Pantheon Report

Generated at 2018-10-10 20:09:31 (UTC).

Data path: GCE London on **ens4** (*local*) →GCE Iowa on **ens4** (*remote*).

Repeated the test of 18 congestion control schemes 5 times.

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

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

```
System info:
Linux 4.15.0-1021-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

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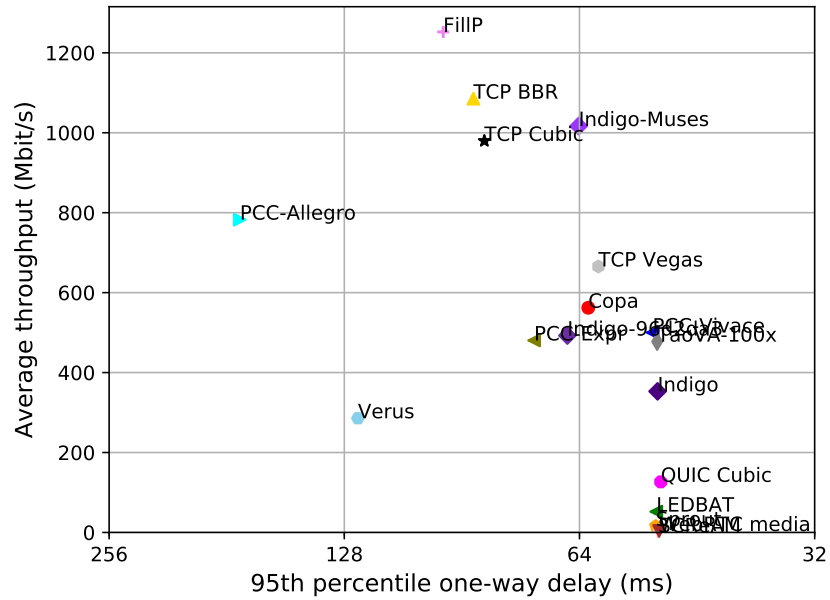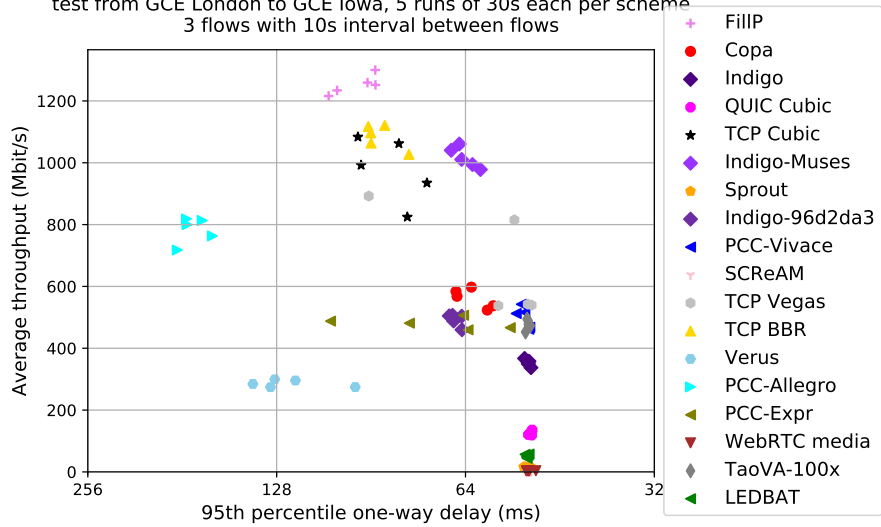
```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE London to GCE Iowa, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)

test from GCE London to GCE Iowa, 5 runs of 30s each per scheme
3 flows with 10s interval between flows

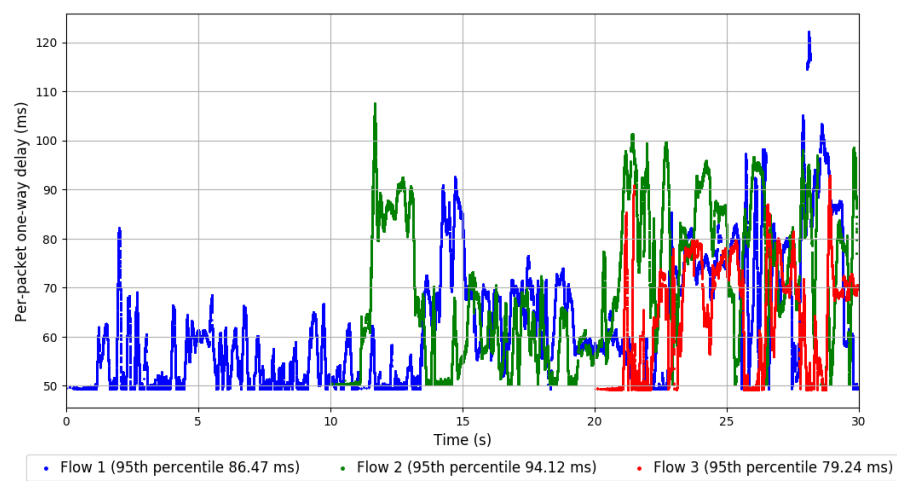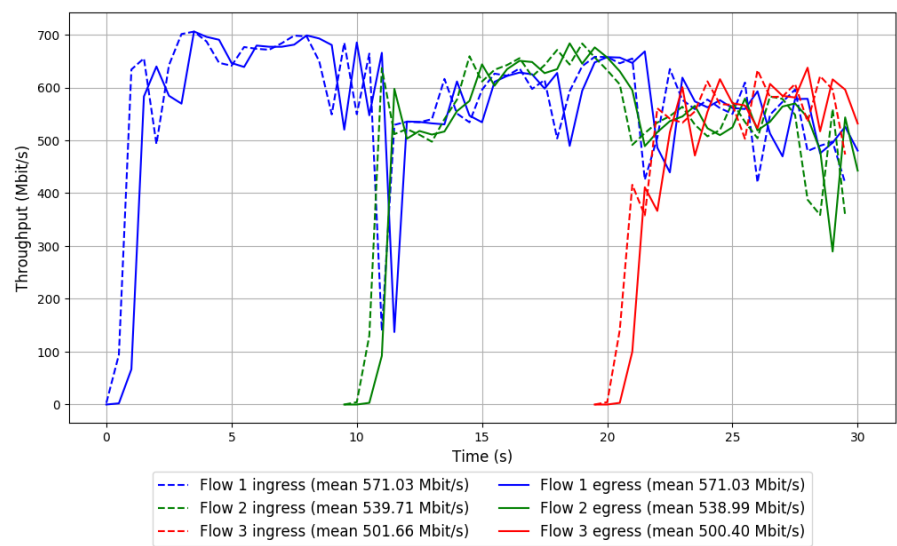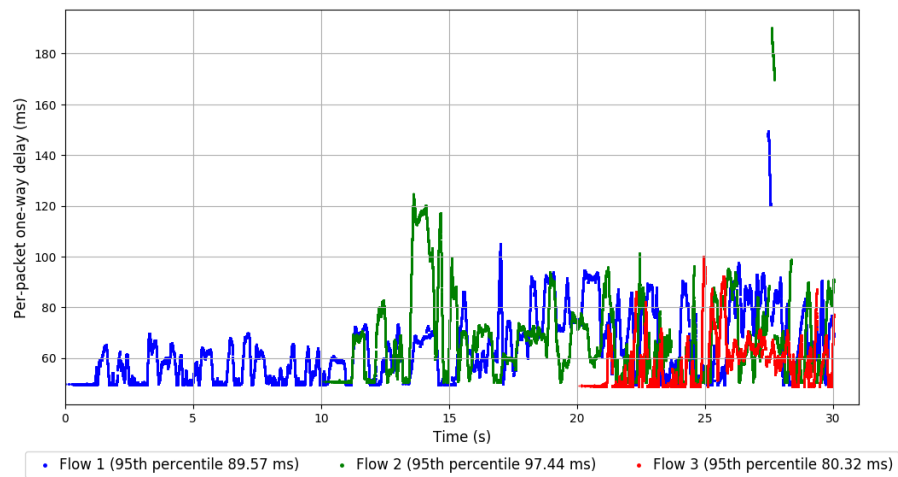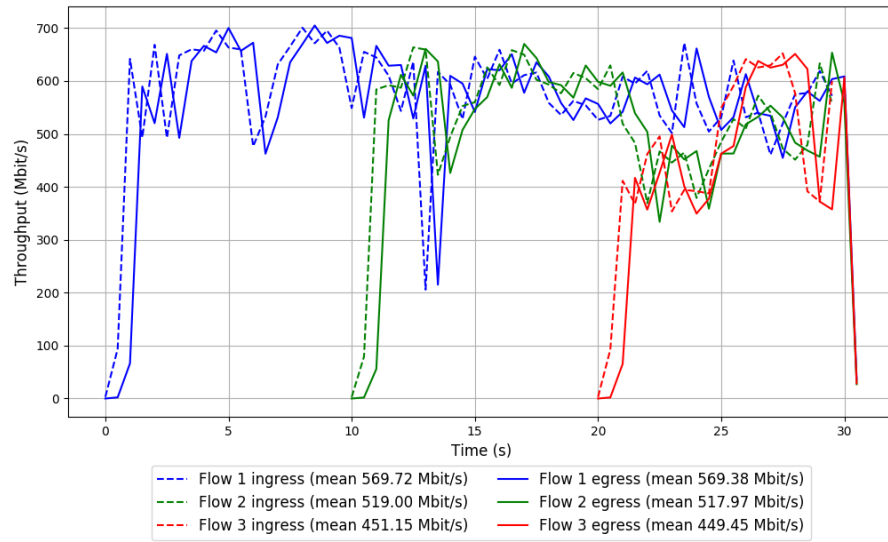| scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	571.37	536.40	470.68	84.75	88.39	83.32	0.04	0.11	0.31
Copa	5	282.70	285.96	267.95	60.96	67.33	59.23	0.00	0.01	0.22
TCP Cubic	5	500.83	480.89	477.11	74.26	85.42	80.40	0.05	0.01	0.08
FillP	5	678.27	610.28	505.37	99.83	86.30	65.46	0.21	0.22	0.02
Indigo	5	190.20	169.57	155.40	50.61	50.51	50.93	0.00	0.00	0.01
Indigo-96d2da3	5	254.26	249.91	221.65	67.18	67.10	62.07	0.01	0.04	0.00
LEDBAT	5	31.64	24.72	12.37	50.79	50.88	50.71	0.00	0.00	0.00
Indigo-Muses	5	565.59	485.23	394.55	66.49	59.83	55.75	0.01	0.00	0.00
PCC-Allegro	5	420.22	404.84	283.30	183.10	151.70	107.39	3.36	2.41	0.44
PCC-Expr	5	271.42	239.94	149.52	80.79	68.22	52.05	0.23	0.02	0.00
QUIC Cubic	5	68.20	63.72	48.89	49.90	49.99	50.29	0.00	0.00	0.00
SCReAM	5	0.22	0.22	0.22	50.34	50.30	50.27	0.00	0.00	0.00
Sprout	5	8.21	8.17	7.85	50.72	50.90	50.48	0.00	0.00	0.00
TaoVA-100x	5	242.59	240.77	224.09	50.75	50.89	50.68	0.00	0.00	0.00
TCP Vegas	5	337.08	364.98	256.94	51.37	58.69	63.09	0.00	0.00	0.00
Verus	5	168.98	129.24	94.98	119.33	132.43	84.55	0.03	0.63	0.02
PCC-Vivace	5	303.01	235.37	122.51	52.41	59.81	50.48	0.00	0.06	0.00
WebRTC media	5	1.98	1.22	0.47	49.75	50.64	50.08	0.00	0.00	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-10-10 15:06:33
End at: 2018-10-10 15:07:03
Local clock offset: 0.06 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2018-10-10 18:08:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1096.76 Mbit/s
95th percentile per-packet one-way delay: 90.626 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 571.03 Mbit/s
95th percentile per-packet one-way delay: 86.472 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 538.99 Mbit/s
95th percentile per-packet one-way delay: 94.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 500.40 Mbit/s
95th percentile per-packet one-way delay: 79.238 ms
Loss rate: 0.23%
```
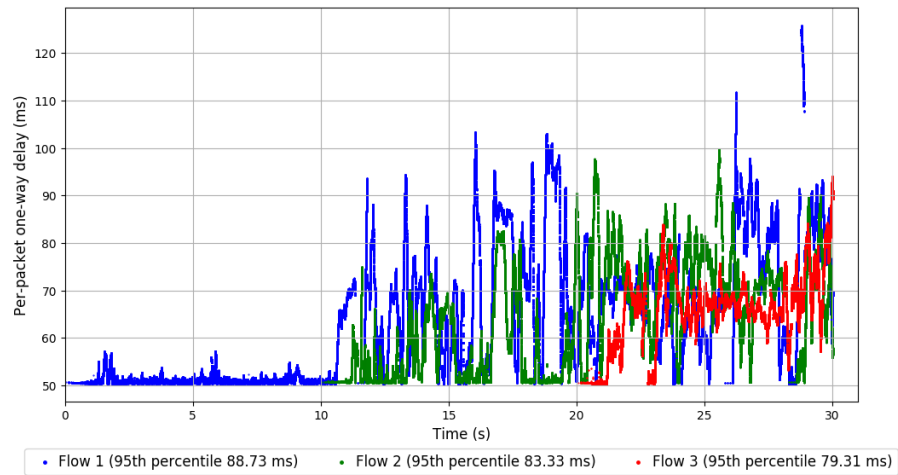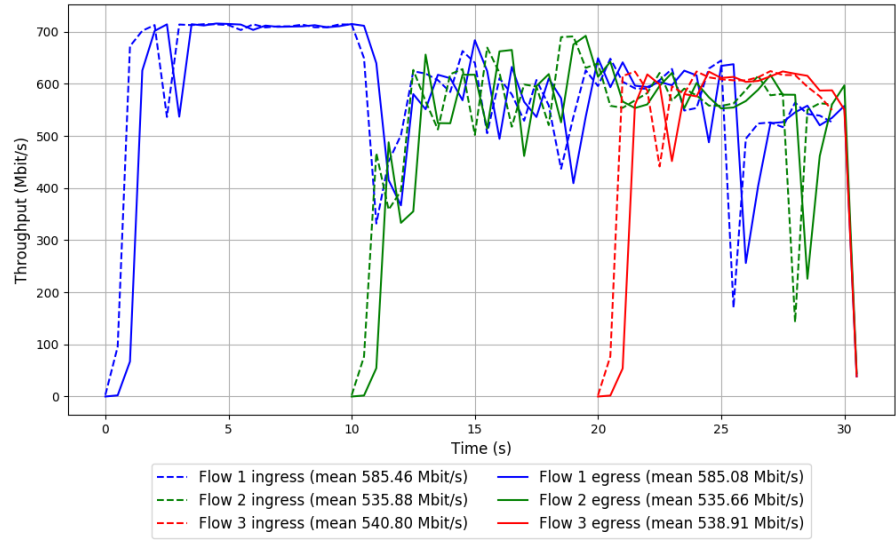
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 571.03 Mbit/s) Flow 1 egress (mean 571.03 Mbit/s)
Flow 2 ingress (mean 539.71 Mbit/s) Flow 2 egress (mean 538.99 Mbit/s)
Flow 3 ingress (mean 501.66 Mbit/s) Flow 3 egress (mean 500.40 Mbit/s)

Flow 1 (95th percentile 86.47 ms)   Flow 2 (95th percentile 94.12 ms)   Flow 3 (95th percentile 79.24 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-10-10 15:36:40
End at: 2018-10-10 15:37:10
Local clock offset: -0.231 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2018-10-10 18:08:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1063.74 Mbit/s
95th percentile per-packet one-way delay: 90.519 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 569.38 Mbit/s
95th percentile per-packet one-way delay: 89.568 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 517.97 Mbit/s
95th percentile per-packet one-way delay: 97.443 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 449.45 Mbit/s
95th percentile per-packet one-way delay: 80.321 ms
Loss rate: 0.36%
```

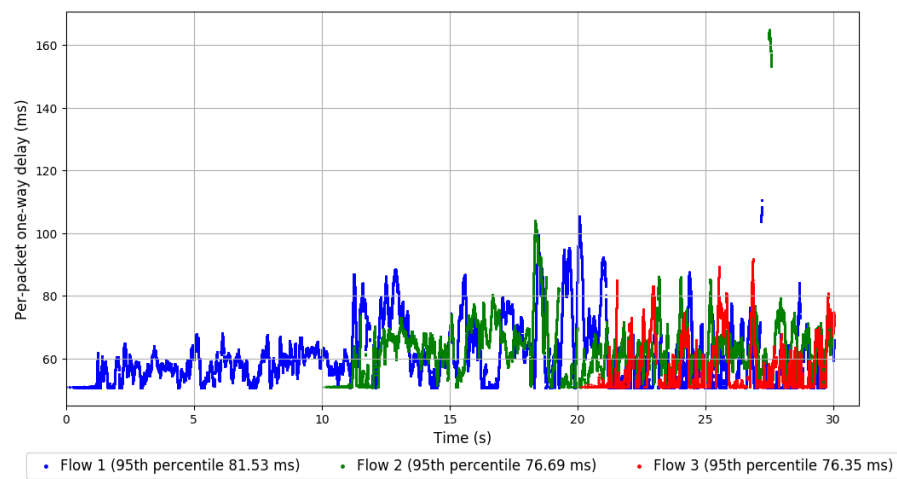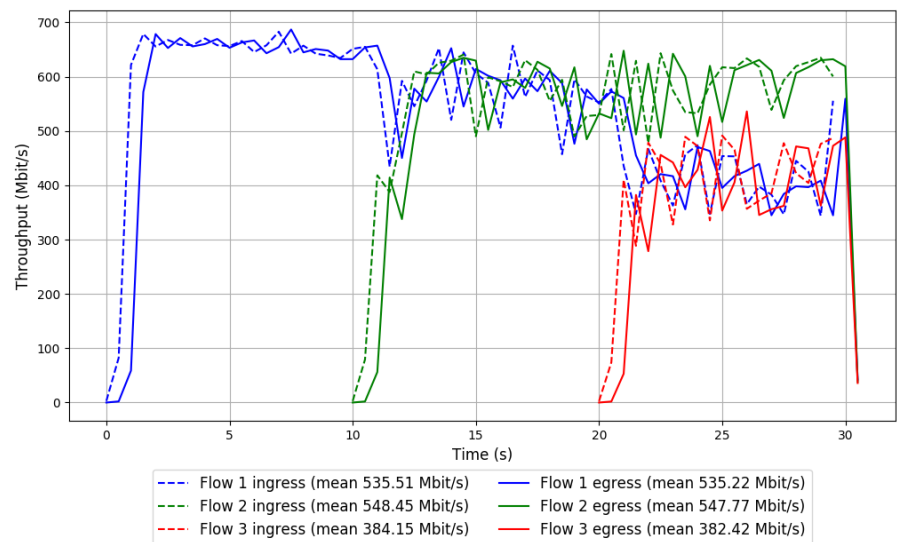Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-10-10 16:07:18
End at: 2018-10-10 16:07:48
Local clock offset: -0.472 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-10-10 18:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1120.93 Mbit/s
95th percentile per-packet one-way delay: 86.080 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 585.08 Mbit/s
95th percentile per-packet one-way delay: 88.728 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 535.66 Mbit/s
95th percentile per-packet one-way delay: 83.333 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 538.91 Mbit/s
95th percentile per-packet one-way delay: 79.310 ms
Loss rate: 0.35%
```

Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-10-10 16:37:35
End at: 2018-10-10 16:38:05
Local clock offset: -0.604 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2018-10-10 18:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1027.19 Mbit/s
95th percentile per-packet one-way delay: 78.765 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 535.22 Mbit/s
95th percentile per-packet one-way delay: 81.528 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 547.77 Mbit/s
95th percentile per-packet one-way delay: 76.686 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 382.42 Mbit/s
95th percentile per-packet one-way delay: 76.349 ms
Loss rate: 0.45%
```
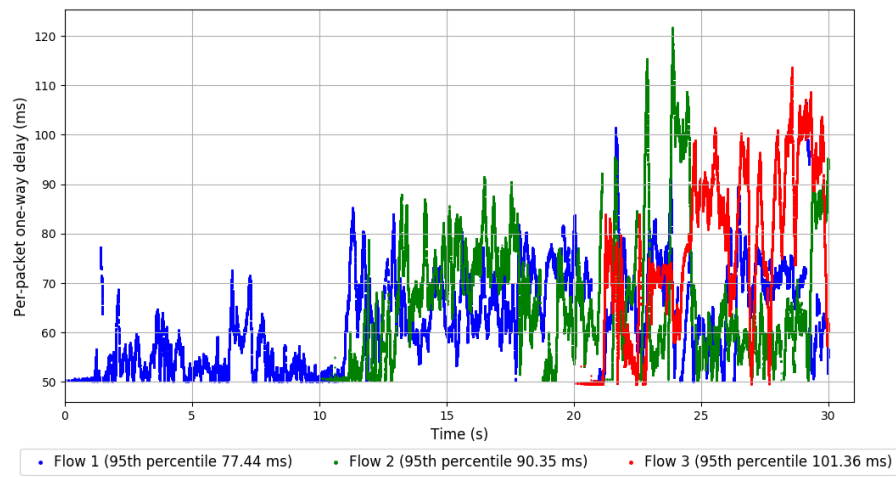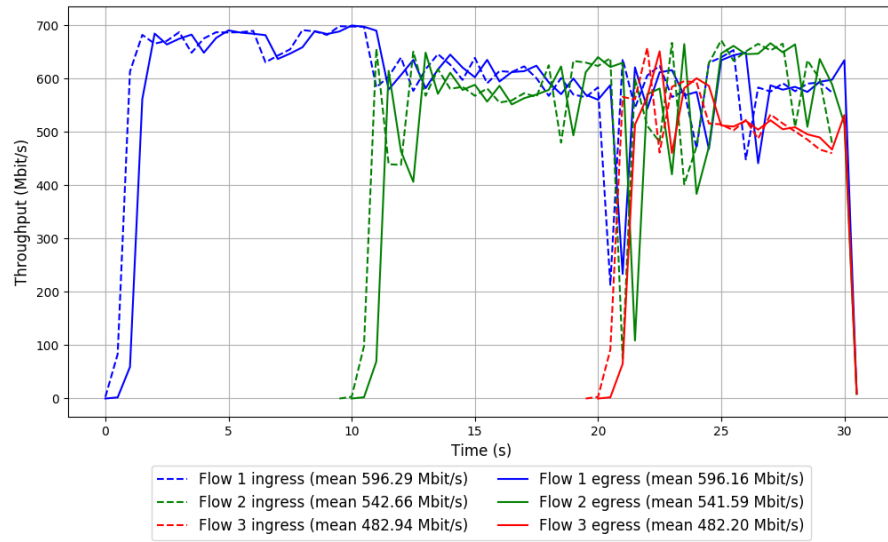
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-10-10 17:08:06
End at: 2018-10-10 17:08:36
Local clock offset: -0.117 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2018-10-10 18:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1117.56 Mbit/s
95th percentile per-packet one-way delay: 91.450 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 596.16 Mbit/s
95th percentile per-packet one-way delay: 77.440 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 541.59 Mbit/s
95th percentile per-packet one-way delay: 90.347 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 482.20 Mbit/s
95th percentile per-packet one-way delay: 101.365 ms
Loss rate: 0.15%
```
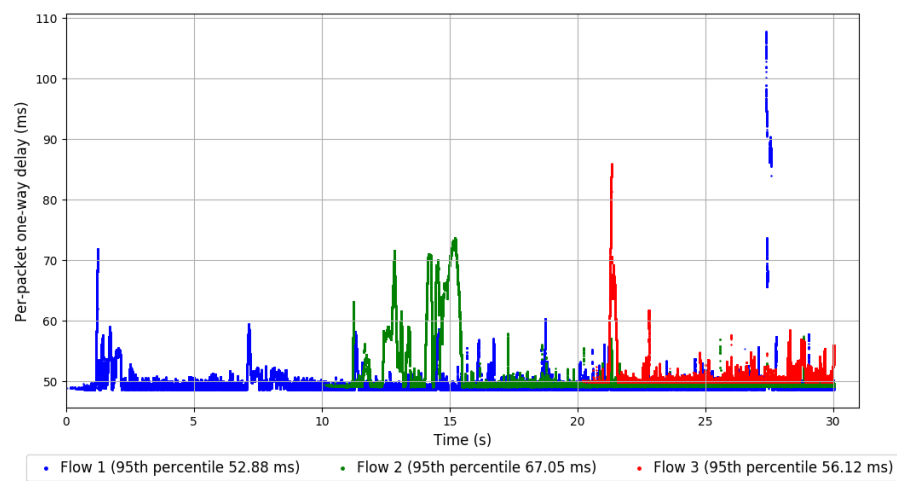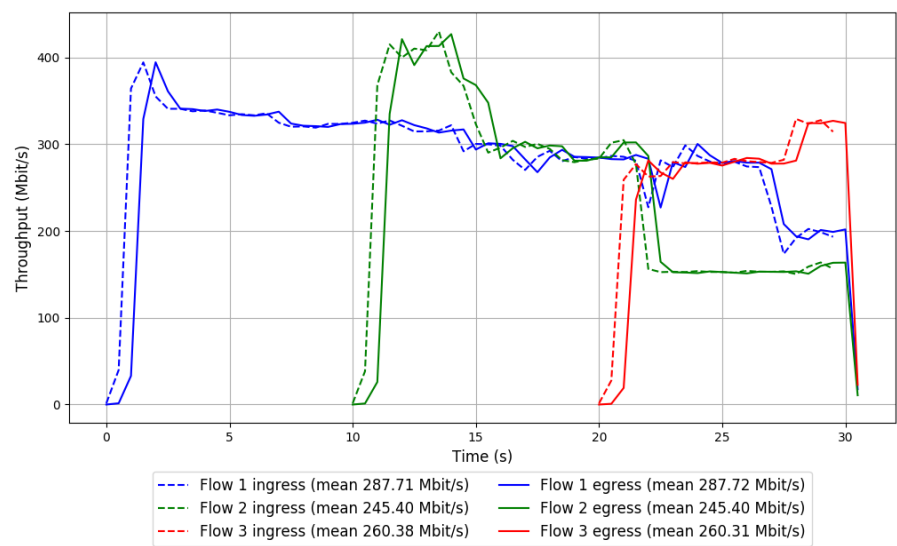
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 596.29 Mbit/s) --- Flow 1 egress (mean 596.16 Mbit/s)
Flow 2 ingress (mean 542.66 Mbit/s) --- Flow 2 egress (mean 541.59 Mbit/s)
Flow 3 ingress (mean 482.94 Mbit/s) --- Flow 3 egress (mean 482.20 Mbit/s)

Flow 1 (95th percentile 77.44 ms) • Flow 2 (95th percentile 90.35 ms) • Flow 3 (95th percentile 101.36 ms)
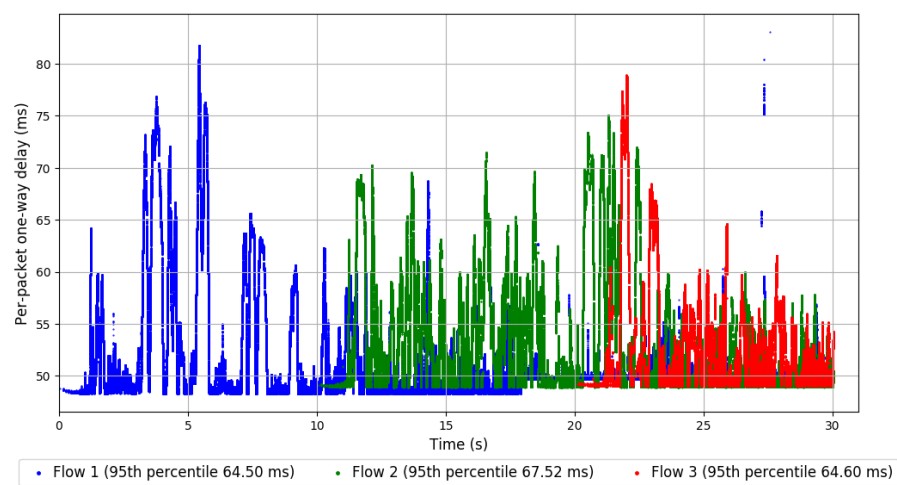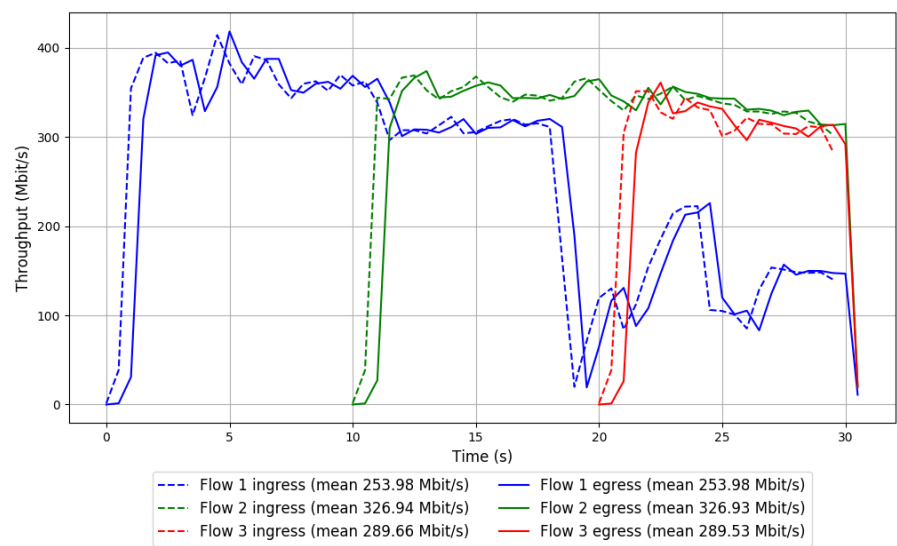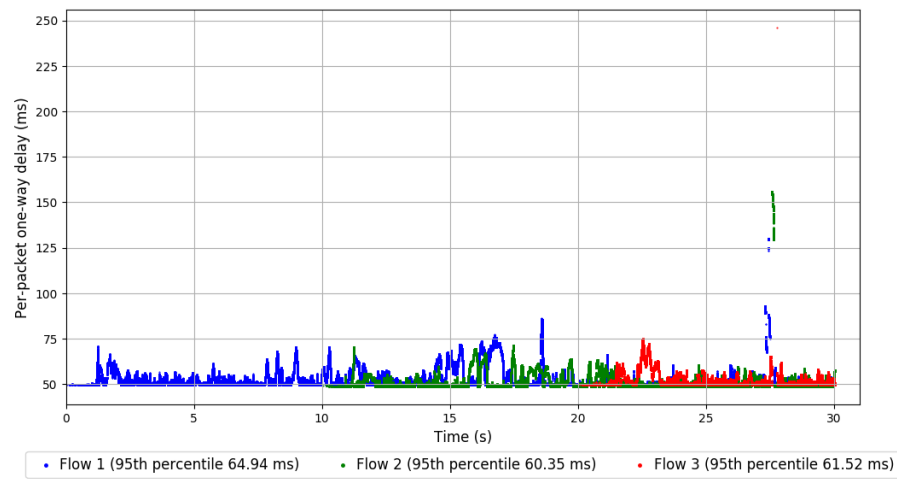
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```
Run 1: Statistics of Copa

Start at: 2018-10-10 15:23:43
End at: 2018-10-10 15:24:13
Local clock offset: 0.14 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2018-10-10 18:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.55 Mbit/s
95th percentile per-packet one-way delay: 57.795 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 287.72 Mbit/s
95th percentile per-packet one-way delay: 52.883 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 245.40 Mbit/s
95th percentile per-packet one-way delay: 67.051 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 260.31 Mbit/s
95th percentile per-packet one-way delay: 56.117 ms
Loss rate: 0.02%
```

Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 287.71 Mbit/s)   Flow 1 egress (mean 287.72 Mbit/s)
Flow 2 ingress (mean 245.40 Mbit/s)   Flow 2 egress (mean 245.40 Mbit/s)
Flow 3 ingress (mean 260.38 Mbit/s)   Flow 3 egress (mean 260.31 Mbit/s)

Flow 1 (95th percentile 52.88 ms)   Flow 2 (95th percentile 67.05 ms)   Flow 3 (95th percentile 56.12 ms)
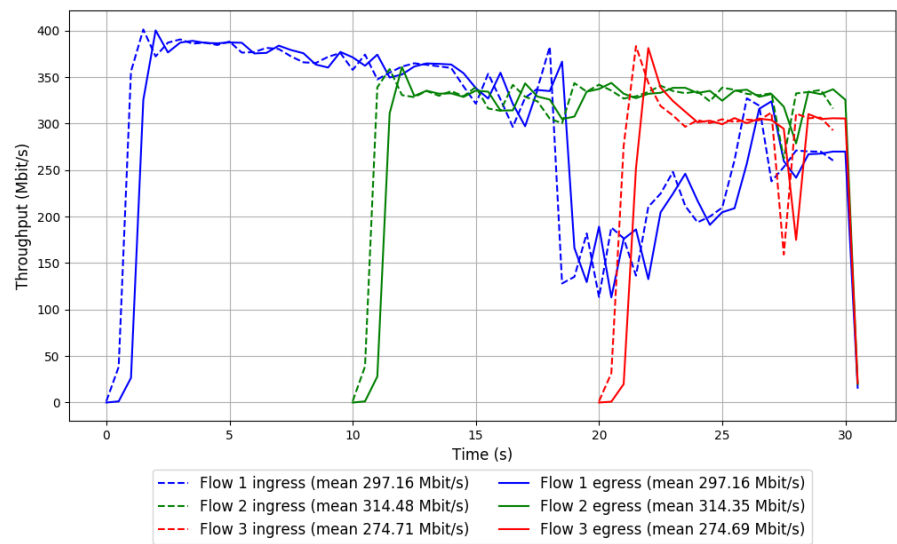
16

```
Run 2: Statistics of Copa

Start at: 2018-10-10 15:54:17
End at: 2018-10-10 15:54:47
Local clock offset: 0.253 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2018-10-10 18:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 567.97 Mbit/s
95th percentile per-packet one-way delay: 66.027 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 253.98 Mbit/s
95th percentile per-packet one-way delay: 64.495 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 326.93 Mbit/s
95th percentile per-packet one-way delay: 67.516 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 289.53 Mbit/s
95th percentile per-packet one-way delay: 64.600 ms
Loss rate: 0.03%
```
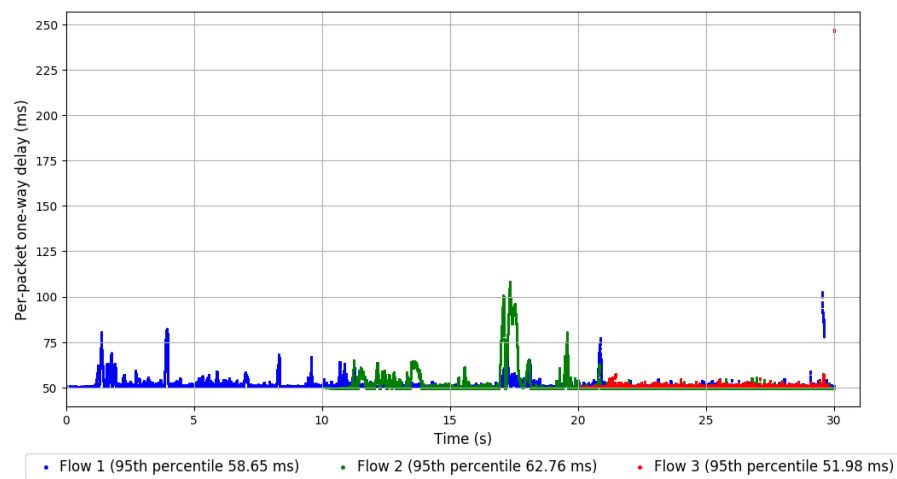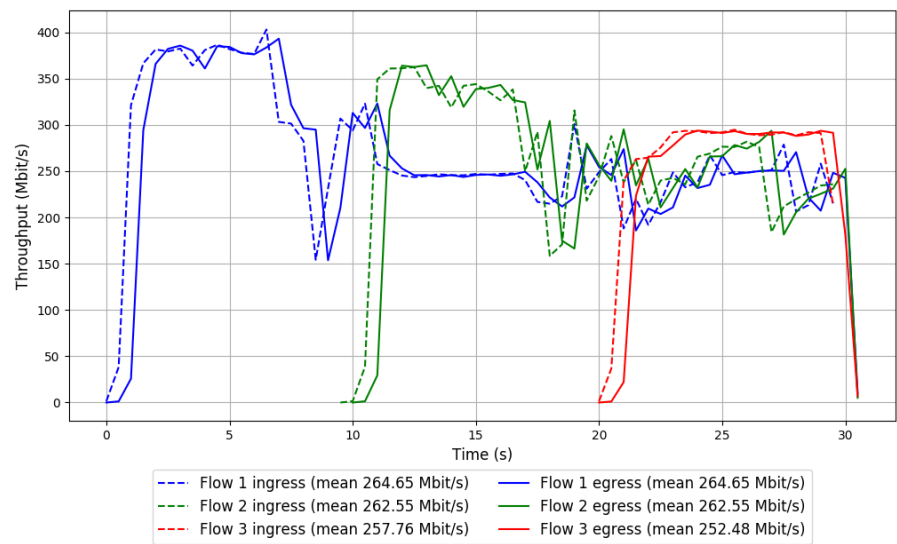
Run 2: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 253.98 Mbit/s)   ——— Flow 1 egress (mean 253.98 Mbit/s)
- - - - Flow 2 ingress (mean 326.94 Mbit/s)   ——— Flow 2 egress (mean 326.93 Mbit/s)
- - - - Flow 3 ingress (mean 289.66 Mbit/s)   ——— Flow 3 egress (mean 289.53 Mbit/s)

- Flow 1 (95th percentile 64.50 ms)   - Flow 2 (95th percentile 67.52 ms)   - Flow 3 (95th percentile 64.60 ms)

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```
Run 3: Statistics of Copa

Start at: 2018-10-10 16:24:31
End at: 2018-10-10 16:25:01
Local clock offset: -0.237 ms
Remote clock offset: -0.079 ms


# Below is generated by plot.py at 2018-10-10 18:09:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.71 Mbit/s
95th percentile per-packet one-way delay: 62.641 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 297.16 Mbit/s
95th percentile per-packet one-way delay: 64.938 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 314.35 Mbit/s
95th percentile per-packet one-way delay: 60.348 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 274.69 Mbit/s
95th percentile per-packet one-way delay: 61.520 ms
Loss rate: 0.00%
```
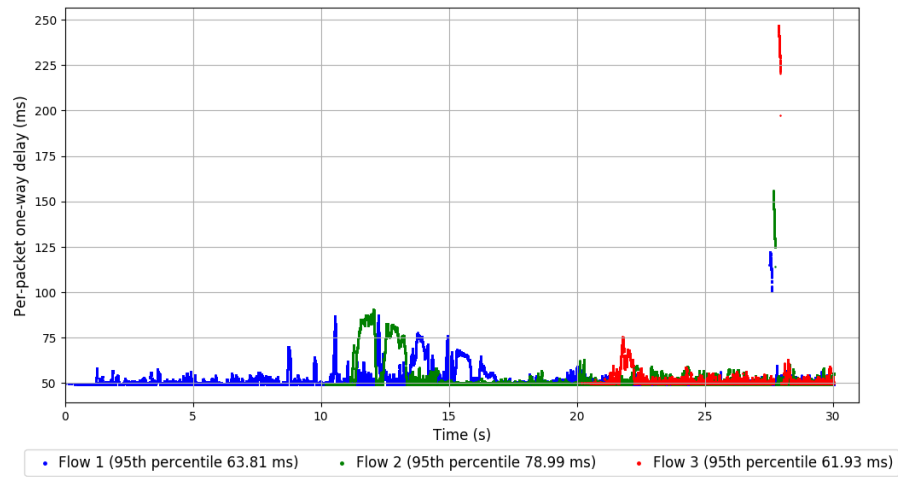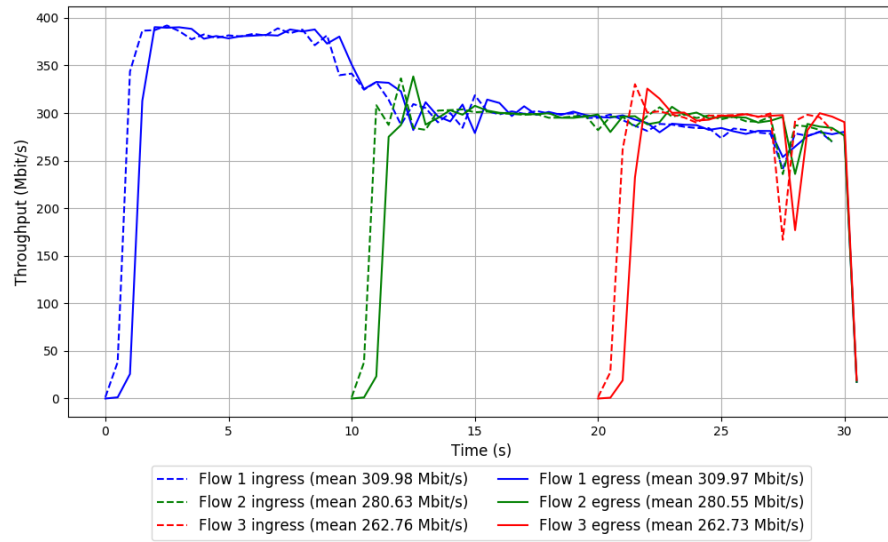
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 297.16 Mbit/s) — — — Flow 1 egress (mean 297.16 Mbit/s)
Flow 2 ingress (mean 314.48 Mbit/s) — — — Flow 2 egress (mean 314.35 Mbit/s)
Flow 3 ingress (mean 274.71 Mbit/s) — — — Flow 3 egress (mean 274.69 Mbit/s)

Flow 1 (95th percentile 64.94 ms)   Flow 2 (95th percentile 60.35 ms)   Flow 3 (95th percentile 61.52 ms)

```
Run 4: Statistics of Copa

Start at: 2018-10-10 16:55:06
End at: 2018-10-10 16:55:36
Local clock offset: -0.17 ms
Remote clock offset: 0.023 ms


# Below is generated by plot.py at 2018-10-10 18:24:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 523.46 Mbit/s
95th percentile per-packet one-way delay: 59.080 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 264.65 Mbit/s
95th percentile per-packet one-way delay: 58.654 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 262.55 Mbit/s
95th percentile per-packet one-way delay: 62.755 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 252.48 Mbit/s
95th percentile per-packet one-way delay: 51.977 ms
Loss rate: 1.03%
```
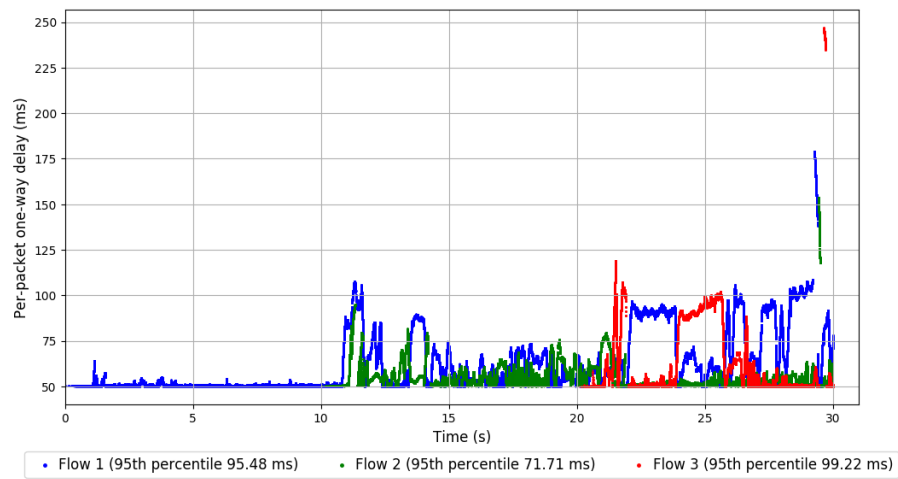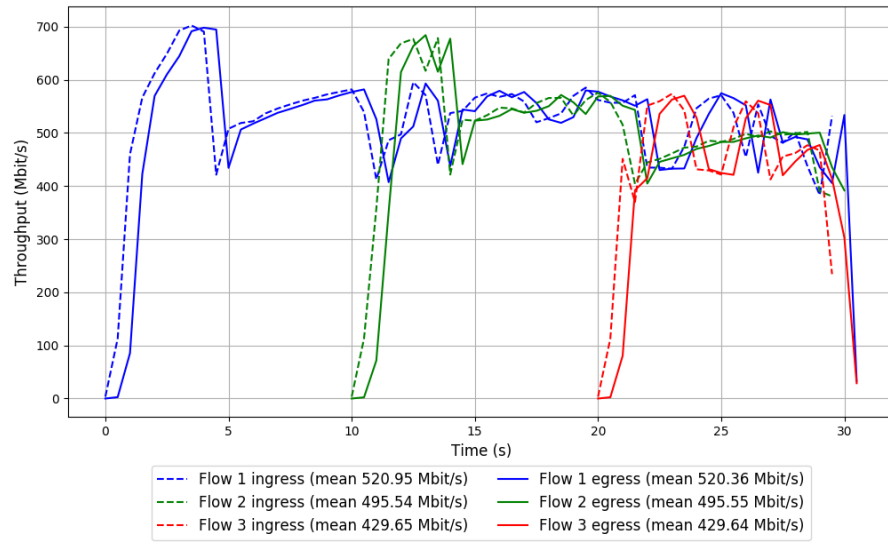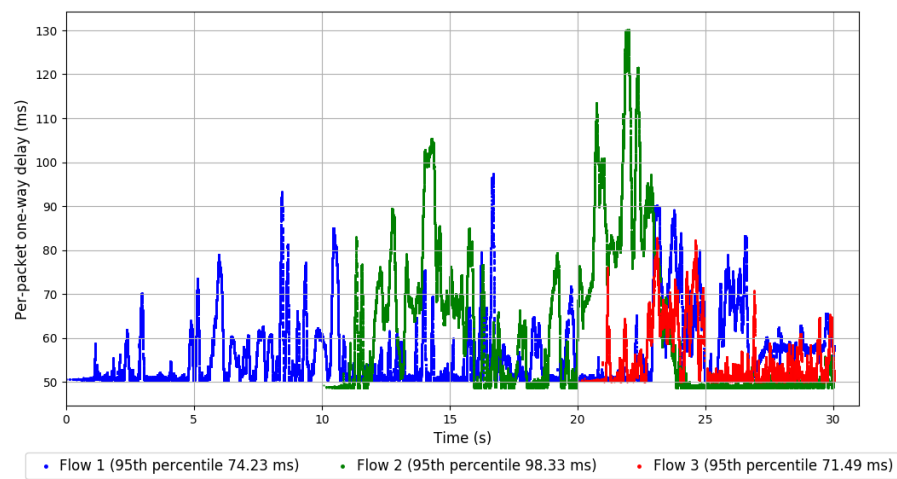
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-10-10 17:25:31
End at: 2018-10-10 17:26:01
Local clock offset: 0.224 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2018-10-10 18:26:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 584.03 Mbit/s
95th percentile per-packet one-way delay: 66.274 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 309.97 Mbit/s
95th percentile per-packet one-way delay: 63.812 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 280.55 Mbit/s
95th percentile per-packet one-way delay: 78.987 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 262.73 Mbit/s
95th percentile per-packet one-way delay: 61.932 ms
Loss rate: 0.02%
```
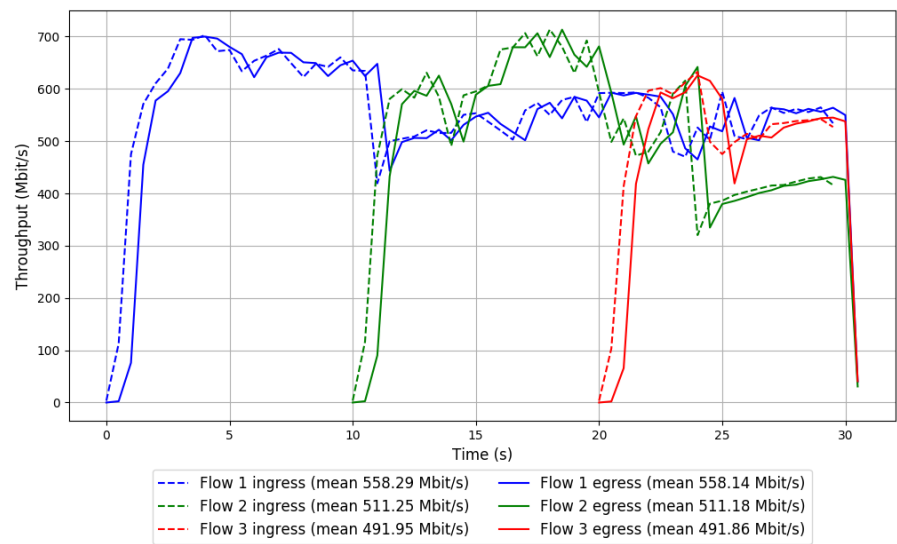
Run 5: Report of Copa — Data Link

- - - - Flow 1 ingress (mean 309.98 Mbit/s) —— Flow 1 egress (mean 309.97 Mbit/s)
- - - - Flow 2 ingress (mean 280.63 Mbit/s) —— Flow 2 egress (mean 280.55 Mbit/s)
- - - - Flow 3 ingress (mean 262.76 Mbit/s) —— Flow 3 egress (mean 262.73 Mbit/s)

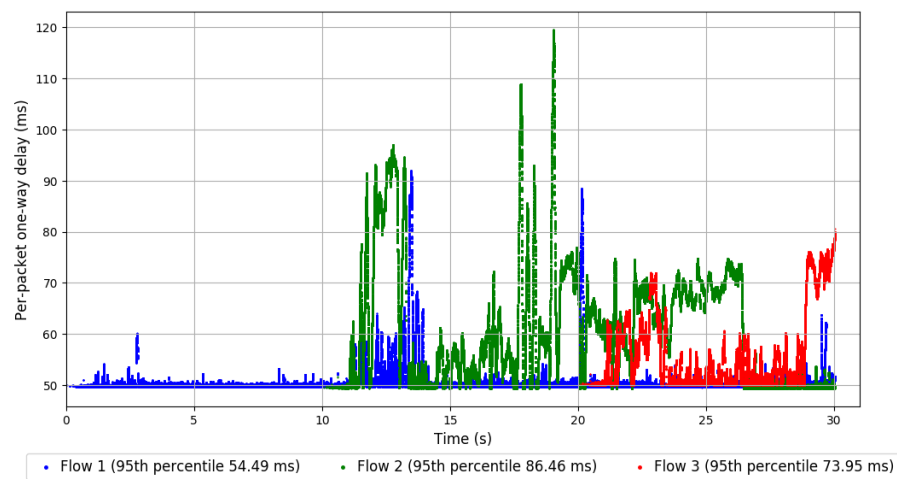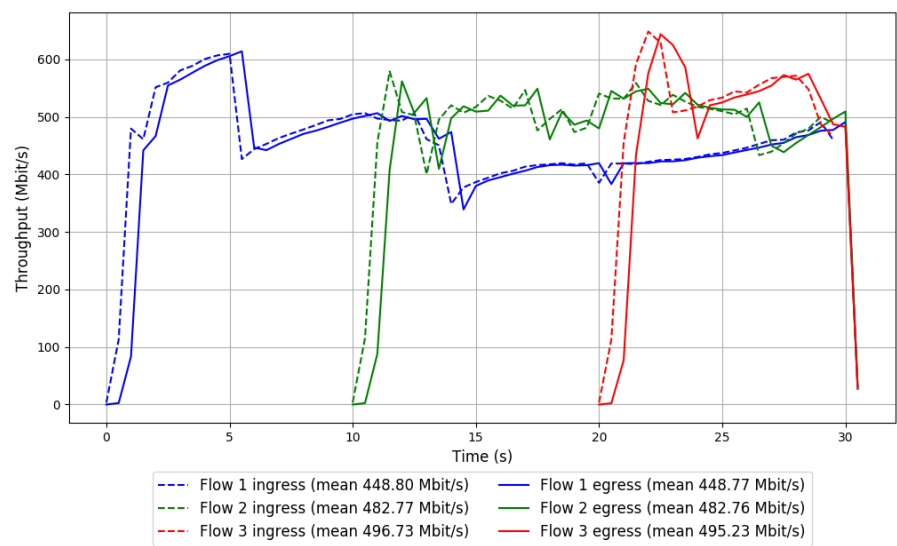- Flow 1 (95th percentile 63.81 ms) · Flow 2 (95th percentile 78.99 ms) · Flow 3 (95th percentile 61.93 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2018-10-10 15:15:06
End at: 2018-10-10 15:15:36
Local clock offset: 0.144 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2018-10-10 18:26:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 992.48 Mbit/s
95th percentile per-packet one-way delay: 93.877 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 520.36 Mbit/s
95th percentile per-packet one-way delay: 95.476 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 495.55 Mbit/s
95th percentile per-packet one-way delay: 71.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 429.64 Mbit/s
95th percentile per-packet one-way delay: 99.222 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 520.95 Mbit/s) Flow 1 egress (mean 520.36 Mbit/s)
Flow 2 ingress (mean 495.54 Mbit/s) Flow 2 egress (mean 495.55 Mbit/s)
Flow 3 ingress (mean 429.65 Mbit/s) Flow 3 egress (mean 429.64 Mbit/s)

Flow 1 (95th percentile 95.48 ms) Flow 2 (95th percentile 71.71 ms) Flow 3 (95th percentile 99.22 ms)
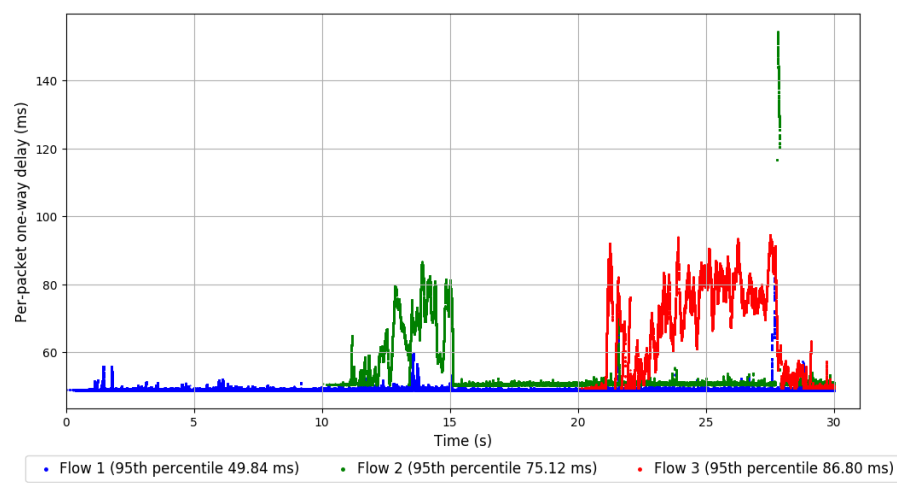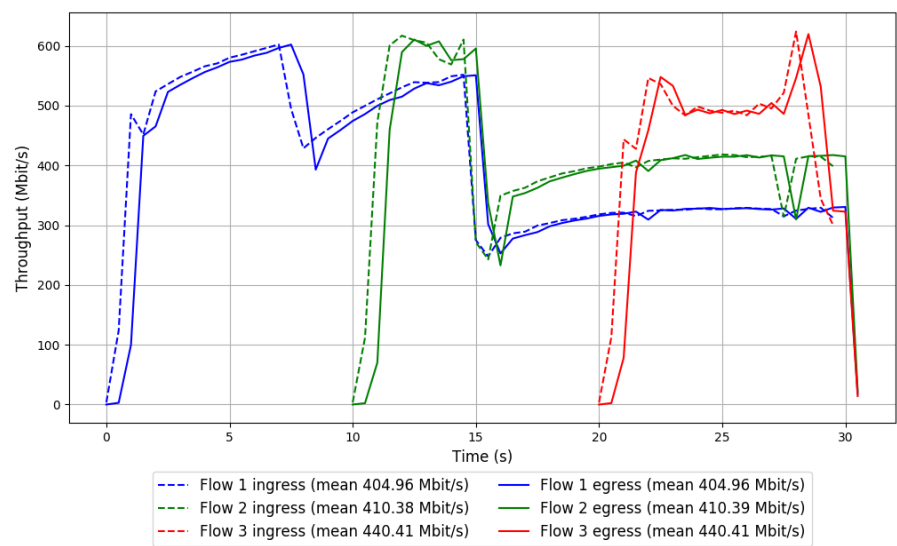
26

```
Run 2: Statistics of TCP Cubic

Start at: 2018-10-10 15:45:15
End at: 2018-10-10 15:45:45
Local clock offset: -0.146 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2018-10-10 18:26:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1062.13 Mbit/s
95th percentile per-packet one-way delay: 81.729 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 558.14 Mbit/s
95th percentile per-packet one-way delay: 74.227 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 511.18 Mbit/s
95th percentile per-packet one-way delay: 98.331 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 491.86 Mbit/s
95th percentile per-packet one-way delay: 71.493 ms
Loss rate: 0.02%
```

Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-10-10 16:15:52
End at: 2018-10-10 16:16:22
Local clock offset: -0.191 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2018-10-10 18:26:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 934.84 Mbit/s
95th percentile per-packet one-way delay: 73.734 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 448.77 Mbit/s
95th percentile per-packet one-way delay: 54.493 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 482.76 Mbit/s
95th percentile per-packet one-way delay: 86.457 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 495.23 Mbit/s
95th percentile per-packet one-way delay: 73.950 ms
Loss rate: 0.29%
```
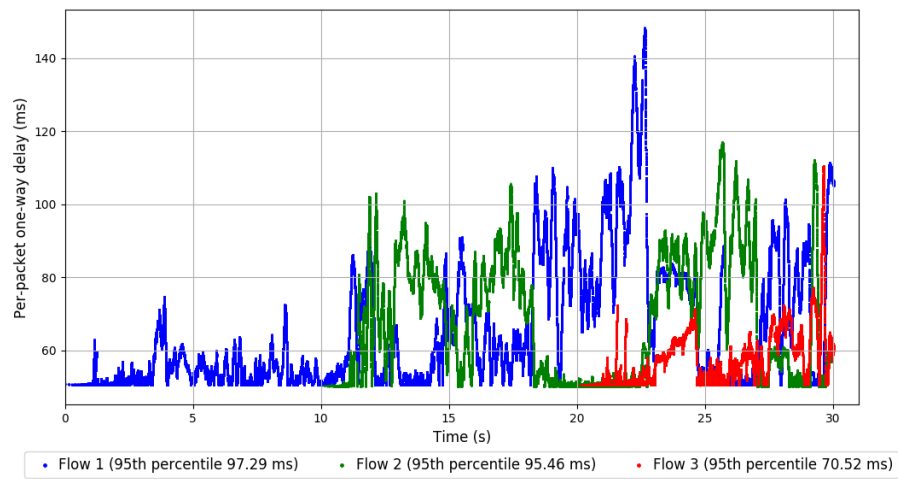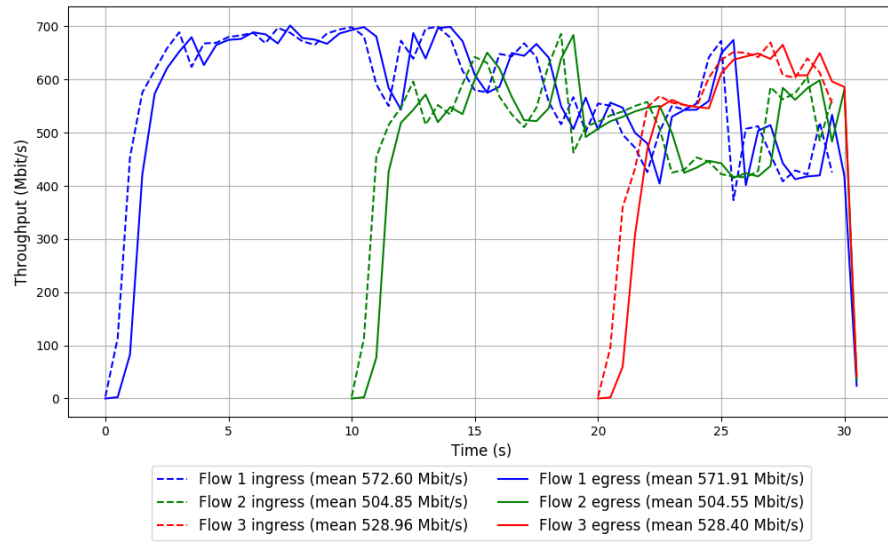
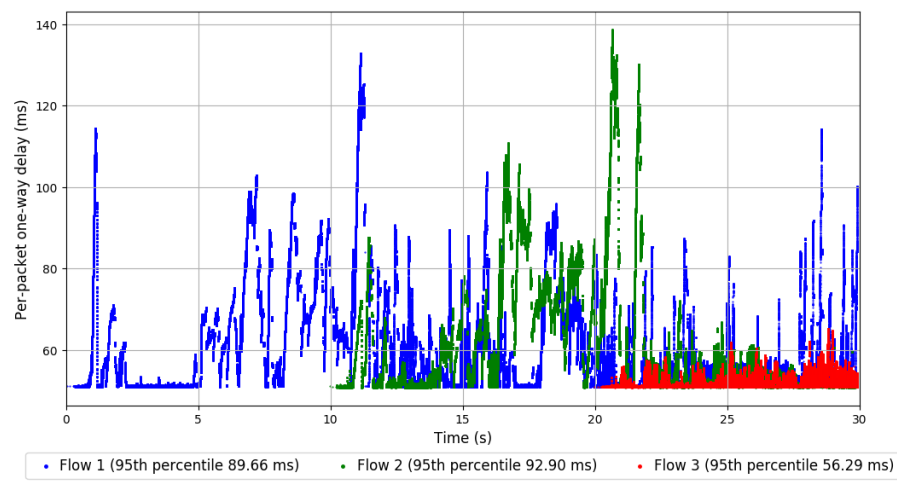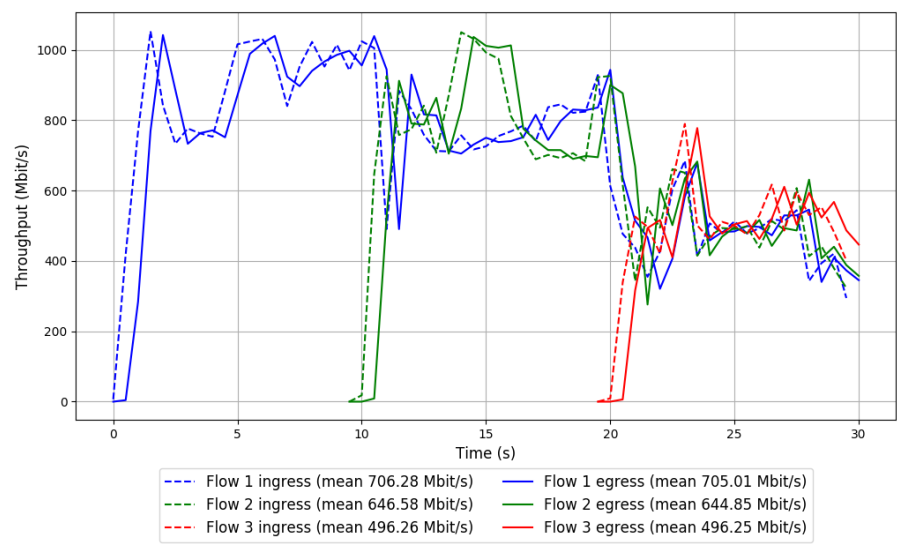Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 448.80 Mbit/s)   Flow 1 egress (mean 448.77 Mbit/s)
Flow 2 ingress (mean 482.77 Mbit/s)   Flow 2 egress (mean 482.76 Mbit/s)
Flow 3 ingress (mean 496.73 Mbit/s)   Flow 3 egress (mean 495.23 Mbit/s)

Flow 1 (95th percentile 54.49 ms)   Flow 2 (95th percentile 86.46 ms)   Flow 3 (95th percentile 73.95 ms)
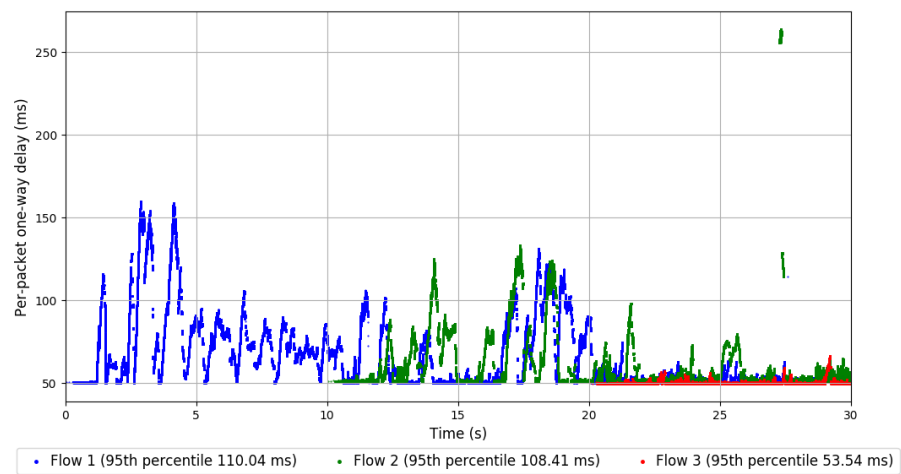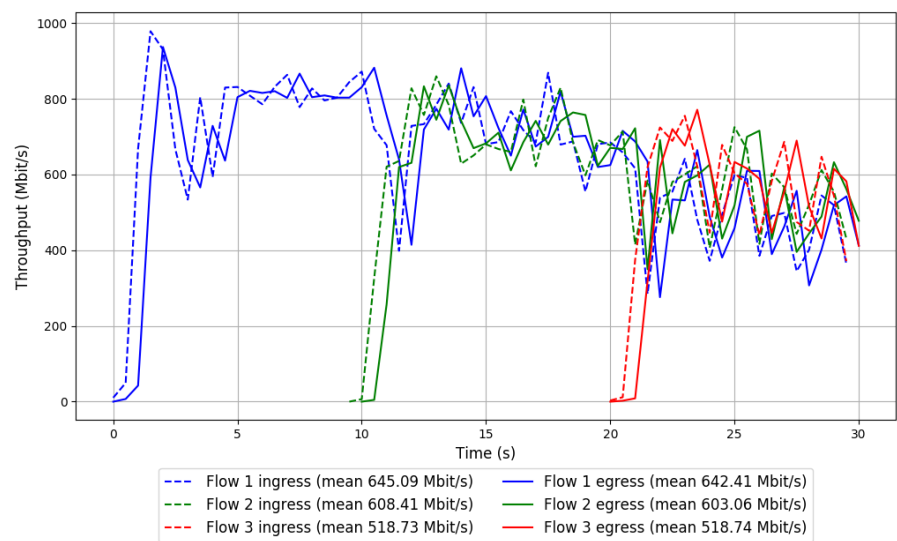
```
Run 4: Statistics of TCP Cubic

Start at: 2018-10-10 16:46:10
End at: 2018-10-10 16:46:40
Local clock offset: -0.203 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2018-10-10 18:26:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 824.67 Mbit/s
95th percentile per-packet one-way delay: 79.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 404.96 Mbit/s
95th percentile per-packet one-way delay: 49.837 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 410.39 Mbit/s
95th percentile per-packet one-way delay: 75.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 440.41 Mbit/s
95th percentile per-packet one-way delay: 86.798 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Cubic — Data Link

- - - - Flow 1 ingress (mean 404.96 Mbit/s) ——— Flow 1 egress (mean 404.96 Mbit/s)
- - - - Flow 2 ingress (mean 410.38 Mbit/s) ——— Flow 2 egress (mean 410.39 Mbit/s)
- - - - Flow 3 ingress (mean 440.41 Mbit/s) ——— Flow 3 egress (mean 440.41 Mbit/s)

• Flow 1 (95th percentile 49.84 ms)   • Flow 2 (95th percentile 75.12 ms)   • Flow 3 (95th percentile 86.80 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-10-10 17:16:44
End at: 2018-10-10 17:17:14
Local clock offset: -0.132 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2018-10-10 18:28:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1083.58 Mbit/s
95th percentile per-packet one-way delay: 94.984 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 571.91 Mbit/s
95th percentile per-packet one-way delay: 97.288 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 504.55 Mbit/s
95th percentile per-packet one-way delay: 95.464 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 528.40 Mbit/s
95th percentile per-packet one-way delay: 70.518 ms
Loss rate: 0.10%
```
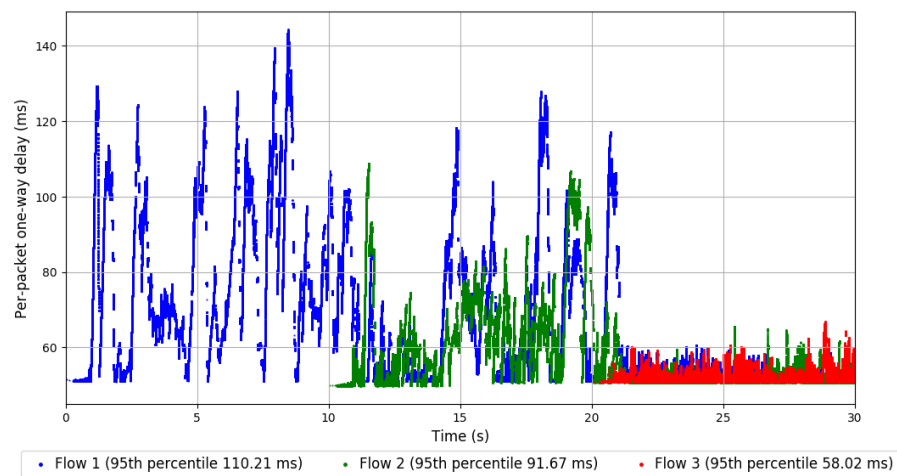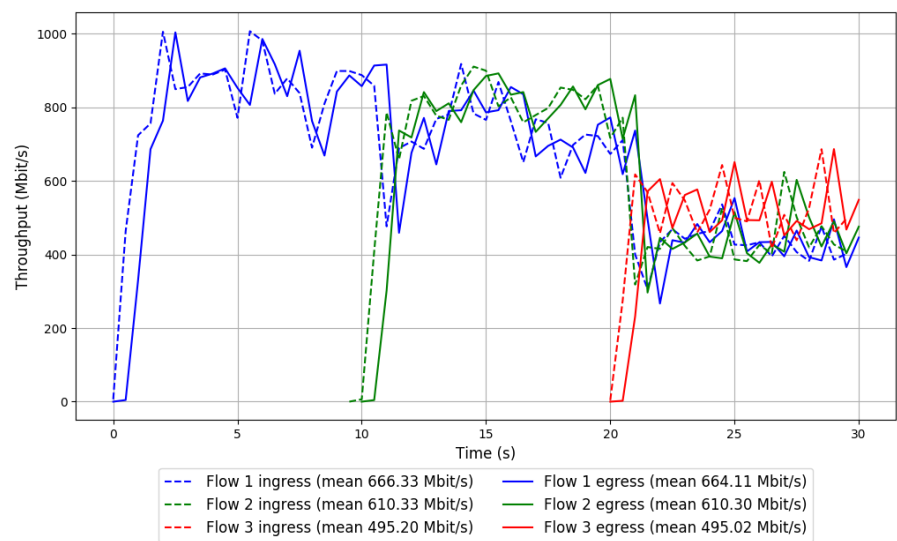
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 572.60 Mbit/s) ---- Flow 1 egress (mean 571.91 Mbit/s) ——
Flow 2 ingress (mean 504.85 Mbit/s) ---- Flow 2 egress (mean 504.55 Mbit/s) ——
Flow 3 ingress (mean 528.96 Mbit/s) ---- Flow 3 egress (mean 528.40 Mbit/s) ——

Flow 1 (95th percentile 97.29 ms) • Flow 2 (95th percentile 95.46 ms) • Flow 3 (95th percentile 70.52 ms)
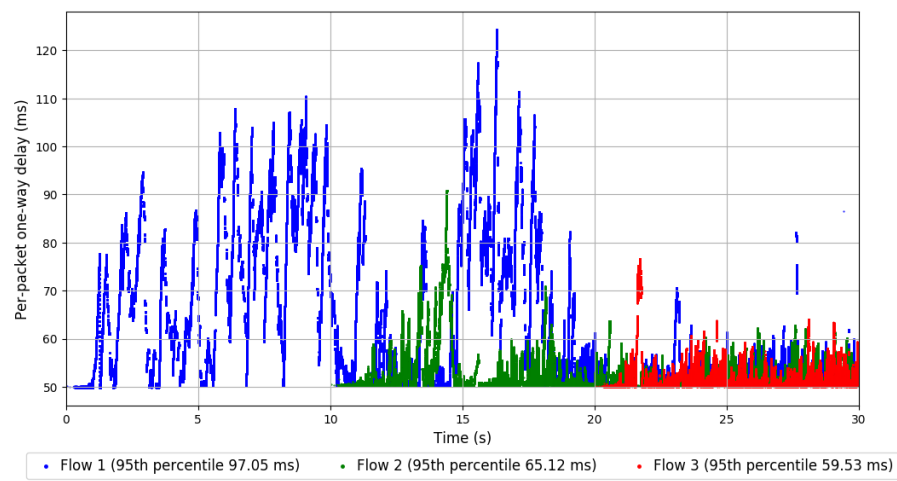
```
Run 1: Statistics of FillP

Start at: 2018-10-10 15:04:30
End at: 2018-10-10 15:05:00
Local clock offset: -0.618 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2018-10-10 18:36:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1300.03 Mbit/s
95th percentile per-packet one-way delay: 89.131 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 705.01 Mbit/s
95th percentile per-packet one-way delay: 89.657 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 644.85 Mbit/s
95th percentile per-packet one-way delay: 92.898 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 496.25 Mbit/s
95th percentile per-packet one-way delay: 56.293 ms
Loss rate: 0.00%
```
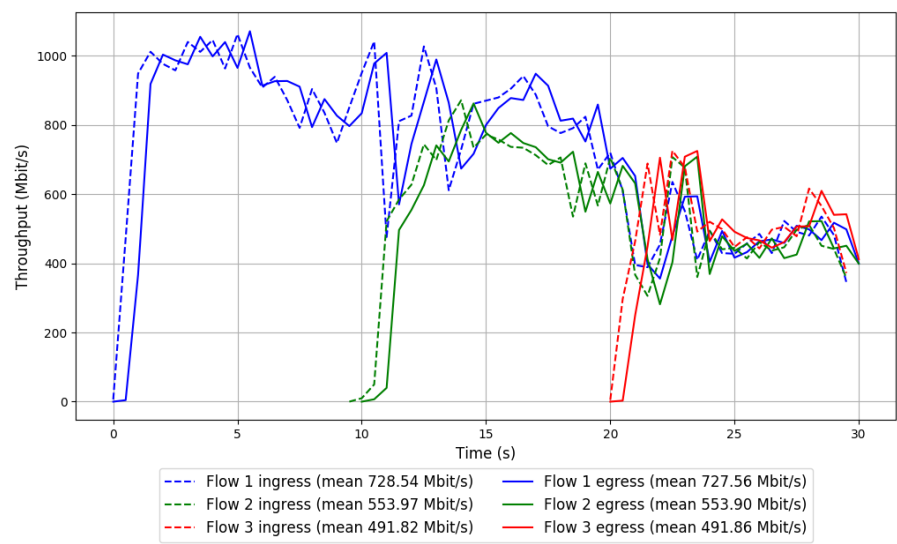
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-10-10 15:34:41
End at: 2018-10-10 15:35:11
Local clock offset: -0.203 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2018-10-10 18:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1215.87 Mbit/s
95th percentile per-packet one-way delay: 105.766 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 642.41 Mbit/s
95th percentile per-packet one-way delay: 110.042 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 603.06 Mbit/s
95th percentile per-packet one-way delay: 108.410 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 518.74 Mbit/s
95th percentile per-packet one-way delay: 53.542 ms
Loss rate: 0.00%
```
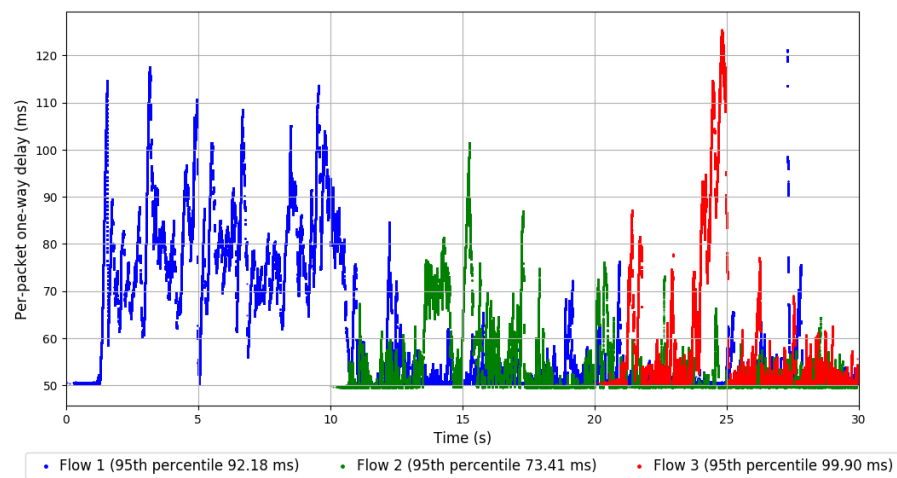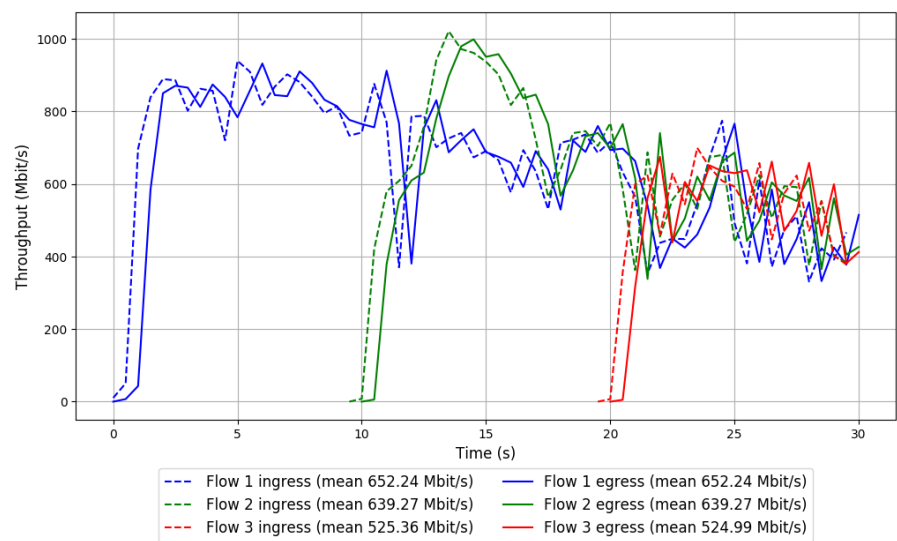
Run 2: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 645.09 Mbit/s) —— Flow 1 egress (mean 642.41 Mbit/s)
- - - - Flow 2 ingress (mean 608.41 Mbit/s) —— Flow 2 egress (mean 603.06 Mbit/s)
- - - - Flow 3 ingress (mean 518.73 Mbit/s) —— Flow 3 egress (mean 518.74 Mbit/s)

- Flow 1 (95th percentile 110.04 ms)   • Flow 2 (95th percentile 108.41 ms)   • Flow 3 (95th percentile 53.54 ms)
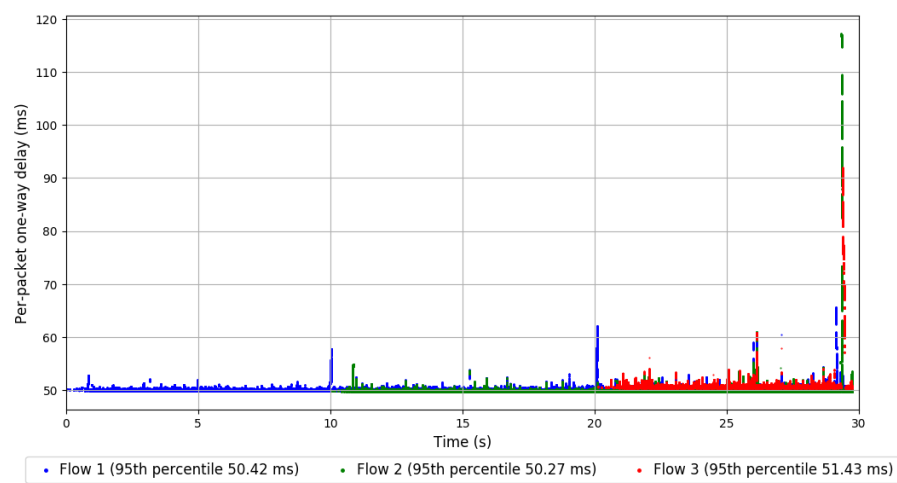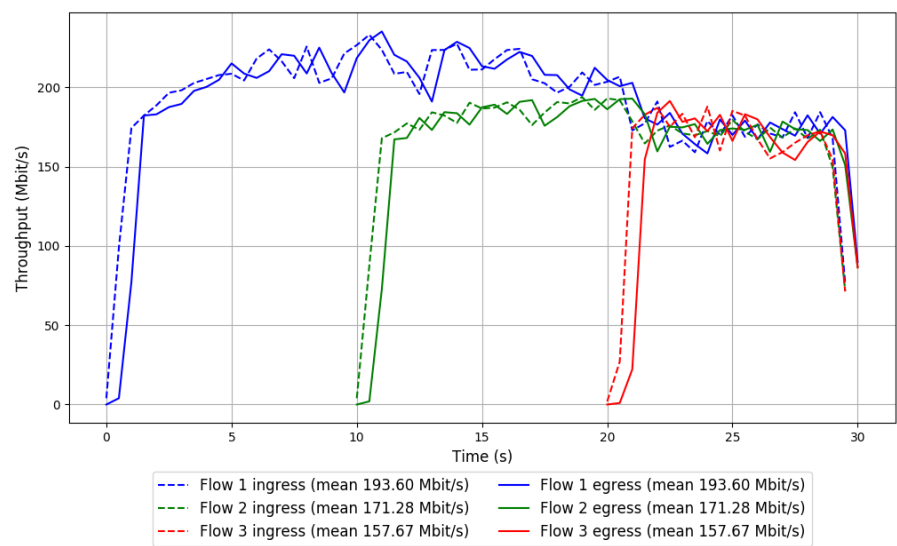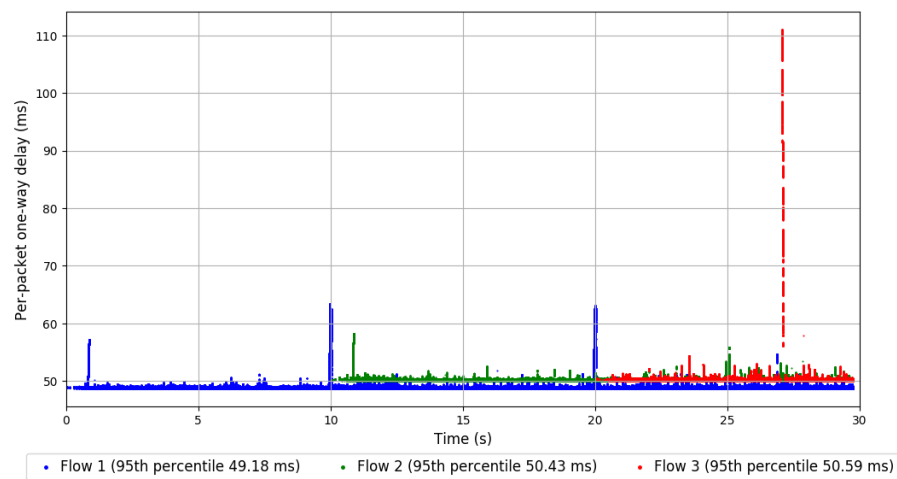
```
Run 3: Statistics of FillP

Start at: 2018-10-10 16:05:19
End at: 2018-10-10 16:05:49
Local clock offset: -0.499 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2018-10-10 18:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1234.04 Mbit/s
95th percentile per-packet one-way delay: 102.533 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 664.11 Mbit/s
95th percentile per-packet one-way delay: 110.206 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 610.30 Mbit/s
95th percentile per-packet one-way delay: 91.673 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 495.02 Mbit/s
95th percentile per-packet one-way delay: 58.024 ms
Loss rate: 0.03%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 666.33 Mbit/s)   Flow 1 egress (mean 664.11 Mbit/s)
Flow 2 ingress (mean 610.33 Mbit/s)   Flow 2 egress (mean 610.30 Mbit/s)
Flow 3 ingress (mean 495.20 Mbit/s)   Flow 3 egress (mean 495.02 Mbit/s)

Flow 1 (95th percentile 110.21 ms)   Flow 2 (95th percentile 91.67 ms)   Flow 3 (95th percentile 58.02 ms)
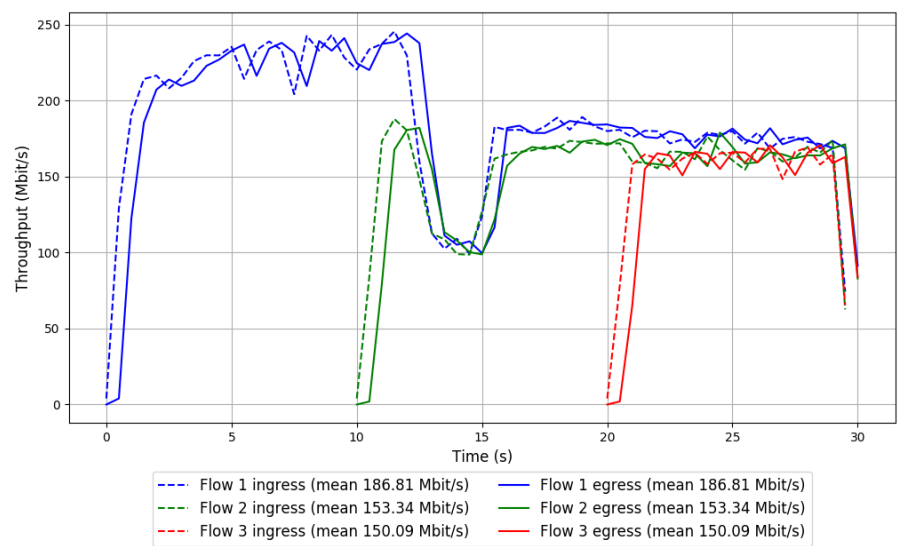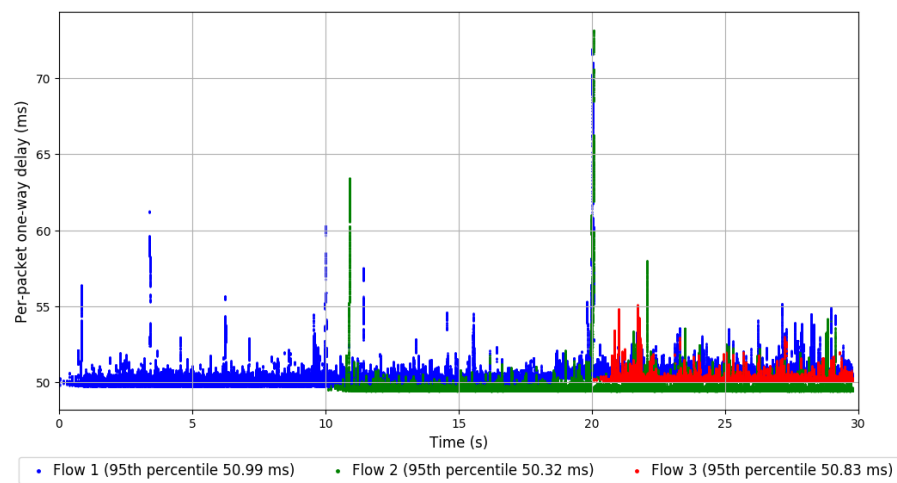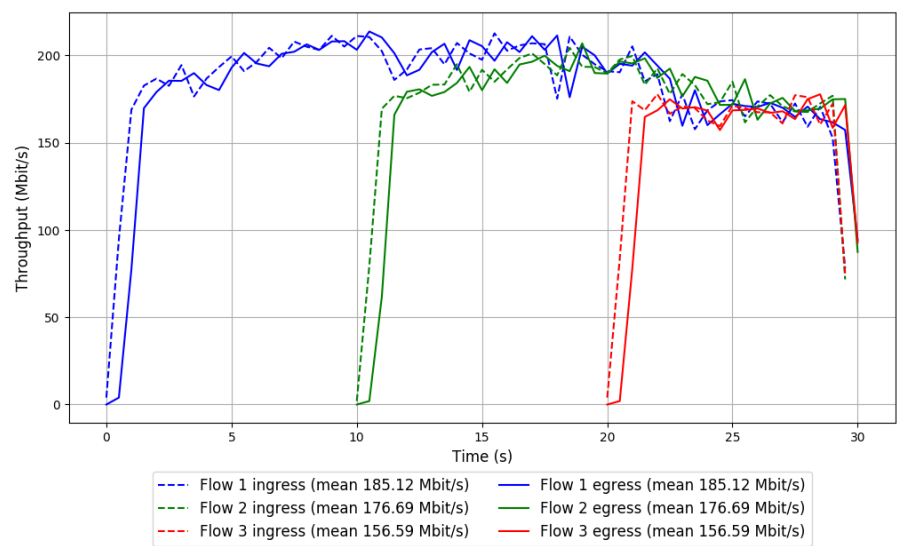
40

```
Run 4: Statistics of FillP

Start at: 2018-10-10 16:35:32
End at: 2018-10-10 16:36:02
Local clock offset: 0.105 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-10-10 18:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1259.26 Mbit/s
95th percentile per-packet one-way delay: 91.710 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 727.56 Mbit/s
95th percentile per-packet one-way delay: 97.054 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 553.90 Mbit/s
95th percentile per-packet one-way delay: 65.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 491.86 Mbit/s
95th percentile per-packet one-way delay: 59.526 ms
Loss rate: 0.00%
```

Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 728.54 Mbit/s)   Flow 1 egress (mean 727.56 Mbit/s)
Flow 2 ingress (mean 553.97 Mbit/s)   Flow 2 egress (mean 553.90 Mbit/s)
Flow 3 ingress (mean 491.82 Mbit/s)   Flow 3 egress (mean 491.86 Mbit/s)

Flow 1 (95th percentile 97.05 ms)   Flow 2 (95th percentile 65.12 ms)   Flow 3 (95th percentile 59.53 ms)

```
Run 5: Statistics of FillP

Start at: 2018-10-10 17:06:04
End at: 2018-10-10 17:06:34
Local clock offset: -0.121 ms
Remote clock offset: 0.004 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1251.87 Mbit/s
95th percentile per-packet one-way delay: 89.054 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 652.24 Mbit/s
95th percentile per-packet one-way delay: 92.183 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 639.27 Mbit/s
95th percentile per-packet one-way delay: 73.408 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 524.99 Mbit/s
95th percentile per-packet one-way delay: 99.898 ms
Loss rate: 0.06%
```

Run 5: Report of FillP — Data Link

```
Run 1: Statistics of Indigo

Start at: 2018-10-10 15:27:16
End at: 2018-10-10 15:27:46
Local clock offset: -0.591 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 358.10 Mbit/s
95th percentile per-packet one-way delay: 50.694 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.60 Mbit/s
95th percentile per-packet one-way delay: 50.421 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 171.28 Mbit/s
95th percentile per-packet one-way delay: 50.271 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 157.67 Mbit/s
95th percentile per-packet one-way delay: 51.428 ms
Loss rate: 0.00%
```
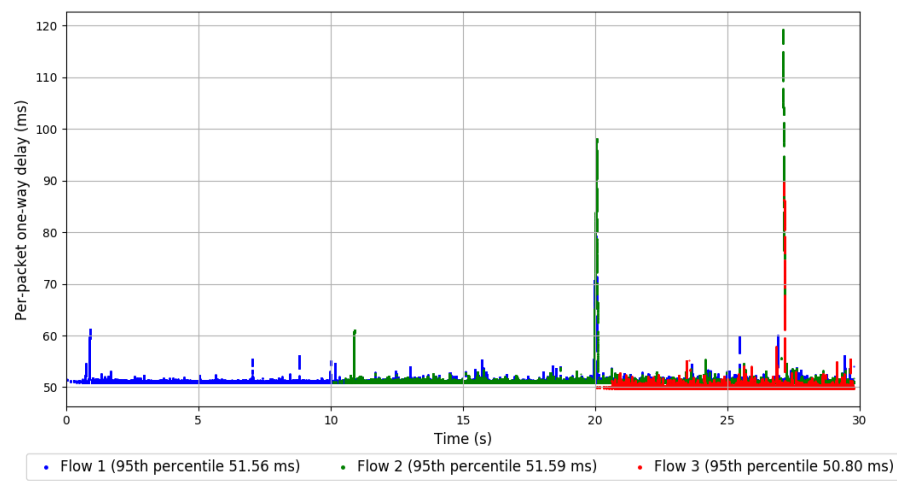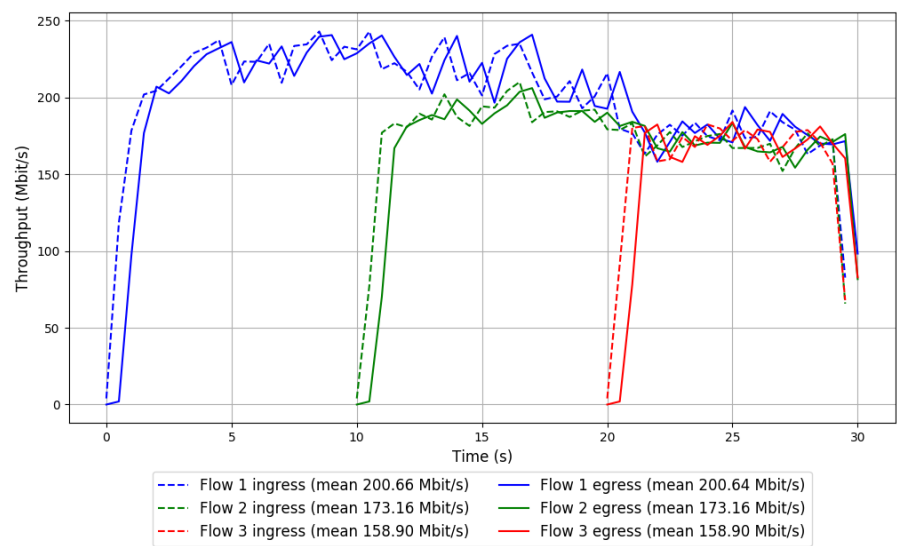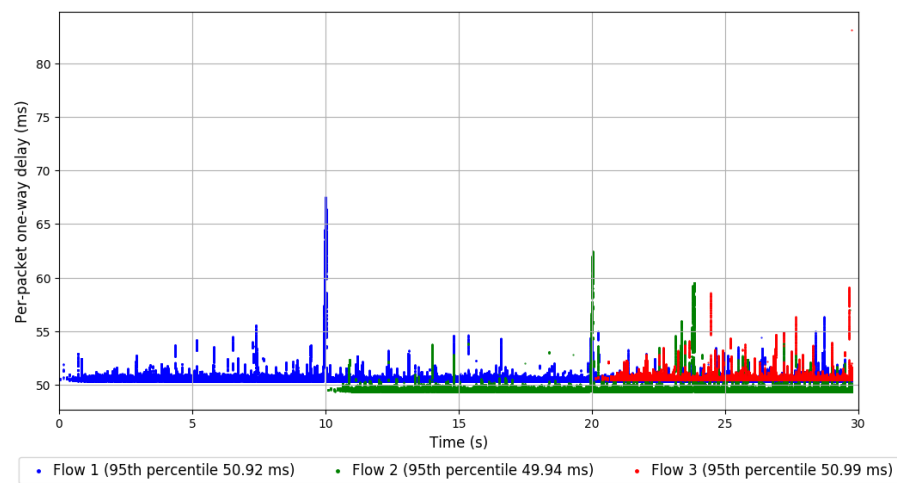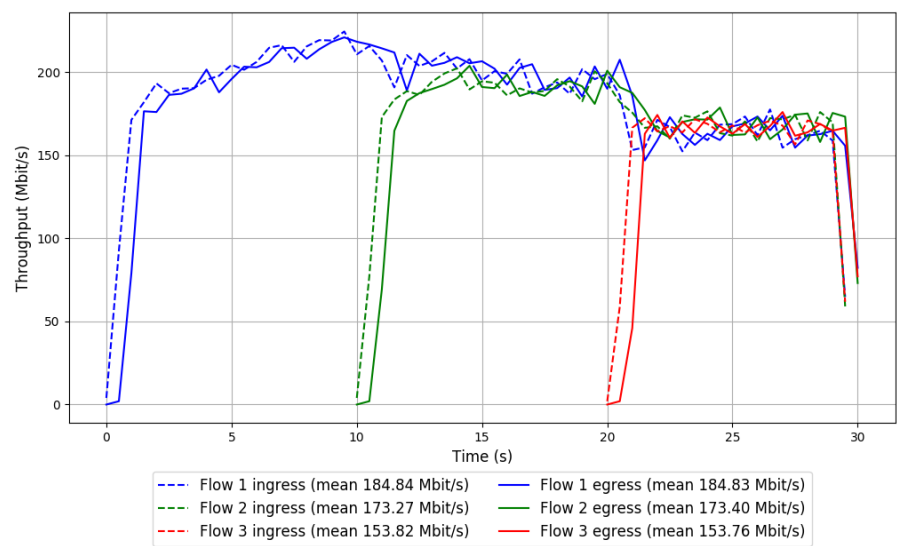
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-10-10 15:57:55
End at: 2018-10-10 15:58:25
Local clock offset: -0.129 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.35 Mbit/s
95th percentile per-packet one-way delay: 50.329 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 186.81 Mbit/s
95th percentile per-packet one-way delay: 49.182 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 153.34 Mbit/s
95th percentile per-packet one-way delay: 50.428 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.09 Mbit/s
95th percentile per-packet one-way delay: 50.595 ms
Loss rate: 0.00%
```
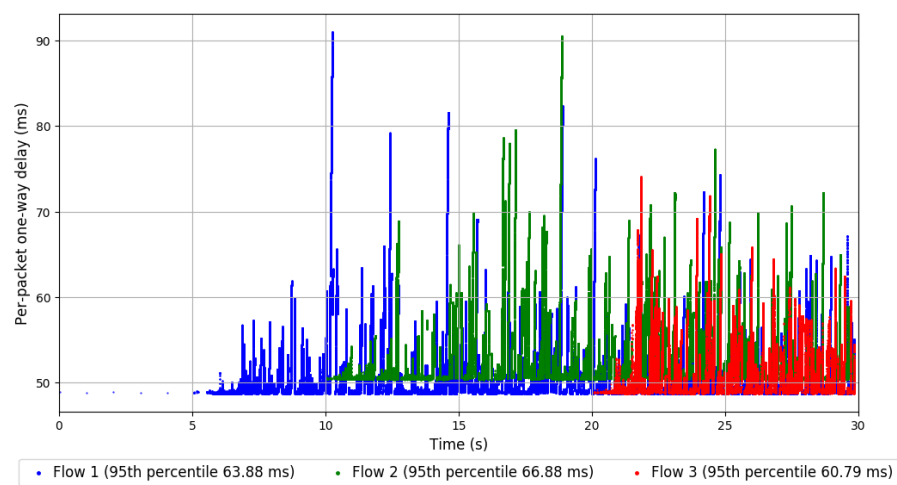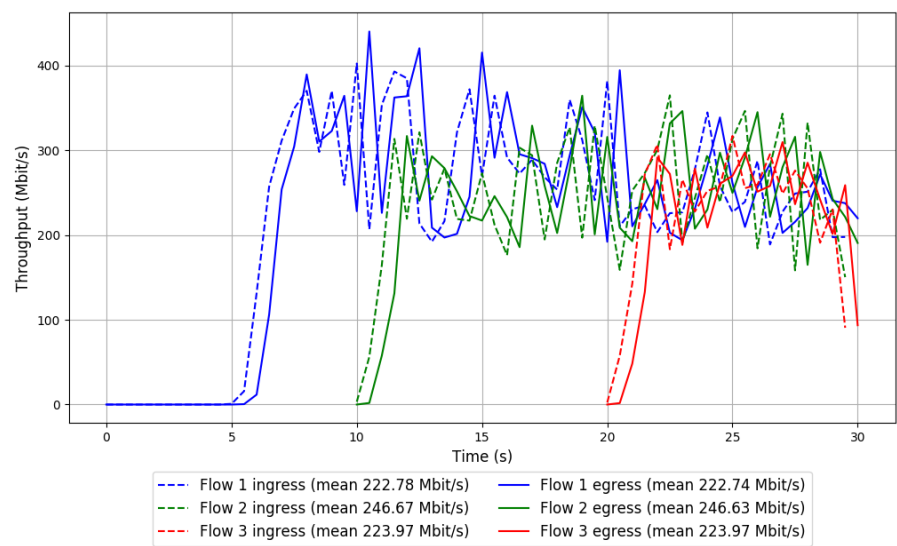
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-10-10 16:28:11
End at: 2018-10-10 16:28:41
Local clock offset: -0.245 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.09 Mbit/s
95th percentile per-packet one-way delay: 50.849 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 185.12 Mbit/s
95th percentile per-packet one-way delay: 50.990 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 176.69 Mbit/s
95th percentile per-packet one-way delay: 50.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 156.59 Mbit/s
95th percentile per-packet one-way delay: 50.831 ms
Loss rate: 0.00%
```
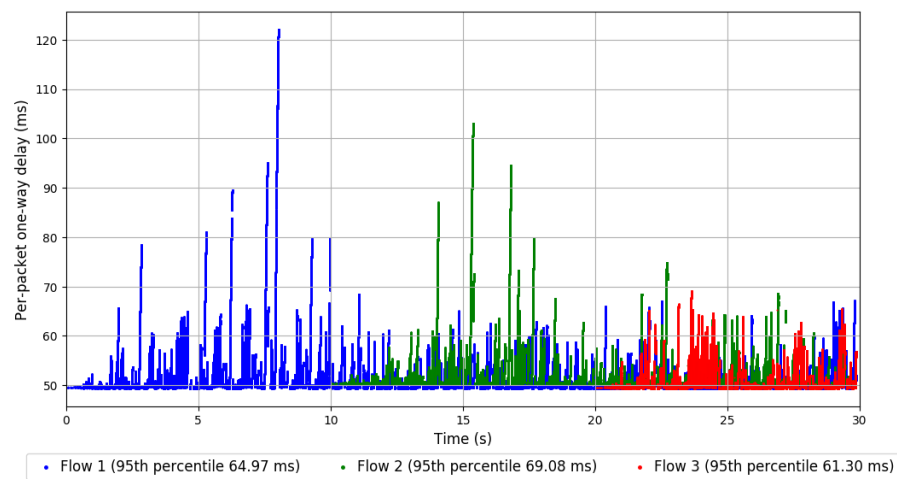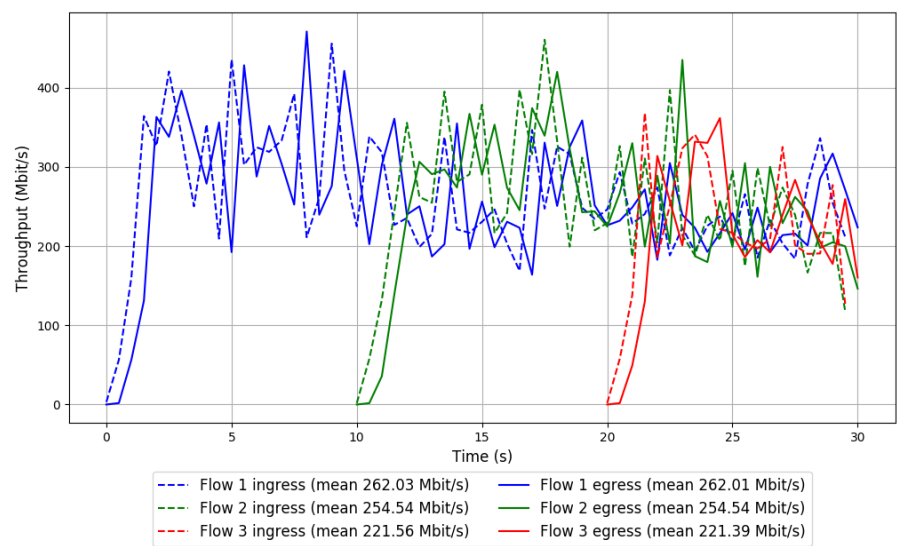
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-10-10 16:58:40
End at: 2018-10-10 16:59:10
Local clock offset: -0.523 ms
Remote clock offset: 0.017 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.08 Mbit/s
95th percentile per-packet one-way delay: 51.524 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 200.64 Mbit/s
95th percentile per-packet one-way delay: 51.557 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 173.16 Mbit/s
95th percentile per-packet one-way delay: 51.594 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 158.90 Mbit/s
95th percentile per-packet one-way delay: 50.805 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-10-10 17:29:12
End at: 2018-10-10 17:29:42
Local clock offset: -0.114 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 349.36 Mbit/s
95th percentile per-packet one-way delay: 50.828 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 184.83 Mbit/s
95th percentile per-packet one-way delay: 50.921 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 173.40 Mbit/s
95th percentile per-packet one-way delay: 49.937 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 153.76 Mbit/s
95th percentile per-packet one-way delay: 50.995 ms
Loss rate: 0.04%
```
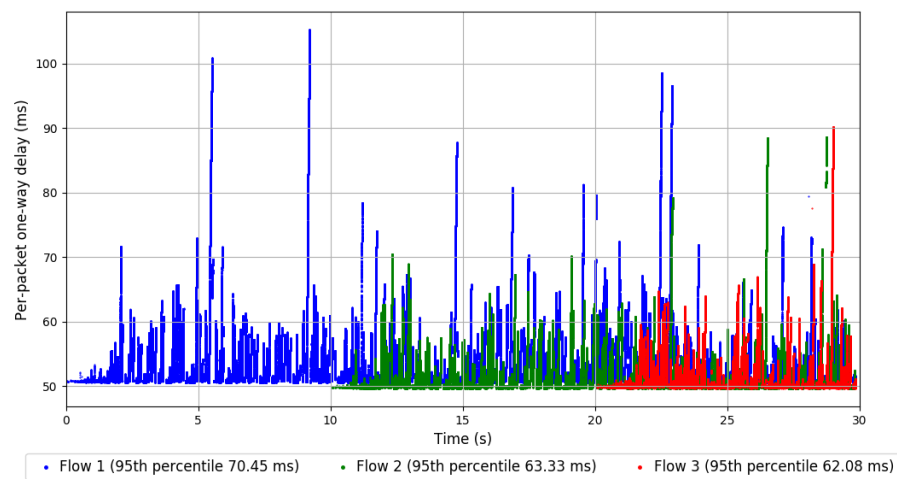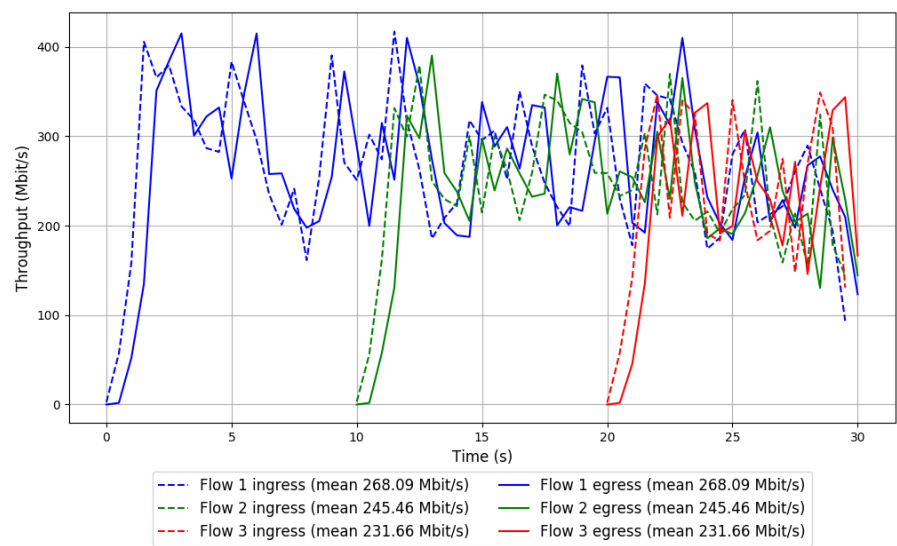
Run 5: Report of Indigo — Data Link

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

Start at: 2018-10-10 15:25:43
End at: 2018-10-10 15:26:13
Local clock offset: -0.235 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.78 Mbit/s
95th percentile per-packet one-way delay: 64.835 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.74 Mbit/s
95th percentile per-packet one-way delay: 63.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 246.63 Mbit/s
95th percentile per-packet one-way delay: 66.876 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.97 Mbit/s
95th percentile per-packet one-way delay: 60.792 ms
Loss rate: 0.00%
```

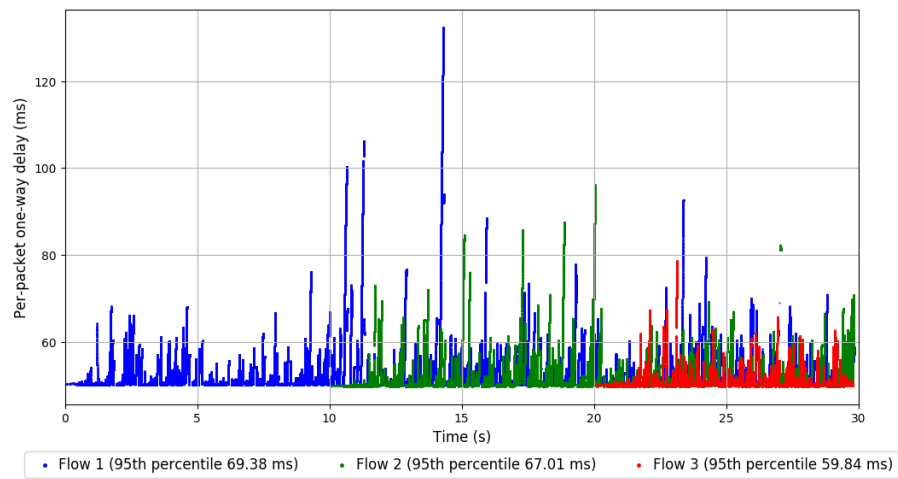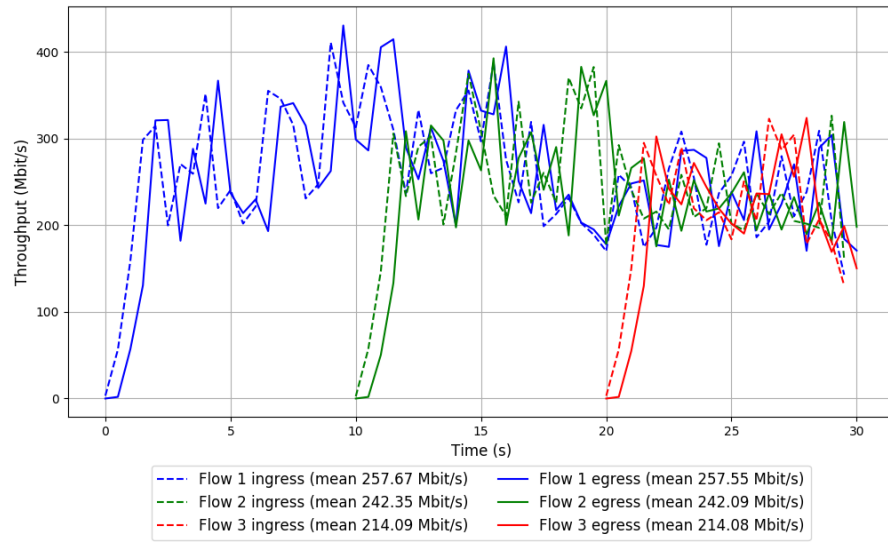Run 1: Report of Indigo-96d2da3 — Data Link

Flow 1 ingress (mean 222.78 Mbit/s) — Flow 1 egress (mean 222.74 Mbit/s)
Flow 2 ingress (mean 246.67 Mbit/s) — Flow 2 egress (mean 246.63 Mbit/s)
Flow 3 ingress (mean 223.97 Mbit/s) — Flow 3 egress (mean 223.97 Mbit/s)

Flow 1 (95th percentile 63.88 ms)   Flow 2 (95th percentile 66.88 ms)   Flow 3 (95th percentile 60.79 ms)

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

Start at: 2018-10-10 15:56:20
End at: 2018-10-10 15:56:50
Local clock offset: -0.158 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-10-10 18:53:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.74 Mbit/s
95th percentile per-packet one-way delay: 64.894 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 262.01 Mbit/s
95th percentile per-packet one-way delay: 64.965 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 254.54 Mbit/s
95th percentile per-packet one-way delay: 69.082 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.39 Mbit/s
95th percentile per-packet one-way delay: 61.297 ms
Loss rate: 0.00%
```
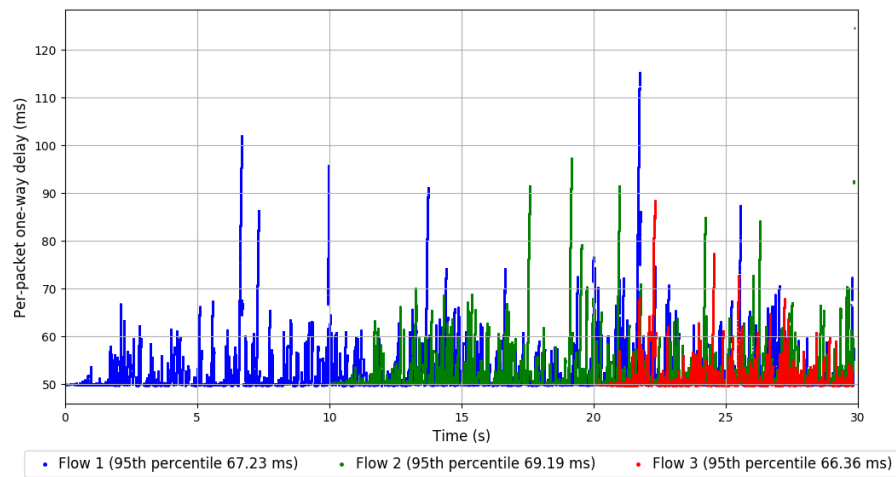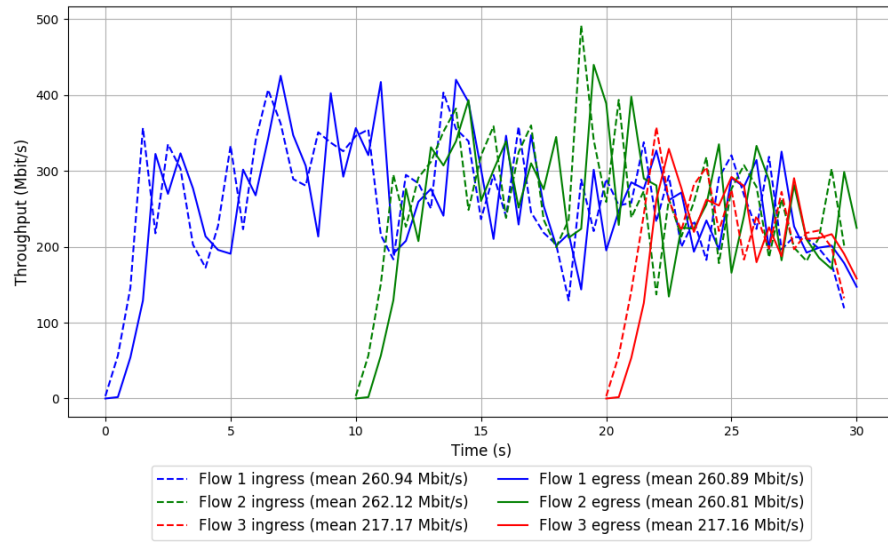
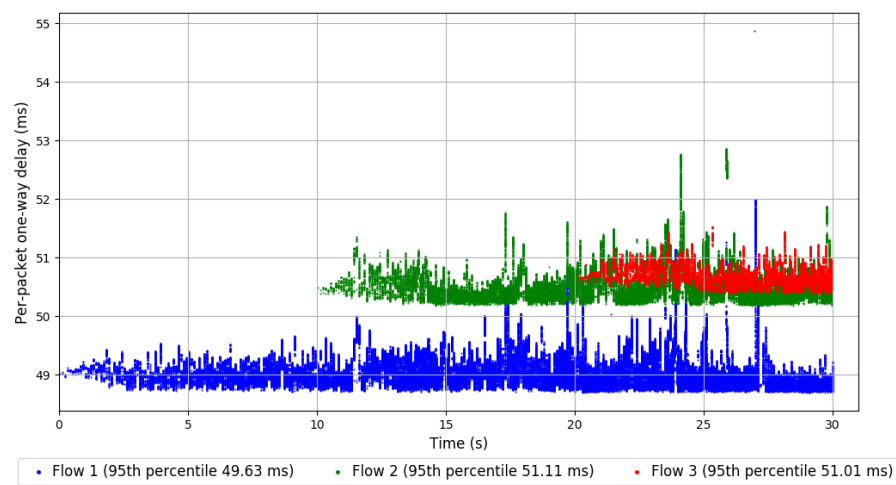Run 2: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-10-10 16:26:35
End at: 2018-10-10 16:27:05
Local clock offset: -0.25 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2018-10-10 18:57:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.58 Mbit/s
95th percentile per-packet one-way delay: 67.111 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 268.09 Mbit/s
95th percentile per-packet one-way delay: 70.454 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 245.46 Mbit/s
95th percentile per-packet one-way delay: 63.333 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 231.66 Mbit/s
95th percentile per-packet one-way delay: 62.076 ms
Loss rate: 0.00%
```

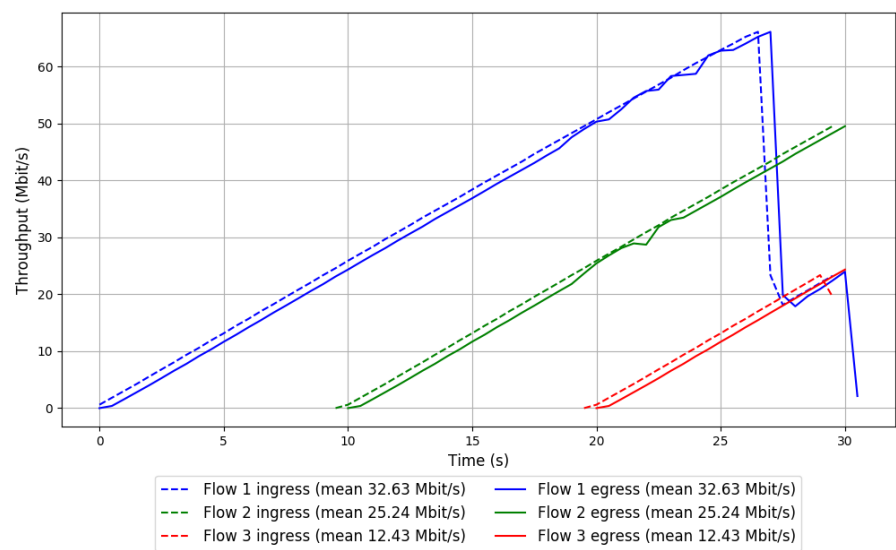Run 3: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-10-10 16:57:05
End at: 2018-10-10 16:57:35
Local clock offset: 0.207 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2018-10-10 18:59:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.19 Mbit/s
95th percentile per-packet one-way delay: 66.852 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 257.55 Mbit/s
95th percentile per-packet one-way delay: 69.383 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 242.09 Mbit/s
95th percentile per-packet one-way delay: 67.011 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 214.08 Mbit/s
95th percentile per-packet one-way delay: 59.837 ms
Loss rate: 0.00%
```
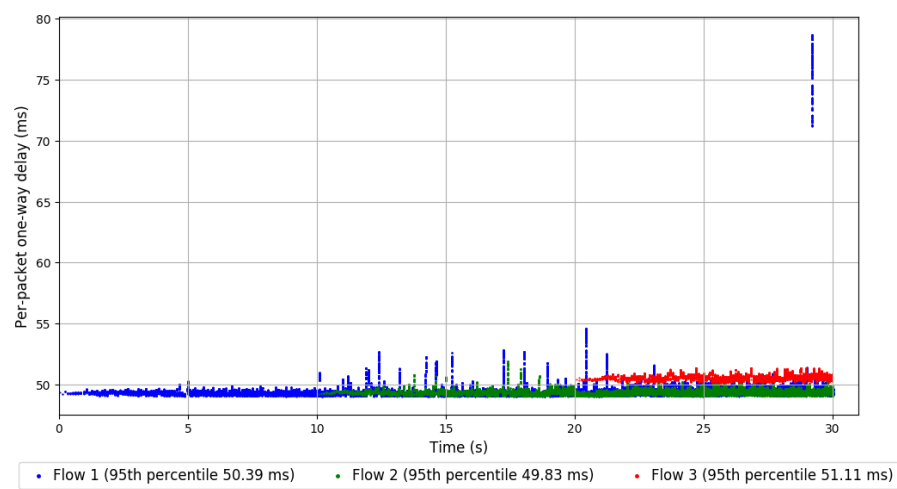
Run 4: Report of Indigo-96d2da3 — Data Link

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

Start at: 2018-10-10 17:27:36
End at: 2018-10-10 17:28:06
Local clock offset: 0.212 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2018-10-10 18:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 504.72 Mbit/s
95th percentile per-packet one-way delay: 67.933 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 260.89 Mbit/s
95th percentile per-packet one-way delay: 67.228 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 260.81 Mbit/s
95th percentile per-packet one-way delay: 69.192 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 217.16 Mbit/s
95th percentile per-packet one-way delay: 66.364 ms
Loss rate: 0.00%
```
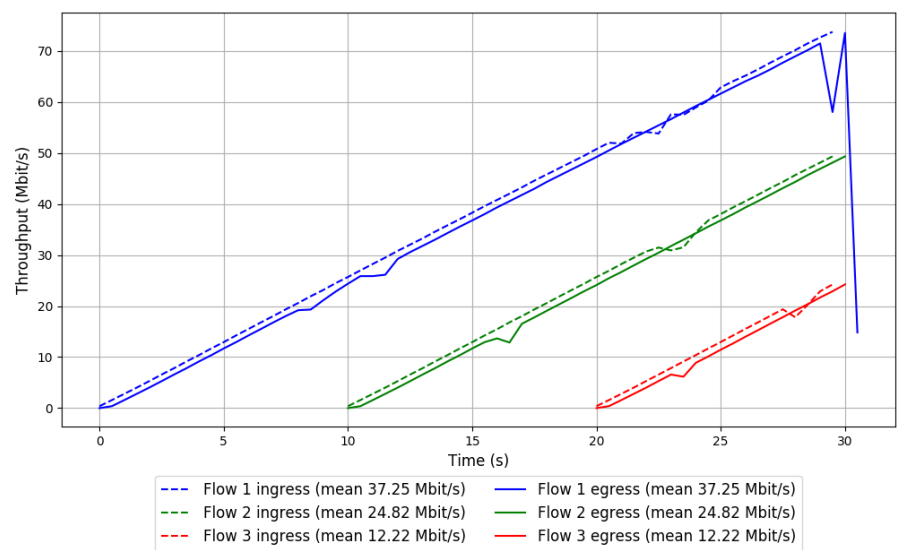
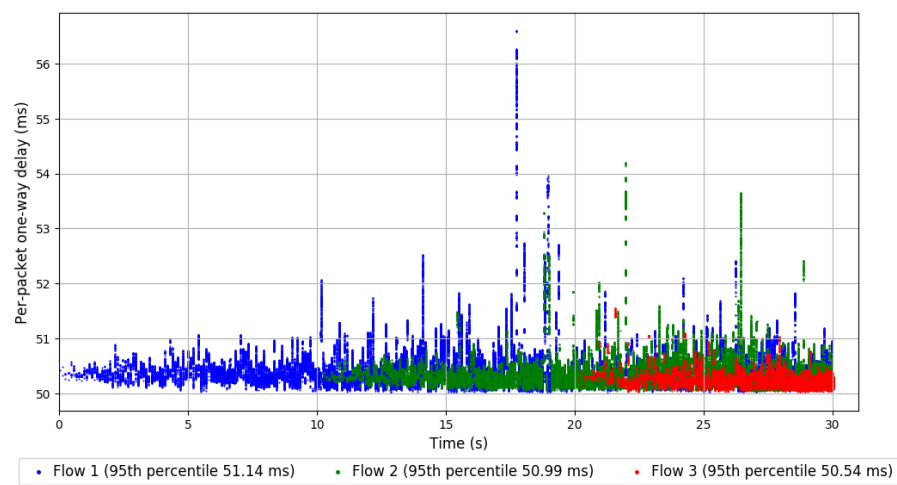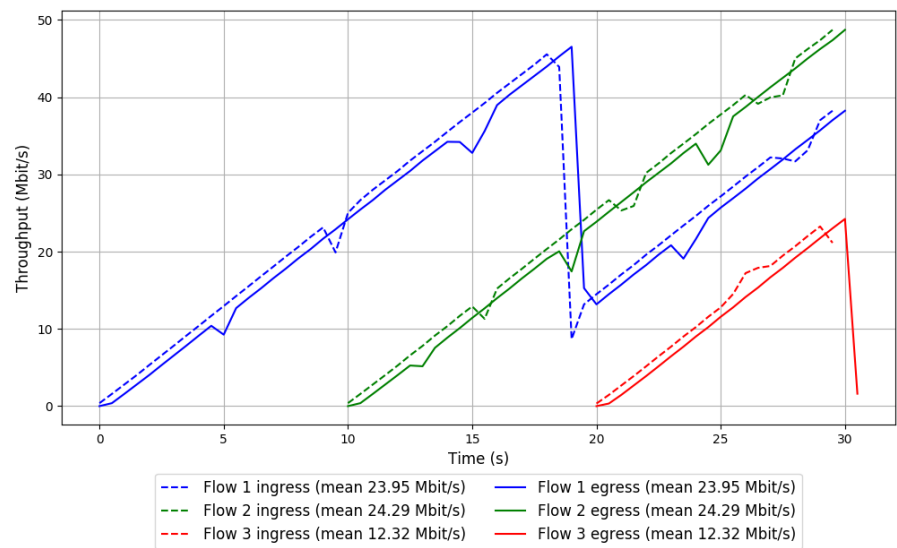Run 5: Report of Indigo-96d2da3 — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-10-10 15:13:51
End at: 2018-10-10 15:14:21
Local clock offset: -0.227 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-10-10 18:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.54 Mbit/s
95th percentile per-packet one-way delay: 50.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.63 Mbit/s
95th percentile per-packet one-way delay: 49.629 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.24 Mbit/s
95th percentile per-packet one-way delay: 51.110 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 51.011 ms
Loss rate: 0.00%
```
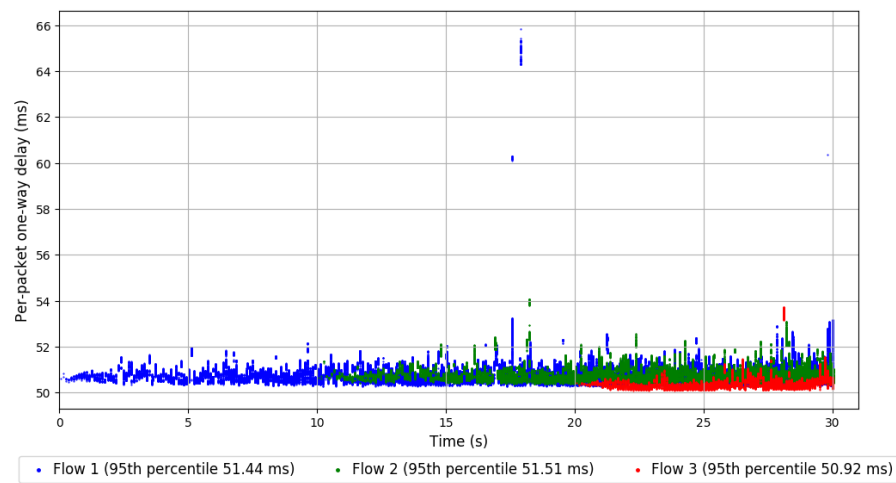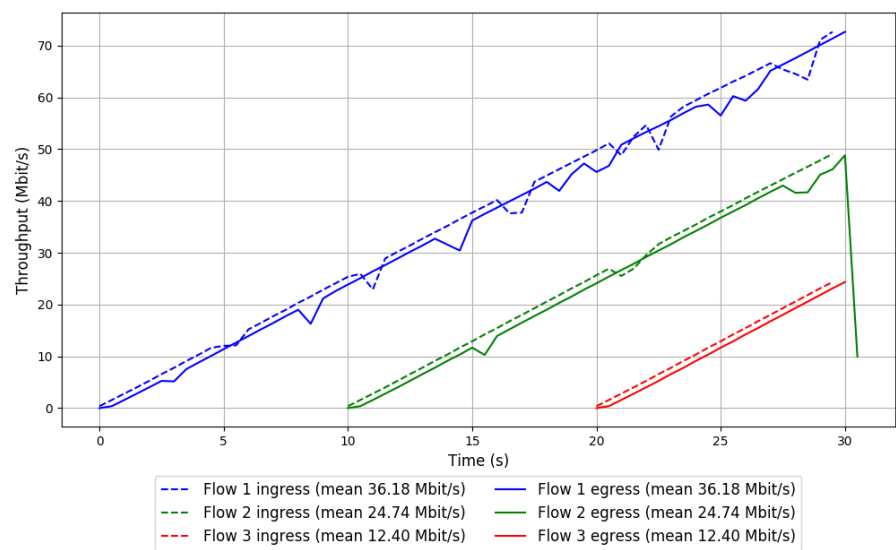
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-10-10 15:43:59
End at: 2018-10-10 15:44:29
Local clock offset: 0.218 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-10-10 18:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.79 Mbit/s
95th percentile per-packet one-way delay: 50.679 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.25 Mbit/s
95th percentile per-packet one-way delay: 50.394 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.82 Mbit/s
95th percentile per-packet one-way delay: 49.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.22 Mbit/s
95th percentile per-packet one-way delay: 51.112 ms
Loss rate: 0.00%
```
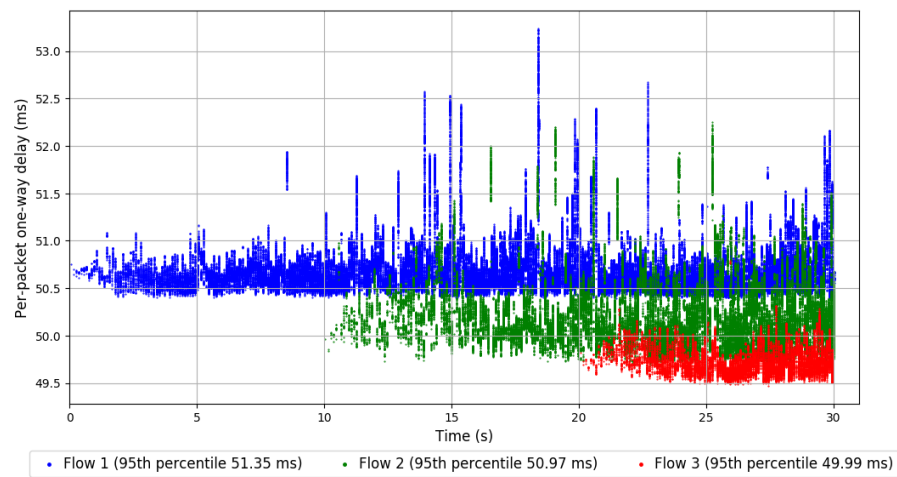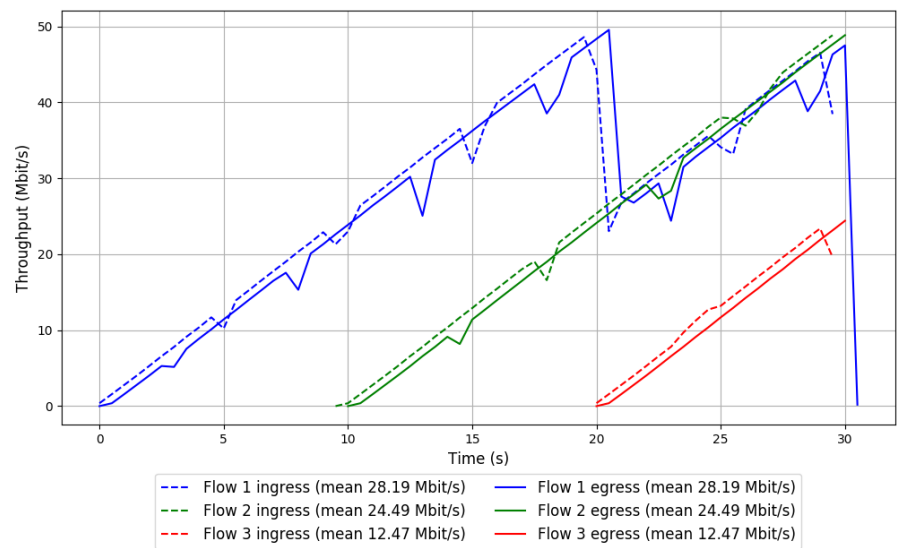
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-10-10 16:14:37
End at: 2018-10-10 16:15:07
Local clock offset: -0.149 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2018-10-10 18:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.14 Mbit/s
95th percentile per-packet one-way delay: 51.040 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.95 Mbit/s
95th percentile per-packet one-way delay: 51.142 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.29 Mbit/s
95th percentile per-packet one-way delay: 50.989 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.32 Mbit/s
95th percentile per-packet one-way delay: 50.541 ms
Loss rate: 0.02%
```

Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-10-10 16:44:54
End at: 2018-10-10 16:45:24
Local clock offset: -0.198 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-10-10 18:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.74 Mbit/s
95th percentile per-packet one-way delay: 51.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 36.18 Mbit/s
95th percentile per-packet one-way delay: 51.435 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 51.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 50.921 ms
Loss rate: 0.00%
```
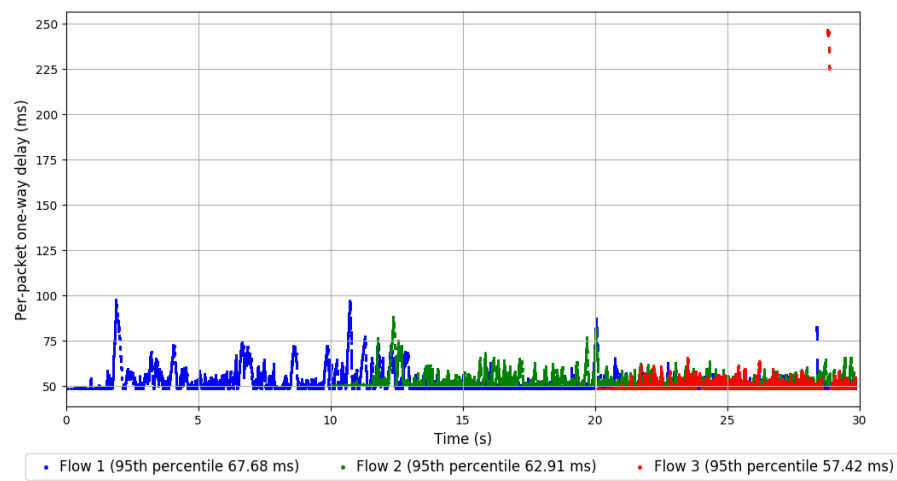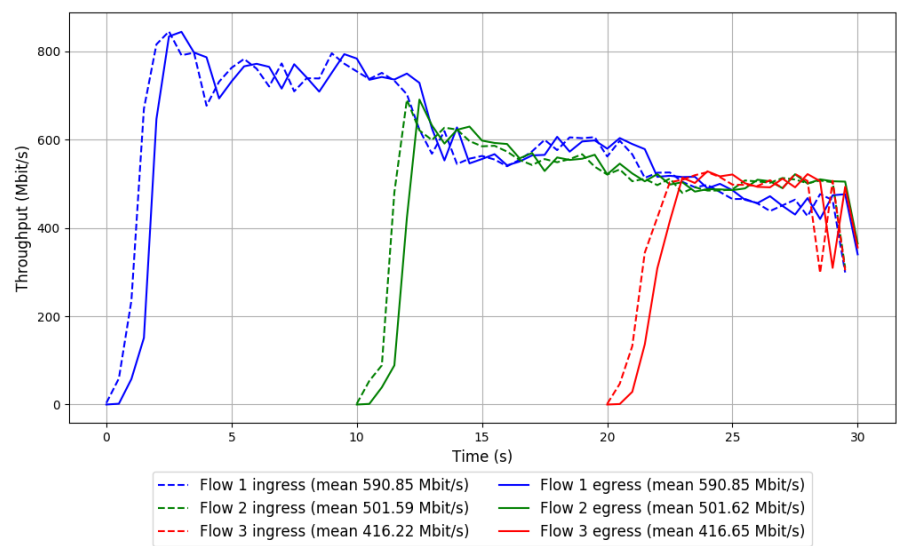
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-10-10 17:15:29
End at: 2018-10-10 17:15:59
Local clock offset: -0.125 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2018-10-10 18:59:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.59 Mbit/s
95th percentile per-packet one-way delay: 51.175 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 51.347 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 50.967 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.47 Mbit/s
95th percentile per-packet one-way delay: 49.987 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Indigo-Muses

Start at: 2018-10-10 15:30:10
End at: 2018-10-10 15:30:40
Local clock offset: -0.17 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2018-10-10 19:11:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1060.67 Mbit/s
95th percentile per-packet one-way delay: 65.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 590.85 Mbit/s
95th percentile per-packet one-way delay: 67.678 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 501.62 Mbit/s
95th percentile per-packet one-way delay: 62.913 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 416.65 Mbit/s
95th percentile per-packet one-way delay: 57.418 ms
Loss rate: 0.00%
```
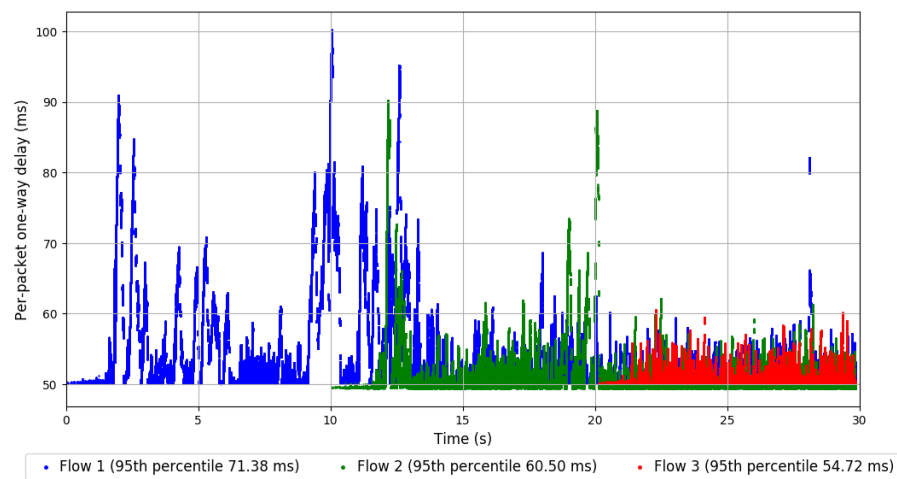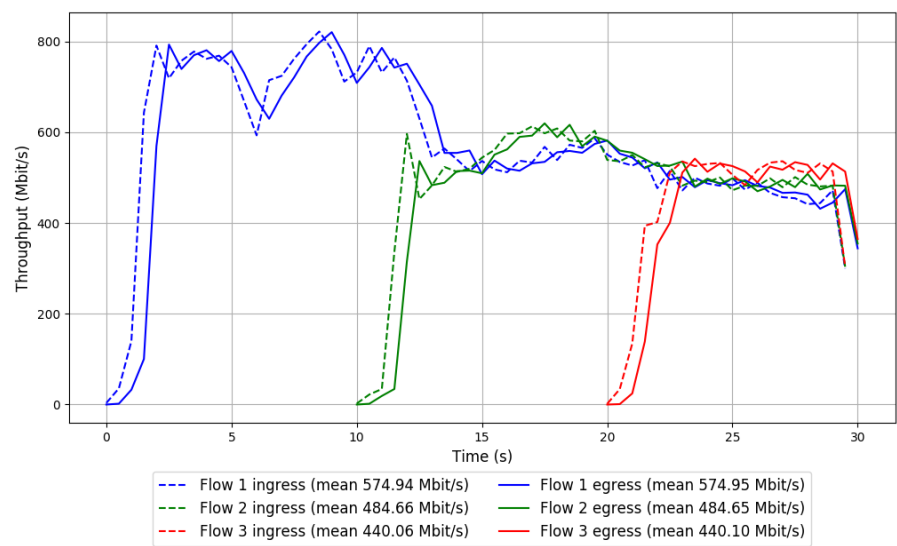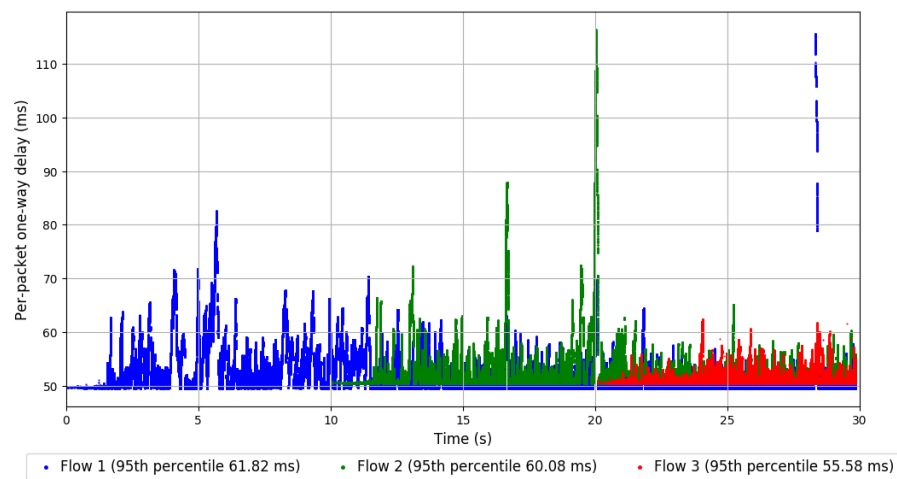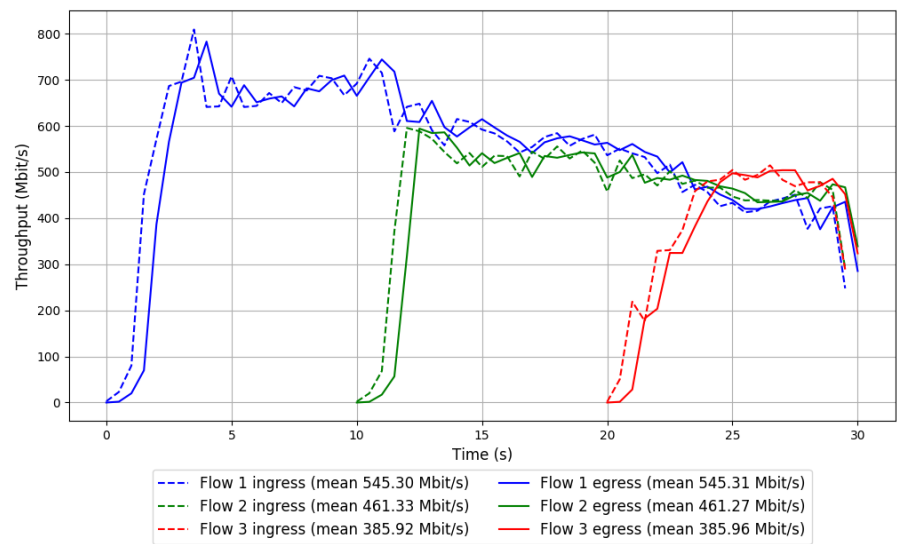
Run 1: Report of Indigo-Muses — Data Link

```
Run 2: Statistics of Indigo-Muses

Start at: 2018-10-10 16:00:47
End at: 2018-10-10 16:01:17
Local clock offset: -0.098 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2018-10-10 19:11:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1040.35 Mbit/s
95th percentile per-packet one-way delay: 67.455 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 574.95 Mbit/s
95th percentile per-packet one-way delay: 71.377 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 484.65 Mbit/s
95th percentile per-packet one-way delay: 60.499 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 440.10 Mbit/s
95th percentile per-packet one-way delay: 54.719 ms
Loss rate: 0.00%
```
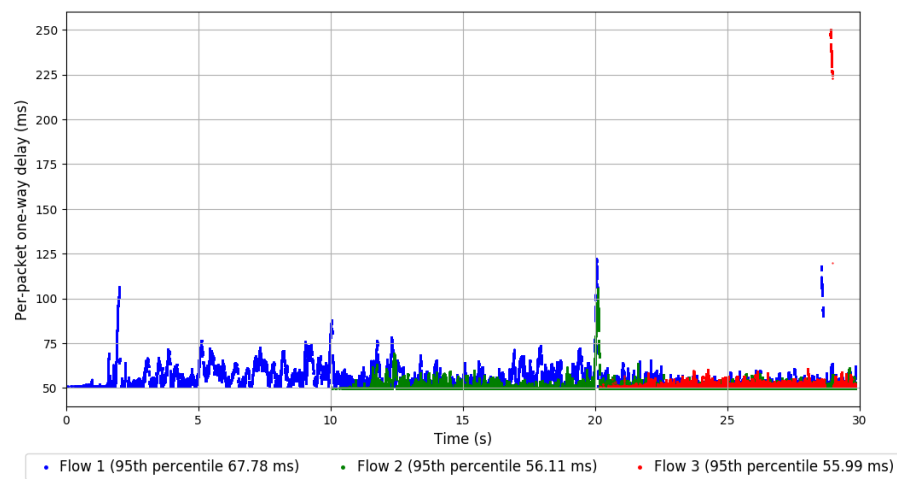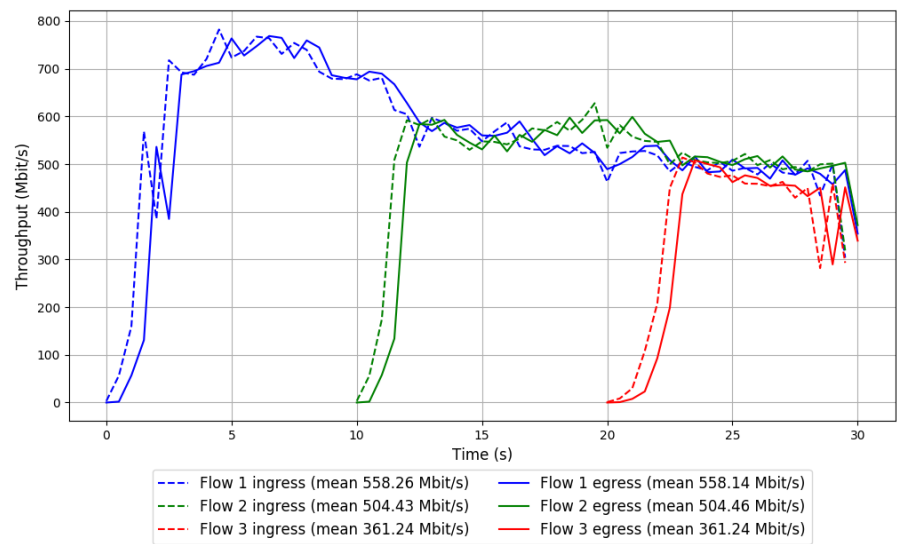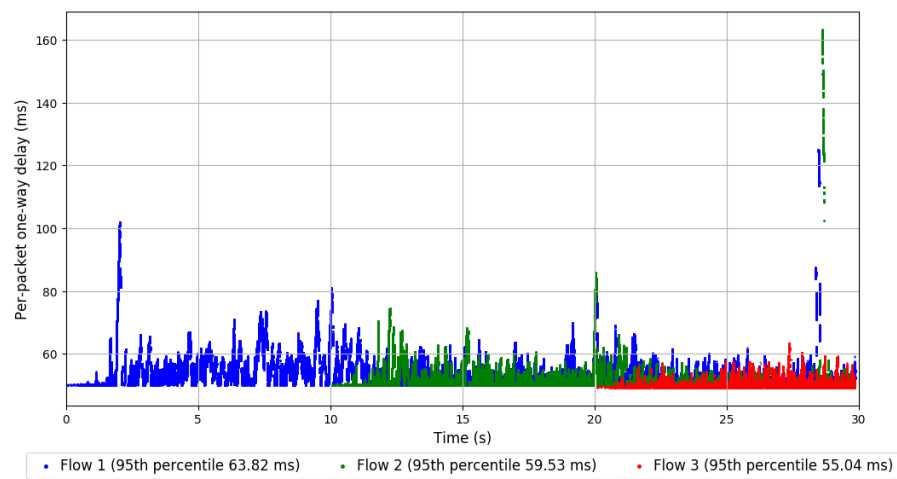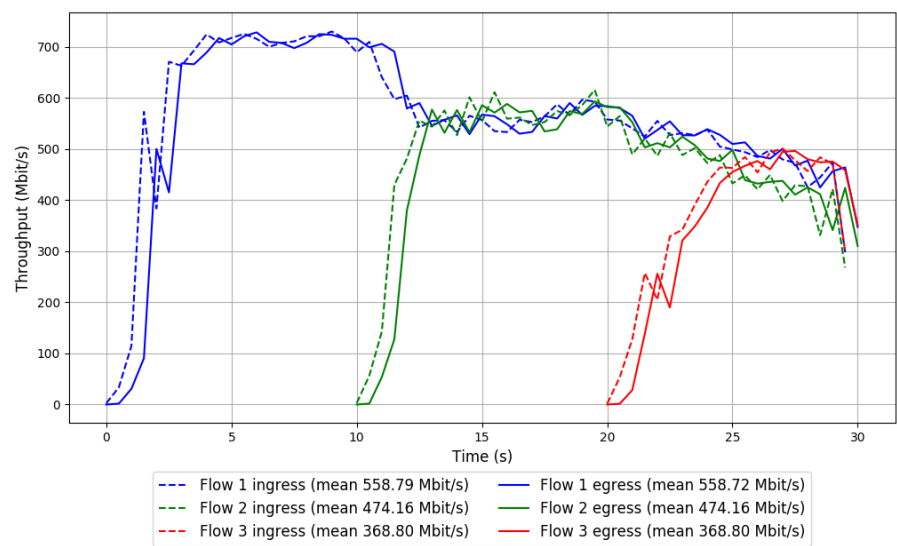
Run 2: Report of Indigo-Muses — Data Link

```
Run 3: Statistics of Indigo-Muses

Start at: 2018-10-10 16:31:04
End at: 2018-10-10 16:31:34
Local clock offset: -0.254 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2018-10-10 19:11:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 978.15 Mbit/s
95th percentile per-packet one-way delay: 60.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 545.31 Mbit/s
95th percentile per-packet one-way delay: 61.819 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 461.27 Mbit/s
95th percentile per-packet one-way delay: 60.084 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 385.96 Mbit/s
95th percentile per-packet one-way delay: 55.576 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-Muses — Data Link

Flow 1 ingress (mean 545.30 Mbit/s) --- Flow 1 egress (mean 545.31 Mbit/s)
Flow 2 ingress (mean 461.33 Mbit/s) --- Flow 2 egress (mean 461.27 Mbit/s)
Flow 3 ingress (mean 385.92 Mbit/s) --- Flow 3 egress (mean 385.96 Mbit/s)

Flow 1 (95th percentile 61.82 ms)   Flow 2 (95th percentile 60.08 ms)   Flow 3 (95th percentile 55.58 ms)

80

```
Run 4: Statistics of Indigo-Muses

Start at: 2018-10-10 17:01:34
End at: 2018-10-10 17:02:04
Local clock offset: -0.486 ms
Remote clock offset: 0.006 ms


# Below is generated by plot.py at 2018-10-10 19:12:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1010.76 Mbit/s
95th percentile per-packet one-way delay: 64.912 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 558.14 Mbit/s
95th percentile per-packet one-way delay: 67.781 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 504.46 Mbit/s
95th percentile per-packet one-way delay: 56.112 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 361.24 Mbit/s
95th percentile per-packet one-way delay: 55.994 ms
Loss rate: 0.00%
```

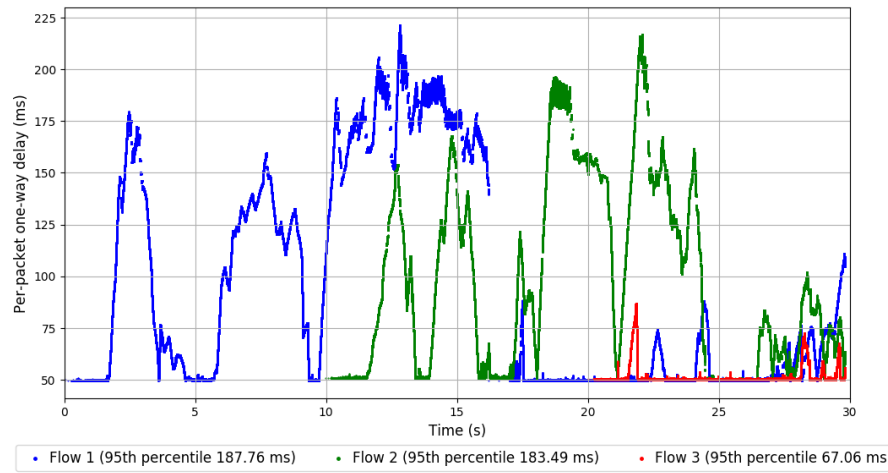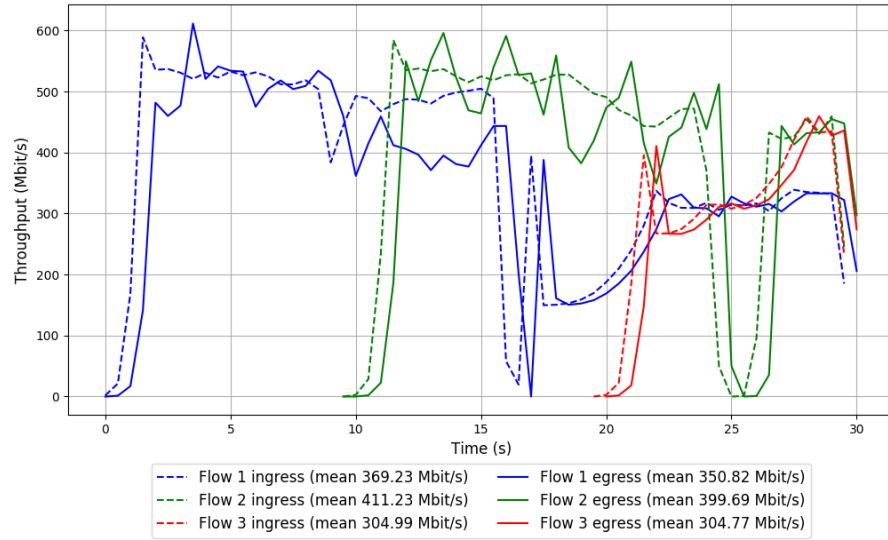Run 4: Report of Indigo-Muses — Data Link

```
Run 5: Statistics of Indigo-Muses

Start at: 2018-10-10 17:32:05
End at: 2018-10-10 17:32:35
Local clock offset: -0.157 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-10-10 19:12:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 994.22 Mbit/s
95th percentile per-packet one-way delay: 62.376 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 558.72 Mbit/s
95th percentile per-packet one-way delay: 63.819 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 474.16 Mbit/s
95th percentile per-packet one-way delay: 59.531 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 368.80 Mbit/s
95th percentile per-packet one-way delay: 55.041 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-Muses — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-10-10 15:21:46
End at: 2018-10-10 15:22:16
Local clock offset: -0.212 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2018-10-10 19:21:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 717.75 Mbit/s
95th percentile per-packet one-way delay: 184.340 ms
Loss rate: 3.52%
-- Flow 1:
Average throughput: 350.82 Mbit/s
95th percentile per-packet one-way delay: 187.763 ms
Loss rate: 4.98%
-- Flow 2:
Average throughput: 399.69 Mbit/s
95th percentile per-packet one-way delay: 183.485 ms
Loss rate: 2.81%
-- Flow 3:
Average throughput: 304.77 Mbit/s
95th percentile per-packet one-way delay: 67.063 ms
Loss rate: 0.07%
```
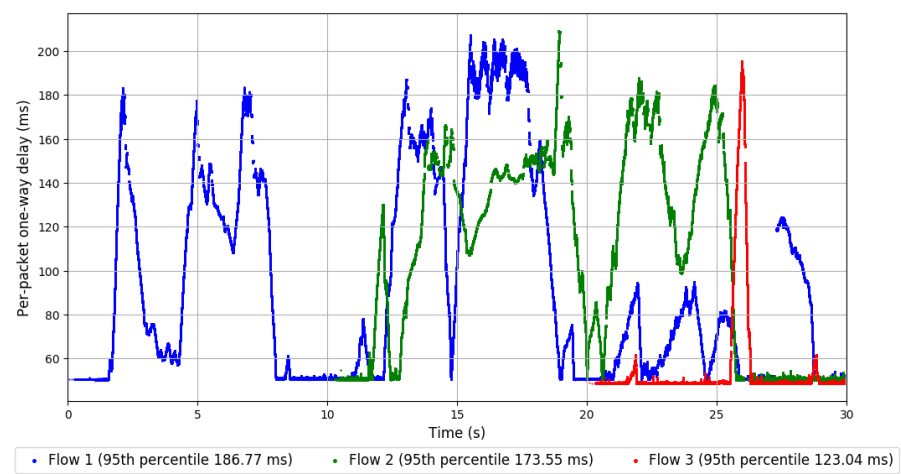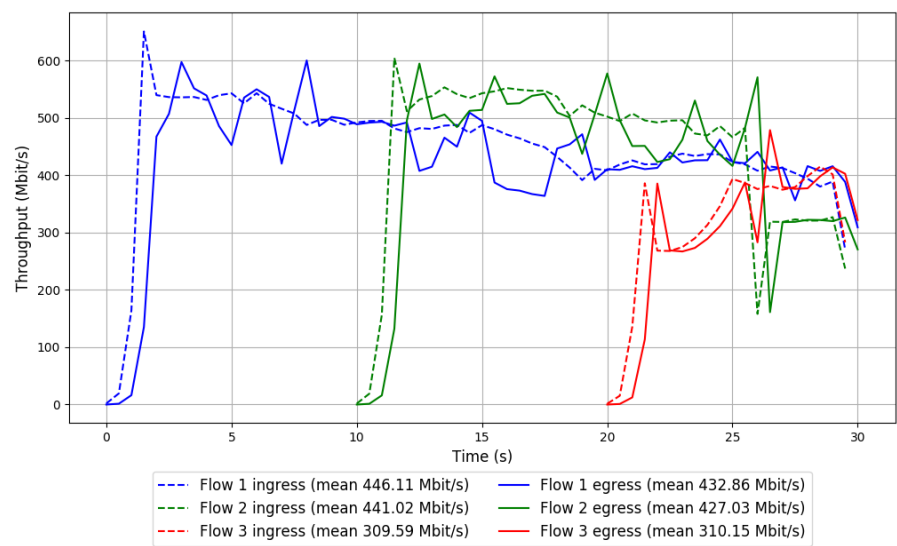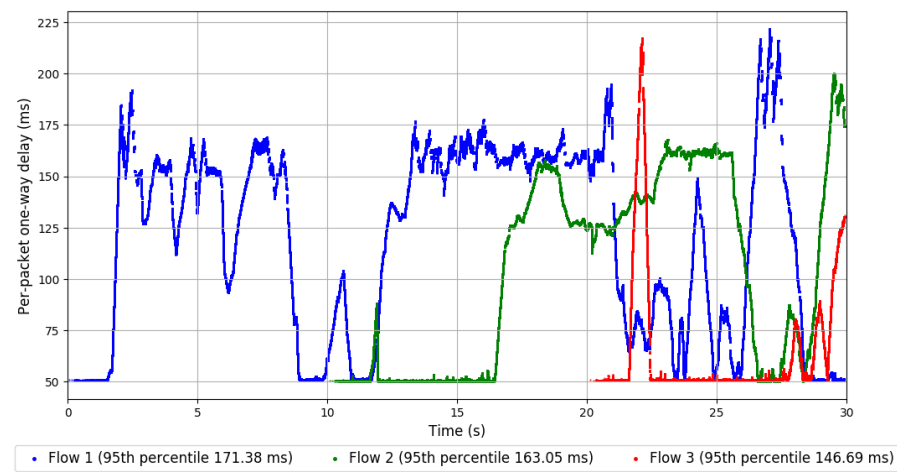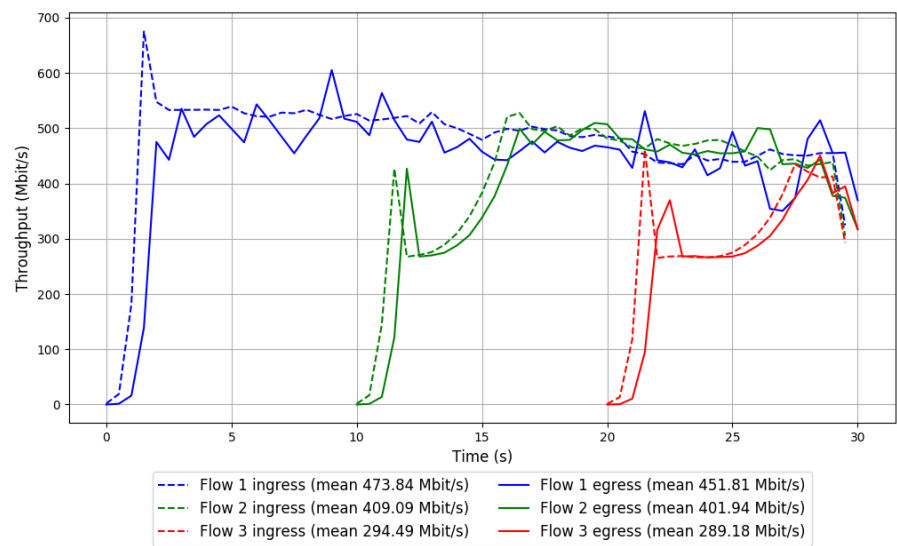
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-10-10 15:52:14
End at: 2018-10-10 15:52:44
Local clock offset: -0.169 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2018-10-10 19:28:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 818.49 Mbit/s
95th percentile per-packet one-way delay: 178.201 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 432.86 Mbit/s
95th percentile per-packet one-way delay: 186.774 ms
Loss rate: 3.06%
-- Flow 2:
Average throughput: 427.03 Mbit/s
95th percentile per-packet one-way delay: 173.551 ms
Loss rate: 3.31%
-- Flow 3:
Average throughput: 310.15 Mbit/s
95th percentile per-packet one-way delay: 123.040 ms
Loss rate: 0.11%
```

Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 446.11 Mbit/s) Flow 1 egress (mean 432.86 Mbit/s)
Flow 2 ingress (mean 441.02 Mbit/s) Flow 2 egress (mean 427.03 Mbit/s)
Flow 3 ingress (mean 309.59 Mbit/s) Flow 3 egress (mean 310.15 Mbit/s)

Flow 1 (95th percentile 186.77 ms)   Flow 2 (95th percentile 173.55 ms)   Flow 3 (95th percentile 123.04 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-10-10 16:22:27
End at: 2018-10-10 16:22:57
Local clock offset: -0.223 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2018-10-10 19:28:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 813.40 Mbit/s
95th percentile per-packet one-way delay: 168.213 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 451.81 Mbit/s
95th percentile per-packet one-way delay: 171.383 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 401.94 Mbit/s
95th percentile per-packet one-way delay: 163.052 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 289.18 Mbit/s
95th percentile per-packet one-way delay: 146.688 ms
Loss rate: 1.80%
```
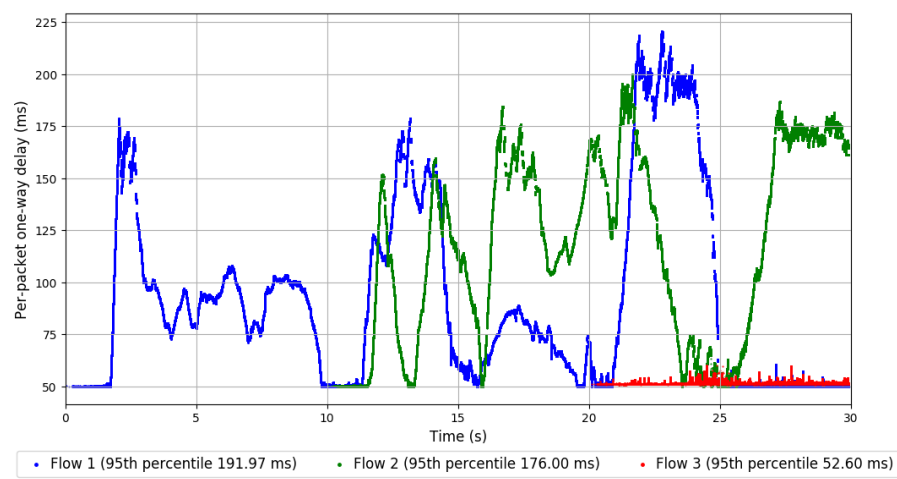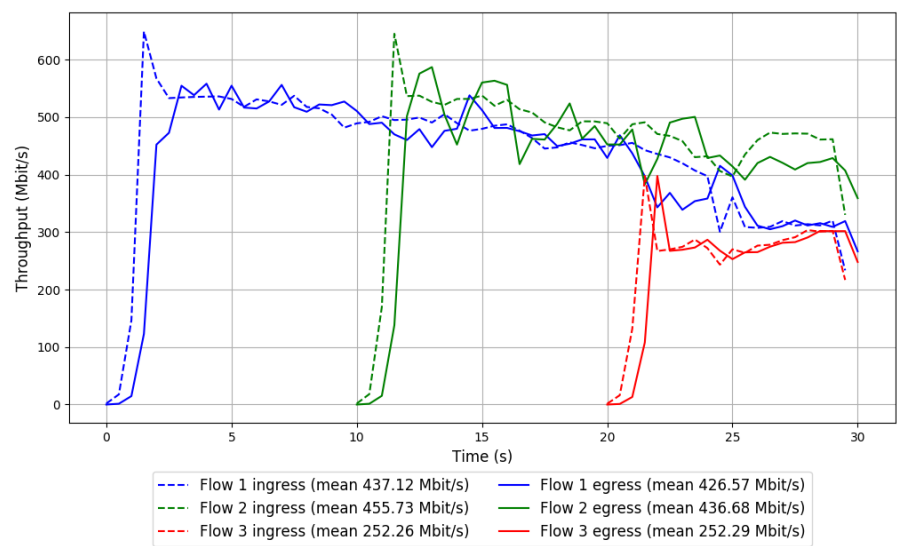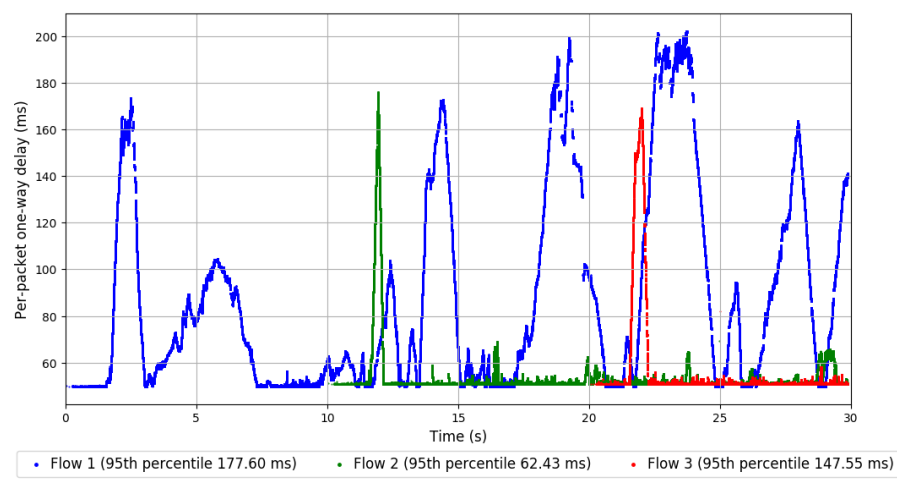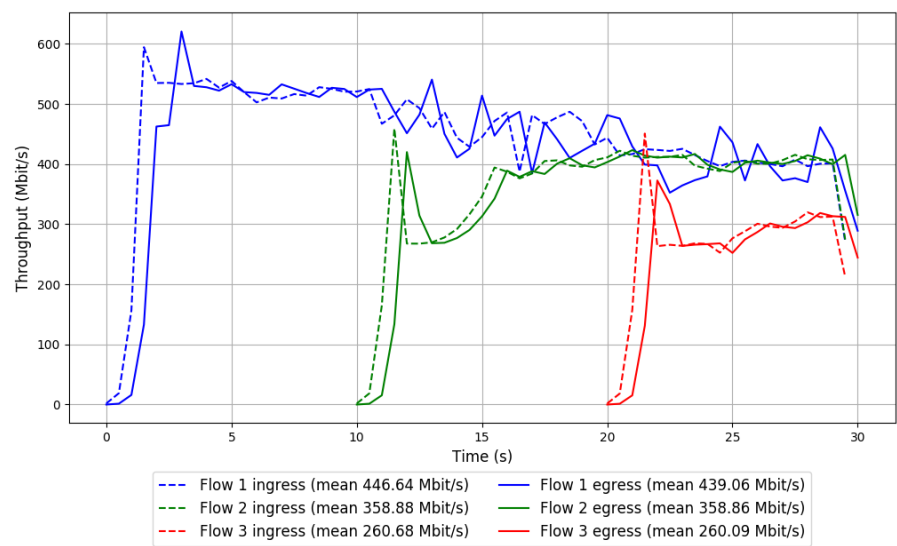
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 473.84 Mbit/s) ----- Flow 1 egress (mean 451.81 Mbit/s)
Flow 2 ingress (mean 409.09 Mbit/s) ----- Flow 2 egress (mean 401.94 Mbit/s)
Flow 3 ingress (mean 294.49 Mbit/s) ----- Flow 3 egress (mean 289.18 Mbit/s)

Flow 1 (95th percentile 171.38 ms)   Flow 2 (95th percentile 163.05 ms)   Flow 3 (95th percentile 146.69 ms)

90

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-10-10 16:53:02
End at: 2018-10-10 16:53:32
Local clock offset: -0.538 ms
Remote clock offset: 0.05 ms


# Below is generated by plot.py at 2018-10-10 19:40:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 799.78 Mbit/s
95th percentile per-packet one-way delay: 177.831 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 426.57 Mbit/s
95th percentile per-packet one-way delay: 191.965 ms
Loss rate: 2.41%
-- Flow 2:
Average throughput: 436.68 Mbit/s
95th percentile per-packet one-way delay: 175.999 ms
Loss rate: 4.18%
-- Flow 3:
Average throughput: 252.29 Mbit/s
95th percentile per-packet one-way delay: 52.604 ms
Loss rate: 0.00%
```

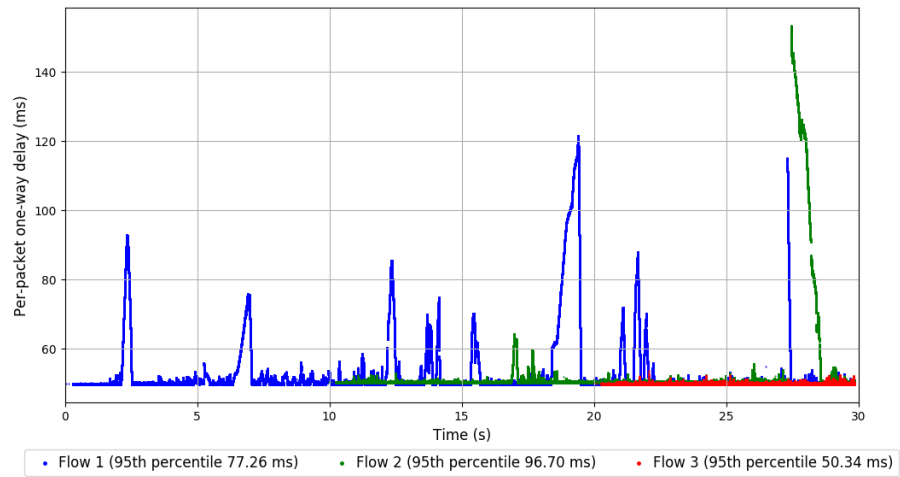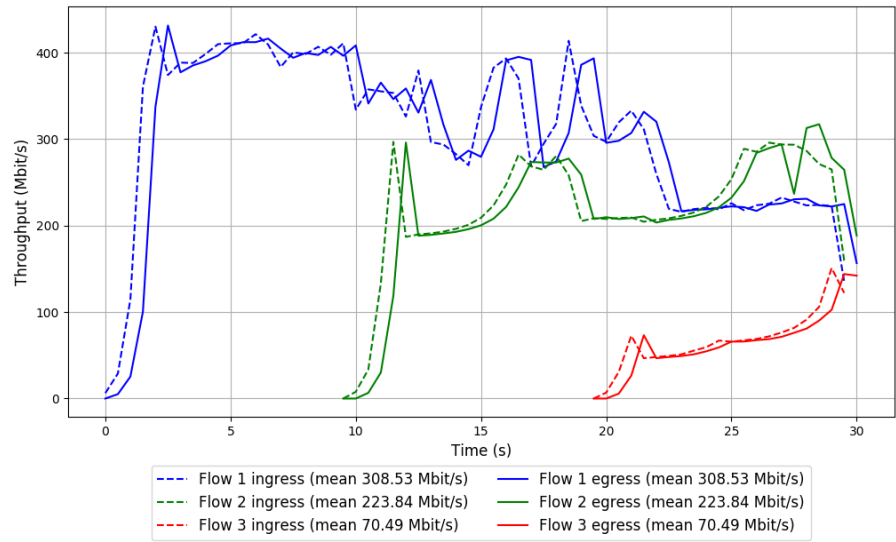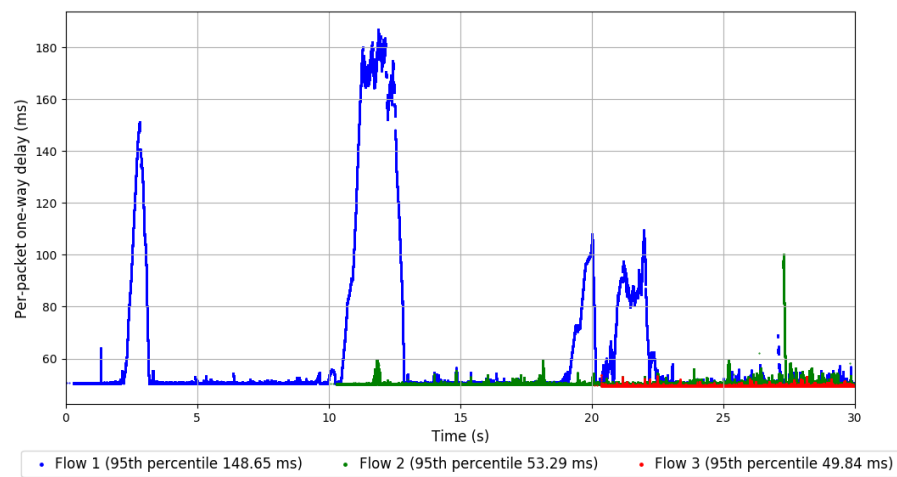## Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 437.12 Mbit/s)   Flow 1 egress (mean 426.57 Mbit/s)
Flow 2 ingress (mean 455.73 Mbit/s)   Flow 2 egress (mean 436.68 Mbit/s)
Flow 3 ingress (mean 252.26 Mbit/s)   Flow 3 egress (mean 252.29 Mbit/s)

Flow 1 (95th percentile 191.97 ms)   Flow 2 (95th percentile 176.00 ms)   Flow 3 (95th percentile 52.60 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-10-10 17:23:32
End at: 2018-10-10 17:24:02
Local clock offset: -0.506 ms
Remote clock offset: -0.081 ms


# Below is generated by plot.py at 2018-10-10 19:40:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 763.30 Mbit/s
95th percentile per-packet one-way delay: 162.052 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 439.06 Mbit/s
95th percentile per-packet one-way delay: 177.605 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 358.86 Mbit/s
95th percentile per-packet one-way delay: 62.433 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 260.09 Mbit/s
95th percentile per-packet one-way delay: 147.550 ms
Loss rate: 0.23%
```

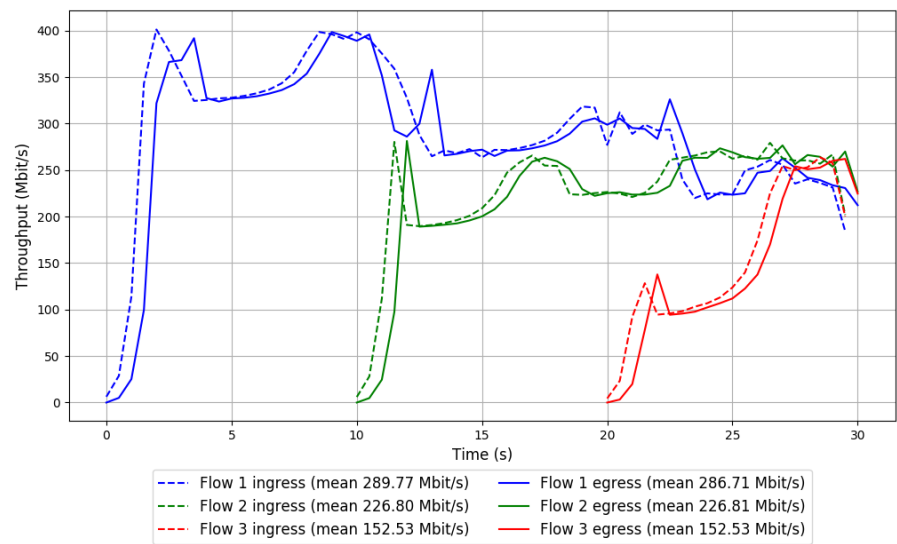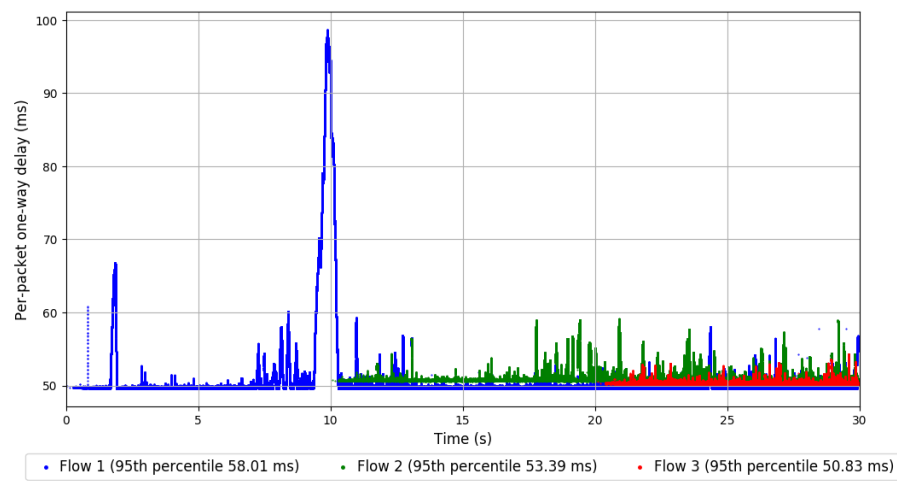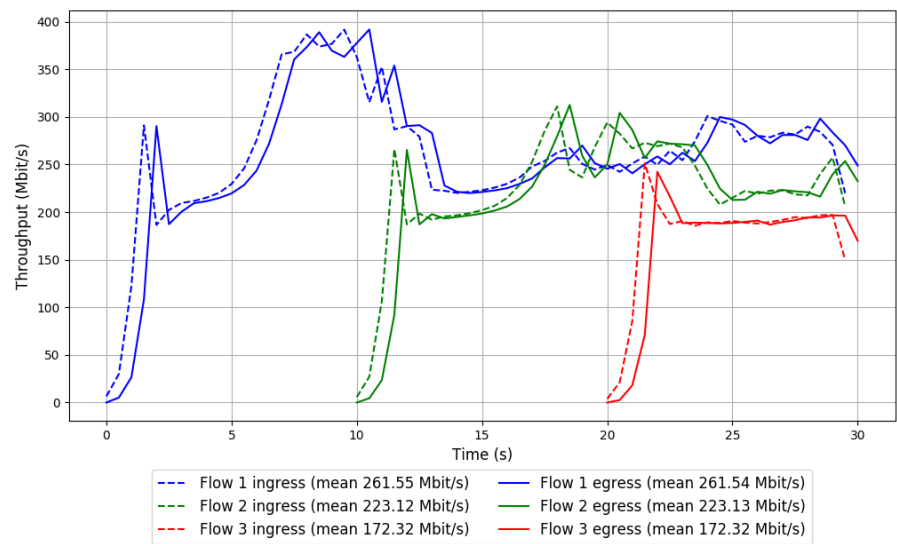Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2018-10-10 15:11:56
End at: 2018-10-10 15:12:26
Local clock offset: 0.108 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-10-10 19:40:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 481.10 Mbit/s
95th percentile per-packet one-way delay: 78.627 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 308.53 Mbit/s
95th percentile per-packet one-way delay: 77.263 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 223.84 Mbit/s
95th percentile per-packet one-way delay: 96.702 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.49 Mbit/s
95th percentile per-packet one-way delay: 50.345 ms
Loss rate: 0.00%
```
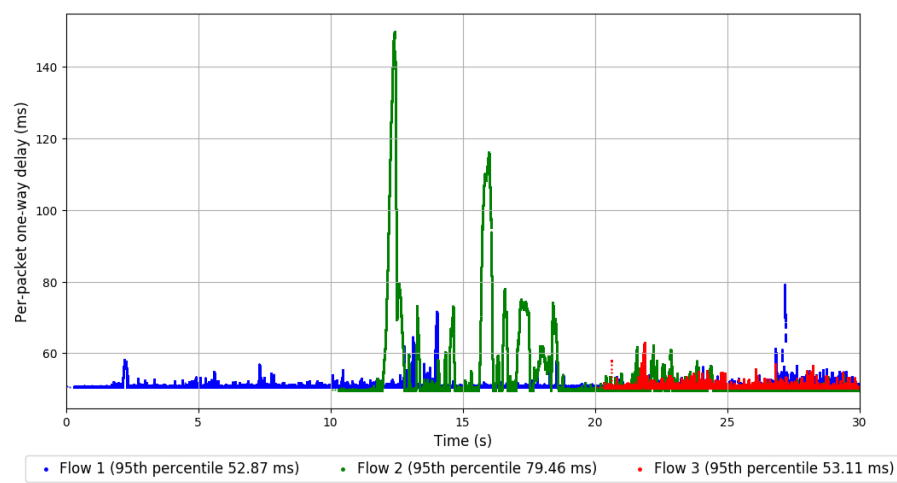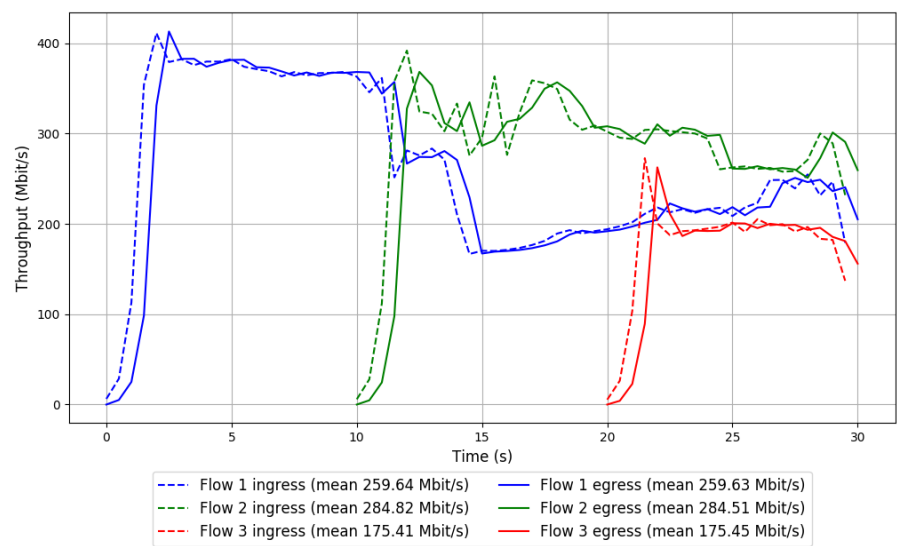
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-10-10 15:42:05
End at: 2018-10-10 15:42:35
Local clock offset: -0.16 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2018-10-10 19:40:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.77 Mbit/s
95th percentile per-packet one-way delay: 105.038 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 286.71 Mbit/s
95th percentile per-packet one-way delay: 148.646 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 226.81 Mbit/s
95th percentile per-packet one-way delay: 53.287 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 152.53 Mbit/s
95th percentile per-packet one-way delay: 49.844 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-10-10 16:12:45
End at: 2018-10-10 16:13:15
Local clock offset: -0.199 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2018-10-10 19:40:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.68 Mbit/s
95th percentile per-packet one-way delay: 54.307 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 261.54 Mbit/s
95th percentile per-packet one-way delay: 58.013 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 223.13 Mbit/s
95th percentile per-packet one-way delay: 53.393 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 172.32 Mbit/s
95th percentile per-packet one-way delay: 50.831 ms
Loss rate: 0.00%
```
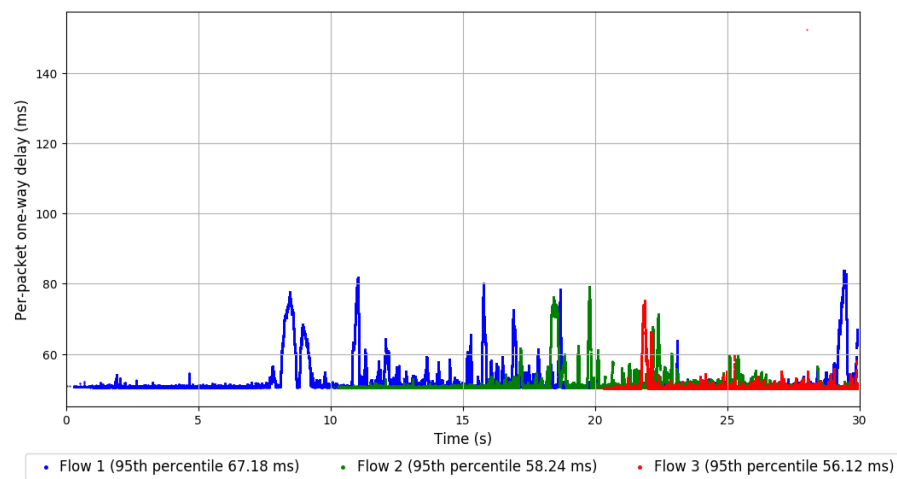
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-10-10 16:42:59
End at: 2018-10-10 16:43:29
Local clock offset: -0.243 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2018-10-10 19:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.72 Mbit/s
95th percentile per-packet one-way delay: 64.449 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 259.63 Mbit/s
95th percentile per-packet one-way delay: 52.868 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 284.51 Mbit/s
95th percentile per-packet one-way delay: 79.461 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 175.45 Mbit/s
95th percentile per-packet one-way delay: 53.113 ms
Loss rate: 0.00%
```
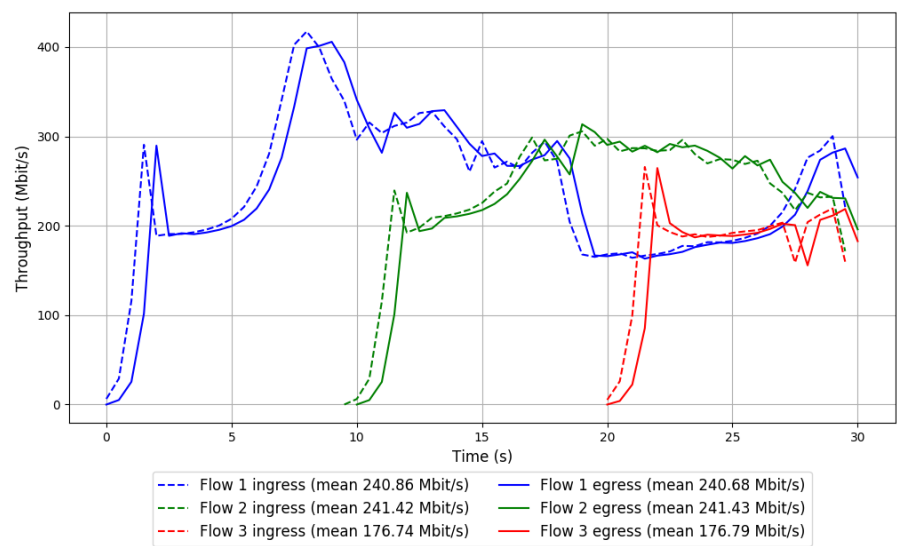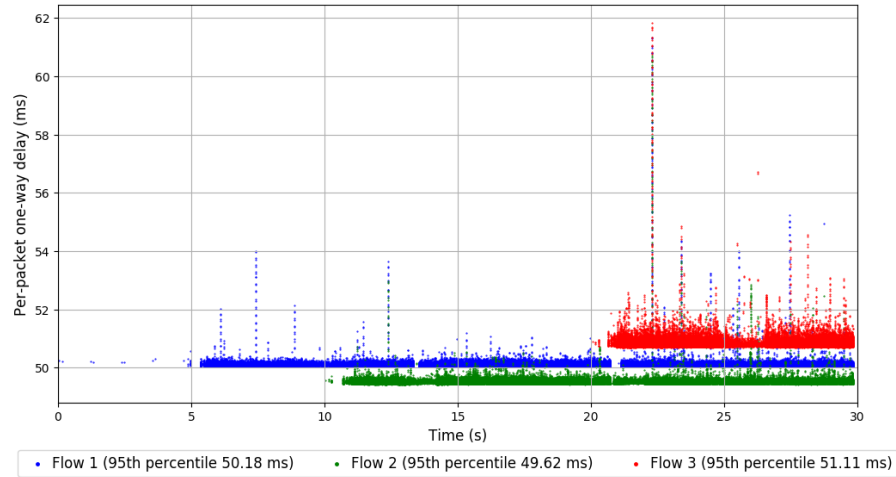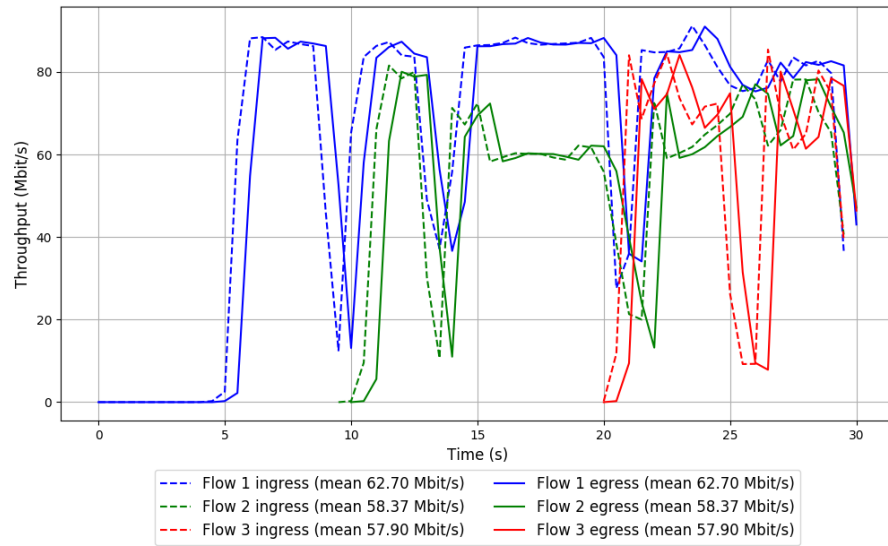
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 259.64 Mbit/s)   Flow 1 egress (mean 259.63 Mbit/s)
Flow 2 ingress (mean 284.82 Mbit/s)   Flow 2 egress (mean 284.51 Mbit/s)
Flow 3 ingress (mean 175.41 Mbit/s)   Flow 3 egress (mean 175.45 Mbit/s)

Flow 1 (95th percentile 52.87 ms)   Flow 2 (95th percentile 79.46 ms)   Flow 3 (95th percentile 53.11 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-10-10 17:13:37
End at: 2018-10-10 17:14:07
Local clock offset: -0.126 ms
Remote clock offset: 0.062 ms


# Below is generated by plot.py at 2018-10-10 19:45:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.62 Mbit/s
95th percentile per-packet one-way delay: 63.404 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 240.68 Mbit/s
95th percentile per-packet one-way delay: 67.179 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 241.43 Mbit/s
95th percentile per-packet one-way delay: 58.240 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.79 Mbit/s
95th percentile per-packet one-way delay: 56.117 ms
Loss rate: 0.00%
```
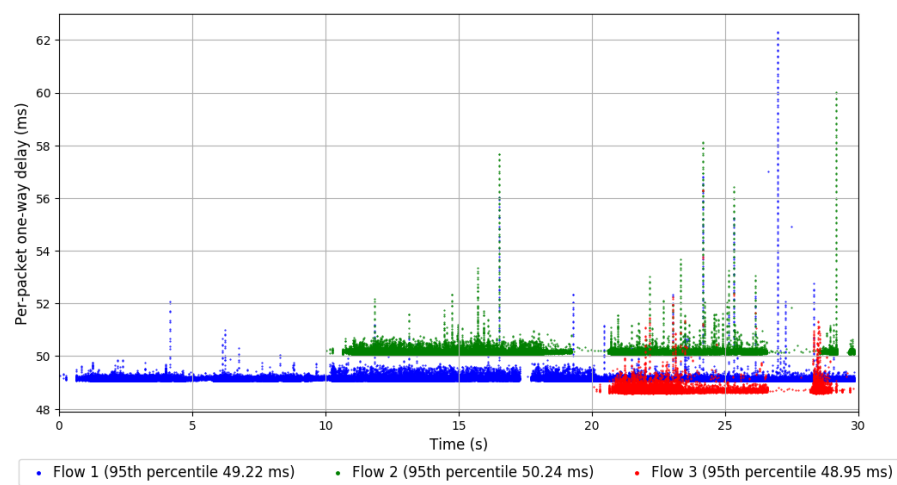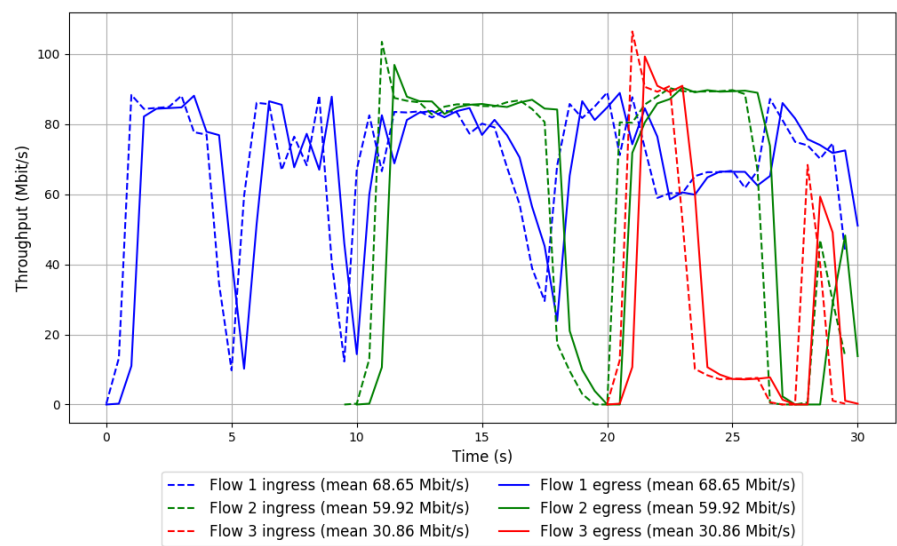
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 240.86 Mbit/s)   Flow 1 egress (mean 240.68 Mbit/s)
Flow 2 ingress (mean 241.42 Mbit/s)   Flow 2 egress (mean 241.43 Mbit/s)
Flow 3 ingress (mean 176.74 Mbit/s)   Flow 3 egress (mean 176.79 Mbit/s)

Flow 1 (95th percentile 67.18 ms)   Flow 2 (95th percentile 58.24 ms)   Flow 3 (95th percentile 56.12 ms)
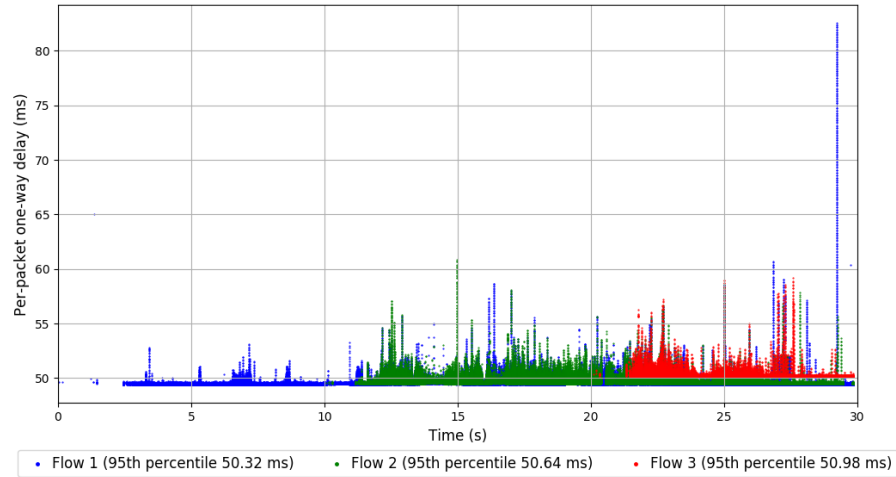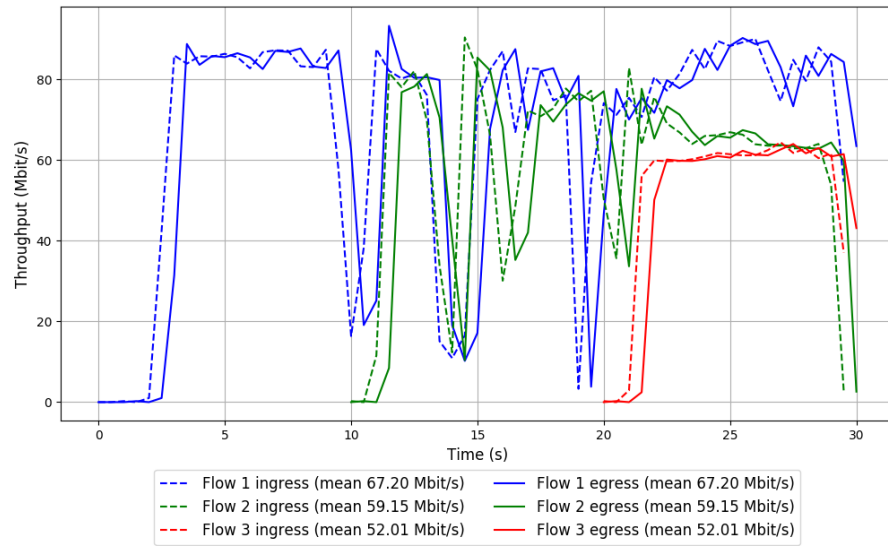
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-10-10 15:02:01
End at: 2018-10-10 15:02:31
Local clock offset: -0.271 ms
Remote clock offset: -0.128 ms


# Below is generated by plot.py at 2018-10-10 19:45:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.48 Mbit/s
95th percentile per-packet one-way delay: 50.835 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.70 Mbit/s
95th percentile per-packet one-way delay: 50.180 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.37 Mbit/s
95th percentile per-packet one-way delay: 49.618 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.90 Mbit/s
95th percentile per-packet one-way delay: 51.106 ms
Loss rate: 0.00%
```

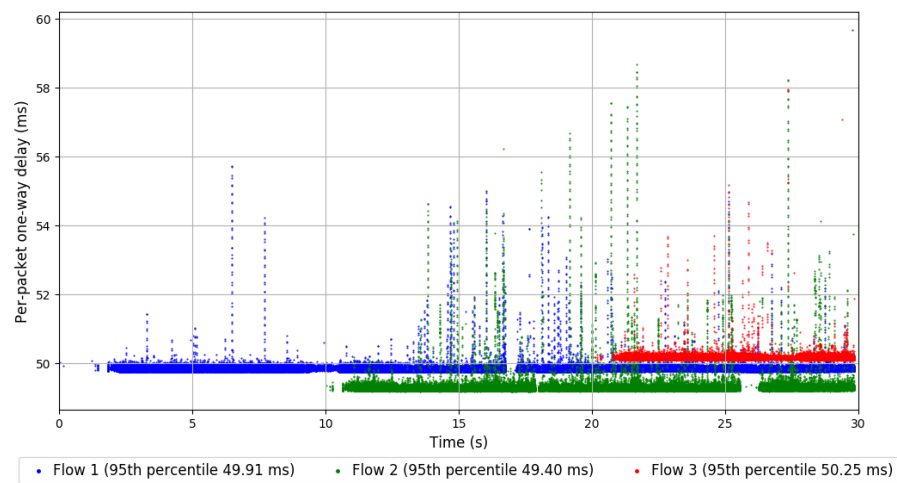# Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-10-10 15:32:12
End at: 2018-10-10 15:32:42
Local clock offset: 0.149 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2018-10-10 19:45:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.55 Mbit/s
95th percentile per-packet one-way delay: 50.183 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.65 Mbit/s
95th percentile per-packet one-way delay: 49.221 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.92 Mbit/s
95th percentile per-packet one-way delay: 50.241 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.86 Mbit/s
95th percentile per-packet one-way delay: 48.945 ms
Loss rate: 0.00%
```
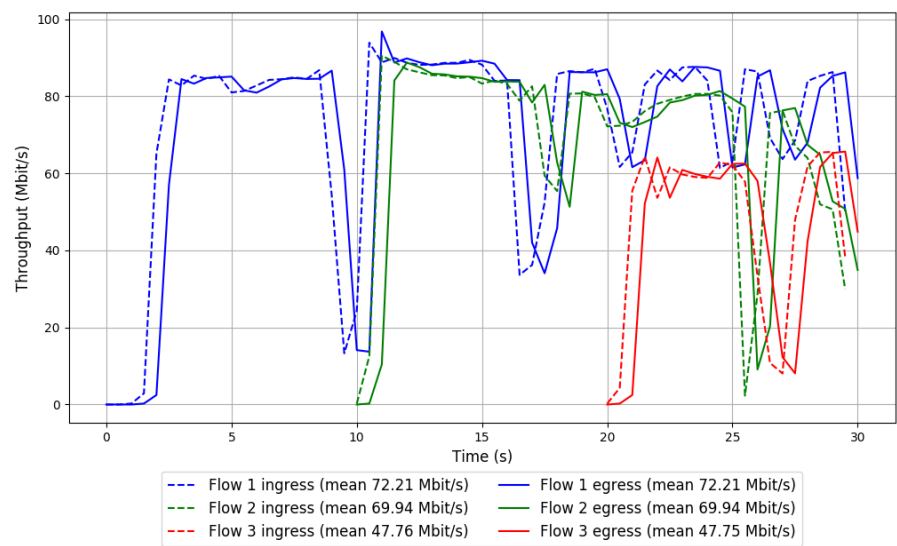
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-10-10 16:02:49
End at: 2018-10-10 16:03:19
Local clock offset: -0.141 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2018-10-10 19:45:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.53 Mbit/s
95th percentile per-packet one-way delay: 50.566 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.20 Mbit/s
95th percentile per-packet one-way delay: 50.321 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.15 Mbit/s
95th percentile per-packet one-way delay: 50.642 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.01 Mbit/s
95th percentile per-packet one-way delay: 50.982 ms
Loss rate: 0.00%
```
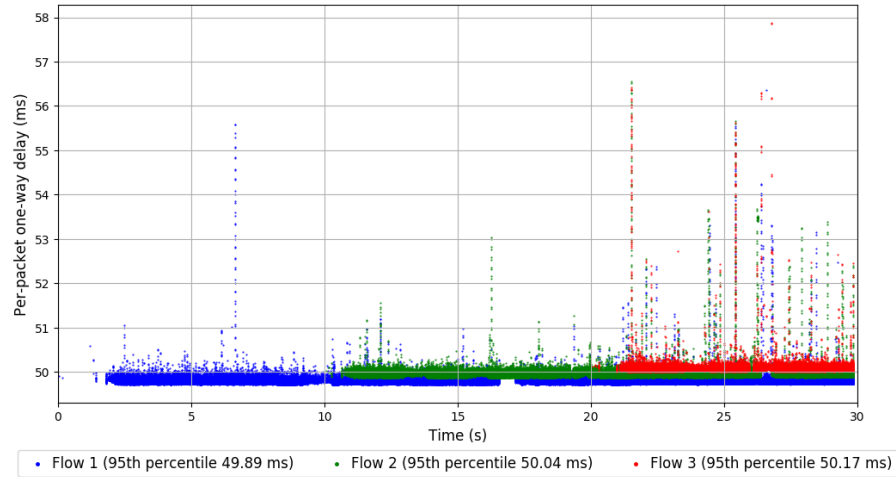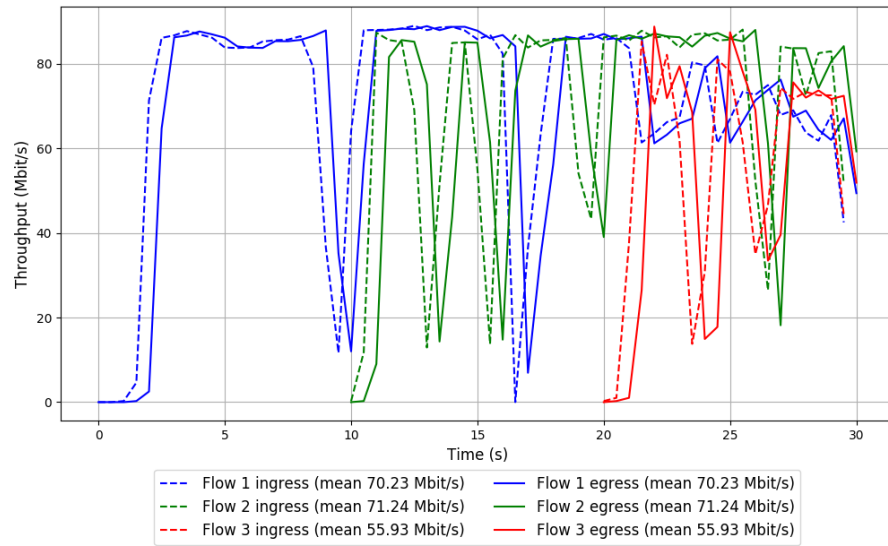
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-10-10 16:33:03
End at: 2018-10-10 16:33:33
Local clock offset: 0.107 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2018-10-10 19:45:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 134.29 Mbit/s
95th percentile per-packet one-way delay: 50.172 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.21 Mbit/s
95th percentile per-packet one-way delay: 49.911 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.94 Mbit/s
95th percentile per-packet one-way delay: 49.395 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.75 Mbit/s
95th percentile per-packet one-way delay: 50.250 ms
Loss rate: 0.00%
```
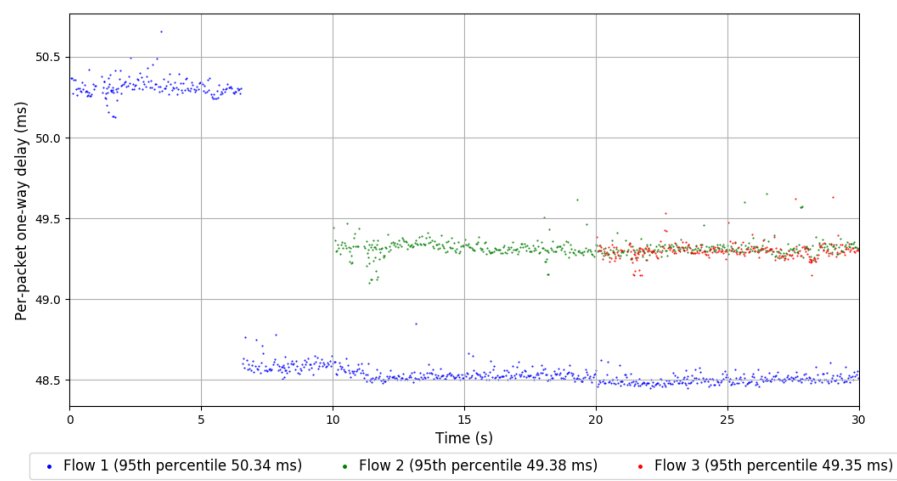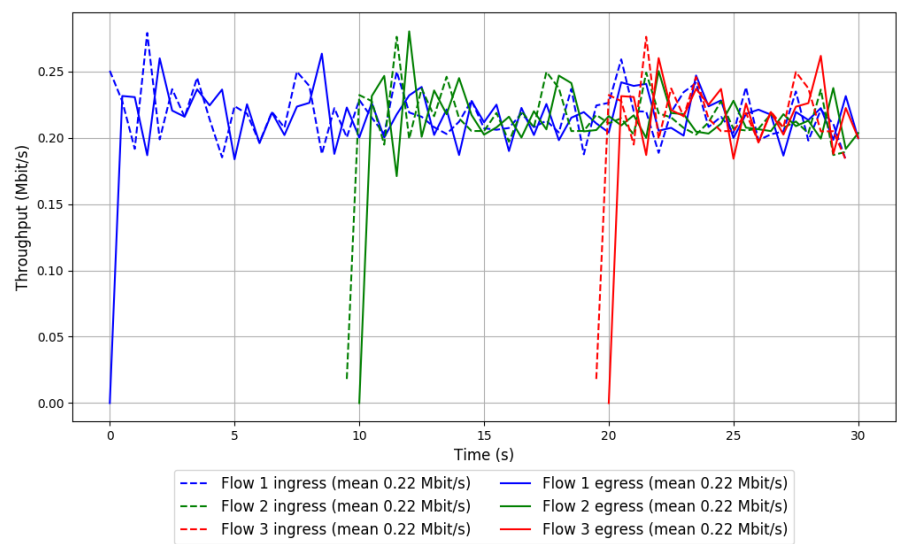
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-10-10 17:03:35
End at: 2018-10-10 17:04:05
Local clock offset: -0.498 ms
Remote clock offset: -0.002 ms


# Below is generated by plot.py at 2018-10-10 19:45:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 135.92 Mbit/s
95th percentile per-packet one-way delay: 50.094 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.23 Mbit/s
95th percentile per-packet one-way delay: 49.889 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.24 Mbit/s
95th percentile per-packet one-way delay: 50.042 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.93 Mbit/s
95th percentile per-packet one-way delay: 50.166 ms
Loss rate: 0.00%
```
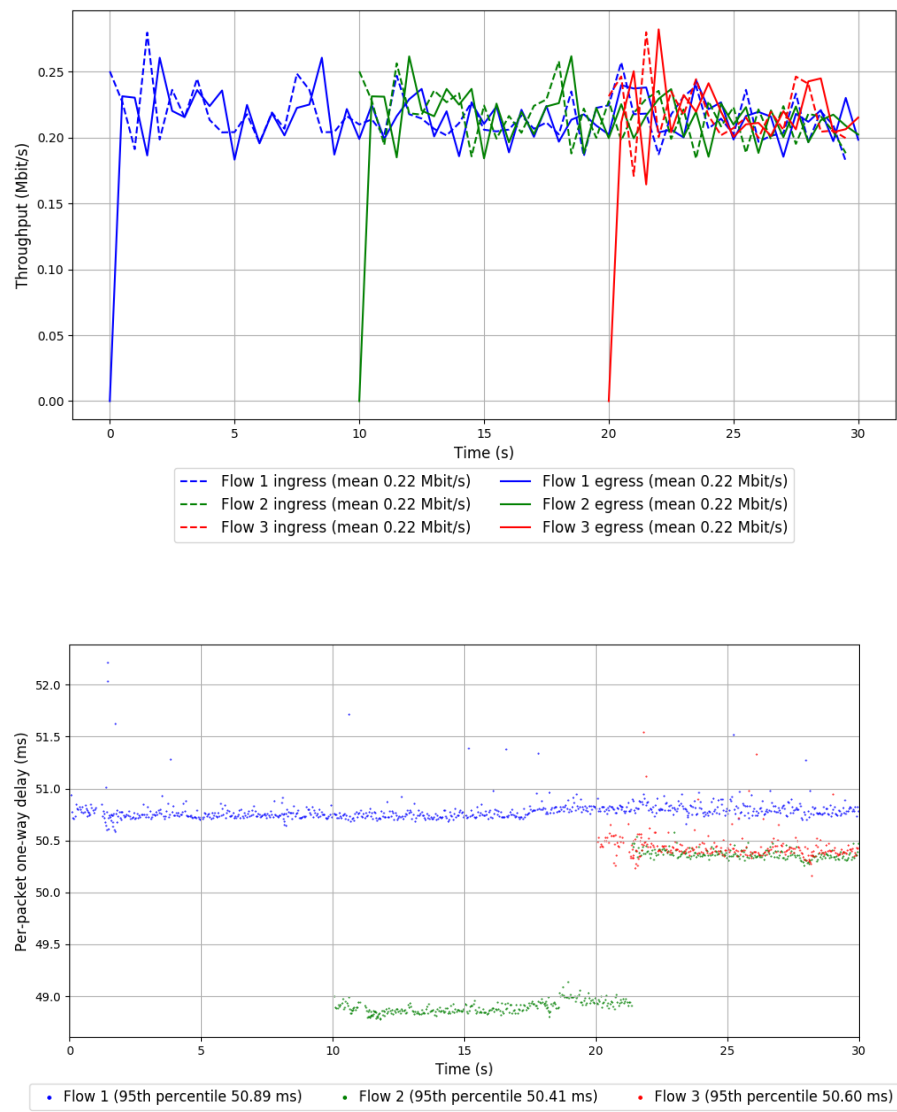
Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-10-10 15:18:58
End at: 2018-10-10 15:19:28
Local clock offset: 0.13 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-10-10 19:45:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 50.310 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.381 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.354 ms
Loss rate: 0.00%
```
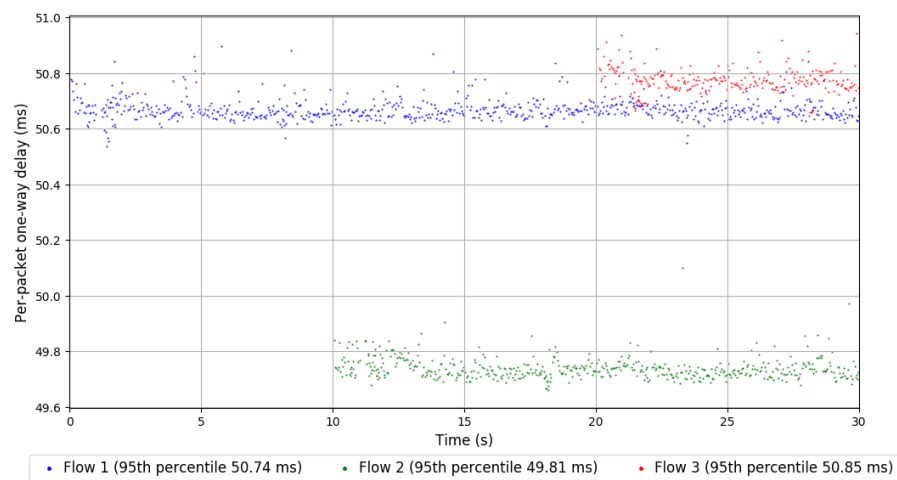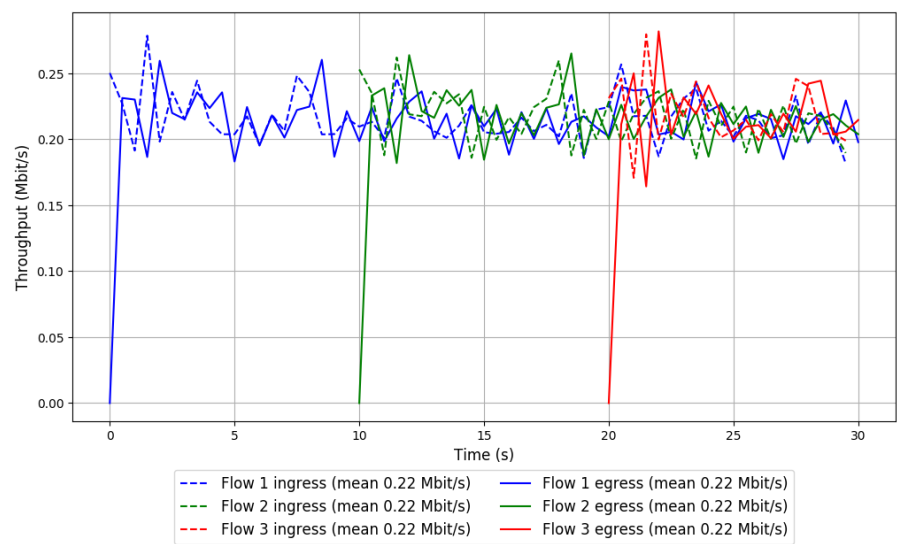
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-10-10 15:49:14
End at: 2018-10-10 15:49:44
Local clock offset: -0.142 ms
Remote clock offset: -0.043 ms

# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.853 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.894 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.415 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.601 ms
Loss rate: 0.00%
```
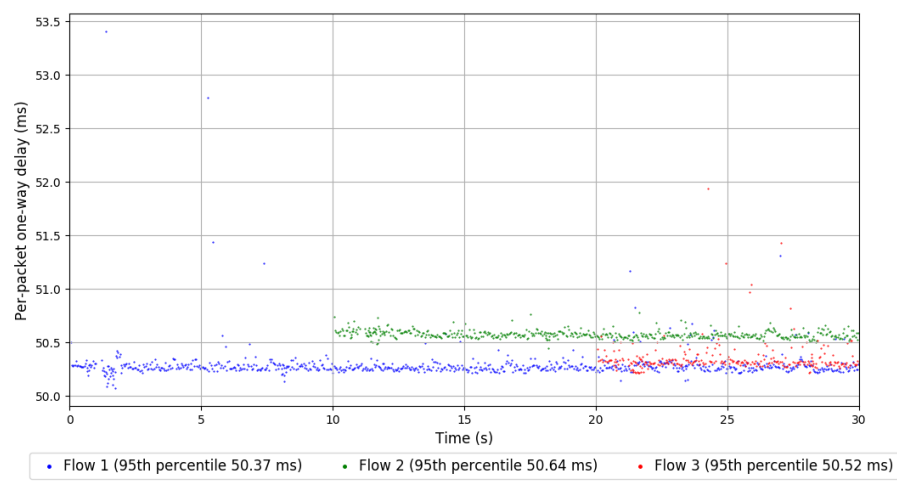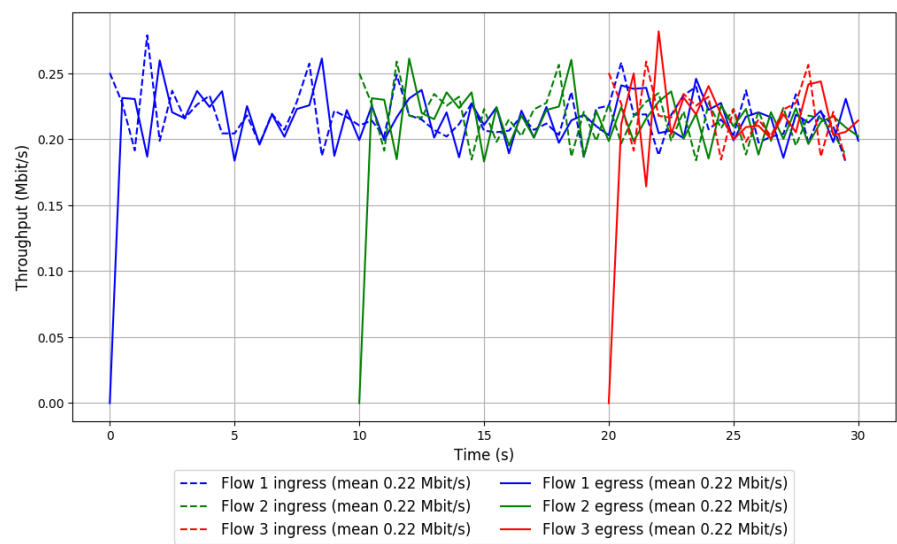
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-10-10 16:19:40
End at: 2018-10-10 16:20:10
Local clock offset: -0.23 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.797 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.814 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.848 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 50.74 ms)   Flow 2 (95th percentile 49.81 ms)   Flow 3 (95th percentile 50.85 ms)

120

```
Run 4: Statistics of SCReAM

Start at: 2018-10-10 16:49:57
End at: 2018-10-10 16:50:27
Local clock offset: -0.184 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.617 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.638 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.517 ms
Loss rate: 0.00%
```
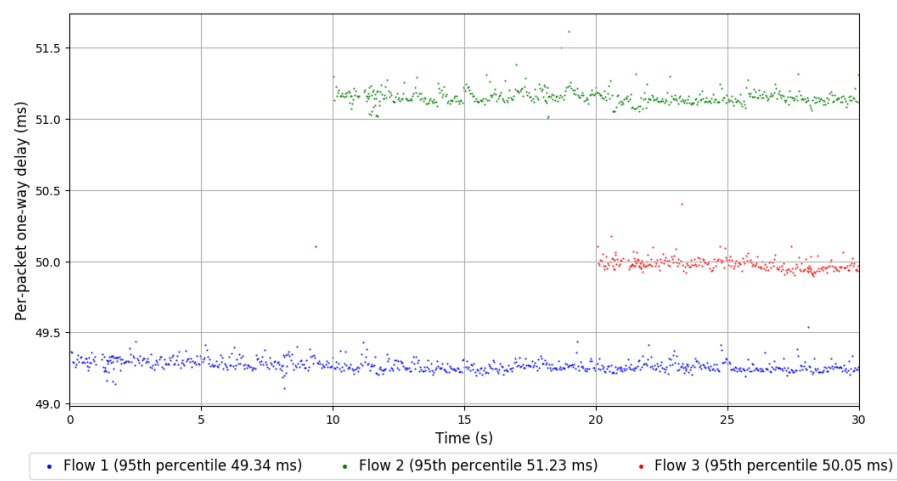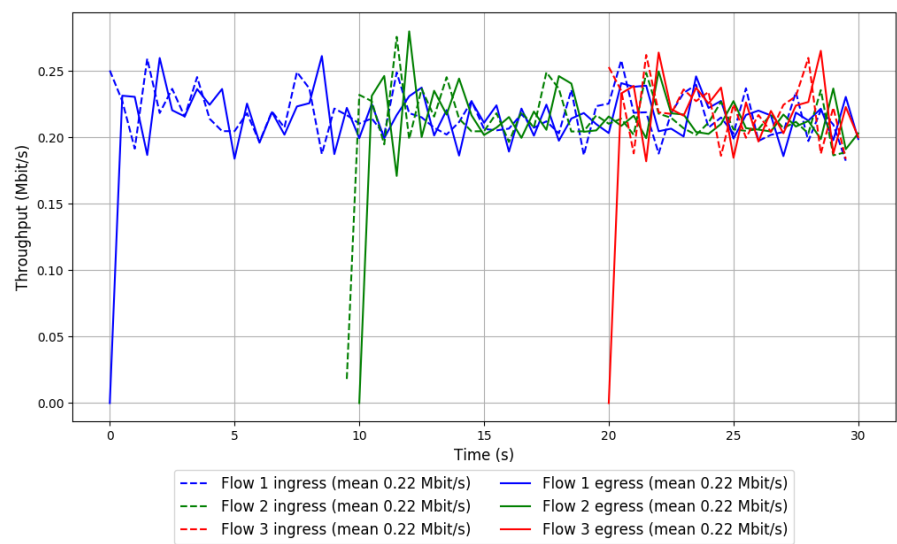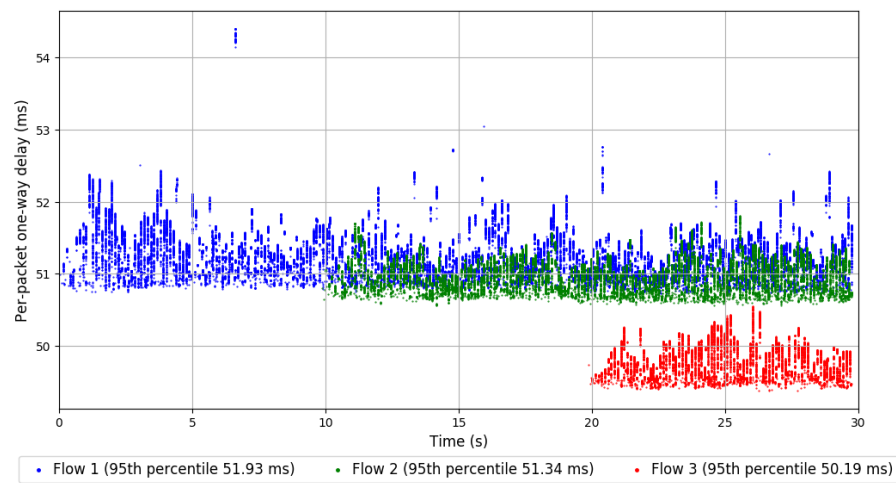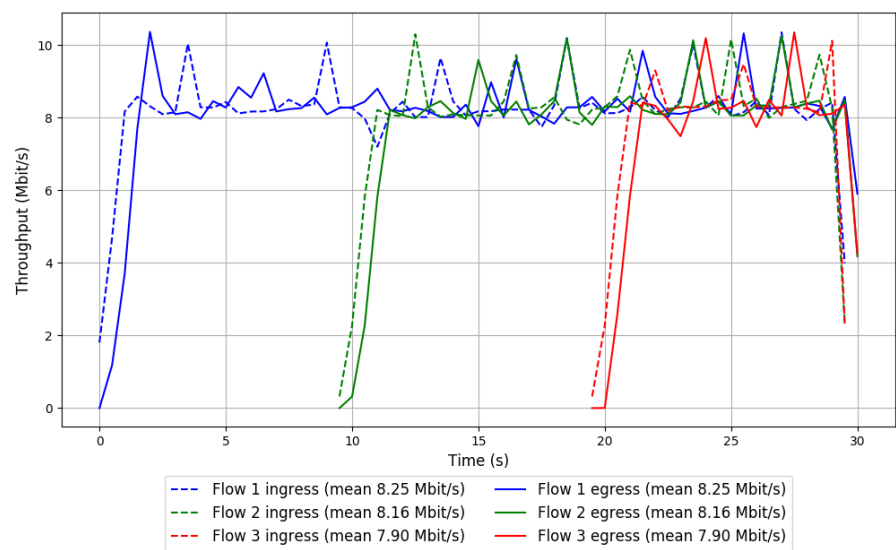
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-10-10 17:20:43
End at: 2018-10-10 17:21:13
Local clock offset: -0.489 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 51.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.343 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.234 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.054 ms
Loss rate: 0.00%
```
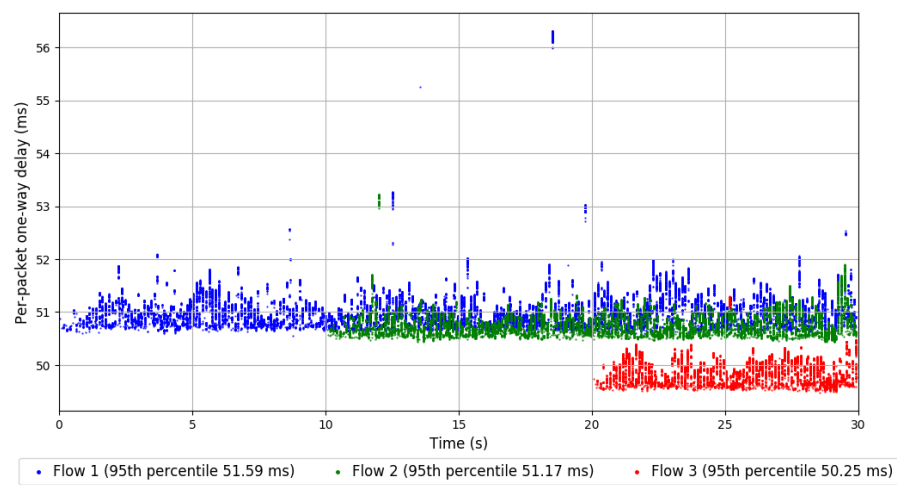
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-10-10 15:03:18
End at: 2018-10-10 15:03:48
Local clock offset: -0.214 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 51.703 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.25 Mbit/s
95th percentile per-packet one-way delay: 51.926 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 51.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 50.190 ms
Loss rate: 0.00%
```
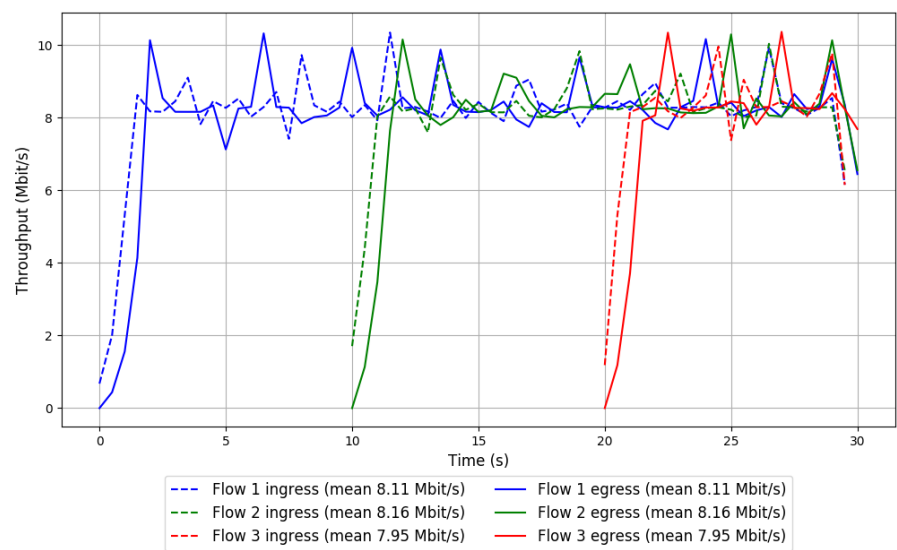
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-10-10 15:33:29
End at: 2018-10-10 15:33:59
Local clock offset: -0.194 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.14 Mbit/s
95th percentile per-packet one-way delay: 51.472 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.11 Mbit/s
95th percentile per-packet one-way delay: 51.594 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 51.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 50.250 ms
Loss rate: 0.00%
```
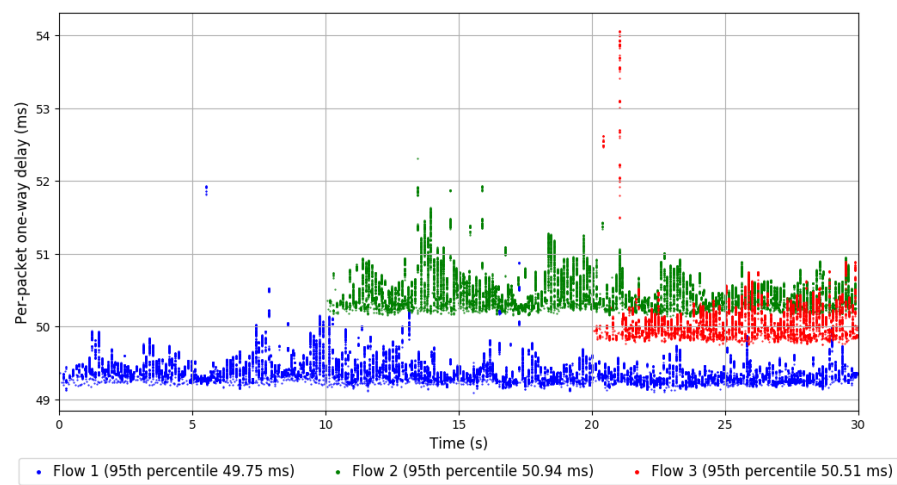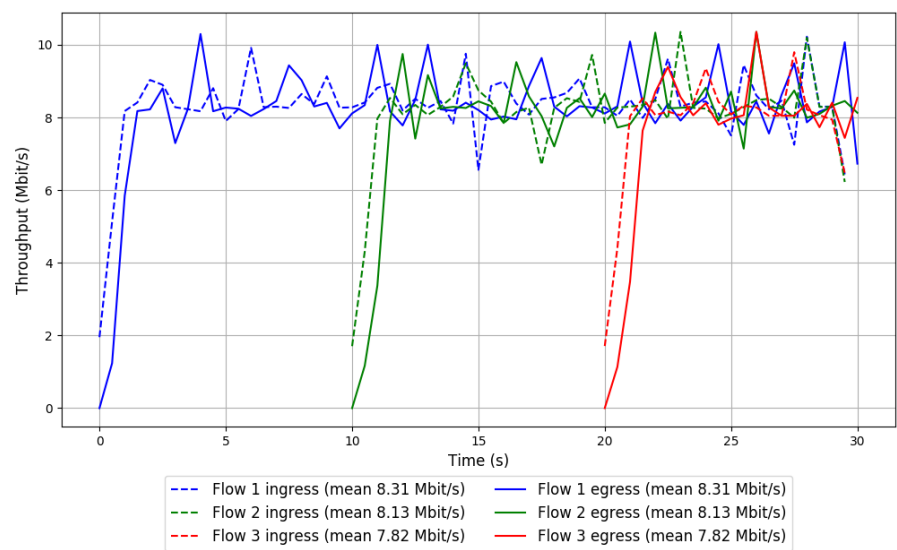
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-10-10 16:04:07
End at: 2018-10-10 16:04:37
Local clock offset: 0.242 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.30 Mbit/s
95th percentile per-packet one-way delay: 50.734 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 49.746 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 50.941 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 50.512 ms
Loss rate: 0.00%
```
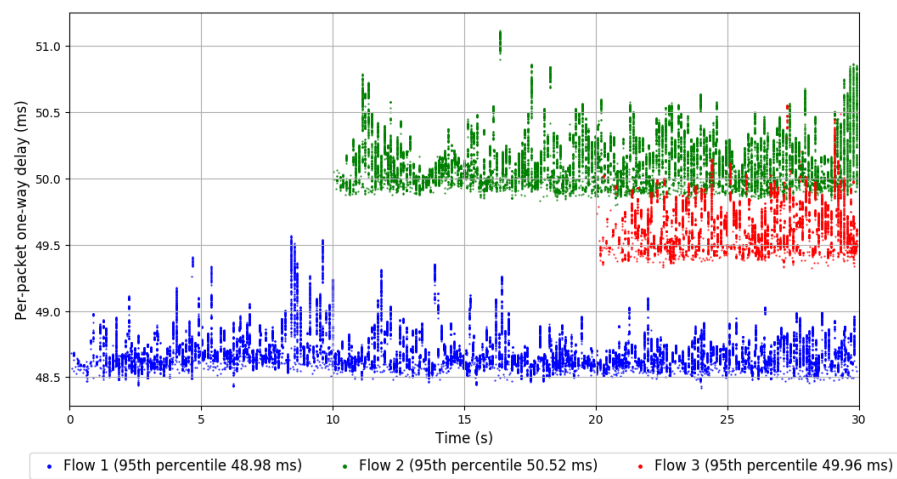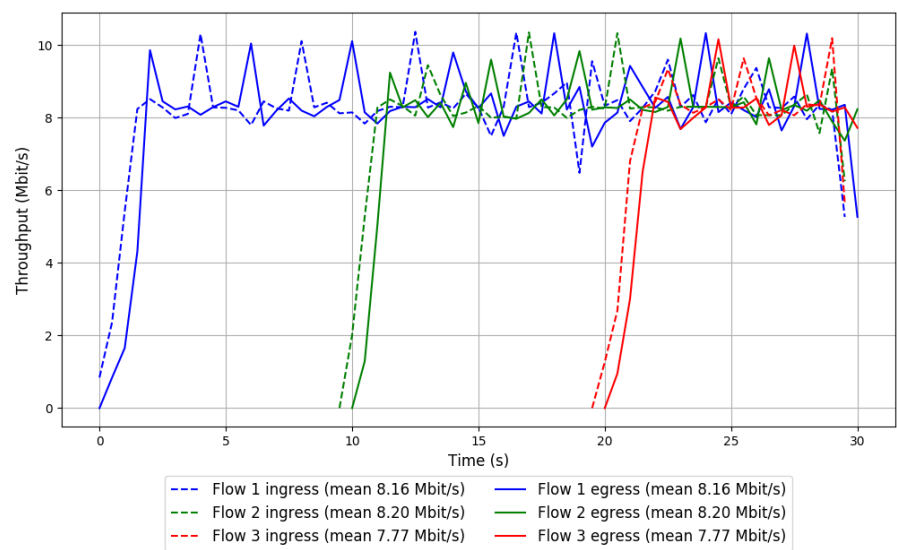
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-10-10 16:34:20
End at: 2018-10-10 16:34:50
Local clock offset: 0.092 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.19 Mbit/s
95th percentile per-packet one-way delay: 50.354 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 48.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 50.521 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.77 Mbit/s
95th percentile per-packet one-way delay: 49.958 ms
Loss rate: 0.00%
```
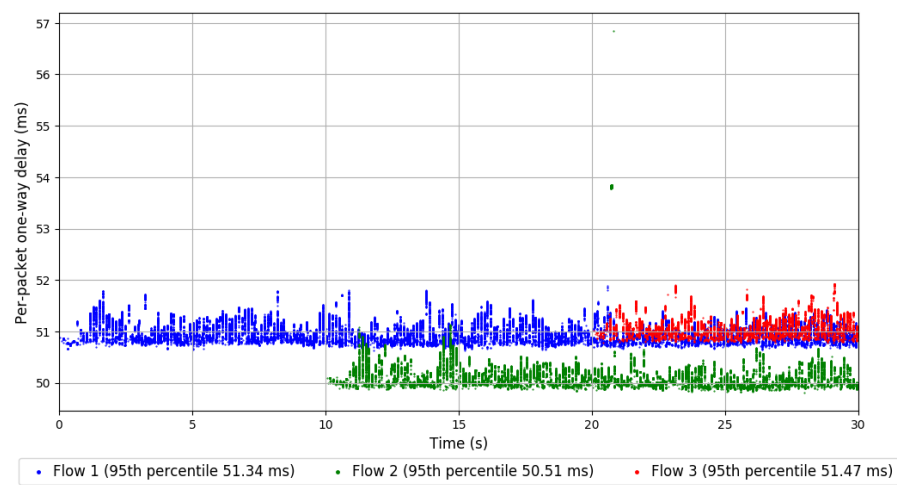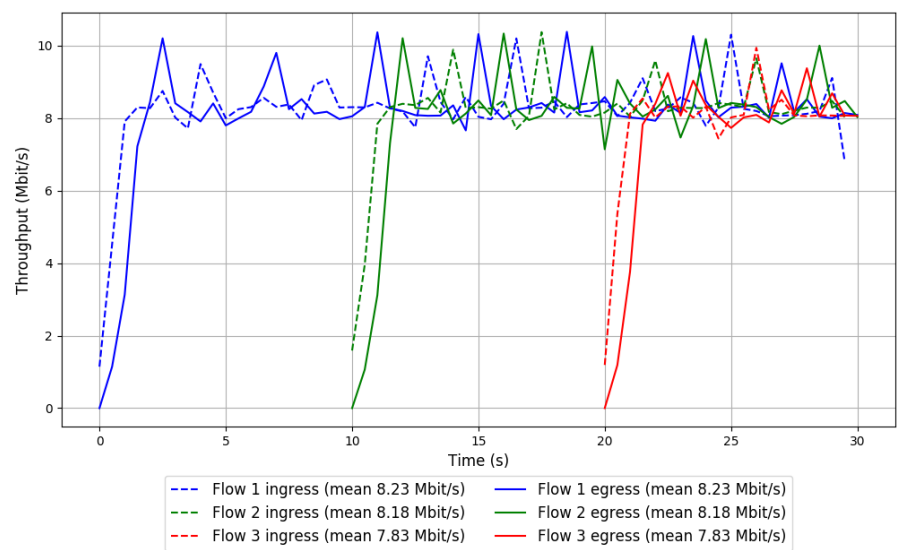
Run 4: Report of Sprout — Data Link

- Flow 1 ingress (mean 8.16 Mbit/s)
- Flow 1 egress (mean 8.16 Mbit/s)
- Flow 2 ingress (mean 8.20 Mbit/s)
- Flow 2 egress (mean 8.20 Mbit/s)
- Flow 3 ingress (mean 7.77 Mbit/s)
- Flow 3 egress (mean 7.77 Mbit/s)

- Flow 1 (95th percentile 48.98 ms)
- Flow 2 (95th percentile 50.52 ms)
- Flow 3 (95th percentile 49.96 ms)

```
Run 5: Statistics of Sprout

Start at: 2018-10-10 17:04:53
End at: 2018-10-10 17:05:23
Local clock offset: -0.494 ms
Remote clock offset: 0.011 ms


# Below is generated by plot.py at 2018-10-10 19:45:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.25 Mbit/s
95th percentile per-packet one-way delay: 51.325 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.23 Mbit/s
95th percentile per-packet one-way delay: 51.343 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.18 Mbit/s
95th percentile per-packet one-way delay: 50.505 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 51.470 ms
Loss rate: 0.00%
```
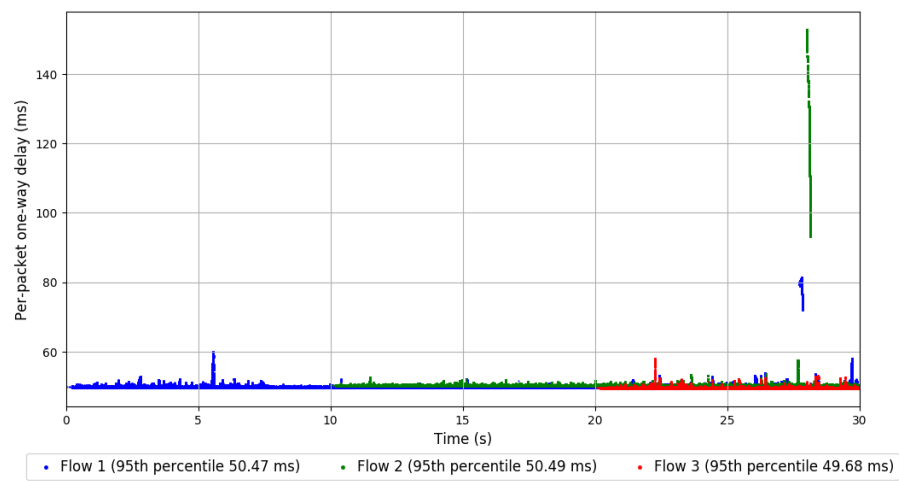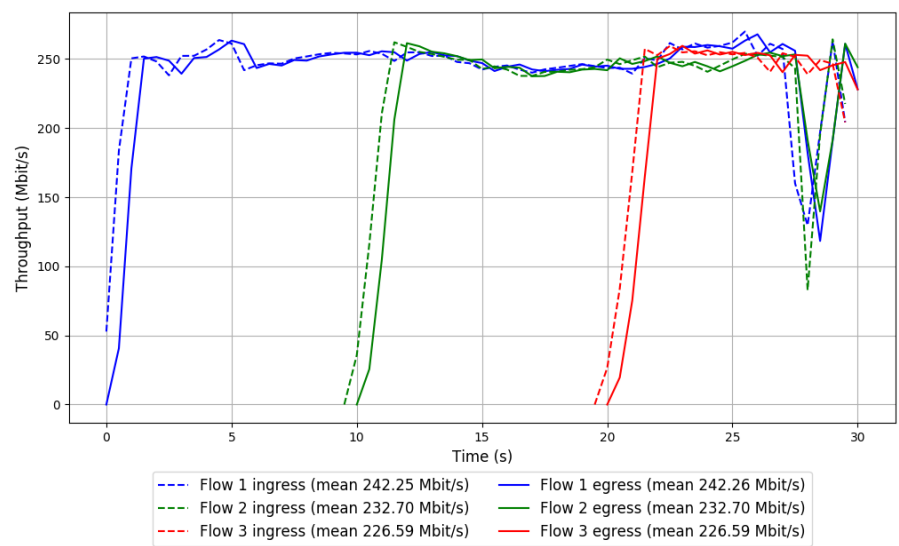
Run 5: Report of Sprout — Data Link

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

Start at: 2018-10-10 15:17:05
End at: 2018-10-10 15:17:35
Local clock offset: -0.216 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2018-10-10 19:49:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.91 Mbit/s
95th percentile per-packet one-way delay: 50.425 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 242.26 Mbit/s
95th percentile per-packet one-way delay: 50.465 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 232.70 Mbit/s
95th percentile per-packet one-way delay: 50.491 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 226.59 Mbit/s
95th percentile per-packet one-way delay: 49.679 ms
Loss rate: 0.00%
```

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

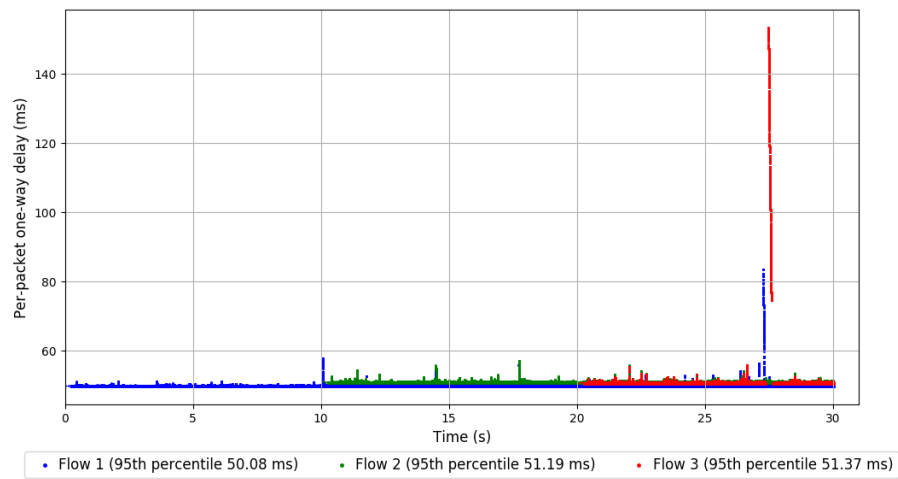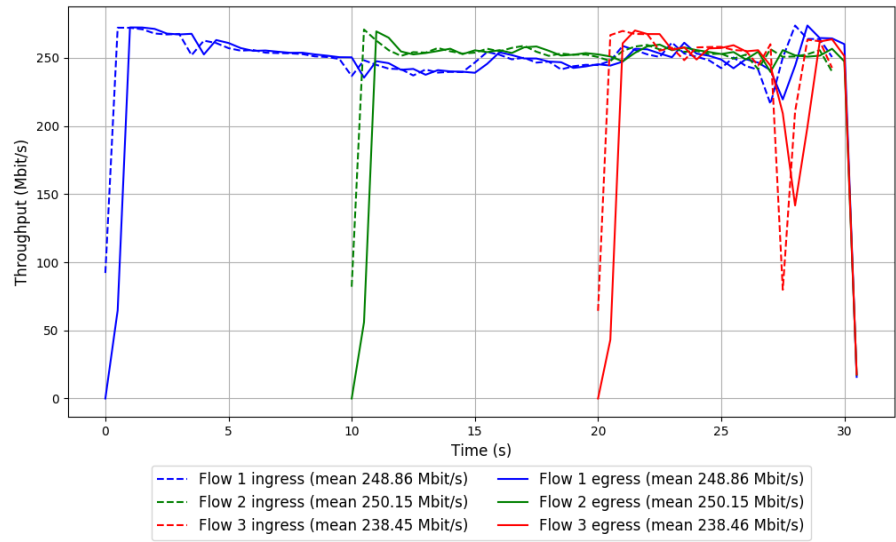Flow 1 ingress (mean 242.25 Mbit/s) --- Flow 1 egress (mean 242.26 Mbit/s)

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

Start at: 2018-10-10 15:47:18
End at: 2018-10-10 15:47:48
Local clock offset: -0.507 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2018-10-10 19:50:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 494.54 Mbit/s
95th percentile per-packet one-way delay: 51.061 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.86 Mbit/s
95th percentile per-packet one-way delay: 50.081 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 250.15 Mbit/s
95th percentile per-packet one-way delay: 51.188 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 238.46 Mbit/s
95th percentile per-packet one-way delay: 51.368 ms
Loss rate: 0.00%
```

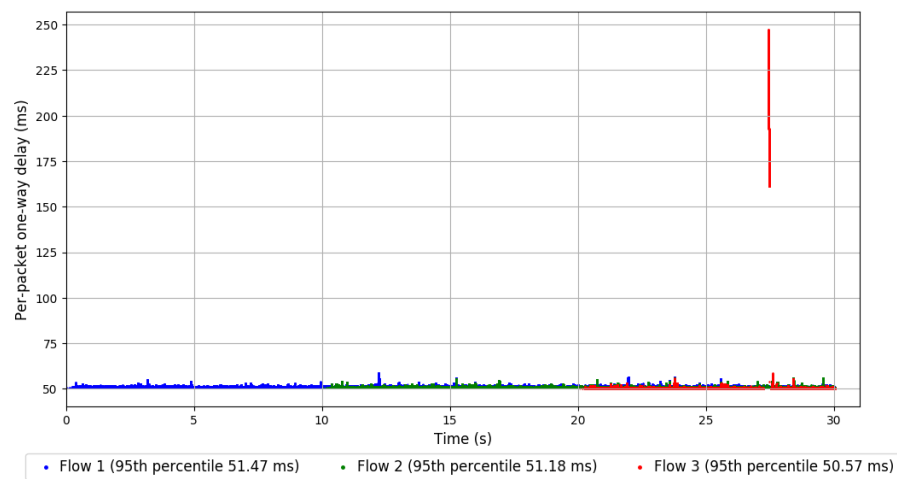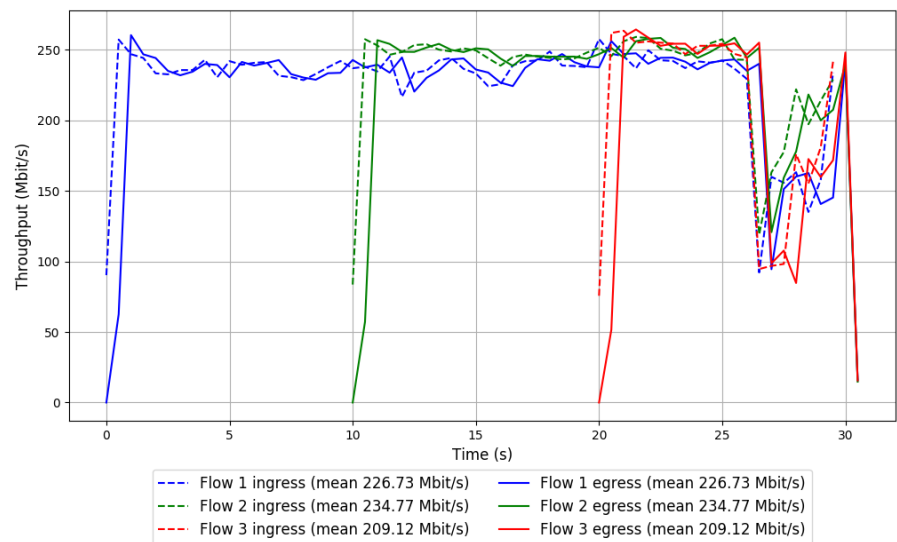Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-10-10 16:17:48
End at: 2018-10-10 16:18:18
Local clock offset: -0.215 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2018-10-10 19:50:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 452.52 Mbit/s
95th percentile per-packet one-way delay: 51.341 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.73 Mbit/s
95th percentile per-packet one-way delay: 51.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 234.77 Mbit/s
95th percentile per-packet one-way delay: 51.180 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 209.12 Mbit/s
95th percentile per-packet one-way delay: 50.574 ms
Loss rate: 0.00%
```

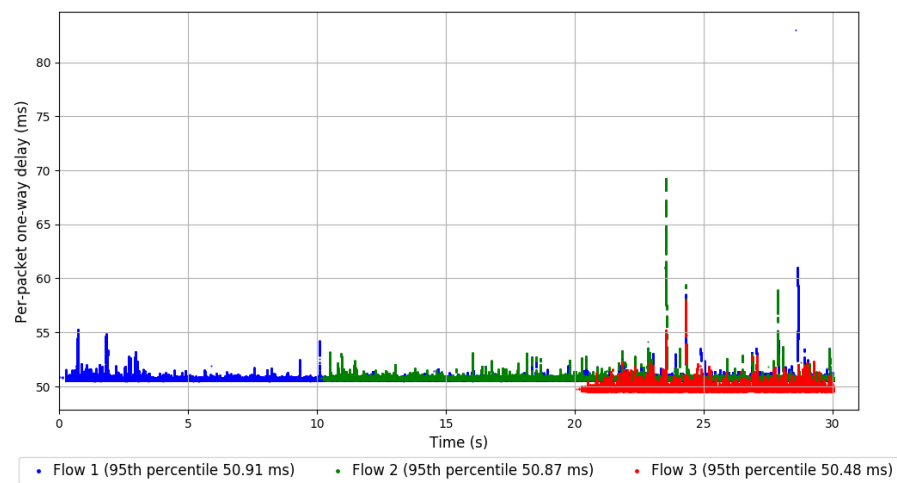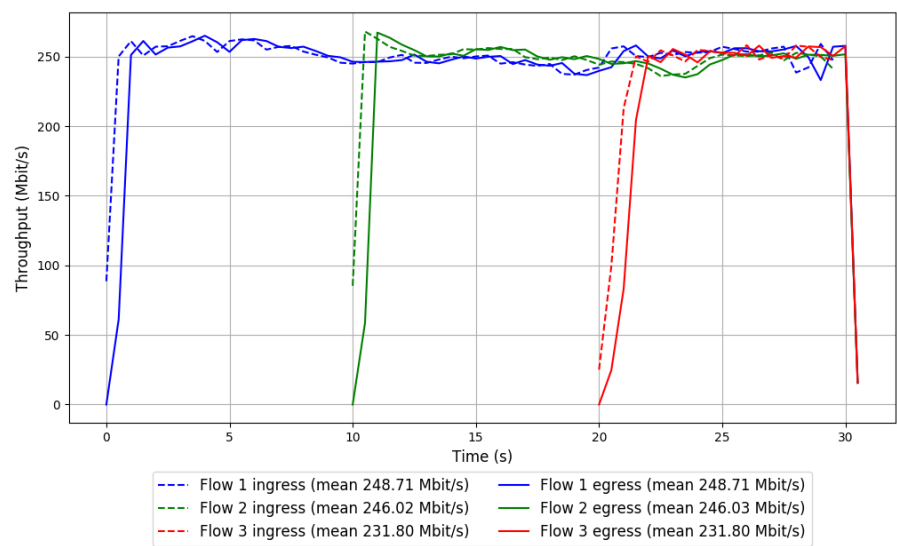Run 3: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 226.73 Mbit/s) —— Flow 1 egress (mean 226.73 Mbit/s)
- - - - Flow 2 ingress (mean 234.77 Mbit/s) —— Flow 2 egress (mean 234.77 Mbit/s)
- - - - Flow 3 ingress (mean 209.12 Mbit/s) —— Flow 3 egress (mean 209.12 Mbit/s)

• Flow 1 (95th percentile 51.47 ms) • Flow 2 (95th percentile 51.18 ms) • Flow 3 (95th percentile 50.57 ms)

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

Start at: 2018-10-10 16:48:01
End at: 2018-10-10 16:48:31
Local clock offset: -0.187 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-10-10 19:51:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.56 Mbit/s
95th percentile per-packet one-way delay: 50.871 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.71 Mbit/s
95th percentile per-packet one-way delay: 50.913 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 246.03 Mbit/s
95th percentile per-packet one-way delay: 50.872 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 231.80 Mbit/s
95th percentile per-packet one-way delay: 50.485 ms
Loss rate: 0.00%
```
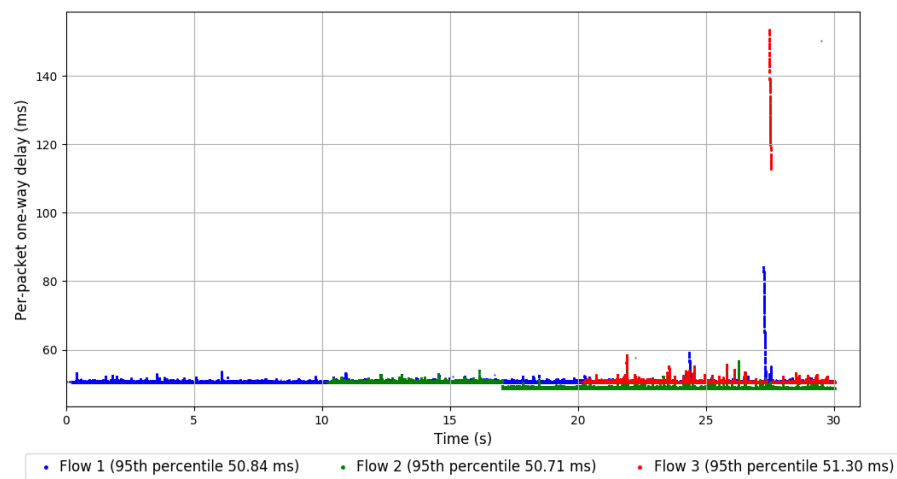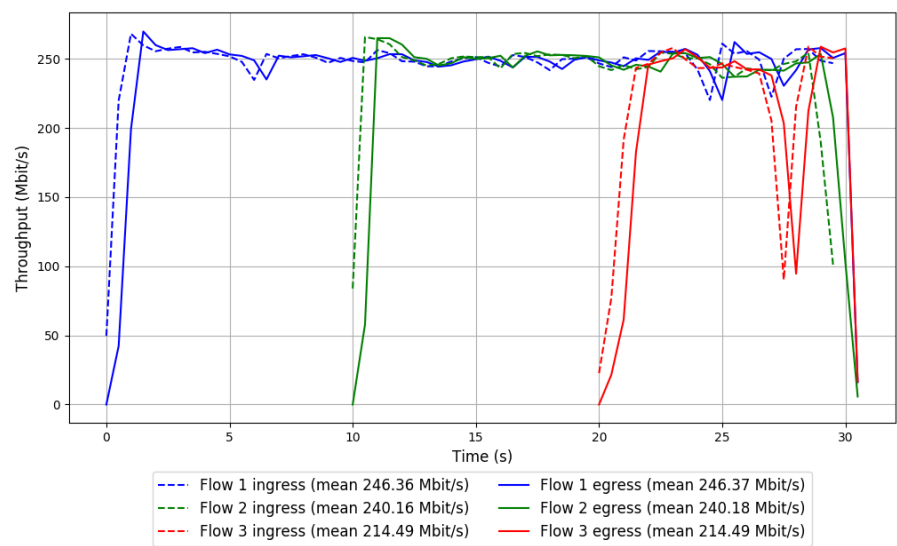
Run 4: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 248.71 Mbit/s) ——— Flow 1 egress (mean 248.71 Mbit/s)
- - - - Flow 2 ingress (mean 246.02 Mbit/s) ——— Flow 2 egress (mean 246.03 Mbit/s)
- - - - Flow 3 ingress (mean 231.80 Mbit/s) ——— Flow 3 egress (mean 231.80 Mbit/s)

- Flow 1 (95th percentile 50.91 ms)   • Flow 2 (95th percentile 50.87 ms)   • Flow 3 (95th percentile 50.48 ms)

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

Start at: 2018-10-10 17:18:48
End at: 2018-10-10 17:19:18
Local clock offset: -0.156 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2018-10-10 19:57:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 477.61 Mbit/s
95th percentile per-packet one-way delay: 50.835 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 246.37 Mbit/s
95th percentile per-packet one-way delay: 50.843 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 240.18 Mbit/s
95th percentile per-packet one-way delay: 50.711 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 214.49 Mbit/s
95th percentile per-packet one-way delay: 51.299 ms
Loss rate: 0.00%
```
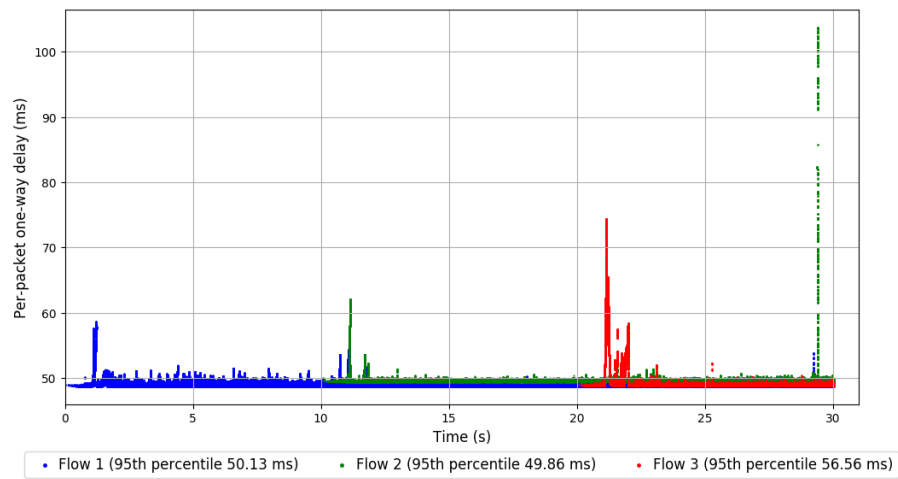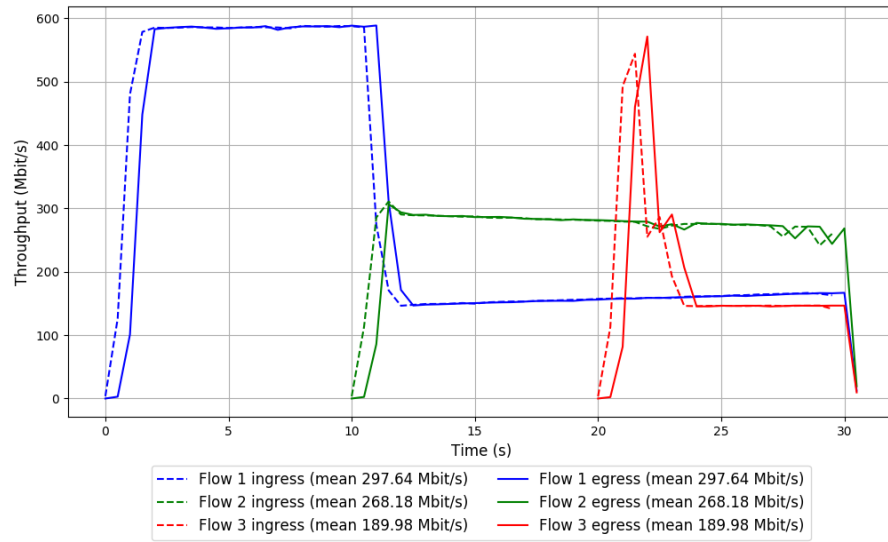
Run 5: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 246.36 Mbit/s) —— Flow 1 egress (mean 246.37 Mbit/s)
- - - - Flow 2 ingress (mean 240.16 Mbit/s) —— Flow 2 egress (mean 240.18 Mbit/s)
- - - - Flow 3 ingress (mean 214.49 Mbit/s) —— Flow 3 egress (mean 214.49 Mbit/s)

- Flow 1 (95th percentile 50.84 ms)   • Flow 2 (95th percentile 50.71 ms)   • Flow 3 (95th percentile 51.30 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-10-10 15:20:08
End at: 2018-10-10 15:20:38
Local clock offset: -0.224 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2018-10-10 19:57:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 539.38 Mbit/s
95th percentile per-packet one-way delay: 50.205 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 297.64 Mbit/s
95th percentile per-packet one-way delay: 50.135 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 268.18 Mbit/s
95th percentile per-packet one-way delay: 49.856 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 189.98 Mbit/s
95th percentile per-packet one-way delay: 56.561 ms
Loss rate: 0.00%
```
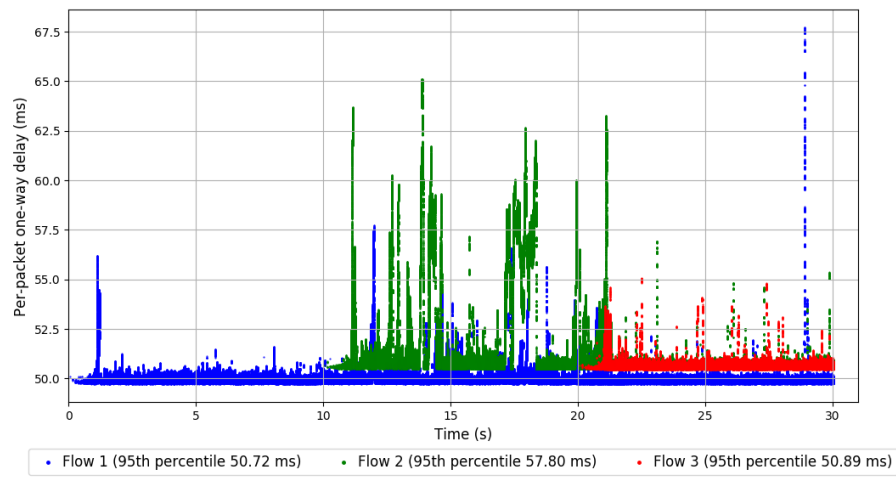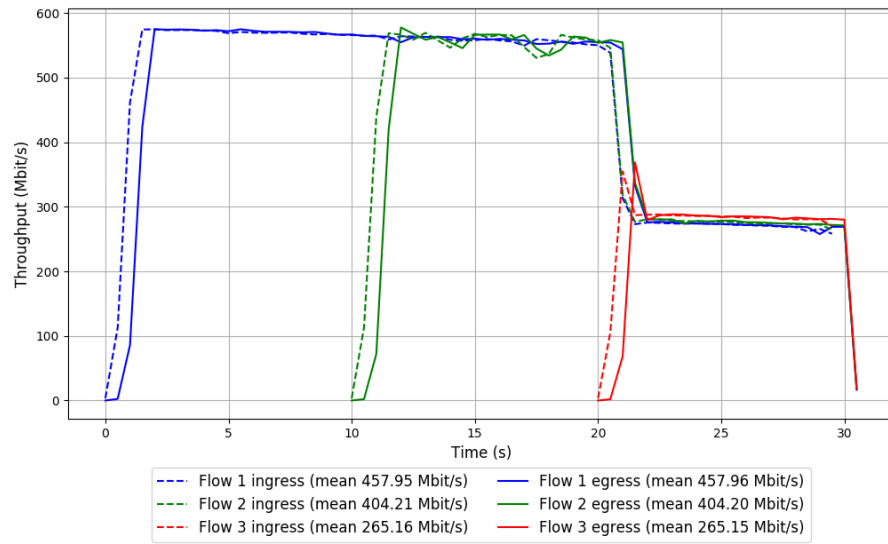
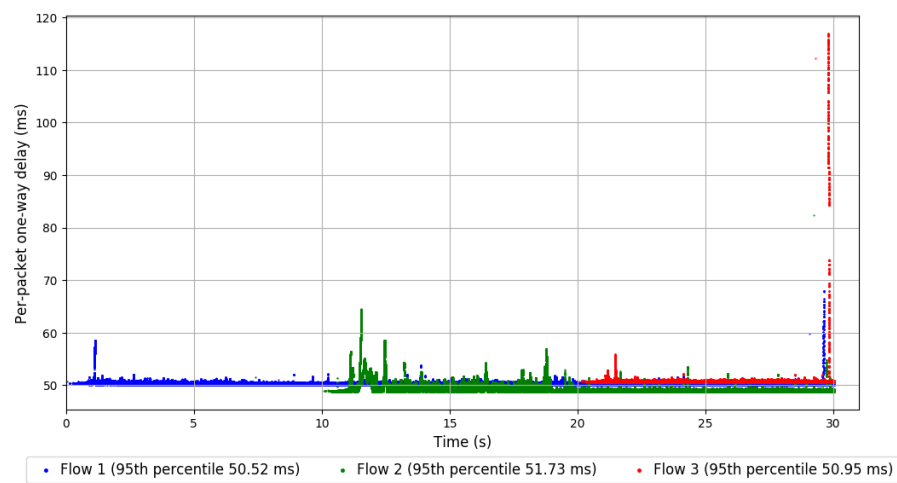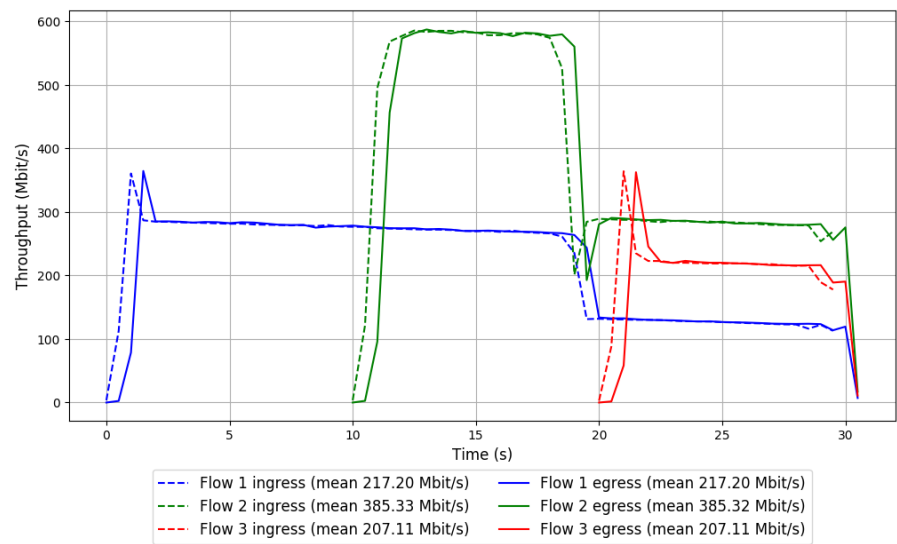Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-10-10 15:50:23
End at: 2018-10-10 15:50:53
Local clock offset: -0.479 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2018-10-10 19:57:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 815.29 Mbit/s
95th percentile per-packet one-way delay: 53.488 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 457.96 Mbit/s
95th percentile per-packet one-way delay: 50.719 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 404.20 Mbit/s
95th percentile per-packet one-way delay: 57.797 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 265.15 Mbit/s
95th percentile per-packet one-way delay: 50.887 ms
Loss rate: 0.00%
```
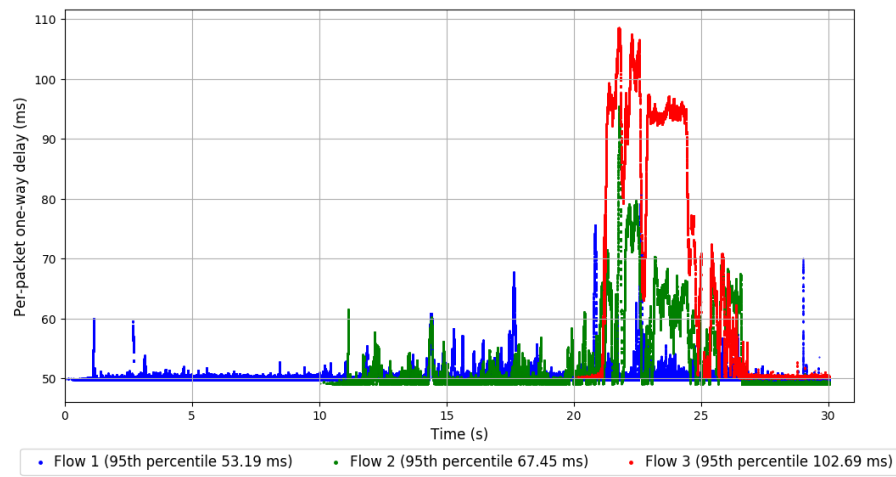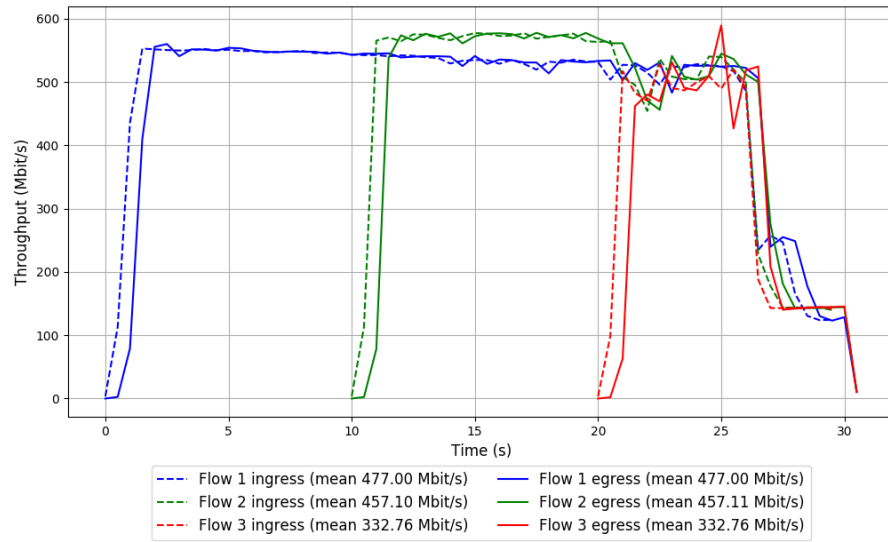
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-10-10 16:20:50
End at: 2018-10-10 16:21:20
Local clock offset: -0.221 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-10-10 19:57:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 542.61 Mbit/s
95th percentile per-packet one-way delay: 50.926 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 217.20 Mbit/s
95th percentile per-packet one-way delay: 50.523 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 385.32 Mbit/s
95th percentile per-packet one-way delay: 51.733 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 207.11 Mbit/s
95th percentile per-packet one-way delay: 50.953 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 217.20 Mbit/s) Flow 1 egress (mean 217.20 Mbit/s)
Flow 2 ingress (mean 385.33 Mbit/s) Flow 2 egress (mean 385.32 Mbit/s)
Flow 3 ingress (mean 207.11 Mbit/s) Flow 3 egress (mean 207.11 Mbit/s)

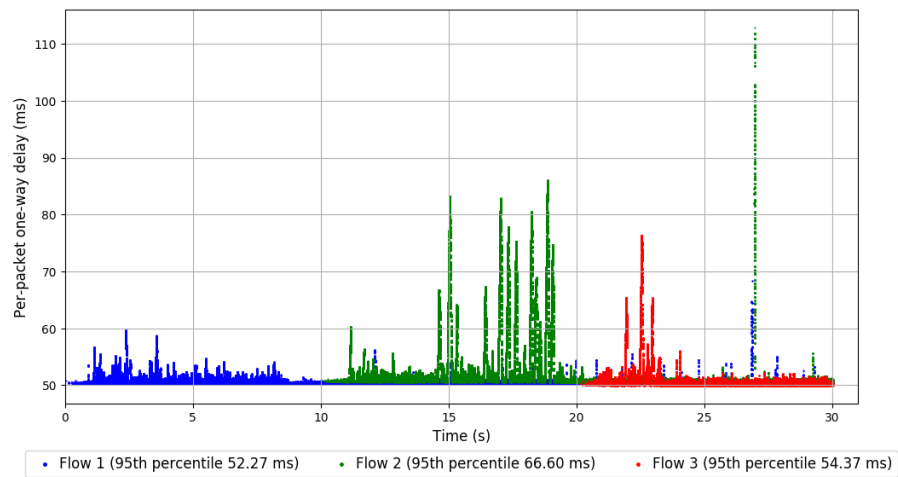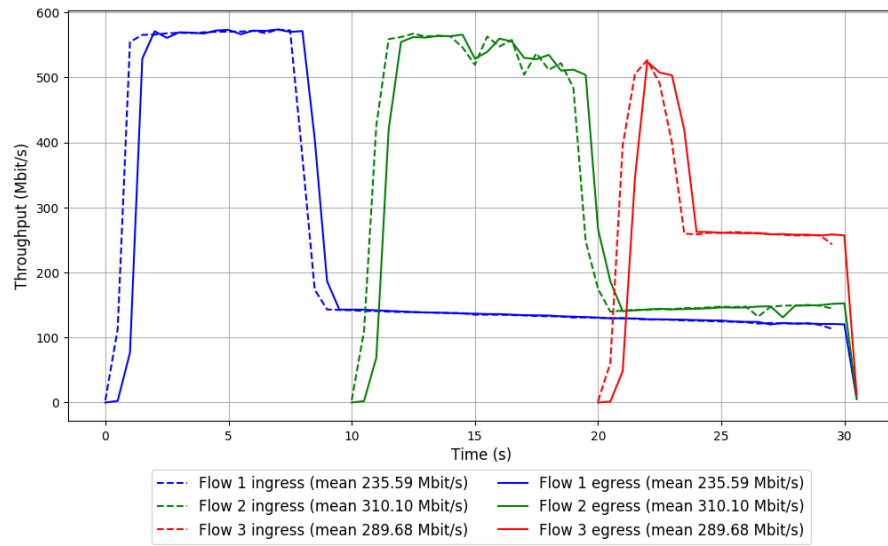Flow 1 (95th percentile 50.52 ms)   Flow 2 (95th percentile 51.73 ms)   Flow 3 (95th percentile 50.95 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-10-10 16:51:07
End at: 2018-10-10 16:51:37
Local clock offset: 0.17 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2018-10-10 20:06:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 892.15 Mbit/s
95th percentile per-packet one-way delay: 91.289 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 477.00 Mbit/s
95th percentile per-packet one-way delay: 53.190 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 457.11 Mbit/s
95th percentile per-packet one-way delay: 67.452 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 332.76 Mbit/s
95th percentile per-packet one-way delay: 102.694 ms
Loss rate: 0.00%
```
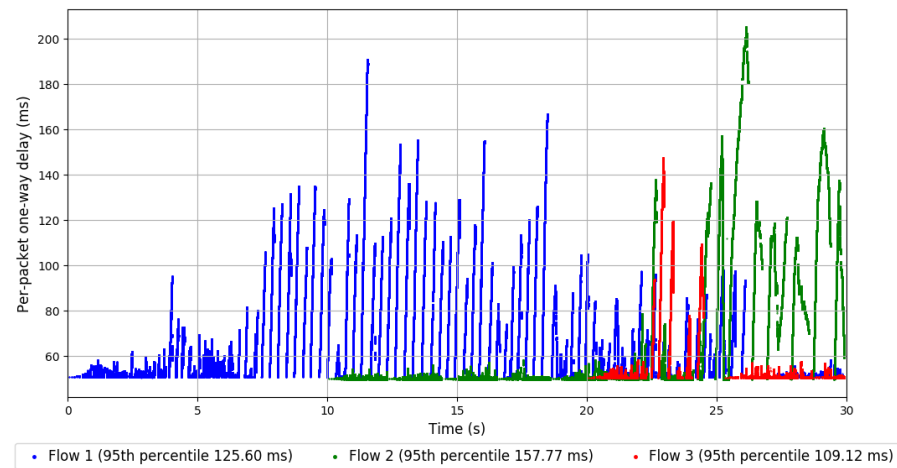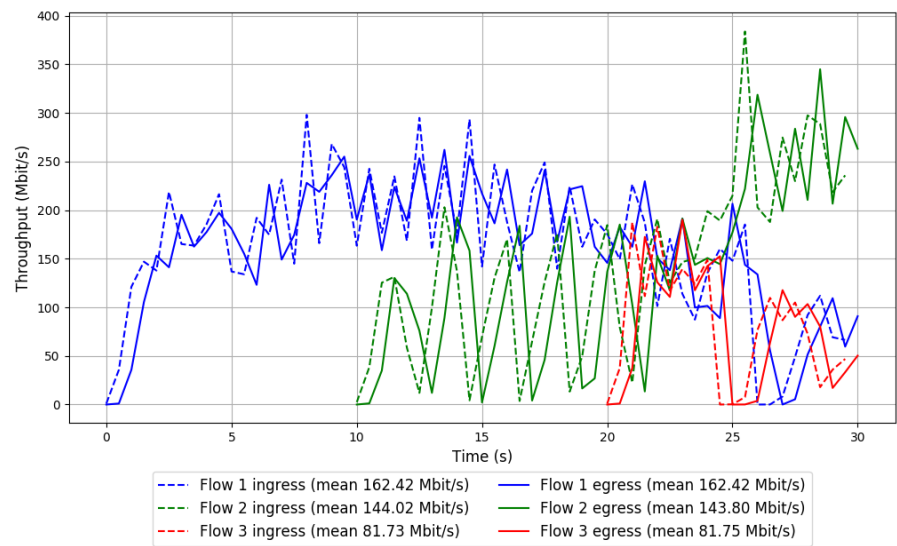
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-10-10 17:21:53
End at: 2018-10-10 17:22:23
Local clock offset: -0.177 ms
Remote clock offset: -0.009 ms


# Below is generated by plot.py at 2018-10-10 20:06:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 537.78 Mbit/s
95th percentile per-packet one-way delay: 56.731 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.59 Mbit/s
95th percentile per-packet one-way delay: 52.272 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 310.10 Mbit/s
95th percentile per-packet one-way delay: 66.599 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 289.68 Mbit/s
95th percentile per-packet one-way delay: 54.369 ms
Loss rate: 0.00%
```

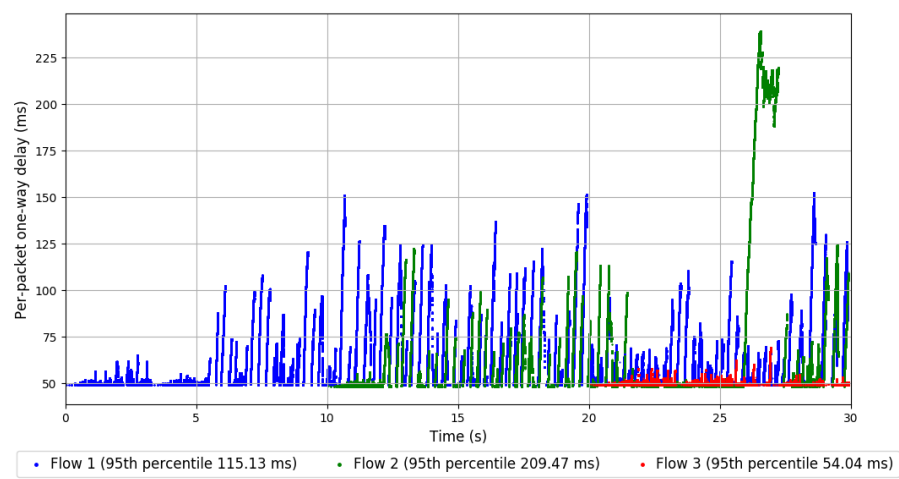Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-10-10 15:10:19
End at: 2018-10-10 15:10:49
Local clock offset: -0.604 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2018-10-10 20:06:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.60 Mbit/s
95th percentile per-packet one-way delay: 139.674 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 162.42 Mbit/s
95th percentile per-packet one-way delay: 125.601 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 143.80 Mbit/s
95th percentile per-packet one-way delay: 157.769 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 81.75 Mbit/s
95th percentile per-packet one-way delay: 109.120 ms
Loss rate: 0.00%
```
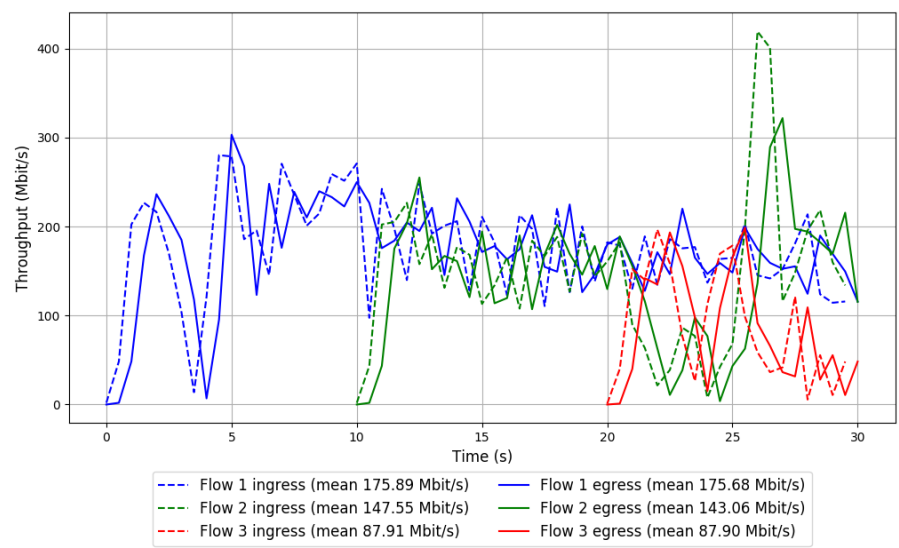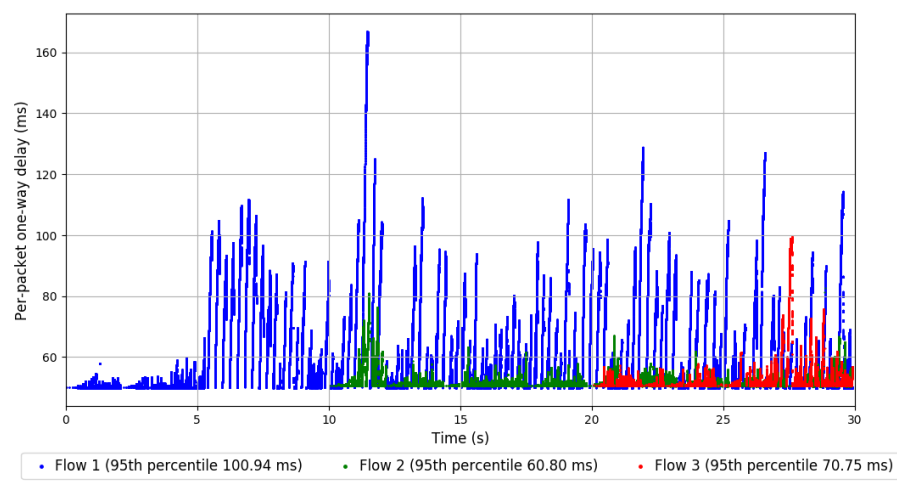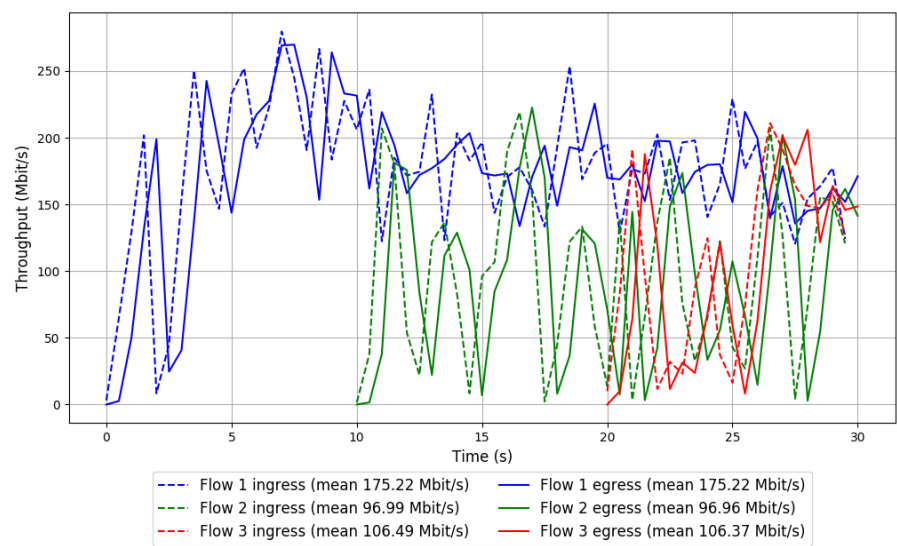
Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 162.42 Mbit/s) ---- Flow 1 egress (mean 162.42 Mbit/s) ——
Flow 2 ingress (mean 144.02 Mbit/s) ---- Flow 2 egress (mean 143.80 Mbit/s) ——
Flow 3 ingress (mean 81.73 Mbit/s) ---- Flow 3 egress (mean 81.75 Mbit/s) ——

Flow 1 (95th percentile 125.60 ms)   Flow 2 (95th percentile 157.77 ms)   Flow 3 (95th percentile 109.12 ms)

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```
Run 2: Statistics of Verus

Start at: 2018-10-10 15:40:27
End at: 2018-10-10 15:40:57
Local clock offset: 0.18 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-10-10 20:06:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 299.55 Mbit/s
95th percentile per-packet one-way delay: 128.905 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 175.68 Mbit/s
95th percentile per-packet one-way delay: 115.132 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 143.06 Mbit/s
95th percentile per-packet one-way delay: 209.467 ms
Loss rate: 3.03%
-- Flow 3:
Average throughput: 87.90 Mbit/s
95th percentile per-packet one-way delay: 54.044 ms
Loss rate: 0.00%
```

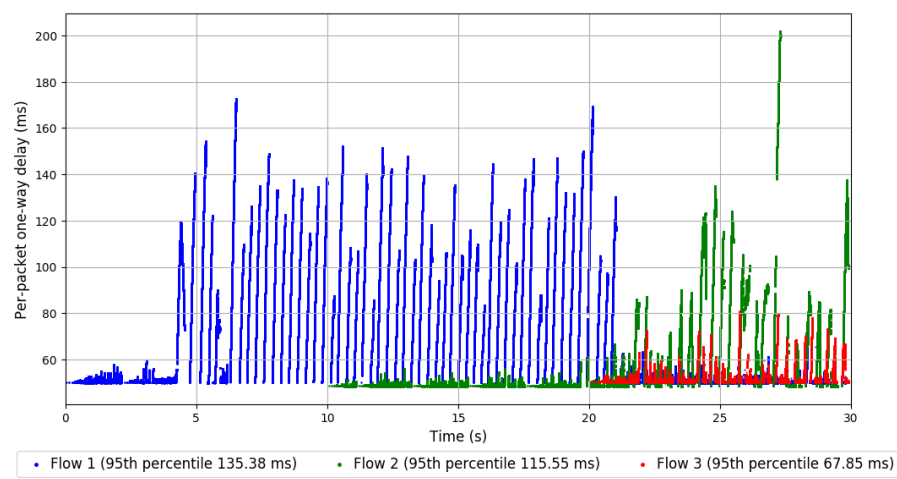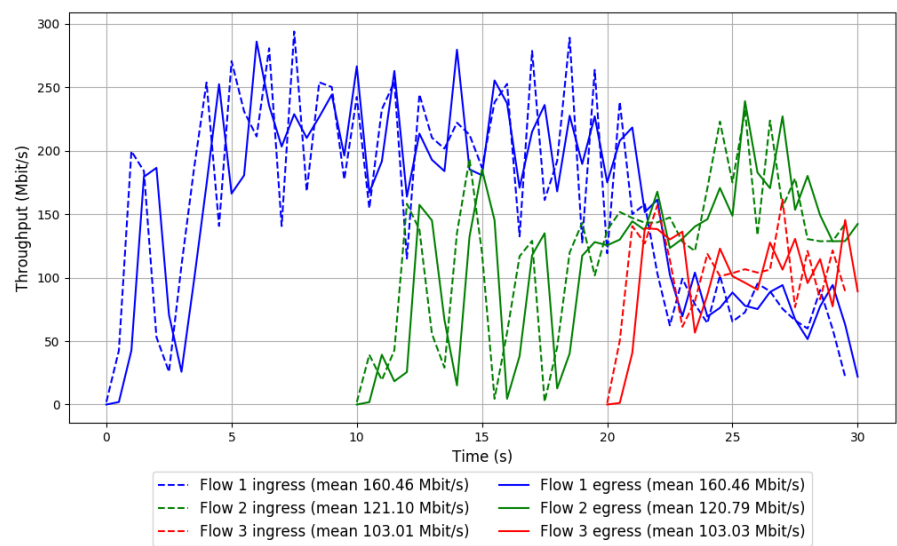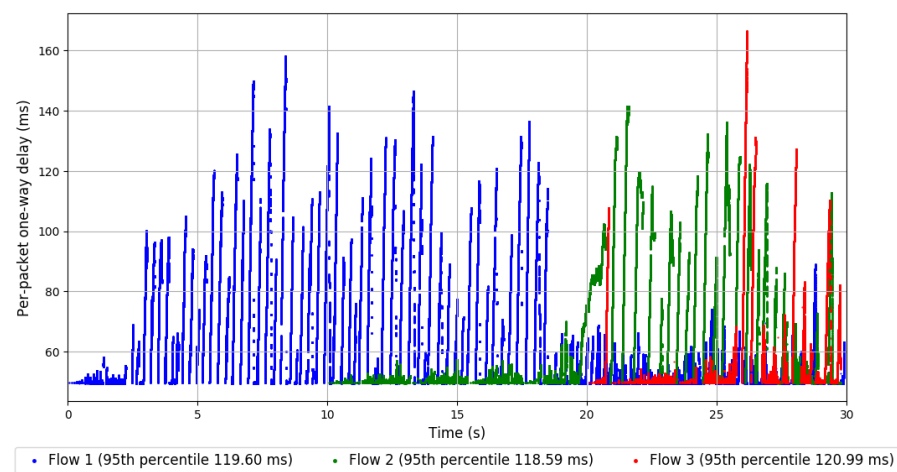# Run 2: Report of Verus — Data Link

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```
Run 3: Statistics of Verus

Start at: 2018-10-10 16:11:09
End at: 2018-10-10 16:11:39
Local clock offset: -0.547 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-10-10 20:06:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.55 Mbit/s
95th percentile per-packet one-way delay: 95.931 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 175.22 Mbit/s
95th percentile per-packet one-way delay: 100.942 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 96.96 Mbit/s
95th percentile per-packet one-way delay: 60.795 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 106.37 Mbit/s
95th percentile per-packet one-way delay: 70.753 ms
Loss rate: 0.11%
```

Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 175.22 Mbit/s) --- Flow 1 egress (mean 175.22 Mbit/s)
Flow 2 ingress (mean 96.99 Mbit/s) --- Flow 2 egress (mean 96.96 Mbit/s)
Flow 3 ingress (mean 106.49 Mbit/s) --- Flow 3 egress (mean 106.37 Mbit/s)

Flow 1 (95th percentile 100.94 ms) • Flow 2 (95th percentile 60.80 ms) • Flow 3 (95th percentile 70.75 ms)
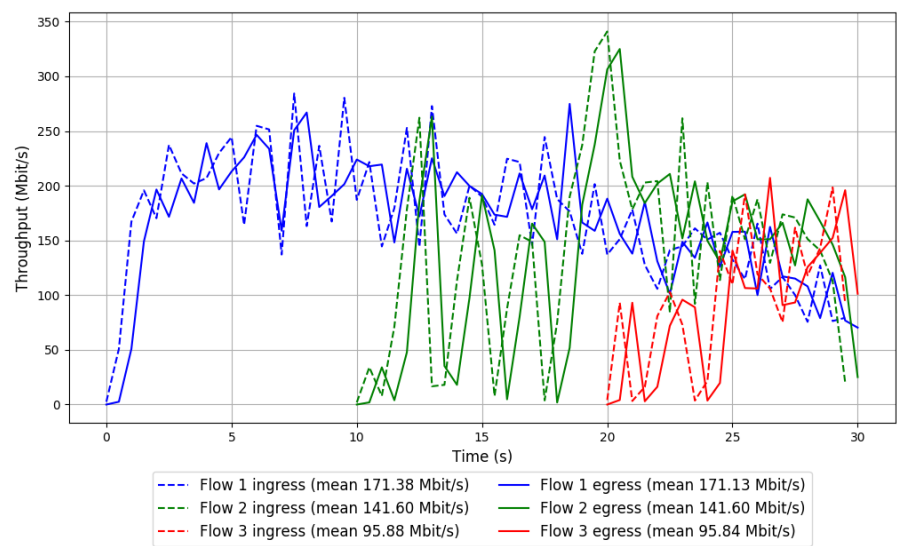
```
Run 4: Statistics of Verus

Start at: 2018-10-10 16:41:22
End at: 2018-10-10 16:41:52
Local clock offset: 0.116 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-10-10 20:06:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.26 Mbit/s
95th percentile per-packet one-way delay: 130.921 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 160.46 Mbit/s
95th percentile per-packet one-way delay: 135.382 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 120.79 Mbit/s
95th percentile per-packet one-way delay: 115.548 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 103.03 Mbit/s
95th percentile per-packet one-way delay: 67.850 ms
Loss rate: 0.00%
```
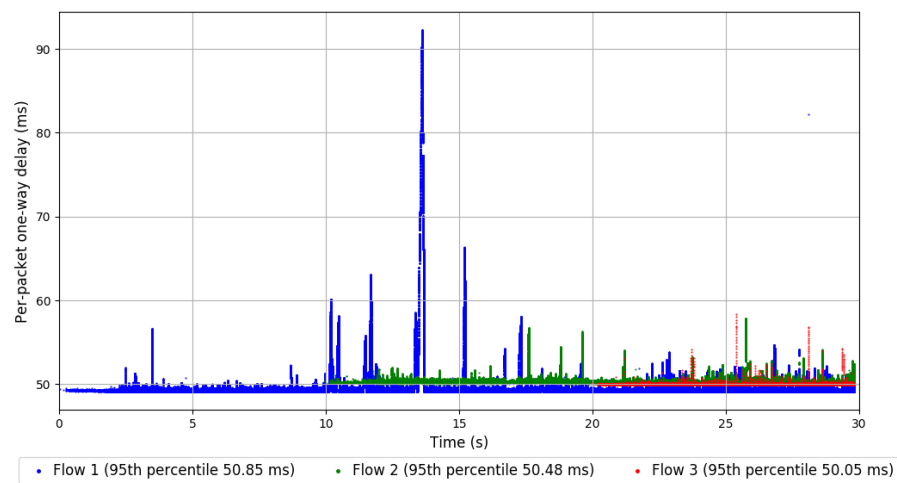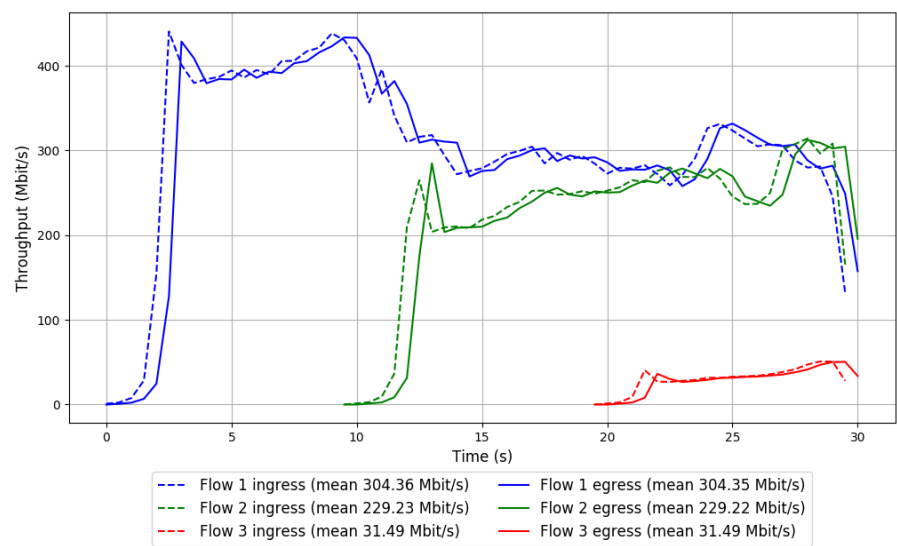
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-10-10 17:11:59
End at: 2018-10-10 17:12:29
Local clock offset: -0.163 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2018-10-10 20:07:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.68 Mbit/s
95th percentile per-packet one-way delay: 119.483 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 171.13 Mbit/s
95th percentile per-packet one-way delay: 119.596 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 141.60 Mbit/s
95th percentile per-packet one-way delay: 118.587 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 120.992 ms
Loss rate: 0.00%
```
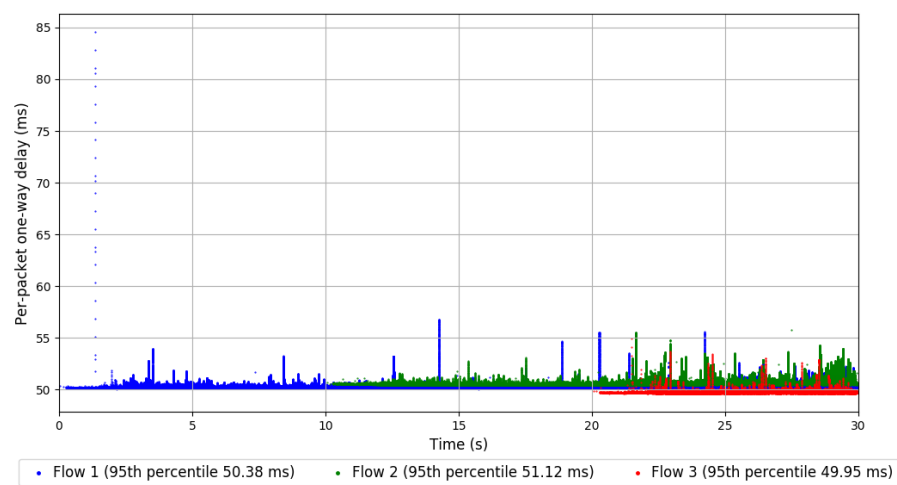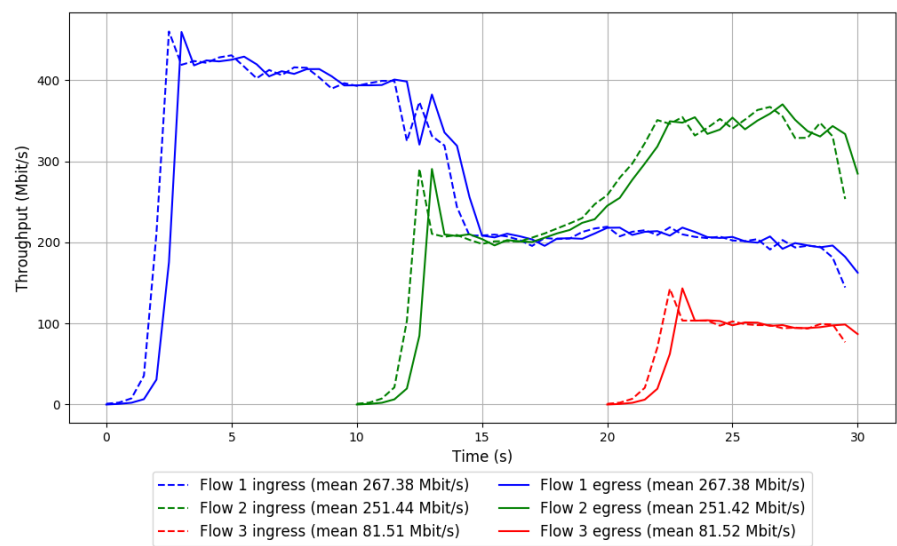
Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-10-10 15:08:37
End at: 2018-10-10 15:09:07
Local clock offset: 0.119 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2018-10-10 20:07:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.79 Mbit/s
95th percentile per-packet one-way delay: 50.550 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 304.35 Mbit/s
95th percentile per-packet one-way delay: 50.846 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 229.22 Mbit/s
95th percentile per-packet one-way delay: 50.477 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.49 Mbit/s
95th percentile per-packet one-way delay: 50.047 ms
Loss rate: 0.00%
```
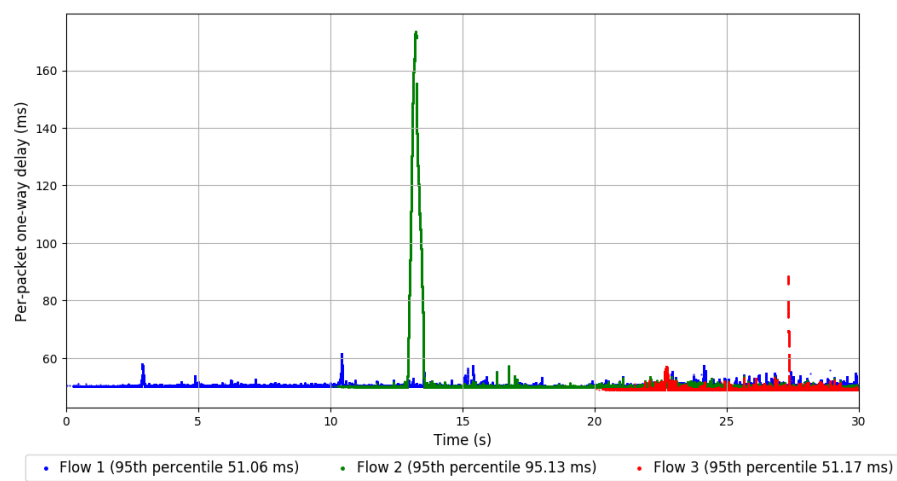
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-10-10 15:38:45
End at: 2018-10-10 15:39:15
Local clock offset: -0.142 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2018-10-10 20:08:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 461.46 Mbit/s
95th percentile per-packet one-way delay: 50.719 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 267.38 Mbit/s
95th percentile per-packet one-way delay: 50.385 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 251.42 Mbit/s
95th percentile per-packet one-way delay: 51.123 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 81.52 Mbit/s
95th percentile per-packet one-way delay: 49.949 ms
Loss rate: 0.00%
```

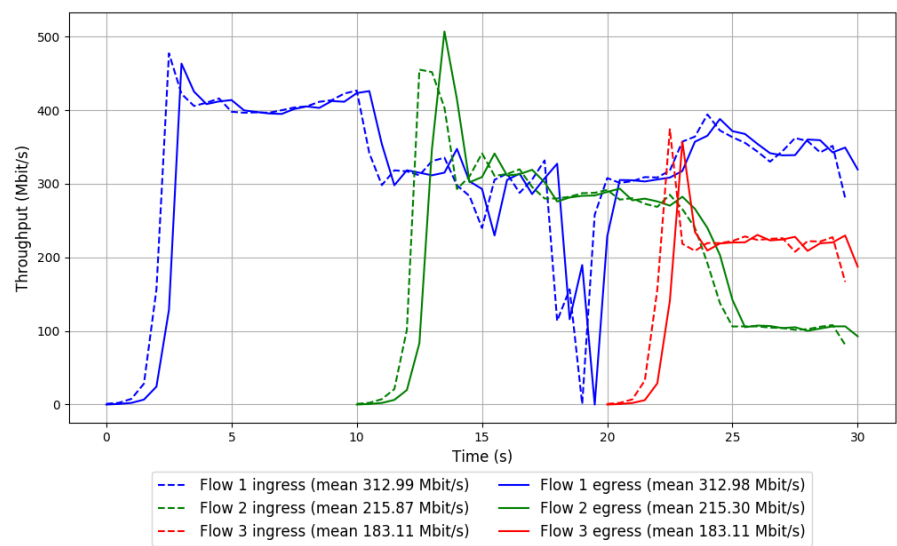Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-10-10 16:09:23
End at: 2018-10-10 16:09:53
Local clock offset: 0.231 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2018-10-10 20:09:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.53 Mbit/s
95th percentile per-packet one-way delay: 51.476 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 312.98 Mbit/s
95th percentile per-packet one-way delay: 51.061 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 215.30 Mbit/s
95th percentile per-packet one-way delay: 95.129 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 183.11 Mbit/s
95th percentile per-packet one-way delay: 51.167 ms
Loss rate: 0.00%
```

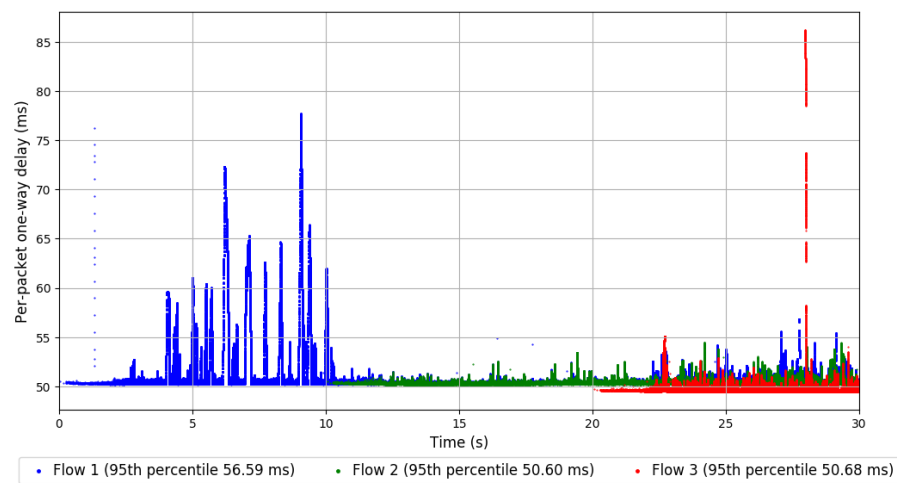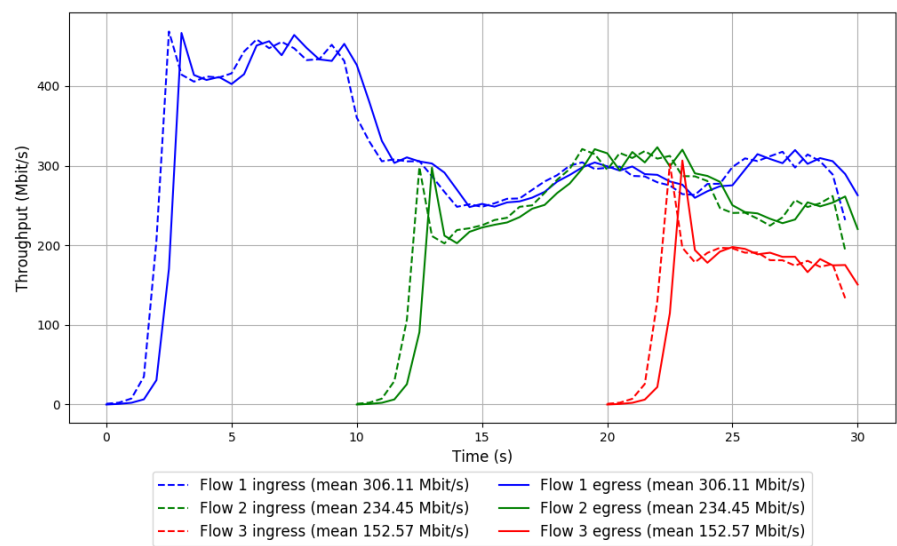Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-10-10 16:39:37
End at: 2018-10-10 16:40:07
Local clock offset: -0.279 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-10-10 20:09:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 512.40 Mbit/s
95th percentile per-packet one-way delay: 53.136 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 306.11 Mbit/s
95th percentile per-packet one-way delay: 56.587 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 234.45 Mbit/s
95th percentile per-packet one-way delay: 50.601 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 152.57 Mbit/s
95th percentile per-packet one-way delay: 50.676 ms
Loss rate: 0.00%
```

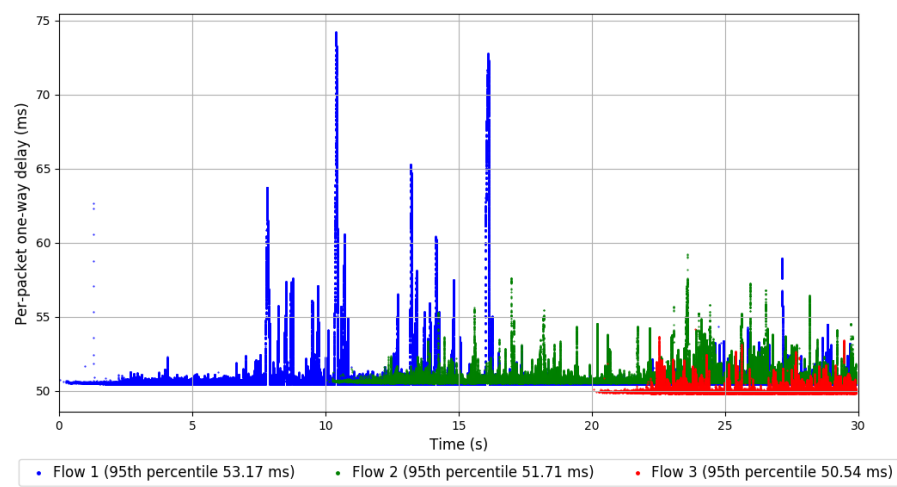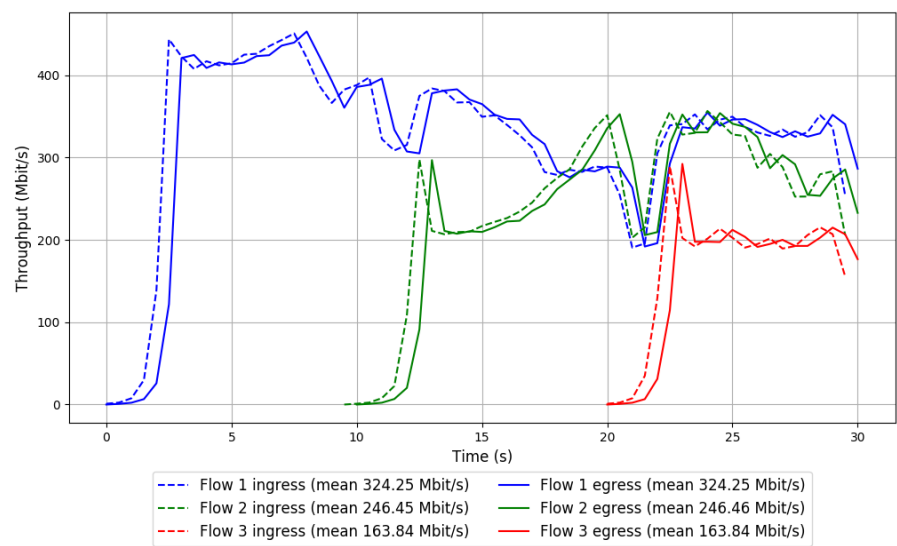Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-10-10 17:10:12
End at: 2018-10-10 17:10:42
Local clock offset: -0.509 ms
Remote clock offset: -0.007 ms


# Below is generated by plot.py at 2018-10-10 20:09:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 542.34 Mbit/s
95th percentile per-packet one-way delay: 52.143 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 324.25 Mbit/s
95th percentile per-packet one-way delay: 53.169 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 246.46 Mbit/s
95th percentile per-packet one-way delay: 51.709 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 163.84 Mbit/s
95th percentile per-packet one-way delay: 50.543 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-10-10 15:28:59
End at: 2018-10-10 15:29:29
Local clock offset: 0.137 ms
Remote clock offset: 0.002 ms


# Below is generated by plot.py at 2018-10-10 20:09:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 49.428 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 48.706 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 49.483 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 49.422 ms
Loss rate: 0.00%
```
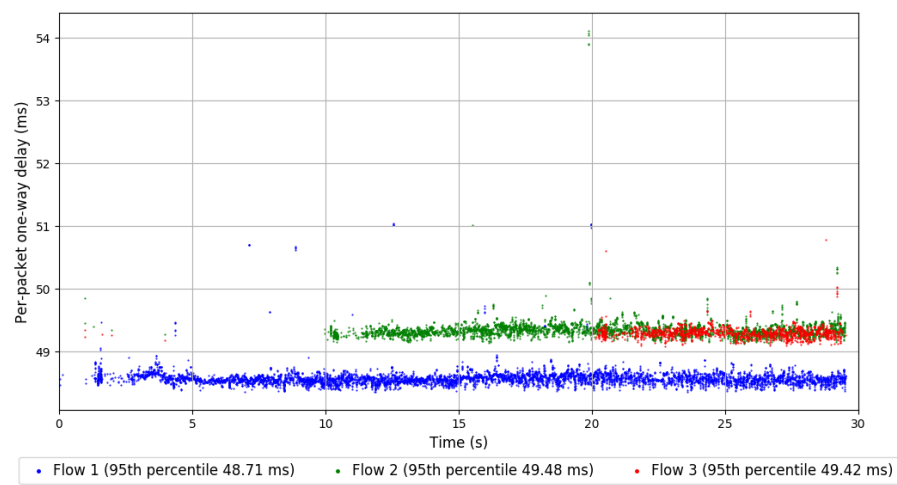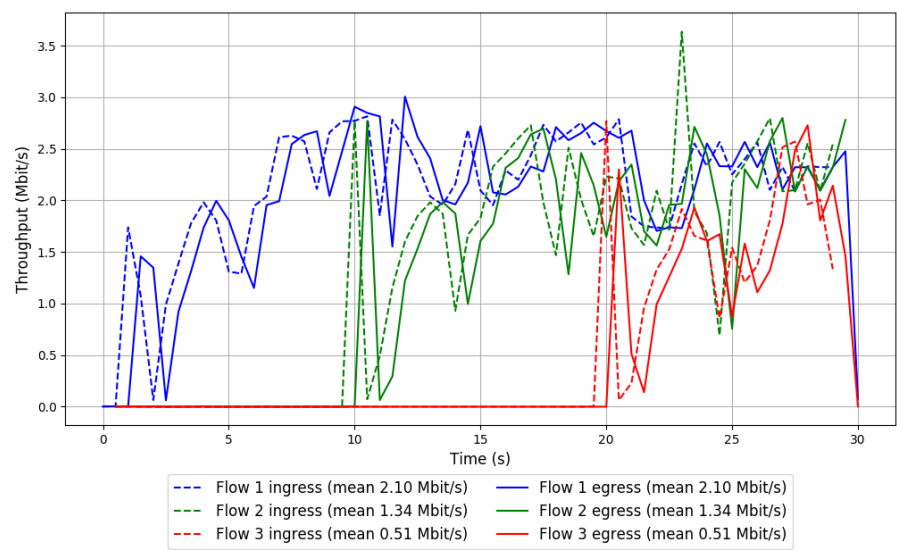
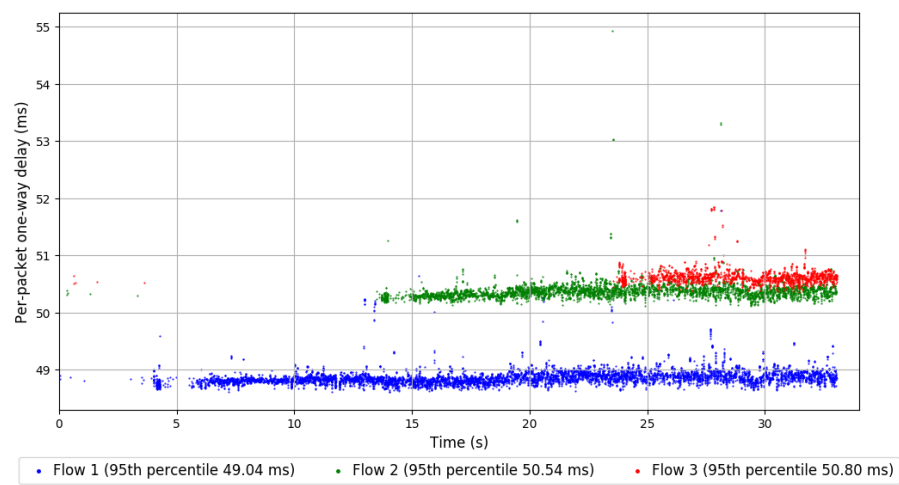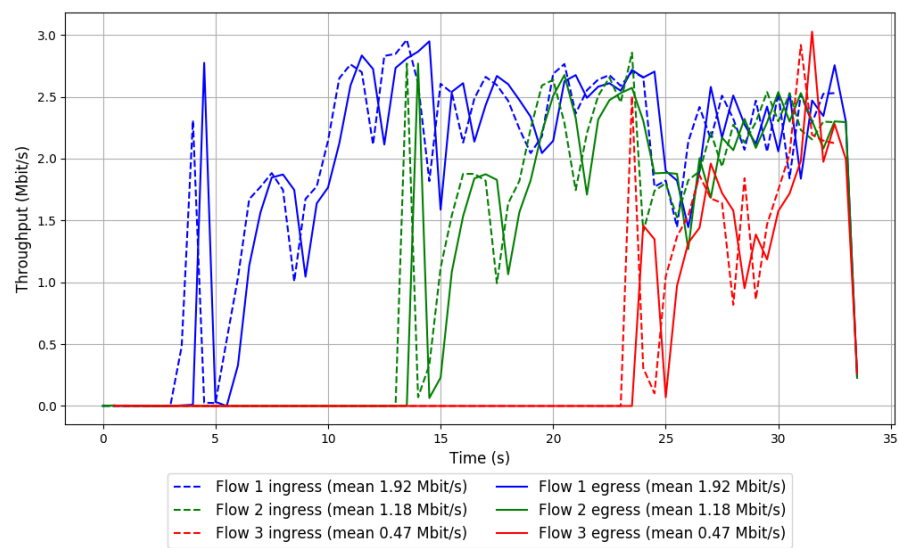Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-10-10 15:59:37
End at: 2018-10-10 16:00:07
Local clock offset: -0.123 ms
Remote clock offset: -0.104 ms


# Below is generated by plot.py at 2018-10-10 20:09:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 50.643 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 49.039 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 50.542 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 50.795 ms
Loss rate: 0.00%
```

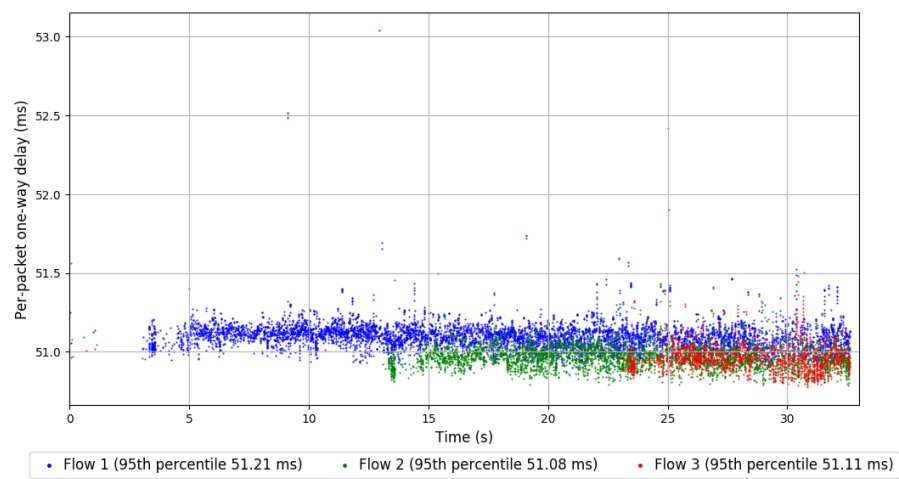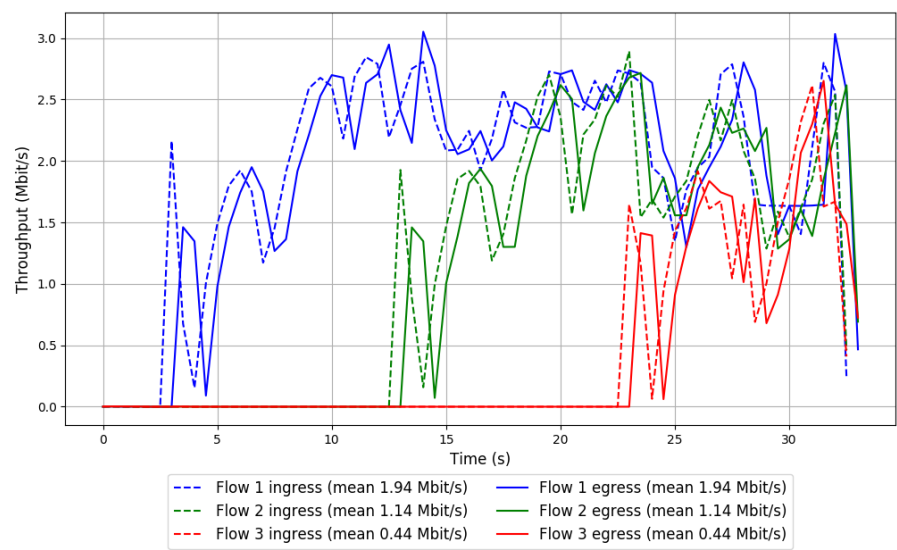Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-10-10 16:29:54
End at: 2018-10-10 16:30:24
Local clock offset: -0.625 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-10-10 20:09:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 51.188 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 51.210 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 51.080 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 51.111 ms
Loss rate: 0.00%
```

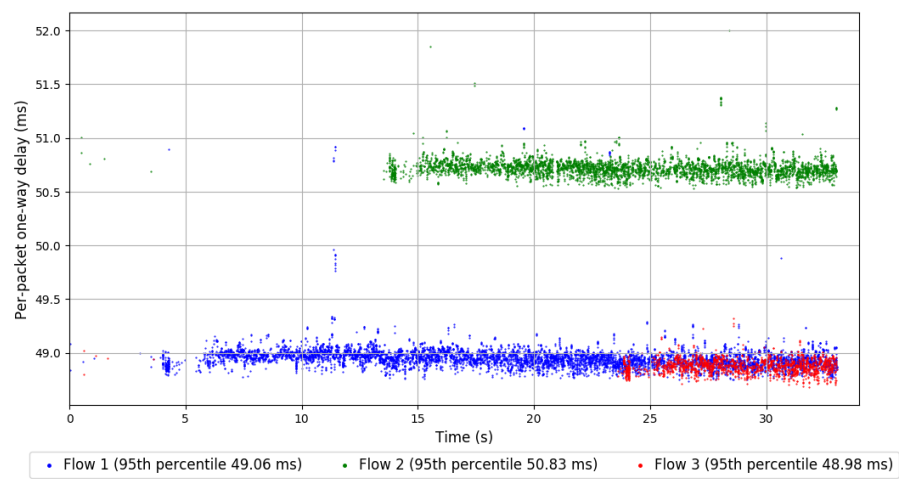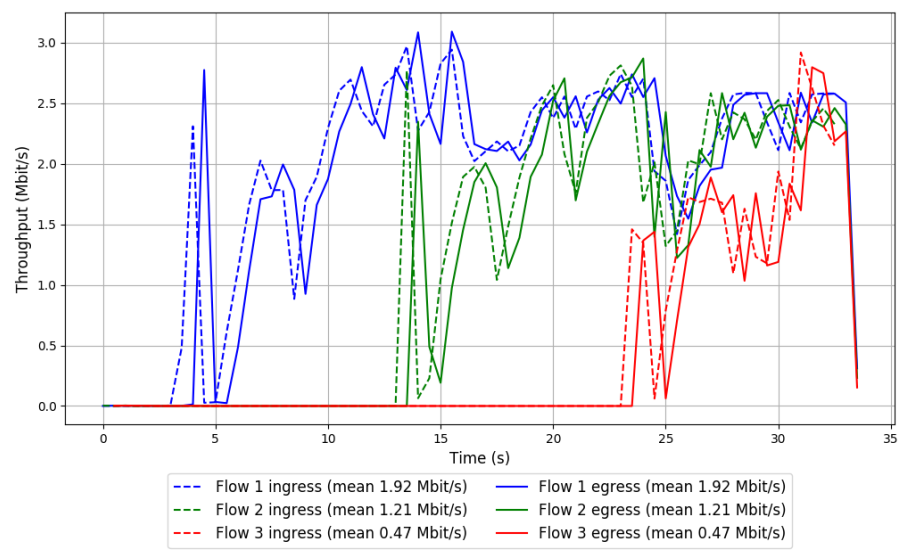Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-10-10 17:00:23
End at: 2018-10-10 17:00:53
Local clock offset: -0.162 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2018-10-10 20:09:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 50.779 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 49.063 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 50.827 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 48.977 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-10-10 17:30:54
End at: 2018-10-10 17:31:24
Local clock offset: -0.514 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2018-10-10 20:09:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.69 Mbit/s
95th percentile per-packet one-way delay: 51.049 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 50.755 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 51.245 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 50.091 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link