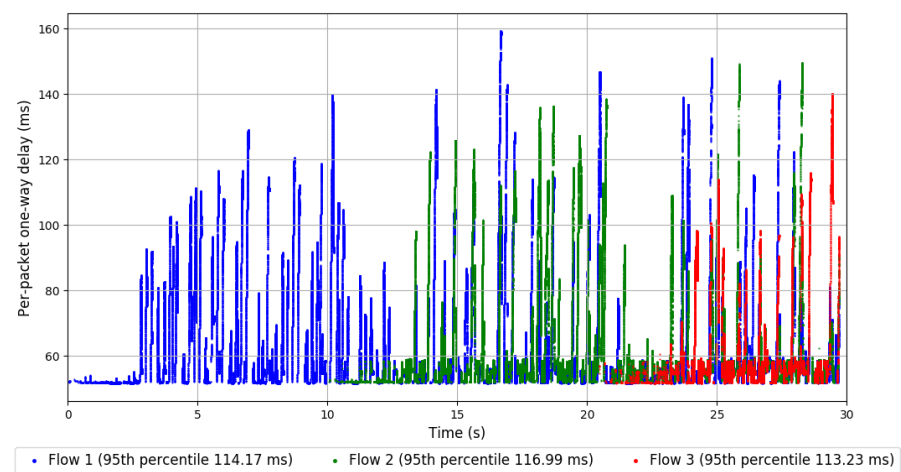
Run 5: Report of Indigo — Data Link

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

Start at: 2018-10-26 03:20:22
End at: 2018-10-26 03:20:52
Local clock offset: 0.633 ms
Remote clock offset: -41.311 ms


# Below is generated by plot.py at 2018-10-26 05:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.98 Mbit/s
95th percentile per-packet one-way delay: 118.830 ms
Loss rate: 44.26%
-- Flow 1:
Average throughput: 115.27 Mbit/s
95th percentile per-packet one-way delay: 118.414 ms
Loss rate: 42.40%
-- Flow 2:
Average throughput: 96.43 Mbit/s
95th percentile per-packet one-way delay: 118.168 ms
Loss rate: 46.71%
-- Flow 3:
Average throughput: 63.85 Mbit/s
95th percentile per-packet one-way delay: 128.833 ms
Loss rate: 46.27%
```
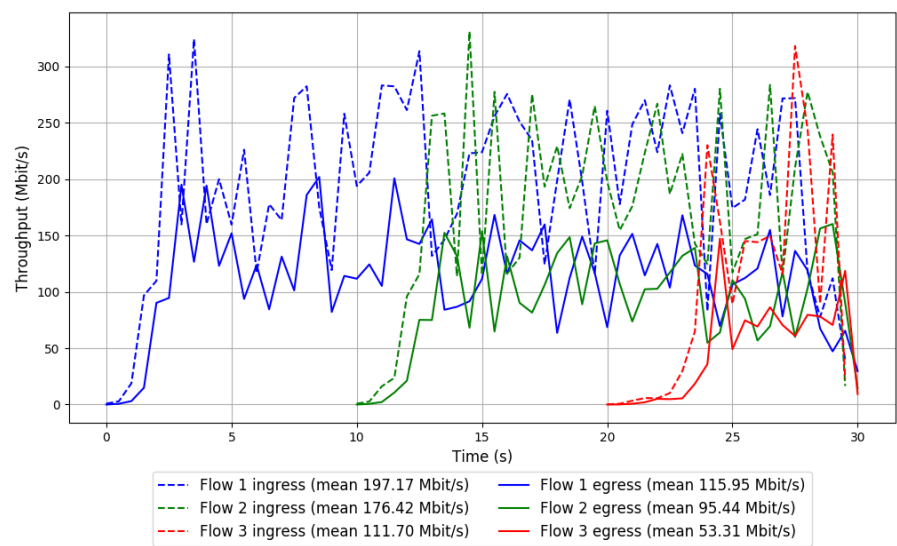
Run 1: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-10-26 03:52:48
End at: 2018-10-26 03:53:18
Local clock offset: 3.339 ms
Remote clock offset: -45.121 ms


# Below is generated by plot.py at 2018-10-26 05:55:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 195.80 Mbit/s
95th percentile per-packet one-way delay: 115.003 ms
Loss rate: 43.88%
-- Flow 1:
Average throughput: 115.95 Mbit/s
95th percentile per-packet one-way delay: 114.169 ms
Loss rate: 41.19%
-- Flow 2:
Average throughput: 95.44 Mbit/s
95th percentile per-packet one-way delay: 116.990 ms
Loss rate: 45.89%
-- Flow 3:
Average throughput: 53.31 Mbit/s
95th percentile per-packet one-way delay: 113.230 ms
Loss rate: 52.35%
```
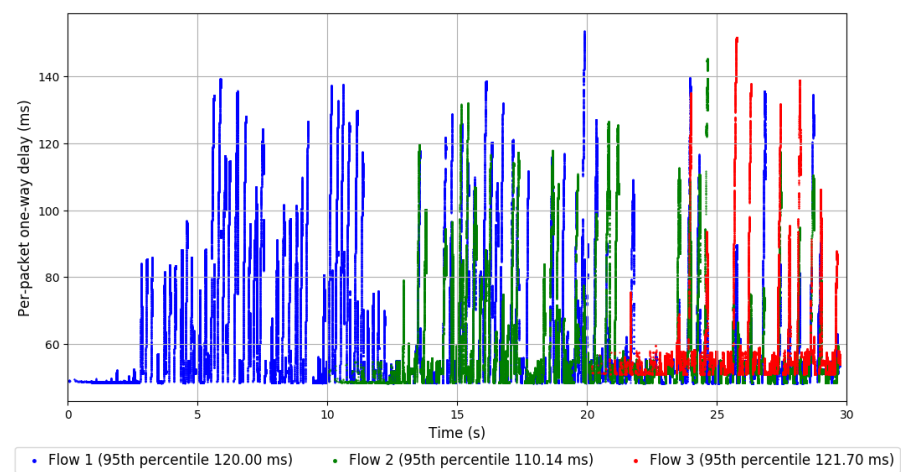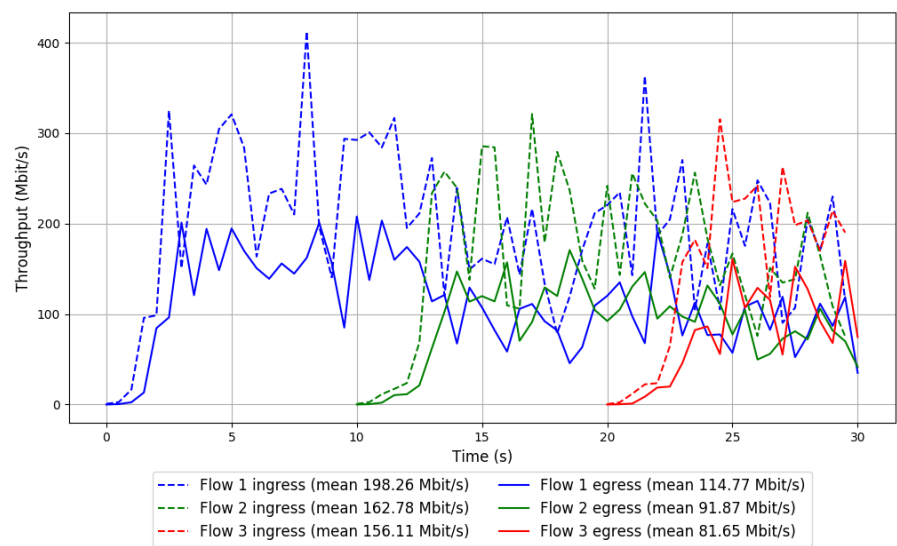
Run 2: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-10-26 04:30:47
End at: 2018-10-26 04:31:17
Local clock offset: 2.083 ms
Remote clock offset: -47.201 ms


# Below is generated by plot.py at 2018-10-26 05:56:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 201.79 Mbit/s
95th percentile per-packet one-way delay: 116.485 ms
Loss rate: 43.33%
-- Flow 1:
Average throughput: 114.77 Mbit/s
95th percentile per-packet one-way delay: 120.003 ms
Loss rate: 42.10%
-- Flow 2:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 110.145 ms
Loss rate: 43.55%
-- Flow 3:
Average throughput: 81.65 Mbit/s
95th percentile per-packet one-way delay: 121.701 ms
Loss rate: 47.69%
```
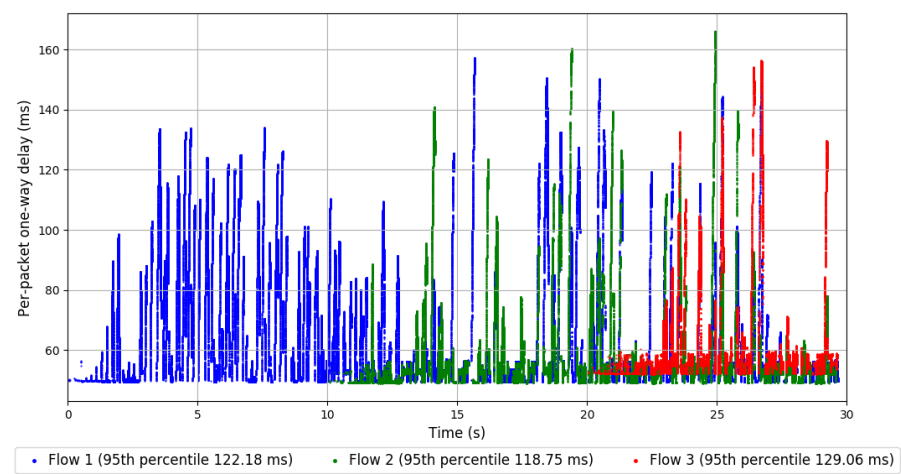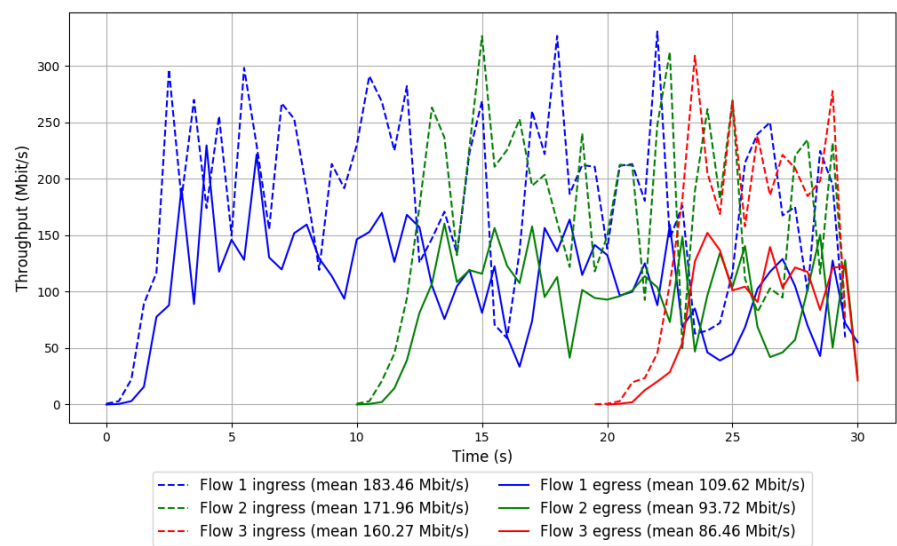
Run 3: Report of Indigo-96d2da3 — Data Link

Flow 1 ingress (mean 198.26 Mbit/s) --- Flow 1 egress (mean 114.77 Mbit/s) ---
Flow 2 ingress (mean 162.78 Mbit/s) --- Flow 2 egress (mean 91.87 Mbit/s) ---
Flow 3 ingress (mean 156.11 Mbit/s) --- Flow 3 egress (mean 81.65 Mbit/s) ---

Flow 1 (95th percentile 120.00 ms)   Flow 2 (95th percentile 110.14 ms)   Flow 3 (95th percentile 121.70 ms)
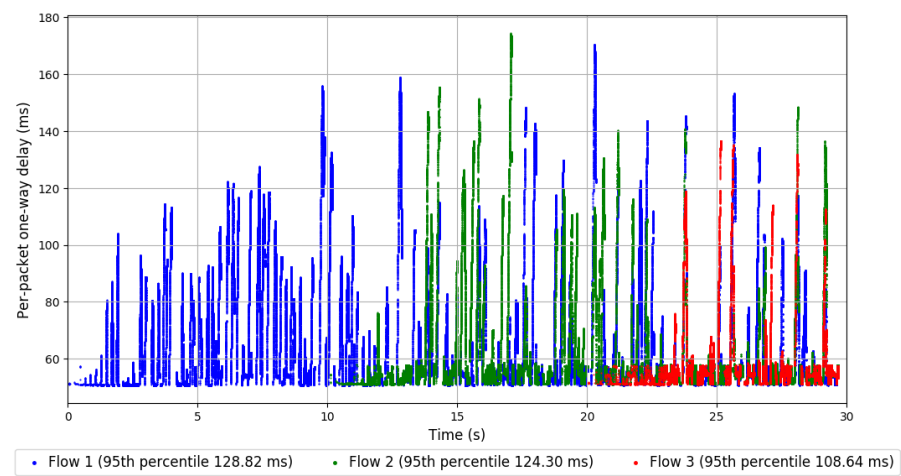
```
Run 4: Statistics of Indigo-96d2da3

Start at: 2018-10-26 05:03:19
End at: 2018-10-26 05:03:49
Local clock offset: 2.396 ms
Remote clock offset: -42.922 ms


# Below is generated by plot.py at 2018-10-26 05:57:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 199.48 Mbit/s
95th percentile per-packet one-way delay: 122.639 ms
Loss rate: 42.81%
-- Flow 1:
Average throughput: 109.62 Mbit/s
95th percentile per-packet one-way delay: 122.184 ms
Loss rate: 40.25%
-- Flow 2:
Average throughput: 93.72 Mbit/s
95th percentile per-packet one-way delay: 118.754 ms
Loss rate: 45.48%
-- Flow 3:
Average throughput: 86.46 Mbit/s
95th percentile per-packet one-way delay: 129.064 ms
Loss rate: 46.02%
```
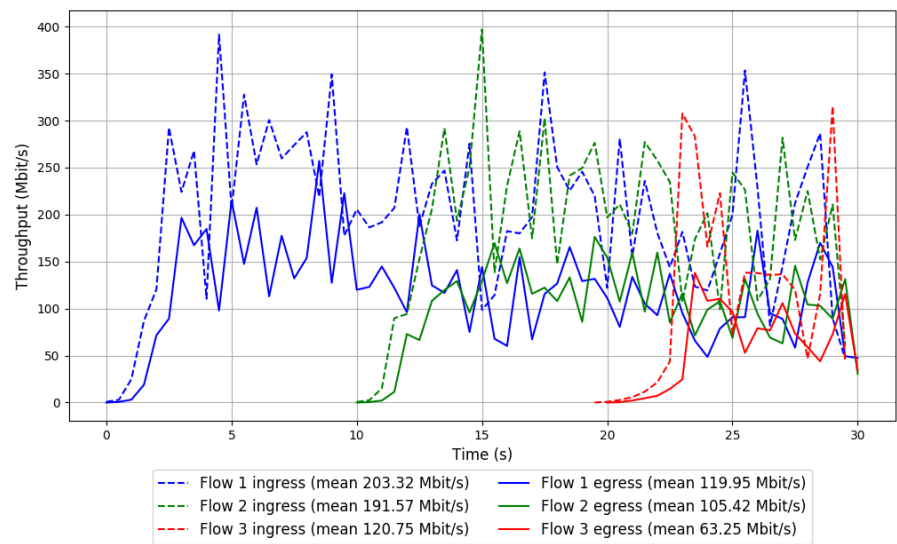
Run 4: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-10-26 05:41:06
End at: 2018-10-26 05:41:36
Local clock offset: 2.783 ms
Remote clock offset: -43.194 ms


# Below is generated by plot.py at 2018-10-26 05:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.02 Mbit/s
95th percentile per-packet one-way delay: 125.483 ms
Loss rate: 43.06%
-- Flow 1:
Average throughput: 119.95 Mbit/s
95th percentile per-packet one-way delay: 128.821 ms
Loss rate: 40.99%
-- Flow 2:
Average throughput: 105.42 Mbit/s
95th percentile per-packet one-way delay: 124.298 ms
Loss rate: 44.97%
-- Flow 3:
Average throughput: 63.25 Mbit/s
95th percentile per-packet one-way delay: 108.639 ms
Loss rate: 47.60%
```
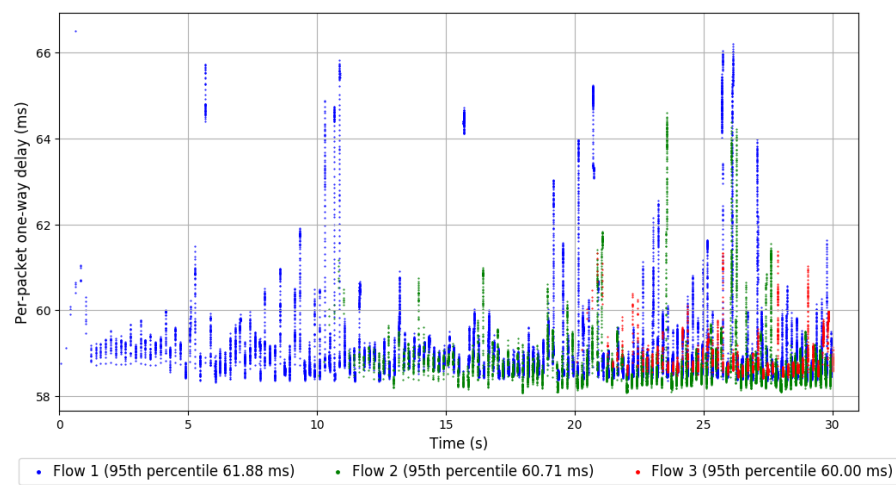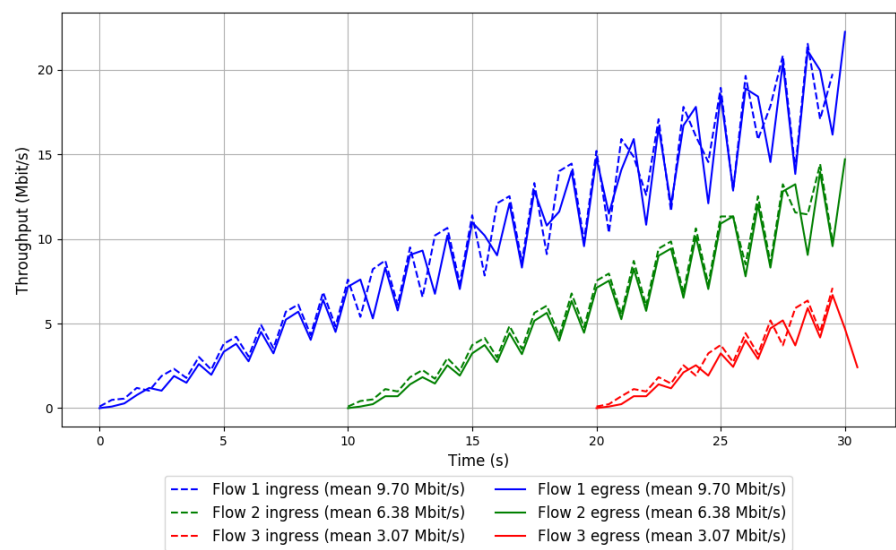
Run 5: Report of Indigo-96d2da3 — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-10-26 02:53:38
End at: 2018-10-26 02:54:08
Local clock offset: 2.418 ms
Remote clock offset: -38.264 ms

# Below is generated by plot.py at 2018-10-26 05:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 61.271 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 61.885 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.38 Mbit/s
95th percentile per-packet one-way delay: 60.714 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 59.998 ms
Loss rate: 0.00%
```
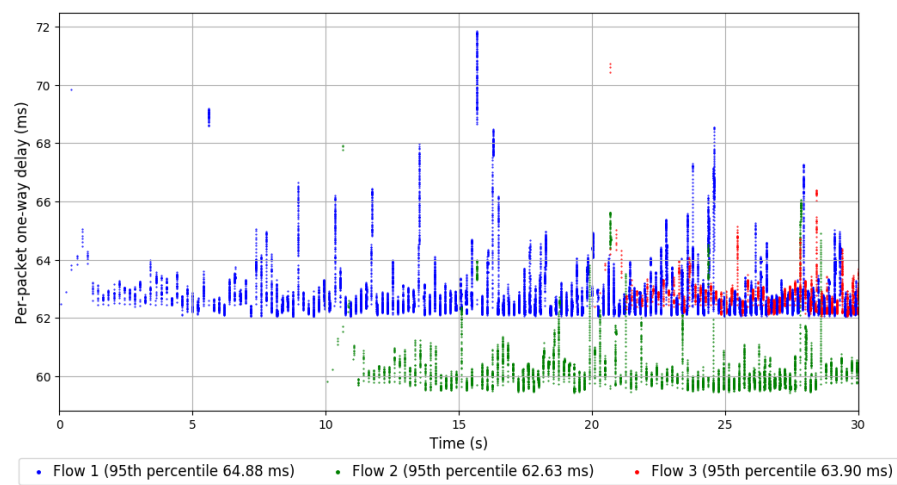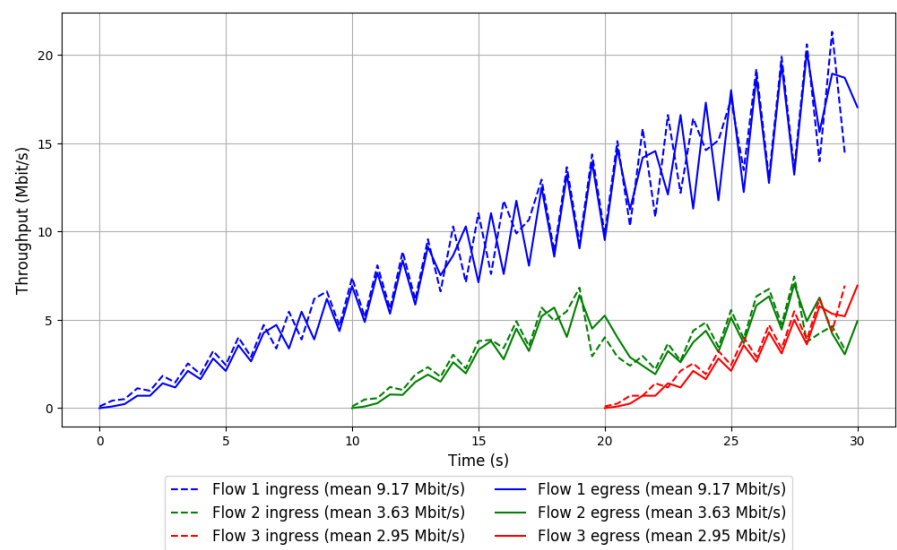
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-10-26 03:26:01
End at: 2018-10-26 03:26:31
Local clock offset: -1.214 ms
Remote clock offset: -39.751 ms


# Below is generated by plot.py at 2018-10-26 05:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.53 Mbit/s
95th percentile per-packet one-way delay: 64.626 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 64.877 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 62.634 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 2.95 Mbit/s
95th percentile per-packet one-way delay: 63.900 ms
Loss rate: 0.00%
```
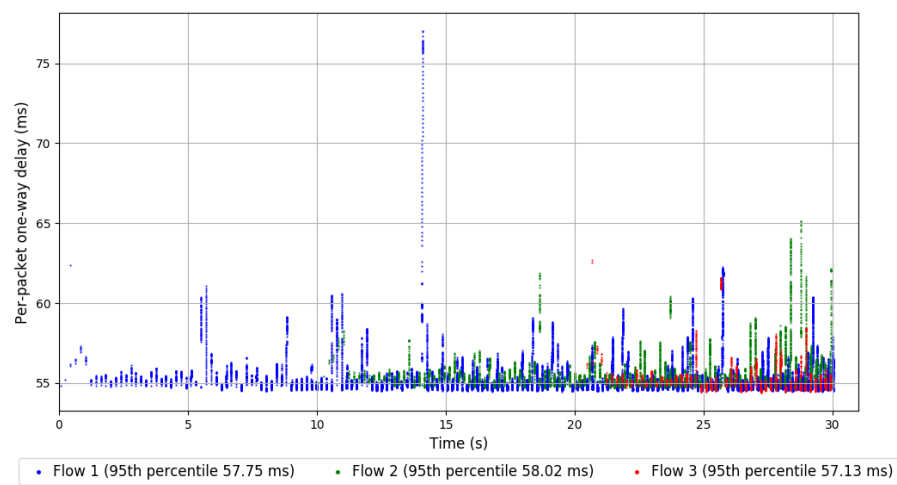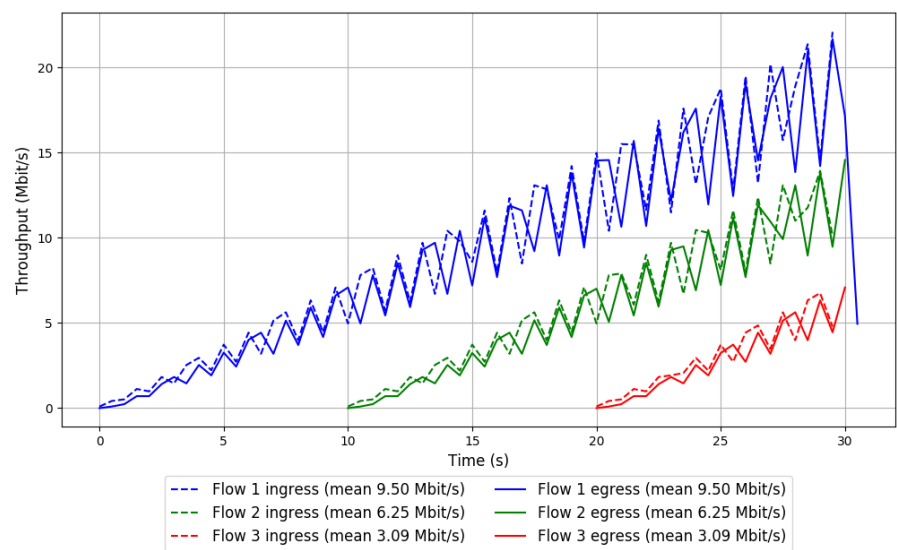
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-10-26 03:58:24
End at: 2018-10-26 03:58:54
Local clock offset: 3.08 ms
Remote clock offset: -42.59 ms


# Below is generated by plot.py at 2018-10-26 05:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.66 Mbit/s
95th percentile per-packet one-way delay: 57.775 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 57.752 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.25 Mbit/s
95th percentile per-packet one-way delay: 58.022 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 57.131 ms
Loss rate: 0.00%
```
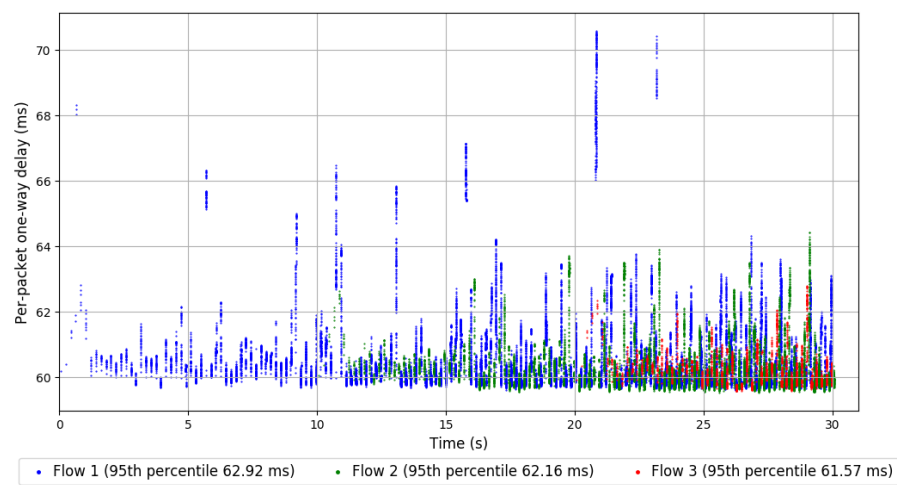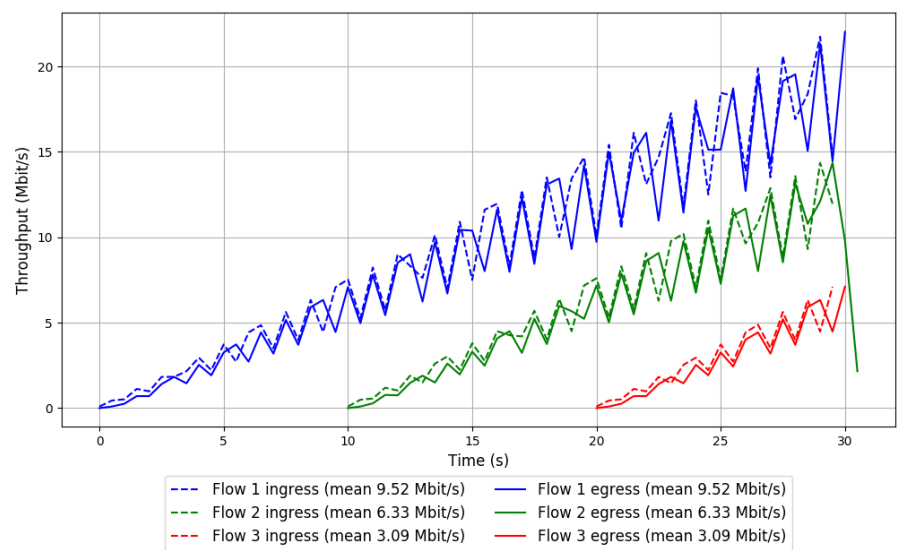
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-10-26 04:36:27
End at: 2018-10-26 04:36:57
Local clock offset: -0.981 ms
Remote clock offset: -38.142 ms


# Below is generated by plot.py at 2018-10-26 05:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.72 Mbit/s
95th percentile per-packet one-way delay: 62.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 62.917 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 62.160 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 61.566 ms
Loss rate: 0.00%
```
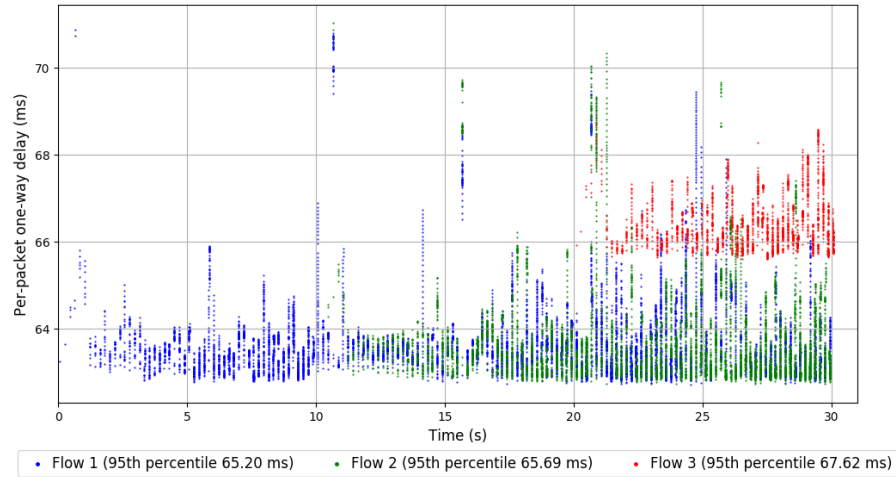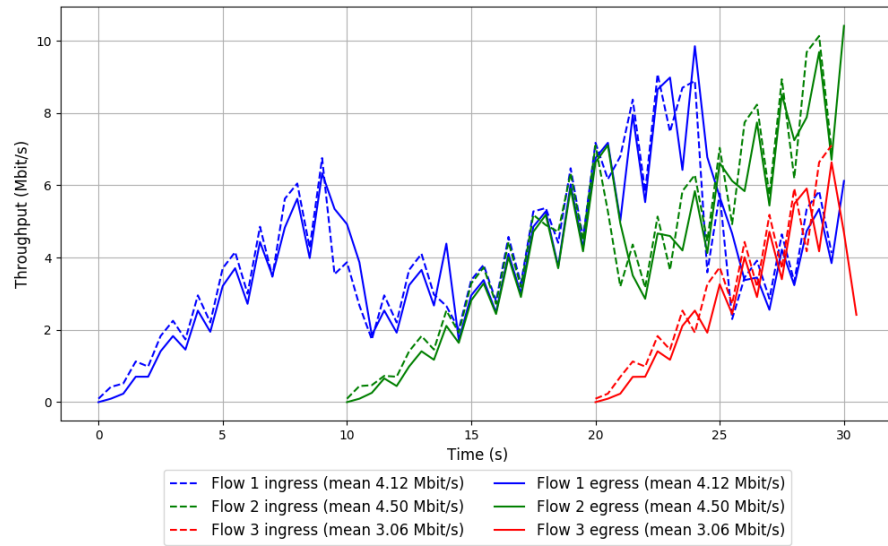
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-10-26 05:08:59
End at: 2018-10-26 05:09:29
Local clock offset: 1.39 ms
Remote clock offset: -29.981 ms


# Below is generated by plot.py at 2018-10-26 05:57:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 66.737 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 4.12 Mbit/s
95th percentile per-packet one-way delay: 65.197 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 65.693 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 67.624 ms
Loss rate: 0.00%
```
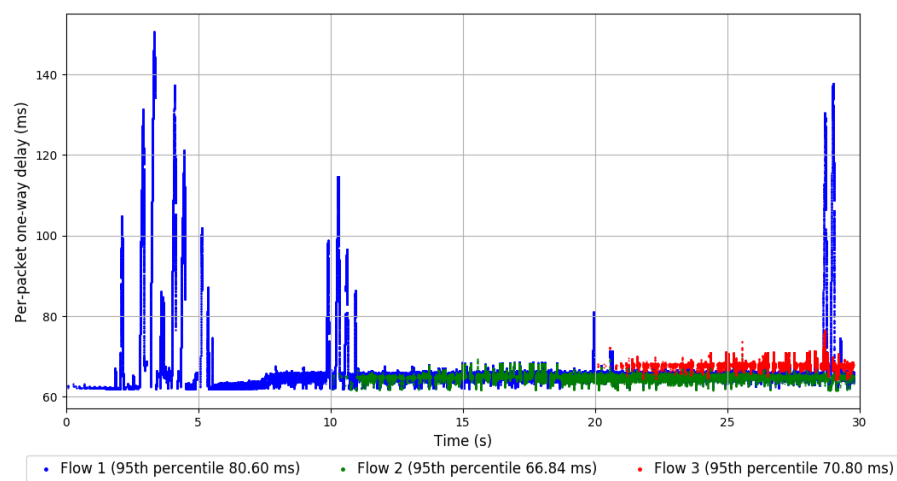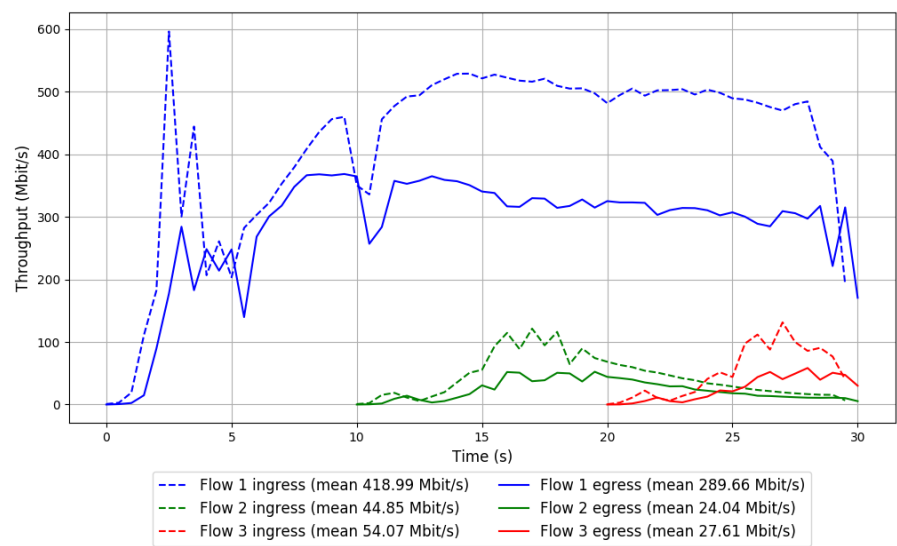
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 4.12 Mbit/s)   Flow 1 egress (mean 4.12 Mbit/s)
Flow 2 ingress (mean 4.50 Mbit/s)   Flow 2 egress (mean 4.50 Mbit/s)
Flow 3 ingress (mean 3.06 Mbit/s)   Flow 3 egress (mean 3.06 Mbit/s)

Flow 1 (95th percentile 65.20 ms)   Flow 2 (95th percentile 65.69 ms)   Flow 3 (95th percentile 67.62 ms)

```
Run 1: Statistics of Indigo-Muses

Start at: 2018-10-26 02:59:38
End at: 2018-10-26 03:00:08
Local clock offset: -0.62 ms
Remote clock offset: -38.145 ms

# Below is generated by plot.py at 2018-10-26 05:59:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.56 Mbit/s
95th percentile per-packet one-way delay: 76.735 ms
Loss rate: 32.53%
-- Flow 1:
Average throughput: 289.66 Mbit/s
95th percentile per-packet one-way delay: 80.602 ms
Loss rate: 30.86%
-- Flow 2:
Average throughput: 24.04 Mbit/s
95th percentile per-packet one-way delay: 66.844 ms
Loss rate: 46.39%
-- Flow 3:
Average throughput: 27.61 Mbit/s
95th percentile per-packet one-way delay: 70.800 ms
Loss rate: 49.02%
```

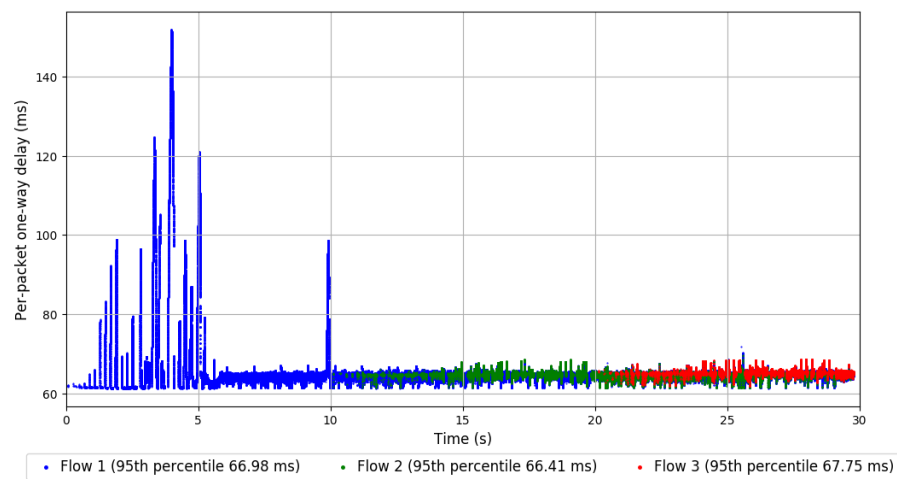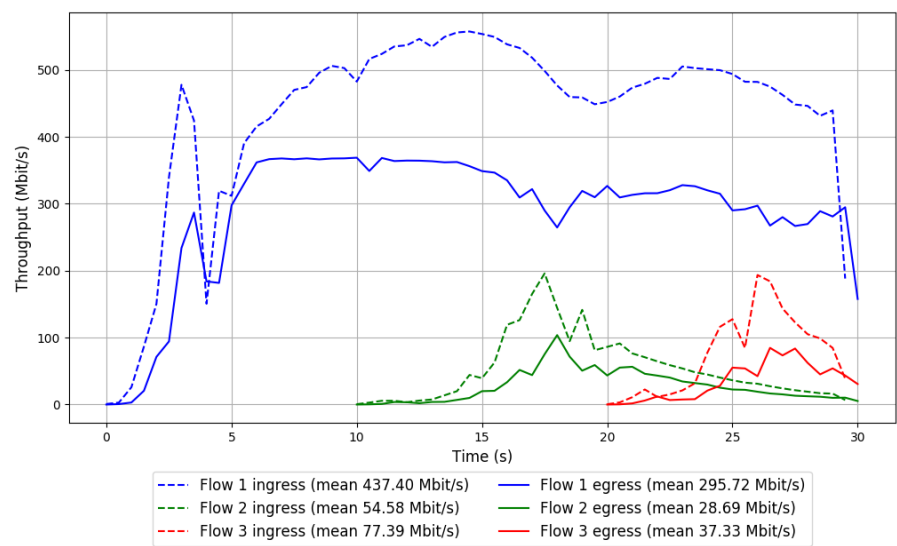Run 1: Report of Indigo-Muses — Data Link

```
Run 2: Statistics of Indigo-Muses

Start at: 2018-10-26 03:31:44
End at: 2018-10-26 03:32:14
Local clock offset: 2.01 ms
Remote clock offset: -34.804 ms


# Below is generated by plot.py at 2018-10-26 05:59:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 326.83 Mbit/s
95th percentile per-packet one-way delay: 66.997 ms
Loss rate: 34.45%
-- Flow 1:
Average throughput: 295.72 Mbit/s
95th percentile per-packet one-way delay: 66.977 ms
Loss rate: 32.38%
-- Flow 2:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 66.414 ms
Loss rate: 47.43%
-- Flow 3:
Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 67.751 ms
Loss rate: 51.79%
```

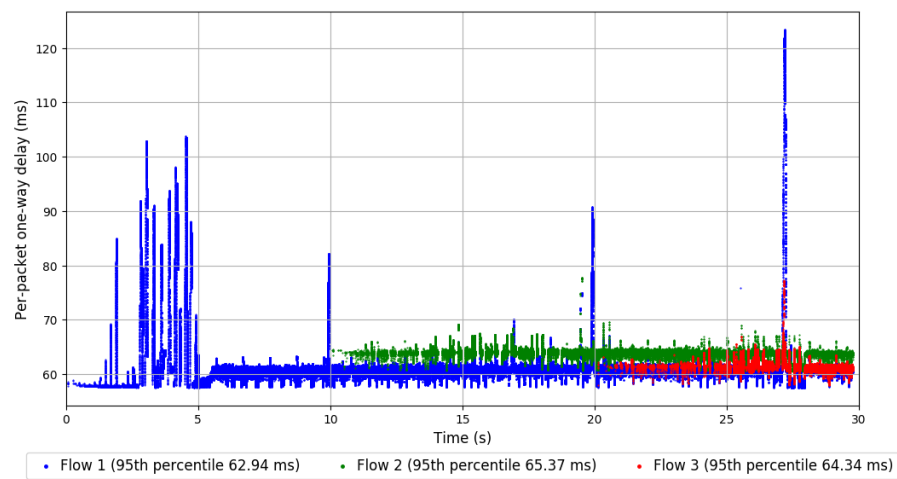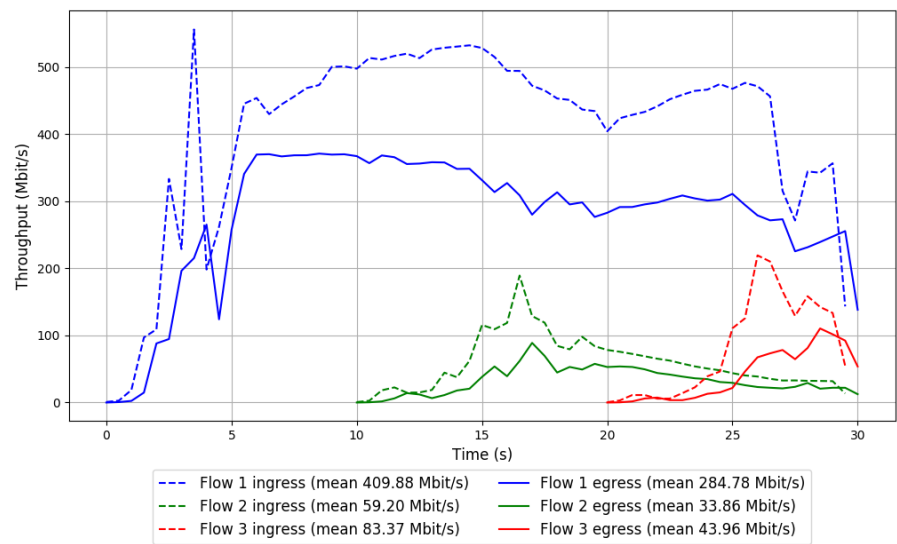Run 2: Report of Indigo-Muses — Data Link

```
Run 3: Statistics of Indigo-Muses

Start at: 2018-10-26 04:04:14
End at: 2018-10-26 04:04:44
Local clock offset: 0.28 ms
Remote clock offset: -41.531 ms


# Below is generated by plot.py at 2018-10-26 05:59:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 321.48 Mbit/s
95th percentile per-packet one-way delay: 64.303 ms
Loss rate: 32.48%
-- Flow 1:
Average throughput: 284.78 Mbit/s
95th percentile per-packet one-way delay: 62.939 ms
Loss rate: 30.51%
-- Flow 2:
Average throughput: 33.86 Mbit/s
95th percentile per-packet one-way delay: 65.372 ms
Loss rate: 42.82%
-- Flow 3:
Average throughput: 43.96 Mbit/s
95th percentile per-packet one-way delay: 64.343 ms
Loss rate: 47.25%
```

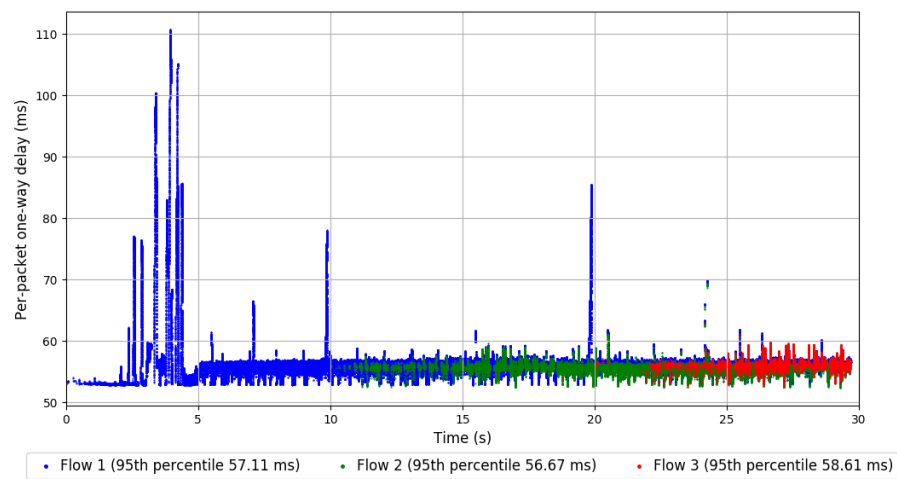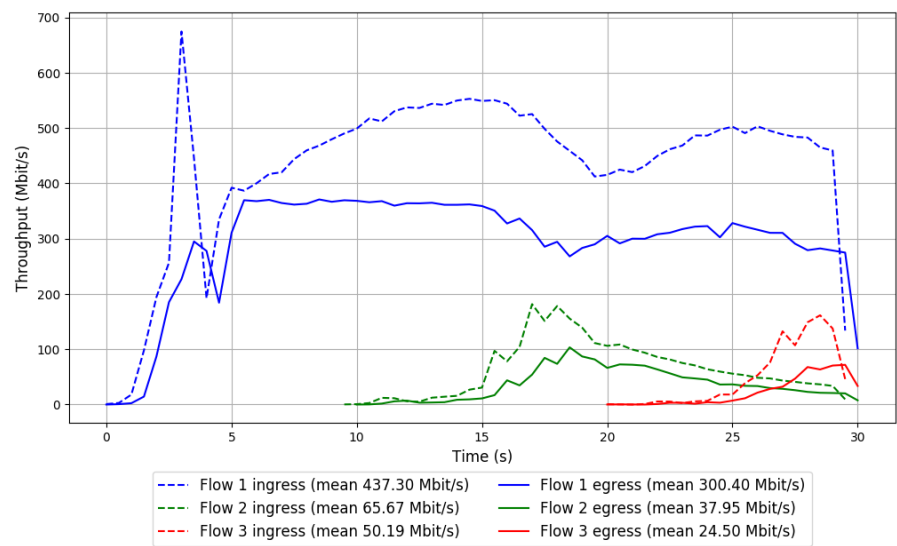Run 3: Report of Indigo-Muses — Data Link

```
Run 4: Statistics of Indigo-Muses

Start at: 2018-10-26 04:42:08
End at: 2018-10-26 04:42:38
Local clock offset: -0.438 ms
Remote clock offset: -44.415 ms

# Below is generated by plot.py at 2018-10-26 05:59:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.56 Mbit/s
95th percentile per-packet one-way delay: 57.122 ms
Loss rate: 32.91%
-- Flow 1:
Average throughput: 300.40 Mbit/s
95th percentile per-packet one-way delay: 57.109 ms
Loss rate: 31.30%
-- Flow 2:
Average throughput: 37.95 Mbit/s
95th percentile per-packet one-way delay: 56.668 ms
Loss rate: 42.22%
-- Flow 3:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 58.609 ms
Loss rate: 51.18%
```

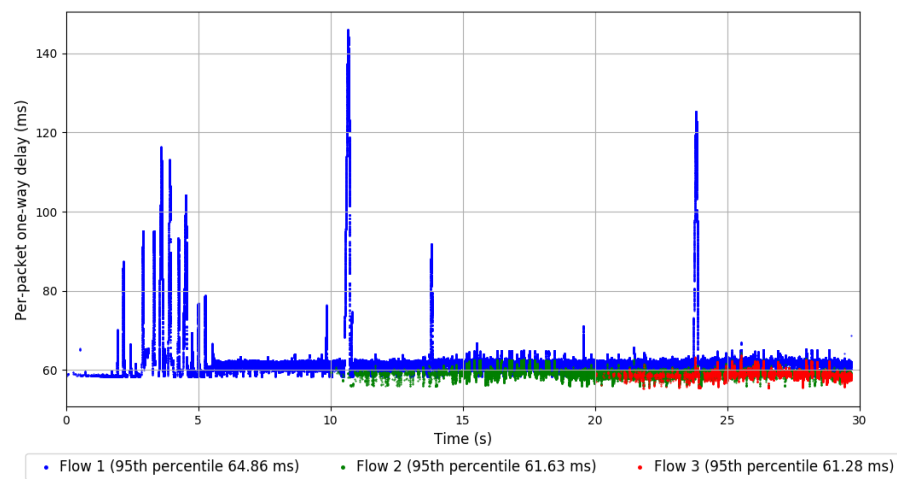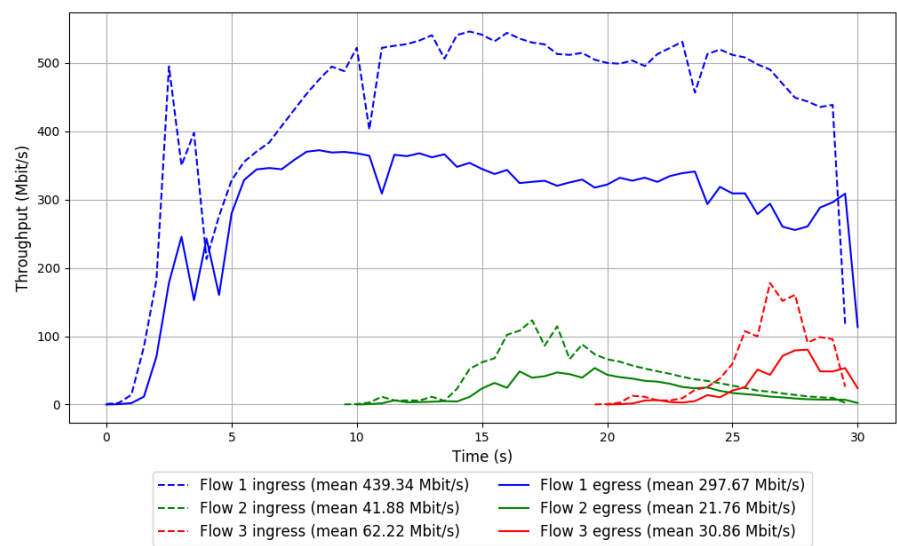Run 4: Report of Indigo-Muses — Data Link

```
Run 5: Statistics of Indigo-Muses

Start at: 2018-10-26 05:14:42
End at: 2018-10-26 05:15:12
Local clock offset: -0.041 ms
Remote clock offset: -38.848 ms

# Below is generated by plot.py at 2018-10-26 05:59:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 322.17 Mbit/s
95th percentile per-packet one-way delay: 64.587 ms
Loss rate: 33.89%
-- Flow 1:
Average throughput: 297.67 Mbit/s
95th percentile per-packet one-way delay: 64.857 ms
Loss rate: 32.23%
-- Flow 2:
Average throughput: 21.76 Mbit/s
95th percentile per-packet one-way delay: 61.628 ms
Loss rate: 48.05%
-- Flow 3:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 61.280 ms
Loss rate: 50.42%
```

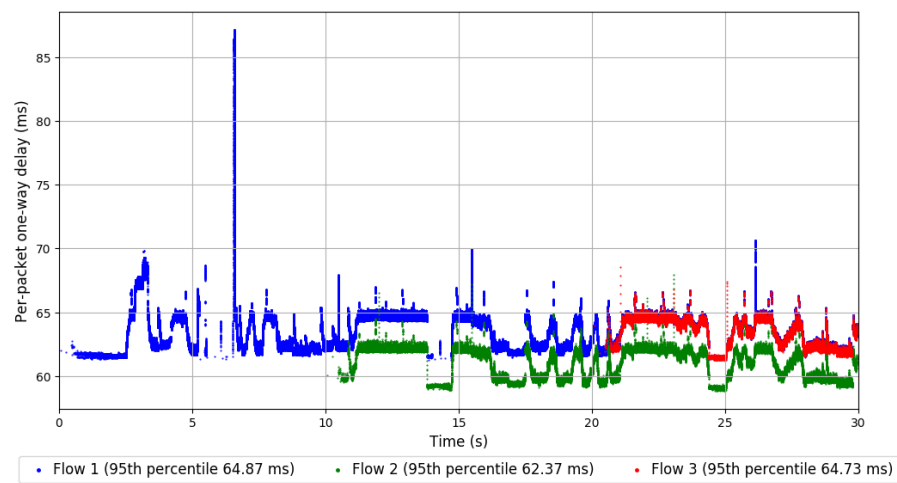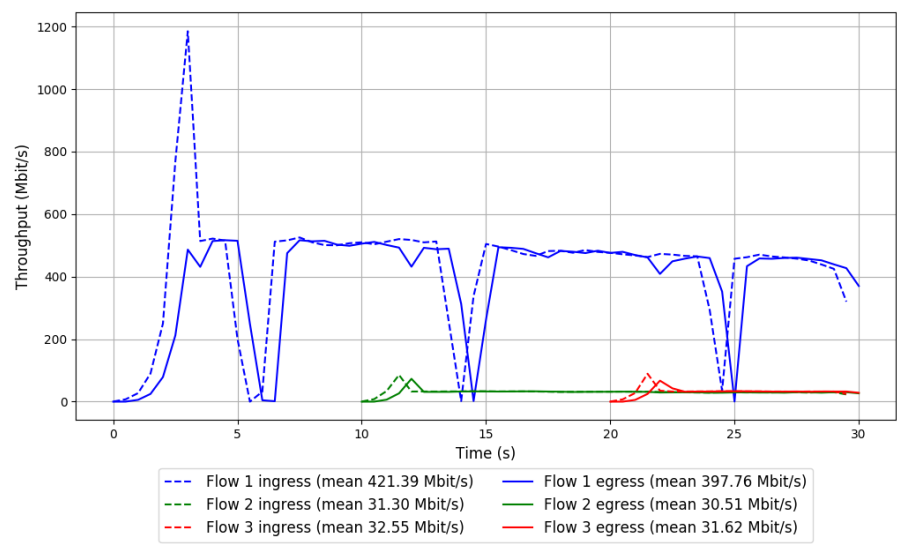Run 5: Report of Indigo-Muses — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-10-26 03:15:26
End at: 2018-10-26 03:15:56
Local clock offset: -1.023 ms
Remote clock offset: -41.239 ms


# Below is generated by plot.py at 2018-10-26 06:02:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 428.48 Mbit/s
95th percentile per-packet one-way delay: 64.844 ms
Loss rate: 5.40%
-- Flow 1:
Average throughput: 397.76 Mbit/s
95th percentile per-packet one-way delay: 64.867 ms
Loss rate: 5.61%
-- Flow 2:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 62.365 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 64.733 ms
Loss rate: 2.88%
```

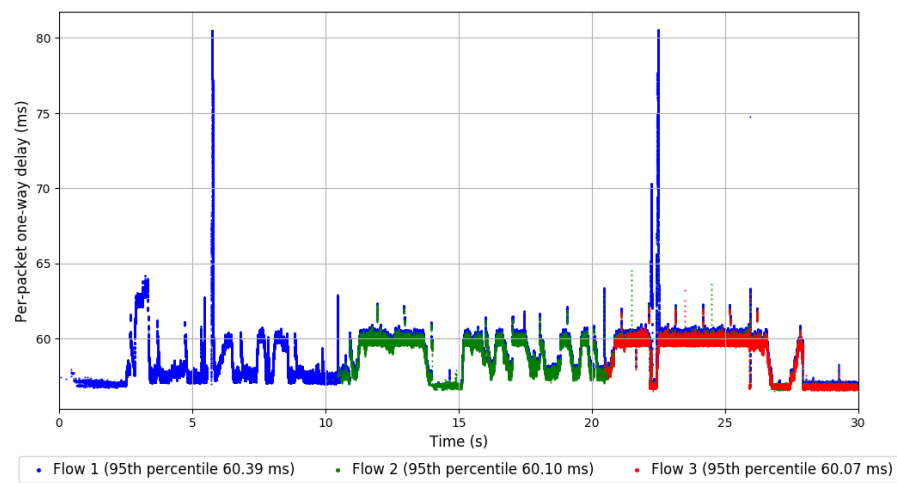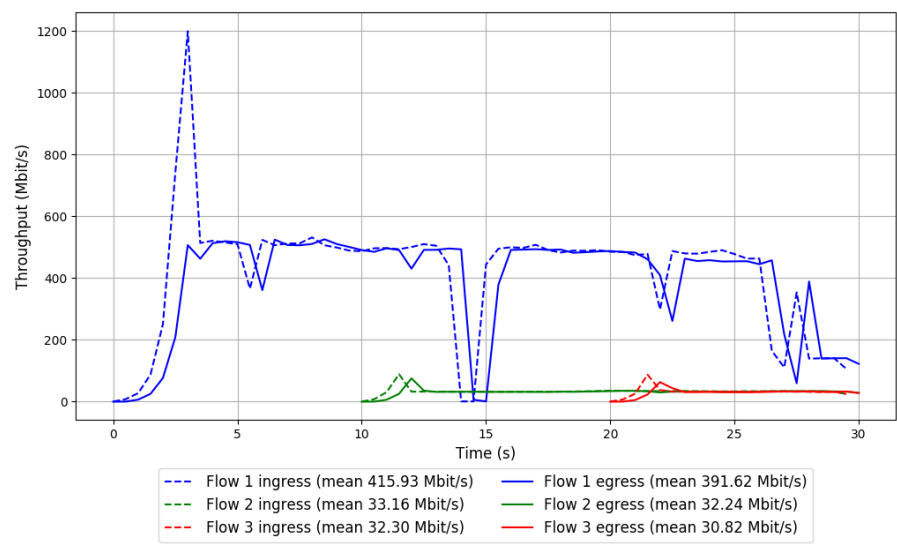Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-10-26 03:47:53
End at: 2018-10-26 03:48:23
Local clock offset: 2.867 ms
Remote clock offset: -40.367 ms


# Below is generated by plot.py at 2018-10-26 06:02:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.22 Mbit/s
95th percentile per-packet one-way delay: 60.359 ms
Loss rate: 5.67%
-- Flow 1:
Average throughput: 391.62 Mbit/s
95th percentile per-packet one-way delay: 60.389 ms
Loss rate: 5.85%
-- Flow 2:
Average throughput: 32.24 Mbit/s
95th percentile per-packet one-way delay: 60.096 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 60.069 ms
Loss rate: 4.62%
```

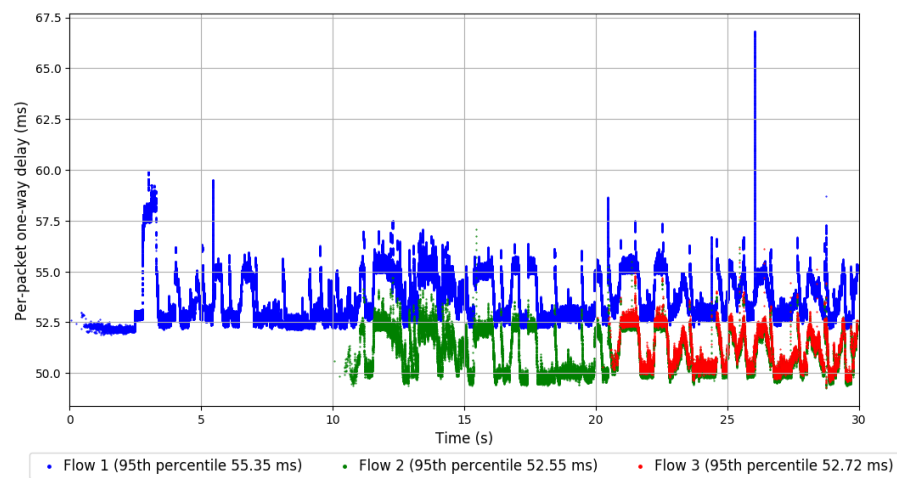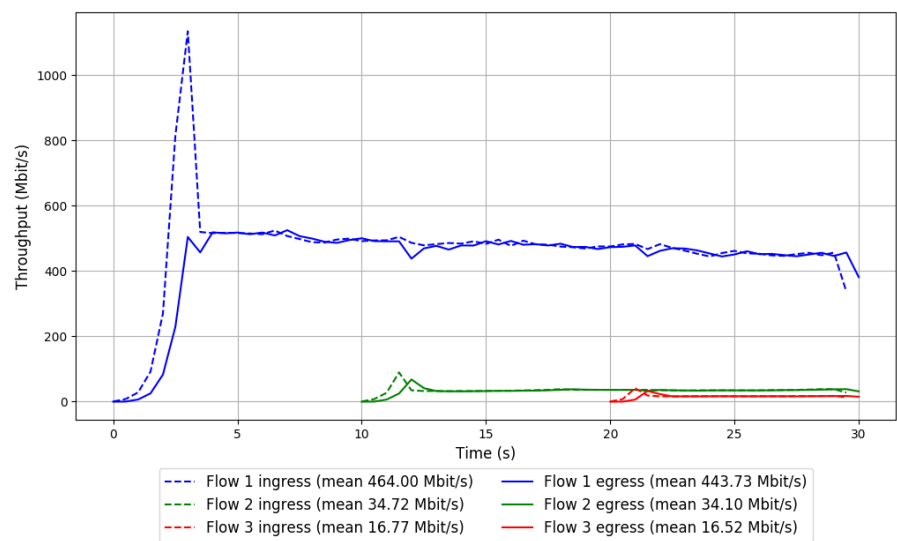Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-10-26 04:25:46
End at: 2018-10-26 04:26:16
Local clock offset: 0.966 ms
Remote clock offset: -47.805 ms


# Below is generated by plot.py at 2018-10-26 06:03:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 471.86 Mbit/s
95th percentile per-packet one-way delay: 55.334 ms
Loss rate: 4.22%
-- Flow 1:
Average throughput: 443.73 Mbit/s
95th percentile per-packet one-way delay: 55.353 ms
Loss rate: 4.37%
-- Flow 2:
Average throughput: 34.10 Mbit/s
95th percentile per-packet one-way delay: 52.553 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 52.723 ms
Loss rate: 1.49%
```

Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 464.00 Mbit/s) —— Flow 1 egress (mean 443.73 Mbit/s)
Flow 2 ingress (mean 34.72 Mbit/s) —— Flow 2 egress (mean 34.10 Mbit/s)
Flow 3 ingress (mean 16.77 Mbit/s) —— Flow 3 egress (mean 16.52 Mbit/s)

• Flow 1 (95th percentile 55.35 ms) • Flow 2 (95th percentile 52.55 ms) • Flow 3 (95th percentile 52.72 ms)
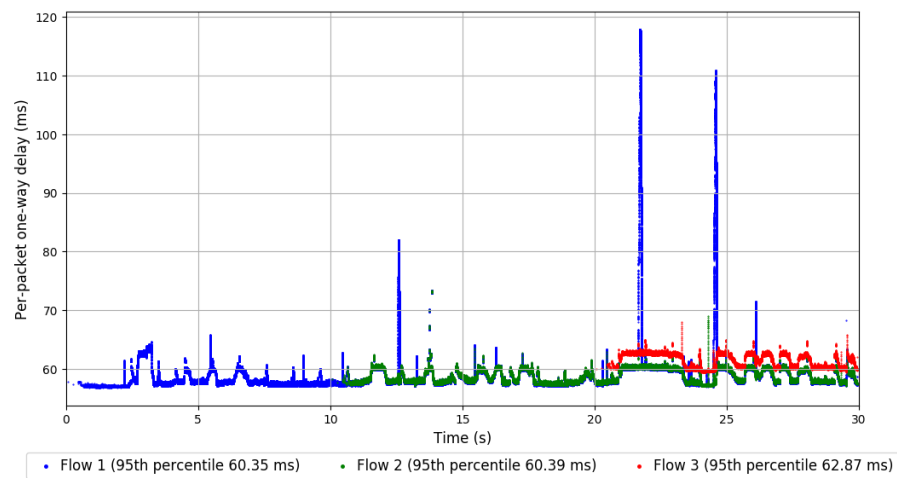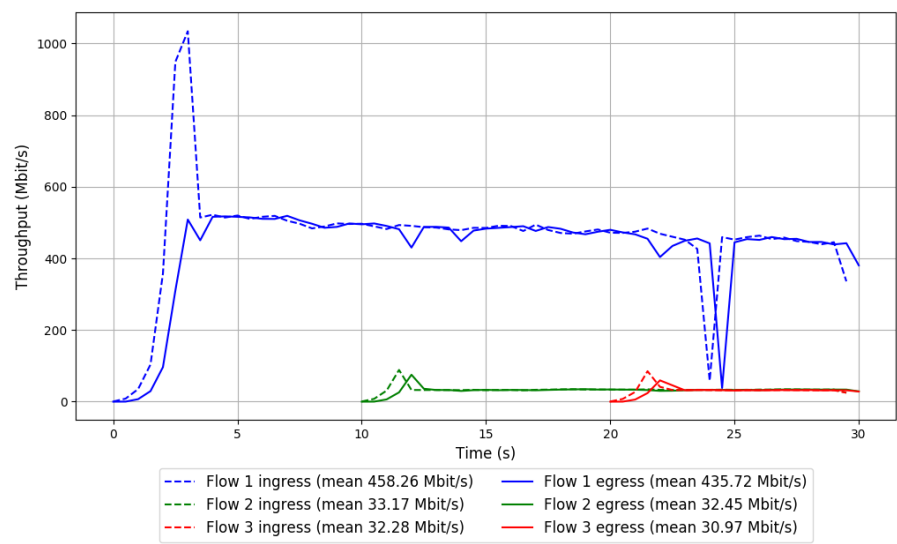
90

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-10-26 04:58:18
End at: 2018-10-26 04:58:48
Local clock offset: -0.772 ms
Remote clock offset: -38.692 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.50 Mbit/s
95th percentile per-packet one-way delay: 60.740 ms
Loss rate: 4.77%
-- Flow 1:
Average throughput: 435.72 Mbit/s
95th percentile per-packet one-way delay: 60.354 ms
Loss rate: 4.91%
-- Flow 2:
Average throughput: 32.45 Mbit/s
95th percentile per-packet one-way delay: 60.386 ms
Loss rate: 2.15%
-- Flow 3:
Average throughput: 30.97 Mbit/s
95th percentile per-packet one-way delay: 62.868 ms
Loss rate: 4.05%
```

Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 458.26 Mbit/s)   Flow 1 egress (mean 435.72 Mbit/s)
Flow 2 ingress (mean 33.17 Mbit/s)   Flow 2 egress (mean 32.45 Mbit/s)
Flow 3 ingress (mean 32.28 Mbit/s)   Flow 3 egress (mean 30.97 Mbit/s)

Flow 1 (95th percentile 60.35 ms)   Flow 2 (95th percentile 60.39 ms)   Flow 3 (95th percentile 62.87 ms)
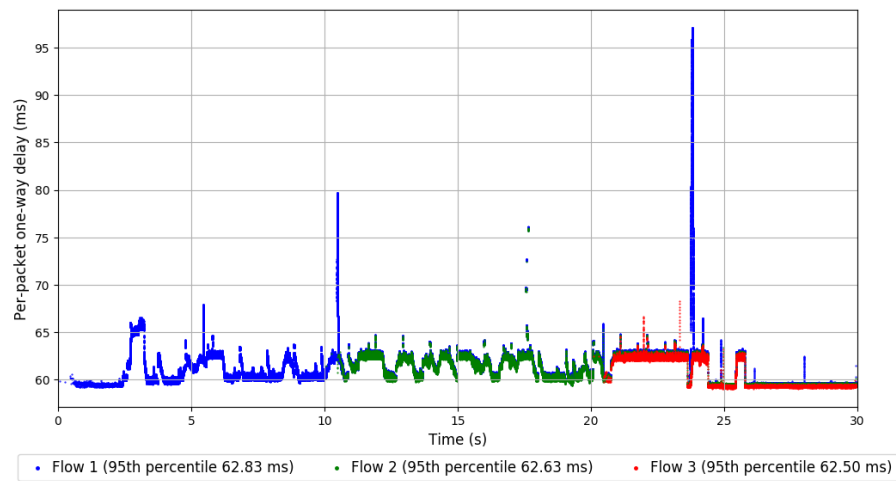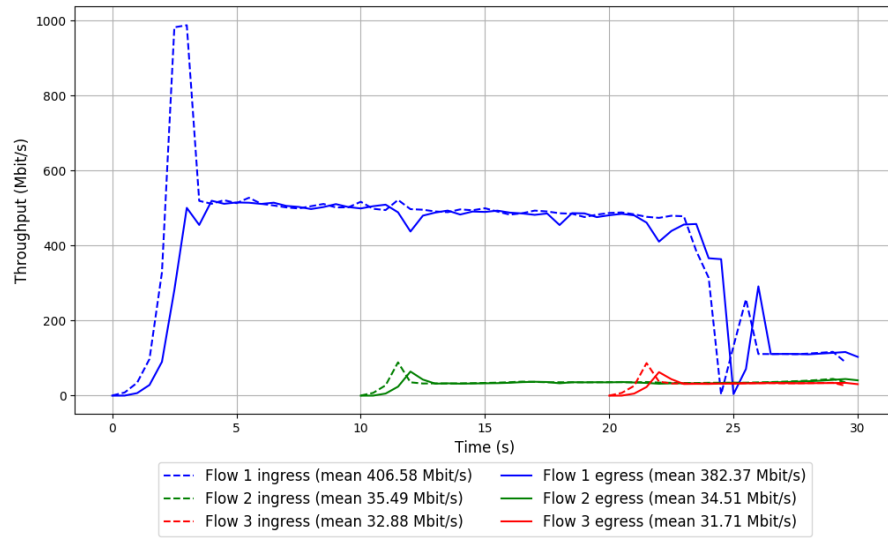
92

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-10-26 05:36:12
End at: 2018-10-26 05:36:42
Local clock offset: -2.057 ms
Remote clock offset: -38.774 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 415.76 Mbit/s
95th percentile per-packet one-way delay: 62.804 ms
Loss rate: 5.72%
-- Flow 1:
Average throughput: 382.37 Mbit/s
95th percentile per-packet one-way delay: 62.833 ms
Loss rate: 5.95%
-- Flow 2:
Average throughput: 34.51 Mbit/s
95th percentile per-packet one-way delay: 62.630 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 62.504 ms
Loss rate: 3.60%
```

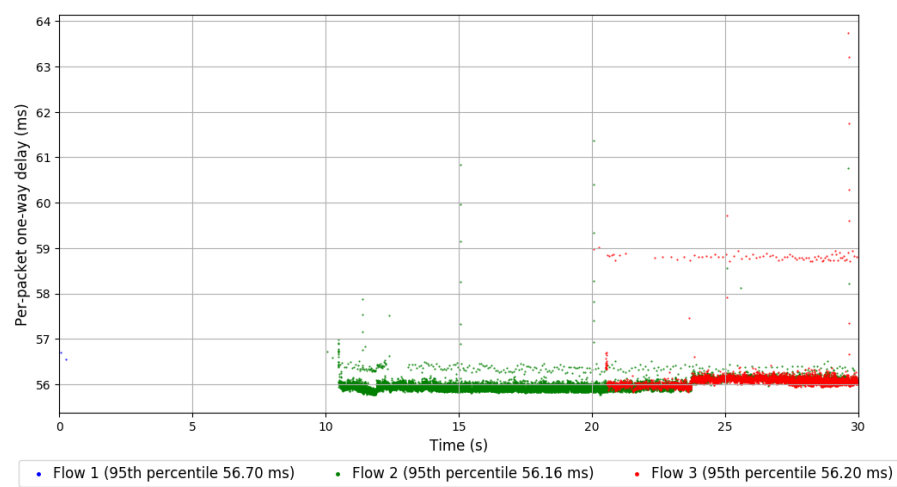## Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 406.58 Mbit/s) --- Flow 1 egress (mean 382.37 Mbit/s)
Flow 2 ingress (mean 35.49 Mbit/s) --- Flow 2 egress (mean 34.51 Mbit/s)
Flow 3 ingress (mean 32.88 Mbit/s) --- Flow 3 egress (mean 31.71 Mbit/s)

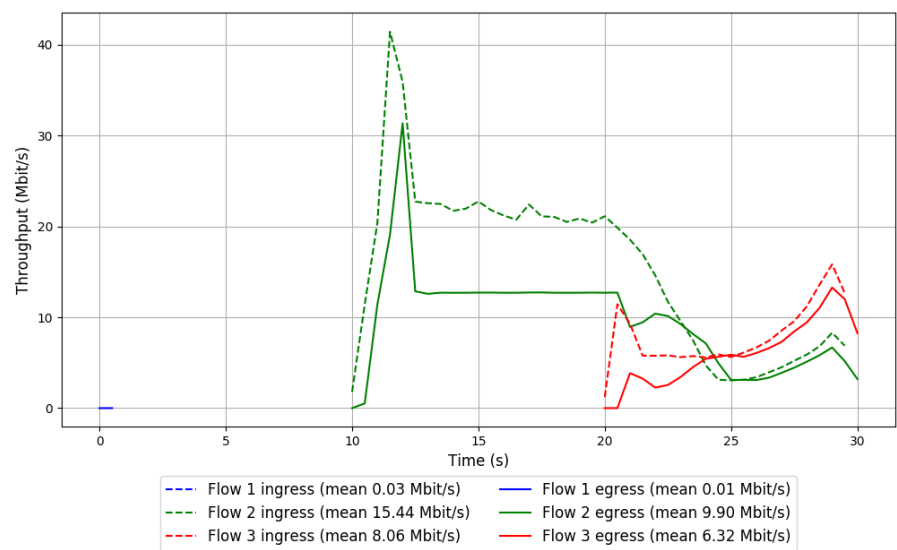Flow 1 (95th percentile 62.83 ms)   Flow 2 (95th percentile 62.63 ms)   Flow 3 (95th percentile 62.50 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-10-26 03:12:45
End at: 2018-10-26 03:13:15
Local clock offset: 1.289 ms
Remote clock offset: -42.165 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 56.172 ms
Loss rate: 32.92%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 56.696 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.90 Mbit/s
95th percentile per-packet one-way delay: 56.159 ms
Loss rate: 35.84%
-- Flow 3:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 56.203 ms
Loss rate: 21.62%
```

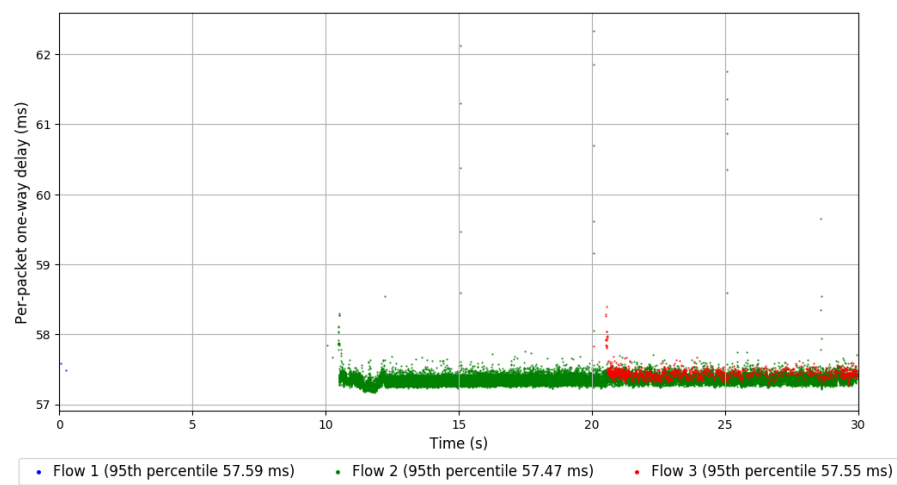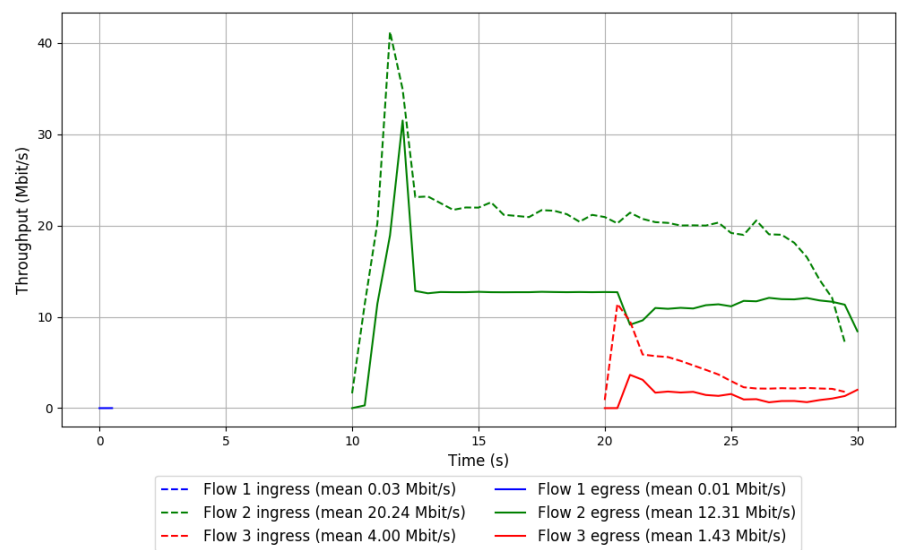Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-10-26 03:45:13
End at: 2018-10-26 03:45:43
Local clock offset: 3.025 ms
Remote clock offset: -39.532 ms

# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 57.482 ms
Loss rate: 41.45%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 57.588 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 57.470 ms
Loss rate: 39.21%
-- Flow 3:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 57.548 ms
Loss rate: 64.29%
```

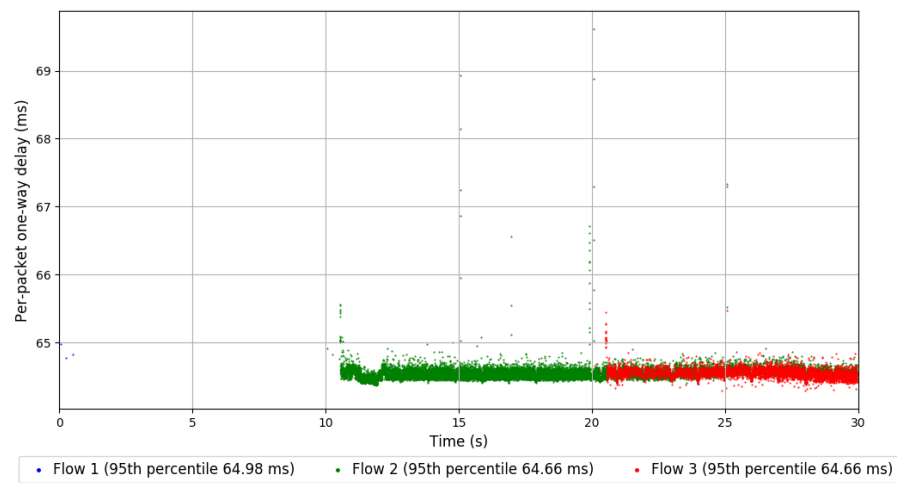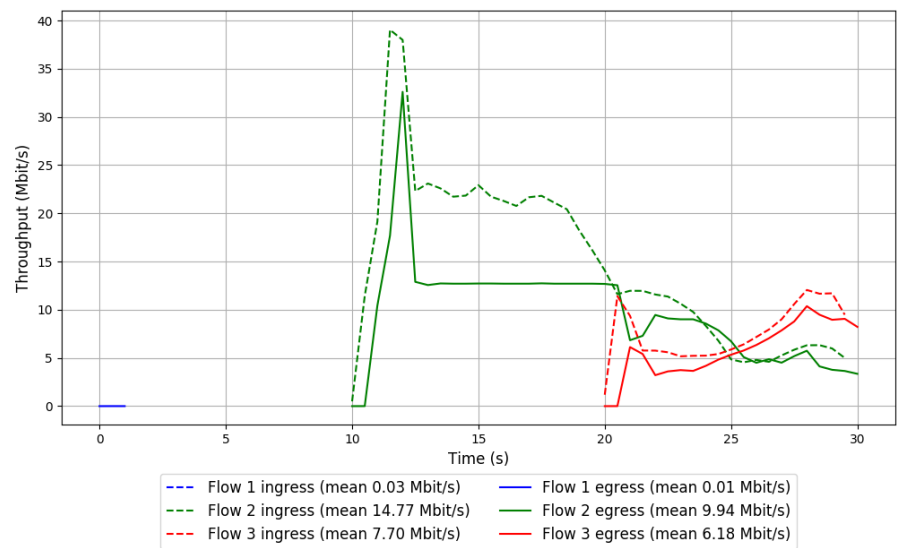Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-10-26 04:23:05
End at: 2018-10-26 04:23:35
Local clock offset: -0.414 ms
Remote clock offset: -34.274 ms

# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.65 Mbit/s
95th percentile per-packet one-way delay: 64.658 ms
Loss rate: 30.04%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.981 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 64.658 ms
Loss rate: 32.70%
-- Flow 3:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 64.658 ms
Loss rate: 19.76%
```

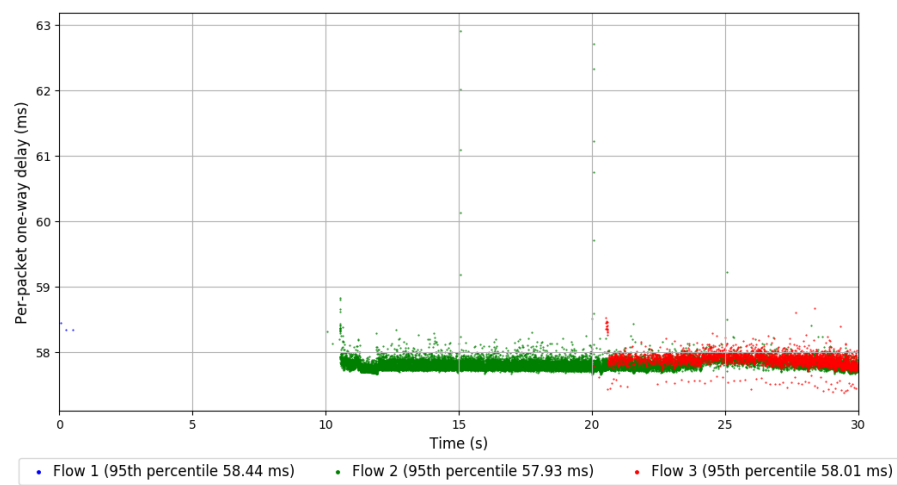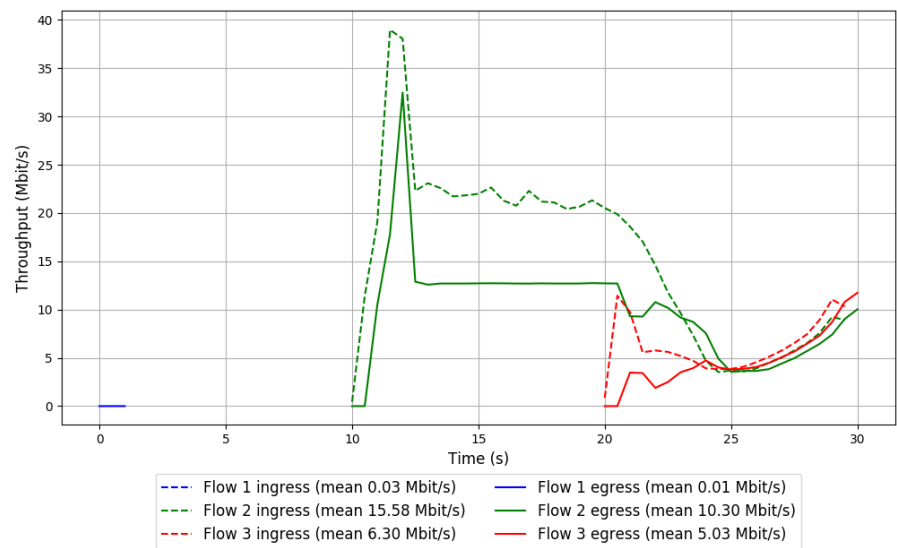Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-10-26 04:55:38
End at: 2018-10-26 04:56:08
Local clock offset: -1.004 ms
Remote clock offset: -38.236 ms

# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.51 Mbit/s
95th percentile per-packet one-way delay: 57.961 ms
Loss rate: 31.58%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 58.444 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 10.30 Mbit/s
95th percentile per-packet one-way delay: 57.931 ms
Loss rate: 33.90%
-- Flow 3:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 58.011 ms
Loss rate: 20.03%
```
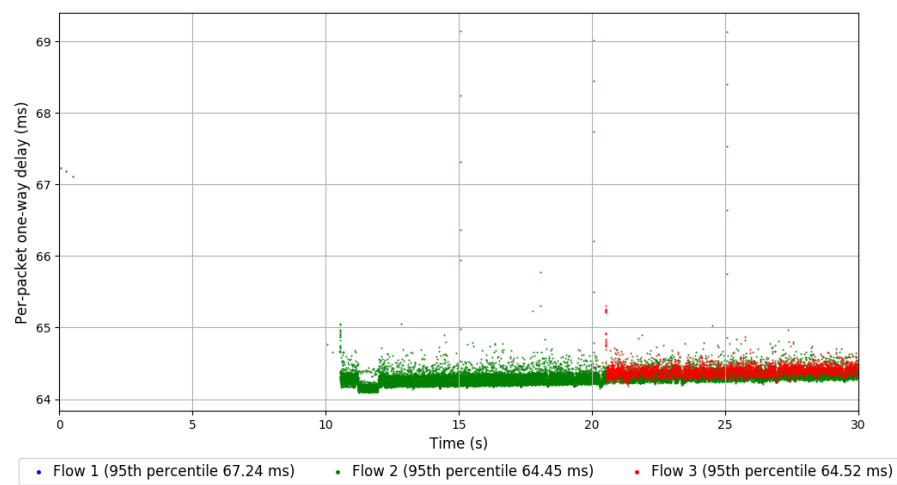
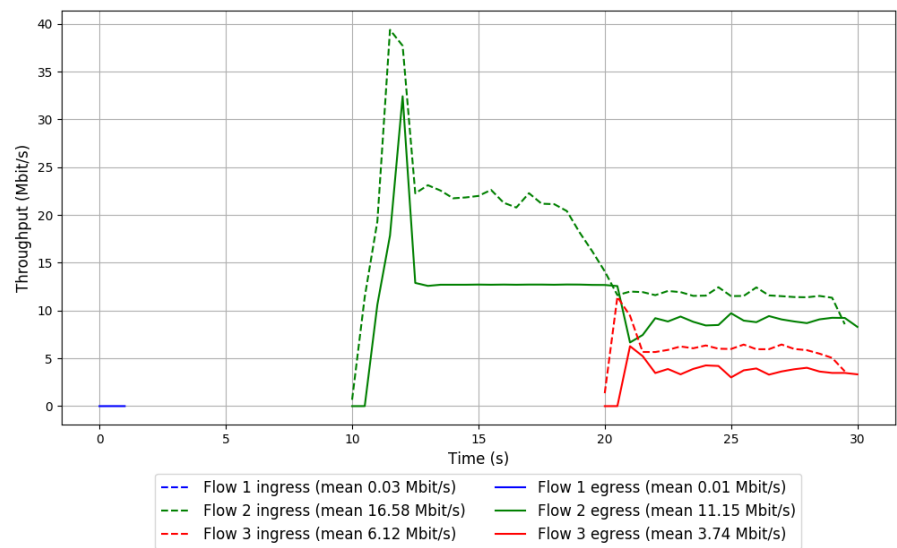## Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2018-10-26 05:33:32
End at: 2018-10-26 05:34:02
Local clock offset: -3.349 ms
Remote clock offset: -34.329 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 64.475 ms
Loss rate: 33.72%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 67.237 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 11.15 Mbit/s
95th percentile per-packet one-way delay: 64.454 ms
Loss rate: 32.77%
-- Flow 3:
Average throughput: 3.74 Mbit/s
95th percentile per-packet one-way delay: 64.518 ms
Loss rate: 38.85%
```

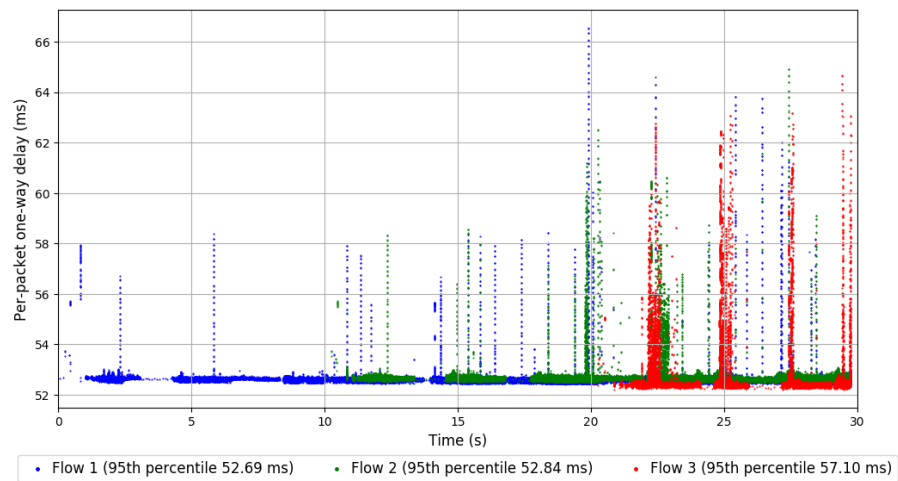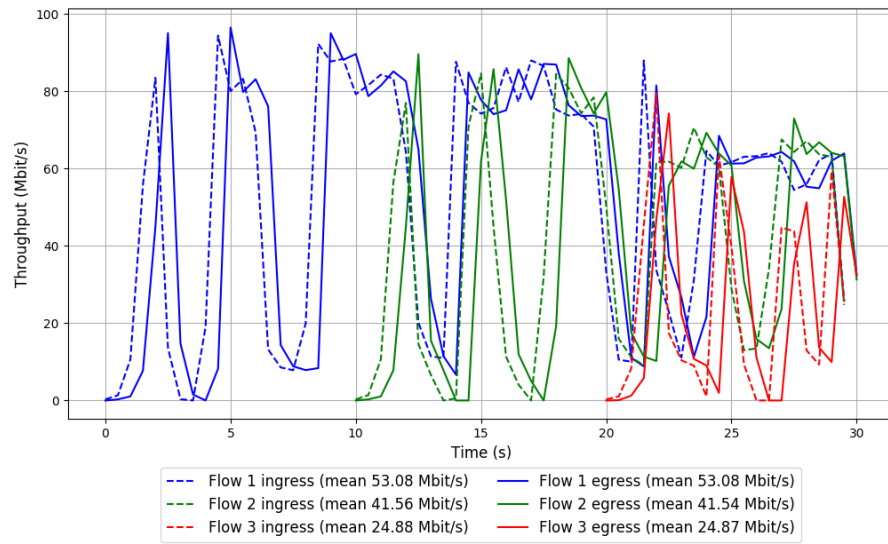Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-10-26 03:02:03
End at: 2018-10-26 03:02:33
Local clock offset: 2.399 ms
Remote clock offset: -44.18 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.71 Mbit/s
95th percentile per-packet one-way delay: 52.786 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.08 Mbit/s
95th percentile per-packet one-way delay: 52.687 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.54 Mbit/s
95th percentile per-packet one-way delay: 52.836 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.87 Mbit/s
95th percentile per-packet one-way delay: 57.099 ms
Loss rate: 0.02%
```

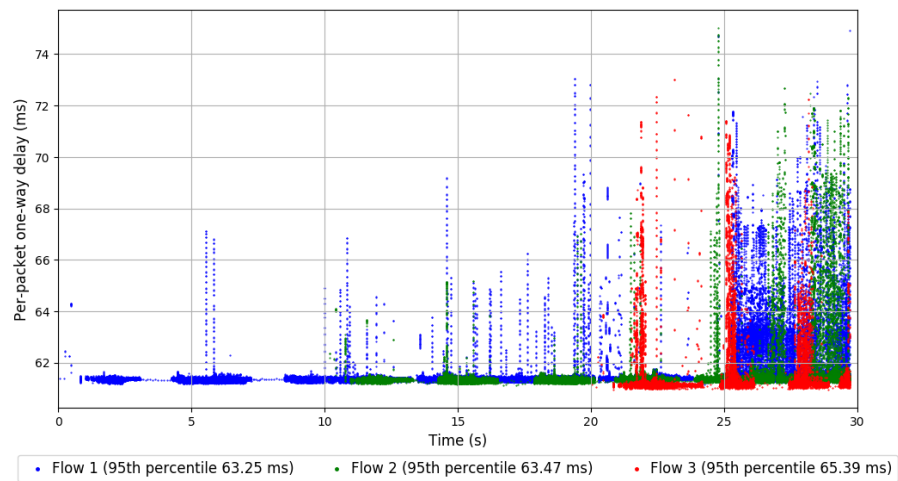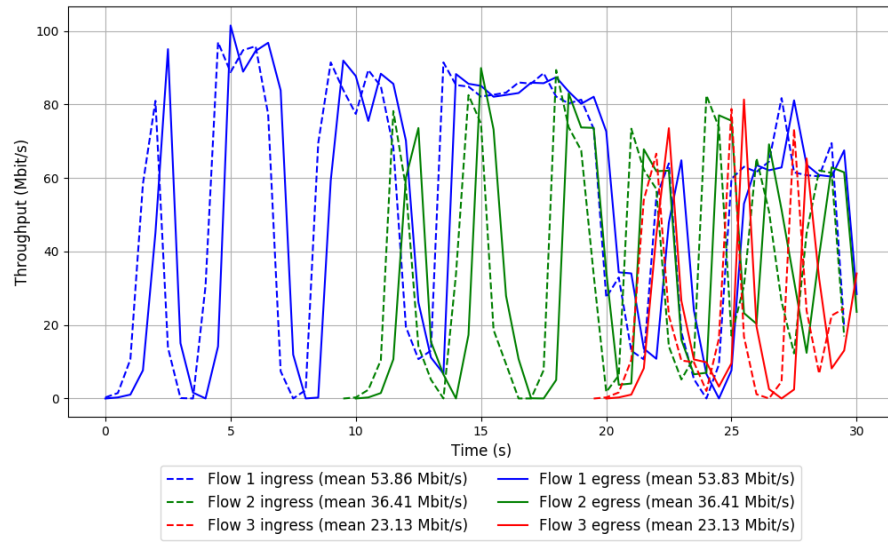Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-10-26 03:34:10
End at: 2018-10-26 03:34:40
Local clock offset: -0.795 ms
Remote clock offset: -38.525 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.56 Mbit/s
95th percentile per-packet one-way delay: 63.508 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 53.83 Mbit/s
95th percentile per-packet one-way delay: 63.248 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 36.41 Mbit/s
95th percentile per-packet one-way delay: 63.466 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 23.13 Mbit/s
95th percentile per-packet one-way delay: 65.391 ms
Loss rate: 0.00%
```

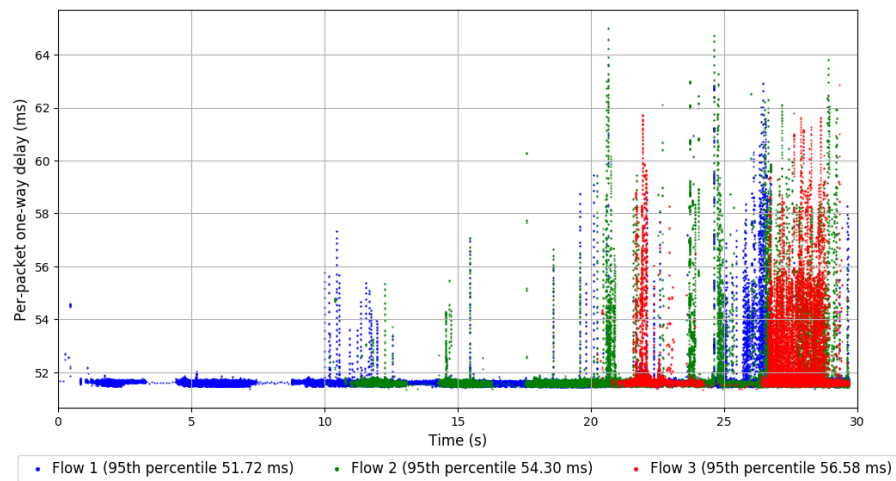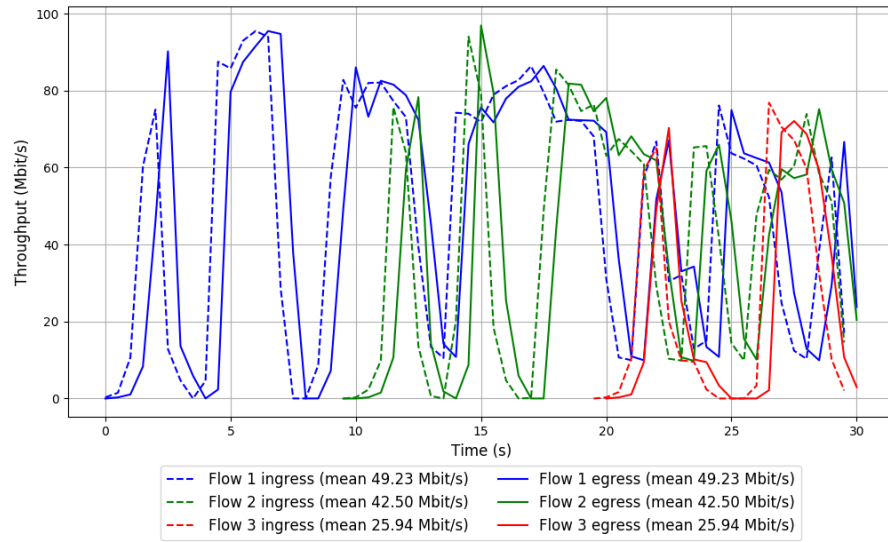Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-10-26 04:12:13
End at: 2018-10-26 04:12:43
Local clock offset: 0.082 ms
Remote clock offset: -47.489 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.94 Mbit/s
95th percentile per-packet one-way delay: 53.576 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.23 Mbit/s
95th percentile per-packet one-way delay: 51.723 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.50 Mbit/s
95th percentile per-packet one-way delay: 54.305 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.94 Mbit/s
95th percentile per-packet one-way delay: 56.578 ms
Loss rate: 0.00%
```

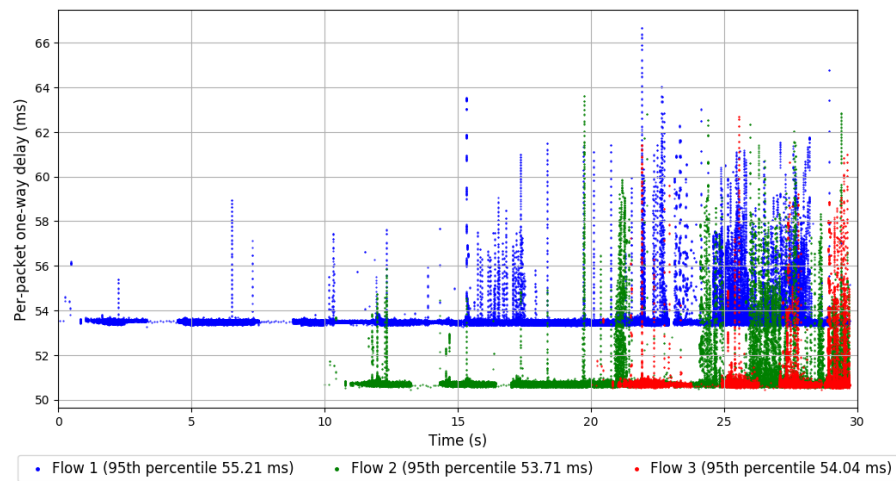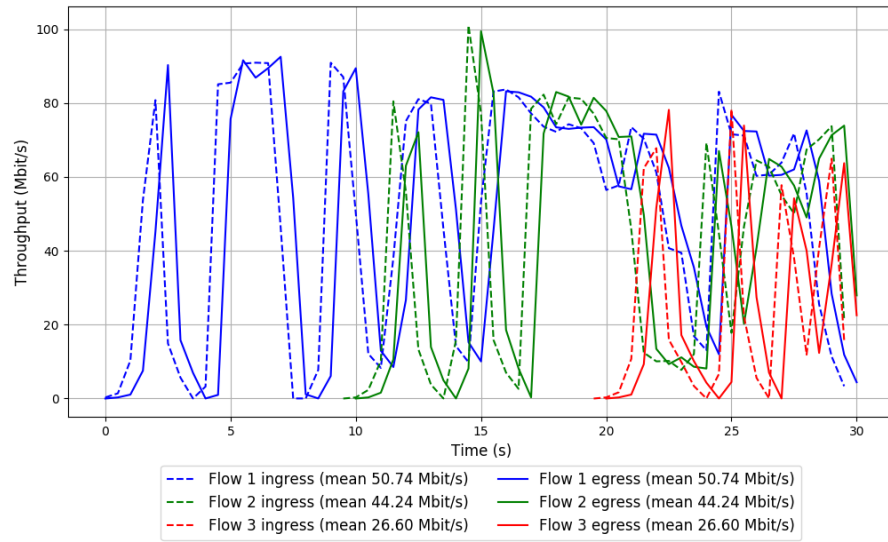Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-10-26 04:44:39
End at: 2018-10-26 04:45:09
Local clock offset: 0.127 ms
Remote clock offset: -45.458 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.79 Mbit/s
95th percentile per-packet one-way delay: 54.711 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.74 Mbit/s
95th percentile per-packet one-way delay: 55.207 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.24 Mbit/s
95th percentile per-packet one-way delay: 53.710 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.60 Mbit/s
95th percentile per-packet one-way delay: 54.044 ms
Loss rate: 0.00%
```

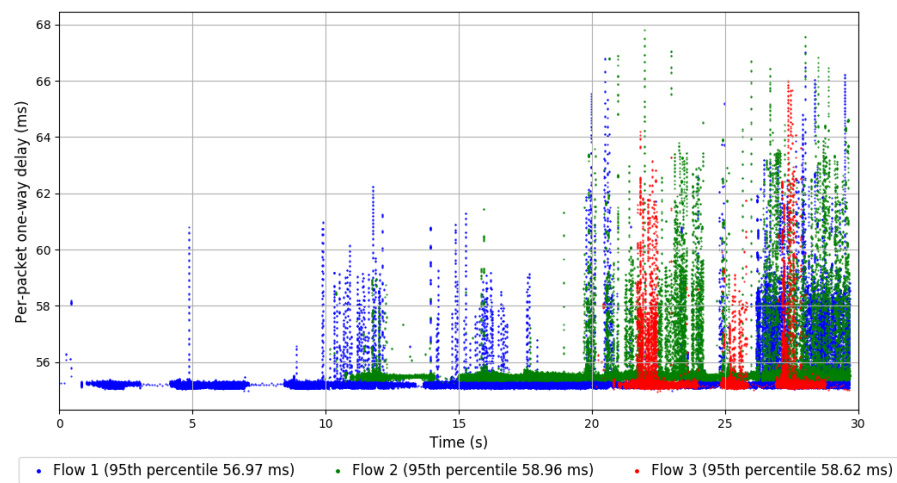Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-10-26 05:17:08
End at: 2018-10-26 05:17:38
Local clock offset: 0.176 ms
Remote clock offset: -39.166 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.85 Mbit/s
95th percentile per-packet one-way delay: 57.820 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.40 Mbit/s
95th percentile per-packet one-way delay: 56.965 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.35 Mbit/s
95th percentile per-packet one-way delay: 58.961 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 20.31 Mbit/s
95th percentile per-packet one-way delay: 58.623 ms
Loss rate: 0.00%
```
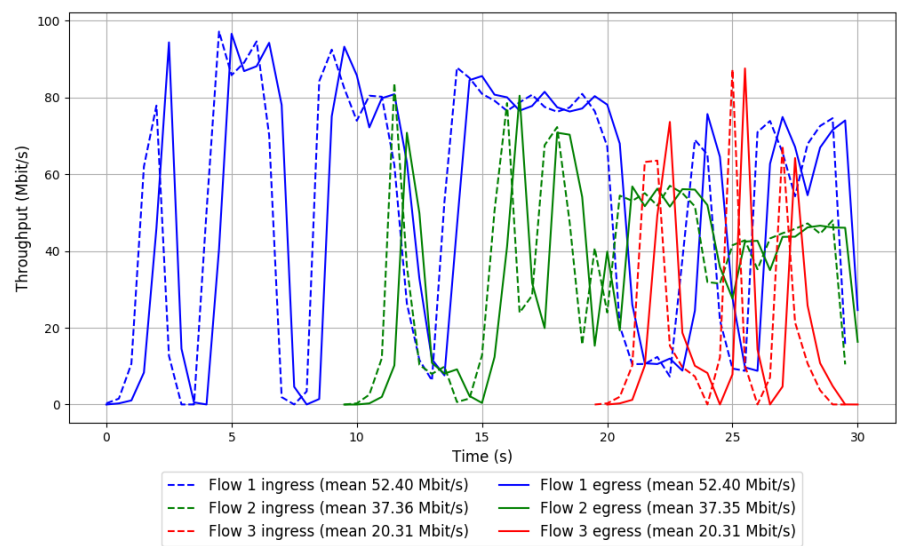
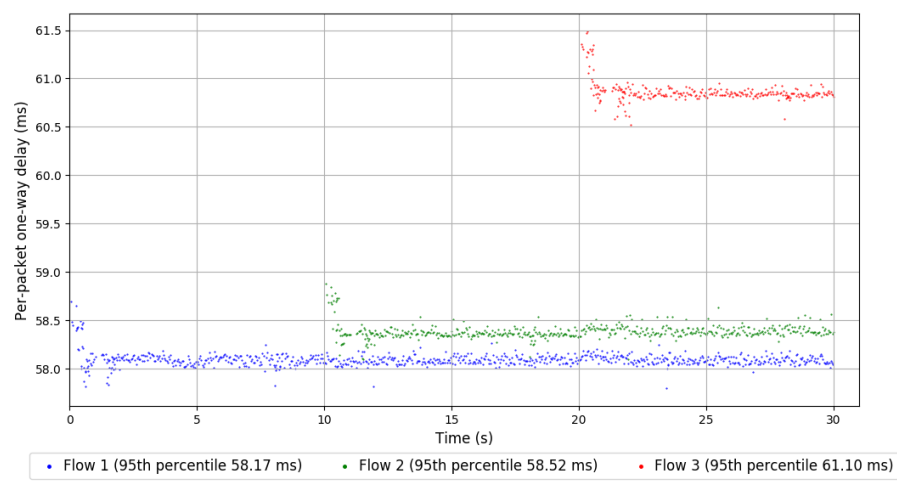Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-10-26 02:49:59
End at: 2018-10-26 02:50:29
Local clock offset: 1.515 ms
Remote clock offset: -39.347 ms

# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 60.871 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.174 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.519 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.096 ms
Loss rate: 0.00%
```
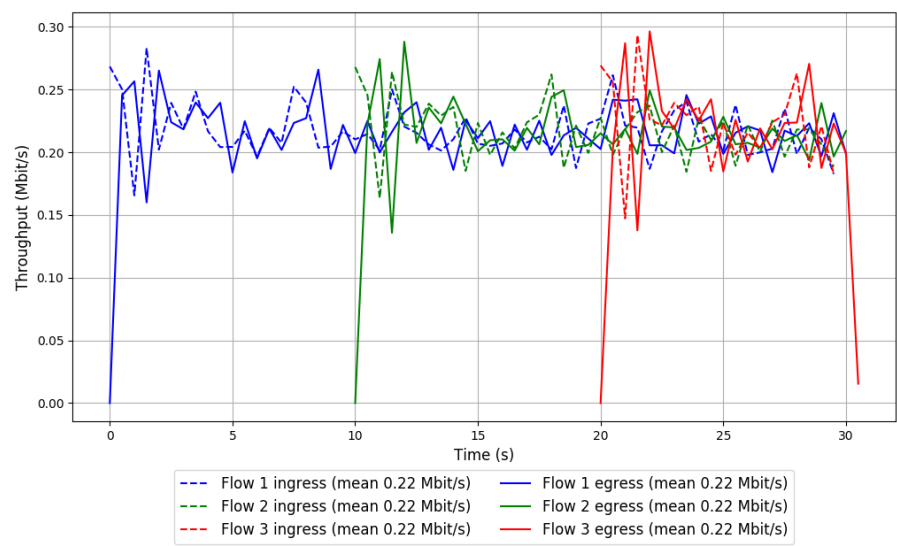
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-10-26 03:22:23
End at: 2018-10-26 03:22:53
Local clock offset: 2.135 ms
Remote clock offset: -46.984 ms

# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 52.100 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.117 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.506 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.109 ms
Loss rate: 0.00%
```

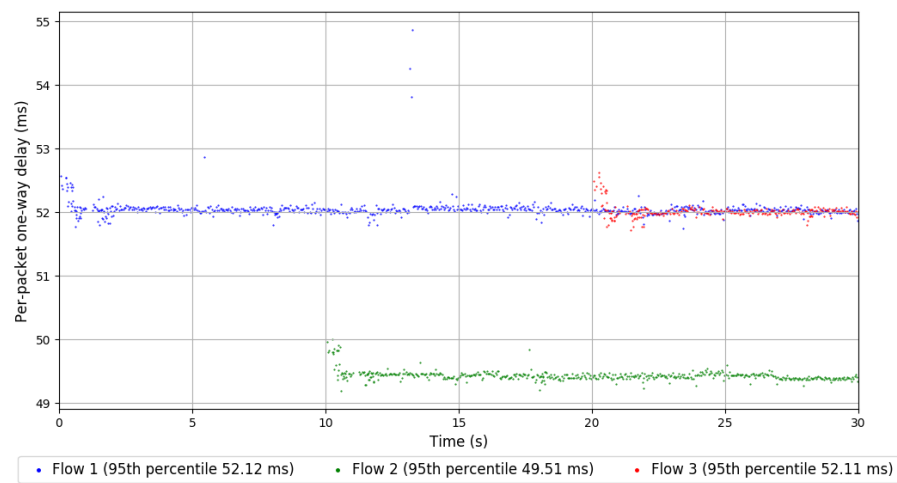## Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-10-26 03:54:48
End at: 2018-10-26 03:55:18
Local clock offset: 2.995 ms
Remote clock offset: -47.84 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 49.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.799 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.613 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.950 ms
Loss rate: 0.00%
```
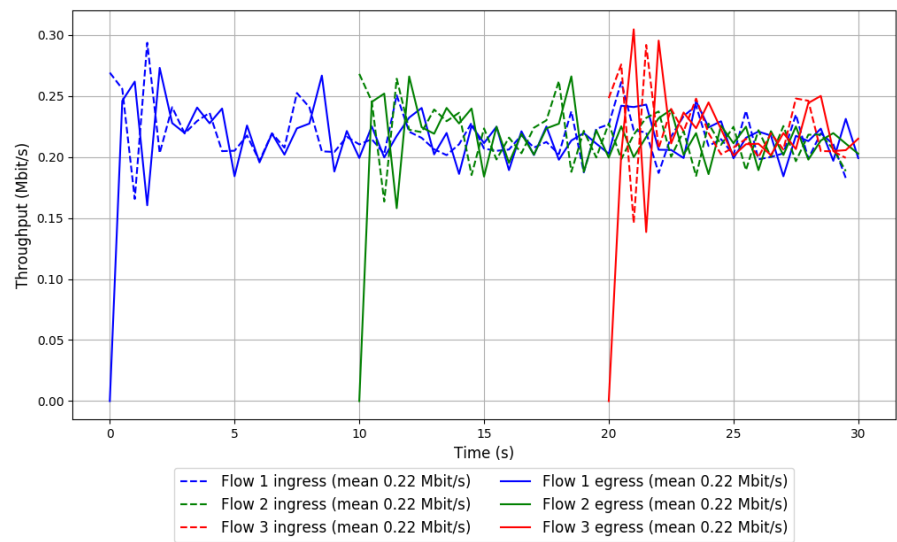
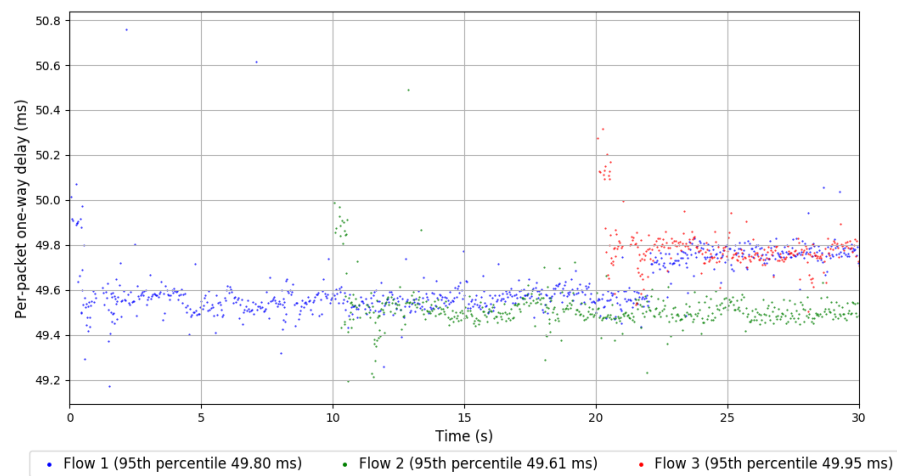# Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-10-26 04:32:48
End at: 2018-10-26 04:33:18
Local clock offset: 0.816 ms
Remote clock offset: -42.084 ms

# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 57.450 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.941 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.641 ms
Loss rate: 0.00%
```
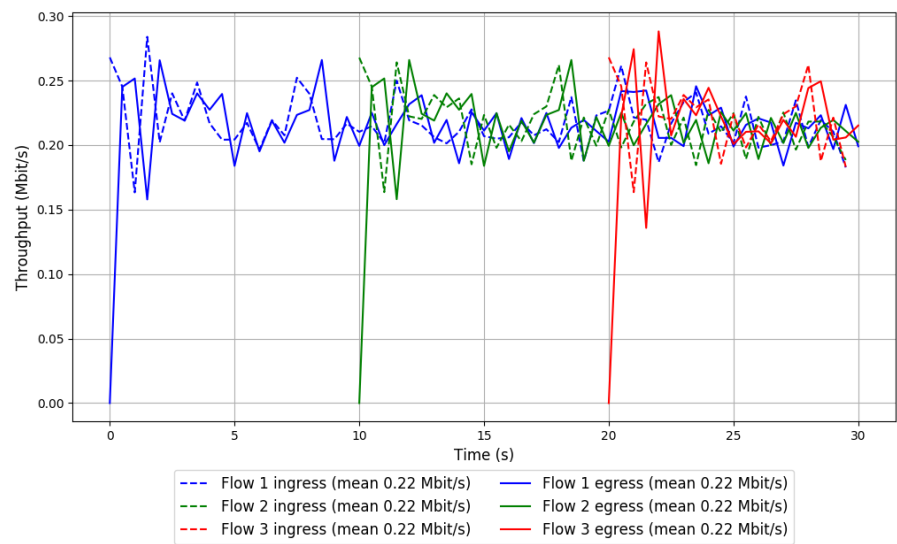
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-10-26 05:05:19
End at: 2018-10-26 05:05:49
Local clock offset: -1.998 ms
Remote clock offset: -40.449 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 56.497 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.485 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.500 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.547 ms
Loss rate: 0.00%
```
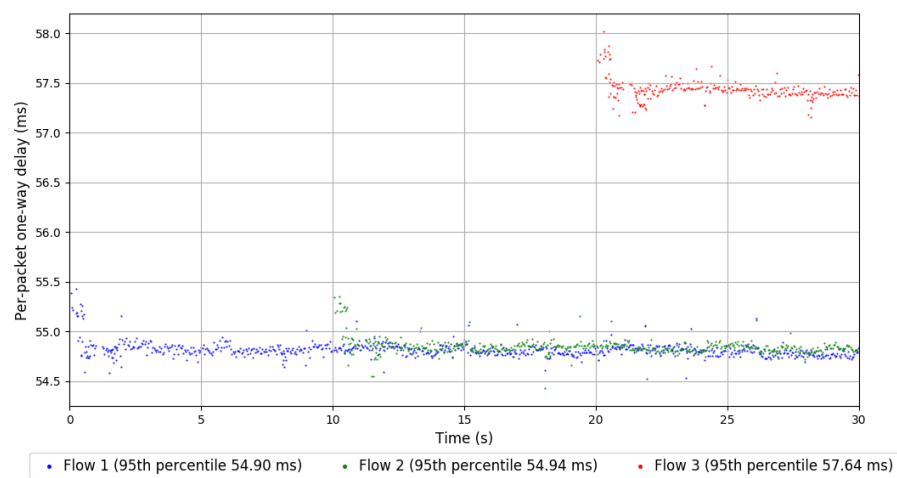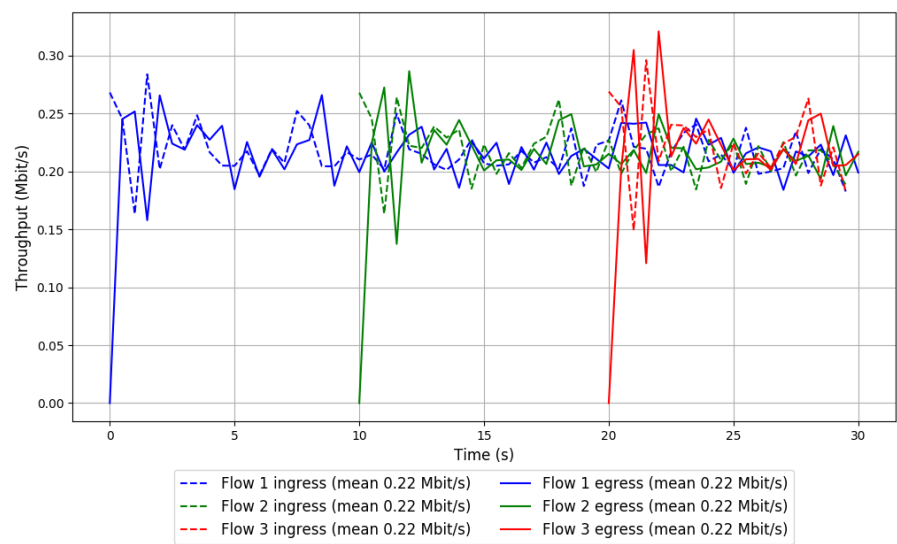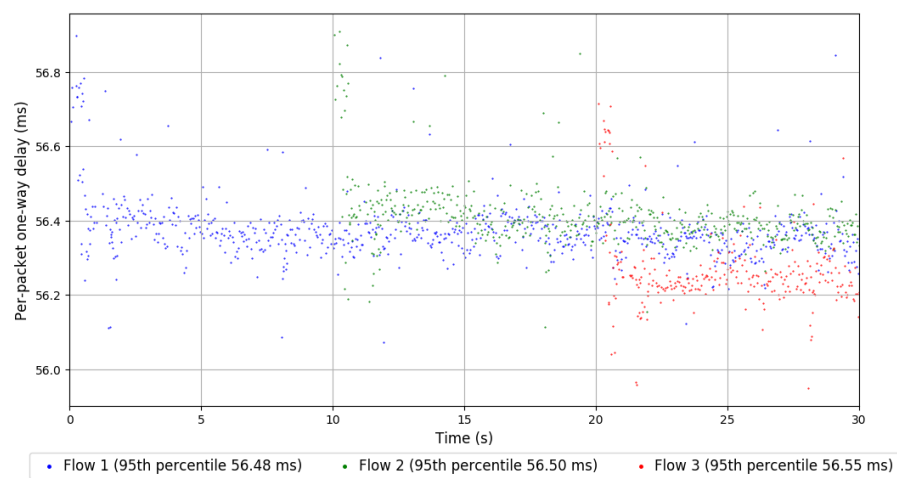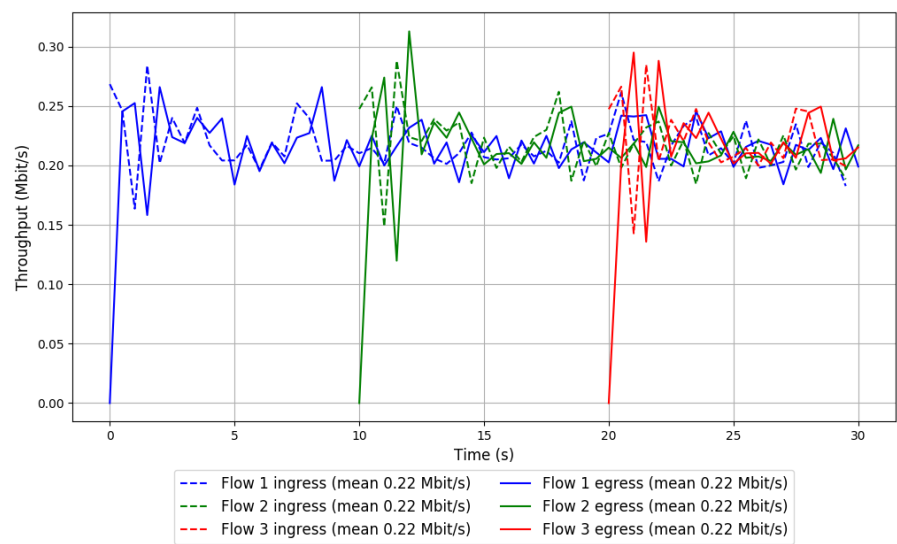
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-10-26 02:54:59
End at: 2018-10-26 02:55:29
Local clock offset: 2.407 ms
Remote clock offset: -41.887 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 57.590 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 57.164 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 58.033 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 56.898 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-10-26 03:27:22
End at: 2018-10-26 03:27:52
Local clock offset: -0.374 ms
Remote clock offset: -48.199 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 53.166 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 53.015 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 53.300 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 53.315 ms
Loss rate: 0.00%
```
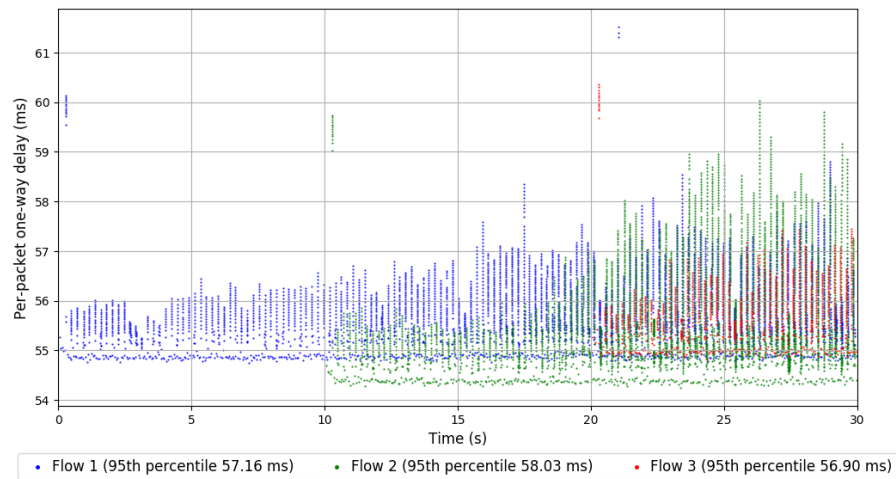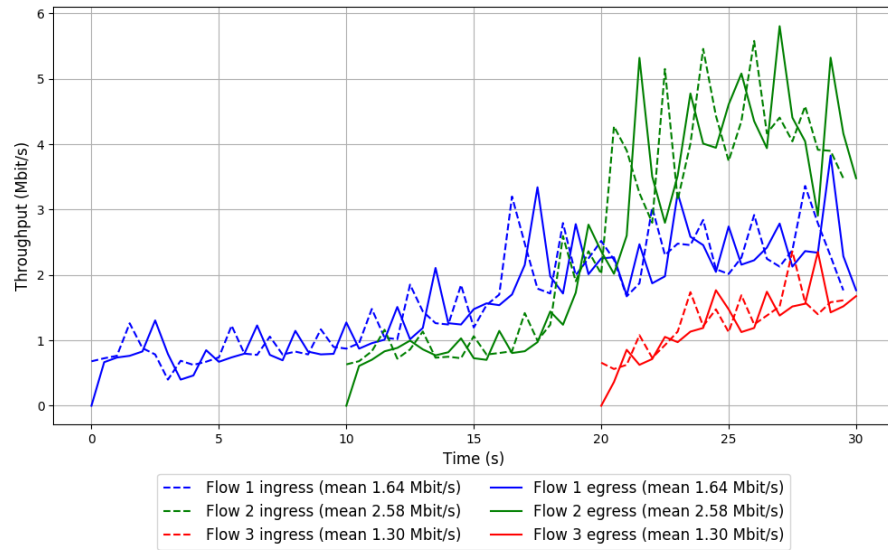
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-10-26 03:59:46
End at: 2018-10-26 04:00:16
Local clock offset: -0.223 ms
Remote clock offset: -46.518 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 56.829 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 57.101 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 55.137 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 55.434 ms
Loss rate: 0.00%
```
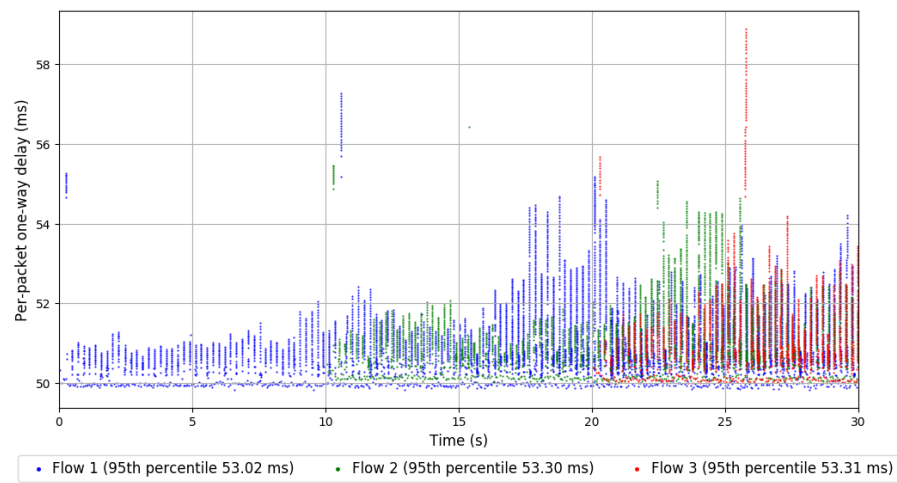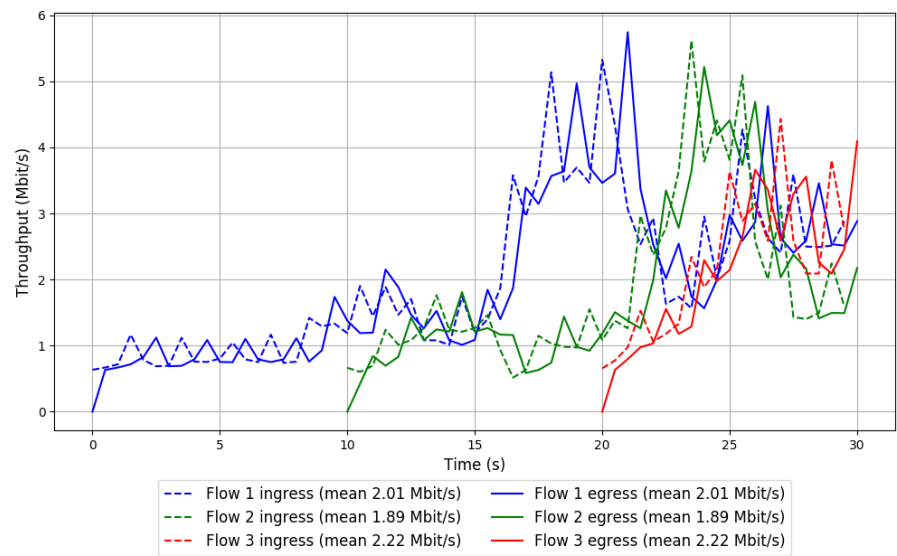
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-10-26 04:37:48
End at: 2018-10-26 04:38:18
Local clock offset: 0.28 ms
Remote clock offset: -43.0 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.84 Mbit/s
95th percentile per-packet one-way delay: 57.189 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 56.509 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 57.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 56.083 ms
Loss rate: 0.00%
```
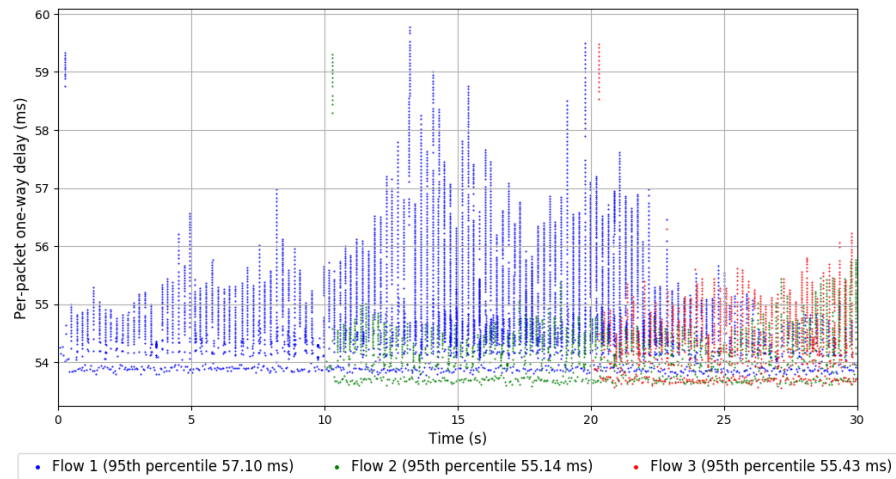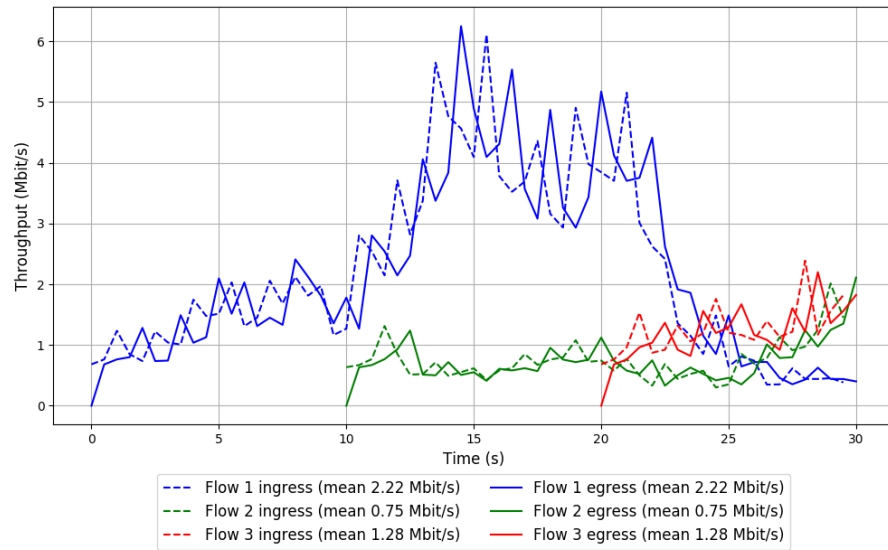
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-10-26 05:10:18
End at: 2018-10-26 05:10:48
Local clock offset: -2.614 ms
Remote clock offset: -38.833 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 62.491 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 61.775 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 59.460 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 64.550 ms
Loss rate: 0.00%
```
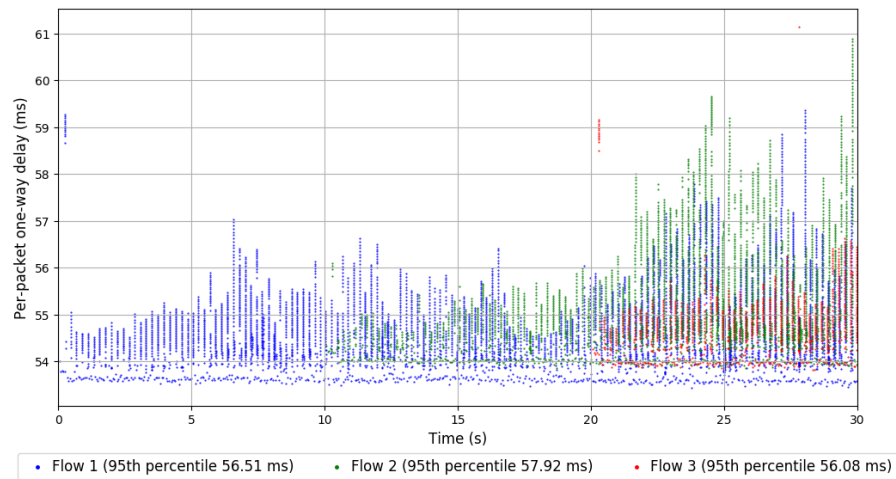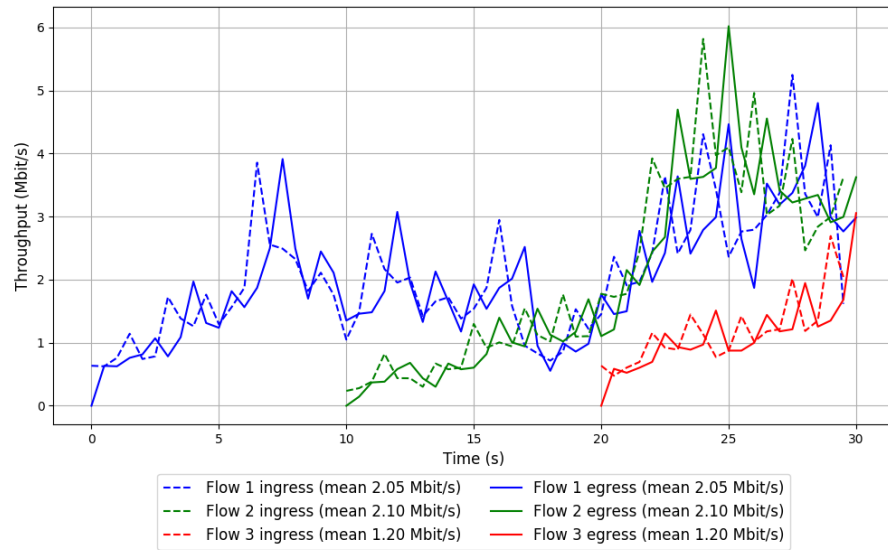
Run 5: Report of Sprout — Data Link

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

Start at: 2018-10-26 02:56:17
End at: 2018-10-26 02:56:47
Local clock offset: 0.83 ms
Remote clock offset: -41.22 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 62.235 ms
Loss rate: 26.90%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 60.199 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 63.850 ms
Loss rate: 27.49%
-- Flow 3:
Average throughput: 5.86 Mbit/s
95th percentile per-packet one-way delay: 57.494 ms
Loss rate: 24.89%
```

Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-26 03:28:39
End at: 2018-10-26 03:29:09
Local clock offset: -1.392 ms
Remote clock offset: -45.885 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 58.504 ms
Loss rate: 25.34%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 53.933 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.47 Mbit/s
95th percentile per-packet one-way delay: 60.397 ms
Loss rate: 27.85%
-- Flow 3:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 16.01%
```
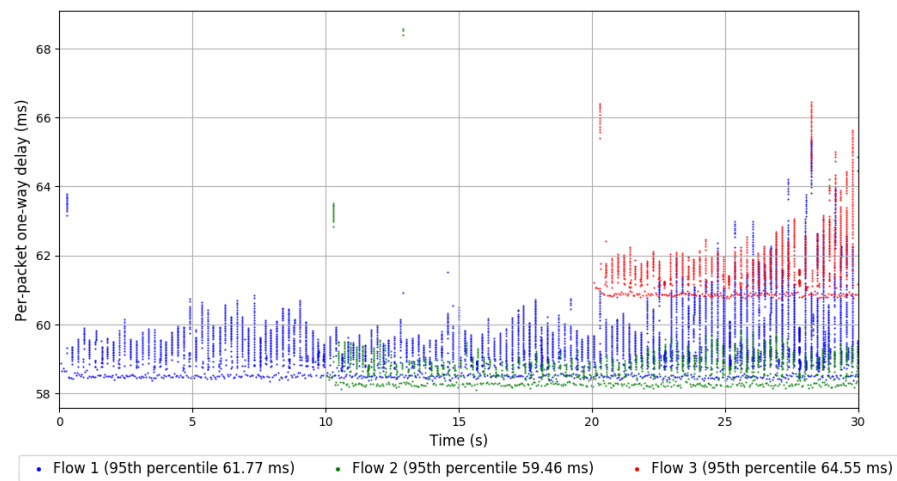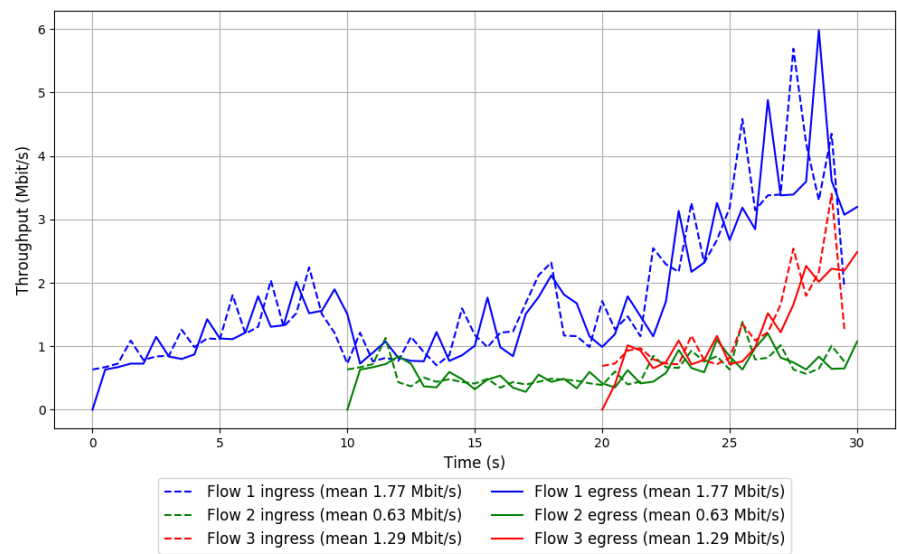
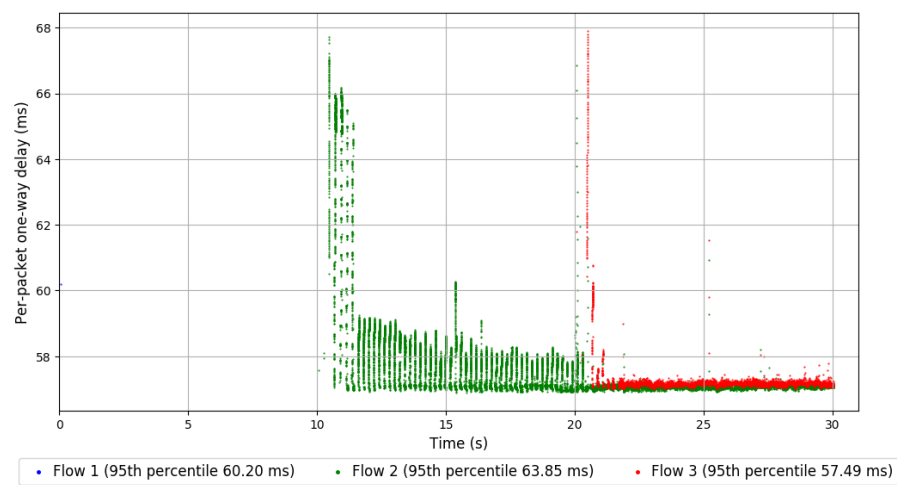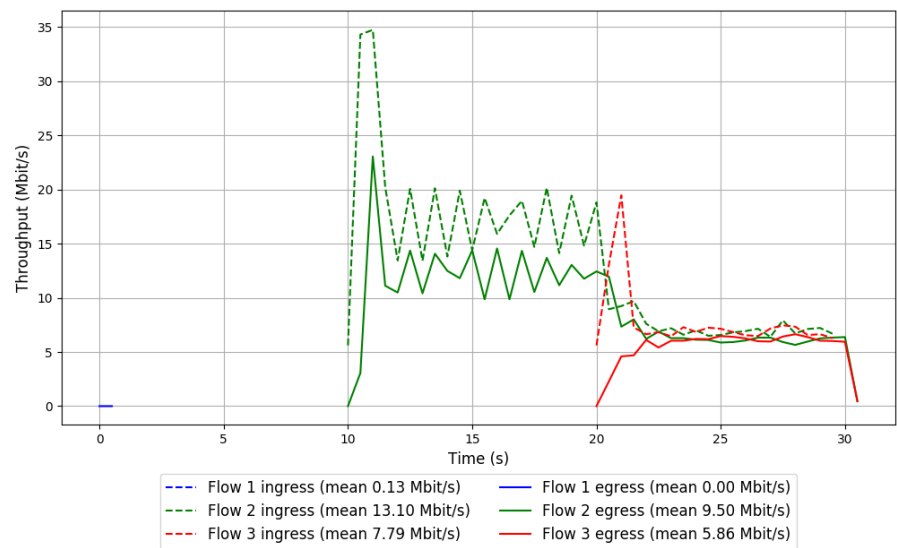Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-26 04:01:04
End at: 2018-10-26 04:01:34
Local clock offset: 1.327 ms
Remote clock offset: -40.429 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 64.327 ms
Loss rate: 26.32%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 61.621 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 65.562 ms
Loss rate: 28.33%
-- Flow 3:
Average throughput: 5.92 Mbit/s
95th percentile per-packet one-way delay: 58.671 ms
Loss rate: 19.00%
```

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

Flow 1 ingress (mean 0.13 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 13.23 Mbit/s)   Flow 2 egress (mean 9.48 Mbit/s)
Flow 3 ingress (mean 7.31 Mbit/s)   Flow 3 egress (mean 5.92 Mbit/s)

Flow 1 (95th percentile 61.62 ms)   Flow 2 (95th percentile 65.56 ms)   Flow 3 (95th percentile 58.67 ms)

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

Start at: 2018-10-26 04:39:06
End at: 2018-10-26 04:39:36
Local clock offset: 0.993 ms
Remote clock offset: -32.239 ms

# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 69.530 ms
Loss rate: 24.87%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 64.200 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 71.293 ms
Loss rate: 27.44%
-- Flow 3:
Average throughput: 5.81 Mbit/s
95th percentile per-packet one-way delay: 63.968 ms
Loss rate: 14.92%
```
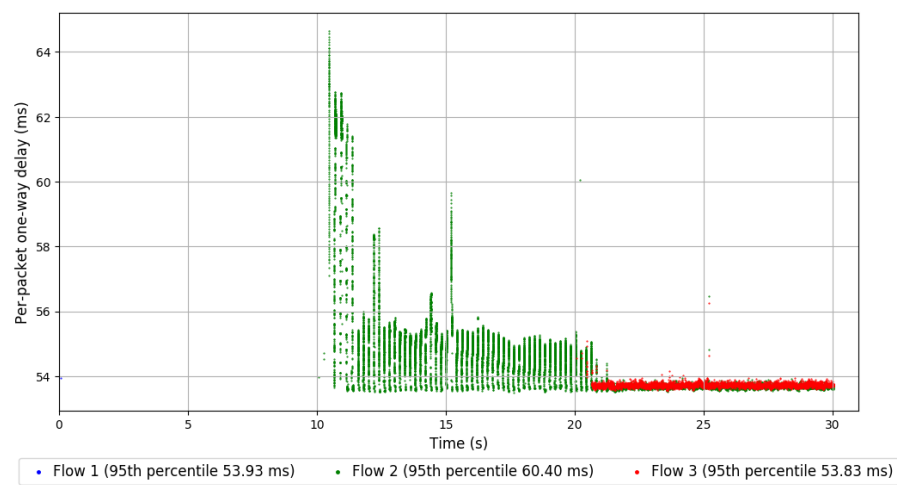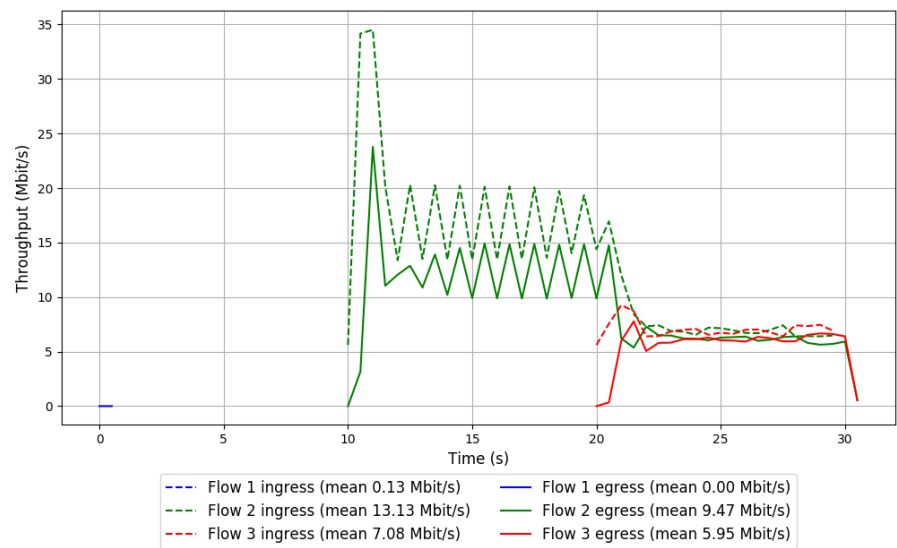
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 0.13 Mbit/s)
Flow 1 egress (mean 0.00 Mbit/s)
Flow 2 ingress (mean 13.15 Mbit/s)
Flow 2 egress (mean 9.54 Mbit/s)
Flow 3 ingress (mean 6.83 Mbit/s)
Flow 3 egress (mean 5.81 Mbit/s)

Flow 1 (95th percentile 64.20 ms)
Flow 2 (95th percentile 71.29 ms)
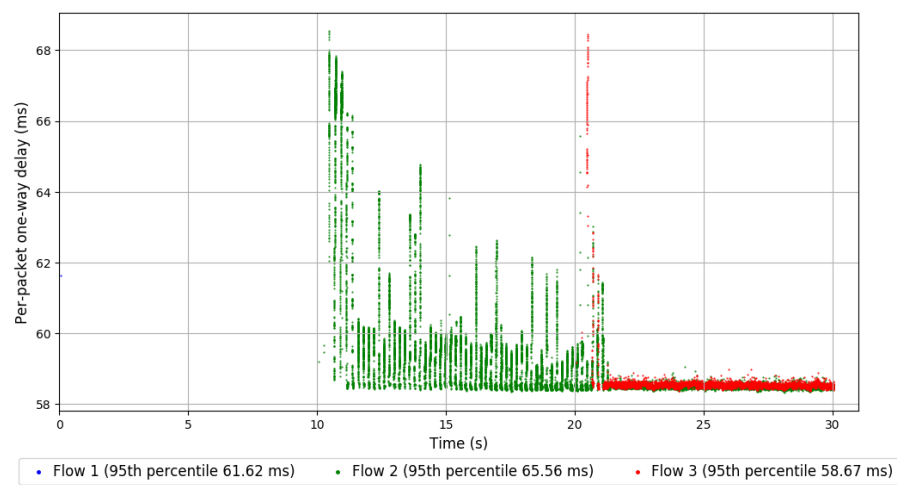Flow 3 (95th percentile 63.97 ms)

142

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

Start at: 2018-10-26 05:11:36
End at: 2018-10-26 05:12:06
Local clock offset: -2.631 ms
Remote clock offset: -39.29 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 63.360 ms
Loss rate: 26.46%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 58.379 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 64.829 ms
Loss rate: 28.80%
-- Flow 3:
Average throughput: 4.83 Mbit/s
95th percentile per-packet one-way delay: 58.161 ms
Loss rate: 14.80%
```
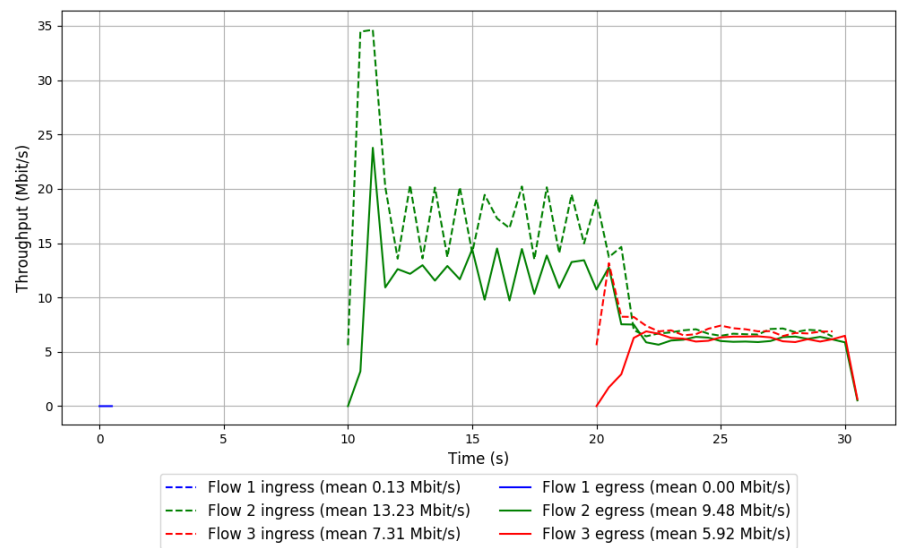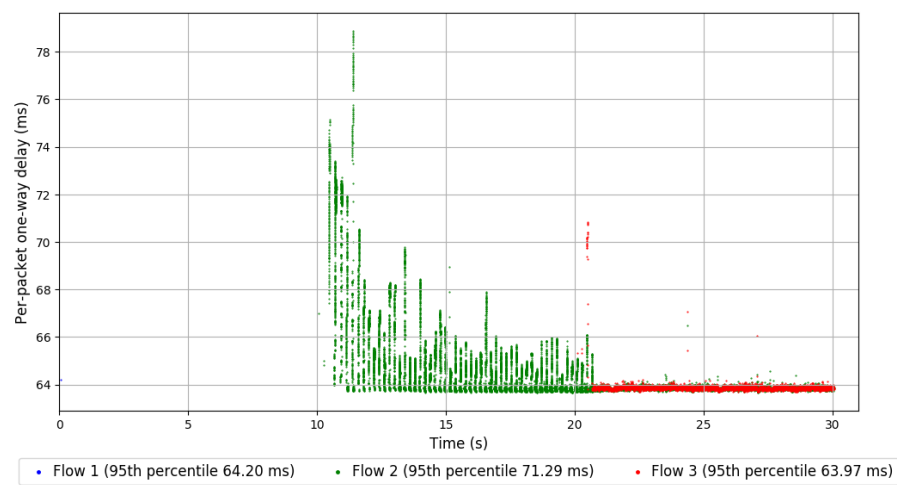
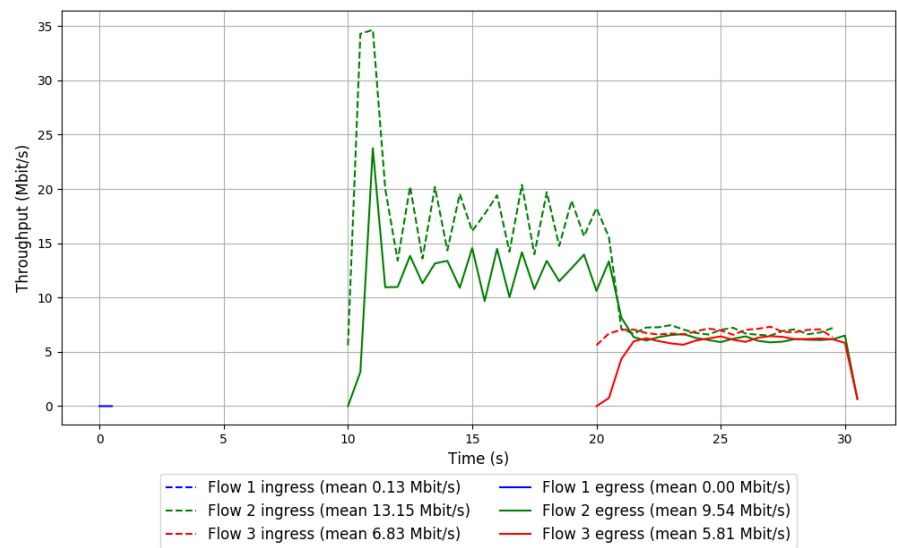Run 5: Report of TaoVA-100x — Data Link

```
Run 1: Statistics of TCP Vegas

Start at: 2018-10-26 03:03:39
End at: 2018-10-26 03:04:09
Local clock offset: -0.019 ms
Remote clock offset: -45.246 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.76 Mbit/s
95th percentile per-packet one-way delay: 57.140 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 70.81 Mbit/s
95th percentile per-packet one-way delay: 56.567 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 39.62 Mbit/s
95th percentile per-packet one-way delay: 56.545 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 59.105 ms
Loss rate: 3.46%
```

Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 71.78 Mbit/s)   Flow 1 egress (mean 70.81 Mbit/s)
Flow 2 ingress (mean 40.74 Mbit/s)   Flow 2 egress (mean 39.62 Mbit/s)
Flow 3 ingress (mean 95.01 Mbit/s)   Flow 3 egress (mean 91.74 Mbit/s)

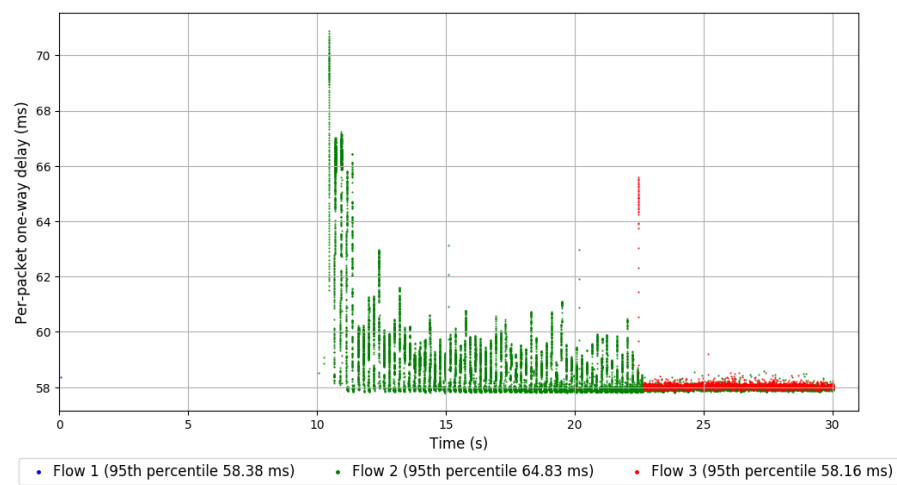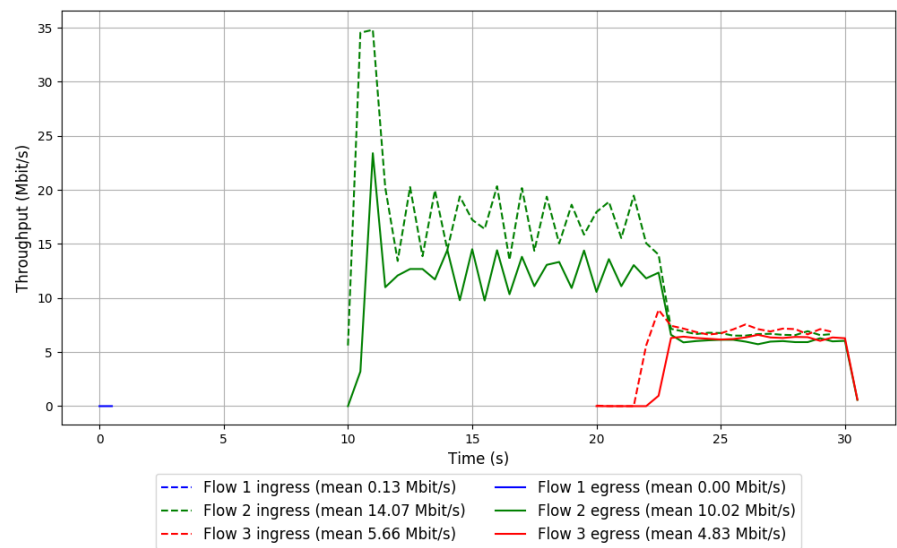Flow 1 (95th percentile 56.57 ms)   Flow 2 (95th percentile 56.55 ms)   Flow 3 (95th percentile 59.10 ms)

```
Run 2: Statistics of TCP Vegas

Start at: 2018-10-26 03:35:46
End at: 2018-10-26 03:36:16
Local clock offset: 0.724 ms
Remote clock offset: -43.229 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.84 Mbit/s
95th percentile per-packet one-way delay: 59.095 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 95.31 Mbit/s
95th percentile per-packet one-way delay: 59.691 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 34.82 Mbit/s
95th percentile per-packet one-way delay: 57.691 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 73.16 Mbit/s
95th percentile per-packet one-way delay: 59.058 ms
Loss rate: 3.63%
```
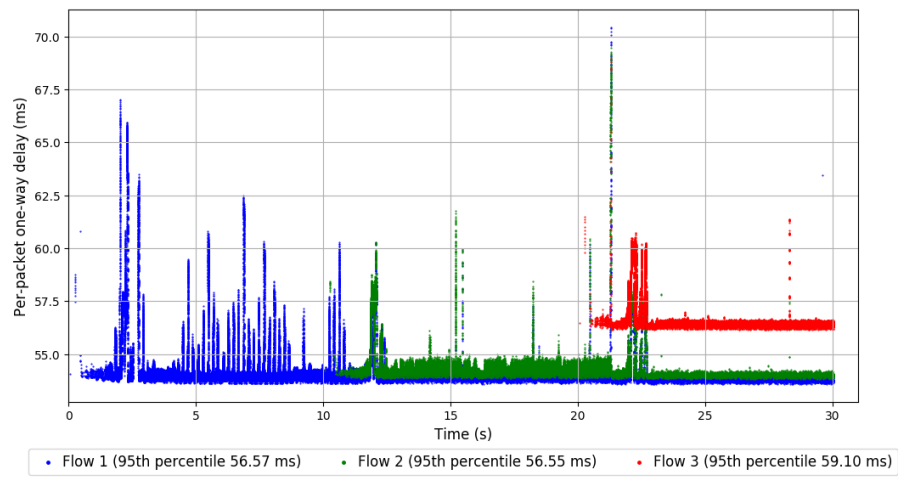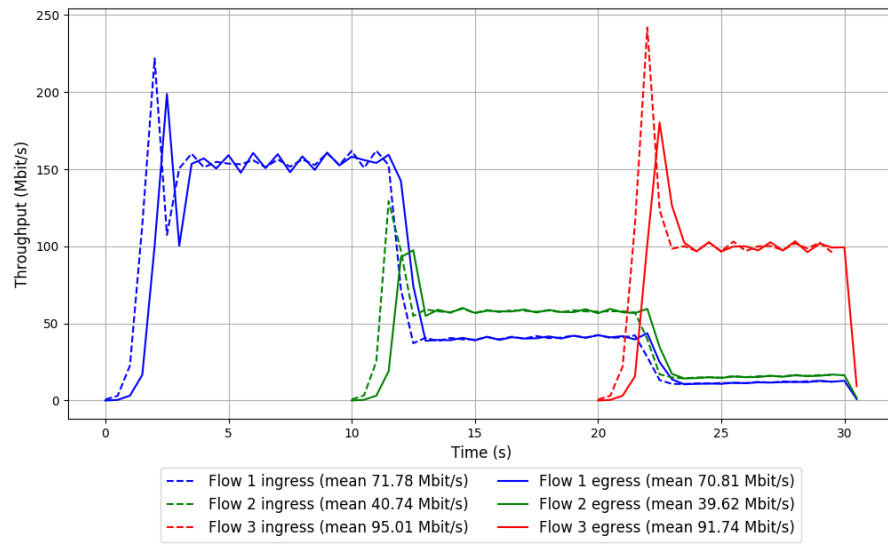
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-10-26 04:13:48
End at: 2018-10-26 04:14:18
Local clock offset: 0.752 ms
Remote clock offset: -45.534 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.53 Mbit/s
95th percentile per-packet one-way delay: 55.928 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 54.40 Mbit/s
95th percentile per-packet one-way delay: 55.528 ms
Loss rate: 2.03%
-- Flow 2:
Average throughput: 60.85 Mbit/s
95th percentile per-packet one-way delay: 54.486 ms
Loss rate: 2.40%
-- Flow 3:
Average throughput: 128.13 Mbit/s
95th percentile per-packet one-way delay: 58.713 ms
Loss rate: 2.02%
```
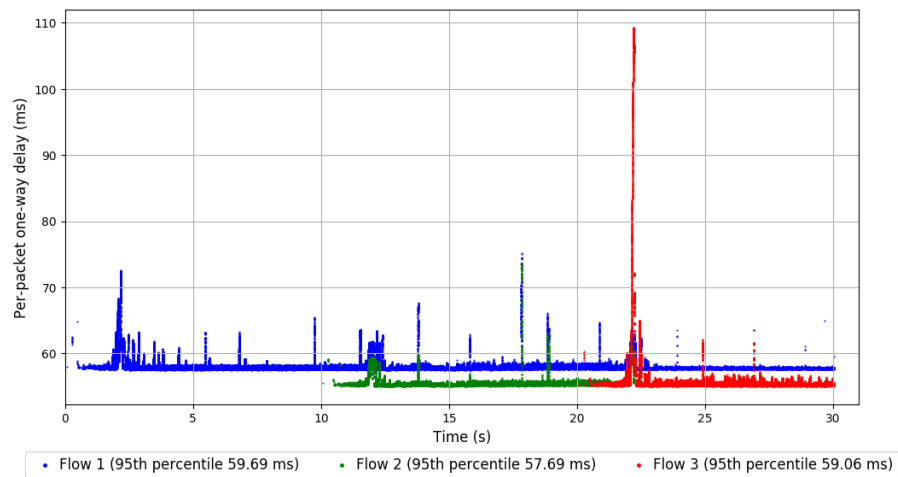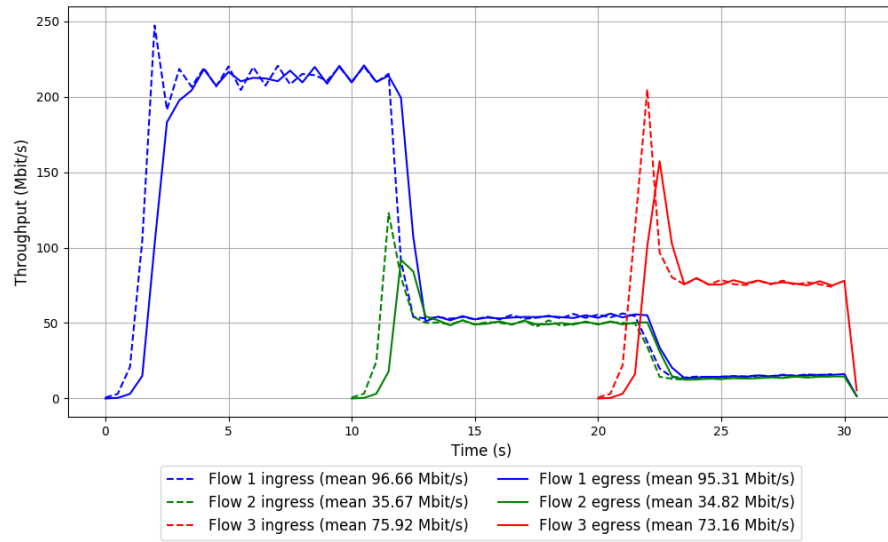
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2018-10-26 04:46:16
End at: 2018-10-26 04:46:46
Local clock offset: 0.453 ms
Remote clock offset: -41.53 ms


# Below is generated by plot.py at 2018-10-26 06:05:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 131.22 Mbit/s
95th percentile per-packet one-way delay: 58.238 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 109.10 Mbit/s
95th percentile per-packet one-way delay: 57.282 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 15.15 Mbit/s
95th percentile per-packet one-way delay: 57.405 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 36.20 Mbit/s
95th percentile per-packet one-way delay: 61.237 ms
Loss rate: 9.30%
```

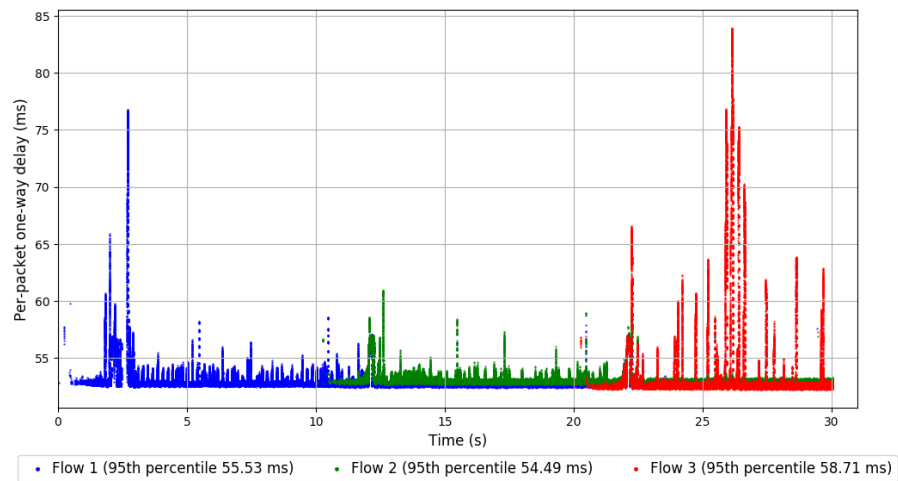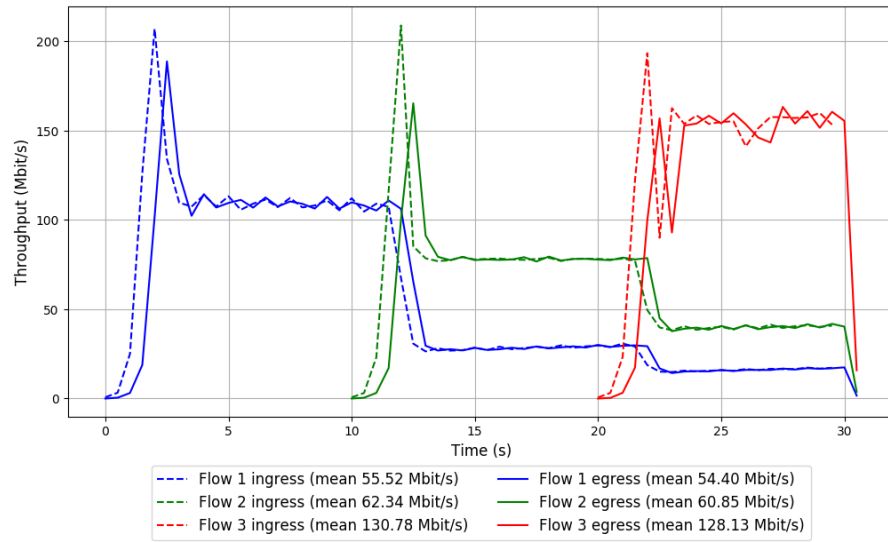Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-10-26 05:18:43
End at: 2018-10-26 05:19:13
Local clock offset: -1.19 ms
Remote clock offset: -45.931 ms


# Below is generated by plot.py at 2018-10-26 06:05:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 203.37 Mbit/s
95th percentile per-packet one-way delay: 51.954 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 117.73 Mbit/s
95th percentile per-packet one-way delay: 52.168 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 77.02 Mbit/s
95th percentile per-packet one-way delay: 50.946 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 103.32 Mbit/s
95th percentile per-packet one-way delay: 52.882 ms
Loss rate: 1.83%
```
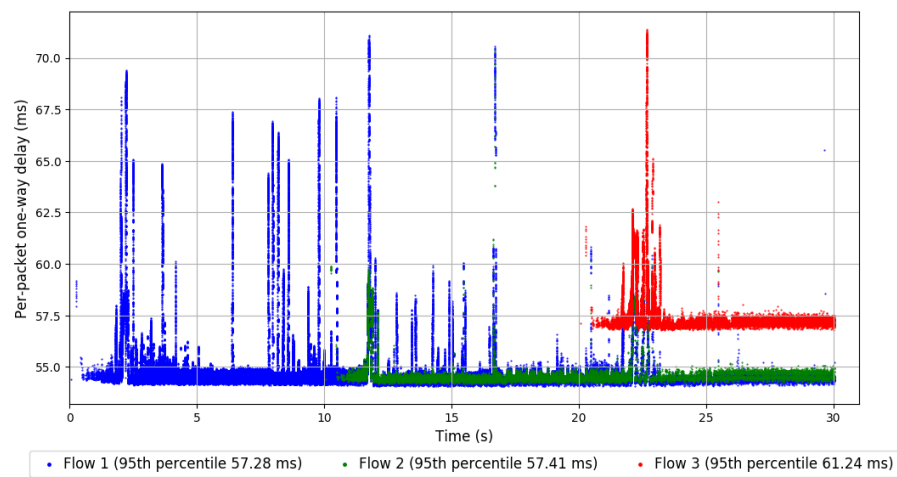
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 119.12 Mbit/s)   Flow 1 egress (mean 117.73 Mbit/s)
Flow 2 ingress (mean 77.99 Mbit/s)   Flow 2 egress (mean 77.02 Mbit/s)
Flow 3 ingress (mean 105.24 Mbit/s)   Flow 3 egress (mean 103.32 Mbit/s)

Flow 1 (95th percentile 52.17 ms)   Flow 2 (95th percentile 50.95 ms)   Flow 3 (95th percentile 52.88 ms)

```
Run 1: Statistics of Verus

Start at: 2018-10-26 02:57:36
End at: 2018-10-26 02:58:06
Local clock offset: 3.105 ms
Remote clock offset: -43.868 ms


# Below is generated by plot.py at 2018-10-26 06:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.10 Mbit/s
95th percentile per-packet one-way delay: 88.019 ms
Loss rate: 69.35%
-- Flow 1:
Average throughput: 83.62 Mbit/s
95th percentile per-packet one-way delay: 91.707 ms
Loss rate: 68.12%
-- Flow 2:
Average throughput: 91.57 Mbit/s
95th percentile per-packet one-way delay: 74.999 ms
Loss rate: 69.89%
-- Flow 3:
Average throughput: 16.65 Mbit/s
95th percentile per-packet one-way delay: 59.007 ms
Loss rate: 78.77%
```

Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-10-26 03:29:58
End at: 2018-10-26 03:30:28
Local clock offset: -5.371 ms
Remote clock offset: -43.997 ms


# Below is generated by plot.py at 2018-10-26 06:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 86.928 ms
Loss rate: 65.22%
-- Flow 1:
Average throughput: 85.11 Mbit/s
95th percentile per-packet one-way delay: 87.756 ms
Loss rate: 67.86%
-- Flow 2:
Average throughput: 8.99 Mbit/s
95th percentile per-packet one-way delay: 71.275 ms
Loss rate: 12.08%
-- Flow 3:
Average throughput: 23.66 Mbit/s
95th percentile per-packet one-way delay: 68.374 ms
Loss rate: 16.17%
```
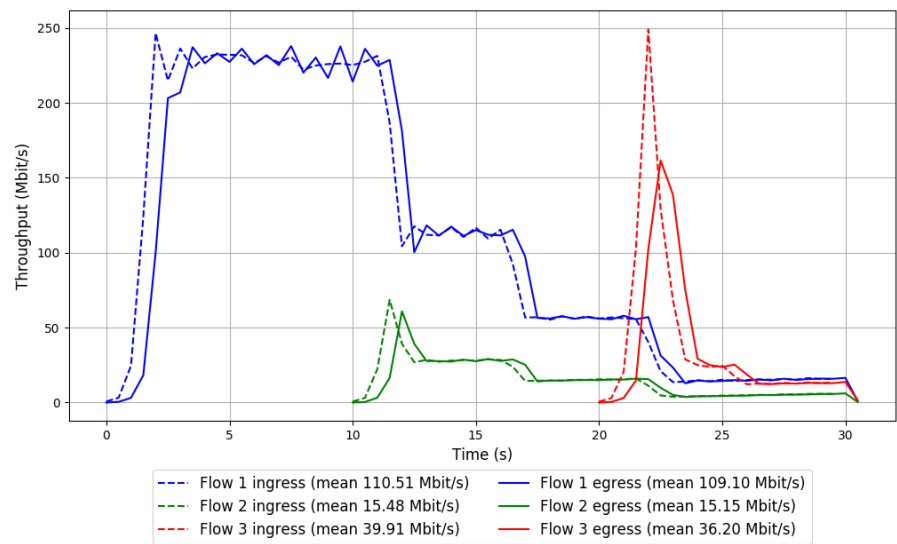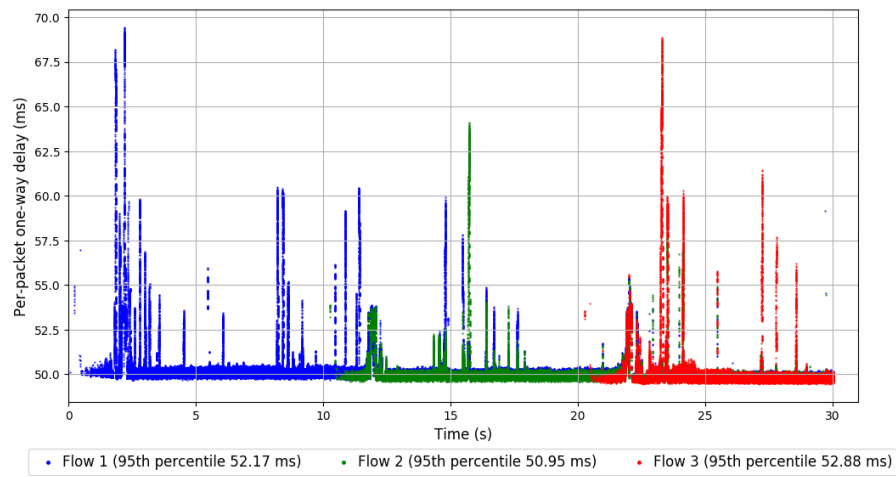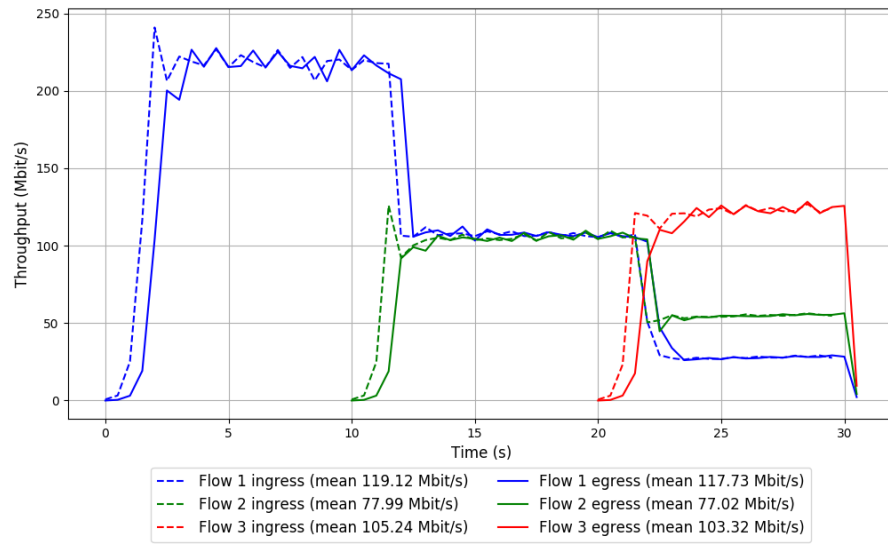
Run 2: Report of Verus — Data Link

- - - Flow 1 ingress (mean 264.78 Mbit/s) —— Flow 1 egress (mean 85.11 Mbit/s)
- - - Flow 2 ingress (mean 10.22 Mbit/s) —— Flow 2 egress (mean 8.99 Mbit/s)
- - - Flow 3 ingress (mean 24.89 Mbit/s) —— Flow 3 egress (mean 23.66 Mbit/s)

• Flow 1 (95th percentile 87.76 ms)   • Flow 2 (95th percentile 71.28 ms)   • Flow 3 (95th percentile 68.37 ms)
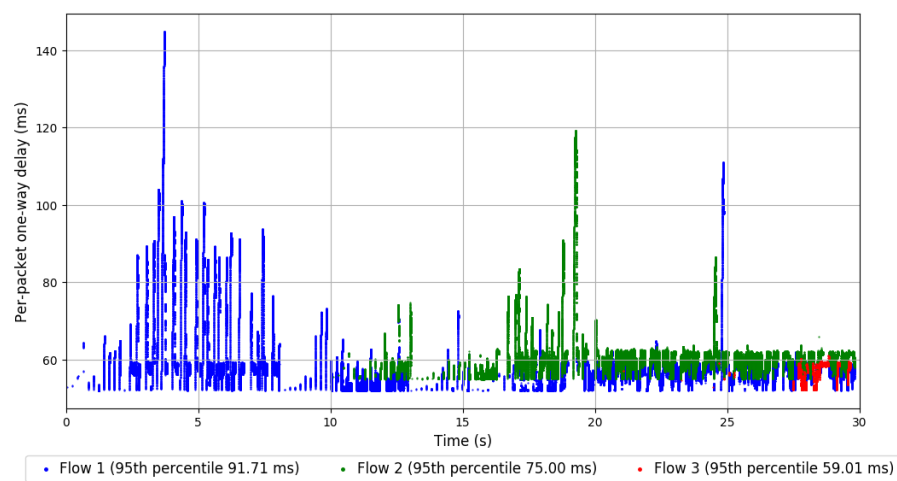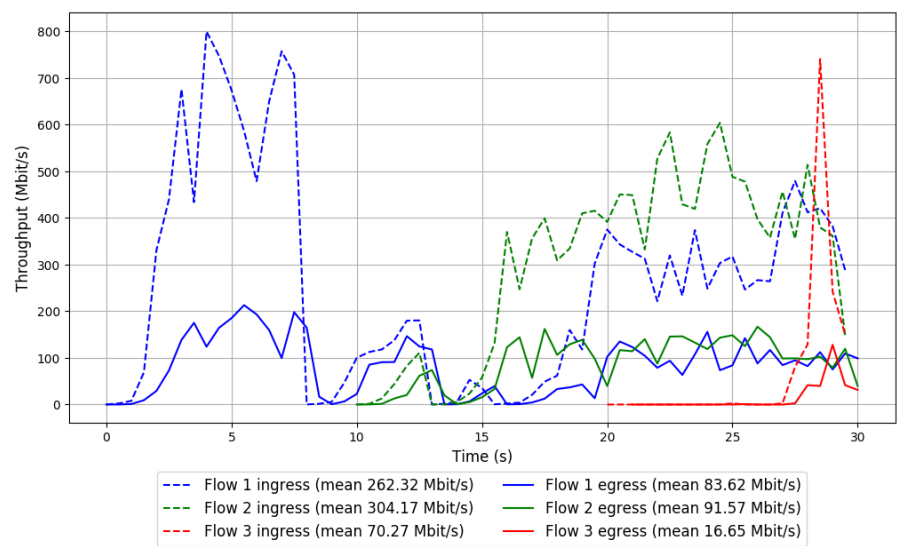
```
Run 3: Statistics of Verus

Start at: 2018-10-26 04:02:23
End at: 2018-10-26 04:02:53
Local clock offset: 0.419 ms
Remote clock offset: -48.115 ms


# Below is generated by plot.py at 2018-10-26 06:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.55 Mbit/s
95th percentile per-packet one-way delay: 85.827 ms
Loss rate: 67.21%
-- Flow 1:
Average throughput: 73.03 Mbit/s
95th percentile per-packet one-way delay: 87.835 ms
Loss rate: 66.76%
-- Flow 2:
Average throughput: 65.31 Mbit/s
95th percentile per-packet one-way delay: 75.028 ms
Loss rate: 68.82%
-- Flow 3:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 65.465 ms
Loss rate: 33.36%
```
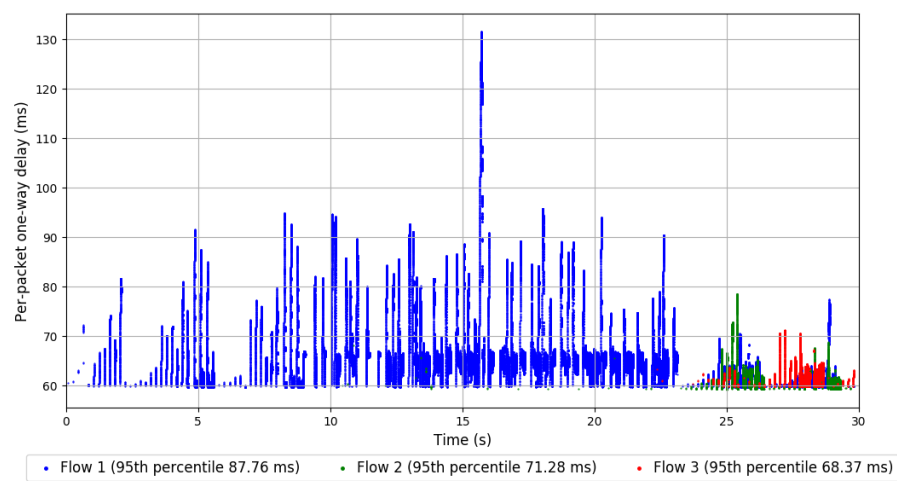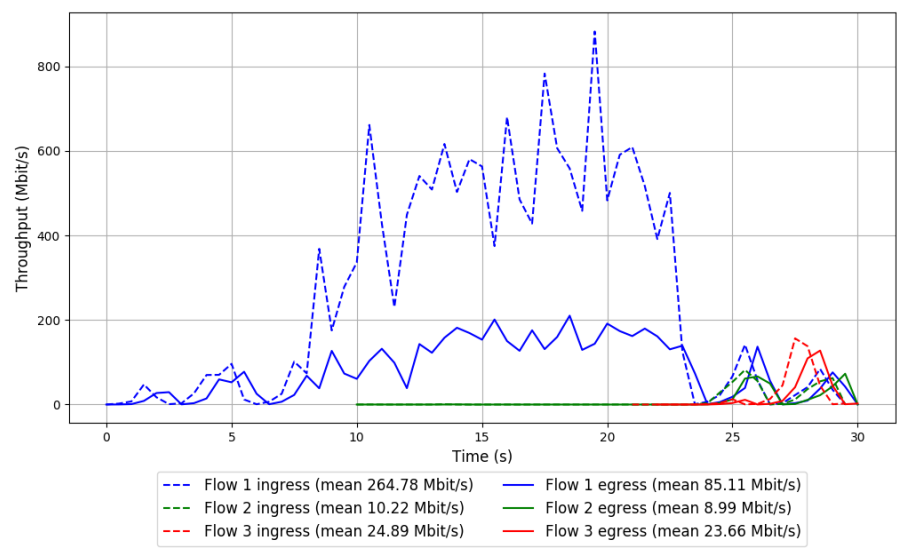
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 219.76 Mbit/s) --- Flow 1 egress (mean 73.03 Mbit/s) ---
Flow 2 ingress (mean 209.48 Mbit/s) --- Flow 2 egress (mean 65.31 Mbit/s) ---
Flow 3 ingress (mean 11.44 Mbit/s) --- Flow 3 egress (mean 7.61 Mbit/s) ---

Flow 1 (95th percentile 87.83 ms) • Flow 2 (95th percentile 75.03 ms) • Flow 3 (95th percentile 65.47 ms)
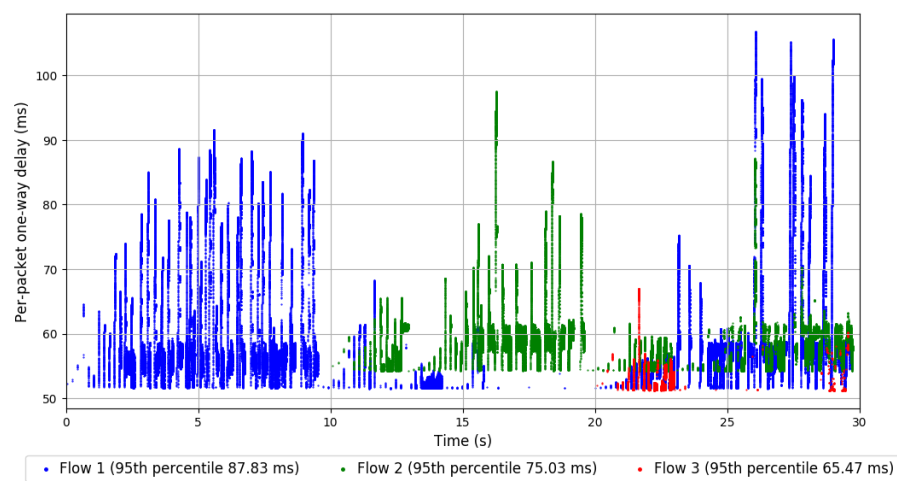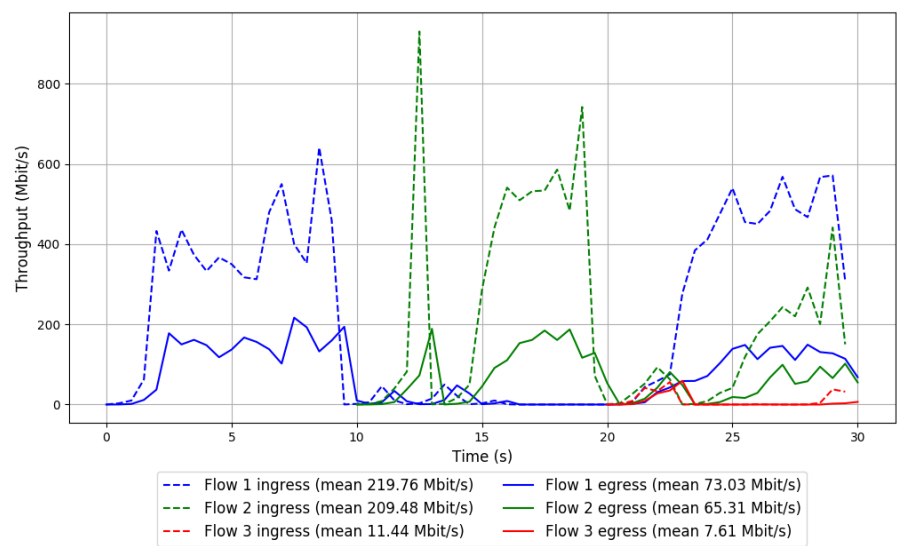
```
Run 4: Statistics of Verus

Start at: 2018-10-26 04:40:25
End at: 2018-10-26 04:40:55
Local clock offset: 0.538 ms
Remote clock offset: -33.298 ms


# Below is generated by plot.py at 2018-10-26 06:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.69 Mbit/s
95th percentile per-packet one-way delay: 89.369 ms
Loss rate: 36.14%
-- Flow 1:
Average throughput: 61.25 Mbit/s
95th percentile per-packet one-way delay: 91.172 ms
Loss rate: 41.28%
-- Flow 2:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 82.430 ms
Loss rate: 26.35%
-- Flow 3:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 74.353 ms
Loss rate: 15.44%
```

Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 104.30 Mbit/s) ..... Flow 1 egress (mean 61.25 Mbit/s)
Flow 2 ingress (mean 44.07 Mbit/s) ..... Flow 2 egress (mean 32.46 Mbit/s)
Flow 3 ingress (mean 36.96 Mbit/s) ..... Flow 3 egress (mean 31.25 Mbit/s)

Flow 1 (95th percentile 91.17 ms)   Flow 2 (95th percentile 82.43 ms)   Flow 3 (95th percentile 74.35 ms)
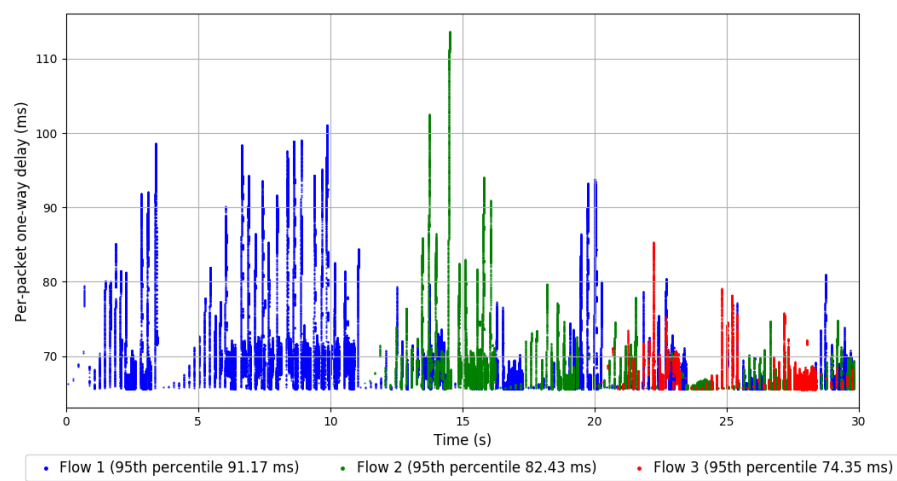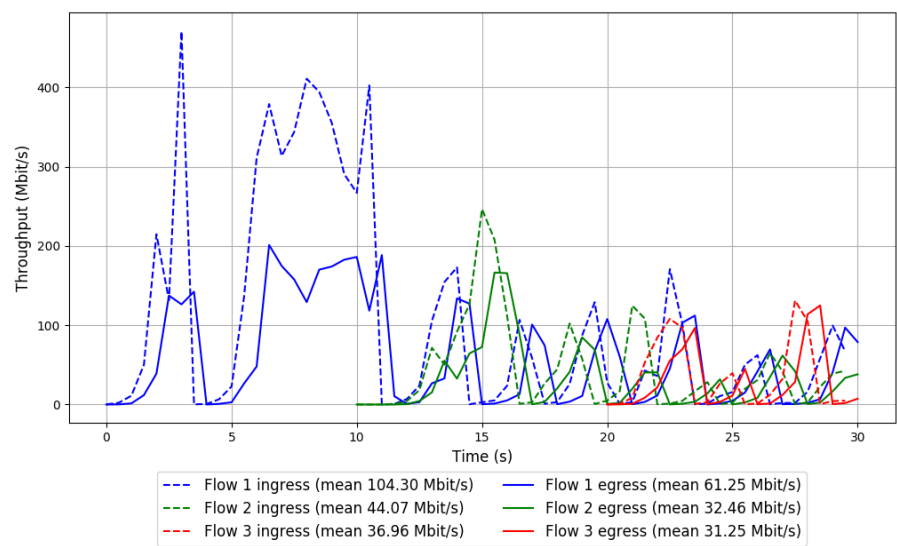
```
Run 5: Statistics of Verus

Start at: 2018-10-26 05:12:55
End at: 2018-10-26 05:13:25
Local clock offset: 0.139 ms
Remote clock offset: -37.447 ms


# Below is generated by plot.py at 2018-10-26 06:06:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.63 Mbit/s
95th percentile per-packet one-way delay: 112.915 ms
Loss rate: 60.02%
-- Flow 1:
Average throughput: 77.86 Mbit/s
95th percentile per-packet one-way delay: 113.851 ms
Loss rate: 60.86%
-- Flow 2:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 104.578 ms
Loss rate: 37.40%
-- Flow 3:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 119.799 ms
Loss rate: 77.74%
```
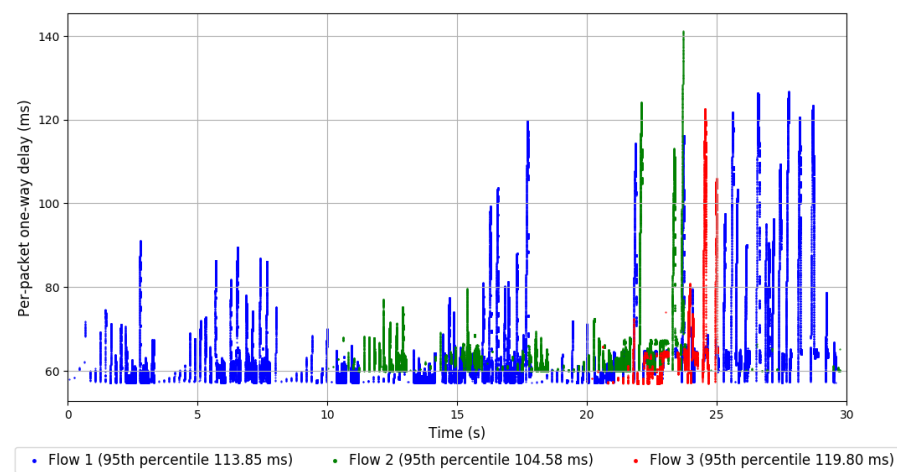
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 198.93 Mbit/s) --- Flow 1 egress (mean 77.86 Mbit/s)
Flow 2 ingress (mean 48.51 Mbit/s) --- Flow 2 egress (mean 30.36 Mbit/s)
Flow 3 ingress (mean 187.70 Mbit/s) --- Flow 3 egress (mean 41.72 Mbit/s)

Flow 1 (95th percentile 113.85 ms) • Flow 2 (95th percentile 104.58 ms) • Flow 3 (95th percentile 119.80 ms)

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-10-26 03:08:38
End at: 2018-10-26 03:09:08
Local clock offset: 1.675 ms
Remote clock offset: -50.589 ms


# Below is generated by plot.py at 2018-10-26 06:06:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 209.06 Mbit/s
95th percentile per-packet one-way delay: 51.603 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 189.57 Mbit/s
95th percentile per-packet one-way delay: 51.587 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 25.85 Mbit/s
95th percentile per-packet one-way delay: 51.739 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 6.98 Mbit/s
95th percentile per-packet one-way delay: 51.330 ms
Loss rate: 0.32%
```
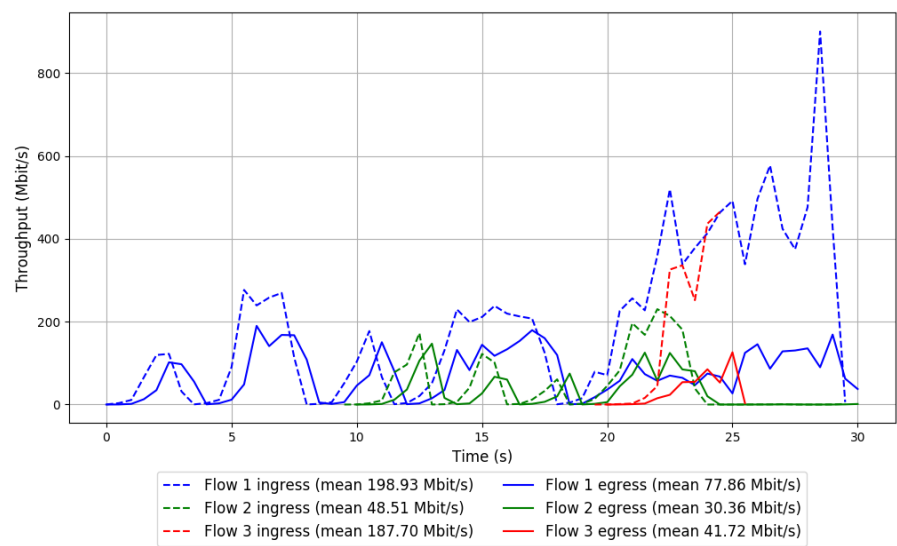
Run 1: Report of PCC-Vivace — Data Link

- - - - Flow 1 ingress (mean 191.81 Mbit/s) ——— Flow 1 egress (mean 189.57 Mbit/s)
- - - - Flow 2 ingress (mean 25.98 Mbit/s) ——— Flow 2 egress (mean 25.85 Mbit/s)
- - - - Flow 3 ingress (mean 7.00 Mbit/s) ——— Flow 3 egress (mean 6.98 Mbit/s)

• Flow 1 (95th percentile 51.59 ms)   • Flow 2 (95th percentile 51.74 ms)   • Flow 3 (95th percentile 51.33 ms)
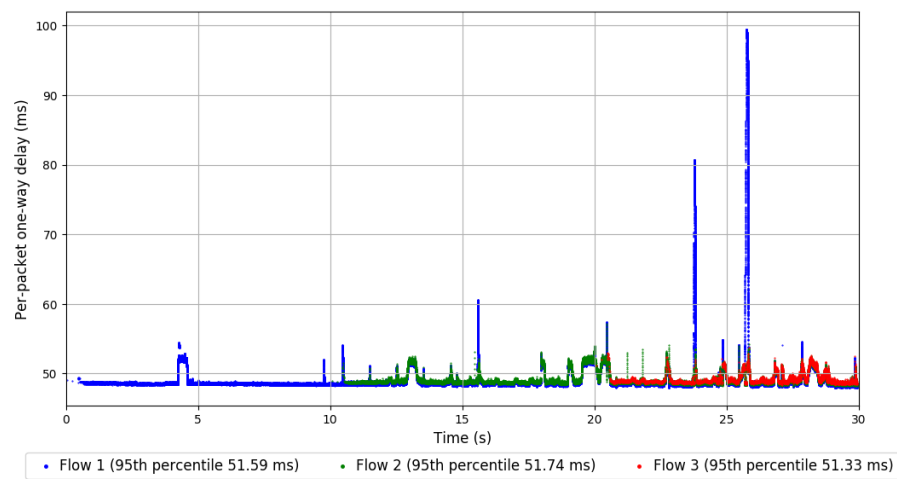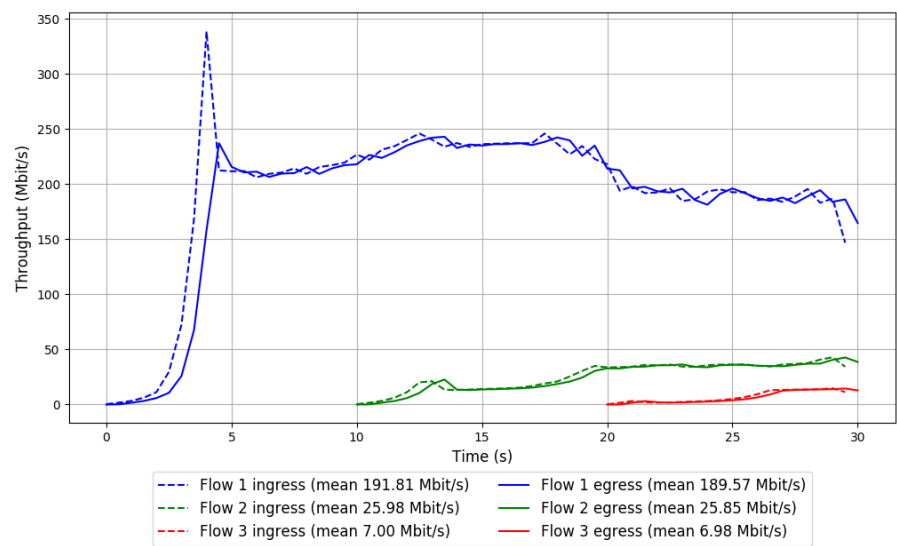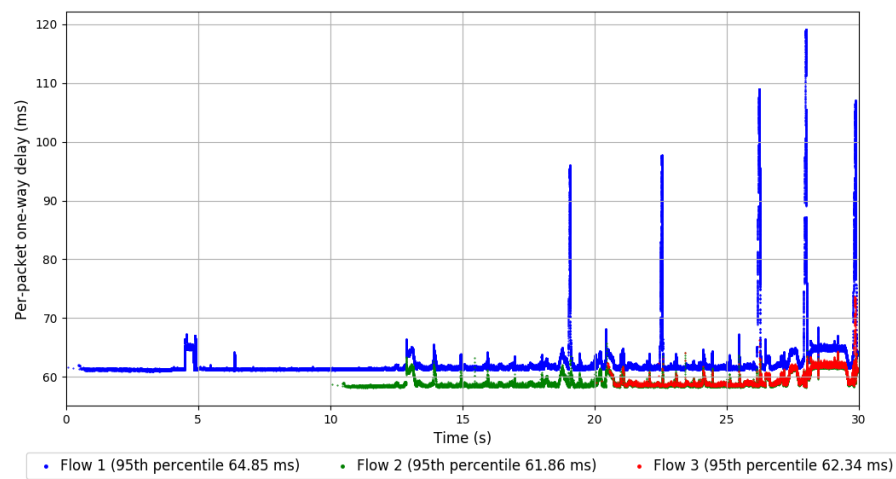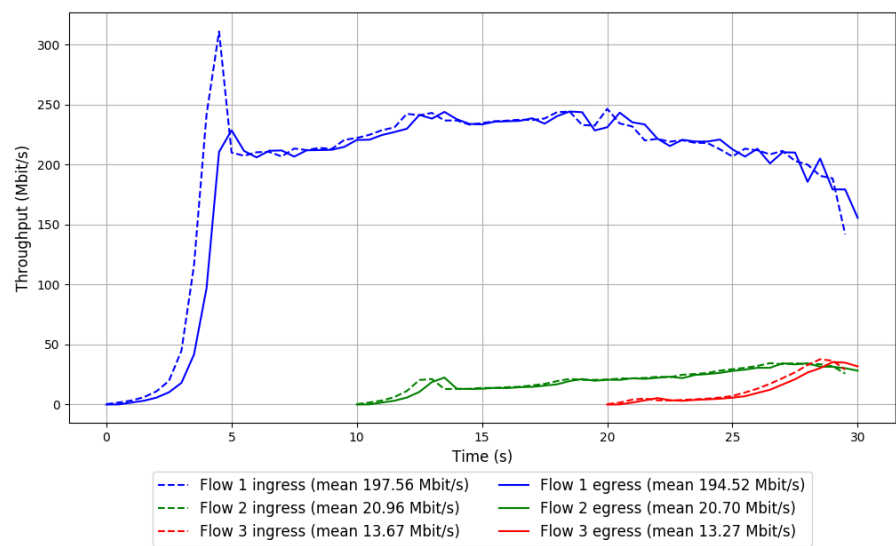
```
Run 2: Statistics of PCC-Vivace

Start at: 2018-10-26 03:40:50
End at: 2018-10-26 03:41:20
Local clock offset: 2.337 ms
Remote clock offset: -39.069 ms


# Below is generated by plot.py at 2018-10-26 06:07:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.67 Mbit/s
95th percentile per-packet one-way delay: 64.818 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 194.52 Mbit/s
95th percentile per-packet one-way delay: 64.851 ms
Loss rate: 1.54%
-- Flow 2:
Average throughput: 20.70 Mbit/s
95th percentile per-packet one-way delay: 61.859 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 13.27 Mbit/s
95th percentile per-packet one-way delay: 62.335 ms
Loss rate: 2.90%
```

Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 197.56 Mbit/s) --- Flow 1 egress (mean 194.52 Mbit/s)
Flow 2 ingress (mean 20.96 Mbit/s) --- Flow 2 egress (mean 20.70 Mbit/s)
Flow 3 ingress (mean 13.67 Mbit/s) --- Flow 3 egress (mean 13.27 Mbit/s)

Flow 1 (95th percentile 64.85 ms)   Flow 2 (95th percentile 61.86 ms)   Flow 3 (95th percentile 62.34 ms)
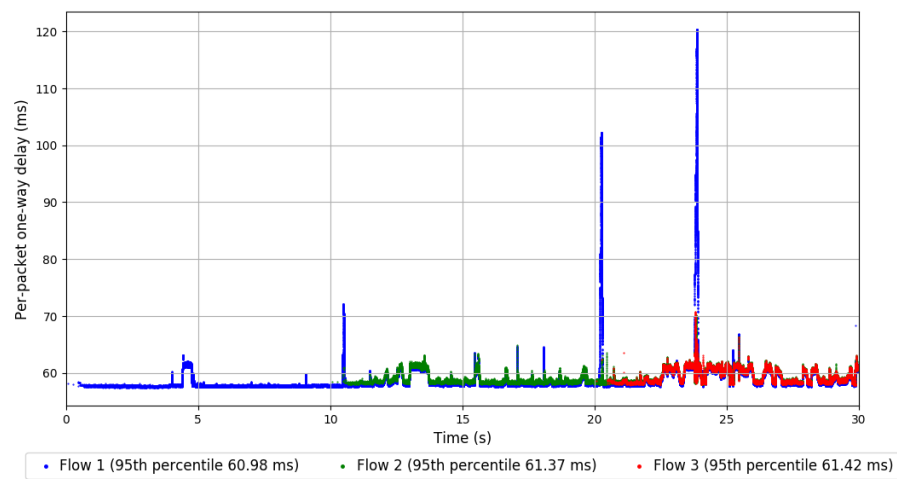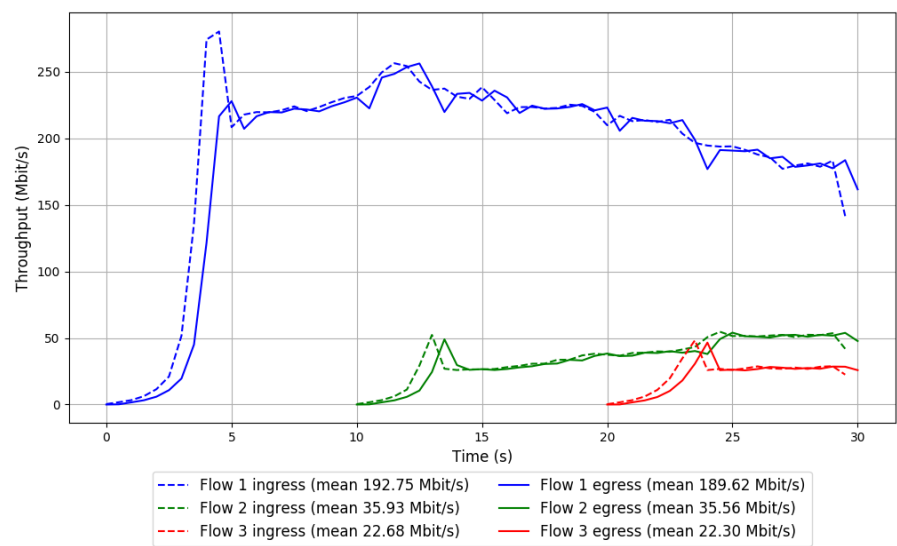
```
Run 3: Statistics of PCC-Vivace

Start at: 2018-10-26 04:18:45
End at: 2018-10-26 04:19:15
Local clock offset: 0.851 ms
Remote clock offset: -39.913 ms


# Below is generated by plot.py at 2018-10-26 06:07:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.62 Mbit/s
95th percentile per-packet one-way delay: 61.096 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 189.62 Mbit/s
95th percentile per-packet one-way delay: 60.977 ms
Loss rate: 1.62%
-- Flow 2:
Average throughput: 35.56 Mbit/s
95th percentile per-packet one-way delay: 61.373 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 22.30 Mbit/s
95th percentile per-packet one-way delay: 61.416 ms
Loss rate: 1.66%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 192.75 Mbit/s) --- Flow 1 egress (mean 189.62 Mbit/s)
Flow 2 ingress (mean 35.93 Mbit/s) --- Flow 2 egress (mean 35.56 Mbit/s)
Flow 3 ingress (mean 22.68 Mbit/s) --- Flow 3 egress (mean 22.30 Mbit/s)

Flow 1 (95th percentile 60.98 ms)   Flow 2 (95th percentile 61.37 ms)   Flow 3 (95th percentile 61.42 ms)
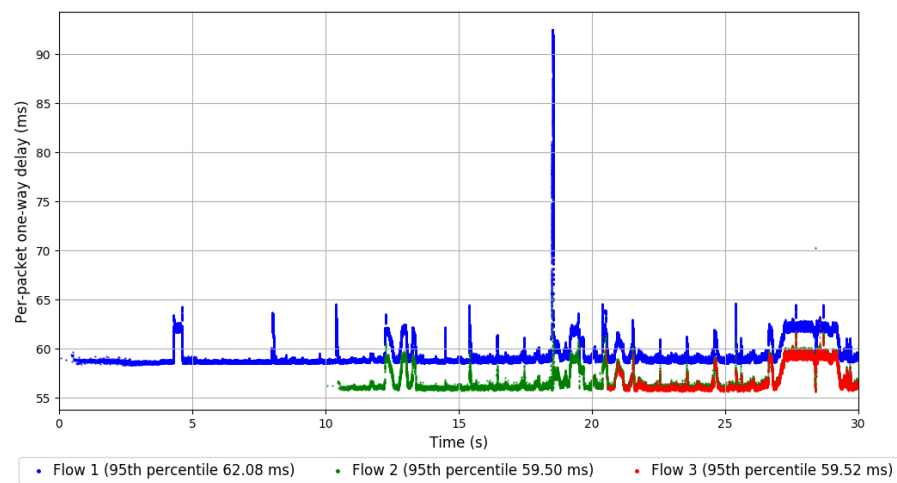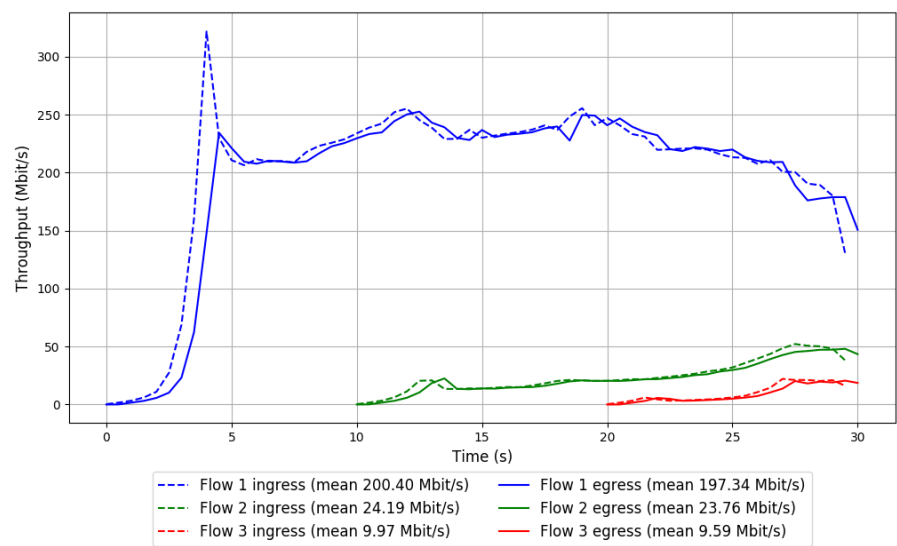
```
Run 4: Statistics of PCC-Vivace

Start at: 2018-10-26 04:51:14
End at: 2018-10-26 04:51:44
Local clock offset: 0.873 ms
Remote clock offset: -38.908 ms


# Below is generated by plot.py at 2018-10-26 06:07:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.30 Mbit/s
95th percentile per-packet one-way delay: 62.035 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 197.34 Mbit/s
95th percentile per-packet one-way delay: 62.075 ms
Loss rate: 1.54%
-- Flow 2:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 59.499 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 59.516 ms
Loss rate: 3.74%
```

Run 4: Report of PCC-Vivace — Data Link

- Flow 1 ingress (mean 200.40 Mbit/s)
- Flow 1 egress (mean 197.34 Mbit/s)
- Flow 2 ingress (mean 24.19 Mbit/s)
- Flow 2 egress (mean 23.76 Mbit/s)
- Flow 3 ingress (mean 9.97 Mbit/s)
- Flow 3 egress (mean 9.59 Mbit/s)

- Flow 1 (95th percentile 62.08 ms)
- Flow 2 (95th percentile 59.50 ms)
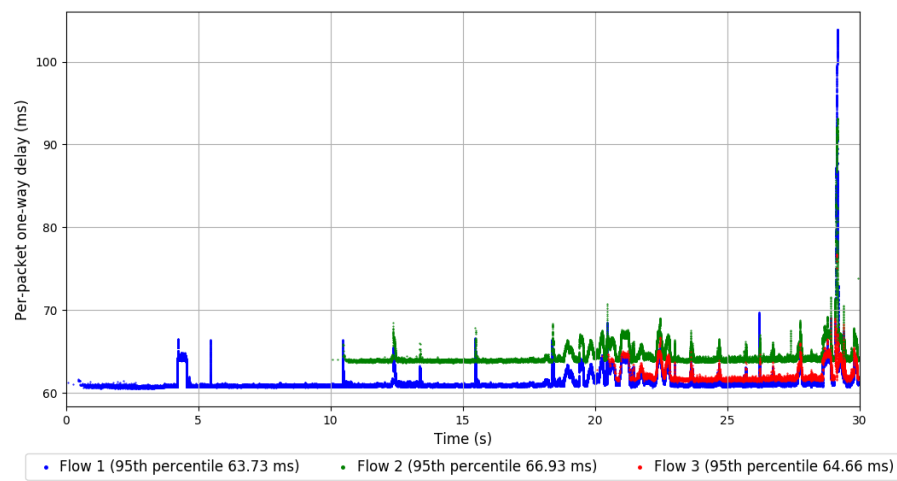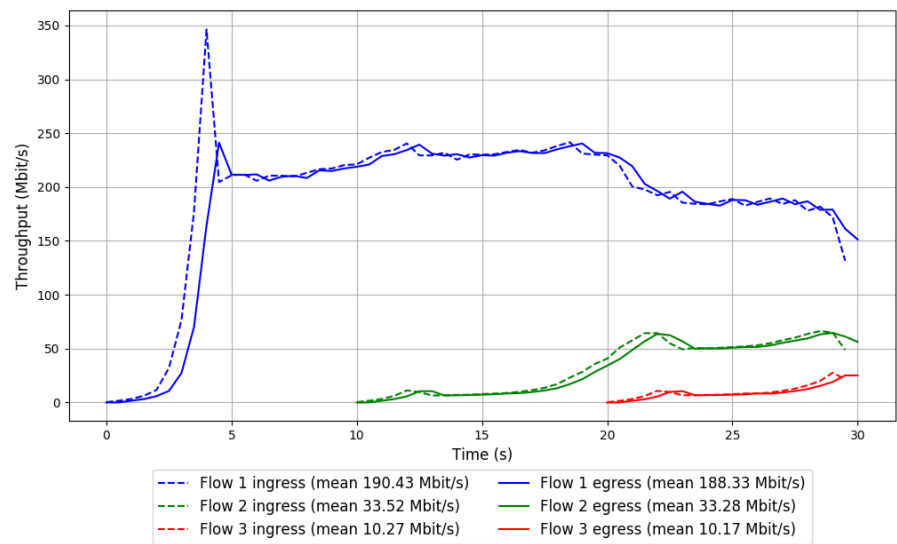- Flow 3 (95th percentile 59.52 ms)

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```
Run 5: Statistics of PCC-Vivace

Start at: 2018-10-26 05:24:02
End at: 2018-10-26 05:24:32
Local clock offset: 0.385 ms
Remote clock offset: -32.935 ms

# Below is generated by plot.py at 2018-10-26 06:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.75 Mbit/s
95th percentile per-packet one-way delay: 64.330 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 188.33 Mbit/s
95th percentile per-packet one-way delay: 63.735 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 33.28 Mbit/s
95th percentile per-packet one-way delay: 66.926 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 10.17 Mbit/s
95th percentile per-packet one-way delay: 64.657 ms
Loss rate: 1.09%
```

Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 190.43 Mbit/s)   Flow 1 egress (mean 188.33 Mbit/s)
Flow 2 ingress (mean 33.52 Mbit/s)   Flow 2 egress (mean 33.28 Mbit/s)
Flow 3 ingress (mean 10.27 Mbit/s)   Flow 3 egress (mean 10.17 Mbit/s)

Flow 1 (95th percentile 63.73 ms)   Flow 2 (95th percentile 66.93 ms)   Flow 3 (95th percentile 64.66 ms)
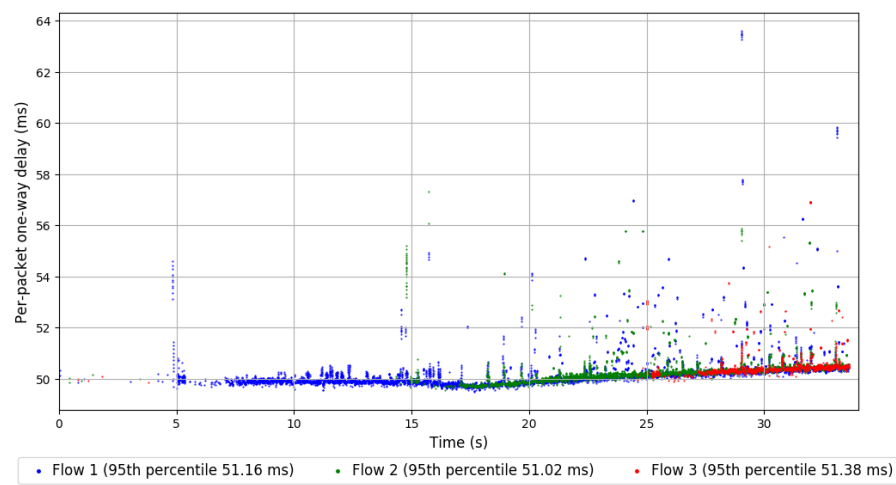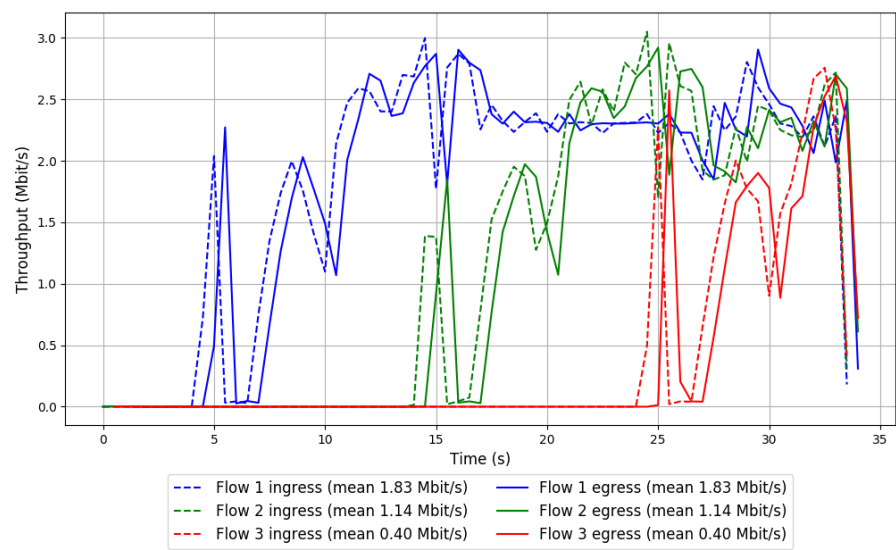
```
Run 1: Statistics of WebRTC media

Start at: 2018-10-26 03:07:20
End at: 2018-10-26 03:07:50
Local clock offset: 2.251 ms
Remote clock offset: -47.827 ms

# Below is generated by plot.py at 2018-10-26 06:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 51.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 51.163 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 51.022 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 51.375 ms
Loss rate: 0.01%
```

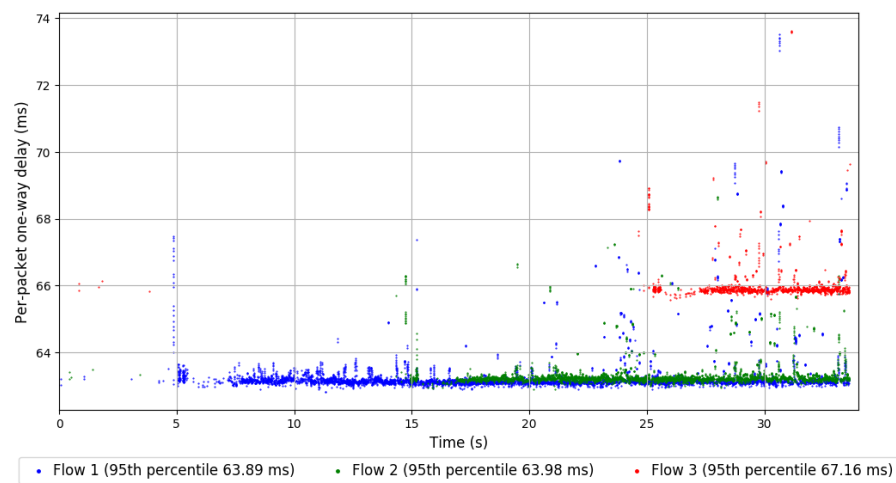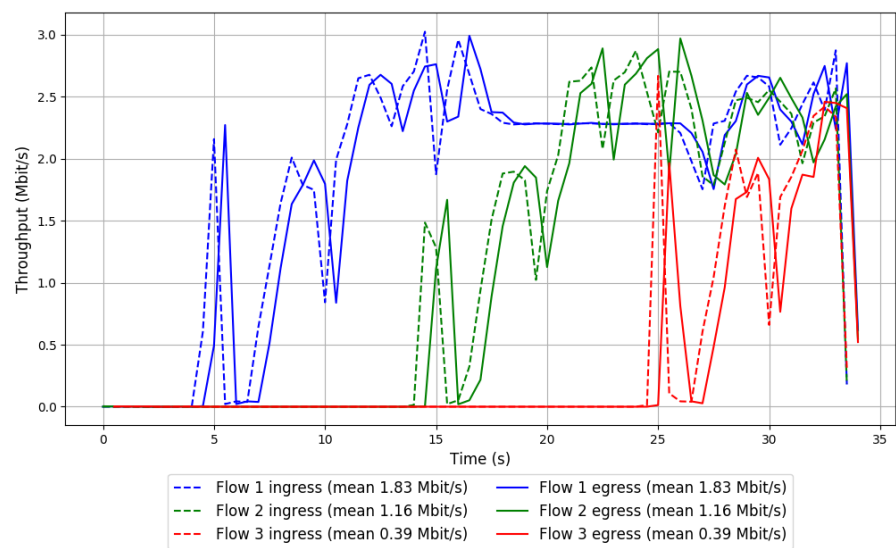Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-10-26 03:39:32
End at: 2018-10-26 03:40:02
Local clock offset: 0.129 ms
Remote clock offset: -36.348 ms


# Below is generated by plot.py at 2018-10-26 06:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 65.919 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 63.892 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 63.978 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 67.160 ms
Loss rate: 0.00%
```

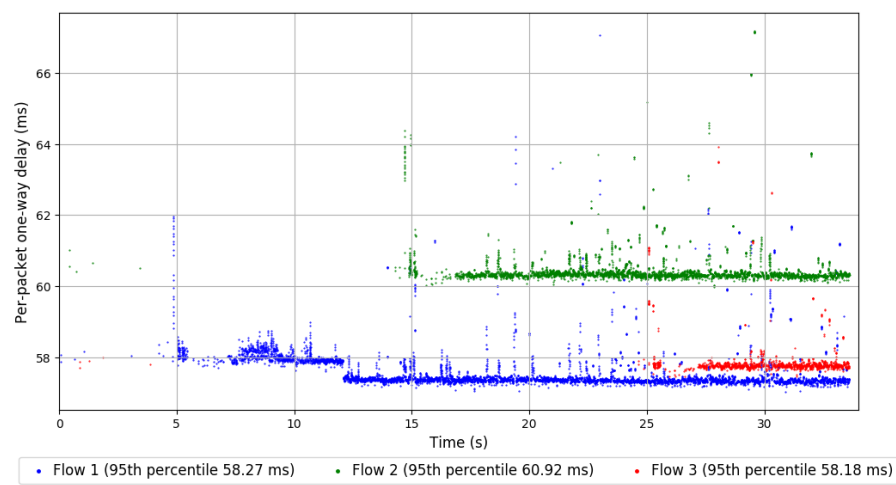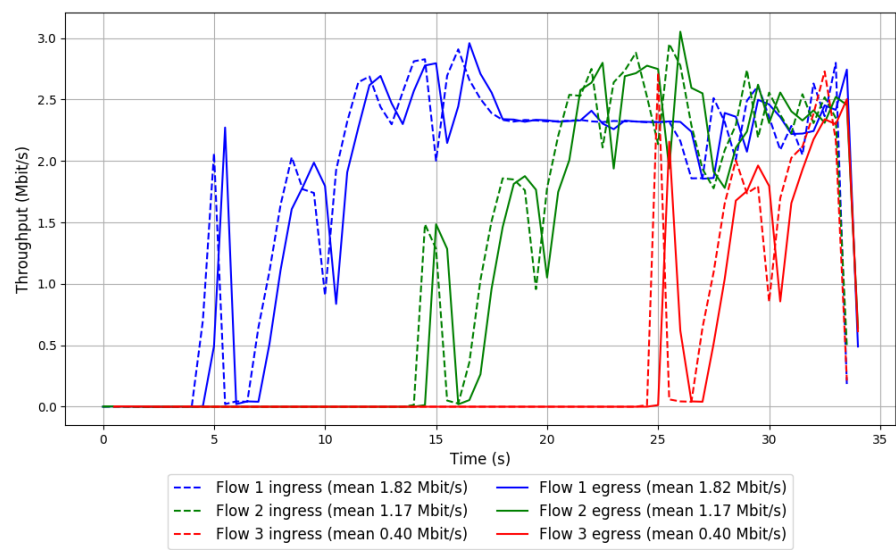Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-10-26 04:17:27
End at: 2018-10-26 04:17:57
Local clock offset: -0.4 ms
Remote clock offset: -41.427 ms


# Below is generated by plot.py at 2018-10-26 06:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 60.497 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 58.266 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 60.919 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 58.182 ms
Loss rate: 0.00%
```

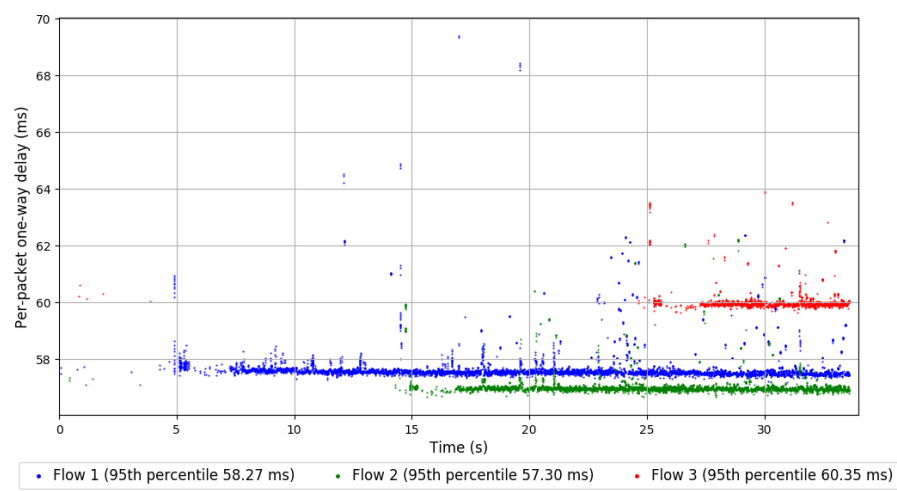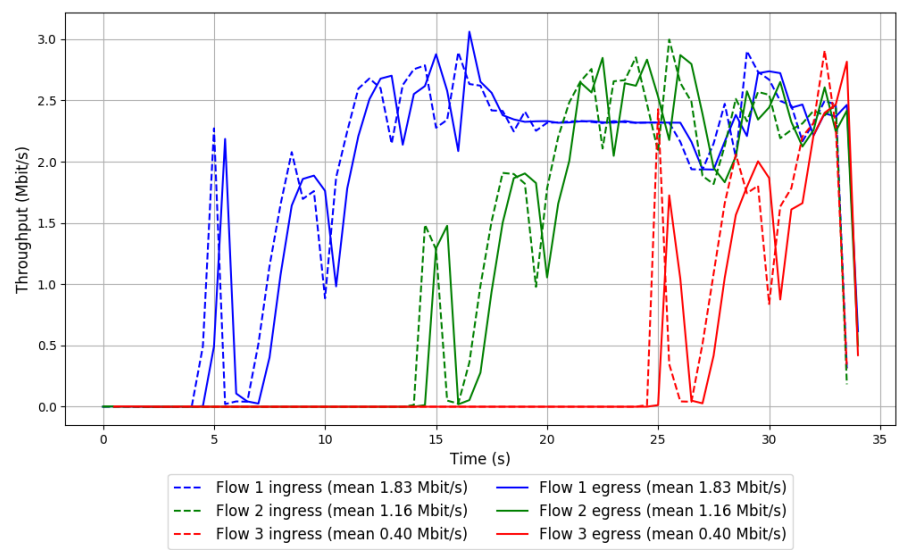Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-10-26 04:49:56
End at: 2018-10-26 04:50:26
Local clock offset: -0.57 ms
Remote clock offset: -39.157 ms


# Below is generated by plot.py at 2018-10-26 06:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 59.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 58.265 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 57.299 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 60.354 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-10-26 05:22:44
End at: 2018-10-26 05:23:14
Local clock offset: -3.274 ms
Remote clock offset: -38.406 ms


# Below is generated by plot.py at 2018-10-26 06:07:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 62.046 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 60.504 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 60.020 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 63.254 ms
Loss rate: 0.28%
```

Run 5: Report of WebRTC media — Data Link