

Pantheon Report

Generated at 2019-01-19 04:59:07 (UTC).
Data path: GCE London on `ens4` (*remote*) → GCE Tokyo on `ens4` (*local*).
Repeated the test of 21 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:

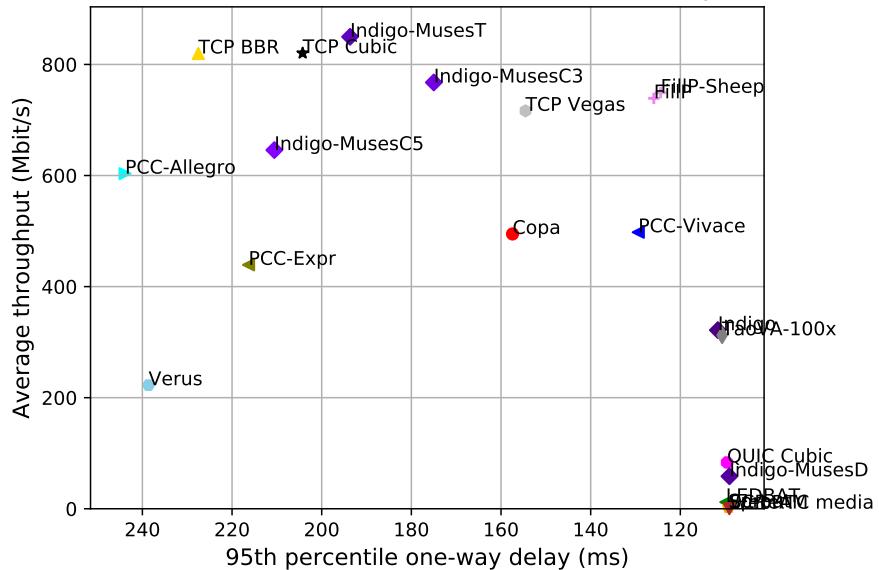
```
Linux 4.15.0-1026-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

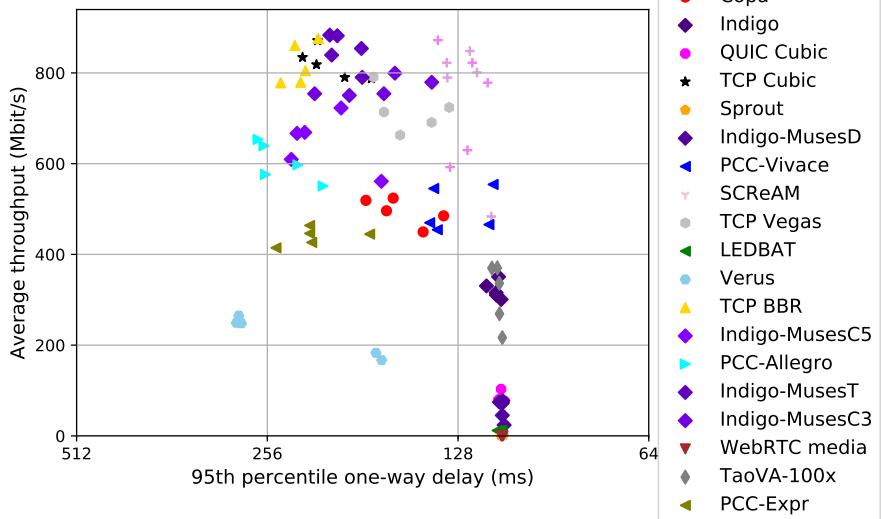
```
branch: muses @ c80a283586bf7b0cc1fe08c69c8f60d56498f81c
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ c3eee875824760ec5b2fd207fefe166e1afe2170
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

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

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



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



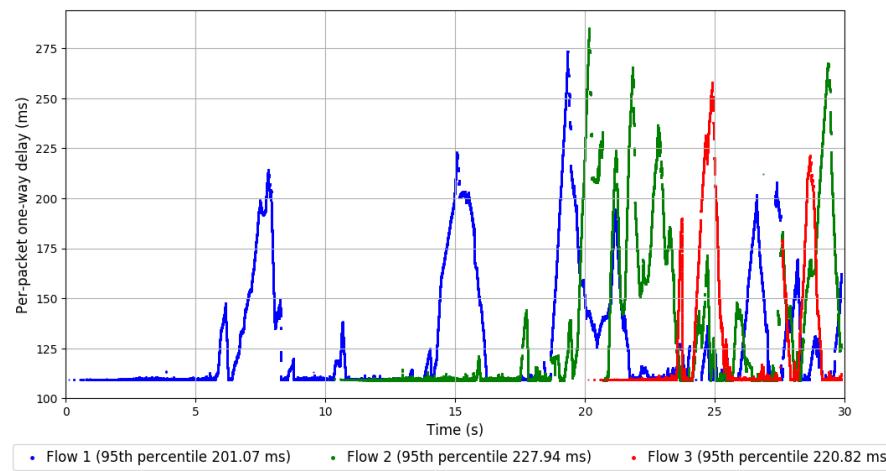
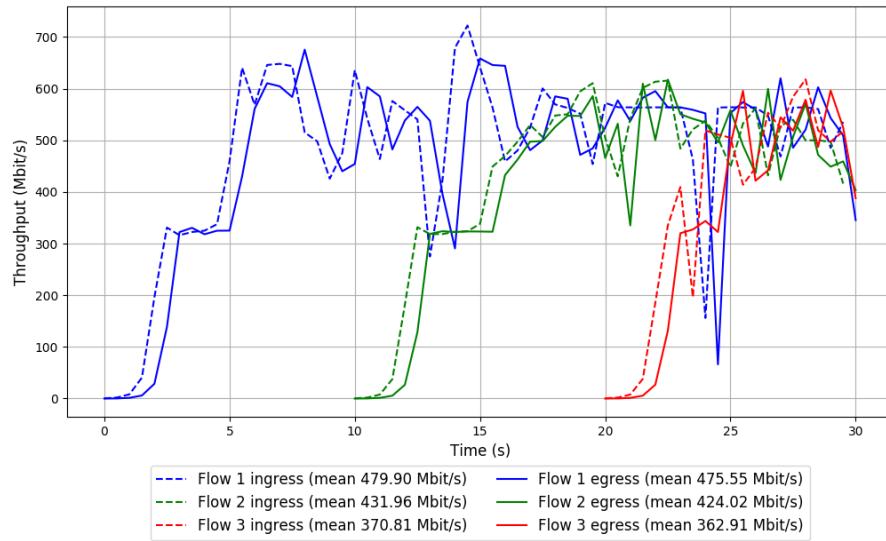
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	446.21	406.37	317.10	224.12	228.71	184.46	2.74	2.94	4.29
Copa	5	250.83	269.51	198.85	151.70	158.52	164.46	0.74	1.20	3.10
TCP Cubic	5	456.98	396.25	306.34	196.42	197.46	213.57	0.88	1.52	4.31
FillP	5	431.74	346.08	239.31	138.73	114.16	112.18	0.69	1.00	2.80
FillP-Sheep	5	454.59	326.11	239.90	132.20	114.20	112.74	0.47	0.95	2.57
Indigo	5	165.50	158.79	156.55	110.80	112.96	111.77	0.75	1.20	2.65
Indigo-MusesC3	5	491.32	385.42	107.16	181.78	161.04	112.11	0.95	1.60	7.34
Indigo-MusesC5	5	432.01	302.05	70.09	211.15	205.63	112.68	4.30	3.54	5.00
Indigo-MusesD	5	44.22	17.73	10.19	108.97	109.04	108.81	1.29	2.01	6.36
Indigo-MusesT	5	559.21	419.71	81.19	196.84	162.61	117.42	2.54	1.55	5.43
LEDBAT	5	7.76	5.13	2.48	109.65	109.88	109.57	1.47	2.21	4.46
PCC-Allegro	5	335.81	292.64	227.39	243.64	222.83	212.25	4.66	6.51	4.81
PCC-Expr	5	255.26	200.68	156.69	219.09	189.42	154.37	3.39	2.51	2.95
QUIC Cubic	5	44.48	44.48	27.55	108.96	109.37	109.03	0.95	1.35	4.00
SCReAM	5	0.22	0.22	0.22	108.87	108.90	108.76	0.72	1.21	2.15
Sprout	5	0.97	1.44	1.00	108.52	109.17	108.97	0.63	1.79	4.15
TaoVA-100x	5	194.65	122.16	112.01	110.47	110.34	113.48	0.77	1.19	2.46
TCP Vegas	5	394.75	345.15	282.83	133.18	141.42	179.37	0.86	1.16	3.30
Verus	5	148.81	87.24	49.20	223.40	195.31	178.14	5.73	3.28	3.20
PCC-Vivace	5	313.02	214.50	131.58	131.79	124.92	133.31	0.83	1.25	2.99
WebRTC media	5	0.05	0.05	0.05	108.66	108.72	109.00	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-01-18 22:39:07
End at: 2019-01-18 22:39:37
Local clock offset: -0.391 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-01-19 02:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.64 Mbit/s
95th percentile per-packet one-way delay: 212.638 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 475.55 Mbit/s
95th percentile per-packet one-way delay: 201.067 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 424.02 Mbit/s
95th percentile per-packet one-way delay: 227.942 ms
Loss rate: 2.92%
-- Flow 3:
Average throughput: 362.91 Mbit/s
95th percentile per-packet one-way delay: 220.824 ms
Loss rate: 4.29%
```

Run 1: Report of TCP BBR — Data Link

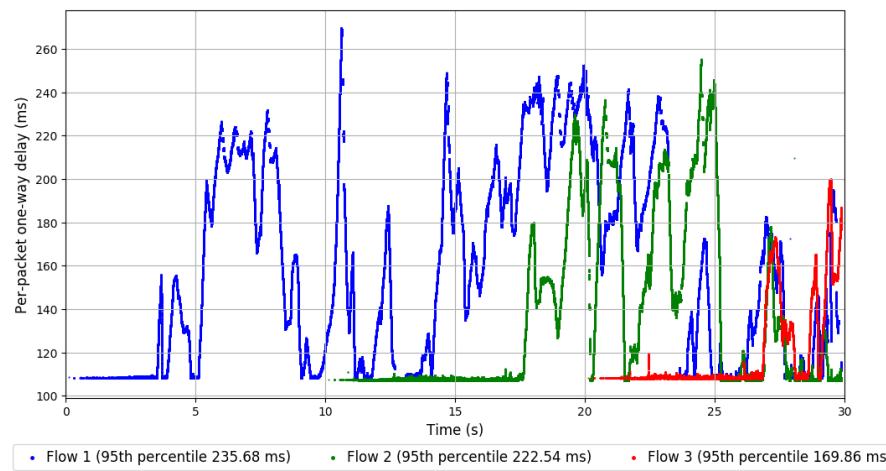
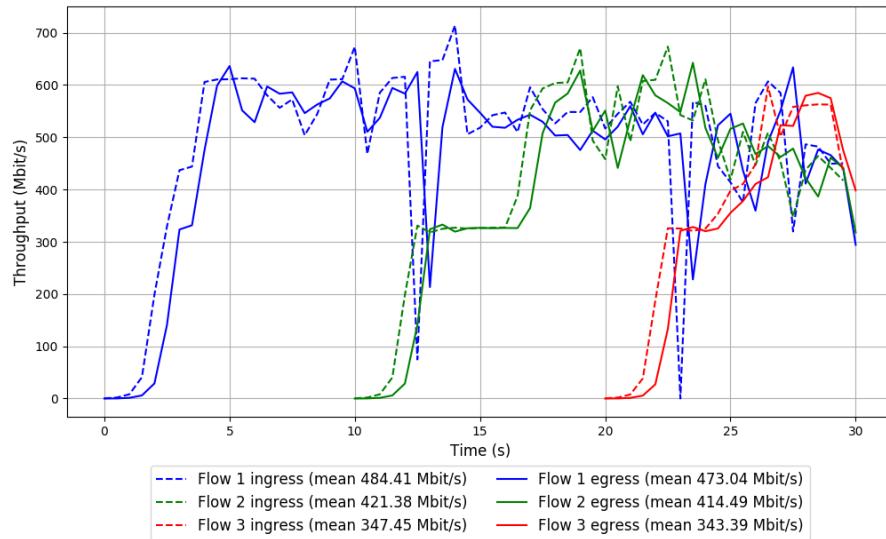


Run 2: Statistics of TCP BBR

```
Start at: 2019-01-18 23:17:48
End at: 2019-01-18 23:18:18
Local clock offset: -0.88 ms
Remote clock offset: 0.347 ms

# Below is generated by plot.py at 2019-01-19 02:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 860.48 Mbit/s
95th percentile per-packet one-way delay: 231.519 ms
Loss rate: 2.99%
-- Flow 1:
Average throughput: 473.04 Mbit/s
95th percentile per-packet one-way delay: 235.682 ms
Loss rate: 3.06%
-- Flow 2:
Average throughput: 414.49 Mbit/s
95th percentile per-packet one-way delay: 222.543 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 343.39 Mbit/s
95th percentile per-packet one-way delay: 169.859 ms
Loss rate: 3.35%
```

Run 2: Report of TCP BBR — Data Link

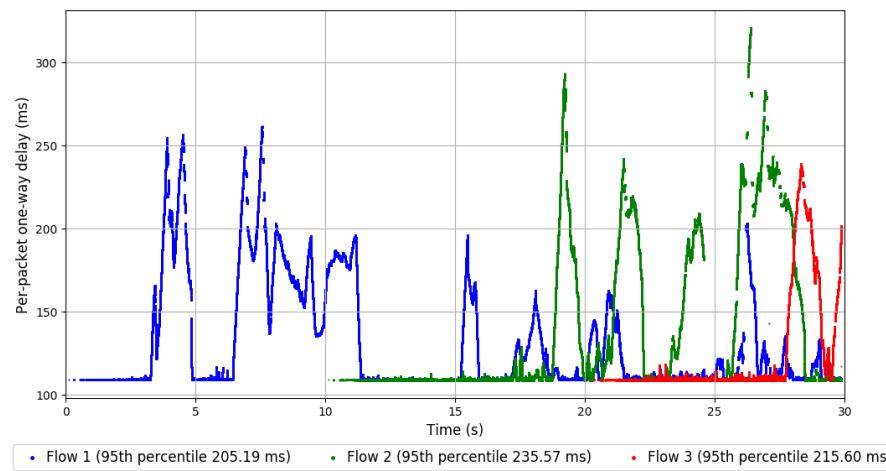
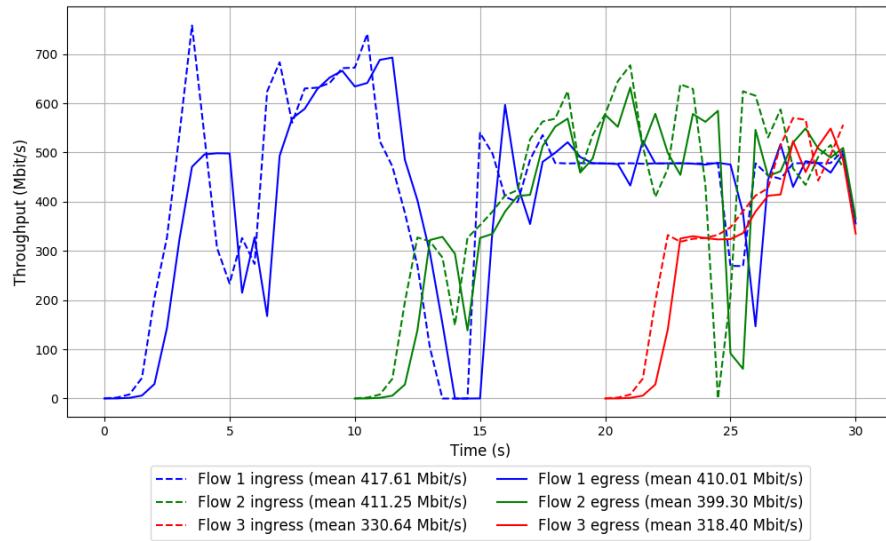


Run 3: Statistics of TCP BBR

```
Start at: 2019-01-18 23:57:22
End at: 2019-01-18 23:57:52
Local clock offset: -0.463 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-01-19 02:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 779.37 Mbit/s
95th percentile per-packet one-way delay: 226.752 ms
Loss rate: 3.47%
-- Flow 1:
Average throughput: 410.01 Mbit/s
95th percentile per-packet one-way delay: 205.195 ms
Loss rate: 2.54%
-- Flow 2:
Average throughput: 399.30 Mbit/s
95th percentile per-packet one-way delay: 235.570 ms
Loss rate: 3.93%
-- Flow 3:
Average throughput: 318.40 Mbit/s
95th percentile per-packet one-way delay: 215.602 ms
Loss rate: 5.83%
```

Run 3: Report of TCP BBR — Data Link

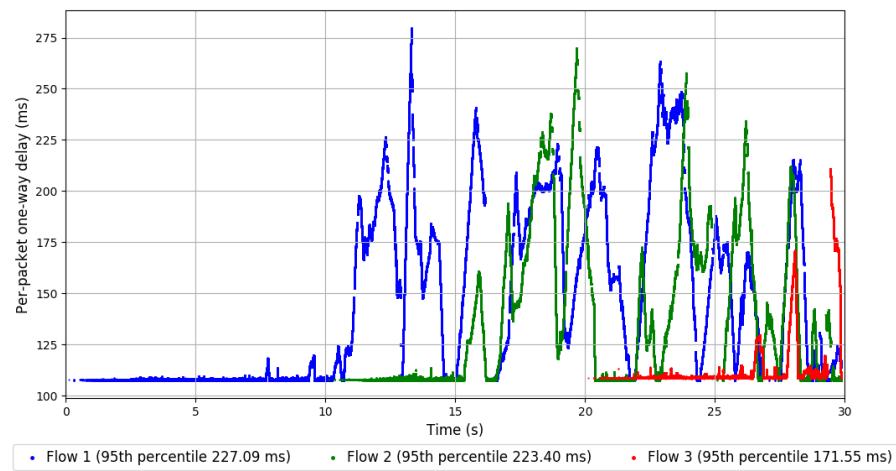
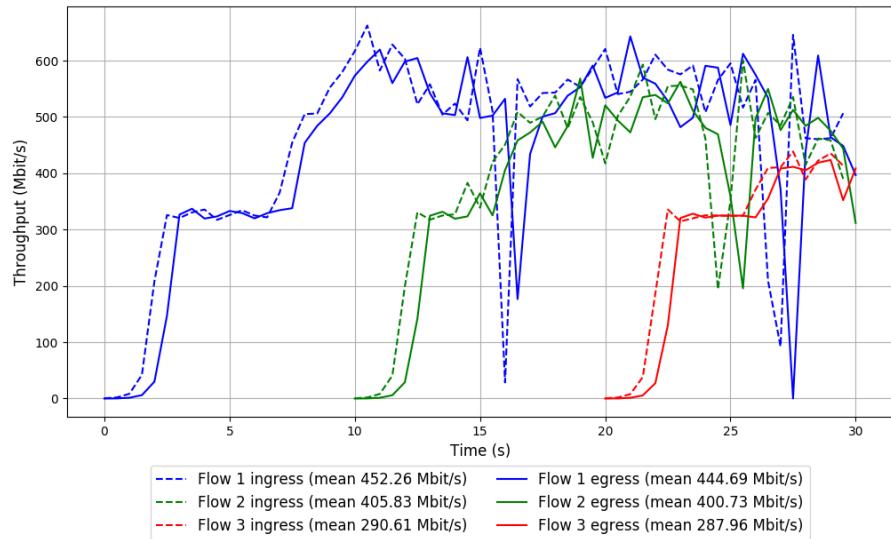


Run 4: Statistics of TCP BBR

```
Start at: 2019-01-19 00:36:33
End at: 2019-01-19 00:37:03
Local clock offset: -0.868 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2019-01-19 02:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 804.98 Mbit/s
95th percentile per-packet one-way delay: 222.851 ms
Loss rate: 2.46%
-- Flow 1:
Average throughput: 444.69 Mbit/s
95th percentile per-packet one-way delay: 227.089 ms
Loss rate: 2.39%
-- Flow 2:
Average throughput: 400.73 Mbit/s
95th percentile per-packet one-way delay: 223.396 ms
Loss rate: 2.34%
-- Flow 3:
Average throughput: 287.96 Mbit/s
95th percentile per-packet one-way delay: 171.548 ms
Loss rate: 3.11%
```

Run 4: Report of TCP BBR — Data Link

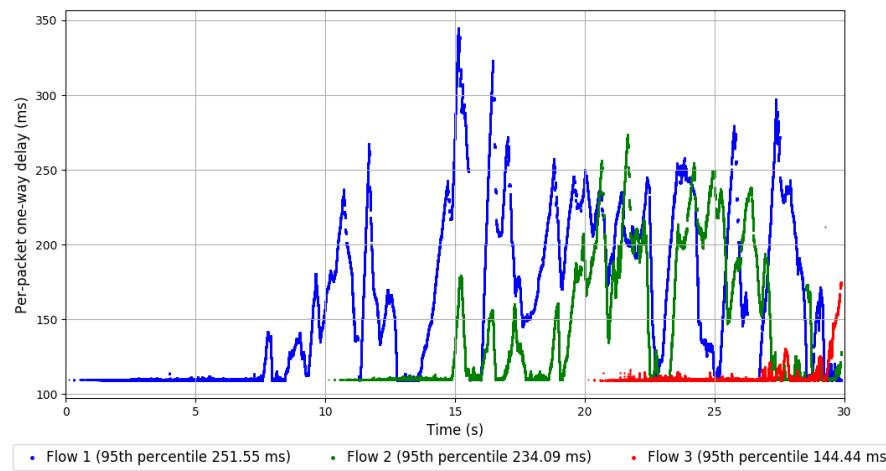
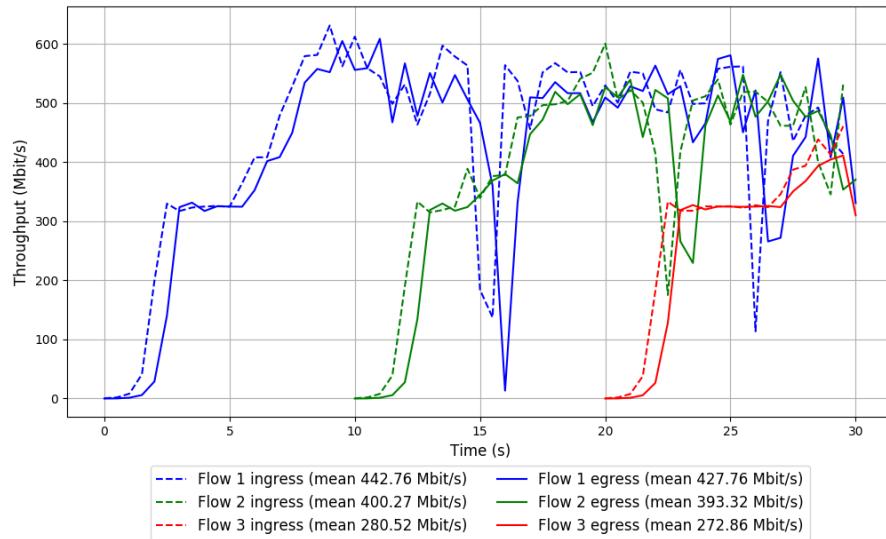


Run 5: Statistics of TCP BBR

```
Start at: 2019-01-19 01:15:19
End at: 2019-01-19 01:15:49
Local clock offset: -0.118 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2019-01-19 02:18:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 778.11 Mbit/s
95th percentile per-packet one-way delay: 243.808 ms
Loss rate: 3.76%
-- Flow 1:
Average throughput: 427.76 Mbit/s
95th percentile per-packet one-way delay: 251.551 ms
Loss rate: 4.09%
-- Flow 2:
Average throughput: 393.32 Mbit/s
95th percentile per-packet one-way delay: 234.087 ms
Loss rate: 2.82%
-- Flow 3:
Average throughput: 272.86 Mbit/s
95th percentile per-packet one-way delay: 144.445 ms
Loss rate: 4.88%
```

Run 5: Report of TCP BBR — Data Link

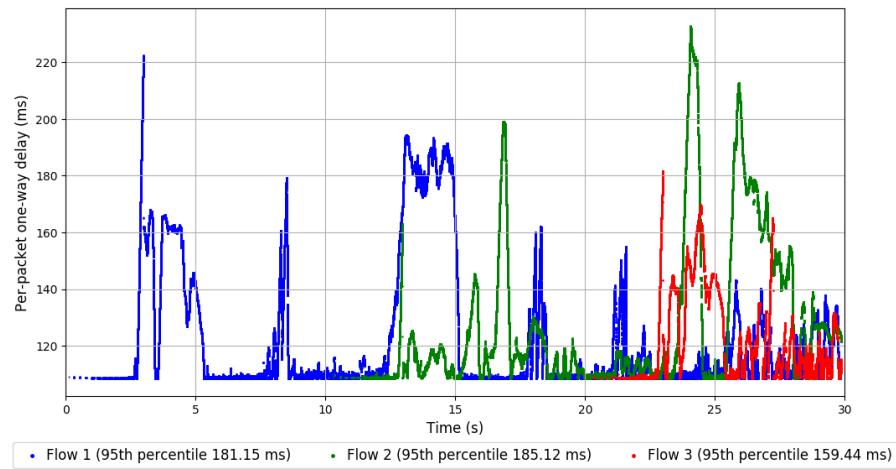
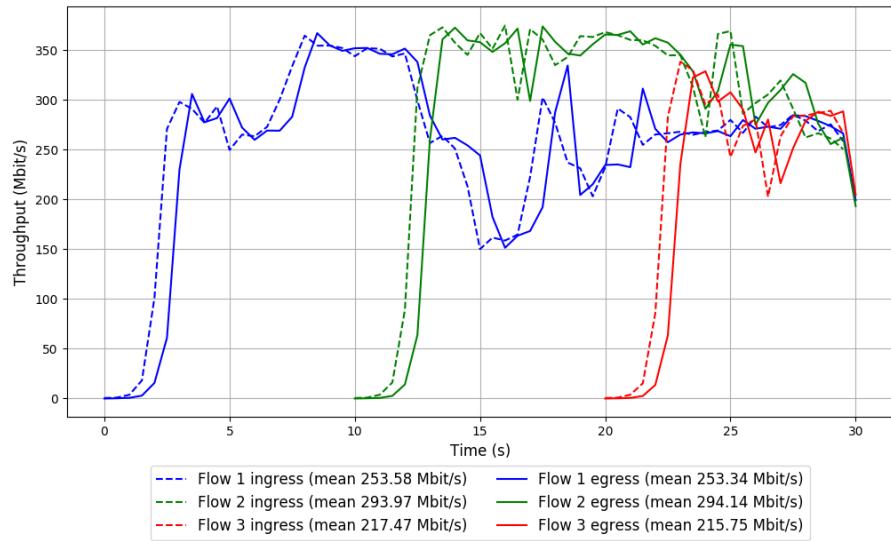


Run 1: Statistics of Copa

```
Start at: 2019-01-18 22:36:52
End at: 2019-01-18 22:37:22
Local clock offset: -1.029 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2019-01-19 02:20:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 519.15 Mbit/s
95th percentile per-packet one-way delay: 178.904 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 253.34 Mbit/s
95th percentile per-packet one-way delay: 181.151 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 294.14 Mbit/s
95th percentile per-packet one-way delay: 185.123 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 215.75 Mbit/s
95th percentile per-packet one-way delay: 159.443 ms
Loss rate: 2.97%
```

Run 1: Report of Copa — Data Link

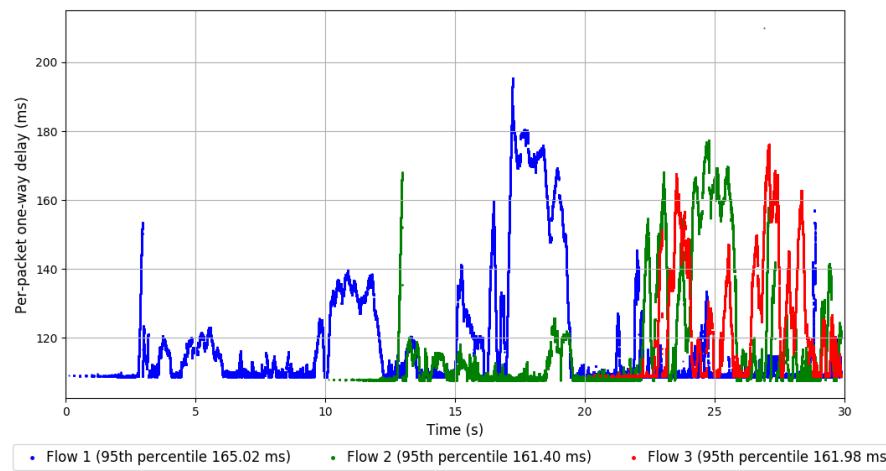
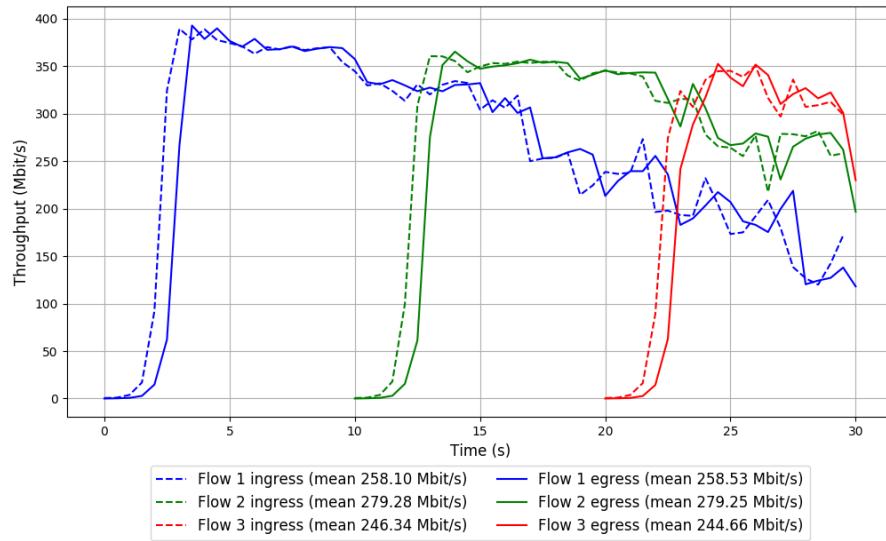


Run 2: Statistics of Copa

```
Start at: 2019-01-18 23:15:33
End at: 2019-01-18 23:16:03
Local clock offset: -0.414 ms
Remote clock offset: 0.173 ms

# Below is generated by plot.py at 2019-01-19 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 524.01 Mbit/s
95th percentile per-packet one-way delay: 162.026 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 258.53 Mbit/s
95th percentile per-packet one-way delay: 165.024 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 279.25 Mbit/s
95th percentile per-packet one-way delay: 161.396 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 244.66 Mbit/s
95th percentile per-packet one-way delay: 161.983 ms
Loss rate: 2.86%
```

Run 2: Report of Copa — Data Link

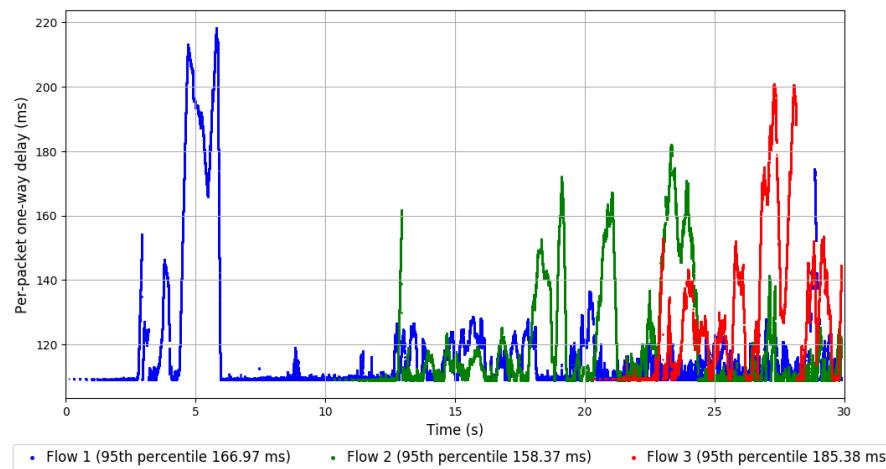
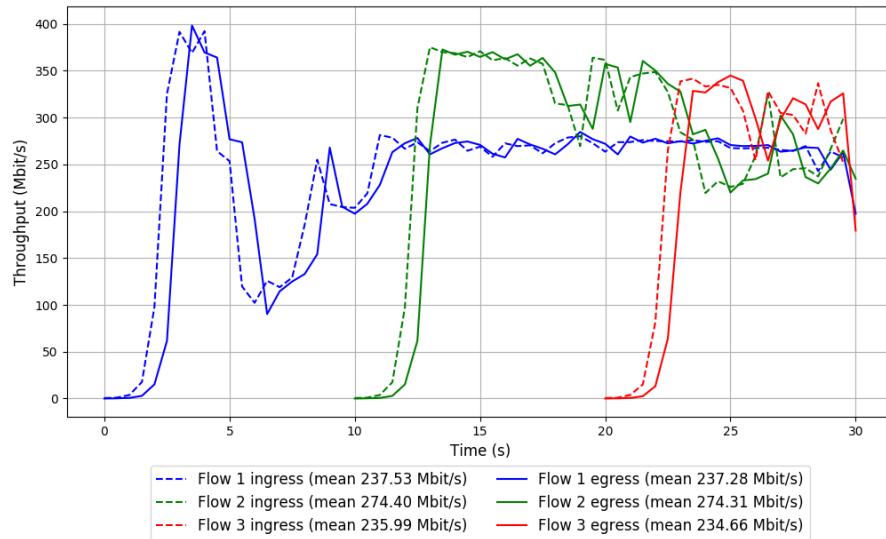


Run 3: Statistics of Copa

```
Start at: 2019-01-18 23:54:54
End at: 2019-01-18 23:55:24
Local clock offset: -0.246 ms
Remote clock offset: -0.03 ms

# Below is generated by plot.py at 2019-01-19 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 496.17 Mbit/s
95th percentile per-packet one-way delay: 166.028 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 237.28 Mbit/s
95th percentile per-packet one-way delay: 166.974 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 274.31 Mbit/s
95th percentile per-packet one-way delay: 158.371 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 234.66 Mbit/s
95th percentile per-packet one-way delay: 185.377 ms
Loss rate: 2.75%
```

Run 3: Report of Copa — Data Link

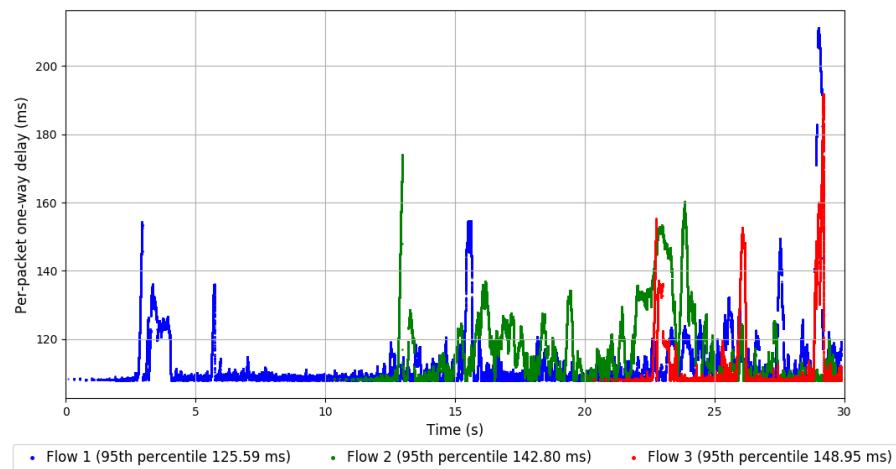
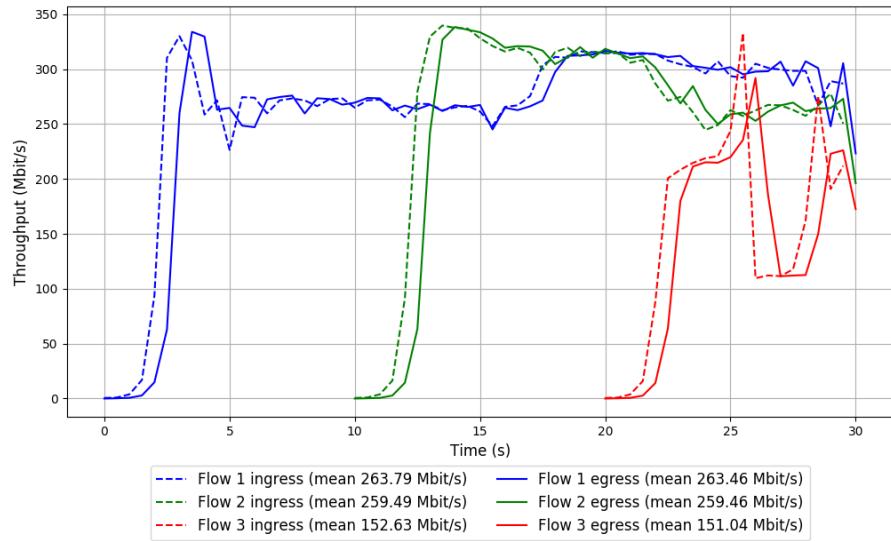


Run 4: Statistics of Copa

```
Start at: 2019-01-19 00:34:23
End at: 2019-01-19 00:34:53
Local clock offset: -1.636 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-01-19 02:38:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 485.08 Mbit/s
95th percentile per-packet one-way delay: 134.878 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 263.46 Mbit/s
95th percentile per-packet one-way delay: 125.590 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 259.46 Mbit/s
95th percentile per-packet one-way delay: 142.801 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 151.04 Mbit/s
95th percentile per-packet one-way delay: 148.952 ms
Loss rate: 3.21%
```

Run 4: Report of Copa — Data Link

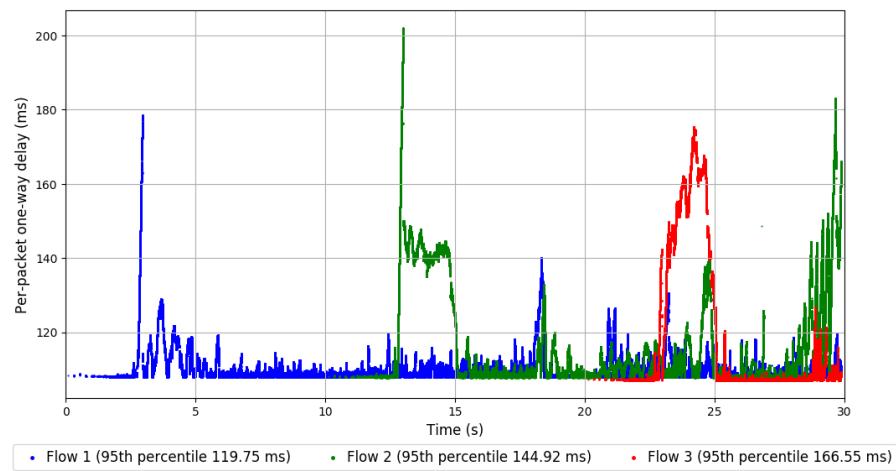
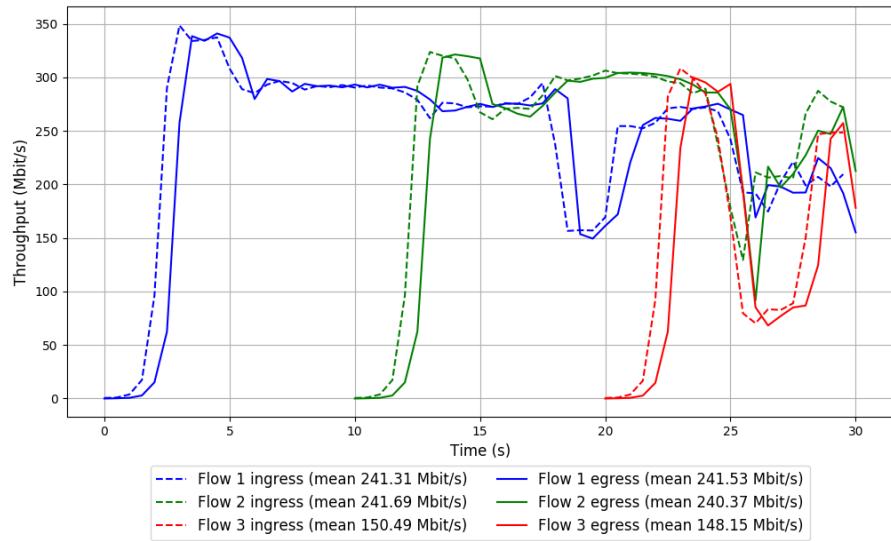


Run 5: Statistics of Copa

```
Start at: 2019-01-19 01:13:13
End at: 2019-01-19 01:13:43
Local clock offset: -1.382 ms
Remote clock offset: -0.177 ms

# Below is generated by plot.py at 2019-01-19 02:38:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.58 Mbit/s
95th percentile per-packet one-way delay: 145.308 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 241.53 Mbit/s
95th percentile per-packet one-way delay: 119.752 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 240.37 Mbit/s
95th percentile per-packet one-way delay: 144.916 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 148.15 Mbit/s
95th percentile per-packet one-way delay: 166.548 ms
Loss rate: 3.71%
```

Run 5: Report of Copa — Data Link

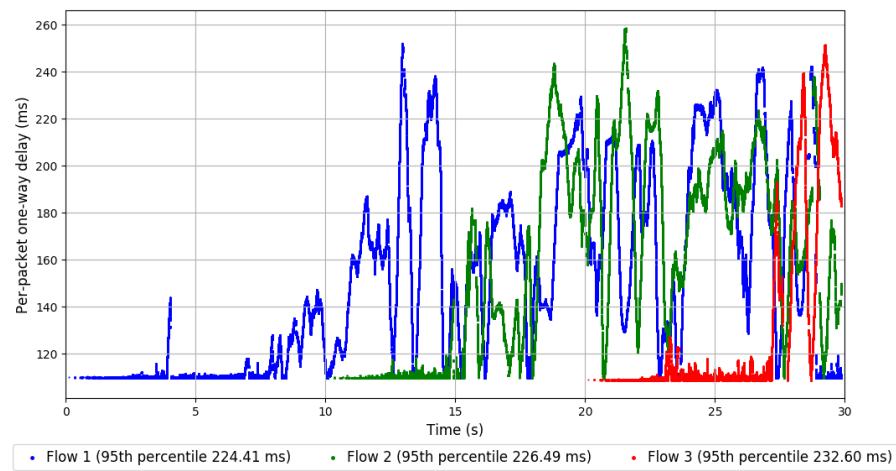
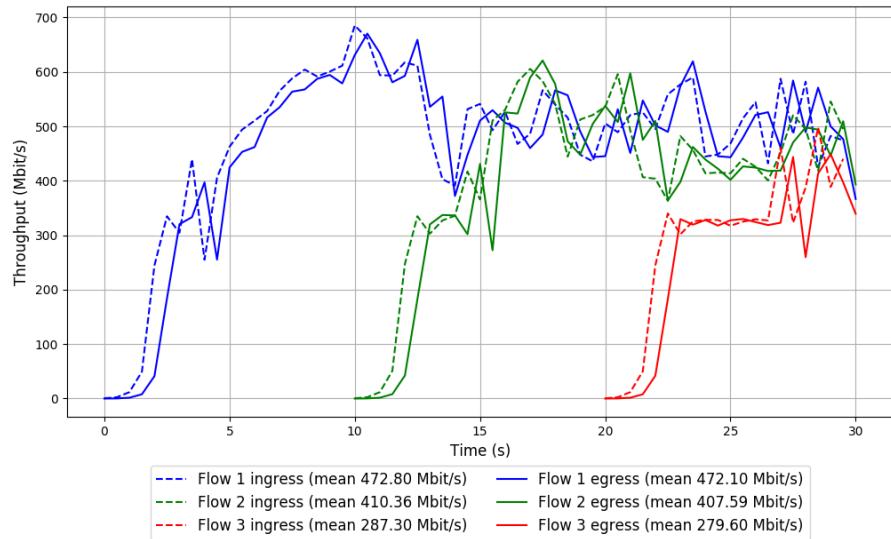


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-01-18 22:41:32
End at: 2019-01-18 22:42:02
Local clock offset: 0.136 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2019-01-19 02:38:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 834.37 Mbit/s
95th percentile per-packet one-way delay: 225.230 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 472.10 Mbit/s
95th percentile per-packet one-way delay: 224.414 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 407.59 Mbit/s
95th percentile per-packet one-way delay: 226.492 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 279.60 Mbit/s
95th percentile per-packet one-way delay: 232.601 ms
Loss rate: 4.80%
```

Run 1: Report of TCP Cubic — Data Link

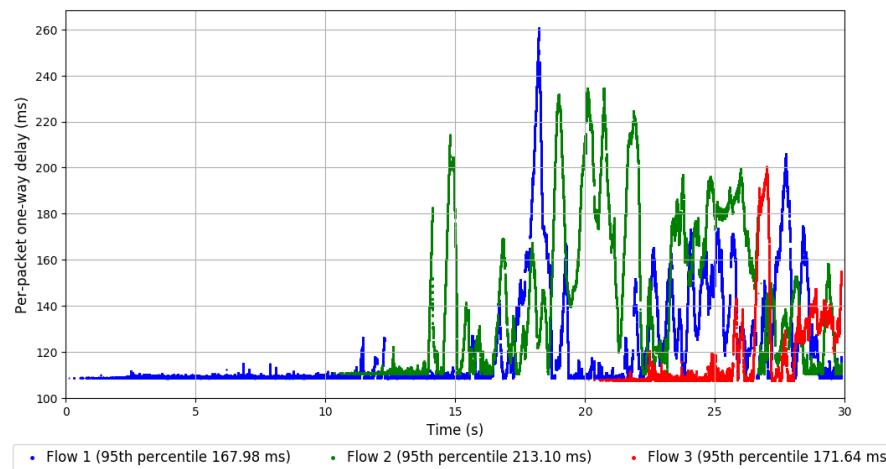
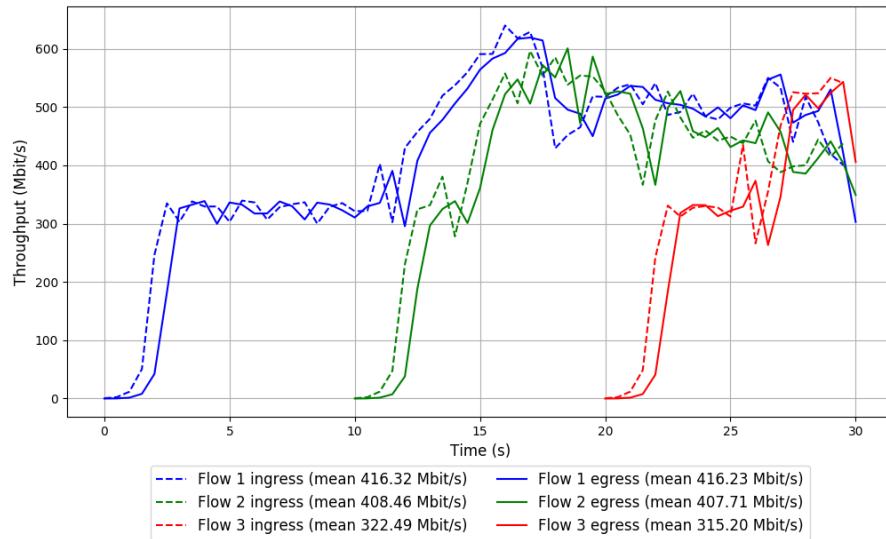


Run 2: Statistics of TCP Cubic

```
Start at: 2019-01-18 23:20:02
End at: 2019-01-18 23:20:32
Local clock offset: -0.723 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2019-01-19 02:38:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 790.23 Mbit/s
95th percentile per-packet one-way delay: 193.183 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 416.23 Mbit/s
95th percentile per-packet one-way delay: 167.983 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 407.71 Mbit/s
95th percentile per-packet one-way delay: 213.105 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 315.20 Mbit/s
95th percentile per-packet one-way delay: 171.641 ms
Loss rate: 4.39%
```

Run 2: Report of TCP Cubic — Data Link

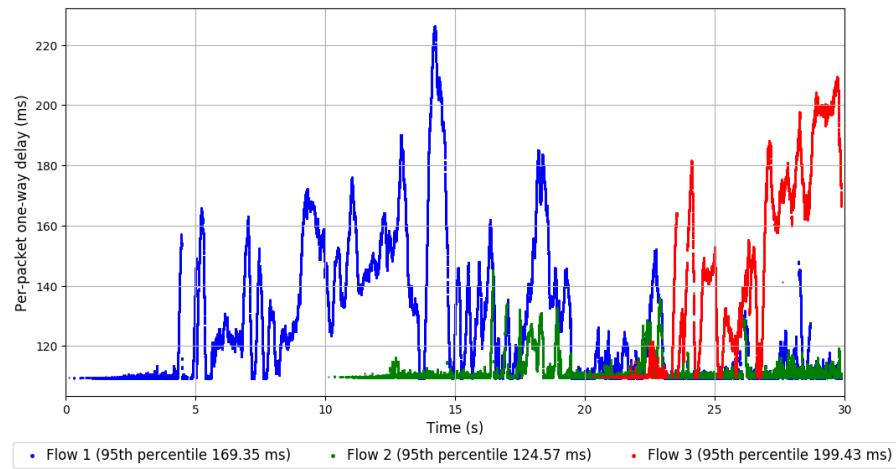
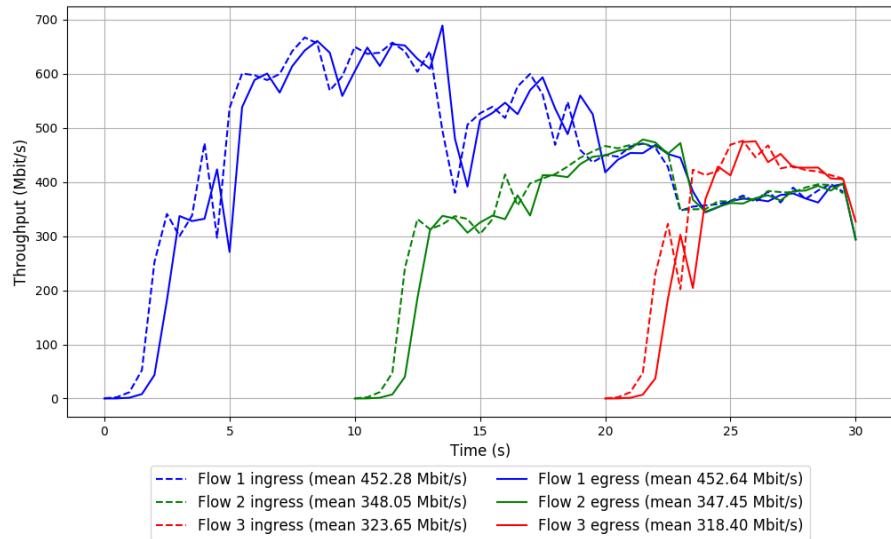


Run 3: Statistics of TCP Cubic

```
Start at: 2019-01-18 23:59:45
End at: 2019-01-19 00:00:15
Local clock offset: 0.256 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-01-19 02:38:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 787.43 Mbit/s
95th percentile per-packet one-way delay: 175.430 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 452.64 Mbit/s
95th percentile per-packet one-way delay: 169.355 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 347.45 Mbit/s
95th percentile per-packet one-way delay: 124.568 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 318.40 Mbit/s
95th percentile per-packet one-way delay: 199.427 ms
Loss rate: 3.79%
```

Run 3: Report of TCP Cubic — Data Link

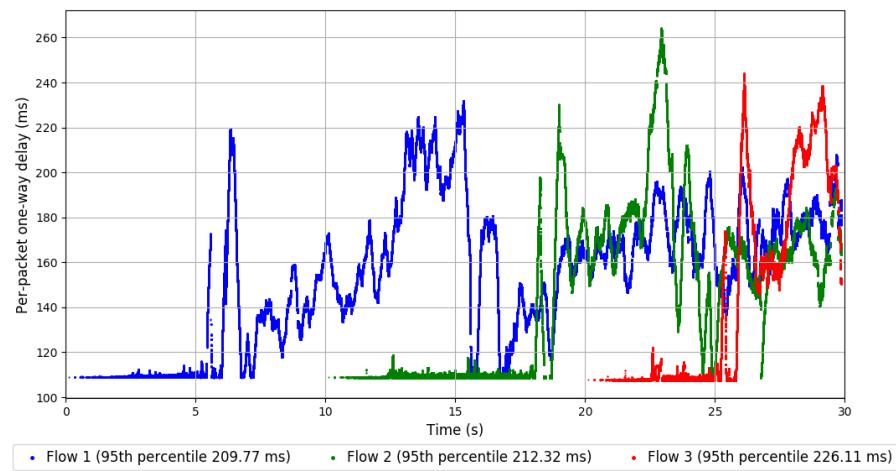
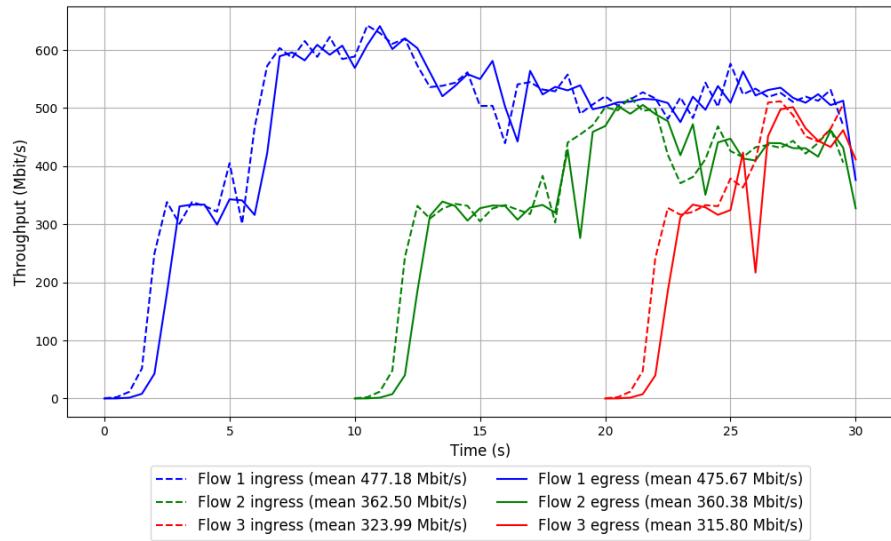


Run 4: Statistics of TCP Cubic

```
Start at: 2019-01-19 00:38:43
End at: 2019-01-19 00:39:13
Local clock offset: -0.888 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2019-01-19 02:39:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 818.26 Mbit/s
95th percentile per-packet one-way delay: 214.106 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 475.67 Mbit/s
95th percentile per-packet one-way delay: 209.774 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 360.38 Mbit/s
95th percentile per-packet one-way delay: 212.325 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 315.80 Mbit/s
95th percentile per-packet one-way delay: 226.110 ms
Loss rate: 4.66%
```

Run 4: Report of TCP Cubic — Data Link

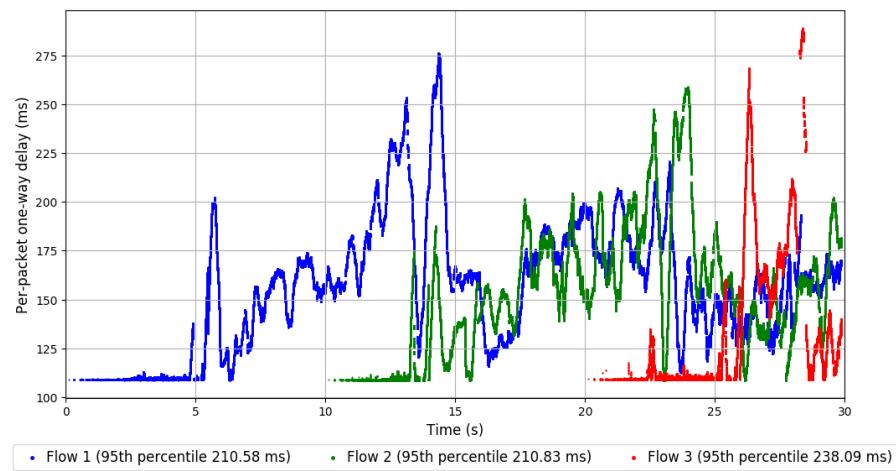
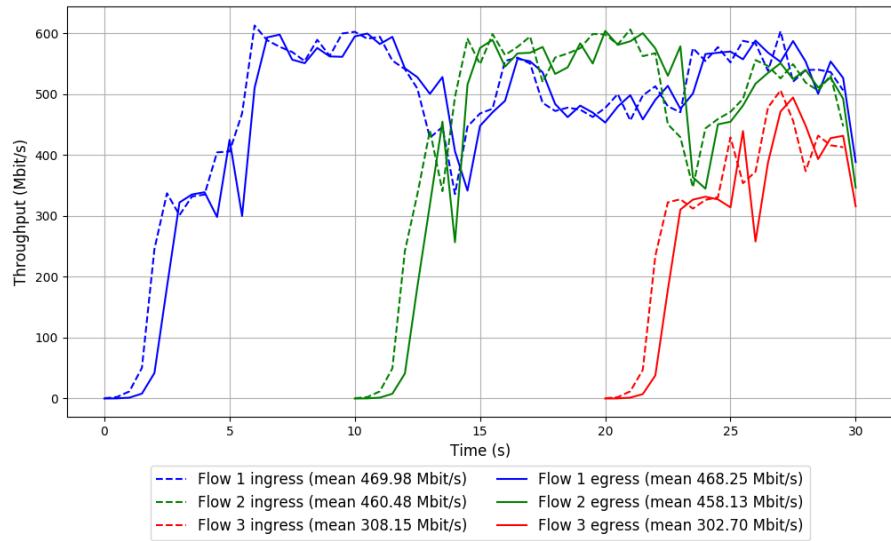


Run 5: Statistics of TCP Cubic

```
Start at: 2019-01-19 01:17:29
End at: 2019-01-19 01:17:59
Local clock offset: -0.697 ms
Remote clock offset: -0.511 ms

# Below is generated by plot.py at 2019-01-19 02:41:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 871.49 Mbit/s
95th percentile per-packet one-way delay: 213.307 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 468.25 Mbit/s
95th percentile per-packet one-way delay: 210.582 ms
Loss rate: 1.09%
-- Flow 2:
Average throughput: 458.13 Mbit/s
95th percentile per-packet one-way delay: 210.833 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 302.70 Mbit/s
95th percentile per-packet one-way delay: 238.091 ms
Loss rate: 3.93%
```

Run 5: Report of TCP Cubic — Data Link

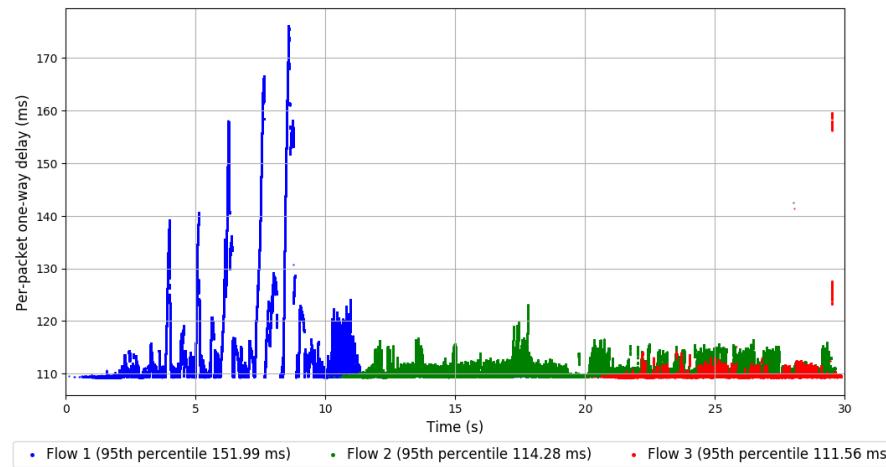
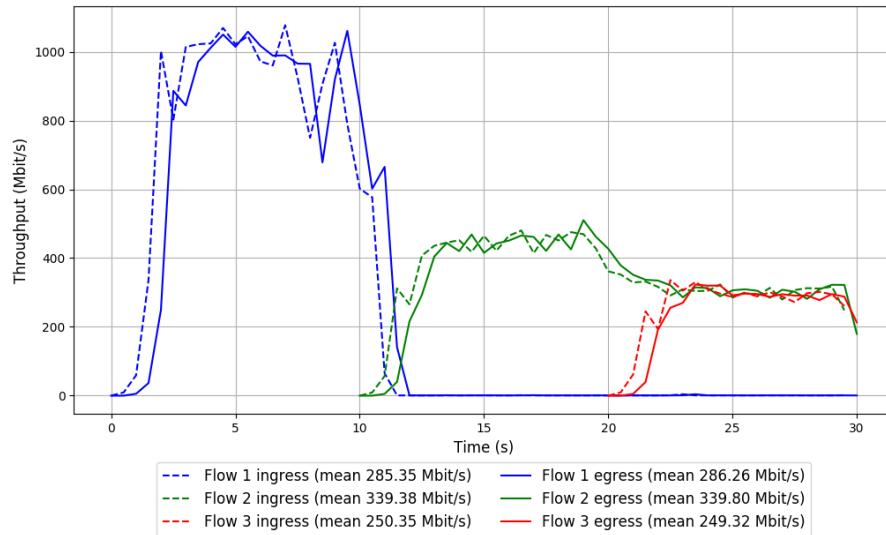


```
Run 1: Statistics of FillP

Start at: 2019-01-18 22:55:23
End at: 2019-01-18 22:55:53
Local clock offset: -0.151 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2019-01-19 02:41:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 592.48 Mbit/s
95th percentile per-packet one-way delay: 131.739 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 286.26 Mbit/s
95th percentile per-packet one-way delay: 151.987 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 339.80 Mbit/s
95th percentile per-packet one-way delay: 114.279 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 249.32 Mbit/s
95th percentile per-packet one-way delay: 111.558 ms
Loss rate: 2.62%
```

Run 1: Report of FillP — Data Link

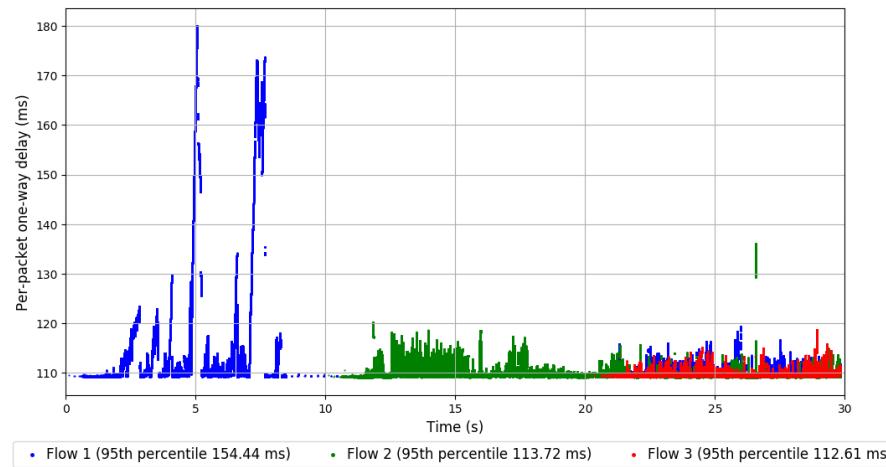
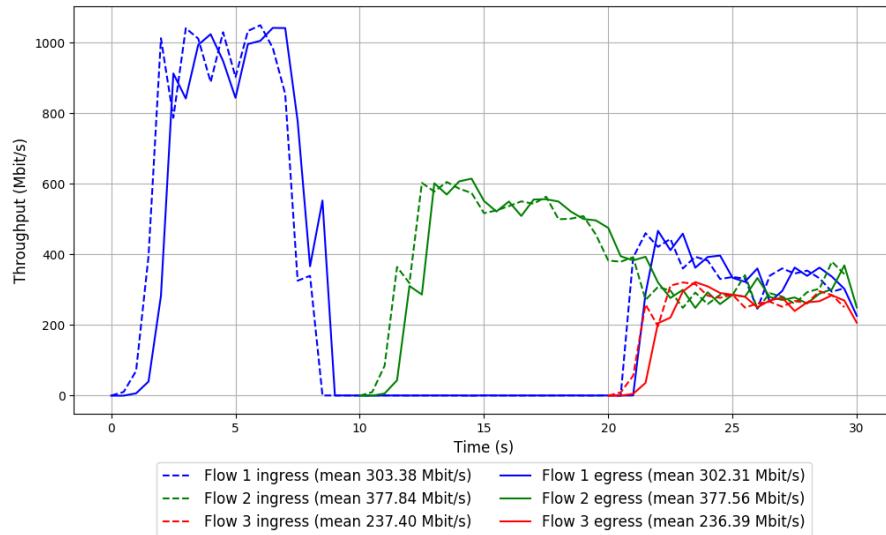


Run 2: Statistics of FillP

```
Start at: 2019-01-18 23:33:52
End at: 2019-01-18 23:34:22
Local clock offset: -0.156 ms
Remote clock offset: -0.132 ms

# Below is generated by plot.py at 2019-01-19 02:54:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 629.68 Mbit/s
95th percentile per-packet one-way delay: 123.683 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 302.31 Mbit/s
95th percentile per-packet one-way delay: 154.441 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 377.56 Mbit/s
95th percentile per-packet one-way delay: 113.725 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 236.39 Mbit/s
95th percentile per-packet one-way delay: 112.615 ms
Loss rate: 2.66%
```

Run 2: Report of FillP — Data Link

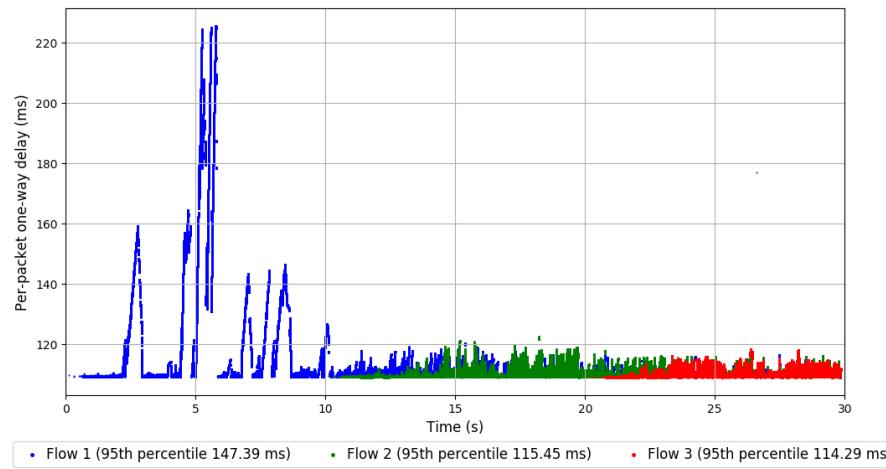
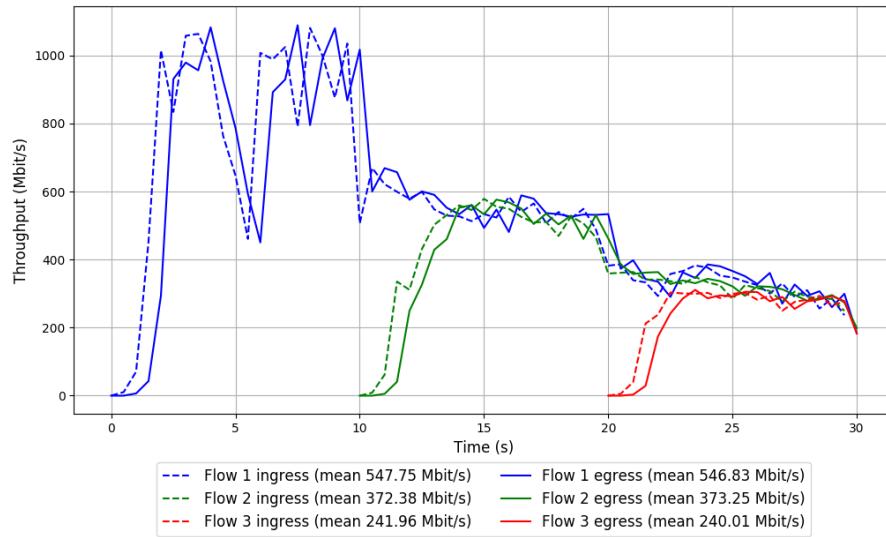


Run 3: Statistics of FillP

```
Start at: 2019-01-19 00:13:51
End at: 2019-01-19 00:14:21
Local clock offset: -0.232 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-01-19 03:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 872.21 Mbit/s
95th percentile per-packet one-way delay: 137.715 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 546.83 Mbit/s
95th percentile per-packet one-way delay: 147.390 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 373.25 Mbit/s
95th percentile per-packet one-way delay: 115.447 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 240.01 Mbit/s
95th percentile per-packet one-way delay: 114.286 ms
Loss rate: 3.00%
```

Run 3: Report of FillP — Data Link

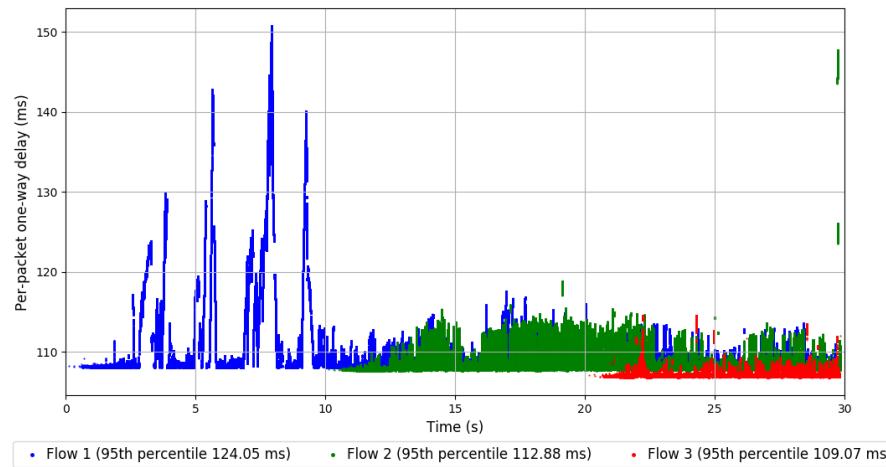
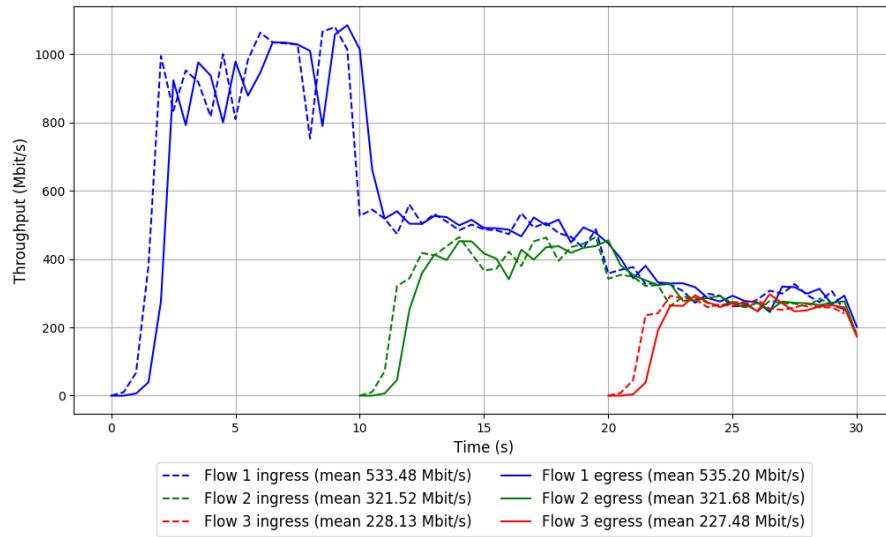


Run 4: Statistics of FillP

```
Start at: 2019-01-19 00:52:39
End at: 2019-01-19 00:53:09
Local clock offset: -1.494 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2019-01-19 03:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 822.38 Mbit/s
95th percentile per-packet one-way delay: 121.523 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 535.20 Mbit/s
95th percentile per-packet one-way delay: 124.052 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 321.68 Mbit/s
95th percentile per-packet one-way delay: 112.875 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 227.48 Mbit/s
95th percentile per-packet one-way delay: 109.067 ms
Loss rate: 2.71%
```

Run 4: Report of FillP — Data Link

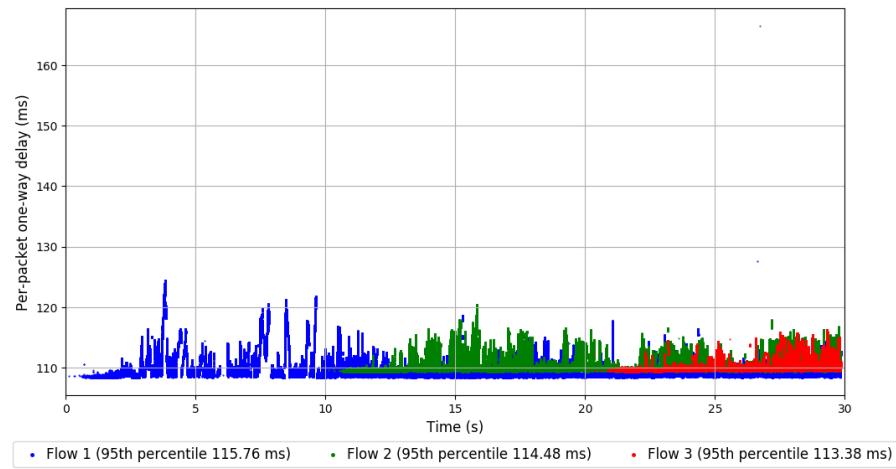
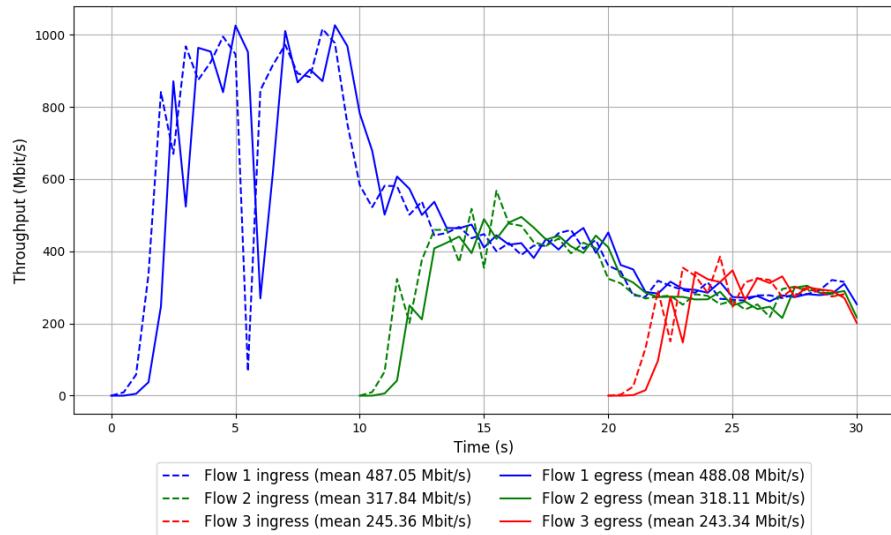


Run 5: Statistics of FillP

```
Start at: 2019-01-19 01:31:03
End at: 2019-01-19 01:31:33
Local clock offset: -0.569 ms
Remote clock offset: -0.572 ms

# Below is generated by plot.py at 2019-01-19 03:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 778.38 Mbit/s
95th percentile per-packet one-way delay: 114.902 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 488.08 Mbit/s
95th percentile per-packet one-way delay: 115.759 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 318.11 Mbit/s
95th percentile per-packet one-way delay: 114.478 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 243.34 Mbit/s
95th percentile per-packet one-way delay: 113.380 ms
Loss rate: 3.03%
```

Run 5: Report of FillP — Data Link

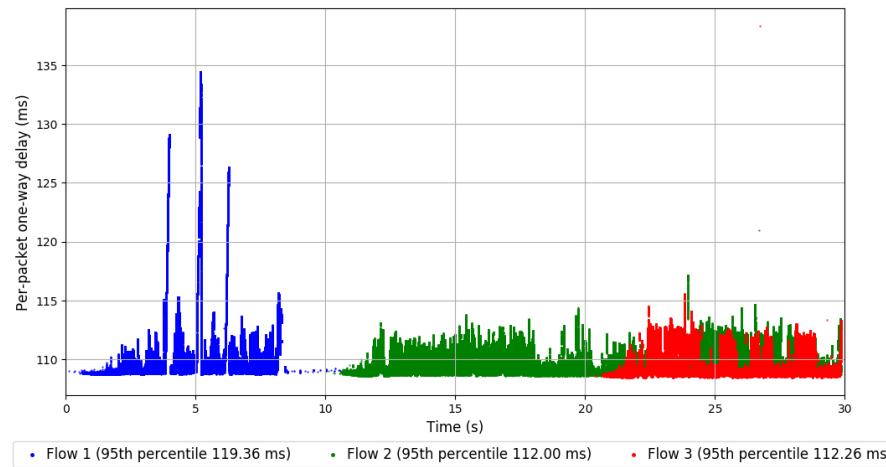
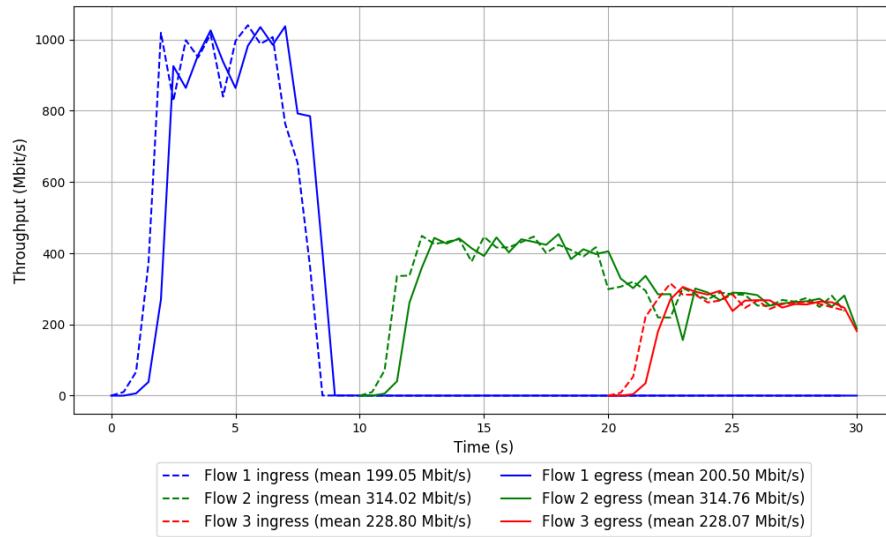


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-01-18 22:35:05
End at: 2019-01-18 22:35:35
Local clock offset: -0.551 ms
Remote clock offset: 0.254 ms

# Below is generated by plot.py at 2019-01-19 03:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.48 Mbit/s
95th percentile per-packet one-way delay: 113.426 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 200.50 Mbit/s
95th percentile per-packet one-way delay: 119.363 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 314.76 Mbit/s
95th percentile per-packet one-way delay: 112.001 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 228.07 Mbit/s
95th percentile per-packet one-way delay: 112.259 ms
Loss rate: 2.48%
```

Run 1: Report of FillP-Sheep — Data Link

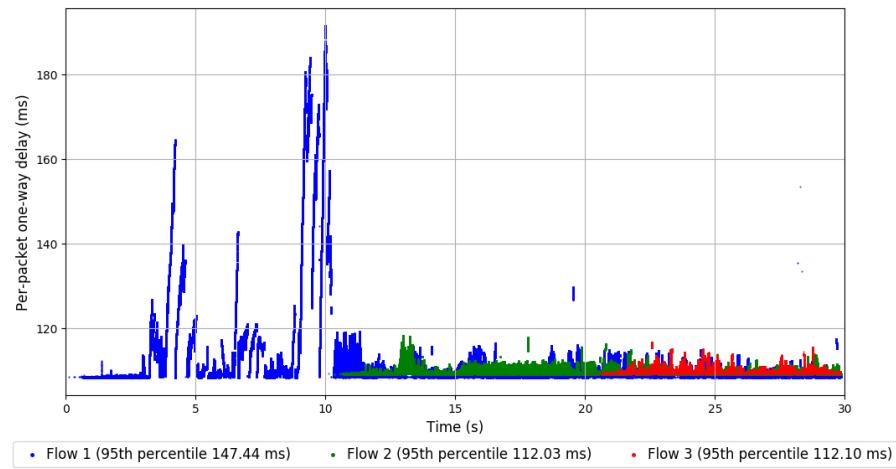
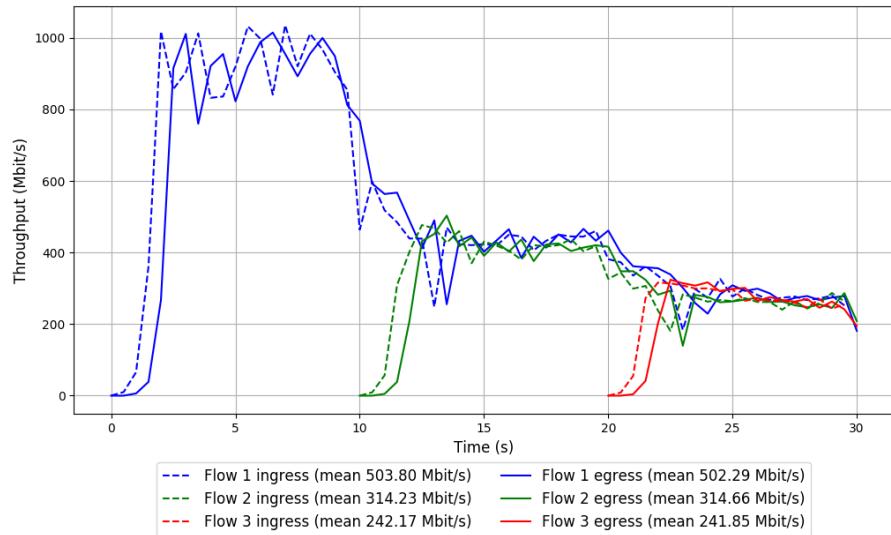


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-01-18 23:13:33
End at: 2019-01-18 23:14:03
Local clock offset: -0.166 ms
Remote clock offset: 0.053 ms

# Below is generated by plot.py at 2019-01-19 03:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 789.75 Mbit/s
95th percentile per-packet one-way delay: 133.072 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 502.29 Mbit/s
95th percentile per-packet one-way delay: 147.443 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 314.66 Mbit/s
95th percentile per-packet one-way delay: 112.025 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 241.85 Mbit/s
95th percentile per-packet one-way delay: 112.100 ms
Loss rate: 2.51%
```

Run 2: Report of FillP-Sheep — Data Link

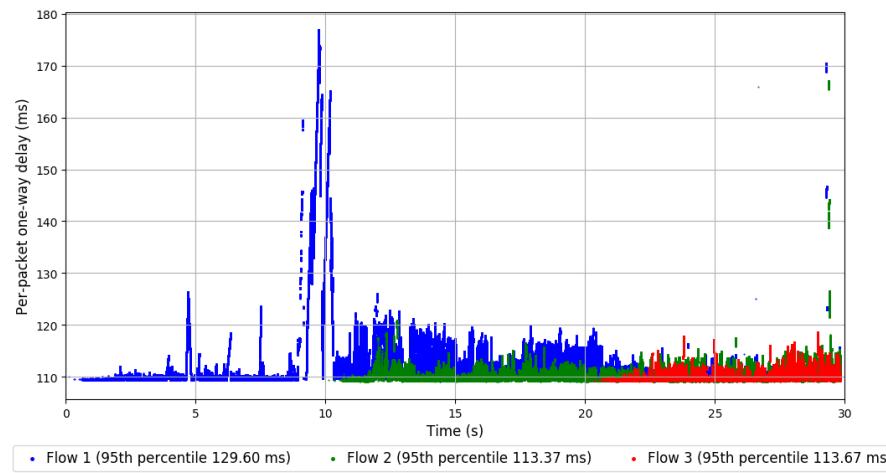
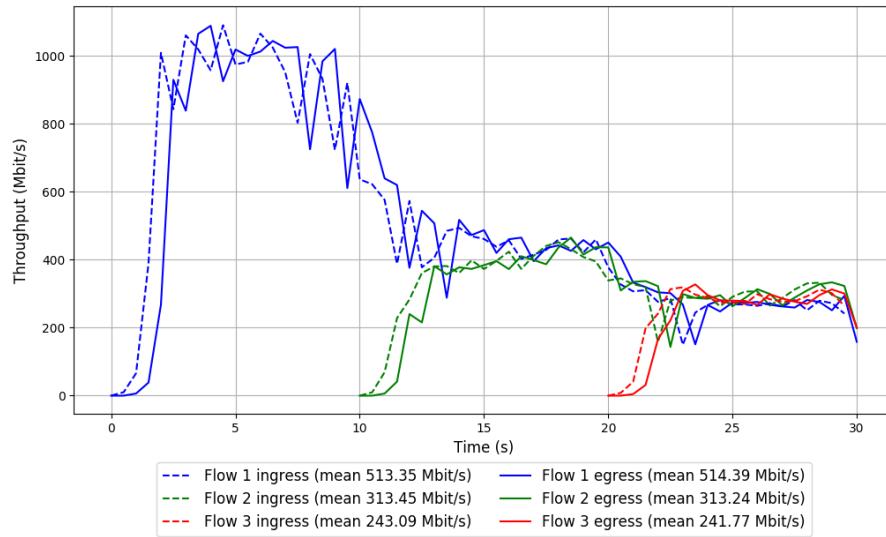


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-01-18 23:52:49
End at: 2019-01-18 23:53:19
Local clock offset: -0.112 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2019-01-19 03:03:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 800.89 Mbit/s
95th percentile per-packet one-way delay: 119.496 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 514.39 Mbit/s
95th percentile per-packet one-way delay: 129.597 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 313.24 Mbit/s
95th percentile per-packet one-way delay: 113.372 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 241.77 Mbit/s
95th percentile per-packet one-way delay: 113.669 ms
Loss rate: 2.73%
```

Run 3: Report of FillP-Sheep — Data Link

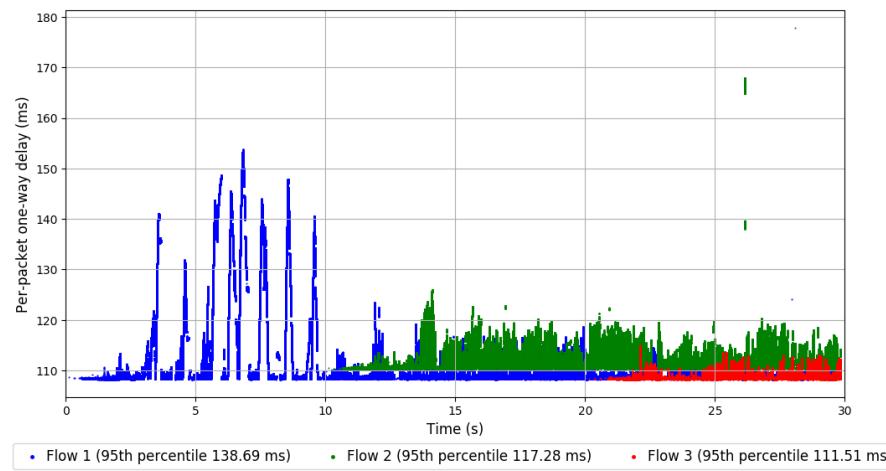
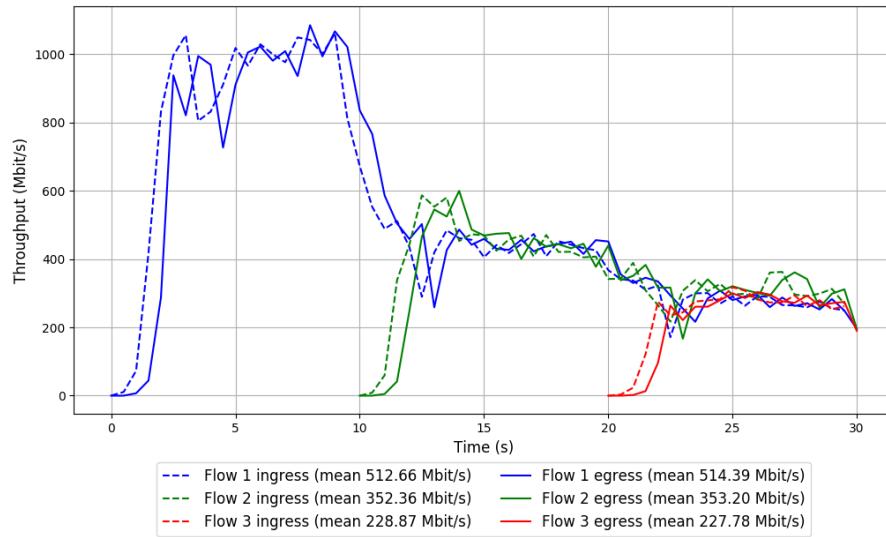


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-01-19 00:32:17
End at: 2019-01-19 00:32:47
Local clock offset: 0.003 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2019-01-19 03:06:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 822.47 Mbit/s
95th percentile per-packet one-way delay: 133.344 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 514.39 Mbit/s
95th percentile per-packet one-way delay: 138.695 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 353.20 Mbit/s
95th percentile per-packet one-way delay: 117.275 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 227.78 Mbit/s
95th percentile per-packet one-way delay: 111.512 ms
Loss rate: 2.63%
```

Run 4: Report of FillP-Sheep — Data Link

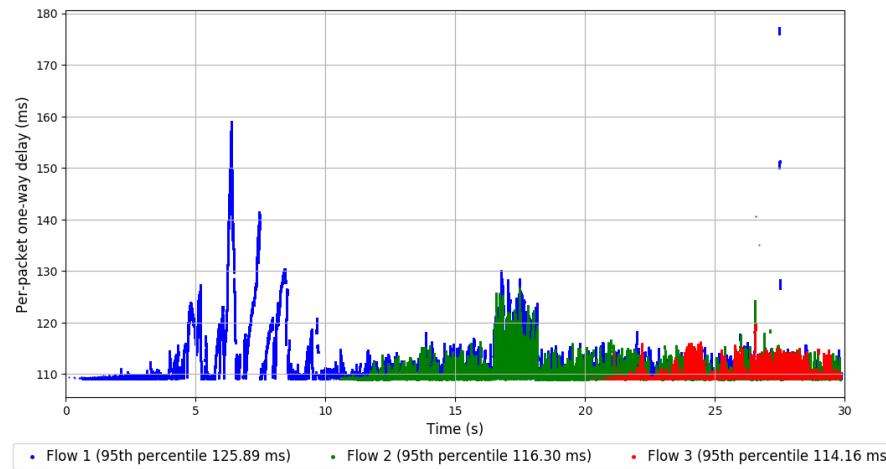
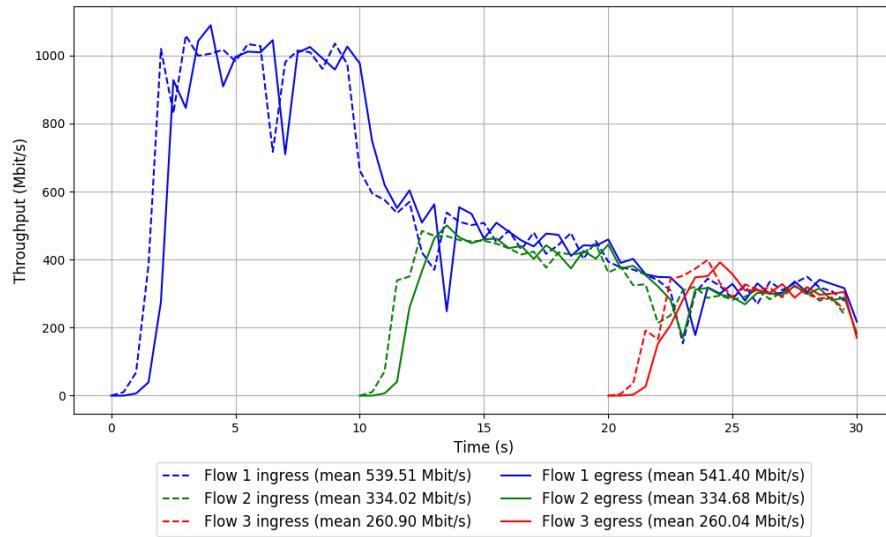


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-01-19 01:11:15
End at: 2019-01-19 01:11:45
Local clock offset: -0.168 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2019-01-19 03:17:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 848.18 Mbit/s
95th percentile per-packet one-way delay: 122.626 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 541.40 Mbit/s
95th percentile per-packet one-way delay: 125.886 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 334.68 Mbit/s
95th percentile per-packet one-way delay: 116.302 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 260.04 Mbit/s
95th percentile per-packet one-way delay: 114.158 ms
Loss rate: 2.50%
```

Run 5: Report of FillP-Sheep — Data Link

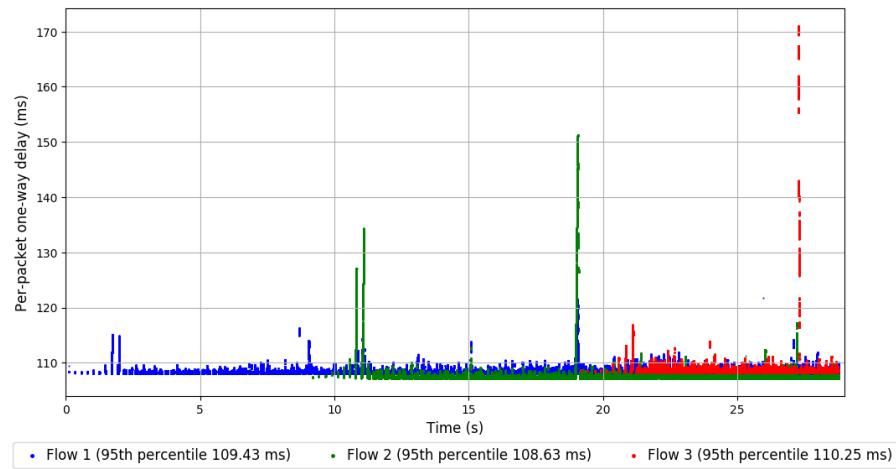
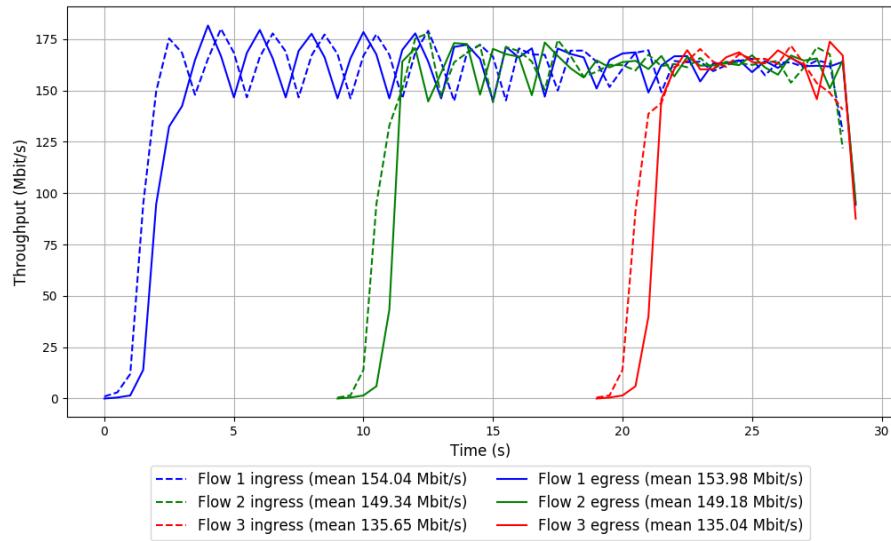


Run 1: Statistics of Indigo

```
Start at: 2019-01-18 23:04:37
End at: 2019-01-18 23:05:07
Local clock offset: -0.776 ms
Remote clock offset: 0.435 ms

# Below is generated by plot.py at 2019-01-19 03:17:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.79 Mbit/s
95th percentile per-packet one-way delay: 109.436 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 153.98 Mbit/s
95th percentile per-packet one-way delay: 109.433 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 149.18 Mbit/s
95th percentile per-packet one-way delay: 108.629 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 135.04 Mbit/s
95th percentile per-packet one-way delay: 110.247 ms
Loss rate: 2.73%
```

Run 1: Report of Indigo — Data Link

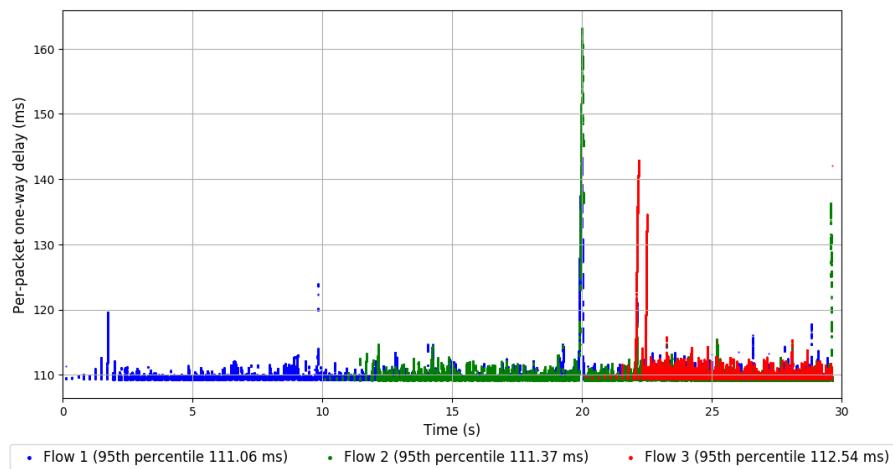
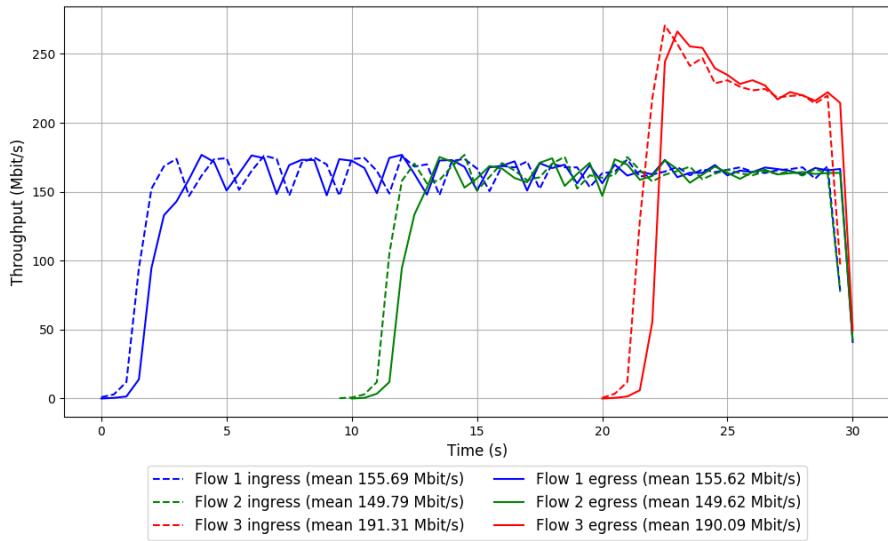


Run 2: Statistics of Indigo

```
Start at: 2019-01-18 23:42:58
End at: 2019-01-18 23:43:28
Local clock offset: -0.15 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2019-01-19 03:17:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 315.72 Mbit/s
95th percentile per-packet one-way delay: 111.445 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 155.62 Mbit/s
95th percentile per-packet one-way delay: 111.059 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 149.62 Mbit/s
95th percentile per-packet one-way delay: 111.374 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 190.09 Mbit/s
95th percentile per-packet one-way delay: 112.539 ms
Loss rate: 2.61%
```

Run 2: Report of Indigo — Data Link

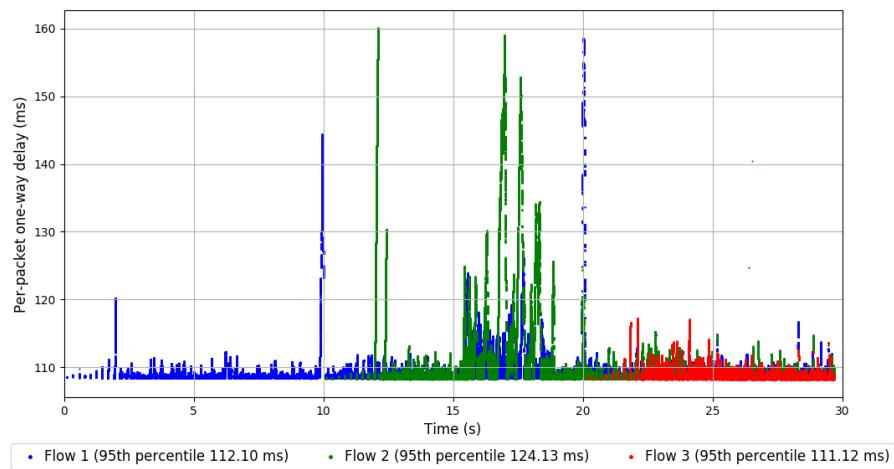
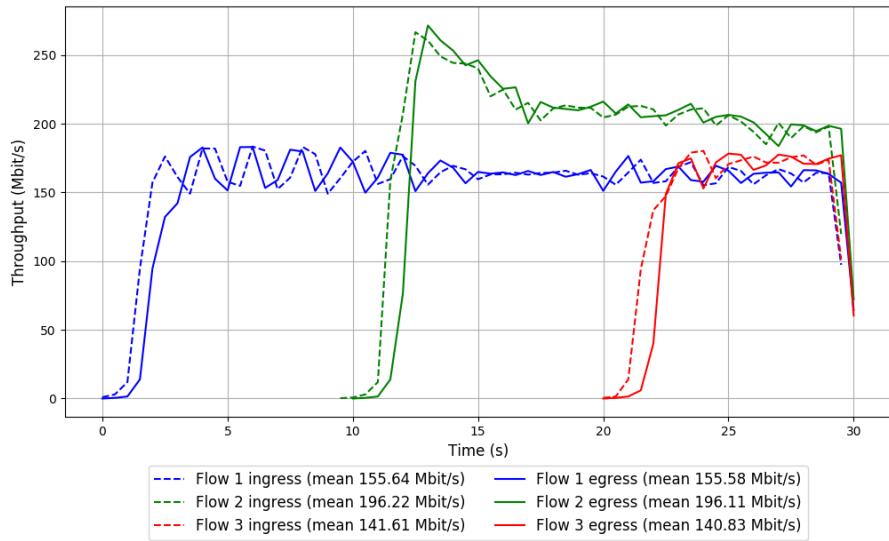


Run 3: Statistics of Indigo

```
Start at: 2019-01-19 00:22:54
End at: 2019-01-19 00:23:24
Local clock offset: -0.958 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2019-01-19 03:17:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.49 Mbit/s
95th percentile per-packet one-way delay: 115.446 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 155.58 Mbit/s
95th percentile per-packet one-way delay: 112.101 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 196.11 Mbit/s
95th percentile per-packet one-way delay: 124.132 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 140.83 Mbit/s
95th percentile per-packet one-way delay: 111.116 ms
Loss rate: 2.80%
```

Run 3: Report of Indigo — Data Link

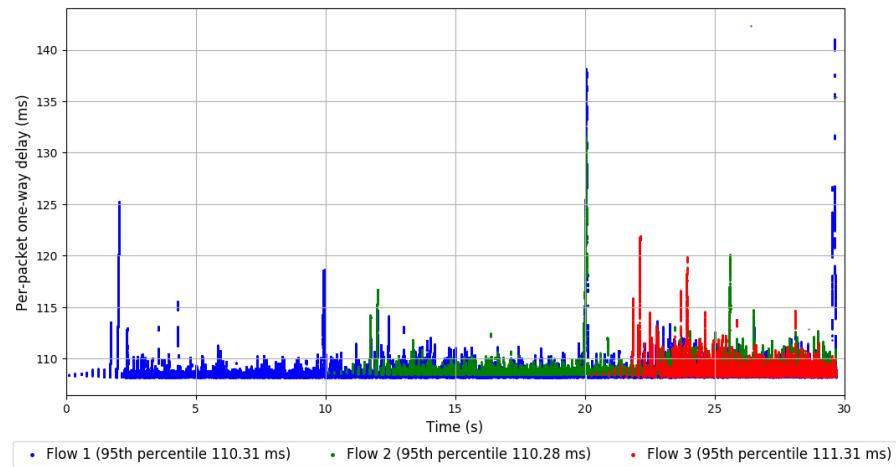
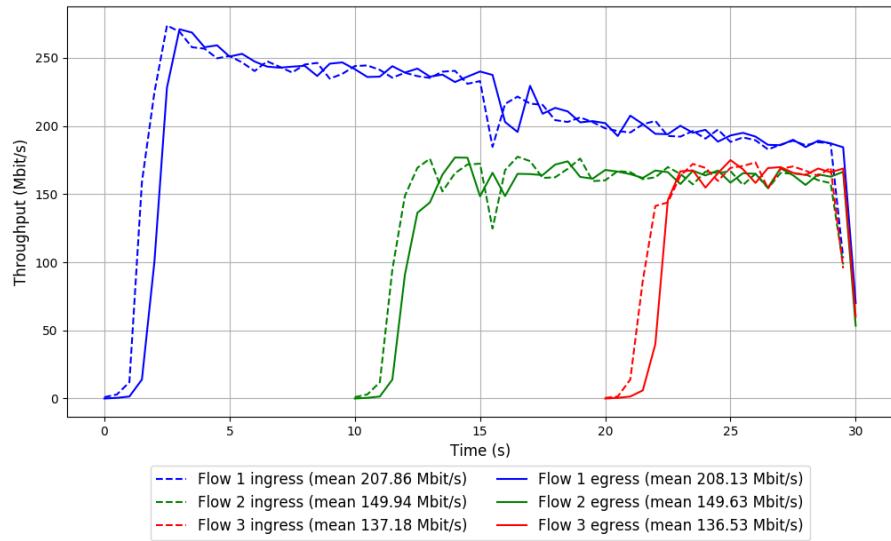


Run 4: Statistics of Indigo

```
Start at: 2019-01-19 01:02:15
End at: 2019-01-19 01:02:45
Local clock offset: -0.842 ms
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2019-01-19 03:18:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 350.63 Mbit/s
95th percentile per-packet one-way delay: 110.458 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 208.13 Mbit/s
95th percentile per-packet one-way delay: 110.314 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 149.63 Mbit/s
95th percentile per-packet one-way delay: 110.284 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 136.53 Mbit/s
95th percentile per-packet one-way delay: 111.310 ms
Loss rate: 2.74%
```

Run 4: Report of Indigo — Data Link

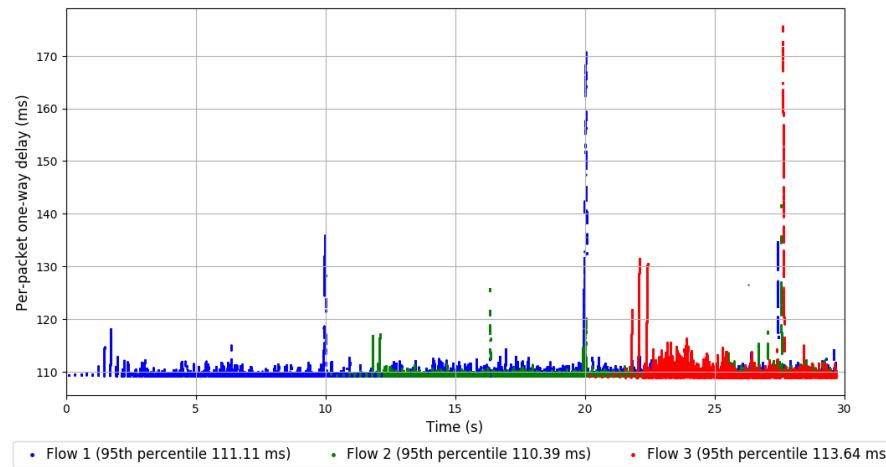
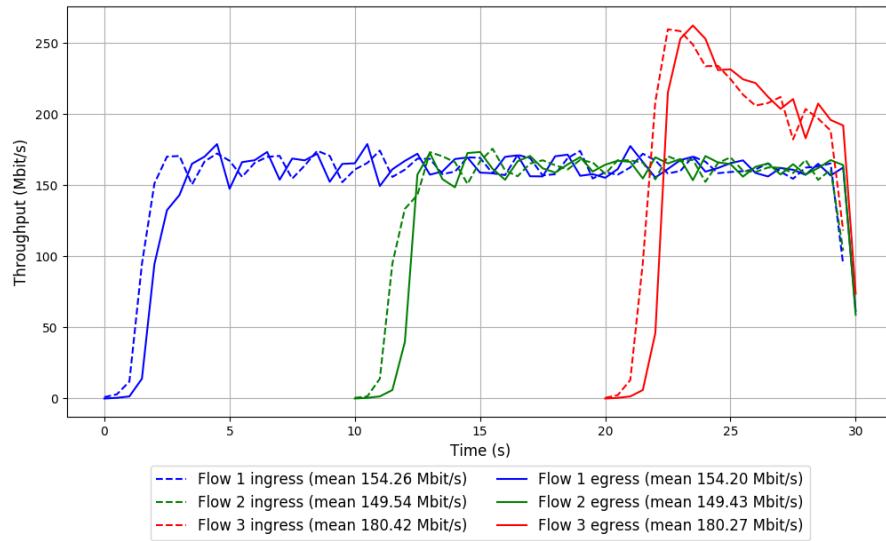


Run 5: Statistics of Indigo

```
Start at: 2019-01-19 01:40:52
End at: 2019-01-19 01:41:22
Local clock offset: -0.345 ms
Remote clock offset: -0.158 ms

# Below is generated by plot.py at 2019-01-19 03:18:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 310.52 Mbit/s
95th percentile per-packet one-way delay: 111.368 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 154.20 Mbit/s
95th percentile per-packet one-way delay: 111.111 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 149.43 Mbit/s
95th percentile per-packet one-way delay: 110.395 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 180.27 Mbit/s
95th percentile per-packet one-way delay: 113.638 ms
Loss rate: 2.37%
```

Run 5: Report of Indigo — Data Link

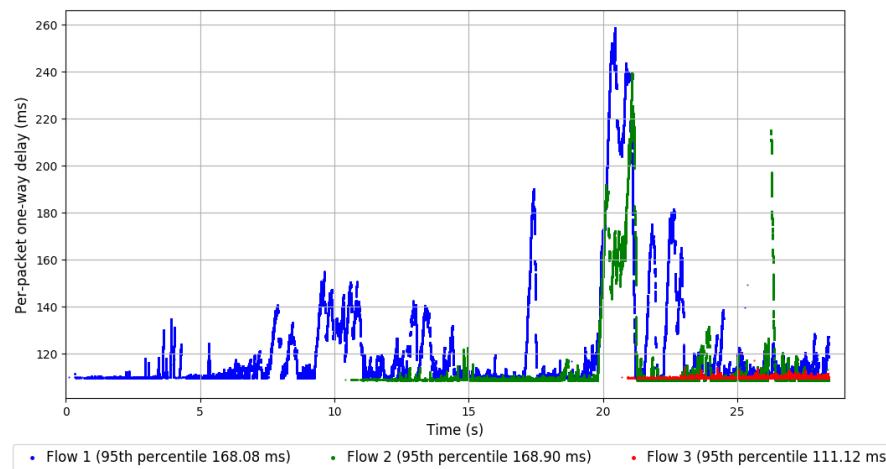
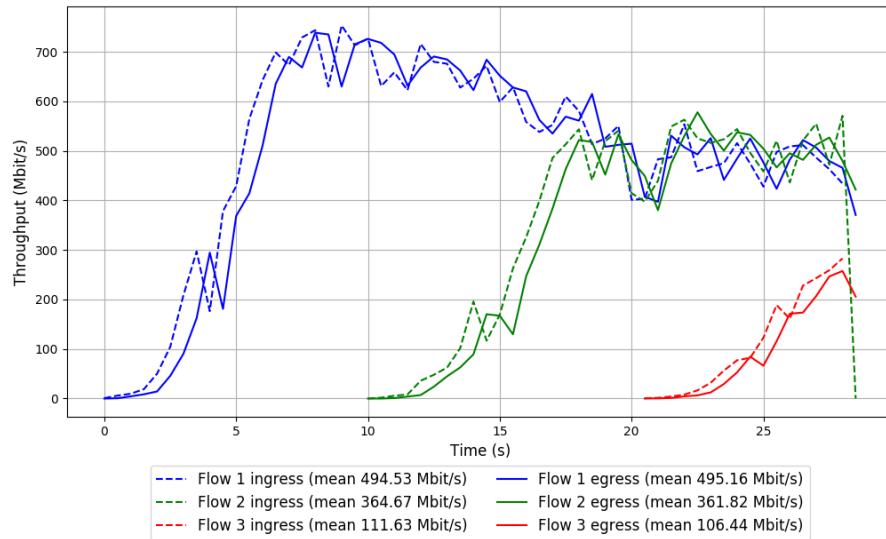


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-01-18 22:58:25
End at: 2019-01-18 22:58:55
Local clock offset: 0.425 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2019-01-19 03:21:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 754.20 Mbit/s
95th percentile per-packet one-way delay: 167.599 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 495.16 Mbit/s
95th percentile per-packet one-way delay: 168.078 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 361.82 Mbit/s
95th percentile per-packet one-way delay: 168.900 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 106.44 Mbit/s
95th percentile per-packet one-way delay: 111.124 ms
Loss rate: 7.35%
```

Run 1: Report of Indigo-MusesC3 — Data Link

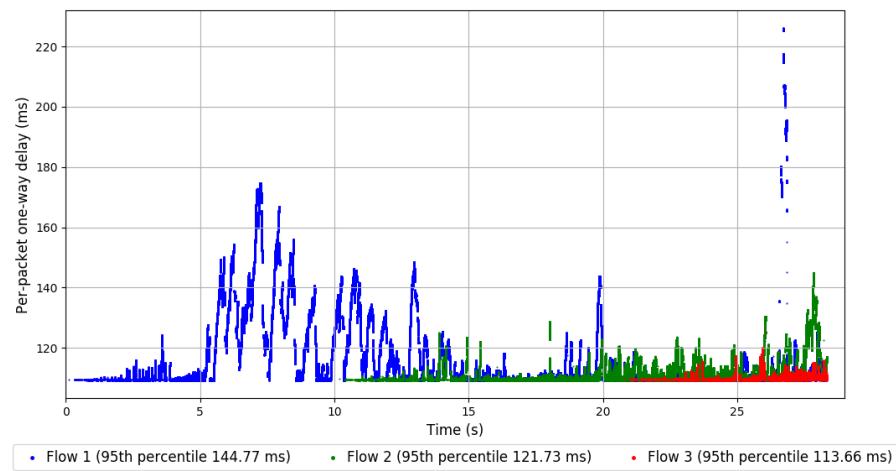
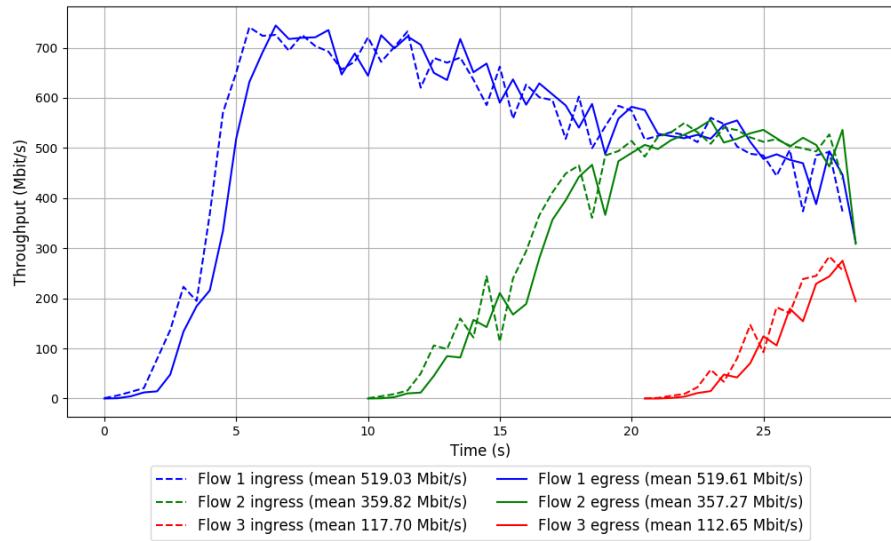


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-01-18 23:36:56
End at: 2019-01-18 23:37:26
Local clock offset: -0.305 ms
Remote clock offset: -0.475 ms

# Below is generated by plot.py at 2019-01-19 03:25:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 779.38 Mbit/s
95th percentile per-packet one-way delay: 140.824 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 519.61 Mbit/s
95th percentile per-packet one-way delay: 144.770 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 357.27 Mbit/s
95th percentile per-packet one-way delay: 121.732 ms
Loss rate: 1.90%
-- Flow 3:
Average throughput: 112.65 Mbit/s
95th percentile per-packet one-way delay: 113.662 ms
Loss rate: 7.00%
```

Run 2: Report of Indigo-MusesC3 — Data Link

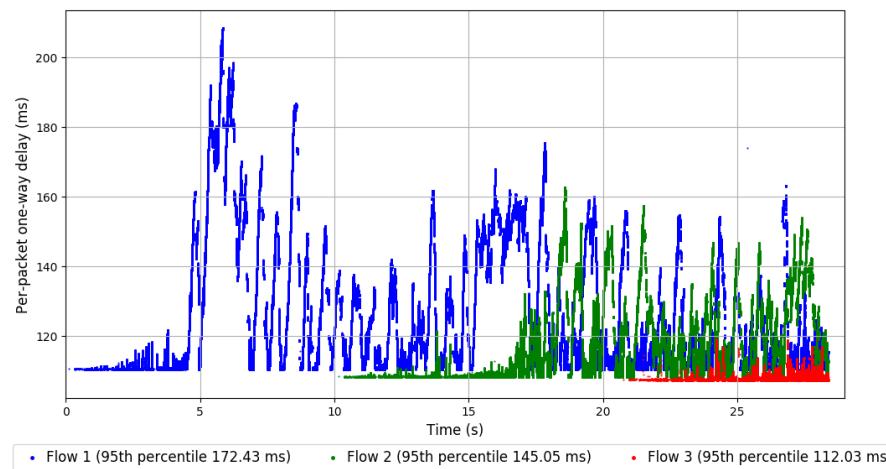
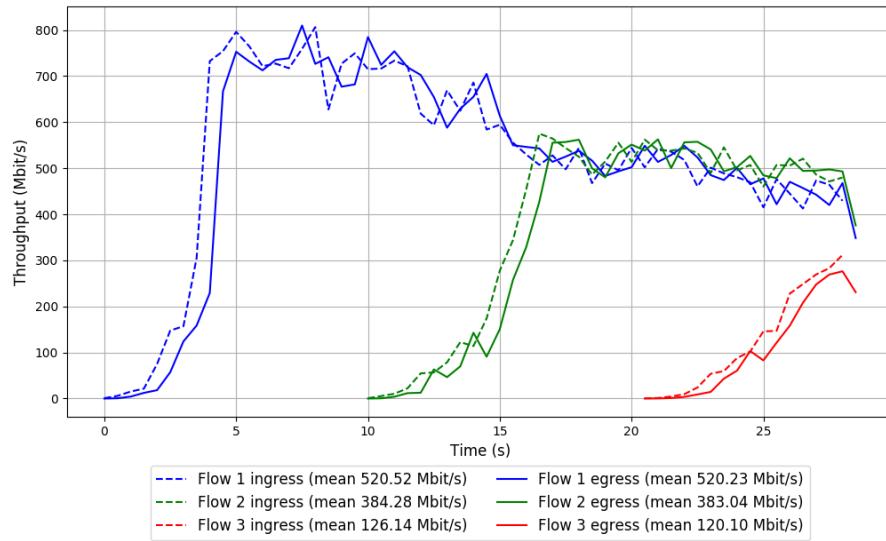


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 00:17:08
End at: 2019-01-19 00:17:38
Local clock offset: -0.862 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2019-01-19 03:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 799.50 Mbit/s
95th percentile per-packet one-way delay: 160.998 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 520.23 Mbit/s
95th percentile per-packet one-way delay: 172.432 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 383.04 Mbit/s
95th percentile per-packet one-way delay: 145.051 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 120.10 Mbit/s
95th percentile per-packet one-way delay: 112.025 ms
Loss rate: 7.44%
```

Run 3: Report of Indigo-MusesC3 — Data Link

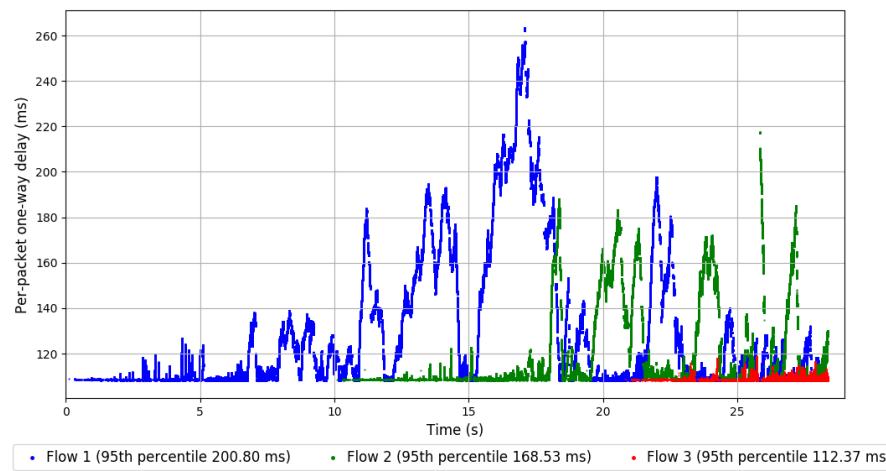
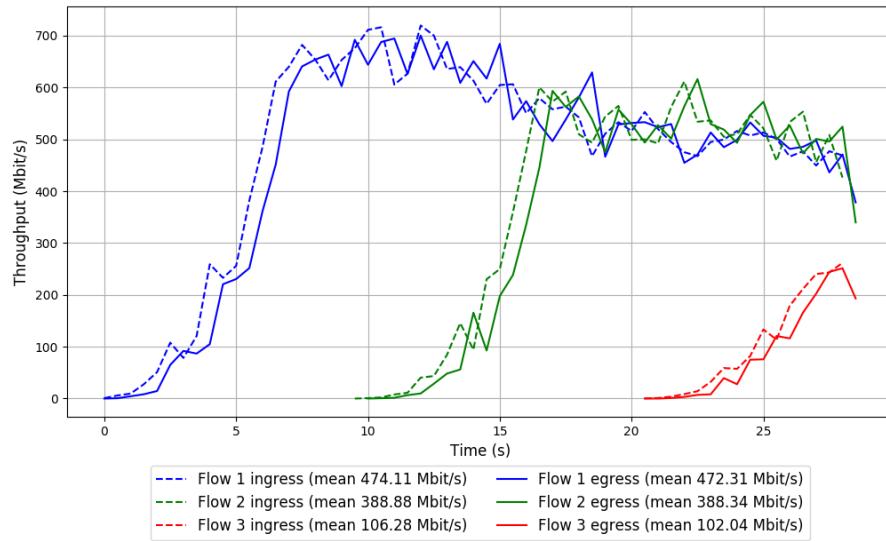


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 00:55:53
End at: 2019-01-19 00:56:23
Local clock offset: -1.104 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-01-19 03:34:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 750.50 Mbit/s
95th percentile per-packet one-way delay: 190.010 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 472.31 Mbit/s
95th percentile per-packet one-way delay: 200.804 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 388.34 Mbit/s
95th percentile per-packet one-way delay: 168.525 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 102.04 Mbit/s
95th percentile per-packet one-way delay: 112.369 ms
Loss rate: 6.71%
```

Run 4: Report of Indigo-MusesC3 — Data Link

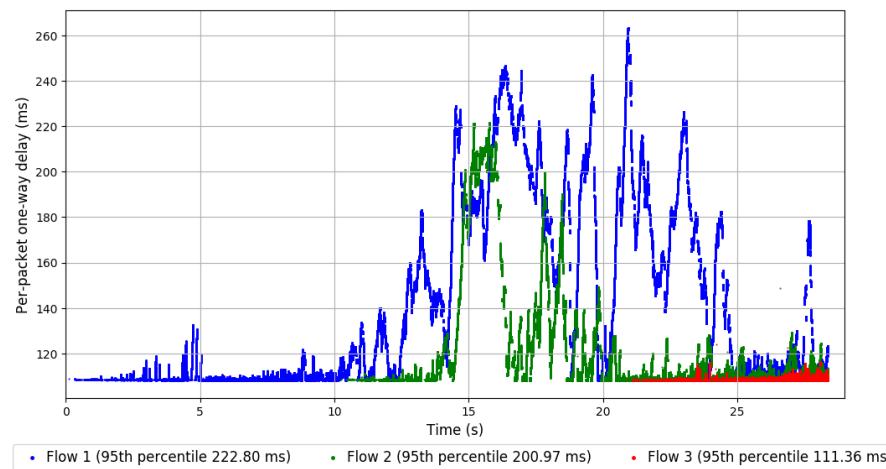
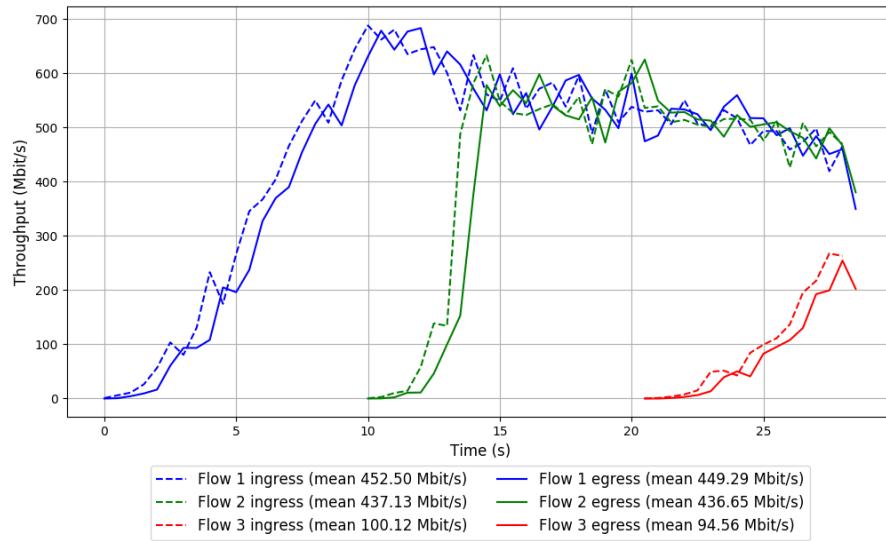


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 01:34:27
End at: 2019-01-19 01:34:57
Local clock offset: -0.997 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2019-01-19 03:36:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 754.15 Mbit/s
95th percentile per-packet one-way delay: 215.552 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 449.29 Mbit/s
95th percentile per-packet one-way delay: 222.800 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 436.65 Mbit/s
95th percentile per-packet one-way delay: 200.968 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 94.56 Mbit/s
95th percentile per-packet one-way delay: 111.356 ms
Loss rate: 8.21%
```

Run 5: Report of Indigo-MusesC3 — Data Link

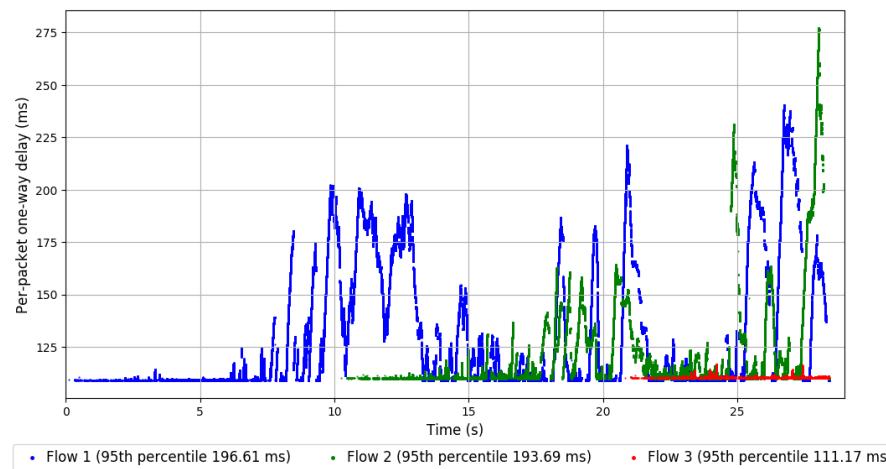
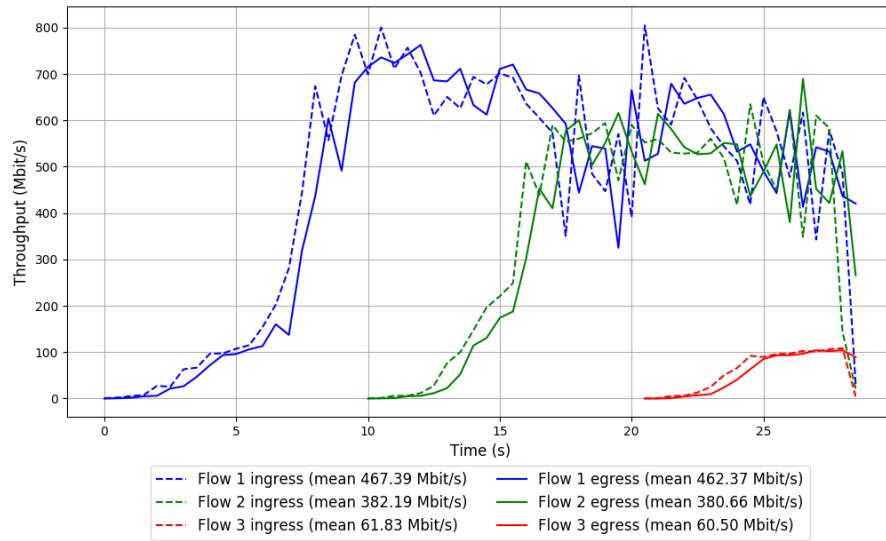


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-01-18 22:47:11
End at: 2019-01-18 22:47:41
Local clock offset: 0.526 ms
Remote clock offset: -0.015 ms

# Below is generated by plot.py at 2019-01-19 03:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 722.73 Mbit/s
95th percentile per-packet one-way delay: 195.802 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 462.37 Mbit/s
95th percentile per-packet one-way delay: 196.614 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 380.66 Mbit/s
95th percentile per-packet one-way delay: 193.695 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 60.50 Mbit/s
95th percentile per-packet one-way delay: 111.170 ms
Loss rate: 4.88%
```

Run 1: Report of Indigo-MusesC5 — Data Link

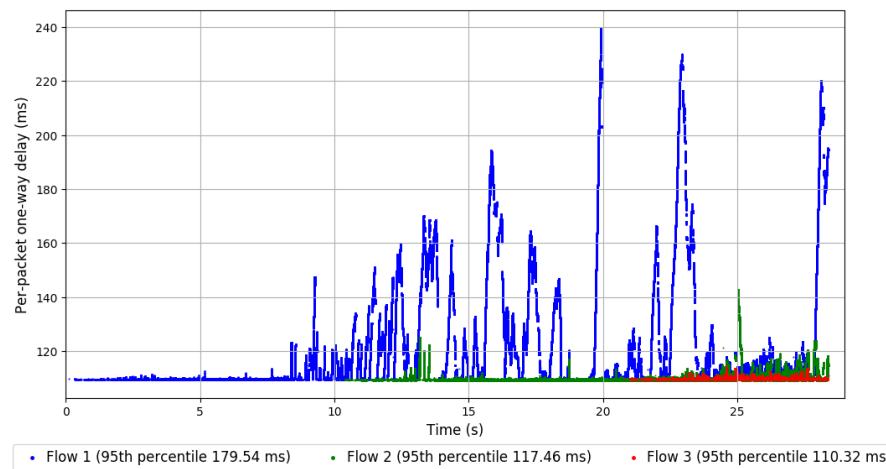
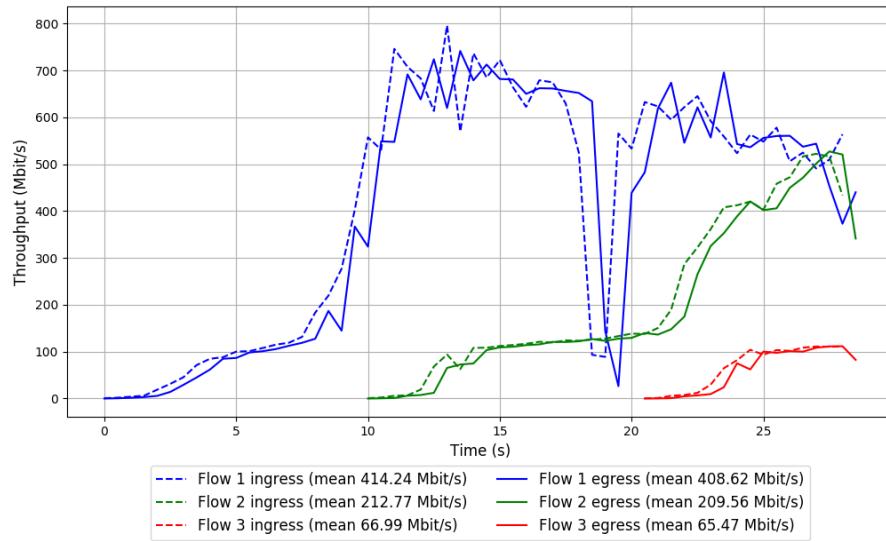


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-01-18 23:25:58
End at: 2019-01-18 23:26:28
Local clock offset: -0.119 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2019-01-19 03:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 561.15 Mbit/s
95th percentile per-packet one-way delay: 169.145 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 408.62 Mbit/s
95th percentile per-packet one-way delay: 179.541 ms
Loss rate: 2.12%
-- Flow 2:
Average throughput: 209.56 Mbit/s
95th percentile per-packet one-way delay: 117.456 ms
Loss rate: 2.68%
-- Flow 3:
Average throughput: 65.47 Mbit/s
95th percentile per-packet one-way delay: 110.316 ms
Loss rate: 4.88%
```

Run 2: Report of Indigo-MusesC5 — Data Link

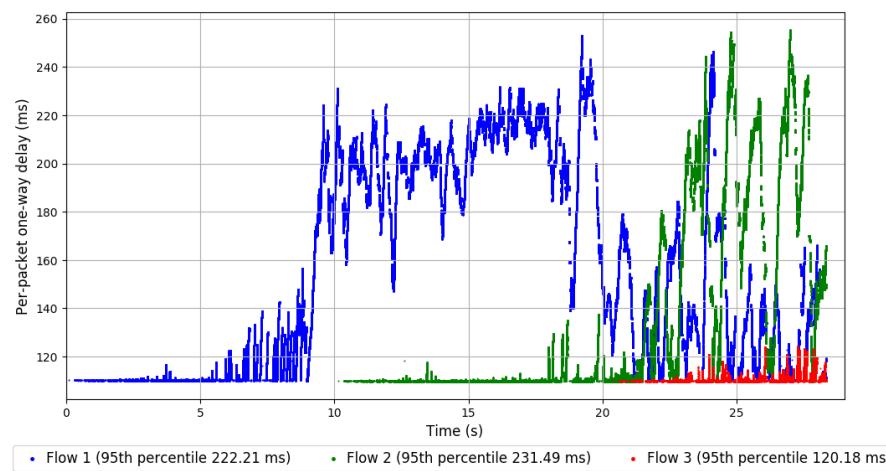
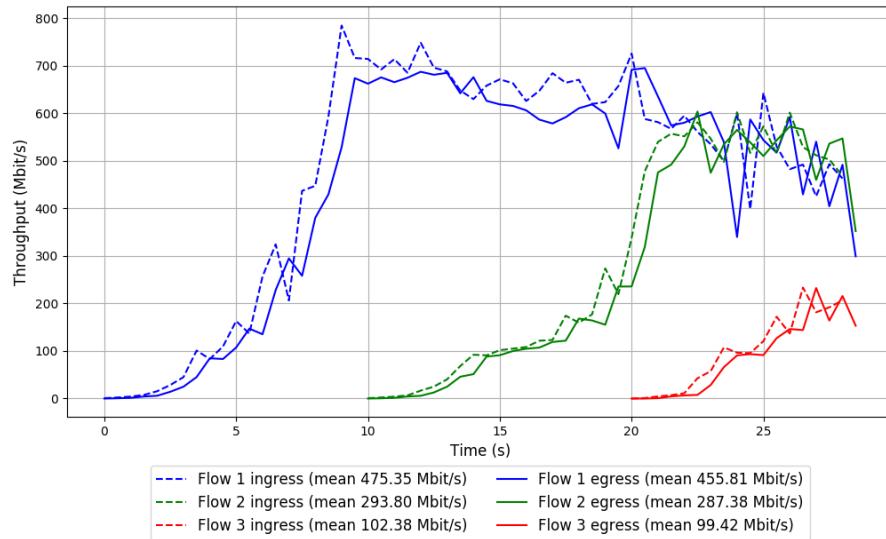


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 00:05:26
End at: 2019-01-19 00:05:56
Local clock offset: 0.415 ms
Remote clock offset: -0.003 ms

# Below is generated by plot.py at 2019-01-19 03:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 668.90 Mbit/s
95th percentile per-packet one-way delay: 223.438 ms
Loss rate: 4.48%
-- Flow 1:
Average throughput: 455.81 Mbit/s
95th percentile per-packet one-way delay: 222.209 ms
Loss rate: 4.85%
-- Flow 2:
Average throughput: 287.38 Mbit/s
95th percentile per-packet one-way delay: 231.487 ms
Loss rate: 3.35%
-- Flow 3:
Average throughput: 99.42 Mbit/s
95th percentile per-packet one-way delay: 120.183 ms
Loss rate: 5.66%
```

Run 3: Report of Indigo-MusesC5 — Data Link

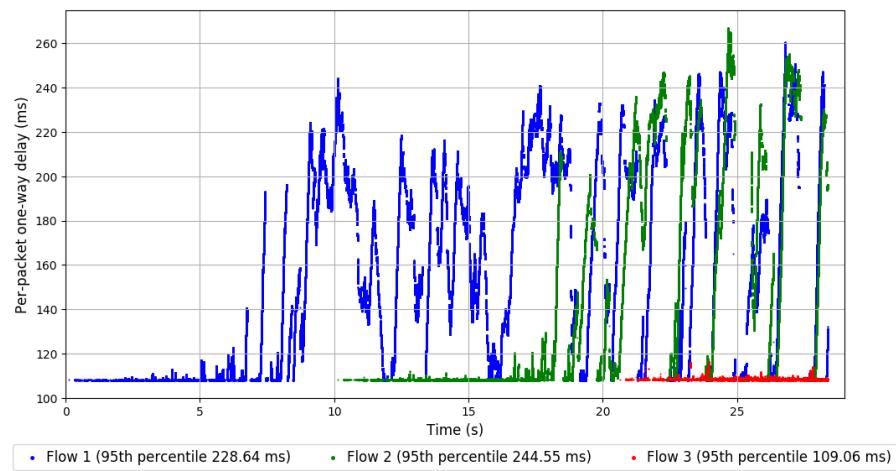
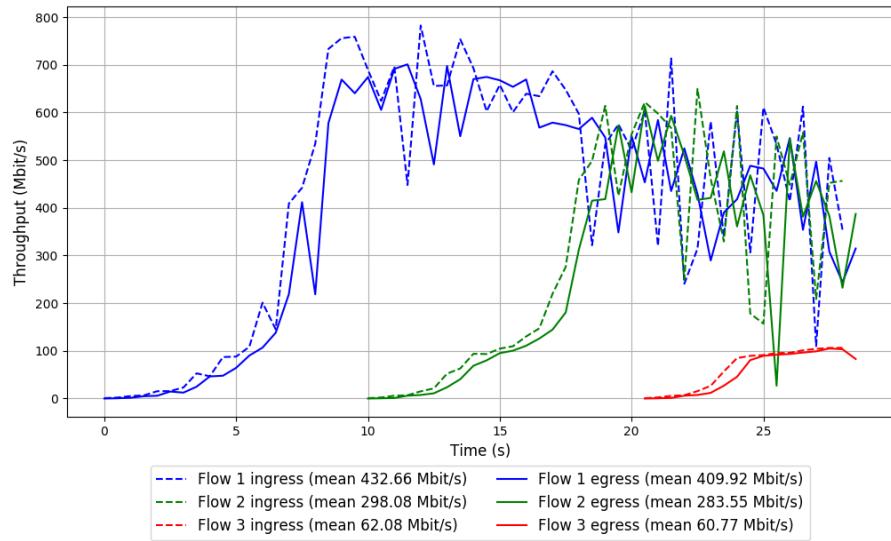


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 00:44:27
End at: 2019-01-19 00:44:57
Local clock offset: -1.406 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2019-01-19 03:37:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 609.47 Mbit/s
95th percentile per-packet one-way delay: 234.645 ms
Loss rate: 5.78%
-- Flow 1:
Average throughput: 409.92 Mbit/s
95th percentile per-packet one-way delay: 228.643 ms
Loss rate: 5.77%
-- Flow 2:
Average throughput: 283.55 Mbit/s
95th percentile per-packet one-way delay: 244.550 ms
Loss rate: 5.88%
-- Flow 3:
Average throughput: 60.77 Mbit/s
95th percentile per-packet one-way delay: 109.060 ms
Loss rate: 4.81%
```

Run 4: Report of Indigo-MusesC5 — Data Link

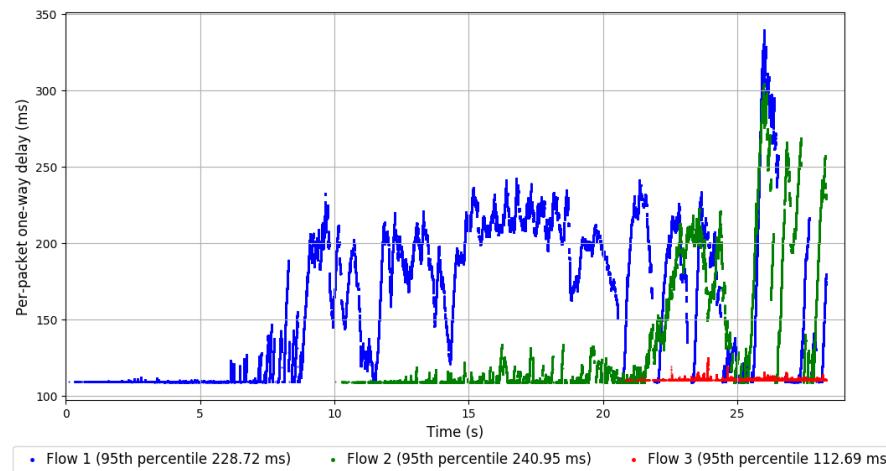
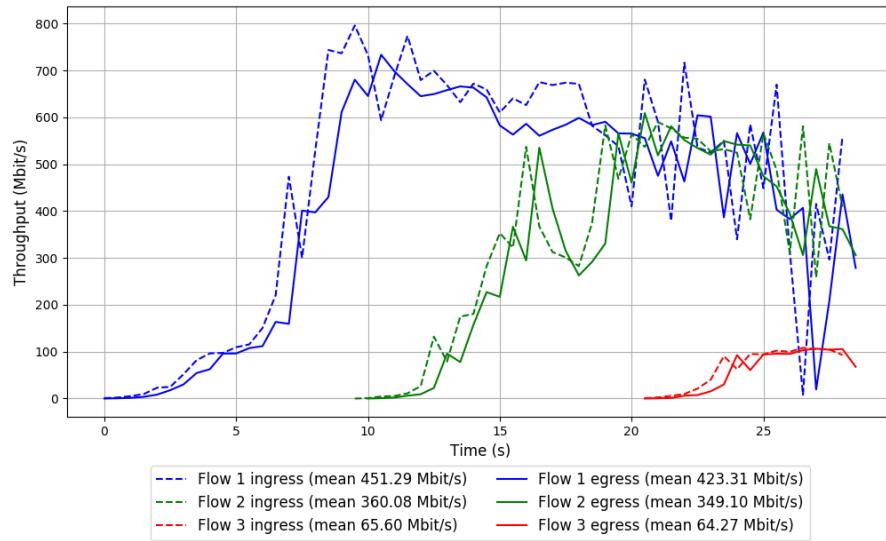


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 01:23:09
End at: 2019-01-19 01:23:39
Local clock offset: -0.079 ms
Remote clock offset: -0.182 ms

# Below is generated by plot.py at 2019-01-19 03:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 666.83 Mbit/s
95th percentile per-packet one-way delay: 229.809 ms
Loss rate: 5.96%
-- Flow 1:
Average throughput: 423.31 Mbit/s
95th percentile per-packet one-way delay: 228.723 ms
Loss rate: 6.92%
-- Flow 2:
Average throughput: 349.10 Mbit/s
95th percentile per-packet one-way delay: 240.953 ms
Loss rate: 4.20%
-- Flow 3:
Average throughput: 64.27 Mbit/s
95th percentile per-packet one-way delay: 112.689 ms
Loss rate: 4.75%
```

Run 5: Report of Indigo-MusesC5 — Data Link

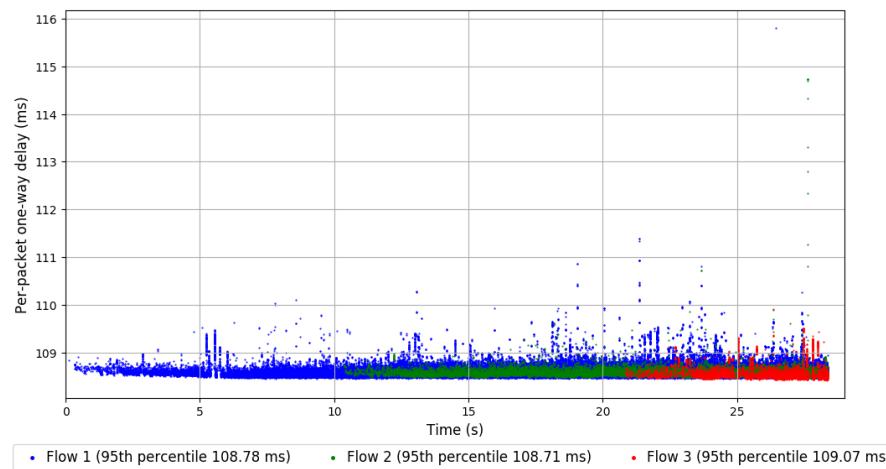
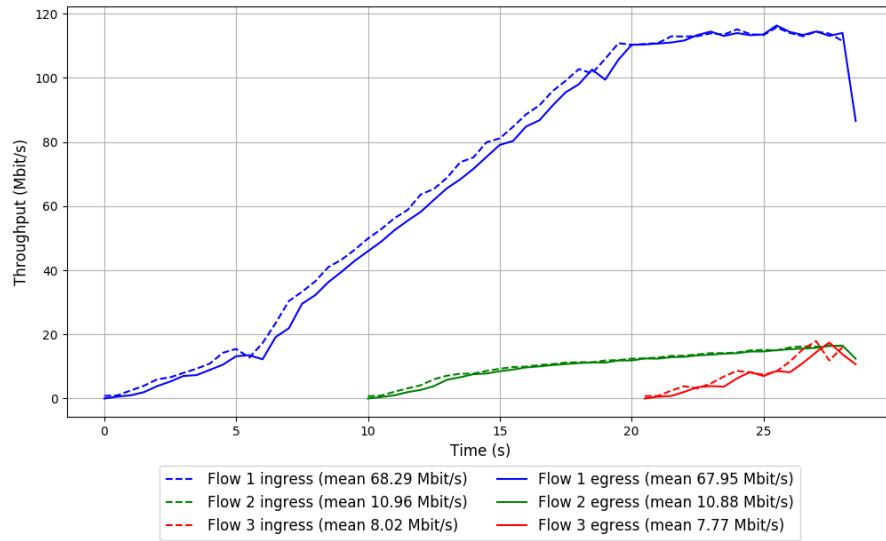


```
Run 1: Statistics of Indigo-MusesD
```

```
Start at: 2019-01-18 22:54:01
End at: 2019-01-18 22:54:31
Local clock offset: -1.024 ms
Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2019-01-19 03:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.08 Mbit/s
95th percentile per-packet one-way delay: 108.778 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 67.95 Mbit/s
95th percentile per-packet one-way delay: 108.779 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 10.88 Mbit/s
95th percentile per-packet one-way delay: 108.710 ms
Loss rate: 1.87%
-- Flow 3:
Average throughput: 7.77 Mbit/s
95th percentile per-packet one-way delay: 109.074 ms
Loss rate: 5.86%
```

Run 1: Report of Indigo-MusesD — Data Link

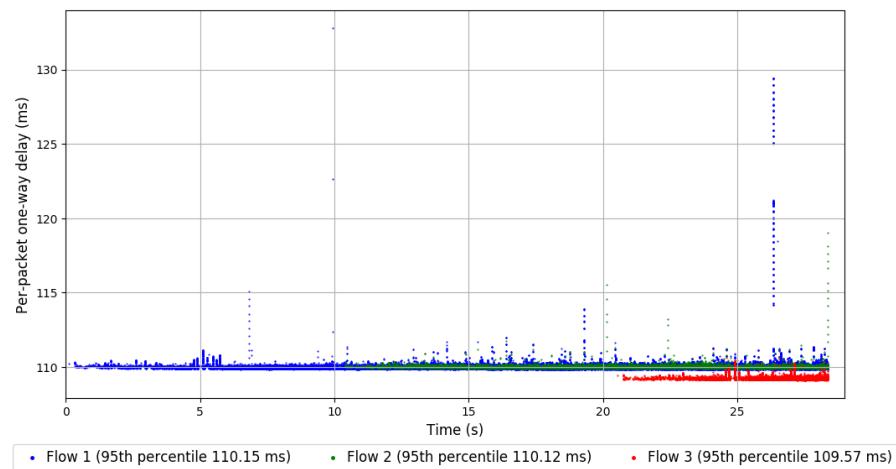
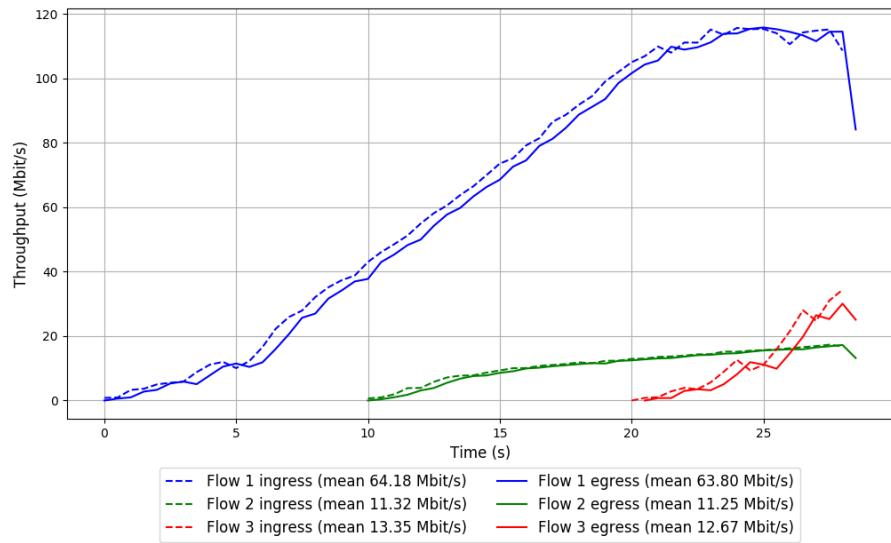


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-01-18 23:32:31
End at: 2019-01-18 23:33:01
Local clock offset: 0.472 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2019-01-19 03:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.54 Mbit/s
95th percentile per-packet one-way delay: 110.141 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 63.80 Mbit/s
95th percentile per-packet one-way delay: 110.148 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 11.25 Mbit/s
95th percentile per-packet one-way delay: 110.124 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 12.67 Mbit/s
95th percentile per-packet one-way delay: 109.566 ms
Loss rate: 7.71%
```

Run 2: Report of Indigo-MusesD — Data Link

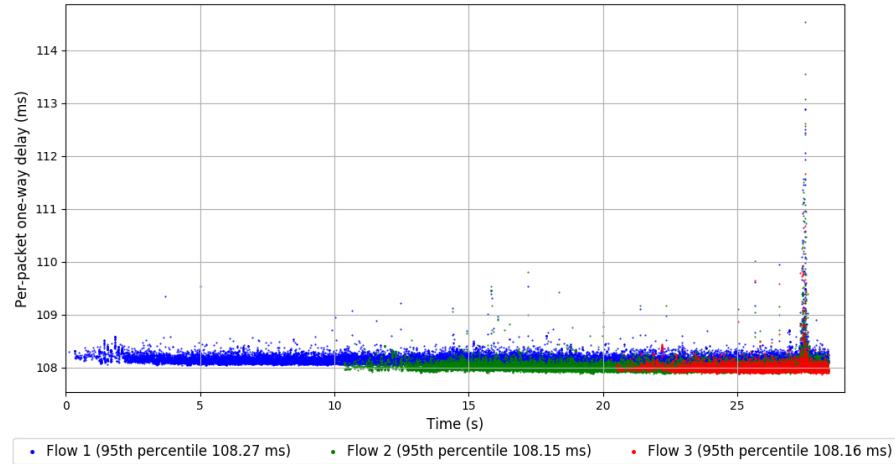
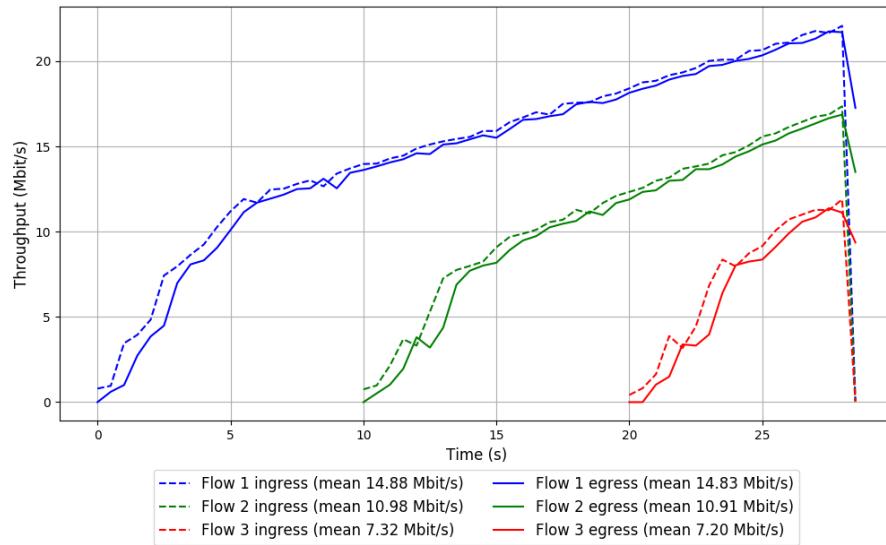


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 00:12:32
End at: 2019-01-19 00:13:02
Local clock offset: -1.475 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2019-01-19 03:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.92 Mbit/s
95th percentile per-packet one-way delay: 108.252 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 14.83 Mbit/s
95th percentile per-packet one-way delay: 108.274 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 108.154 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 7.20 Mbit/s
95th percentile per-packet one-way delay: 108.157 ms
Loss rate: 4.22%
```

Run 3: Report of Indigo-MusesD — Data Link

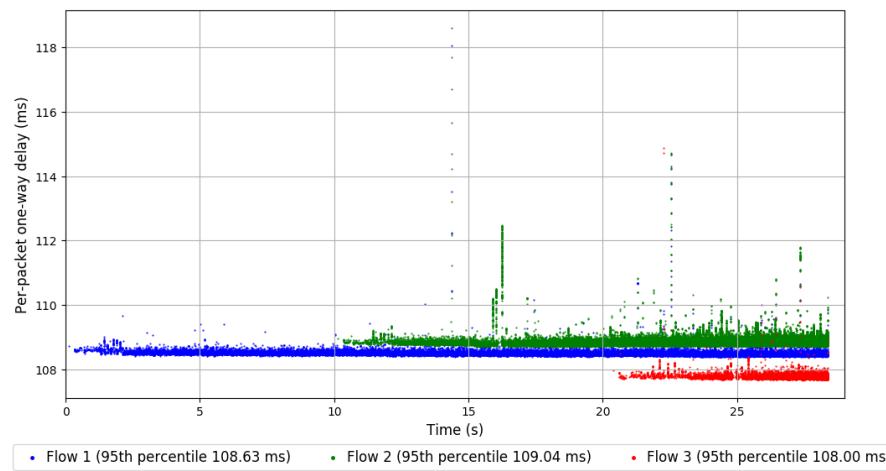
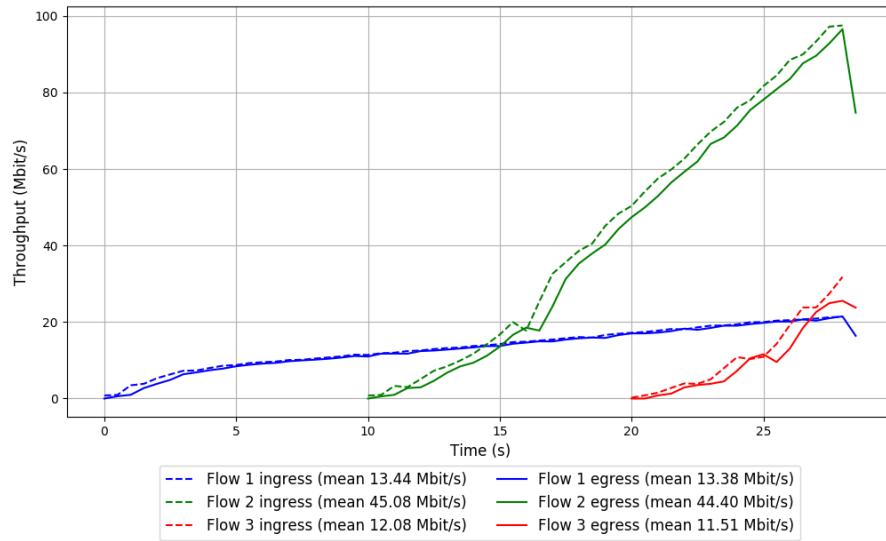


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 00:51:20
End at: 2019-01-19 00:51:50
Local clock offset: -0.754 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-01-19 03:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.29 Mbit/s
95th percentile per-packet one-way delay: 108.984 ms
Loss rate: 2.59%
-- Flow 1:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 108.634 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 44.40 Mbit/s
95th percentile per-packet one-way delay: 109.036 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 107.998 ms
Loss rate: 7.22%
```

Run 4: Report of Indigo-MusesD — Data Link

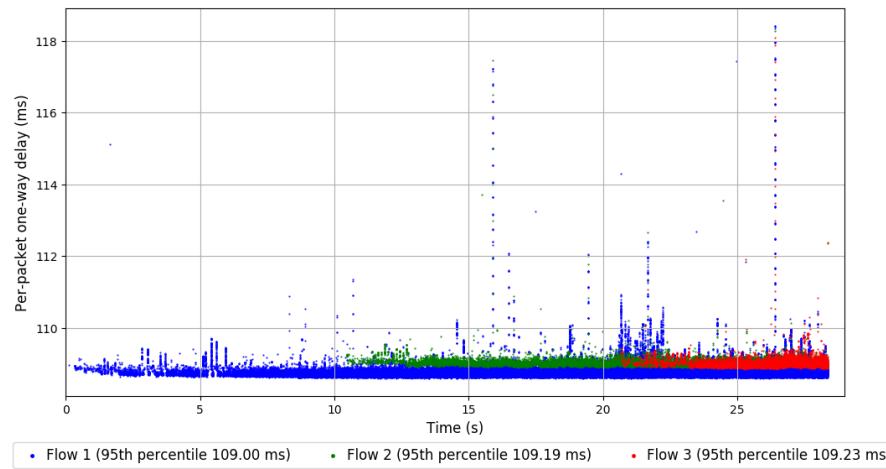
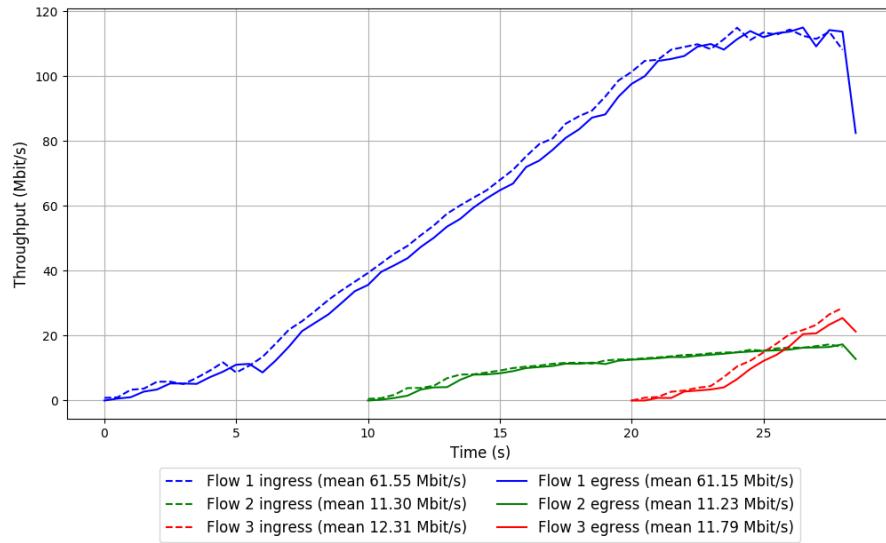


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 01:29:41
End at: 2019-01-19 01:30:11
Local clock offset: -0.563 ms
Remote clock offset: -0.161 ms

# Below is generated by plot.py at 2019-01-19 03:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.62 Mbit/s
95th percentile per-packet one-way delay: 109.095 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 61.15 Mbit/s
95th percentile per-packet one-way delay: 109.000 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 109.185 ms
Loss rate: 1.82%
-- Flow 3:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 109.232 ms
Loss rate: 6.77%
```

Run 5: Report of Indigo-MusesD — Data Link

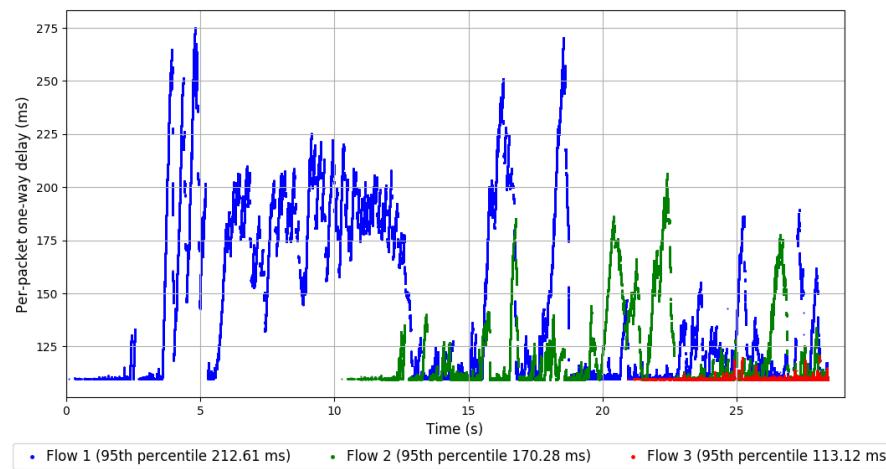
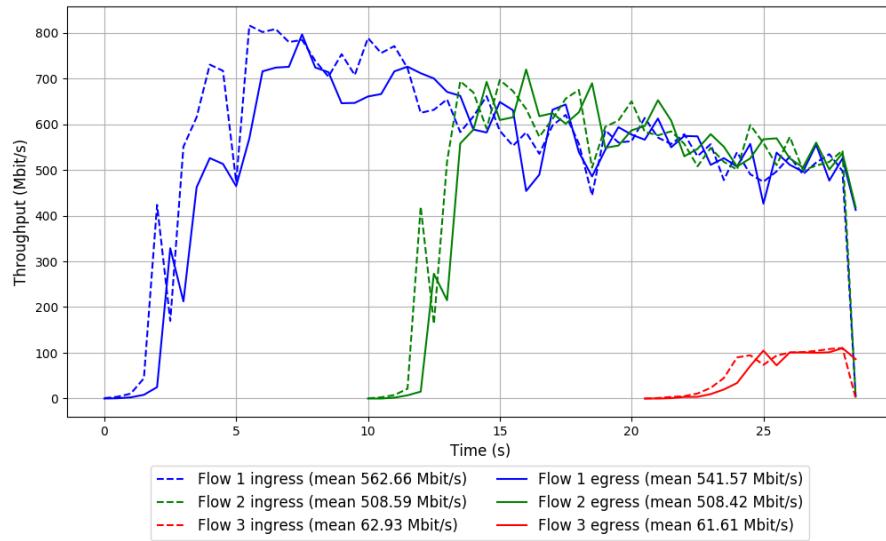


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-01-18 22:50:40
End at: 2019-01-18 22:51:10
Local clock offset: 0.547 ms
Remote clock offset: 0.37 ms

# Below is generated by plot.py at 2019-01-19 03:54:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 883.34 Mbit/s
95th percentile per-packet one-way delay: 204.032 ms
Loss rate: 3.32%
-- Flow 1:
Average throughput: 541.57 Mbit/s
95th percentile per-packet one-way delay: 212.613 ms
Loss rate: 4.49%
-- Flow 2:
Average throughput: 508.42 Mbit/s
95th percentile per-packet one-way delay: 170.277 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 61.61 Mbit/s
95th percentile per-packet one-way delay: 113.117 ms
Loss rate: 4.93%
```

Run 1: Report of Indigo-MusesT — Data Link

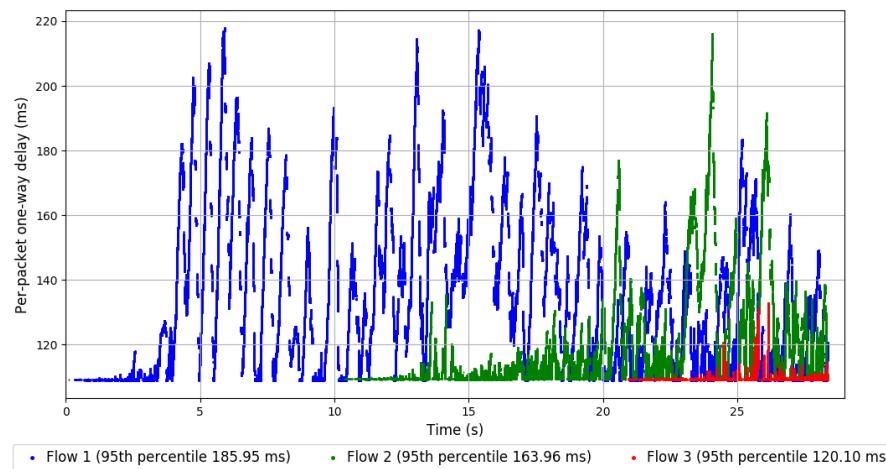
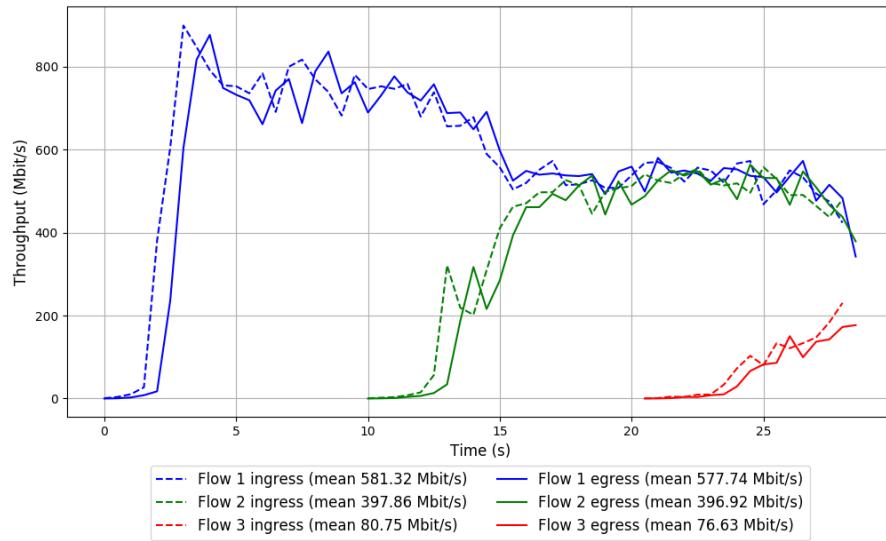


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-01-18 23:29:10
End at: 2019-01-18 23:29:40
Local clock offset: -0.264 ms
Remote clock offset: -0.101 ms

# Below is generated by plot.py at 2019-01-19 03:54:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 853.93 Mbit/s
95th percentile per-packet one-way delay: 181.868 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 577.74 Mbit/s
95th percentile per-packet one-way delay: 185.953 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 396.92 Mbit/s
95th percentile per-packet one-way delay: 163.962 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 76.63 Mbit/s
95th percentile per-packet one-way delay: 120.099 ms
Loss rate: 7.81%
```

Run 2: Report of Indigo-MusesT — Data Link

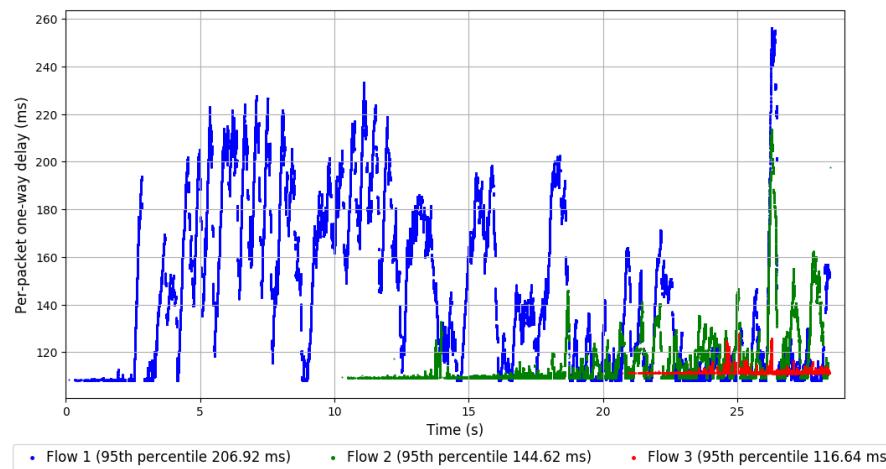
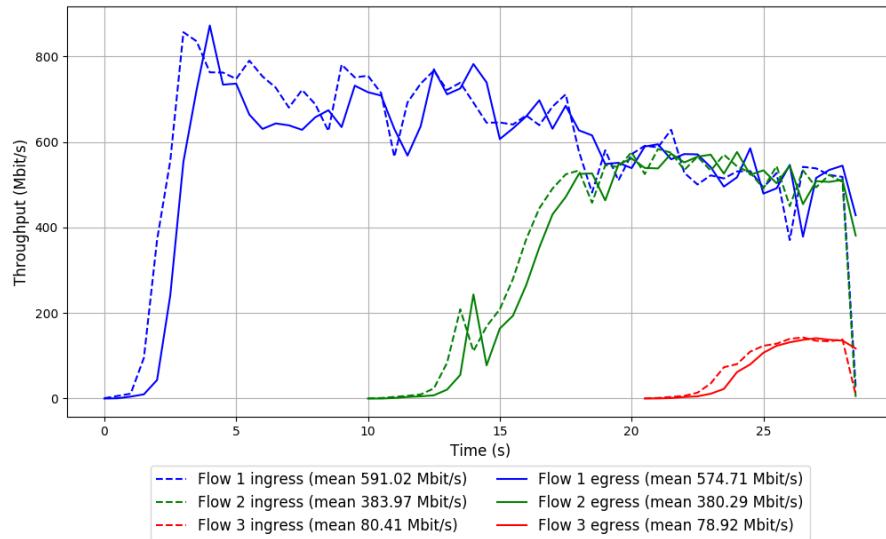


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 00:08:51
End at: 2019-01-19 00:09:21
Local clock offset: -0.162 ms
Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2019-01-19 03:54:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 839.35 Mbit/s
95th percentile per-packet one-way delay: 202.626 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 574.71 Mbit/s
95th percentile per-packet one-way delay: 206.919 ms
Loss rate: 3.50%
-- Flow 2:
Average throughput: 380.29 Mbit/s
95th percentile per-packet one-way delay: 144.619 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 78.92 Mbit/s
95th percentile per-packet one-way delay: 116.645 ms
Loss rate: 4.58%
```

Run 3: Report of Indigo-MusesT — Data Link

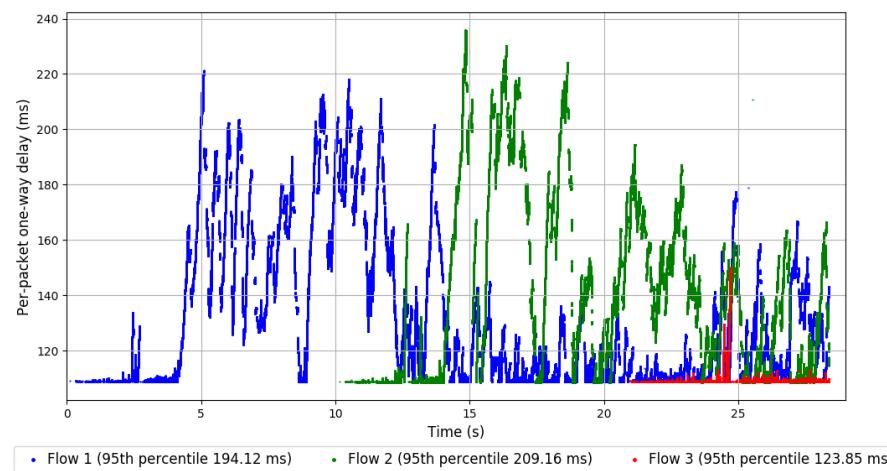
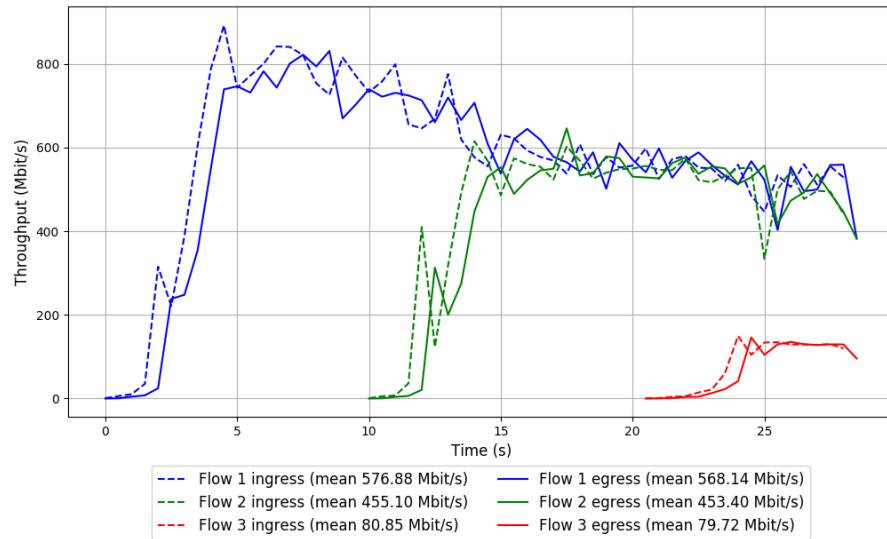


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 00:47:45
End at: 2019-01-19 00:48:15
Local clock offset: -0.667 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2019-01-19 03:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 881.93 Mbit/s
95th percentile per-packet one-way delay: 198.506 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 568.14 Mbit/s
95th percentile per-packet one-way delay: 194.125 ms
Loss rate: 2.27%
-- Flow 2:
Average throughput: 453.40 Mbit/s
95th percentile per-packet one-way delay: 209.164 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 79.72 Mbit/s
95th percentile per-packet one-way delay: 123.851 ms
Loss rate: 4.16%
```

Run 4: Report of Indigo-MusesT — Data Link

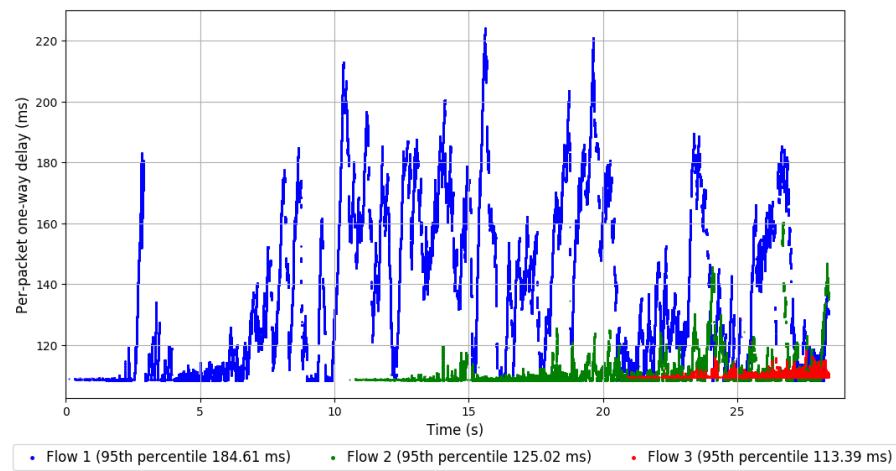
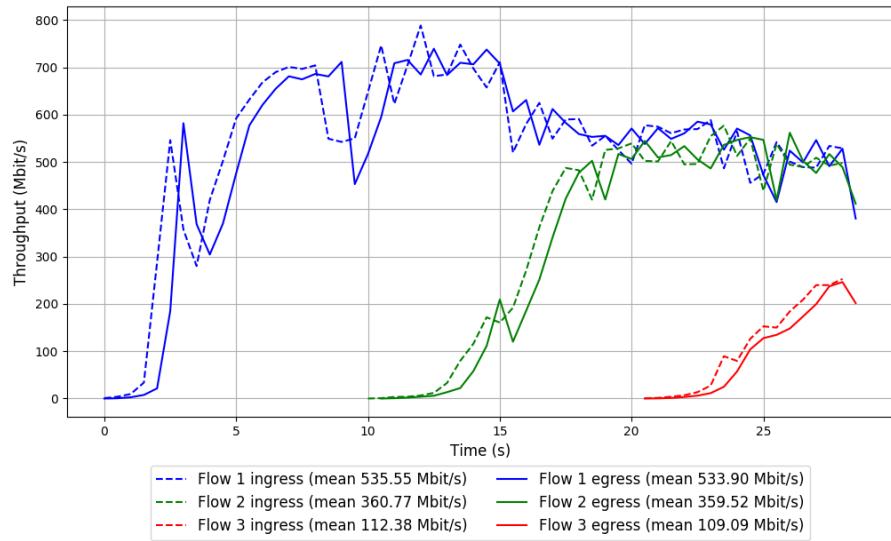


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 01:26:23
End at: 2019-01-19 01:26:53
Local clock offset: 0.161 ms
Remote clock offset: -0.193 ms

# Below is generated by plot.py at 2019-01-19 03:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 790.24 Mbit/s
95th percentile per-packet one-way delay: 181.337 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 533.90 Mbit/s
95th percentile per-packet one-way delay: 184.609 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 359.52 Mbit/s
95th percentile per-packet one-way delay: 125.017 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 109.09 Mbit/s
95th percentile per-packet one-way delay: 113.385 ms
Loss rate: 5.65%
```

Run 5: Report of Indigo-MusesT — Data Link

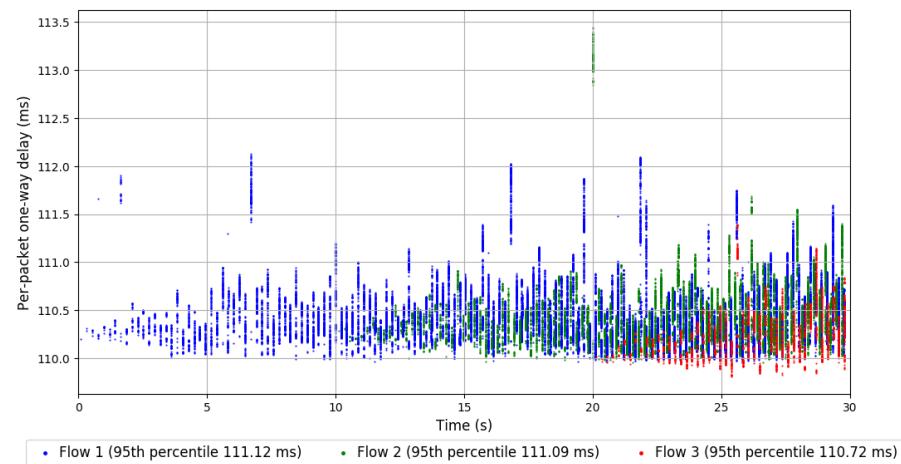
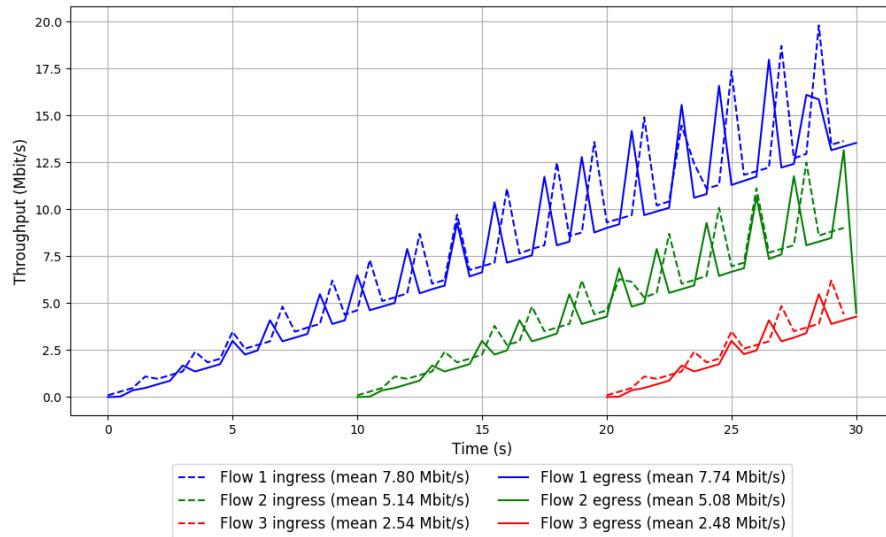


Run 1: Statistics of LEDBAT

```
Start at: 2019-01-18 22:45:53
End at: 2019-01-18 22:46:23
Local clock offset: 0.44 ms
Remote clock offset: -0.035 ms

# Below is generated by plot.py at 2019-01-19 03:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 111.091 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 111.123 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 111.090 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 2.48 Mbit/s
95th percentile per-packet one-way delay: 110.717 ms
Loss rate: 4.46%
```

Run 1: Report of LEDBAT — Data Link

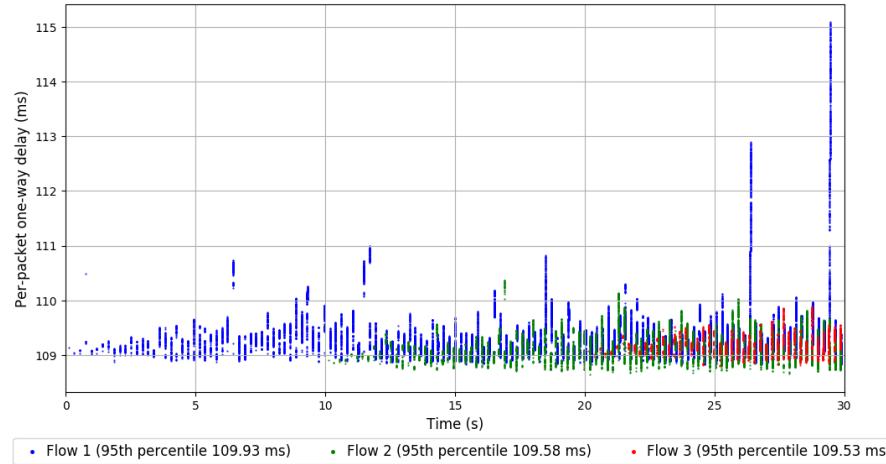
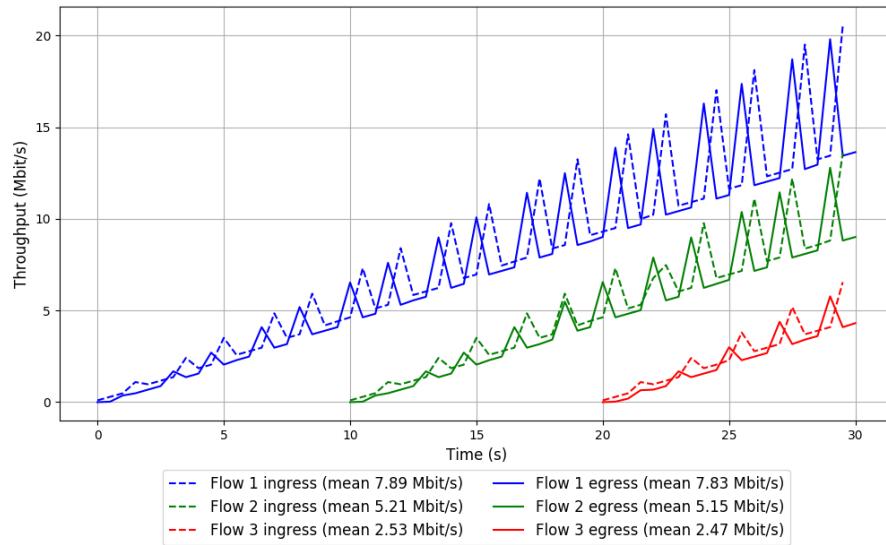


Run 2: Statistics of LEDBAT

```
Start at: 2019-01-18 23:24:39
End at: 2019-01-18 23:25:09
Local clock offset: -0.718 ms
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2019-01-19 03:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.05 Mbit/s
95th percentile per-packet one-way delay: 109.793 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 109.930 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 109.581 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 109.534 ms
Loss rate: 4.46%
```

Run 2: Report of LEDBAT — Data Link

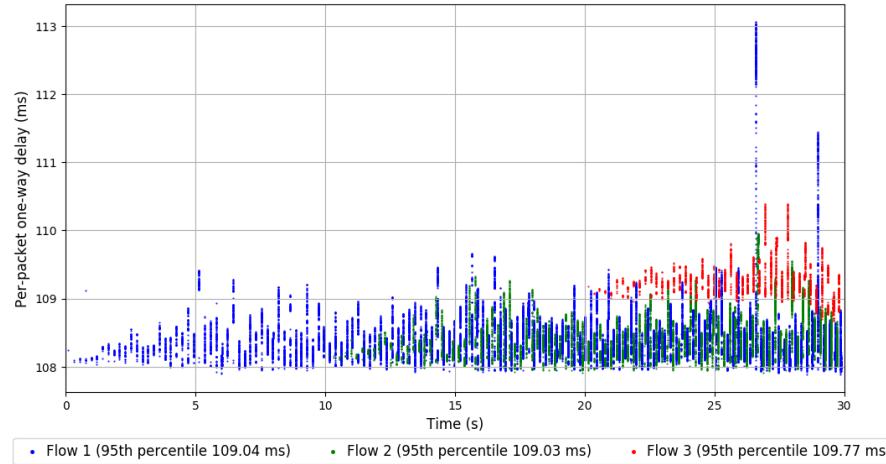
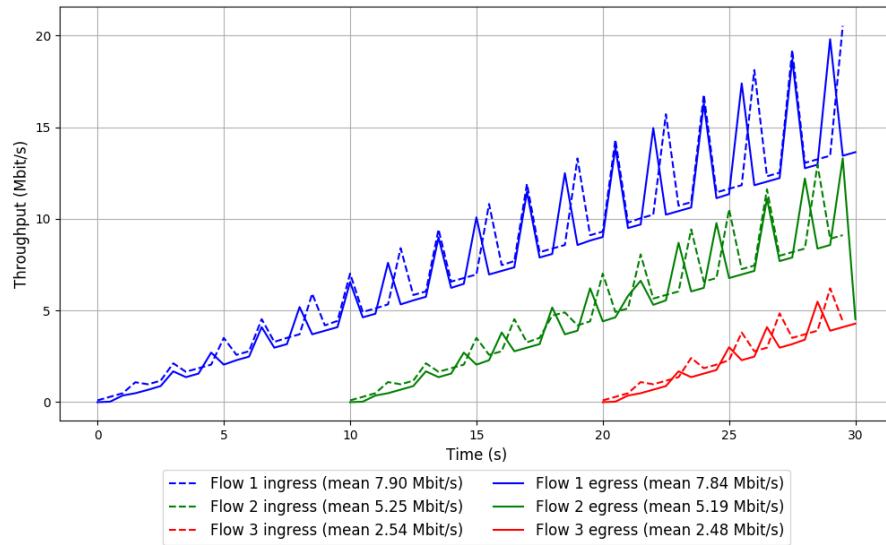


Run 3: Statistics of LEDBAT

```
Start at: 2019-01-19 00:04:07
End at: 2019-01-19 00:04:37
Local clock offset: -0.497 ms
Remote clock offset: 0.018 ms

# Below is generated by plot.py at 2019-01-19 03:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.06 Mbit/s
95th percentile per-packet one-way delay: 109.265 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 109.039 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 5.19 Mbit/s
95th percentile per-packet one-way delay: 109.027 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 2.48 Mbit/s
95th percentile per-packet one-way delay: 109.771 ms
Loss rate: 4.46%
```

Run 3: Report of LEDBAT — Data Link

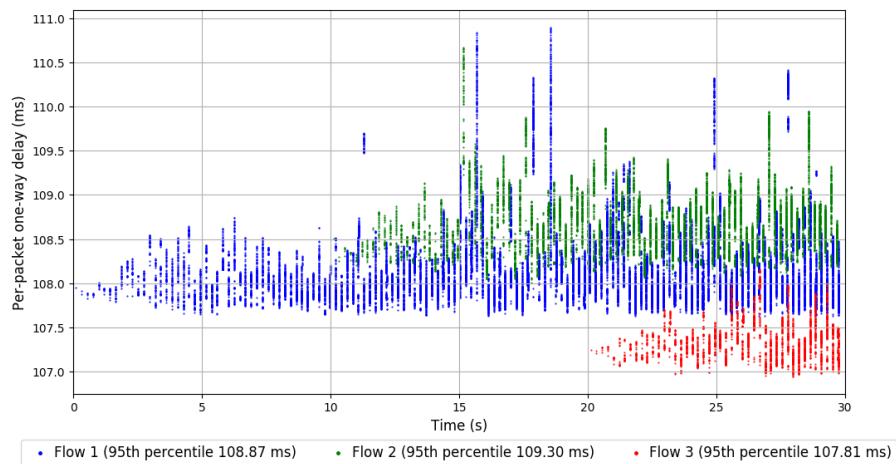
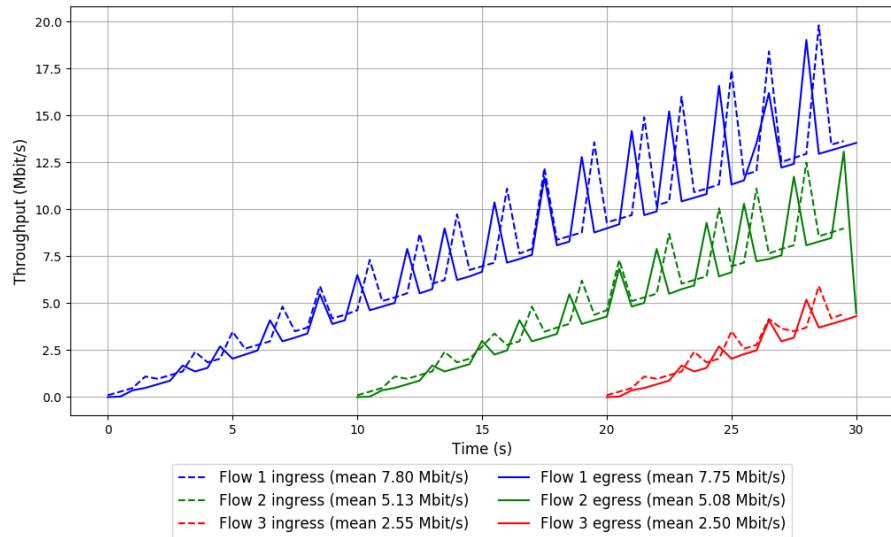


Run 4: Statistics of LEDBAT

```
Start at: 2019-01-19 00:43:09
End at: 2019-01-19 00:43:39
Local clock offset: -1.488 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-01-19 03:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 109.120 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 108.871 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 5.08 Mbit/s
95th percentile per-packet one-way delay: 109.304 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 107.807 ms
Loss rate: 4.46%
```

Run 4: Report of LEDBAT — Data Link

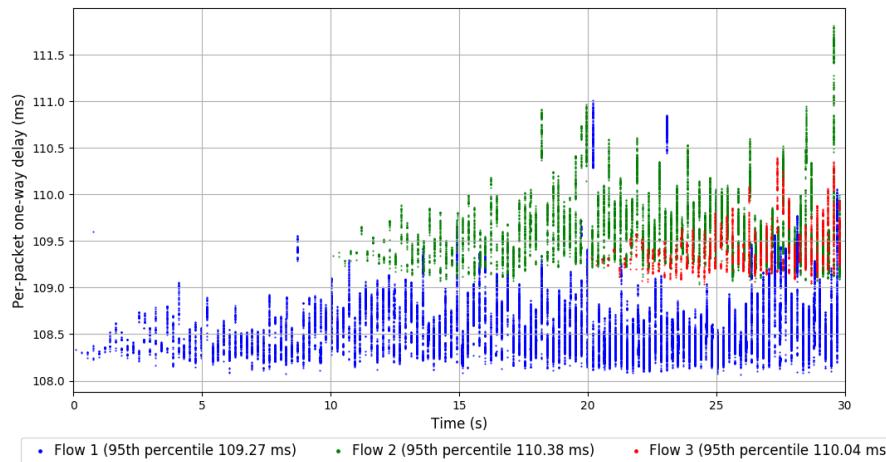
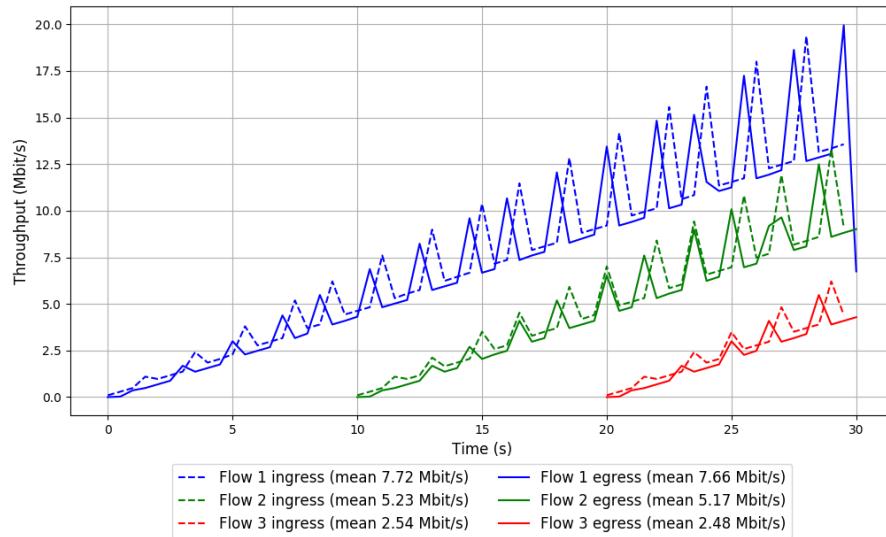


Run 5: Statistics of LEDBAT

```
Start at: 2019-01-19 01:21:51
End at: 2019-01-19 01:22:21
Local clock offset: -0.131 ms
Remote clock offset: -0.168 ms

# Below is generated by plot.py at 2019-01-19 03:55:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 110.011 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 109.269 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 5.17 Mbit/s
95th percentile per-packet one-way delay: 110.384 ms
Loss rate: 2.20%
-- Flow 3:
Average throughput: 2.48 Mbit/s
95th percentile per-packet one-way delay: 110.042 ms
Loss rate: 4.47%
```

Run 5: Report of LEDBAT — Data Link

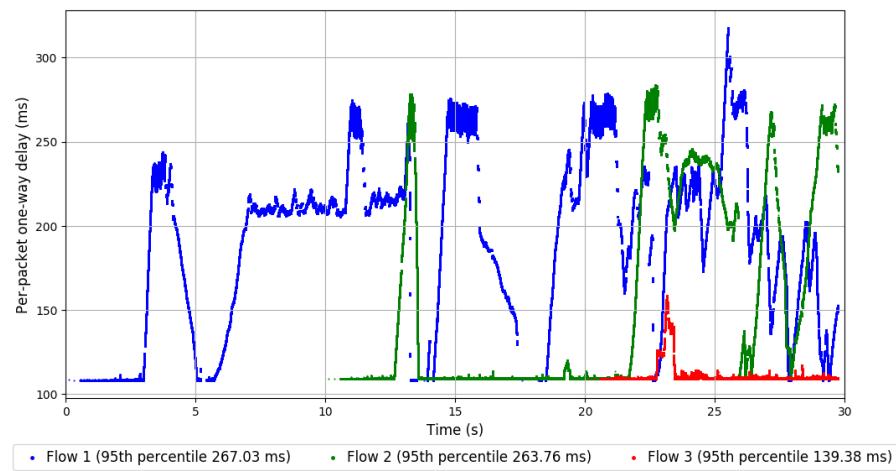
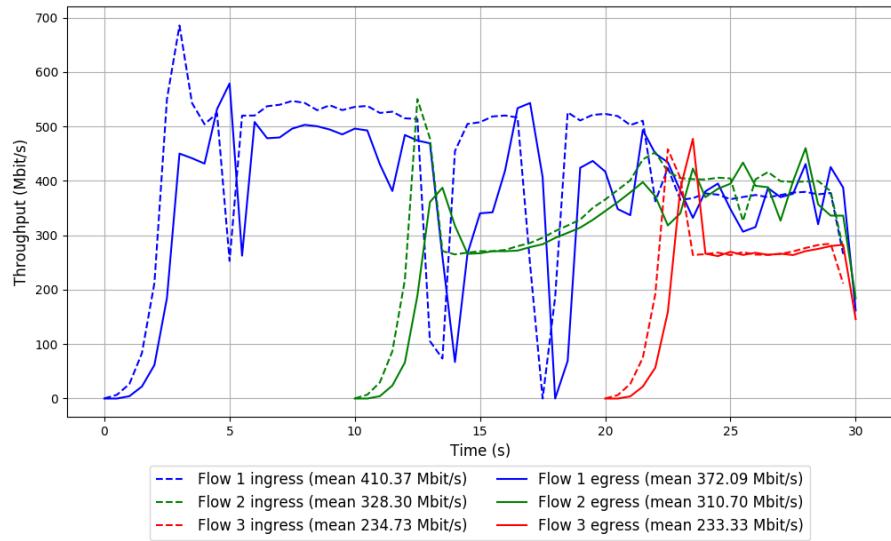


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-01-18 22:32:41
End at: 2019-01-18 22:33:11
Local clock offset: -0.616 ms
Remote clock offset: -0.154 ms

# Below is generated by plot.py at 2019-01-19 04:07:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 653.56 Mbit/s
95th percentile per-packet one-way delay: 264.688 ms
Loss rate: 8.10%
-- Flow 1:
Average throughput: 372.09 Mbit/s
95th percentile per-packet one-way delay: 267.026 ms
Loss rate: 9.99%
-- Flow 2:
Average throughput: 310.70 Mbit/s
95th percentile per-packet one-way delay: 263.764 ms
Loss rate: 6.41%
-- Flow 3:
Average throughput: 233.33 Mbit/s
95th percentile per-packet one-way delay: 139.384 ms
Loss rate: 2.81%
```

Run 1: Report of PCC-Allegro — Data Link

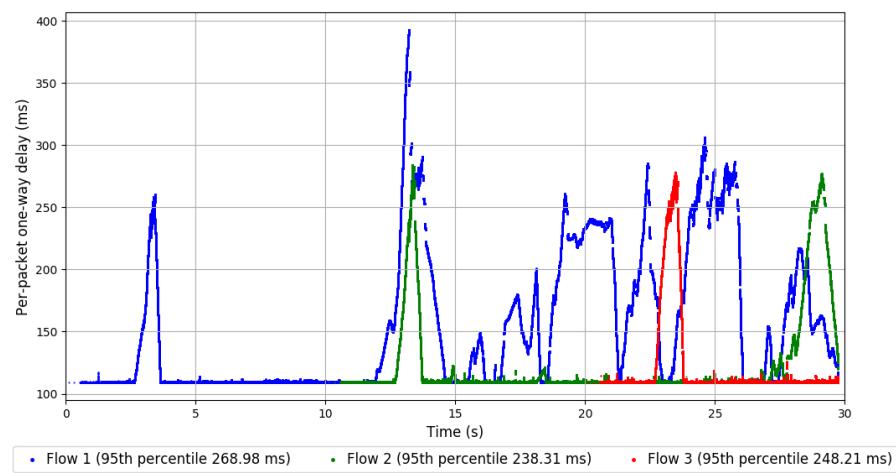
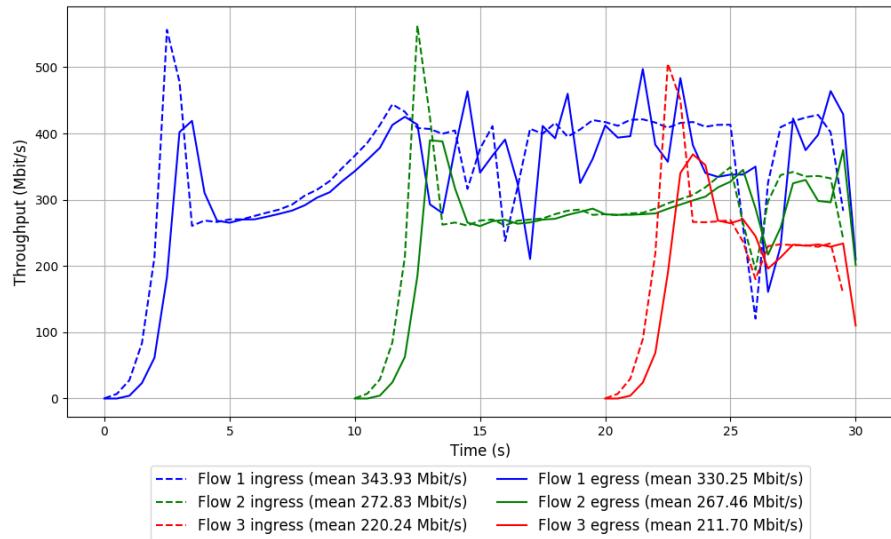


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-01-18 23:11:32
End at: 2019-01-18 23:12:02
Local clock offset: 0.004 ms
Remote clock offset: 0.188 ms

# Below is generated by plot.py at 2019-01-19 04:07:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.15 Mbit/s
95th percentile per-packet one-way delay: 257.618 ms
Loss rate: 4.35%
-- Flow 1:
Average throughput: 330.25 Mbit/s
95th percentile per-packet one-way delay: 268.983 ms
Loss rate: 4.68%
-- Flow 2:
Average throughput: 267.46 Mbit/s
95th percentile per-packet one-way delay: 238.311 ms
Loss rate: 3.05%
-- Flow 3:
Average throughput: 211.70 Mbit/s
95th percentile per-packet one-way delay: 248.213 ms
Loss rate: 6.01%
```

Run 2: Report of PCC-Allegro — Data Link

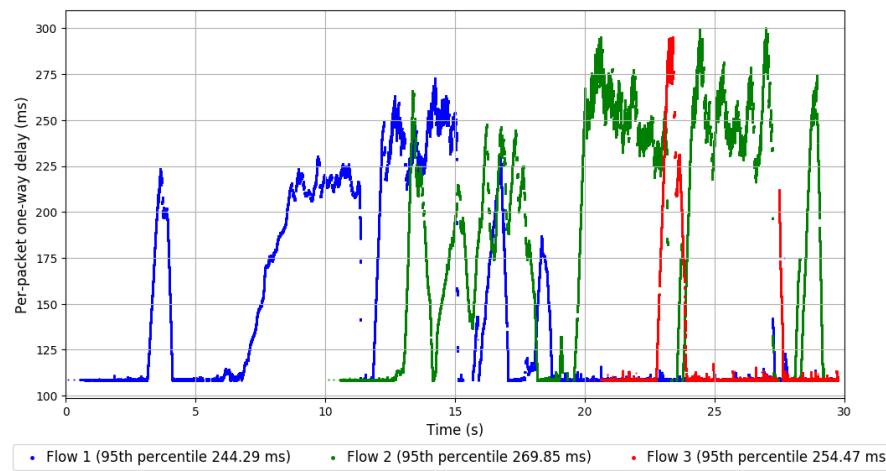
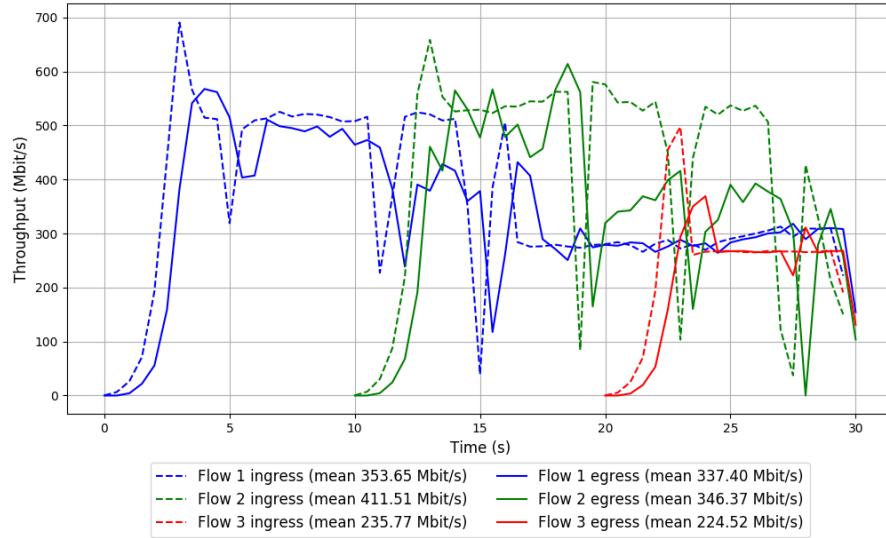


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-01-18 23:50:25
End at: 2019-01-18 23:50:55
Local clock offset: -0.89 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-01-19 04:13:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 639.55 Mbit/s
95th percentile per-packet one-way delay: 259.025 ms
Loss rate: 9.92%
-- Flow 1:
Average throughput: 337.40 Mbit/s
95th percentile per-packet one-way delay: 244.288 ms
Loss rate: 5.30%
-- Flow 2:
Average throughput: 346.37 Mbit/s
95th percentile per-packet one-way delay: 269.854 ms
Loss rate: 16.76%
-- Flow 3:
Average throughput: 224.52 Mbit/s
95th percentile per-packet one-way delay: 254.470 ms
Loss rate: 6.89%
```

Run 3: Report of PCC-Allegro — Data Link

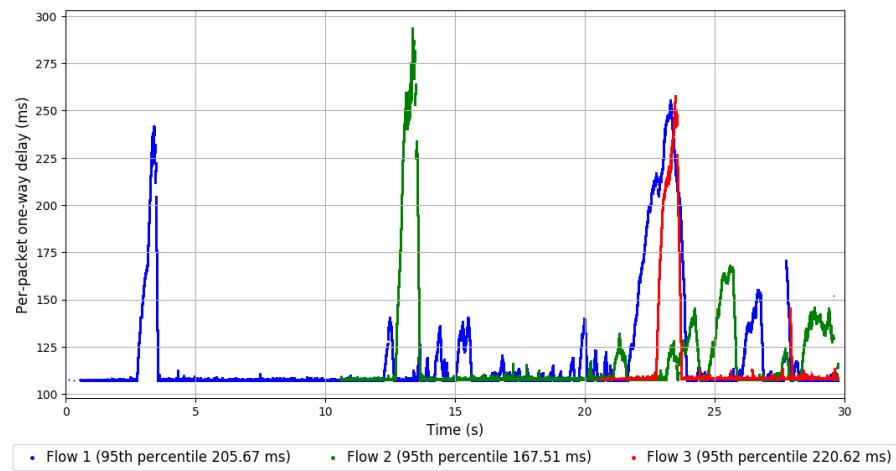
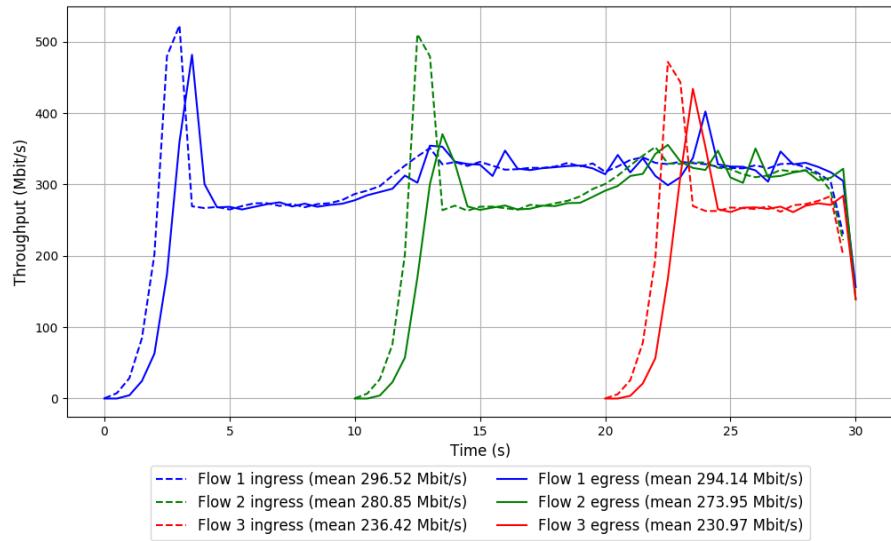


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-01-19 00:30:05
End at: 2019-01-19 00:30:35
Local clock offset: -1.32 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2019-01-19 04:21:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 550.58 Mbit/s
95th percentile per-packet one-way delay: 209.004 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 294.14 Mbit/s
95th percentile per-packet one-way delay: 205.667 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 273.95 Mbit/s
95th percentile per-packet one-way delay: 167.508 ms
Loss rate: 3.54%
-- Flow 3:
Average throughput: 230.97 Mbit/s
95th percentile per-packet one-way delay: 220.624 ms
Loss rate: 4.48%
```

Run 4: Report of PCC-Allegro — Data Link

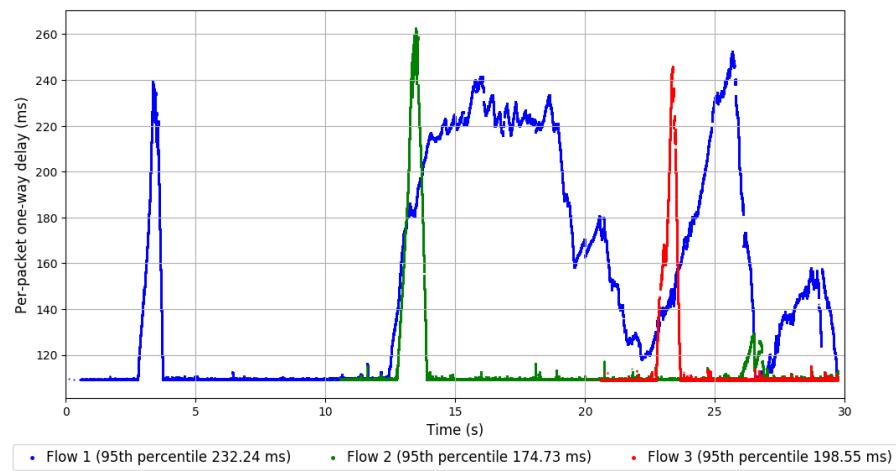
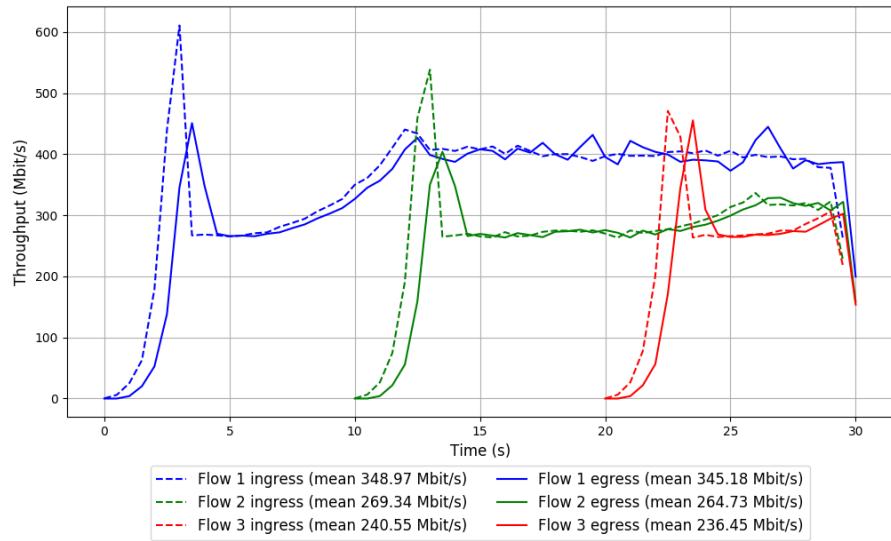


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-01-19 01:09:14
End at: 2019-01-19 01:09:44
Local clock offset: -0.615 ms
Remote clock offset: -0.496 ms

# Below is generated by plot.py at 2019-01-19 04:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.21 Mbit/s
95th percentile per-packet one-way delay: 228.997 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 345.18 Mbit/s
95th percentile per-packet one-way delay: 232.235 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 264.73 Mbit/s
95th percentile per-packet one-way delay: 174.727 ms
Loss rate: 2.80%
-- Flow 3:
Average throughput: 236.45 Mbit/s
95th percentile per-packet one-way delay: 198.550 ms
Loss rate: 3.88%
```

Run 5: Report of PCC-Allegro — Data Link

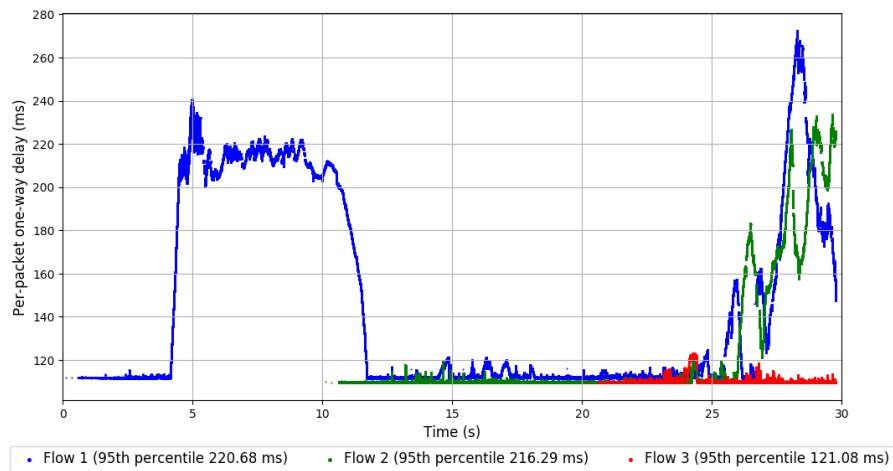
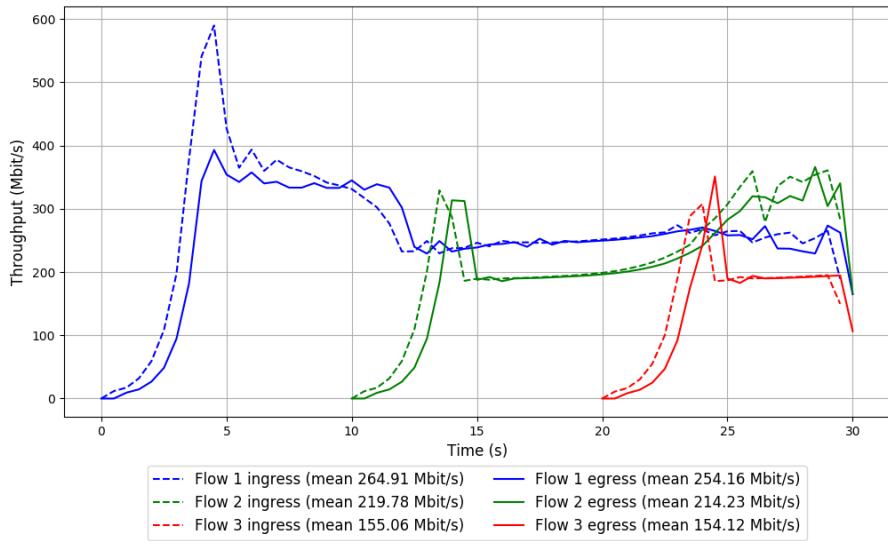


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-01-18 23:02:19
End at: 2019-01-18 23:02:49
Local clock offset: 0.061 ms
Remote clock offset: -0.304 ms

# Below is generated by plot.py at 2019-01-19 04:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.18 Mbit/s
95th percentile per-packet one-way delay: 219.556 ms
Loss rate: 4.18%
-- Flow 1:
Average throughput: 254.16 Mbit/s
95th percentile per-packet one-way delay: 220.678 ms
Loss rate: 4.76%
-- Flow 2:
Average throughput: 214.23 Mbit/s
95th percentile per-packet one-way delay: 216.286 ms
Loss rate: 3.61%
-- Flow 3:
Average throughput: 154.12 Mbit/s
95th percentile per-packet one-way delay: 121.085 ms
Loss rate: 2.82%
```

Run 1: Report of PCC-Expr — Data Link

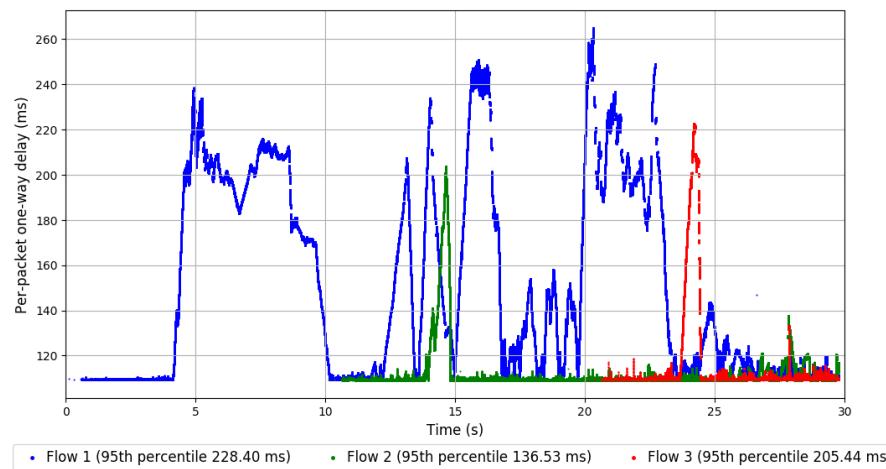
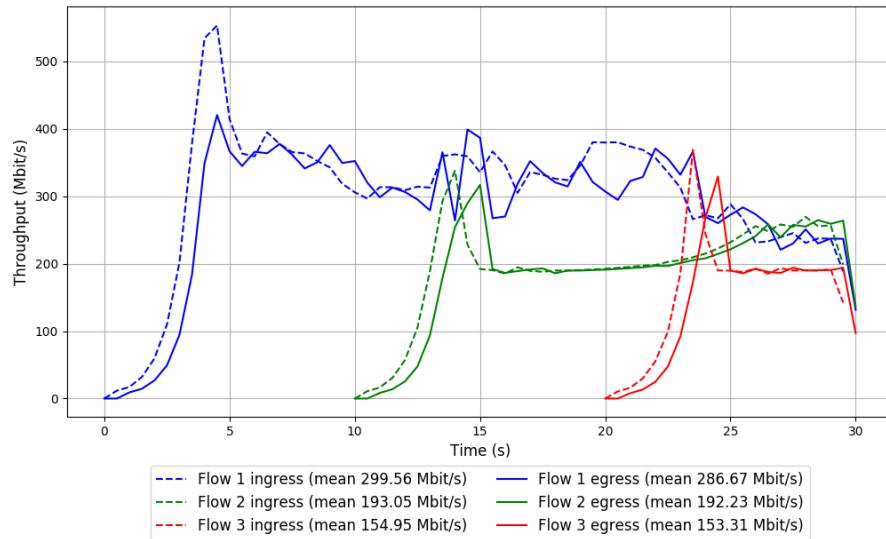


Run 2: Statistics of PCC-Expr

```
Start at: 2019-01-18 23:40:50
End at: 2019-01-18 23:41:20
Local clock offset: -0.167 ms
Remote clock offset: -0.126 ms

# Below is generated by plot.py at 2019-01-19 04:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 463.79 Mbit/s
95th percentile per-packet one-way delay: 219.557 ms
Loss rate: 3.89%
-- Flow 1:
Average throughput: 286.67 Mbit/s
95th percentile per-packet one-way delay: 228.400 ms
Loss rate: 5.01%
-- Flow 2:
Average throughput: 192.23 Mbit/s
95th percentile per-packet one-way delay: 136.528 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 153.31 Mbit/s
95th percentile per-packet one-way delay: 205.445 ms
Loss rate: 3.26%
```

Run 2: Report of PCC-Expr — Data Link

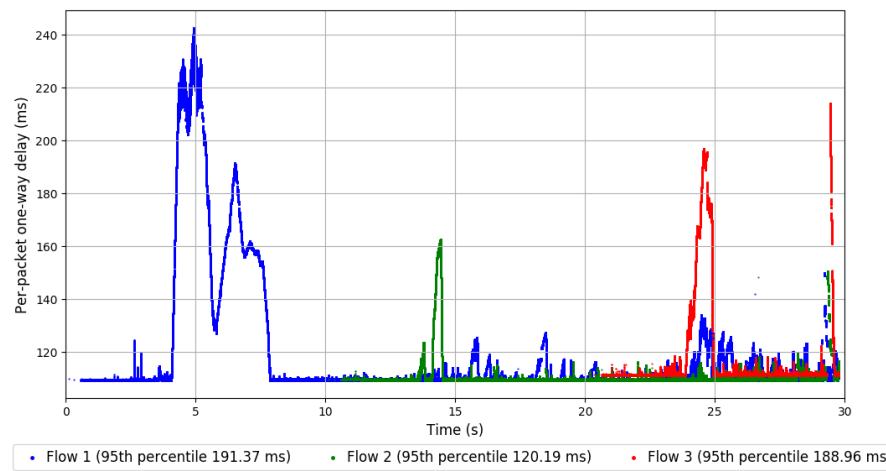
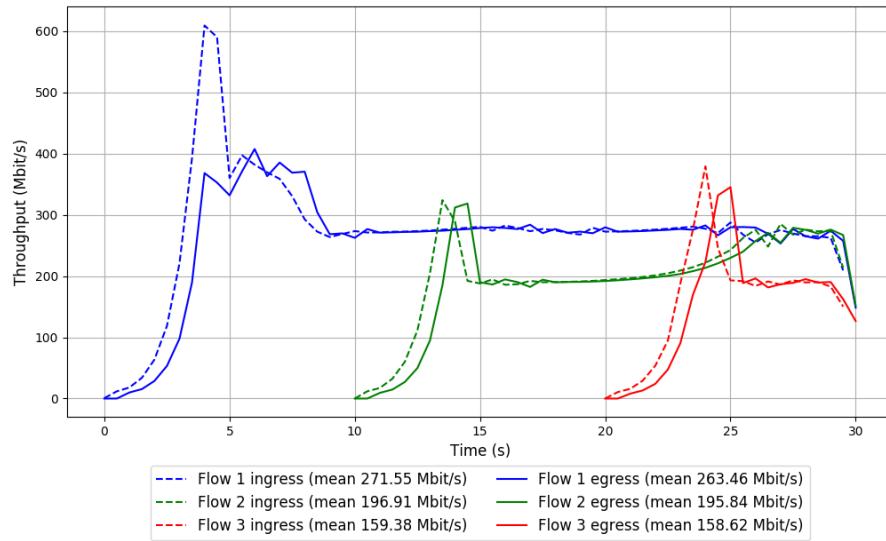


Run 3: Statistics of PCC-Expr

```
Start at: 2019-01-19 00:20:50
End at: 2019-01-19 00:21:20
Local clock offset: -0.159 ms
Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2019-01-19 04:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 444.73 Mbit/s
95th percentile per-packet one-way delay: 176.524 ms
Loss rate: 2.99%
-- Flow 1:
Average throughput: 263.46 Mbit/s
95th percentile per-packet one-way delay: 191.370 ms
Loss rate: 3.68%
-- Flow 2:
Average throughput: 195.84 Mbit/s
95th percentile per-packet one-way delay: 120.186 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 158.62 Mbit/s
95th percentile per-packet one-way delay: 188.956 ms
Loss rate: 2.75%
```

Run 3: Report of PCC-Expr — Data Link

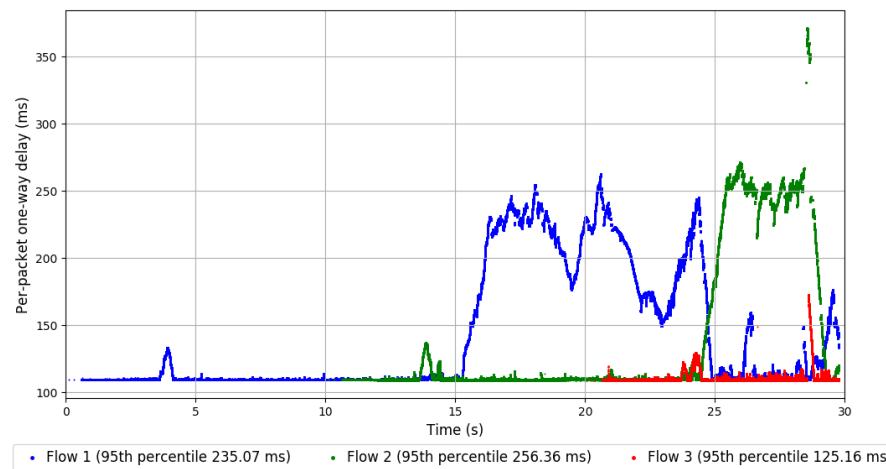
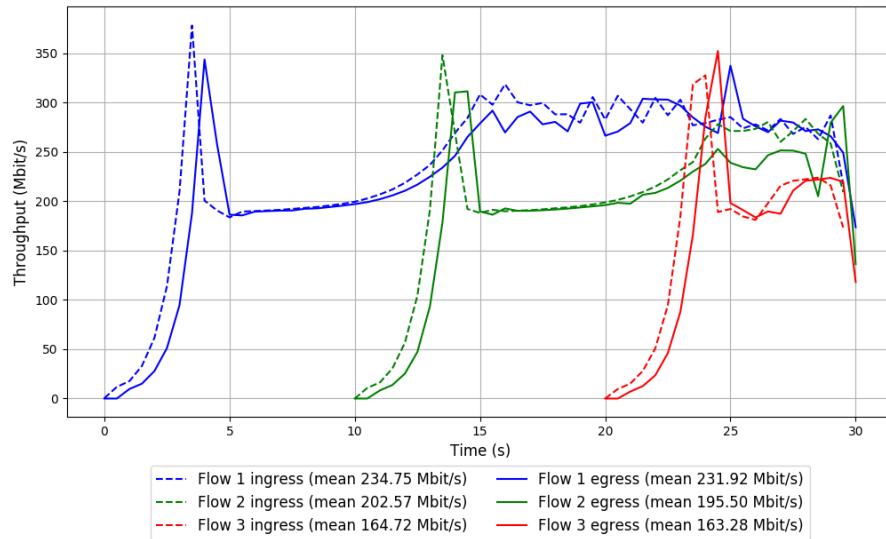


Run 4: Statistics of PCC-Expr

```
Start at: 2019-01-19 01:00:01
End at: 2019-01-19 01:00:31
Local clock offset: -0.211 ms
Remote clock offset: 0.103 ms

# Below is generated by plot.py at 2019-01-19 04:25:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 414.49 Mbit/s
95th percentile per-packet one-way delay: 248.081 ms
Loss rate: 2.92%
-- Flow 1:
Average throughput: 231.92 Mbit/s
95th percentile per-packet one-way delay: 235.073 ms
Loss rate: 1.93%
-- Flow 2:
Average throughput: 195.50 Mbit/s
95th percentile per-packet one-way delay: 256.361 ms
Loss rate: 4.56%
-- Flow 3:
Average throughput: 163.28 Mbit/s
95th percentile per-packet one-way delay: 125.156 ms
Loss rate: 3.09%
```

Run 4: Report of PCC-Expr — Data Link

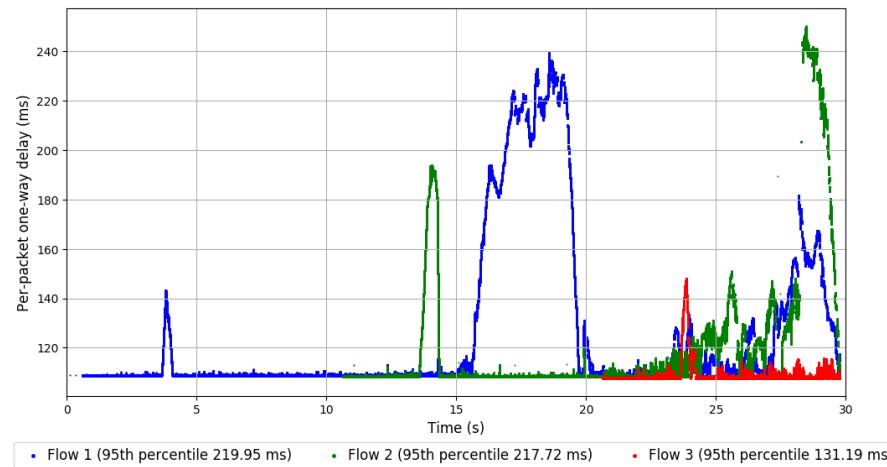
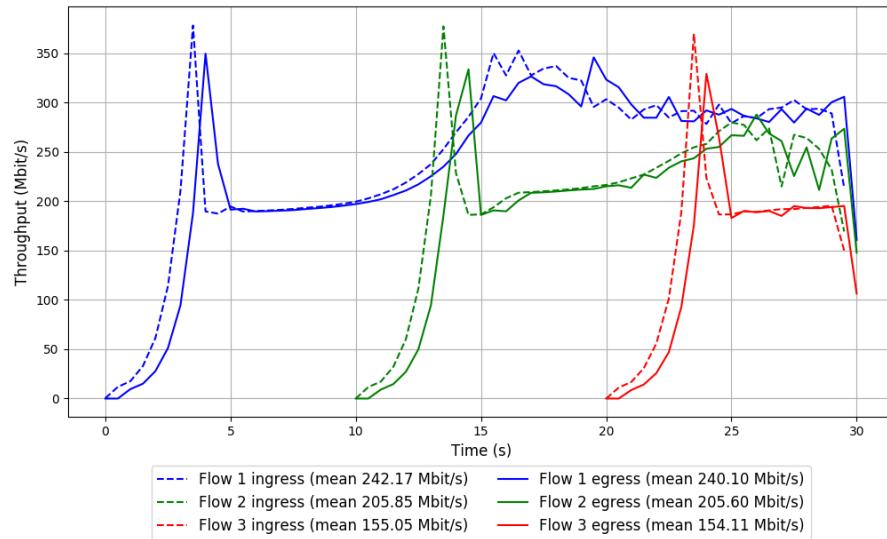


Run 5: Statistics of PCC-Expr

```
Start at: 2019-01-19 01:38:46
End at: 2019-01-19 01:39:16
Local clock offset: -0.866 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-01-19 04:29:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 426.45 Mbit/s
95th percentile per-packet one-way delay: 217.897 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 240.10 Mbit/s
95th percentile per-packet one-way delay: 219.949 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 205.60 Mbit/s
95th percentile per-packet one-way delay: 217.719 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 154.11 Mbit/s
95th percentile per-packet one-way delay: 131.188 ms
Loss rate: 2.81%
```

Run 5: Report of PCC-Expr — Data Link

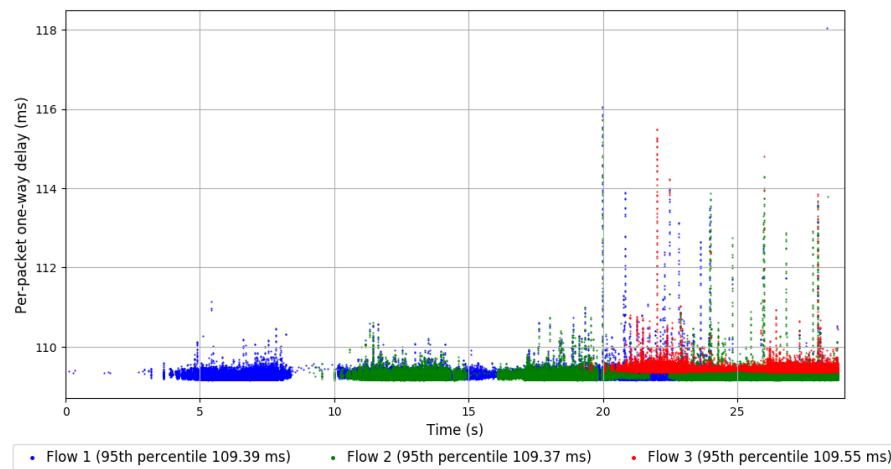
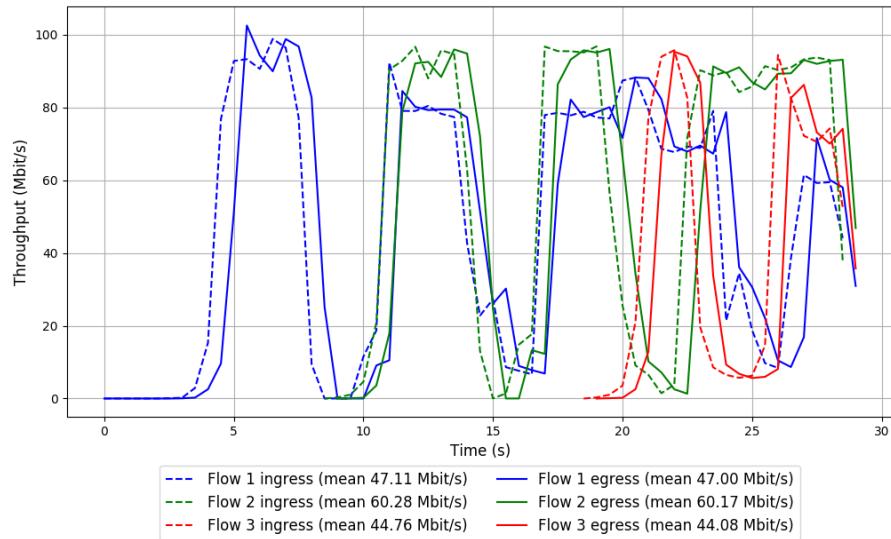


Run 1: Statistics of QUIC Cubic

```
Start at: 2019-01-18 22:31:17
End at: 2019-01-18 22:31:47
Local clock offset: -0.225 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-01-19 04:29:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.19 Mbit/s
95th percentile per-packet one-way delay: 109.462 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 47.00 Mbit/s
95th percentile per-packet one-way delay: 109.386 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 60.17 Mbit/s
95th percentile per-packet one-way delay: 109.369 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 44.08 Mbit/s
95th percentile per-packet one-way delay: 109.545 ms
Loss rate: 3.71%
```

Run 1: Report of QUIC Cubic — Data Link

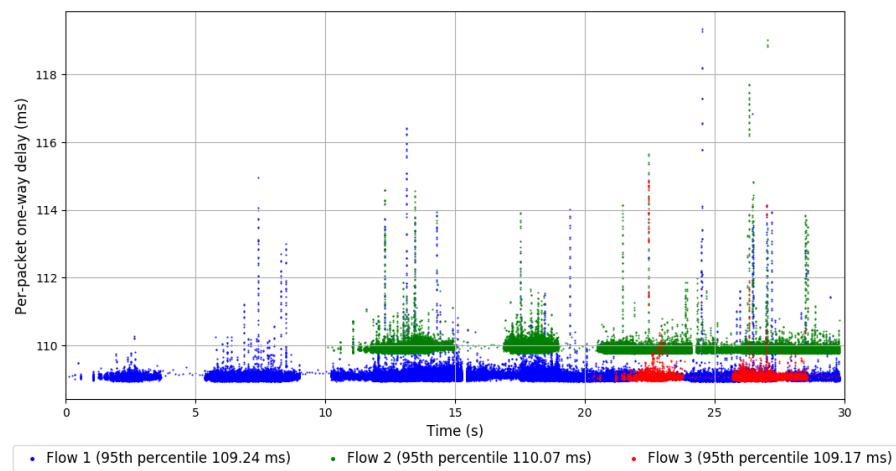
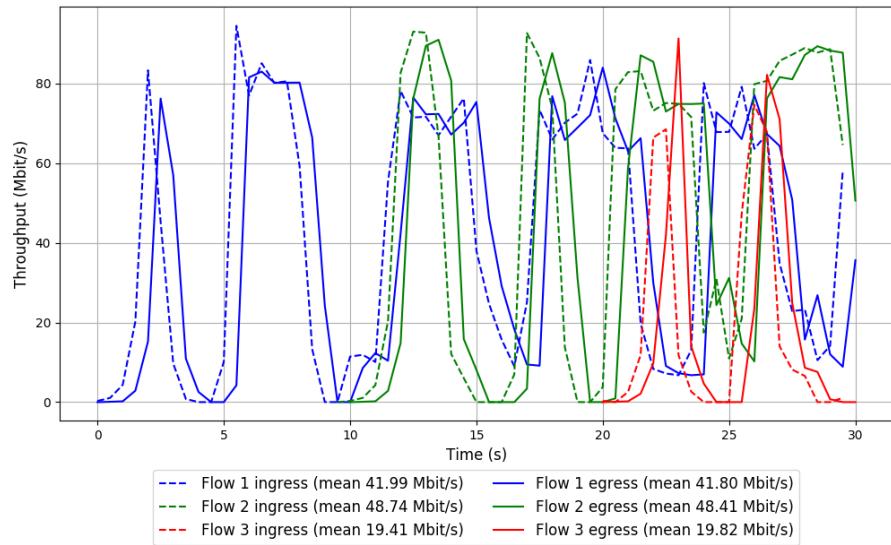


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-01-18 23:10:09
End at: 2019-01-18 23:10:39
Local clock offset: 0.441 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2019-01-19 04:29:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.35 Mbit/s
95th percentile per-packet one-way delay: 109.985 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 41.80 Mbit/s
95th percentile per-packet one-way delay: 109.238 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 48.41 Mbit/s
95th percentile per-packet one-way delay: 110.073 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 19.82 Mbit/s
95th percentile per-packet one-way delay: 109.174 ms
Loss rate: 0.28%
```

Run 2: Report of QUIC Cubic — Data Link

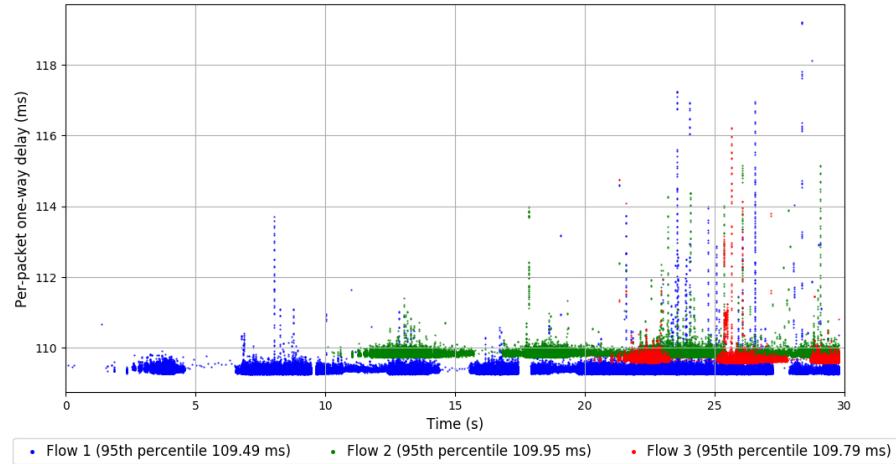
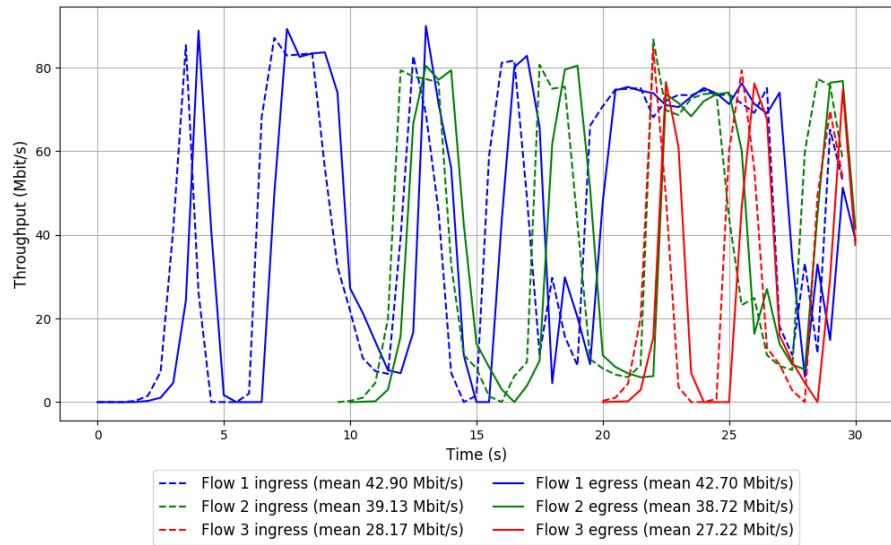


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-01-18 23:49:01
End at: 2019-01-18 23:49:31
Local clock offset: 0.197 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.24 Mbit/s
95th percentile per-packet one-way delay: 109.884 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 109.491 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 109.948 ms
Loss rate: 2.12%
-- Flow 3:
Average throughput: 27.22 Mbit/s
95th percentile per-packet one-way delay: 109.793 ms
Loss rate: 5.49%
```

Run 3: Report of QUIC Cubic — Data Link

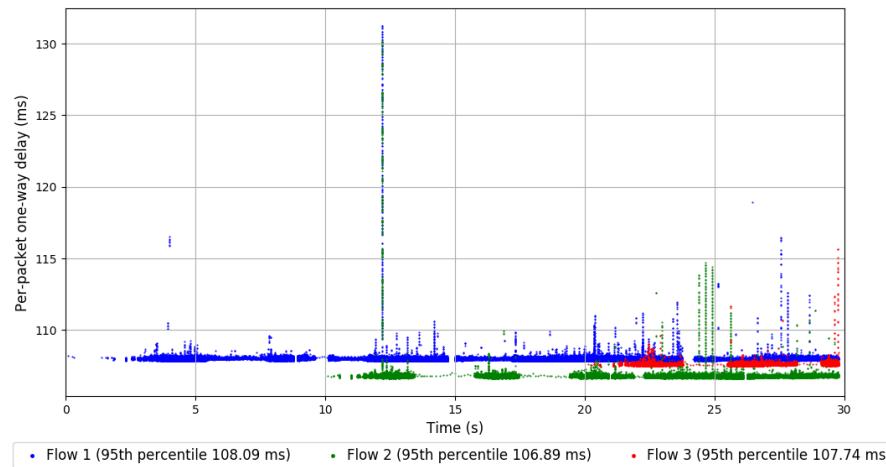
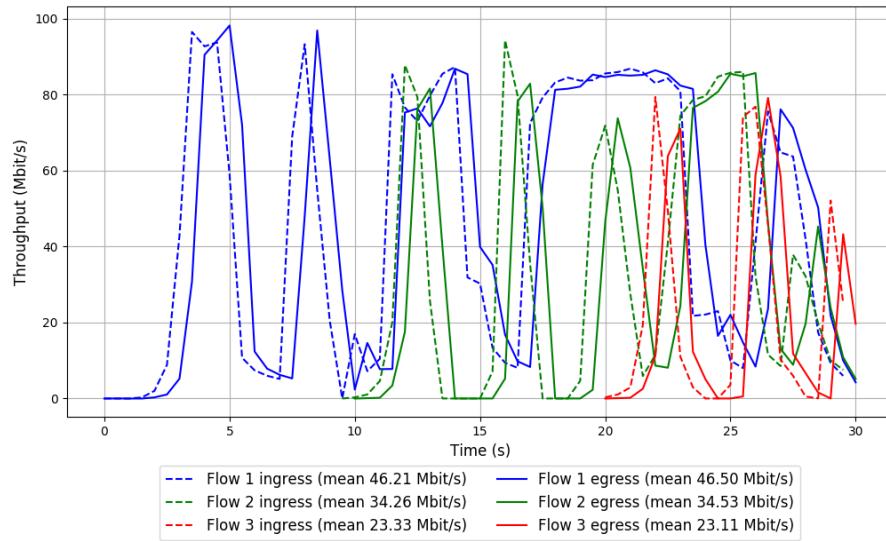


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-01-19 00:28:41
End at: 2019-01-19 00:29:11
Local clock offset: -1.62 ms
Remote clock offset: 0.024 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.93 Mbit/s
95th percentile per-packet one-way delay: 108.061 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 46.50 Mbit/s
95th percentile per-packet one-way delay: 108.091 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 34.53 Mbit/s
95th percentile per-packet one-way delay: 106.889 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 23.11 Mbit/s
95th percentile per-packet one-way delay: 107.738 ms
Loss rate: 3.11%
```

Run 4: Report of QUIC Cubic — Data Link

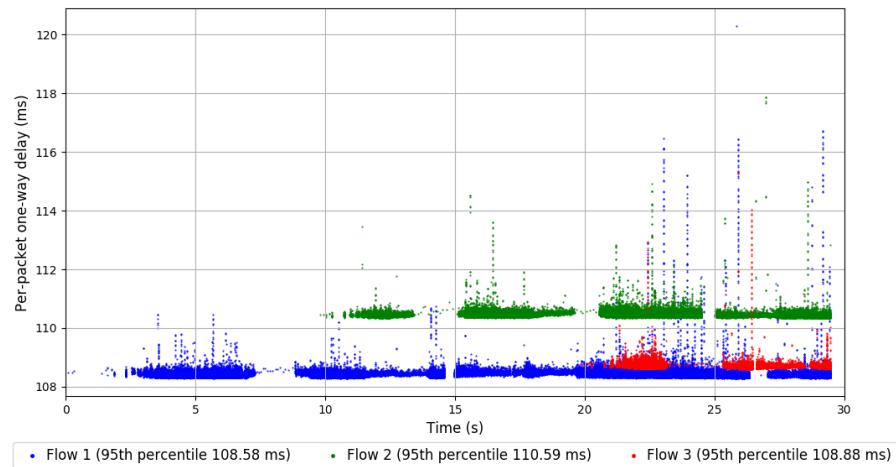
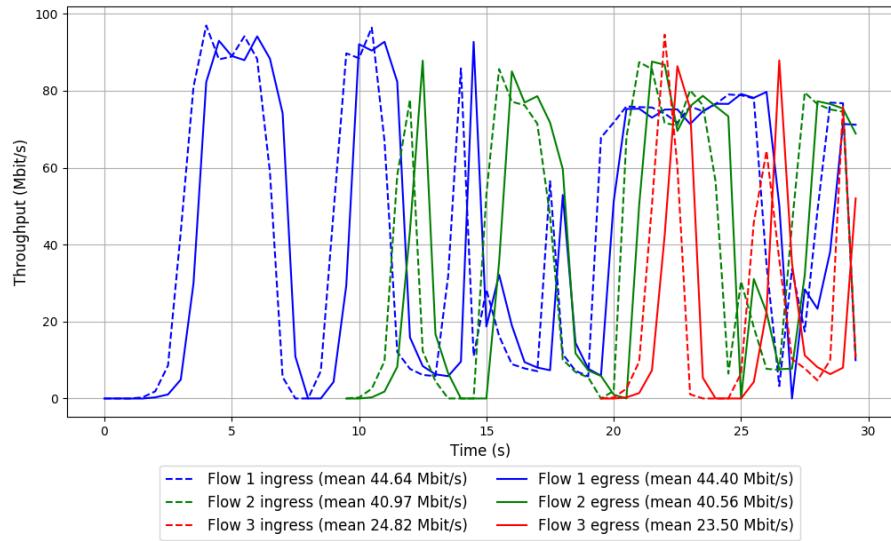


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-01-19 01:07:52
End at: 2019-01-19 01:08:22
Local clock offset: -0.866 ms
Remote clock offset: -0.134 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.31 Mbit/s
95th percentile per-packet one-way delay: 110.519 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 44.40 Mbit/s
95th percentile per-packet one-way delay: 108.576 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 40.56 Mbit/s
95th percentile per-packet one-way delay: 110.595 ms
Loss rate: 2.07%
-- Flow 3:
Average throughput: 23.50 Mbit/s
95th percentile per-packet one-way delay: 108.879 ms
Loss rate: 7.41%
```

Run 5: Report of QUIC Cubic — Data Link

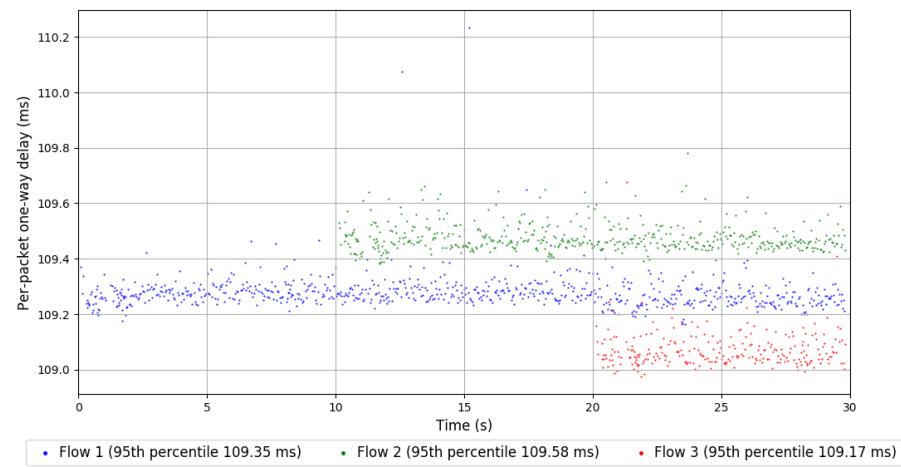
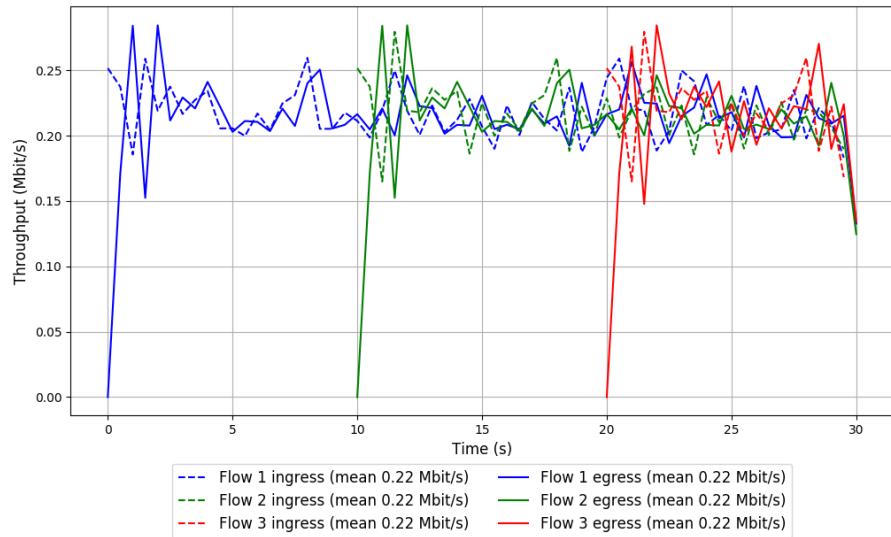


Run 1: Statistics of SCReAM

```
Start at: 2019-01-18 22:57:09
End at: 2019-01-18 22:57:39
Local clock offset: 0.158 ms
Remote clock offset: 0.371 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 109.521 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.354 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.576 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.166 ms
Loss rate: 1.88%
```

Run 1: Report of SCReAM — Data Link

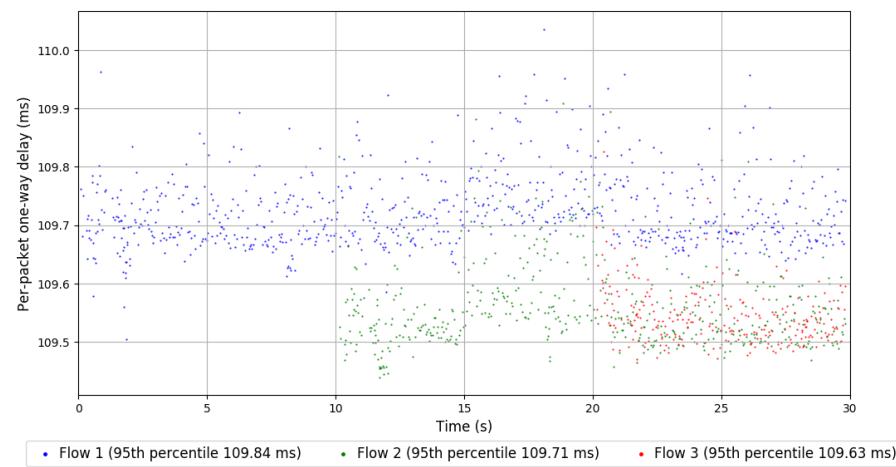
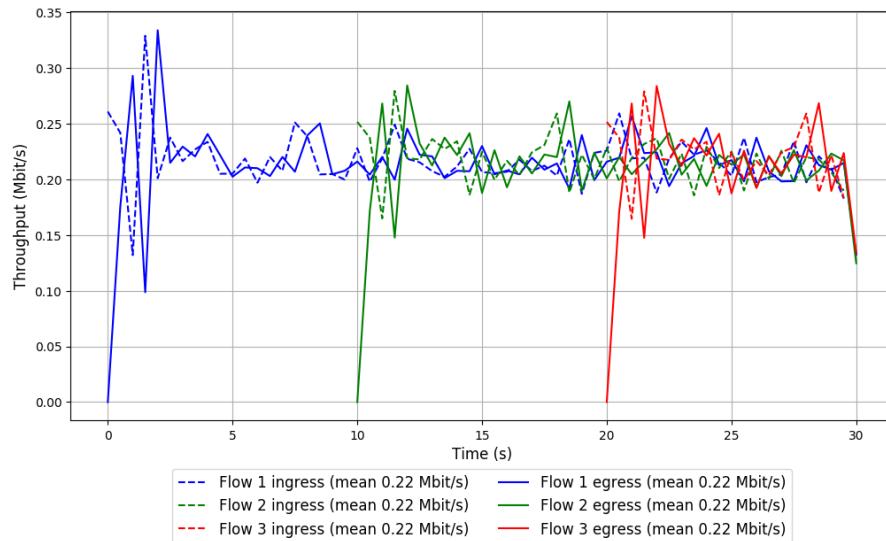


Run 2: Statistics of SCReAM

```
Start at: 2019-01-18 23:35:40
End at: 2019-01-18 23:36:10
Local clock offset: -0.051 ms
Remote clock offset: -0.135 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 109.809 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.844 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.714 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.631 ms
Loss rate: 2.22%
```

Run 2: Report of SCReAM — Data Link

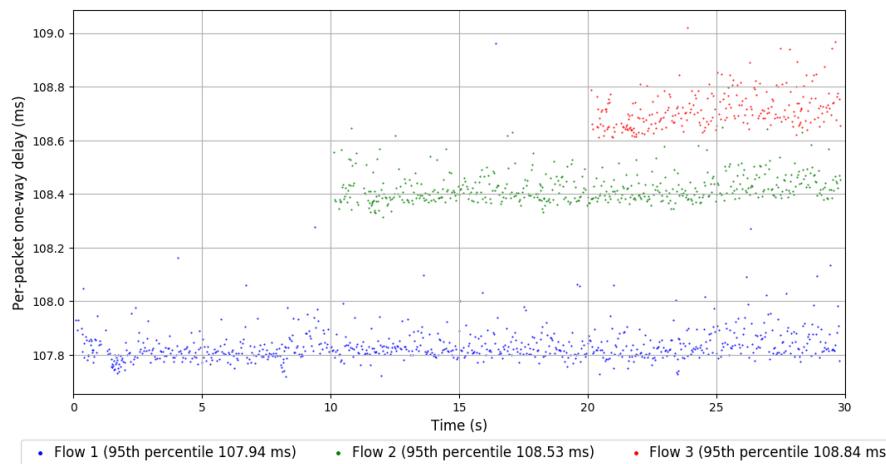
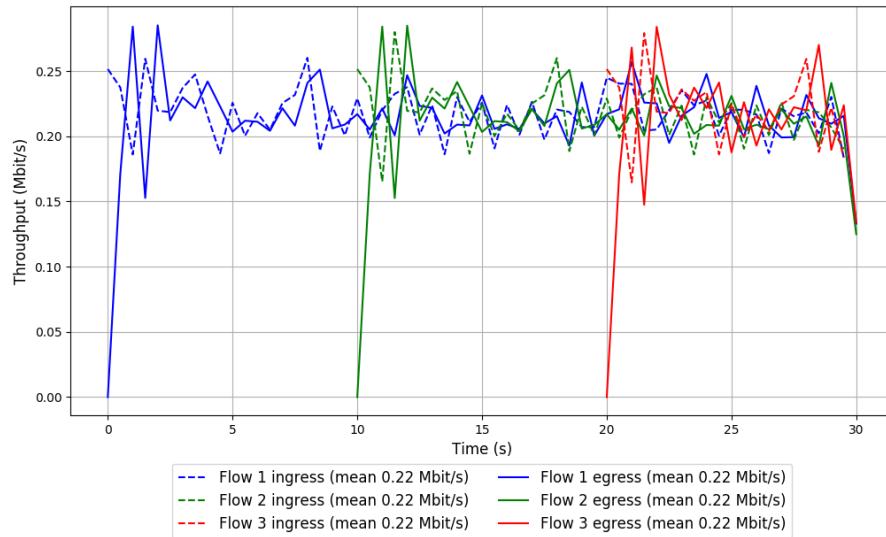


Run 3: Statistics of SCReAM

```
Start at: 2019-01-19 00:15:52
End at: 2019-01-19 00:16:22
Local clock offset: -0.754 ms
Remote clock offset: 0.101 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 108.738 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.938 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.528 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.844 ms
Loss rate: 2.22%
```

Run 3: Report of SCReAM — Data Link

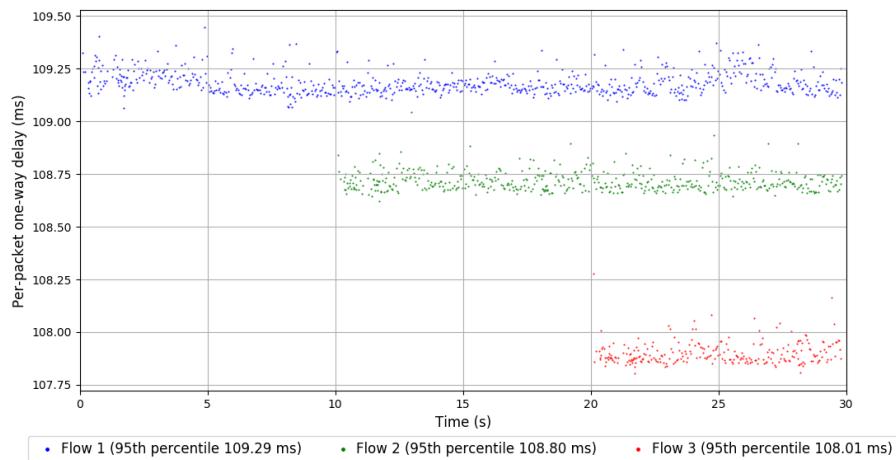
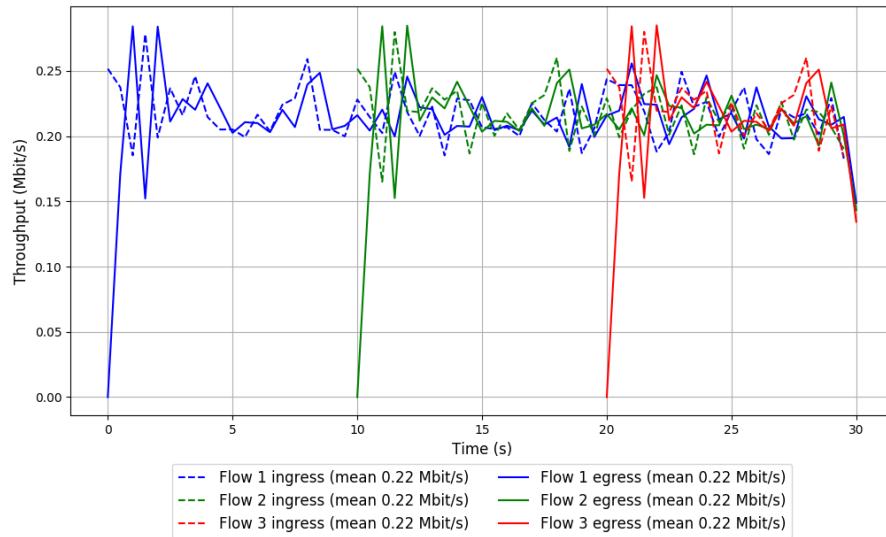


Run 4: Statistics of SCReAM

```
Start at: 2019-01-19 00:54:36
End at: 2019-01-19 00:55:06
Local clock offset: -0.548 ms
Remote clock offset: -0.049 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 109.259 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.293 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.799 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.008 ms
Loss rate: 2.22%
```

Run 4: Report of SCReAM — Data Link

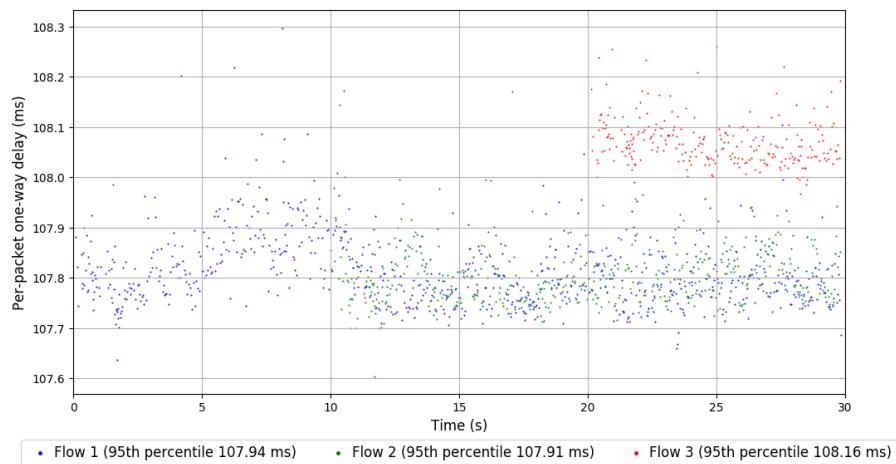
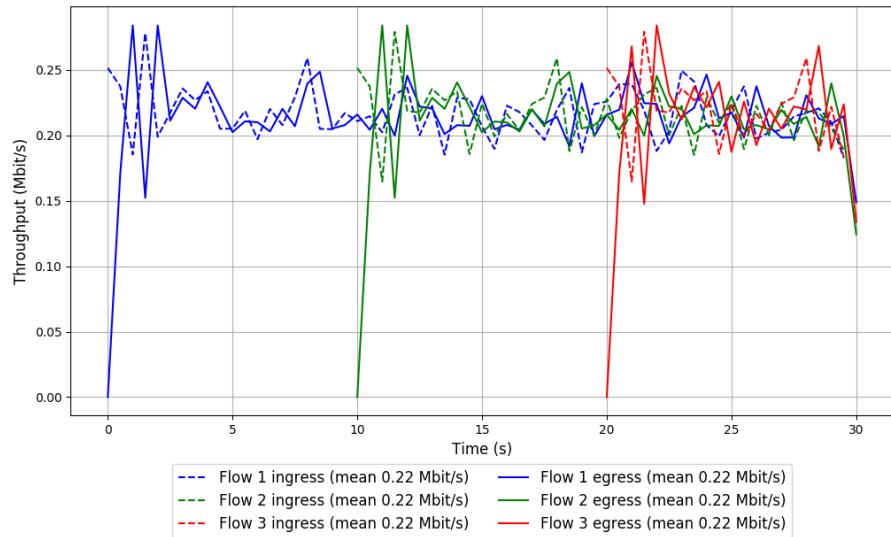


Run 5: Statistics of SCReAM

```
Start at: 2019-01-19 01:33:11
End at: 2019-01-19 01:33:41
Local clock offset: -1.558 ms
Remote clock offset: -0.088 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 108.088 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.945 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 107.907 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.164 ms
Loss rate: 2.22%
```

Run 5: Report of SCReAM — Data Link

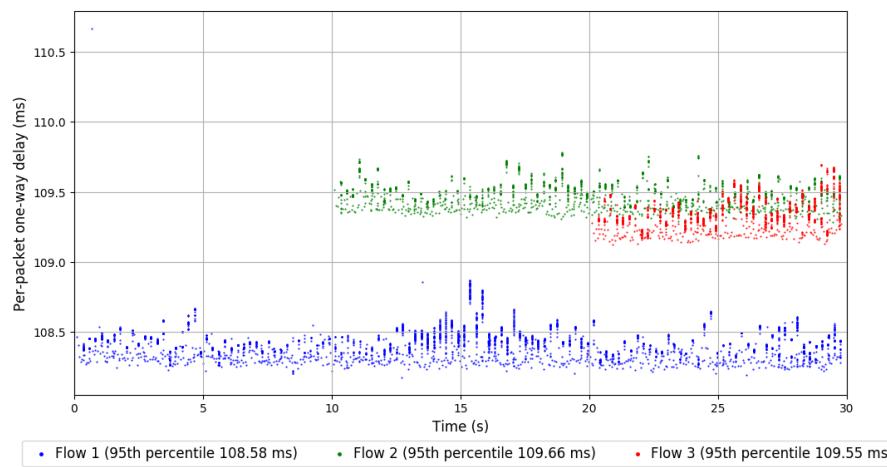
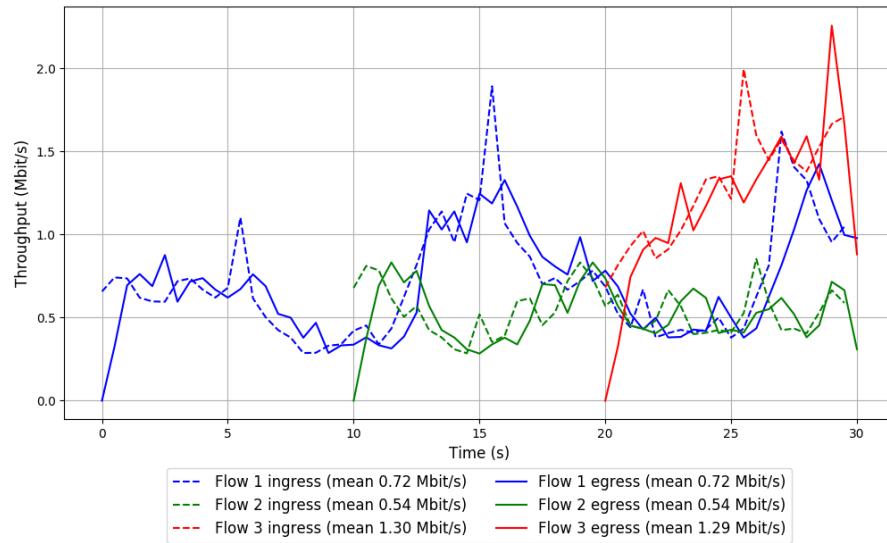


Run 1: Statistics of Sprout

```
Start at: 2019-01-18 22:49:23
End at: 2019-01-18 22:49:53
Local clock offset: 0.099 ms
Remote clock offset: 0.38 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 109.579 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 108.584 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 109.661 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 109.550 ms
Loss rate: 3.24%
```

Run 1: Report of Sprout — Data Link

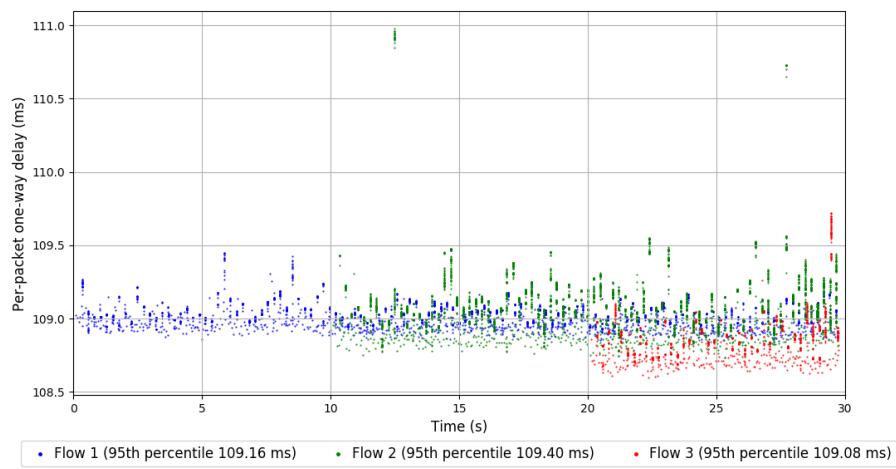
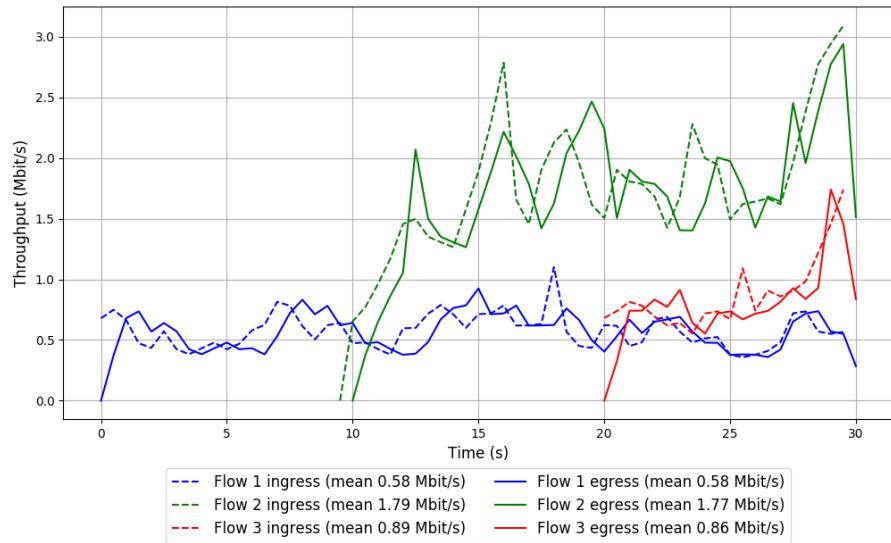


Run 2: Statistics of Sprout

```
Start at: 2019-01-18 23:27:53
End at: 2019-01-18 23:28:23
Local clock offset: -0.774 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 109.310 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 109.160 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 109.398 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 109.079 ms
Loss rate: 5.16%
```

Run 2: Report of Sprout — Data Link

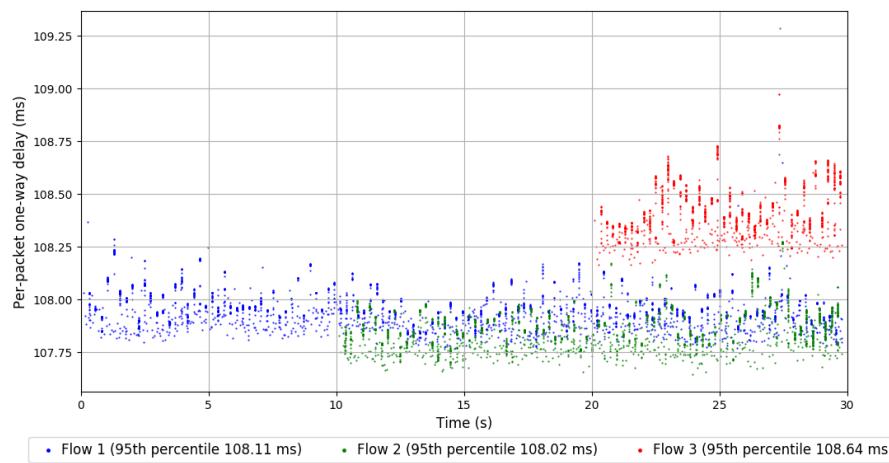
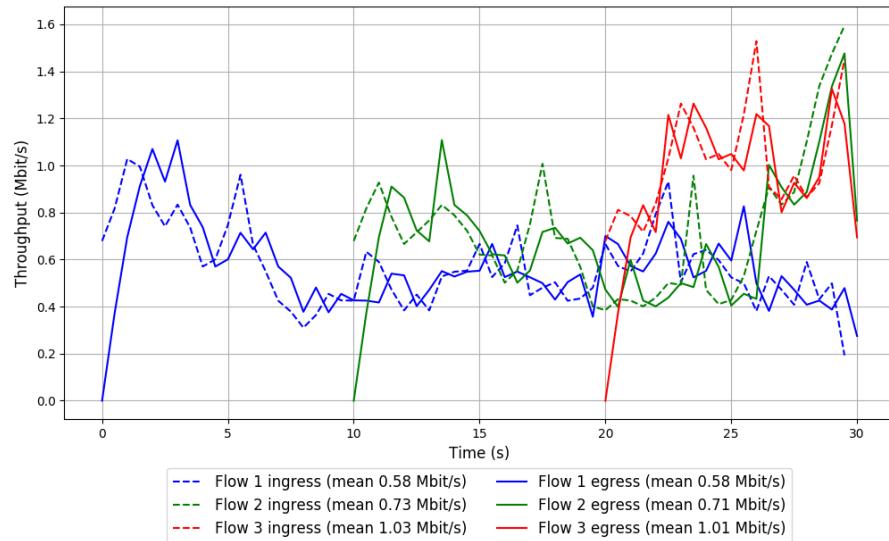


Run 3: Statistics of Sprout

```
Start at: 2019-01-19 00:07:34
End at: 2019-01-19 00:08:04
Local clock offset: -1.401 ms
Remote clock offset: 0.073 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 108.542 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 108.107 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 108.015 ms
Loss rate: 2.89%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 108.639 ms
Loss rate: 3.76%
```

Run 3: Report of Sprout — Data Link

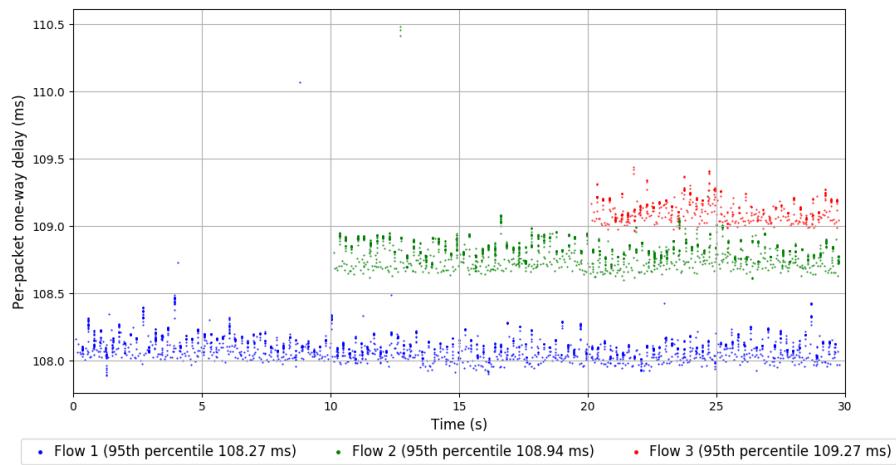
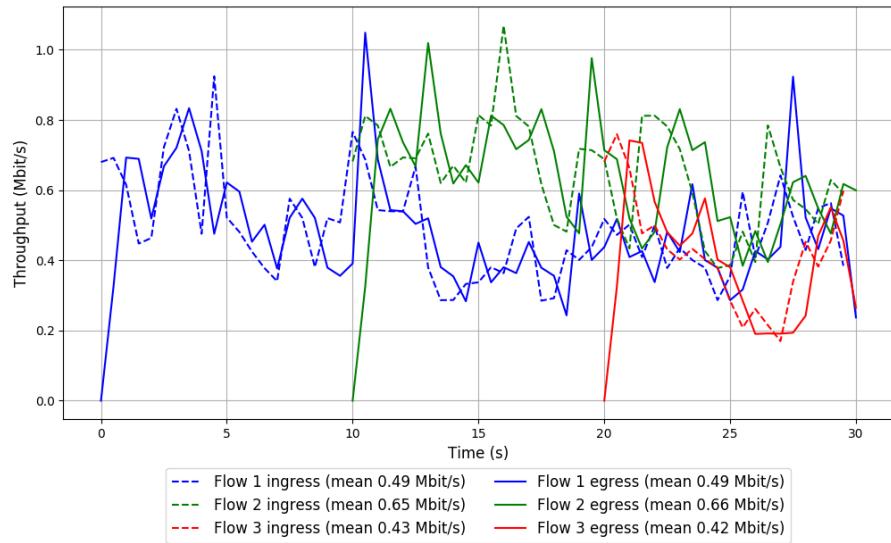


Run 4: Statistics of Sprout

```
Start at: 2019-01-19 00:46:28
End at: 2019-01-19 00:46:58
Local clock offset: -0.279 ms
Remote clock offset: 0.3 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 109.171 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 108.273 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 108.942 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 109.268 ms
Loss rate: 3.97%
```

Run 4: Report of Sprout — Data Link

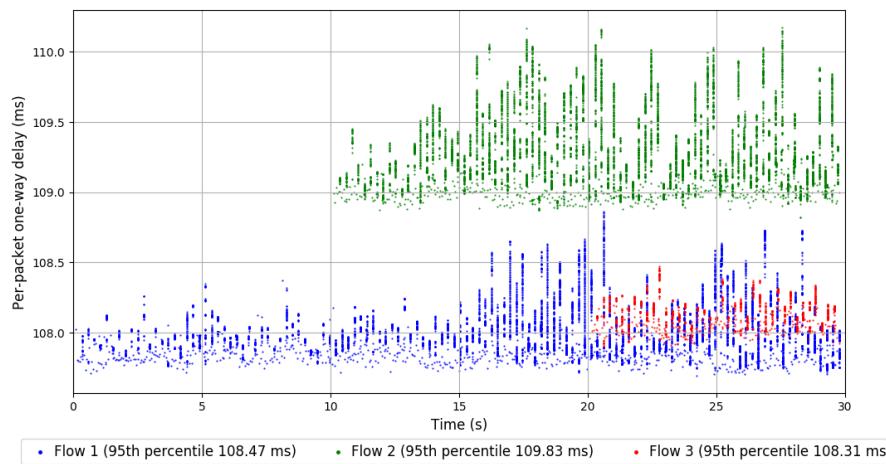
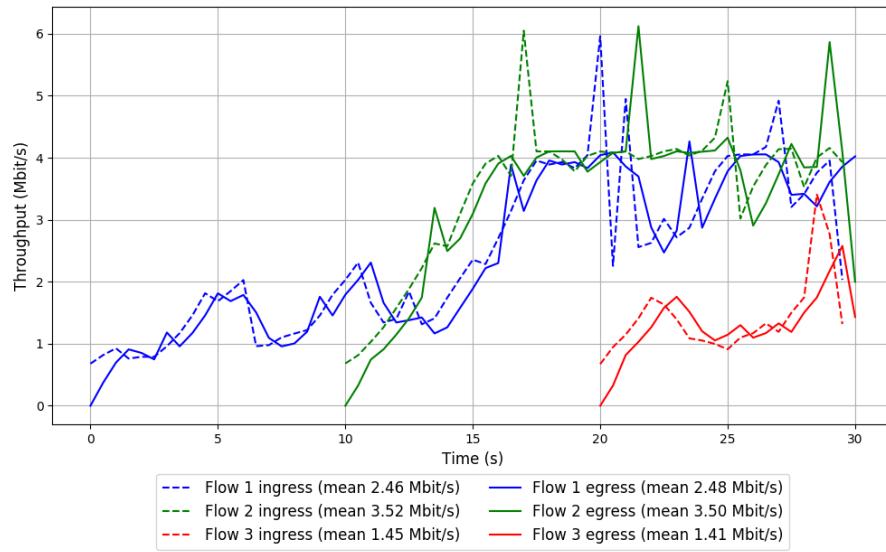


Run 5: Statistics of Sprout

```
Start at: 2019-01-19 01:25:05
End at: 2019-01-19 01:25:35
Local clock offset: -1.503 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2019-01-19 04:29:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.25 Mbit/s
95th percentile per-packet one-way delay: 109.684 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 2.48 Mbit/s
95th percentile per-packet one-way delay: 108.470 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 109.834 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 108.311 ms
Loss rate: 4.60%
```

Run 5: Report of Sprout — Data Link

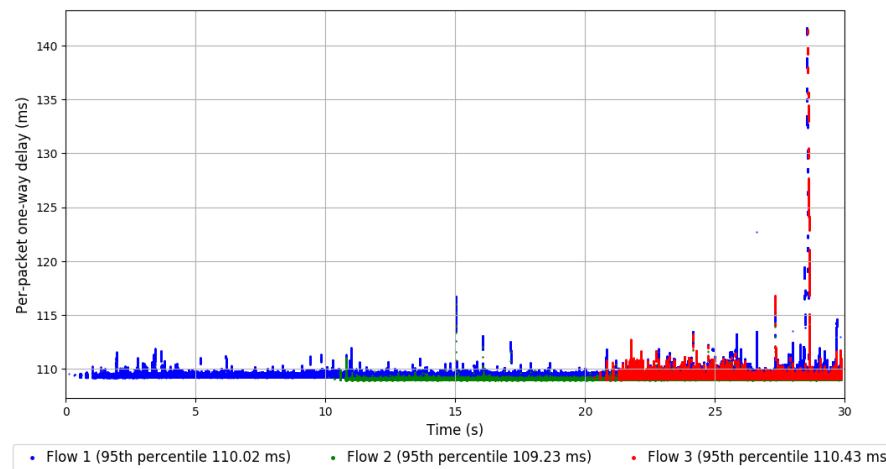
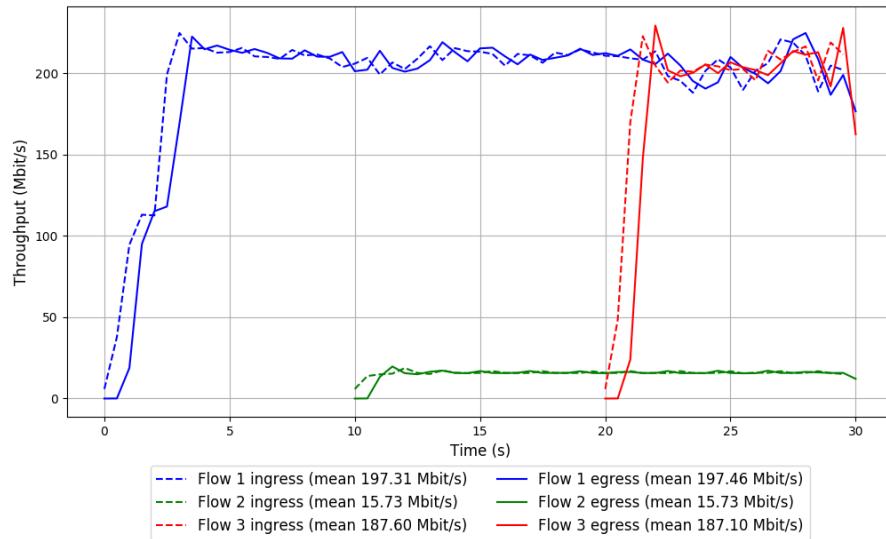


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-01-18 23:00:29
End at: 2019-01-18 23:00:59
Local clock offset: 0.139 ms
Remote clock offset: 0.399 ms

# Below is generated by plot.py at 2019-01-19 04:32:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.15 Mbit/s
95th percentile per-packet one-way delay: 110.093 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 197.46 Mbit/s
95th percentile per-packet one-way delay: 110.023 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 15.73 Mbit/s
95th percentile per-packet one-way delay: 109.232 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 187.10 Mbit/s
95th percentile per-packet one-way delay: 110.434 ms
Loss rate: 2.47%
```

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

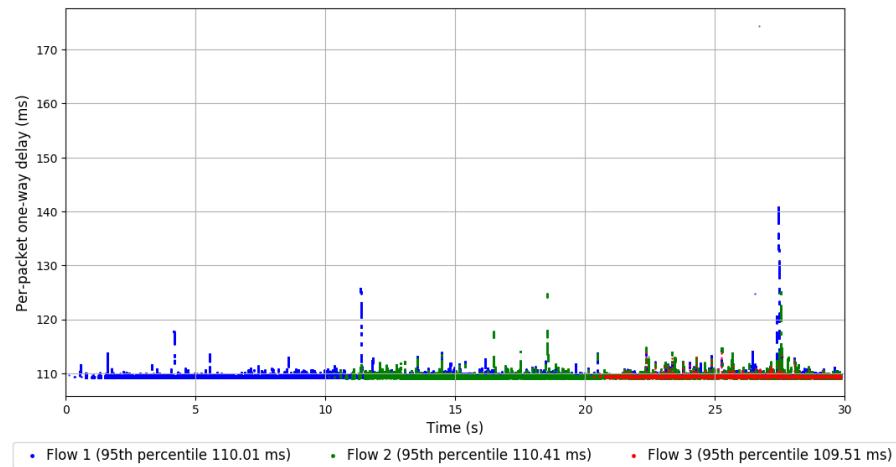
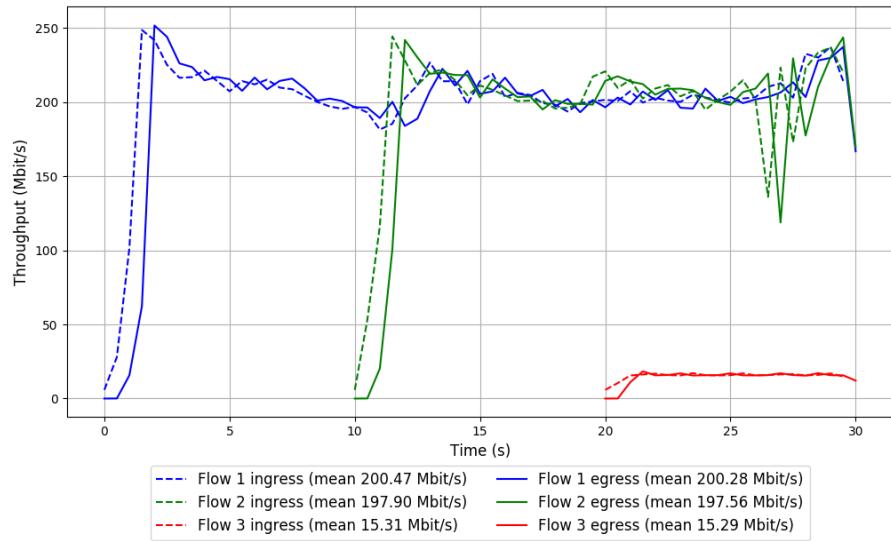


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-01-18 23:38:56
End at: 2019-01-18 23:39:26
Local clock offset: -0.307 ms
Remote clock offset: -0.133 ms

# Below is generated by plot.py at 2019-01-19 04:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 336.39 Mbit/s
95th percentile per-packet one-way delay: 110.162 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 200.28 Mbit/s
95th percentile per-packet one-way delay: 110.012 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 197.56 Mbit/s
95th percentile per-packet one-way delay: 110.413 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 15.29 Mbit/s
95th percentile per-packet one-way delay: 109.514 ms
Loss rate: 2.31%
```

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

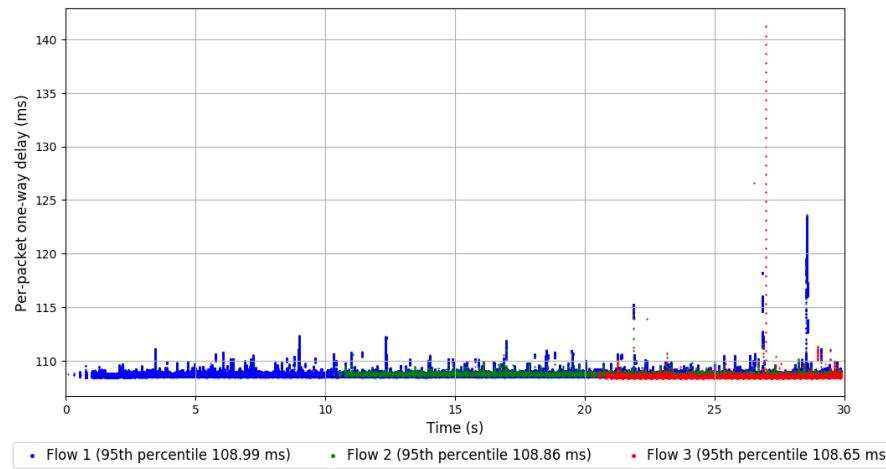
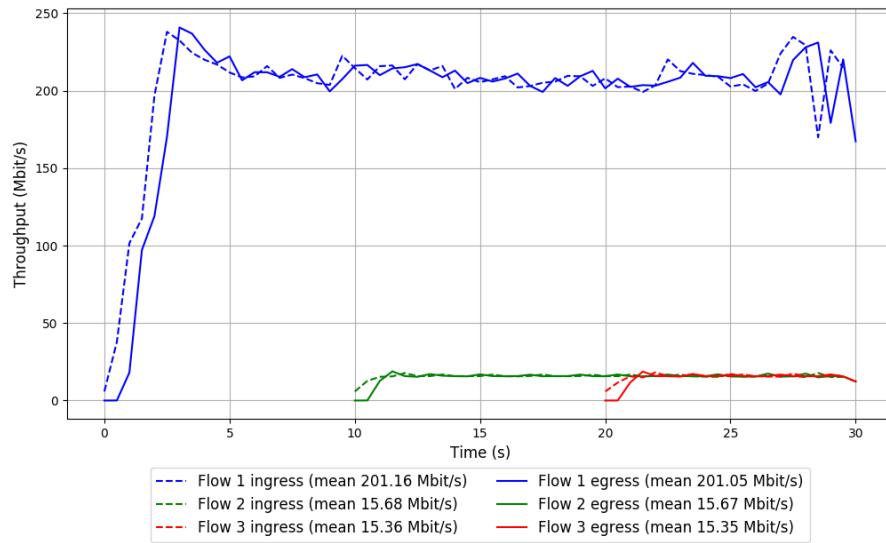


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-01-19 00:19:09
End at: 2019-01-19 00:19:39
Local clock offset: -0.898 ms
Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2019-01-19 04:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.48 Mbit/s
95th percentile per-packet one-way delay: 108.975 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 201.05 Mbit/s
95th percentile per-packet one-way delay: 108.986 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 15.67 Mbit/s
95th percentile per-packet one-way delay: 108.856 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 15.35 Mbit/s
95th percentile per-packet one-way delay: 108.652 ms
Loss rate: 2.28%
```

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

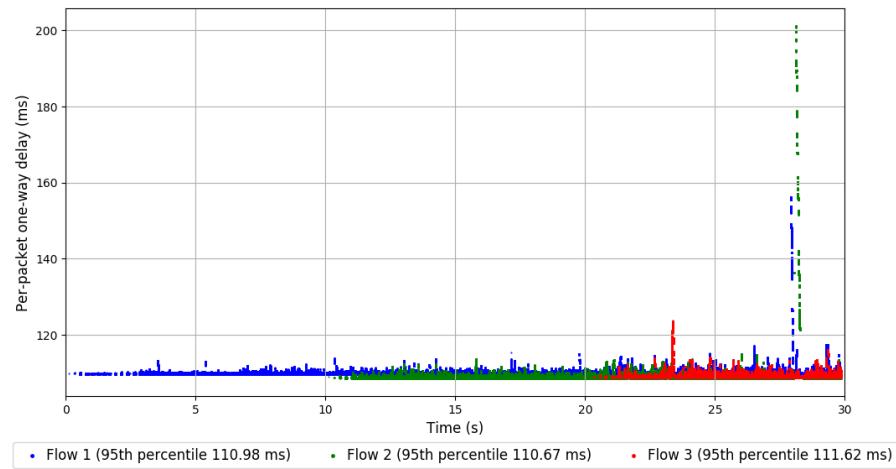
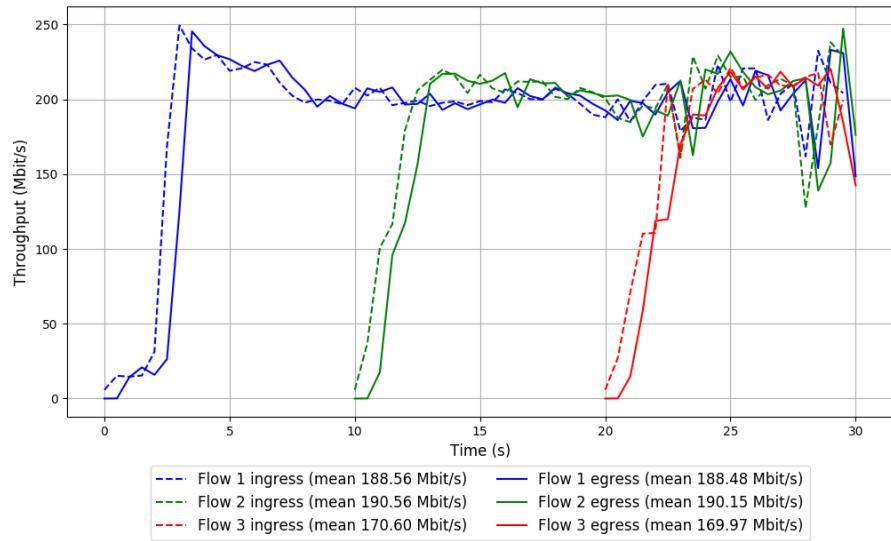


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-01-19 00:57:52
End at: 2019-01-19 00:58:22
Local clock offset: -0.697 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2019-01-19 04:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.37 Mbit/s
95th percentile per-packet one-way delay: 110.968 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 188.48 Mbit/s
95th percentile per-packet one-way delay: 110.979 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 190.15 Mbit/s
95th percentile per-packet one-way delay: 110.669 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 169.97 Mbit/s
95th percentile per-packet one-way delay: 111.623 ms
Loss rate: 2.56%
```

Run 4: Report of TaoVA-100x — Data Link

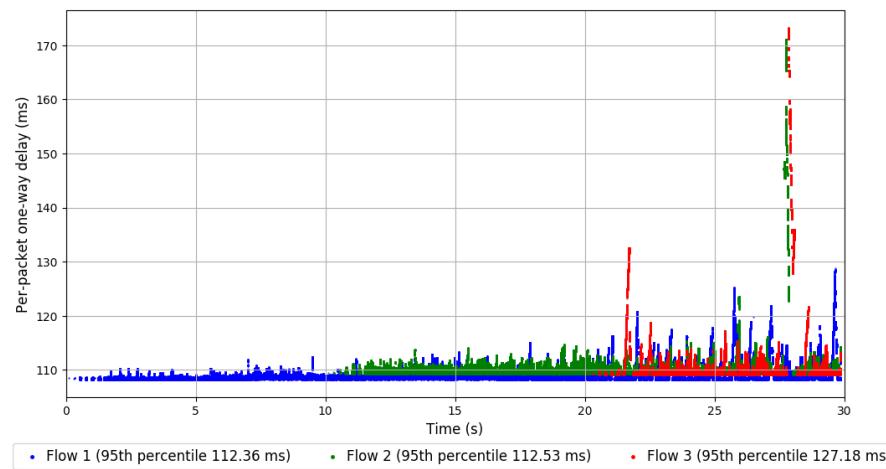
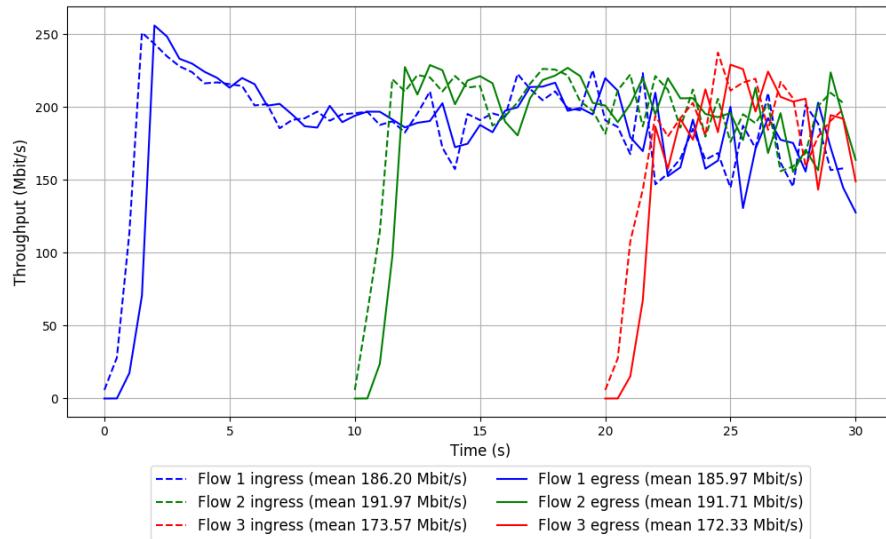


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-01-19 01:36:33
End at: 2019-01-19 01:37:03
Local clock offset: -0.215 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-01-19 04:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 369.68 Mbit/s
95th percentile per-packet one-way delay: 113.181 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 185.97 Mbit/s
95th percentile per-packet one-way delay: 112.355 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 191.71 Mbit/s
95th percentile per-packet one-way delay: 112.533 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 172.33 Mbit/s
95th percentile per-packet one-way delay: 127.176 ms
Loss rate: 2.66%
```

Run 5: Report of TaoVA-100x — Data Link

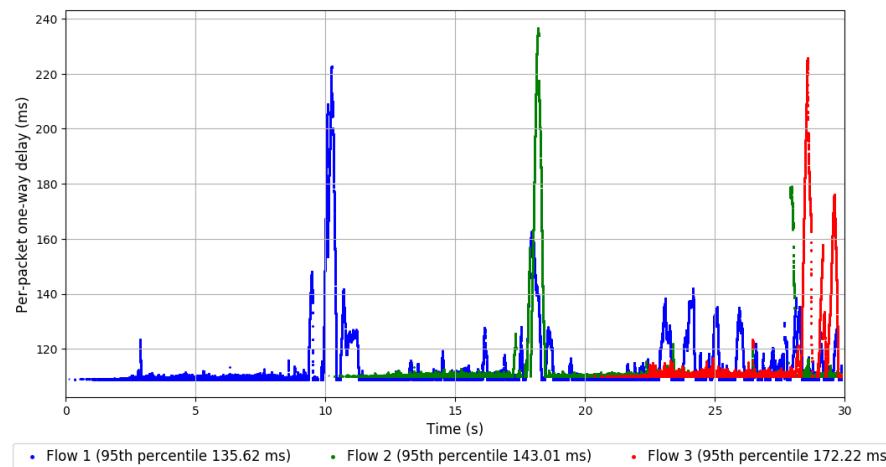
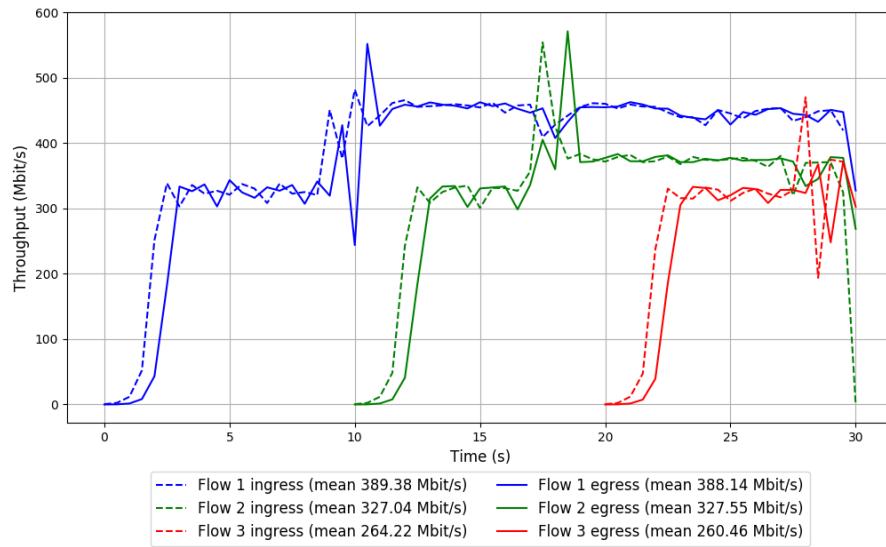


Run 1: Statistics of TCP Vegas

```
Start at: 2019-01-18 22:43:53
End at: 2019-01-18 22:44:23
Local clock offset: 0.336 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2019-01-19 04:40:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 690.93 Mbit/s
95th percentile per-packet one-way delay: 140.895 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 388.14 Mbit/s
95th percentile per-packet one-way delay: 135.616 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 327.55 Mbit/s
95th percentile per-packet one-way delay: 143.007 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 260.46 Mbit/s
95th percentile per-packet one-way delay: 172.216 ms
Loss rate: 3.58%
```

Run 1: Report of TCP Vegas — Data Link

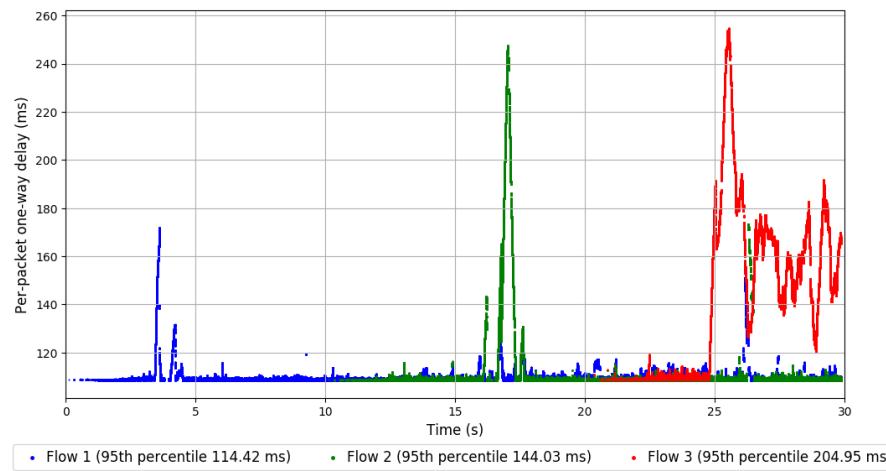
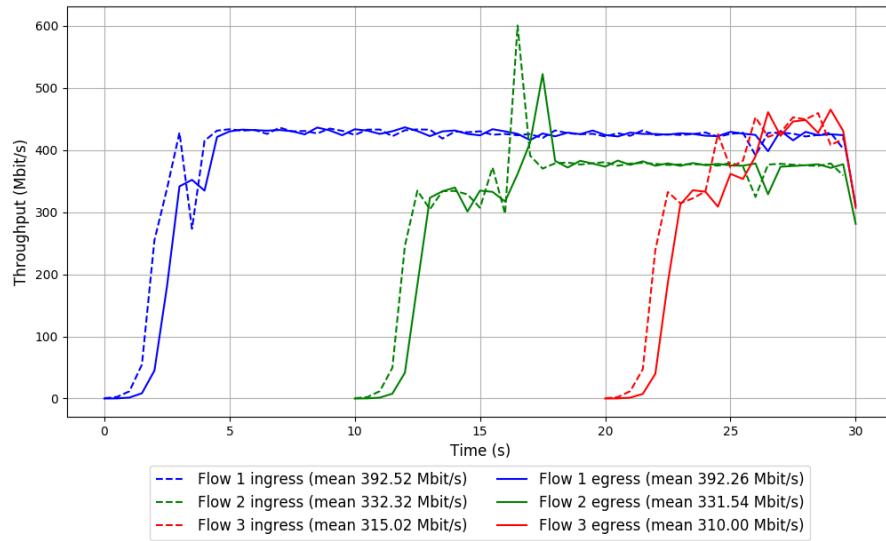


Run 2: Statistics of TCP Vegas

```
Start at: 2019-01-18 23:22:16
End at: 2019-01-18 23:22:46
Local clock offset: 0.014 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-01-19 04:43:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 713.76 Mbit/s
95th percentile per-packet one-way delay: 167.564 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 392.26 Mbit/s
95th percentile per-packet one-way delay: 114.418 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 331.54 Mbit/s
95th percentile per-packet one-way delay: 144.031 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 310.00 Mbit/s
95th percentile per-packet one-way delay: 204.951 ms
Loss rate: 3.74%
```

Run 2: Report of TCP Vegas — Data Link

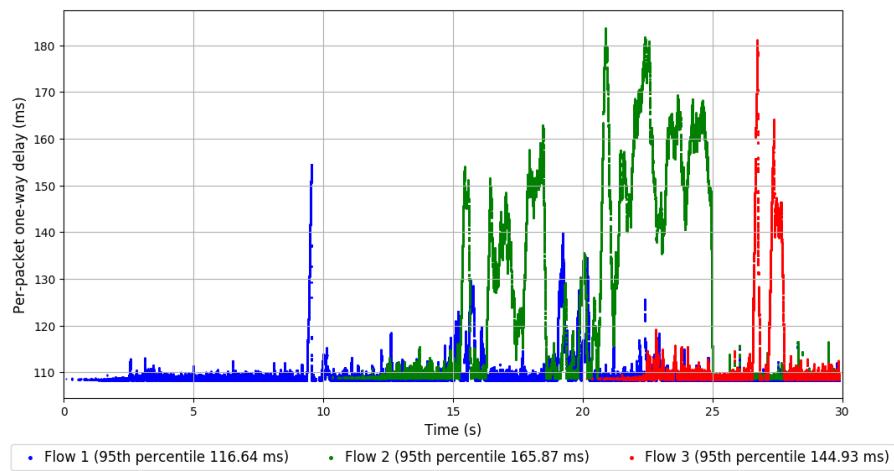
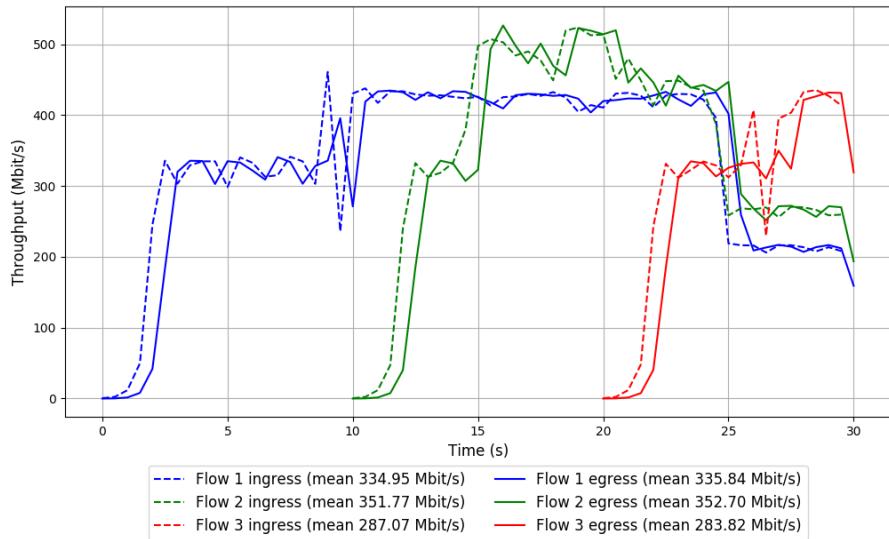


Run 3: Statistics of TCP Vegas

```
Start at: 2019-01-19 00:01:58
End at: 2019-01-19 00:02:28
Local clock offset: -0.74 ms
Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2019-01-19 04:46:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 662.90 Mbit/s
95th percentile per-packet one-way delay: 157.984 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 335.84 Mbit/s
95th percentile per-packet one-way delay: 116.639 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 352.70 Mbit/s
95th percentile per-packet one-way delay: 165.874 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 283.82 Mbit/s
95th percentile per-packet one-way delay: 144.925 ms
Loss rate: 3.29%
```

Run 3: Report of TCP Vegas — Data Link

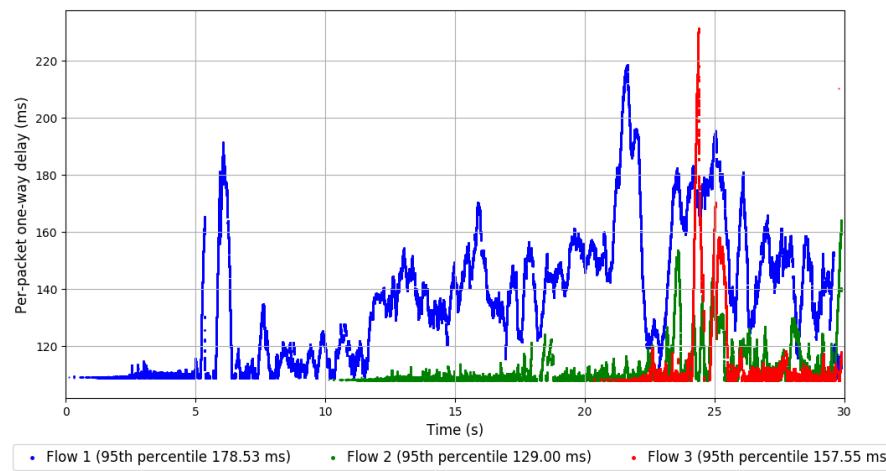
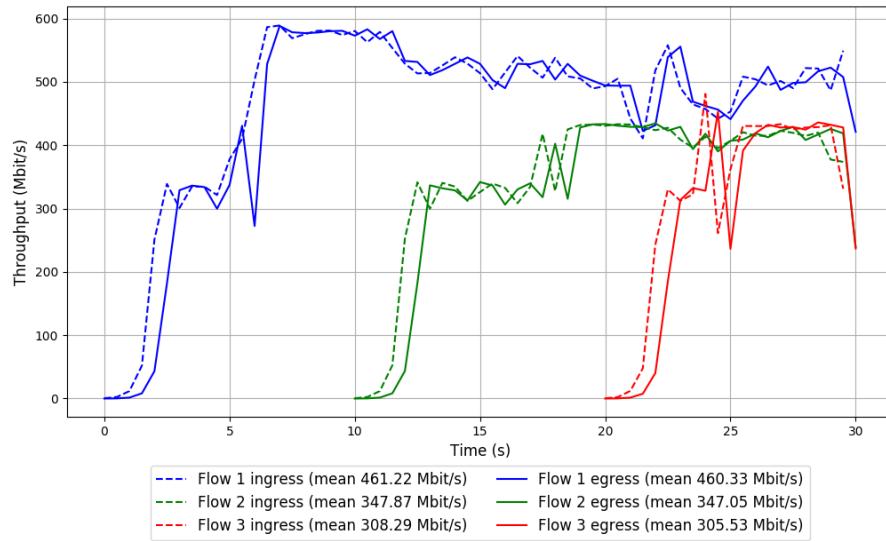


Run 4: Statistics of TCP Vegas

```
Start at: 2019-01-19 00:40:52
End at: 2019-01-19 00:41:22
Local clock offset: -0.397 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2019-01-19 04:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 790.72 Mbit/s
95th percentile per-packet one-way delay: 174.063 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 460.33 Mbit/s
95th percentile per-packet one-way delay: 178.535 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 347.05 Mbit/s
95th percentile per-packet one-way delay: 128.996 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 305.53 Mbit/s
95th percentile per-packet one-way delay: 157.548 ms
Loss rate: 3.07%
```

Run 4: Report of TCP Vegas — Data Link

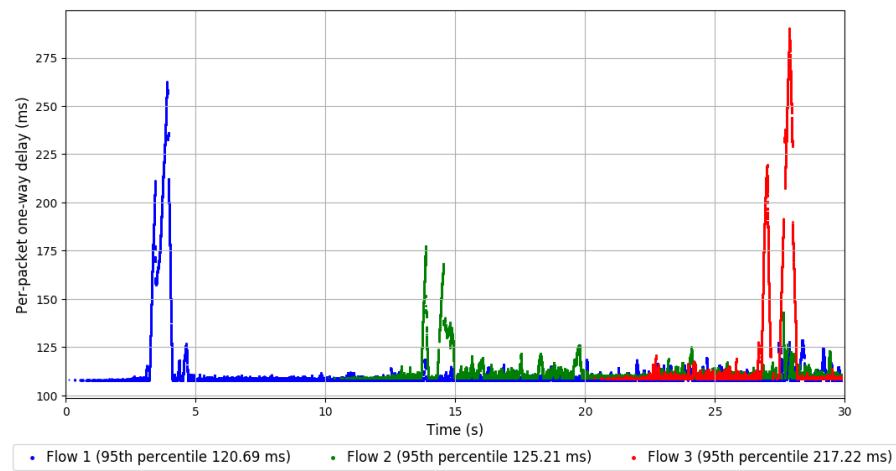
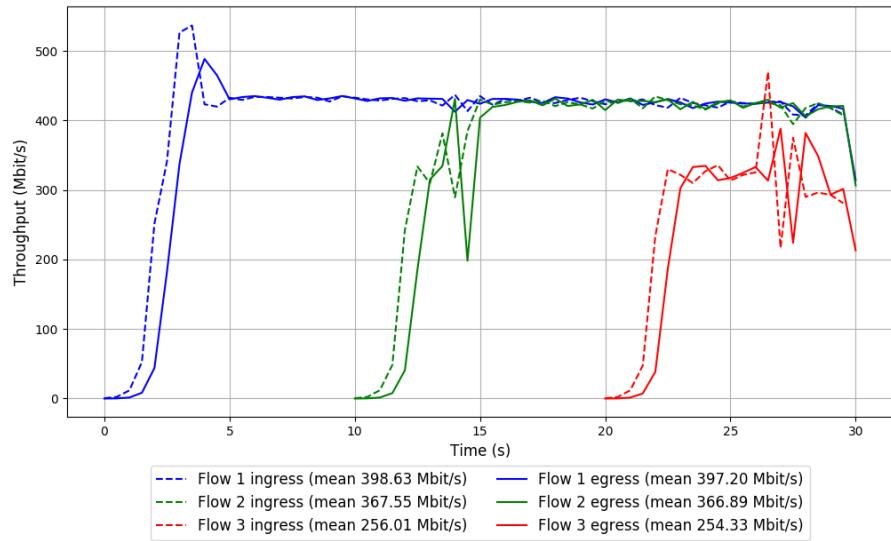


Run 5: Statistics of TCP Vegas

```
Start at: 2019-01-19 01:19:50
End at: 2019-01-19 01:20:20
Local clock offset: -0.538 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2019-01-19 04:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 724.00 Mbit/s
95th percentile per-packet one-way delay: 132.170 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 397.20 Mbit/s
95th percentile per-packet one-way delay: 120.685 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 366.89 Mbit/s
95th percentile per-packet one-way delay: 125.208 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 254.33 Mbit/s
95th percentile per-packet one-way delay: 217.225 ms
Loss rate: 2.83%
```

Run 5: Report of TCP Vegas — Data Link

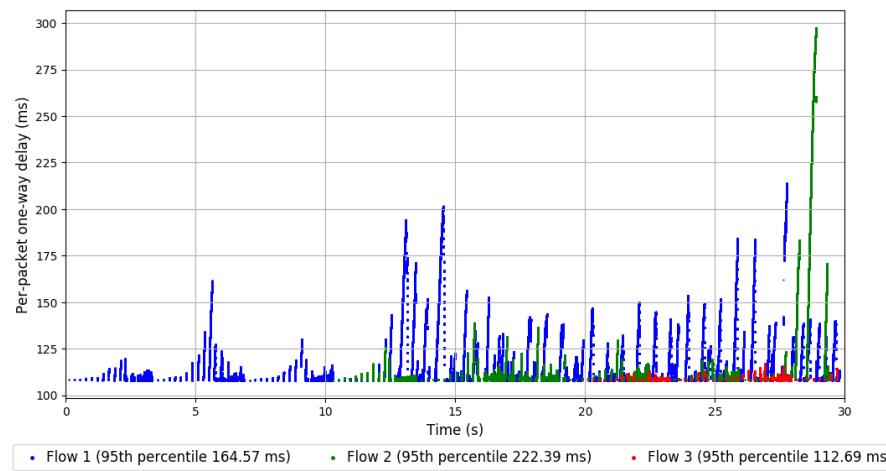
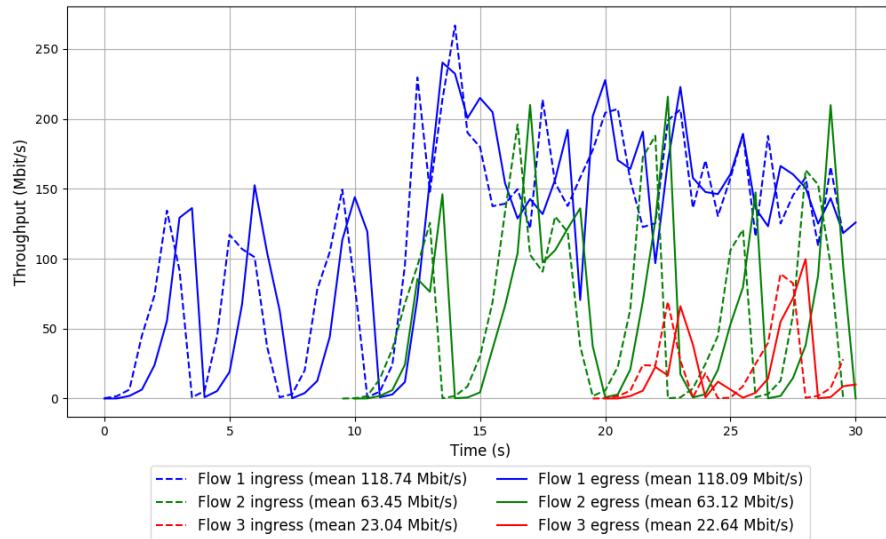


Run 1: Statistics of Verus

```
Start at: 2019-01-18 22:29:37
End at: 2019-01-18 22:30:07
Local clock offset: -1.146 ms
Remote clock offset: 0.251 ms

# Below is generated by plot.py at 2019-01-19 04:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 166.97 Mbit/s
95th percentile per-packet one-way delay: 168.942 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 118.09 Mbit/s
95th percentile per-packet one-way delay: 164.569 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 63.12 Mbit/s
95th percentile per-packet one-way delay: 222.393 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 22.64 Mbit/s
95th percentile per-packet one-way delay: 112.685 ms
Loss rate: 3.97%
```

Run 1: Report of Verus — Data Link

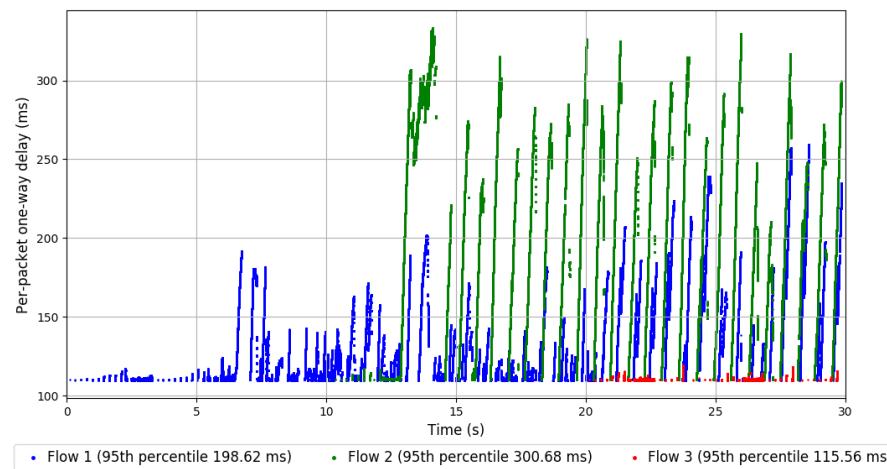
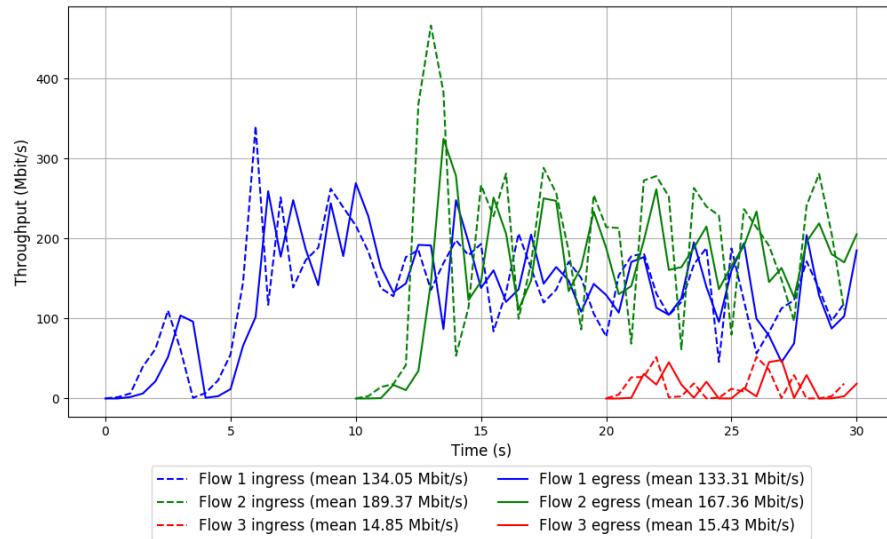


Run 2: Statistics of Verus

```
Start at: 2019-01-18 23:08:23
End at: 2019-01-18 23:08:53
Local clock offset: 0.062 ms
Remote clock offset: -0.306 ms

# Below is generated by plot.py at 2019-01-19 04:51:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.26 Mbit/s
95th percentile per-packet one-way delay: 286.509 ms
Loss rate: 5.66%
-- Flow 1:
Average throughput: 133.31 Mbit/s
95th percentile per-packet one-way delay: 198.617 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 167.36 Mbit/s
95th percentile per-packet one-way delay: 300.676 ms
Loss rate: 11.64%
-- Flow 3:
Average throughput: 15.43 Mbit/s
95th percentile per-packet one-way delay: 115.556 ms
Loss rate: 0.02%
```

Run 2: Report of Verus — Data Link

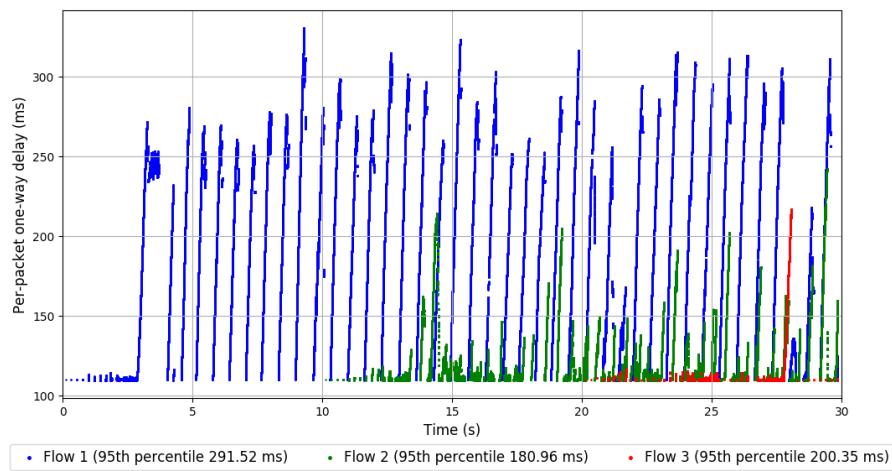
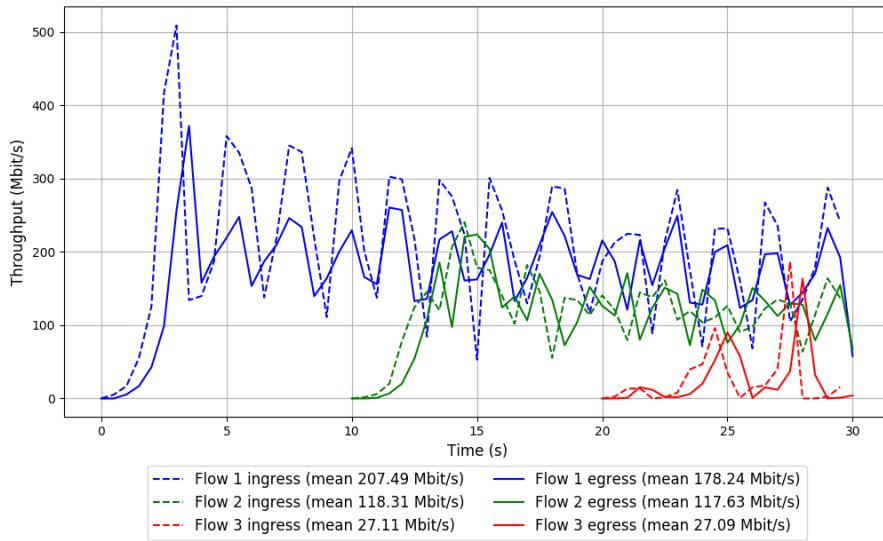


Run 3: Statistics of Verus

```
Start at: 2019-01-18 23:47:01
End at: 2019-01-18 23:47:31
Local clock offset: 0.371 ms
Remote clock offset: 0.306 ms

# Below is generated by plot.py at 2019-01-19 04:52:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 265.08 Mbit/s
95th percentile per-packet one-way delay: 283.923 ms
Loss rate: 10.87%
-- Flow 1:
Average throughput: 178.24 Mbit/s
95th percentile per-packet one-way delay: 291.524 ms
Loss rate: 14.73%
-- Flow 2:
Average throughput: 117.63 Mbit/s
95th percentile per-packet one-way delay: 180.957 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 27.09 Mbit/s
95th percentile per-packet one-way delay: 200.351 ms
Loss rate: 2.40%
```

Run 3: Report of Verus — Data Link

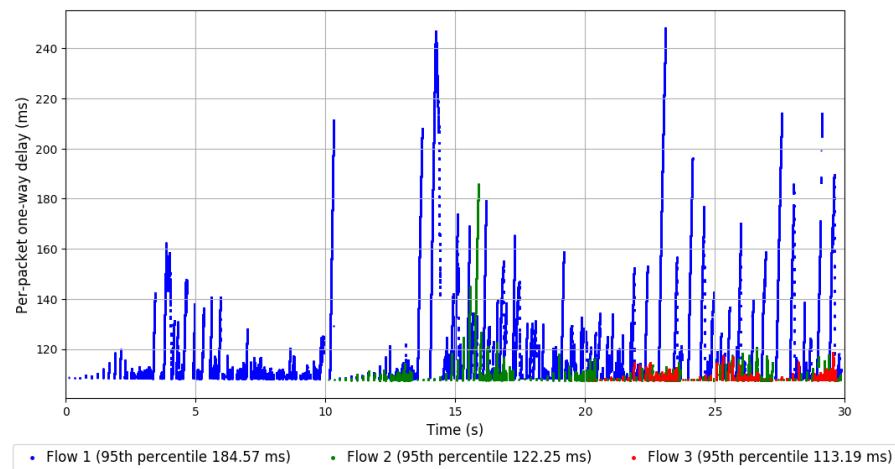
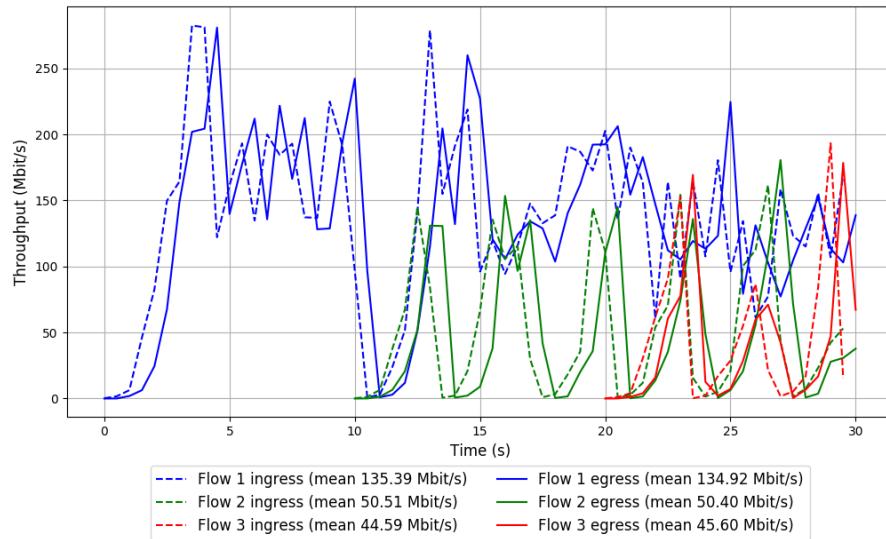


Run 4: Statistics of Verus

```
Start at: 2019-01-19 00:26:58
End at: 2019-01-19 00:27:28
Local clock offset: -0.758 ms
Remote clock offset: -0.012 ms

# Below is generated by plot.py at 2019-01-19 04:52:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.98 Mbit/s
95th percentile per-packet one-way delay: 172.506 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 134.92 Mbit/s
95th percentile per-packet one-way delay: 184.570 ms
Loss rate: 1.08%
-- Flow 2:
Average throughput: 50.40 Mbit/s
95th percentile per-packet one-way delay: 122.255 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 45.60 Mbit/s
95th percentile per-packet one-way delay: 113.191 ms
Loss rate: 0.01%
```

Run 4: Report of Verus — Data Link

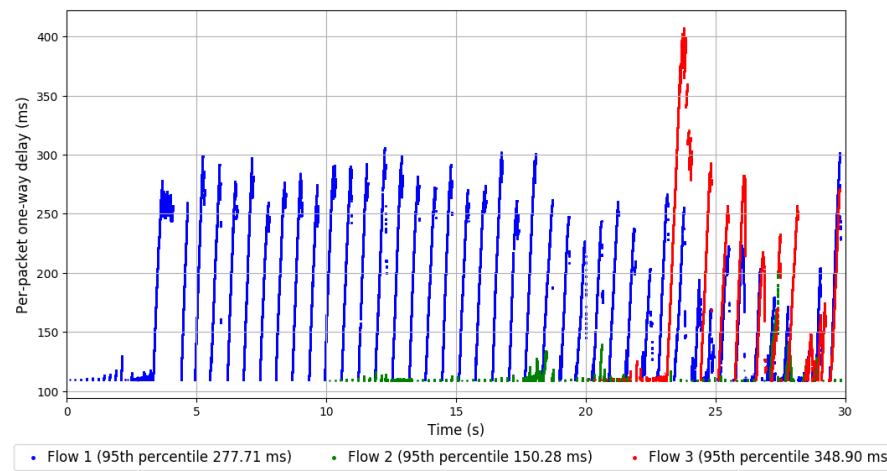
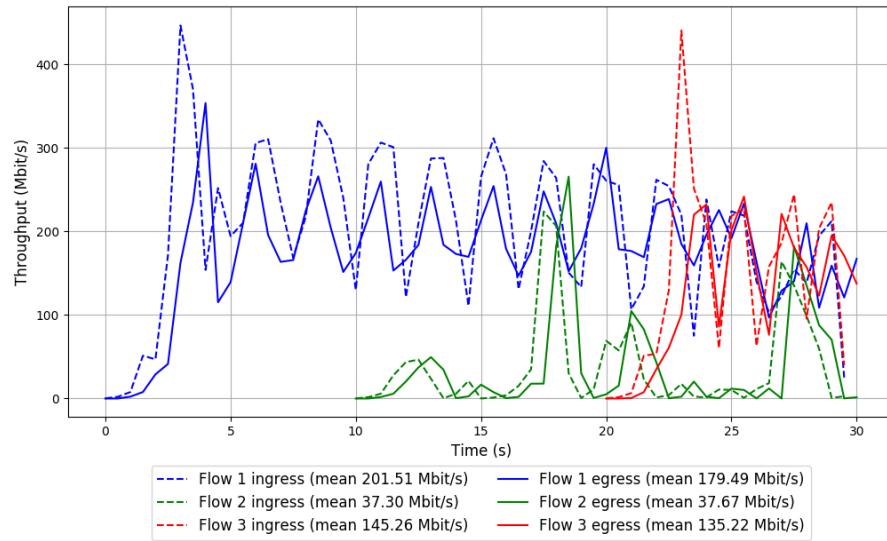


Run 5: Statistics of Verus

```
Start at: 2019-01-19 01:06:05
End at: 2019-01-19 01:06:35
Local clock offset: -0.435 ms
Remote clock offset: -0.51 ms

# Below is generated by plot.py at 2019-01-19 04:55:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.23 Mbit/s
95th percentile per-packet one-way delay: 281.278 ms
Loss rate: 10.25%
-- Flow 1:
Average throughput: 179.49 Mbit/s
95th percentile per-packet one-way delay: 277.711 ms
Loss rate: 11.65%
-- Flow 2:
Average throughput: 37.67 Mbit/s
95th percentile per-packet one-way delay: 150.281 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 135.22 Mbit/s
95th percentile per-packet one-way delay: 348.901 ms
Loss rate: 9.62%
```

Run 5: Report of Verus — Data Link

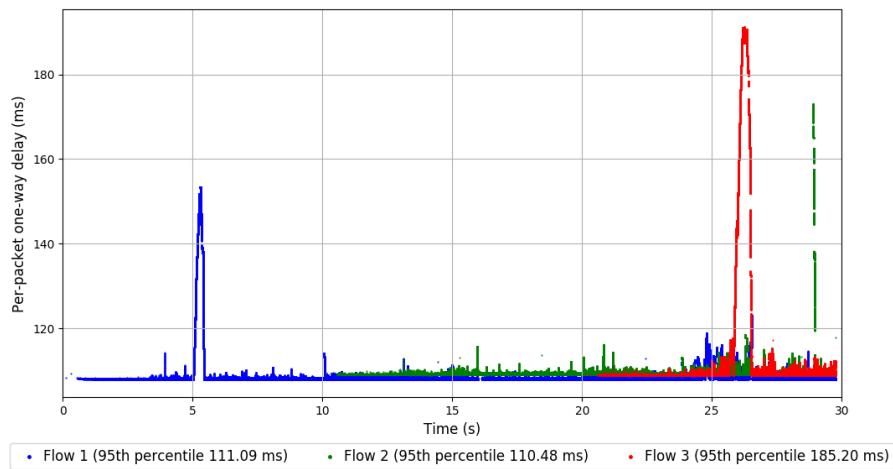
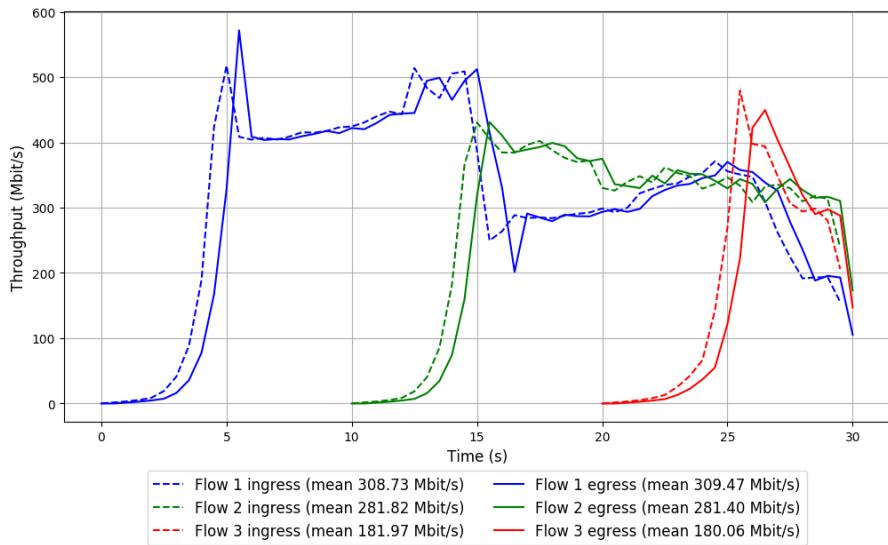


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-01-18 22:27:36
End at: 2019-01-18 22:28:06
Local clock offset: -0.353 ms
Remote clock offset: 0.116 ms

# Below is generated by plot.py at 2019-01-19 04:56:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 554.21 Mbit/s
95th percentile per-packet one-way delay: 112.692 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 309.47 Mbit/s
95th percentile per-packet one-way delay: 111.088 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 281.40 Mbit/s
95th percentile per-packet one-way delay: 110.481 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 180.06 Mbit/s
95th percentile per-packet one-way delay: 185.203 ms
Loss rate: 3.28%
```

Run 1: Report of PCC-Vivace — Data Link

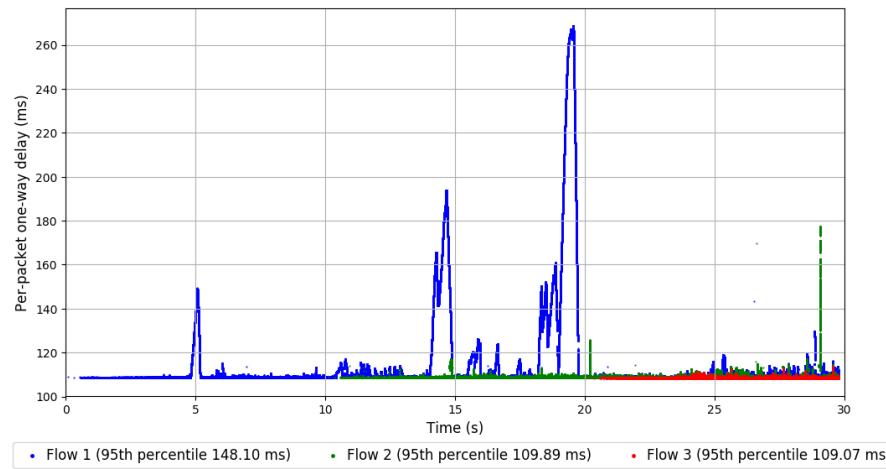
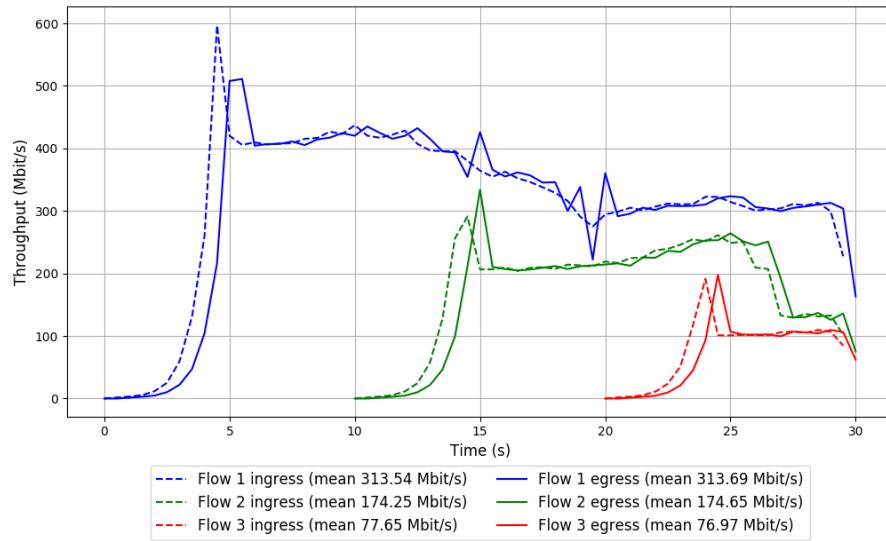


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-01-18 23:06:30
End at: 2019-01-18 23:07:00
Local clock offset: -0.843 ms
Remote clock offset: 0.074 ms

# Below is generated by plot.py at 2019-01-19 04:57:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.34 Mbit/s
95th percentile per-packet one-way delay: 138.052 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 313.69 Mbit/s
95th percentile per-packet one-way delay: 148.104 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 174.65 Mbit/s
95th percentile per-packet one-way delay: 109.892 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 76.97 Mbit/s
95th percentile per-packet one-way delay: 109.071 ms
Loss rate: 3.07%
```

Run 2: Report of PCC-Vivace — Data Link

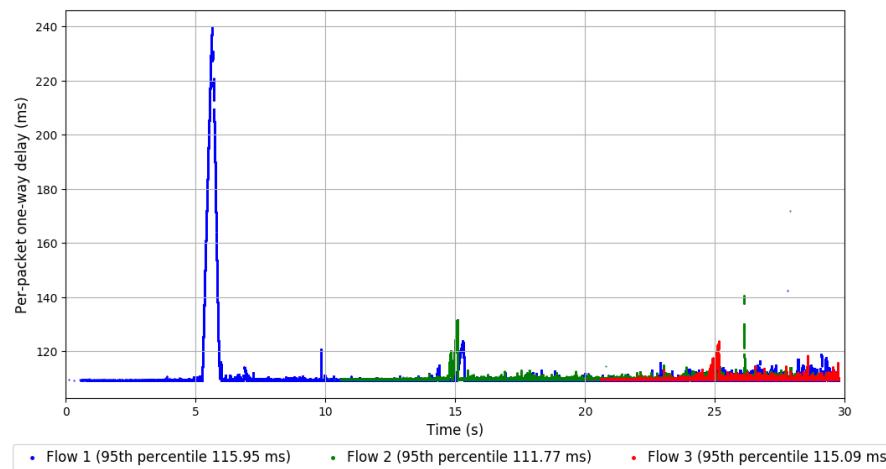
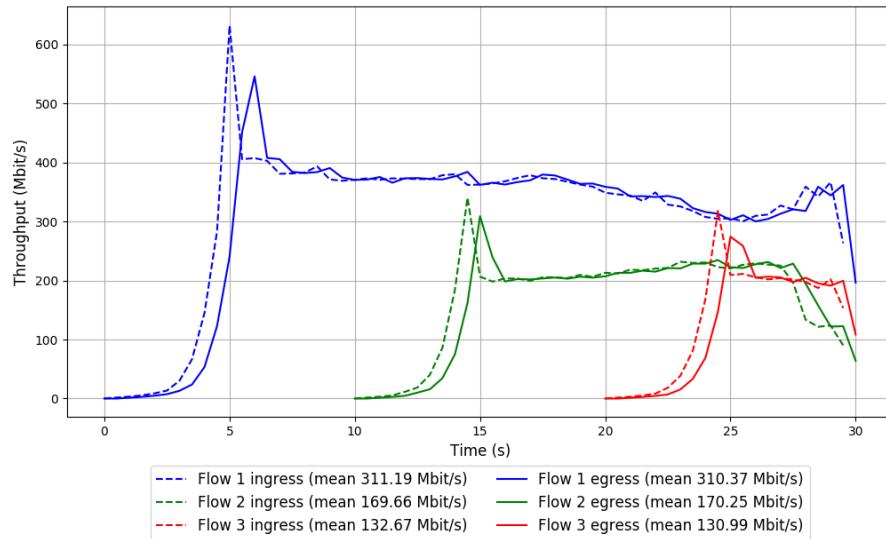


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-01-18 23:44:56
End at: 2019-01-18 23:45:26
Local clock offset: 0.141 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2019-01-19 04:58:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 465.69 Mbit/s
95th percentile per-packet one-way delay: 114.430 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 310.37 Mbit/s
95th percentile per-packet one-way delay: 115.952 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 170.25 Mbit/s
95th percentile per-packet one-way delay: 111.769 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 130.99 Mbit/s
95th percentile per-packet one-way delay: 115.092 ms
Loss rate: 3.47%
```

Run 3: Report of PCC-Vivace — Data Link

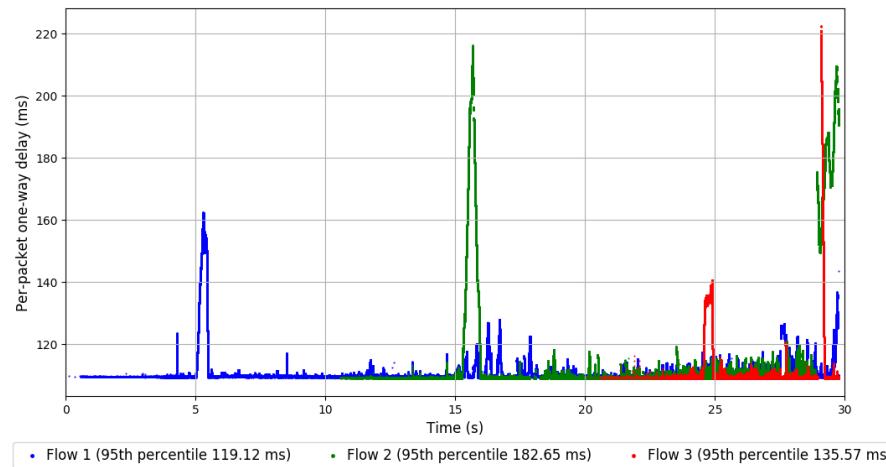
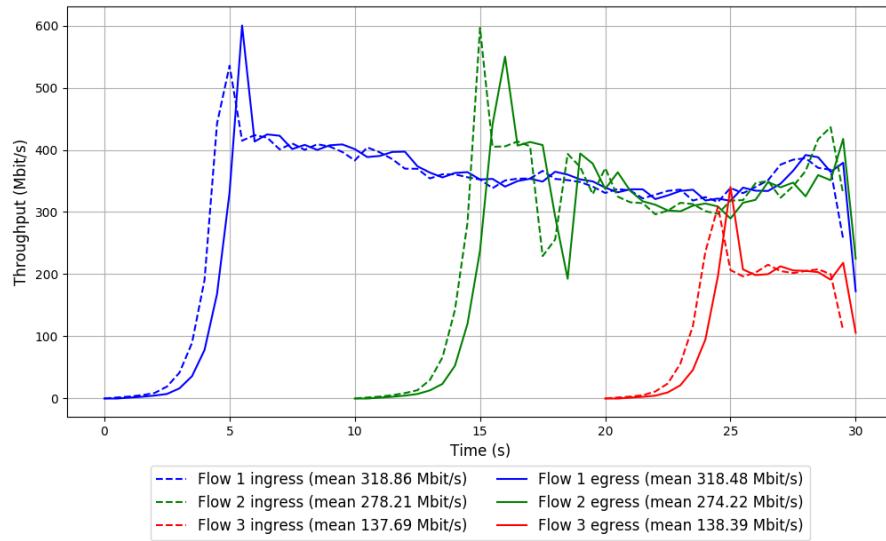


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-01-19 00:24:49
End at: 2019-01-19 00:25:19
Local clock offset: -0.257 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2019-01-19 04:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 545.19 Mbit/s
95th percentile per-packet one-way delay: 139.844 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 318.48 Mbit/s
95th percentile per-packet one-way delay: 119.116 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 274.22 Mbit/s
95th percentile per-packet one-way delay: 182.650 ms
Loss rate: 2.52%
-- Flow 3:
Average throughput: 138.39 Mbit/s
95th percentile per-packet one-way delay: 135.567 ms
Loss rate: 1.72%
```

Run 4: Report of PCC-Vivace — Data Link

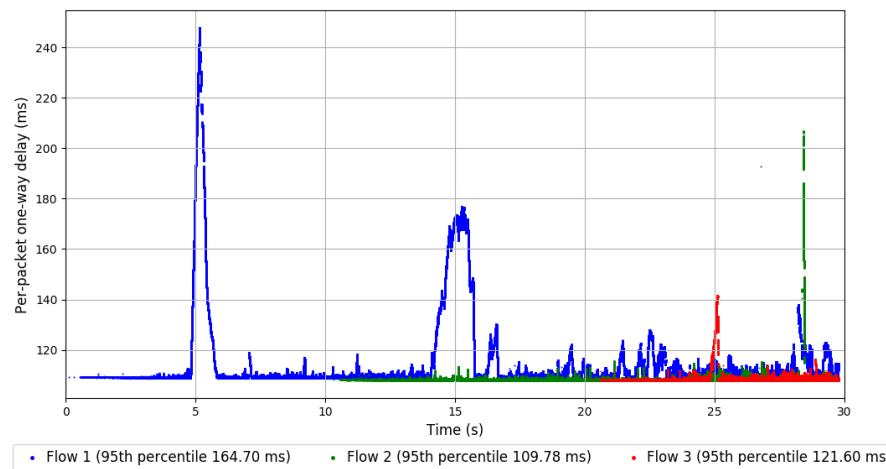
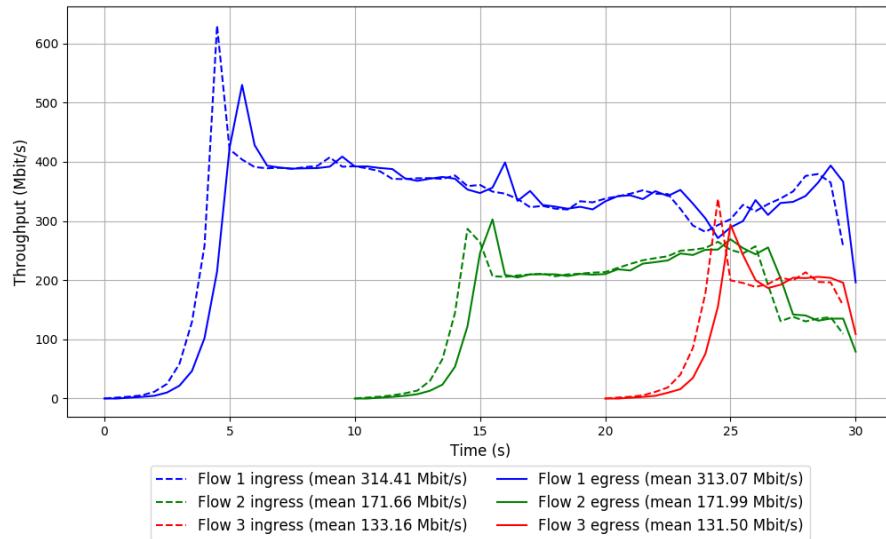


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-01-19 01:04:10
End at: 2019-01-19 01:04:40
Local clock offset: -0.634 ms
Remote clock offset: -0.49 ms

# Below is generated by plot.py at 2019-01-19 04:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.80 Mbit/s
95th percentile per-packet one-way delay: 141.922 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 313.07 Mbit/s
95th percentile per-packet one-way delay: 164.703 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 171.99 Mbit/s
95th percentile per-packet one-way delay: 109.785 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 131.50 Mbit/s
95th percentile per-packet one-way delay: 121.596 ms
Loss rate: 3.41%
```

Run 5: Report of PCC-Vivace — Data Link

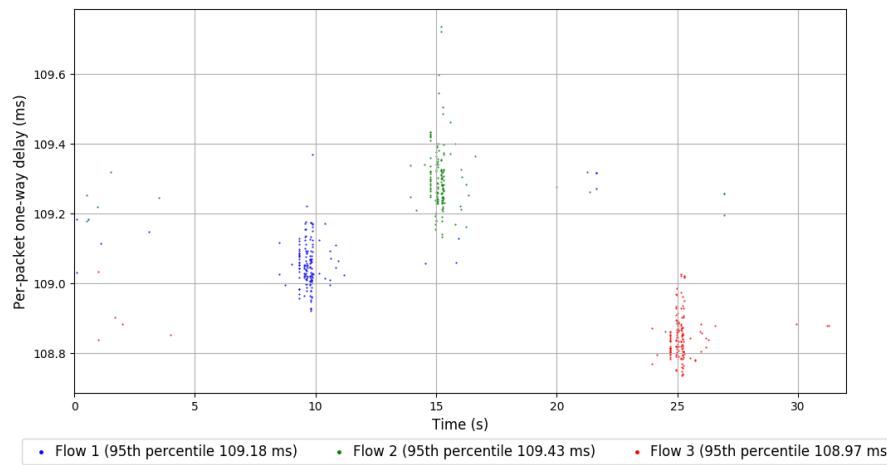
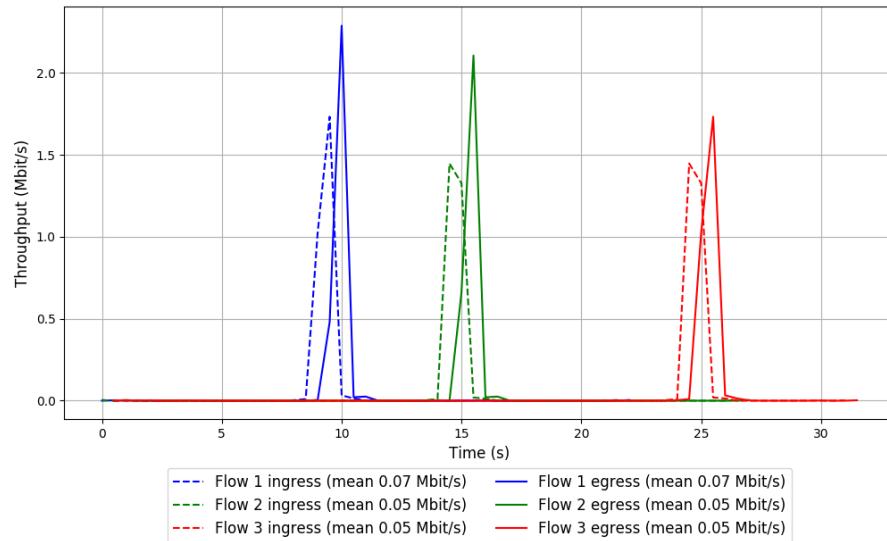


Run 1: Statistics of WebRTC media

```
Start at: 2019-01-18 22:52:45
End at: 2019-01-18 22:53:15
Local clock offset: -0.469 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2019-01-19 04:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 109.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 109.176 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.433 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.974 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

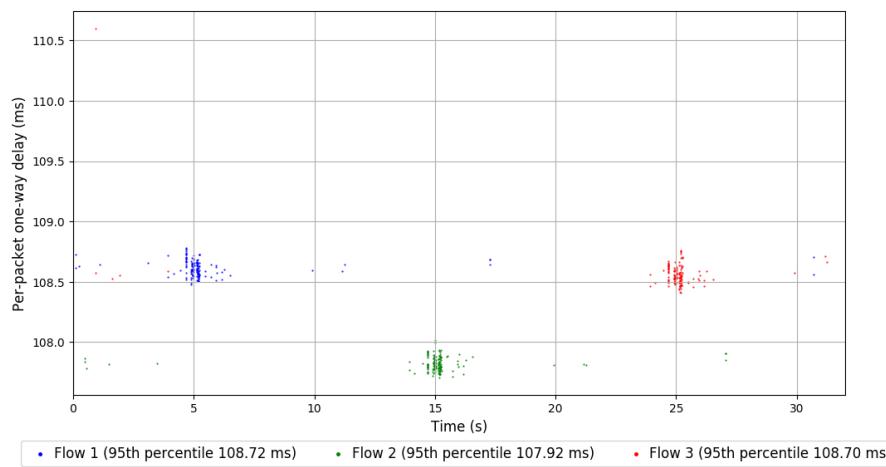
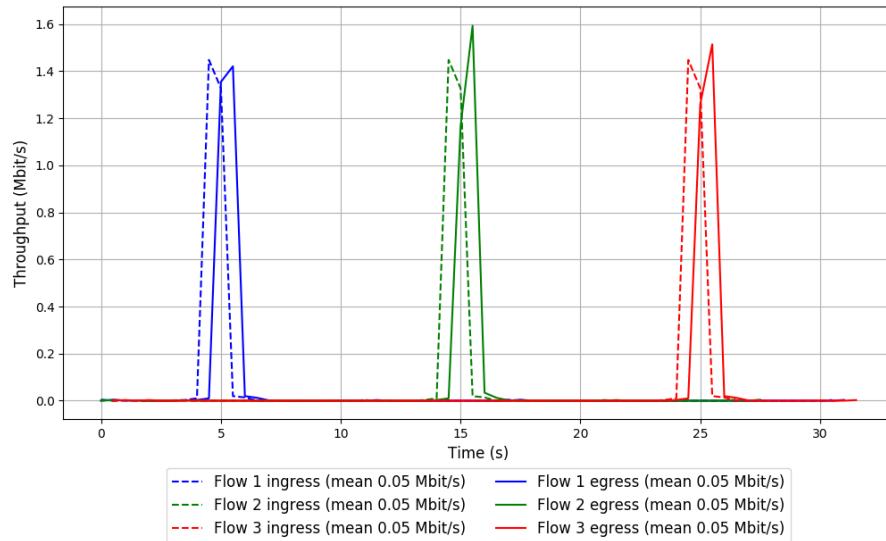


Run 2: Statistics of WebRTC media

```
Start at: 2019-01-18 23:31:14
End at: 2019-01-18 23:31:44
Local clock offset: -0.935 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2019-01-19 04:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 108.702 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.725 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.921 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.700 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

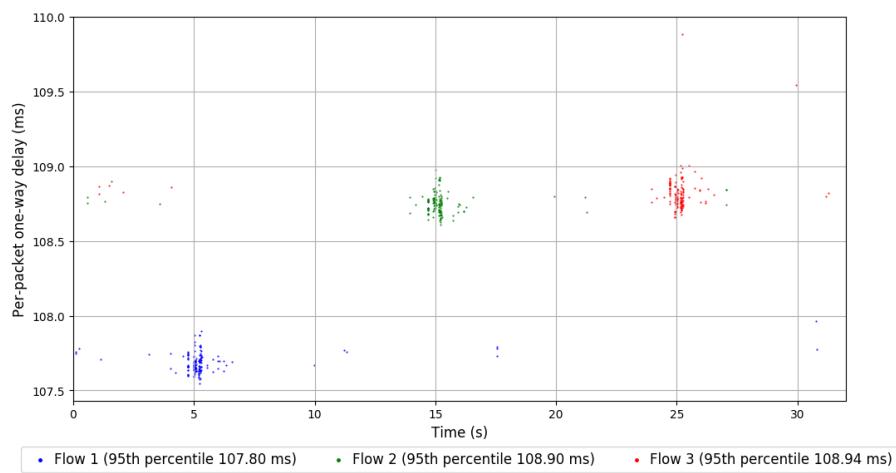
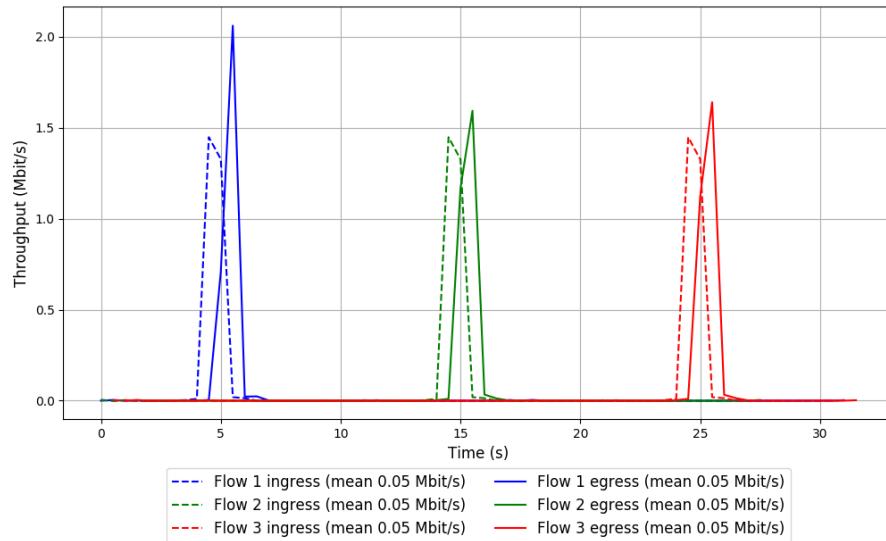


```
Run 3: Statistics of WebRTC media

Start at: 2019-01-19 00:11:16
End at: 2019-01-19 00:11:46
Local clock offset: -0.858 ms
Remote clock offset: 0.094 ms

# Below is generated by plot.py at 2019-01-19 04:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 108.910 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 107.800 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.903 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.943 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

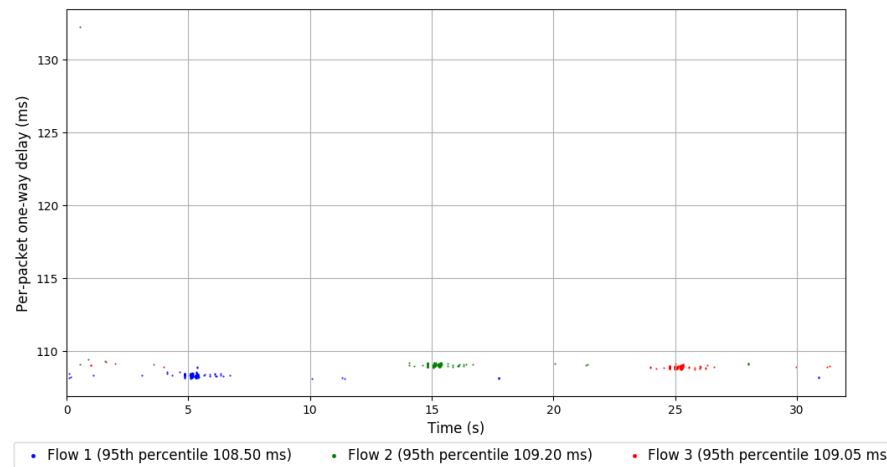
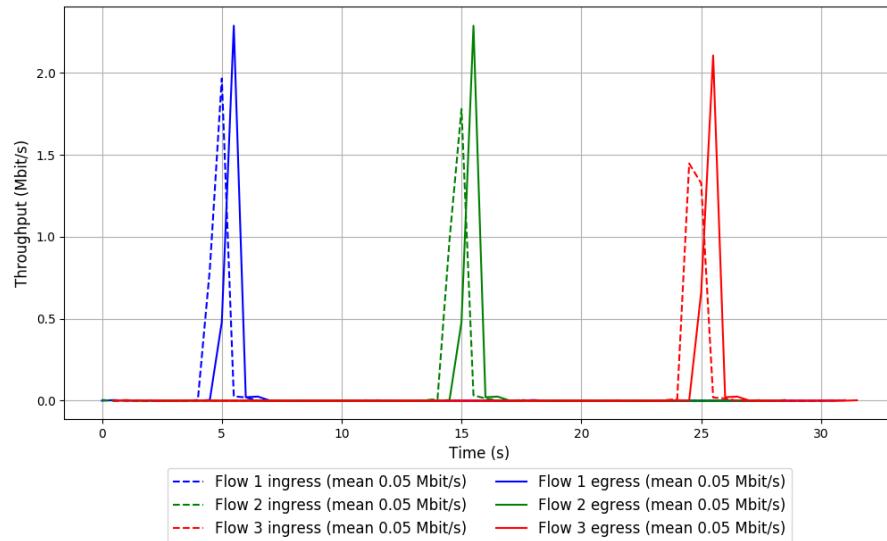


Run 4: Statistics of WebRTC media

```
Start at: 2019-01-19 00:50:04
End at: 2019-01-19 00:50:34
Local clock offset: -0.803 ms
Remote clock offset: -0.424 ms

# Below is generated by plot.py at 2019-01-19 04:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 109.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.499 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.205 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.045 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



```
Run 5: Statistics of WebRTC media

Start at: 2019-01-19 01:28:25
End at: 2019-01-19 01:28:55
Local clock offset: -0.513 ms
Remote clock offset: -0.178 ms

# Below is generated by plot.py at 2019-01-19 04:59:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 109.242 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.101 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 108.142 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.331 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

