

Pantheon Report

Generated at 2019-06-28 03:40:53 (UTC).
Data path: AWS India 2 on `ens5` (*local*) → Saudi Arabia on `enp2s0` (*remote*).
Repeated the test of 22 congestion control schemes 5 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

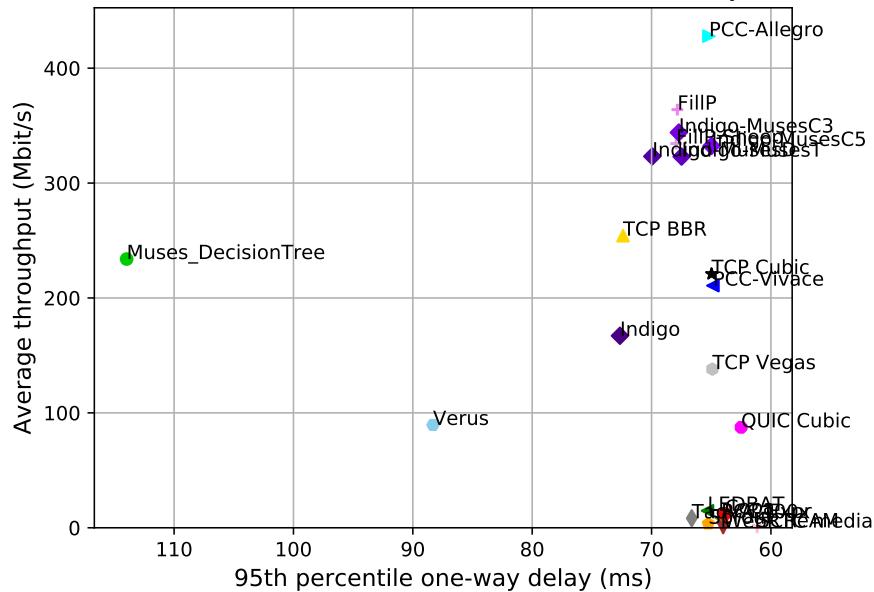
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

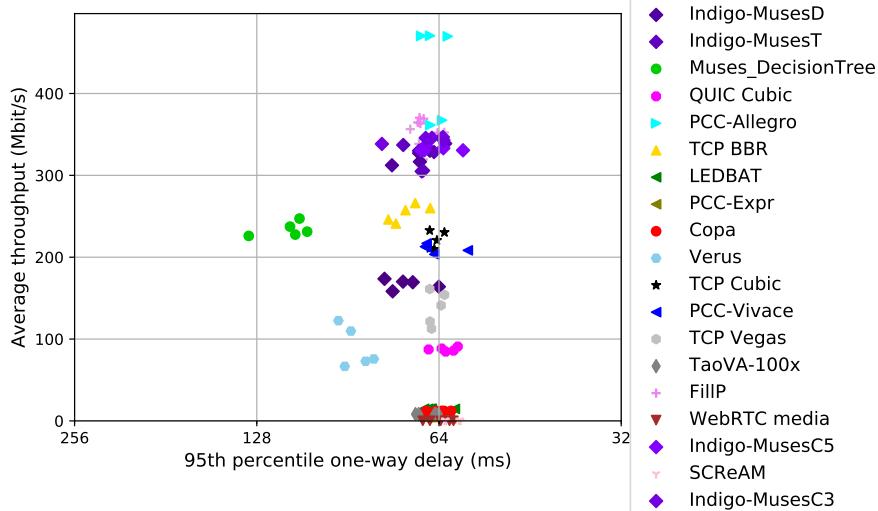
```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fce56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02cc896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utils.pyc
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
```

```
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	212.65	40.25	45.07	73.70	67.55	67.98	11.81	15.92	19.72
Copa	5	8.65	5.37	0.01	64.07	63.38	65.53	66.54	74.59	92.10
TCP Cubic	5	140.78	64.29	112.19	65.16	64.12	64.72	1.41	1.36	1.94
FillP	5	250.73	126.06	88.66	67.90	67.71	67.36	22.07	24.64	24.04
FillP-Sheep	5	234.60	98.51	103.60	67.90	67.69	67.41	14.94	11.82	14.19
Indigo	5	82.17	84.17	91.51	72.60	77.49	62.70	8.58	14.15	19.12
Indigo-MusesC3	5	327.86	21.38	8.27	67.86	65.33	65.19	13.40	9.75	10.25
Indigo-MusesC5	5	331.09	0.92	2.31	64.99	64.09	64.17	26.08	27.00	26.55
Indigo-MusesD	5	291.70	34.66	31.82	70.68	67.33	68.29	12.51	8.64	7.73
Indigo-MusesT	5	274.50	54.78	45.60	67.30	68.48	69.20	10.52	8.17	7.43
LEDBAT	5	9.55	6.37	3.11	65.87	64.70	64.09	0.00	0.00	0.00
Muses_DecisionTree	5	143.43	103.91	73.11	114.71	117.13	100.95	51.80	46.61	43.17
PCC-Allegro	5	370.65	31.18	110.59	65.17	65.13	65.82	5.18	2.12	4.96
PCC-Expr	5	0.01	10.39	5.22	64.69	64.16	64.17	82.28	33.93	27.53
QUIC Cubic	5	52.67	39.03	27.26	62.22	61.97	64.88	0.01	0.00	0.01
SCReAM	5	0.22	0.22	0.22	61.07	61.03	61.16	0.00	0.00	0.00
Sprout	5	2.34	1.21	1.17	65.29	64.22	64.05	0.00	0.00	0.00
TaoVA-100x	5	0.00	8.99	6.89	61.25	68.03	60.98	95.92	32.97	36.21
TCP Vegas	5	79.09	46.58	83.98	64.59	64.45	66.29	1.78	2.38	2.99
Verus	5	64.85	22.68	30.86	88.57	75.92	74.02	45.61	29.92	41.48
PCC-Vivace	5	189.44	25.90	12.36	64.87	64.77	64.80	1.30	0.76	1.53
WebRTC media	5	0.05	0.05	0.05	64.06	64.05	64.11	0.01	0.00	0.01

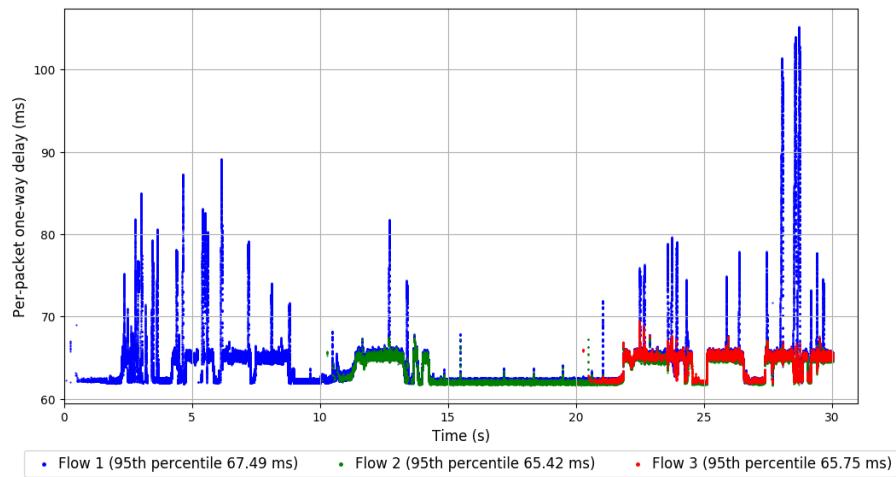
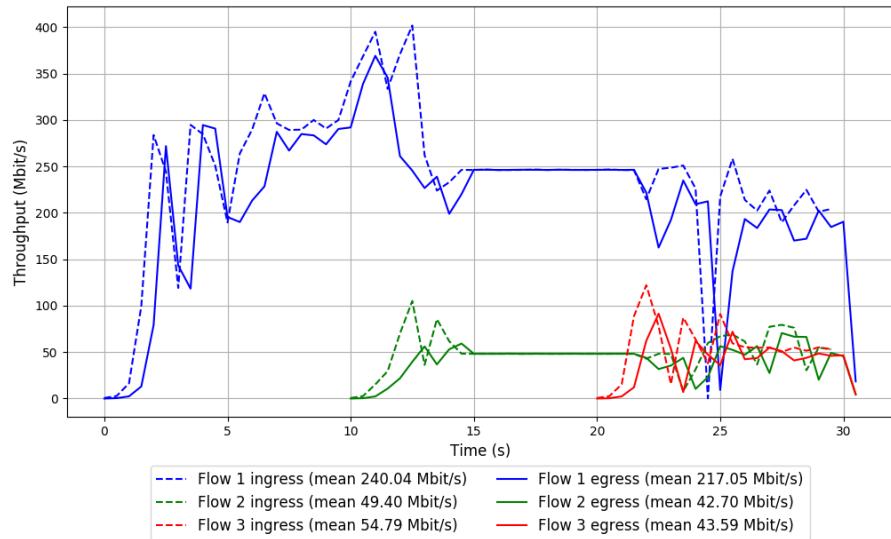
4

Run 1: Statistics of TCP BBR

```
Start at: 2019-06-28 00:55:36
End at: 2019-06-28 00:56:06
Local clock offset: -1.256 ms
Remote clock offset: -34.206 ms

# Below is generated by plot.py at 2019-06-28 03:12:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.98 Mbit/s
95th percentile per-packet one-way delay: 66.187 ms
Loss rate: 10.70%
-- Flow 1:
Average throughput: 217.05 Mbit/s
95th percentile per-packet one-way delay: 67.489 ms
Loss rate: 9.57%
-- Flow 2:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 65.421 ms
Loss rate: 13.55%
-- Flow 3:
Average throughput: 43.59 Mbit/s
95th percentile per-packet one-way delay: 65.745 ms
Loss rate: 20.42%
```

Run 1: Report of TCP BBR — Data Link

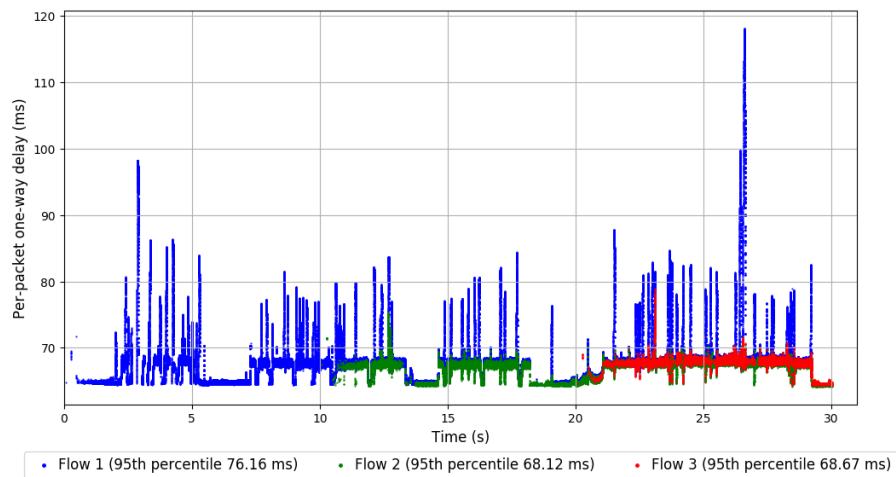
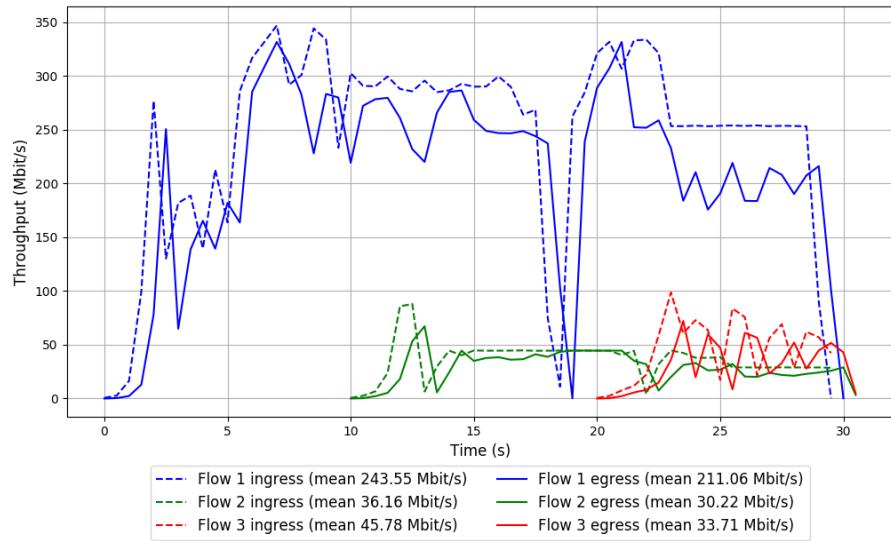


Run 2: Statistics of TCP BBR

```
Start at: 2019-06-28 01:28:11
End at: 2019-06-28 01:28:41
Local clock offset: -2.248 ms
Remote clock offset: -32.088 ms

# Below is generated by plot.py at 2019-06-28 03:12:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.20 Mbit/s
95th percentile per-packet one-way delay: 75.415 ms
Loss rate: 14.31%
-- Flow 1:
Average throughput: 211.06 Mbit/s
95th percentile per-packet one-way delay: 76.155 ms
Loss rate: 13.34%
-- Flow 2:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 68.119 ms
Loss rate: 16.43%
-- Flow 3:
Average throughput: 33.71 Mbit/s
95th percentile per-packet one-way delay: 68.670 ms
Loss rate: 26.36%
```

Run 2: Report of TCP BBR — Data Link

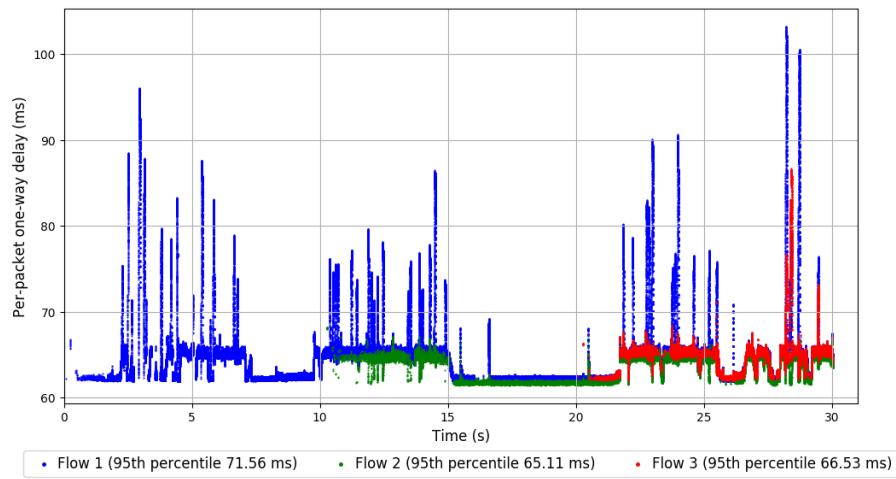
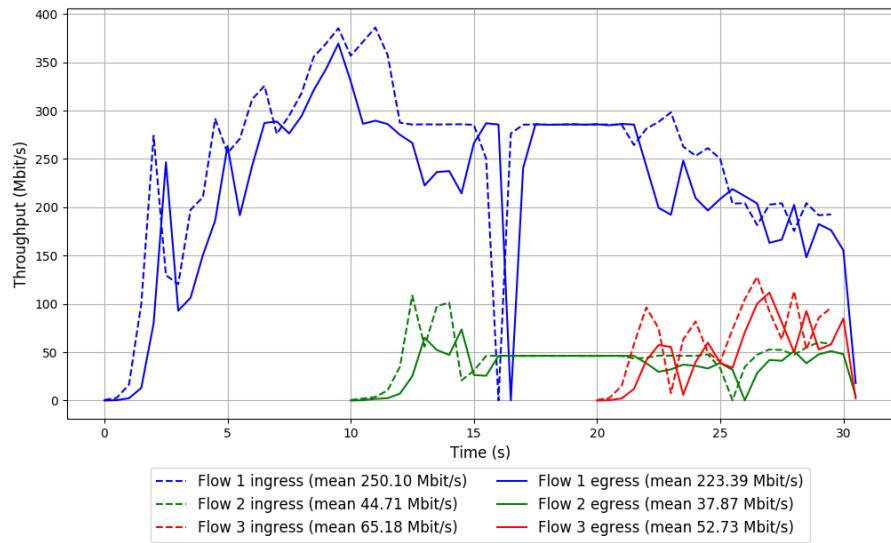


Run 3: Statistics of TCP BBR

```
Start at: 2019-06-28 02:00:10
End at: 2019-06-28 02:00:40
Local clock offset: -1.929 ms
Remote clock offset: -34.851 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.15 Mbit/s
95th percentile per-packet one-way delay: 70.058 ms
Loss rate: 11.73%
-- Flow 1:
Average throughput: 223.39 Mbit/s
95th percentile per-packet one-way delay: 71.564 ms
Loss rate: 10.67%
-- Flow 2:
Average throughput: 37.87 Mbit/s
95th percentile per-packet one-way delay: 65.115 ms
Loss rate: 15.30%
-- Flow 3:
Average throughput: 52.73 Mbit/s
95th percentile per-packet one-way delay: 66.534 ms
Loss rate: 19.09%
```

Run 3: Report of TCP BBR — Data Link

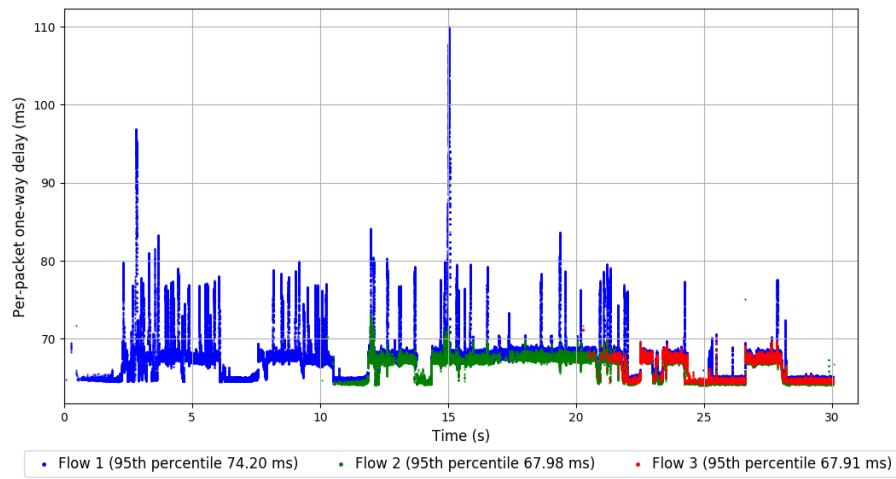
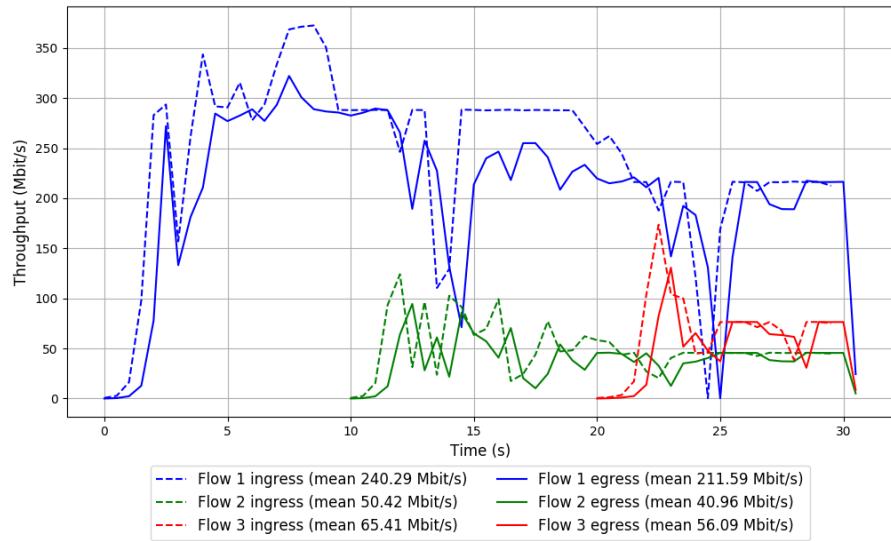


Run 4: Statistics of TCP BBR

```
Start at: 2019-06-28 02:32:19
End at: 2019-06-28 02:32:49
Local clock offset: -1.641 ms
Remote clock offset: -33.624 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 257.53 Mbit/s
95th percentile per-packet one-way delay: 72.704 ms
Loss rate: 12.89%
-- Flow 1:
Average throughput: 211.59 Mbit/s
95th percentile per-packet one-way delay: 74.197 ms
Loss rate: 11.95%
-- Flow 2:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 67.981 ms
Loss rate: 18.76%
-- Flow 3:
Average throughput: 56.09 Mbit/s
95th percentile per-packet one-way delay: 67.912 ms
Loss rate: 14.26%
```

Run 4: Report of TCP BBR — Data Link

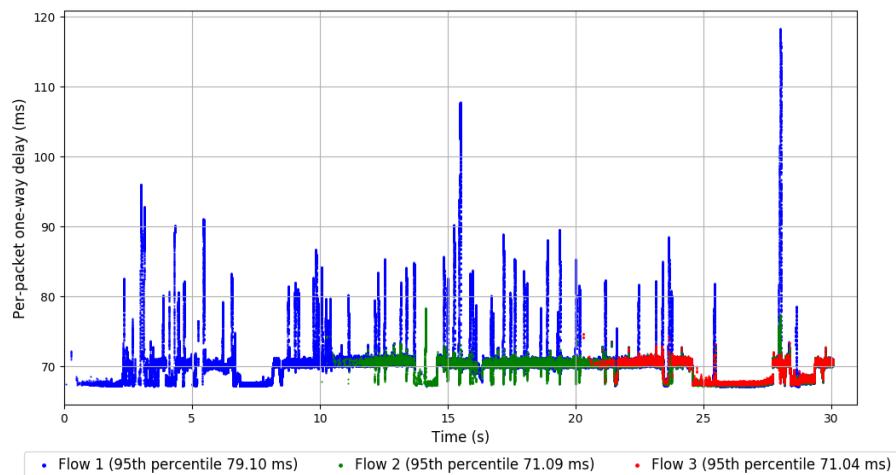
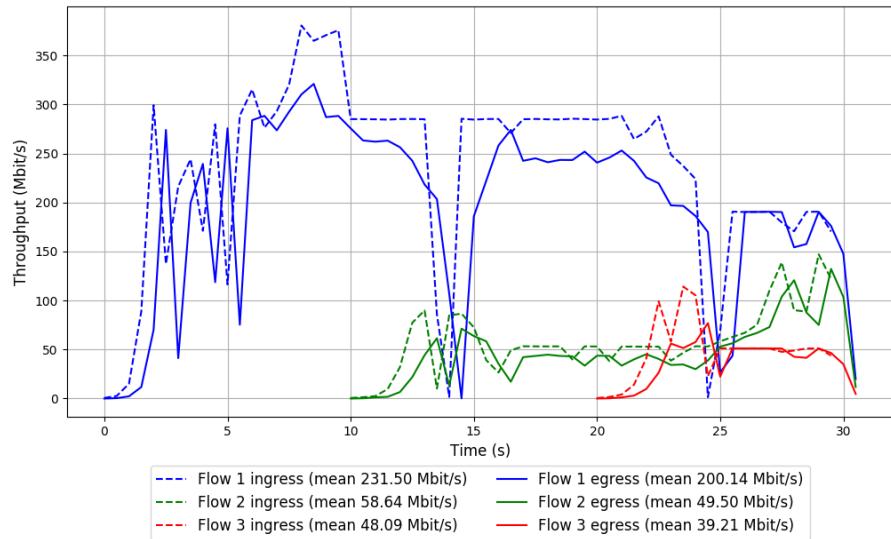


Run 5: Statistics of TCP BBR

```
Start at: 2019-06-28 03:04:31
End at: 2019-06-28 03:05:01
Local clock offset: -1.897 ms
Remote clock offset: -33.884 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 246.16 Mbit/s
95th percentile per-packet one-way delay: 77.588 ms
Loss rate: 14.09%
-- Flow 1:
Average throughput: 200.14 Mbit/s
95th percentile per-packet one-way delay: 79.097 ms
Loss rate: 13.54%
-- Flow 2:
Average throughput: 49.50 Mbit/s
95th percentile per-packet one-way delay: 71.093 ms
Loss rate: 15.58%
-- Flow 3:
Average throughput: 39.21 Mbit/s
95th percentile per-packet one-way delay: 71.042 ms
Loss rate: 18.47%
```

Run 5: Report of TCP BBR — Data Link

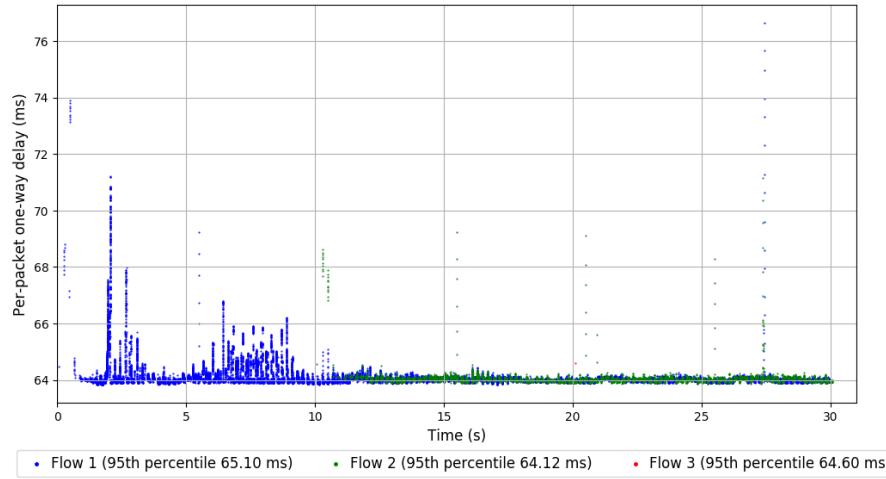
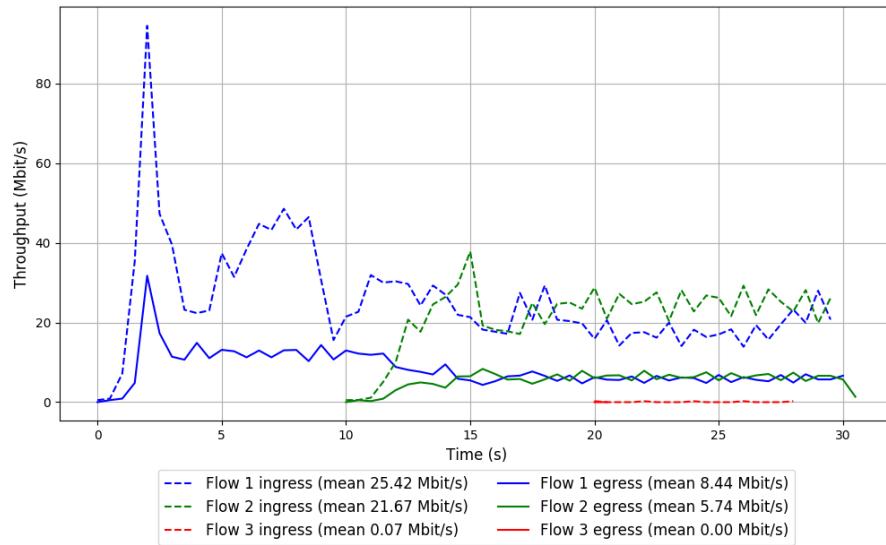


Run 1: Statistics of Copa

```
Start at: 2019-06-28 00:52:46
End at: 2019-06-28 00:53:16
Local clock offset: -1.957 ms
Remote clock offset: -32.687 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 64.781 ms
Loss rate: 69.25%
-- Flow 1:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 65.103 ms
Loss rate: 66.80%
-- Flow 2:
Average throughput: 5.74 Mbit/s
95th percentile per-packet one-way delay: 64.125 ms
Loss rate: 73.53%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 64.599 ms
Loss rate: 99.83%
```

Run 1: Report of Copa — Data Link

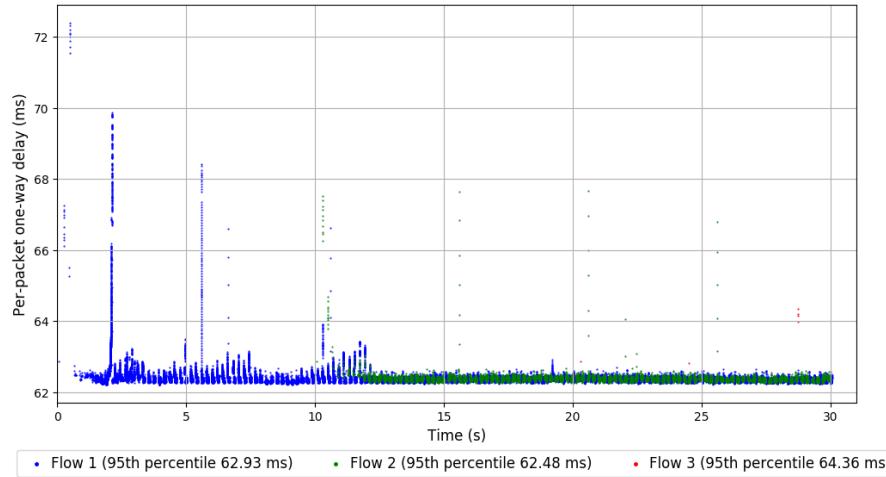
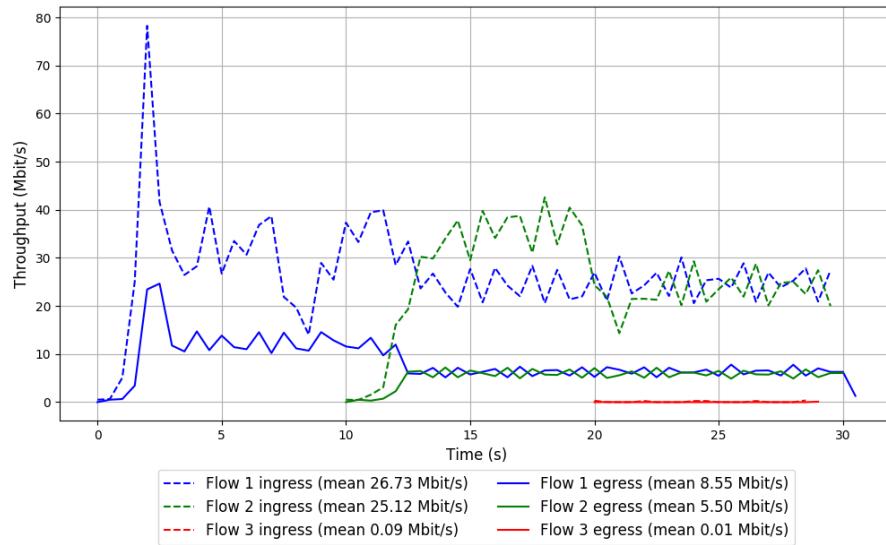


Run 2: Statistics of Copa

```
Start at: 2019-06-28 01:25:21
End at: 2019-06-28 01:25:51
Local clock offset: -1.645 ms
Remote clock offset: -33.467 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 62.778 ms
Loss rate: 71.90%
-- Flow 1:
Average throughput: 8.55 Mbit/s
95th percentile per-packet one-way delay: 62.933 ms
Loss rate: 68.01%
-- Flow 2:
Average throughput: 5.50 Mbit/s
95th percentile per-packet one-way delay: 62.480 ms
Loss rate: 78.13%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.355 ms
Loss rate: 90.93%
```

Run 2: Report of Copa — Data Link

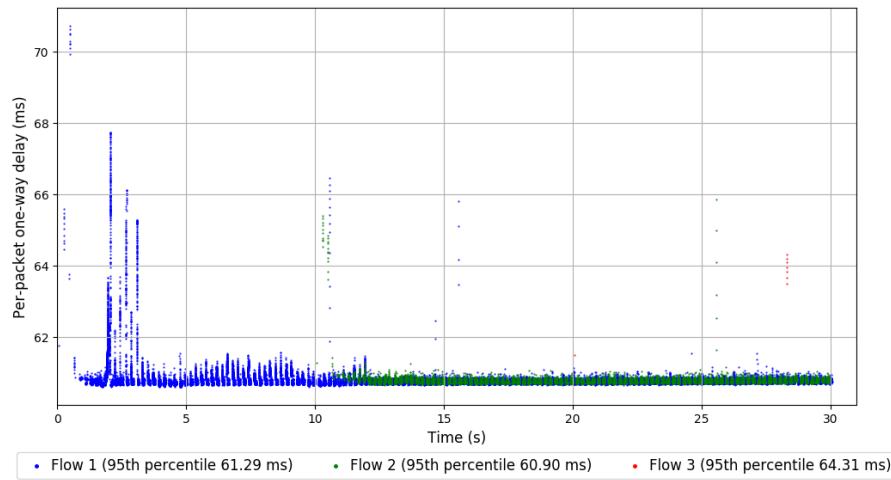
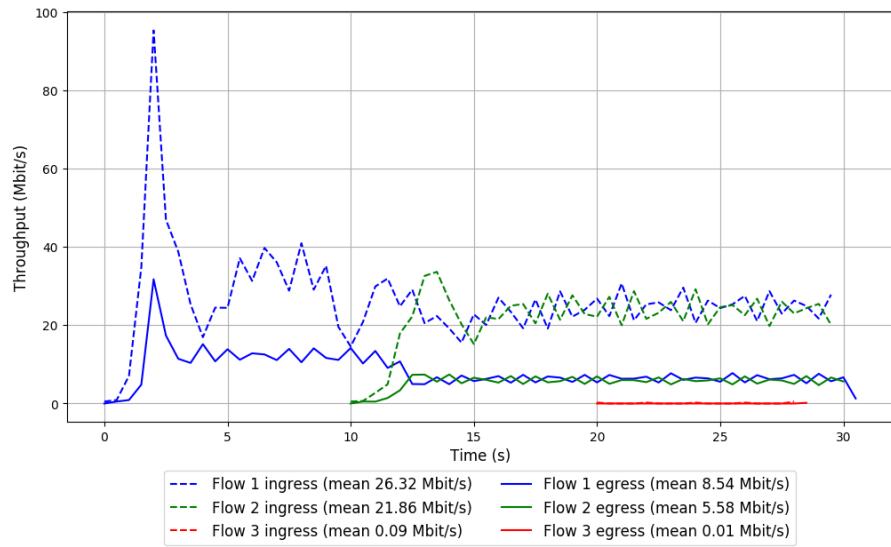


Run 3: Statistics of Copa

```
Start at: 2019-06-28 01:57:20
End at: 2019-06-28 01:57:50
Local clock offset: -4.846 ms
Remote clock offset: -38.417 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.24 Mbit/s
95th percentile per-packet one-way delay: 61.135 ms
Loss rate: 70.02%
-- Flow 1:
Average throughput: 8.54 Mbit/s
95th percentile per-packet one-way delay: 61.291 ms
Loss rate: 67.54%
-- Flow 2:
Average throughput: 5.58 Mbit/s
95th percentile per-packet one-way delay: 60.897 ms
Loss rate: 74.49%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.313 ms
Loss rate: 88.21%
```

Run 3: Report of Copa — Data Link

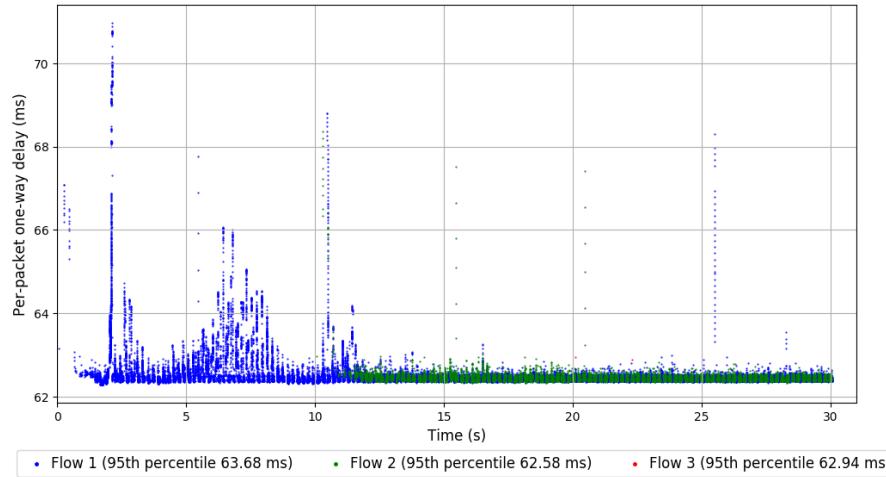
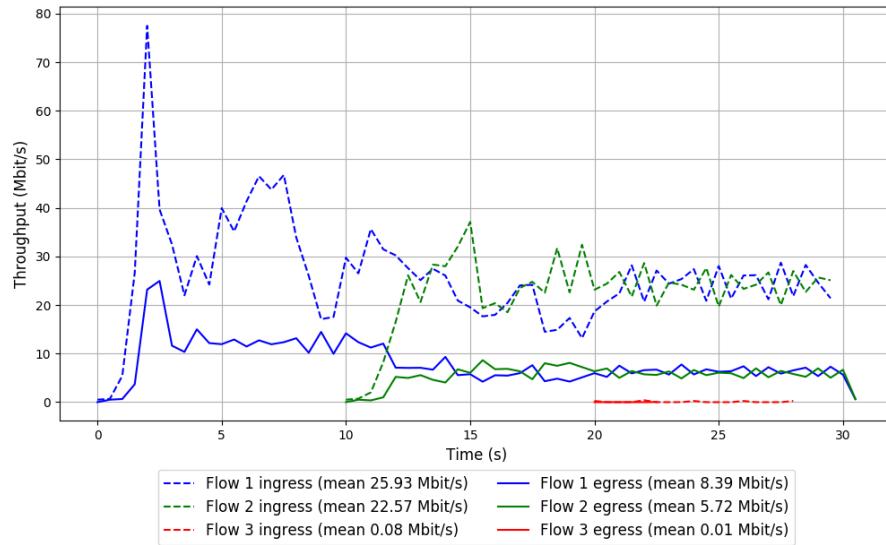


Run 4: Statistics of Copa

```
Start at: 2019-06-28 02:29:29
End at: 2019-06-28 02:29:59
Local clock offset: -1.986 ms
Remote clock offset: -35.438 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 63.360 ms
Loss rate: 70.21%
-- Flow 1:
Average throughput: 8.39 Mbit/s
95th percentile per-packet one-way delay: 63.676 ms
Loss rate: 67.62%
-- Flow 2:
Average throughput: 5.72 Mbit/s
95th percentile per-packet one-way delay: 62.576 ms
Loss rate: 74.64%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 62.942 ms
Loss rate: 98.07%
```

Run 4: Report of Copa — Data Link

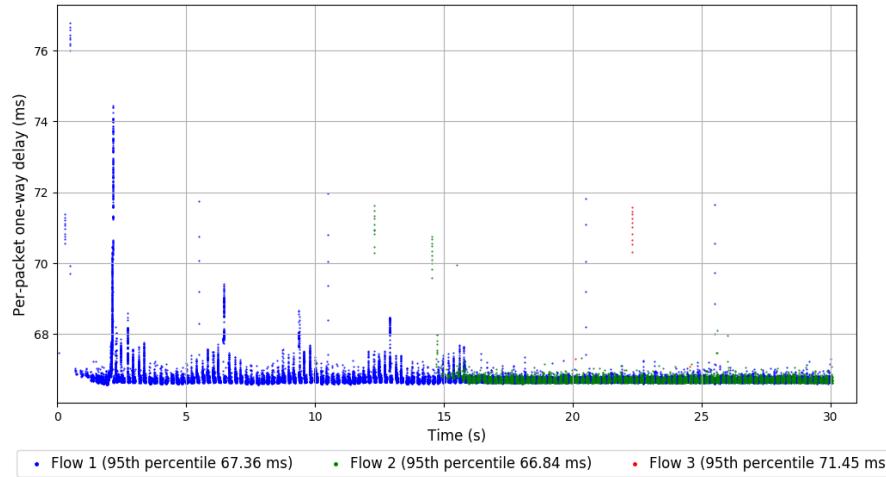
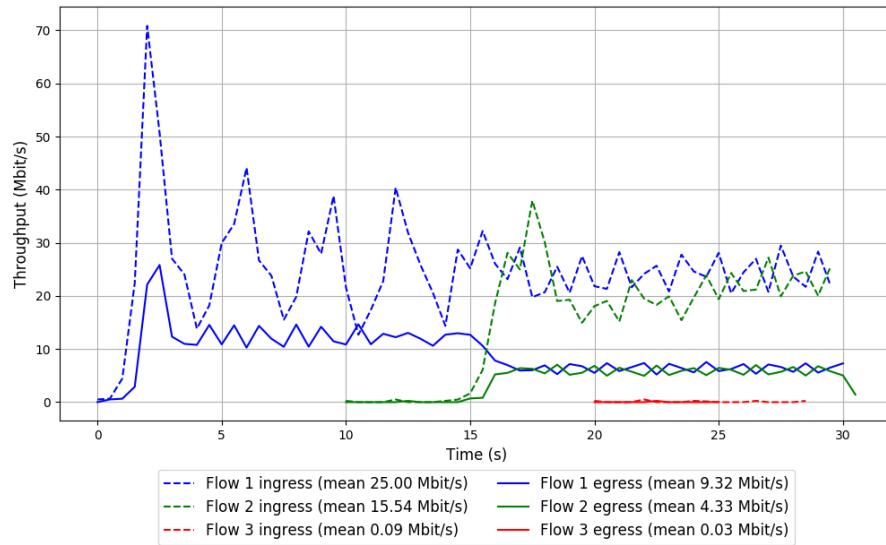


Run 5: Statistics of Copa

```
Start at: 2019-06-28 03:01:41
End at: 2019-06-28 03:02:11
Local clock offset: -1.726 ms
Remote clock offset: -34.14 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.19 Mbit/s
95th percentile per-packet one-way delay: 67.225 ms
Loss rate: 65.50%
-- Flow 1:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 67.358 ms
Loss rate: 62.72%
-- Flow 2:
Average throughput: 4.33 Mbit/s
95th percentile per-packet one-way delay: 66.836 ms
Loss rate: 72.17%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 71.449 ms
Loss rate: 83.48%
```

Run 5: Report of Copa — Data Link

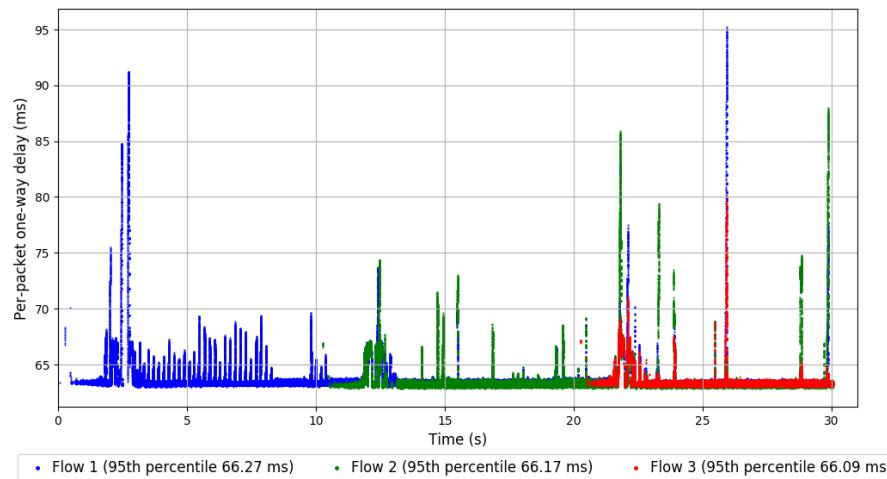
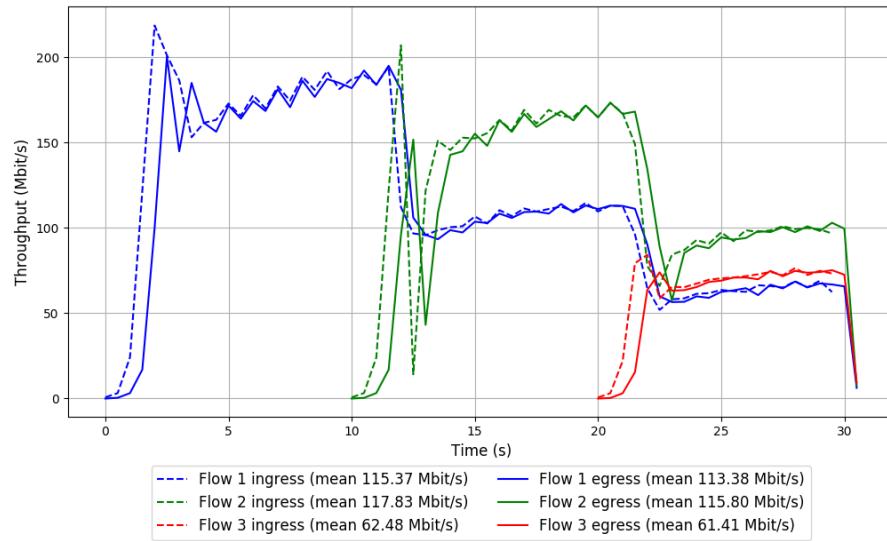


```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 00:54:06
End at: 2019-06-28 00:54:36
Local clock offset: -0.92 ms
Remote clock offset: -32.637 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.94 Mbit/s
95th percentile per-packet one-way delay: 66.227 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 113.38 Mbit/s
95th percentile per-packet one-way delay: 66.272 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 115.80 Mbit/s
95th percentile per-packet one-way delay: 66.174 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 61.41 Mbit/s
95th percentile per-packet one-way delay: 66.087 ms
Loss rate: 1.70%
```

Run 1: Report of TCP Cubic — Data Link

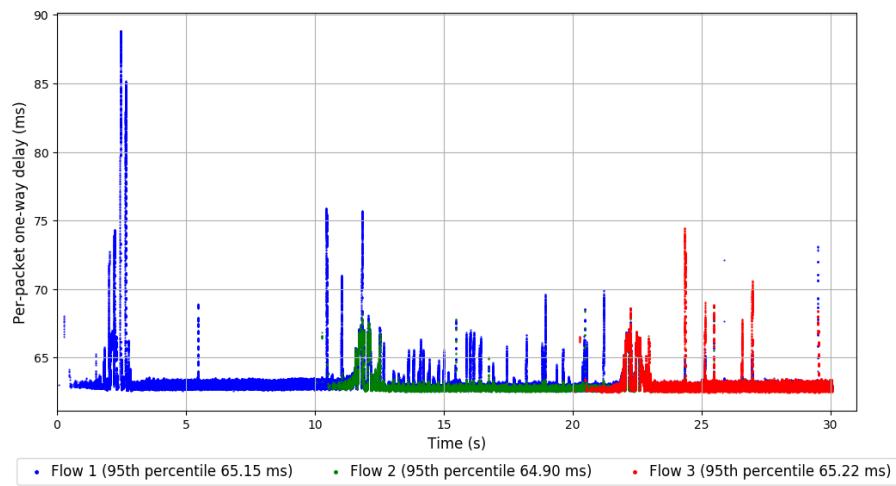
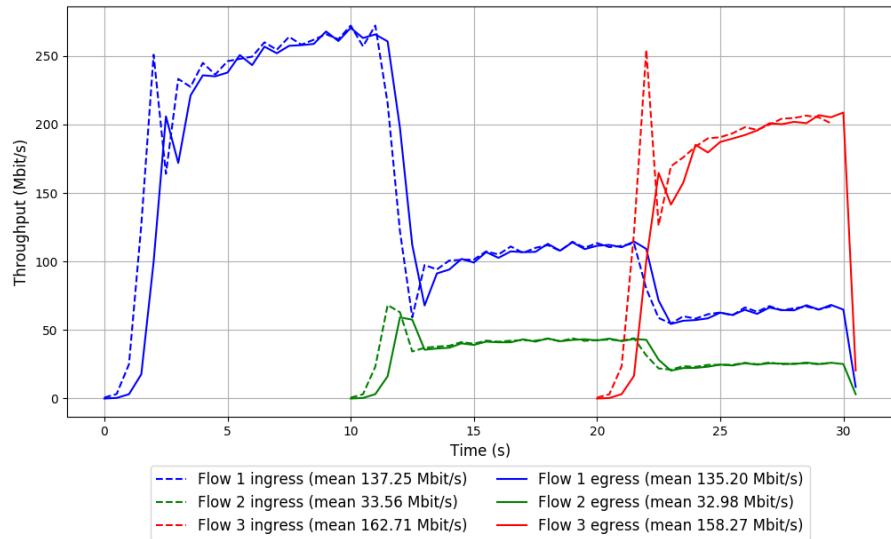


Run 2: Statistics of TCP Cubic

```
Start at: 2019-06-28 01:26:41
End at: 2019-06-28 01:27:11
Local clock offset: -2.303 ms
Remote clock offset: -33.871 ms

# Below is generated by plot.py at 2019-06-28 03:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 209.83 Mbit/s
95th percentile per-packet one-way delay: 65.145 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 135.20 Mbit/s
95th percentile per-packet one-way delay: 65.153 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 32.98 Mbit/s
95th percentile per-packet one-way delay: 64.899 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 158.27 Mbit/s
95th percentile per-packet one-way delay: 65.220 ms
Loss rate: 2.73%
```

Run 2: Report of TCP Cubic — Data Link

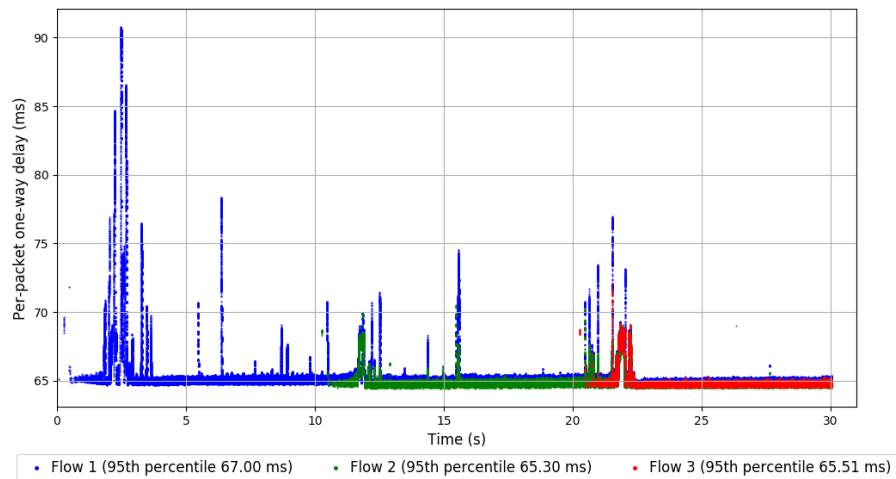
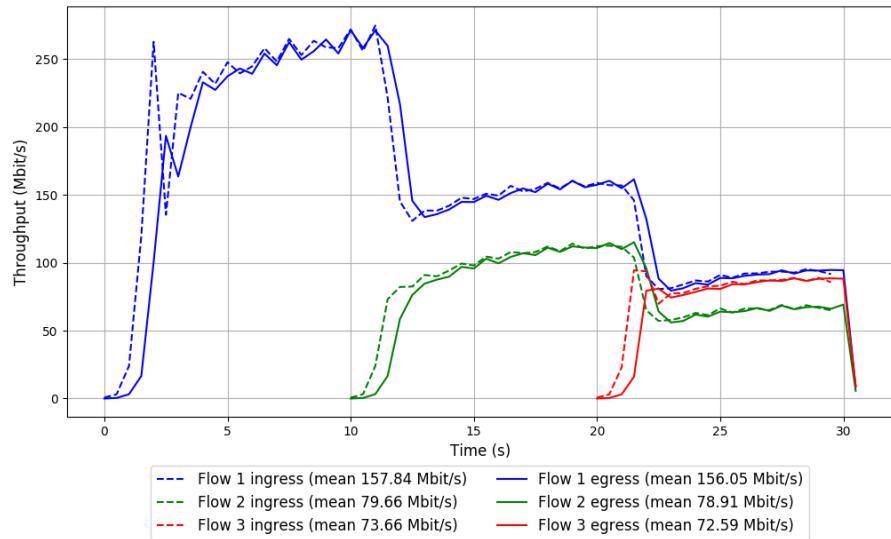


Run 3: Statistics of TCP Cubic

```
Start at: 2019-06-28 01:58:40
End at: 2019-06-28 01:59:10
Local clock offset: -2.418 ms
Remote clock offset: -32.445 ms

# Below is generated by plot.py at 2019-06-28 03:12:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.75 Mbit/s
95th percentile per-packet one-way delay: 66.301 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 156.05 Mbit/s
95th percentile per-packet one-way delay: 66.997 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 78.91 Mbit/s
95th percentile per-packet one-way delay: 65.300 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 72.59 Mbit/s
95th percentile per-packet one-way delay: 65.509 ms
Loss rate: 1.44%
```

Run 3: Report of TCP Cubic — Data Link

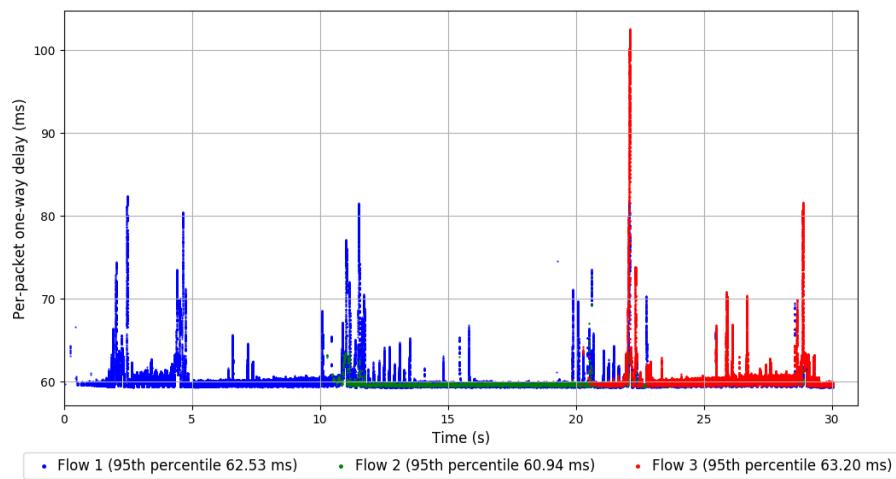
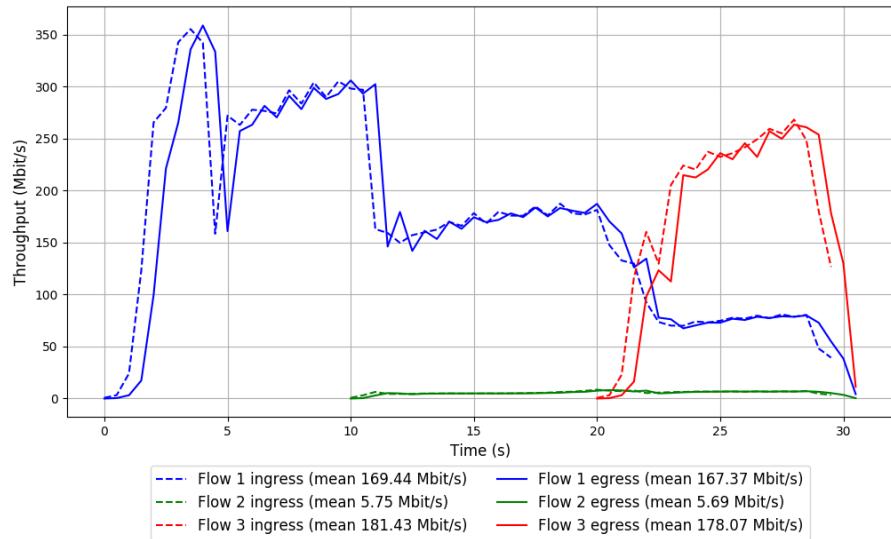


Run 4: Statistics of TCP Cubic

```
Start at: 2019-06-28 02:30:49
End at: 2019-06-28 02:31:19
Local clock offset: -2.221 ms
Remote clock offset: -38.841 ms

# Below is generated by plot.py at 2019-06-28 03:14:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 230.36 Mbit/s
95th percentile per-packet one-way delay: 62.694 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 167.37 Mbit/s
95th percentile per-packet one-way delay: 62.526 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 60.935 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 178.07 Mbit/s
95th percentile per-packet one-way delay: 63.205 ms
Loss rate: 1.85%
```

Run 4: Report of TCP Cubic — Data Link

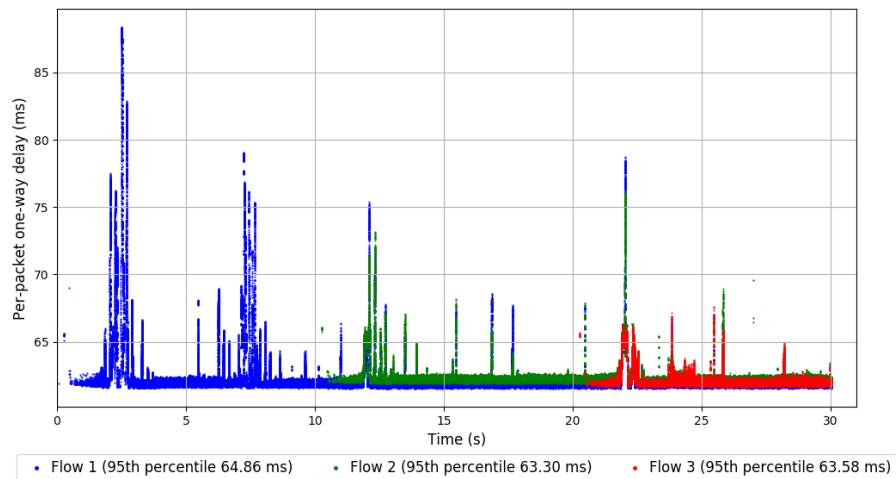
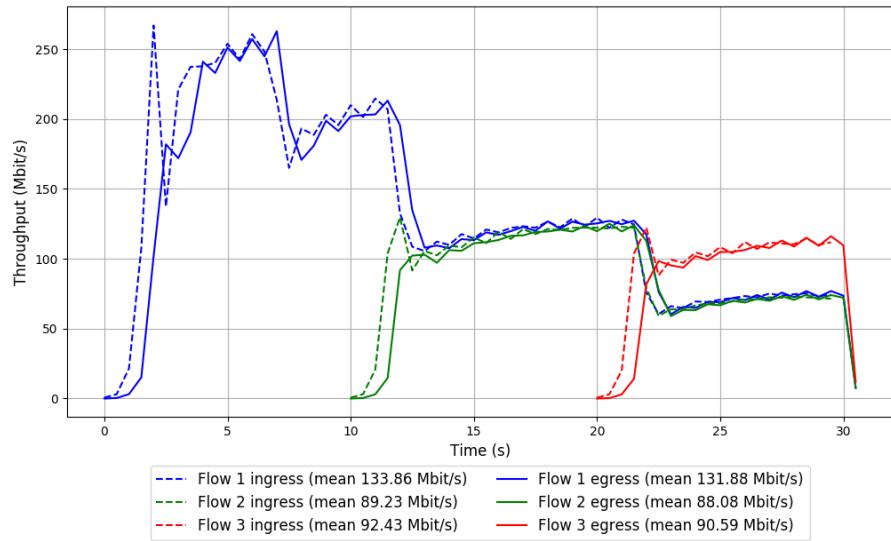


Run 5: Statistics of TCP Cubic

```
Start at: 2019-06-28 03:03:01
End at: 2019-06-28 03:03:31
Local clock offset: -1.598 ms
Remote clock offset: -39.02 ms

# Below is generated by plot.py at 2019-06-28 03:14:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.65 Mbit/s
95th percentile per-packet one-way delay: 64.515 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 131.88 Mbit/s
95th percentile per-packet one-way delay: 64.865 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 88.08 Mbit/s
95th percentile per-packet one-way delay: 63.302 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 90.59 Mbit/s
95th percentile per-packet one-way delay: 63.579 ms
Loss rate: 1.99%
```

Run 5: Report of TCP Cubic — Data Link

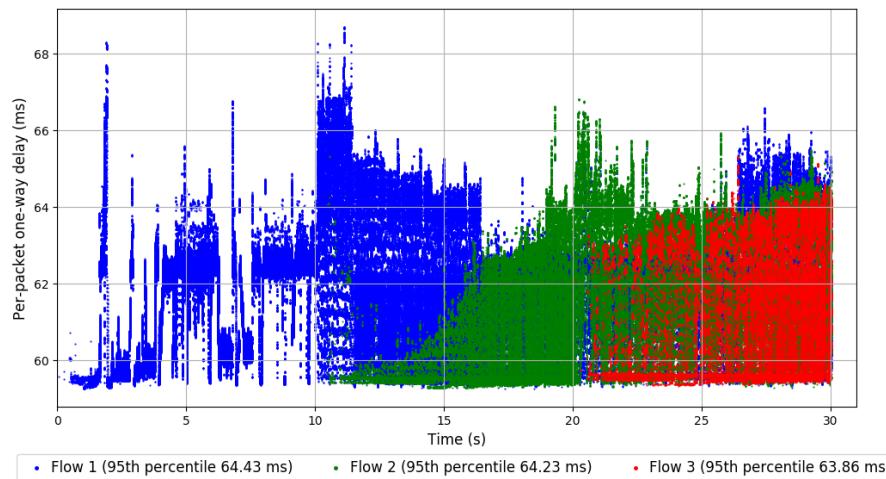
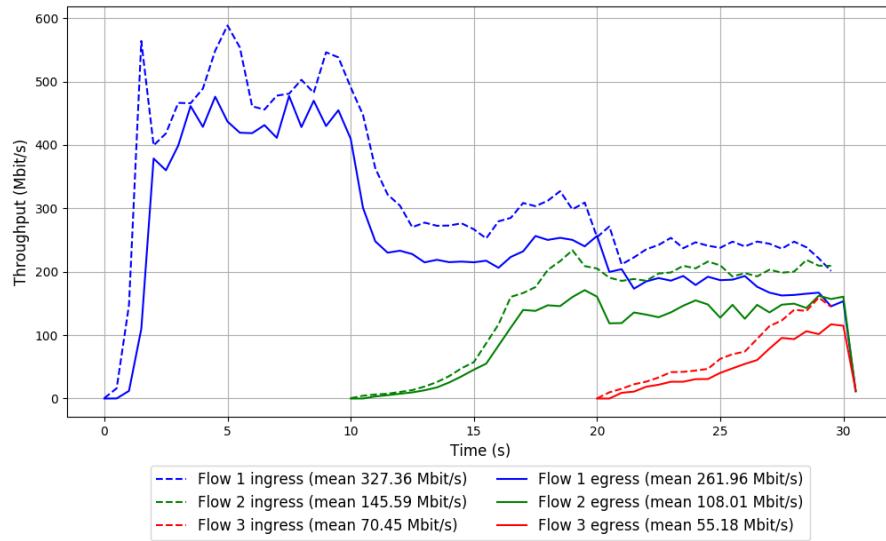


```
Run 1: Statistics of FillP

Start at: 2019-06-28 00:42:20
End at: 2019-06-28 00:42:50
Local clock offset: -1.972 ms
Remote clock offset: -37.529 ms

# Below is generated by plot.py at 2019-06-28 03:17:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.99 Mbit/s
95th percentile per-packet one-way delay: 64.328 ms
Loss rate: 21.33%
-- Flow 1:
Average throughput: 261.96 Mbit/s
95th percentile per-packet one-way delay: 64.426 ms
Loss rate: 19.98%
-- Flow 2:
Average throughput: 108.01 Mbit/s
95th percentile per-packet one-way delay: 64.229 ms
Loss rate: 25.82%
-- Flow 3:
Average throughput: 55.18 Mbit/s
95th percentile per-packet one-way delay: 63.857 ms
Loss rate: 21.66%
```

Run 1: Report of FillP — Data Link

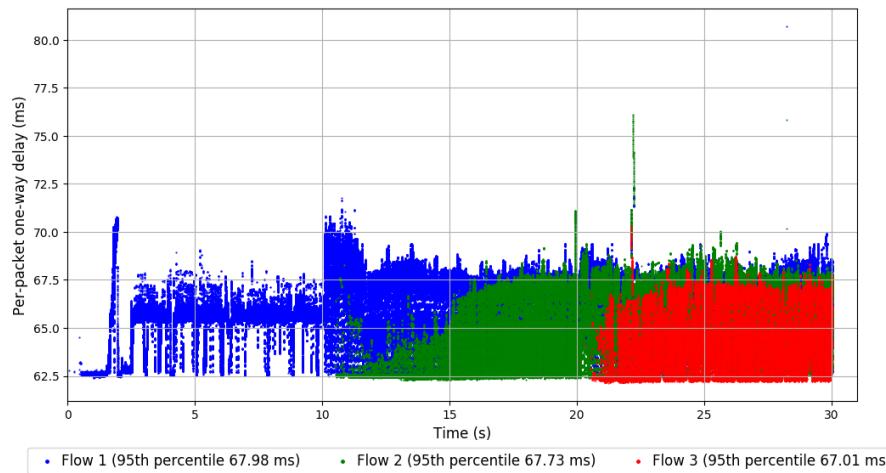
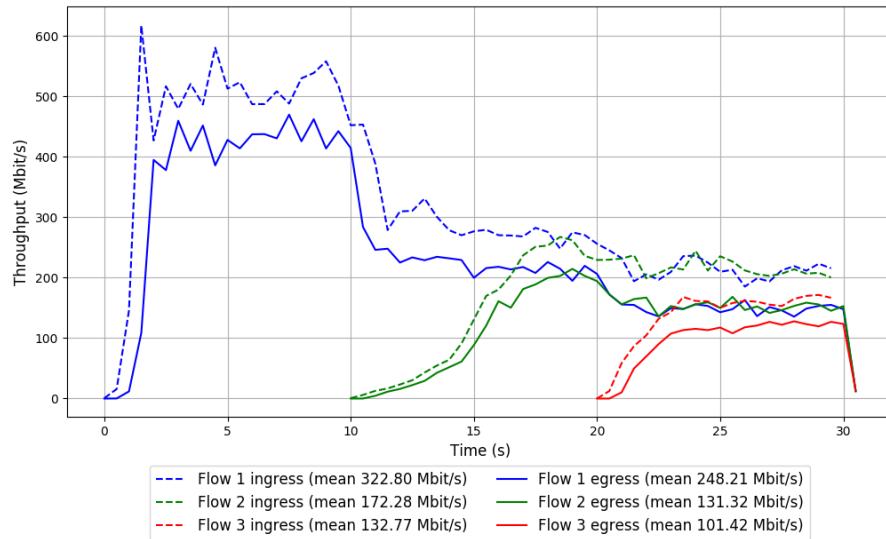


Run 2: Statistics of FillP

```
Start at: 2019-06-28 01:14:51
End at: 2019-06-28 01:15:21
Local clock offset: -1.674 ms
Remote clock offset: -34.082 ms

# Below is generated by plot.py at 2019-06-28 03:17:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 369.18 Mbit/s
95th percentile per-packet one-way delay: 67.848 ms
Loss rate: 23.31%
-- Flow 1:
Average throughput: 248.21 Mbit/s
95th percentile per-packet one-way delay: 67.980 ms
Loss rate: 23.10%
-- Flow 2:
Average throughput: 131.32 Mbit/s
95th percentile per-packet one-way delay: 67.732 ms
Loss rate: 23.78%
-- Flow 3:
Average throughput: 101.42 Mbit/s
95th percentile per-packet one-way delay: 67.014 ms
Loss rate: 23.59%
```

Run 2: Report of FillP — Data Link

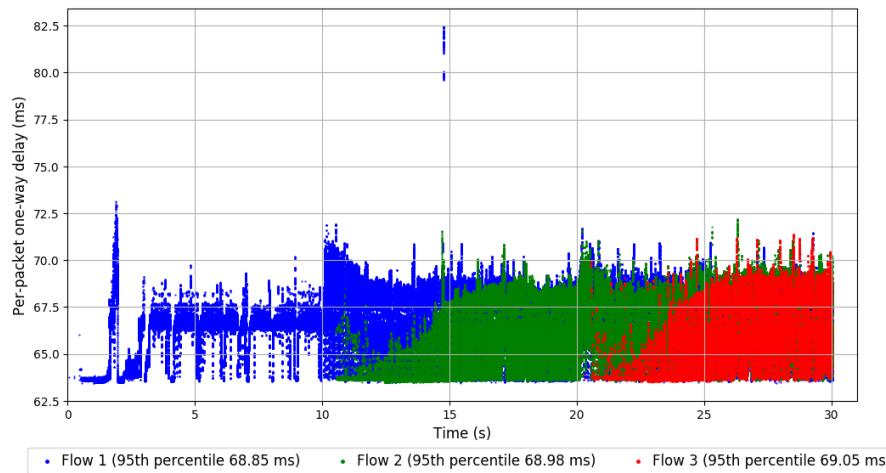
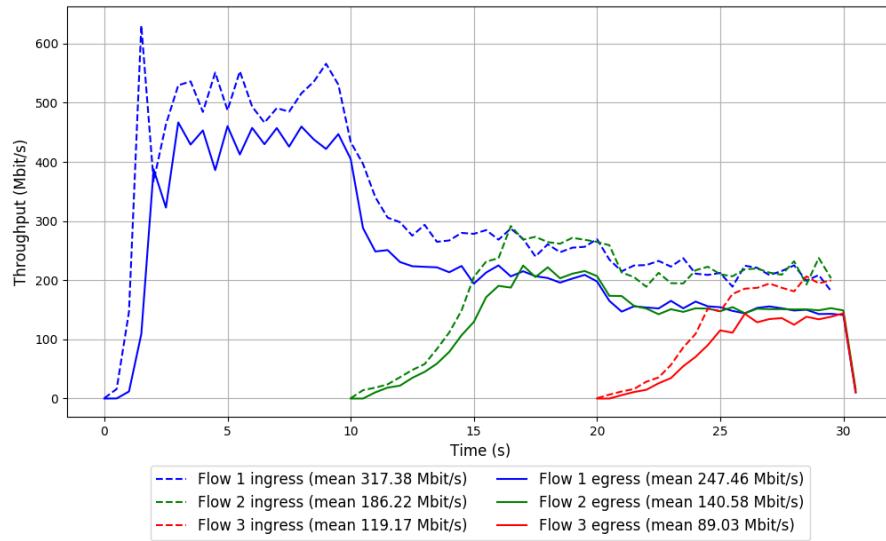


Run 3: Statistics of FillP

```
Start at: 2019-06-28 01:46:57
End at: 2019-06-28 01:47:27
Local clock offset: -2.158 ms
Remote clock offset: -32.501 ms

# Below is generated by plot.py at 2019-06-28 03:18:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.39 Mbit/s
95th percentile per-packet one-way delay: 68.908 ms
Loss rate: 22.94%
-- Flow 1:
Average throughput: 247.46 Mbit/s
95th percentile per-packet one-way delay: 68.848 ms
Loss rate: 22.03%
-- Flow 2:
Average throughput: 140.58 Mbit/s
95th percentile per-packet one-way delay: 68.982 ms
Loss rate: 24.51%
-- Flow 3:
Average throughput: 89.03 Mbit/s
95th percentile per-packet one-way delay: 69.050 ms
Loss rate: 25.30%
```

Run 3: Report of FillP — Data Link

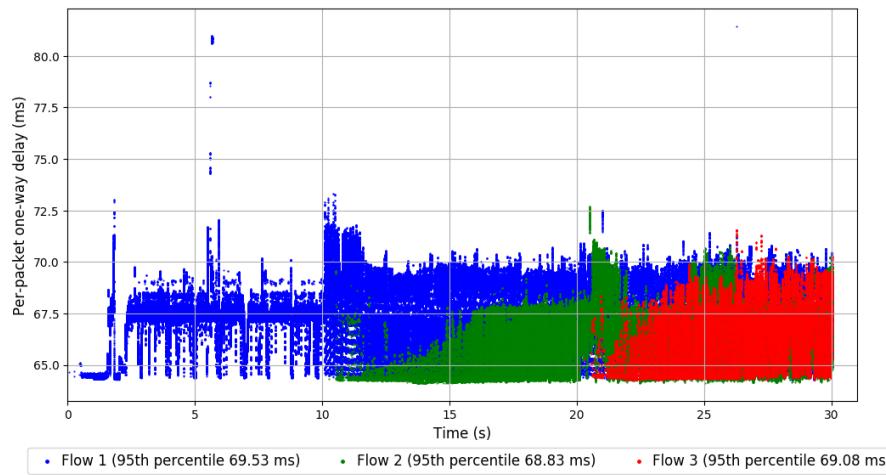
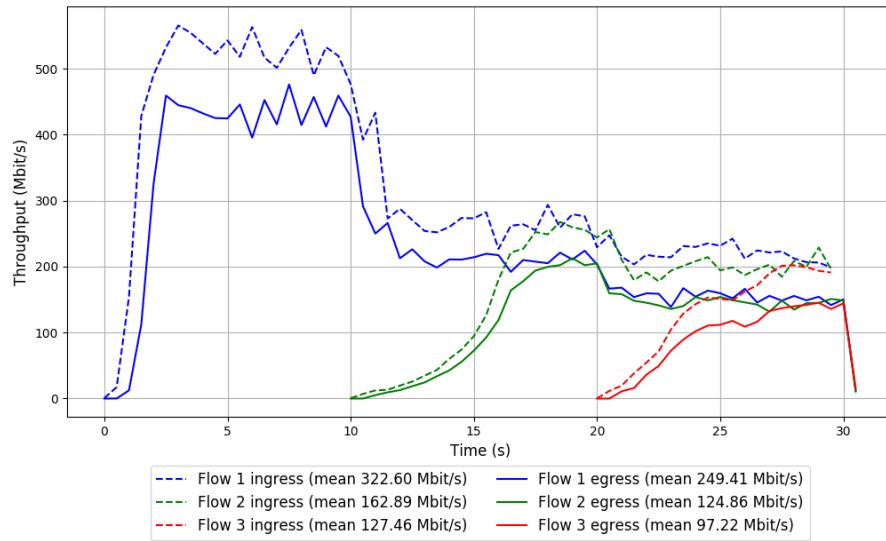


Run 4: Statistics of FillP

```
Start at: 2019-06-28 02:19:04
End at: 2019-06-28 02:19:34
Local clock offset: -2.171 ms
Remote clock offset: -33.889 ms

# Below is generated by plot.py at 2019-06-28 03:18:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 364.61 Mbit/s
95th percentile per-packet one-way delay: 69.388 ms
Loss rate: 22.93%
-- Flow 1:
Average throughput: 249.41 Mbit/s
95th percentile per-packet one-way delay: 69.528 ms
Loss rate: 22.69%
-- Flow 2:
Average throughput: 124.86 Mbit/s
95th percentile per-packet one-way delay: 68.835 ms
Loss rate: 23.36%
-- Flow 3:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 69.075 ms
Loss rate: 23.71%
```

Run 4: Report of FillP — Data Link

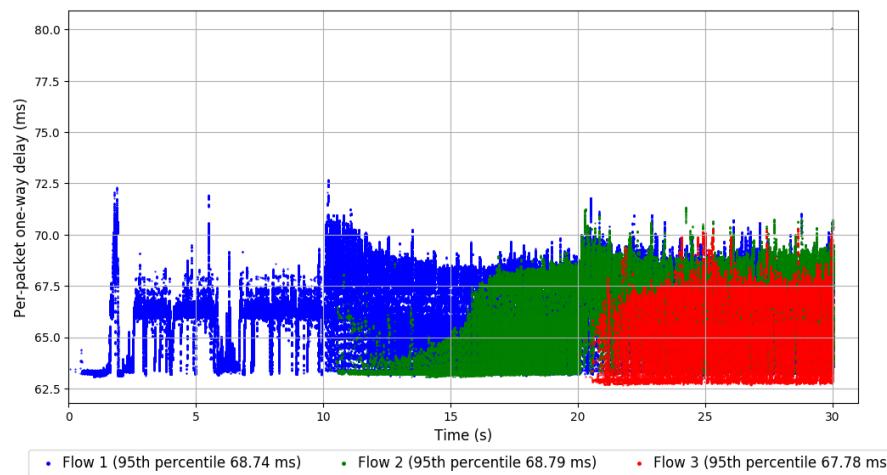
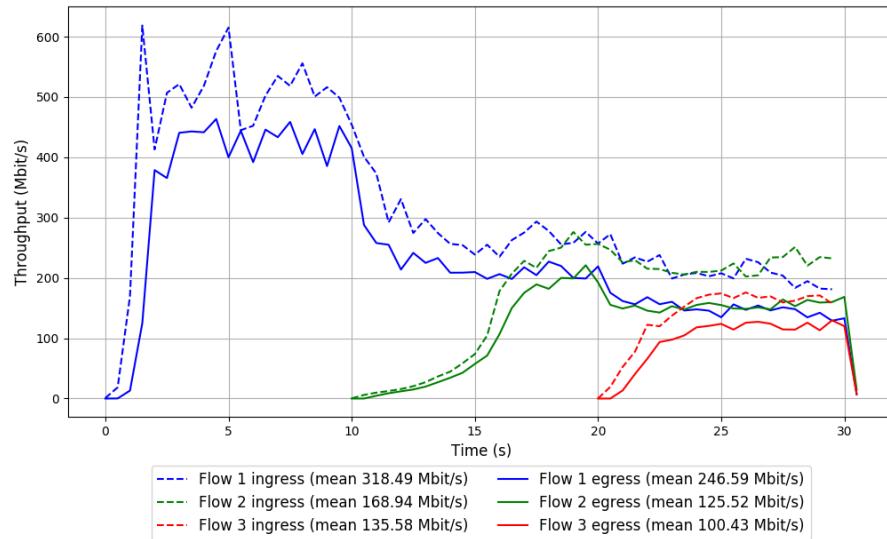


```
Run 5: Statistics of FillP
```

```
Start at: 2019-06-28 02:51:17
End at: 2019-06-28 02:51:47
Local clock offset: -1.339 ms
Remote clock offset: -34.711 ms

# Below is generated by plot.py at 2019-06-28 03:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.36 Mbit/s
95th percentile per-packet one-way delay: 68.714 ms
Loss rate: 23.62%
-- Flow 1:
Average throughput: 246.59 Mbit/s
95th percentile per-packet one-way delay: 68.741 ms
Loss rate: 22.56%
-- Flow 2:
Average throughput: 125.52 Mbit/s
95th percentile per-packet one-way delay: 68.790 ms
Loss rate: 25.71%
-- Flow 3:
Average throughput: 100.43 Mbit/s
95th percentile per-packet one-way delay: 67.785 ms
Loss rate: 25.94%
```

Run 5: Report of FillP — Data Link

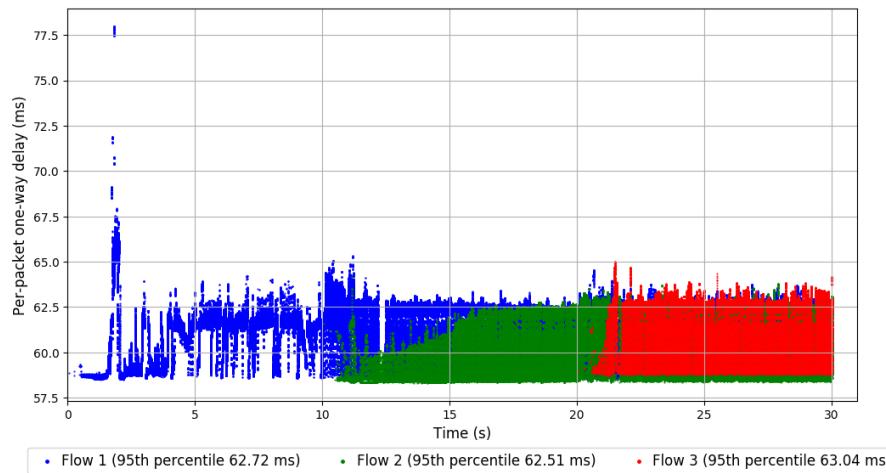
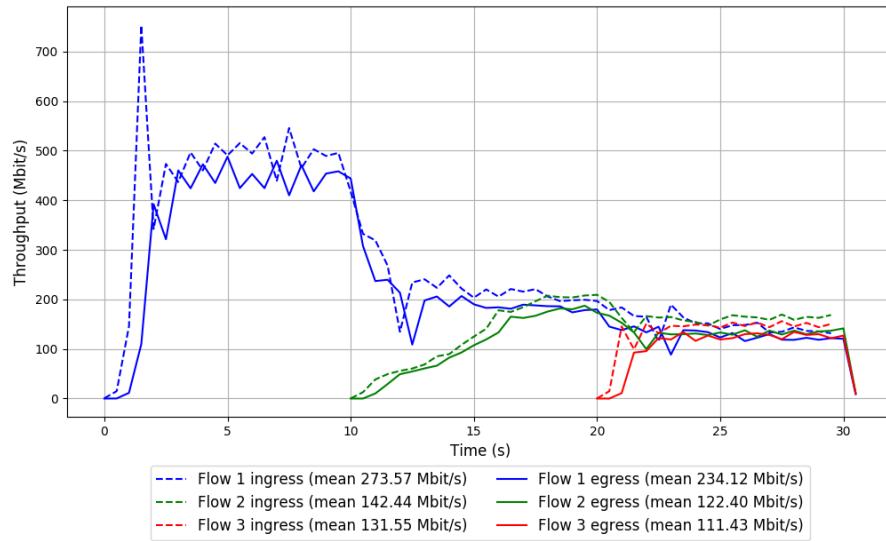


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-06-28 00:51:12
End at: 2019-06-28 00:51:42
Local clock offset: -1.987 ms
Remote clock offset: -38.267 ms

# Below is generated by plot.py at 2019-06-28 03:18:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 352.44 Mbit/s
95th percentile per-packet one-way delay: 62.721 ms
Loss rate: 14.43%
-- Flow 1:
Average throughput: 234.12 Mbit/s
95th percentile per-packet one-way delay: 62.723 ms
Loss rate: 14.42%
-- Flow 2:
Average throughput: 122.40 Mbit/s
95th percentile per-packet one-way delay: 62.509 ms
Loss rate: 14.09%
-- Flow 3:
Average throughput: 111.43 Mbit/s
95th percentile per-packet one-way delay: 63.038 ms
Loss rate: 15.28%
```

Run 1: Report of FillP-Sheep — Data Link

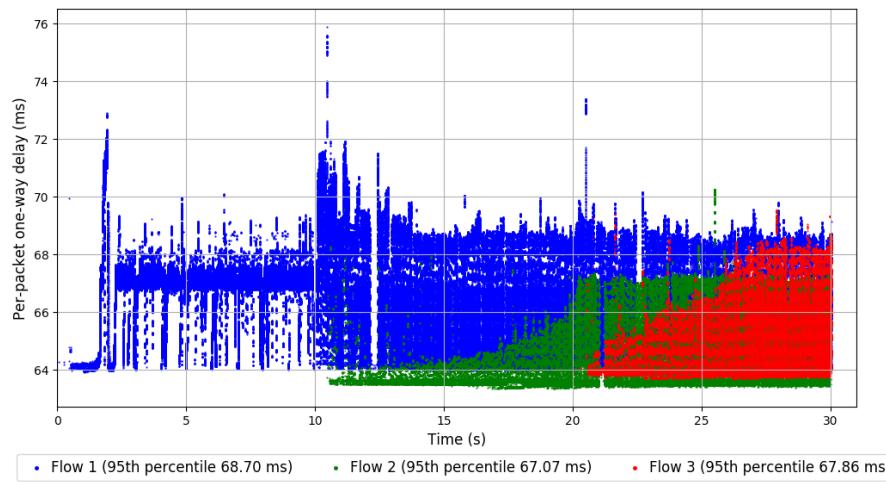
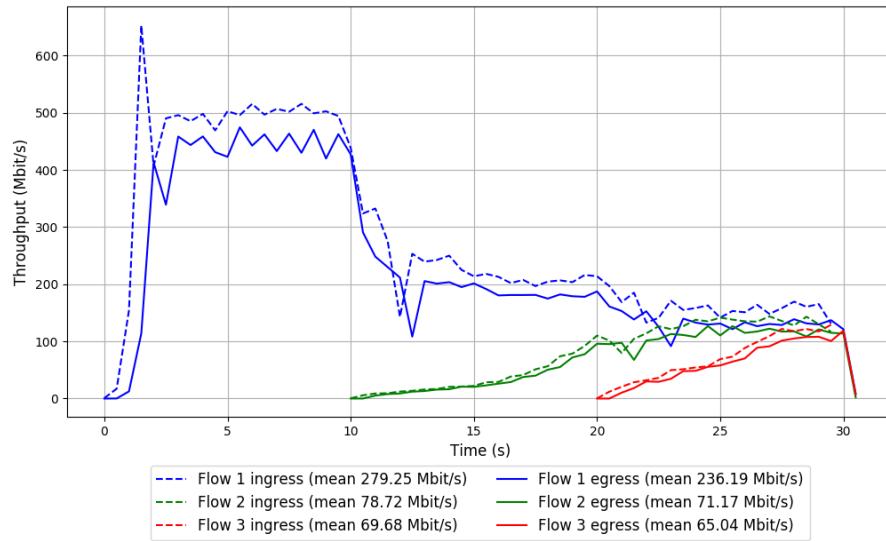


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-06-28 01:23:50
End at: 2019-06-28 01:24:20
Local clock offset: -1.544 ms
Remote clock offset: -31.983 ms

# Below is generated by plot.py at 2019-06-28 03:19:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.09 Mbit/s
95th percentile per-packet one-way delay: 68.533 ms
Loss rate: 13.99%
-- Flow 1:
Average throughput: 236.19 Mbit/s
95th percentile per-packet one-way delay: 68.701 ms
Loss rate: 15.42%
-- Flow 2:
Average throughput: 71.17 Mbit/s
95th percentile per-packet one-way delay: 67.071 ms
Loss rate: 9.60%
-- Flow 3:
Average throughput: 65.04 Mbit/s
95th percentile per-packet one-way delay: 67.861 ms
Loss rate: 6.63%
```

Run 2: Report of FillP-Sheep — Data Link

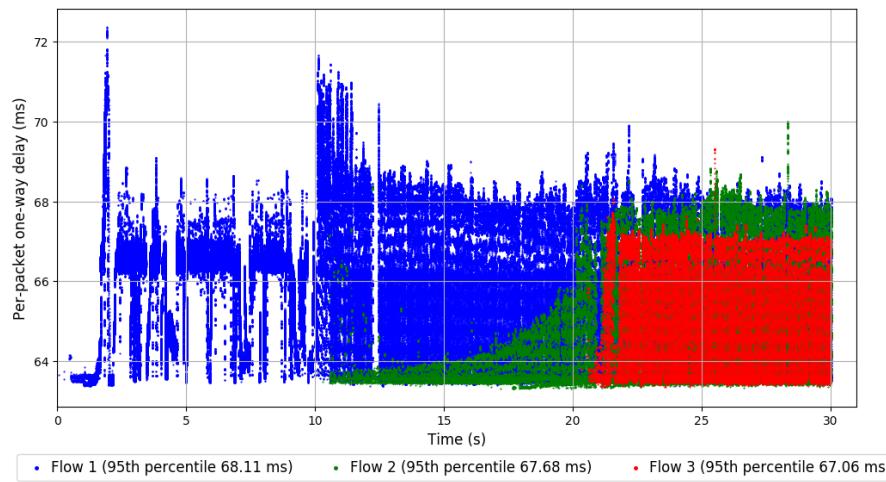
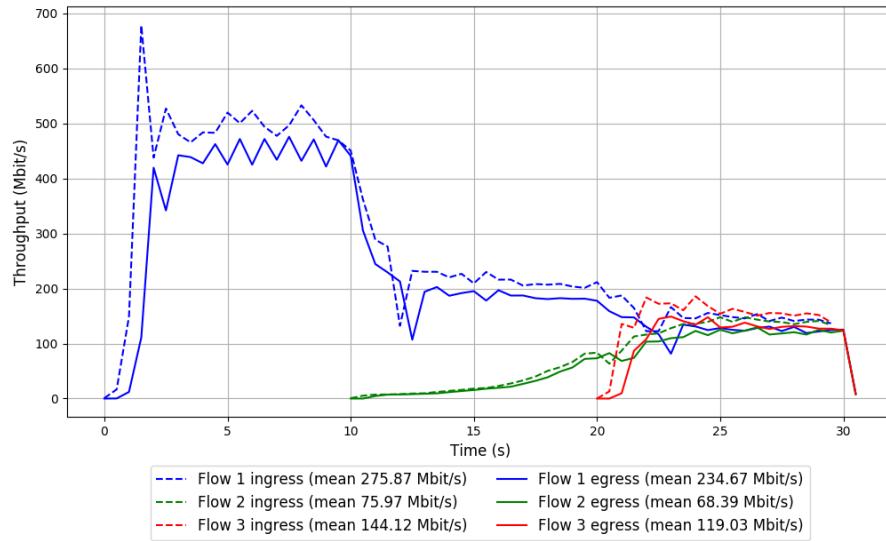


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-06-28 01:55:48
End at: 2019-06-28 01:56:18
Local clock offset: -1.779 ms
Remote clock offset: -32.6 ms

# Below is generated by plot.py at 2019-06-28 03:19:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 319.44 Mbit/s
95th percentile per-packet one-way delay: 67.945 ms
Loss rate: 14.58%
-- Flow 1:
Average throughput: 234.67 Mbit/s
95th percentile per-packet one-way delay: 68.113 ms
Loss rate: 14.93%
-- Flow 2:
Average throughput: 68.39 Mbit/s
95th percentile per-packet one-way delay: 67.676 ms
Loss rate: 9.97%
-- Flow 3:
Average throughput: 119.03 Mbit/s
95th percentile per-packet one-way delay: 67.059 ms
Loss rate: 17.41%
```

Run 3: Report of FillP-Sheep — Data Link

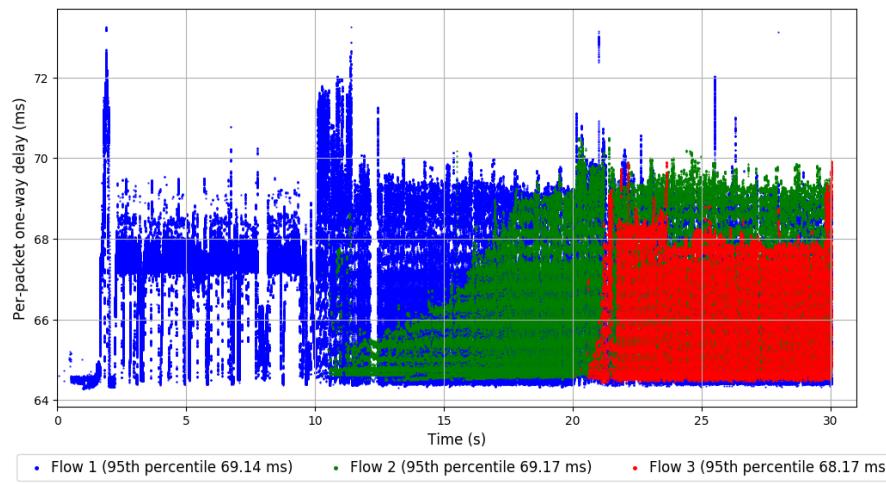
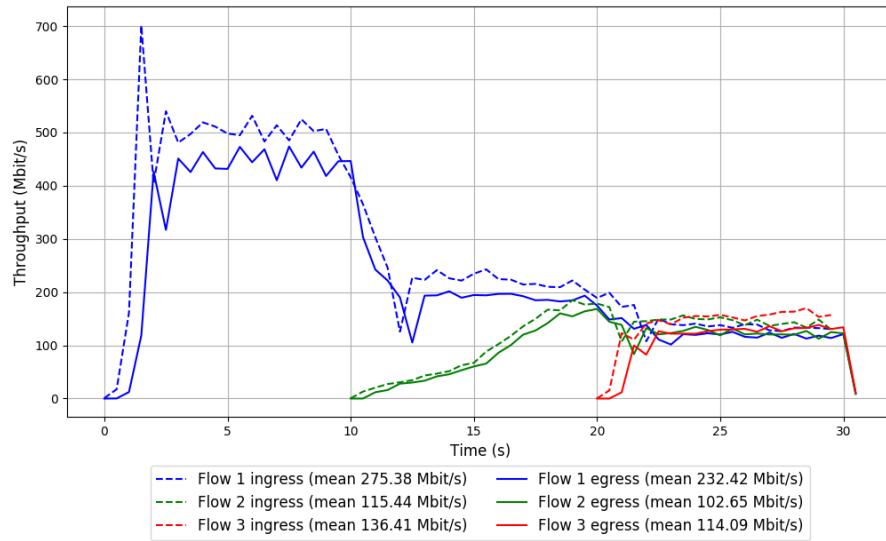


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-06-28 02:27:56
End at: 2019-06-28 02:28:26
Local clock offset: -2.044 ms
Remote clock offset: -33.43 ms

# Below is generated by plot.py at 2019-06-28 03:22:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.52 Mbit/s
95th percentile per-packet one-way delay: 69.090 ms
Loss rate: 14.81%
-- Flow 1:
Average throughput: 232.42 Mbit/s
95th percentile per-packet one-way delay: 69.144 ms
Loss rate: 15.60%
-- Flow 2:
Average throughput: 102.65 Mbit/s
95th percentile per-packet one-way delay: 69.174 ms
Loss rate: 11.09%
-- Flow 3:
Average throughput: 114.09 Mbit/s
95th percentile per-packet one-way delay: 68.165 ms
Loss rate: 16.36%
```

Run 4: Report of FillP-Sheep — Data Link

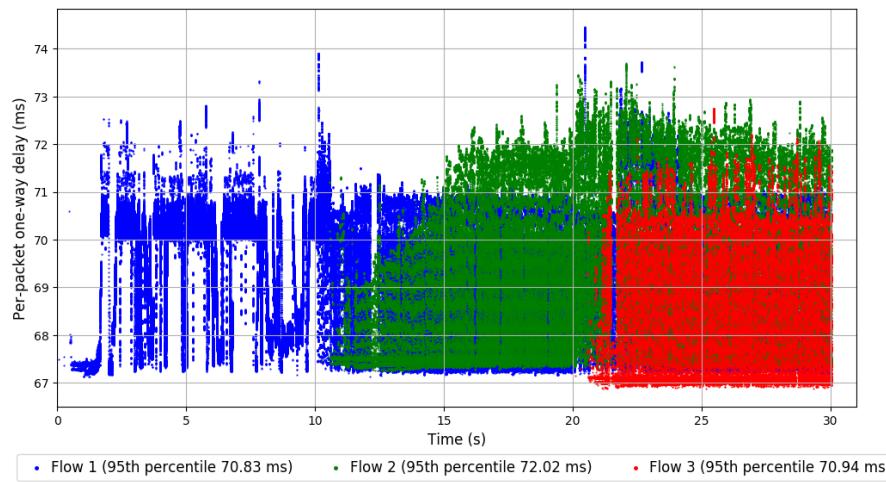
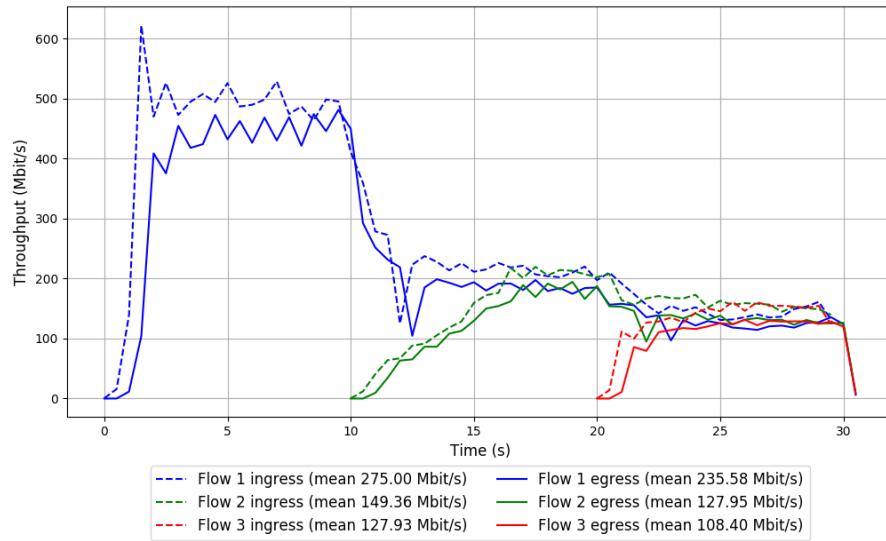


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-06-28 03:00:07
End at: 2019-06-28 03:00:37
Local clock offset: -1.293 ms
Remote clock offset: -33.358 ms

# Below is generated by plot.py at 2019-06-28 03:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 356.47 Mbit/s
95th percentile per-packet one-way delay: 71.393 ms
Loss rate: 14.43%
-- Flow 1:
Average throughput: 235.58 Mbit/s
95th percentile per-packet one-way delay: 70.835 ms
Loss rate: 14.33%
-- Flow 2:
Average throughput: 127.95 Mbit/s
95th percentile per-packet one-way delay: 72.018 ms
Loss rate: 14.34%
-- Flow 3:
Average throughput: 108.40 Mbit/s
95th percentile per-packet one-way delay: 70.941 ms
Loss rate: 15.27%
```

Run 5: Report of FillP-Sheep — Data Link

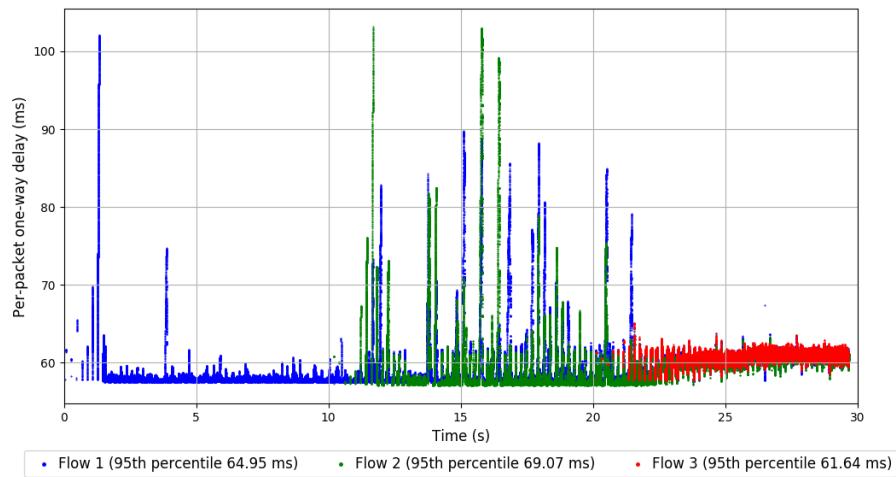
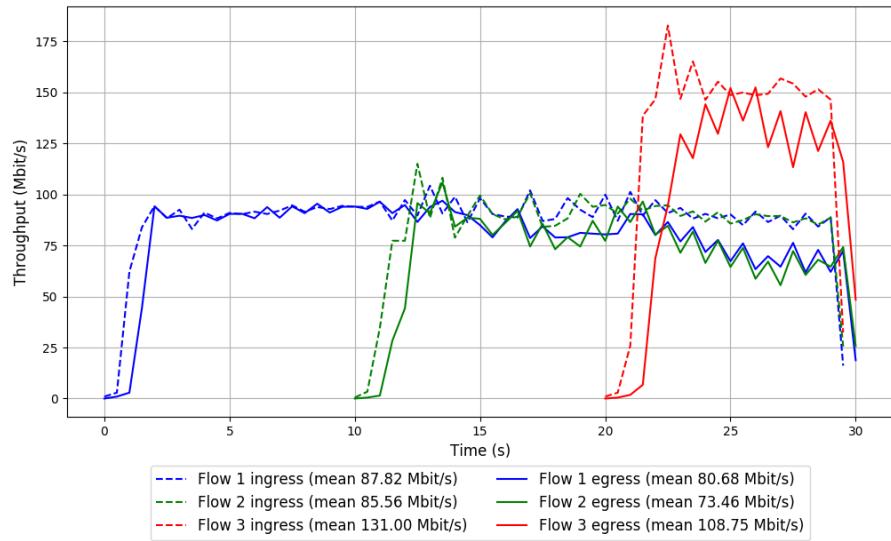


Run 1: Statistics of Indigo

```
Start at: 2019-06-28 00:37:40
End at: 2019-06-28 00:38:10
Local clock offset: -1.864 ms
Remote clock offset: -39.479 ms

# Below is generated by plot.py at 2019-06-28 03:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 163.95 Mbit/s
95th percentile per-packet one-way delay: 64.045 ms
Loss rate: 11.94%
-- Flow 1:
Average throughput: 80.68 Mbit/s
95th percentile per-packet one-way delay: 64.955 ms
Loss rate: 8.12%
-- Flow 2:
Average throughput: 73.46 Mbit/s
95th percentile per-packet one-way delay: 69.066 ms
Loss rate: 14.13%
-- Flow 3:
Average throughput: 108.75 Mbit/s
95th percentile per-packet one-way delay: 61.639 ms
Loss rate: 16.97%
```

Run 1: Report of Indigo — Data Link

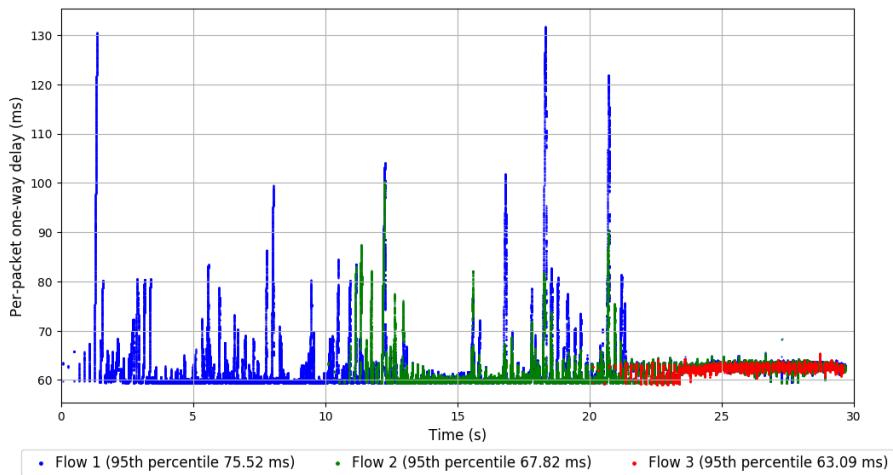
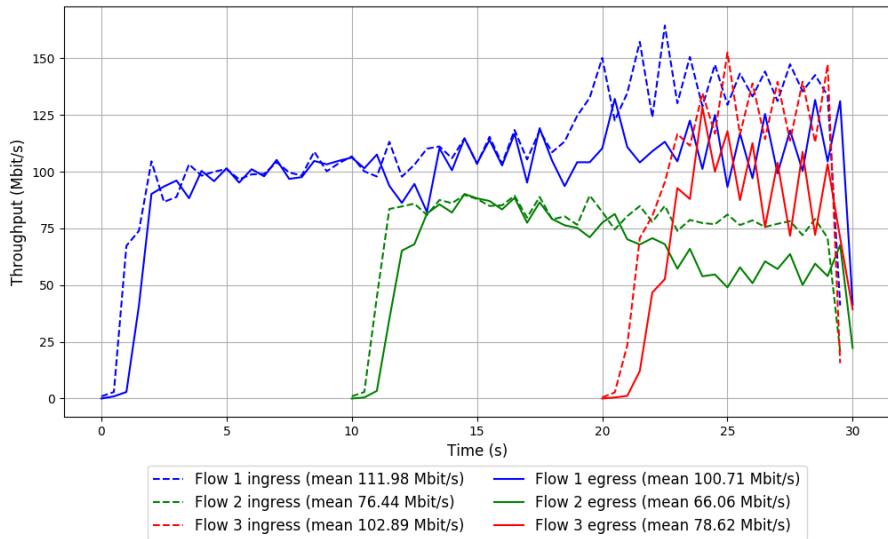


Run 2: Statistics of Indigo

```
Start at: 2019-06-28 01:10:02
End at: 2019-06-28 01:10:32
Local clock offset: -2.237 ms
Remote clock offset: -37.421 ms

# Below is generated by plot.py at 2019-06-28 03:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 169.43 Mbit/s
95th percentile per-packet one-way delay: 70.718 ms
Loss rate: 13.23%
-- Flow 1:
Average throughput: 100.71 Mbit/s
95th percentile per-packet one-way delay: 75.515 ms
Loss rate: 10.06%
-- Flow 2:
Average throughput: 66.06 Mbit/s
95th percentile per-packet one-way delay: 67.821 ms
Loss rate: 13.56%
-- Flow 3:
Average throughput: 78.62 Mbit/s
95th percentile per-packet one-way delay: 63.088 ms
Loss rate: 23.56%
```

Run 2: Report of Indigo — Data Link

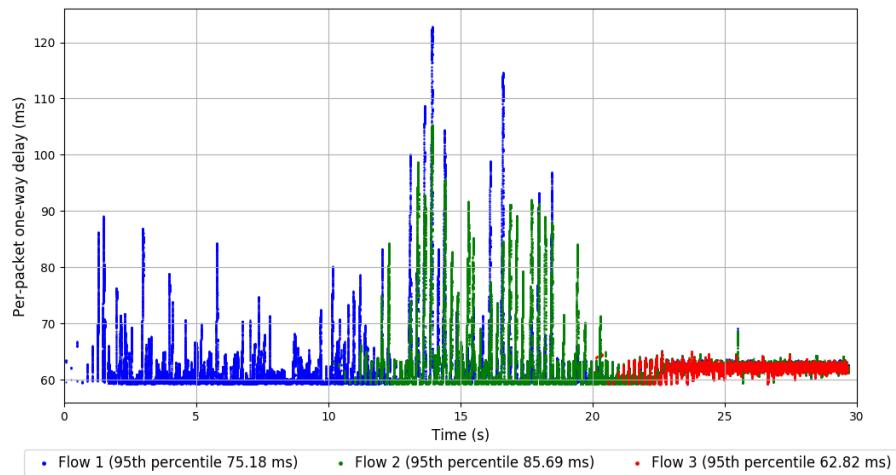
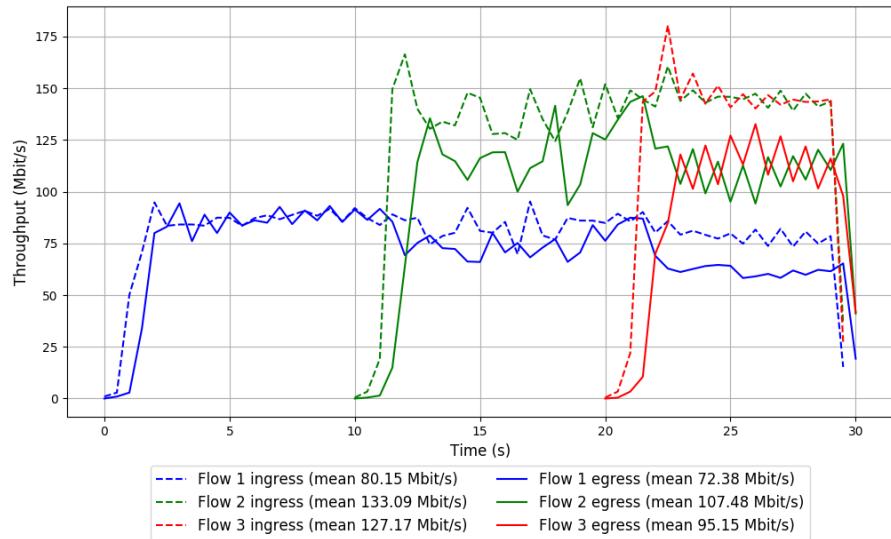


Run 3: Statistics of Indigo

```
Start at: 2019-06-28 01:42:16
End at: 2019-06-28 01:42:46
Local clock offset: -2.381 ms
Remote clock offset: -37.126 ms

# Below is generated by plot.py at 2019-06-28 03:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 173.55 Mbit/s
95th percentile per-packet one-way delay: 78.745 ms
Loss rate: 16.73%
-- Flow 1:
Average throughput: 72.38 Mbit/s
95th percentile per-packet one-way delay: 75.181 ms
Loss rate: 9.69%
-- Flow 2:
Average throughput: 107.48 Mbit/s
95th percentile per-packet one-way delay: 85.686 ms
Loss rate: 19.23%
-- Flow 3:
Average throughput: 95.15 Mbit/s
95th percentile per-packet one-way delay: 62.819 ms
Loss rate: 25.18%
```

Run 3: Report of Indigo — Data Link

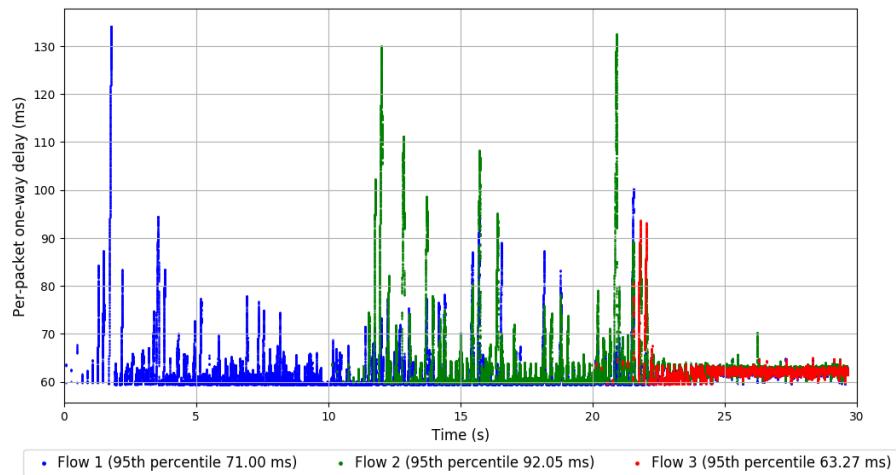
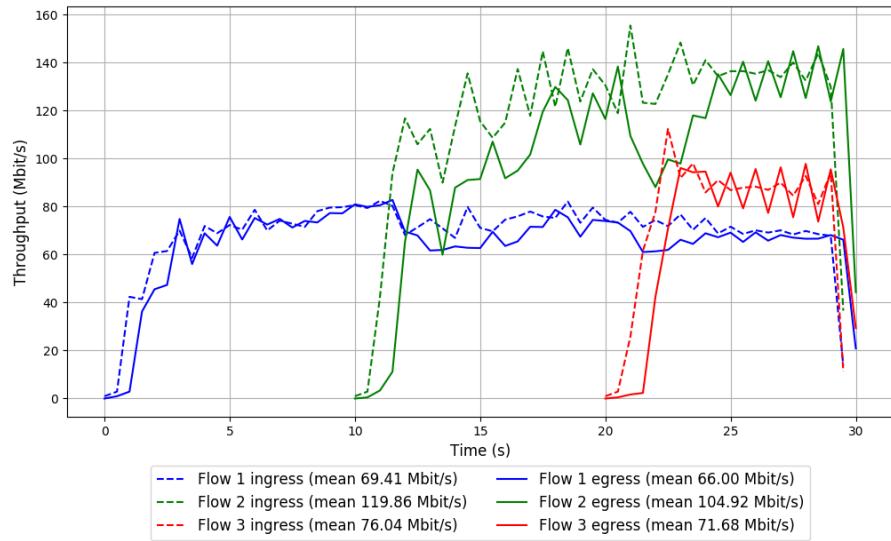


Run 4: Statistics of Indigo

```
Start at: 2019-06-28 02:14:23
End at: 2019-06-28 02:14:53
Local clock offset: -2.094 ms
Remote clock offset: -38.704 ms

# Below is generated by plot.py at 2019-06-28 03:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 158.33 Mbit/s
95th percentile per-packet one-way delay: 76.350 ms
Loss rate: 8.47%
-- Flow 1:
Average throughput: 66.00 Mbit/s
95th percentile per-packet one-way delay: 70.995 ms
Loss rate: 4.90%
-- Flow 2:
Average throughput: 104.92 Mbit/s
95th percentile per-packet one-way delay: 92.053 ms
Loss rate: 12.45%
-- Flow 3:
Average throughput: 71.68 Mbit/s
95th percentile per-packet one-way delay: 63.274 ms
Loss rate: 5.75%
```

Run 4: Report of Indigo — Data Link

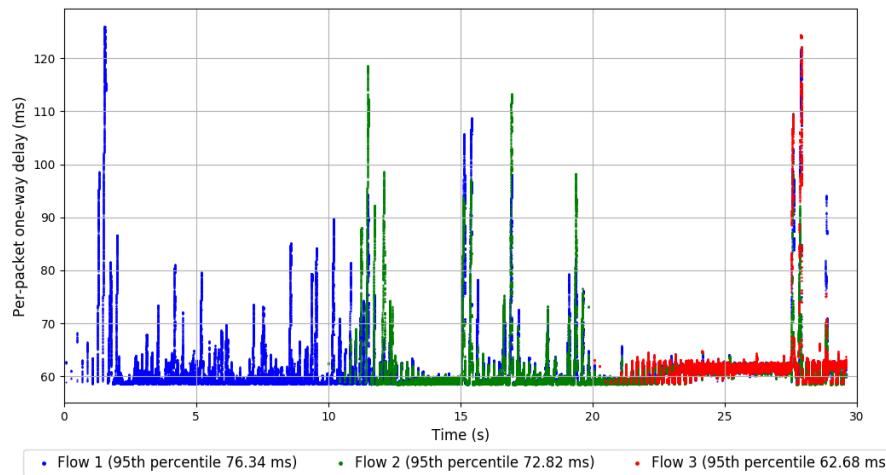
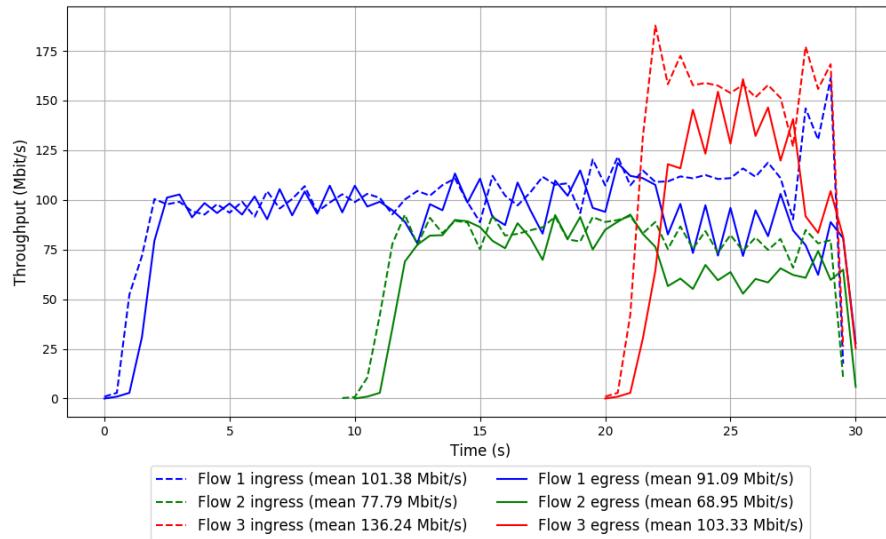


Run 5: Statistics of Indigo

```
Start at: 2019-06-28 02:46:37
End at: 2019-06-28 02:47:07
Local clock offset: -1.098 ms
Remote clock offset: -39.074 ms

# Below is generated by plot.py at 2019-06-28 03:22:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 170.13 Mbit/s
95th percentile per-packet one-way delay: 73.391 ms
Loss rate: 13.59%
-- Flow 1:
Average throughput: 91.09 Mbit/s
95th percentile per-packet one-way delay: 76.343 ms
Loss rate: 10.15%
-- Flow 2:
Average throughput: 68.95 Mbit/s
95th percentile per-packet one-way delay: 72.817 ms
Loss rate: 11.36%
-- Flow 3:
Average throughput: 103.33 Mbit/s
95th percentile per-packet one-way delay: 62.680 ms
Loss rate: 24.15%
```

Run 5: Report of Indigo — Data Link

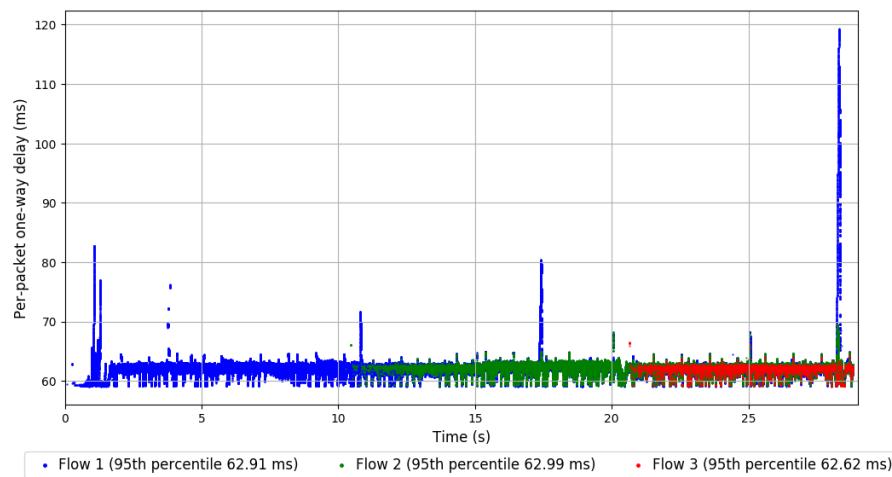
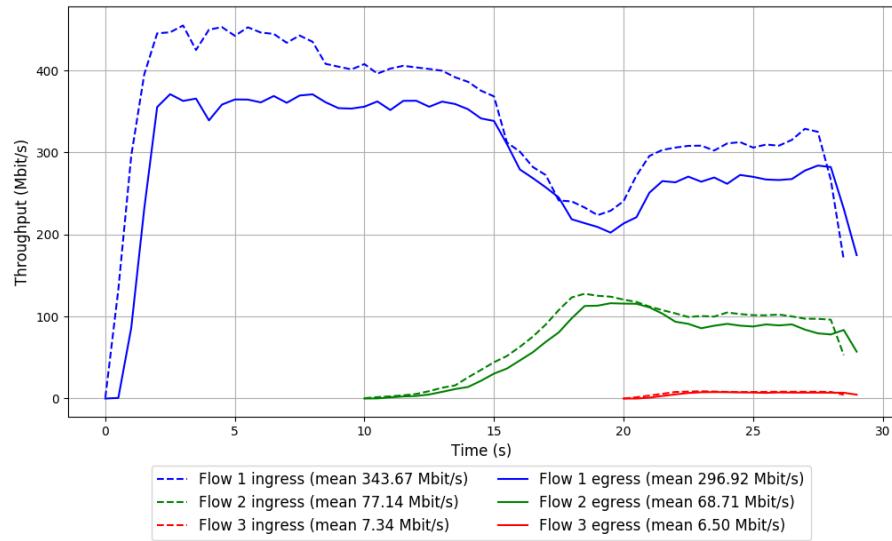


```
Run 1: Statistics of Indigo-MusesC3
```

```
Start at: 2019-06-28 00:39:09
End at: 2019-06-28 00:39:39
Local clock offset: -1.996 ms
Remote clock offset: -37.956 ms

# Below is generated by plot.py at 2019-06-28 03:23:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 343.17 Mbit/s
95th percentile per-packet one-way delay: 62.928 ms
Loss rate: 13.25%
-- Flow 1:
Average throughput: 296.92 Mbit/s
95th percentile per-packet one-way delay: 62.915 ms
Loss rate: 13.60%
-- Flow 2:
Average throughput: 68.71 Mbit/s
95th percentile per-packet one-way delay: 62.989 ms
Loss rate: 10.93%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 62.617 ms
Loss rate: 11.35%
```

Run 1: Report of Indigo-MusesC3 — Data Link

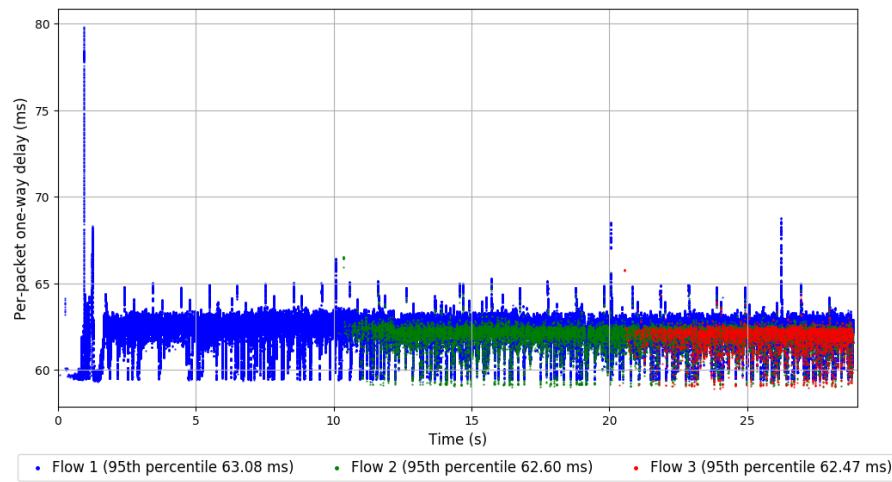
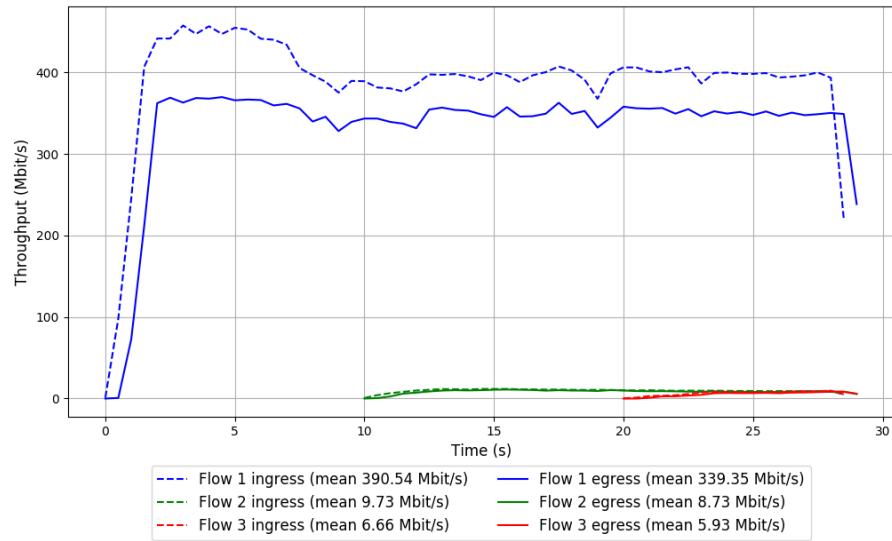


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 01:11:34
End at: 2019-06-28 01:12:04
Local clock offset: -1.901 ms
Remote clock offset: -37.539 ms

# Below is generated by plot.py at 2019-06-28 03:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 346.77 Mbit/s
95th percentile per-packet one-way delay: 63.072 ms
Loss rate: 13.04%
-- Flow 1:
Average throughput: 339.35 Mbit/s
95th percentile per-packet one-way delay: 63.075 ms
Loss rate: 13.10%
-- Flow 2:
Average throughput: 8.73 Mbit/s
95th percentile per-packet one-way delay: 62.600 ms
Loss rate: 10.21%
-- Flow 3:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 62.469 ms
Loss rate: 11.01%
```

Run 2: Report of Indigo-MusesC3 — Data Link

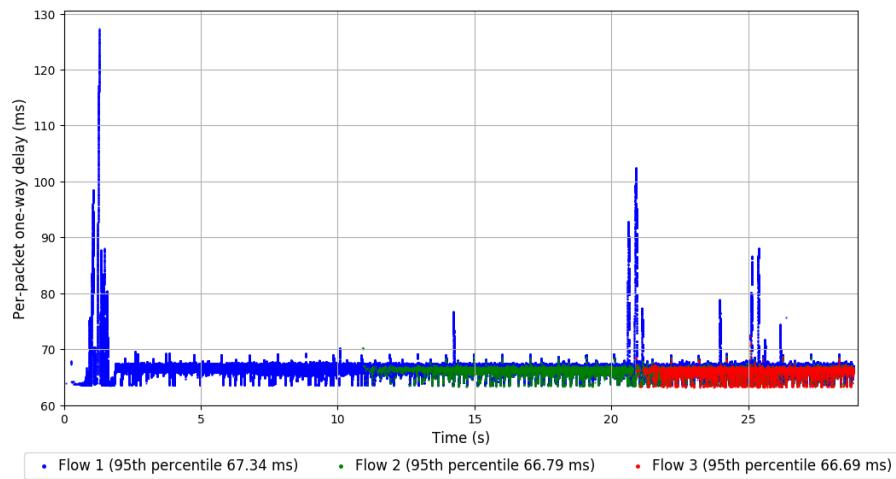
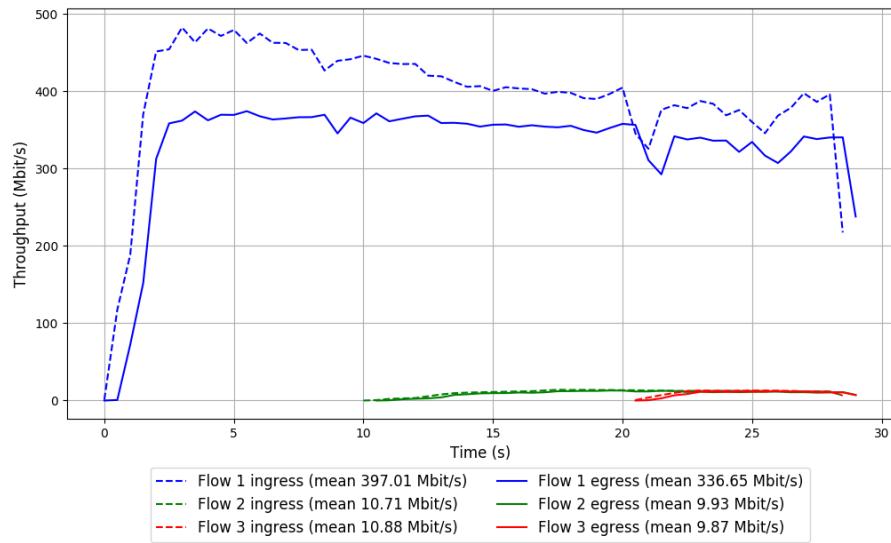


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 01:43:47
End at: 2019-06-28 01:44:17
Local clock offset: -2.5 ms
Remote clock offset: -33.157 ms

# Below is generated by plot.py at 2019-06-28 03:23:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.70 Mbit/s
95th percentile per-packet one-way delay: 67.327 ms
Loss rate: 15.06%
-- Flow 1:
Average throughput: 336.65 Mbit/s
95th percentile per-packet one-way delay: 67.336 ms
Loss rate: 15.20%
-- Flow 2:
Average throughput: 9.93 Mbit/s
95th percentile per-packet one-way delay: 66.792 ms
Loss rate: 9.84%
-- Flow 3:
Average throughput: 9.87 Mbit/s
95th percentile per-packet one-way delay: 66.692 ms
Loss rate: 9.31%
```

Run 3: Report of Indigo-MusesC3 — Data Link

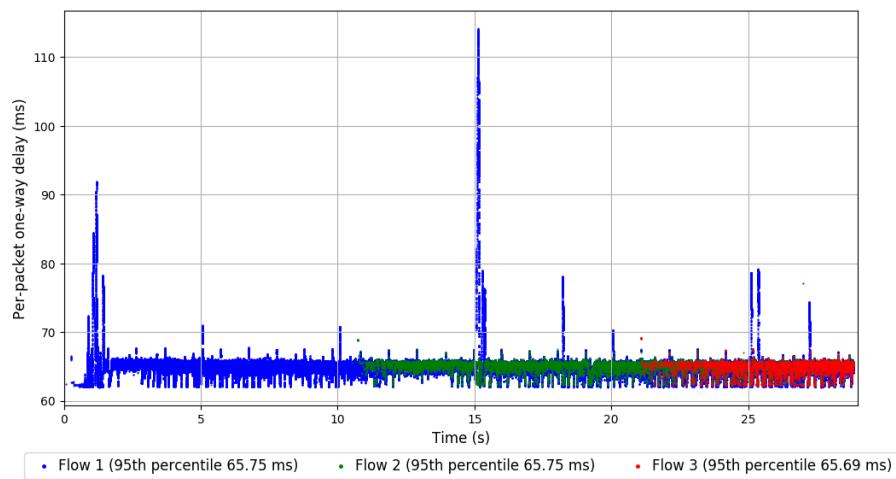
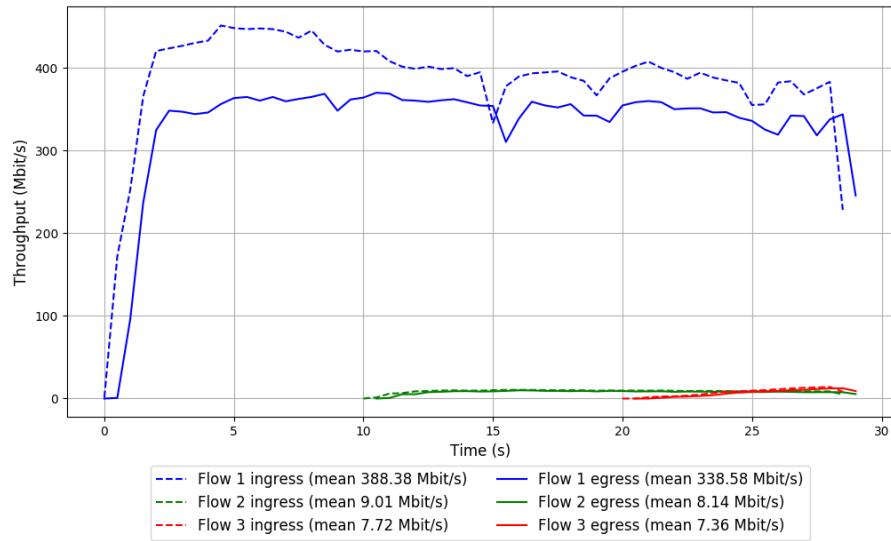


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 02:15:53
End at: 2019-06-28 02:16:23
Local clock offset: -2.028 ms
Remote clock offset: -36.198 ms

# Below is generated by plot.py at 2019-06-28 03:24:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.79 Mbit/s
95th percentile per-packet one-way delay: 65.752 ms
Loss rate: 12.75%
-- Flow 1:
Average throughput: 338.58 Mbit/s
95th percentile per-packet one-way delay: 65.752 ms
Loss rate: 12.81%
-- Flow 2:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: 65.747 ms
Loss rate: 9.71%
-- Flow 3:
Average throughput: 7.36 Mbit/s
95th percentile per-packet one-way delay: 65.685 ms
Loss rate: 10.26%
```

Run 4: Report of Indigo-MusesC3 — Data Link

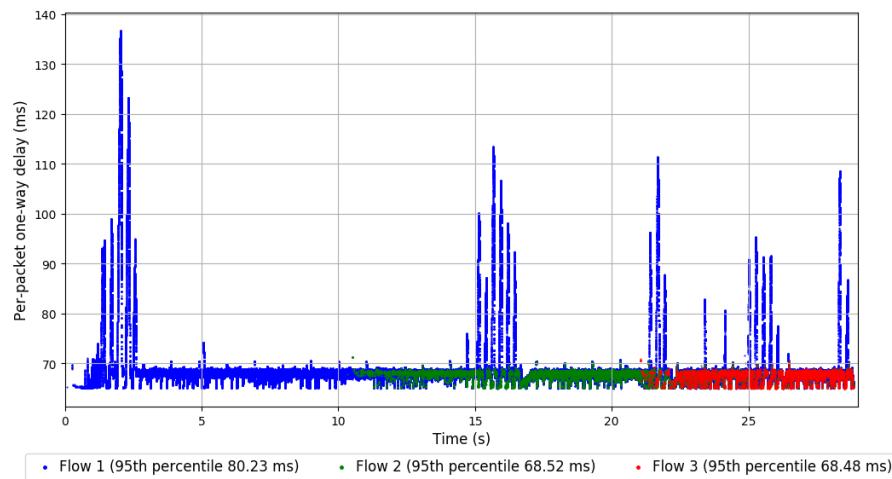
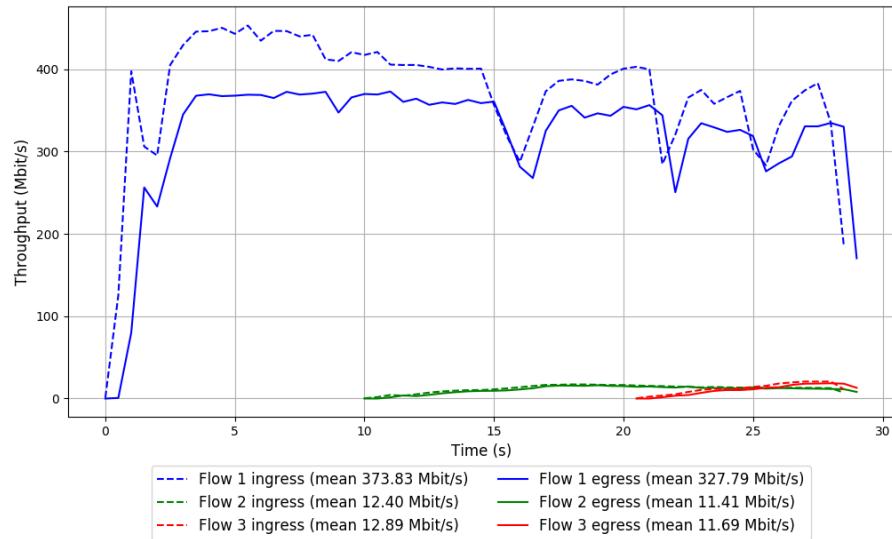


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-06-28 02:48:06
End at: 2019-06-28 02:48:36
Local clock offset: -2.75 ms
Remote clock offset: -34.254 ms

# Below is generated by plot.py at 2019-06-28 03:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.37 Mbit/s
95th percentile per-packet one-way delay: 79.519 ms
Loss rate: 12.20%
-- Flow 1:
Average throughput: 327.79 Mbit/s
95th percentile per-packet one-way delay: 80.231 ms
Loss rate: 12.31%
-- Flow 2:
Average throughput: 11.41 Mbit/s
95th percentile per-packet one-way delay: 68.516 ms
Loss rate: 8.04%
-- Flow 3:
Average throughput: 11.69 Mbit/s
95th percentile per-packet one-way delay: 68.484 ms
Loss rate: 9.34%
```

Run 5: Report of Indigo-MusesC3 — Data Link

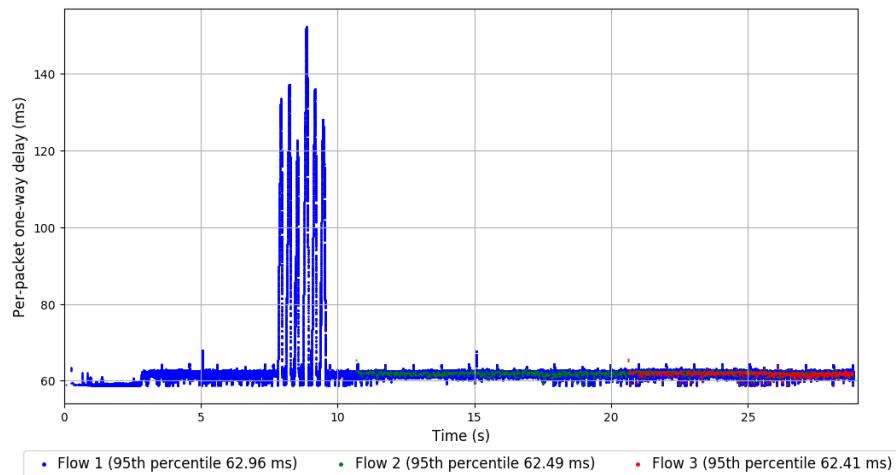
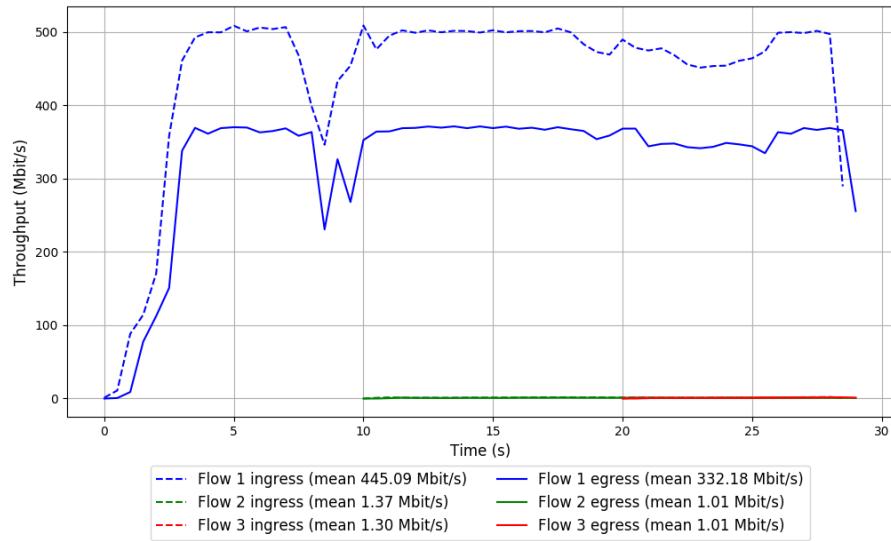


```
Run 1: Statistics of Indigo-MusesC5
```

```
Start at: 2019-06-28 00:30:21
End at: 2019-06-28 00:30:51
Local clock offset: -1.397 ms
Remote clock offset: -37.957 ms

# Below is generated by plot.py at 2019-06-28 03:25:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.11 Mbit/s
95th percentile per-packet one-way delay: 62.958 ms
Loss rate: 25.36%
-- Flow 1:
Average throughput: 332.18 Mbit/s
95th percentile per-packet one-way delay: 62.964 ms
Loss rate: 25.36%
-- Flow 2:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 62.495 ms
Loss rate: 26.50%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 62.410 ms
Loss rate: 22.29%
```

Run 1: Report of Indigo-MusesC5 — Data Link

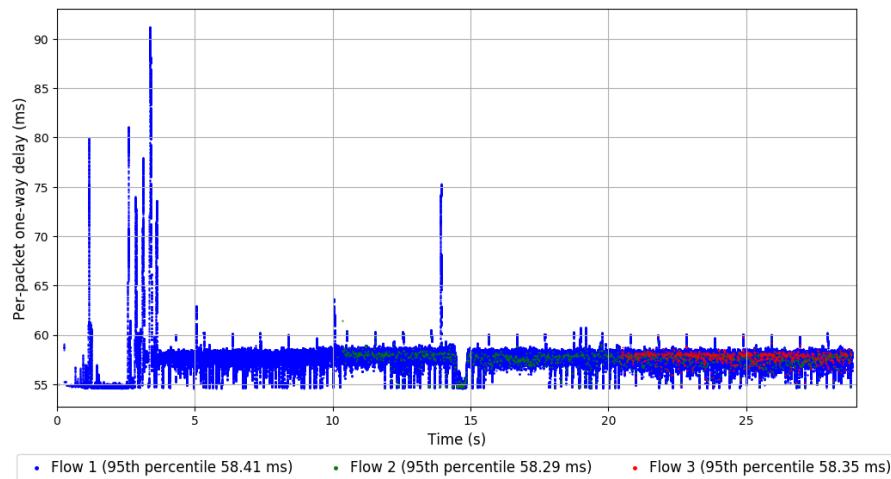
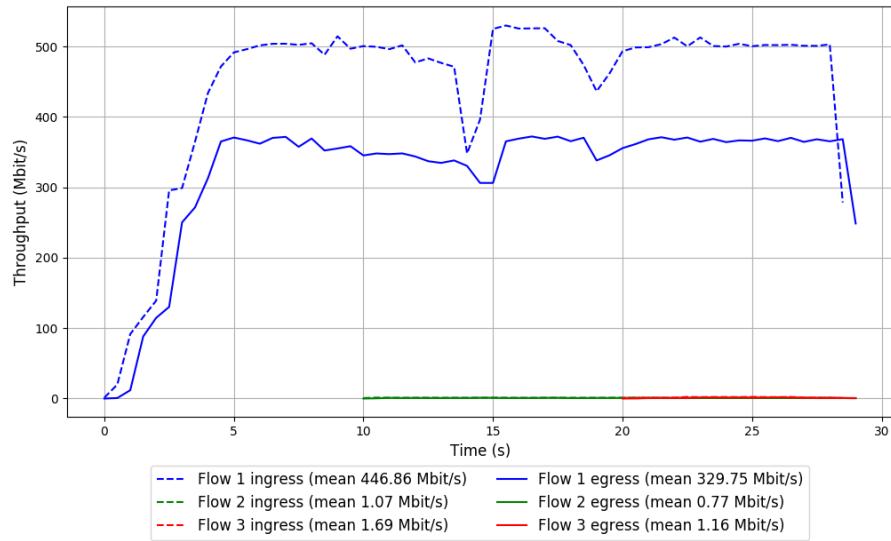


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 01:02:25
End at: 2019-06-28 01:02:55
Local clock offset: -1.472 ms
Remote clock offset: -41.537 ms

# Below is generated by plot.py at 2019-06-28 03:26:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.59 Mbit/s
95th percentile per-packet one-way delay: 58.415 ms
Loss rate: 26.21%
-- Flow 1:
Average throughput: 329.75 Mbit/s
95th percentile per-packet one-way delay: 58.415 ms
Loss rate: 26.20%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 58.291 ms
Loss rate: 27.46%
-- Flow 3:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 58.351 ms
Loss rate: 31.48%
```

Run 2: Report of Indigo-MusesC5 — Data Link

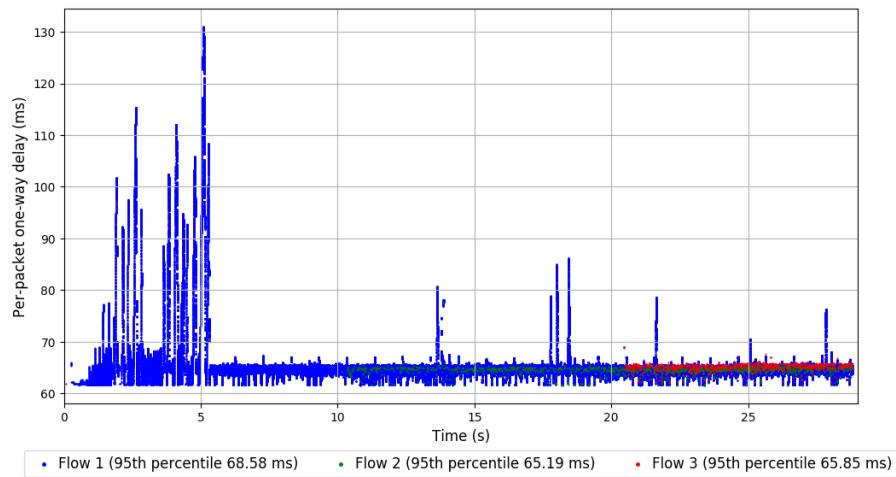
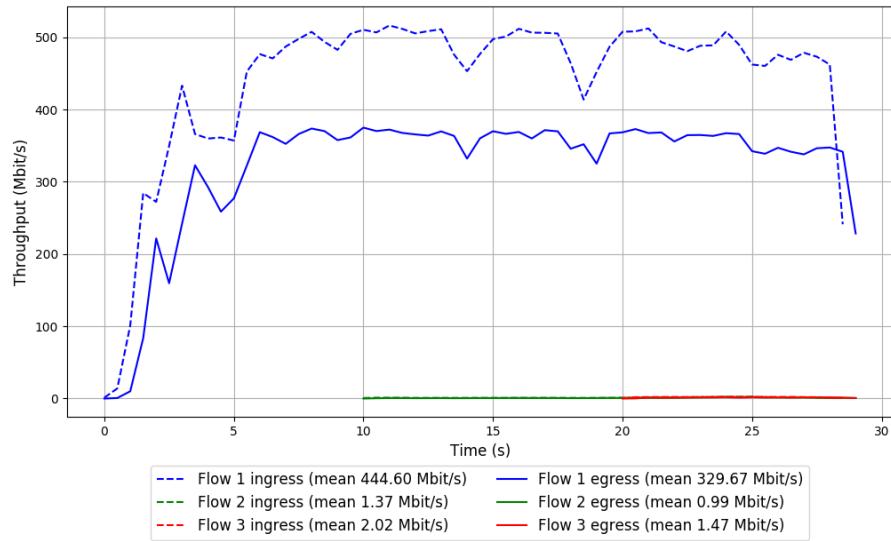


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 01:34:57
End at: 2019-06-28 01:35:27
Local clock offset: -1.686 ms
Remote clock offset: -33.671 ms

# Below is generated by plot.py at 2019-06-28 03:27:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.76 Mbit/s
95th percentile per-packet one-way delay: 68.519 ms
Loss rate: 25.85%
-- Flow 1:
Average throughput: 329.67 Mbit/s
95th percentile per-packet one-way delay: 68.585 ms
Loss rate: 25.84%
-- Flow 2:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 65.186 ms
Loss rate: 27.61%
-- Flow 3:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 65.852 ms
Loss rate: 27.19%
```

Run 3: Report of Indigo-MusesC5 — Data Link

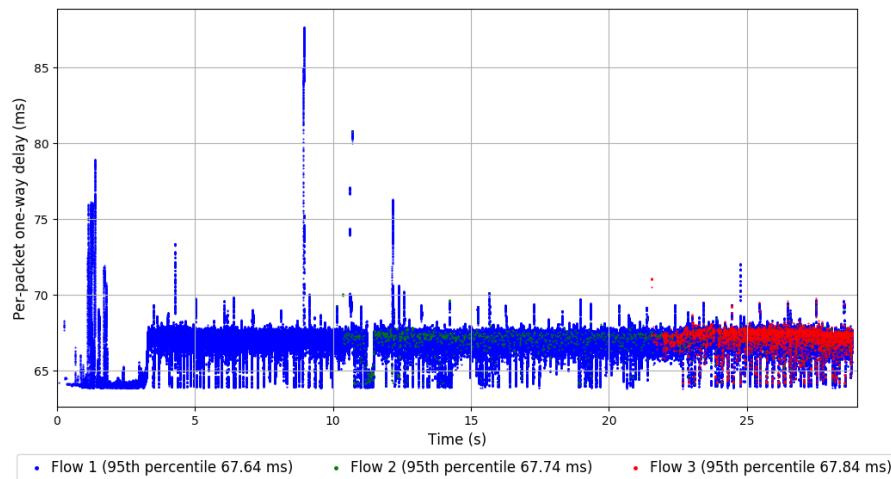
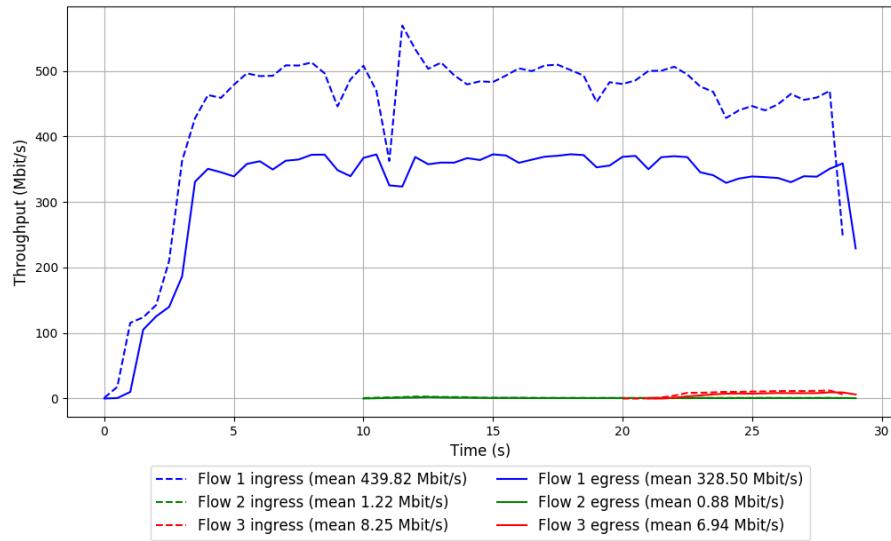


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 02:06:59
End at: 2019-06-28 02:07:29
Local clock offset: -1.628 ms
Remote clock offset: -33.197 ms

# Below is generated by plot.py at 2019-06-28 03:27:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.88 Mbit/s
95th percentile per-packet one-way delay: 67.643 ms
Loss rate: 25.31%
-- Flow 1:
Average throughput: 328.50 Mbit/s
95th percentile per-packet one-way delay: 67.640 ms
Loss rate: 25.30%
-- Flow 2:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 67.736 ms
Loss rate: 27.75%
-- Flow 3:
Average throughput: 6.94 Mbit/s
95th percentile per-packet one-way delay: 67.844 ms
Loss rate: 25.78%
```

Run 4: Report of Indigo-MusesC5 — Data Link

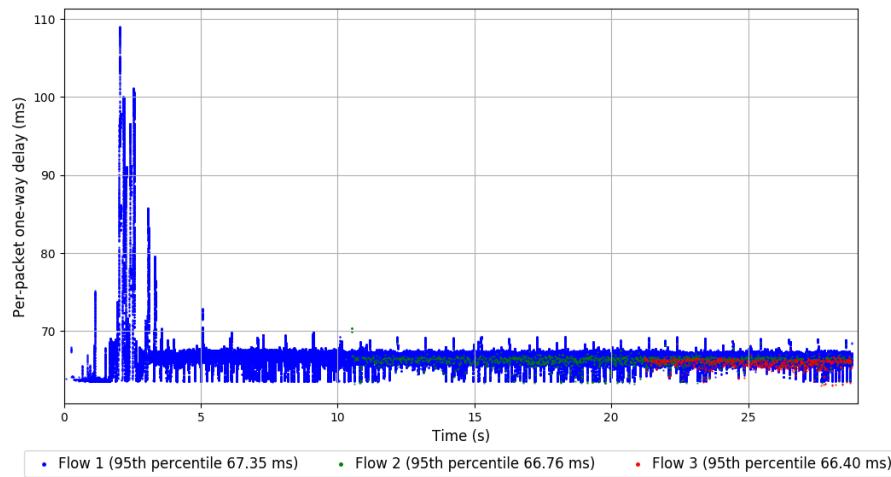
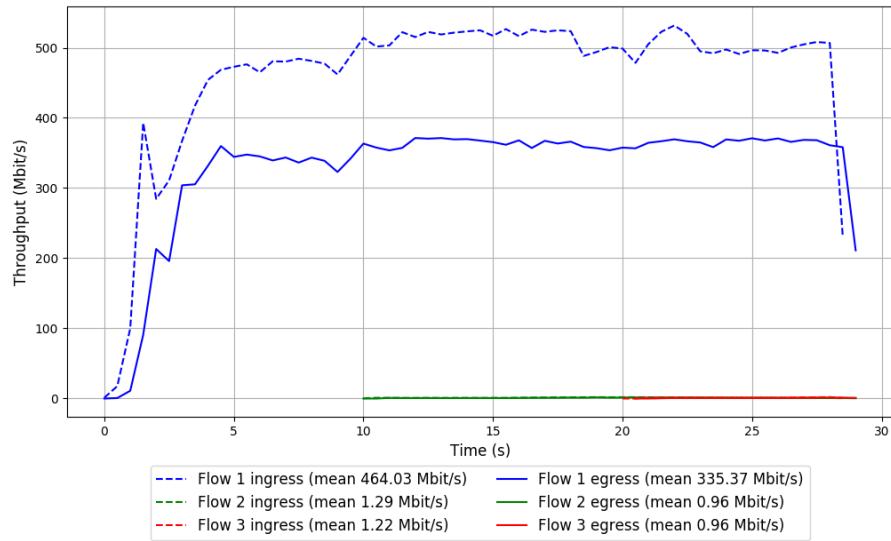


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-06-28 02:39:10
End at: 2019-06-28 02:39:40
Local clock offset: -1.873 ms
Remote clock offset: -34.862 ms

# Below is generated by plot.py at 2019-06-28 03:28:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 336.25 Mbit/s
95th percentile per-packet one-way delay: 67.347 ms
Loss rate: 27.71%
-- Flow 1:
Average throughput: 335.37 Mbit/s
95th percentile per-packet one-way delay: 67.348 ms
Loss rate: 27.72%
-- Flow 2:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 66.759 ms
Loss rate: 25.67%
-- Flow 3:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 66.404 ms
Loss rate: 26.01%
```

Run 5: Report of Indigo-MusesC5 — Data Link

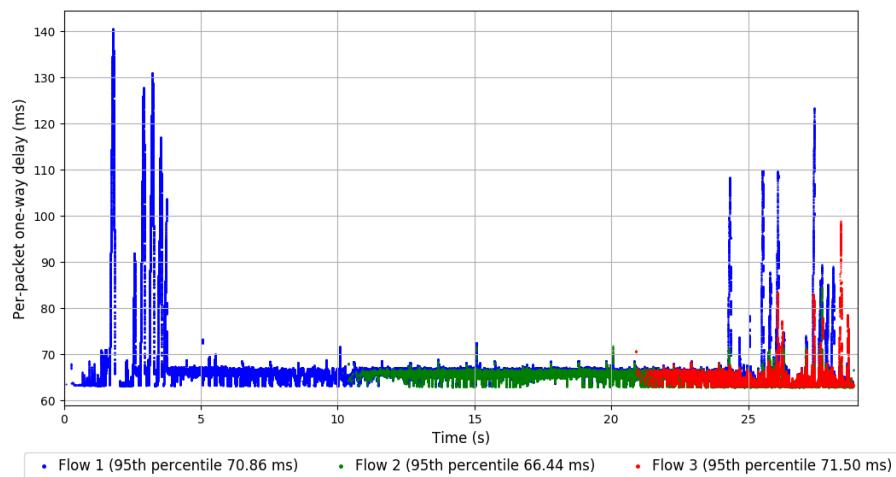
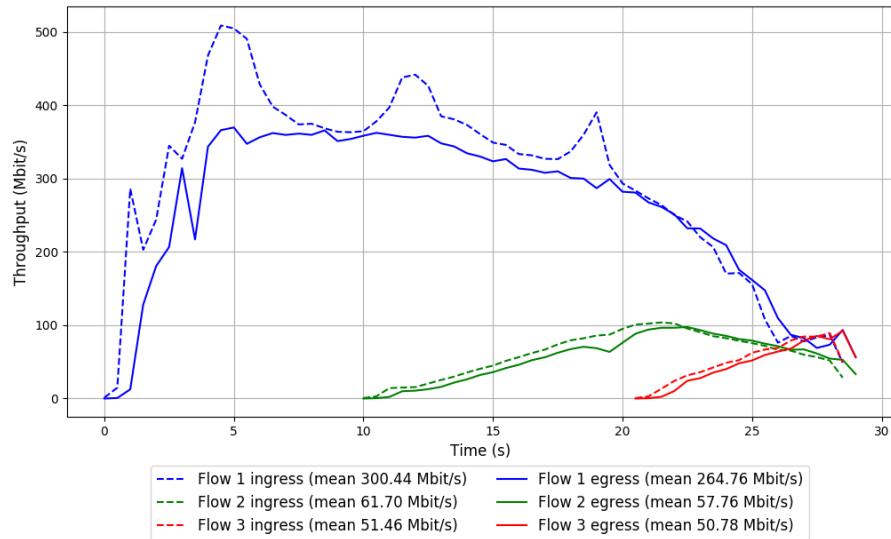


```
Run 1: Statistics of Indigo-MusesD
```

```
Start at: 2019-06-28 00:40:46
End at: 2019-06-28 00:41:16
Local clock offset: -0.926 ms
Remote clock offset: -32.966 ms

# Below is generated by plot.py at 2019-06-28 03:28:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.58 Mbit/s
95th percentile per-packet one-way delay: 68.825 ms
Loss rate: 10.82%
-- Flow 1:
Average throughput: 264.76 Mbit/s
95th percentile per-packet one-way delay: 70.858 ms
Loss rate: 11.87%
-- Flow 2:
Average throughput: 57.76 Mbit/s
95th percentile per-packet one-way delay: 66.436 ms
Loss rate: 6.38%
-- Flow 3:
Average throughput: 50.78 Mbit/s
95th percentile per-packet one-way delay: 71.505 ms
Loss rate: 1.33%
```

Run 1: Report of Indigo-MusesD — Data Link

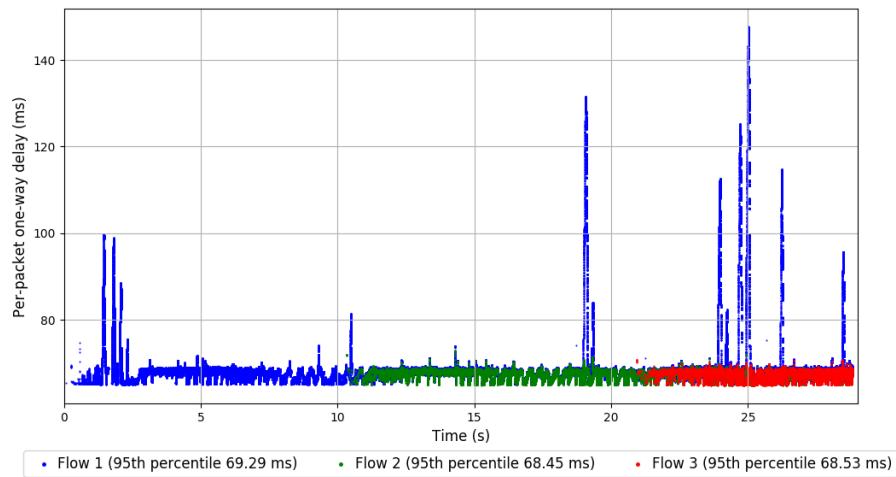
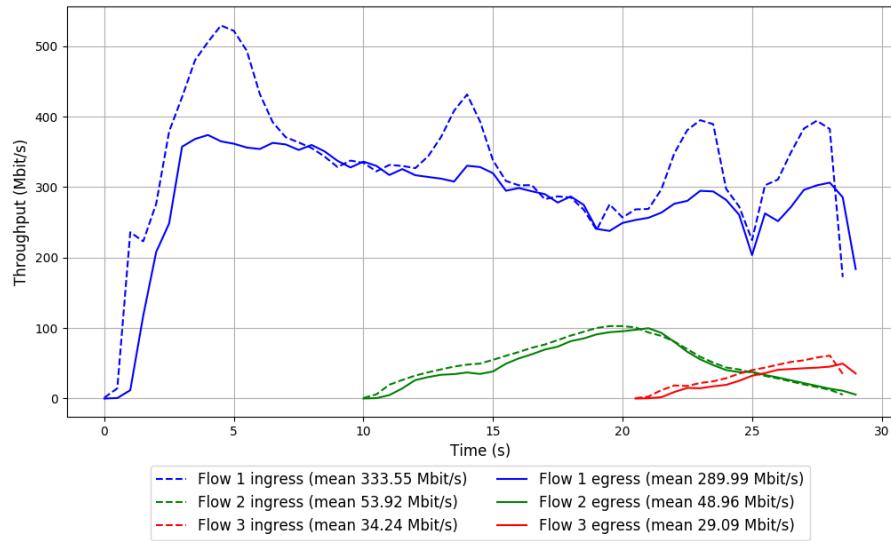


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 01:13:11
End at: 2019-06-28 01:13:41
Local clock offset: -2.105 ms
Remote clock offset: -31.839 ms

# Below is generated by plot.py at 2019-06-28 03:28:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.00 Mbit/s
95th percentile per-packet one-way delay: 69.039 ms
Loss rate: 12.74%
-- Flow 1:
Average throughput: 289.99 Mbit/s
95th percentile per-packet one-way delay: 69.288 ms
Loss rate: 13.05%
-- Flow 2:
Average throughput: 48.96 Mbit/s
95th percentile per-packet one-way delay: 68.450 ms
Loss rate: 9.19%
-- Flow 3:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 68.530 ms
Loss rate: 15.06%
```

Run 2: Report of Indigo-MusesD — Data Link

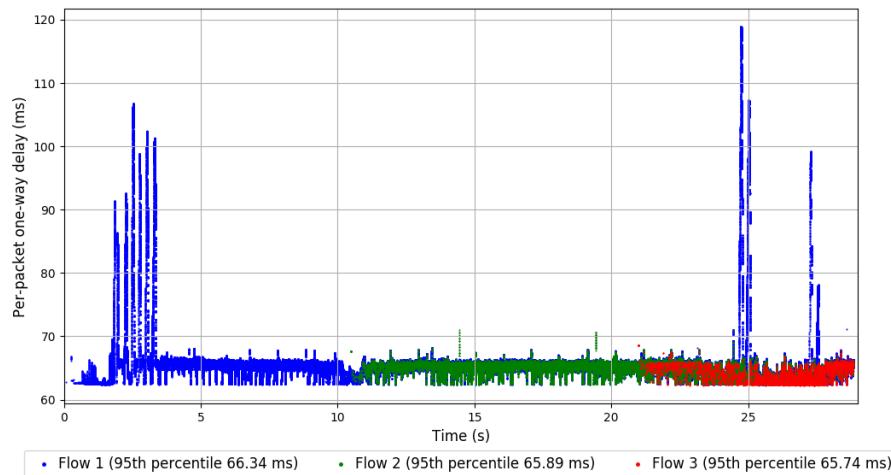
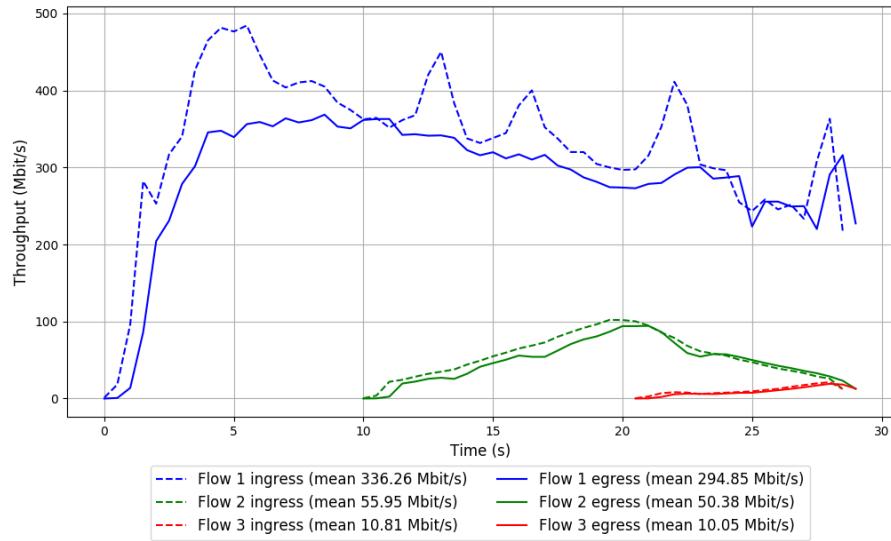


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 01:45:22
End at: 2019-06-28 01:45:52
Local clock offset: -2.068 ms
Remote clock offset: -33.685 ms

# Below is generated by plot.py at 2019-06-28 03:28:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.13 Mbit/s
95th percentile per-packet one-way delay: 66.261 ms
Loss rate: 12.04%
-- Flow 1:
Average throughput: 294.85 Mbit/s
95th percentile per-packet one-way delay: 66.345 ms
Loss rate: 12.31%
-- Flow 2:
Average throughput: 50.38 Mbit/s
95th percentile per-packet one-way delay: 65.893 ms
Loss rate: 9.94%
-- Flow 3:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 65.736 ms
Loss rate: 7.01%
```

Run 3: Report of Indigo-MusesD — Data Link

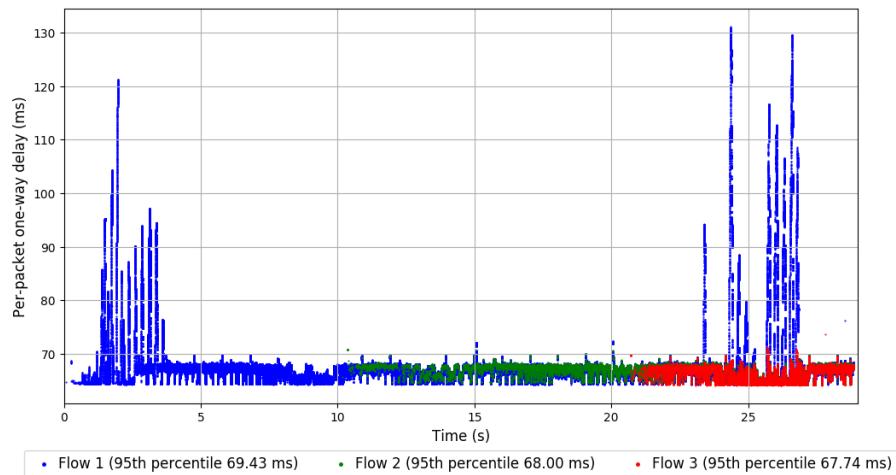
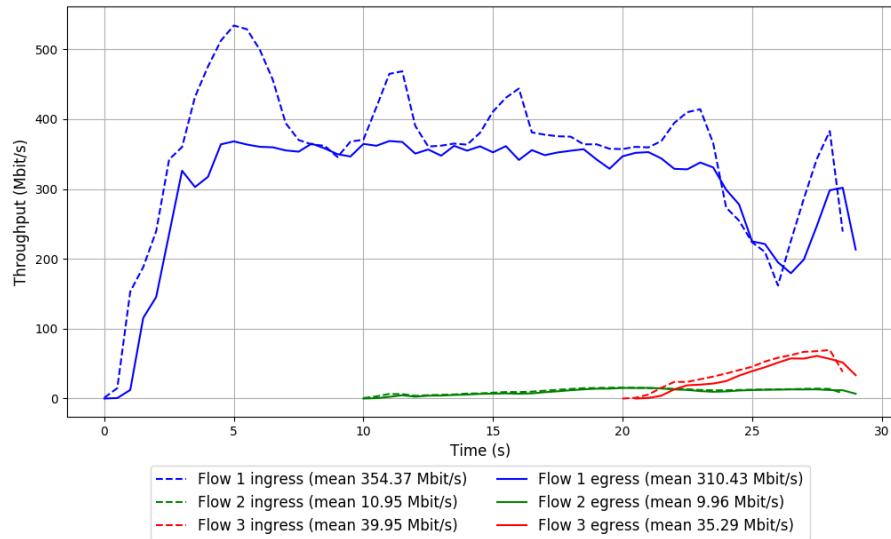


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 02:17:29
End at: 2019-06-28 02:17:59
Local clock offset: -1.827 ms
Remote clock offset: -33.937 ms

# Below is generated by plot.py at 2019-06-28 03:29:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 327.13 Mbit/s
95th percentile per-packet one-way delay: 69.026 ms
Loss rate: 12.31%
-- Flow 1:
Average throughput: 310.43 Mbit/s
95th percentile per-packet one-way delay: 69.429 ms
Loss rate: 12.39%
-- Flow 2:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 67.999 ms
Loss rate: 8.98%
-- Flow 3:
Average throughput: 35.29 Mbit/s
95th percentile per-packet one-way delay: 67.736 ms
Loss rate: 11.66%
```

Run 4: Report of Indigo-MusesD — Data Link

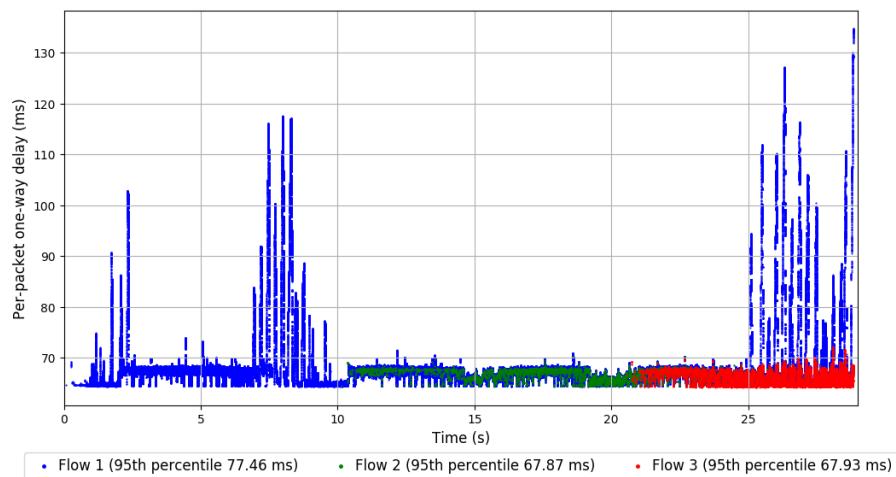
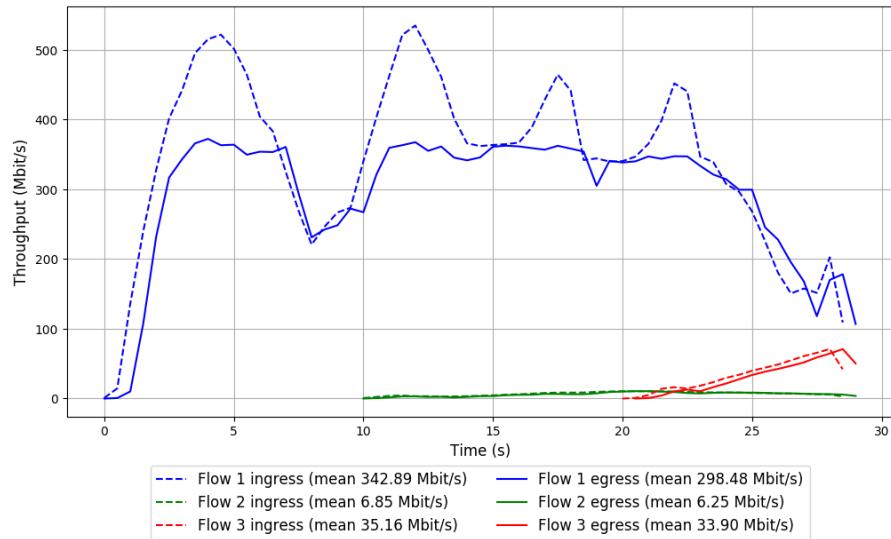


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-06-28 02:49:42
End at: 2019-06-28 02:50:12
Local clock offset: -2.223 ms
Remote clock offset: -34.459 ms

# Below is generated by plot.py at 2019-06-28 03:30:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.31 Mbit/s
95th percentile per-packet one-way delay: 76.542 ms
Loss rate: 12.63%
-- Flow 1:
Average throughput: 298.48 Mbit/s
95th percentile per-packet one-way delay: 77.458 ms
Loss rate: 12.95%
-- Flow 2:
Average throughput: 6.25 Mbit/s
95th percentile per-packet one-way delay: 67.873 ms
Loss rate: 8.72%
-- Flow 3:
Average throughput: 33.90 Mbit/s
95th percentile per-packet one-way delay: 67.928 ms
Loss rate: 3.57%
```

Run 5: Report of Indigo-MusesD — Data Link

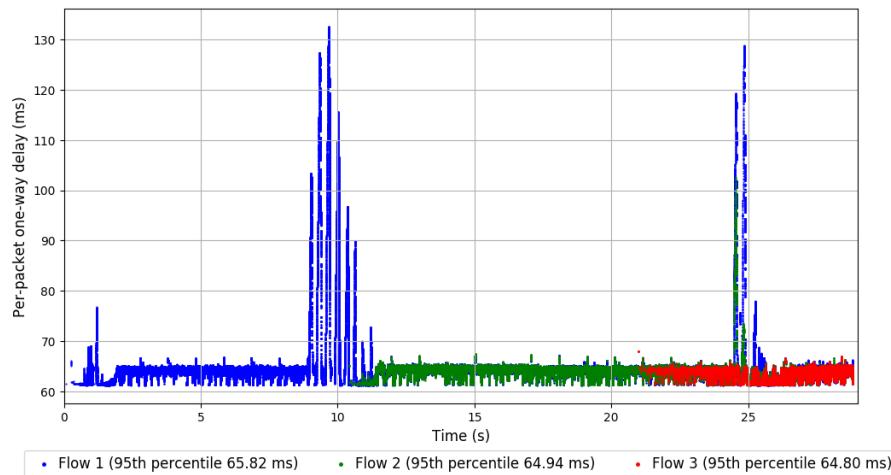
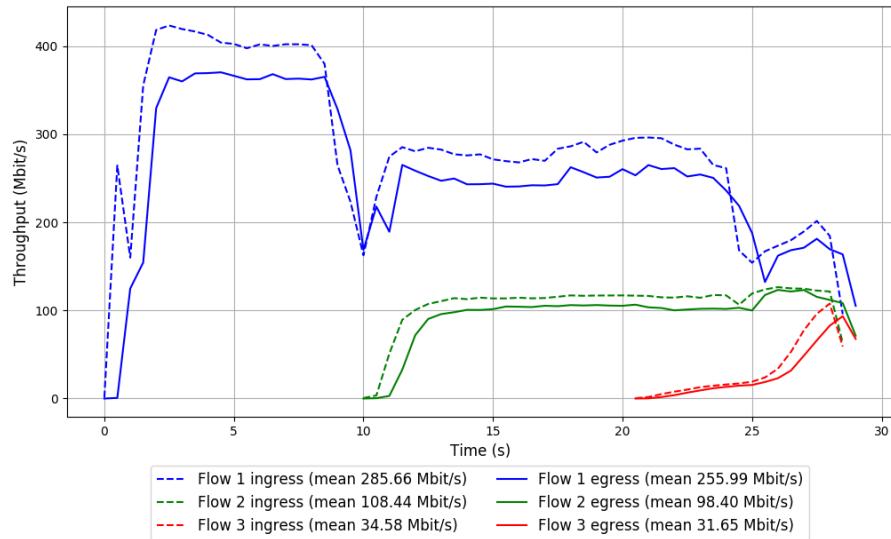


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 00:49:37
End at: 2019-06-28 00:50:07
Local clock offset: -1.562 ms
Remote clock offset: -35.151 ms

# Below is generated by plot.py at 2019-06-28 03:30:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.46 Mbit/s
95th percentile per-packet one-way delay: 65.227 ms
Loss rate: 10.11%
-- Flow 1:
Average throughput: 255.99 Mbit/s
95th percentile per-packet one-way delay: 65.817 ms
Loss rate: 10.38%
-- Flow 2:
Average throughput: 98.40 Mbit/s
95th percentile per-packet one-way delay: 64.942 ms
Loss rate: 9.25%
-- Flow 3:
Average throughput: 31.65 Mbit/s
95th percentile per-packet one-way delay: 64.802 ms
Loss rate: 8.47%
```

Run 1: Report of Indigo-MusesT — Data Link

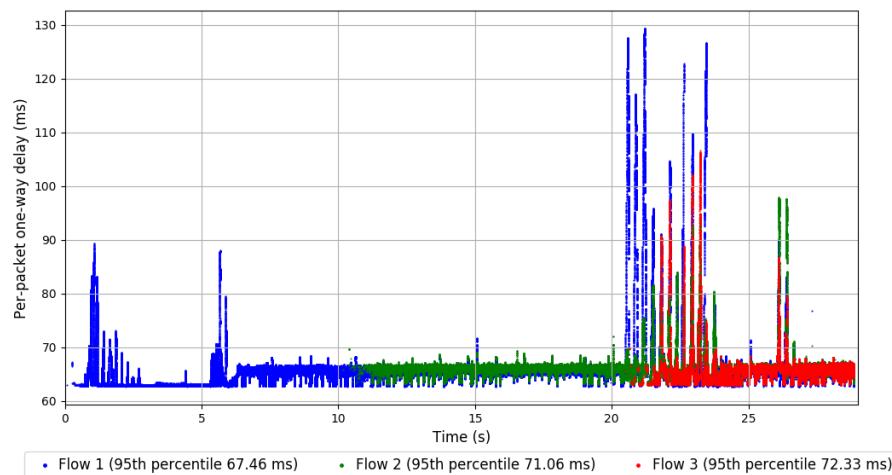
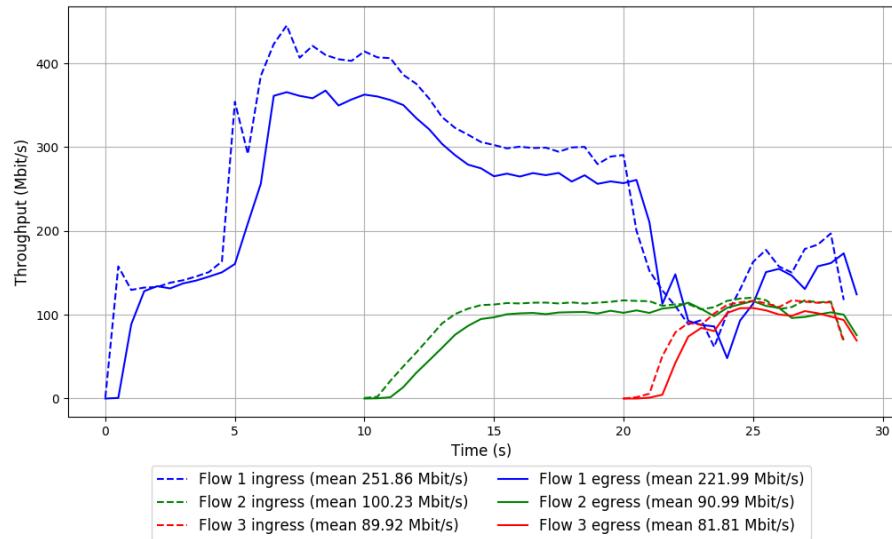


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 01:22:17
End at: 2019-06-28 01:22:47
Local clock offset: -2.414 ms
Remote clock offset: -33.824 ms

# Below is generated by plot.py at 2019-06-28 03:31:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 304.89 Mbit/s
95th percentile per-packet one-way delay: 68.358 ms
Loss rate: 11.13%
-- Flow 1:
Average throughput: 221.99 Mbit/s
95th percentile per-packet one-way delay: 67.460 ms
Loss rate: 11.85%
-- Flow 2:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 71.059 ms
Loss rate: 9.22%
-- Flow 3:
Average throughput: 81.81 Mbit/s
95th percentile per-packet one-way delay: 72.335 ms
Loss rate: 9.01%
```

Run 2: Report of Indigo-MusesT — Data Link

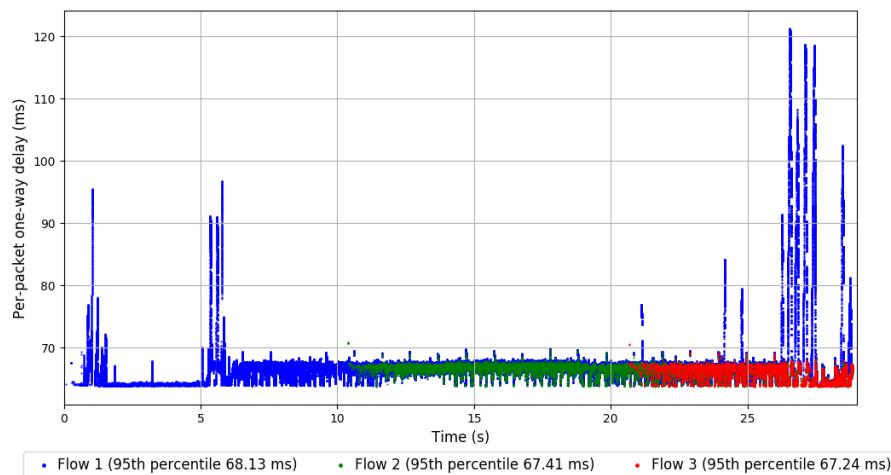
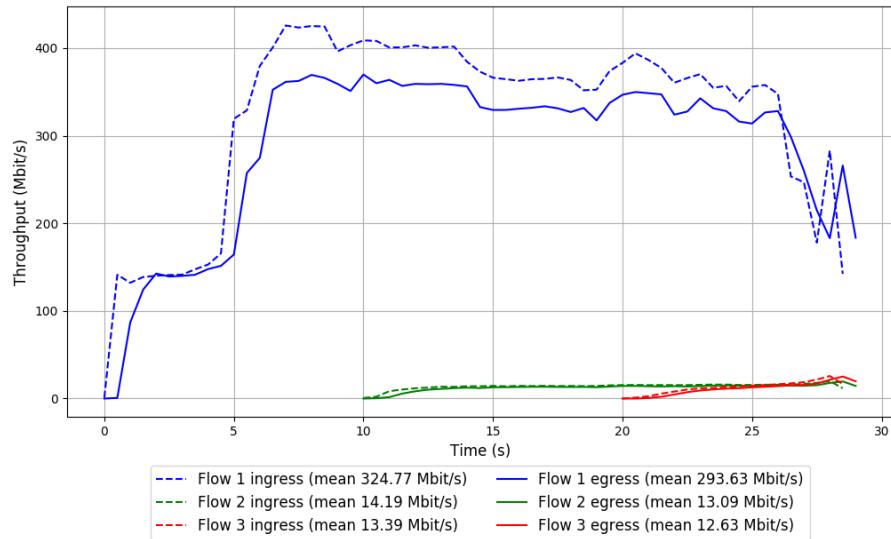


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 01:54:14
End at: 2019-06-28 01:54:44
Local clock offset: -2.052 ms
Remote clock offset: -32.448 ms

# Below is generated by plot.py at 2019-06-28 03:31:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.79 Mbit/s
95th percentile per-packet one-way delay: 68.002 ms
Loss rate: 9.49%
-- Flow 1:
Average throughput: 293.63 Mbit/s
95th percentile per-packet one-way delay: 68.126 ms
Loss rate: 9.58%
-- Flow 2:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 67.409 ms
Loss rate: 7.77%
-- Flow 3:
Average throughput: 12.63 Mbit/s
95th percentile per-packet one-way delay: 67.239 ms
Loss rate: 5.72%
```

Run 3: Report of Indigo-MusesT — Data Link

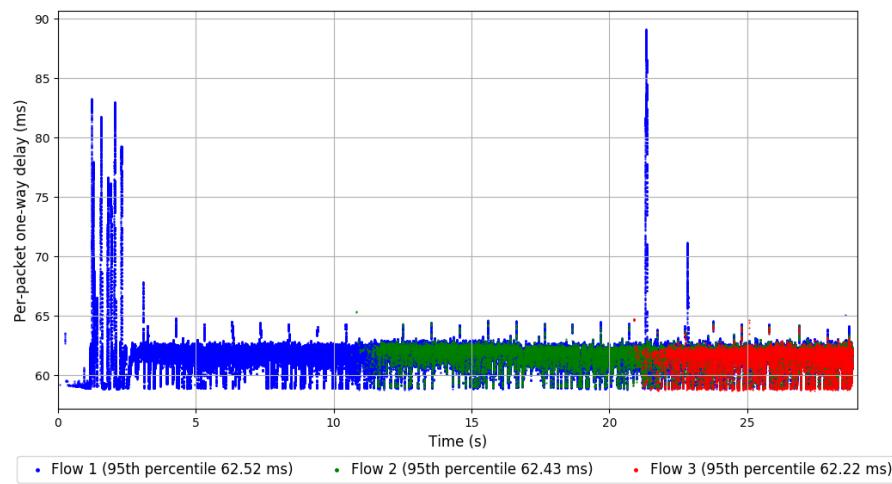
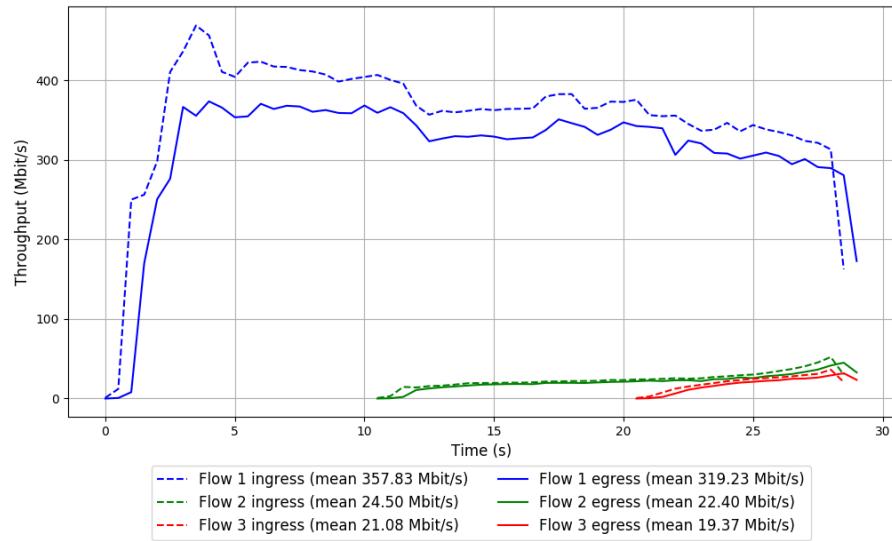


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 02:26:21
End at: 2019-06-28 02:26:51
Local clock offset: -1.719 ms
Remote clock offset: -38.689 ms

# Below is generated by plot.py at 2019-06-28 03:31:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.86 Mbit/s
95th percentile per-packet one-way delay: 62.512 ms
Loss rate: 10.64%
-- Flow 1:
Average throughput: 319.23 Mbit/s
95th percentile per-packet one-way delay: 62.520 ms
Loss rate: 10.78%
-- Flow 2:
Average throughput: 22.40 Mbit/s
95th percentile per-packet one-way delay: 62.430 ms
Loss rate: 8.58%
-- Flow 3:
Average throughput: 19.37 Mbit/s
95th percentile per-packet one-way delay: 62.223 ms
Loss rate: 8.09%
```

Run 4: Report of Indigo-MusesT — Data Link

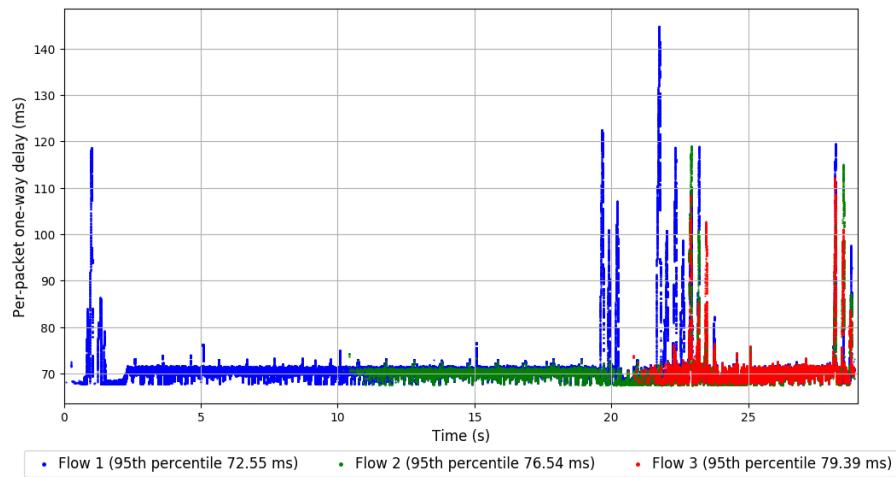
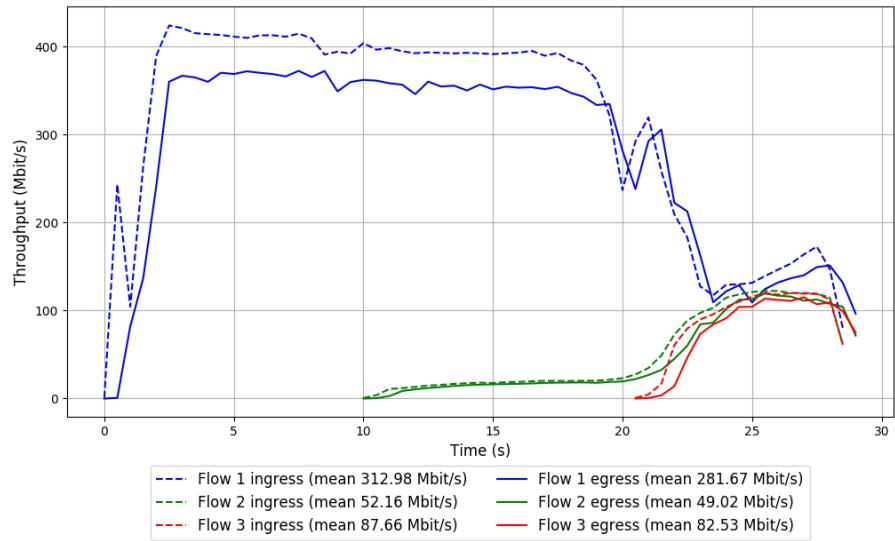


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-06-28 02:58:31
End at: 2019-06-28 02:59:01
Local clock offset: -2.458 ms
Remote clock offset: -34.055 ms

# Below is generated by plot.py at 2019-06-28 03:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.10 Mbit/s
95th percentile per-packet one-way delay: 73.325 ms
Loss rate: 9.36%
-- Flow 1:
Average throughput: 281.67 Mbit/s
95th percentile per-packet one-way delay: 72.552 ms
Loss rate: 10.00%
-- Flow 2:
Average throughput: 49.02 Mbit/s
95th percentile per-packet one-way delay: 76.544 ms
Loss rate: 6.03%
-- Flow 3:
Average throughput: 82.53 Mbit/s
95th percentile per-packet one-way delay: 79.394 ms
Loss rate: 5.85%
```

Run 5: Report of Indigo-MusesT — Data Link

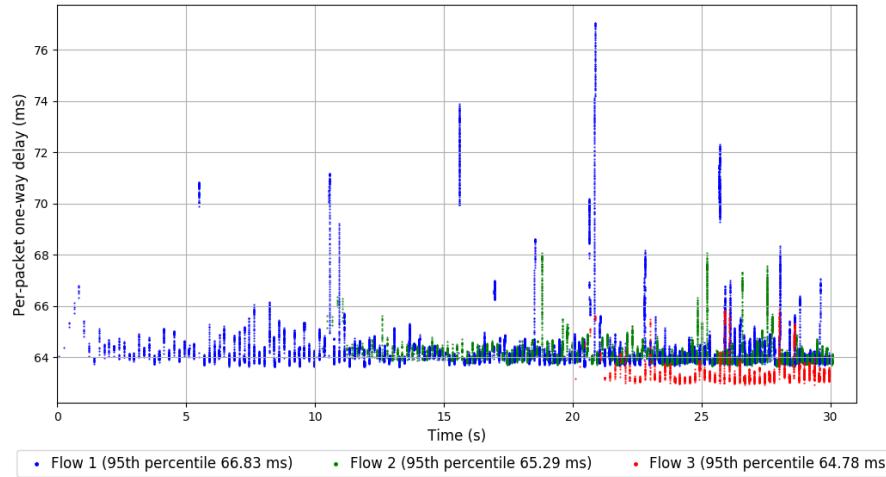
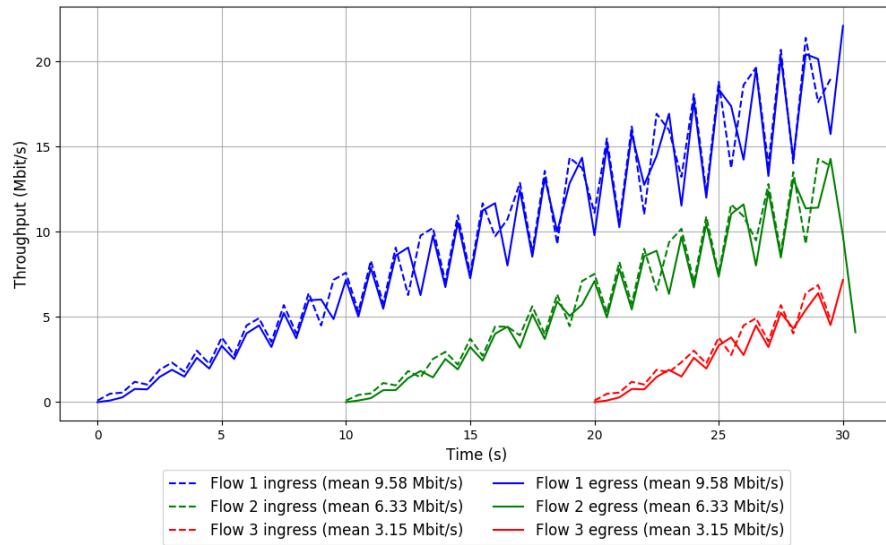


Run 1: Statistics of LEDBAT

```
Start at: 2019-06-28 00:26:25
End at: 2019-06-28 00:26:55
Local clock offset: -1.437 ms
Remote clock offset: -33.386 ms

# Below is generated by plot.py at 2019-06-28 03:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.80 Mbit/s
95th percentile per-packet one-way delay: 66.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 66.828 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 65.293 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 64.785 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

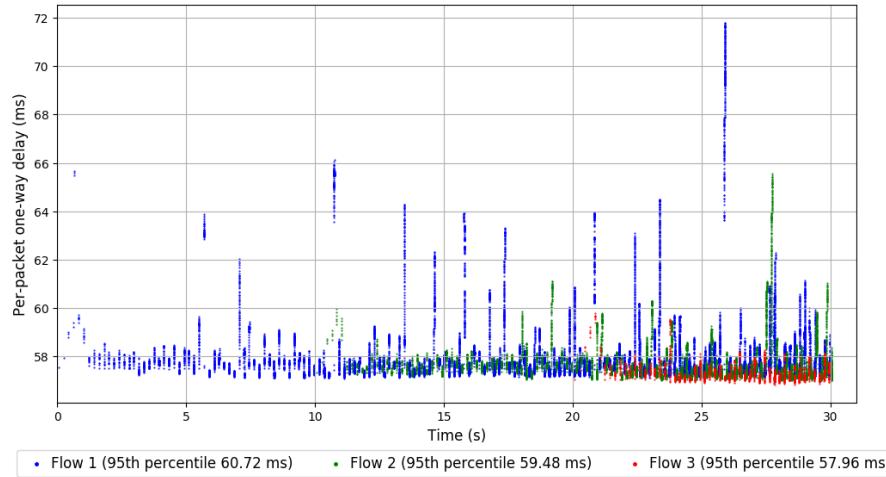
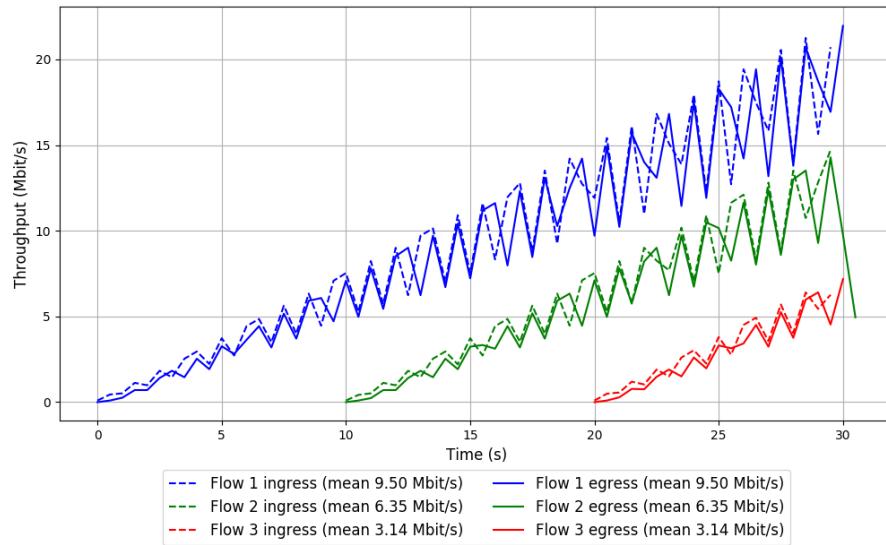


Run 2: Statistics of LEDBAT

```
Start at: 2019-06-28 00:58:28
End at: 2019-06-28 00:58:59
Local clock offset: -0.801 ms
Remote clock offset: -38.639 ms

# Below is generated by plot.py at 2019-06-28 03:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.74 Mbit/s
95th percentile per-packet one-way delay: 60.249 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 60.720 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 59.483 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 57.960 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

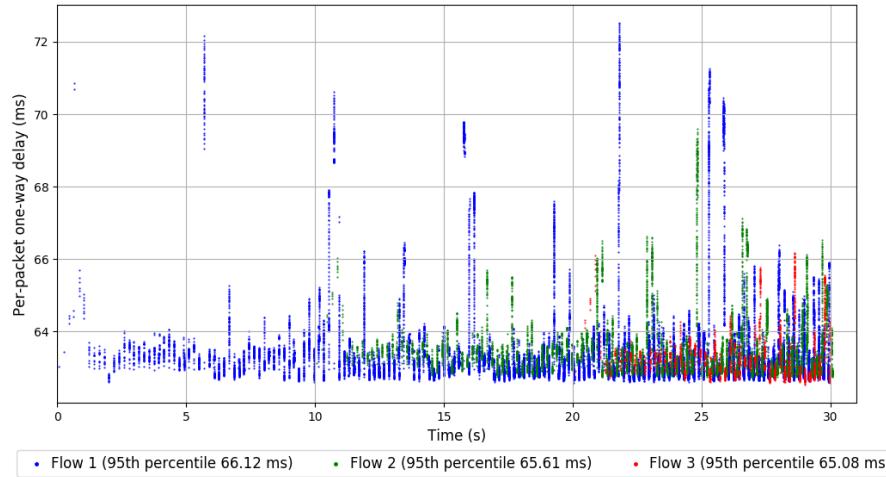
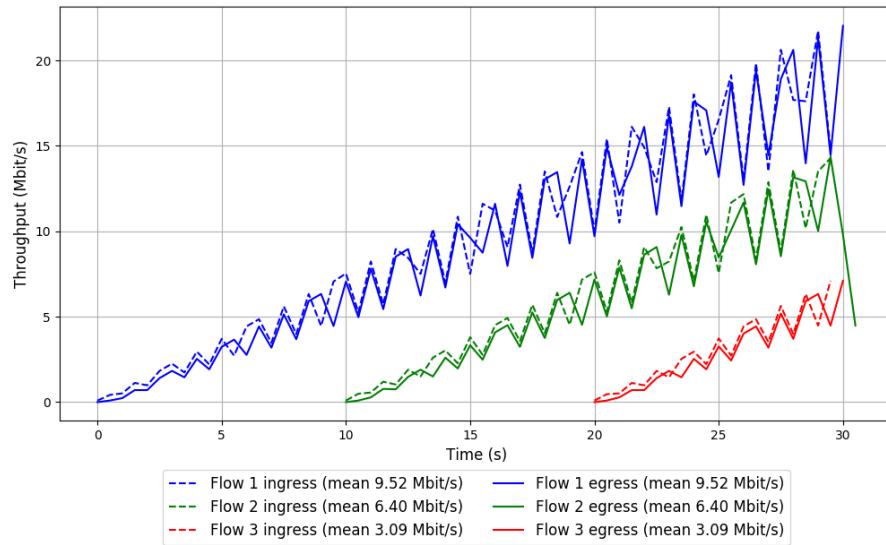


Run 3: Statistics of LEDBAT

```
Start at: 2019-06-28 01:31:01
End at: 2019-06-28 01:31:31
Local clock offset: -2.255 ms
Remote clock offset: -33.664 ms

# Below is generated by plot.py at 2019-06-28 03:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.76 Mbit/s
95th percentile per-packet one-way delay: 65.778 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 66.122 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.40 Mbit/s
95th percentile per-packet one-way delay: 65.613 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 65.076 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

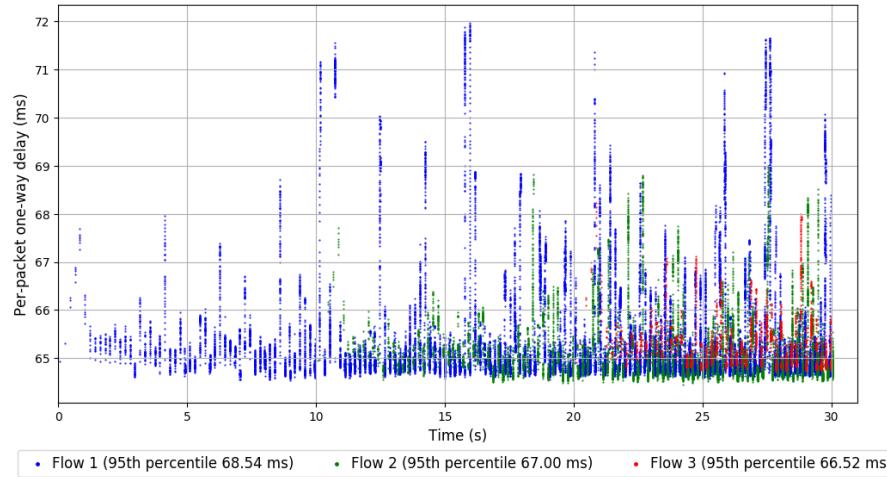
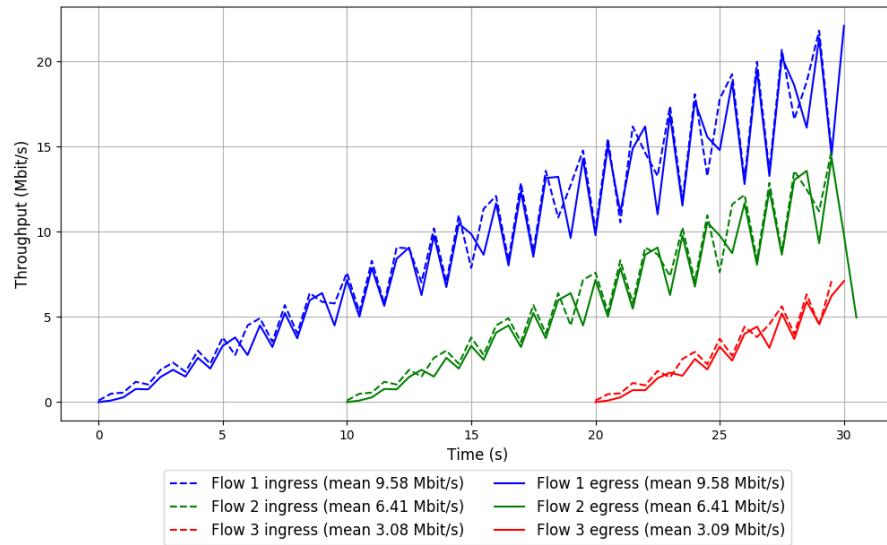


Run 4: Statistics of LEDBAT

```
Start at: 2019-06-28 02:03:03
End at: 2019-06-28 02:03:33
Local clock offset: -2.304 ms
Remote clock offset: -32.79 ms

# Below is generated by plot.py at 2019-06-28 03:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.84 Mbit/s
95th percentile per-packet one-way delay: 67.729 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 68.544 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 66.999 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 66.522 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

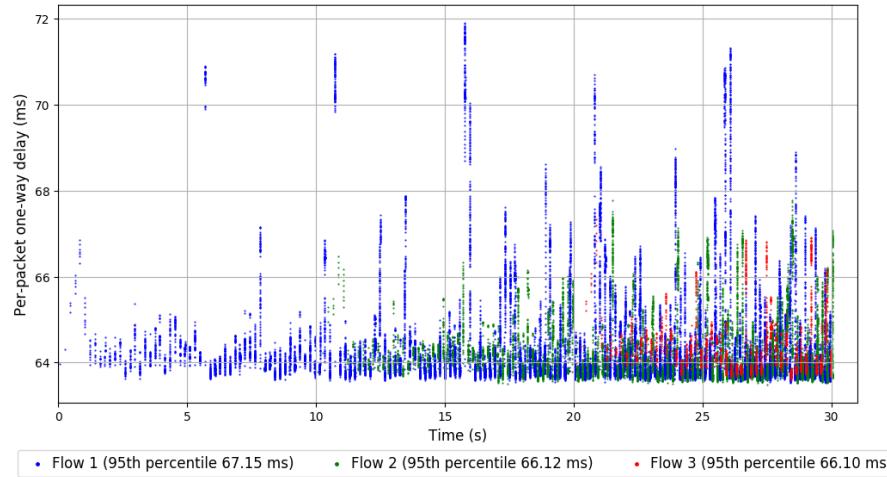
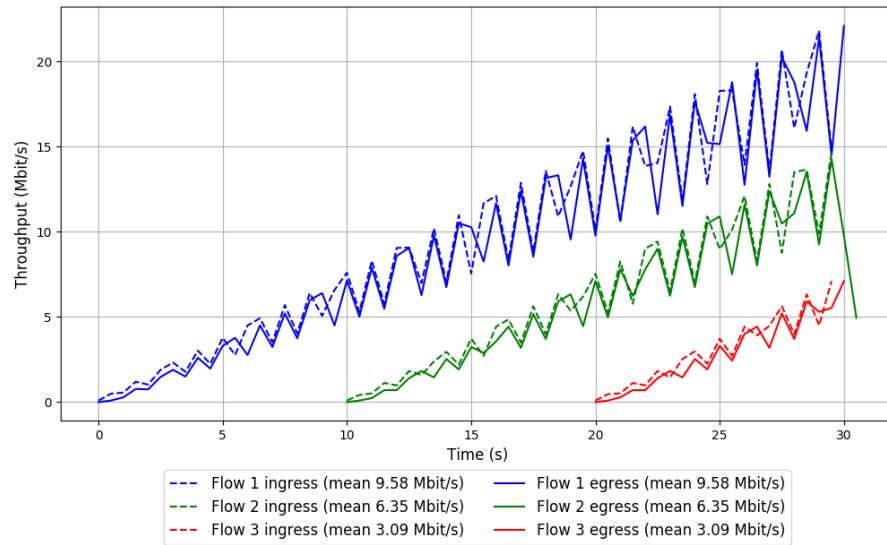


Run 5: Statistics of LEDBAT

```
Start at: 2019-06-28 02:35:12
End at: 2019-06-28 02:35:42
Local clock offset: -1.182 ms
Remote clock offset: -33.692 ms

# Below is generated by plot.py at 2019-06-28 03:31:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.80 Mbit/s
95th percentile per-packet one-way delay: 66.711 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.58 Mbit/s
95th percentile per-packet one-way delay: 67.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.35 Mbit/s
95th percentile per-packet one-way delay: 66.120 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 66.104 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

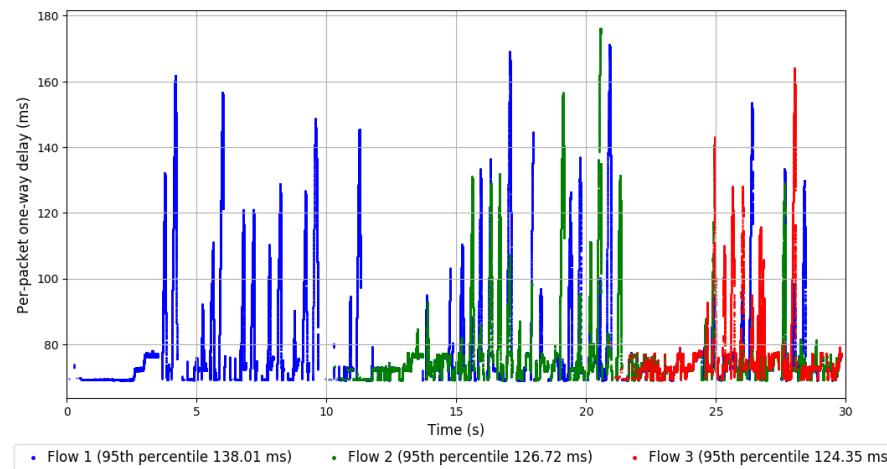
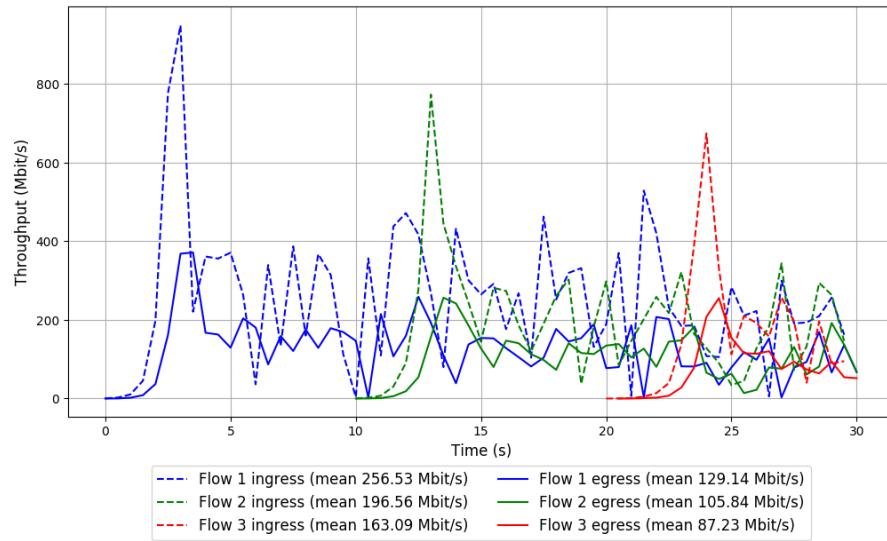


```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 00:43:55
End at: 2019-06-28 00:44:25
Local clock offset: -8.136 ms
Remote clock offset: -33.935 ms

# Below is generated by plot.py at 2019-06-28 03:32:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.98 Mbit/s
95th percentile per-packet one-way delay: 131.981 ms
Loss rate: 48.57%
-- Flow 1:
Average throughput: 129.14 Mbit/s
95th percentile per-packet one-way delay: 138.008 ms
Loss rate: 49.65%
-- Flow 2:
Average throughput: 105.84 Mbit/s
95th percentile per-packet one-way delay: 126.723 ms
Loss rate: 46.14%
-- Flow 3:
Average throughput: 87.23 Mbit/s
95th percentile per-packet one-way delay: 124.346 ms
Loss rate: 49.26%
```

Run 1: Report of Muses_DecisionTree — Data Link

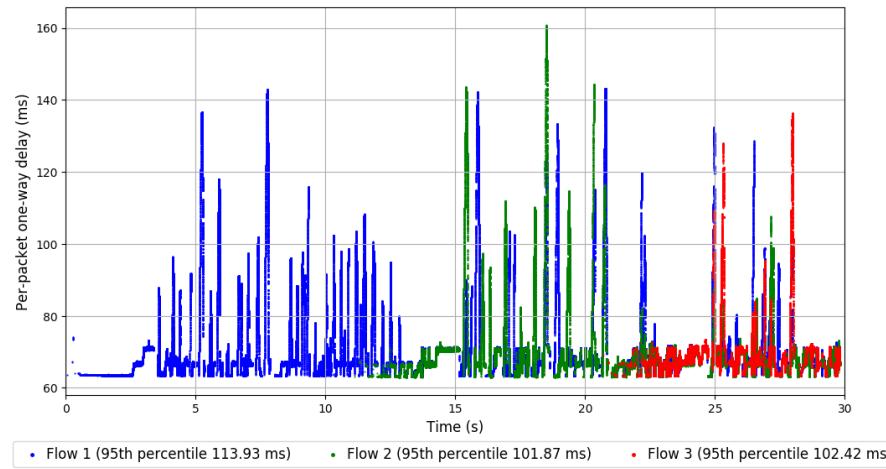
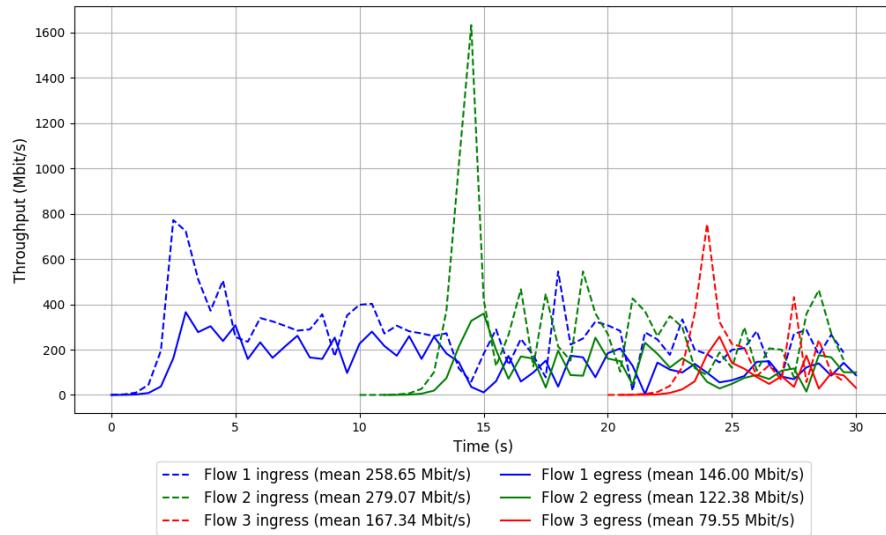


```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 01:16:29
End at: 2019-06-28 01:16:59
Local clock offset: -0.931 ms
Remote clock offset: -32.462 ms

# Below is generated by plot.py at 2019-06-28 03:32:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.21 Mbit/s
95th percentile per-packet one-way delay: 108.807 ms
Loss rate: 50.30%
-- Flow 1:
Average throughput: 146.00 Mbit/s
95th percentile per-packet one-way delay: 113.934 ms
Loss rate: 43.56%
-- Flow 2:
Average throughput: 122.38 Mbit/s
95th percentile per-packet one-way delay: 101.871 ms
Loss rate: 58.37%
-- Flow 3:
Average throughput: 79.55 Mbit/s
95th percentile per-packet one-way delay: 102.418 ms
Loss rate: 54.95%
```

Run 2: Report of Muses_DecisionTree — Data Link

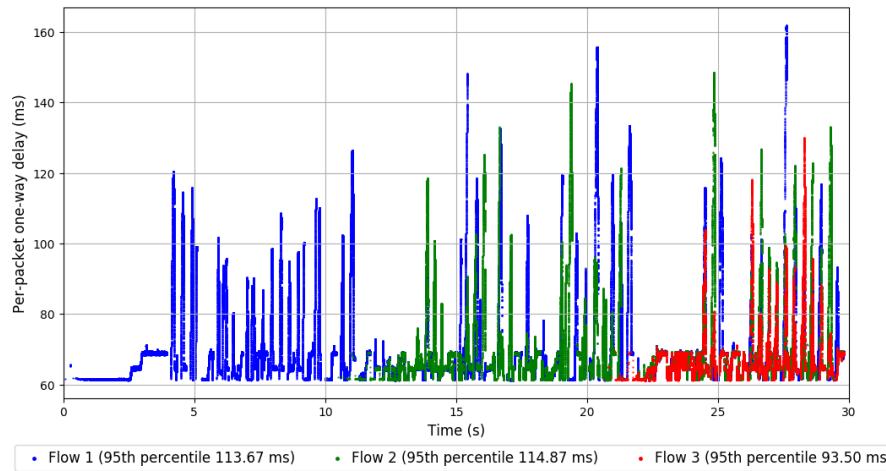
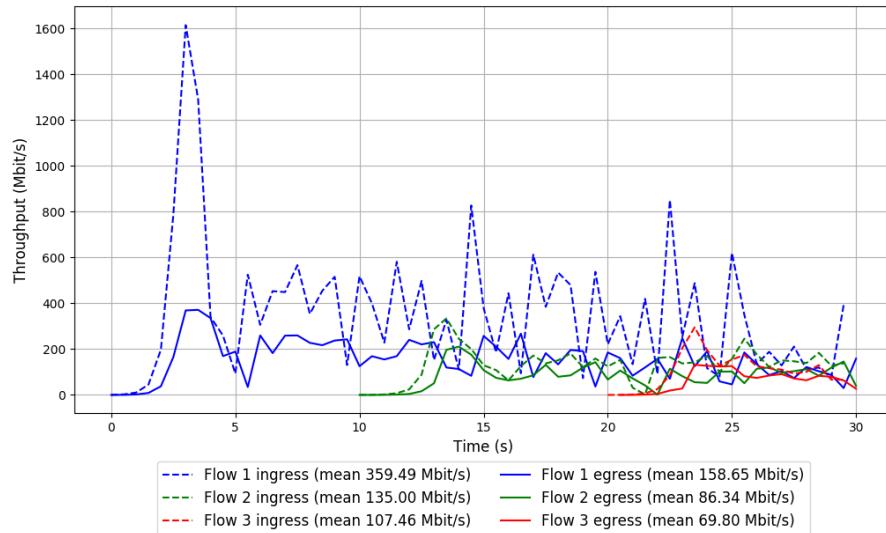


```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 01:48:33
End at: 2019-06-28 01:49:03
Local clock offset: -1.668 ms
Remote clock offset: -34.432 ms

# Below is generated by plot.py at 2019-06-28 03:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 237.38 Mbit/s
95th percentile per-packet one-way delay: 112.805 ms
Loss rate: 50.93%
-- Flow 1:
Average throughput: 158.65 Mbit/s
95th percentile per-packet one-way delay: 113.669 ms
Loss rate: 55.86%
-- Flow 2:
Average throughput: 86.34 Mbit/s
95th percentile per-packet one-way delay: 114.866 ms
Loss rate: 36.02%
-- Flow 3:
Average throughput: 69.80 Mbit/s
95th percentile per-packet one-way delay: 93.502 ms
Loss rate: 38.37%
```

Run 3: Report of Muses_DecisionTree — Data Link

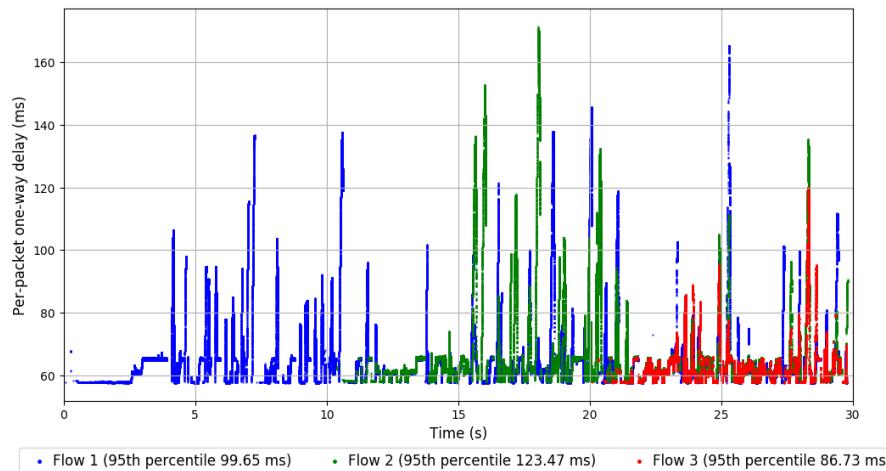
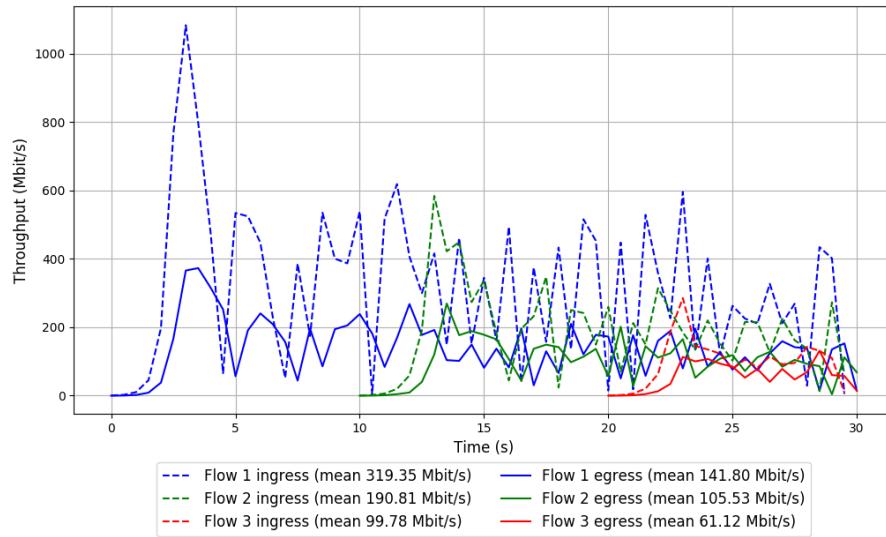


```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 02:20:40
End at: 2019-06-28 02:21:11
Local clock offset: -1.946 ms
Remote clock offset: -40.199 ms

# Below is generated by plot.py at 2019-06-28 03:34:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 231.23 Mbit/s
95th percentile per-packet one-way delay: 105.689 ms
Loss rate: 51.58%
-- Flow 1:
Average throughput: 141.80 Mbit/s
95th percentile per-packet one-way delay: 99.652 ms
Loss rate: 55.60%
-- Flow 2:
Average throughput: 105.53 Mbit/s
95th percentile per-packet one-way delay: 123.469 ms
Loss rate: 44.70%
-- Flow 3:
Average throughput: 61.12 Mbit/s
95th percentile per-packet one-way delay: 86.729 ms
Loss rate: 38.74%
```

Run 4: Report of Muses_DecisionTree — Data Link

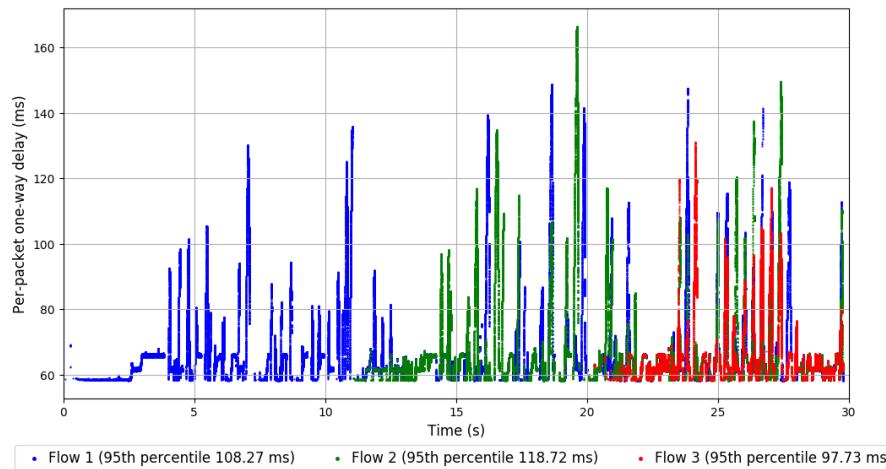
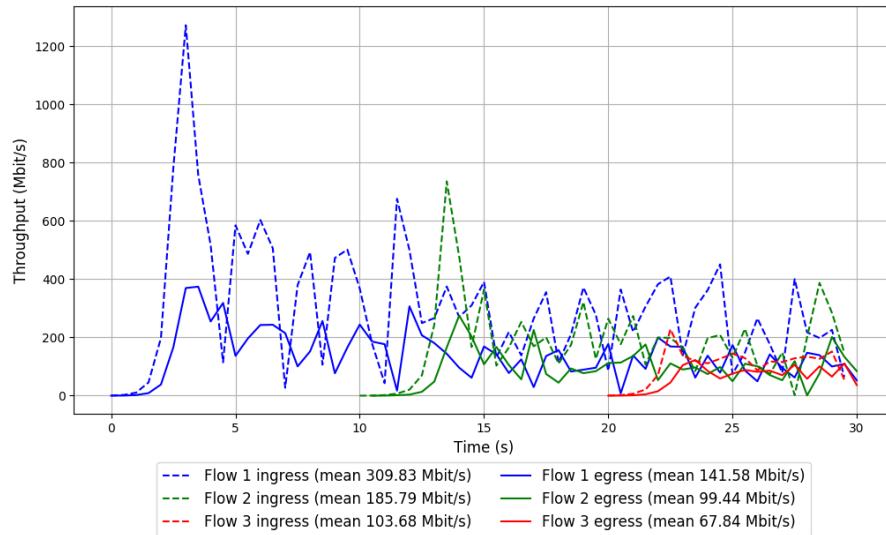


```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 02:52:52
End at: 2019-06-28 02:53:22
Local clock offset: -1.86 ms
Remote clock offset: -39.882 ms

# Below is generated by plot.py at 2019-06-28 03:34:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 227.61 Mbit/s
95th percentile per-packet one-way delay: 110.588 ms
Loss rate: 51.17%
-- Flow 1:
Average throughput: 141.58 Mbit/s
95th percentile per-packet one-way delay: 108.268 ms
Loss rate: 54.31%
-- Flow 2:
Average throughput: 99.44 Mbit/s
95th percentile per-packet one-way delay: 118.722 ms
Loss rate: 47.83%
-- Flow 3:
Average throughput: 67.84 Mbit/s
95th percentile per-packet one-way delay: 97.731 ms
Loss rate: 34.54%
```

Run 5: Report of Muses_DecisionTree — Data Link

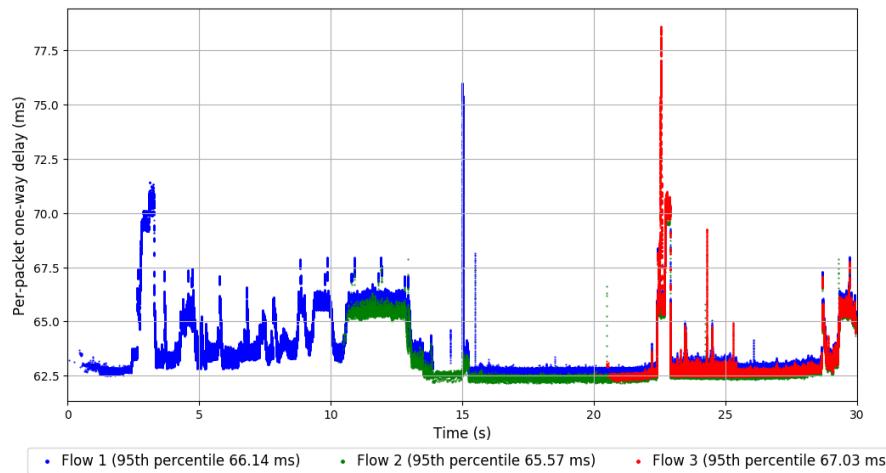
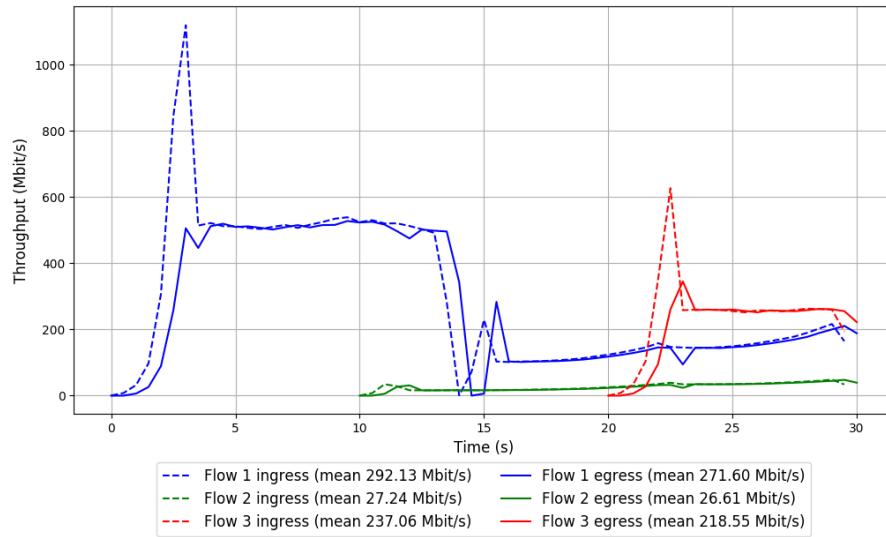


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-06-28 00:33:20
End at: 2019-06-28 00:33:50
Local clock offset: -1.811 ms
Remote clock offset: -34.623 ms

# Below is generated by plot.py at 2019-06-28 03:35:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.39 Mbit/s
95th percentile per-packet one-way delay: 66.131 ms
Loss rate: 6.96%
-- Flow 1:
Average throughput: 271.60 Mbit/s
95th percentile per-packet one-way delay: 66.140 ms
Loss rate: 7.02%
-- Flow 2:
Average throughput: 26.61 Mbit/s
95th percentile per-packet one-way delay: 65.572 ms
Loss rate: 2.31%
-- Flow 3:
Average throughput: 218.55 Mbit/s
95th percentile per-packet one-way delay: 67.028 ms
Loss rate: 7.79%
```

Run 1: Report of PCC-Allegro — Data Link

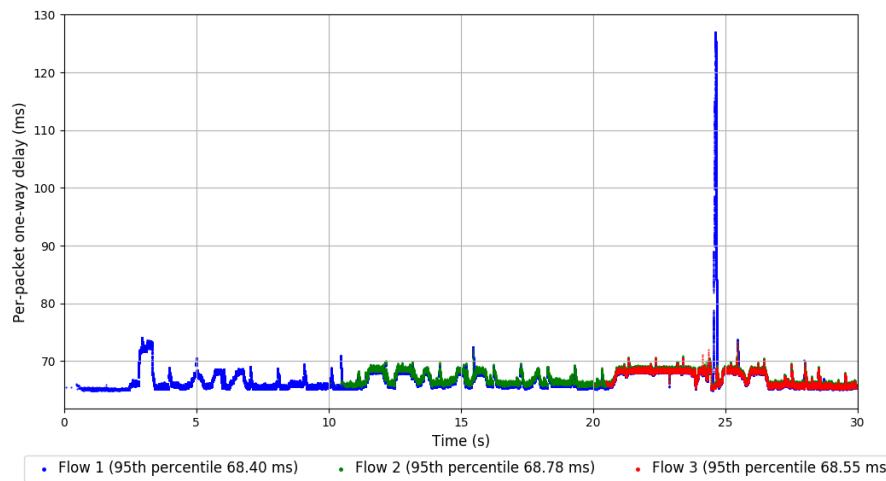
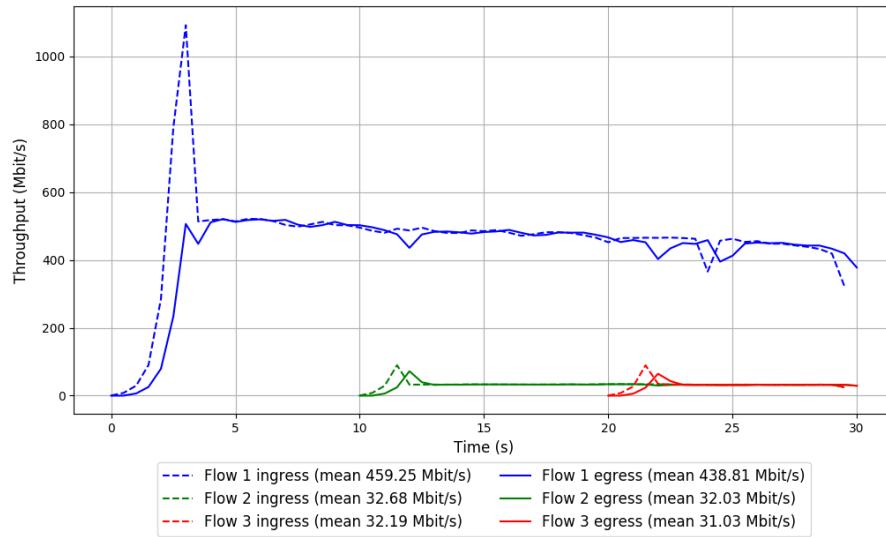


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-06-28 01:05:25
End at: 2019-06-28 01:05:55
Local clock offset: -2.505 ms
Remote clock offset: -32.103 ms

# Below is generated by plot.py at 2019-06-28 03:37:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.33 Mbit/s
95th percentile per-packet one-way delay: 68.482 ms
Loss rate: 4.33%
-- Flow 1:
Average throughput: 438.81 Mbit/s
95th percentile per-packet one-way delay: 68.398 ms
Loss rate: 4.45%
-- Flow 2:
Average throughput: 32.03 Mbit/s
95th percentile per-packet one-way delay: 68.783 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 68.547 ms
Loss rate: 3.60%
```

Run 2: Report of PCC-Allegro — Data Link

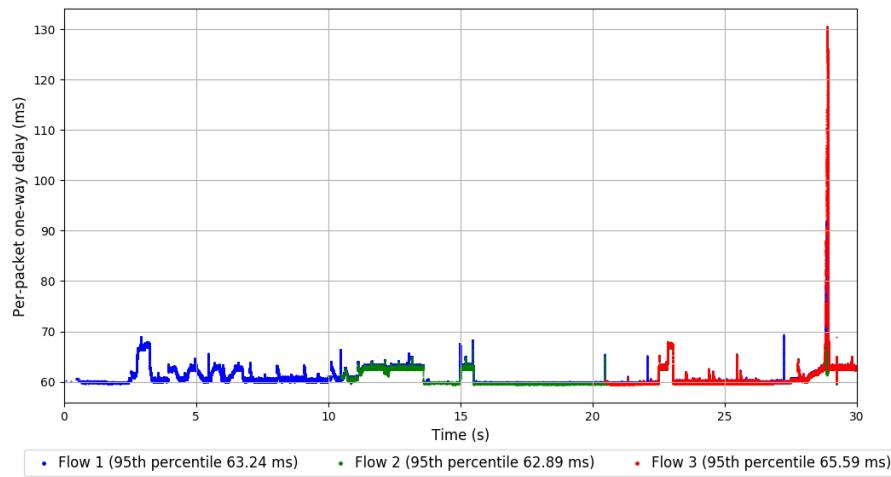
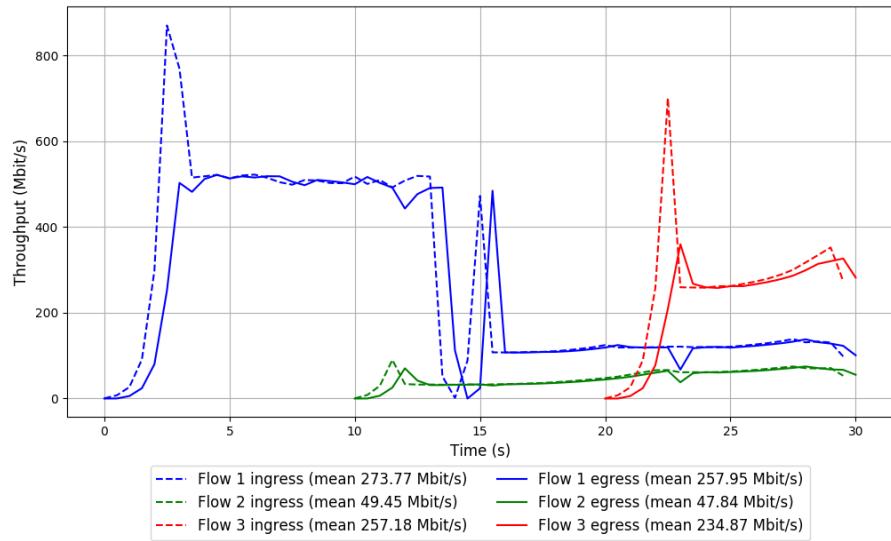


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-06-28 01:37:56
End at: 2019-06-28 01:38:26
Local clock offset: -1.991 ms
Remote clock offset: -36.344 ms

# Below is generated by plot.py at 2019-06-28 03:37:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 367.24 Mbit/s
95th percentile per-packet one-way delay: 63.241 ms
Loss rate: 6.18%
-- Flow 1:
Average throughput: 257.95 Mbit/s
95th percentile per-packet one-way delay: 63.238 ms
Loss rate: 5.77%
-- Flow 2:
Average throughput: 47.84 Mbit/s
95th percentile per-packet one-way delay: 62.893 ms
Loss rate: 3.24%
-- Flow 3:
Average throughput: 234.87 Mbit/s
95th percentile per-packet one-way delay: 65.589 ms
Loss rate: 8.64%
```

Run 3: Report of PCC-Allegro — Data Link

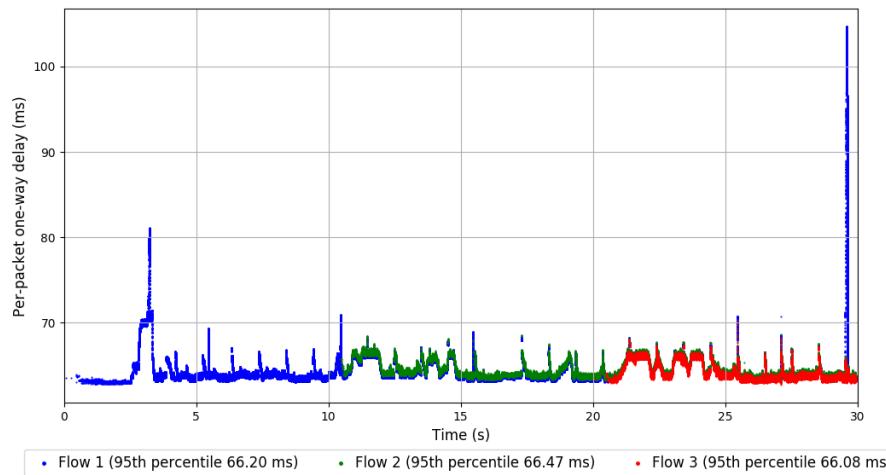
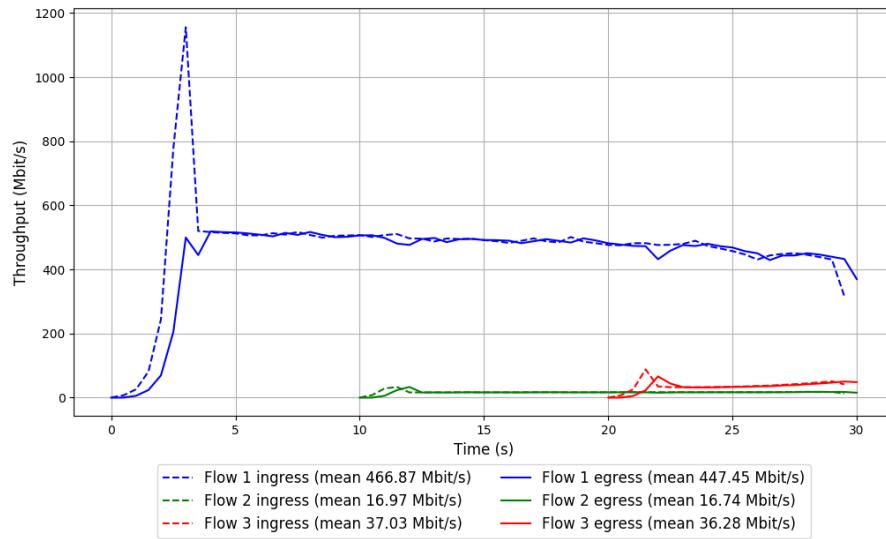


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-06-28 02:10:00
End at: 2019-06-28 02:10:30
Local clock offset: -1.642 ms
Remote clock offset: -34.446 ms

# Below is generated by plot.py at 2019-06-28 03:38:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.54 Mbit/s
95th percentile per-packet one-way delay: 66.212 ms
Loss rate: 4.04%
-- Flow 1:
Average throughput: 447.45 Mbit/s
95th percentile per-packet one-way delay: 66.204 ms
Loss rate: 4.16%
-- Flow 2:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: 66.465 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 66.076 ms
Loss rate: 2.03%
```

Run 4: Report of PCC-Allegro — Data Link

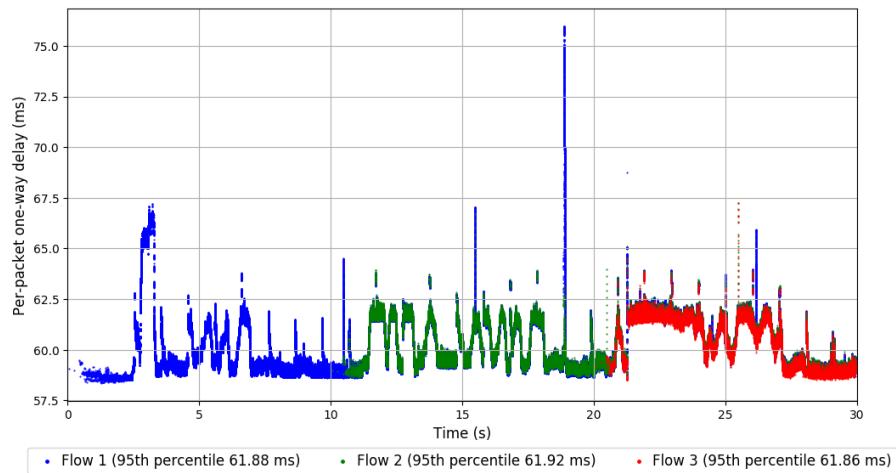
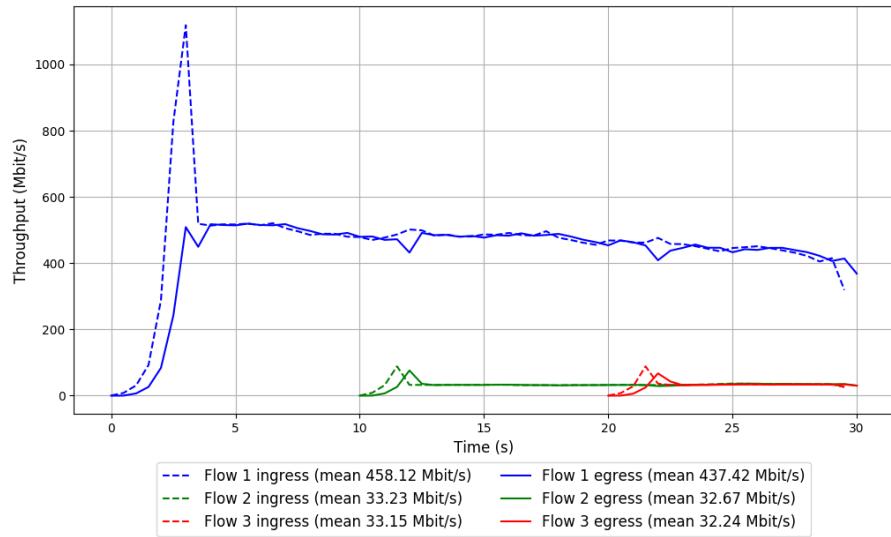


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-06-28 02:42:12
End at: 2019-06-28 02:42:42
Local clock offset: -1.633 ms
Remote clock offset: -39.394 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.78 Mbit/s
95th percentile per-packet one-way delay: 61.886 ms
Loss rate: 4.35%
-- Flow 1:
Average throughput: 437.42 Mbit/s
95th percentile per-packet one-way delay: 61.884 ms
Loss rate: 4.52%
-- Flow 2:
Average throughput: 32.67 Mbit/s
95th percentile per-packet one-way delay: 61.920 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 32.24 Mbit/s
95th percentile per-packet one-way delay: 61.862 ms
Loss rate: 2.75%
```

Run 5: Report of PCC-Allegro — Data Link

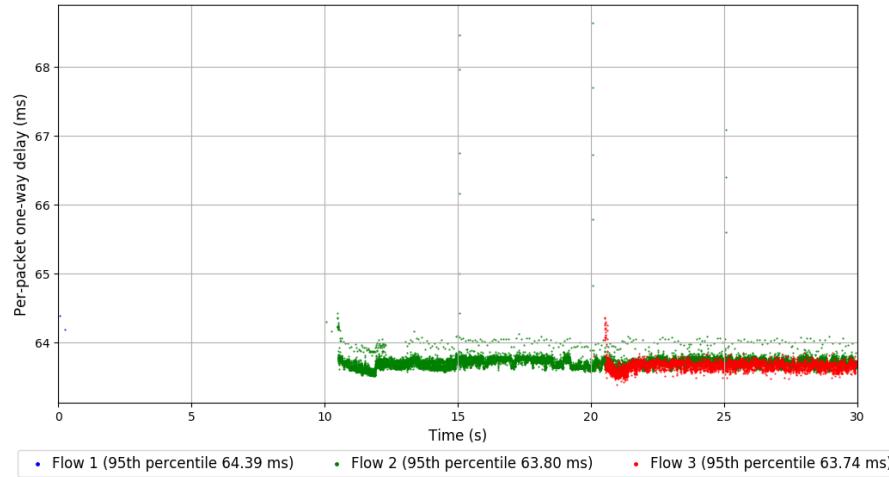
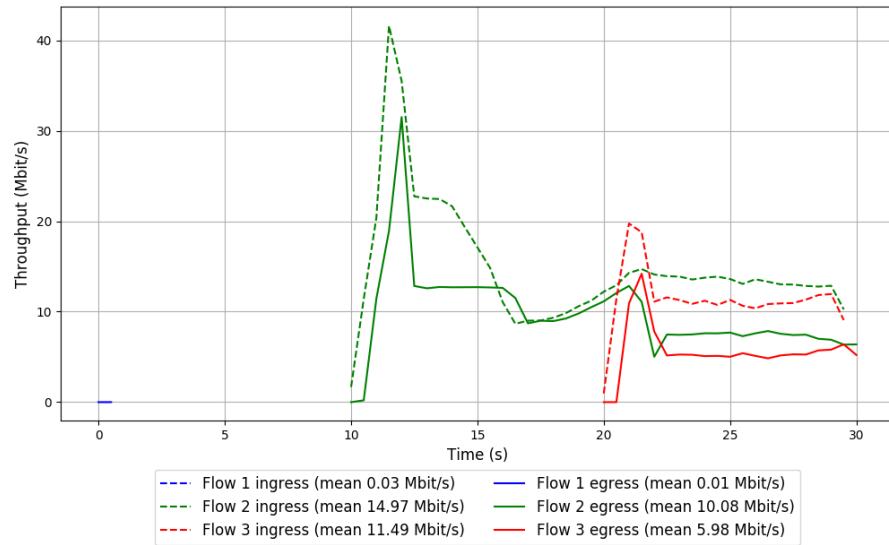


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-06-28 00:48:18
End at: 2019-06-28 00:48:48
Local clock offset: -1.646 ms
Remote clock offset: -32.735 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 63.792 ms
Loss rate: 36.93%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.393 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 63.799 ms
Loss rate: 32.72%
-- Flow 3:
Average throughput: 5.98 Mbit/s
95th percentile per-packet one-way delay: 63.743 ms
Loss rate: 47.99%
```

Run 1: Report of PCC-Expr — Data Link

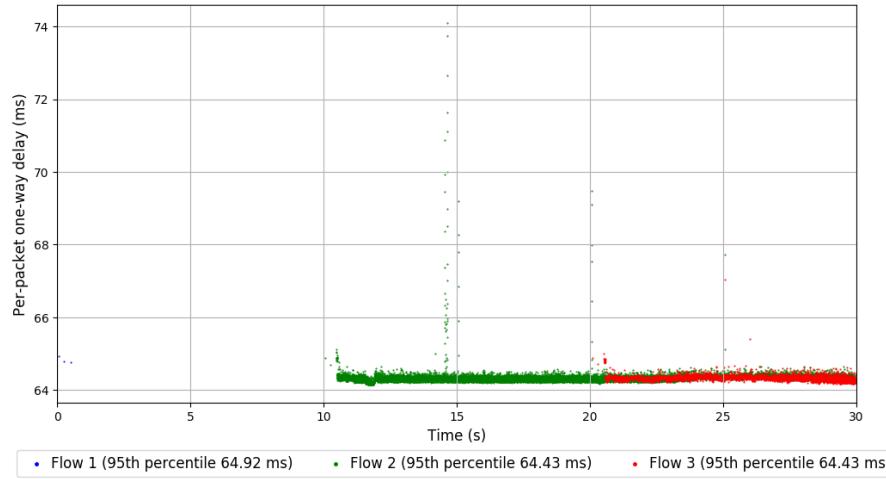
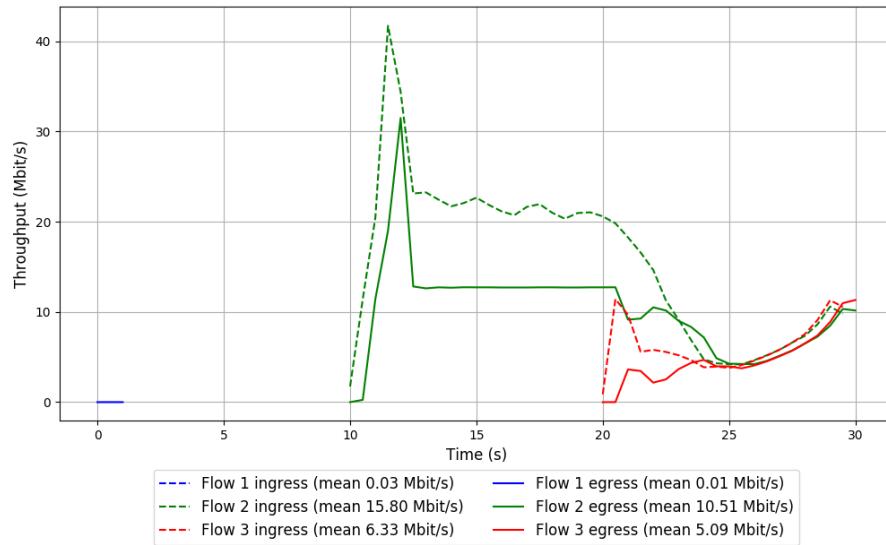


Run 2: Statistics of PCC-Expr

```
Start at: 2019-06-28 01:20:58
End at: 2019-06-28 01:21:28
Local clock offset: -1.751 ms
Remote clock offset: -31.809 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 64.430 ms
Loss rate: 31.26%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.925 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 10.51 Mbit/s
95th percentile per-packet one-way delay: 64.430 ms
Loss rate: 33.58%
-- Flow 3:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 64.434 ms
Loss rate: 19.61%
```

Run 2: Report of PCC-Expr — Data Link

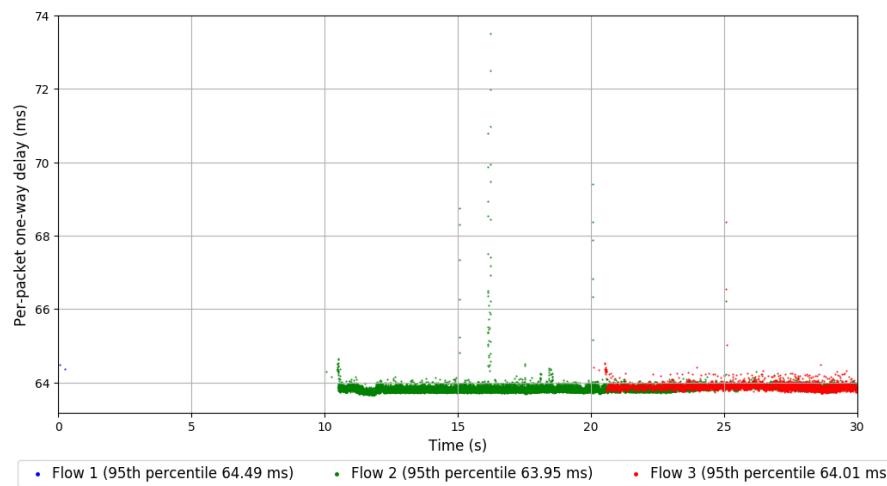
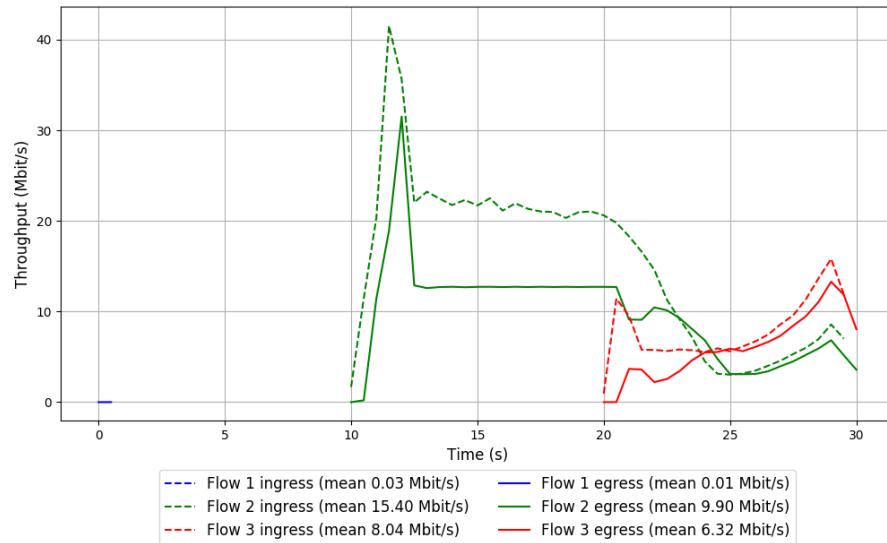


Run 3: Statistics of PCC-Expr

```
Start at: 2019-06-28 01:52:55
End at: 2019-06-28 01:53:25
Local clock offset: -1.748 ms
Remote clock offset: -32.074 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 63.966 ms
Loss rate: 32.77%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 64.488 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.90 Mbit/s
95th percentile per-packet one-way delay: 63.952 ms
Loss rate: 35.71%
-- Flow 3:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 64.007 ms
Loss rate: 21.41%
```

Run 3: Report of PCC-Expr — Data Link

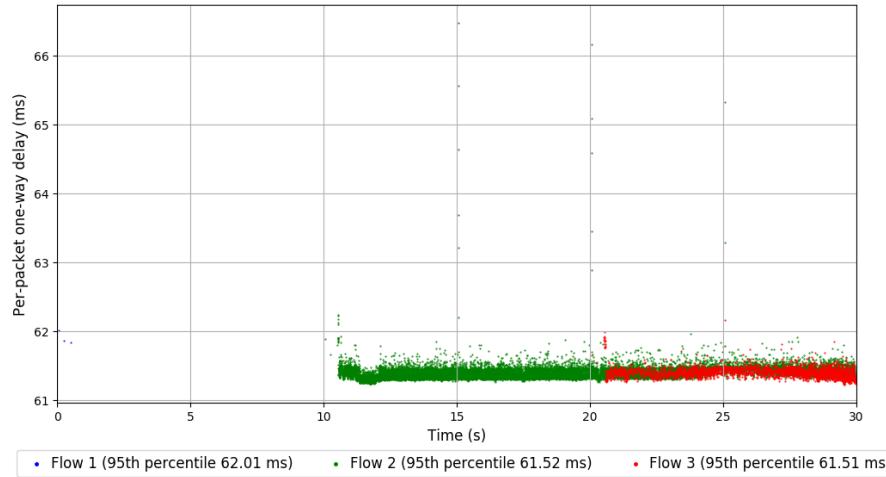
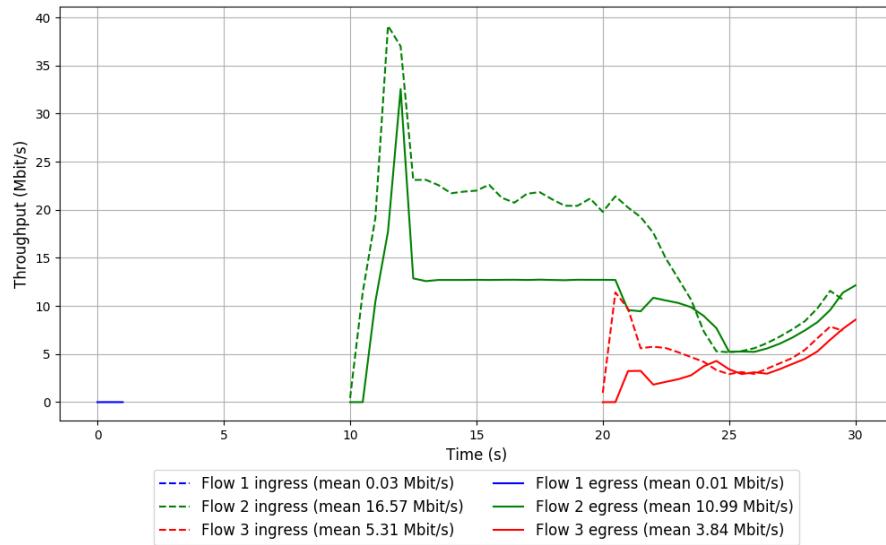


Run 4: Statistics of PCC-Expr

```
Start at: 2019-06-28 02:25:02
End at: 2019-06-28 02:25:32
Local clock offset: -1.37 ms
Remote clock offset: -35.71 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 61.519 ms
Loss rate: 32.85%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 62.014 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 61.520 ms
Loss rate: 33.67%
-- Flow 3:
Average throughput: 3.84 Mbit/s
95th percentile per-packet one-way delay: 61.507 ms
Loss rate: 27.69%
```

Run 4: Report of PCC-Expr — Data Link

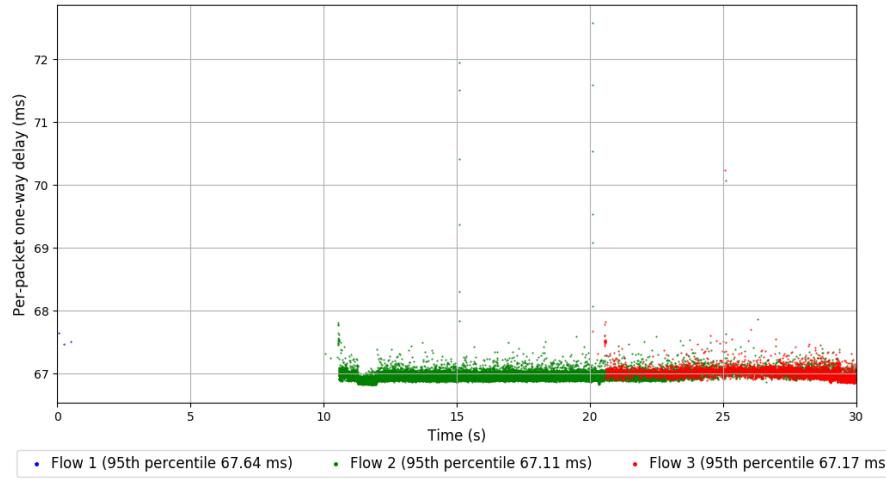
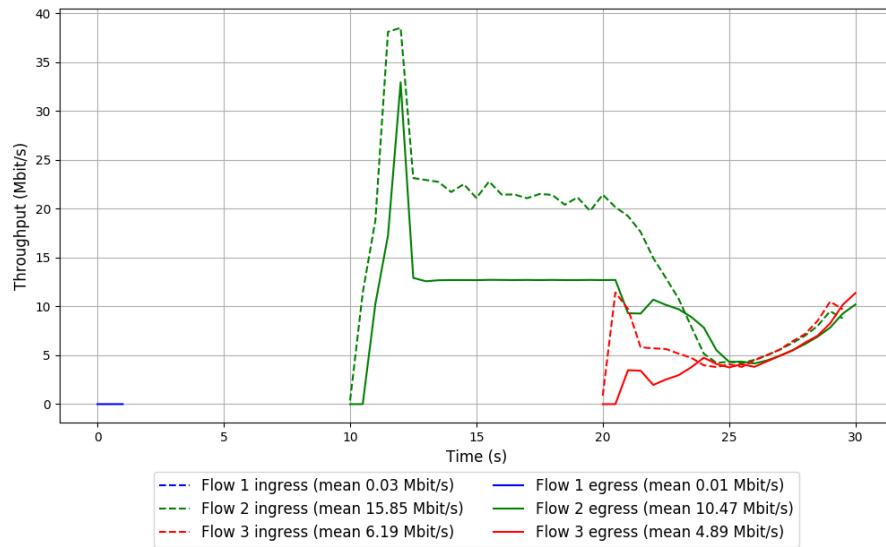


Run 5: Statistics of PCC-Expr

```
Start at: 2019-06-28 02:57:12
End at: 2019-06-28 02:57:42
Local clock offset: -2.117 ms
Remote clock offset: -34.338 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 67.119 ms
Loss rate: 31.86%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 67.642 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 10.47 Mbit/s
95th percentile per-packet one-way delay: 67.105 ms
Loss rate: 33.97%
-- Flow 3:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 67.170 ms
Loss rate: 20.97%
```

Run 5: Report of PCC-Expr — Data Link

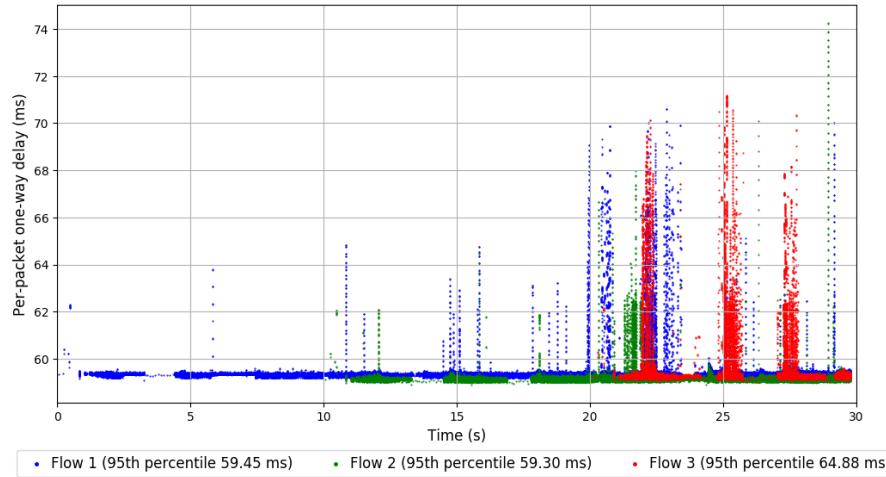
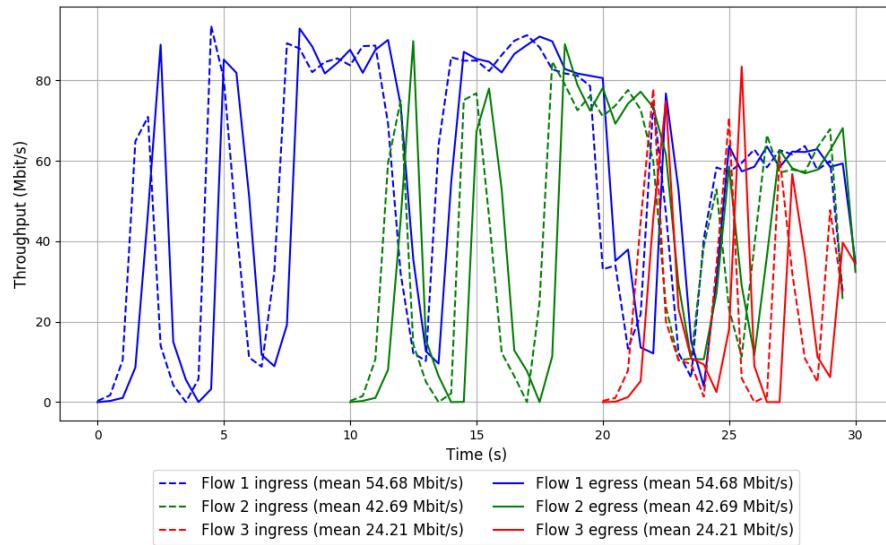


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2019-06-28 00:45:29
End at: 2019-06-28 00:45:59
Local clock offset: -2.3 ms
Remote clock offset: -38.015 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.87 Mbit/s
95th percentile per-packet one-way delay: 59.587 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.68 Mbit/s
95th percentile per-packet one-way delay: 59.448 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.69 Mbit/s
95th percentile per-packet one-way delay: 59.301 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.21 Mbit/s
95th percentile per-packet one-way delay: 64.884 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

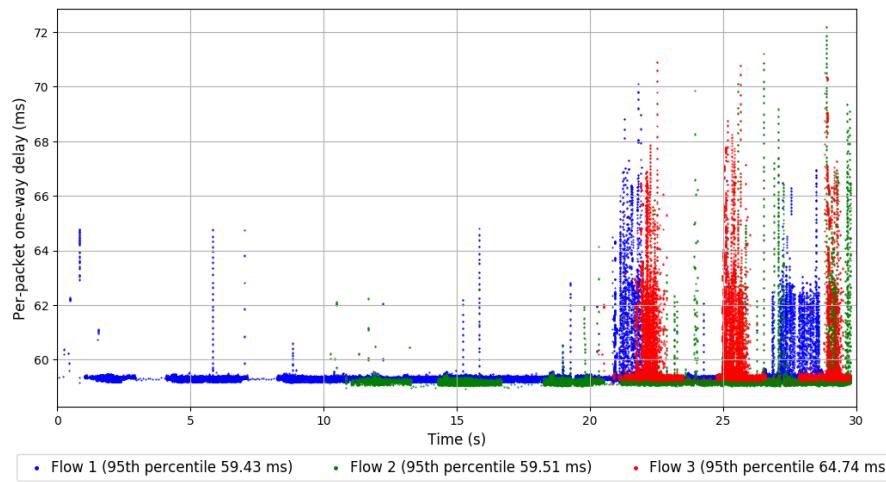
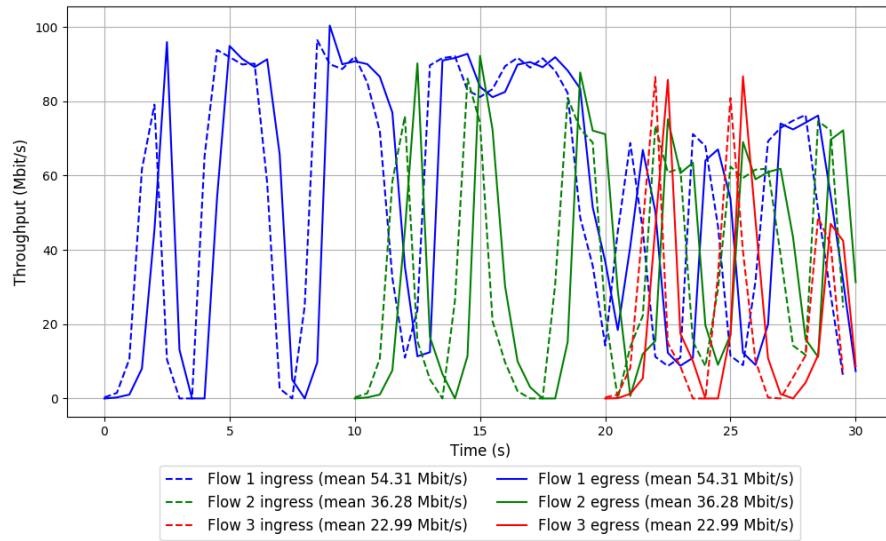


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-06-28 01:18:04
End at: 2019-06-28 01:18:34
Local clock offset: -1.884 ms
Remote clock offset: -37.27 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.84 Mbit/s
95th percentile per-packet one-way delay: 60.562 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.31 Mbit/s
95th percentile per-packet one-way delay: 59.432 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 59.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.99 Mbit/s
95th percentile per-packet one-way delay: 64.736 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

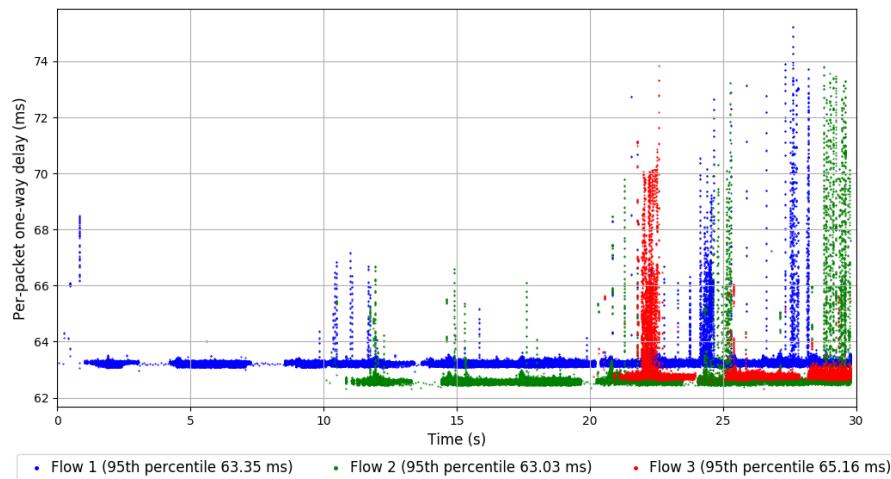
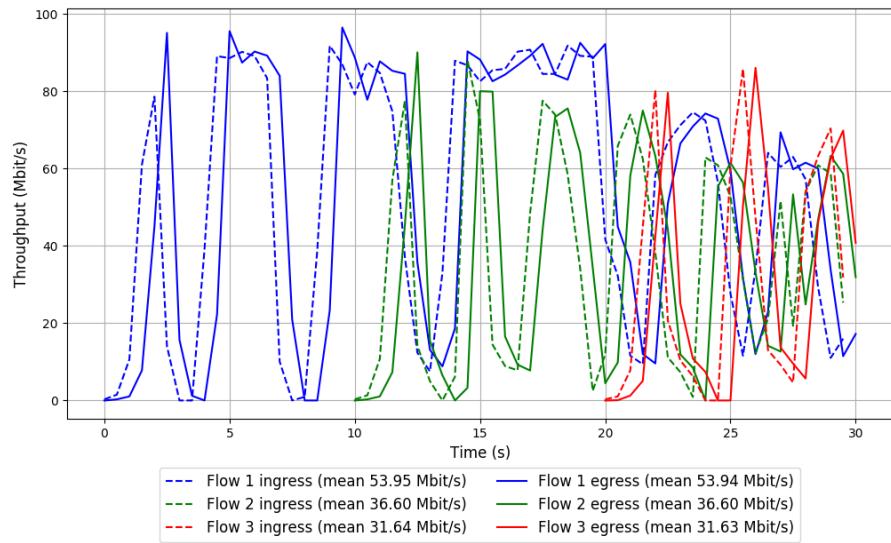


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-06-28 01:50:07
End at: 2019-06-28 01:50:37
Local clock offset: -1.403 ms
Remote clock offset: -32.718 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.48 Mbit/s
95th percentile per-packet one-way delay: 63.362 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.94 Mbit/s
95th percentile per-packet one-way delay: 63.351 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.60 Mbit/s
95th percentile per-packet one-way delay: 63.028 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 65.156 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

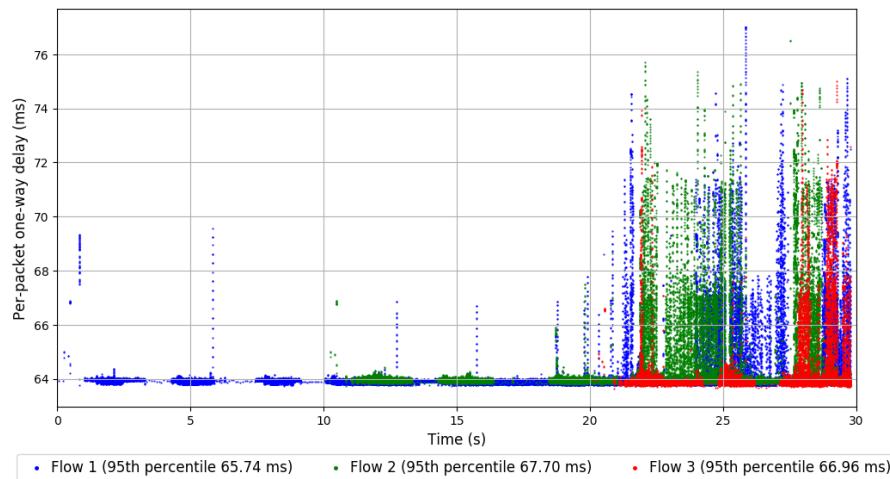
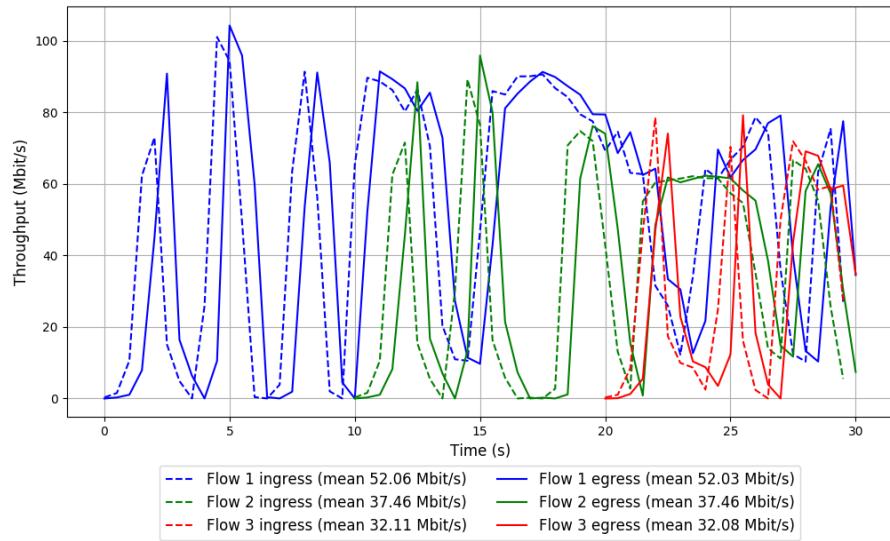


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-06-28 02:22:14
End at: 2019-06-28 02:22:45
Local clock offset: -1.315 ms
Remote clock offset: -33.234 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.30 Mbit/s
95th percentile per-packet one-way delay: 66.582 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 52.03 Mbit/s
95th percentile per-packet one-way delay: 65.737 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 37.46 Mbit/s
95th percentile per-packet one-way delay: 67.702 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.08 Mbit/s
95th percentile per-packet one-way delay: 66.961 ms
Loss rate: 0.04%
```

Run 4: Report of QUIC Cubic — Data Link

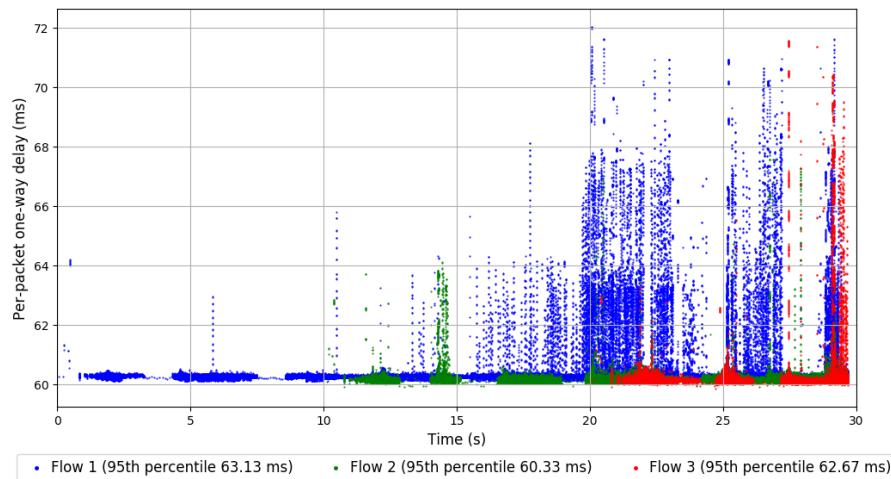
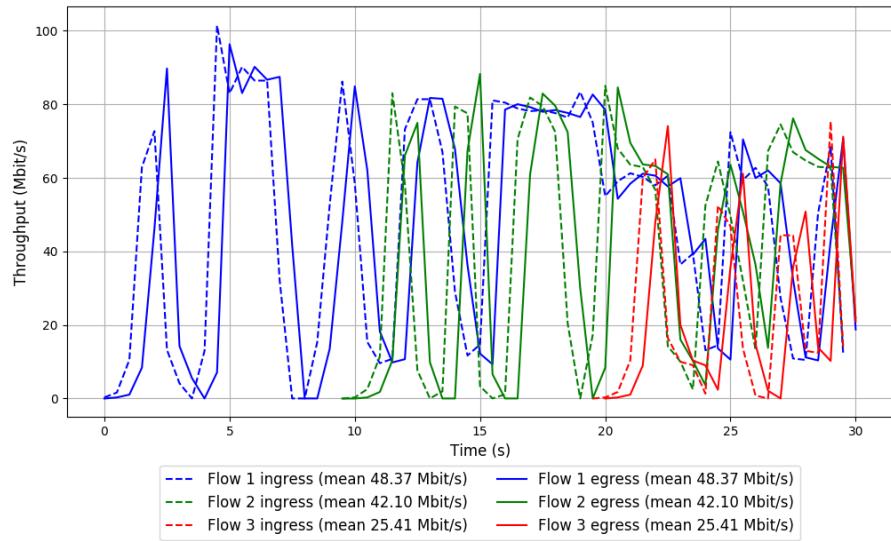


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-06-28 02:54:25
End at: 2019-06-28 02:54:55
Local clock offset: -2.474 ms
Remote clock offset: -38.752 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.64 Mbit/s
95th percentile per-packet one-way delay: 62.394 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.37 Mbit/s
95th percentile per-packet one-way delay: 63.132 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.10 Mbit/s
95th percentile per-packet one-way delay: 60.325 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.41 Mbit/s
95th percentile per-packet one-way delay: 62.671 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

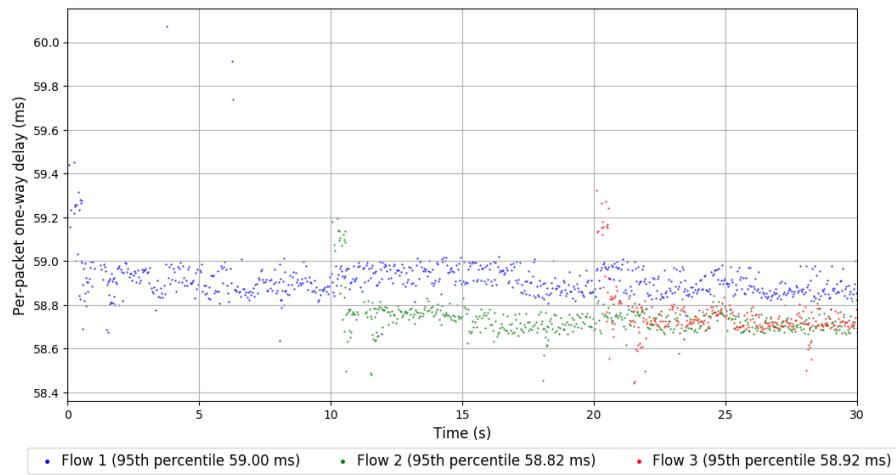
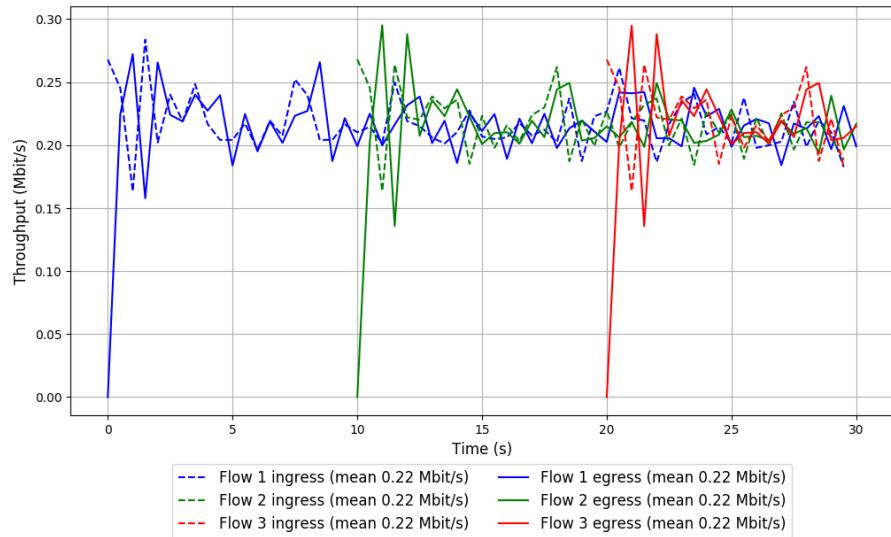


```
Run 1: Statistics of SCReAM

Start at: 2019-06-28 00:25:09
End at: 2019-06-28 00:25:39
Local clock offset: -1.518 ms
Remote clock offset: -38.176 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 58.994 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.998 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.817 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.922 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

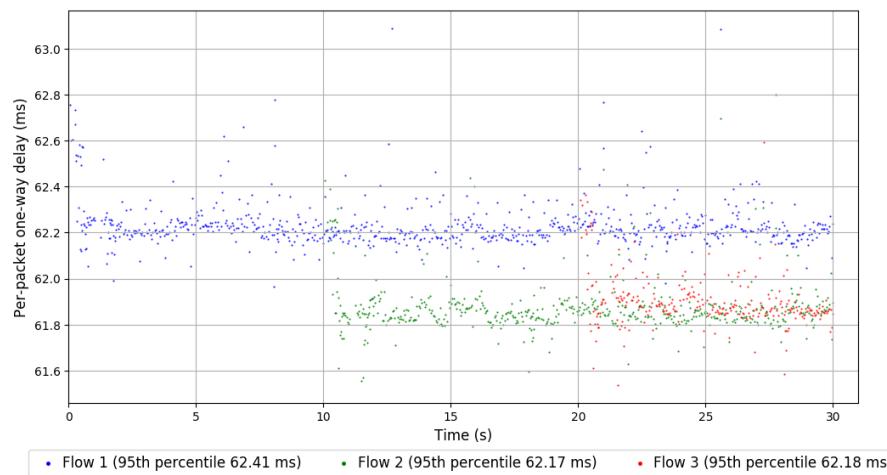
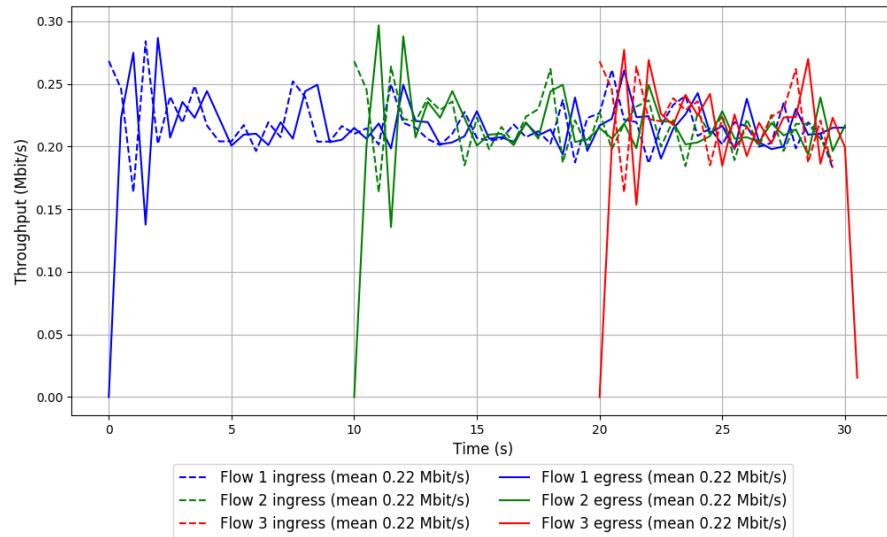


Run 2: Statistics of SCReAM

```
Start at: 2019-06-28 00:57:12
End at: 2019-06-28 00:57:42
Local clock offset: -1.416 ms
Remote clock offset: -34.559 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 62.333 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.406 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.167 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.180 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

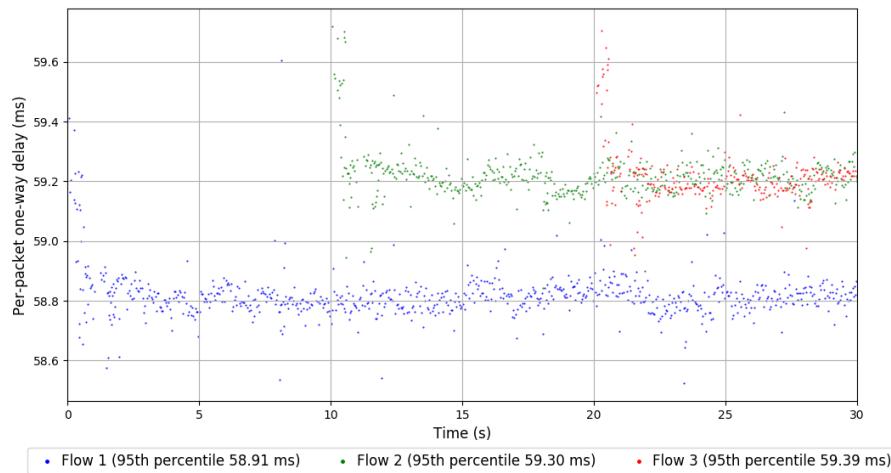
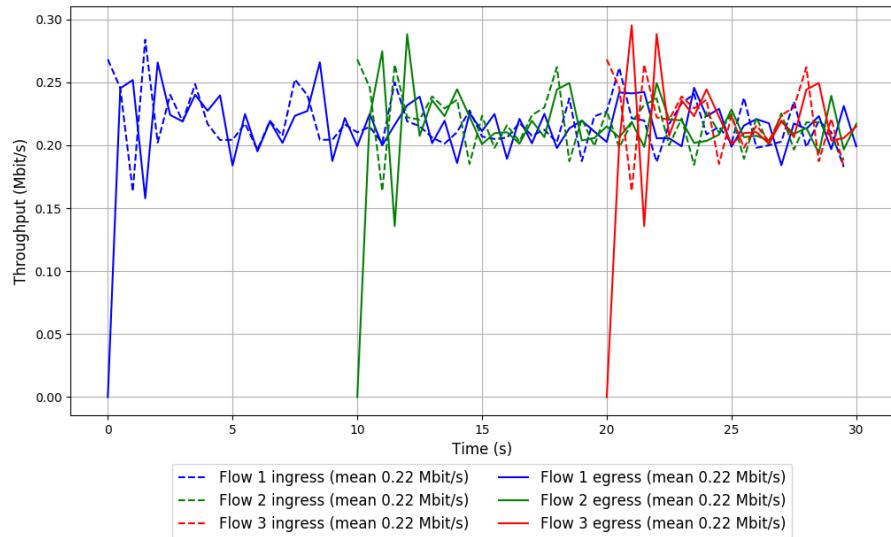


Run 3: Statistics of SCReAM

```
Start at: 2019-06-28 01:29:45
End at: 2019-06-28 01:30:15
Local clock offset: -1.416 ms
Remote clock offset: -36.582 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 59.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 58.907 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.304 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.390 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

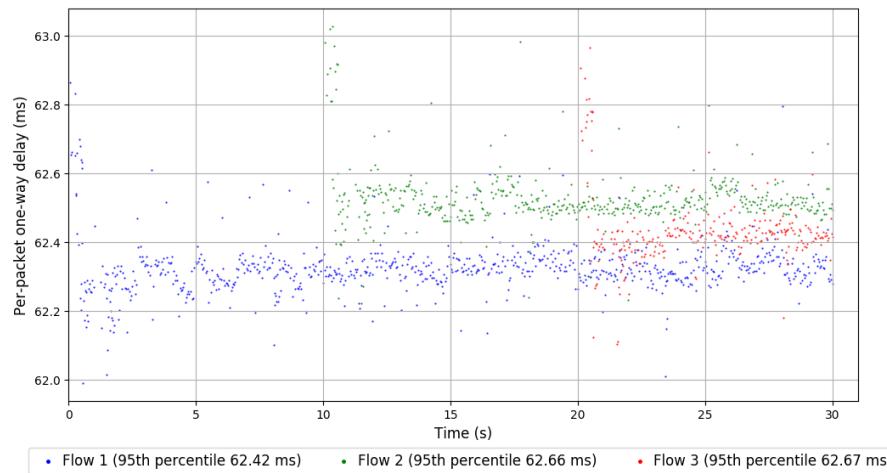
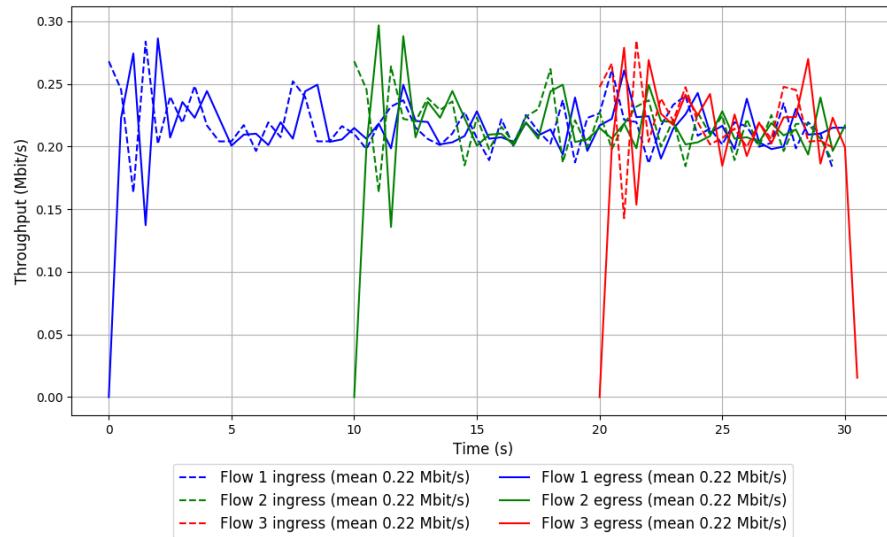


Run 4: Statistics of SCReAM

```
Start at: 2019-06-28 02:01:46
End at: 2019-06-28 02:02:16
Local clock offset: -2.018 ms
Remote clock offset: -34.941 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 62.583 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.425 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.658 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.666 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

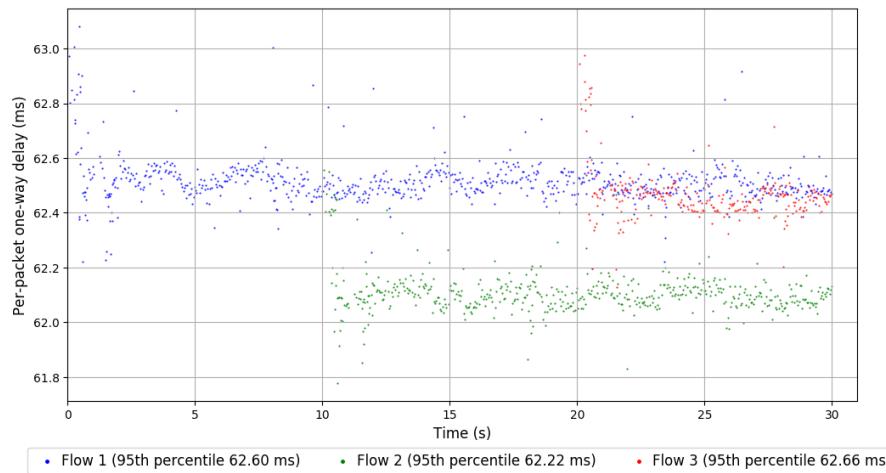
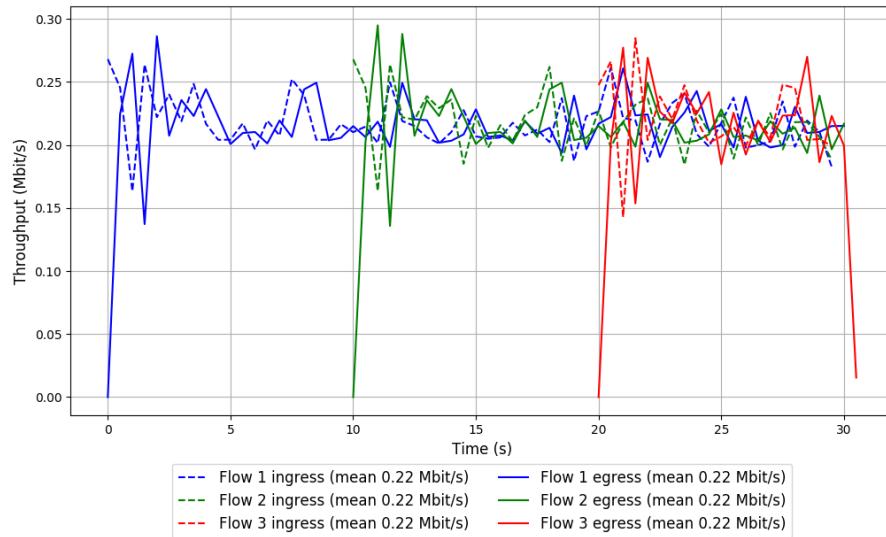


Run 5: Statistics of SCReAM

```
Start at: 2019-06-28 02:33:55
End at: 2019-06-28 02:34:25
Local clock offset: -1.979 ms
Remote clock offset: -35.834 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 62.583 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.605 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.218 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.656 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

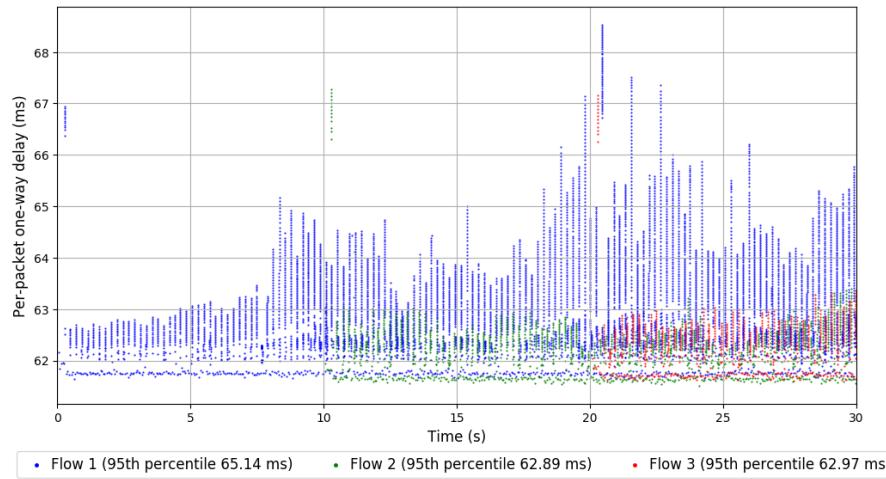
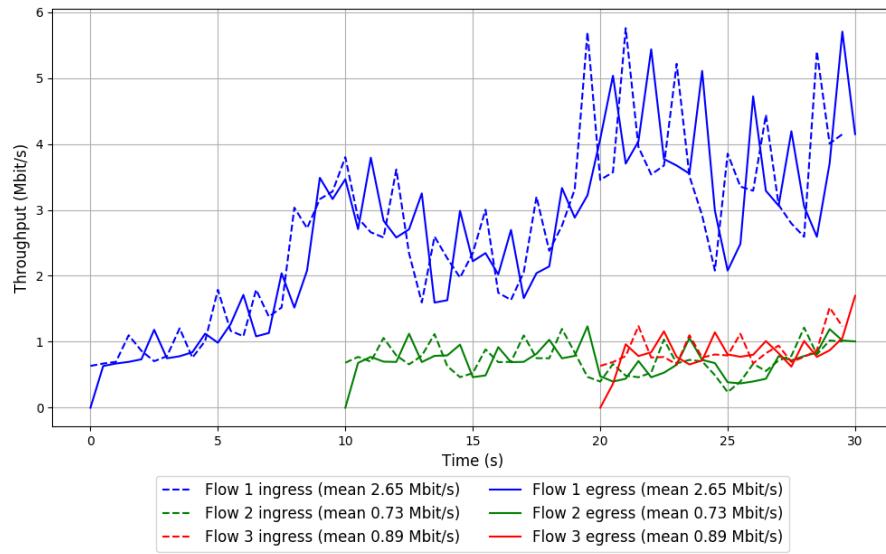


Run 1: Statistics of Sprout

```
Start at: 2019-06-28 00:29:04
End at: 2019-06-28 00:29:34
Local clock offset: -1.351 ms
Remote clock offset: -34.939 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 64.945 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 65.137 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 62.894 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 62.973 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

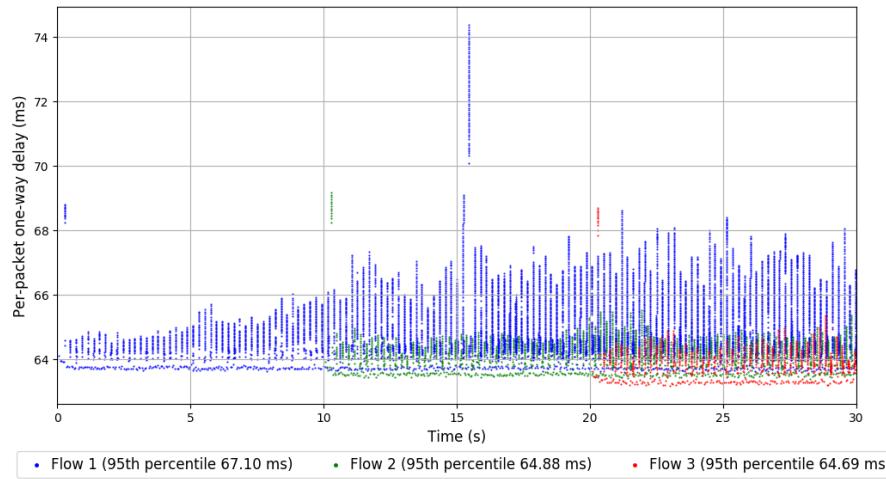
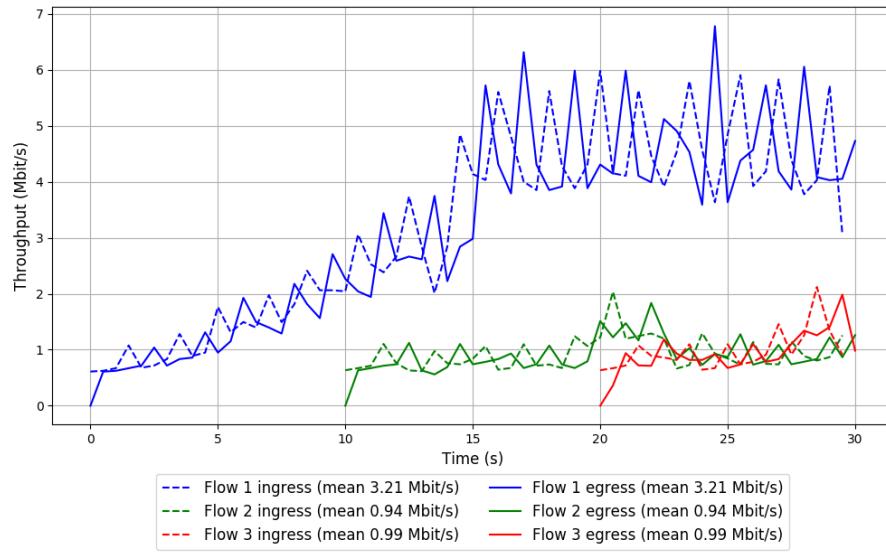


Run 2: Statistics of Sprout

```
Start at: 2019-06-28 01:01:07
End at: 2019-06-28 01:01:37
Local clock offset: -1.28 ms
Remote clock offset: -32.368 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 66.951 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 67.100 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 64.876 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 64.690 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

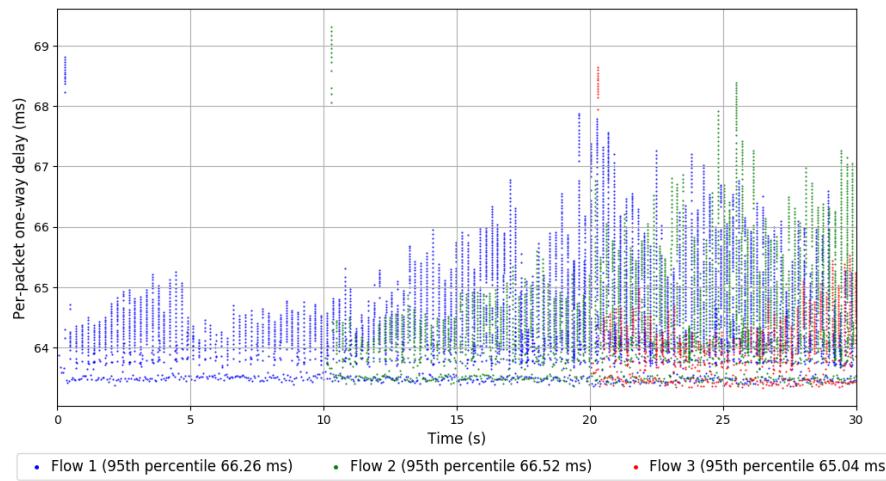
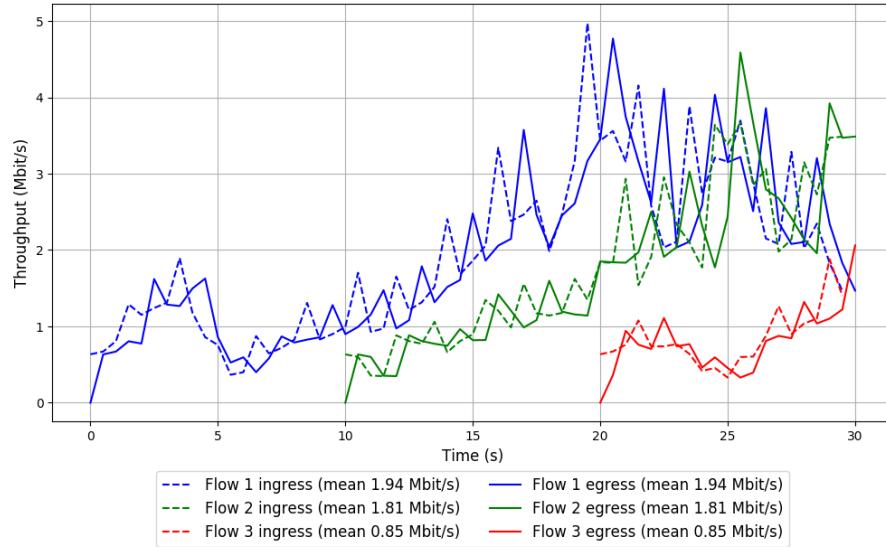


Run 3: Statistics of Sprout

```
Start at: 2019-06-28 01:33:40
End at: 2019-06-28 01:34:10
Local clock offset: -1.652 ms
Remote clock offset: -32.068 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 66.326 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 66.263 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 66.517 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 65.044 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

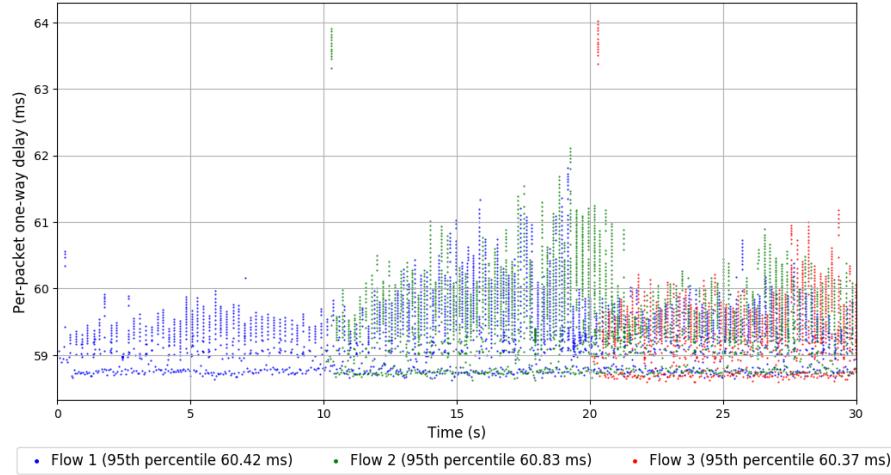
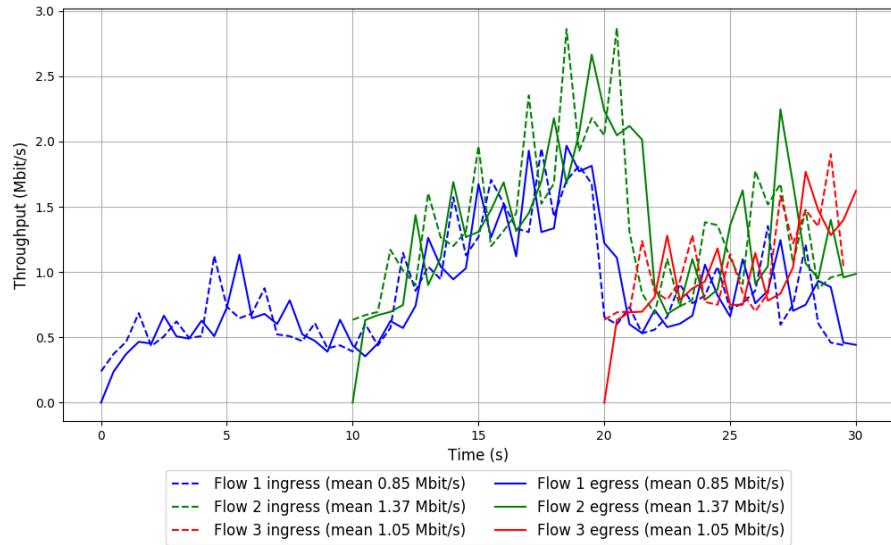


Run 4: Statistics of Sprout

```
Start at: 2019-06-28 02:05:42
End at: 2019-06-28 02:06:12
Local clock offset: -2.03 ms
Remote clock offset: -38.695 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 60.639 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 60.420 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 60.833 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 60.368 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

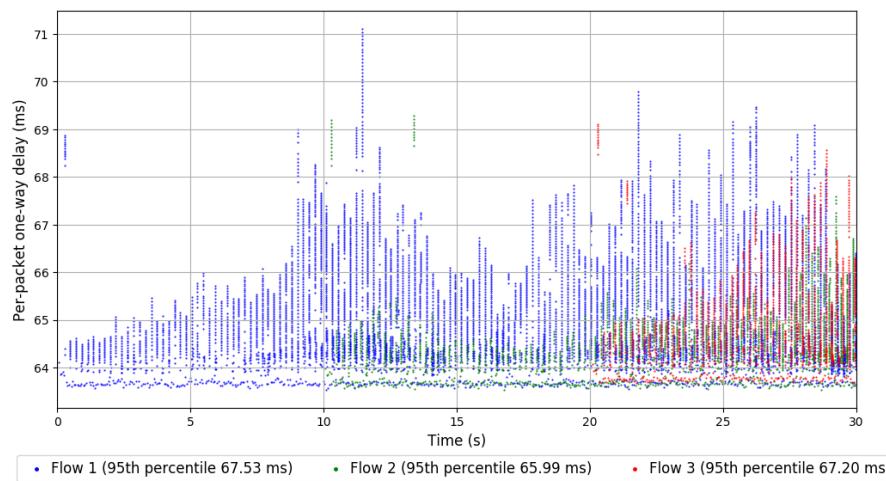
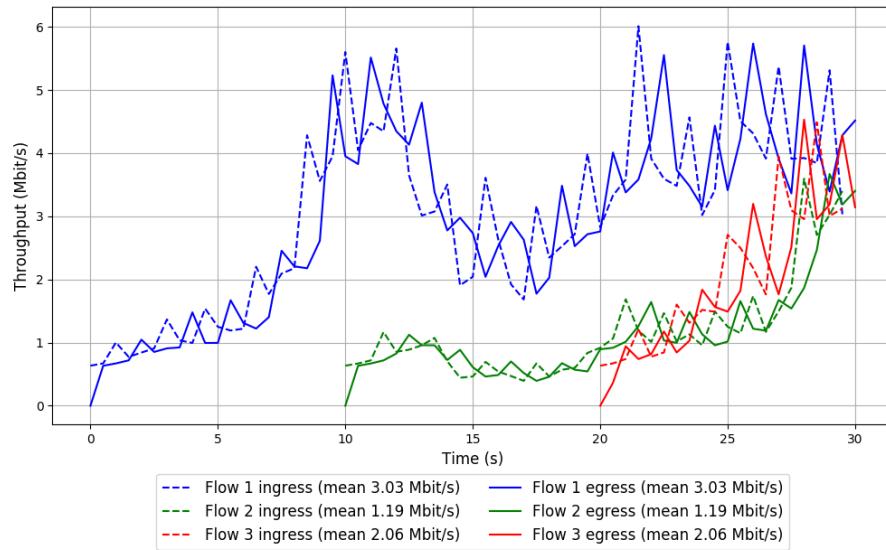


Run 5: Statistics of Sprout

```
Start at: 2019-06-28 02:37:52
End at: 2019-06-28 02:38:22
Local clock offset: -1.988 ms
Remote clock offset: -34.531 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 67.365 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 67.527 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 65.992 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 67.199 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

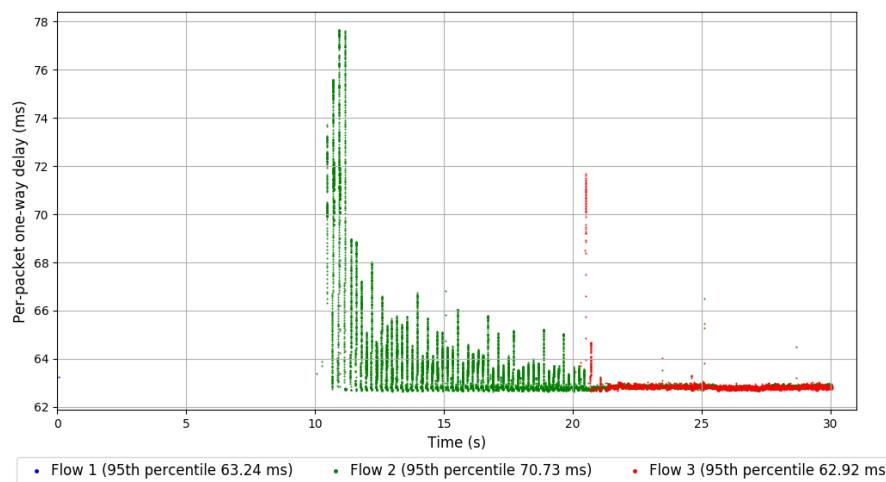
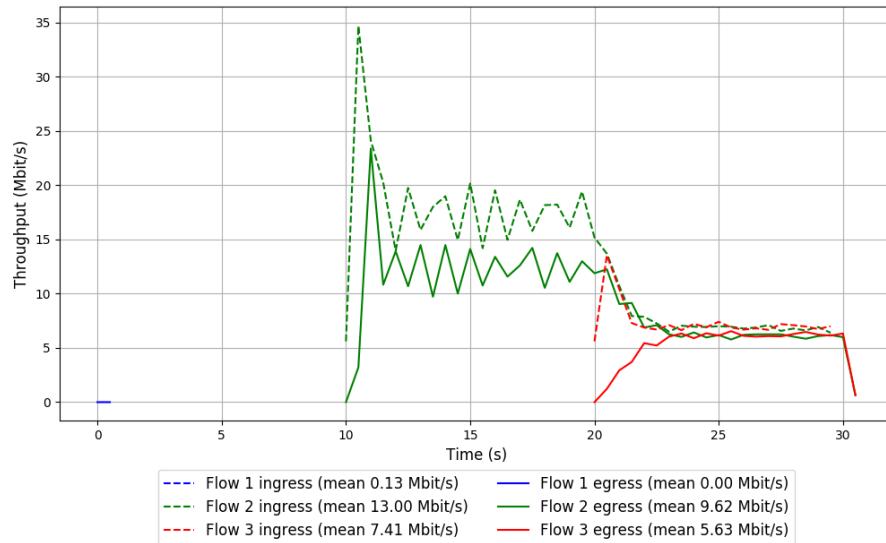


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-06-28 00:27:45
End at: 2019-06-28 00:28:15
Local clock offset: -1.125 ms
Remote clock offset: -33.59 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 69.140 ms
Loss rate: 25.57%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 63.242 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.62 Mbit/s
95th percentile per-packet one-way delay: 70.727 ms
Loss rate: 25.99%
-- Flow 3:
Average throughput: 5.63 Mbit/s
95th percentile per-packet one-way delay: 62.920 ms
Loss rate: 24.07%
```

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

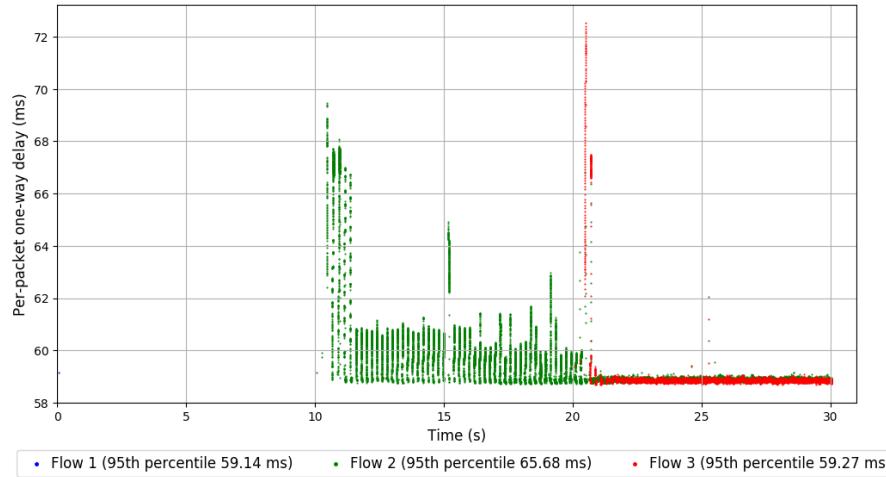
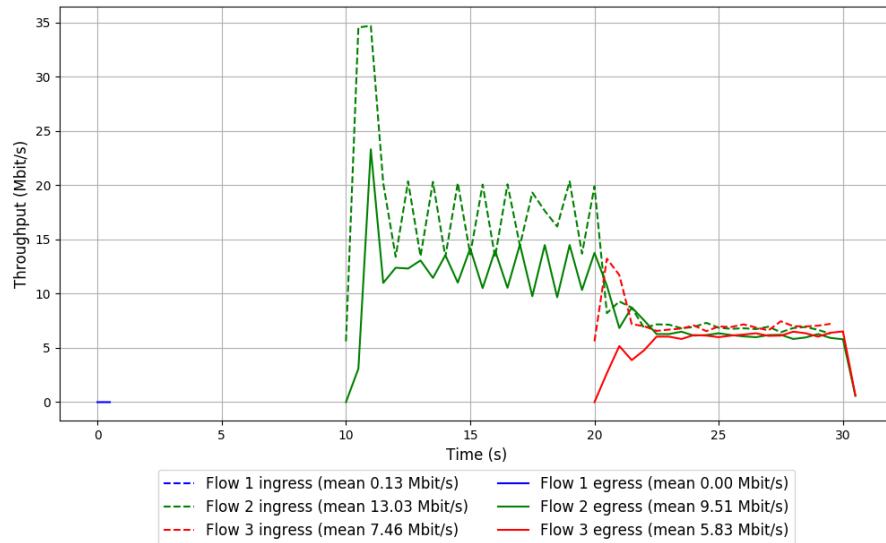


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-06-28 00:59:48
End at: 2019-06-28 01:00:18
Local clock offset: -2.07 ms
Remote clock offset: -37.9 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 65.064 ms
Loss rate: 25.88%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 59.139 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 65.676 ms
Loss rate: 27.00%
-- Flow 3:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 59.275 ms
Loss rate: 21.91%
```

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

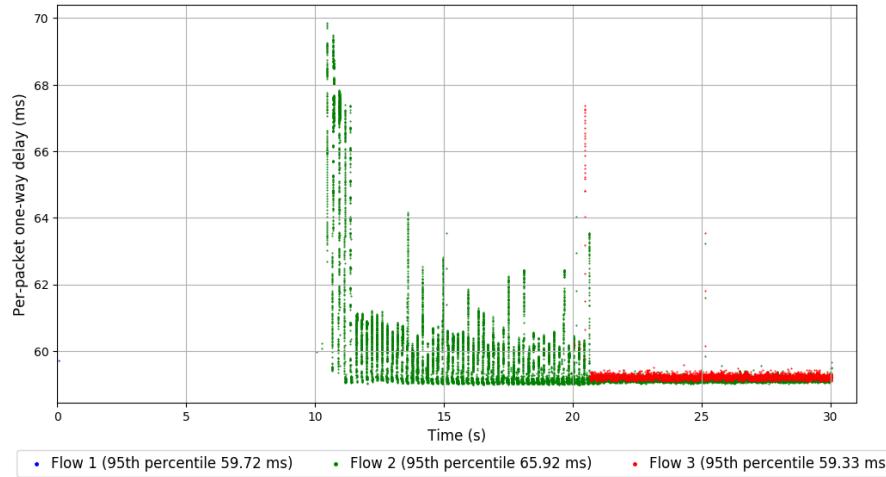
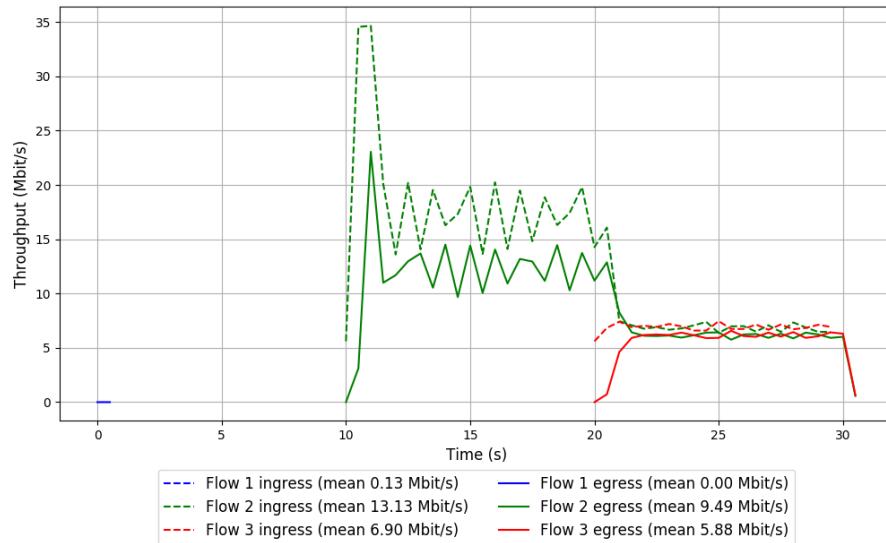


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-06-28 01:32:21
End at: 2019-06-28 01:32:51
Local clock offset: -1.9 ms
Remote clock offset: -36.656 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.27 Mbit/s
95th percentile per-packet one-way delay: 64.153 ms
Loss rate: 25.07%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 59.719 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.49 Mbit/s
95th percentile per-packet one-way delay: 65.922 ms
Loss rate: 27.74%
-- Flow 3:
Average throughput: 5.88 Mbit/s
95th percentile per-packet one-way delay: 59.326 ms
Loss rate: 14.85%
```

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

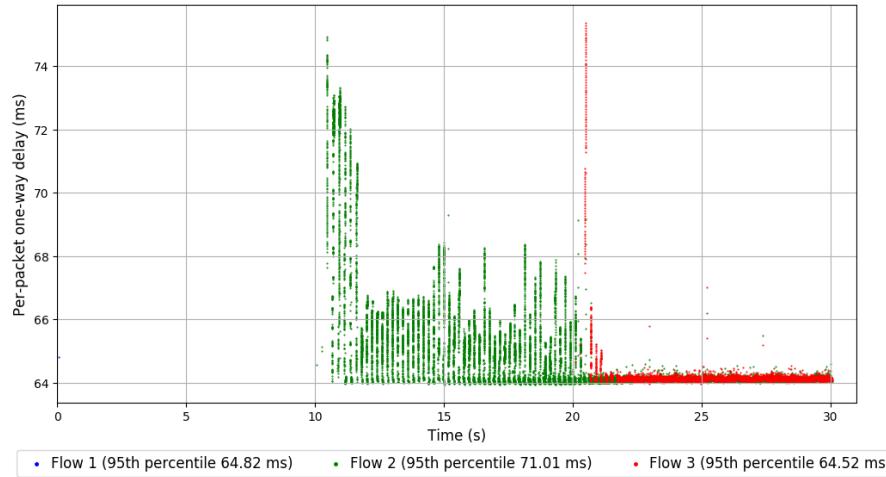
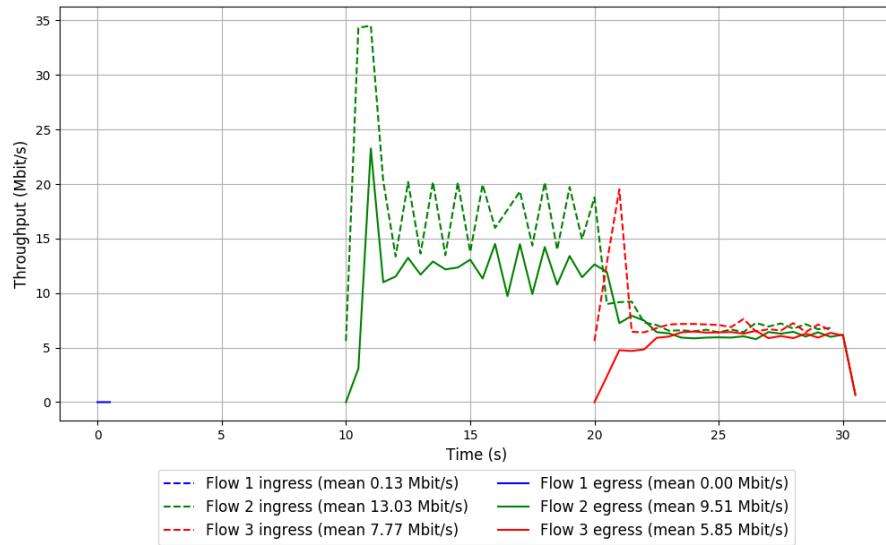


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-06-28 02:04:23
End at: 2019-06-28 02:04:53
Local clock offset: -1.767 ms
Remote clock offset: -32.723 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 69.991 ms
Loss rate: 26.50%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 64.820 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 71.010 ms
Loss rate: 27.03%
-- Flow 3:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 64.515 ms
Loss rate: 24.71%
```

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

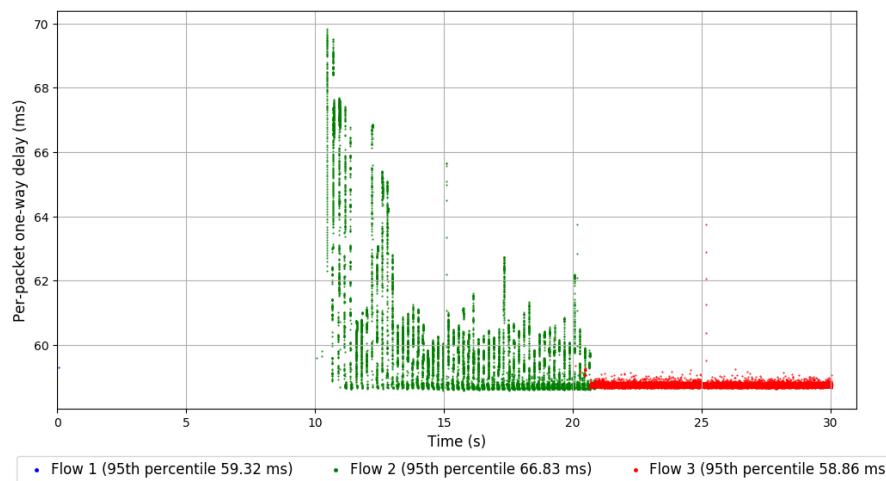
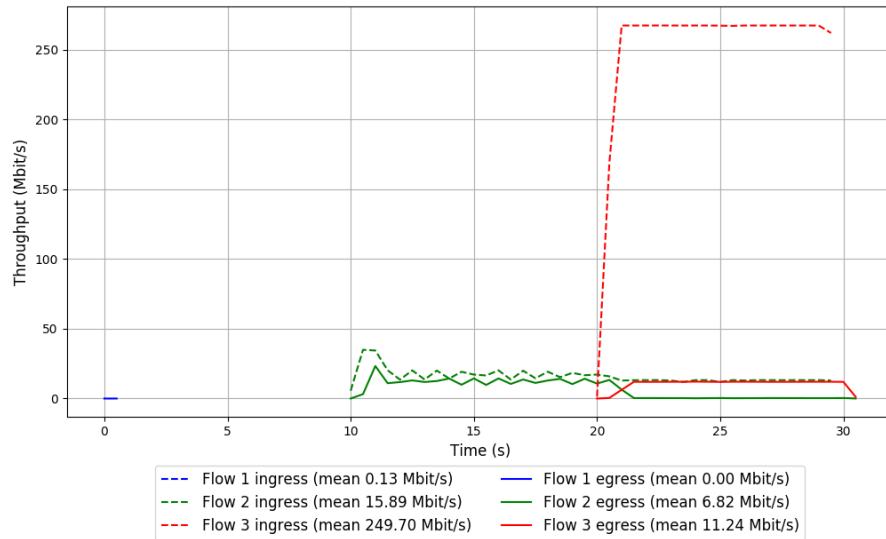


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-06-28 02:36:32
End at: 2019-06-28 02:37:02
Local clock offset: -1.827 ms
Remote clock offset: -39.082 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 64.814 ms
Loss rate: 91.15%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 59.317 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 66.826 ms
Loss rate: 57.09%
-- Flow 3:
Average throughput: 11.24 Mbit/s
95th percentile per-packet one-way delay: 58.862 ms
Loss rate: 95.50%
```

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

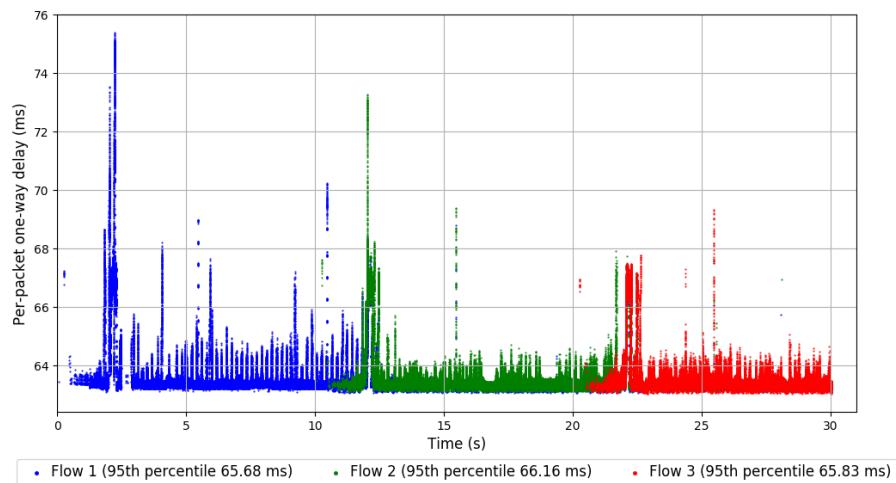
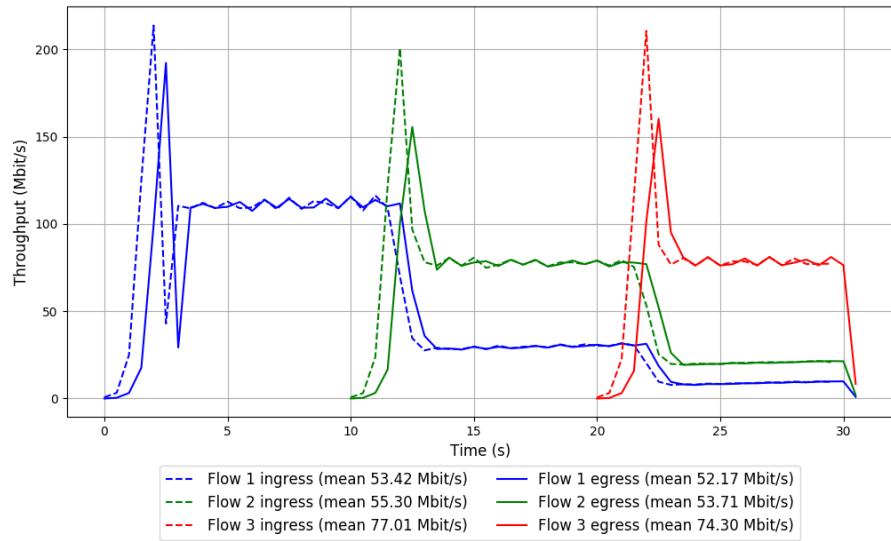


Run 1: Statistics of TCP Vegas

```
Start at: 2019-06-28 00:31:55
End at: 2019-06-28 00:32:25
Local clock offset: -0.938 ms
Remote clock offset: -33.067 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.63 Mbit/s
95th percentile per-packet one-way delay: 65.853 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 52.17 Mbit/s
95th percentile per-packet one-way delay: 65.683 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 53.71 Mbit/s
95th percentile per-packet one-way delay: 66.163 ms
Loss rate: 2.87%
-- Flow 3:
Average throughput: 74.30 Mbit/s
95th percentile per-packet one-way delay: 65.825 ms
Loss rate: 3.52%
```

Run 1: Report of TCP Vegas — Data Link

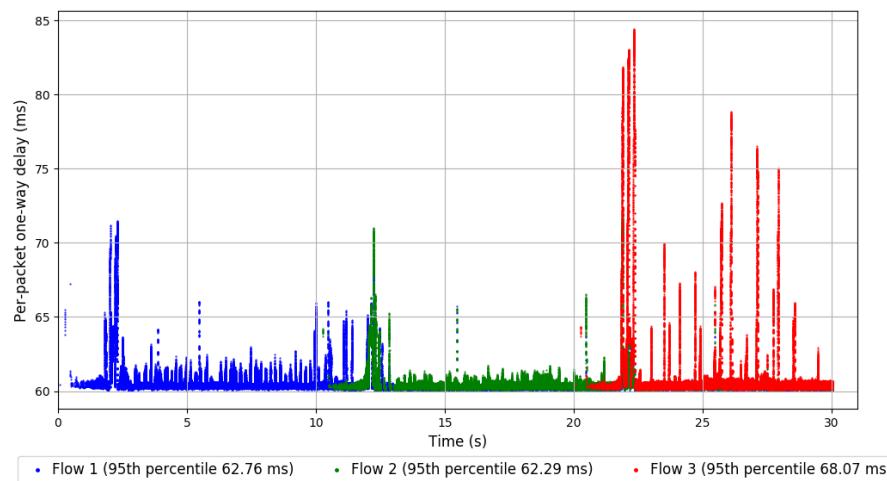
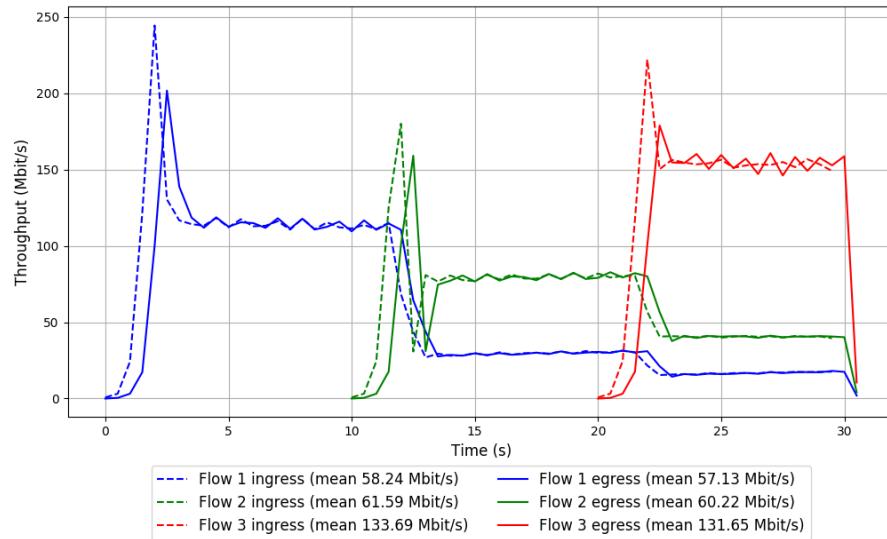


Run 2: Statistics of TCP Vegas

```
Start at: 2019-06-28 01:03:58
End at: 2019-06-28 01:04:28
Local clock offset: -1.648 ms
Remote clock offset: -36.285 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.10 Mbit/s
95th percentile per-packet one-way delay: 63.491 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 57.13 Mbit/s
95th percentile per-packet one-way delay: 62.764 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 60.22 Mbit/s
95th percentile per-packet one-way delay: 62.294 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 131.65 Mbit/s
95th percentile per-packet one-way delay: 68.066 ms
Loss rate: 1.53%
```

Run 2: Report of TCP Vegas — Data Link

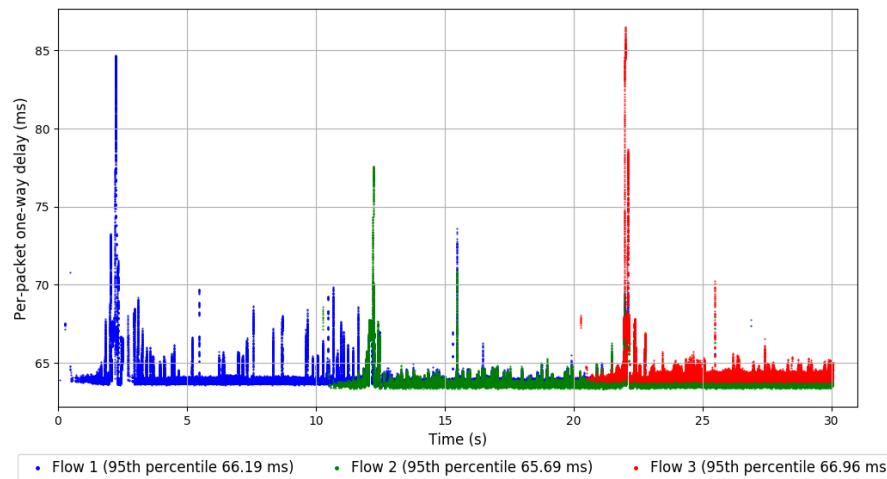
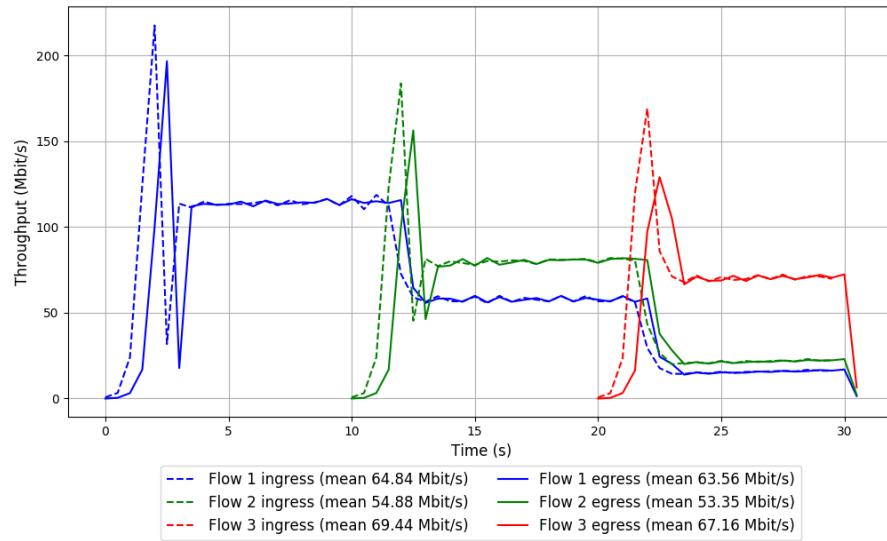


Run 3: Statistics of TCP Vegas

```
Start at: 2019-06-28 01:36:31
End at: 2019-06-28 01:37:01
Local clock offset: -1.171 ms
Remote clock offset: -31.568 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.45 Mbit/s
95th percentile per-packet one-way delay: 66.215 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 63.56 Mbit/s
95th percentile per-packet one-way delay: 66.191 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 53.35 Mbit/s
95th percentile per-packet one-way delay: 65.685 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 67.16 Mbit/s
95th percentile per-packet one-way delay: 66.964 ms
Loss rate: 3.27%
```

Run 3: Report of TCP Vegas — Data Link

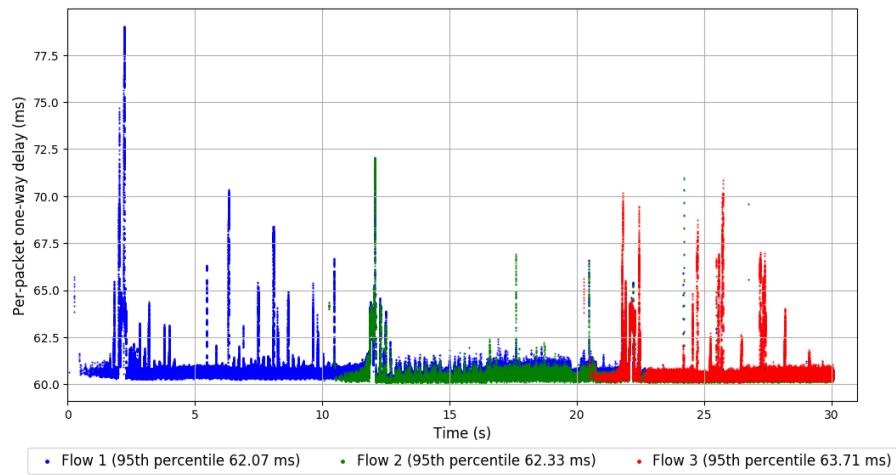
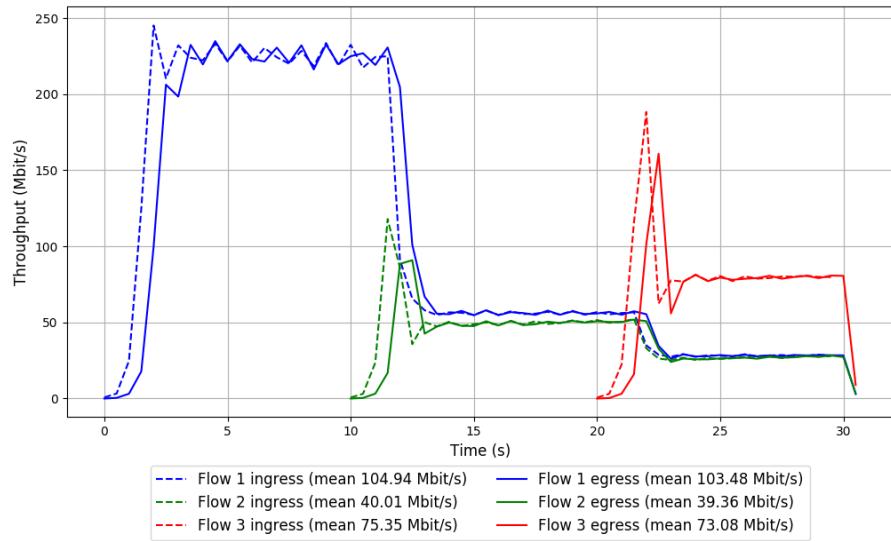


Run 4: Statistics of TCP Vegas

```
Start at: 2019-06-28 02:08:33
End at: 2019-06-28 02:09:03
Local clock offset: -1.653 ms
Remote clock offset: -37.109 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.00 Mbit/s
95th percentile per-packet one-way delay: 62.675 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 103.48 Mbit/s
95th percentile per-packet one-way delay: 62.072 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 39.36 Mbit/s
95th percentile per-packet one-way delay: 62.328 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 73.08 Mbit/s
95th percentile per-packet one-way delay: 63.712 ms
Loss rate: 3.01%
```

Run 4: Report of TCP Vegas — Data Link

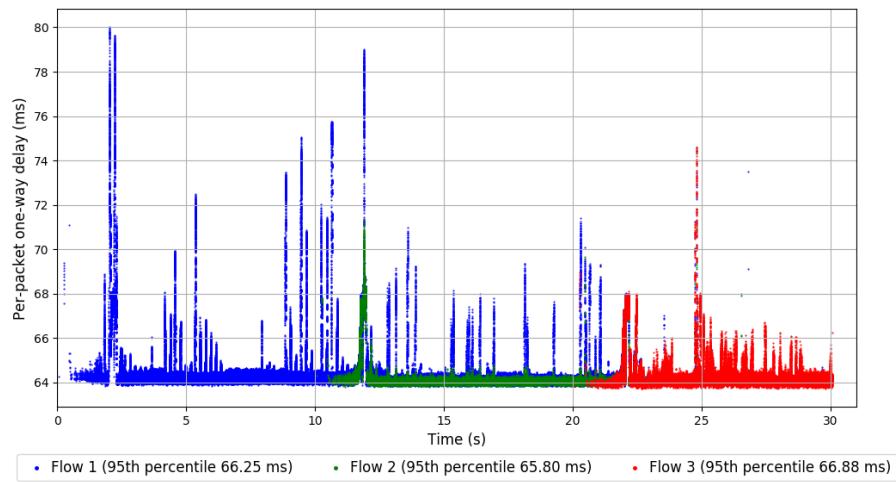
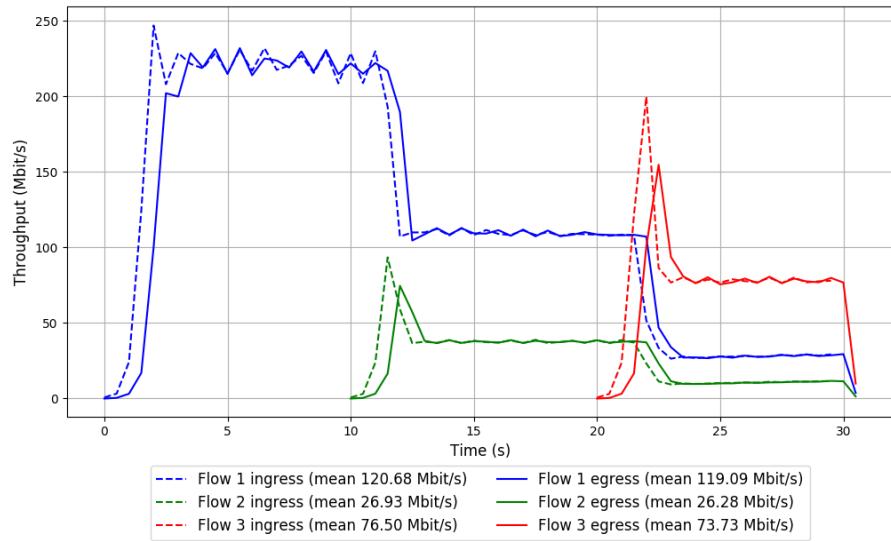


Run 5: Statistics of TCP Vegas

```
Start at: 2019-06-28 02:40:44
End at: 2019-06-28 02:41:14
Local clock offset: -1.613 ms
Remote clock offset: -34.134 ms

# Below is generated by plot.py at 2019-06-28 03:39:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.13 Mbit/s
95th percentile per-packet one-way delay: 66.304 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 119.09 Mbit/s
95th percentile per-packet one-way delay: 66.251 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 26.28 Mbit/s
95th percentile per-packet one-way delay: 65.798 ms
Loss rate: 2.38%
-- Flow 3:
Average throughput: 73.73 Mbit/s
95th percentile per-packet one-way delay: 66.884 ms
Loss rate: 3.60%
```

Run 5: Report of TCP Vegas — Data Link

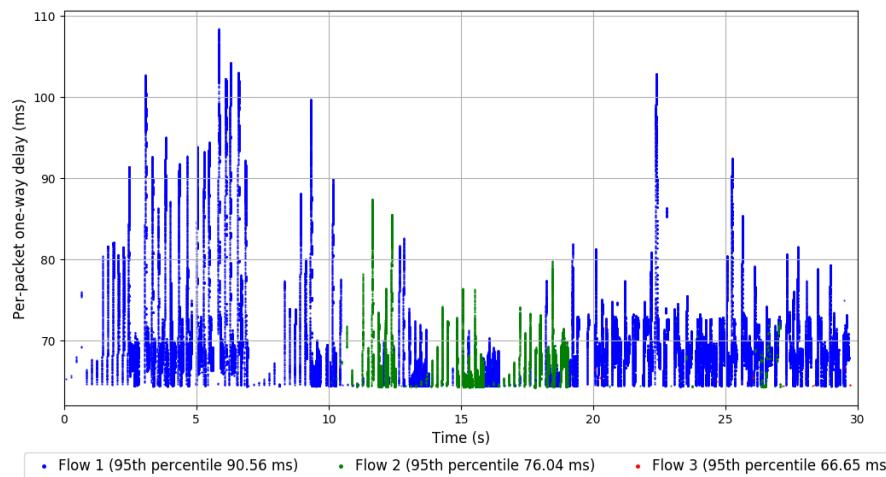
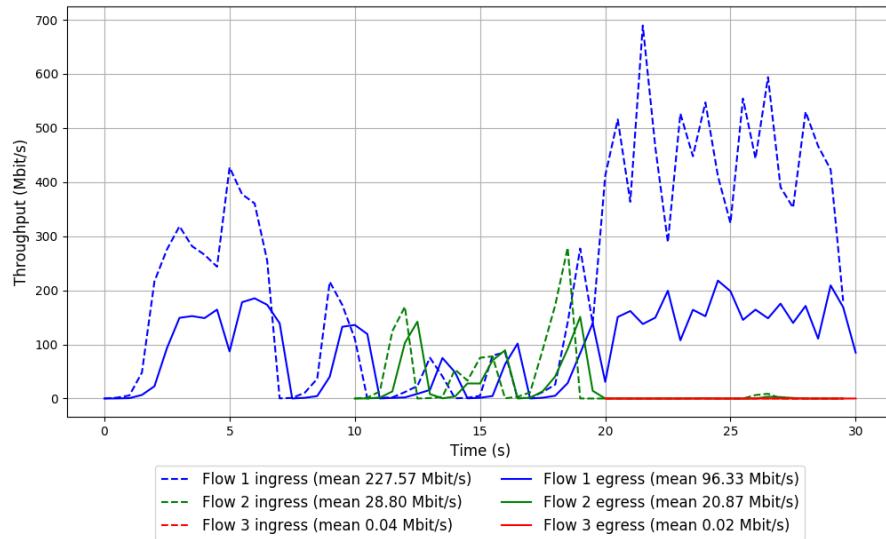


```
Run 1: Statistics of Verus
```

```
Start at: 2019-06-28 00:46:51
End at: 2019-06-28 00:47:21
Local clock offset: -1.671 ms
Remote clock offset: -32.316 ms

# Below is generated by plot.py at 2019-06-28 03:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.79 Mbit/s
95th percentile per-packet one-way delay: 89.484 ms
Loss rate: 55.40%
-- Flow 1:
Average throughput: 96.33 Mbit/s
95th percentile per-packet one-way delay: 90.562 ms
Loss rate: 57.67%
-- Flow 2:
Average throughput: 20.87 Mbit/s
95th percentile per-packet one-way delay: 76.041 ms
Loss rate: 28.27%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 66.651 ms
Loss rate: 60.61%
```

Run 1: Report of Verus — Data Link

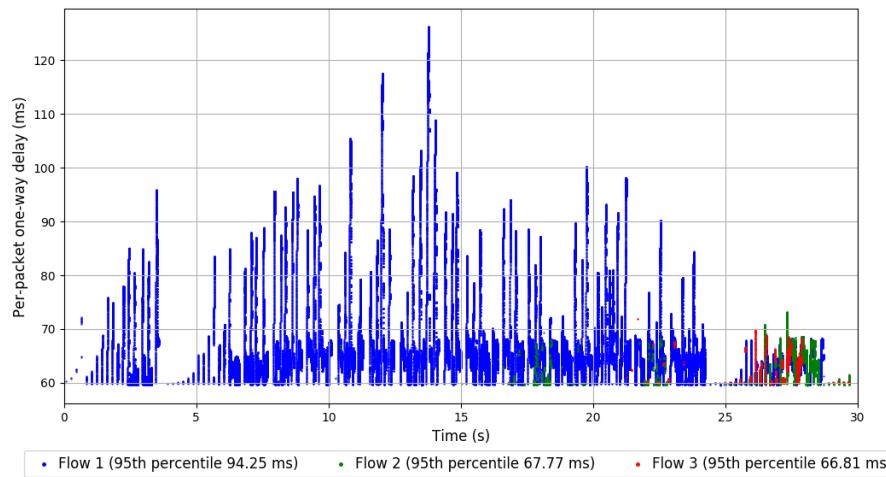
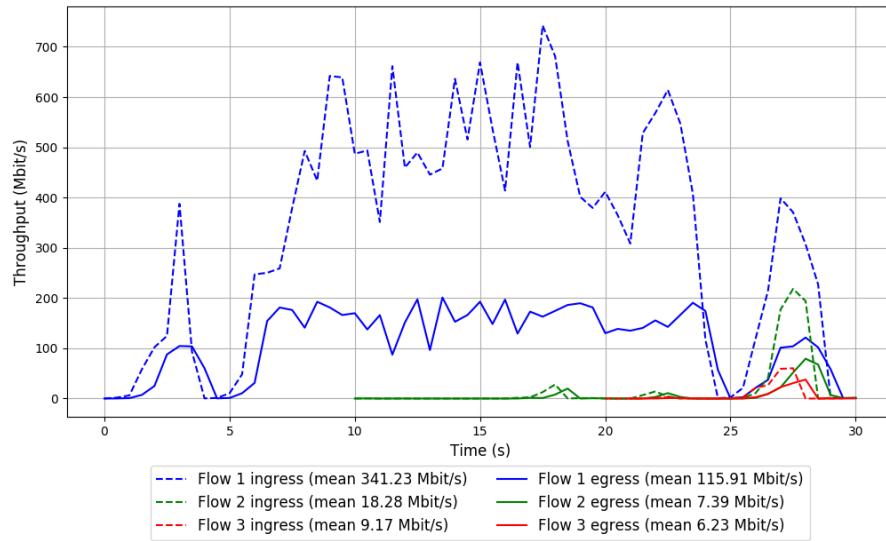


Run 2: Statistics of Verus

```
Start at: 2019-06-28 01:19:28
End at: 2019-06-28 01:19:58
Local clock offset: -2.089 ms
Remote clock offset: -37.053 ms

# Below is generated by plot.py at 2019-06-28 03:39:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.51 Mbit/s
95th percentile per-packet one-way delay: 93.835 ms
Loss rate: 65.59%
-- Flow 1:
Average throughput: 115.91 Mbit/s
95th percentile per-packet one-way delay: 94.250 ms
Loss rate: 66.03%
-- Flow 2:
Average throughput: 7.39 Mbit/s
95th percentile per-packet one-way delay: 67.766 ms
Loss rate: 59.61%
-- Flow 3:
Average throughput: 6.23 Mbit/s
95th percentile per-packet one-way delay: 66.809 ms
Loss rate: 39.22%
```

Run 2: Report of Verus — Data Link

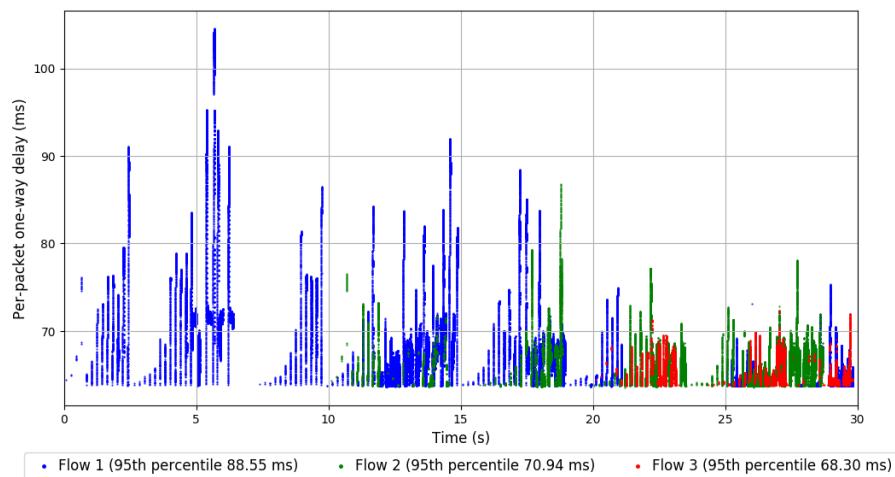
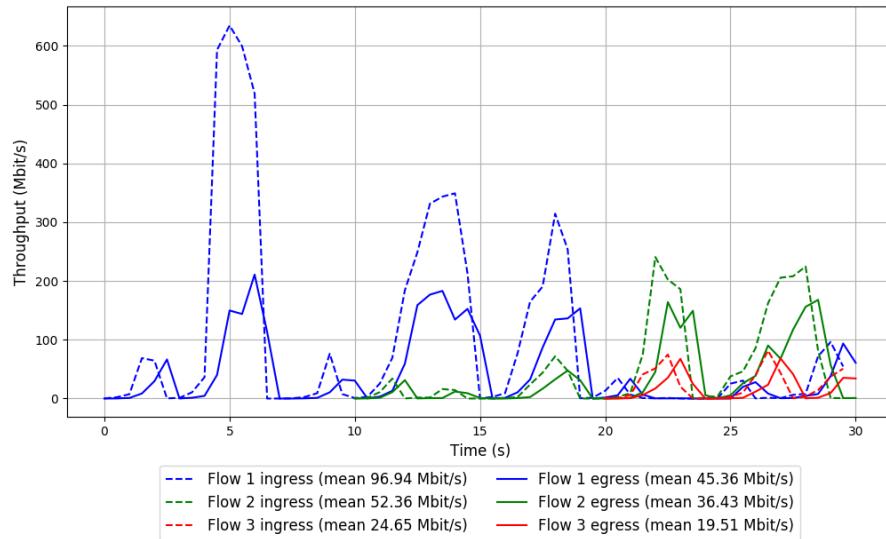


Run 3: Statistics of Verus

```
Start at: 2019-06-28 01:51:30
End at: 2019-06-28 01:52:00
Local clock offset: -1.27 ms
Remote clock offset: -31.901 ms

# Below is generated by plot.py at 2019-06-28 03:39:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.66 Mbit/s
95th percentile per-packet one-way delay: 82.018 ms
Loss rate: 45.71%
-- Flow 1:
Average throughput: 45.36 Mbit/s
95th percentile per-packet one-way delay: 88.548 ms
Loss rate: 53.21%
-- Flow 2:
Average throughput: 36.43 Mbit/s
95th percentile per-packet one-way delay: 70.941 ms
Loss rate: 30.41%
-- Flow 3:
Average throughput: 19.51 Mbit/s
95th percentile per-packet one-way delay: 68.300 ms
Loss rate: 20.85%
```

Run 3: Report of Verus — Data Link

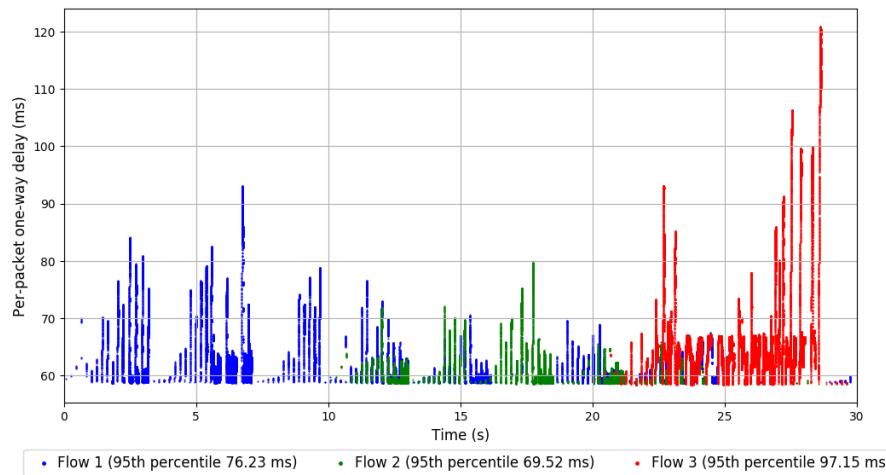
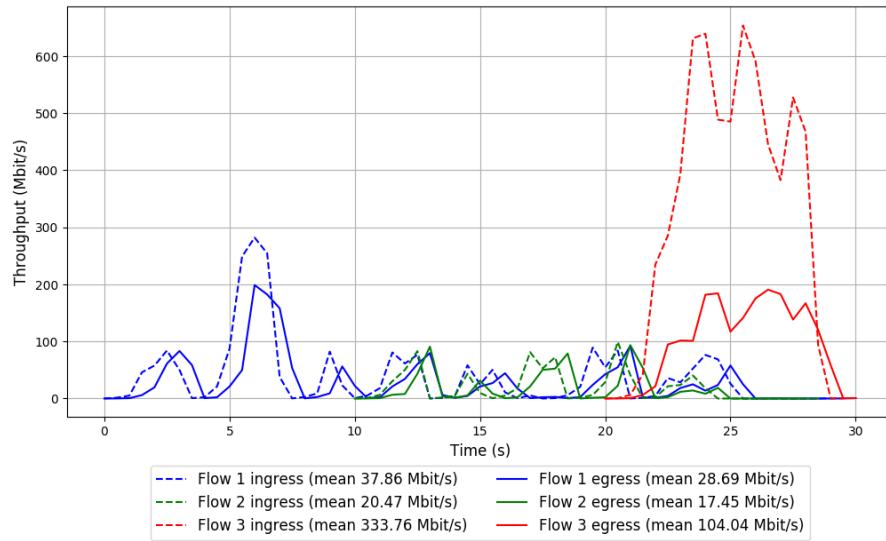


Run 4: Statistics of Verus

```
Start at: 2019-06-28 02:23:38
End at: 2019-06-28 02:24:08
Local clock offset: -1.196 ms
Remote clock offset: -38.452 ms

# Below is generated by plot.py at 2019-06-28 03:39:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.87 Mbit/s
95th percentile per-packet one-way delay: 84.621 ms
Loss rate: 53.81%
-- Flow 1:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 76.230 ms
Loss rate: 24.22%
-- Flow 2:
Average throughput: 17.45 Mbit/s
95th percentile per-packet one-way delay: 69.519 ms
Loss rate: 14.69%
-- Flow 3:
Average throughput: 104.04 Mbit/s
95th percentile per-packet one-way delay: 97.154 ms
Loss rate: 68.83%
```

Run 4: Report of Verus — Data Link

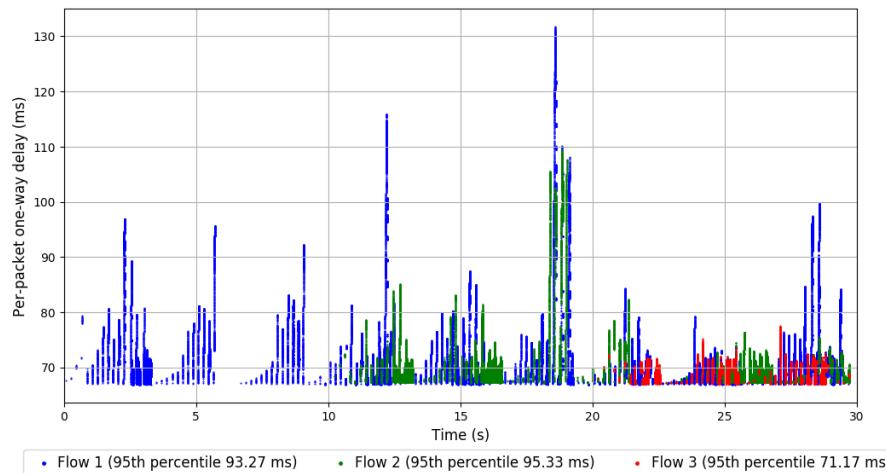
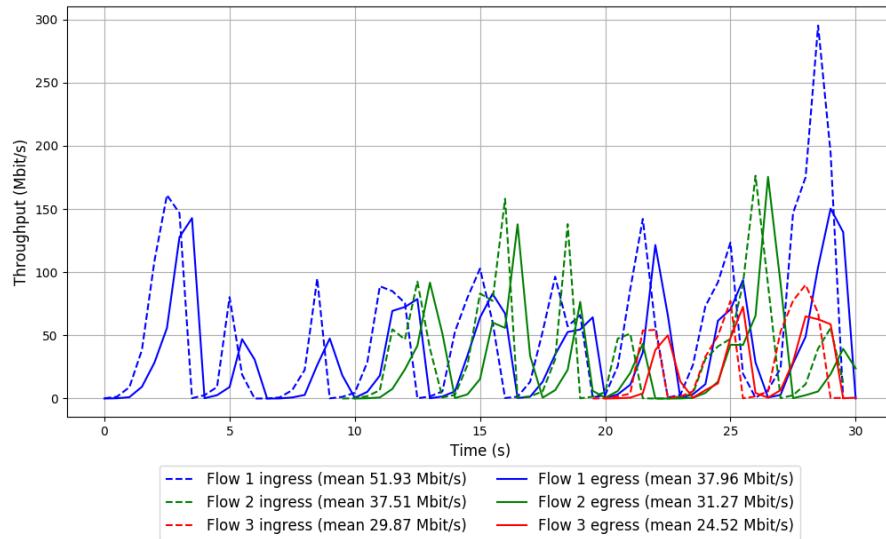


Run 5: Statistics of Verus

```
Start at: 2019-06-28 02:55:48
End at: 2019-06-28 02:56:18
Local clock offset: -1.757 ms
Remote clock offset: -34.137 ms

# Below is generated by plot.py at 2019-06-28 03:39:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.67 Mbit/s
95th percentile per-packet one-way delay: 91.600 ms
Loss rate: 22.92%
-- Flow 1:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 93.271 ms
Loss rate: 26.90%
-- Flow 2:
Average throughput: 31.27 Mbit/s
95th percentile per-packet one-way delay: 95.328 ms
Loss rate: 16.63%
-- Flow 3:
Average throughput: 24.52 Mbit/s
95th percentile per-packet one-way delay: 71.175 ms
Loss rate: 17.88%
```

Run 5: Report of Verus — Data Link

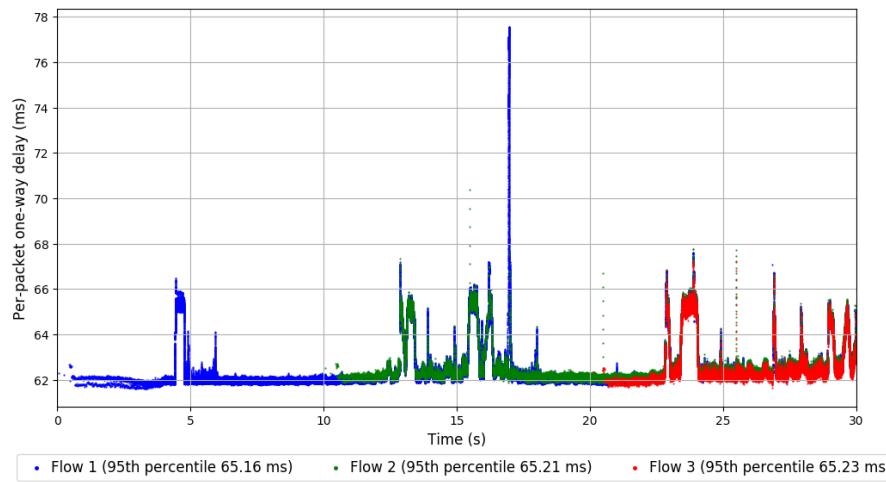
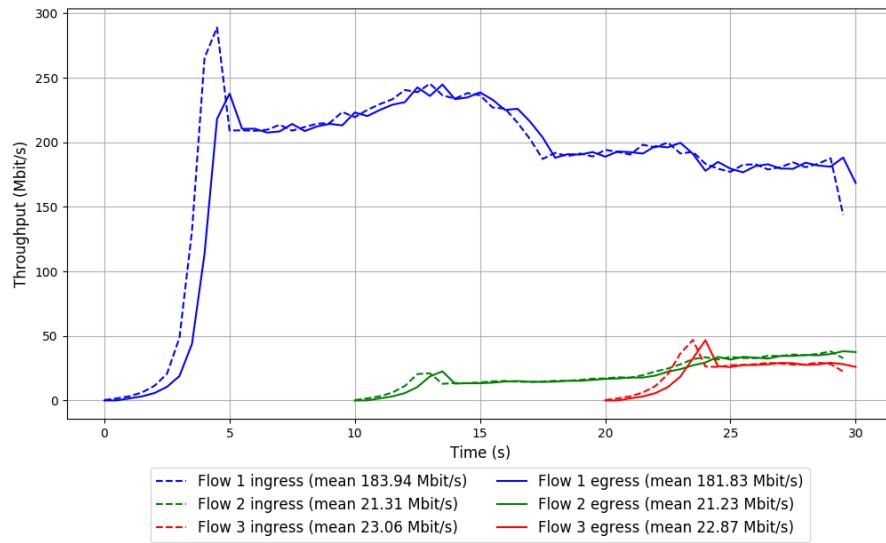


```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 00:36:08
End at: 2019-06-28 00:36:38
Local clock offset: -1.556 ms
Remote clock offset: -34.918 ms

# Below is generated by plot.py at 2019-06-28 03:40:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 203.51 Mbit/s
95th percentile per-packet one-way delay: 65.165 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 181.83 Mbit/s
95th percentile per-packet one-way delay: 65.158 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 21.23 Mbit/s
95th percentile per-packet one-way delay: 65.207 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 22.87 Mbit/s
95th percentile per-packet one-way delay: 65.227 ms
Loss rate: 0.83%
```

Run 1: Report of PCC-Vivace — Data Link

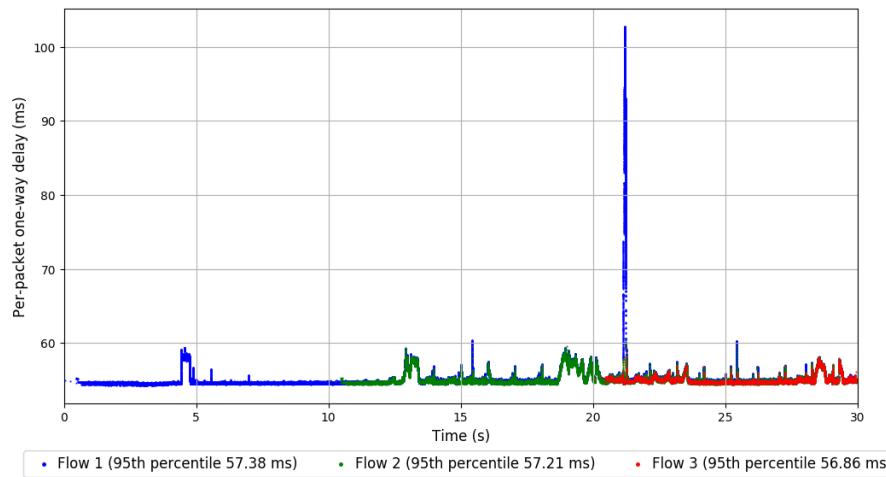
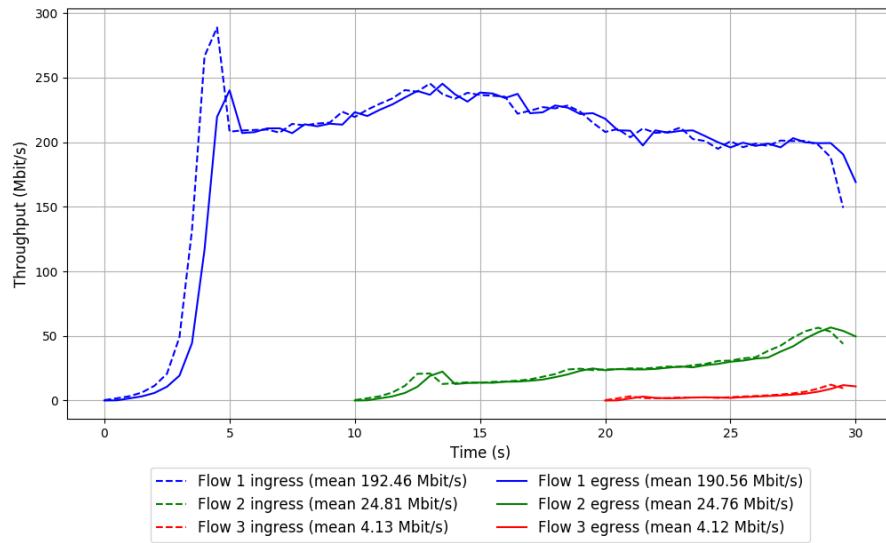


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-06-28 01:08:25
End at: 2019-06-28 01:08:55
Local clock offset: -1.719 ms
Remote clock offset: -41.855 ms

# Below is generated by plot.py at 2019-06-28 03:40:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.36 Mbit/s
95th percentile per-packet one-way delay: 57.360 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 190.56 Mbit/s
95th percentile per-packet one-way delay: 57.385 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 57.207 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 4.12 Mbit/s
95th percentile per-packet one-way delay: 56.864 ms
Loss rate: 0.14%
```

Run 2: Report of PCC-Vivace — Data Link

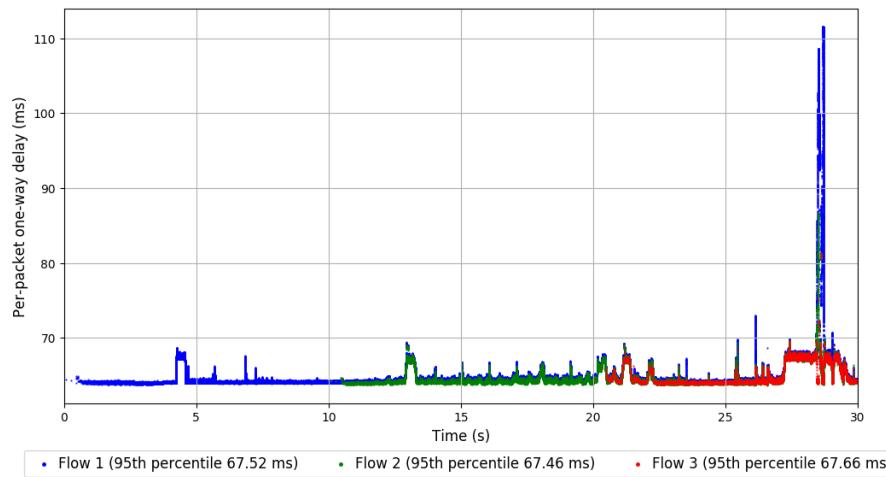
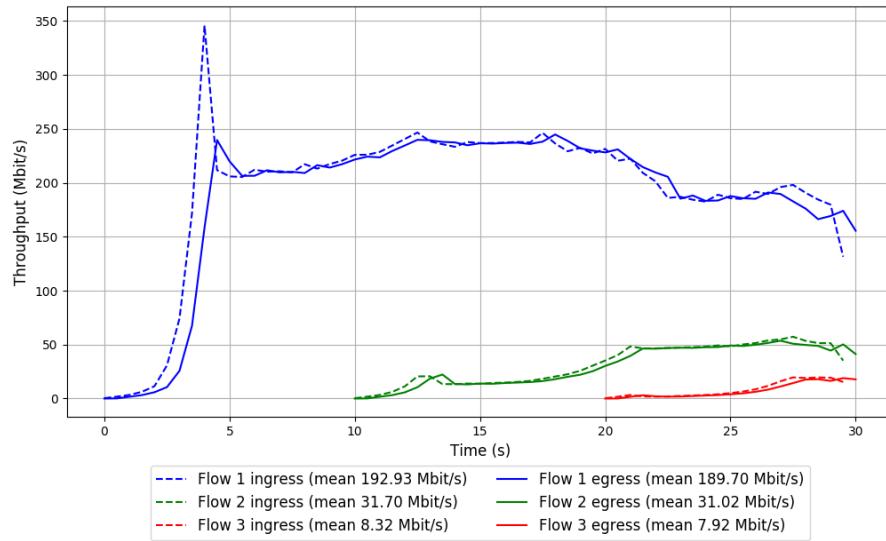


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-06-28 01:40:43
End at: 2019-06-28 01:41:13
Local clock offset: -1.561 ms
Remote clock offset: -31.567 ms

# Below is generated by plot.py at 2019-06-28 03:40:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.94 Mbit/s
95th percentile per-packet one-way delay: 67.513 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 67.516 ms
Loss rate: 1.68%
-- Flow 2:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 67.459 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 67.662 ms
Loss rate: 4.80%
```

Run 3: Report of PCC-Vivace — Data Link

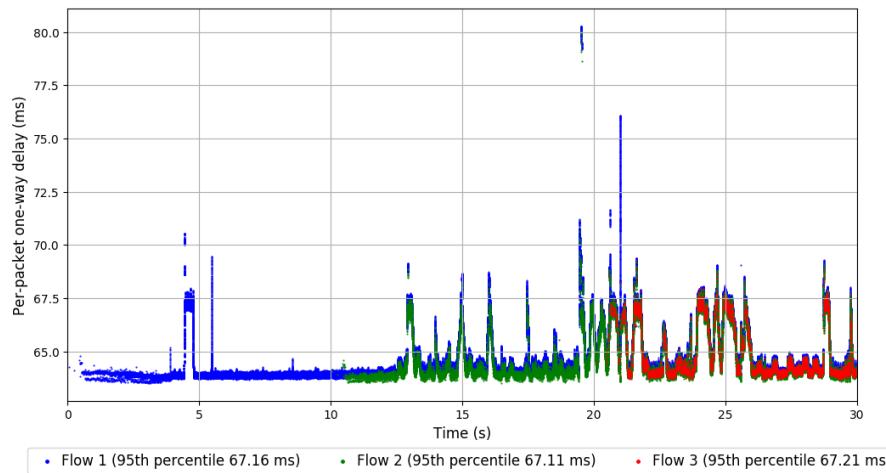
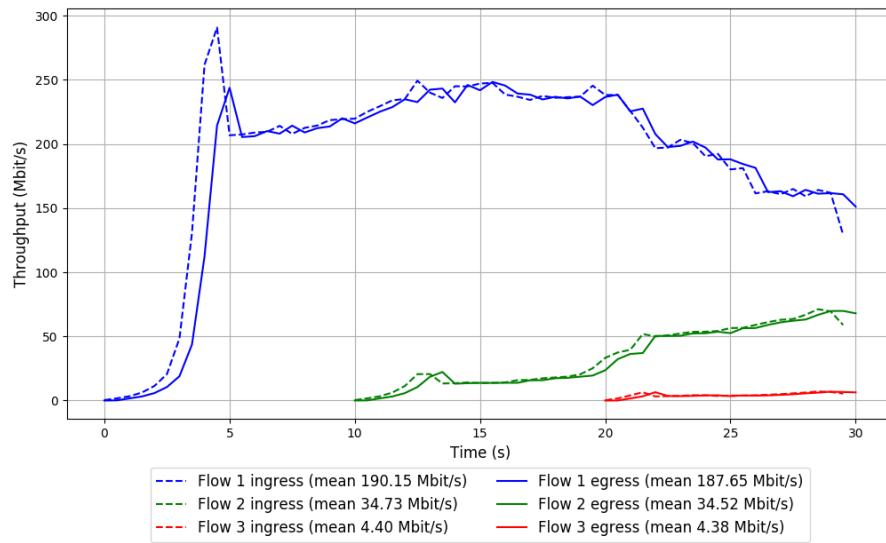


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-06-28 02:12:51
End at: 2019-06-28 02:13:21
Local clock offset: -2.305 ms
Remote clock offset: -34.593 ms

# Below is generated by plot.py at 2019-06-28 03:40:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.05 Mbit/s
95th percentile per-packet one-way delay: 67.157 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 187.65 Mbit/s
95th percentile per-packet one-way delay: 67.162 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 67.108 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 67.208 ms
Loss rate: 0.54%
```

Run 4: Report of PCC-Vivace — Data Link

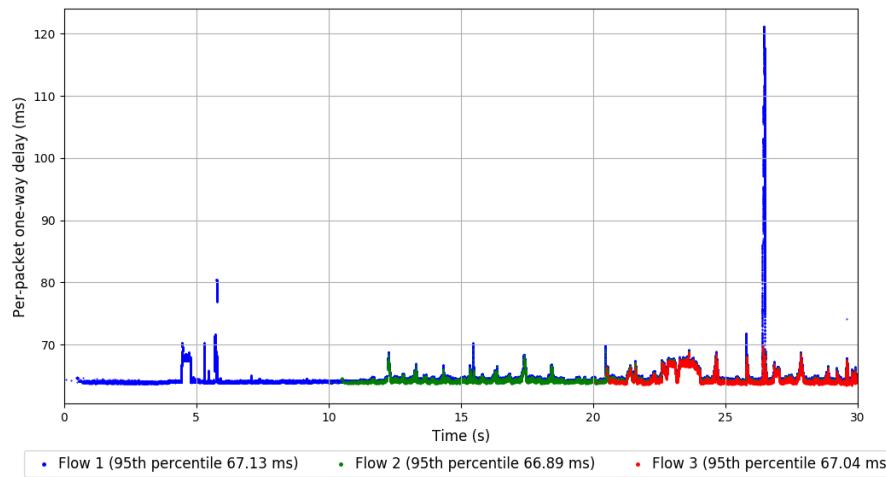
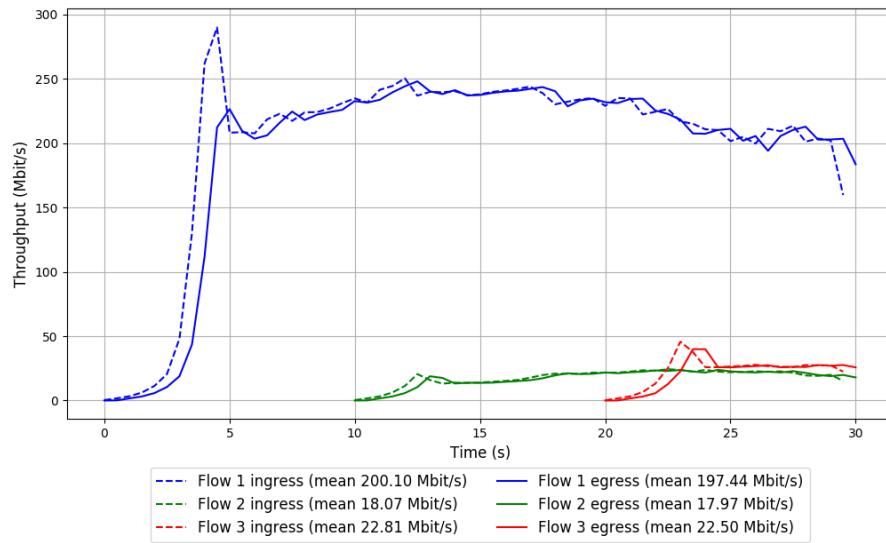


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-06-28 02:45:03
End at: 2019-06-28 02:45:33
Local clock offset: -1.797 ms
Remote clock offset: -34.525 ms

# Below is generated by plot.py at 2019-06-28 03:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.82 Mbit/s
95th percentile per-packet one-way delay: 67.105 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 197.44 Mbit/s
95th percentile per-packet one-way delay: 67.134 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 17.97 Mbit/s
95th percentile per-packet one-way delay: 66.885 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 22.50 Mbit/s
95th percentile per-packet one-way delay: 67.037 ms
Loss rate: 1.36%
```

Run 5: Report of PCC-Vivace — Data Link

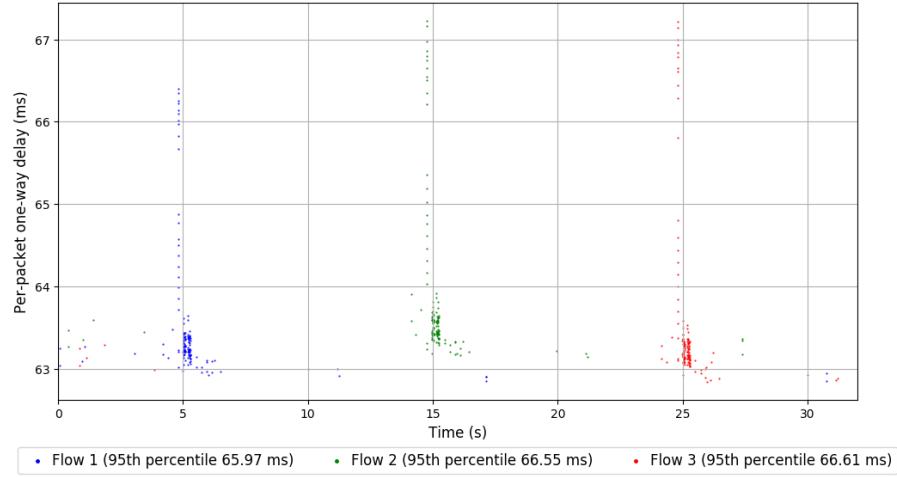
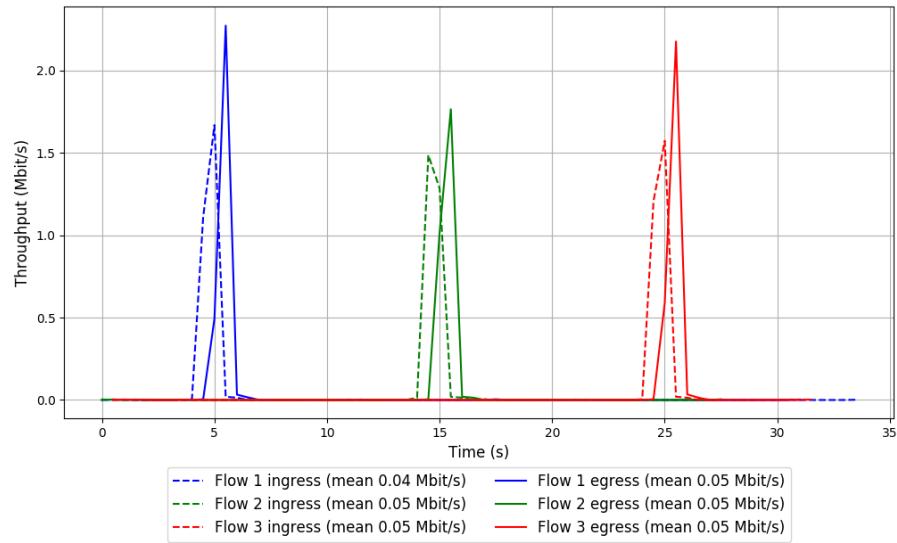


```
Run 1: Statistics of WebRTC media

Start at: 2019-06-28 00:34:52
End at: 2019-06-28 00:35:22
Local clock offset: -0.9 ms
Remote clock offset: -33.203 ms

# Below is generated by plot.py at 2019-06-28 03:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 66.259 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 65.973 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 66.551 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 66.610 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

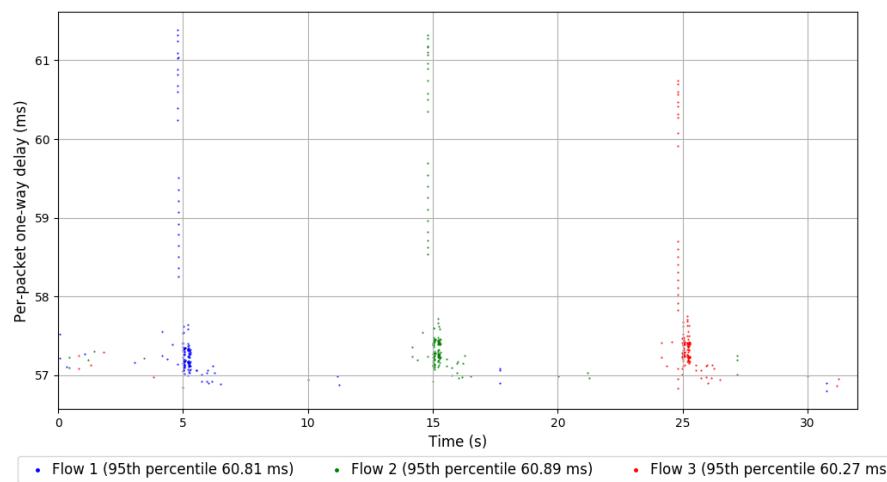
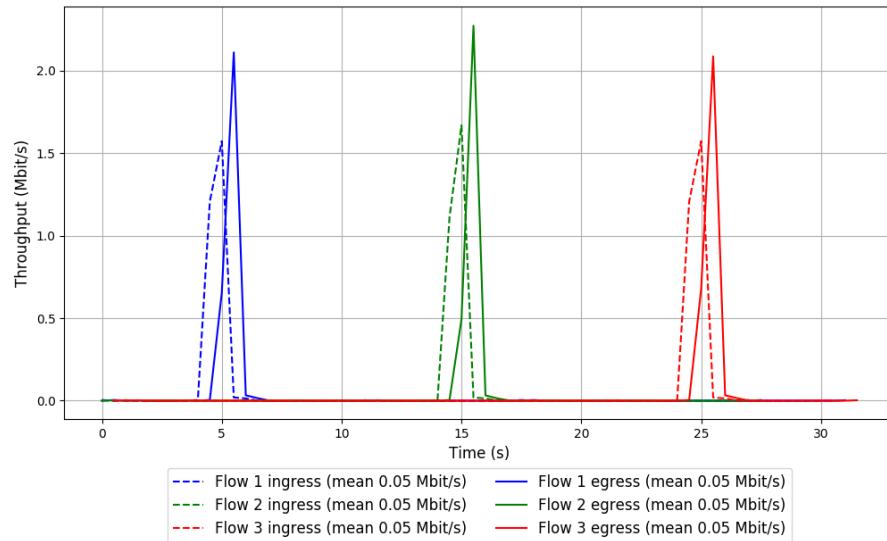


Run 2: Statistics of WebRTC media

```
Start at: 2019-06-28 01:07:09
End at: 2019-06-28 01:07:39
Local clock offset: -1.701 ms
Remote clock offset: -39.493 ms

# Below is generated by plot.py at 2019-06-28 03:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.575 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.815 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.892 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.270 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

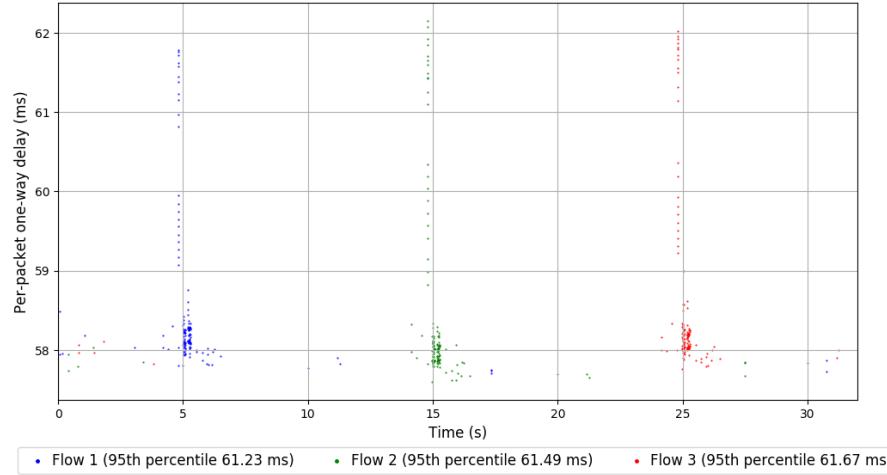
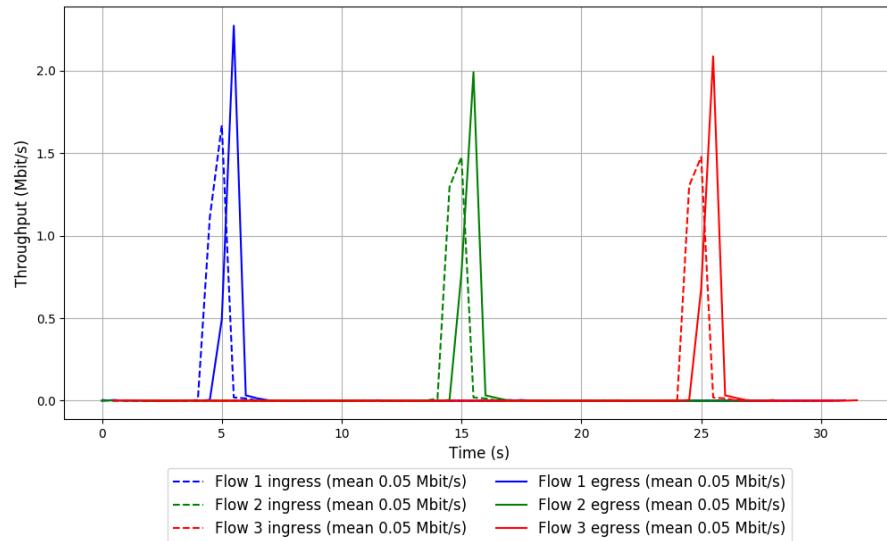


```
Run 3: Statistics of WebRTC media

Start at: 2019-06-28 01:39:27
End at: 2019-06-28 01:39:57
Local clock offset: -0.975 ms
Remote clock offset: -37.131 ms

# Below is generated by plot.py at 2019-06-28 03:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 61.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.233 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.495 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.668 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

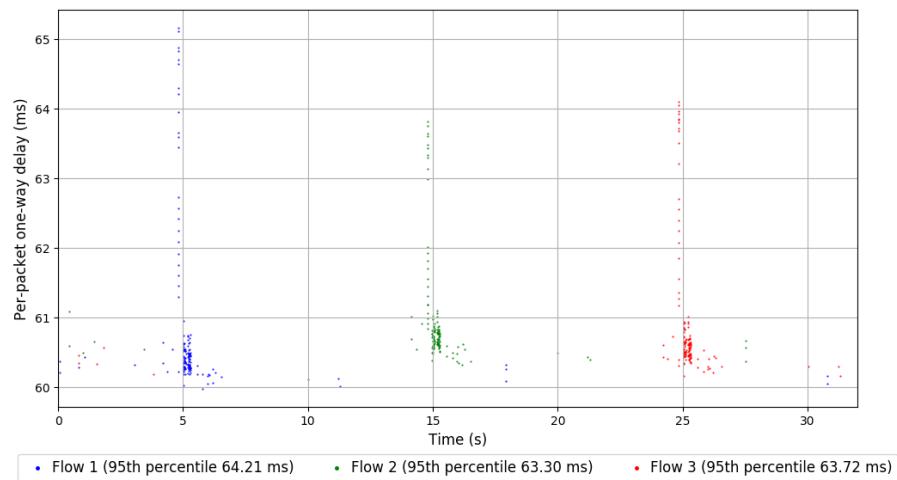
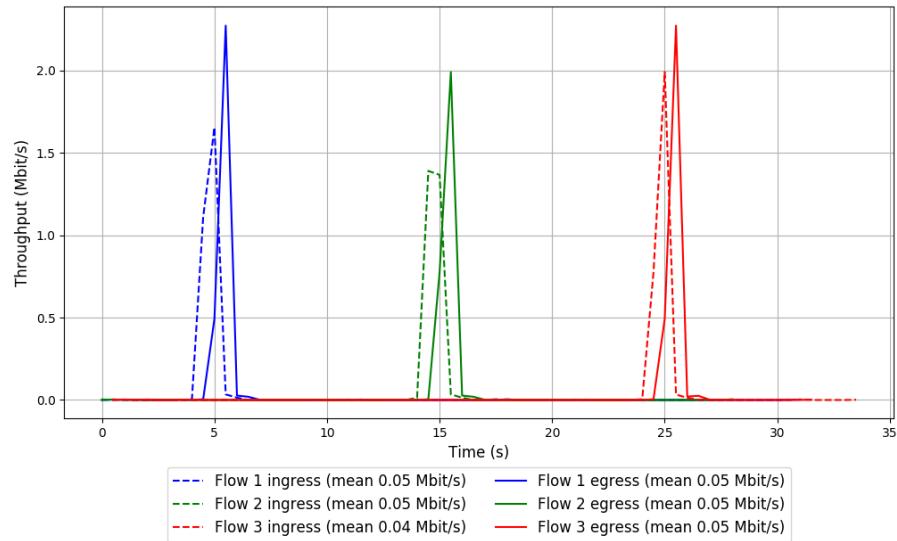


Run 4: Statistics of WebRTC media

```
Start at: 2019-06-28 02:11:35
End at: 2019-06-28 02:12:05
Local clock offset: -1.943 ms
Remote clock offset: -37.761 ms

# Below is generated by plot.py at 2019-06-28 03:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.607 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.212 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.296 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.720 ms
Loss rate: 0.05%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-06-28 02:43:47
End at: 2019-06-28 02:44:17
Local clock offset: -1.975 ms
Remote clock offset: -34.189 ms

# Below is generated by plot.py at 2019-06-28 03:40:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 68.077 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 68.045 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 68.014 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 68.296 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

