Pantheon Report

Generated at 2018-11-15 06:40:50 (UTC).

Data path: AWS Brazil 1 on `ens5` (*local*) →Brazil on `p4p1` (*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 `gps.ntp.br` and have been applied to correct the timestamps in logs.
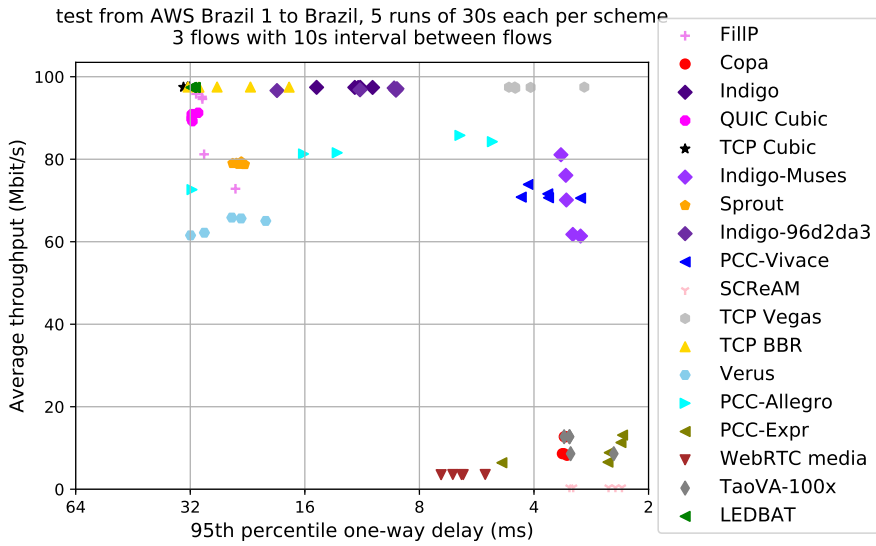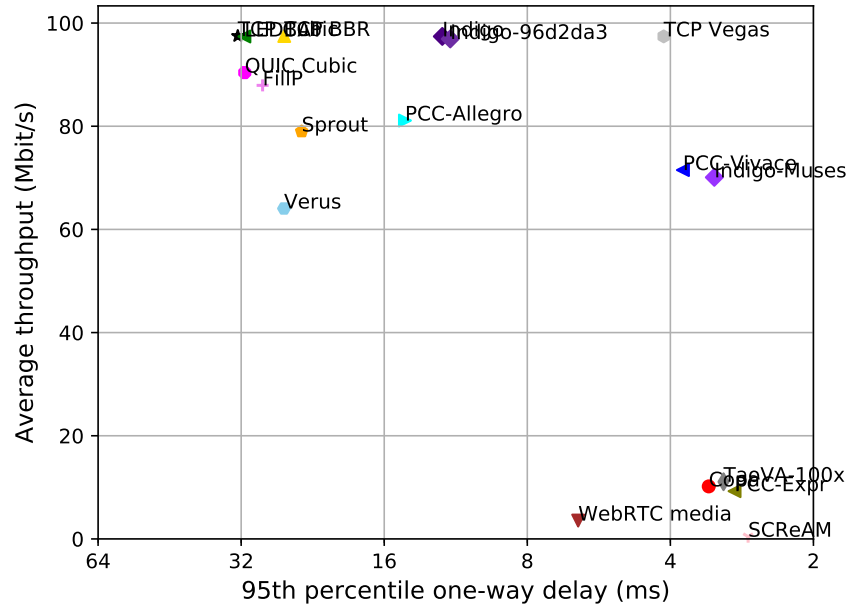
```
System info:
Linux 4.15.0-1023-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 794ca3866981572cb73700a276691acf79c60f2b
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
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 Brazil 1 to Brazil, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from AWS Brazil 1 to Brazil, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

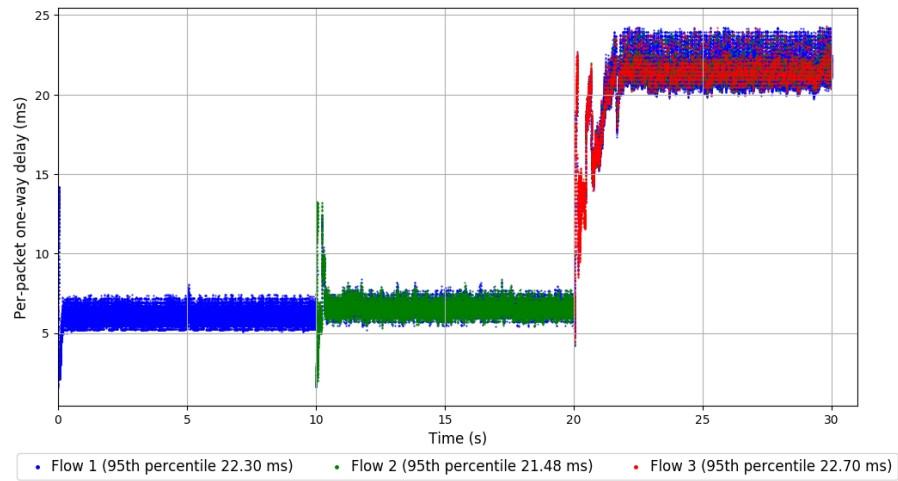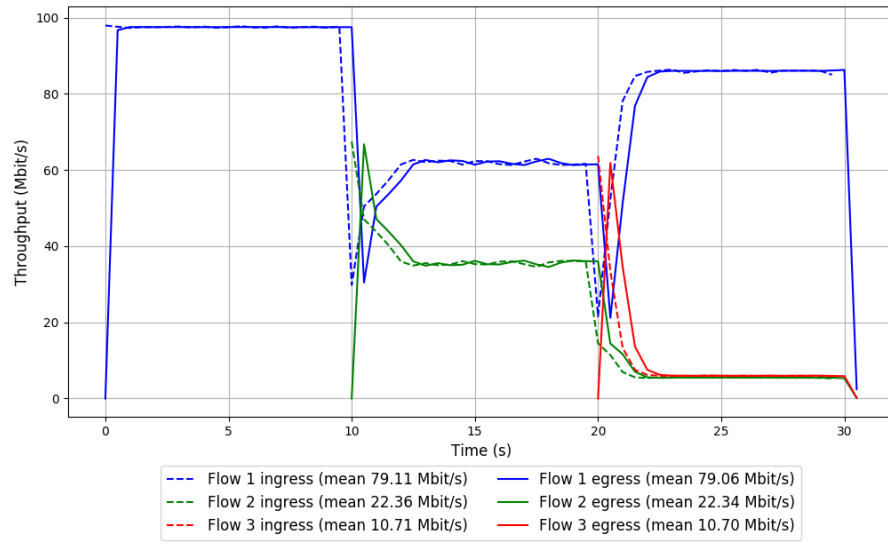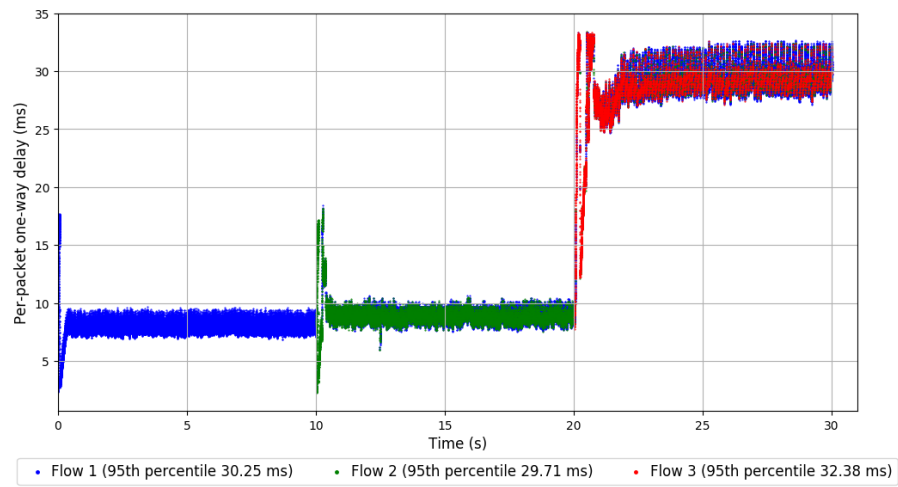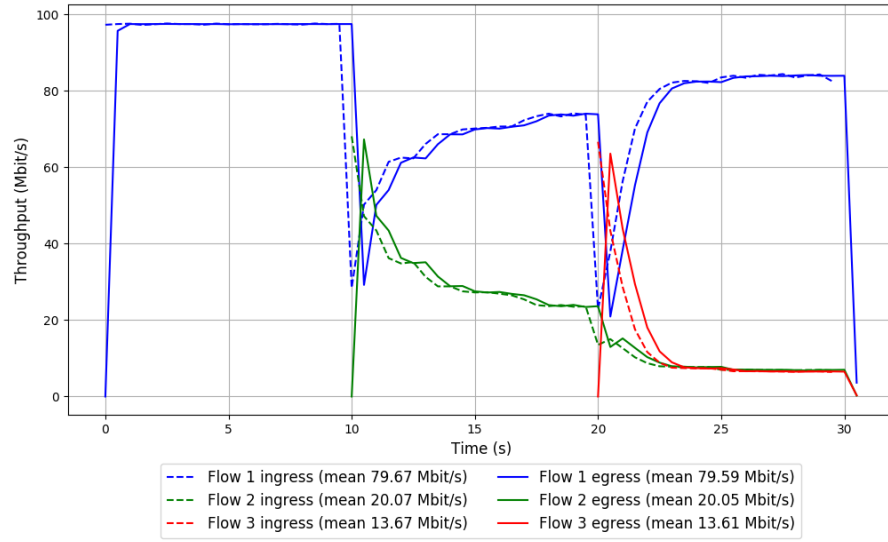| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	74.49	26.74	15.59	24.56	24.50	26.72	0.14	0.02	0.15
Copa	5	5.08	6.71	2.58	2.65	3.25	2.17	86.33	74.21	85.31
TCP Cubic	5	63.88	35.34	30.36	32.11	32.79	32.55	0.04	0.04	0.06
FillP	5	46.56	43.58	37.21	26.74	29.49	29.16	7.08	12.65	32.04
Indigo	5	43.81	46.58	69.64	10.19	11.53	12.25	0.00	0.00	0.01
Indigo-96d2da3	5	52.45	46.94	40.19	10.02	11.67	12.14	0.00	0.00	0.00
LEDBAT	5	58.13	43.58	30.94	31.00	31.96	31.72	0.06	0.05	0.12
Indigo-Muses	5	37.13	34.91	29.51	2.94	2.93	3.42	0.00	0.00	0.01
PCC-Allegro	5	63.79	19.55	13.09	11.80	13.71	16.85	0.04	0.11	0.10
PCC-Expr	5	3.17	6.55	6.55	1.88	3.47	2.45	75.33	38.30	41.80
QUIC Cubic	5	56.86	35.76	29.73	30.97	31.18	31.19	0.17	0.21	0.22
SCReAM	5	0.22	0.22	0.22	1.88	2.16	2.75	0.00	0.00	0.00
Sprout	5	42.83	38.58	31.71	22.07	23.96	25.82	0.00	0.03	0.00
TaoVA-100x	5	5.44	6.07	6.98	2.80	3.33	3.96	90.34	86.97	90.21
TCP Vegas	5	50.02	47.17	48.01	3.65	3.63	4.00	0.00	0.00	0.01
Verus	5	38.18	24.78	28.29	18.36	29.76	31.75	3.54	7.17	9.83
PCC-Vivace	5	37.50	37.23	28.01	2.42	4.21	5.37	0.00	0.00	0.01
WebRTC media	5	1.93	1.25	0.38	5.40	6.49	7.84	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-11-15 05:01:26
End at: 2018-11-15 05:01:56
Local clock offset: -8.901 ms
Remote clock offset: -0.302 ms


# Below is generated by plot.py at 2018-11-15 06:32:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 22.235 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.06 Mbit/s
95th percentile per-packet one-way delay: 22.299 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.34 Mbit/s
95th percentile per-packet one-way delay: 21.483 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 22.698 ms
Loss rate: 0.00%
```

Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 79.11 Mbit/s) --- Flow 1 egress (mean 79.06 Mbit/s)
Flow 2 ingress (mean 22.36 Mbit/s) --- Flow 2 egress (mean 22.34 Mbit/s)
Flow 3 ingress (mean 10.71 Mbit/s) --- Flow 3 egress (mean 10.70 Mbit/s)

Flow 1 (95th percentile 22.30 ms)   Flow 2 (95th percentile 21.48 ms)   Flow 3 (95th percentile 22.70 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-11-15 05:21:56
End at: 2018-11-15 05:22:26
Local clock offset: -7.953 ms
Remote clock offset: -0.127 ms


# Below is generated by plot.py at 2018-11-15 06:32:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 30.371 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 79.59 Mbit/s
95th percentile per-packet one-way delay: 30.255 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 29.709 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 13.61 Mbit/s
95th percentile per-packet one-way delay: 32.379 ms
Loss rate: 0.20%
```
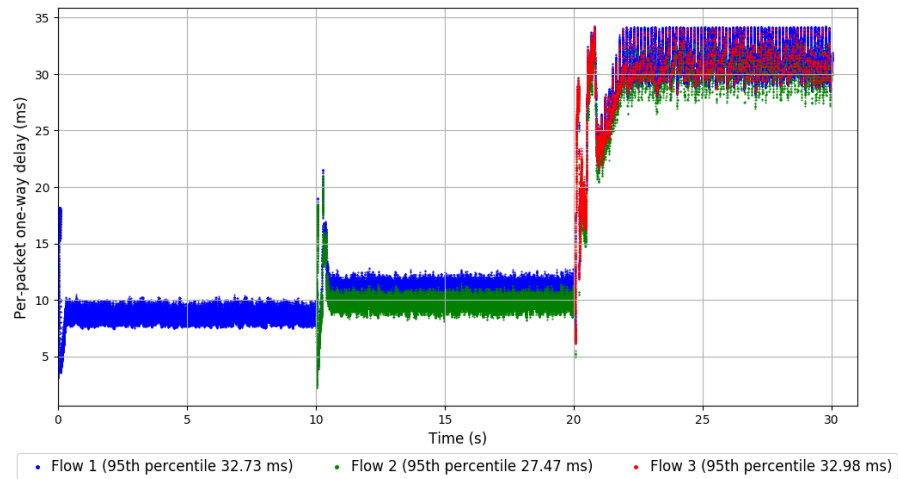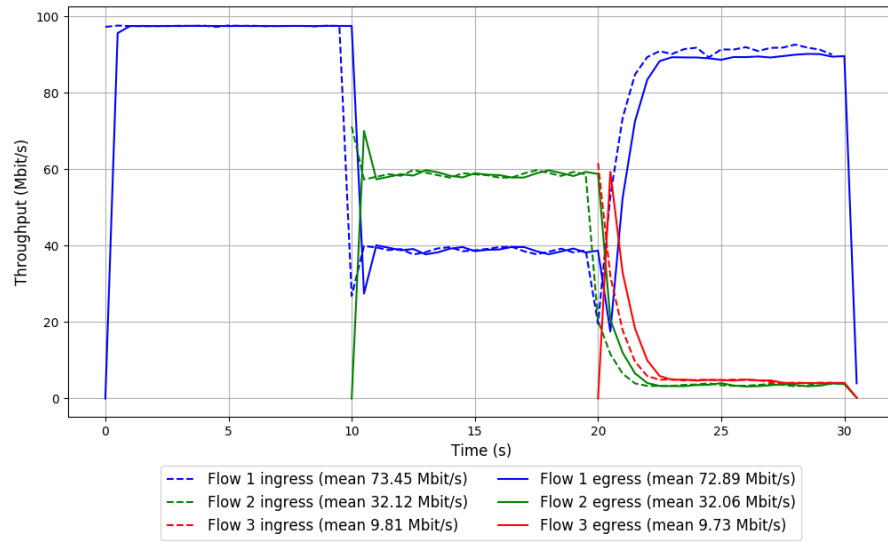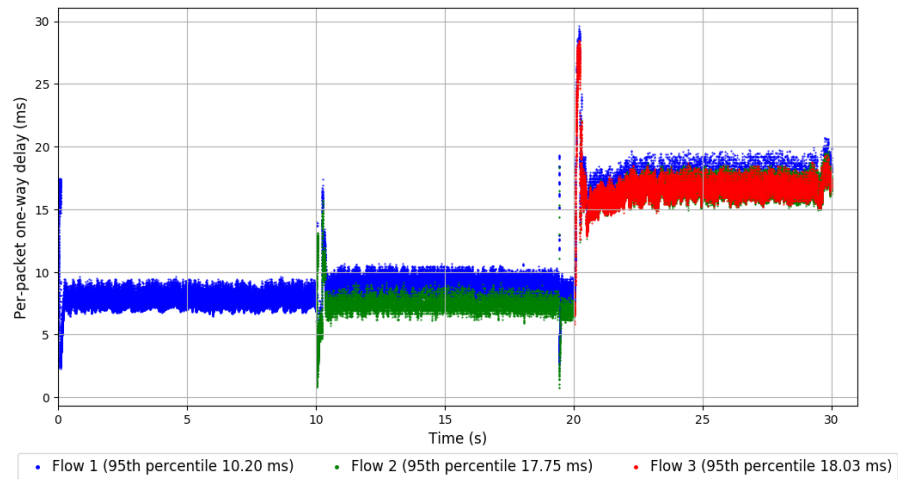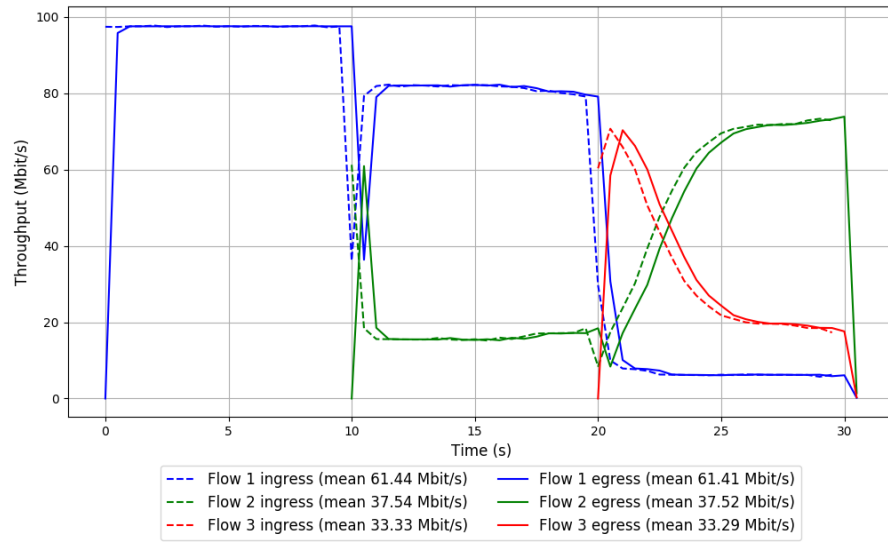
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 79.67 Mbit/s) --- Flow 1 egress (mean 79.59 Mbit/s)
Flow 2 ingress (mean 20.07 Mbit/s) --- Flow 2 egress (mean 20.05 Mbit/s)
Flow 3 ingress (mean 13.67 Mbit/s) --- Flow 3 egress (mean 13.61 Mbit/s)

Flow 1 (95th percentile 30.25 ms)   Flow 2 (95th percentile 29.71 ms)   Flow 3 (95th percentile 32.38 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2018-11-15 05:42:20
End at: 2018-11-15 05:42:50
Local clock offset: -7.847 ms
Remote clock offset: 0.009 ms


# Below is generated by plot.py at 2018-11-15 06:32:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 32.444 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 72.89 Mbit/s
95th percentile per-packet one-way delay: 32.726 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 32.06 Mbit/s
95th percentile per-packet one-way delay: 27.473 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 9.73 Mbit/s
95th percentile per-packet one-way delay: 32.983 ms
Loss rate: 0.54%
```
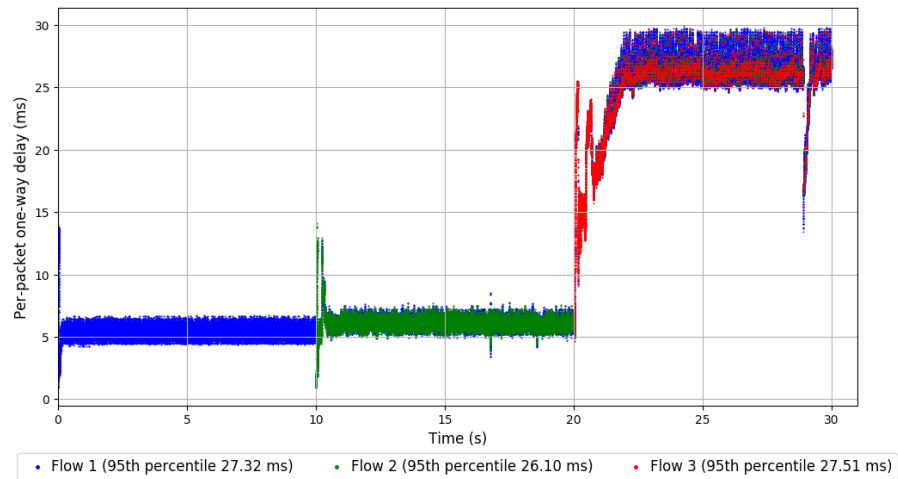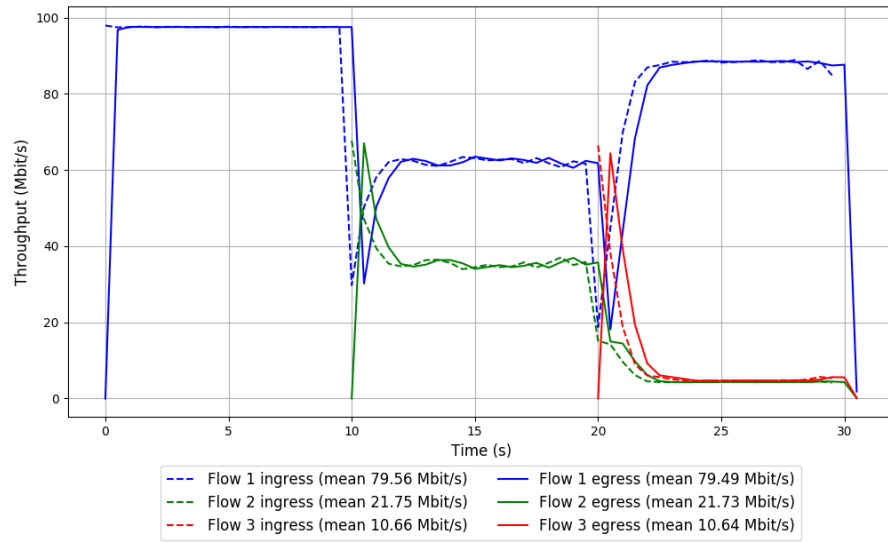
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-11-15 06:02:45
End at: 2018-11-15 06:03:15
Local clock offset: -6.421 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2018-11-15 06:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 17.594 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.41 Mbit/s
95th percentile per-packet one-way delay: 10.198 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.52 Mbit/s
95th percentile per-packet one-way delay: 17.748 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.29 Mbit/s
95th percentile per-packet one-way delay: 18.029 ms
Loss rate: 0.00%
```
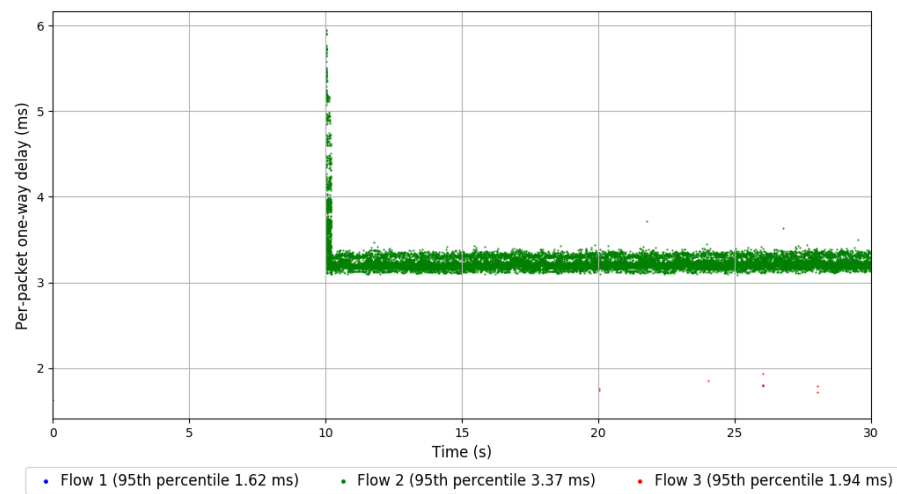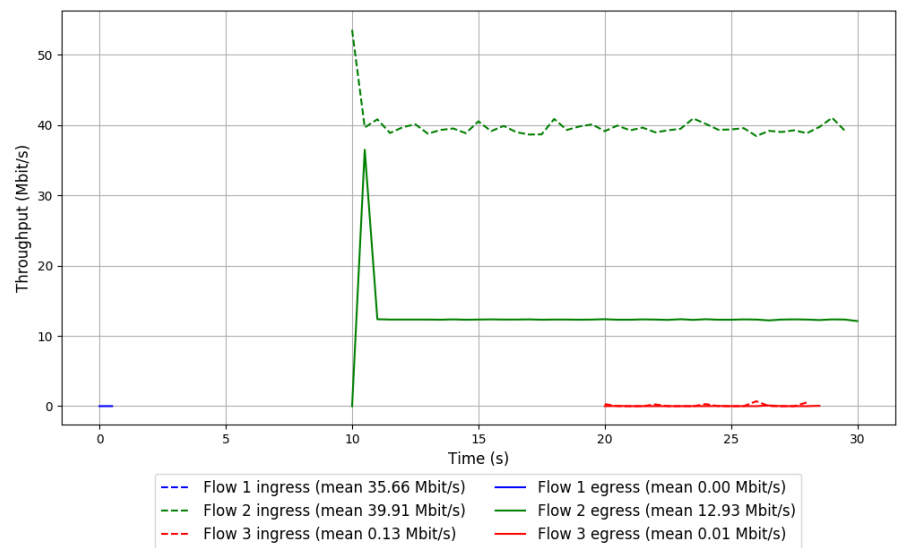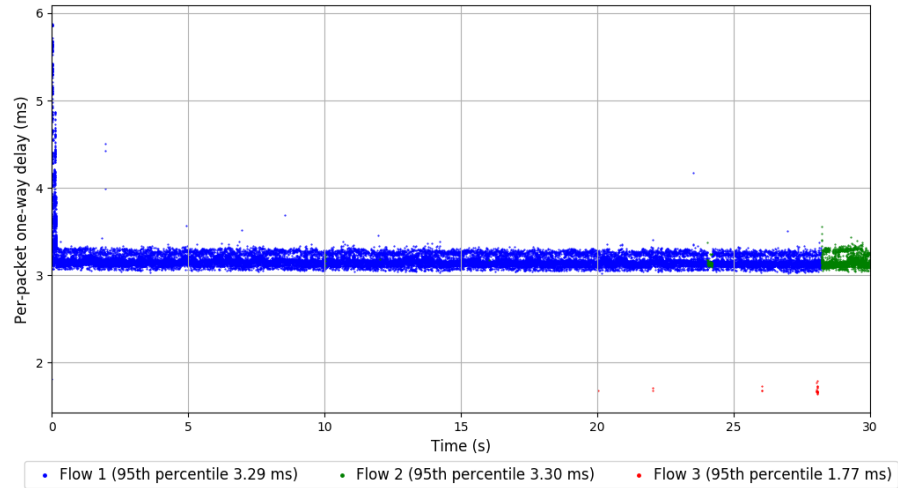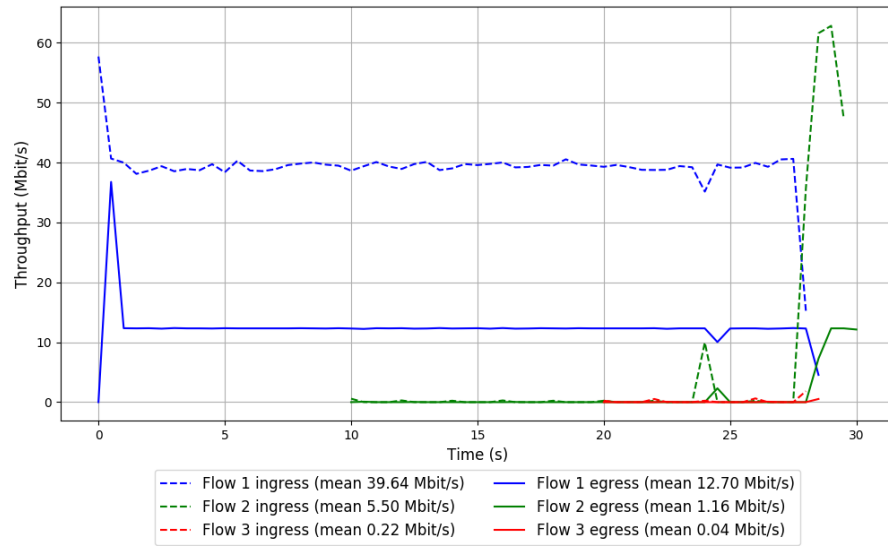
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-11-15 06:23:10
End at: 2018-11-15 06:23:40
Local clock offset: -5.639 ms
Remote clock offset: 0.132 ms


# Below is generated by plot.py at 2018-11-15 06:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 27.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.49 Mbit/s
95th percentile per-packet one-way delay: 27.317 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.73 Mbit/s
95th percentile per-packet one-way delay: 26.103 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.64 Mbit/s
95th percentile per-packet one-way delay: 27.508 ms
Loss rate: 0.00%
```

Run 5: Report of TCP BBR — Data Link

- - - Flow 1 ingress (mean 79.56 Mbit/s)   —— Flow 1 egress (mean 79.49 Mbit/s)
- - - Flow 2 ingress (mean 21.75 Mbit/s)   —— Flow 2 egress (mean 21.73 Mbit/s)
- - - Flow 3 ingress (mean 10.66 Mbit/s)   —— Flow 3 egress (mean 10.64 Mbit/s)

• Flow 1 (95th percentile 27.32 ms)   • Flow 2 (95th percentile 26.10 ms)   • Flow 3 (95th percentile 27.51 ms)

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```
Run 1: Statistics of Copa

Start at: 2018-11-15 05:03:43
End at: 2018-11-15 05:04:13
Local clock offset: -8.726 ms
Remote clock offset: -0.203 ms


# Below is generated by plot.py at 2018-11-15 06:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 3.369 ms
Loss rate: 67.63%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.624 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 3.369 ms
Loss rate: 67.60%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1.935 ms
Loss rate: 90.50%
```
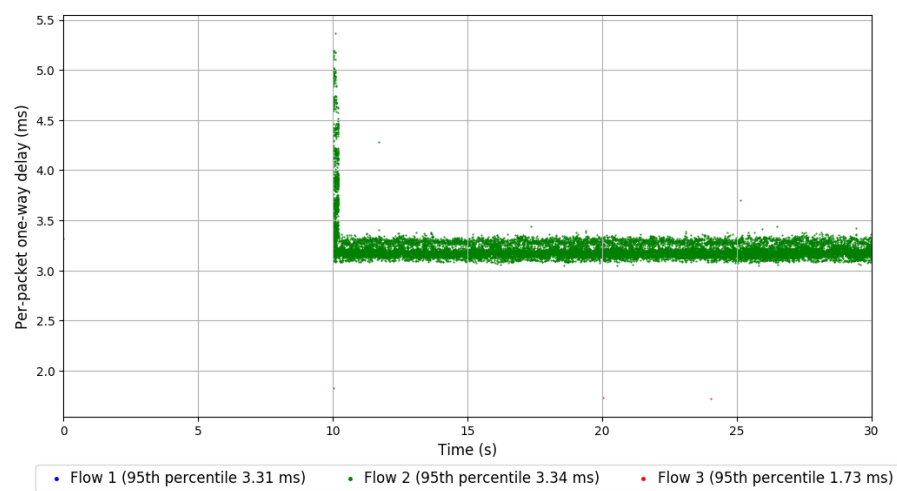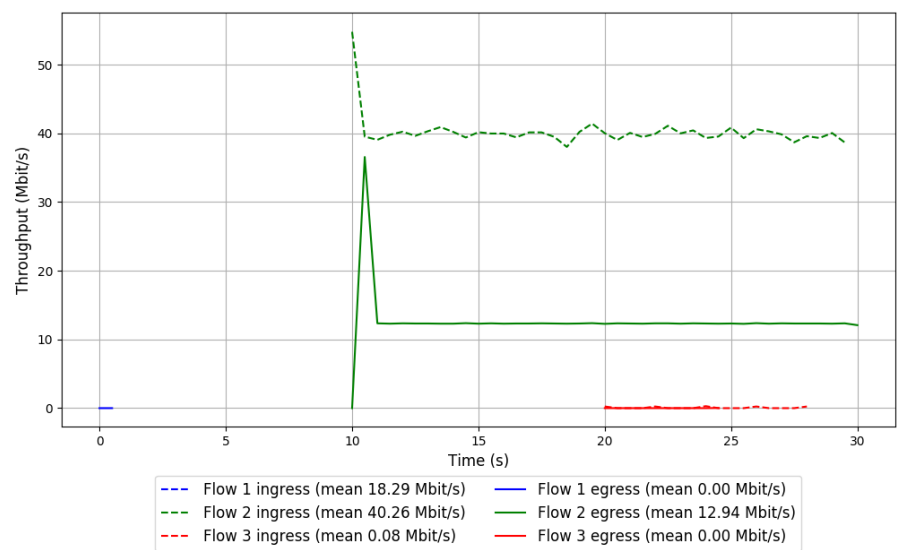
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 35.66 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s) ———
Flow 2 ingress (mean 39.91 Mbit/s) --- Flow 2 egress (mean 12.93 Mbit/s) ———
Flow 3 ingress (mean 0.13 Mbit/s) --- Flow 3 egress (mean 0.01 Mbit/s) ———

Flow 1 (95th percentile 1.62 ms)   Flow 2 (95th percentile 3.37 ms)   Flow 3 (95th percentile 1.94 ms)

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```
Run 2: Statistics of Copa

Start at: 2018-11-15 05:24:13
End at: 2018-11-15 05:24:43
Local clock offset: -8.808 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2018-11-15 06:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.292 ms
Loss rate: 68.95%
-- Flow 1:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 3.292 ms
Loss rate: 67.96%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 3.297 ms
Loss rate: 78.86%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 1.766 ms
Loss rate: 81.20%
```
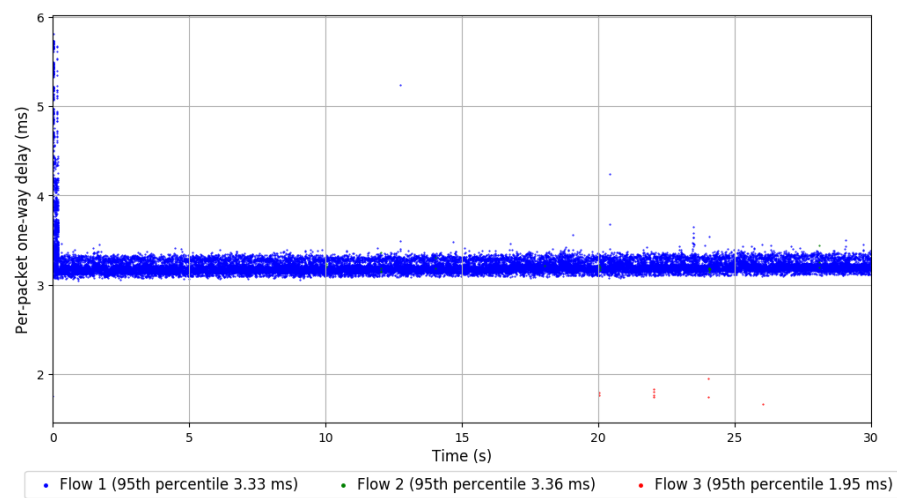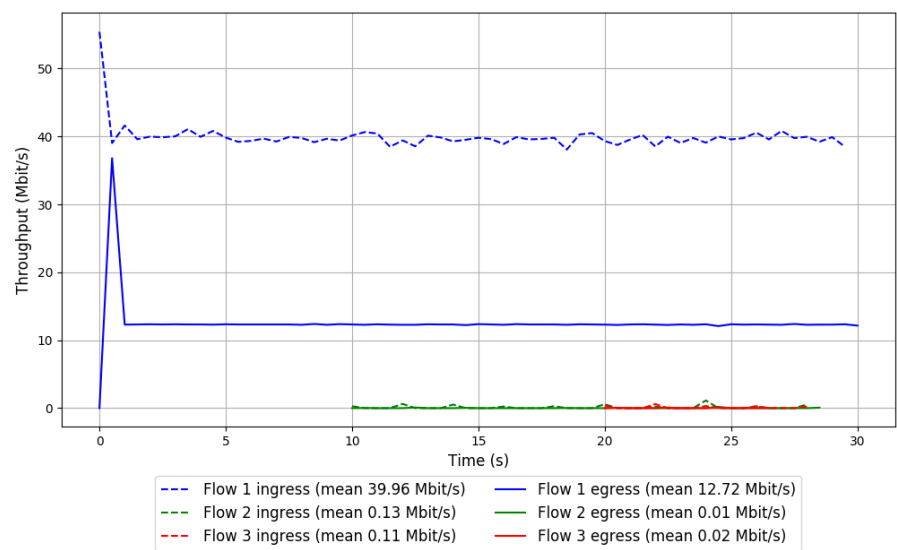
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-11-15 05:44:38
End at: 2018-11-15 05:45:08
Local clock offset: -7.833 ms
Remote clock offset: 0.046 ms


# Below is generated by plot.py at 2018-11-15 06:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 3.338 ms
Loss rate: 67.90%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.315 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 12.94 Mbit/s
95th percentile per-packet one-way delay: 3.338 ms
Loss rate: 67.87%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.731 ms
Loss rate: 97.92%
```
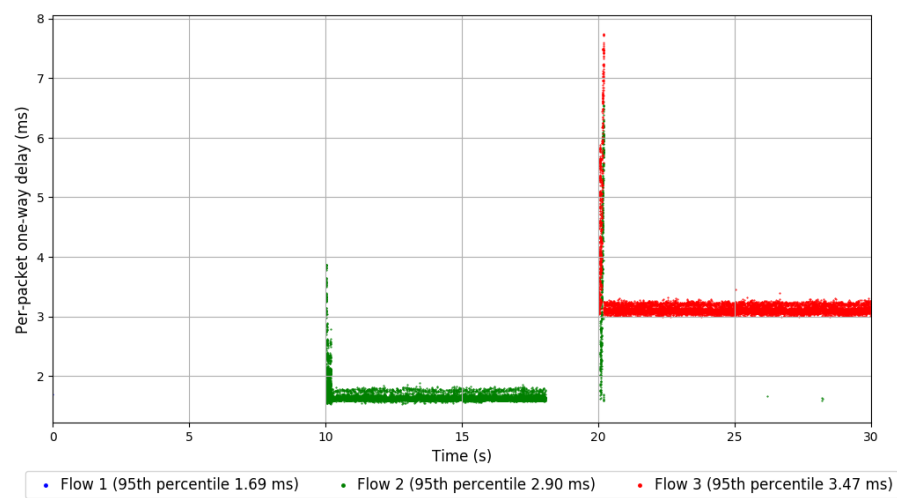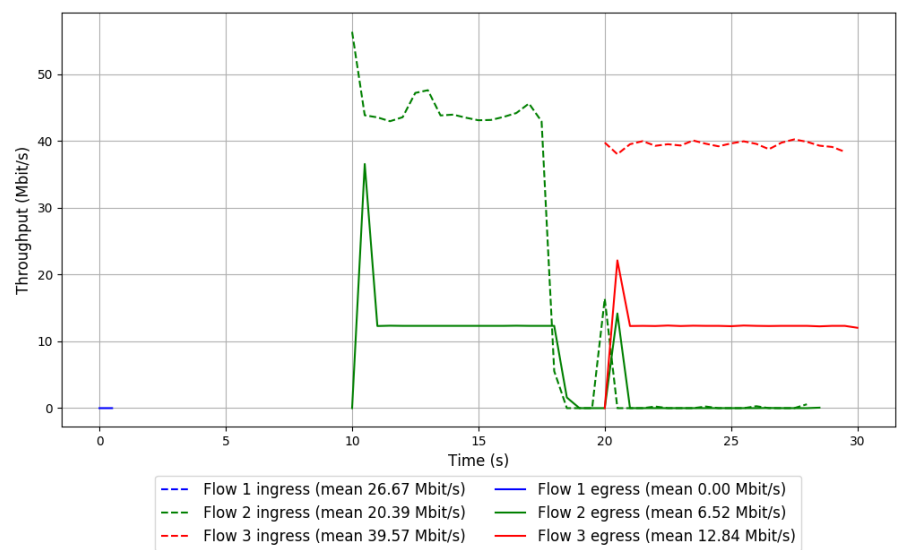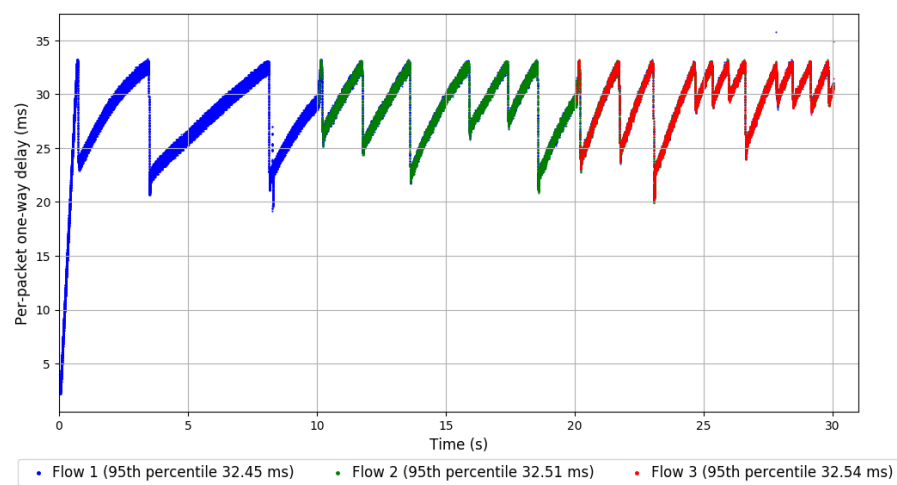
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-11-15 06:05:02
End at: 2018-11-15 06:05:32
Local clock offset: -6.915 ms
Remote clock offset: 0.14 ms


# Below is generated by plot.py at 2018-11-15 06:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.331 ms
Loss rate: 68.23%
-- Flow 1:
Average throughput: 12.72 Mbit/s
95th percentile per-packet one-way delay: 3.331 ms
Loss rate: 68.17%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3.361 ms
Loss rate: 88.68%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1.948 ms
Loss rate: 89.37%
```
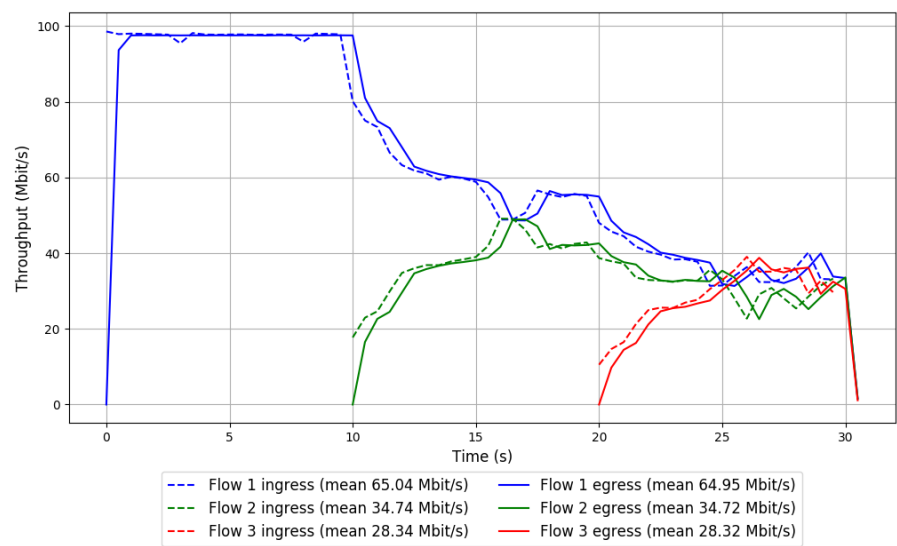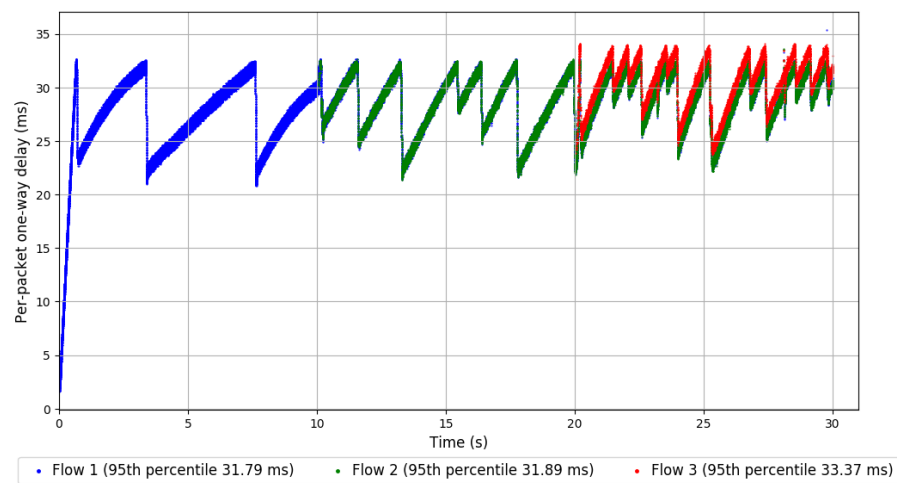
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 39.96 Mbit/s)
Flow 1 egress (mean 12.72 Mbit/s)
Flow 2 ingress (mean 0.13 Mbit/s)
Flow 2 egress (mean 0.01 Mbit/s)
Flow 3 ingress (mean 0.11 Mbit/s)
Flow 3 egress (mean 0.02 Mbit/s)

Flow 1 (95th percentile 3.33 ms)
Flow 2 (95th percentile 3.36 ms)
Flow 3 (95th percentile 1.95 ms)

```
Run 5: Statistics of Copa

Start at: 2018-11-15 06:25:27
End at: 2018-11-15 06:25:57
Local clock offset: -6.285 ms
Remote clock offset: 0.145 ms


# Below is generated by plot.py at 2018-11-15 06:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 3.276 ms
Loss rate: 67.79%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.687 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 6.52 Mbit/s
95th percentile per-packet one-way delay: 2.902 ms
Loss rate: 68.03%
-- Flow 3:
Average throughput: 12.84 Mbit/s
95th percentile per-packet one-way delay: 3.467 ms
Loss rate: 67.57%
```
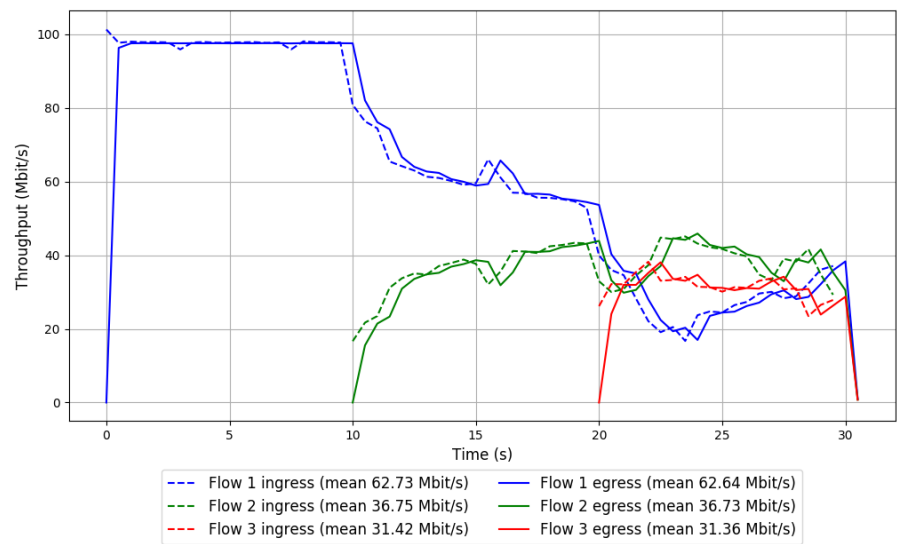
Run 5: Report of Copa — Data Link

- - - Flow 1 ingress (mean 26.67 Mbit/s)
——— Flow 1 egress (mean 0.00 Mbit/s)
- - - Flow 2 ingress (mean 20.39 Mbit/s)
——— Flow 2 egress (mean 6.52 Mbit/s)
- - - Flow 3 ingress (mean 39.57 Mbit/s)
——— Flow 3 egress (mean 12.84 Mbit/s)

- Flow 1 (95th percentile 1.69 ms)   • Flow 2 (95th percentile 2.90 ms)   • Flow 3 (95th percentile 3.47 ms)
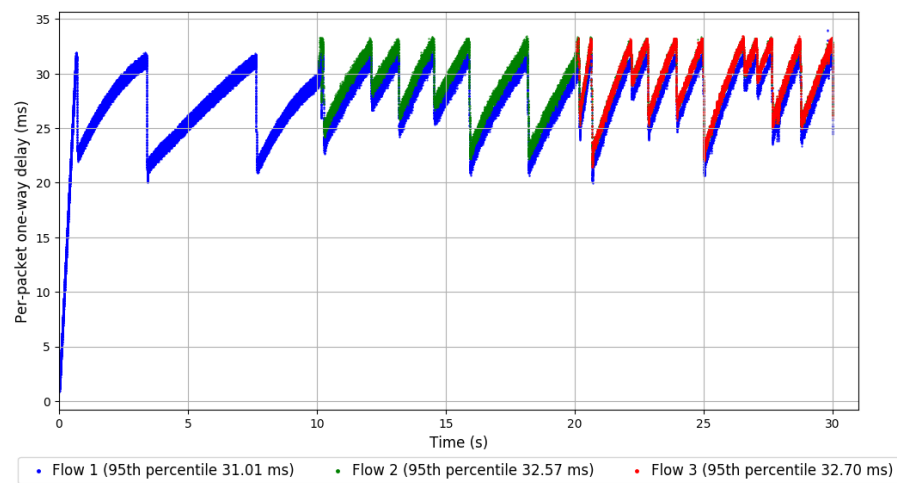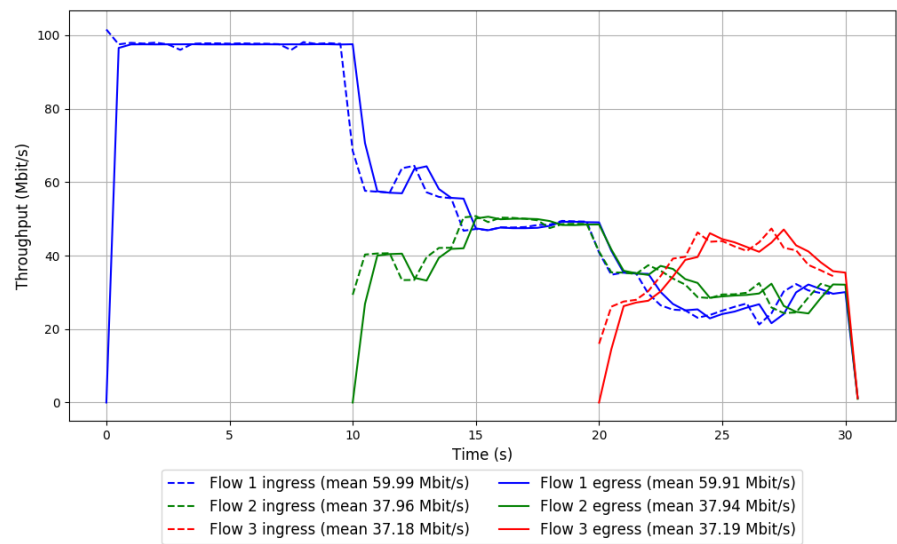
```
Run 1: Statistics of TCP Cubic

Start at: 2018-11-15 04:53:31
End at: 2018-11-15 04:54:01
Local clock offset: -8.403 ms
Remote clock offset: -0.303 ms


# Below is generated by plot.py at 2018-11-15 06:32:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 32.501 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 64.95 Mbit/s
95th percentile per-packet one-way delay: 32.446 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 34.72 Mbit/s
95th percentile per-packet one-way delay: 32.512 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 28.32 Mbit/s
95th percentile per-packet one-way delay: 32.537 ms
Loss rate: 0.06%
```
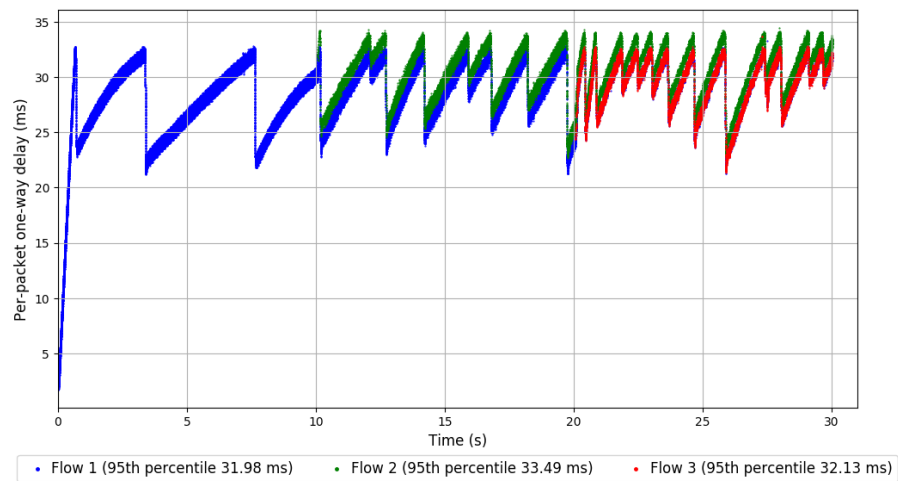
Run 1: Report of TCP Cubic — Data Link

- - - Flow 1 ingress (mean 65.04 Mbit/s) —— Flow 1 egress (mean 64.95 Mbit/s)
- - - Flow 2 ingress (mean 34.74 Mbit/s) —— Flow 2 egress (mean 34.72 Mbit/s)
- - - Flow 3 ingress (mean 28.34 Mbit/s) —— Flow 3 egress (mean 28.32 Mbit/s)

• Flow 1 (95th percentile 32.45 ms)   • Flow 2 (95th percentile 32.51 ms)   • Flow 3 (95th percentile 32.54 ms)

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```
Run 2: Statistics of TCP Cubic

Start at: 2018-11-15 05:14:03
End at: 2018-11-15 05:14:33
Local clock offset: -8.562 ms
Remote clock offset: -0.222 ms


# Below is generated by plot.py at 2018-11-15 06:32:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 32.117 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.64 Mbit/s
95th percentile per-packet one-way delay: 31.794 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 36.73 Mbit/s
95th percentile per-packet one-way delay: 31.895 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 33.373 ms
Loss rate: 0.09%
```
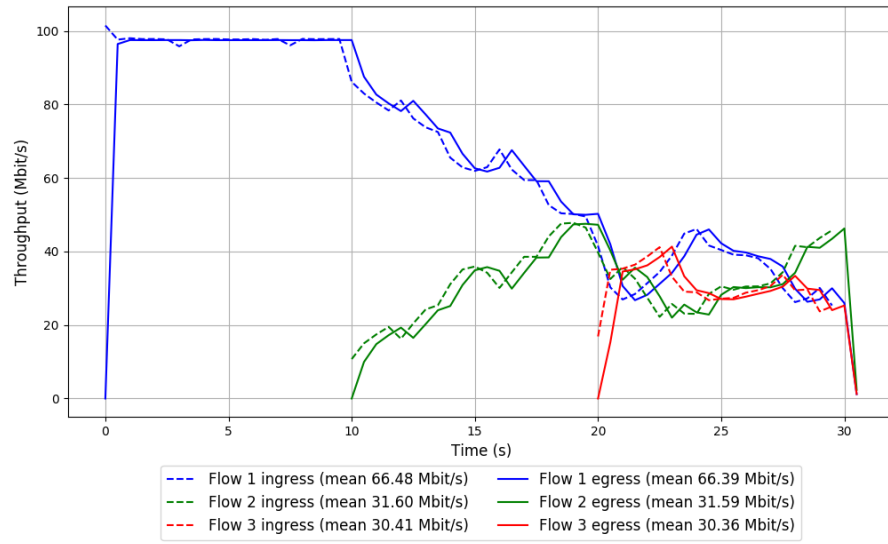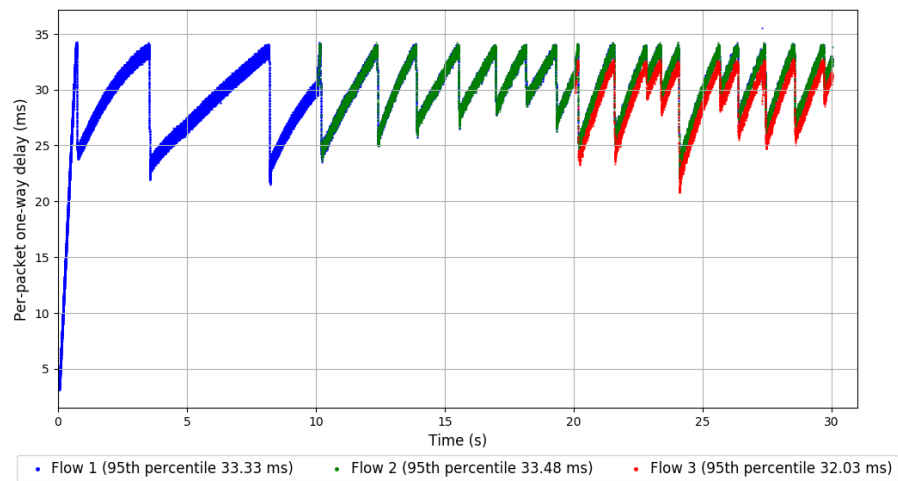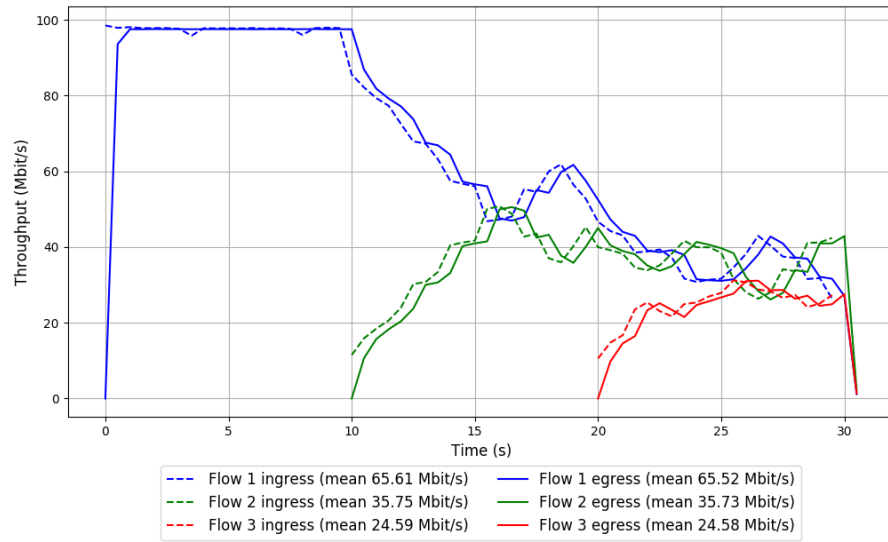
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 62.73 Mbit/s)   Flow 1 egress (mean 62.64 Mbit/s)
Flow 2 ingress (mean 36.75 Mbit/s)   Flow 2 egress (mean 36.73 Mbit/s)
Flow 3 ingress (mean 31.42 Mbit/s)   Flow 3 egress (mean 31.36 Mbit/s)

• Flow 1 (95th percentile 31.79 ms)   • Flow 2 (95th percentile 31.89 ms)   • Flow 3 (95th percentile 33.37 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-11-15 05:34:27
End at: 2018-11-15 05:34:57
Local clock offset: -7.332 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-11-15 06:32:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 32.171 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 59.91 Mbit/s
95th percentile per-packet one-way delay: 31.011 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 37.94 Mbit/s
95th percentile per-packet one-way delay: 32.573 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 37.19 Mbit/s
95th percentile per-packet one-way delay: 32.696 ms
Loss rate: 0.02%
```
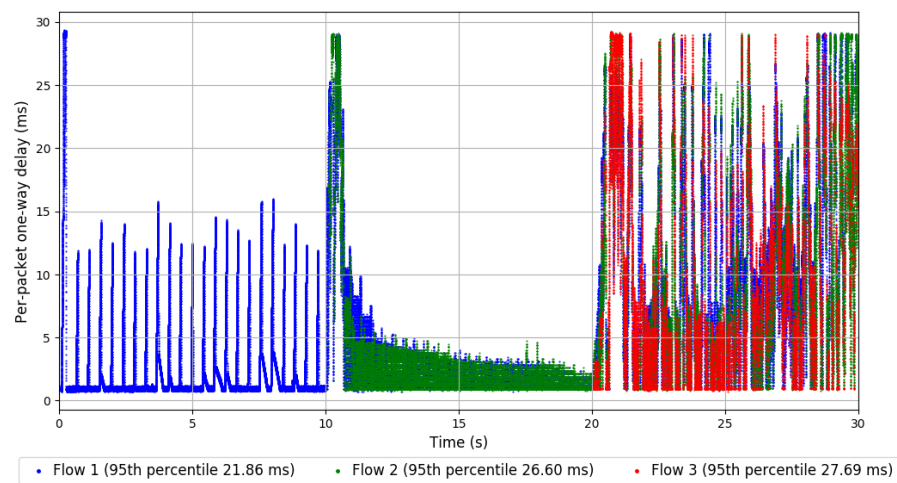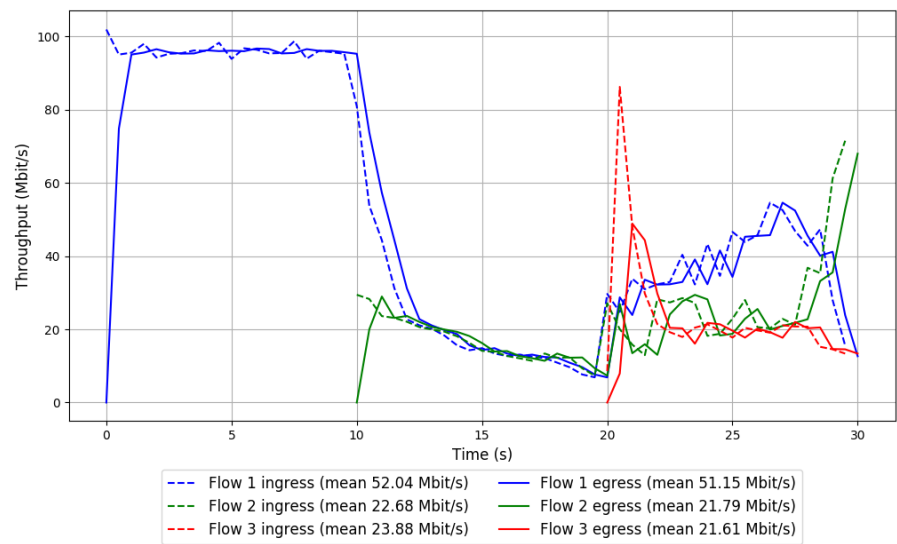
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 59.99 Mbit/s)   Flow 1 egress (mean 59.91 Mbit/s)
Flow 2 ingress (mean 37.96 Mbit/s)   Flow 2 egress (mean 37.94 Mbit/s)
Flow 3 ingress (mean 37.18 Mbit/s)   Flow 3 egress (mean 37.19 Mbit/s)

Flow 1 (95th percentile 31.01 ms)   Flow 2 (95th percentile 32.57 ms)   Flow 3 (95th percentile 32.70 ms)
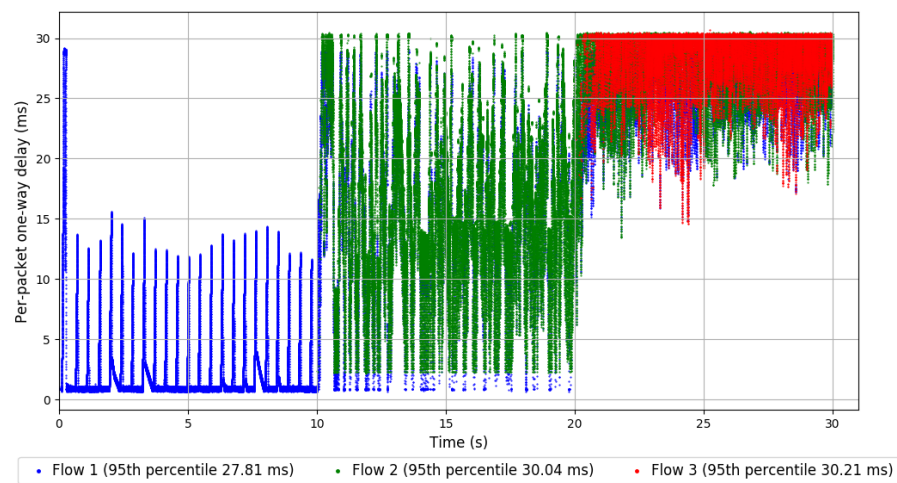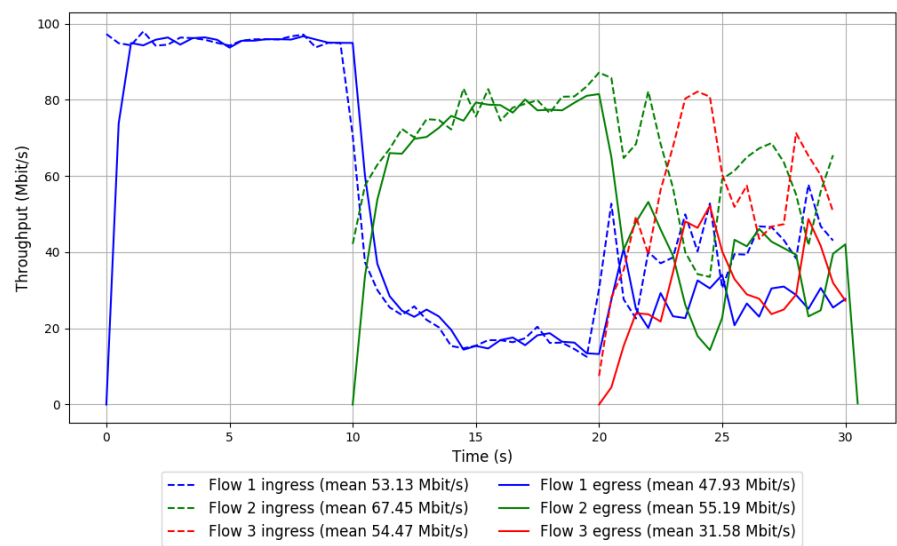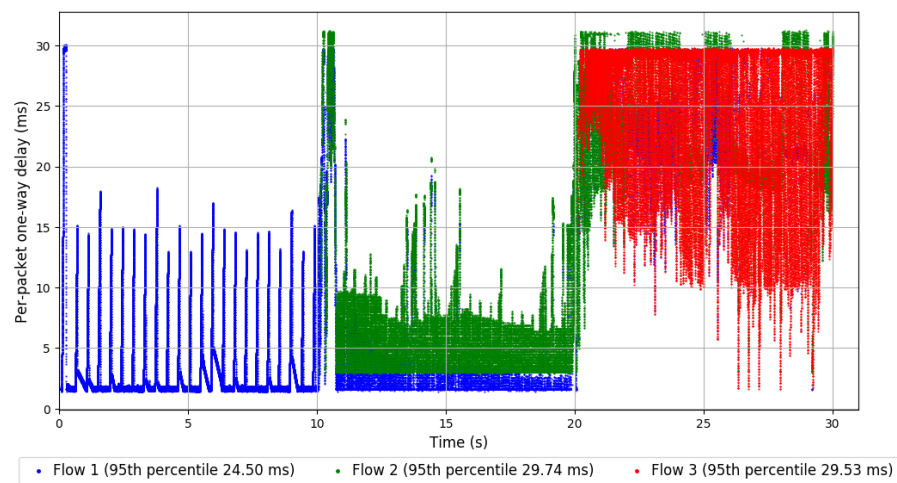
```
Run 4: Statistics of TCP Cubic

Start at: 2018-11-15 05:54:51
End at: 2018-11-15 05:55:21
Local clock offset: -7.946 ms
Remote clock offset: 0.101 ms


# Below is generated by plot.py at 2018-11-15 06:33:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 32.521 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 66.39 Mbit/s
95th percentile per-packet one-way delay: 31.976 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 31.59 Mbit/s
95th percentile per-packet one-way delay: 33.493 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 32.134 ms
Loss rate: 0.08%
```

Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 66.48 Mbit/s)   Flow 1 egress (mean 66.39 Mbit/s)
Flow 2 ingress (mean 31.60 Mbit/s)   Flow 2 egress (mean 31.59 Mbit/s)
Flow 3 ingress (mean 30.41 Mbit/s)   Flow 3 egress (mean 30.36 Mbit/s)

Flow 1 (95th percentile 31.98 ms)   Flow 2 (95th percentile 33.49 ms)   Flow 3 (95th percentile 32.13 ms)
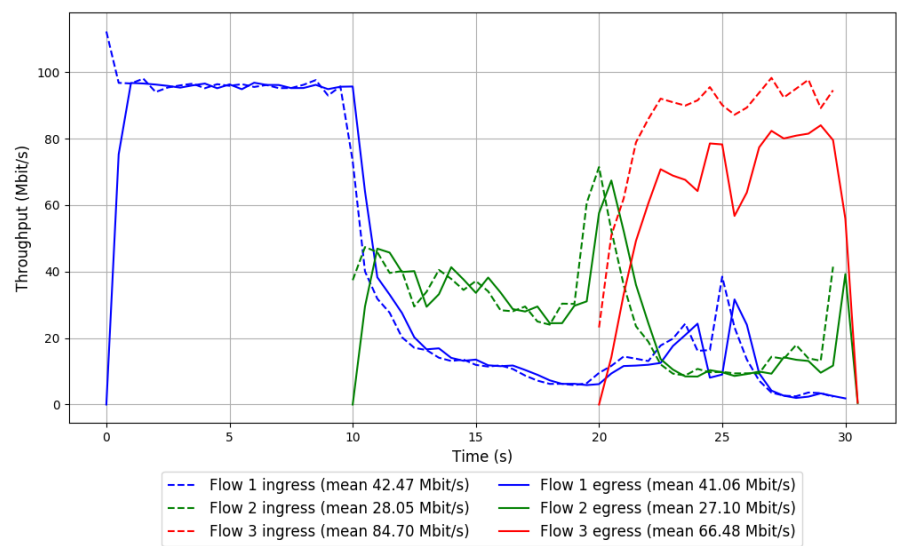
```
Run 5: Statistics of TCP Cubic

Start at: 2018-11-15 06:15:15
End at: 2018-11-15 06:15:45
Local clock offset: -6.485 ms
Remote clock offset: 0.201 ms


# Below is generated by plot.py at 2018-11-15 06:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 33.342 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 65.52 Mbit/s
95th percentile per-packet one-way delay: 33.326 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 35.73 Mbit/s
95th percentile per-packet one-way delay: 33.479 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 24.58 Mbit/s
95th percentile per-packet one-way delay: 32.031 ms
Loss rate: 0.05%
```

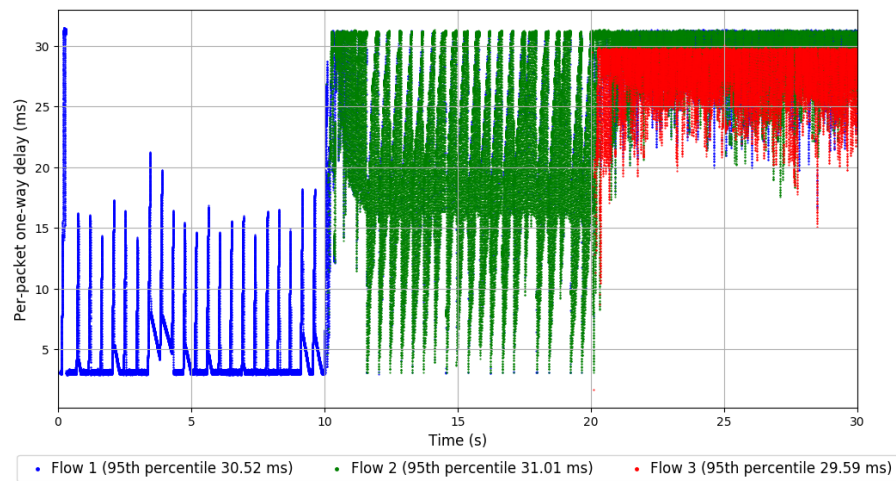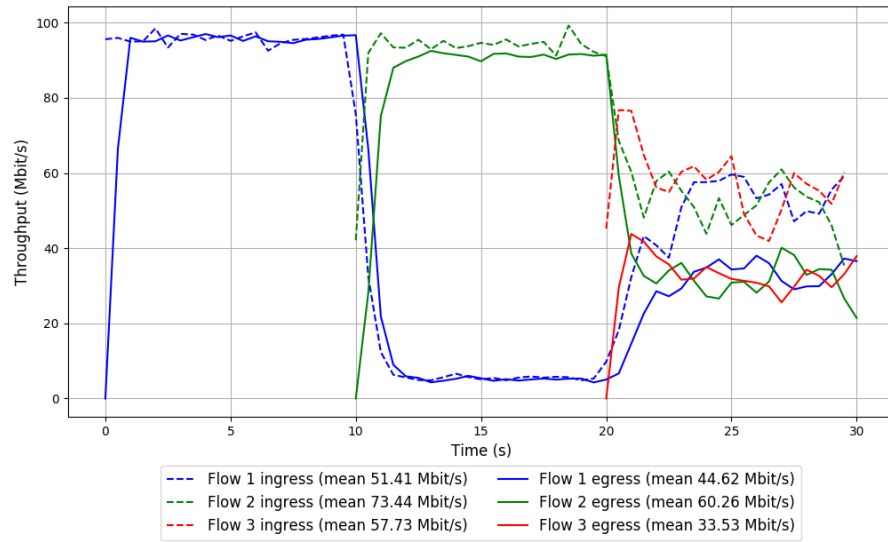Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-11-15 04:59:10
End at: 2018-11-15 04:59:40
Local clock offset: -8.351 ms
Remote clock offset: -0.241 ms


# Below is generated by plot.py at 2018-11-15 06:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.84 Mbit/s
95th percentile per-packet one-way delay: 24.344 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 51.15 Mbit/s
95th percentile per-packet one-way delay: 21.858 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 21.79 Mbit/s
95th percentile per-packet one-way delay: 26.598 ms
Loss rate: 3.81%
-- Flow 3:
Average throughput: 21.61 Mbit/s
95th percentile per-packet one-way delay: 27.693 ms
Loss rate: 9.40%
```

Run 1: Report of FillP — Data Link

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```
Run 2: Statistics of FillP

Start at: 2018-11-15 05:19:41
End at: 2018-11-15 05:20:12
Local clock offset: -7.893 ms
Remote clock offset: -0.173 ms

# Below is generated by plot.py at 2018-11-15 06:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.13 Mbit/s
95th percentile per-packet one-way delay: 29.798 ms
Loss rate: 17.96%
-- Flow 1:
Average throughput: 47.93 Mbit/s
95th percentile per-packet one-way delay: 27.811 ms
Loss rate: 9.70%
-- Flow 2:
Average throughput: 55.19 Mbit/s
95th percentile per-packet one-way delay: 30.037 ms
Loss rate: 18.08%
-- Flow 3:
Average throughput: 31.58 Mbit/s
95th percentile per-packet one-way delay: 30.212 ms
Loss rate: 41.98%
```
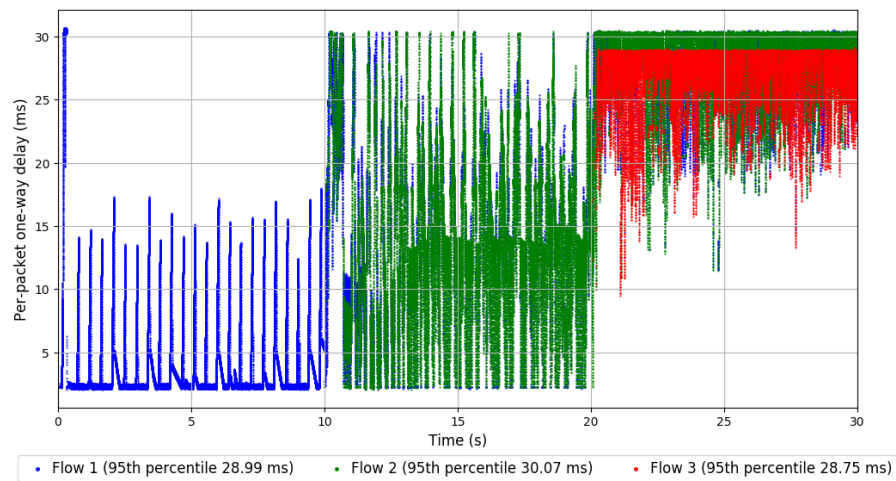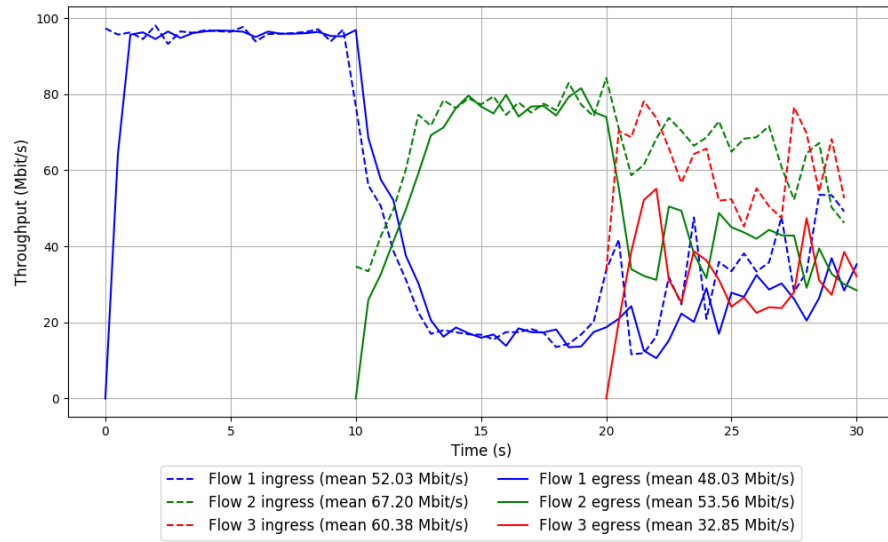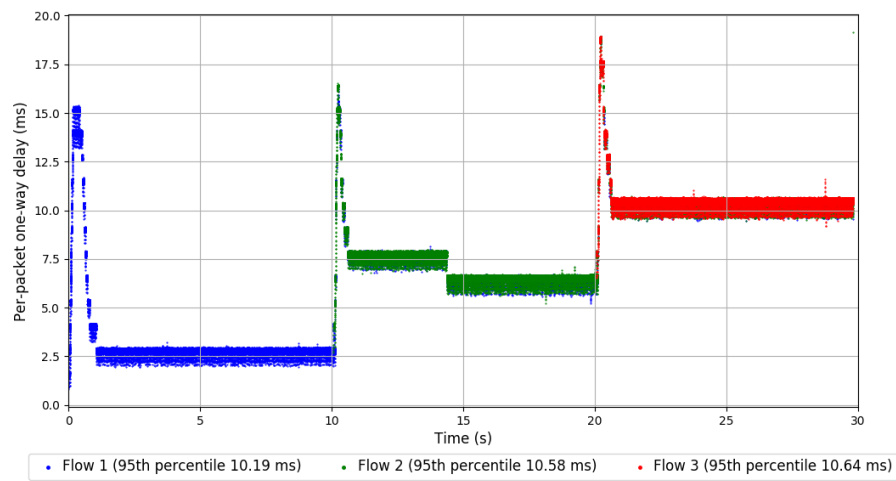
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 53.13 Mbit/s) — Flow 1 egress (mean 47.93 Mbit/s)
Flow 2 ingress (mean 67.45 Mbit/s) — Flow 2 egress (mean 55.19 Mbit/s)
Flow 3 ingress (mean 54.47 Mbit/s) — Flow 3 egress (mean 31.58 Mbit/s)

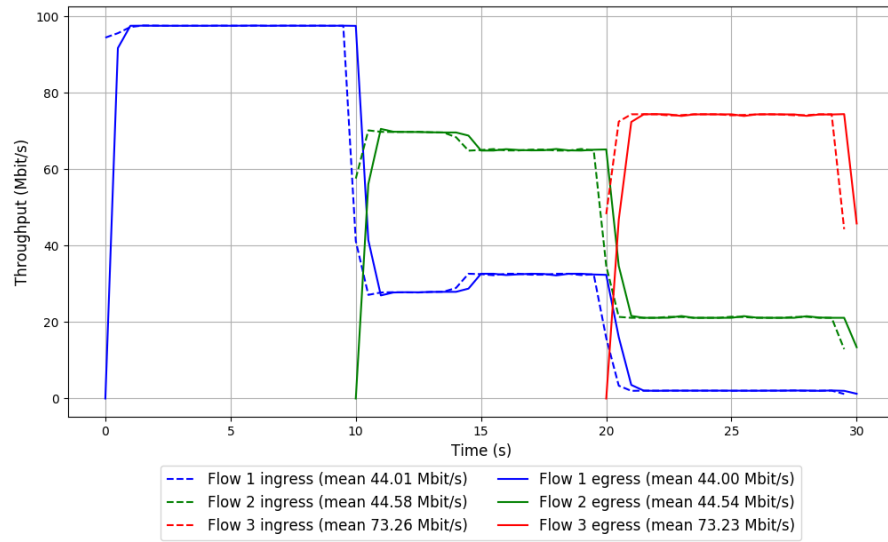Flow 1 (95th percentile 27.81 ms) • Flow 2 (95th percentile 30.04 ms) • Flow 3 (95th percentile 30.21 ms)

```
Run 3: Statistics of FillP

Start at: 2018-11-15 05:40:05
End at: 2018-11-15 05:40:35
Local clock offset: -7.951 ms
Remote clock offset: -0.129 ms


# Below is generated by plot.py at 2018-11-15 06:33:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.19 Mbit/s
95th percentile per-packet one-way delay: 29.430 ms
Loss rate: 8.97%
-- Flow 1:
Average throughput: 41.06 Mbit/s
95th percentile per-packet one-way delay: 24.505 ms
Loss rate: 3.27%
-- Flow 2:
Average throughput: 27.10 Mbit/s
95th percentile per-packet one-way delay: 29.739 ms
Loss rate: 3.27%
-- Flow 3:
Average throughput: 66.48 Mbit/s
95th percentile per-packet one-way delay: 29.529 ms
Loss rate: 21.34%
```
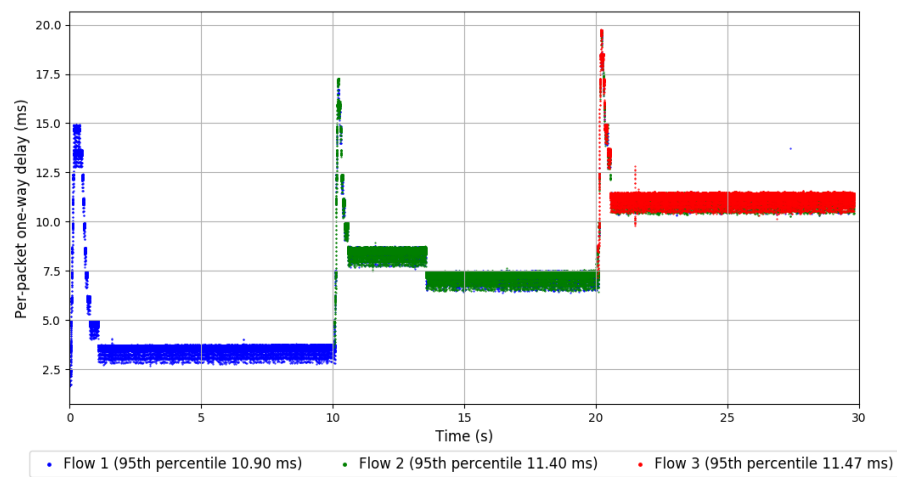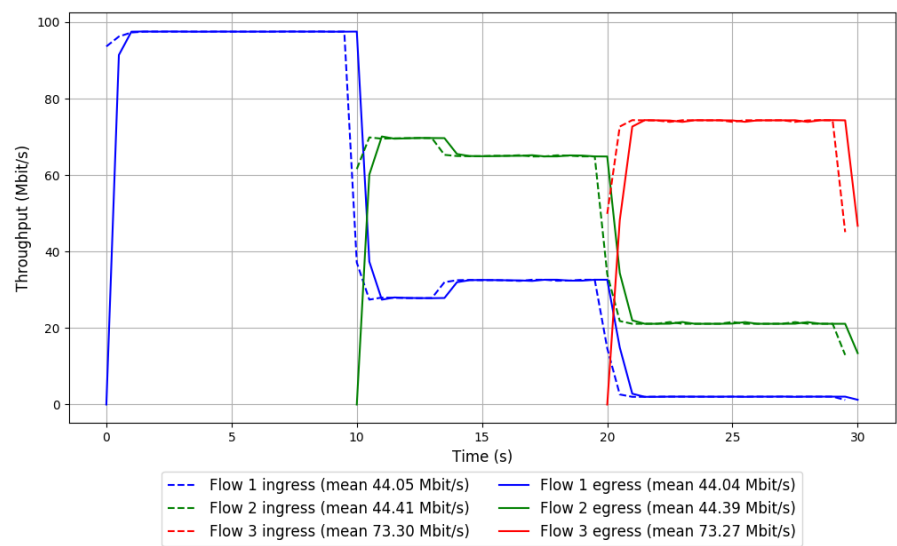
Run 3: Report of FillP — Data Link

- - - Flow 1 ingress (mean 42.47 Mbit/s) ——— Flow 1 egress (mean 41.06 Mbit/s)
- - - Flow 2 ingress (mean 28.05 Mbit/s) ——— Flow 2 egress (mean 27.10 Mbit/s)
- - - Flow 3 ingress (mean 84.70 Mbit/s) ——— Flow 3 egress (mean 66.48 Mbit/s)

• Flow 1 (95th percentile 24.50 ms) • Flow 2 (95th percentile 29.74 ms) • Flow 3 (95th percentile 29.53 ms)

40

```
Run 4: Statistics of FillP

Start at: 2018-11-15 06:00:30
End at: 2018-11-15 06:01:00
Local clock offset: -7.353 ms
Remote clock offset: 0.049 ms


# Below is generated by plot.py at 2018-11-15 06:33:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 30.894 ms
Loss rate: 19.69%
-- Flow 1:
Average throughput: 44.62 Mbit/s
95th percentile per-packet one-way delay: 30.516 ms
Loss rate: 13.14%
-- Flow 2:
Average throughput: 60.26 Mbit/s
95th percentile per-packet one-way delay: 31.006 ms
Loss rate: 17.87%
-- Flow 3:
Average throughput: 33.53 Mbit/s
95th percentile per-packet one-way delay: 29.593 ms
Loss rate: 41.93%
```
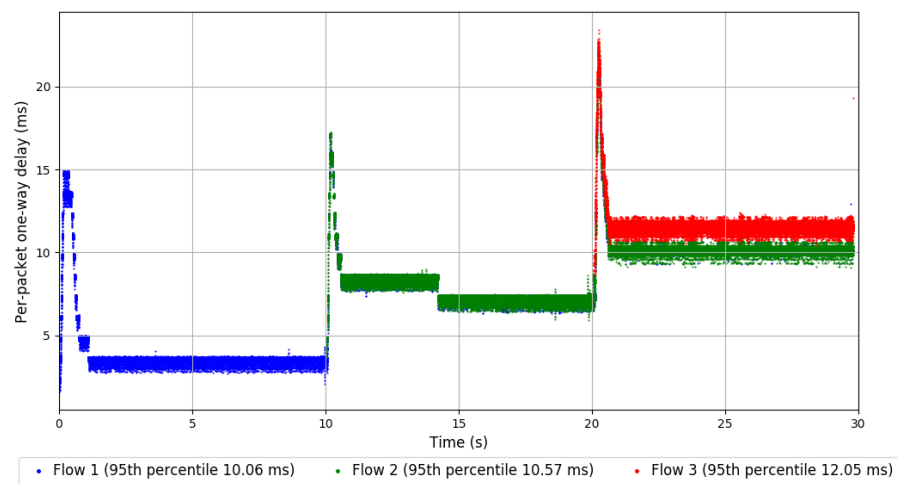
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-11-15 06:20:54
End at: 2018-11-15 06:21:24
Local clock offset: -5.578 ms
Remote clock offset: 0.121 ms


# Below is generated by plot.py at 2018-11-15 06:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.61 Mbit/s
95th percentile per-packet one-way delay: 29.738 ms
Loss rate: 18.95%
-- Flow 1:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 28.992 ms
Loss rate: 7.62%
-- Flow 2:
Average throughput: 53.56 Mbit/s
95th percentile per-packet one-way delay: 30.073 ms
Loss rate: 20.21%
-- Flow 3:
Average throughput: 32.85 Mbit/s
95th percentile per-packet one-way delay: 28.749 ms
Loss rate: 45.53%
```
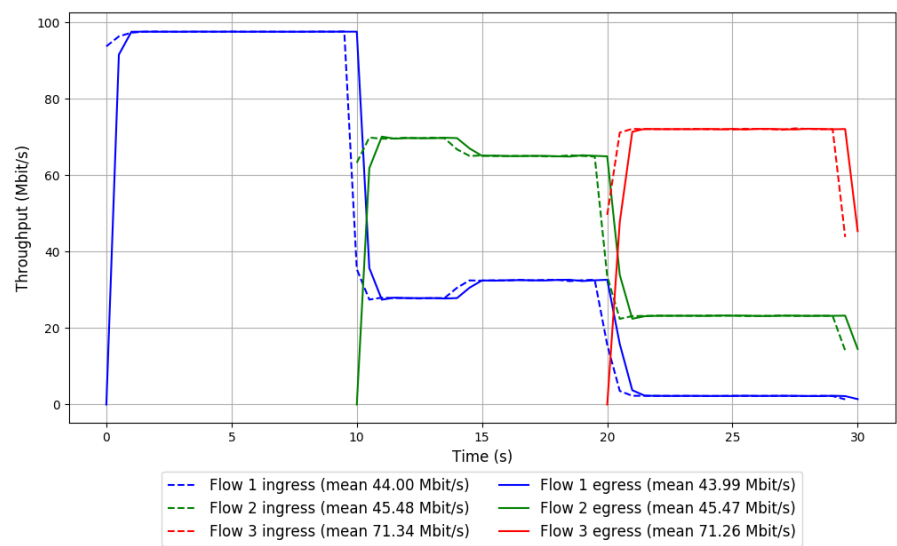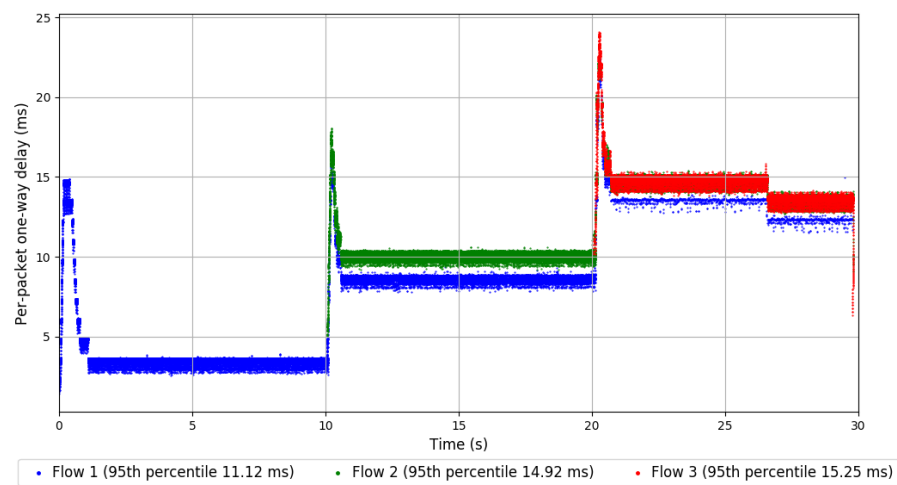
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 52.03 Mbit/s) --- Flow 1 egress (mean 48.03 Mbit/s)
Flow 2 ingress (mean 67.20 Mbit/s) --- Flow 2 egress (mean 53.56 Mbit/s)
Flow 3 ingress (mean 60.38 Mbit/s) --- Flow 3 egress (mean 32.85 Mbit/s)

Flow 1 (95th percentile 28.99 ms) • Flow 2 (95th percentile 30.07 ms) • Flow 3 (95th percentile 28.75 ms)

44

```
Run 1: Statistics of Indigo

Start at: 2018-11-15 05:05:57
End at: 2018-11-15 05:06:27
Local clock offset: -7.863 ms
Remote clock offset: -0.191 ms


# Below is generated by plot.py at 2018-11-15 06:33:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 10.620 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.00 Mbit/s
95th percentile per-packet one-way delay: 10.187 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.54 Mbit/s
95th percentile per-packet one-way delay: 10.583 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.23 Mbit/s
95th percentile per-packet one-way delay: 10.642 ms
Loss rate: 0.00%
```
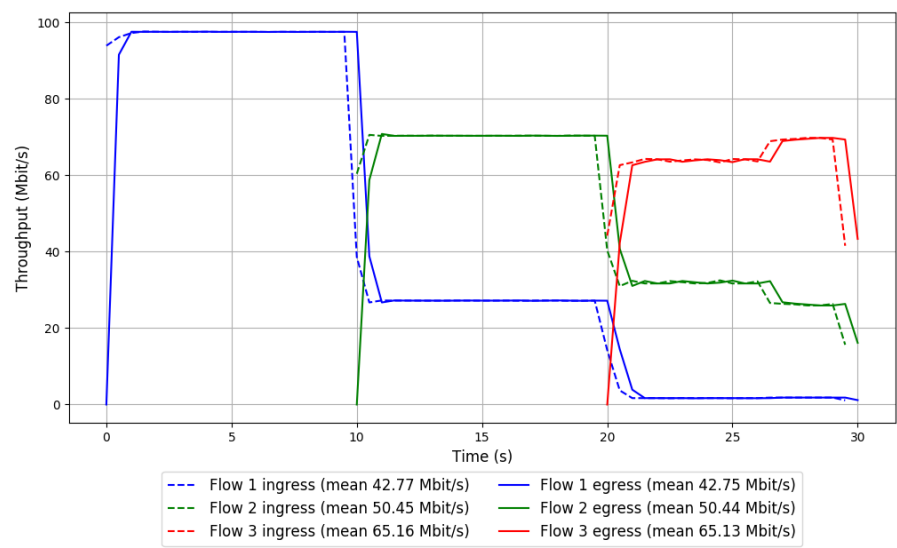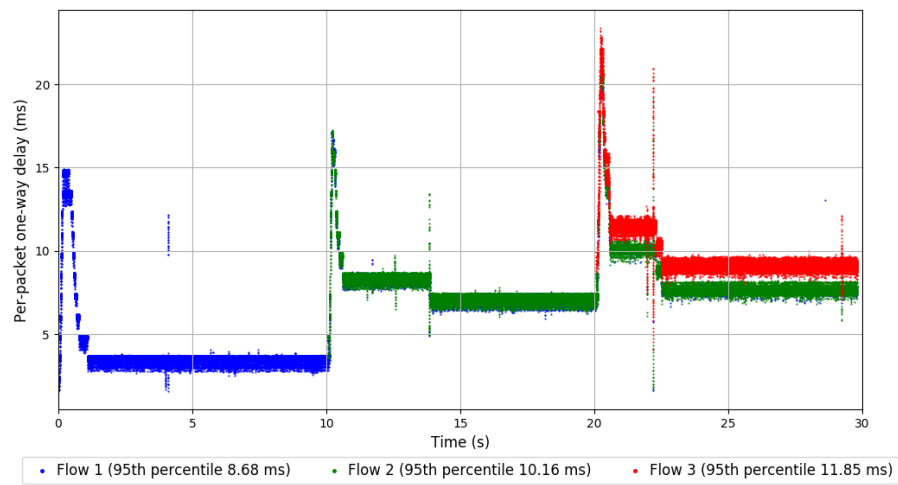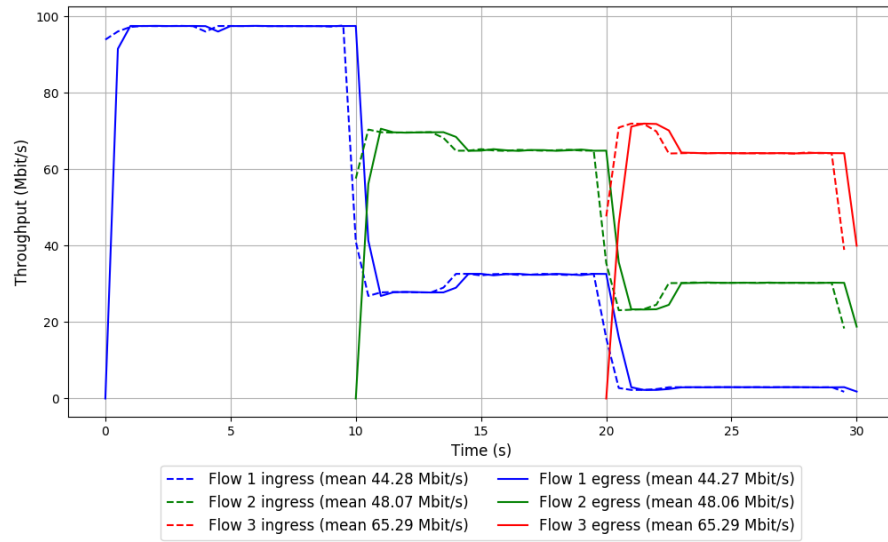
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-11-15 05:26:28
End at: 2018-11-15 05:26:58
Local clock offset: -8.888 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2018-11-15 06:34:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 11.445 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.04 Mbit/s
95th percentile per-packet one-way delay: 10.901 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.39 Mbit/s
95th percentile per-packet one-way delay: 11.400 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.27 Mbit/s
95th percentile per-packet one-way delay: 11.469 ms
Loss rate: 0.00%
```
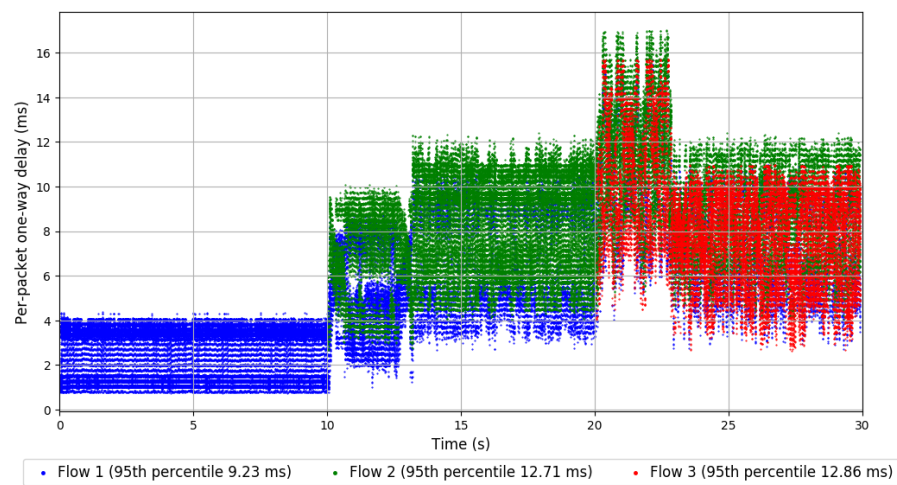
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-11-15 05:46:52
End at: 2018-11-15 05:47:22
Local clock offset: -7.894 ms
Remote clock offset: 0.017 ms

# Below is generated by plot.py at 2018-11-15 06:34:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 11.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.99 Mbit/s
95th percentile per-packet one-way delay: 10.058 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.47 Mbit/s
95th percentile per-packet one-way delay: 10.571 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.26 Mbit/s
95th percentile per-packet one-way delay: 12.054 ms
Loss rate: 0.01%
```
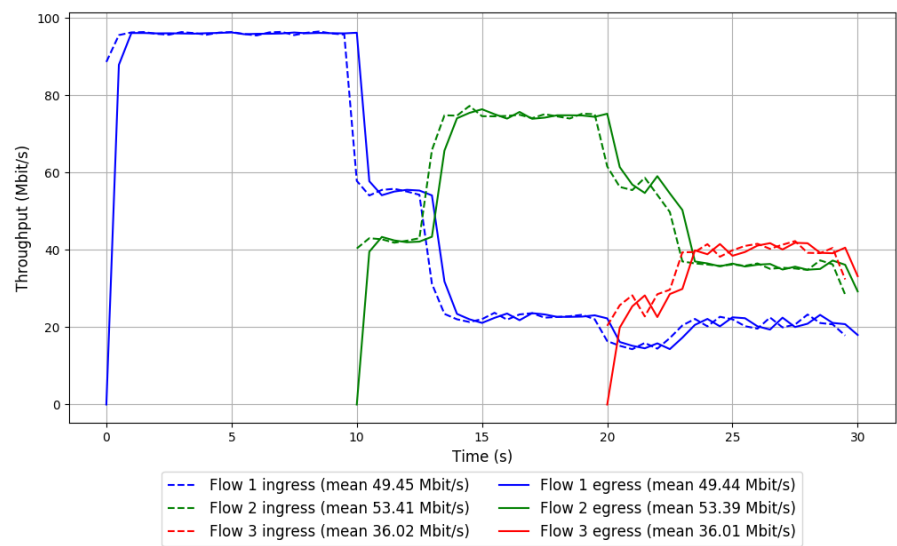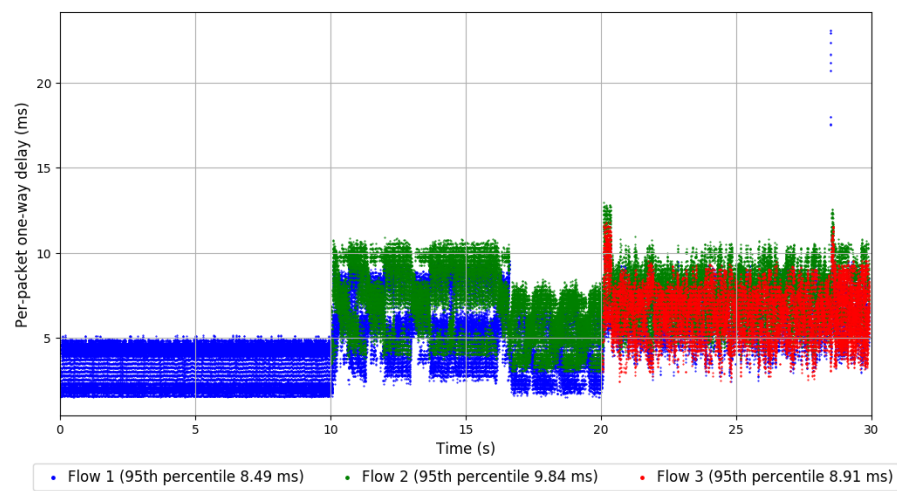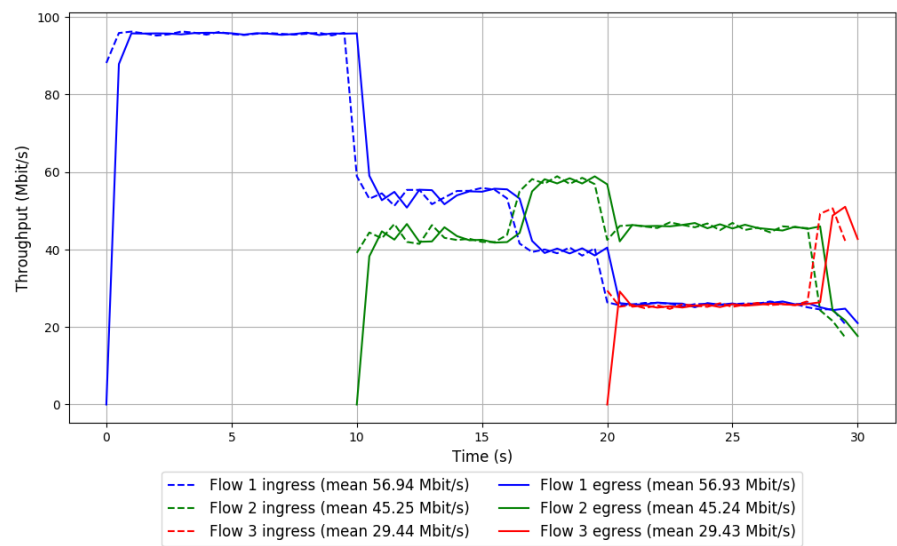
Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 44.00 Mbit/s) --- Flow 1 egress (mean 43.99 Mbit/s)
Flow 2 ingress (mean 45.48 Mbit/s) --- Flow 2 egress (mean 45.47 Mbit/s)
Flow 3 ingress (mean 71.34 Mbit/s) --- Flow 3 egress (mean 71.26 Mbit/s)

Flow 1 (95th percentile 10.06 ms)   Flow 2 (95th percentile 10.57 ms)   Flow 3 (95th percentile 12.05 ms)

```
Run 4: Statistics of Indigo

Start at: 2018-11-15 06:07:17
End at: 2018-11-15 06:07:47
Local clock offset: -6.777 ms
Remote clock offset: 0.096 ms


# Below is generated by plot.py at 2018-11-15 06:34:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.43 Mbit/s
95th percentile per-packet one-way delay: 14.902 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.75 Mbit/s
95th percentile per-packet one-way delay: 11.122 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.44 Mbit/s
95th percentile per-packet one-way delay: 14.919 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 65.13 Mbit/s
95th percentile per-packet one-way delay: 15.252 ms
Loss rate: 0.01%
```
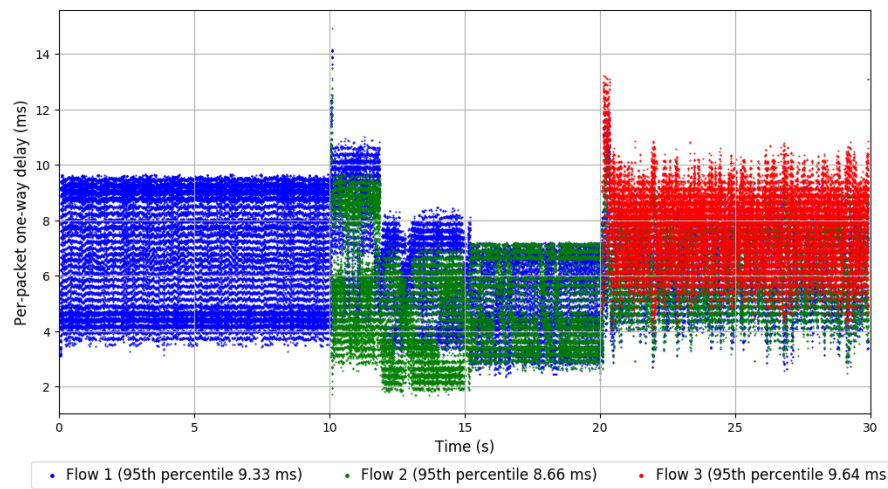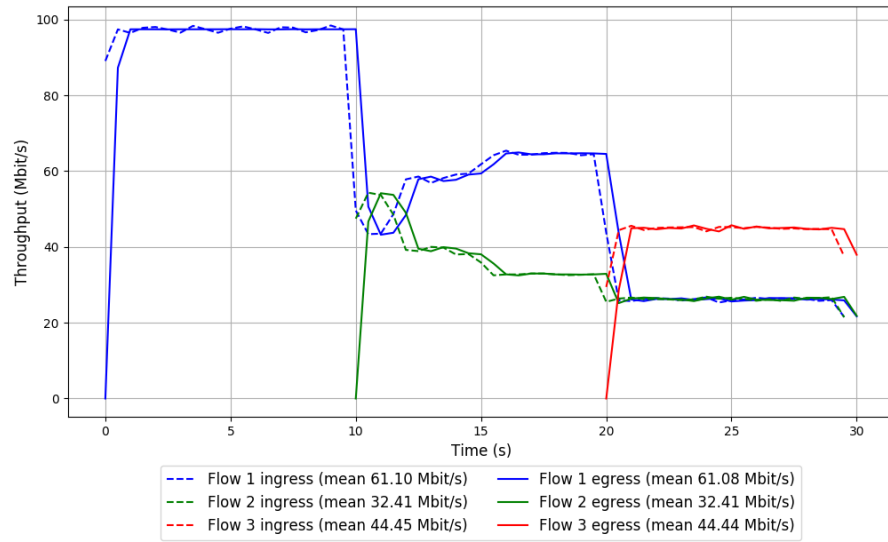
Run 4: Report of Indigo — Data Link

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```
Run 5: Statistics of Indigo

Start at: 2018-11-15 06:27:42
End at: 2018-11-15 06:28:12
Local clock offset: -6.282 ms
Remote clock offset: 0.196 ms


# Below is generated by plot.py at 2018-11-15 06:34:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 11.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.27 Mbit/s
95th percentile per-packet one-way delay: 8.676 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.06 Mbit/s
95th percentile per-packet one-way delay: 10.160 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.29 Mbit/s
95th percentile per-packet one-way delay: 11.848 ms
Loss rate: 0.01%
```
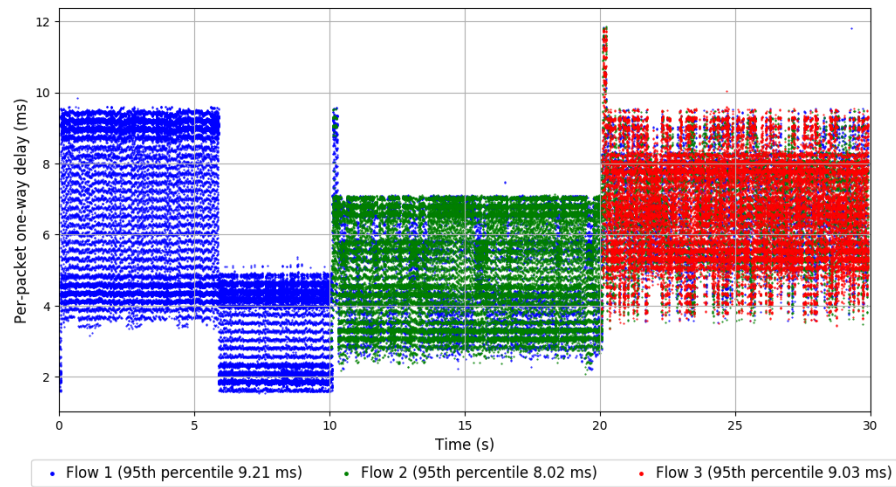
Run 5: Report of Indigo — Data Link

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

Start at: 2018-11-15 04:51:17
End at: 2018-11-15 04:51:47
Local clock offset: -8.167 ms
Remote clock offset: -0.23 ms


# Below is generated by plot.py at 2018-11-15 06:34:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.83 Mbit/s
95th percentile per-packet one-way delay: 11.459 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.44 Mbit/s
95th percentile per-packet one-way delay: 9.234 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.39 Mbit/s
95th percentile per-packet one-way delay: 12.705 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.01 Mbit/s
95th percentile per-packet one-way delay: 12.861 ms
Loss rate: 0.00%
```
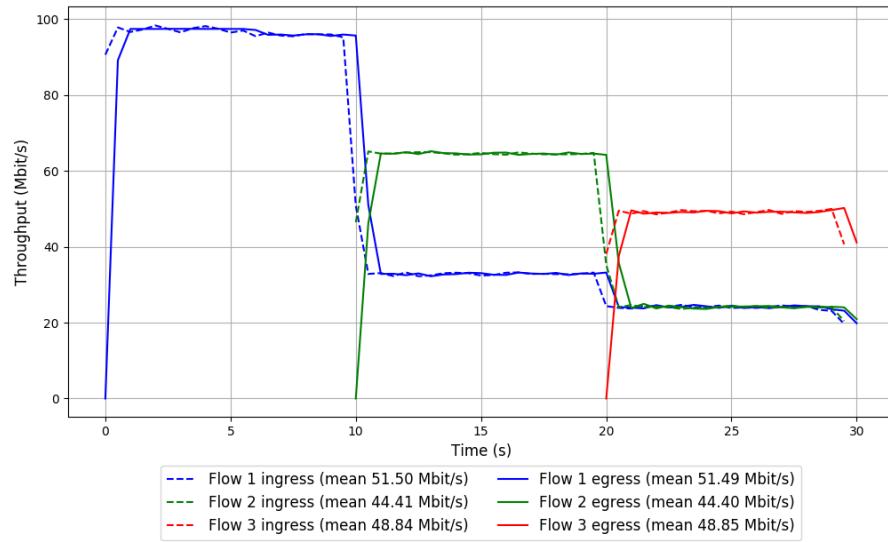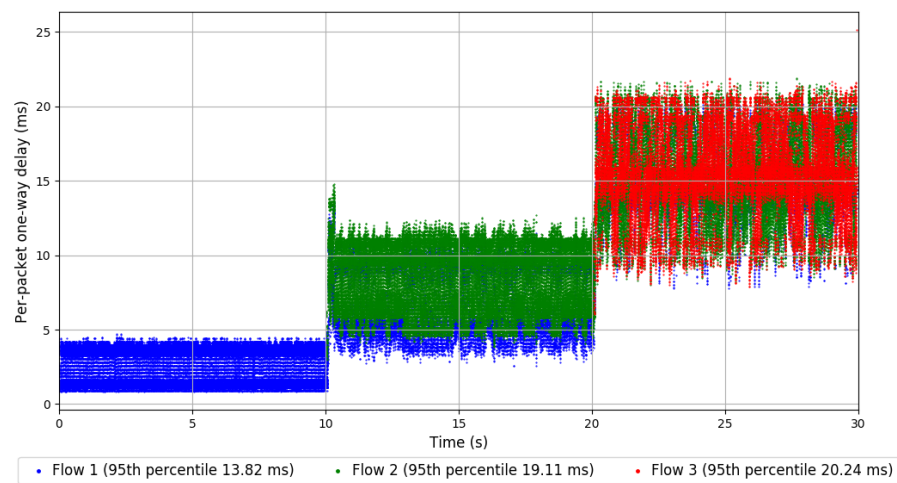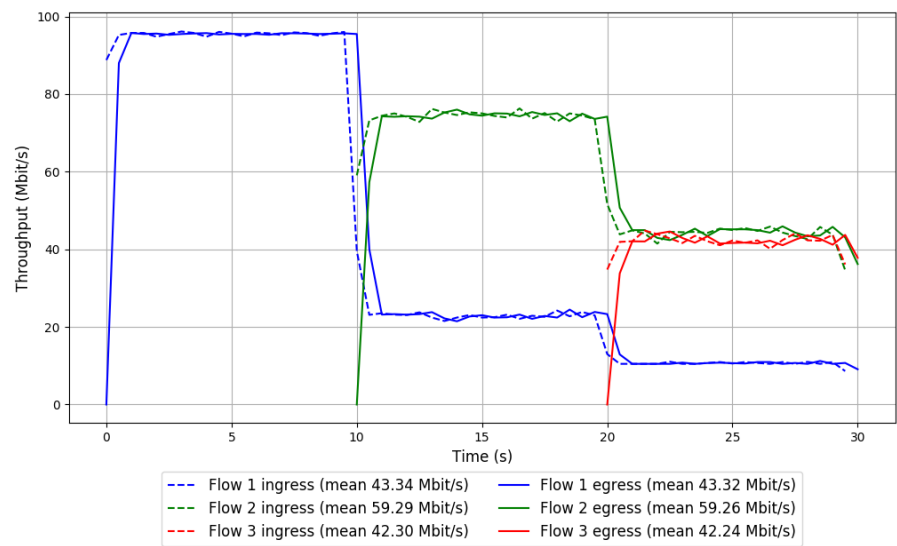
Run 1: Report of Indigo-96d2da3 — Data Link

- - - - Flow 1 ingress (mean 49.45 Mbit/s)   —— Flow 1 egress (mean 49.44 Mbit/s)
- - - - Flow 2 ingress (mean 53.41 Mbit/s)   —— Flow 2 egress (mean 53.39 Mbit/s)
- - - - Flow 3 ingress (mean 36.02 Mbit/s)   —— Flow 3 egress (mean 36.01 Mbit/s)

• Flow 1 (95th percentile 9.23 ms)   • Flow 2 (95th percentile 12.71 ms)   • Flow 3 (95th percentile 12.86 ms)

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

Start at: 2018-11-15 05:11:41
End at: 2018-11-15 05:12:11
Local clock offset: -8.538 ms
Remote clock offset: -0.225 ms


# Below is generated by plot.py at 2018-11-15 06:34:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.73 Mbit/s
95th percentile per-packet one-way delay: 9.221 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.93 Mbit/s
95th percentile per-packet one-way delay: 8.487 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.24 Mbit/s
95th percentile per-packet one-way delay: 9.838 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 8.911 ms
Loss rate: 0.00%
```

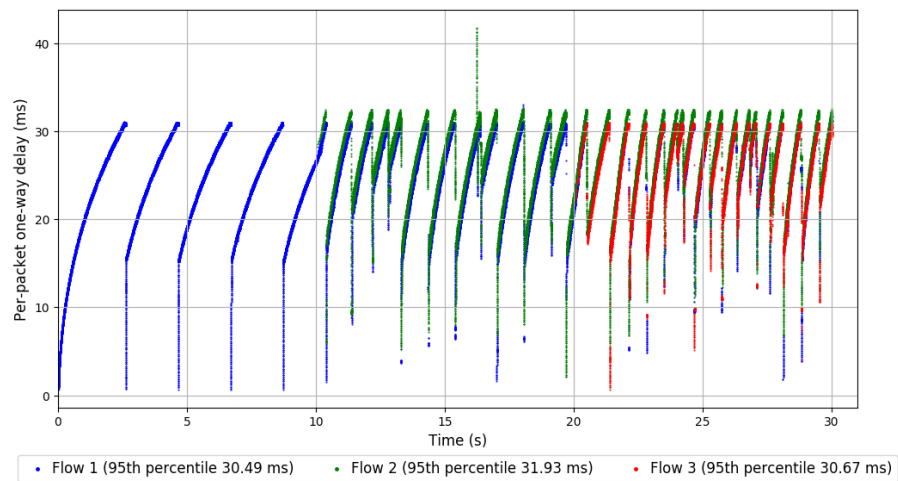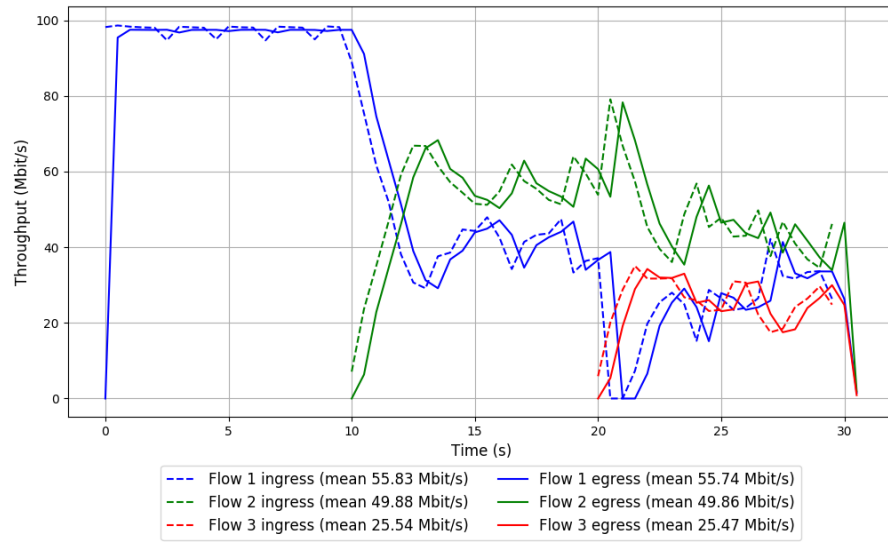Run 2: Report of Indigo-96d2da3 — Data Link
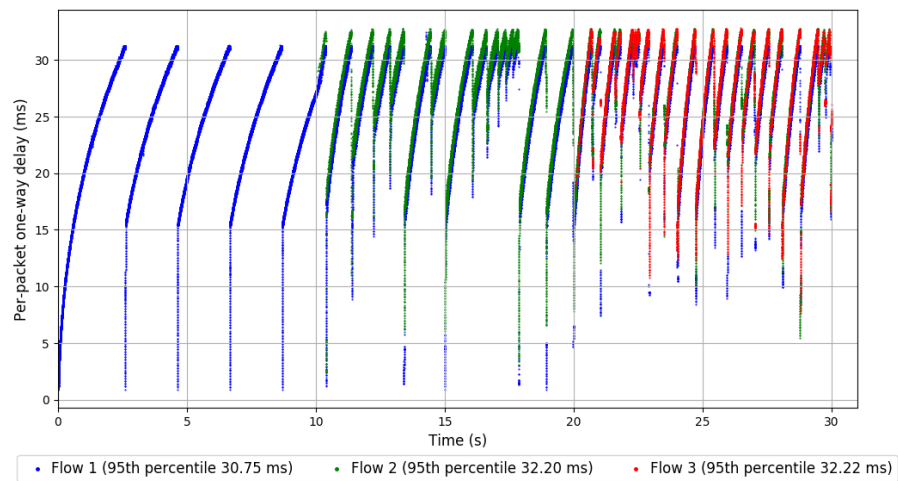
```
Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-15 05:32:12
End at: 2018-11-15 05:32:42
Local clock offset: -8.24 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2018-11-15 06:35:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.27 Mbit/s
95th percentile per-packet one-way delay: 9.321 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.08 Mbit/s
95th percentile per-packet one-way delay: 9.333 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.41 Mbit/s
95th percentile per-packet one-way delay: 8.663 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.44 Mbit/s
95th percentile per-packet one-way delay: 9.641 ms
Loss rate: 0.00%
```
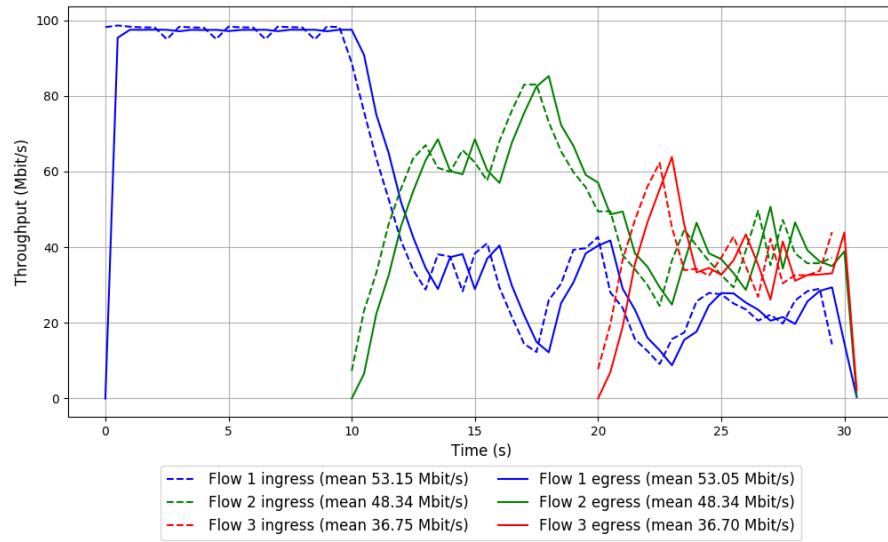
Run 3: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-11-15 05:52:36
End at: 2018-11-15 05:53:06
Local clock offset: -7.875 ms
Remote clock offset: 0.032 ms


# Below is generated by plot.py at 2018-11-15 06:35:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 9.164 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.49 Mbit/s
95th percentile per-packet one-way delay: 9.212 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.40 Mbit/s
95th percentile per-packet one-way delay: 8.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.85 Mbit/s
95th percentile per-packet one-way delay: 9.031 ms
Loss rate: 0.00%
```
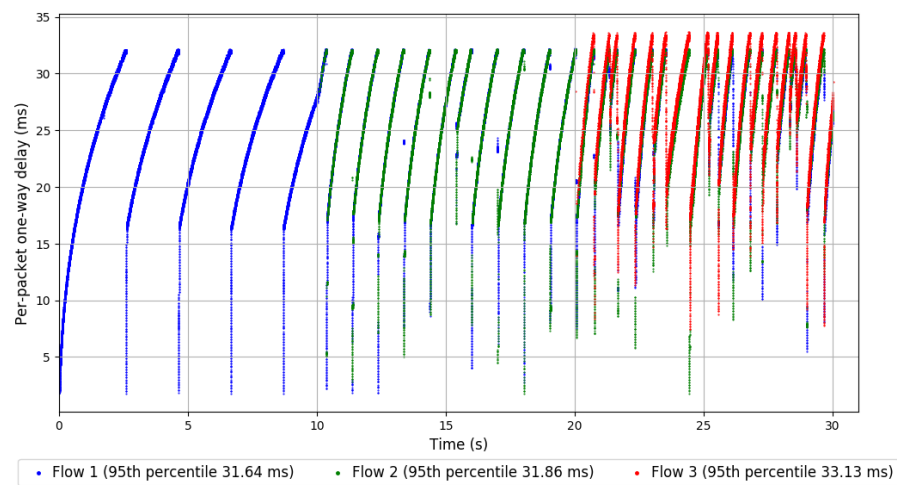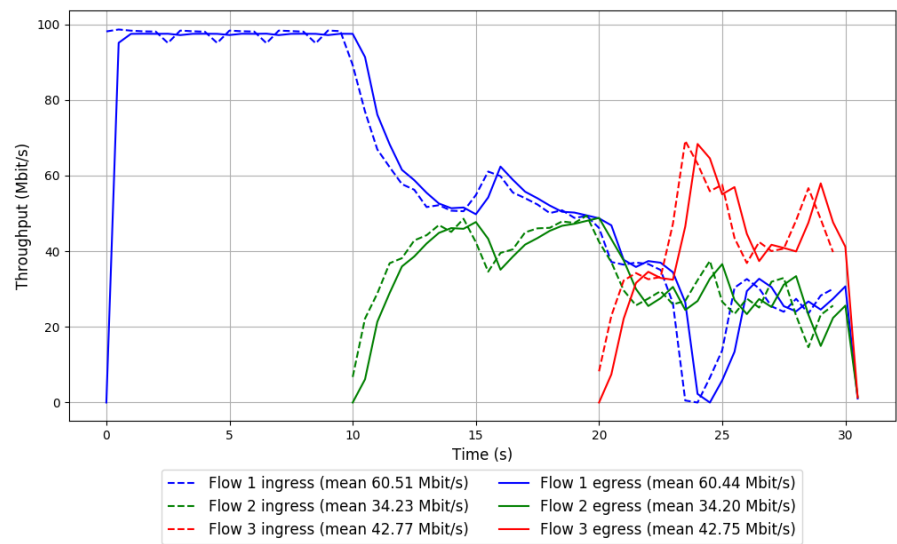
Run 4: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-11-15 06:13:01
End at: 2018-11-15 06:13:31
Local clock offset: -5.781 ms
Remote clock offset: 0.173 ms


# Below is generated by plot.py at 2018-11-15 06:35:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.65 Mbit/s
95th percentile per-packet one-way delay: 18.938 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.32 Mbit/s
95th percentile per-packet one-way delay: 13.824 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 19.105 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.24 Mbit/s
95th percentile per-packet one-way delay: 20.237 ms
Loss rate: 0.02%
```

Run 5: Report of Indigo-96d2da3 — Data Link

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```
Run 1: Statistics of LEDBAT

Start at: 2018-11-15 04:47:52
End at: 2018-11-15 04:48:22
Local clock offset: -7.757 ms
Remote clock offset: -0.264 ms


# Below is generated by plot.py at 2018-11-15 06:35:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 31.157 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 55.74 Mbit/s
95th percentile per-packet one-way delay: 30.487 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 49.86 Mbit/s
95th percentile per-packet one-way delay: 31.933 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 25.47 Mbit/s
95th percentile per-packet one-way delay: 30.670 ms
Loss rate: 0.22%
```
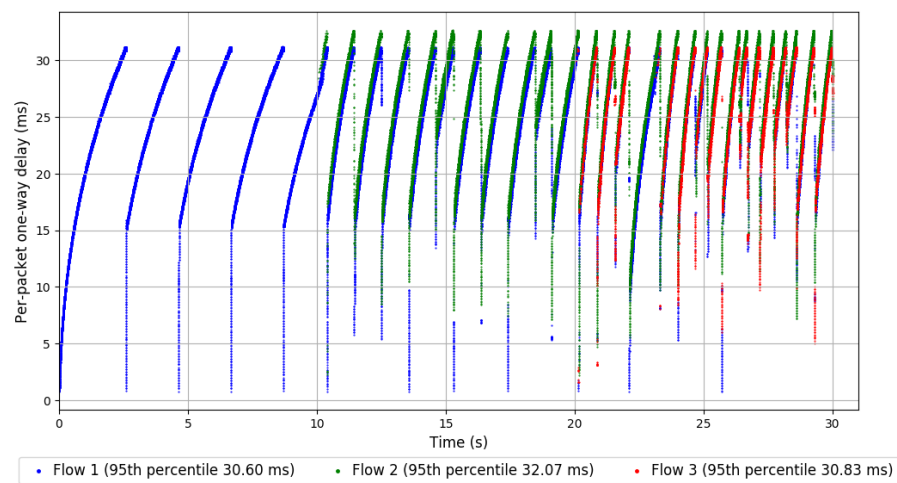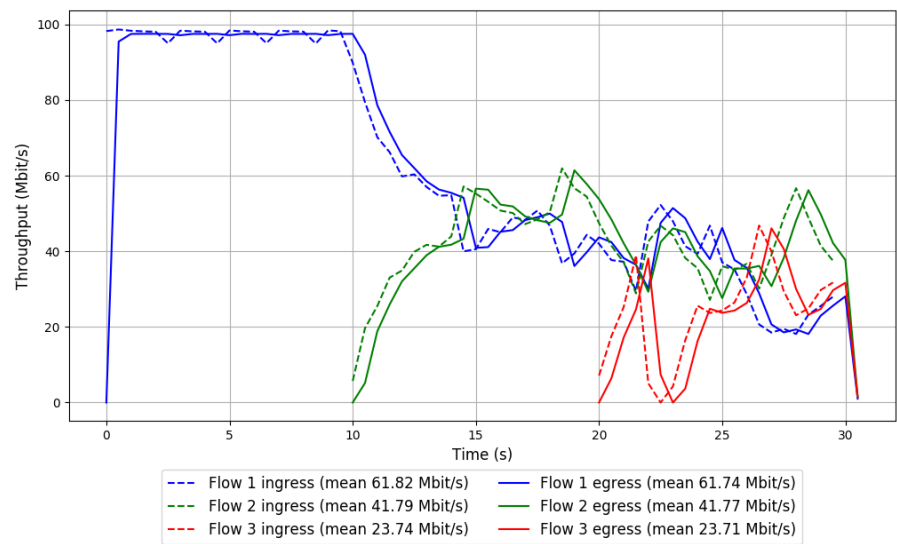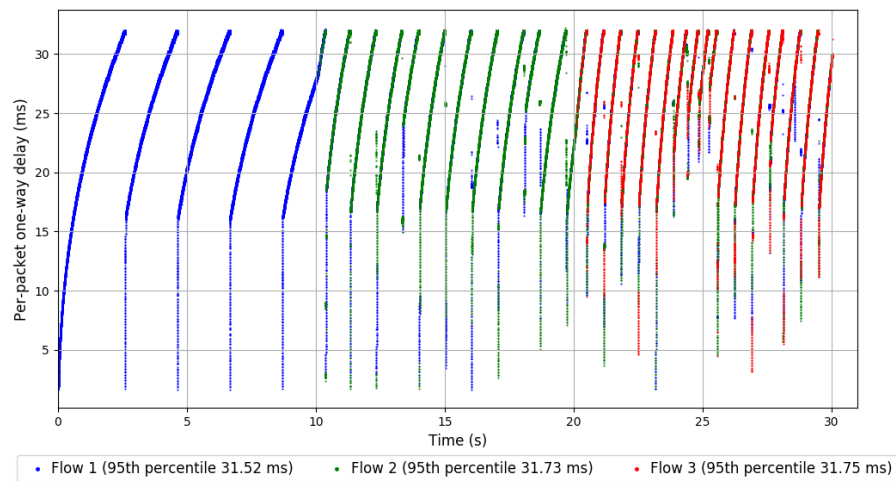
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-11-15 05:08:17
End at: 2018-11-15 05:08:47
Local clock offset: -7.872 ms
Remote clock offset: -0.242 ms

# Below is generated by plot.py at 2018-11-15 06:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.41 Mbit/s
95th percentile per-packet one-way delay: 31.751 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 53.05 Mbit/s
95th percentile per-packet one-way delay: 30.747 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 48.34 Mbit/s
95th percentile per-packet one-way delay: 32.199 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 36.70 Mbit/s
95th percentile per-packet one-way delay: 32.218 ms
Loss rate: 0.06%
```
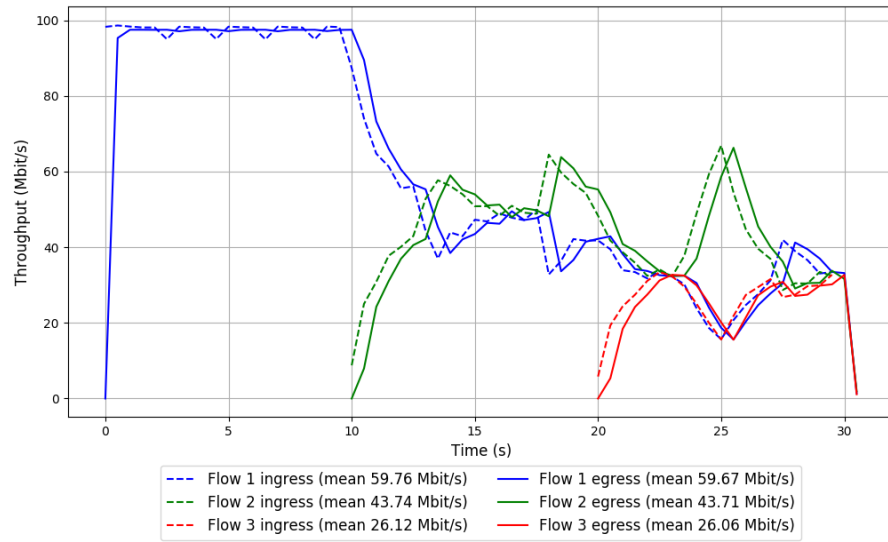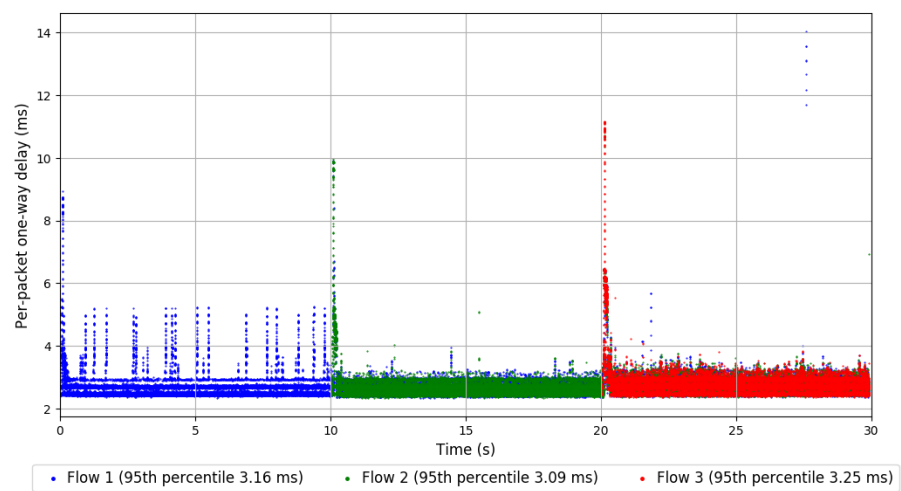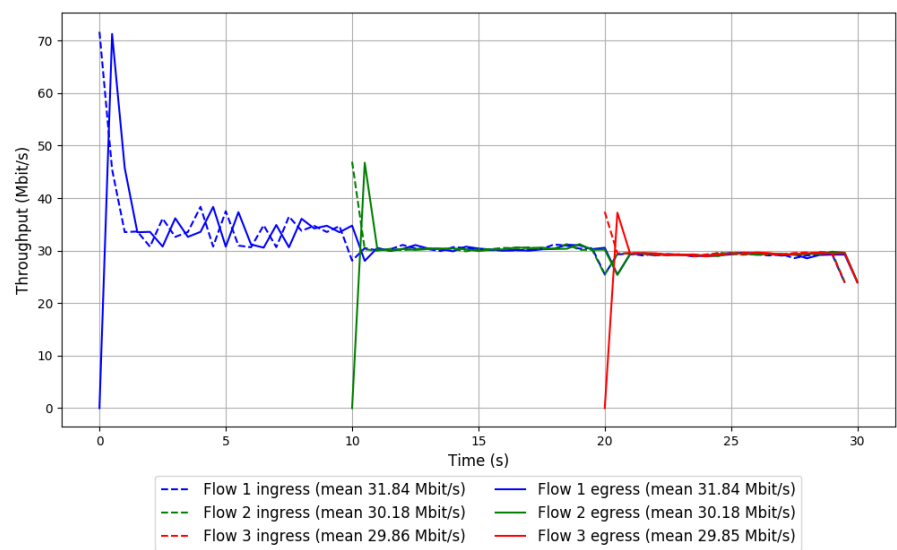
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-11-15 05:28:47
End at: 2018-11-15 05:29:17
Local clock offset: -8.669 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-11-15 06:35:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 31.877 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 31.644 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 34.20 Mbit/s
95th percentile per-packet one-way delay: 31.856 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 42.75 Mbit/s
95th percentile per-packet one-way delay: 33.130 ms
Loss rate: 0.03%
```

Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-11-15 05:49:12
End at: 2018-11-15 05:49:42
Local clock offset: -7.072 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2018-11-15 06:36:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 31.047 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 61.74 Mbit/s
95th percentile per-packet one-way delay: 30.601 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 41.77 Mbit/s
95th percentile per-packet one-way delay: 32.067 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 23.71 Mbit/s
95th percentile per-packet one-way delay: 30.833 ms
Loss rate: 0.13%
```
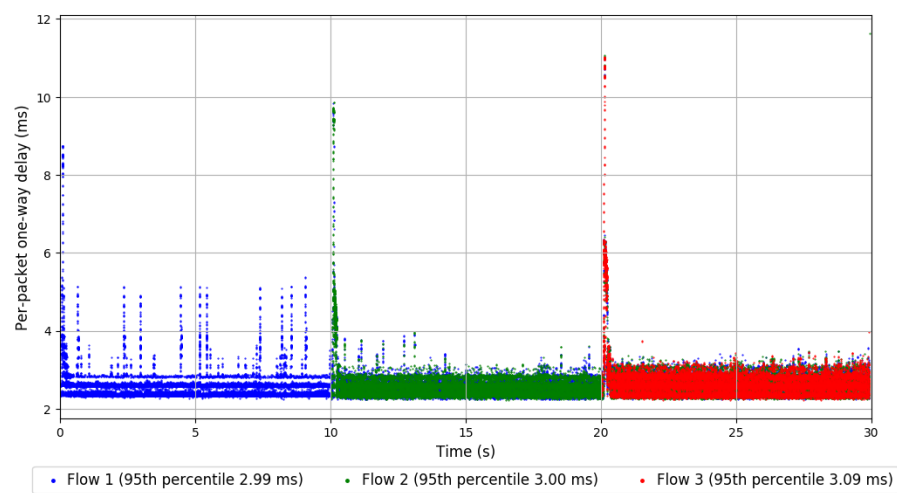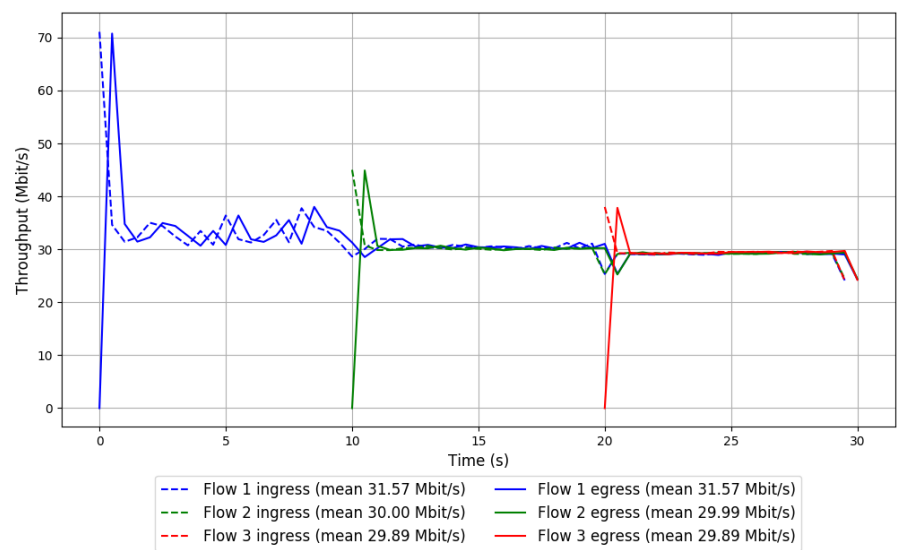
Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 61.82 Mbit/s)   Flow 1 egress (mean 61.74 Mbit/s)
Flow 2 ingress (mean 41.79 Mbit/s)   Flow 2 egress (mean 41.77 Mbit/s)
Flow 3 ingress (mean 23.74 Mbit/s)   Flow 3 egress (mean 23.71 Mbit/s)

Flow 1 (95th percentile 30.60 ms)   Flow 2 (95th percentile 32.07 ms)   Flow 3 (95th percentile 30.83 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-11-15 06:09:36
End at: 2018-11-15 06:10:06
Local clock offset: -6.663 ms
Remote clock offset: 0.189 ms

# Below is generated by plot.py at 2018-11-15 06:36:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 31.705 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 59.67 Mbit/s
95th percentile per-packet one-way delay: 31.524 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 43.71 Mbit/s
95th percentile per-packet one-way delay: 31.728 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 26.06 Mbit/s
95th percentile per-packet one-way delay: 31.750 ms
Loss rate: 0.14%
```
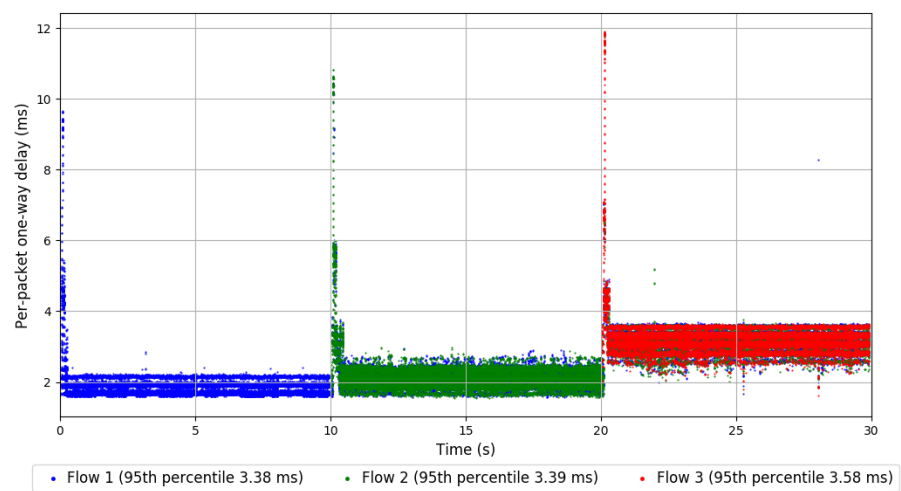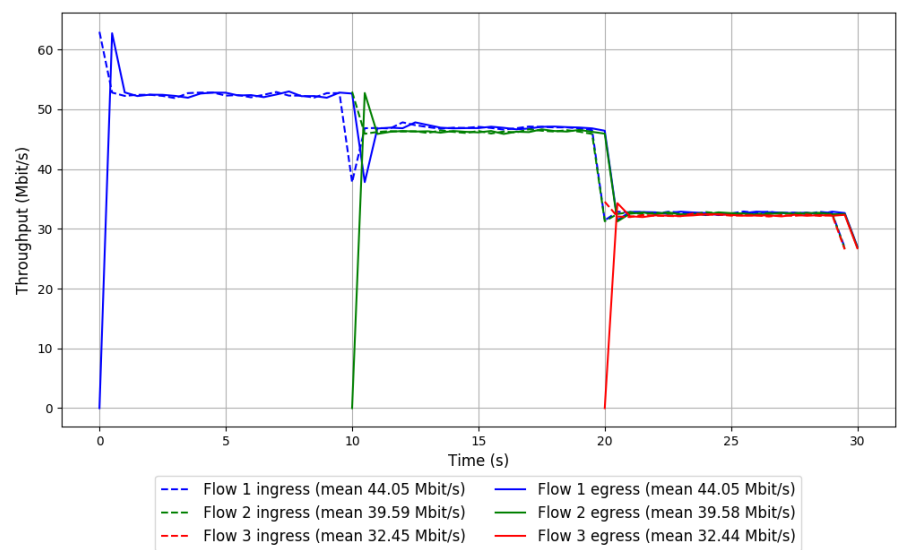
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Indigo-Muses

Start at: 2018-11-15 05:02:35
End at: 2018-11-15 05:03:05
Local clock offset: -8.067 ms
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2018-11-15 06:36:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.77 Mbit/s
95th percentile per-packet one-way delay: 3.162 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 31.84 Mbit/s
95th percentile per-packet one-way delay: 3.164 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 3.088 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.85 Mbit/s
95th percentile per-packet one-way delay: 3.249 ms
Loss rate: 0.01%
```
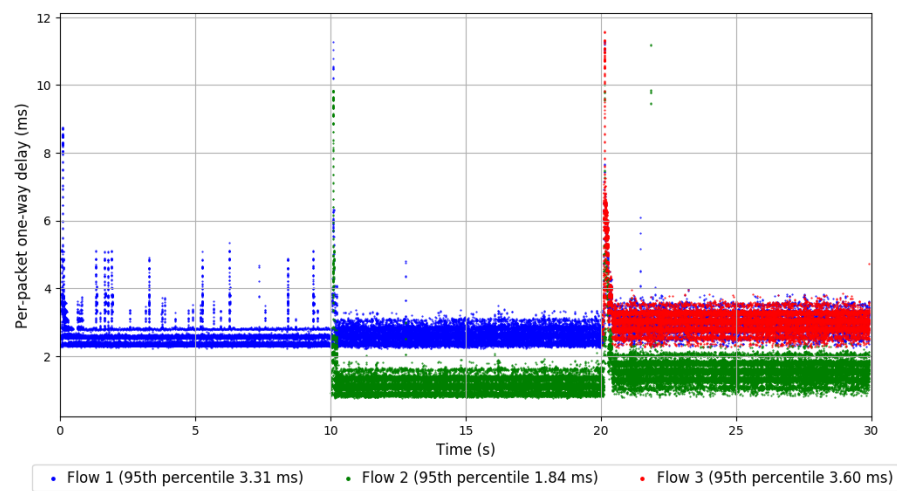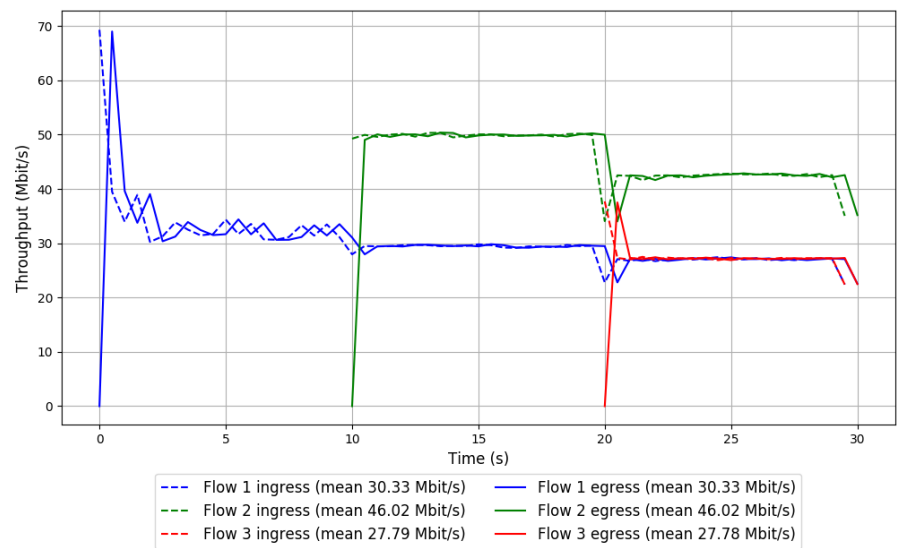
Run 1: Report of Indigo-Muses — Data Link

```
Run 2: Statistics of Indigo-Muses

Start at: 2018-11-15 05:23:05
End at: 2018-11-15 05:23:35
Local clock offset: -7.985 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2018-11-15 06:36:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.38 Mbit/s
95th percentile per-packet one-way delay: 3.018 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 2.994 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.99 Mbit/s
95th percentile per-packet one-way delay: 2.996 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 29.89 Mbit/s
95th percentile per-packet one-way delay: 3.089 ms
Loss rate: 0.01%
```
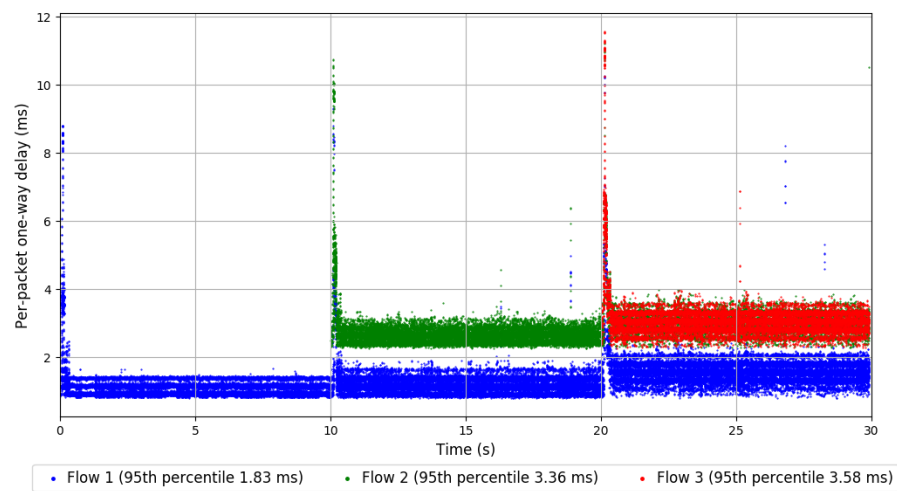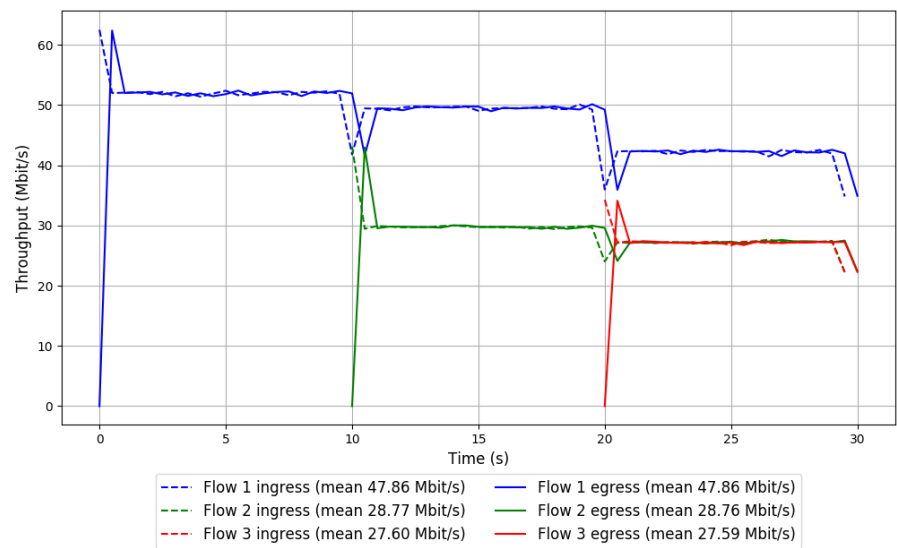
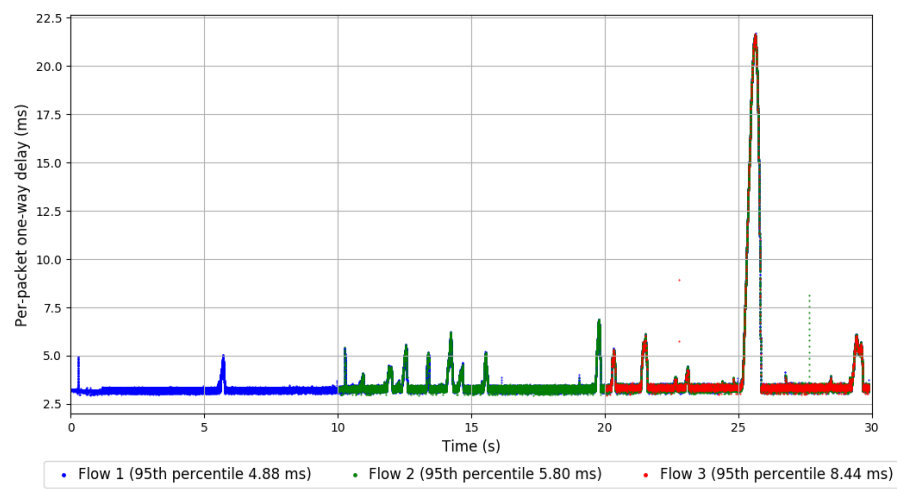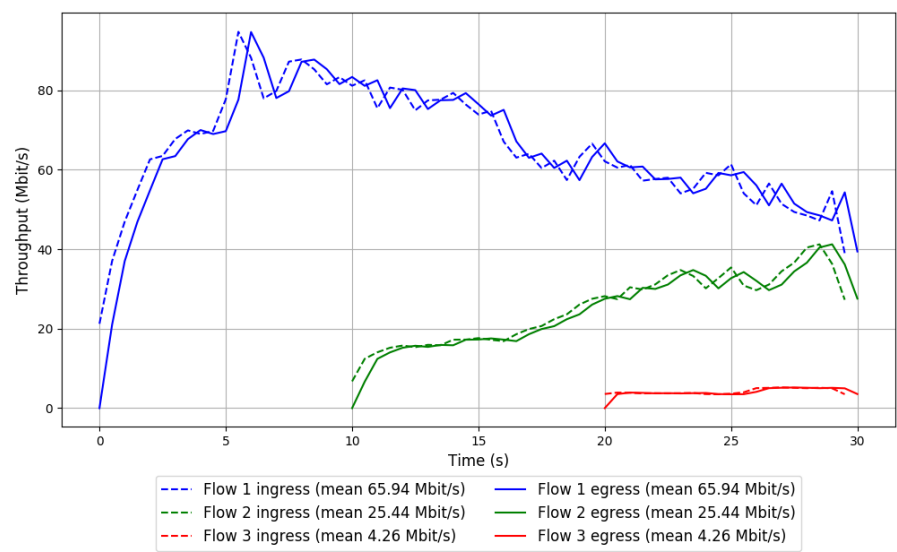Run 2: Report of Indigo-Muses — Data Link

```
Run 3: Statistics of Indigo-Muses

Start at: 2018-11-15 05:43:29
End at: 2018-11-15 05:43:59
Local clock offset: -7.825 ms
Remote clock offset: 0.033 ms

# Below is generated by plot.py at 2018-11-15 06:36:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.09 Mbit/s
95th percentile per-packet one-way delay: 3.398 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.05 Mbit/s
95th percentile per-packet one-way delay: 3.377 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 3.392 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.44 Mbit/s
95th percentile per-packet one-way delay: 3.575 ms
Loss rate: 0.00%
```
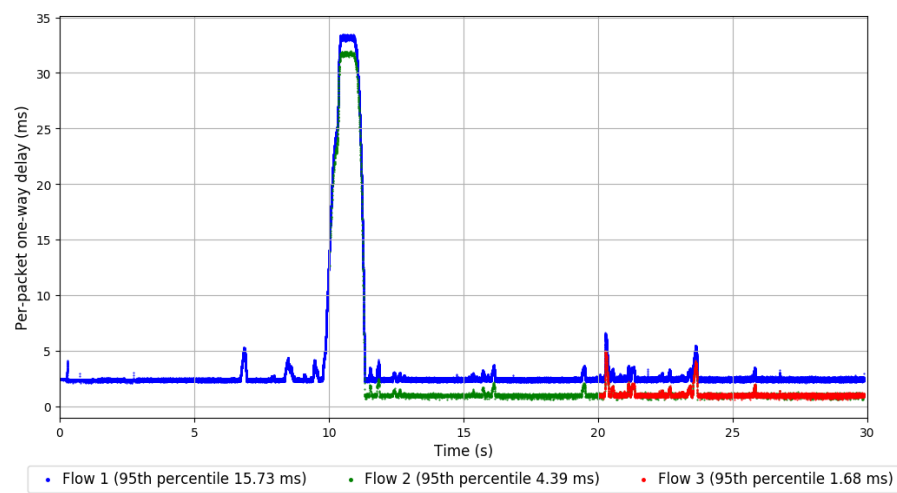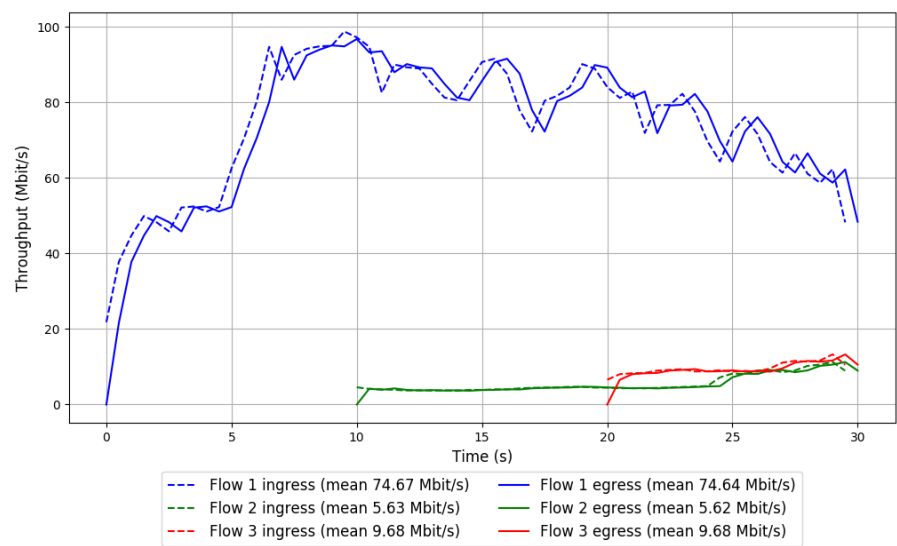
Run 3: Report of Indigo-Muses — Data Link

Flow 1 ingress (mean 44.05 Mbit/s)   Flow 1 egress (mean 44.05 Mbit/s)
Flow 2 ingress (mean 39.59 Mbit/s)   Flow 2 egress (mean 39.58 Mbit/s)
Flow 3 ingress (mean 32.45 Mbit/s)   Flow 3 egress (mean 32.44 Mbit/s)

• Flow 1 (95th percentile 3.38 ms)   • Flow 2 (95th percentile 3.39 ms)   • Flow 3 (95th percentile 3.58 ms)

```
Run 4: Statistics of Indigo-Muses

Start at: 2018-11-15 06:03:54
End at: 2018-11-15 06:04:24
Local clock offset: -6.223 ms
Remote clock offset: 0.084 ms


# Below is generated by plot.py at 2018-11-15 06:36:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.12 Mbit/s
95th percentile per-packet one-way delay: 3.288 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.33 Mbit/s
95th percentile per-packet one-way delay: 3.306 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 1.837 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.78 Mbit/s
95th percentile per-packet one-way delay: 3.605 ms
Loss rate: 0.01%
```
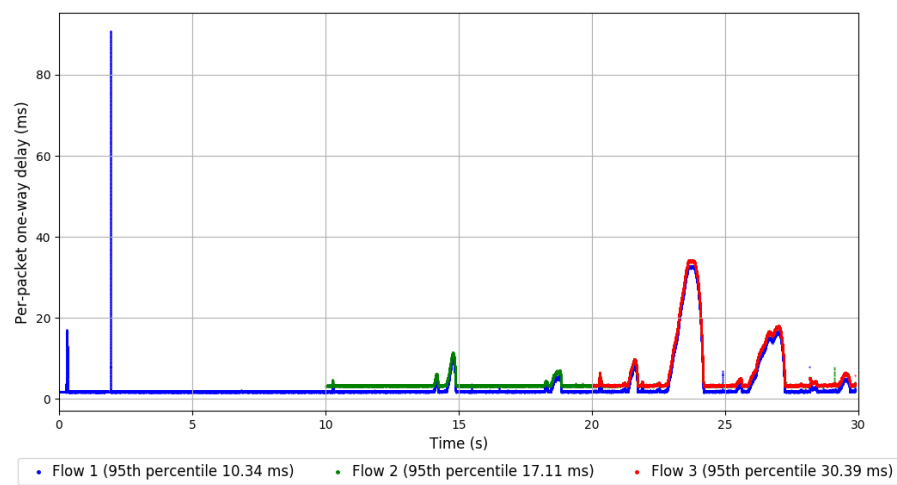
Run 4: Report of Indigo-Muses — Data Link

```
Run 5: Statistics of Indigo-Muses

Start at: 2018-11-15 06:24:19
End at: 2018-11-15 06:24:49
Local clock offset: -5.54 ms
Remote clock offset: 0.209 ms

# Below is generated by plot.py at 2018-11-15 06:36:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.10 Mbit/s
95th percentile per-packet one-way delay: 3.299 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.86 Mbit/s
95th percentile per-packet one-way delay: 1.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.76 Mbit/s
95th percentile per-packet one-way delay: 3.359 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 3.575 ms
Loss rate: 0.01%
```
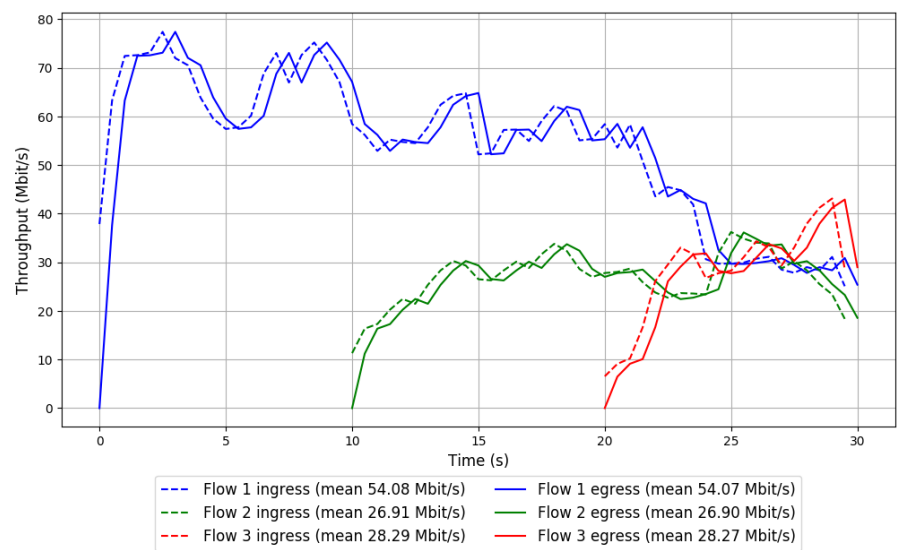
Run 5: Report of Indigo-Muses — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-11-15 04:58:02
End at: 2018-11-15 04:58:33
Local clock offset: -9.278 ms
Remote clock offset: -0.264 ms


# Below is generated by plot.py at 2018-11-15 06:36:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.26 Mbit/s
95th percentile per-packet one-way delay: 5.145 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.94 Mbit/s
95th percentile per-packet one-way delay: 4.879 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.44 Mbit/s
95th percentile per-packet one-way delay: 5.800 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 8.438 ms
Loss rate: 0.00%
```
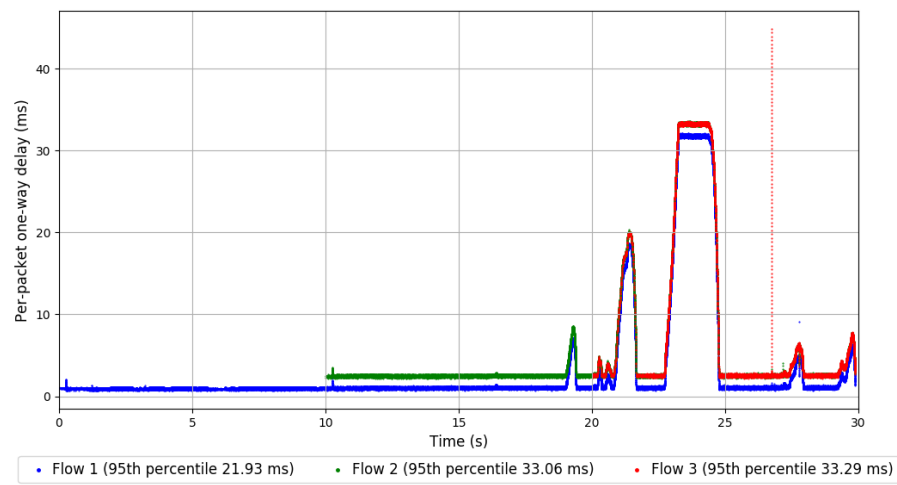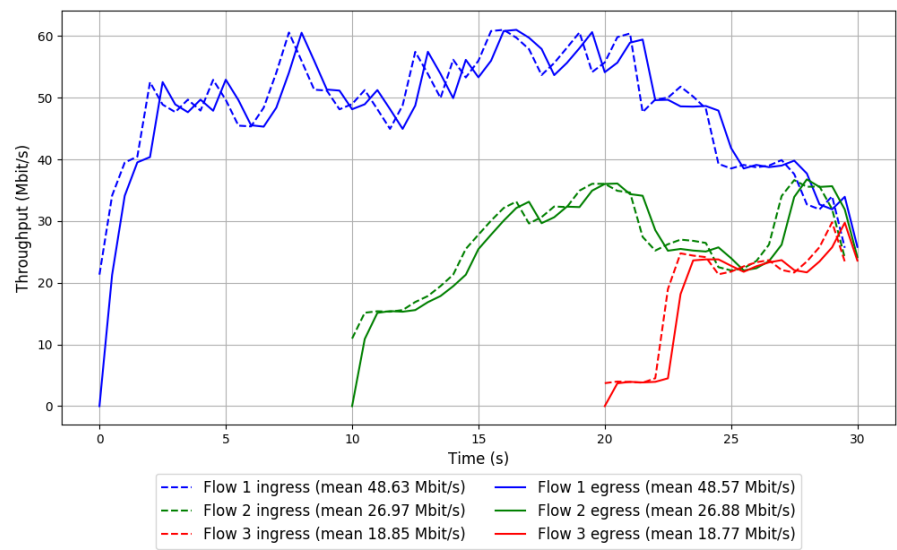
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-11-15 05:18:34
End at: 2018-11-15 05:19:04
Local clock offset: -7.94 ms
Remote clock offset: -0.224 ms

# Below is generated by plot.py at 2018-11-15 06:37:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.57 Mbit/s
95th percentile per-packet one-way delay: 13.153 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 74.64 Mbit/s
95th percentile per-packet one-way delay: 15.732 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 4.391 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 1.682 ms
Loss rate: 0.00%
```
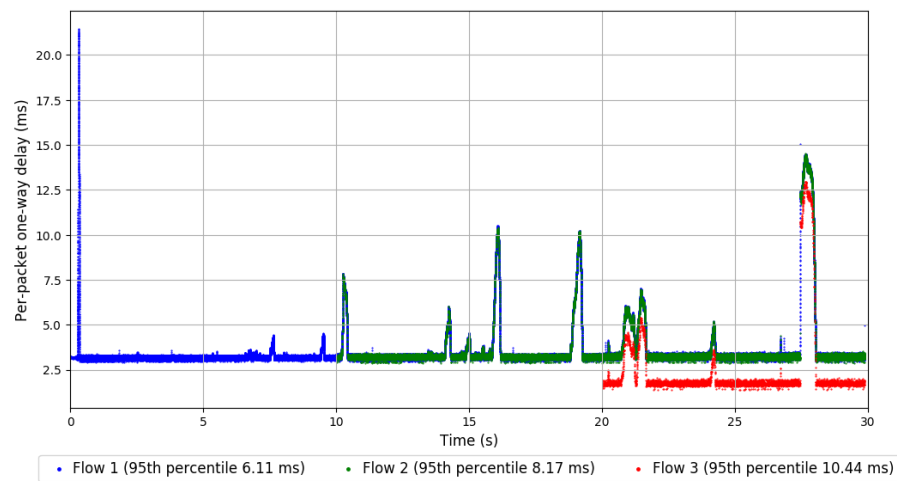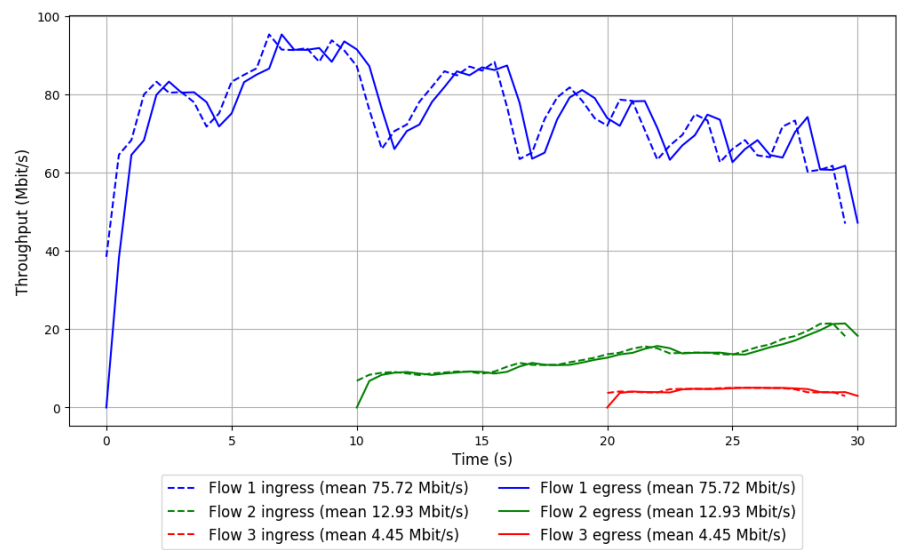
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-11-15 05:38:58
End at: 2018-11-15 05:39:28
Local clock offset: -7.978 ms
Remote clock offset: -0.089 ms


# Below is generated by plot.py at 2018-11-15 06:37:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.28 Mbit/s
95th percentile per-packet one-way delay: 16.129 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 54.07 Mbit/s
95th percentile per-packet one-way delay: 10.341 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 26.90 Mbit/s
95th percentile per-packet one-way delay: 17.106 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 28.27 Mbit/s
95th percentile per-packet one-way delay: 30.388 ms
Loss rate: 0.06%
```
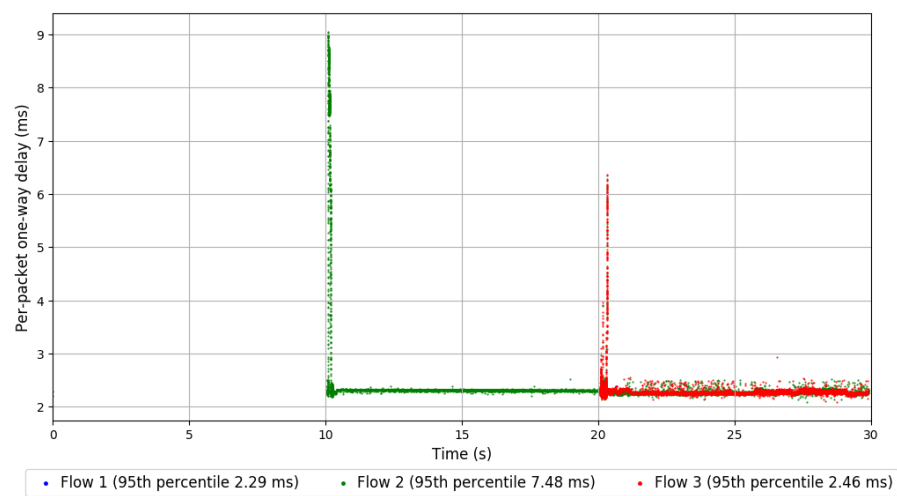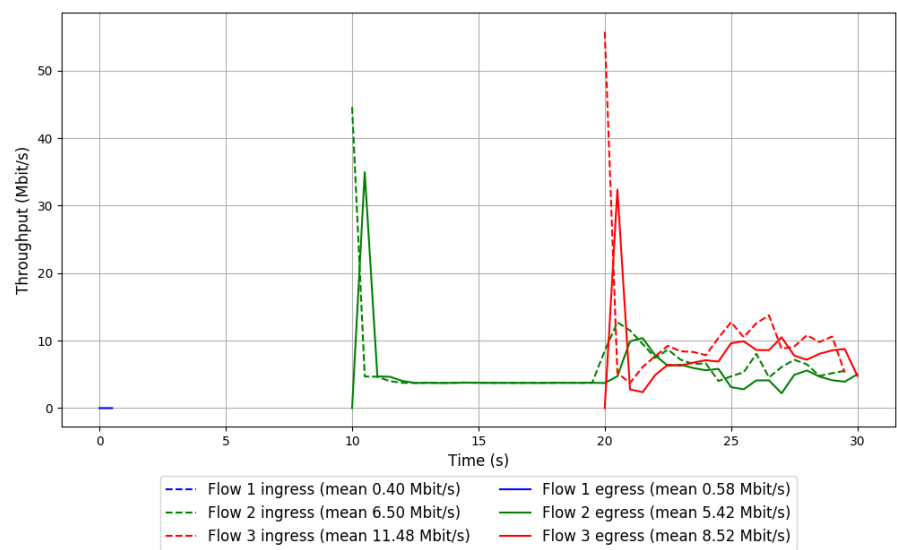
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-11-15 05:59:22
End at: 2018-11-15 05:59:52
Local clock offset: -6.747 ms
Remote clock offset: 0.058 ms


# Below is generated by plot.py at 2018-11-15 06:37:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.63 Mbit/s
95th percentile per-packet one-way delay: 31.663 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 48.57 Mbit/s
95th percentile per-packet one-way delay: 21.931 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 26.88 Mbit/s
95th percentile per-packet one-way delay: 33.062 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 18.77 Mbit/s
95th percentile per-packet one-way delay: 33.288 ms
Loss rate: 0.42%
```
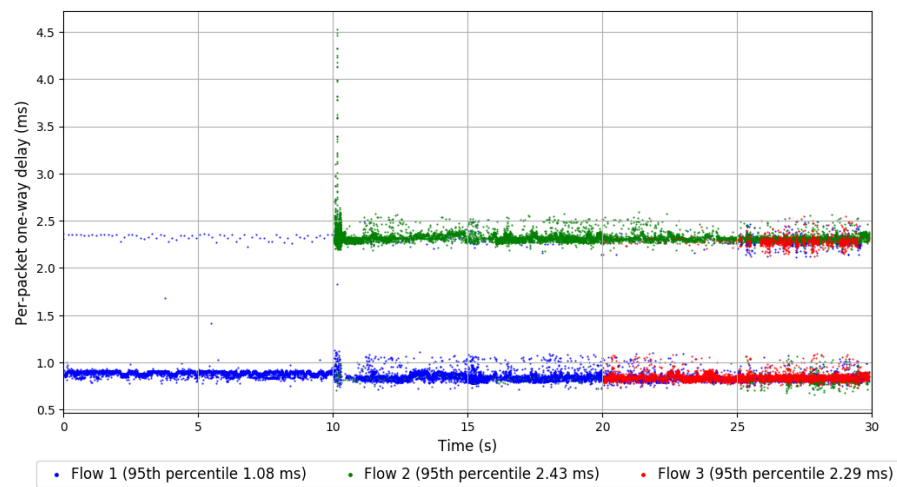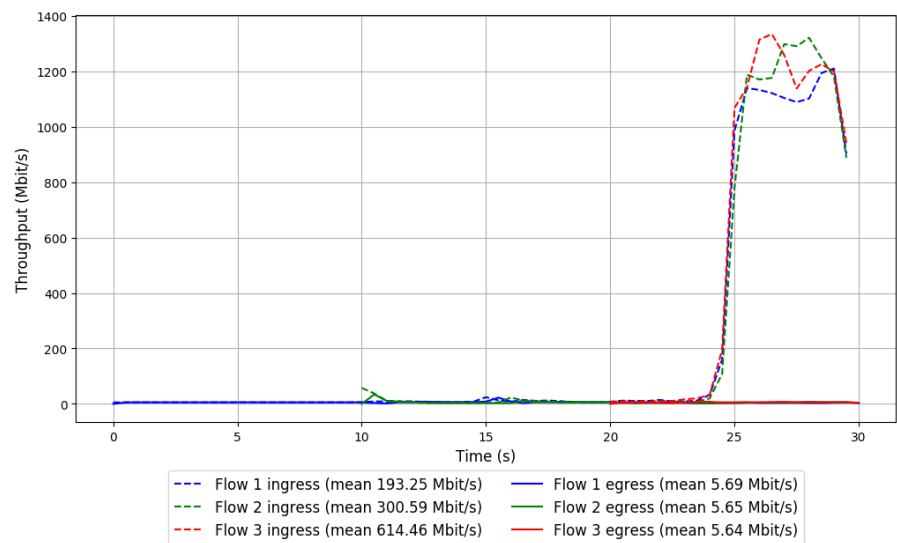
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 48.63 Mbit/s)   Flow 1 egress (mean 48.57 Mbit/s)
Flow 2 ingress (mean 26.97 Mbit/s)   Flow 2 egress (mean 26.88 Mbit/s)
Flow 3 ingress (mean 18.85 Mbit/s)   Flow 3 egress (mean 18.77 Mbit/s)

Flow 1 (95th percentile 21.93 ms)   Flow 2 (95th percentile 33.06 ms)   Flow 3 (95th percentile 33.29 ms)
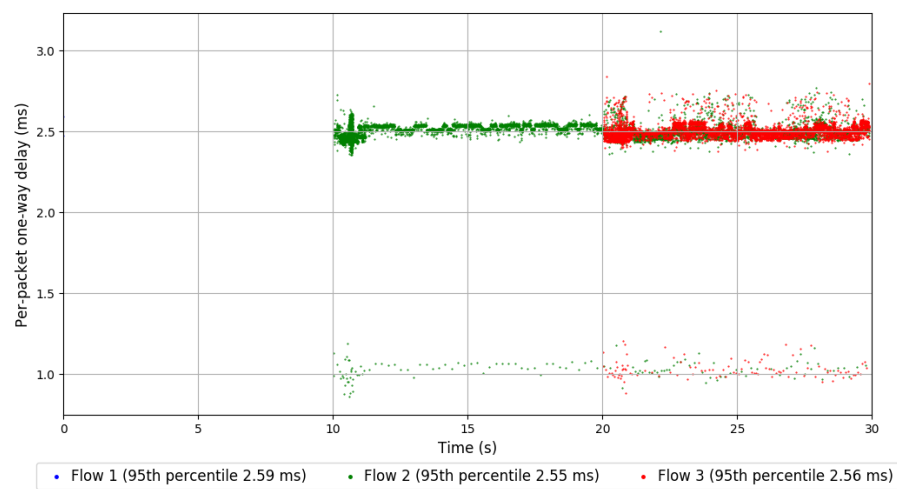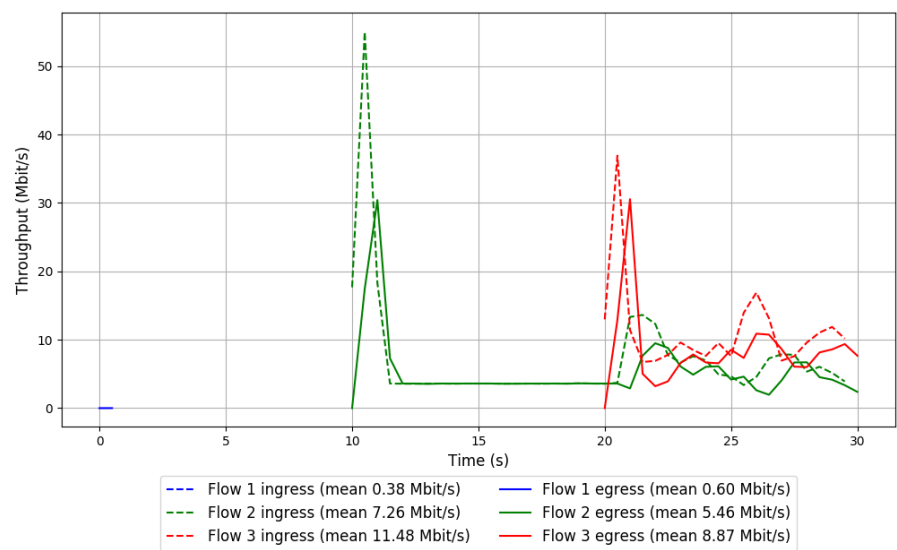
```
Run 5: Statistics of PCC-Allegro

Start at: 2018-11-15 06:19:46
End at: 2018-11-15 06:20:17
Local clock offset: -6.445 ms
Remote clock offset: 0.106 ms


# Below is generated by plot.py at 2018-11-15 06:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.78 Mbit/s
95th percentile per-packet one-way delay: 6.260 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 6.114 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 8.172 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 4.45 Mbit/s
95th percentile per-packet one-way delay: 10.441 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2018-11-15 04:52:26
End at: 2018-11-15 04:52:56
Local clock offset: -8.289 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-11-15 06:37:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 4.858 ms
Loss rate: 20.86%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 2.286 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 5.42 Mbit/s
95th percentile per-packet one-way delay: 7.480 ms
Loss rate: 16.55%
-- Flow 3:
Average throughput: 8.52 Mbit/s
95th percentile per-packet one-way delay: 2.462 ms
Loss rate: 25.76%
```
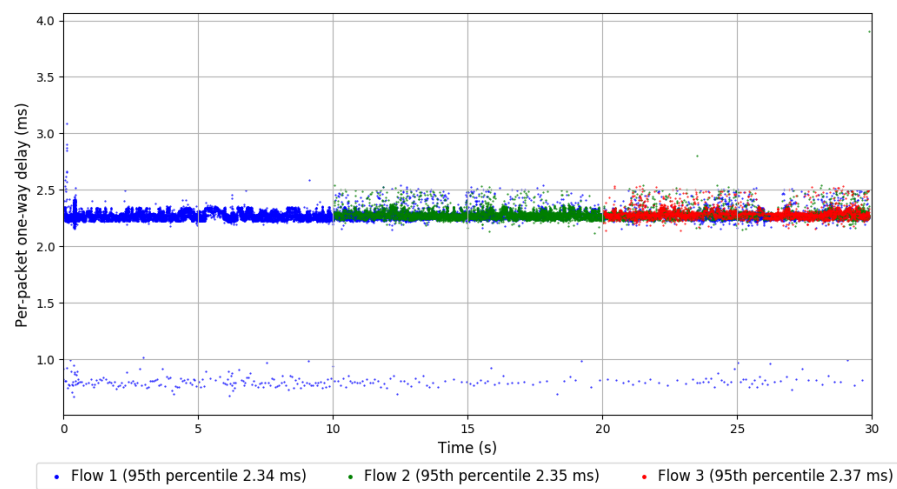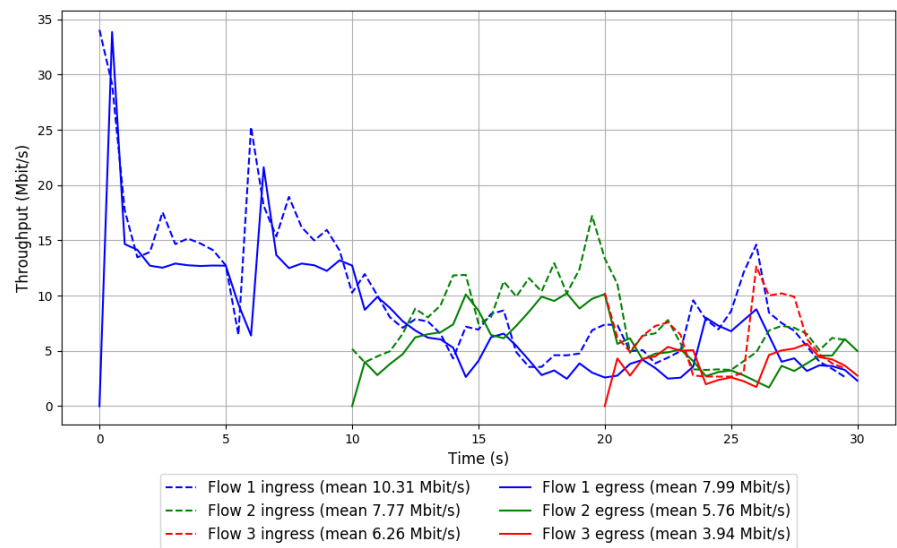
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-11-15 05:12:50
End at: 2018-11-15 05:13:20
Local clock offset: -7.762 ms
Remote clock offset: -0.242 ms

# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 2.364 ms
Loss rate: 98.10%
-- Flow 1:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 1.079 ms
Loss rate: 97.05%
-- Flow 2:
Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 2.432 ms
Loss rate: 98.12%
-- Flow 3:
Average throughput: 5.64 Mbit/s
95th percentile per-packet one-way delay: 2.293 ms
Loss rate: 99.08%
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-11-15 05:33:21
End at: 2018-11-15 05:33:51
Local clock offset: -7.451 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.56 Mbit/s
95th percentile per-packet one-way delay: 2.557 ms
Loss rate: 23.88%
-- Flow 1:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 2.592 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 2.553 ms
Loss rate: 24.78%
-- Flow 3:
Average throughput: 8.87 Mbit/s
95th percentile per-packet one-way delay: 2.558 ms
Loss rate: 22.73%
```
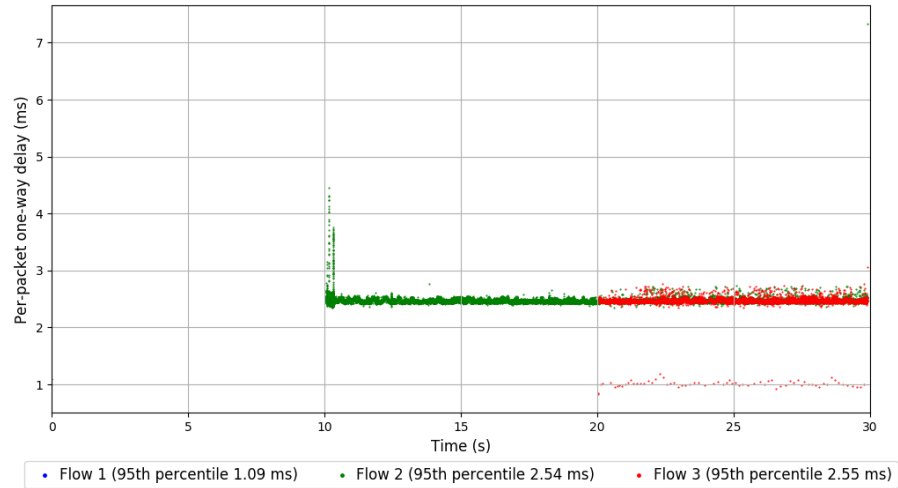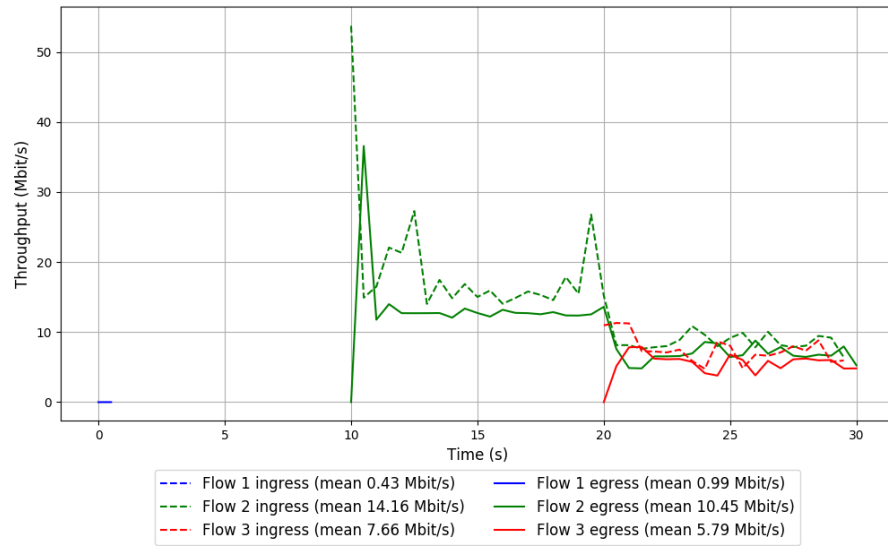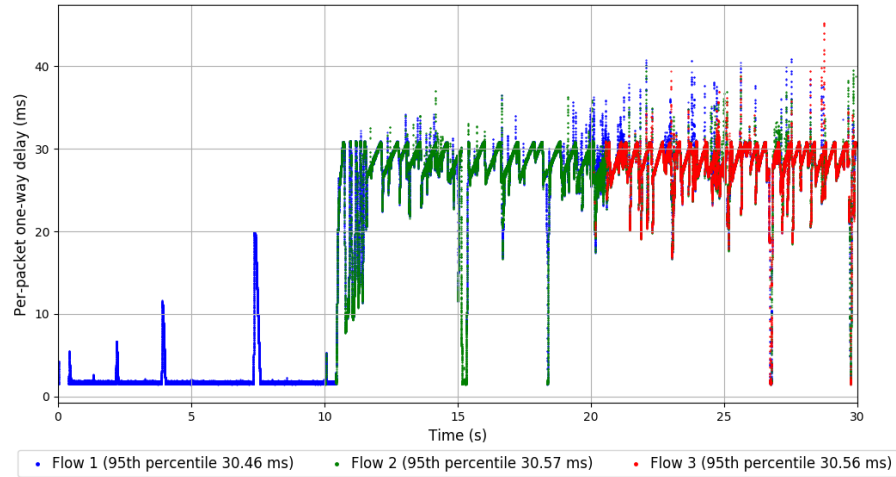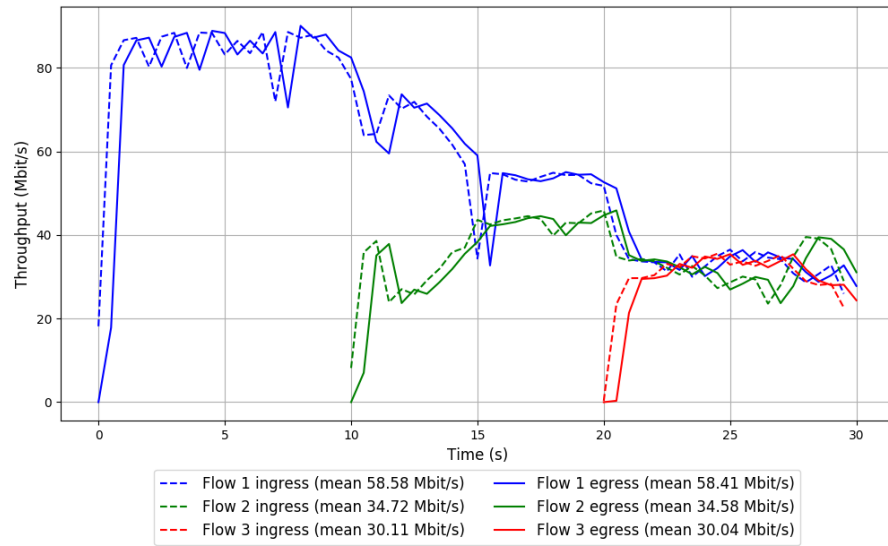
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-11-15 05:53:45
End at: 2018-11-15 05:54:15
Local clock offset: -7.112 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 2.341 ms
Loss rate: 25.20%
-- Flow 1:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 2.336 ms
Loss rate: 22.47%
-- Flow 2:
Average throughput: 5.76 Mbit/s
95th percentile per-packet one-way delay: 2.347 ms
Loss rate: 25.89%
-- Flow 3:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 2.365 ms
Loss rate: 37.04%
```
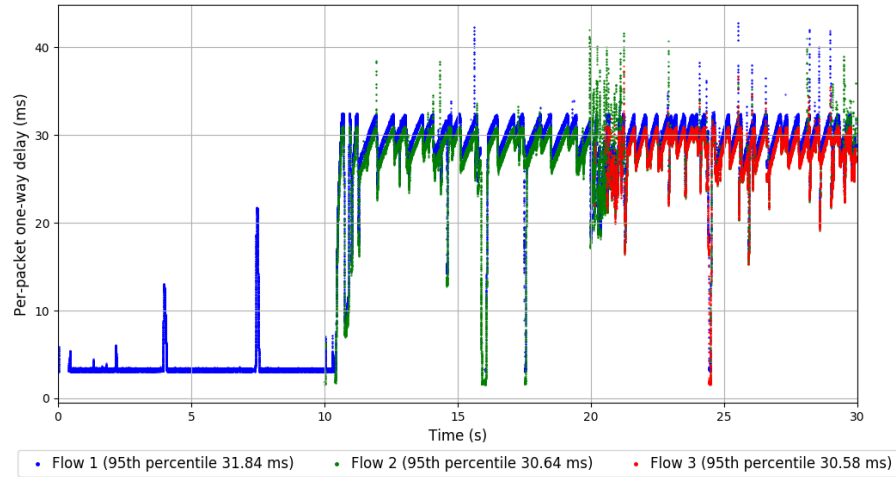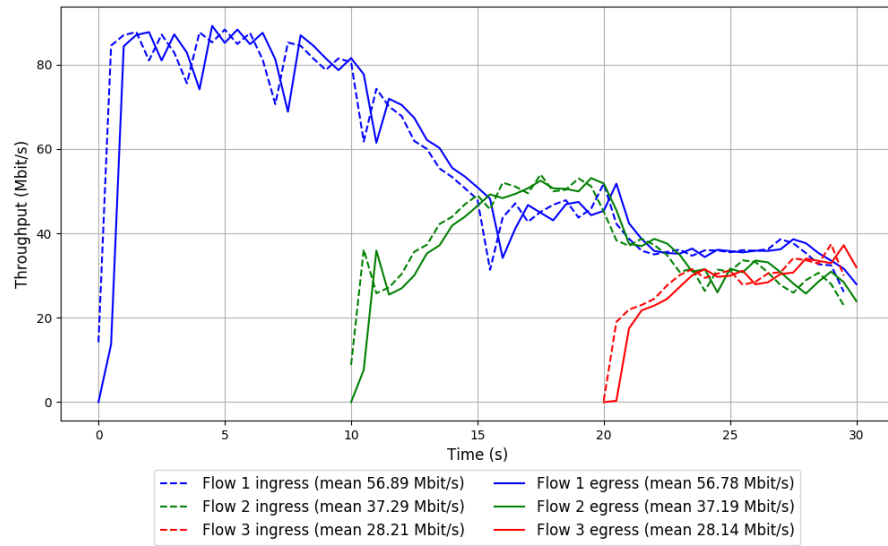
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 10.31 Mbit/s) --- Flow 1 egress (mean 7.99 Mbit/s)
Flow 2 ingress (mean 7.77 Mbit/s) --- Flow 2 egress (mean 5.76 Mbit/s)
Flow 3 ingress (mean 6.26 Mbit/s) --- Flow 3 egress (mean 3.94 Mbit/s)

Flow 1 (95th percentile 2.34 ms)   Flow 2 (95th percentile 2.35 ms)   Flow 3 (95th percentile 2.37 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-11-15 06:14:10
End at: 2018-11-15 06:14:40
Local clock offset: -5.805 ms
Remote clock offset: 0.179 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 2.537 ms
Loss rate: 25.78%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 1.086 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.45 Mbit/s
95th percentile per-packet one-way delay: 2.535 ms
Loss rate: 26.15%
-- Flow 3:
Average throughput: 5.79 Mbit/s
95th percentile per-packet one-way delay: 2.551 ms
Loss rate: 24.37%
```

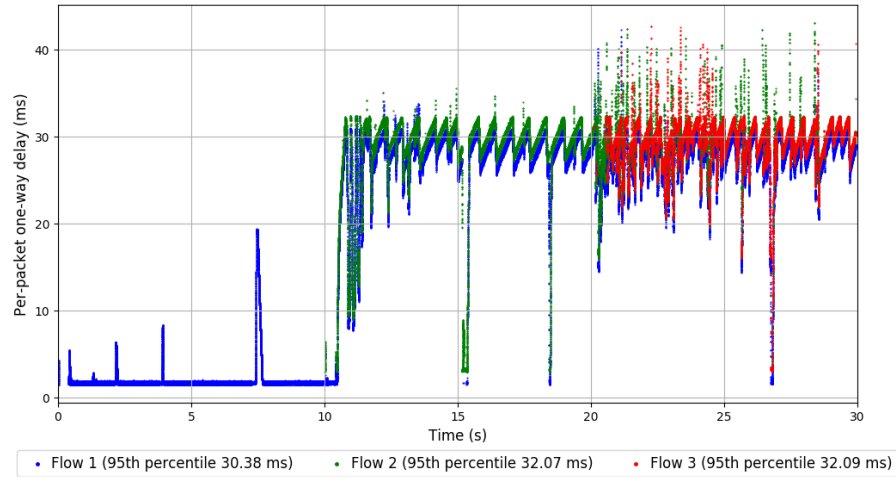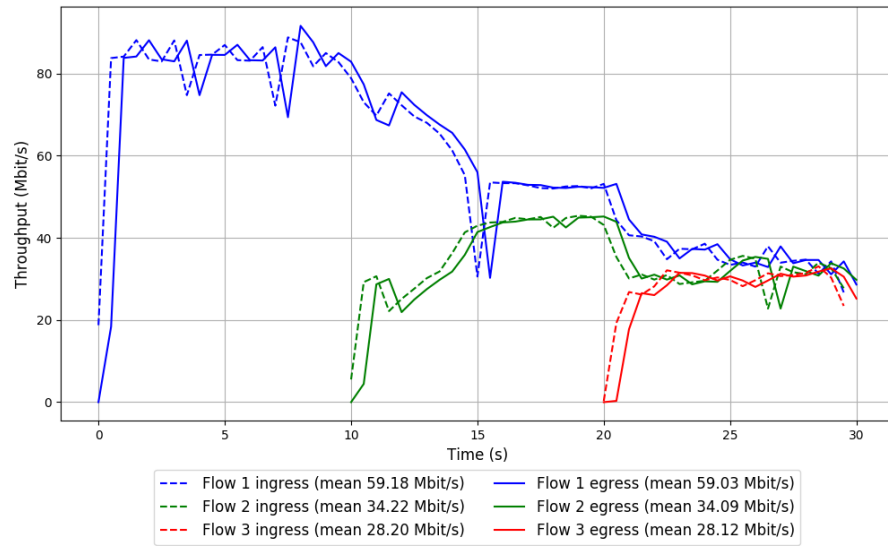# Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-11-15 04:49:03
End at: 2018-11-15 04:49:33
Local clock offset: -8.689 ms
Remote clock offset: -0.188 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.26 Mbit/s
95th percentile per-packet one-way delay: 30.522 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 58.41 Mbit/s
95th percentile per-packet one-way delay: 30.460 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 34.58 Mbit/s
95th percentile per-packet one-way delay: 30.574 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 30.04 Mbit/s
95th percentile per-packet one-way delay: 30.564 ms
Loss rate: 0.21%
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-11-15 05:09:27
End at: 2018-11-15 05:09:57
Local clock offset: -8.601 ms
Remote clock offset: -0.252 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.78 Mbit/s
95th percentile per-packet one-way delay: 31.683 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 31.844 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 37.19 Mbit/s
95th percentile per-packet one-way delay: 30.640 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 28.14 Mbit/s
95th percentile per-packet one-way delay: 30.576 ms
Loss rate: 0.22%
```
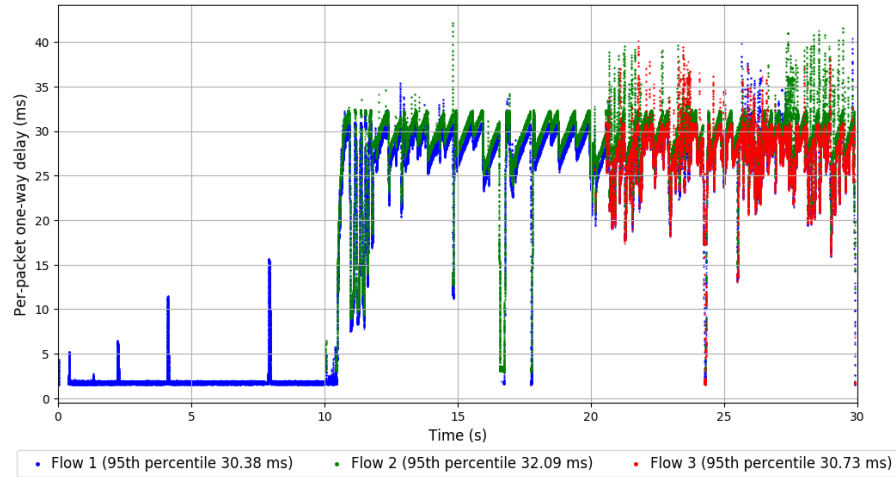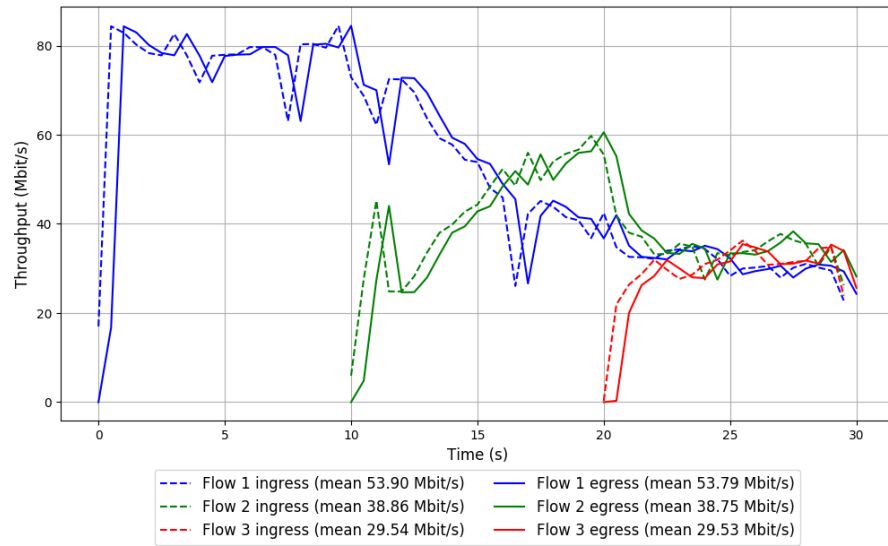
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-11-15 05:29:58
End at: 2018-11-15 05:30:28
Local clock offset: -8.446 ms
Remote clock offset: -0.167 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 31.679 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 59.03 Mbit/s
95th percentile per-packet one-way delay: 30.381 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 34.09 Mbit/s
95th percentile per-packet one-way delay: 32.072 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 28.12 Mbit/s
95th percentile per-packet one-way delay: 32.093 ms
Loss rate: 0.20%
```
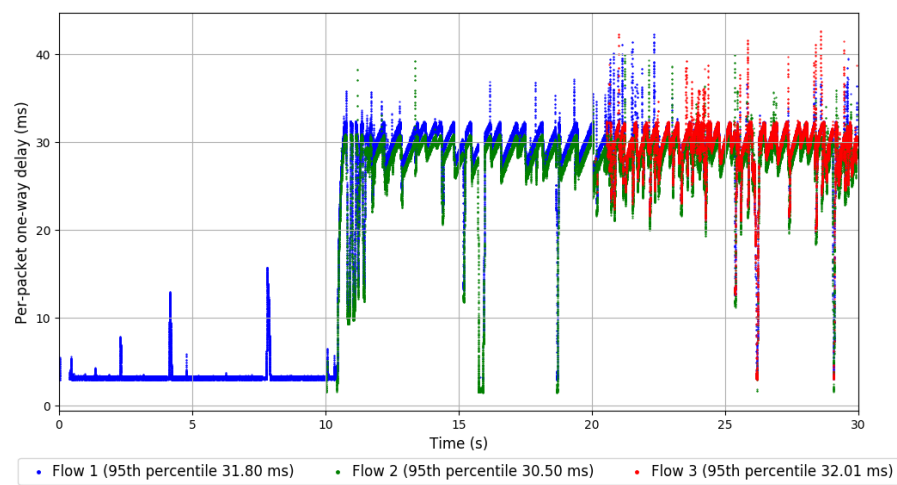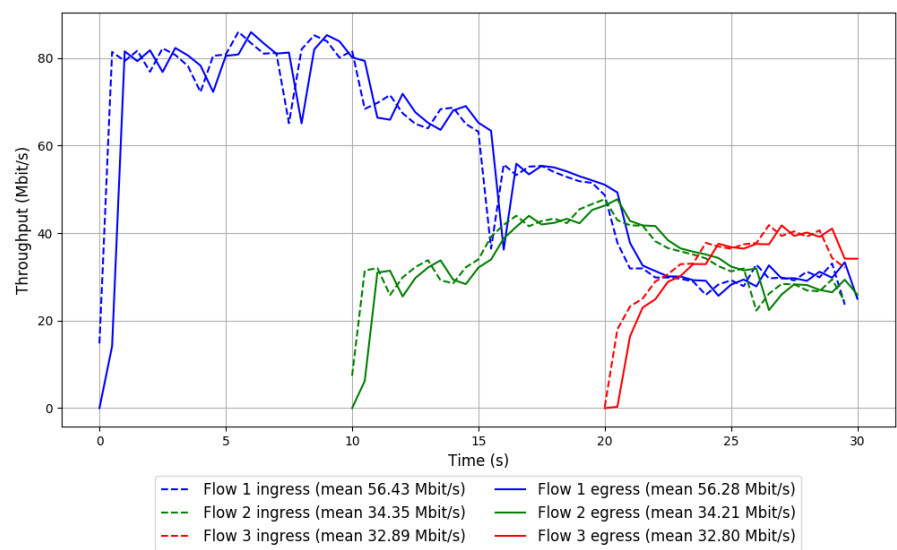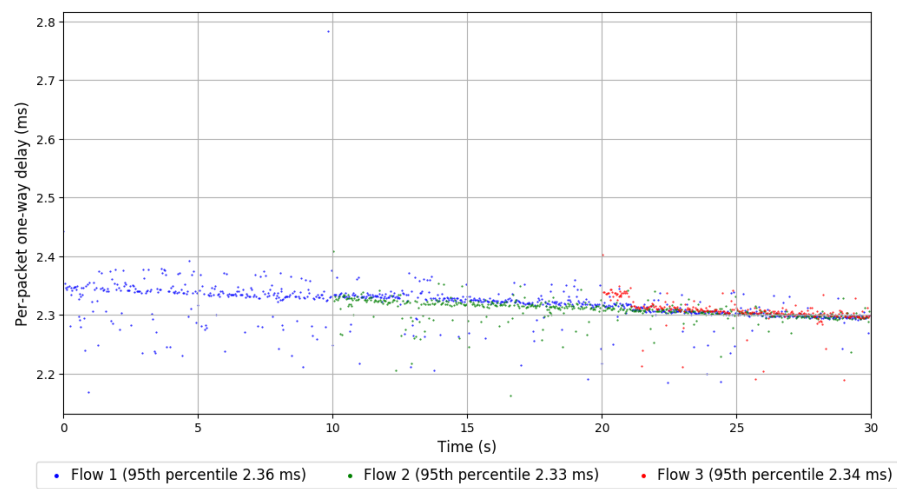
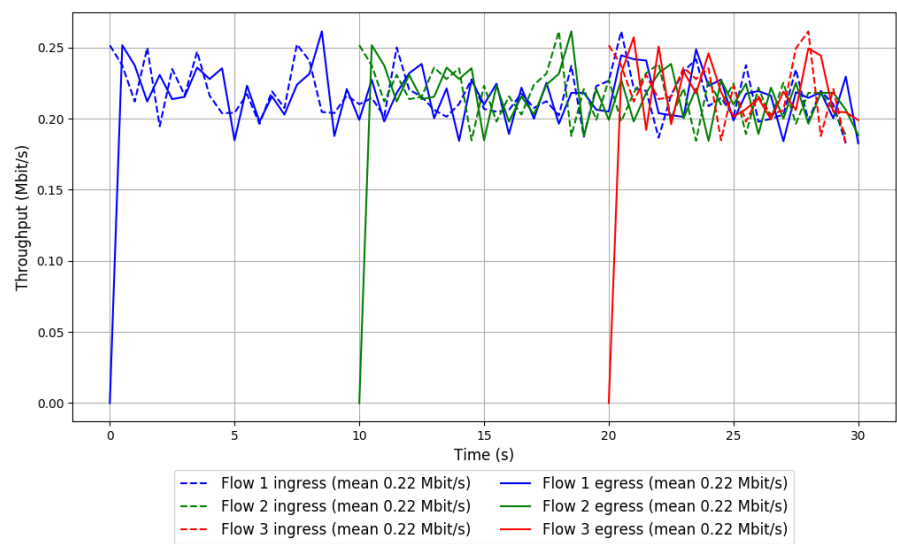Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-11-15 05:50:22
End at: 2018-11-15 05:50:52
Local clock offset: -7.861 ms
Remote clock offset: 0.047 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.23 Mbit/s
95th percentile per-packet one-way delay: 31.588 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 53.79 Mbit/s
95th percentile per-packet one-way delay: 30.375 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 38.75 Mbit/s
95th percentile per-packet one-way delay: 32.089 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 29.53 Mbit/s
95th percentile per-packet one-way delay: 30.726 ms
Loss rate: 0.28%
```

Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 53.90 Mbit/s) Flow 1 egress (mean 53.79 Mbit/s)
Flow 2 ingress (mean 38.86 Mbit/s) Flow 2 egress (mean 38.75 Mbit/s)
Flow 3 ingress (mean 29.54 Mbit/s) Flow 3 egress (mean 29.53 Mbit/s)

Flow 1 (95th percentile 30.38 ms) Flow 2 (95th percentile 32.09 ms) Flow 3 (95th percentile 30.73 ms)
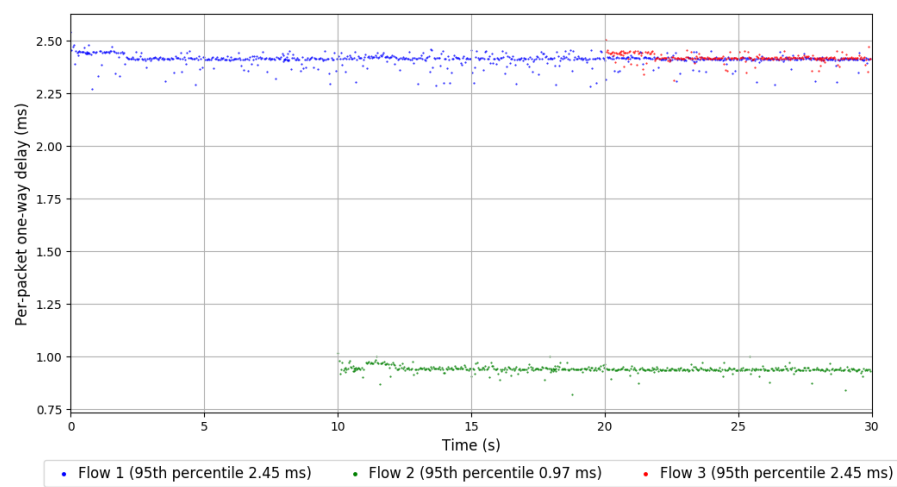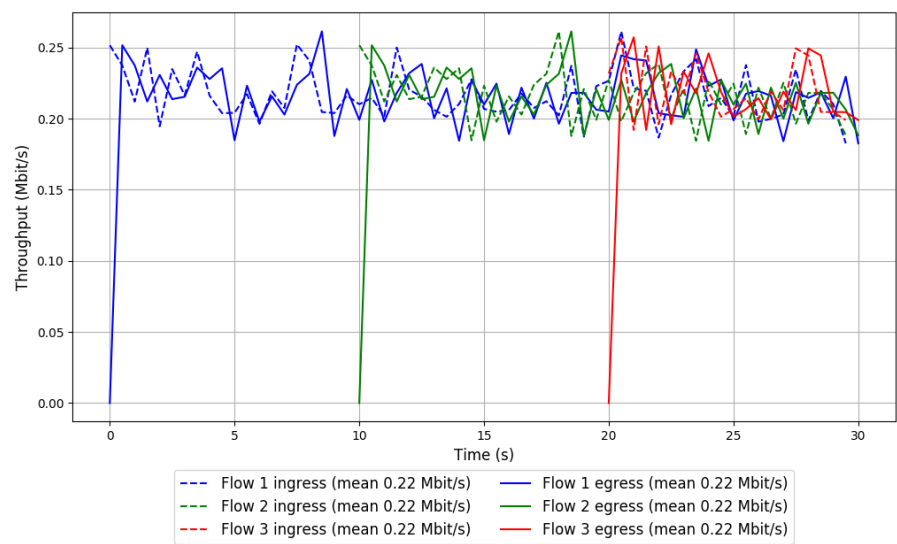
```
Run 5: Statistics of QUIC Cubic

Start at: 2018-11-15 06:10:46
End at: 2018-11-15 06:11:16
Local clock offset: -6.634 ms
Remote clock offset: 0.049 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.80 Mbit/s
95th percentile per-packet one-way delay: 31.763 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 56.28 Mbit/s
95th percentile per-packet one-way delay: 31.800 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 34.21 Mbit/s
95th percentile per-packet one-way delay: 30.500 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 32.014 ms
Loss rate: 0.18%
```

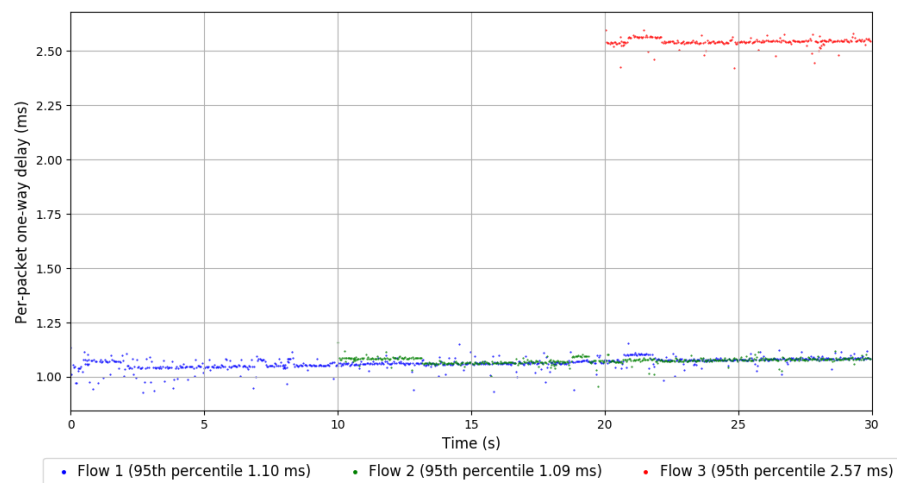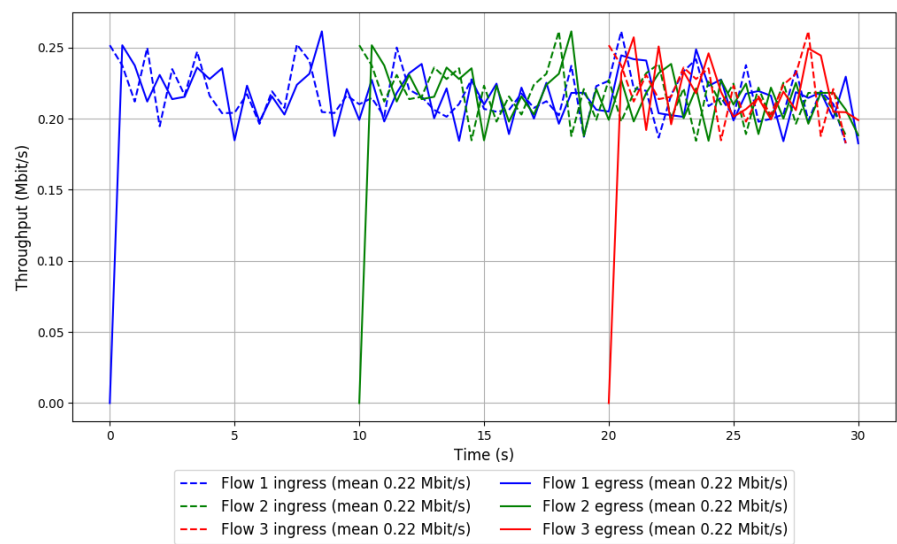Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-11-15 04:50:12
End at: 2018-11-15 04:50:42
Local clock offset: -8.045 ms
Remote clock offset: -0.194 ms

# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.349 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.361 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.330 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-11-15 05:10:36
End at: 2018-11-15 05:11:06
Local clock offset: -7.783 ms
Remote clock offset: -0.194 ms

# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.444 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.446 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.968 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.447 ms
Loss rate: 0.00%
```
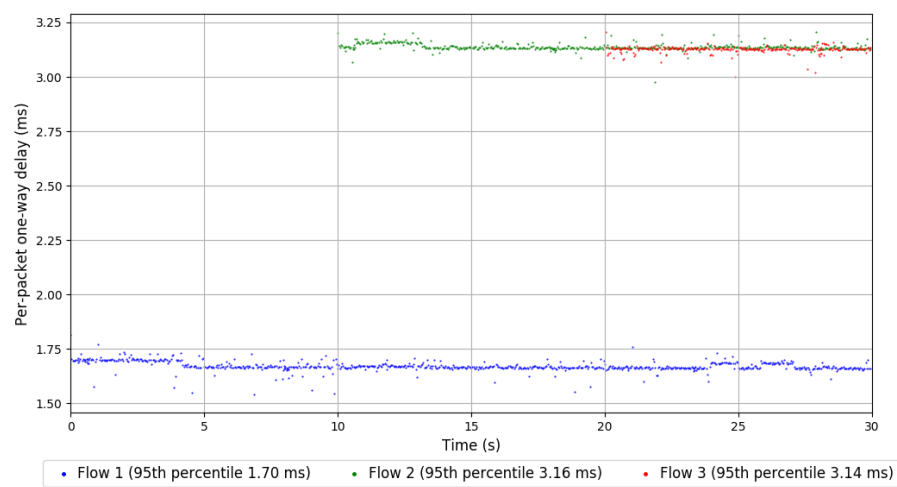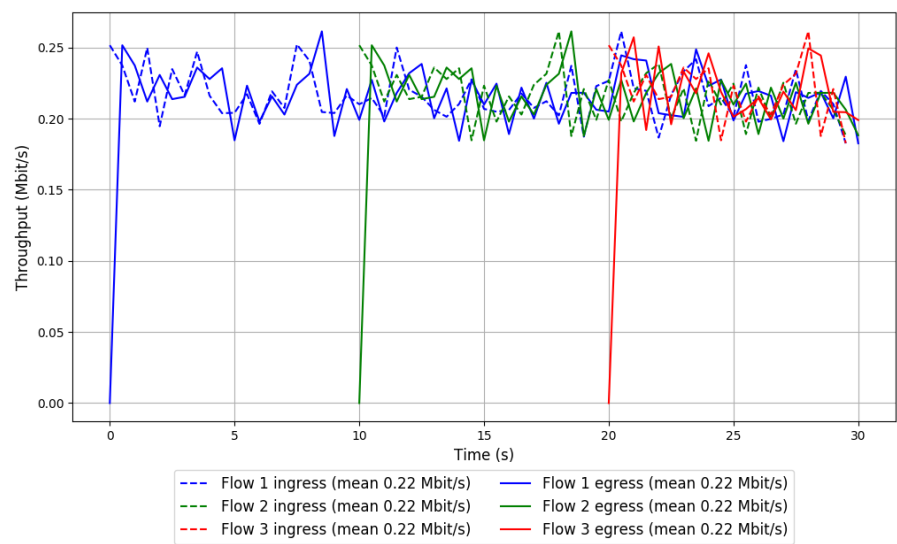
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-11-15 05:31:07
End at: 2018-11-15 05:31:37
Local clock offset: -7.644 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.548 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.100 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.093 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.566 ms
Loss rate: 0.00%
```
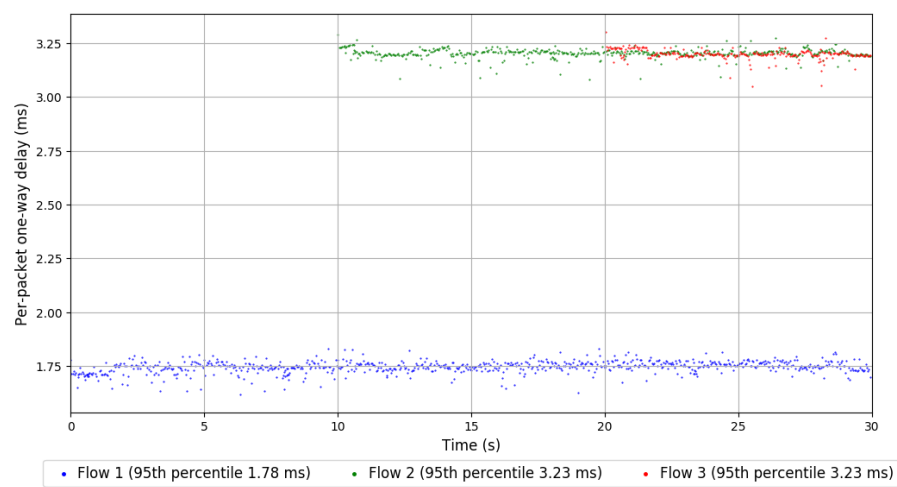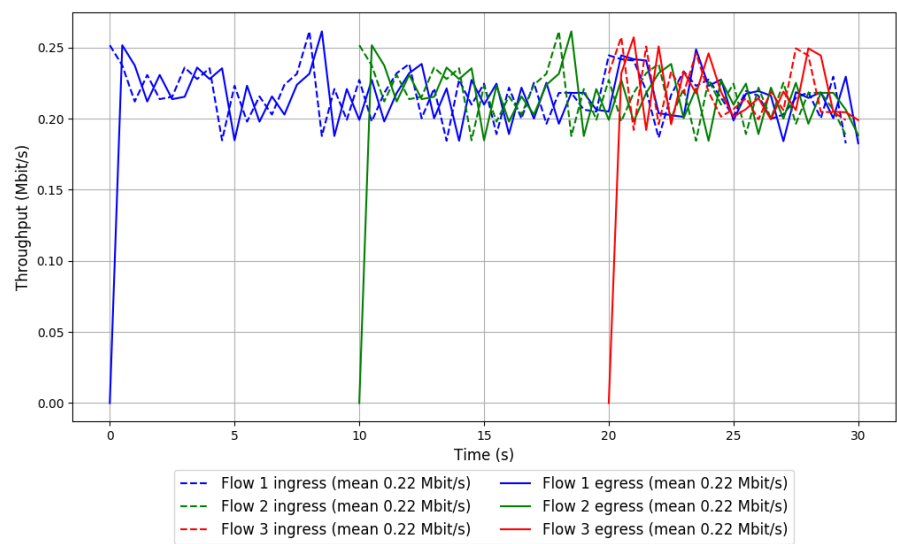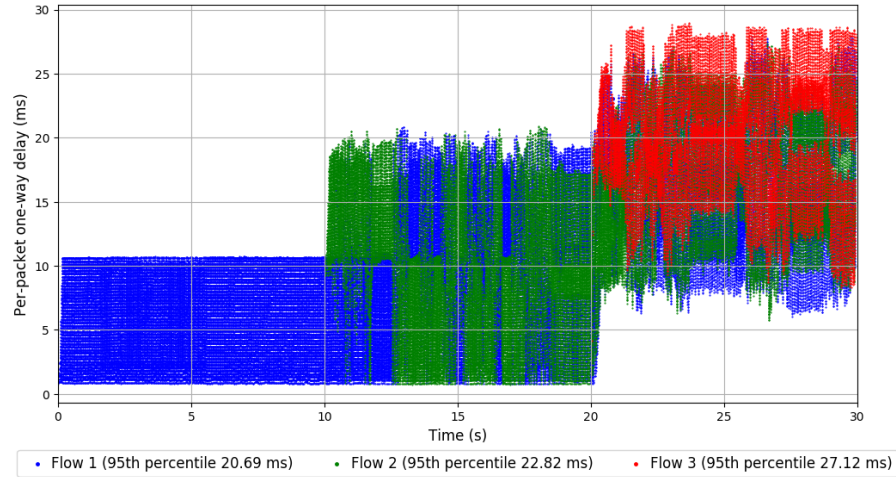
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-11-15 05:51:31
End at: 2018-11-15 05:52:01
Local clock offset: -7.863 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.702 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.163 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.142 ms
Loss rate: 0.00%
```
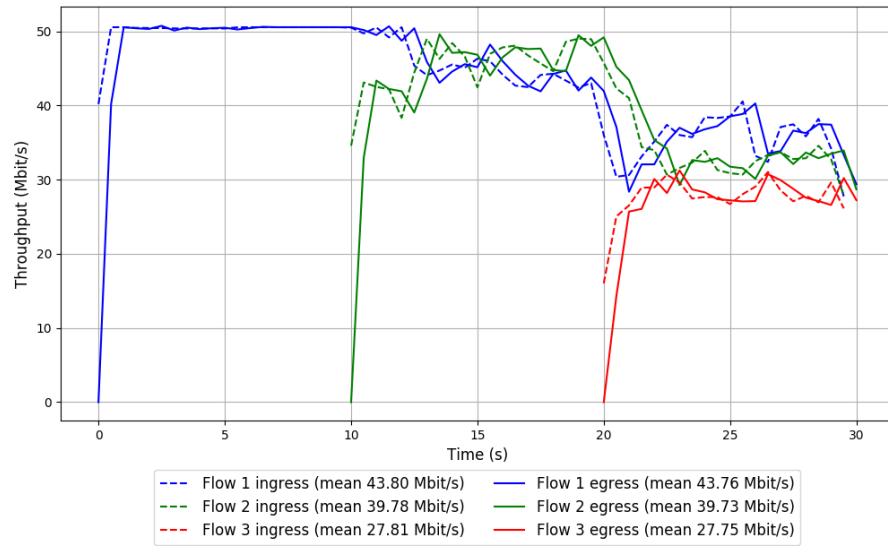
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-11-15 06:11:55
End at: 2018-11-15 06:12:25
Local clock offset: -6.572 ms
Remote clock offset: 0.166 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.228 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.784 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.235 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.232 ms
Loss rate: 0.00%
```
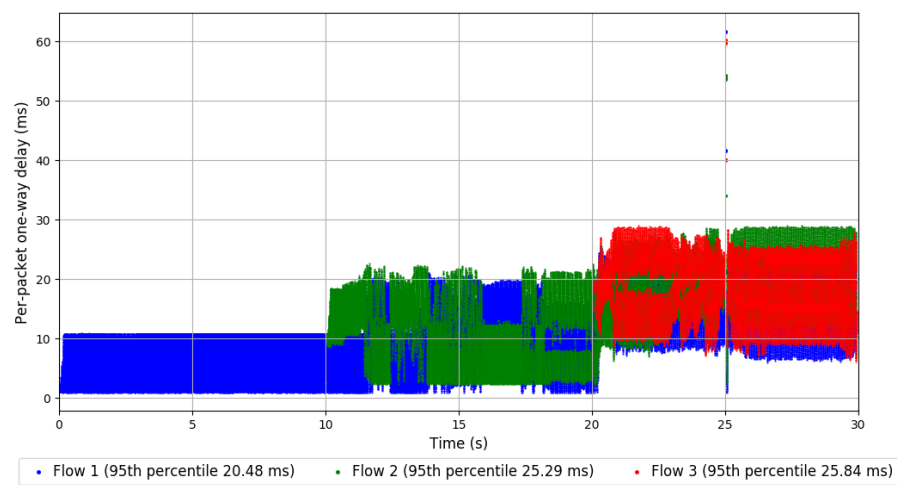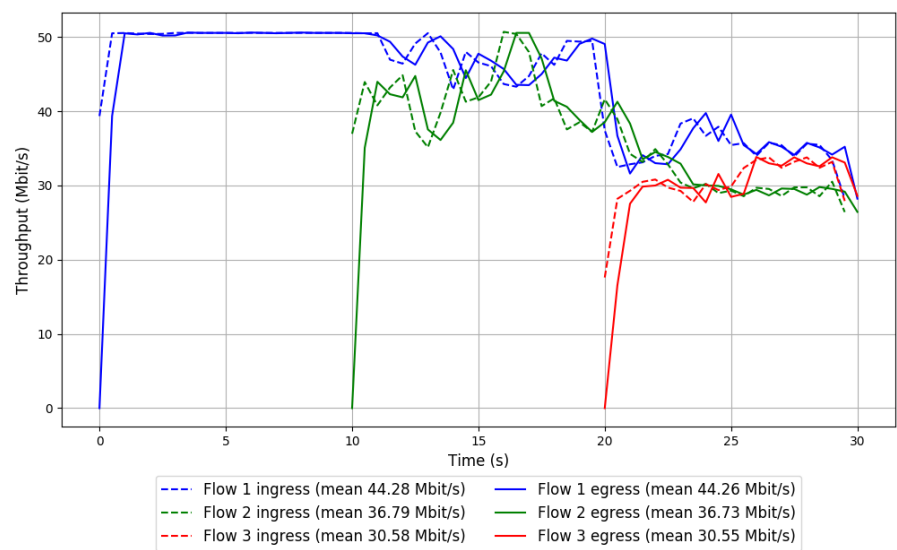
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-11-15 04:55:50
End at: 2018-11-15 04:56:20
Local clock offset: -8.6 ms
Remote clock offset: -0.203 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.37 Mbit/s
95th percentile per-packet one-way delay: 23.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.76 Mbit/s
95th percentile per-packet one-way delay: 20.687 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.73 Mbit/s
95th percentile per-packet one-way delay: 22.819 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.75 Mbit/s
95th percentile per-packet one-way delay: 27.123 ms
Loss rate: 0.00%
```
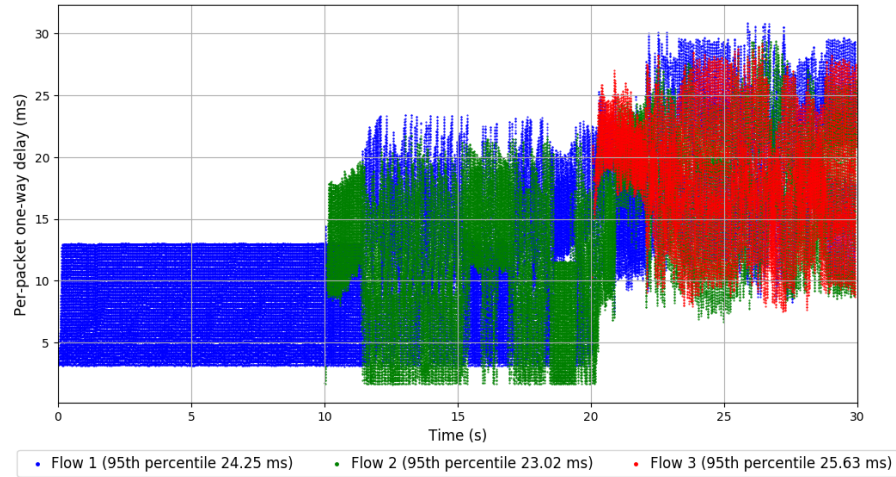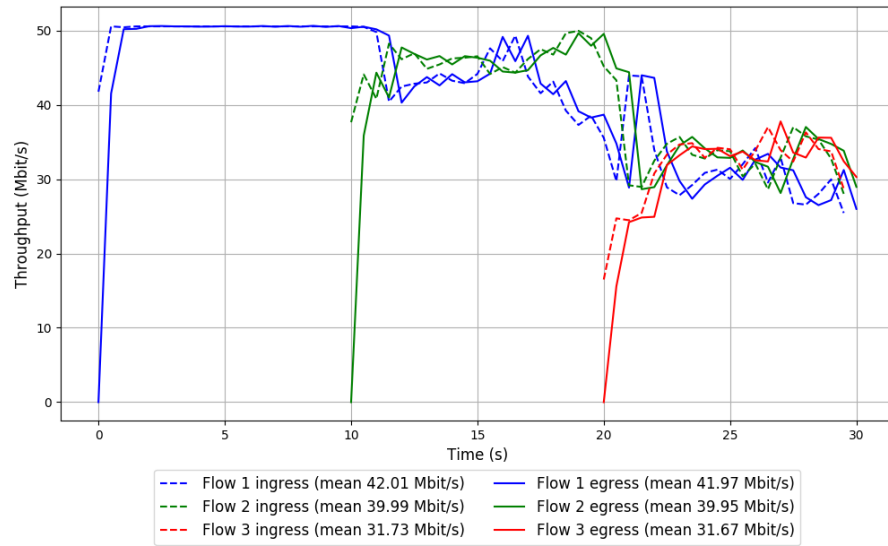
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-11-15 05:16:21
End at: 2018-11-15 05:16:51
Local clock offset: -7.822 ms
Remote clock offset: -0.142 ms


# Below is generated by plot.py at 2018-11-15 06:38:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.79 Mbit/s
95th percentile per-packet one-way delay: 23.853 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 44.26 Mbit/s
95th percentile per-packet one-way delay: 20.483 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.73 Mbit/s
95th percentile per-packet one-way delay: 25.294 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 30.55 Mbit/s
95th percentile per-packet one-way delay: 25.844 ms
Loss rate: 0.00%
```
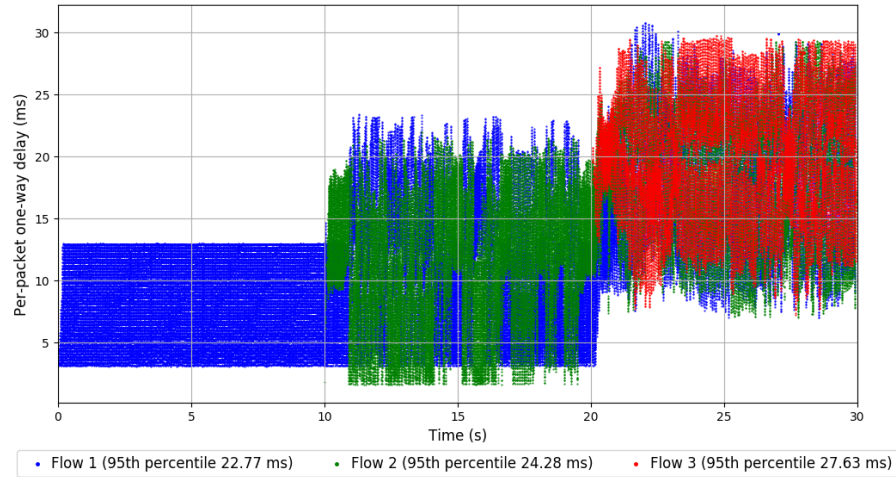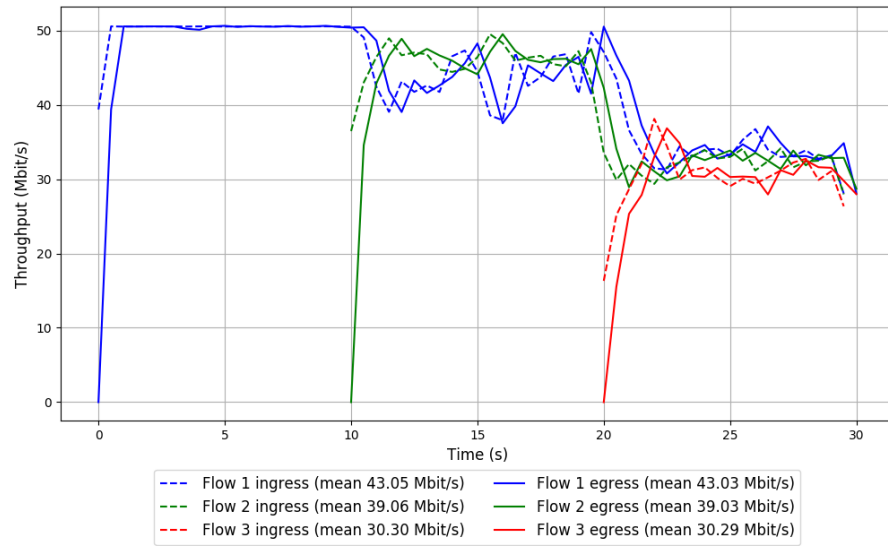
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-11-15 05:36:45
End at: 2018-11-15 05:37:15
Local clock offset: -7.998 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2018-11-15 06:38:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.03 Mbit/s
95th percentile per-packet one-way delay: 24.213 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.97 Mbit/s
95th percentile per-packet one-way delay: 24.250 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 23.023 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 25.634 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-11-15 05:57:09
End at: 2018-11-15 05:57:39
Local clock offset: -7.832 ms
Remote clock offset: 0.035 ms


# Below is generated by plot.py at 2018-11-15 06:38:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.99 Mbit/s
95th percentile per-packet one-way delay: 24.758 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.03 Mbit/s
95th percentile per-packet one-way delay: 22.766 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.03 Mbit/s
95th percentile per-packet one-way delay: 24.279 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.29 Mbit/s
95th percentile per-packet one-way delay: 27.633 ms
Loss rate: 0.00%
```
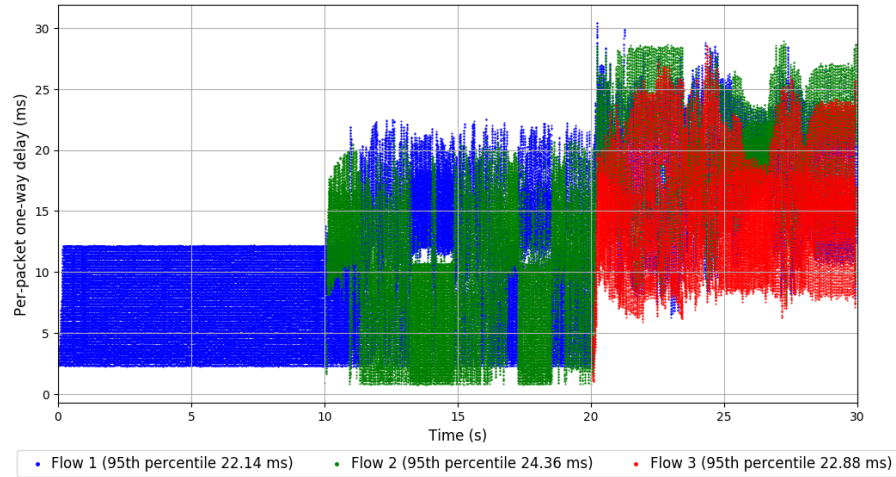
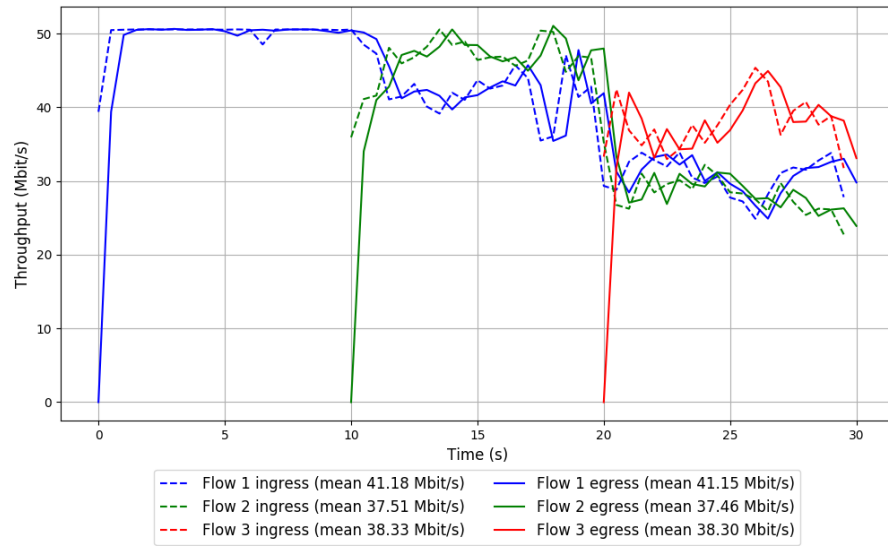# Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-11-15 06:17:34
End at: 2018-11-15 06:18:04
Local clock offset: -5.651 ms
Remote clock offset: 0.131 ms


# Below is generated by plot.py at 2018-11-15 06:38:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.74 Mbit/s
95th percentile per-packet one-way delay: 23.028 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.15 Mbit/s
95th percentile per-packet one-way delay: 22.144 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.46 Mbit/s
95th percentile per-packet one-way delay: 24.363 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.30 Mbit/s
95th percentile per-packet one-way delay: 22.876 ms
Loss rate: 0.00%
```

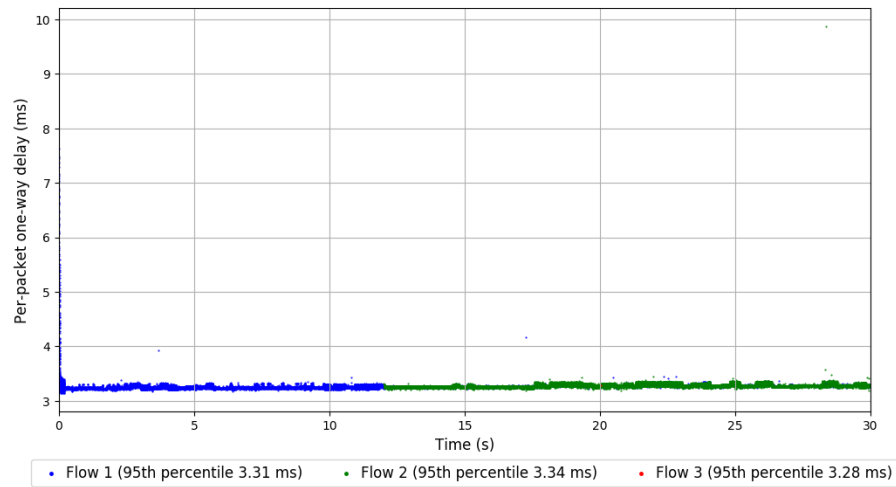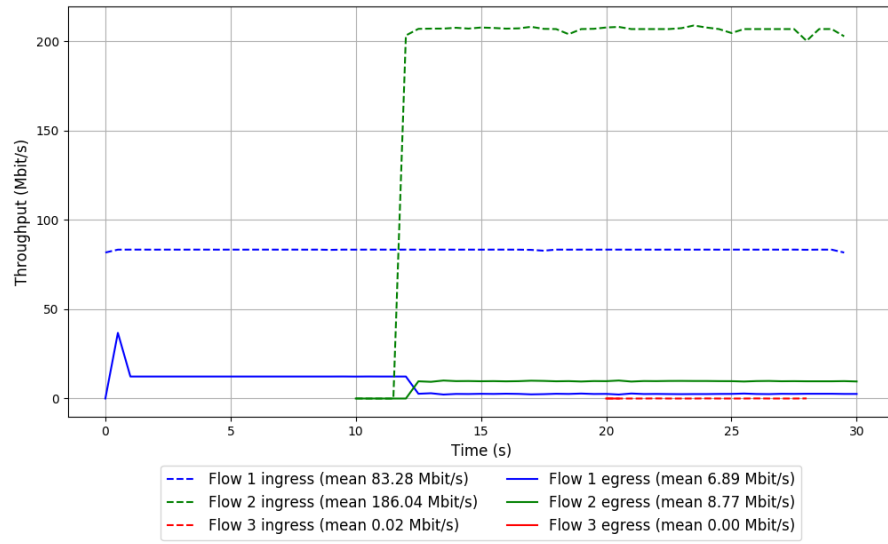Run 5: Report of Sprout — Data Link

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

Start at: 2018-11-15 05:00:18
End at: 2018-11-15 05:00:48
Local clock offset: -9.068 ms
Remote clock offset: -0.255 ms


# Below is generated by plot.py at 2018-11-15 06:38:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.333 ms
Loss rate: 93.86%
-- Flow 1:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 3.314 ms
Loss rate: 91.73%
-- Flow 2:
Average throughput: 8.77 Mbit/s
95th percentile per-packet one-way delay: 3.339 ms
Loss rate: 95.29%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.284 ms
Loss rate: 99.16%
```

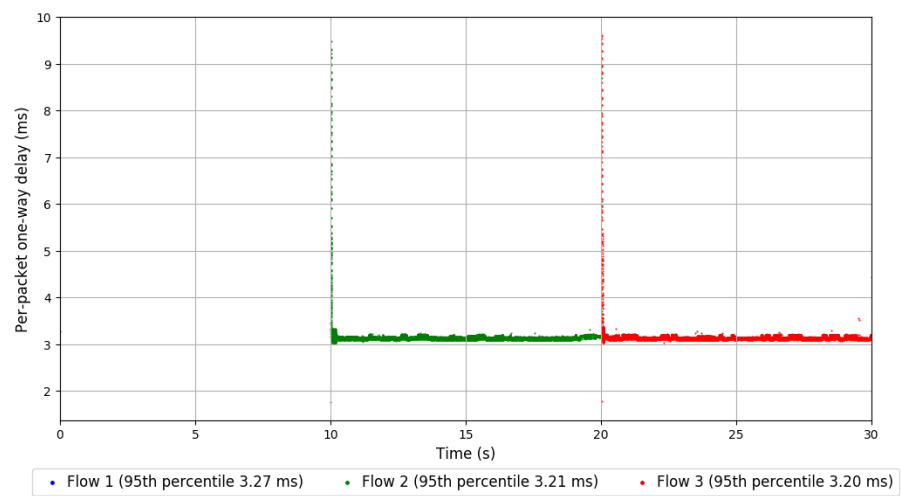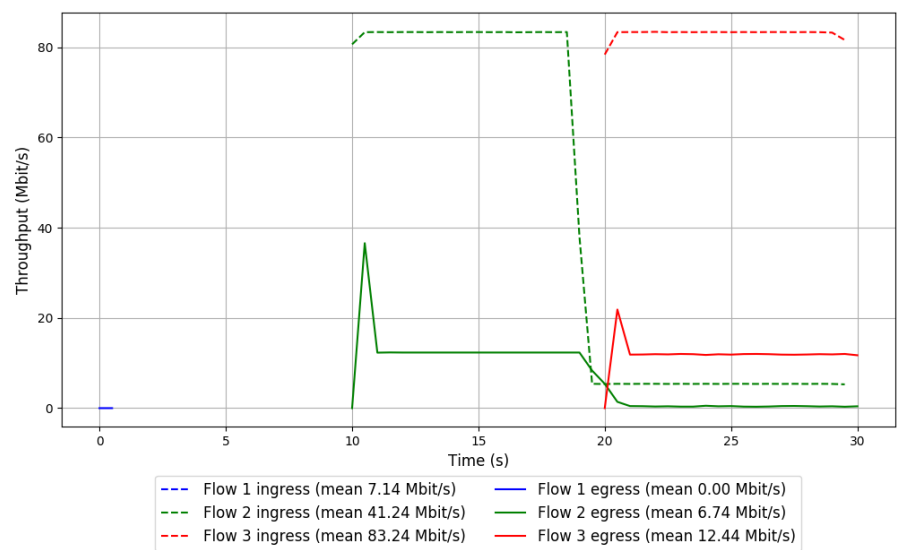Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-11-15 05:20:50
End at: 2018-11-15 05:21:20
Local clock offset: -8.699 ms
Remote clock offset: -0.126 ms


# Below is generated by plot.py at 2018-11-15 06:38:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 3.205 ms
Loss rate: 84.37%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.274 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 3.208 ms
Loss rate: 83.69%
-- Flow 3:
Average throughput: 12.44 Mbit/s
95th percentile per-packet one-way delay: 3.203 ms
Loss rate: 85.05%
```

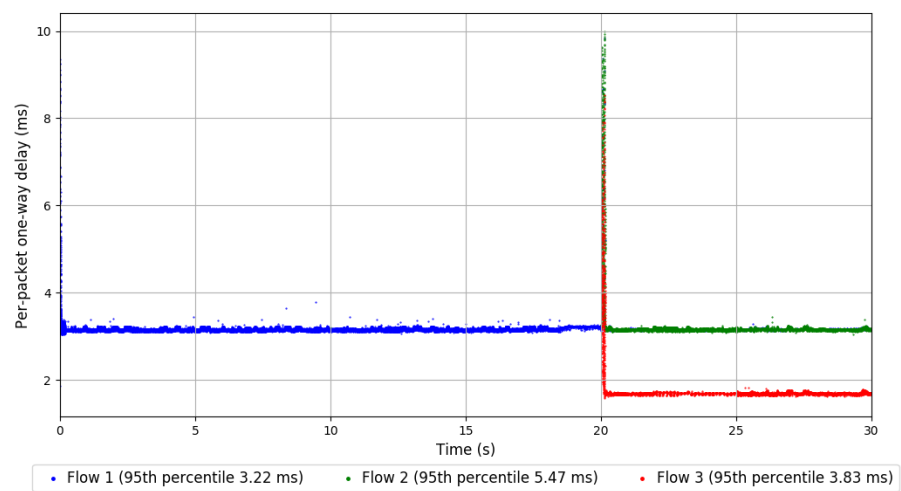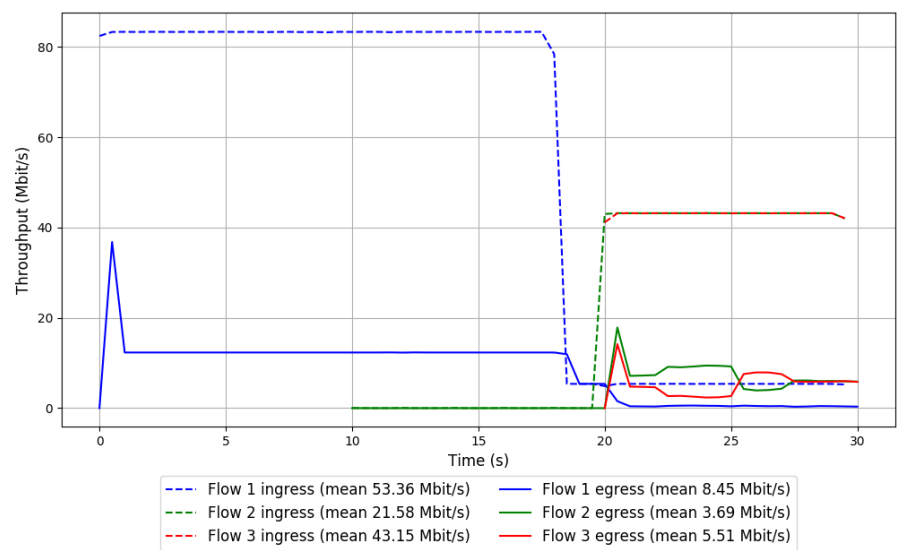Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-11-15 05:41:13
End at: 2018-11-15 05:41:43
Local clock offset: -7.936 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-11-15 06:38:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.226 ms
Loss rate: 84.49%
-- Flow 1:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 3.221 ms
Loss rate: 84.18%
-- Flow 2:
Average throughput: 3.69 Mbit/s
95th percentile per-packet one-way delay: 5.472 ms
Loss rate: 82.89%
-- Flow 3:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 3.830 ms
Loss rate: 87.23%
```

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

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

Start at: 2018-11-15 06:01:38
End at: 2018-11-15 06:02:09
Local clock offset: -6.463 ms
Remote clock offset: 0.053 ms

# Below is generated by plot.py at 2018-11-15 06:38:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 2.468 ms
Loss rate: 84.37%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 2.463 ms
Loss rate: 83.69%
-- Flow 3:
Average throughput: 12.44 Mbit/s
95th percentile per-packet one-way delay: 2.471 ms
Loss rate: 85.05%
```
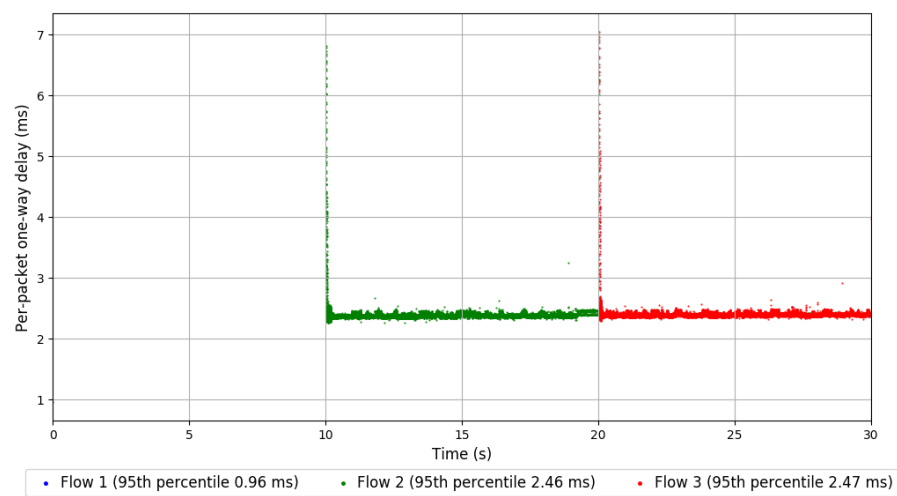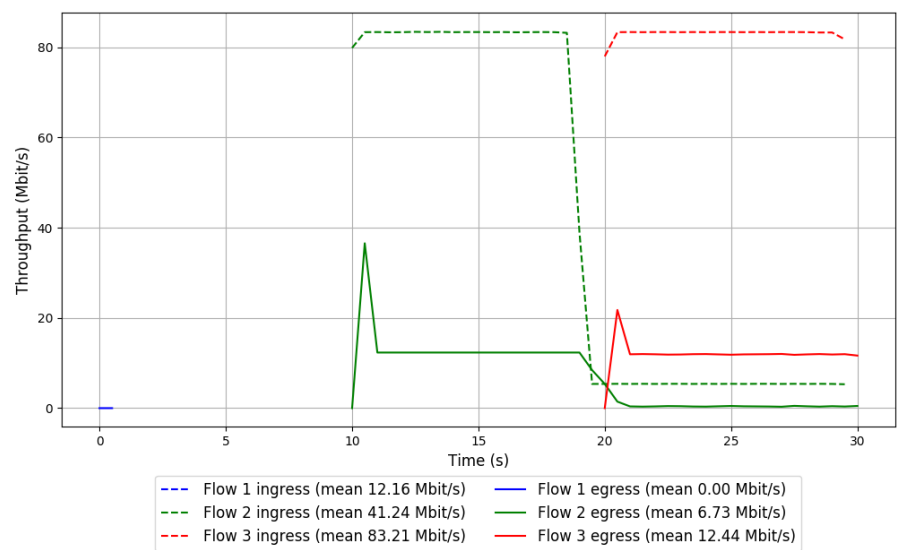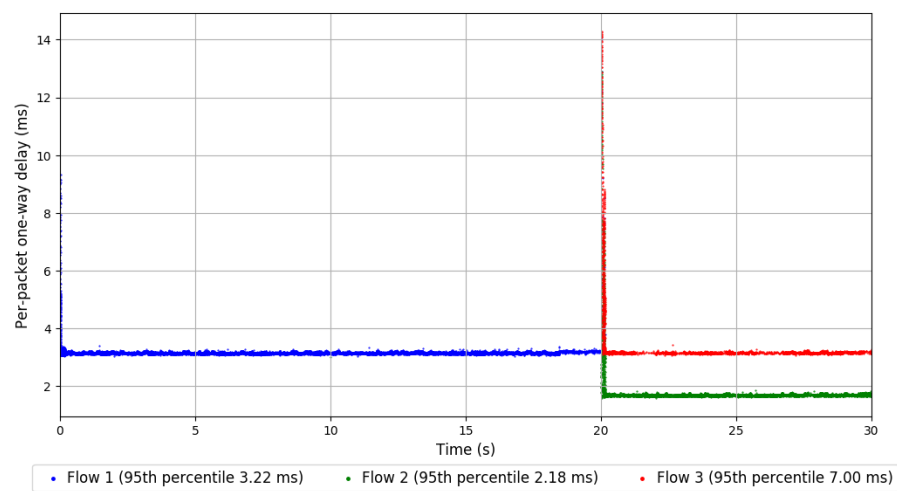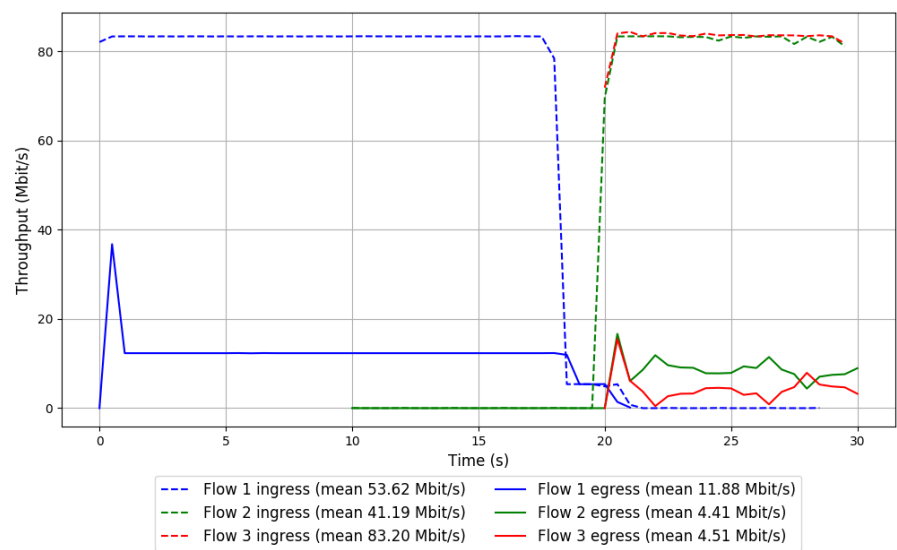
Run 4: Report of TaoVA-100x — Data Link

Legend for top figure:
- - - Flow 1 ingress (mean 12.16 Mbit/s) ——— Flow 1 egress (mean 0.00 Mbit/s)
- - - Flow 2 ingress (mean 41.24 Mbit/s) ——— Flow 2 egress (mean 6.73 Mbit/s)
- - - Flow 3 ingress (mean 83.21 Mbit/s) ——— Flow 3 egress (mean 12.44 Mbit/s)

Legend for bottom figure:
• Flow 1 (95th percentile 0.96 ms)   • Flow 2 (95th percentile 2.46 ms)   • Flow 3 (95th percentile 2.47 ms)

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

Start at: 2018-11-15 06:22:03
End at: 2018-11-15 06:22:33
Local clock offset: -6.336 ms
Remote clock offset: 0.188 ms


# Below is generated by plot.py at 2018-11-15 06:38:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.227 ms
Loss rate: 88.09%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 3.222 ms
Loss rate: 83.97%
-- Flow 2:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 2.180 ms
Loss rate: 89.31%
-- Flow 3:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 6.998 ms
Loss rate: 94.58%
```
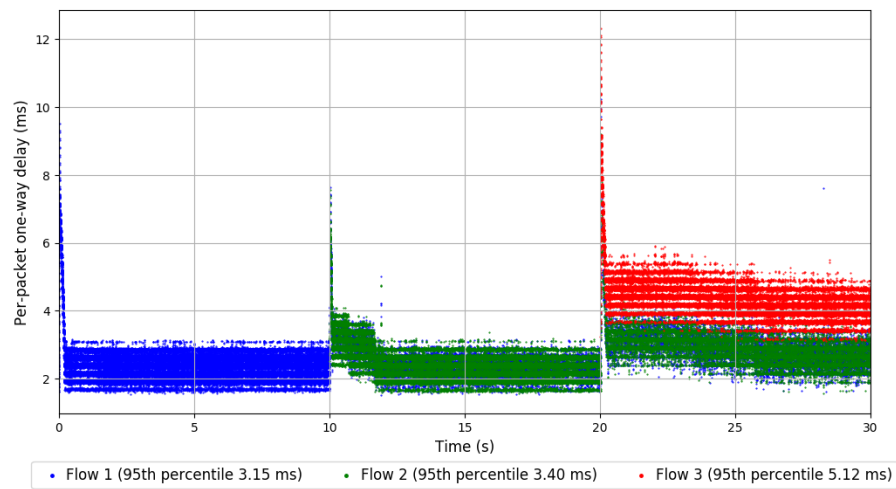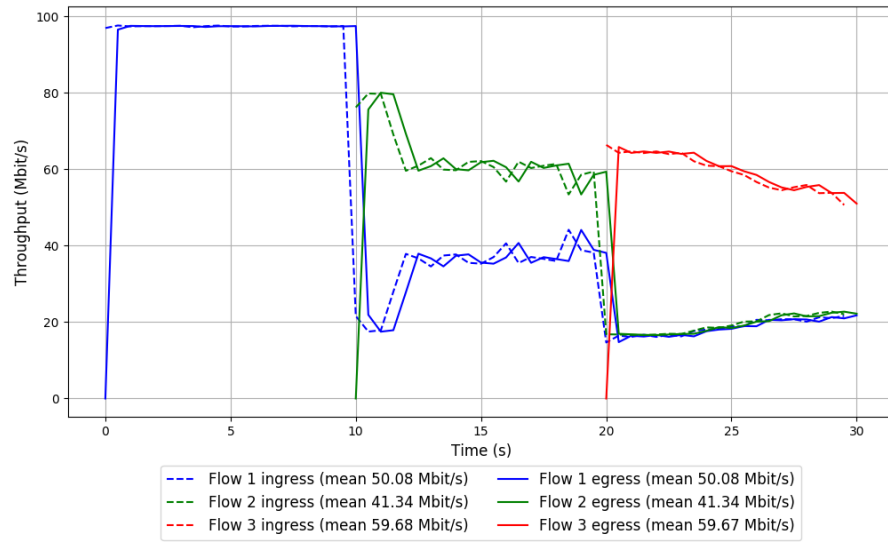
Run 5: Report of TaoVA-100x — Data Link

- - - Flow 1 ingress (mean 53.62 Mbit/s) ——— Flow 1 egress (mean 11.88 Mbit/s)
- - - Flow 2 ingress (mean 41.19 Mbit/s) ——— Flow 2 egress (mean 4.41 Mbit/s)
- - - Flow 3 ingress (mean 83.20 Mbit/s) ——— Flow 3 egress (mean 4.51 Mbit/s)

• Flow 1 (95th percentile 3.22 ms)   • Flow 2 (95th percentile 2.18 ms)   • Flow 3 (95th percentile 7.00 ms)
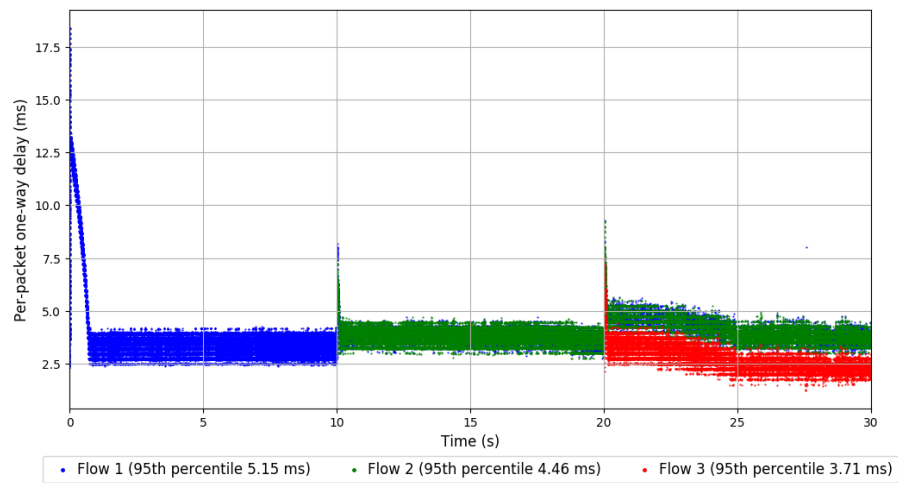
144

```
Run 1: Statistics of TCP Vegas

Start at: 2018-11-15 05:07:08
End at: 2018-11-15 05:07:38
Local clock offset: -8.591 ms
Remote clock offset: -0.292 ms


# Below is generated by plot.py at 2018-11-15 06:39:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 4.654 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.08 Mbit/s
95th percentile per-packet one-way delay: 3.151 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.34 Mbit/s
95th percentile per-packet one-way delay: 3.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.67 Mbit/s
95th percentile per-packet one-way delay: 5.125 ms
Loss rate: 0.01%
```

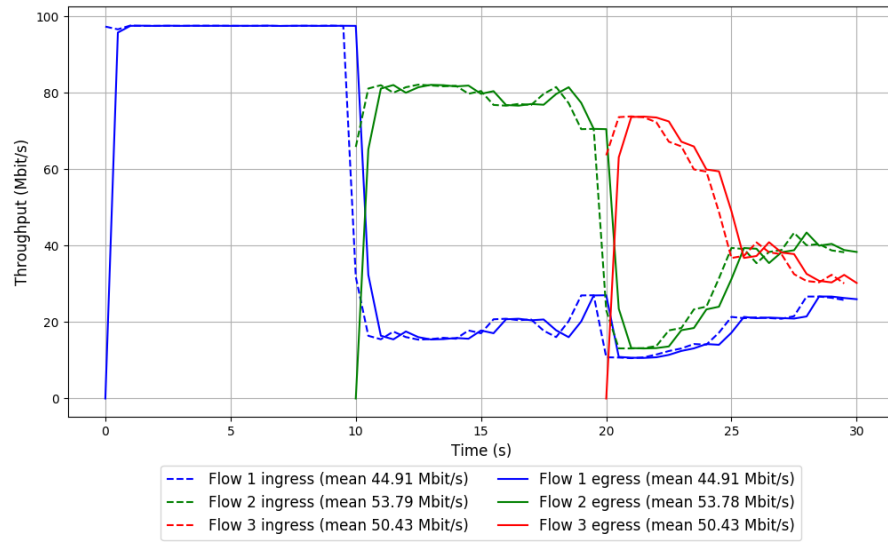Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-11-15 05:27:38
End at: 2018-11-15 05:28:08
Local clock offset: -7.986 ms
Remote clock offset: -0.147 ms


# Below is generated by plot.py at 2018-11-15 06:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.51 Mbit/s
95th percentile per-packet one-way delay: 4.493 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.91 Mbit/s
95th percentile per-packet one-way delay: 5.151 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 53.78 Mbit/s
95th percentile per-packet one-way delay: 4.464 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 50.43 Mbit/s
95th percentile per-packet one-way delay: 3.710 ms
Loss rate: 0.00%
```
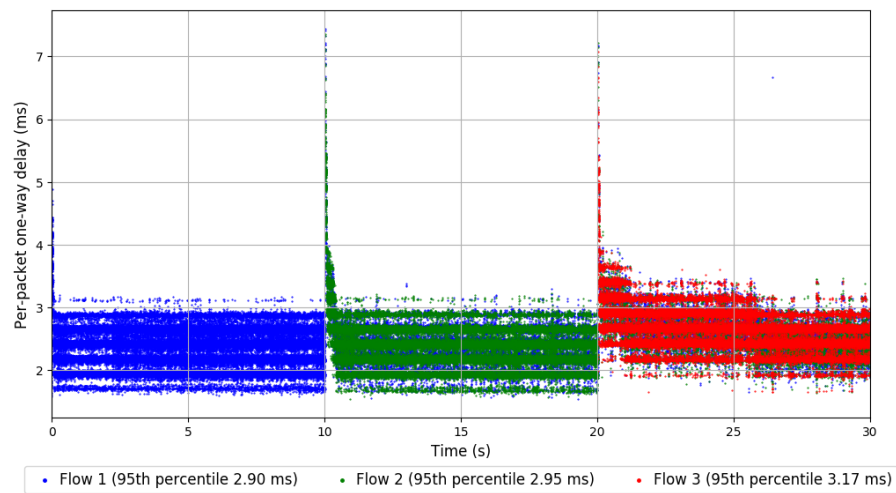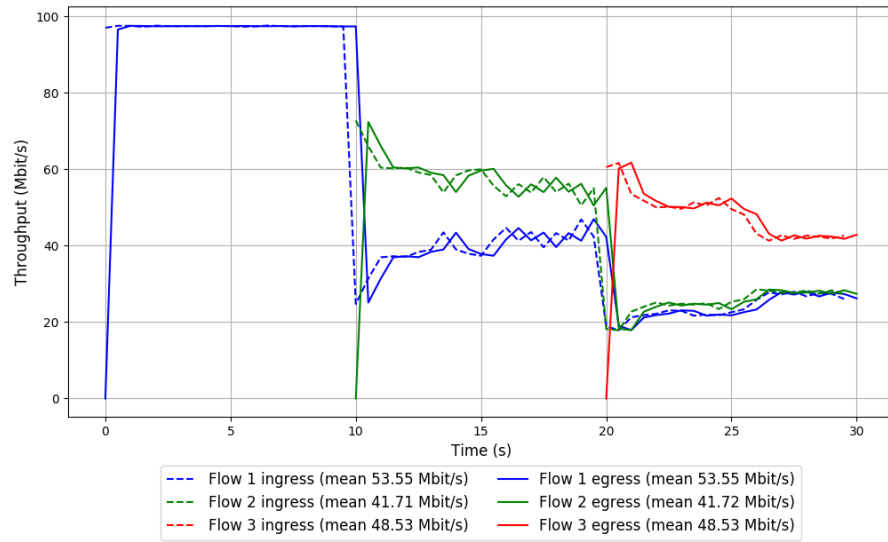
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 44.91 Mbit/s) --- Flow 1 egress (mean 44.91 Mbit/s)
Flow 2 ingress (mean 53.79 Mbit/s) --- Flow 2 egress (mean 53.78 Mbit/s)
Flow 3 ingress (mean 50.43 Mbit/s) --- Flow 3 egress (mean 50.43 Mbit/s)

Flow 1 (95th percentile 5.15 ms)   Flow 2 (95th percentile 4.46 ms)   Flow 3 (95th percentile 3.71 ms)

148

```
Run 3: Statistics of TCP Vegas

Start at: 2018-11-15 05:48:02
End at: 2018-11-15 05:48:32
Local clock offset: -7.833 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2018-11-15 06:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 2.950 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.55 Mbit/s
95th percentile per-packet one-way delay: 2.896 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 2.954 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.53 Mbit/s
95th percentile per-packet one-way delay: 3.172 ms
Loss rate: 0.00%
```
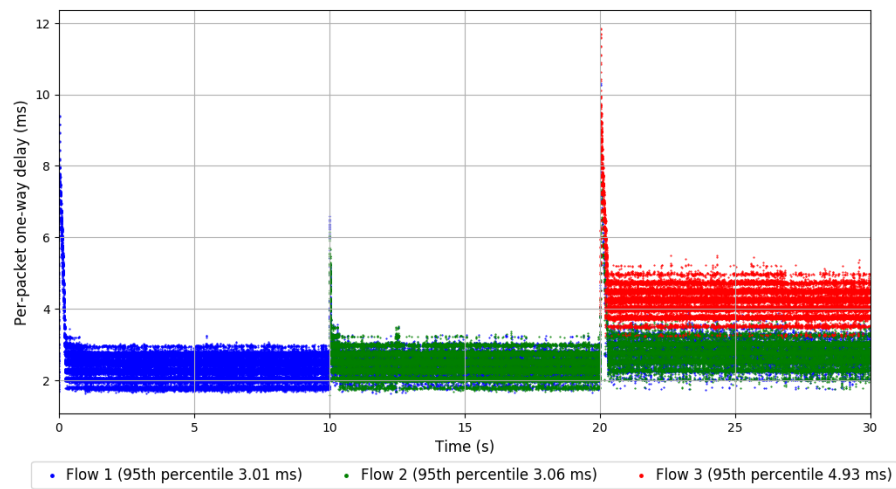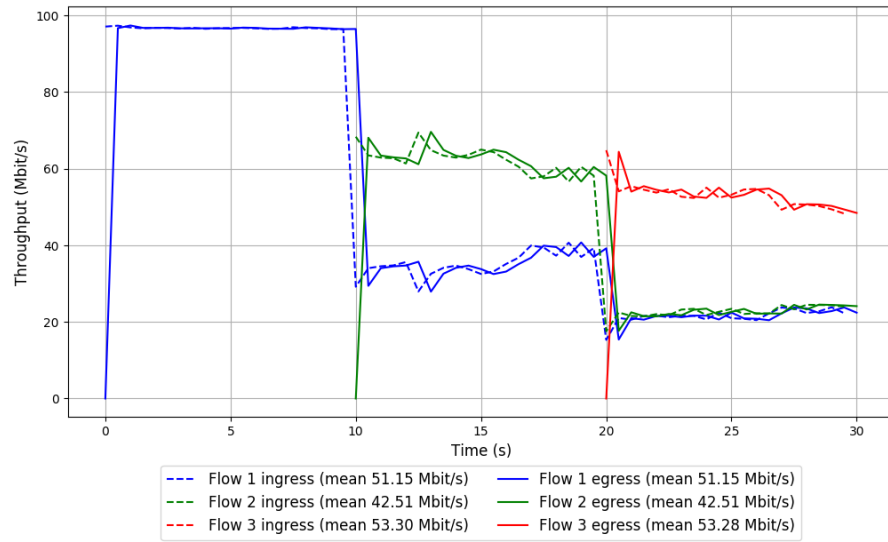
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 53.55 Mbit/s) --- Flow 1 egress (mean 53.55 Mbit/s)
Flow 2 ingress (mean 41.71 Mbit/s) --- Flow 2 egress (mean 41.72 Mbit/s)
Flow 3 ingress (mean 48.53 Mbit/s) --- Flow 3 egress (mean 48.53 Mbit/s)

Flow 1 (95th percentile 2.90 ms)   Flow 2 (95th percentile 2.95 ms)   Flow 3 (95th percentile 3.17 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-11-15 06:08:27
End at: 2018-11-15 06:08:57
Local clock offset: -6.717 ms
Remote clock offset: 0.159 ms


# Below is generated by plot.py at 2018-11-15 06:40:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 4.479 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.15 Mbit/s
95th percentile per-packet one-way delay: 3.011 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.51 Mbit/s
95th percentile per-packet one-way delay: 3.064 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.28 Mbit/s
95th percentile per-packet one-way delay: 4.927 ms
Loss rate: 0.02%
```
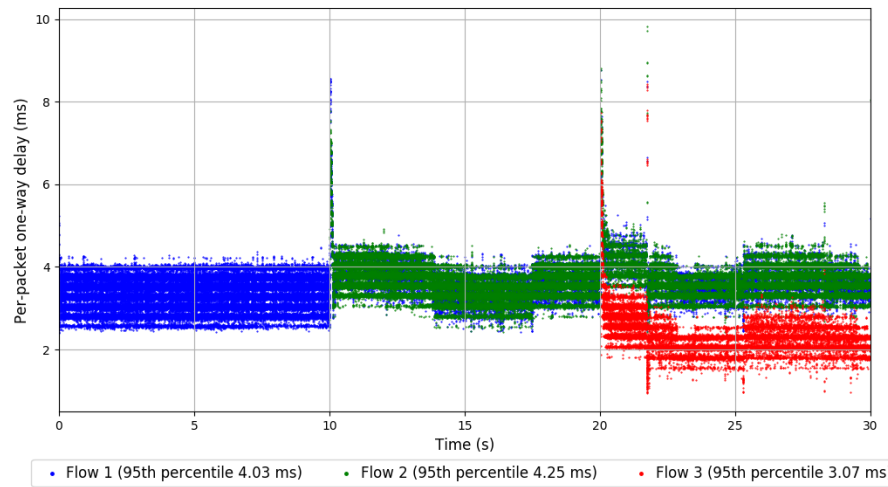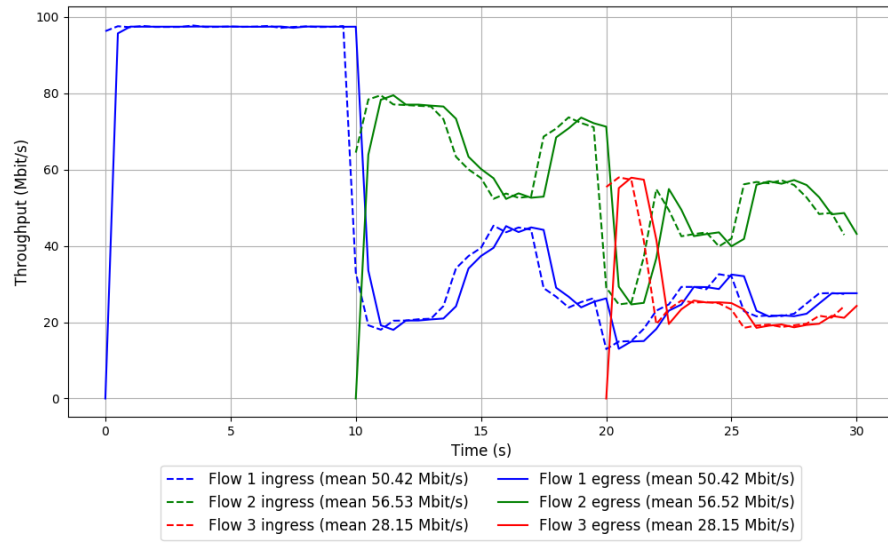
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-11-15 06:28:52
End at: 2018-11-15 06:29:22
Local clock offset: -5.573 ms
Remote clock offset: 0.21 ms


# Below is generated by plot.py at 2018-11-15 06:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.42 Mbit/s
95th percentile per-packet one-way delay: 4.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.42 Mbit/s
95th percentile per-packet one-way delay: 4.026 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.52 Mbit/s
95th percentile per-packet one-way delay: 4.253 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 28.15 Mbit/s
95th percentile per-packet one-way delay: 3.068 ms
Loss rate: 0.00%
```
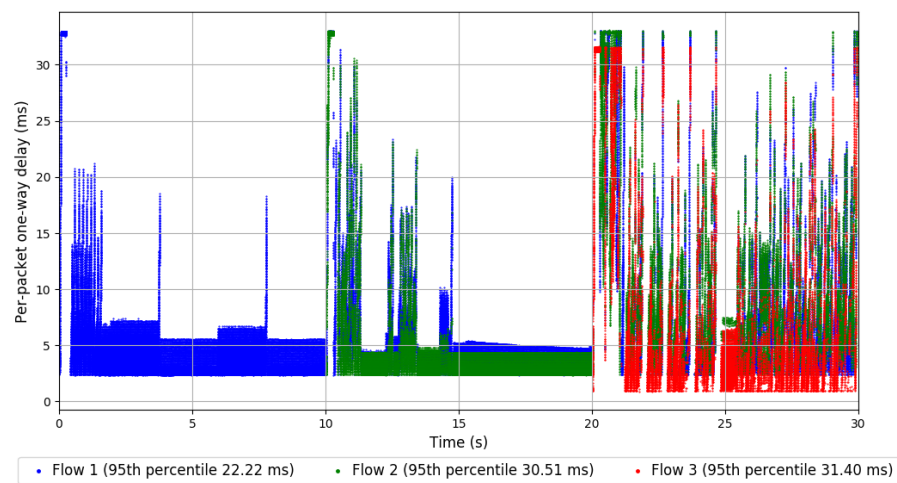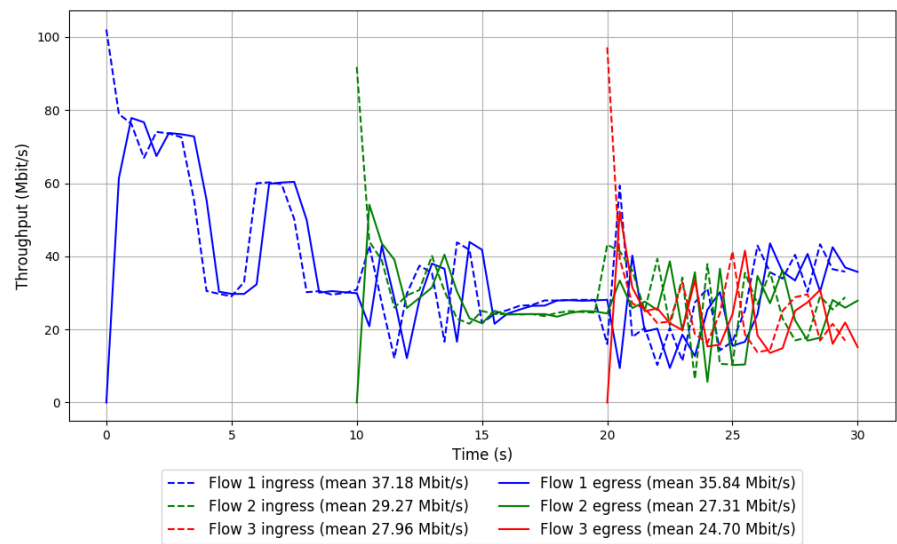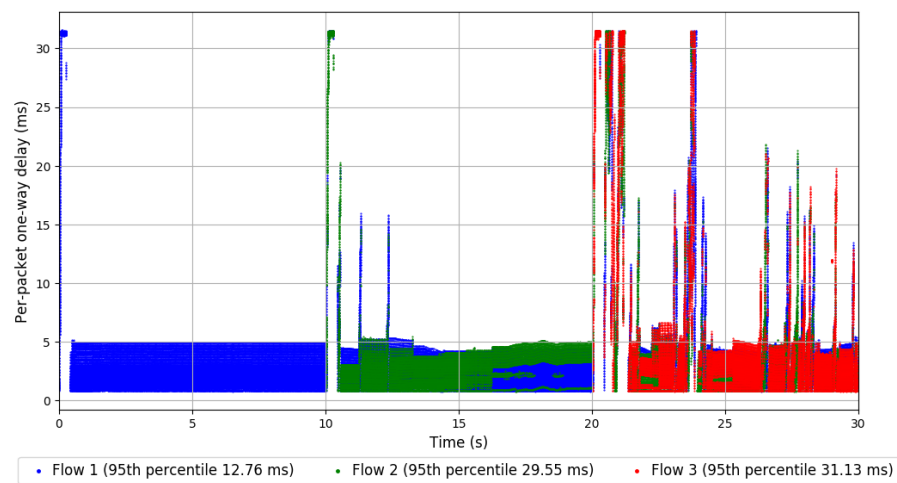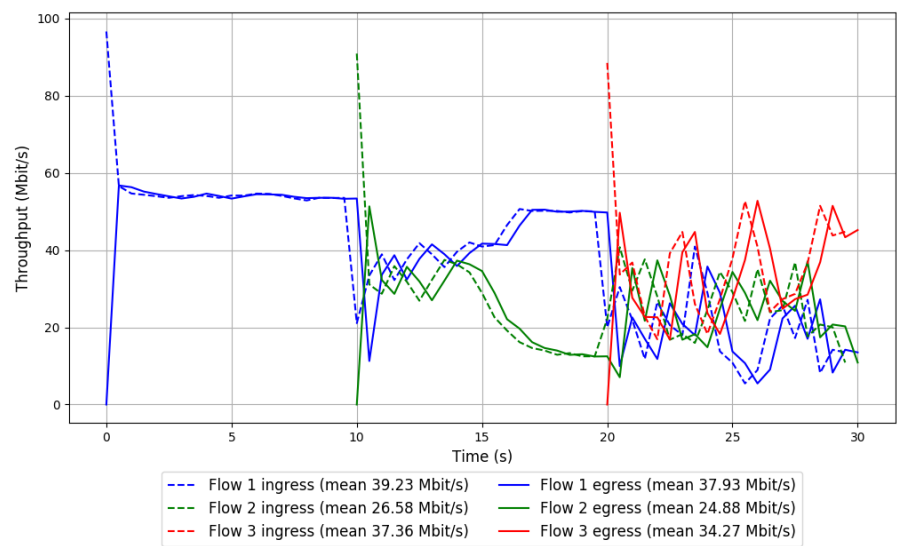
Run 5: Report of TCP Vegas — Data Link

- - - Flow 1 ingress (mean 50.42 Mbit/s) ——— Flow 1 egress (mean 50.42 Mbit/s)
- - - Flow 2 ingress (mean 56.53 Mbit/s) ——— Flow 2 egress (mean 56.52 Mbit/s)
- - - Flow 3 ingress (mean 28.15 Mbit/s) ——— Flow 3 egress (mean 28.15 Mbit/s)

• Flow 1 (95th percentile 4.03 ms)   • Flow 2 (95th percentile 4.25 ms)   • Flow 3 (95th percentile 3.07 ms)
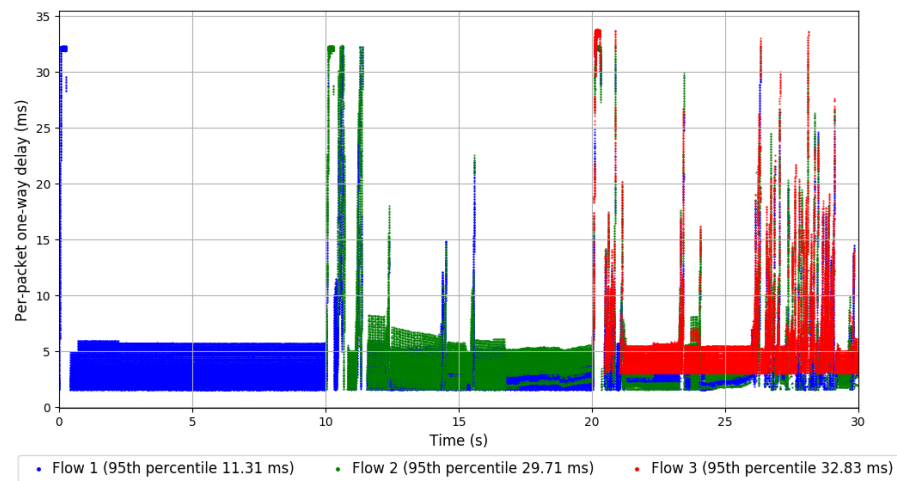
154

```
Run 1: Statistics of Verus

Start at: 2018-11-15 05:04:49
End at: 2018-11-15 05:05:19
Local clock offset: -7.966 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-11-15 06:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.18 Mbit/s
95th percentile per-packet one-way delay: 29.379 ms
Loss rate: 5.53%
-- Flow 1:
Average throughput: 35.84 Mbit/s
95th percentile per-packet one-way delay: 22.222 ms
Loss rate: 3.52%
-- Flow 2:
Average throughput: 27.31 Mbit/s
95th percentile per-packet one-way delay: 30.509 ms
Loss rate: 6.58%
-- Flow 3:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 31.402 ms
Loss rate: 11.41%
```
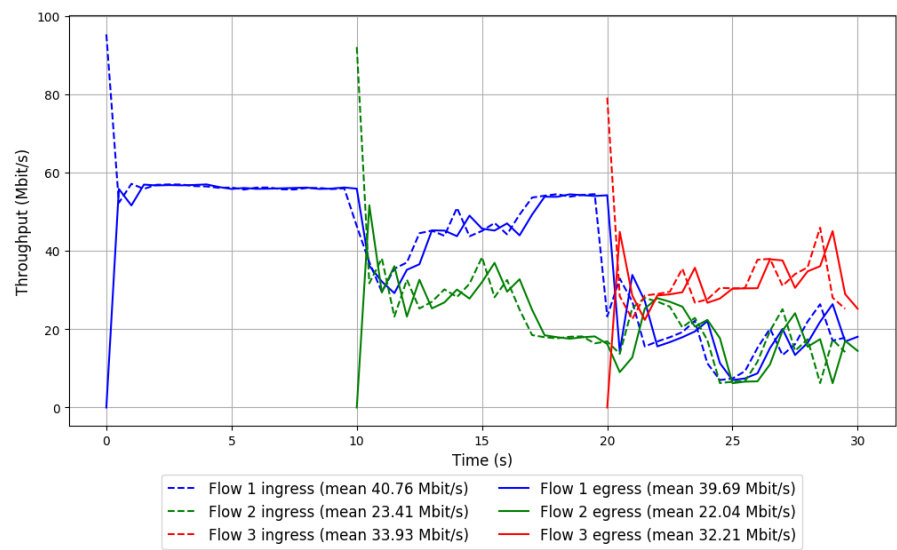
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-11-15 05:25:19
End at: 2018-11-15 05:25:49
Local clock offset: -8.079 ms
Remote clock offset: -0.102 ms


# Below is generated by plot.py at 2018-11-15 06:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.85 Mbit/s
95th percentile per-packet one-way delay: 24.889 ms
Loss rate: 4.99%
-- Flow 1:
Average throughput: 37.93 Mbit/s
95th percentile per-packet one-way delay: 12.763 ms
Loss rate: 3.32%
-- Flow 2:
Average throughput: 24.88 Mbit/s
95th percentile per-packet one-way delay: 29.552 ms
Loss rate: 6.40%
-- Flow 3:
Average throughput: 34.27 Mbit/s
95th percentile per-packet one-way delay: 31.127 ms
Loss rate: 8.25%
```
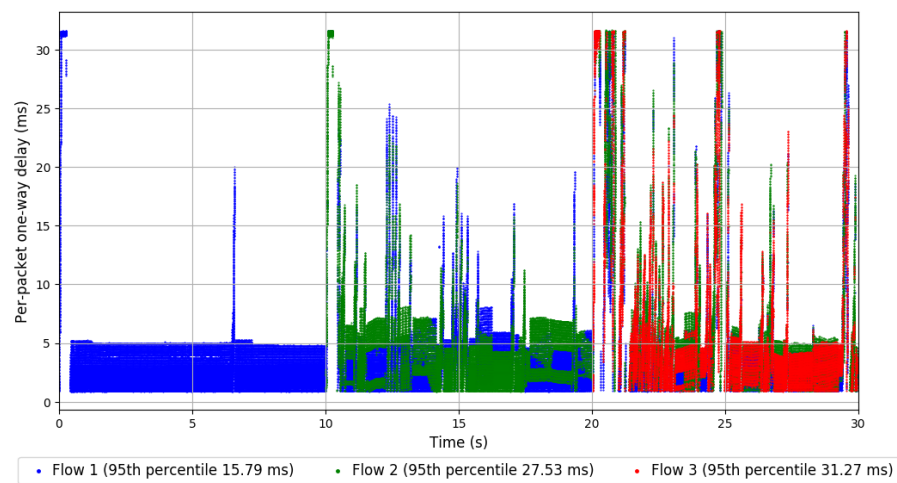
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-11-15 05:45:43
End at: 2018-11-15 05:46:13
Local clock offset: -7.89 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2018-11-15 06:40:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 20.267 ms
Loss rate: 3.77%
-- Flow 1:
Average throughput: 39.69 Mbit/s
95th percentile per-packet one-way delay: 11.310 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 29.711 ms
Loss rate: 5.86%
-- Flow 3:
Average throughput: 32.21 Mbit/s
95th percentile per-packet one-way delay: 32.831 ms
Loss rate: 5.06%
```
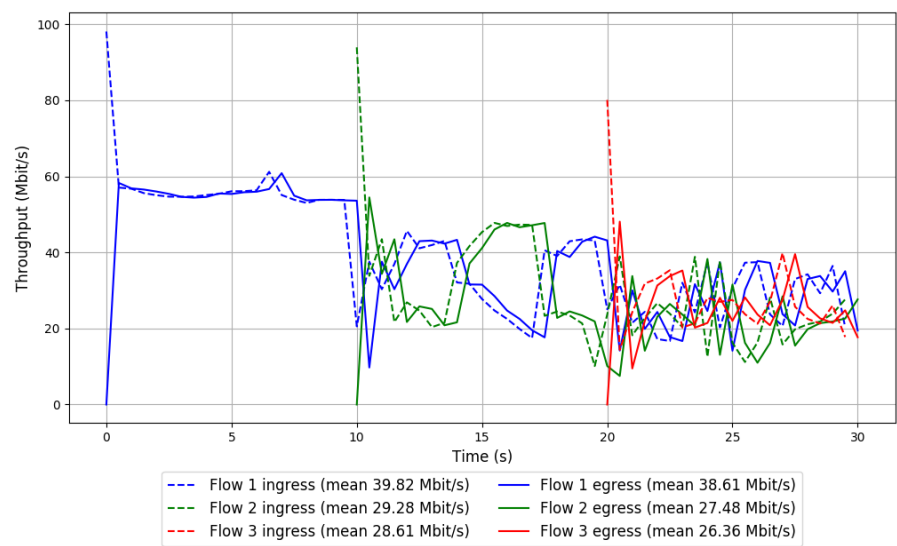
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-11-15 06:06:08
End at: 2018-11-15 06:06:38
Local clock offset: -6.167 ms
Remote clock offset: 0.115 ms


# Below is generated by plot.py at 2018-11-15 06:40:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.64 Mbit/s
95th percentile per-packet one-way delay: 23.531 ms
Loss rate: 4.58%
-- Flow 1:
Average throughput: 38.61 Mbit/s
95th percentile per-packet one-way delay: 15.789 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 27.48 Mbit/s
95th percentile per-packet one-way delay: 27.526 ms
Loss rate: 6.14%
-- Flow 3:
Average throughput: 26.36 Mbit/s
95th percentile per-packet one-way delay: 31.269 ms
Loss rate: 7.87%
```
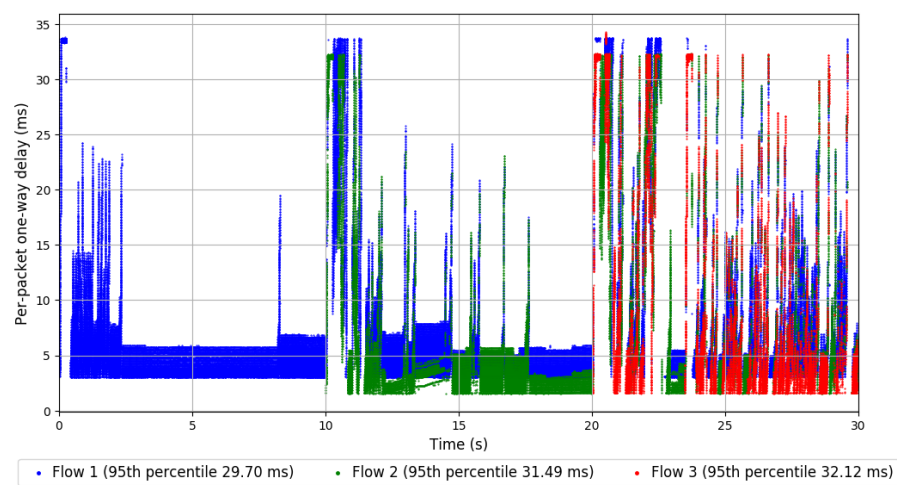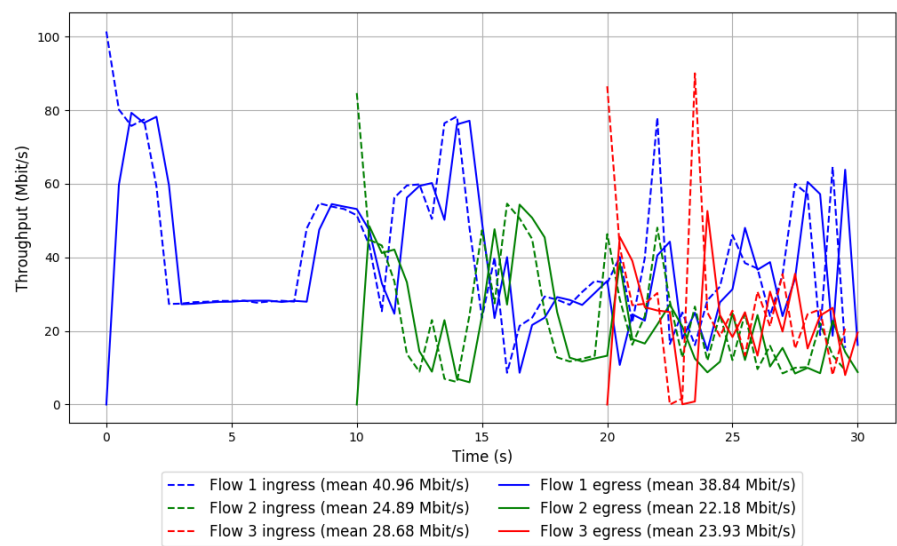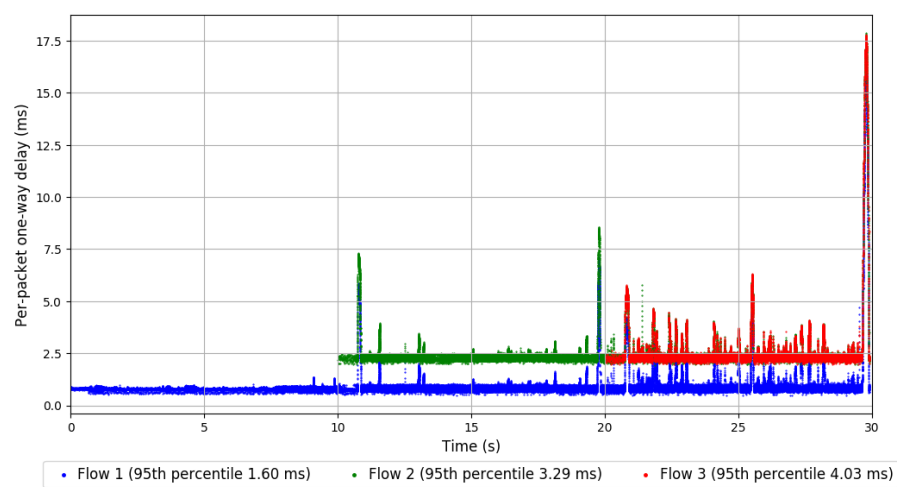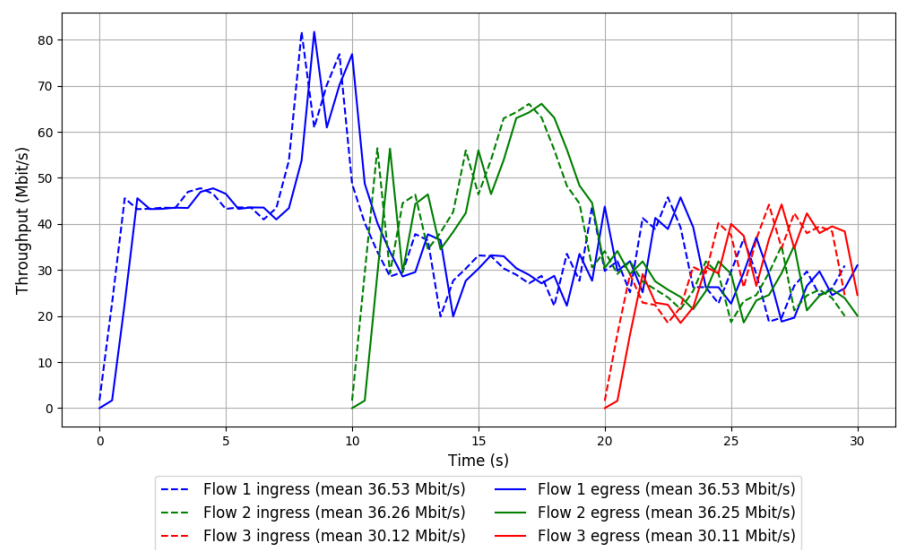
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-11-15 06:26:33
End at: 2018-11-15 06:27:03
Local clock offset: -6.282 ms
Remote clock offset: 0.182 ms


# Below is generated by plot.py at 2018-11-15 06:40:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.55 Mbit/s
95th percentile per-packet one-way delay: 31.946 ms
Loss rate: 8.20%
-- Flow 1:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 29.704 ms
Loss rate: 5.19%
-- Flow 2:
Average throughput: 22.18 Mbit/s
95th percentile per-packet one-way delay: 31.493 ms
Loss rate: 10.86%
-- Flow 3:
Average throughput: 23.93 Mbit/s
95th percentile per-packet one-way delay: 32.123 ms
Loss rate: 16.54%
```
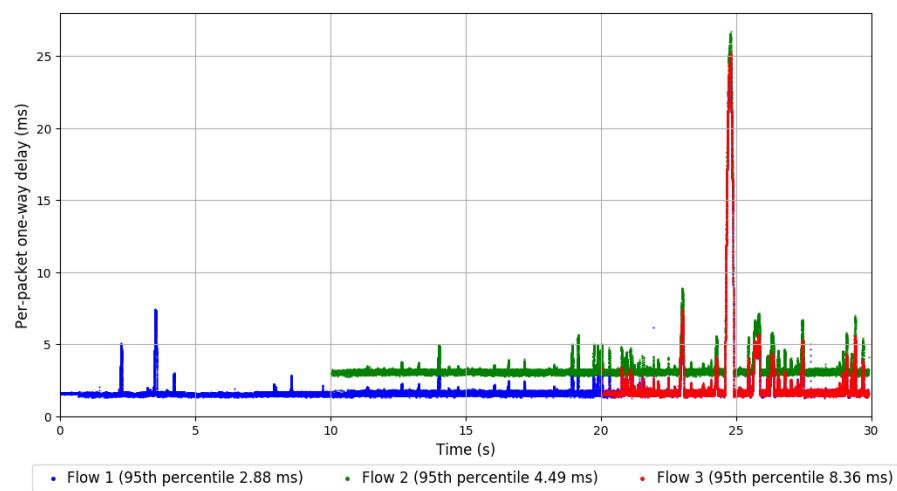
Run 5: Report of Verus — Data Link

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```
Run 1: Statistics of PCC-Vivace

Start at: 2018-11-15 04:54:41
End at: 2018-11-15 04:55:11
Local clock offset: -8.486 ms
Remote clock offset: -0.274 ms


# Below is generated by plot.py at 2018-11-15 06:40:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.58 Mbit/s
95th percentile per-packet one-way delay: 3.018 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 36.53 Mbit/s
95th percentile per-packet one-way delay: 1.597 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.25 Mbit/s
95th percentile per-packet one-way delay: 3.293 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.11 Mbit/s
95th percentile per-packet one-way delay: 4.033 ms
Loss rate: 0.00%
```

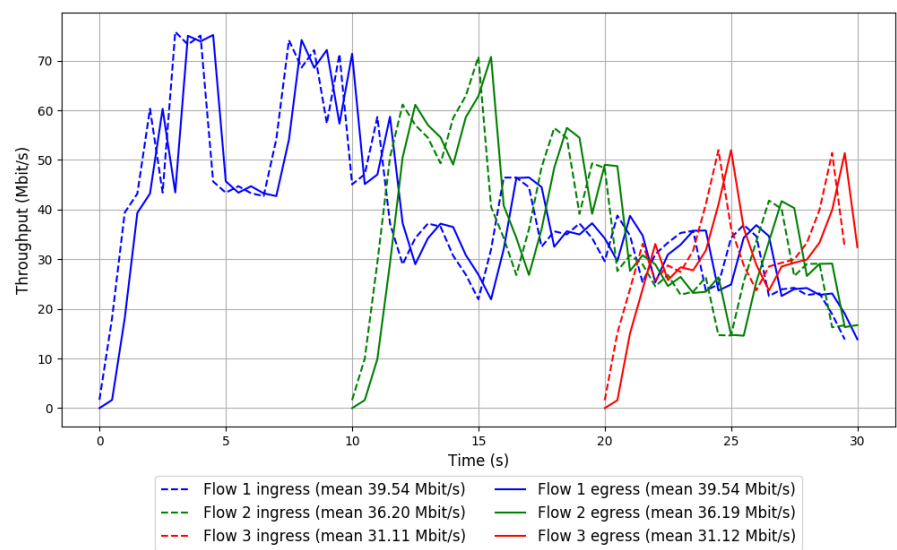# Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-11-15 05:15:12
End at: 2018-11-15 05:15:42
Local clock offset: -8.583 ms
Remote clock offset: -0.285 ms


# Below is generated by plot.py at 2018-11-15 06:40:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.88 Mbit/s
95th percentile per-packet one-way delay: 4.139 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 39.54 Mbit/s
95th percentile per-packet one-way delay: 2.878 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.19 Mbit/s
95th percentile per-packet one-way delay: 4.490 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 8.362 ms
Loss rate: 0.00%
```

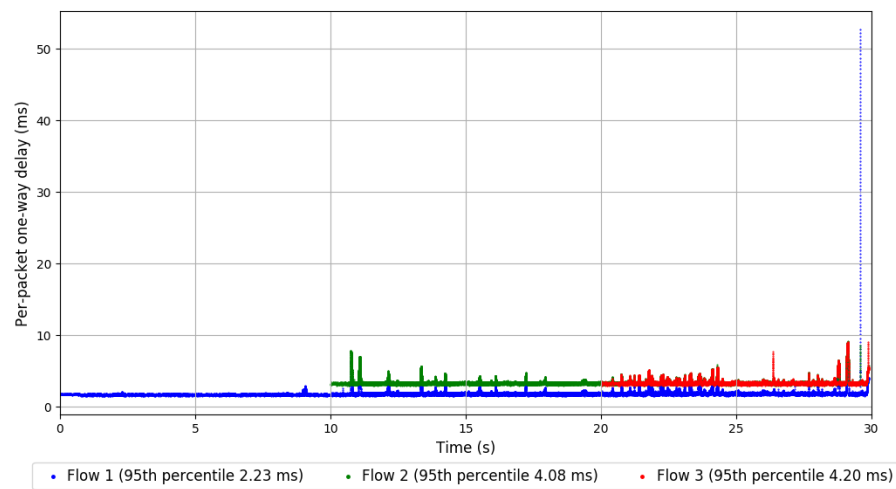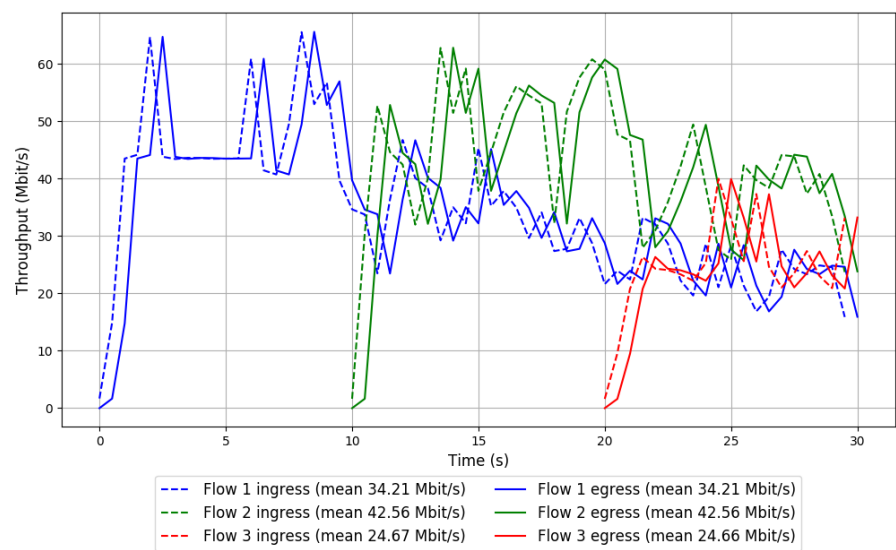Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-11-15 05:35:36
End at: 2018-11-15 05:36:06
Local clock offset: -8.085 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2018-11-15 06:40:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.66 Mbit/s
95th percentile per-packet one-way delay: 3.664 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 34.21 Mbit/s
95th percentile per-packet one-way delay: 2.225 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.56 Mbit/s
95th percentile per-packet one-way delay: 4.082 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 4.200 ms
Loss rate: 0.03%
```
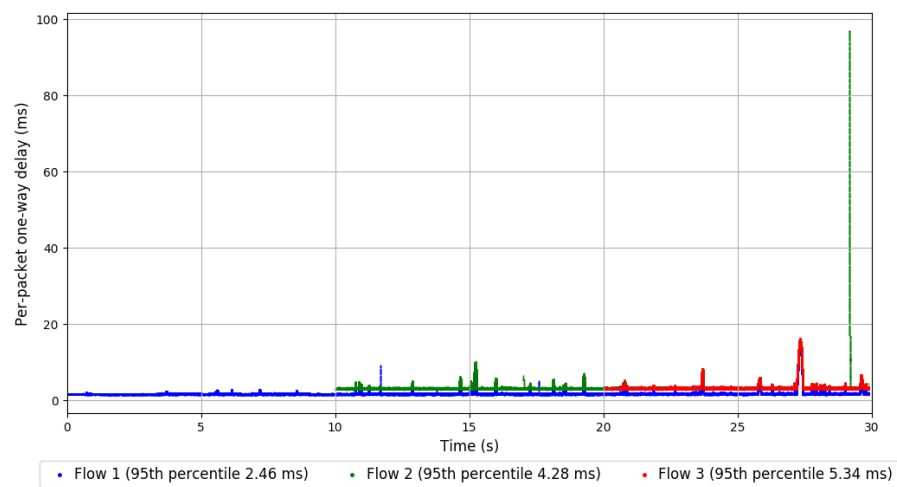
Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-11-15 05:56:00
End at: 2018-11-15 05:56:30
Local clock offset: -7.901 ms
Remote clock offset: 0.008 ms


# Below is generated by plot.py at 2018-11-15 06:40:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.60 Mbit/s
95th percentile per-packet one-way delay: 3.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 39.55 Mbit/s
95th percentile per-packet one-way delay: 2.464 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.72 Mbit/s
95th percentile per-packet one-way delay: 4.281 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.13 Mbit/s
95th percentile per-packet one-way delay: 5.344 ms
Loss rate: 0.01%
```
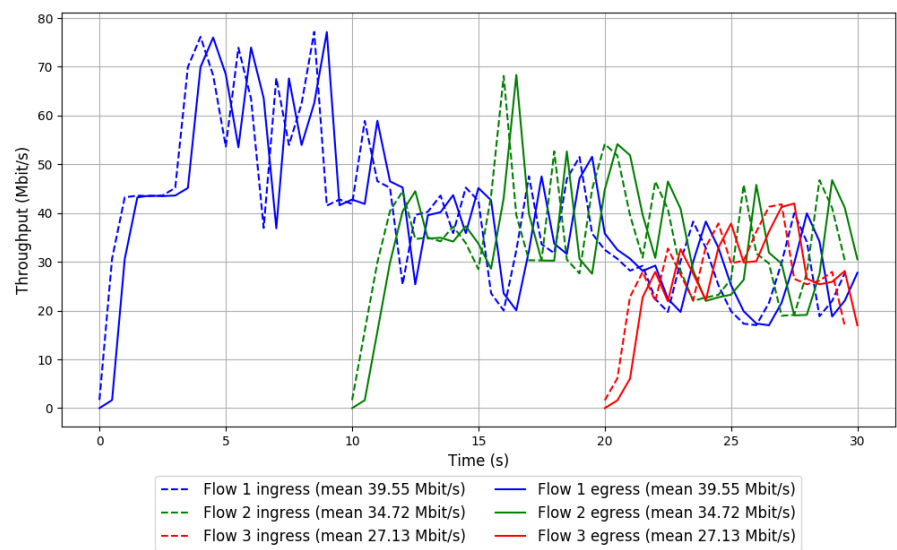
Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-11-15 06:16:25
End at: 2018-11-15 06:16:55
Local clock offset: -6.5 ms
Remote clock offset: 0.138 ms


# Below is generated by plot.py at 2018-11-15 06:40:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.81 Mbit/s
95th percentile per-packet one-way delay: 4.321 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 2.958 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.44 Mbit/s
95th percentile per-packet one-way delay: 4.918 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.02 Mbit/s
95th percentile per-packet one-way delay: 4.920 ms
Loss rate: 0.00%
```
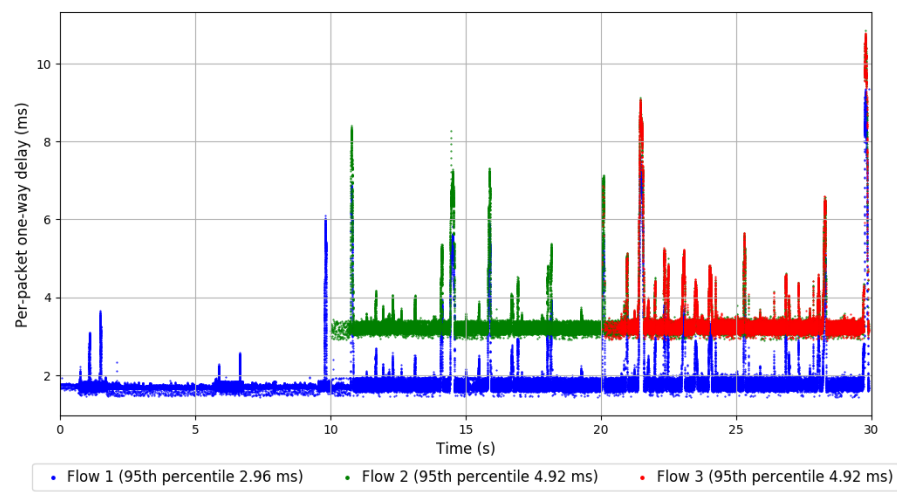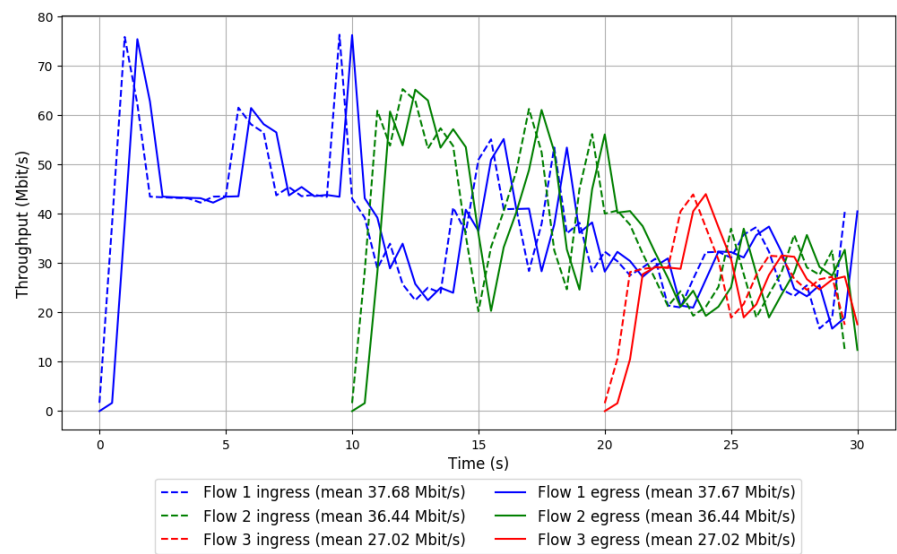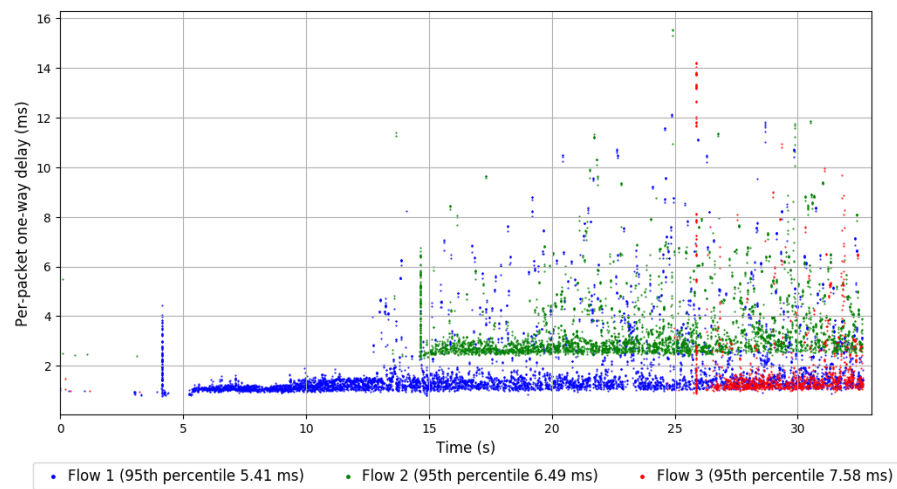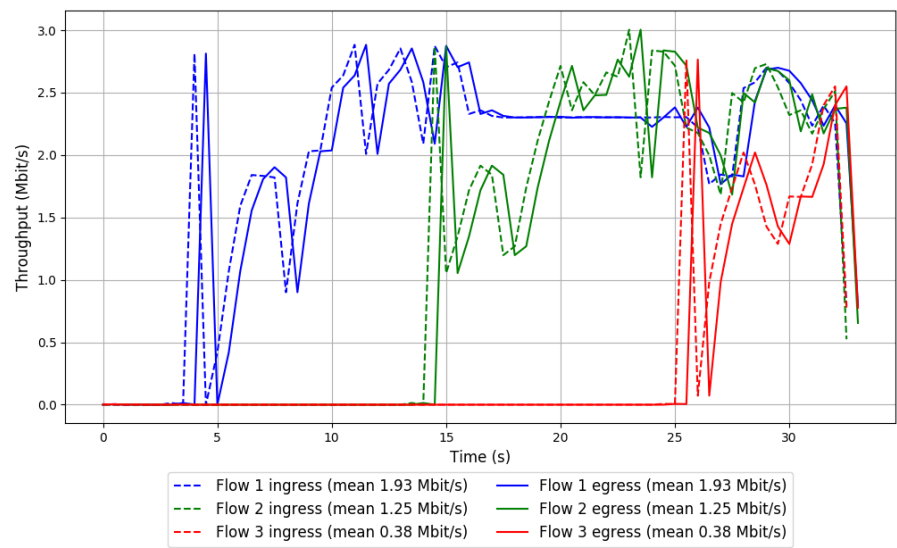
Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-11-15 04:56:57
End at: 2018-11-15 04:57:27
Local clock offset: -8.686 ms
Remote clock offset: -0.272 ms


# Below is generated by plot.py at 2018-11-15 06:40:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 6.199 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 5.408 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 6.490 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 7.580 ms
Loss rate: 0.00%
```

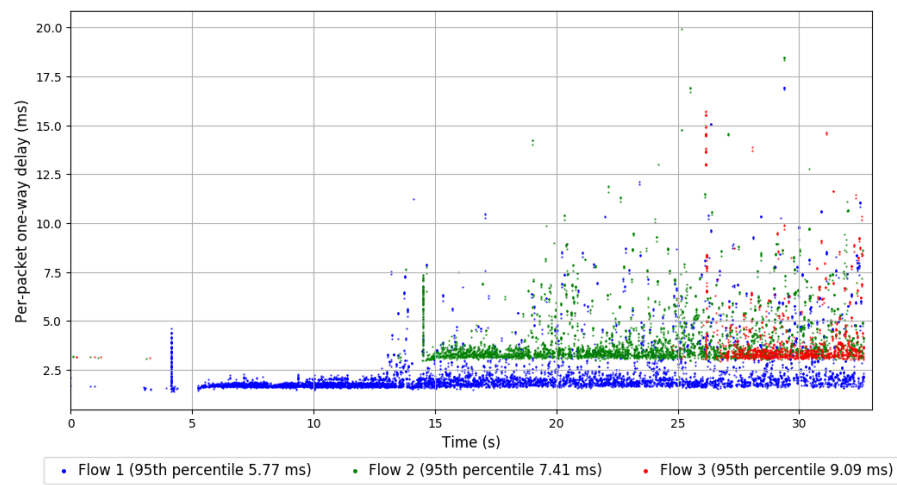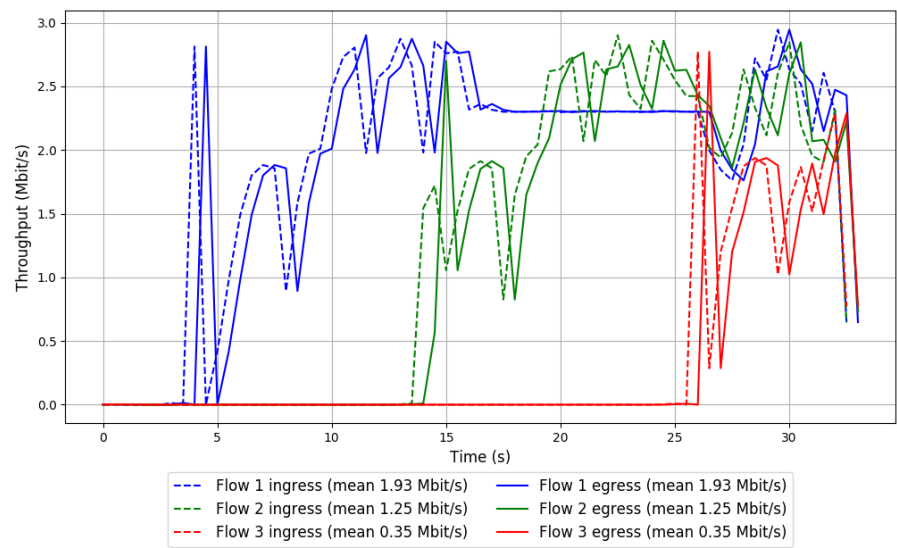Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-11-15 05:17:29
End at: 2018-11-15 05:17:59
Local clock offset: -8.616 ms
Remote clock offset: -0.231 ms


# Below is generated by plot.py at 2018-11-15 06:40:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 7.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 5.771 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 7.405 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 9.089 ms
Loss rate: 0.00%
```

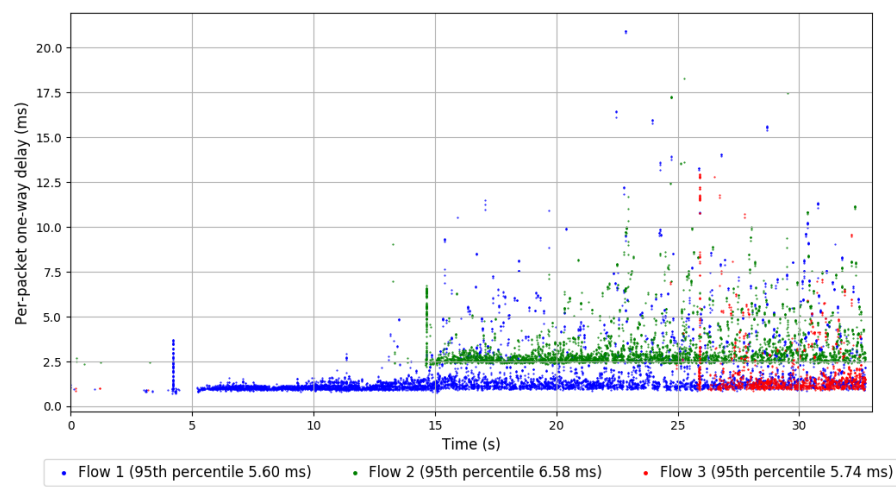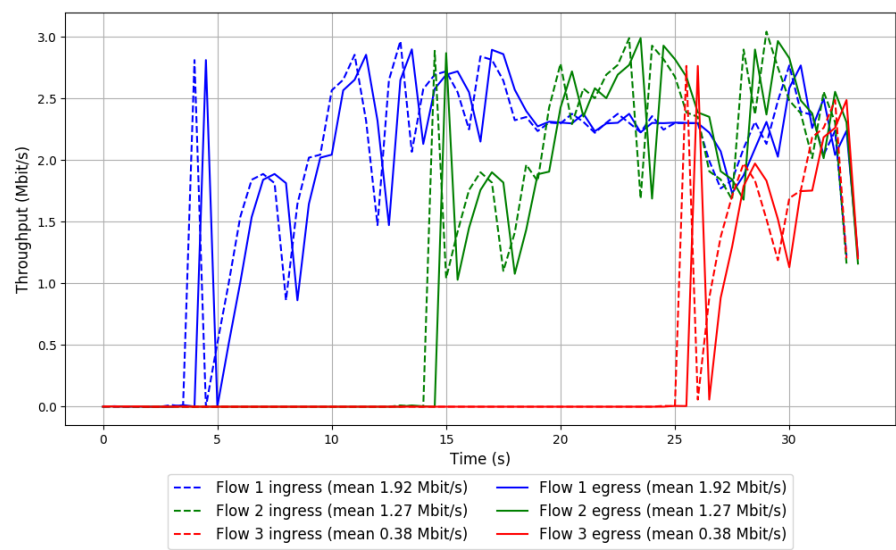Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-11-15 05:37:52
End at: 2018-11-15 05:38:22
Local clock offset: -7.201 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-11-15 06:40:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 6.138 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 5.600 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 6.583 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 5.736 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-11-15 05:58:17
End at: 2018-11-15 05:58:47
Local clock offset: -7.648 ms
Remote clock offset: 0.069 ms


# Below is generated by plot.py at 2018-11-15 06:40:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 6.536 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 5.434 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 7.120 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 7.195 ms
Loss rate: 0.00%
```
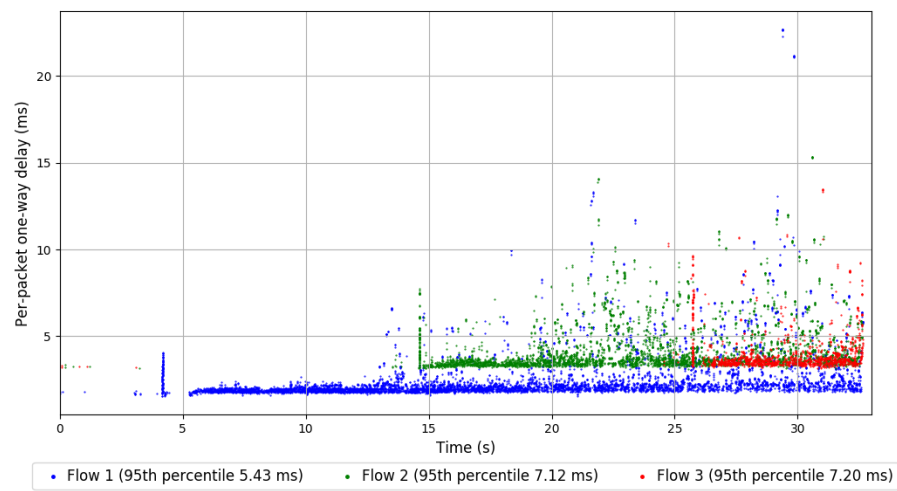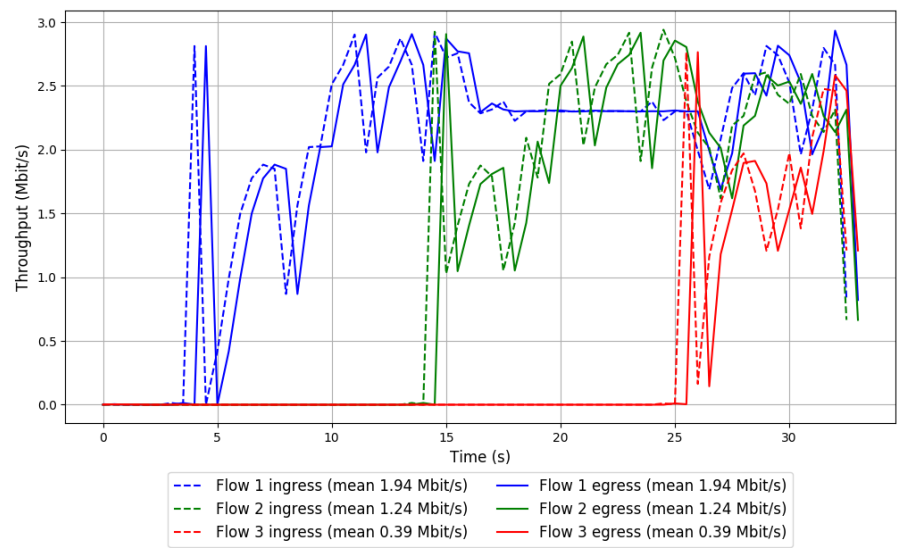
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-11-15 06:18:41
End at: 2018-11-15 06:19:11
Local clock offset: -5.642 ms
Remote clock offset: 0.207 ms


# Below is generated by plot.py at 2018-11-15 06:40:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 5.373 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 4.802 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 4.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 9.600 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link