Pantheon Report

Generated at 2019-06-29 01:34:18 (UTC).

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

Repeated the test of 22 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.
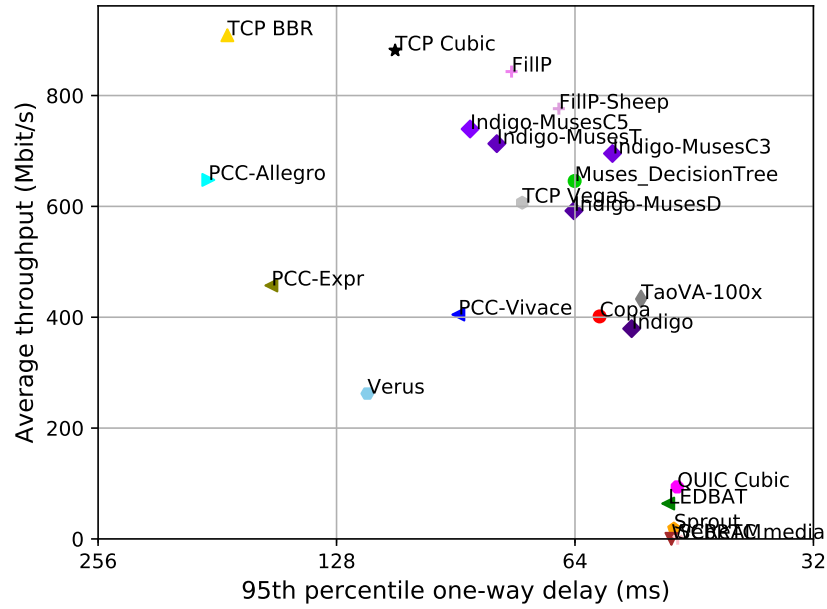
```
System info:
Linux 4.15.0-1032-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
 M helpers/__init__.pyc
 M helpers/context.pyc
 M helpers/utils.pyc
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
```
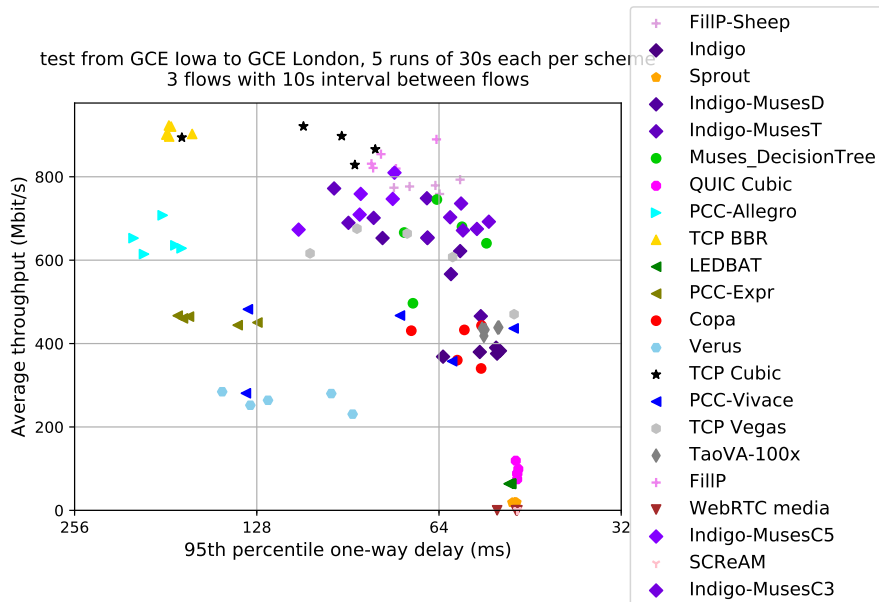
```
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

test from GCE Iowa to GCE London, 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	466.96	455.66	420.12	176.46	176.85	156.38	0.75	1.31	1.84
Copa	5	203.37	203.01	191.08	58.04	61.32	62.49	0.40	0.59	1.30
TCP Cubic	5	460.18	437.92	393.39	77.29	80.33	131.96	0.41	0.51	1.30
FillP	5	528.22	362.42	225.67	84.17	53.94	51.31	0.36	0.49	1.31
FillP-Sheep	5	485.40	314.38	249.21	73.38	51.95	51.30	0.37	0.44	1.10
Indigo	5	200.29	186.52	167.39	53.40	54.64	54.69	0.37	0.57	1.10
Indigo-MusesC3	5	421.28	347.27	215.38	58.09	57.76	50.26	0.26	0.39	2.30
Indigo-MusesC5	5	458.14	389.33	135.28	89.04	83.27	54.88	0.27	0.54	1.57
Indigo-MusesD	5	333.90	319.66	208.66	66.76	59.43	51.23	0.28	0.34	1.79
Indigo-MusesT	5	444.11	362.57	148.69	87.98	67.89	50.79	0.34	0.62	1.72
LEDBAT	5	41.09	27.49	13.62	48.91	48.64	48.51	0.62	0.95	1.92
Muses_DecisionTree	5	414.33	316.80	70.54	64.47	58.52	47.25	0.31	0.45	1.10
PCC-Allegro	5	367.16	298.59	252.06	189.83	123.33	123.38	5.36	1.39	1.38
PCC-Expr	5	269.67	196.08	175.31	157.90	84.17	118.02	1.48	0.83	3.20
QUIC Cubic	5	56.28	41.98	28.65	47.56	47.49	47.49	0.42	1.05	0.44
SCReAM	5	0.22	0.22	0.22	47.17	47.35	47.34	0.26	0.61	1.09
Sprout	5	9.54	9.41	9.09	47.80	47.93	47.82	0.33	0.51	1.06
TaoVA-100x	5	222.74	215.30	202.86	51.23	54.12	54.82	0.40	0.50	1.01
TCP Vegas	5	263.54	336.35	361.66	53.89	60.90	78.44	0.44	0.46	1.08
Verus	5	142.97	137.02	86.18	115.97	105.18	104.83	0.39	0.89	1.52
PCC-Vivace	5	230.55	227.14	71.73	78.01	73.18	47.54	0.85	1.29	3.06
WebRTC media	5	0.05	0.05	0.05	47.75	49.13	47.59	0.00	0.01	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-06-28 19:41:18
End at: 2019-06-28 19:41:48
Local clock offset: -0.475 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-06-28 23:02:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 902.70 Mbit/s
95th percentile per-packet one-way delay: 163.660 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 456.38 Mbit/s
95th percentile per-packet one-way delay: 163.547 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 469.30 Mbit/s
95th percentile per-packet one-way delay: 165.104 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 406.72 Mbit/s
95th percentile per-packet one-way delay: 160.315 ms
Loss rate: 1.36%
```
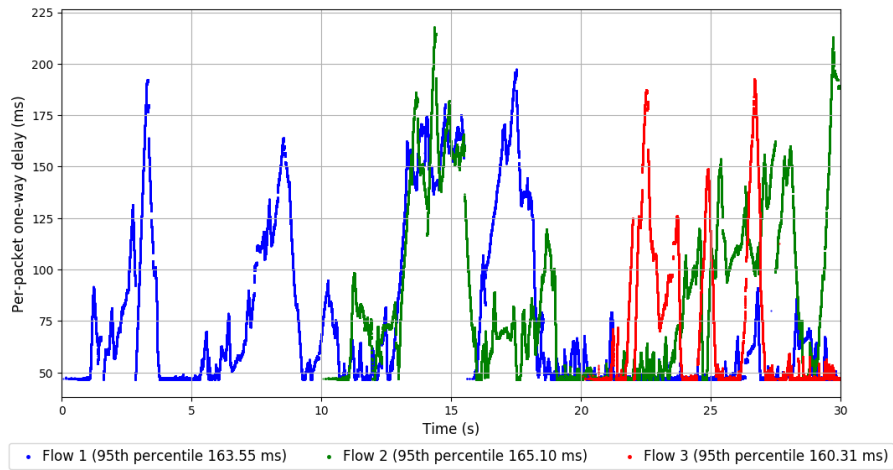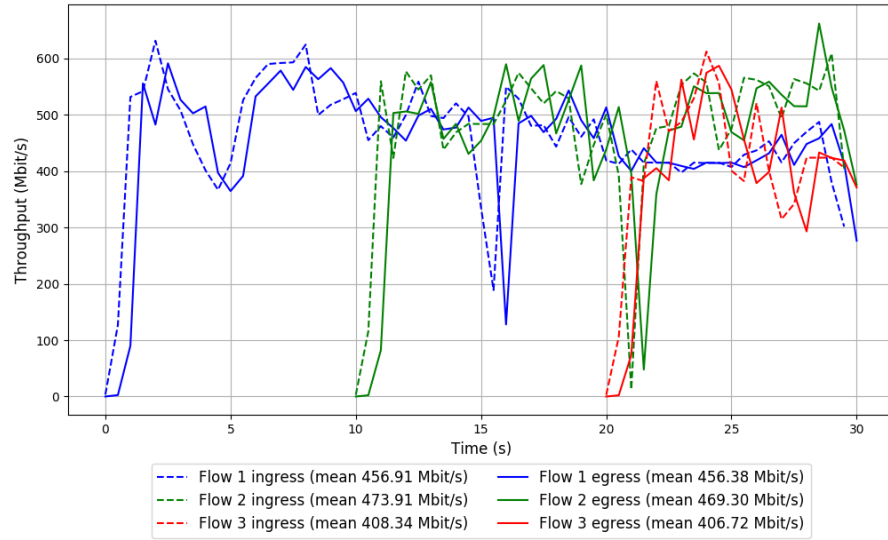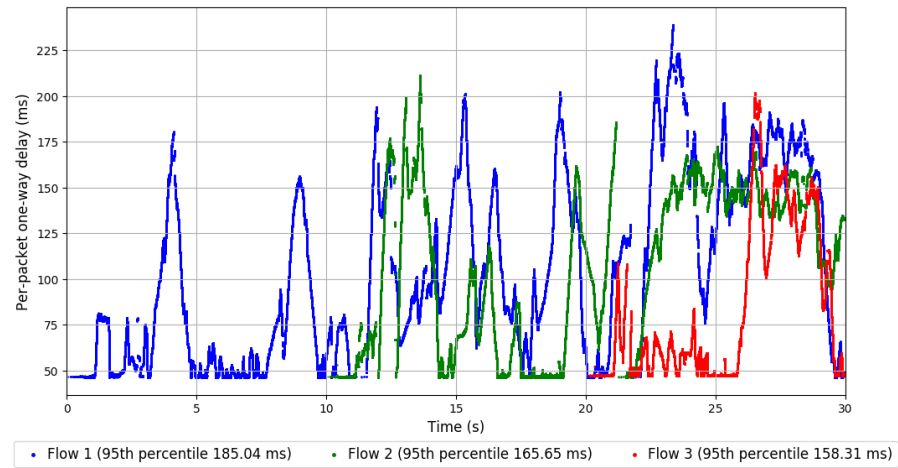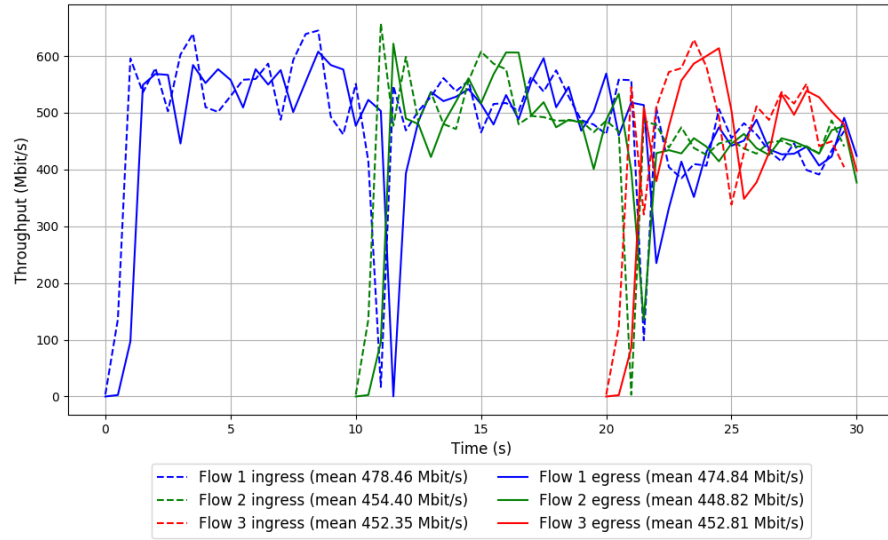
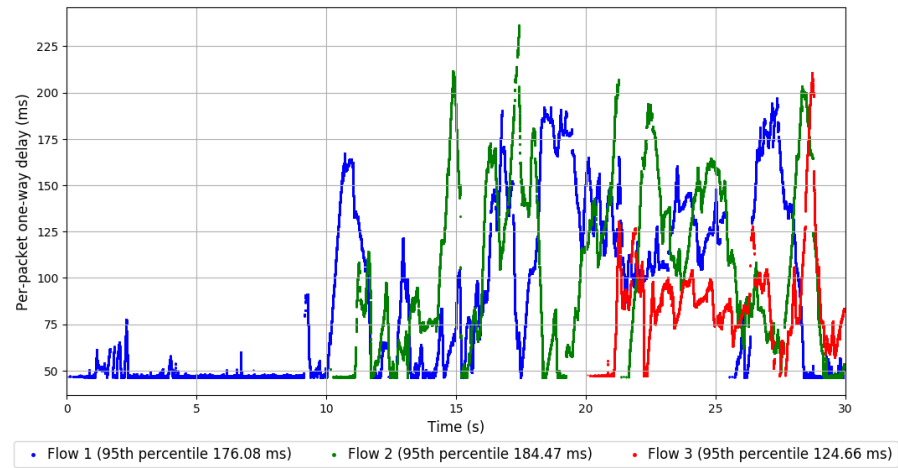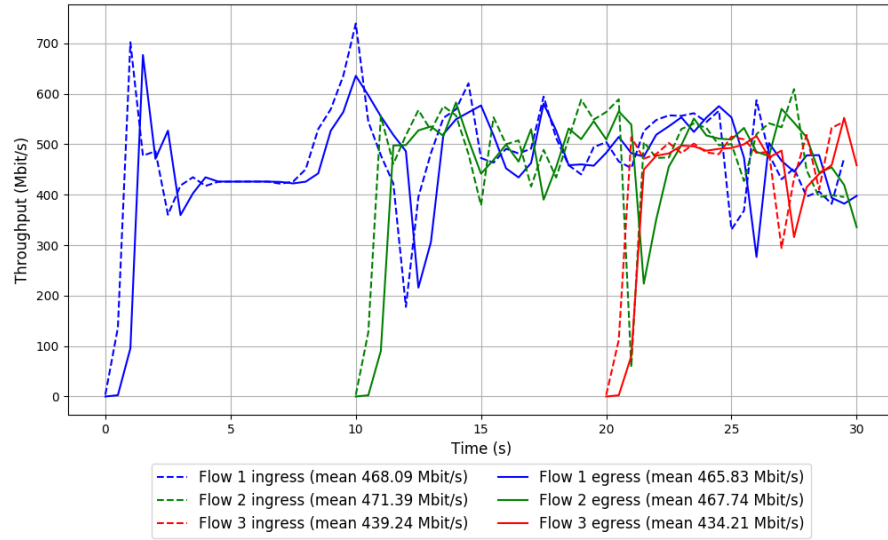Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-06-28 20:17:50
End at: 2019-06-28 20:18:20
Local clock offset: -0.02 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-06-28 23:02:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 922.99 Mbit/s
95th percentile per-packet one-way delay: 178.822 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 474.84 Mbit/s
95th percentile per-packet one-way delay: 185.044 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 448.82 Mbit/s
95th percentile per-packet one-way delay: 165.650 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 452.81 Mbit/s
95th percentile per-packet one-way delay: 158.312 ms
Loss rate: 0.85%
```
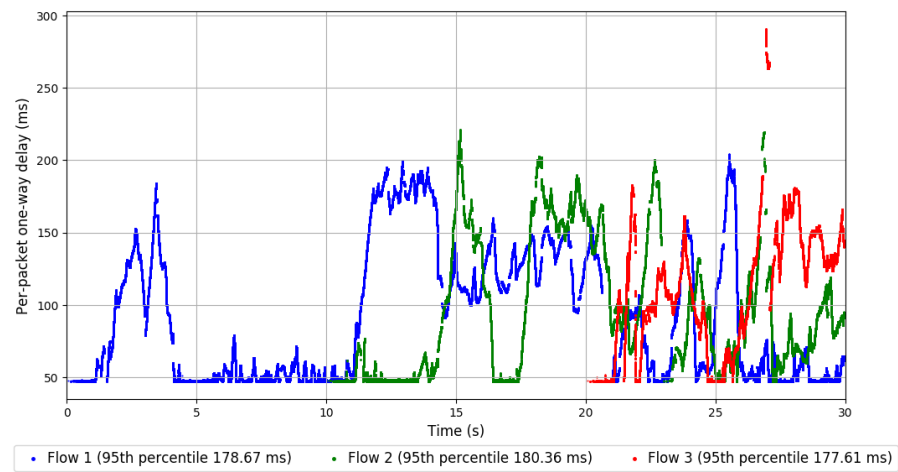
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-06-28 20:54:25
End at: 2019-06-28 20:54:55
Local clock offset: -0.166 ms
Remote clock offset: -0.052 ms


# Below is generated by plot.py at 2019-06-28 23:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 920.42 Mbit/s
95th percentile per-packet one-way delay: 177.327 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 465.83 Mbit/s
95th percentile per-packet one-way delay: 176.078 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 467.74 Mbit/s
95th percentile per-packet one-way delay: 184.466 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 434.21 Mbit/s
95th percentile per-packet one-way delay: 124.663 ms
Loss rate: 2.09%
```
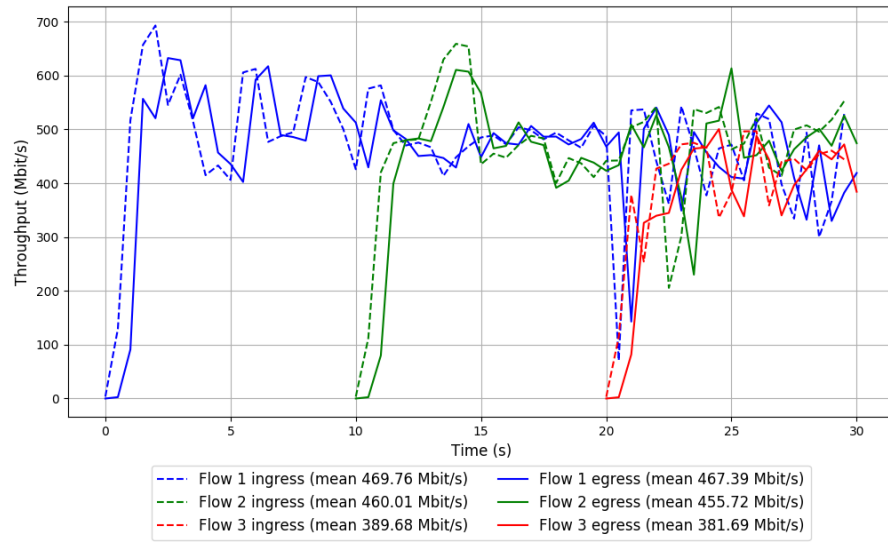
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2019-06-28 21:31:07
End at: 2019-06-28 21:31:37
Local clock offset: -0.417 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2019-06-28 23:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 896.55 Mbit/s
95th percentile per-packet one-way delay: 178.641 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 467.39 Mbit/s
95th percentile per-packet one-way delay: 178.669 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 455.72 Mbit/s
95th percentile per-packet one-way delay: 180.360 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 381.69 Mbit/s
95th percentile per-packet one-way delay: 177.614 ms
Loss rate: 2.99%
```
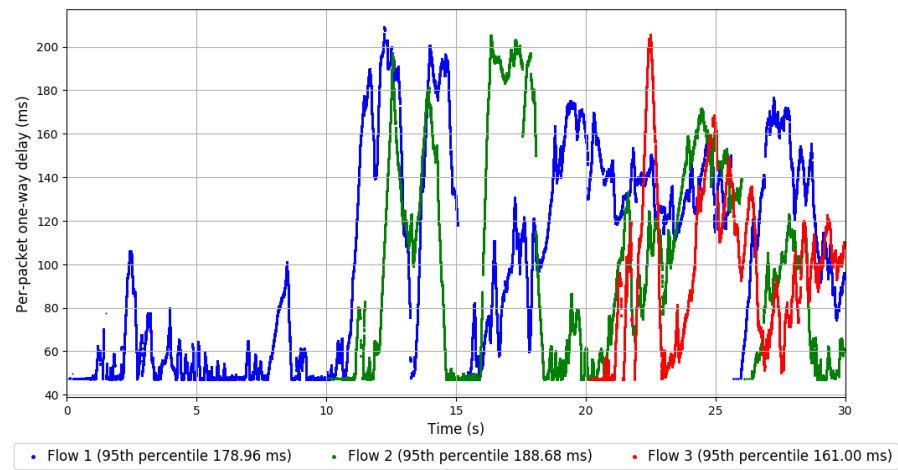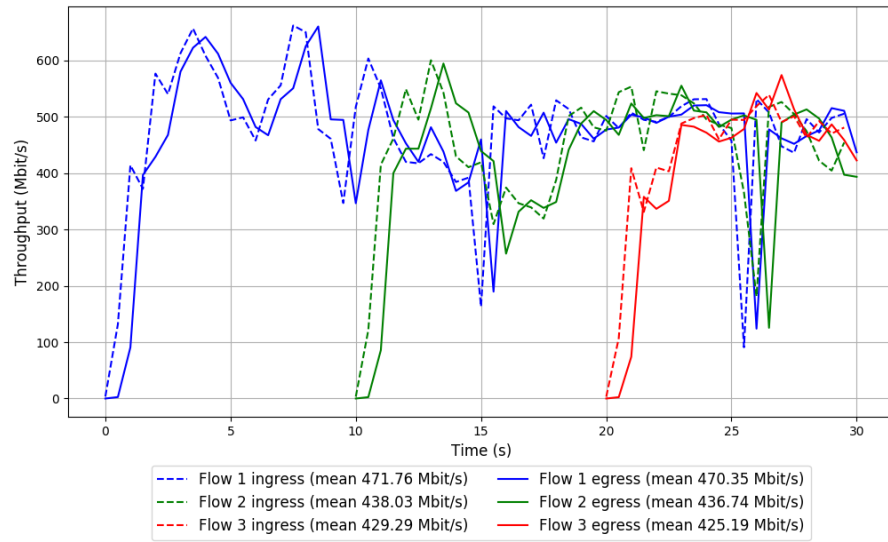
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2019-06-28 22:07:36
End at: 2019-06-28 22:08:06
Local clock offset: -0.178 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-06-28 23:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 901.24 Mbit/s
95th percentile per-packet one-way delay: 180.567 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 470.35 Mbit/s
95th percentile per-packet one-way delay: 178.955 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 436.74 Mbit/s
95th percentile per-packet one-way delay: 188.679 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 425.19 Mbit/s
95th percentile per-packet one-way delay: 161.004 ms
Loss rate: 1.91%
```
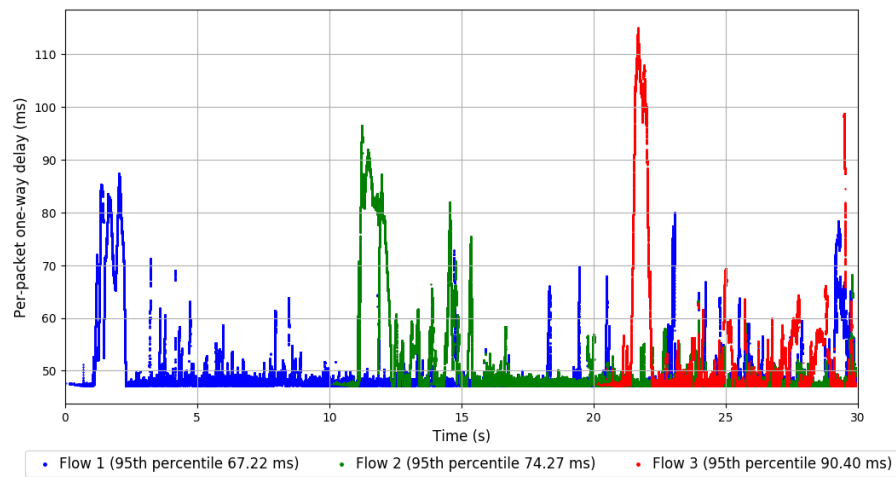
Run 5: Report of TCP BBR — Data Link

14

```
Run 1: Statistics of Copa

Start at: 2019-06-28 19:43:19
End at: 2019-06-28 19:43:49
Local clock offset: -0.049 ms
Remote clock offset: 0.012 ms


# Below is generated by plot.py at 2019-06-28 23:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 430.85 Mbit/s
95th percentile per-packet one-way delay: 71.113 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 201.02 Mbit/s
95th percentile per-packet one-way delay: 67.224 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 235.25 Mbit/s
95th percentile per-packet one-way delay: 74.267 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 222.40 Mbit/s
95th percentile per-packet one-way delay: 90.401 ms
Loss rate: 1.10%
```
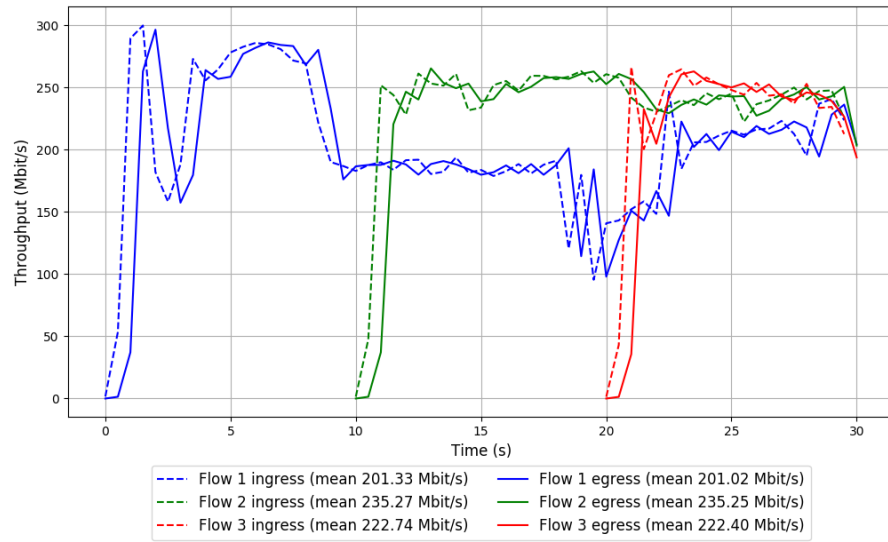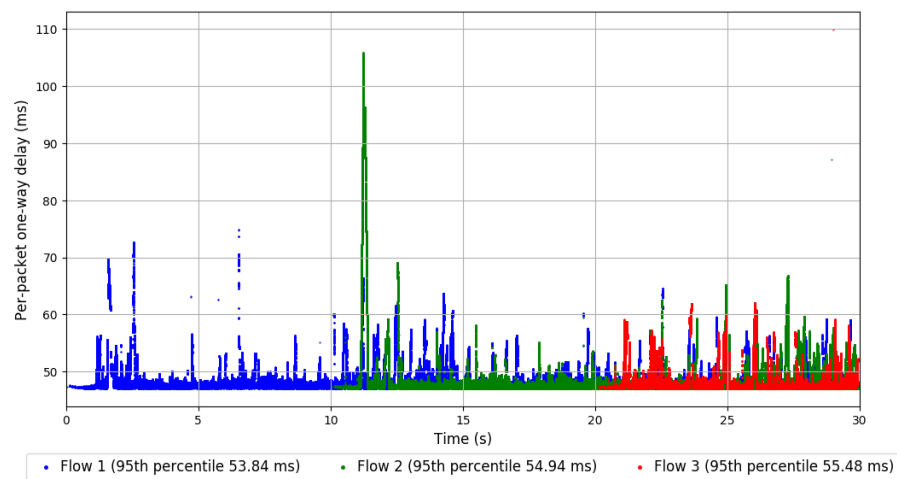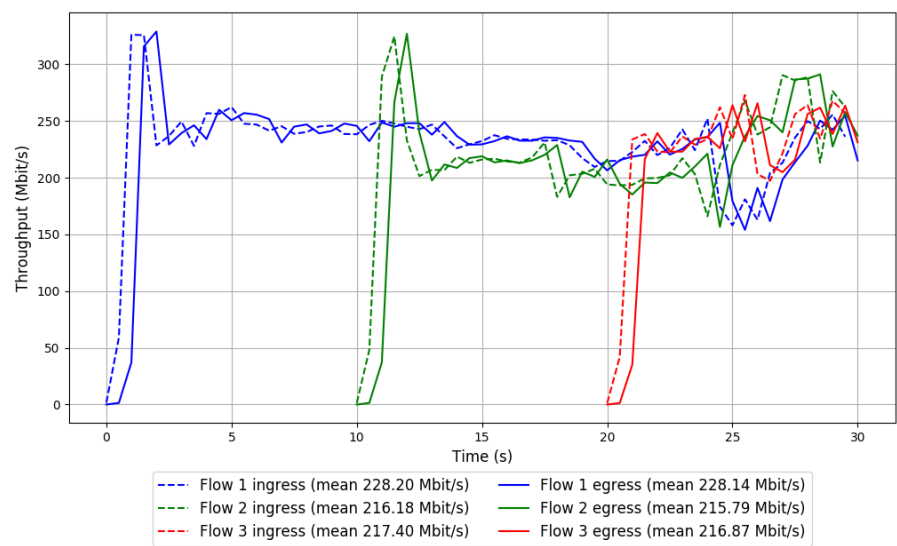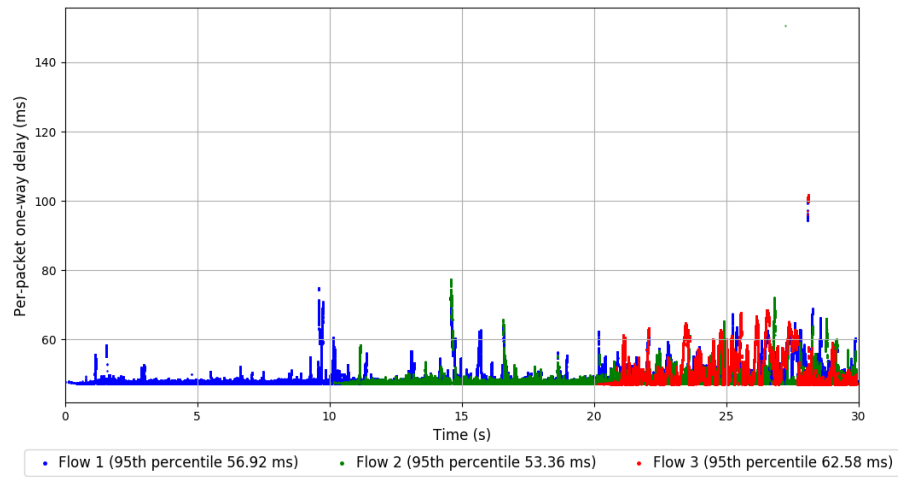
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 201.33 Mbit/s) --- Flow 1 egress (mean 201.02 Mbit/s)
Flow 2 ingress (mean 235.27 Mbit/s) --- Flow 2 egress (mean 235.25 Mbit/s)
Flow 3 ingress (mean 222.74 Mbit/s) --- Flow 3 egress (mean 222.40 Mbit/s)

Flow 1 (95th percentile 67.22 ms)   Flow 2 (95th percentile 74.27 ms)   Flow 3 (95th percentile 90.40 ms)

16

```
Run 2: Statistics of Copa

Start at: 2019-06-28 20:19:52
End at: 2019-06-28 20:20:22
Local clock offset: -0.078 ms
Remote clock offset: 0.004 ms


# Below is generated by plot.py at 2019-06-28 23:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 443.20 Mbit/s
95th percentile per-packet one-way delay: 54.445 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 228.14 Mbit/s
95th percentile per-packet one-way delay: 53.843 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 215.79 Mbit/s
95th percentile per-packet one-way delay: 54.938 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 216.87 Mbit/s
95th percentile per-packet one-way delay: 55.479 ms
Loss rate: 1.20%
```

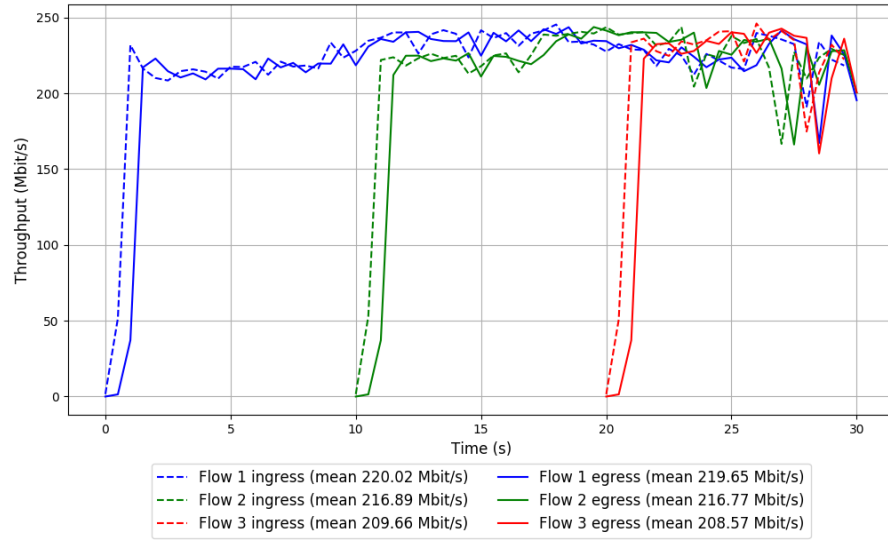Run 2: Report of Copa — Data Link

18

```
Run 3: Statistics of Copa

Start at: 2019-06-28 20:56:25
End at: 2019-06-28 20:56:55
Local clock offset: -0.24 ms
Remote clock offset: -0.123 ms


# Below is generated by plot.py at 2019-06-28 23:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.75 Mbit/s
95th percentile per-packet one-way delay: 58.112 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 219.65 Mbit/s
95th percentile per-packet one-way delay: 56.923 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 216.77 Mbit/s
95th percentile per-packet one-way delay: 53.363 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 208.57 Mbit/s
95th percentile per-packet one-way delay: 62.577 ms
Loss rate: 1.45%
```
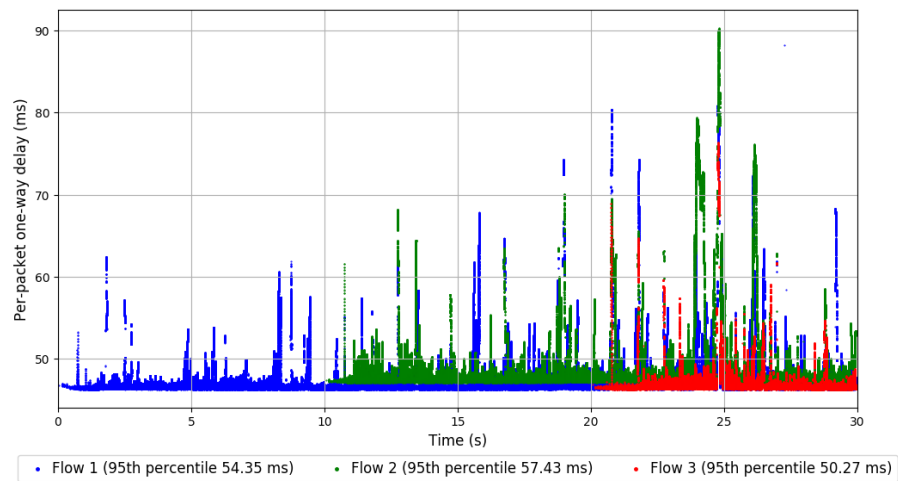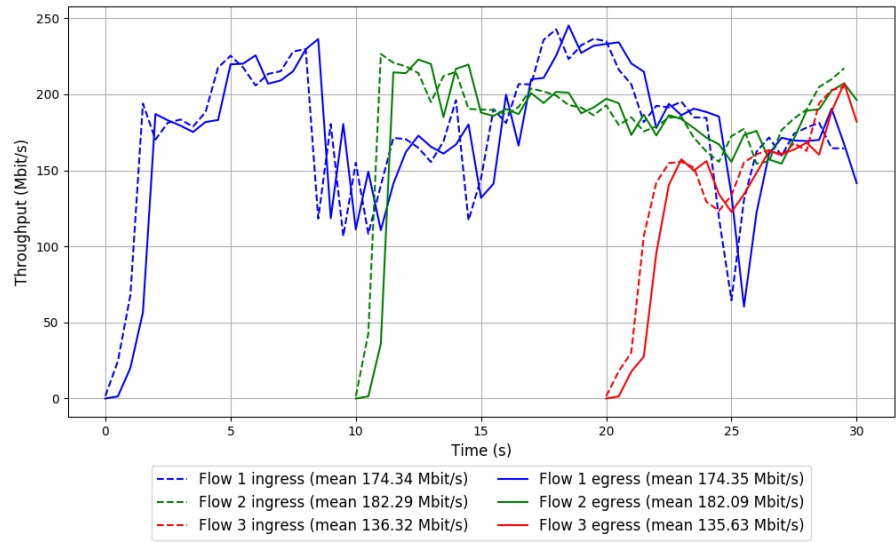
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-06-28 21:33:10
End at: 2019-06-28 21:33:40
Local clock offset: -0.435 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2019-06-28 23:11:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.29 Mbit/s
95th percentile per-packet one-way delay: 54.522 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 174.35 Mbit/s
95th percentile per-packet one-way delay: 54.350 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 182.09 Mbit/s
95th percentile per-packet one-way delay: 57.428 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 135.63 Mbit/s
95th percentile per-packet one-way delay: 50.271 ms
Loss rate: 1.45%
```
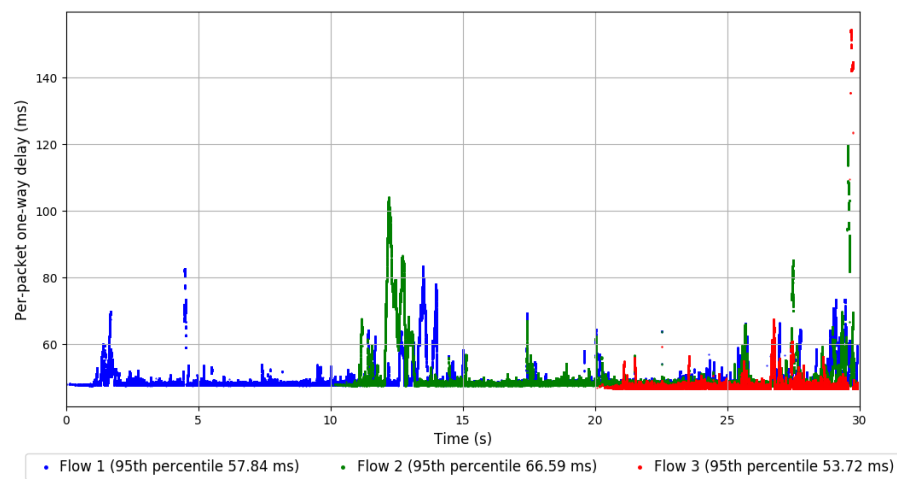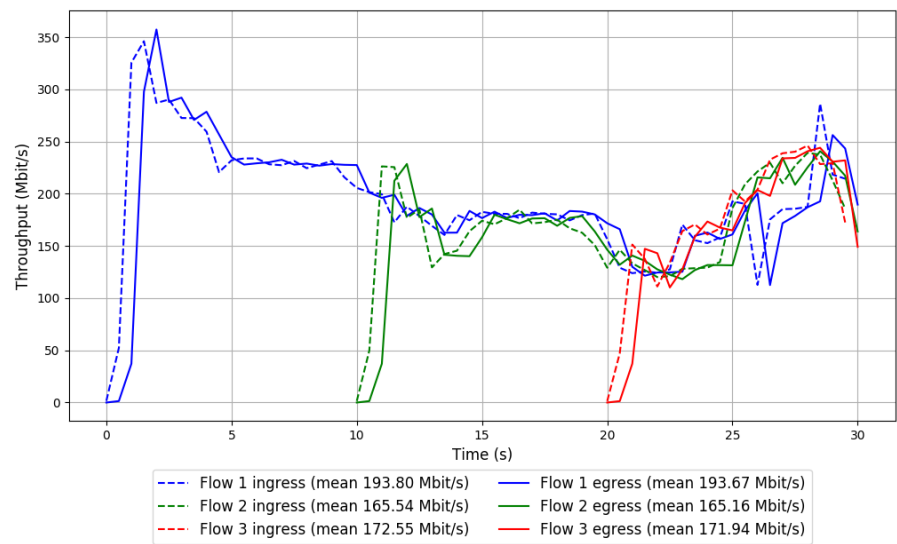
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 174.34 Mbit/s) --- Flow 1 egress (mean 174.35 Mbit/s)
Flow 2 ingress (mean 182.29 Mbit/s) --- Flow 2 egress (mean 182.09 Mbit/s)
Flow 3 ingress (mean 136.32 Mbit/s) --- Flow 3 egress (mean 135.63 Mbit/s)

Flow 1 (95th percentile 54.35 ms)   Flow 2 (95th percentile 57.43 ms)   Flow 3 (95th percentile 50.27 ms)

22

```
Run 5: Statistics of Copa

Start at: 2019-06-28 22:09:37
End at: 2019-06-28 22:10:07
Local clock offset: 0.186 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2019-06-28 23:12:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 360.23 Mbit/s
95th percentile per-packet one-way delay: 59.698 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 193.67 Mbit/s
95th percentile per-packet one-way delay: 57.837 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 165.16 Mbit/s
95th percentile per-packet one-way delay: 66.587 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 171.94 Mbit/s
95th percentile per-packet one-way delay: 53.715 ms
Loss rate: 1.29%
```
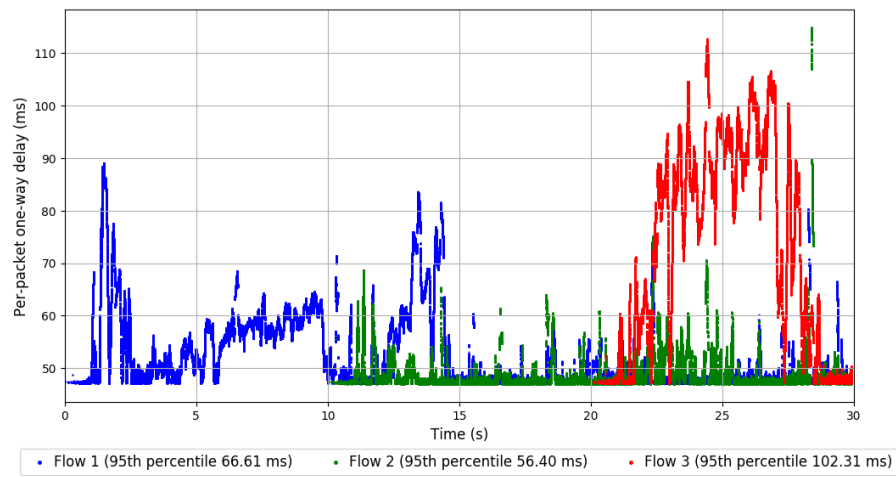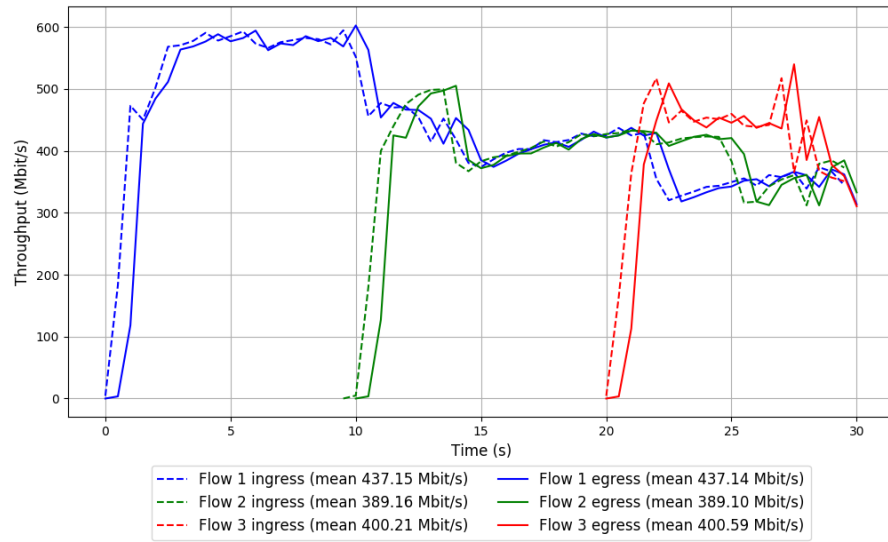
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 19:57:38
End at: 2019-06-28 19:58:08
Local clock offset: 0.016 ms
Remote clock offset: 0.046 ms


# Below is generated by plot.py at 2019-06-28 23:16:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 828.38 Mbit/s
95th percentile per-packet one-way delay: 88.140 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 437.14 Mbit/s
95th percentile per-packet one-way delay: 66.607 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 389.10 Mbit/s
95th percentile per-packet one-way delay: 56.395 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 400.59 Mbit/s
95th percentile per-packet one-way delay: 102.312 ms
Loss rate: 0.88%
```
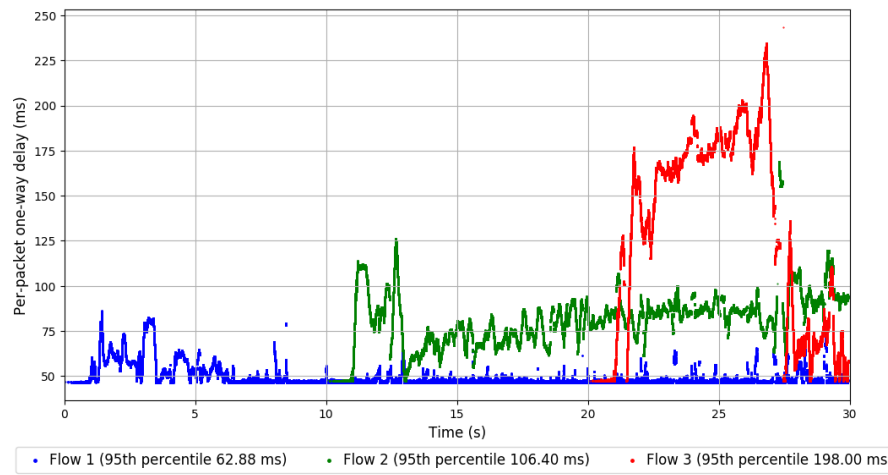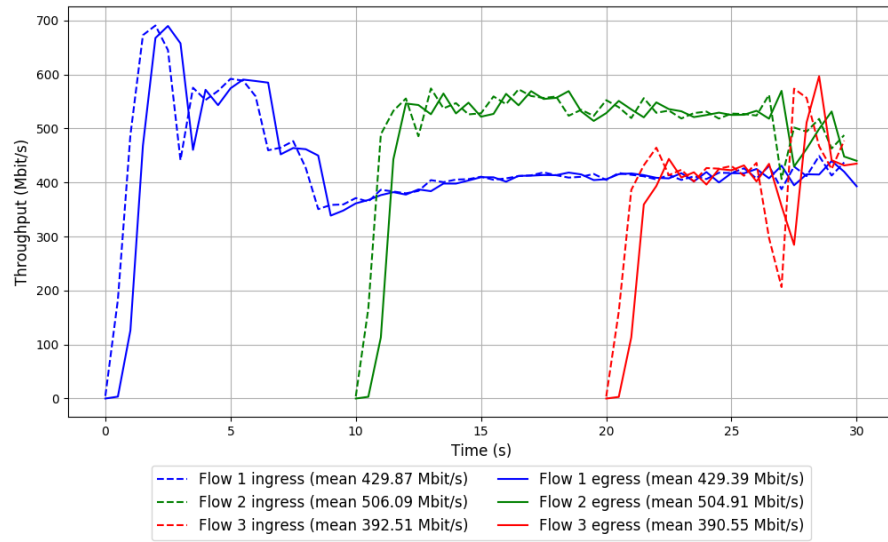
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 437.15 Mbit/s) --- Flow 1 egress (mean 437.14 Mbit/s)
Flow 2 ingress (mean 389.16 Mbit/s) --- Flow 2 egress (mean 389.10 Mbit/s)
Flow 3 ingress (mean 400.21 Mbit/s) --- Flow 3 egress (mean 400.59 Mbit/s)

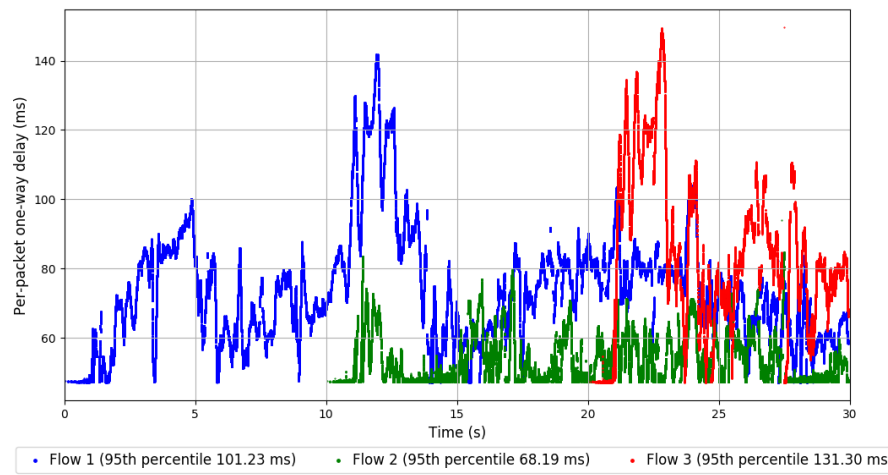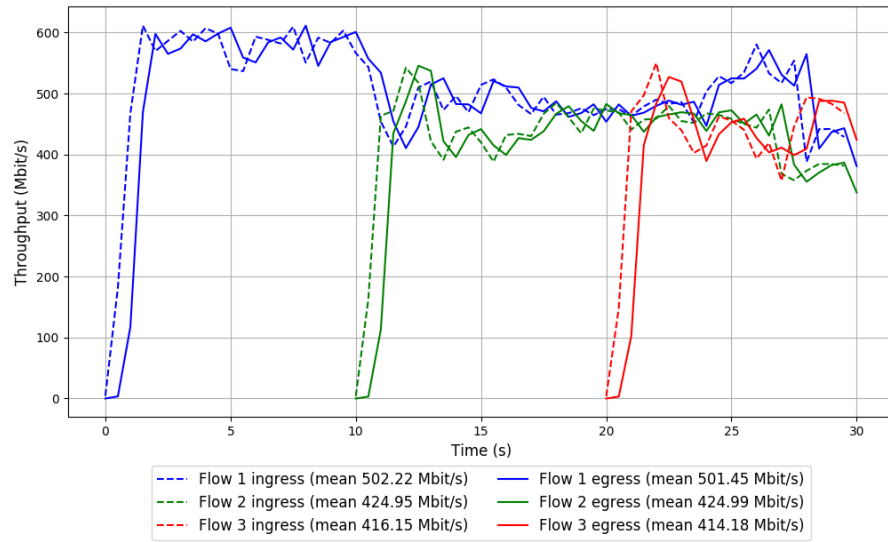Flow 1 (95th percentile 66.61 ms)   Flow 2 (95th percentile 56.40 ms)   Flow 3 (95th percentile 102.31 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 20:34:15
End at: 2019-06-28 20:34:45
Local clock offset: -0.06 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-06-28 23:19:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 894.07 Mbit/s
95th percentile per-packet one-way delay: 170.226 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 429.39 Mbit/s
95th percentile per-packet one-way delay: 62.882 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 504.91 Mbit/s
95th percentile per-packet one-way delay: 106.402 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 390.55 Mbit/s
95th percentile per-packet one-way delay: 198.004 ms
Loss rate: 1.43%
```

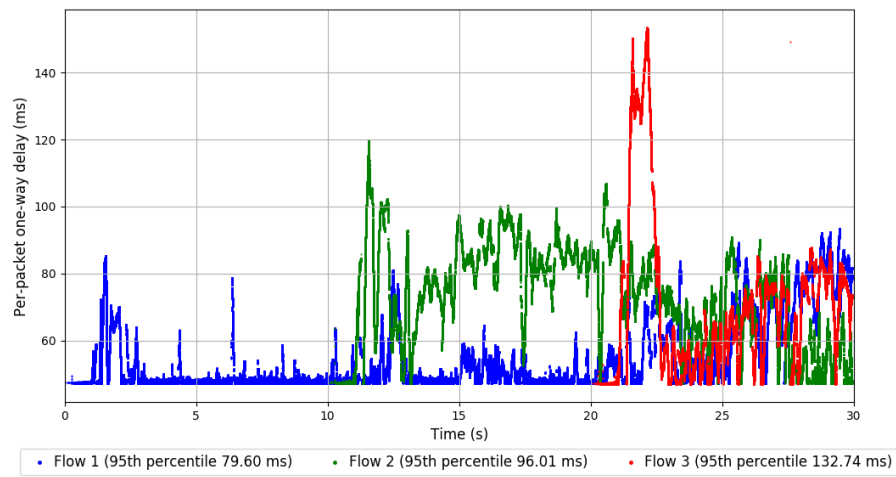Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 21:10:39
End at: 2019-06-28 21:11:09
Local clock offset: -0.328 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2019-06-28 23:20:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 920.92 Mbit/s
95th percentile per-packet one-way delay: 107.182 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 501.45 Mbit/s
95th percentile per-packet one-way delay: 101.228 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 424.99 Mbit/s
95th percentile per-packet one-way delay: 68.190 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 414.18 Mbit/s
95th percentile per-packet one-way delay: 131.302 ms
Loss rate: 1.42%
```

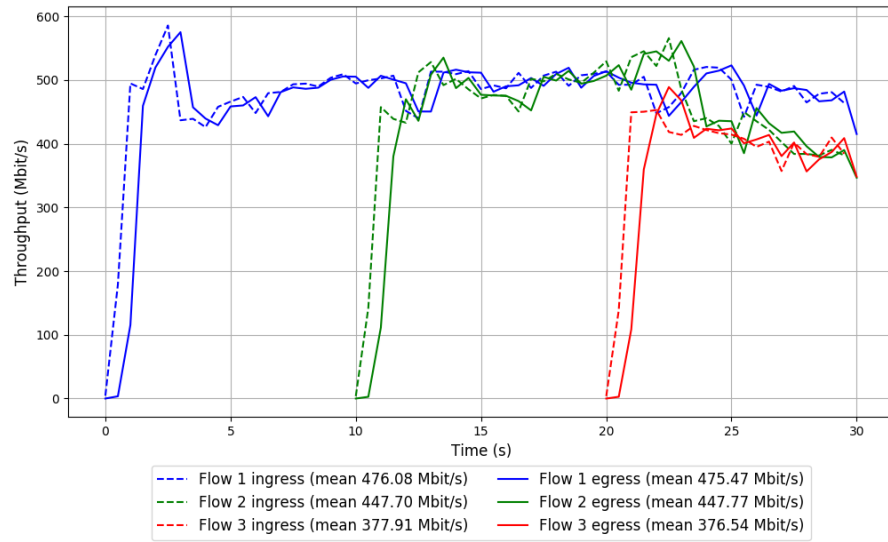Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 21:47:34
End at: 2019-06-28 21:48:04
Local clock offset: -0.465 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2019-06-28 23:20:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 897.57 Mbit/s
95th percentile per-packet one-way delay: 92.662 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 475.47 Mbit/s
95th percentile per-packet one-way delay: 79.600 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 447.77 Mbit/s
95th percentile per-packet one-way delay: 96.011 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 376.54 Mbit/s
95th percentile per-packet one-way delay: 132.743 ms
Loss rate: 1.30%
```

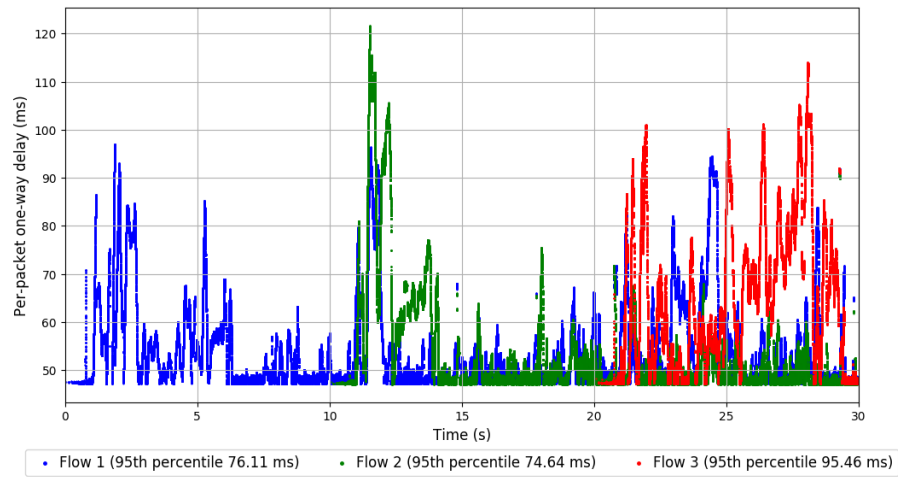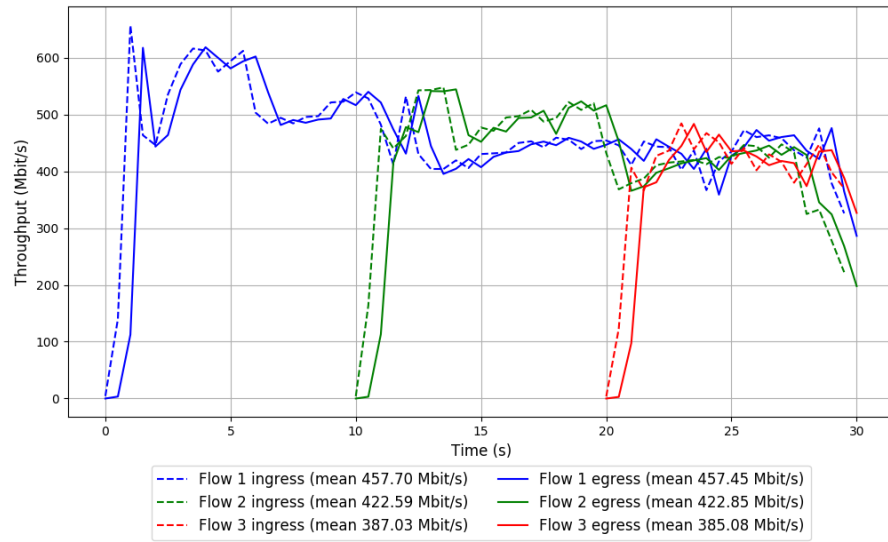Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 476.08 Mbit/s) -- Flow 1 egress (mean 475.47 Mbit/s)
Flow 2 ingress (mean 447.70 Mbit/s) -- Flow 2 egress (mean 447.77 Mbit/s)
Flow 3 ingress (mean 377.91 Mbit/s) -- Flow 3 egress (mean 376.54 Mbit/s)

Flow 1 (95th percentile 79.60 ms)   Flow 2 (95th percentile 96.01 ms)   Flow 3 (95th percentile 132.74 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 22:23:54
End at: 2019-06-28 22:24:24
Local clock offset: -0.078 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-06-28 23:20:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 865.80 Mbit/s
95th percentile per-packet one-way delay: 81.549 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 457.45 Mbit/s
95th percentile per-packet one-way delay: 76.115 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 422.85 Mbit/s
95th percentile per-packet one-way delay: 74.636 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 385.08 Mbit/s
95th percentile per-packet one-way delay: 95.456 ms
Loss rate: 1.46%
```
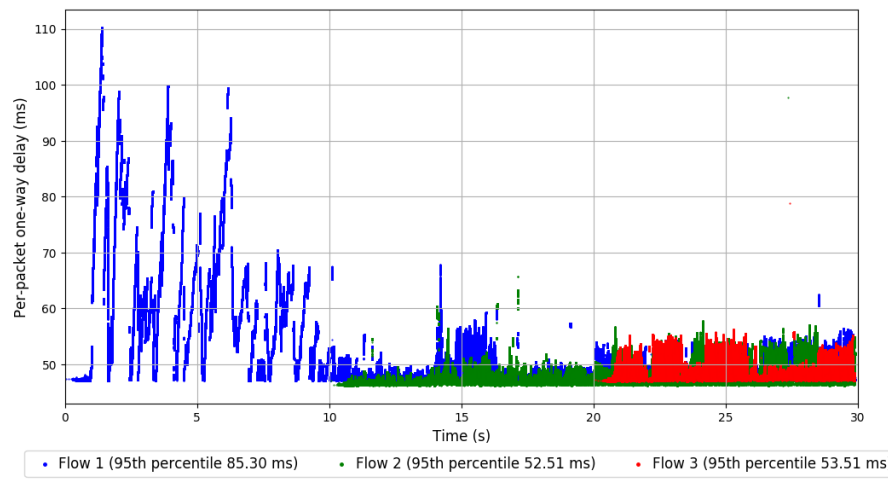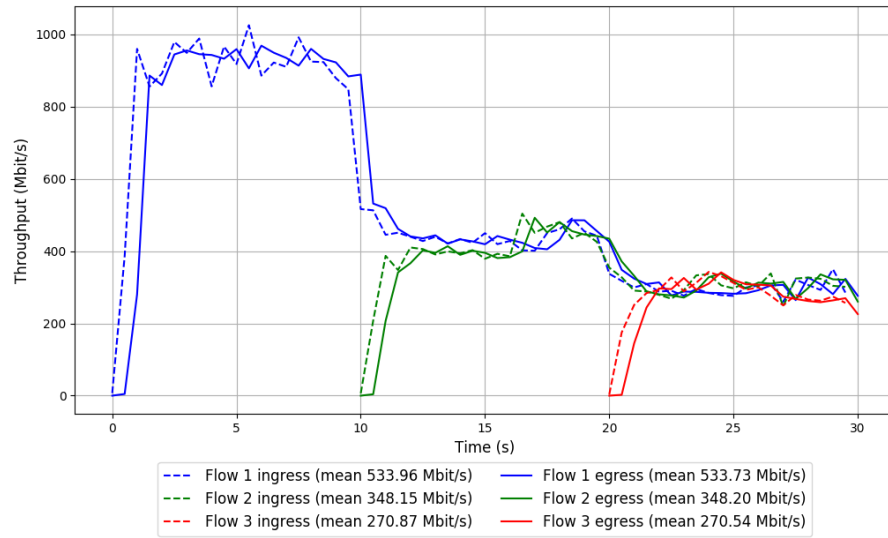
Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-06-28 19:32:55
End at: 2019-06-28 19:33:25
Local clock offset: -0.132 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2019-06-28 23:22:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 854.17 Mbit/s
95th percentile per-packet one-way delay: 79.807 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 533.73 Mbit/s
95th percentile per-packet one-way delay: 85.299 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 348.20 Mbit/s
95th percentile per-packet one-way delay: 52.508 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 270.54 Mbit/s
95th percentile per-packet one-way delay: 53.510 ms
Loss rate: 1.17%
```
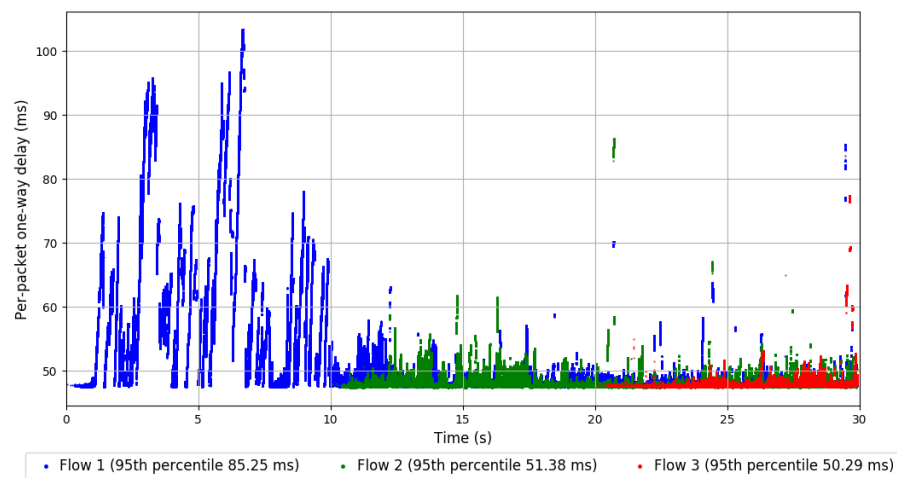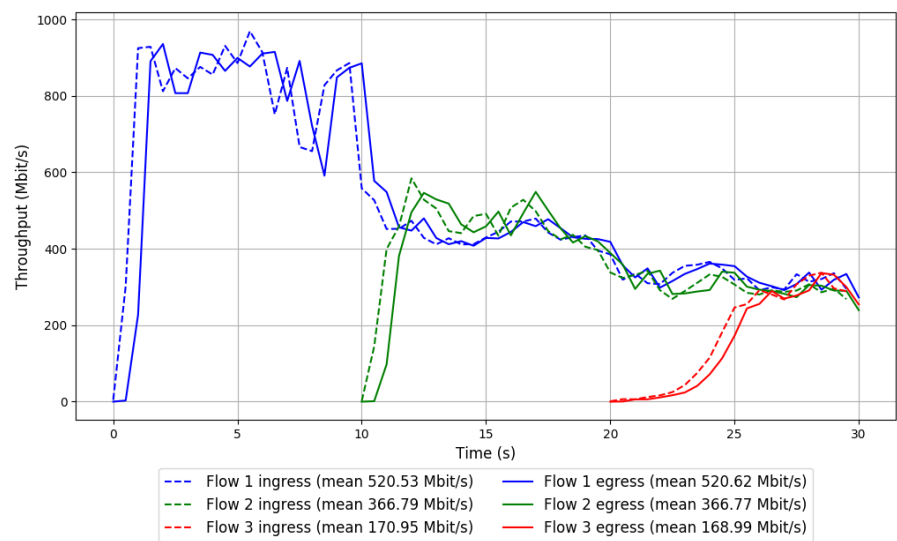
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-06-28 20:09:32
End at: 2019-06-28 20:10:02
Local clock offset: 0.368 ms
Remote clock offset: 0.084 ms


# Below is generated by plot.py at 2019-06-28 23:31:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 819.60 Mbit/s
95th percentile per-packet one-way delay: 75.381 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 520.62 Mbit/s
95th percentile per-packet one-way delay: 85.246 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 366.77 Mbit/s
95th percentile per-packet one-way delay: 51.376 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 168.99 Mbit/s
95th percentile per-packet one-way delay: 50.289 ms
Loss rate: 2.04%
```
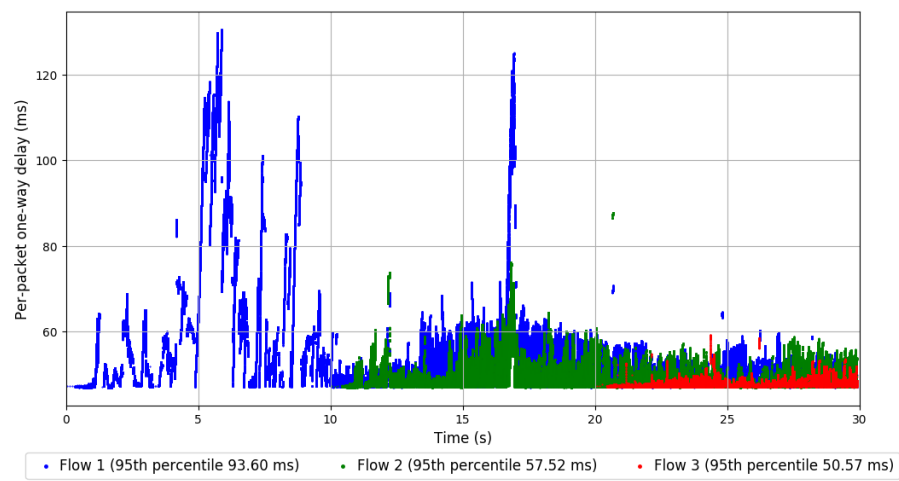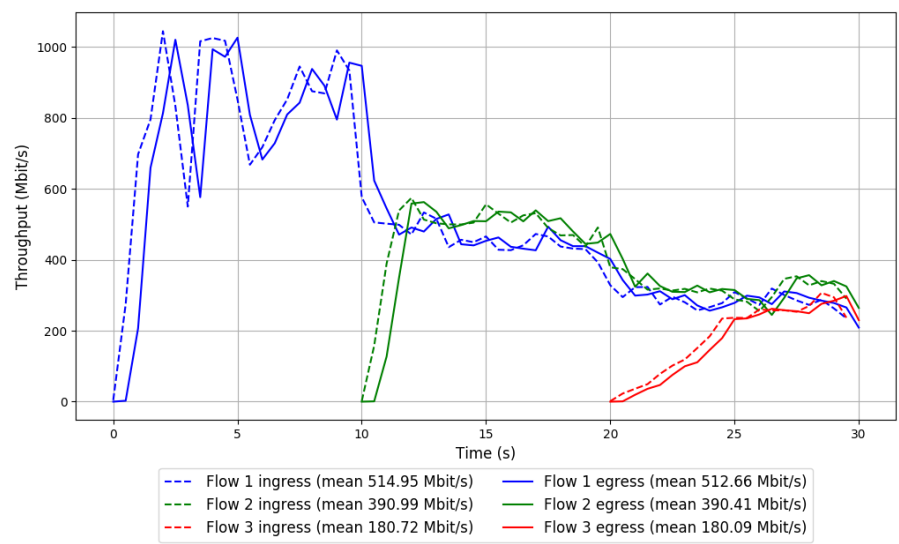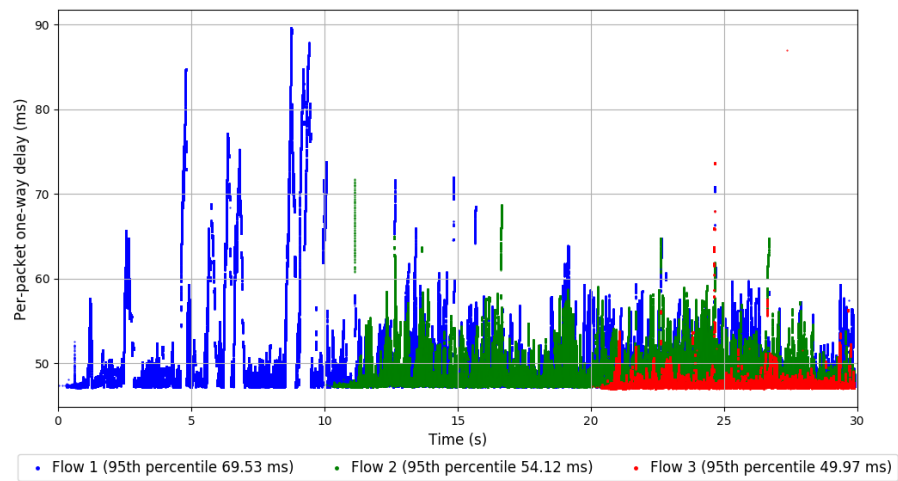
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-06-28 20:46:03
End at: 2019-06-28 20:46:33
Local clock offset: -0.024 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2019-06-28 23:33:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 831.34 Mbit/s
95th percentile per-packet one-way delay: 82.752 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 512.66 Mbit/s
95th percentile per-packet one-way delay: 93.598 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 390.41 Mbit/s
95th percentile per-packet one-way delay: 57.524 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 180.09 Mbit/s
95th percentile per-packet one-way delay: 50.573 ms
Loss rate: 1.30%
```
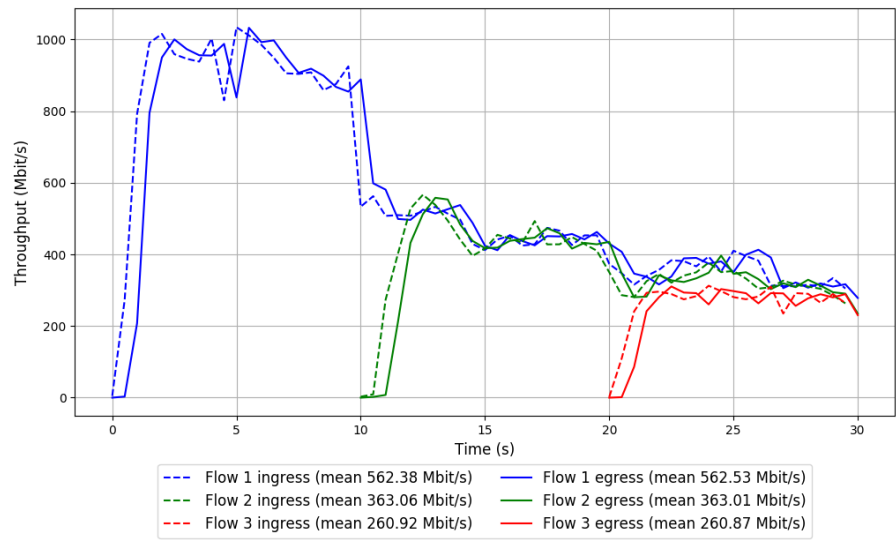
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 514.95 Mbit/s)   Flow 1 egress (mean 512.66 Mbit/s)
Flow 2 ingress (mean 390.99 Mbit/s)   Flow 2 egress (mean 390.41 Mbit/s)
Flow 3 ingress (mean 180.72 Mbit/s)   Flow 3 egress (mean 180.09 Mbit/s)

Flow 1 (95th percentile 93.60 ms)   Flow 2 (95th percentile 57.52 ms)   Flow 3 (95th percentile 50.57 ms)
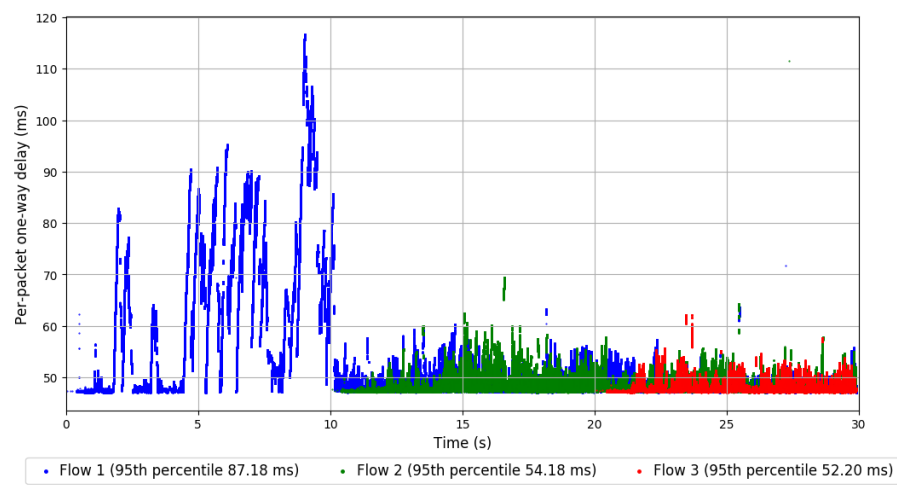
```
Run 4: Statistics of FillP

Start at: 2019-06-28 21:22:42
End at: 2019-06-28 21:23:12
Local clock offset: -0.424 ms
Remote clock offset: -0.126 ms


# Below is generated by plot.py at 2019-06-28 23:39:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 889.64 Mbit/s
95th percentile per-packet one-way delay: 64.616 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 562.53 Mbit/s
95th percentile per-packet one-way delay: 69.534 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 363.01 Mbit/s
95th percentile per-packet one-way delay: 54.121 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 260.87 Mbit/s
95th percentile per-packet one-way delay: 49.966 ms
Loss rate: 1.06%
```

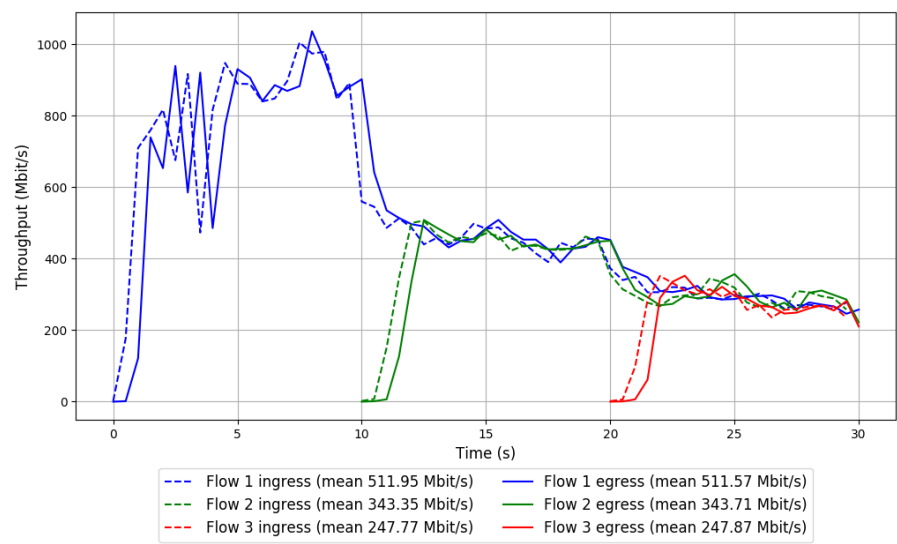Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-06-28 21:59:18
End at: 2019-06-28 21:59:48
Local clock offset: -0.357 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2019-06-28 23:39:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 821.22 Mbit/s
95th percentile per-packet one-way delay: 82.224 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 511.57 Mbit/s
95th percentile per-packet one-way delay: 87.176 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 343.71 Mbit/s
95th percentile per-packet one-way delay: 54.178 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 247.87 Mbit/s
95th percentile per-packet one-way delay: 52.198 ms
Loss rate: 1.00%
```
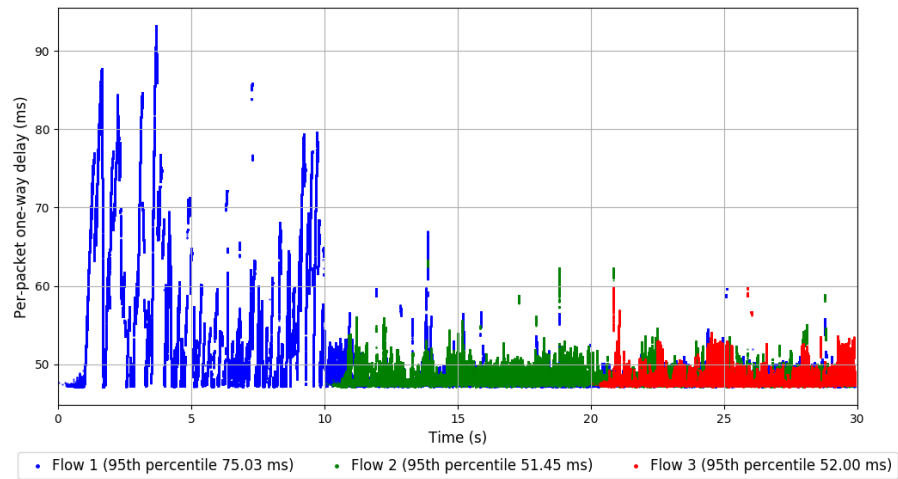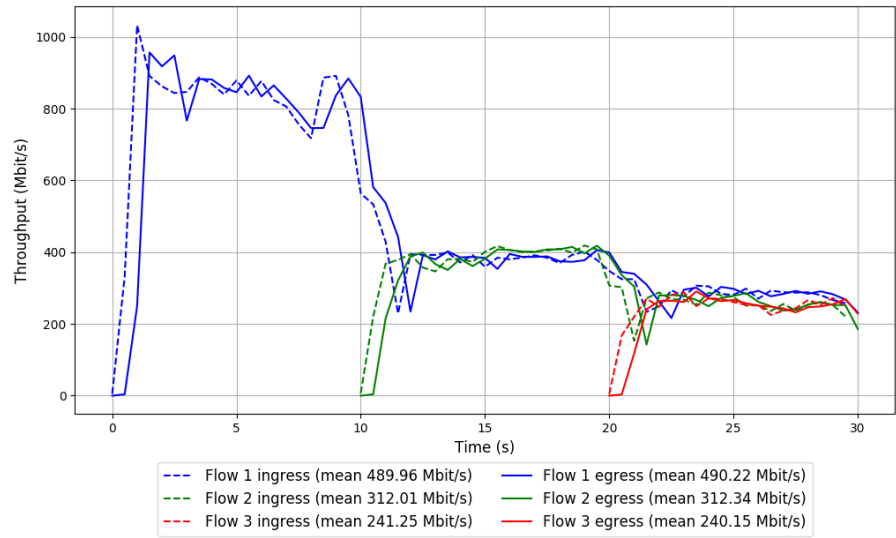
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 511.95 Mbit/s) — Flow 1 egress (mean 511.57 Mbit/s)
Flow 2 ingress (mean 343.35 Mbit/s) — Flow 2 egress (mean 343.71 Mbit/s)
Flow 3 ingress (mean 247.77 Mbit/s) — Flow 3 egress (mean 247.87 Mbit/s)

Flow 1 (95th percentile 87.18 ms)   Flow 2 (95th percentile 54.18 ms)   Flow 3 (95th percentile 52.20 ms)

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 19:49:46
End at: 2019-06-28 19:50:16
Local clock offset: -0.046 ms
Remote clock offset: 0.024 ms


# Below is generated by plot.py at 2019-06-28 23:39:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 776.73 Mbit/s
95th percentile per-packet one-way delay: 71.582 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 490.22 Mbit/s
95th percentile per-packet one-way delay: 75.029 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 312.34 Mbit/s
95th percentile per-packet one-way delay: 51.450 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 240.15 Mbit/s
95th percentile per-packet one-way delay: 52.002 ms
Loss rate: 1.23%
```
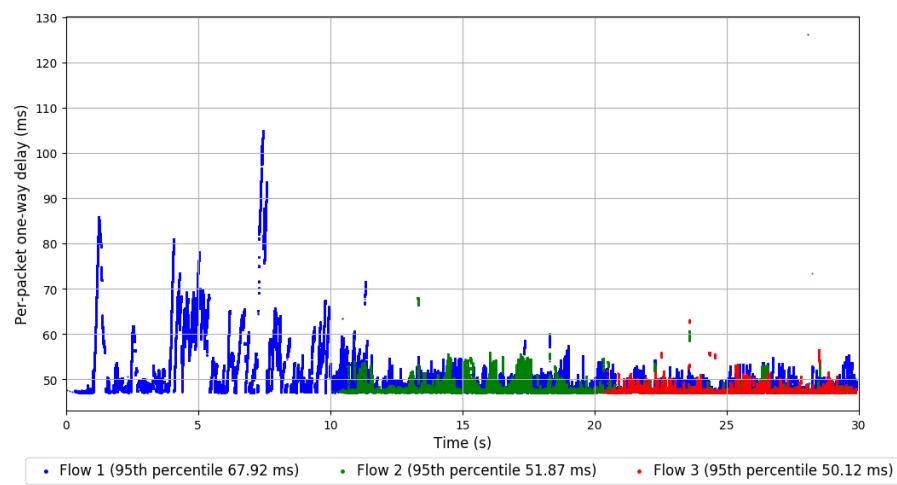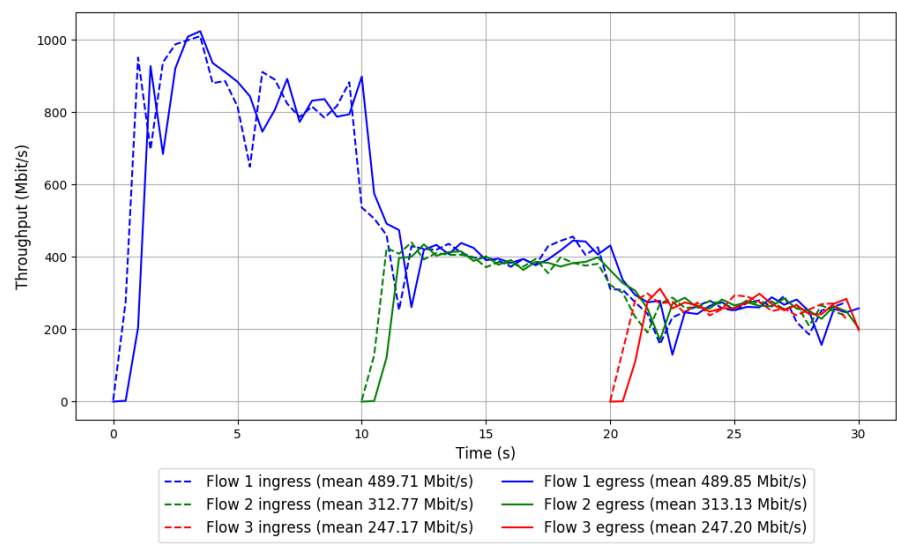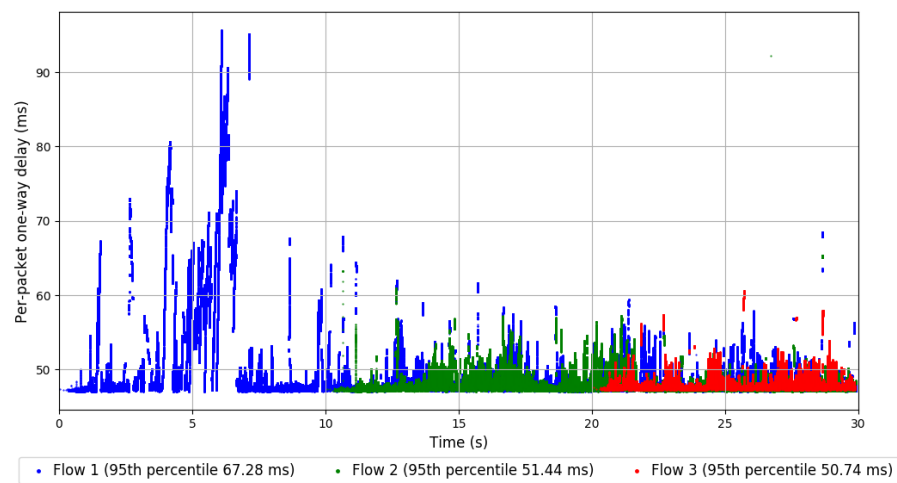
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 20:26:16
End at: 2019-06-28 20:26:46
Local clock offset: -0.035 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-06-28 23:39:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 779.22 Mbit/s
95th percentile per-packet one-way delay: 64.882 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 489.85 Mbit/s
95th percentile per-packet one-way delay: 67.921 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 313.13 Mbit/s
95th percentile per-packet one-way delay: 51.873 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 247.20 Mbit/s
95th percentile per-packet one-way delay: 50.117 ms
Loss rate: 1.04%
```

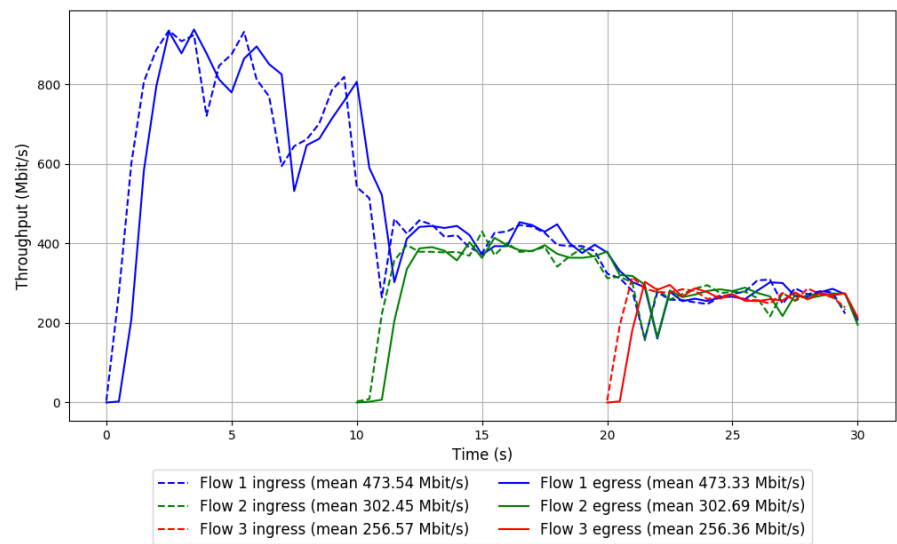Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 21:02:46
End at: 2019-06-28 21:03:16
Local clock offset: -0.283 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2019-06-28 23:39:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 758.71 Mbit/s
95th percentile per-packet one-way delay: 63.859 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 473.33 Mbit/s
95th percentile per-packet one-way delay: 67.279 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 302.69 Mbit/s
95th percentile per-packet one-way delay: 51.440 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 256.36 Mbit/s
95th percentile per-packet one-way delay: 50.739 ms
Loss rate: 1.02%
```

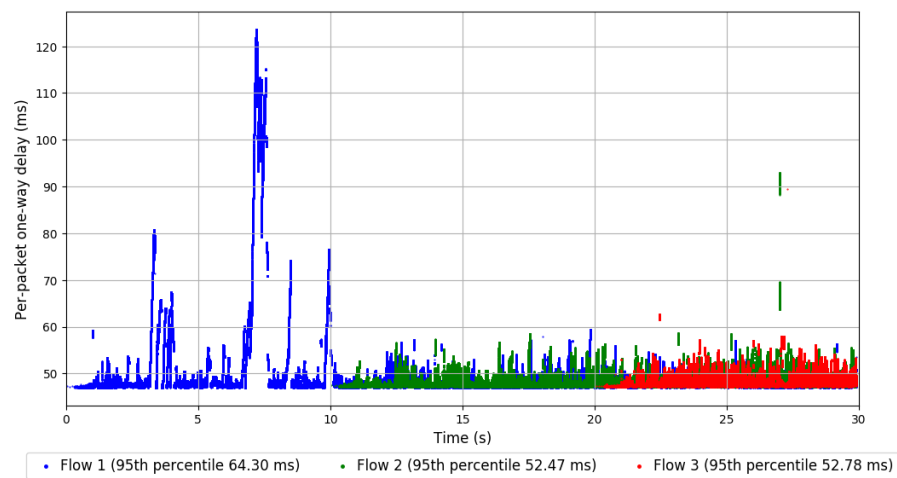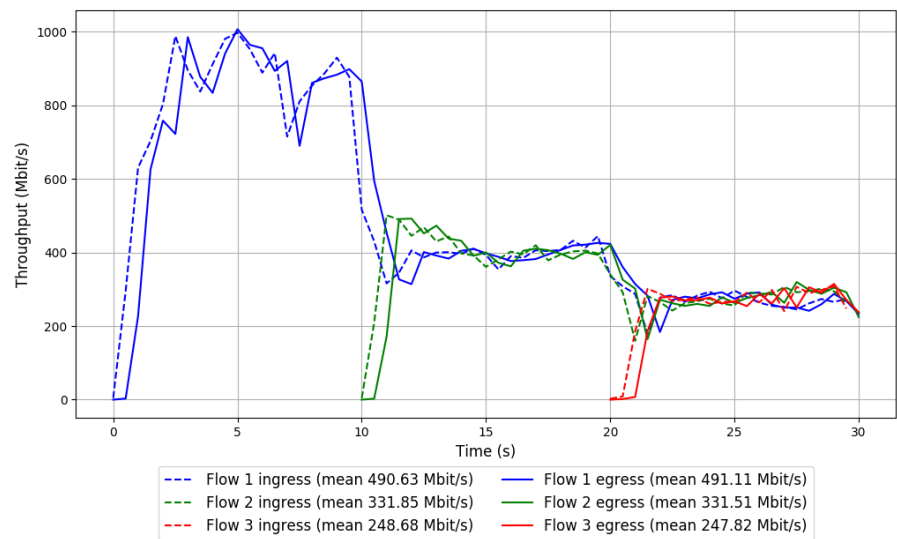# Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 21:39:31
End at: 2019-06-28 21:40:01
Local clock offset: -0.431 ms
Remote clock offset: -0.005 ms


# Below is generated by plot.py at 2019-06-28 23:42:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 793.08 Mbit/s
95th percentile per-packet one-way delay: 59.066 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 491.11 Mbit/s
95th percentile per-packet one-way delay: 64.296 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 331.51 Mbit/s
95th percentile per-packet one-way delay: 52.472 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 247.82 Mbit/s
95th percentile per-packet one-way delay: 52.783 ms
Loss rate: 1.29%
```

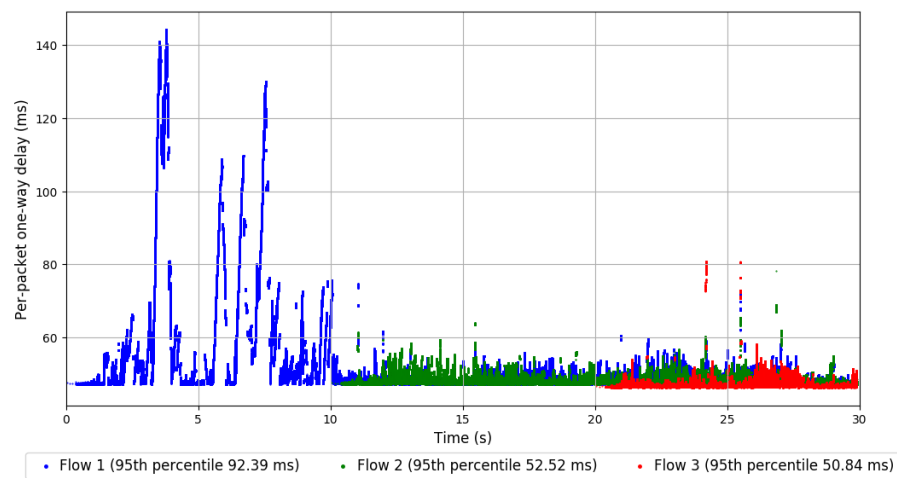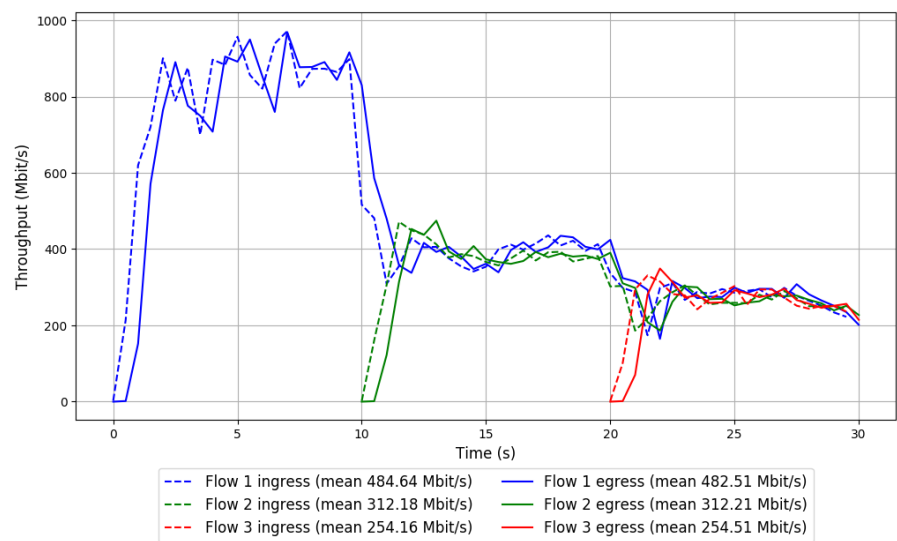Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 22:16:03
End at: 2019-06-28 22:16:33
Local clock offset: -0.13 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-06-28 23:51:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 773.76 Mbit/s
95th percentile per-packet one-way delay: 75.968 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 482.51 Mbit/s
95th percentile per-packet one-way delay: 92.388 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 312.21 Mbit/s
95th percentile per-packet one-way delay: 52.522 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 254.51 Mbit/s
95th percentile per-packet one-way delay: 50.839 ms
Loss rate: 0.92%
```
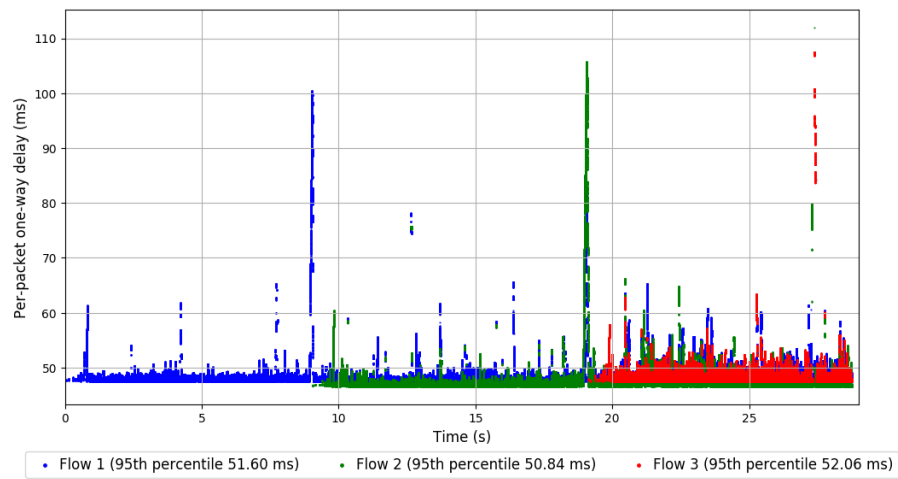
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-06-28 19:27:39
End at: 2019-06-28 19:28:09
Local clock offset: 0.227 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-06-28 23:51:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 390.05 Mbit/s
95th percentile per-packet one-way delay: 51.499 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 204.04 Mbit/s
95th percentile per-packet one-way delay: 51.596 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 187.43 Mbit/s
95th percentile per-packet one-way delay: 50.842 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 171.17 Mbit/s
95th percentile per-packet one-way delay: 52.058 ms
Loss rate: 1.12%
```
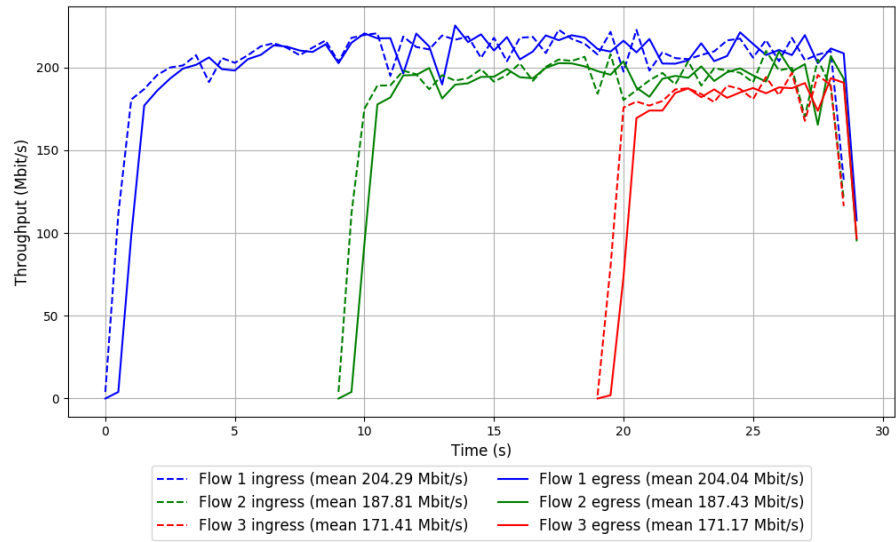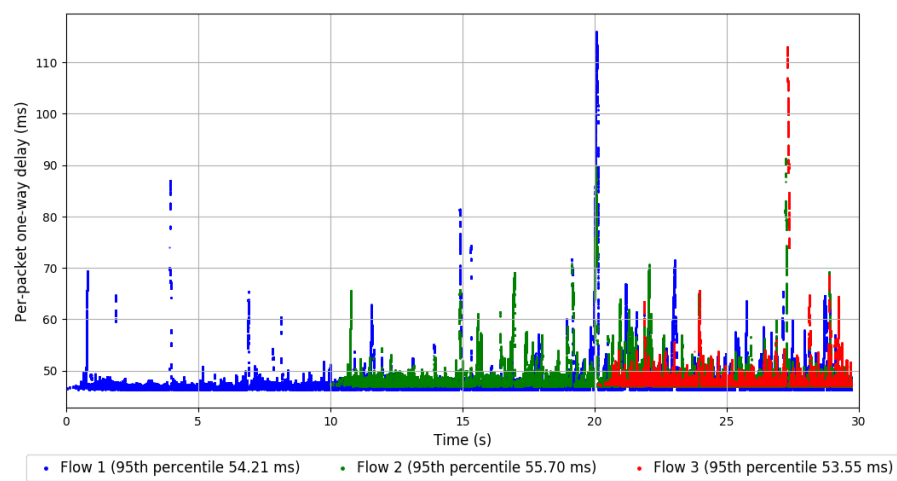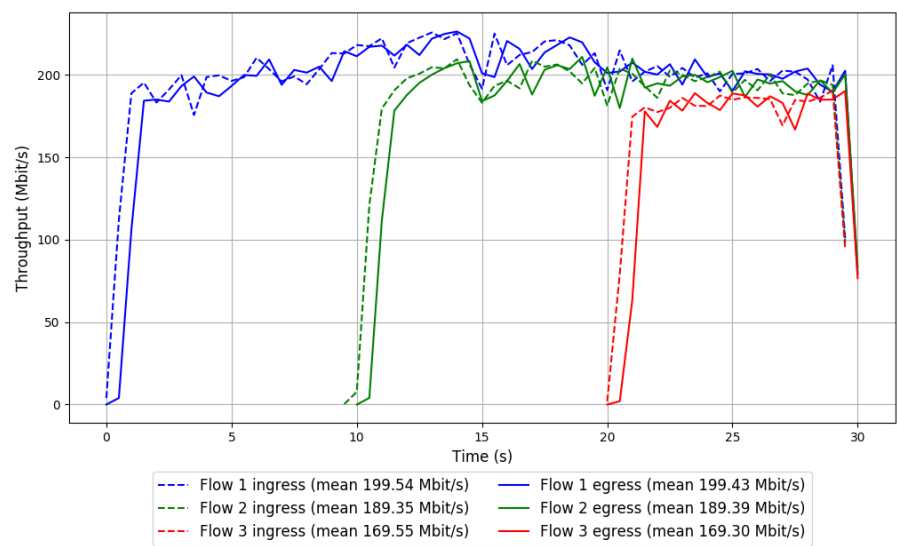
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 204.29 Mbit/s)   Flow 1 egress (mean 204.04 Mbit/s)
Flow 2 ingress (mean 187.81 Mbit/s)   Flow 2 egress (mean 187.43 Mbit/s)
Flow 3 ingress (mean 171.41 Mbit/s)   Flow 3 egress (mean 171.17 Mbit/s)

Flow 1 (95th percentile 51.60 ms)   Flow 2 (95th percentile 50.84 ms)   Flow 3 (95th percentile 52.06 ms)

56

```
Run 2: Statistics of Indigo

Start at: 2019-06-28 20:04:08
End at: 2019-06-28 20:04:38
Local clock offset: -0.011 ms
Remote clock offset: 0.053 ms


# Below is generated by plot.py at 2019-06-28 23:53:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.79 Mbit/s
95th percentile per-packet one-way delay: 54.801 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 199.43 Mbit/s
95th percentile per-packet one-way delay: 54.208 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 189.39 Mbit/s
95th percentile per-packet one-way delay: 55.698 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 169.30 Mbit/s
95th percentile per-packet one-way delay: 53.555 ms
Loss rate: 1.13%
```

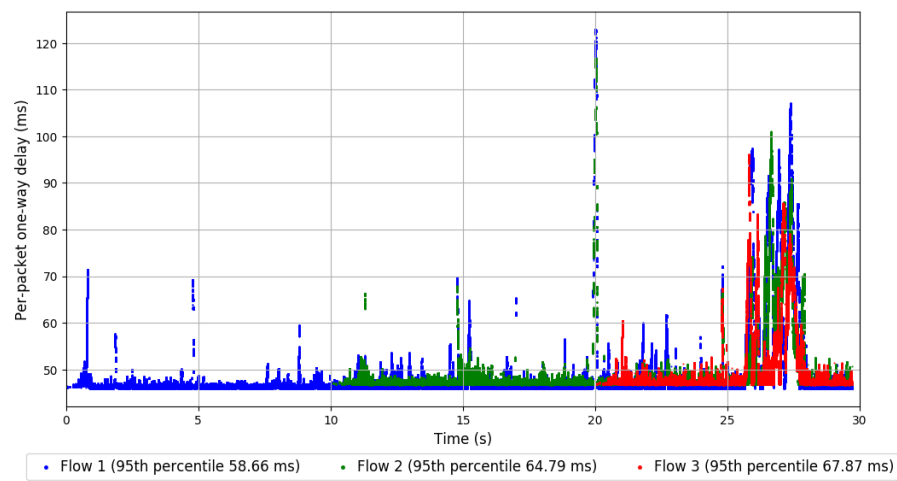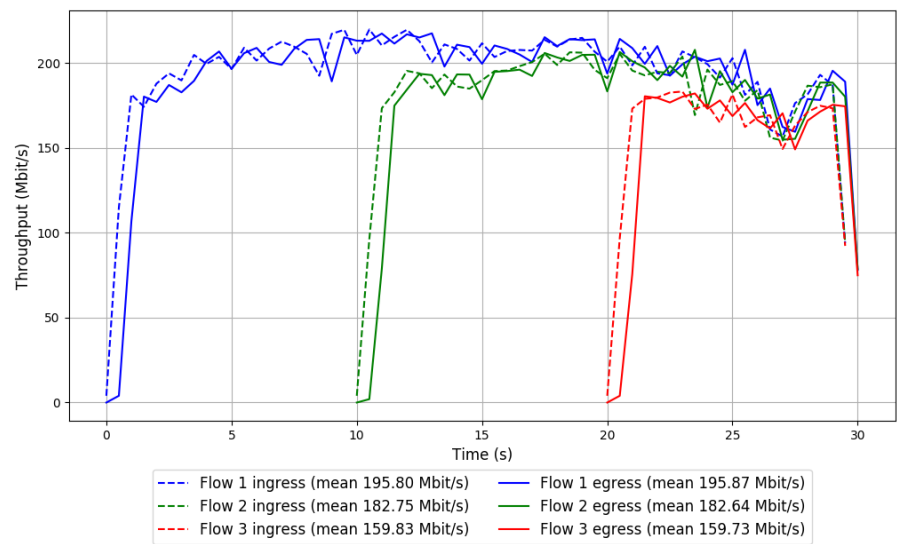# Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-06-28 20:40:40
End at: 2019-06-28 20:41:10
Local clock offset: -0.431 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2019-06-28 23:53:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.58 Mbit/s
95th percentile per-packet one-way delay: 63.024 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 195.87 Mbit/s
95th percentile per-packet one-way delay: 58.660 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 182.64 Mbit/s
95th percentile per-packet one-way delay: 64.792 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 159.73 Mbit/s
95th percentile per-packet one-way delay: 67.866 ms
Loss rate: 1.04%
```

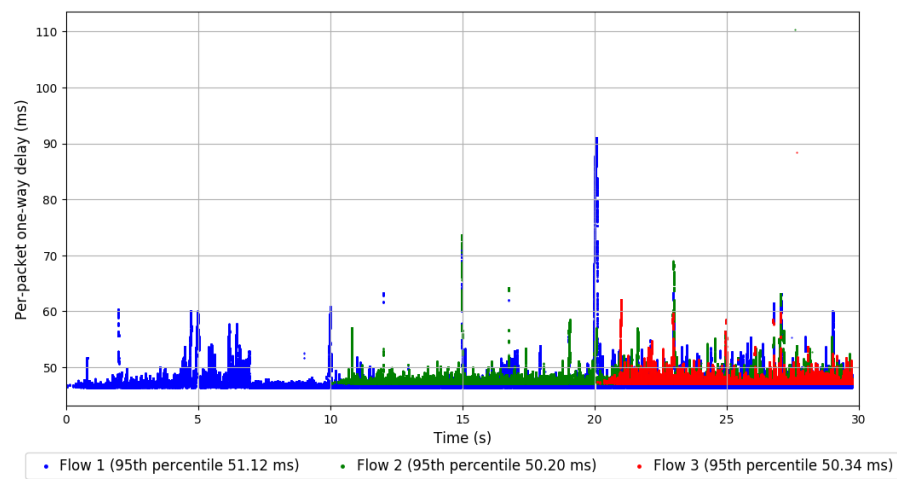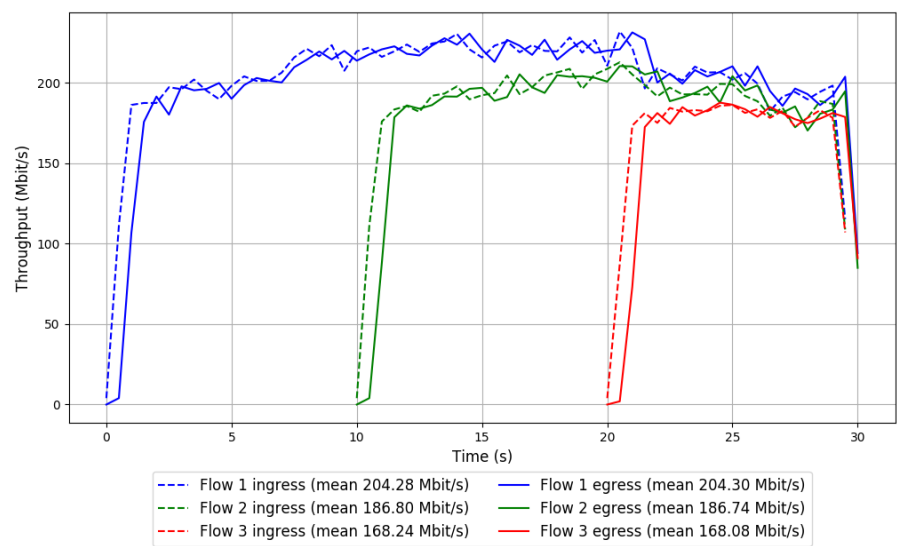# Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-06-28 21:17:20
End at: 2019-06-28 21:17:50
Local clock offset: -0.351 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-06-28 23:54:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.55 Mbit/s
95th percentile per-packet one-way delay: 50.763 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 204.30 Mbit/s
95th percentile per-packet one-way delay: 51.118 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 186.74 Mbit/s
95th percentile per-packet one-way delay: 50.196 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 168.08 Mbit/s
95th percentile per-packet one-way delay: 50.344 ms
Loss rate: 1.08%
```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-06-28 21:54:08
End at: 2019-06-28 21:54:38
Local clock offset: -0.534 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-06-28 23:54:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.92 Mbit/s
95th percentile per-packet one-way delay: 51.314 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 197.80 Mbit/s
95th percentile per-packet one-way delay: 51.427 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 186.38 Mbit/s
95th percentile per-packet one-way delay: 51.695 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 168.69 Mbit/s
95th percentile per-packet one-way delay: 49.651 ms
Loss rate: 1.11%
```
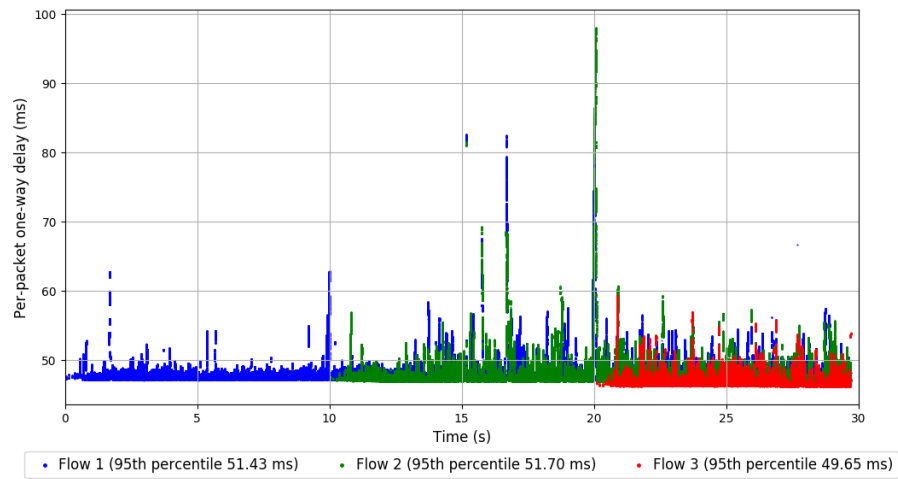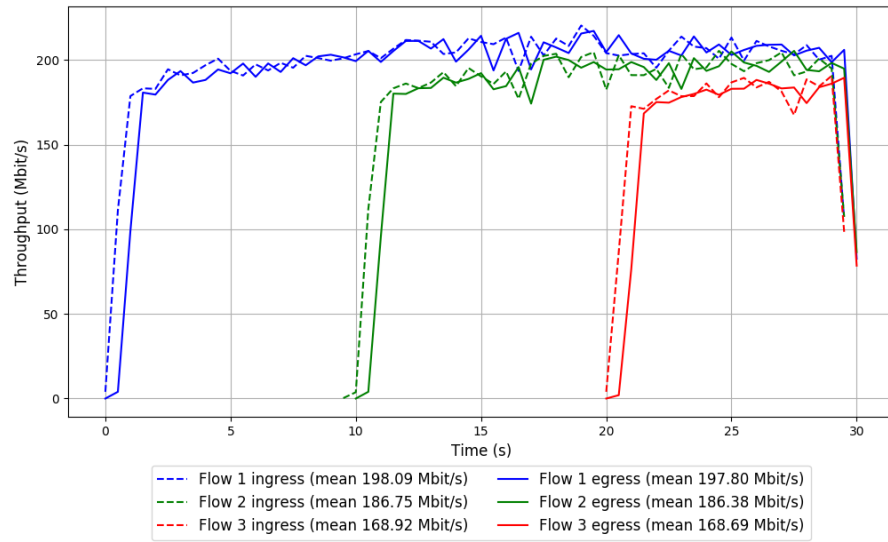
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 19:34:41
End at: 2019-06-28 19:35:11
Local clock offset: 0.27 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2019-06-28 23:54:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 692.25 Mbit/s
95th percentile per-packet one-way delay: 52.947 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 413.21 Mbit/s
95th percentile per-packet one-way delay: 53.324 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 353.10 Mbit/s
95th percentile per-packet one-way delay: 52.981 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 231.37 Mbit/s
95th percentile per-packet one-way delay: 49.879 ms
Loss rate: 1.97%
```
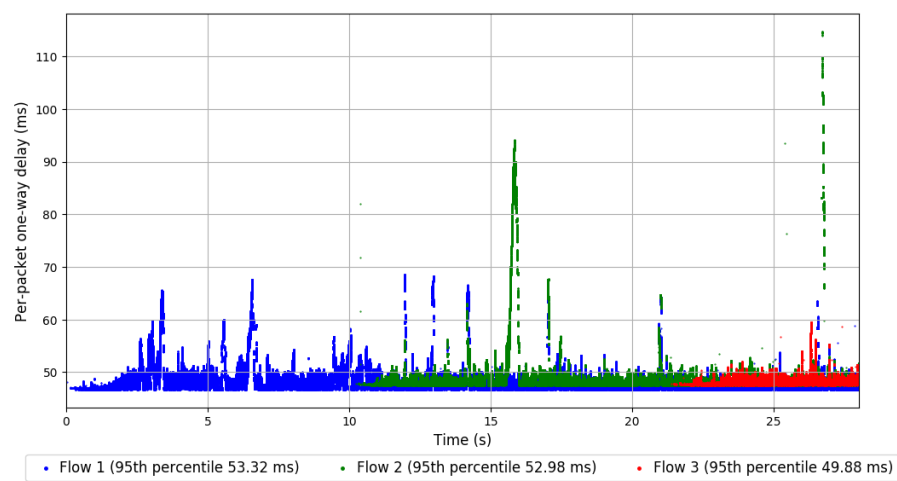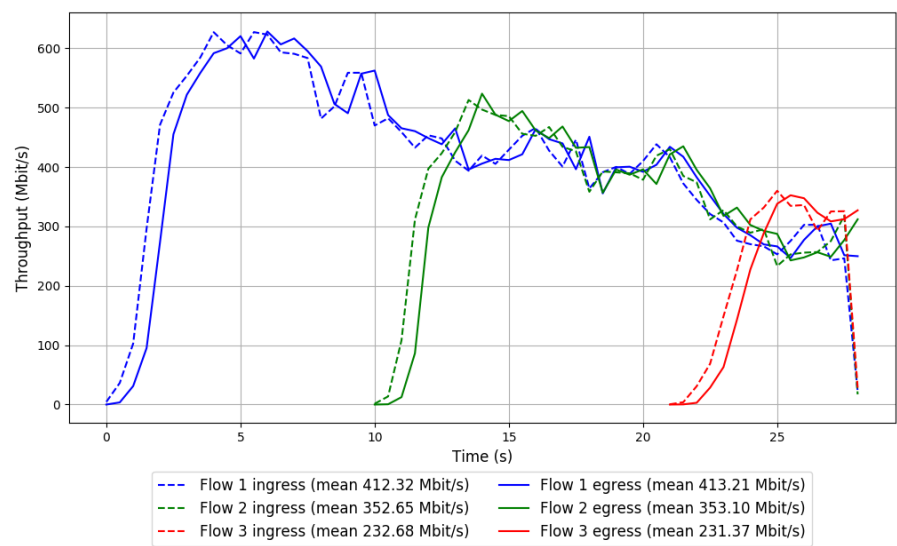
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 20:11:17
End at: 2019-06-28 20:11:47
Local clock offset: 0.017 ms
Remote clock offset: 0.084 ms


# Below is generated by plot.py at 2019-06-28 23:56:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 674.85 Mbit/s
95th percentile per-packet one-way delay: 55.406 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 421.80 Mbit/s
95th percentile per-packet one-way delay: 56.119 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 326.50 Mbit/s
95th percentile per-packet one-way delay: 54.795 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 185.72 Mbit/s
95th percentile per-packet one-way delay: 49.330 ms
Loss rate: 2.46%
```
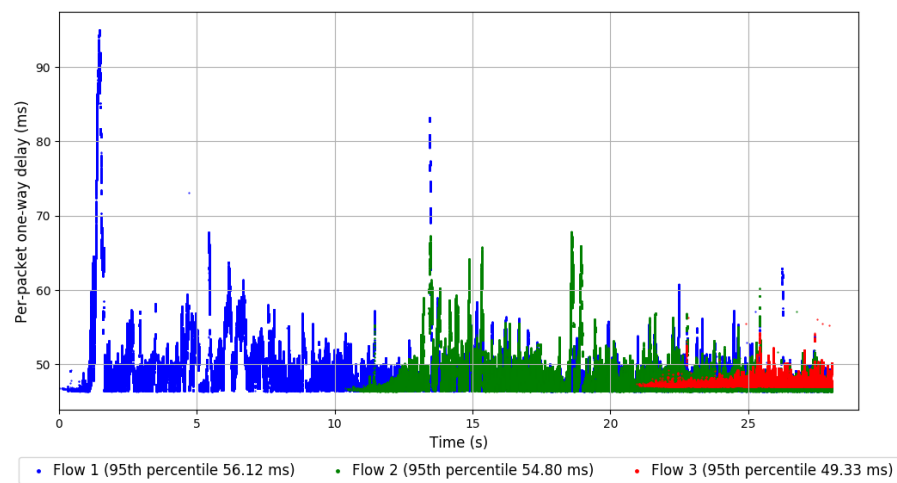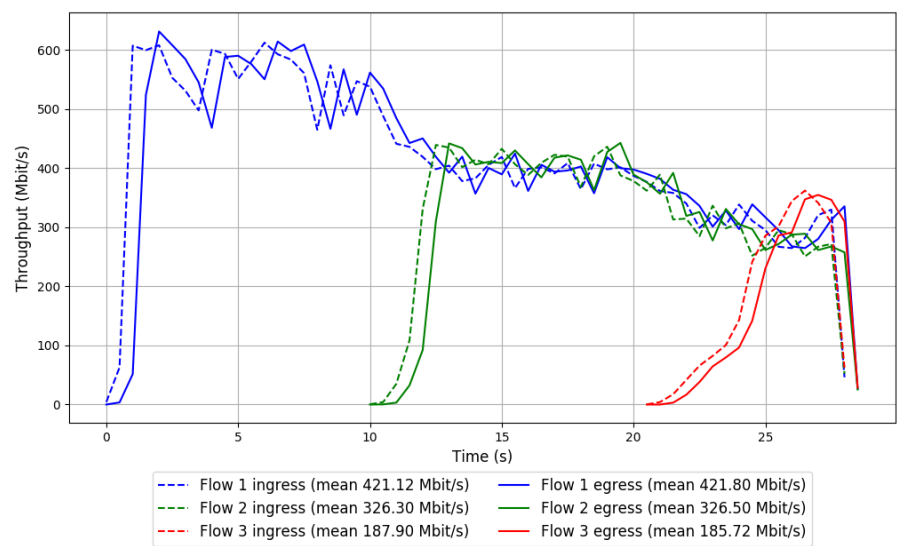
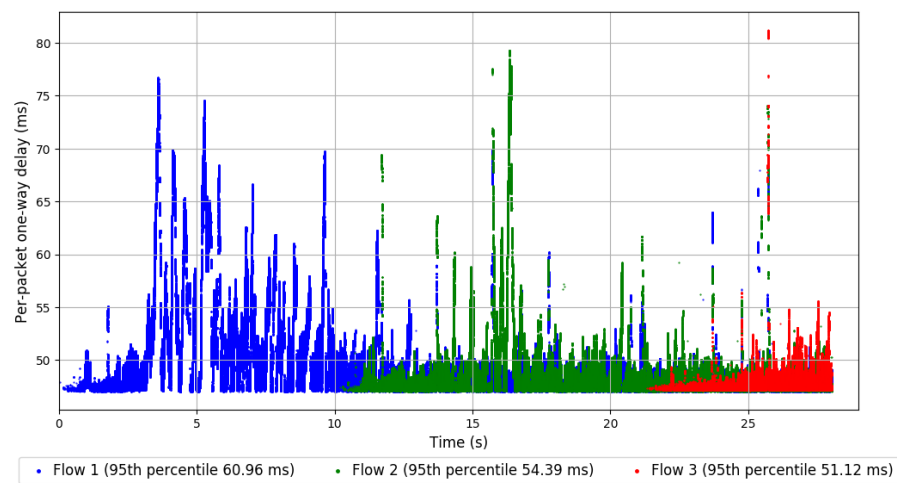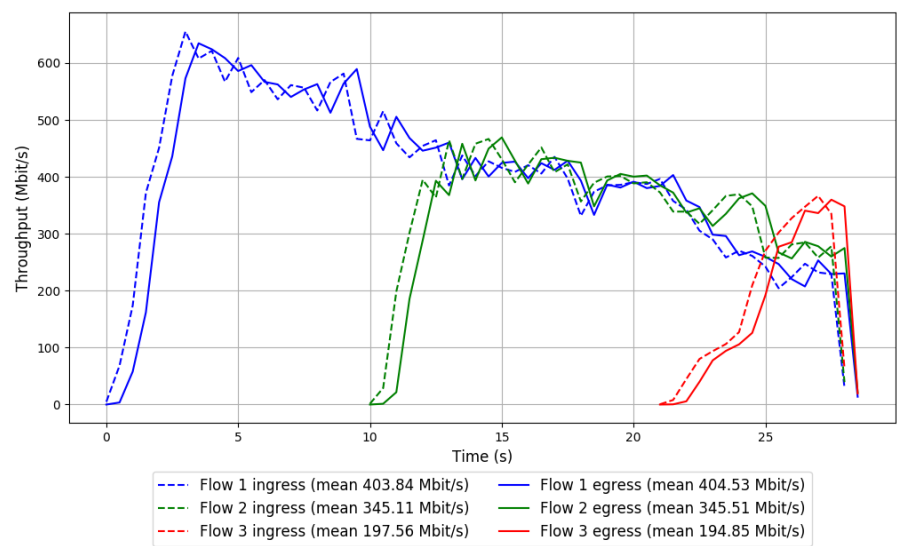Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 20:47:49
End at: 2019-06-28 20:48:19
Local clock offset: -0.116 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2019-06-29 00:01:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 671.31 Mbit/s
95th percentile per-packet one-way delay: 58.431 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 404.53 Mbit/s
95th percentile per-packet one-way delay: 60.962 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 345.51 Mbit/s
95th percentile per-packet one-way delay: 54.386 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 194.85 Mbit/s
95th percentile per-packet one-way delay: 51.121 ms
Loss rate: 2.76%
```

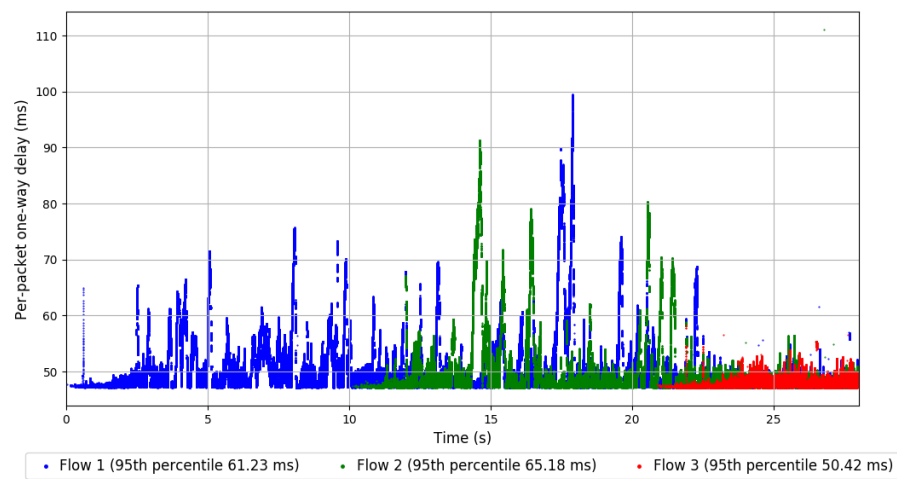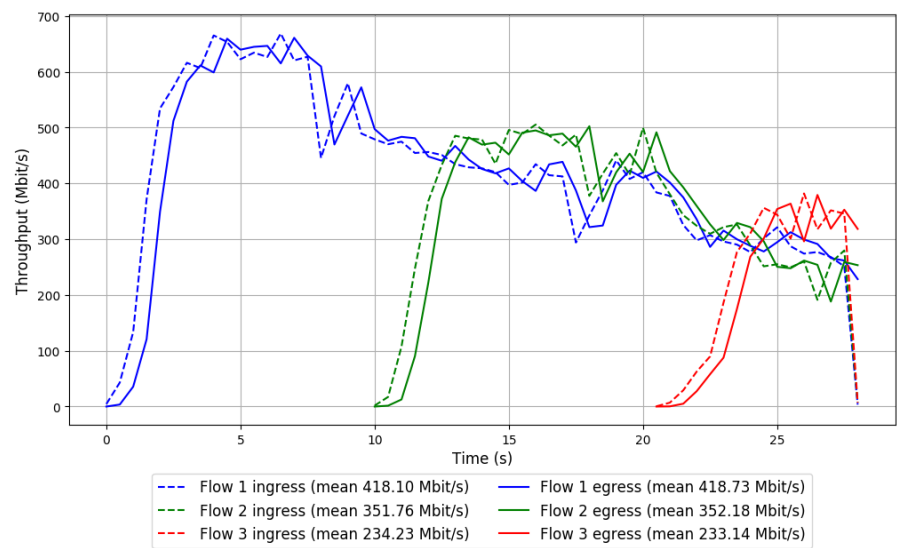Run 3: Report of Indigo-MusesC3 — Data Link

70

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 21:24:30
End at: 2019-06-28 21:25:00
Local clock offset: -0.396 ms
Remote clock offset: -0.111 ms


# Below is generated by plot.py at 2019-06-29 00:05:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 702.86 Mbit/s
95th percentile per-packet one-way delay: 61.343 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 418.73 Mbit/s
95th percentile per-packet one-way delay: 61.227 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 352.18 Mbit/s
95th percentile per-packet one-way delay: 65.183 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 233.14 Mbit/s
95th percentile per-packet one-way delay: 50.422 ms
Loss rate: 1.83%
```

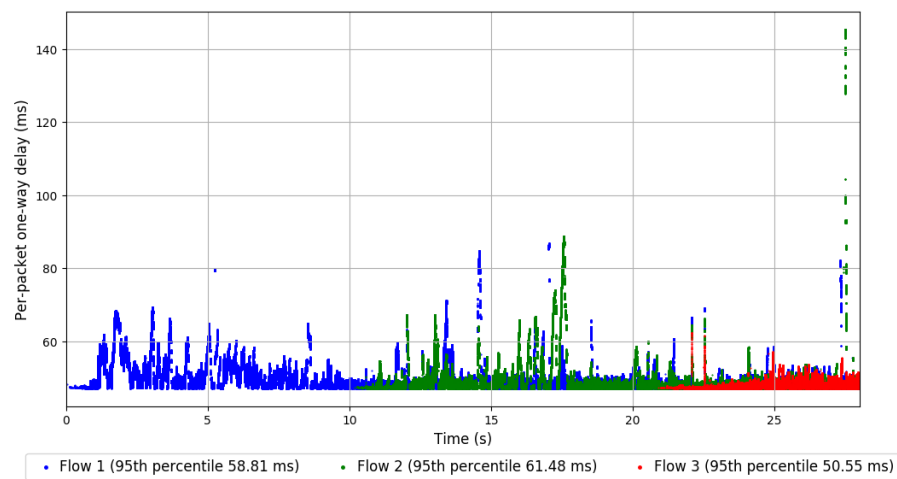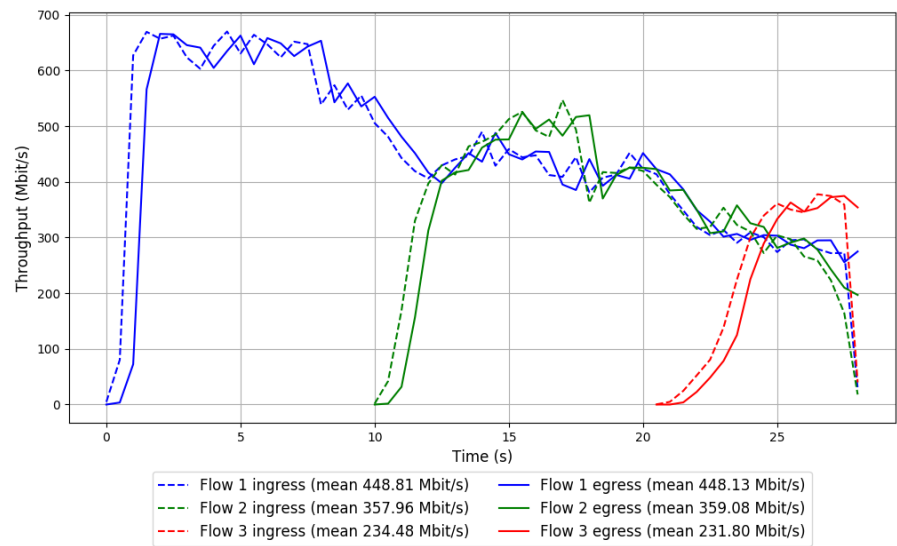Run 4: Report of Indigo-MusesC3 — Data Link

72

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 22:01:04
End at: 2019-06-28 22:01:34
Local clock offset: -0.301 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2019-06-29 00:07:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 735.84 Mbit/s
95th percentile per-packet one-way delay: 58.846 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 448.13 Mbit/s
95th percentile per-packet one-way delay: 58.808 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 359.08 Mbit/s
95th percentile per-packet one-way delay: 61.475 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 231.80 Mbit/s
95th percentile per-packet one-way delay: 50.552 ms
Loss rate: 2.46%
```

Run 5: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 448.81 Mbit/s) Flow 1 egress (mean 448.13 Mbit/s)
Flow 2 ingress (mean 357.96 Mbit/s) Flow 2 egress (mean 359.08 Mbit/s)
Flow 3 ingress (mean 234.48 Mbit/s) Flow 3 egress (mean 231.80 Mbit/s)

Flow 1 (95th percentile 58.81 ms)   Flow 2 (95th percentile 61.48 ms)   Flow 3 (95th percentile 50.55 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 19:47:59
End at: 2019-06-28 19:48:29
Local clock offset: -0.062 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2019-06-29 00:08:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 746.83 Mbit/s
95th percentile per-packet one-way delay: 76.318 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 461.23 Mbit/s
95th percentile per-packet one-way delay: 72.657 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 414.42 Mbit/s
95th percentile per-packet one-way delay: 80.326 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 88.13 Mbit/s
95th percentile per-packet one-way delay: 48.982 ms
Loss rate: 1.34%
```
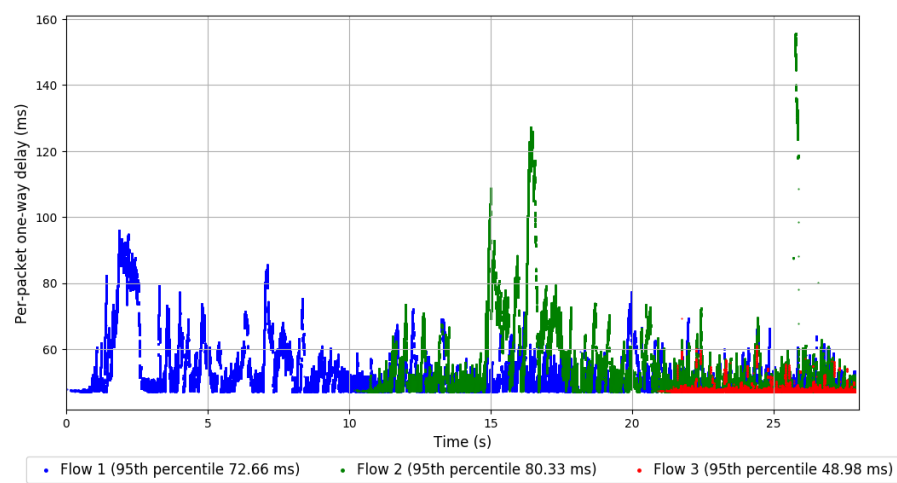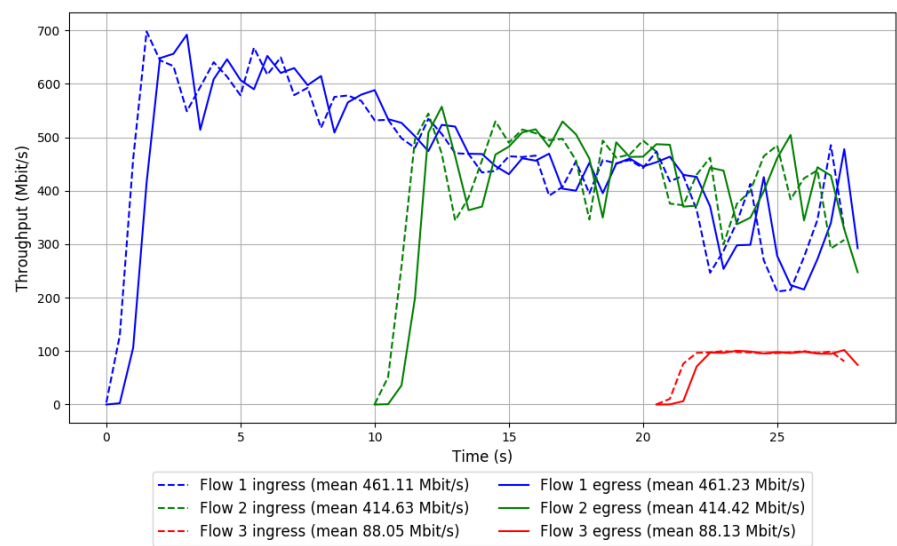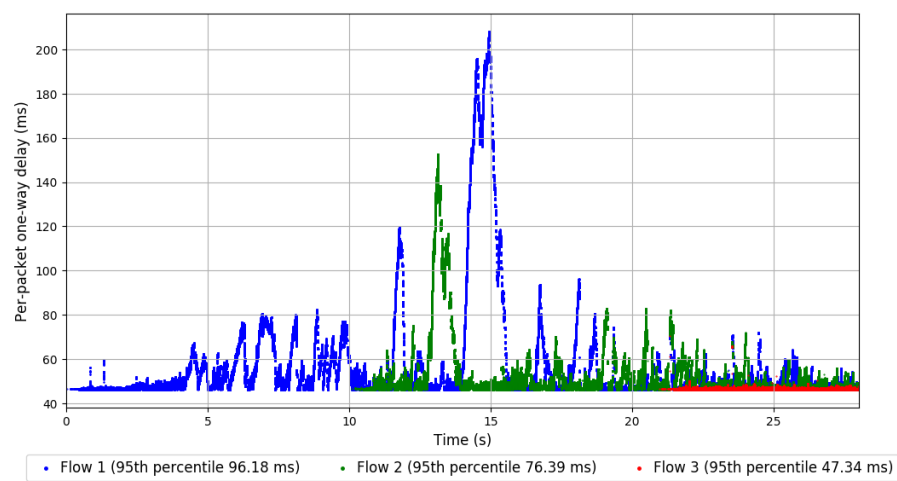
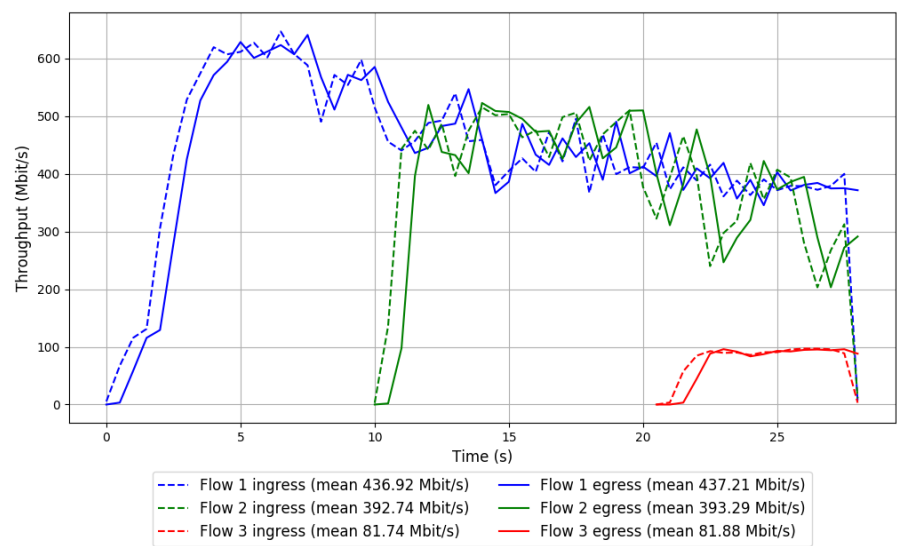Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 20:24:31
End at: 2019-06-28 20:25:01
Local clock offset: -0.069 ms
Remote clock offset: -0.021 ms


# Below is generated by plot.py at 2019-06-29 00:08:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 709.26 Mbit/s
95th percentile per-packet one-way delay: 86.552 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 437.21 Mbit/s
95th percentile per-packet one-way delay: 96.177 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 393.29 Mbit/s
95th percentile per-packet one-way delay: 76.385 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 81.88 Mbit/s
95th percentile per-packet one-way delay: 47.335 ms
Loss rate: 1.25%
```

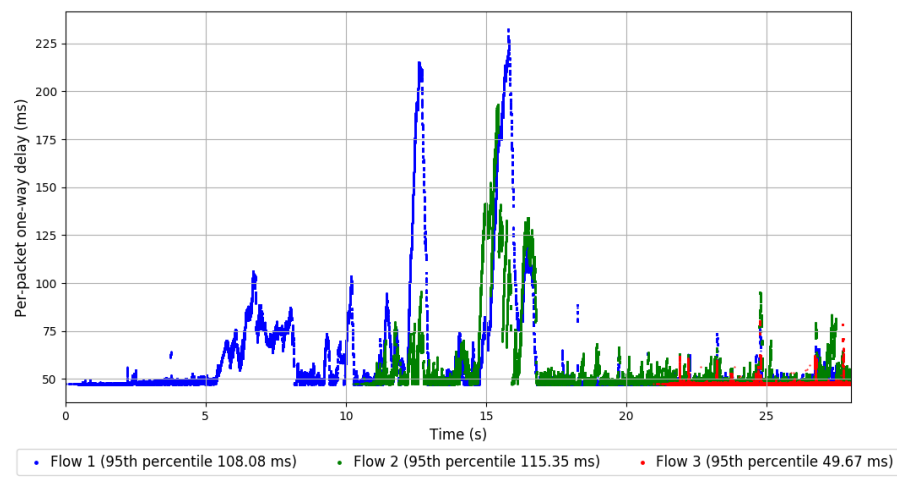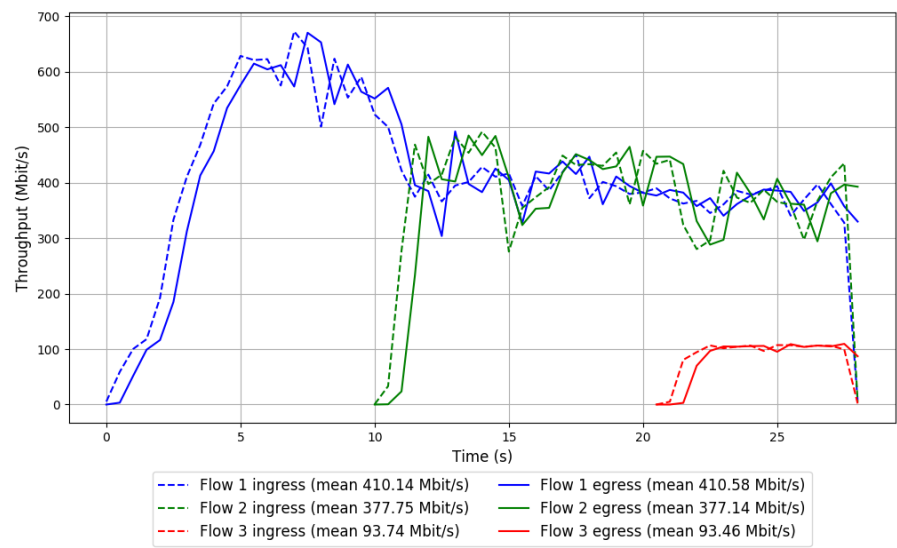Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 21:01:03
End at: 2019-06-28 21:01:33
Local clock offset: -0.34 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2019-06-29 00:08:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 673.25 Mbit/s
95th percentile per-packet one-way delay: 109.176 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 410.58 Mbit/s
95th percentile per-packet one-way delay: 108.078 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 377.14 Mbit/s
95th percentile per-packet one-way delay: 115.351 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 93.46 Mbit/s
95th percentile per-packet one-way delay: 49.673 ms
Loss rate: 1.63%
```

Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 410.14 Mbit/s) --- Flow 1 egress (mean 410.58 Mbit/s)
Flow 2 ingress (mean 377.75 Mbit/s) --- Flow 2 egress (mean 377.14 Mbit/s)
Flow 3 ingress (mean 93.74 Mbit/s) --- Flow 3 egress (mean 93.46 Mbit/s)

Flow 1 (95th percentile 108.08 ms) Flow 2 (95th percentile 115.35 ms) Flow 3 (95th percentile 49.67 ms)
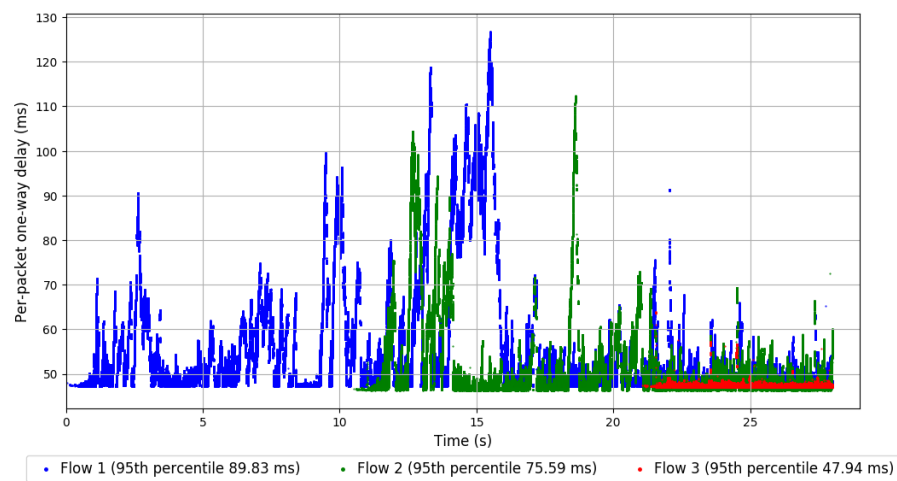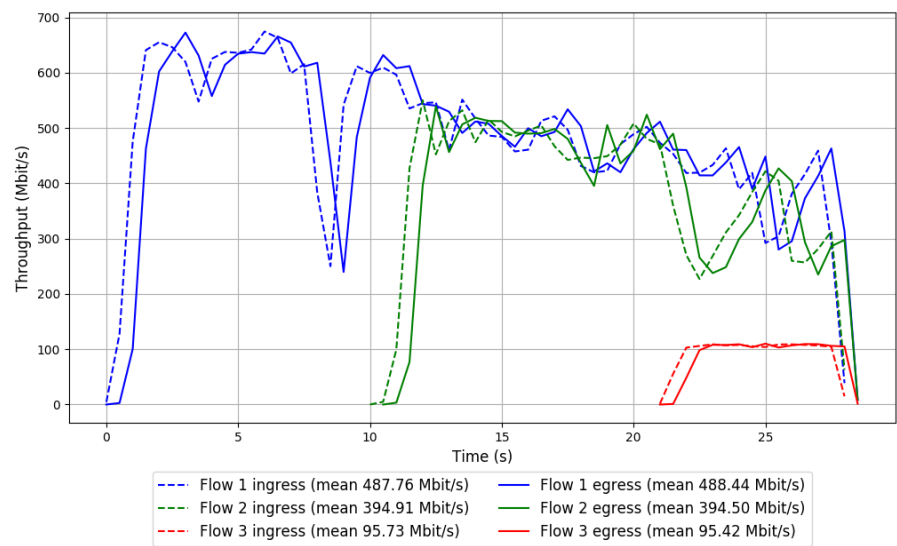
80

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 21:37:43
End at: 2019-06-28 21:38:13
Local clock offset: -0.434 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2019-06-29 00:09:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 758.89 Mbit/s
95th percentile per-packet one-way delay: 86.203 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 488.44 Mbit/s
95th percentile per-packet one-way delay: 89.828 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 394.50 Mbit/s
95th percentile per-packet one-way delay: 75.586 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 95.42 Mbit/s
95th percentile per-packet one-way delay: 47.941 ms
Loss rate: 1.69%
```

Run 4: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 487.76 Mbit/s) ——— Flow 1 egress (mean 488.44 Mbit/s)
- - - - Flow 2 ingress (mean 394.91 Mbit/s) ——— Flow 2 egress (mean 394.50 Mbit/s)
- - - - Flow 3 ingress (mean 95.73 Mbit/s) ——— Flow 3 egress (mean 95.42 Mbit/s)

- Flow 1 (95th percentile 89.83 ms) · Flow 2 (95th percentile 75.59 ms) · Flow 3 (95th percentile 47.94 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 22:14:13
End at: 2019-06-28 22:14:43
Local clock offset: -0.104 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-06-29 00:12:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 809.72 Mbit/s
95th percentile per-packet one-way delay: 75.813 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 493.25 Mbit/s
95th percentile per-packet one-way delay: 78.455 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 367.29 Mbit/s
95th percentile per-packet one-way delay: 68.712 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 317.52 Mbit/s
95th percentile per-packet one-way delay: 80.470 ms
Loss rate: 1.92%
```
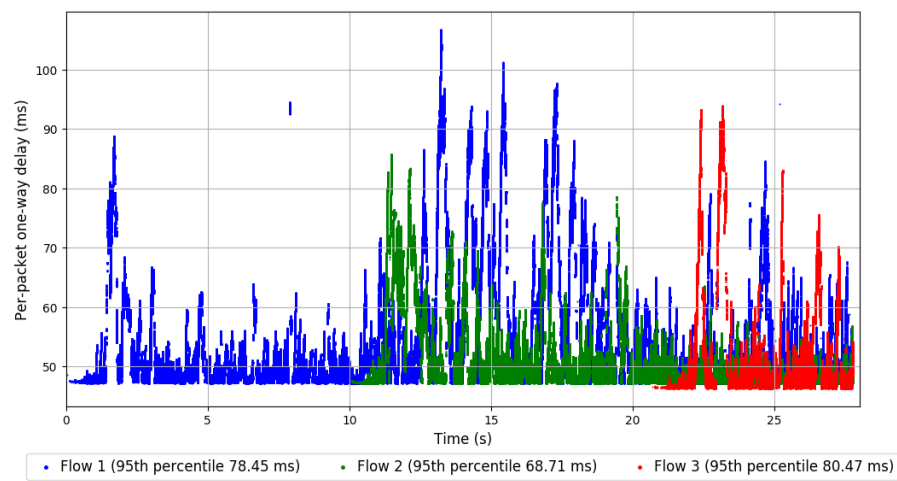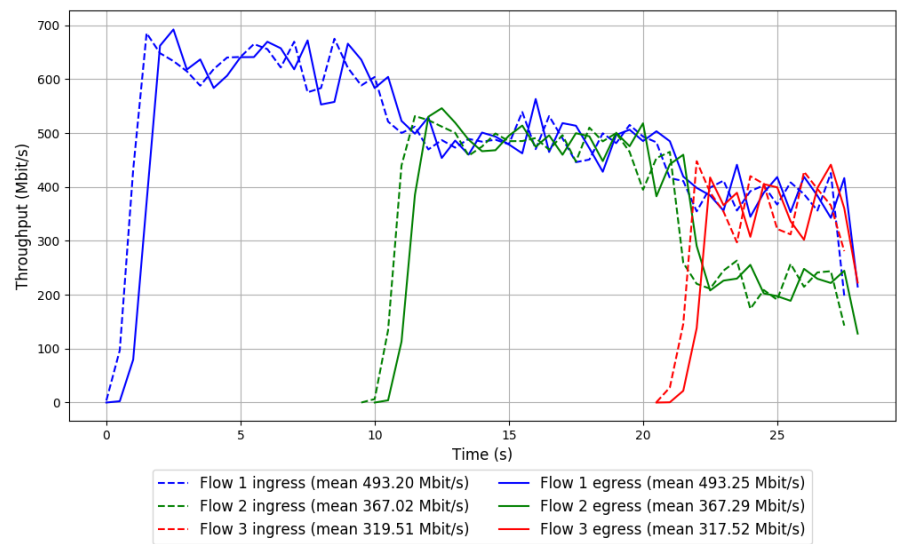
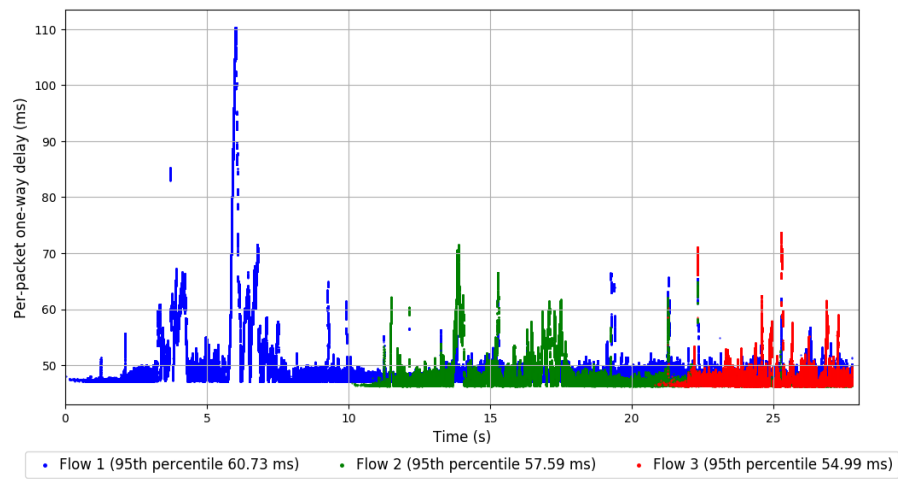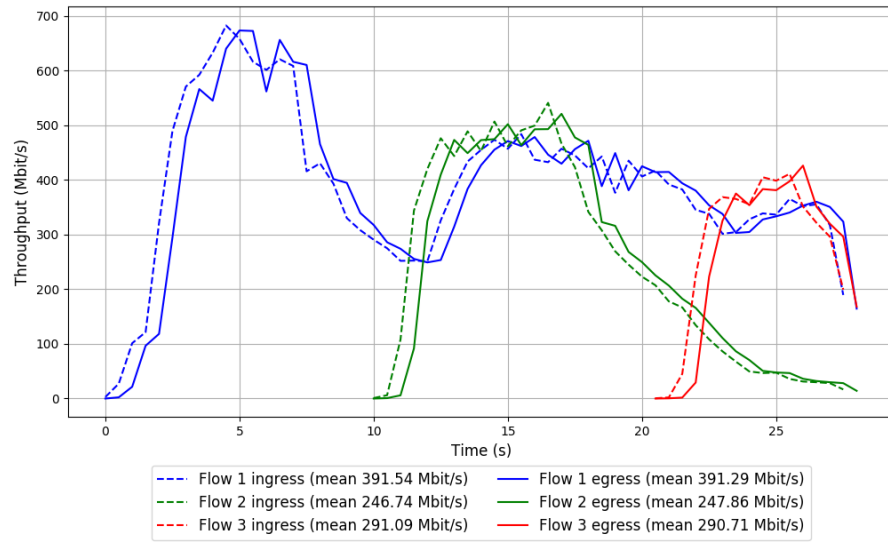# Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 19:24:47
End at: 2019-06-28 19:25:17
Local clock offset: -0.144 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2019-06-29 00:14:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 621.78 Mbit/s
95th percentile per-packet one-way delay: 59.051 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 391.29 Mbit/s
95th percentile per-packet one-way delay: 60.728 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 247.86 Mbit/s
95th percentile per-packet one-way delay: 57.595 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 290.71 Mbit/s
95th percentile per-packet one-way delay: 54.988 ms
Loss rate: 1.46%
```

Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 20:01:18
End at: 2019-06-28 20:01:48
Local clock offset: -0.005 ms
Remote clock offset: 0.059 ms


# Below is generated by plot.py at 2019-06-29 00:17:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 566.63 Mbit/s
95th percentile per-packet one-way delay: 61.157 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 310.51 Mbit/s
95th percentile per-packet one-way delay: 70.794 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 306.62 Mbit/s
95th percentile per-packet one-way delay: 50.850 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 239.18 Mbit/s
95th percentile per-packet one-way delay: 51.743 ms
Loss rate: 1.45%
```
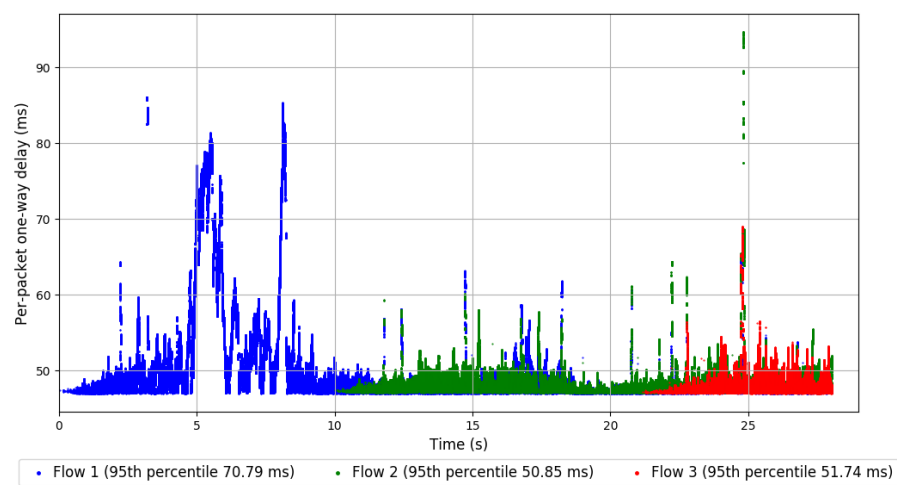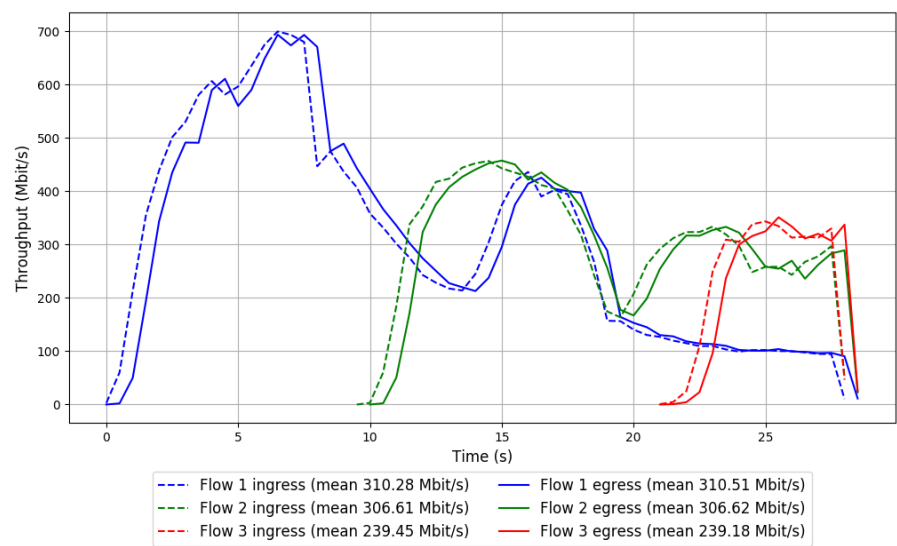
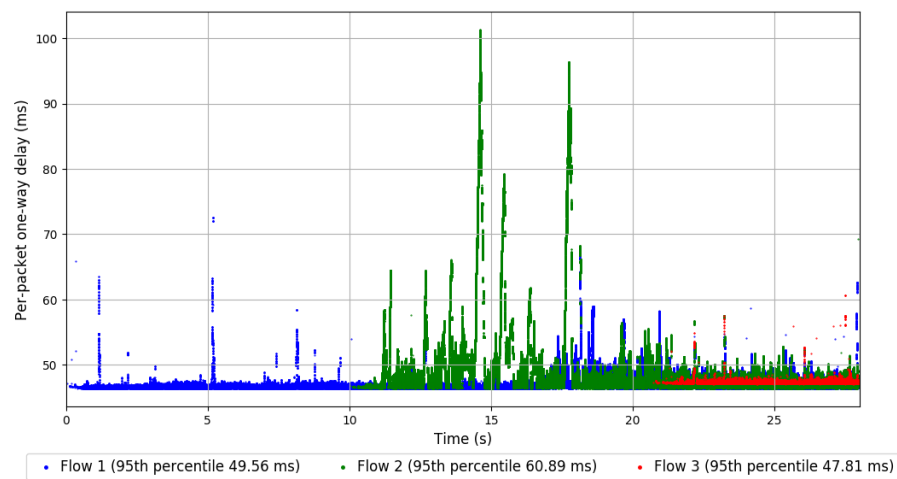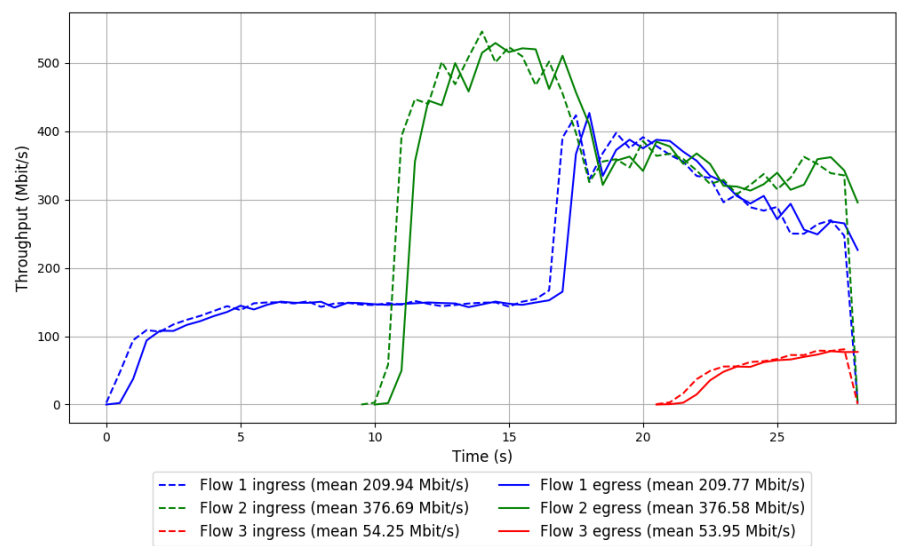Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 20:37:55
End at: 2019-06-28 20:38:25
Local clock offset: -0.029 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-06-29 00:17:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 465.65 Mbit/s
95th percentile per-packet one-way delay: 54.591 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 209.77 Mbit/s
95th percentile per-packet one-way delay: 49.557 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 376.58 Mbit/s
95th percentile per-packet one-way delay: 60.889 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 53.95 Mbit/s
95th percentile per-packet one-way delay: 47.810 ms
Loss rate: 1.83%
```

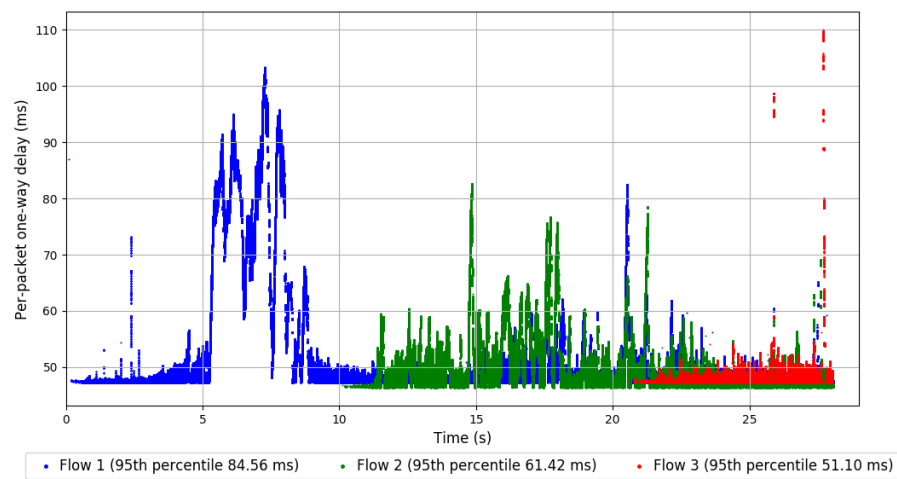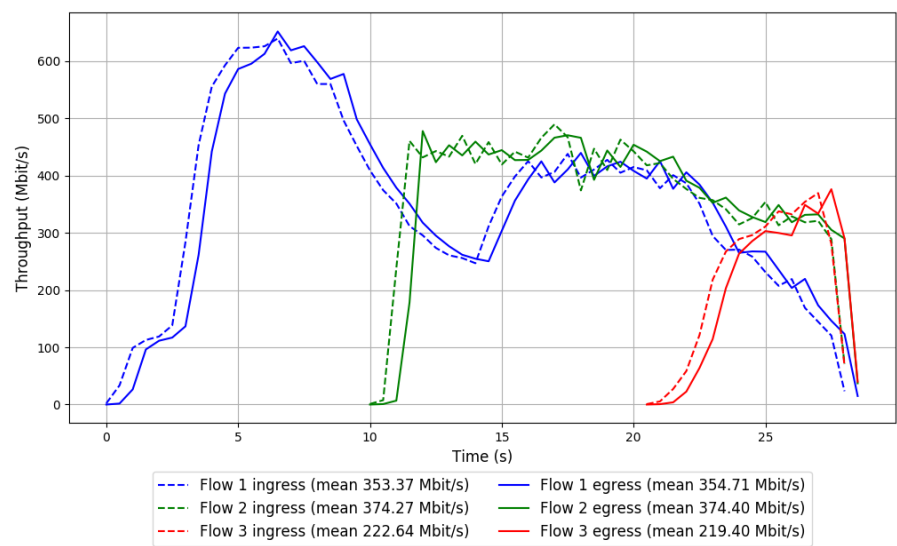Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 21:14:26
End at: 2019-06-28 21:14:56
Local clock offset: -0.367 ms
Remote clock offset: -0.159 ms


# Below is generated by plot.py at 2019-06-29 00:20:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 653.04 Mbit/s
95th percentile per-packet one-way delay: 79.333 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 354.71 Mbit/s
95th percentile per-packet one-way delay: 84.563 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 374.40 Mbit/s
95th percentile per-packet one-way delay: 61.419 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 219.40 Mbit/s
95th percentile per-packet one-way delay: 51.101 ms
Loss rate: 2.77%
```

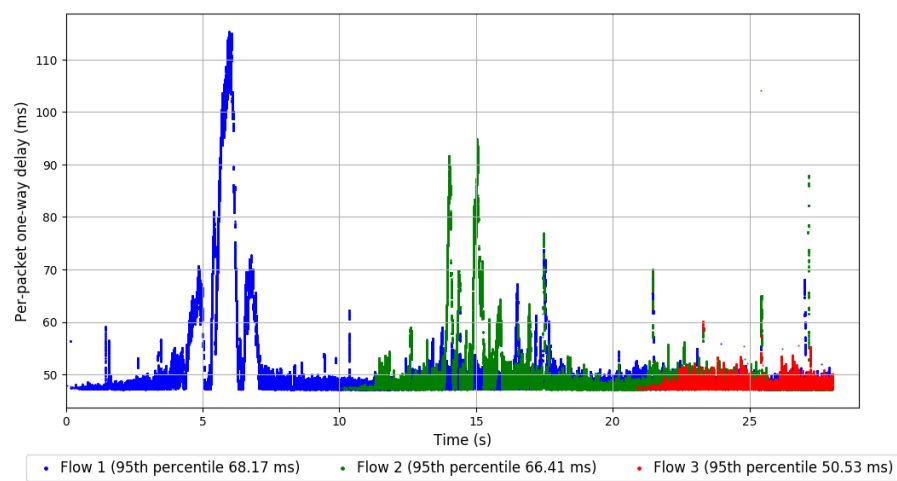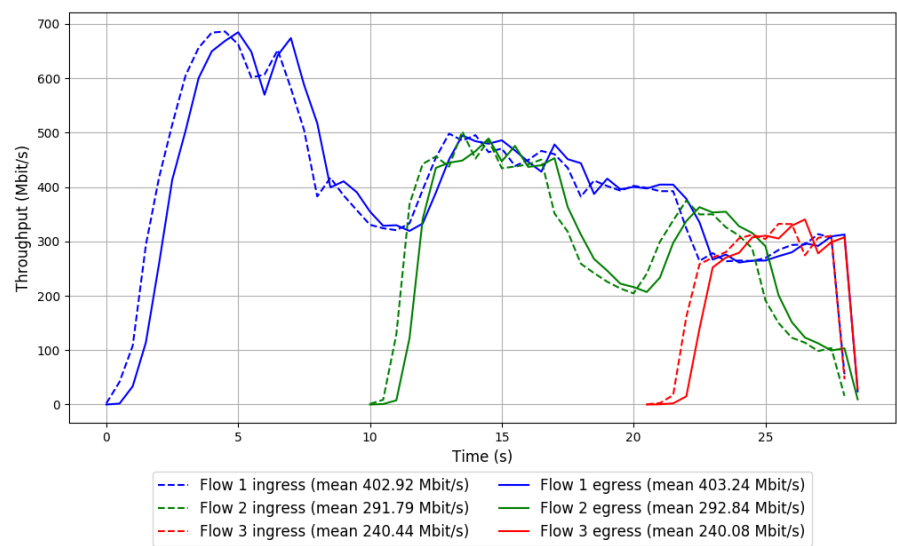Run 4: Report of Indigo-MusesD — Data Link

92

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 21:51:14
End at: 2019-06-28 21:51:44
Local clock offset: -0.465 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2019-06-29 00:20:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 652.98 Mbit/s
95th percentile per-packet one-way delay: 66.887 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 403.24 Mbit/s
95th percentile per-packet one-way delay: 68.173 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 292.84 Mbit/s
95th percentile per-packet one-way delay: 66.405 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 240.08 Mbit/s
95th percentile per-packet one-way delay: 50.526 ms
Loss rate: 1.45%
```

Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 402.92 Mbit/s) — Flow 1 egress (mean 403.24 Mbit/s)
Flow 2 ingress (mean 291.79 Mbit/s) — Flow 2 egress (mean 292.84 Mbit/s)
Flow 3 ingress (mean 240.44 Mbit/s) — Flow 3 egress (mean 240.08 Mbit/s)

Flow 1 (95th percentile 68.17 ms)   Flow 2 (95th percentile 66.41 ms)   Flow 3 (95th percentile 50.53 ms)
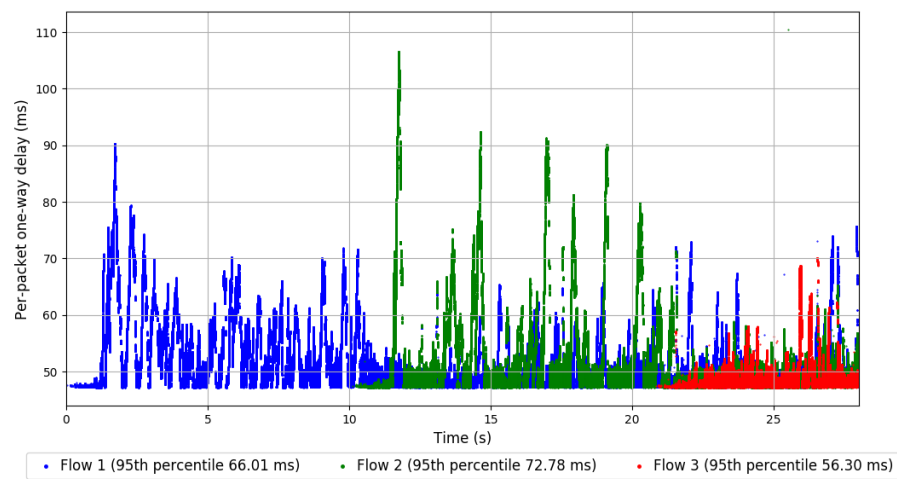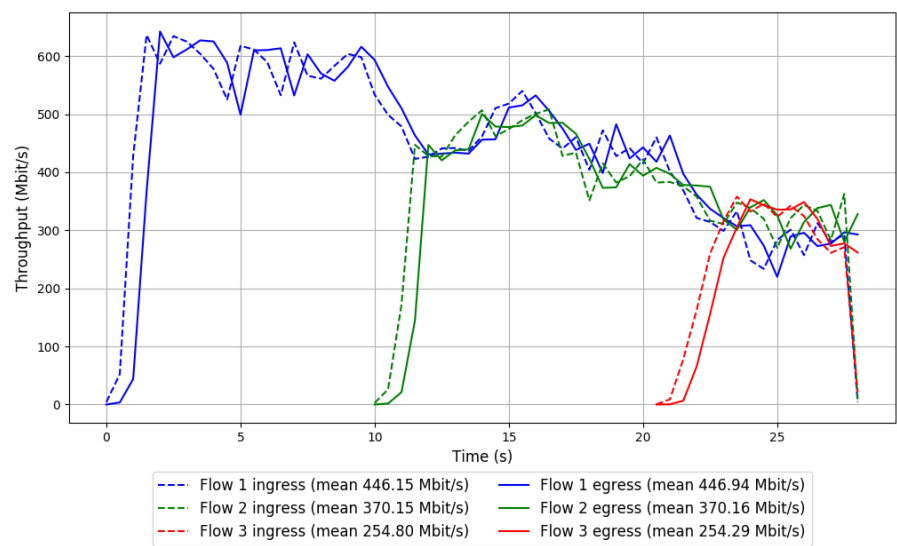
94

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-28 19:59:31
End at: 2019-06-28 20:00:01
Local clock offset: -0.0 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at 2019-06-29 00:22:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 748.47 Mbit/s
95th percentile per-packet one-way delay: 67.011 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 446.94 Mbit/s
95th percentile per-packet one-way delay: 66.009 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 370.16 Mbit/s
95th percentile per-packet one-way delay: 72.785 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 254.29 Mbit/s
95th percentile per-packet one-way delay: 56.298 ms
Loss rate: 1.51%
```
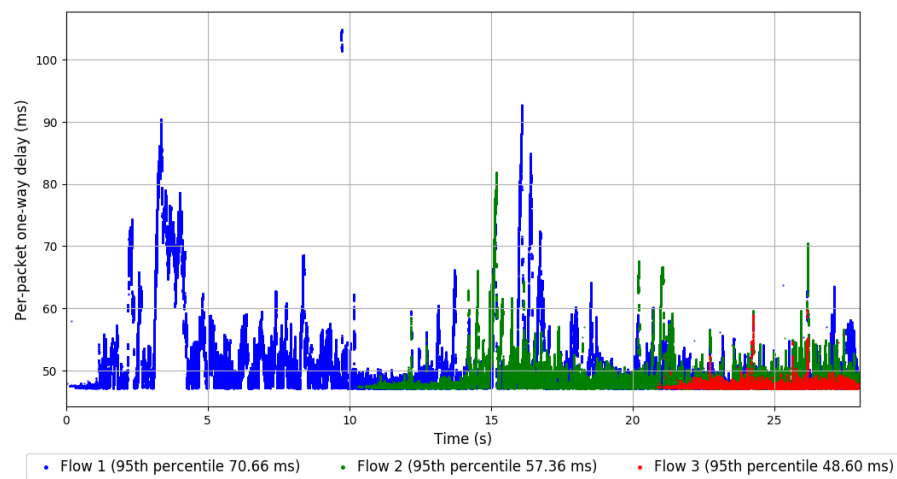
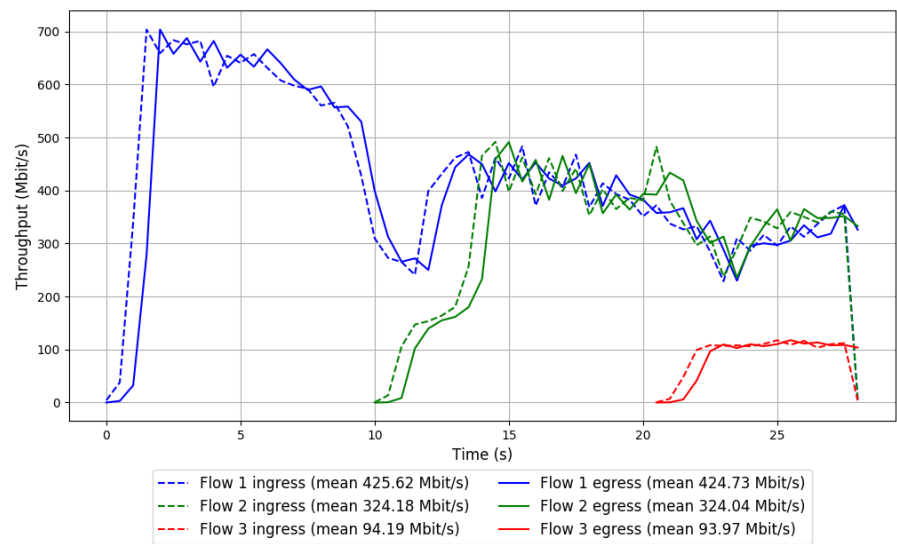Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-28 20:36:12
End at: 2019-06-28 20:36:42
Local clock offset: -0.09 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2019-06-29 00:22:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 654.45 Mbit/s
95th percentile per-packet one-way delay: 66.861 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 424.73 Mbit/s
95th percentile per-packet one-way delay: 70.655 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 324.04 Mbit/s
95th percentile per-packet one-way delay: 57.359 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 93.97 Mbit/s
95th percentile per-packet one-way delay: 48.598 ms
Loss rate: 1.57%
```

Run 2: Report of Indigo-MusesT — Data Link

- - - - Flow 1 ingress (mean 425.62 Mbit/s)   ——— Flow 1 egress (mean 424.73 Mbit/s)
- - - - Flow 2 ingress (mean 324.18 Mbit/s)   ——— Flow 2 egress (mean 324.04 Mbit/s)
- - - - Flow 3 ingress (mean 94.19 Mbit/s)   ——— Flow 3 egress (mean 93.97 Mbit/s)

• Flow 1 (95th percentile 70.66 ms)   • Flow 2 (95th percentile 57.36 ms)   • Flow 3 (95th percentile 48.60 ms)
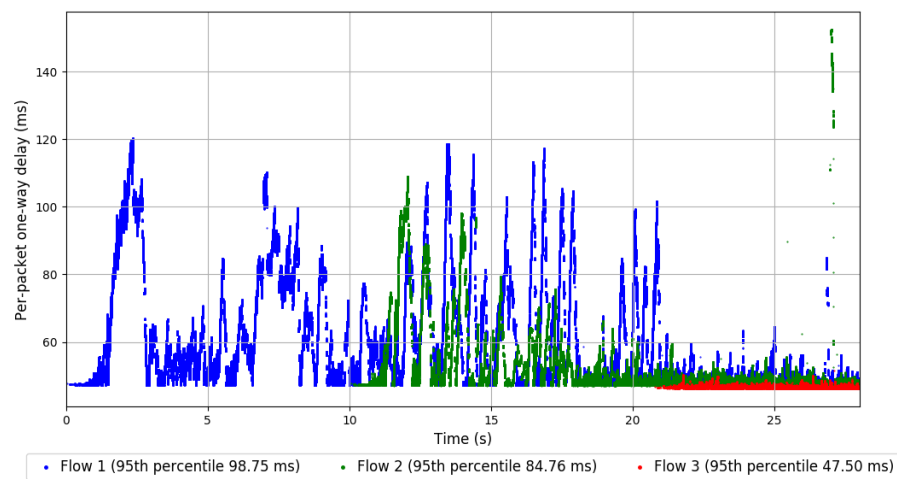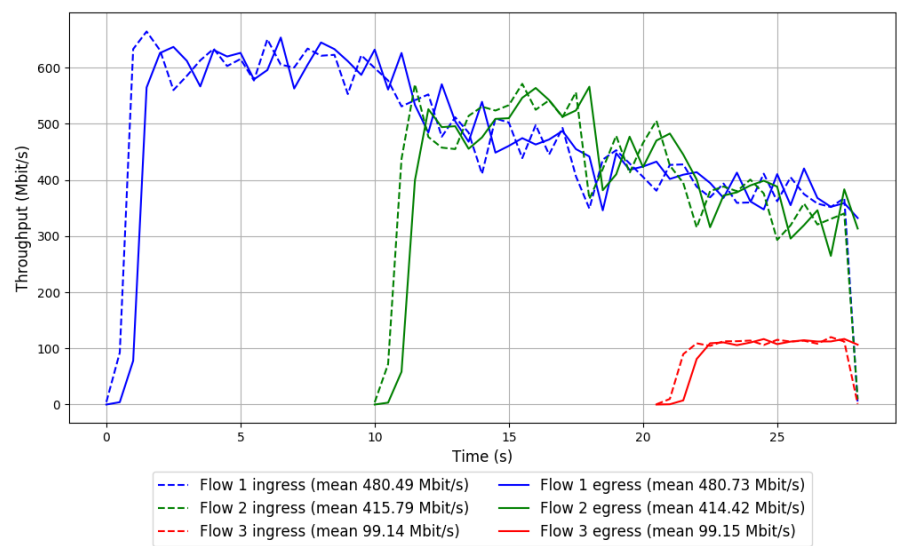
98

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-28 21:12:37
End at: 2019-06-28 21:13:07
Local clock offset: -0.336 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2019-06-29 00:28:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 771.95 Mbit/s
95th percentile per-packet one-way delay: 95.384 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 480.73 Mbit/s
95th percentile per-packet one-way delay: 98.751 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 414.42 Mbit/s
95th percentile per-packet one-way delay: 84.760 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 99.15 Mbit/s
95th percentile per-packet one-way delay: 47.499 ms
Loss rate: 1.27%
```

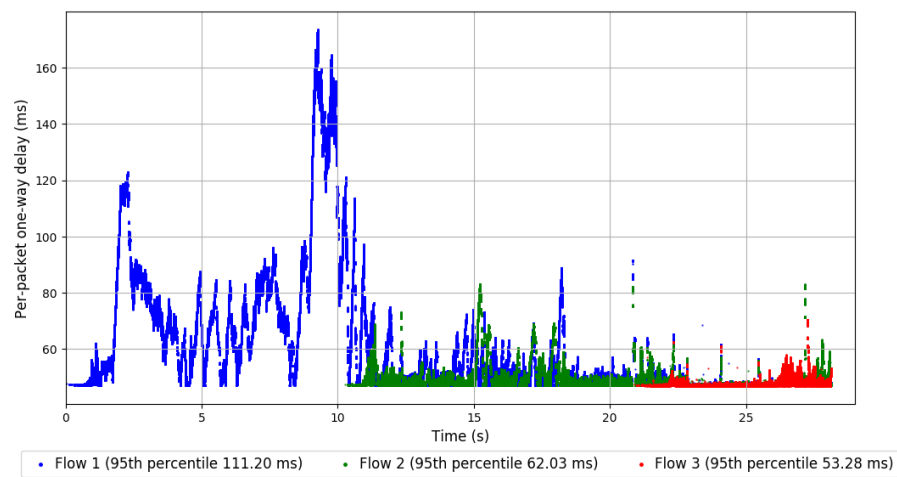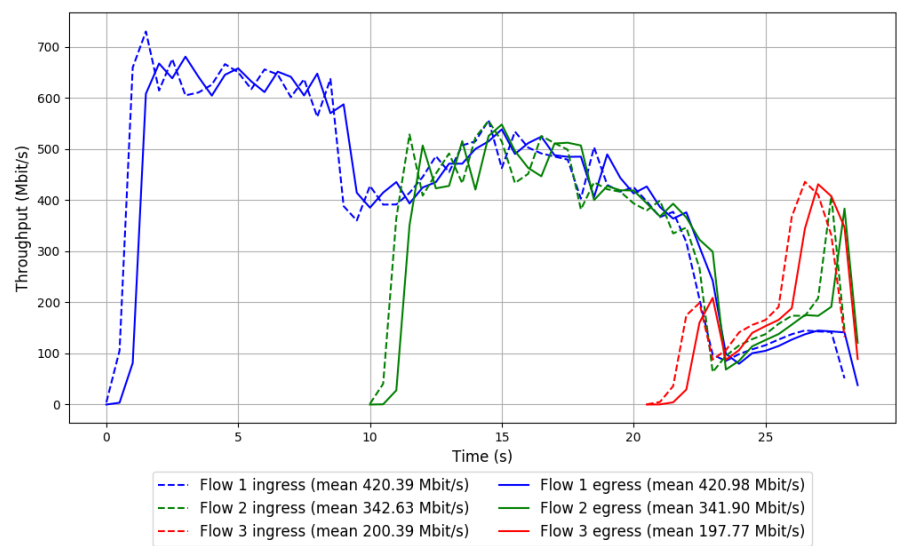Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-28 21:49:31
End at: 2019-06-28 21:50:01
Local clock offset: -0.544 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2019-06-29 00:28:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 689.54 Mbit/s
95th percentile per-packet one-way delay: 90.324 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 420.98 Mbit/s
95th percentile per-packet one-way delay: 111.205 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 341.90 Mbit/s
95th percentile per-packet one-way delay: 62.028 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 197.77 Mbit/s
95th percentile per-packet one-way delay: 53.284 ms
Loss rate: 2.58%
```

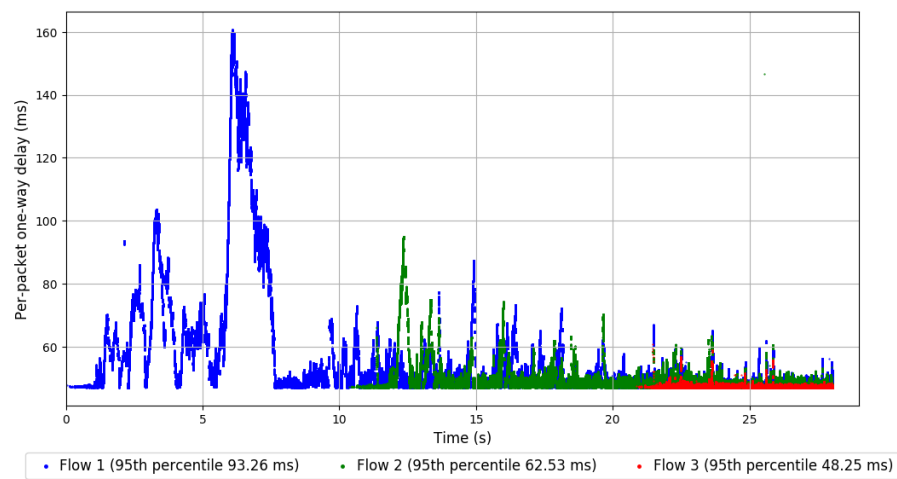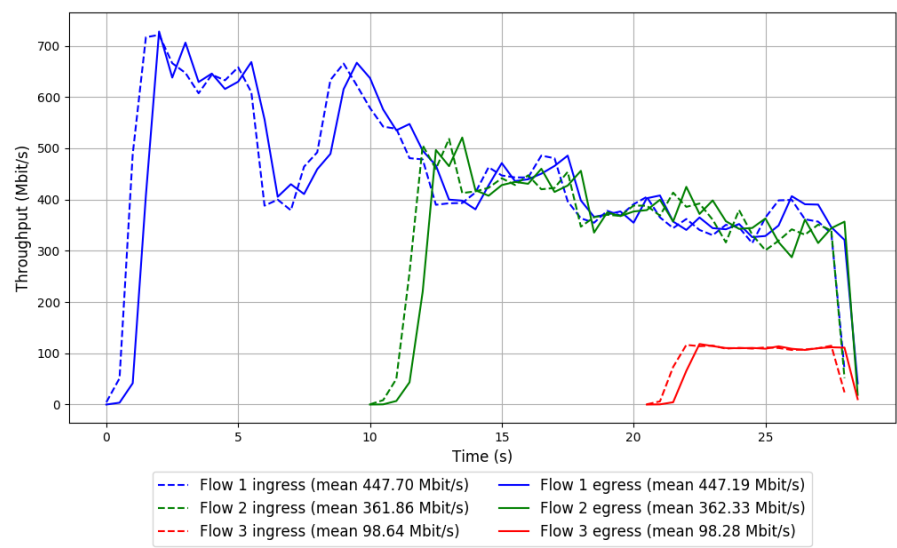Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-28 22:25:49
End at: 2019-06-28 22:26:19
Local clock offset: -0.17 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2019-06-29 00:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 701.35 Mbit/s
95th percentile per-packet one-way delay: 82.071 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 447.19 Mbit/s
95th percentile per-packet one-way delay: 93.262 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 362.33 Mbit/s
95th percentile per-packet one-way delay: 62.533 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 98.28 Mbit/s
95th percentile per-packet one-way delay: 48.254 ms
Loss rate: 1.65%
```

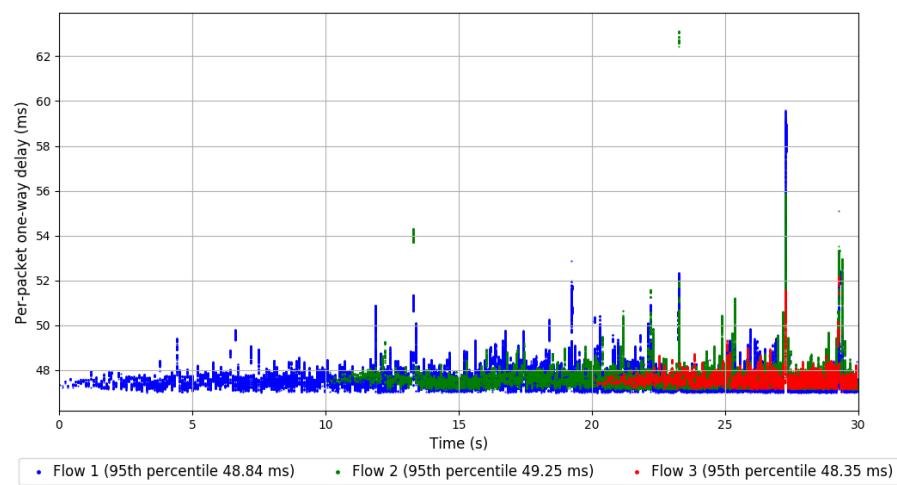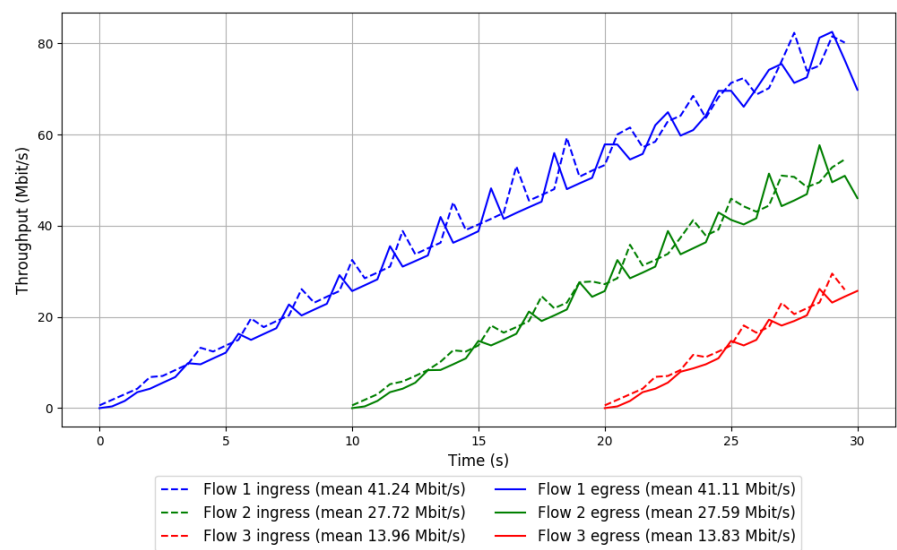Run 5: Report of Indigo-MusesT — Data Link

104

```
Run 1: Statistics of LEDBAT

Start at: 2019-06-28 19:55:03
End at: 2019-06-28 19:55:33
Local clock offset: -0.022 ms
Remote clock offset: 0.027 ms


# Below is generated by plot.py at 2019-06-29 00:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.02 Mbit/s
95th percentile per-packet one-way delay: 48.900 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 41.11 Mbit/s
95th percentile per-packet one-way delay: 48.836 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 49.248 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.83 Mbit/s
95th percentile per-packet one-way delay: 48.347 ms
Loss rate: 1.91%
```
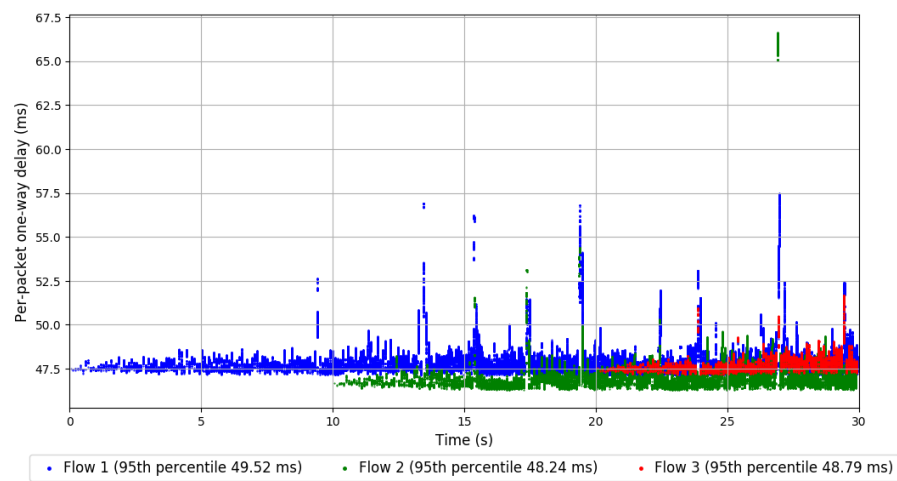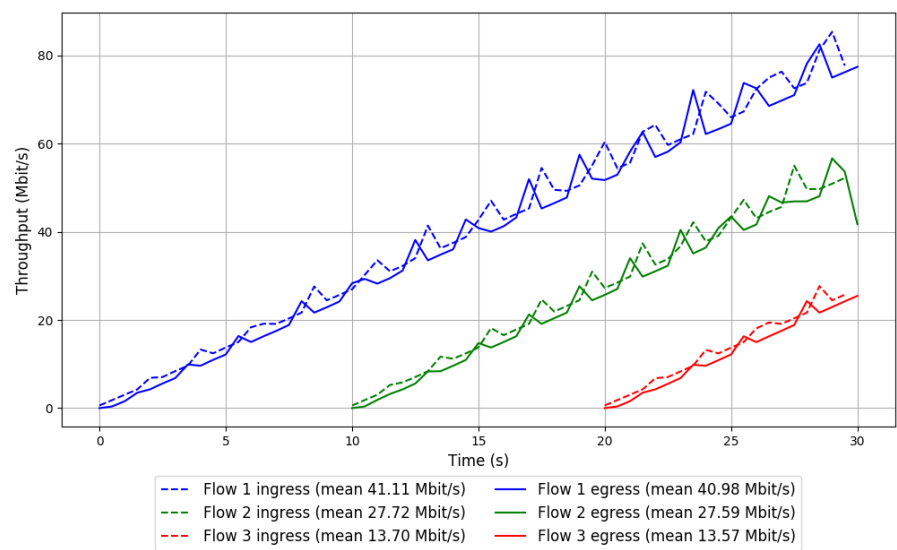
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-06-28 20:31:39
End at: 2019-06-28 20:32:09
Local clock offset: -0.078 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2019-06-29 00:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.76 Mbit/s
95th percentile per-packet one-way delay: 49.112 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 40.98 Mbit/s
95th percentile per-packet one-way delay: 49.523 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 48.238 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.57 Mbit/s
95th percentile per-packet one-way delay: 48.790 ms
Loss rate: 1.93%
```
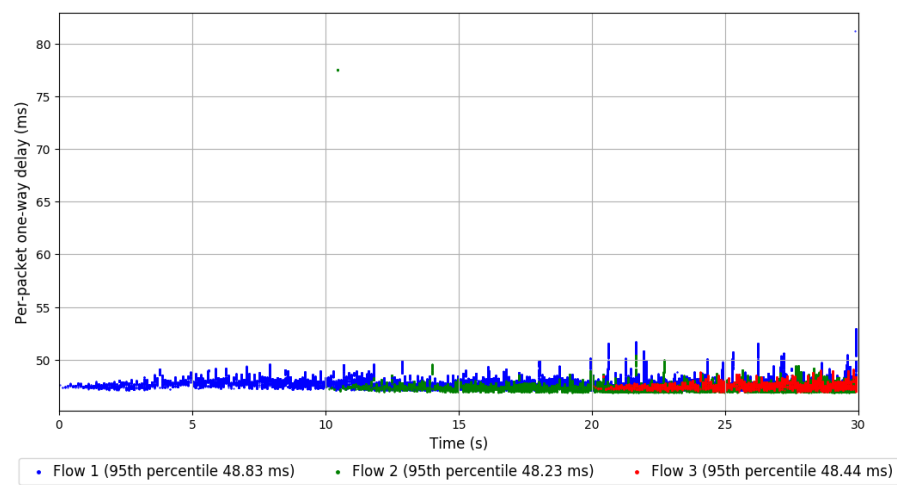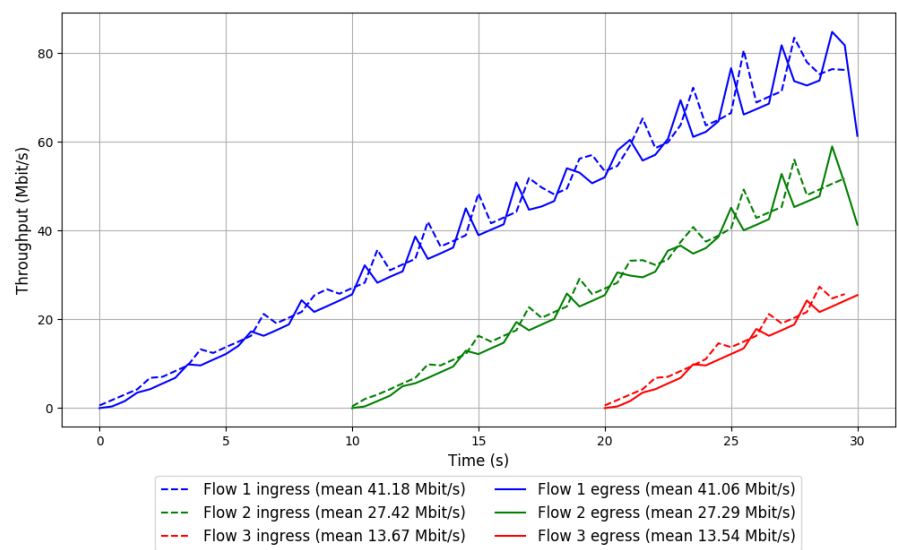
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-06-28 21:08:04
End at: 2019-06-28 21:08:34
Local clock offset: -0.385 ms
Remote clock offset: -0.089 ms


# Below is generated by plot.py at 2019-06-29 00:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.62 Mbit/s
95th percentile per-packet one-way delay: 48.640 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 41.06 Mbit/s
95th percentile per-packet one-way delay: 48.833 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 48.229 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 13.54 Mbit/s
95th percentile per-packet one-way delay: 48.439 ms
Loss rate: 1.92%
```

Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 41.18 Mbit/s) --- Flow 1 egress (mean 41.06 Mbit/s)
Flow 2 ingress (mean 27.42 Mbit/s) --- Flow 2 egress (mean 27.29 Mbit/s)
Flow 3 ingress (mean 13.67 Mbit/s) --- Flow 3 egress (mean 13.54 Mbit/s)

Flow 1 (95th percentile 48.83 ms) • Flow 2 (95th percentile 48.23 ms) • Flow 3 (95th percentile 48.44 ms)
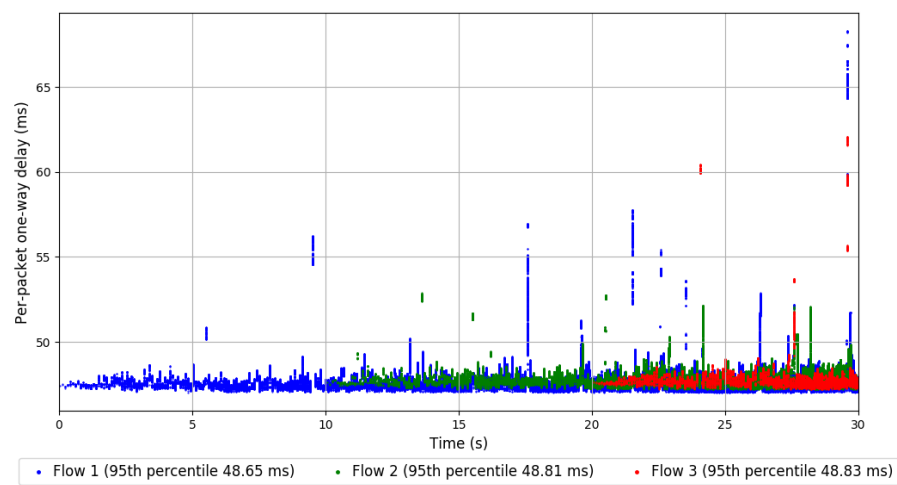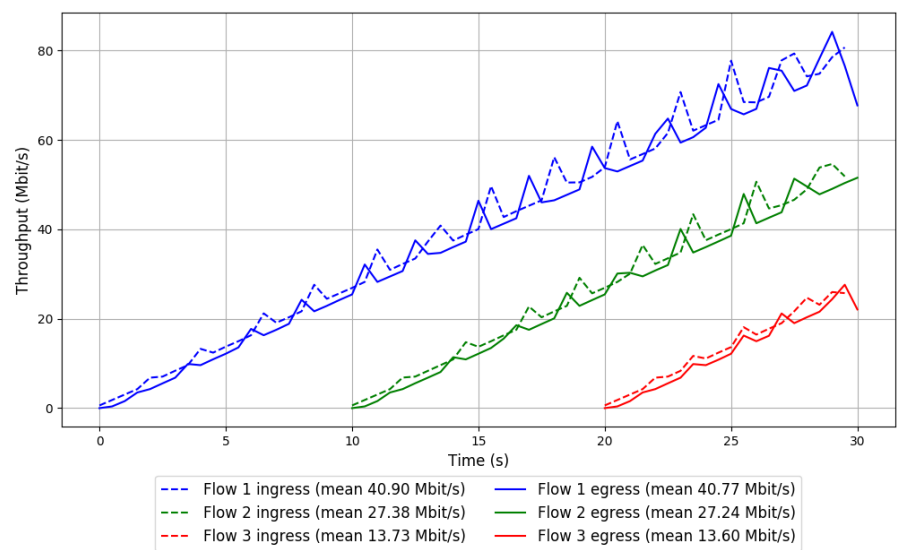
```
Run 4: Statistics of LEDBAT

Start at: 2019-06-28 21:44:59
End at: 2019-06-28 21:45:29
Local clock offset: -0.408 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2019-06-29 00:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.36 Mbit/s
95th percentile per-packet one-way delay: 48.715 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 40.77 Mbit/s
95th percentile per-packet one-way delay: 48.649 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.24 Mbit/s
95th percentile per-packet one-way delay: 48.812 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 13.60 Mbit/s
95th percentile per-packet one-way delay: 48.829 ms
Loss rate: 1.92%
```
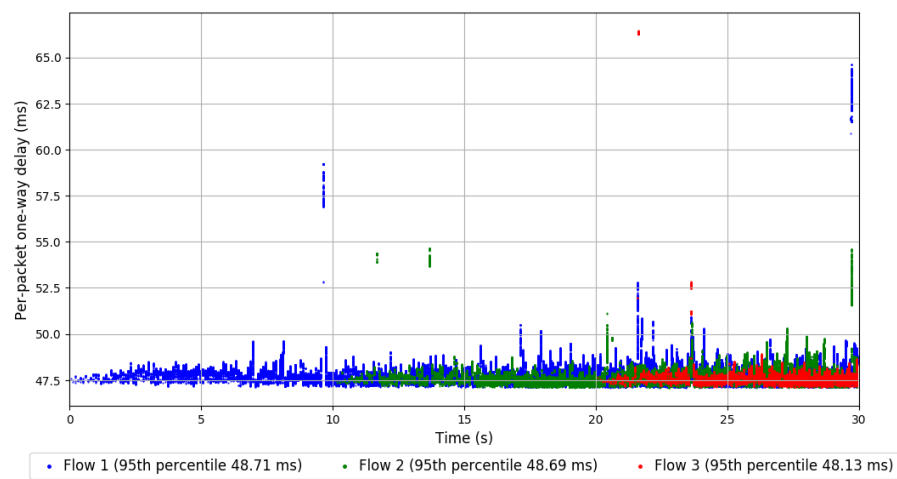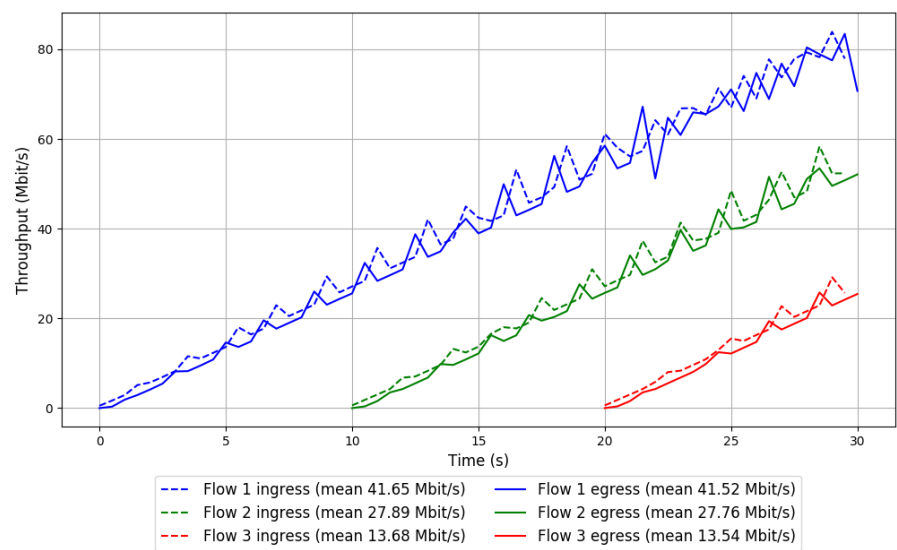
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-06-28 22:21:19
End at: 2019-06-28 22:21:49
Local clock offset: -0.135 ms
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2019-06-29 00:29:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.44 Mbit/s
95th percentile per-packet one-way delay: 48.677 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 41.52 Mbit/s
95th percentile per-packet one-way delay: 48.714 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.76 Mbit/s
95th percentile per-packet one-way delay: 48.693 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.54 Mbit/s
95th percentile per-packet one-way delay: 48.134 ms
Loss rate: 1.92%
```

Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 19:39:30
End at: 2019-06-28 19:40:00
Local clock offset: -0.099 ms
Remote clock offset: 0.027 ms

# Below is generated by plot.py at 2019-06-29 00:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 745.43 Mbit/s
95th percentile per-packet one-way delay: 64.516 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 445.30 Mbit/s
95th percentile per-packet one-way delay: 67.243 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 410.07 Mbit/s
95th percentile per-packet one-way delay: 59.235 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 47.722 ms
Loss rate: 1.14%
```
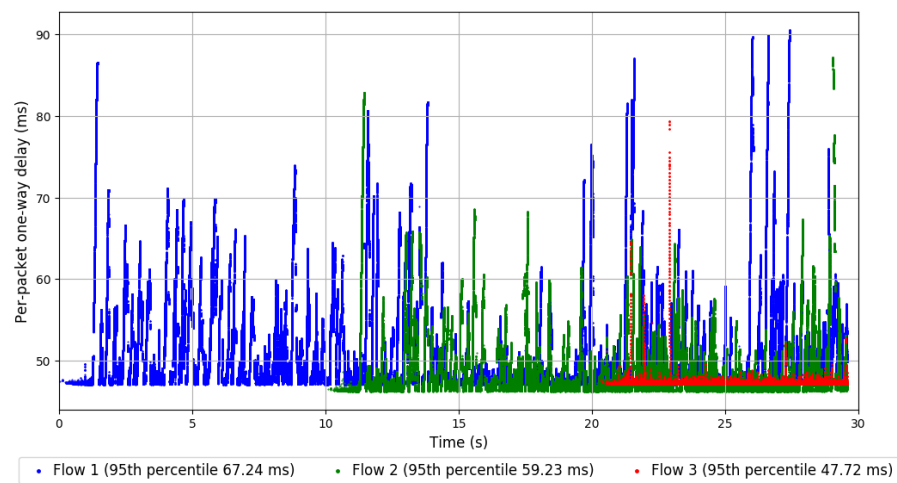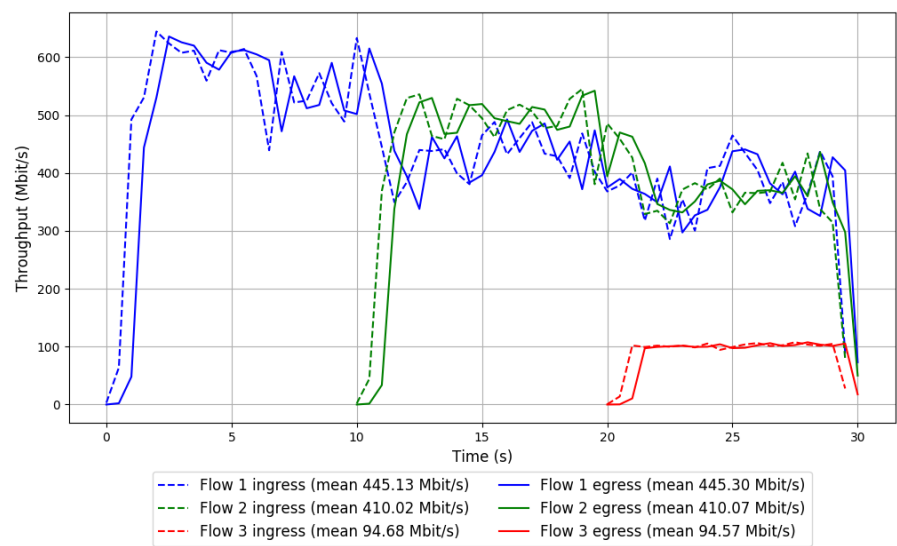
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 20:16:07
End at: 2019-06-28 20:16:37
Local clock offset: -0.045 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2019-06-29 00:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 640.48 Mbit/s
95th percentile per-packet one-way delay: 53.426 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 380.29 Mbit/s
95th percentile per-packet one-way delay: 50.643 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 376.53 Mbit/s
95th percentile per-packet one-way delay: 56.377 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 34.88 Mbit/s
95th percentile per-packet one-way delay: 46.704 ms
Loss rate: 1.02%
```
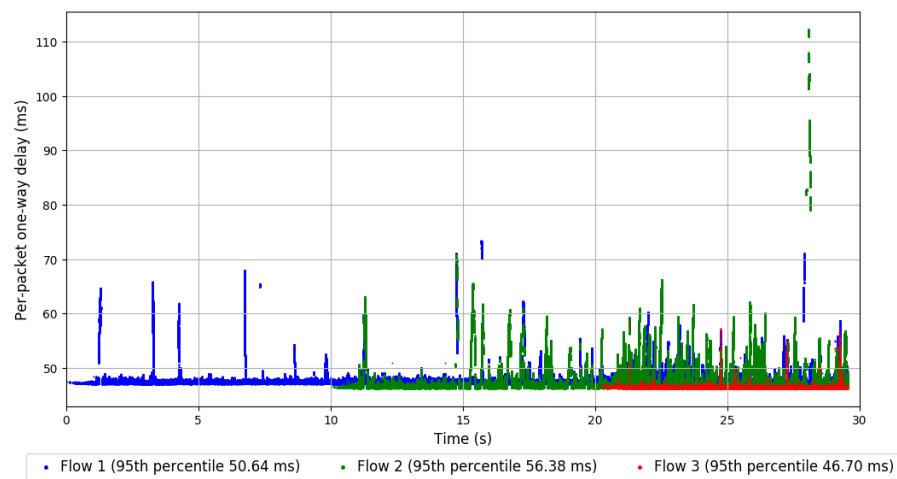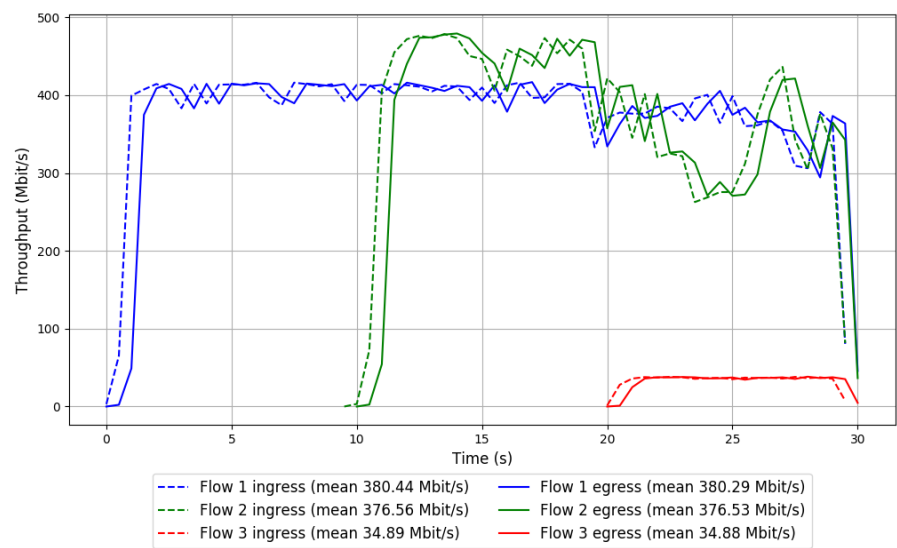
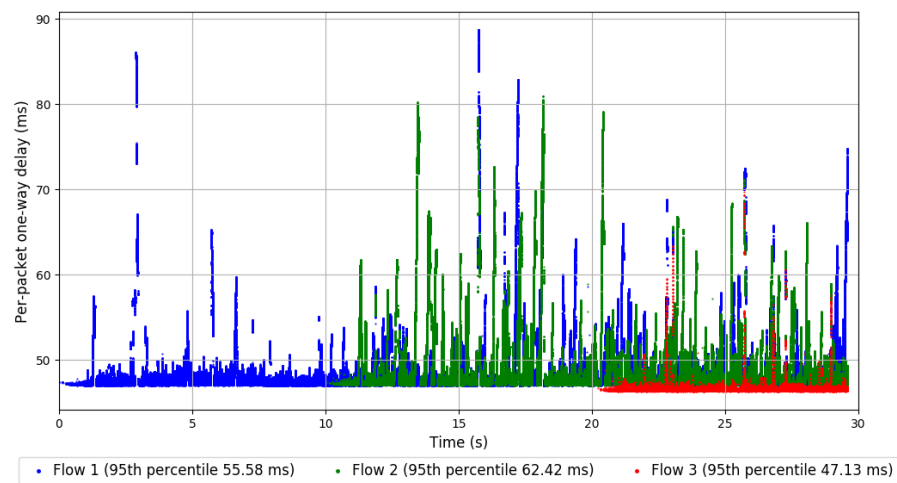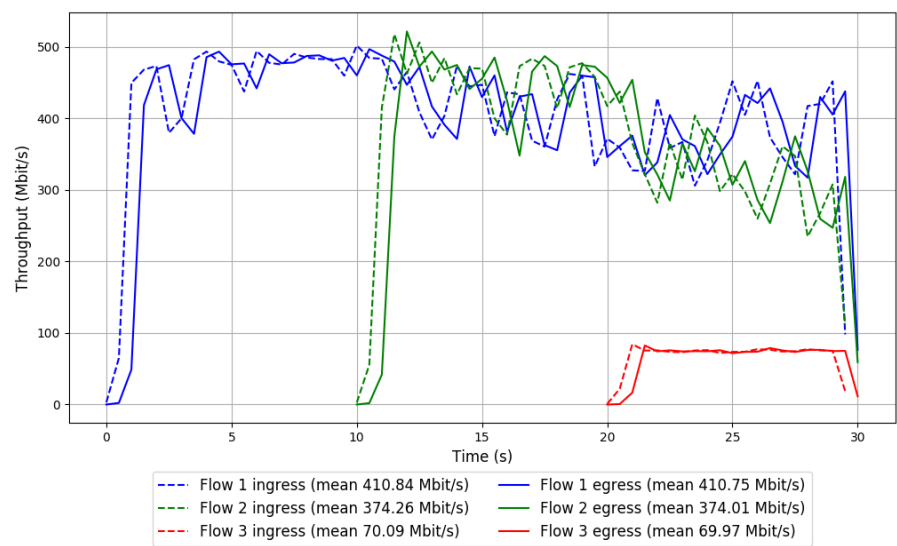Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 20:52:39
End at: 2019-06-28 20:53:09
Local clock offset: -0.227 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2019-06-29 00:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 680.11 Mbit/s
95th percentile per-packet one-way delay: 58.642 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 410.75 Mbit/s
95th percentile per-packet one-way delay: 55.579 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 374.01 Mbit/s
95th percentile per-packet one-way delay: 62.422 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 69.97 Mbit/s
95th percentile per-packet one-way delay: 47.131 ms
Loss rate: 1.15%
```

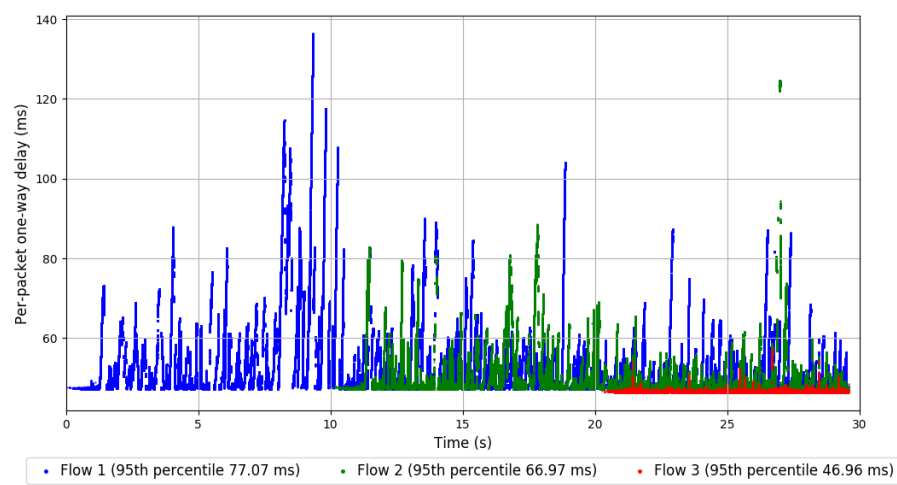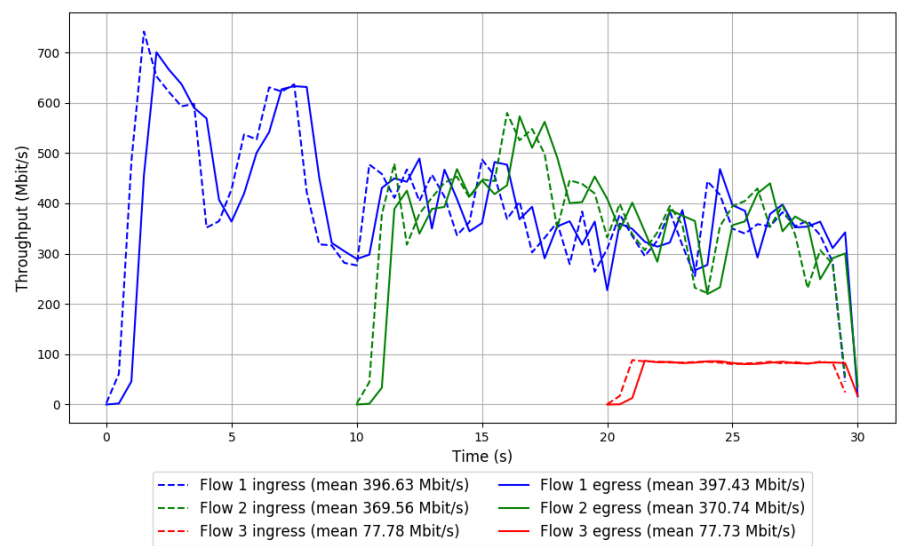Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 21:29:23
End at: 2019-06-28 21:29:53
Local clock offset: -0.402 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2019-06-29 00:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 666.33 Mbit/s
95th percentile per-packet one-way delay: 73.055 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 397.43 Mbit/s
95th percentile per-packet one-way delay: 77.073 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 370.74 Mbit/s
95th percentile per-packet one-way delay: 66.970 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 77.73 Mbit/s
95th percentile per-packet one-way delay: 46.958 ms
Loss rate: 1.06%
```

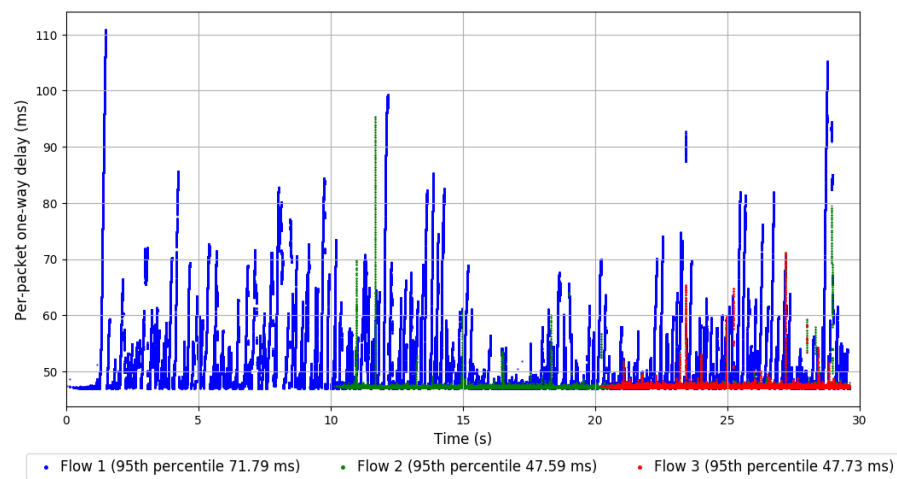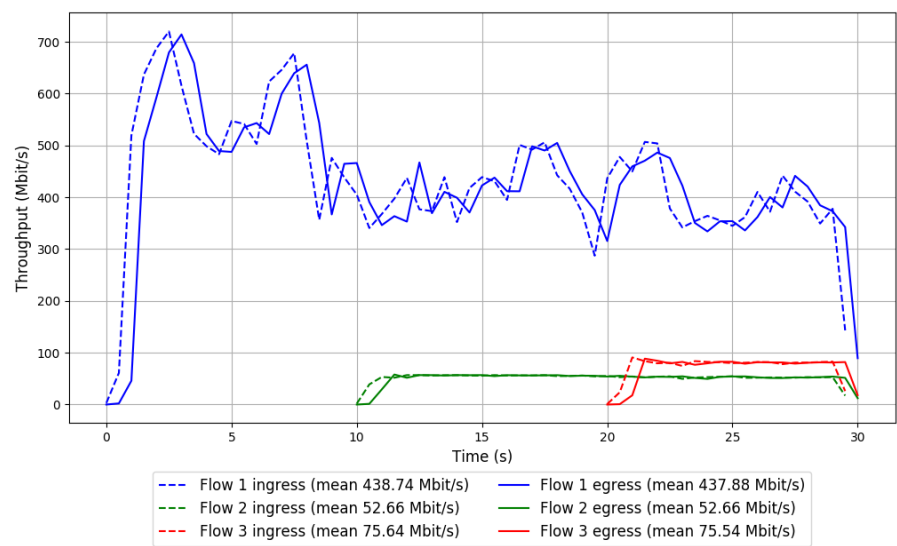Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 22:05:59
End at: 2019-06-28 22:06:29
Local clock offset: -0.234 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2019-06-29 00:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 496.62 Mbit/s
95th percentile per-packet one-way delay: 70.672 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 437.88 Mbit/s
95th percentile per-packet one-way delay: 71.793 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 52.66 Mbit/s
95th percentile per-packet one-way delay: 47.586 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 75.54 Mbit/s
95th percentile per-packet one-way delay: 47.734 ms
Loss rate: 1.15%
```

Run 5: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 438.74 Mbit/s)   Flow 1 egress (mean 437.88 Mbit/s)
Flow 2 ingress (mean 52.66 Mbit/s)   Flow 2 egress (mean 52.66 Mbit/s)
Flow 3 ingress (mean 75.64 Mbit/s)   Flow 3 egress (mean 75.54 Mbit/s)

Flow 1 (95th percentile 71.79 ms)   Flow 2 (95th percentile 47.59 ms)   Flow 3 (95th percentile 47.73 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 19:51:29
End at: 2019-06-28 19:51:59
Local clock offset: -0.071 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at 2019-06-29 00:51:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 614.50 Mbit/s
95th percentile per-packet one-way delay: 196.588 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 323.40 Mbit/s
95th percentile per-packet one-way delay: 183.507 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 314.23 Mbit/s
95th percentile per-packet one-way delay: 218.300 ms
Loss rate: 3.54%
-- Flow 3:
Average throughput: 252.15 Mbit/s
95th percentile per-packet one-way delay: 123.775 ms
Loss rate: 1.29%
```
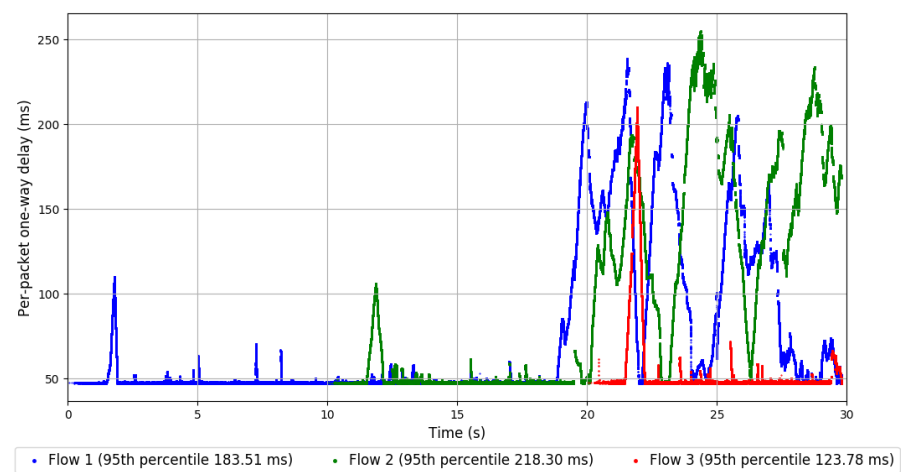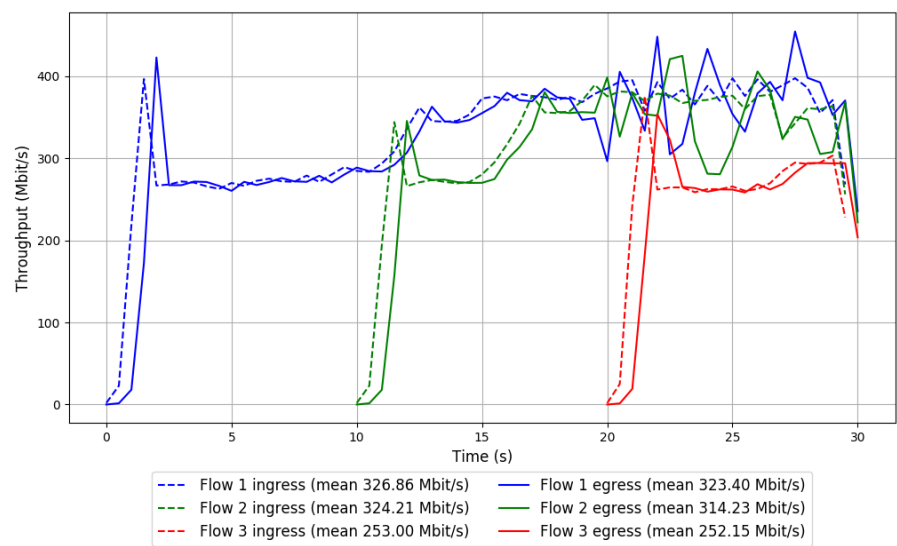
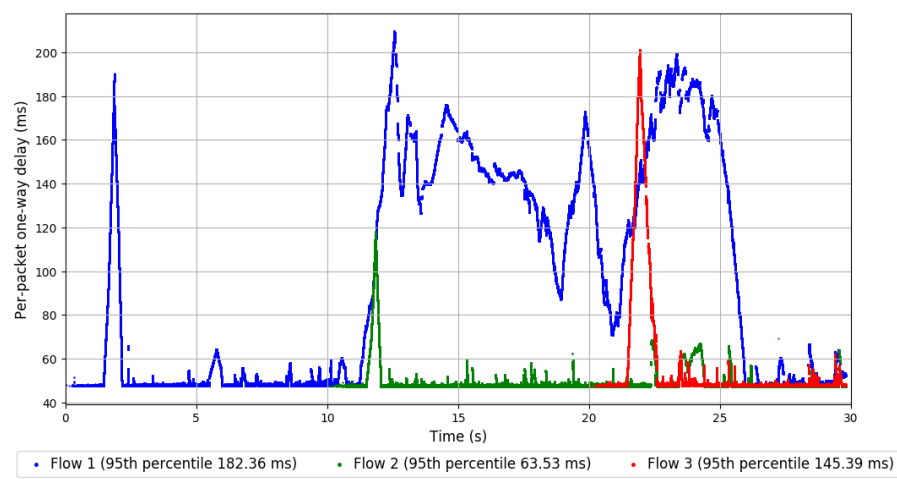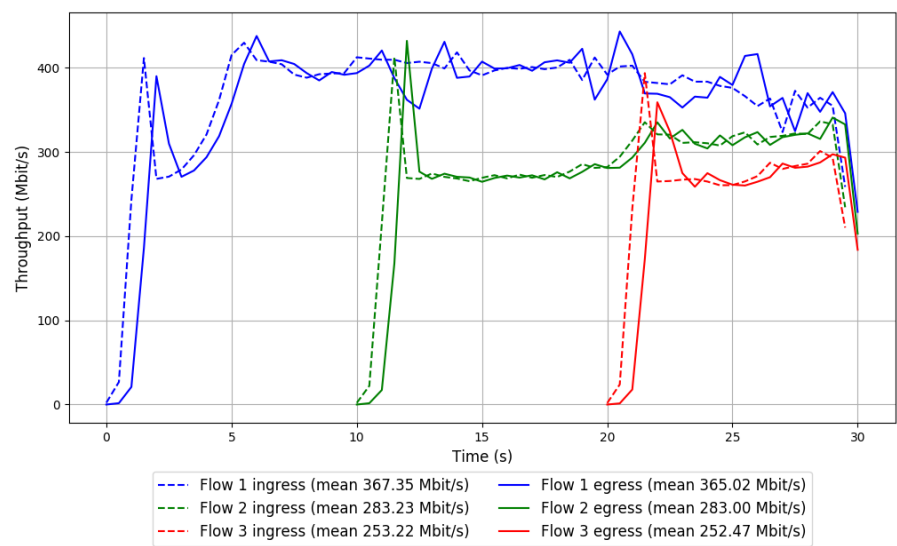Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 20:27:59
End at: 2019-06-28 20:28:29
Local clock offset: 0.335 ms
Remote clock offset: -0.002 ms


# Below is generated by plot.py at 2019-06-29 00:52:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 635.51 Mbit/s
95th percentile per-packet one-way delay: 174.458 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 365.02 Mbit/s
95th percentile per-packet one-way delay: 182.357 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 283.00 Mbit/s
95th percentile per-packet one-way delay: 63.535 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 252.47 Mbit/s
95th percentile per-packet one-way delay: 145.394 ms
Loss rate: 1.25%
```

Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 367.35 Mbit/s)   Flow 1 egress (mean 365.02 Mbit/s)
Flow 2 ingress (mean 283.23 Mbit/s)   Flow 2 egress (mean 283.00 Mbit/s)
Flow 3 ingress (mean 253.22 Mbit/s)   Flow 3 egress (mean 252.47 Mbit/s)

Flow 1 (95th percentile 182.36 ms)   Flow 2 (95th percentile 63.53 ms)   Flow 3 (95th percentile 145.39 ms)
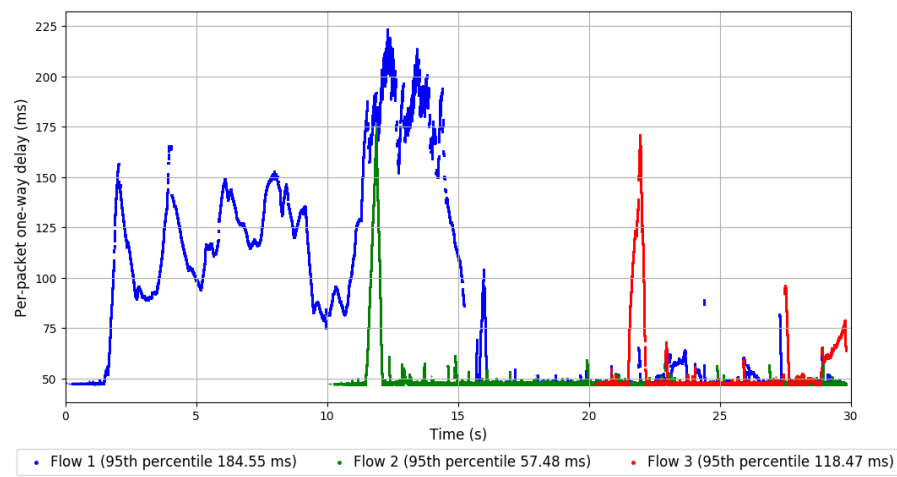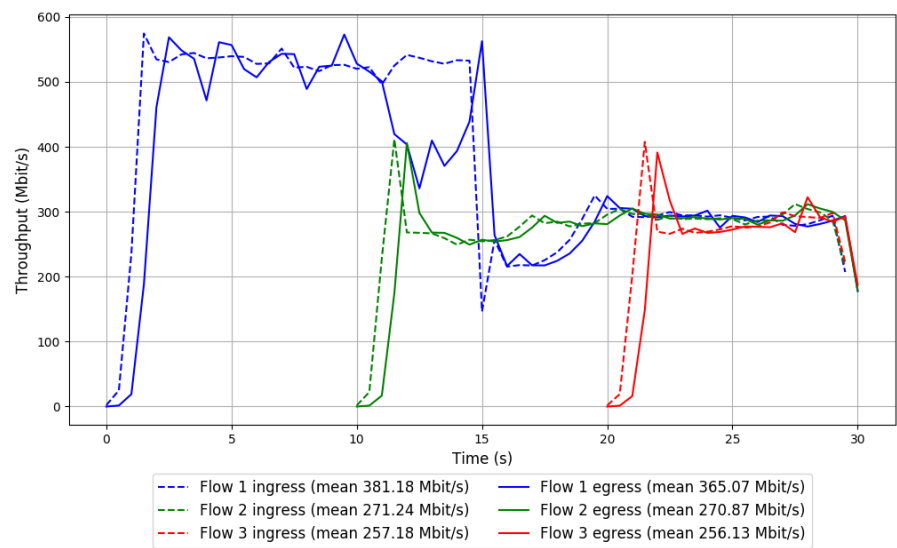
```
Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 21:04:29
End at: 2019-06-28 21:04:59
Local clock offset: -0.304 ms
Remote clock offset: -0.143 ms


# Below is generated by plot.py at 2019-06-29 00:54:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 628.48 Mbit/s
95th percentile per-packet one-way delay: 170.387 ms
Loss rate: 3.09%
-- Flow 1:
Average throughput: 365.07 Mbit/s
95th percentile per-packet one-way delay: 184.552 ms
Loss rate: 4.58%
-- Flow 2:
Average throughput: 270.87 Mbit/s
95th percentile per-packet one-way delay: 57.478 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 256.13 Mbit/s
95th percentile per-packet one-way delay: 118.475 ms
Loss rate: 1.50%
```

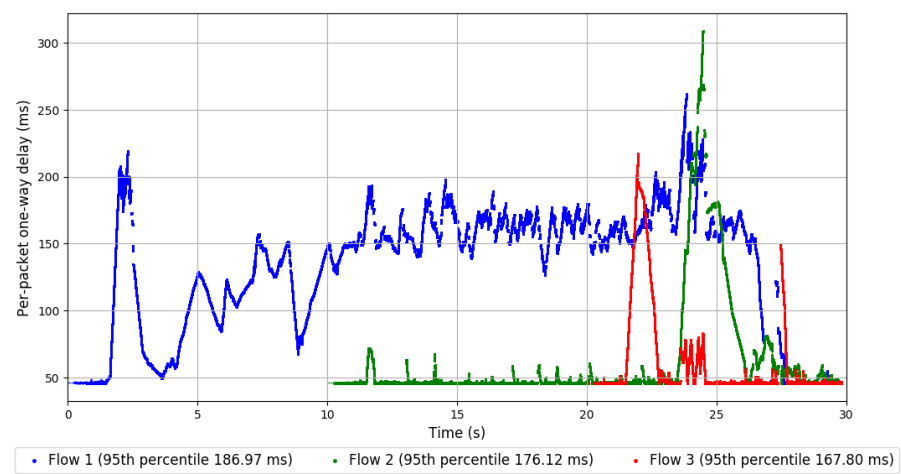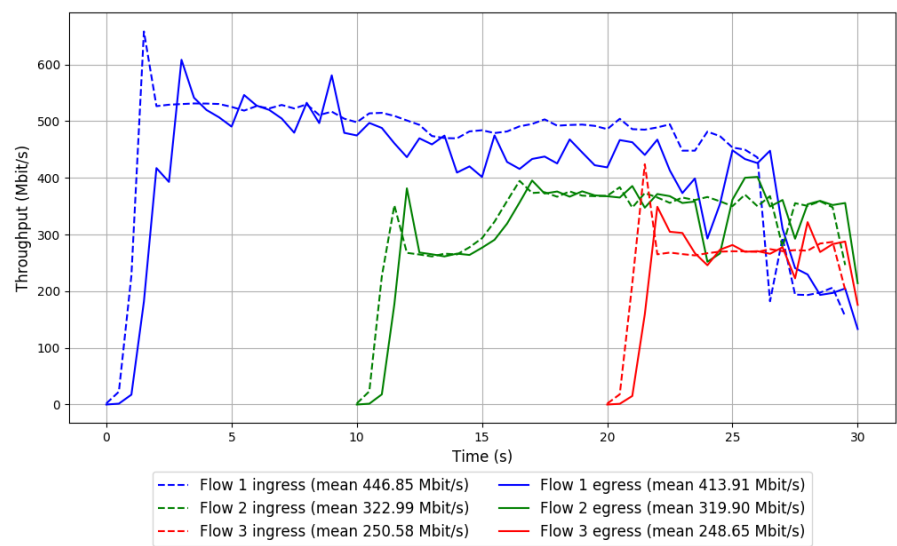Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 21:41:15
End at: 2019-06-28 21:41:45
Local clock offset: -0.811 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2019-06-29 01:02:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 707.58 Mbit/s
95th percentile per-packet one-way delay: 183.099 ms
Loss rate: 5.20%
-- Flow 1:
Average throughput: 413.91 Mbit/s
95th percentile per-packet one-way delay: 186.968 ms
Loss rate: 7.67%
-- Flow 2:
Average throughput: 319.90 Mbit/s
95th percentile per-packet one-way delay: 176.124 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 248.65 Mbit/s
95th percentile per-packet one-way delay: 167.802 ms
Loss rate: 1.73%
```

Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 446.85 Mbit/s) --- Flow 1 egress (mean 413.91 Mbit/s)
Flow 2 ingress (mean 322.99 Mbit/s) --- Flow 2 egress (mean 319.90 Mbit/s)
Flow 3 ingress (mean 250.58 Mbit/s) --- Flow 3 egress (mean 248.65 Mbit/s)

Flow 1 (95th percentile 186.97 ms) Flow 2 (95th percentile 176.12 ms) Flow 3 (95th percentile 167.80 ms)
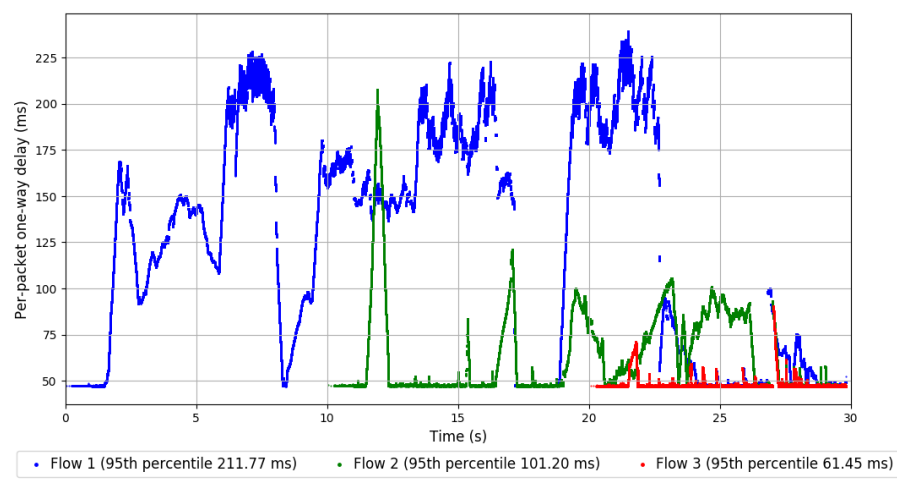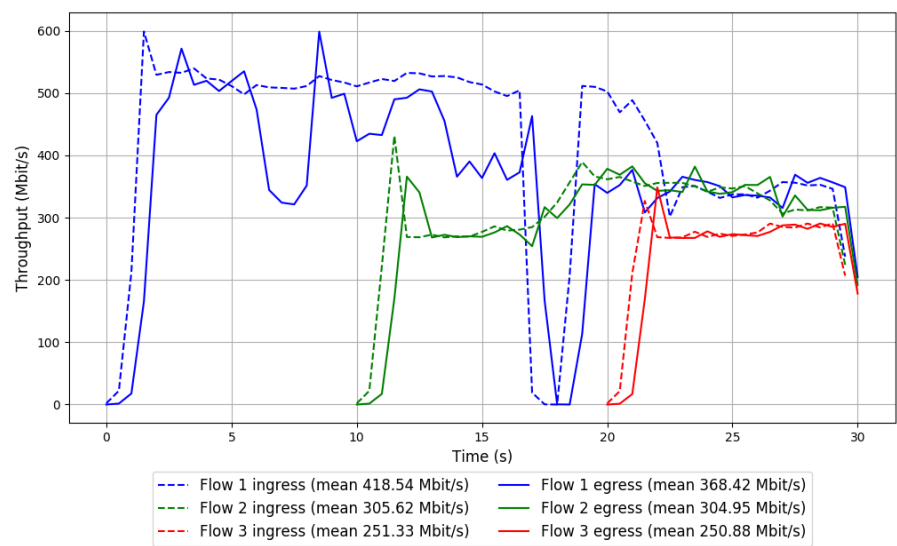
```
Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 22:17:47
End at: 2019-06-28 22:18:17
Local clock offset: -0.125 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-06-29 01:02:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 652.83 Mbit/s
95th percentile per-packet one-way delay: 204.547 ms
Loss rate: 7.62%
-- Flow 1:
Average throughput: 368.42 Mbit/s
95th percentile per-packet one-way delay: 211.771 ms
Loss rate: 12.25%
-- Flow 2:
Average throughput: 304.95 Mbit/s
95th percentile per-packet one-way delay: 101.201 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 250.88 Mbit/s
95th percentile per-packet one-way delay: 61.455 ms
Loss rate: 1.14%
```

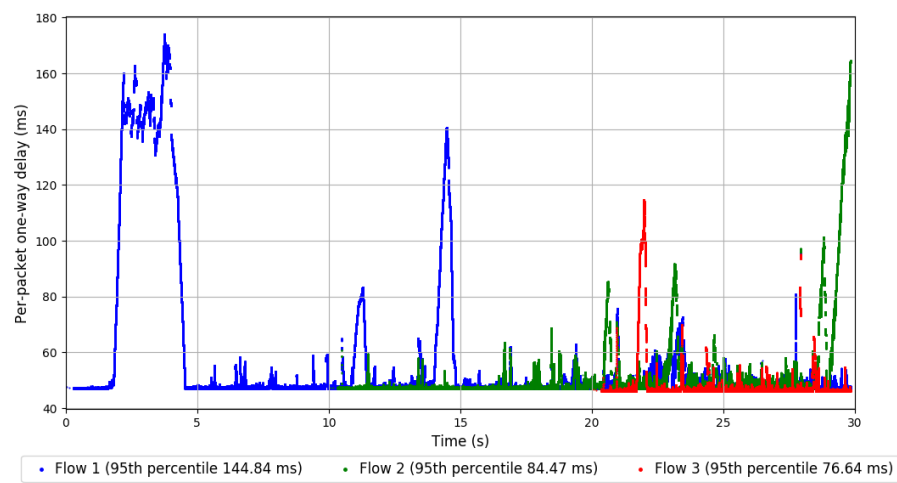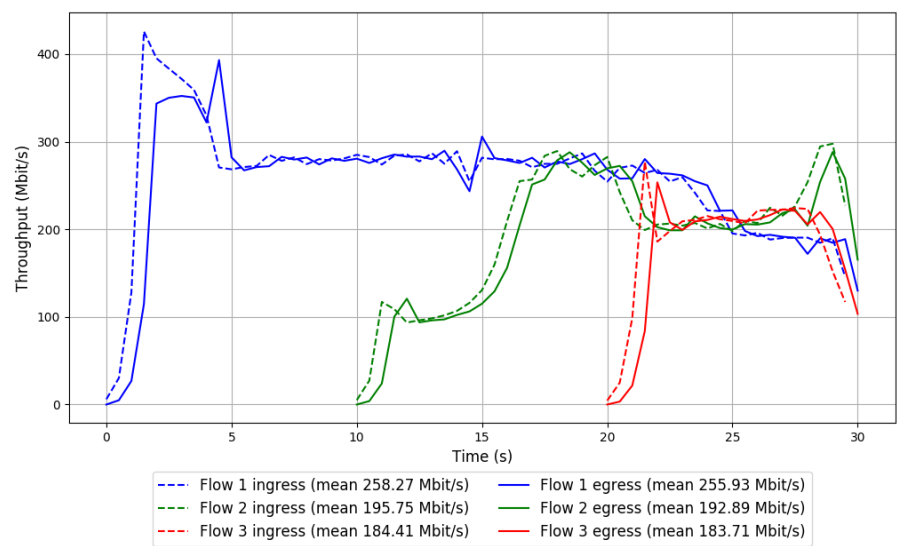Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 19:36:25
End at: 2019-06-28 19:36:55
Local clock offset: -0.138 ms
Remote clock offset: 0.069 ms


# Below is generated by plot.py at 2019-06-29 01:02:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.08 Mbit/s
95th percentile per-packet one-way delay: 137.669 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 255.93 Mbit/s
95th percentile per-packet one-way delay: 144.842 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 192.89 Mbit/s
95th percentile per-packet one-way delay: 84.467 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 183.71 Mbit/s
95th percentile per-packet one-way delay: 76.637 ms
Loss rate: 1.34%
```

Run 1: Report of PCC-Expr — Data Link

- Flow 1 ingress (mean 258.27 Mbit/s)
- Flow 1 egress (mean 255.93 Mbit/s)
- Flow 2 ingress (mean 195.75 Mbit/s)
- Flow 2 egress (mean 192.89 Mbit/s)
- Flow 3 ingress (mean 184.41 Mbit/s)
- Flow 3 egress (mean 183.71 Mbit/s)

- Flow 1 (95th percentile 144.84 ms)
- Flow 2 (95th percentile 84.47 ms)
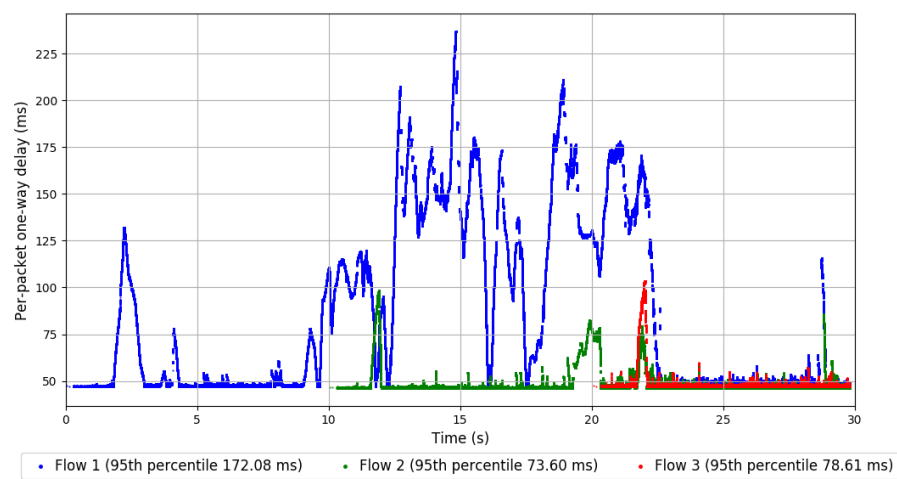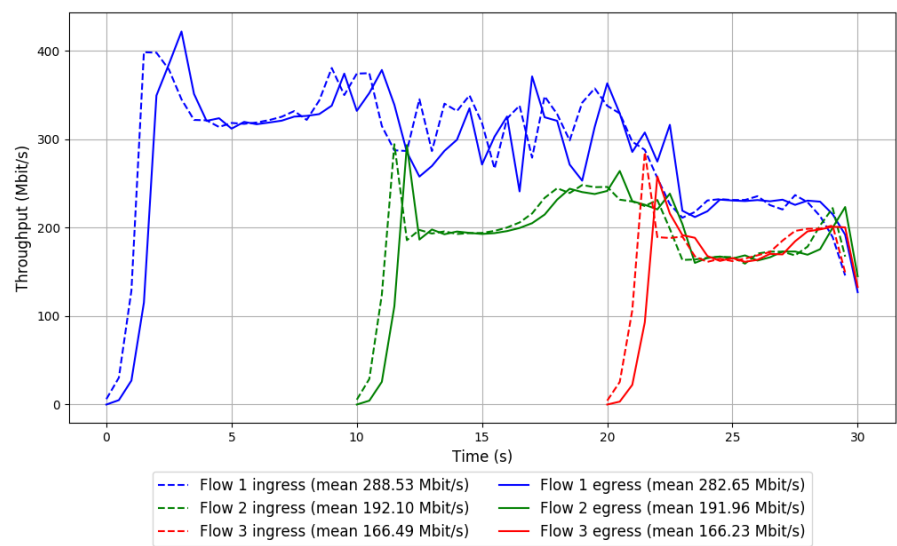- Flow 3 (95th percentile 76.64 ms)

136

```
Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 20:13:01
End at: 2019-06-28 20:13:31
Local clock offset: -0.036 ms
Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2019-06-29 01:02:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.61 Mbit/s
95th percentile per-packet one-way delay: 165.681 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 282.65 Mbit/s
95th percentile per-packet one-way delay: 172.078 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 191.96 Mbit/s
95th percentile per-packet one-way delay: 73.601 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 166.23 Mbit/s
95th percentile per-packet one-way delay: 78.612 ms
Loss rate: 1.11%
```

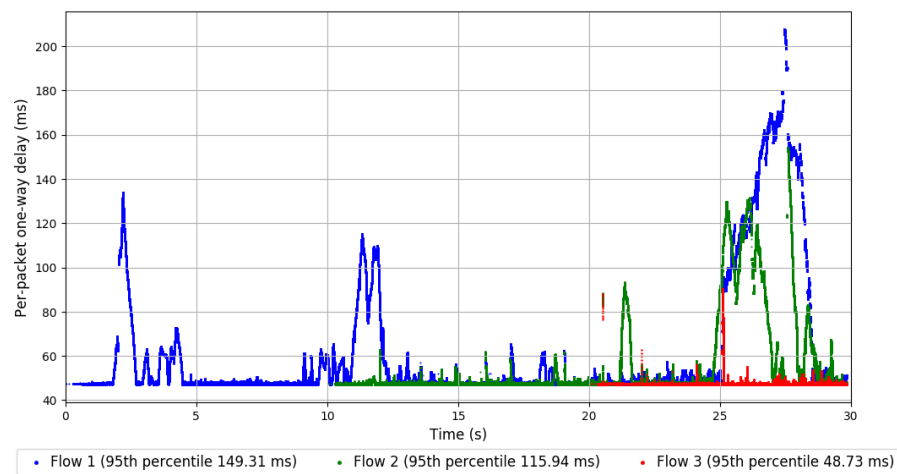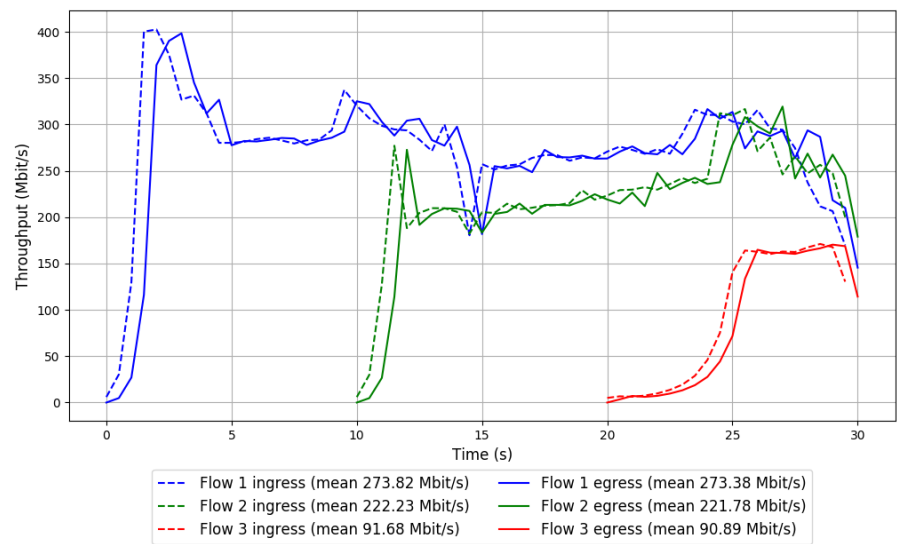Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 20:49:33
End at: 2019-06-28 20:50:03
Local clock offset: -0.144 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2019-06-29 01:02:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.44 Mbit/s
95th percentile per-packet one-way delay: 127.713 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 273.38 Mbit/s
95th percentile per-packet one-way delay: 149.309 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 221.78 Mbit/s
95th percentile per-packet one-way delay: 115.942 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 90.89 Mbit/s
95th percentile per-packet one-way delay: 48.731 ms
Loss rate: 1.82%
```

Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 273.82 Mbit/s) — Flow 1 egress (mean 273.38 Mbit/s)
Flow 2 ingress (mean 222.23 Mbit/s) — Flow 2 egress (mean 221.78 Mbit/s)
Flow 3 ingress (mean 91.68 Mbit/s) — Flow 3 egress (mean 90.89 Mbit/s)

Flow 1 (95th percentile 149.31 ms)   •   Flow 2 (95th percentile 115.94 ms)   •   Flow 3 (95th percentile 48.73 ms)
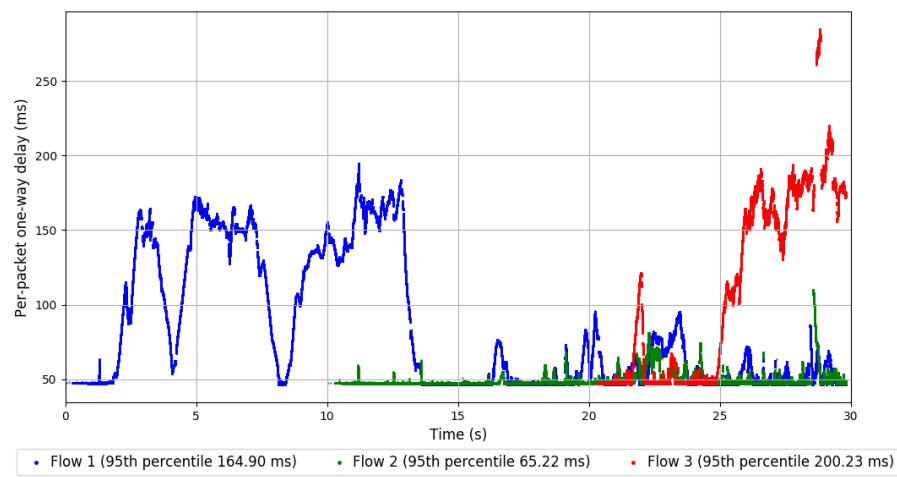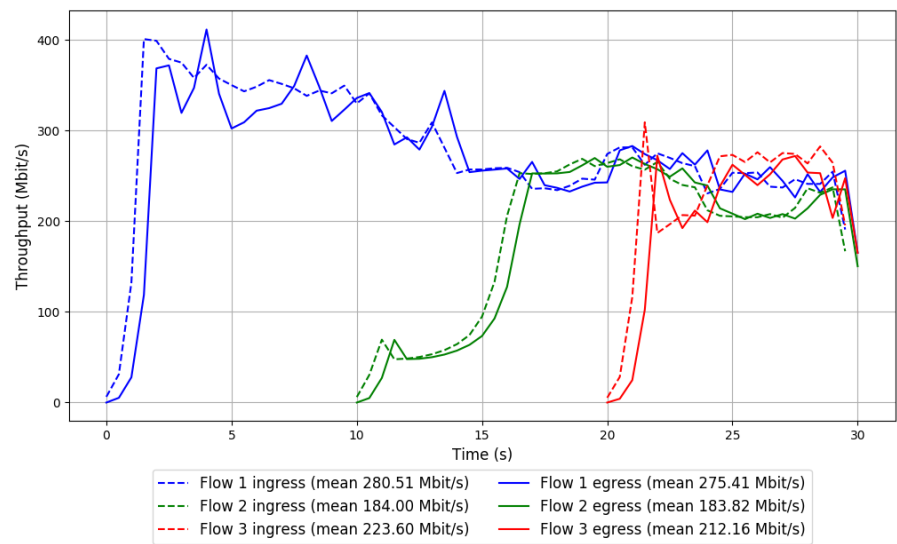
```
Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 21:26:16
End at: 2019-06-28 21:26:46
Local clock offset: -0.431 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2019-06-29 01:09:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.91 Mbit/s
95th percentile per-packet one-way delay: 172.946 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 275.41 Mbit/s
95th percentile per-packet one-way delay: 164.897 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 183.82 Mbit/s
95th percentile per-packet one-way delay: 65.218 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 212.16 Mbit/s
95th percentile per-packet one-way delay: 200.228 ms
Loss rate: 6.03%
```
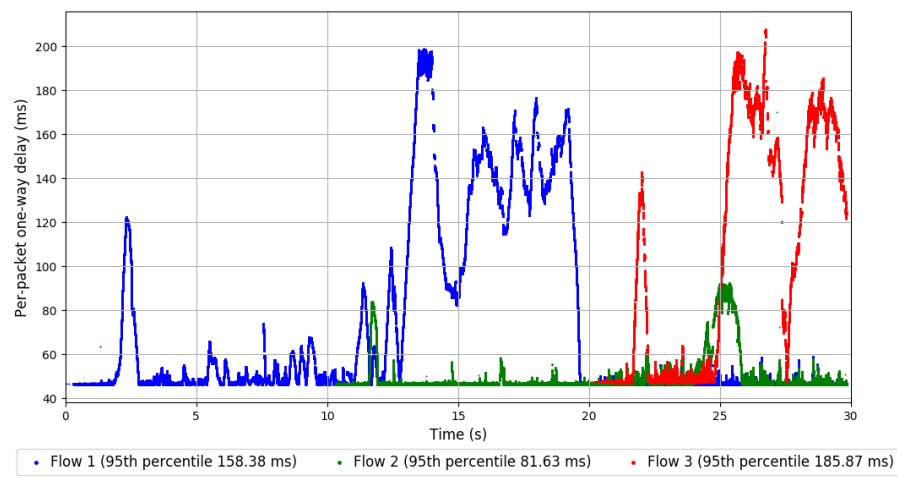
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 280.51 Mbit/s) --- Flow 1 egress (mean 275.41 Mbit/s)
Flow 2 ingress (mean 184.00 Mbit/s) --- Flow 2 egress (mean 183.82 Mbit/s)
Flow 3 ingress (mean 223.60 Mbit/s) --- Flow 3 egress (mean 212.16 Mbit/s)

Flow 1 (95th percentile 164.90 ms)   Flow 2 (95th percentile 65.22 ms)   Flow 3 (95th percentile 200.23 ms)
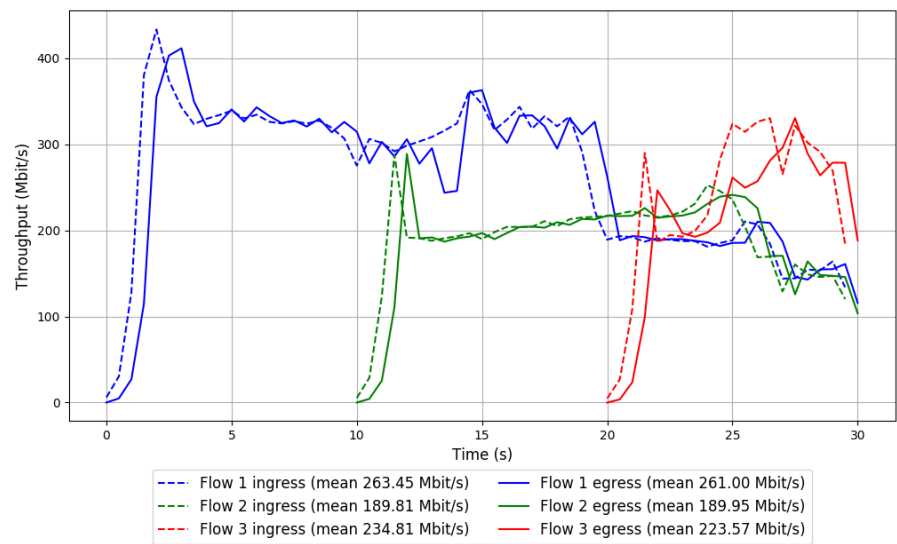
```
Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 22:02:52
End at: 2019-06-28 22:03:22
Local clock offset: -0.292 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 460.38 Mbit/s
95th percentile per-packet one-way delay: 169.504 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 261.00 Mbit/s
95th percentile per-packet one-way delay: 158.376 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 189.95 Mbit/s
95th percentile per-packet one-way delay: 81.628 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 223.57 Mbit/s
95th percentile per-packet one-way delay: 185.872 ms
Loss rate: 5.70%
```

Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 263.45 Mbit/s)   Flow 1 egress (mean 261.00 Mbit/s)
Flow 2 ingress (mean 189.81 Mbit/s)   Flow 2 egress (mean 189.95 Mbit/s)
Flow 3 ingress (mean 234.81 Mbit/s)   Flow 3 egress (mean 223.57 Mbit/s)

Flow 1 (95th percentile 158.38 ms)   Flow 2 (95th percentile 81.63 ms)   Flow 3 (95th percentile 185.87 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 19:56:20
End at: 2019-06-28 19:56:50
Local clock offset: 0.335 ms
Remote clock offset: 0.024 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 119.11 Mbit/s
95th percentile per-packet one-way delay: 47.794 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 81.79 Mbit/s
95th percentile per-packet one-way delay: 47.792 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.68 Mbit/s
95th percentile per-packet one-way delay: 47.788 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 47.864 ms
Loss rate: 0.66%
```
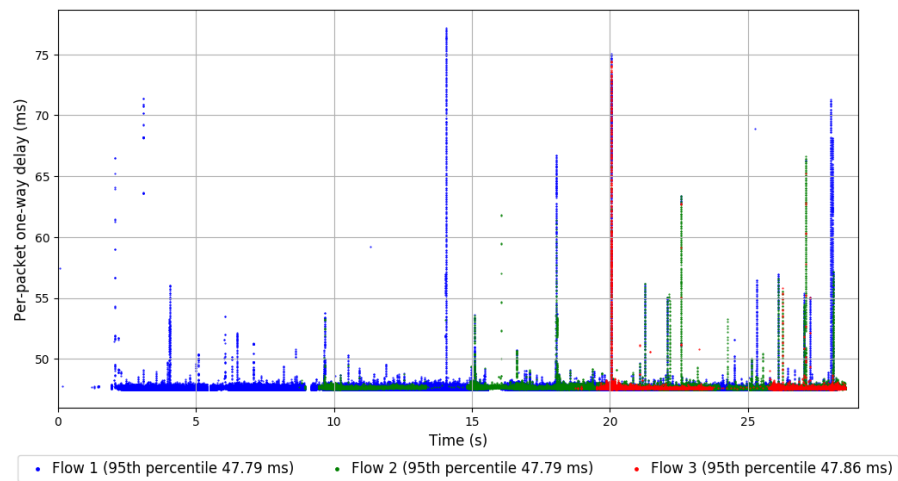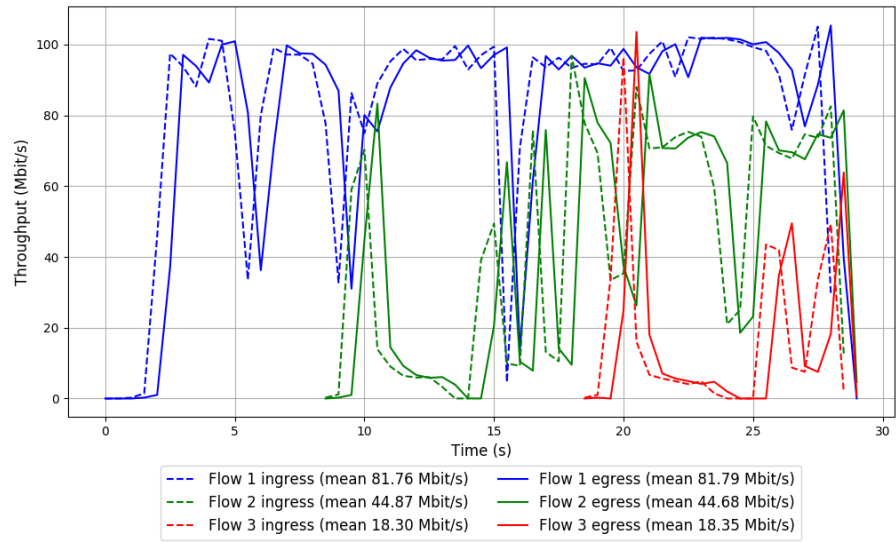
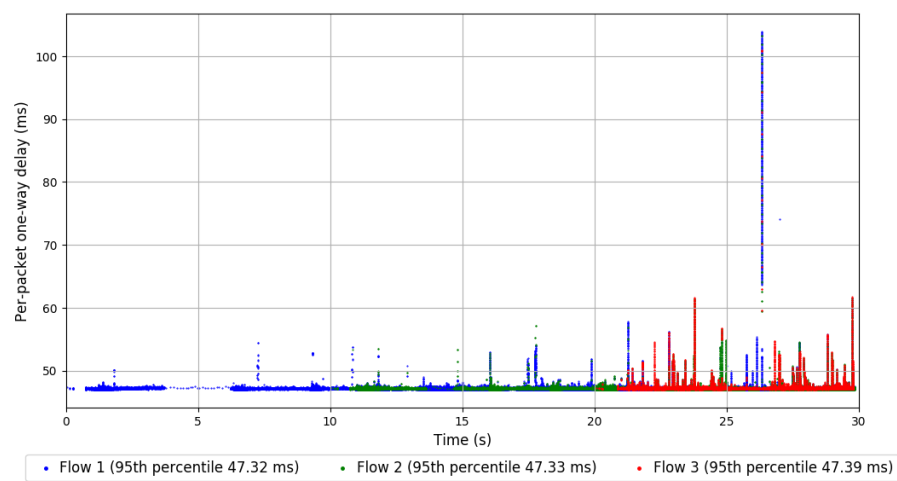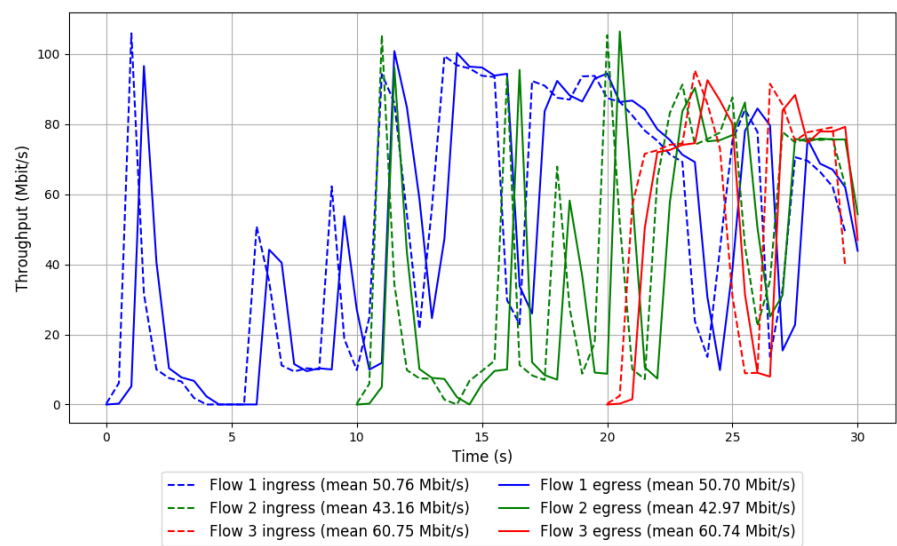Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 20:32:57
End at: 2019-06-28 20:33:27
Local clock offset: -0.06 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.06 Mbit/s
95th percentile per-packet one-way delay: 47.335 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 50.70 Mbit/s
95th percentile per-packet one-way delay: 47.323 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 42.97 Mbit/s
95th percentile per-packet one-way delay: 47.329 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 60.74 Mbit/s
95th percentile per-packet one-way delay: 47.393 ms
Loss rate: 0.01%
```

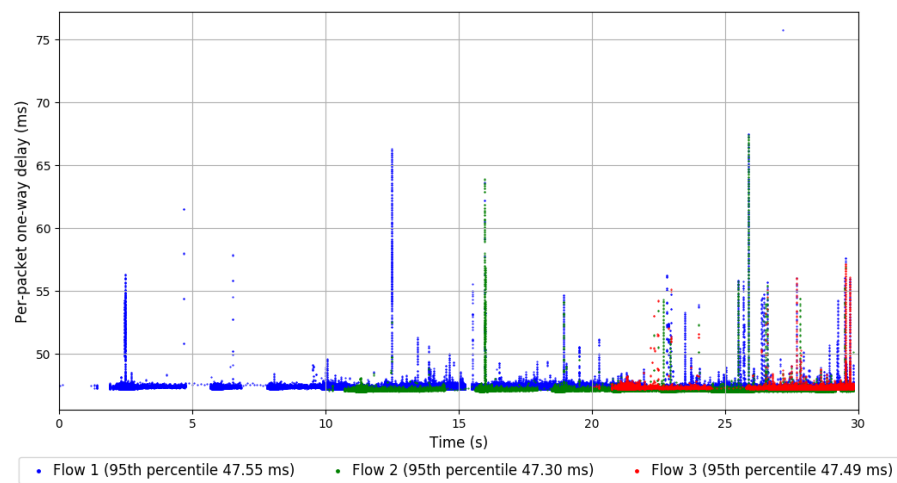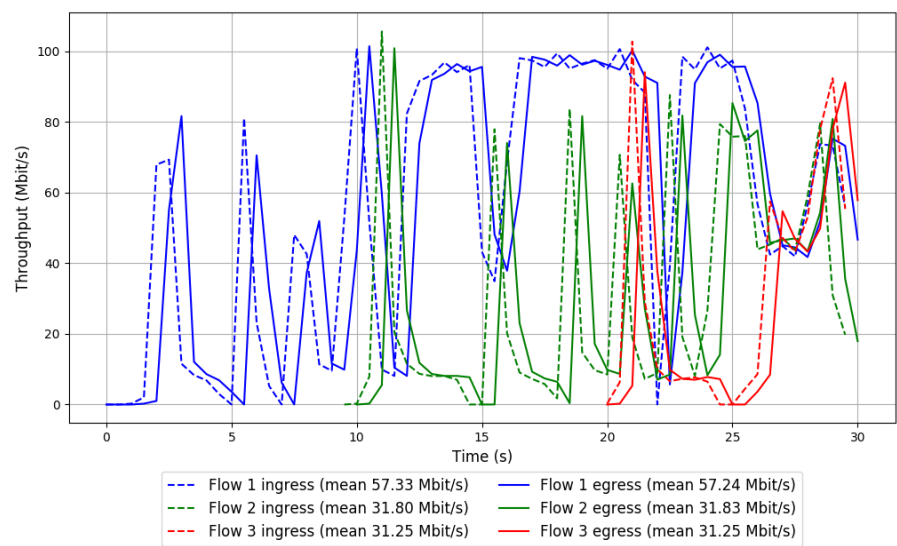# Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 21:09:22
End at: 2019-06-28 21:09:52
Local clock offset: -0.292 ms
Remote clock offset: -0.117 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.62 Mbit/s
95th percentile per-packet one-way delay: 47.518 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 57.24 Mbit/s
95th percentile per-packet one-way delay: 47.546 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 47.300 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 47.488 ms
Loss rate: 0.97%
```
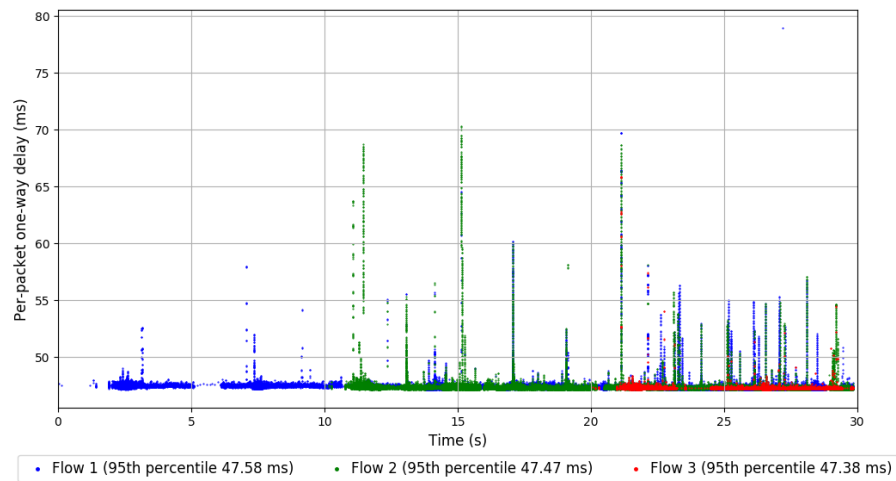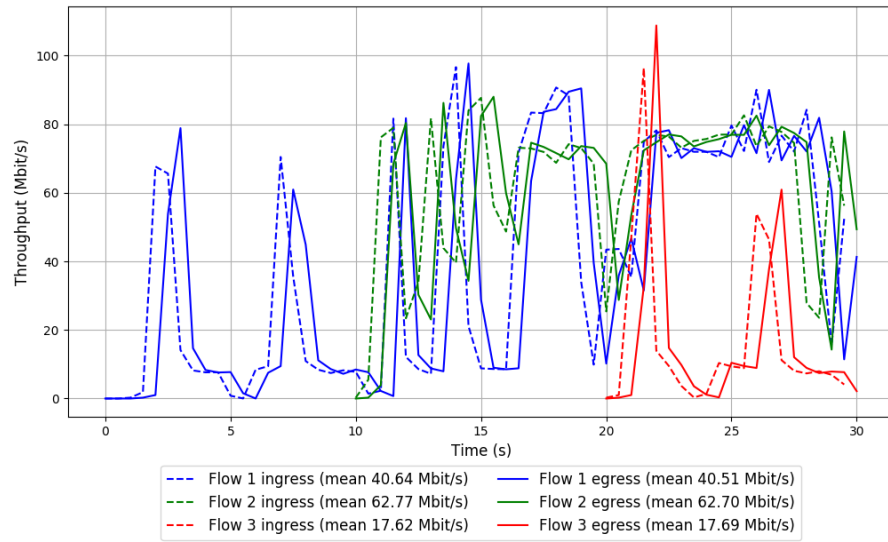
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 57.33 Mbit/s)   Flow 1 egress (mean 57.24 Mbit/s)
Flow 2 ingress (mean 31.80 Mbit/s)   Flow 2 egress (mean 31.83 Mbit/s)
Flow 3 ingress (mean 31.25 Mbit/s)   Flow 3 egress (mean 31.25 Mbit/s)

Flow 1 (95th percentile 47.55 ms)   Flow 2 (95th percentile 47.30 ms)   Flow 3 (95th percentile 47.49 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 21:46:18
End at: 2019-06-28 21:46:48
Local clock offset: -0.465 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.97 Mbit/s
95th percentile per-packet one-way delay: 47.533 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 40.51 Mbit/s
95th percentile per-packet one-way delay: 47.584 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 62.70 Mbit/s
95th percentile per-packet one-way delay: 47.468 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 17.69 Mbit/s
95th percentile per-packet one-way delay: 47.385 ms
Loss rate: 0.56%
```
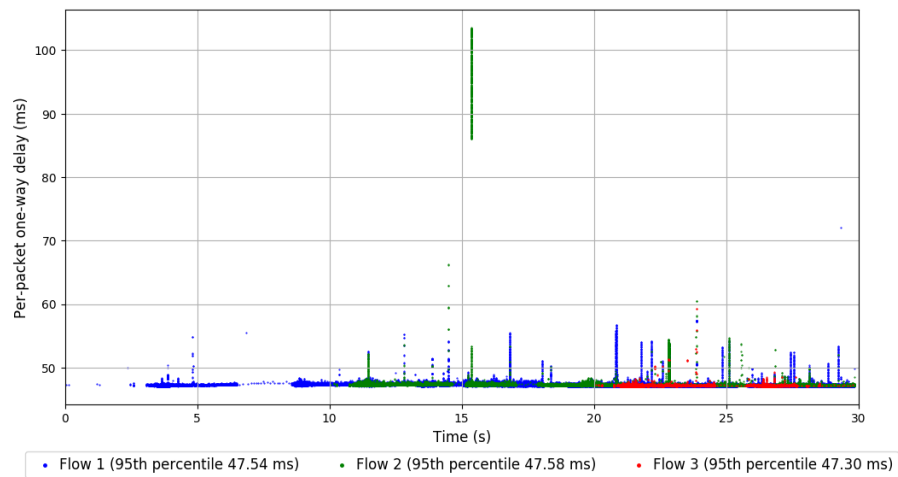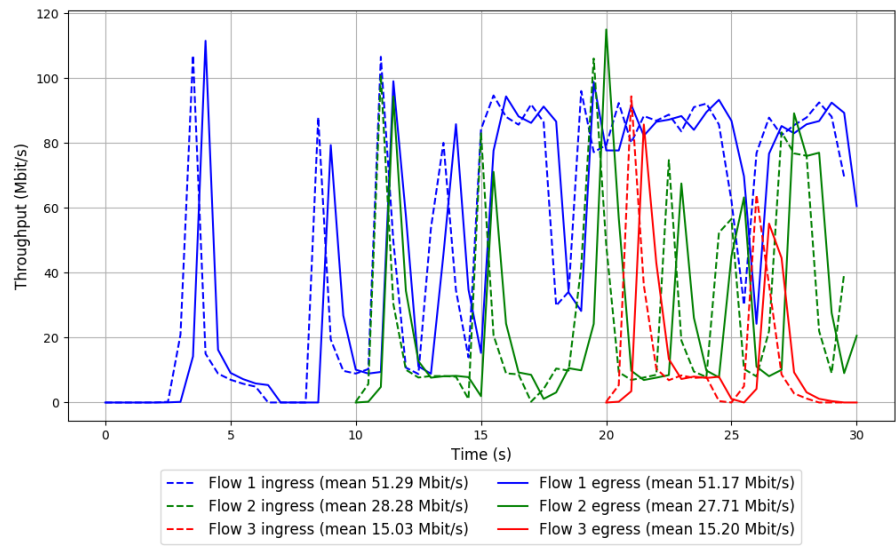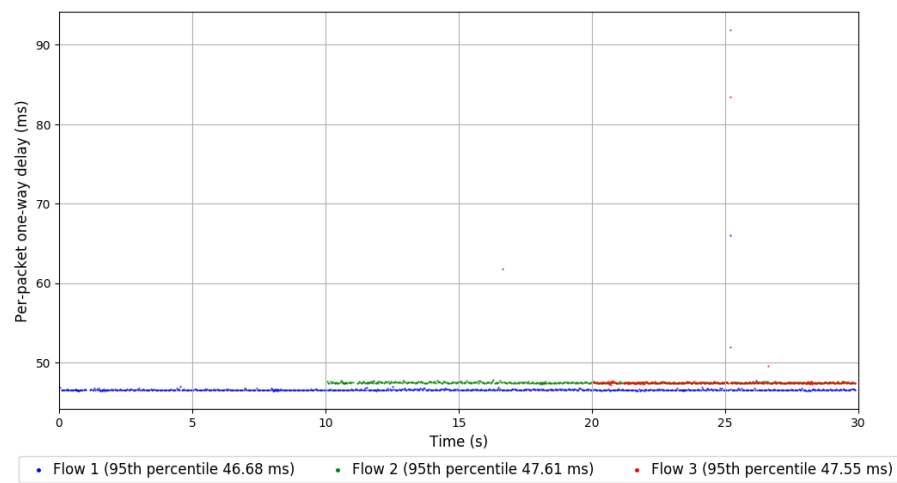
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 40.64 Mbit/s)   Flow 1 egress (mean 40.51 Mbit/s)
Flow 2 ingress (mean 62.77 Mbit/s)   Flow 2 egress (mean 62.70 Mbit/s)
Flow 3 ingress (mean 17.62 Mbit/s)   Flow 3 egress (mean 17.69 Mbit/s)

Flow 1 (95th percentile 47.58 ms)   Flow 2 (95th percentile 47.47 ms)   Flow 3 (95th percentile 47.38 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 22:22:38
End at: 2019-06-28 22:23:08
Local clock offset: -0.111 ms
Remote clock offset: -0.0 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.53 Mbit/s
95th percentile per-packet one-way delay: 47.535 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 51.17 Mbit/s
95th percentile per-packet one-way delay: 47.536 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 27.71 Mbit/s
95th percentile per-packet one-way delay: 47.579 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 15.20 Mbit/s
95th percentile per-packet one-way delay: 47.298 ms
Loss rate: 0.00%
```

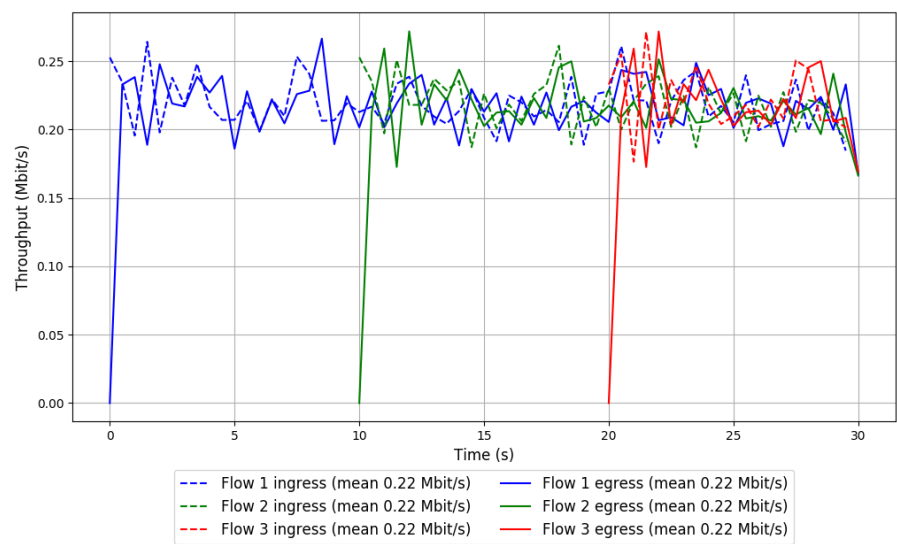Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-06-28 19:26:28
End at: 2019-06-28 19:26:58
Local clock offset: -0.164 ms
Remote clock offset: -0.009 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.548 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.680 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.611 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.553 ms
Loss rate: 1.09%
```
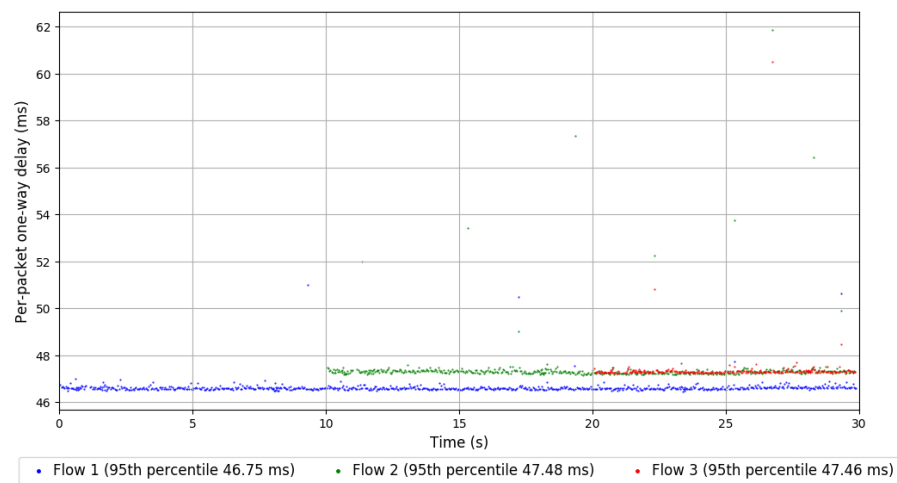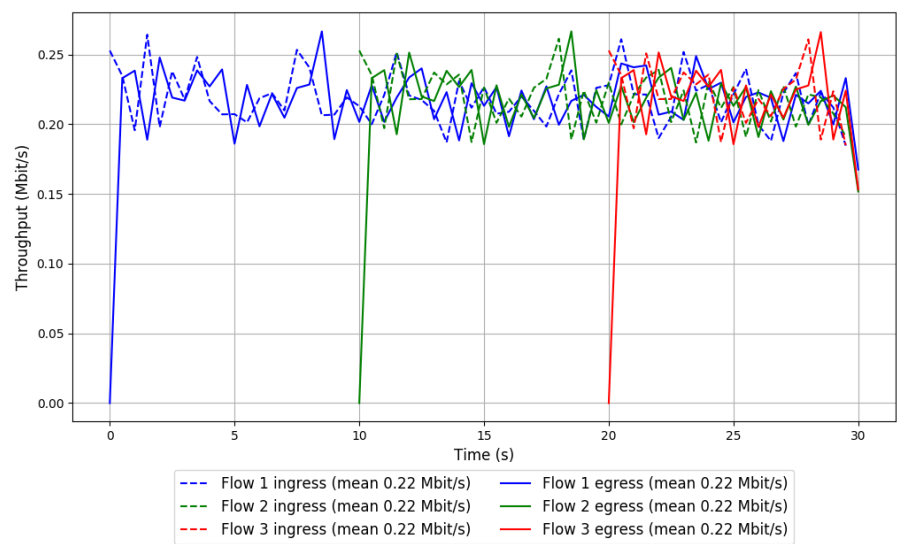
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-06-28 20:02:56
End at: 2019-06-28 20:03:26
Local clock offset: -0.029 ms
Remote clock offset: 0.057 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.400 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.751 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.475 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.461 ms
Loss rate: 1.09%
```
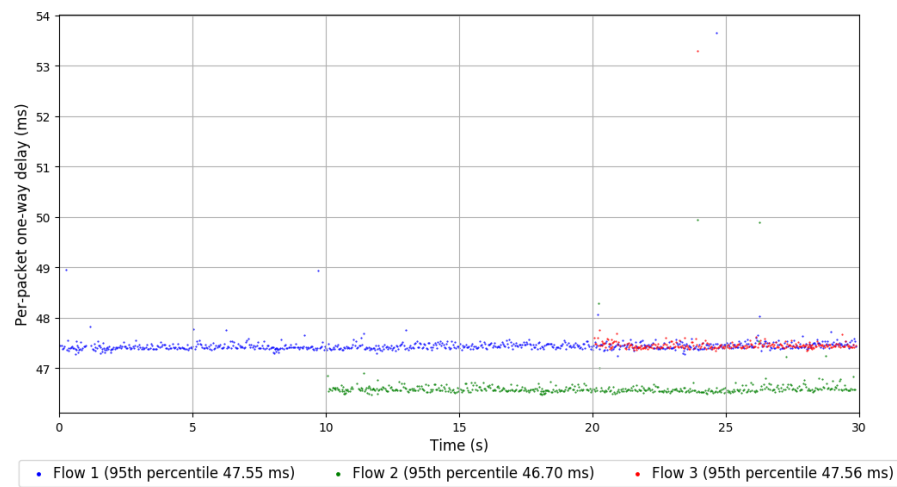
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-06-28 20:39:28
End at: 2019-06-28 20:39:58
Local clock offset: -0.034 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.535 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.547 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.703 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.563 ms
Loss rate: 1.09%
```
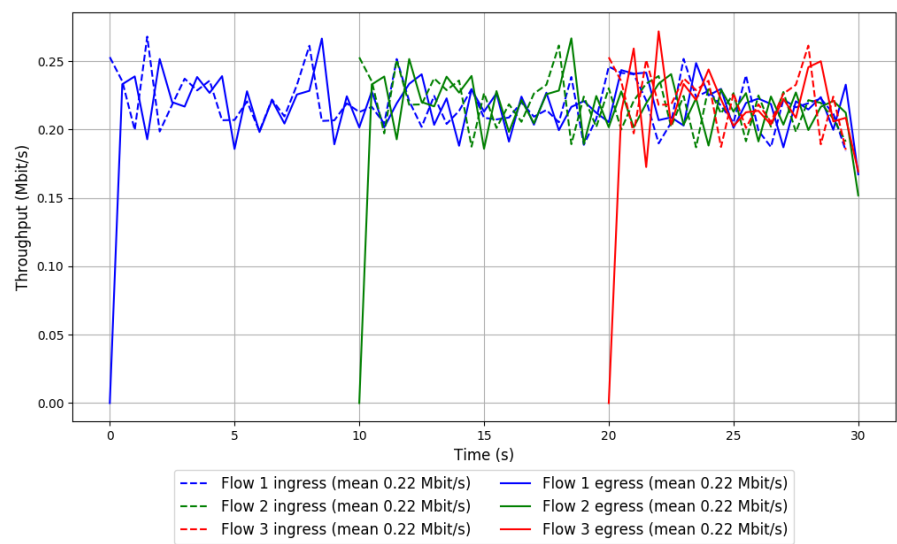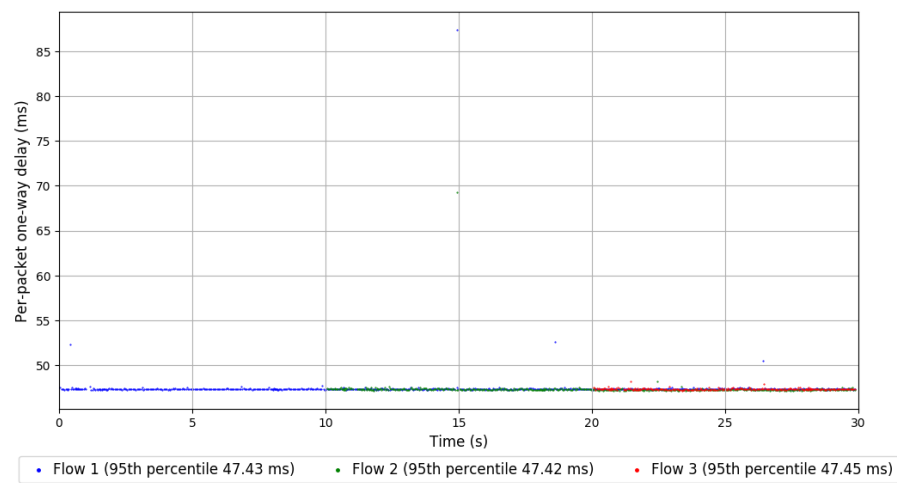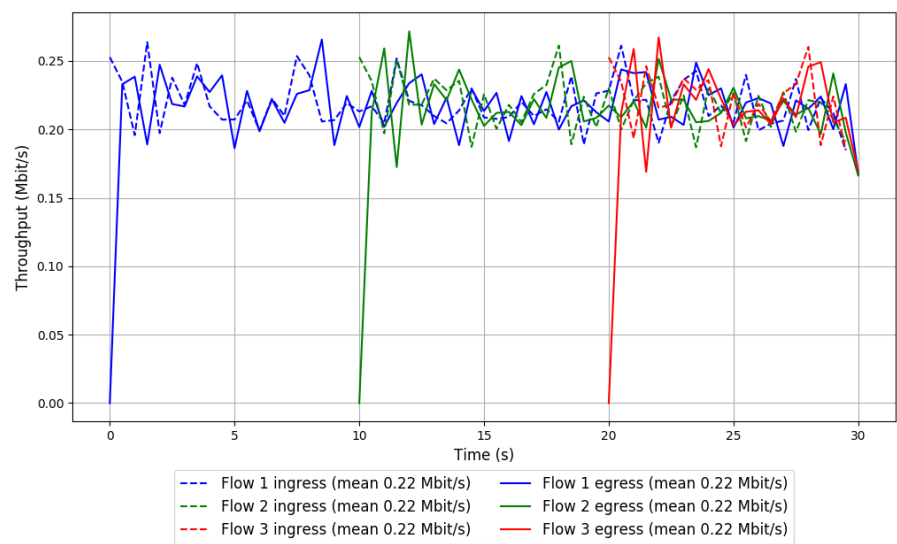
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-06-28 21:16:08
End at: 2019-06-28 21:16:38
Local clock offset: -0.377 ms
Remote clock offset: -0.144 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.426 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.428 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.422 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.455 ms
Loss rate: 1.09%
```
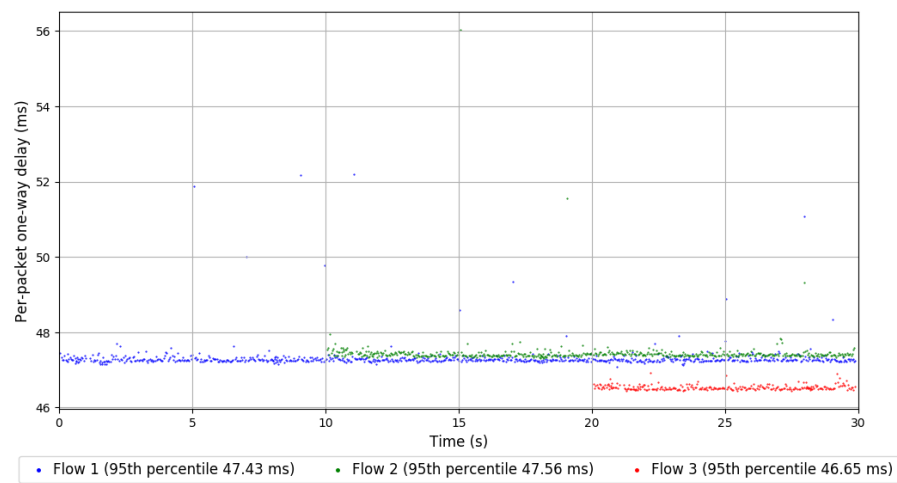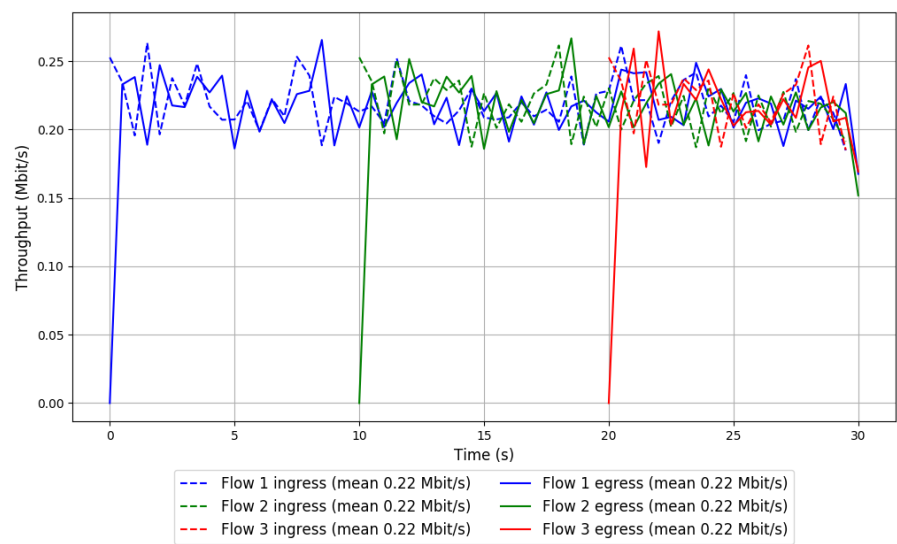
Run 4: Report of SCReAM — Data Link

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 47.43 ms)   Flow 2 (95th percentile 47.42 ms)   Flow 3 (95th percentile 47.45 ms)

```
Run 5: Statistics of SCReAM

Start at: 2019-06-28 21:52:57
End at: 2019-06-28 21:53:27
Local clock offset: -0.49 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.494 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.431 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.561 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.648 ms
Loss rate: 1.09%
```
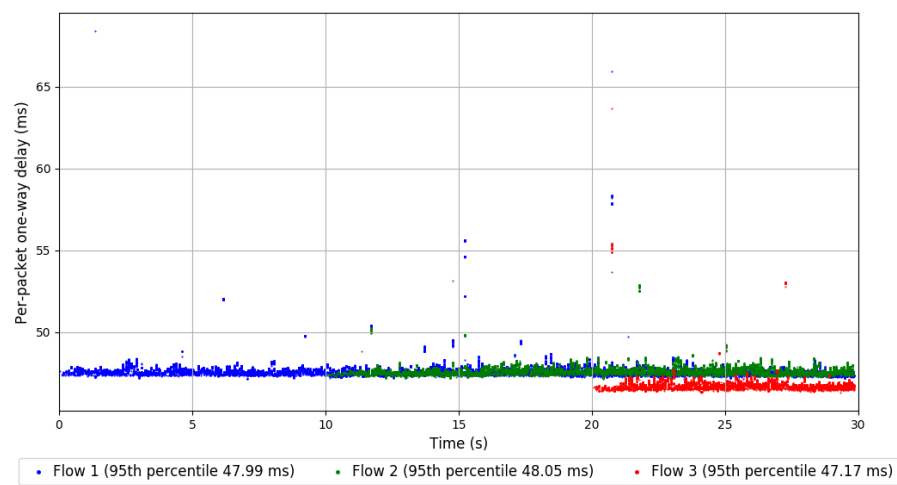
Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-06-28 19:38:17
End at: 2019-06-28 19:38:47
Local clock offset: -0.13 ms
Remote clock offset: 0.017 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.52 Mbit/s
95th percentile per-packet one-way delay: 47.985 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 47.989 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 9.15 Mbit/s
95th percentile per-packet one-way delay: 48.054 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 8.95 Mbit/s
95th percentile per-packet one-way delay: 47.167 ms
Loss rate: 1.10%
```
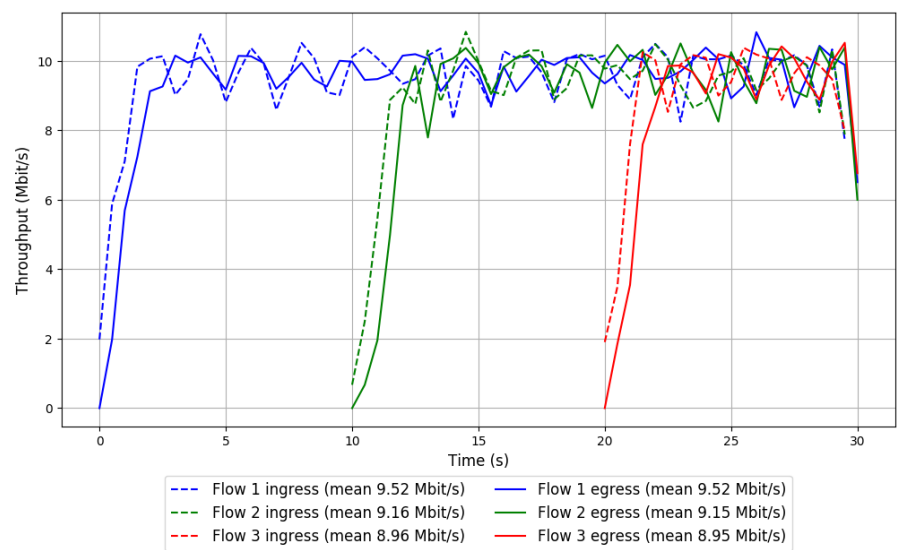
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-06-28 20:14:54
End at: 2019-06-28 20:15:24
Local clock offset: 0.356 ms
Remote clock offset: 0.078 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.70 Mbit/s
95th percentile per-packet one-way delay: 48.439 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 48.457 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 48.379 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 48.472 ms
Loss rate: 1.03%
```
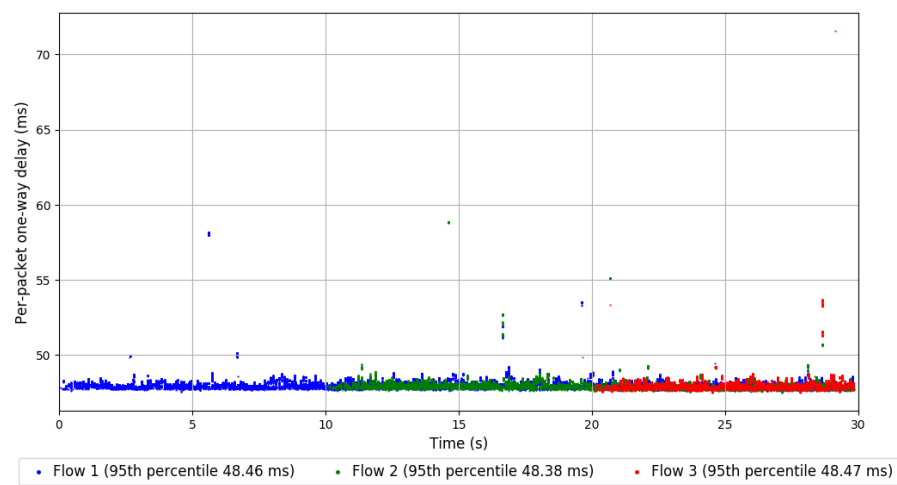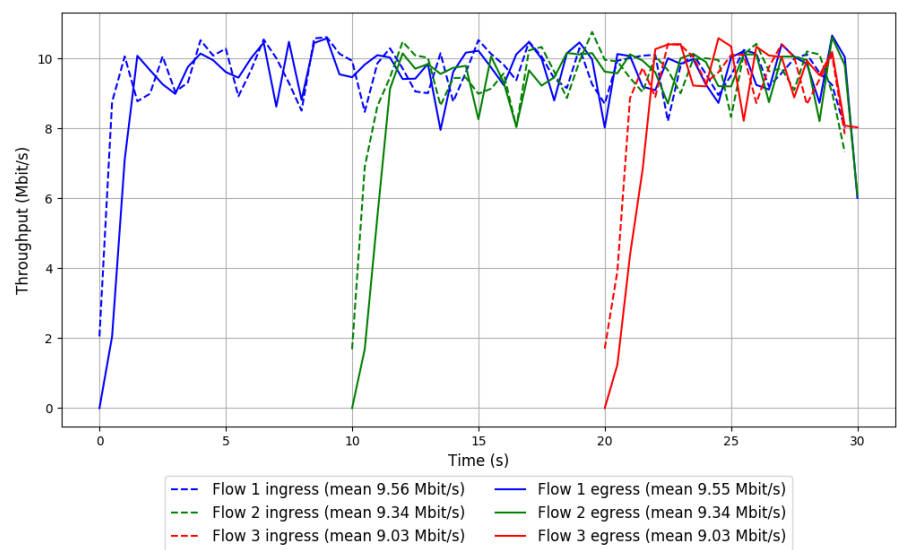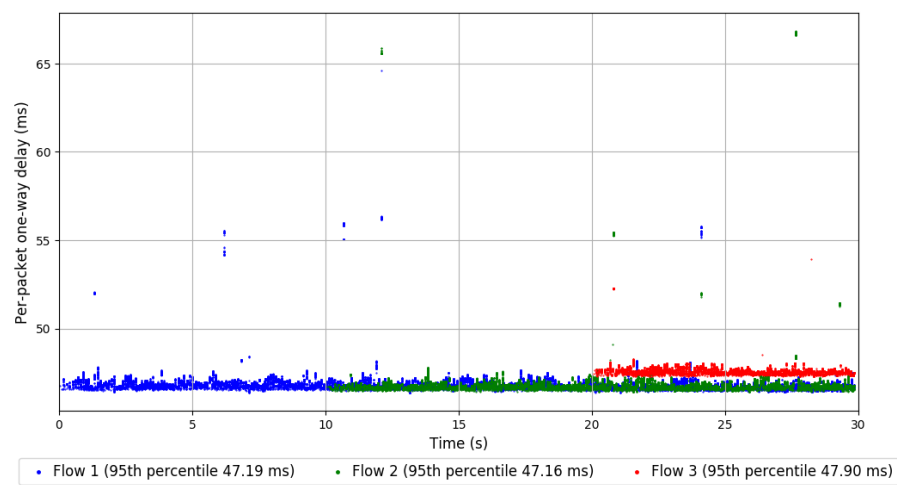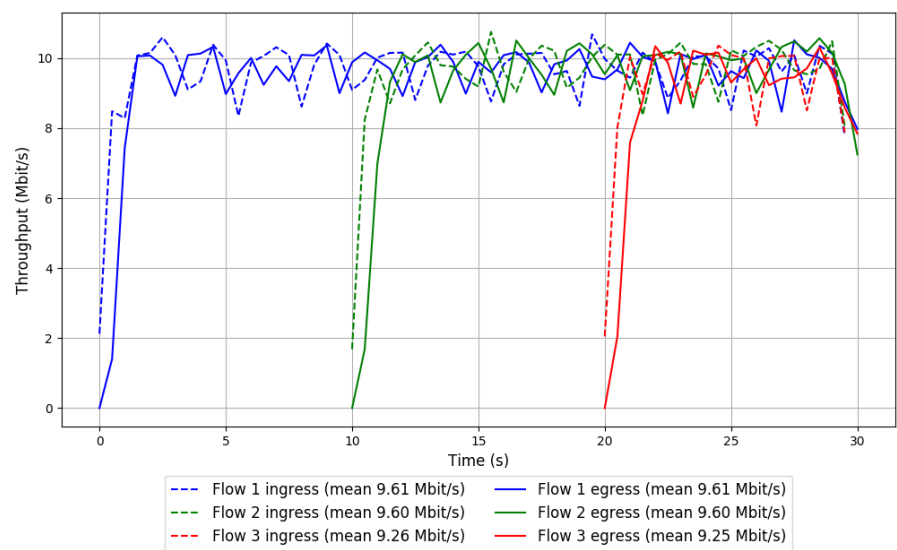
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-06-28 20:51:26
End at: 2019-06-28 20:51:56
Local clock offset: -0.229 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.02 Mbit/s
95th percentile per-packet one-way delay: 47.659 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 9.61 Mbit/s
95th percentile per-packet one-way delay: 47.190 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 9.60 Mbit/s
95th percentile per-packet one-way delay: 47.156 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 47.898 ms
Loss rate: 1.07%
```
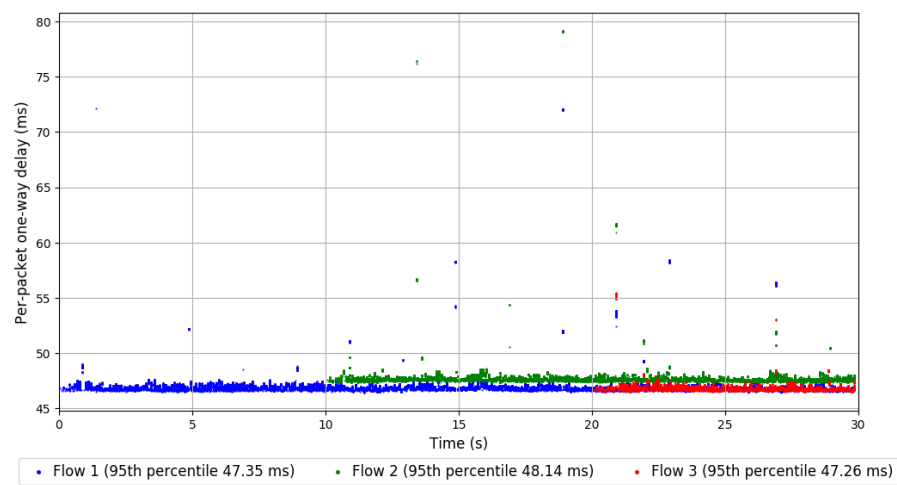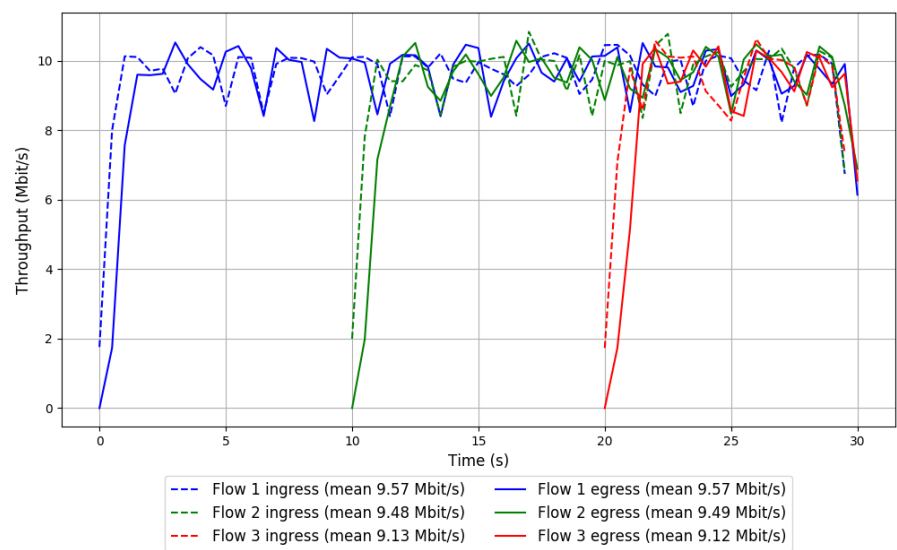
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-06-28 21:28:10
End at: 2019-06-28 21:28:40
Local clock offset: -0.401 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 47.936 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 47.346 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 48.138 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 9.12 Mbit/s
95th percentile per-packet one-way delay: 47.255 ms
Loss rate: 1.09%
```
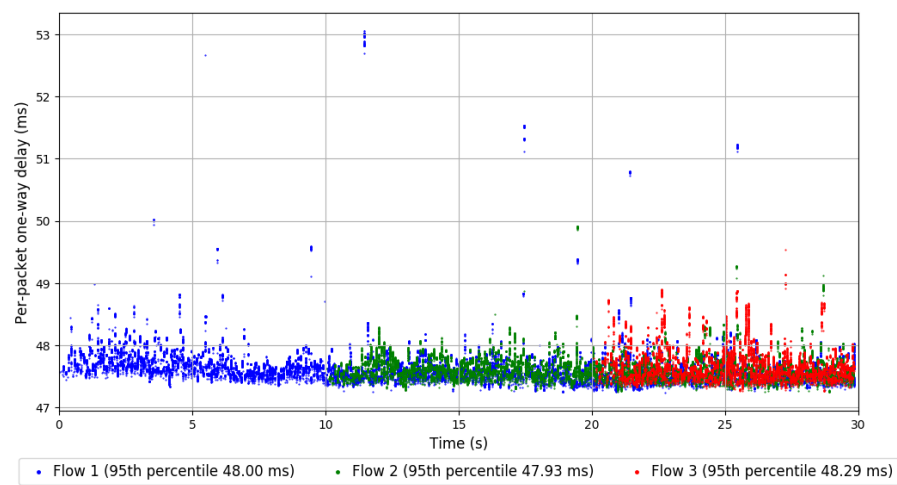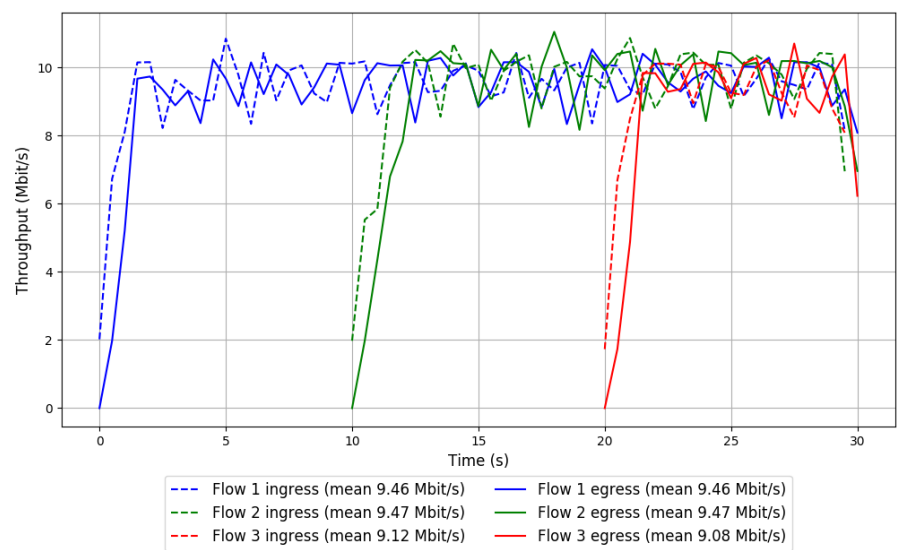
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-06-28 22:04:46
End at: 2019-06-28 22:05:16
Local clock offset: -0.241 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2019-06-29 01:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.72 Mbit/s
95th percentile per-packet one-way delay: 48.017 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 47.996 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 9.47 Mbit/s
95th percentile per-packet one-way delay: 47.934 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 9.08 Mbit/s
95th percentile per-packet one-way delay: 48.289 ms
Loss rate: 1.03%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 9.46 Mbit/s) --- Flow 1 egress (mean 9.46 Mbit/s)
Flow 2 ingress (mean 9.47 Mbit/s) --- Flow 2 egress (mean 9.47 Mbit/s)
Flow 3 ingress (mean 9.12 Mbit/s) --- Flow 3 egress (mean 9.08 Mbit/s)

Flow 1 (95th percentile 48.00 ms)   Flow 2 (95th percentile 47.93 ms)   Flow 3 (95th percentile 48.29 ms)

174

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

Start at: 2019-06-28 19:31:03
End at: 2019-06-28 19:31:33
Local clock offset: -0.084 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-06-29 01:15:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 438.21 Mbit/s
95th percentile per-packet one-way delay: 51.166 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 220.24 Mbit/s
95th percentile per-packet one-way delay: 51.306 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 222.42 Mbit/s
95th percentile per-packet one-way delay: 50.556 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 212.22 Mbit/s
95th percentile per-packet one-way delay: 52.085 ms
Loss rate: 1.11%
```
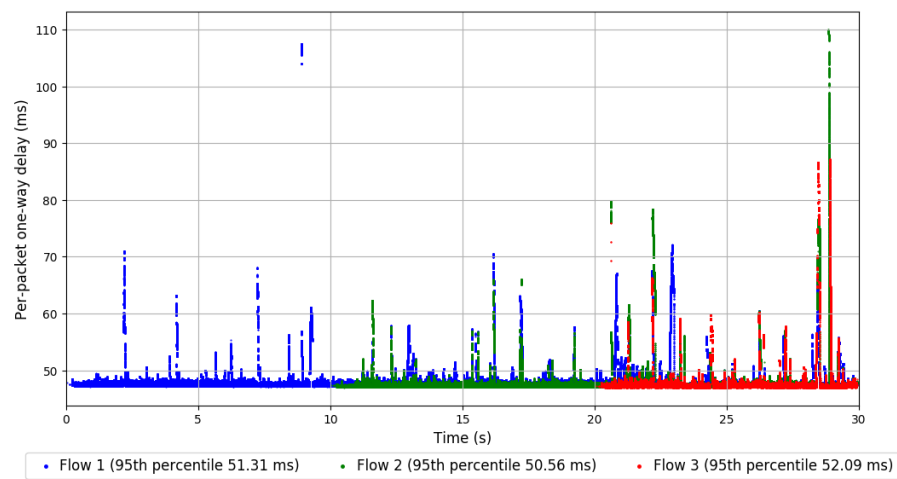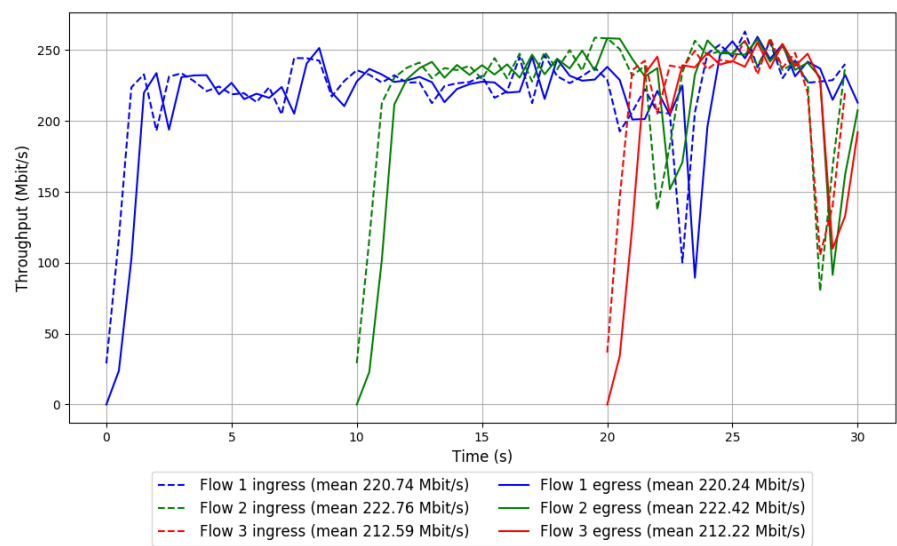
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-28 20:07:40
End at: 2019-06-28 20:08:10
Local clock offset: 0.009 ms
Remote clock offset: 0.076 ms


# Below is generated by plot.py at 2019-06-29 01:15:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 435.84 Mbit/s
95th percentile per-packet one-way delay: 54.306 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 227.90 Mbit/s
95th percentile per-packet one-way delay: 51.357 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 212.18 Mbit/s
95th percentile per-packet one-way delay: 56.340 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 202.50 Mbit/s
95th percentile per-packet one-way delay: 59.102 ms
Loss rate: 1.06%
```
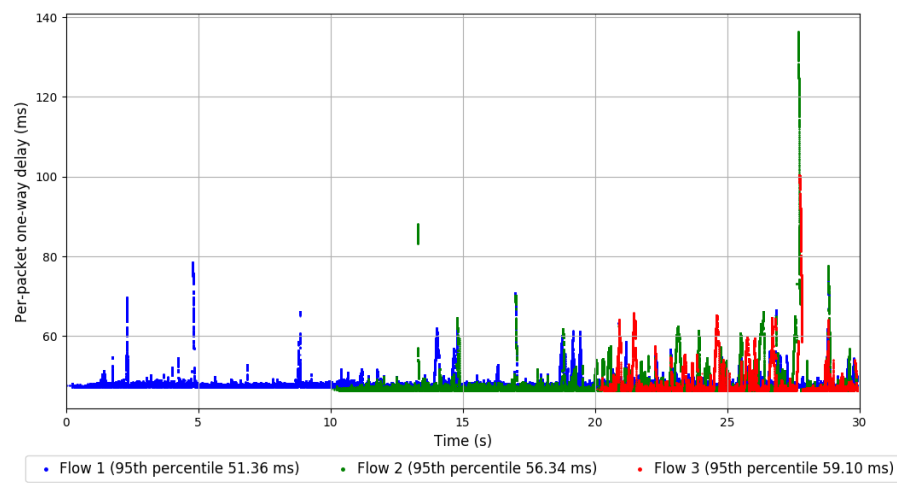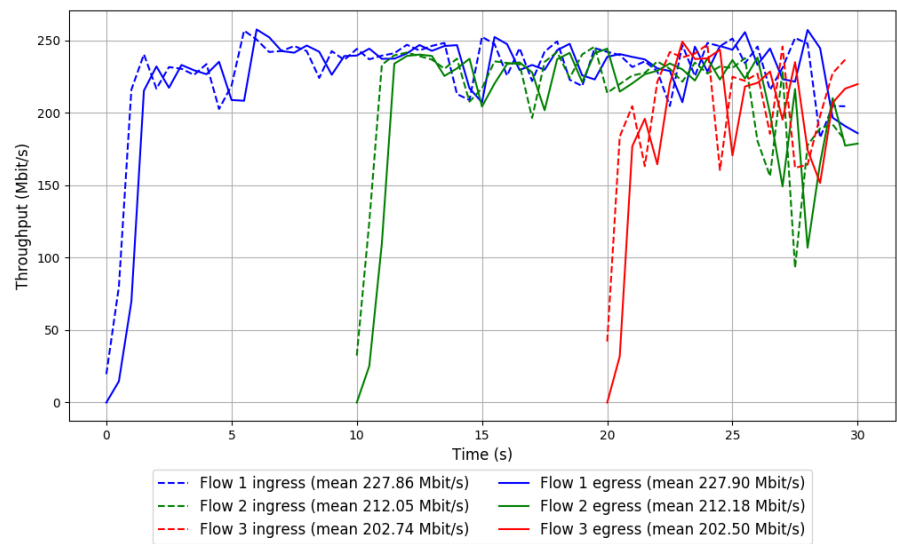
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-28 20:44:09
End at: 2019-06-28 20:44:39
Local clock offset: -0.065 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2019-06-29 01:16:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 438.78 Mbit/s
95th percentile per-packet one-way delay: 50.958 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 220.66 Mbit/s
95th percentile per-packet one-way delay: 50.313 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 223.88 Mbit/s
95th percentile per-packet one-way delay: 51.203 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 209.70 Mbit/s
95th percentile per-packet one-way delay: 52.809 ms
Loss rate: 0.73%
```
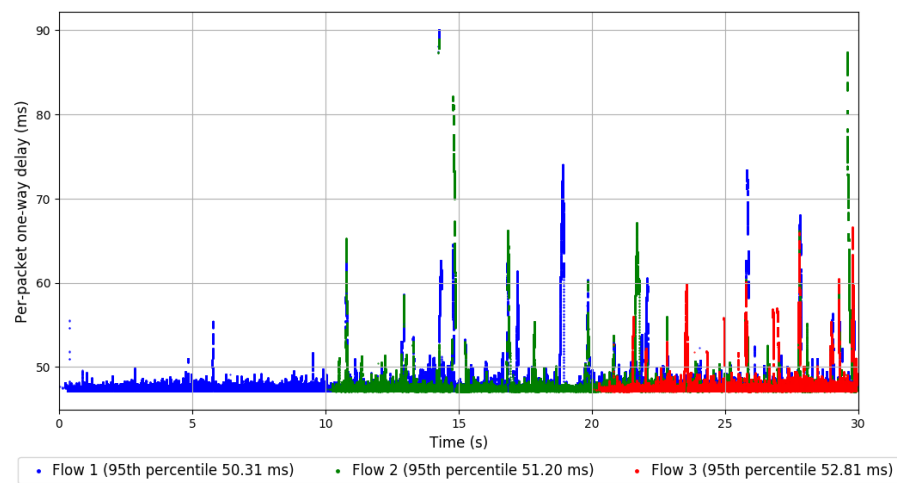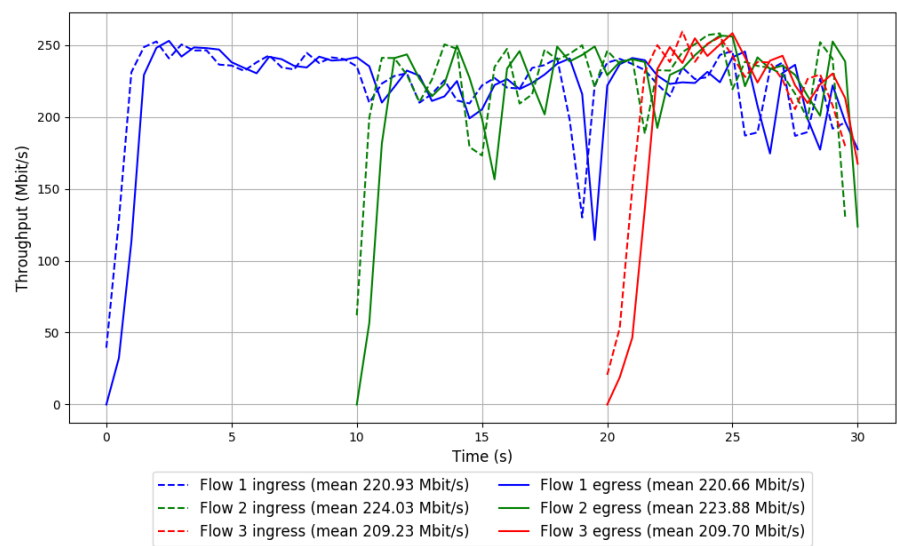
Run 3: Report of TaoVA-100x — Data Link

- - - - Flow 1 ingress (mean 220.93 Mbit/s)   —— Flow 1 egress (mean 220.66 Mbit/s)
- - - - Flow 2 ingress (mean 224.03 Mbit/s)   —— Flow 2 egress (mean 223.88 Mbit/s)
- - - - Flow 3 ingress (mean 209.23 Mbit/s)   —— Flow 3 egress (mean 209.70 Mbit/s)

- Flow 1 (95th percentile 50.31 ms)   • Flow 2 (95th percentile 51.20 ms)   • Flow 3 (95th percentile 52.81 ms)

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

Start at: 2019-06-28 21:20:49
End at: 2019-06-28 21:21:19
Local clock offset: -0.381 ms
Remote clock offset: -0.14 ms

# Below is generated by plot.py at 2019-06-29 01:16:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.17 Mbit/s
95th percentile per-packet one-way delay: 53.696 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 229.97 Mbit/s
95th percentile per-packet one-way delay: 51.225 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 217.51 Mbit/s
95th percentile per-packet one-way delay: 54.095 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 177.52 Mbit/s
95th percentile per-packet one-way delay: 58.708 ms
Loss rate: 1.58%
```
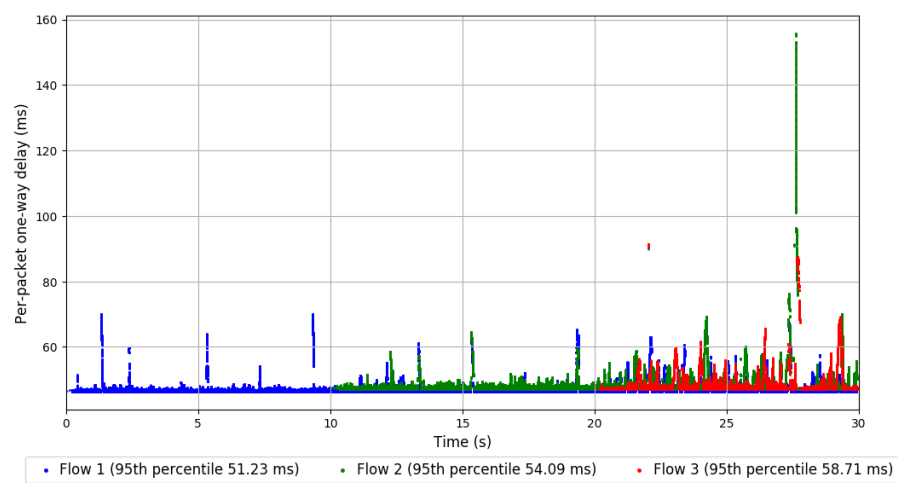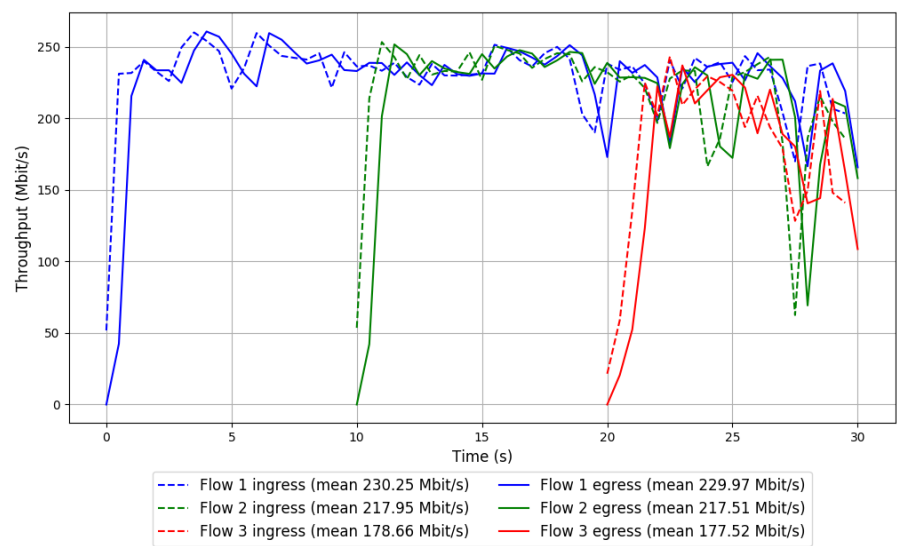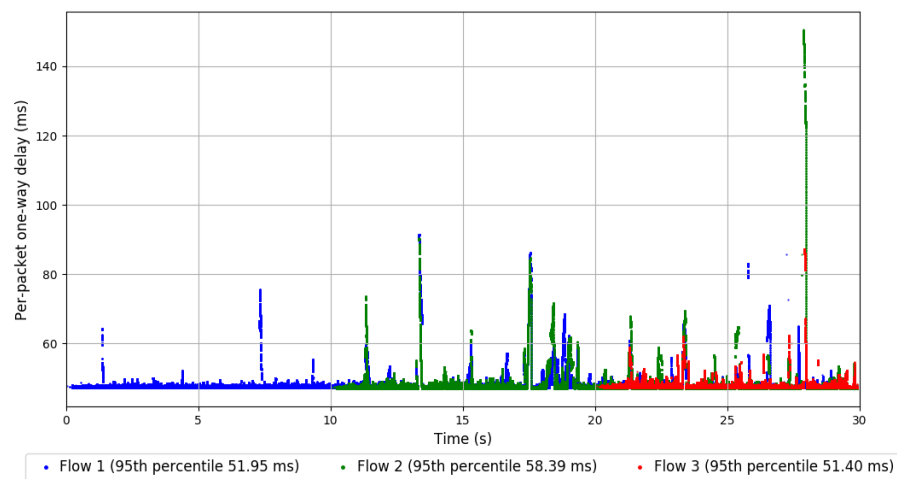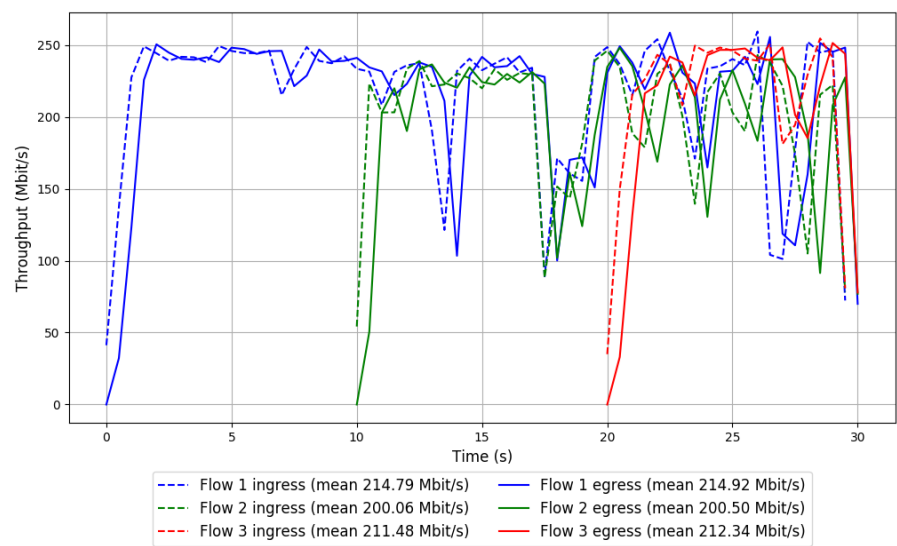
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 230.25 Mbit/s)   Flow 1 egress (mean 229.97 Mbit/s)
Flow 2 ingress (mean 217.95 Mbit/s)   Flow 2 egress (mean 217.51 Mbit/s)
Flow 3 ingress (mean 178.66 Mbit/s)   Flow 3 egress (mean 177.52 Mbit/s)

Flow 1 (95th percentile 51.23 ms)   Flow 2 (95th percentile 54.09 ms)   Flow 3 (95th percentile 58.71 ms)

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

Start at: 2019-06-28 21:57:27
End at: 2019-06-28 21:57:57
Local clock offset: -0.387 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2019-06-29 01:18:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.42 Mbit/s
95th percentile per-packet one-way delay: 53.951 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 214.92 Mbit/s
95th percentile per-packet one-way delay: 51.947 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 200.50 Mbit/s
95th percentile per-packet one-way delay: 58.387 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 212.34 Mbit/s
95th percentile per-packet one-way delay: 51.398 ms
Loss rate: 0.55%
```
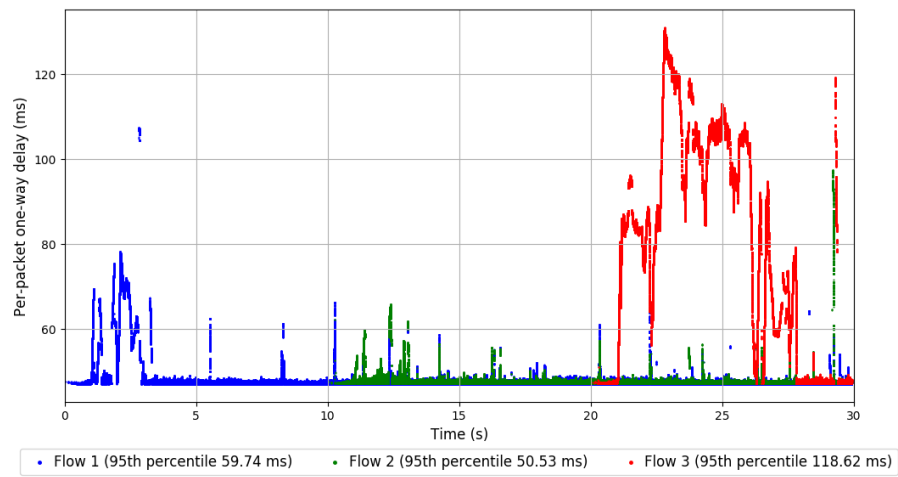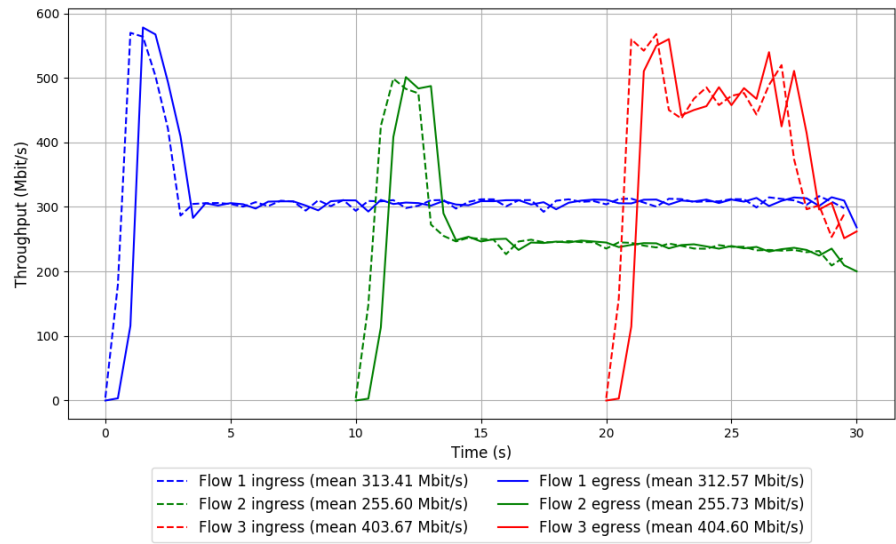
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 214.79 Mbit/s) — — — Flow 1 egress (mean 214.92 Mbit/s)
Flow 2 ingress (mean 200.06 Mbit/s) — — — Flow 2 egress (mean 200.50 Mbit/s)
Flow 3 ingress (mean 211.48 Mbit/s) — — — Flow 3 egress (mean 212.34 Mbit/s)

Flow 1 (95th percentile 51.95 ms)   Flow 2 (95th percentile 58.39 ms)   Flow 3 (95th percentile 51.40 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 19:53:20
End at: 2019-06-28 19:53:50
Local clock offset: -0.001 ms
Remote clock offset: 0.026 ms


# Below is generated by plot.py at 2019-06-29 01:18:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.31 Mbit/s
95th percentile per-packet one-way delay: 104.518 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 312.57 Mbit/s
95th percentile per-packet one-way delay: 59.742 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 255.73 Mbit/s
95th percentile per-packet one-way delay: 50.532 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 404.60 Mbit/s
95th percentile per-packet one-way delay: 118.624 ms
Loss rate: 0.71%
```
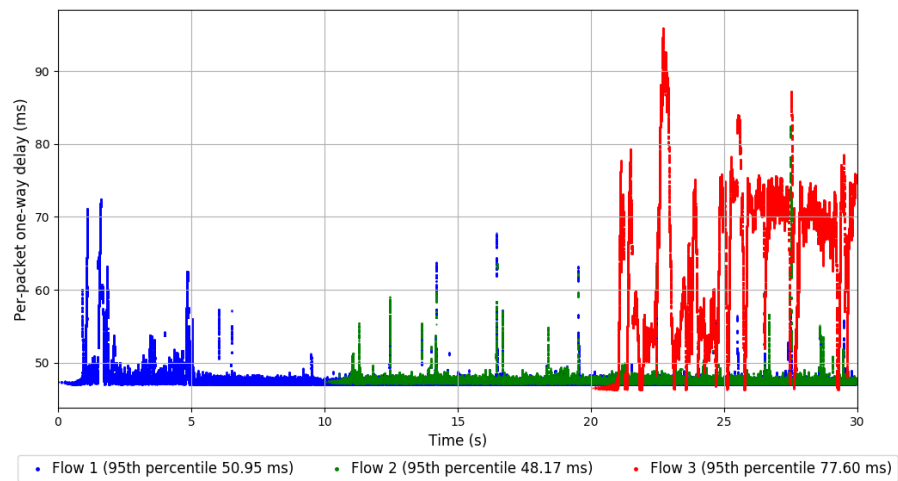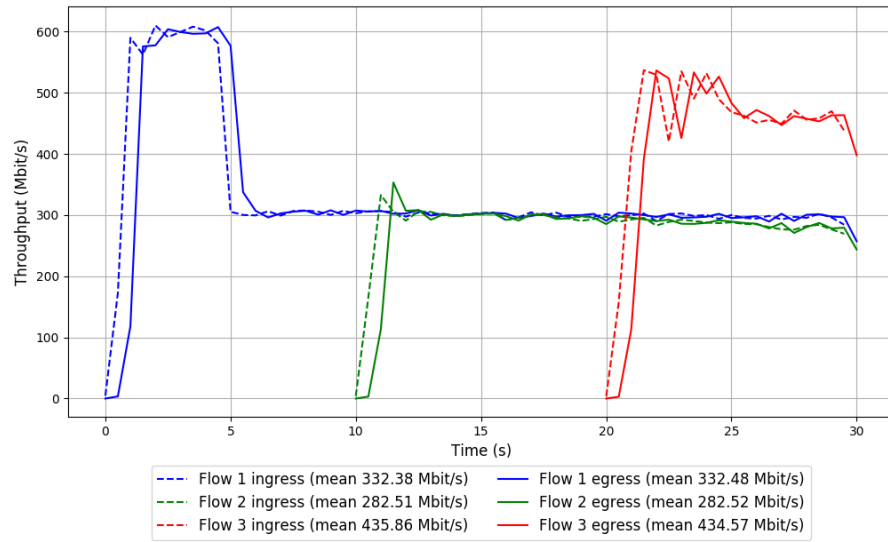
Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 313.41 Mbit/s) — Flow 1 egress (mean 312.57 Mbit/s)
Flow 2 ingress (mean 255.60 Mbit/s) — Flow 2 egress (mean 255.73 Mbit/s)
Flow 3 ingress (mean 403.67 Mbit/s) — Flow 3 egress (mean 404.60 Mbit/s)

Flow 1 (95th percentile 59.74 ms) — Flow 2 (95th percentile 50.53 ms) — Flow 3 (95th percentile 118.62 ms)
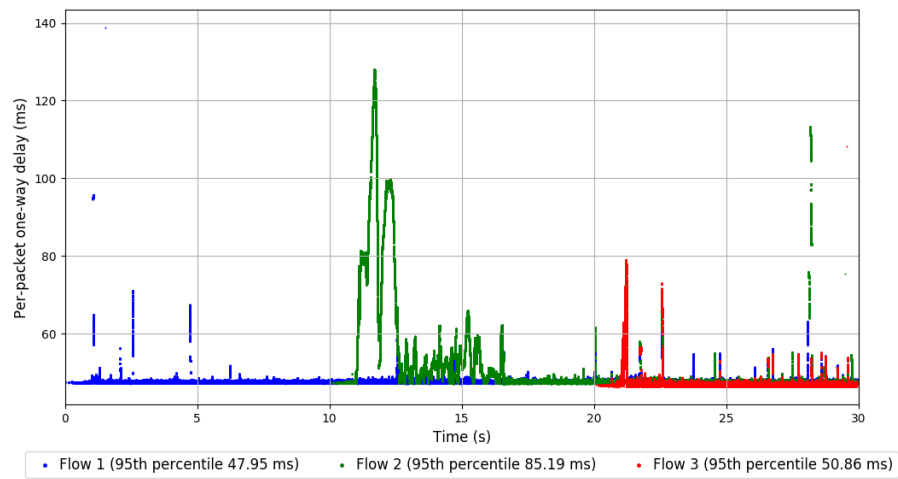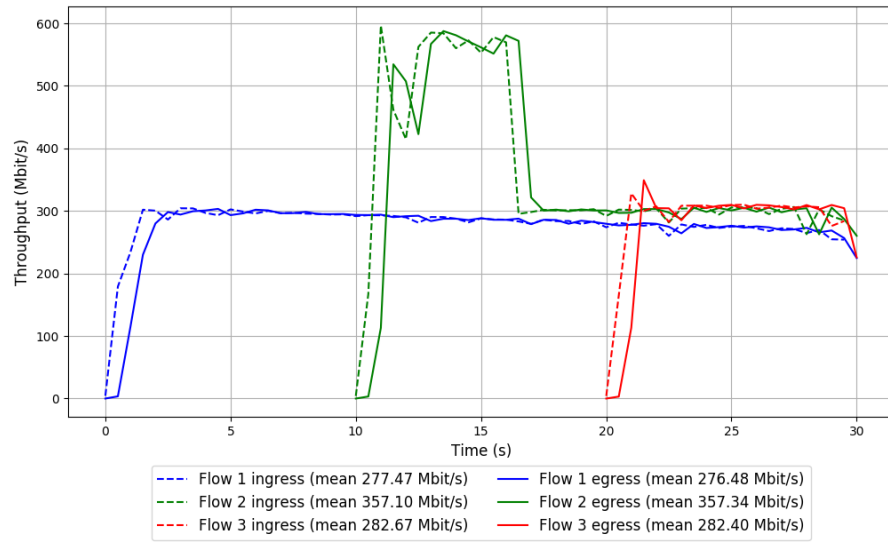
```
Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 20:29:52
End at: 2019-06-28 20:30:22
Local clock offset: -0.065 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-06-29 01:24:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 663.79 Mbit/s
95th percentile per-packet one-way delay: 72.232 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 332.48 Mbit/s
95th percentile per-packet one-way delay: 50.952 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 282.52 Mbit/s
95th percentile per-packet one-way delay: 48.170 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 434.57 Mbit/s
95th percentile per-packet one-way delay: 77.597 ms
Loss rate: 1.24%
```

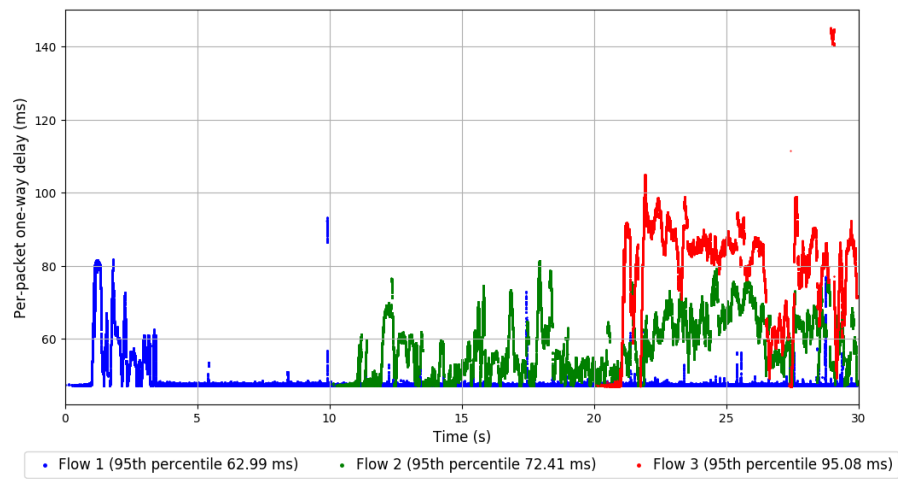Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 21:06:22
End at: 2019-06-28 21:06:52
Local clock offset: -0.309 ms
Remote clock offset: -0.151 ms


# Below is generated by plot.py at 2019-06-29 01:24:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 607.40 Mbit/s
95th percentile per-packet one-way delay: 60.764 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 276.48 Mbit/s
95th percentile per-packet one-way delay: 47.950 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 357.34 Mbit/s
95th percentile per-packet one-way delay: 85.189 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 282.40 Mbit/s
95th percentile per-packet one-way delay: 50.860 ms
Loss rate: 1.04%
```

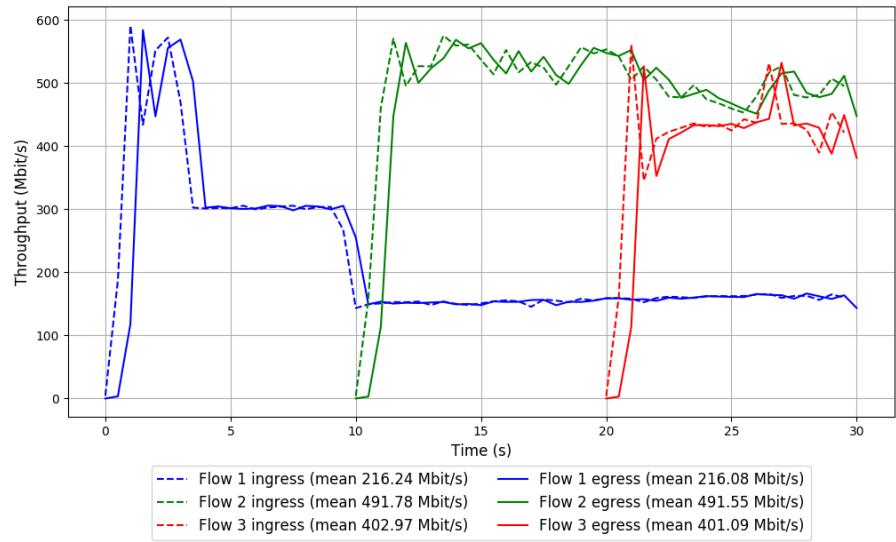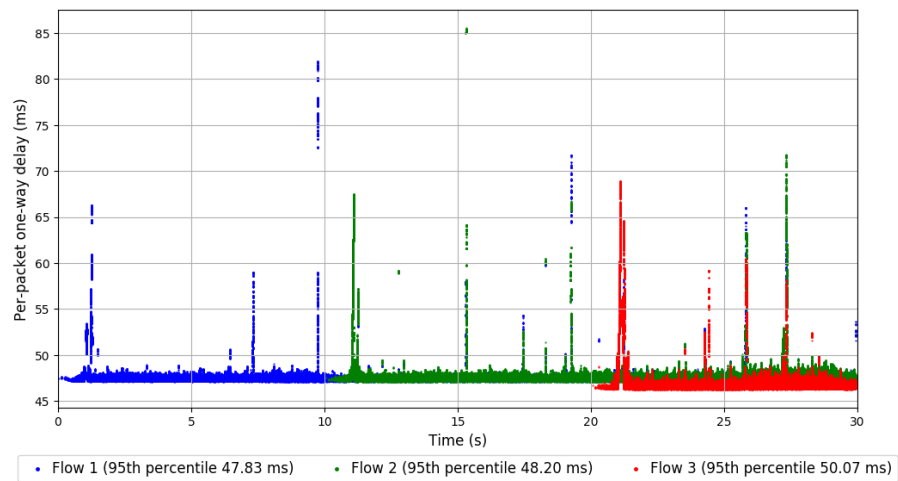Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 21:43:13
End at: 2019-06-28 21:43:43
Local clock offset: -0.427 ms
Remote clock offset: -0.005 ms


# Below is generated by plot.py at 2019-06-29 01:29:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 675.47 Mbit/s
95th percentile per-packet one-way delay: 87.438 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 216.08 Mbit/s
95th percentile per-packet one-way delay: 62.994 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 491.55 Mbit/s
95th percentile per-packet one-way delay: 72.411 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 401.09 Mbit/s
95th percentile per-packet one-way delay: 95.075 ms
Loss rate: 1.42%
```

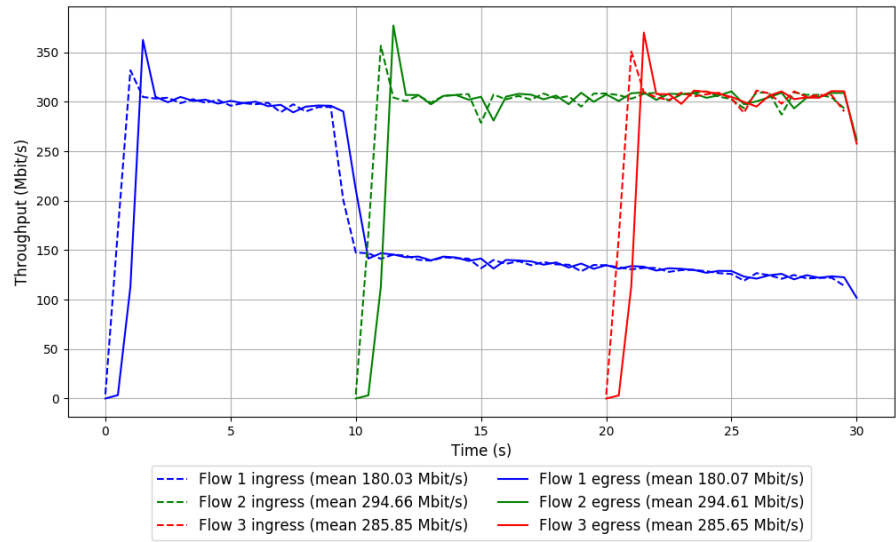Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 22:19:43
End at: 2019-06-28 22:20:14
Local clock offset: -0.142 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-29 01:29:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.33 Mbit/s
95th percentile per-packet one-way delay: 48.098 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 180.07 Mbit/s
95th percentile per-packet one-way delay: 47.833 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 294.61 Mbit/s
95th percentile per-packet one-way delay: 48.205 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 285.65 Mbit/s
95th percentile per-packet one-way delay: 50.066 ms
Loss rate: 1.01%
```
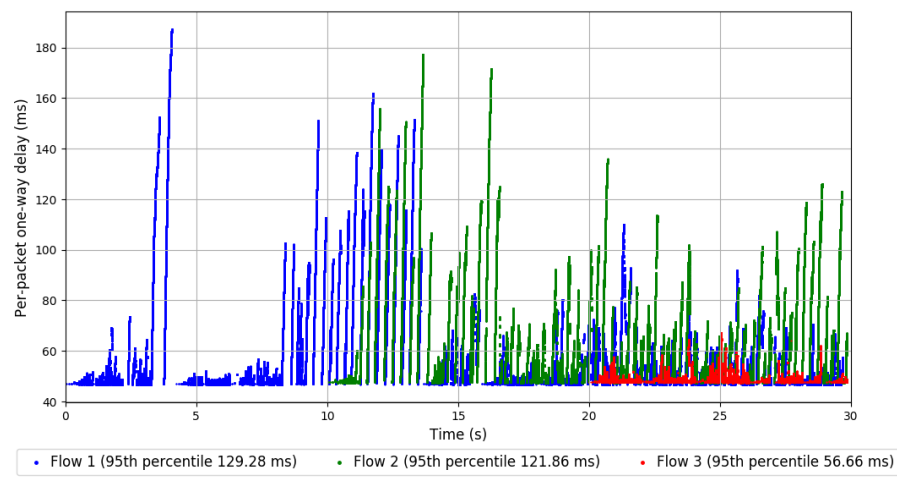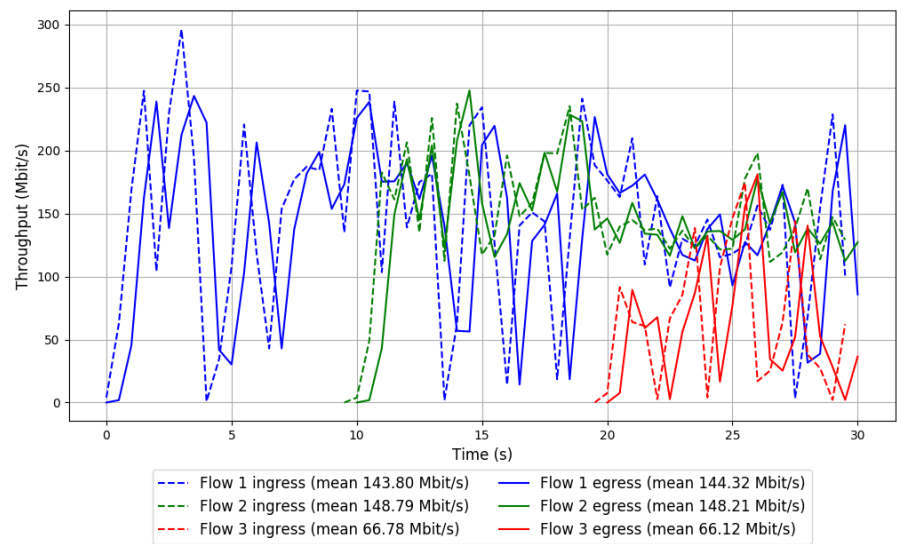
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-06-28 19:46:22
End at: 2019-06-28 19:46:52
Local clock offset: 0.286 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at 2019-06-29 01:29:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.99 Mbit/s
95th percentile per-packet one-way delay: 122.656 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 144.32 Mbit/s
95th percentile per-packet one-way delay: 129.280 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 148.21 Mbit/s
95th percentile per-packet one-way delay: 121.864 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 66.12 Mbit/s
95th percentile per-packet one-way delay: 56.658 ms
Loss rate: 1.93%
```
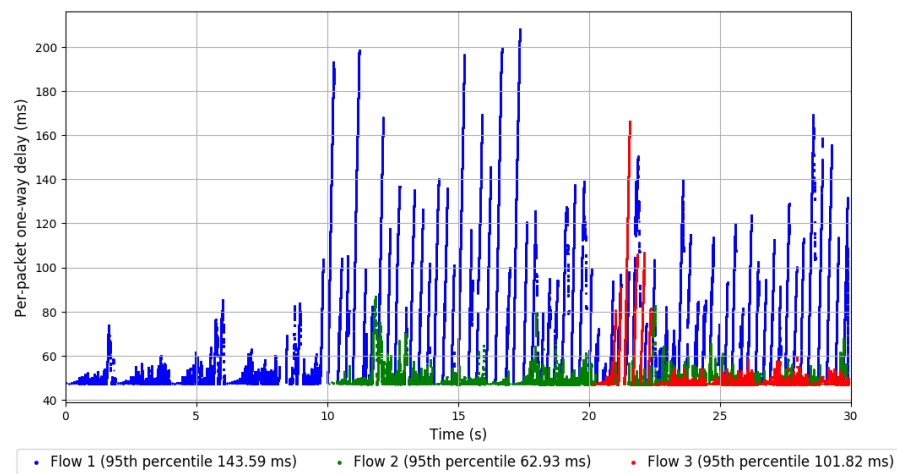
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-06-28 20:22:56
End at: 2019-06-28 20:23:26
Local clock offset: -0.069 ms
Remote clock offset: 0.015 ms


# Below is generated by plot.py at 2019-06-29 01:29:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.09 Mbit/s
95th percentile per-packet one-way delay: 131.178 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 152.33 Mbit/s
95th percentile per-packet one-way delay: 143.589 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 101.33 Mbit/s
95th percentile per-packet one-way delay: 62.928 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 98.54 Mbit/s
95th percentile per-packet one-way delay: 101.816 ms
Loss rate: 1.57%
```
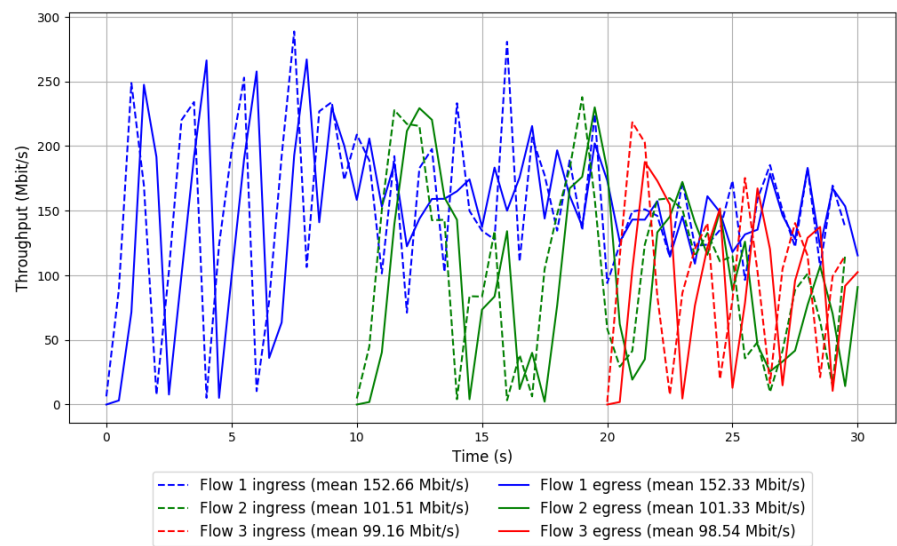
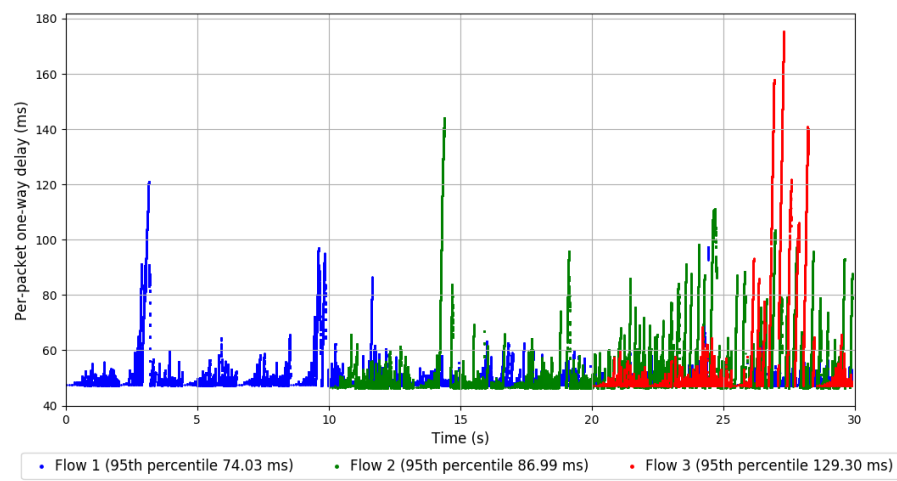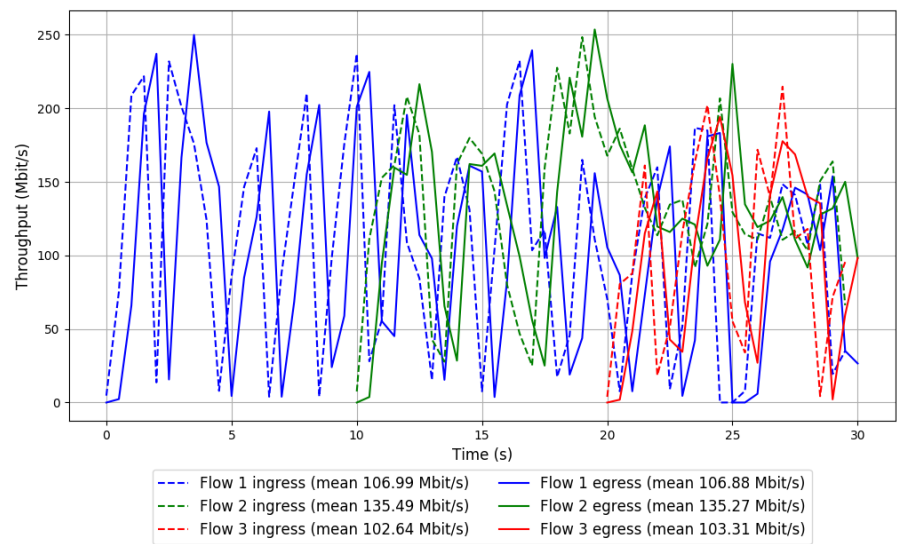Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-06-28 20:59:29
End at: 2019-06-28 20:59:59
Local clock offset: -0.25 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2019-06-29 01:29:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 230.74 Mbit/s
95th percentile per-packet one-way delay: 88.896 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 106.88 Mbit/s
95th percentile per-packet one-way delay: 74.029 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 135.27 Mbit/s
95th percentile per-packet one-way delay: 86.994 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 103.31 Mbit/s
95th percentile per-packet one-way delay: 129.299 ms
Loss rate: 0.57%
```

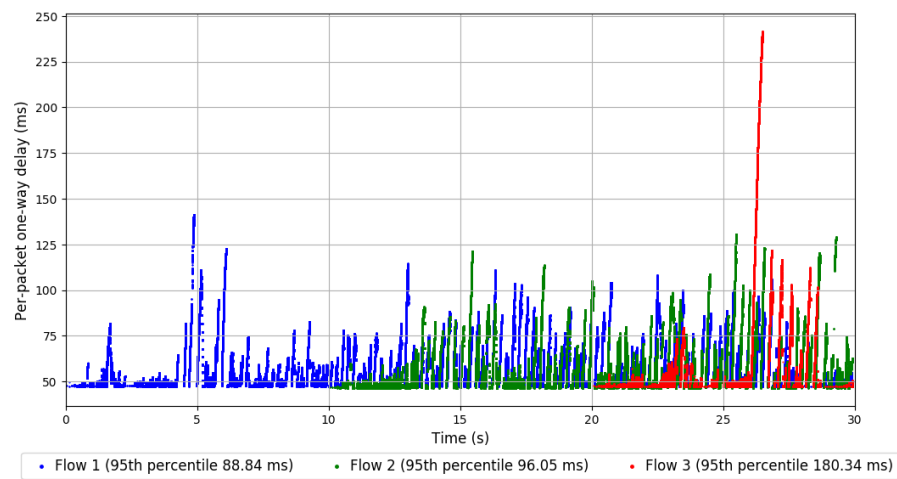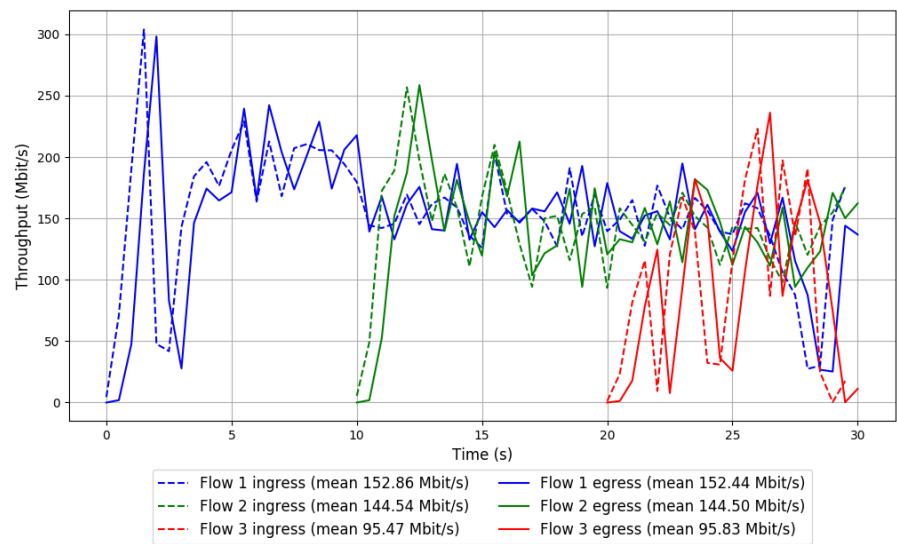# Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-06-28 21:36:05
End at: 2019-06-28 21:36:35
Local clock offset: -0.397 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-06-29 01:30:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.06 Mbit/s
95th percentile per-packet one-way delay: 96.410 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 152.44 Mbit/s
95th percentile per-packet one-way delay: 88.842 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 144.50 Mbit/s
95th percentile per-packet one-way delay: 96.050 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 180.339 ms
Loss rate: 0.60%
```

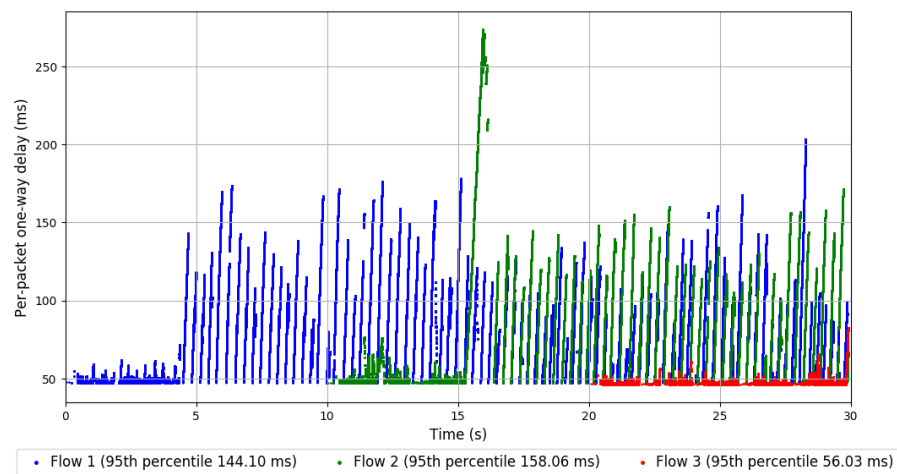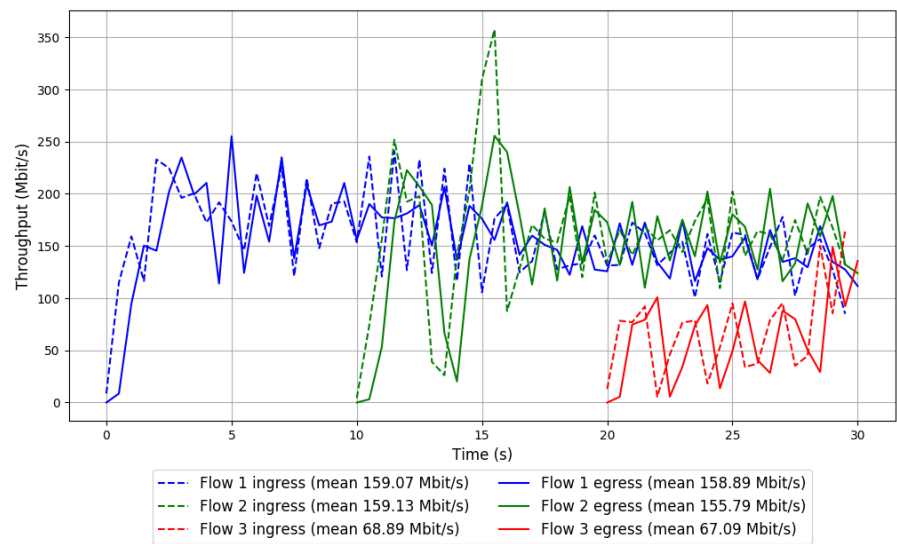## Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-06-28 22:12:34
End at: 2019-06-28 22:13:04
Local clock offset: -0.221 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2019-06-29 01:34:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.47 Mbit/s
95th percentile per-packet one-way delay: 146.011 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 158.89 Mbit/s
95th percentile per-packet one-way delay: 144.099 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 155.79 Mbit/s
95th percentile per-packet one-way delay: 158.063 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 67.09 Mbit/s
95th percentile per-packet one-way delay: 56.026 ms
Loss rate: 2.91%
```

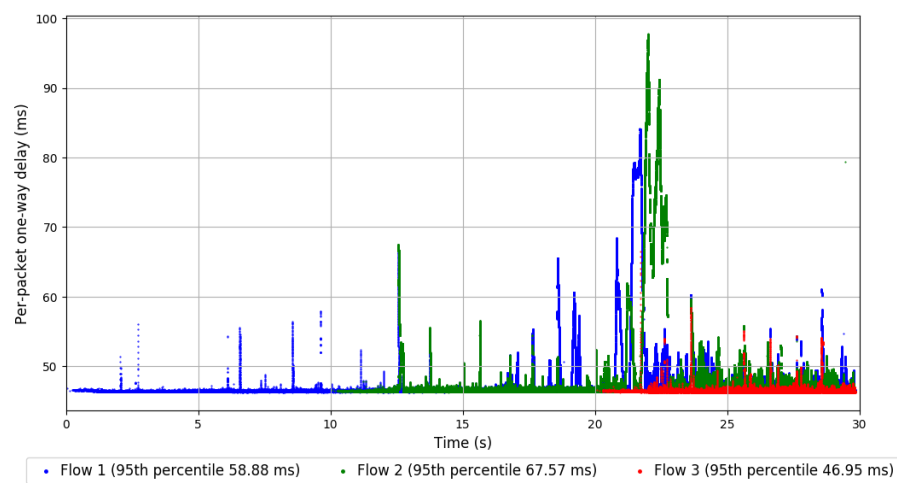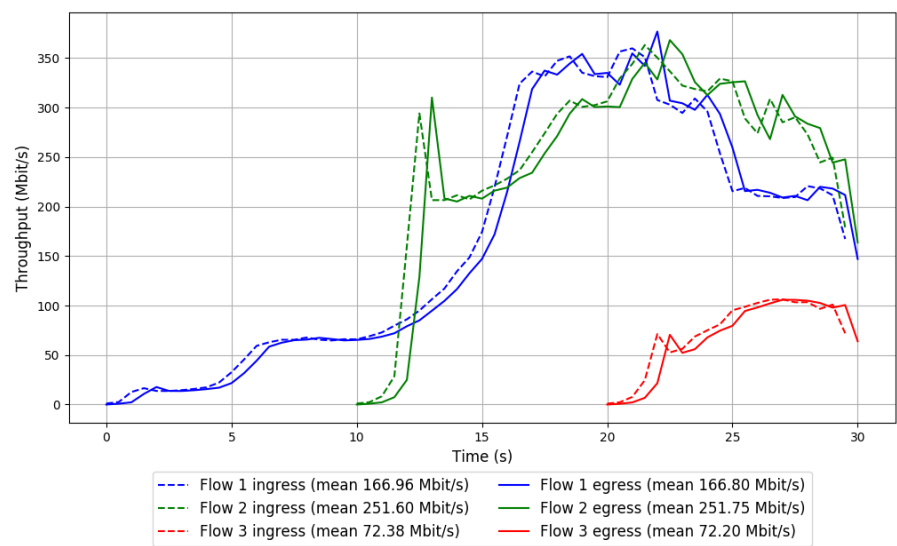Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 19:29:26
End at: 2019-06-28 19:29:56
Local clock offset: -0.097 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-06-29 01:34:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 357.57 Mbit/s
95th percentile per-packet one-way delay: 60.883 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 166.80 Mbit/s
95th percentile per-packet one-way delay: 58.880 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 251.75 Mbit/s
95th percentile per-packet one-way delay: 67.570 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 72.20 Mbit/s
95th percentile per-packet one-way delay: 46.954 ms
Loss rate: 1.21%
```

Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 20:05:54
End at: 2019-06-28 20:06:24
Local clock offset: 0.035 ms
Remote clock offset: 0.054 ms


# Below is generated by plot.py at 2019-06-29 01:34:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 482.22 Mbit/s
95th percentile per-packet one-way delay: 132.422 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 311.20 Mbit/s
95th percentile per-packet one-way delay: 151.232 ms
Loss rate: 2.64%
-- Flow 2:
Average throughput: 243.30 Mbit/s
95th percentile per-packet one-way delay: 57.224 ms
Loss rate: 4.63%
-- Flow 3:
Average throughput: 28.96 Mbit/s
95th percentile per-packet one-way delay: 47.553 ms
Loss rate: 9.45%
```
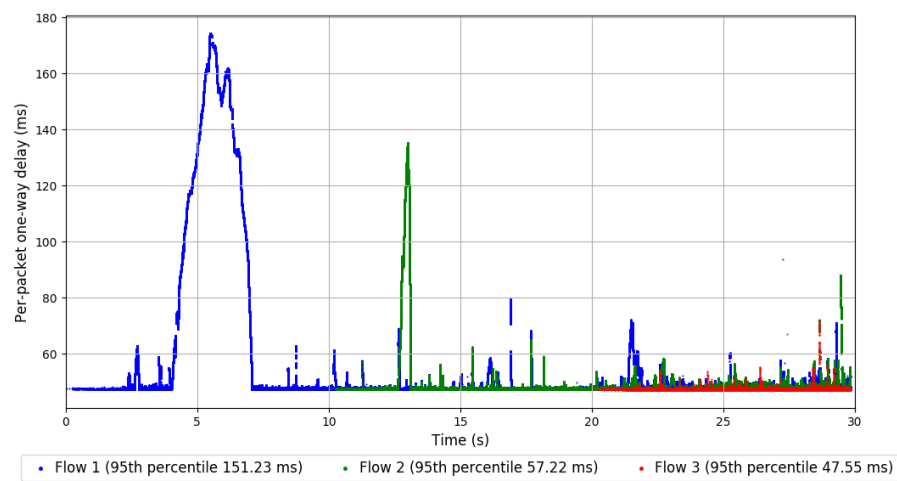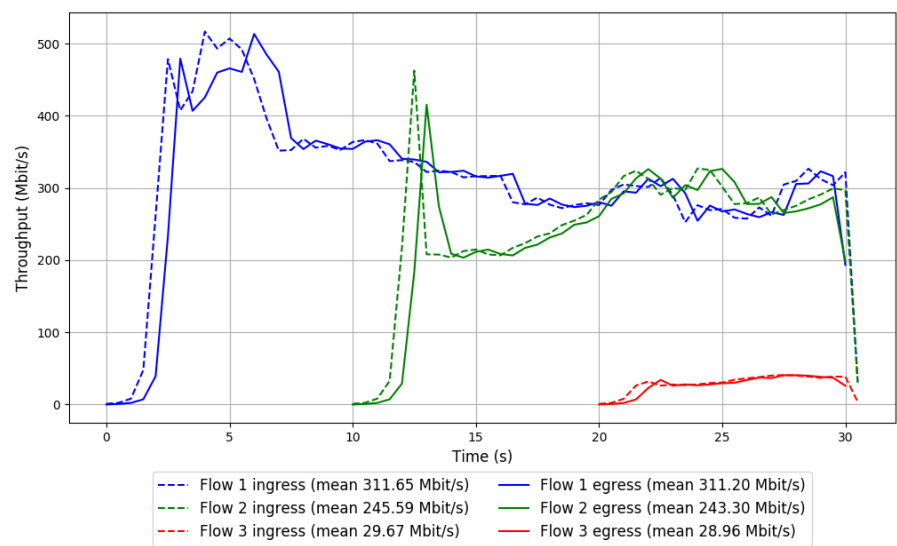
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 20:42:26
End at: 2019-06-28 20:42:56
Local clock offset: -0.064 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.21 Mbit/s
95th percentile per-packet one-way delay: 74.259 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 311.20 Mbit/s
95th percentile per-packet one-way delay: 84.245 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 195.53 Mbit/s
95th percentile per-packet one-way delay: 52.497 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 79.97 Mbit/s
95th percentile per-packet one-way delay: 47.687 ms
Loss rate: 1.99%
```
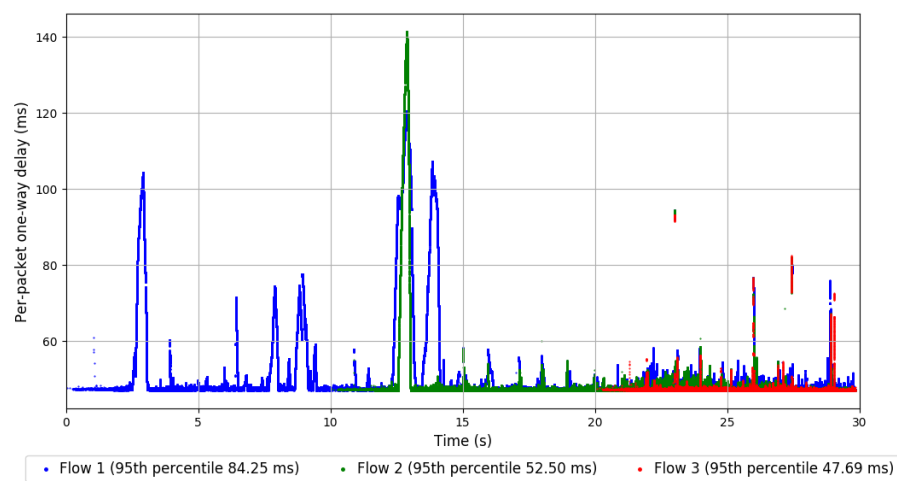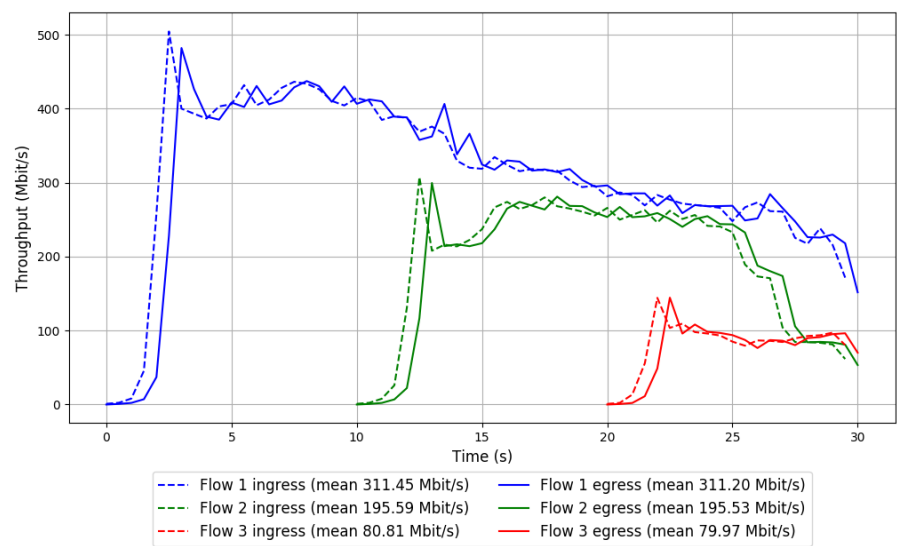
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 311.45 Mbit/s) —— Flow 1 egress (mean 311.20 Mbit/s)
Flow 2 ingress (mean 195.59 Mbit/s) —— Flow 2 egress (mean 195.53 Mbit/s)
Flow 3 ingress (mean 80.81 Mbit/s) —— Flow 3 egress (mean 79.97 Mbit/s)

Flow 1 (95th percentile 84.25 ms)   Flow 2 (95th percentile 52.50 ms)   Flow 3 (95th percentile 47.69 ms)
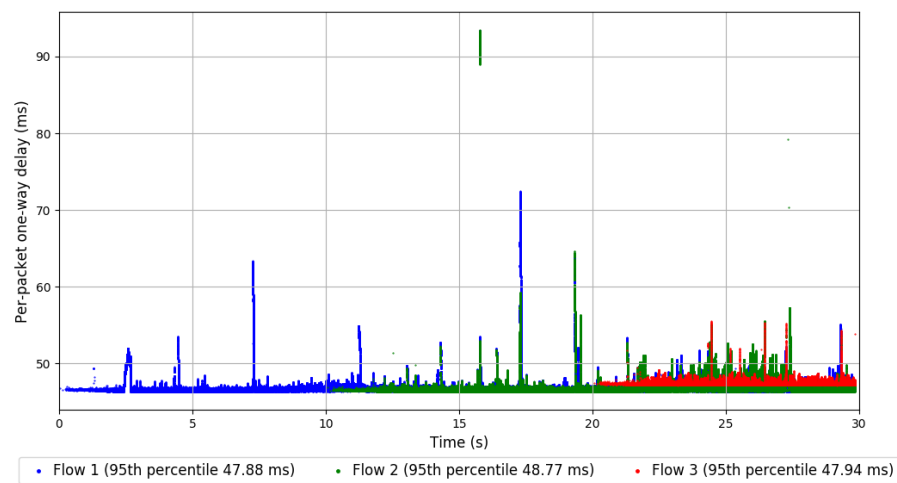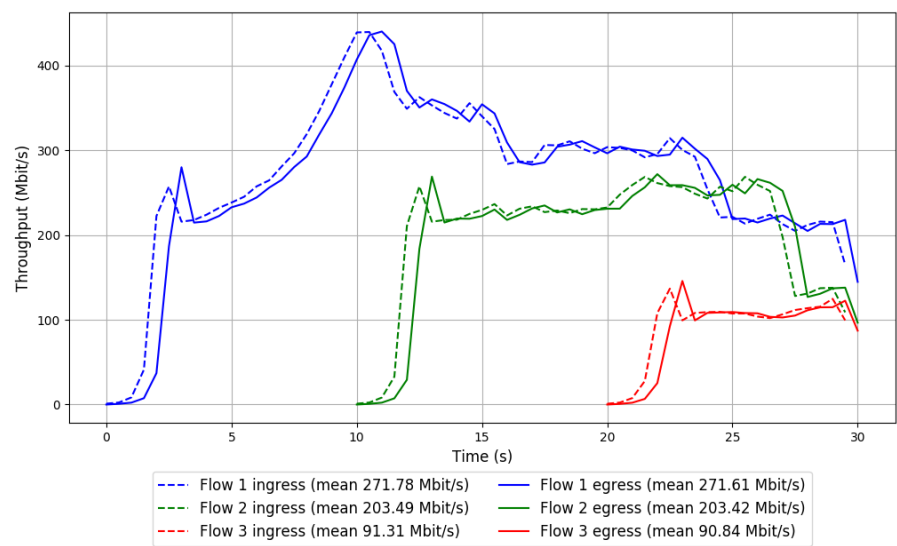
```
Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 21:19:07
End at: 2019-06-28 21:19:37
Local clock offset: -0.366 ms
Remote clock offset: -0.161 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.36 Mbit/s
95th percentile per-packet one-way delay: 48.188 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 271.61 Mbit/s
95th percentile per-packet one-way delay: 47.877 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 203.42 Mbit/s
95th percentile per-packet one-way delay: 48.775 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 90.84 Mbit/s
95th percentile per-packet one-way delay: 47.943 ms
Loss rate: 1.40%
```

Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 21:55:56
End at: 2019-06-28 21:56:26
Local clock offset: -0.424 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.82 Mbit/s
95th percentile per-packet one-way delay: 133.427 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 47.826 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 241.69 Mbit/s
95th percentile per-packet one-way delay: 139.852 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 86.66 Mbit/s
95th percentile per-packet one-way delay: 47.560 ms
Loss rate: 1.23%
```
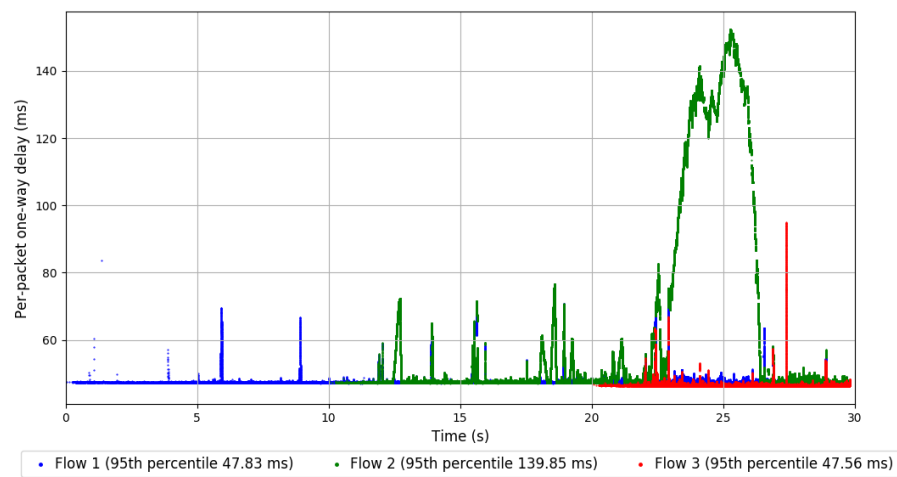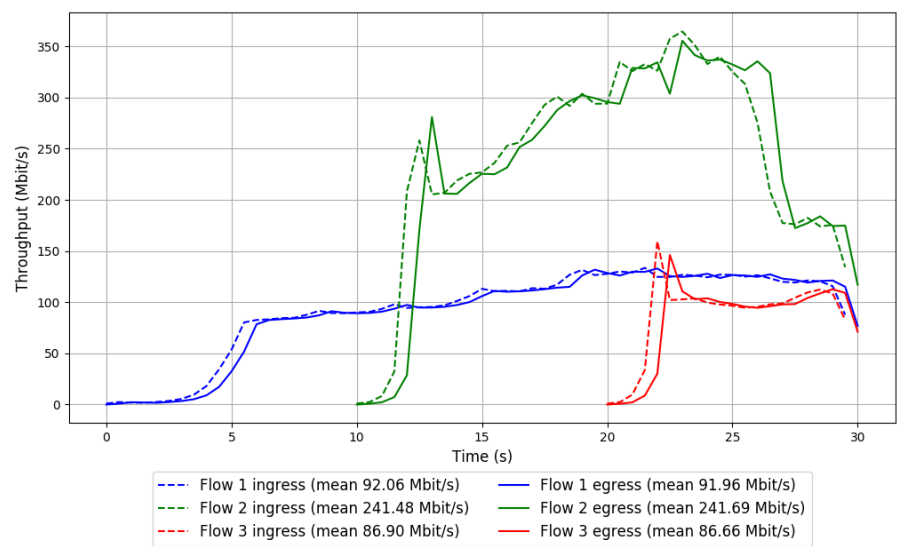
Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 92.06 Mbit/s) — Flow 1 egress (mean 91.96 Mbit/s)
Flow 2 ingress (mean 241.48 Mbit/s) — Flow 2 egress (mean 241.69 Mbit/s)
Flow 3 ingress (mean 86.90 Mbit/s) — Flow 3 egress (mean 86.66 Mbit/s)

Flow 1 (95th percentile 47.83 ms) • Flow 2 (95th percentile 139.85 ms) • Flow 3 (95th percentile 47.56 ms)
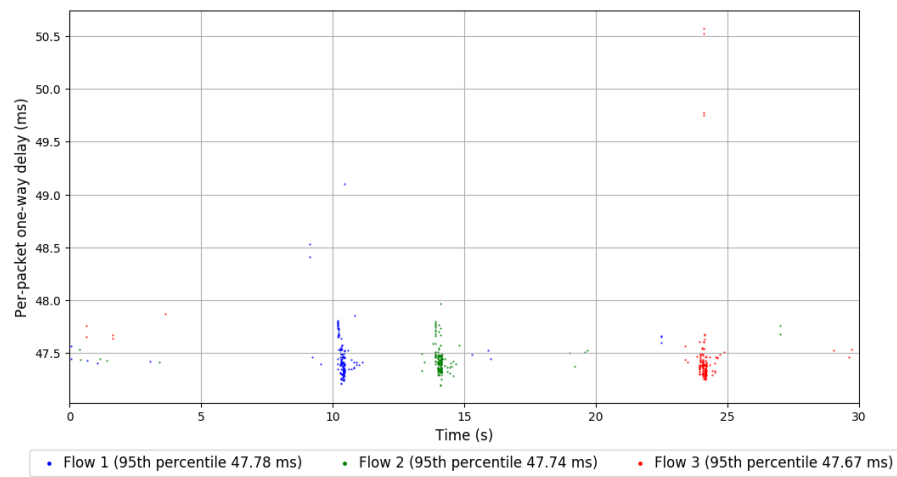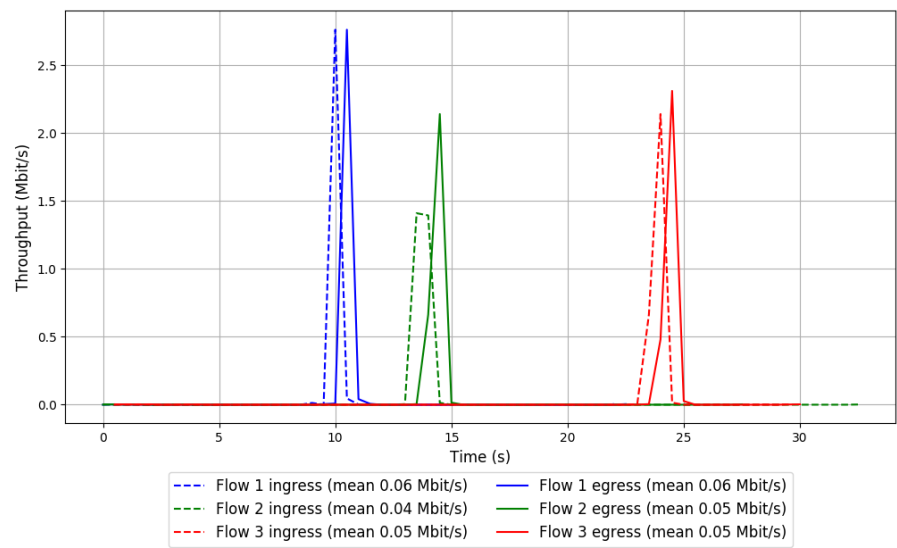
```
Run 1: Statistics of WebRTC media

Start at: 2019-06-28 19:45:11
End at: 2019-06-28 19:45:41
Local clock offset: -0.097 ms
Remote clock offset: -0.005 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.760 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 47.783 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.741 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.674 ms
Loss rate: 0.00%
```

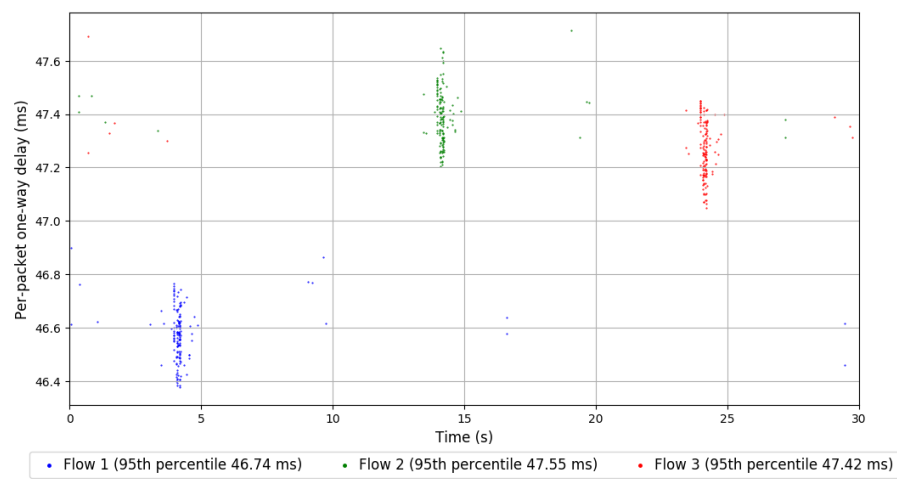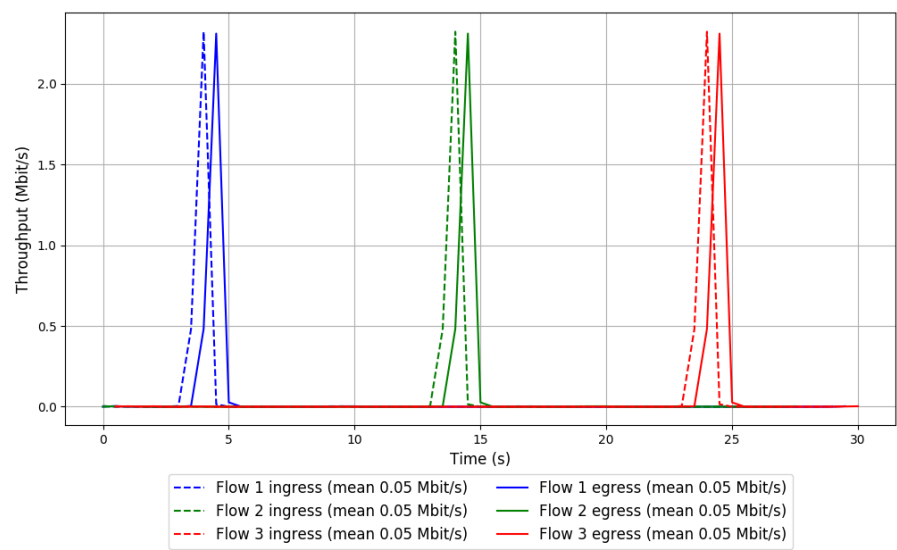Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-06-28 20:21:45
End at: 2019-06-28 20:22:15
Local clock offset: -0.05 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.500 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.743 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.550 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.425 ms
Loss rate: 0.00%
```
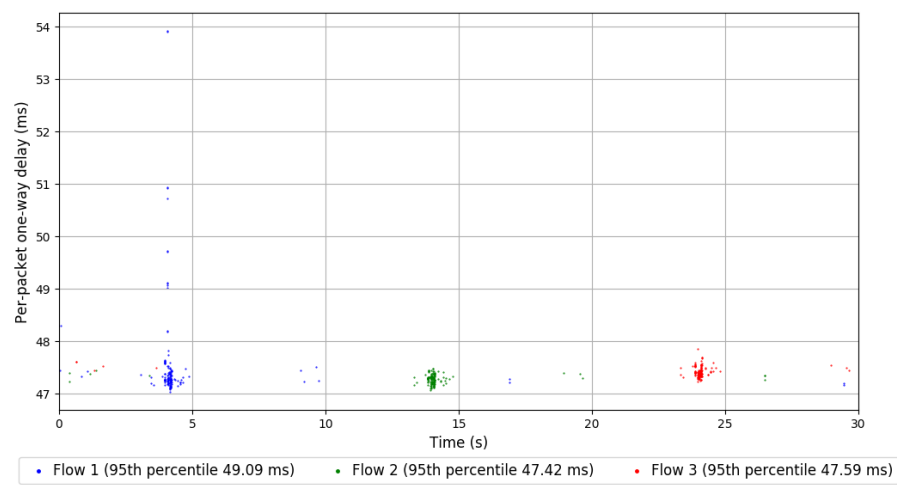
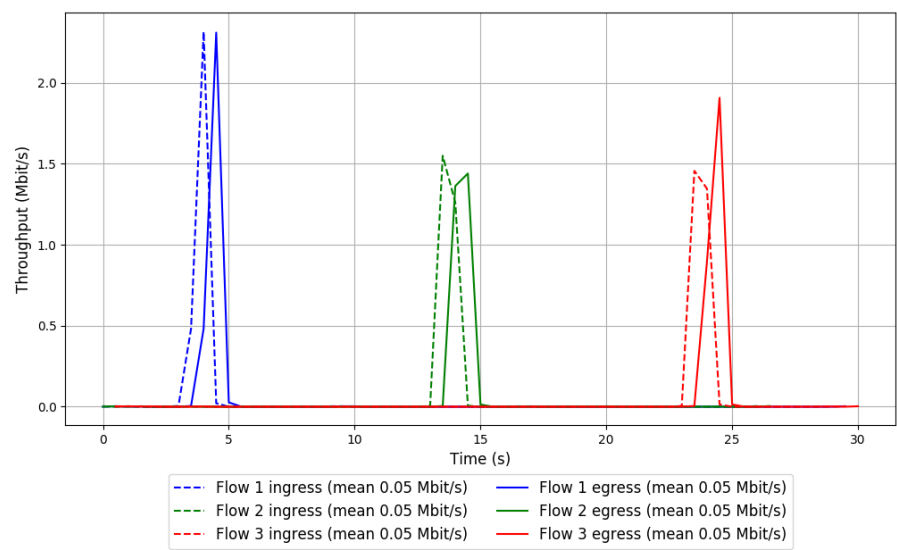Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-06-28 20:58:18
End at: 2019-06-28 20:58:48
Local clock offset: -0.31 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.615 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 49.090 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.424 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.591 ms
Loss rate: 0.00%
```

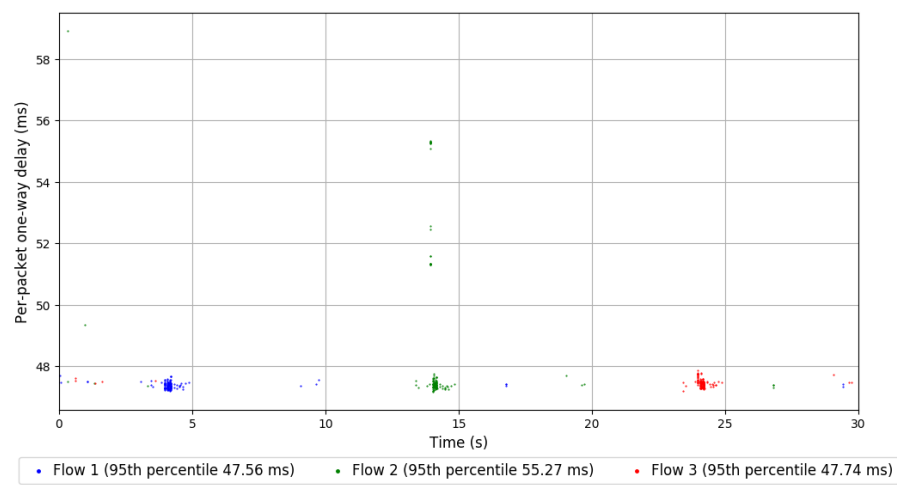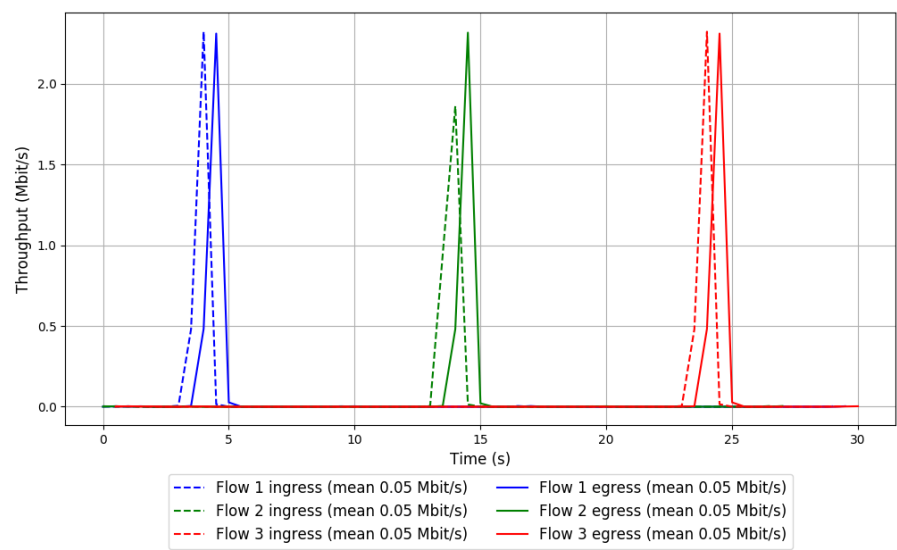Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-06-28 21:34:54
End at: 2019-06-28 21:35:24
Local clock offset: -0.427 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 51.300 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.560 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 55.271 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.737 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-06-28 22:11:23
End at: 2019-06-28 22:11:53
Local clock offset: -0.171 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-06-29 01:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.599 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.587 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.641 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.529 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link