

Pantheon Report

Generated at 2019-01-19 03:26:52 (UTC).

Data path: AWS California 1 on `ens5` (*local*) → Stanford on `eno1` (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

System info:

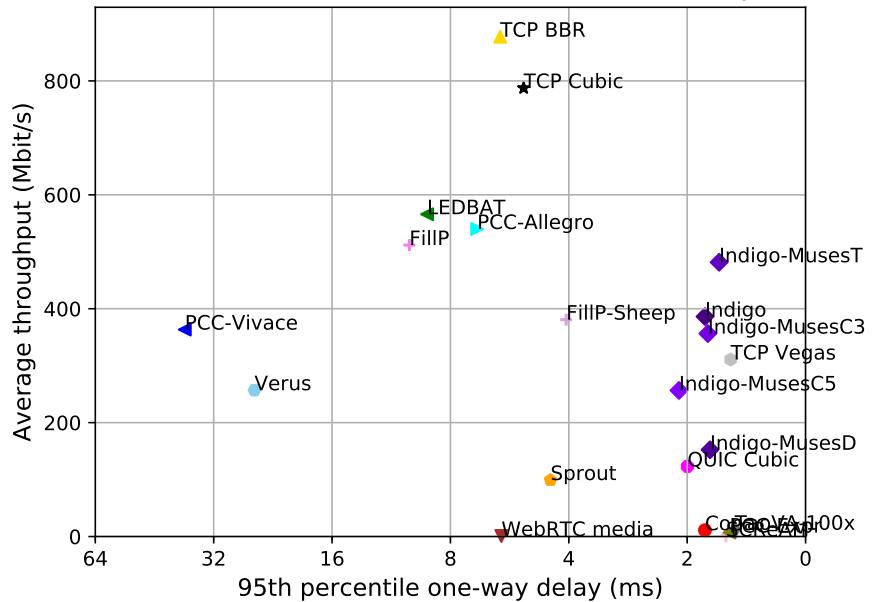
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

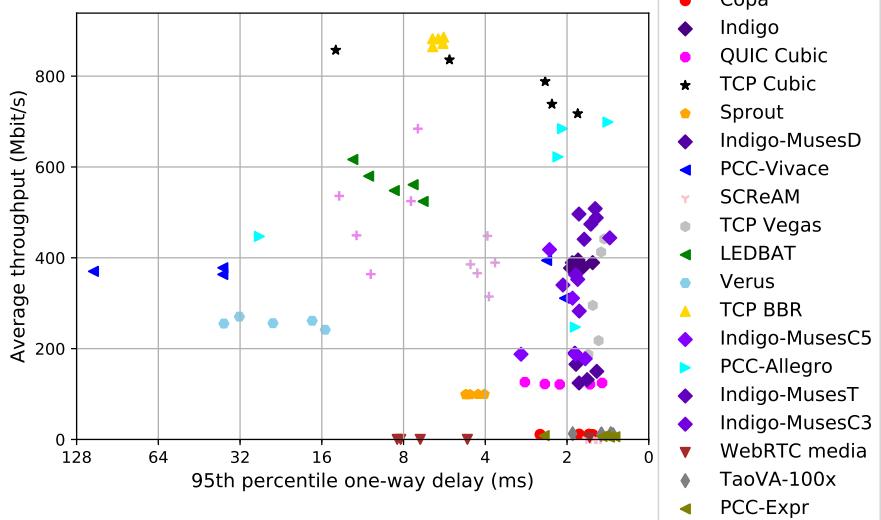
```
branch: muses @ c80a283586bf7b0cc1fe08c69c8f60d56498f81c
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d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

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

test from AWS California 1 to Stanford, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



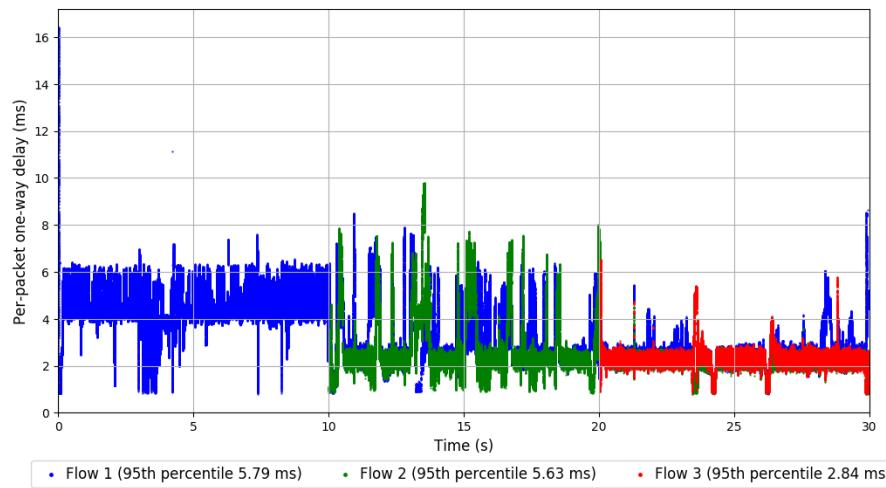
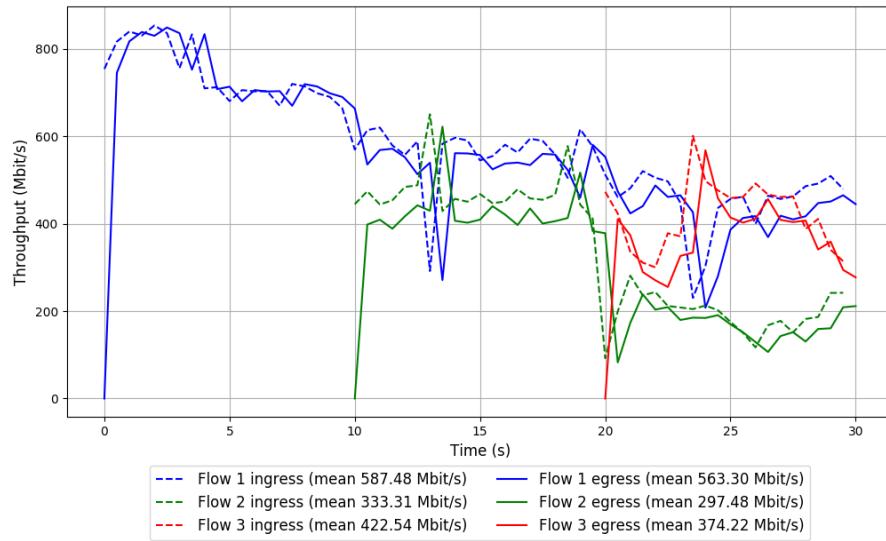
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	521.21	368.45	333.49	5.92	6.22	3.66	4.70	9.75	12.15
Copa	5	6.78	4.79	5.28	1.67	1.80	1.72	51.26	52.13	49.24
TCP Cubic	5	446.01	364.65	296.35	6.42	2.12	2.27	0.12	0.12	0.17
FillP	5	336.01	202.30	124.29	12.00	4.28	4.29	11.38	15.50	9.22
FillP-Sheep	5	322.10	73.97	28.89	4.31	2.03	2.25	3.37	2.34	7.16
Indigo	5	199.85	191.14	184.26	1.52	1.70	2.05	0.02	0.03	0.05
Indigo-MusesC3	5	175.41	187.52	198.50	1.48	1.73	1.72	0.08	0.09	0.15
Indigo-MusesC5	5	107.47	143.14	185.62	1.53	2.41	2.16	0.08	0.24	0.29
Indigo-MusesD	5	80.69	67.89	85.77	1.57	1.46	1.75	0.04	0.03	0.04
Indigo-MusesT	5	270.73	238.99	186.82	1.39	1.48	1.67	0.07	0.09	0.14
LEDBAT	5	327.50	252.21	230.86	9.81	7.34	6.61	0.20	0.29	0.40
PCC-Allegro	5	377.44	169.55	151.08	1.72	12.86	1.66	0.19	0.31	0.30
PCC-Expr	5	0.69	6.97	7.08	1.21	1.29	1.22	85.71	25.21	25.24
QUIC Cubic	5	66.29	60.70	50.16	1.45	2.05	4.18	0.01	0.01	0.00
SCReAM	5	0.22	0.22	0.22	1.35	1.34	1.35	0.00	0.00	0.00
Sprout	5	49.77	49.69	49.46	4.36	4.59	4.38	0.27	0.27	0.24
TaoVA-100x	5	6.80	6.31	3.84	1.19	1.19	1.07	67.22	56.24	72.91
TCP Vegas	5	158.43	131.81	194.20	1.25	1.21	1.24	0.01	0.03	0.02
Verus	5	141.84	117.97	110.66	12.96	28.42	78.53	2.98	4.06	7.47
PCC-Vivace	5	213.02	162.49	128.01	41.95	12.26	4.47	0.46	0.15	0.28
WebRTC media	5	0.47	0.32	0.15	3.51	4.10	7.28	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-01-19 00:26:24
End at: 2019-01-19 00:26:54
Local clock offset: 2.086 ms
Remote clock offset: 4.873 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 885.93 Mbit/s
95th percentile per-packet one-way delay: 5.694 ms
Loss rate: 6.74%
-- Flow 1:
Average throughput: 563.30 Mbit/s
95th percentile per-packet one-way delay: 5.786 ms
Loss rate: 4.11%
-- Flow 2:
Average throughput: 297.48 Mbit/s
95th percentile per-packet one-way delay: 5.634 ms
Loss rate: 10.74%
-- Flow 3:
Average throughput: 374.22 Mbit/s
95th percentile per-packet one-way delay: 2.840 ms
Loss rate: 11.42%
```

Run 1: Report of TCP BBR — Data Link

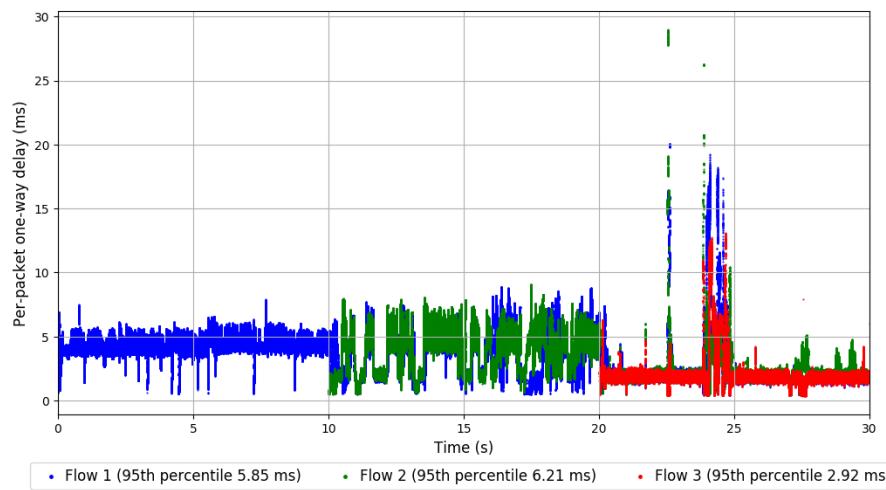
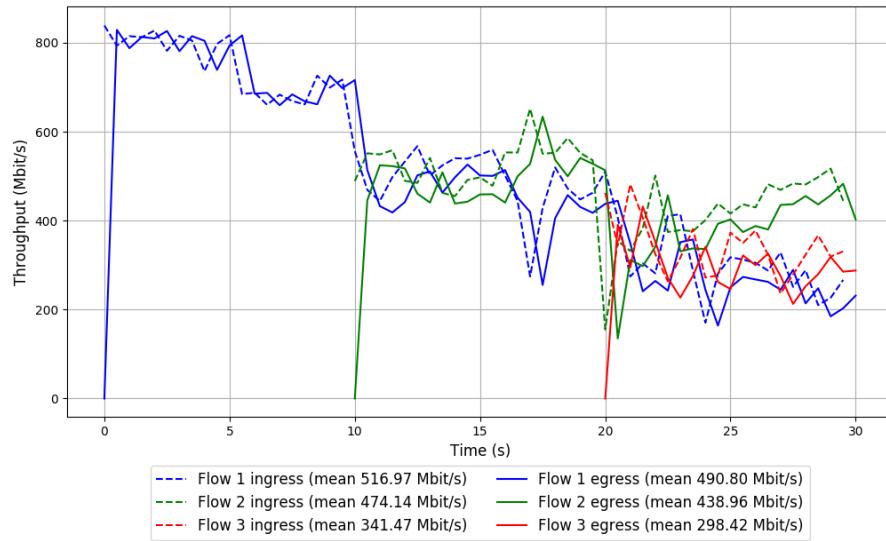


Run 2: Statistics of TCP BBR

```
Start at: 2019-01-19 00:56:03
End at: 2019-01-19 00:56:33
Local clock offset: 1.874 ms
Remote clock offset: 10.082 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 882.35 Mbit/s
95th percentile per-packet one-way delay: 5.964 ms
Loss rate: 6.75%
-- Flow 1:
Average throughput: 490.80 Mbit/s
95th percentile per-packet one-way delay: 5.846 ms
Loss rate: 5.06%
-- Flow 2:
Average throughput: 438.96 Mbit/s
95th percentile per-packet one-way delay: 6.212 ms
Loss rate: 7.41%
-- Flow 3:
Average throughput: 298.42 Mbit/s
95th percentile per-packet one-way delay: 2.921 ms
Loss rate: 12.57%
```

Run 2: Report of TCP BBR — Data Link

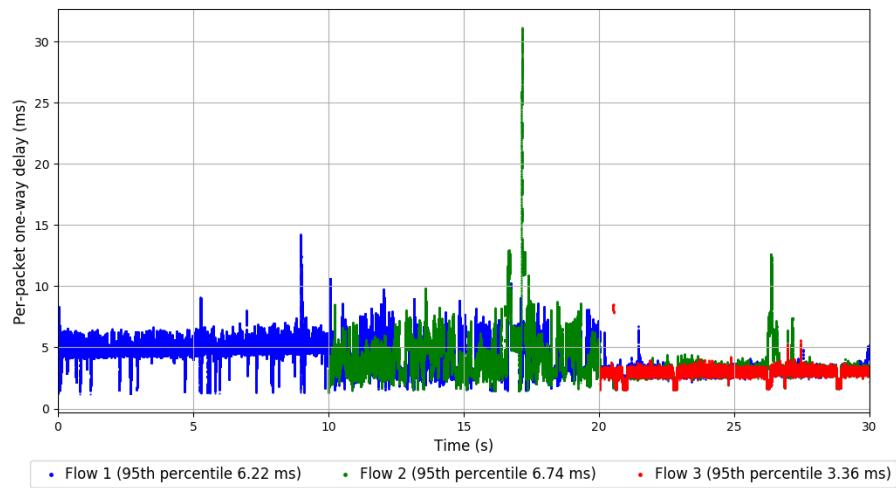
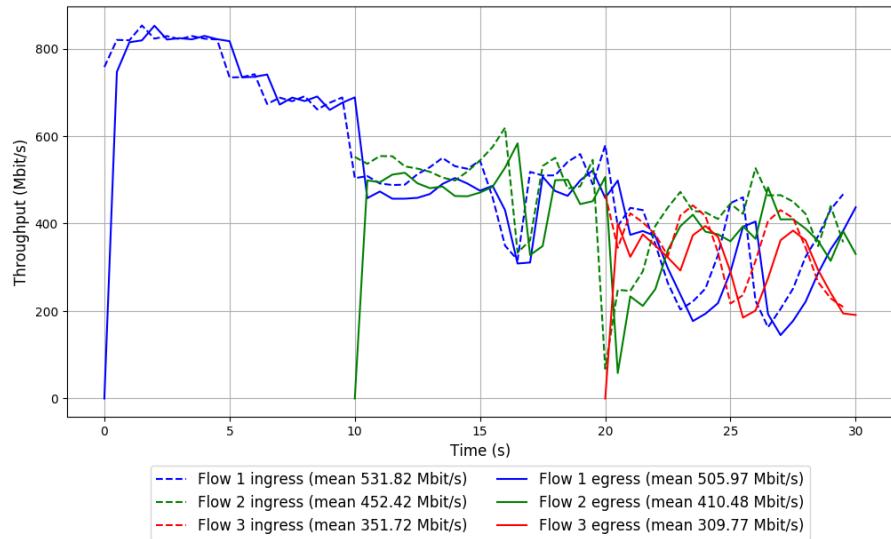


Run 3: Statistics of TCP BBR

```
Start at: 2019-01-19 01:25:40
End at: 2019-01-19 01:26:10
Local clock offset: 1.569 ms
Remote clock offset: 1.73 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 882.60 Mbit/s
95th percentile per-packet one-way delay: 6.255 ms
Loss rate: 7.12%
-- Flow 1:
Average throughput: 505.97 Mbit/s
95th percentile per-packet one-way delay: 6.222 ms
Loss rate: 4.85%
-- Flow 2:
Average throughput: 410.48 Mbit/s
95th percentile per-packet one-way delay: 6.743 ms
Loss rate: 9.27%
-- Flow 3:
Average throughput: 309.77 Mbit/s
95th percentile per-packet one-way delay: 3.360 ms
Loss rate: 11.92%
```

Run 3: Report of TCP BBR — Data Link

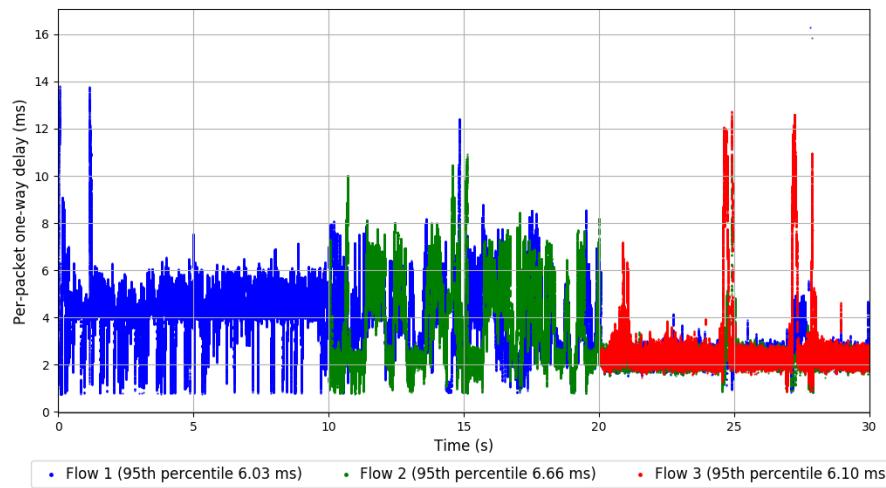
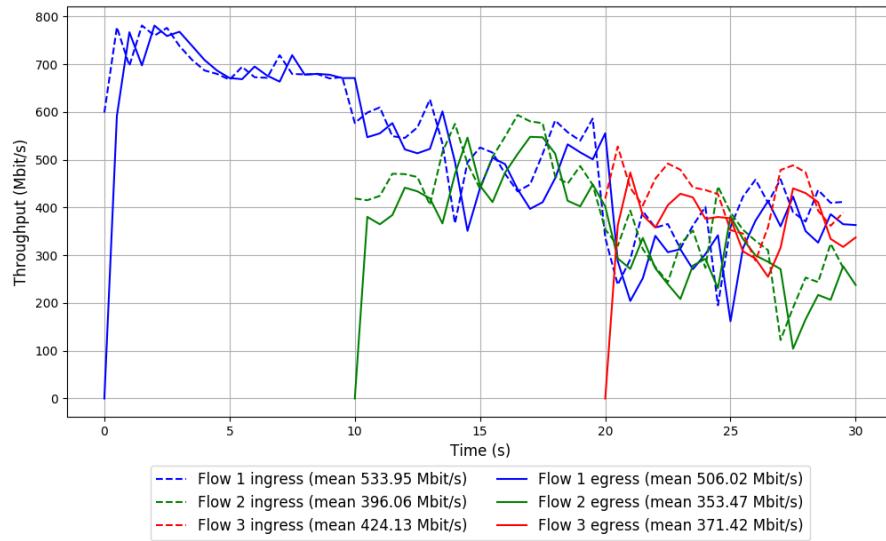


Run 4: Statistics of TCP BBR

```
Start at: 2019-01-19 01:55:12
End at: 2019-01-19 01:55:42
Local clock offset: 3.569 ms
Remote clock offset: -8.527 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 865.00 Mbit/s
95th percentile per-packet one-way delay: 6.248 ms
Loss rate: 7.86%
-- Flow 1:
Average throughput: 506.02 Mbit/s
95th percentile per-packet one-way delay: 6.028 ms
Loss rate: 5.23%
-- Flow 2:
Average throughput: 353.47 Mbit/s
95th percentile per-packet one-way delay: 6.664 ms
Loss rate: 10.75%
-- Flow 3:
Average throughput: 371.42 Mbit/s
95th percentile per-packet one-way delay: 6.097 ms
Loss rate: 12.43%
```

Run 4: Report of TCP BBR — Data Link

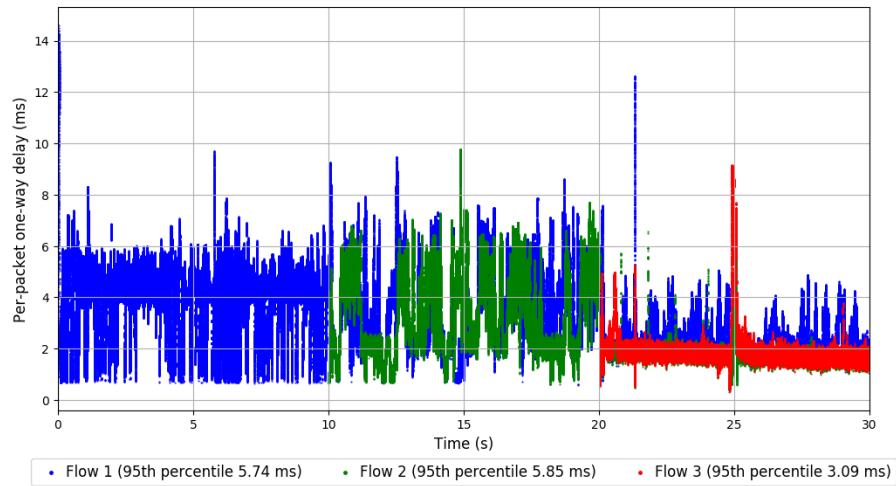
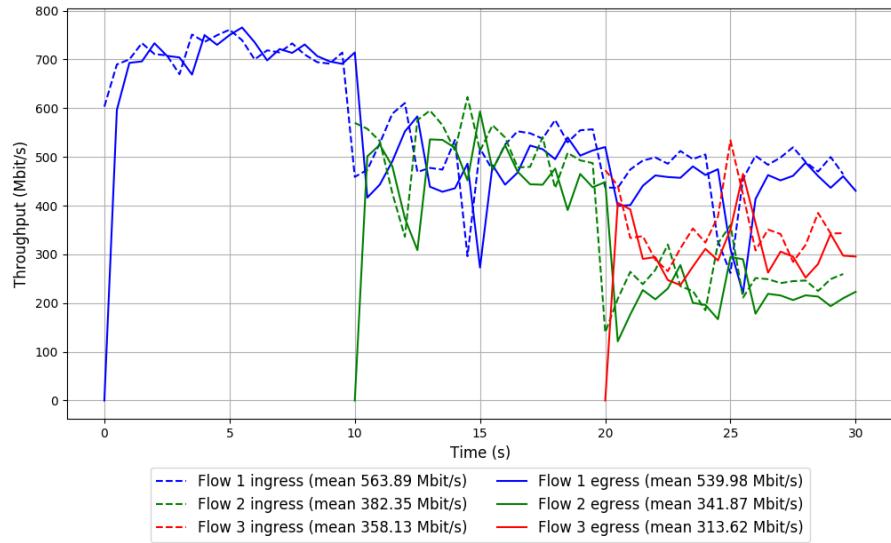


Run 5: Statistics of TCP BBR

```
Start at: 2019-01-19 02:24:51
End at: 2019-01-19 02:25:21
Local clock offset: 1.819 ms
Remote clock offset: -13.096 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 871.95 Mbit/s
95th percentile per-packet one-way delay: 5.725 ms
Loss rate: 7.00%
-- Flow 1:
Average throughput: 539.98 Mbit/s
95th percentile per-packet one-way delay: 5.736 ms
Loss rate: 4.24%
-- Flow 2:
Average throughput: 341.87 Mbit/s
95th percentile per-packet one-way delay: 5.847 ms
Loss rate: 10.59%
-- Flow 3:
Average throughput: 313.62 Mbit/s
95th percentile per-packet one-way delay: 3.090 ms
Loss rate: 12.43%
```

Run 5: Report of TCP BBR — Data Link

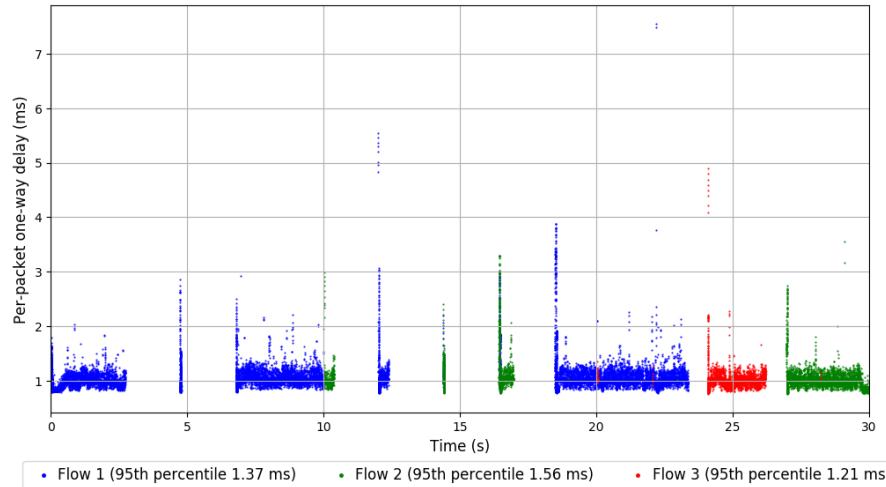
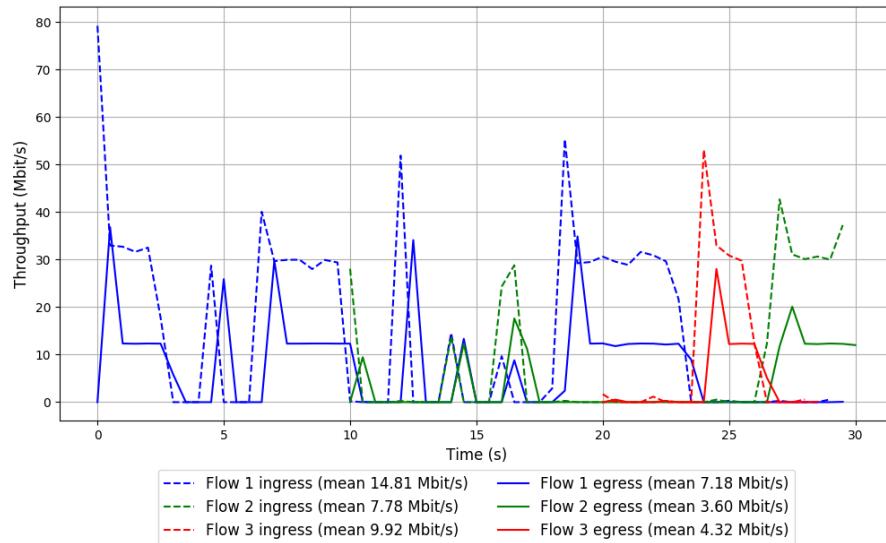


Run 1: Statistics of Copa

```
Start at: 2019-01-19 00:22:27
End at: 2019-01-19 00:22:57
Local clock offset: 1.219 ms
Remote clock offset: 3.713 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.62 Mbit/s
95th percentile per-packet one-way delay: 1.368 ms
Loss rate: 52.61%
-- Flow 1:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 51.49%
-- Flow 2:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 1.560 ms
Loss rate: 53.74%
-- Flow 3:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 56.43%
```

Run 1: Report of Copa — Data Link

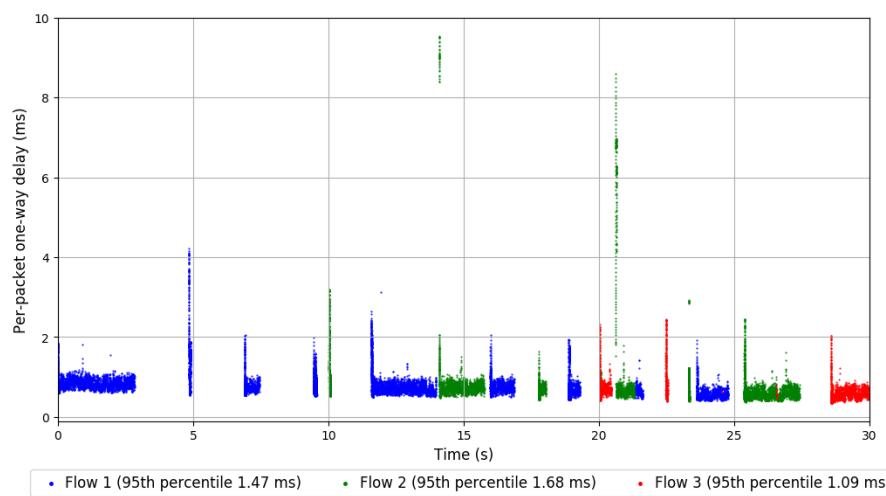
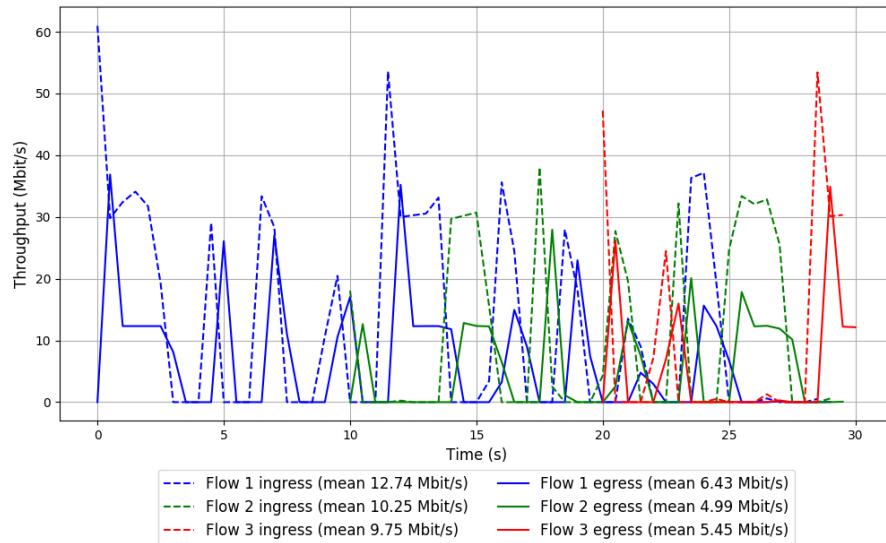


Run 2: Statistics of Copa

```
Start at: 2019-01-19 00:52:04
End at: 2019-01-19 00:52:34
Local clock offset: 3.188 ms
Remote clock offset: 9.621 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 1.457 ms
Loss rate: 49.28%
-- Flow 1:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 1.472 ms
Loss rate: 49.53%
-- Flow 2:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 1.680 ms
Loss rate: 51.36%
-- Flow 3:
Average throughput: 5.45 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 44.09%
```

Run 2: Report of Copa — Data Link

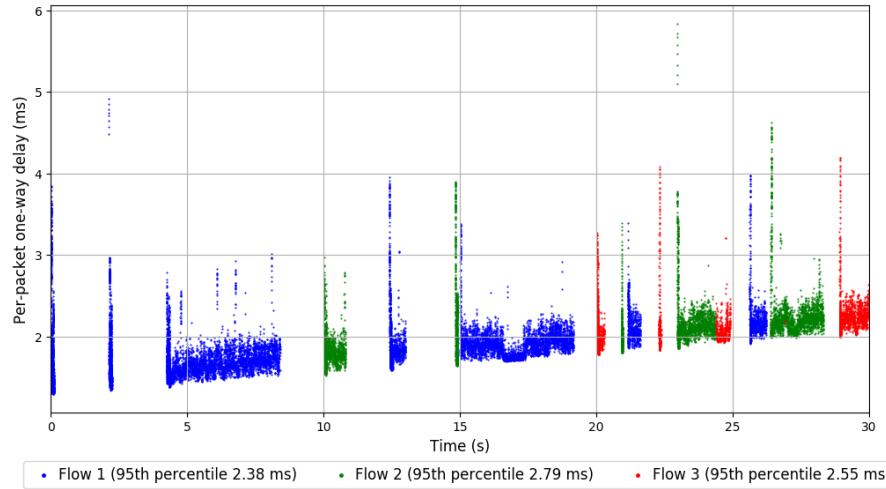
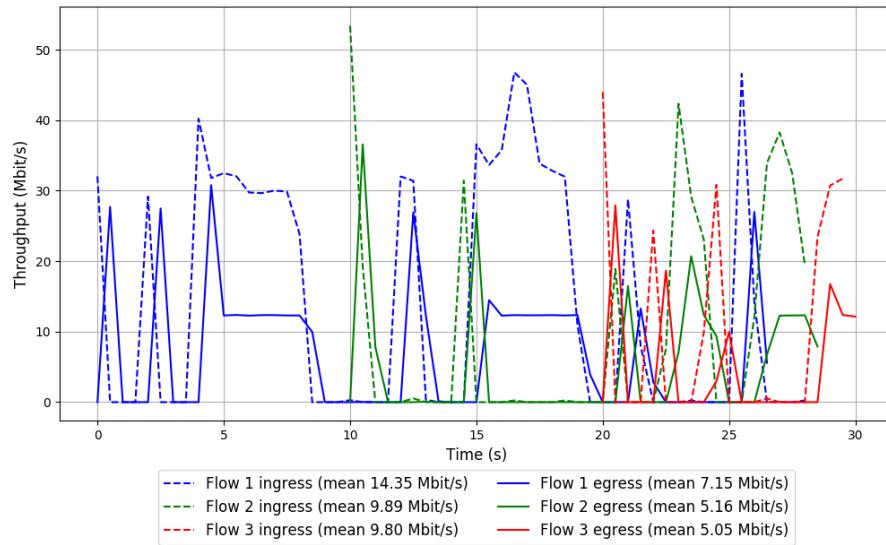


Run 3: Statistics of Copa

```
Start at: 2019-01-19 01:21:40
End at: 2019-01-19 01:22:10
Local clock offset: 0.441 ms
Remote clock offset: 5.83 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.07 Mbit/s
95th percentile per-packet one-way delay: 2.513 ms
Loss rate: 51.43%
-- Flow 1:
Average throughput: 7.15 Mbit/s
95th percentile per-packet one-way delay: 2.378 ms
Loss rate: 53.74%
-- Flow 2:
Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 2.792 ms
Loss rate: 47.86%
-- Flow 3:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 2.551 ms
Loss rate: 48.43%
```

Run 3: Report of Copa — Data Link

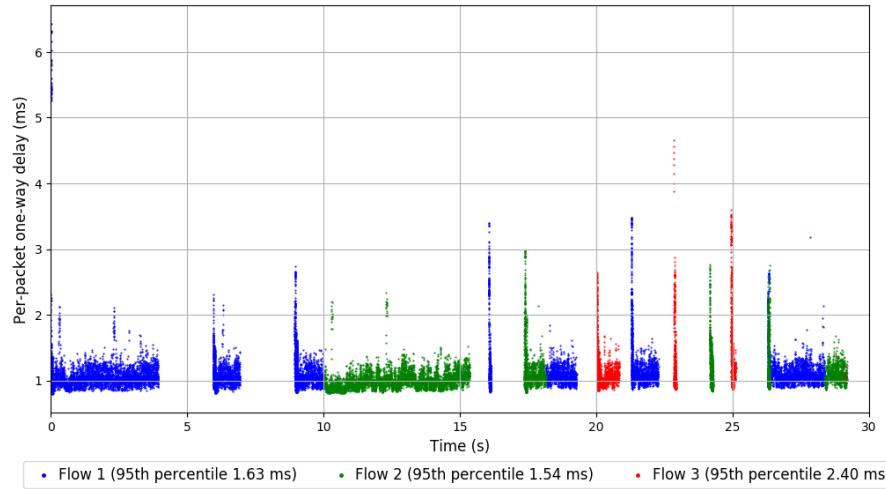
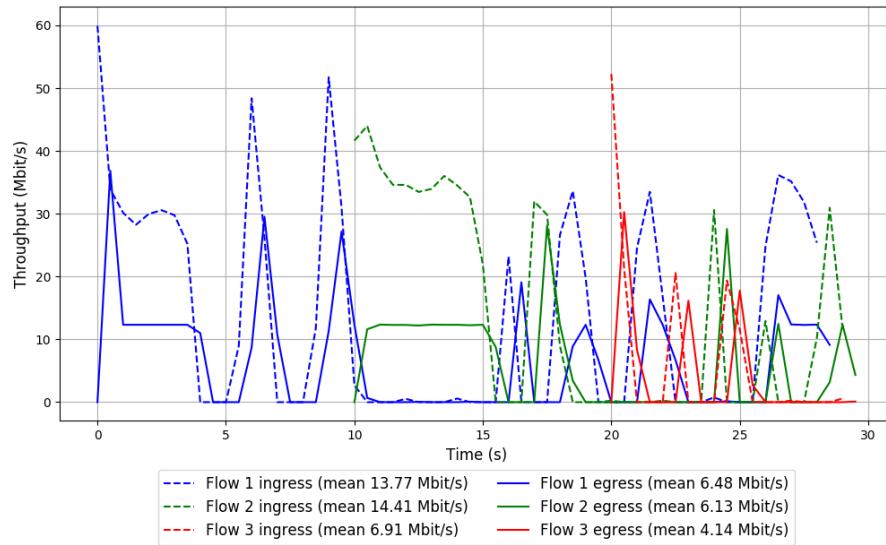


Run 4: Statistics of Copa

```
Start at: 2019-01-19 01:51:17
End at: 2019-01-19 01:51:47
Local clock offset: 3.801 ms
Remote clock offset: -7.737 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 1.703 ms
Loss rate: 53.55%
-- Flow 1:
Average throughput: 6.48 Mbit/s
95th percentile per-packet one-way delay: 1.629 ms
Loss rate: 52.93%
-- Flow 2:
Average throughput: 6.13 Mbit/s
95th percentile per-packet one-way delay: 1.539 ms
Loss rate: 57.48%
-- Flow 3:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 2.395 ms
Loss rate: 40.15%
```

Run 4: Report of Copa — Data Link

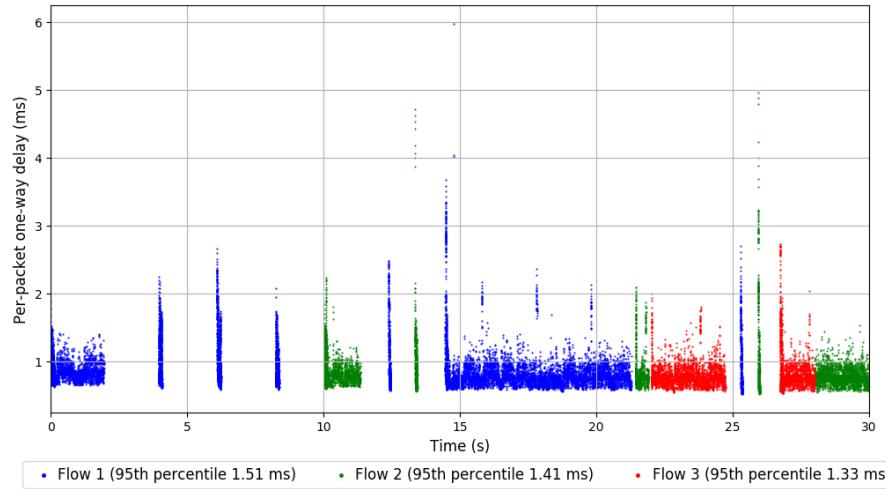
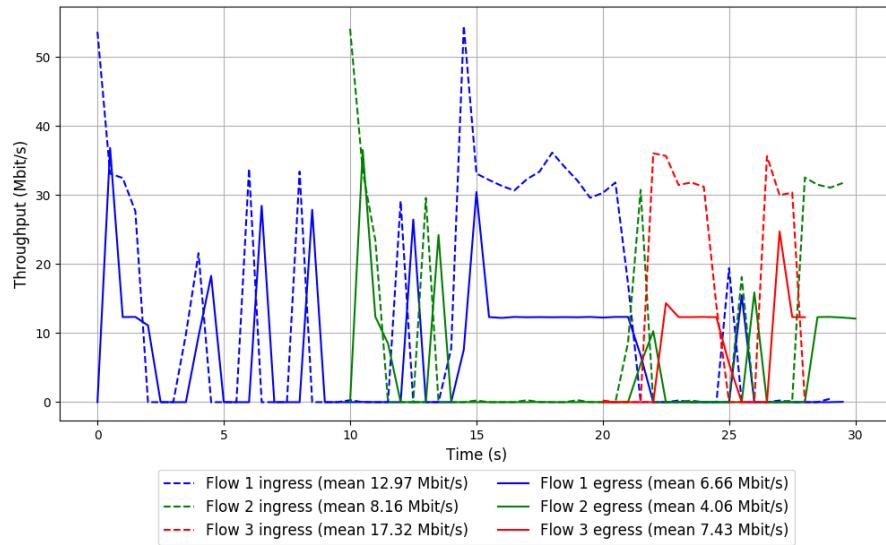


Run 5: Statistics of Copa

```
Start at: 2019-01-19 02:20:45
End at: 2019-01-19 02:21:15
Local clock offset: 3.246 ms
Remote clock offset: -12.386 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 1.459 ms
Loss rate: 50.73%
-- Flow 1:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 1.511 ms
Loss rate: 48.63%
-- Flow 2:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 1.407 ms
Loss rate: 50.21%
-- Flow 3:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 1.335 ms
Loss rate: 57.12%
```

Run 5: Report of Copa — Data Link

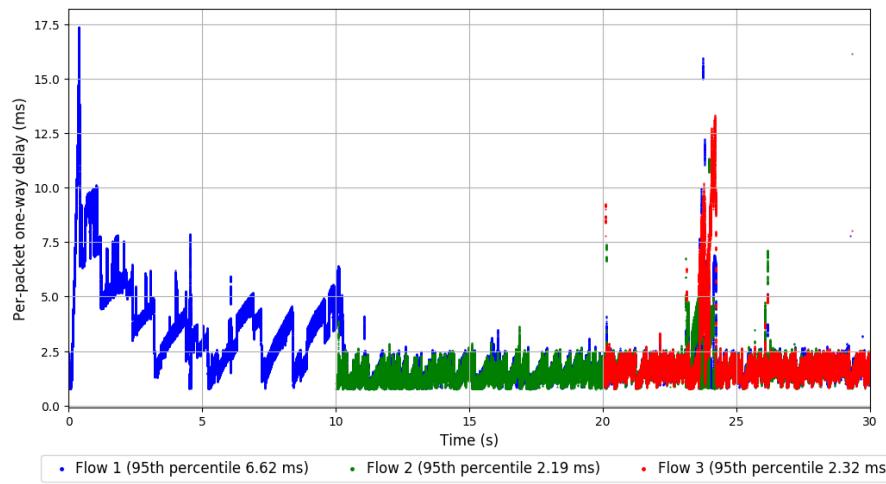
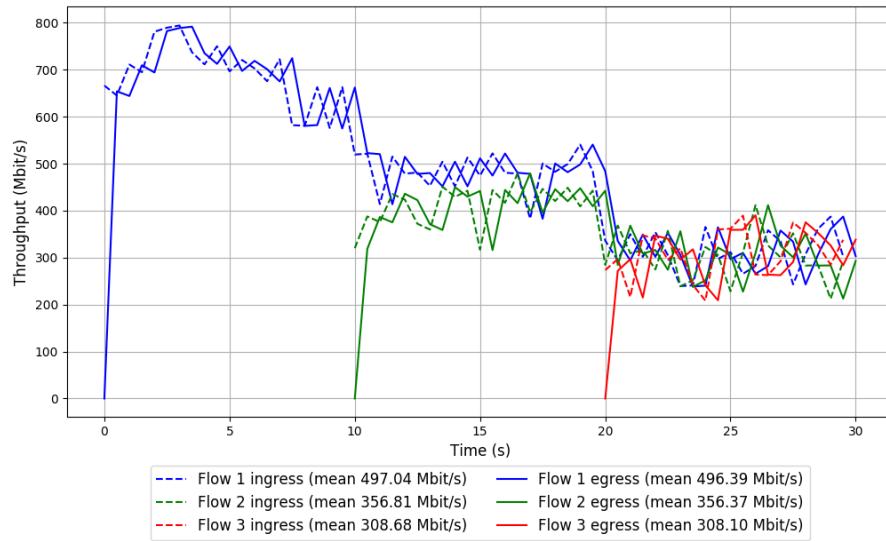


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-01-19 00:08:04
End at: 2019-01-19 00:08:34
Local clock offset: -0.106 ms
Remote clock offset: -3.903 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 836.07 Mbit/s
95th percentile per-packet one-way delay: 5.419 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 496.39 Mbit/s
95th percentile per-packet one-way delay: 6.624 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 356.37 Mbit/s
95th percentile per-packet one-way delay: 2.186 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 308.10 Mbit/s
95th percentile per-packet one-way delay: 2.318 ms
Loss rate: 0.19%
```

Run 1: Report of TCP Cubic — Data Link

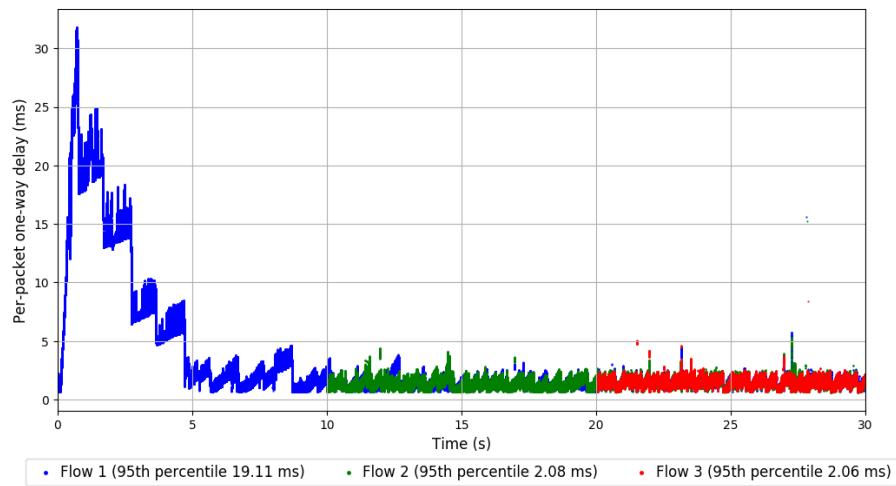
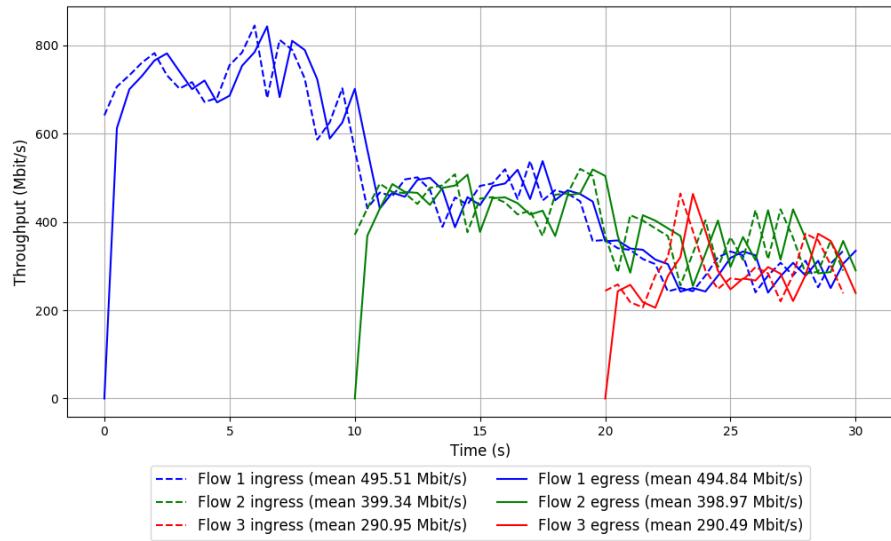


Run 2: Statistics of TCP Cubic

```
Start at: 2019-01-19 00:37:48
End at: 2019-01-19 00:38:18
Local clock offset: 3.519 ms
Remote clock offset: 7.168 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 857.21 Mbit/s
95th percentile per-packet one-way delay: 14.217 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 494.84 Mbit/s
95th percentile per-packet one-way delay: 19.114 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 398.97 Mbit/s
95th percentile per-packet one-way delay: 2.084 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 290.49 Mbit/s
95th percentile per-packet one-way delay: 2.059 ms
Loss rate: 0.15%
```

Run 2: Report of TCP Cubic — Data Link

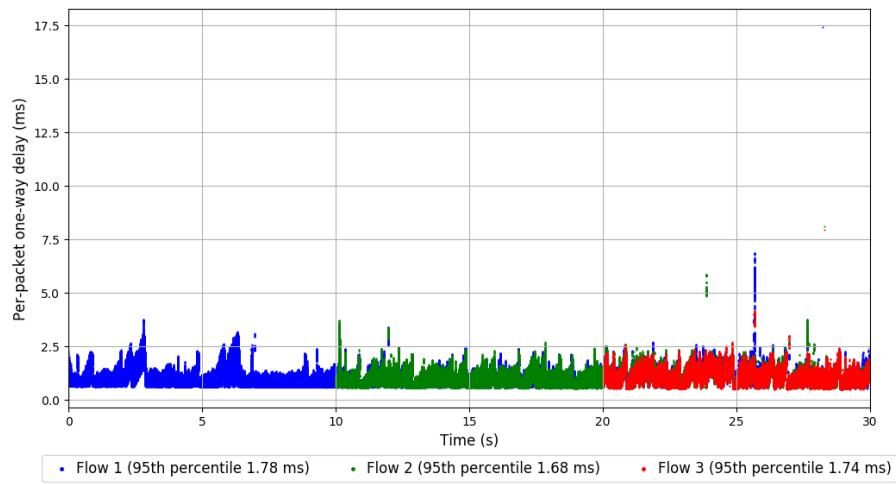
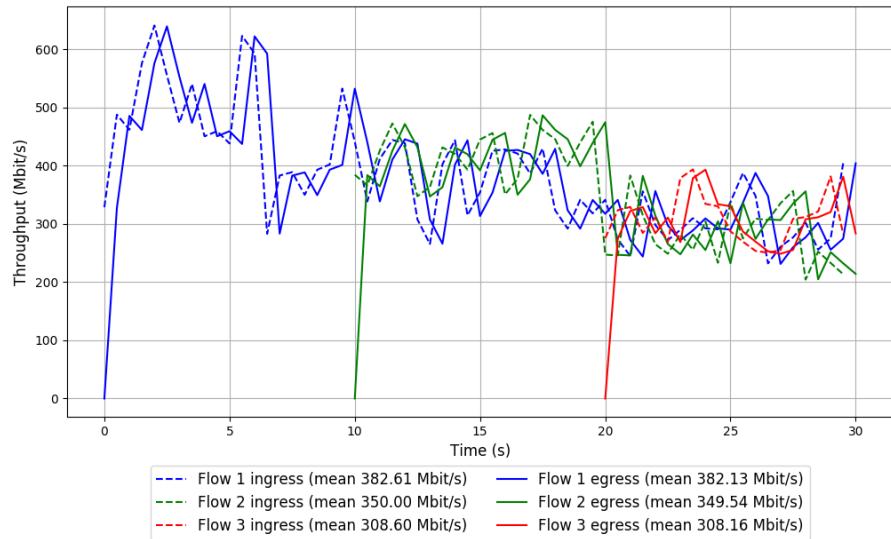


Run 3: Statistics of TCP Cubic

```
Start at: 2019-01-19 01:07:21
End at: 2019-01-19 01:07:51
Local clock offset: 0.229 ms
Remote clock offset: 11.796 ms

# Below is generated by plot.py at 2019-01-19 02:49:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 717.45 Mbit/s
95th percentile per-packet one-way delay: 1.738 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 382.13 Mbit/s
95th percentile per-packet one-way delay: 1.779 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 349.54 Mbit/s
95th percentile per-packet one-way delay: 1.682 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 308.16 Mbit/s
95th percentile per-packet one-way delay: 1.743 ms
Loss rate: 0.14%
```

Run 3: Report of TCP Cubic — Data Link

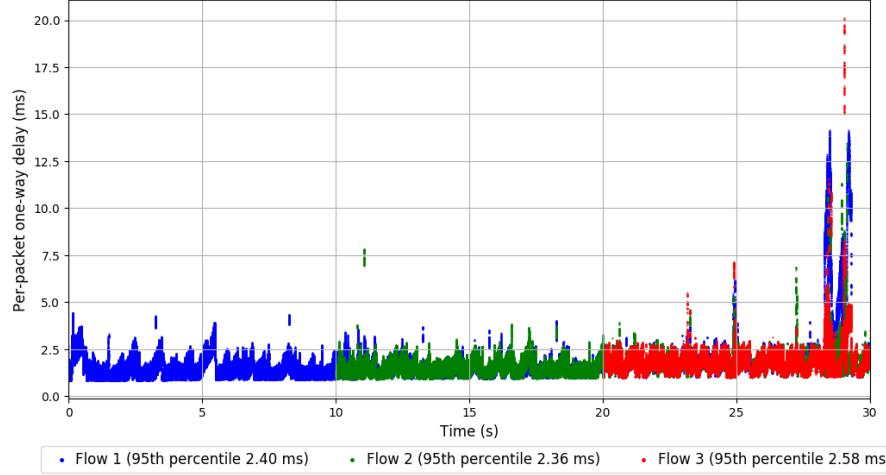
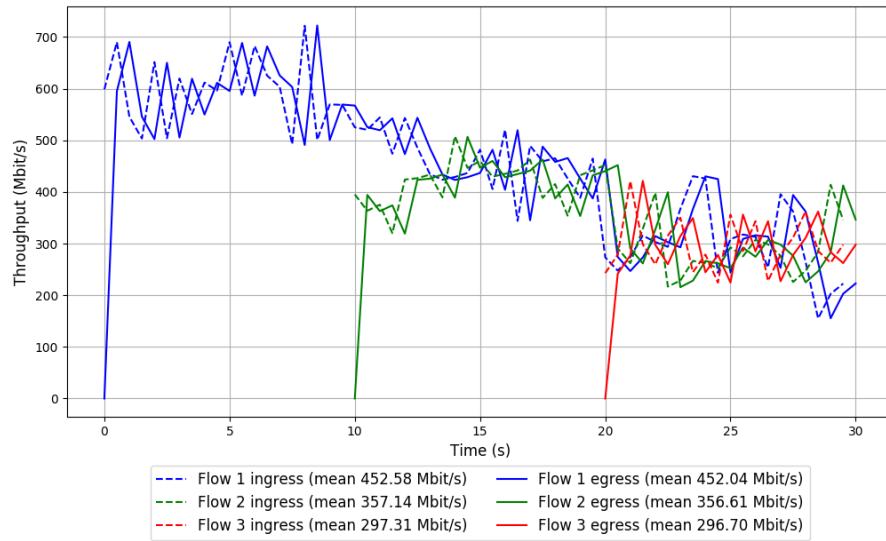


Run 4: Statistics of TCP Cubic

```
Start at: 2019-01-19 01:36:59
End at: 2019-01-19 01:37:29
Local clock offset: 3.147 ms
Remote clock offset: -4.441 ms

# Below is generated by plot.py at 2019-01-19 02:56:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 788.18 Mbit/s
95th percentile per-packet one-way delay: 2.407 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 452.04 Mbit/s
95th percentile per-packet one-way delay: 2.396 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 356.61 Mbit/s
95th percentile per-packet one-way delay: 2.356 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 296.70 Mbit/s
95th percentile per-packet one-way delay: 2.578 ms
Loss rate: 0.18%
```

Run 4: Report of TCP Cubic — Data Link

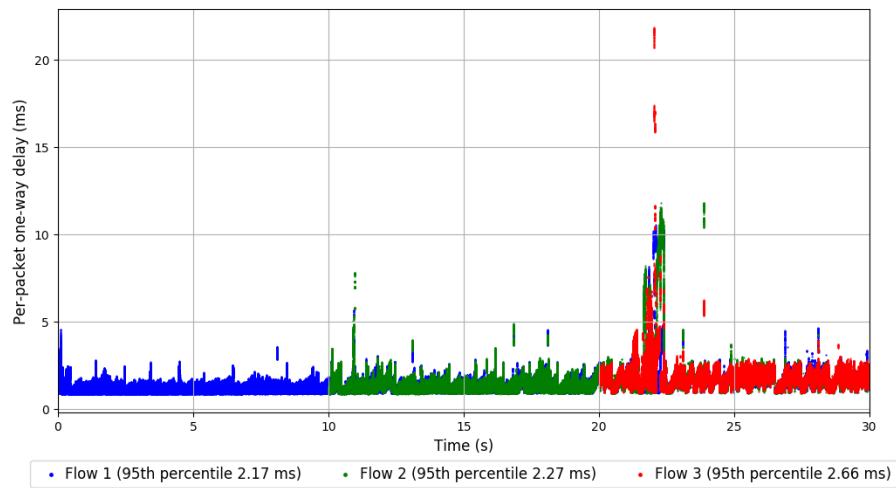
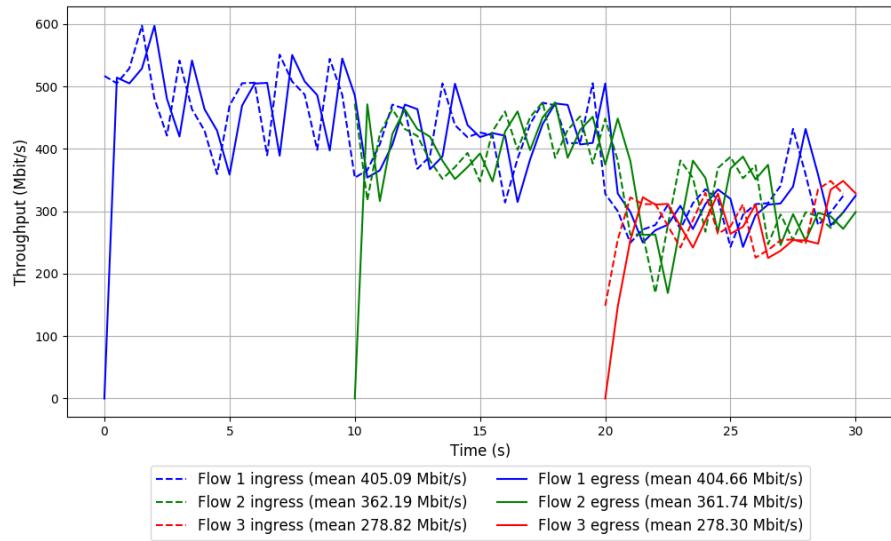


Run 5: Statistics of TCP Cubic

```
Start at: 2019-01-19 02:06:36
End at: 2019-01-19 02:07:06
Local clock offset: 3.463 ms
Remote clock offset: -10.238 ms

# Below is generated by plot.py at 2019-01-19 02:56:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 738.40 Mbit/s
95th percentile per-packet one-way delay: 2.273 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 404.66 Mbit/s
95th percentile per-packet one-way delay: 2.167 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 361.74 Mbit/s
95th percentile per-packet one-way delay: 2.275 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 278.30 Mbit/s
95th percentile per-packet one-way delay: 2.660 ms
Loss rate: 0.19%
```

Run 5: Report of TCP Cubic — Data Link

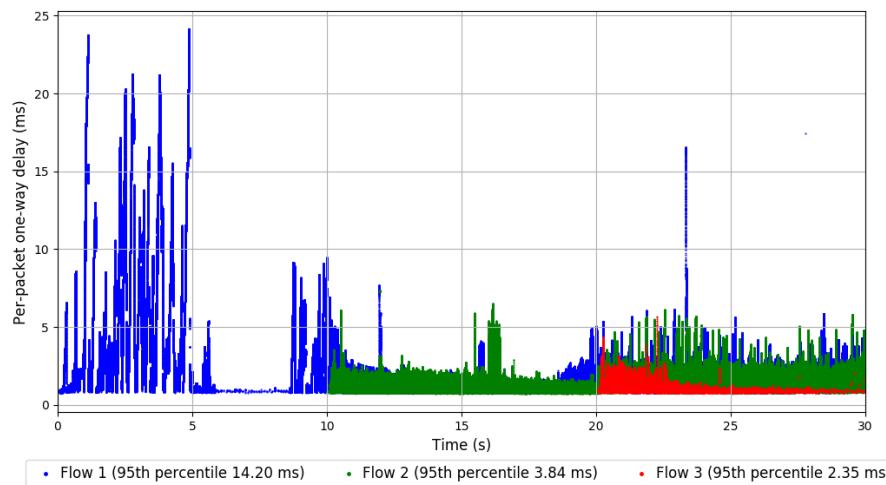
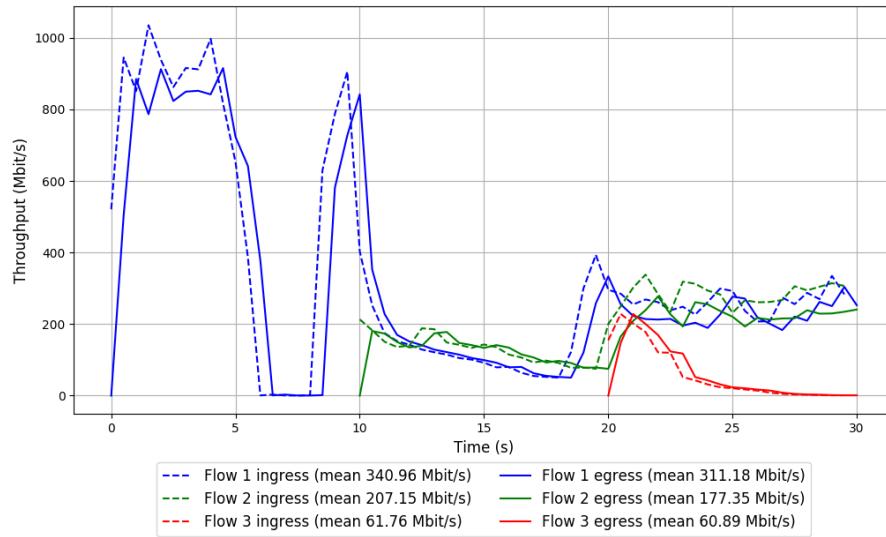


```
Run 1: Statistics of FillP

Start at: 2019-01-19 00:23:41
End at: 2019-01-19 00:24:11
Local clock offset: 1.529 ms
Remote clock offset: 4.123 ms

# Below is generated by plot.py at 2019-01-19 02:56:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.42 Mbit/s
95th percentile per-packet one-way delay: 11.920 ms
Loss rate: 9.99%
-- Flow 1:
Average throughput: 311.18 Mbit/s
95th percentile per-packet one-way delay: 14.199 ms
Loss rate: 8.73%
-- Flow 2:
Average throughput: 177.35 Mbit/s
95th percentile per-packet one-way delay: 3.844 ms
Loss rate: 14.37%
-- Flow 3:
Average throughput: 60.89 Mbit/s
95th percentile per-packet one-way delay: 2.347 ms
Loss rate: 1.41%
```

Run 1: Report of FillP — Data Link

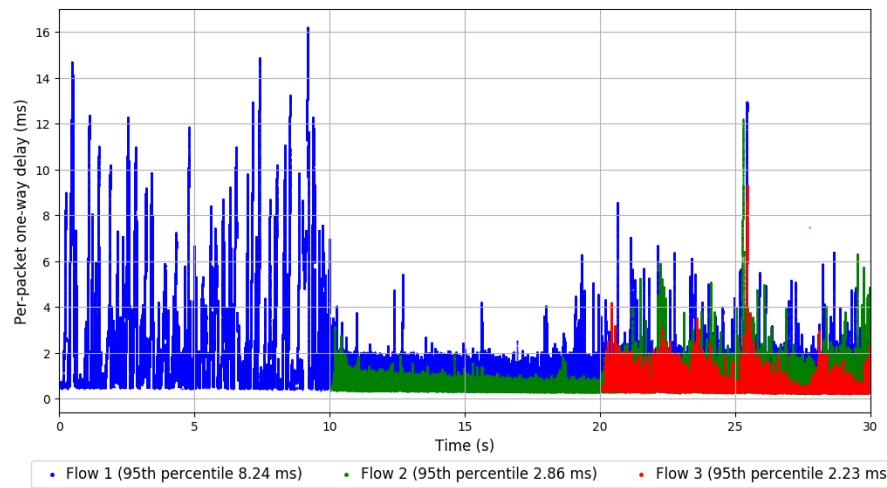
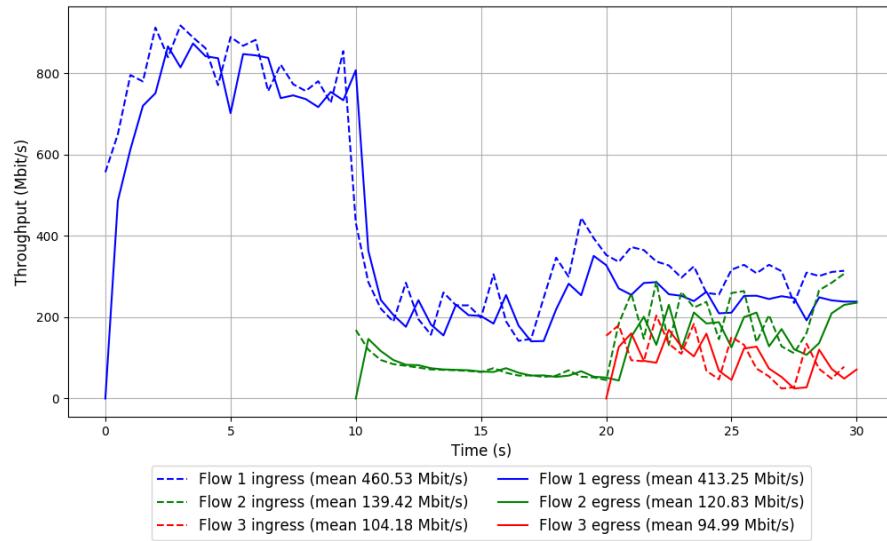


Run 2: Statistics of FillP

```
Start at: 2019-01-19 00:53:18
End at: 2019-01-19 00:53:48
Local clock offset: 2.734 ms
Remote clock offset: 9.715 ms

# Below is generated by plot.py at 2019-01-19 02:56:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 524.84 Mbit/s
95th percentile per-packet one-way delay: 7.513 ms
Loss rate: 10.66%
-- Flow 1:
Average throughput: 413.25 Mbit/s
95th percentile per-packet one-way delay: 8.243 ms
Loss rate: 10.27%
-- Flow 2:
Average throughput: 120.83 Mbit/s
95th percentile per-packet one-way delay: 2.863 ms
Loss rate: 13.33%
-- Flow 3:
Average throughput: 94.99 Mbit/s
95th percentile per-packet one-way delay: 2.233 ms
Loss rate: 8.81%
```

Run 2: Report of FillP — Data Link

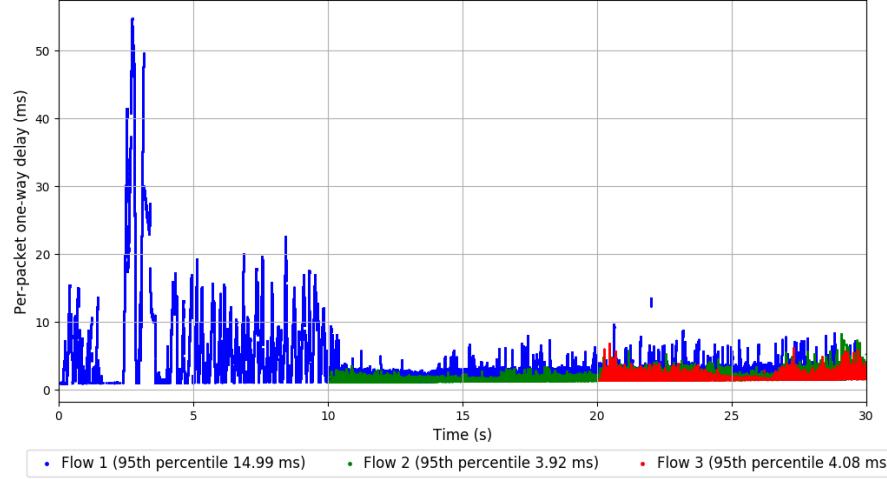
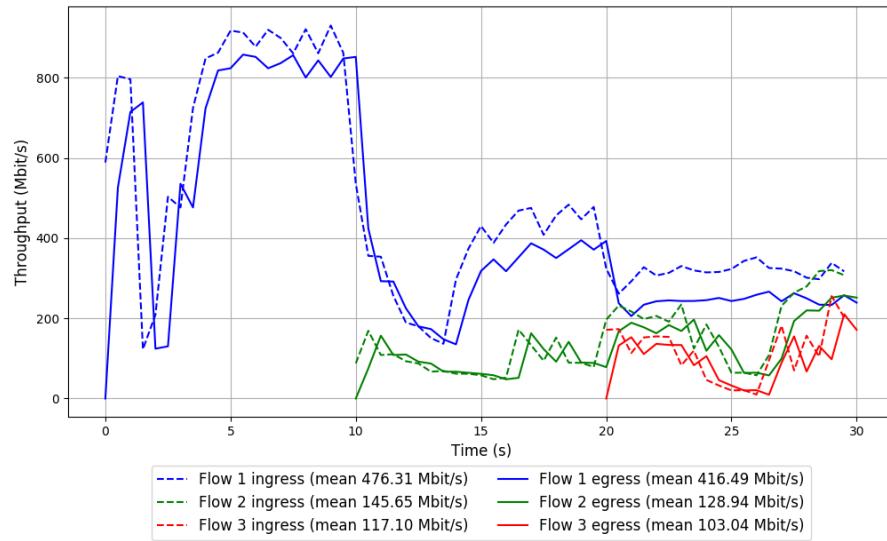


```
Run 3: Statistics of FillP
```

```
Start at: 2019-01-19 01:22:55
End at: 2019-01-19 01:23:25
Local clock offset: 0.804 ms
Remote clock offset: 4.068 ms

# Below is generated by plot.py at 2019-01-19 02:56:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.27 Mbit/s
95th percentile per-packet one-way delay: 13.803 ms
Loss rate: 12.35%
-- Flow 1:
Average throughput: 416.49 Mbit/s
95th percentile per-packet one-way delay: 14.993 ms
Loss rate: 12.56%
-- Flow 2:
Average throughput: 128.94 Mbit/s
95th percentile per-packet one-way delay: 3.917 ms
Loss rate: 11.46%
-- Flow 3:
Average throughput: 103.04 Mbit/s
95th percentile per-packet one-way delay: 4.085 ms
Loss rate: 12.00%
```

Run 3: Report of FillP — Data Link

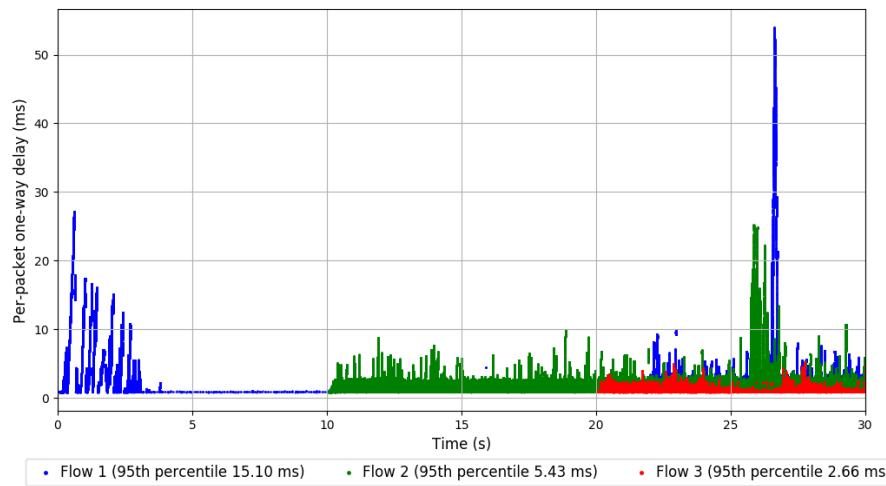
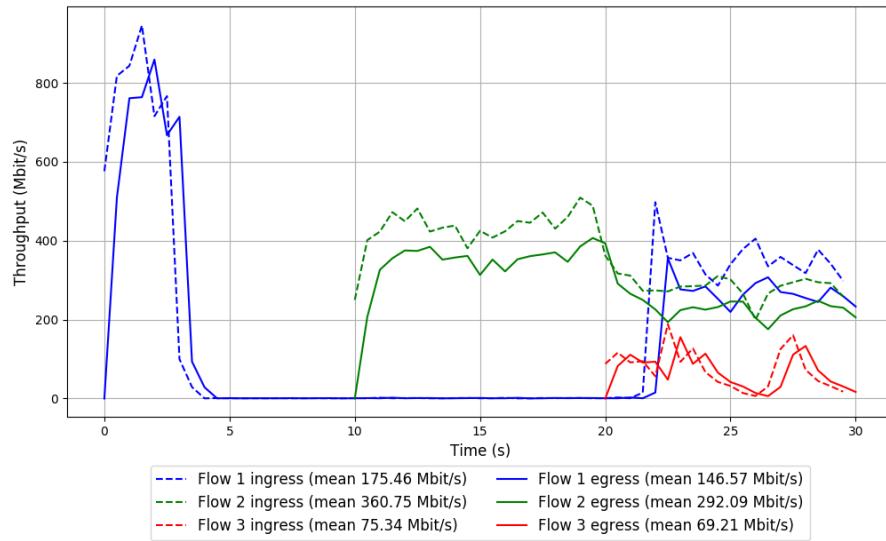


Run 4: Statistics of FillP

```
Start at: 2019-01-19 01:52:31
End at: 2019-01-19 01:53:01
Local clock offset: 3.69 ms
Remote clock offset: -7.938 ms

# Below is generated by plot.py at 2019-01-19 02:56:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.99 Mbit/s
95th percentile per-packet one-way delay: 10.563 ms
Loss rate: 17.39%
-- Flow 1:
Average throughput: 146.57 Mbit/s
95th percentile per-packet one-way delay: 15.100 ms
Loss rate: 16.47%
-- Flow 2:
Average throughput: 292.09 Mbit/s
95th percentile per-packet one-way delay: 5.429 ms
Loss rate: 19.03%
-- Flow 3:
Average throughput: 69.21 Mbit/s
95th percentile per-packet one-way delay: 2.658 ms
Loss rate: 8.14%
```

Run 4: Report of FillP — Data Link

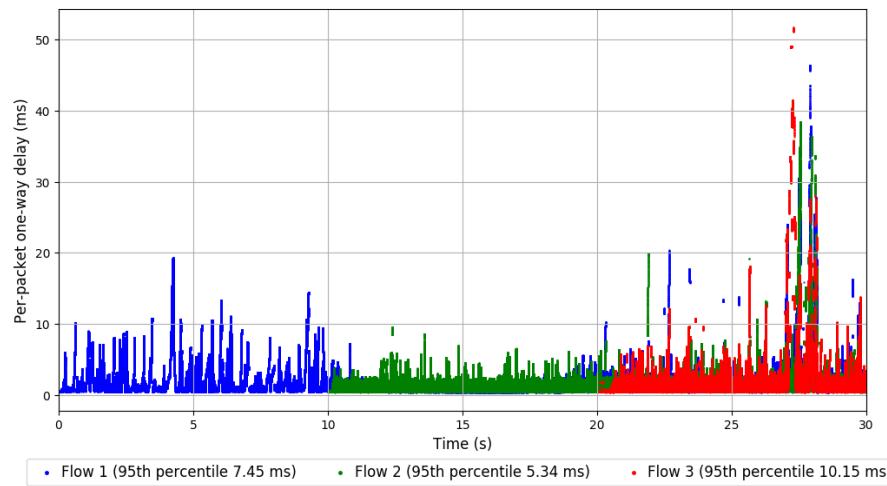
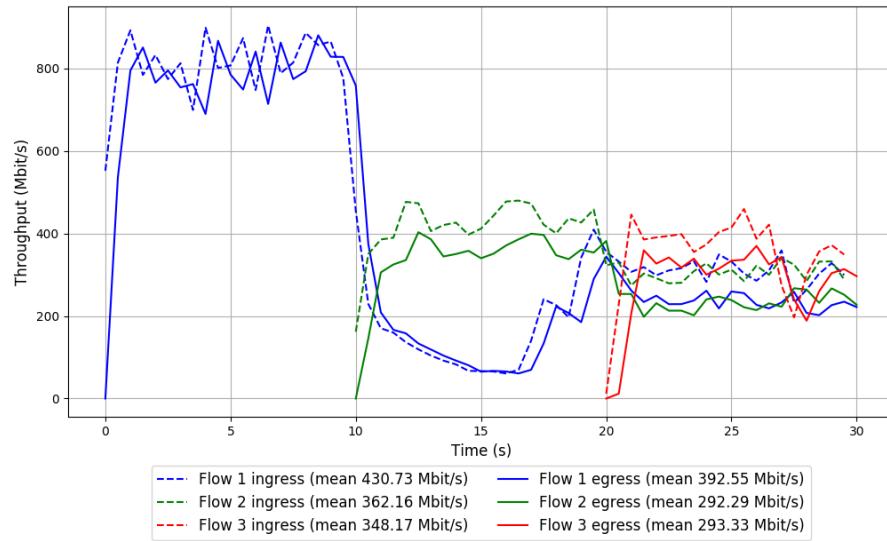


```
Run 5: Statistics of FillP
```

```
Start at: 2019-01-19 02:22:00
End at: 2019-01-19 02:22:30
Local clock offset: 2.789 ms
Remote clock offset: -12.693 ms

# Below is generated by plot.py at 2019-01-19 02:59:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 684.25 Mbit/s
95th percentile per-packet one-way delay: 7.085 ms
Loss rate: 13.06%
-- Flow 1:
Average throughput: 392.55 Mbit/s
95th percentile per-packet one-way delay: 7.447 ms
Loss rate: 8.86%
-- Flow 2:
Average throughput: 292.29 Mbit/s
95th percentile per-packet one-way delay: 5.337 ms
Loss rate: 19.29%
-- Flow 3:
Average throughput: 293.33 Mbit/s
95th percentile per-packet one-way delay: 10.152 ms
Loss rate: 15.73%
```

Run 5: Report of FillP — Data Link

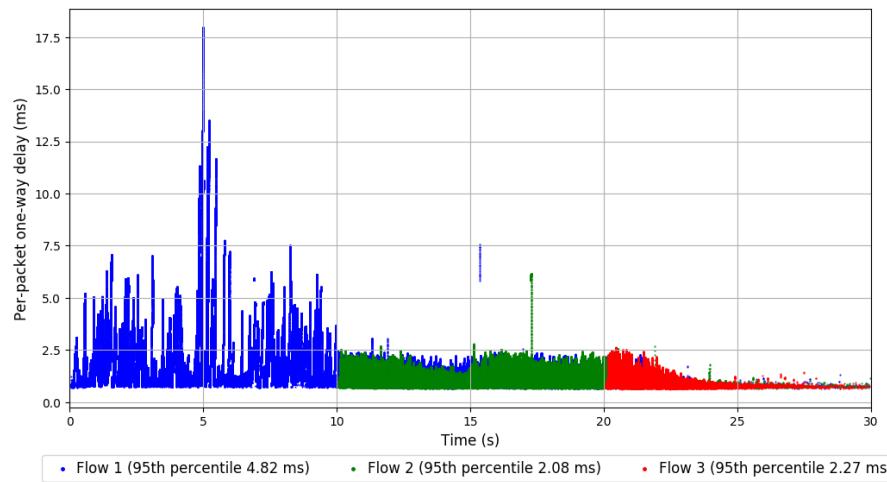
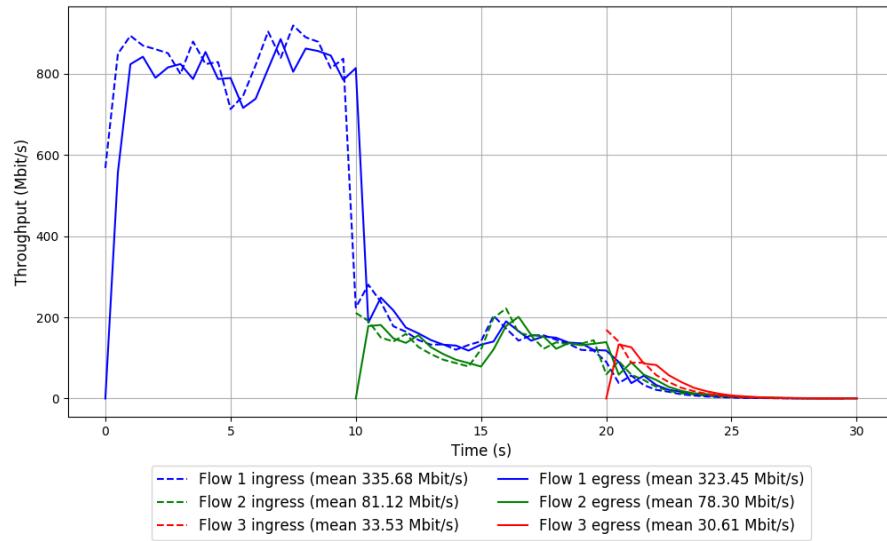


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-01-19 00:33:52
End at: 2019-01-19 00:34:22
Local clock offset: 3.112 ms
Remote clock offset: 6.452 ms

# Below is generated by plot.py at 2019-01-19 02:59:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.59 Mbit/s
95th percentile per-packet one-way delay: 4.536 ms
Loss rate: 3.76%
-- Flow 1:
Average throughput: 323.45 Mbit/s
95th percentile per-packet one-way delay: 4.818 ms
Loss rate: 3.65%
-- Flow 2:
Average throughput: 78.30 Mbit/s
95th percentile per-packet one-way delay: 2.075 ms
Loss rate: 3.48%
-- Flow 3:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 2.273 ms
Loss rate: 8.69%
```

Run 1: Report of FillP-Sheep — Data Link

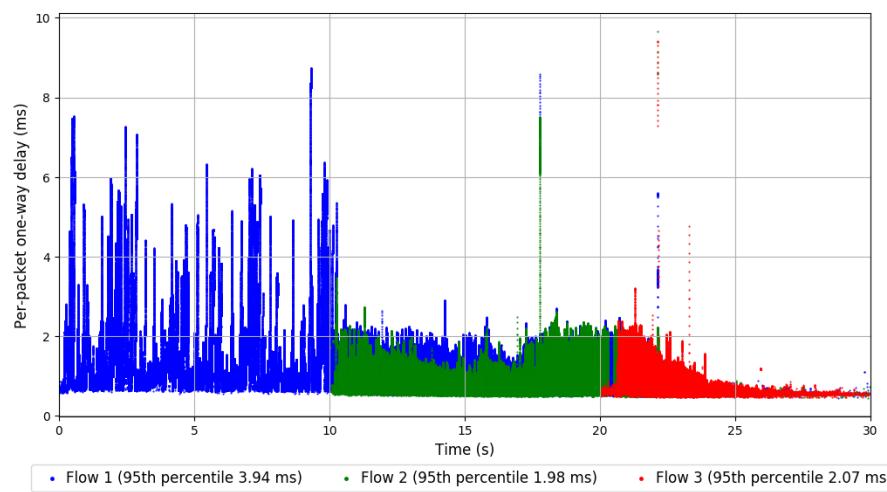
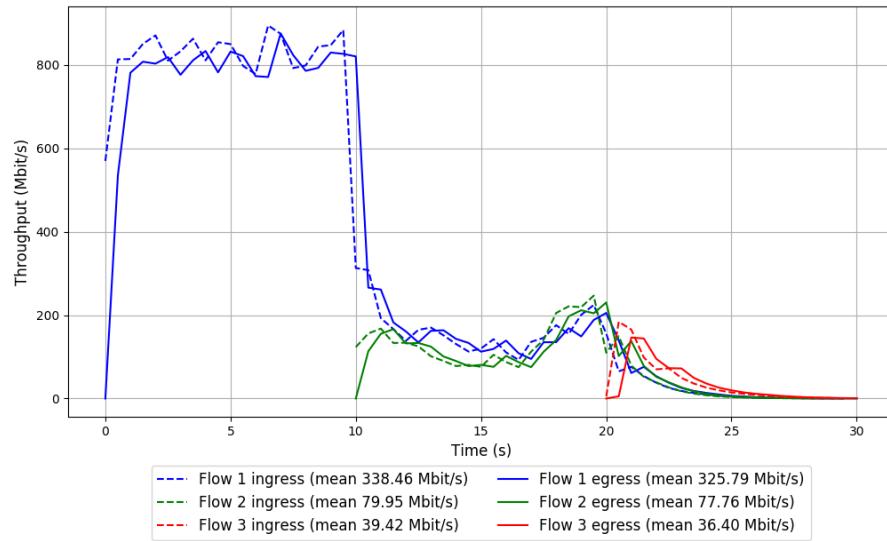


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-01-19 01:03:24
End at: 2019-01-19 01:03:54
Local clock offset: 0.577 ms
Remote clock offset: 11.202 ms

# Below is generated by plot.py at 2019-01-19 03:00:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.43 Mbit/s
95th percentile per-packet one-way delay: 3.682 ms
Loss rate: 3.74%
-- Flow 1:
Average throughput: 325.79 Mbit/s
95th percentile per-packet one-way delay: 3.945 ms
Loss rate: 3.74%
-- Flow 2:
Average throughput: 77.76 Mbit/s
95th percentile per-packet one-way delay: 1.979 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 36.40 Mbit/s
95th percentile per-packet one-way delay: 2.069 ms
Loss rate: 7.64%
```

Run 2: Report of FillP-Sheep — Data Link

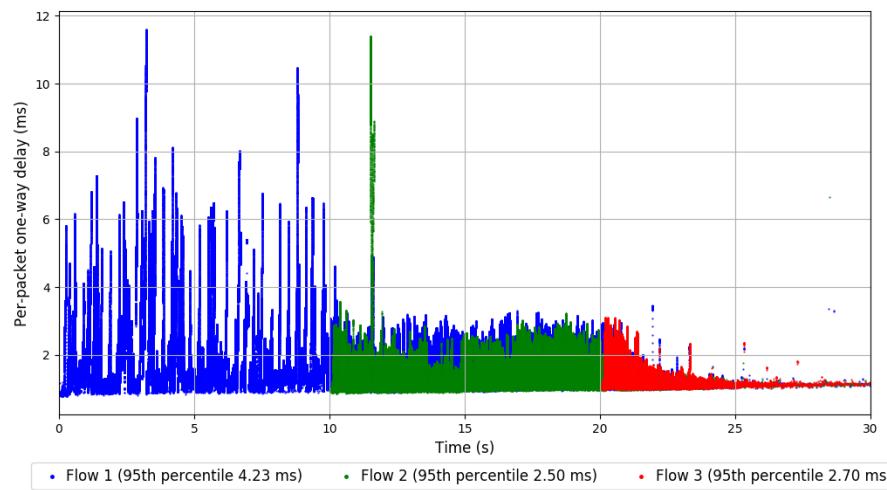
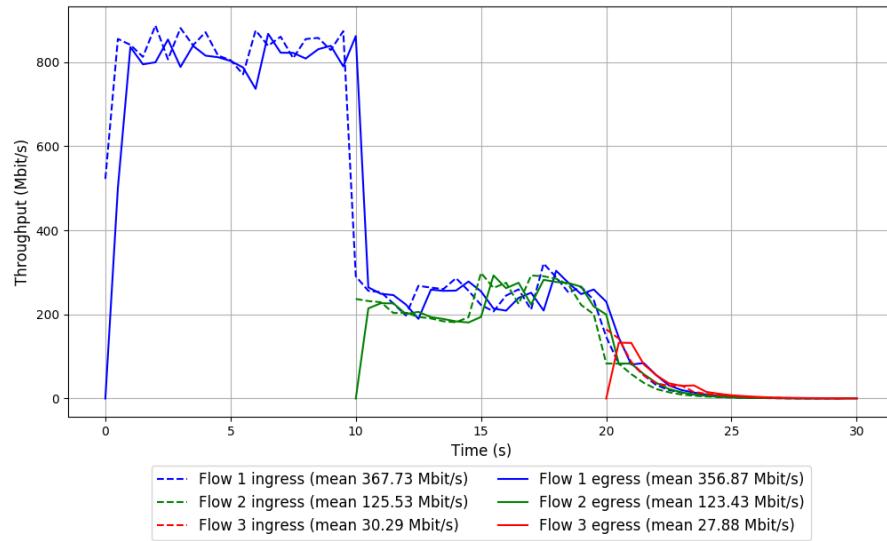


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-01-19 01:32:59
End at: 2019-01-19 01:33:29
Local clock offset: 2.729 ms
Remote clock offset: -2.951 ms

# Below is generated by plot.py at 2019-01-19 03:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 448.23 Mbit/s
95th percentile per-packet one-way delay: 3.929 ms
Loss rate: 2.83%
-- Flow 1:
Average throughput: 356.87 Mbit/s
95th percentile per-packet one-way delay: 4.230 ms
Loss rate: 2.95%
-- Flow 2:
Average throughput: 123.43 Mbit/s
95th percentile per-packet one-way delay: 2.495 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 27.88 Mbit/s
95th percentile per-packet one-way delay: 2.698 ms
Loss rate: 7.96%
```

Run 3: Report of FillP-Sheep — Data Link

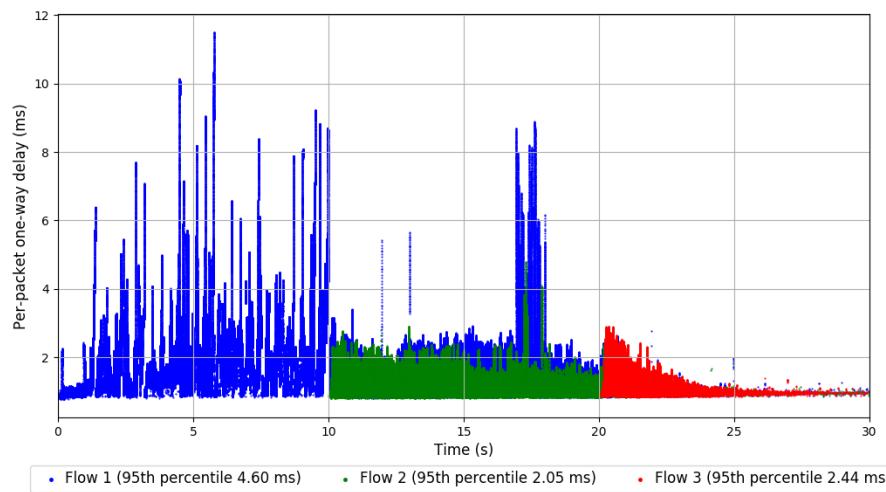
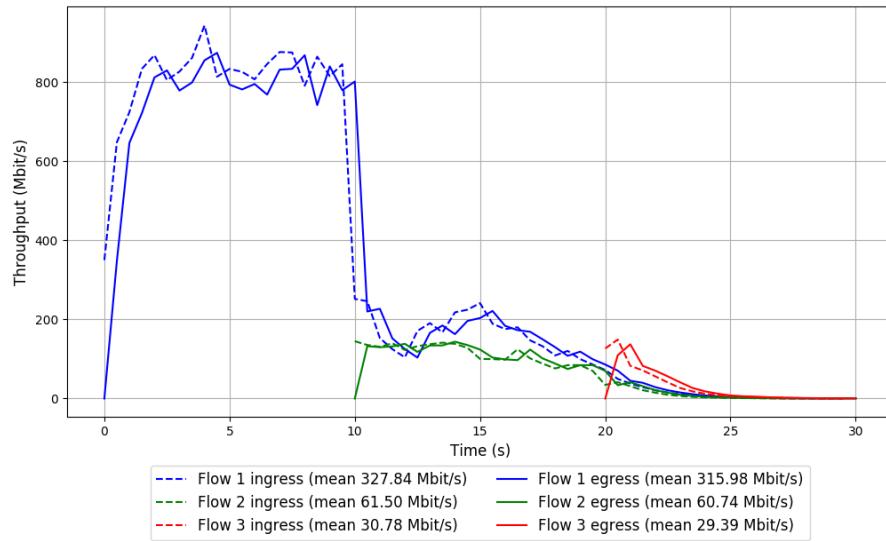


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-01-19 02:02:40
End at: 2019-01-19 02:03:10
Local clock offset: 3.435 ms
Remote clock offset: -9.648 ms

# Below is generated by plot.py at 2019-01-19 03:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 366.11 Mbit/s
95th percentile per-packet one-way delay: 4.280 ms
Loss rate: 3.39%
-- Flow 1:
Average throughput: 315.98 Mbit/s
95th percentile per-packet one-way delay: 4.602 ms
Loss rate: 3.62%
-- Flow 2:
Average throughput: 60.74 Mbit/s
95th percentile per-packet one-way delay: 2.053 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 29.39 Mbit/s
95th percentile per-packet one-way delay: 2.444 ms
Loss rate: 4.86%
```

Run 4: Report of FillP-Sheep — Data Link

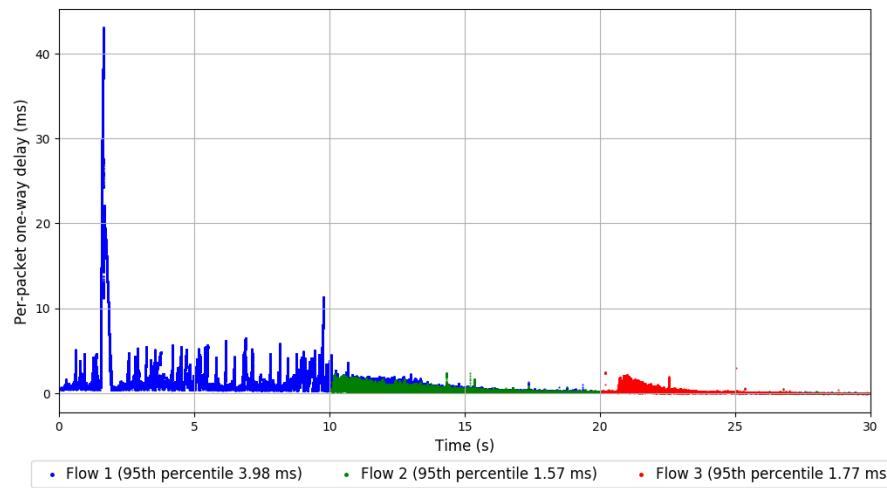
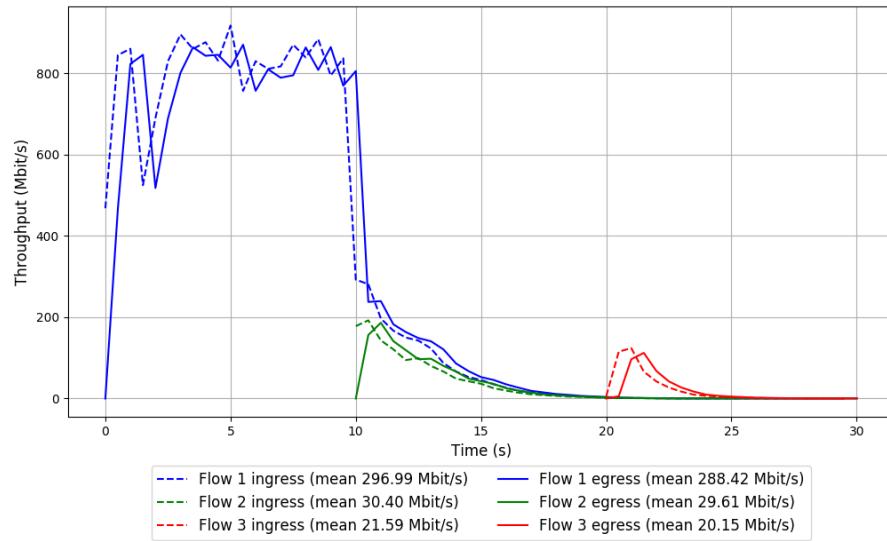


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-01-19 02:32:26
End at: 2019-01-19 02:32:56
Local clock offset: 0.442 ms
Remote clock offset: -3.296 ms

# Below is generated by plot.py at 2019-01-19 03:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.68 Mbit/s
95th percentile per-packet one-way delay: 3.878 ms
Loss rate: 2.95%
-- Flow 1:
Average throughput: 288.42 Mbit/s
95th percentile per-packet one-way delay: 3.979 ms
Loss rate: 2.89%
-- Flow 2:
Average throughput: 29.61 Mbit/s
95th percentile per-packet one-way delay: 1.572 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 20.15 Mbit/s
95th percentile per-packet one-way delay: 1.775 ms
Loss rate: 6.67%
```

Run 5: Report of FillP-Sheep — Data Link

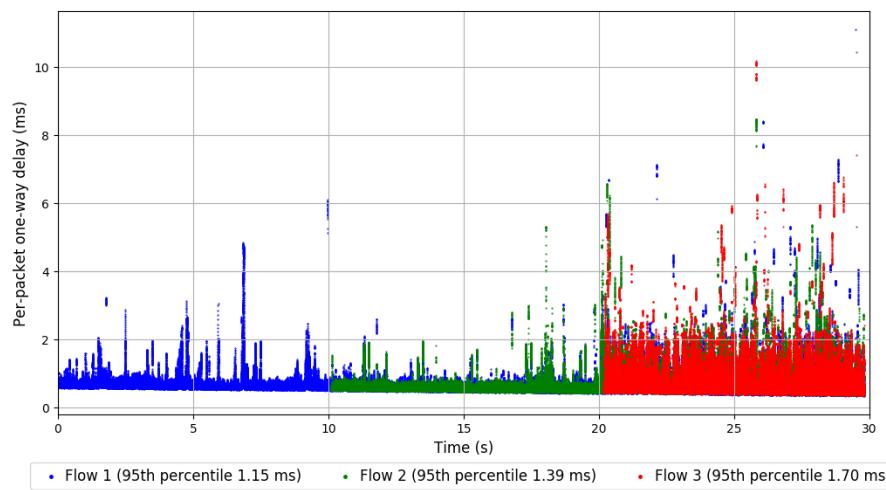
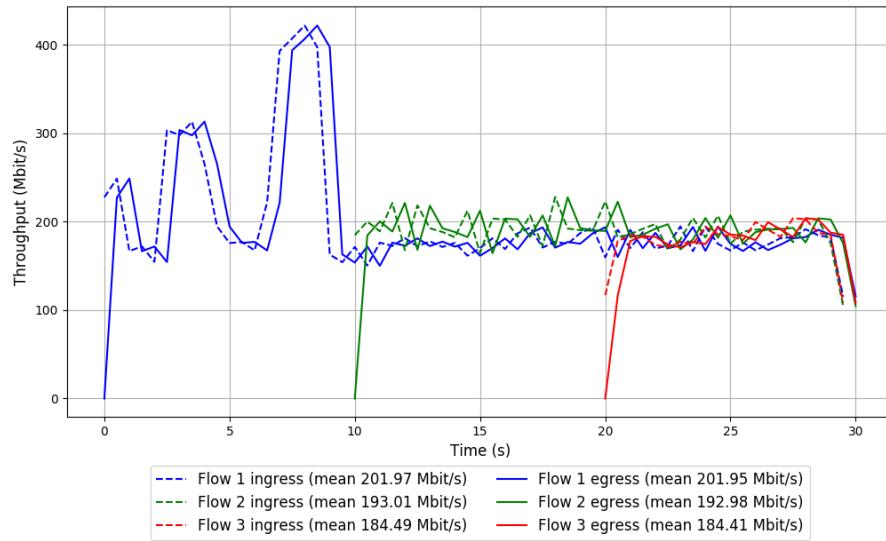


Run 1: Statistics of Indigo

```
Start at: 2019-01-19 00:15:09
End at: 2019-01-19 00:15:39
Local clock offset: 0.245 ms
Remote clock offset: 0.685 ms

# Below is generated by plot.py at 2019-01-19 03:00:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.34 Mbit/s
95th percentile per-packet one-way delay: 1.374 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 201.95 Mbit/s
95th percentile per-packet one-way delay: 1.145 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 192.98 Mbit/s
95th percentile per-packet one-way delay: 1.394 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 184.41 Mbit/s
95th percentile per-packet one-way delay: 1.700 ms
Loss rate: 0.03%
```

Run 1: Report of Indigo — Data Link

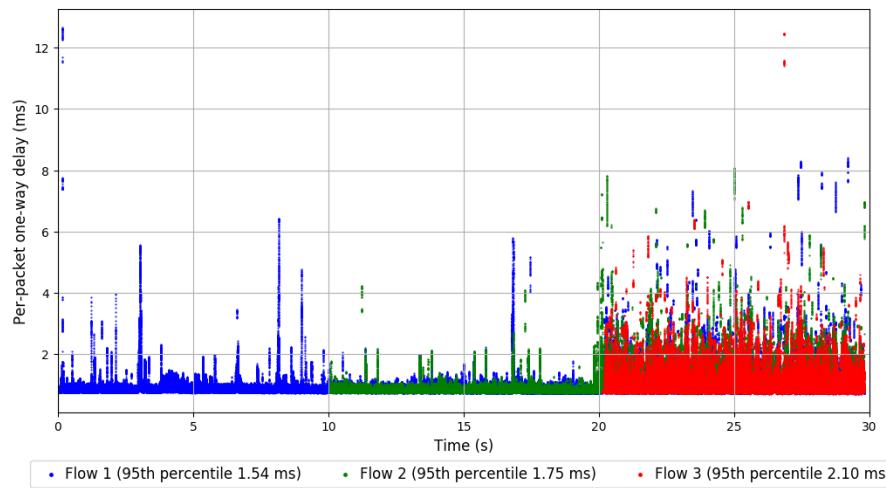
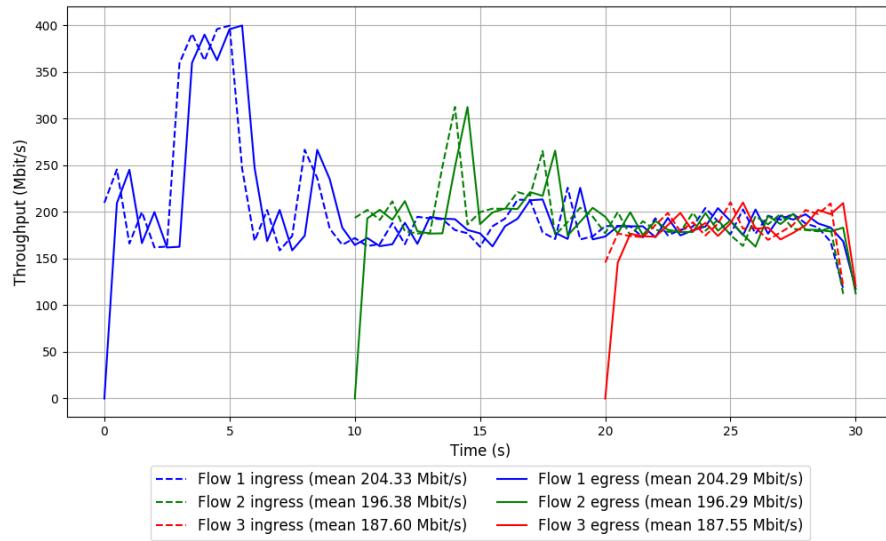


Run 2: Statistics of Indigo

```
Start at: 2019-01-19 00:44:53
End at: 2019-01-19 00:45:23
Local clock offset: 4.025 ms
Remote clock offset: 8.433 ms

# Below is generated by plot.py at 2019-01-19 03:01:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 395.15 Mbit/s
95th percentile per-packet one-way delay: 1.729 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 204.29 Mbit/s
95th percentile per-packet one-way delay: 1.542 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 196.29 Mbit/s
95th percentile per-packet one-way delay: 1.747 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 187.55 Mbit/s
95th percentile per-packet one-way delay: 2.105 ms
Loss rate: 0.03%
```

Run 2: Report of Indigo — Data Link

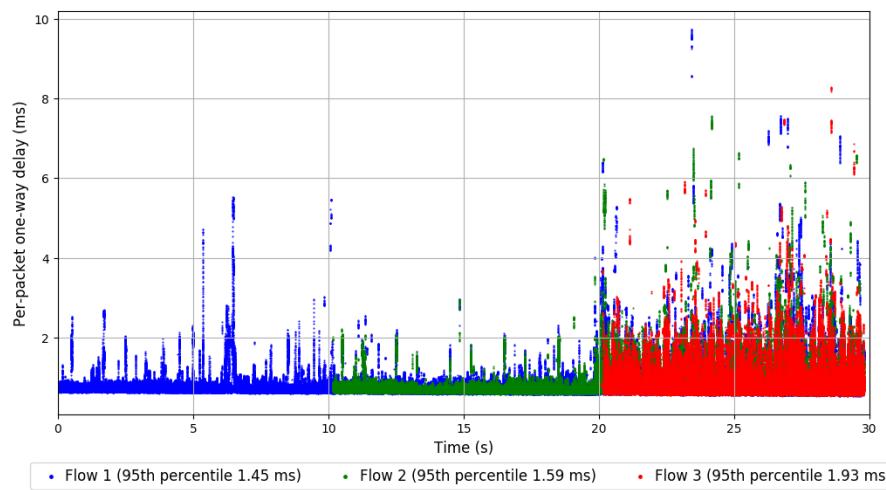
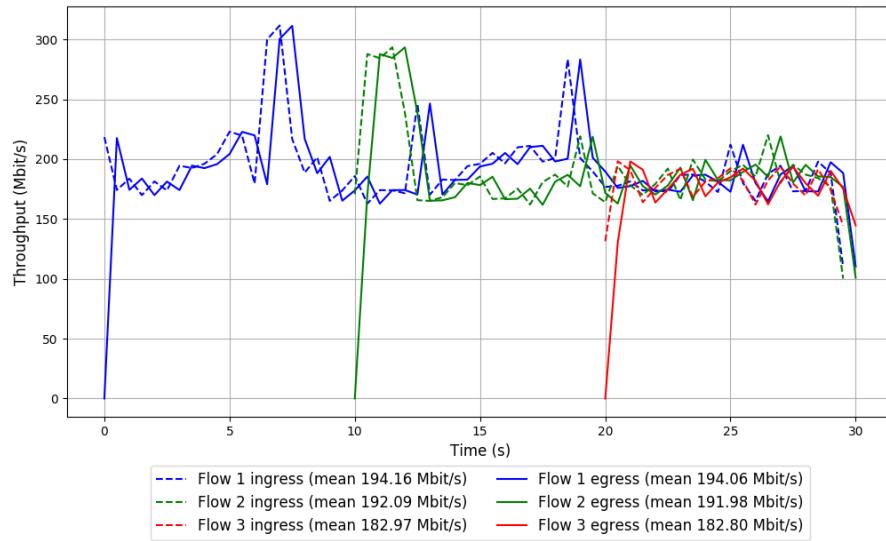


Run 3: Statistics of Indigo

```
Start at: 2019-01-19 01:14:26
End at: 2019-01-19 01:14:56
Local clock offset: -0.204 ms
Remote clock offset: 12.832 ms

# Below is generated by plot.py at 2019-01-19 03:01:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 380.05 Mbit/s
95th percentile per-packet one-way delay: 1.606 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 194.06 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 191.98 Mbit/s
95th percentile per-packet one-way delay: 1.586 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 182.80 Mbit/s
95th percentile per-packet one-way delay: 1.934 ms
Loss rate: 0.09%
```

Run 3: Report of Indigo — Data Link

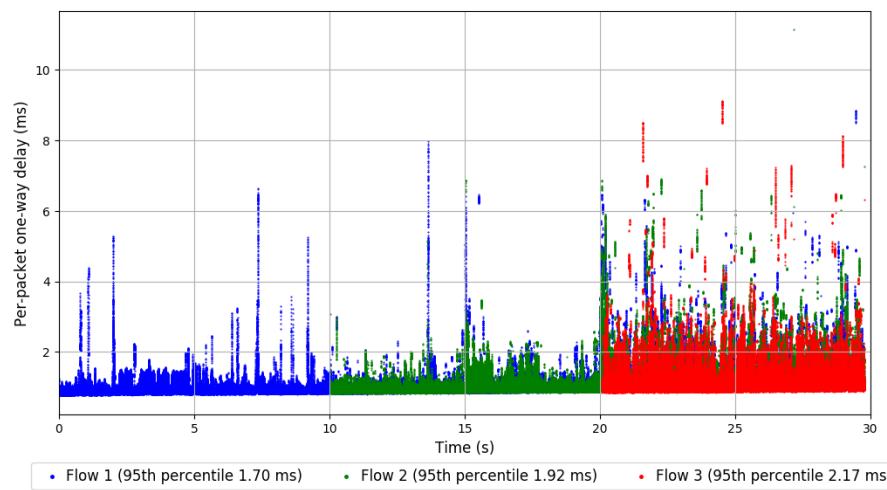
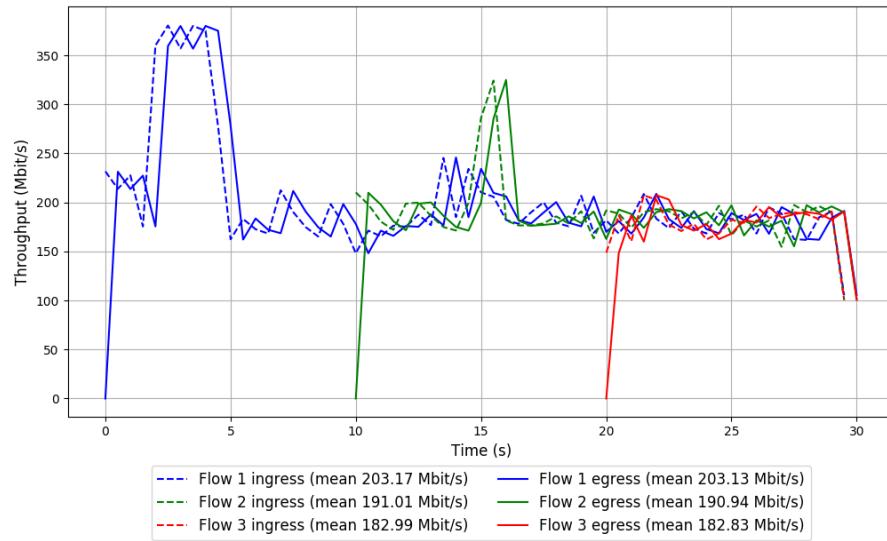


Run 4: Statistics of Indigo

```
Start at: 2019-01-19 01:44:10
End at: 2019-01-19 01:44:40
Local clock offset: 3.649 ms
Remote clock offset: -6.42 ms

# Below is generated by plot.py at 2019-01-19 03:03:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 389.27 Mbit/s
95th percentile per-packet one-way delay: 1.871 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 203.13 Mbit/s
95th percentile per-packet one-way delay: 1.702 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 190.94 Mbit/s
95th percentile per-packet one-way delay: 1.916 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 182.83 Mbit/s
95th percentile per-packet one-way delay: 2.172 ms
Loss rate: 0.04%
```

Run 4: Report of Indigo — Data Link

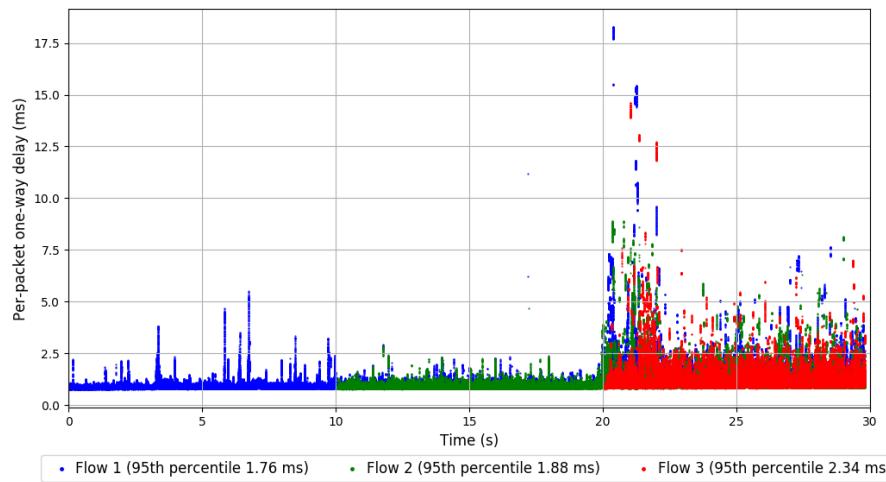
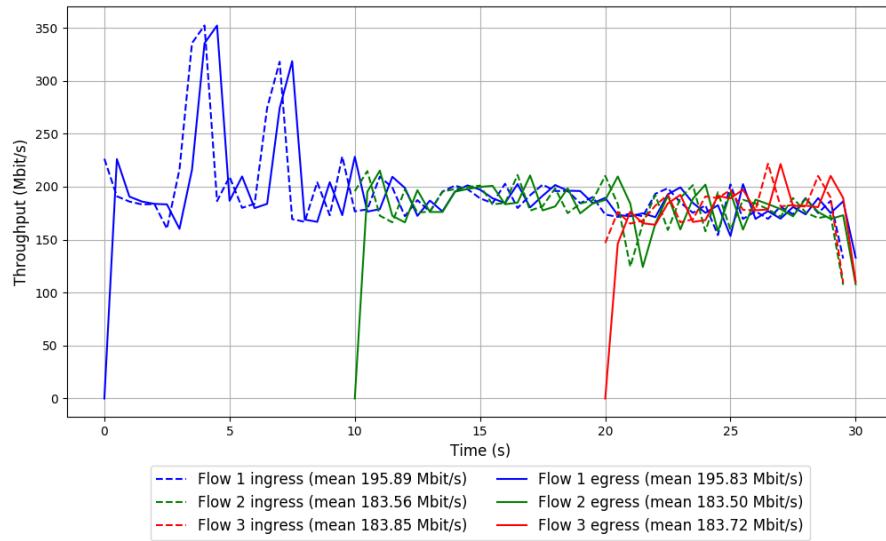


Run 5: Statistics of Indigo

```
Start at: 2019-01-19 02:13:36
End at: 2019-01-19 02:14:06
Local clock offset: 3.592 ms
Remote clock offset: -11.416 ms

# Below is generated by plot.py at 2019-01-19 03:04:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.38 Mbit/s
95th percentile per-packet one-way delay: 1.914 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 195.83 Mbit/s
95th percentile per-packet one-way delay: 1.756 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 183.50 Mbit/s
95th percentile per-packet one-way delay: 1.877 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 183.72 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.06%
```

Run 5: Report of Indigo — Data Link

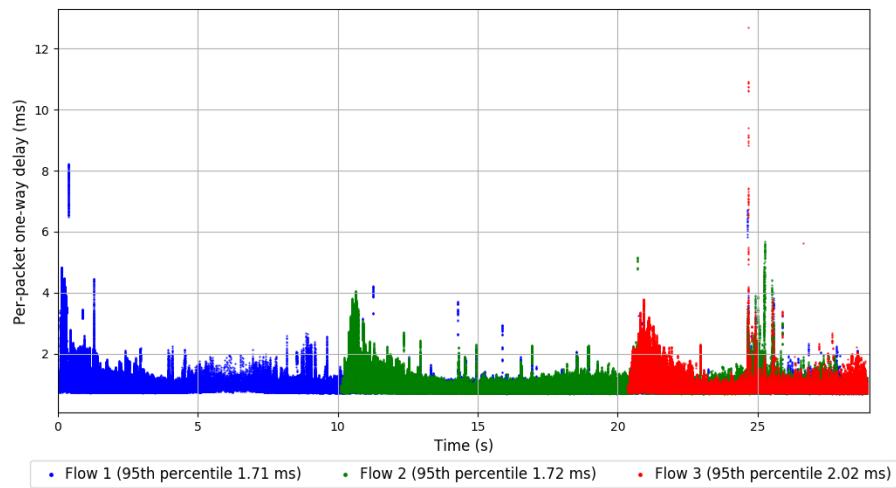
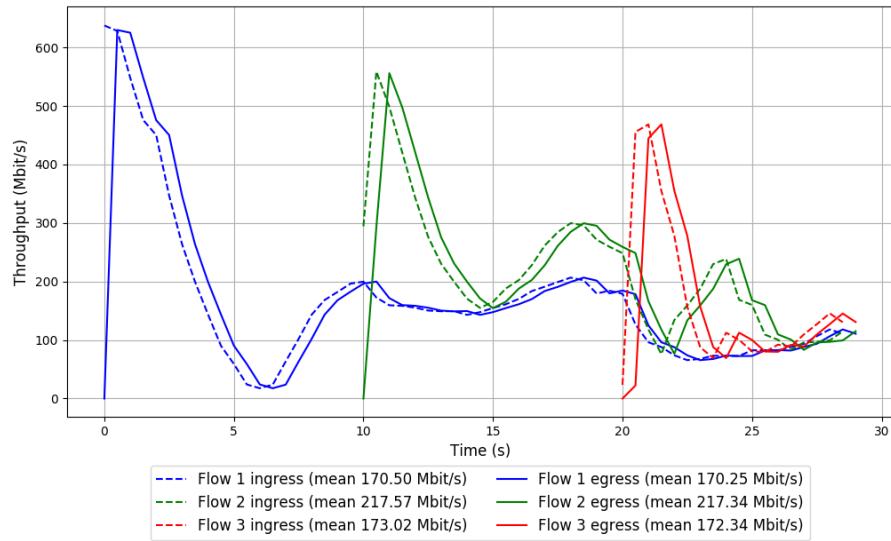


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 00:30:58
End at: 2019-01-19 00:31:28
Local clock offset: 2.792 ms
Remote clock offset: 5.855 ms

# Below is generated by plot.py at 2019-01-19 03:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.72 Mbit/s
95th percentile per-packet one-way delay: 1.791 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 170.25 Mbit/s
95th percentile per-packet one-way delay: 1.705 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 217.34 Mbit/s
95th percentile per-packet one-way delay: 1.724 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 172.34 Mbit/s
95th percentile per-packet one-way delay: 2.020 ms
Loss rate: 0.39%
```

Run 1: Report of Indigo-MusesC3 — Data Link

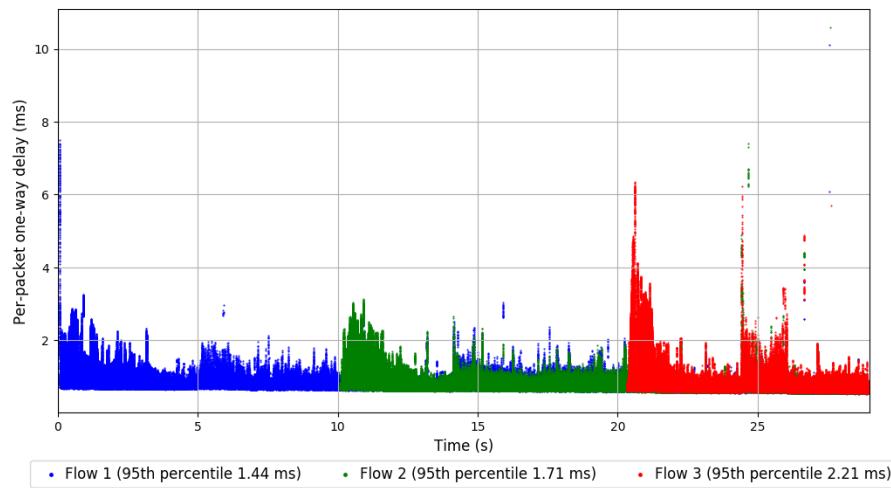
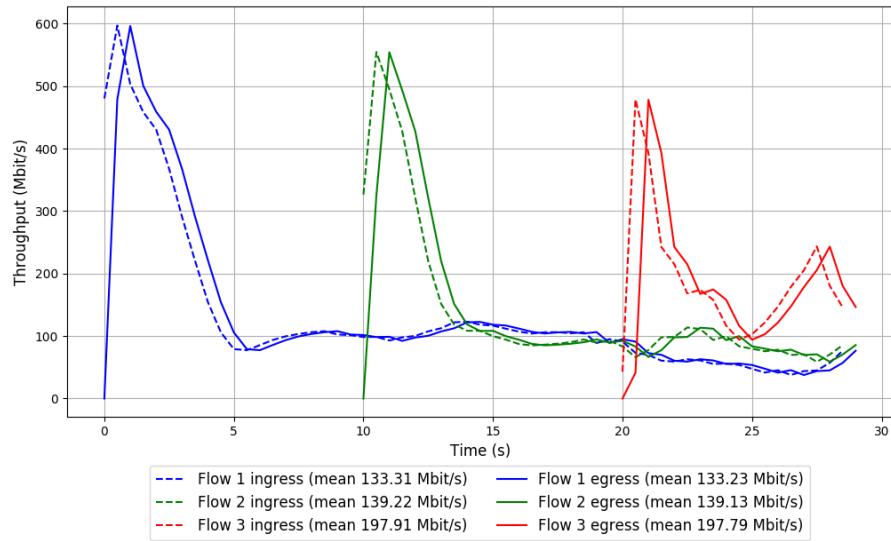


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 01:00:30
End at: 2019-01-19 01:01:00
Local clock offset: 0.977 ms
Remote clock offset: 10.842 ms

# Below is generated by plot.py at 2019-01-19 03:04:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 282.72 Mbit/s
95th percentile per-packet one-way delay: 1.701 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 133.23 Mbit/s
95th percentile per-packet one-way delay: 1.441 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 139.13 Mbit/s
95th percentile per-packet one-way delay: 1.707 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 197.79 Mbit/s
95th percentile per-packet one-way delay: 2.210 ms
Loss rate: 0.06%
```

Run 2: Report of Indigo-MusesC3 — Data Link

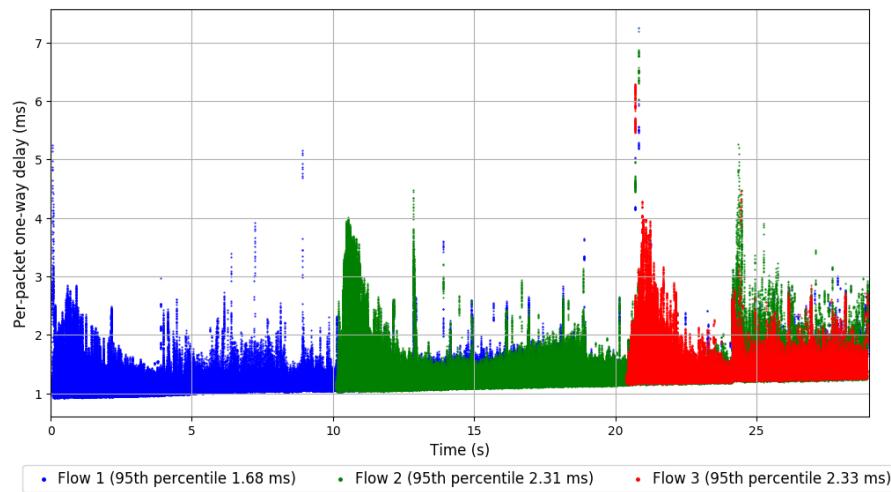
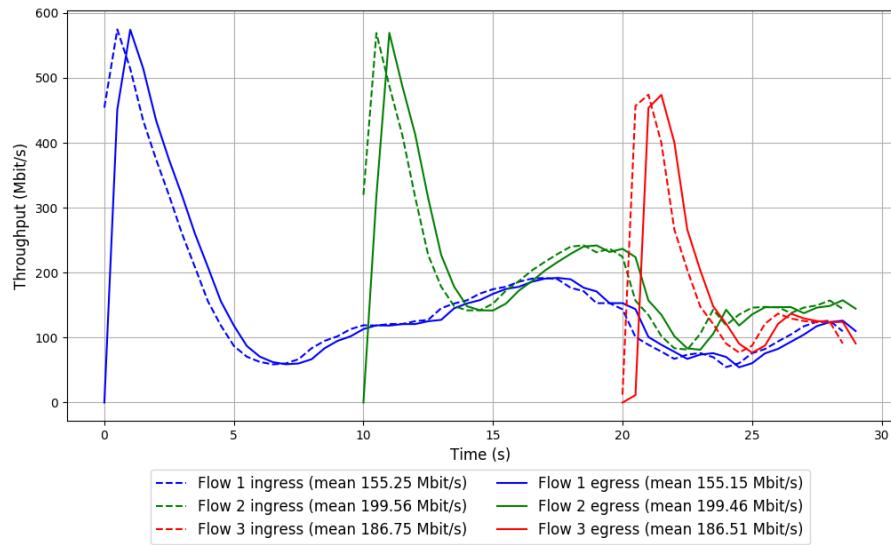


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 01:30:03
End at: 2019-01-19 01:30:33
Local clock offset: 2.344 ms
Remote clock offset: -1.463 ms

# Below is generated by plot.py at 2019-01-19 03:04:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.07 Mbit/s
95th percentile per-packet one-way delay: 2.070 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 155.15 Mbit/s
95th percentile per-packet one-way delay: 1.683 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 199.46 Mbit/s
95th percentile per-packet one-way delay: 2.305 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 186.51 Mbit/s
95th percentile per-packet one-way delay: 2.332 ms
Loss rate: 0.11%
```

Run 3: Report of Indigo-MusesC3 — Data Link

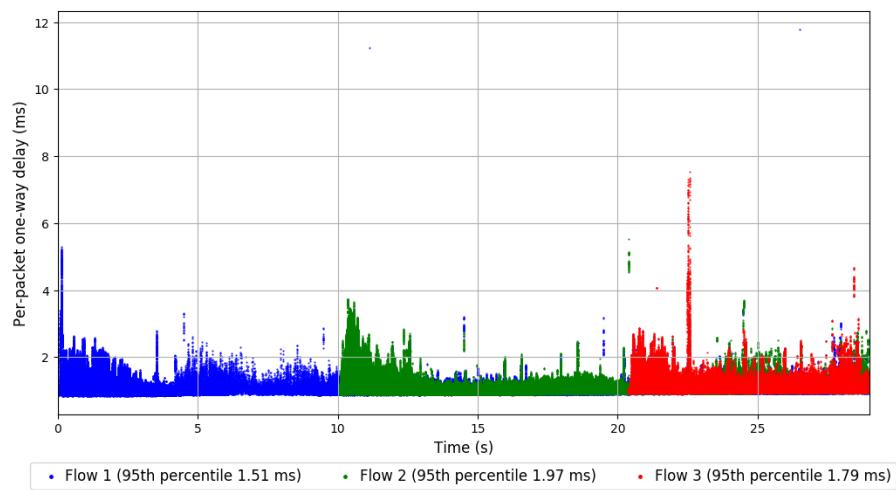
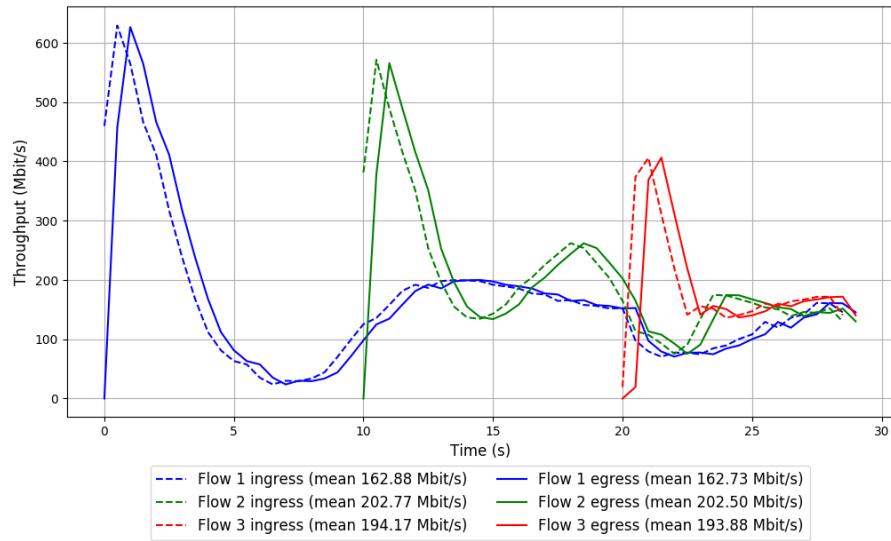


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 01:59:43
End at: 2019-01-19 02:00:13
Local clock offset: 3.45 ms
Remote clock offset: -9.17 ms

# Below is generated by plot.py at 2019-01-19 03:04:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 352.44 Mbit/s
95th percentile per-packet one-way delay: 1.739 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 162.73 Mbit/s
95th percentile per-packet one-way delay: 1.507 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 202.50 Mbit/s
95th percentile per-packet one-way delay: 1.967 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 193.88 Mbit/s
95th percentile per-packet one-way delay: 1.792 ms
Loss rate: 0.16%
```

Run 4: Report of Indigo-MusesC3 — Data Link

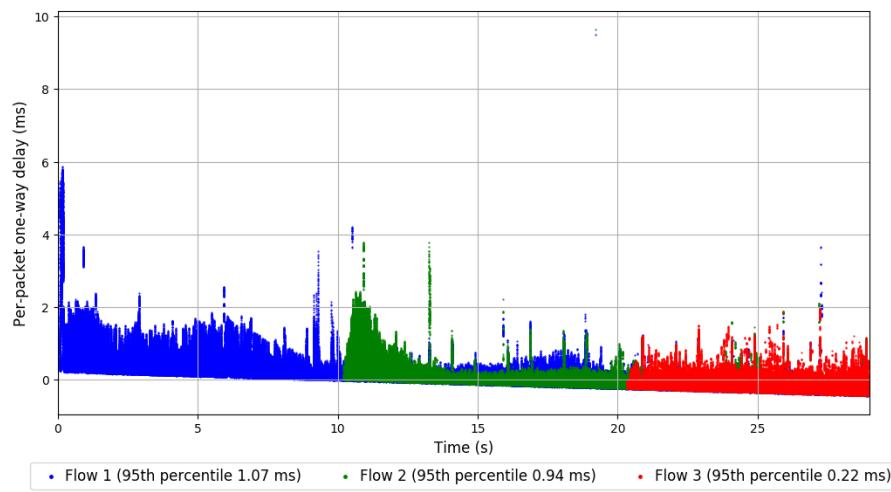
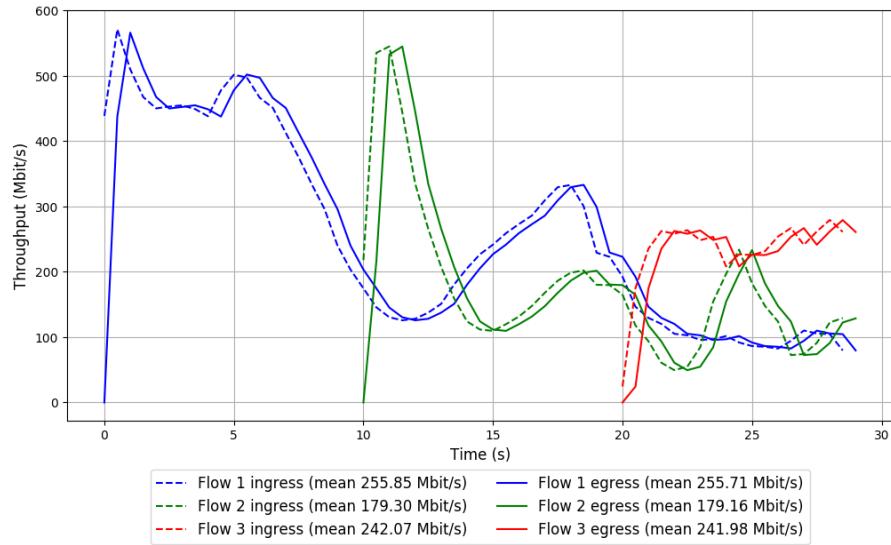


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 02:29:25
End at: 2019-01-19 02:29:55
Local clock offset: 0.889 ms
Remote clock offset: -6.696 ms

# Below is generated by plot.py at 2019-01-19 03:06:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 443.91 Mbit/s
95th percentile per-packet one-way delay: 0.954 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 255.71 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 179.16 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 241.98 Mbit/s
95th percentile per-packet one-way delay: 0.224 ms
Loss rate: 0.04%
```

Run 5: Report of Indigo-MusesC3 — Data Link

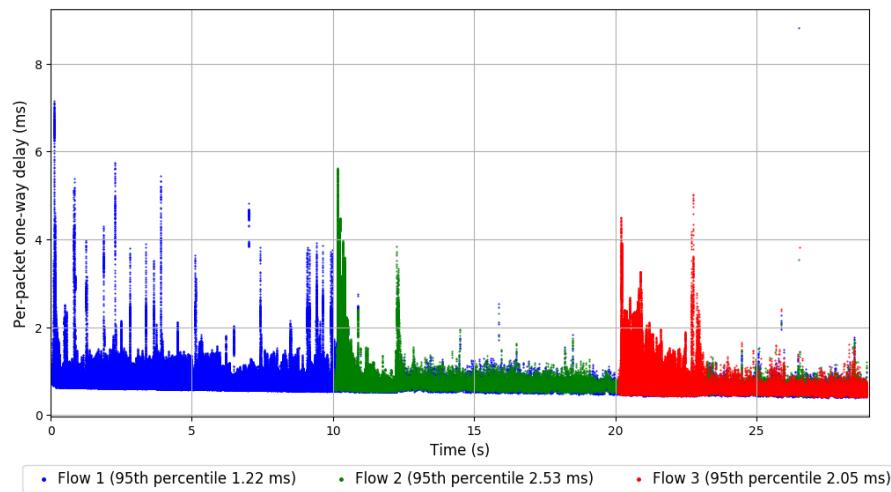
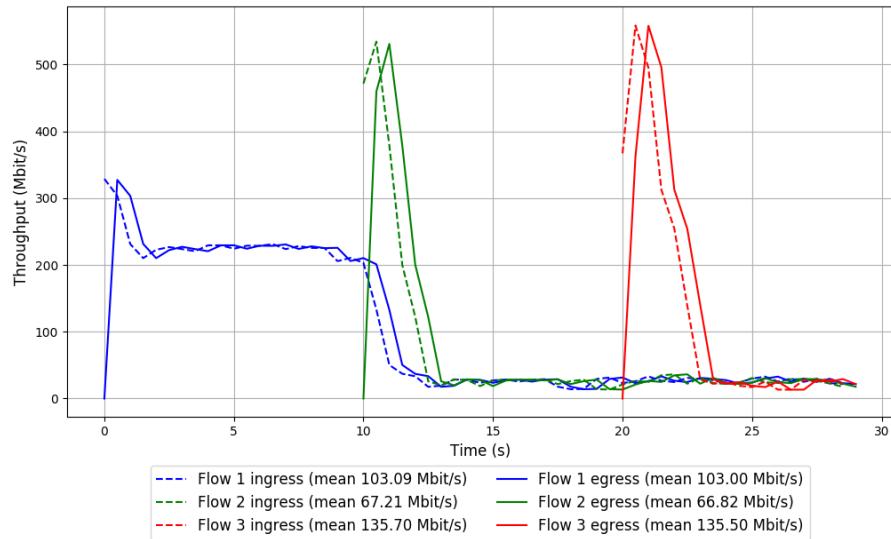


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 00:13:50
End at: 2019-01-19 00:14:20
Local clock offset: 0.206 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2019-01-19 03:06:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.98 Mbit/s
95th percentile per-packet one-way delay: 1.798 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 103.00 Mbit/s
95th percentile per-packet one-way delay: 1.222 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 66.82 Mbit/s
95th percentile per-packet one-way delay: 2.531 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 135.50 Mbit/s
95th percentile per-packet one-way delay: 2.048 ms
Loss rate: 0.15%
```

Run 1: Report of Indigo-MusesC5 — Data Link

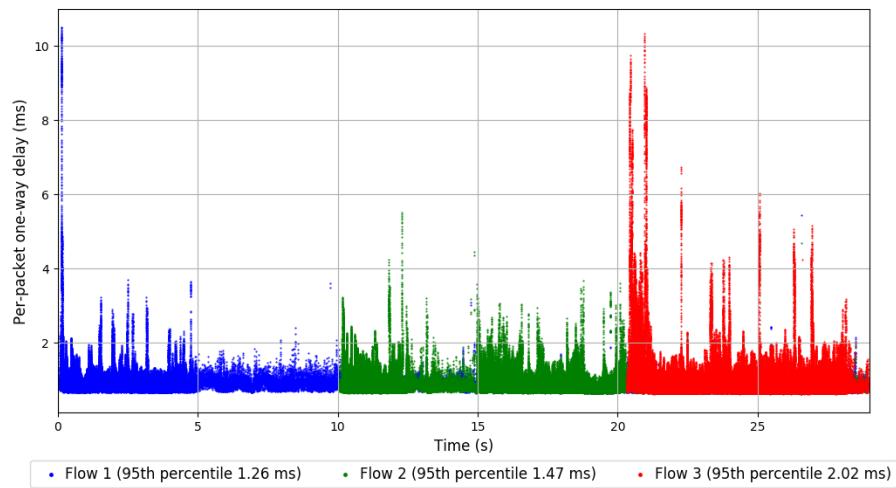
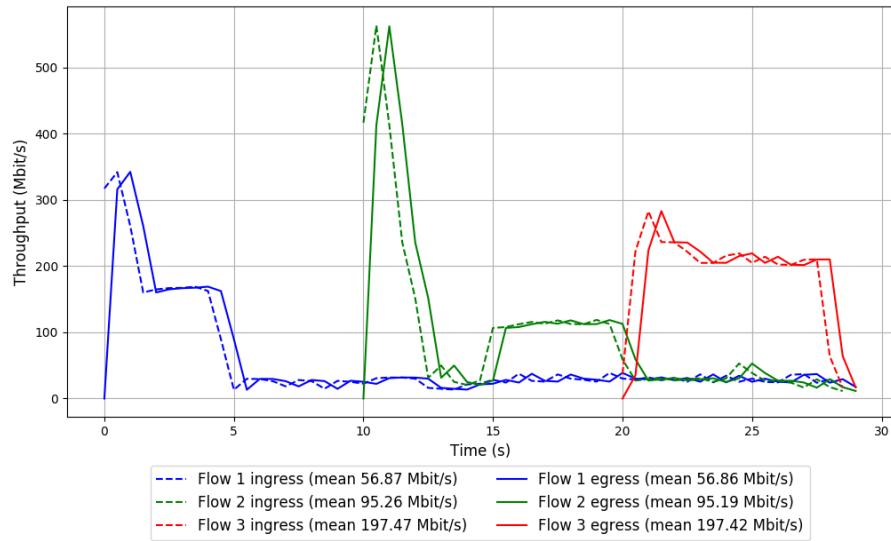


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 00:43:34
End at: 2019-01-19 00:44:04
Local clock offset: 3.928 ms
Remote clock offset: 8.122 ms

# Below is generated by plot.py at 2019-01-19 03:06:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 177.73 Mbit/s
95th percentile per-packet one-way delay: 1.554 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 56.86 Mbit/s
95th percentile per-packet one-way delay: 1.260 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 95.19 Mbit/s
95th percentile per-packet one-way delay: 1.465 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 197.42 Mbit/s
95th percentile per-packet one-way delay: 2.025 ms
Loss rate: 0.03%
```

Run 2: Report of Indigo-MusesC5 — Data Link

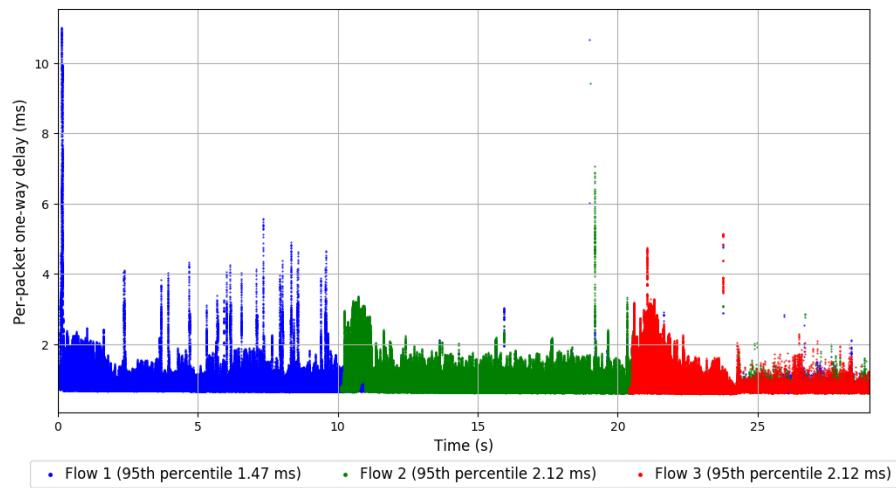
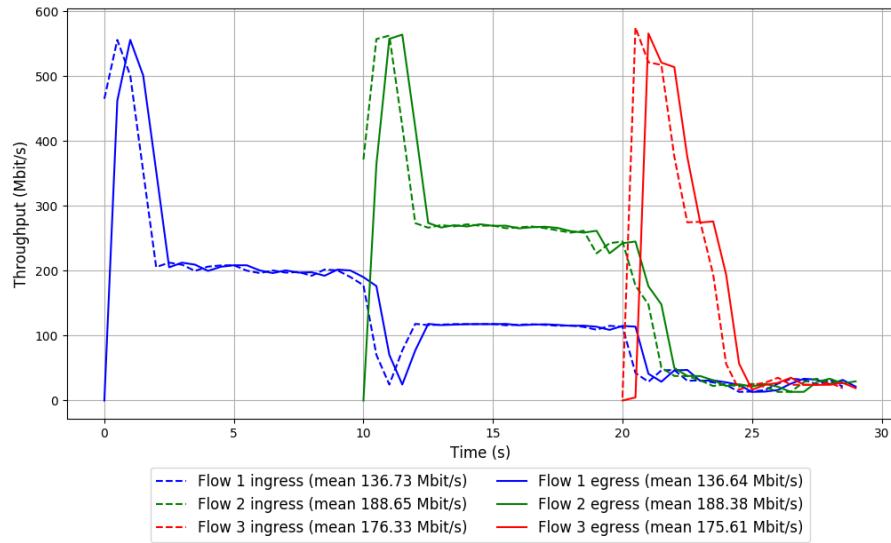


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 01:13:02
End at: 2019-01-19 01:13:32
Local clock offset: -0.166 ms
Remote clock offset: 12.646 ms

# Below is generated by plot.py at 2019-01-19 03:07:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.16 Mbit/s
95th percentile per-packet one-way delay: 1.866 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 136.64 Mbit/s
95th percentile per-packet one-way delay: 1.470 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 188.38 Mbit/s
95th percentile per-packet one-way delay: 2.118 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 175.61 Mbit/s
95th percentile per-packet one-way delay: 2.124 ms
Loss rate: 0.41%
```

Run 3: Report of Indigo-MusesC5 — Data Link

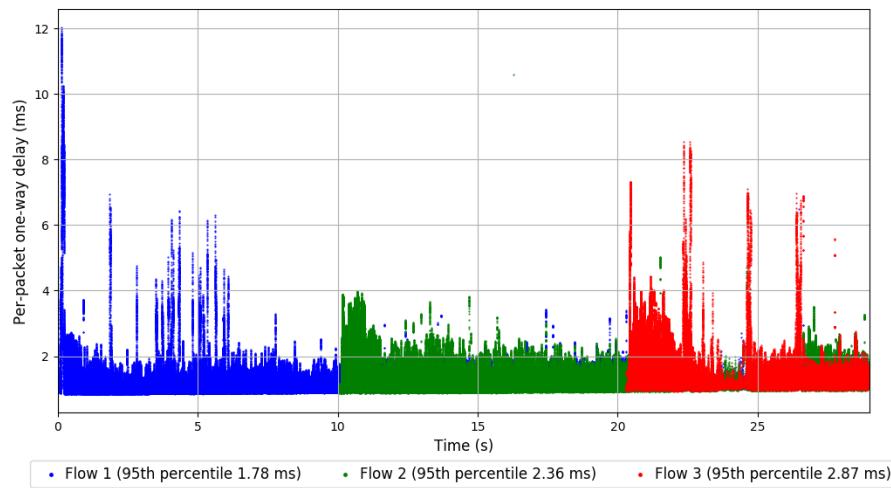
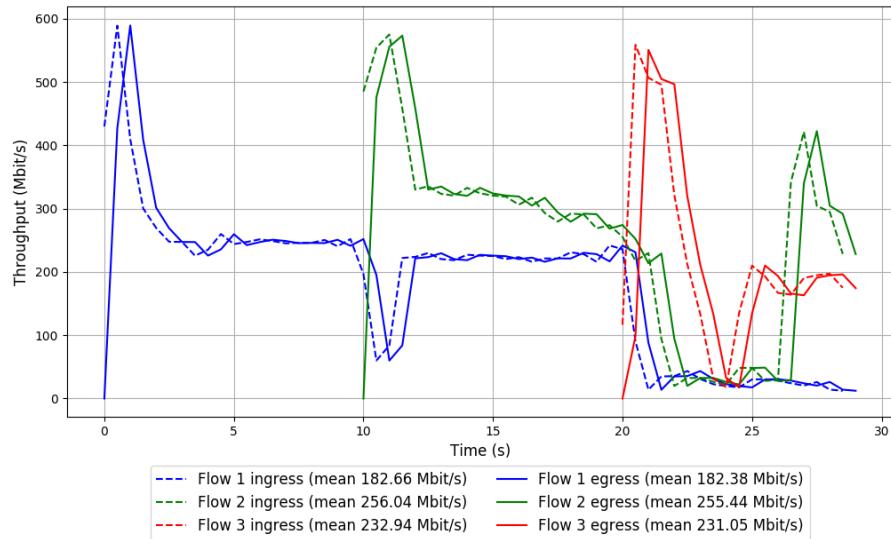


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 01:42:43
End at: 2019-01-19 01:43:13
Local clock offset: 3.548 ms
Remote clock offset: -6.036 ms

# Below is generated by plot.py at 2019-01-19 03:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.14 Mbit/s
95th percentile per-packet one-way delay: 2.320 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 182.38 Mbit/s
95th percentile per-packet one-way delay: 1.778 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 255.44 Mbit/s
95th percentile per-packet one-way delay: 2.361 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 231.05 Mbit/s
95th percentile per-packet one-way delay: 2.871 ms
Loss rate: 0.81%
```

Run 4: Report of Indigo-MusesC5 — Data Link

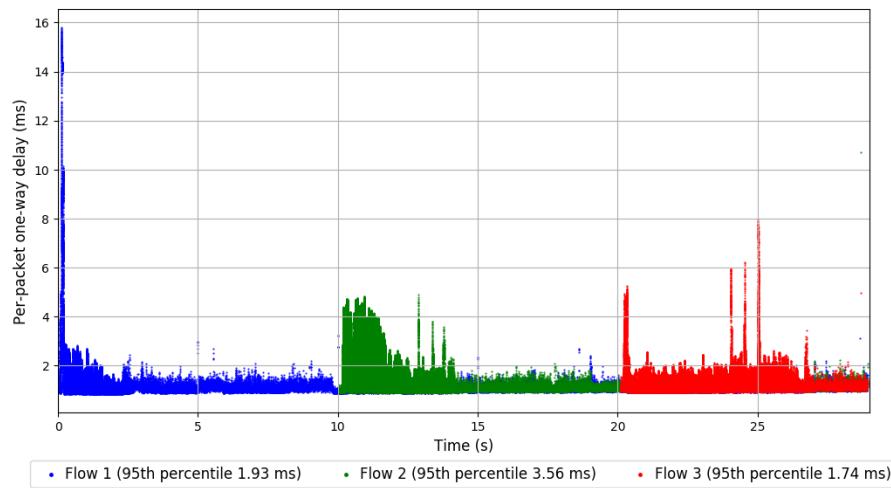
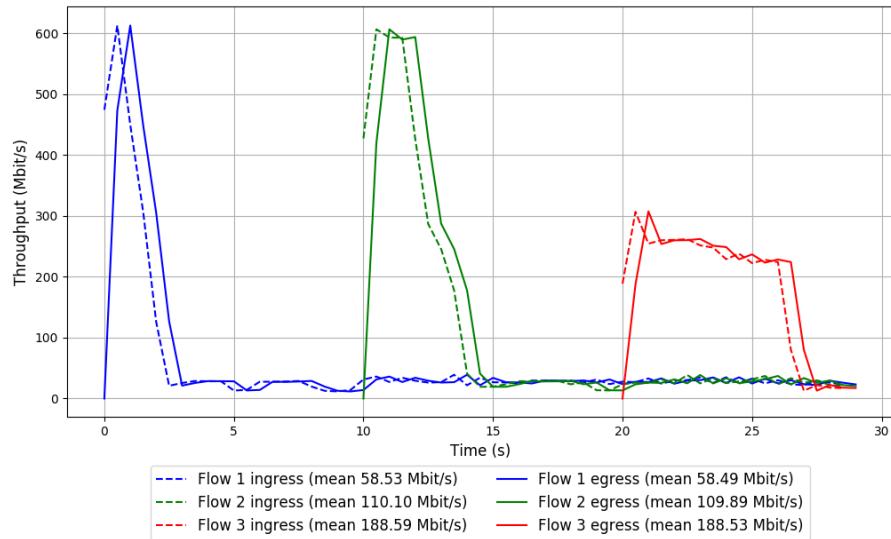


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 02:12:16
End at: 2019-01-19 02:12:46
Local clock offset: 3.544 ms
Remote clock offset: -11.16 ms

# Below is generated by plot.py at 2019-01-19 03:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.65 Mbit/s
95th percentile per-packet one-way delay: 2.954 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 1.929 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 109.89 Mbit/s
95th percentile per-packet one-way delay: 3.565 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 188.53 Mbit/s
95th percentile per-packet one-way delay: 1.741 ms
Loss rate: 0.03%
```

Run 5: Report of Indigo-MusesC5 — Data Link

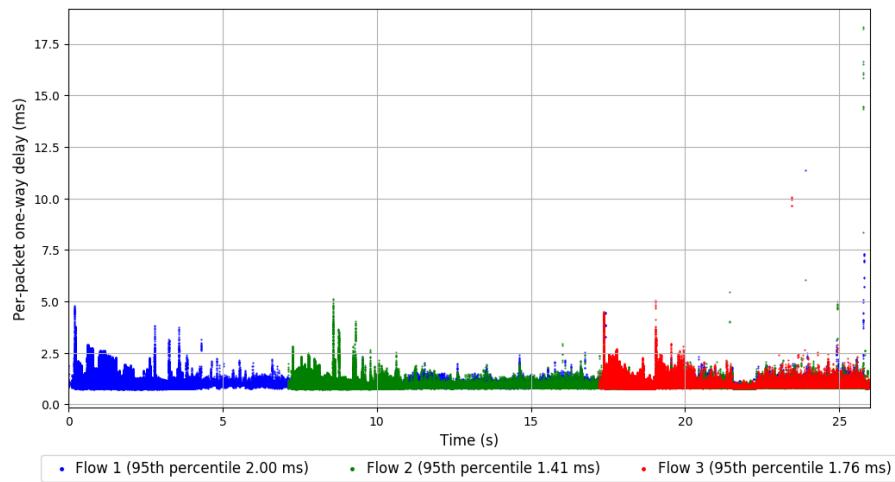
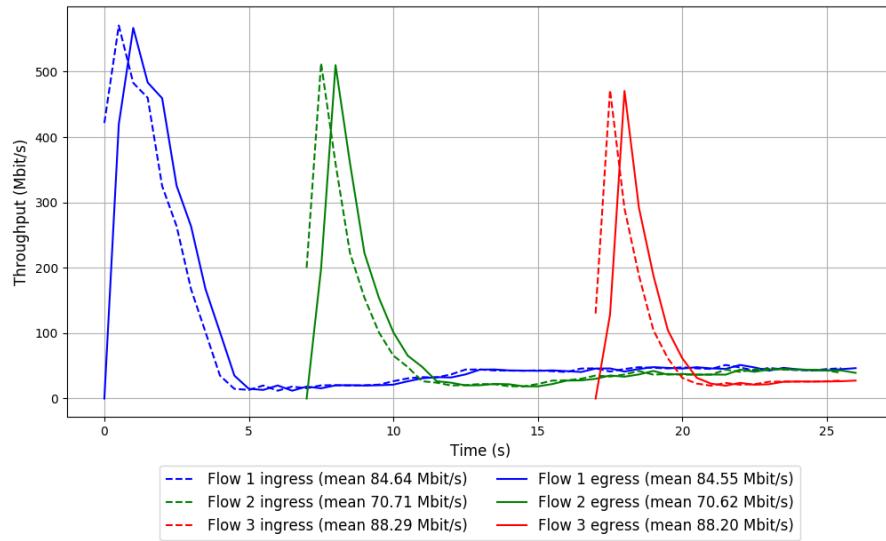


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 00:05:31
End at: 2019-01-19 00:06:01
Local clock offset: -0.298 ms
Remote clock offset: -3.873 ms

# Below is generated by plot.py at 2019-01-19 03:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 165.54 Mbit/s
95th percentile per-packet one-way delay: 1.781 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 2.003 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 70.62 Mbit/s
95th percentile per-packet one-way delay: 1.414 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 88.20 Mbit/s
95th percentile per-packet one-way delay: 1.759 ms
Loss rate: 0.11%
```

Run 1: Report of Indigo-MusesD — Data Link

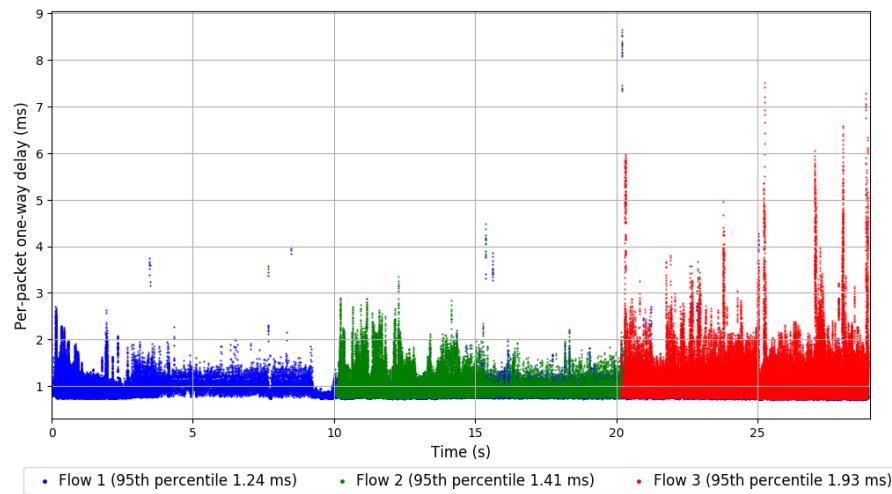
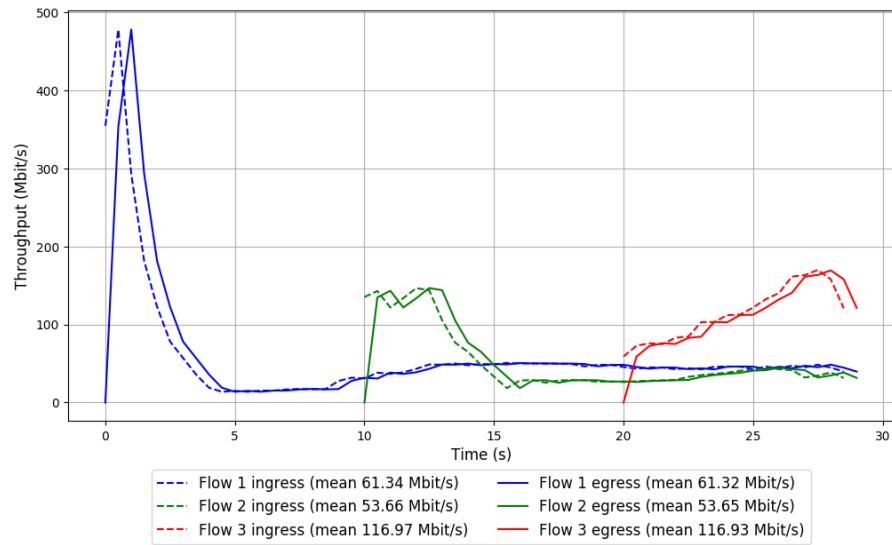


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 00:35:17
End at: 2019-01-19 00:35:47
Local clock offset: 3.3 ms
Remote clock offset: 6.787 ms

# Below is generated by plot.py at 2019-01-19 03:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 131.69 Mbit/s
95th percentile per-packet one-way delay: 1.506 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 61.32 Mbit/s
95th percentile per-packet one-way delay: 1.241 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 53.65 Mbit/s
95th percentile per-packet one-way delay: 1.414 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 116.93 Mbit/s
95th percentile per-packet one-way delay: 1.934 ms
Loss rate: 0.03%
```

Run 2: Report of Indigo-MusesD — Data Link

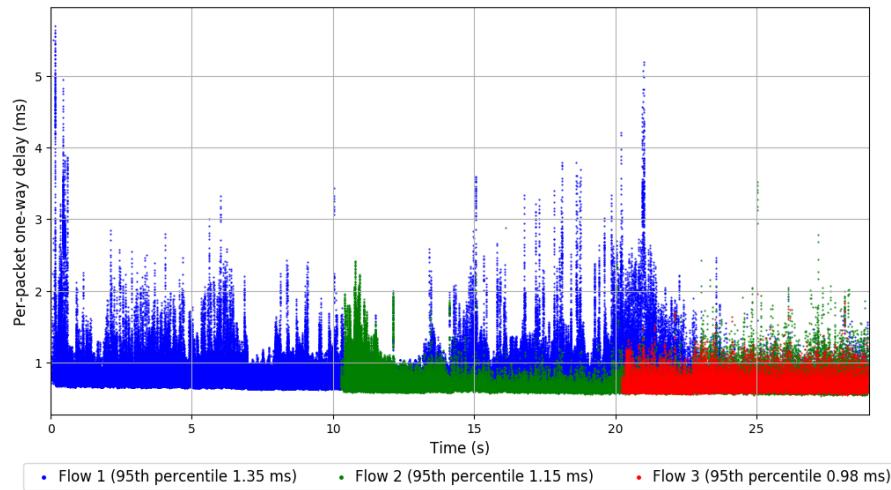
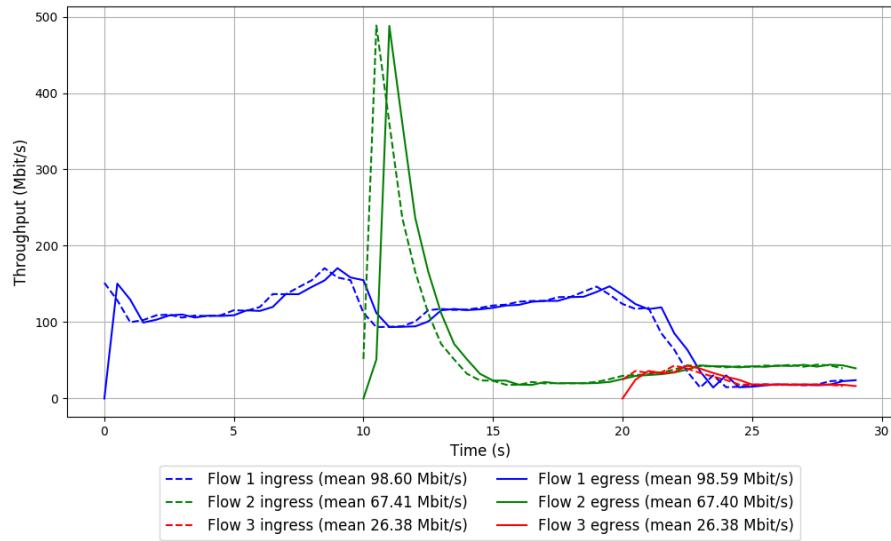


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 01:04:49
End at: 2019-01-19 01:05:19
Local clock offset: 0.426 ms
Remote clock offset: 11.437 ms

# Below is generated by plot.py at 2019-01-19 03:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.00 Mbit/s
95th percentile per-packet one-way delay: 1.272 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 98.59 Mbit/s
95th percentile per-packet one-way delay: 1.352 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 67.40 Mbit/s
95th percentile per-packet one-way delay: 1.153 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 26.38 Mbit/s
95th percentile per-packet one-way delay: 0.981 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesD — Data Link

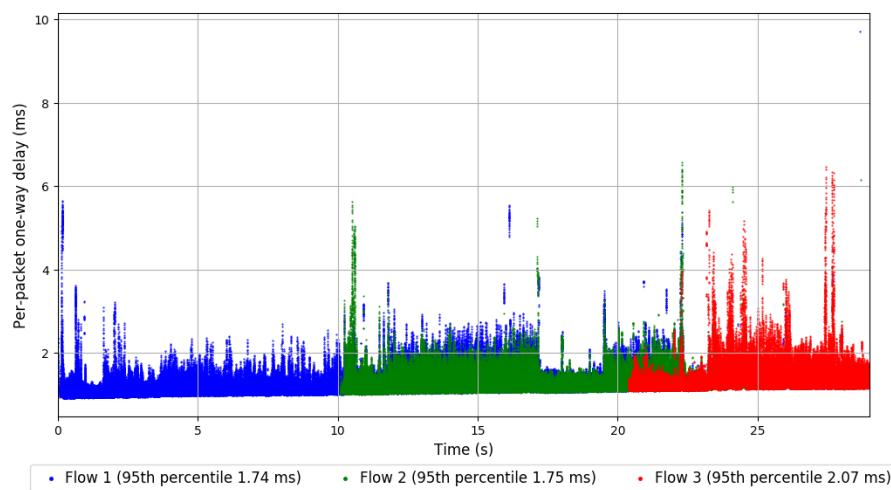
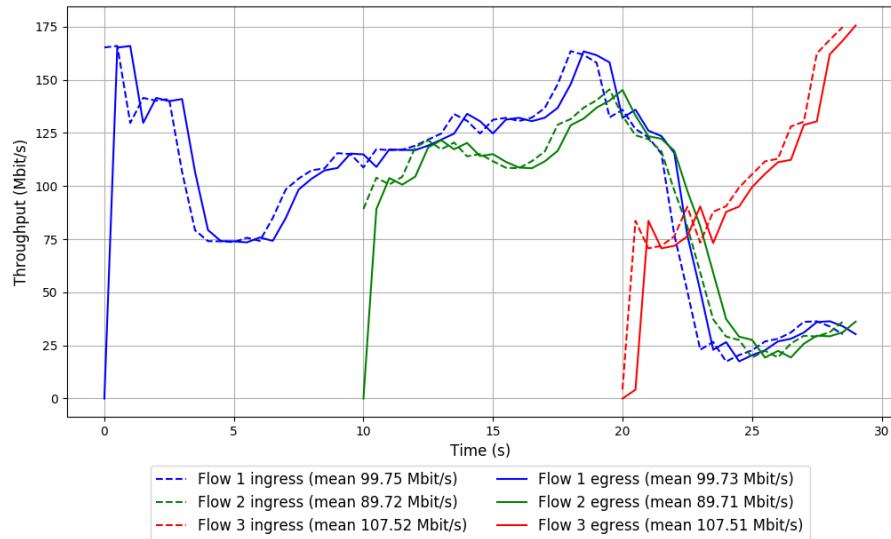


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 01:34:25
End at: 2019-01-19 01:34:55
Local clock offset: 2.911 ms
Remote clock offset: -3.432 ms

# Below is generated by plot.py at 2019-01-19 03:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 189.99 Mbit/s
95th percentile per-packet one-way delay: 1.808 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 99.73 Mbit/s
95th percentile per-packet one-way delay: 1.742 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 89.71 Mbit/s
95th percentile per-packet one-way delay: 1.754 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 107.51 Mbit/s
95th percentile per-packet one-way delay: 2.070 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo-MusesD — Data Link

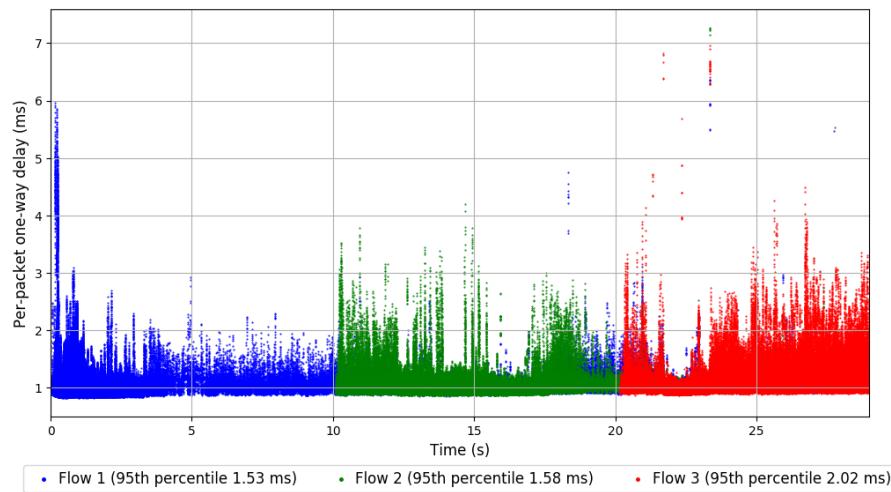
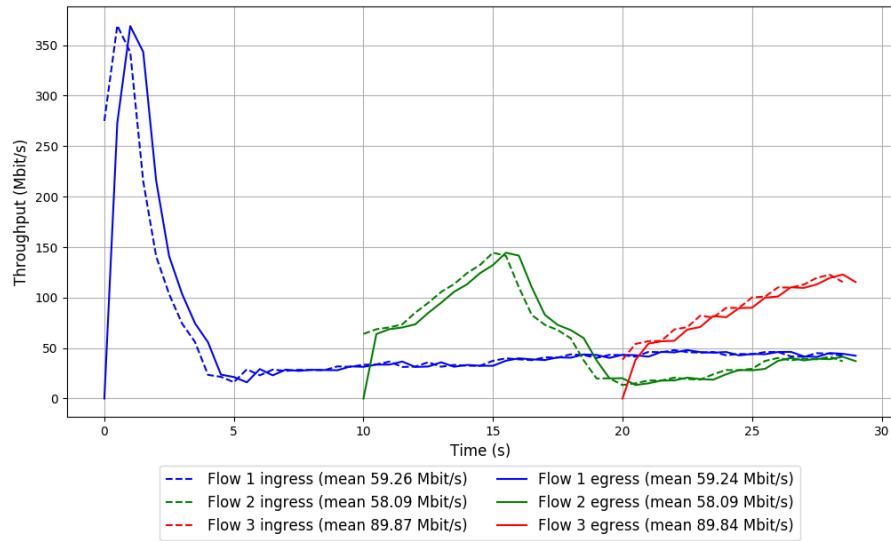


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 02:04:04
End at: 2019-01-19 02:04:34
Local clock offset: 3.427 ms
Remote clock offset: -9.898 ms

# Below is generated by plot.py at 2019-01-19 03:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.36 Mbit/s
95th percentile per-packet one-way delay: 1.705 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 59.24 Mbit/s
95th percentile per-packet one-way delay: 1.528 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 58.09 Mbit/s
95th percentile per-packet one-way delay: 1.584 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 89.84 Mbit/s
95th percentile per-packet one-way delay: 2.023 ms
Loss rate: 0.03%
```

Run 5: Report of Indigo-MusesD — Data Link

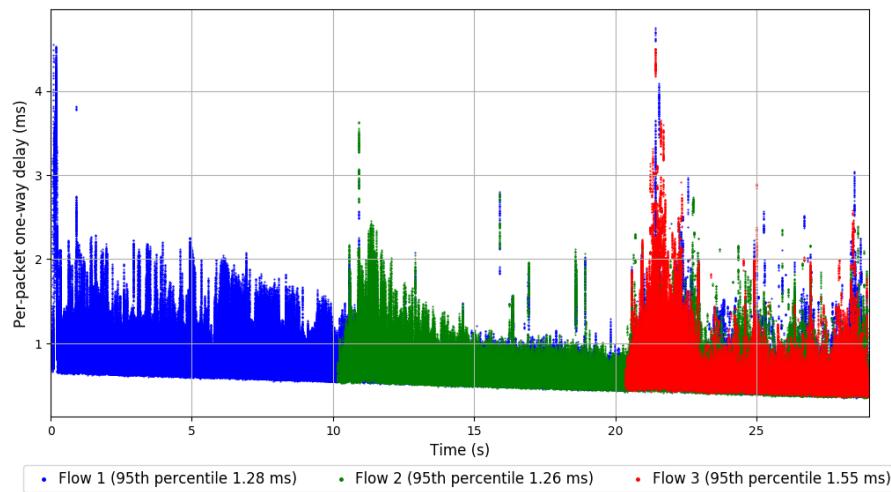
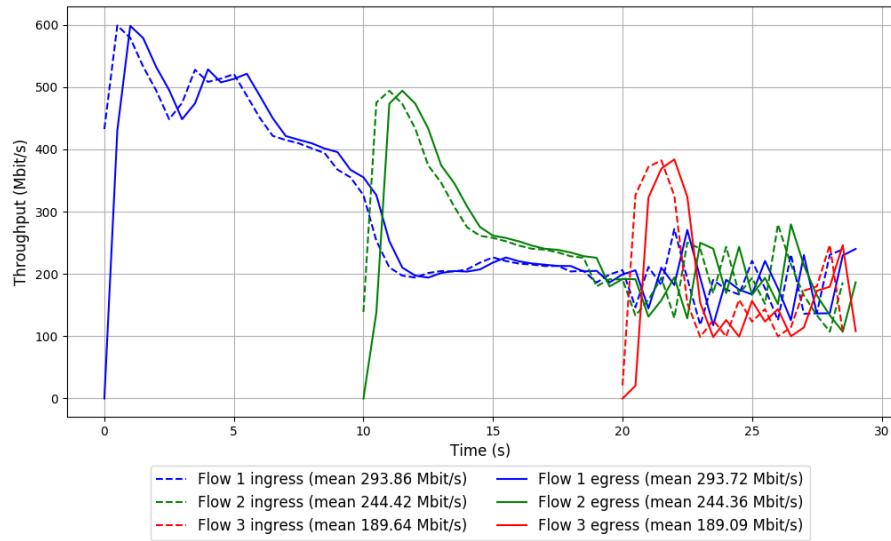


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 00:12:19
End at: 2019-01-19 00:12:49
Local clock offset: 0.133 ms
Remote clock offset: -0.957 ms

# Below is generated by plot.py at 2019-01-19 03:11:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 508.37 Mbit/s
95th percentile per-packet one-way delay: 1.311 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 293.72 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 244.36 Mbit/s
95th percentile per-packet one-way delay: 1.262 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 189.09 Mbit/s
95th percentile per-packet one-way delay: 1.551 ms
Loss rate: 0.29%
```

Run 1: Report of Indigo-MusesT — Data Link

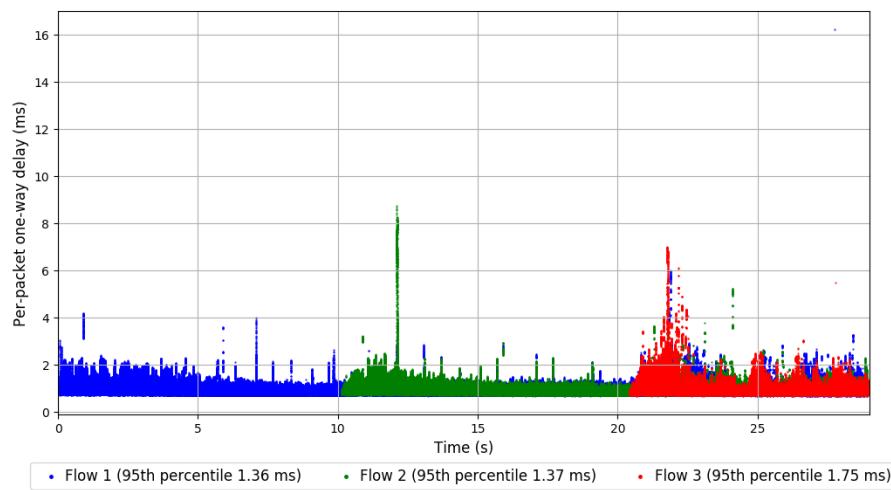
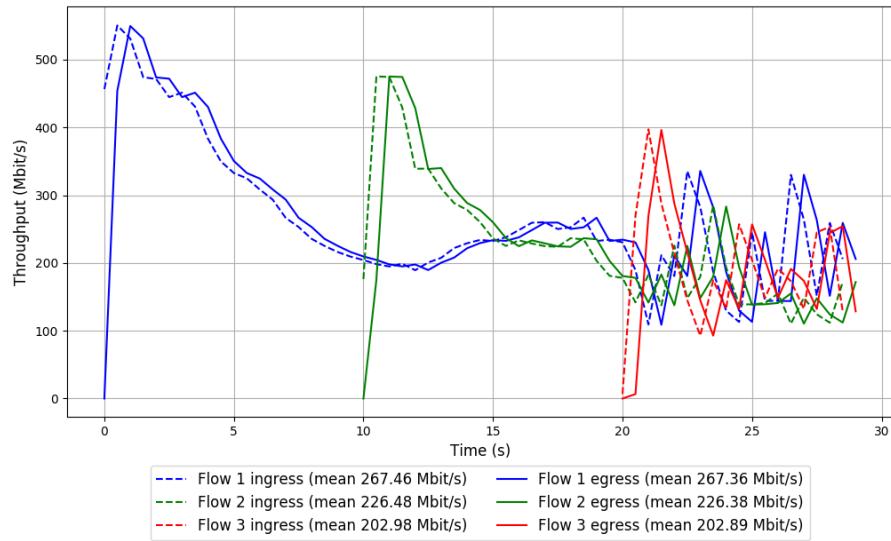


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 00:42:04
End at: 2019-01-19 00:42:34
Local clock offset: 3.842 ms
Remote clock offset: 7.932 ms

# Below is generated by plot.py at 2019-01-19 03:11:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 474.09 Mbit/s
95th percentile per-packet one-way delay: 1.418 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 267.36 Mbit/s
95th percentile per-packet one-way delay: 1.359 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 226.38 Mbit/s
95th percentile per-packet one-way delay: 1.369 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 202.89 Mbit/s
95th percentile per-packet one-way delay: 1.749 ms
Loss rate: 0.04%
```

Run 2: Report of Indigo-MusesT — Data Link

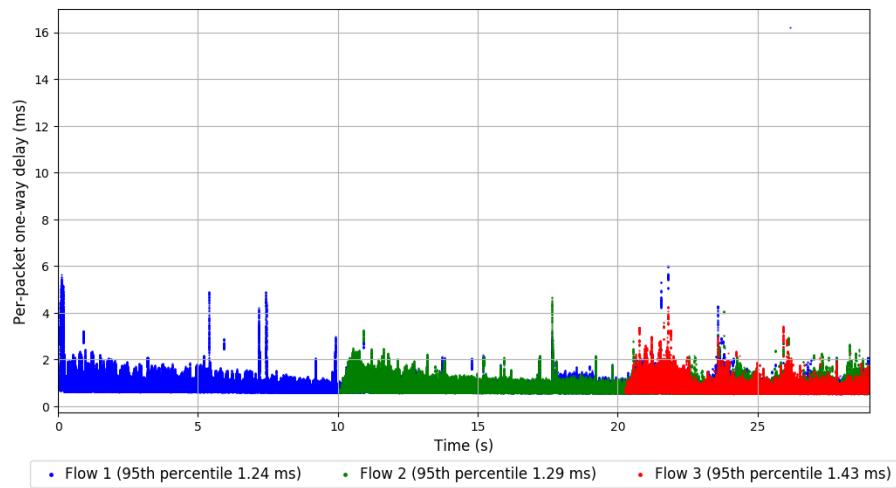
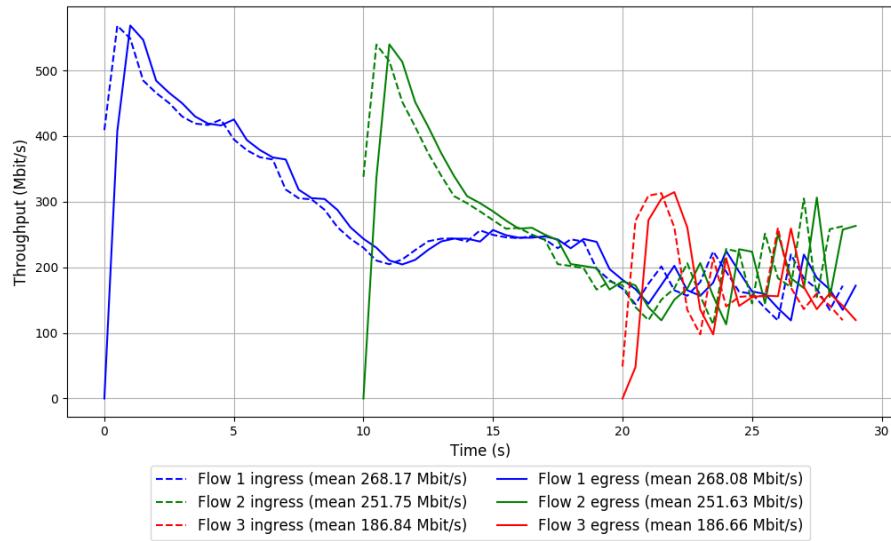


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 01:11:33
End at: 2019-01-19 01:12:03
Local clock offset: -0.075 ms
Remote clock offset: 12.397 ms

# Below is generated by plot.py at 2019-01-19 03:11:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.11 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 268.08 Mbit/s
95th percentile per-packet one-way delay: 1.242 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 251.63 Mbit/s
95th percentile per-packet one-way delay: 1.293 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 186.66 Mbit/s
95th percentile per-packet one-way delay: 1.431 ms
Loss rate: 0.10%
```

Run 3: Report of Indigo-MusesT — Data Link

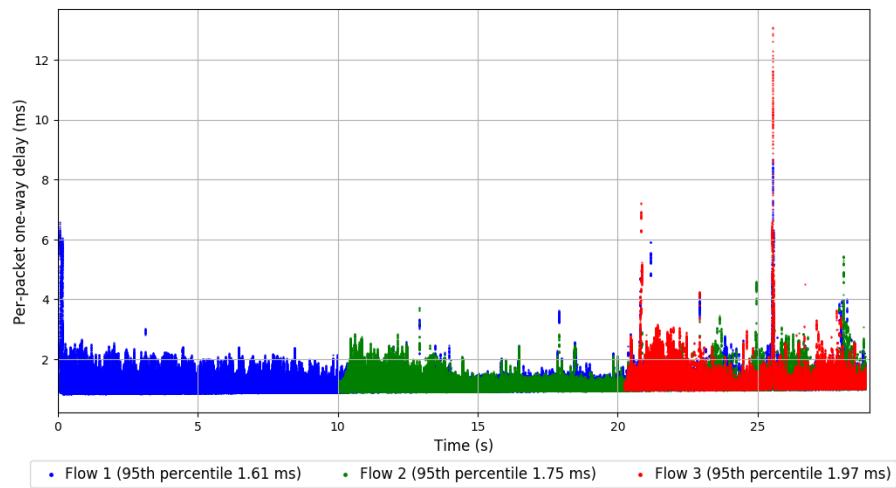
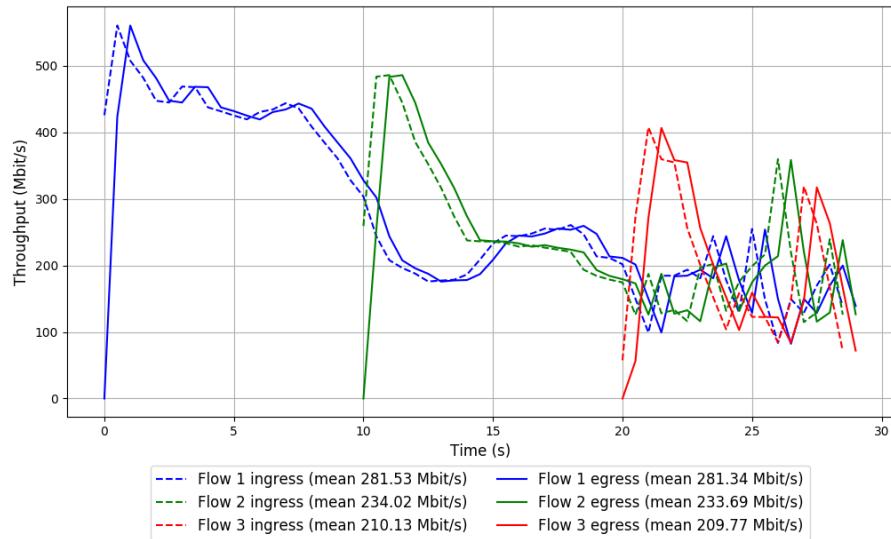


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 01:41:12
End at: 2019-01-19 01:41:42
Local clock offset: 3.459 ms
Remote clock offset: -5.655 ms

# Below is generated by plot.py at 2019-01-19 03:11:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 496.37 Mbit/s
95th percentile per-packet one-way delay: 1.708 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 281.34 Mbit/s
95th percentile per-packet one-way delay: 1.611 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 233.69 Mbit/s
95th percentile per-packet one-way delay: 1.745 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 209.77 Mbit/s
95th percentile per-packet one-way delay: 1.965 ms
Loss rate: 0.17%
```

Run 4: Report of Indigo-MusesT — Data Link

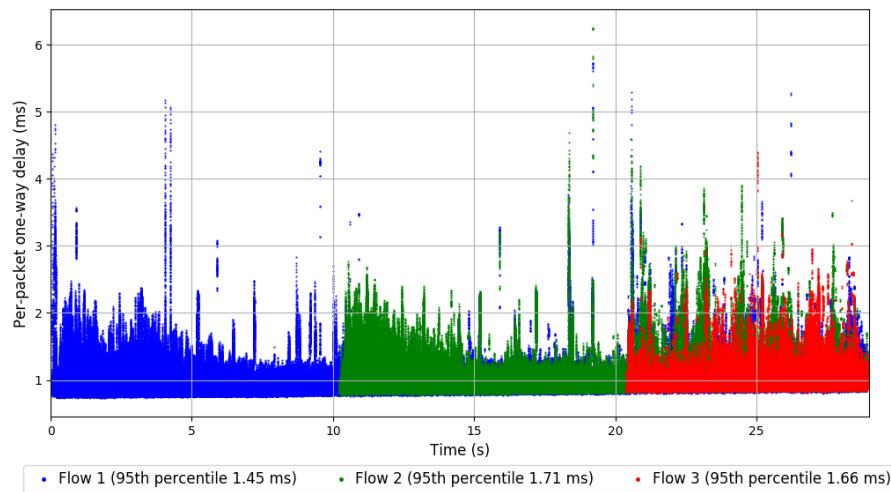
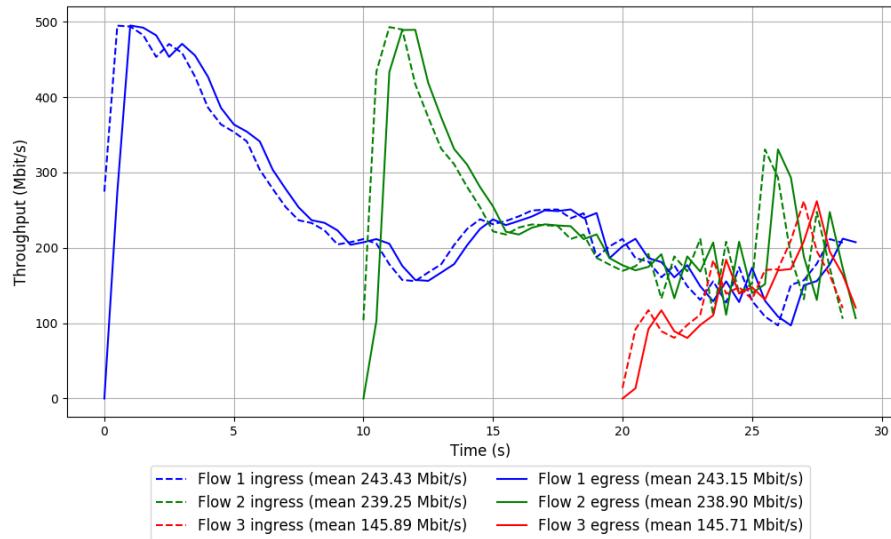


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 02:10:48
End at: 2019-01-19 02:11:18
Local clock offset: 3.517 ms
Remote clock offset: -11.014 ms

# Below is generated by plot.py at 2019-01-19 03:11:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 440.83 Mbit/s
95th percentile per-packet one-way delay: 1.580 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 243.15 Mbit/s
95th percentile per-packet one-way delay: 1.449 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 238.90 Mbit/s
95th percentile per-packet one-way delay: 1.709 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 145.71 Mbit/s
95th percentile per-packet one-way delay: 1.657 ms
Loss rate: 0.12%
```

Run 5: Report of Indigo-MusesT — Data Link

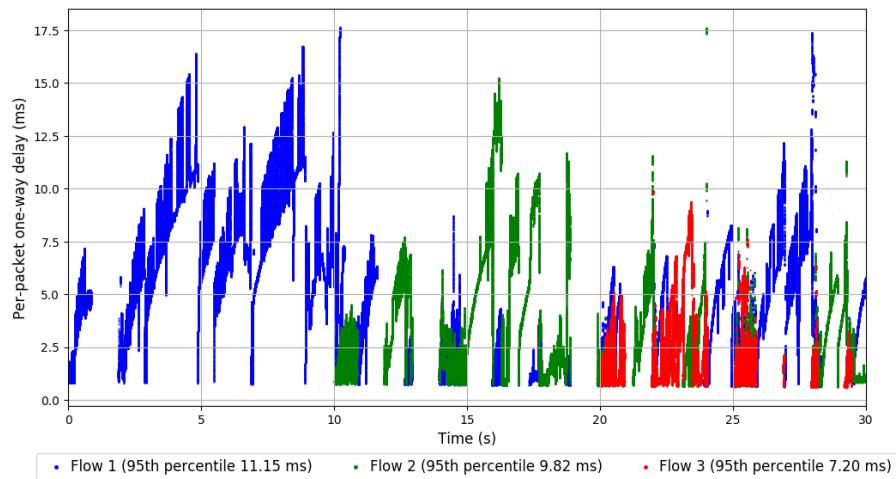
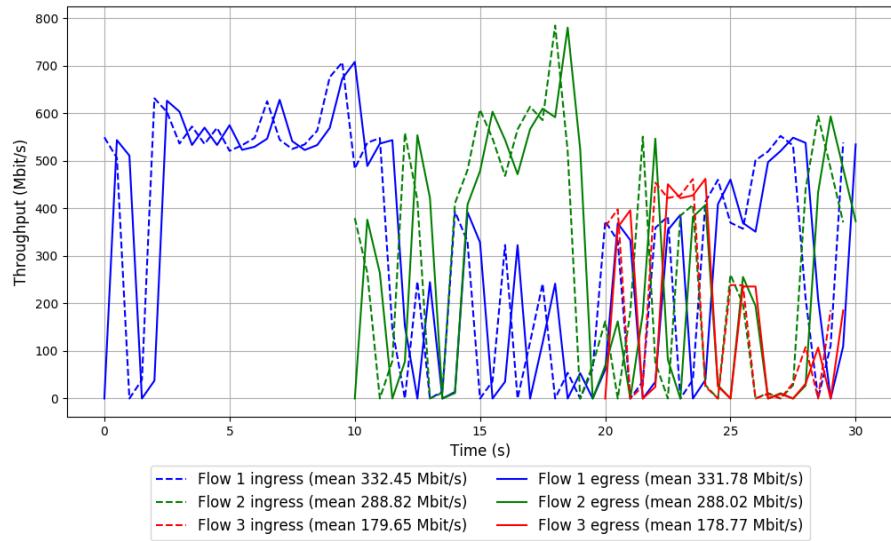


Run 1: Statistics of LEDBAT

```
Start at: 2019-01-19 00:18:08
End at: 2019-01-19 00:18:38
Local clock offset: 0.358 ms
Remote clock offset: 2.288 ms

# Below is generated by plot.py at 2019-01-19 03:13:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 579.89 Mbit/s
95th percentile per-packet one-way delay: 10.760 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 331.78 Mbit/s
95th percentile per-packet one-way delay: 11.149 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 288.02 Mbit/s
95th percentile per-packet one-way delay: 9.823 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 178.77 Mbit/s
95th percentile per-packet one-way delay: 7.200 ms
Loss rate: 0.49%
```

Run 1: Report of LEDBAT — Data Link

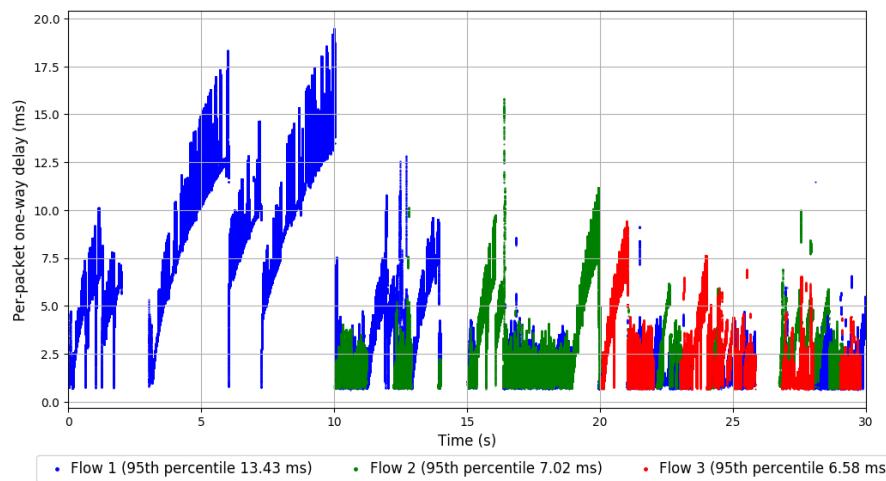
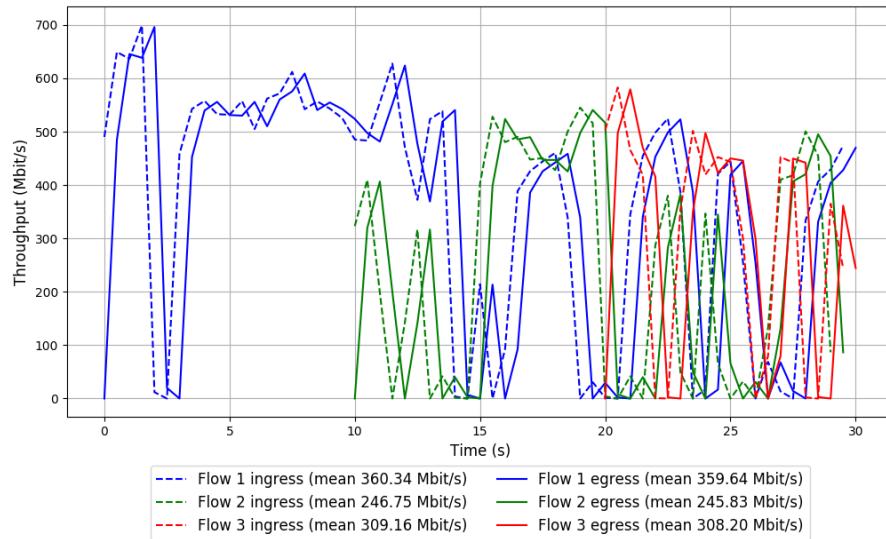


Run 2: Statistics of LEDBAT

```
Start at: 2019-01-19 00:47:45
End at: 2019-01-19 00:48:15
Local clock offset: 4.206 ms
Remote clock offset: 8.846 ms

# Below is generated by plot.py at 2019-01-19 03:14:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.48 Mbit/s
95th percentile per-packet one-way delay: 12.302 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 359.64 Mbit/s
95th percentile per-packet one-way delay: 13.434 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 245.83 Mbit/s
95th percentile per-packet one-way delay: 7.017 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 308.20 Mbit/s
95th percentile per-packet one-way delay: 6.584 ms
Loss rate: 0.30%
```

Run 2: Report of LEDBAT — Data Link

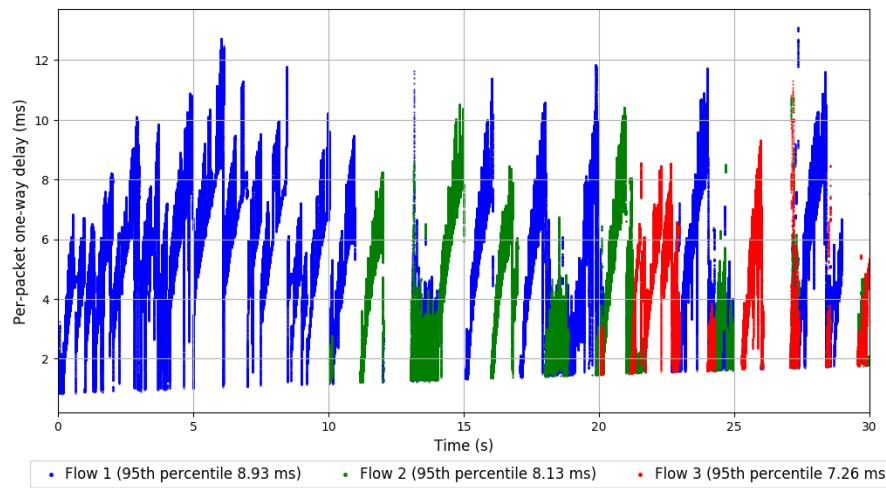
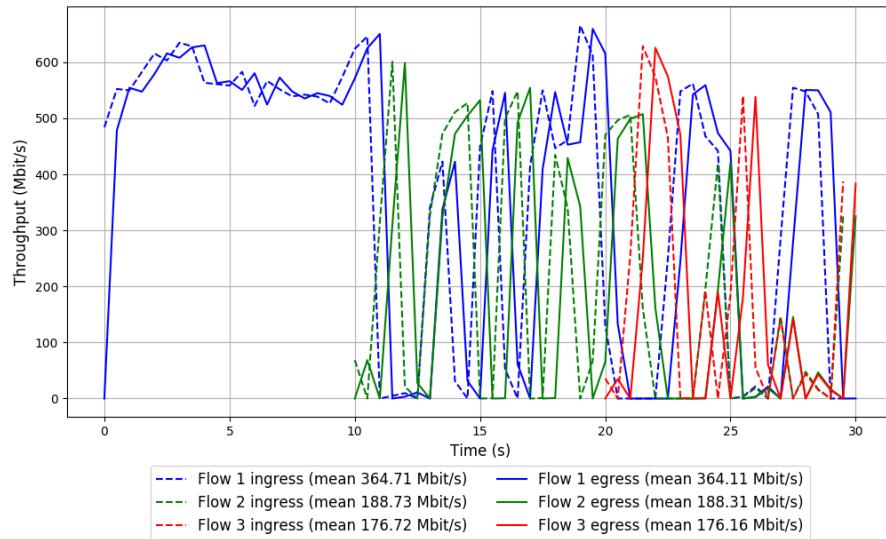


Run 3: Statistics of LEDBAT

```
Start at: 2019-01-19 01:17:24
End at: 2019-01-19 01:17:54
Local clock offset: -0.271 ms
Remote clock offset: 12.253 ms

# Below is generated by plot.py at 2019-01-19 03:14:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.02 Mbit/s
95th percentile per-packet one-way delay: 8.658 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 364.11 Mbit/s
95th percentile per-packet one-way delay: 8.926 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 188.31 Mbit/s
95th percentile per-packet one-way delay: 8.129 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 176.16 Mbit/s
95th percentile per-packet one-way delay: 7.260 ms
Loss rate: 0.32%
```

Run 3: Report of LEDBAT — Data Link

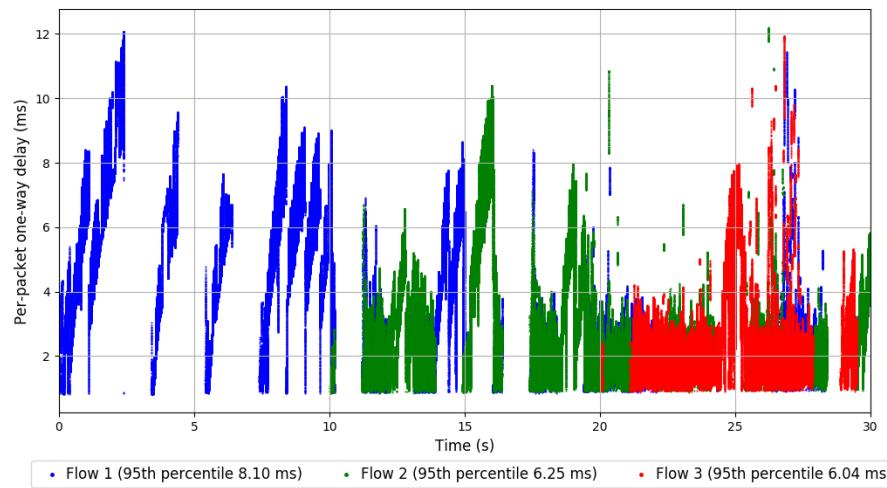
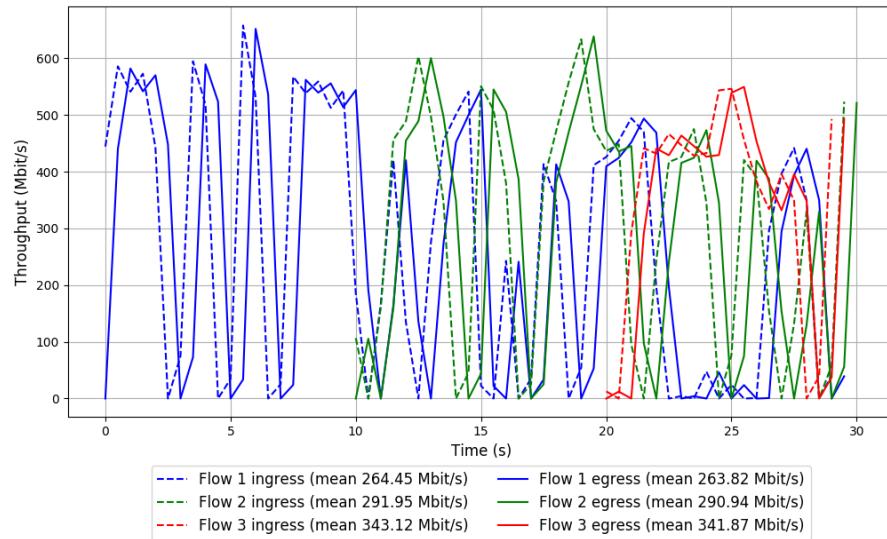


Run 4: Statistics of LEDBAT

```
Start at: 2019-01-19 01:47:01
End at: 2019-01-19 01:47:31
Local clock offset: 3.814 ms
Remote clock offset: -6.959 ms

# Below is generated by plot.py at 2019-01-19 03:17:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.98 Mbit/s
95th percentile per-packet one-way delay: 7.377 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 263.82 Mbit/s
95th percentile per-packet one-way delay: 8.099 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 290.94 Mbit/s
95th percentile per-packet one-way delay: 6.254 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 341.87 Mbit/s
95th percentile per-packet one-way delay: 6.036 ms
Loss rate: 0.36%
```

Run 4: Report of LEDBAT — Data Link

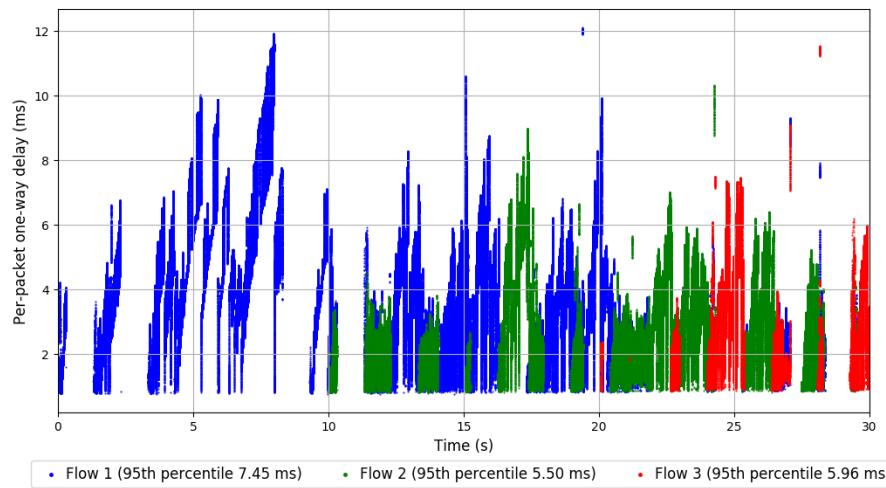
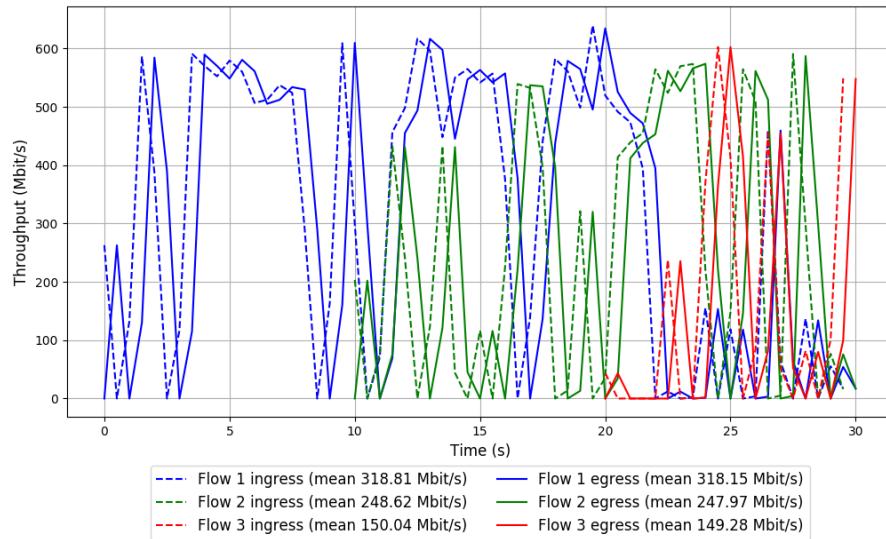


Run 5: Statistics of LEDBAT

```
Start at: 2019-01-19 02:16:30
End at: 2019-01-19 02:17:00
Local clock offset: 3.632 ms
Remote clock offset: -11.839 ms

# Below is generated by plot.py at 2019-01-19 03:17:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 524.21 Mbit/s
95th percentile per-packet one-way delay: 6.777 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 318.15 Mbit/s
95th percentile per-packet one-way delay: 7.453 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 247.97 Mbit/s
95th percentile per-packet one-way delay: 5.496 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 149.28 Mbit/s
95th percentile per-packet one-way delay: 5.955 ms
Loss rate: 0.51%
```

Run 5: Report of LEDBAT — Data Link

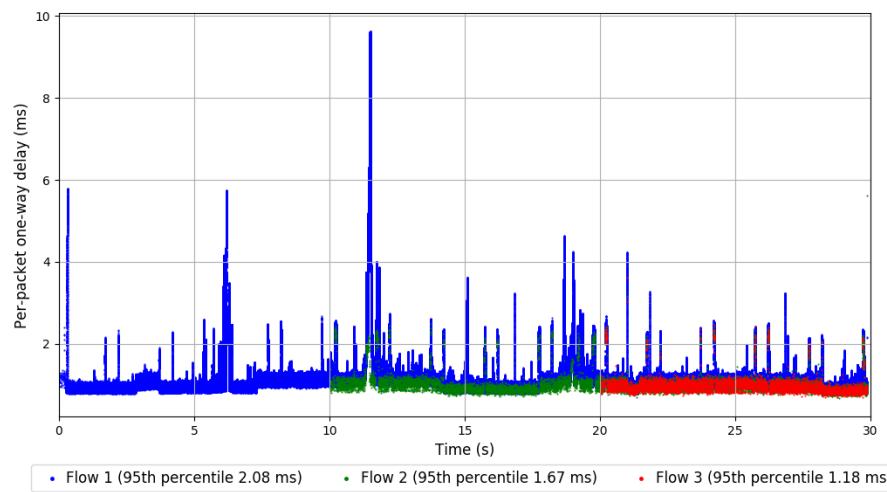
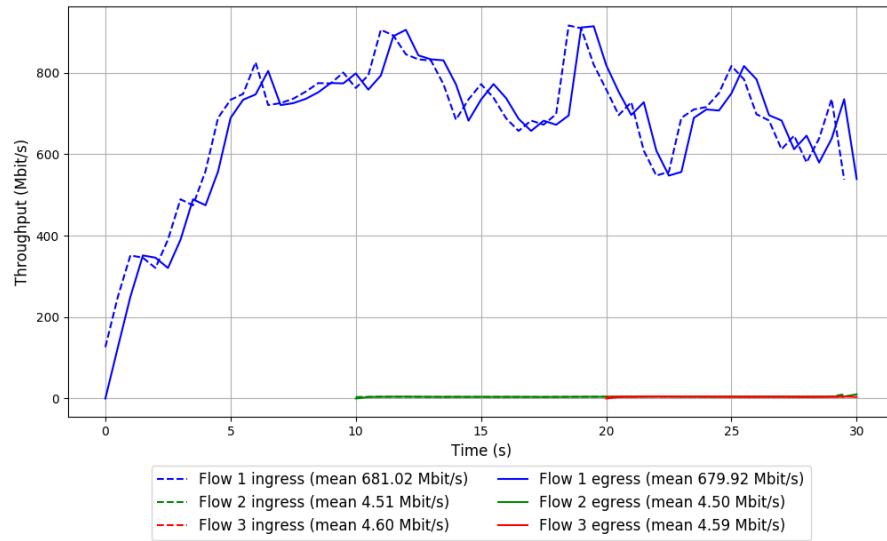


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-01-19 00:29:28
End at: 2019-01-19 00:29:58
Local clock offset: 2.601 ms
Remote clock offset: 5.605 ms

# Below is generated by plot.py at 2019-01-19 03:19:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 684.34 Mbit/s
95th percentile per-packet one-way delay: 2.077 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 679.92 Mbit/s
95th percentile per-packet one-way delay: 2.081 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 1.670 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 4.59 Mbit/s
95th percentile per-packet one-way delay: 1.183 ms
Loss rate: 0.19%
```

Run 1: Report of PCC-Allegro — Data Link

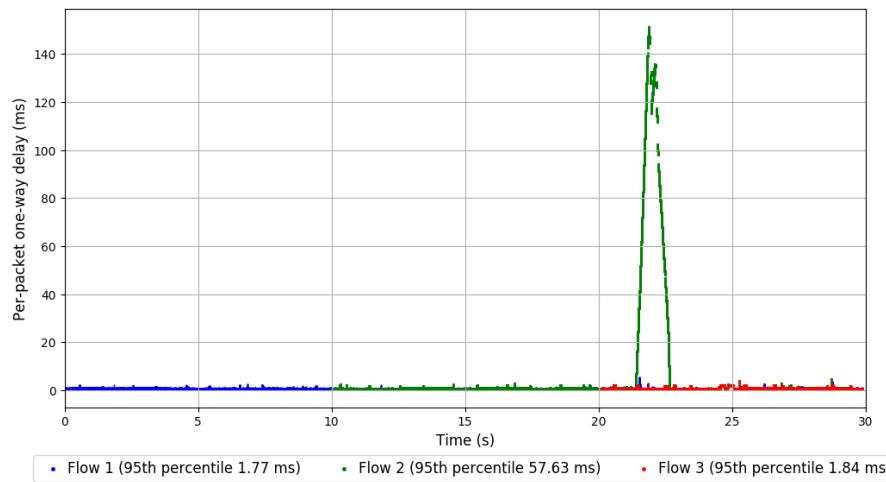
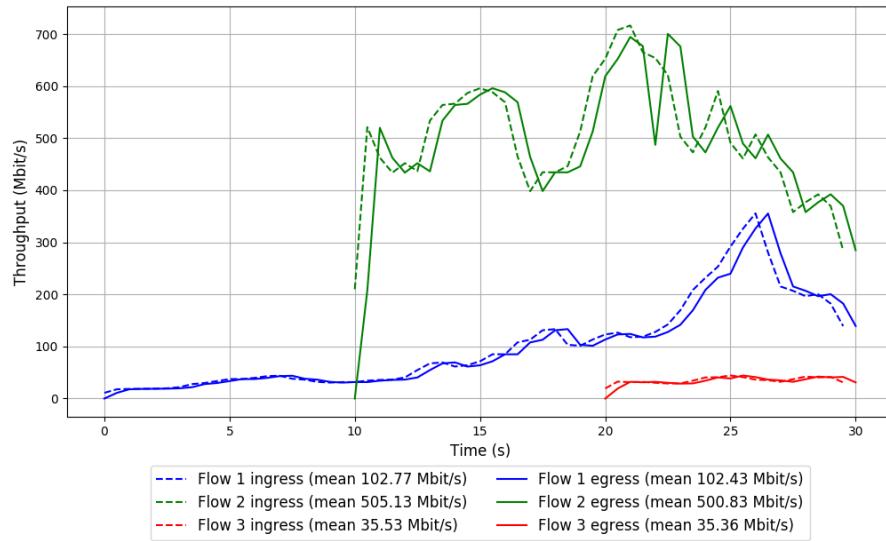


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-01-19 00:59:05
End at: 2019-01-19 00:59:35
Local clock offset: 1.25 ms
Remote clock offset: 10.656 ms

# Below is generated by plot.py at 2019-01-19 03:19:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.09 Mbit/s
95th percentile per-packet one-way delay: 27.164 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 102.43 Mbit/s
95th percentile per-packet one-way delay: 1.767 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 500.83 Mbit/s
95th percentile per-packet one-way delay: 57.631 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 35.36 Mbit/s
95th percentile per-packet one-way delay: 1.841 ms
Loss rate: 0.50%
```

Run 2: Report of PCC-Allegro — Data Link

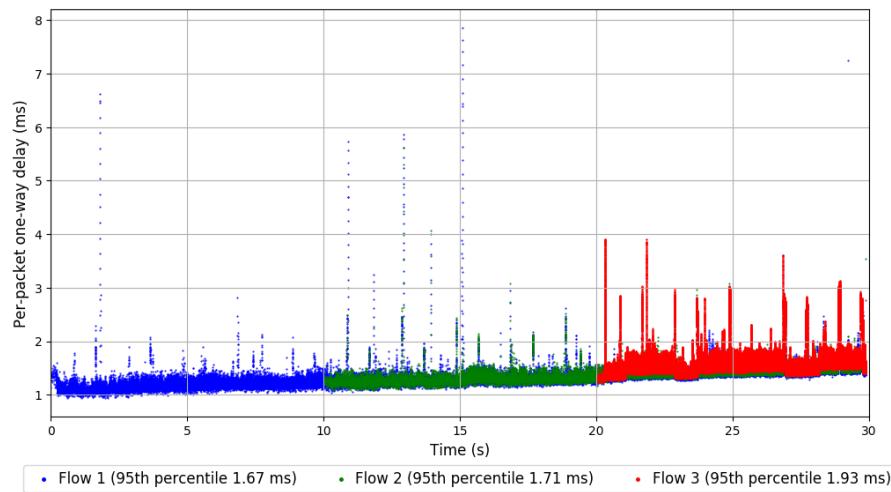
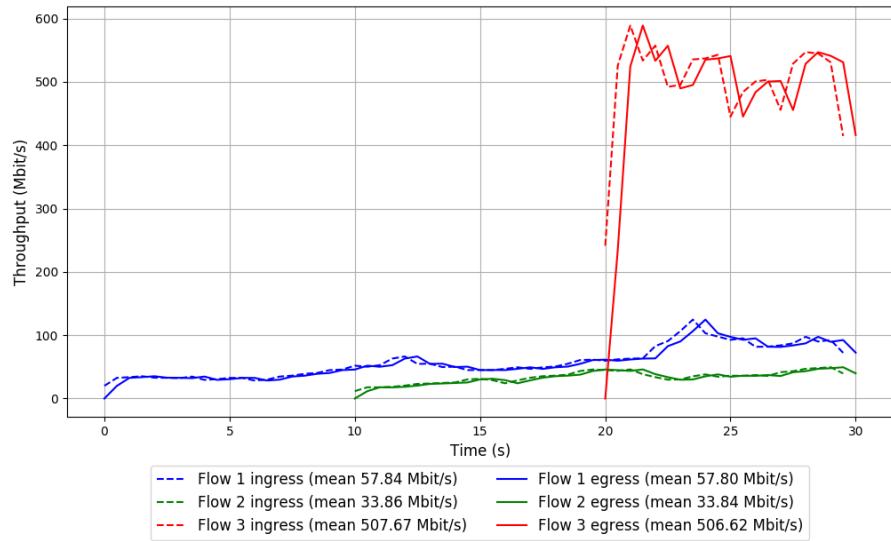


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-01-19 01:28:43
End at: 2019-01-19 01:29:13
Local clock offset: 2.145 ms
Remote clock offset: -0.574 ms

# Below is generated by plot.py at 2019-01-19 03:19:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.40 Mbit/s
95th percentile per-packet one-way delay: 1.797 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 57.80 Mbit/s
95th percentile per-packet one-way delay: 1.666 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 33.84 Mbit/s
95th percentile per-packet one-way delay: 1.710 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 506.62 Mbit/s
95th percentile per-packet one-way delay: 1.932 ms
Loss rate: 0.19%
```

Run 3: Report of PCC-Allegro — Data Link

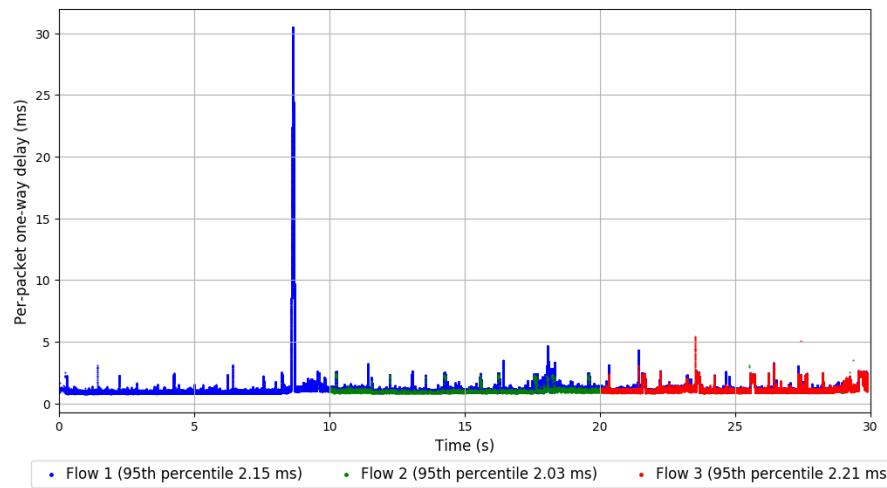
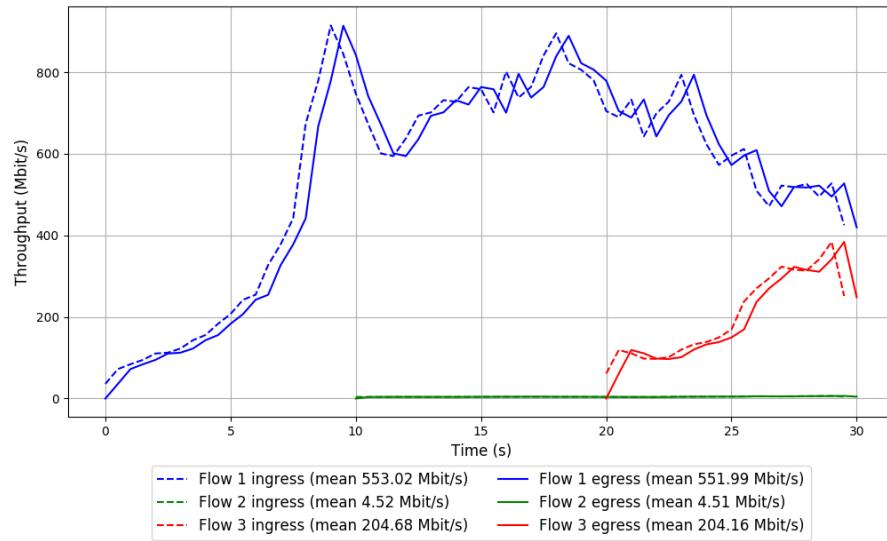


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-01-19 01:58:15
End at: 2019-01-19 01:58:45
Local clock offset: 3.471 ms
Remote clock offset: -8.949 ms

# Below is generated by plot.py at 2019-01-19 03:21:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 622.26 Mbit/s
95th percentile per-packet one-way delay: 2.160 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 551.99 Mbit/s
95th percentile per-packet one-way delay: 2.152 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 4.51 Mbit/s
95th percentile per-packet one-way delay: 2.031 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 204.16 Mbit/s
95th percentile per-packet one-way delay: 2.206 ms
Loss rate: 0.25%
```

Run 4: Report of PCC-Allegro — Data Link

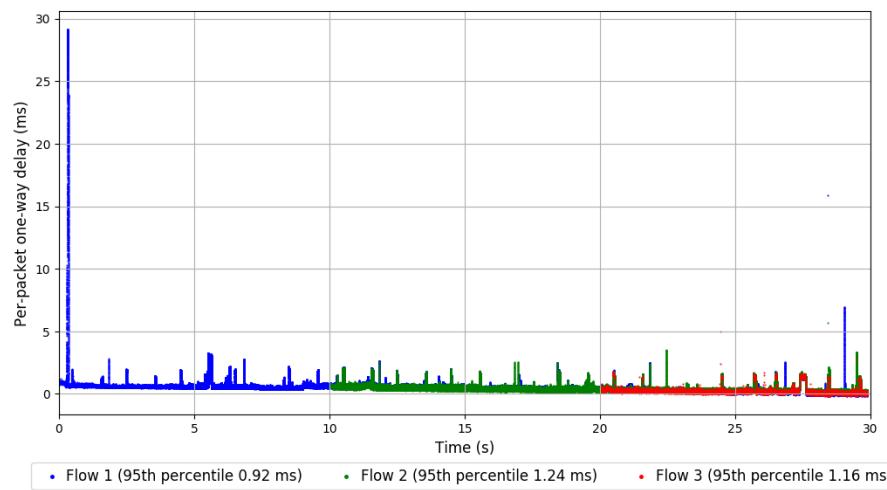
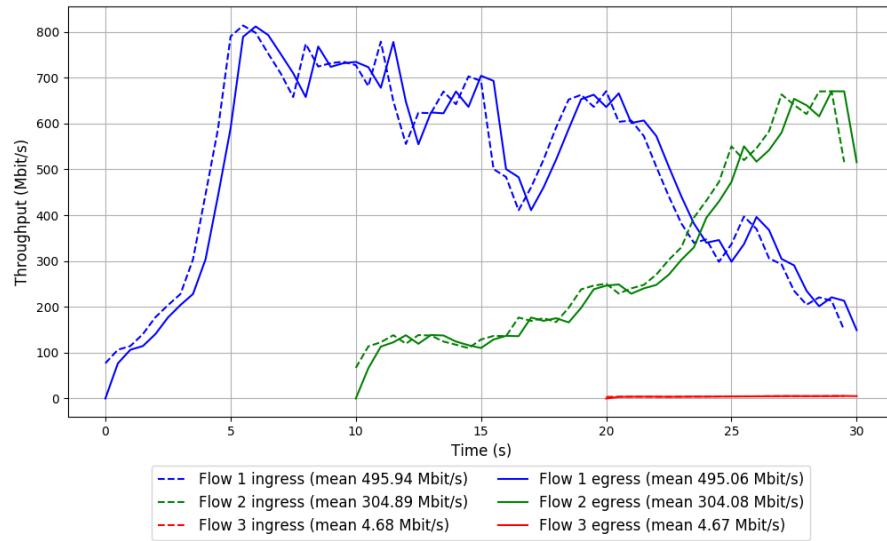


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-01-19 02:27:54
End at: 2019-01-19 02:28:24
Local clock offset: 1.17 ms
Remote clock offset: -8.369 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 698.78 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 495.06 Mbit/s
95th percentile per-packet one-way delay: 0.922 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 304.08 Mbit/s
95th percentile per-packet one-way delay: 1.236 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 1.162 ms
Loss rate: 0.37%
```

Run 5: Report of PCC-Allegro — Data Link

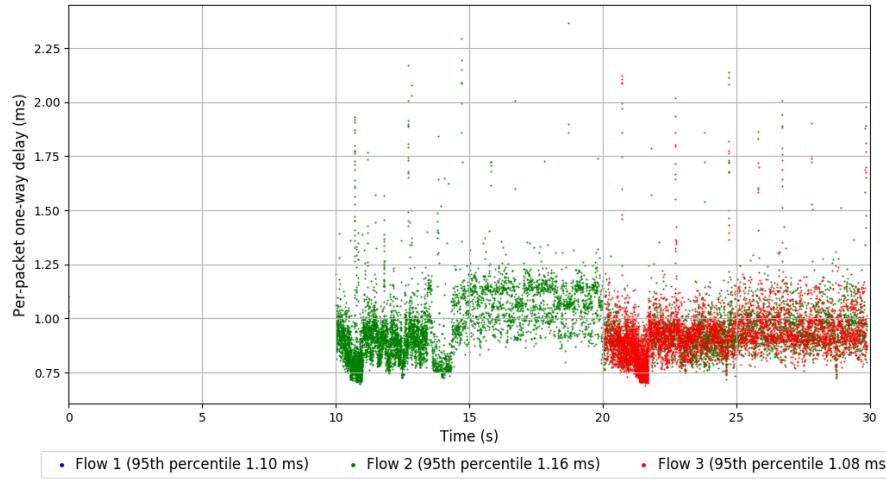
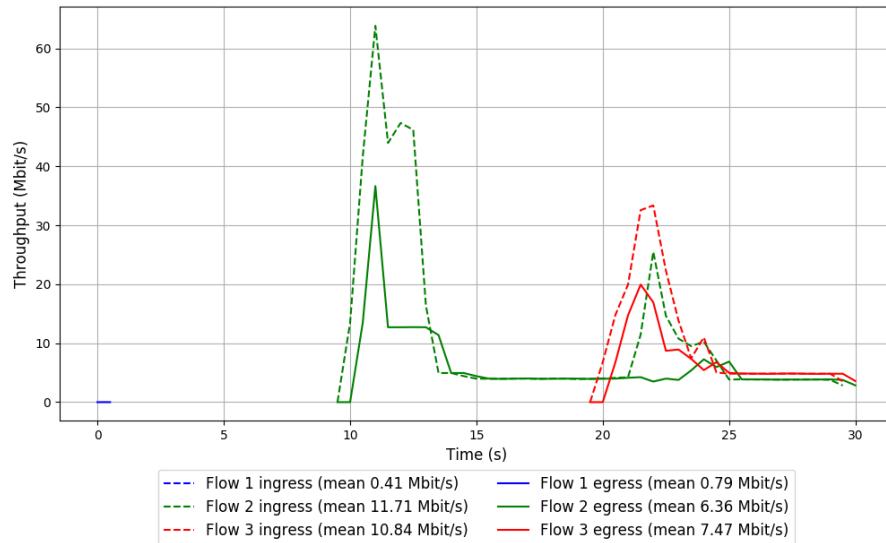


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-01-19 00:21:13
End at: 2019-01-19 00:21:43
Local clock offset: 0.936 ms
Remote clock offset: 3.272 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 1.144 ms
Loss rate: 41.10%
-- Flow 1:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 1.101 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 45.72%
-- Flow 3:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 1.085 ms
Loss rate: 31.05%
```

Run 1: Report of PCC-Expr — Data Link

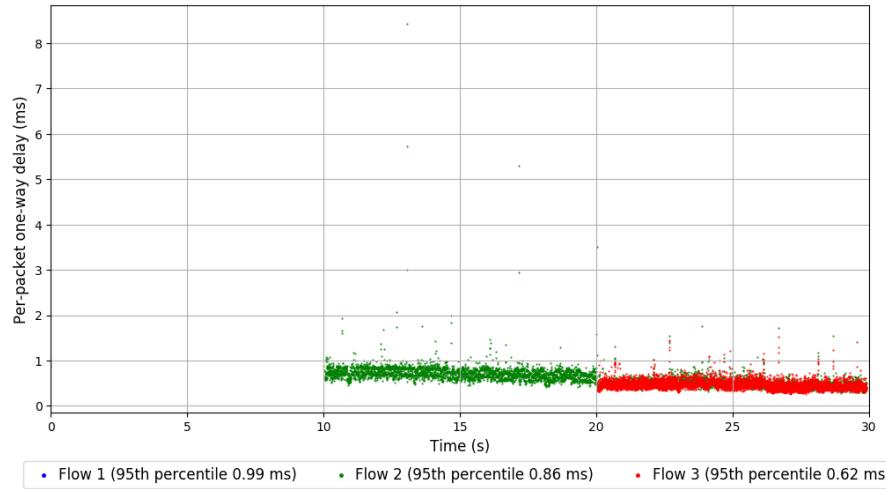
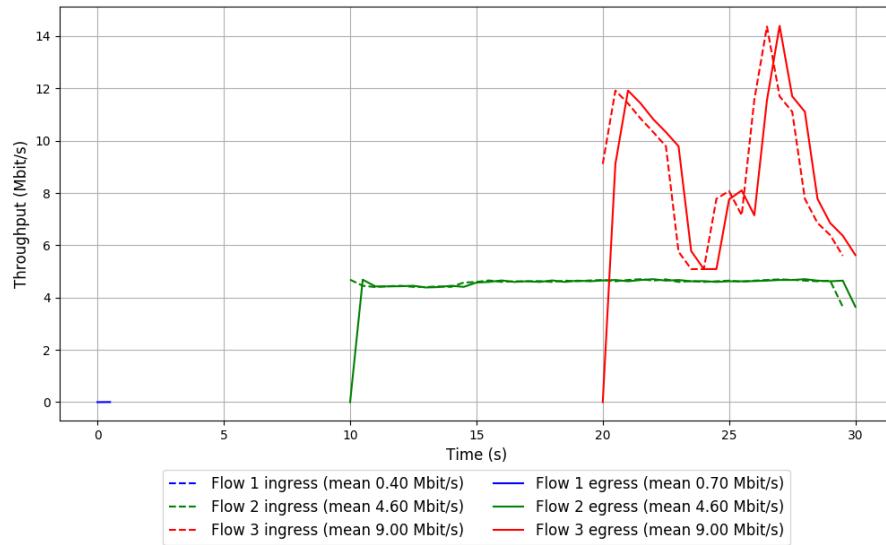


Run 2: Statistics of PCC-Expr

```
Start at: 2019-01-19 00:50:50
End at: 2019-01-19 00:51:20
Local clock offset: 3.707 ms
Remote clock offset: 9.384 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 0.829 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 0.992 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 4.60 Mbit/s
95th percentile per-packet one-way delay: 0.857 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.00 Mbit/s
95th percentile per-packet one-way delay: 0.616 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Expr — Data Link

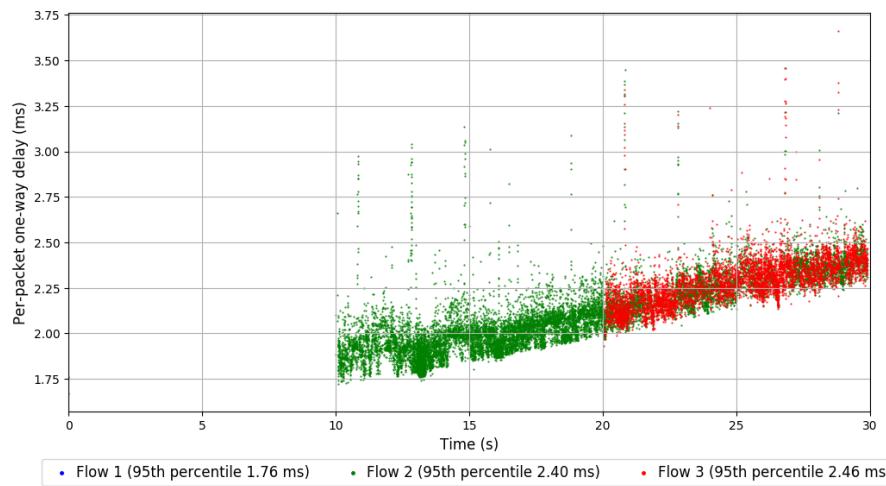
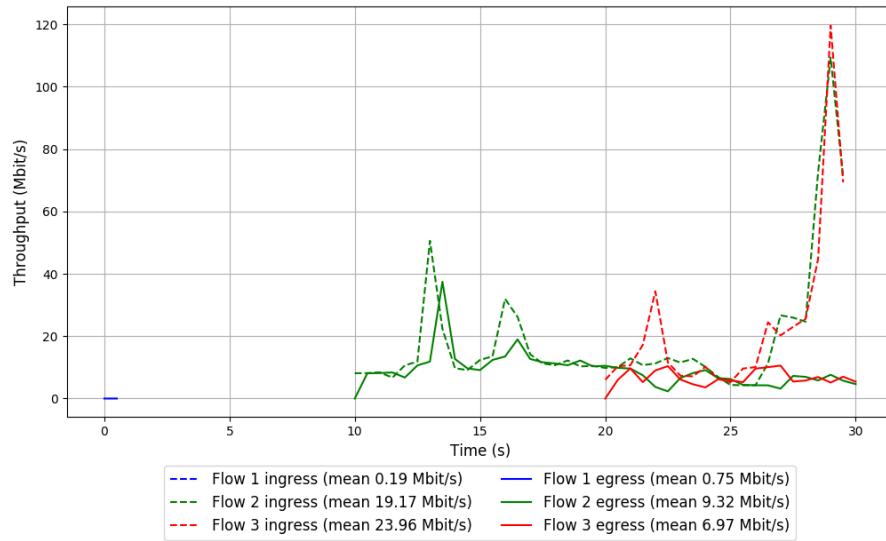


Run 3: Statistics of PCC-Expr

```
Start at: 2019-01-19 01:20:26
End at: 2019-01-19 01:20:56
Local clock offset: -0.001 ms
Remote clock offset: 7.532 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 2.428 ms
Loss rate: 58.87%
-- Flow 1:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 1.762 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 2.396 ms
Loss rate: 51.41%
-- Flow 3:
Average throughput: 6.97 Mbit/s
95th percentile per-packet one-way delay: 2.462 ms
Loss rate: 70.89%
```

Run 3: Report of PCC-Expr — Data Link

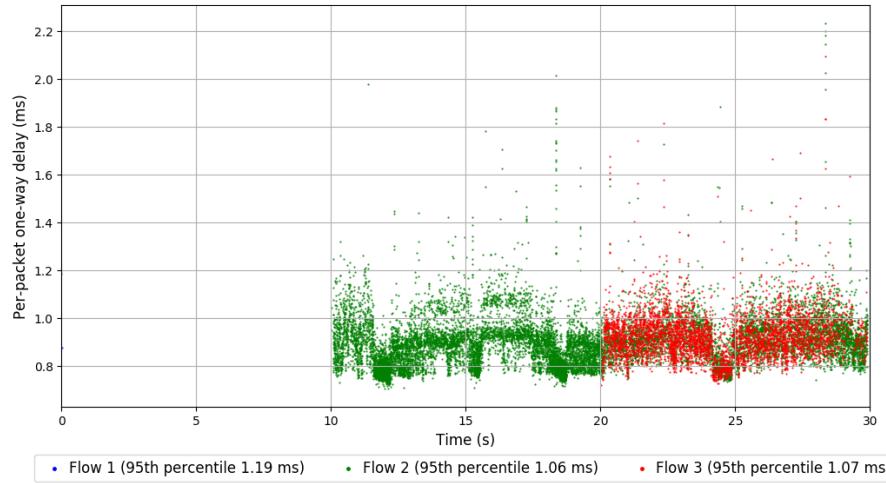
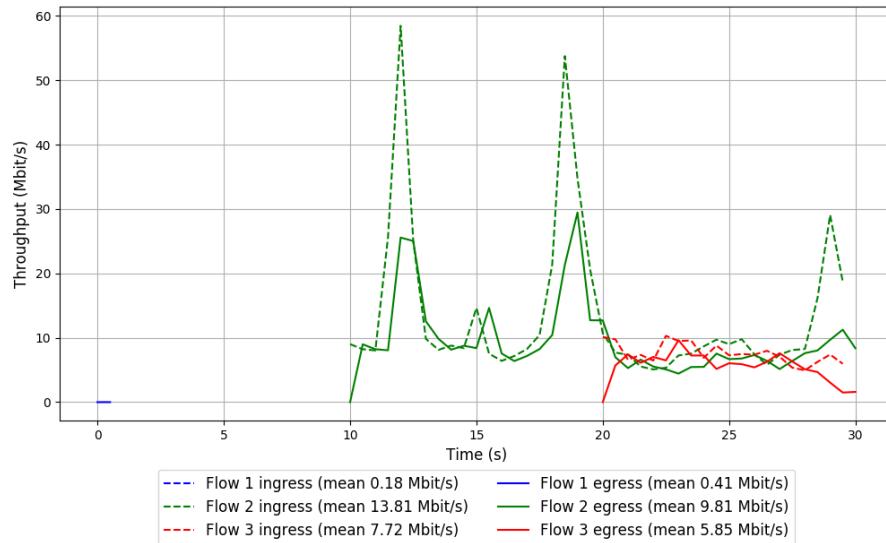


Run 4: Statistics of PCC-Expr

```
Start at: 2019-01-19 01:50:03
End at: 2019-01-19 01:50:33
Local clock offset: 3.901 ms
Remote clock offset: -7.616 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 27.90%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 1.185 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.81 Mbit/s
95th percentile per-packet one-way delay: 1.061 ms
Loss rate: 28.92%
-- Flow 3:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 24.23%
```

Run 4: Report of PCC-Expr — Data Link

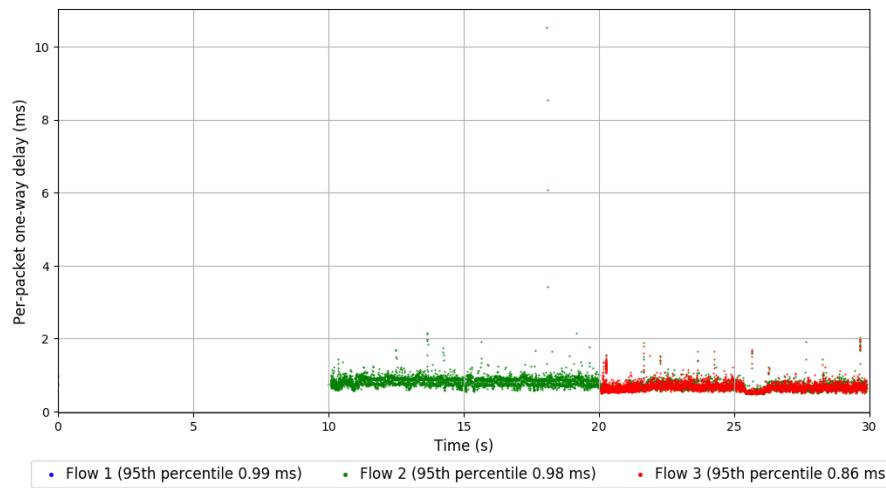
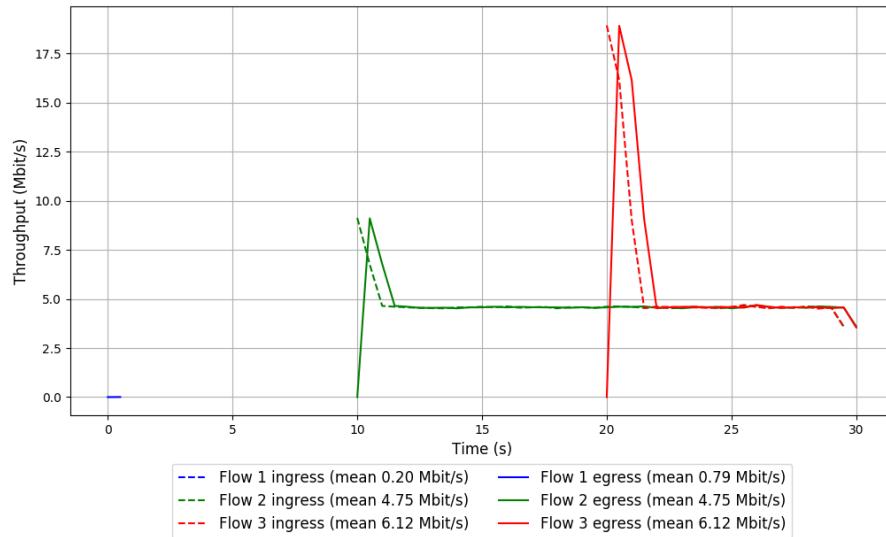


Run 5: Statistics of PCC-Expr

```
Start at: 2019-01-19 02:19:31
End at: 2019-01-19 02:20:01
Local clock offset: 3.707 ms
Remote clock offset: -12.272 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 0.961 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 0.986 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 4.75 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 0.863 ms
Loss rate: 0.02%
```

Run 5: Report of PCC-Expr — Data Link

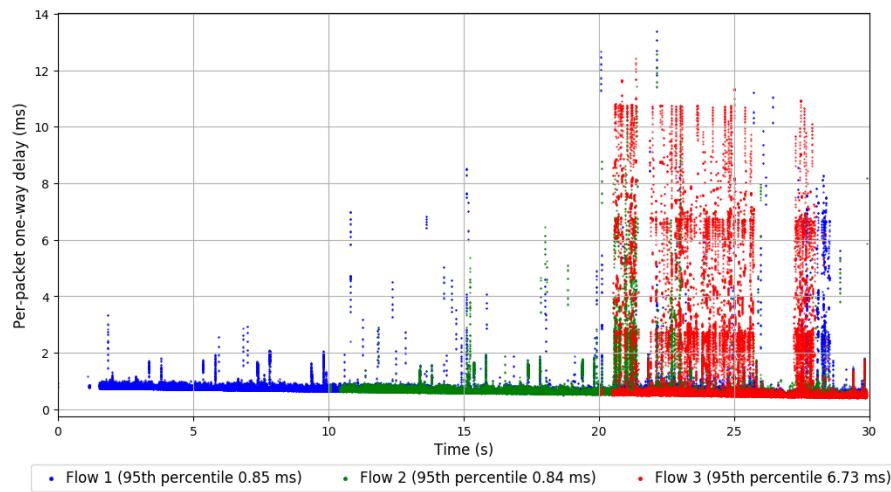
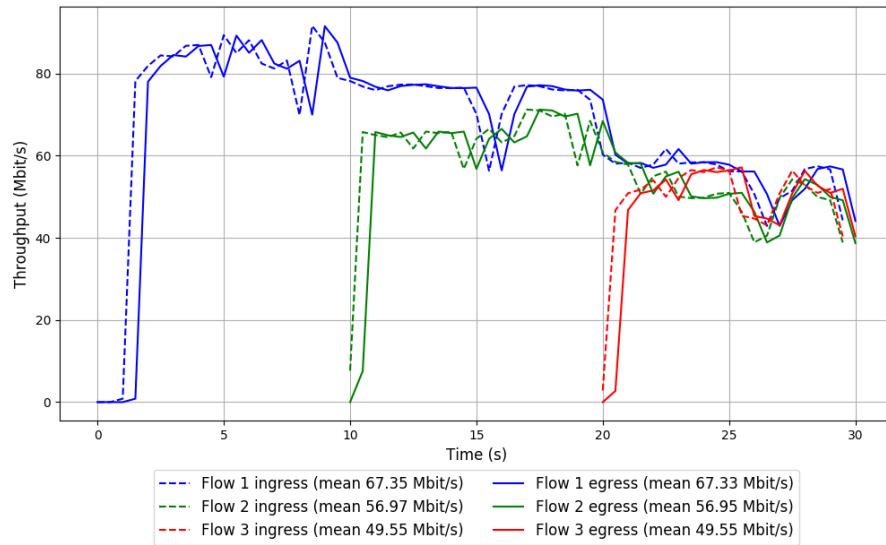


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-19 00:11:01
End at: 2019-01-19 00:11:31
Local clock offset: 0.066 ms
Remote clock offset: -1.797 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.43 Mbit/s
95th percentile per-packet one-way delay: 1.440 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 67.33 Mbit/s
95th percentile per-packet one-way delay: 0.851 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 56.95 Mbit/s
95th percentile per-packet one-way delay: 0.845 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 49.55 Mbit/s
95th percentile per-packet one-way delay: 6.729 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

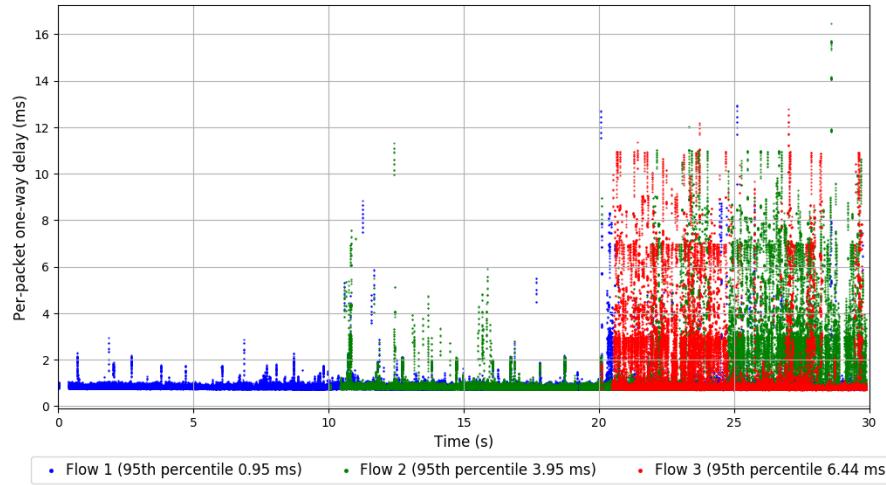
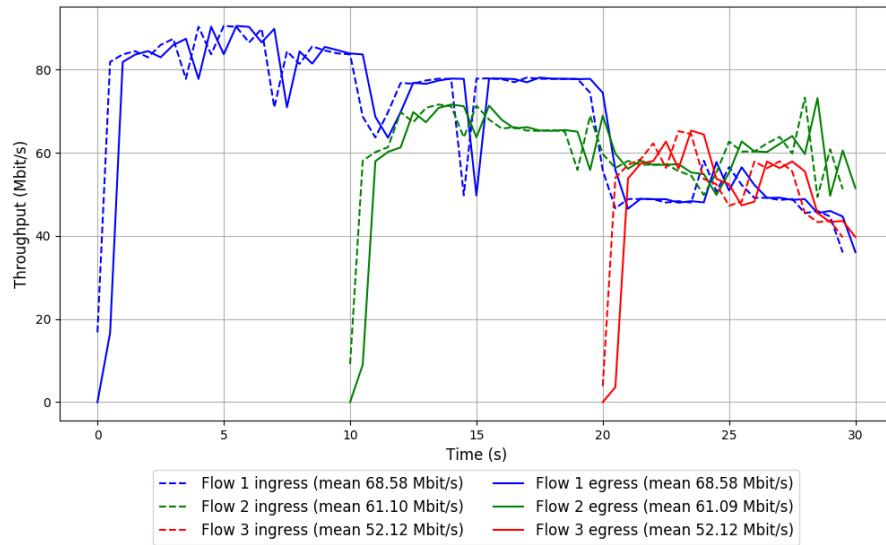


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-01-19 00:40:46
End at: 2019-01-19 00:41:16
Local clock offset: 3.727 ms
Remote clock offset: 7.731 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.28 Mbit/s
95th percentile per-packet one-way delay: 2.859 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 68.58 Mbit/s
95th percentile per-packet one-way delay: 0.951 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 61.09 Mbit/s
95th percentile per-packet one-way delay: 3.948 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 52.12 Mbit/s
95th percentile per-packet one-way delay: 6.438 ms
Loss rate: 0.01%
```

Run 2: Report of QUIC Cubic — Data Link

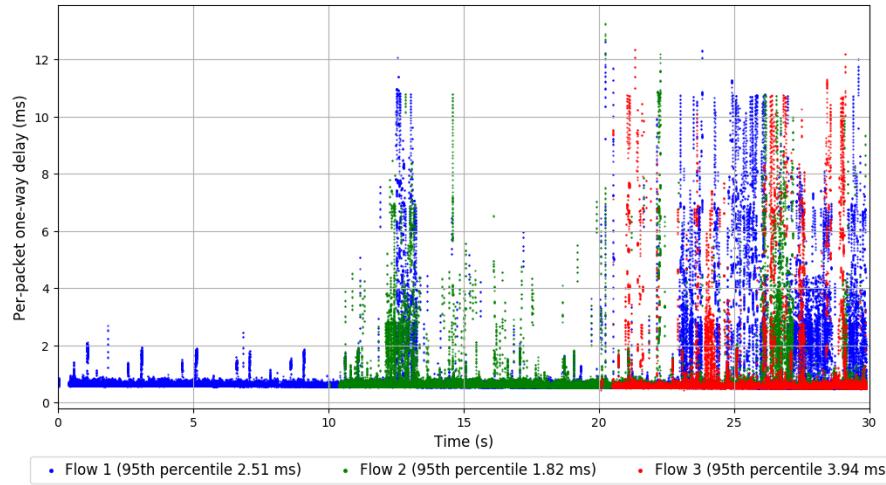
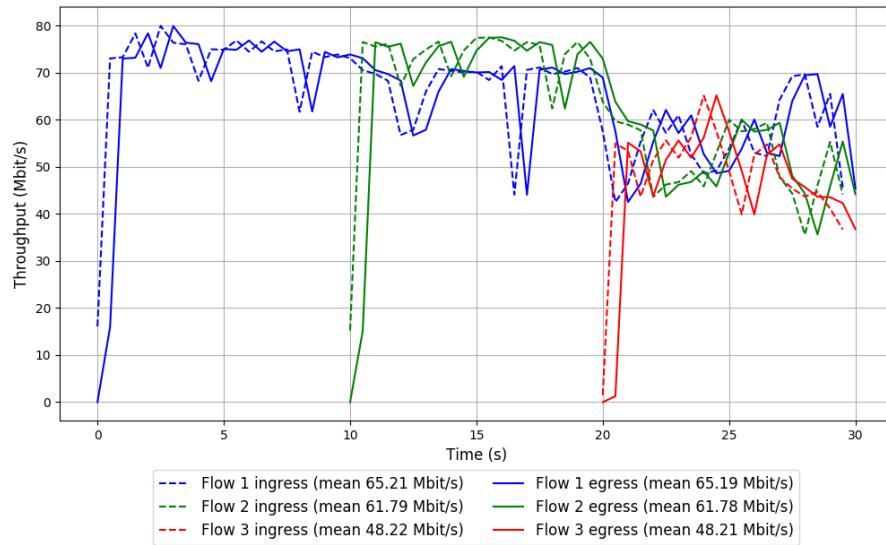


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-01-19 01:10:15
End at: 2019-01-19 01:10:45
Local clock offset: -0.001 ms
Remote clock offset: 12.166 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.14 Mbit/s
95th percentile per-packet one-way delay: 2.414 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 65.19 Mbit/s
95th percentile per-packet one-way delay: 2.509 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 61.78 Mbit/s
95th percentile per-packet one-way delay: 1.819 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 48.21 Mbit/s
95th percentile per-packet one-way delay: 3.942 ms
Loss rate: 0.01%
```

Run 3: Report of QUIC Cubic — Data Link

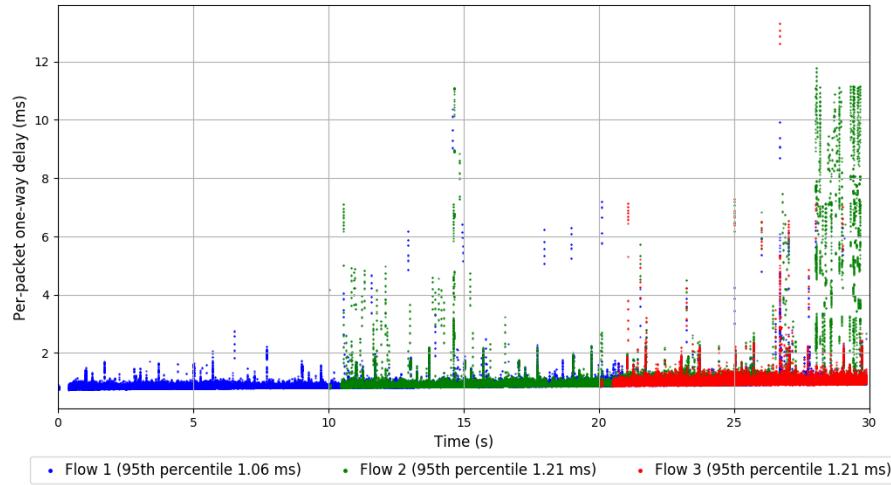
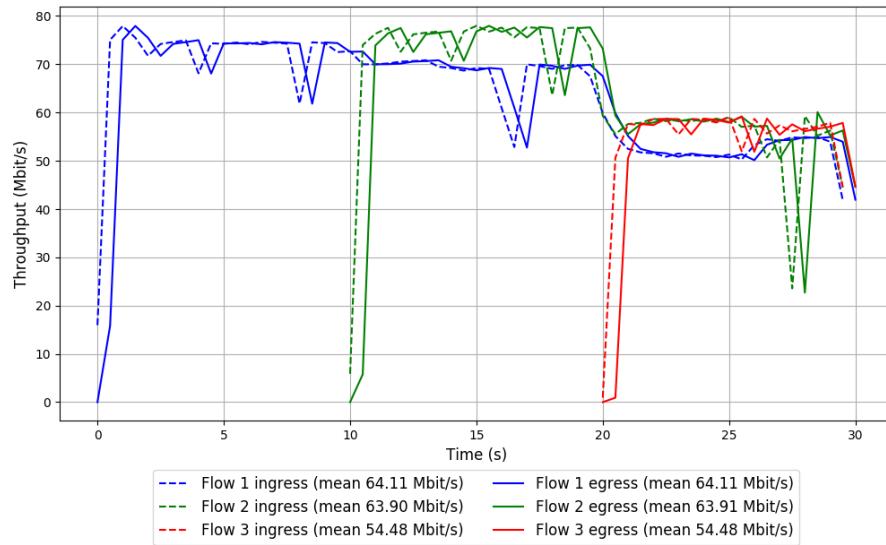


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-01-19 01:39:54
End at: 2019-01-19 01:40:24
Local clock offset: 3.367 ms
Remote clock offset: -5.391 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.43 Mbit/s
95th percentile per-packet one-way delay: 1.142 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.11 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 63.91 Mbit/s
95th percentile per-packet one-way delay: 1.214 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.48 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

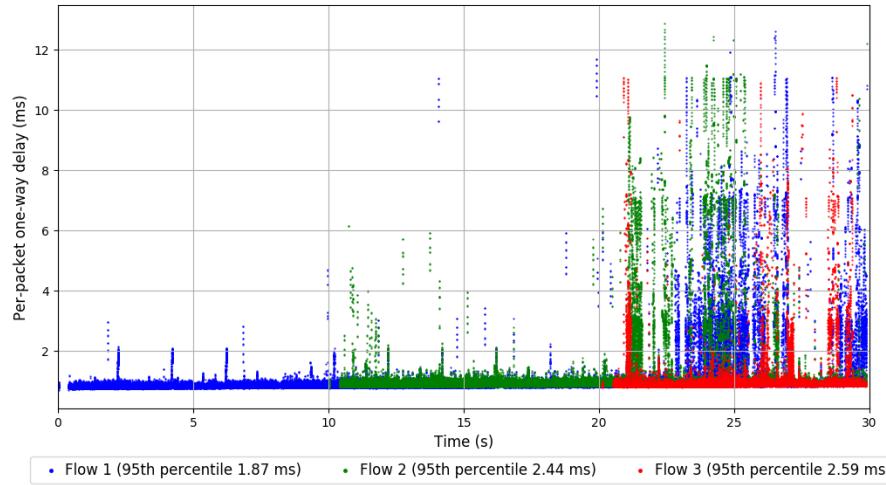
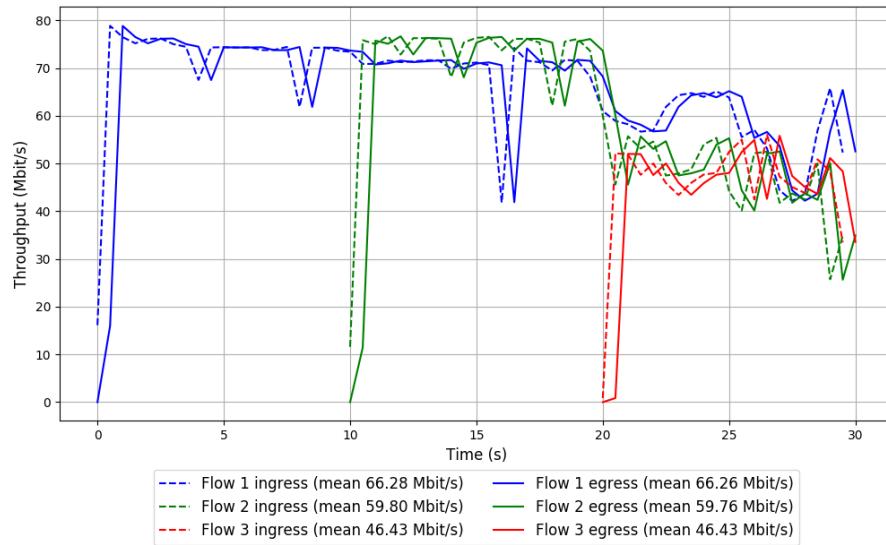


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-01-19 02:09:30
End at: 2019-01-19 02:10:00
Local clock offset: 3.492 ms
Remote clock offset: -10.814 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 121.18 Mbit/s
95th percentile per-packet one-way delay: 2.127 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 66.26 Mbit/s
95th percentile per-packet one-way delay: 1.867 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 59.76 Mbit/s
95th percentile per-packet one-way delay: 2.438 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.43 Mbit/s
95th percentile per-packet one-way delay: 2.587 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

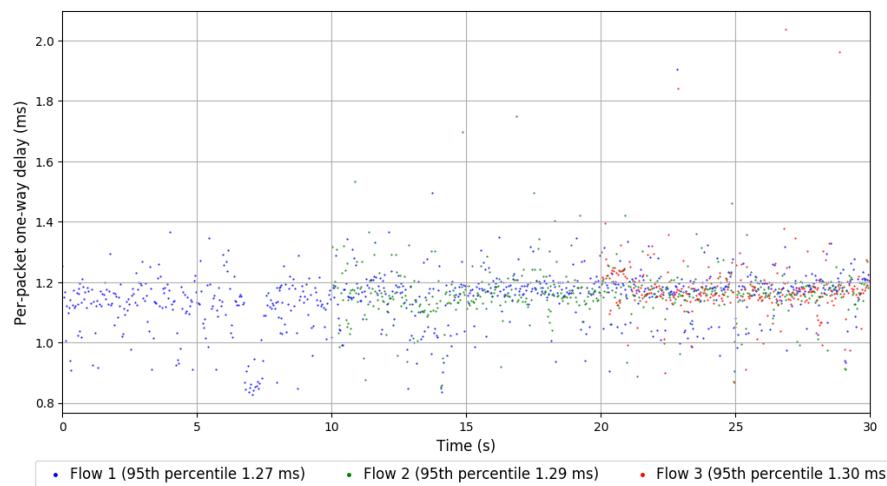
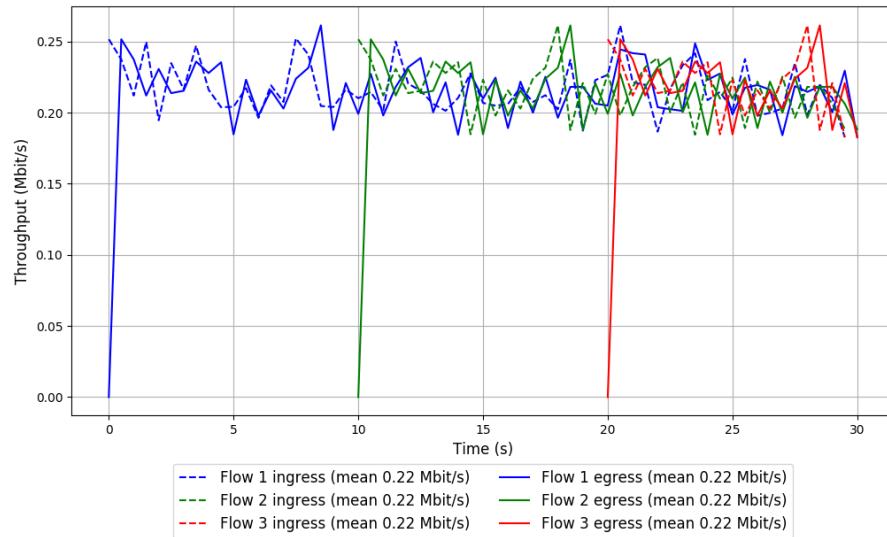


Run 1: Statistics of SCReAM

```
Start at: 2019-01-19 00:06:50
End at: 2019-01-19 00:07:20
Local clock offset: -0.208 ms
Remote clock offset: -3.882 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.277 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.269 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.292 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.296 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

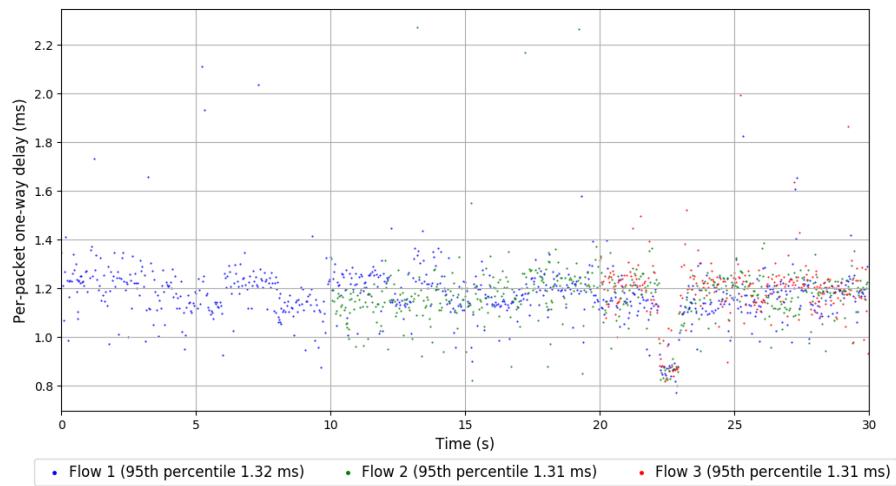
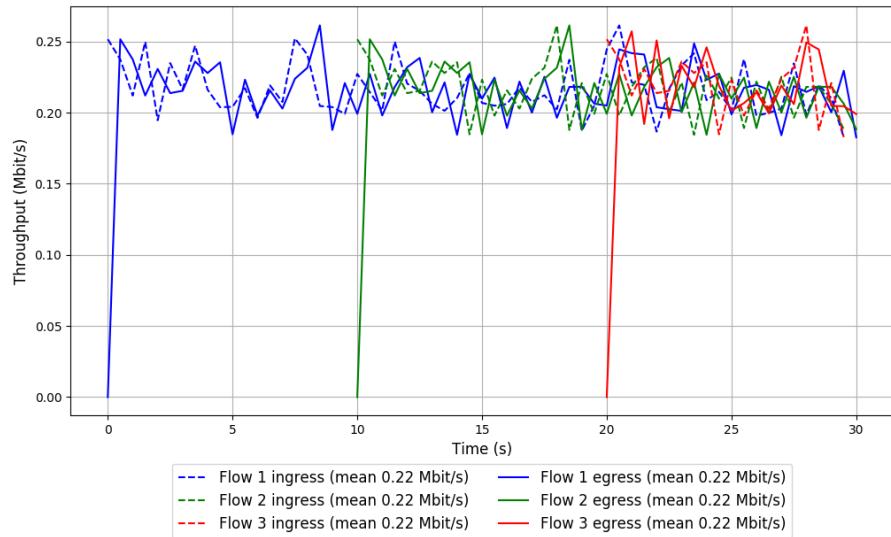


Run 2: Statistics of SCReAM

```
Start at: 2019-01-19 00:36:35
End at: 2019-01-19 00:37:05
Local clock offset: 3.418 ms
Remote clock offset: 7.07 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.315 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.324 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.307 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.308 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

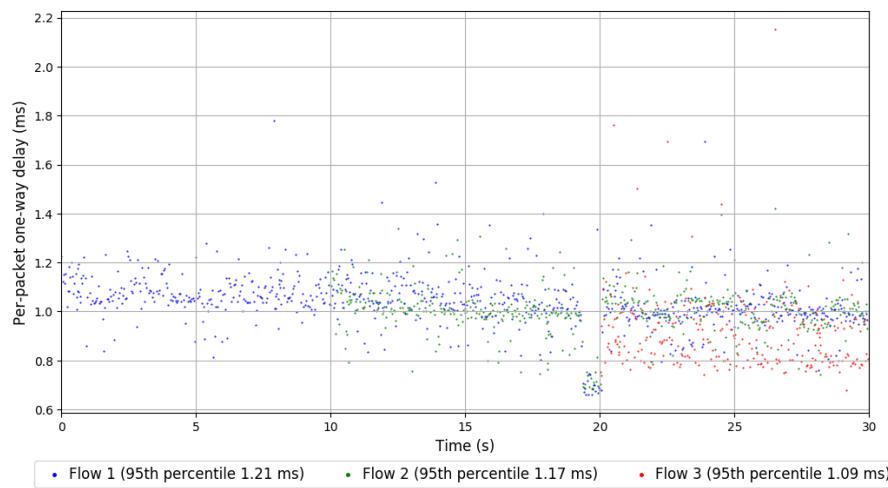
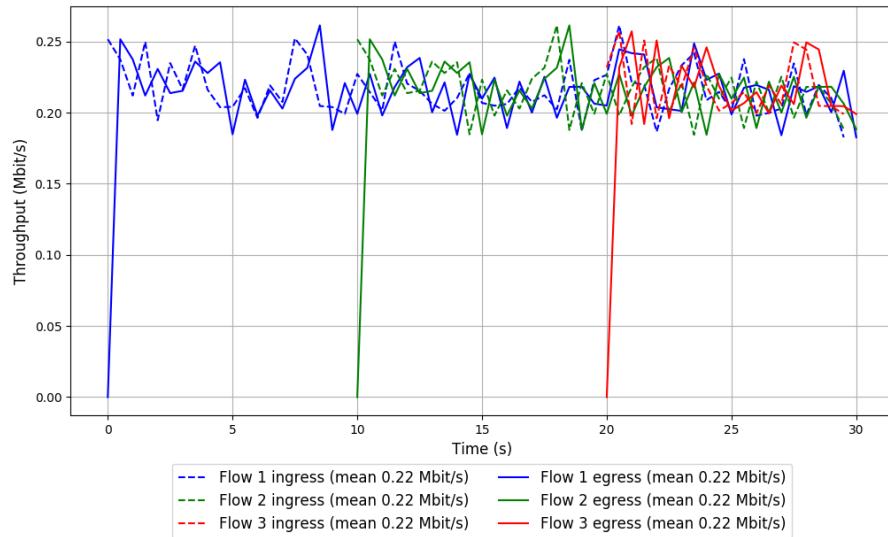


Run 3: Statistics of SCReAM

```
Start at: 2019-01-19 01:06:08
End at: 2019-01-19 01:06:38
Local clock offset: 0.311 ms
Remote clock offset: 11.684 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.182 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.094 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

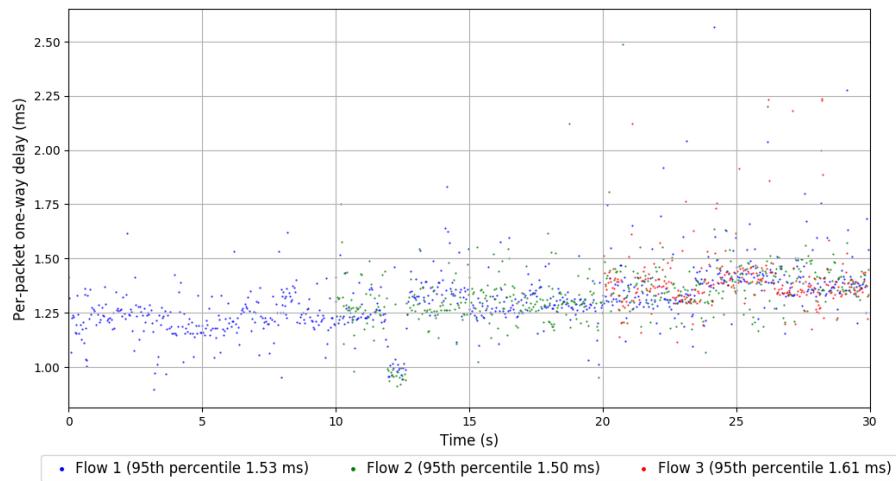
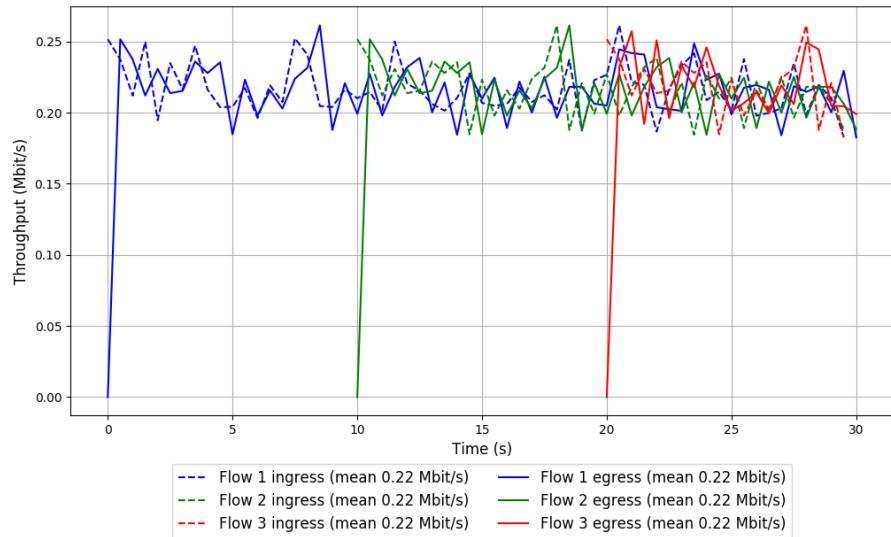


Run 4: Statistics of SCReAM

```
Start at: 2019-01-19 01:35:45
End at: 2019-01-19 01:36:15
Local clock offset: 3.038 ms
Remote clock offset: -4.038 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.528 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.535 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.613 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

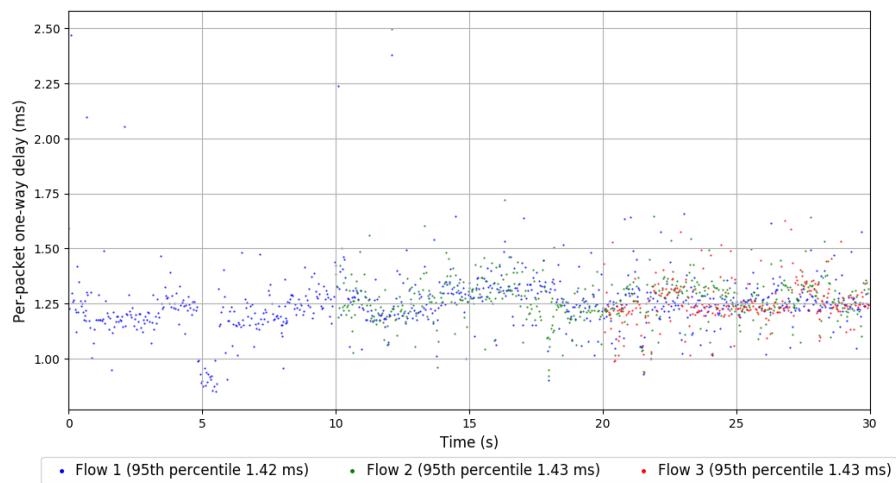
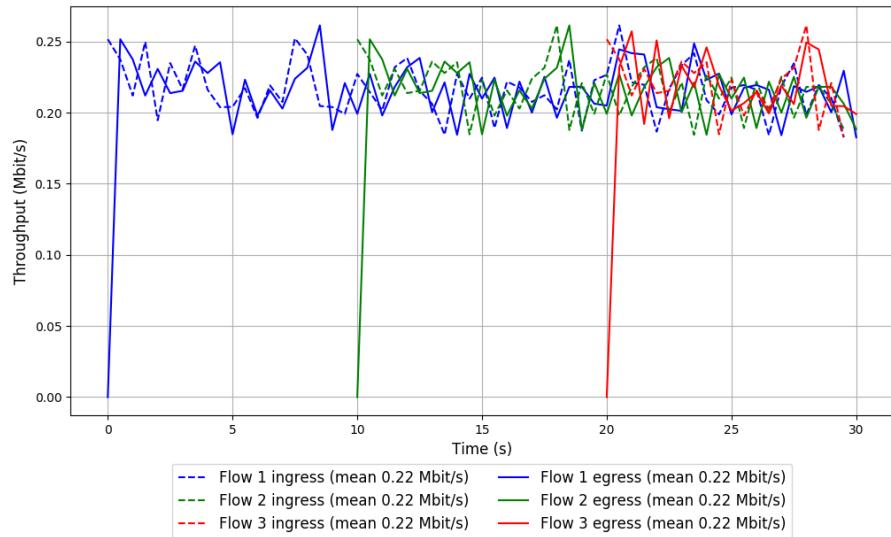


Run 5: Statistics of SCReAM

```
Start at: 2019-01-19 02:05:22
End at: 2019-01-19 02:05:52
Local clock offset: 3.451 ms
Remote clock offset: -10.086 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.427 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.418 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.430 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.429 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

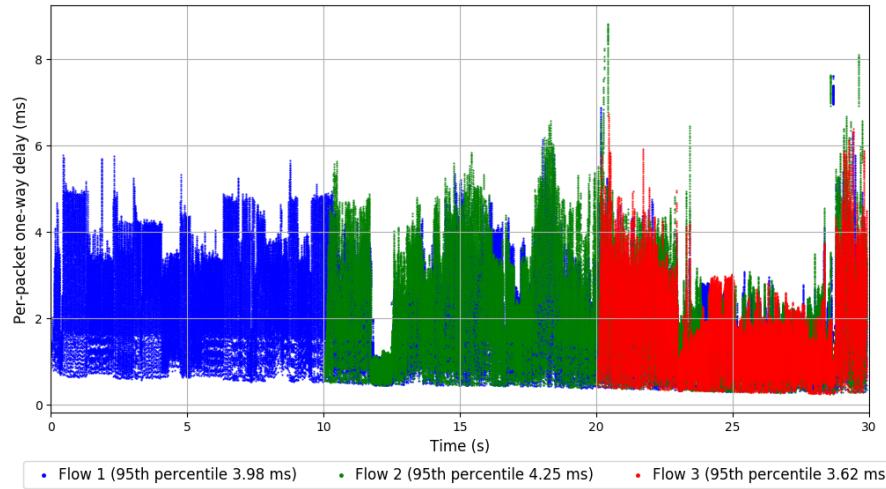
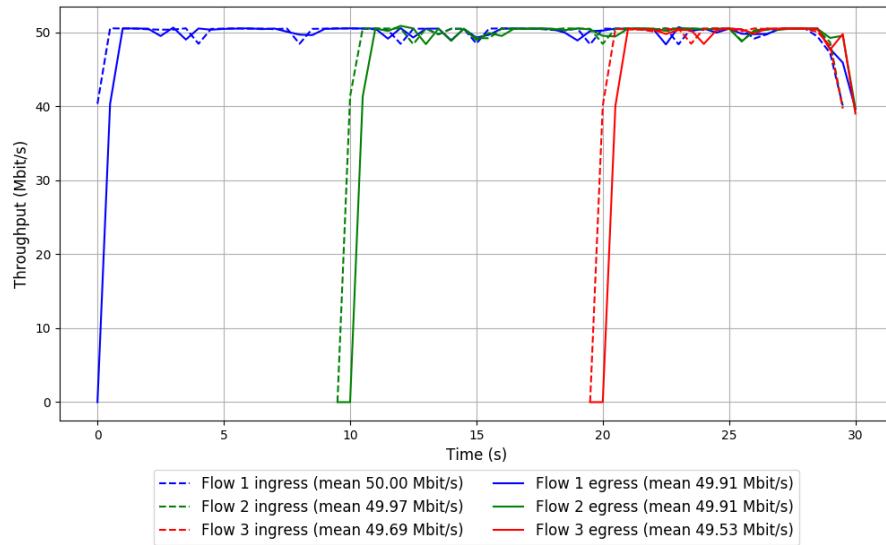


Run 1: Statistics of Sprout

```
Start at: 2019-01-19 00:09:45
End at: 2019-01-19 00:10:15
Local clock offset: -0.01 ms
Remote clock offset: -2.986 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.54 Mbit/s
95th percentile per-packet one-way delay: 4.032 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 3.978 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 4.248 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 49.53 Mbit/s
95th percentile per-packet one-way delay: 3.616 ms
Loss rate: 0.28%
```

Run 1: Report of Sprout — Data Link

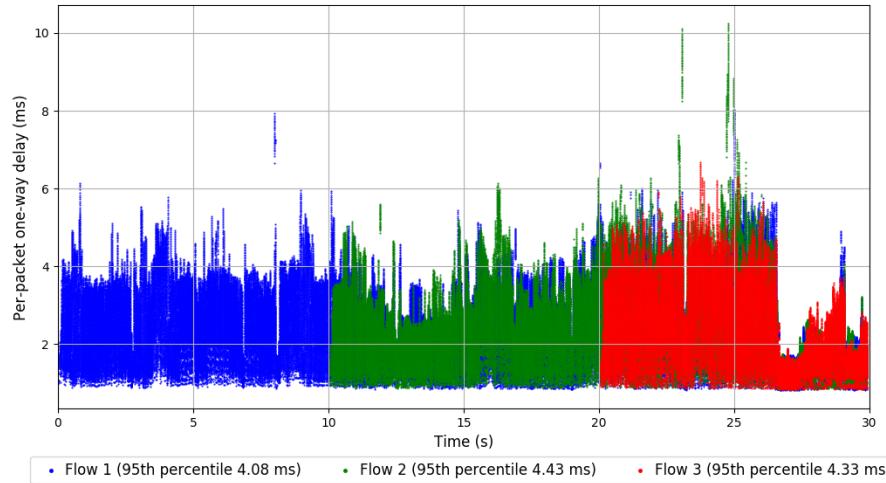
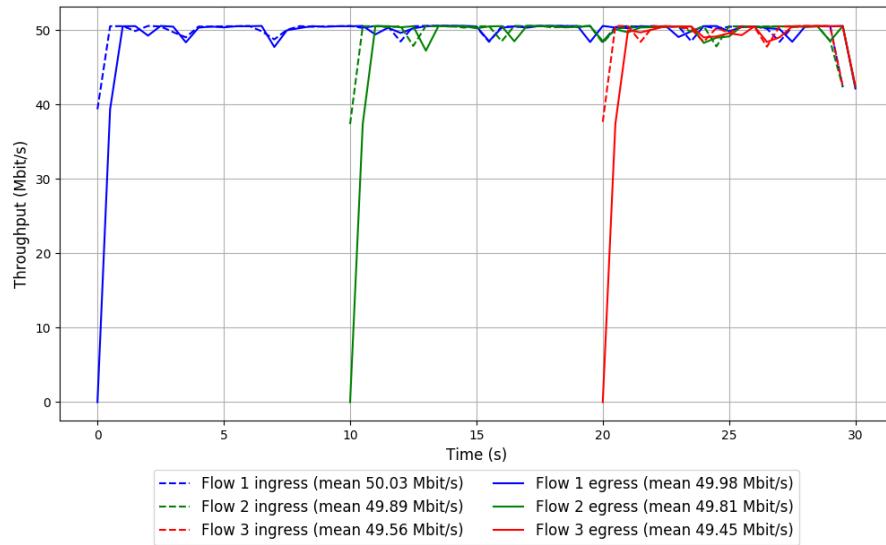


Run 2: Statistics of Sprout

```
Start at: 2019-01-19 00:39:30
End at: 2019-01-19 00:40:00
Local clock offset: 3.641 ms
Remote clock offset: 7.61 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.45 Mbit/s
95th percentile per-packet one-way delay: 4.253 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 49.98 Mbit/s
95th percentile per-packet one-way delay: 4.083 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 49.81 Mbit/s
95th percentile per-packet one-way delay: 4.434 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 49.45 Mbit/s
95th percentile per-packet one-way delay: 4.327 ms
Loss rate: 0.22%
```

Run 2: Report of Sprout — Data Link

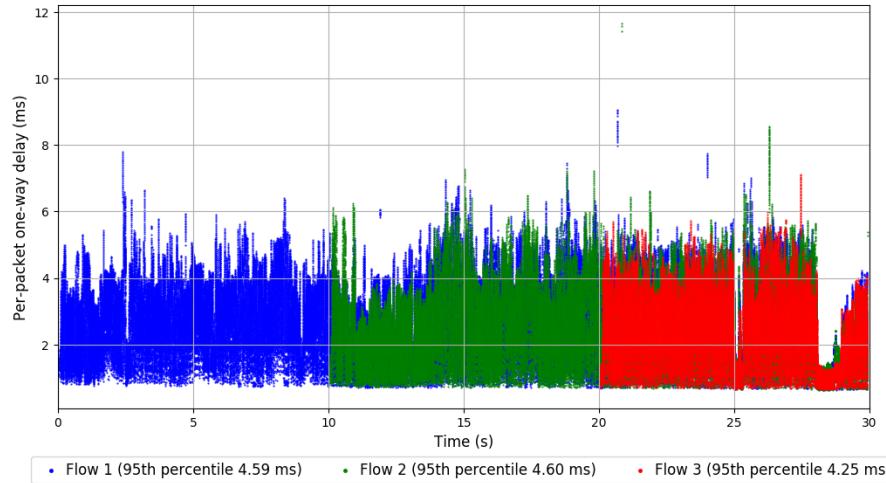
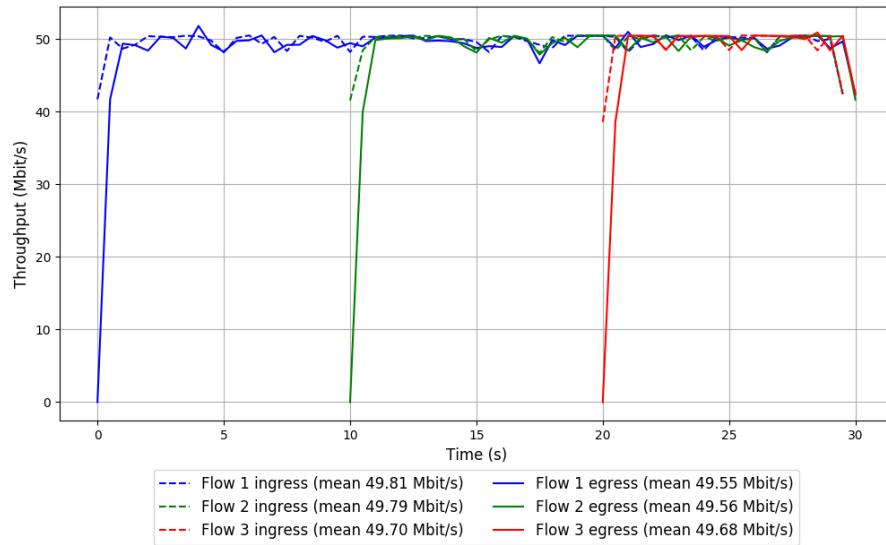


Run 3: Statistics of Sprout

```
Start at: 2019-01-19 01:08:59
End at: 2019-01-19 01:09:29
Local clock offset: 0.081 ms
Remote clock offset: 12.104 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.95 Mbit/s
95th percentile per-packet one-way delay: 4.549 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 49.55 Mbit/s
95th percentile per-packet one-way delay: 4.595 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 49.56 Mbit/s
95th percentile per-packet one-way delay: 4.602 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 49.68 Mbit/s
95th percentile per-packet one-way delay: 4.254 ms
Loss rate: 0.01%
```

Run 3: Report of Sprout — Data Link

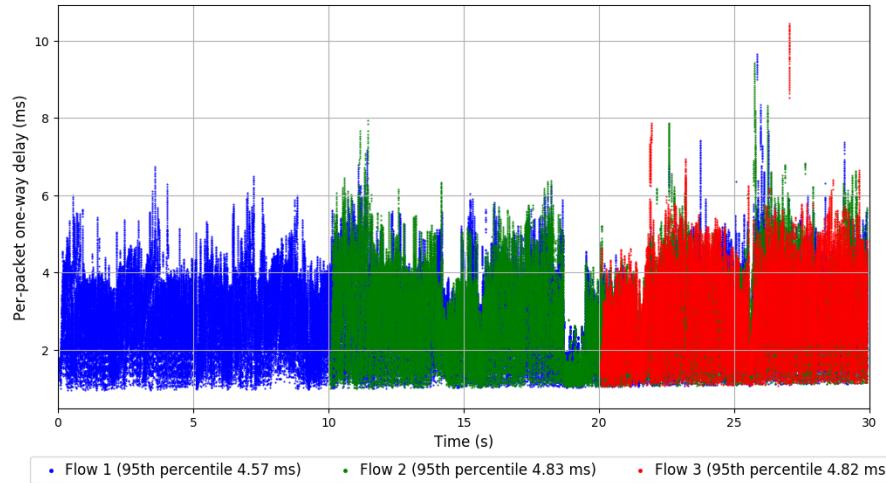
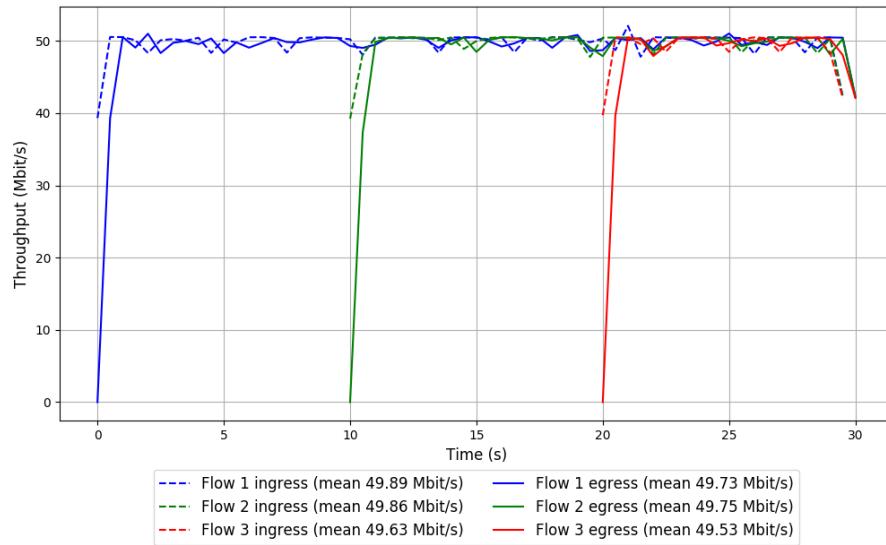


Run 4: Statistics of Sprout

```
Start at: 2019-01-19 01:38:38
End at: 2019-01-19 01:39:08
Local clock offset: 3.269 ms
Remote clock offset: -4.906 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.19 Mbit/s
95th percentile per-packet one-way delay: 4.708 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 49.73 Mbit/s
95th percentile per-packet one-way delay: 4.568 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 49.75 Mbit/s
95th percentile per-packet one-way delay: 4.825 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 49.53 Mbit/s
95th percentile per-packet one-way delay: 4.816 ms
Loss rate: 0.18%
```

Run 4: Report of Sprout — Data Link

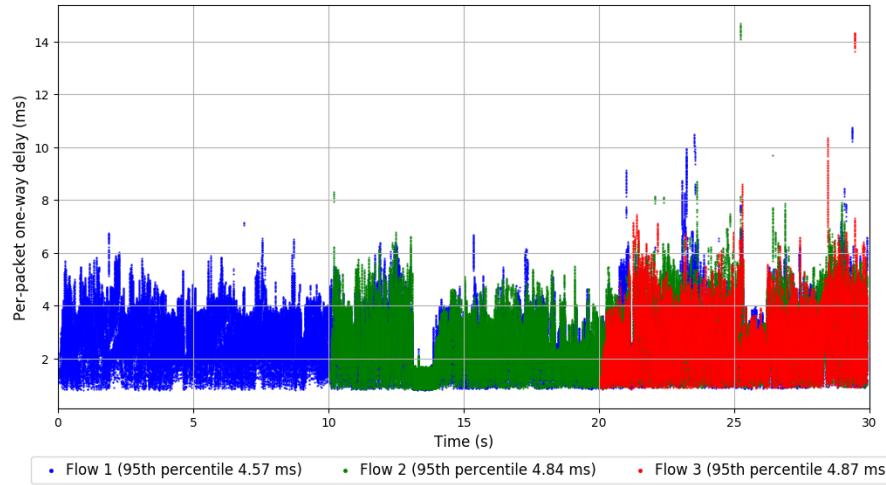
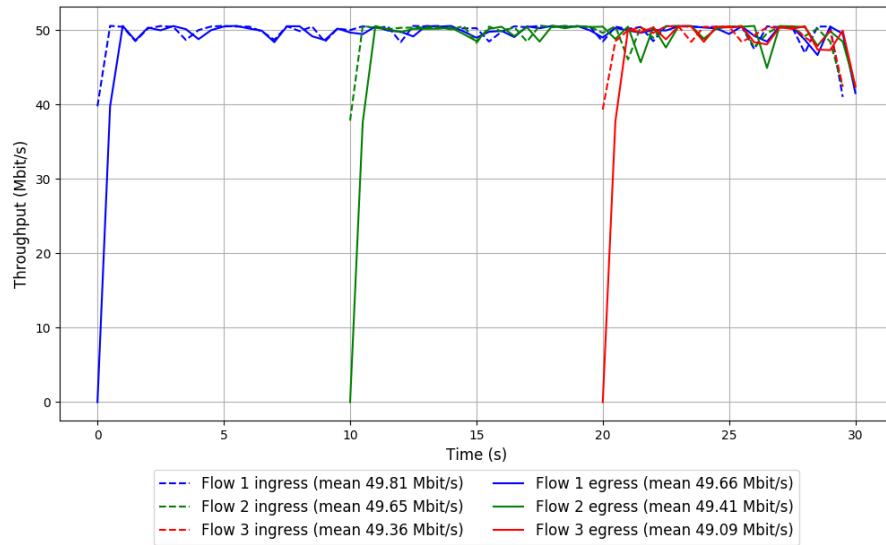


Run 5: Statistics of Sprout

```
Start at: 2019-01-19 02:08:14
End at: 2019-01-19 02:08:44
Local clock offset: 3.467 ms
Remote clock offset: -10.603 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.76 Mbit/s
95th percentile per-packet one-way delay: 4.724 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 49.66 Mbit/s
95th percentile per-packet one-way delay: 4.569 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 49.41 Mbit/s
95th percentile per-packet one-way delay: 4.838 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 49.09 Mbit/s
95th percentile per-packet one-way delay: 4.873 ms
Loss rate: 0.49%
```

Run 5: Report of Sprout — Data Link

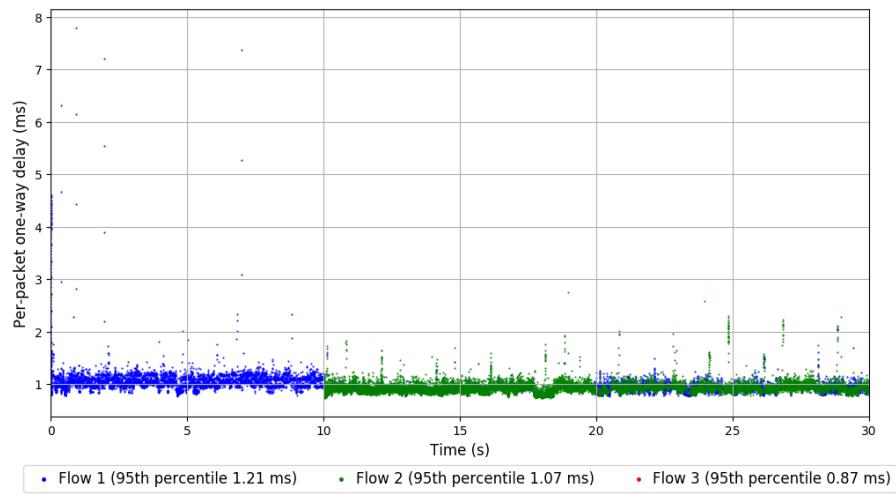
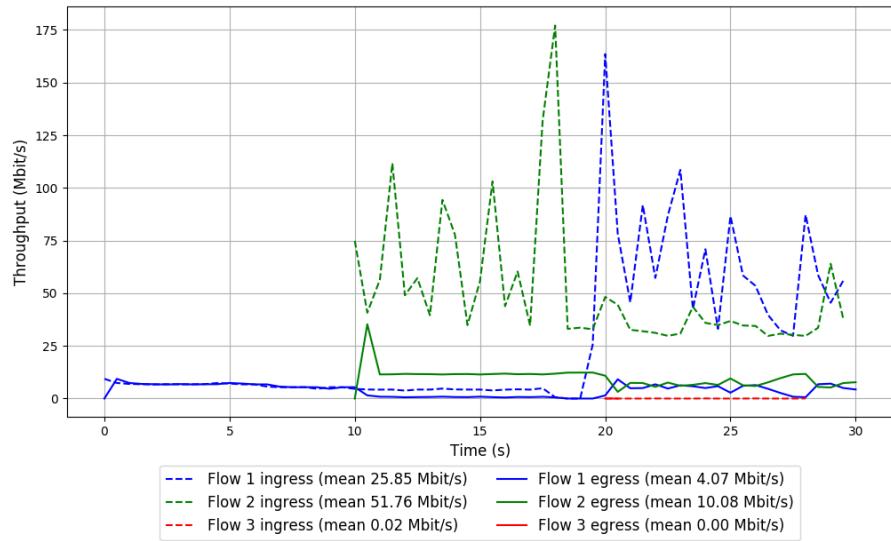


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-01-19 00:25:09
End at: 2019-01-19 00:25:39
Local clock offset: 1.876 ms
Remote clock offset: 4.493 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.78 Mbit/s
95th percentile per-packet one-way delay: 1.167 ms
Loss rate: 82.14%
-- Flow 1:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 84.28%
-- Flow 2:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 1.068 ms
Loss rate: 80.53%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.866 ms
Loss rate: 99.16%
```

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

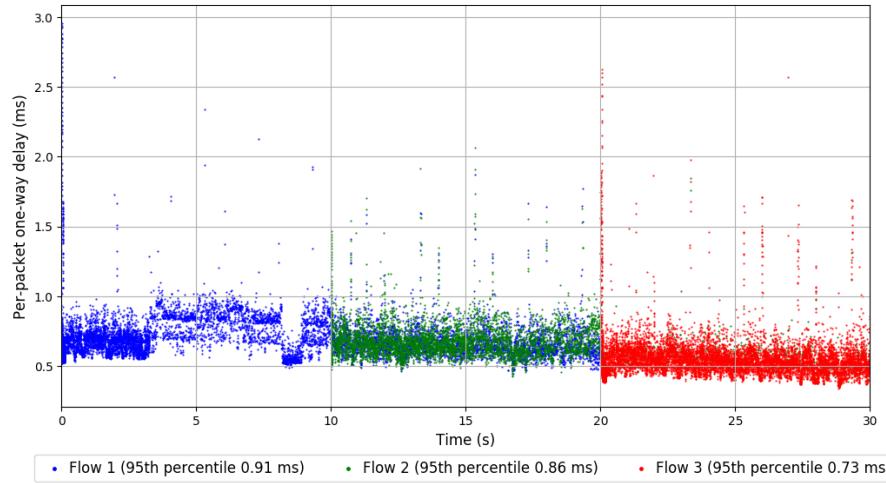
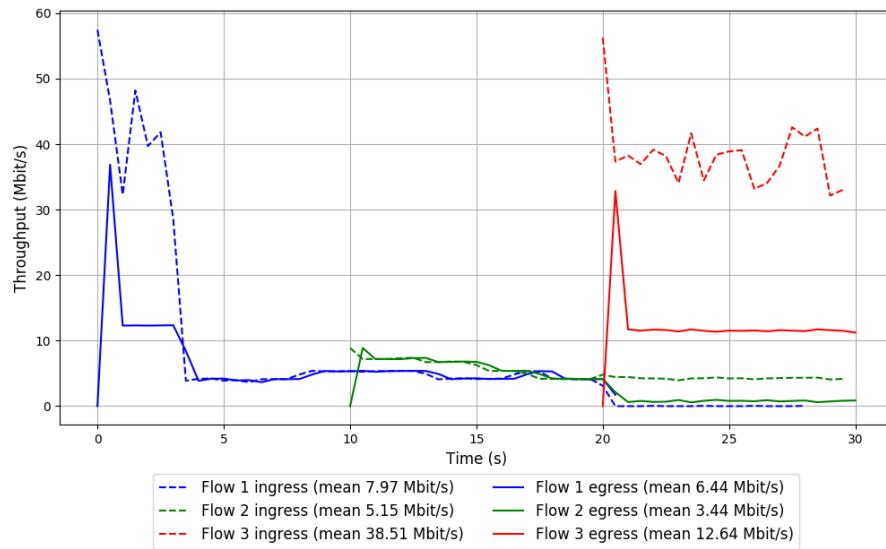


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-01-19 00:54:49
End at: 2019-01-19 00:55:19
Local clock offset: 2.257 ms
Remote clock offset: 9.926 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 0.873 ms
Loss rate: 54.39%
-- Flow 1:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 0.911 ms
Loss rate: 42.16%
-- Flow 2:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 0.864 ms
Loss rate: 33.37%
-- Flow 3:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: 0.728 ms
Loss rate: 67.18%
```

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

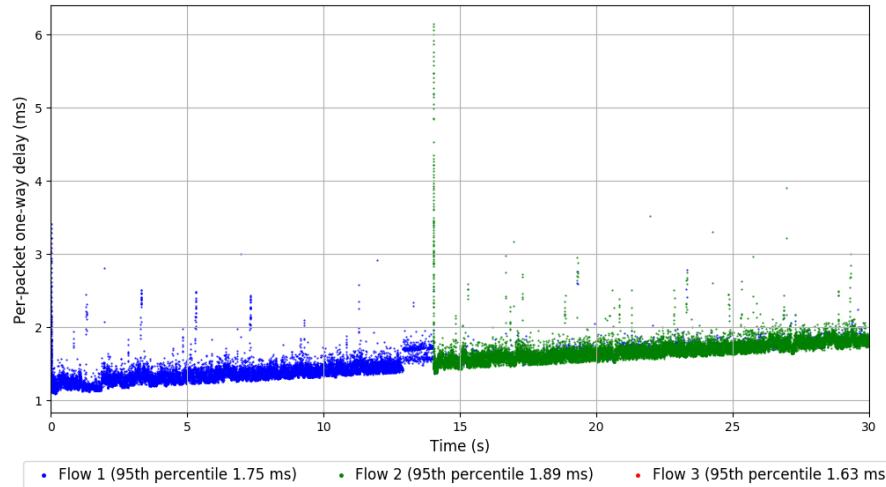
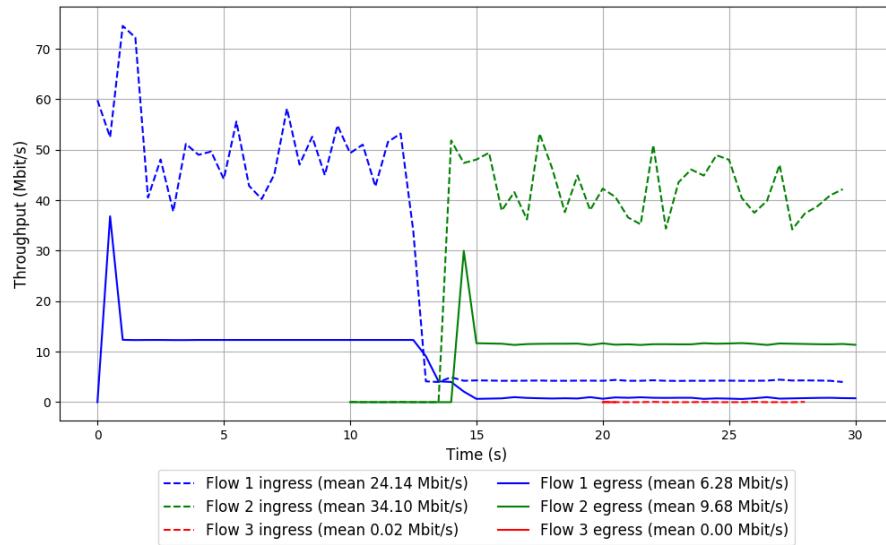


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-01-19 01:24:26
End at: 2019-01-19 01:24:56
Local clock offset: 1.229 ms
Remote clock offset: 2.729 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 1.863 ms
Loss rate: 72.83%
-- Flow 1:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 1.745 ms
Loss rate: 73.99%
-- Flow 2:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 1.894 ms
Loss rate: 71.60%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.634 ms
Loss rate: 99.16%
```

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

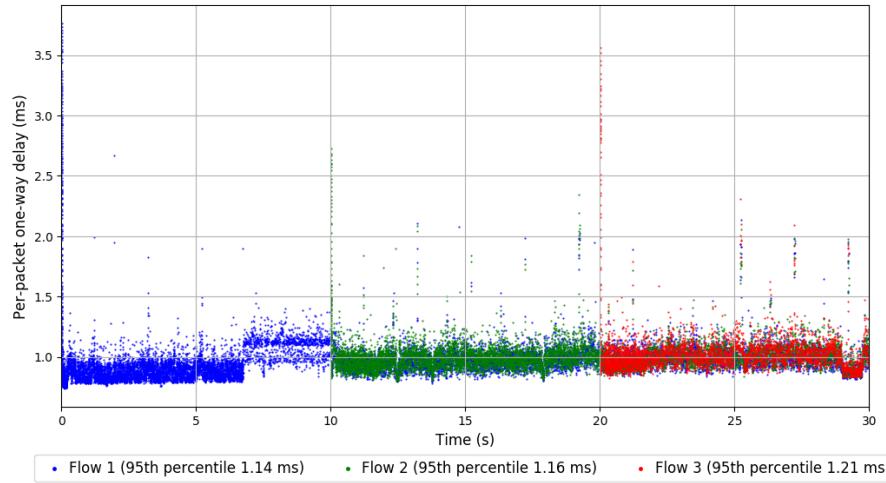
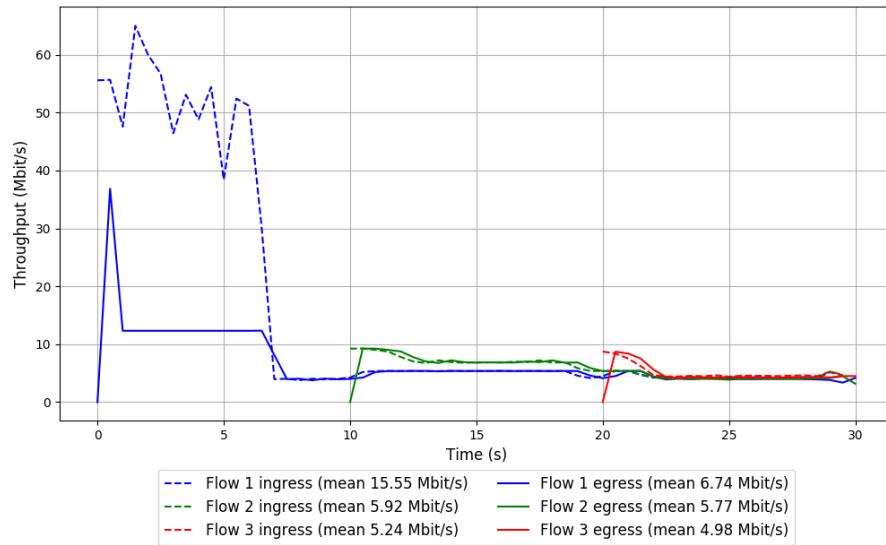


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-01-19 01:53:58
End at: 2019-01-19 01:54:28
Local clock offset: 3.599 ms
Remote clock offset: -8.305 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.23 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 42.38%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 1.140 ms
Loss rate: 56.66%
-- Flow 2:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 1.163 ms
Loss rate: 2.54%
-- Flow 3:
Average throughput: 4.98 Mbit/s
95th percentile per-packet one-way delay: 1.210 ms
Loss rate: 5.02%
```

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

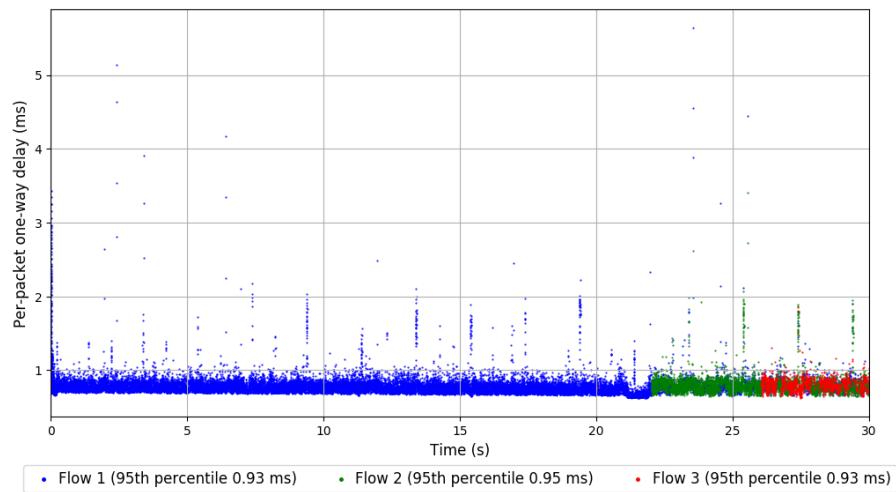
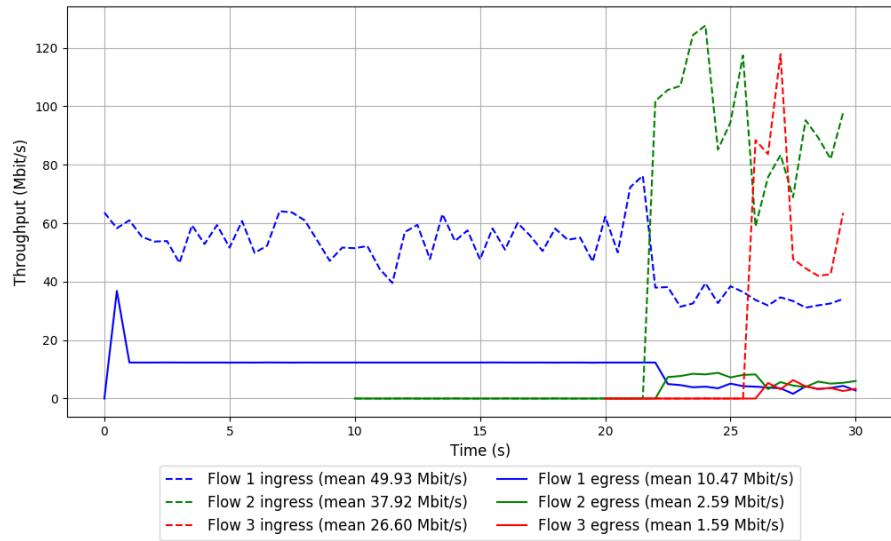


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-01-19 02:23:36
End at: 2019-01-19 02:24:06
Local clock offset: 2.225 ms
Remote clock offset: -12.839 ms

# Below is generated by plot.py at 2019-01-19 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 0.931 ms
Loss rate: 84.85%
-- Flow 1:
Average throughput: 10.47 Mbit/s
95th percentile per-packet one-way delay: 0.929 ms
Loss rate: 79.03%
-- Flow 2:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 0.946 ms
Loss rate: 93.16%
-- Flow 3:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 0.933 ms
Loss rate: 94.01%
```

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

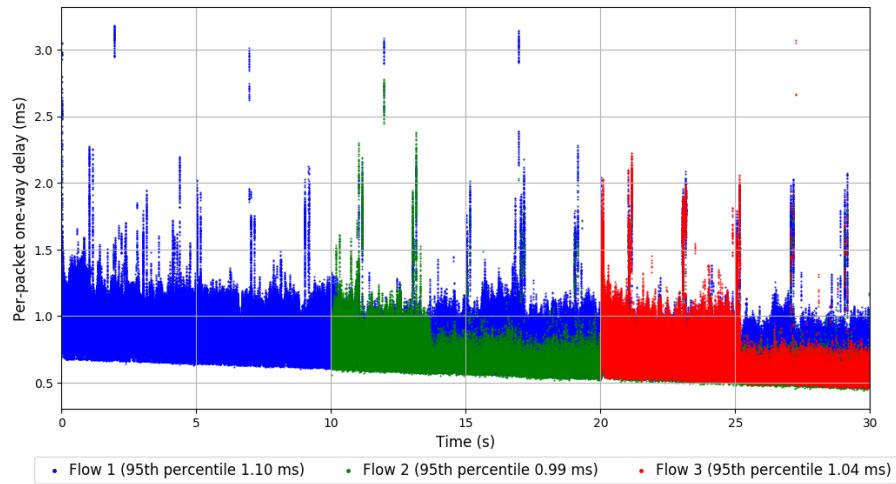
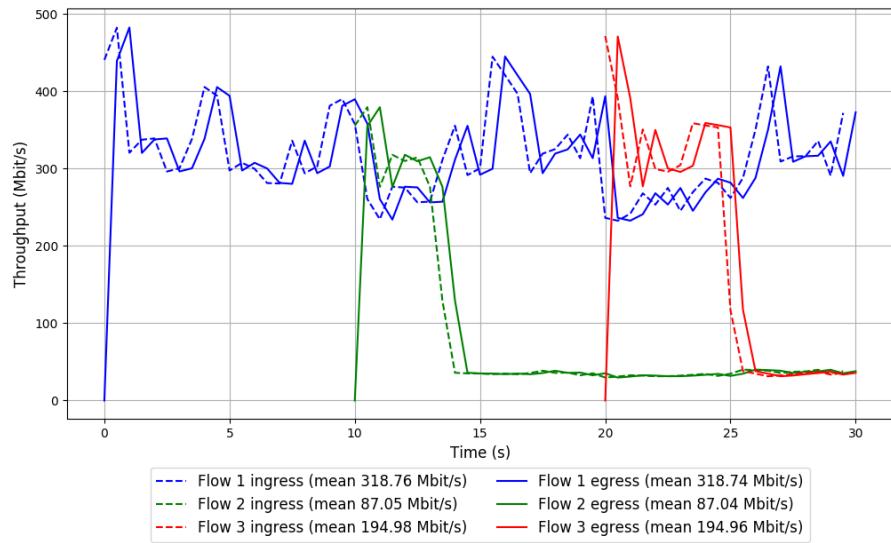


Run 1: Statistics of TCP Vegas

```
Start at: 2019-01-19 00:16:40
End at: 2019-01-19 00:17:10
Local clock offset: 0.308 ms
Remote clock offset: 1.519 ms

# Below is generated by plot.py at 2019-01-19 03:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 441.54 Mbit/s
95th percentile per-packet one-way delay: 1.088 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 318.74 Mbit/s
95th percentile per-packet one-way delay: 1.105 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 87.04 Mbit/s
95th percentile per-packet one-way delay: 0.989 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 194.96 Mbit/s
95th percentile per-packet one-way delay: 1.038 ms
Loss rate: 0.01%
```

Run 1: Report of TCP Vegas — Data Link

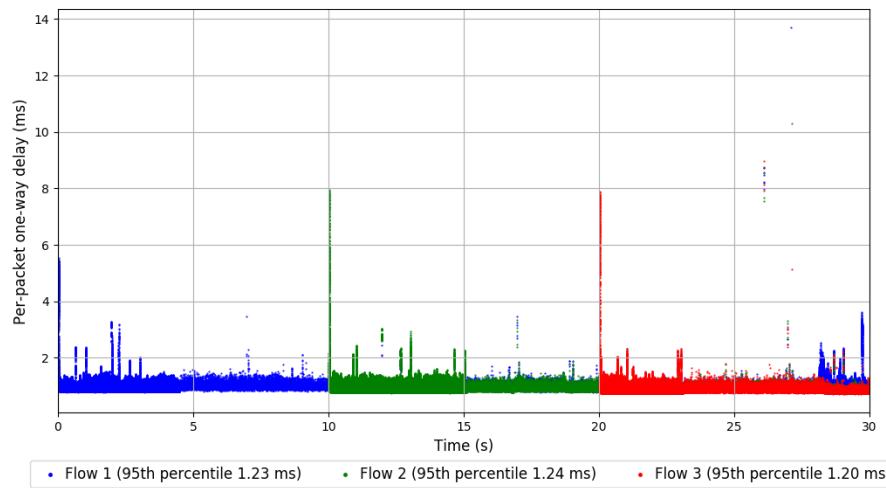
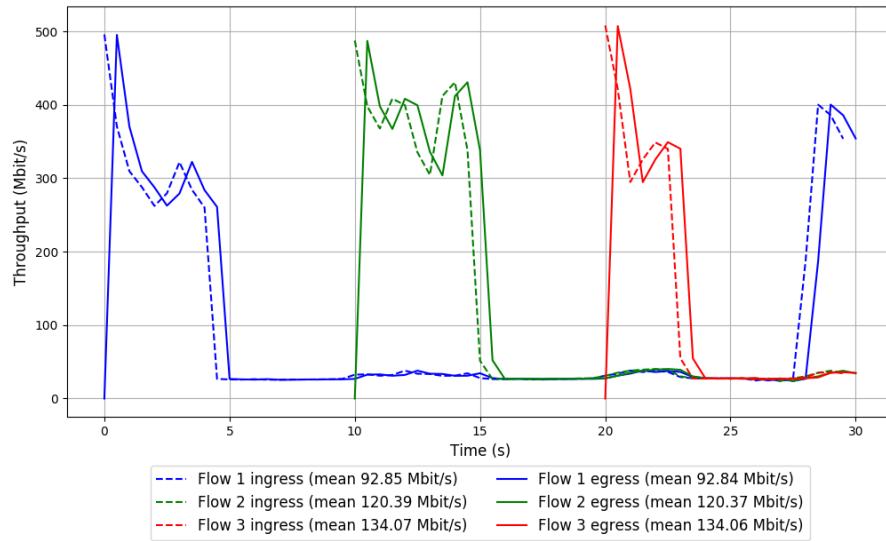


Run 2: Statistics of TCP Vegas

```
Start at: 2019-01-19 00:46:24
End at: 2019-01-19 00:46:54
Local clock offset: 4.117 ms
Remote clock offset: 8.696 ms

# Below is generated by plot.py at 2019-01-19 03:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 217.60 Mbit/s
95th percentile per-packet one-way delay: 1.227 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 120.37 Mbit/s
95th percentile per-packet one-way delay: 1.237 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 134.06 Mbit/s
95th percentile per-packet one-way delay: 1.199 ms
Loss rate: 0.01%
```

Run 2: Report of TCP Vegas — Data Link

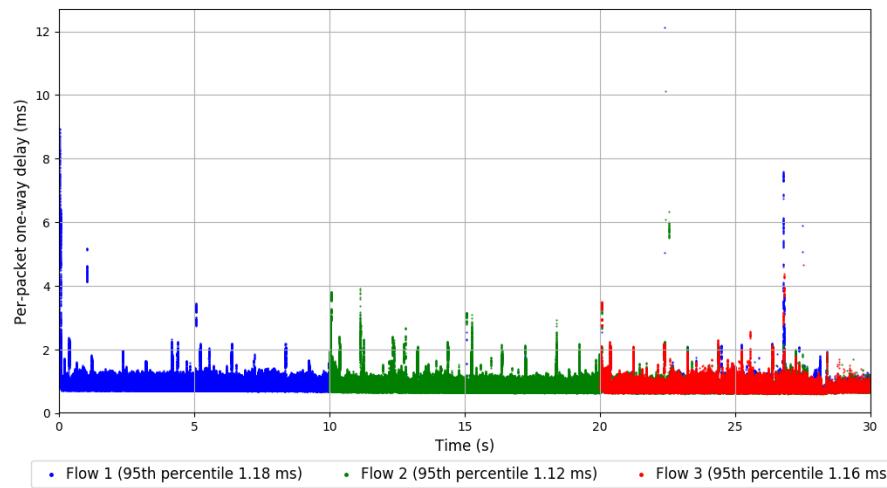
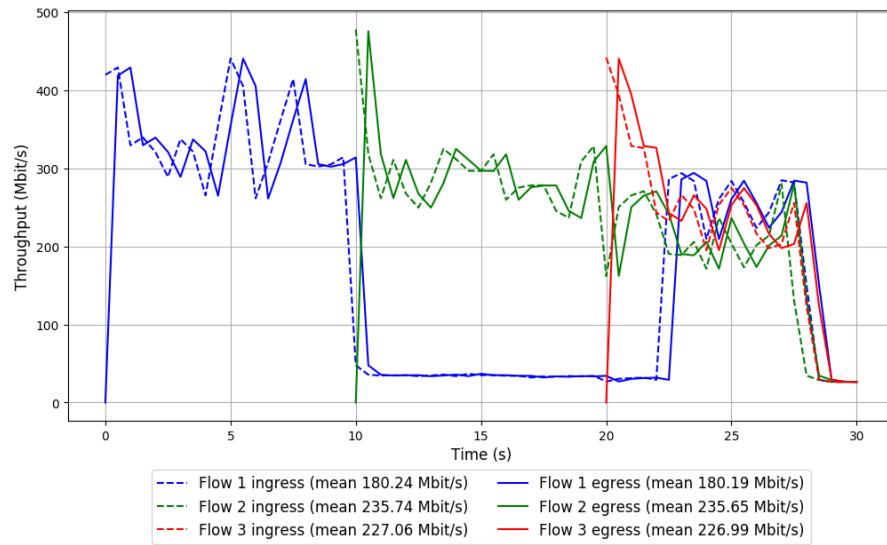


Run 3: Statistics of TCP Vegas

```
Start at: 2019-01-19 01:15:57
End at: 2019-01-19 01:16:27
Local clock offset: -0.27 ms
Remote clock offset: 13.093 ms

# Below is generated by plot.py at 2019-01-19 03:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 412.76 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 180.19 Mbit/s
95th percentile per-packet one-way delay: 1.183 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 235.65 Mbit/s
95th percentile per-packet one-way delay: 1.124 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 226.99 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 0.03%
```

Run 3: Report of TCP Vegas — Data Link

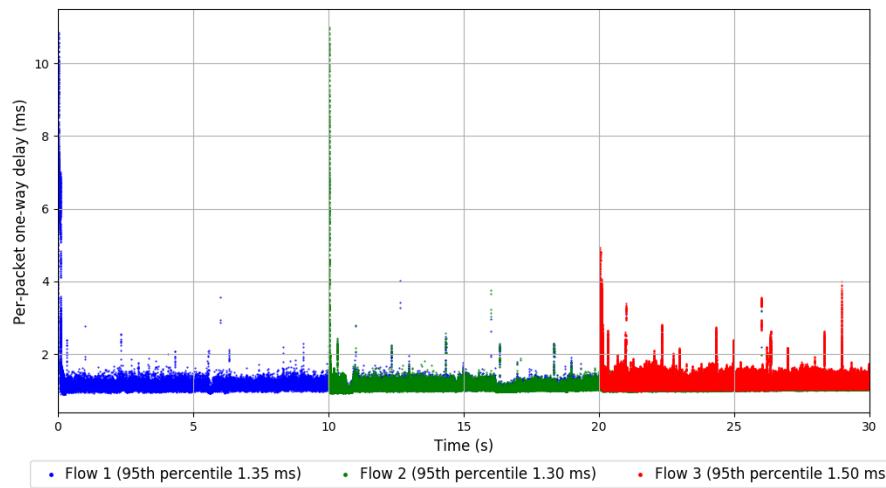
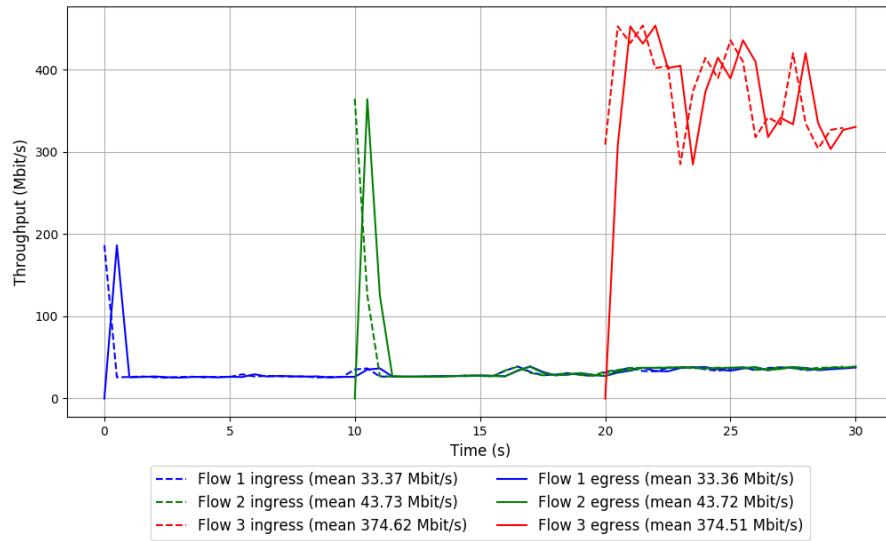


Run 4: Statistics of TCP Vegas

```
Start at: 2019-01-19 01:45:41
End at: 2019-01-19 01:46:11
Local clock offset: 3.735 ms
Remote clock offset: -6.627 ms

# Below is generated by plot.py at 2019-01-19 03:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 187.00 Mbit/s
95th percentile per-packet one-way delay: 1.479 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 33.36 Mbit/s
95th percentile per-packet one-way delay: 1.350 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 43.72 Mbit/s
95th percentile per-packet one-way delay: 1.296 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 374.51 Mbit/s
95th percentile per-packet one-way delay: 1.502 ms
Loss rate: 0.03%
```

Run 4: Report of TCP Vegas — Data Link

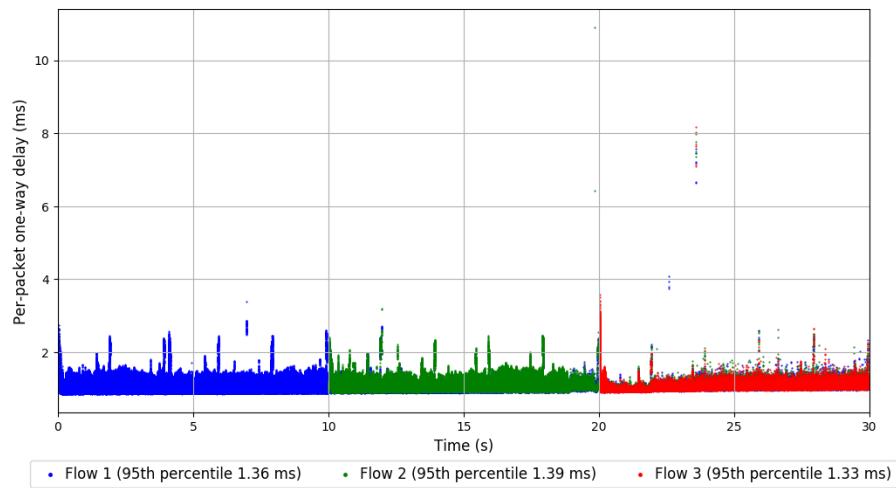
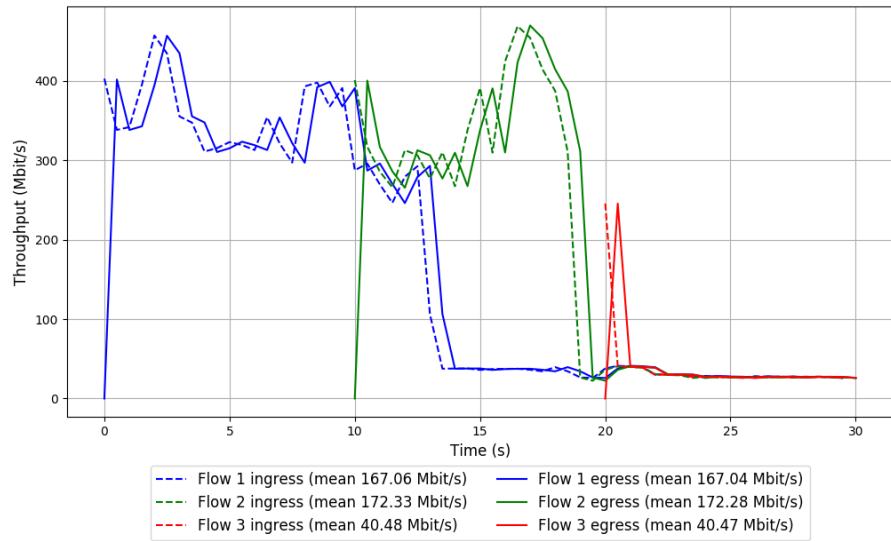


Run 5: Statistics of TCP Vegas

```
Start at: 2019-01-19 02:15:06
End at: 2019-01-19 02:15:36
Local clock offset: 3.611 ms
Remote clock offset: -11.533 ms

# Below is generated by plot.py at 2019-01-19 03:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.24 Mbit/s
95th percentile per-packet one-way delay: 1.370 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 167.04 Mbit/s
95th percentile per-packet one-way delay: 1.363 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 172.28 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 40.47 Mbit/s
95th percentile per-packet one-way delay: 1.328 ms
Loss rate: 0.01%
```

Run 5: Report of TCP Vegas — Data Link

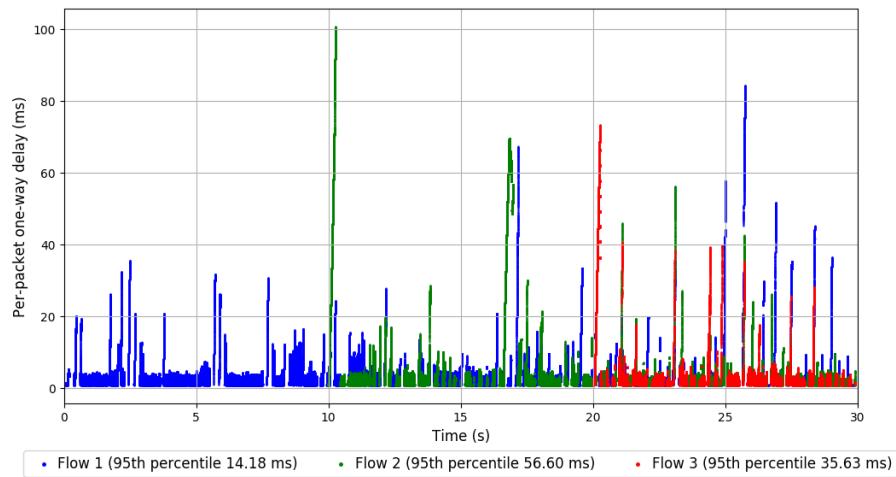
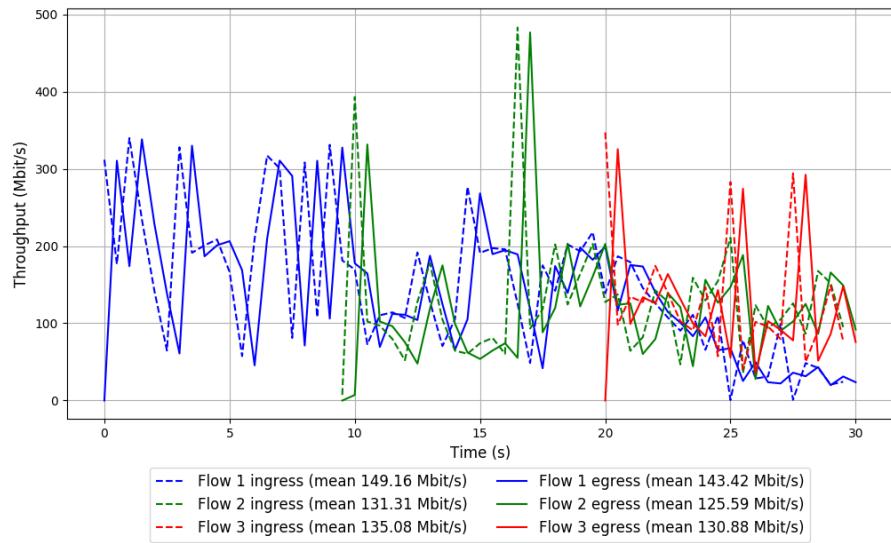


Run 1: Statistics of Verus

```
Start at: 2019-01-19 00:19:48
End at: 2019-01-19 00:20:18
Local clock offset: 0.478 ms
Remote clock offset: 2.841 ms

# Below is generated by plot.py at 2019-01-19 03:24:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 270.49 Mbit/s
95th percentile per-packet one-way delay: 32.187 ms
Loss rate: 3.89%
-- Flow 1:
Average throughput: 143.42 Mbit/s
95th percentile per-packet one-way delay: 14.183 ms
Loss rate: 3.85%
-- Flow 2:
Average throughput: 125.59 Mbit/s
95th percentile per-packet one-way delay: 56.605 ms
Loss rate: 4.35%
-- Flow 3:
Average throughput: 130.88 Mbit/s
95th percentile per-packet one-way delay: 35.627 ms
Loss rate: 3.10%
```

Run 1: Report of Verus — Data Link

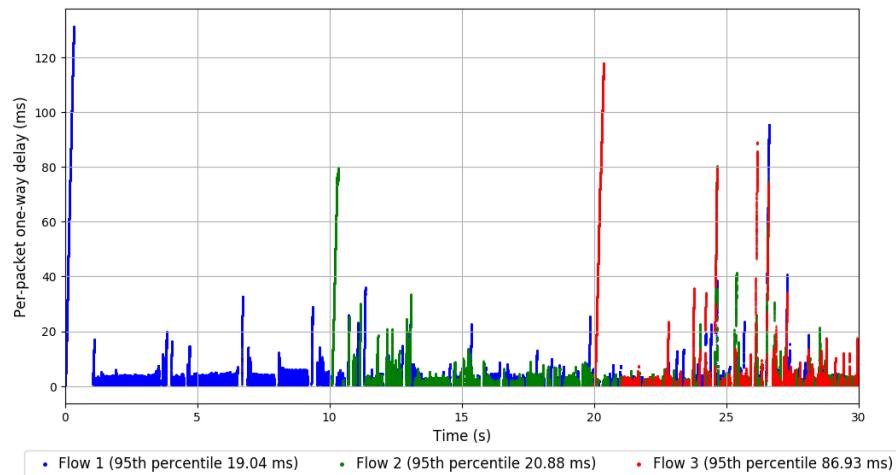
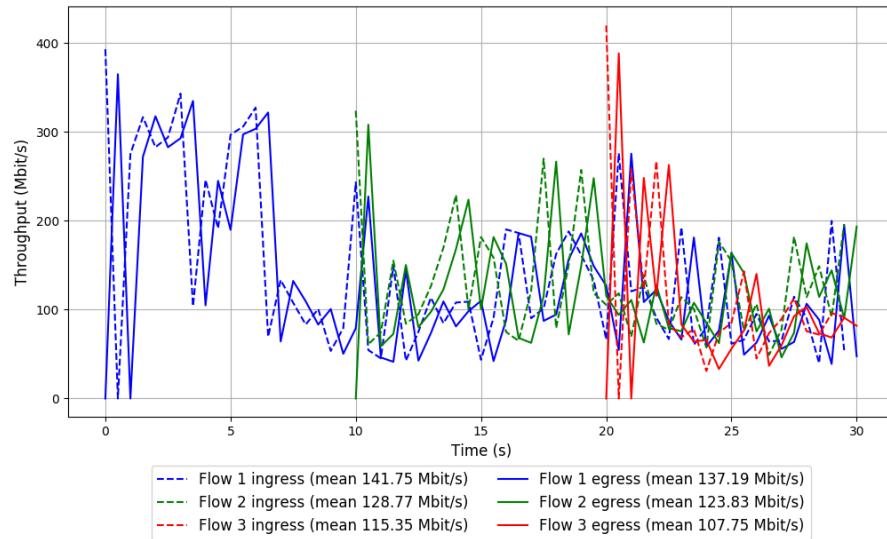


Run 2: Statistics of Verus

```
Start at: 2019-01-19 00:49:25
End at: 2019-01-19 00:49:55
Local clock offset: 4.304 ms
Remote clock offset: 9.171 ms

# Below is generated by plot.py at 2019-01-19 03:24:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.19 Mbit/s
95th percentile per-packet one-way delay: 36.709 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 137.19 Mbit/s
95th percentile per-packet one-way delay: 19.038 ms
Loss rate: 3.21%
-- Flow 2:
Average throughput: 123.83 Mbit/s
95th percentile per-packet one-way delay: 20.878 ms
Loss rate: 3.83%
-- Flow 3:
Average throughput: 107.75 Mbit/s
95th percentile per-packet one-way delay: 86.933 ms
Loss rate: 6.43%
```

Run 2: Report of Verus — Data Link

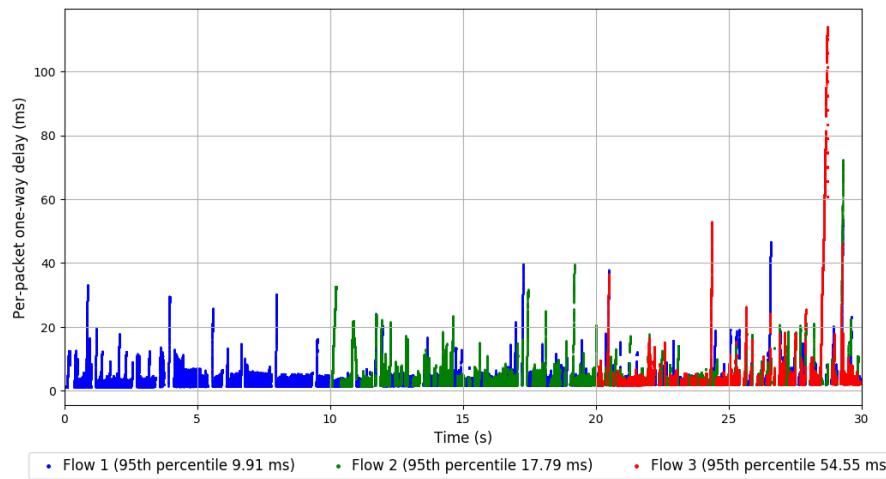
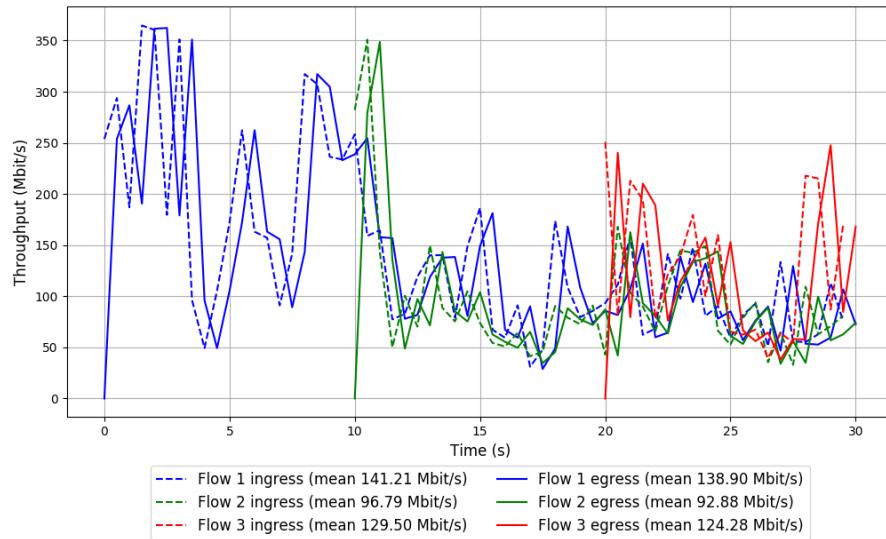


Run 3: Statistics of Verus

```
Start at: 2019-01-19 01:19:02
End at: 2019-01-19 01:19:32
Local clock offset: -0.321 ms
Remote clock offset: 9.552 ms

# Below is generated by plot.py at 2019-01-19 03:24:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.56 Mbit/s
95th percentile per-packet one-way delay: 15.545 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 138.90 Mbit/s
95th percentile per-packet one-way delay: 9.912 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 92.88 Mbit/s
95th percentile per-packet one-way delay: 17.793 ms
Loss rate: 4.00%
-- Flow 3:
Average throughput: 124.28 Mbit/s
95th percentile per-packet one-way delay: 54.545 ms
Loss rate: 4.03%
```

Run 3: Report of Verus — Data Link

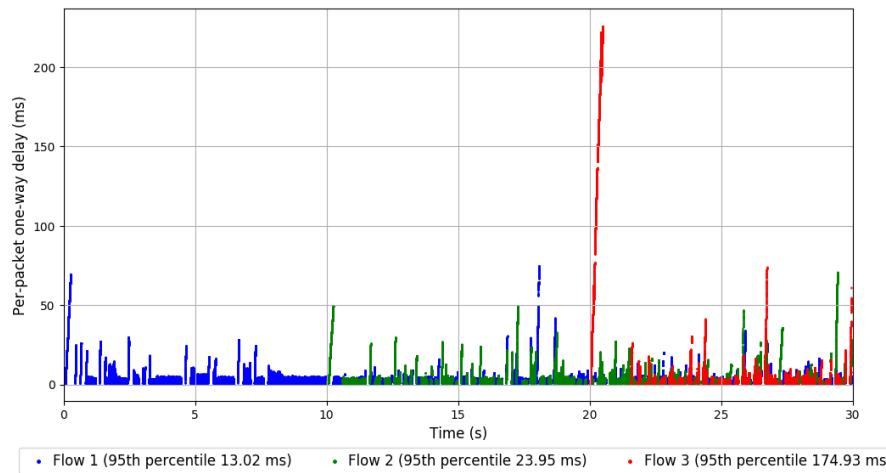
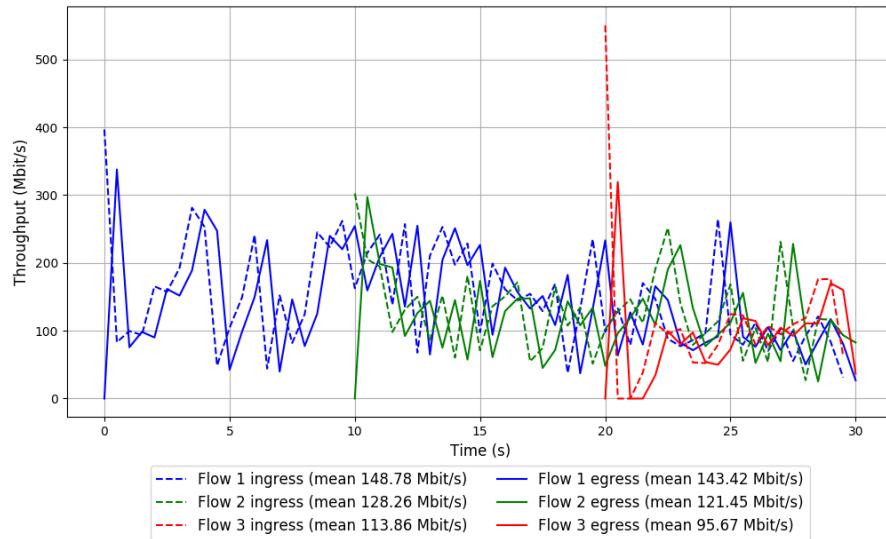


Run 4: Statistics of Verus

```
Start at: 2019-01-19 01:48:37
End at: 2019-01-19 01:49:07
Local clock offset: 3.9 ms
Remote clock offset: -7.305 ms

# Below is generated by plot.py at 2019-01-19 03:24:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.04 Mbit/s
95th percentile per-packet one-way delay: 24.208 ms
Loss rate: 5.74%
-- Flow 1:
Average throughput: 143.42 Mbit/s
95th percentile per-packet one-way delay: 13.017 ms
Loss rate: 3.58%
-- Flow 2:
Average throughput: 121.45 Mbit/s
95th percentile per-packet one-way delay: 23.953 ms
Loss rate: 5.17%
-- Flow 3:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 174.932 ms
Loss rate: 15.56%
```

Run 4: Report of Verus — Data Link

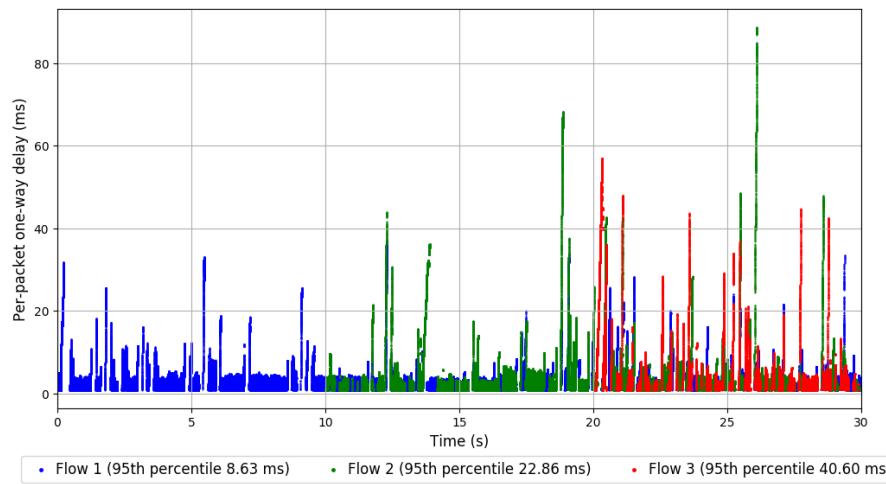
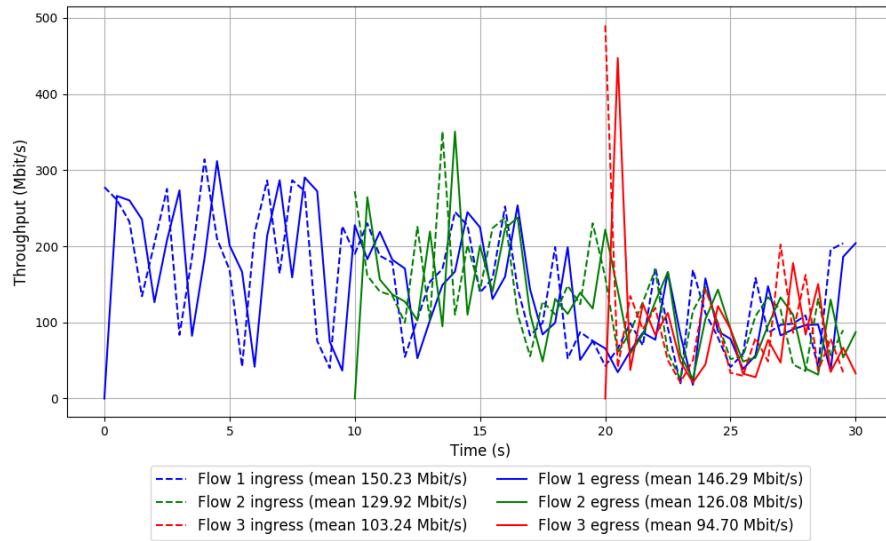


Run 5: Statistics of Verus

```
Start at: 2019-01-19 02:18:06
End at: 2019-01-19 02:18:36
Local clock offset: 3.686 ms
Remote clock offset: -12.016 ms

# Below is generated by plot.py at 2019-01-19 03:25:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 261.33 Mbit/s
95th percentile per-packet one-way delay: 17.362 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 146.29 Mbit/s
95th percentile per-packet one-way delay: 8.630 ms
Loss rate: 2.62%
-- Flow 2:
Average throughput: 126.08 Mbit/s
95th percentile per-packet one-way delay: 22.858 ms
Loss rate: 2.96%
-- Flow 3:
Average throughput: 94.70 Mbit/s
95th percentile per-packet one-way delay: 40.598 ms
Loss rate: 8.25%
```

Run 5: Report of Verus — Data Link

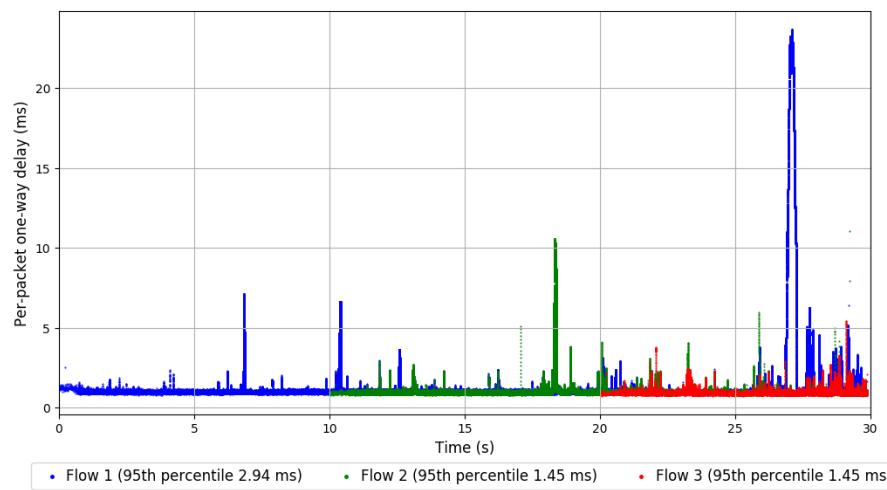
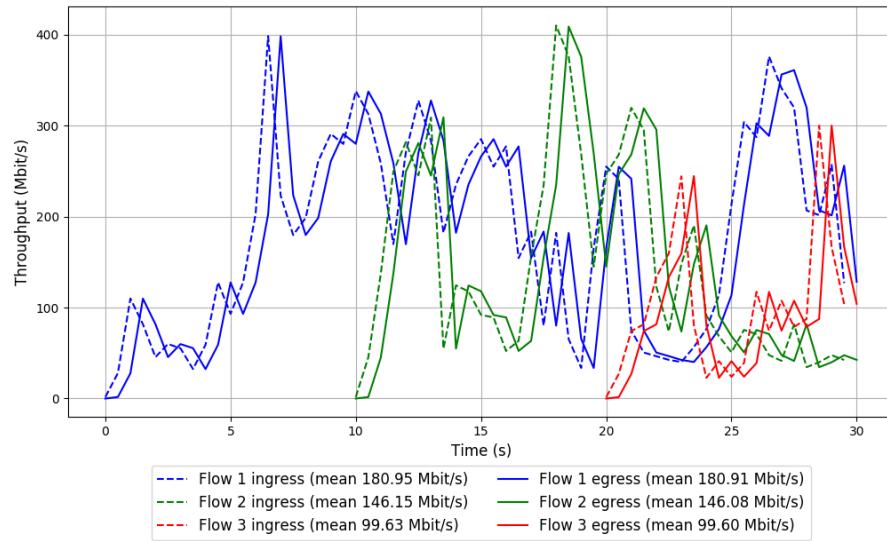


```
Run 1: Statistics of PCC-Vivace

Start at: 2019-01-19 00:32:24
End at: 2019-01-19 00:32:54
Local clock offset: 2.96 ms
Remote clock offset: 6.287 ms

# Below is generated by plot.py at 2019-01-19 03:25:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 310.97 Mbit/s
95th percentile per-packet one-way delay: 2.043 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 180.91 Mbit/s
95th percentile per-packet one-way delay: 2.945 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 146.08 Mbit/s
95th percentile per-packet one-way delay: 1.445 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 99.60 Mbit/s
95th percentile per-packet one-way delay: 1.451 ms
Loss rate: 0.01%
```

Run 1: Report of PCC-Vivace — Data Link

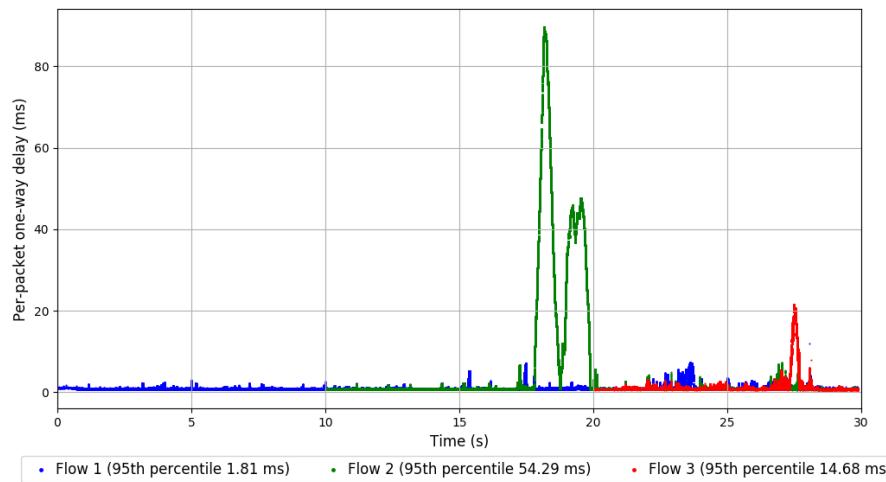
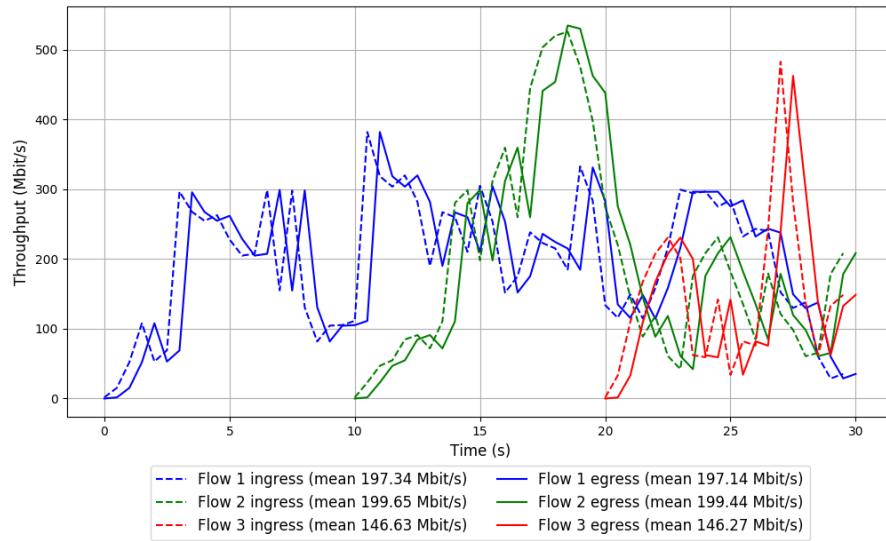


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-01-19 01:01:53
End at: 2019-01-19 01:02:23
Local clock offset: 0.784 ms
Remote clock offset: 11.015 ms

# Below is generated by plot.py at 2019-01-19 03:26:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 378.04 Mbit/s
95th percentile per-packet one-way delay: 37.043 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 197.14 Mbit/s
95th percentile per-packet one-way delay: 1.812 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 199.44 Mbit/s
95th percentile per-packet one-way delay: 54.289 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 146.27 Mbit/s
95th percentile per-packet one-way delay: 14.684 ms
Loss rate: 0.25%
```

Run 2: Report of PCC-Vivace — Data Link

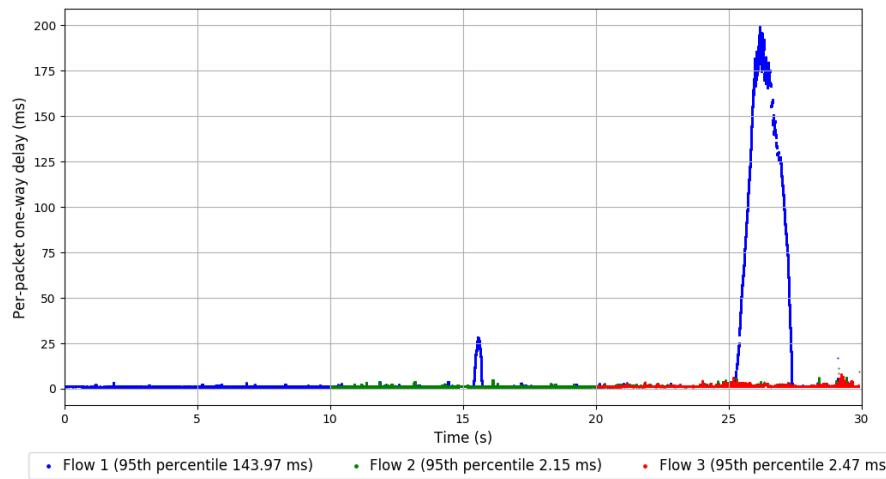
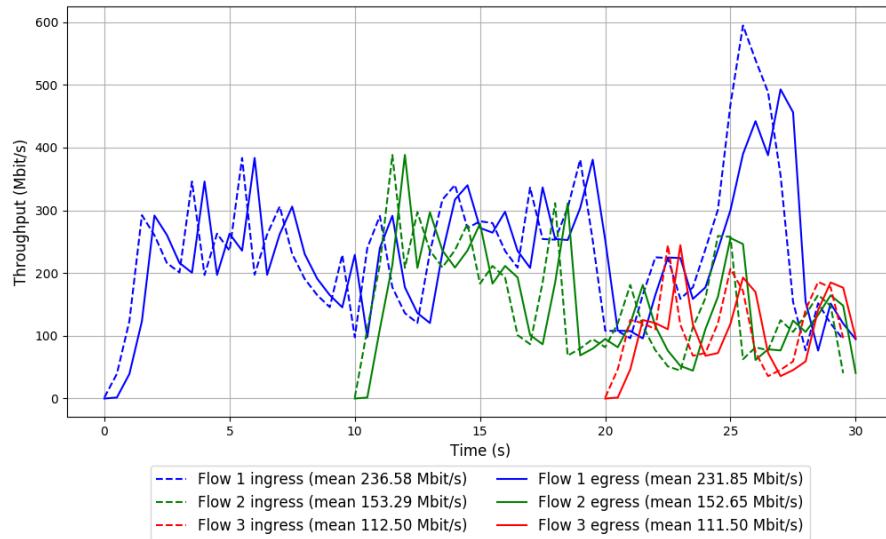


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-01-19 01:31:28
End at: 2019-01-19 01:31:58
Local clock offset: 2.538 ms
Remote clock offset: -2.32 ms

# Below is generated by plot.py at 2019-01-19 03:26:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.14 Mbit/s
95th percentile per-packet one-way delay: 110.979 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 231.85 Mbit/s
95th percentile per-packet one-way delay: 143.967 ms
Loss rate: 2.00%
-- Flow 2:
Average throughput: 152.65 Mbit/s
95th percentile per-packet one-way delay: 2.150 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 111.50 Mbit/s
95th percentile per-packet one-way delay: 2.472 ms
Loss rate: 0.88%
```

Run 3: Report of PCC-Vivace — Data Link

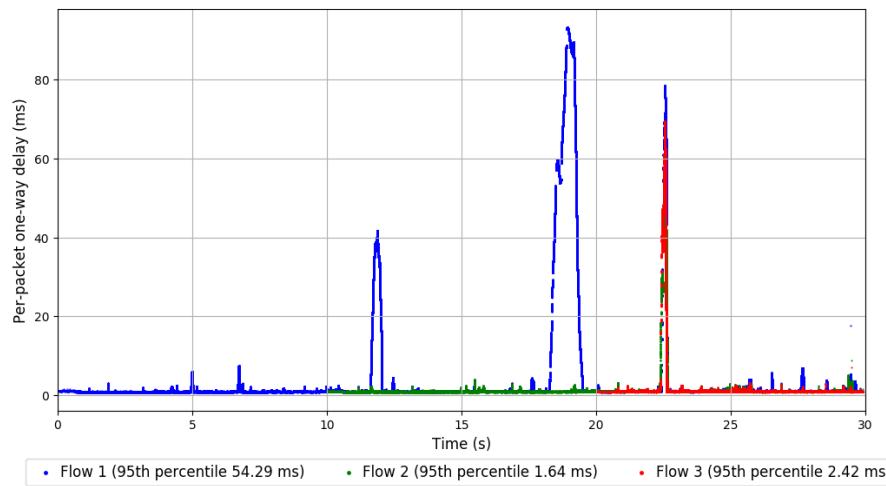
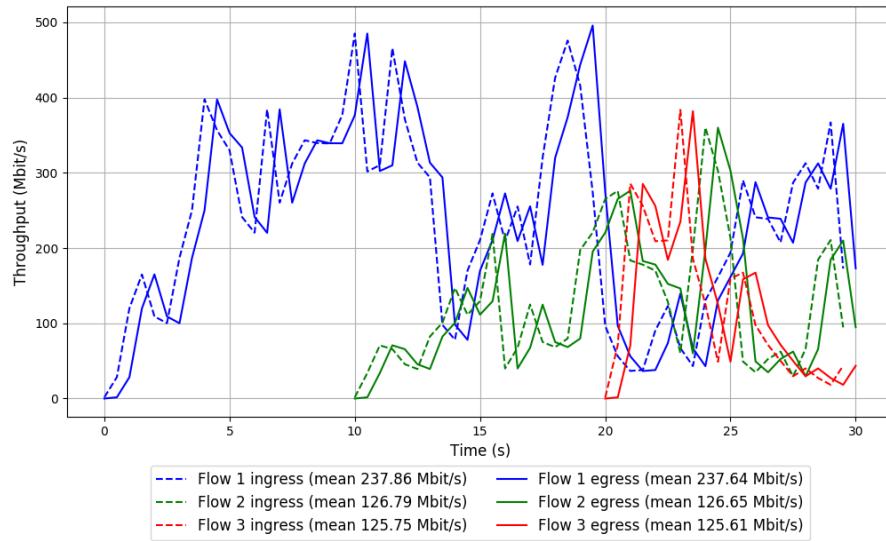


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-01-19 02:01:09
End at: 2019-01-19 02:01:39
Local clock offset: 3.449 ms
Remote clock offset: -9.485 ms

# Below is generated by plot.py at 2019-01-19 03:26:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 363.33 Mbit/s
95th percentile per-packet one-way delay: 37.059 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 237.64 Mbit/s
95th percentile per-packet one-way delay: 54.286 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 126.65 Mbit/s
95th percentile per-packet one-way delay: 1.636 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 125.61 Mbit/s
95th percentile per-packet one-way delay: 2.418 ms
Loss rate: 0.12%
```

Run 4: Report of PCC-Vivace — Data Link

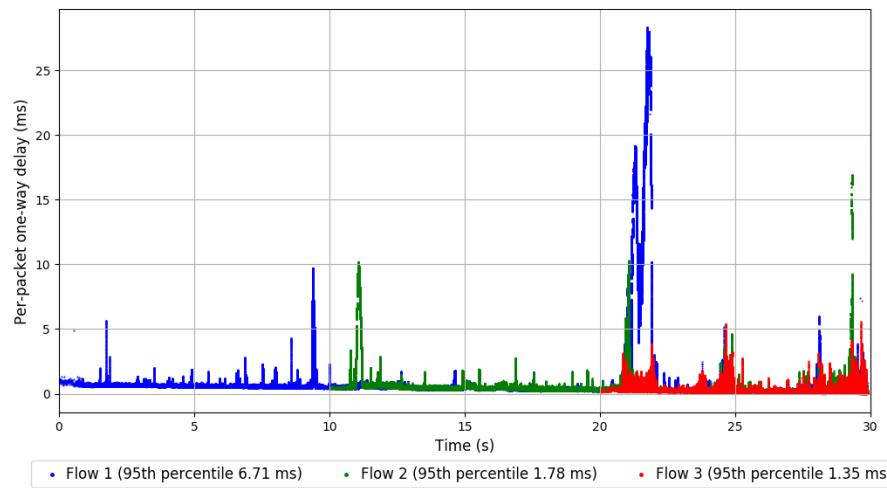
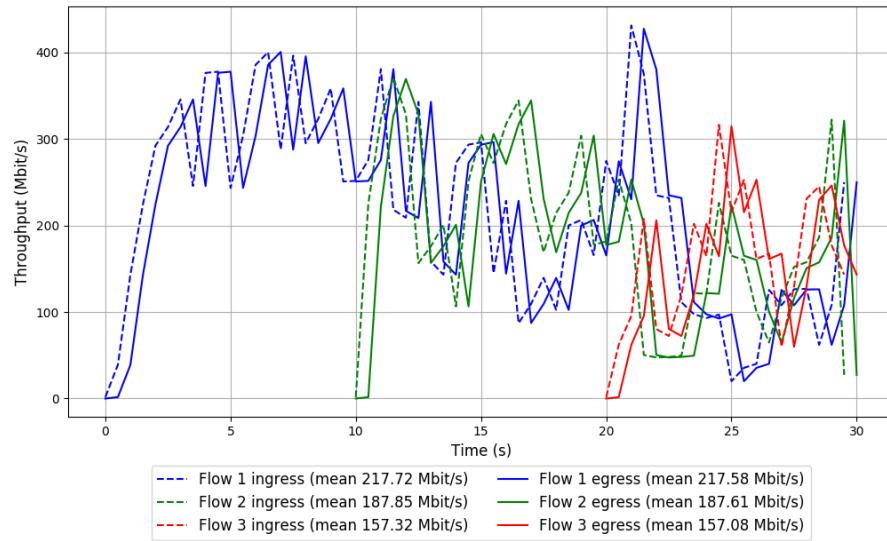


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-01-19 02:30:53
End at: 2019-01-19 02:31:23
Local clock offset: 0.627 ms
Remote clock offset: -4.666 ms

# Below is generated by plot.py at 2019-01-19 03:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.21 Mbit/s
95th percentile per-packet one-way delay: 2.379 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 217.58 Mbit/s
95th percentile per-packet one-way delay: 6.715 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 187.61 Mbit/s
95th percentile per-packet one-way delay: 1.785 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 157.08 Mbit/s
95th percentile per-packet one-way delay: 1.348 ms
Loss rate: 0.15%
```

Run 5: Report of PCC-Vivace — Data Link

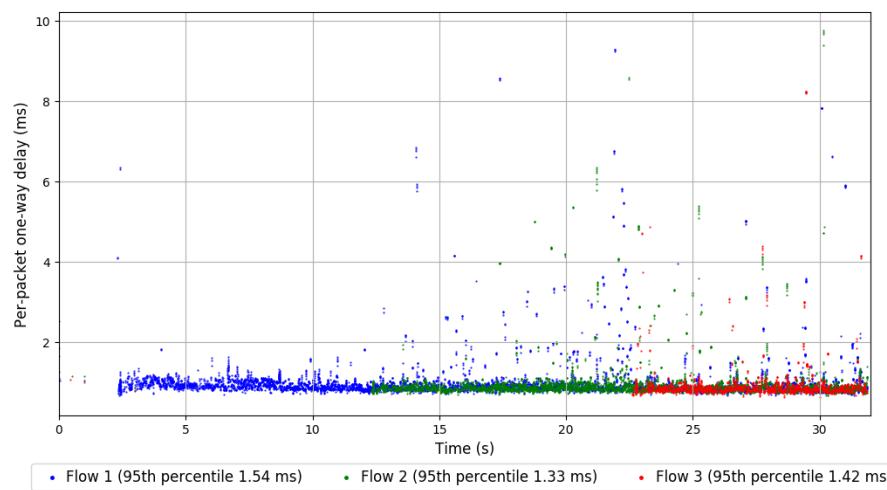
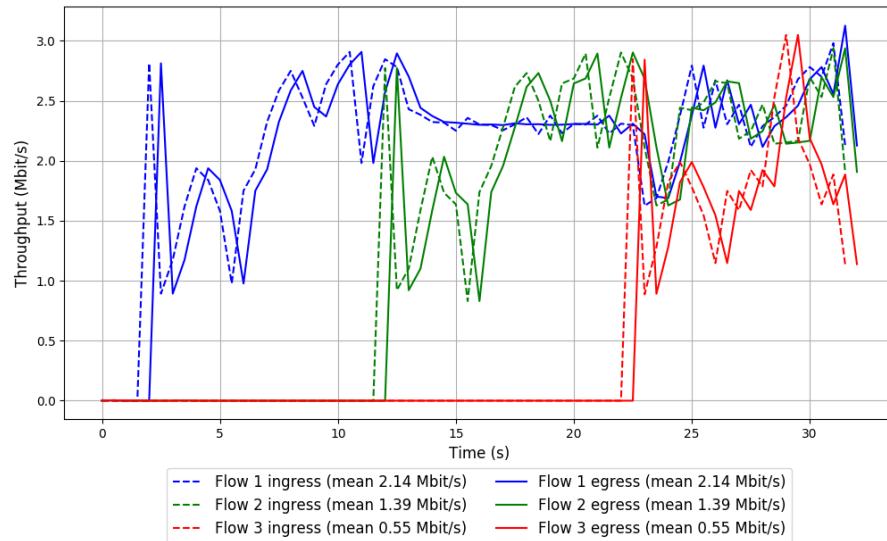


```
Run 1: Statistics of WebRTC media

Start at: 2019-01-19 00:28:14
End at: 2019-01-19 00:28:44
Local clock offset: 2.407 ms
Remote clock offset: 5.262 ms

# Below is generated by plot.py at 2019-01-19 03:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.08 Mbit/s
95th percentile per-packet one-way delay: 1.447 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 1.537 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 1.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 1.420 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

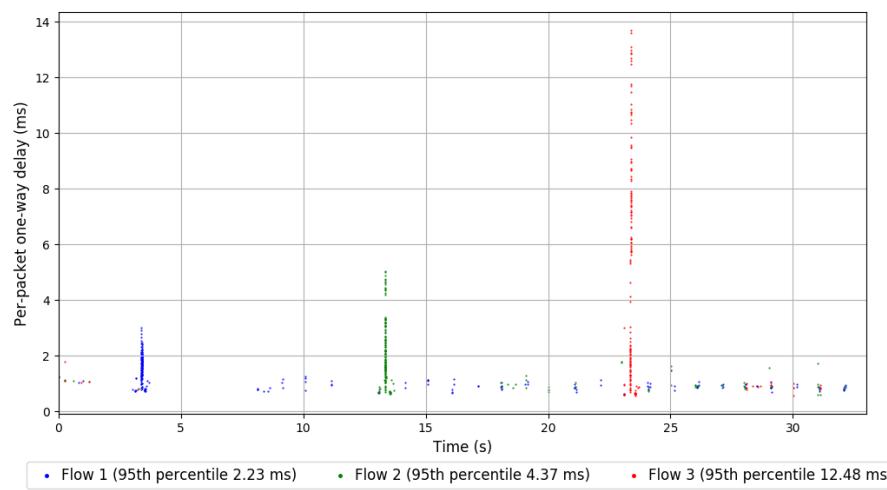
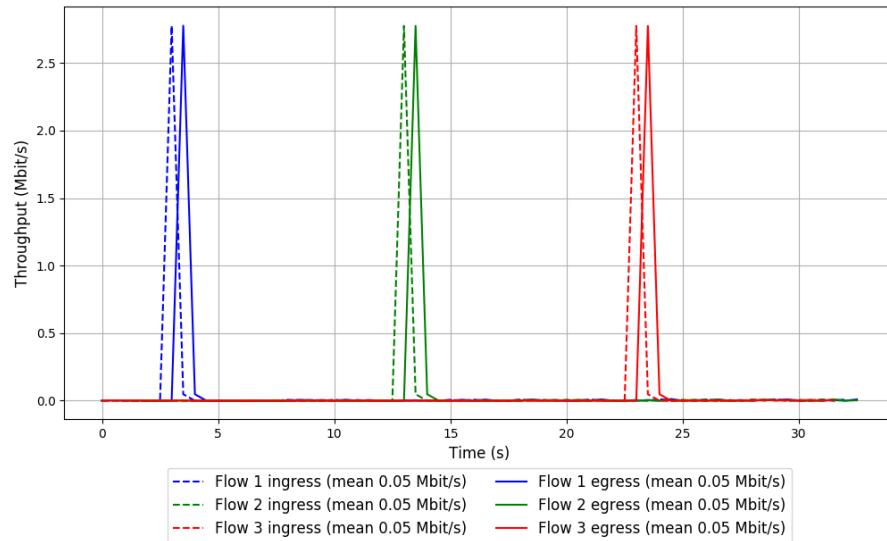


Run 2: Statistics of WebRTC media

```
Start at: 2019-01-19 00:57:52
End at: 2019-01-19 00:58:22
Local clock offset: 1.445 ms
Remote clock offset: 10.517 ms

# Below is generated by plot.py at 2019-01-19 03:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 8.442 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.230 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.366 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.479 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

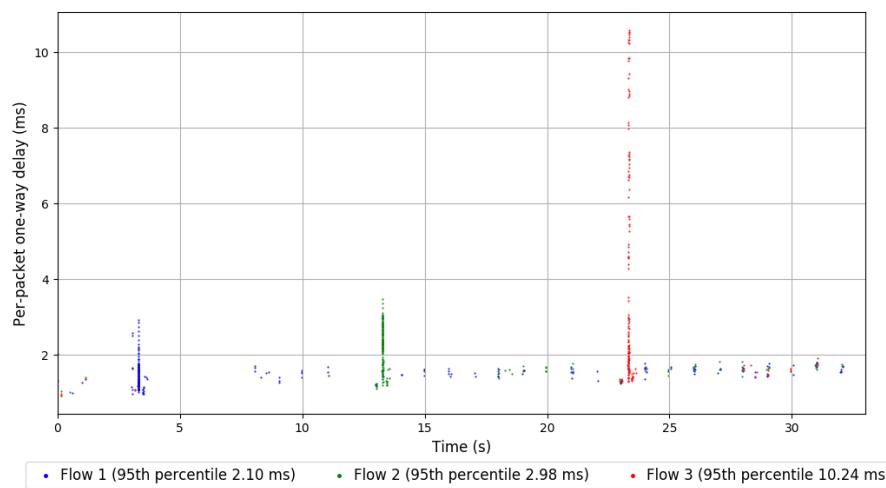
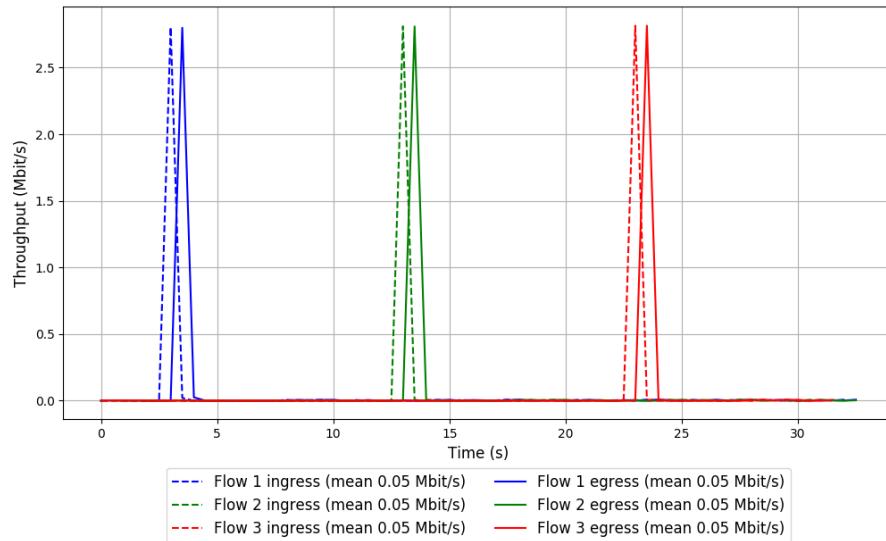


```
Run 3: Statistics of WebRTC media

Start at: 2019-01-19 01:27:29
End at: 2019-01-19 01:27:59
Local clock offset: 1.937 ms
Remote clock offset: 0.222 ms

# Below is generated by plot.py at 2019-01-19 03:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 6.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.981 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 10.236 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

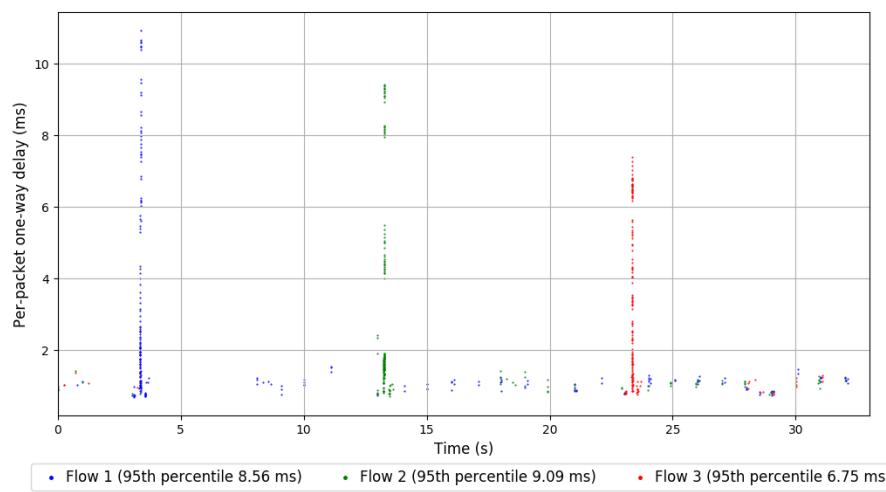
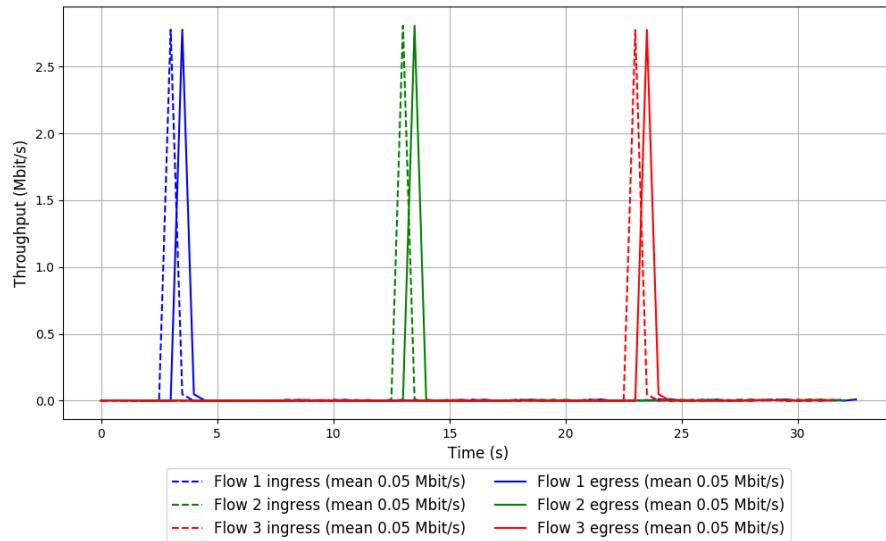


Run 4: Statistics of WebRTC media

```
Start at: 2019-01-19 01:57:01
End at: 2019-01-19 01:57:31
Local clock offset: 3.499 ms
Remote clock offset: -8.837 ms

# Below is generated by plot.py at 2019-01-19 03:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 8.200 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 8.563 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 9.090 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.750 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



```
Run 5: Statistics of WebRTC media

Start at: 2019-01-19 02:26:41
End at: 2019-01-19 02:27:11
Local clock offset: 1.441 ms
Remote clock offset: -10.682 ms

# Below is generated by plot.py at 2019-01-19 03:26:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.093 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.747 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.524 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

