

Pantheon Report

Generated at 2019-02-20 02:34:39 (UTC).
Data path: AWS India 1 on `ens5 (local)` → India on `em1 (remote)`.
Repeated the test of 21 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

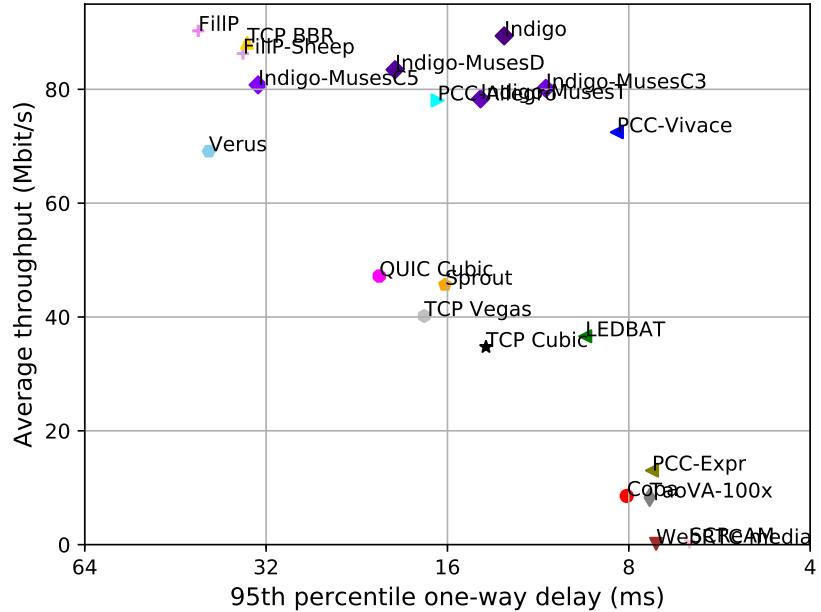
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

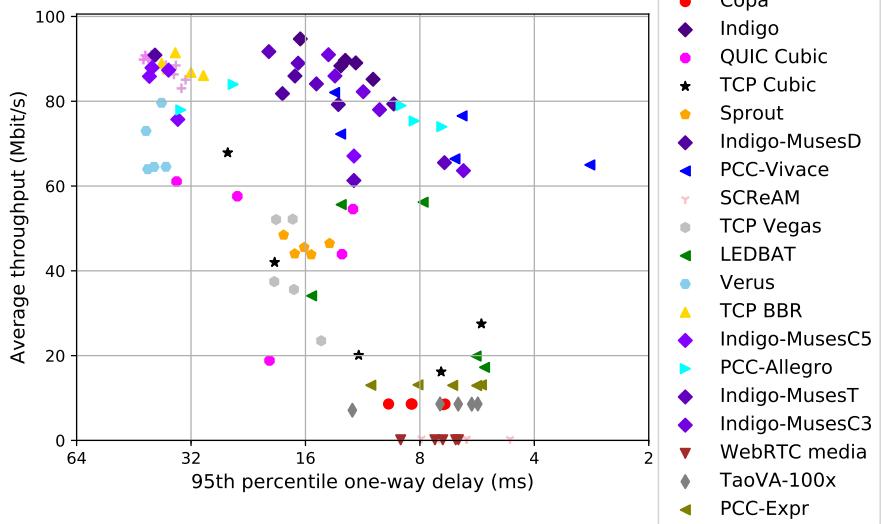
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
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 AWS India 1 to India, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



4

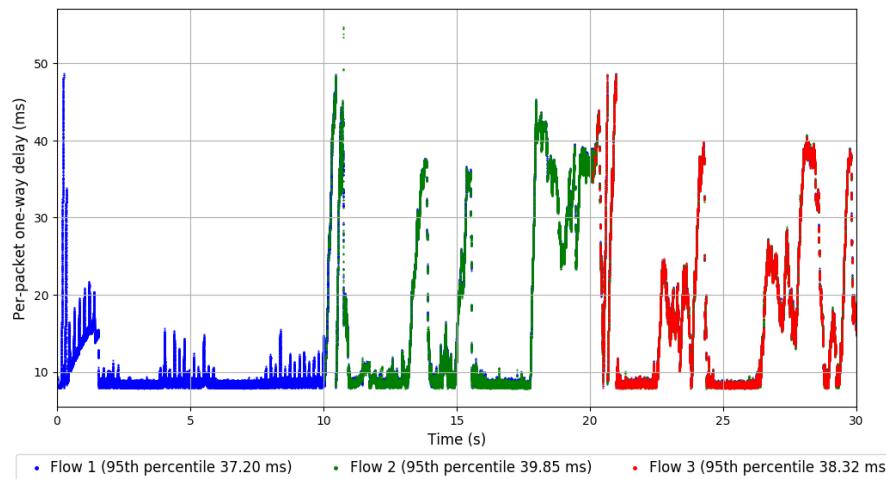
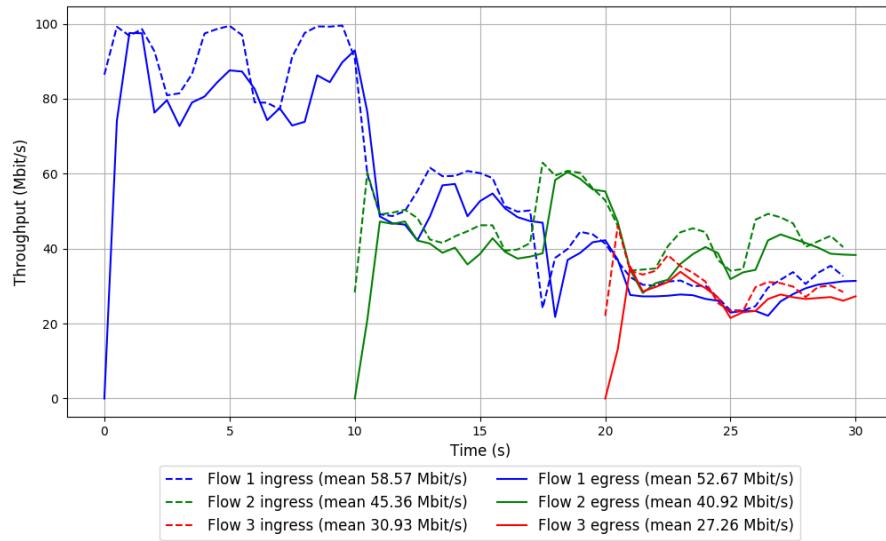
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	54.67	35.19	31.08	32.47	35.57	36.97	9.65	10.35	10.55
Copa	5	0.00	10.18	5.32	6.95	10.49	7.06	98.27	68.93	73.77
TCP Cubic	5	19.39	15.53	15.04	13.86	12.08	8.93	0.42	0.79	0.62
FillP	5	54.04	41.03	27.13	39.54	42.95	43.16	29.00	42.87	53.49
FillP-Sheep	5	53.37	35.43	28.18	31.87	36.01	40.02	11.68	13.37	15.41
Indigo	5	54.47	36.04	33.54	12.31	13.12	15.72	9.39	10.00	9.85
Indigo-MusesC3	5	44.84	36.48	38.65	11.51	10.71	10.01	5.04	5.63	5.07
Indigo-MusesC5	5	47.97	37.59	28.16	30.10	33.34	35.84	7.54	9.11	11.86
Indigo-MusesD	5	51.61	37.65	24.50	18.38	18.92	22.24	8.15	9.60	10.18
Indigo-MusesT	5	49.28	35.78	19.28	12.92	14.66	18.63	7.87	7.87	9.51
LEDBAT	5	21.55	15.42	14.57	9.00	10.31	8.29	0.77	0.99	1.08
PCC-Allegro	5	66.96	14.34	4.77	16.24	17.29	20.72	7.66	7.89	8.31
PCC-Expr	5	8.29	5.13	4.02	7.37	7.28	7.32	43.66	27.07	23.77
QUIC Cubic	5	26.80	21.14	19.20	23.72	19.02	19.58	2.57	2.44	2.54
SCReAM	5	0.19	0.18	0.22	6.21	6.36	6.15	0.08	0.13	0.00
Sprout	5	23.23	22.71	22.18	15.74	16.44	16.11	2.97	3.73	4.97
TaoVA-100x	5	0.00	9.23	7.58	5.14	6.58	10.42	95.92	78.95	84.10
TCP Vegas	5	23.29	17.25	16.22	17.06	20.03	15.61	1.37	0.32	0.83
Verus	5	44.23	27.36	21.73	36.19	42.31	41.05	22.90	48.38	42.43
PCC-Vivace	5	51.58	26.37	10.13	7.56	10.22	12.83	6.18	6.63	7.52
WebRTC media	5	0.05	0.05	0.05	7.08	7.16	7.27	0.01	0.16	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-02-20 00:42:04
End at: 2019-02-20 00:42:34
Local clock offset: -1.076 ms
Remote clock offset: -0.993 ms

# Below is generated by plot.py at 2019-02-20 02:25:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.97 Mbit/s
95th percentile per-packet one-way delay: 38.227 ms
Loss rate: 10.17%
-- Flow 1:
Average throughput: 52.67 Mbit/s
95th percentile per-packet one-way delay: 37.202 ms
Loss rate: 10.05%
-- Flow 2:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 39.854 ms
Loss rate: 9.75%
-- Flow 3:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 38.321 ms
Loss rate: 12.04%
```

Run 1: Report of TCP BBR — Data Link

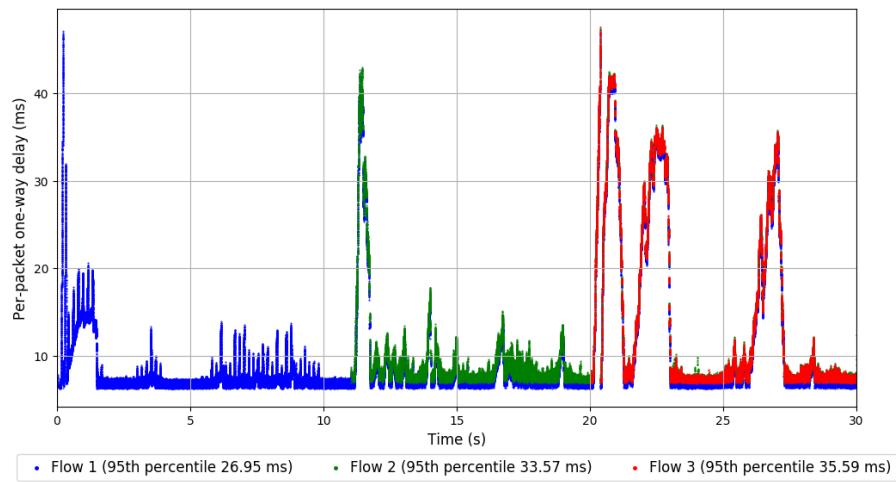
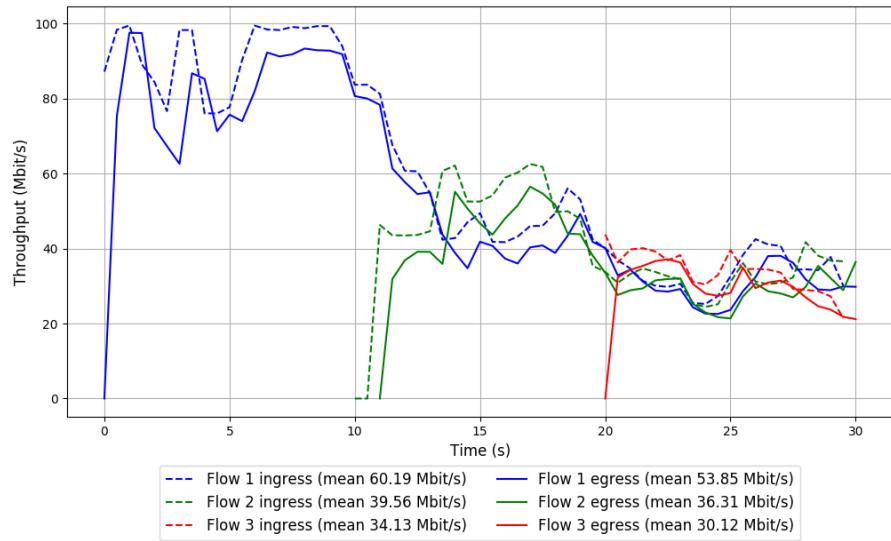


Run 2: Statistics of TCP BBR

```
Start at: 2019-02-20 01:06:39
End at: 2019-02-20 01:07:09
Local clock offset: -1.316 ms
Remote clock offset: -2.125 ms

# Below is generated by plot.py at 2019-02-20 02:25:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.83 Mbit/s
95th percentile per-packet one-way delay: 32.013 ms
Loss rate: 11.29%
-- Flow 1:
Average throughput: 53.85 Mbit/s
95th percentile per-packet one-way delay: 26.945 ms
Loss rate: 10.53%
-- Flow 2:
Average throughput: 36.31 Mbit/s
95th percentile per-packet one-way delay: 33.570 ms
Loss rate: 12.86%
-- Flow 3:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 35.593 ms
Loss rate: 11.74%
```

Run 2: Report of TCP BBR — Data Link

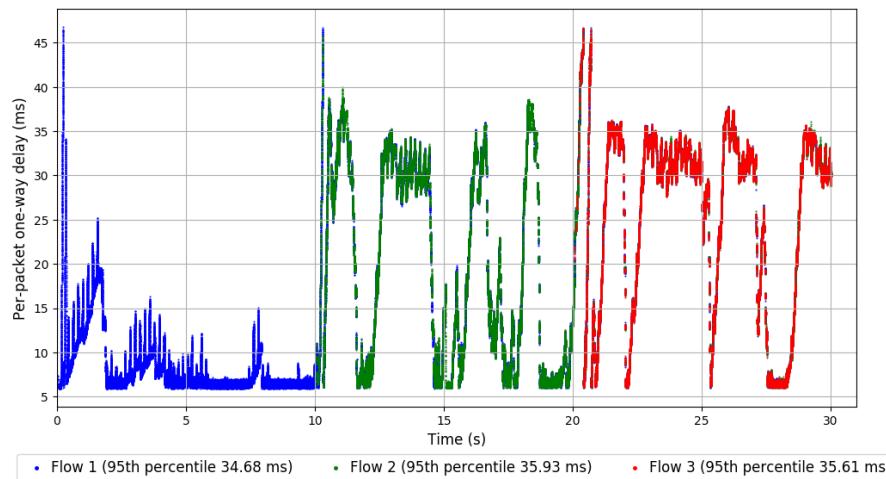
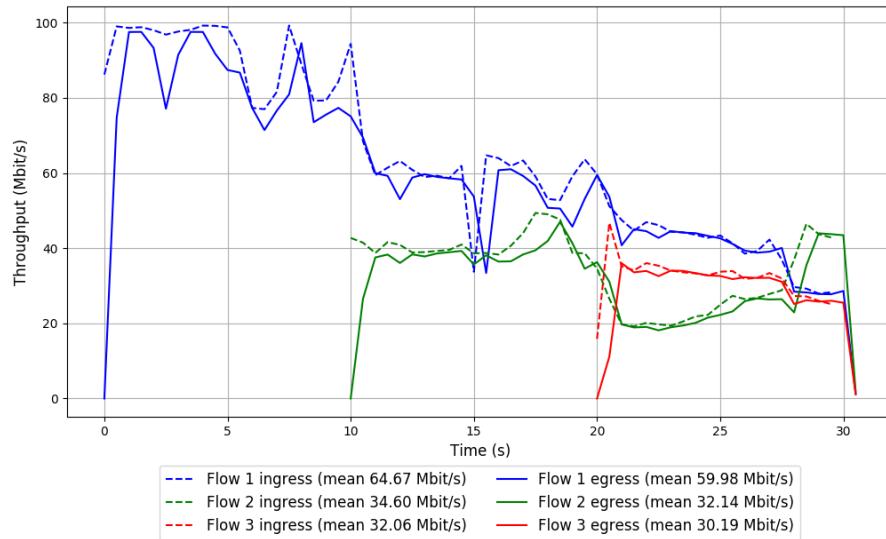


Run 3: Statistics of TCP BBR

```
Start at: 2019-02-20 01:31:23
End at: 2019-02-20 01:31:53
Local clock offset: -0.861 ms
Remote clock offset: -2.838 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.45 Mbit/s
95th percentile per-packet one-way delay: 35.202 ms
Loss rate: 6.97%
-- Flow 1:
Average throughput: 59.98 Mbit/s
95th percentile per-packet one-way delay: 34.684 ms
Loss rate: 7.17%
-- Flow 2:
Average throughput: 32.14 Mbit/s
95th percentile per-packet one-way delay: 35.931 ms
Loss rate: 6.99%
-- Flow 3:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 35.612 ms
Loss rate: 5.70%
```

Run 3: Report of TCP BBR — Data Link

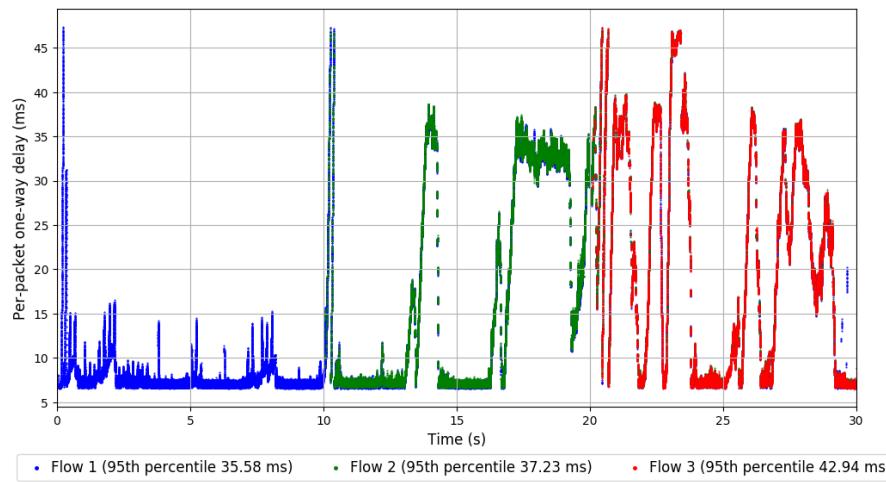
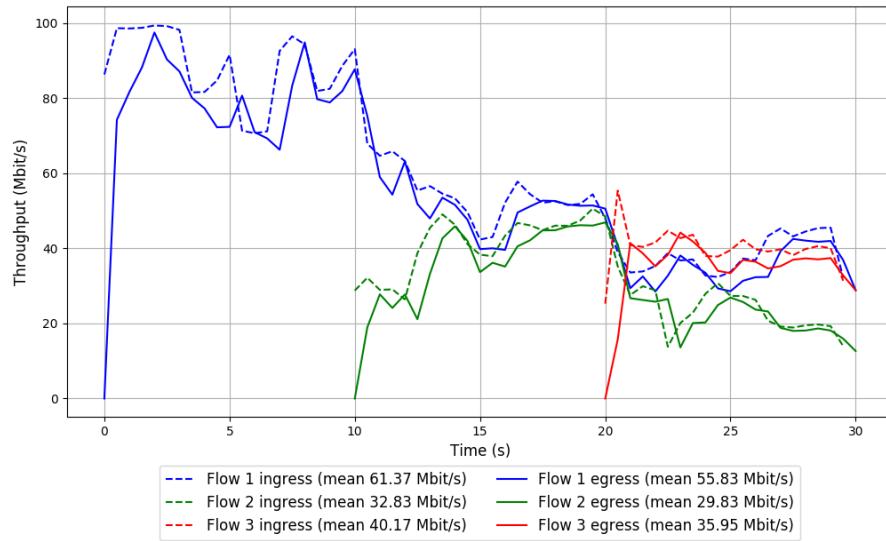


Run 4: Statistics of TCP BBR

```
Start at: 2019-02-20 01:55:48
End at: 2019-02-20 01:56:18
Local clock offset: 1.017 ms
Remote clock offset: -2.334 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.62 Mbit/s
95th percentile per-packet one-way delay: 36.912 ms
Loss rate: 9.28%
-- Flow 1:
Average throughput: 55.83 Mbit/s
95th percentile per-packet one-way delay: 35.583 ms
Loss rate: 9.02%
-- Flow 2:
Average throughput: 29.83 Mbit/s
95th percentile per-packet one-way delay: 37.228 ms
Loss rate: 9.17%
-- Flow 3:
Average throughput: 35.95 Mbit/s
95th percentile per-packet one-way delay: 42.943 ms
Loss rate: 10.70%
```

Run 4: Report of TCP BBR — Data Link

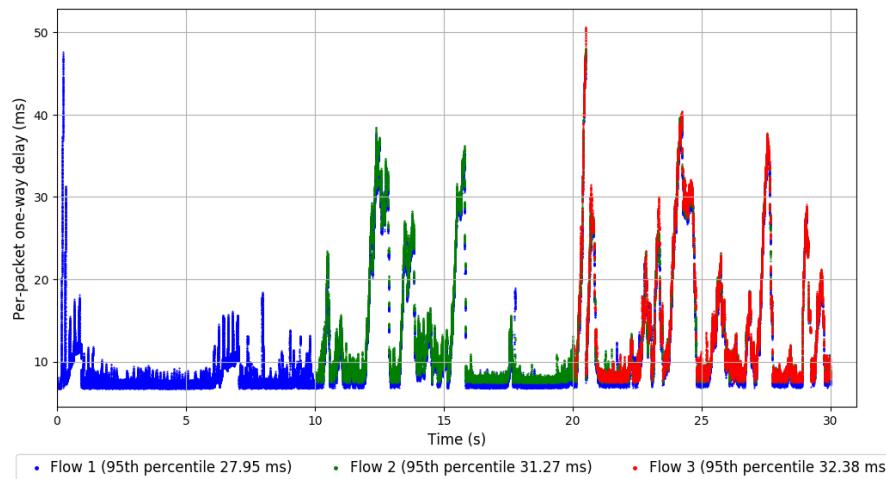
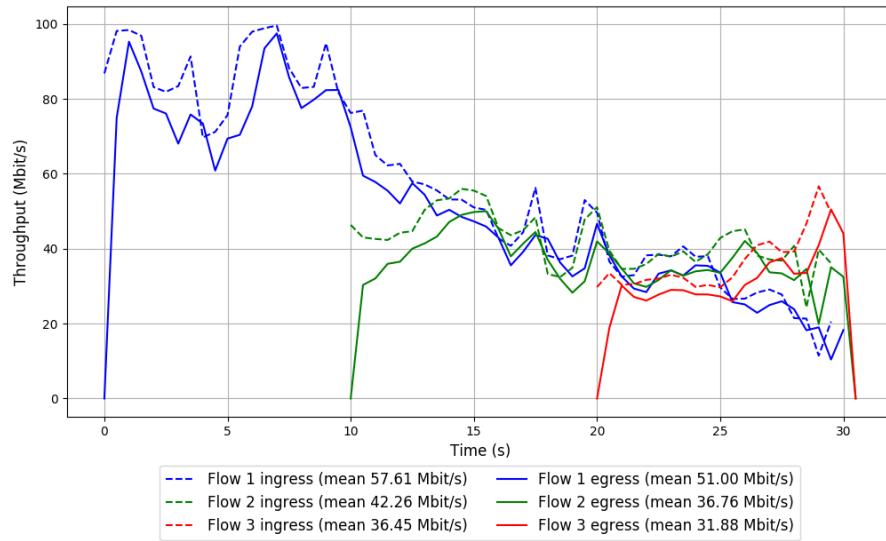


Run 5: Statistics of TCP BBR

```
Start at: 2019-02-20 02:20:15
End at: 2019-02-20 02:20:45
Local clock offset: 7.761 ms
Remote clock offset: -2.751 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.08 Mbit/s
95th percentile per-packet one-way delay: 29.685 ms
Loss rate: 12.06%
-- Flow 1:
Average throughput: 51.00 Mbit/s
95th percentile per-packet one-way delay: 27.945 ms
Loss rate: 11.49%
-- Flow 2:
Average throughput: 36.76 Mbit/s
95th percentile per-packet one-way delay: 31.272 ms
Loss rate: 13.00%
-- Flow 3:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: 32.383 ms
Loss rate: 12.55%
```

Run 5: Report of TCP BBR — Data Link

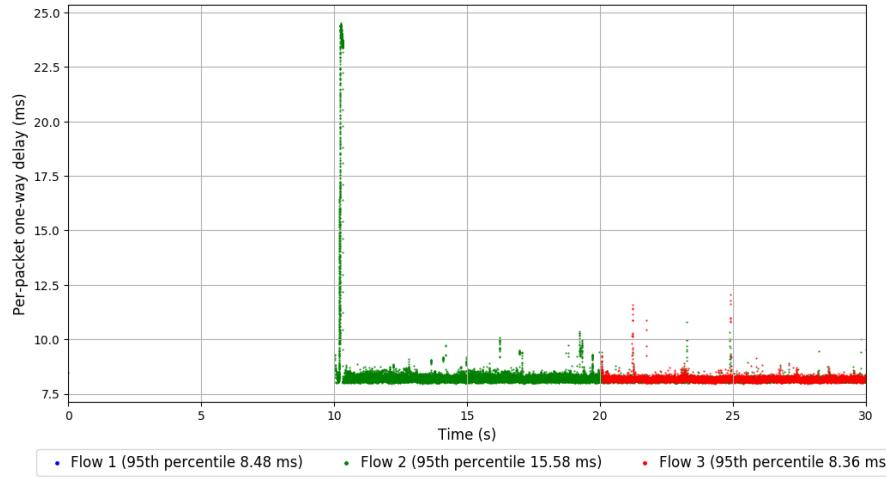
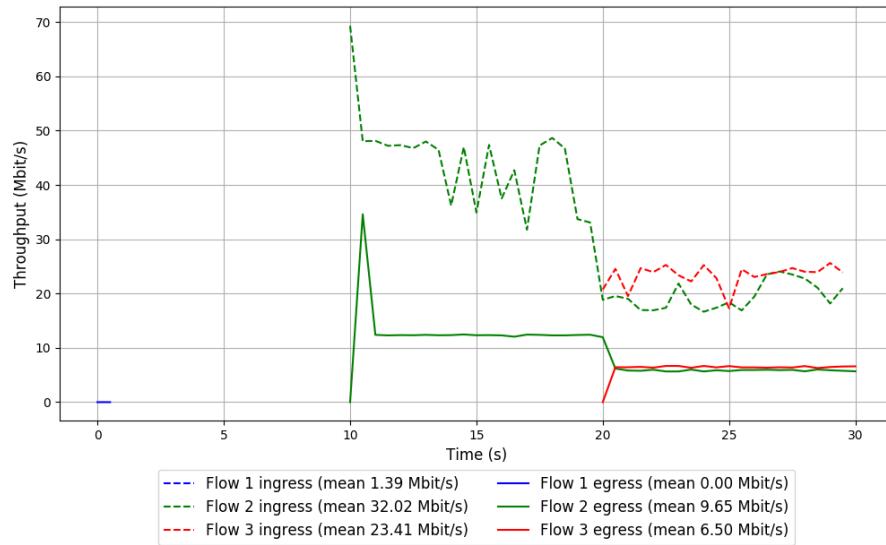


Run 1: Statistics of Copa

```
Start at: 2019-02-20 00:43:16
End at: 2019-02-20 00:43:46
Local clock offset: -0.802 ms
Remote clock offset: -0.739 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 9.672 ms
Loss rate: 70.50%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 8.481 ms
Loss rate: 97.24%
-- Flow 2:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 15.580 ms
Loss rate: 69.86%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 8.361 ms
Loss rate: 72.25%
```

Run 1: Report of Copa — Data Link

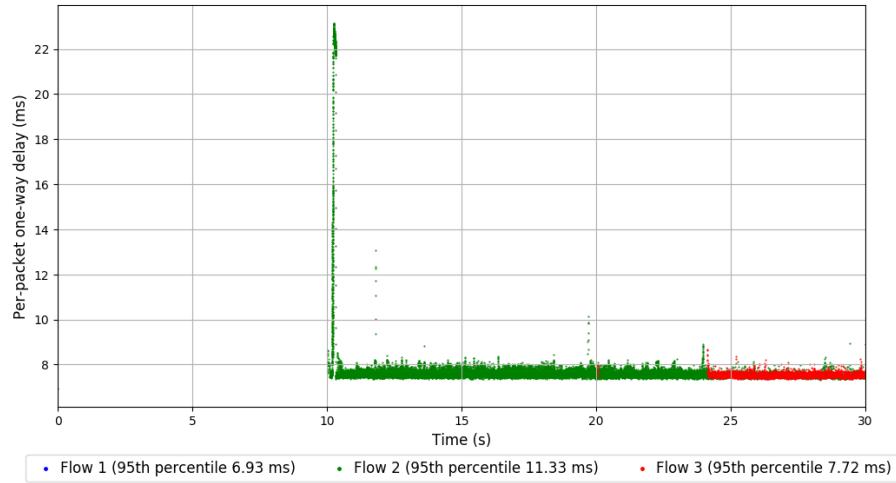
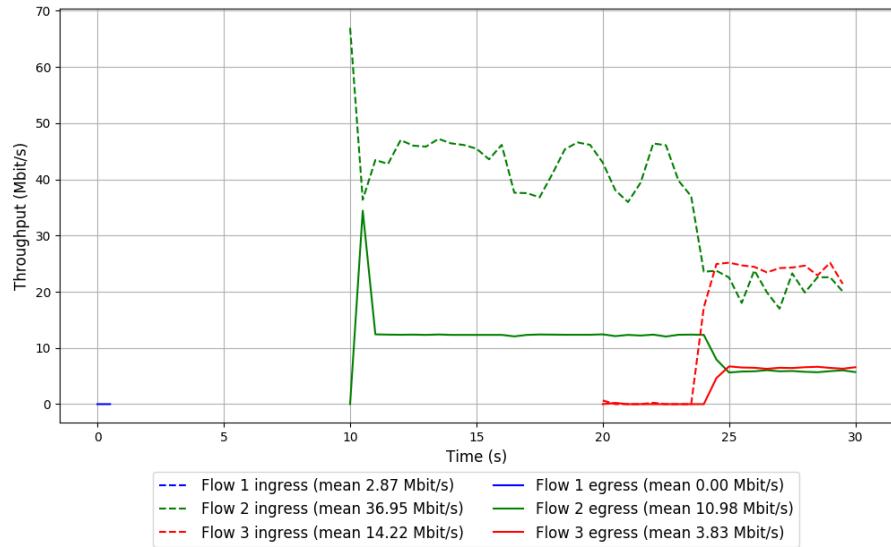


Run 2: Statistics of Copa

```
Start at: 2019-02-20 01:07:52
End at: 2019-02-20 01:08:22
Local clock offset: -1.533 ms
Remote clock offset: -2.011 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 8.430 ms
Loss rate: 70.72%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 6.931 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 10.98 Mbit/s
95th percentile per-packet one-way delay: 11.330 ms
Loss rate: 70.27%
-- Flow 3:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 7.720 ms
Loss rate: 73.08%
```

Run 2: Report of Copa — Data Link

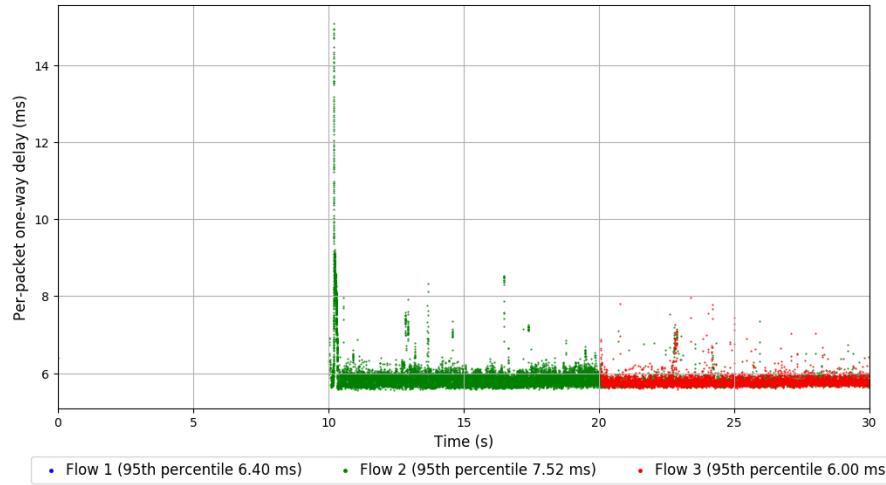
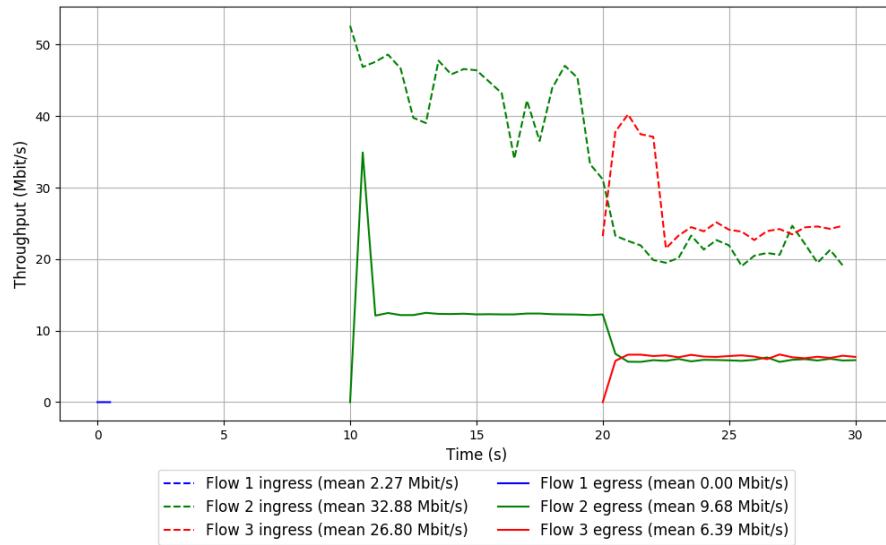


Run 3: Statistics of Copa

```
Start at: 2019-02-20 01:32:34
End at: 2019-02-20 01:33:04
Local clock offset: 1.186 ms
Remote clock offset: -1.43 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 6.871 ms
Loss rate: 72.17%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 6.402 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 7.523 ms
Loss rate: 70.56%
-- Flow 3:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 5.996 ms
Loss rate: 76.14%
```

Run 3: Report of Copa — Data Link

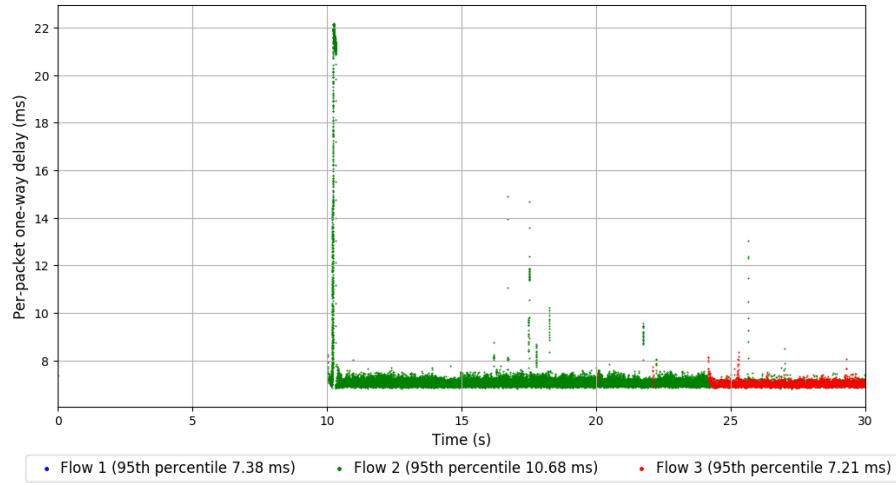
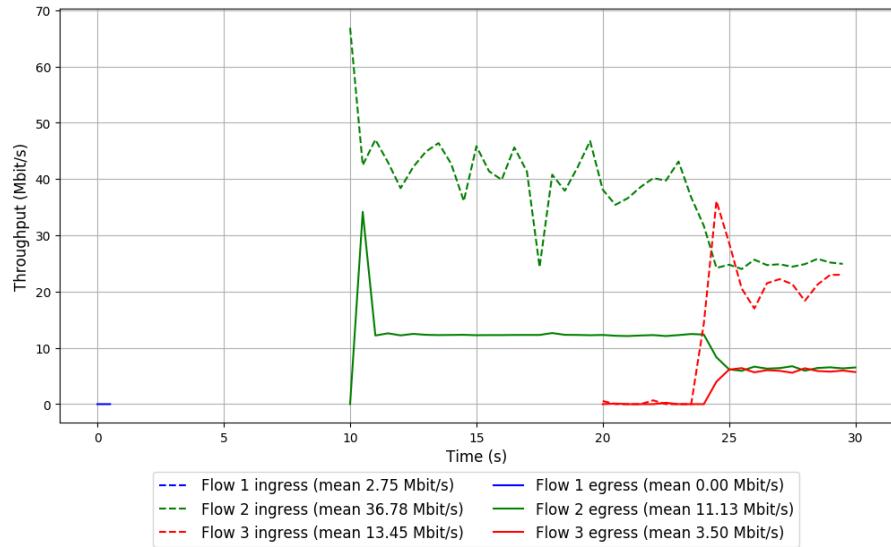


Run 4: Statistics of Copa

```
Start at: 2019-02-20 01:57:01
End at: 2019-02-20 01:57:31
Local clock offset: 1.054 ms
Remote clock offset: -2.086 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 8.390 ms
Loss rate: 70.40%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 7.376 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 10.684 ms
Loss rate: 69.74%
-- Flow 3:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 7.214 ms
Loss rate: 74.00%
```

Run 4: Report of Copa — Data Link

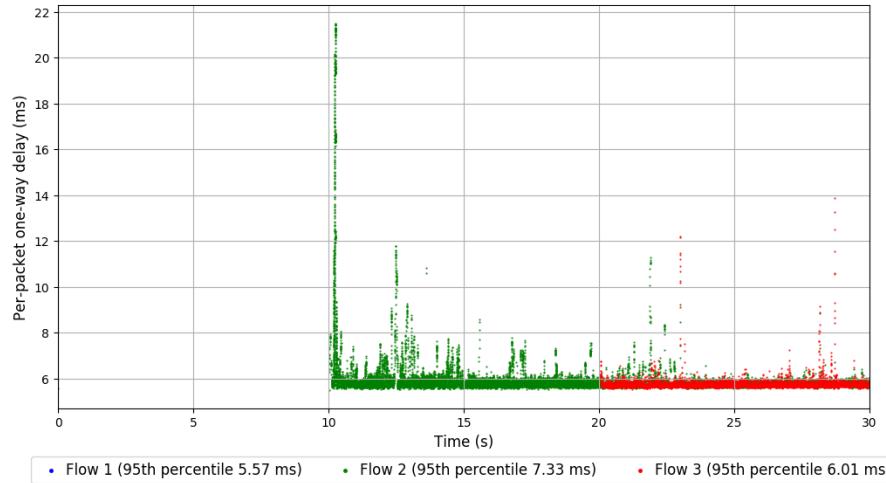
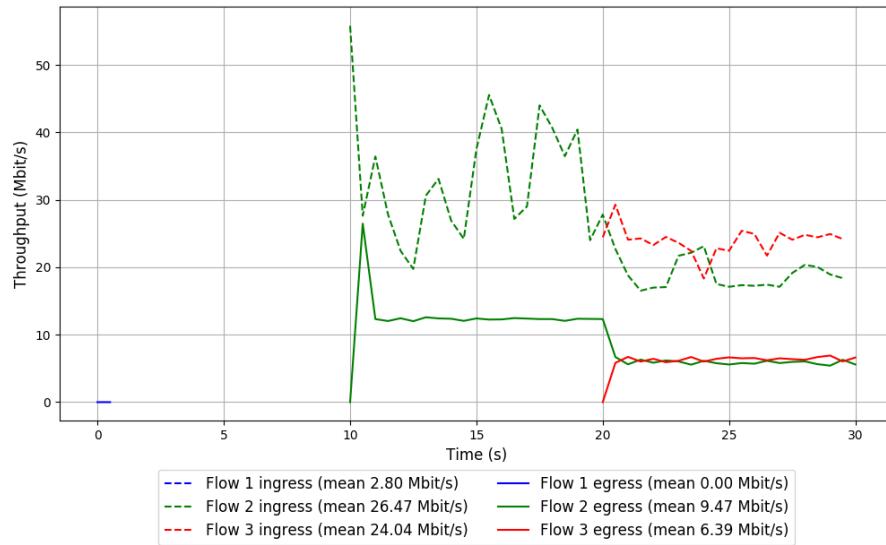


Run 5: Statistics of Copa

```
Start at: 2019-02-20 02:21:28
End at: 2019-02-20 02:21:58
Local clock offset: 11.215 ms
Remote clock offset: -1.353 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.43 Mbit/s
95th percentile per-packet one-way delay: 6.956 ms
Loss rate: 67.10%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5.567 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 9.47 Mbit/s
95th percentile per-packet one-way delay: 7.327 ms
Loss rate: 64.23%
-- Flow 3:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 6.014 ms
Loss rate: 73.40%
```

Run 5: Report of Copa — Data Link

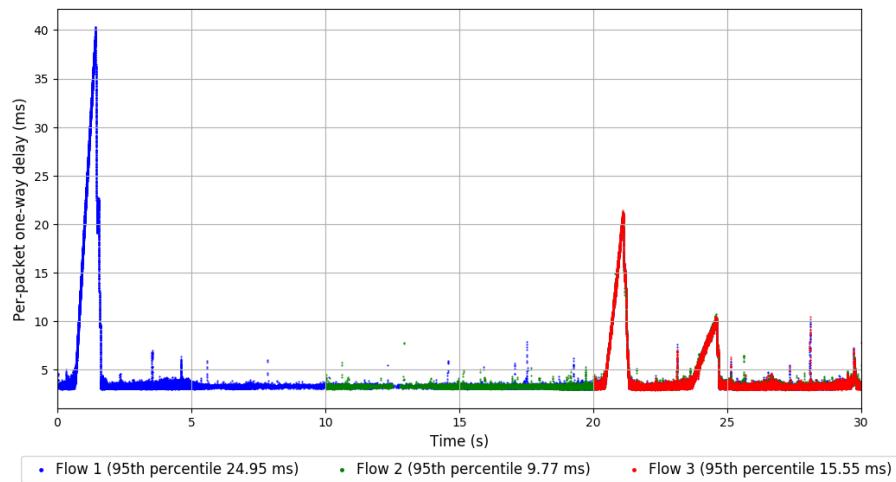
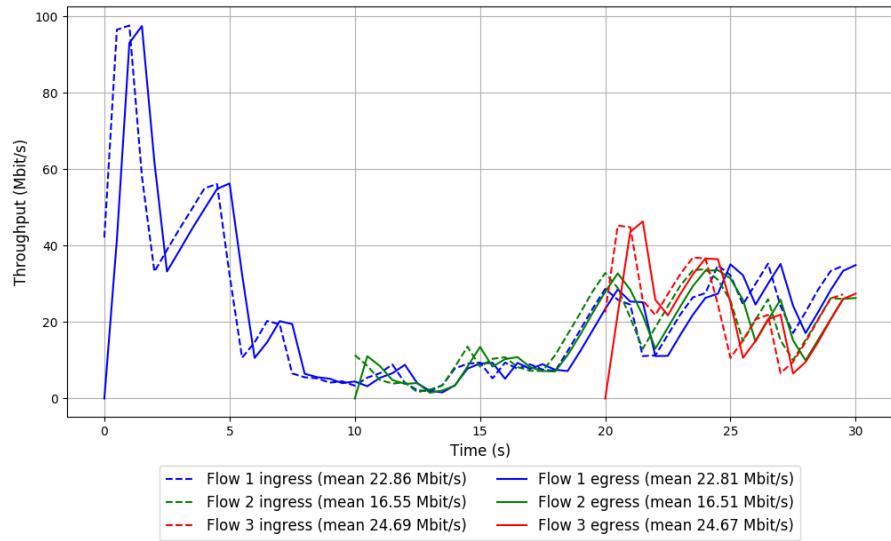


```
Run 1: Statistics of TCP Cubic

Start at: 2019-02-20 00:38:34
End at: 2019-02-20 00:39:04
Local clock offset: 1.207 ms
Remote clock offset: -3.493 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.01 Mbit/s
95th percentile per-packet one-way delay: 19.287 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 22.81 Mbit/s
95th percentile per-packet one-way delay: 24.955 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 16.51 Mbit/s
95th percentile per-packet one-way delay: 9.772 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 15.551 ms
Loss rate: 0.10%
```

Run 1: Report of TCP Cubic — Data Link

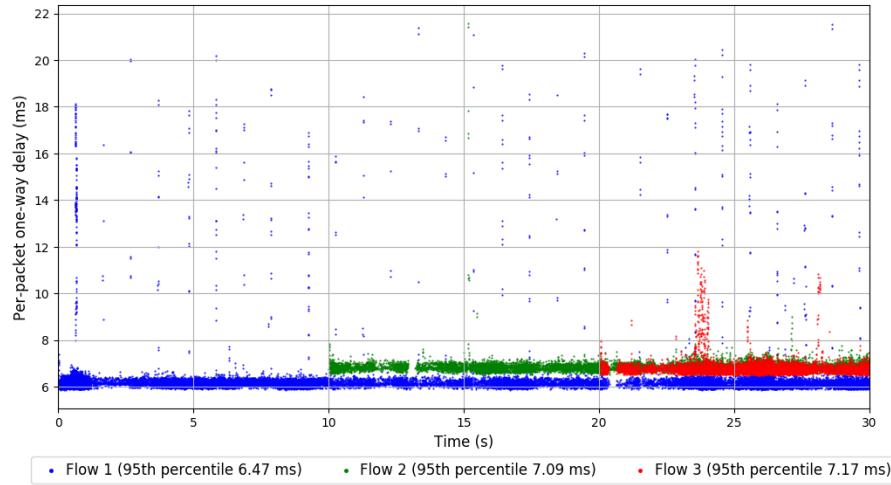
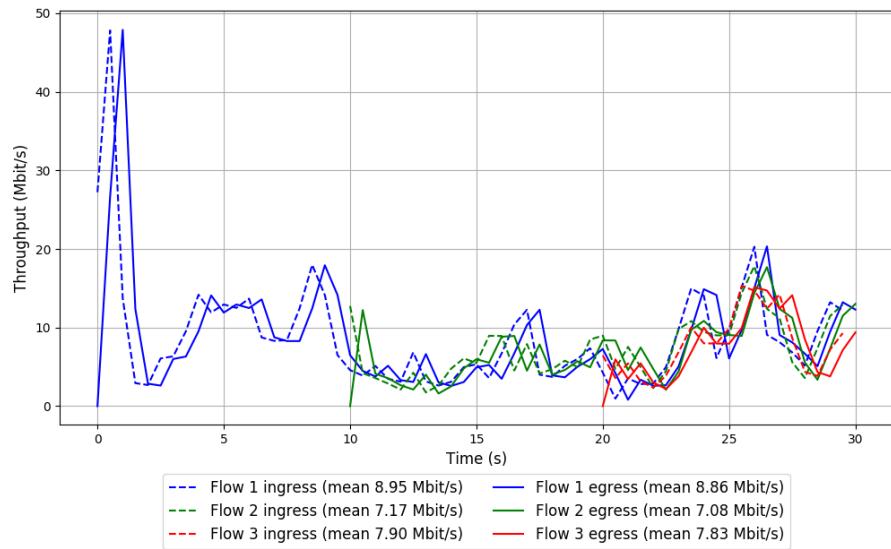


Run 2: Statistics of TCP Cubic

```
Start at: 2019-02-20 01:03:12
End at: 2019-02-20 01:03:42
Local clock offset: -0.943 ms
Remote clock offset: -2.345 ms

# Below is generated by plot.py at 2019-02-20 02:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.18 Mbit/s
95th percentile per-packet one-way delay: 7.033 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 6.474 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 7.08 Mbit/s
95th percentile per-packet one-way delay: 7.089 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 7.175 ms
Loss rate: 0.97%
```

Run 2: Report of TCP Cubic — Data Link

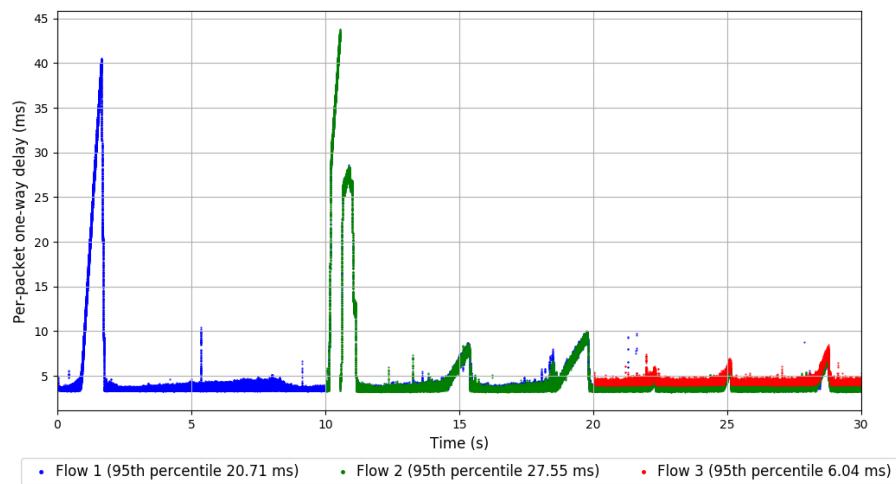
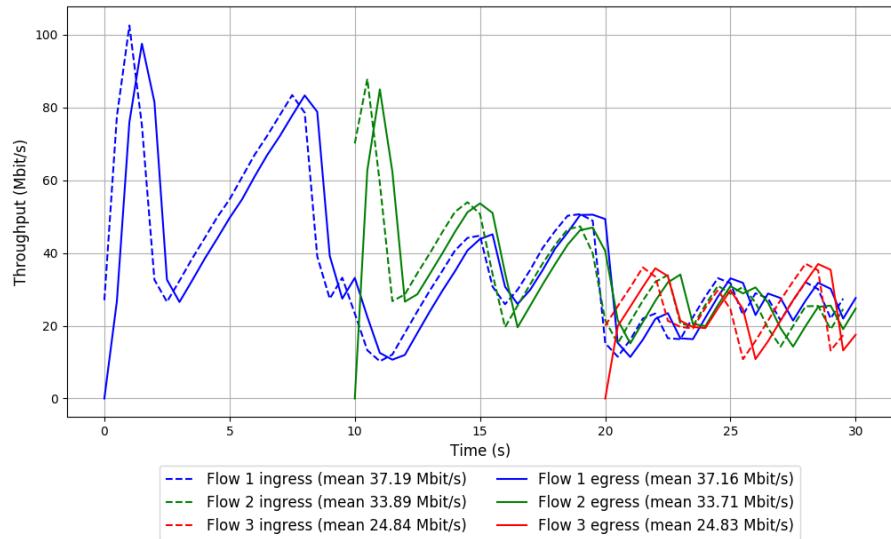


Run 3: Statistics of TCP Cubic

```
Start at: 2019-02-20 01:27:52
End at: 2019-02-20 01:28:22
Local clock offset: 0.647 ms
Remote clock offset: -2.962 ms

# Below is generated by plot.py at 2019-02-20 02:25:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.86 Mbit/s
95th percentile per-packet one-way delay: 25.625 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 37.16 Mbit/s
95th percentile per-packet one-way delay: 20.713 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 33.71 Mbit/s
95th percentile per-packet one-way delay: 27.548 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 24.83 Mbit/s
95th percentile per-packet one-way delay: 6.039 ms
Loss rate: 0.07%
```

Run 3: Report of TCP Cubic — Data Link

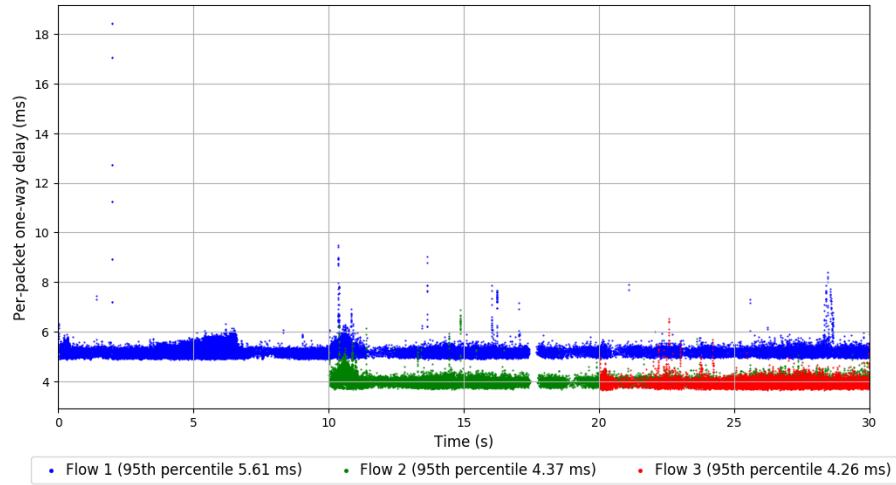
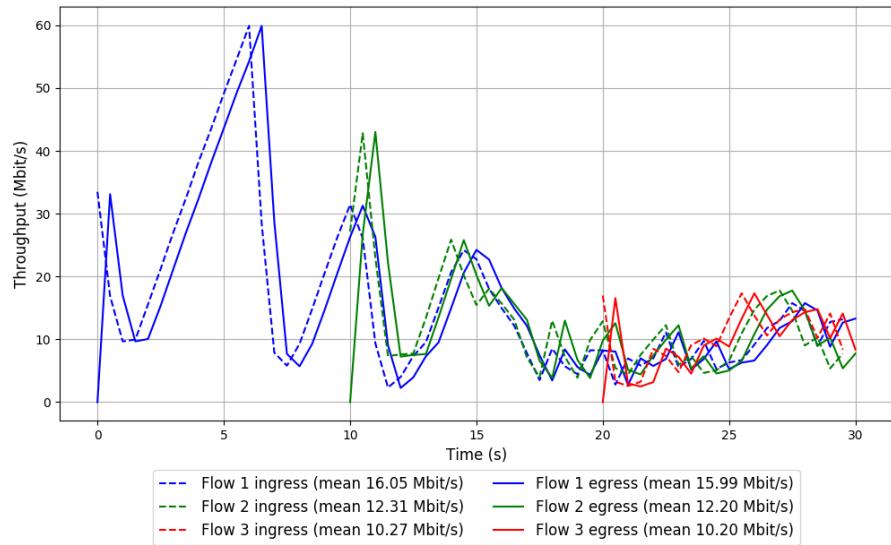


Run 4: Statistics of TCP Cubic

```
Start at: 2019-02-20 01:52:20
End at: 2019-02-20 01:52:50
Local clock offset: 3.092 ms
Remote clock offset: -1.736 ms

# Below is generated by plot.py at 2019-02-20 02:25:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.50 Mbit/s
95th percentile per-packet one-way delay: 5.511 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 15.99 Mbit/s
95th percentile per-packet one-way delay: 5.612 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 4.369 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 4.260 ms
Loss rate: 0.69%
```

Run 4: Report of TCP Cubic — Data Link

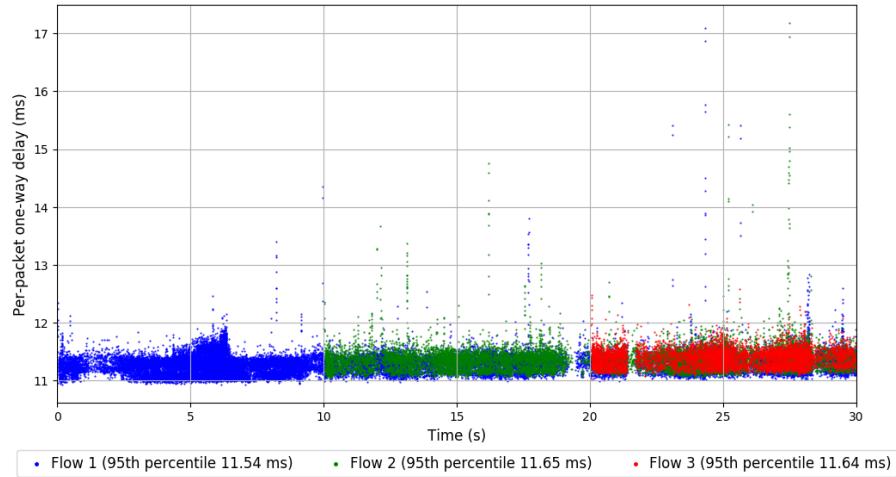
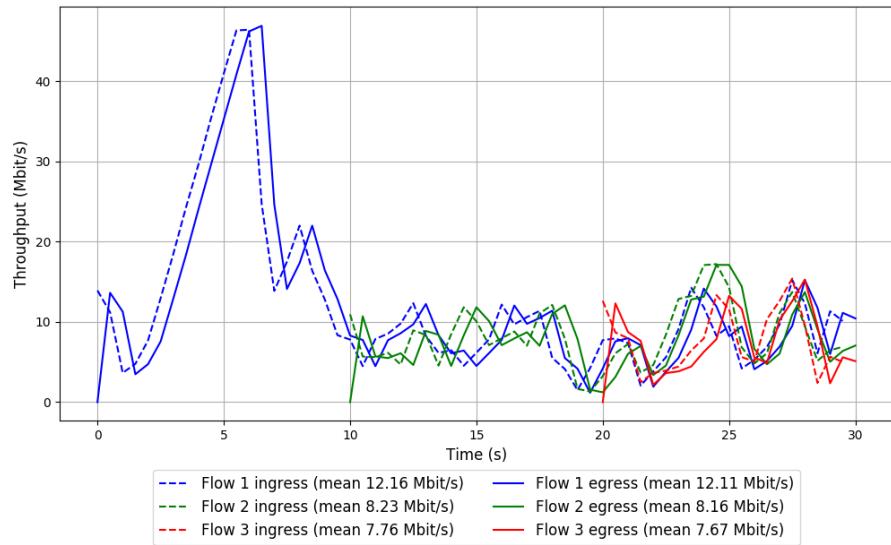


Run 5: Statistics of TCP Cubic

```
Start at: 2019-02-20 02:16:47
End at: 2019-02-20 02:17:17
Local clock offset: 4.44 ms
Remote clock offset: -1.649 ms

# Below is generated by plot.py at 2019-02-20 02:25:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.09 Mbit/s
95th percentile per-packet one-way delay: 11.591 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 12.11 Mbit/s
95th percentile per-packet one-way delay: 11.544 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 11.647 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 7.67 Mbit/s
95th percentile per-packet one-way delay: 11.640 ms
Loss rate: 1.26%
```

Run 5: Report of TCP Cubic — Data Link

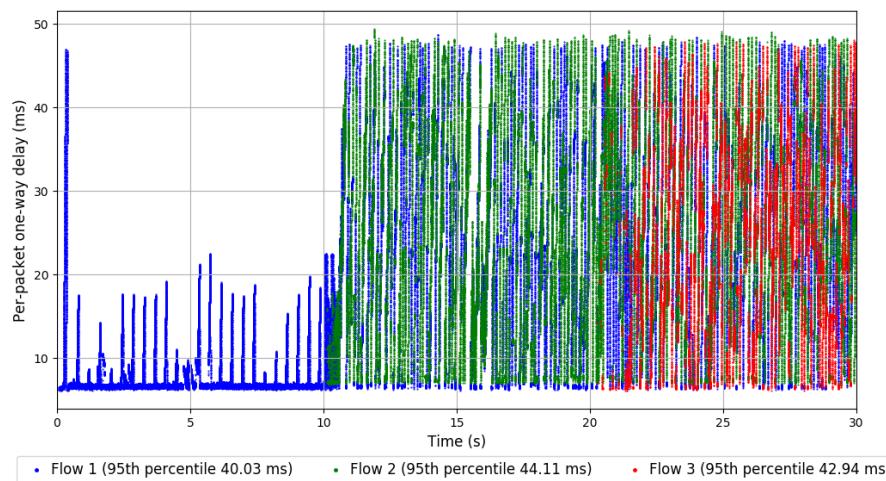
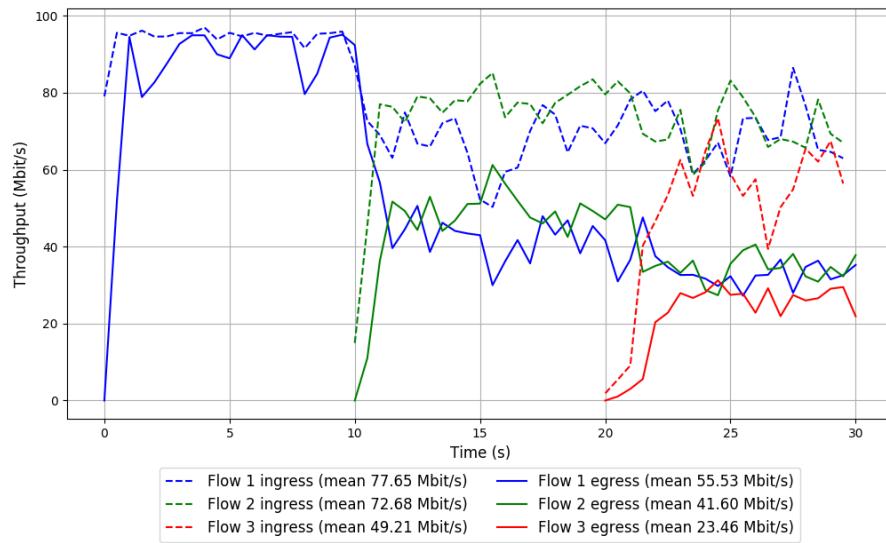


```
Run 1: Statistics of FillP

Start at: 2019-02-20 00:28:13
End at: 2019-02-20 00:28:43
Local clock offset: -2.747 ms
Remote clock offset: -2.694 ms

# Below is generated by plot.py at 2019-02-20 02:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.80 Mbit/s
95th percentile per-packet one-way delay: 42.207 ms
Loss rate: 36.14%
-- Flow 1:
Average throughput: 55.53 Mbit/s
95th percentile per-packet one-way delay: 40.033 ms
Loss rate: 28.48%
-- Flow 2:
Average throughput: 41.60 Mbit/s
95th percentile per-packet one-way delay: 44.114 ms
Loss rate: 42.67%
-- Flow 3:
Average throughput: 23.46 Mbit/s
95th percentile per-packet one-way delay: 42.941 ms
Loss rate: 53.24%
```

Run 1: Report of FillP — Data Link

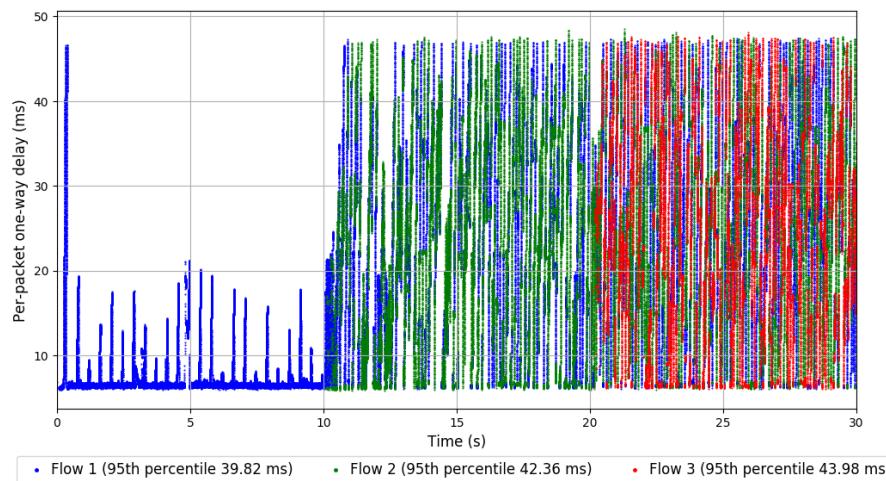
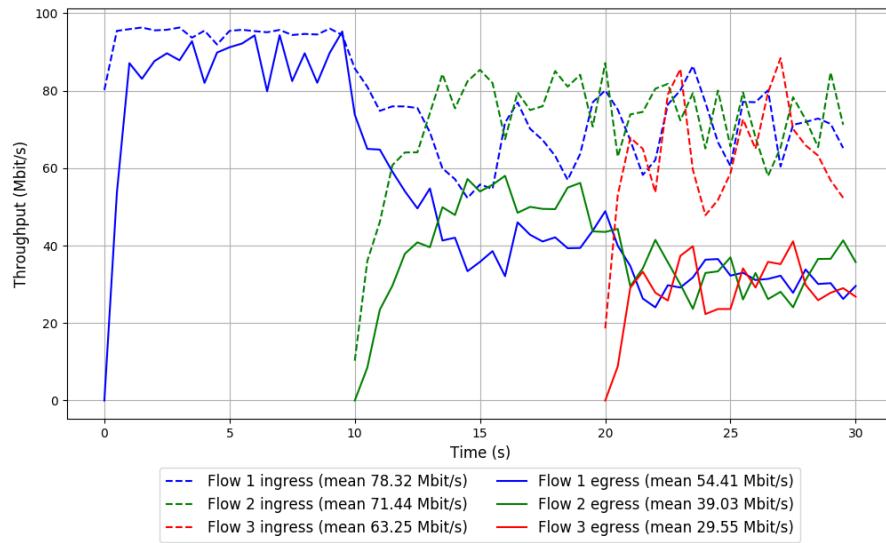


Run 2: Statistics of FillP

```
Start at: 2019-02-20 00:52:36
End at: 2019-02-20 00:53:06
Local clock offset: -0.802 ms
Remote clock offset: -2.702 ms

# Below is generated by plot.py at 2019-02-20 02:27:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.11 Mbit/s
95th percentile per-packet one-way delay: 41.442 ms
Loss rate: 38.55%
-- Flow 1:
Average throughput: 54.41 Mbit/s
95th percentile per-packet one-way delay: 39.819 ms
Loss rate: 30.51%
-- Flow 2:
Average throughput: 39.03 Mbit/s
95th percentile per-packet one-way delay: 42.362 ms
Loss rate: 45.30%
-- Flow 3:
Average throughput: 29.55 Mbit/s
95th percentile per-packet one-way delay: 43.976 ms
Loss rate: 53.26%
```

Run 2: Report of FillP — Data Link

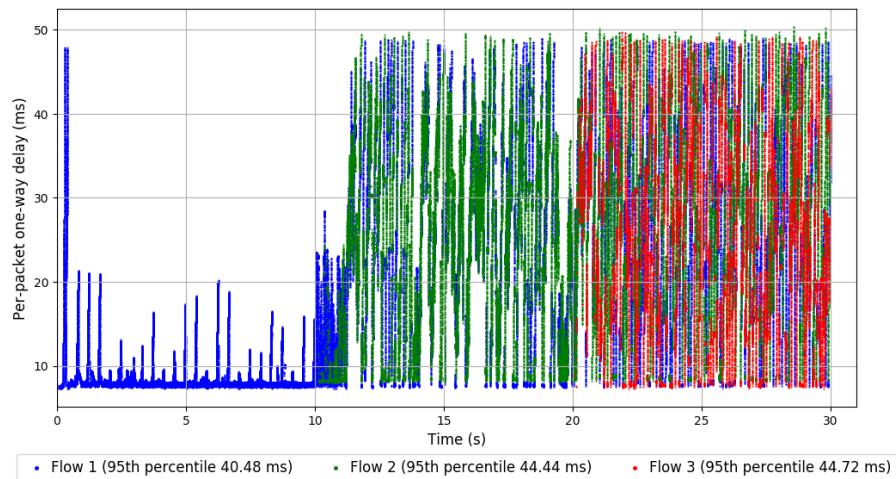
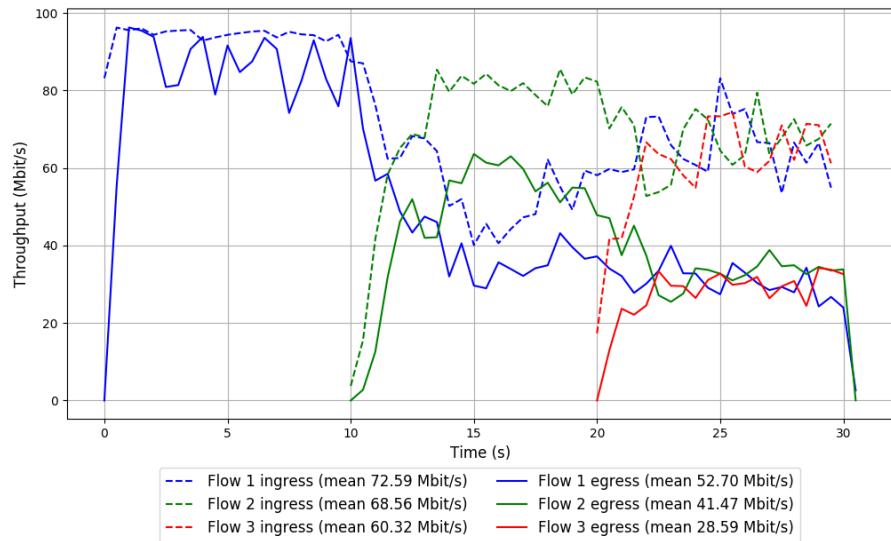


Run 3: Statistics of FillP

```
Start at: 2019-02-20 01:17:18
End at: 2019-02-20 01:17:48
Local clock offset: -2.556 ms
Remote clock offset: -1.934 ms

# Below is generated by plot.py at 2019-02-20 02:27:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.82 Mbit/s
95th percentile per-packet one-way delay: 42.686 ms
Loss rate: 34.95%
-- Flow 1:
Average throughput: 52.70 Mbit/s
95th percentile per-packet one-way delay: 40.478 ms
Loss rate: 27.33%
-- Flow 2:
Average throughput: 41.47 Mbit/s
95th percentile per-packet one-way delay: 44.441 ms
Loss rate: 39.42%
-- Flow 3:
Average throughput: 28.59 Mbit/s
95th percentile per-packet one-way delay: 44.715 ms
Loss rate: 52.44%
```

Run 3: Report of FillP — Data Link

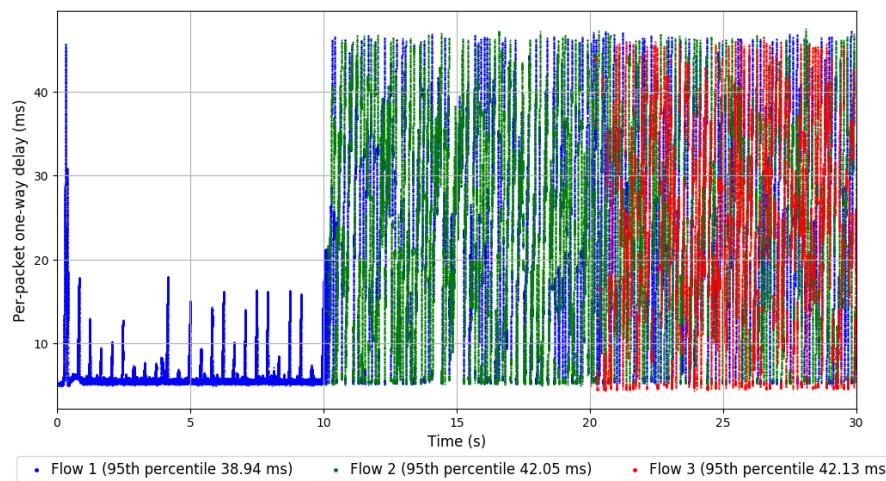
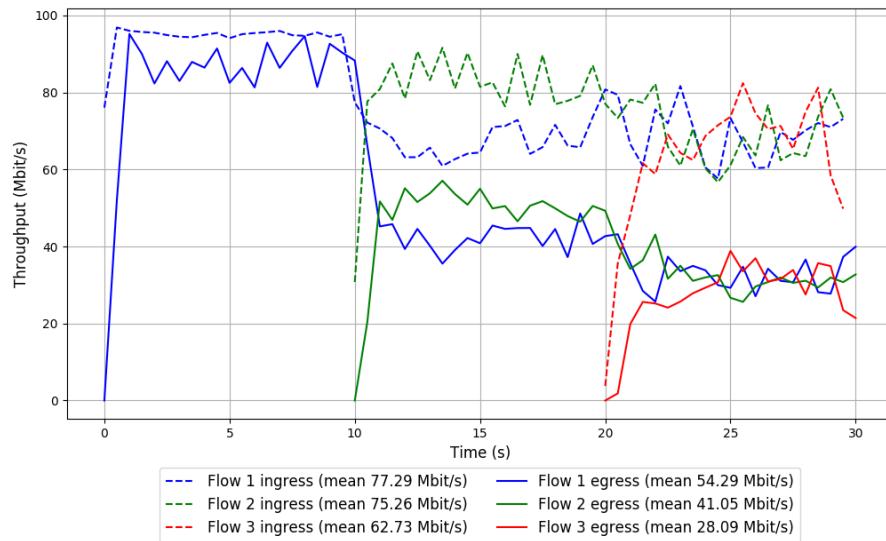


Run 4: Statistics of FillP

```
Start at: 2019-02-20 01:41:52
End at: 2019-02-20 01:42:22
Local clock offset: 0.786 ms
Remote clock offset: -3.316 ms

# Below is generated by plot.py at 2019-02-20 02:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.91 Mbit/s
95th percentile per-packet one-way delay: 40.678 ms
Loss rate: 38.59%
-- Flow 1:
Average throughput: 54.29 Mbit/s
95th percentile per-packet one-way delay: 38.938 ms
Loss rate: 29.70%
-- Flow 2:
Average throughput: 41.05 Mbit/s
95th percentile per-packet one-way delay: 42.052 ms
Loss rate: 45.44%
-- Flow 3:
Average throughput: 28.09 Mbit/s
95th percentile per-packet one-way delay: 42.128 ms
Loss rate: 55.15%
```

Run 4: Report of FillP — Data Link

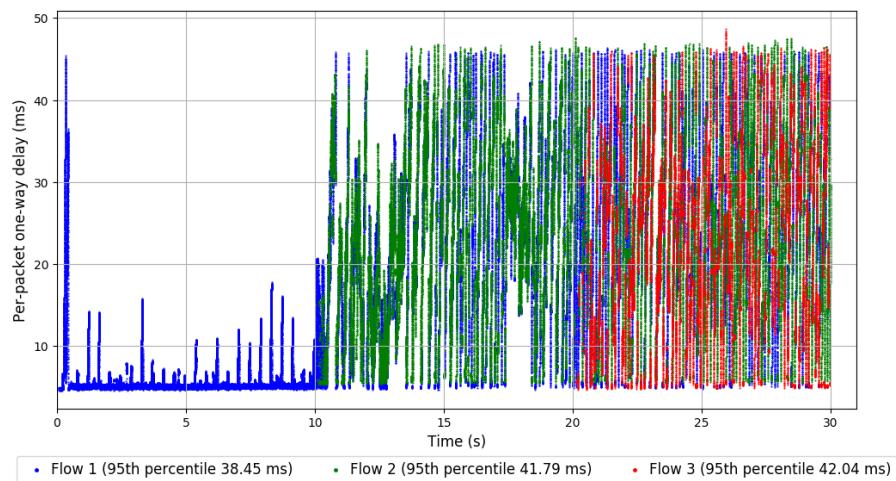
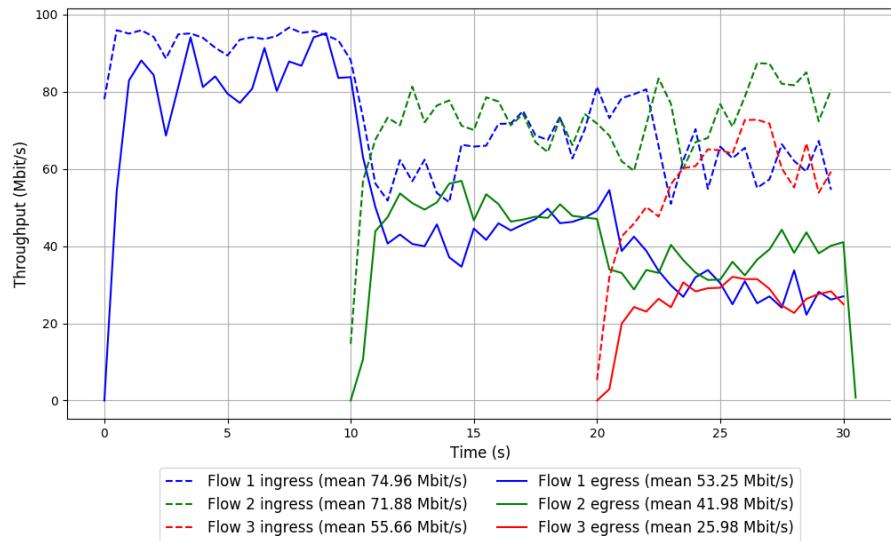


```
Run 5: Statistics of FillP

Start at: 2019-02-20 02:06:20
End at: 2019-02-20 02:06:50
Local clock offset: 6.285 ms
Remote clock offset: -2.232 ms

# Below is generated by plot.py at 2019-02-20 02:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.73 Mbit/s
95th percentile per-packet one-way delay: 40.332 ms
Loss rate: 36.41%
-- Flow 1:
Average throughput: 53.25 Mbit/s
95th percentile per-packet one-way delay: 38.448 ms
Loss rate: 28.96%
-- Flow 2:
Average throughput: 41.98 Mbit/s
95th percentile per-packet one-way delay: 41.788 ms
Loss rate: 41.53%
-- Flow 3:
Average throughput: 25.98 Mbit/s
95th percentile per-packet one-way delay: 42.041 ms
Loss rate: 53.34%
```

Run 5: Report of FillP — Data Link

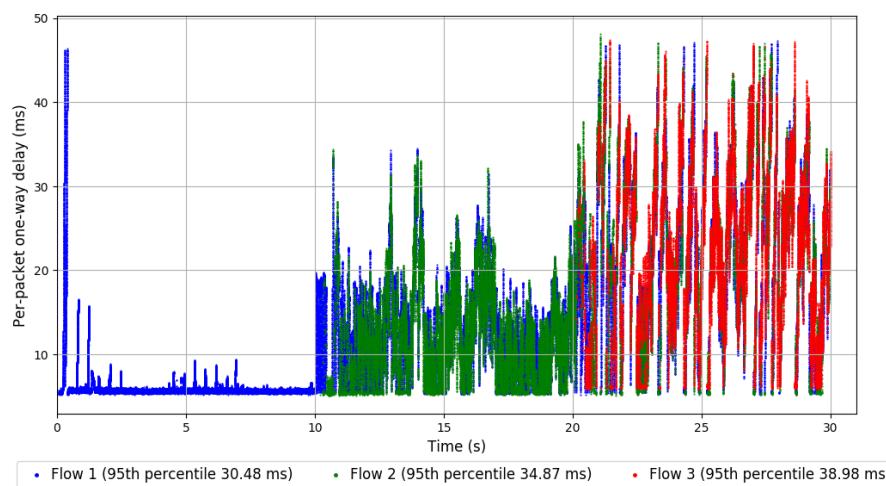
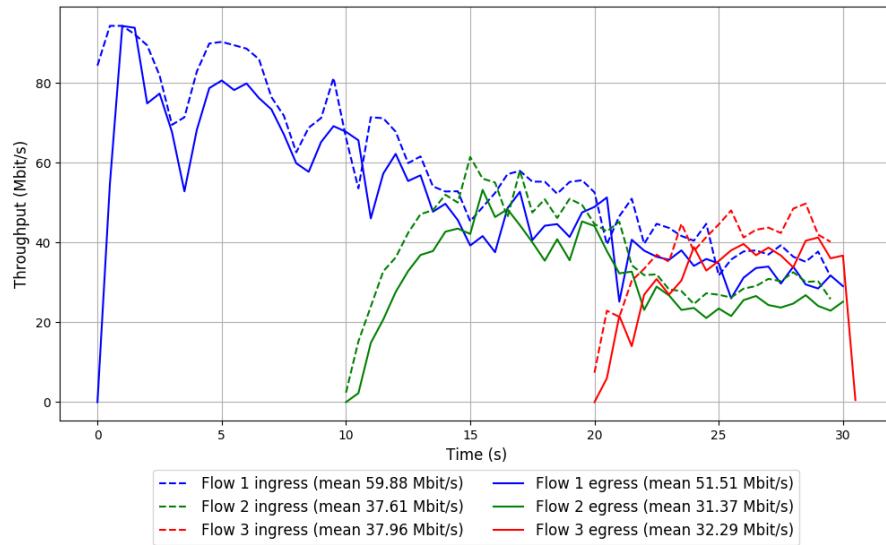


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-02-20 00:44:23
End at: 2019-02-20 00:44:53
Local clock offset: -1.365 ms
Remote clock offset: -3.23 ms

# Below is generated by plot.py at 2019-02-20 02:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.05 Mbit/s
95th percentile per-packet one-way delay: 33.914 ms
Loss rate: 14.71%
-- Flow 1:
Average throughput: 51.51 Mbit/s
95th percentile per-packet one-way delay: 30.482 ms
Loss rate: 13.92%
-- Flow 2:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 34.866 ms
Loss rate: 16.52%
-- Flow 3:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 38.976 ms
Loss rate: 14.86%
```

Run 1: Report of FillP-Sheep — Data Link

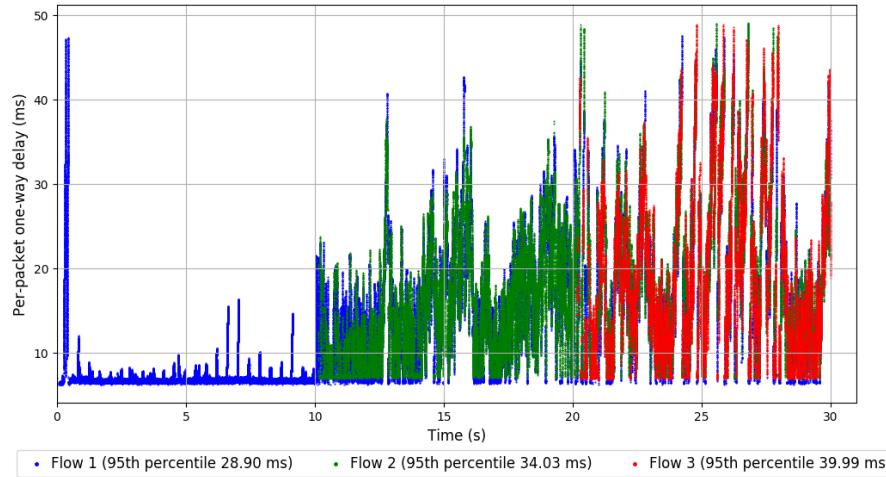
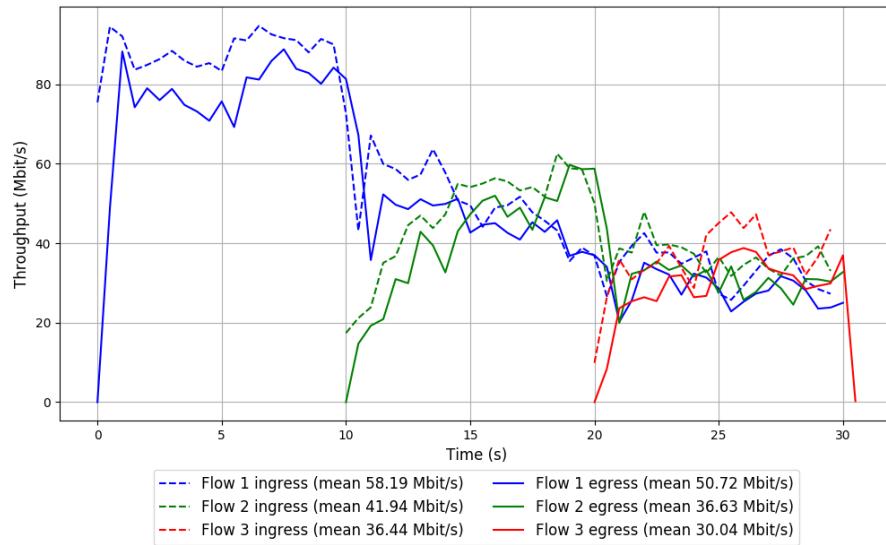


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-02-20 01:08:59
End at: 2019-02-20 01:09:29
Local clock offset: -0.335 ms
Remote clock offset: -1.029 ms

# Below is generated by plot.py at 2019-02-20 02:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.08 Mbit/s
95th percentile per-packet one-way delay: 33.077 ms
Loss rate: 13.29%
-- Flow 1:
Average throughput: 50.72 Mbit/s
95th percentile per-packet one-way delay: 28.900 ms
Loss rate: 12.76%
-- Flow 2:
Average throughput: 36.63 Mbit/s
95th percentile per-packet one-way delay: 34.031 ms
Loss rate: 12.60%
-- Flow 3:
Average throughput: 30.04 Mbit/s
95th percentile per-packet one-way delay: 39.995 ms
Loss rate: 17.40%
```

Run 2: Report of FillP-Sheep — Data Link

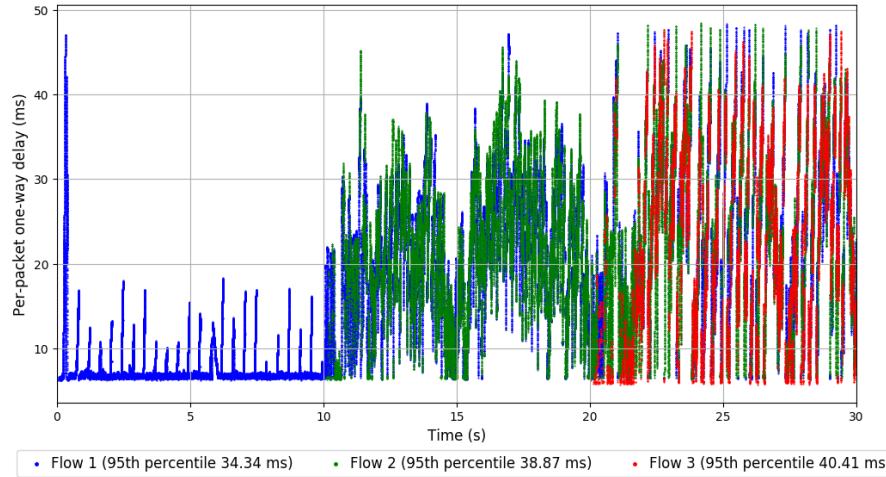
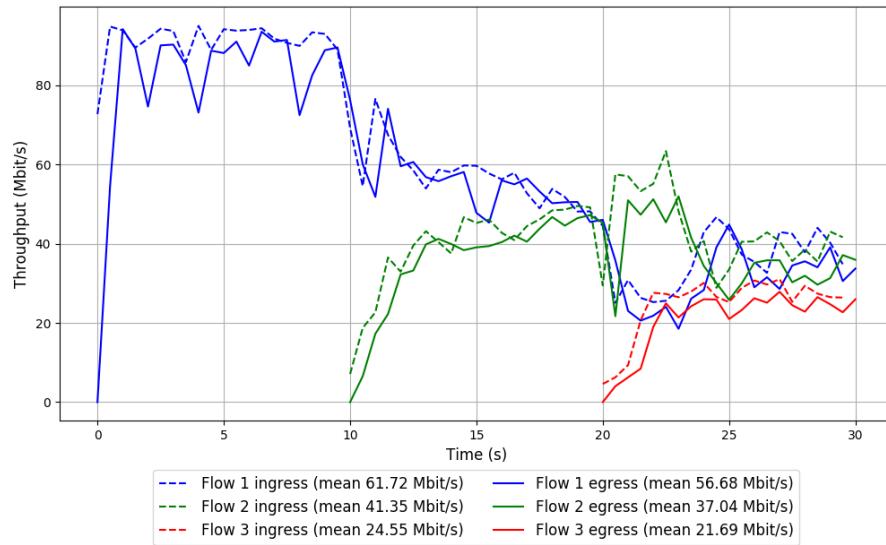


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-02-20 01:33:42
End at: 2019-02-20 01:34:12
Local clock offset: -1.292 ms
Remote clock offset: -3.193 ms

# Below is generated by plot.py at 2019-02-20 02:27:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.52 Mbit/s
95th percentile per-packet one-way delay: 37.246 ms
Loss rate: 9.06%
-- Flow 1:
Average throughput: 56.68 Mbit/s
95th percentile per-packet one-way delay: 34.344 ms
Loss rate: 8.14%
-- Flow 2:
Average throughput: 37.04 Mbit/s
95th percentile per-packet one-way delay: 38.872 ms
Loss rate: 10.36%
-- Flow 3:
Average throughput: 21.69 Mbit/s
95th percentile per-packet one-way delay: 40.413 ms
Loss rate: 11.62%
```

Run 3: Report of FillP-Sheep — Data Link

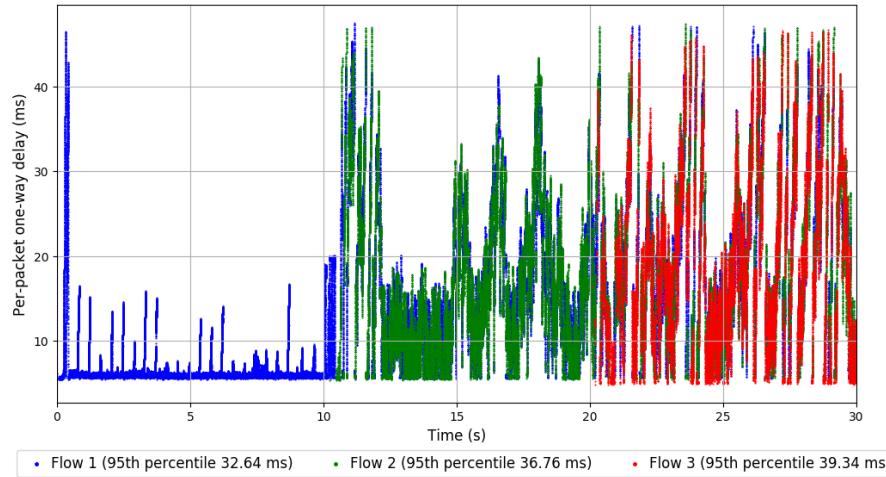
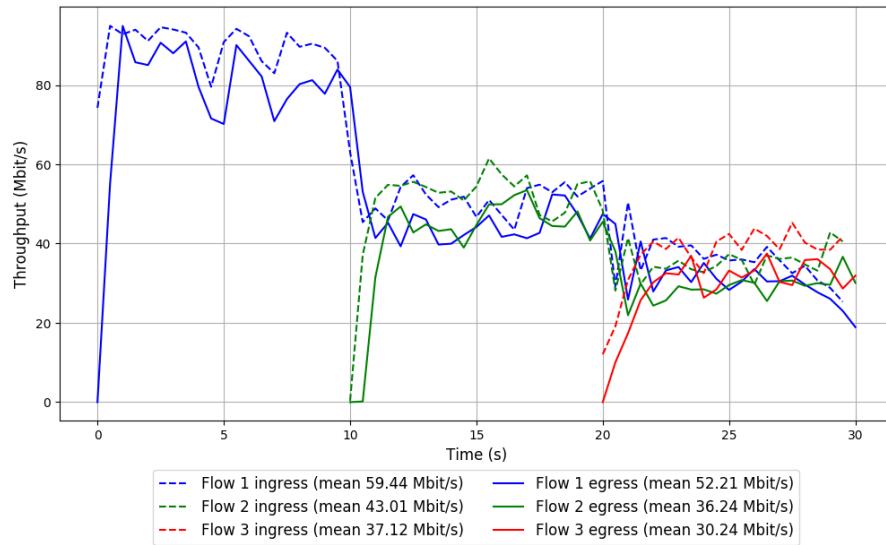


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-02-20 01:58:08
End at: 2019-02-20 01:58:38
Local clock offset: 3.043 ms
Remote clock offset: -1.289 ms

# Below is generated by plot.py at 2019-02-20 02:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.34 Mbit/s
95th percentile per-packet one-way delay: 35.488 ms
Loss rate: 13.96%
-- Flow 1:
Average throughput: 52.21 Mbit/s
95th percentile per-packet one-way delay: 32.636 ms
Loss rate: 12.15%
-- Flow 2:
Average throughput: 36.24 Mbit/s
95th percentile per-packet one-way delay: 36.764 ms
Loss rate: 15.72%
-- Flow 3:
Average throughput: 30.24 Mbit/s
95th percentile per-packet one-way delay: 39.337 ms
Loss rate: 18.65%
```

Run 4: Report of FillP-Sheep — Data Link

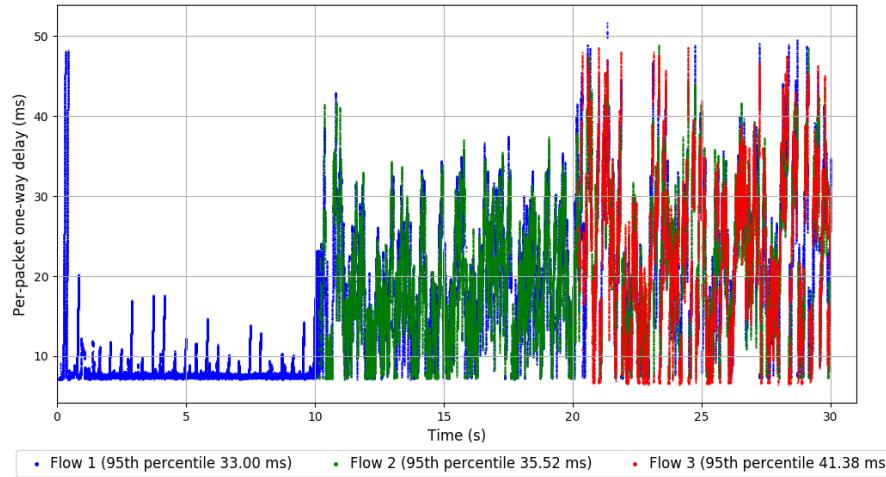
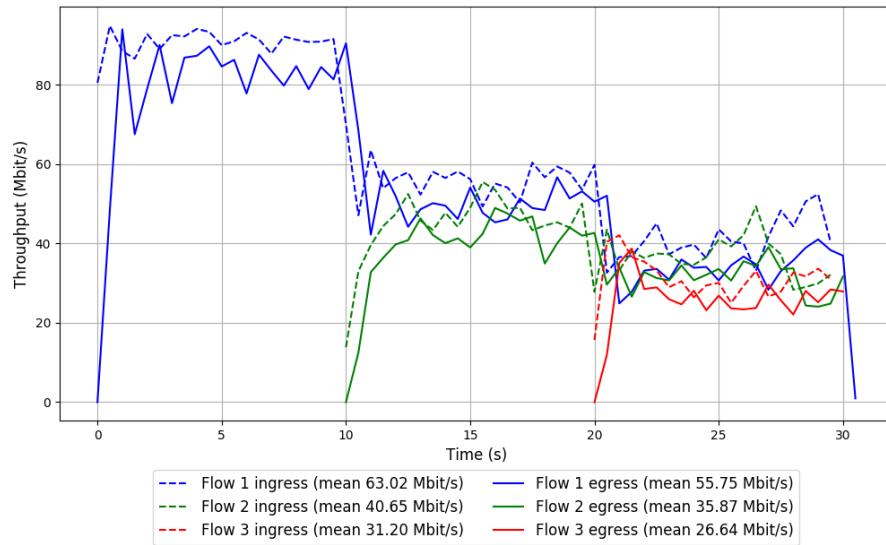


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-02-20 02:22:35
End at: 2019-02-20 02:23:05
Local clock offset: 9.363 ms
Remote clock offset: -1.634 ms

# Below is generated by plot.py at 2019-02-20 02:28:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.45 Mbit/s
95th percentile per-packet one-way delay: 35.085 ms
Loss rate: 11.83%
-- Flow 1:
Average throughput: 55.75 Mbit/s
95th percentile per-packet one-way delay: 32.998 ms
Loss rate: 11.45%
-- Flow 2:
Average throughput: 35.87 Mbit/s
95th percentile per-packet one-way delay: 35.516 ms
Loss rate: 11.67%
-- Flow 3:
Average throughput: 26.64 Mbit/s
95th percentile per-packet one-way delay: 41.382 ms
Loss rate: 14.52%
```

Run 5: Report of FillP-Sheep — Data Link

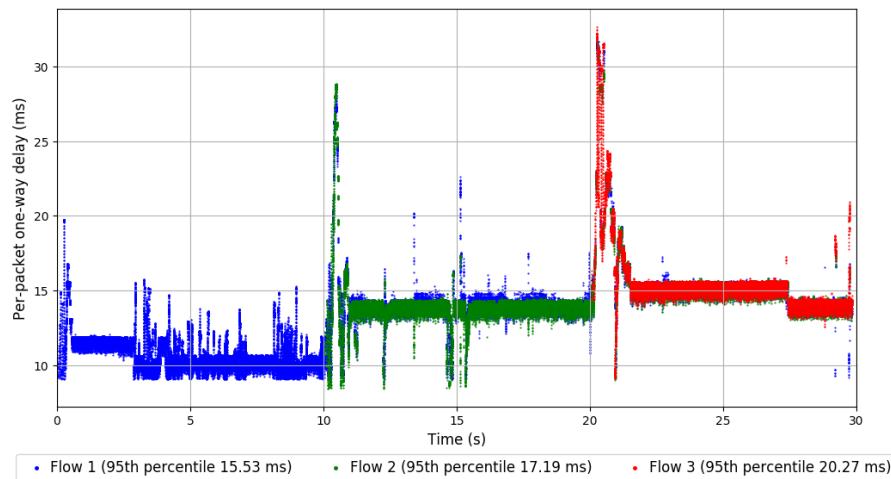
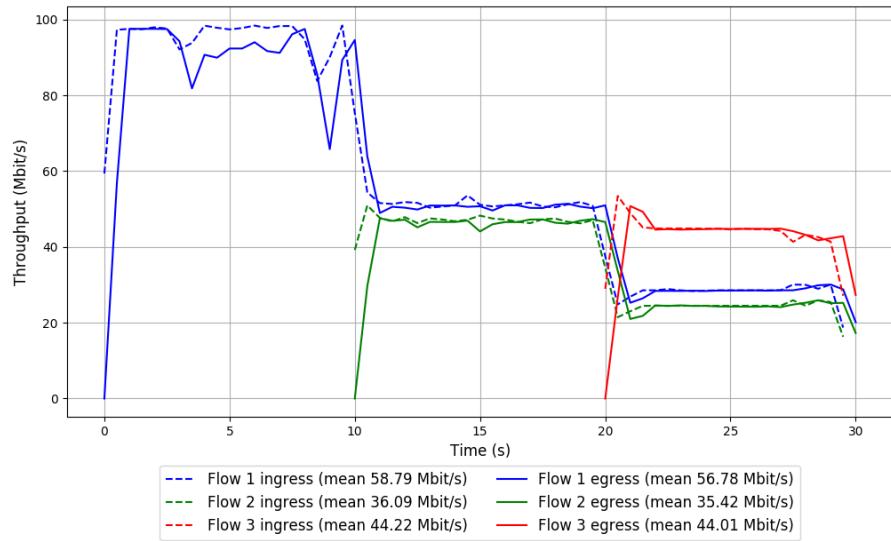


Run 1: Statistics of Indigo

```
Start at: 2019-02-20 00:31:41
End at: 2019-02-20 00:32:11
Local clock offset: -2.954 ms
Remote clock offset: -1.06 ms

# Below is generated by plot.py at 2019-02-20 02:28:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.70 Mbit/s
95th percentile per-packet one-way delay: 16.507 ms
Loss rate: 2.59%
-- Flow 1:
Average throughput: 56.78 Mbit/s
95th percentile per-packet one-way delay: 15.530 ms
Loss rate: 3.41%
-- Flow 2:
Average throughput: 35.42 Mbit/s
95th percentile per-packet one-way delay: 17.194 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 44.01 Mbit/s
95th percentile per-packet one-way delay: 20.269 ms
Loss rate: 0.48%
```

Run 1: Report of Indigo — Data Link

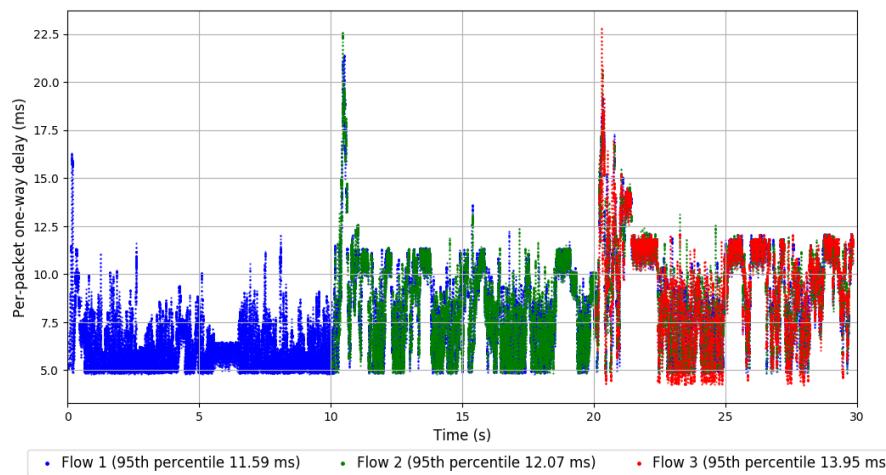
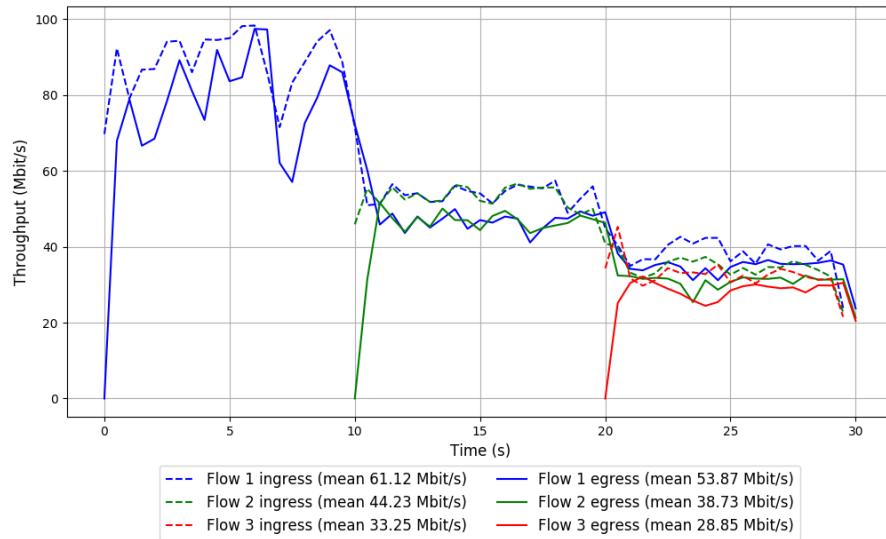


Run 2: Statistics of Indigo

```
Start at: 2019-02-20 00:56:09
End at: 2019-02-20 00:56:39
Local clock offset: -0.553 ms
Remote clock offset: -3.773 ms

# Below is generated by plot.py at 2019-02-20 02:28:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.05 Mbit/s
95th percentile per-packet one-way delay: 11.797 ms
Loss rate: 12.15%
-- Flow 1:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 11.589 ms
Loss rate: 11.83%
-- Flow 2:
Average throughput: 38.73 Mbit/s
95th percentile per-packet one-way delay: 12.072 ms
Loss rate: 12.42%
-- Flow 3:
Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 13.952 ms
Loss rate: 13.19%
```

Run 2: Report of Indigo — Data Link

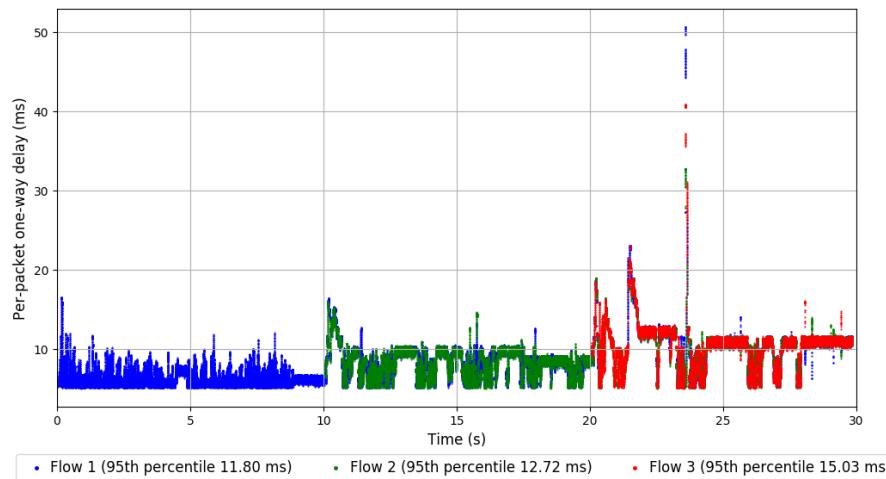
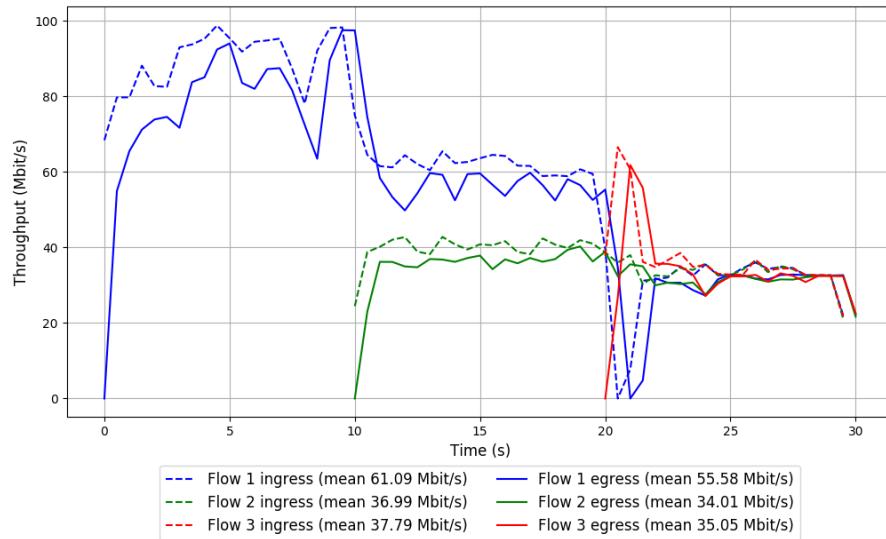


Run 3: Statistics of Indigo

```
Start at: 2019-02-20 01:20:48
End at: 2019-02-20 01:21:18
Local clock offset: 0.343 ms
Remote clock offset: -2.108 ms

# Below is generated by plot.py at 2019-02-20 02:28:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.65 Mbit/s
95th percentile per-packet one-way delay: 12.569 ms
Loss rate: 8.53%
-- Flow 1:
Average throughput: 55.58 Mbit/s
95th percentile per-packet one-way delay: 11.796 ms
Loss rate: 9.00%
-- Flow 2:
Average throughput: 34.01 Mbit/s
95th percentile per-packet one-way delay: 12.720 ms
Loss rate: 8.02%
-- Flow 3:
Average throughput: 35.05 Mbit/s
95th percentile per-packet one-way delay: 15.030 ms
Loss rate: 7.22%
```

Run 3: Report of Indigo — Data Link

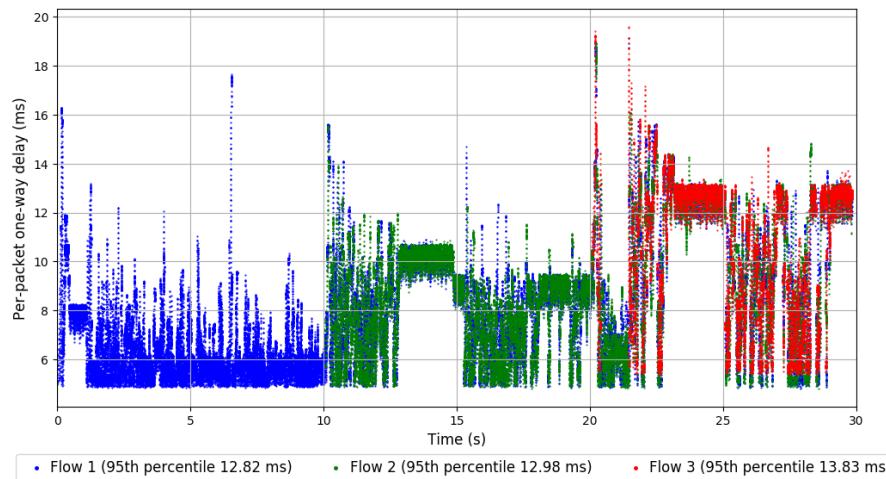
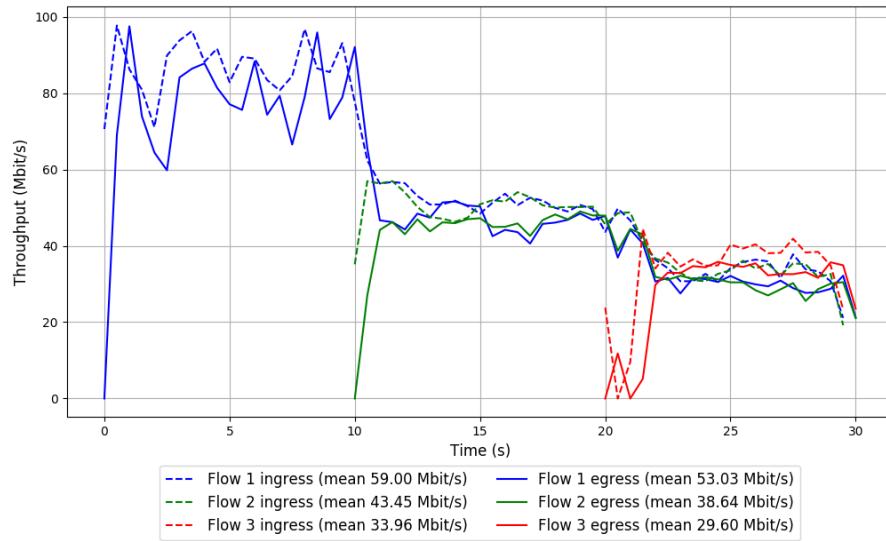


Run 4: Statistics of Indigo

```
Start at: 2019-02-20 01:45:22
End at: 2019-02-20 01:45:52
Local clock offset: 2.889 ms
Remote clock offset: -1.228 ms

# Below is generated by plot.py at 2019-02-20 02:28:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.35 Mbit/s
95th percentile per-packet one-way delay: 12.913 ms
Loss rate: 10.68%
-- Flow 1:
Average throughput: 53.03 Mbit/s
95th percentile per-packet one-way delay: 12.816 ms
Loss rate: 10.10%
-- Flow 2:
Average throughput: 38.64 Mbit/s
95th percentile per-packet one-way delay: 12.977 ms
Loss rate: 11.05%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 13.831 ms
Loss rate: 12.83%
```

Run 4: Report of Indigo — Data Link

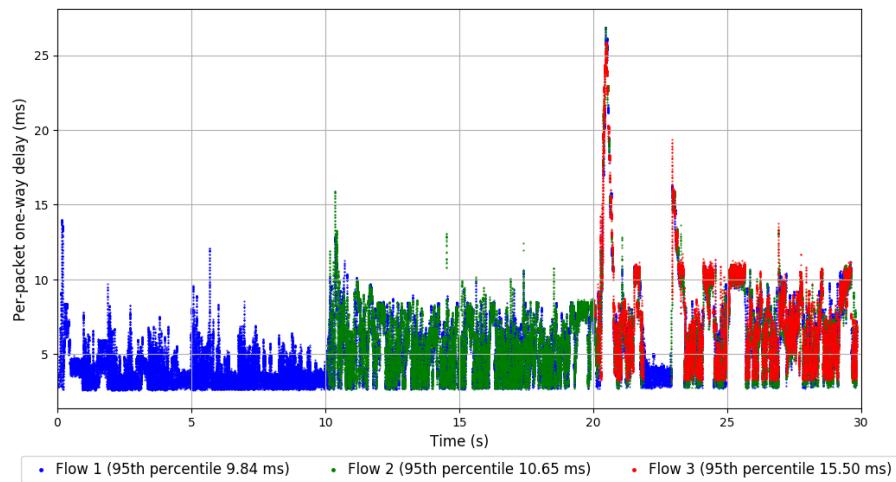
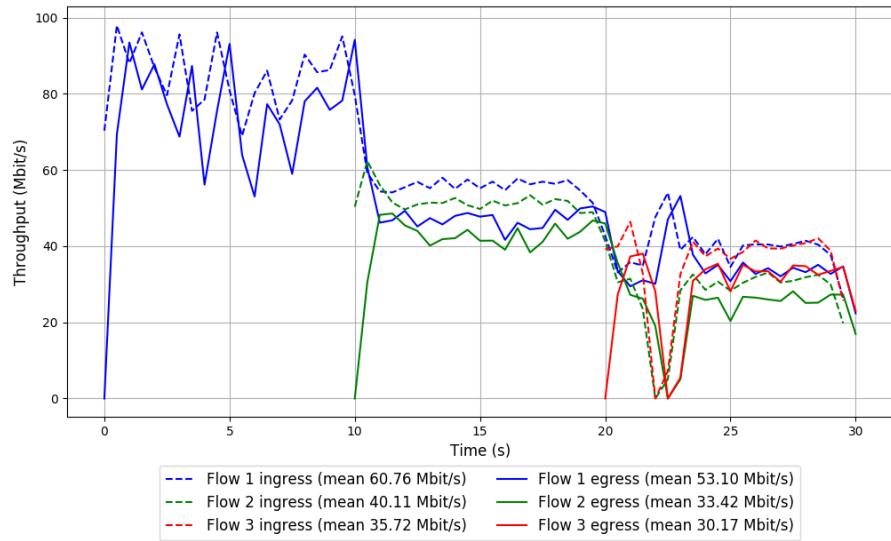


Run 5: Statistics of Indigo

```
Start at: 2019-02-20 02:09:49
End at: 2019-02-20 02:10:19
Local clock offset: 8.807 ms
Remote clock offset: -3.302 ms

# Below is generated by plot.py at 2019-02-20 02:28:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.18 Mbit/s
95th percentile per-packet one-way delay: 10.623 ms
Loss rate: 14.04%
-- Flow 1:
Average throughput: 53.10 Mbit/s
95th percentile per-packet one-way delay: 9.842 ms
Loss rate: 12.60%
-- Flow 2:
Average throughput: 33.42 Mbit/s
95th percentile per-packet one-way delay: 10.648 ms
Loss rate: 16.66%
-- Flow 3:
Average throughput: 30.17 Mbit/s
95th percentile per-packet one-way delay: 15.498 ms
Loss rate: 15.54%
```

Run 5: Report of Indigo — Data Link

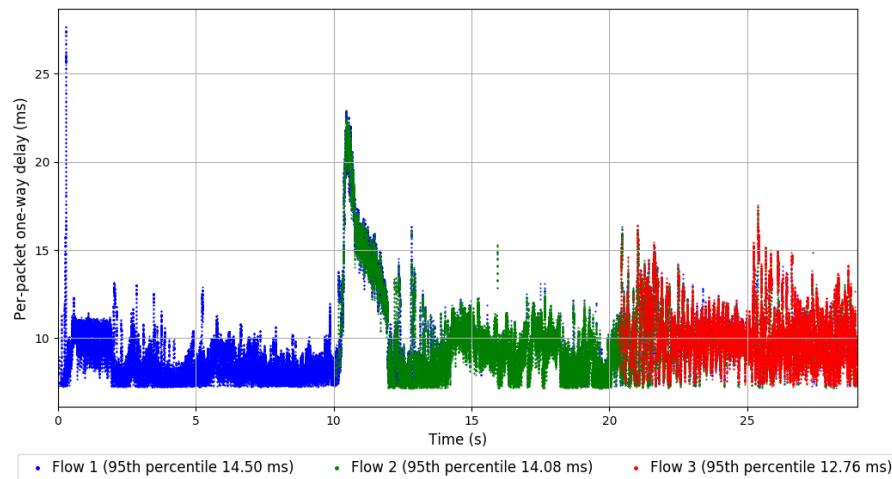
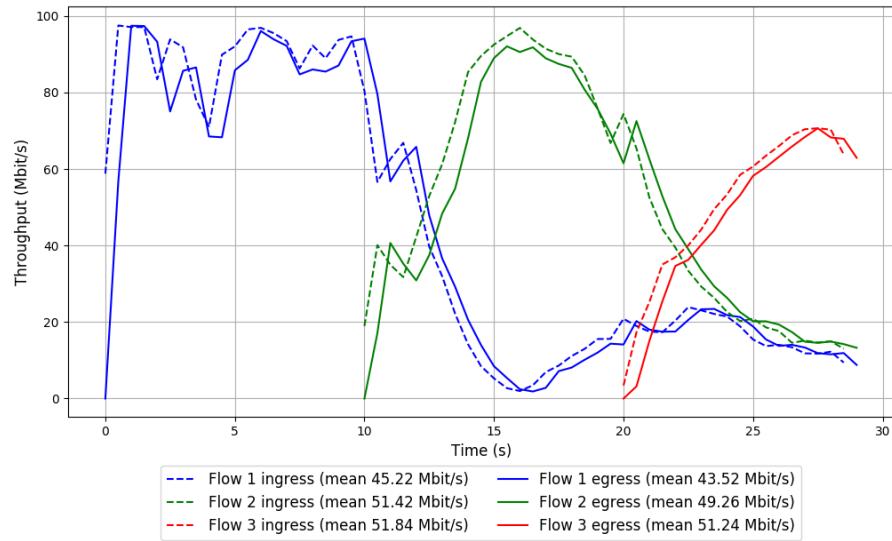


```
Run 1: Statistics of Indigo-MusesC3
```

```
Start at: 2019-02-20 00:29:24
End at: 2019-02-20 00:29:54
Local clock offset: -1.987 ms
Remote clock offset: -1.65 ms

# Below is generated by plot.py at 2019-02-20 02:28:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.98 Mbit/s
95th percentile per-packet one-way delay: 13.919 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 43.52 Mbit/s
95th percentile per-packet one-way delay: 14.502 ms
Loss rate: 3.74%
-- Flow 2:
Average throughput: 49.26 Mbit/s
95th percentile per-packet one-way delay: 14.078 ms
Loss rate: 4.20%
-- Flow 3:
Average throughput: 51.24 Mbit/s
95th percentile per-packet one-way delay: 12.759 ms
Loss rate: 1.17%
```

Run 1: Report of Indigo-MusesC3 — Data Link

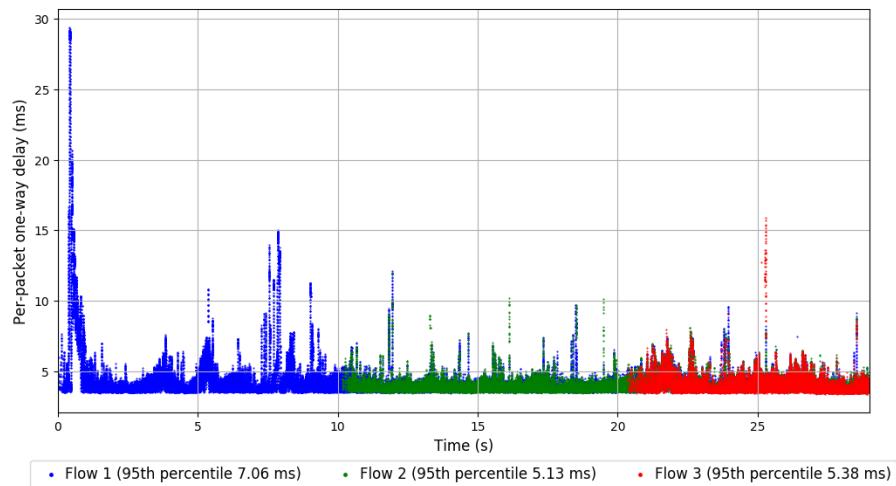
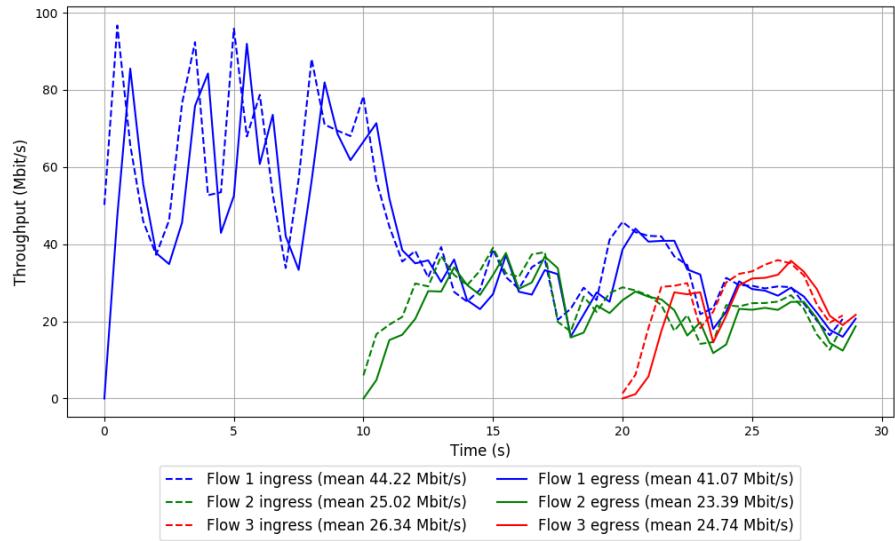


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-02-20 00:53:50
End at: 2019-02-20 00:54:20
Local clock offset: 0.987 ms
Remote clock offset: -3.54 ms

# Below is generated by plot.py at 2019-02-20 02:29:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.62 Mbit/s
95th percentile per-packet one-way delay: 6.145 ms
Loss rate: 6.87%
-- Flow 1:
Average throughput: 41.07 Mbit/s
95th percentile per-packet one-way delay: 7.059 ms
Loss rate: 7.13%
-- Flow 2:
Average throughput: 23.39 Mbit/s
95th percentile per-packet one-way delay: 5.134 ms
Loss rate: 6.53%
-- Flow 3:
Average throughput: 24.74 Mbit/s
95th percentile per-packet one-way delay: 5.380 ms
Loss rate: 6.09%
```

Run 2: Report of Indigo-MusesC3 — Data Link

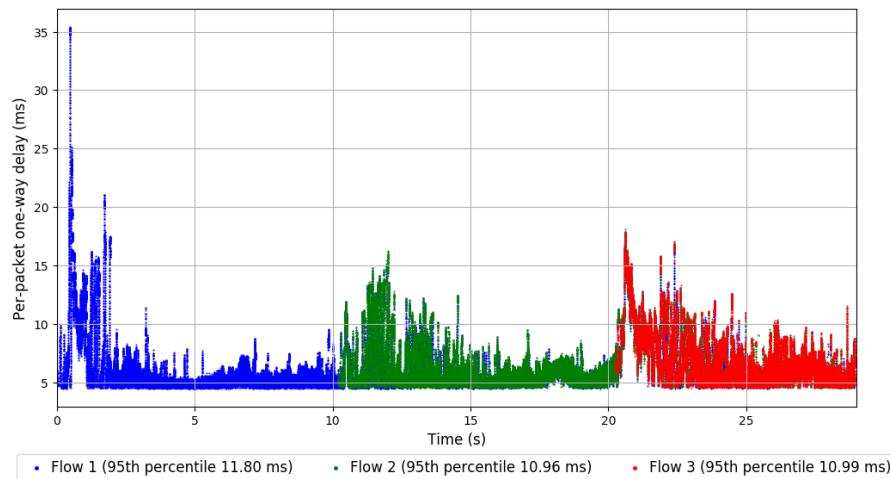
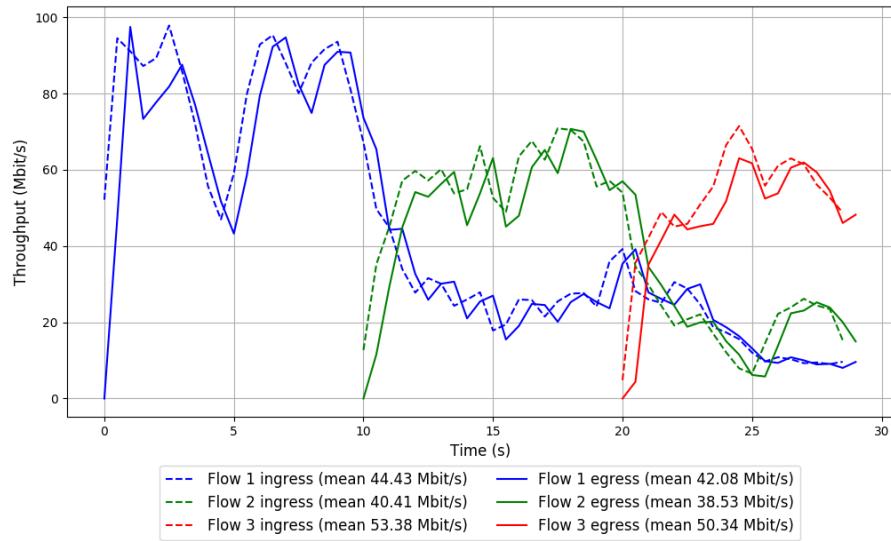


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-02-20 01:18:30
End at: 2019-02-20 01:19:00
Local clock offset: 0.81 ms
Remote clock offset: -2.282 ms

# Below is generated by plot.py at 2019-02-20 02:29:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.25 Mbit/s
95th percentile per-packet one-way delay: 11.276 ms
Loss rate: 5.16%
-- Flow 1:
Average throughput: 42.08 Mbit/s
95th percentile per-packet one-way delay: 11.799 ms
Loss rate: 5.28%
-- Flow 2:
Average throughput: 38.53 Mbit/s
95th percentile per-packet one-way delay: 10.956 ms
Loss rate: 4.63%
-- Flow 3:
Average throughput: 50.34 Mbit/s
95th percentile per-packet one-way delay: 10.989 ms
Loss rate: 5.70%
```

Run 3: Report of Indigo-MusesC3 — Data Link

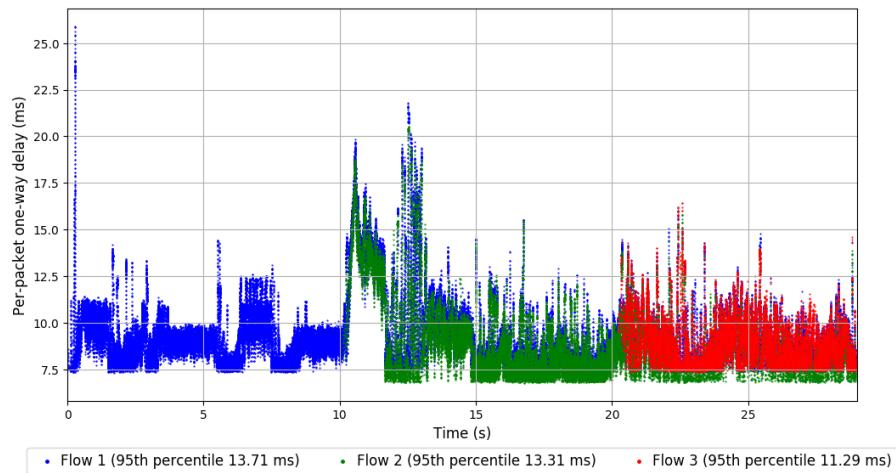
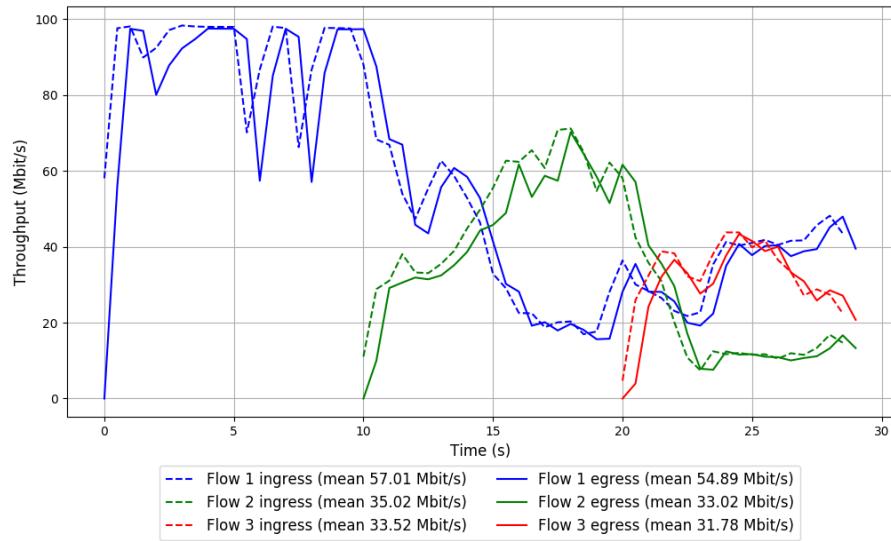


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-02-20 01:43:03
End at: 2019-02-20 01:43:33
Local clock offset: 0.867 ms
Remote clock offset: -1.09 ms

# Below is generated by plot.py at 2019-02-20 02:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.96 Mbit/s
95th percentile per-packet one-way delay: 13.383 ms
Loss rate: 4.40%
-- Flow 1:
Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 13.712 ms
Loss rate: 3.73%
-- Flow 2:
Average throughput: 33.02 Mbit/s
95th percentile per-packet one-way delay: 13.306 ms
Loss rate: 5.72%
-- Flow 3:
Average throughput: 31.78 Mbit/s
95th percentile per-packet one-way delay: 11.288 ms
Loss rate: 5.20%
```

Run 4: Report of Indigo-MusesC3 — Data Link

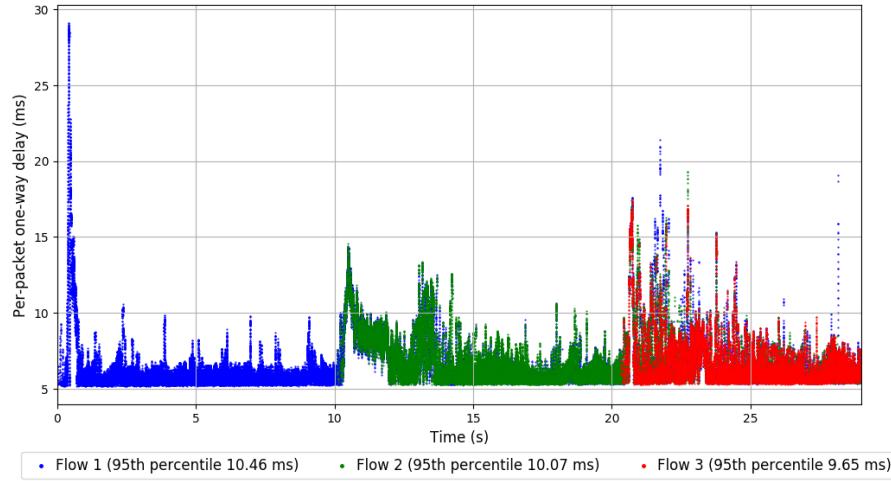
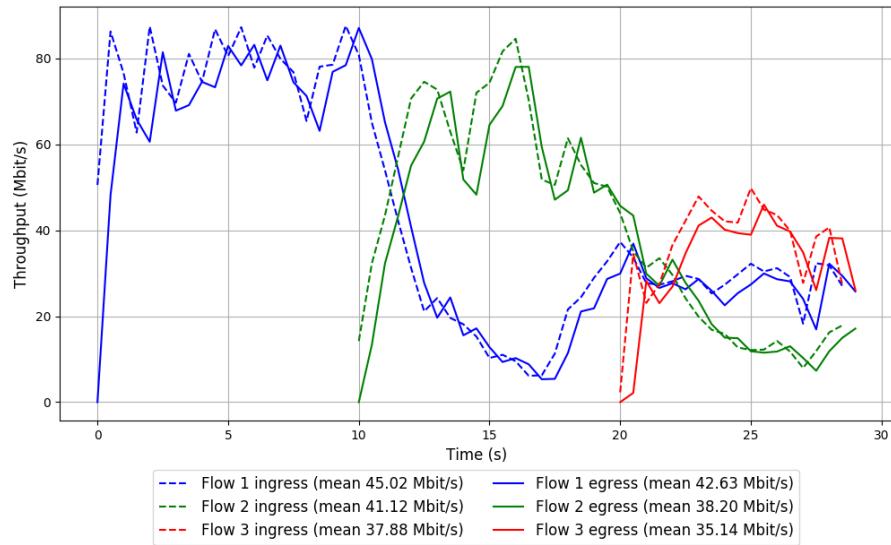


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-02-20 02:07:31
End at: 2019-02-20 02:08:01
Local clock offset: 7.59 ms
Remote clock offset: -1.623 ms

# Below is generated by plot.py at 2019-02-20 02:29:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.01 Mbit/s
95th percentile per-packet one-way delay: 10.215 ms
Loss rate: 6.14%
-- Flow 1:
Average throughput: 42.63 Mbit/s
95th percentile per-packet one-way delay: 10.462 ms
Loss rate: 5.31%
-- Flow 2:
Average throughput: 38.20 Mbit/s
95th percentile per-packet one-way delay: 10.071 ms
Loss rate: 7.09%
-- Flow 3:
Average throughput: 35.14 Mbit/s
95th percentile per-packet one-way delay: 9.646 ms
Loss rate: 7.21%
```

Run 5: Report of Indigo-MusesC3 — Data Link

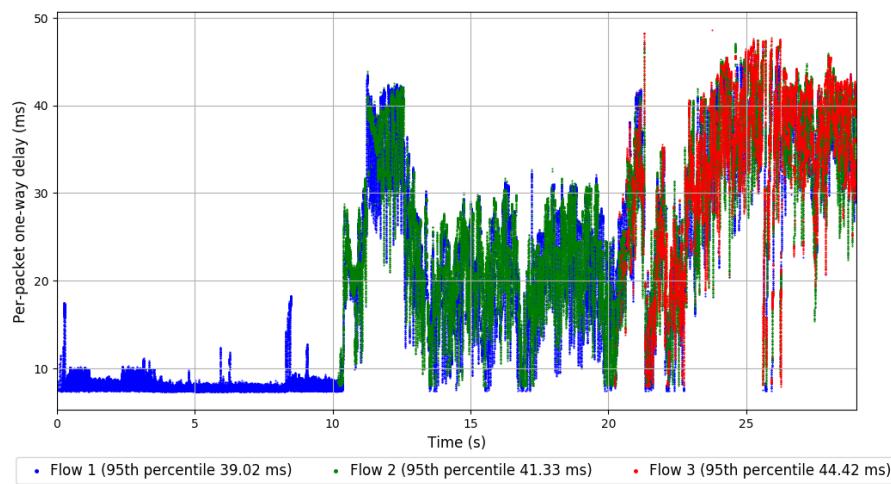
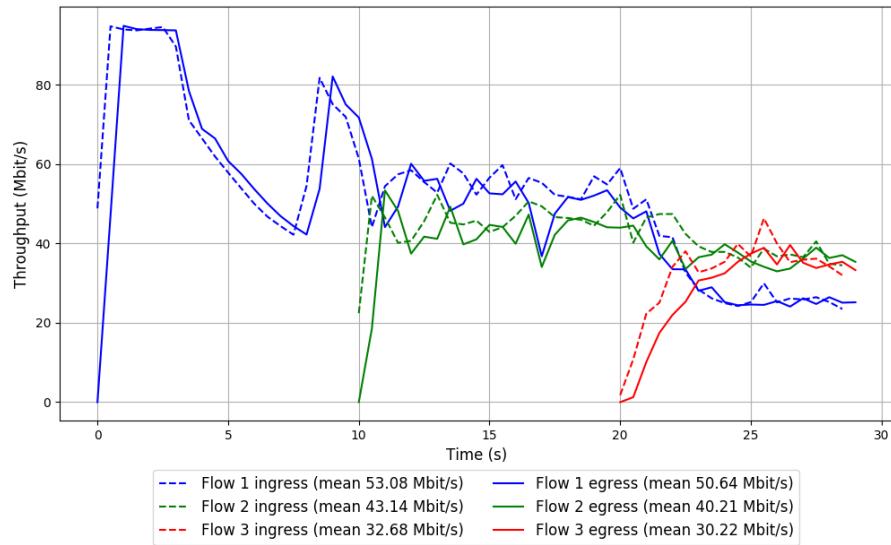


```
Run 1: Statistics of Indigo-MusesC5
```

```
Start at: 2019-02-20 00:32:53
End at: 2019-02-20 00:33:23
Local clock offset: -1.389 ms
Remote clock offset: -0.738 ms

# Below is generated by plot.py at 2019-02-20 02:29:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.86 Mbit/s
95th percentile per-packet one-way delay: 41.170 ms
Loss rate: 5.47%
-- Flow 1:
Average throughput: 50.64 Mbit/s
95th percentile per-packet one-way delay: 39.023 ms
Loss rate: 4.53%
-- Flow 2:
Average throughput: 40.21 Mbit/s
95th percentile per-packet one-way delay: 41.332 ms
Loss rate: 6.64%
-- Flow 3:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 44.423 ms
Loss rate: 7.27%
```

Run 1: Report of Indigo-MusesC5 — Data Link

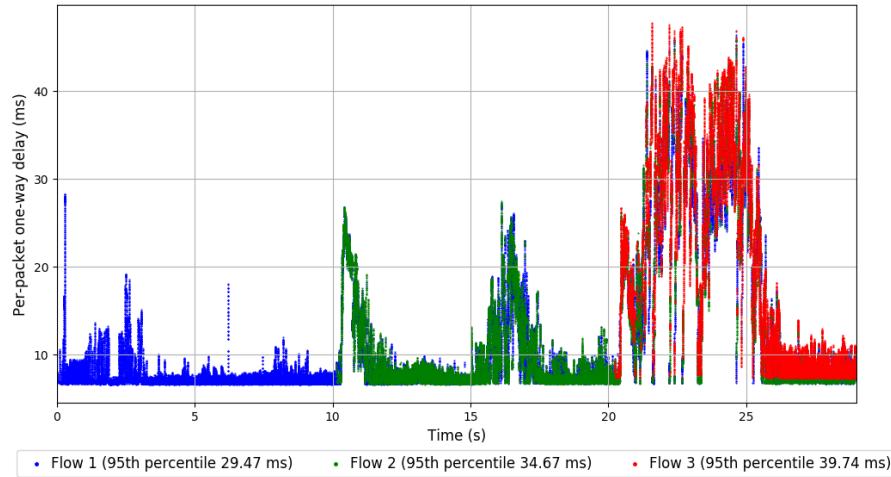
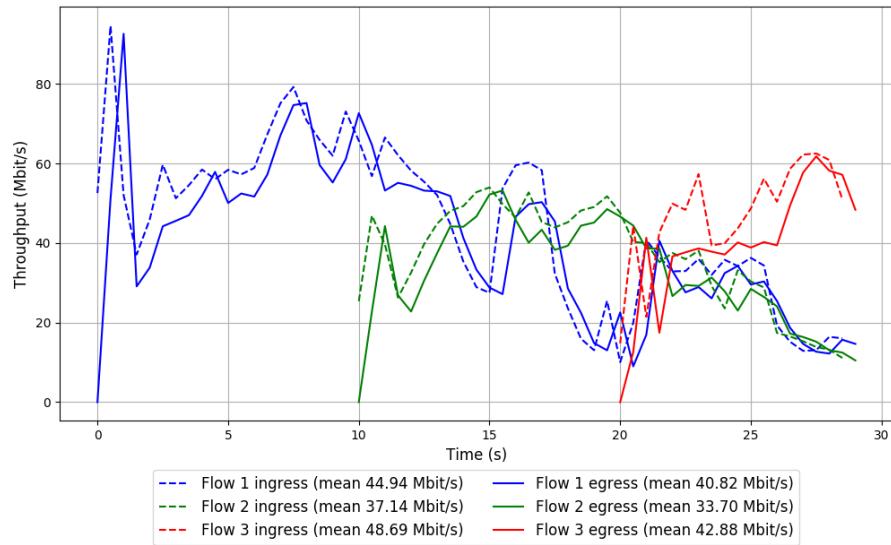


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-02-20 00:57:24
End at: 2019-02-20 00:57:54
Local clock offset: -0.272 ms
Remote clock offset: -1.02 ms

# Below is generated by plot.py at 2019-02-20 02:29:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.71 Mbit/s
95th percentile per-packet one-way delay: 34.664 ms
Loss rate: 9.67%
-- Flow 1:
Average throughput: 40.82 Mbit/s
95th percentile per-packet one-way delay: 29.467 ms
Loss rate: 9.15%
-- Flow 2:
Average throughput: 33.70 Mbit/s
95th percentile per-packet one-way delay: 34.670 ms
Loss rate: 9.25%
-- Flow 3:
Average throughput: 42.88 Mbit/s
95th percentile per-packet one-way delay: 39.736 ms
Loss rate: 11.93%
```

Run 2: Report of Indigo-MusesC5 — Data Link

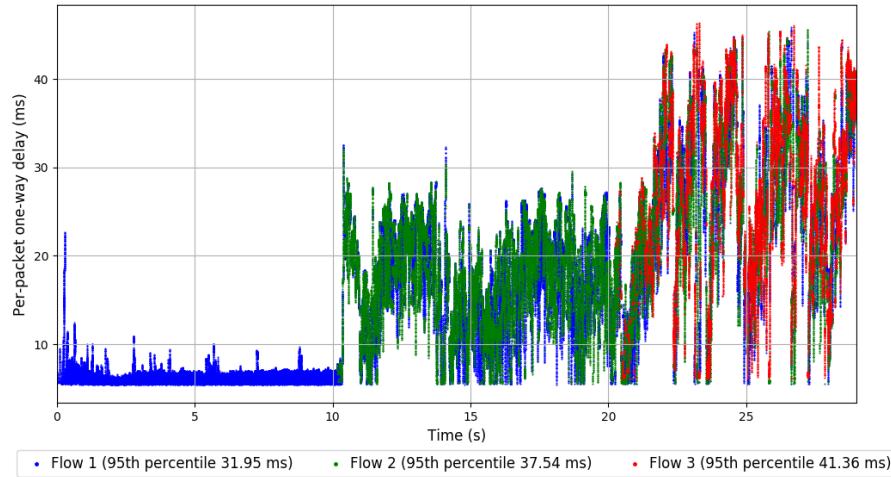
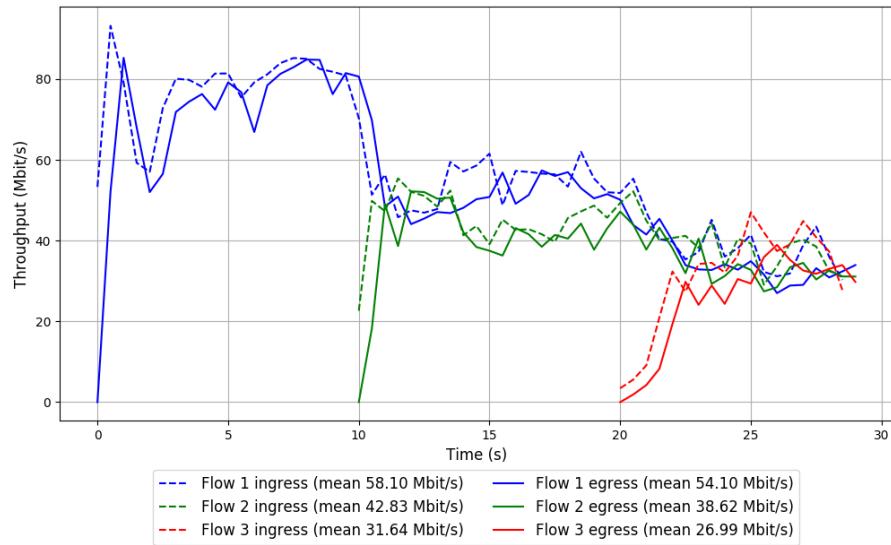


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-02-20 01:22:05
End at: 2019-02-20 01:22:35
Local clock offset: 0.292 ms
Remote clock offset: -1.128 ms

# Below is generated by plot.py at 2019-02-20 02:29:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.33 Mbit/s
95th percentile per-packet one-way delay: 36.665 ms
Loss rate: 8.40%
-- Flow 1:
Average throughput: 54.10 Mbit/s
95th percentile per-packet one-way delay: 31.945 ms
Loss rate: 6.77%
-- Flow 2:
Average throughput: 38.62 Mbit/s
95th percentile per-packet one-way delay: 37.544 ms
Loss rate: 9.70%
-- Flow 3:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 41.358 ms
Loss rate: 14.54%
```

Run 3: Report of Indigo-MusesC5 — Data Link

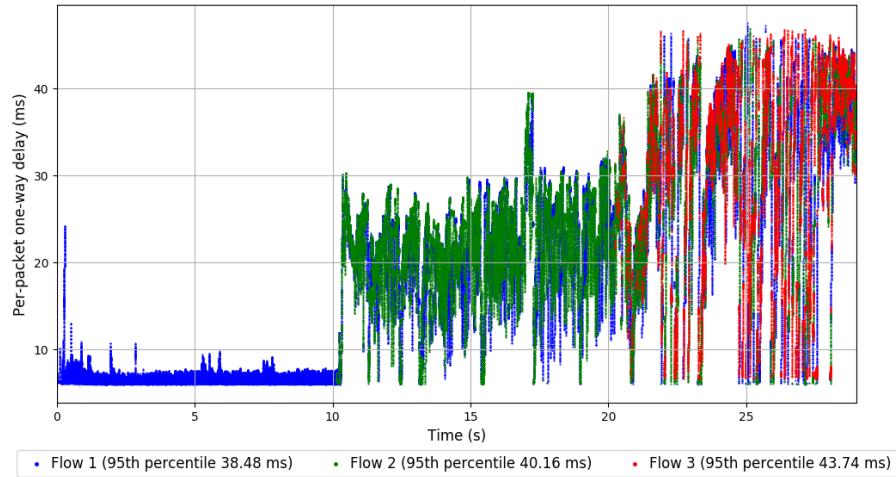
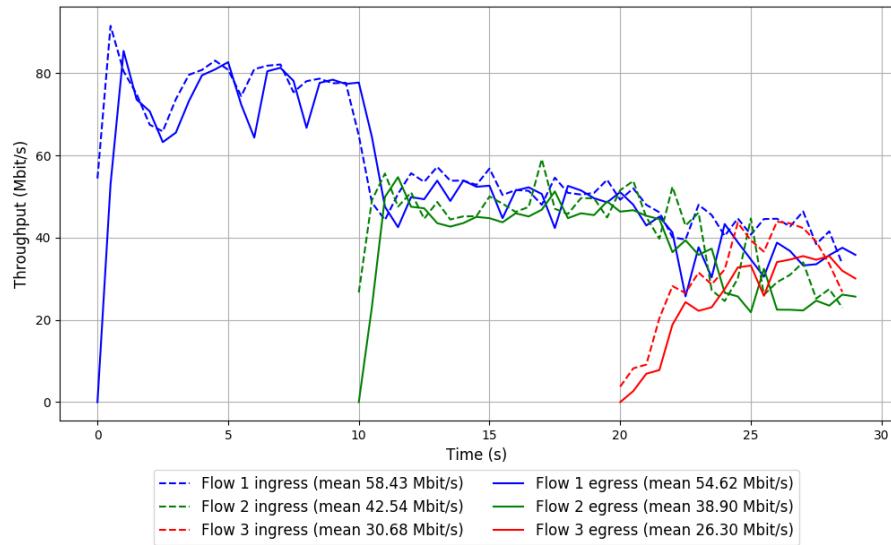


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-02-20 01:46:36
End at: 2019-02-20 01:47:06
Local clock offset: 0.151 ms
Remote clock offset: -2.81 ms

# Below is generated by plot.py at 2019-02-20 02:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.90 Mbit/s
95th percentile per-packet one-way delay: 40.537 ms
Loss rate: 7.75%
-- Flow 1:
Average throughput: 54.62 Mbit/s
95th percentile per-packet one-way delay: 38.479 ms
Loss rate: 6.43%
-- Flow 2:
Average throughput: 38.90 Mbit/s
95th percentile per-packet one-way delay: 40.157 ms
Loss rate: 8.40%
-- Flow 3:
Average throughput: 26.30 Mbit/s
95th percentile per-packet one-way delay: 43.736 ms
Loss rate: 14.11%
```

Run 4: Report of Indigo-MusesC5 — Data Link

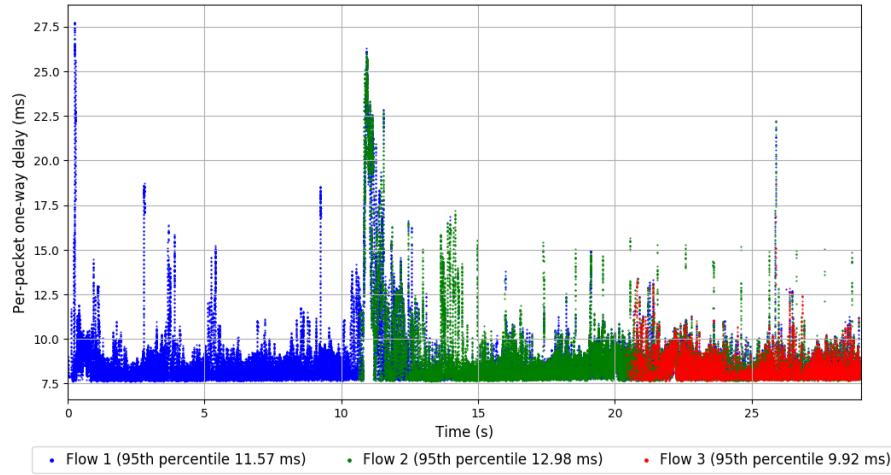
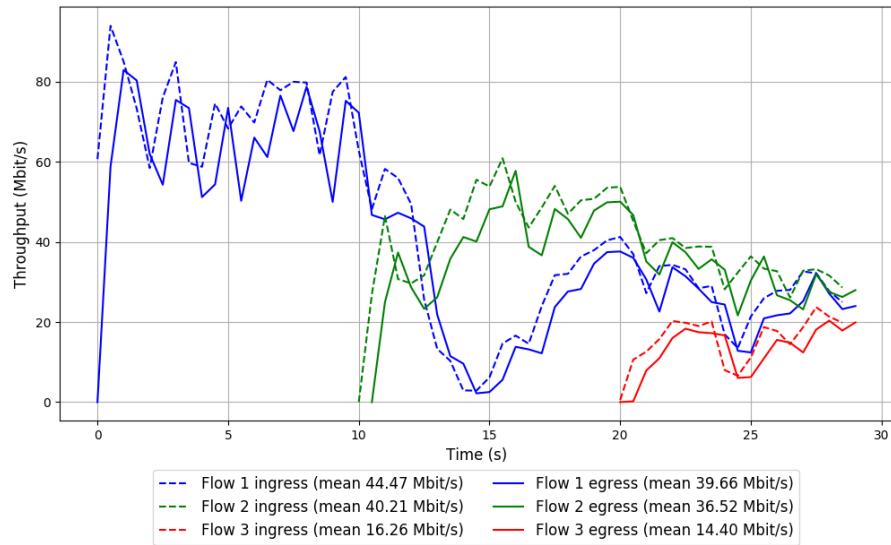


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-02-20 02:11:01
End at: 2019-02-20 02:11:31
Local clock offset: 6.992 ms
Remote clock offset: -1.014 ms

# Below is generated by plot.py at 2019-02-20 02:29:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.08 Mbit/s
95th percentile per-packet one-way delay: 11.929 ms
Loss rate: 11.13%
-- Flow 1:
Average throughput: 39.66 Mbit/s
95th percentile per-packet one-way delay: 11.574 ms
Loss rate: 10.82%
-- Flow 2:
Average throughput: 36.52 Mbit/s
95th percentile per-packet one-way delay: 12.977 ms
Loss rate: 11.58%
-- Flow 3:
Average throughput: 14.40 Mbit/s
95th percentile per-packet one-way delay: 9.923 ms
Loss rate: 11.47%
```

Run 5: Report of Indigo-MusesC5 — Data Link

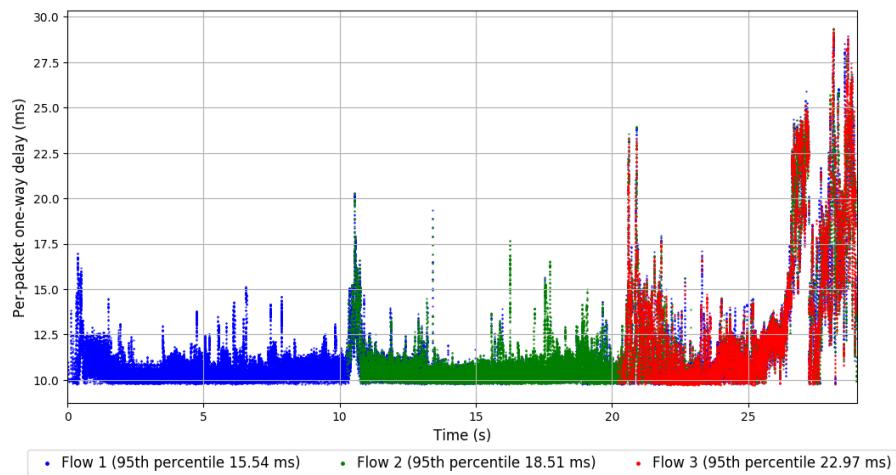
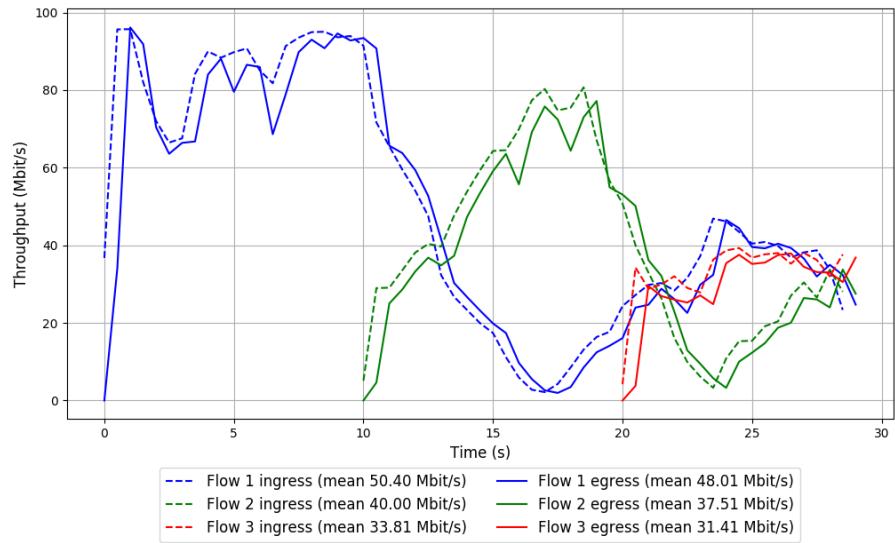


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-02-20 00:24:47
End at: 2019-02-20 00:25:17
Local clock offset: -4.24 ms
Remote clock offset: -1.739 ms

# Below is generated by plot.py at 2019-02-20 02:30:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.79 Mbit/s
95th percentile per-packet one-way delay: 18.393 ms
Loss rate: 5.45%
-- Flow 1:
Average throughput: 48.01 Mbit/s
95th percentile per-packet one-way delay: 15.537 ms
Loss rate: 4.72%
-- Flow 2:
Average throughput: 37.51 Mbit/s
95th percentile per-packet one-way delay: 18.513 ms
Loss rate: 6.22%
-- Flow 3:
Average throughput: 31.41 Mbit/s
95th percentile per-packet one-way delay: 22.969 ms
Loss rate: 7.04%
```

Run 1: Report of Indigo-MusesD — Data Link

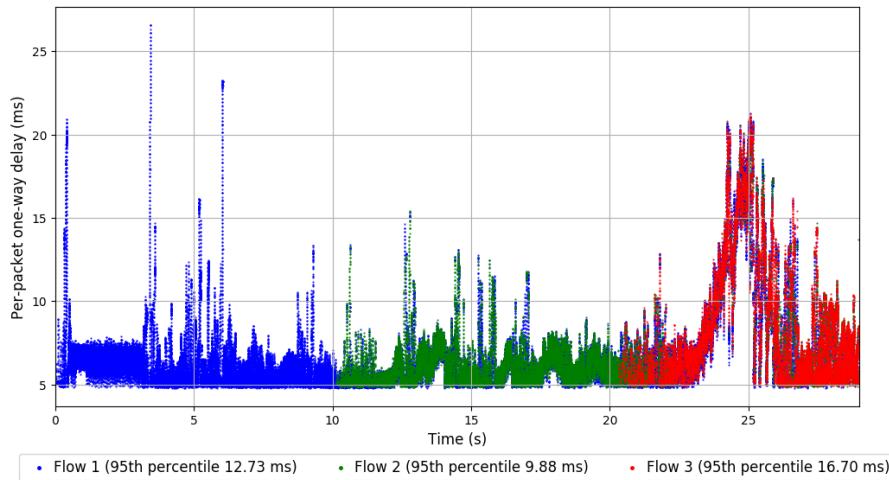
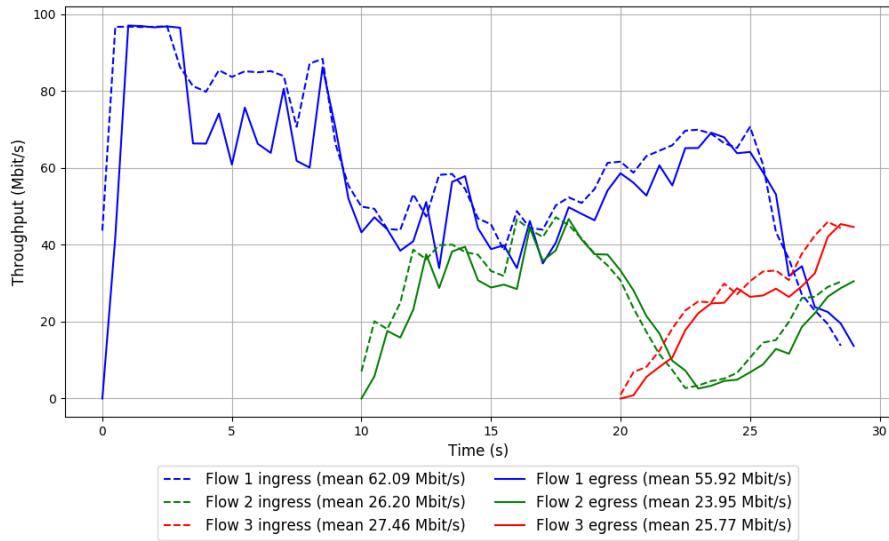


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-02-20 00:49:08
End at: 2019-02-20 00:49:38
Local clock offset: 1.412 ms
Remote clock offset: -1.665 ms

# Below is generated by plot.py at 2019-02-20 02:30:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.23 Mbit/s
95th percentile per-packet one-way delay: 13.110 ms
Loss rate: 9.32%
-- Flow 1:
Average throughput: 55.92 Mbit/s
95th percentile per-packet one-way delay: 12.730 ms
Loss rate: 9.94%
-- Flow 2:
Average throughput: 23.95 Mbit/s
95th percentile per-packet one-way delay: 9.882 ms
Loss rate: 8.56%
-- Flow 3:
Average throughput: 25.77 Mbit/s
95th percentile per-packet one-way delay: 16.699 ms
Loss rate: 6.14%
```

Run 2: Report of Indigo-MusesD — Data Link

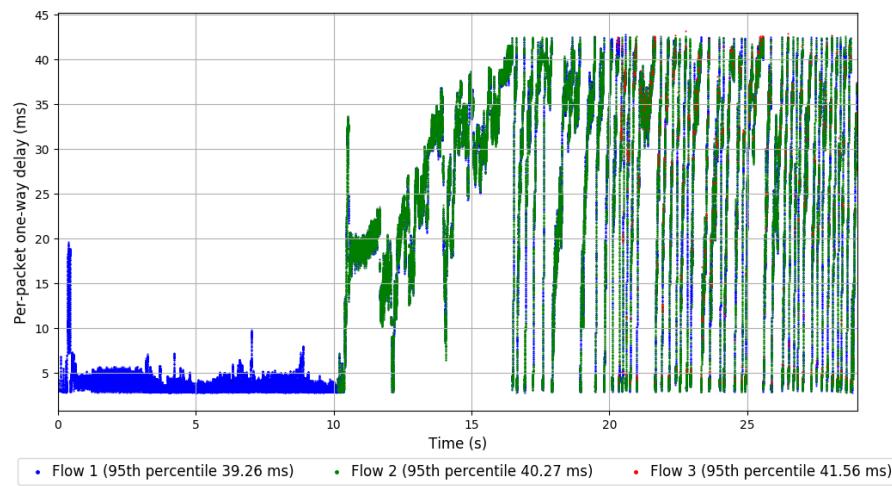
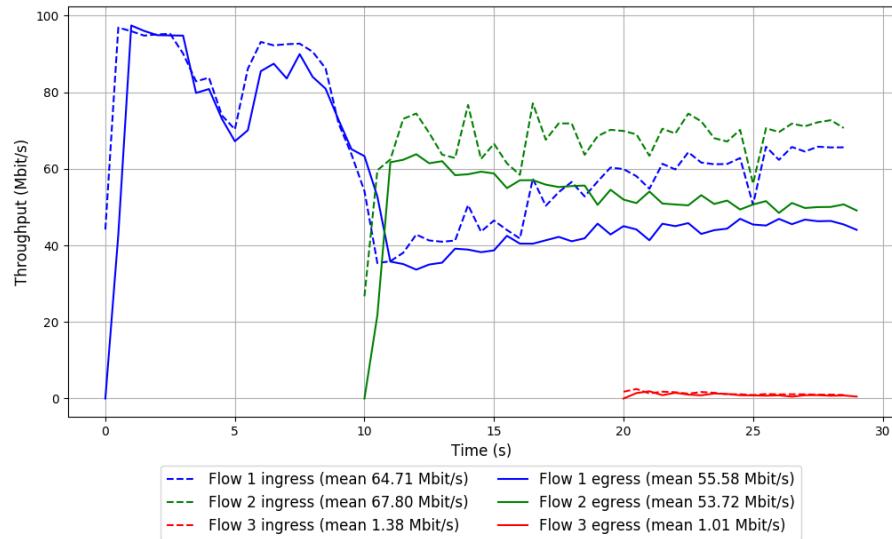


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-02-20 01:13:48
End at: 2019-02-20 01:14:18
Local clock offset: 0.96 ms
Remote clock offset: -3.153 ms

# Below is generated by plot.py at 2019-02-20 02:30:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.89 Mbit/s
95th percentile per-packet one-way delay: 39.814 ms
Loss rate: 16.73%
-- Flow 1:
Average throughput: 55.58 Mbit/s
95th percentile per-packet one-way delay: 39.257 ms
Loss rate: 14.00%
-- Flow 2:
Average throughput: 53.72 Mbit/s
95th percentile per-packet one-way delay: 40.275 ms
Loss rate: 20.62%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 41.560 ms
Loss rate: 26.94%
```

Run 3: Report of Indigo-MusesD — Data Link

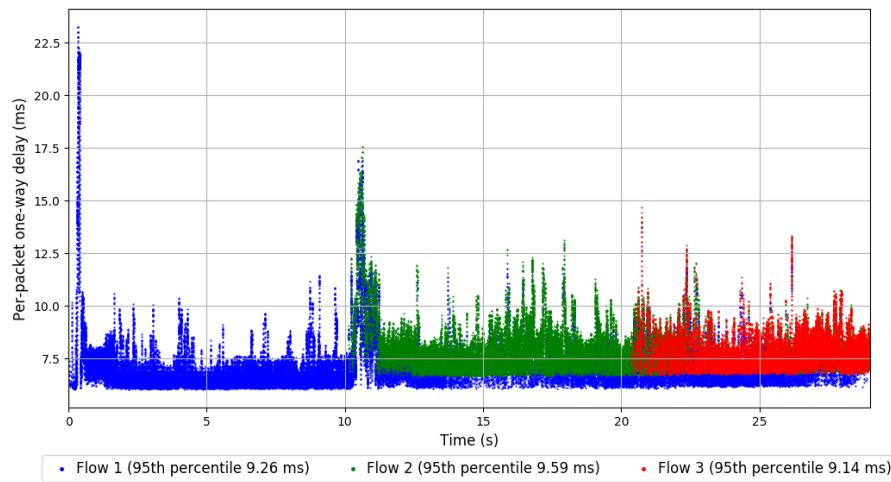
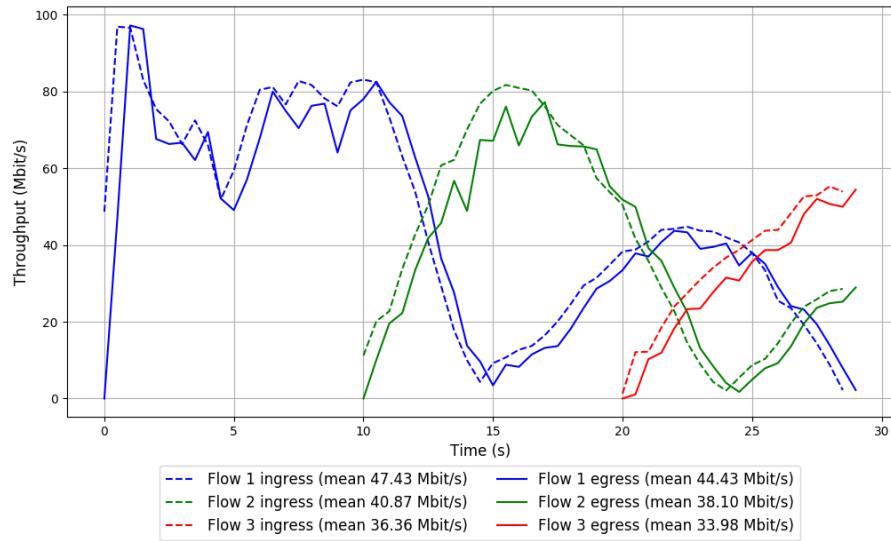


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-02-20 01:38:25
End at: 2019-02-20 01:38:55
Local clock offset: -0.485 ms
Remote clock offset: -2.759 ms

# Below is generated by plot.py at 2019-02-20 02:30:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.36 Mbit/s
95th percentile per-packet one-way delay: 9.375 ms
Loss rate: 6.49%
-- Flow 1:
Average throughput: 44.43 Mbit/s
95th percentile per-packet one-way delay: 9.256 ms
Loss rate: 6.32%
-- Flow 2:
Average throughput: 38.10 Mbit/s
95th percentile per-packet one-way delay: 9.594 ms
Loss rate: 6.77%
-- Flow 3:
Average throughput: 33.98 Mbit/s
95th percentile per-packet one-way delay: 9.144 ms
Loss rate: 6.52%
```

Run 4: Report of Indigo-MusesD — Data Link

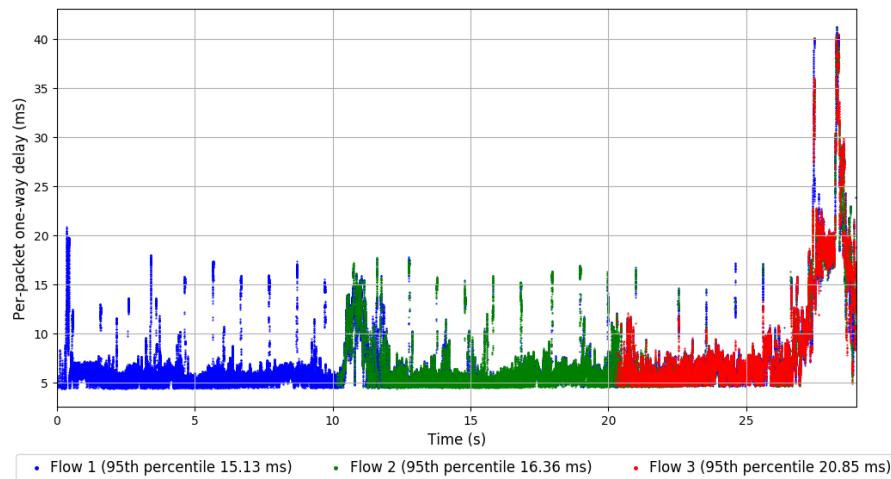
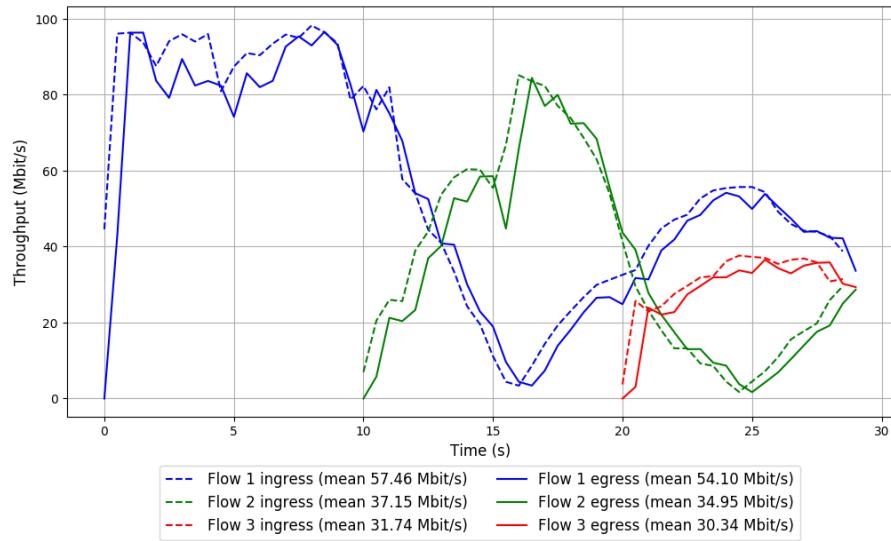


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-02-20 02:02:55
End at: 2019-02-20 02:03:25
Local clock offset: 5.668 ms
Remote clock offset: -2.176 ms

# Below is generated by plot.py at 2019-02-20 02:30:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.96 Mbit/s
95th percentile per-packet one-way delay: 17.054 ms
Loss rate: 5.65%
-- Flow 1:
Average throughput: 54.10 Mbit/s
95th percentile per-packet one-way delay: 15.133 ms
Loss rate: 5.79%
-- Flow 2:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 16.357 ms
Loss rate: 5.85%
-- Flow 3:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 20.849 ms
Loss rate: 4.28%
```

Run 5: Report of Indigo-MusesD — Data Link

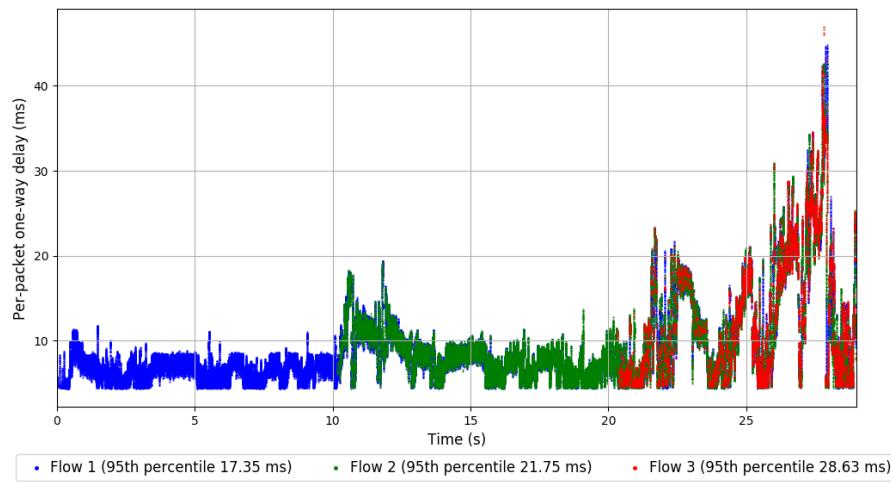
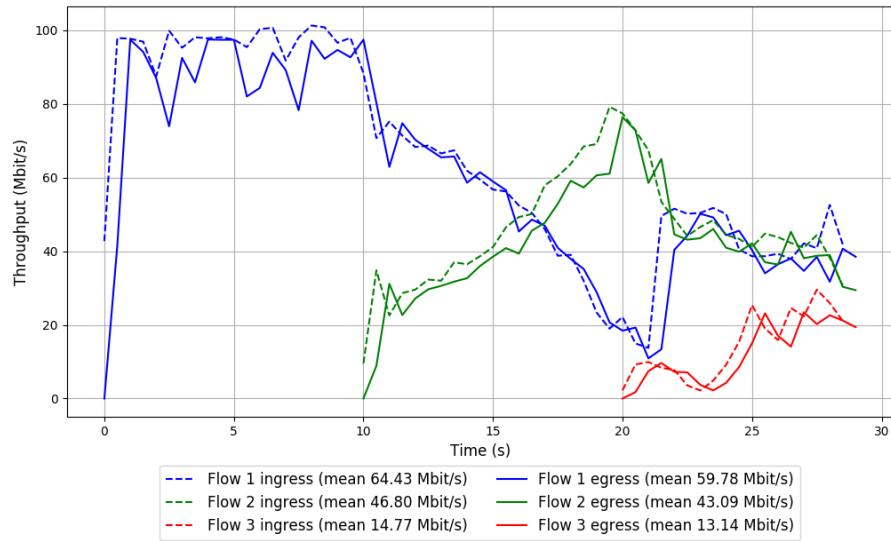


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-02-20 00:39:45
End at: 2019-02-20 00:40:15
Local clock offset: 1.56 ms
Remote clock offset: -1.093 ms

# Below is generated by plot.py at 2019-02-20 02:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.71 Mbit/s
95th percentile per-packet one-way delay: 19.969 ms
Loss rate: 7.59%
-- Flow 1:
Average throughput: 59.78 Mbit/s
95th percentile per-packet one-way delay: 17.346 ms
Loss rate: 7.19%
-- Flow 2:
Average throughput: 43.09 Mbit/s
95th percentile per-packet one-way delay: 21.752 ms
Loss rate: 7.91%
-- Flow 3:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 28.630 ms
Loss rate: 11.05%
```

Run 1: Report of Indigo-MusesT — Data Link

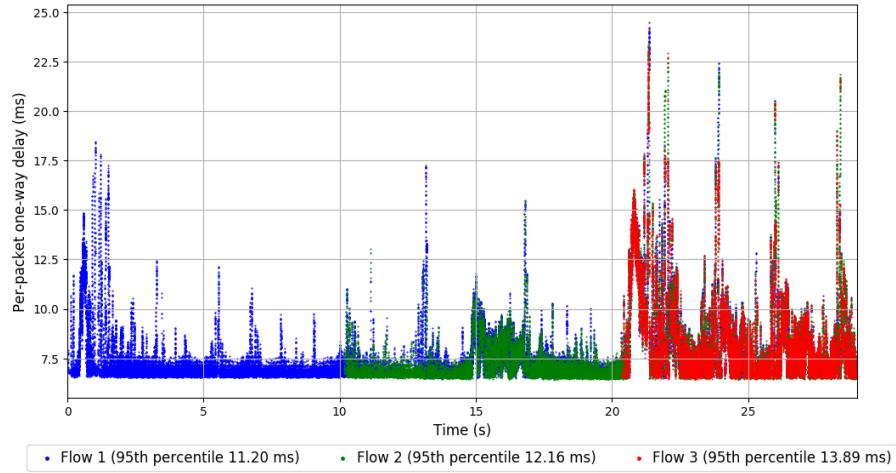
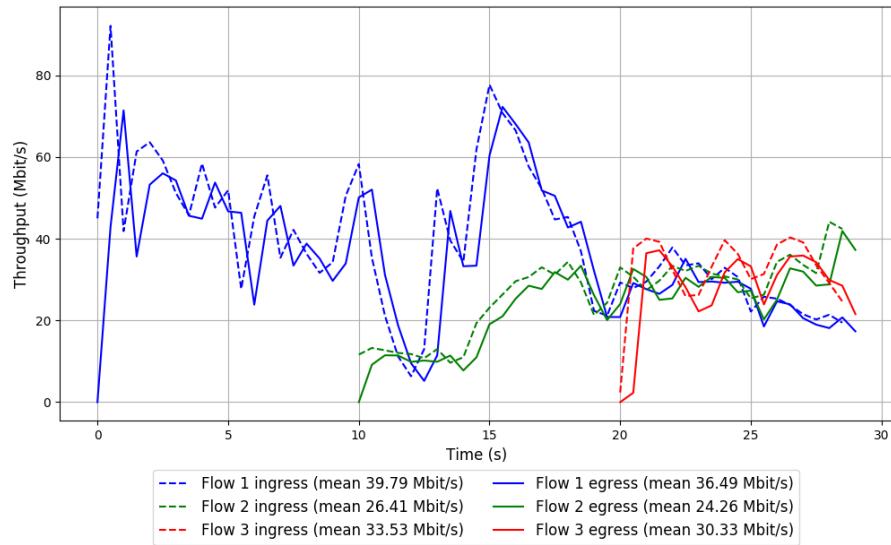


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-02-20 01:04:21
End at: 2019-02-20 01:04:51
Local clock offset: -0.85 ms
Remote clock offset: -1.566 ms

# Below is generated by plot.py at 2019-02-20 02:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.31 Mbit/s
95th percentile per-packet one-way delay: 11.933 ms
Loss rate: 8.46%
-- Flow 1:
Average throughput: 36.49 Mbit/s
95th percentile per-packet one-way delay: 11.200 ms
Loss rate: 8.31%
-- Flow 2:
Average throughput: 24.26 Mbit/s
95th percentile per-packet one-way delay: 12.164 ms
Loss rate: 8.13%
-- Flow 3:
Average throughput: 30.33 Mbit/s
95th percentile per-packet one-way delay: 13.895 ms
Loss rate: 9.61%
```

Run 2: Report of Indigo-MusesT — Data Link

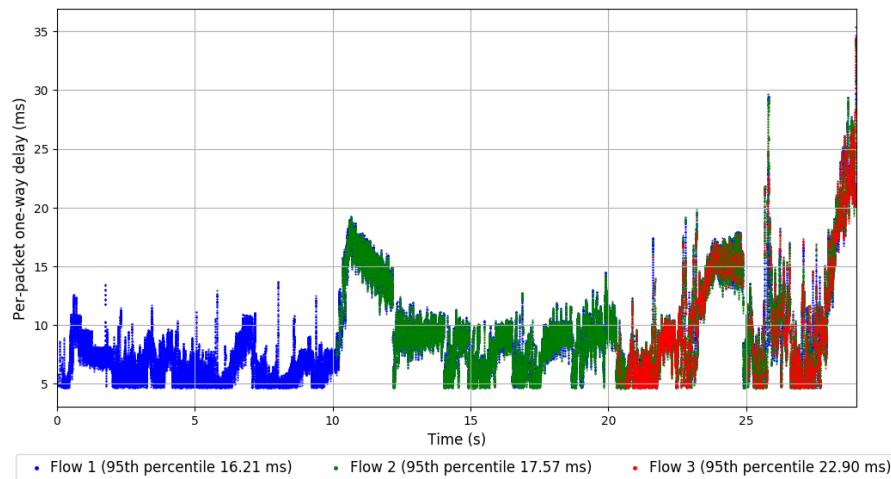
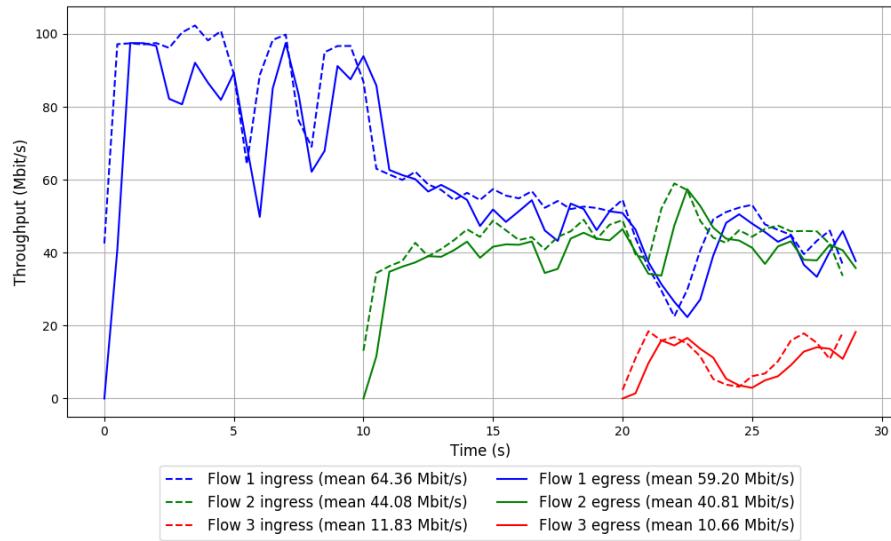


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-02-20 01:29:04
End at: 2019-02-20 01:29:34
Local clock offset: 1.058 ms
Remote clock offset: -1.804 ms

# Below is generated by plot.py at 2019-02-20 02:31:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.98 Mbit/s
95th percentile per-packet one-way delay: 16.725 ms
Loss rate: 7.79%
-- Flow 1:
Average throughput: 59.20 Mbit/s
95th percentile per-packet one-way delay: 16.211 ms
Loss rate: 7.92%
-- Flow 2:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 17.571 ms
Loss rate: 7.29%
-- Flow 3:
Average throughput: 10.66 Mbit/s
95th percentile per-packet one-way delay: 22.899 ms
Loss rate: 9.59%
```

Run 3: Report of Indigo-MusesT — Data Link

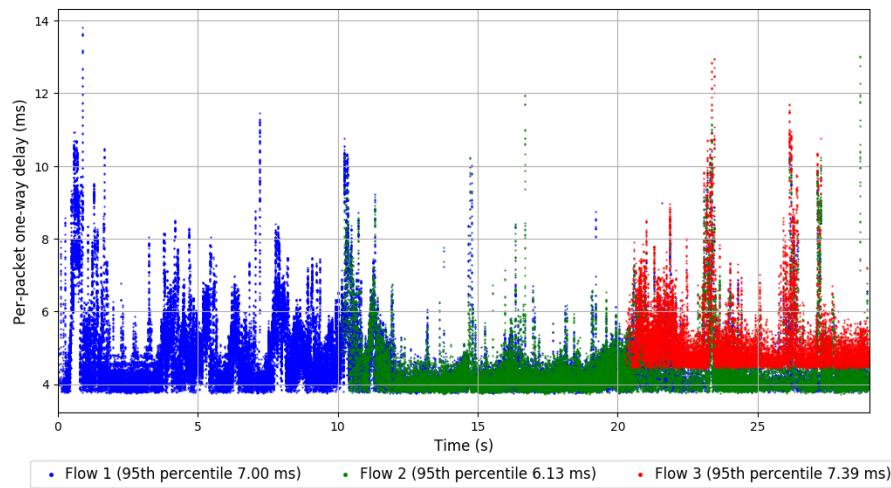
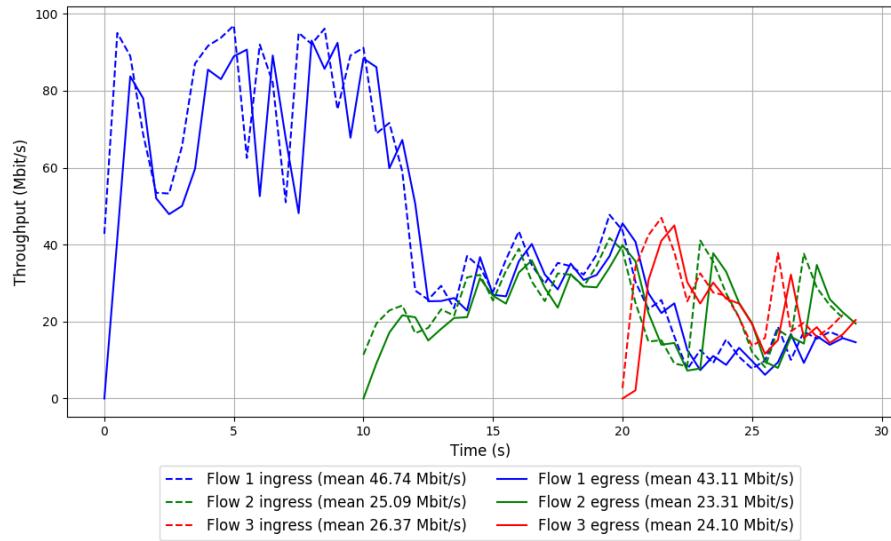


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-02-20 01:53:29
End at: 2019-02-20 01:53:59
Local clock offset: 4.233 ms
Remote clock offset: -1.162 ms

# Below is generated by plot.py at 2019-02-20 02:31:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.51 Mbit/s
95th percentile per-packet one-way delay: 6.894 ms
Loss rate: 7.71%
-- Flow 1:
Average throughput: 43.11 Mbit/s
95th percentile per-packet one-way delay: 7.004 ms
Loss rate: 7.76%
-- Flow 2:
Average throughput: 23.31 Mbit/s
95th percentile per-packet one-way delay: 6.132 ms
Loss rate: 7.10%
-- Flow 3:
Average throughput: 24.10 Mbit/s
95th percentile per-packet one-way delay: 7.393 ms
Loss rate: 8.61%
```

Run 4: Report of Indigo-MusesT — Data Link

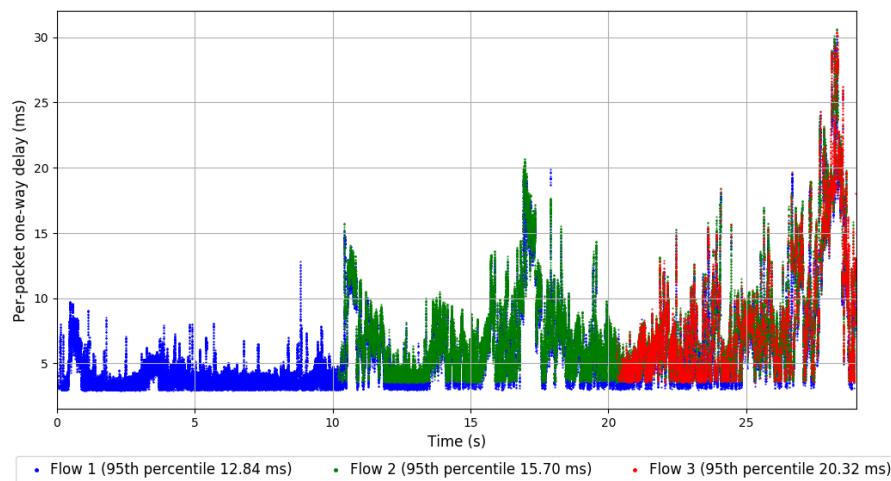
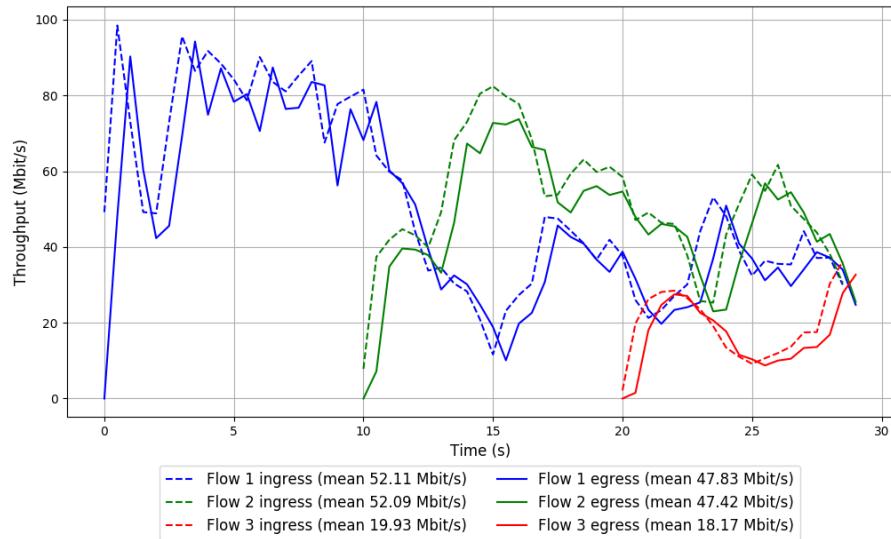


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-02-20 02:17:56
End at: 2019-02-20 02:18:26
Local clock offset: 10.16 ms
Remote clock offset: -3.644 ms

# Below is generated by plot.py at 2019-02-20 02:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.10 Mbit/s
95th percentile per-packet one-way delay: 14.973 ms
Loss rate: 8.49%
-- Flow 1:
Average throughput: 47.83 Mbit/s
95th percentile per-packet one-way delay: 12.835 ms
Loss rate: 8.19%
-- Flow 2:
Average throughput: 47.42 Mbit/s
95th percentile per-packet one-way delay: 15.703 ms
Loss rate: 8.93%
-- Flow 3:
Average throughput: 18.17 Mbit/s
95th percentile per-packet one-way delay: 20.315 ms
Loss rate: 8.70%
```

Run 5: Report of Indigo-MusesT — Data Link

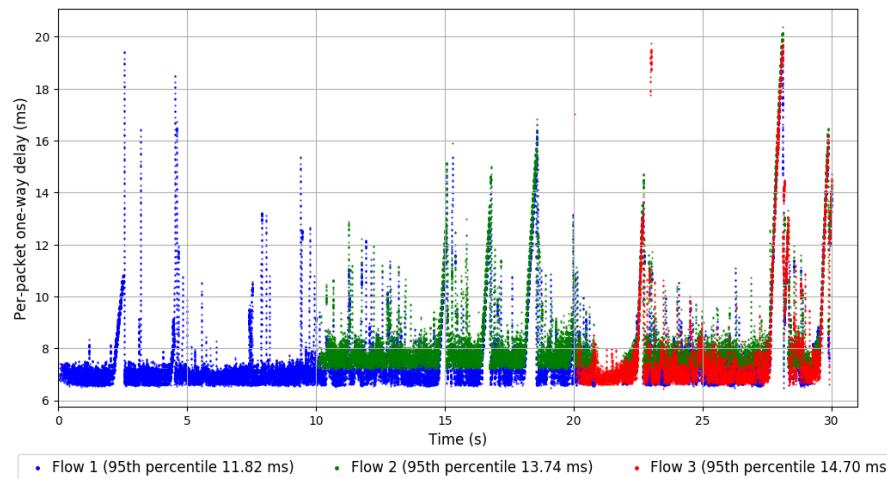
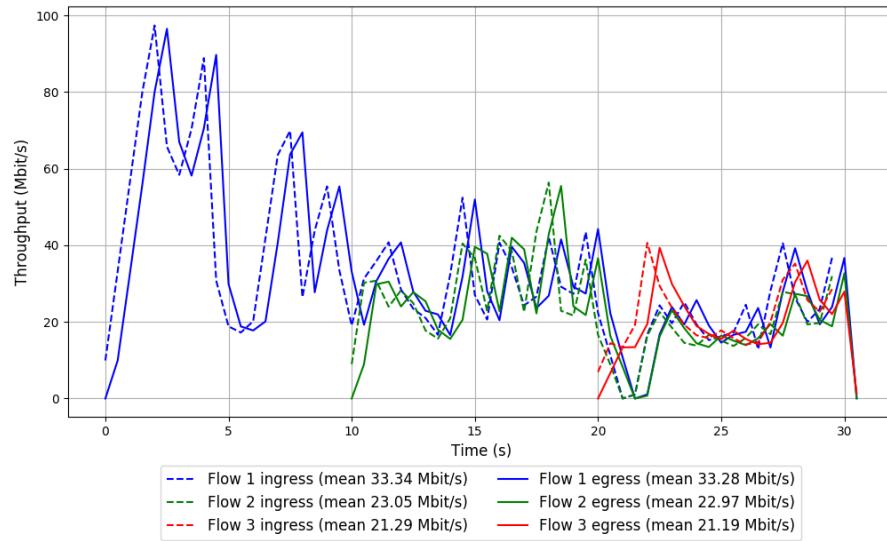


Run 1: Statistics of LEDBAT

```
Start at: 2019-02-20 00:36:19
End at: 2019-02-20 00:36:49
Local clock offset: -2.04 ms
Remote clock offset: -2.363 ms

# Below is generated by plot.py at 2019-02-20 02:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 55.62 Mbit/s
95th percentile per-packet one-way delay: 12.888 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 33.28 Mbit/s
95th percentile per-packet one-way delay: 11.816 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 22.97 Mbit/s
95th percentile per-packet one-way delay: 13.744 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 21.19 Mbit/s
95th percentile per-packet one-way delay: 14.697 ms
Loss rate: 0.48%
```

Run 1: Report of LEDBAT — Data Link

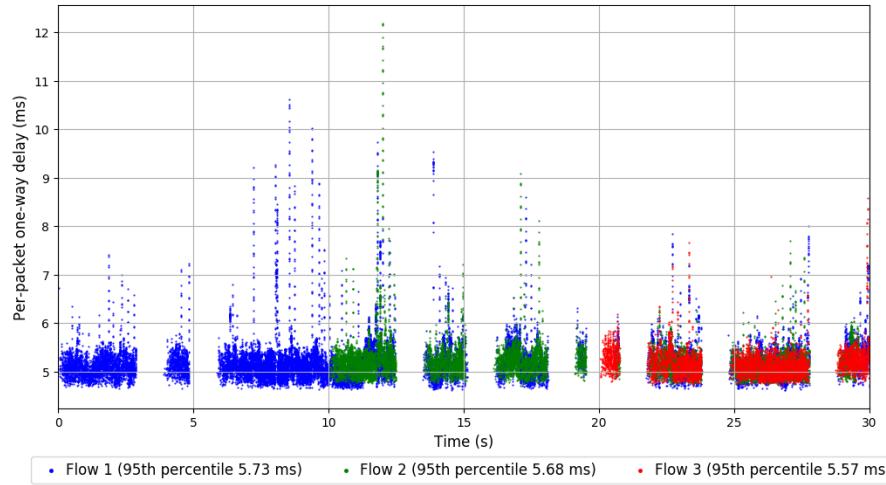
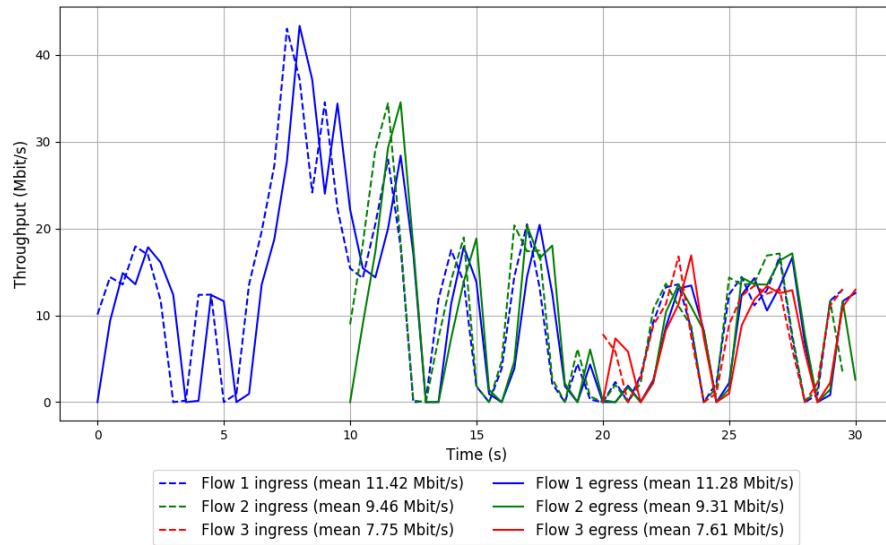


Run 2: Statistics of LEDBAT

```
Start at: 2019-02-20 01:00:53
End at: 2019-02-20 01:01:23
Local clock offset: 0.742 ms
Remote clock offset: -2.494 ms

# Below is generated by plot.py at 2019-02-20 02:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.89 Mbit/s
95th percentile per-packet one-way delay: 5.692 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 11.28 Mbit/s
95th percentile per-packet one-way delay: 5.730 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 5.677 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 5.566 ms
Loss rate: 1.78%
```

Run 2: Report of LEDBAT — Data Link

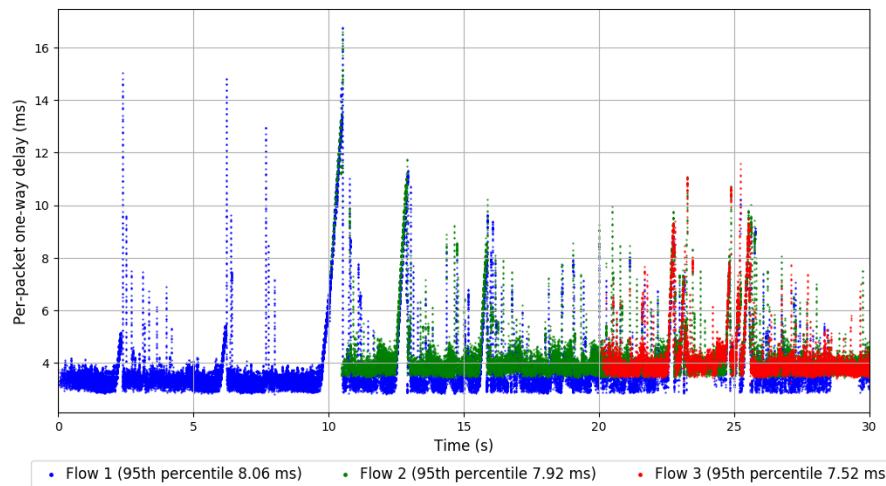
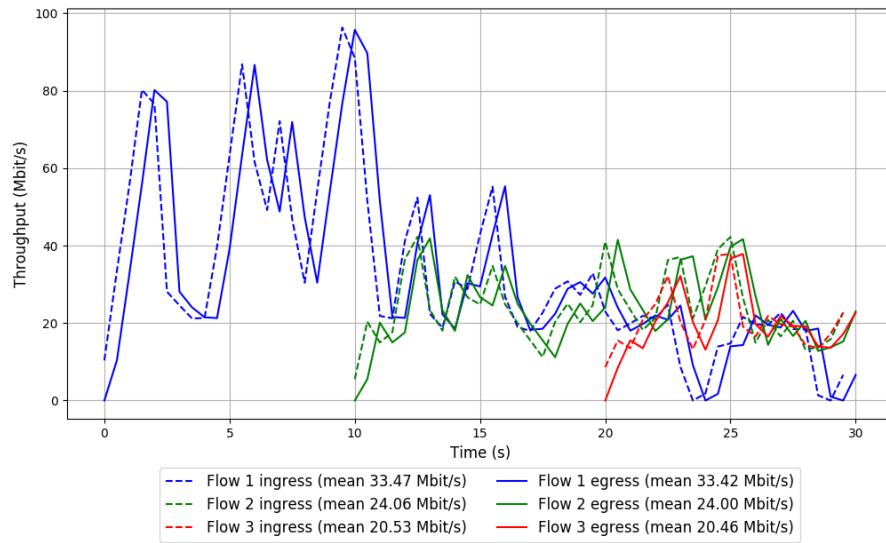


Run 3: Statistics of LEDBAT

```
Start at: 2019-02-20 01:25:35
End at: 2019-02-20 01:26:05
Local clock offset: 0.588 ms
Remote clock offset: -3.436 ms

# Below is generated by plot.py at 2019-02-20 02:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.19 Mbit/s
95th percentile per-packet one-way delay: 7.846 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 33.42 Mbit/s
95th percentile per-packet one-way delay: 8.064 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 24.00 Mbit/s
95th percentile per-packet one-way delay: 7.917 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 20.46 Mbit/s
95th percentile per-packet one-way delay: 7.519 ms
Loss rate: 0.34%
```

Run 3: Report of LEDBAT — Data Link

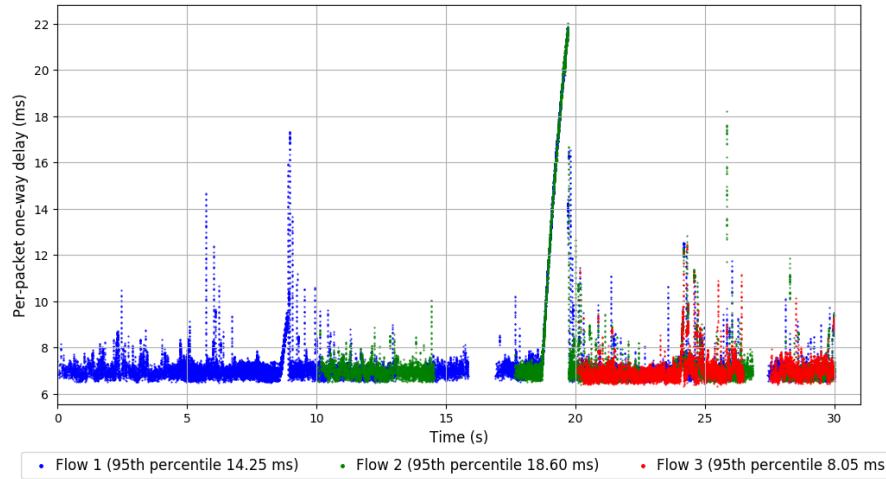
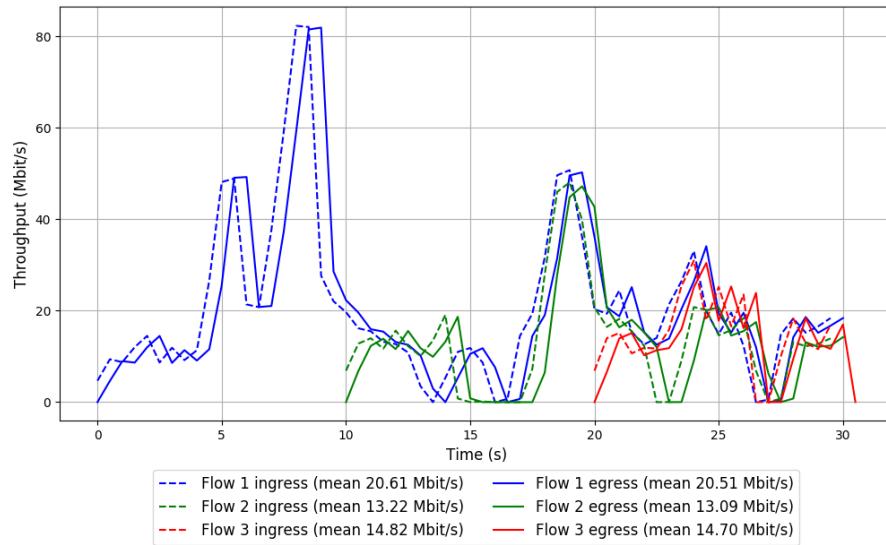


Run 4: Statistics of LEDBAT

```
Start at: 2019-02-20 01:50:04
End at: 2019-02-20 01:50:34
Local clock offset: 0.096 ms
Remote clock offset: -3.208 ms

# Below is generated by plot.py at 2019-02-20 02:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.11 Mbit/s
95th percentile per-packet one-way delay: 15.418 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 20.51 Mbit/s
95th percentile per-packet one-way delay: 14.254 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 18.600 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 14.70 Mbit/s
95th percentile per-packet one-way delay: 8.055 ms
Loss rate: 0.82%
```

Run 4: Report of LEDBAT — Data Link

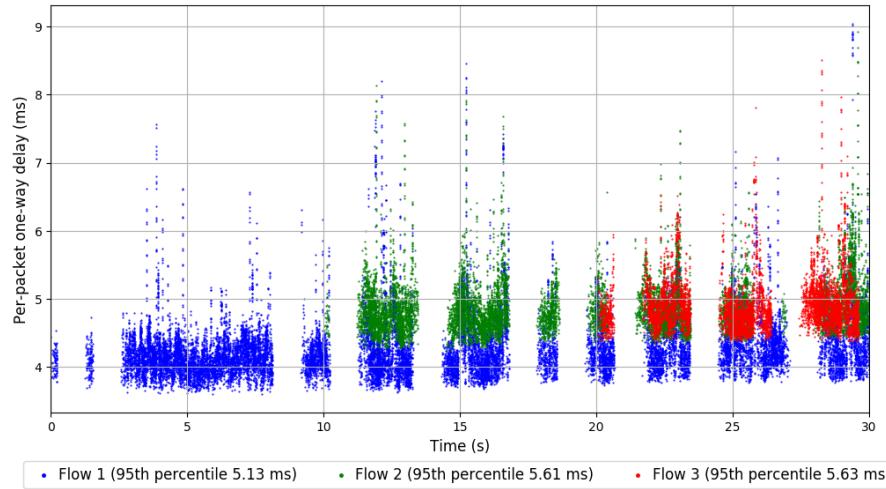
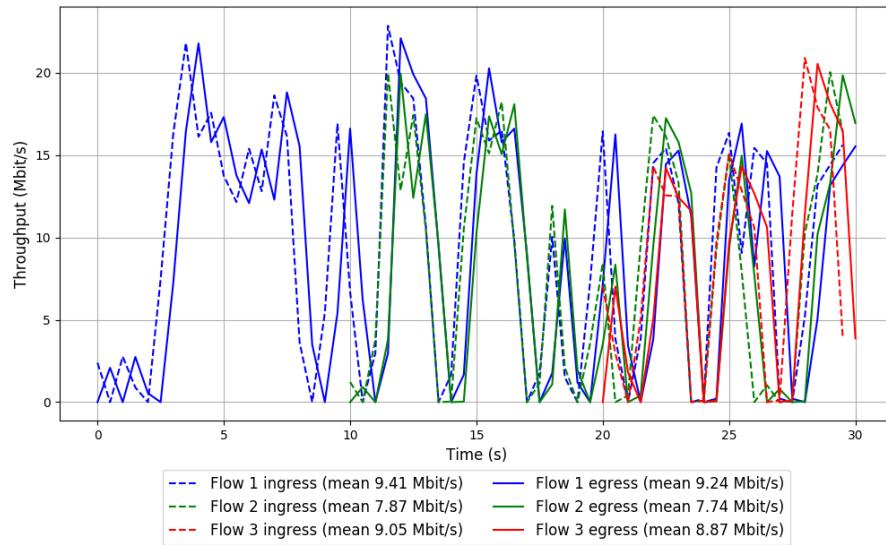


Run 5: Statistics of LEDBAT

```
Start at: 2019-02-20 02:14:29
End at: 2019-02-20 02:14:59
Local clock offset: 10.239 ms
Remote clock offset: -2.001 ms

# Below is generated by plot.py at 2019-02-20 02:31:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.23 Mbit/s
95th percentile per-packet one-way delay: 5.410 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 9.24 Mbit/s
95th percentile per-packet one-way delay: 5.129 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 5.609 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 8.87 Mbit/s
95th percentile per-packet one-way delay: 5.629 ms
Loss rate: 1.97%
```

Run 5: Report of LEDBAT — Data Link

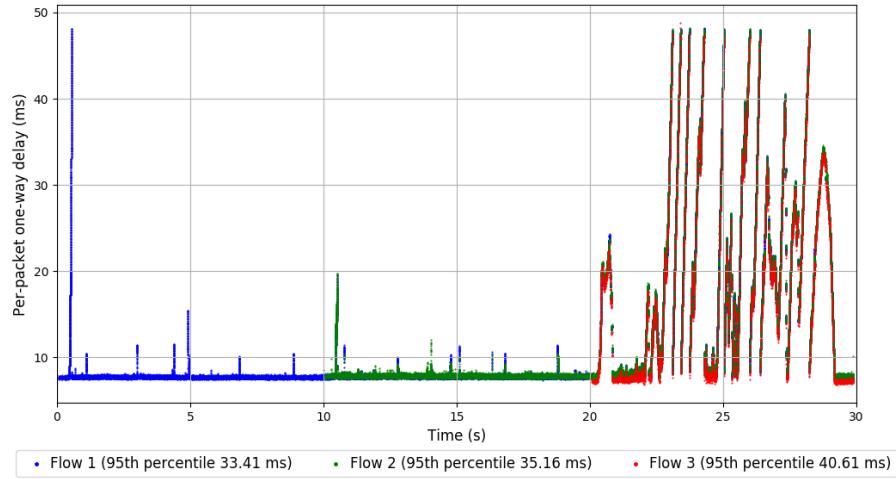
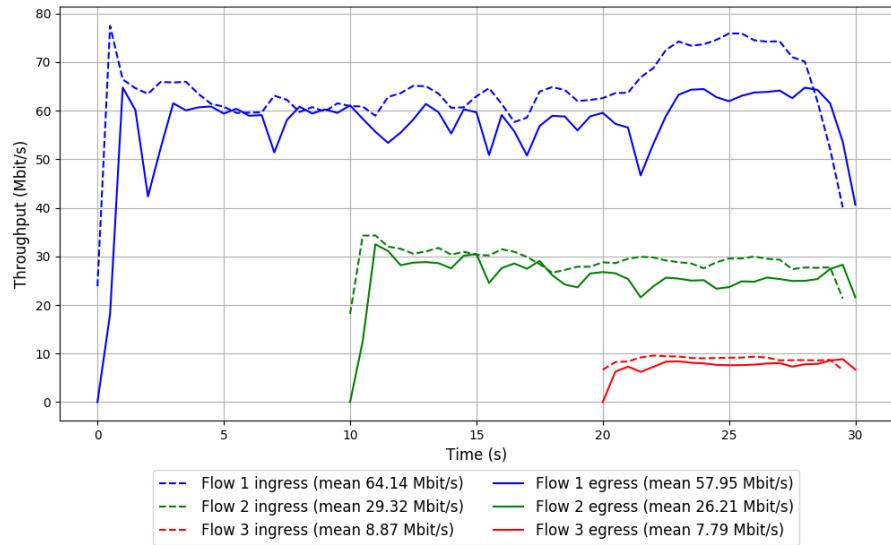


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-02-20 00:23:38
End at: 2019-02-20 00:24:08
Local clock offset: -1.451 ms
Remote clock offset: -1.263 ms

# Below is generated by plot.py at 2019-02-20 02:31:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.95 Mbit/s
95th percentile per-packet one-way delay: 34.041 ms
Loss rate: 9.95%
-- Flow 1:
Average throughput: 57.95 Mbit/s
95th percentile per-packet one-way delay: 33.408 ms
Loss rate: 9.65%
-- Flow 2:
Average throughput: 26.21 Mbit/s
95th percentile per-packet one-way delay: 35.157 ms
Loss rate: 10.59%
-- Flow 3:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 40.611 ms
Loss rate: 12.13%
```

Run 1: Report of PCC-Allegro — Data Link

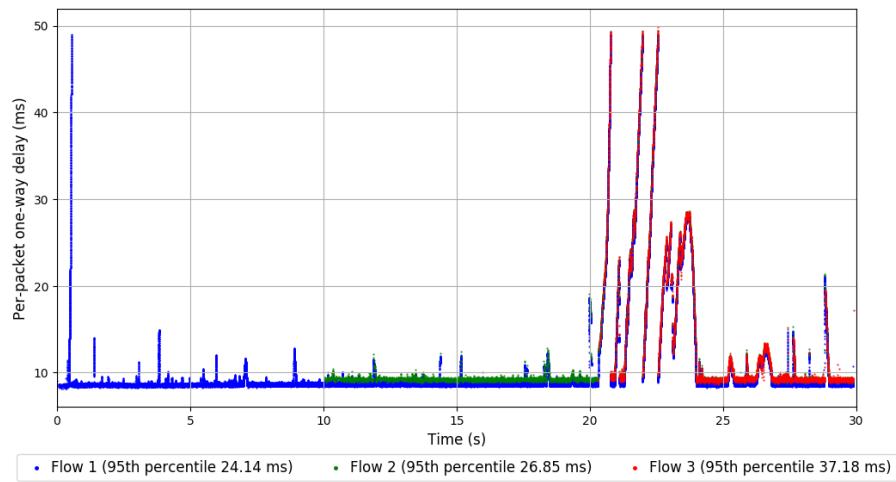
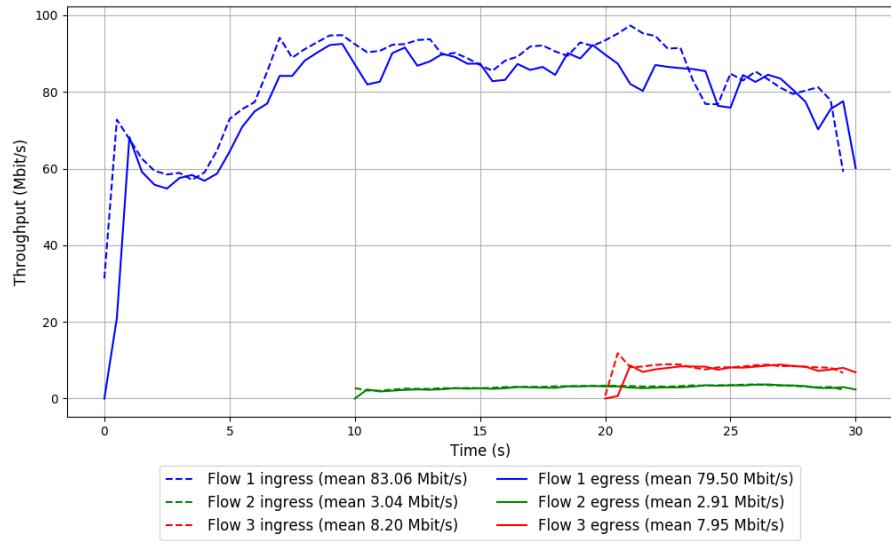


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-02-20 00:47:58
End at: 2019-02-20 00:48:28
Local clock offset: -2.361 ms
Remote clock offset: -1.426 ms

# Below is generated by plot.py at 2019-02-20 02:32:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.98 Mbit/s
95th percentile per-packet one-way delay: 24.784 ms
Loss rate: 4.32%
-- Flow 1:
Average throughput: 79.50 Mbit/s
95th percentile per-packet one-way delay: 24.139 ms
Loss rate: 4.28%
-- Flow 2:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 26.849 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 37.182 ms
Loss rate: 5.50%
```

Run 2: Report of PCC-Allegro — Data Link

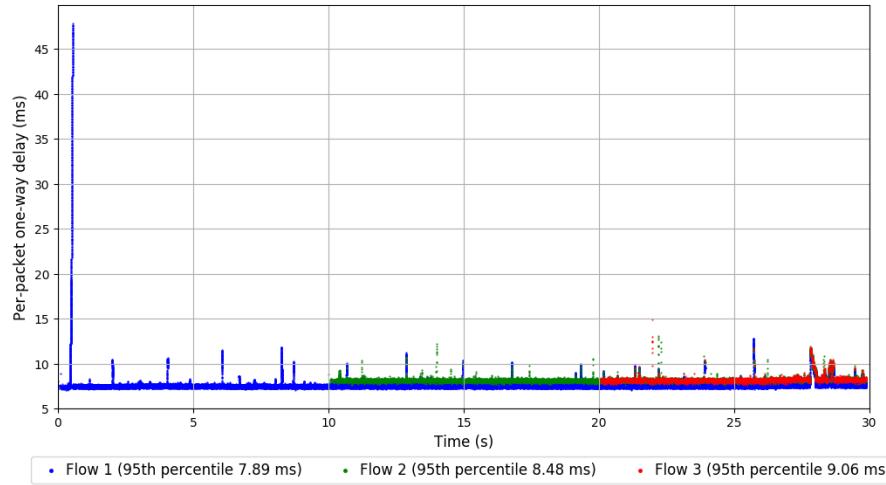
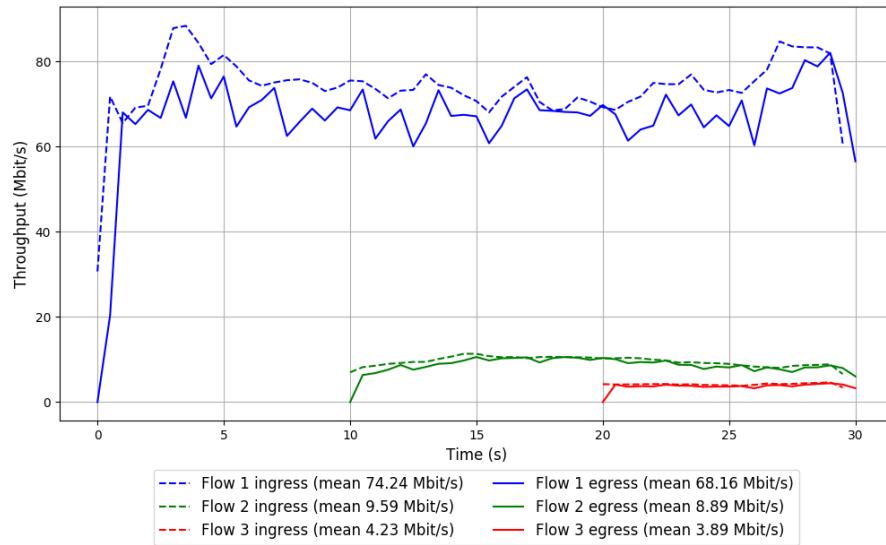


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-02-20 01:12:38
End at: 2019-02-20 01:13:08
Local clock offset: -1.438 ms
Remote clock offset: -1.154 ms

# Below is generated by plot.py at 2019-02-20 02:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.35 Mbit/s
95th percentile per-packet one-way delay: 8.280 ms
Loss rate: 8.12%
-- Flow 1:
Average throughput: 68.16 Mbit/s
95th percentile per-packet one-way delay: 7.888 ms
Loss rate: 8.19%
-- Flow 2:
Average throughput: 8.89 Mbit/s
95th percentile per-packet one-way delay: 8.484 ms
Loss rate: 7.30%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 9.058 ms
Loss rate: 8.03%
```

Run 3: Report of PCC-Allegro — Data Link

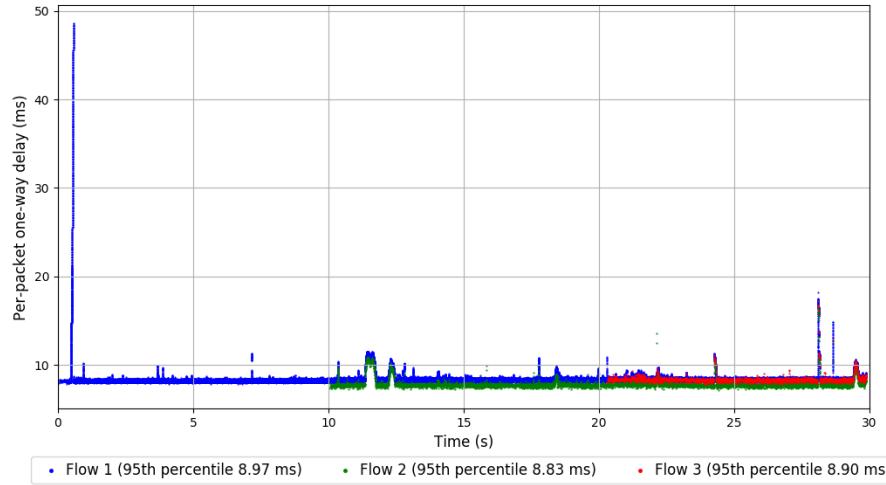
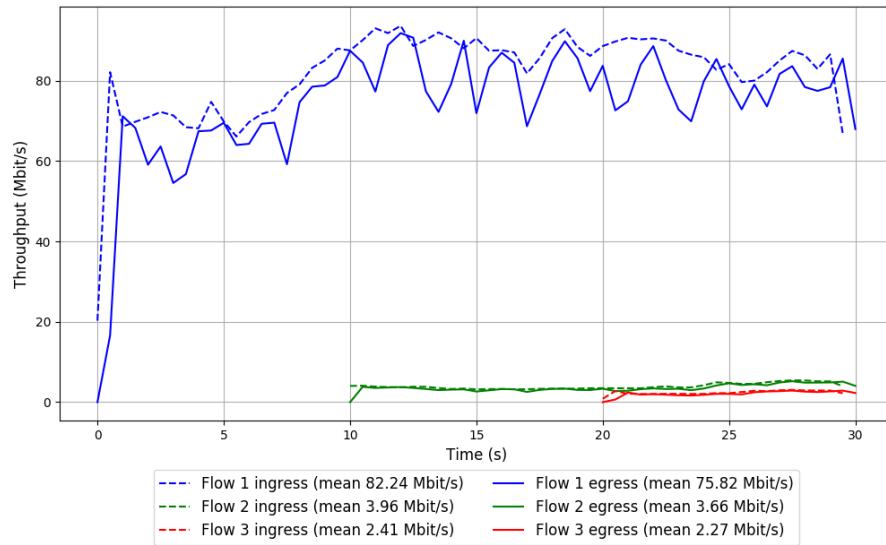


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-02-20 01:37:15
End at: 2019-02-20 01:37:45
Local clock offset: -0.789 ms
Remote clock offset: -1.651 ms

# Below is generated by plot.py at 2019-02-20 02:32:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.98 Mbit/s
95th percentile per-packet one-way delay: 8.964 ms
Loss rate: 7.81%
-- Flow 1:
Average throughput: 75.82 Mbit/s
95th percentile per-packet one-way delay: 8.967 ms
Loss rate: 7.81%
-- Flow 2:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 8.826 ms
Loss rate: 7.69%
-- Flow 3:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 8.899 ms
Loss rate: 8.10%
```

Run 4: Report of PCC-Allegro — Data Link

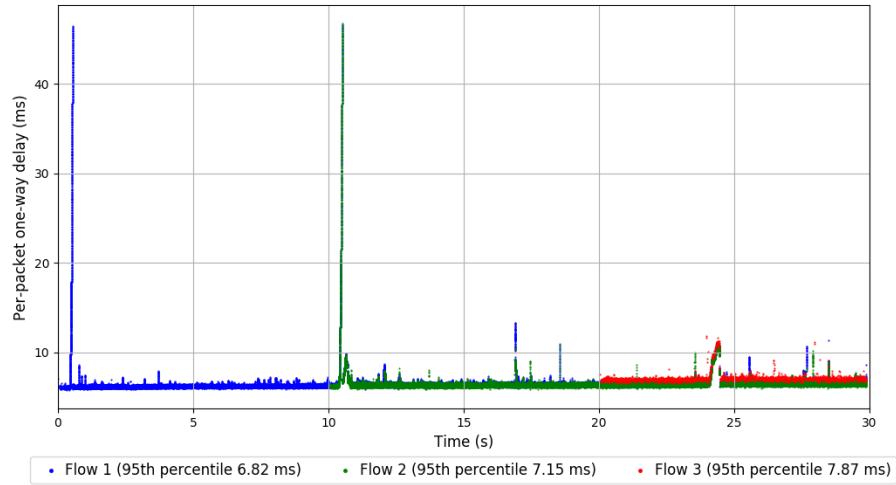
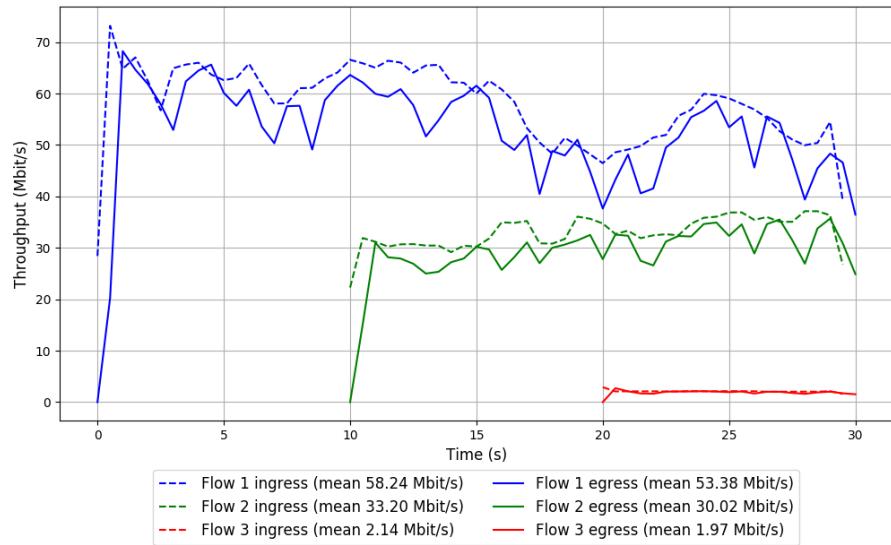


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-02-20 02:01:45
End at: 2019-02-20 02:02:15
Local clock offset: 3.925 ms
Remote clock offset: -1.158 ms

# Below is generated by plot.py at 2019-02-20 02:32:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.99 Mbit/s
95th percentile per-packet one-way delay: 7.004 ms
Loss rate: 8.68%
-- Flow 1:
Average throughput: 53.38 Mbit/s
95th percentile per-packet one-way delay: 6.823 ms
Loss rate: 8.35%
-- Flow 2:
Average throughput: 30.02 Mbit/s
95th percentile per-packet one-way delay: 7.148 ms
Loss rate: 9.58%
-- Flow 3:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 7.867 ms
Loss rate: 7.77%
```

Run 5: Report of PCC-Allegro — Data Link

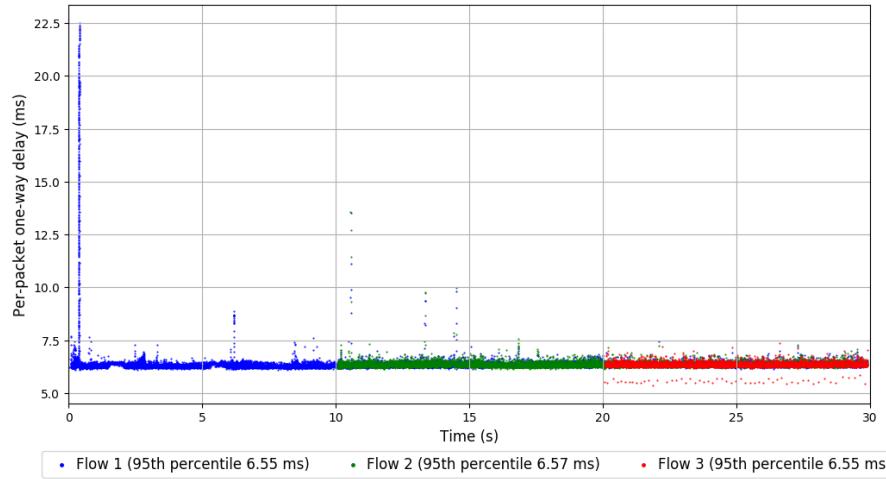
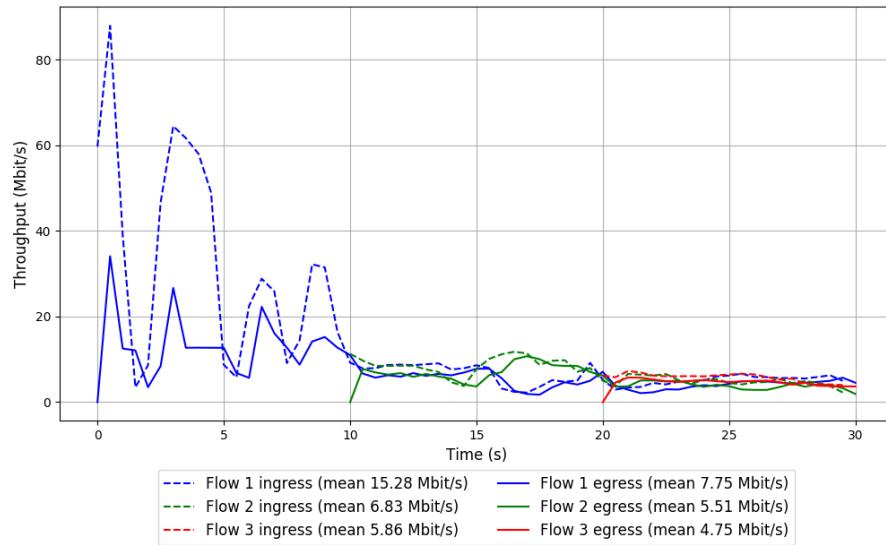


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-02-20 00:35:12
End at: 2019-02-20 00:35:42
Local clock offset: 0.694 ms
Remote clock offset: -0.628 ms

# Below is generated by plot.py at 2019-02-20 02:32:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.98 Mbit/s
95th percentile per-packet one-way delay: 6.560 ms
Loss rate: 40.33%
-- Flow 1:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 6.554 ms
Loss rate: 49.28%
-- Flow 2:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 6.569 ms
Loss rate: 19.31%
-- Flow 3:
Average throughput: 4.75 Mbit/s
95th percentile per-packet one-way delay: 6.554 ms
Loss rate: 18.95%
```

Run 1: Report of PCC-Expr — Data Link

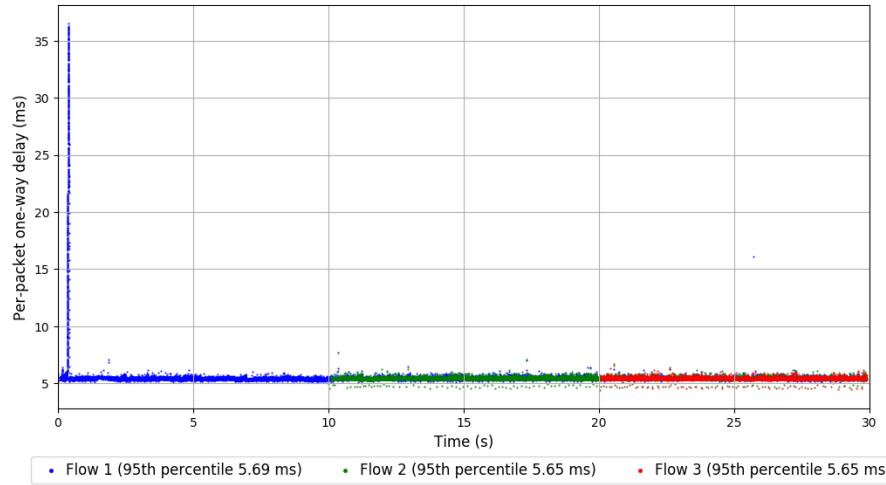
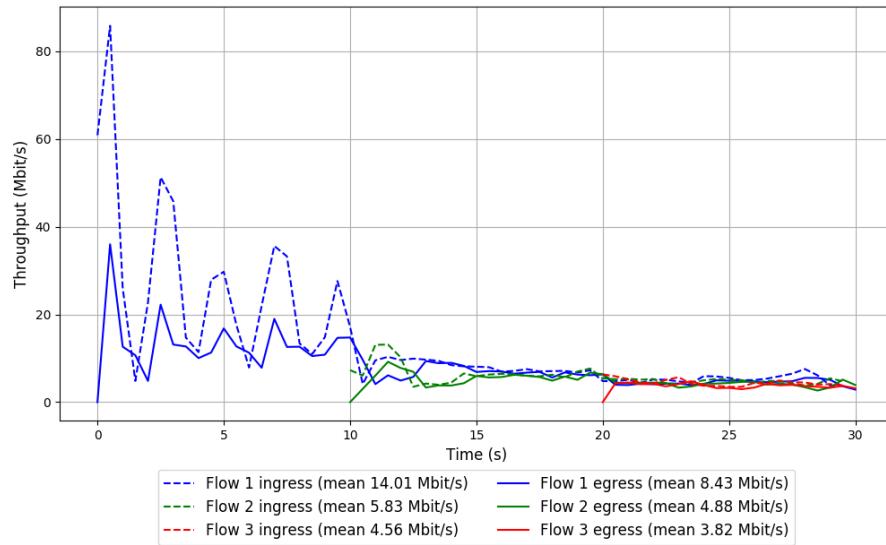


Run 2: Statistics of PCC-Expr

```
Start at: 2019-02-20 00:59:46
End at: 2019-02-20 01:00:16
Local clock offset: 0.885 ms
Remote clock offset: -1.931 ms

# Below is generated by plot.py at 2019-02-20 02:32:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.94 Mbit/s
95th percentile per-packet one-way delay: 5.672 ms
Loss rate: 33.30%
-- Flow 1:
Average throughput: 8.43 Mbit/s
95th percentile per-packet one-way delay: 5.693 ms
Loss rate: 39.84%
-- Flow 2:
Average throughput: 4.88 Mbit/s
95th percentile per-packet one-way delay: 5.653 ms
Loss rate: 16.36%
-- Flow 3:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 5.654 ms
Loss rate: 16.15%
```

Run 2: Report of PCC-Expr — Data Link

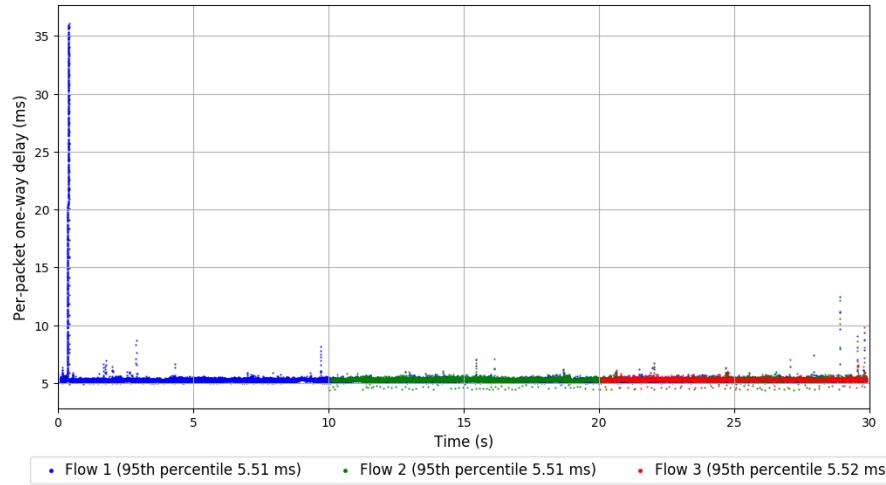
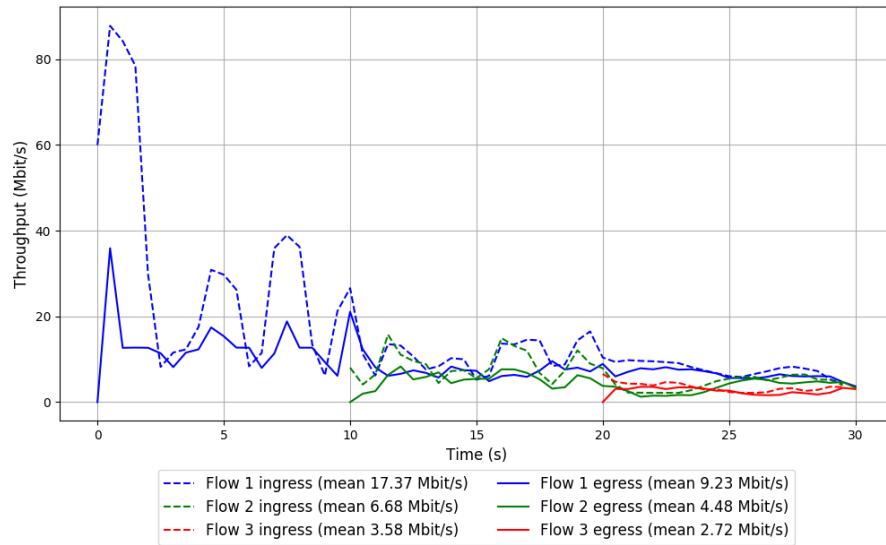


Run 3: Statistics of PCC-Expr

```
Start at: 2019-02-20 01:24:26
End at: 2019-02-20 01:24:56
Local clock offset: 1.045 ms
Remote clock offset: -1.471 ms

# Below is generated by plot.py at 2019-02-20 02:32:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.10 Mbit/s
95th percentile per-packet one-way delay: 5.512 ms
Loss rate: 43.02%
-- Flow 1:
Average throughput: 9.23 Mbit/s
95th percentile per-packet one-way delay: 5.508 ms
Loss rate: 46.87%
-- Flow 2:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 5.513 ms
Loss rate: 32.99%
-- Flow 3:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 5.524 ms
Loss rate: 24.05%
```

Run 3: Report of PCC-Expr — Data Link

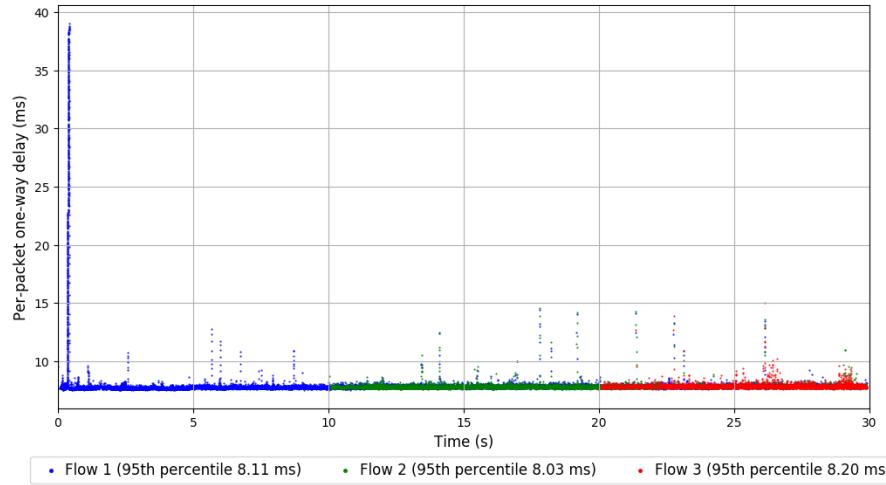
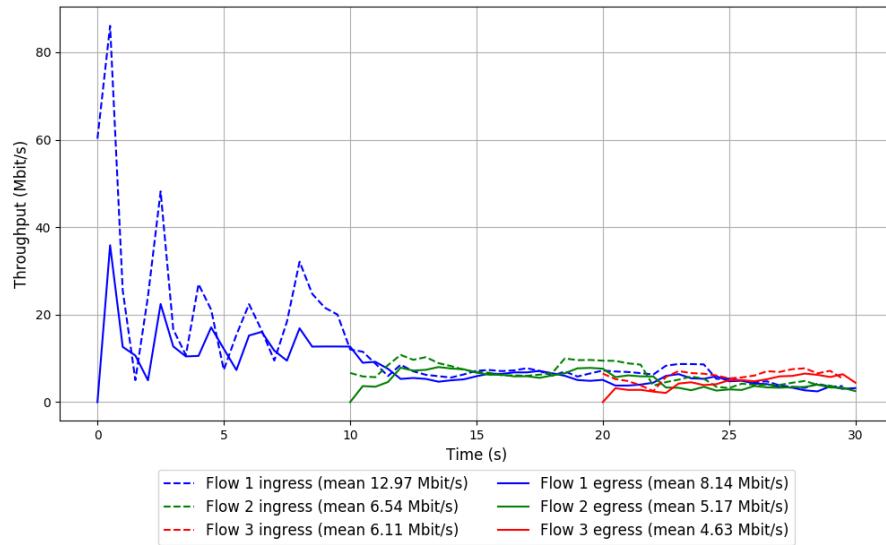


Run 4: Statistics of PCC-Expr

```
Start at: 2019-02-20 01:48:56
End at: 2019-02-20 01:49:26
Local clock offset: 0.646 ms
Remote clock offset: -1.485 ms

# Below is generated by plot.py at 2019-02-20 02:32:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.10 Mbit/s
95th percentile per-packet one-way delay: 8.095 ms
Loss rate: 32.26%
-- Flow 1:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: 8.110 ms
Loss rate: 37.28%
-- Flow 2:
Average throughput: 5.17 Mbit/s
95th percentile per-packet one-way delay: 8.031 ms
Loss rate: 21.05%
-- Flow 3:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 8.201 ms
Loss rate: 24.21%
```

Run 4: Report of PCC-Expr — Data Link

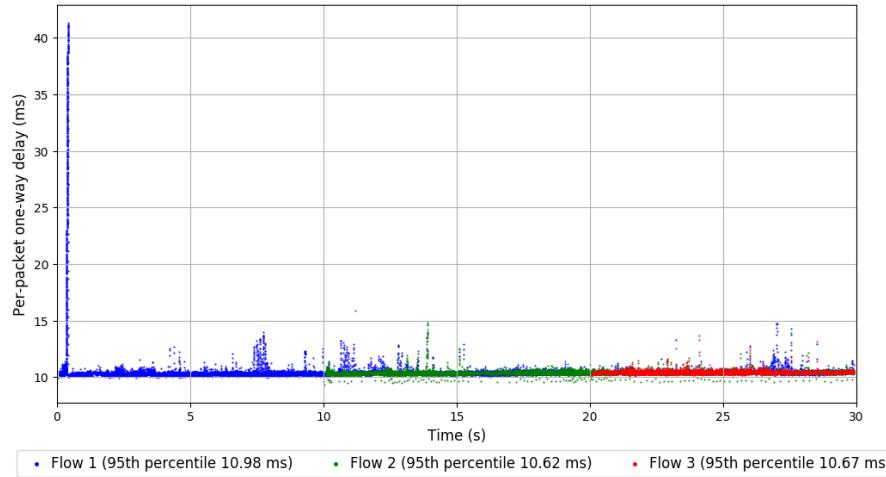
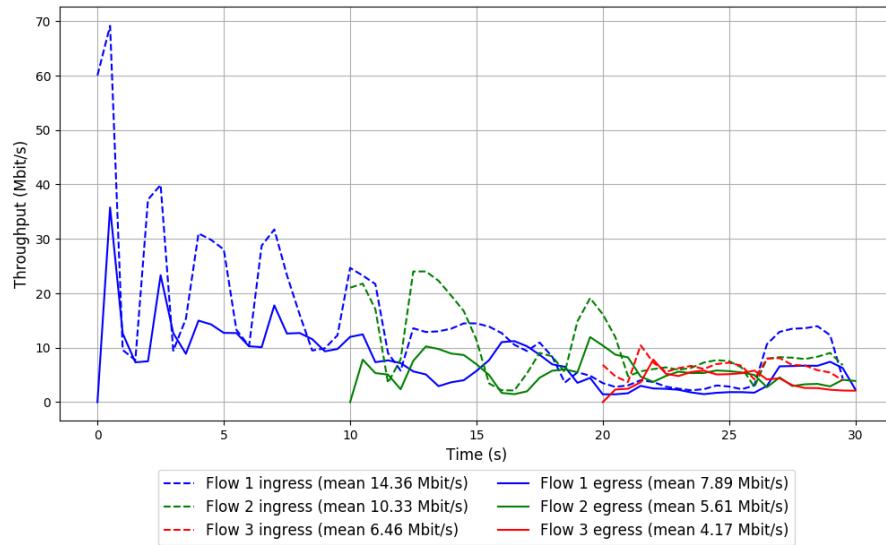


Run 5: Statistics of PCC-Expr

```
Start at: 2019-02-20 02:13:22
End at: 2019-02-20 02:13:52
Local clock offset: 4.4 ms
Remote clock offset: -1.767 ms

# Below is generated by plot.py at 2019-02-20 02:32:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.00 Mbit/s
95th percentile per-packet one-way delay: 10.772 ms
Loss rate: 44.34%
-- Flow 1:
Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 10.980 ms
Loss rate: 45.03%
-- Flow 2:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 10.617 ms
Loss rate: 45.65%
-- Flow 3:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 10.672 ms
Loss rate: 35.50%
```

Run 5: Report of PCC-Expr — Data Link

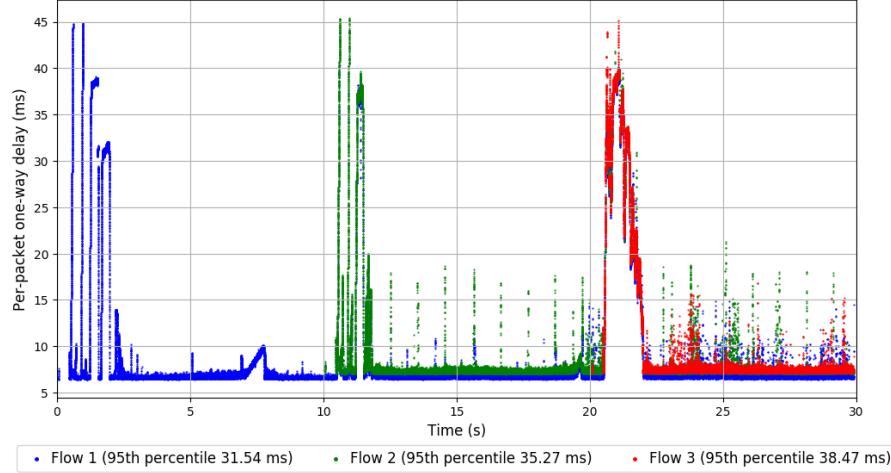
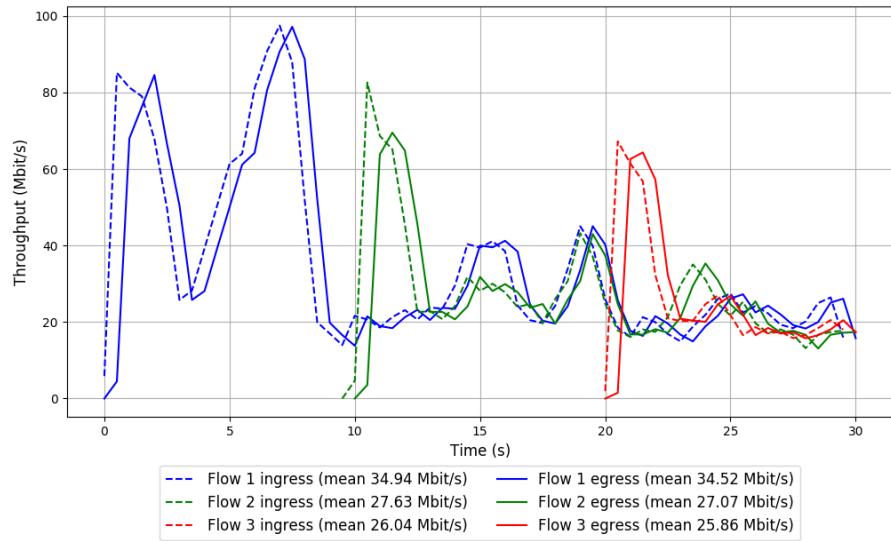


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-02-20 00:27:04
End at: 2019-02-20 00:27:34
Local clock offset: -1.148 ms
Remote clock offset: -1.028 ms

# Below is generated by plot.py at 2019-02-20 02:32:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.07 Mbit/s
95th percentile per-packet one-way delay: 34.928 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 31.543 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 27.07 Mbit/s
95th percentile per-packet one-way delay: 35.273 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 25.86 Mbit/s
95th percentile per-packet one-way delay: 38.466 ms
Loss rate: 0.70%
```

Run 1: Report of QUIC Cubic — Data Link

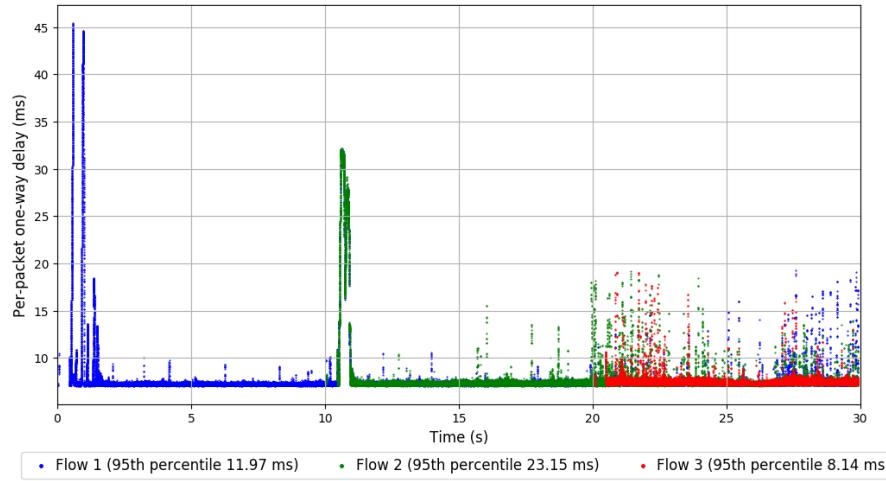
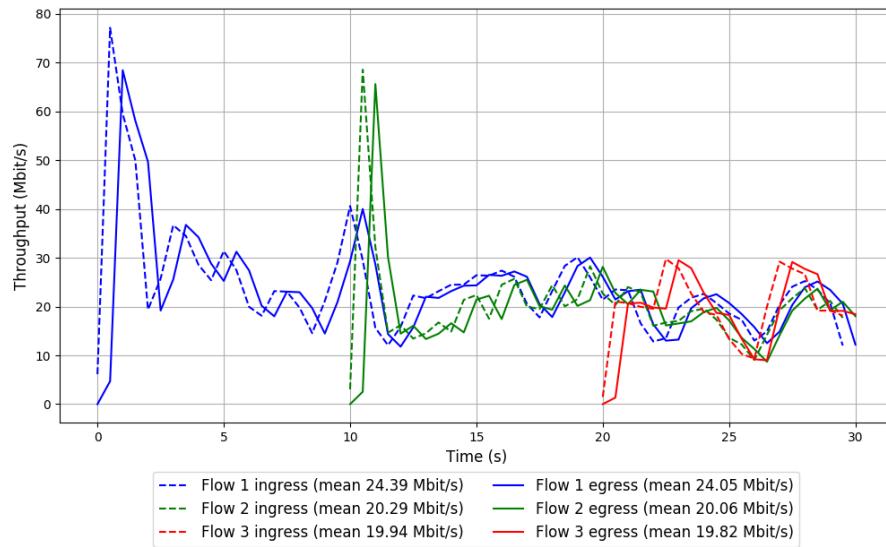


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-02-20 00:51:26
End at: 2019-02-20 00:51:56
Local clock offset: -0.584 ms
Remote clock offset: -0.795 ms

# Below is generated by plot.py at 2019-02-20 02:32:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.93 Mbit/s
95th percentile per-packet one-way delay: 12.824 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 11.967 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 20.06 Mbit/s
95th percentile per-packet one-way delay: 23.149 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 19.82 Mbit/s
95th percentile per-packet one-way delay: 8.139 ms
Loss rate: 0.62%
```

Run 2: Report of QUIC Cubic — Data Link

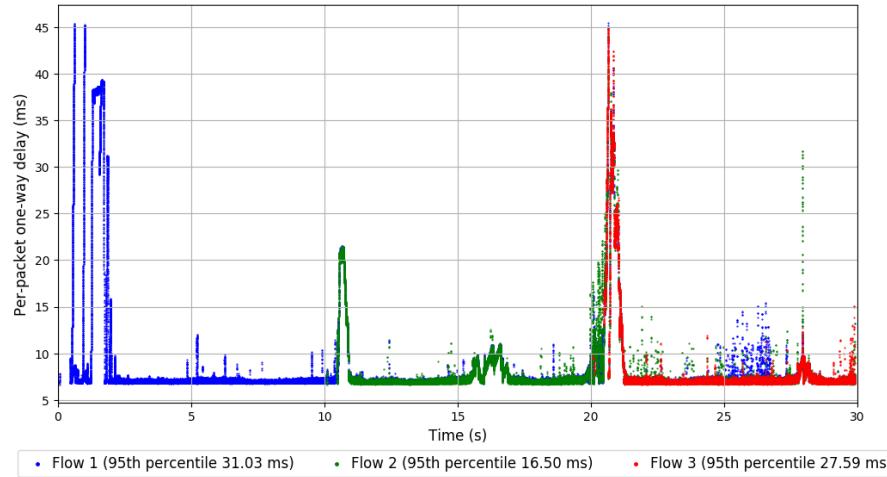
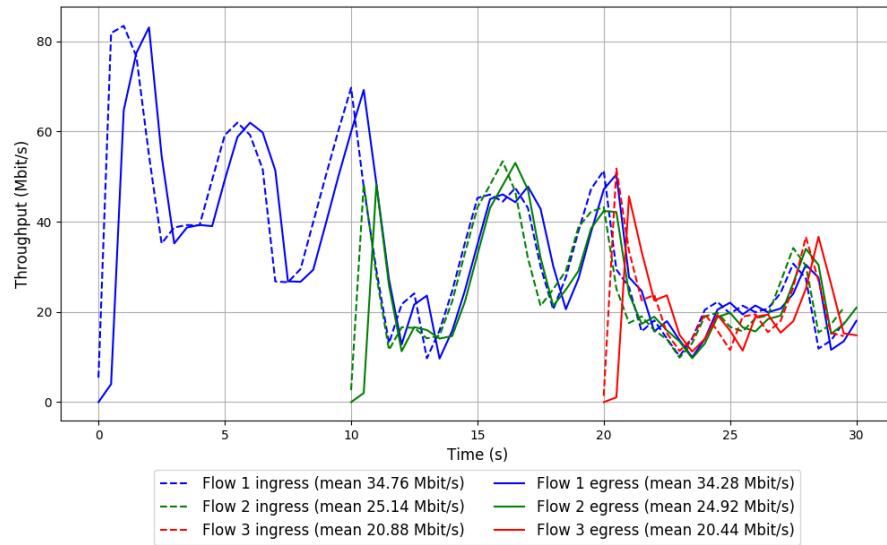


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-02-20 01:16:07
End at: 2019-02-20 01:16:37
Local clock offset: -2.322 ms
Remote clock offset: -3.096 ms

# Below is generated by plot.py at 2019-02-20 02:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.58 Mbit/s
95th percentile per-packet one-way delay: 24.172 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 34.28 Mbit/s
95th percentile per-packet one-way delay: 31.034 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 16.500 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 20.44 Mbit/s
95th percentile per-packet one-way delay: 27.590 ms
Loss rate: 2.17%
```

Run 3: Report of QUIC Cubic — Data Link

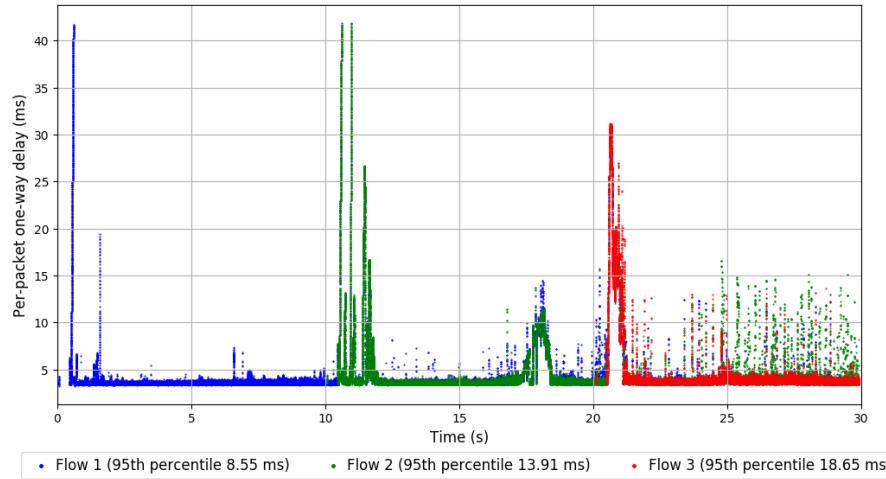
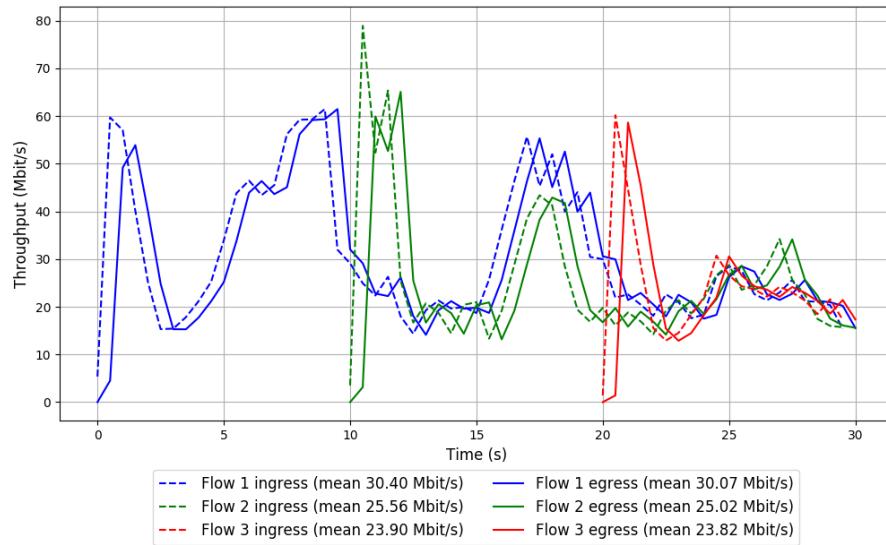


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-02-20 01:40:43
End at: 2019-02-20 01:41:13
Local clock offset: 2.348 ms
Remote clock offset: -3.368 ms

# Below is generated by plot.py at 2019-02-20 02:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.56 Mbit/s
95th percentile per-packet one-way delay: 11.995 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 8.548 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 25.02 Mbit/s
95th percentile per-packet one-way delay: 13.906 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 23.82 Mbit/s
95th percentile per-packet one-way delay: 18.653 ms
Loss rate: 0.31%
```

Run 4: Report of QUIC Cubic — Data Link

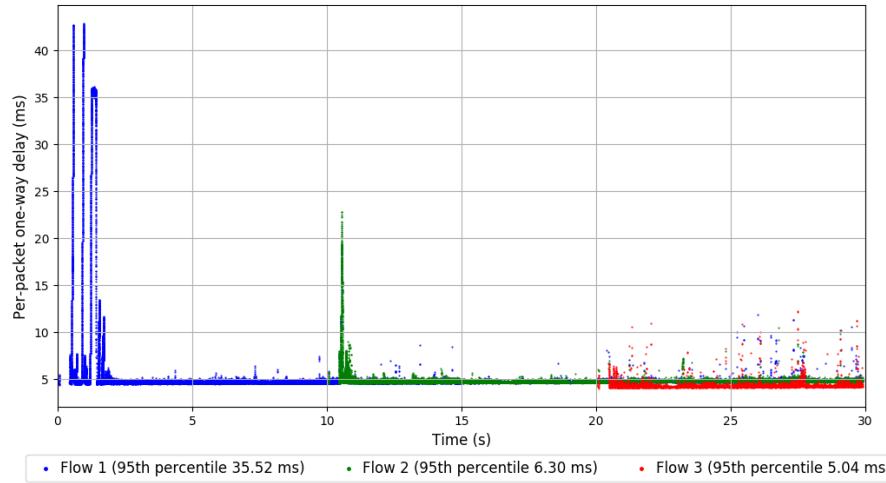
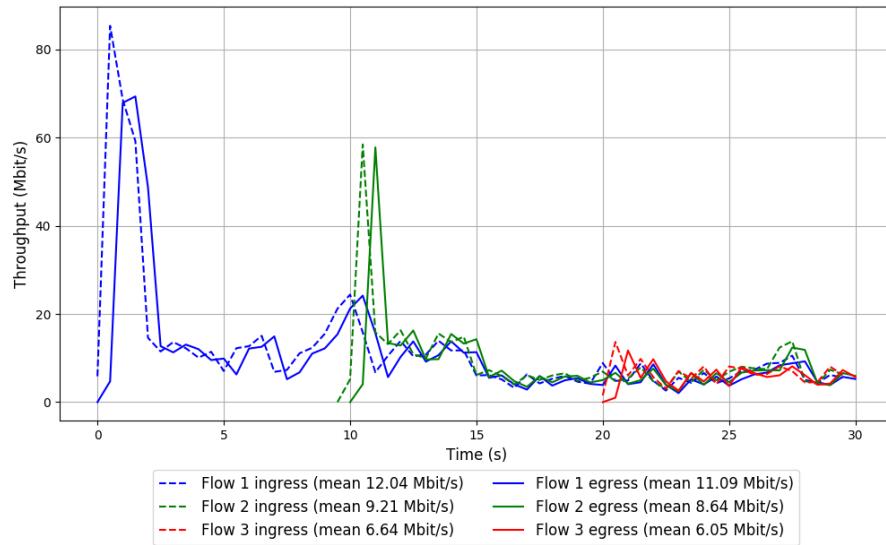


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-02-20 02:05:13
End at: 2019-02-20 02:05:43
Local clock offset: 5.876 ms
Remote clock offset: -3.022 ms

# Below is generated by plot.py at 2019-02-20 02:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.84 Mbit/s
95th percentile per-packet one-way delay: 19.895 ms
Loss rate: 7.43%
-- Flow 1:
Average throughput: 11.09 Mbit/s
95th percentile per-packet one-way delay: 35.519 ms
Loss rate: 7.84%
-- Flow 2:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 6.296 ms
Loss rate: 6.09%
-- Flow 3:
Average throughput: 6.05 Mbit/s
95th percentile per-packet one-way delay: 5.042 ms
Loss rate: 8.89%
```

Run 5: Report of QUIC Cubic — Data Link

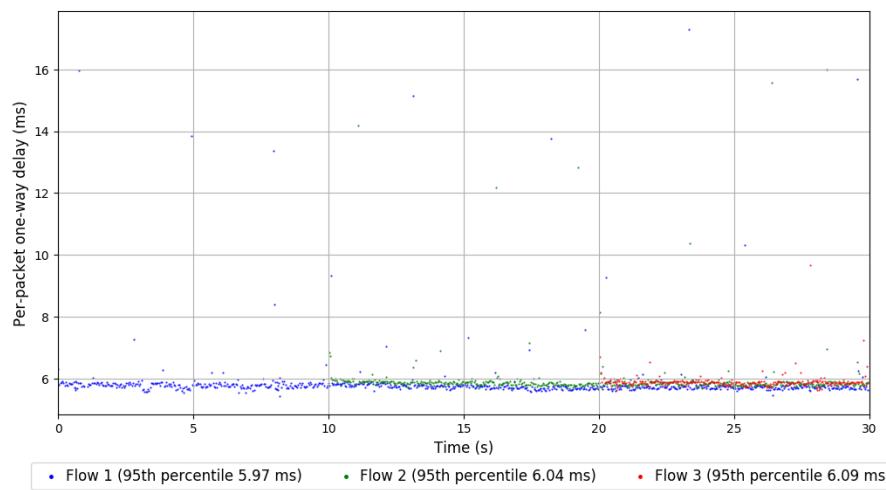
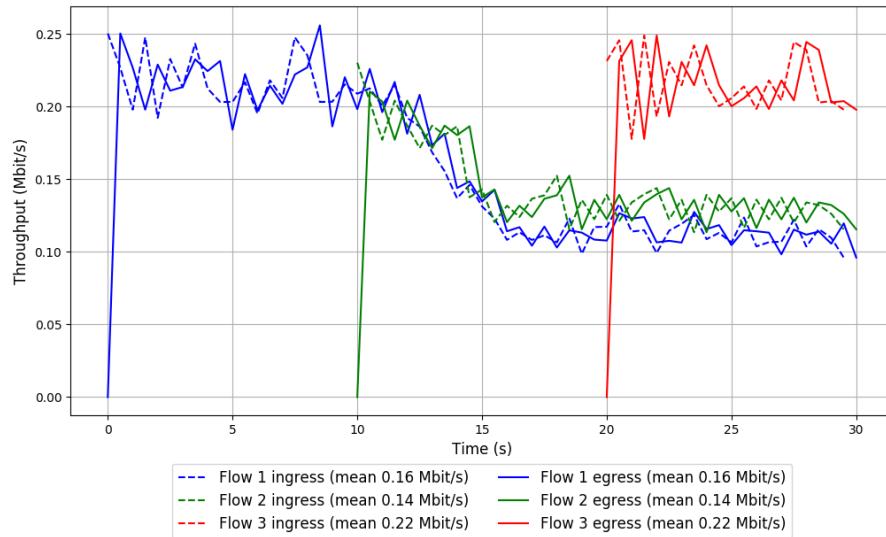


```
Run 1: Statistics of SCReAM

Start at: 2019-02-20 00:25:58
End at: 2019-02-20 00:26:28
Local clock offset: -0.539 ms
Remote clock offset: -1.804 ms

# Below is generated by plot.py at 2019-02-20 02:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 6.026 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 5.973 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 6.036 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 6.095 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

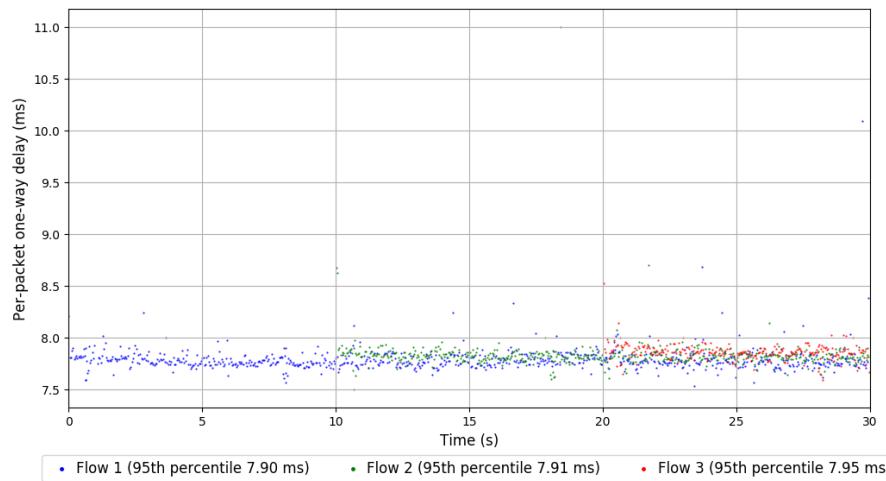
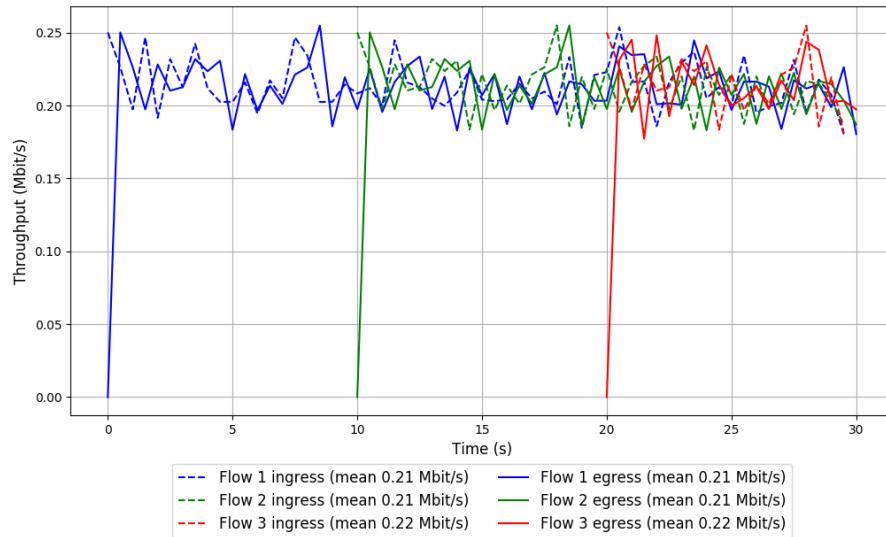


Run 2: Statistics of SCReAM

```
Start at: 2019-02-20 00:50:19
End at: 2019-02-20 00:50:49
Local clock offset: -1.675 ms
Remote clock offset: -1.99 ms

# Below is generated by plot.py at 2019-02-20 02:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 7.925 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.901 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.914 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 7.954 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

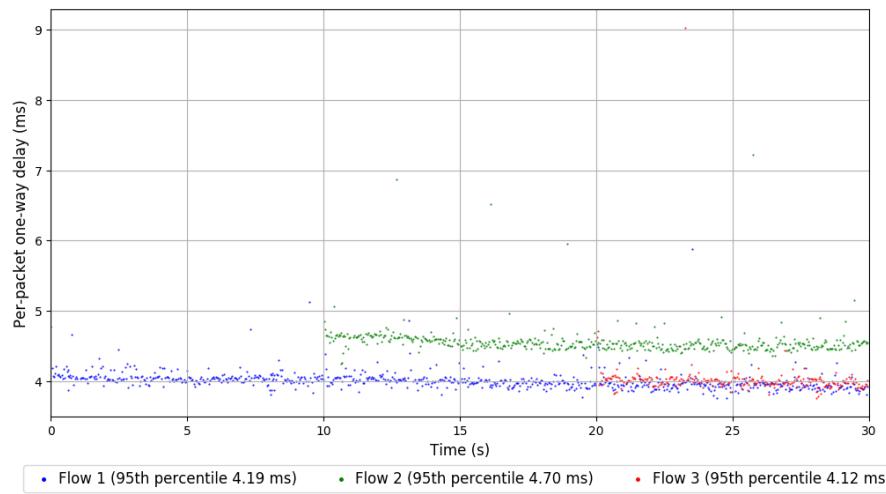
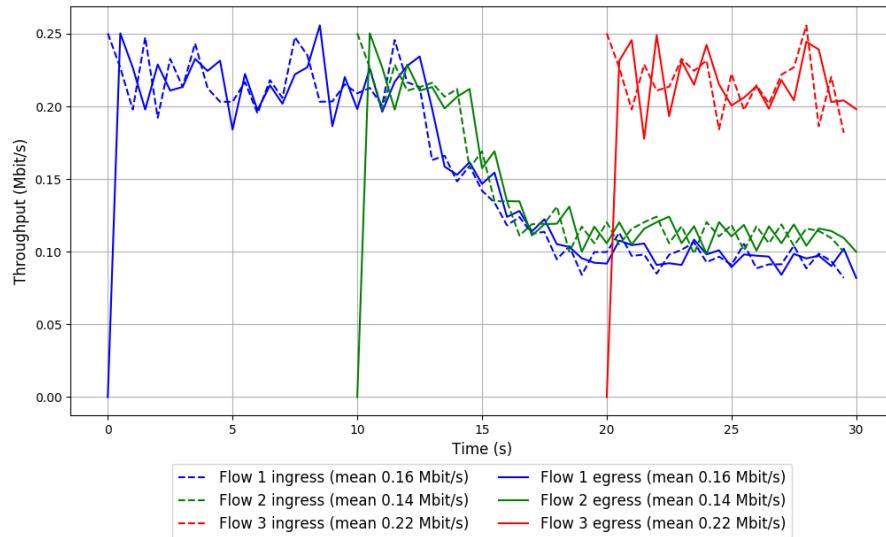


Run 3: Statistics of SCReAM

```
Start at: 2019-02-20 01:15:01
End at: 2019-02-20 01:15:31
Local clock offset: 1.074 ms
Remote clock offset: -2.069 ms

# Below is generated by plot.py at 2019-02-20 02:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 4.635 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 4.187 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.701 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.121 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

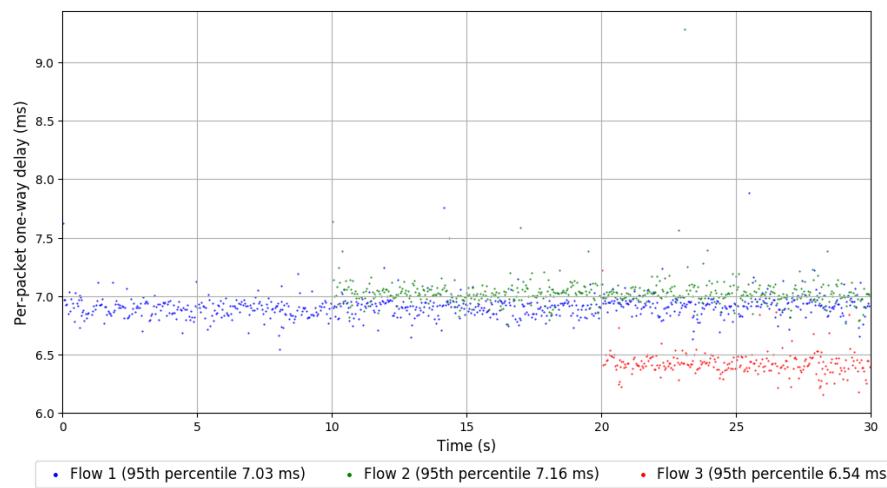
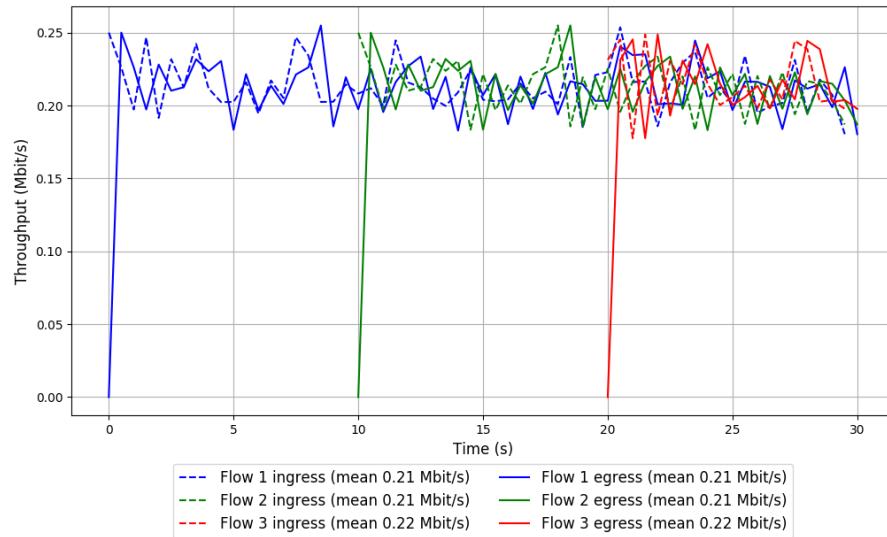


Run 4: Statistics of SCReAM

```
Start at: 2019-02-20 01:39:36
End at: 2019-02-20 01:40:06
Local clock offset: 1.532 ms
Remote clock offset: -0.827 ms

# Below is generated by plot.py at 2019-02-20 02:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 7.109 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.033 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 7.156 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 6.538 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

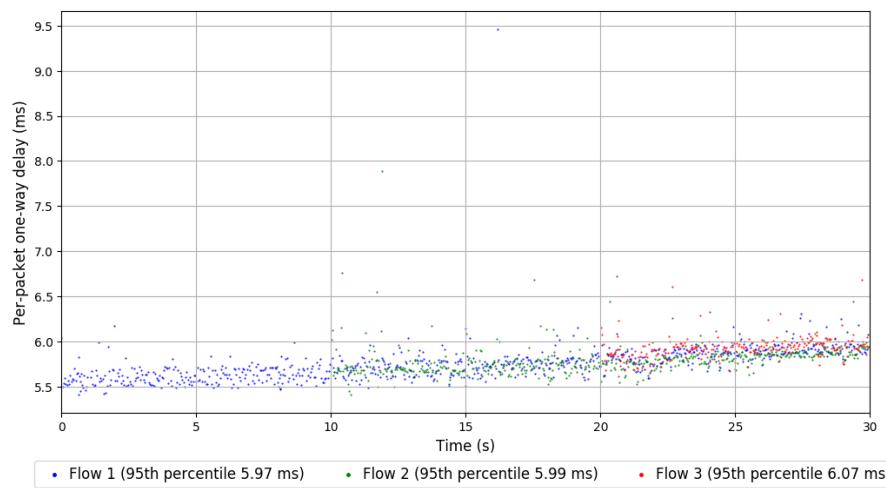
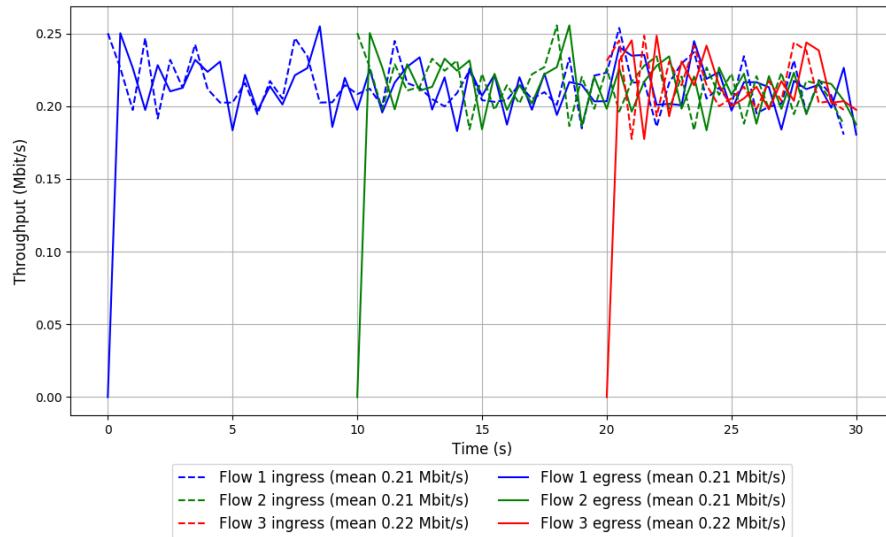


Run 5: Statistics of SCReAM

```
Start at: 2019-02-20 02:04:07
End at: 2019-02-20 02:04:37
Local clock offset: 6.948 ms
Remote clock offset: -0.494 ms

# Below is generated by plot.py at 2019-02-20 02:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 6.027 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 5.974 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 5.994 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 6.066 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

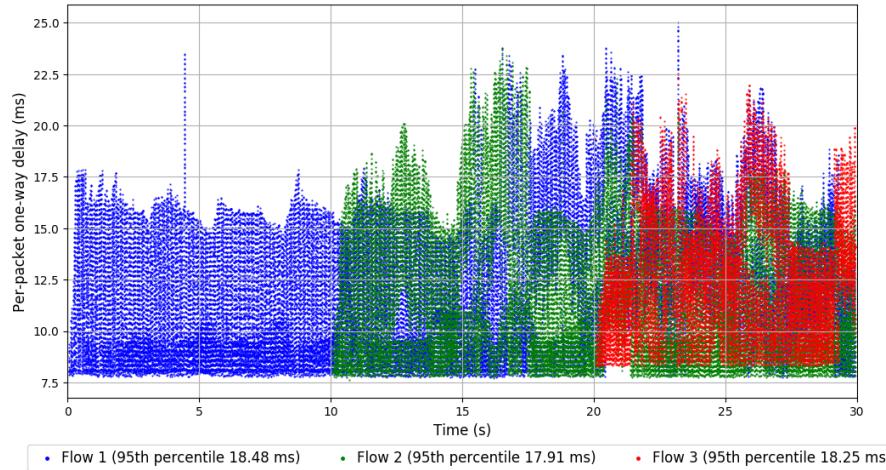
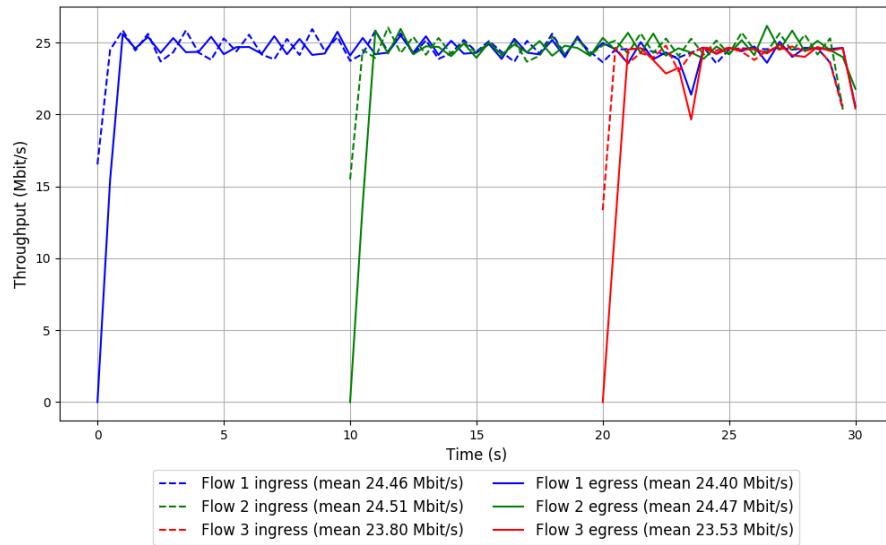


Run 1: Statistics of Sprout

```
Start at: 2019-02-20 00:40:56
End at: 2019-02-20 00:41:26
Local clock offset: -1.469 ms
Remote clock offset: -0.875 ms

# Below is generated by plot.py at 2019-02-20 02:32:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.45 Mbit/s
95th percentile per-packet one-way delay: 18.262 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 24.40 Mbit/s
95th percentile per-packet one-way delay: 18.479 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 17.914 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 23.53 Mbit/s
95th percentile per-packet one-way delay: 18.247 ms
Loss rate: 1.17%
```

Run 1: Report of Sprout — Data Link

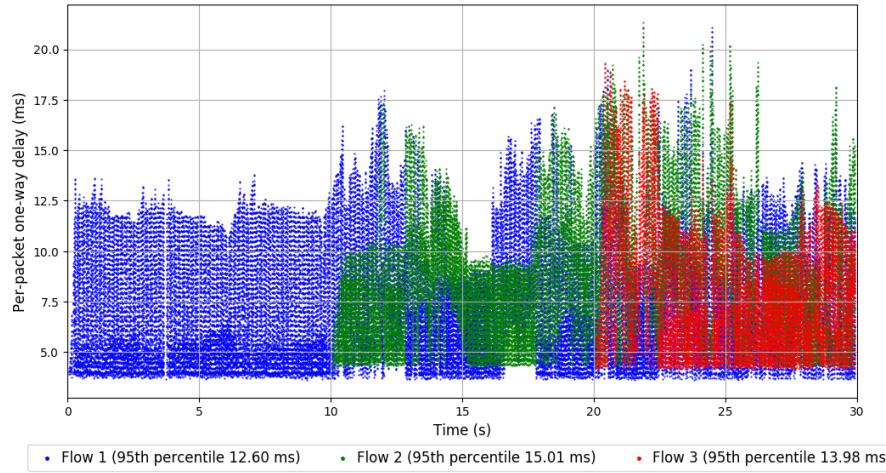
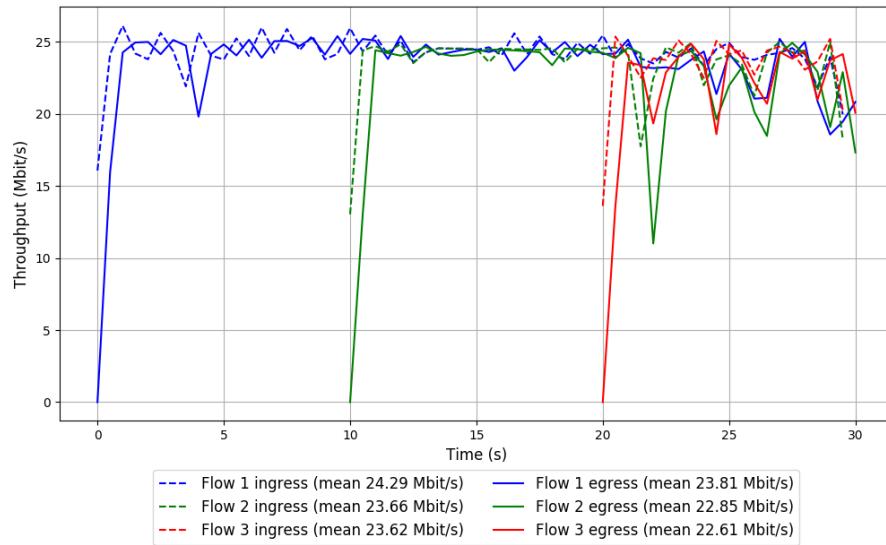


Run 2: Statistics of Sprout

```
Start at: 2019-02-20 01:05:31
End at: 2019-02-20 01:06:01
Local clock offset: 1.101 ms
Remote clock offset: -2.448 ms

# Below is generated by plot.py at 2019-02-20 02:32:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.47 Mbit/s
95th percentile per-packet one-way delay: 13.823 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 23.81 Mbit/s
95th percentile per-packet one-way delay: 12.604 ms
Loss rate: 1.95%
-- Flow 2:
Average throughput: 22.85 Mbit/s
95th percentile per-packet one-way delay: 15.006 ms
Loss rate: 3.39%
-- Flow 3:
Average throughput: 22.61 Mbit/s
95th percentile per-packet one-way delay: 13.984 ms
Loss rate: 4.24%
```

Run 2: Report of Sprout — Data Link

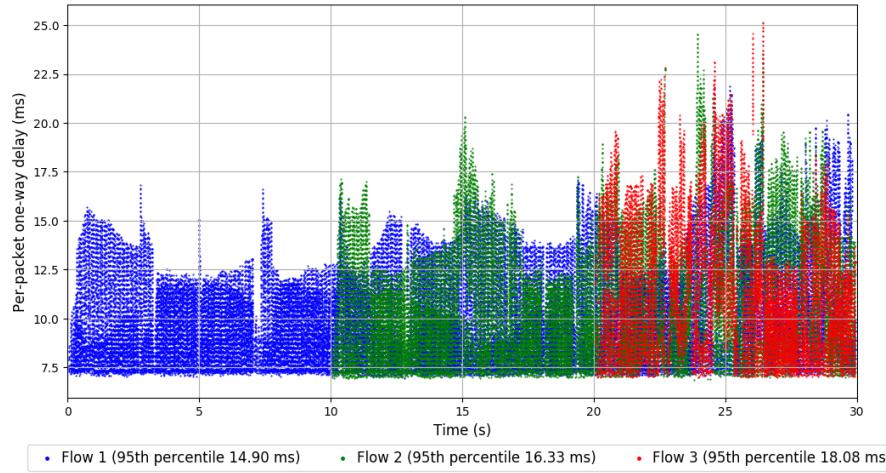
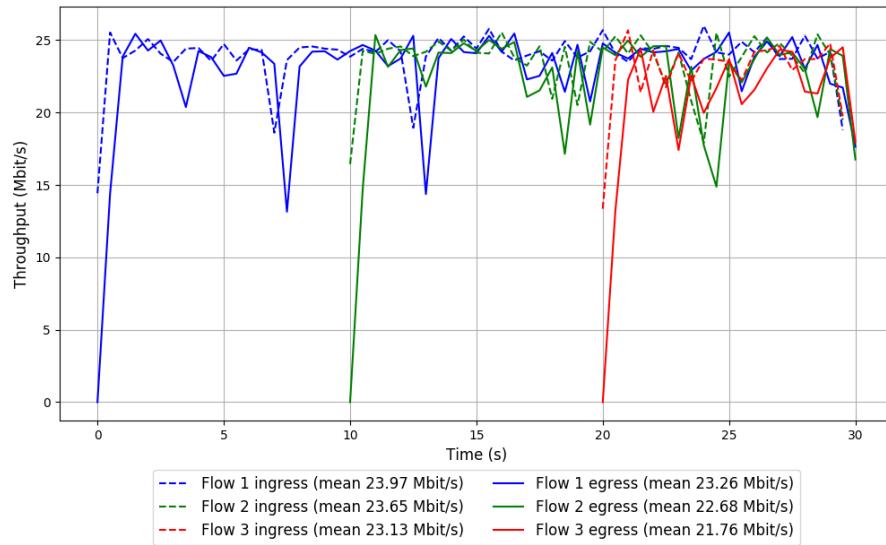


Run 3: Statistics of Sprout

```
Start at: 2019-02-20 01:30:15
End at: 2019-02-20 01:30:45
Local clock offset: -1.084 ms
Remote clock offset: -1.778 ms

# Below is generated by plot.py at 2019-02-20 02:32:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.53 Mbit/s
95th percentile per-packet one-way delay: 16.121 ms
Loss rate: 3.82%
-- Flow 1:
Average throughput: 23.26 Mbit/s
95th percentile per-packet one-way delay: 14.898 ms
Loss rate: 2.94%
-- Flow 2:
Average throughput: 22.68 Mbit/s
95th percentile per-packet one-way delay: 16.330 ms
Loss rate: 4.16%
-- Flow 3:
Average throughput: 21.76 Mbit/s
95th percentile per-packet one-way delay: 18.082 ms
Loss rate: 5.87%
```

Run 3: Report of Sprout — Data Link

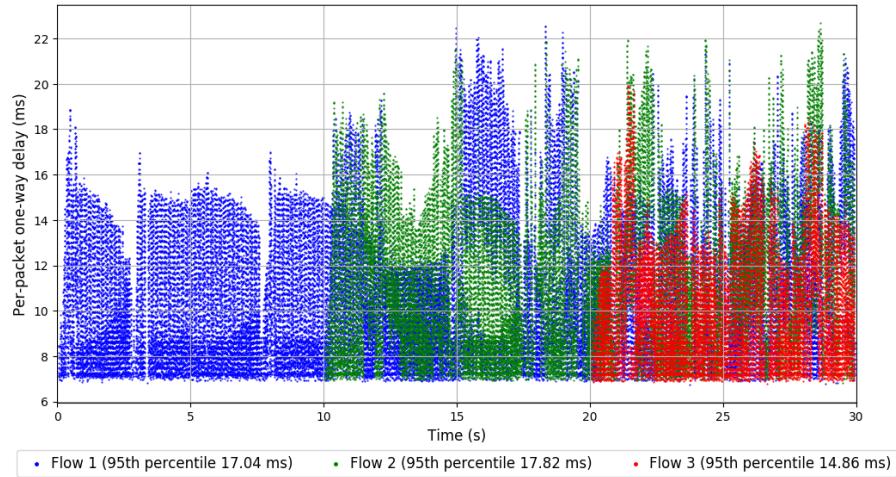
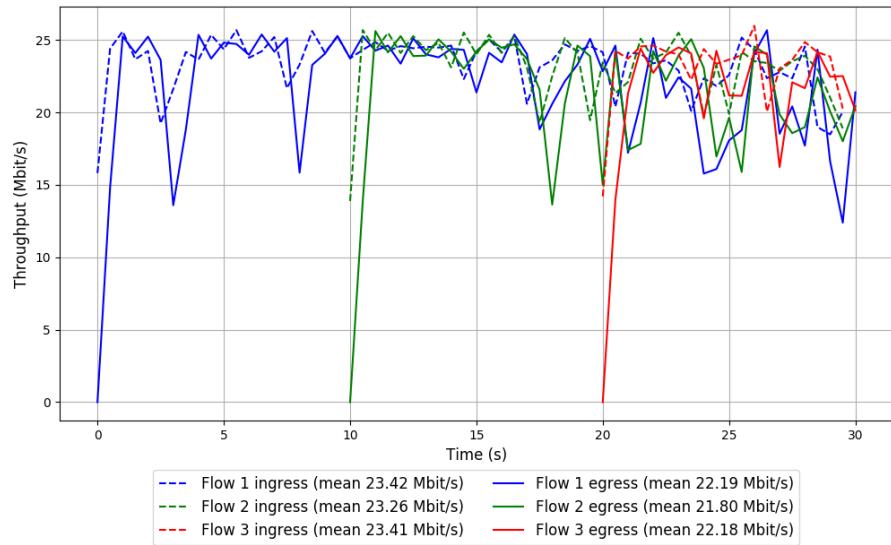


Run 4: Statistics of Sprout

```
Start at: 2019-02-20 01:54:40
End at: 2019-02-20 01:55:10
Local clock offset: 0.93 ms
Remote clock offset: -2.129 ms

# Below is generated by plot.py at 2019-02-20 02:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.03 Mbit/s
95th percentile per-packet one-way delay: 17.073 ms
Loss rate: 5.57%
-- Flow 1:
Average throughput: 22.19 Mbit/s
95th percentile per-packet one-way delay: 17.036 ms
Loss rate: 5.23%
-- Flow 2:
Average throughput: 21.80 Mbit/s
95th percentile per-packet one-way delay: 17.824 ms
Loss rate: 6.23%
-- Flow 3:
Average throughput: 22.18 Mbit/s
95th percentile per-packet one-way delay: 14.862 ms
Loss rate: 5.25%
```

Run 4: Report of Sprout — Data Link

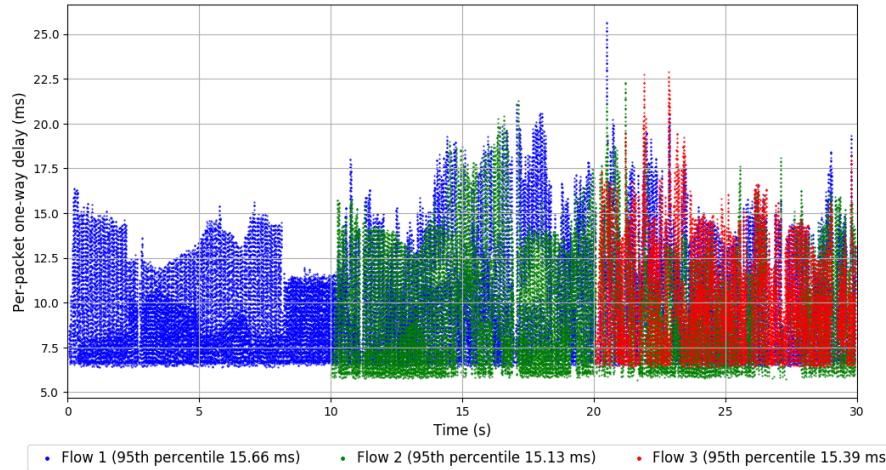
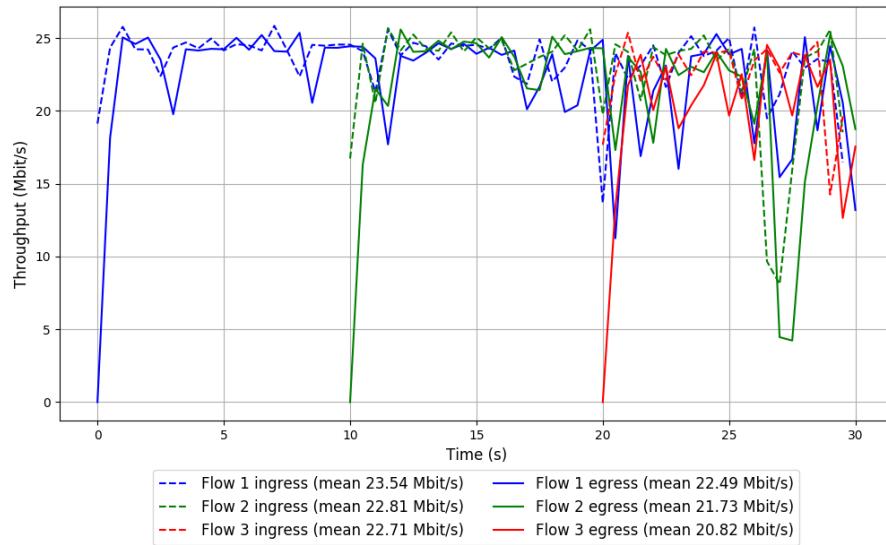


Run 5: Statistics of Sprout

```
Start at: 2019-02-20 02:19:07
End at: 2019-02-20 02:19:37
Local clock offset: 10.305 ms
Remote clock offset: -0.914 ms

# Below is generated by plot.py at 2019-02-20 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.82 Mbit/s
95th percentile per-packet one-way delay: 15.452 ms
Loss rate: 5.17%
-- Flow 1:
Average throughput: 22.49 Mbit/s
95th percentile per-packet one-way delay: 15.664 ms
Loss rate: 4.47%
-- Flow 2:
Average throughput: 21.73 Mbit/s
95th percentile per-packet one-way delay: 15.128 ms
Loss rate: 4.70%
-- Flow 3:
Average throughput: 20.82 Mbit/s
95th percentile per-packet one-way delay: 15.387 ms
Loss rate: 8.31%
```

Run 5: Report of Sprout — Data Link

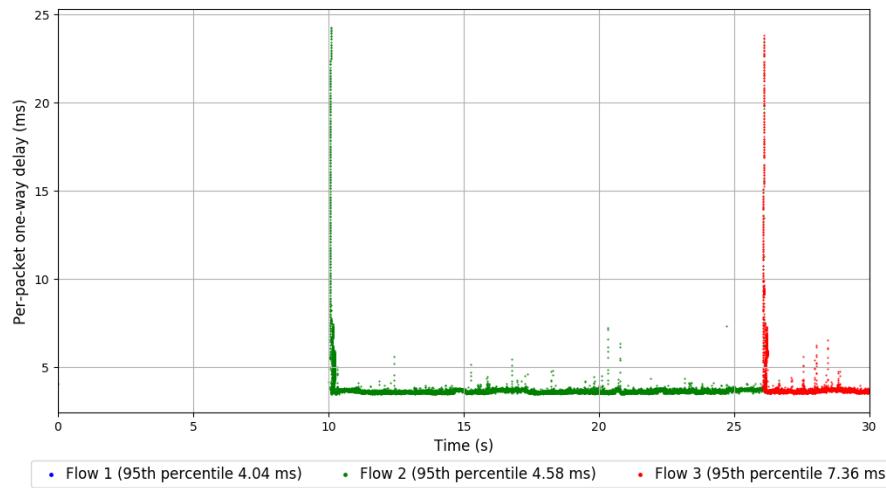
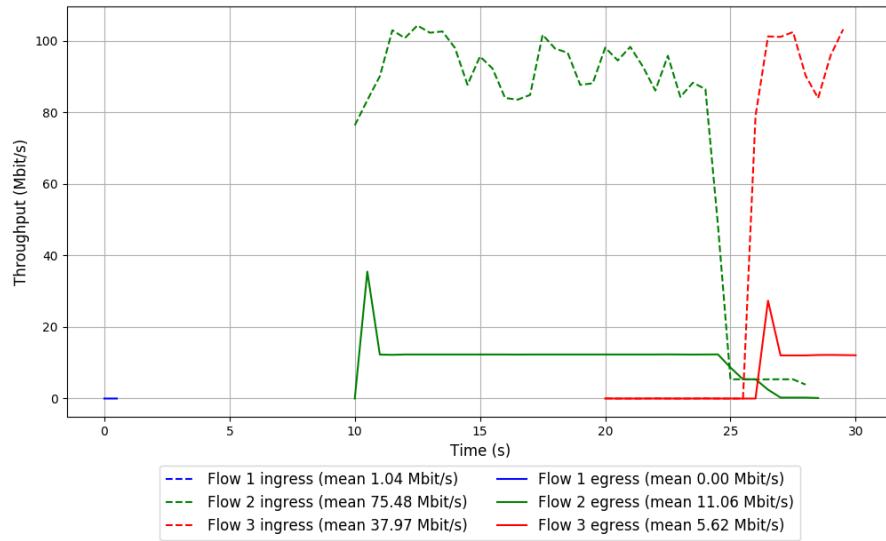


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-02-20 00:30:34
End at: 2019-02-20 00:31:04
Local clock offset: 0.936 ms
Remote clock offset: -2.658 ms

# Below is generated by plot.py at 2019-02-20 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 5.633 ms
Loss rate: 85.39%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4.044 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 4.584 ms
Loss rate: 85.45%
-- Flow 3:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 7.362 ms
Loss rate: 85.19%
```

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

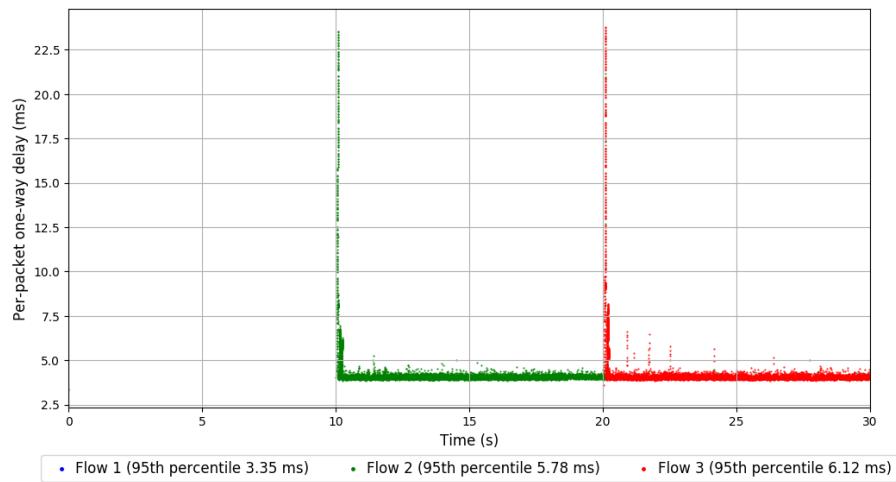
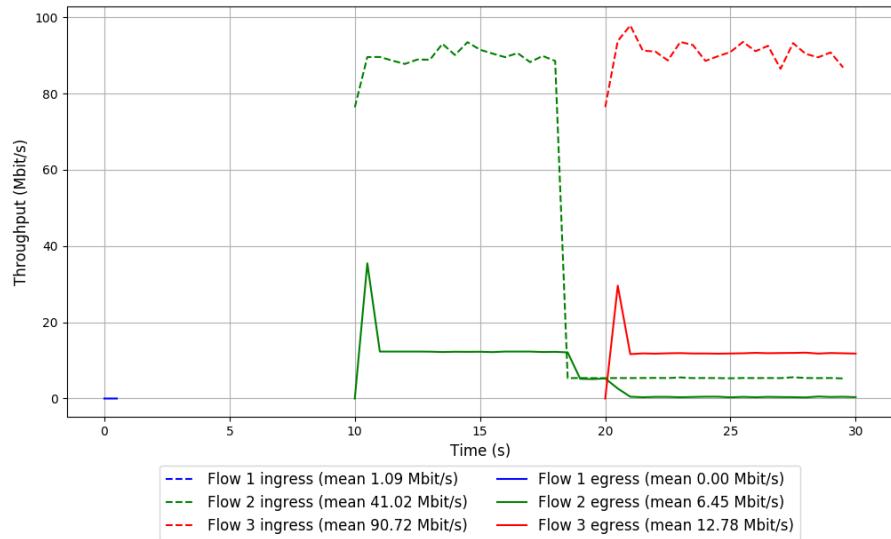


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-02-20 00:55:02
End at: 2019-02-20 00:55:32
Local clock offset: 1.348 ms
Remote clock offset: -2.826 ms

# Below is generated by plot.py at 2019-02-20 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.54 Mbit/s
95th percentile per-packet one-way delay: 5.844 ms
Loss rate: 85.14%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.350 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 5.783 ms
Loss rate: 84.28%
-- Flow 3:
Average throughput: 12.78 Mbit/s
95th percentile per-packet one-way delay: 6.124 ms
Loss rate: 85.91%
```

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

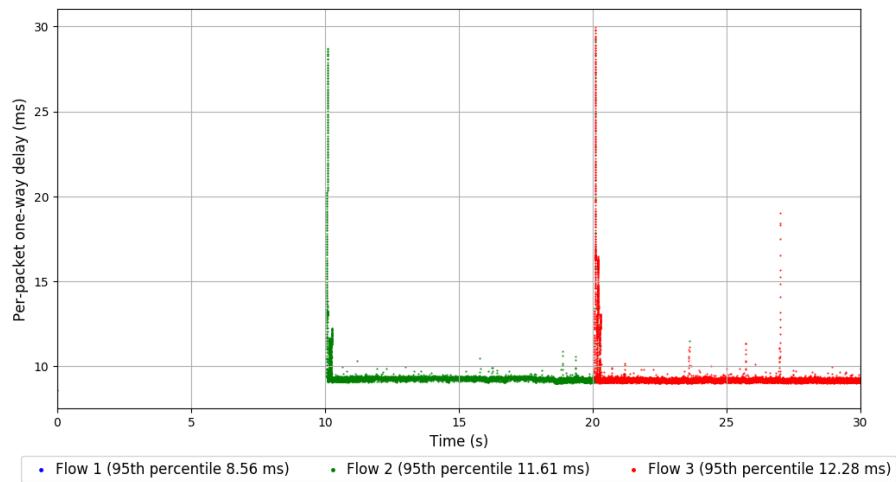
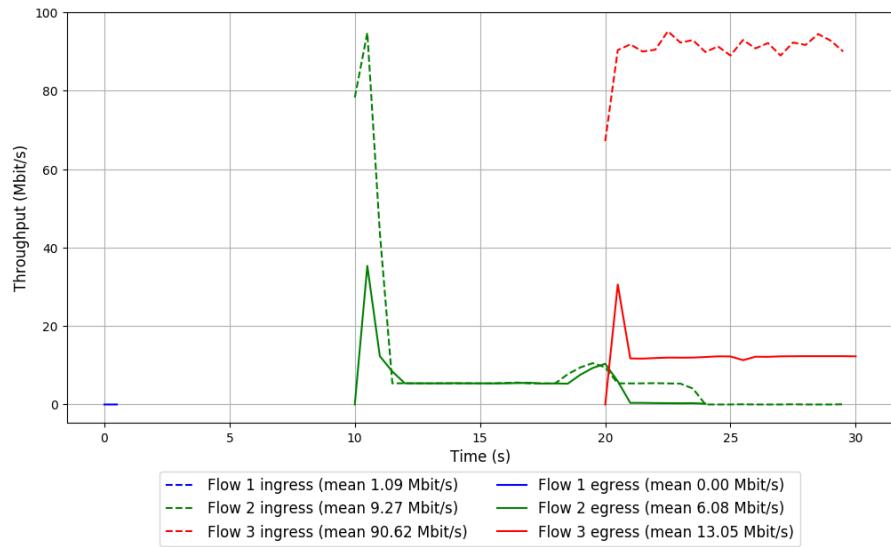


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-02-20 01:19:41
End at: 2019-02-20 01:20:11
Local clock offset: -2.273 ms
Remote clock offset: -0.894 ms

# Below is generated by plot.py at 2019-02-20 02:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 12.042 ms
Loss rate: 80.34%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 8.562 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.08 Mbit/s
95th percentile per-packet one-way delay: 11.612 ms
Loss rate: 54.39%
-- Flow 3:
Average throughput: 13.05 Mbit/s
95th percentile per-packet one-way delay: 12.284 ms
Loss rate: 85.60%
```

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

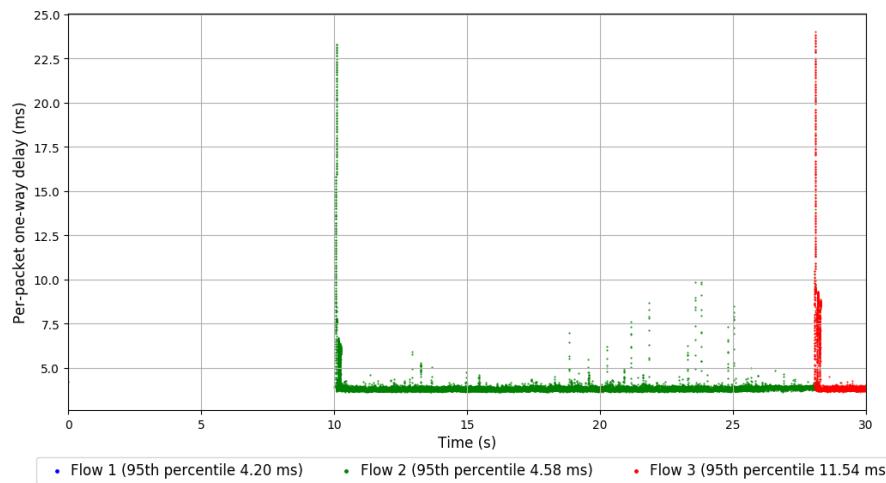
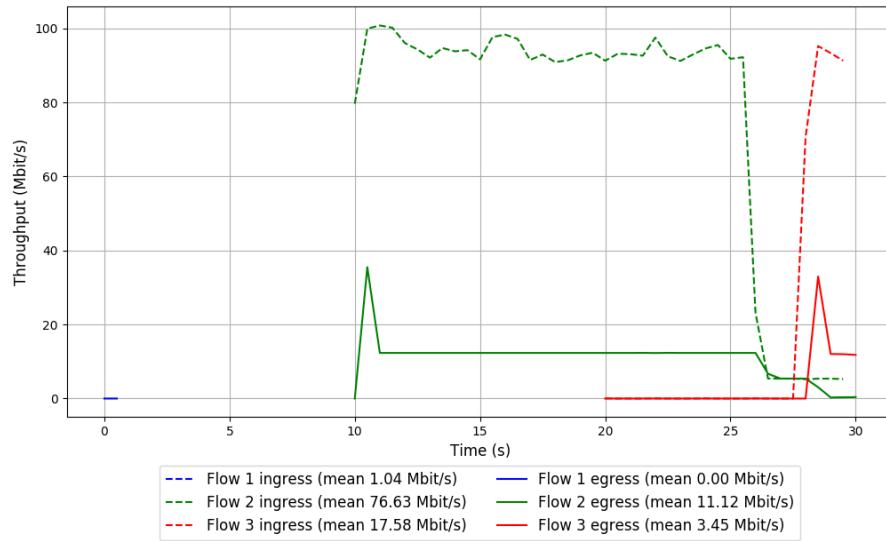


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-02-20 01:44:14
End at: 2019-02-20 01:44:44
Local clock offset: 3.672 ms
Remote clock offset: -2.21 ms

# Below is generated by plot.py at 2019-02-20 02:33:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.56 Mbit/s
95th percentile per-packet one-way delay: 6.342 ms
Loss rate: 84.96%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4.195 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 11.12 Mbit/s
95th percentile per-packet one-way delay: 4.583 ms
Loss rate: 85.49%
-- Flow 3:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 11.545 ms
Loss rate: 80.39%
```

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

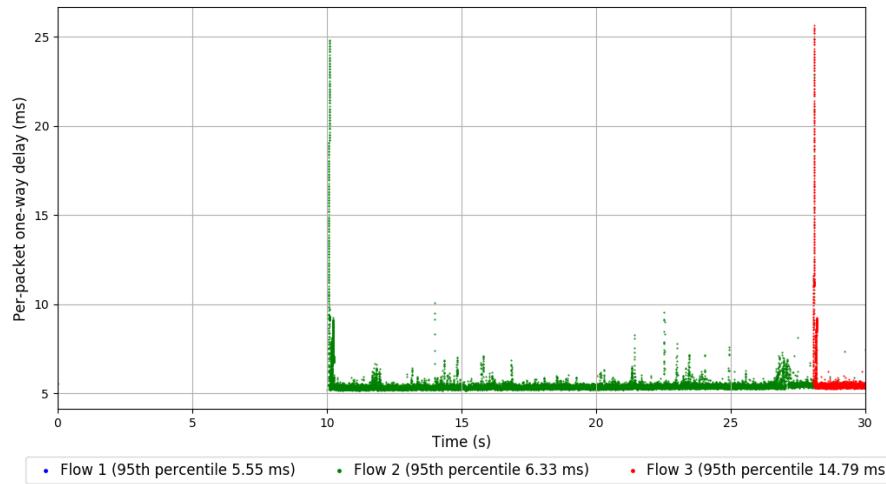
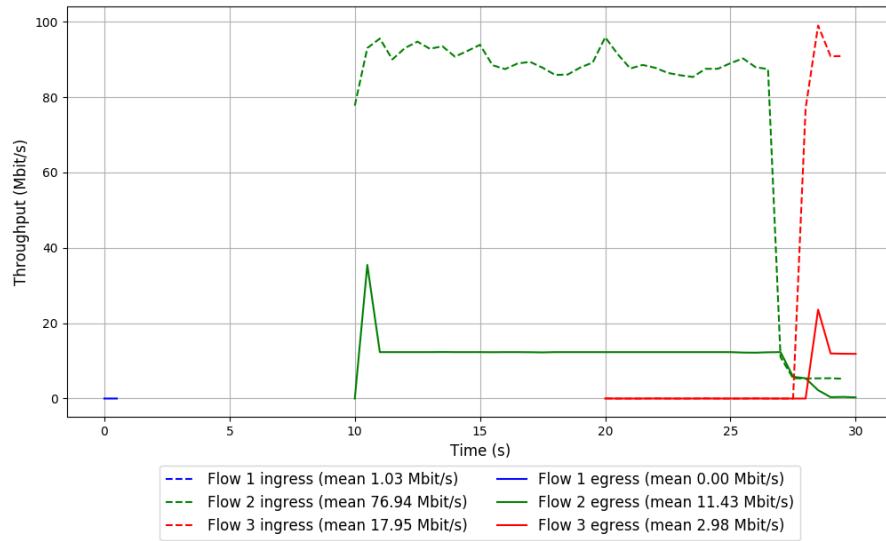


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-02-20 02:08:42
End at: 2019-02-20 02:09:12
Local clock offset: 8.404 ms
Remote clock offset: -1.347 ms

# Below is generated by plot.py at 2019-02-20 02:33:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 7.080 ms
Loss rate: 84.98%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5.546 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 11.43 Mbit/s
95th percentile per-packet one-way delay: 6.335 ms
Loss rate: 85.16%
-- Flow 3:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 14.789 ms
Loss rate: 83.42%
```

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

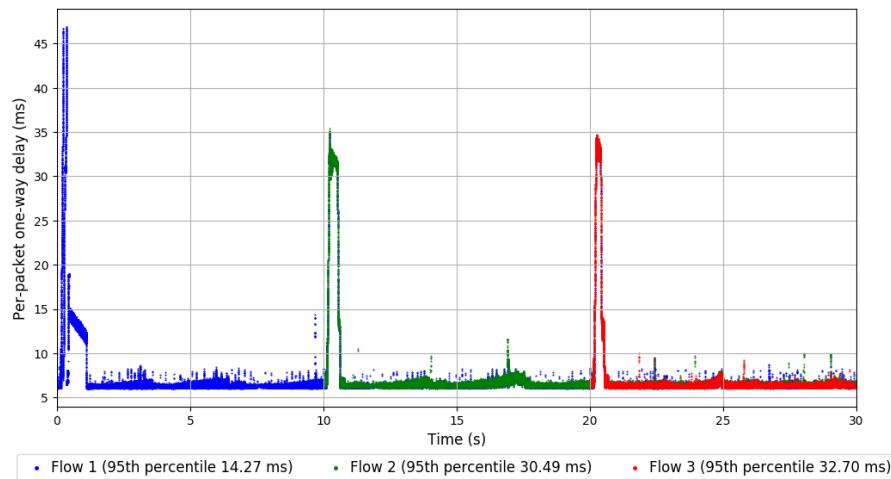
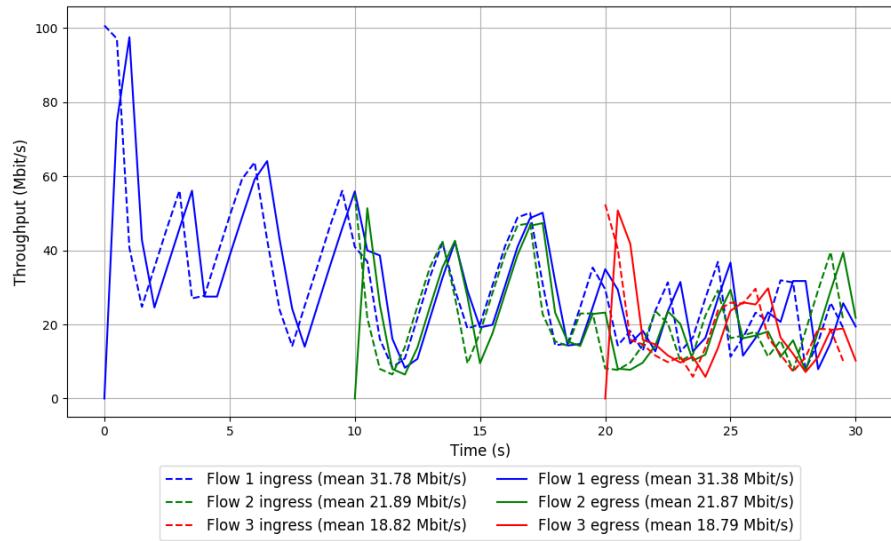


Run 1: Statistics of TCP Vegas

```
Start at: 2019-02-20 00:34:03
End at: 2019-02-20 00:34:33
Local clock offset: 0.245 ms
Remote clock offset: -1.073 ms

# Below is generated by plot.py at 2019-02-20 02:33:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.18 Mbit/s
95th percentile per-packet one-way delay: 17.288 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 14.268 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 30.491 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 18.79 Mbit/s
95th percentile per-packet one-way delay: 32.702 ms
Loss rate: 0.18%
```

Run 1: Report of TCP Vegas — Data Link

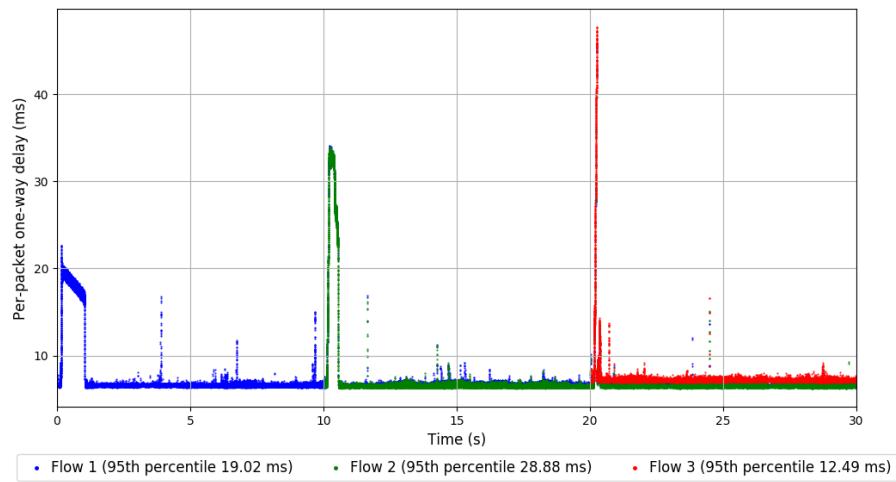
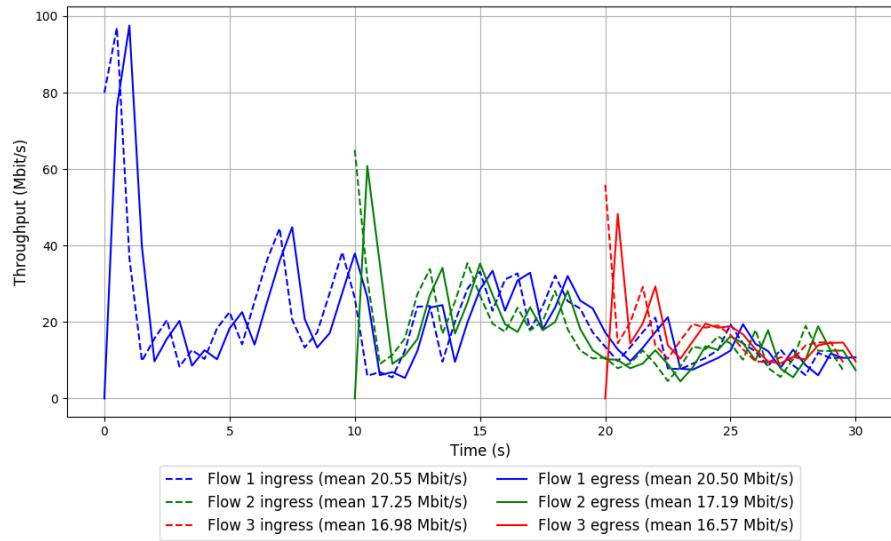


Run 2: Statistics of TCP Vegas

```
Start at: 2019-02-20 00:58:36
End at: 2019-02-20 00:59:06
Local clock offset: -1.925 ms
Remote clock offset: -3.079 ms

# Below is generated by plot.py at 2019-02-20 02:33:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.46 Mbit/s
95th percentile per-packet one-way delay: 19.327 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 20.50 Mbit/s
95th percentile per-packet one-way delay: 19.018 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 17.19 Mbit/s
95th percentile per-packet one-way delay: 28.878 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 16.57 Mbit/s
95th percentile per-packet one-way delay: 12.487 ms
Loss rate: 2.44%
```

Run 2: Report of TCP Vegas — Data Link

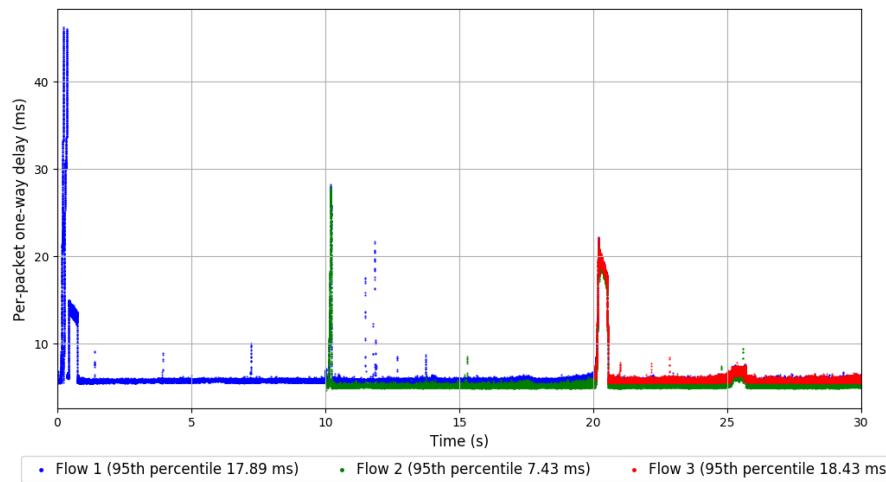
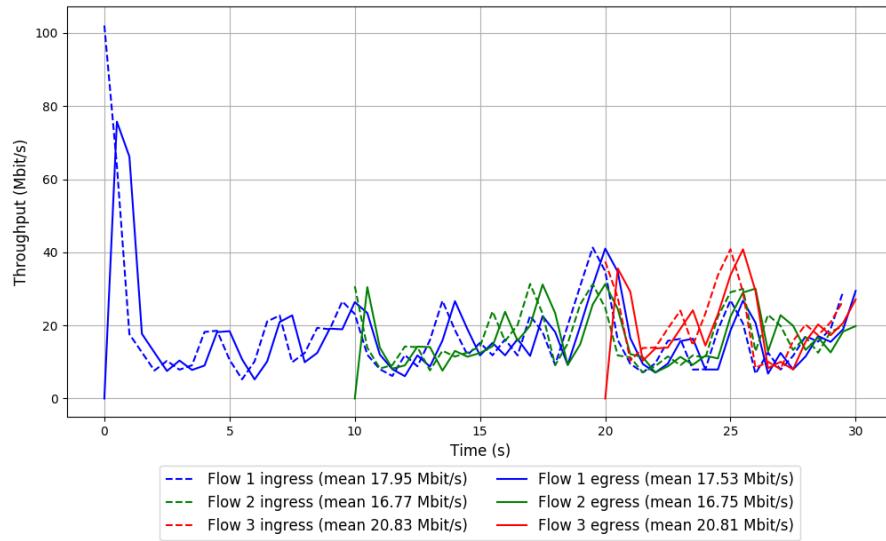


Run 3: Statistics of TCP Vegas

```
Start at: 2019-02-20 01:23:17
End at: 2019-02-20 01:23:47
Local clock offset: -0.481 ms
Remote clock offset: -2.561 ms

# Below is generated by plot.py at 2019-02-20 02:33:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.60 Mbit/s
95th percentile per-packet one-way delay: 17.158 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 17.53 Mbit/s
95th percentile per-packet one-way delay: 17.894 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 16.75 Mbit/s
95th percentile per-packet one-way delay: 7.432 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 20.81 Mbit/s
95th percentile per-packet one-way delay: 18.435 ms
Loss rate: 0.11%
```

Run 3: Report of TCP Vegas — Data Link

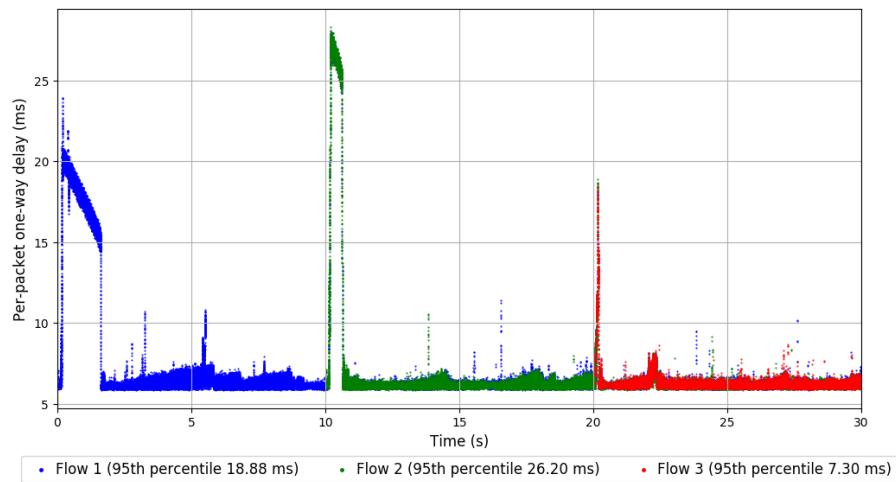
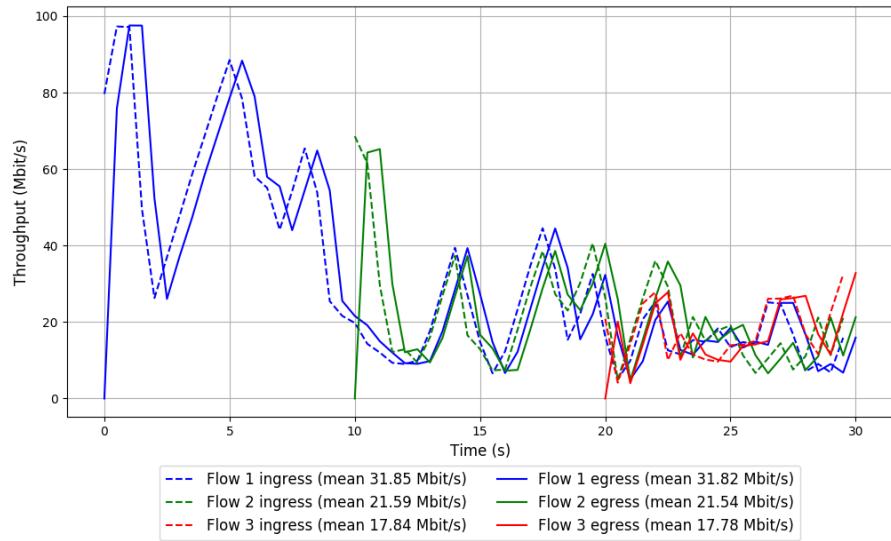


Run 4: Statistics of TCP Vegas

```
Start at: 2019-02-20 01:47:47
End at: 2019-02-20 01:48:17
Local clock offset: -0.034 ms
Remote clock offset: -3.708 ms

# Below is generated by plot.py at 2019-02-20 02:33:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 19.114 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 18.884 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 21.54 Mbit/s
95th percentile per-packet one-way delay: 26.205 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 17.78 Mbit/s
95th percentile per-packet one-way delay: 7.296 ms
Loss rate: 0.32%
```

Run 4: Report of TCP Vegas — Data Link

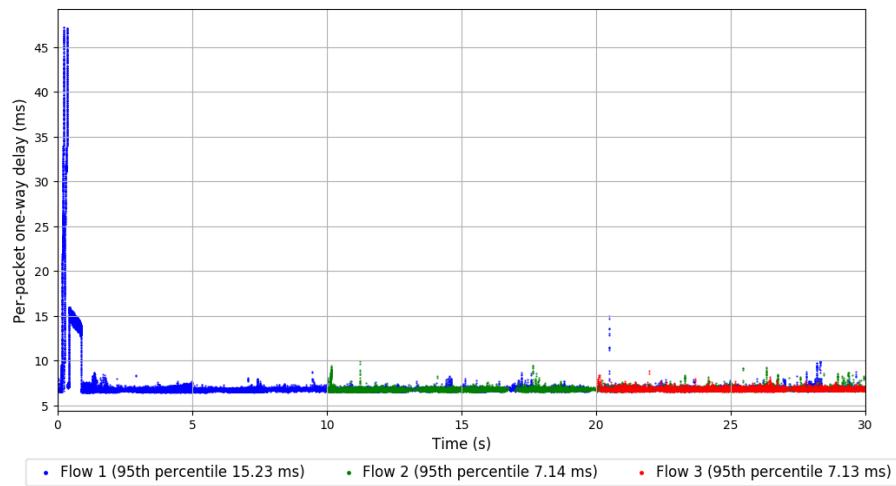
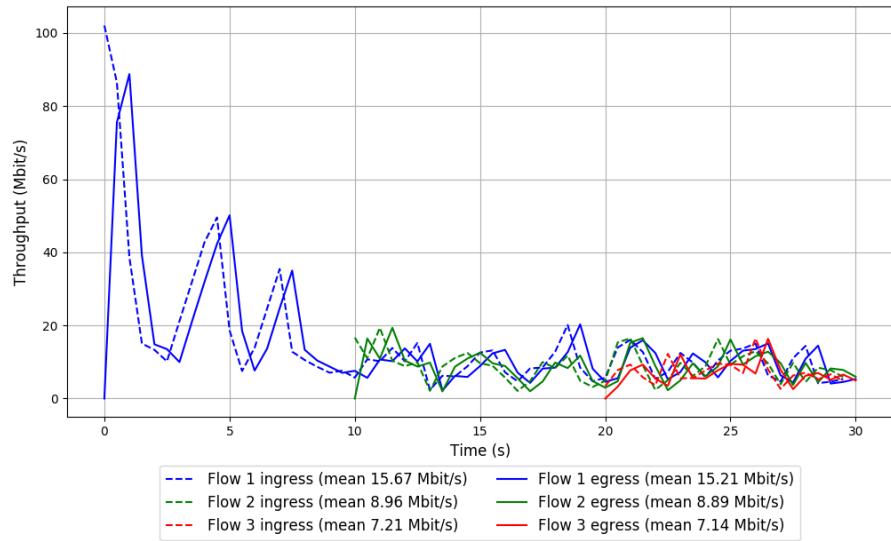


Run 5: Statistics of TCP Vegas

```
Start at: 2019-02-20 02:12:14
End at: 2019-02-20 02:12:44
Local clock offset: 6.712 ms
Remote clock offset: -2.758 ms

# Below is generated by plot.py at 2019-02-20 02:33:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.50 Mbit/s
95th percentile per-packet one-way delay: 14.545 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 15.21 Mbit/s
95th percentile per-packet one-way delay: 15.233 ms
Loss rate: 2.94%
-- Flow 2:
Average throughput: 8.89 Mbit/s
95th percentile per-packet one-way delay: 7.138 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 7.14 Mbit/s
95th percentile per-packet one-way delay: 7.133 ms
Loss rate: 1.08%
```

Run 5: Report of TCP Vegas — Data Link

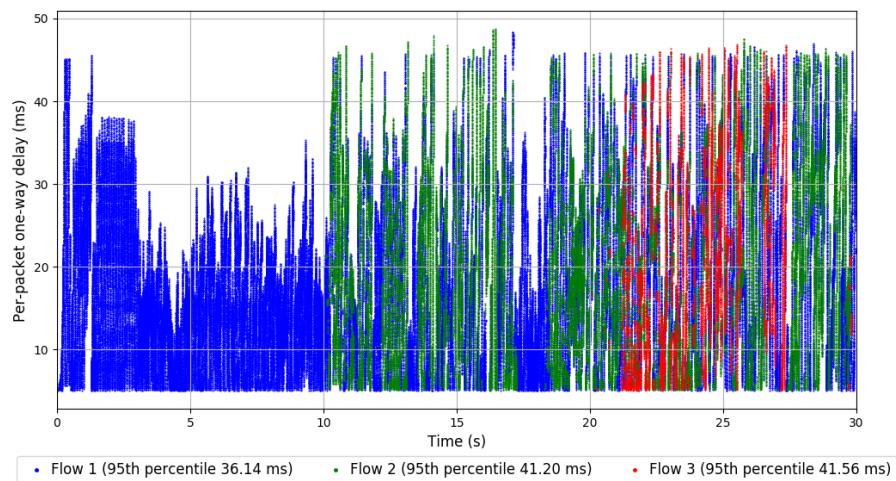
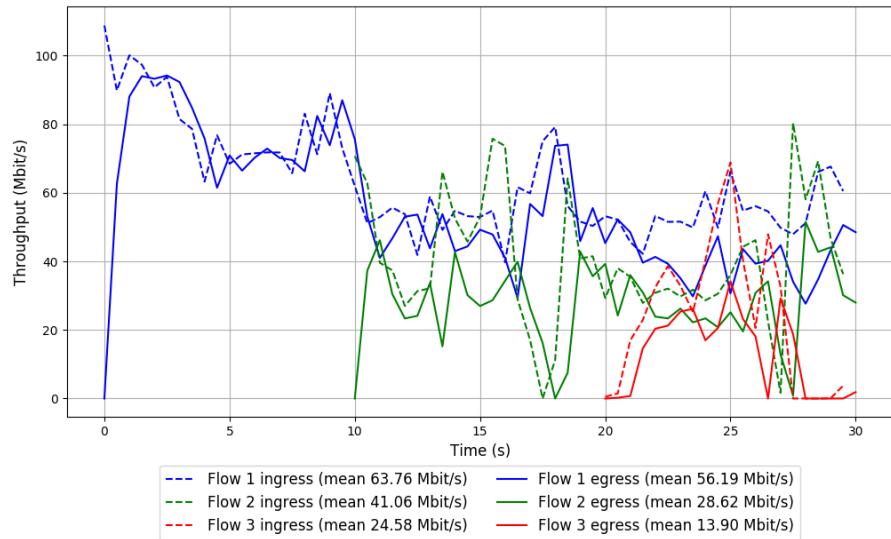


Run 1: Statistics of Verus

```
Start at: 2019-02-20 00:22:27
End at: 2019-02-20 00:22:57
Local clock offset: -0.43 ms
Remote clock offset: -2.737 ms

# Below is generated by plot.py at 2019-02-20 02:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.63 Mbit/s
95th percentile per-packet one-way delay: 38.257 ms
Loss rate: 19.53%
-- Flow 1:
Average throughput: 56.19 Mbit/s
95th percentile per-packet one-way delay: 36.137 ms
Loss rate: 11.82%
-- Flow 2:
Average throughput: 28.62 Mbit/s
95th percentile per-packet one-way delay: 41.196 ms
Loss rate: 30.43%
-- Flow 3:
Average throughput: 13.90 Mbit/s
95th percentile per-packet one-way delay: 41.561 ms
Loss rate: 43.70%
```

Run 1: Report of Verus — Data Link

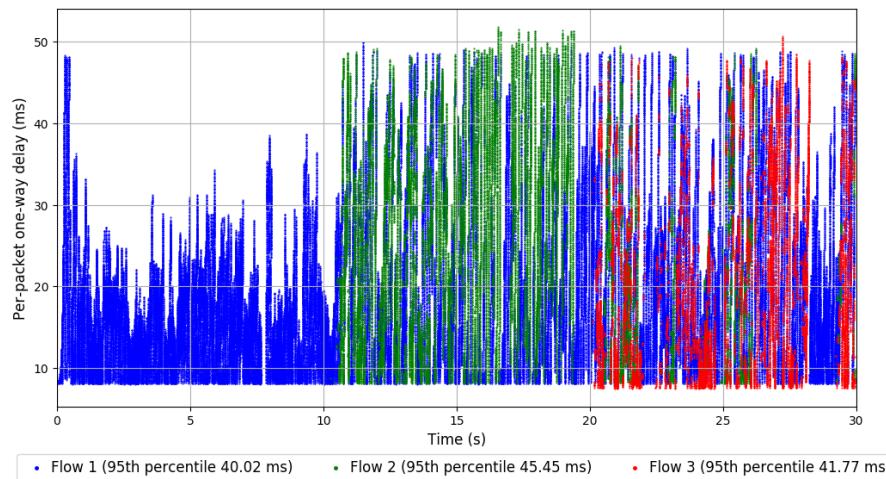
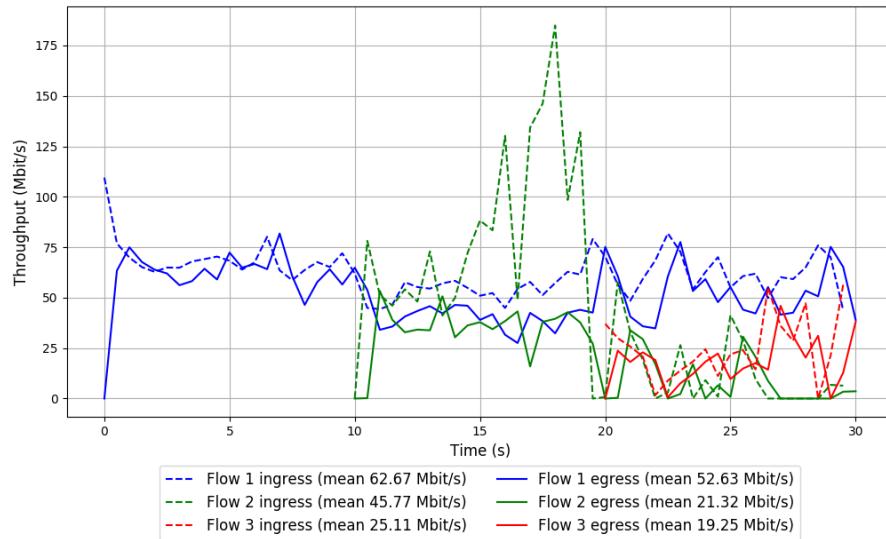


Run 2: Statistics of Verus

```
Start at: 2019-02-20 00:46:44
End at: 2019-02-20 00:47:14
Local clock offset: -1.849 ms
Remote clock offset: -1.671 ms

# Below is generated by plot.py at 2019-02-20 02:34:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.99 Mbit/s
95th percentile per-packet one-way delay: 42.024 ms
Loss rate: 27.72%
-- Flow 1:
Average throughput: 52.63 Mbit/s
95th percentile per-packet one-way delay: 40.018 ms
Loss rate: 15.91%
-- Flow 2:
Average throughput: 21.32 Mbit/s
95th percentile per-packet one-way delay: 45.446 ms
Loss rate: 53.42%
-- Flow 3:
Average throughput: 19.25 Mbit/s
95th percentile per-packet one-way delay: 41.773 ms
Loss rate: 23.47%
```

Run 2: Report of Verus — Data Link

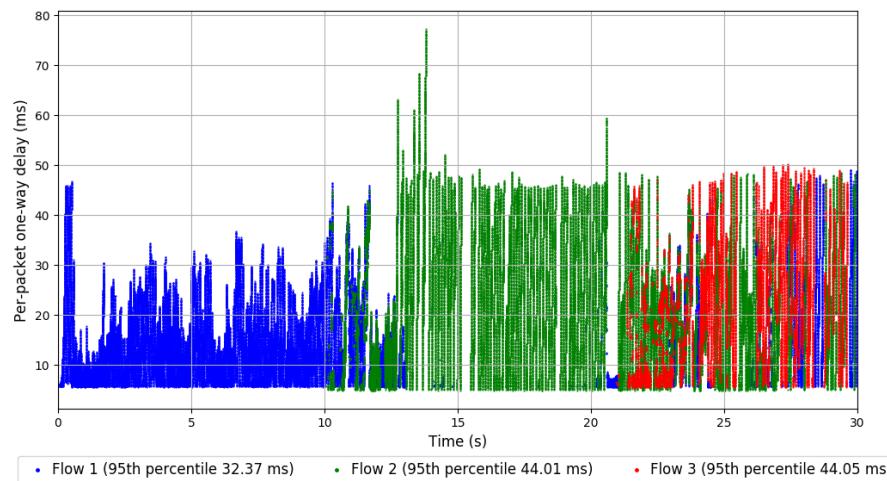
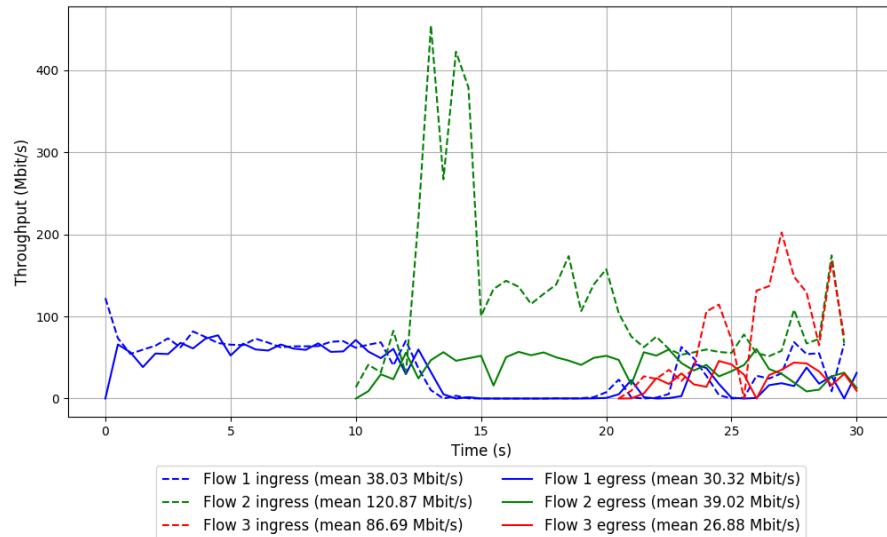


Run 3: Statistics of Verus

```
Start at: 2019-02-20 01:11:26
End at: 2019-02-20 01:11:56
Local clock offset: -0.683 ms
Remote clock offset: -2.847 ms

# Below is generated by plot.py at 2019-02-20 02:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.98 Mbit/s
95th percentile per-packet one-way delay: 41.607 ms
Loss rate: 55.31%
-- Flow 1:
Average throughput: 30.32 Mbit/s
95th percentile per-packet one-way delay: 32.373 ms
Loss rate: 20.18%
-- Flow 2:
Average throughput: 39.02 Mbit/s
95th percentile per-packet one-way delay: 44.014 ms
Loss rate: 67.70%
-- Flow 3:
Average throughput: 26.88 Mbit/s
95th percentile per-packet one-way delay: 44.053 ms
Loss rate: 68.95%
```

Run 3: Report of Verus — Data Link

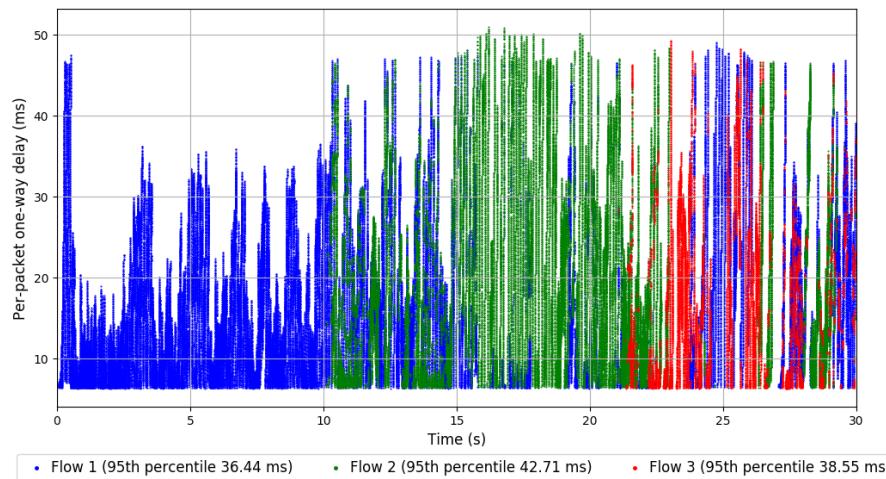
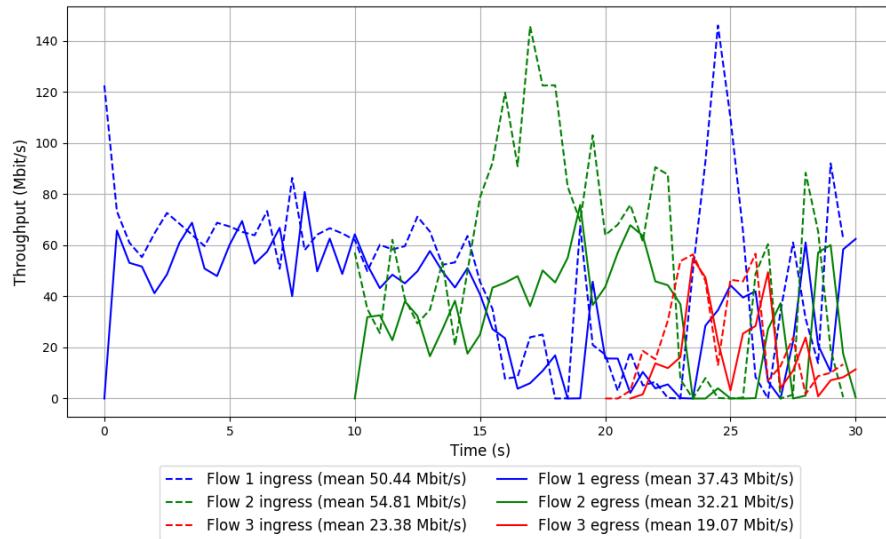


Run 4: Statistics of Verus

```
Start at: 2019-02-20 01:36:04
End at: 2019-02-20 01:36:34
Local clock offset: 0.899 ms
Remote clock offset: -1.424 ms

# Below is generated by plot.py at 2019-02-20 02:34:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.51 Mbit/s
95th percentile per-packet one-way delay: 40.046 ms
Loss rate: 31.76%
-- Flow 1:
Average throughput: 37.43 Mbit/s
95th percentile per-packet one-way delay: 36.442 ms
Loss rate: 25.72%
-- Flow 2:
Average throughput: 32.21 Mbit/s
95th percentile per-packet one-way delay: 42.708 ms
Loss rate: 41.25%
-- Flow 3:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 38.553 ms
Loss rate: 26.42%
```

Run 4: Report of Verus — Data Link

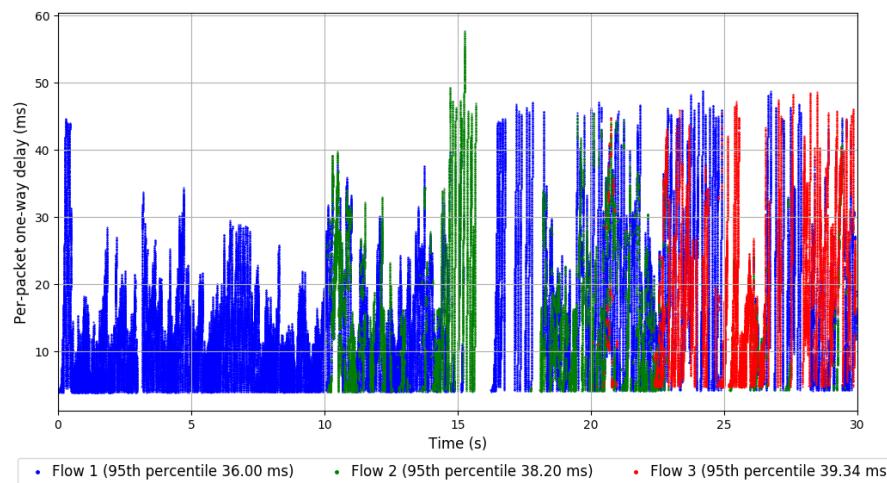
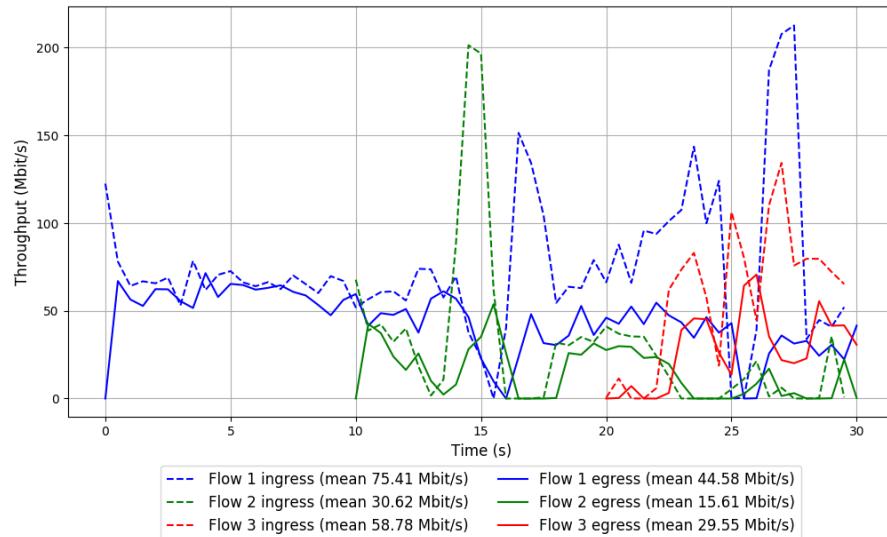


Run 5: Statistics of Verus

```
Start at: 2019-02-20 02:00:31
End at: 2019-02-20 02:01:01
Local clock offset: 2.995 ms
Remote clock offset: -3.247 ms

# Below is generated by plot.py at 2019-02-20 02:34:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.54 Mbit/s
95th percentile per-packet one-way delay: 37.250 ms
Loss rate: 43.78%
-- Flow 1:
Average throughput: 44.58 Mbit/s
95th percentile per-packet one-way delay: 36.000 ms
Loss rate: 40.86%
-- Flow 2:
Average throughput: 15.61 Mbit/s
95th percentile per-packet one-way delay: 38.196 ms
Loss rate: 49.12%
-- Flow 3:
Average throughput: 29.55 Mbit/s
95th percentile per-packet one-way delay: 39.335 ms
Loss rate: 49.63%
```

Run 5: Report of Verus — Data Link

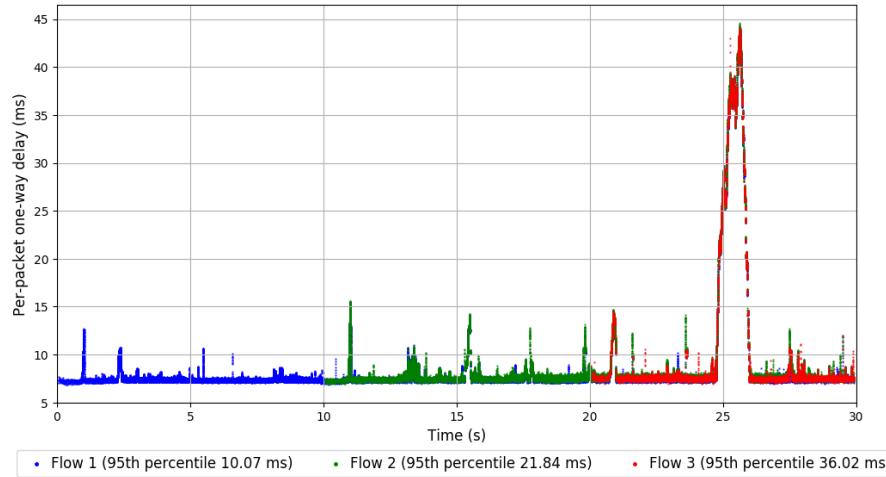
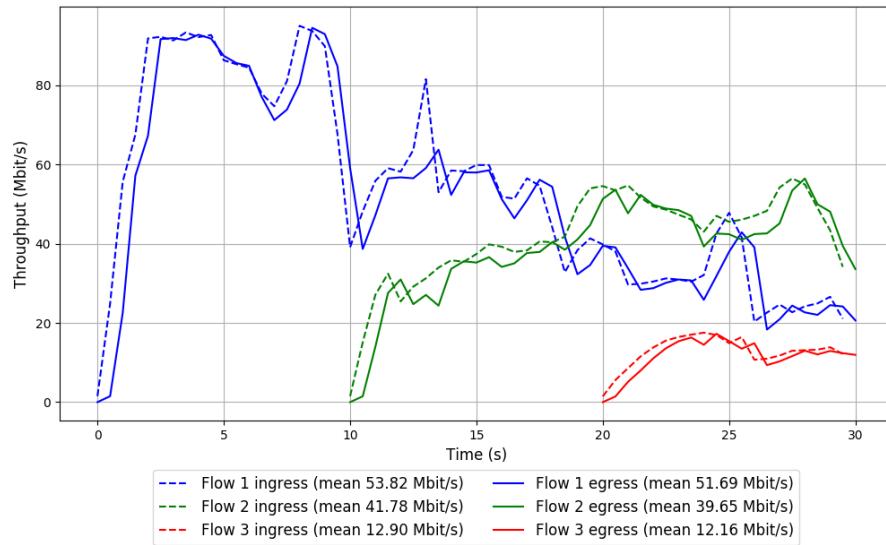


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-02-20 00:21:16
End at: 2019-02-20 00:21:46
Local clock offset: -3.325 ms
Remote clock offset: -3.571 ms

# Below is generated by plot.py at 2019-02-20 02:34:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.07 Mbit/s
95th percentile per-packet one-way delay: 13.414 ms
Loss rate: 4.43%
-- Flow 1:
Average throughput: 51.69 Mbit/s
95th percentile per-packet one-way delay: 10.072 ms
Loss rate: 3.96%
-- Flow 2:
Average throughput: 39.65 Mbit/s
95th percentile per-packet one-way delay: 21.845 ms
Loss rate: 5.12%
-- Flow 3:
Average throughput: 12.16 Mbit/s
95th percentile per-packet one-way delay: 36.024 ms
Loss rate: 5.76%
```

Run 1: Report of PCC-Vivace — Data Link

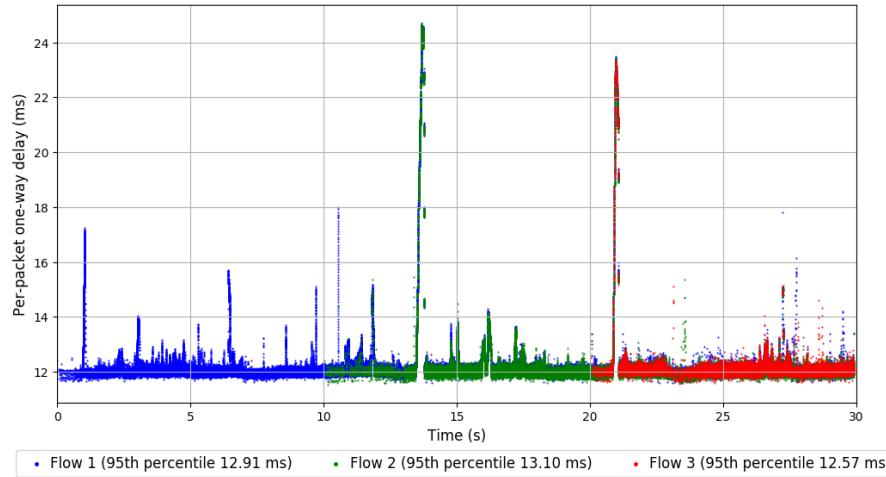
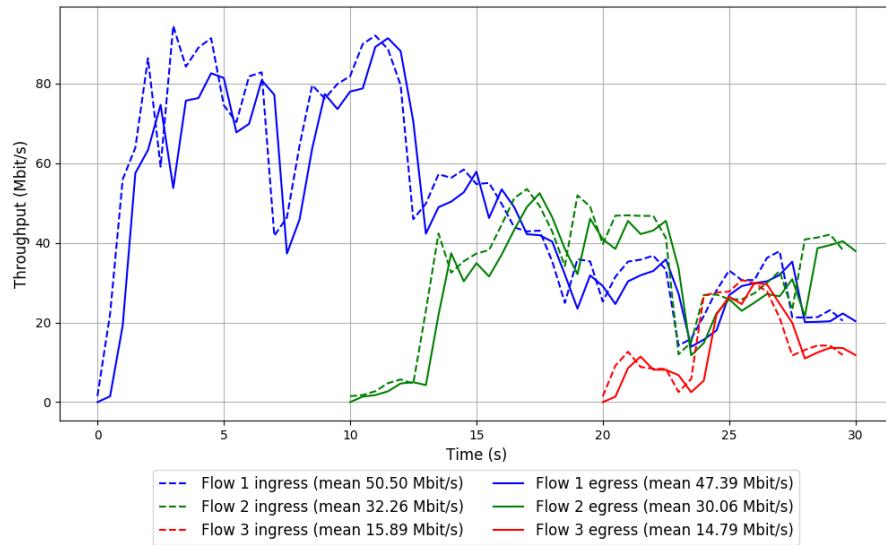


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-02-20 00:45:33
End at: 2019-02-20 00:46:03
Local clock offset: -6.24 ms
Remote clock offset: -2.332 ms

# Below is generated by plot.py at 2019-02-20 02:34:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.26 Mbit/s
95th percentile per-packet one-way delay: 12.933 ms
Loss rate: 6.40%
-- Flow 1:
Average throughput: 47.39 Mbit/s
95th percentile per-packet one-way delay: 12.915 ms
Loss rate: 6.16%
-- Flow 2:
Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 13.103 ms
Loss rate: 6.84%
-- Flow 3:
Average throughput: 14.79 Mbit/s
95th percentile per-packet one-way delay: 12.572 ms
Loss rate: 6.92%
```

Run 2: Report of PCC-Vivace — Data Link

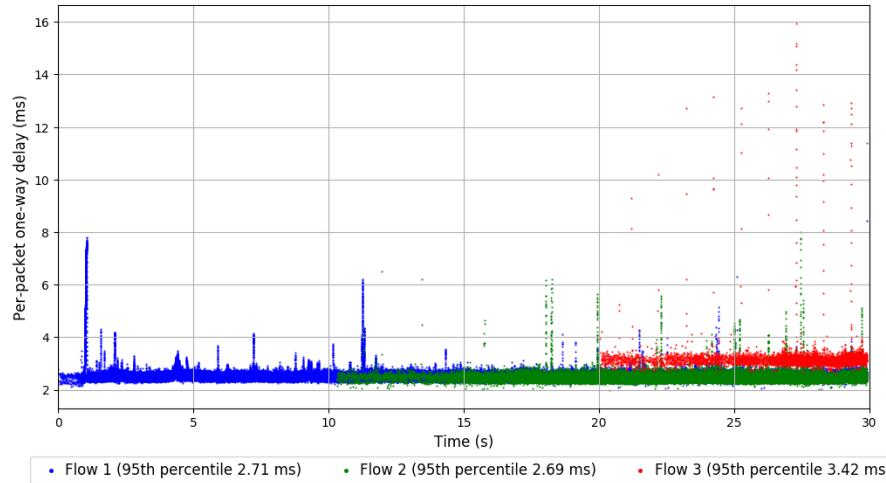
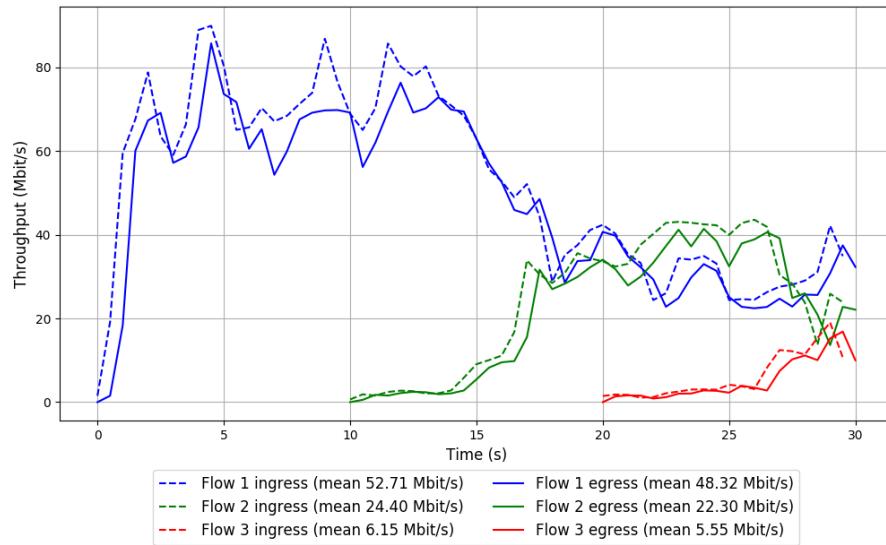


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-02-20 01:10:13
End at: 2019-02-20 01:10:43
Local clock offset: 1.178 ms
Remote clock offset: -3.617 ms

# Below is generated by plot.py at 2019-02-20 02:34:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.98 Mbit/s
95th percentile per-packet one-way delay: 2.858 ms
Loss rate: 8.41%
-- Flow 1:
Average throughput: 48.32 Mbit/s
95th percentile per-packet one-way delay: 2.709 ms
Loss rate: 8.32%
-- Flow 2:
Average throughput: 22.30 Mbit/s
95th percentile per-packet one-way delay: 2.695 ms
Loss rate: 8.55%
-- Flow 3:
Average throughput: 5.55 Mbit/s
95th percentile per-packet one-way delay: 3.419 ms
Loss rate: 9.73%
```

Run 3: Report of PCC-Vivace — Data Link

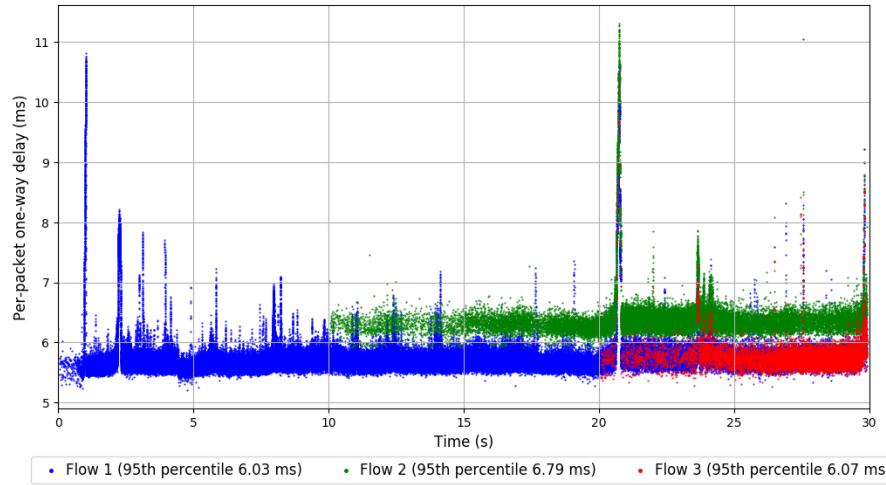
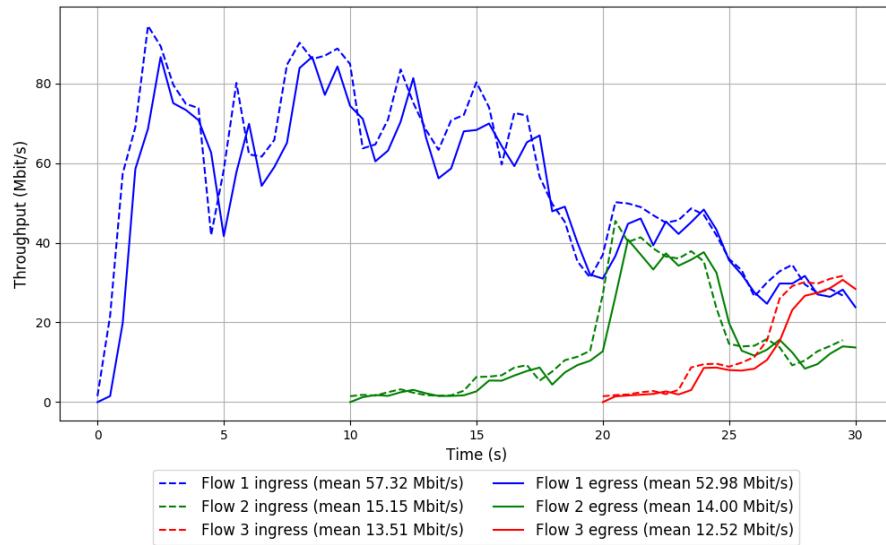


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-02-20 01:34:52
End at: 2019-02-20 01:35:22
Local clock offset: 0.932 ms
Remote clock offset: -1.551 ms

# Below is generated by plot.py at 2019-02-20 02:34:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.42 Mbit/s
95th percentile per-packet one-way delay: 6.471 ms
Loss rate: 7.57%
-- Flow 1:
Average throughput: 52.98 Mbit/s
95th percentile per-packet one-way delay: 6.034 ms
Loss rate: 7.59%
-- Flow 2:
Average throughput: 14.00 Mbit/s
95th percentile per-packet one-way delay: 6.793 ms
Loss rate: 7.61%
-- Flow 3:
Average throughput: 12.52 Mbit/s
95th percentile per-packet one-way delay: 6.071 ms
Loss rate: 7.32%
```

Run 4: Report of PCC-Vivace — Data Link

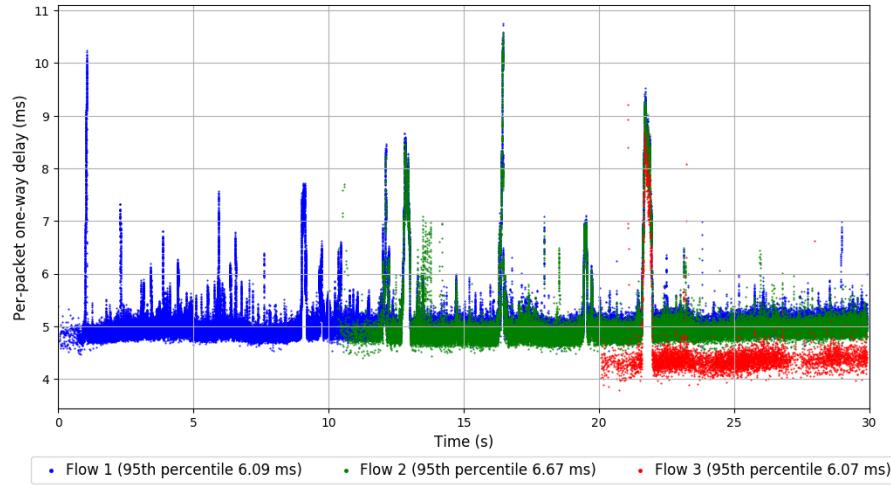
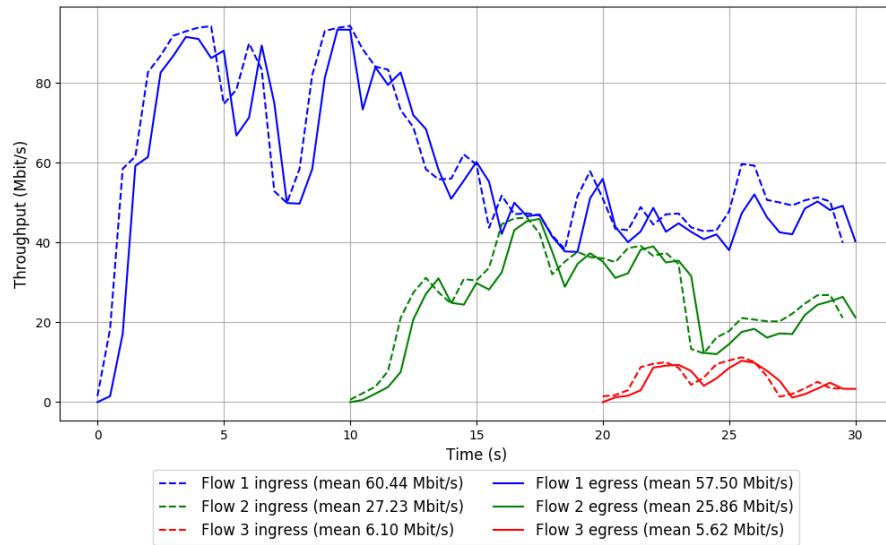


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-02-20 01:59:18
End at: 2019-02-20 01:59:48
Local clock offset: -2.763 ms
Remote clock offset: -8.196 ms

# Below is generated by plot.py at 2019-02-20 02:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.55 Mbit/s
95th percentile per-packet one-way delay: 6.197 ms
Loss rate: 4.98%
-- Flow 1:
Average throughput: 57.50 Mbit/s
95th percentile per-packet one-way delay: 6.092 ms
Loss rate: 4.87%
-- Flow 2:
Average throughput: 25.86 Mbit/s
95th percentile per-packet one-way delay: 6.675 ms
Loss rate: 5.04%
-- Flow 3:
Average throughput: 5.62 Mbit/s
95th percentile per-packet one-way delay: 6.074 ms
Loss rate: 7.86%
```

Run 5: Report of PCC-Vivace — Data Link

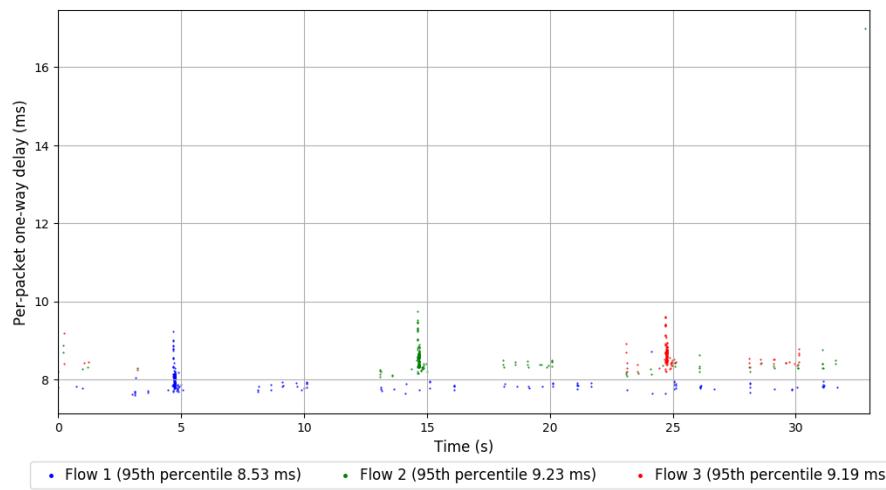
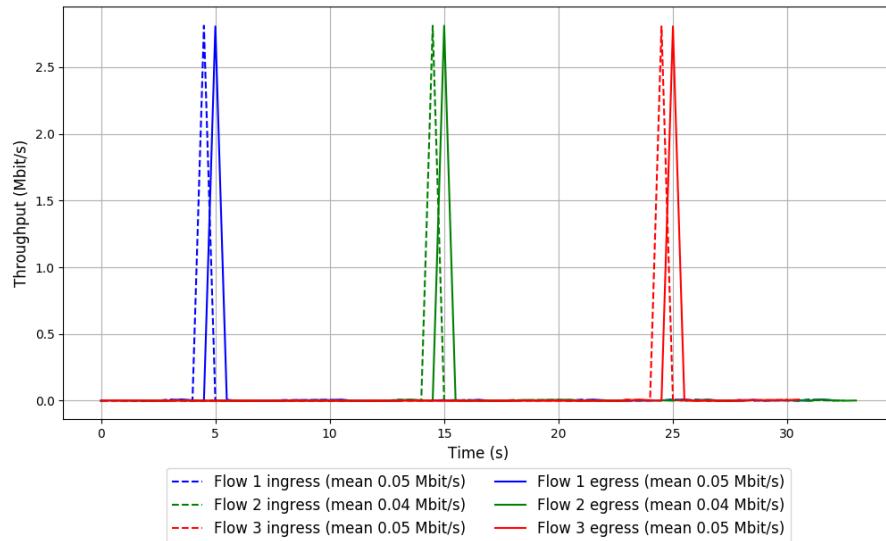


```
Run 1: Statistics of WebRTC media

Start at: 2019-02-20 00:37:28
End at: 2019-02-20 00:37:58
Local clock offset: -1.529 ms
Remote clock offset: -0.807 ms

# Below is generated by plot.py at 2019-02-20 02:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 8.989 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 8.529 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 9.232 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 9.189 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

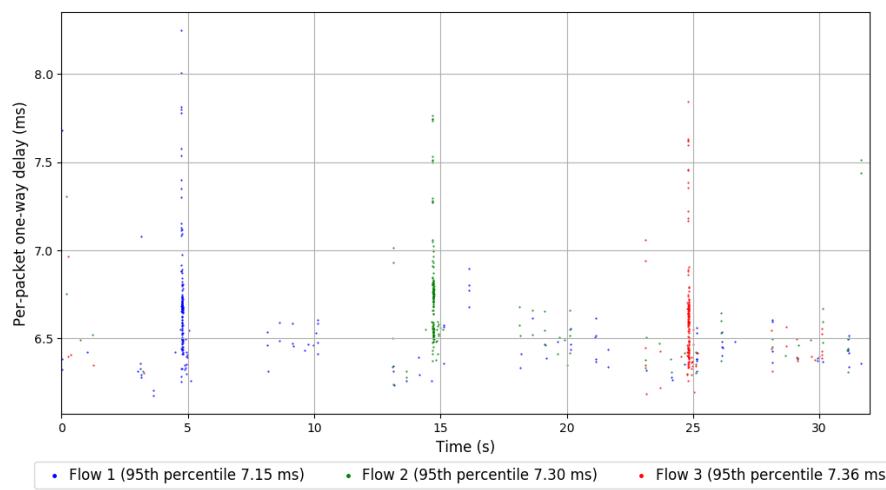
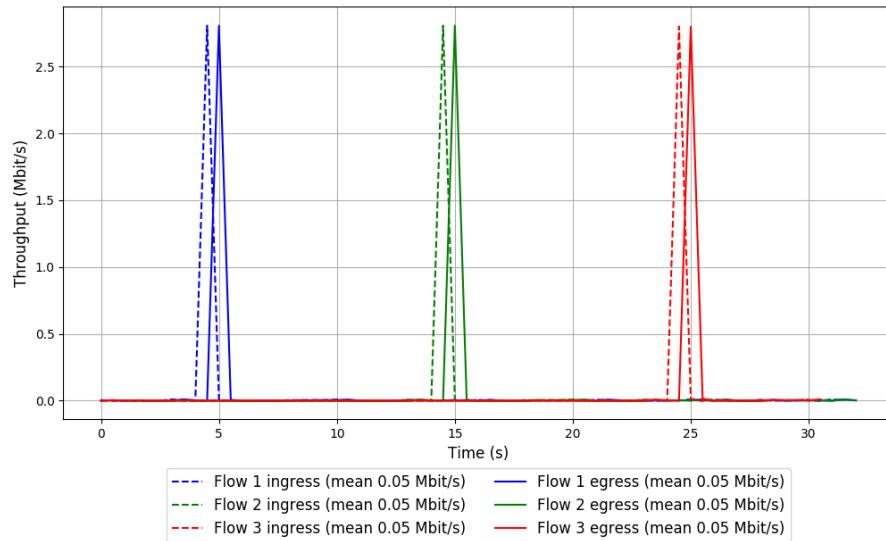


Run 2: Statistics of WebRTC media

```
Start at: 2019-02-20 01:02:01
End at: 2019-02-20 01:02:31
Local clock offset: -1.394 ms
Remote clock offset: -2.894 ms

# Below is generated by plot.py at 2019-02-20 02:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 7.304 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.152 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.304 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.357 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

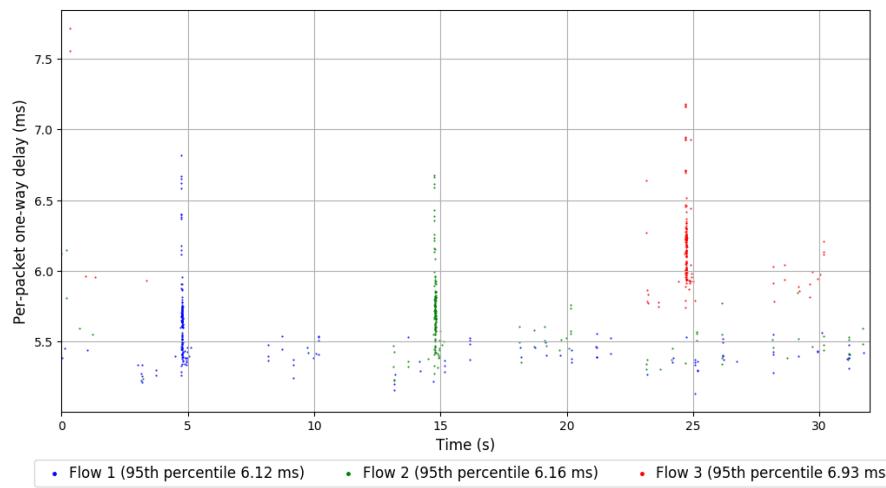
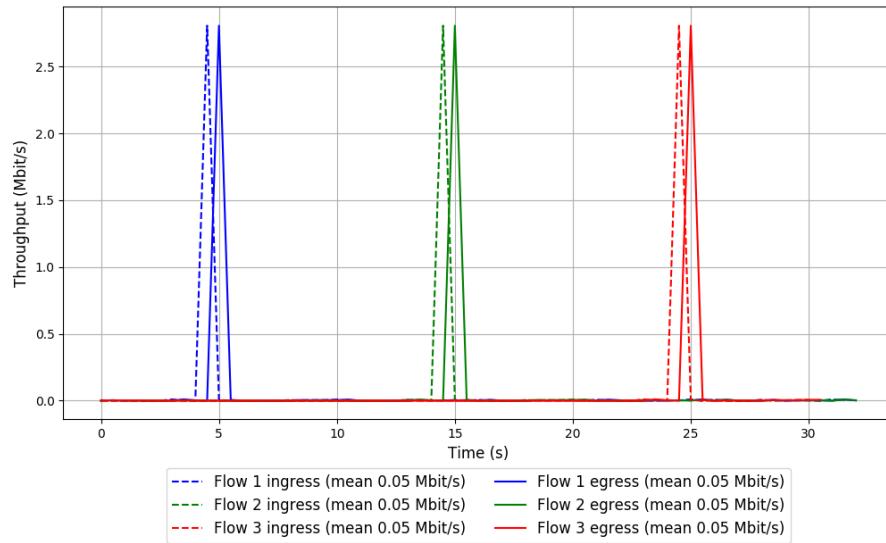


Run 3: Statistics of WebRTC media

```
Start at: 2019-02-20 01:26:46
End at: 2019-02-20 01:27:16
Local clock offset: -1.898 ms
Remote clock offset: -3.387 ms

# Below is generated by plot.py at 2019-02-20 02:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 6.442 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.123 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.161 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.930 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

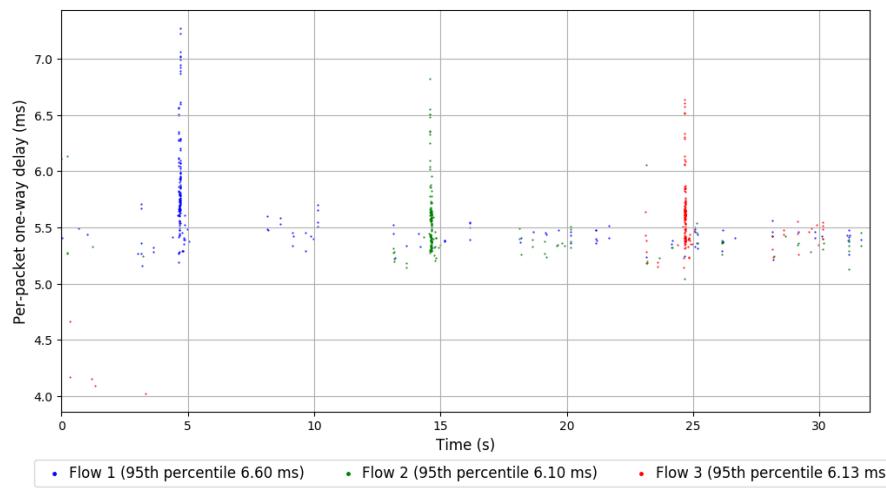
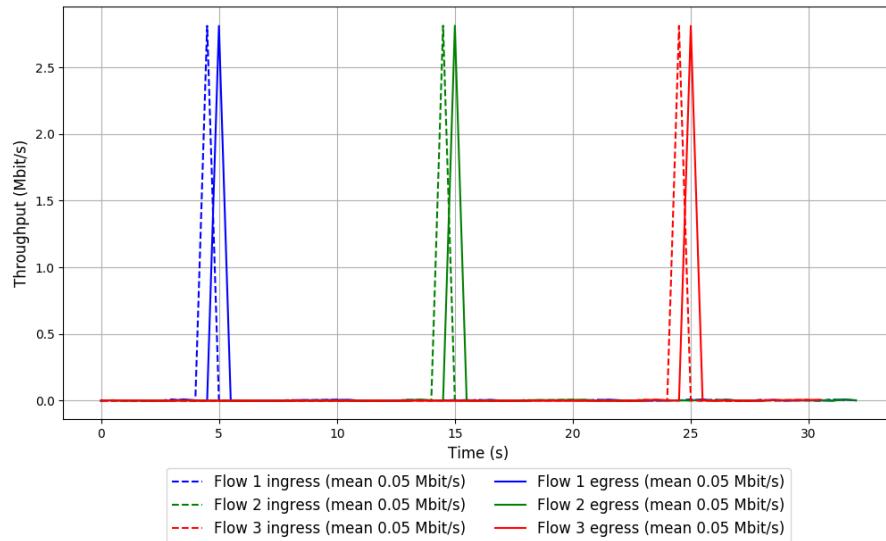


Run 4: Statistics of WebRTC media

```
Start at: 2019-02-20 01:51:14
End at: 2019-02-20 01:51:44
Local clock offset: 3.062 ms
Remote clock offset: -1.351 ms

# Below is generated by plot.py at 2019-02-20 02:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 6.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.596 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.096 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.135 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-02-20 02:15:41
End at: 2019-02-20 02:16:11
Local clock offset: 8.062 ms
Remote clock offset: -2.617 ms

# Below is generated by plot.py at 2019-02-20 02:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 6.965 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.008 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.004 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.728 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

