

## Pantheon Report

Generated at 2019-06-28 14:57:22 (UTC).

Data path: Saudi Arabia on `enp2s0` (*remote*) → AWS India 2 on `ens5` (*local*).

Repeated the test of 22 congestion control schemes 5 times.

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

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

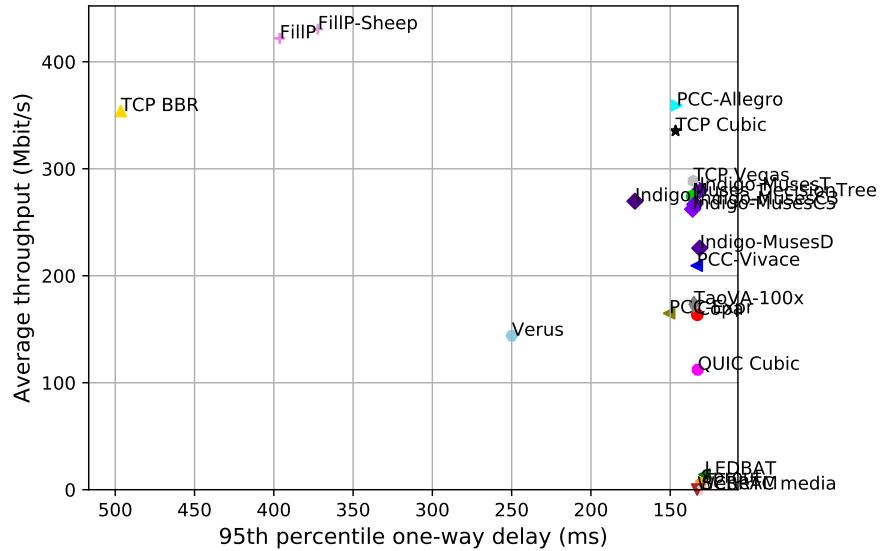
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

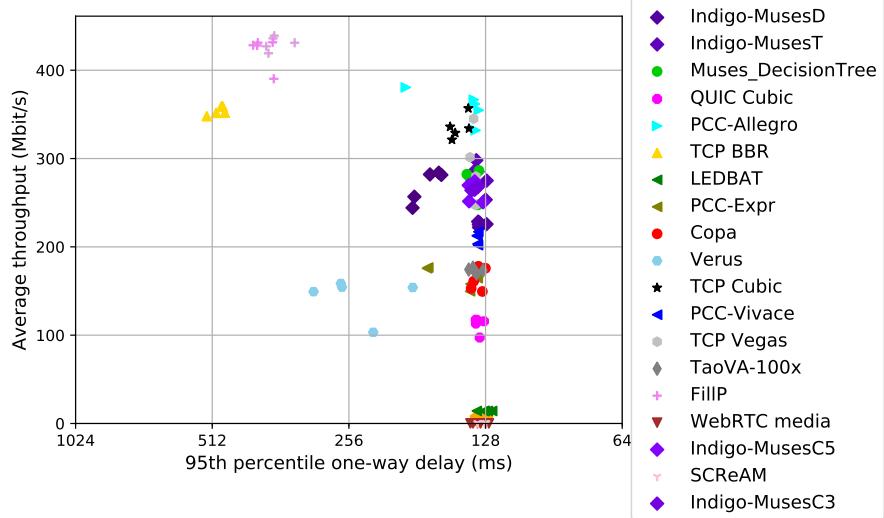
```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02cc896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utils.pyc
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 Saudi Arabia to AWS India 2, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



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



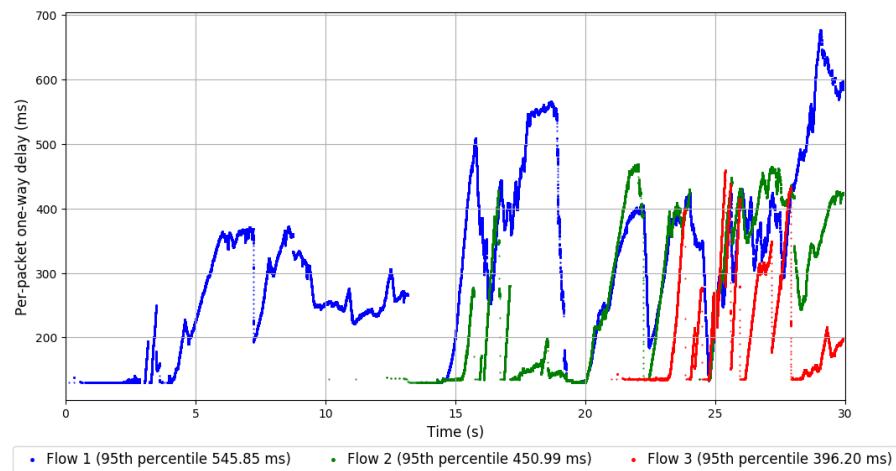
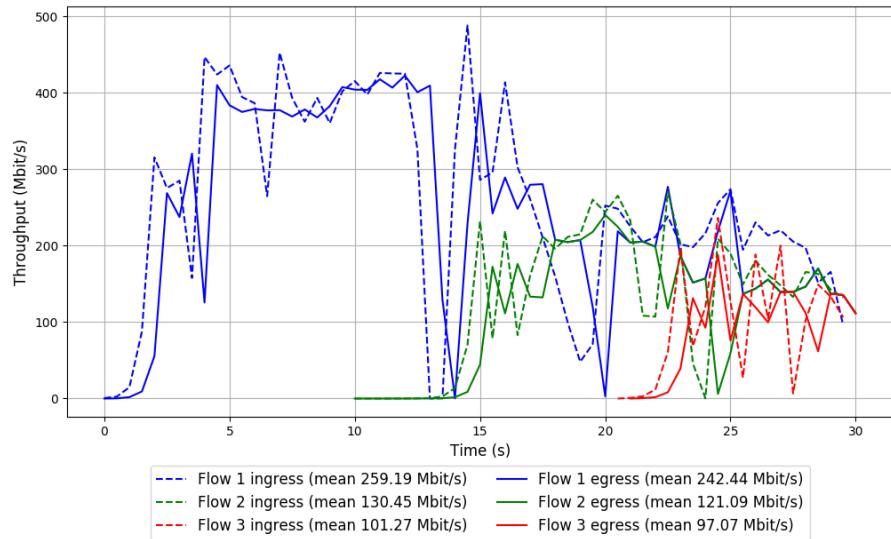
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	260.24	119.32	52.95	524.43	394.10	274.02	3.93	5.10	4.59
Copa	5	113.51	54.32	42.60	133.17	132.48	133.95	0.31	1.19	2.97
TCP Cubic	5	229.00	113.08	96.30	139.69	157.42	174.39	0.42	1.73	3.33
FillP	5	274.10	177.86	116.53	405.27	371.27	286.38	3.81	9.99	16.95
FillP-Sheep	5	276.40	183.72	110.84	375.42	362.80	311.22	3.24	6.18	12.72
Indigo	5	155.15	134.02	89.88	163.20	169.01	196.43	0.69	1.07	3.80
Indigo-MusesC3	5	179.24	126.89	37.11	134.45	134.99	132.34	0.16	0.82	6.06
Indigo-MusesC5	5	212.81	57.95	55.65	136.39	132.42	132.51	0.25	1.68	3.95
Indigo-MusesD	5	177.43	65.85	30.75	131.70	128.70	128.65	0.36	0.44	4.71
Indigo-MusesT	5	206.10	98.07	55.56	131.60	130.79	131.28	0.30	1.10	3.60
LEDBAT	5	9.23	6.09	2.93	128.36	128.32	128.34	1.30	1.99	4.02
Muses_DecisionTree	5	202.58	91.45	38.63	137.82	133.41	132.17	0.27	0.85	2.40
PCC-Allegro	5	327.51	43.45	8.85	146.39	134.39	134.20	1.28	1.74	2.06
PCC-Expr	5	143.71	26.99	10.51	157.64	133.99	134.09	0.72	1.04	2.33
QUIC Cubic	5	57.01	56.48	53.90	132.48	132.68	132.90	0.67	1.04	2.34
SCReAM	5	0.22	0.22	0.22	130.13	130.13	130.22	0.64	1.03	1.83
Sprout	5	3.58	3.35	2.48	130.45	130.43	130.41	0.83	0.92	3.97
TaoVA-100x	5	105.52	73.17	59.56	134.39	135.15	137.83	0.48	0.91	1.97
TCP Vegas	5	190.50	97.96	100.83	135.11	141.58	146.70	0.45	1.06	2.11
Verus	5	67.46	98.11	35.71	222.18	262.40	268.39	1.00	1.70	2.86
PCC-Vivace	5	180.30	38.53	11.05	133.28	133.26	132.87	0.59	1.52	3.39
WebRTC media	5	0.05	0.05	0.05	133.13	132.97	133.01	0.00	0.00	0.01

```
Run 1: Statistics of TCP BBR
```

```
Start at: 2019-06-28 11:31:54
End at: 2019-06-28 11:32:24
Local clock offset: -0.995 ms
Remote clock offset: -34.193 ms

# Below is generated by plot.py at 2019-06-28 14:23:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.87 Mbit/s
95th percentile per-packet one-way delay: 480.226 ms
Loss rate: 6.82%
-- Flow 1:
Average throughput: 242.44 Mbit/s
95th percentile per-packet one-way delay: 545.851 ms
Loss rate: 6.46%
-- Flow 2:
Average throughput: 121.09 Mbit/s
95th percentile per-packet one-way delay: 450.988 ms
Loss rate: 8.13%
-- Flow 3:
Average throughput: 97.07 Mbit/s
95th percentile per-packet one-way delay: 396.201 ms
Loss rate: 6.17%
```

## Run 1: Report of TCP BBR — Data Link

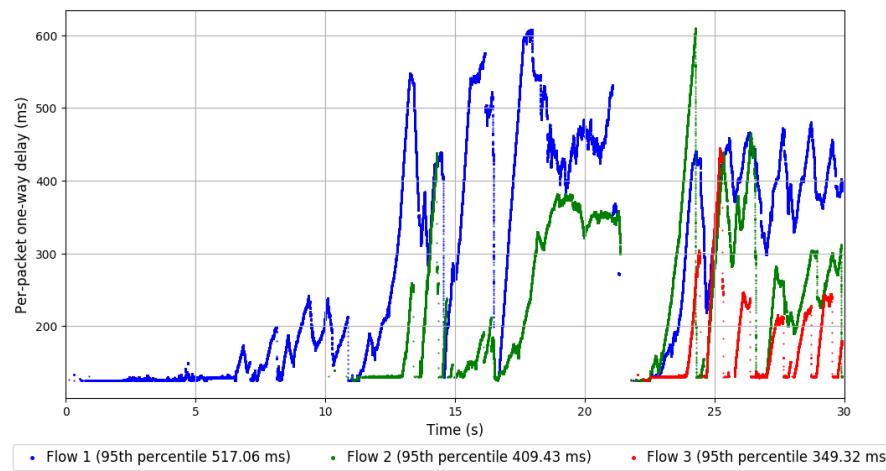
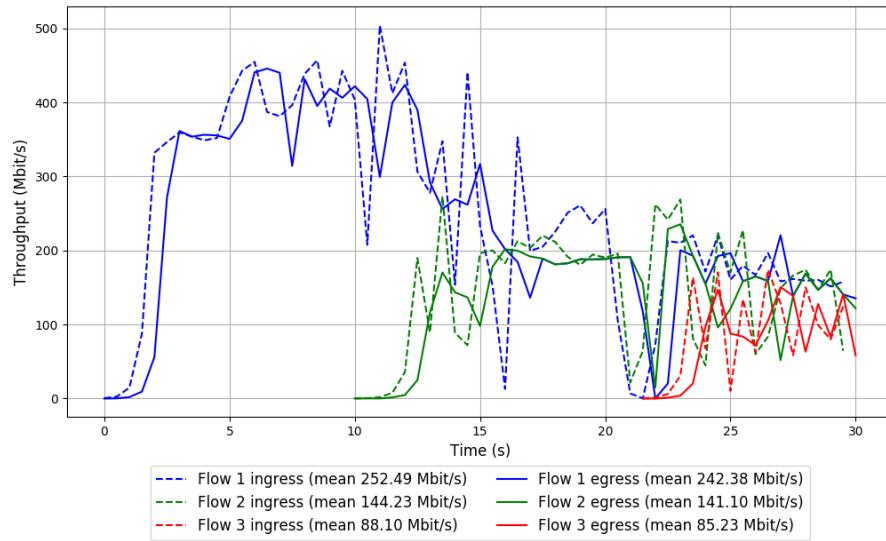


Run 2: Statistics of TCP BBR

```
Start at: 2019-06-28 12:04:40
End at: 2019-06-28 12:05:10
Local clock offset: -0.488 ms
Remote clock offset: -29.291 ms

# Below is generated by plot.py at 2019-06-28 14:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 359.23 Mbit/s
95th percentile per-packet one-way delay: 488.510 ms
Loss rate: 4.32%
-- Flow 1:
Average throughput: 242.38 Mbit/s
95th percentile per-packet one-way delay: 517.062 ms
Loss rate: 4.64%
-- Flow 2:
Average throughput: 141.10 Mbit/s
95th percentile per-packet one-way delay: 409.427 ms
Loss rate: 3.17%
-- Flow 3:
Average throughput: 85.23 Mbit/s
95th percentile per-packet one-way delay: 349.321 ms
Loss rate: 5.58%
```

## Run 2: Report of TCP BBR — Data Link

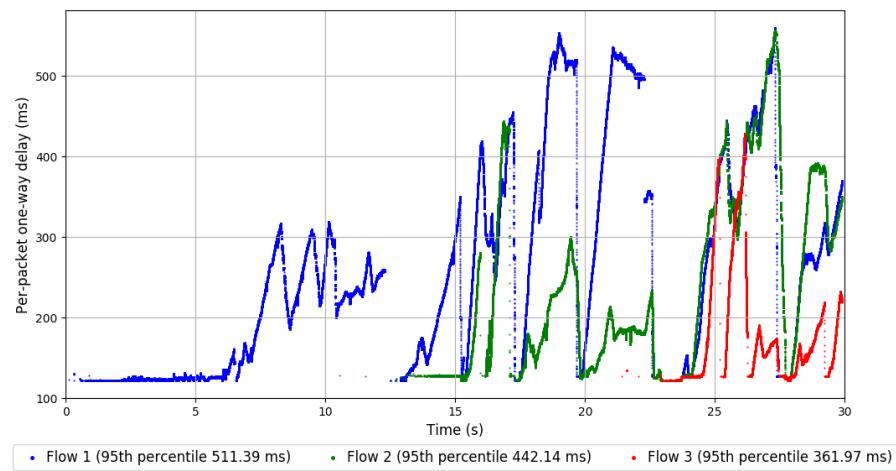
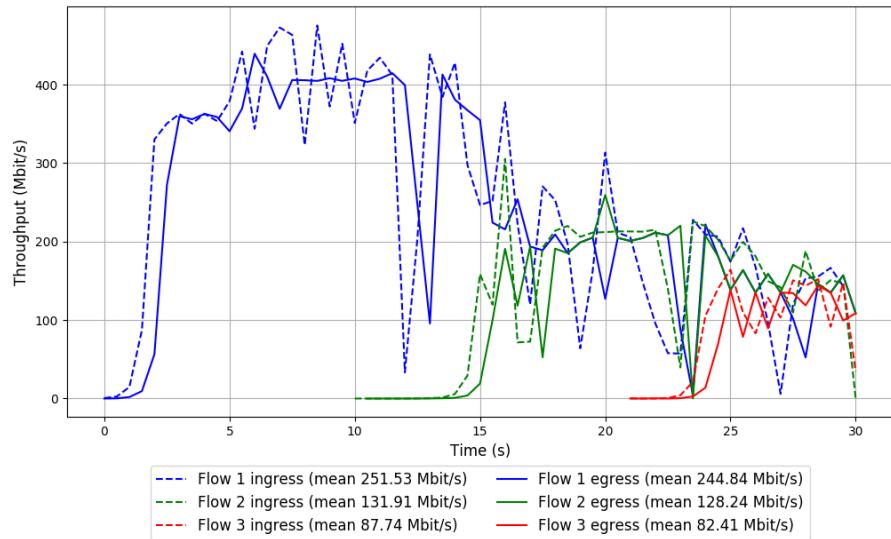


Run 3: Statistics of TCP BBR

```
Start at: 2019-06-28 12:37:36
End at: 2019-06-28 12:38:06
Local clock offset: -0.989 ms
Remote clock offset: -27.991 ms

# Below is generated by plot.py at 2019-06-28 14:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.77 Mbit/s
95th percentile per-packet one-way delay: 501.982 ms
Loss rate: 4.51%
-- Flow 1:
Average throughput: 244.84 Mbit/s
95th percentile per-packet one-way delay: 511.387 ms
Loss rate: 3.31%
-- Flow 2:
Average throughput: 128.24 Mbit/s
95th percentile per-packet one-way delay: 442.138 ms
Loss rate: 5.95%
-- Flow 3:
Average throughput: 82.41 Mbit/s
95th percentile per-packet one-way delay: 361.968 ms
Loss rate: 11.21%
```

### Run 3: Report of TCP BBR — Data Link

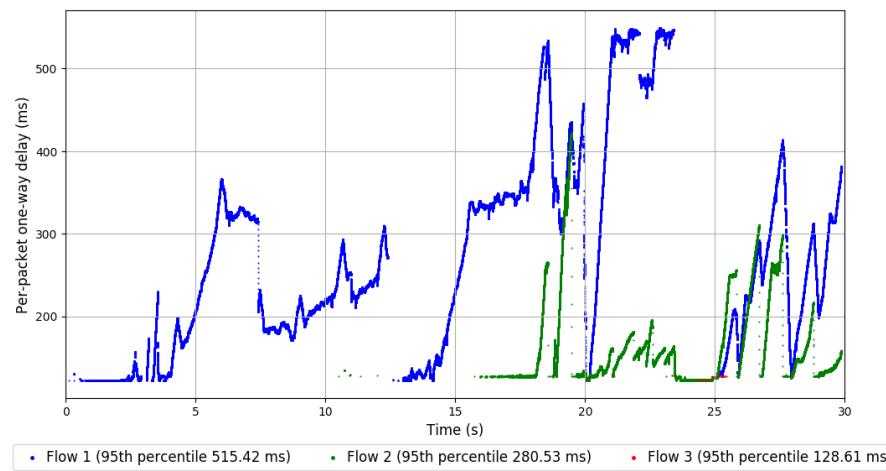
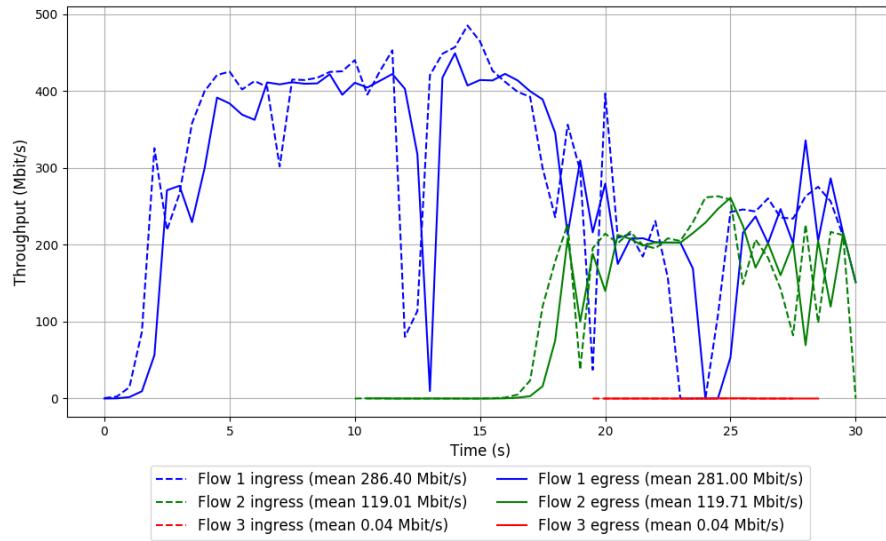


Run 4: Statistics of TCP BBR

```
Start at: 2019-06-28 13:10:39
End at: 2019-06-28 13:11:09
Local clock offset: -0.766 ms
Remote clock offset: -27.22 ms

# Below is generated by plot.py at 2019-06-28 14:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 358.90 Mbit/s
95th percentile per-packet one-way delay: 485.504 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 281.00 Mbit/s
95th percentile per-packet one-way delay: 515.421 ms
Loss rate: 2.54%
-- Flow 2:
Average throughput: 119.71 Mbit/s
95th percentile per-packet one-way delay: 280.527 ms
Loss rate: 2.69%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 128.607 ms
Loss rate: 0.00%
```

## Run 4: Report of TCP BBR — Data Link

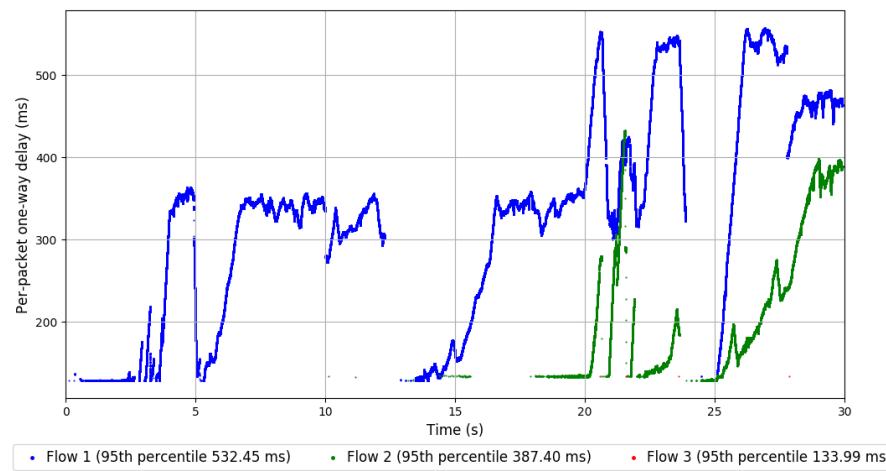
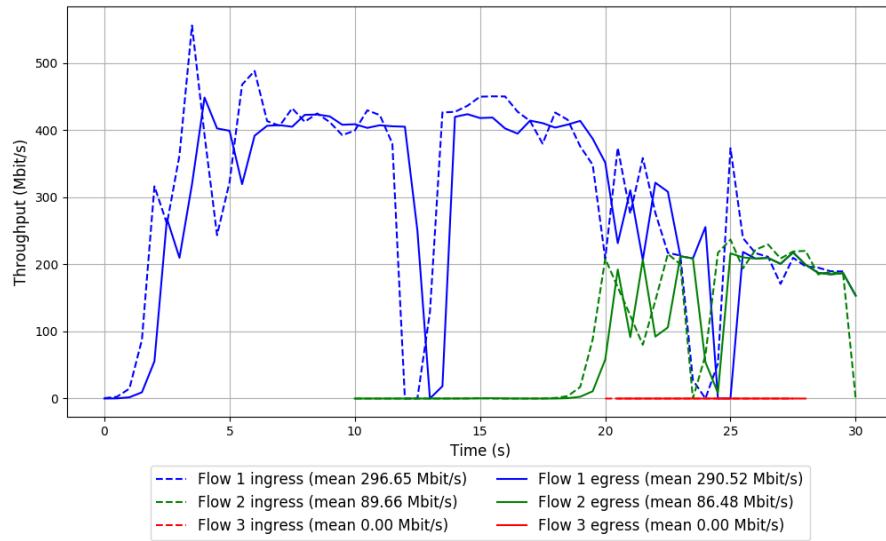


Run 5: Statistics of TCP BBR

```
Start at: 2019-06-28 13:43:48
End at: 2019-06-28 13:44:18
Local clock offset: -0.97 ms
Remote clock offset: -33.948 ms

# Below is generated by plot.py at 2019-06-28 14:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.94 Mbit/s
95th percentile per-packet one-way delay: 526.373 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 290.52 Mbit/s
95th percentile per-packet one-way delay: 532.445 ms
Loss rate: 2.72%
-- Flow 2:
Average throughput: 86.48 Mbit/s
95th percentile per-packet one-way delay: 387.405 ms
Loss rate: 5.56%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 133.986 ms
Loss rate: 0.00%
```

## Run 5: Report of TCP BBR — Data Link

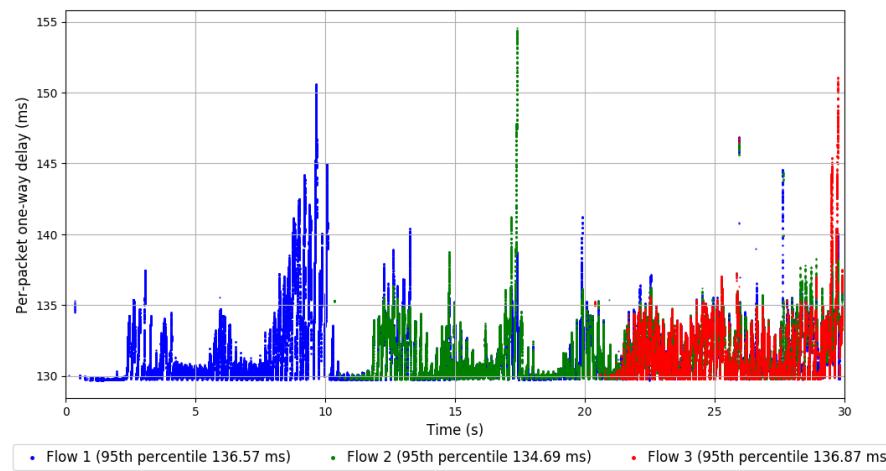
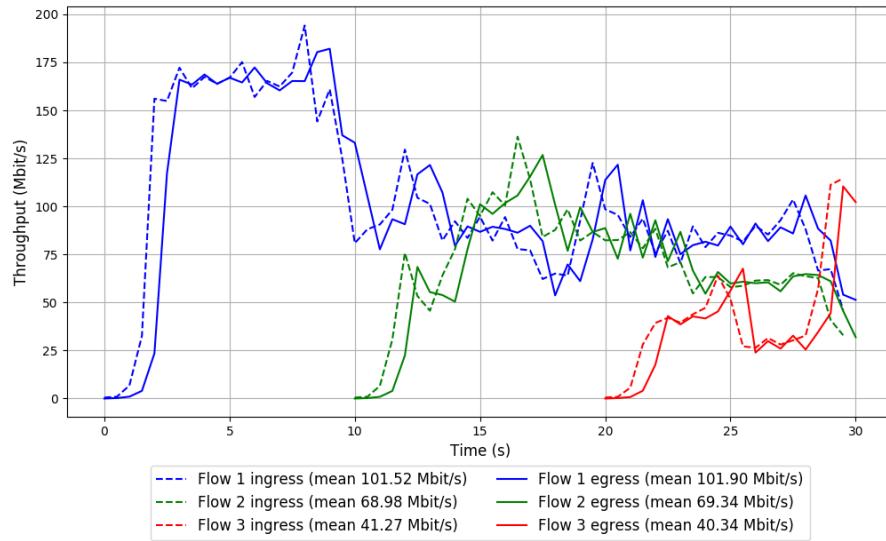


Run 1: Statistics of Copa

```
Start at: 2019-06-28 11:30:20
End at: 2019-06-28 11:30:50
Local clock offset: -1.003 ms
Remote clock offset: -33.643 ms

# Below is generated by plot.py at 2019-06-28 14:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.14 Mbit/s
95th percentile per-packet one-way delay: 135.933 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 101.90 Mbit/s
95th percentile per-packet one-way delay: 136.570 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 69.34 Mbit/s
95th percentile per-packet one-way delay: 134.694 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 40.34 Mbit/s
95th percentile per-packet one-way delay: 136.867 ms
Loss rate: 4.21%
```

## Run 1: Report of Copa — Data Link

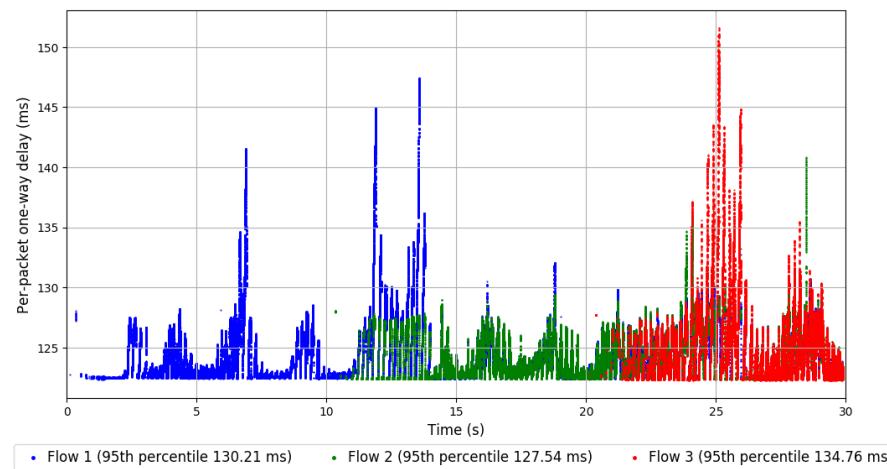
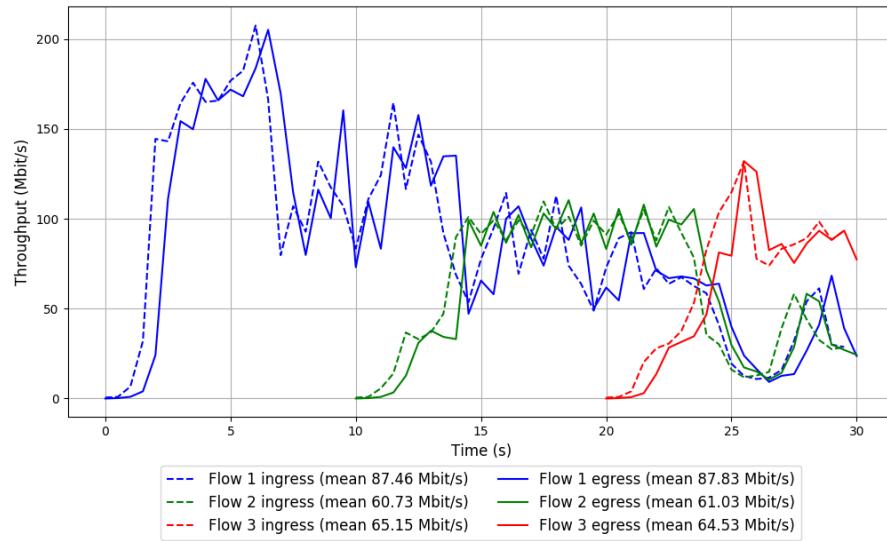


Run 2: Statistics of Copa

```
Start at: 2019-06-28 12:03:09
End at: 2019-06-28 12:03:39
Local clock offset: -1.319 ms
Remote clock offset: -26.614 ms

# Below is generated by plot.py at 2019-06-28 14:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.49 Mbit/s
95th percentile per-packet one-way delay: 130.082 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 87.83 Mbit/s
95th percentile per-packet one-way delay: 130.205 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 61.03 Mbit/s
95th percentile per-packet one-way delay: 127.537 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 64.53 Mbit/s
95th percentile per-packet one-way delay: 134.764 ms
Loss rate: 2.90%
```

## Run 2: Report of Copa — Data Link

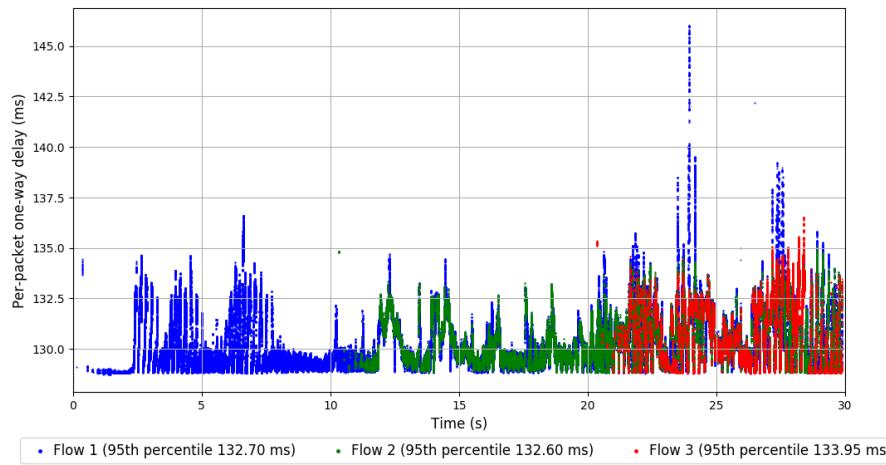
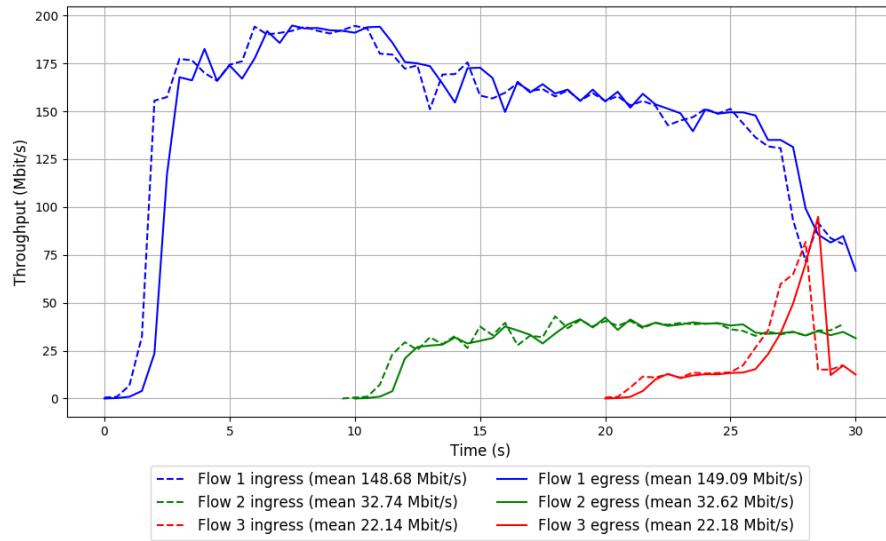


Run 3: Statistics of Copa

```
Start at: 2019-06-28 12:36:01
End at: 2019-06-28 12:36:31
Local clock offset: -0.27 ms
Remote clock offset: -33.527 ms

# Below is generated by plot.py at 2019-06-28 14:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 178.02 Mbit/s
95th percentile per-packet one-way delay: 132.767 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 149.09 Mbit/s
95th percentile per-packet one-way delay: 132.701 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 32.62 Mbit/s
95th percentile per-packet one-way delay: 132.601 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 22.18 Mbit/s
95th percentile per-packet one-way delay: 133.954 ms
Loss rate: 1.80%
```

### Run 3: Report of Copa — Data Link

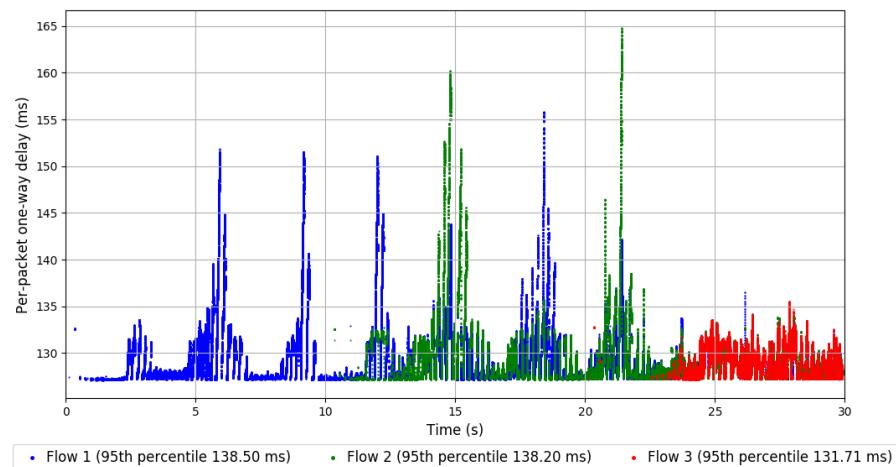
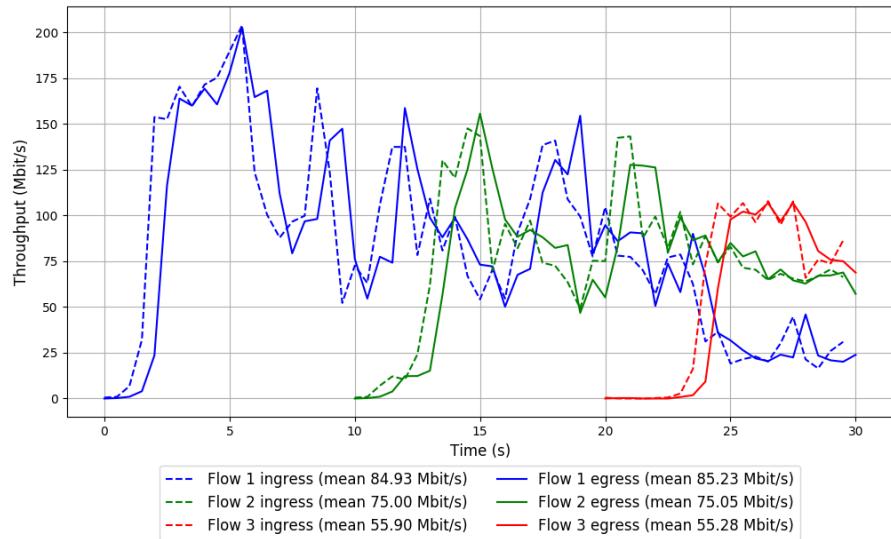


Run 4: Statistics of Copa

```
Start at: 2019-06-28 13:09:07
End at: 2019-06-28 13:09:37
Local clock offset: -0.899 ms
Remote clock offset: -32.159 ms

# Below is generated by plot.py at 2019-06-28 14:25:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 153.18 Mbit/s
95th percentile per-packet one-way delay: 137.691 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 85.23 Mbit/s
95th percentile per-packet one-way delay: 138.503 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 75.05 Mbit/s
95th percentile per-packet one-way delay: 138.201 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 55.28 Mbit/s
95th percentile per-packet one-way delay: 131.709 ms
Loss rate: 3.08%
```

## Run 4: Report of Copa — Data Link

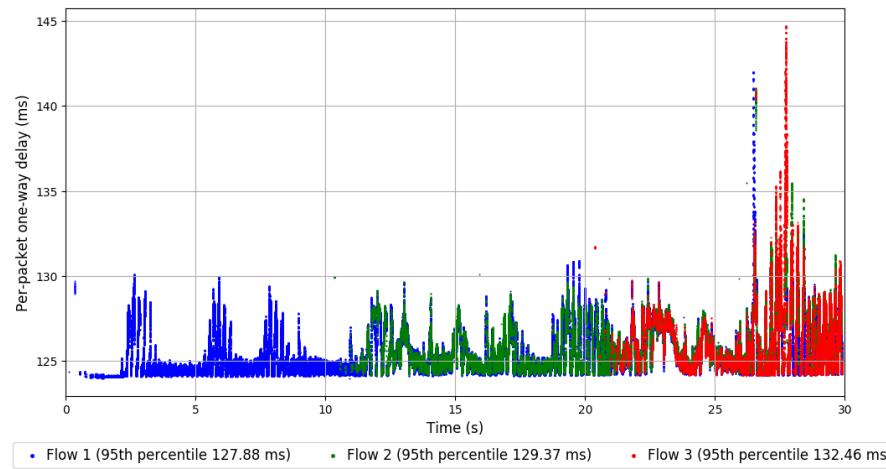
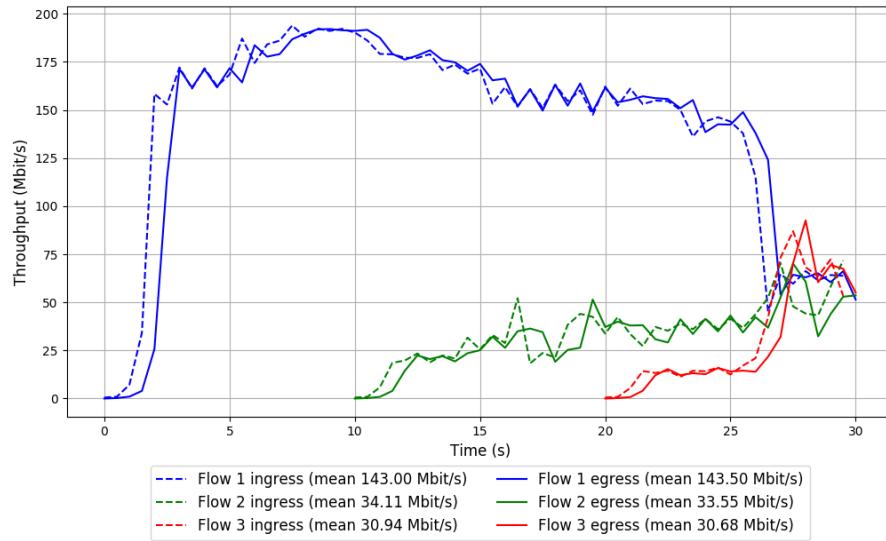


Run 5: Statistics of Copa

```
Start at: 2019-06-28 13:42:14
End at: 2019-06-28 13:42:44
Local clock offset: -0.475 ms
Remote clock offset: -29.157 ms

# Below is generated by plot.py at 2019-06-28 14:26:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.81 Mbit/s
95th percentile per-packet one-way delay: 128.085 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 143.50 Mbit/s
95th percentile per-packet one-way delay: 127.881 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 33.55 Mbit/s
95th percentile per-packet one-way delay: 129.368 ms
Loss rate: 2.65%
-- Flow 3:
Average throughput: 30.68 Mbit/s
95th percentile per-packet one-way delay: 132.455 ms
Loss rate: 2.85%
```

## Run 5: Report of Copa — Data Link

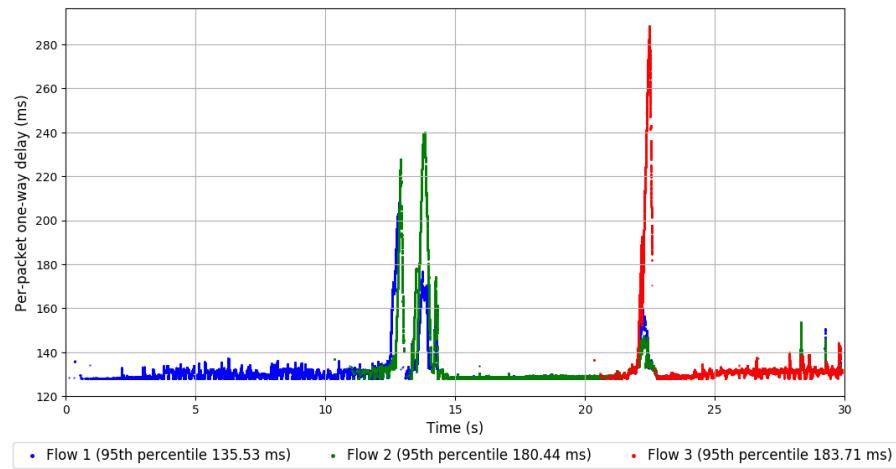
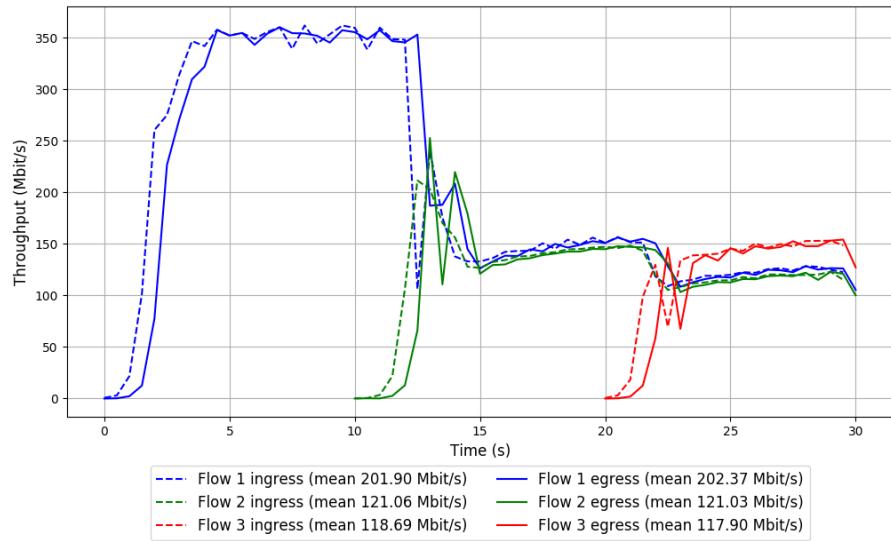


```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 11:37:50
End at: 2019-06-28 11:38:20
Local clock offset: -1.21 ms
Remote clock offset: -31.435 ms

# Below is generated by plot.py at 2019-06-28 14:26:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 321.31 Mbit/s
95th percentile per-packet one-way delay: 151.772 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 202.37 Mbit/s
95th percentile per-packet one-way delay: 135.527 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 121.03 Mbit/s
95th percentile per-packet one-way delay: 180.439 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 117.90 Mbit/s
95th percentile per-packet one-way delay: 183.707 ms
Loss rate: 2.65%
```

Run 1: Report of TCP Cubic — Data Link

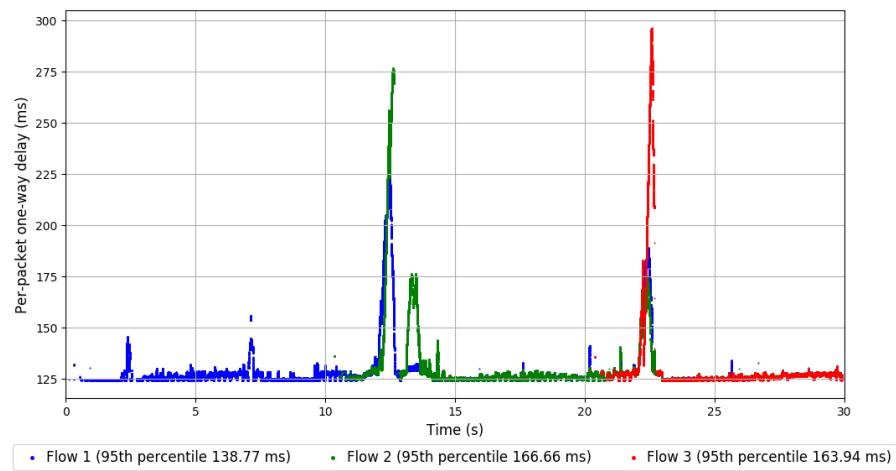
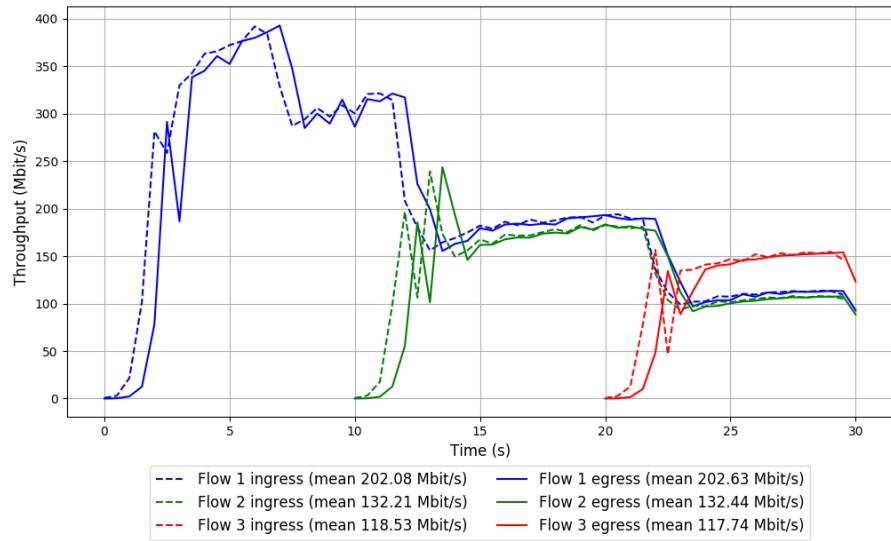


Run 2: Statistics of TCP Cubic

```
Start at: 2019-06-28 12:10:37
End at: 2019-06-28 12:11:07
Local clock offset: -0.198 ms
Remote clock offset: -28.192 ms

# Below is generated by plot.py at 2019-06-28 14:26:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.99 Mbit/s
95th percentile per-packet one-way delay: 149.286 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 202.63 Mbit/s
95th percentile per-packet one-way delay: 138.767 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 132.44 Mbit/s
95th percentile per-packet one-way delay: 166.655 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 117.74 Mbit/s
95th percentile per-packet one-way delay: 163.942 ms
Loss rate: 2.67%
```

## Run 2: Report of TCP Cubic — Data Link

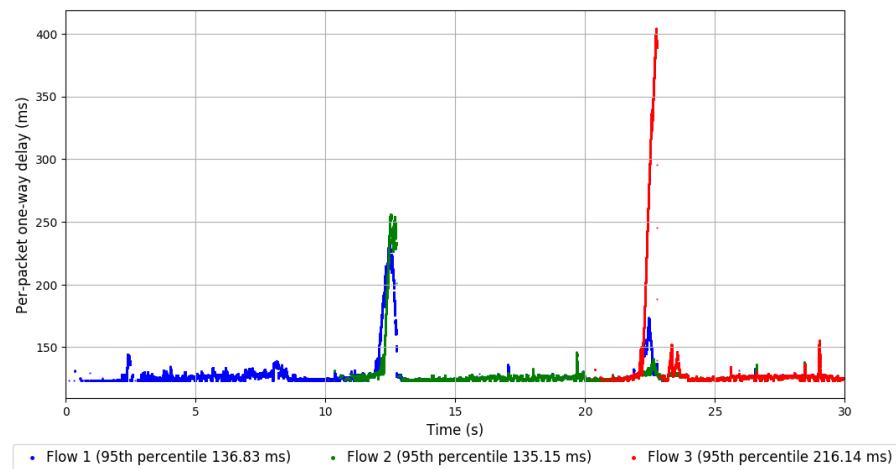
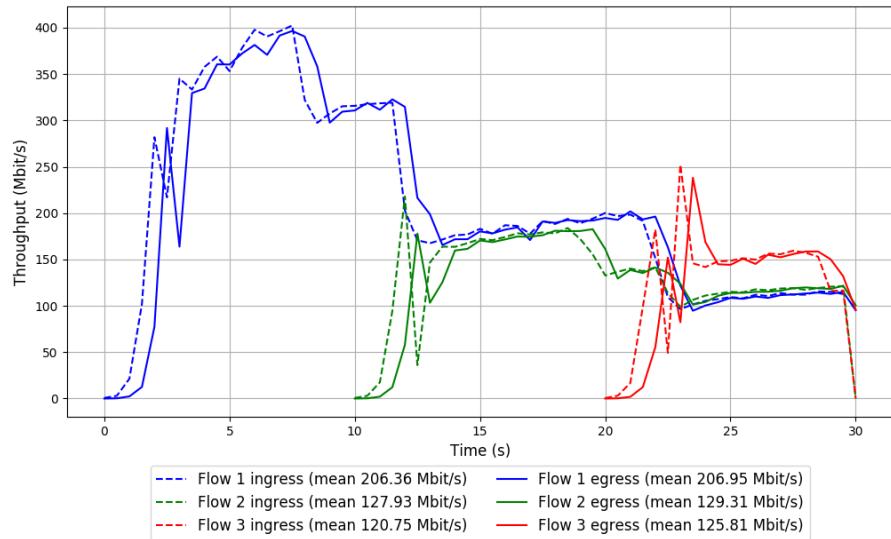


Run 3: Statistics of TCP Cubic

```
Start at: 2019-06-28 12:43:35
End at: 2019-06-28 12:44:05
Local clock offset: 0.23 ms
Remote clock offset: -27.717 ms

# Below is generated by plot.py at 2019-06-28 14:26:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.02 Mbit/s
95th percentile per-packet one-way delay: 139.216 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 206.95 Mbit/s
95th percentile per-packet one-way delay: 136.827 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 129.31 Mbit/s
95th percentile per-packet one-way delay: 135.149 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 125.81 Mbit/s
95th percentile per-packet one-way delay: 216.137 ms
Loss rate: 1.92%
```

### Run 3: Report of TCP Cubic — Data Link

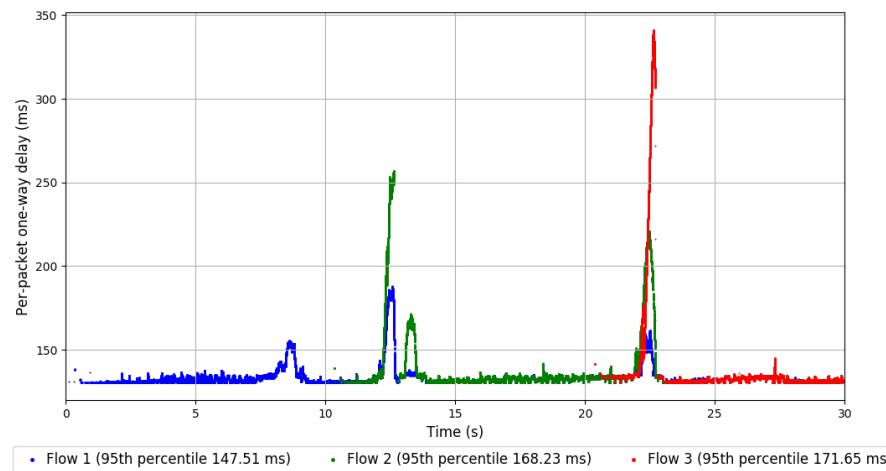
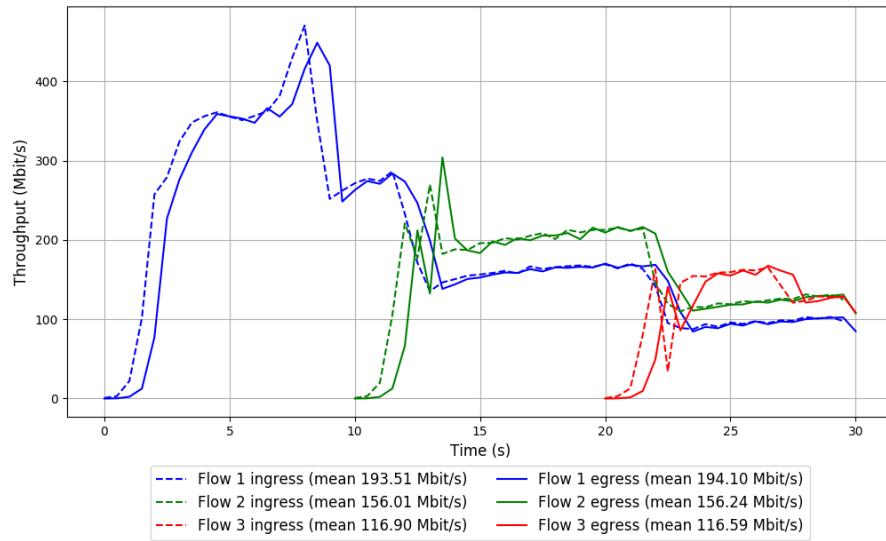


Run 4: Statistics of TCP Cubic

```
Start at: 2019-06-28 13:16:47
End at: 2019-06-28 13:17:17
Local clock offset: 0.336 ms
Remote clock offset: -34.259 ms

# Below is generated by plot.py at 2019-06-28 14:27:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 336.04 Mbit/s
95th percentile per-packet one-way delay: 153.191 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 194.10 Mbit/s
95th percentile per-packet one-way delay: 147.506 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 156.24 Mbit/s
95th percentile per-packet one-way delay: 168.227 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 116.59 Mbit/s
95th percentile per-packet one-way delay: 171.651 ms
Loss rate: 2.27%
```

Run 4: Report of TCP Cubic — Data Link

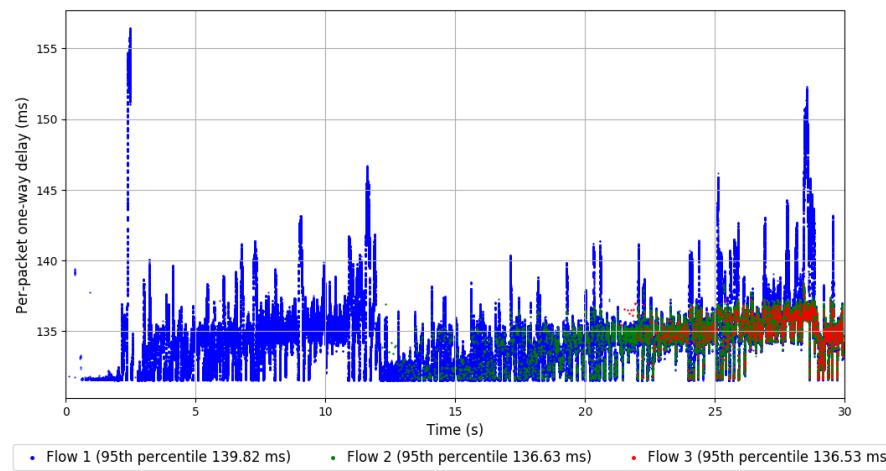
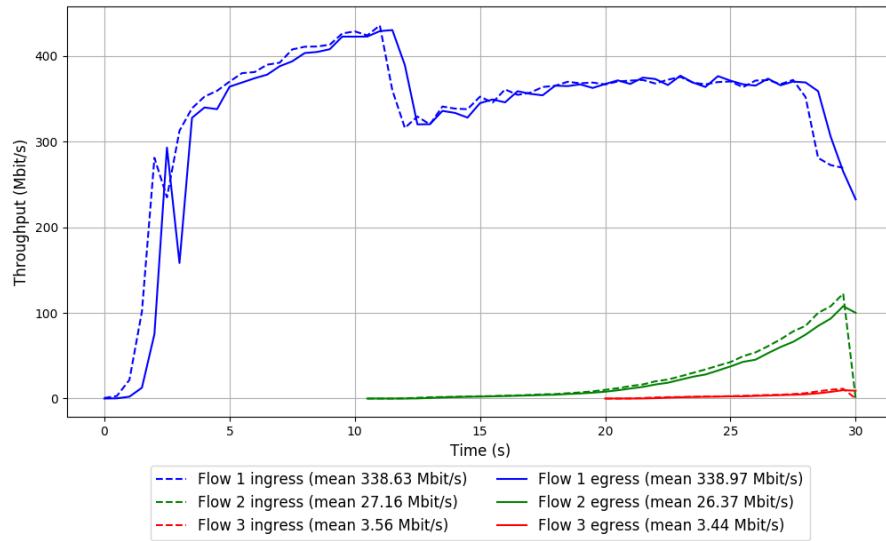


Run 5: Statistics of TCP Cubic

```
Start at: 2019-06-28 13:49:46
End at: 2019-06-28 13:50:16
Local clock offset: -0.25 ms
Remote clock offset: -35.888 ms

# Below is generated by plot.py at 2019-06-28 14:27:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 356.85 Mbit/s
95th percentile per-packet one-way delay: 139.693 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 338.97 Mbit/s
95th percentile per-packet one-way delay: 139.820 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 26.37 Mbit/s
95th percentile per-packet one-way delay: 136.633 ms
Loss rate: 4.97%
-- Flow 3:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 136.526 ms
Loss rate: 7.16%
```

### Run 5: Report of TCP Cubic — Data Link

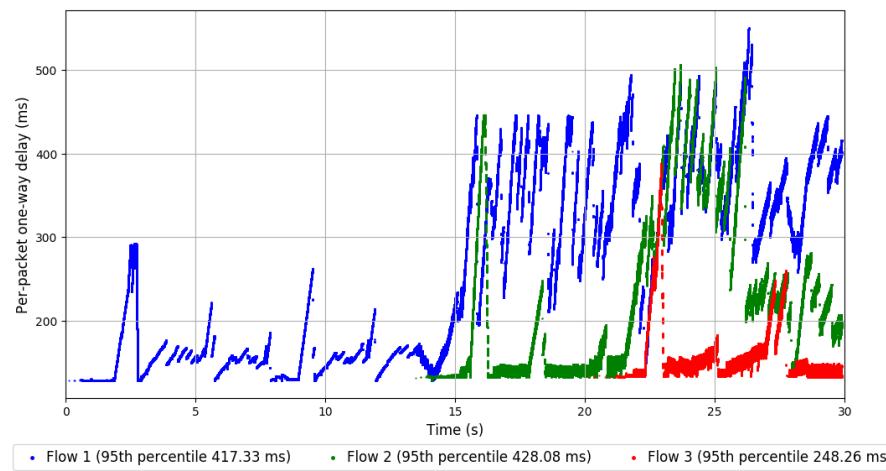
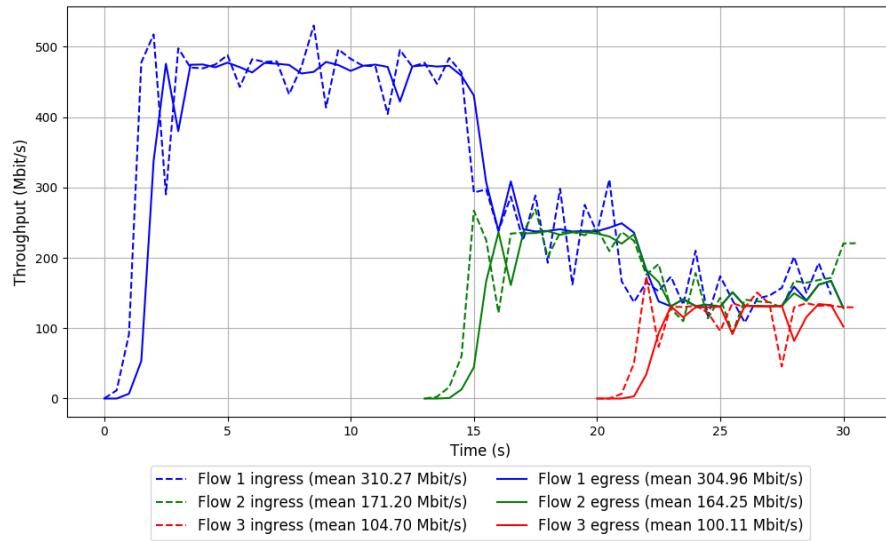


```
Run 1: Statistics of FillP
```

```
Start at: 2019-06-28 11:48:02
End at: 2019-06-28 11:48:32
Local clock offset: -0.643 ms
Remote clock offset: -31.059 ms

# Below is generated by plot.py at 2019-06-28 14:29:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 428.34 Mbit/s
95th percentile per-packet one-way delay: 416.046 ms
Loss rate: 5.38%
-- Flow 1:
Average throughput: 304.96 Mbit/s
95th percentile per-packet one-way delay: 417.326 ms
Loss rate: 2.44%
-- Flow 2:
Average throughput: 164.25 Mbit/s
95th percentile per-packet one-way delay: 428.083 ms
Loss rate: 10.73%
-- Flow 3:
Average throughput: 100.11 Mbit/s
95th percentile per-packet one-way delay: 248.259 ms
Loss rate: 15.16%
```

Run 1: Report of FillP — Data Link

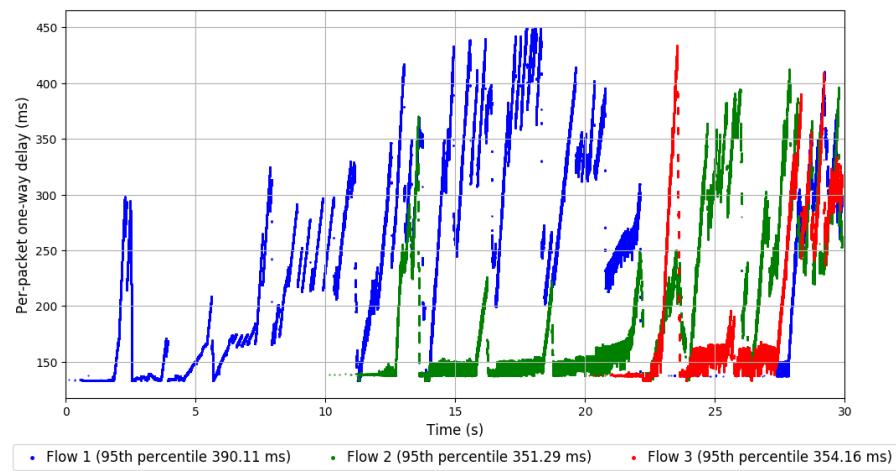
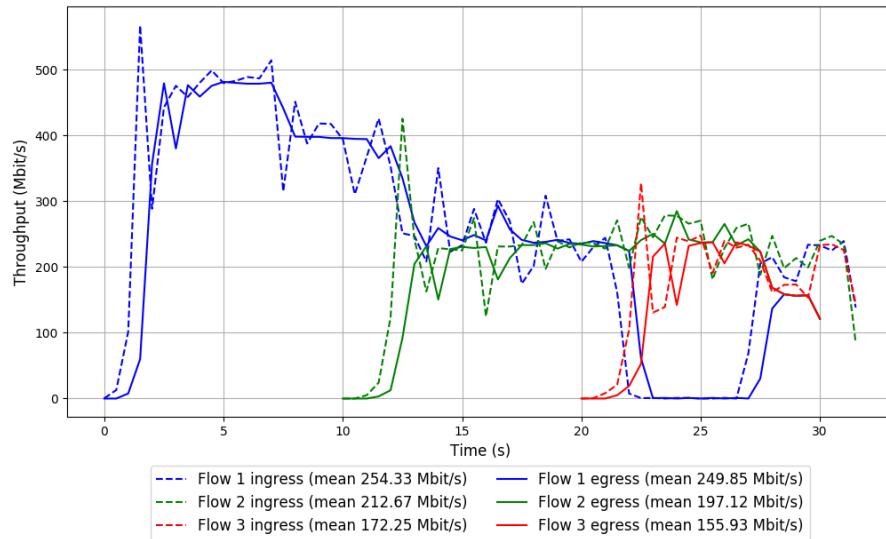


Run 2: Statistics of FillP

```
Start at: 2019-06-28 12:20:53
End at: 2019-06-28 12:21:23
Local clock offset: -1.002 ms
Remote clock offset: -38.968 ms

# Below is generated by plot.py at 2019-06-28 14:31:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.65 Mbit/s
95th percentile per-packet one-way delay: 376.832 ms
Loss rate: 12.95%
-- Flow 1:
Average throughput: 249.85 Mbit/s
95th percentile per-packet one-way delay: 390.106 ms
Loss rate: 8.08%
-- Flow 2:
Average throughput: 197.12 Mbit/s
95th percentile per-packet one-way delay: 351.290 ms
Loss rate: 16.03%
-- Flow 3:
Average throughput: 155.93 Mbit/s
95th percentile per-packet one-way delay: 354.160 ms
Loss rate: 25.30%
```

Run 2: Report of FillP — Data Link

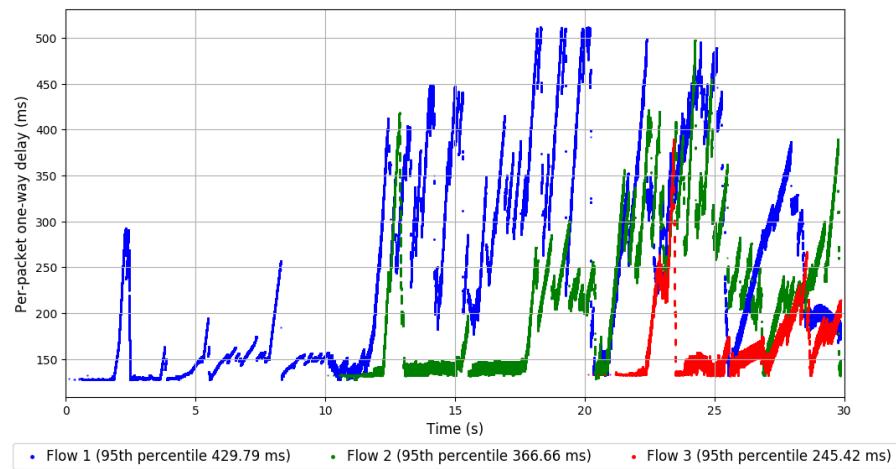
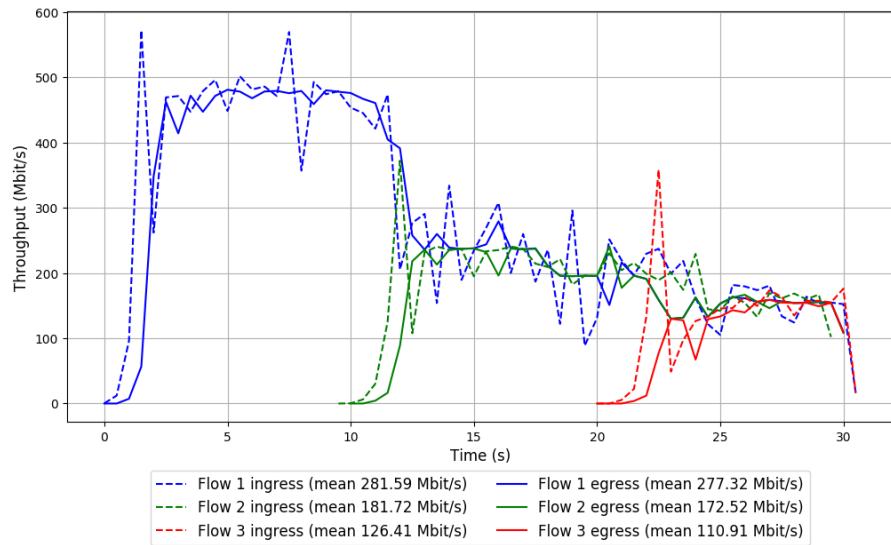


Run 3: Statistics of FillP

```
Start at: 2019-06-28 12:53:56
End at: 2019-06-28 12:54:26
Local clock offset: -0.17 ms
Remote clock offset: -32.681 ms

# Below is generated by plot.py at 2019-06-28 14:32:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 428.14 Mbit/s
95th percentile per-packet one-way delay: 407.744 ms
Loss rate: 6.18%
-- Flow 1:
Average throughput: 277.32 Mbit/s
95th percentile per-packet one-way delay: 429.786 ms
Loss rate: 4.18%
-- Flow 2:
Average throughput: 172.52 Mbit/s
95th percentile per-packet one-way delay: 366.661 ms
Loss rate: 6.17%
-- Flow 3:
Average throughput: 110.91 Mbit/s
95th percentile per-packet one-way delay: 245.417 ms
Loss rate: 19.16%
```

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

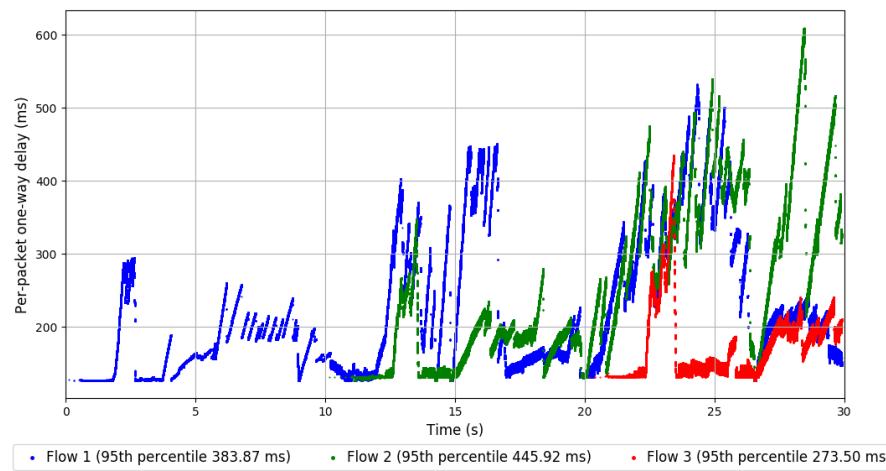
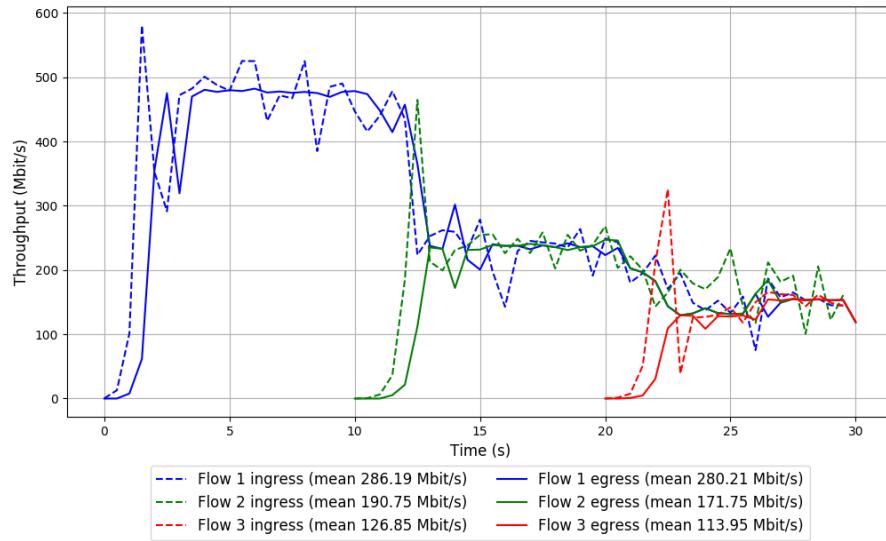


Run 4: Statistics of FillP

```
Start at: 2019-06-28 13:27:02
End at: 2019-06-28 13:27:32
Local clock offset: -0.288 ms
Remote clock offset: -30.991 ms

# Below is generated by plot.py at 2019-06-28 14:32:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.19 Mbit/s
95th percentile per-packet one-way delay: 406.155 ms
Loss rate: 5.76%
-- Flow 1:
Average throughput: 280.21 Mbit/s
95th percentile per-packet one-way delay: 383.867 ms
Loss rate: 2.70%
-- Flow 2:
Average throughput: 171.75 Mbit/s
95th percentile per-packet one-way delay: 445.916 ms
Loss rate: 10.60%
-- Flow 3:
Average throughput: 113.95 Mbit/s
95th percentile per-packet one-way delay: 273.499 ms
Loss rate: 12.00%
```

## Run 4: Report of FillP — Data Link

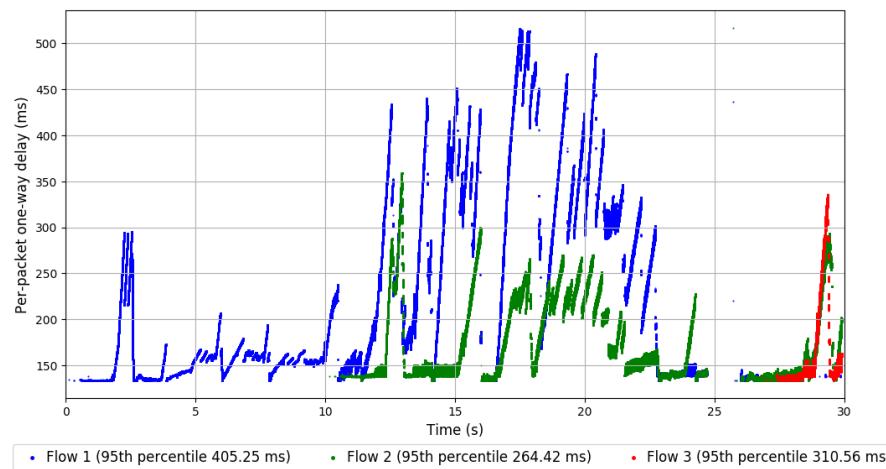
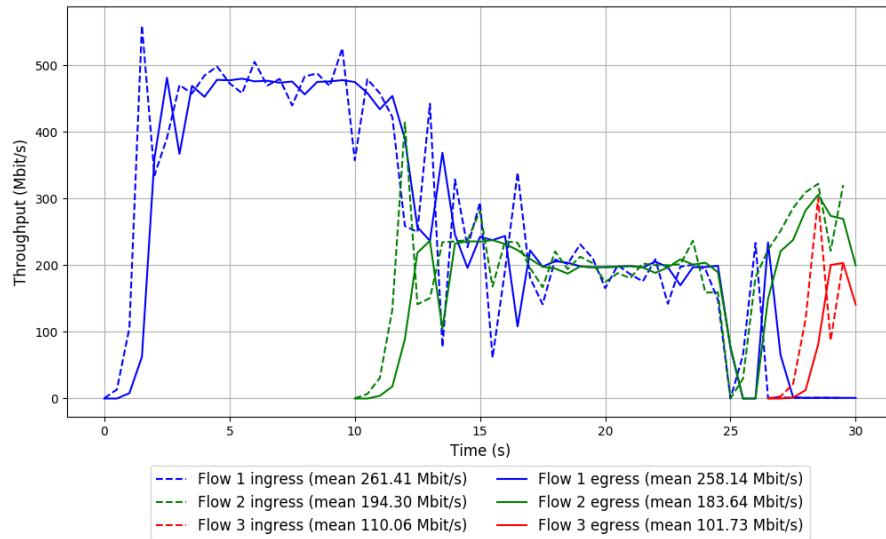


```
Run 5: Statistics of FillP
```

```
Start at: 2019-06-28 14:00:02
End at: 2019-06-28 14:00:32
Local clock offset: -0.687 ms
Remote clock offset: -39.186 ms

# Below is generated by plot.py at 2019-06-28 14:32:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 390.32 Mbit/s
95th percentile per-packet one-way delay: 374.714 ms
Loss rate: 3.55%
-- Flow 1:
Average throughput: 258.14 Mbit/s
95th percentile per-packet one-way delay: 405.255 ms
Loss rate: 1.67%
-- Flow 2:
Average throughput: 183.64 Mbit/s
95th percentile per-packet one-way delay: 264.422 ms
Loss rate: 6.43%
-- Flow 3:
Average throughput: 101.73 Mbit/s
95th percentile per-packet one-way delay: 310.556 ms
Loss rate: 13.15%
```

## Run 5: Report of FillP — Data Link

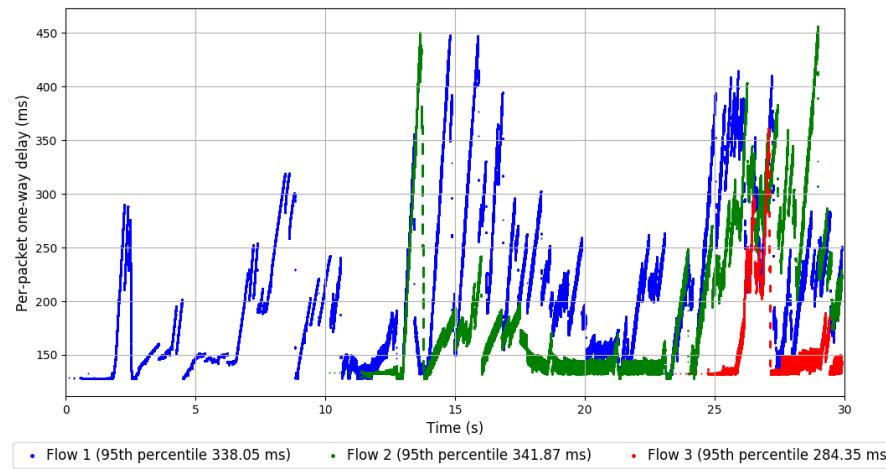
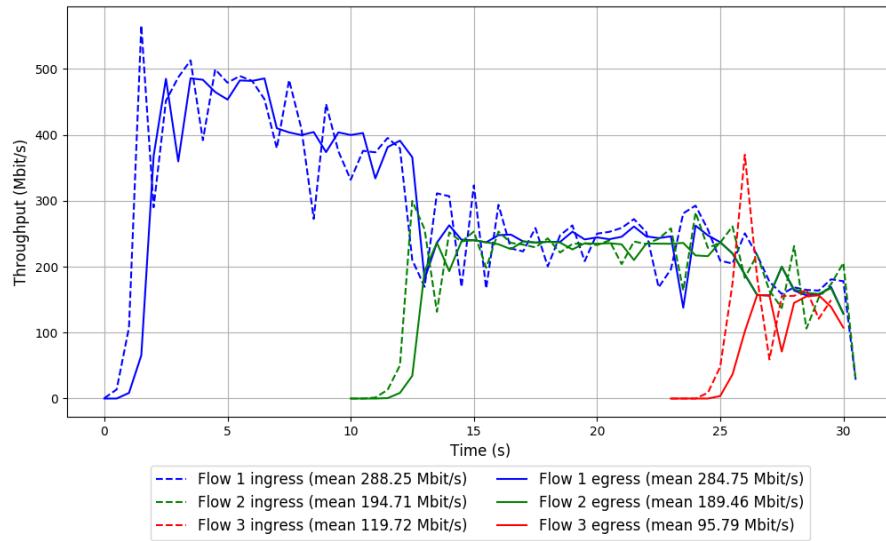


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-06-28 11:44:56
End at: 2019-06-28 11:45:26
Local clock offset: -0.595 ms
Remote clock offset: -30.244 ms

# Below is generated by plot.py at 2019-06-28 14:32:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 431.12 Mbit/s
95th percentile per-packet one-way delay: 337.047 ms
Loss rate: 5.69%
-- Flow 1:
Average throughput: 284.75 Mbit/s
95th percentile per-packet one-way delay: 338.049 ms
Loss rate: 3.79%
-- Flow 2:
Average throughput: 189.46 Mbit/s
95th percentile per-packet one-way delay: 341.867 ms
Loss rate: 6.51%
-- Flow 3:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 284.353 ms
Loss rate: 22.66%
```

Run 1: Report of FillP-Sheep — Data Link

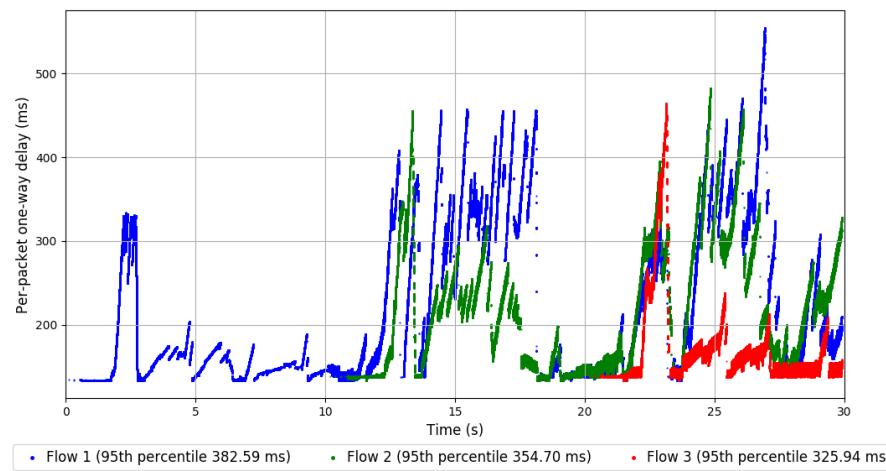
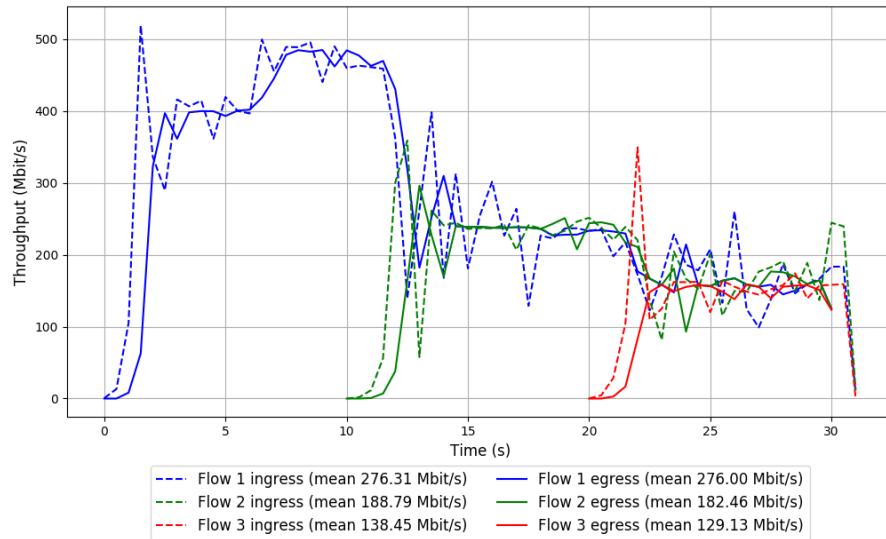


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-06-28 12:17:47
End at: 2019-06-28 12:18:17
Local clock offset: -0.632 ms
Remote clock offset: -38.412 ms

# Below is generated by plot.py at 2019-06-28 14:32:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 439.08 Mbit/s
95th percentile per-packet one-way delay: 373.845 ms
Loss rate: 6.98%
-- Flow 1:
Average throughput: 276.00 Mbit/s
95th percentile per-packet one-way delay: 382.586 ms
Loss rate: 4.13%
-- Flow 2:
Average throughput: 182.46 Mbit/s
95th percentile per-packet one-way delay: 354.699 ms
Loss rate: 9.16%
-- Flow 3:
Average throughput: 129.13 Mbit/s
95th percentile per-packet one-way delay: 325.944 ms
Loss rate: 17.32%
```

## Run 2: Report of FillP-Sheep — Data Link

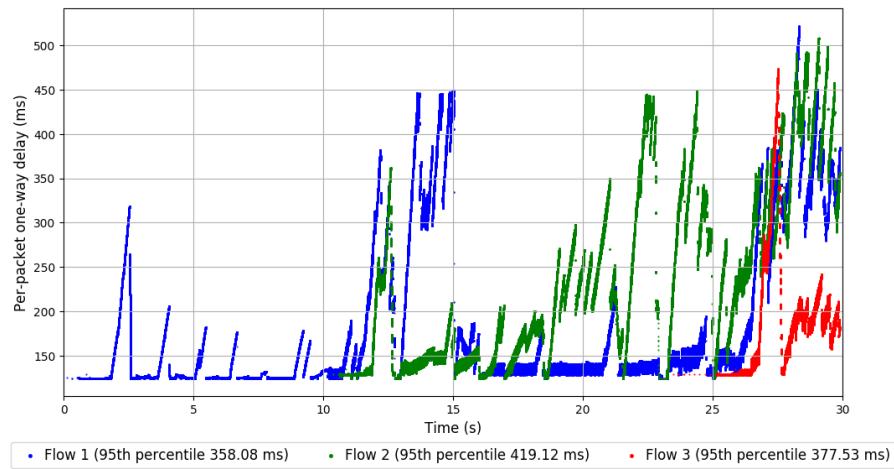
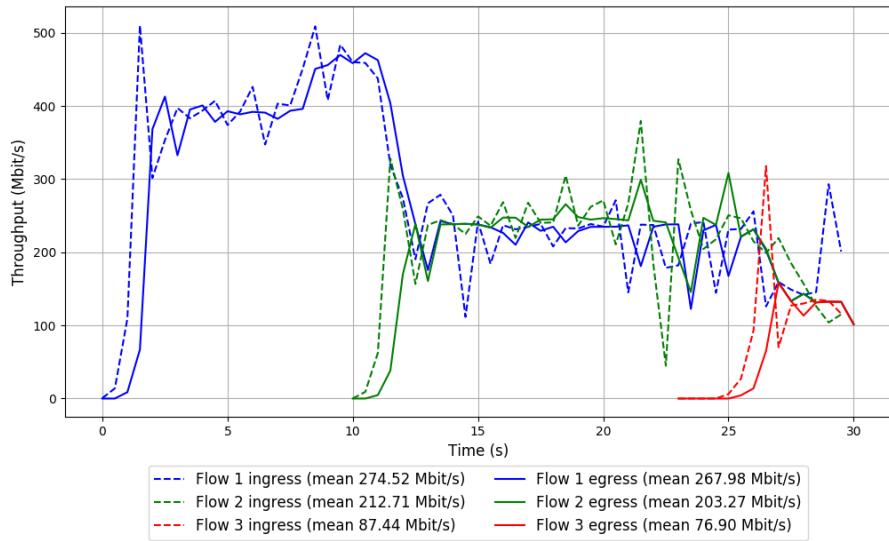


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-06-28 12:50:45
End at: 2019-06-28 12:51:15
Local clock offset: 0.119 ms
Remote clock offset: -28.606 ms

# Below is generated by plot.py at 2019-06-28 14:32:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.23 Mbit/s
95th percentile per-packet one-way delay: 384.959 ms
Loss rate: 4.27%
-- Flow 1:
Average throughput: 267.98 Mbit/s
95th percentile per-packet one-way delay: 358.077 ms
Loss rate: 2.99%
-- Flow 2:
Average throughput: 203.27 Mbit/s
95th percentile per-packet one-way delay: 419.125 ms
Loss rate: 5.33%
-- Flow 3:
Average throughput: 76.90 Mbit/s
95th percentile per-packet one-way delay: 377.531 ms
Loss rate: 14.76%
```

Run 3: Report of FillP-Sheep — Data Link

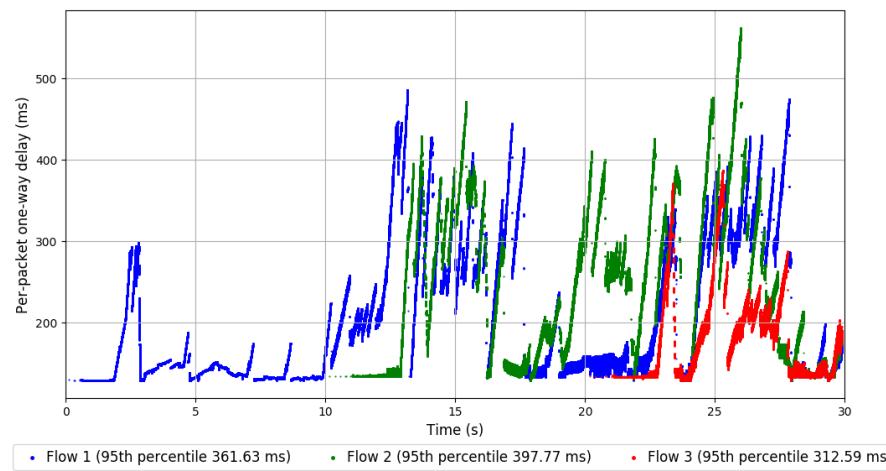
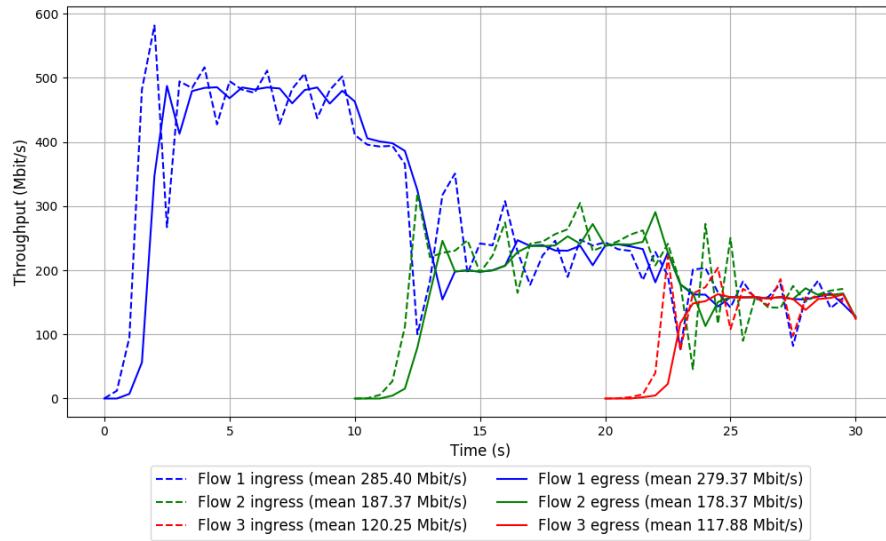


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-06-28 13:23:57
End at: 2019-06-28 13:24:27
Local clock offset: -0.526 ms
Remote clock offset: -33.296 ms

# Below is generated by plot.py at 2019-06-28 14:35:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 436.06 Mbit/s
95th percentile per-packet one-way delay: 376.099 ms
Loss rate: 3.69%
-- Flow 1:
Average throughput: 279.37 Mbit/s
95th percentile per-packet one-way delay: 361.629 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 178.37 Mbit/s
95th percentile per-packet one-way delay: 397.770 ms
Loss rate: 5.73%
-- Flow 3:
Average throughput: 117.88 Mbit/s
95th percentile per-packet one-way delay: 312.590 ms
Loss rate: 3.97%
```

Run 4: Report of FillP-Sheep — Data Link

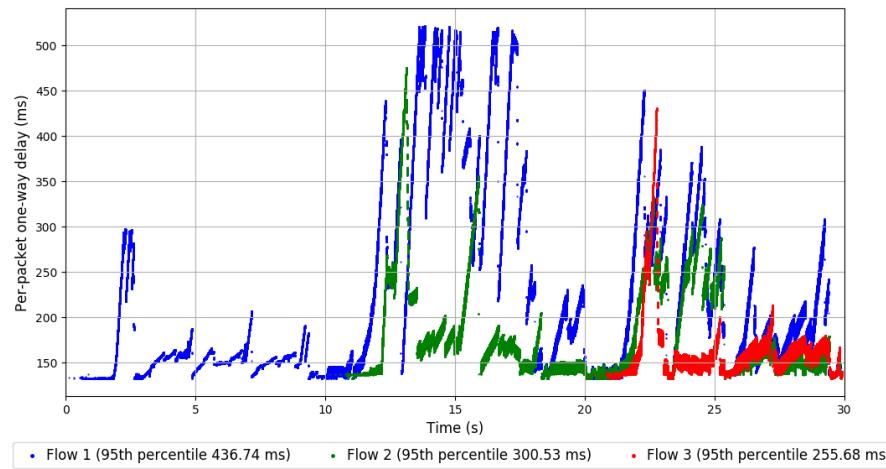
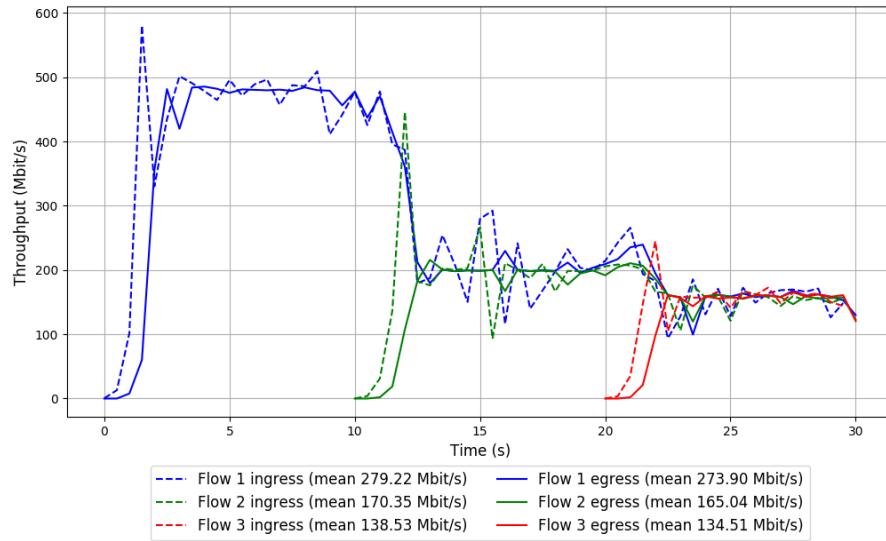


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-06-28 13:56:58
End at: 2019-06-28 13:57:28
Local clock offset: -0.957 ms
Remote clock offset: -38.553 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 427.07 Mbit/s
95th percentile per-packet one-way delay: 389.338 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 273.90 Mbit/s
95th percentile per-packet one-way delay: 436.741 ms
Loss rate: 2.54%
-- Flow 2:
Average throughput: 165.04 Mbit/s
95th percentile per-packet one-way delay: 300.534 ms
Loss rate: 4.16%
-- Flow 3:
Average throughput: 134.51 Mbit/s
95th percentile per-packet one-way delay: 255.675 ms
Loss rate: 4.88%
```

Run 5: Report of FillP-Sheep — Data Link

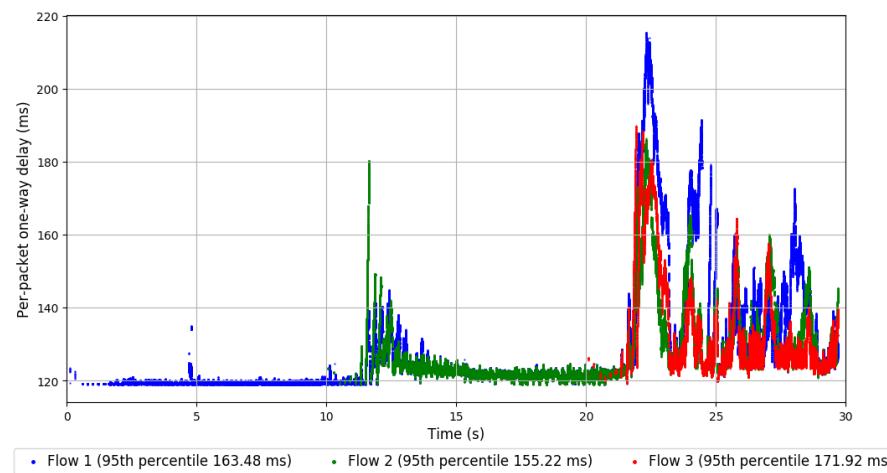
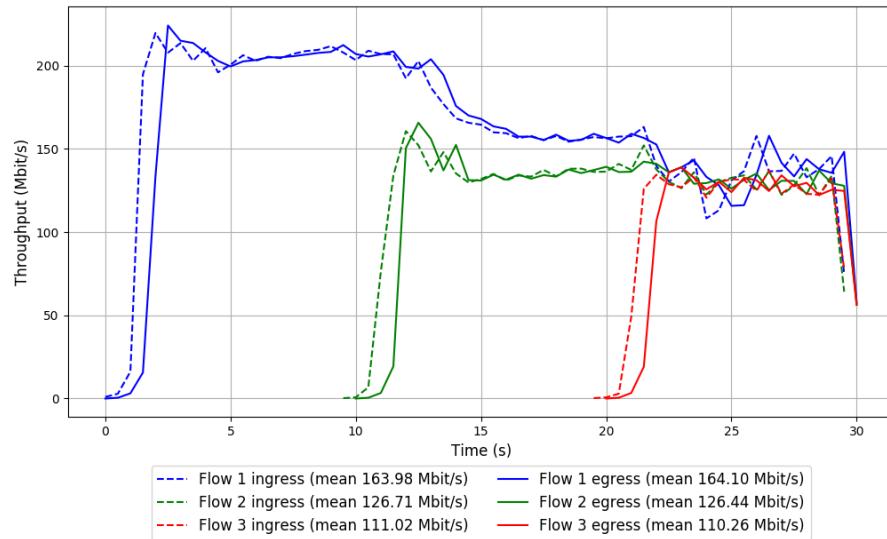


Run 1: Statistics of Indigo

```
Start at: 2019-06-28 11:52:40
End at: 2019-06-28 11:53:10
Local clock offset: -8.626 ms
Remote clock offset: -29.668 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.98 Mbit/s
95th percentile per-packet one-way delay: 162.301 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 164.10 Mbit/s
95th percentile per-packet one-way delay: 163.477 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 126.44 Mbit/s
95th percentile per-packet one-way delay: 155.219 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 110.26 Mbit/s
95th percentile per-packet one-way delay: 171.923 ms
Loss rate: 2.72%
```

Run 1: Report of Indigo — Data Link

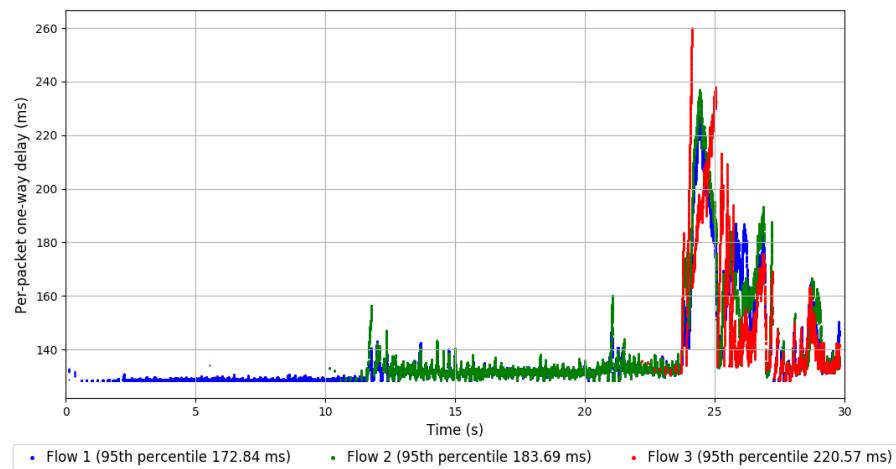
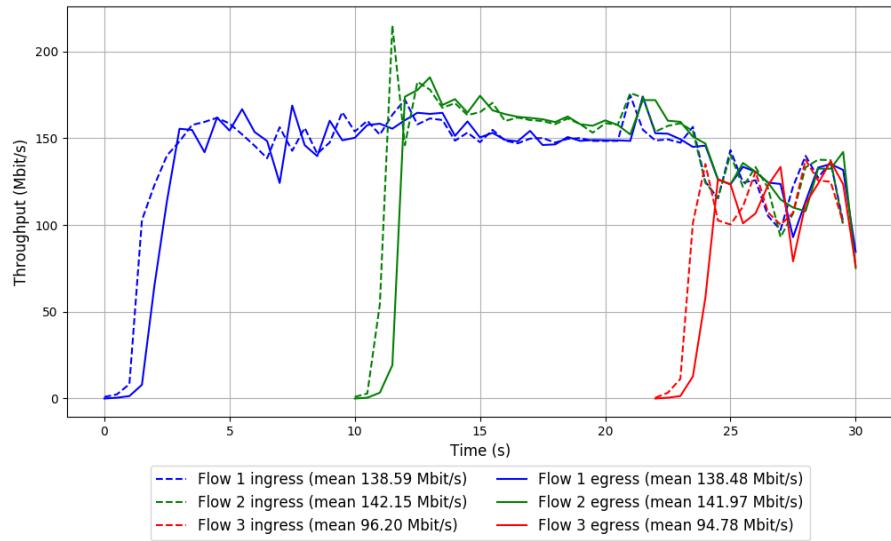


Run 2: Statistics of Indigo

```
Start at: 2019-06-28 12:25:34
End at: 2019-06-28 12:26:04
Local clock offset: -0.342 ms
Remote clock offset: -33.537 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.78 Mbit/s
95th percentile per-packet one-way delay: 183.661 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 138.48 Mbit/s
95th percentile per-packet one-way delay: 172.840 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 141.97 Mbit/s
95th percentile per-packet one-way delay: 183.686 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 94.78 Mbit/s
95th percentile per-packet one-way delay: 220.573 ms
Loss rate: 4.07%
```

## Run 2: Report of Indigo — Data Link

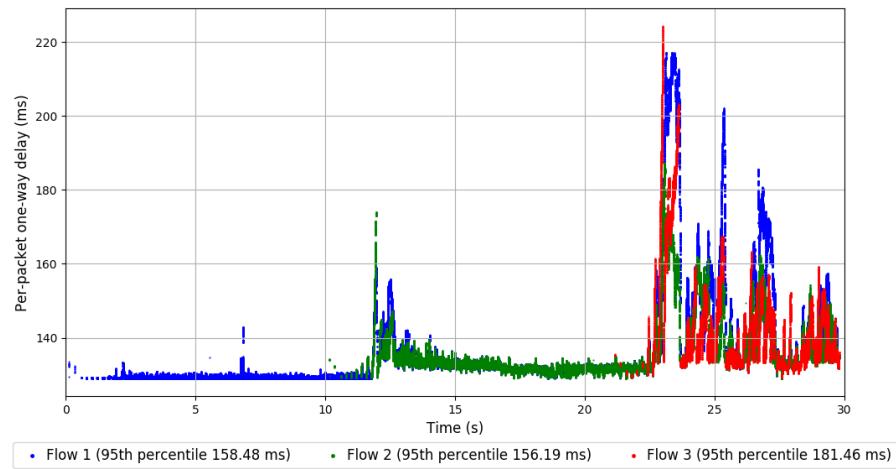
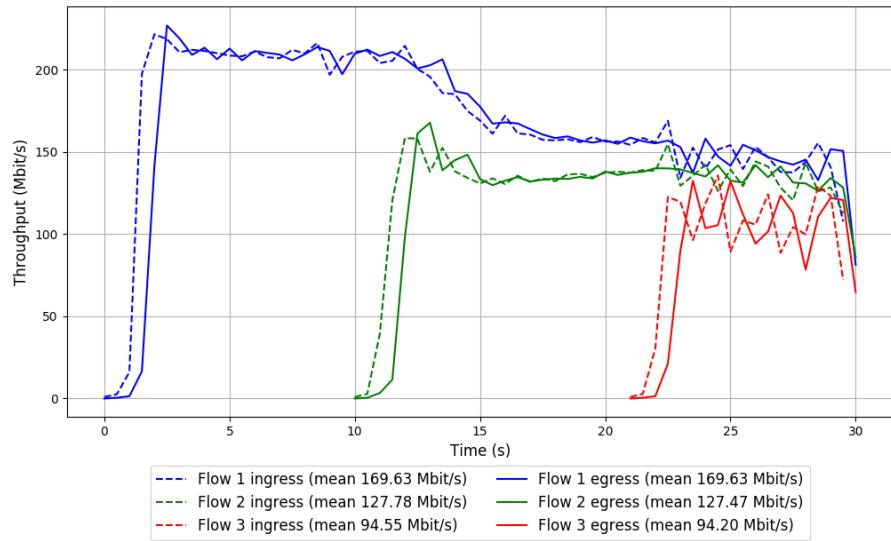


Run 3: Statistics of Indigo

```
Start at: 2019-06-28 12:58:35
End at: 2019-06-28 12:59:05
Local clock offset: 0.078 ms
Remote clock offset: -33.479 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 281.46 Mbit/s
95th percentile per-packet one-way delay: 160.185 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 169.63 Mbit/s
95th percentile per-packet one-way delay: 158.481 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 127.47 Mbit/s
95th percentile per-packet one-way delay: 156.187 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 94.20 Mbit/s
95th percentile per-packet one-way delay: 181.459 ms
Loss rate: 2.69%
```

### Run 3: Report of Indigo — Data Link

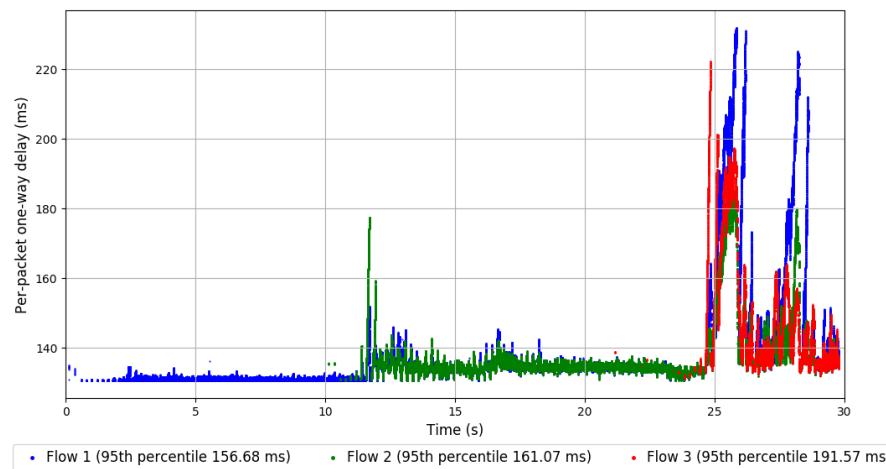
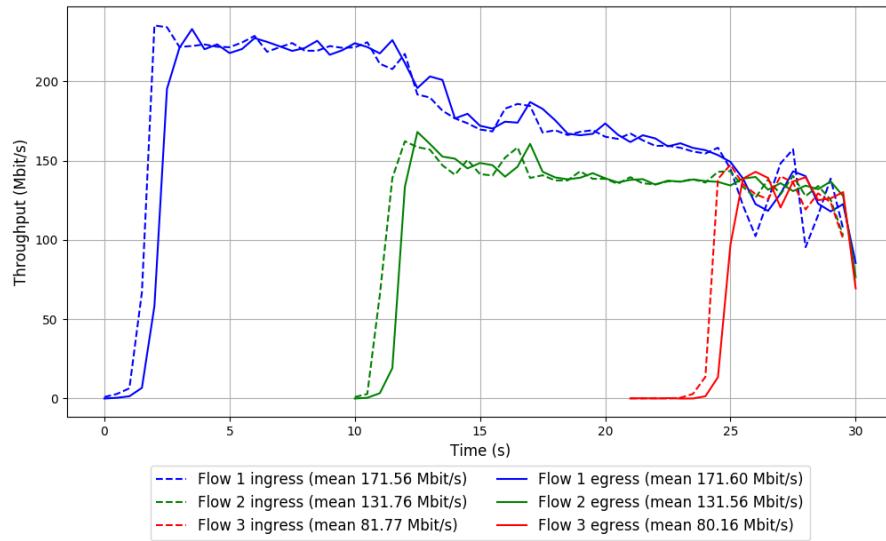


Run 4: Statistics of Indigo

```
Start at: 2019-06-28 13:31:43
End at: 2019-06-28 13:32:13
Local clock offset: -1.116 ms
Remote clock offset: -36.416 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 282.03 Mbit/s
95th percentile per-packet one-way delay: 169.697 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 171.60 Mbit/s
95th percentile per-packet one-way delay: 156.677 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 131.56 Mbit/s
95th percentile per-packet one-way delay: 161.072 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 80.16 Mbit/s
95th percentile per-packet one-way delay: 191.566 ms
Loss rate: 4.26%
```

## Run 4: Report of Indigo — Data Link

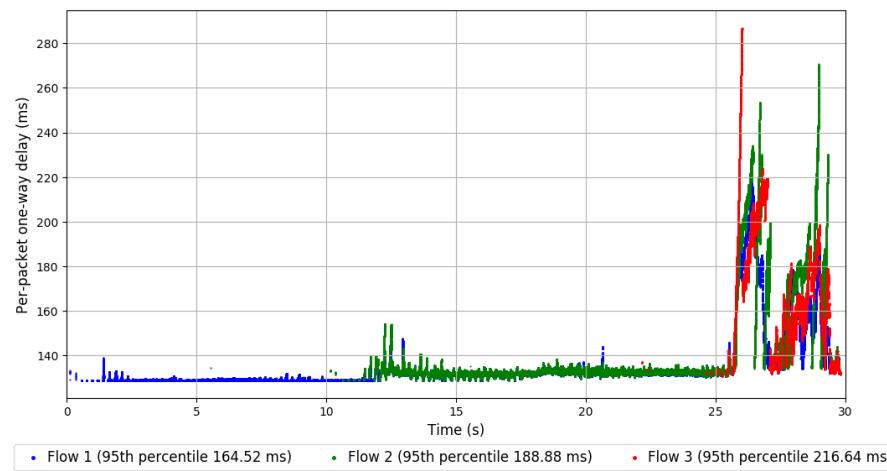
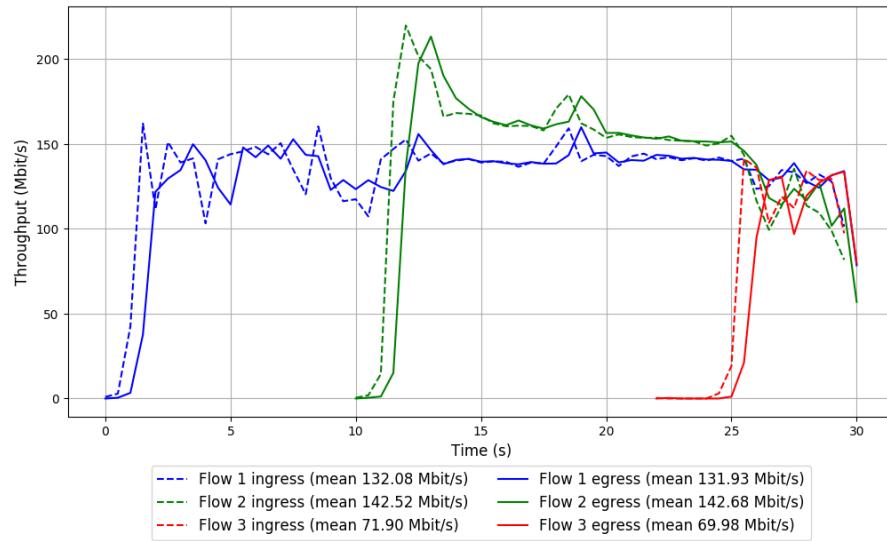


Run 5: Statistics of Indigo

```
Start at: 2019-06-28 14:04:38
End at: 2019-06-28 14:05:08
Local clock offset: -0.826 ms
Remote clock offset: -34.247 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 244.20 Mbit/s
95th percentile per-packet one-way delay: 185.357 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 131.93 Mbit/s
95th percentile per-packet one-way delay: 164.524 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 142.68 Mbit/s
95th percentile per-packet one-way delay: 188.878 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 69.98 Mbit/s
95th percentile per-packet one-way delay: 216.643 ms
Loss rate: 5.24%
```

## Run 5: Report of Indigo — Data Link

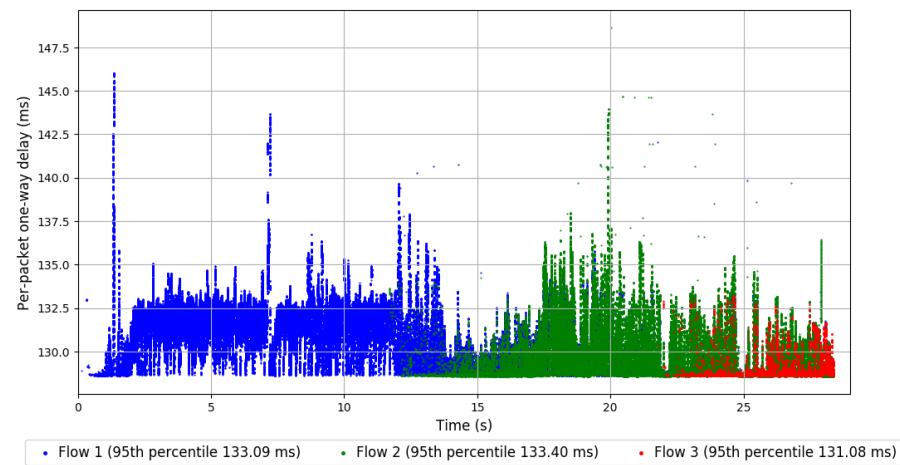
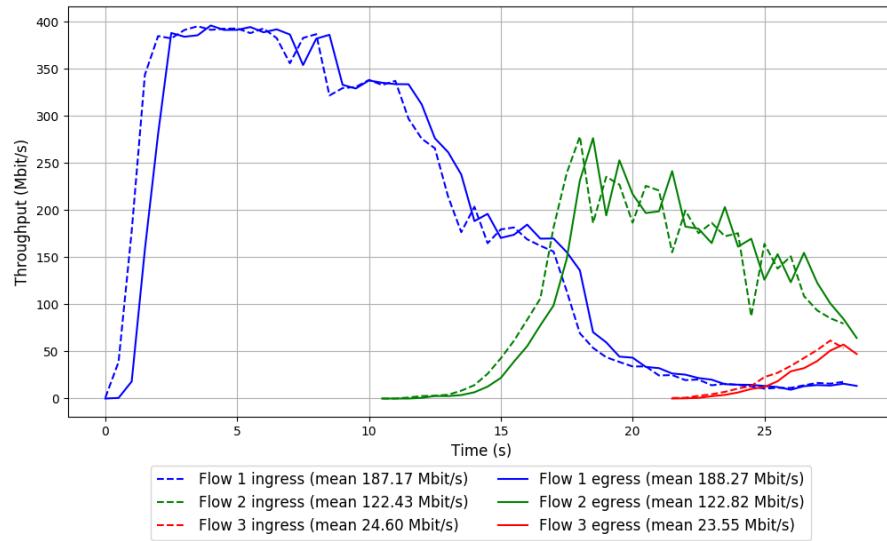


```
Run 1: Statistics of Indigo-MusesC3
```

```
Start at: 2019-06-28 11:58:36
End at: 2019-06-28 11:59:06
Local clock offset: -0.883 ms
Remote clock offset: -31.98 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.30 Mbit/s
95th percentile per-packet one-way delay: 133.140 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 188.27 Mbit/s
95th percentile per-packet one-way delay: 133.093 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 122.82 Mbit/s
95th percentile per-packet one-way delay: 133.403 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 23.55 Mbit/s
95th percentile per-packet one-way delay: 131.079 ms
Loss rate: 7.00%
```

## Run 1: Report of Indigo-MusesC3 — Data Link

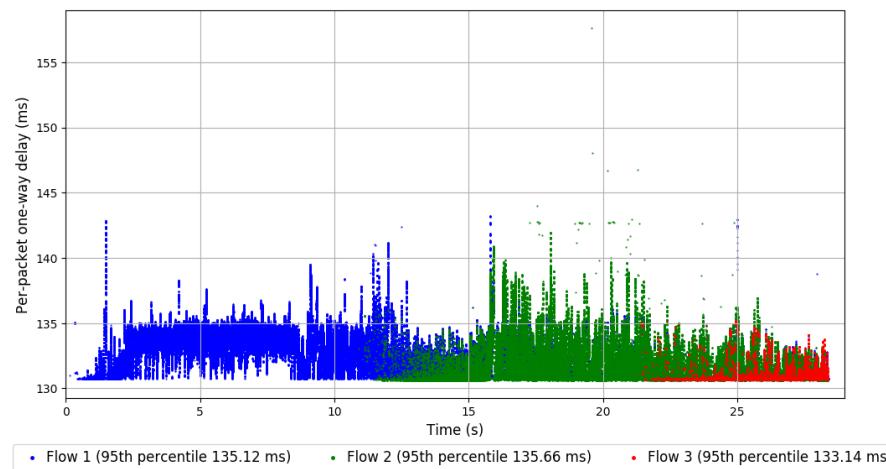
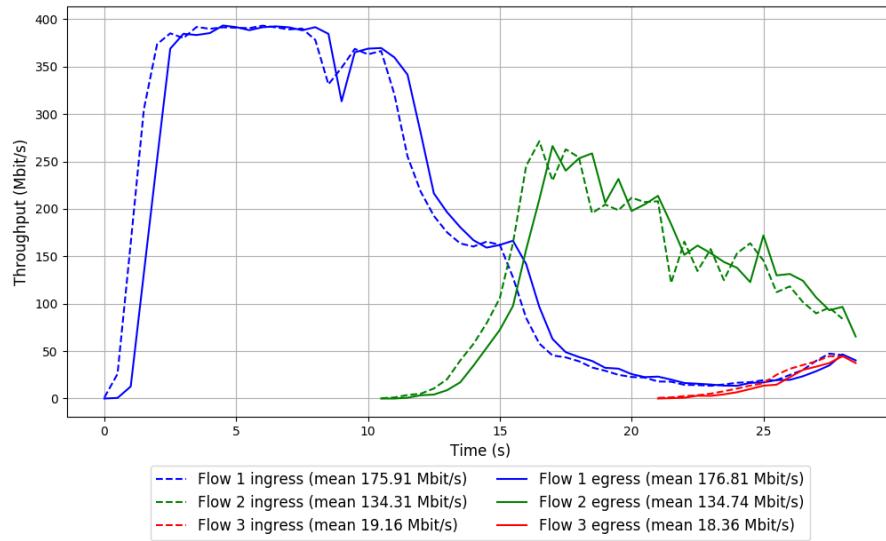


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 12:31:27
End at: 2019-06-28 12:31:57
Local clock offset: -0.259 ms
Remote clock offset: -35.582 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 264.75 Mbit/s
95th percentile per-packet one-way delay: 135.215 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 176.81 Mbit/s
95th percentile per-packet one-way delay: 135.119 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 134.74 Mbit/s
95th percentile per-packet one-way delay: 135.661 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 18.36 Mbit/s
95th percentile per-packet one-way delay: 133.138 ms
Loss rate: 6.67%
```

## Run 2: Report of Indigo-MusesC3 — Data Link

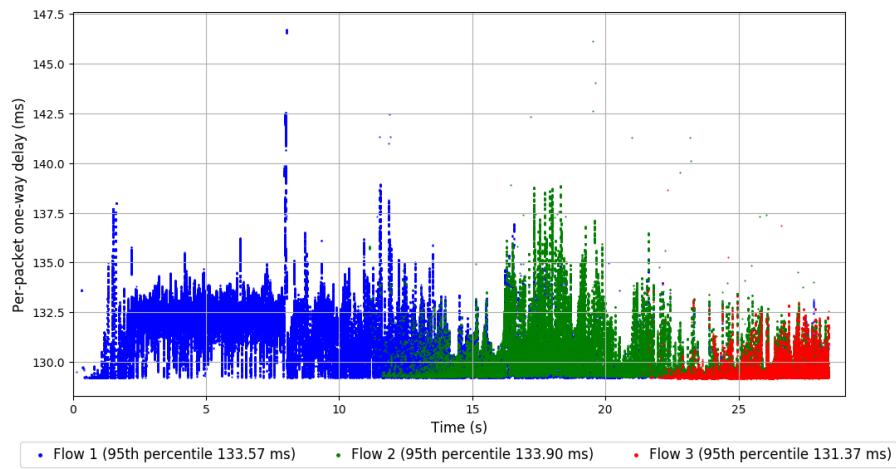
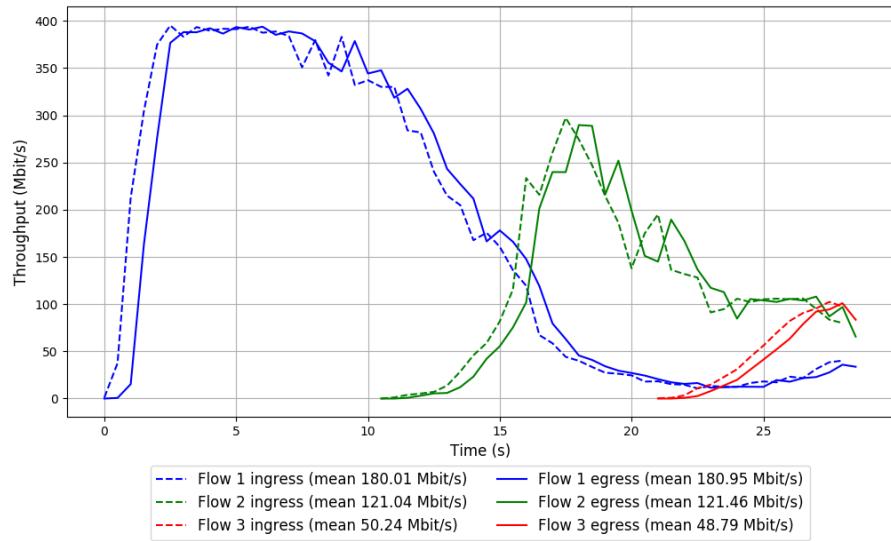


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 13:04:32
End at: 2019-06-28 13:05:03
Local clock offset: -0.077 ms
Remote clock offset: -33.695 ms

# Below is generated by plot.py at 2019-06-28 14:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 267.94 Mbit/s
95th percentile per-packet one-way delay: 133.586 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 180.95 Mbit/s
95th percentile per-packet one-way delay: 133.569 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 121.46 Mbit/s
95th percentile per-packet one-way delay: 133.895 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 48.79 Mbit/s
95th percentile per-packet one-way delay: 131.367 ms
Loss rate: 5.51%
```

### Run 3: Report of Indigo-MusesC3 — Data Link

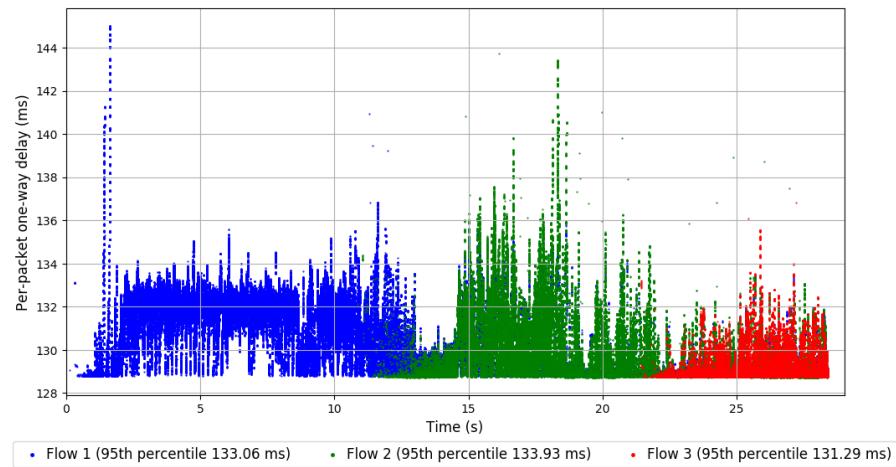
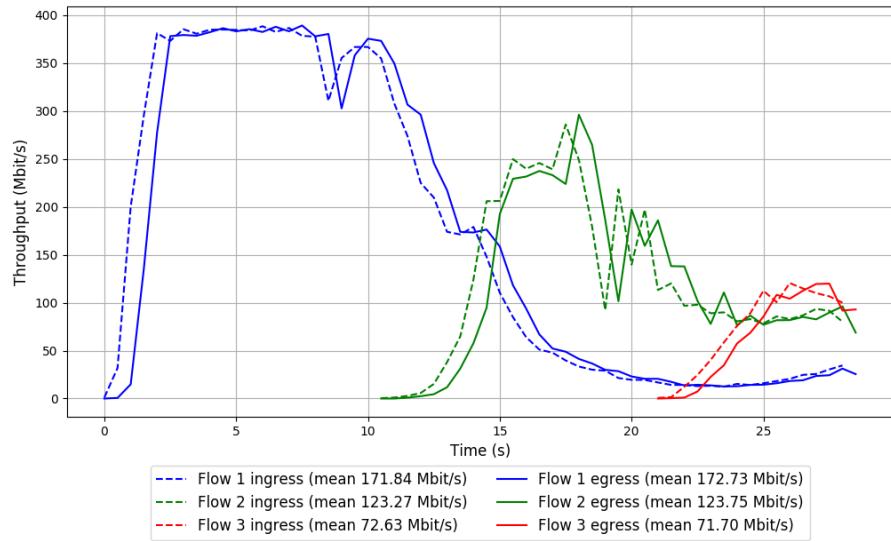


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 13:37:40
End at: 2019-06-28 13:38:10
Local clock offset: -0.849 ms
Remote clock offset: -34.246 ms

# Below is generated by plot.py at 2019-06-28 14:38:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 267.61 Mbit/s
95th percentile per-packet one-way delay: 133.177 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 172.73 Mbit/s
95th percentile per-packet one-way delay: 133.063 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 123.75 Mbit/s
95th percentile per-packet one-way delay: 133.933 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 71.70 Mbit/s
95th percentile per-packet one-way delay: 131.293 ms
Loss rate: 3.83%
```

## Run 4: Report of Indigo-MusesC3 — Data Link

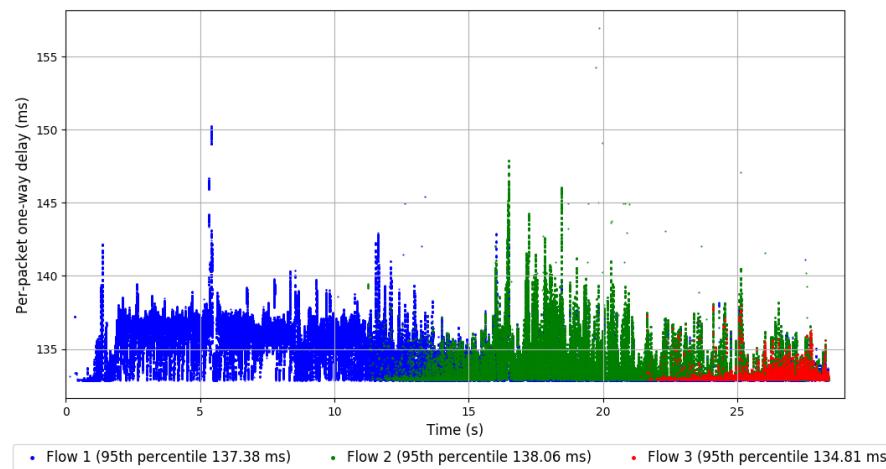
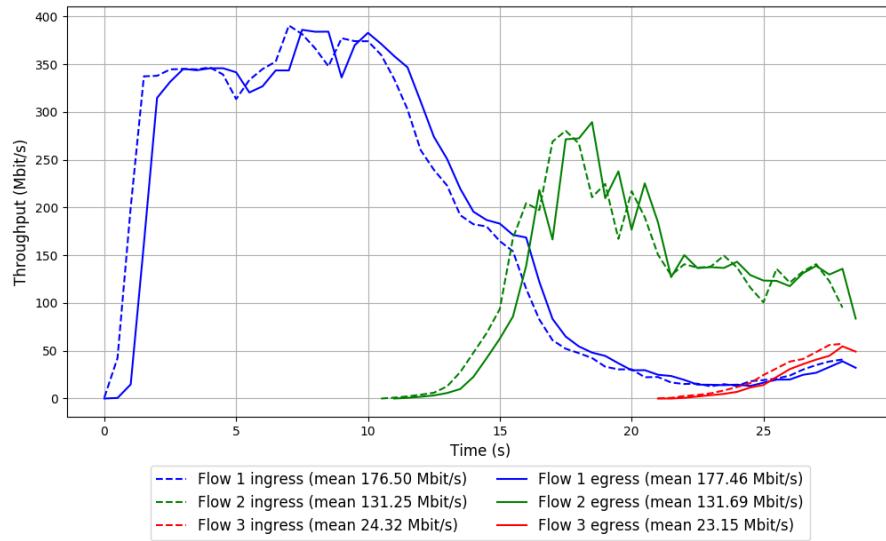


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 14:10:32
End at: 2019-06-28 14:11:02
Local clock offset: -1.133 ms
Remote clock offset: -38.746 ms

# Below is generated by plot.py at 2019-06-28 14:38:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 264.01 Mbit/s
95th percentile per-packet one-way delay: 137.495 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 177.46 Mbit/s
95th percentile per-packet one-way delay: 137.384 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 131.69 Mbit/s
95th percentile per-packet one-way delay: 138.056 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 23.15 Mbit/s
95th percentile per-packet one-way delay: 134.808 ms
Loss rate: 7.27%
```

Run 5: Report of Indigo-MusesC3 — Data Link

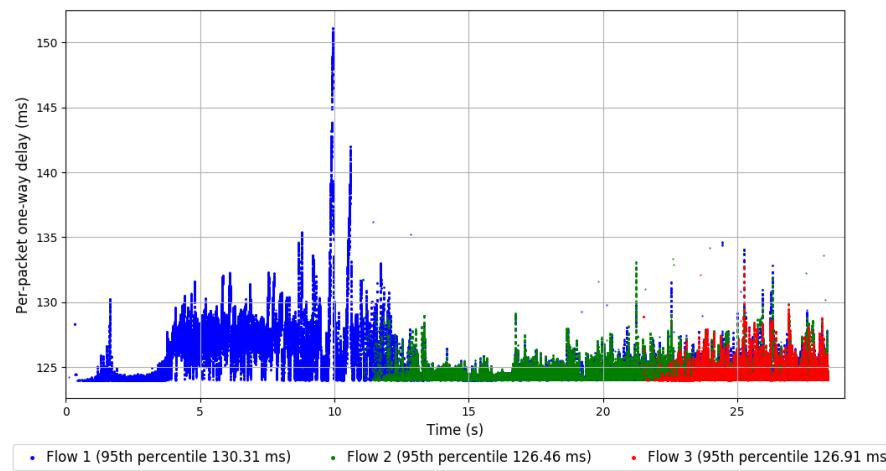
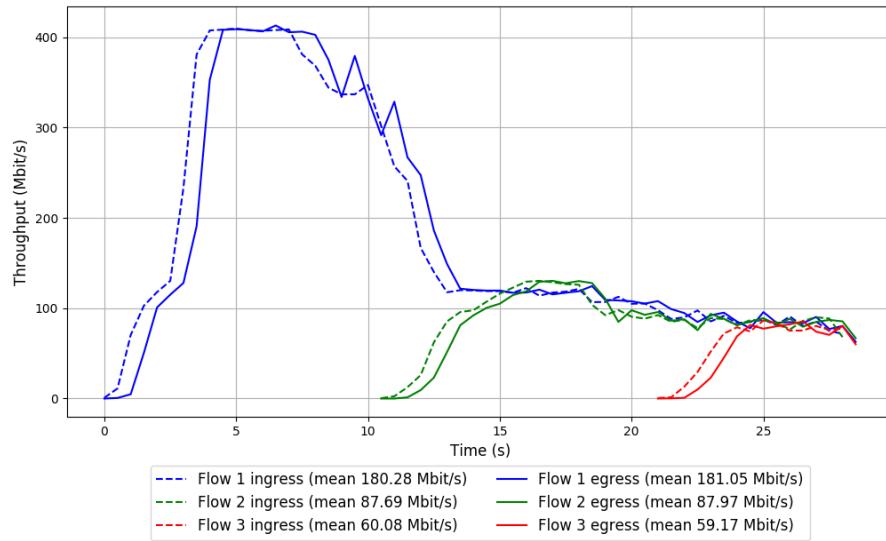


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 11:35:04
End at: 2019-06-28 11:35:34
Local clock offset: -0.753 ms
Remote clock offset: -27.085 ms

# Below is generated by plot.py at 2019-06-28 14:38:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.48 Mbit/s
95th percentile per-packet one-way delay: 129.624 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 181.05 Mbit/s
95th percentile per-packet one-way delay: 130.306 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 87.97 Mbit/s
95th percentile per-packet one-way delay: 126.457 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 59.17 Mbit/s
95th percentile per-packet one-way delay: 126.914 ms
Loss rate: 4.15%
```

Run 1: Report of Indigo-MusesC5 — Data Link

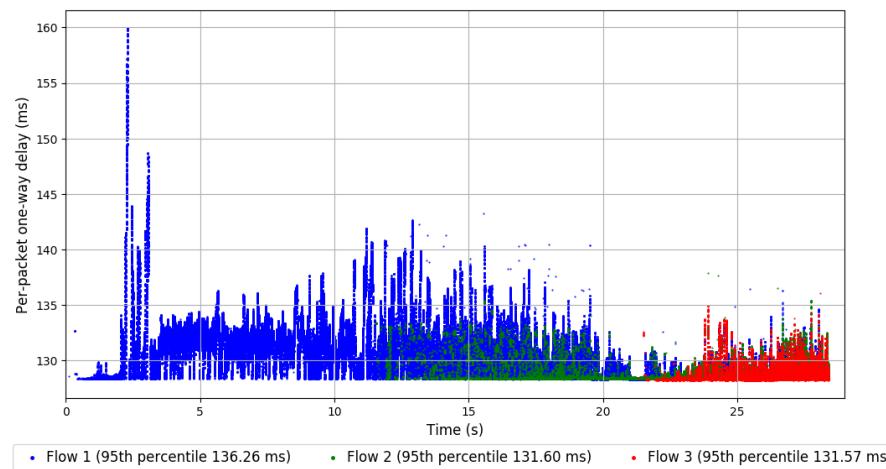
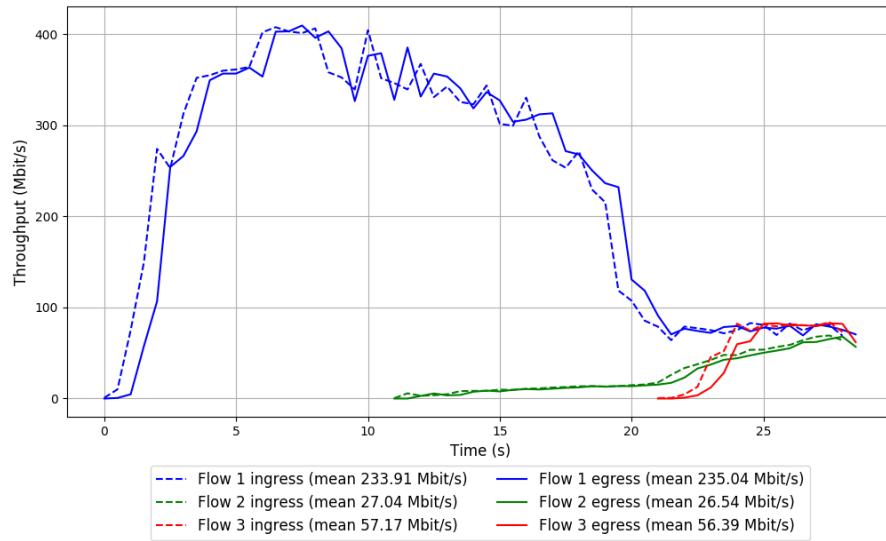


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 12:07:51
End at: 2019-06-28 12:08:21
Local clock offset: -1.337 ms
Remote clock offset: -33.199 ms

# Below is generated by plot.py at 2019-06-28 14:38:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 265.16 Mbit/s
95th percentile per-packet one-way delay: 135.930 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 235.04 Mbit/s
95th percentile per-packet one-way delay: 136.256 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 26.54 Mbit/s
95th percentile per-packet one-way delay: 131.599 ms
Loss rate: 3.00%
-- Flow 3:
Average throughput: 56.39 Mbit/s
95th percentile per-packet one-way delay: 131.571 ms
Loss rate: 4.03%
```

Run 2: Report of Indigo-MusesC5 — Data Link

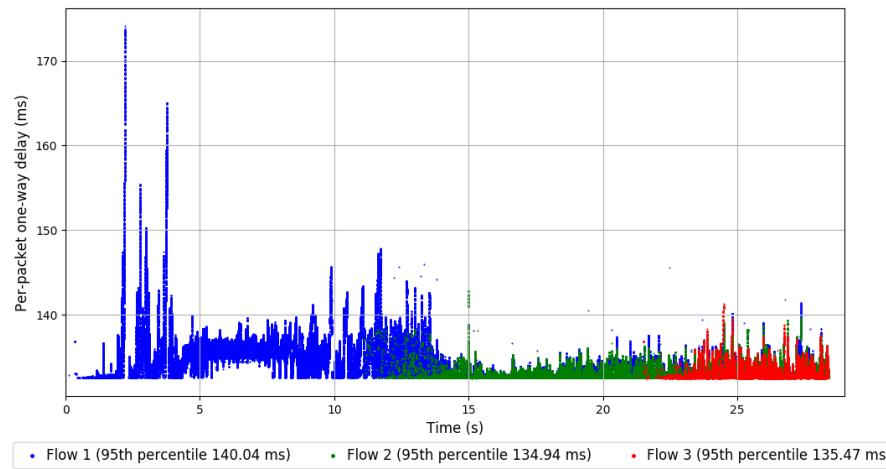
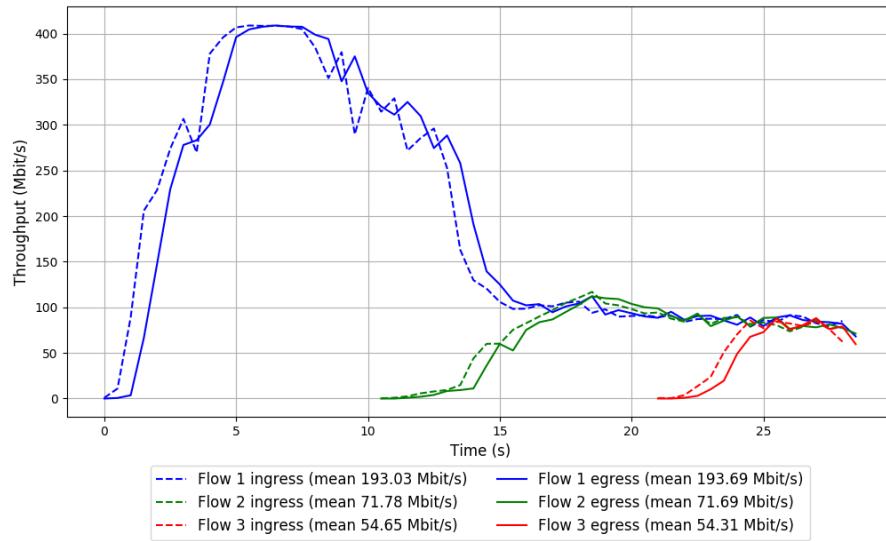


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 12:40:49
End at: 2019-06-28 12:41:19
Local clock offset: -0.499 ms
Remote clock offset: -37.48 ms

# Below is generated by plot.py at 2019-06-28 14:38:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.60 Mbit/s
95th percentile per-packet one-way delay: 139.146 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 193.69 Mbit/s
95th percentile per-packet one-way delay: 140.043 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 71.69 Mbit/s
95th percentile per-packet one-way delay: 134.944 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 54.31 Mbit/s
95th percentile per-packet one-way delay: 135.471 ms
Loss rate: 3.18%
```

### Run 3: Report of Indigo-MusesC5 — Data Link

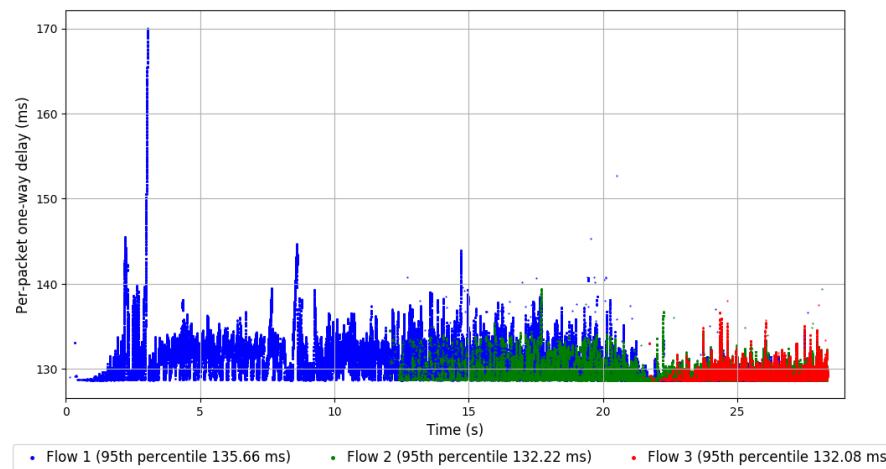
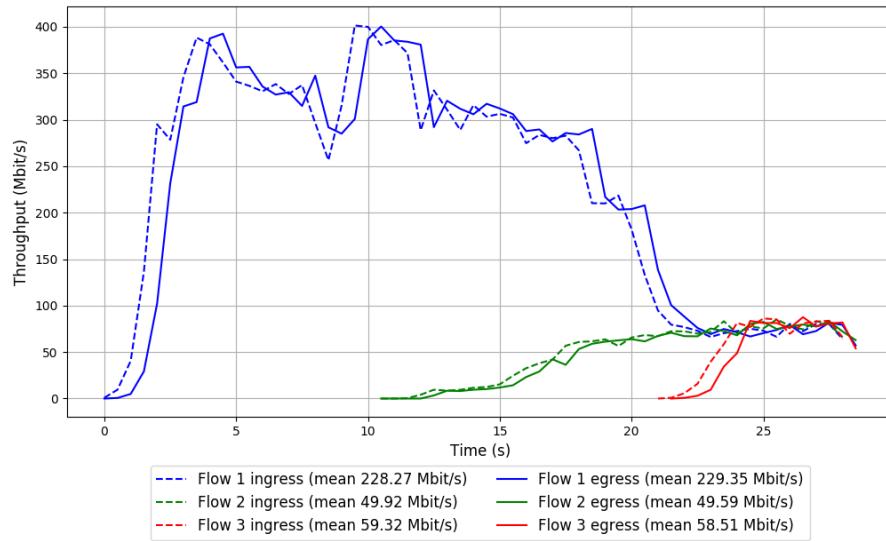


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 13:13:59
End at: 2019-06-28 13:14:29
Local clock offset: 0.445 ms
Remote clock offset: -31.902 ms

# Below is generated by plot.py at 2019-06-28 14:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.25 Mbit/s
95th percentile per-packet one-way delay: 135.304 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 229.35 Mbit/s
95th percentile per-packet one-way delay: 135.663 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 49.59 Mbit/s
95th percentile per-packet one-way delay: 132.225 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 132.084 ms
Loss rate: 4.03%
```

Run 4: Report of Indigo-MusesC5 — Data Link

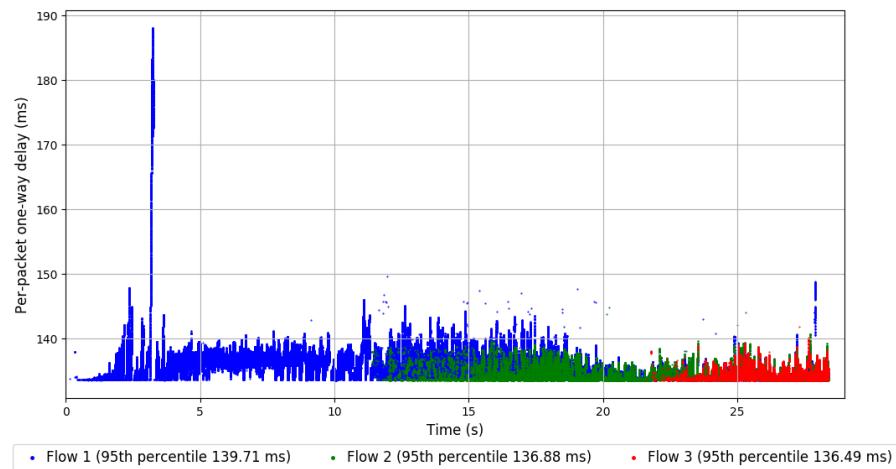
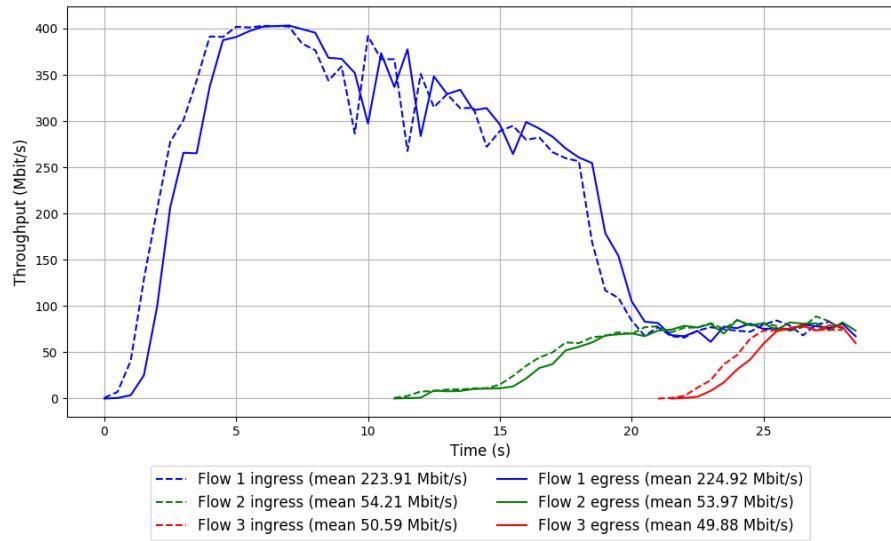


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 13:46:58
End at: 2019-06-28 13:47:28
Local clock offset: -1.172 ms
Remote clock offset: -38.579 ms

# Below is generated by plot.py at 2019-06-28 14:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.73 Mbit/s
95th percentile per-packet one-way delay: 139.415 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 224.92 Mbit/s
95th percentile per-packet one-way delay: 139.705 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 53.97 Mbit/s
95th percentile per-packet one-way delay: 136.875 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 49.88 Mbit/s
95th percentile per-packet one-way delay: 136.491 ms
Loss rate: 4.38%
```

## Run 5: Report of Indigo-MusesC5 — Data Link

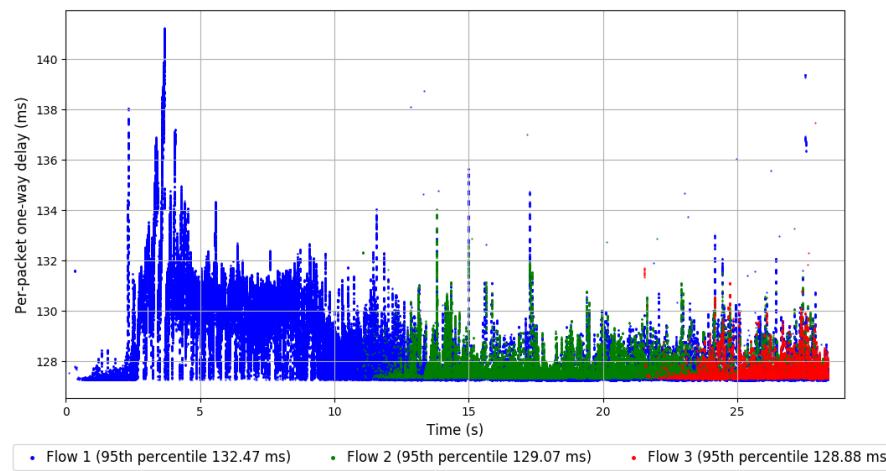
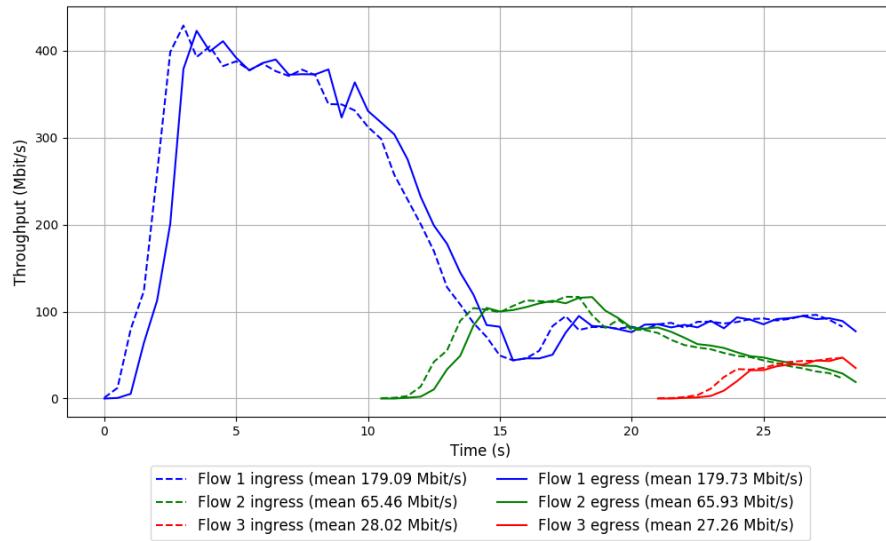


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 11:49:38
End at: 2019-06-28 11:50:08
Local clock offset: -1.699 ms
Remote clock offset: -30.835 ms

# Below is generated by plot.py at 2019-06-28 14:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 227.39 Mbit/s
95th percentile per-packet one-way delay: 131.963 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 179.73 Mbit/s
95th percentile per-packet one-way delay: 132.475 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 65.93 Mbit/s
95th percentile per-packet one-way delay: 129.074 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 128.876 ms
Loss rate: 5.35%
```

## Run 1: Report of Indigo-MusesD — Data Link

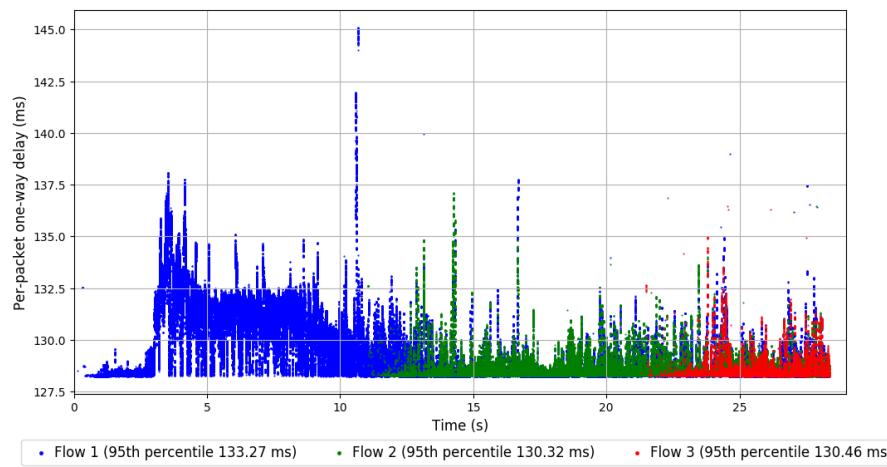
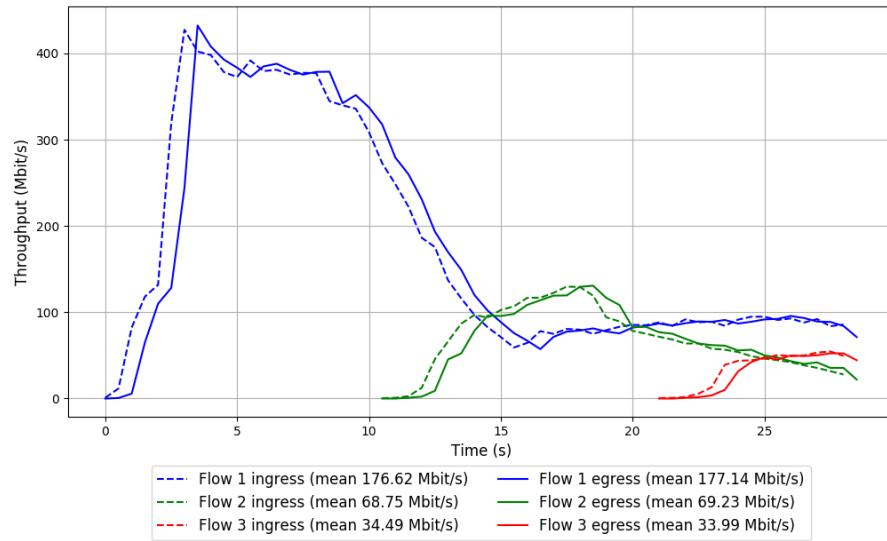


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 12:22:32
End at: 2019-06-28 12:23:02
Local clock offset: -1.013 ms
Remote clock offset: -33.798 ms

# Below is generated by plot.py at 2019-06-28 14:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.60 Mbit/s
95th percentile per-packet one-way delay: 132.894 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 177.14 Mbit/s
95th percentile per-packet one-way delay: 133.268 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 69.23 Mbit/s
95th percentile per-packet one-way delay: 130.318 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 130.464 ms
Loss rate: 4.13%
```

## Run 2: Report of Indigo-MusesD — Data Link

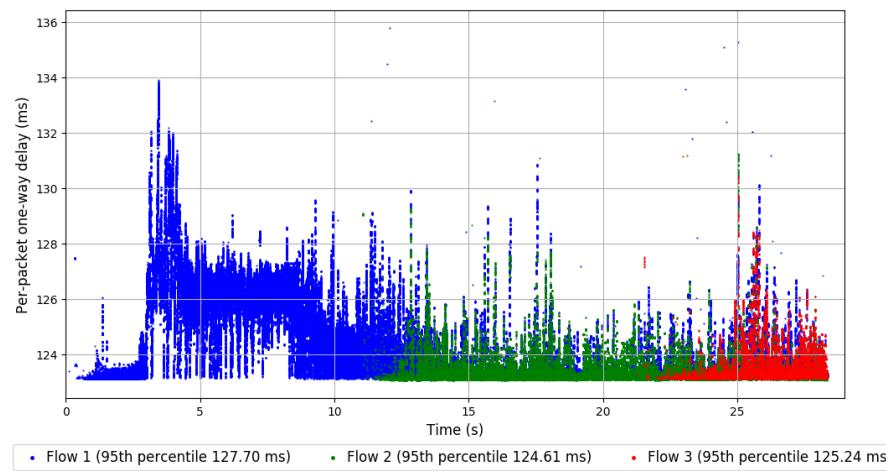
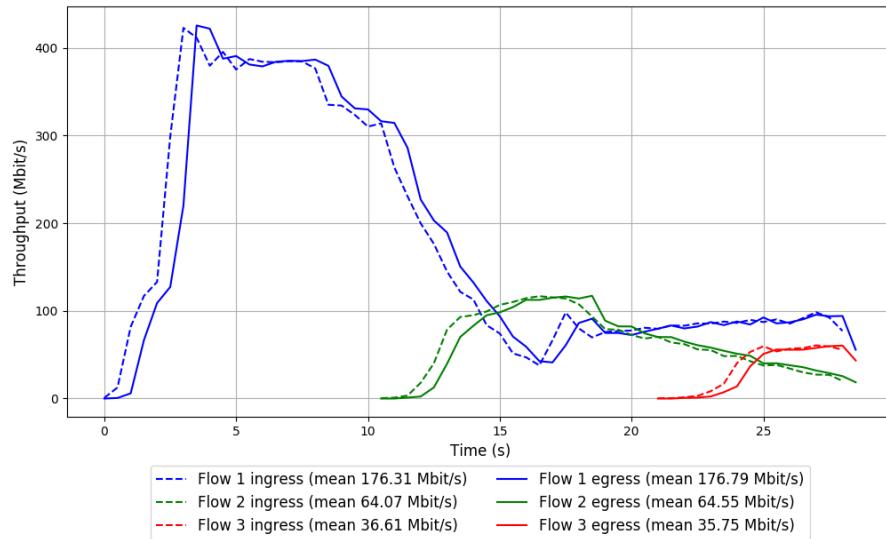


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 12:55:33
End at: 2019-06-28 12:56:03
Local clock offset: -0.788 ms
Remote clock offset: -28.383 ms

# Below is generated by plot.py at 2019-06-28 14:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.71 Mbit/s
95th percentile per-packet one-way delay: 127.392 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 176.79 Mbit/s
95th percentile per-packet one-way delay: 127.696 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 64.55 Mbit/s
95th percentile per-packet one-way delay: 124.607 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 35.75 Mbit/s
95th percentile per-packet one-way delay: 125.239 ms
Loss rate: 4.94%
```

### Run 3: Report of Indigo-MusesD — Data Link

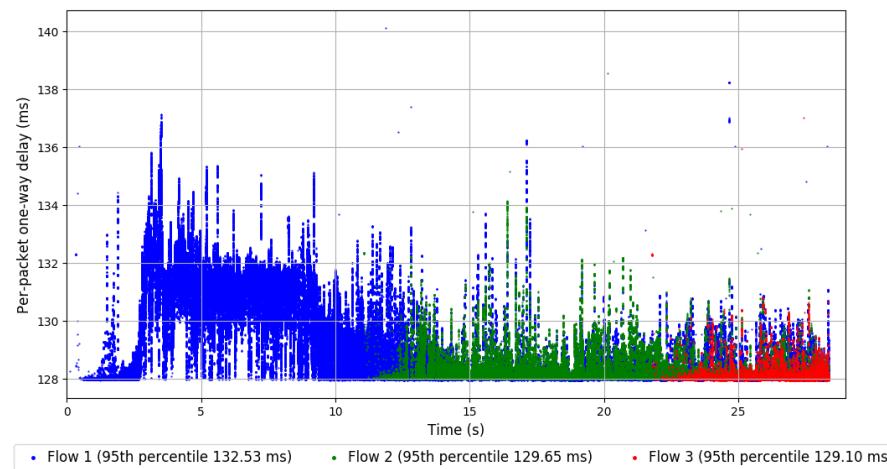
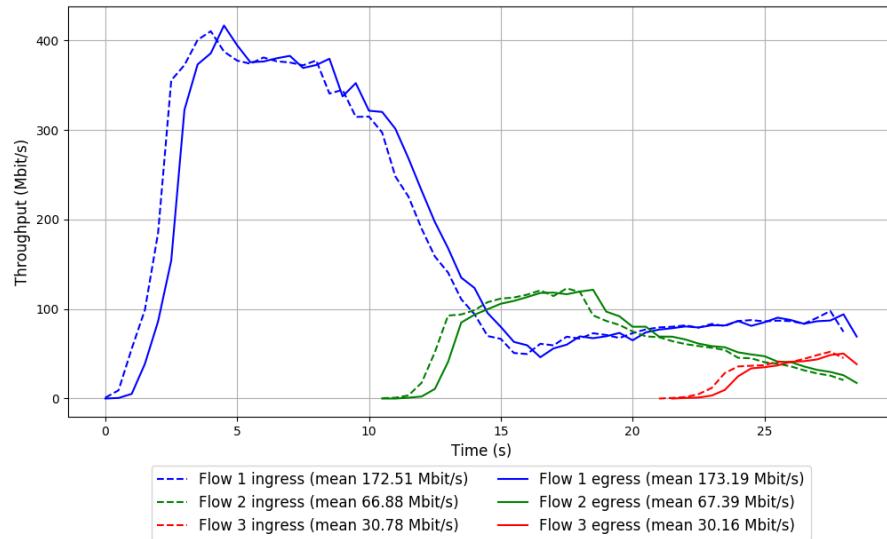


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 13:28:39
End at: 2019-06-28 13:29:09
Local clock offset: -1.265 ms
Remote clock offset: -33.654 ms

# Below is generated by plot.py at 2019-06-28 14:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 222.14 Mbit/s
95th percentile per-packet one-way delay: 132.322 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 173.19 Mbit/s
95th percentile per-packet one-way delay: 132.526 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 67.39 Mbit/s
95th percentile per-packet one-way delay: 129.647 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 30.16 Mbit/s
95th percentile per-packet one-way delay: 129.102 ms
Loss rate: 4.75%
```

## Run 4: Report of Indigo-MusesD — Data Link

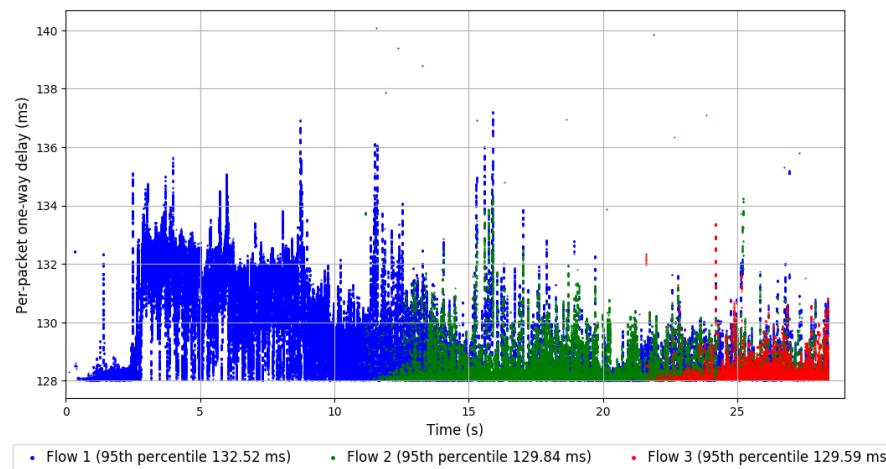
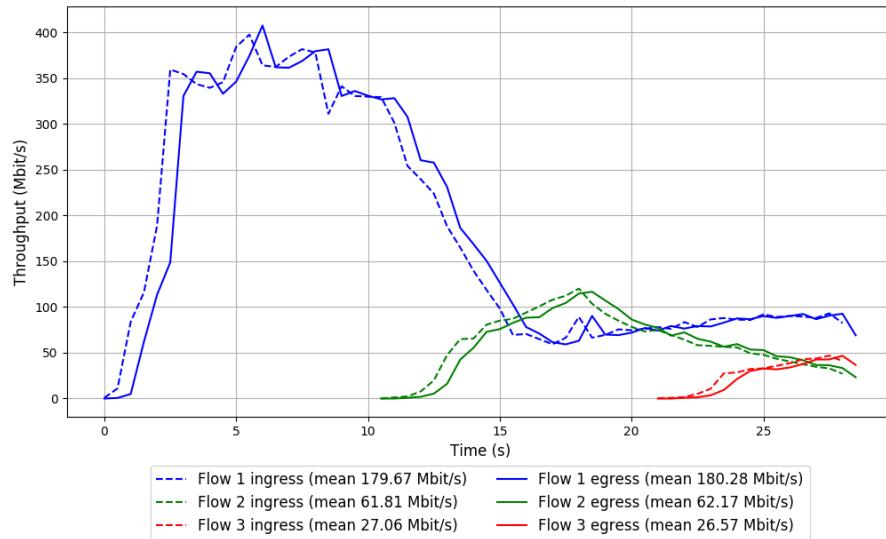


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 14:01:36
End at: 2019-06-28 14:02:06
Local clock offset: -0.915 ms
Remote clock offset: -33.61 ms

# Below is generated by plot.py at 2019-06-28 14:41:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.22 Mbit/s
95th percentile per-packet one-way delay: 132.411 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 180.28 Mbit/s
95th percentile per-packet one-way delay: 132.522 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 62.17 Mbit/s
95th percentile per-packet one-way delay: 129.845 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 26.57 Mbit/s
95th percentile per-packet one-way delay: 129.589 ms
Loss rate: 4.39%
```

## Run 5: Report of Indigo-MusesD — Data Link

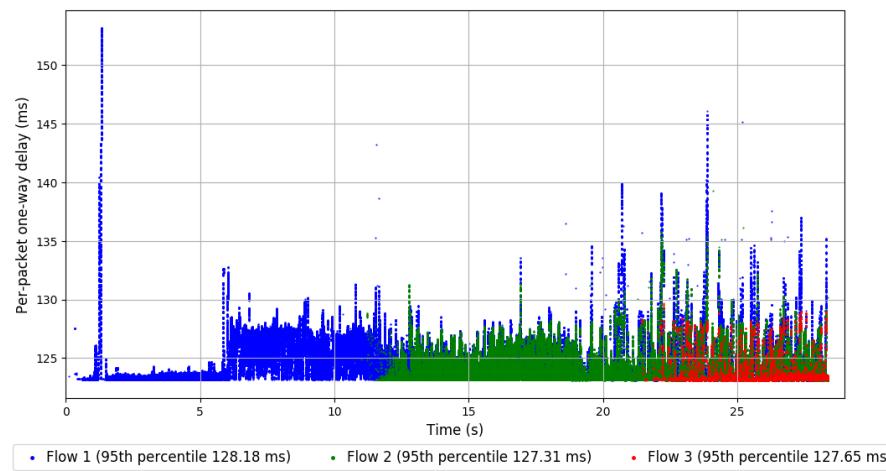
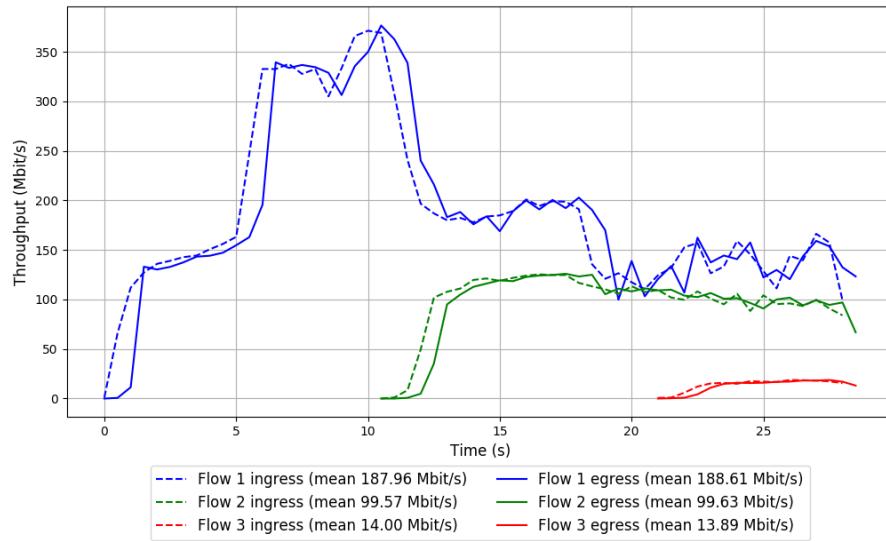


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 12:01:39
End at: 2019-06-28 12:02:09
Local clock offset: -1.145 ms
Remote clock offset: -26.935 ms

# Below is generated by plot.py at 2019-06-28 14:41:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.39 Mbit/s
95th percentile per-packet one-way delay: 127.912 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 188.61 Mbit/s
95th percentile per-packet one-way delay: 128.178 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 99.63 Mbit/s
95th percentile per-packet one-way delay: 127.311 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 13.89 Mbit/s
95th percentile per-packet one-way delay: 127.646 ms
Loss rate: 3.55%
```

Run 1: Report of Indigo-MusesT — Data Link

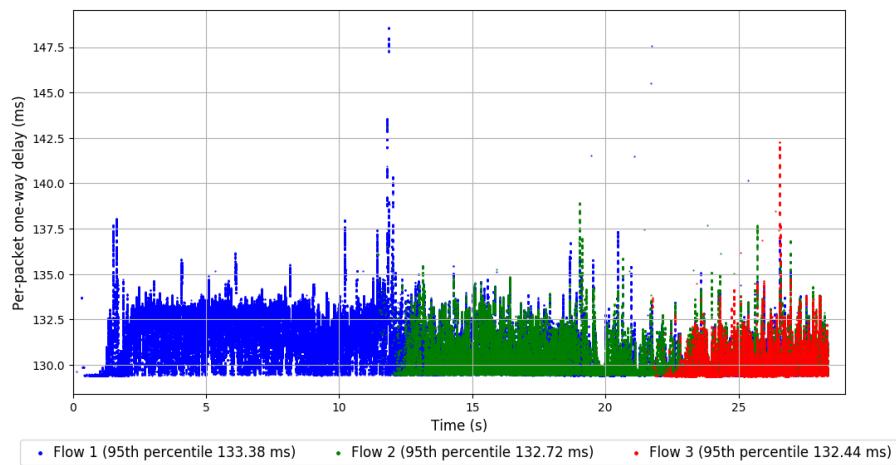
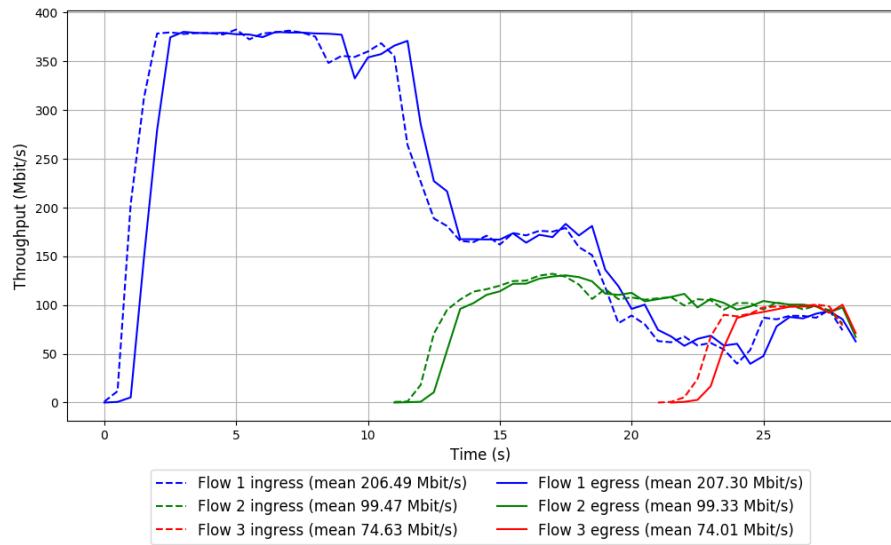


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 12:34:30
End at: 2019-06-28 12:35:00
Local clock offset: -1.013 ms
Remote clock offset: -34.852 ms

# Below is generated by plot.py at 2019-06-28 14:43:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.21 Mbit/s
95th percentile per-packet one-way delay: 133.291 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 207.30 Mbit/s
95th percentile per-packet one-way delay: 133.383 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 99.33 Mbit/s
95th percentile per-packet one-way delay: 132.722 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 74.01 Mbit/s
95th percentile per-packet one-way delay: 132.443 ms
Loss rate: 3.55%
```

## Run 2: Report of Indigo-MusesT — Data Link

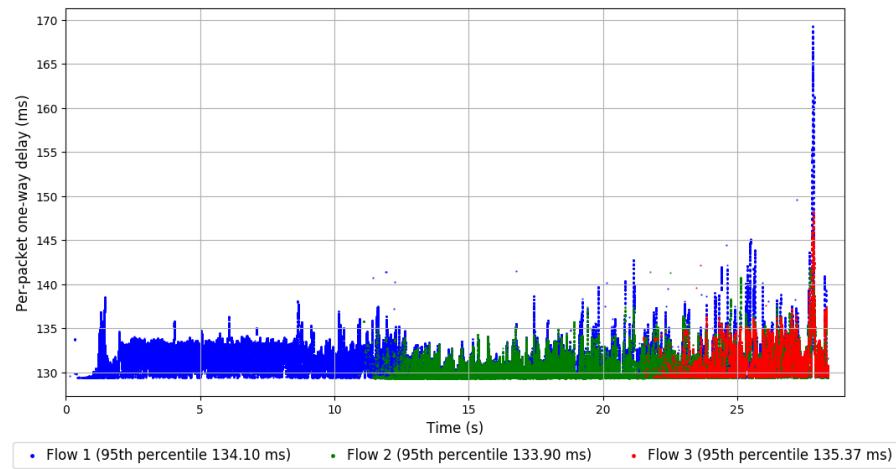
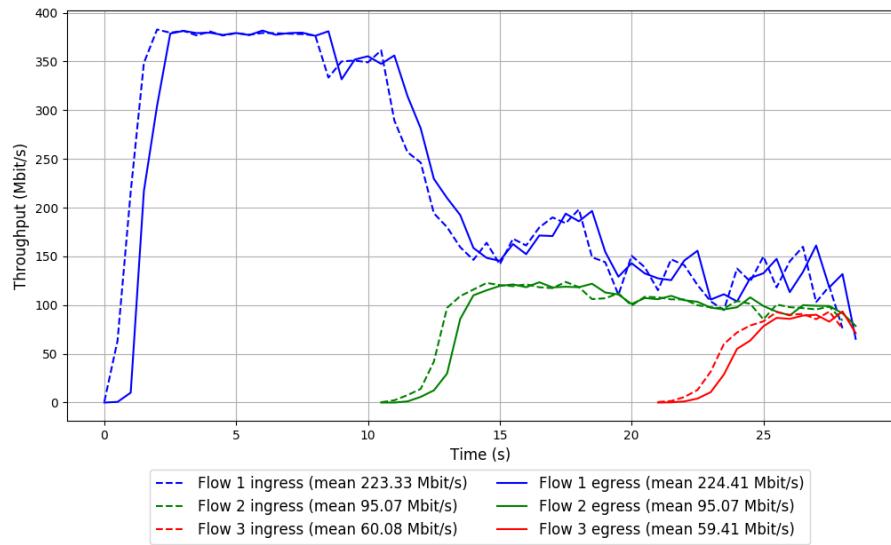


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 13:07:35
End at: 2019-06-28 13:08:05
Local clock offset: 0.344 ms
Remote clock offset: -33.415 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.14 Mbit/s
95th percentile per-packet one-way delay: 134.157 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 224.41 Mbit/s
95th percentile per-packet one-way delay: 134.105 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 133.904 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 59.41 Mbit/s
95th percentile per-packet one-way delay: 135.370 ms
Loss rate: 3.82%
```

### Run 3: Report of Indigo-MusesT — Data Link

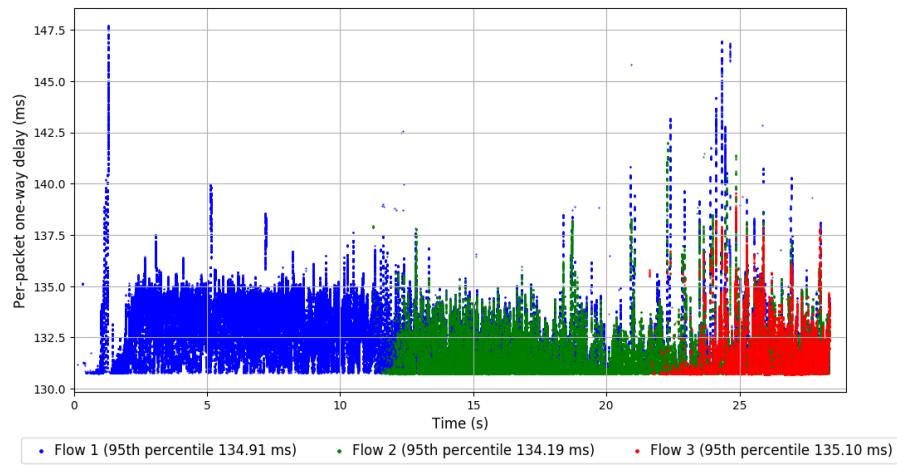
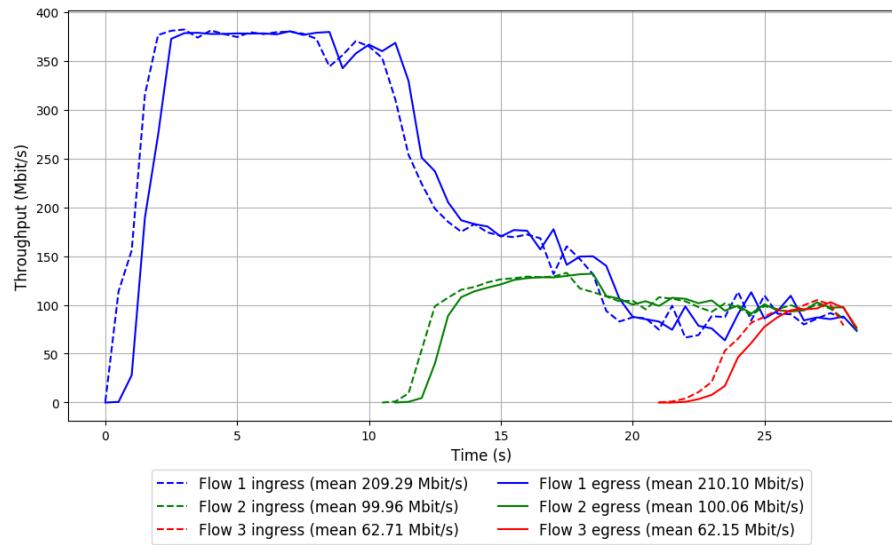


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 13:40:42
End at: 2019-06-28 13:41:12
Local clock offset: -0.626 ms
Remote clock offset: -36.062 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.86 Mbit/s
95th percentile per-packet one-way delay: 134.839 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 210.10 Mbit/s
95th percentile per-packet one-way delay: 134.911 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 100.06 Mbit/s
95th percentile per-packet one-way delay: 134.192 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 62.15 Mbit/s
95th percentile per-packet one-way delay: 135.098 ms
Loss rate: 3.65%
```

## Run 4: Report of Indigo-MusesT — Data Link

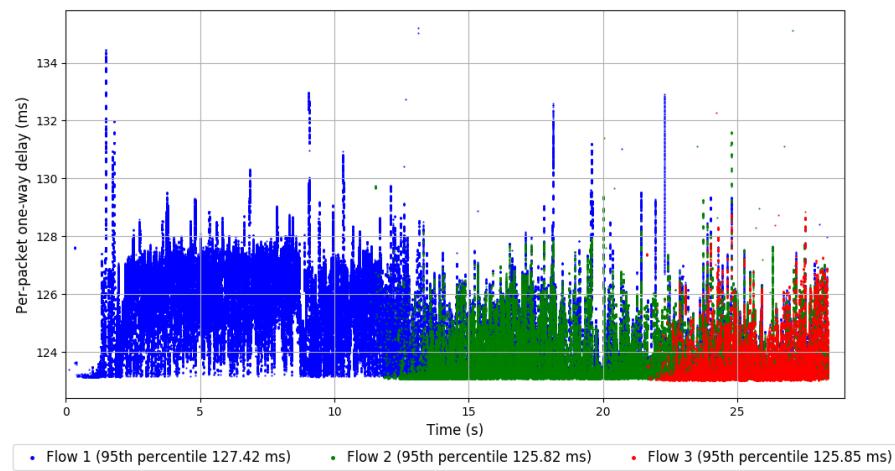
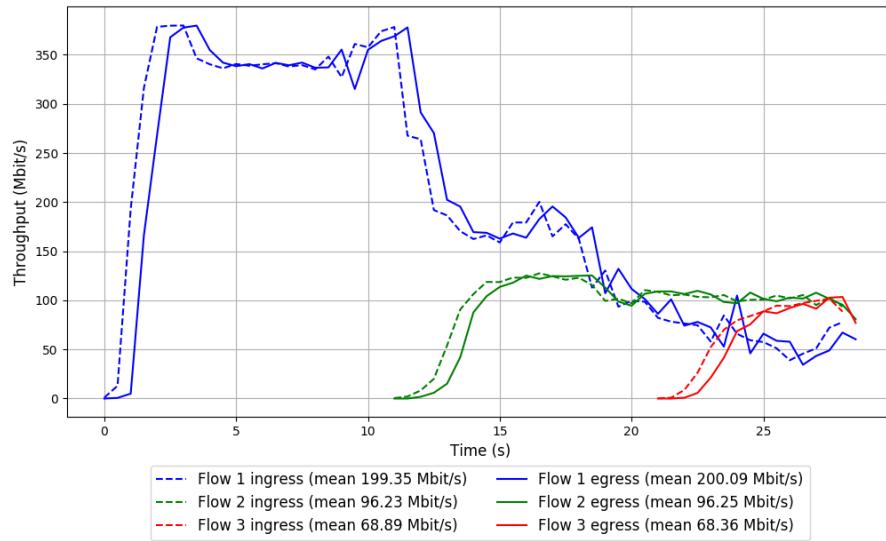


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 14:13:34
End at: 2019-06-28 14:14:04
Local clock offset: -1.177 ms
Remote clock offset: -29.057 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 275.01 Mbit/s
95th percentile per-packet one-way delay: 127.281 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 200.09 Mbit/s
95th percentile per-packet one-way delay: 127.424 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 125.817 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 68.36 Mbit/s
95th percentile per-packet one-way delay: 125.852 ms
Loss rate: 3.45%
```

Run 5: Report of Indigo-MusesT — Data Link

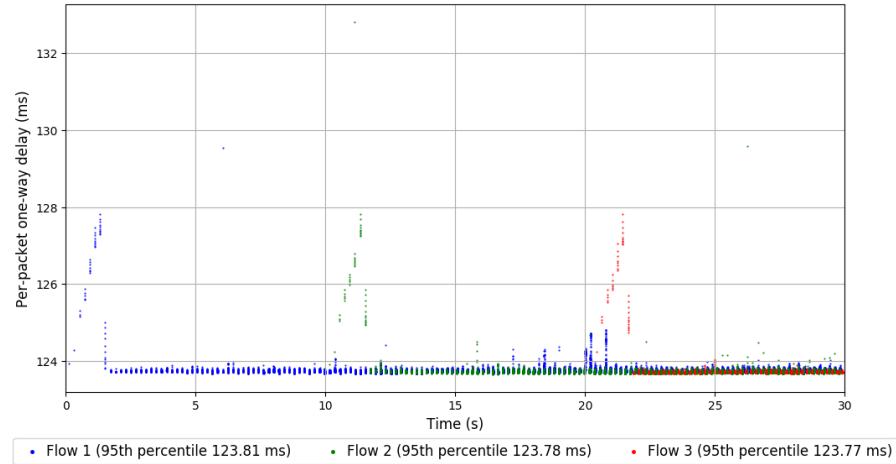
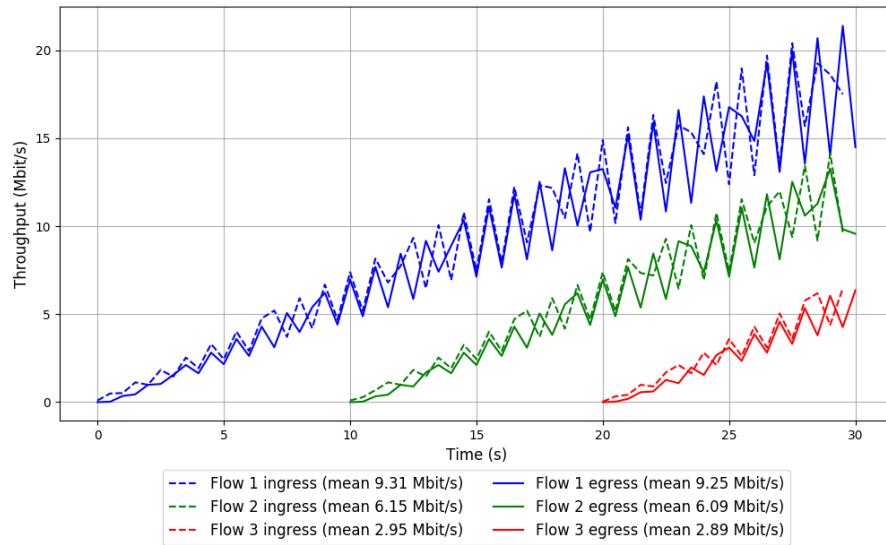


Run 1: Statistics of LEDBAT

```
Start at: 2019-06-28 11:43:36
End at: 2019-06-28 11:44:06
Local clock offset: -0.632 ms
Remote clock offset: -25.939 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.18 Mbit/s
95th percentile per-packet one-way delay: 123.801 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 123.808 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 123.779 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 123.769 ms
Loss rate: 4.00%
```

Run 1: Report of LEDBAT — Data Link

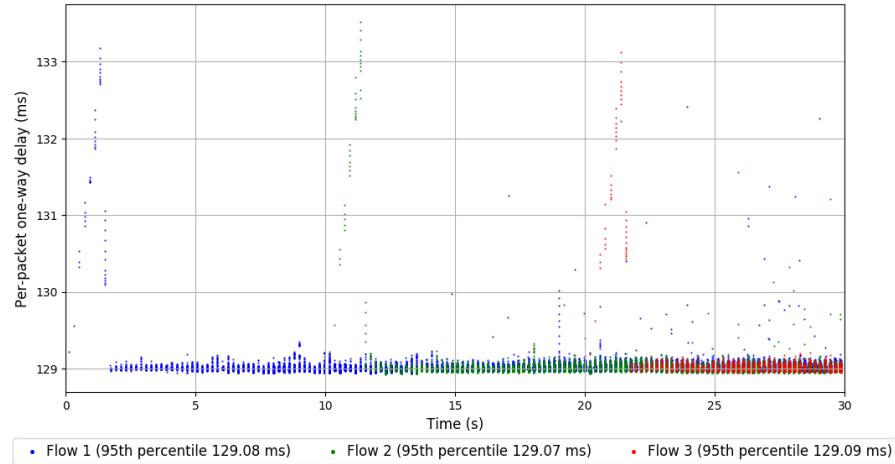
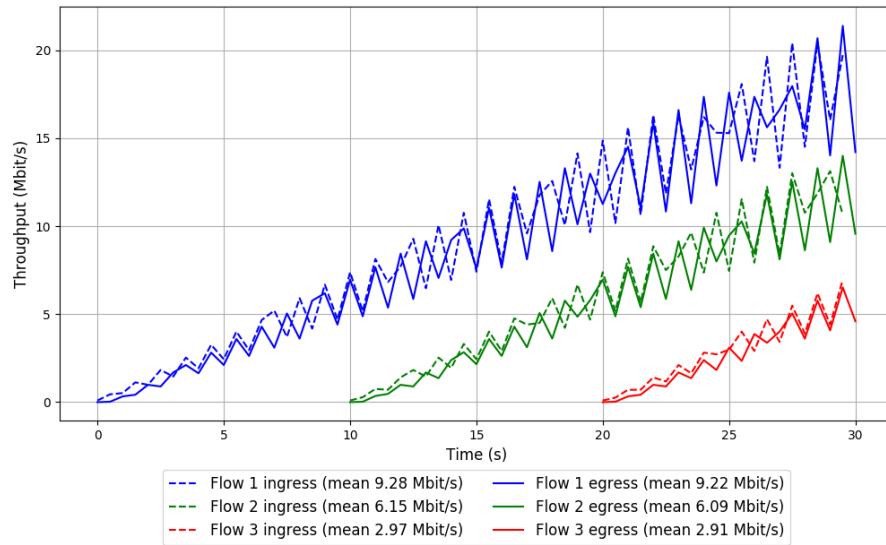


Run 2: Statistics of LEDBAT

```
Start at: 2019-06-28 12:16:27
End at: 2019-06-28 12:16:57
Local clock offset: -0.818 ms
Remote clock offset: -33.671 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 129.076 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 9.22 Mbit/s
95th percentile per-packet one-way delay: 129.076 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 129.071 ms
Loss rate: 1.98%
-- Flow 3:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 129.094 ms
Loss rate: 4.04%
```

Run 2: Report of LEDBAT — Data Link

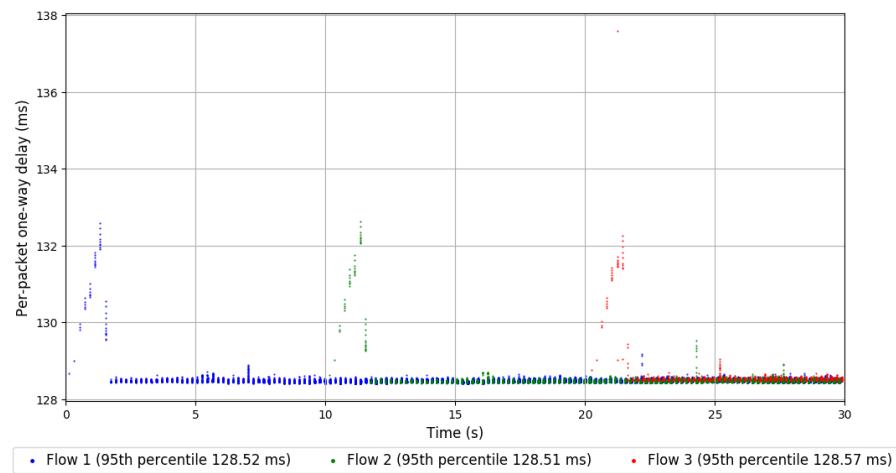
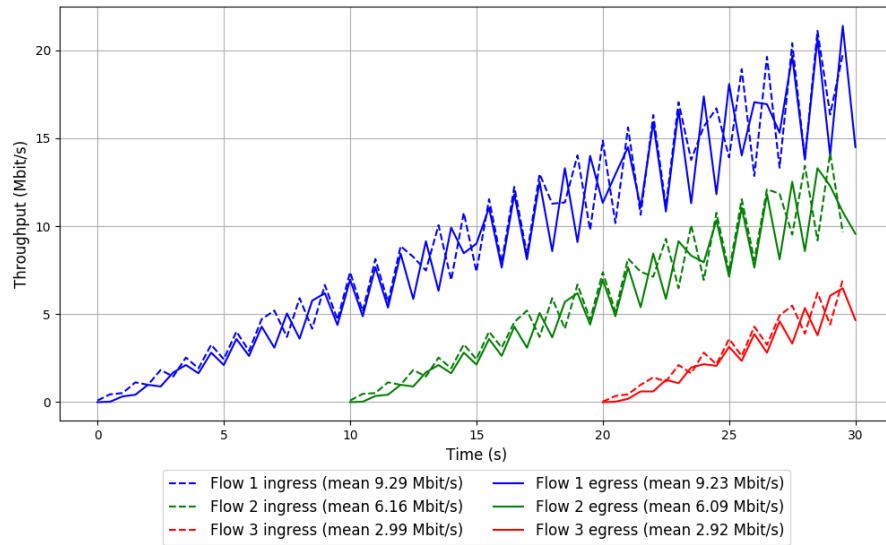


Run 3: Statistics of LEDBAT

```
Start at: 2019-06-28 12:49:25
End at: 2019-06-28 12:49:55
Local clock offset: -0.012 ms
Remote clock offset: -32.7 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.19 Mbit/s
95th percentile per-packet one-way delay: 128.528 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 128.523 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 128.506 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 128.574 ms
Loss rate: 4.03%
```

Run 3: Report of LEDBAT — Data Link

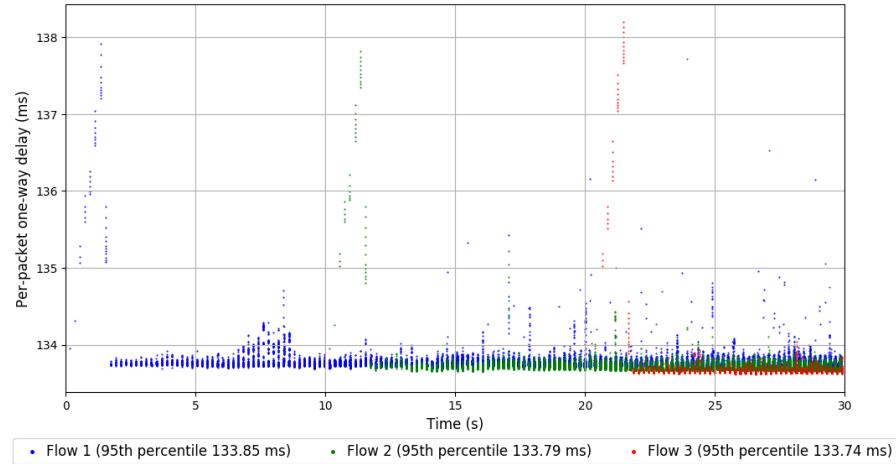
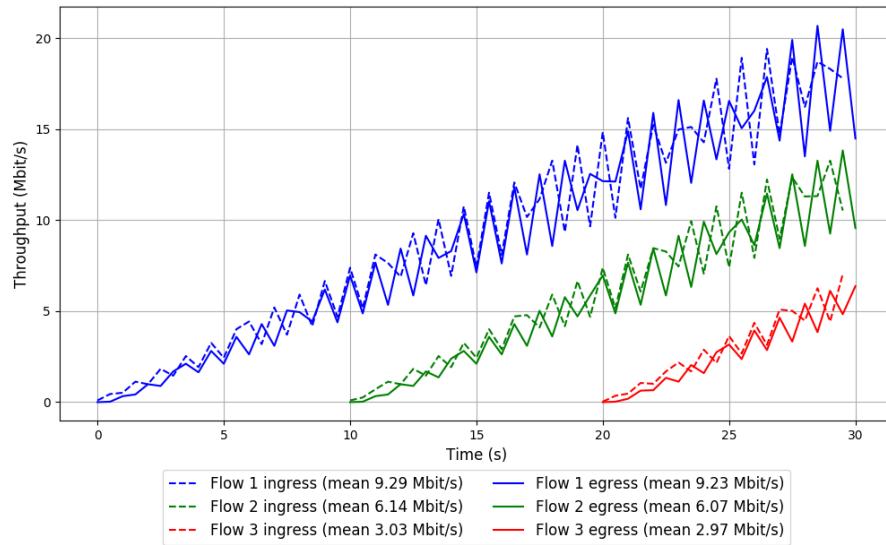


Run 4: Statistics of LEDBAT

```
Start at: 2019-06-28 13:22:38
End at: 2019-06-28 13:23:08
Local clock offset: -0.25 ms
Remote clock offset: -37.924 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 133.830 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 133.846 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 6.07 Mbit/s
95th percentile per-packet one-way delay: 133.794 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 133.742 ms
Loss rate: 4.01%
```

Run 4: Report of LEDBAT — Data Link

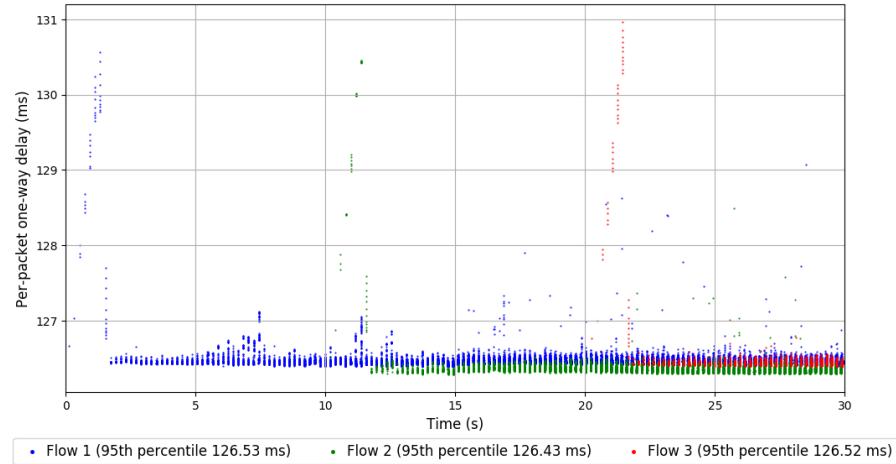
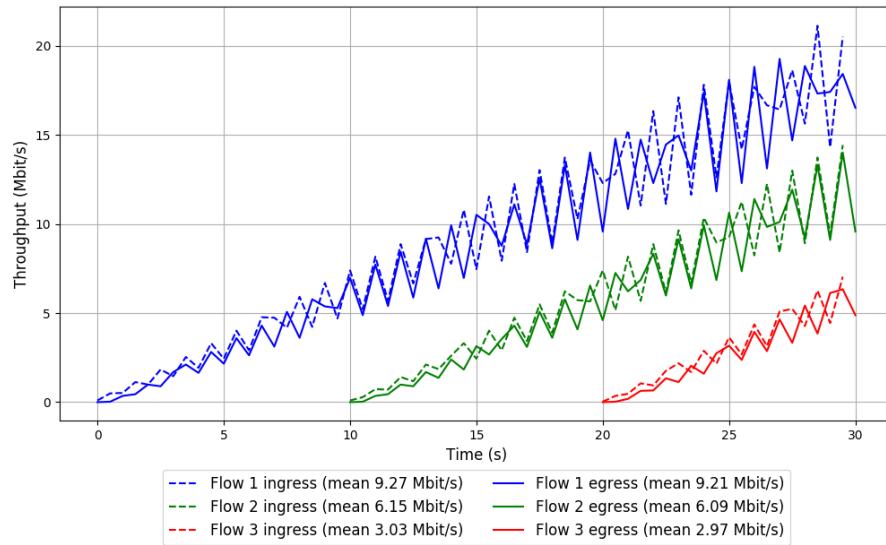


Run 5: Statistics of LEDBAT

```
Start at: 2019-06-28 13:55:38
End at: 2019-06-28 13:56:08
Local clock offset: -0.681 ms
Remote clock offset: -31.468 ms

# Below is generated by plot.py at 2019-06-28 14:44:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 126.521 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 126.535 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 126.427 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 126.515 ms
Loss rate: 4.01%
```

Run 5: Report of LEDBAT — Data Link

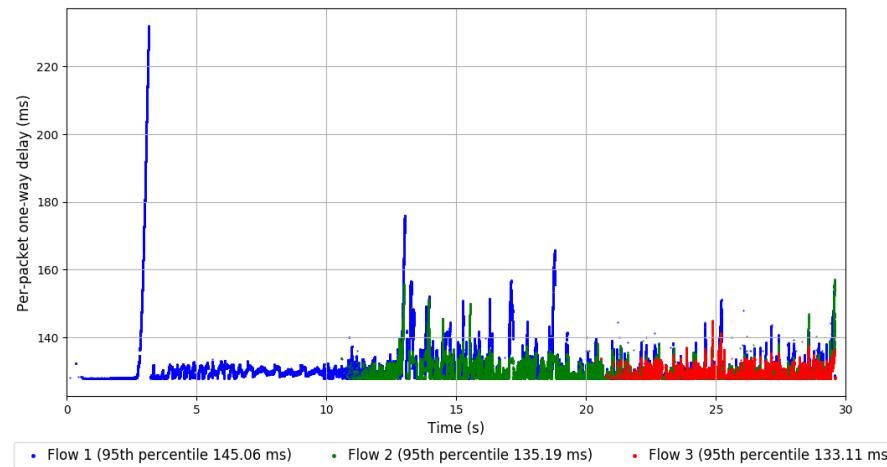
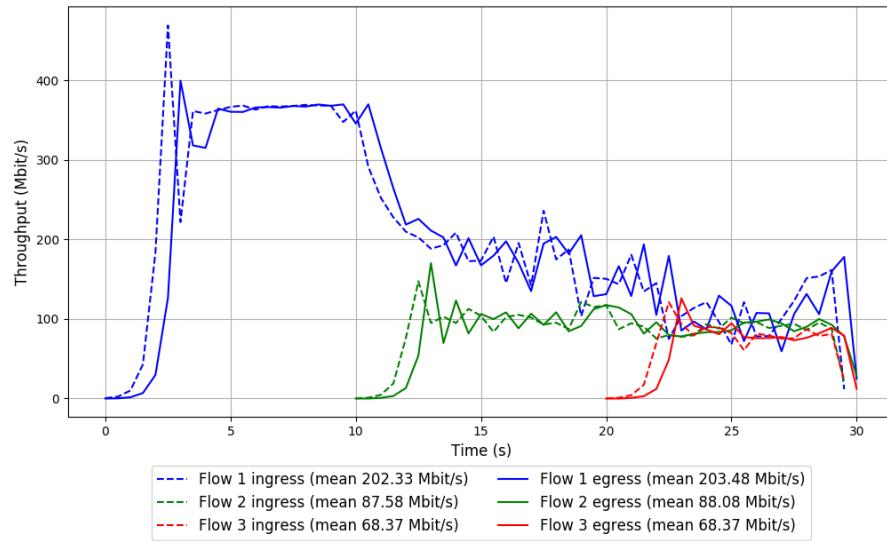


```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 11:55:48
End at: 2019-06-28 11:56:18
Local clock offset: -0.816 ms
Remote clock offset: -31.003 ms

# Below is generated by plot.py at 2019-06-28 14:44:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 282.26 Mbit/s
95th percentile per-packet one-way delay: 140.761 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 203.48 Mbit/s
95th percentile per-packet one-way delay: 145.065 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 88.08 Mbit/s
95th percentile per-packet one-way delay: 135.187 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 68.37 Mbit/s
95th percentile per-packet one-way delay: 133.107 ms
Loss rate: 2.17%
```

Run 1: Report of Muses\_DecisionTree — Data Link

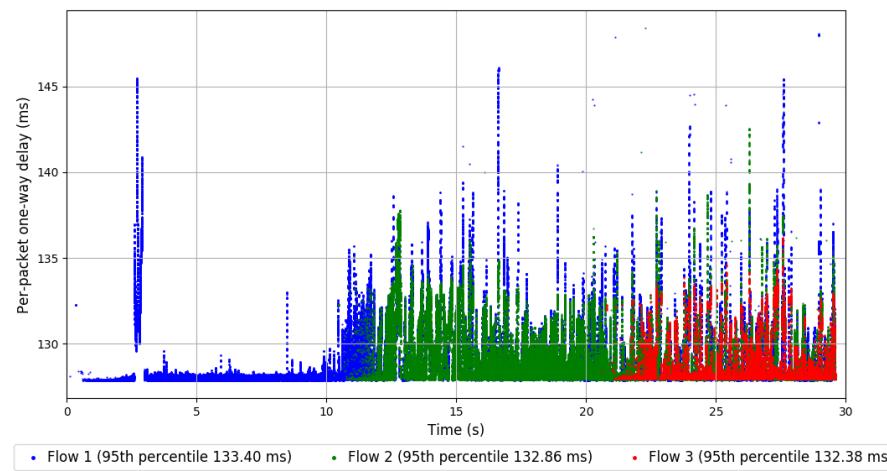
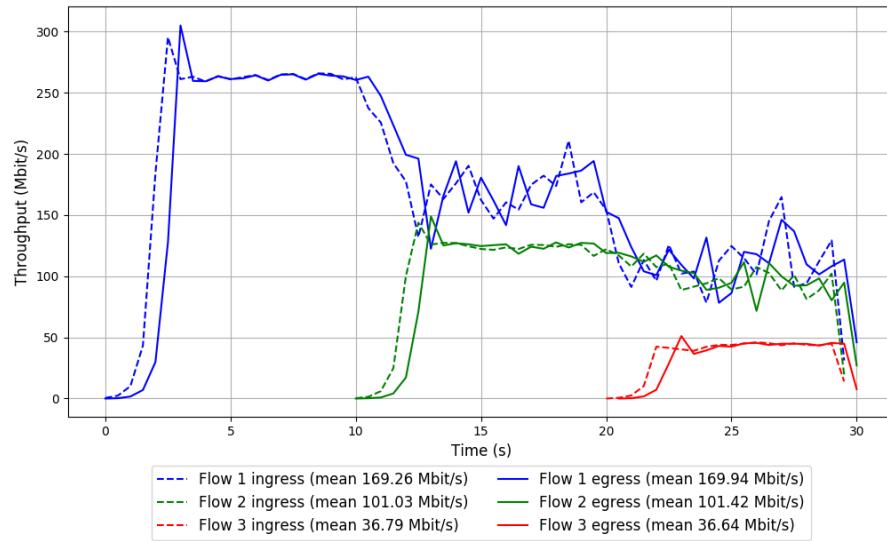


```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 12:28:41
End at: 2019-06-28 12:29:11
Local clock offset: -0.241 ms
Remote clock offset: -32.806 ms

# Below is generated by plot.py at 2019-06-28 14:44:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.55 Mbit/s
95th percentile per-packet one-way delay: 133.117 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 169.94 Mbit/s
95th percentile per-packet one-way delay: 133.403 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 101.42 Mbit/s
95th percentile per-packet one-way delay: 132.860 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 36.64 Mbit/s
95th percentile per-packet one-way delay: 132.379 ms
Loss rate: 2.54%
```

Run 2: Report of Muses\_DecisionTree — Data Link

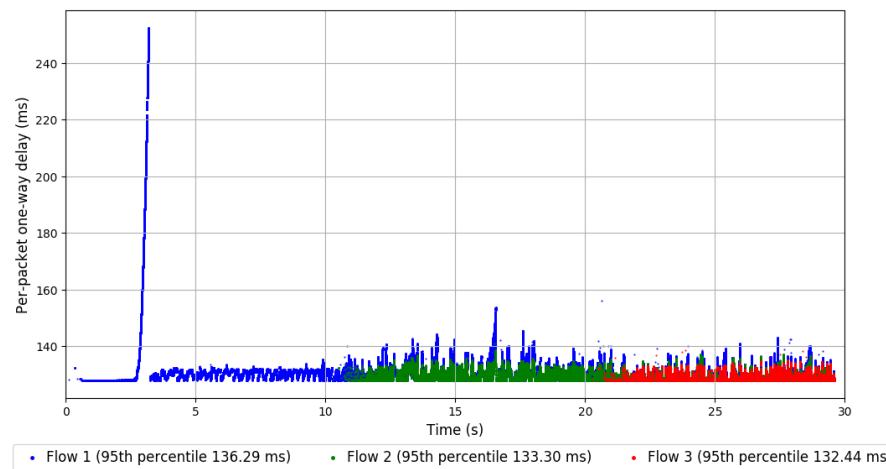
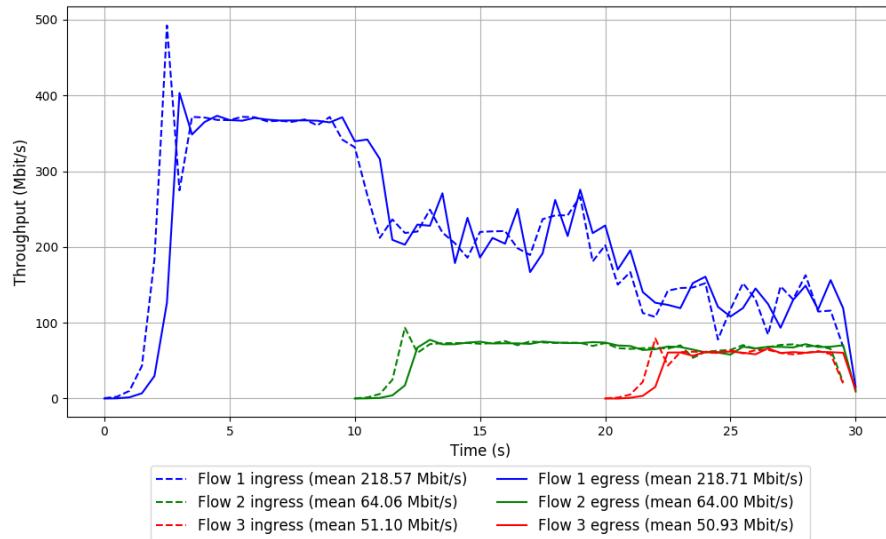


```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 13:01:44
End at: 2019-06-28 13:02:14
Local clock offset: -0.418 ms
Remote clock offset: -32.898 ms

# Below is generated by plot.py at 2019-06-28 14:44:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 276.61 Mbit/s
95th percentile per-packet one-way delay: 135.337 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 218.71 Mbit/s
95th percentile per-packet one-way delay: 136.293 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 64.00 Mbit/s
95th percentile per-packet one-way delay: 133.299 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 50.93 Mbit/s
95th percentile per-packet one-way delay: 132.437 ms
Loss rate: 2.33%
```

### Run 3: Report of Muses\_DecisionTree — Data Link

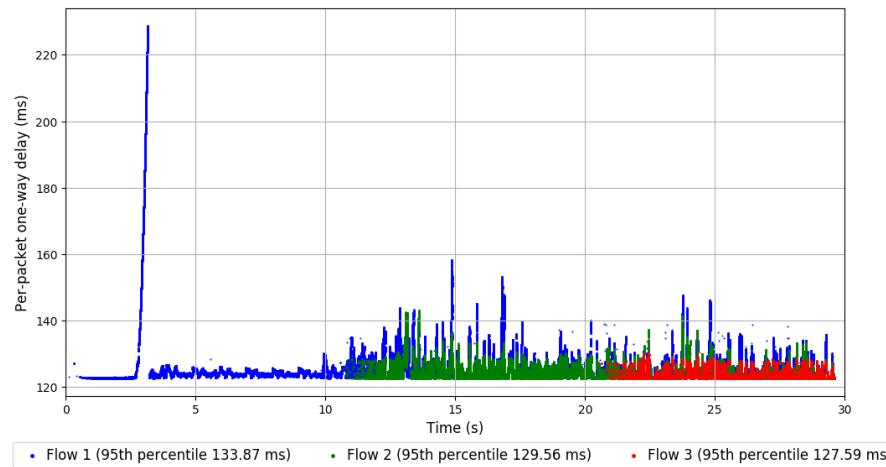
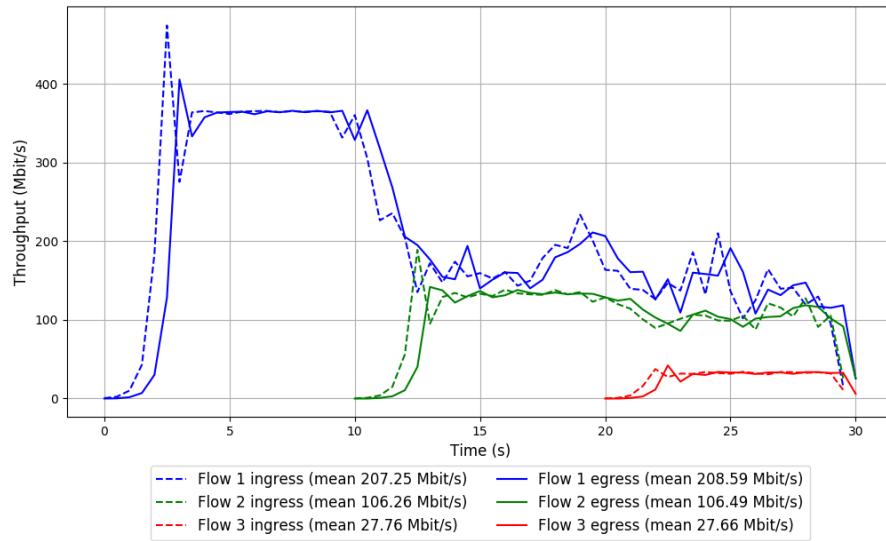


```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 13:34:51
End at: 2019-06-28 13:35:21
Local clock offset: -1.534 ms
Remote clock offset: -28.796 ms

# Below is generated by plot.py at 2019-06-28 14:44:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.45 Mbit/s
95th percentile per-packet one-way delay: 132.371 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 208.59 Mbit/s
95th percentile per-packet one-way delay: 133.870 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 106.49 Mbit/s
95th percentile per-packet one-way delay: 129.563 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 27.66 Mbit/s
95th percentile per-packet one-way delay: 127.588 ms
Loss rate: 2.40%
```

Run 4: Report of Muses\_DecisionTree — Data Link

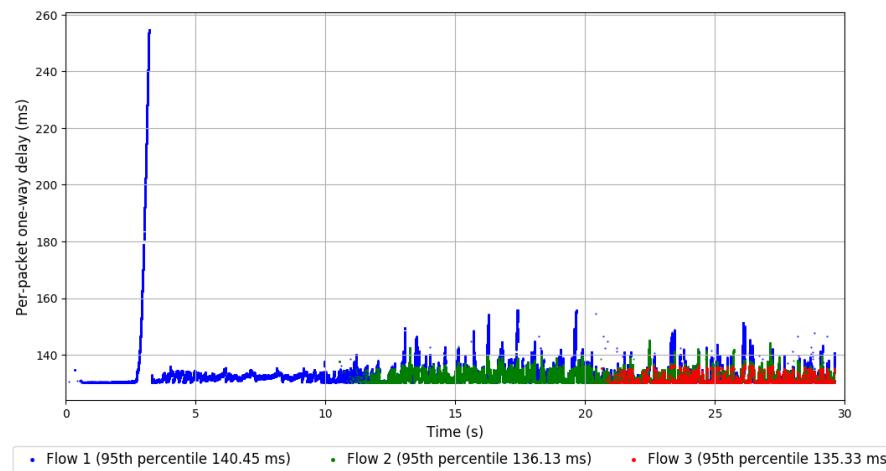
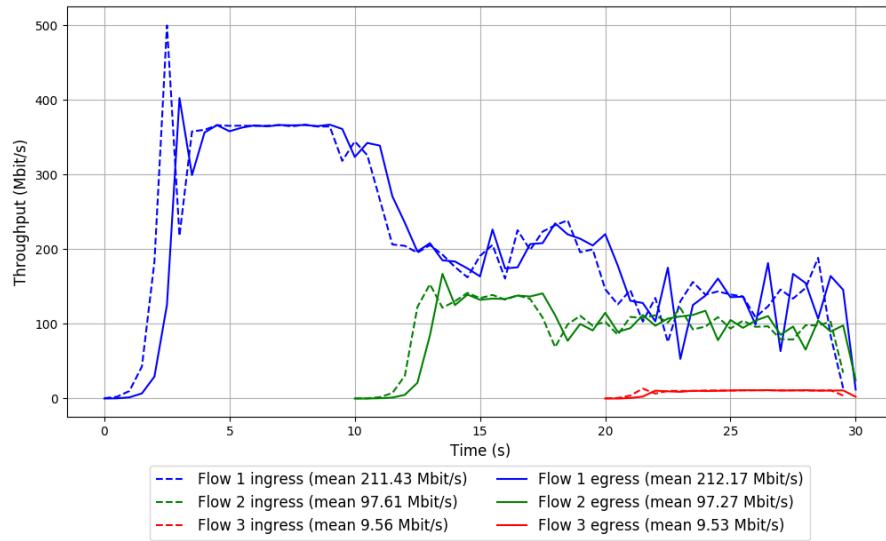


```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 14:07:44
End at: 2019-06-28 14:08:14
Local clock offset: -1.033 ms
Remote clock offset: -36.079 ms

# Below is generated by plot.py at 2019-06-28 14:46:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 278.80 Mbit/s
95th percentile per-packet one-way delay: 138.922 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 212.17 Mbit/s
95th percentile per-packet one-way delay: 140.451 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 97.27 Mbit/s
95th percentile per-packet one-way delay: 136.126 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 135.328 ms
Loss rate: 2.54%
```

Run 5: Report of Muses\_DecisionTree — Data Link

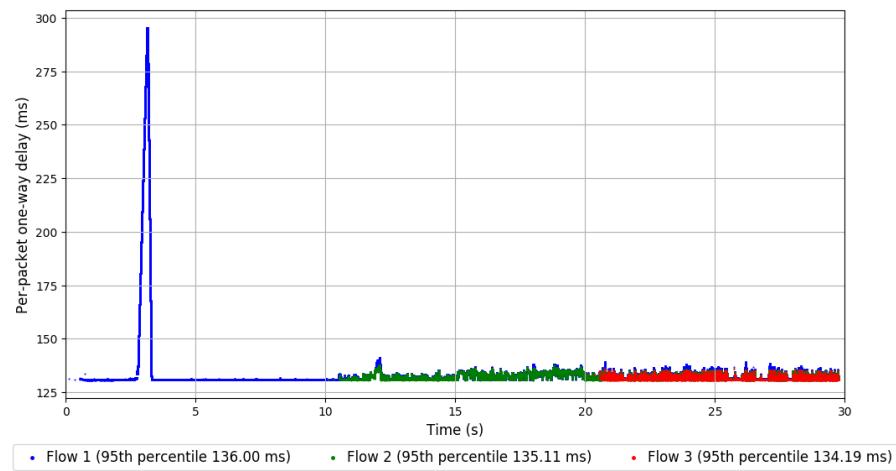
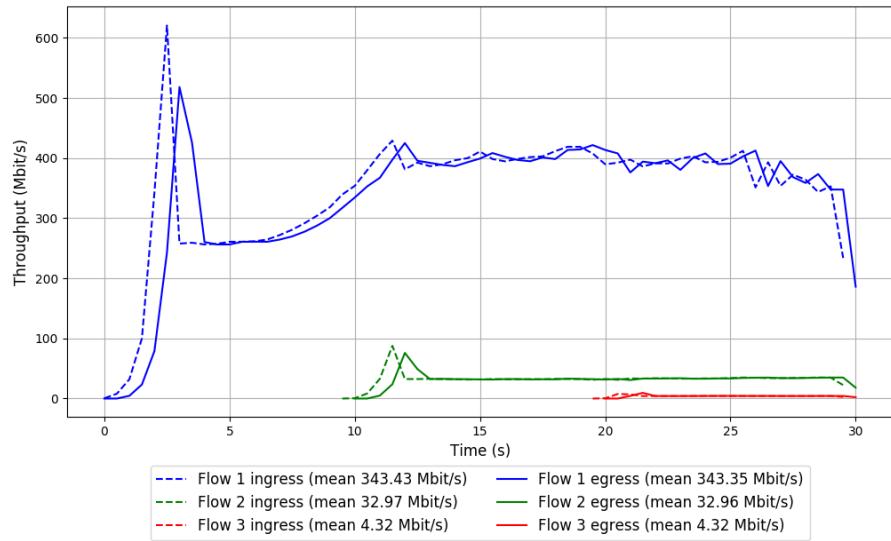


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-06-28 12:00:07
End at: 2019-06-28 12:00:37
Local clock offset: -0.983 ms
Remote clock offset: -34.198 ms

# Below is generated by plot.py at 2019-06-28 14:48:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 366.61 Mbit/s
95th percentile per-packet one-way delay: 135.849 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 343.35 Mbit/s
95th percentile per-packet one-way delay: 136.002 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 32.96 Mbit/s
95th percentile per-packet one-way delay: 135.108 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 134.189 ms
Loss rate: 1.90%
```

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

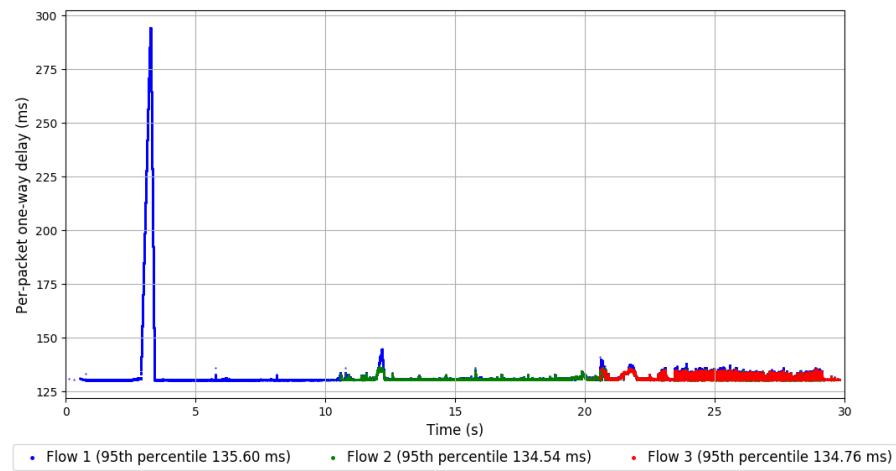
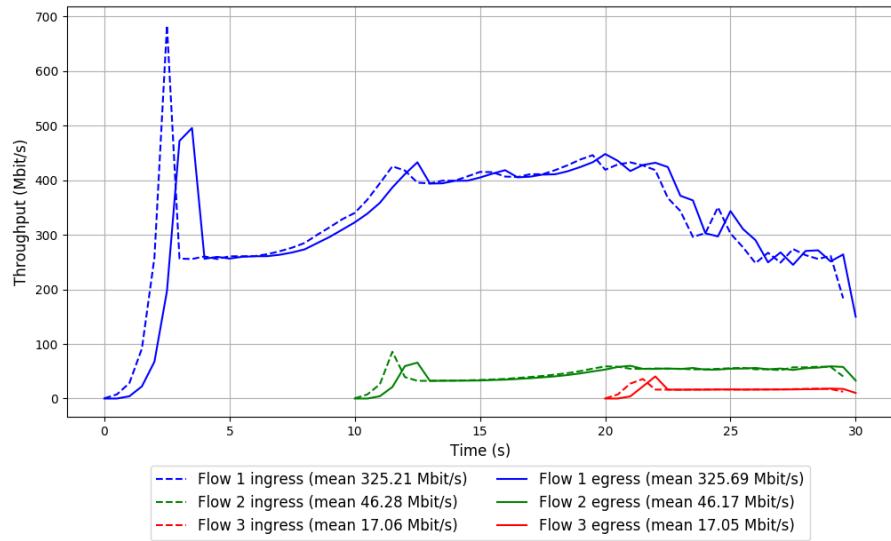


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-06-28 12:32:59
End at: 2019-06-28 12:33:29
Local clock offset: -0.691 ms
Remote clock offset: -35.833 ms

# Below is generated by plot.py at 2019-06-28 14:48:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.80 Mbit/s
95th percentile per-packet one-way delay: 135.102 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 325.69 Mbit/s
95th percentile per-packet one-way delay: 135.596 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 46.17 Mbit/s
95th percentile per-packet one-way delay: 134.536 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 17.05 Mbit/s
95th percentile per-packet one-way delay: 134.762 ms
Loss rate: 2.04%
```

## Run 2: Report of PCC-Allegro — Data Link

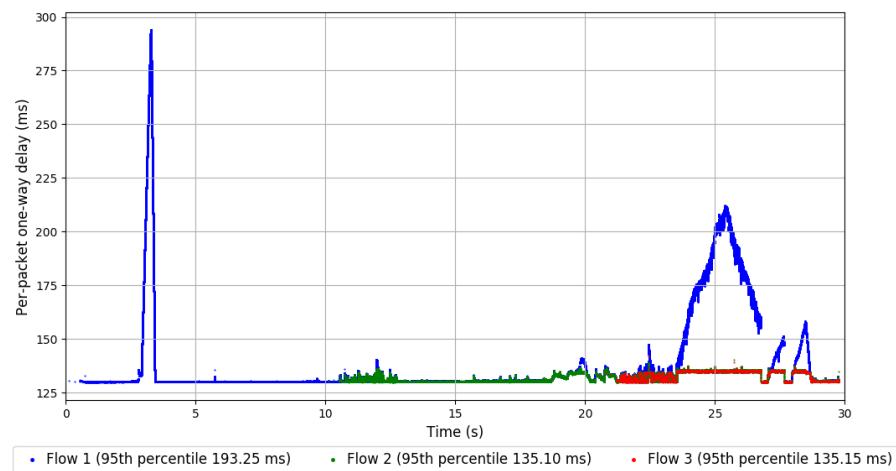
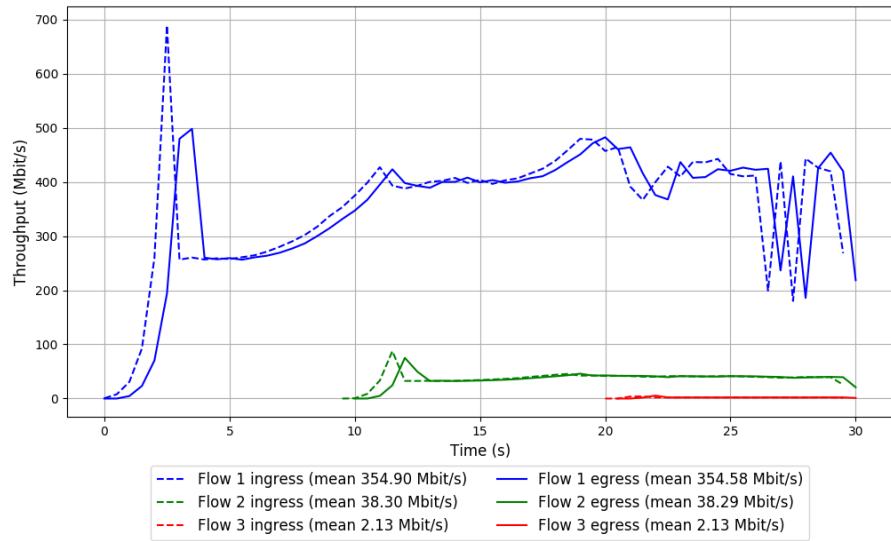


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-06-28 13:06:04
End at: 2019-06-28 13:06:34
Local clock offset: -1.082 ms
Remote clock offset: -35.362 ms

# Below is generated by plot.py at 2019-06-28 14:48:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 380.57 Mbit/s
95th percentile per-packet one-way delay: 191.841 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 354.58 Mbit/s
95th percentile per-packet one-way delay: 193.252 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 38.29 Mbit/s
95th percentile per-packet one-way delay: 135.103 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 135.154 ms
Loss rate: 2.05%
```

Run 3: Report of PCC-Allegro — Data Link

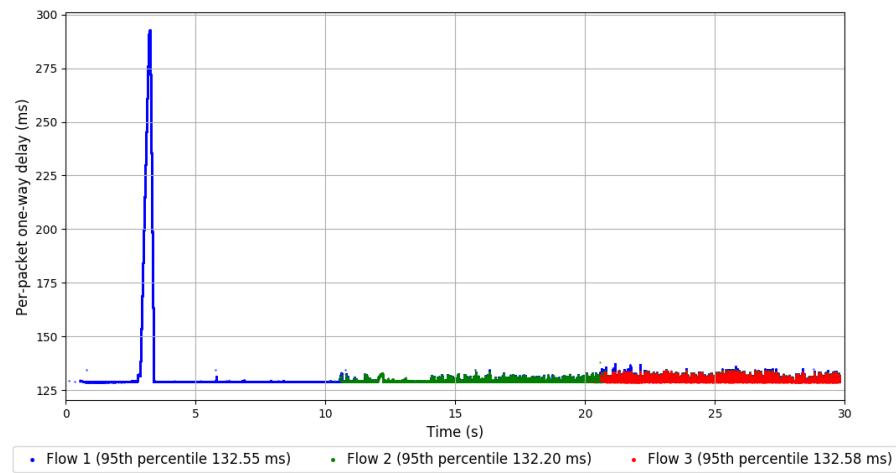
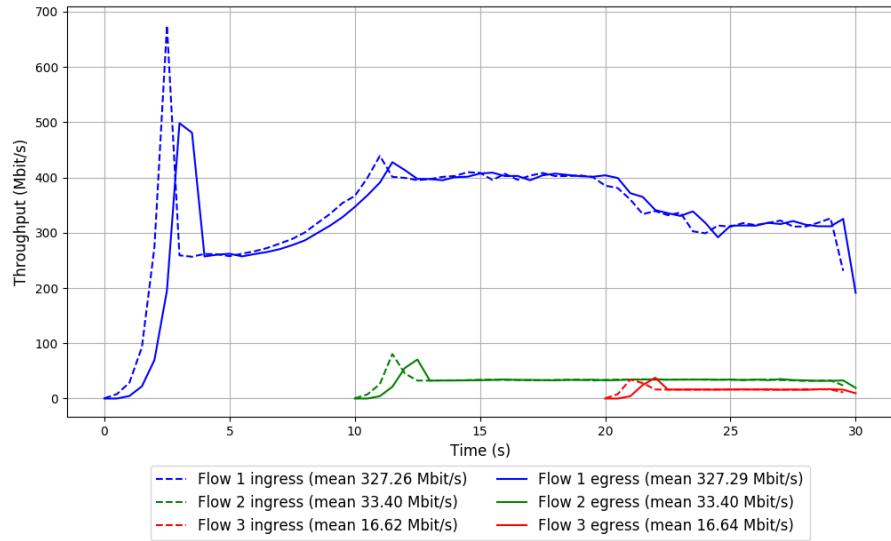


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-06-28 13:39:11
End at: 2019-06-28 13:39:41
Local clock offset: -0.409 ms
Remote clock offset: -34.016 ms

# Below is generated by plot.py at 2019-06-28 14:48:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.79 Mbit/s
95th percentile per-packet one-way delay: 132.501 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 327.29 Mbit/s
95th percentile per-packet one-way delay: 132.547 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 33.40 Mbit/s
95th percentile per-packet one-way delay: 132.198 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 16.64 Mbit/s
95th percentile per-packet one-way delay: 132.582 ms
Loss rate: 1.86%
```

Run 4: Report of PCC-Allegro — Data Link

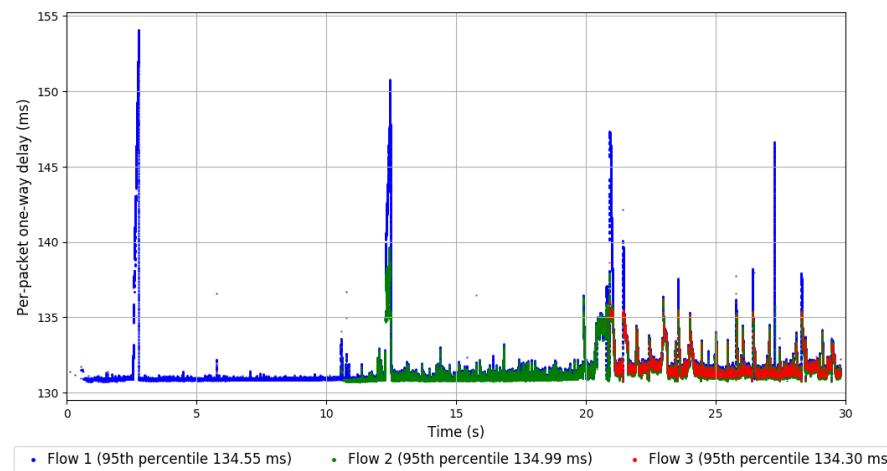
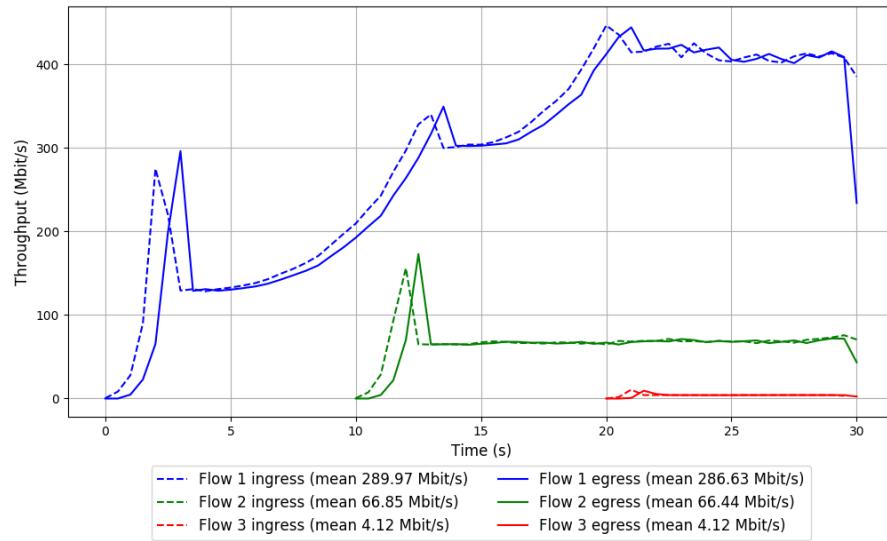


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-06-28 14:12:03
End at: 2019-06-28 14:12:33
Local clock offset: -0.645 ms
Remote clock offset: -36.29 ms

# Below is generated by plot.py at 2019-06-28 14:48:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.00 Mbit/s
95th percentile per-packet one-way delay: 134.608 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 286.63 Mbit/s
95th percentile per-packet one-way delay: 134.549 ms
Loss rate: 3.78%
-- Flow 2:
Average throughput: 66.44 Mbit/s
95th percentile per-packet one-way delay: 134.991 ms
Loss rate: 4.49%
-- Flow 3:
Average throughput: 4.12 Mbit/s
95th percentile per-packet one-way delay: 134.297 ms
Loss rate: 2.46%
```

Run 5: Report of PCC-Allegro — Data Link

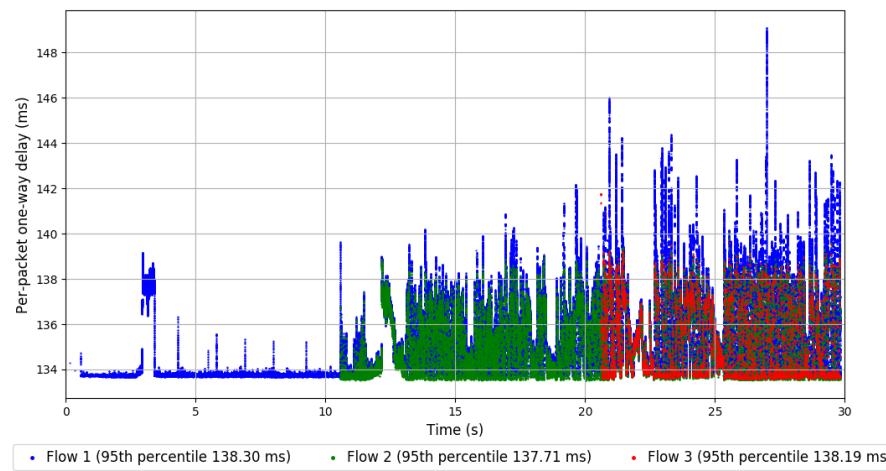
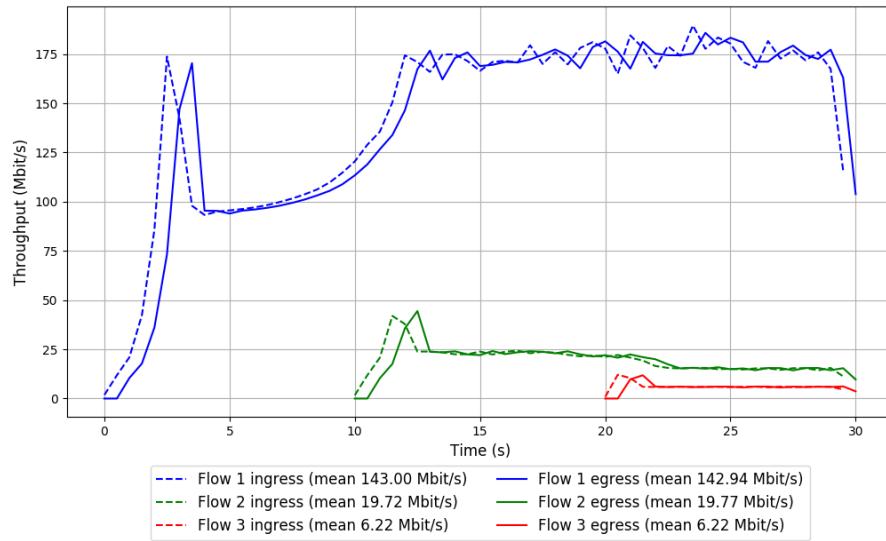


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-06-28 11:51:07
End at: 2019-06-28 11:51:37
Local clock offset: -0.728 ms
Remote clock offset: -36.328 ms

# Below is generated by plot.py at 2019-06-28 14:48:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.06 Mbit/s
95th percentile per-packet one-way delay: 138.219 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 142.94 Mbit/s
95th percentile per-packet one-way delay: 138.298 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 19.77 Mbit/s
95th percentile per-packet one-way delay: 137.709 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 6.22 Mbit/s
95th percentile per-packet one-way delay: 138.187 ms
Loss rate: 1.99%
```

Run 1: Report of PCC-Expr — Data Link

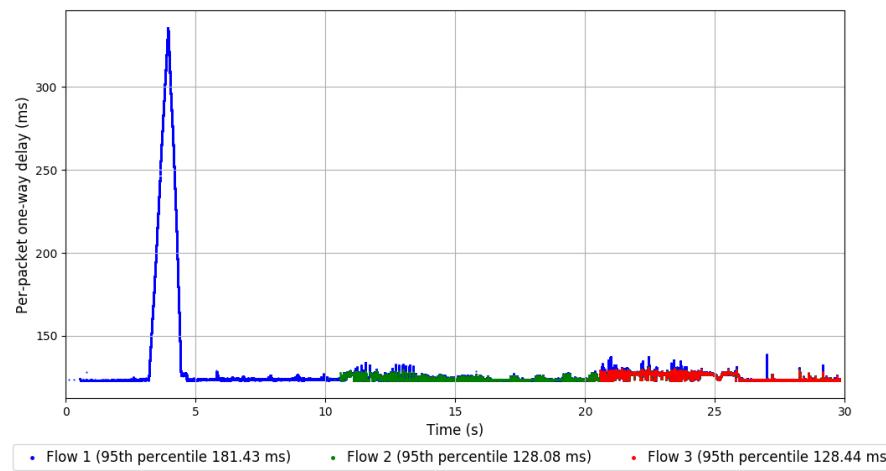
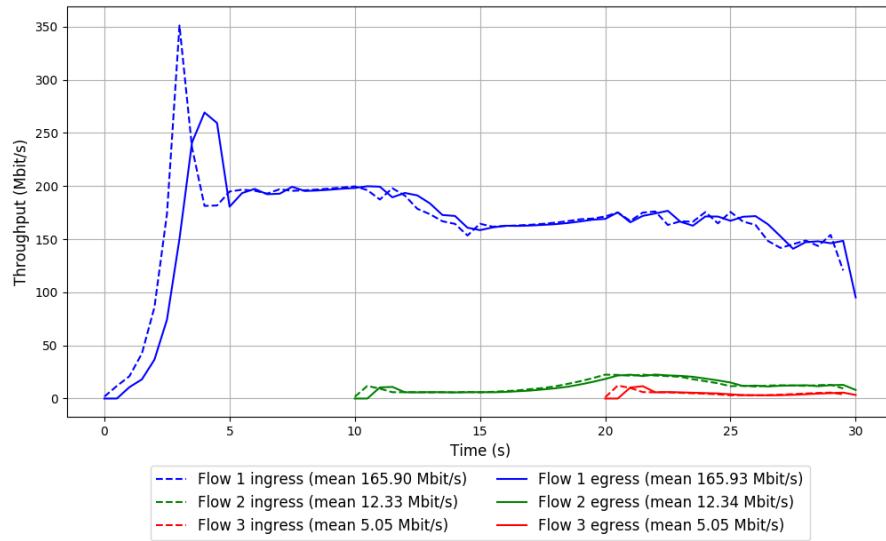


Run 2: Statistics of PCC-Expr

```
Start at: 2019-06-28 12:24:01
End at: 2019-06-28 12:24:31
Local clock offset: -0.905 ms
Remote clock offset: -28.566 ms

# Below is generated by plot.py at 2019-06-28 14:48:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.75 Mbit/s
95th percentile per-packet one-way delay: 172.336 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 165.93 Mbit/s
95th percentile per-packet one-way delay: 181.431 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 12.34 Mbit/s
95th percentile per-packet one-way delay: 128.083 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 128.445 ms
Loss rate: 2.00%
```

Run 2: Report of PCC-Expr — Data Link

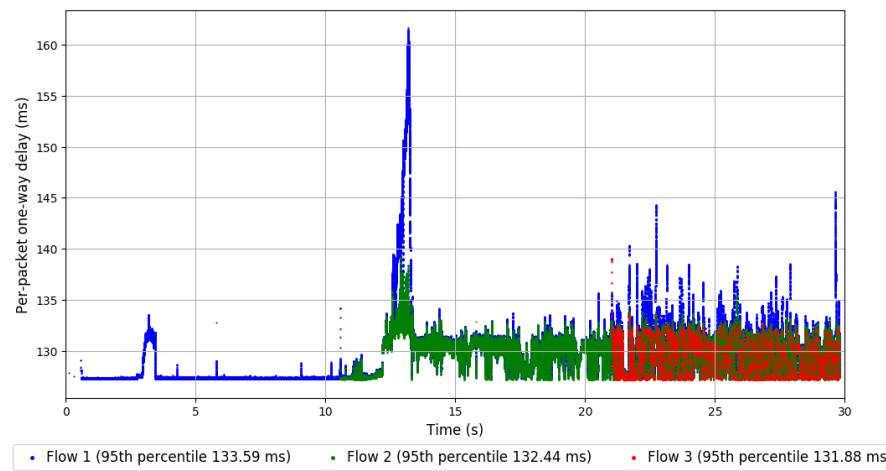
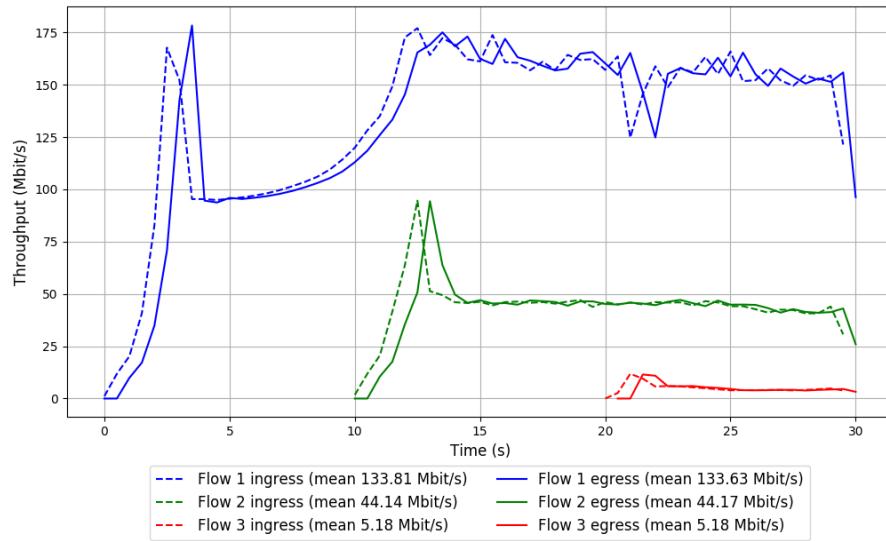


Run 3: Statistics of PCC-Expr

```
Start at: 2019-06-28 12:57:02
End at: 2019-06-28 12:57:32
Local clock offset: -0.852 ms
Remote clock offset: -32.589 ms

# Below is generated by plot.py at 2019-06-28 14:50:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.51 Mbit/s
95th percentile per-packet one-way delay: 133.180 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 133.63 Mbit/s
95th percentile per-packet one-way delay: 133.585 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 44.17 Mbit/s
95th percentile per-packet one-way delay: 132.443 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 131.877 ms
Loss rate: 2.11%
```

### Run 3: Report of PCC-Expr — Data Link

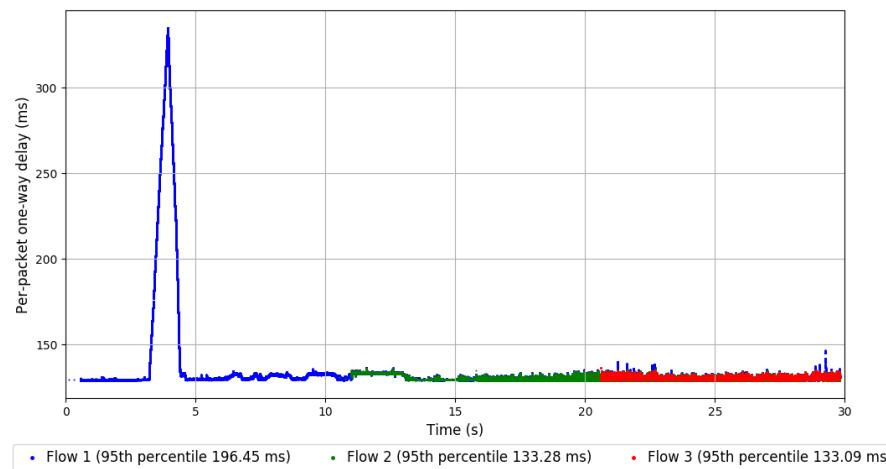
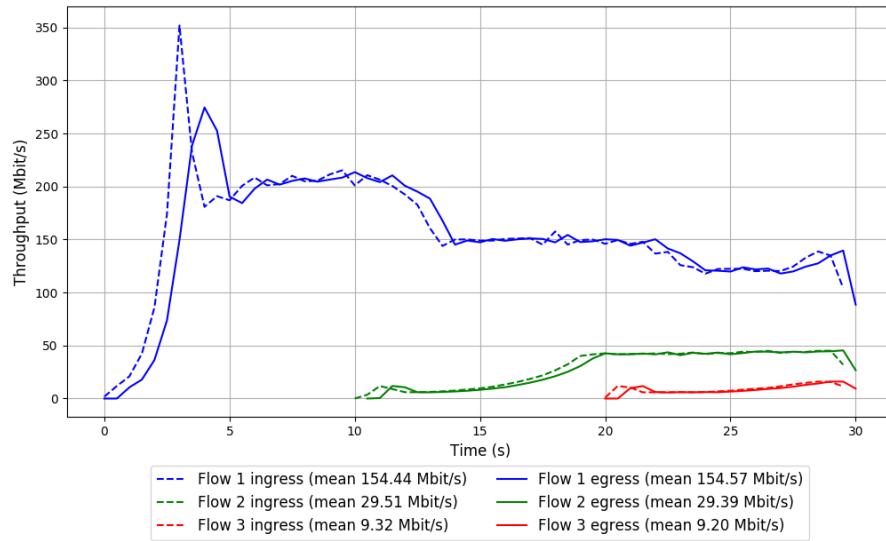


Run 4: Statistics of PCC-Expr

```
Start at: 2019-06-28 13:30:08
End at: 2019-06-28 13:30:38
Local clock offset: -0.204 ms
Remote clock offset: -33.976 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 176.63 Mbit/s
95th percentile per-packet one-way delay: 171.157 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 154.57 Mbit/s
95th percentile per-packet one-way delay: 196.453 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 29.39 Mbit/s
95th percentile per-packet one-way delay: 133.281 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 133.086 ms
Loss rate: 3.26%
```

Run 4: Report of PCC-Expr — Data Link

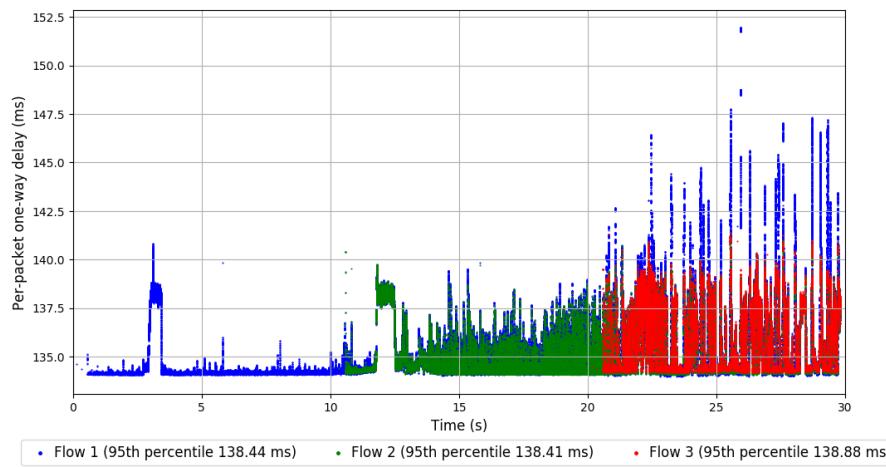
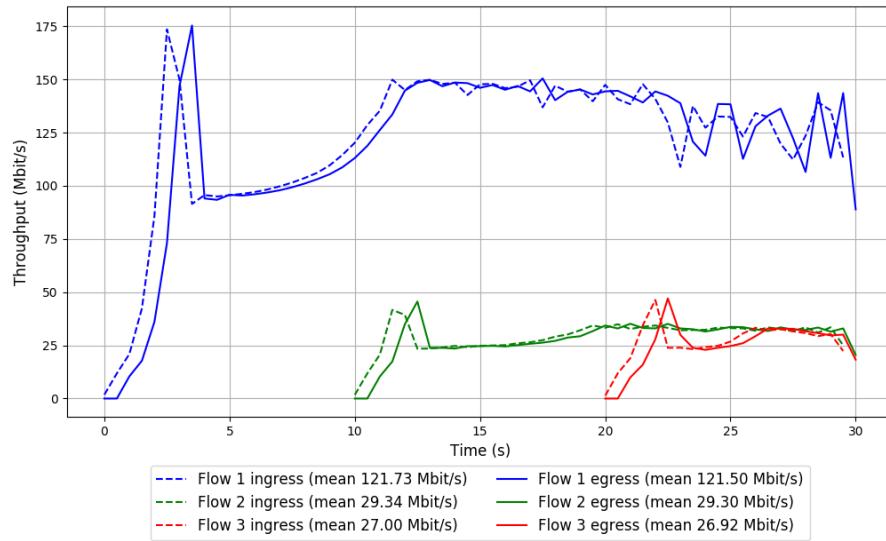


Run 5: Statistics of PCC-Expr

```
Start at: 2019-06-28 14:03:06
End at: 2019-06-28 14:03:36
Local clock offset: -0.716 ms
Remote clock offset: -39.523 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.67 Mbit/s
95th percentile per-packet one-way delay: 138.471 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 121.50 Mbit/s
95th percentile per-packet one-way delay: 138.440 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 29.30 Mbit/s
95th percentile per-packet one-way delay: 138.412 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 26.92 Mbit/s
95th percentile per-packet one-way delay: 138.880 ms
Loss rate: 2.31%
```

Run 5: Report of PCC-Expr — Data Link

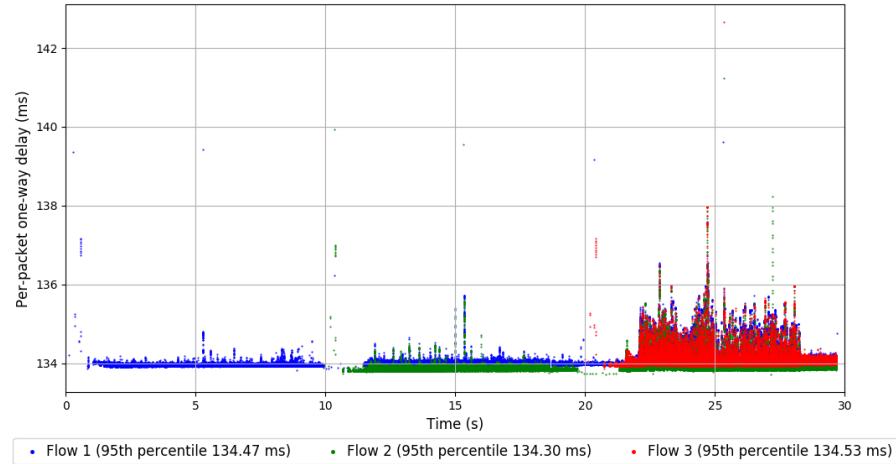
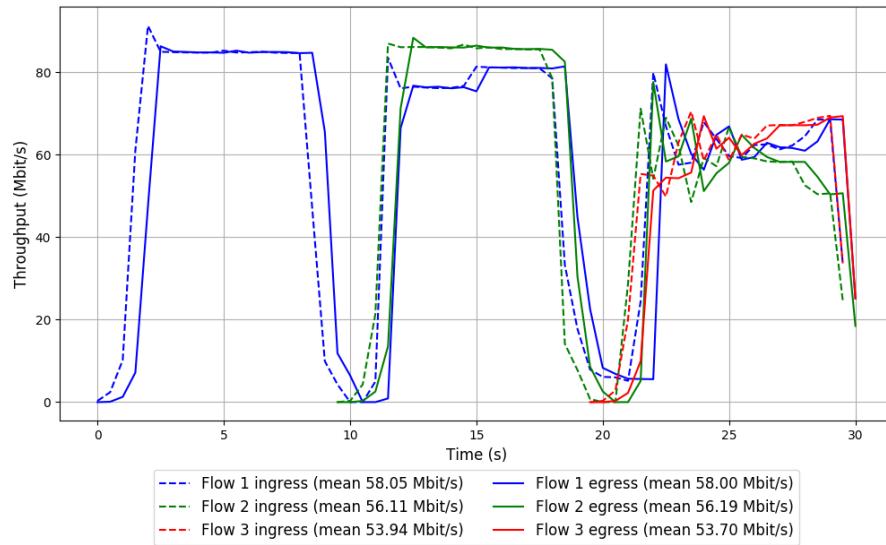


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 11:39:24
End at: 2019-06-28 11:39:54
Local clock offset: -1.002 ms
Remote clock offset: -36.849 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.12 Mbit/s
95th percentile per-packet one-way delay: 134.434 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 134.468 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 56.19 Mbit/s
95th percentile per-packet one-way delay: 134.301 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 53.70 Mbit/s
95th percentile per-packet one-way delay: 134.535 ms
Loss rate: 2.54%
```

Run 1: Report of QUIC Cubic — Data Link

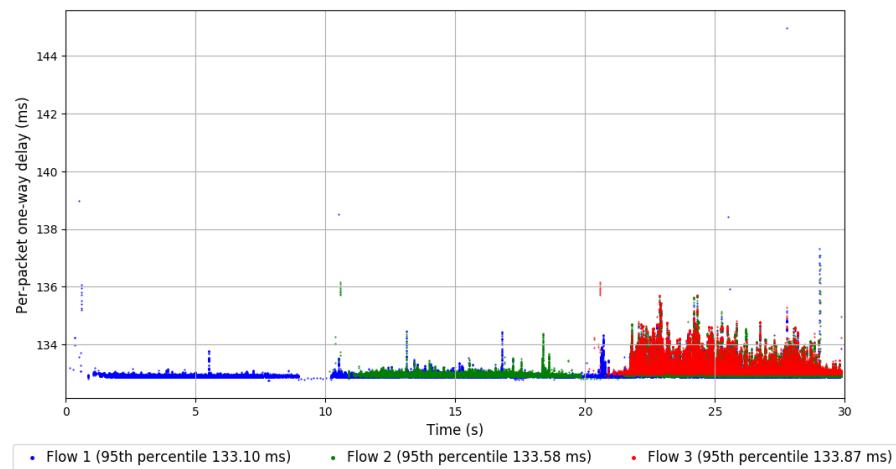
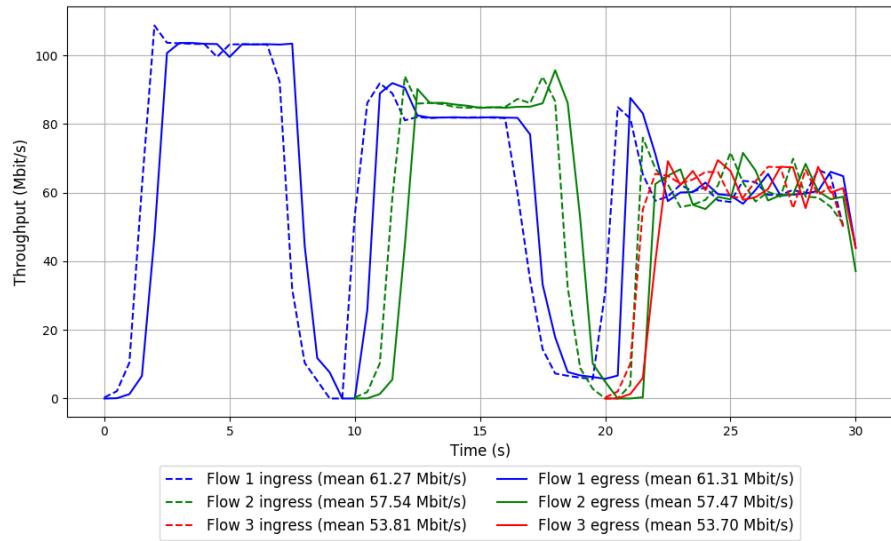


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-06-28 12:12:12
End at: 2019-06-28 12:12:42
Local clock offset: -1.253 ms
Remote clock offset: -37.993 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.96 Mbit/s
95th percentile per-packet one-way delay: 133.490 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 61.31 Mbit/s
95th percentile per-packet one-way delay: 133.104 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 57.47 Mbit/s
95th percentile per-packet one-way delay: 133.579 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 53.70 Mbit/s
95th percentile per-packet one-way delay: 133.872 ms
Loss rate: 2.16%
```

Run 2: Report of QUIC Cubic — Data Link

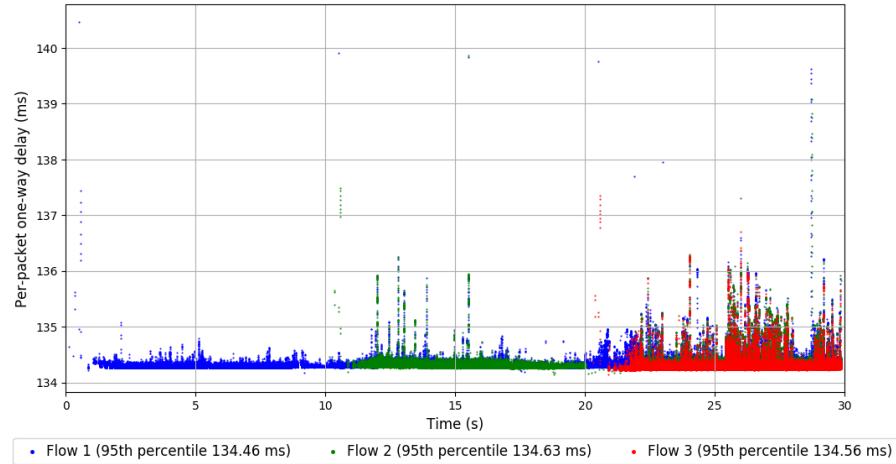
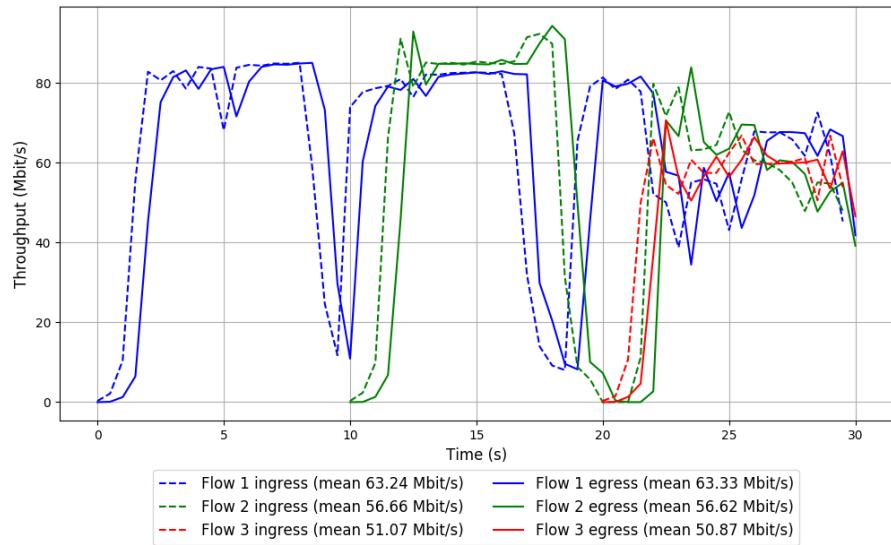


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-06-28 12:45:10
End at: 2019-06-28 12:45:40
Local clock offset: 0.043 ms
Remote clock offset: -38.636 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.47 Mbit/s
95th percentile per-packet one-way delay: 134.530 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 63.33 Mbit/s
95th percentile per-packet one-way delay: 134.460 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 56.62 Mbit/s
95th percentile per-packet one-way delay: 134.628 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 50.87 Mbit/s
95th percentile per-packet one-way delay: 134.559 ms
Loss rate: 2.46%
```

Run 3: Report of QUIC Cubic — Data Link

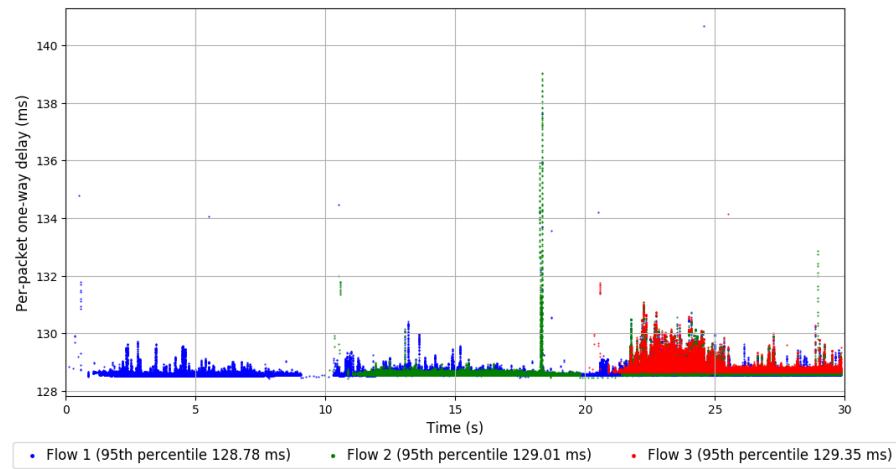
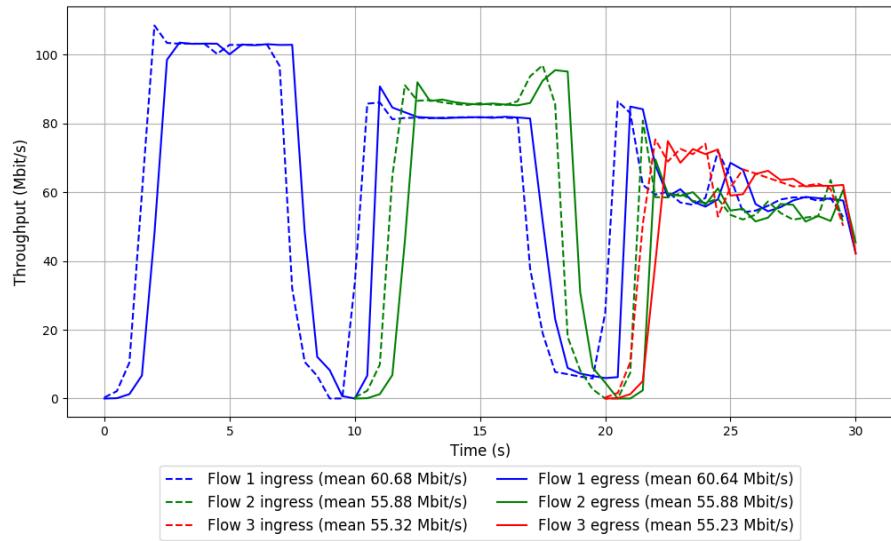


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-06-28 13:18:23
End at: 2019-06-28 13:18:53
Local clock offset: -0.903 ms
Remote clock offset: -33.5 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.74 Mbit/s
95th percentile per-packet one-way delay: 128.999 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 60.64 Mbit/s
95th percentile per-packet one-way delay: 128.775 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 129.012 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 55.23 Mbit/s
95th percentile per-packet one-way delay: 129.347 ms
Loss rate: 2.13%
```

Run 4: Report of QUIC Cubic — Data Link

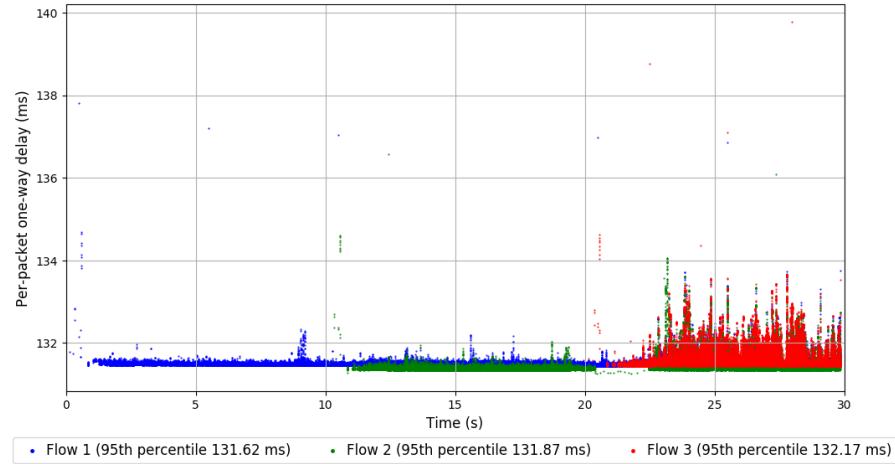
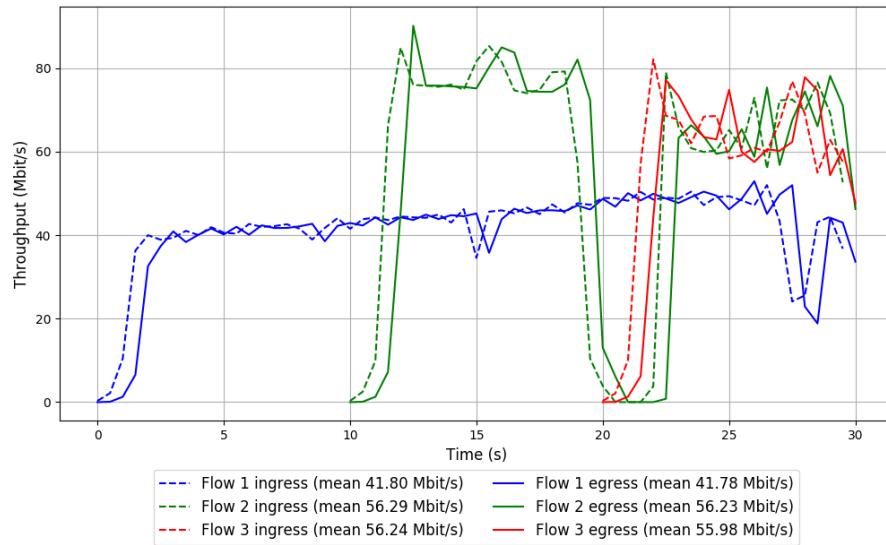


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-06-28 13:51:21
End at: 2019-06-28 13:51:51
Local clock offset: -0.174 ms
Remote clock offset: -35.784 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.34 Mbit/s
95th percentile per-packet one-way delay: 131.874 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 41.78 Mbit/s
95th percentile per-packet one-way delay: 131.618 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 56.23 Mbit/s
95th percentile per-packet one-way delay: 131.865 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 55.98 Mbit/s
95th percentile per-packet one-way delay: 132.173 ms
Loss rate: 2.42%
```

Run 5: Report of QUIC Cubic — Data Link

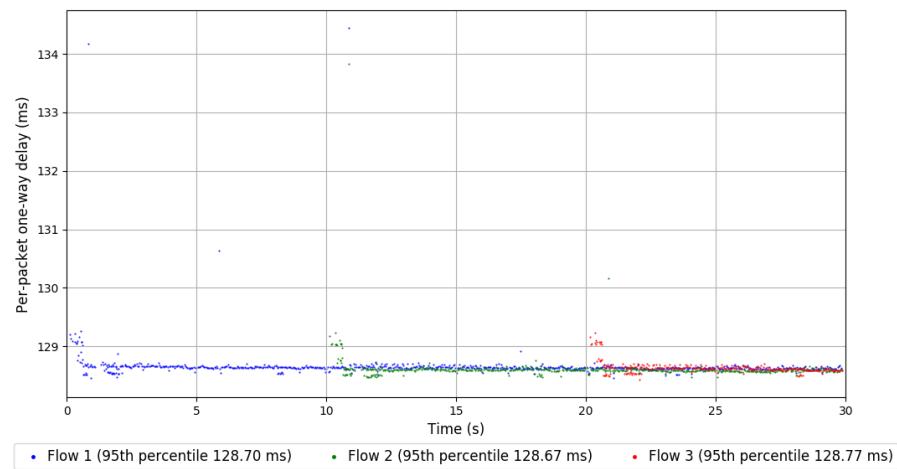
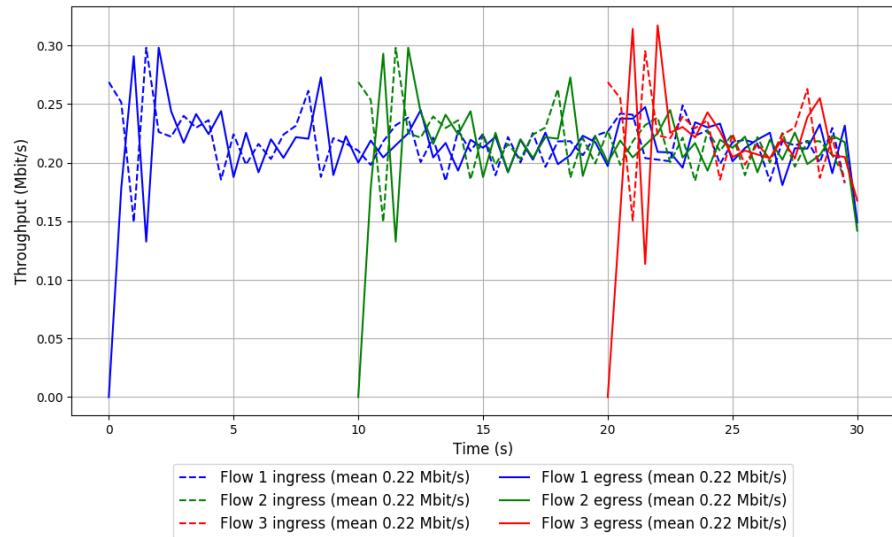


Run 1: Statistics of SCReAM

```
Start at: 2019-06-28 11:57:20
End at: 2019-06-28 11:57:50
Local clock offset: -0.634 ms
Remote clock offset: -31.529 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 128.710 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 128.704 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 128.672 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 128.772 ms
Loss rate: 1.82%
```

Run 1: Report of SCReAM — Data Link

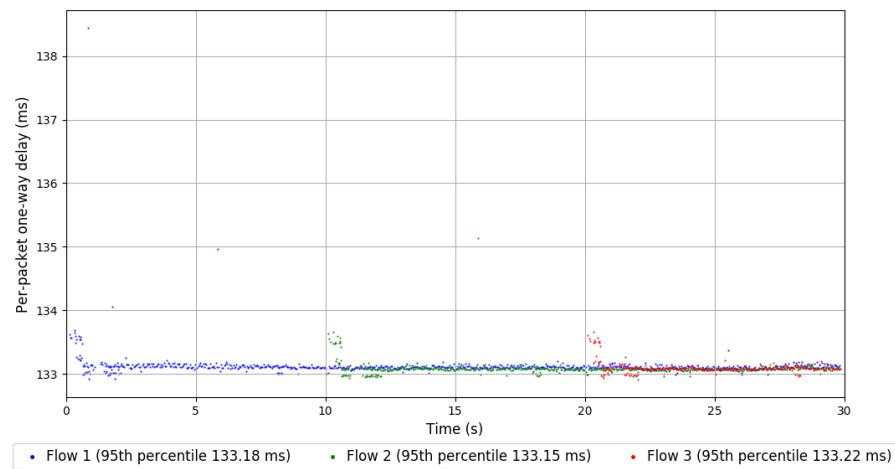
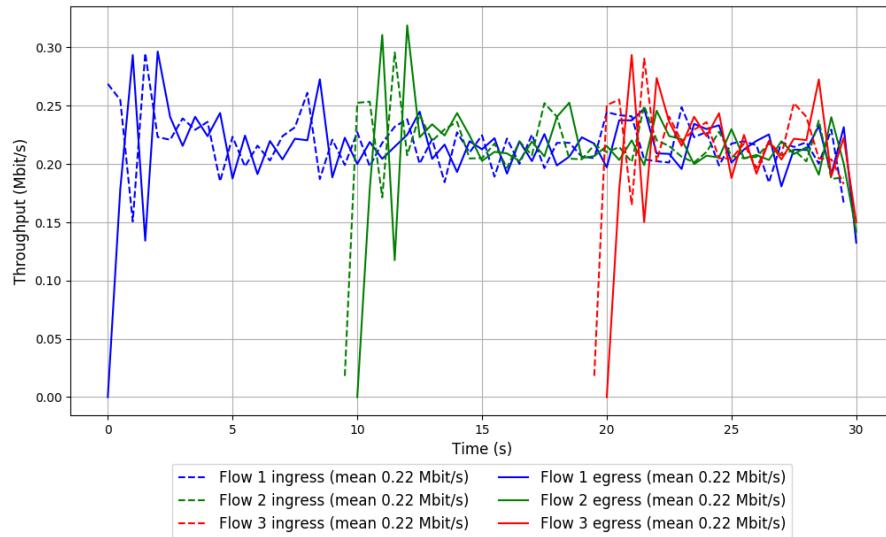


Run 2: Statistics of SCReAM

```
Start at: 2019-06-28 12:30:11
End at: 2019-06-28 12:30:41
Local clock offset: -0.653 ms
Remote clock offset: -38.333 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 133.179 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 133.177 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 133.146 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 133.215 ms
Loss rate: 1.82%
```

Run 2: Report of SCReAM — Data Link

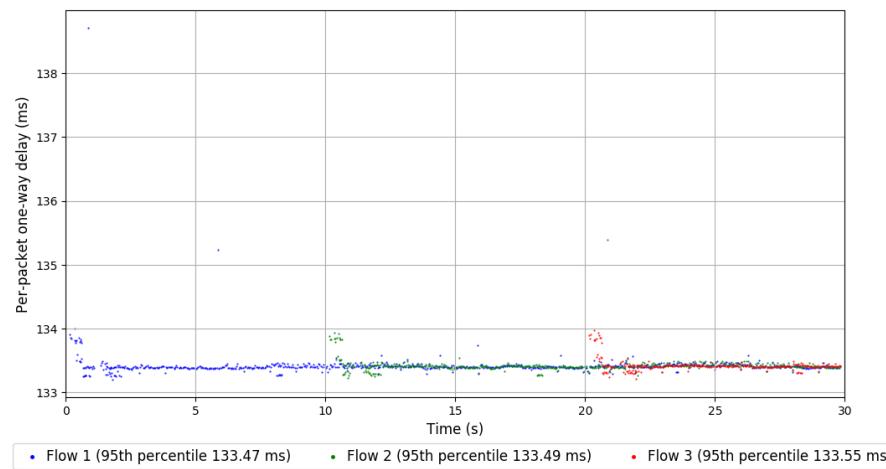
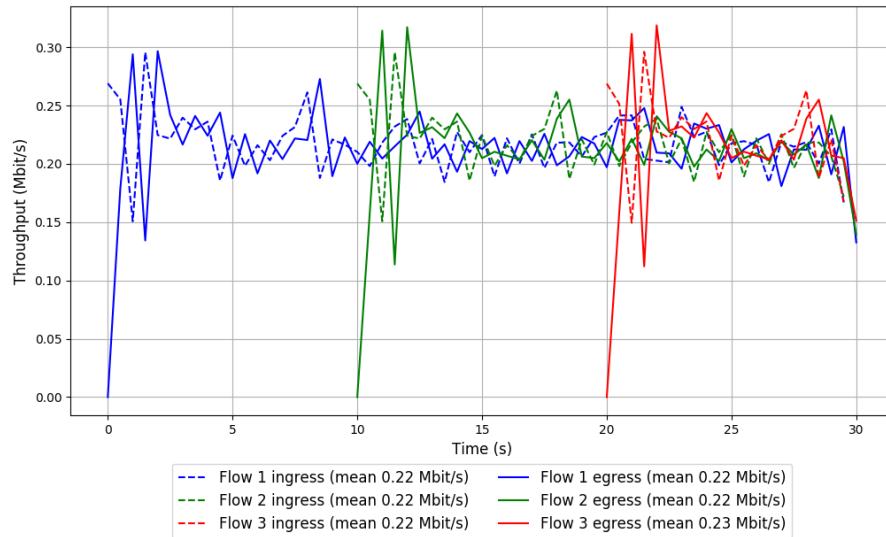


Run 3: Statistics of SCReAM

```
Start at: 2019-06-28 13:03:17
End at: 2019-06-28 13:03:47
Local clock offset: -0.441 ms
Remote clock offset: -38.198 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 133.487 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 133.471 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 133.487 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 133.552 ms
Loss rate: 1.85%
```

### Run 3: Report of SCReAM — Data Link

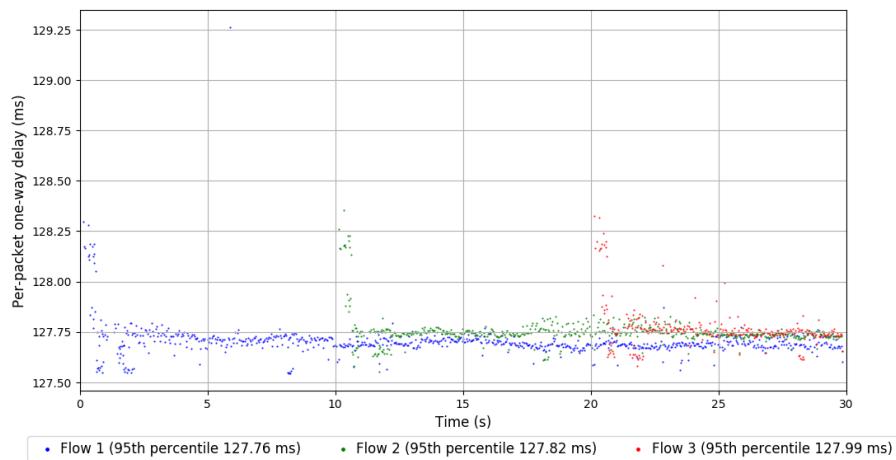
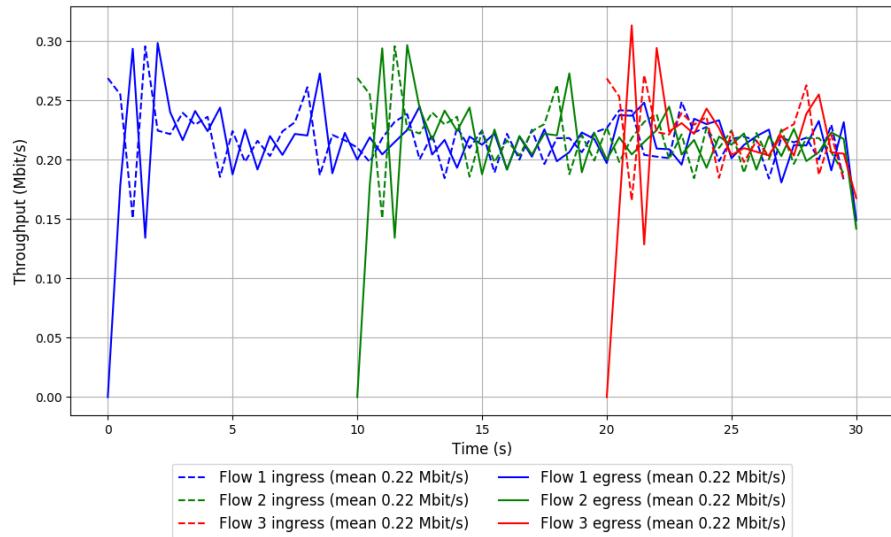


Run 4: Statistics of SCReAM

```
Start at: 2019-06-28 13:36:24
End at: 2019-06-28 13:36:54
Local clock offset: -1.305 ms
Remote clock offset: -33.54 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 127.819 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 127.763 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 127.820 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 127.992 ms
Loss rate: 1.82%
```

Run 4: Report of SCReAM — Data Link

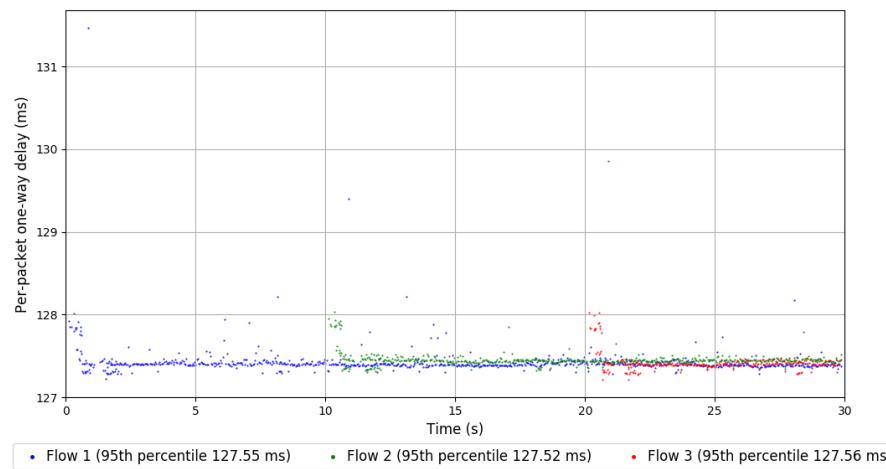
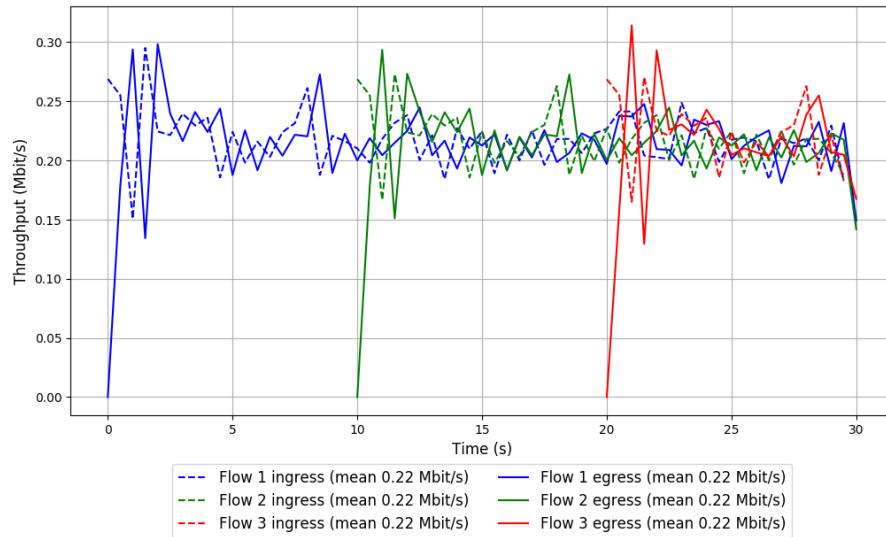


Run 5: Statistics of SCReAM

```
Start at: 2019-06-28 14:09:16
End at: 2019-06-28 14:09:46
Local clock offset: -0.582 ms
Remote clock offset: -32.617 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 127.547 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 127.552 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 127.522 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 127.560 ms
Loss rate: 1.82%
```

Run 5: Report of SCReAM — Data Link

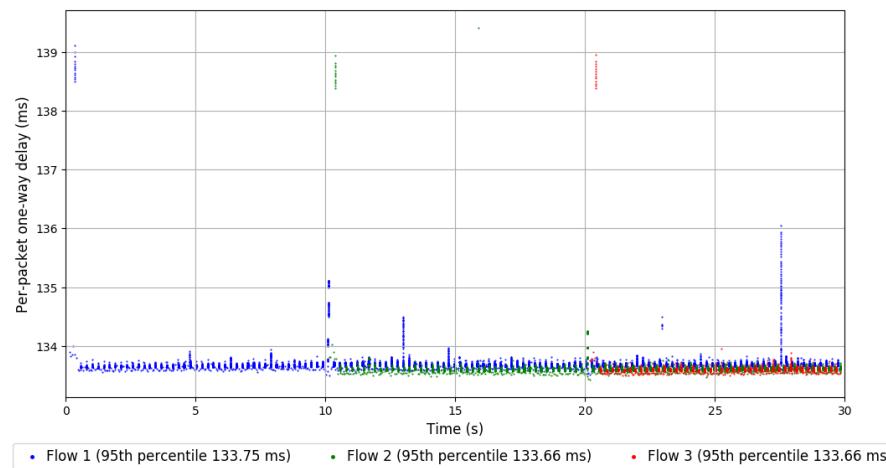
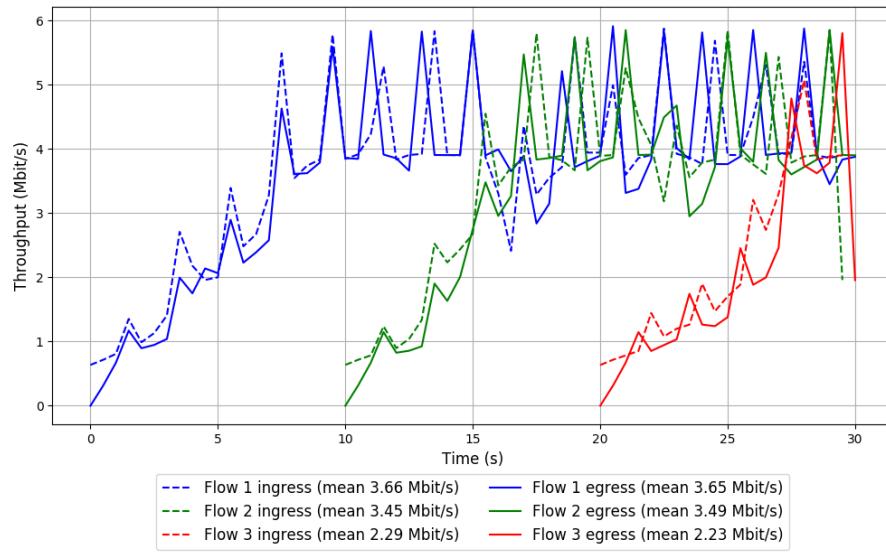


Run 1: Statistics of Sprout

```
Start at: 2019-06-28 11:42:18
End at: 2019-06-28 11:42:48
Local clock offset: -0.713 ms
Remote clock offset: -35.997 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 133.728 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 133.755 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 133.661 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 133.658 ms
Loss rate: 4.33%
```

Run 1: Report of Sprout — Data Link

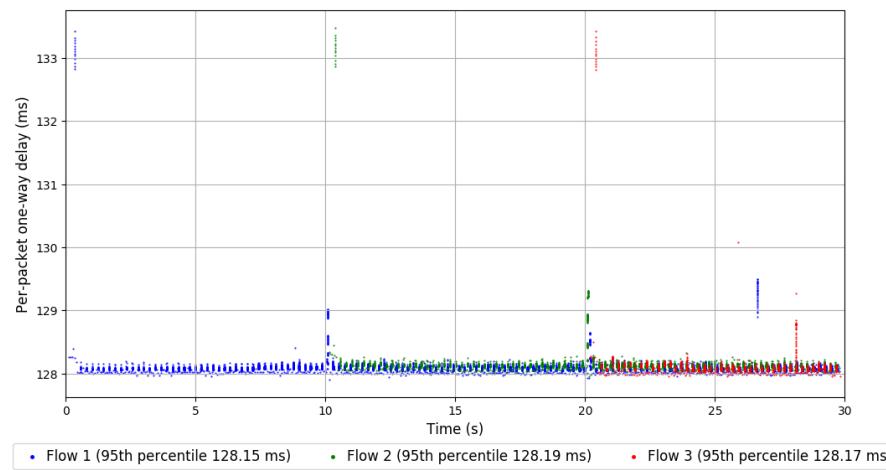
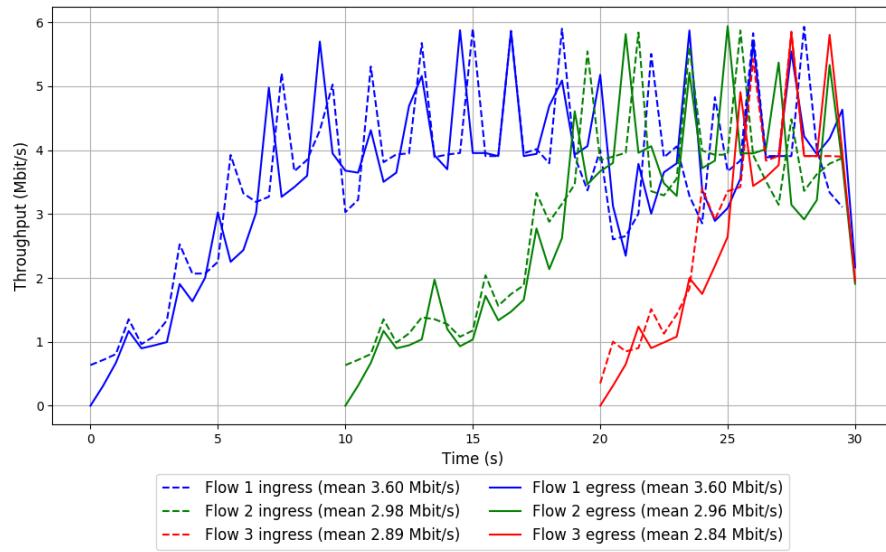


Run 2: Statistics of Sprout

```
Start at: 2019-06-28 12:15:09
End at: 2019-06-28 12:15:39
Local clock offset: -1.084 ms
Remote clock offset: -33.009 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.48 Mbit/s
95th percentile per-packet one-way delay: 128.165 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 128.148 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 128.189 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 128.166 ms
Loss rate: 3.43%
```

## Run 2: Report of Sprout — Data Link

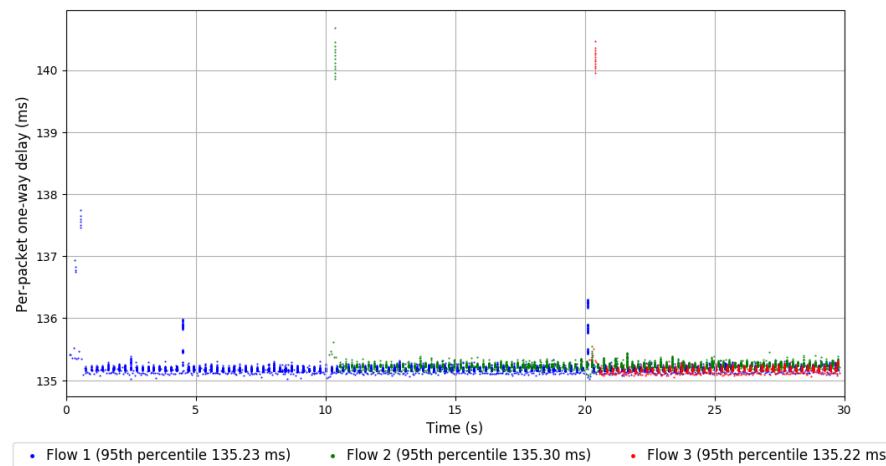
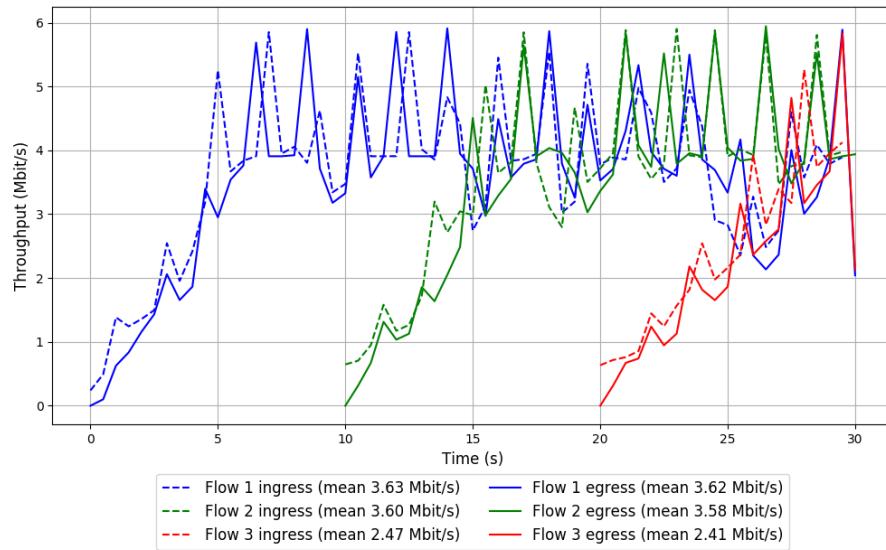


Run 3: Statistics of Sprout

```
Start at: 2019-06-28 12:48:08
End at: 2019-06-28 12:48:38
Local clock offset: -0.672 ms
Remote clock offset: -40.159 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 135.276 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 135.234 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 135.297 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 2.41 Mbit/s
95th percentile per-packet one-way delay: 135.224 ms
Loss rate: 4.11%
```

### Run 3: Report of Sprout — Data Link

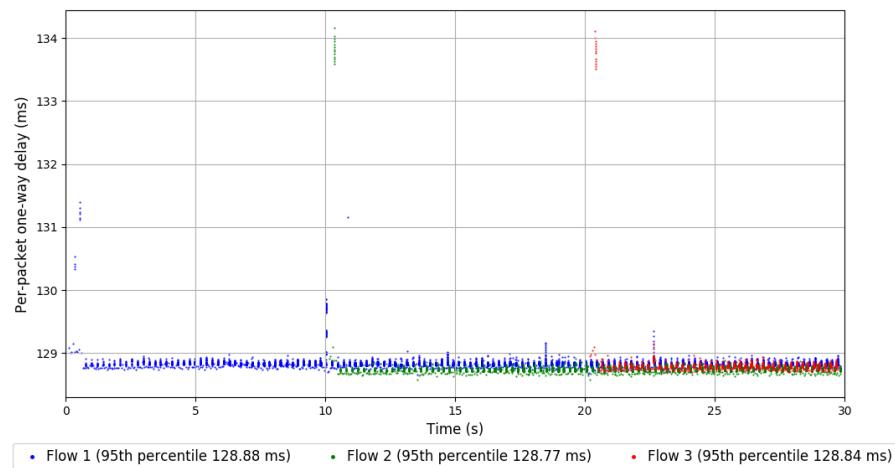
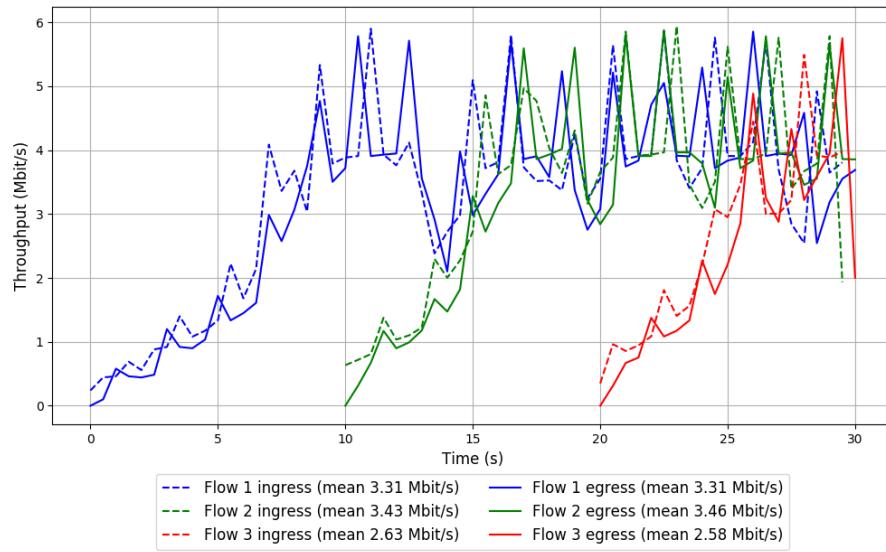


Run 4: Statistics of Sprout

```
Start at: 2019-06-28 13:21:20
End at: 2019-06-28 13:21:50
Local clock offset: -0.63 ms
Remote clock offset: -33.32 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 128.856 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 3.31 Mbit/s
95th percentile per-packet one-way delay: 128.876 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 128.769 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 128.844 ms
Loss rate: 3.83%
```

Run 4: Report of Sprout — Data Link

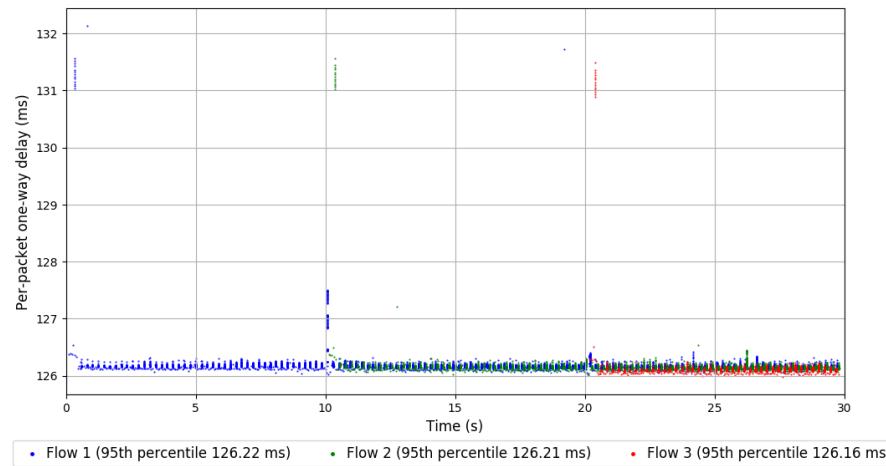
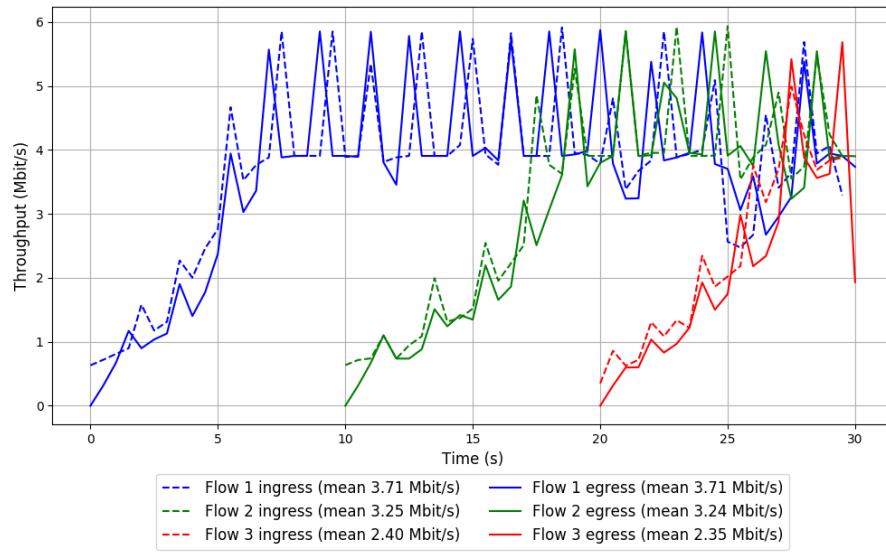


Run 5: Statistics of Sprout

```
Start at: 2019-06-28 13:54:20
End at: 2019-06-28 13:54:50
Local clock offset: -0.338 ms
Remote clock offset: -30.81 ms

# Below is generated by plot.py at 2019-06-28 14:51:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 126.217 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 126.224 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 126.211 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 126.164 ms
Loss rate: 4.14%
```

Run 5: Report of Sprout — Data Link

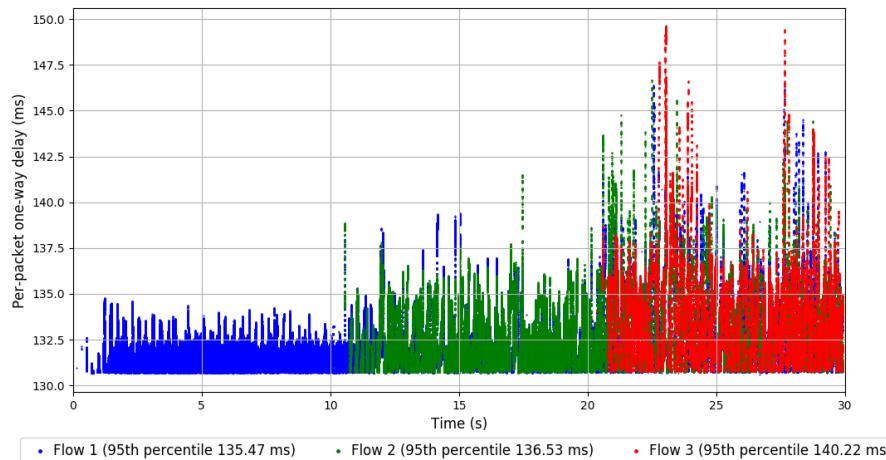
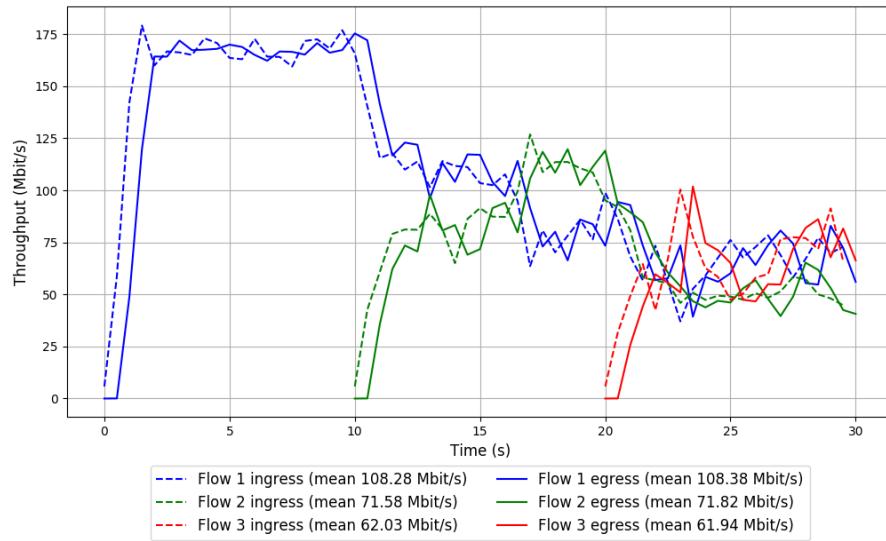


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-06-28 11:33:31
End at: 2019-06-28 11:34:01
Local clock offset: -1.258 ms
Remote clock offset: -34.473 ms

# Below is generated by plot.py at 2019-06-28 14:53:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 176.34 Mbit/s
95th percentile per-packet one-way delay: 136.444 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 108.38 Mbit/s
95th percentile per-packet one-way delay: 135.474 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 71.82 Mbit/s
95th percentile per-packet one-way delay: 136.527 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 61.94 Mbit/s
95th percentile per-packet one-way delay: 140.217 ms
Loss rate: 2.21%
```

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

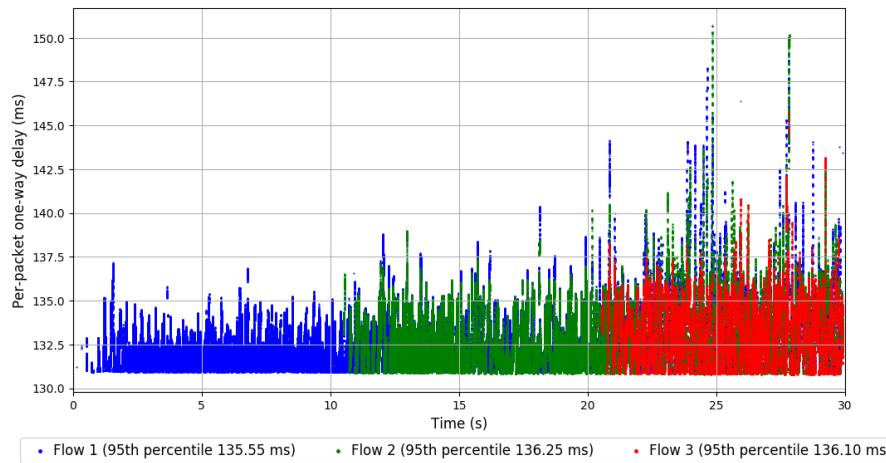
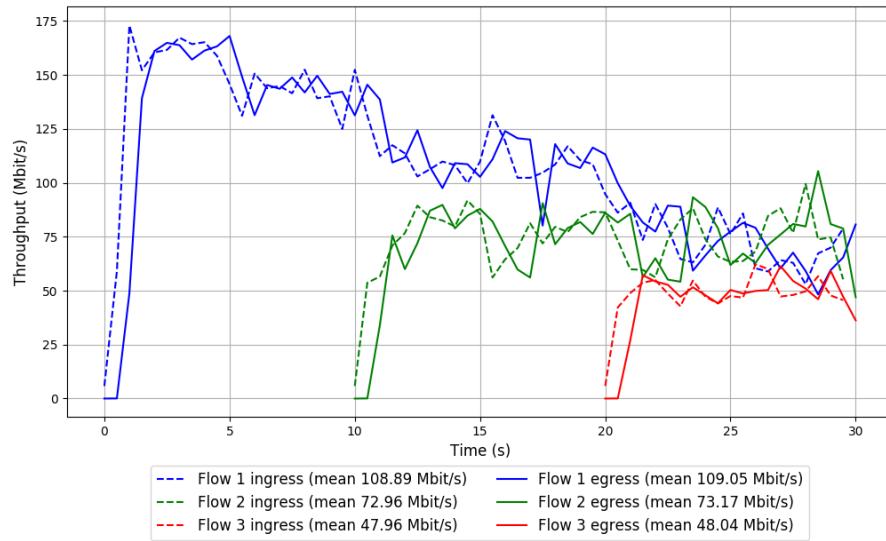


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-06-28 12:06:17
End at: 2019-06-28 12:06:47
Local clock offset: -0.755 ms
Remote clock offset: -35.047 ms

# Below is generated by plot.py at 2019-06-28 14:53:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 173.34 Mbit/s
95th percentile per-packet one-way delay: 135.857 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 109.05 Mbit/s
95th percentile per-packet one-way delay: 135.548 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 73.17 Mbit/s
95th percentile per-packet one-way delay: 136.248 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 48.04 Mbit/s
95th percentile per-packet one-way delay: 136.100 ms
Loss rate: 1.87%
```

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

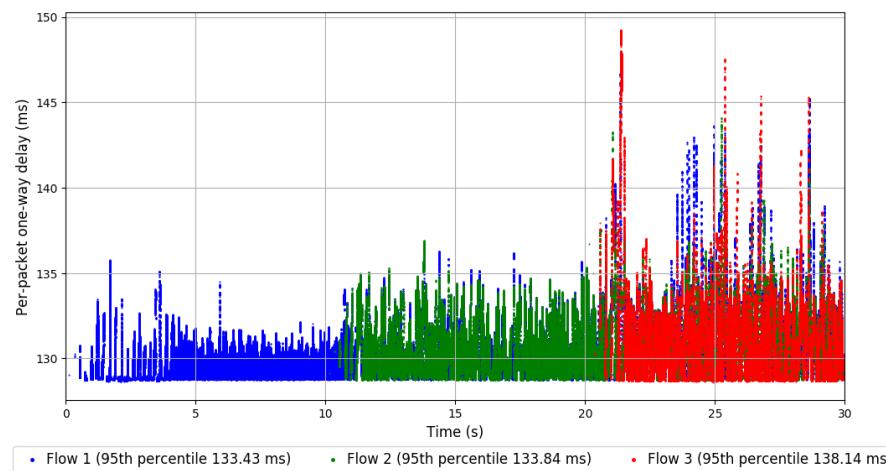
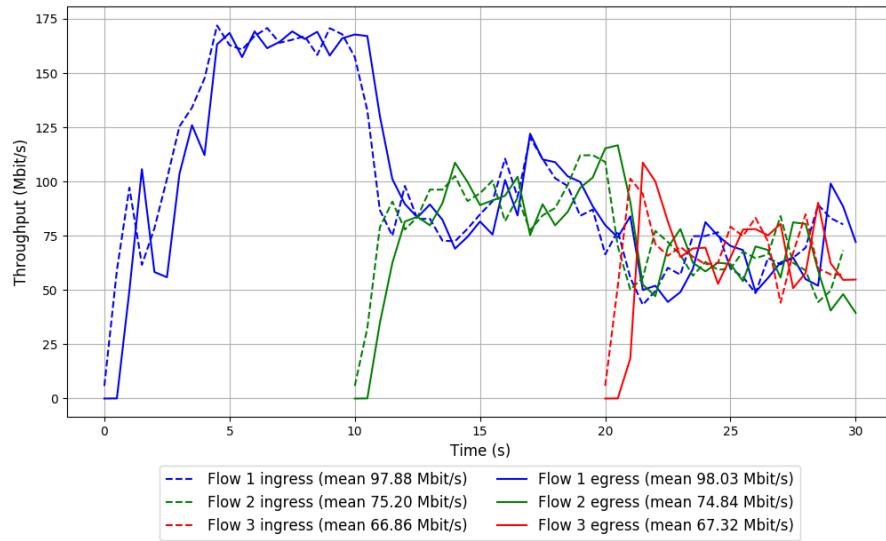


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-06-28 12:39:14
End at: 2019-06-28 12:39:44
Local clock offset: -0.18 ms
Remote clock offset: -33.389 ms

# Below is generated by plot.py at 2019-06-28 14:53:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.74 Mbit/s
95th percentile per-packet one-way delay: 133.941 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 98.03 Mbit/s
95th percentile per-packet one-way delay: 133.430 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 74.84 Mbit/s
95th percentile per-packet one-way delay: 133.844 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 67.32 Mbit/s
95th percentile per-packet one-way delay: 138.139 ms
Loss rate: 1.27%
```

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

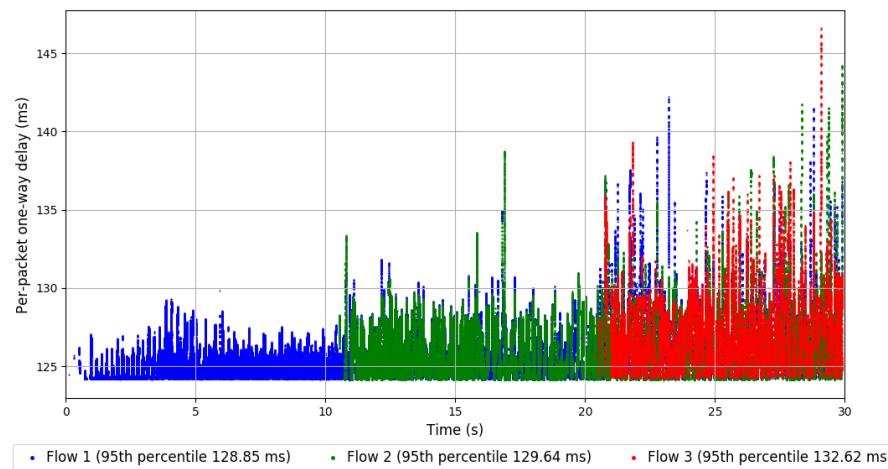
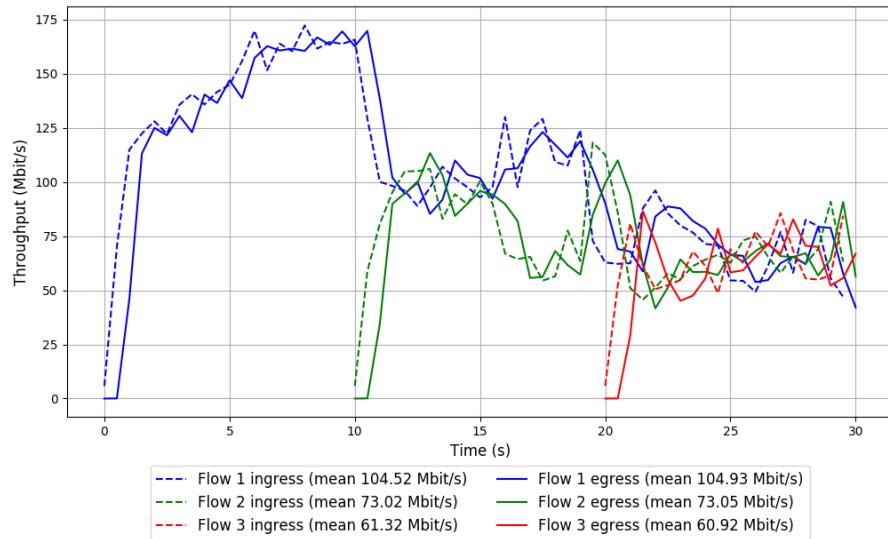


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-06-28 13:12:25
End at: 2019-06-28 13:12:55
Local clock offset: -0.161 ms
Remote clock offset: -28.103 ms

# Below is generated by plot.py at 2019-06-28 14:53:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 173.33 Mbit/s
95th percentile per-packet one-way delay: 129.595 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 104.93 Mbit/s
95th percentile per-packet one-way delay: 128.854 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 73.05 Mbit/s
95th percentile per-packet one-way delay: 129.642 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 60.92 Mbit/s
95th percentile per-packet one-way delay: 132.622 ms
Loss rate: 2.64%
```

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

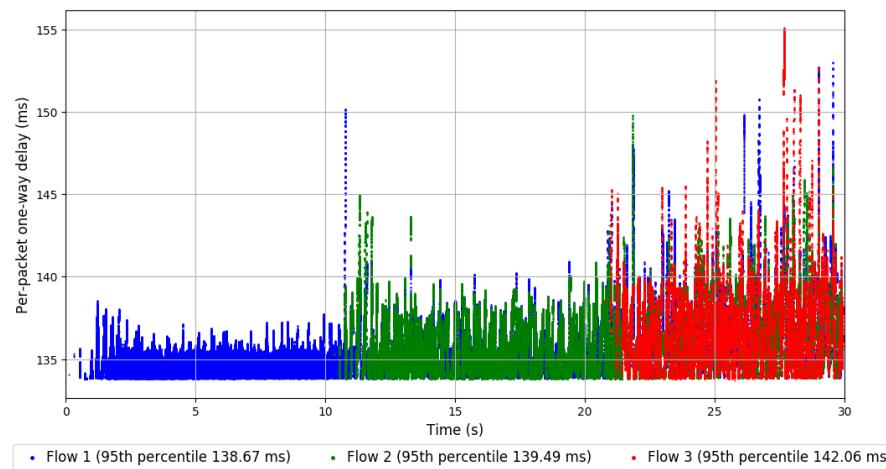
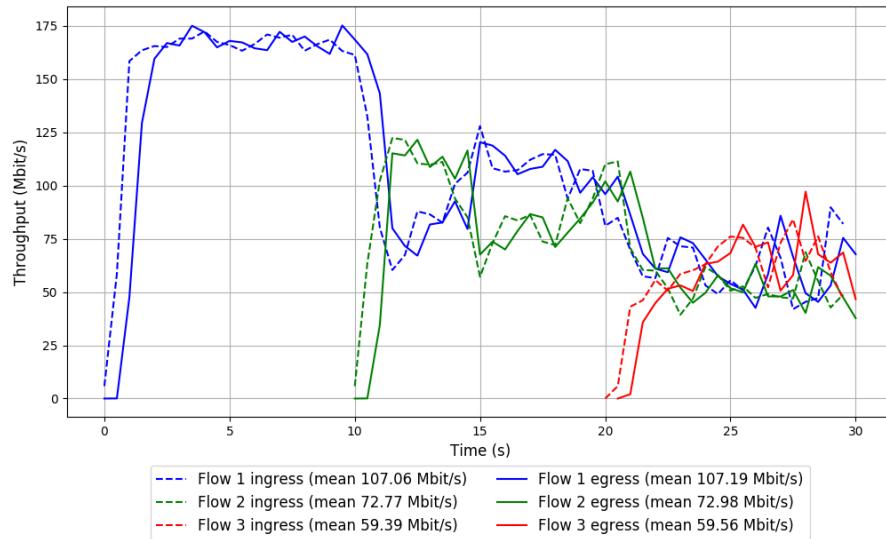


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-06-28 13:45:24
End at: 2019-06-28 13:45:54
Local clock offset: -0.375 ms
Remote clock offset: -38.031 ms

# Below is generated by plot.py at 2019-06-28 14:53:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 174.29 Mbit/s
95th percentile per-packet one-way delay: 139.417 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 107.19 Mbit/s
95th percentile per-packet one-way delay: 138.668 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 72.98 Mbit/s
95th percentile per-packet one-way delay: 139.491 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 59.56 Mbit/s
95th percentile per-packet one-way delay: 142.056 ms
Loss rate: 1.85%
```

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

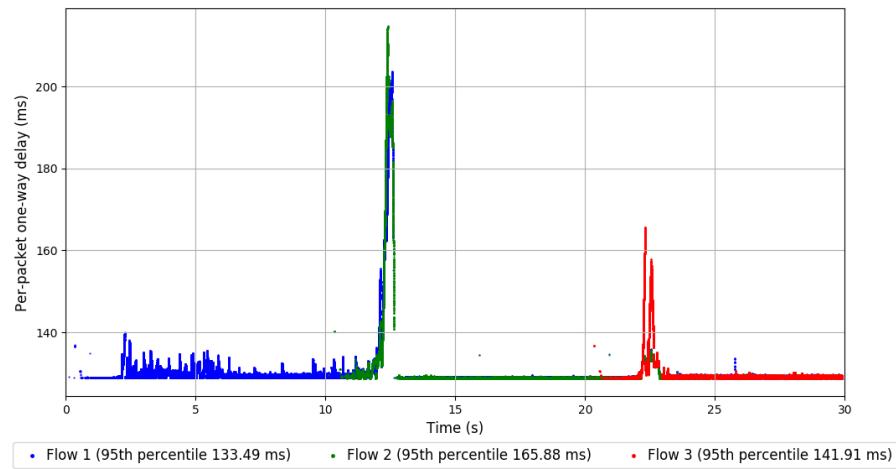
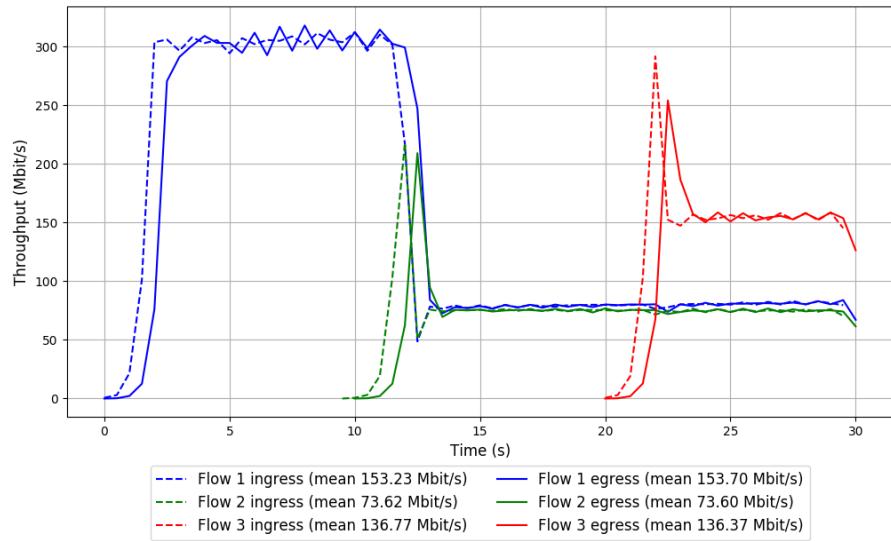


Run 1: Statistics of TCP Vegas

```
Start at: 2019-06-28 11:40:48
End at: 2019-06-28 11:41:18
Local clock offset: -0.739 ms
Remote clock offset: -31.437 ms

# Below is generated by plot.py at 2019-06-28 14:53:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.26 Mbit/s
95th percentile per-packet one-way delay: 134.751 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 153.70 Mbit/s
95th percentile per-packet one-way delay: 133.489 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 73.60 Mbit/s
95th percentile per-packet one-way delay: 165.875 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 136.37 Mbit/s
95th percentile per-packet one-way delay: 141.905 ms
Loss rate: 2.25%
```

Run 1: Report of TCP Vegas — Data Link

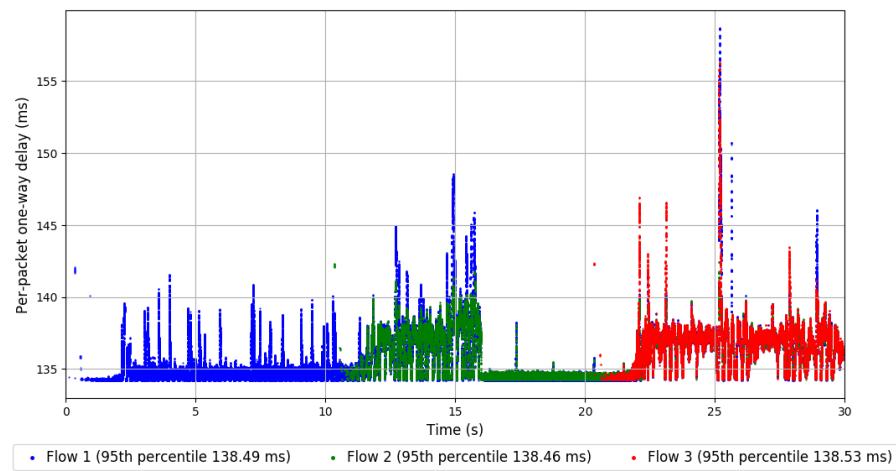
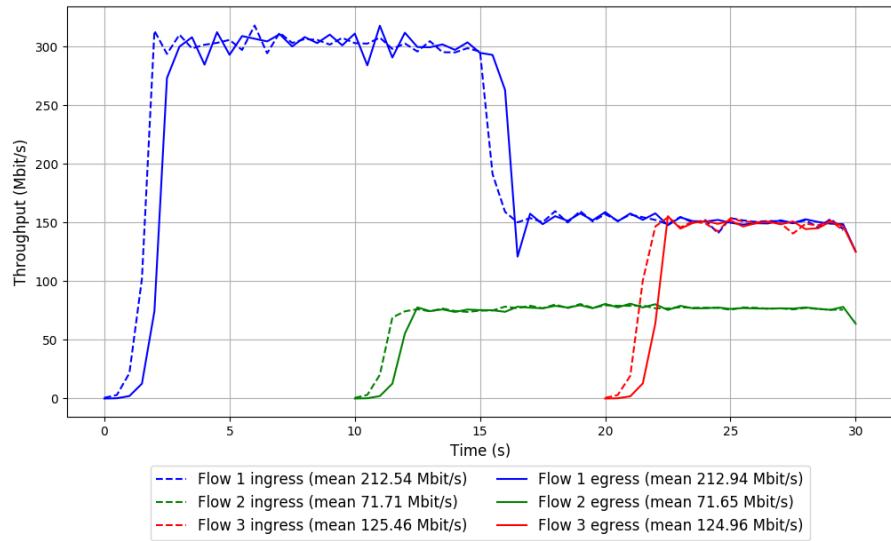


Run 2: Statistics of TCP Vegas

```
Start at: 2019-06-28 12:13:37
End at: 2019-06-28 12:14:07
Local clock offset: -0.865 ms
Remote clock offset: -38.938 ms

# Below is generated by plot.py at 2019-06-28 14:54:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 301.47 Mbit/s
95th percentile per-packet one-way delay: 138.491 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 212.94 Mbit/s
95th percentile per-packet one-way delay: 138.491 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 71.65 Mbit/s
95th percentile per-packet one-way delay: 138.458 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 124.96 Mbit/s
95th percentile per-packet one-way delay: 138.532 ms
Loss rate: 2.39%
```

Run 2: Report of TCP Vegas — Data Link

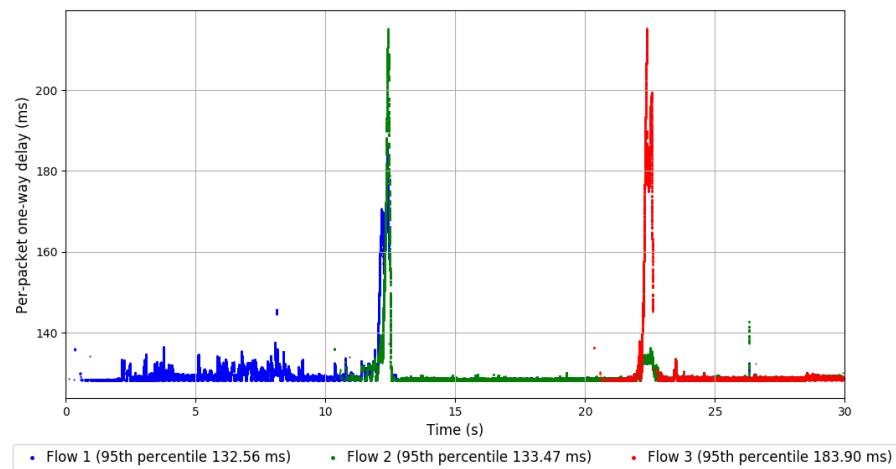
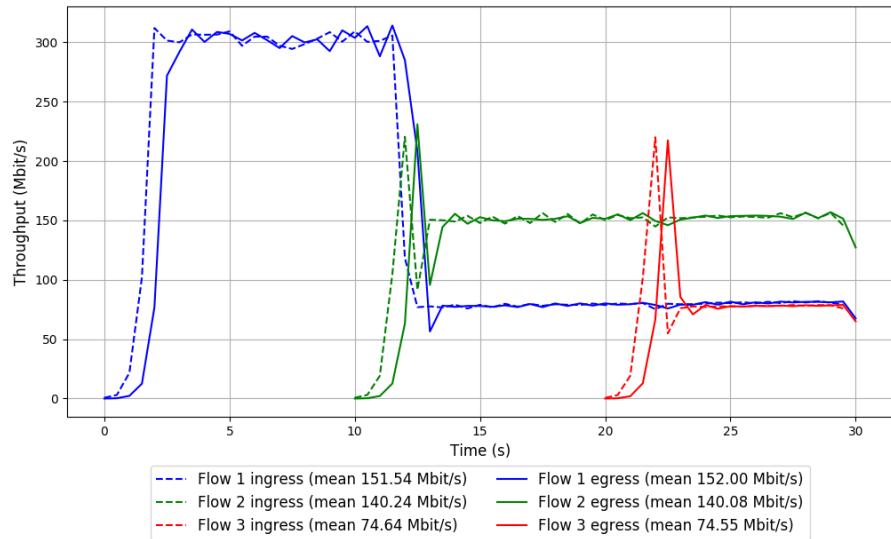


Run 3: Statistics of TCP Vegas

```
Start at: 2019-06-28 12:46:35
End at: 2019-06-28 12:47:05
Local clock offset: -0.739 ms
Remote clock offset: -33.309 ms

# Below is generated by plot.py at 2019-06-28 14:54:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 269.45 Mbit/s
95th percentile per-packet one-way delay: 133.412 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 152.00 Mbit/s
95th percentile per-packet one-way delay: 132.558 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 140.08 Mbit/s
95th percentile per-packet one-way delay: 133.472 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 74.55 Mbit/s
95th percentile per-packet one-way delay: 183.904 ms
Loss rate: 2.09%
```

Run 3: Report of TCP Vegas — Data Link

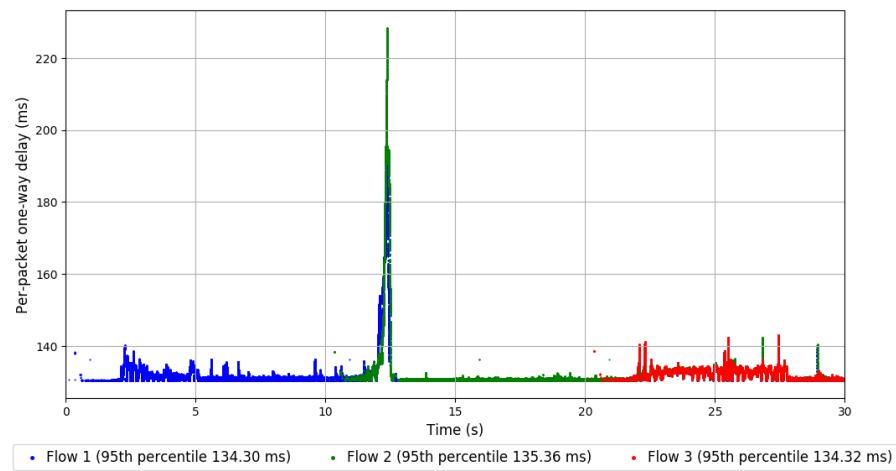
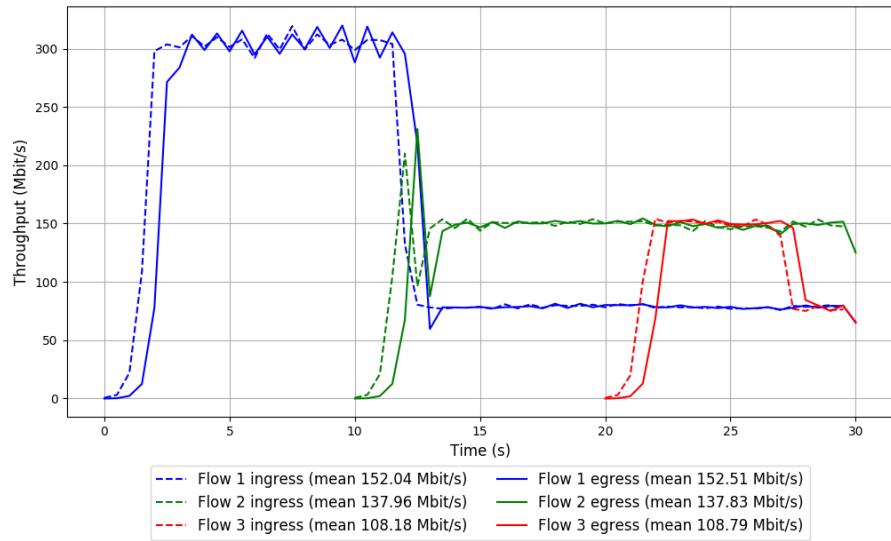


Run 4: Statistics of TCP Vegas

```
Start at: 2019-06-28 13:19:48
End at: 2019-06-28 13:20:18
Local clock offset: -0.021 ms
Remote clock offset: -34.545 ms

# Below is generated by plot.py at 2019-06-28 14:56:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.69 Mbit/s
95th percentile per-packet one-way delay: 134.442 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 152.51 Mbit/s
95th percentile per-packet one-way delay: 134.297 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 137.83 Mbit/s
95th percentile per-packet one-way delay: 135.358 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 108.79 Mbit/s
95th percentile per-packet one-way delay: 134.323 ms
Loss rate: 1.42%
```

Run 4: Report of TCP Vegas — Data Link

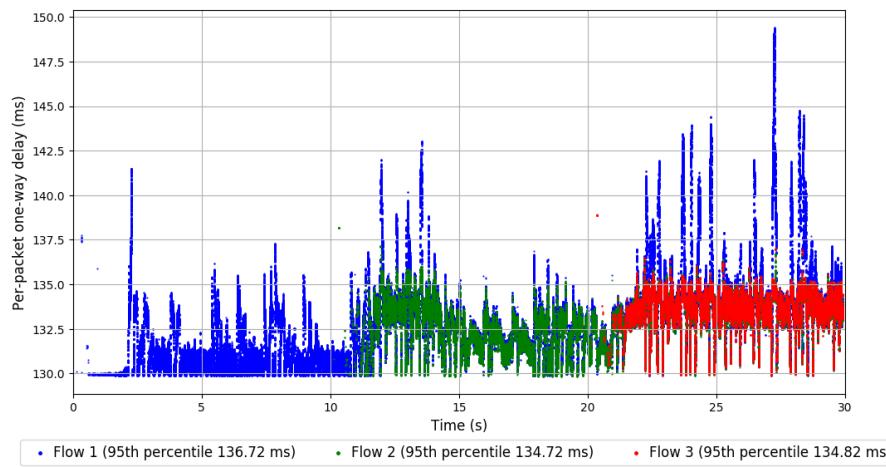
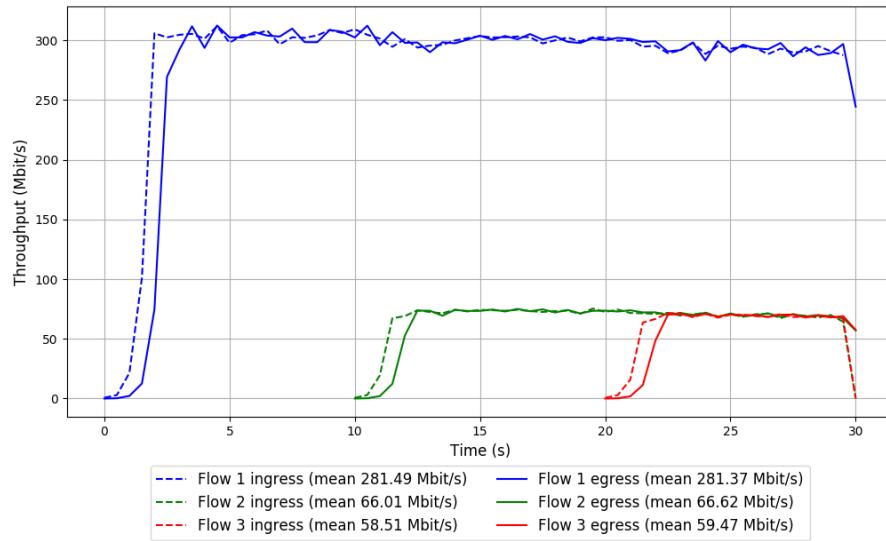


Run 5: Statistics of TCP Vegas

```
Start at: 2019-06-28 13:52:45
End at: 2019-06-28 13:53:15
Local clock offset: -1.056 ms
Remote clock offset: -35.218 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.10 Mbit/s
95th percentile per-packet one-way delay: 135.994 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 281.37 Mbit/s
95th percentile per-packet one-way delay: 136.722 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 66.62 Mbit/s
95th percentile per-packet one-way delay: 134.721 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 59.47 Mbit/s
95th percentile per-packet one-way delay: 134.820 ms
Loss rate: 2.40%
```

Run 5: Report of TCP Vegas — Data Link

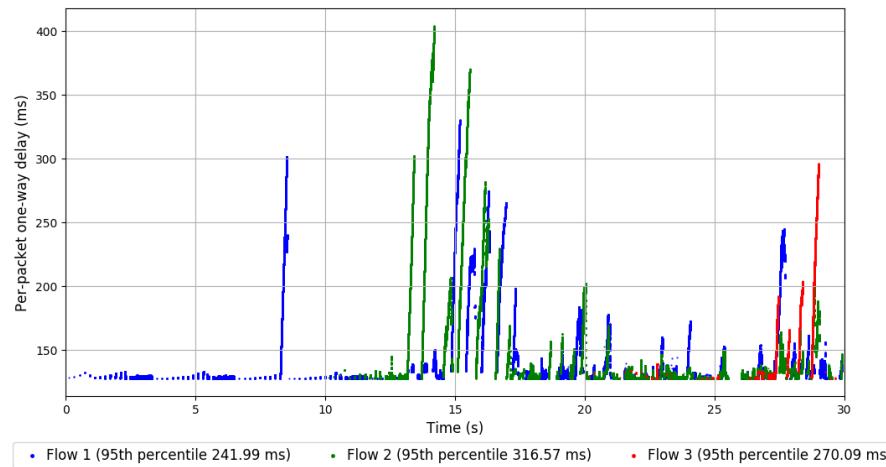
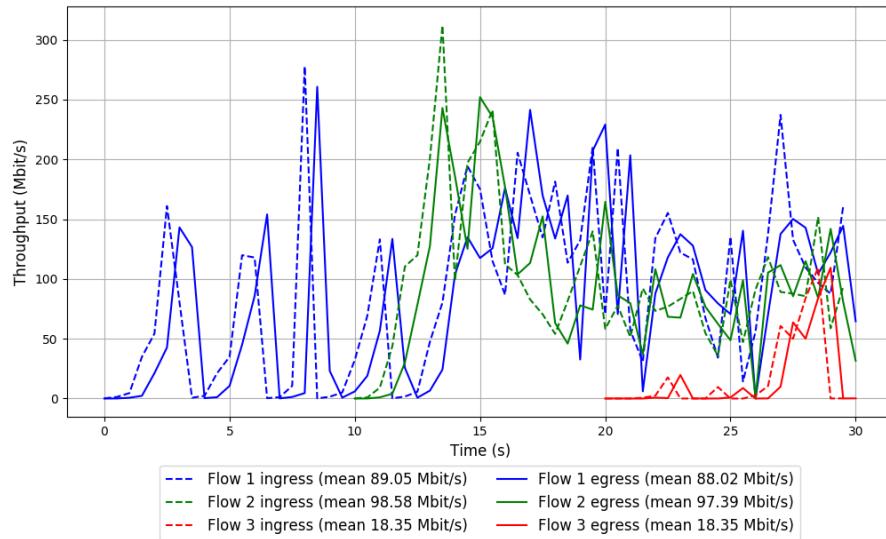


Run 1: Statistics of Verus

```
Start at: 2019-06-28 11:46:33
End at: 2019-06-28 11:47:03
Local clock offset: -1.363 ms
Remote clock offset: -31.045 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.53 Mbit/s
95th percentile per-packet one-way delay: 266.713 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 88.02 Mbit/s
95th percentile per-packet one-way delay: 241.992 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 316.575 ms
Loss rate: 1.79%
-- Flow 3:
Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 270.090 ms
Loss rate: 0.03%
```

Run 1: Report of Verus — Data Link

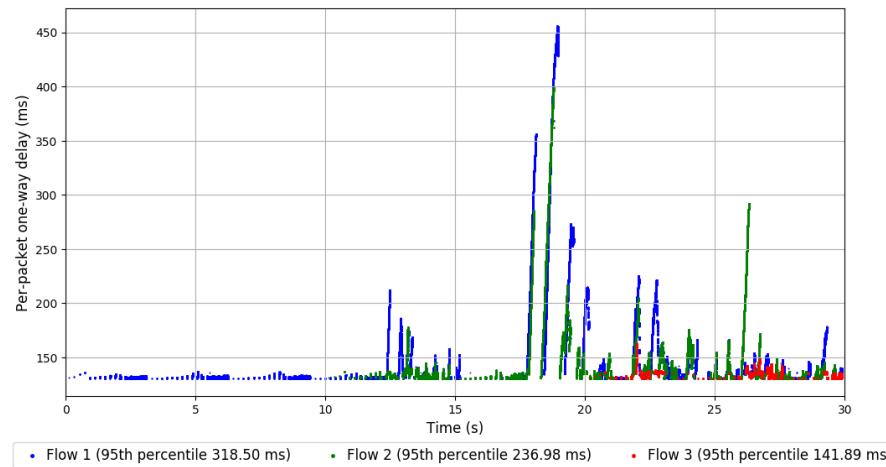
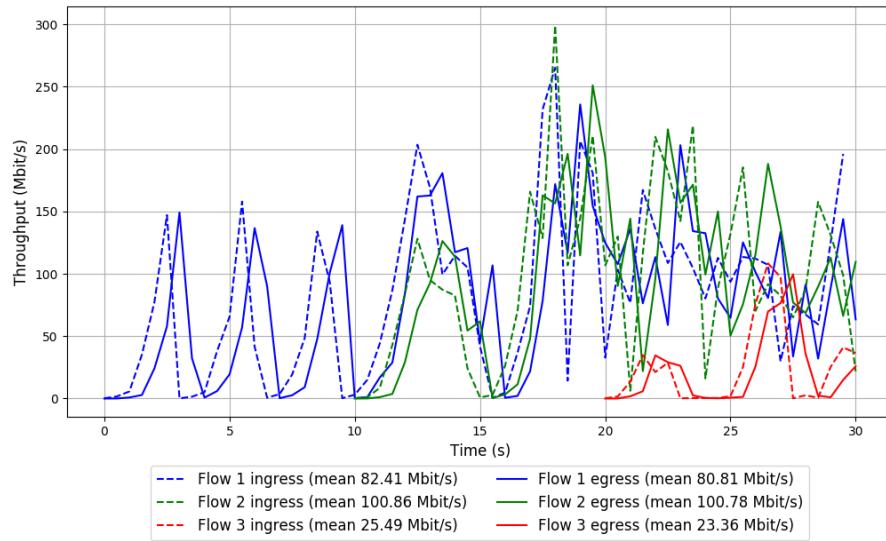


Run 2: Statistics of Verus

```
Start at: 2019-06-28 12:19:25
End at: 2019-06-28 12:19:55
Local clock offset: -0.659 ms
Remote clock offset: -35.749 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.43 Mbit/s
95th percentile per-packet one-way delay: 265.157 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 80.81 Mbit/s
95th percentile per-packet one-way delay: 318.500 ms
Loss rate: 2.70%
-- Flow 2:
Average throughput: 100.78 Mbit/s
95th percentile per-packet one-way delay: 236.982 ms
Loss rate: 2.99%
-- Flow 3:
Average throughput: 23.36 Mbit/s
95th percentile per-packet one-way delay: 141.891 ms
Loss rate: 12.00%
```

## Run 2: Report of Verus — Data Link

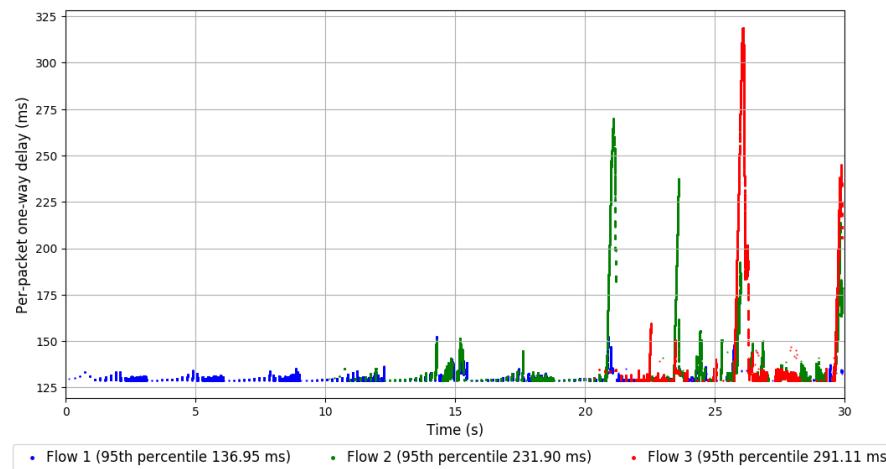
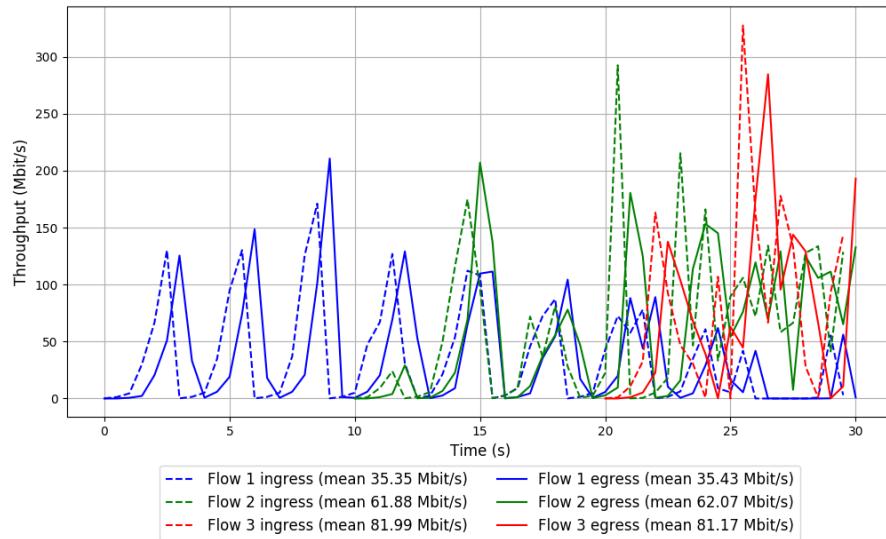


Run 3: Statistics of Verus

```
Start at: 2019-06-28 12:52:30
End at: 2019-06-28 12:53:00
Local clock offset: 0.005 ms
Remote clock offset: -33.321 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.25 Mbit/s
95th percentile per-packet one-way delay: 226.241 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 35.43 Mbit/s
95th percentile per-packet one-way delay: 136.946 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 62.07 Mbit/s
95th percentile per-packet one-way delay: 231.897 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 81.17 Mbit/s
95th percentile per-packet one-way delay: 291.109 ms
Loss rate: 2.10%
```

### Run 3: Report of Verus — Data Link

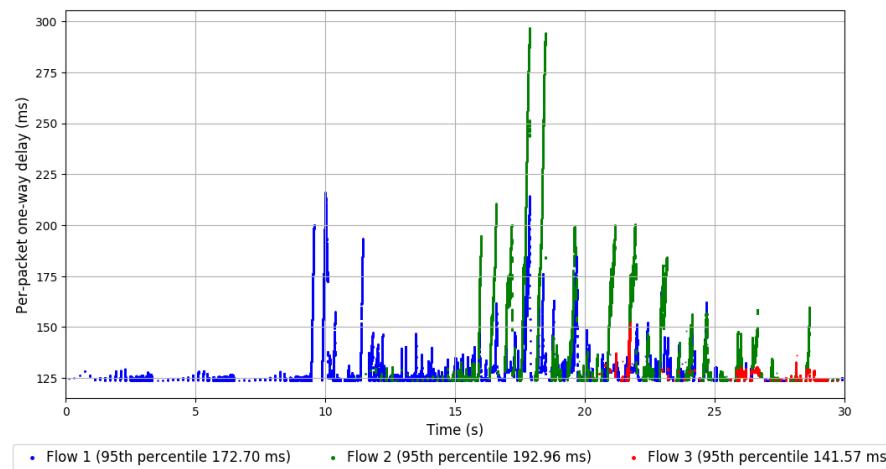
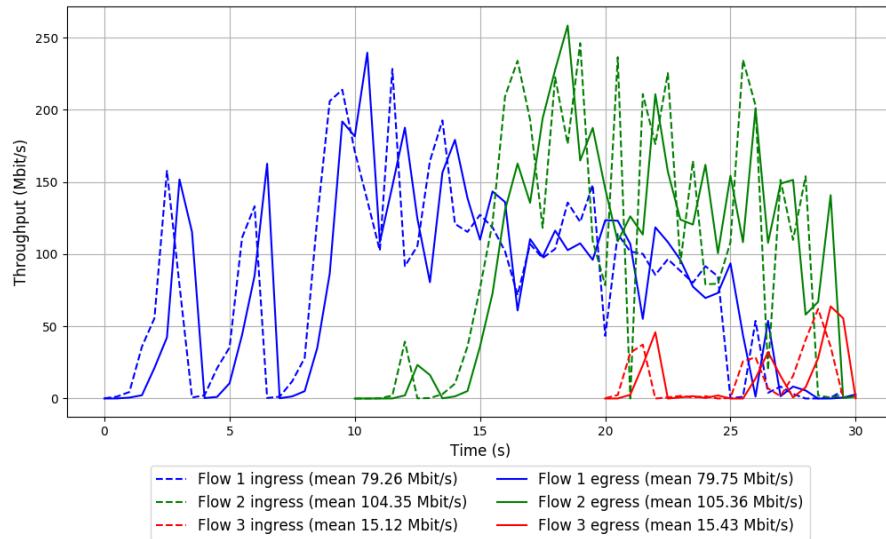


Run 4: Statistics of Verus

```
Start at: 2019-06-28 13:25:34
End at: 2019-06-28 13:26:04
Local clock offset: -0.376 ms
Remote clock offset: -28.575 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.02 Mbit/s
95th percentile per-packet one-way delay: 185.165 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 79.75 Mbit/s
95th percentile per-packet one-way delay: 172.703 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 105.36 Mbit/s
95th percentile per-packet one-way delay: 192.963 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 15.43 Mbit/s
95th percentile per-packet one-way delay: 141.574 ms
Loss rate: 0.07%
```

Run 4: Report of Verus — Data Link

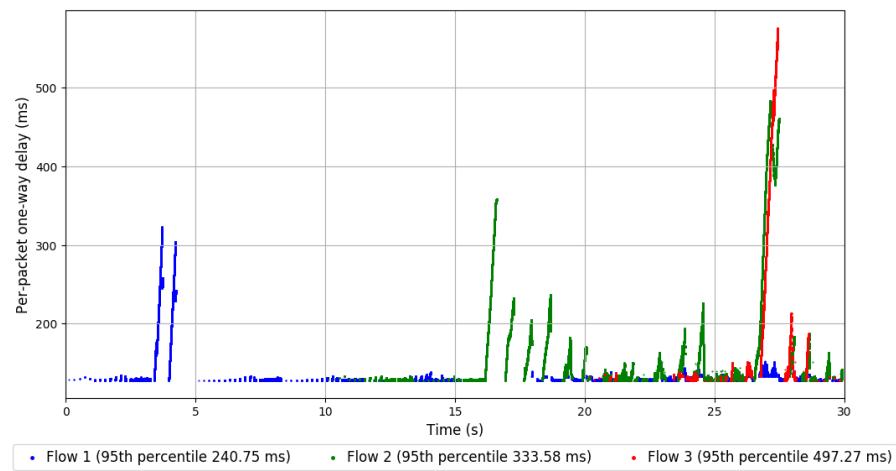
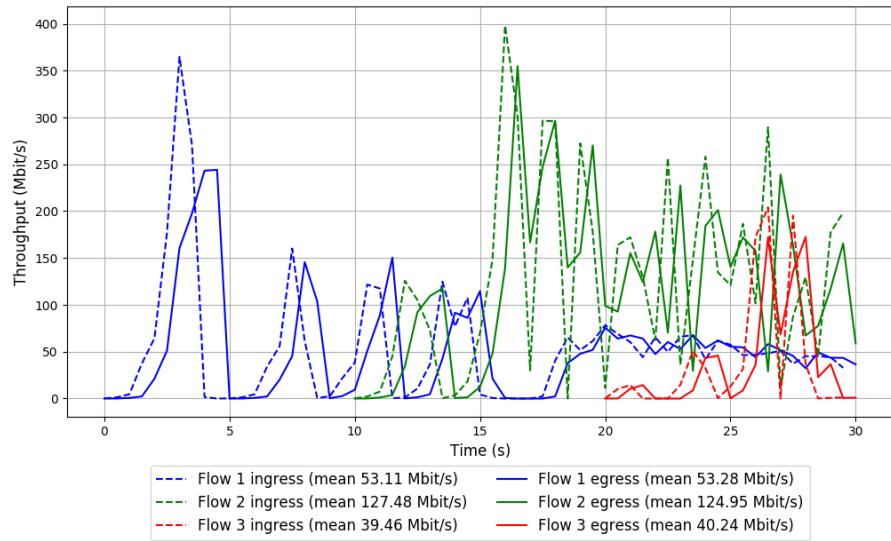


Run 5: Statistics of Verus

```
Start at: 2019-06-28 13:58:34
End at: 2019-06-28 13:59:04
Local clock offset: -1.361 ms
Remote clock offset: -34.032 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.29 Mbit/s
95th percentile per-packet one-way delay: 306.242 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 53.28 Mbit/s
95th percentile per-packet one-way delay: 240.751 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 124.95 Mbit/s
95th percentile per-packet one-way delay: 333.582 ms
Loss rate: 3.00%
-- Flow 3:
Average throughput: 40.24 Mbit/s
95th percentile per-packet one-way delay: 497.274 ms
Loss rate: 0.12%
```

## Run 5: Report of Verus — Data Link

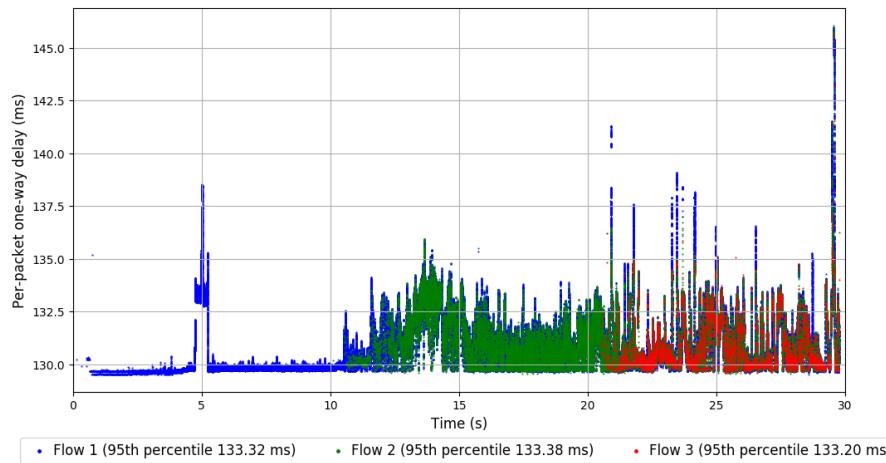
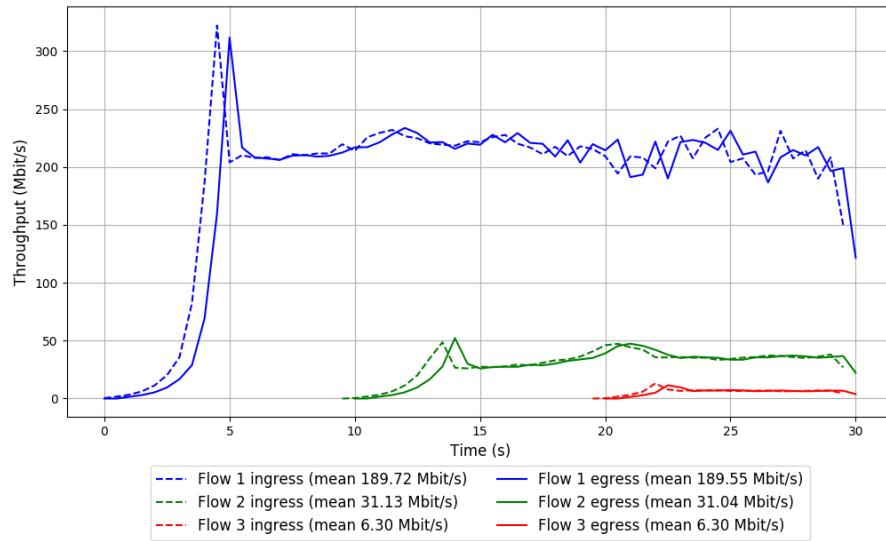


```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 11:54:15
End at: 2019-06-28 11:54:45
Local clock offset: -0.09 ms
Remote clock offset: -31.974 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.18 Mbit/s
95th percentile per-packet one-way delay: 133.327 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 189.55 Mbit/s
95th percentile per-packet one-way delay: 133.323 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 31.04 Mbit/s
95th percentile per-packet one-way delay: 133.384 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 6.30 Mbit/s
95th percentile per-packet one-way delay: 133.203 ms
Loss rate: 2.05%
```

Run 1: Report of PCC-Vivace — Data Link

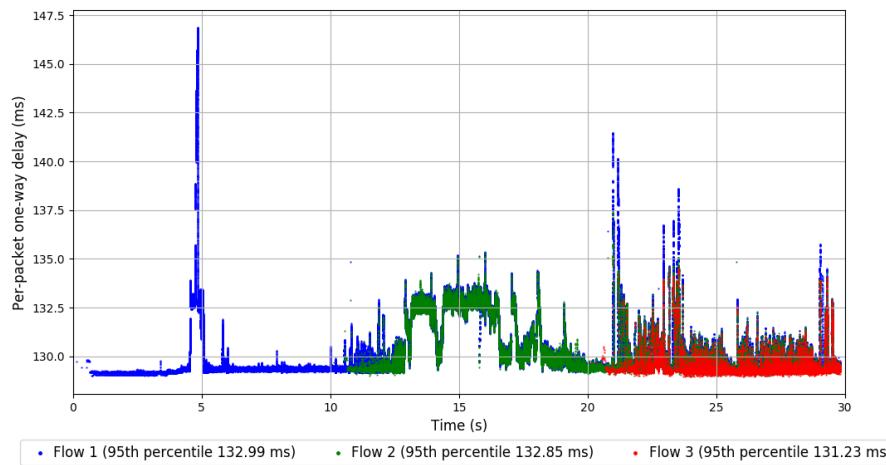
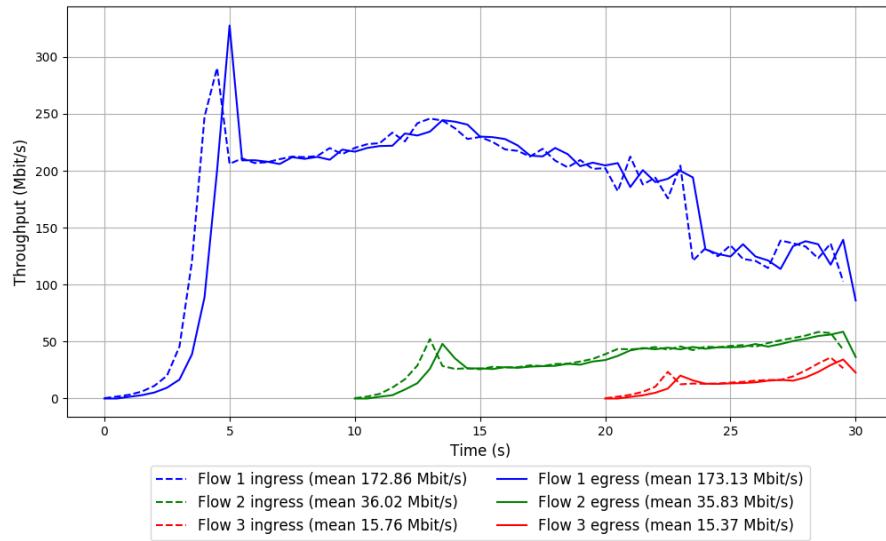


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-06-28 12:27:08
End at: 2019-06-28 12:27:38
Local clock offset: 0.156 ms
Remote clock offset: -33.631 ms

# Below is generated by plot.py at 2019-06-28 14:57:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 201.89 Mbit/s
95th percentile per-packet one-way delay: 132.965 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 173.13 Mbit/s
95th percentile per-packet one-way delay: 132.986 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 35.83 Mbit/s
95th percentile per-packet one-way delay: 132.850 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 15.37 Mbit/s
95th percentile per-packet one-way delay: 131.229 ms
Loss rate: 4.41%
```

Run 2: Report of PCC-Vivace — Data Link

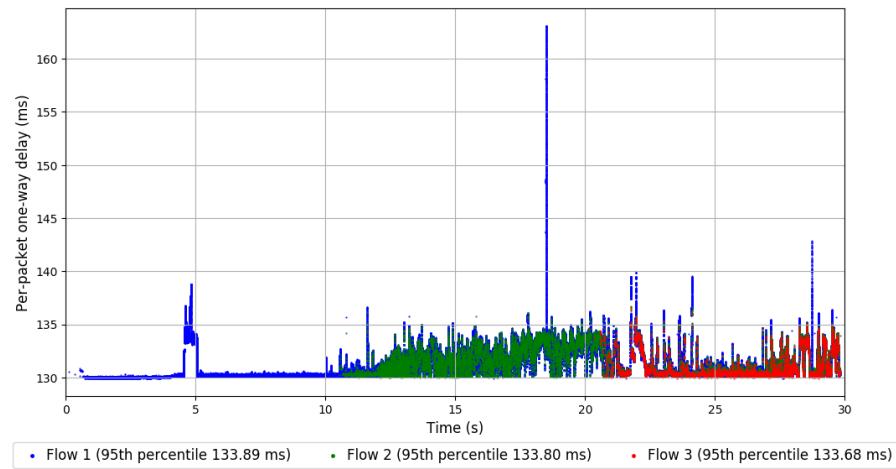
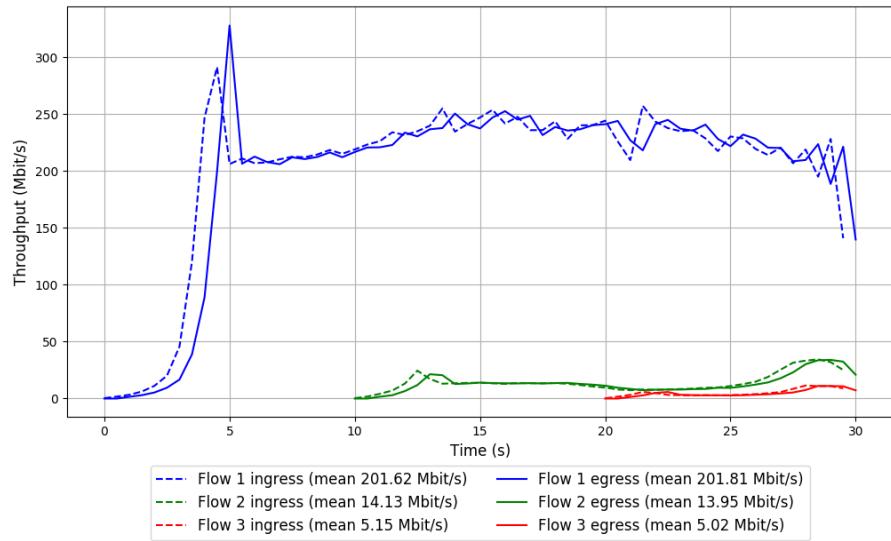


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-06-28 13:00:11
End at: 2019-06-28 13:00:41
Local clock offset: -0.575 ms
Remote clock offset: -35.146 ms

# Below is generated by plot.py at 2019-06-28 14:57:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.66 Mbit/s
95th percentile per-packet one-way delay: 133.882 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 201.81 Mbit/s
95th percentile per-packet one-way delay: 133.888 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 13.95 Mbit/s
95th percentile per-packet one-way delay: 133.796 ms
Loss rate: 2.28%
-- Flow 3:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 133.684 ms
Loss rate: 4.64%
```

Run 3: Report of PCC-Vivace — Data Link

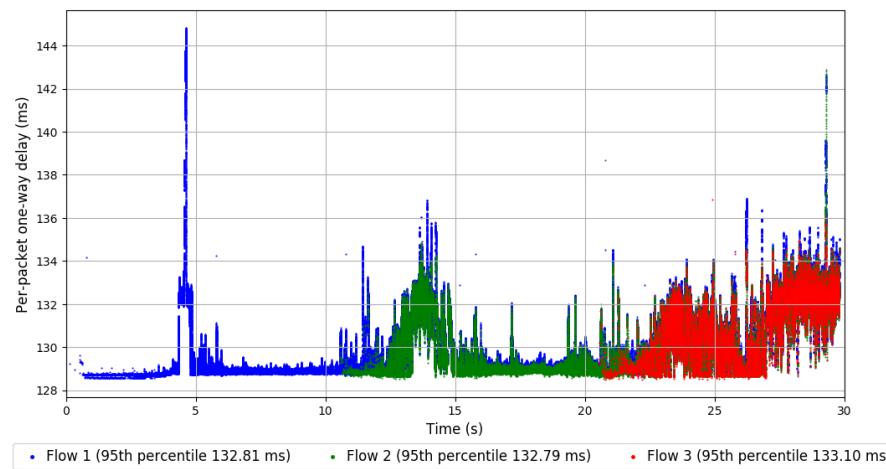
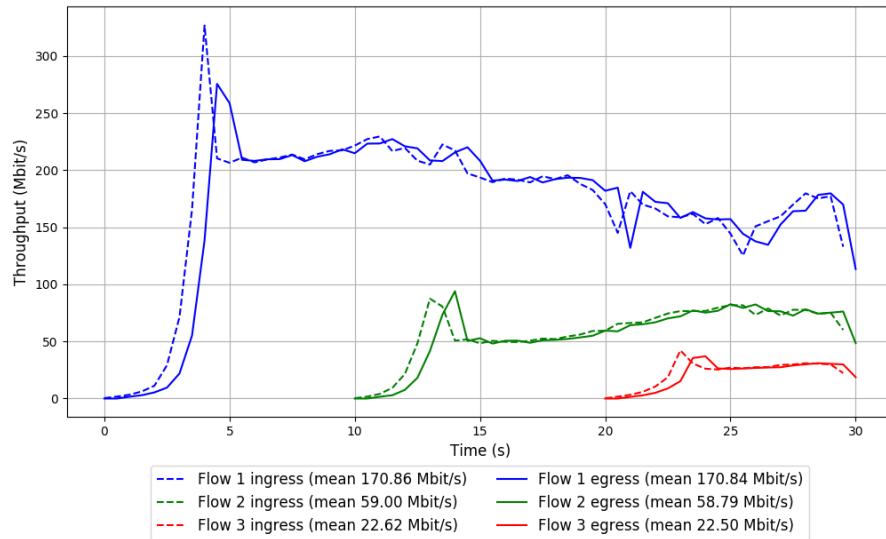


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-06-28 13:33:18
End at: 2019-06-28 13:33:48
Local clock offset: -0.008 ms
Remote clock offset: -33.231 ms

# Below is generated by plot.py at 2019-06-28 14:57:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 217.12 Mbit/s
95th percentile per-packet one-way delay: 132.817 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 170.84 Mbit/s
95th percentile per-packet one-way delay: 132.807 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 58.79 Mbit/s
95th percentile per-packet one-way delay: 132.790 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 22.50 Mbit/s
95th percentile per-packet one-way delay: 133.097 ms
Loss rate: 2.54%
```

Run 4: Report of PCC-Vivace — Data Link

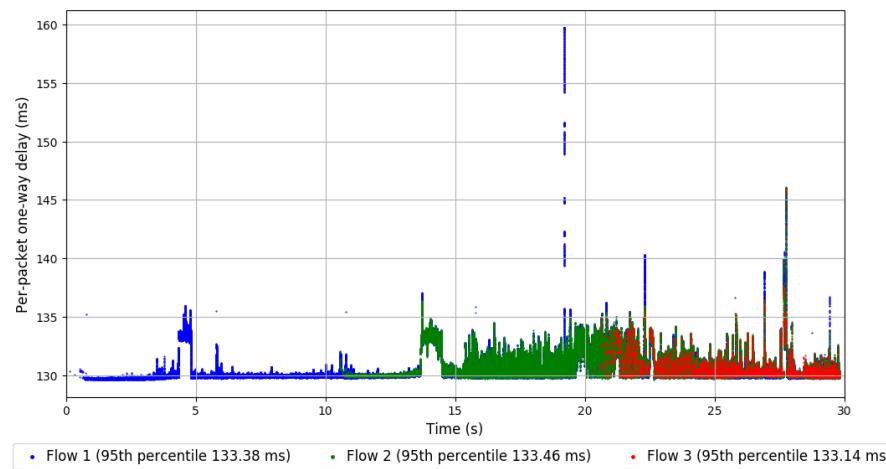
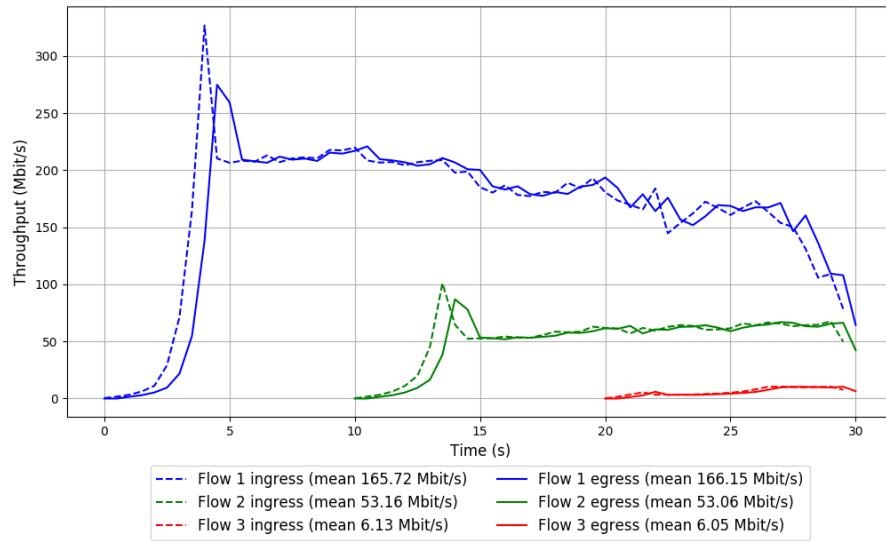


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-06-28 14:06:11
End at: 2019-06-28 14:06:42
Local clock offset: -0.254 ms
Remote clock offset: -34.795 ms

# Below is generated by plot.py at 2019-06-28 14:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 203.27 Mbit/s
95th percentile per-packet one-way delay: 133.400 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 166.15 Mbit/s
95th percentile per-packet one-way delay: 133.384 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 53.06 Mbit/s
95th percentile per-packet one-way delay: 133.460 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 6.05 Mbit/s
95th percentile per-packet one-way delay: 133.137 ms
Loss rate: 3.32%
```

Run 5: Report of PCC-Vivace — Data Link

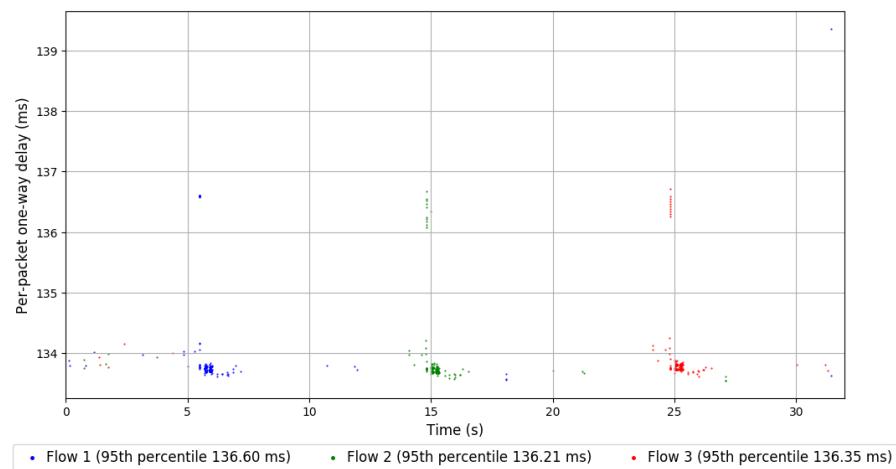
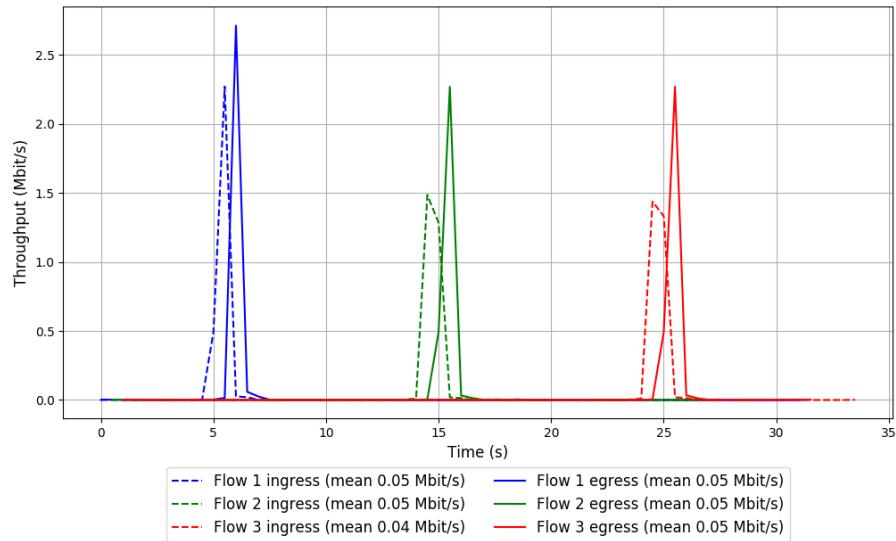


```
Run 1: Statistics of WebRTC media

Start at: 2019-06-28 11:36:35
End at: 2019-06-28 11:37:05
Local clock offset: -0.276 ms
Remote clock offset: -36.117 ms

# Below is generated by plot.py at 2019-06-28 14:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 136.384 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 136.596 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 136.212 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 136.346 ms
Loss rate: 0.05%
```

Run 1: Report of WebRTC media — Data Link

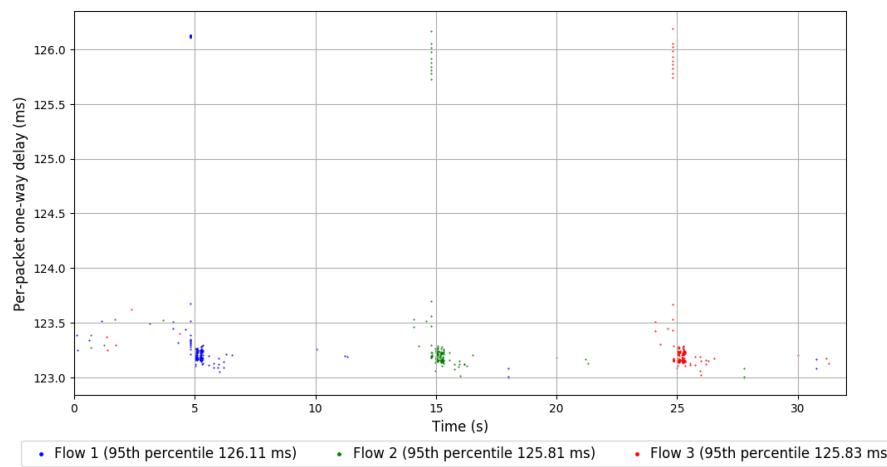
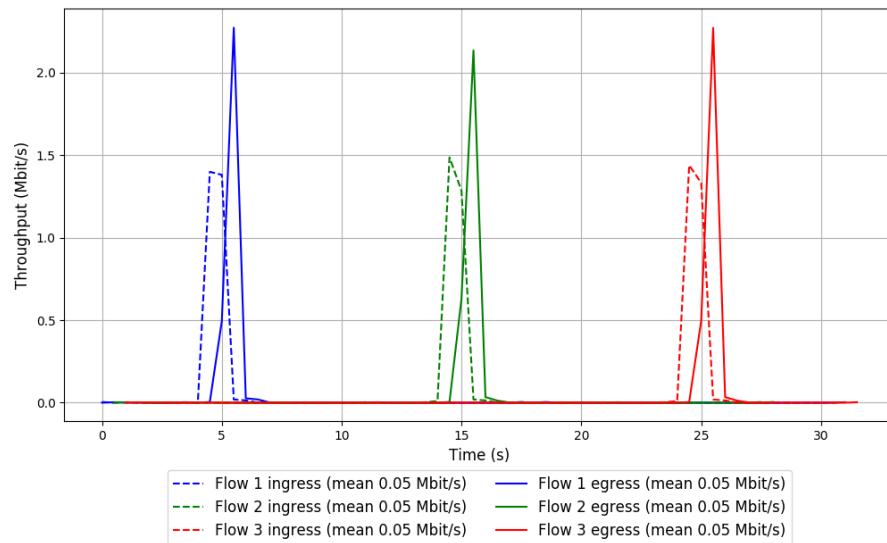


Run 2: Statistics of WebRTC media

```
Start at: 2019-06-28 12:09:22
End at: 2019-06-28 12:09:52
Local clock offset: -0.772 ms
Remote clock offset: -27.61 ms

# Below is generated by plot.py at 2019-06-28 14:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 125.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 126.113 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 125.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 125.826 ms
Loss rate: 0.00%
```

## Run 2: Report of WebRTC media — Data Link

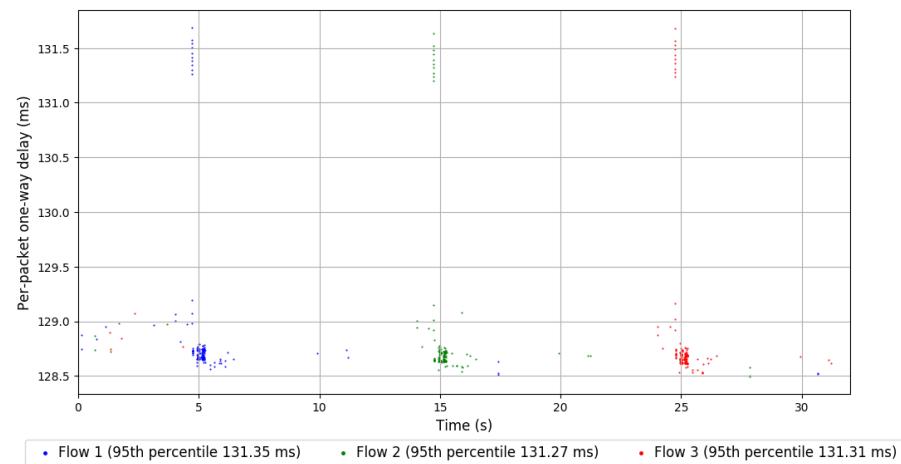
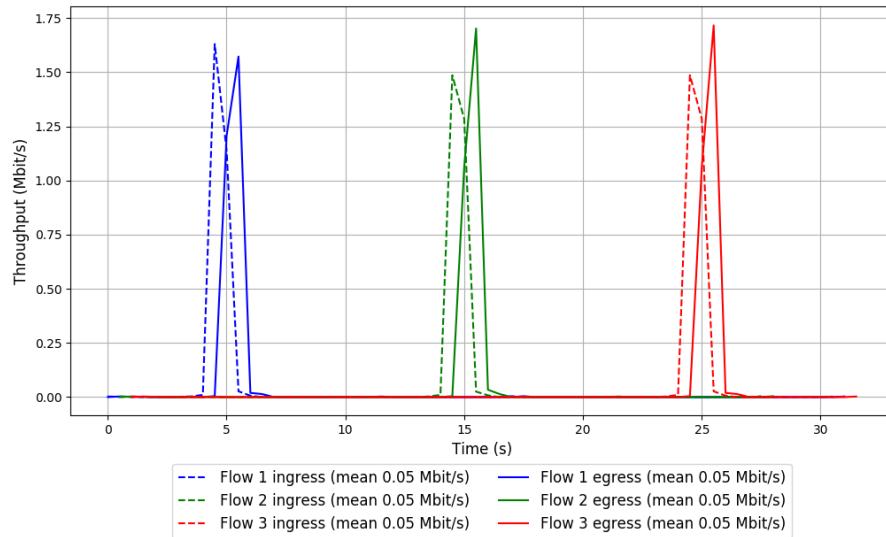


```
Run 3: Statistics of WebRTC media

Start at: 2019-06-28 12:42:19
End at: 2019-06-28 12:42:49
Local clock offset: -0.368 ms
Remote clock offset: -33.383 ms

# Below is generated by plot.py at 2019-06-28 14:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 131.307 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 131.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 131.272 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 131.307 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

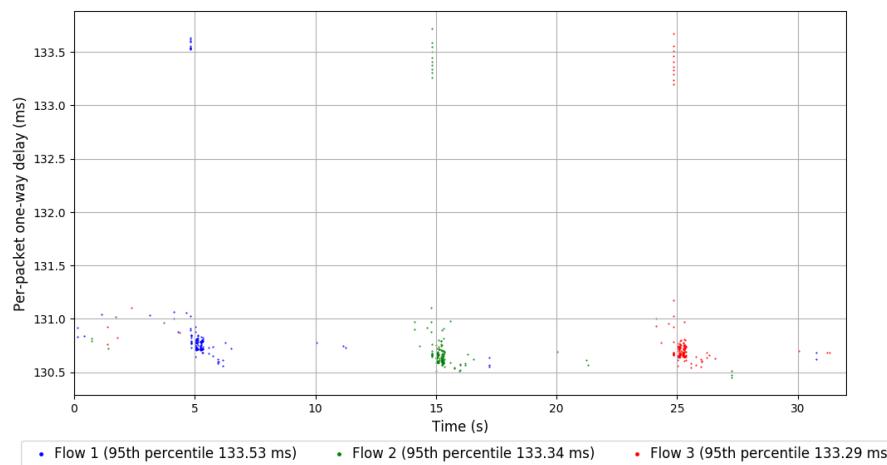
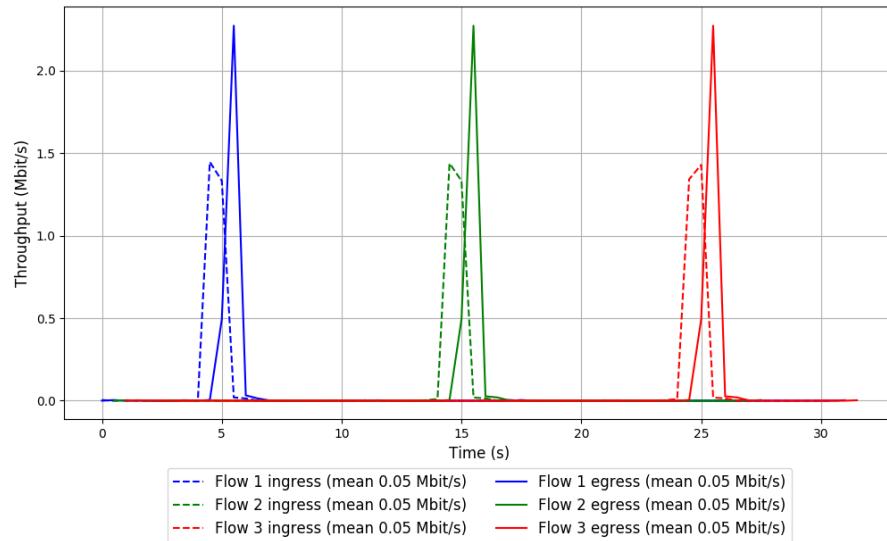


Run 4: Statistics of WebRTC media

```
Start at: 2019-06-28 13:15:32
End at: 2019-06-28 13:16:02
Local clock offset: 0.493 ms
Remote clock offset: -33.938 ms

# Below is generated by plot.py at 2019-06-28 14:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 133.364 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.533 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.339 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.287 ms
Loss rate: 0.00%
```

#### Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-06-28 13:48:30
End at: 2019-06-28 13:49:00
Local clock offset: 0.366 ms
Remote clock offset: -39.115 ms

# Below is generated by plot.py at 2019-06-28 14:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 138.209 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 138.038 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 138.243 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 138.288 ms
Loss rate: 0.00%
```

### Run 5: Report of WebRTC media — Data Link

