

Pantheon Report

Generated at 2019-04-24 03:38:16 (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:

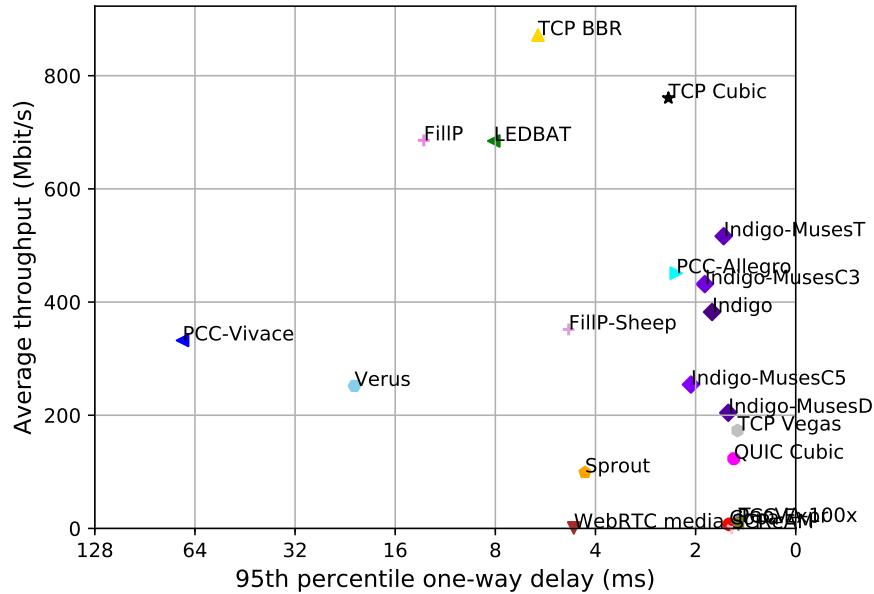
```
Linux 4.15.0-1034-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

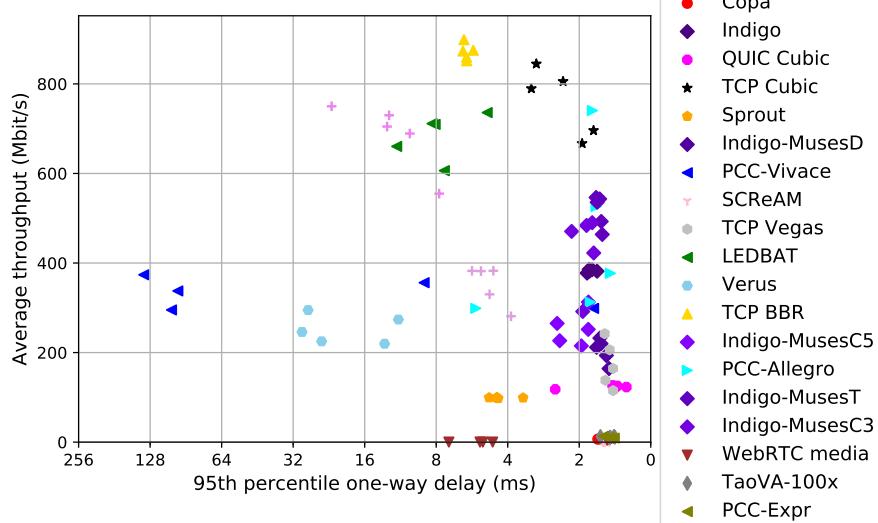
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fce56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

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

test from AWS 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



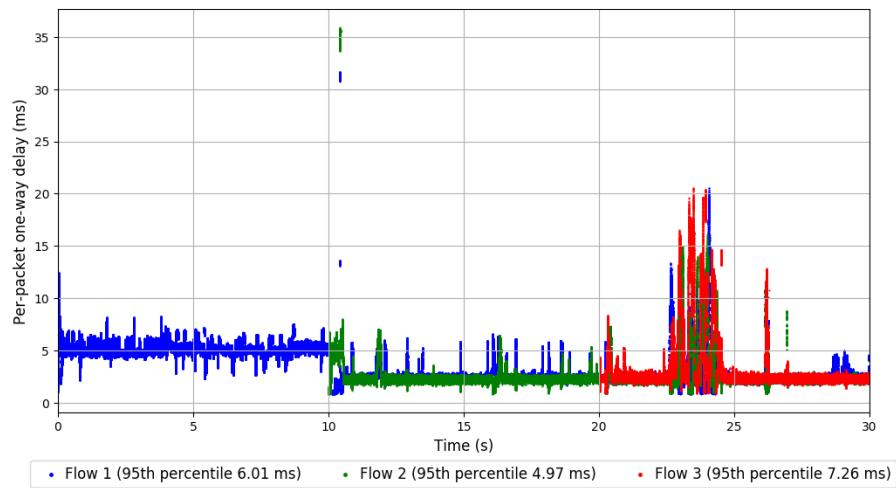
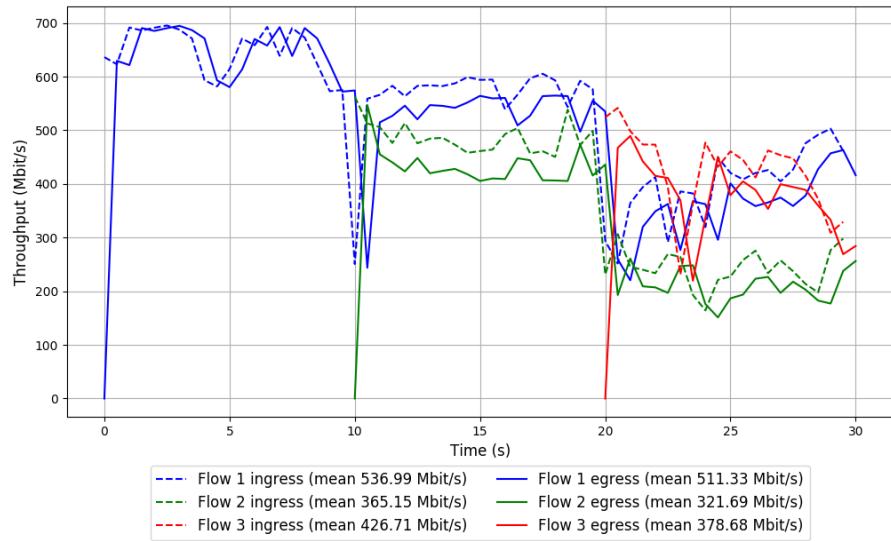
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	505.87	380.84	345.95	5.88	5.99	4.82	4.43	9.92	11.42
Copa	5	0.00	8.27	7.61	1.19	1.41	1.25	98.03	48.66	57.62
TCP Cubic	5	423.55	355.28	301.69	2.56	1.93	1.96	0.06	0.07	0.08
FillP	5	479.91	245.80	128.07	13.86	8.39	8.58	8.17	16.04	7.41
FillP-Sheep	5	295.97	68.85	30.22	5.25	2.01	2.35	2.69	2.58	5.58
Indigo	5	198.34	188.41	182.34	1.51	1.63	2.04	0.03	0.04	0.06
Indigo-MusesC3	5	215.36	236.30	211.82	1.74	1.80	1.96	0.05	0.06	0.08
Indigo-MusesC5	5	105.29	128.61	215.25	1.48	2.48	1.89	0.06	0.14	0.07
Indigo-MusesD	5	114.62	92.05	99.11	1.36	1.24	1.45	0.03	0.02	0.04
Indigo-MusesT	5	279.53	271.05	205.82	1.37	1.43	1.70	0.02	0.03	0.04
LEDBAT	5	411.85	299.58	246.49	8.72	6.39	4.78	0.14	0.25	0.34
PCC-Allegro	5	150.53	317.61	270.55	1.46	1.58	2.55	0.12	0.14	0.21
PCC-Expr	5	5.84	6.05	5.73	1.18	1.13	1.11	57.37	48.71	58.08
QUIC Cubic	5	65.92	60.87	51.37	0.96	1.53	3.48	0.02	0.01	0.01
SCReAM	5	0.21	0.22	0.22	1.28	1.26	1.29	0.03	0.00	0.00
Sprout	5	49.69	49.56	49.38	4.32	4.30	4.18	0.43	0.44	0.44
TaoVA-100x	5	4.83	8.63	2.67	1.19	1.11	1.03	64.25	77.09	95.64
TCP Vegas	5	88.19	64.82	125.38	1.18	1.11	1.15	0.02	0.02	0.02
Verus	5	136.52	109.27	129.88	18.18	21.08	38.57	2.73	4.97	4.11
PCC-Vivace	5	178.17	167.99	128.28	37.79	74.27	2.09	0.11	0.88	0.15
WebRTC media	5	0.47	0.33	0.16	4.86	3.41	3.53	0.00	0.01	0.02

Run 1: Statistics of TCP BBR

```
Start at: 2019-04-24 00:26:12
End at: 2019-04-24 00:26:42
Local clock offset: 2.734 ms
Remote clock offset: 2.043 ms

# Below is generated by plot.py at 2019-04-24 02:56:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 851.63 Mbit/s
95th percentile per-packet one-way delay: 5.956 ms
Loss rate: 7.65%
-- Flow 1:
Average throughput: 511.33 Mbit/s
95th percentile per-packet one-way delay: 6.006 ms
Loss rate: 4.77%
-- Flow 2:
Average throughput: 321.69 Mbit/s
95th percentile per-packet one-way delay: 4.967 ms
Loss rate: 11.90%
-- Flow 3:
Average throughput: 378.68 Mbit/s
95th percentile per-packet one-way delay: 7.264 ms
Loss rate: 11.26%
```

Run 1: Report of TCP BBR — Data Link

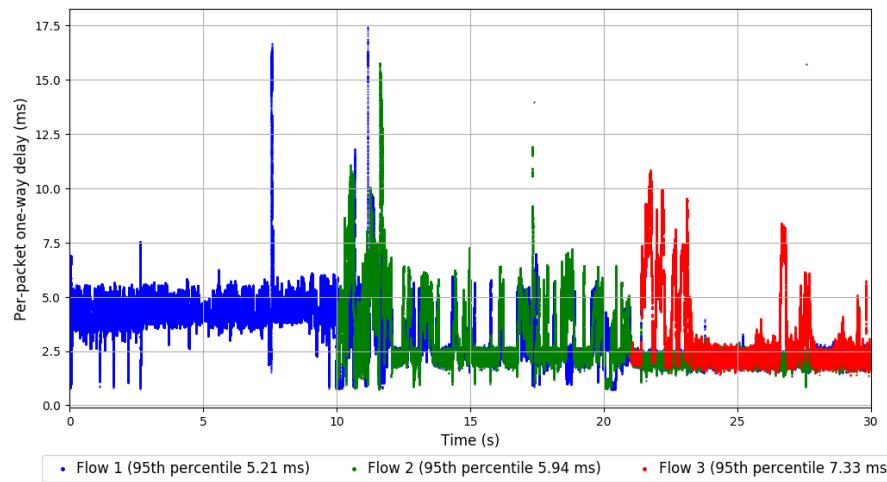
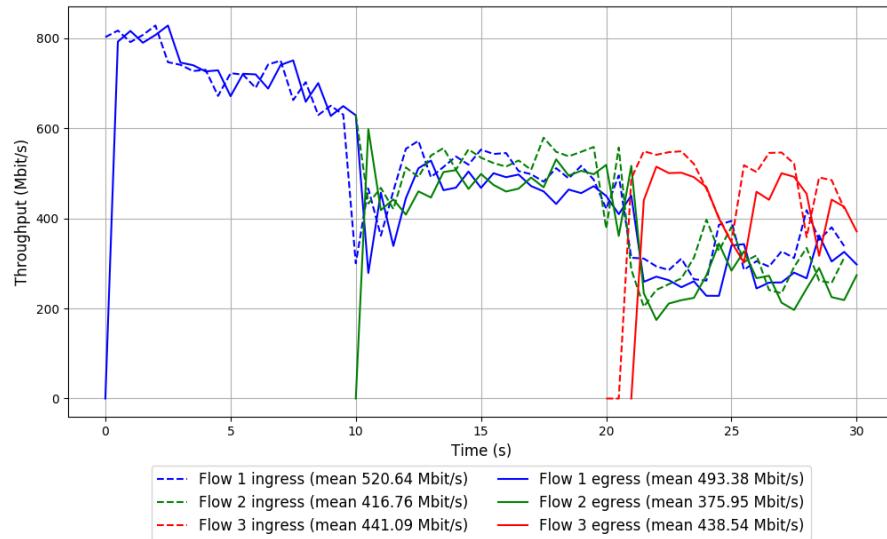


Run 2: Statistics of TCP BBR

```
Start at: 2019-04-24 00:55:54
End at: 2019-04-24 00:56:24
Local clock offset: 1.419 ms
Remote clock offset: 2.038 ms

# Below is generated by plot.py at 2019-04-24 02:56:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.20 Mbit/s
95th percentile per-packet one-way delay: 5.585 ms
Loss rate: 7.40%
-- Flow 1:
Average throughput: 493.38 Mbit/s
95th percentile per-packet one-way delay: 5.211 ms
Loss rate: 5.23%
-- Flow 2:
Average throughput: 375.95 Mbit/s
95th percentile per-packet one-way delay: 5.937 ms
Loss rate: 9.79%
-- Flow 3:
Average throughput: 438.54 Mbit/s
95th percentile per-packet one-way delay: 7.331 ms
Loss rate: 10.59%
```

Run 2: Report of TCP BBR — Data Link

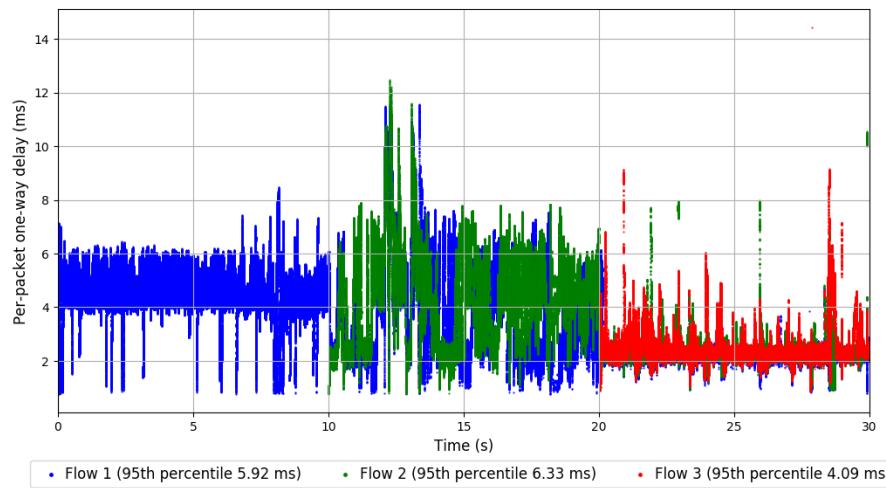
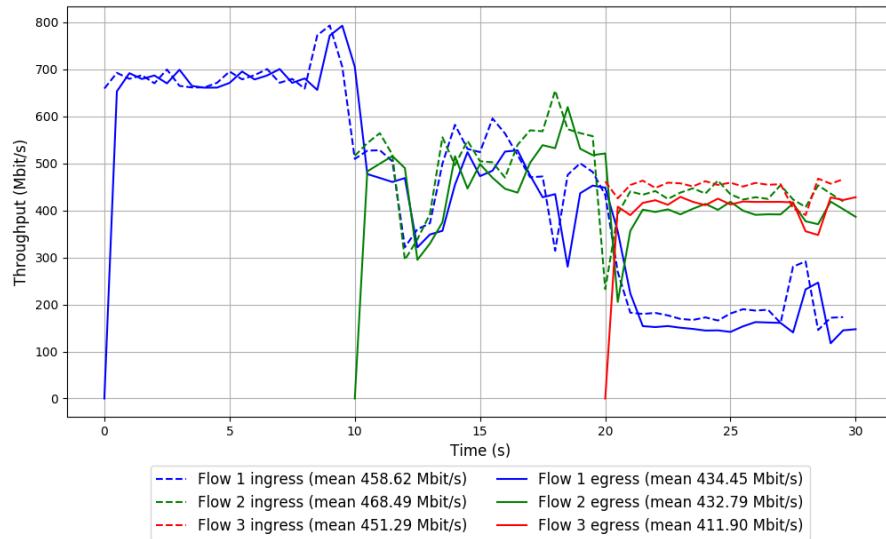


Run 3: Statistics of TCP BBR

```
Start at: 2019-04-24 01:25:52
End at: 2019-04-24 01:26:22
Local clock offset: 0.232 ms
Remote clock offset: 1.844 ms

# Below is generated by plot.py at 2019-04-24 02:56:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 859.74 Mbit/s
95th percentile per-packet one-way delay: 5.961 ms
Loss rate: 6.63%
-- Flow 1:
Average throughput: 434.45 Mbit/s
95th percentile per-packet one-way delay: 5.919 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 432.79 Mbit/s
95th percentile per-packet one-way delay: 6.328 ms
Loss rate: 7.61%
-- Flow 3:
Average throughput: 411.90 Mbit/s
95th percentile per-packet one-way delay: 4.090 ms
Loss rate: 8.73%
```

Run 3: Report of TCP BBR — Data Link

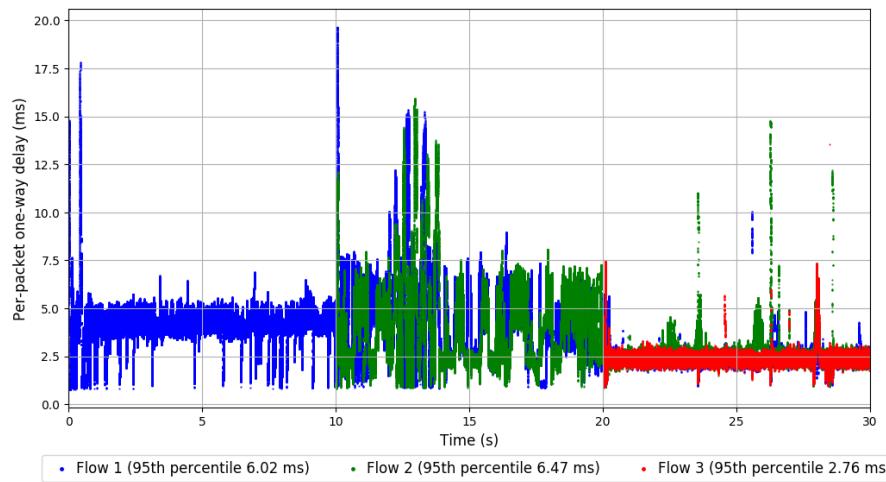
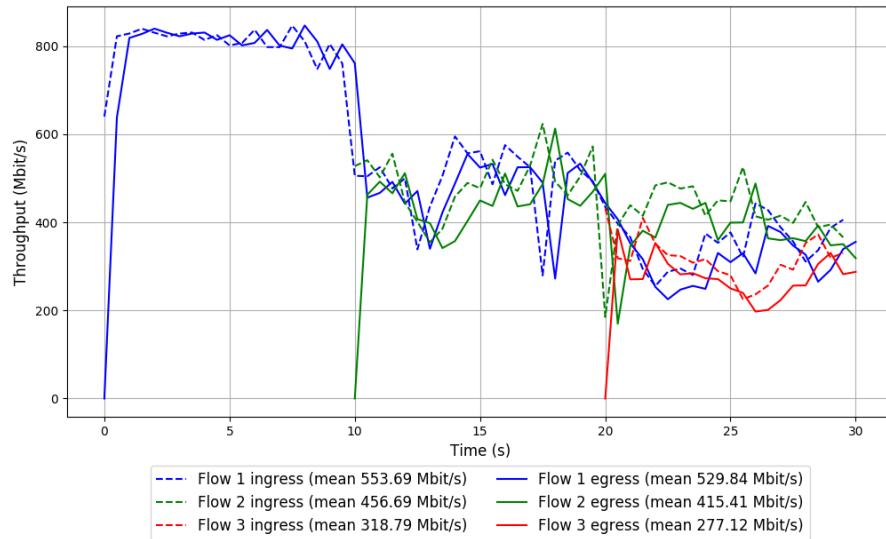


Run 4: Statistics of TCP BBR

```
Start at: 2019-04-24 01:55:52
End at: 2019-04-24 01:56:22
Local clock offset: 0.274 ms
Remote clock offset: 0.987 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 898.72 Mbit/s
95th percentile per-packet one-way delay: 6.112 ms
Loss rate: 6.76%
-- Flow 1:
Average throughput: 529.84 Mbit/s
95th percentile per-packet one-way delay: 6.016 ms
Loss rate: 4.30%
-- Flow 2:
Average throughput: 415.41 Mbit/s
95th percentile per-packet one-way delay: 6.467 ms
Loss rate: 9.03%
-- Flow 3:
Average throughput: 277.12 Mbit/s
95th percentile per-packet one-way delay: 2.763 ms
Loss rate: 13.06%
```

Run 4: Report of TCP BBR — Data Link

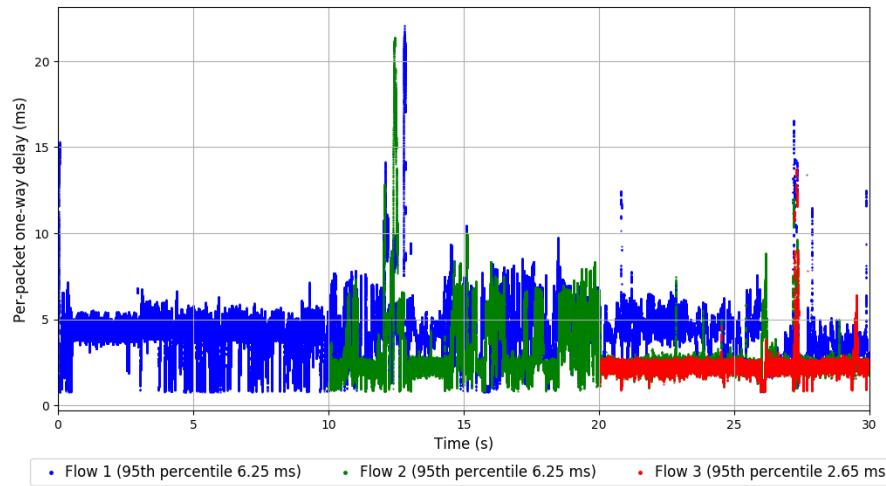
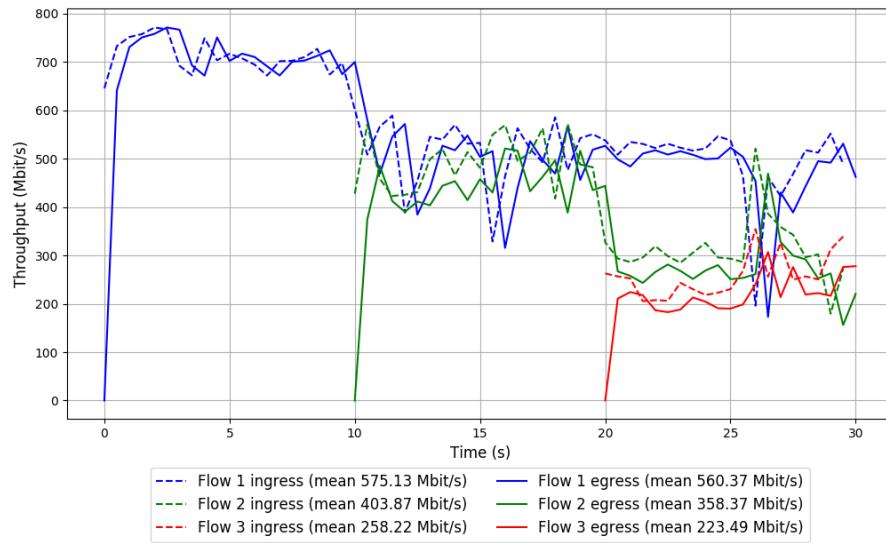


Run 5: Statistics of TCP BBR

```
Start at: 2019-04-24 02:25:52
End at: 2019-04-24 02:26:22
Local clock offset: 0.418 ms
Remote clock offset: -2.109 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 873.44 Mbit/s
95th percentile per-packet one-way delay: 6.170 ms
Loss rate: 6.08%
-- Flow 1:
Average throughput: 560.37 Mbit/s
95th percentile per-packet one-way delay: 6.254 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 358.37 Mbit/s
95th percentile per-packet one-way delay: 6.246 ms
Loss rate: 11.26%
-- Flow 3:
Average throughput: 223.49 Mbit/s
95th percentile per-packet one-way delay: 2.649 ms
Loss rate: 13.45%
```

Run 5: Report of TCP BBR — Data Link

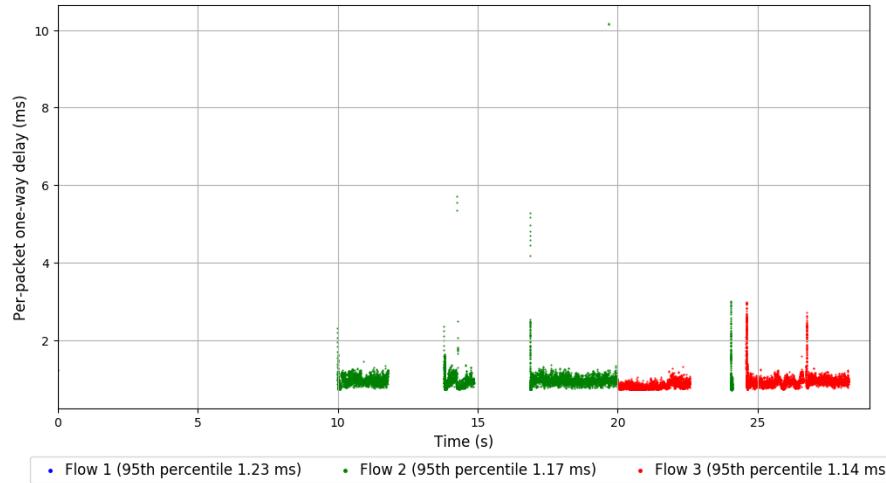
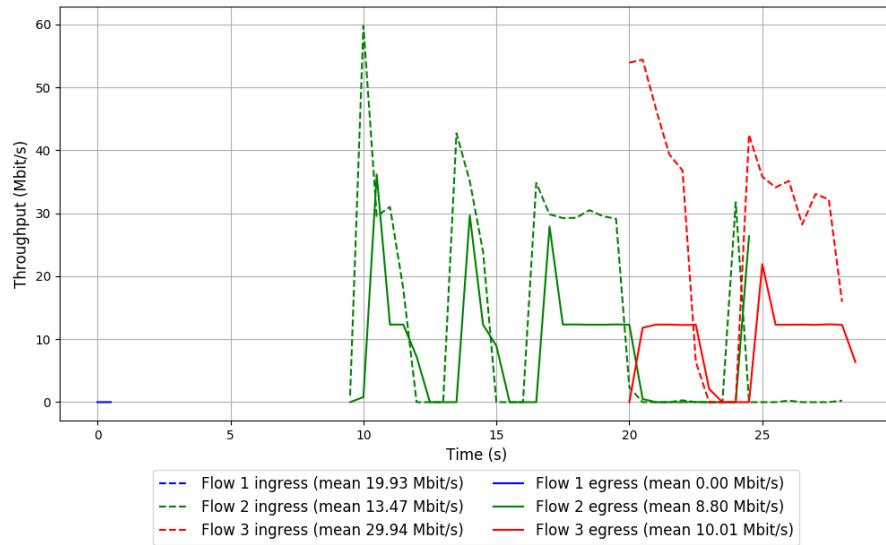


Run 1: Statistics of Copa

```
Start at: 2019-04-24 00:12:44
End at: 2019-04-24 00:13:14
Local clock offset: 0.03 ms
Remote clock offset: 1.936 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.32 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 57.91%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.233 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 49.12%
-- Flow 3:
Average throughput: 10.01 Mbit/s
95th percentile per-packet one-way delay: 1.136 ms
Loss rate: 66.58%
```

Run 1: Report of Copa — Data Link

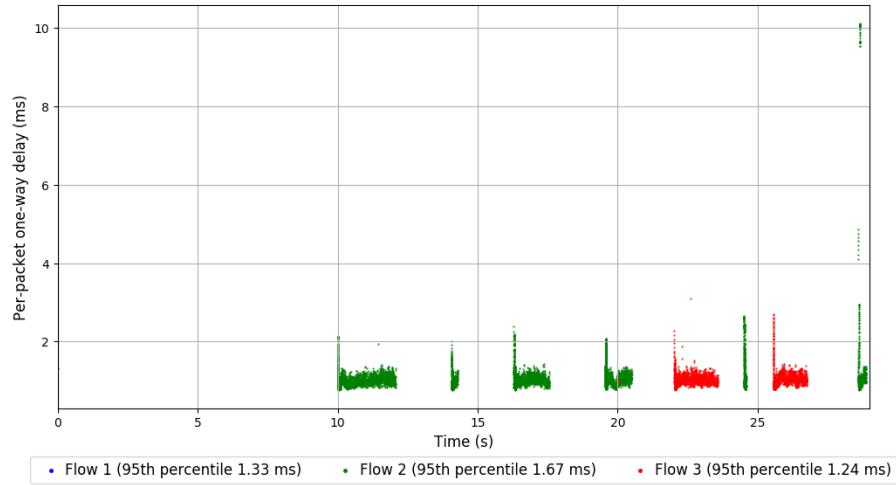
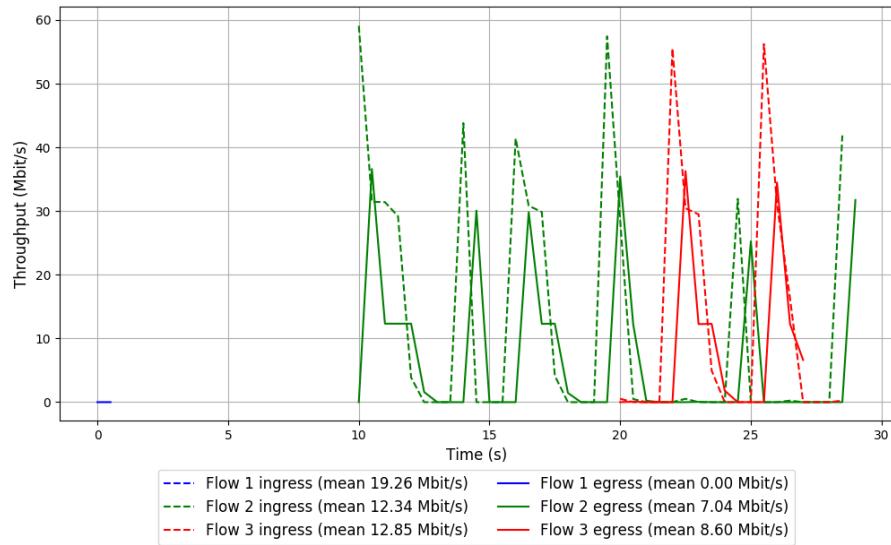


Run 2: Statistics of Copa

```
Start at: 2019-04-24 00:42:27
End at: 2019-04-24 00:42:57
Local clock offset: 4.268 ms
Remote clock offset: 2.477 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 1.480 ms
Loss rate: 44.71%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.328 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 7.04 Mbit/s
95th percentile per-packet one-way delay: 1.670 ms
Loss rate: 42.94%
-- Flow 3:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 1.239 ms
Loss rate: 48.37%
```

Run 2: Report of Copa — Data Link

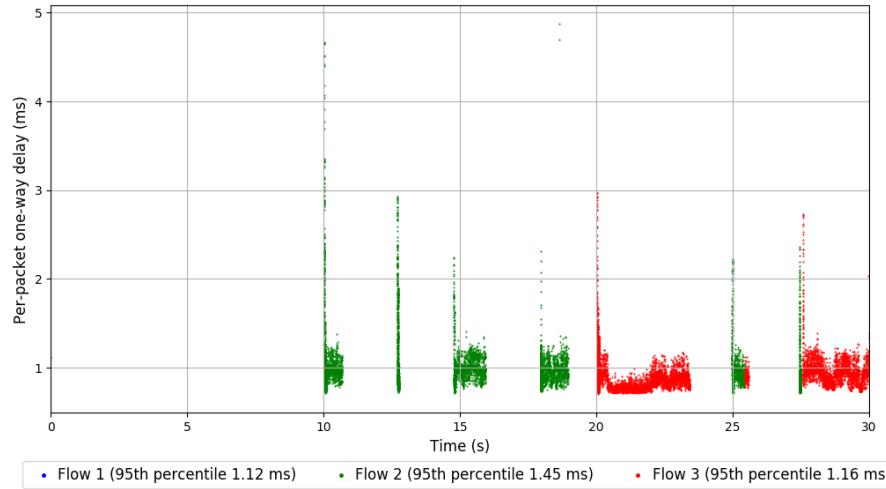
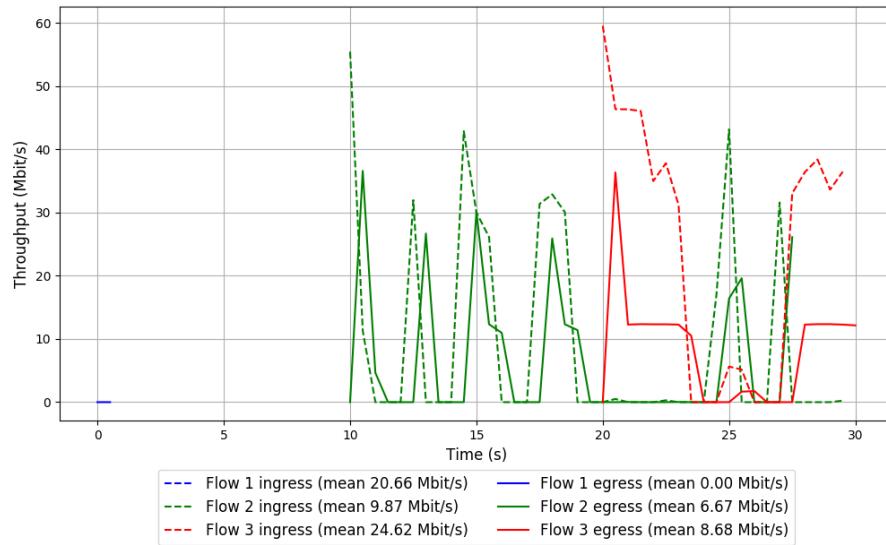


Run 3: Statistics of Copa

```
Start at: 2019-04-24 01:12:14
End at: 2019-04-24 01:12:44
Local clock offset: 0.184 ms
Remote clock offset: 1.916 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 1.262 ms
Loss rate: 53.62%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 6.67 Mbit/s
95th percentile per-packet one-way delay: 1.453 ms
Loss rate: 39.42%
-- Flow 3:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 1.162 ms
Loss rate: 64.74%
```

Run 3: Report of Copa — Data Link

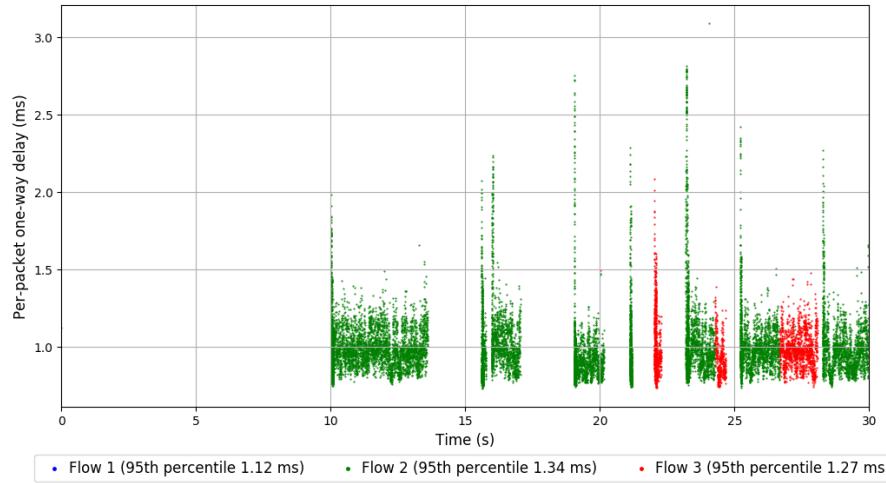
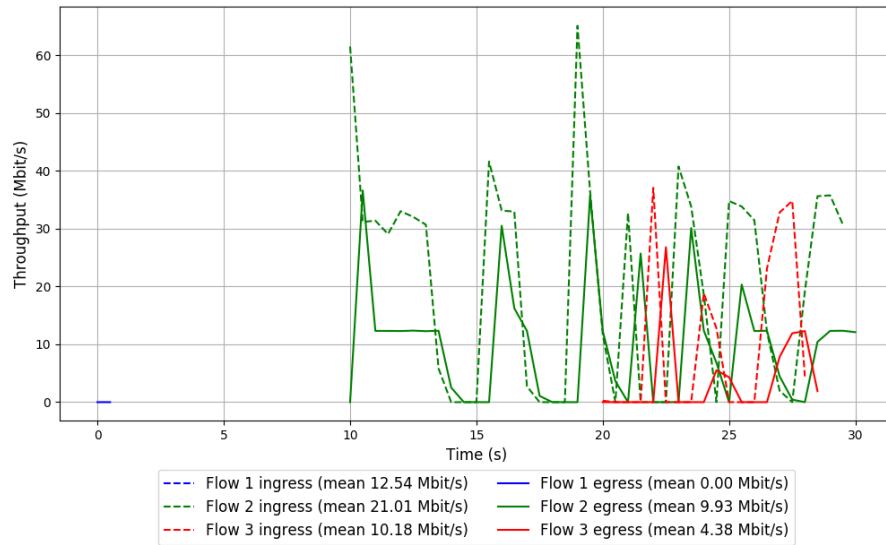


Run 4: Statistics of Copa

```
Start at: 2019-04-24 01:42:17
End at: 2019-04-24 01:42:47
Local clock offset: 0.101 ms
Remote clock offset: 1.793 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.79 Mbit/s
95th percentile per-packet one-way delay: 1.321 ms
Loss rate: 53.42%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.123 ms
Loss rate: 97.24%
-- Flow 2:
Average throughput: 9.93 Mbit/s
95th percentile per-packet one-way delay: 1.336 ms
Loss rate: 52.71%
-- Flow 3:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 1.273 ms
Loss rate: 57.00%
```

Run 4: Report of Copa — Data Link

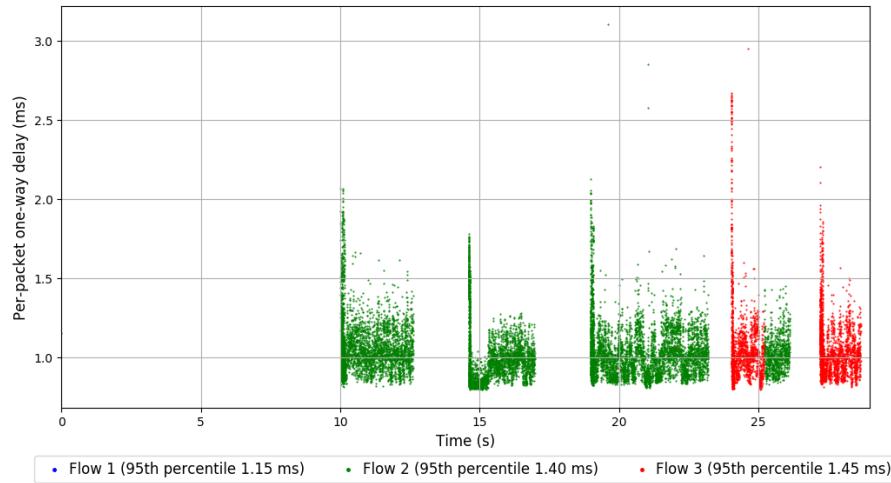
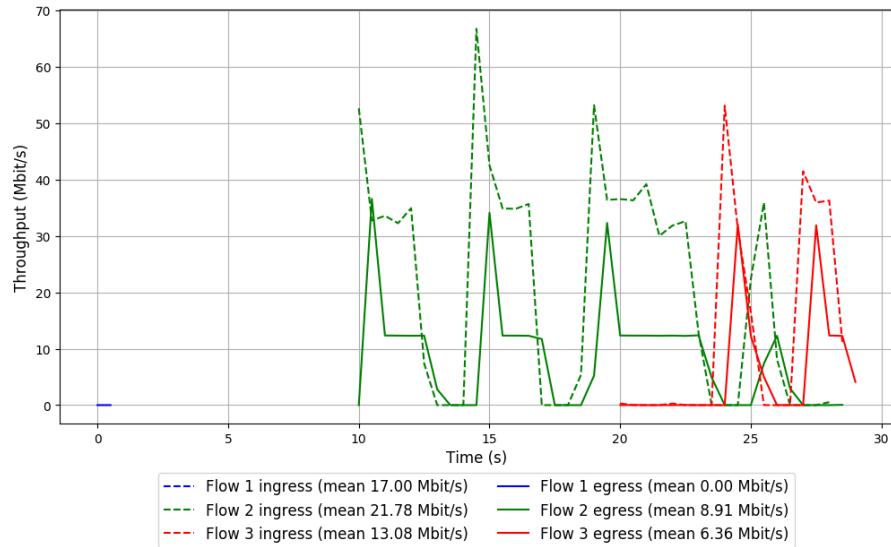


Run 5: Statistics of Copa

```
Start at: 2019-04-24 02:12:20
End at: 2019-04-24 02:12:50
Local clock offset: 0.268 ms
Remote clock offset: -1.36 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.55 Mbit/s
95th percentile per-packet one-way delay: 1.414 ms
Loss rate: 57.39%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.153 ms
Loss rate: 97.92%
-- Flow 2:
Average throughput: 8.91 Mbit/s
95th percentile per-packet one-way delay: 1.402 ms
Loss rate: 59.10%
-- Flow 3:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 1.445 ms
Loss rate: 51.39%
```

Run 5: Report of Copa — Data Link

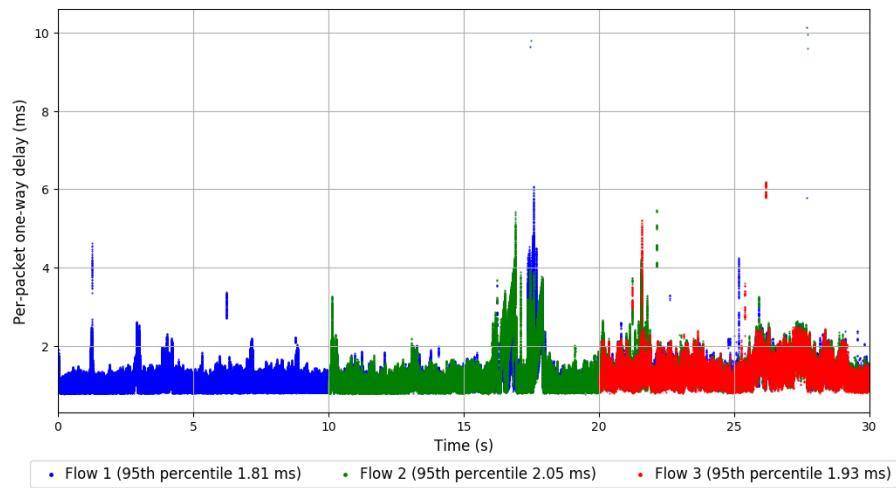
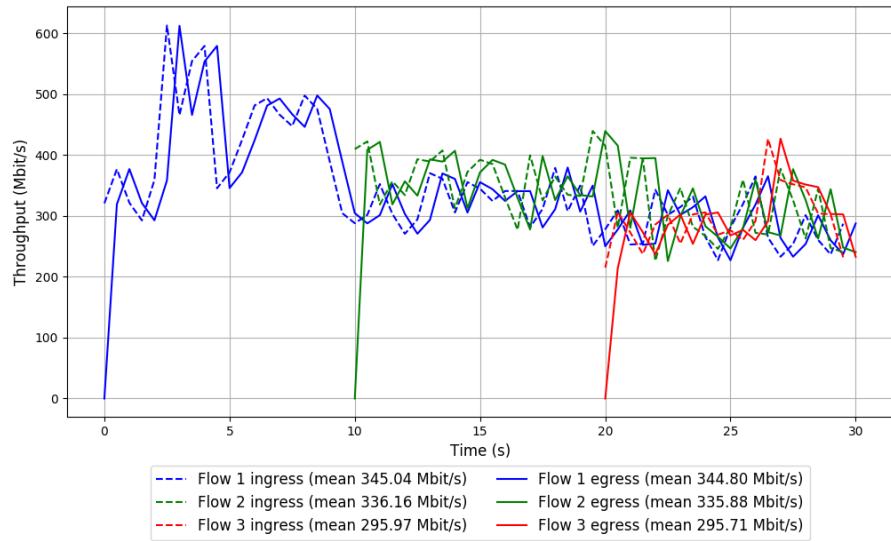


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-04-24 00:30:48
End at: 2019-04-24 00:31:18
Local clock offset: 3.387 ms
Remote clock offset: 2.206 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 666.87 Mbit/s
95th percentile per-packet one-way delay: 1.920 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 344.80 Mbit/s
95th percentile per-packet one-way delay: 1.810 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 335.88 Mbit/s
95th percentile per-packet one-way delay: 2.053 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 295.71 Mbit/s
95th percentile per-packet one-way delay: 1.933 ms
Loss rate: 0.08%
```

Run 1: Report of TCP Cubic — Data Link

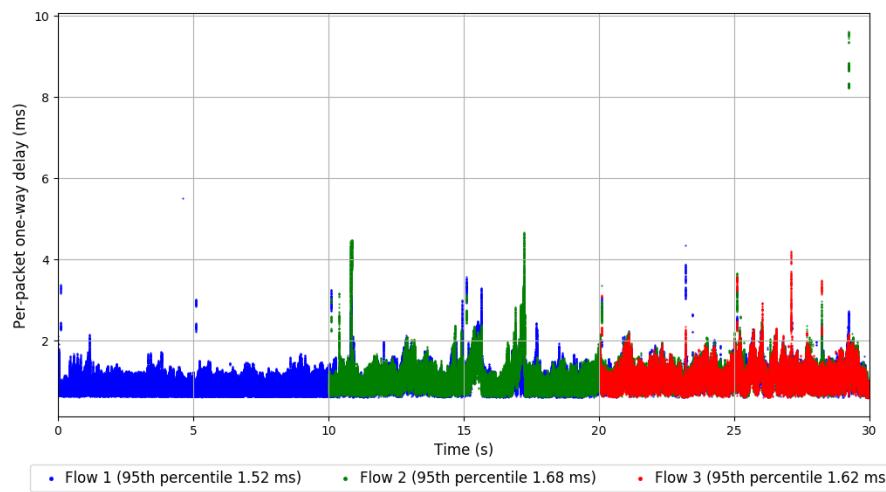
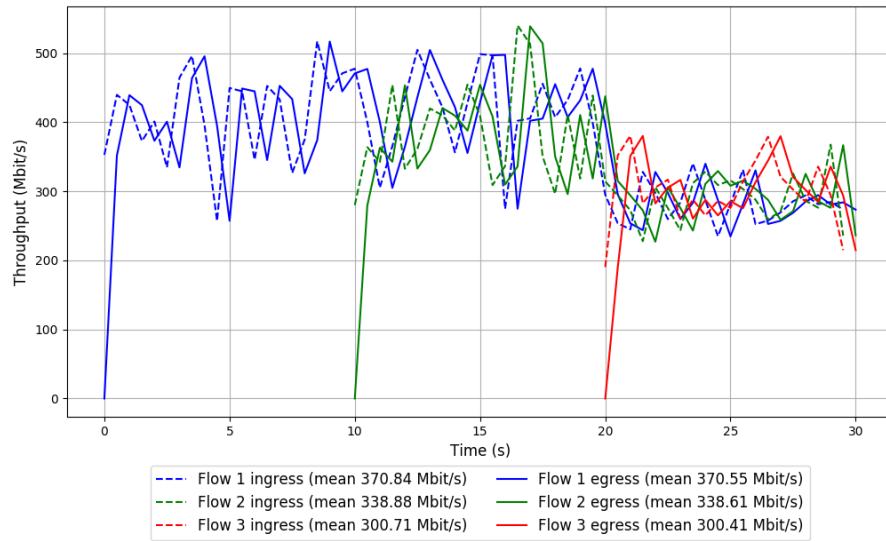


Run 2: Statistics of TCP Cubic

```
Start at: 2019-04-24 01:00:34
End at: 2019-04-24 01:01:04
Local clock offset: 0.842 ms
Remote clock offset: 1.825 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 695.97 Mbit/s
95th percentile per-packet one-way delay: 1.600 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 370.55 Mbit/s
95th percentile per-packet one-way delay: 1.524 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 338.61 Mbit/s
95th percentile per-packet one-way delay: 1.681 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 300.41 Mbit/s
95th percentile per-packet one-way delay: 1.617 ms
Loss rate: 0.11%
```

Run 2: Report of TCP Cubic — Data Link

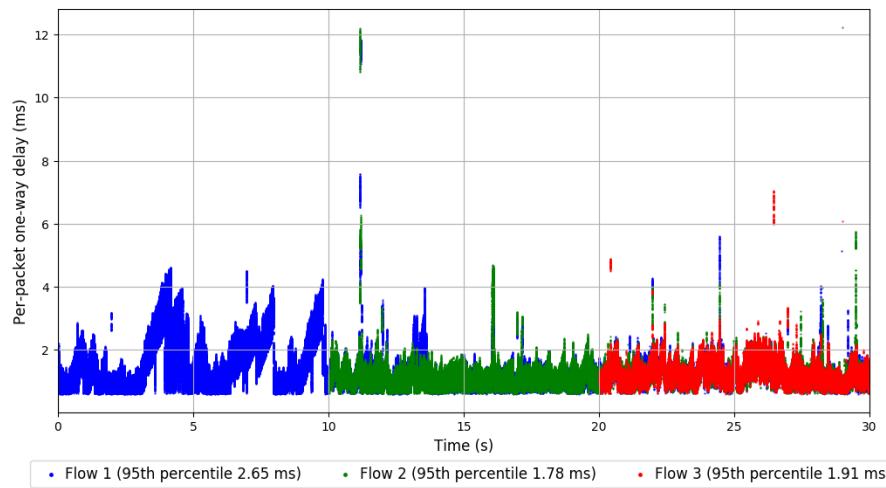
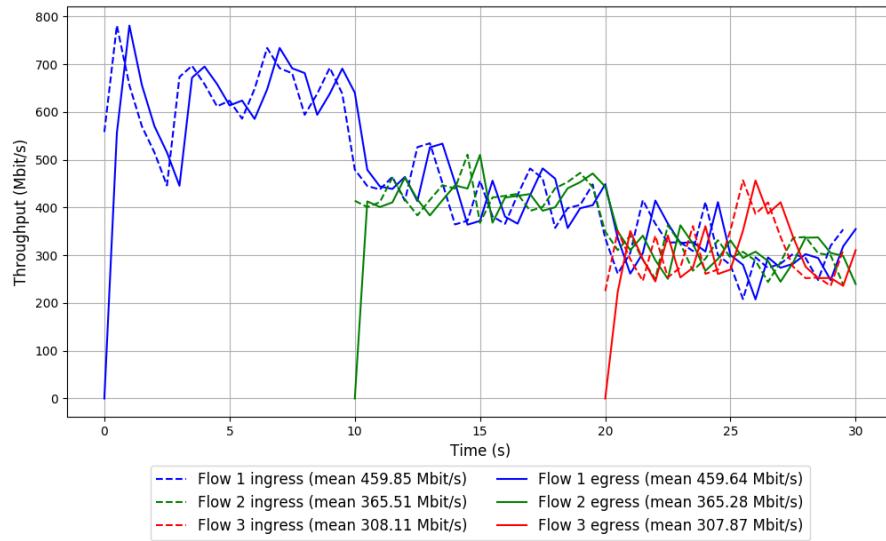


Run 3: Statistics of TCP Cubic

```
Start at: 2019-04-24 01:30:30
End at: 2019-04-24 01:31:00
Local clock offset: 0.213 ms
Remote clock offset: 1.677 ms

# Below is generated by plot.py at 2019-04-24 02:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 805.43 Mbit/s
95th percentile per-packet one-way delay: 2.339 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 459.64 Mbit/s
95th percentile per-packet one-way delay: 2.654 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 365.28 Mbit/s
95th percentile per-packet one-way delay: 1.778 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 307.87 Mbit/s
95th percentile per-packet one-way delay: 1.912 ms
Loss rate: 0.07%
```

Run 3: Report of TCP Cubic — Data Link

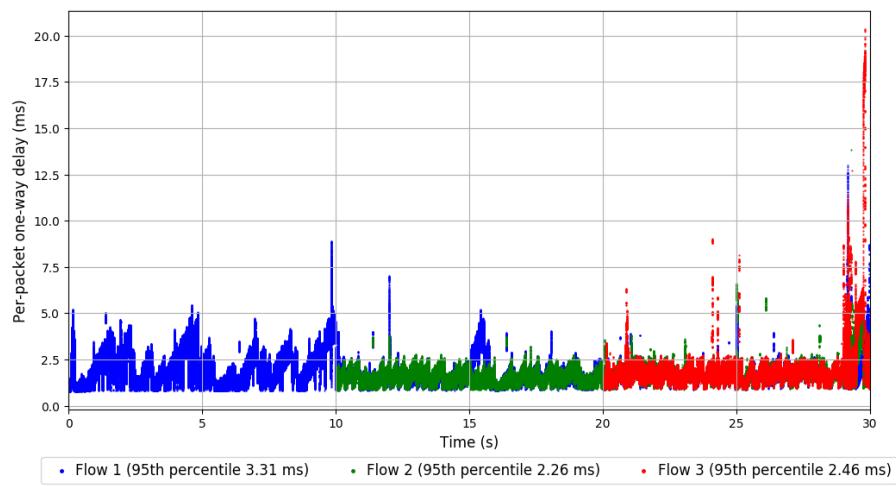
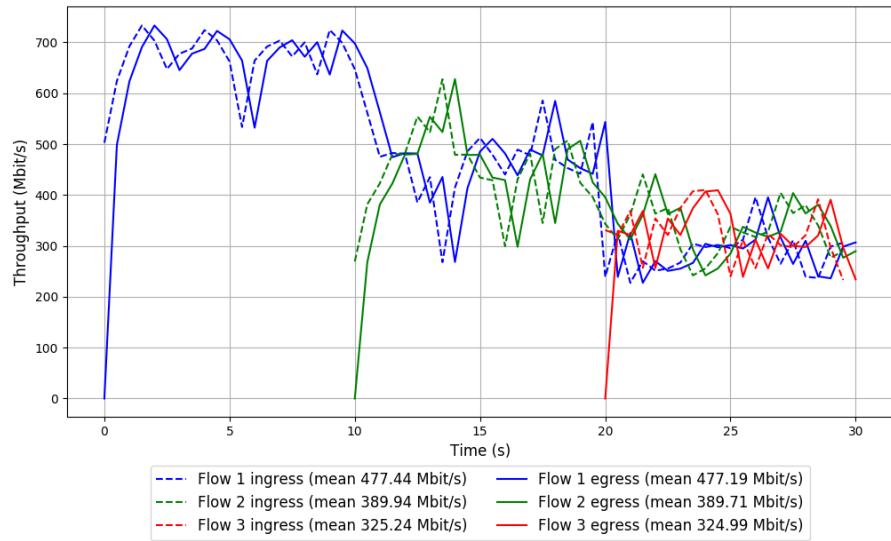


Run 4: Statistics of TCP Cubic

```
Start at: 2019-04-24 02:00:35
End at: 2019-04-24 02:01:05
Local clock offset: 0.301 ms
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2019-04-24 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 844.72 Mbit/s
95th percentile per-packet one-way delay: 3.031 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 477.19 Mbit/s
95th percentile per-packet one-way delay: 3.305 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 389.71 Mbit/s
95th percentile per-packet one-way delay: 2.260 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 324.99 Mbit/s
95th percentile per-packet one-way delay: 2.458 ms
Loss rate: 0.07%
```

Run 4: Report of TCP Cubic — Data Link

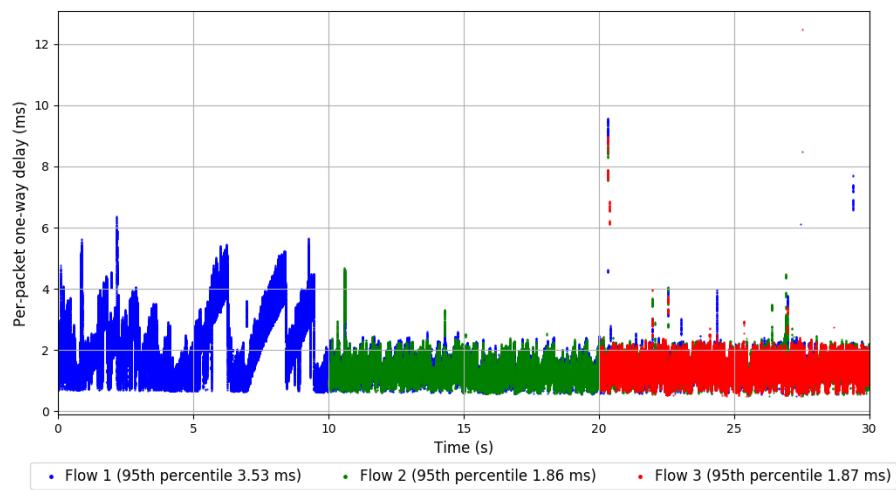
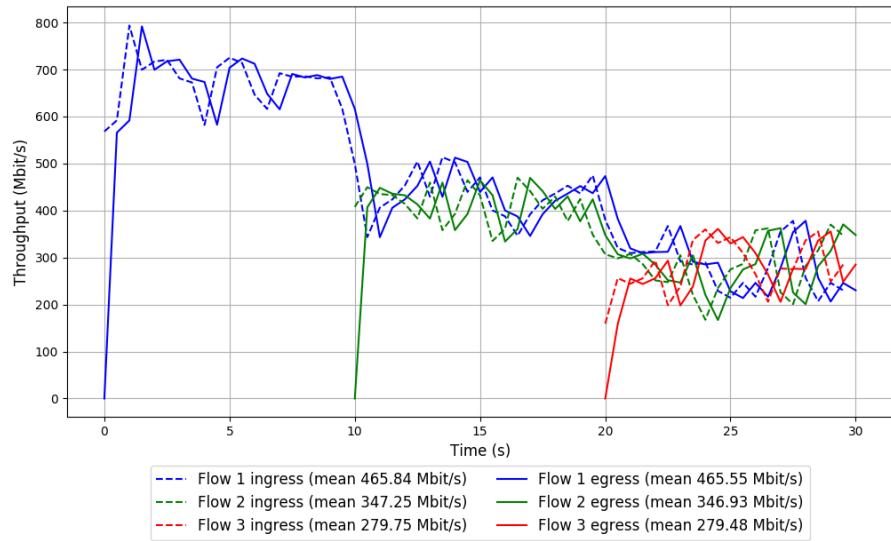


Run 5: Statistics of TCP Cubic

```
Start at: 2019-04-24 02:30:31
End at: 2019-04-24 02:31:01
Local clock offset: 0.478 ms
Remote clock offset: -0.645 ms

# Below is generated by plot.py at 2019-04-24 03:04:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 789.49 Mbit/s
95th percentile per-packet one-way delay: 3.182 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 465.55 Mbit/s
95th percentile per-packet one-way delay: 3.530 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 346.93 Mbit/s
95th percentile per-packet one-way delay: 1.865 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 279.48 Mbit/s
95th percentile per-packet one-way delay: 1.873 ms
Loss rate: 0.09%
```

Run 5: Report of TCP Cubic — Data Link

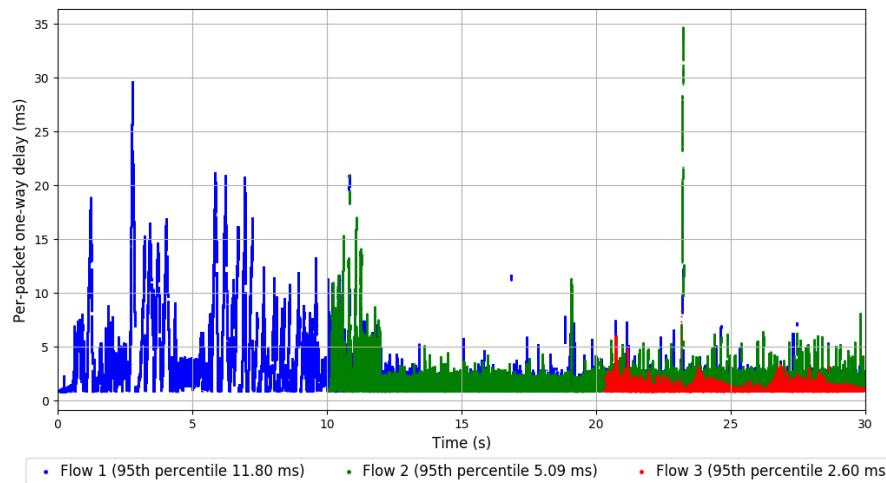
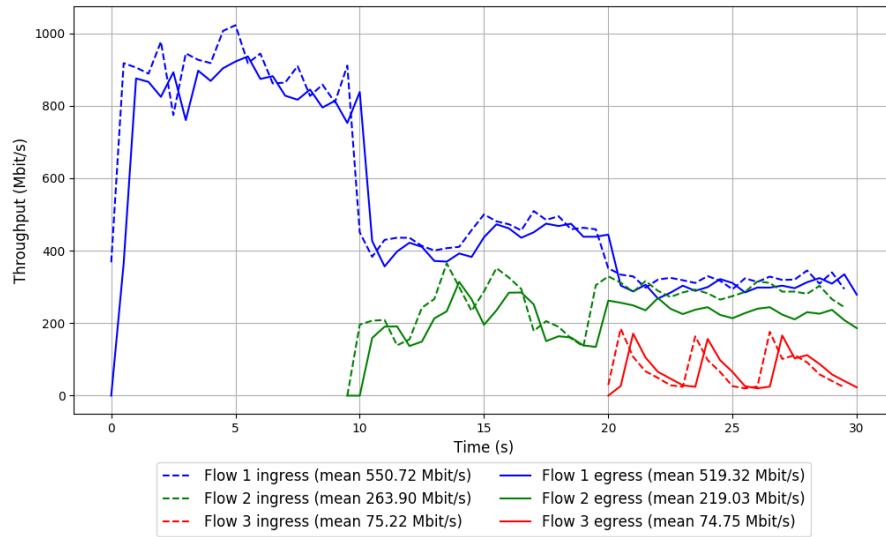


```
Run 1: Statistics of FillP

Start at: 2019-04-24 00:32:24
End at: 2019-04-24 00:32:54
Local clock offset: 3.51 ms
Remote clock offset: 2.302 ms

# Below is generated by plot.py at 2019-04-24 03:06:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 689.21 Mbit/s
95th percentile per-packet one-way delay: 10.332 ms
Loss rate: 8.25%
-- Flow 1:
Average throughput: 519.32 Mbit/s
95th percentile per-packet one-way delay: 11.801 ms
Loss rate: 5.70%
-- Flow 2:
Average throughput: 219.03 Mbit/s
95th percentile per-packet one-way delay: 5.087 ms
Loss rate: 17.01%
-- Flow 3:
Average throughput: 74.75 Mbit/s
95th percentile per-packet one-way delay: 2.602 ms
Loss rate: 2.86%
```

Run 1: Report of FillP — Data Link

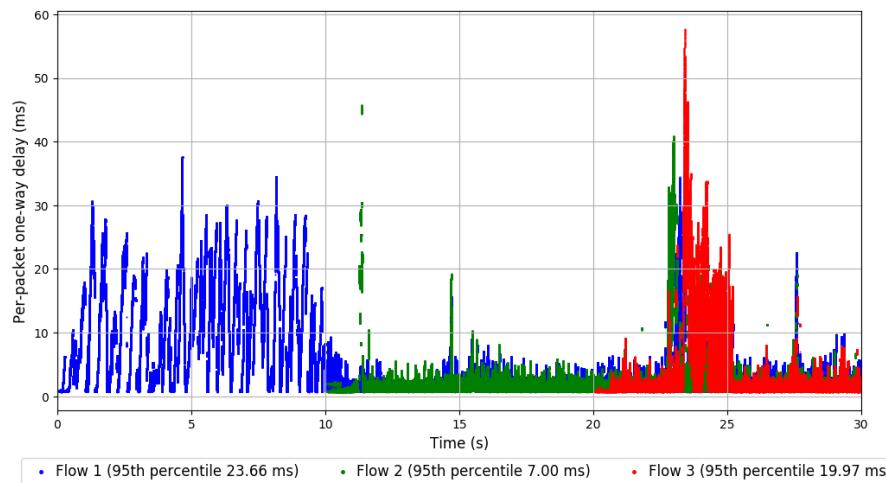
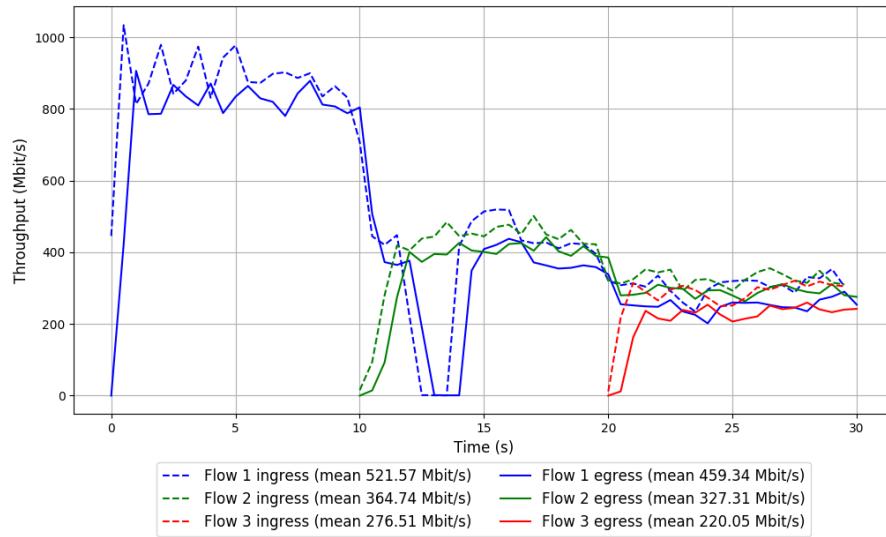


Run 2: Statistics of FillP

```
Start at: 2019-04-24 01:02:11
End at: 2019-04-24 01:02:41
Local clock offset: 0.71 ms
Remote clock offset: 1.918 ms

# Below is generated by plot.py at 2019-04-24 03:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 750.03 Mbit/s
95th percentile per-packet one-way delay: 22.039 ms
Loss rate: 12.36%
-- Flow 1:
Average throughput: 459.34 Mbit/s
95th percentile per-packet one-way delay: 23.664 ms
Loss rate: 11.92%
-- Flow 2:
Average throughput: 327.31 Mbit/s
95th percentile per-packet one-way delay: 7.004 ms
Loss rate: 10.26%
-- Flow 3:
Average throughput: 220.05 Mbit/s
95th percentile per-packet one-way delay: 19.968 ms
Loss rate: 20.42%
```

Run 2: Report of FillP — Data Link

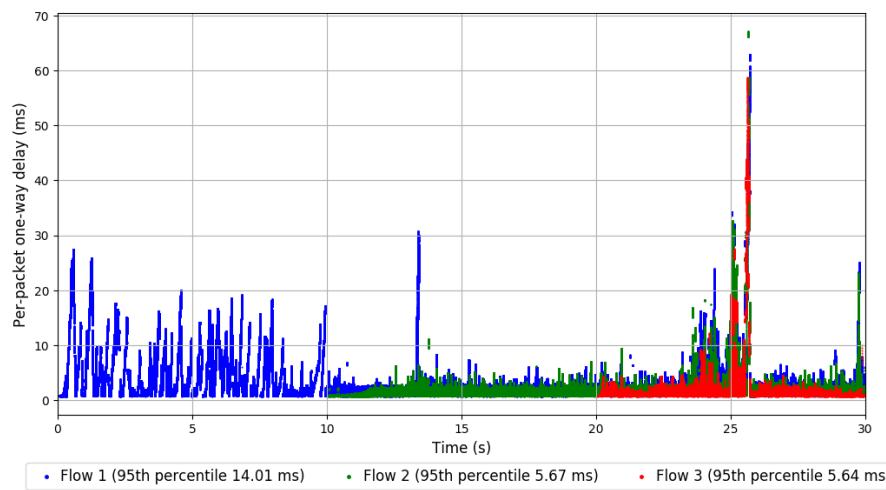
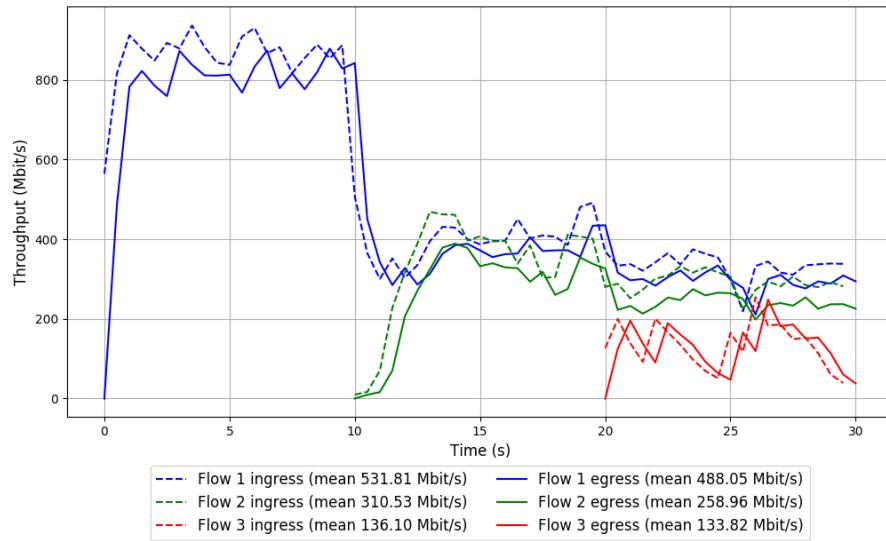


Run 3: Statistics of FillP

```
Start at: 2019-04-24 01:32:11
End at: 2019-04-24 01:32:41
Local clock offset: 0.188 ms
Remote clock offset: 1.773 ms

# Below is generated by plot.py at 2019-04-24 03:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 704.70 Mbit/s
95th percentile per-packet one-way delay: 12.874 ms
Loss rate: 10.05%
-- Flow 1:
Average throughput: 488.05 Mbit/s
95th percentile per-packet one-way delay: 14.012 ms
Loss rate: 8.22%
-- Flow 2:
Average throughput: 258.96 Mbit/s
95th percentile per-packet one-way delay: 5.666 ms
Loss rate: 16.59%
-- Flow 3:
Average throughput: 133.82 Mbit/s
95th percentile per-packet one-way delay: 5.645 ms
Loss rate: 1.68%
```

Run 3: Report of FillP — Data Link

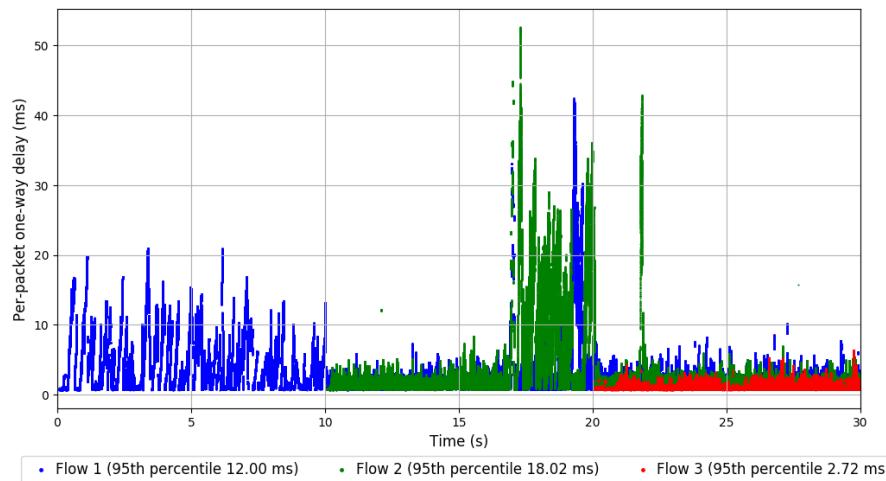
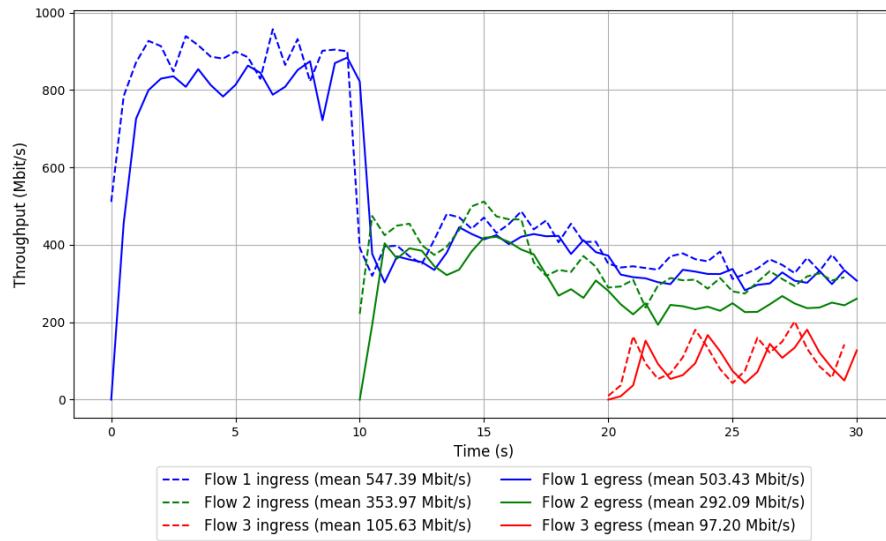


Run 4: Statistics of FillP

```
Start at: 2019-04-24 02:02:17
End at: 2019-04-24 02:02:47
Local clock offset: 0.298 ms
Remote clock offset: -0.404 ms

# Below is generated by plot.py at 2019-04-24 03:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 729.88 Mbit/s
95th percentile per-packet one-way delay: 12.625 ms
Loss rate: 10.75%
-- Flow 1:
Average throughput: 503.43 Mbit/s
95th percentile per-packet one-way delay: 12.000 ms
Loss rate: 8.03%
-- Flow 2:
Average throughput: 292.09 Mbit/s
95th percentile per-packet one-way delay: 18.018 ms
Loss rate: 17.48%
-- Flow 3:
Average throughput: 97.20 Mbit/s
95th percentile per-packet one-way delay: 2.717 ms
Loss rate: 7.99%
```

Run 4: Report of FillP — Data Link

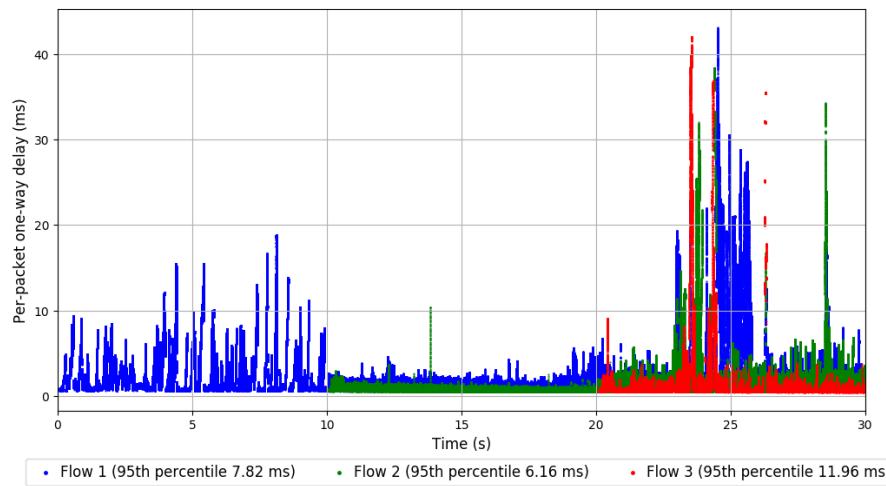
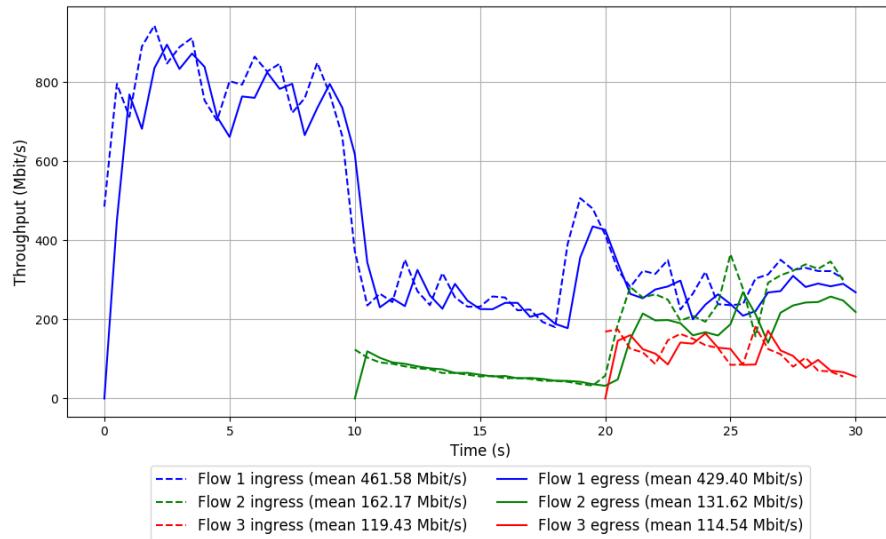


Run 5: Statistics of FillP

```
Start at: 2019-04-24 02:32:11
End at: 2019-04-24 02:32:41
Local clock offset: 0.452 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2019-04-24 03:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 554.88 Mbit/s
95th percentile per-packet one-way delay: 7.771 ms
Loss rate: 8.89%
-- Flow 1:
Average throughput: 429.40 Mbit/s
95th percentile per-packet one-way delay: 7.817 ms
Loss rate: 6.97%
-- Flow 2:
Average throughput: 131.62 Mbit/s
95th percentile per-packet one-way delay: 6.162 ms
Loss rate: 18.84%
-- Flow 3:
Average throughput: 114.54 Mbit/s
95th percentile per-packet one-way delay: 11.956 ms
Loss rate: 4.10%
```

Run 5: Report of FillP — Data Link

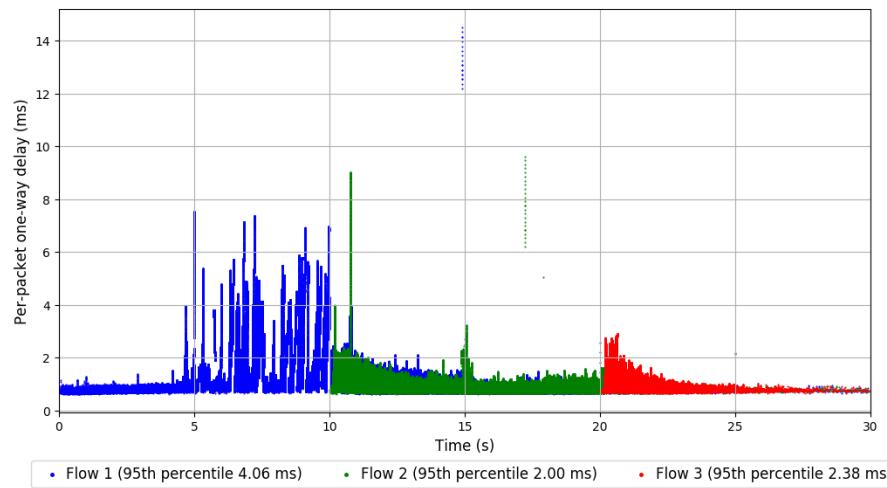
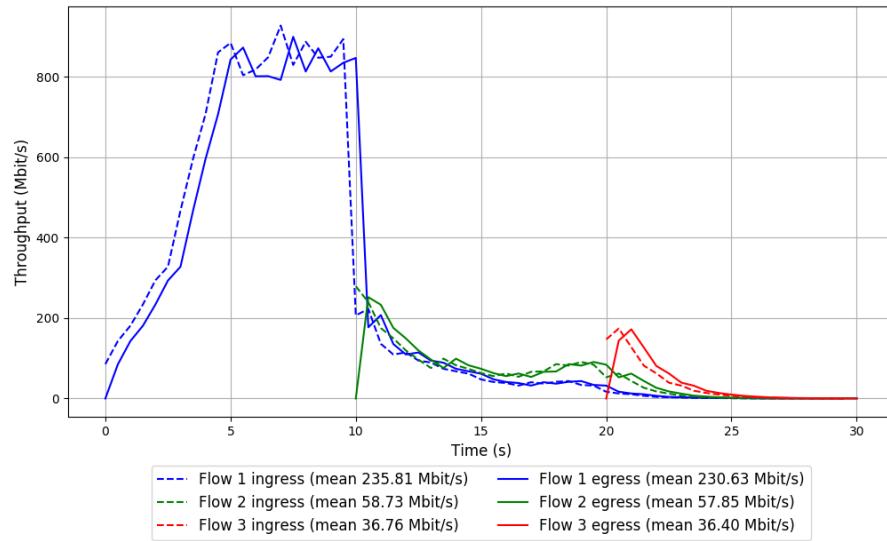


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-04-24 00:39:21
End at: 2019-04-24 00:39:51
Local clock offset: 4.033 ms
Remote clock offset: 2.291 ms

# Below is generated by plot.py at 2019-04-24 03:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 281.11 Mbit/s
95th percentile per-packet one-way delay: 3.874 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 230.63 Mbit/s
95th percentile per-packet one-way delay: 4.061 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 2.005 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 36.40 Mbit/s
95th percentile per-packet one-way delay: 2.376 ms
Loss rate: 0.98%
```

Run 1: Report of FillP-Sheep — Data Link

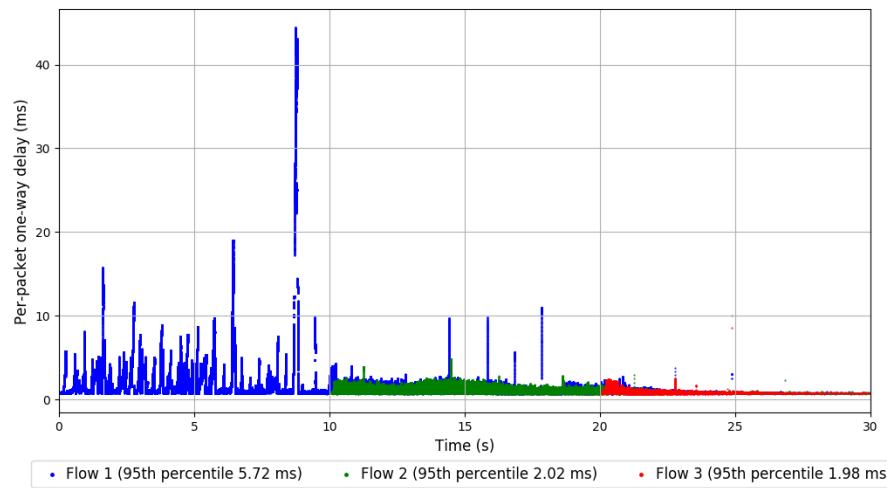
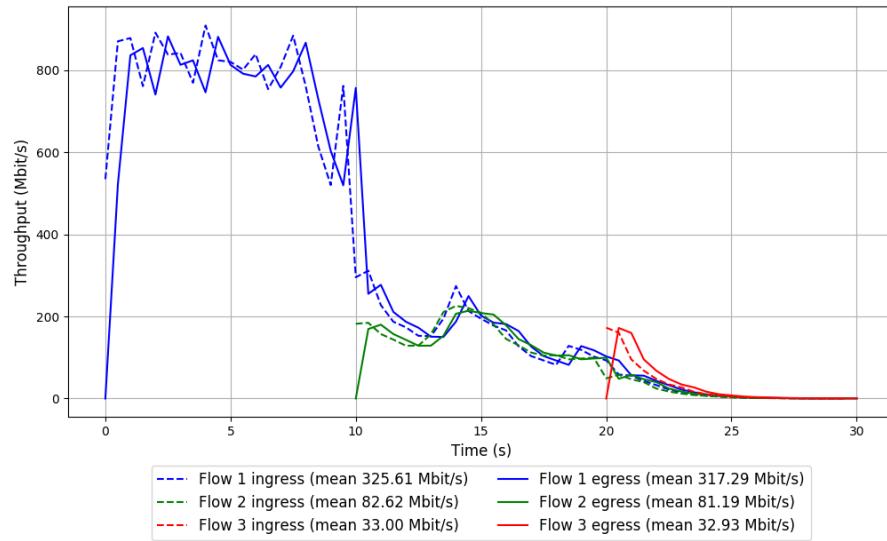


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-04-24 01:09:09
End at: 2019-04-24 01:09:39
Local clock offset: 0.284 ms
Remote clock offset: 1.868 ms

# Below is generated by plot.py at 2019-04-24 03:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.93 Mbit/s
95th percentile per-packet one-way delay: 5.183 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 317.29 Mbit/s
95th percentile per-packet one-way delay: 5.717 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 81.19 Mbit/s
95th percentile per-packet one-way delay: 2.024 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 32.93 Mbit/s
95th percentile per-packet one-way delay: 1.979 ms
Loss rate: 0.21%
```

Run 2: Report of FillP-Sheep — Data Link

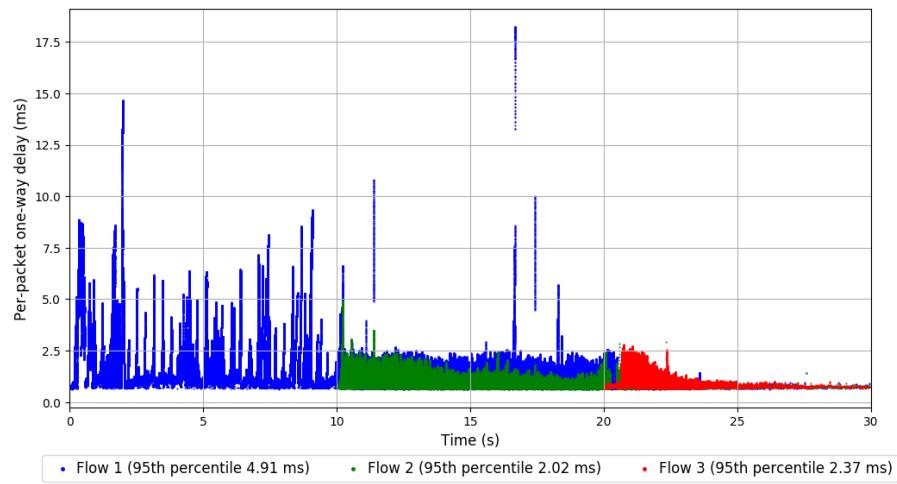
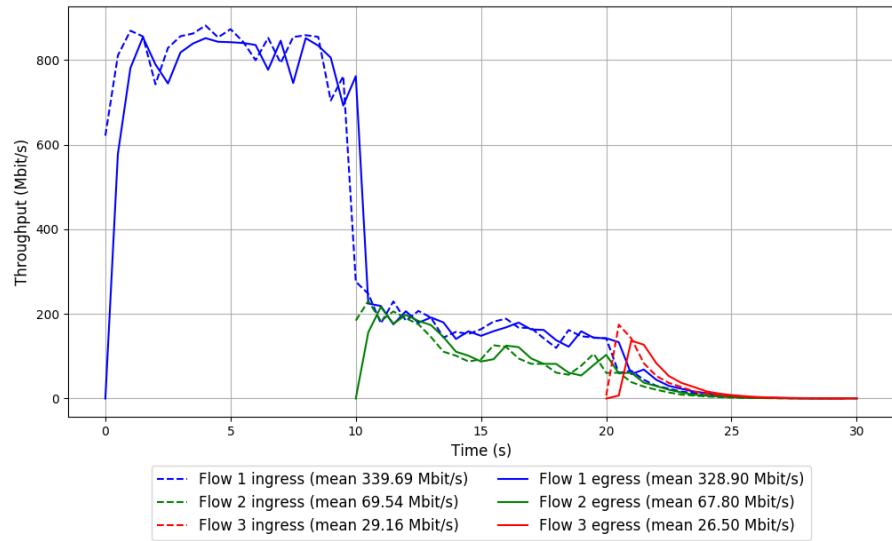


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-04-24 01:39:07
End at: 2019-04-24 01:39:37
Local clock offset: 0.12 ms
Remote clock offset: 1.73 ms

# Below is generated by plot.py at 2019-04-24 03:09:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.63 Mbit/s
95th percentile per-packet one-way delay: 4.599 ms
Loss rate: 3.24%
-- Flow 1:
Average throughput: 328.90 Mbit/s
95th percentile per-packet one-way delay: 4.912 ms
Loss rate: 3.18%
-- Flow 2:
Average throughput: 67.80 Mbit/s
95th percentile per-packet one-way delay: 2.018 ms
Loss rate: 2.50%
-- Flow 3:
Average throughput: 26.50 Mbit/s
95th percentile per-packet one-way delay: 2.372 ms
Loss rate: 9.10%
```

Run 3: Report of FillP-Sheep — Data Link

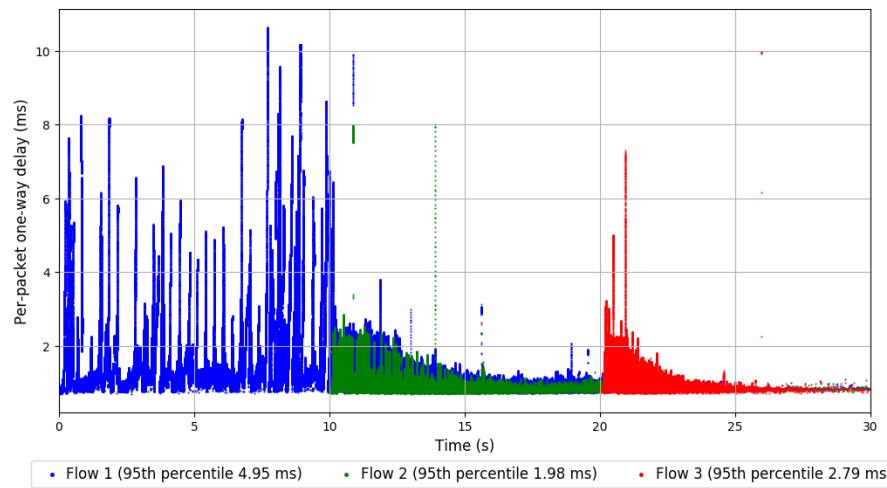
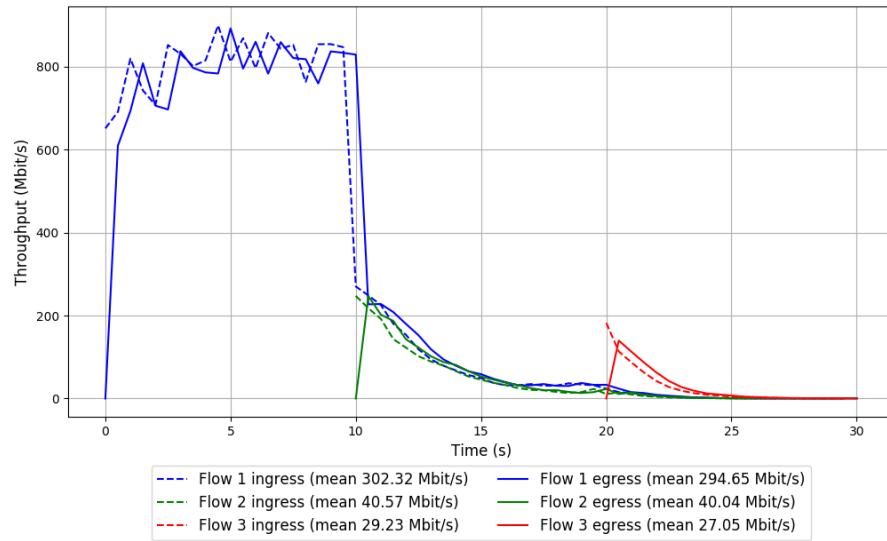


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-04-24 02:09:16
End at: 2019-04-24 02:09:46
Local clock offset: 0.291 ms
Remote clock offset: -1.136 ms

# Below is generated by plot.py at 2019-04-24 03:09:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.04 Mbit/s
95th percentile per-packet one-way delay: 4.769 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 294.65 Mbit/s
95th percentile per-packet one-way delay: 4.946 ms
Loss rate: 2.54%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 1.981 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 27.05 Mbit/s
95th percentile per-packet one-way delay: 2.794 ms
Loss rate: 7.46%
```

Run 4: Report of FillP-Sheep — Data Link

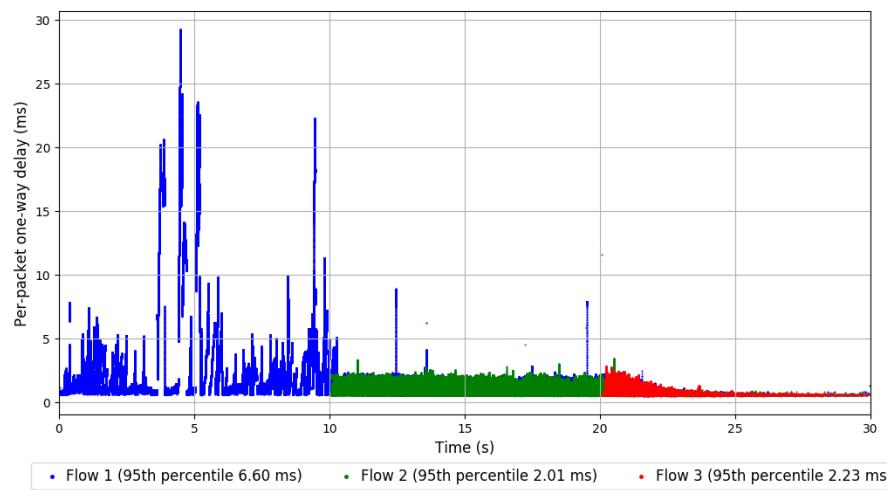
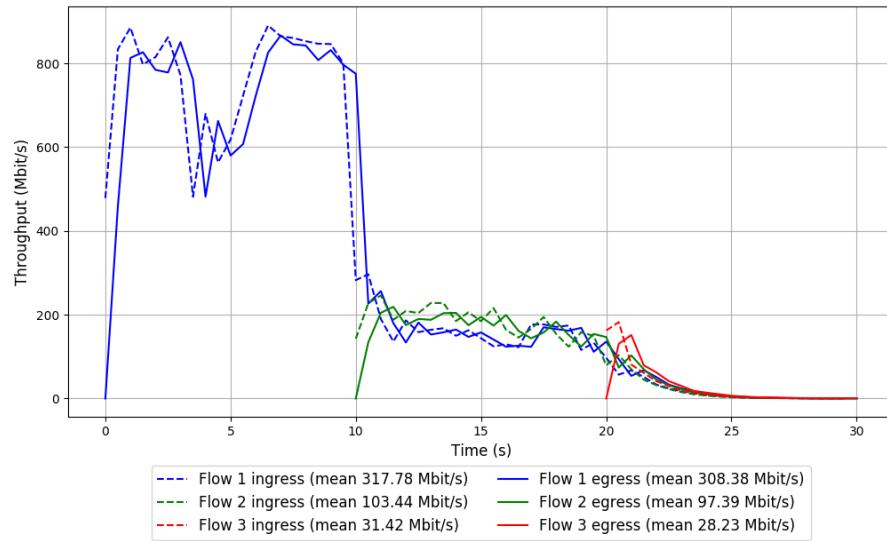


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-04-24 02:39:01
End at: 2019-04-24 02:39:31
Local clock offset: 0.452 ms
Remote clock offset: 1.791 ms

# Below is generated by plot.py at 2019-04-24 03:10:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 382.50 Mbit/s
95th percentile per-packet one-way delay: 5.655 ms
Loss rate: 3.65%
-- Flow 1:
Average throughput: 308.38 Mbit/s
95th percentile per-packet one-way delay: 6.603 ms
Loss rate: 2.96%
-- Flow 2:
Average throughput: 97.39 Mbit/s
95th percentile per-packet one-way delay: 2.010 ms
Loss rate: 5.85%
-- Flow 3:
Average throughput: 28.23 Mbit/s
95th percentile per-packet one-way delay: 2.230 ms
Loss rate: 10.15%
```

Run 5: Report of FillP-Sheep — Data Link

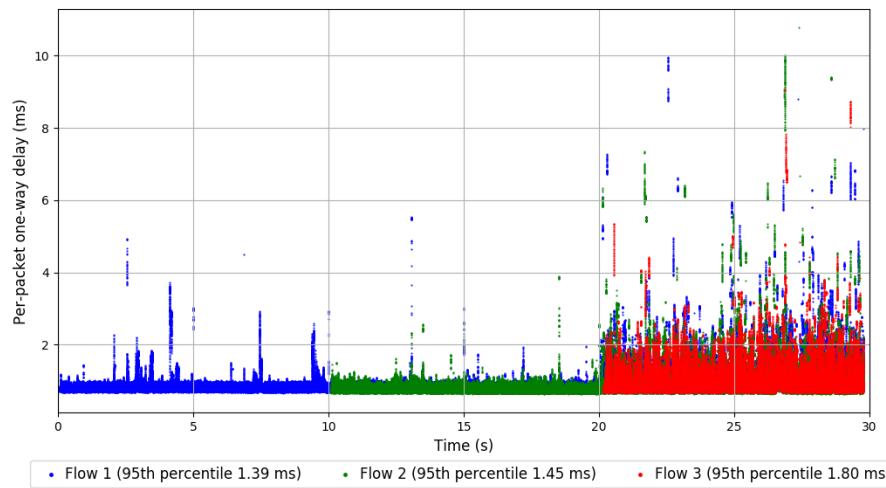
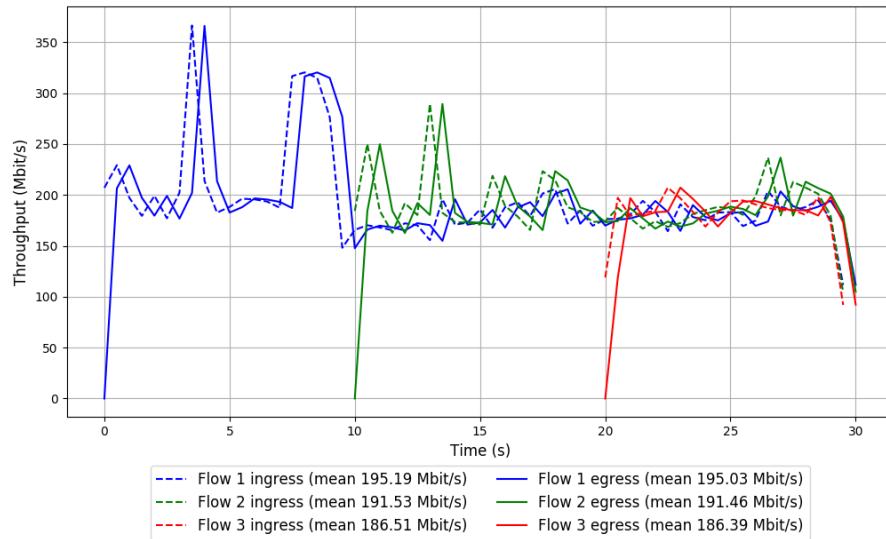


Run 1: Statistics of Indigo

```
Start at: 2019-04-24 00:13:59
End at: 2019-04-24 00:14:29
Local clock offset: -0.015 ms
Remote clock offset: 1.906 ms

# Below is generated by plot.py at 2019-04-24 03:10:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.64 Mbit/s
95th percentile per-packet one-way delay: 1.501 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 195.03 Mbit/s
95th percentile per-packet one-way delay: 1.386 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 191.46 Mbit/s
95th percentile per-packet one-way delay: 1.449 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 186.39 Mbit/s
95th percentile per-packet one-way delay: 1.802 ms
Loss rate: 0.07%
```

Run 1: Report of Indigo — Data Link

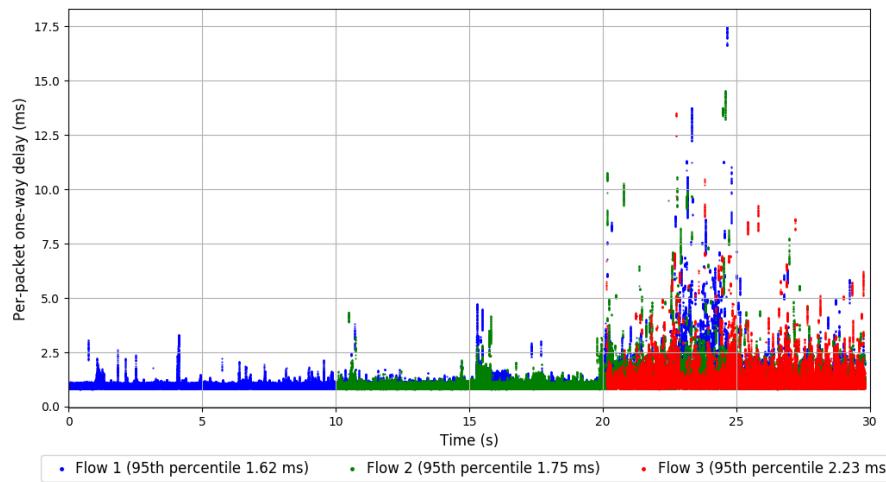
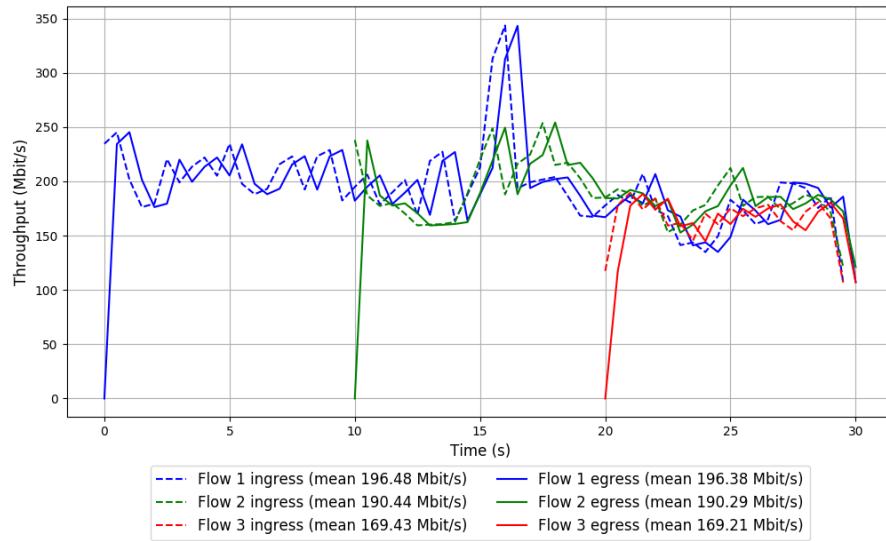


Run 2: Statistics of Indigo

```
Start at: 2019-04-24 00:43:42
End at: 2019-04-24 00:44:12
Local clock offset: 4.301 ms
Remote clock offset: 2.519 ms

# Below is generated by plot.py at 2019-04-24 03:11:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.51 Mbit/s
95th percentile per-packet one-way delay: 1.781 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 196.38 Mbit/s
95th percentile per-packet one-way delay: 1.618 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 190.29 Mbit/s
95th percentile per-packet one-way delay: 1.753 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 169.21 Mbit/s
95th percentile per-packet one-way delay: 2.233 ms
Loss rate: 0.15%
```

Run 2: Report of Indigo — Data Link

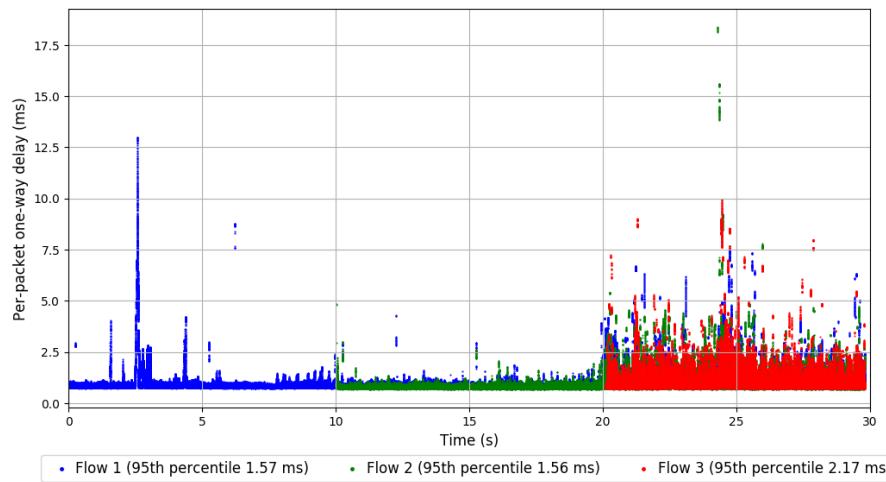
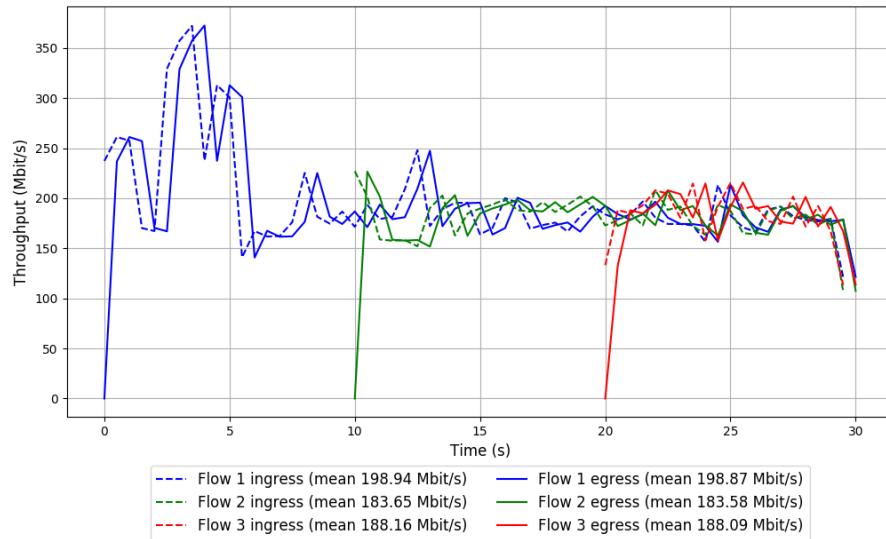


Run 3: Statistics of Indigo

```
Start at: 2019-04-24 01:13:28
End at: 2019-04-24 01:13:58
Local clock offset: 0.133 ms
Remote clock offset: 1.906 ms

# Below is generated by plot.py at 2019-04-24 03:11:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 381.99 Mbit/s
95th percentile per-packet one-way delay: 1.710 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 198.87 Mbit/s
95th percentile per-packet one-way delay: 1.574 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 183.58 Mbit/s
95th percentile per-packet one-way delay: 1.558 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 188.09 Mbit/s
95th percentile per-packet one-way delay: 2.170 ms
Loss rate: 0.04%
```

Run 3: Report of Indigo — Data Link

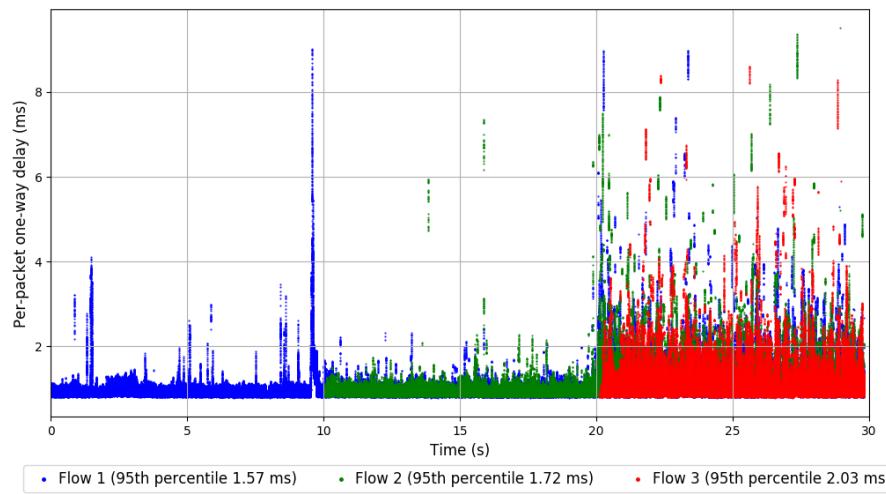
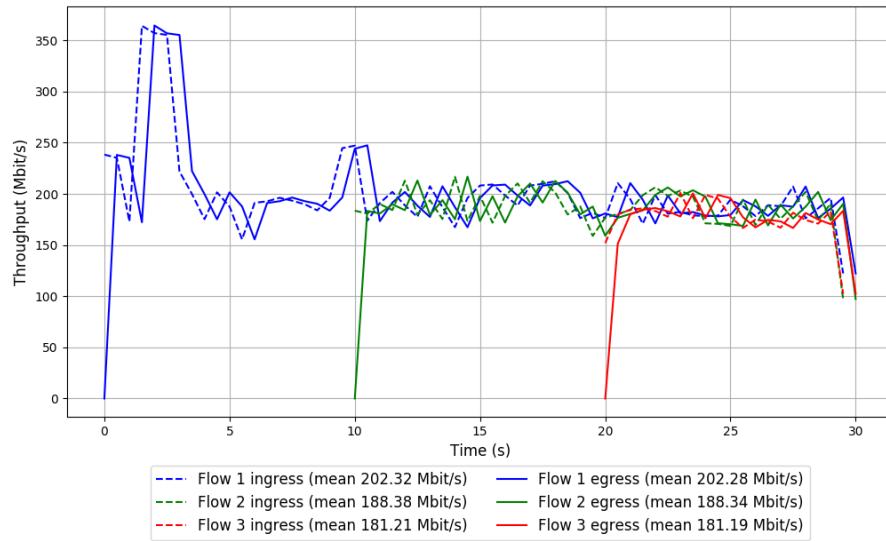


Run 4: Statistics of Indigo

```
Start at: 2019-04-24 01:43:31
End at: 2019-04-24 01:44:01
Local clock offset: 0.054 ms
Remote clock offset: 1.832 ms

# Below is generated by plot.py at 2019-04-24 03:12:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.81 Mbit/s
95th percentile per-packet one-way delay: 1.722 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 202.28 Mbit/s
95th percentile per-packet one-way delay: 1.567 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 188.34 Mbit/s
95th percentile per-packet one-way delay: 1.724 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 181.19 Mbit/s
95th percentile per-packet one-way delay: 2.027 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo — Data Link

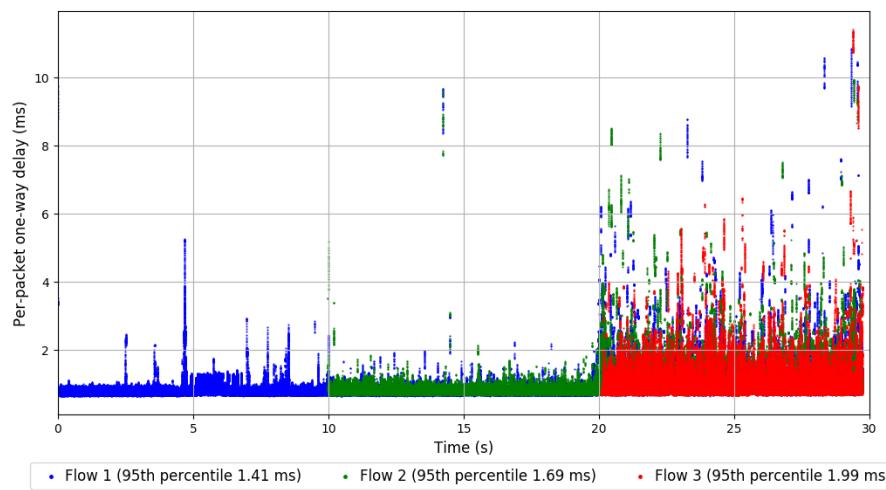
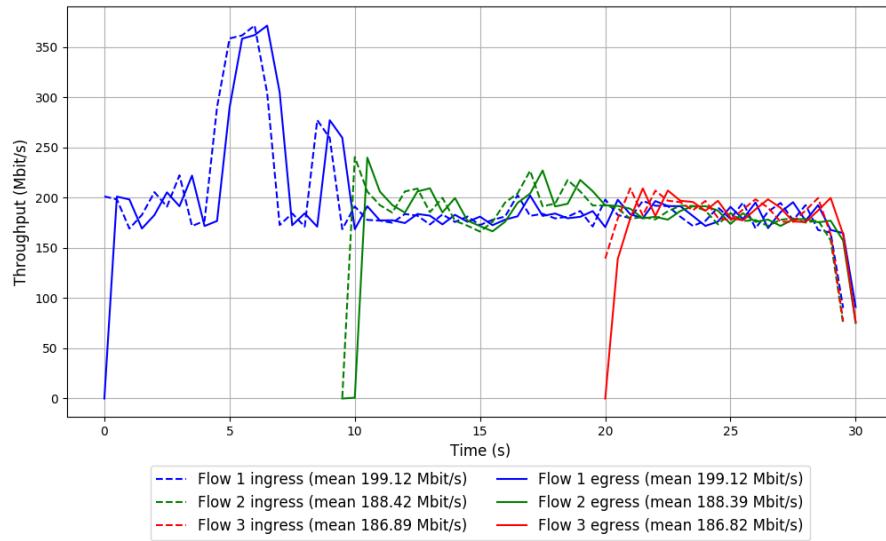


Run 5: Statistics of Indigo

```
Start at: 2019-04-24 02:13:35
End at: 2019-04-24 02:14:05
Local clock offset: 0.262 ms
Remote clock offset: -1.543 ms

# Below is generated by plot.py at 2019-04-24 03:12:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.04 Mbit/s
95th percentile per-packet one-way delay: 1.639 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 199.12 Mbit/s
95th percentile per-packet one-way delay: 1.409 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 188.39 Mbit/s
95th percentile per-packet one-way delay: 1.688 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 186.82 Mbit/s
95th percentile per-packet one-way delay: 1.993 ms
Loss rate: 0.04%
```

Run 5: Report of Indigo — Data Link

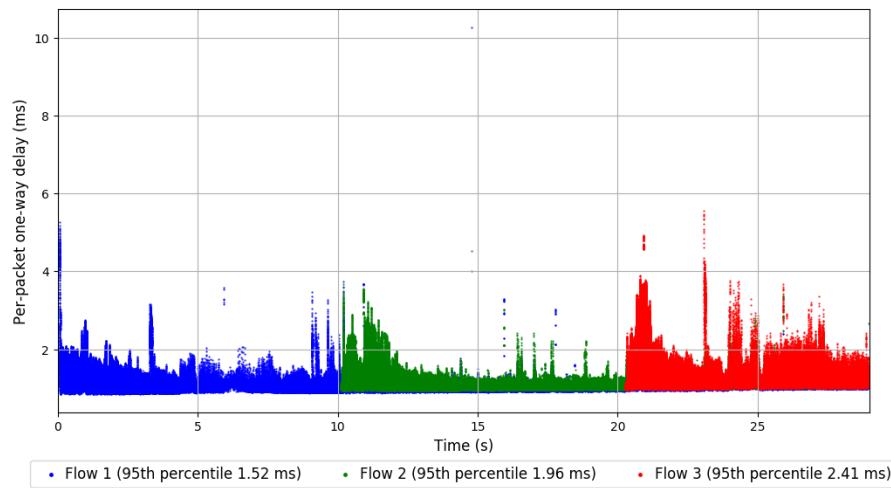
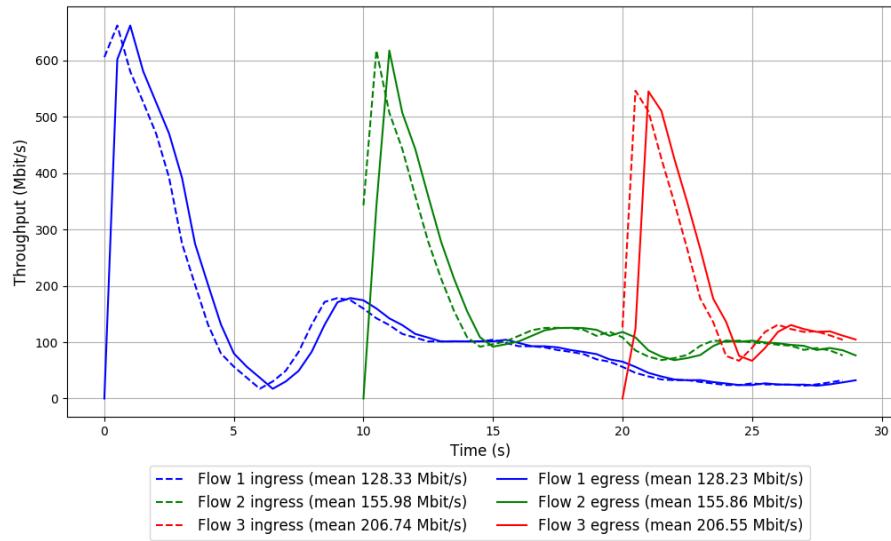


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 00:20:45
End at: 2019-04-24 00:21:15
Local clock offset: 1.663 ms
Remote clock offset: 2.037 ms

# Below is generated by plot.py at 2019-04-24 03:12:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.75 Mbit/s
95th percentile per-packet one-way delay: 1.902 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 128.23 Mbit/s
95th percentile per-packet one-way delay: 1.519 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 155.86 Mbit/s
95th percentile per-packet one-way delay: 1.963 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 206.55 Mbit/s
95th percentile per-packet one-way delay: 2.407 ms
Loss rate: 0.09%
```

Run 1: Report of Indigo-MusesC3 — Data Link

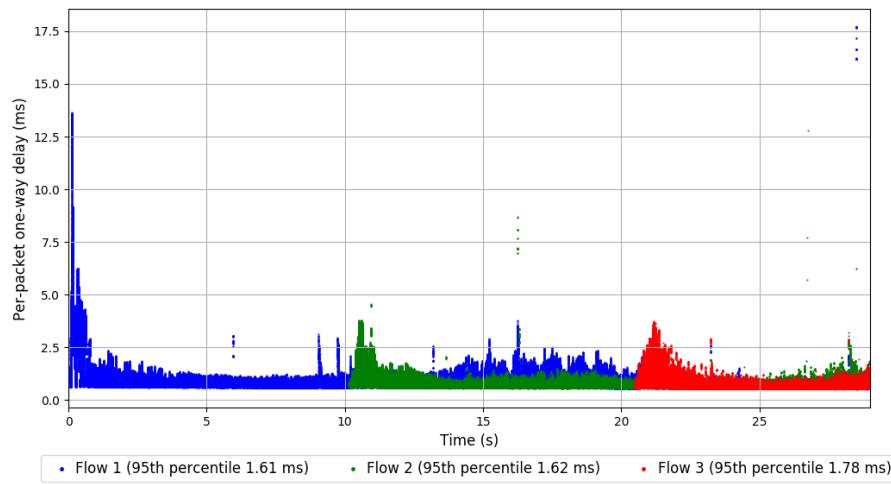
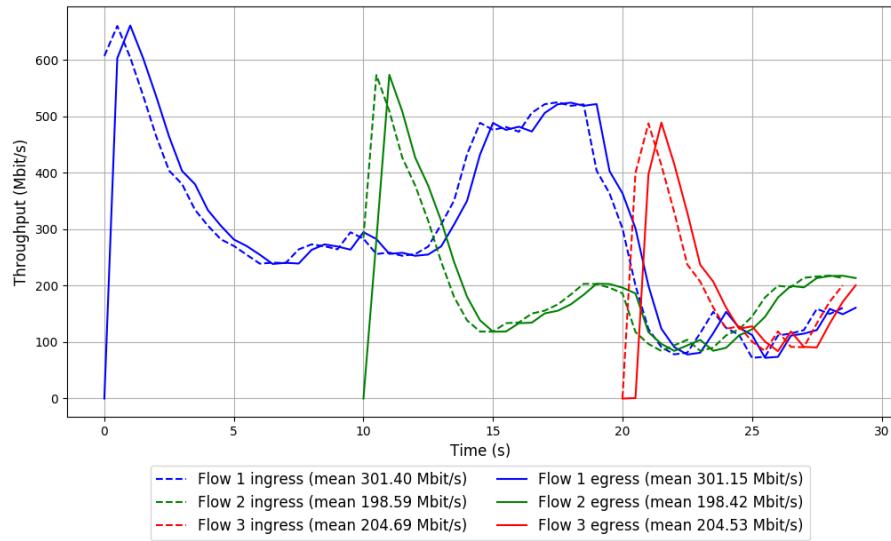


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 00:50:29
End at: 2019-04-24 00:50:59
Local clock offset: 2.532 ms
Remote clock offset: 2.179 ms

# Below is generated by plot.py at 2019-04-24 03:15:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 490.07 Mbit/s
95th percentile per-packet one-way delay: 1.637 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 301.15 Mbit/s
95th percentile per-packet one-way delay: 1.612 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 198.42 Mbit/s
95th percentile per-packet one-way delay: 1.619 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 204.53 Mbit/s
95th percentile per-packet one-way delay: 1.784 ms
Loss rate: 0.08%
```

Run 2: Report of Indigo-MusesC3 — Data Link

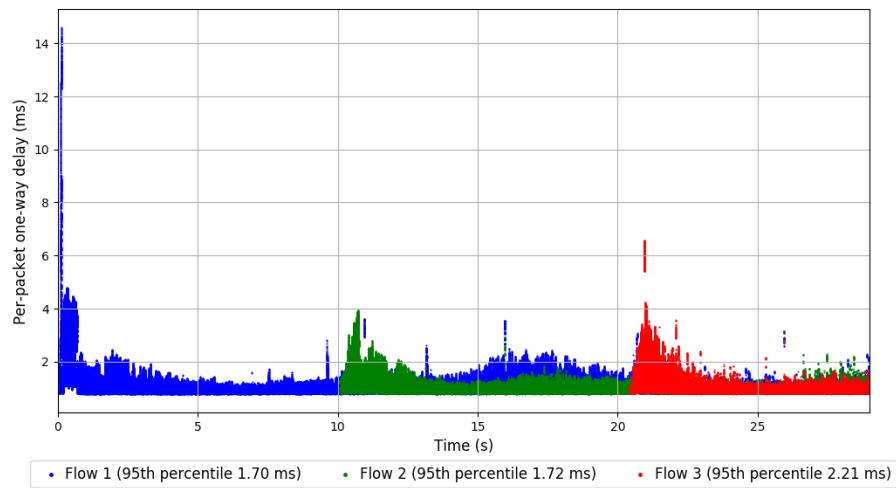
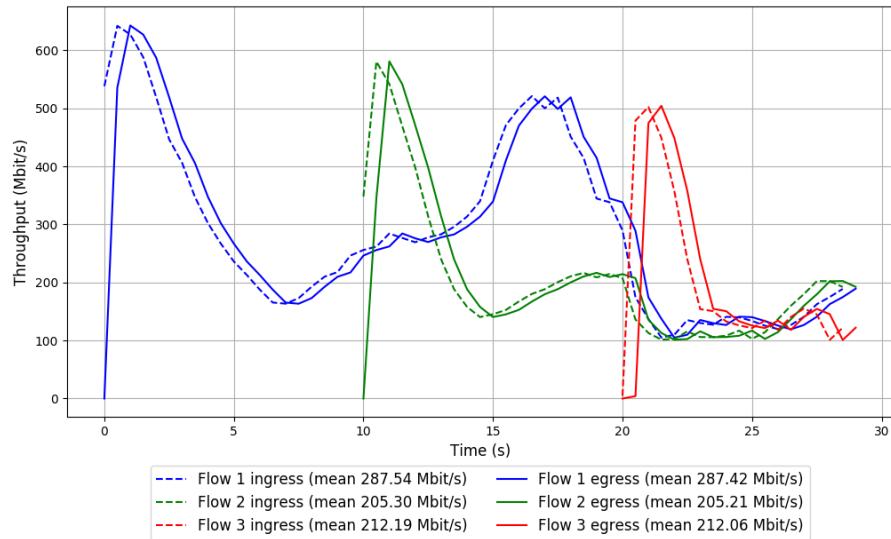


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 01:20:28
End at: 2019-04-24 01:20:58
Local clock offset: 0.151 ms
Remote clock offset: 1.924 ms

# Below is generated by plot.py at 2019-04-24 03:16:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.87 Mbit/s
95th percentile per-packet one-way delay: 1.796 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 287.42 Mbit/s
95th percentile per-packet one-way delay: 1.697 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 205.21 Mbit/s
95th percentile per-packet one-way delay: 1.720 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 212.06 Mbit/s
95th percentile per-packet one-way delay: 2.215 ms
Loss rate: 0.06%
```

Run 3: Report of Indigo-MusesC3 — Data Link

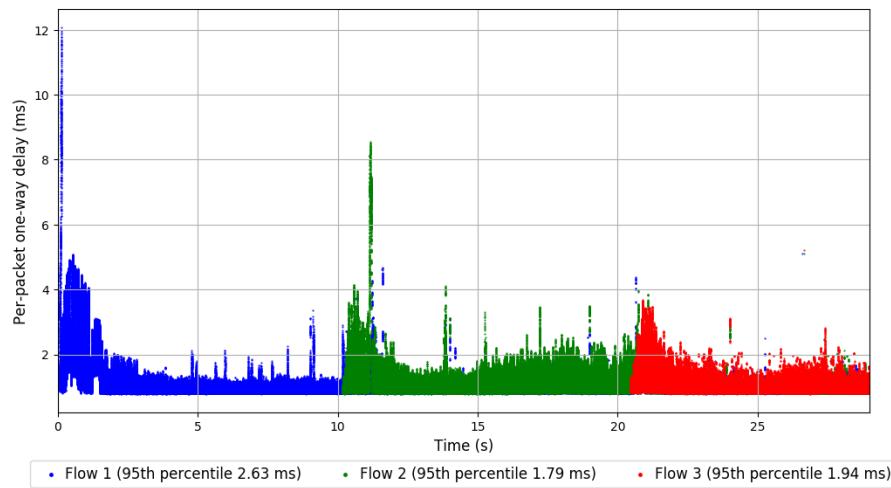
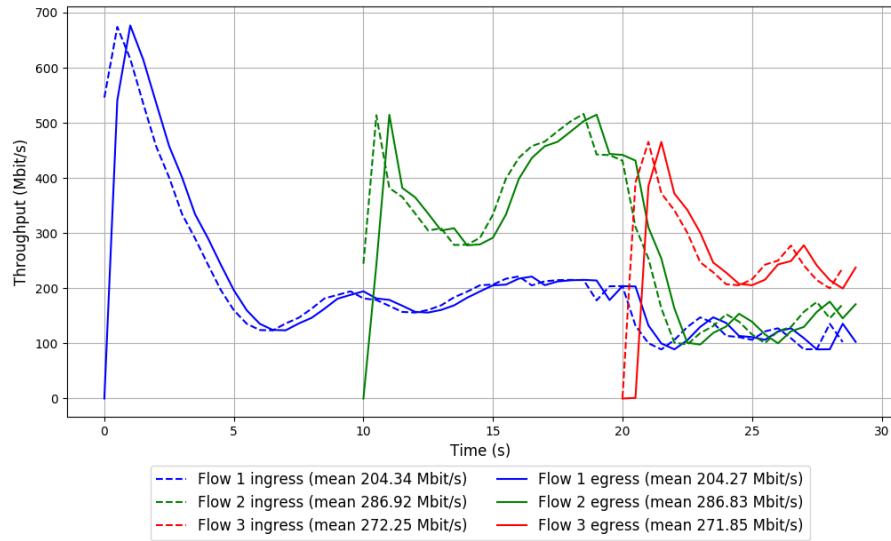


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 01:50:23
End at: 2019-04-24 01:50:53
Local clock offset: 0.185 ms
Remote clock offset: 1.84 ms

# Below is generated by plot.py at 2019-04-24 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.60 Mbit/s
95th percentile per-packet one-way delay: 2.153 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 204.27 Mbit/s
95th percentile per-packet one-way delay: 2.626 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 286.83 Mbit/s
95th percentile per-packet one-way delay: 1.795 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 271.85 Mbit/s
95th percentile per-packet one-way delay: 1.944 ms
Loss rate: 0.15%
```

Run 4: Report of Indigo-MusesC3 — Data Link

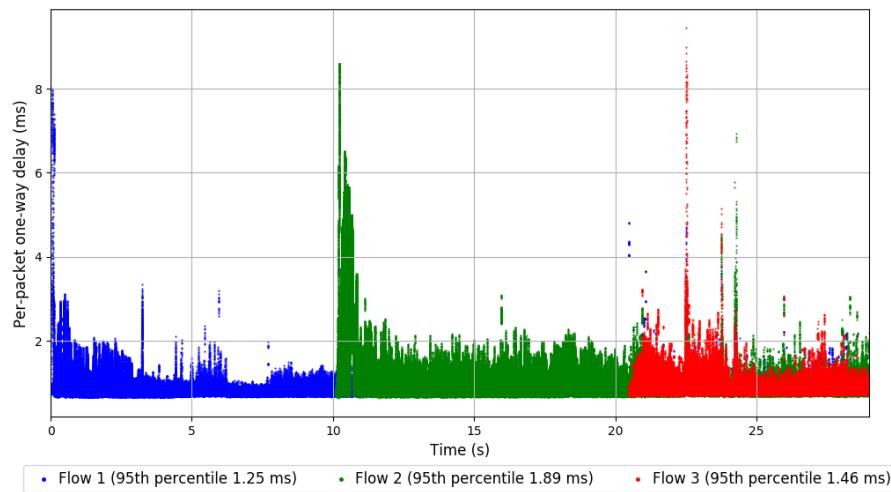
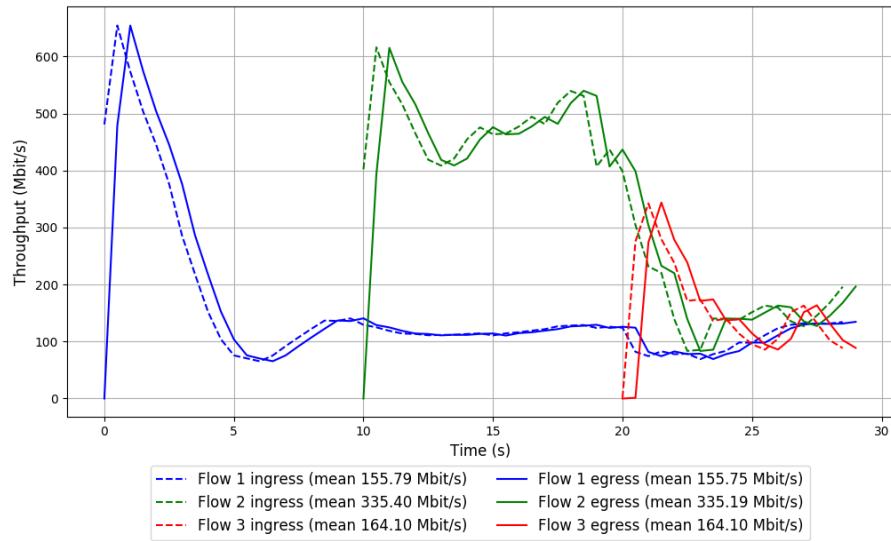


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-04-24 02:20:27
End at: 2019-04-24 02:20:57
Local clock offset: 0.358 ms
Remote clock offset: -1.98 ms

# Below is generated by plot.py at 2019-04-24 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 422.42 Mbit/s
95th percentile per-packet one-way delay: 1.595 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 155.75 Mbit/s
95th percentile per-packet one-way delay: 1.251 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 335.19 Mbit/s
95th percentile per-packet one-way delay: 1.892 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 164.10 Mbit/s
95th percentile per-packet one-way delay: 1.462 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC3 — Data Link

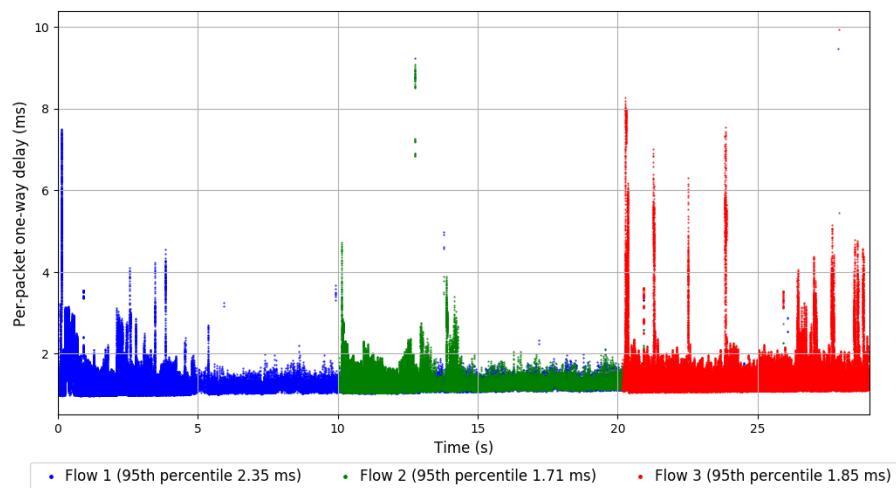
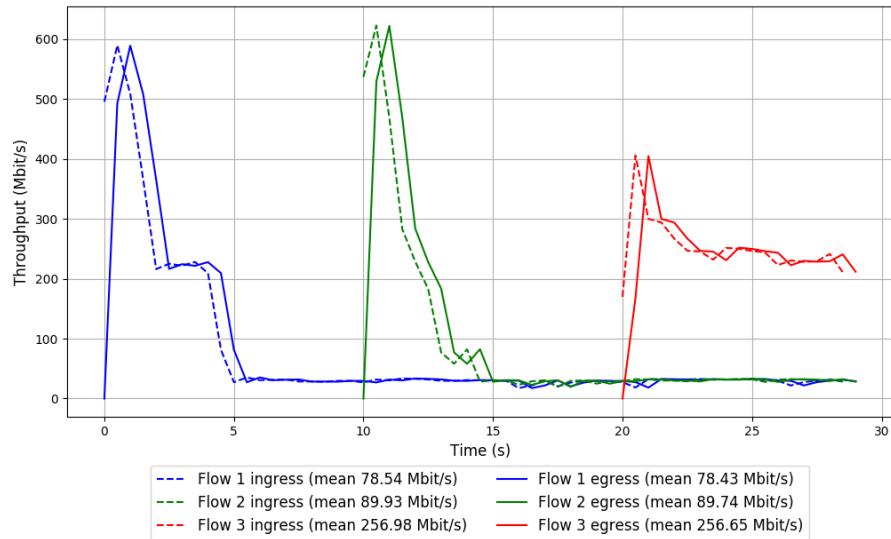


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 00:18:09
End at: 2019-04-24 00:18:39
Local clock offset: 0.9 ms
Remote clock offset: 2.06 ms

# Below is generated by plot.py at 2019-04-24 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 214.91 Mbit/s
95th percentile per-packet one-way delay: 1.941 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 78.43 Mbit/s
95th percentile per-packet one-way delay: 2.352 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 89.74 Mbit/s
95th percentile per-packet one-way delay: 1.708 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 256.65 Mbit/s
95th percentile per-packet one-way delay: 1.847 ms
Loss rate: 0.12%
```

Run 1: Report of Indigo-MusesC5 — Data Link

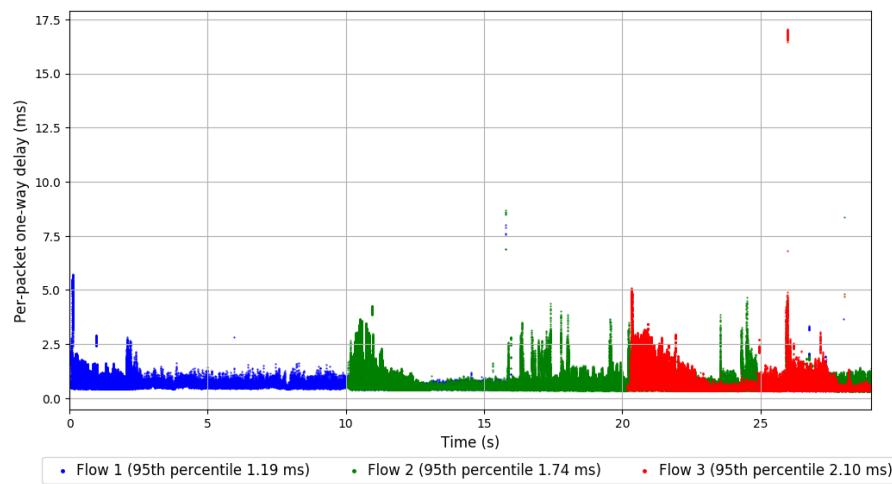
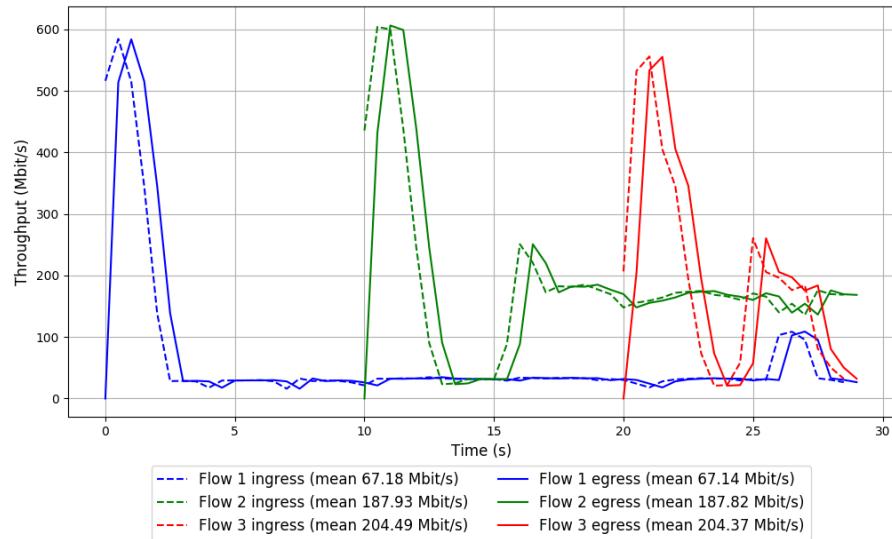


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 00:47:52
End at: 2019-04-24 00:48:22
Local clock offset: 3.377 ms
Remote clock offset: 2.25 ms

# Below is generated by plot.py at 2019-04-24 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.79 Mbit/s
95th percentile per-packet one-way delay: 1.748 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 67.14 Mbit/s
95th percentile per-packet one-way delay: 1.185 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 187.82 Mbit/s
95th percentile per-packet one-way delay: 1.737 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 204.37 Mbit/s
95th percentile per-packet one-way delay: 2.104 ms
Loss rate: 0.06%
```

Run 2: Report of Indigo-MusesC5 — Data Link

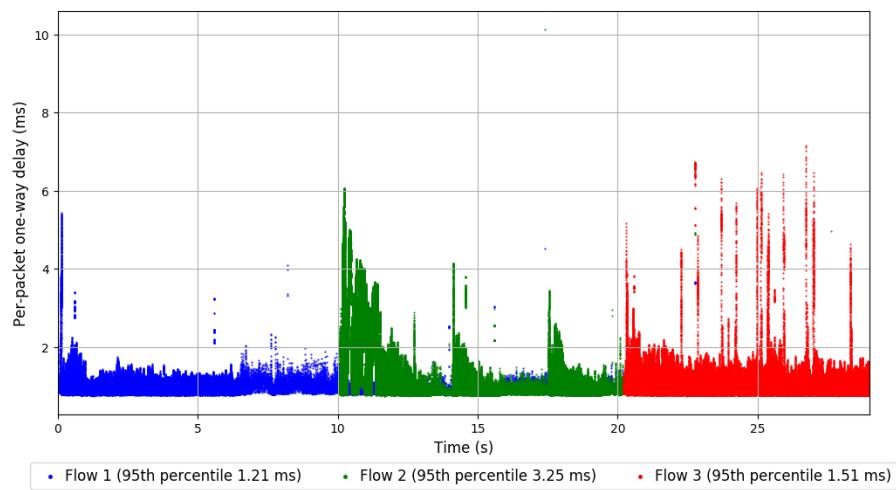
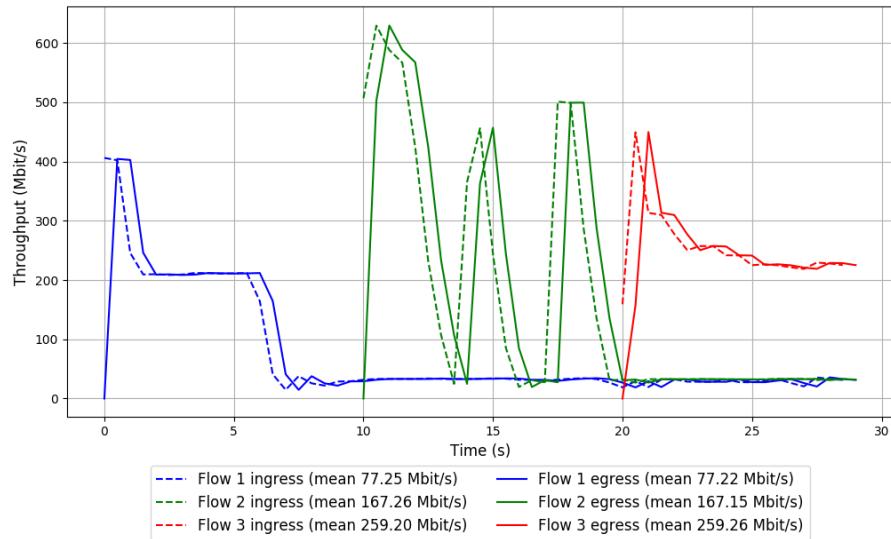


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 01:17:49
End at: 2019-04-24 01:18:19
Local clock offset: 0.139 ms
Remote clock offset: 1.957 ms

# Below is generated by plot.py at 2019-04-24 03:16:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 265.12 Mbit/s
95th percentile per-packet one-way delay: 2.478 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 77.22 Mbit/s
95th percentile per-packet one-way delay: 1.208 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 167.15 Mbit/s
95th percentile per-packet one-way delay: 3.250 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 259.26 Mbit/s
95th percentile per-packet one-way delay: 1.506 ms
Loss rate: 0.05%
```

Run 3: Report of Indigo-MusesC5 — Data Link

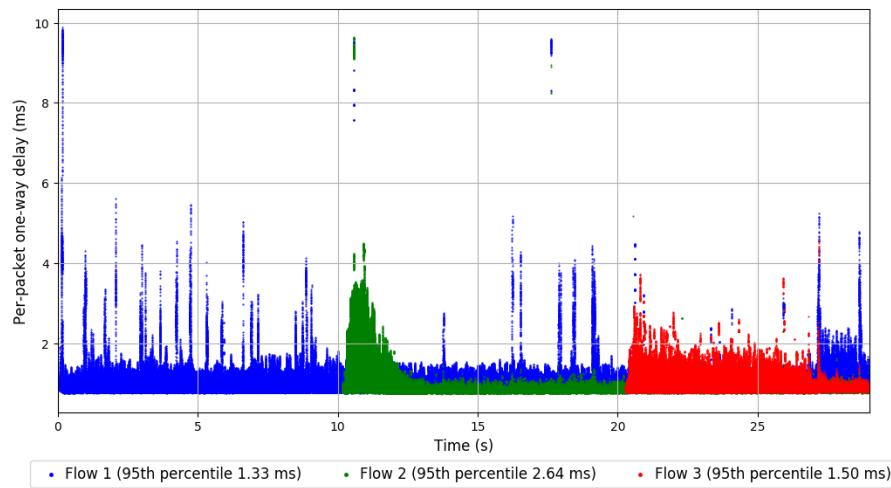
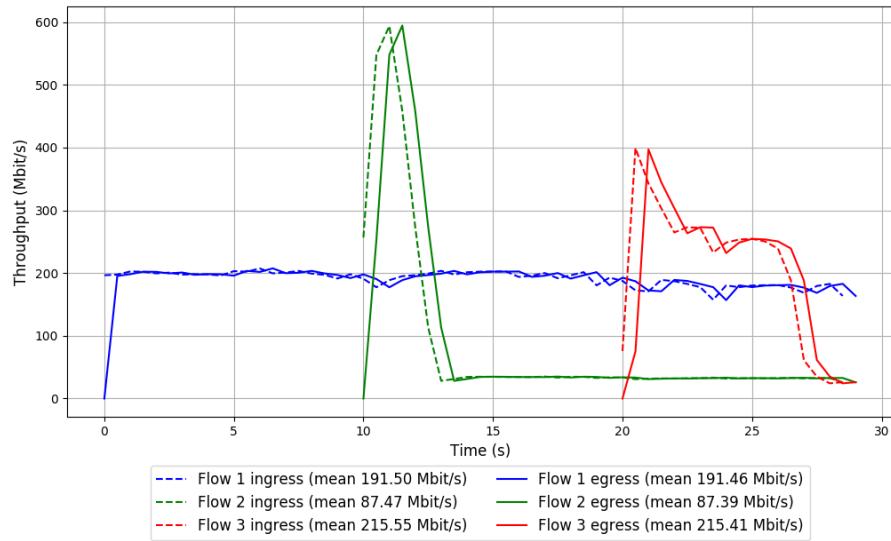


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 01:47:44
End at: 2019-04-24 01:48:14
Local clock offset: 0.139 ms
Remote clock offset: 1.812 ms

# Below is generated by plot.py at 2019-04-24 03:16:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.77 Mbit/s
95th percentile per-packet one-way delay: 1.744 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 191.46 Mbit/s
95th percentile per-packet one-way delay: 1.335 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 2.638 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 215.41 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.07%
```

Run 4: Report of Indigo-MusesC5 — Data Link

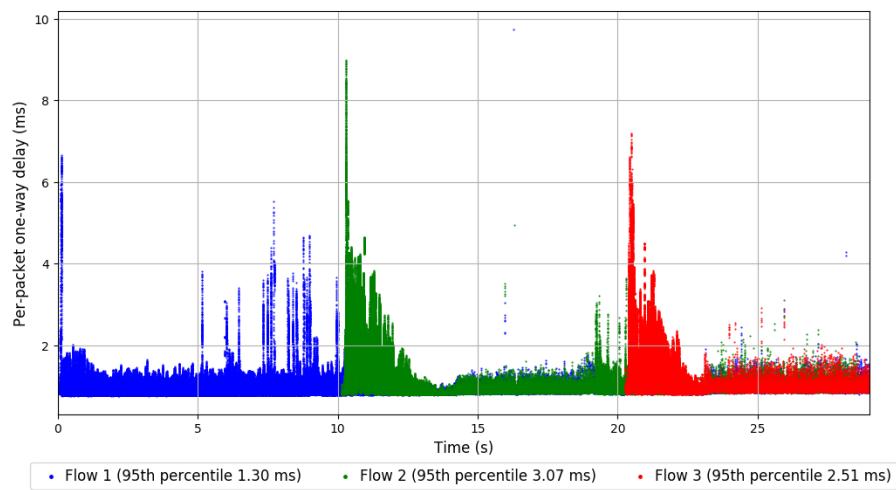
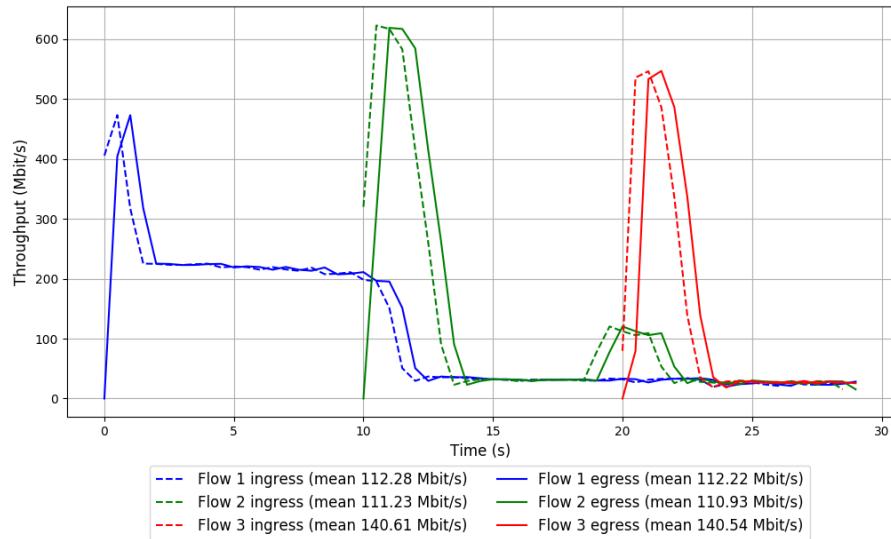


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-04-24 02:17:51
End at: 2019-04-24 02:18:21
Local clock offset: 0.309 ms
Remote clock offset: -1.718 ms

# Below is generated by plot.py at 2019-04-24 03:17:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 226.55 Mbit/s
95th percentile per-packet one-way delay: 2.417 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 112.22 Mbit/s
95th percentile per-packet one-way delay: 1.303 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 110.93 Mbit/s
95th percentile per-packet one-way delay: 3.073 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 140.54 Mbit/s
95th percentile per-packet one-way delay: 2.509 ms
Loss rate: 0.05%
```

Run 5: Report of Indigo-MusesC5 — Data Link

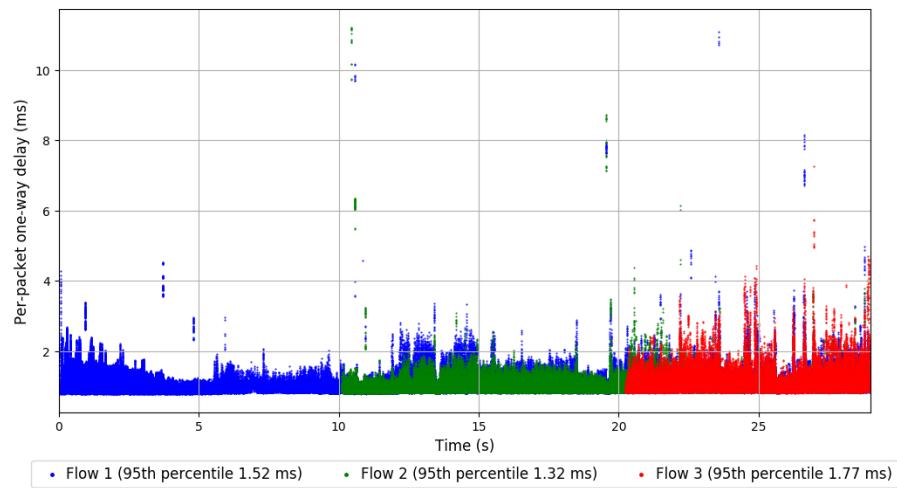
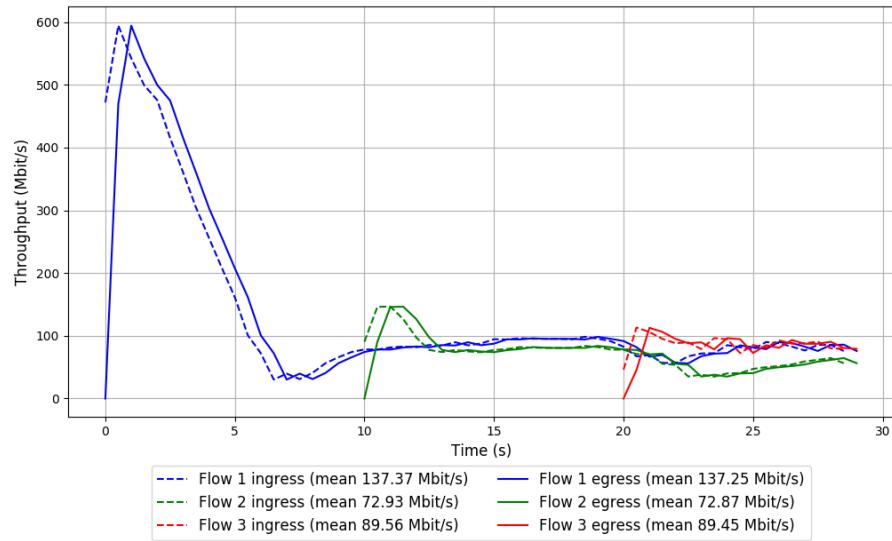


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 00:38:00
End at: 2019-04-24 00:38:30
Local clock offset: 3.963 ms
Remote clock offset: 2.378 ms

# Below is generated by plot.py at 2019-04-24 03:17:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 211.71 Mbit/s
95th percentile per-packet one-way delay: 1.515 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 137.25 Mbit/s
95th percentile per-packet one-way delay: 1.520 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 72.87 Mbit/s
95th percentile per-packet one-way delay: 1.320 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 89.45 Mbit/s
95th percentile per-packet one-way delay: 1.768 ms
Loss rate: 0.12%
```

Run 1: Report of Indigo-MusesD — Data Link

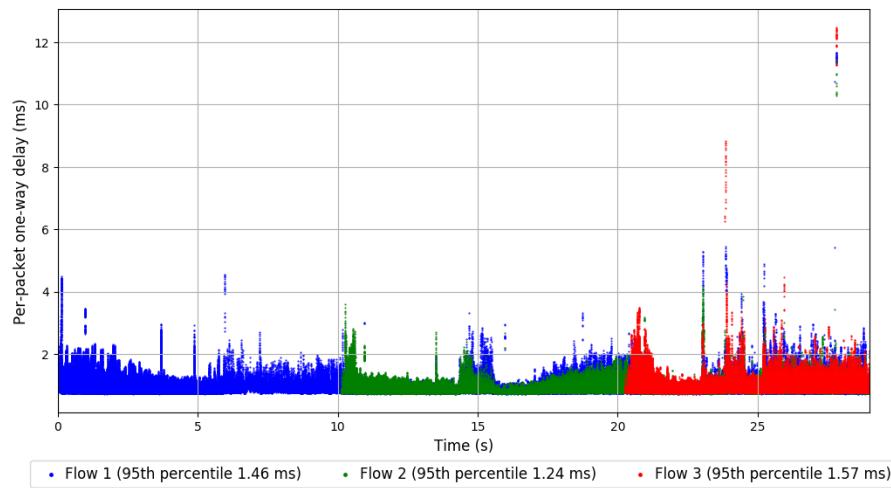
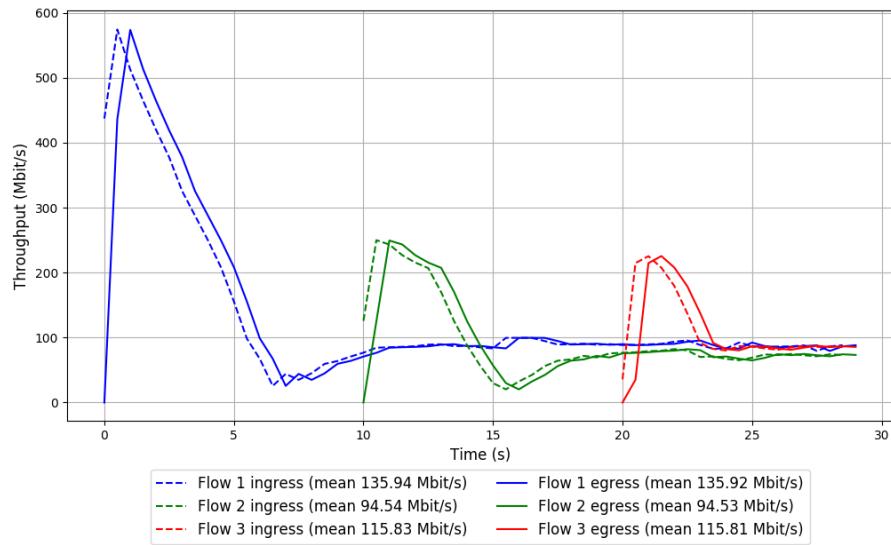


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 01:07:48
End at: 2019-04-24 01:08:18
Local clock offset: 0.339 ms
Remote clock offset: 1.898 ms

# Below is generated by plot.py at 2019-04-24 03:18:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.30 Mbit/s
95th percentile per-packet one-way delay: 1.423 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 135.92 Mbit/s
95th percentile per-packet one-way delay: 1.456 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 1.236 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 115.81 Mbit/s
95th percentile per-packet one-way delay: 1.569 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo-MusesD — Data Link

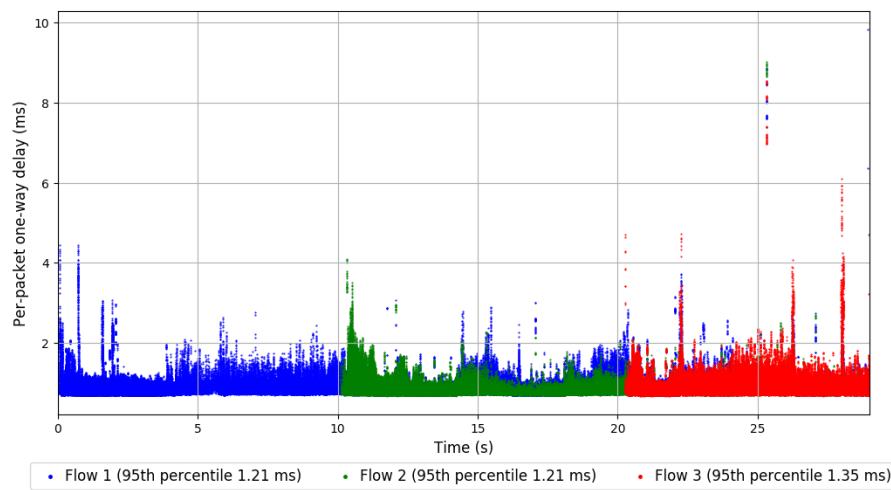
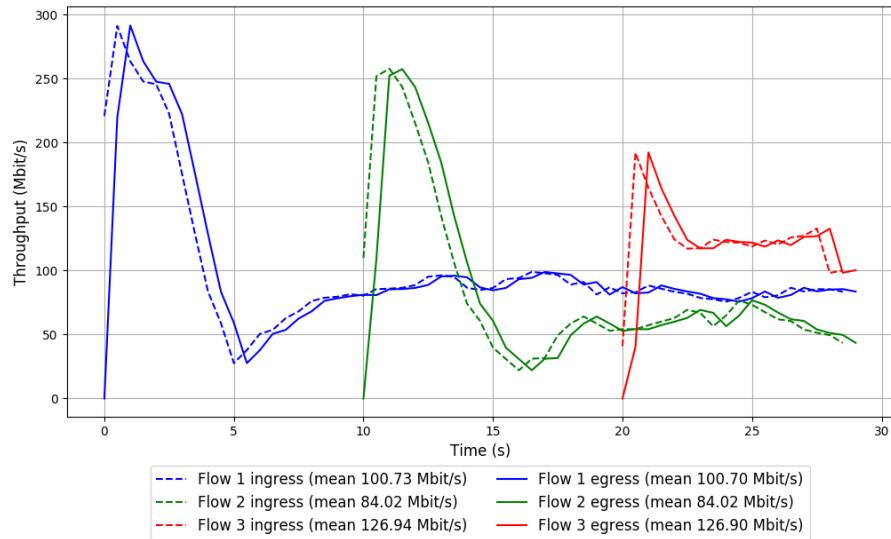


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 01:37:47
End at: 2019-04-24 01:38:17
Local clock offset: 0.157 ms
Remote clock offset: 1.756 ms

# Below is generated by plot.py at 2019-04-24 03:18:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 193.60 Mbit/s
95th percentile per-packet one-way delay: 1.241 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 100.70 Mbit/s
95th percentile per-packet one-way delay: 1.205 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 84.02 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 126.90 Mbit/s
95th percentile per-packet one-way delay: 1.346 ms
Loss rate: 0.03%
```

Run 3: Report of Indigo-MusesD — Data Link

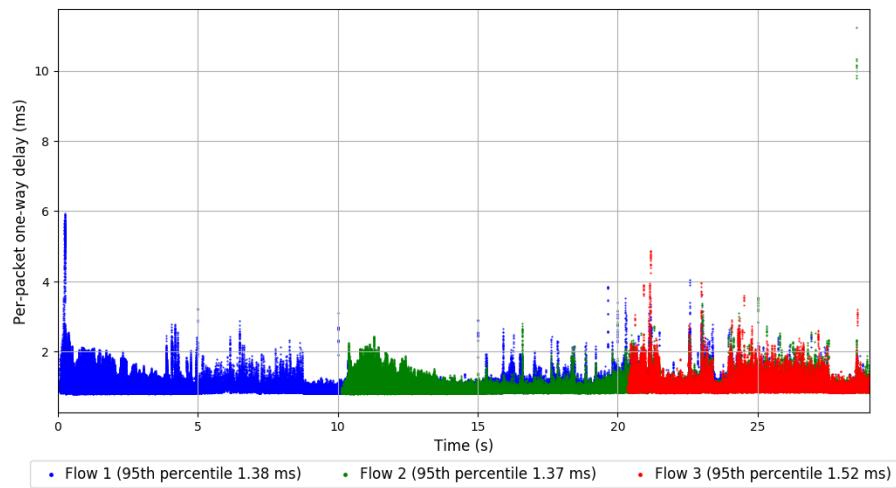
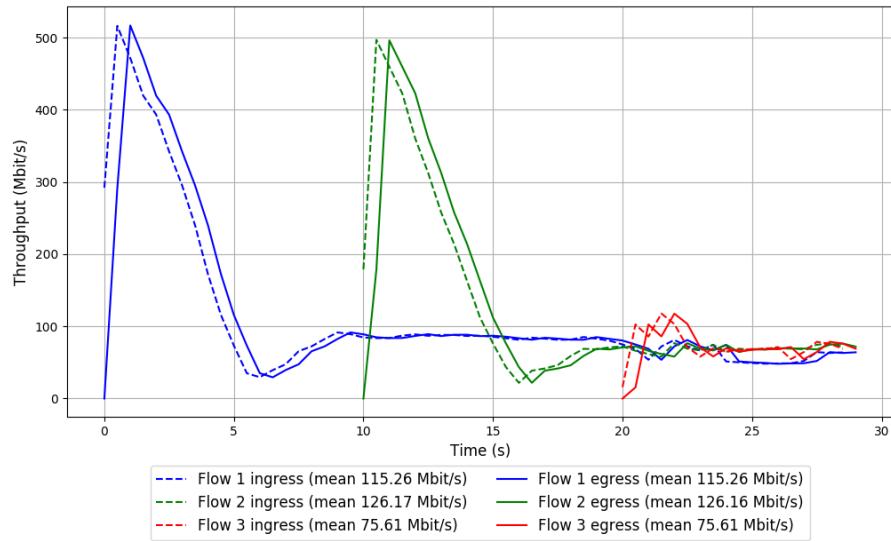


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 02:07:54
End at: 2019-04-24 02:08:24
Local clock offset: 0.274 ms
Remote clock offset: -0.988 ms

# Below is generated by plot.py at 2019-04-24 03:18:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.88 Mbit/s
95th percentile per-packet one-way delay: 1.391 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 115.26 Mbit/s
95th percentile per-packet one-way delay: 1.378 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 126.16 Mbit/s
95th percentile per-packet one-way delay: 1.372 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 75.61 Mbit/s
95th percentile per-packet one-way delay: 1.516 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesD — Data Link

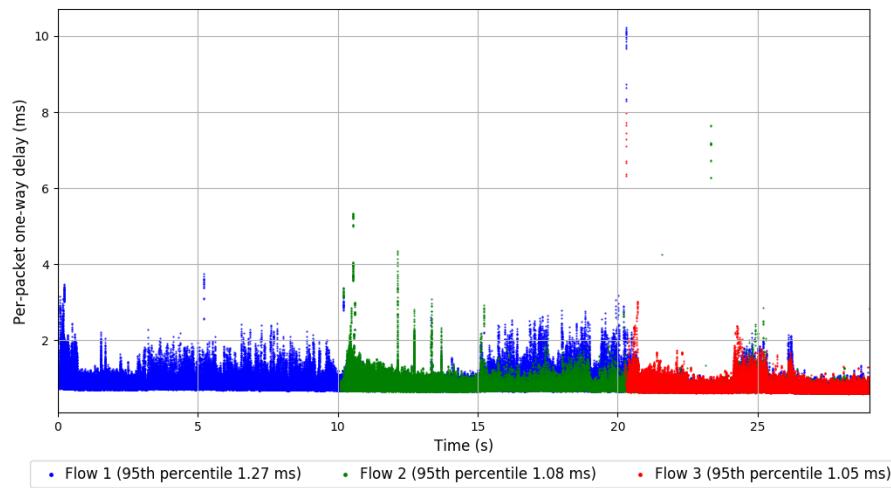
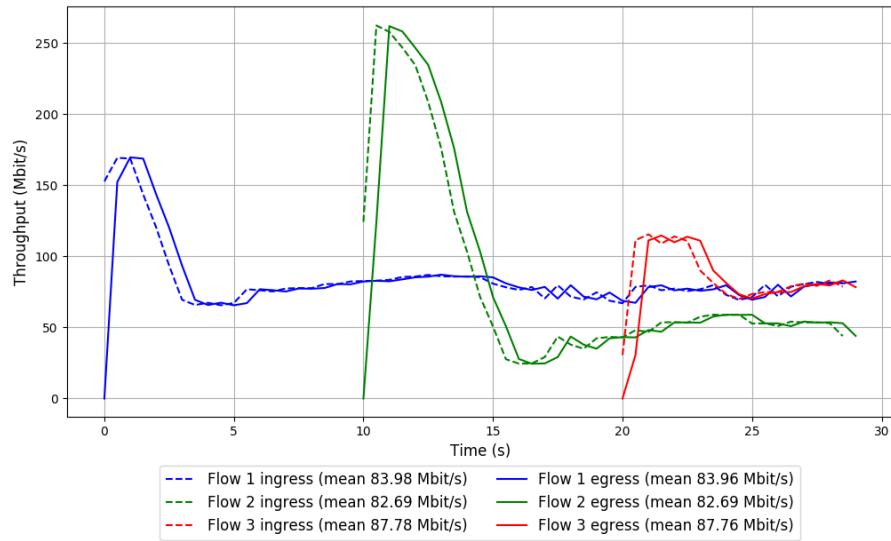


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-04-24 02:37:41
End at: 2019-04-24 02:38:11
Local clock offset: 0.449 ms
Remote clock offset: 1.57 ms

# Below is generated by plot.py at 2019-04-24 03:18:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.24 Mbit/s
95th percentile per-packet one-way delay: 1.167 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 83.96 Mbit/s
95th percentile per-packet one-way delay: 1.266 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 82.69 Mbit/s
95th percentile per-packet one-way delay: 1.077 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 87.76 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 0.03%
```

Run 5: Report of Indigo-MusesD — Data Link

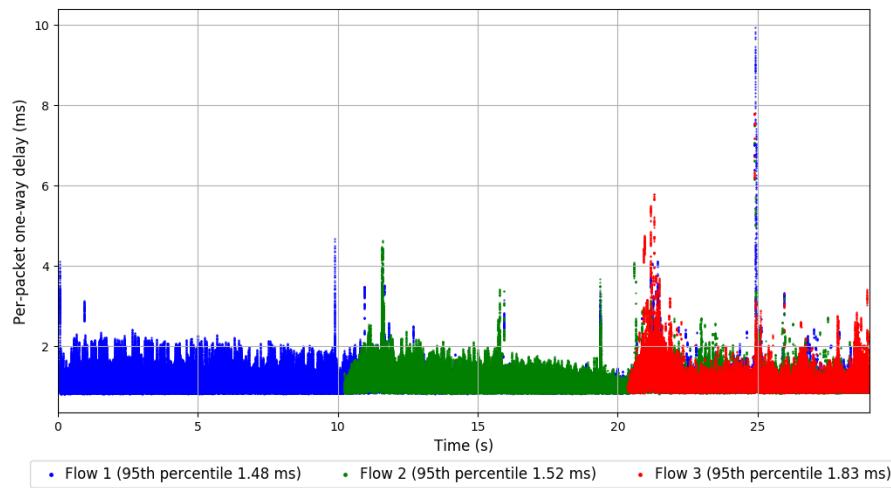
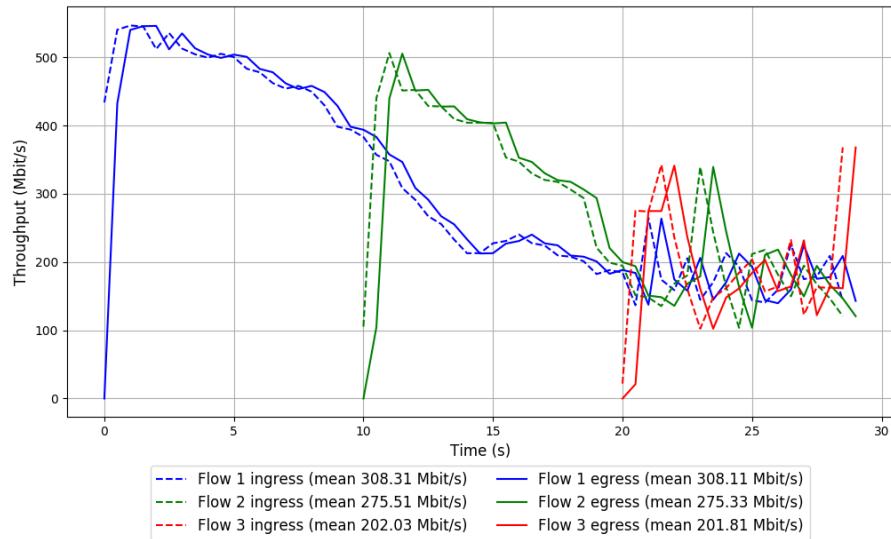


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 00:35:14
End at: 2019-04-24 00:35:44
Local clock offset: 3.752 ms
Remote clock offset: 2.324 ms

# Below is generated by plot.py at 2019-04-24 03:22:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.31 Mbit/s
95th percentile per-packet one-way delay: 1.529 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 308.11 Mbit/s
95th percentile per-packet one-way delay: 1.479 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 275.33 Mbit/s
95th percentile per-packet one-way delay: 1.517 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 201.81 Mbit/s
95th percentile per-packet one-way delay: 1.833 ms
Loss rate: 0.11%
```

Run 1: Report of Indigo-MusesT — Data Link

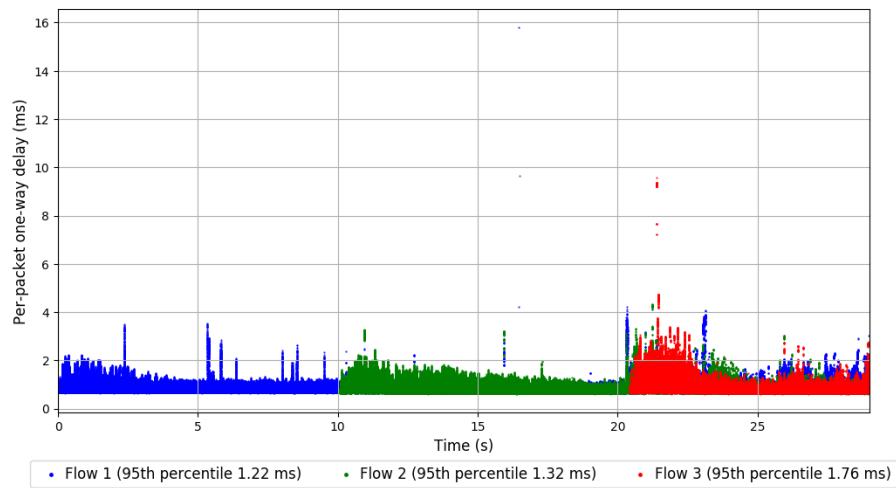
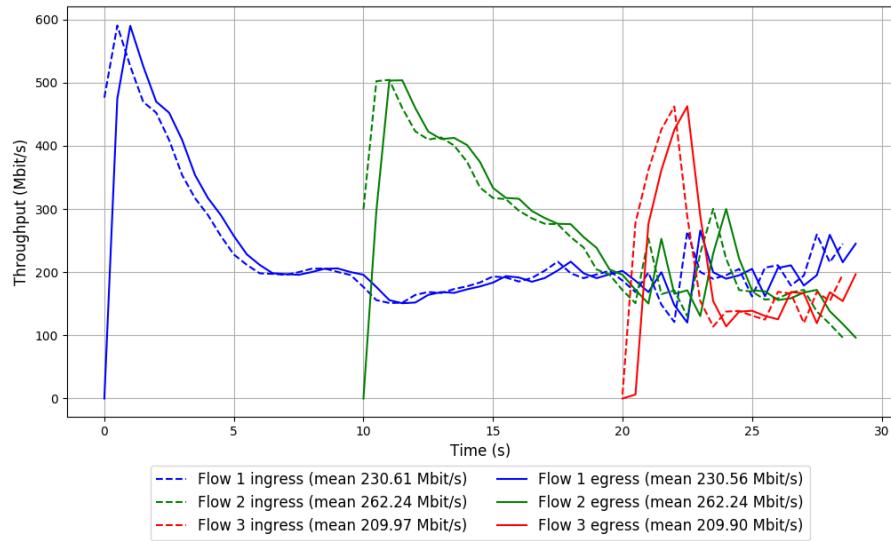


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 01:05:04
End at: 2019-04-24 01:05:34
Local clock offset: 0.503 ms
Remote clock offset: 1.82 ms

# Below is generated by plot.py at 2019-04-24 03:22:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 463.77 Mbit/s
95th percentile per-packet one-way delay: 1.356 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 230.56 Mbit/s
95th percentile per-packet one-way delay: 1.220 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 262.24 Mbit/s
95th percentile per-packet one-way delay: 1.316 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 209.90 Mbit/s
95th percentile per-packet one-way delay: 1.763 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo-MusesT — Data Link

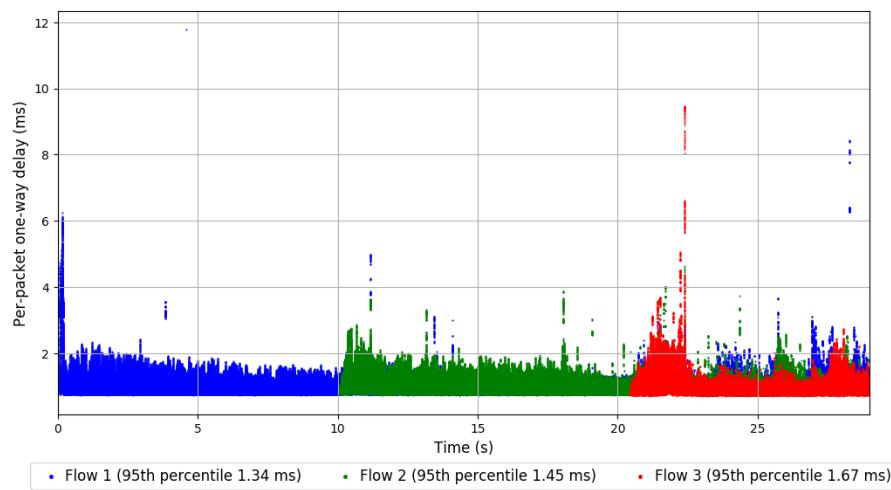
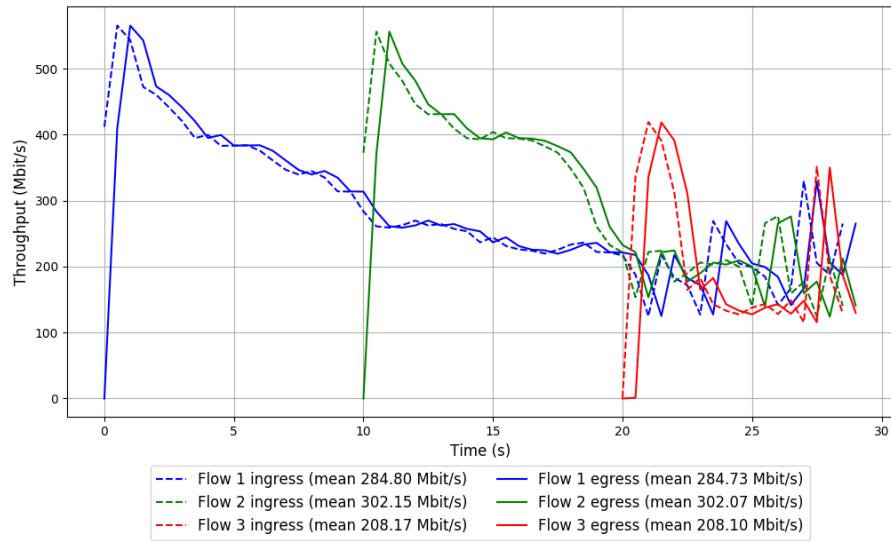


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 01:35:01
End at: 2019-04-24 01:35:31
Local clock offset: 0.162 ms
Remote clock offset: 1.776 ms

# Below is generated by plot.py at 2019-04-24 03:22:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.14 Mbit/s
95th percentile per-packet one-way delay: 1.429 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 284.73 Mbit/s
95th percentile per-packet one-way delay: 1.339 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 302.07 Mbit/s
95th percentile per-packet one-way delay: 1.449 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 208.10 Mbit/s
95th percentile per-packet one-way delay: 1.673 ms
Loss rate: 0.03%
```

Run 3: Report of Indigo-MusesT — Data Link

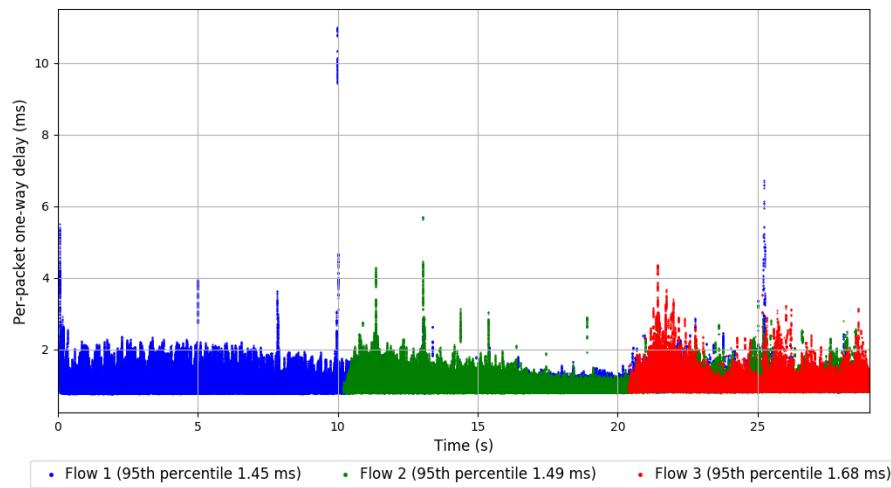
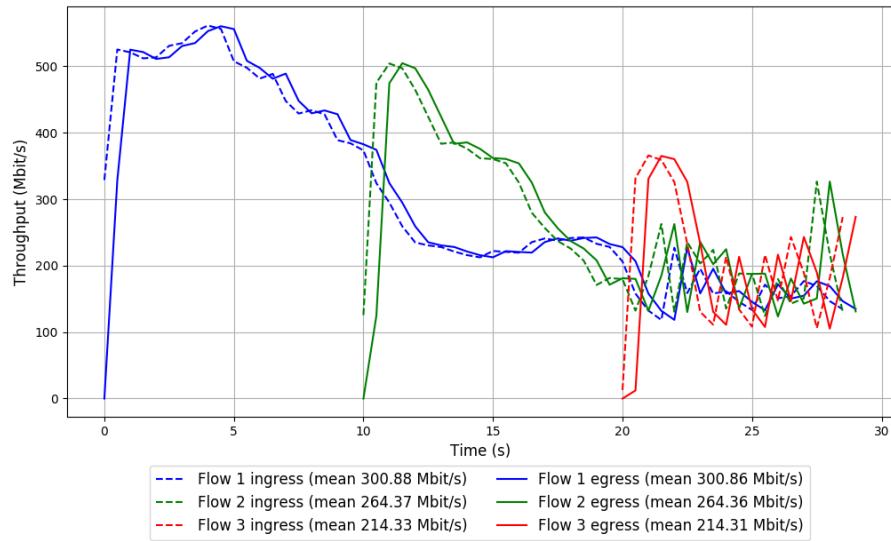


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 02:05:09
End at: 2019-04-24 02:05:39
Local clock offset: 0.287 ms
Remote clock offset: -0.721 ms

# Below is generated by plot.py at 2019-04-24 03:23:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 535.72 Mbit/s
95th percentile per-packet one-way delay: 1.499 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 300.86 Mbit/s
95th percentile per-packet one-way delay: 1.448 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 264.36 Mbit/s
95th percentile per-packet one-way delay: 1.494 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 214.31 Mbit/s
95th percentile per-packet one-way delay: 1.684 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo-MusesT — Data Link

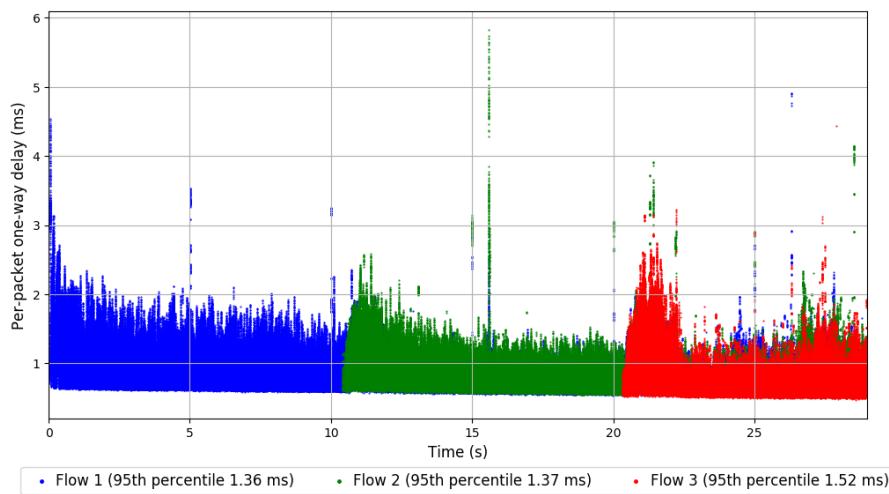
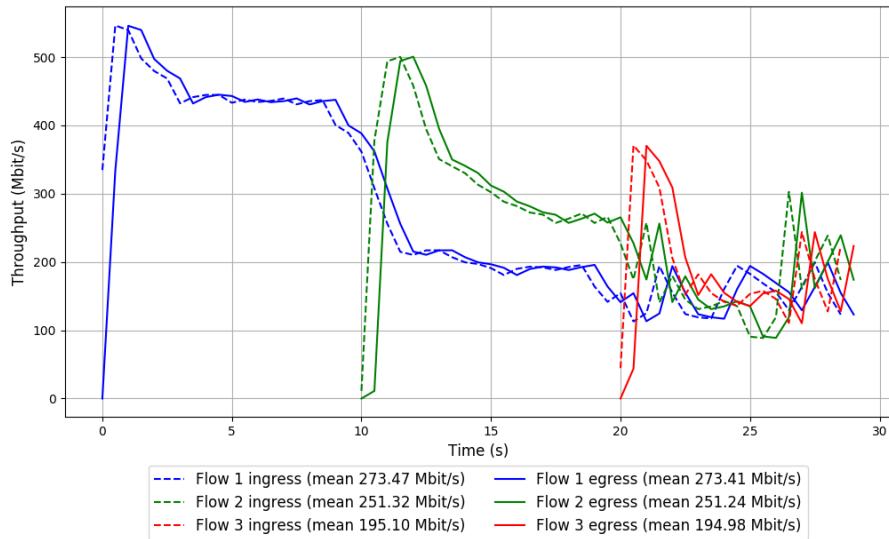


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-04-24 02:34:57
End at: 2019-04-24 02:35:27
Local clock offset: 0.462 ms
Remote clock offset: 0.85 ms

# Below is generated by plot.py at 2019-04-24 03:23:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 492.80 Mbit/s
95th percentile per-packet one-way delay: 1.385 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 273.41 Mbit/s
95th percentile per-packet one-way delay: 1.365 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 251.24 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 194.98 Mbit/s
95th percentile per-packet one-way delay: 1.524 ms
Loss rate: 0.06%
```

Run 5: Report of Indigo-MusesT — Data Link

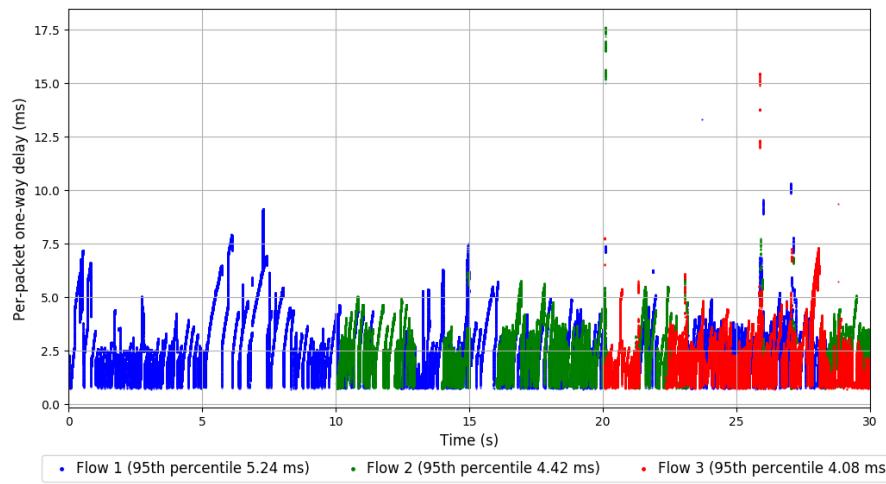
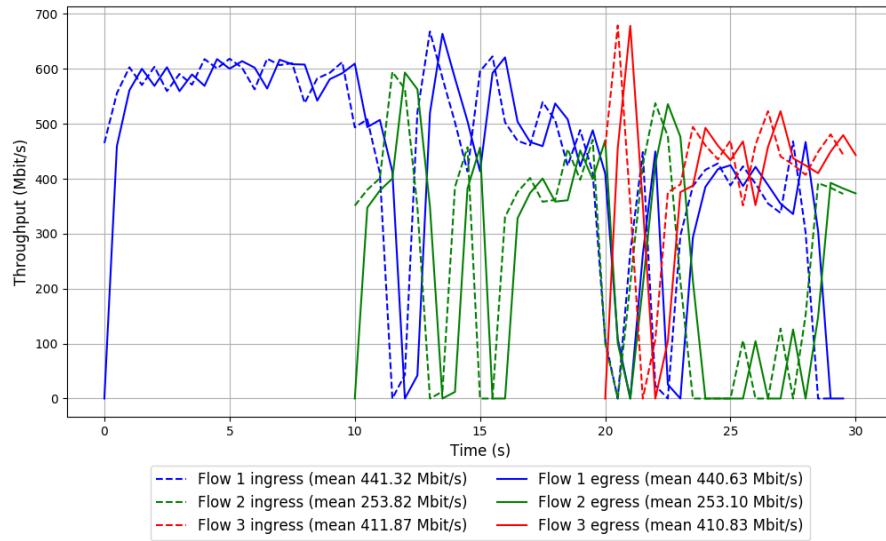


Run 1: Statistics of LEDBAT

```
Start at: 2019-04-24 00:10:57
End at: 2019-04-24 00:11:27
Local clock offset: 0.054 ms
Remote clock offset: 1.923 ms

# Below is generated by plot.py at 2019-04-24 03:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 735.94 Mbit/s
95th percentile per-packet one-way delay: 4.883 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 440.63 Mbit/s
95th percentile per-packet one-way delay: 5.243 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 253.10 Mbit/s
95th percentile per-packet one-way delay: 4.421 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 410.83 Mbit/s
95th percentile per-packet one-way delay: 4.084 ms
Loss rate: 0.25%
```

Run 1: Report of LEDBAT — Data Link

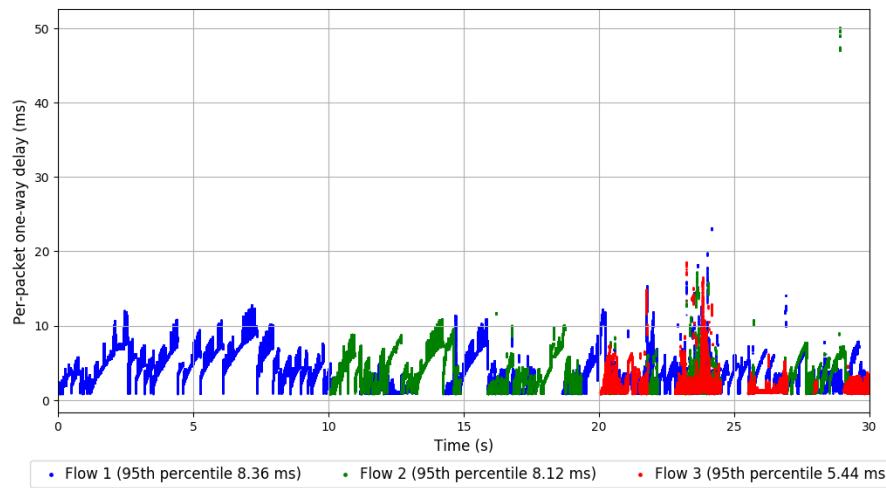
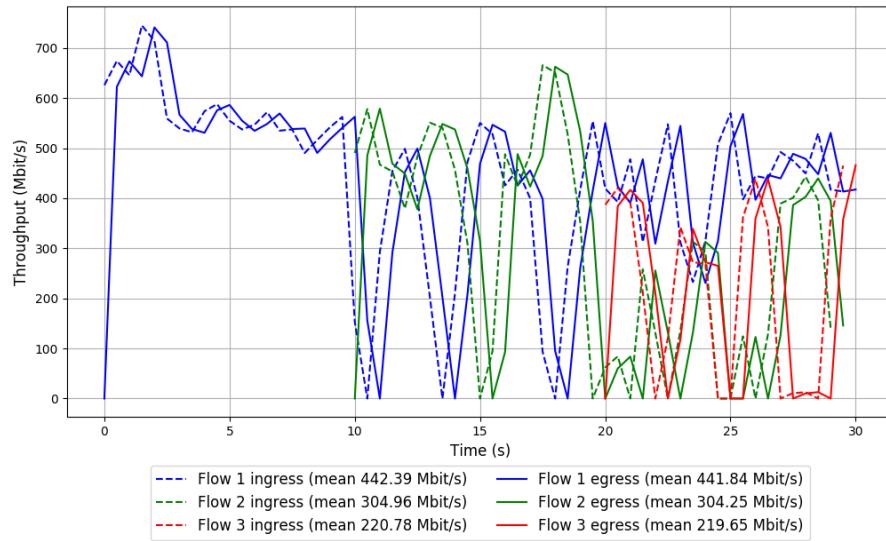


Run 2: Statistics of LEDBAT

```
Start at: 2019-04-24 00:40:43
End at: 2019-04-24 00:41:13
Local clock offset: 4.094 ms
Remote clock offset: 2.434 ms

# Below is generated by plot.py at 2019-04-24 03:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 709.51 Mbit/s
95th percentile per-packet one-way delay: 8.086 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 441.84 Mbit/s
95th percentile per-packet one-way delay: 8.355 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 304.25 Mbit/s
95th percentile per-packet one-way delay: 8.123 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 219.65 Mbit/s
95th percentile per-packet one-way delay: 5.437 ms
Loss rate: 0.50%
```

Run 2: Report of LEDBAT — Data Link

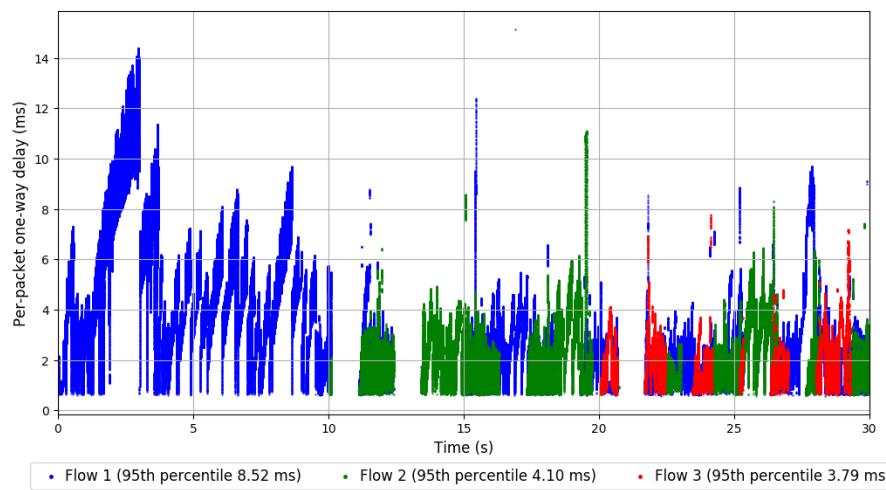
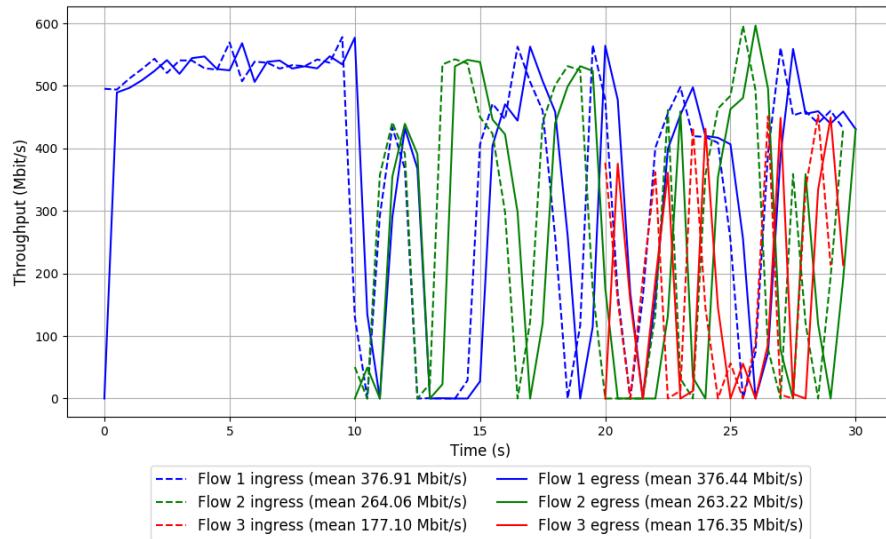


Run 3: Statistics of LEDBAT

```
Start at: 2019-04-24 01:10:34
End at: 2019-04-24 01:11:04
Local clock offset: 0.251 ms
Remote clock offset: 1.817 ms

# Below is generated by plot.py at 2019-04-24 03:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 606.24 Mbit/s
95th percentile per-packet one-way delay: 7.397 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 376.44 Mbit/s
95th percentile per-packet one-way delay: 8.519 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 263.22 Mbit/s
95th percentile per-packet one-way delay: 4.097 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 176.35 Mbit/s
95th percentile per-packet one-way delay: 3.788 ms
Loss rate: 0.42%
```

Run 3: Report of LEDBAT — Data Link

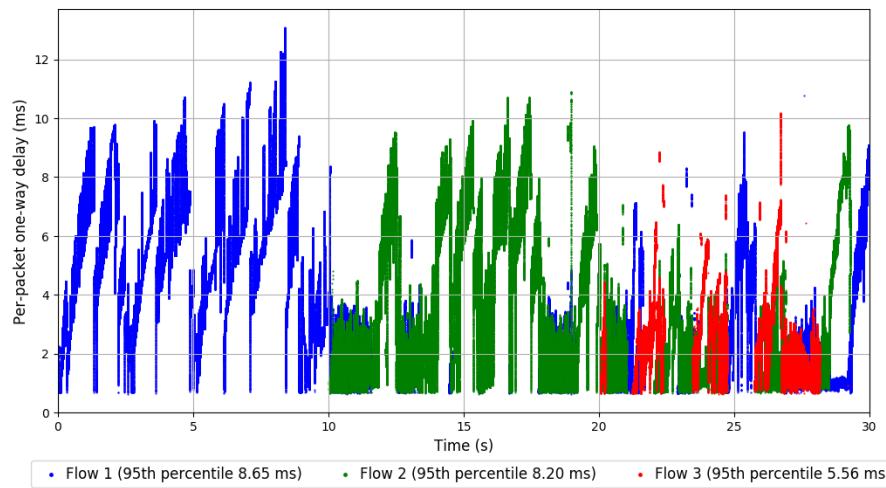
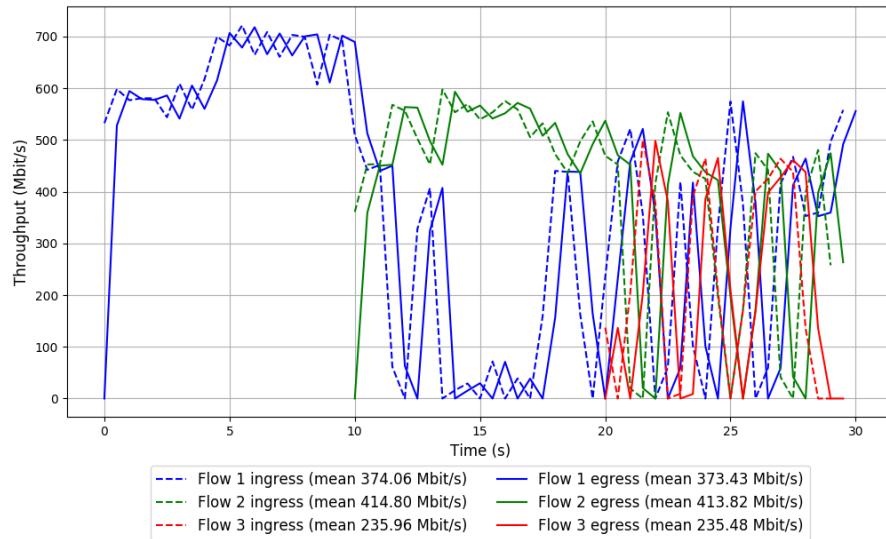


Run 4: Statistics of LEDBAT

```
Start at: 2019-04-24 01:40:32
End at: 2019-04-24 01:41:02
Local clock offset: 0.091 ms
Remote clock offset: 1.683 ms

# Below is generated by plot.py at 2019-04-24 03:30:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.30 Mbit/s
95th percentile per-packet one-way delay: 8.329 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 373.43 Mbit/s
95th percentile per-packet one-way delay: 8.653 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 413.82 Mbit/s
95th percentile per-packet one-way delay: 8.195 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 235.48 Mbit/s
95th percentile per-packet one-way delay: 5.557 ms
Loss rate: 0.20%
```

Run 4: Report of LEDBAT — Data Link

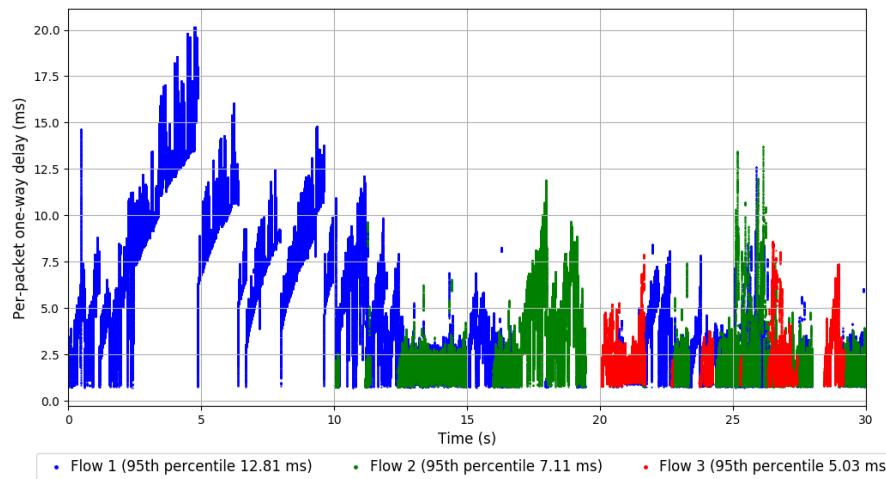
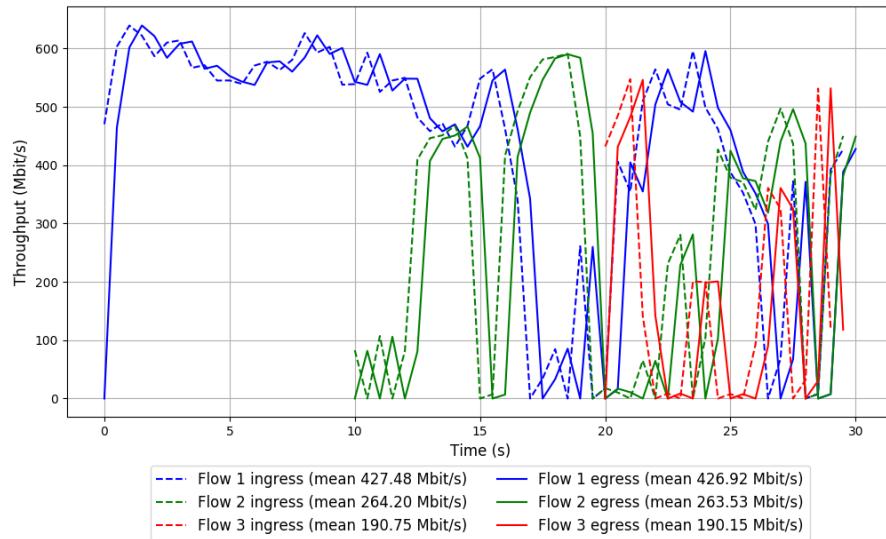


Run 5: Statistics of LEDBAT

```
Start at: 2019-04-24 02:10:39
End at: 2019-04-24 02:11:09
Local clock offset: 0.267 ms
Remote clock offset: -1.304 ms

# Below is generated by plot.py at 2019-04-24 03:30:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 660.37 Mbit/s
95th percentile per-packet one-way delay: 11.737 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 426.92 Mbit/s
95th percentile per-packet one-way delay: 12.815 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 263.53 Mbit/s
95th percentile per-packet one-way delay: 7.106 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 190.15 Mbit/s
95th percentile per-packet one-way delay: 5.029 ms
Loss rate: 0.32%
```

Run 5: Report of LEDBAT — Data Link

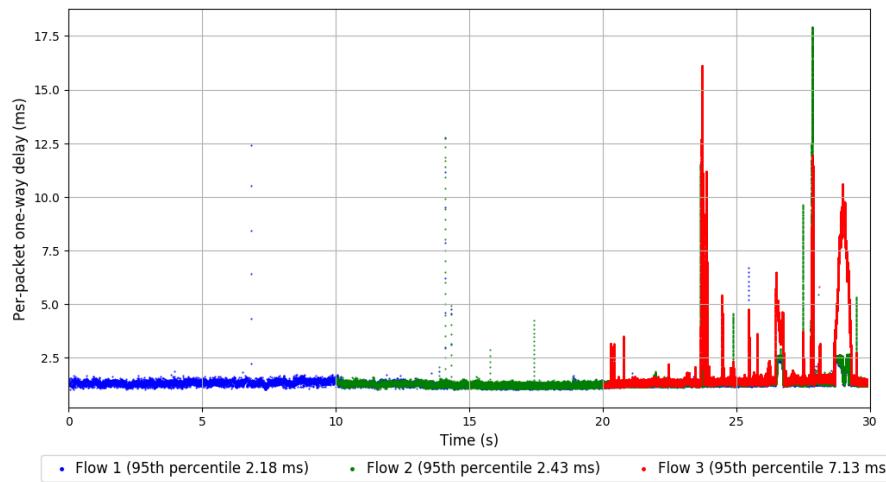
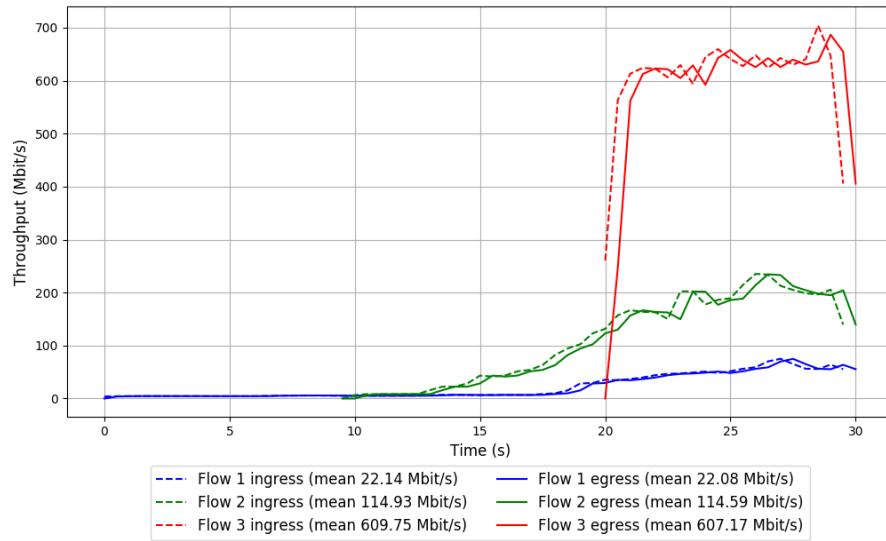


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-04-24 00:16:48
End at: 2019-04-24 00:17:18
Local clock offset: 0.349 ms
Remote clock offset: 2.001 ms

# Below is generated by plot.py at 2019-04-24 03:30:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.79 Mbit/s
95th percentile per-packet one-way delay: 5.451 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 22.08 Mbit/s
95th percentile per-packet one-way delay: 2.181 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 114.59 Mbit/s
95th percentile per-packet one-way delay: 2.428 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 607.17 Mbit/s
95th percentile per-packet one-way delay: 7.133 ms
Loss rate: 0.42%
```

Run 1: Report of PCC-Allegro — Data Link

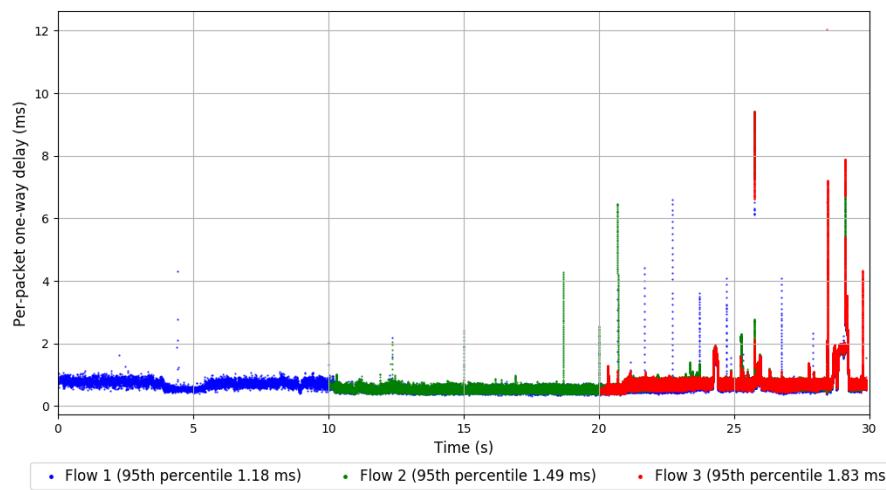
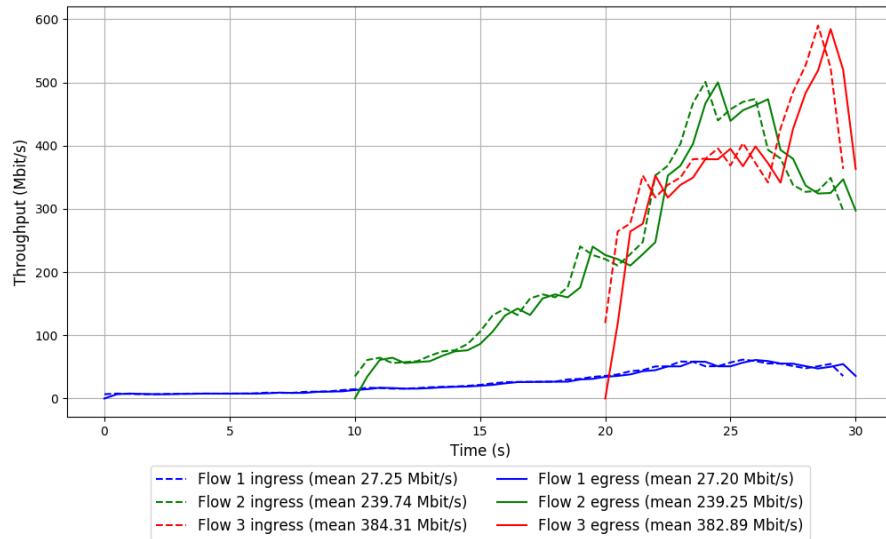


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-04-24 00:46:30
End at: 2019-04-24 00:47:00
Local clock offset: 3.914 ms
Remote clock offset: 2.435 ms

# Below is generated by plot.py at 2019-04-24 03:30:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 312.57 Mbit/s
95th percentile per-packet one-way delay: 1.691 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 27.20 Mbit/s
95th percentile per-packet one-way delay: 1.180 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 239.25 Mbit/s
95th percentile per-packet one-way delay: 1.488 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 382.89 Mbit/s
95th percentile per-packet one-way delay: 1.827 ms
Loss rate: 0.38%
```

Run 2: Report of PCC-Allegro — Data Link

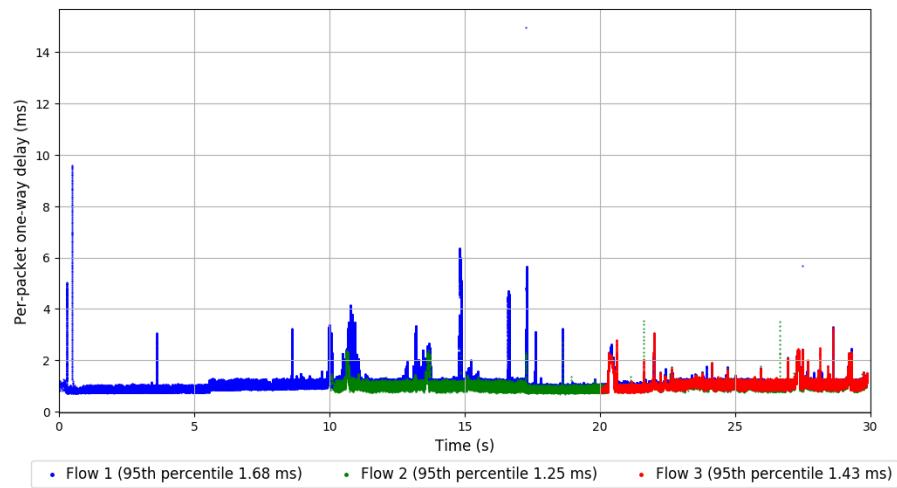
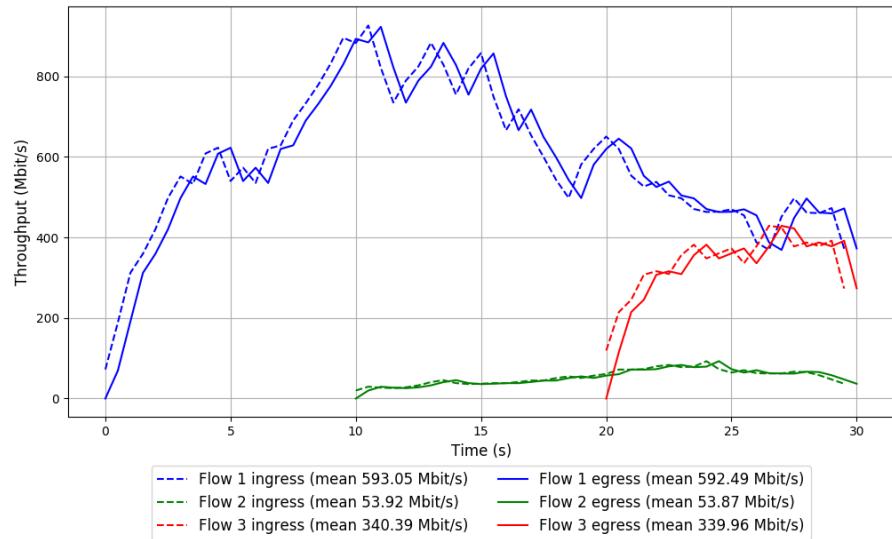


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-04-24 01:16:18
End at: 2019-04-24 01:16:48
Local clock offset: 0.106 ms
Remote clock offset: 1.908 ms

# Below is generated by plot.py at 2019-04-24 03:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 740.45 Mbit/s
95th percentile per-packet one-way delay: 1.633 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 592.49 Mbit/s
95th percentile per-packet one-way delay: 1.684 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 1.249 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 339.96 Mbit/s
95th percentile per-packet one-way delay: 1.425 ms
Loss rate: 0.13%
```

Run 3: Report of PCC-Allegro — Data Link

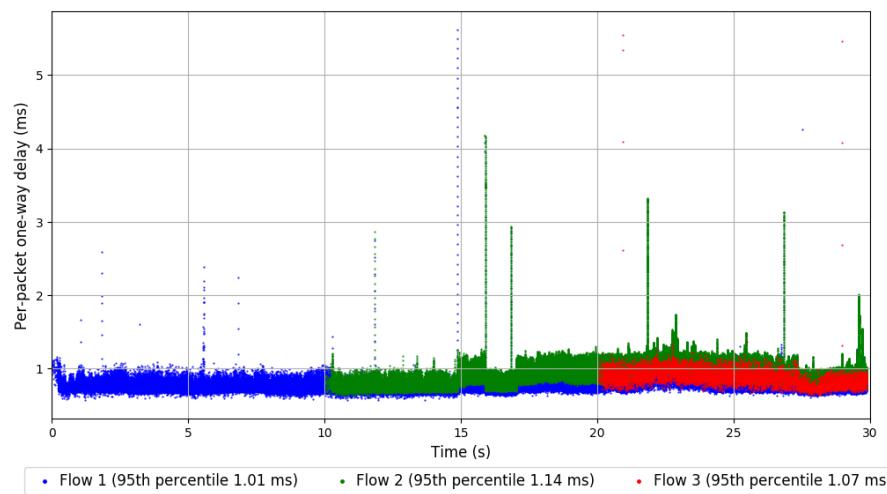
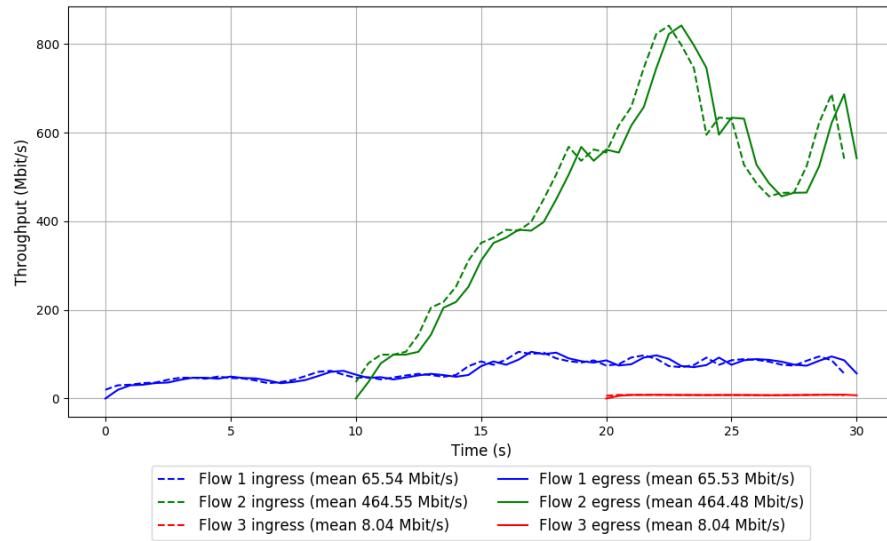


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-04-24 01:46:21
End at: 2019-04-24 01:46:51
Local clock offset: 0.127 ms
Remote clock offset: 1.737 ms

# Below is generated by plot.py at 2019-04-24 03:33:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.03 Mbit/s
95th percentile per-packet one-way delay: 1.130 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 65.53 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 464.48 Mbit/s
95th percentile per-packet one-way delay: 1.139 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 8.04 Mbit/s
95th percentile per-packet one-way delay: 1.066 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Allegro — Data Link

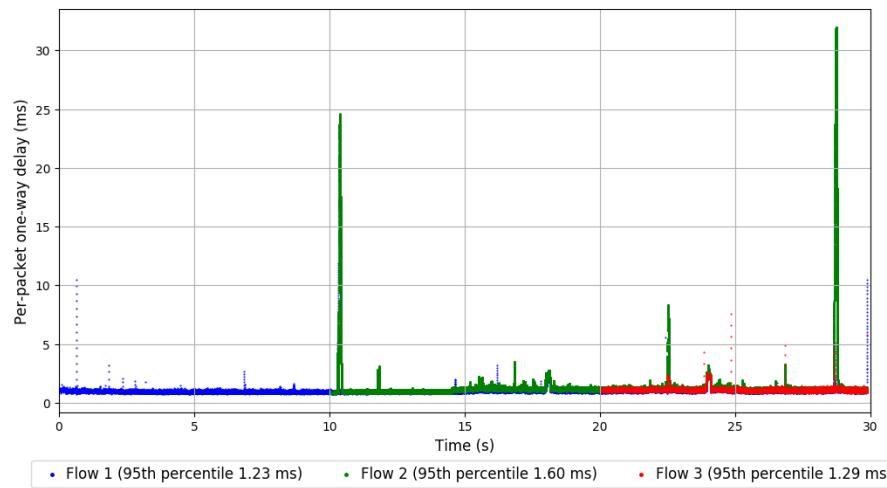
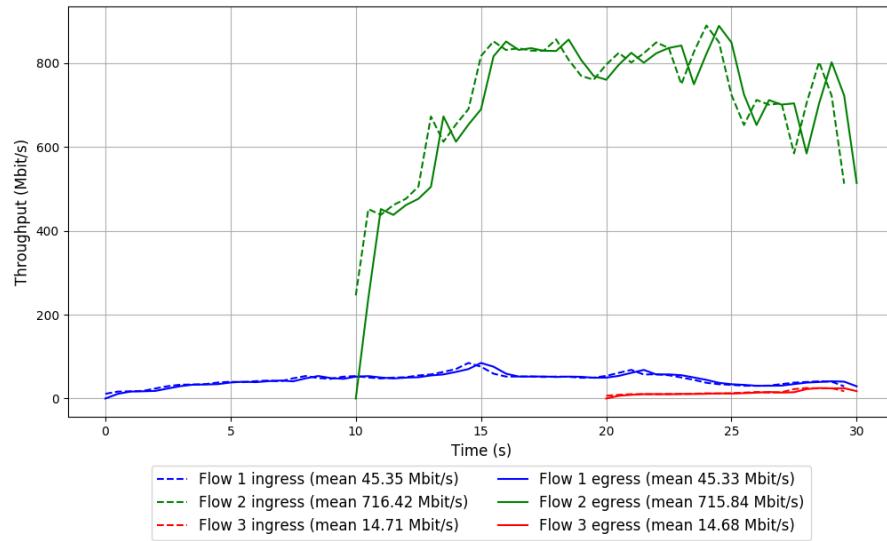


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-04-24 02:16:24
End at: 2019-04-24 02:16:54
Local clock offset: 0.268 ms
Remote clock offset: -1.619 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 526.09 Mbit/s
95th percentile per-packet one-way delay: 1.530 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 45.33 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 715.84 Mbit/s
95th percentile per-packet one-way delay: 1.597 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 14.68 Mbit/s
95th percentile per-packet one-way delay: 1.291 ms
Loss rate: 0.12%
```

Run 5: Report of PCC-Allegro — Data Link

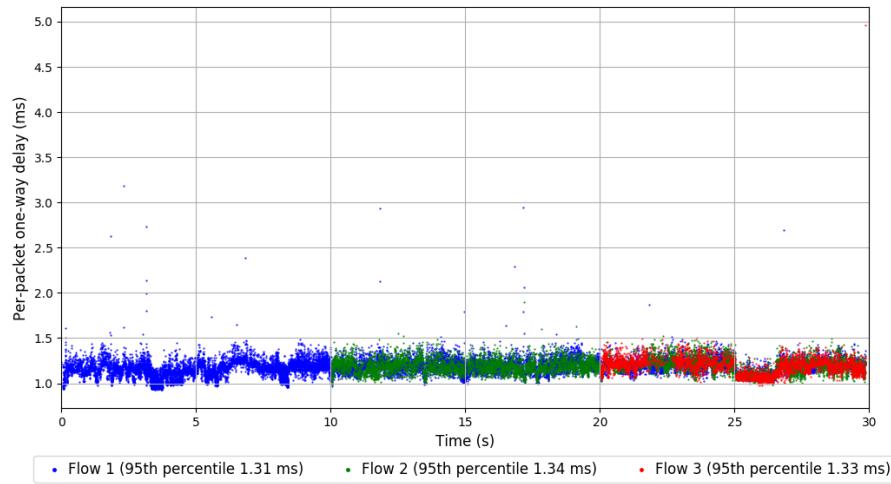
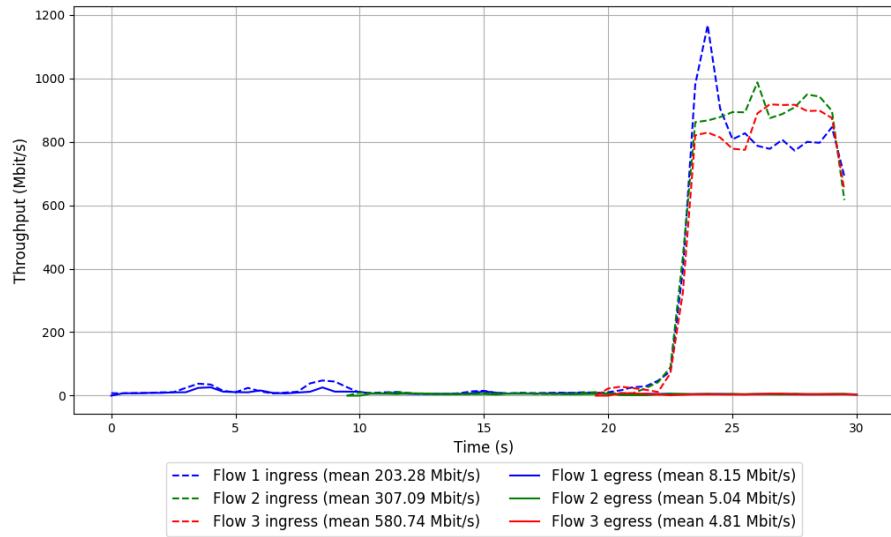


Run 1: Statistics of PCC-Expr

```
Start at: 2019-04-24 00:22:09
End at: 2019-04-24 00:22:39
Local clock offset: 2.0 ms
Remote clock offset: 2.118 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 1.322 ms
Loss rate: 97.82%
-- Flow 1:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 1.313 ms
Loss rate: 95.99%
-- Flow 2:
Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 1.337 ms
Loss rate: 98.36%
-- Flow 3:
Average throughput: 4.81 Mbit/s
95th percentile per-packet one-way delay: 1.334 ms
Loss rate: 99.17%
```

Run 1: Report of PCC-Expr — Data Link

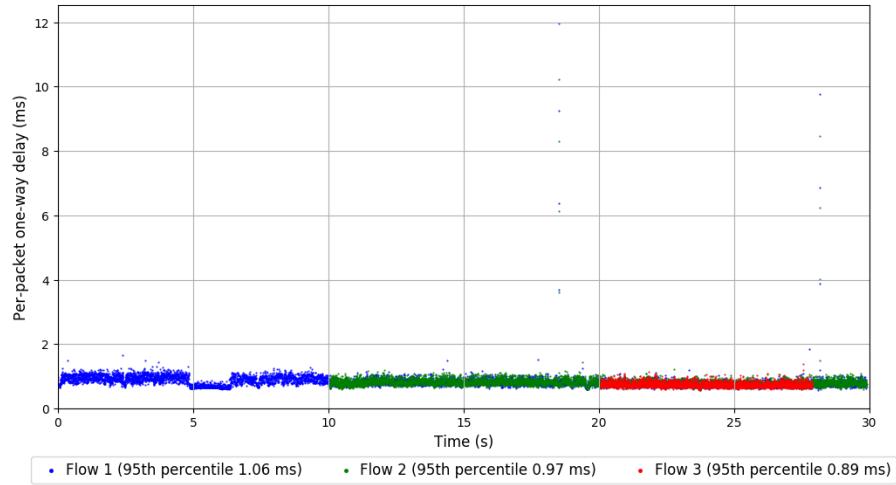
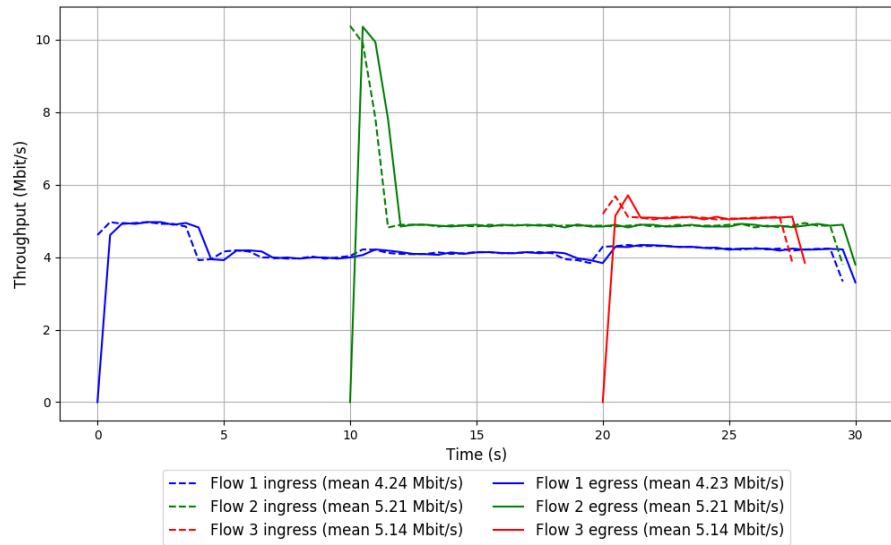


Run 2: Statistics of PCC-Expr

```
Start at: 2019-04-24 00:51:59
End at: 2019-04-24 00:52:29
Local clock offset: 2.111 ms
Remote clock offset: 2.059 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.05 Mbit/s
95th percentile per-packet one-way delay: 1.022 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 0.974 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 0.892 ms
Loss rate: 0.09%
```

Run 2: Report of PCC-Expr — Data Link

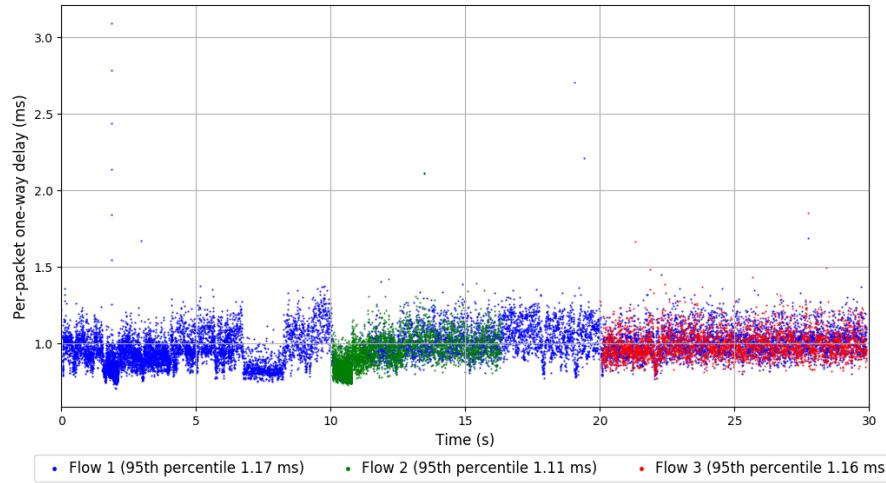
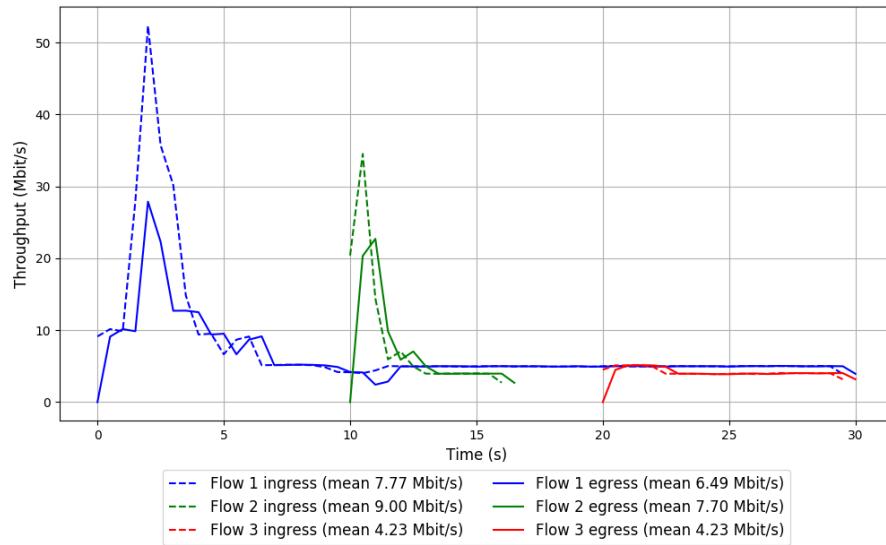


Run 3: Statistics of PCC-Expr

```
Start at: 2019-04-24 01:21:57
End at: 2019-04-24 01:22:27
Local clock offset: 0.21 ms
Remote clock offset: 1.878 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 1.161 ms
Loss rate: 14.01%
-- Flow 1:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 1.171 ms
Loss rate: 16.41%
-- Flow 2:
Average throughput: 7.70 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 14.52%
-- Flow 3:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 0.03%
```

Run 3: Report of PCC-Expr — Data Link

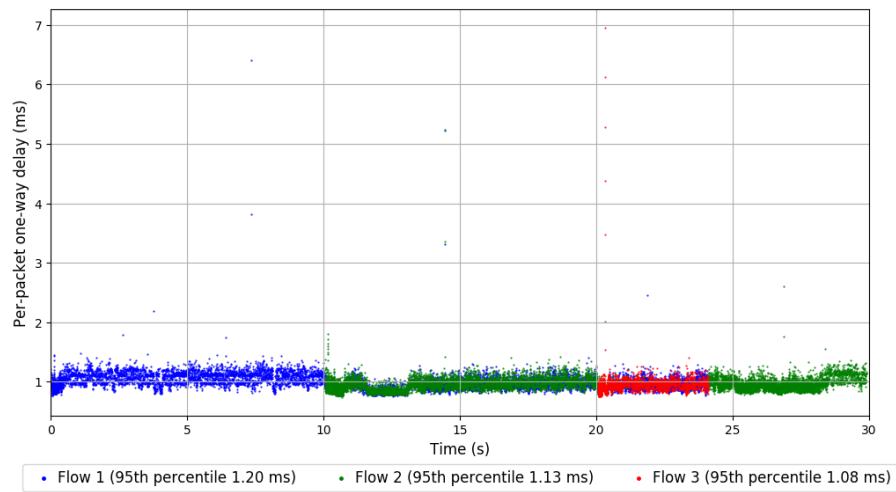
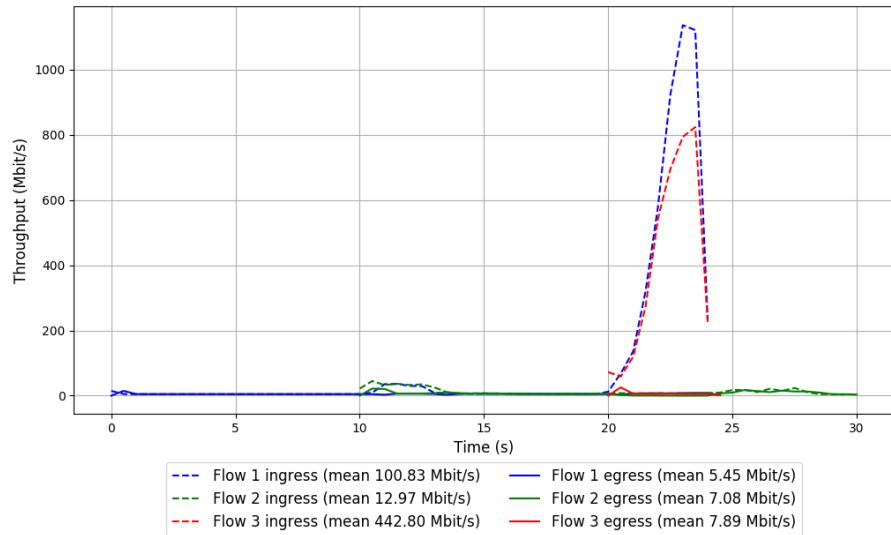


Run 4: Statistics of PCC-Expr

```
Start at: 2019-04-24 01:51:53
End at: 2019-04-24 01:52:23
Local clock offset: 0.228 ms
Remote clock offset: 1.826 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.18 Mbit/s
95th percentile per-packet one-way delay: 1.170 ms
Loss rate: 93.22%
-- Flow 1:
Average throughput: 5.45 Mbit/s
95th percentile per-packet one-way delay: 1.200 ms
Loss rate: 94.59%
-- Flow 2:
Average throughput: 7.08 Mbit/s
95th percentile per-packet one-way delay: 1.134 ms
Loss rate: 45.42%
-- Flow 3:
Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 1.076 ms
Loss rate: 98.22%
```

Run 4: Report of PCC-Expr — Data Link

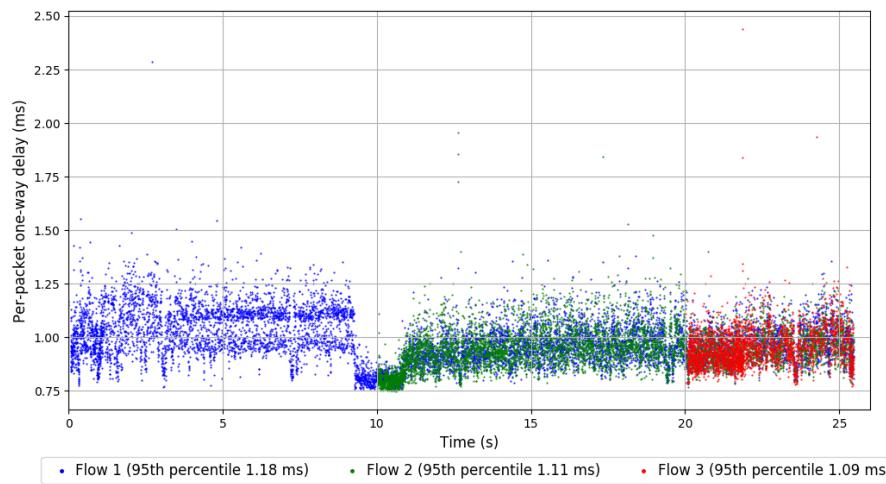
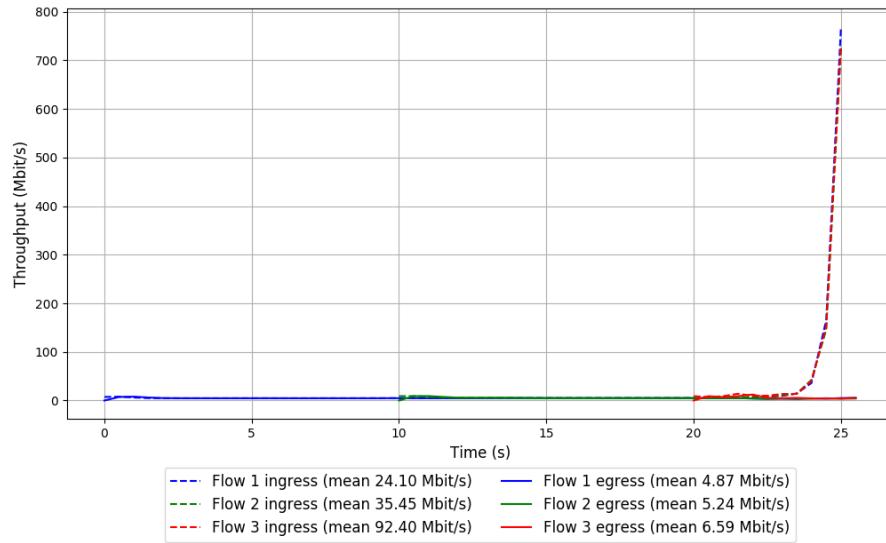


Run 5: Statistics of PCC-Expr

```
Start at: 2019-04-24 02:21:55
End at: 2019-04-24 02:22:25
Local clock offset: 0.389 ms
Remote clock offset: -1.953 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 85.54%
-- Flow 1:
Average throughput: 4.87 Mbit/s
95th percentile per-packet one-way delay: 1.181 ms
Loss rate: 79.80%
-- Flow 2:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 85.22%
-- Flow 3:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 1.089 ms
Loss rate: 92.87%
```

Run 5: Report of PCC-Expr — Data Link

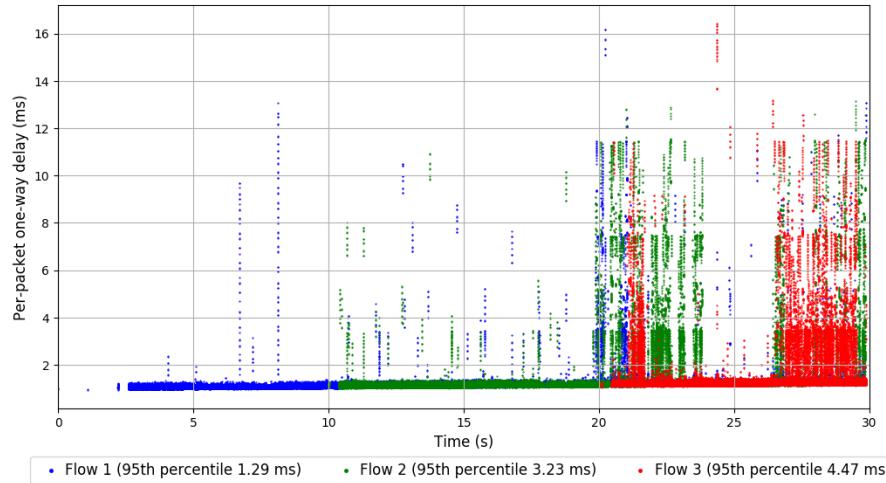
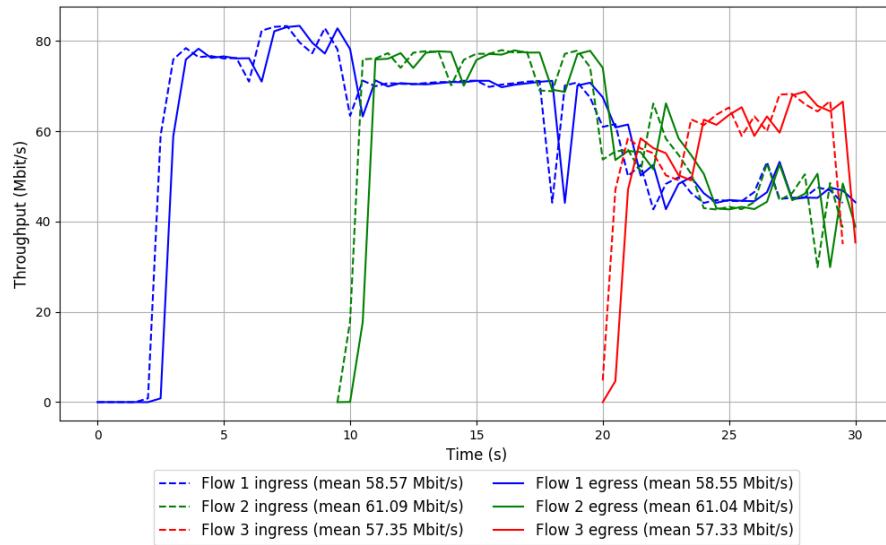


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-04-24 00:15:29
End at: 2019-04-24 00:15:59
Local clock offset: -0.109 ms
Remote clock offset: 1.965 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 117.99 Mbit/s
95th percentile per-packet one-way delay: 2.524 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 58.55 Mbit/s
95th percentile per-packet one-way delay: 1.292 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 3.226 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 4.468 ms
Loss rate: 0.03%
```

Run 1: Report of QUIC Cubic — Data Link

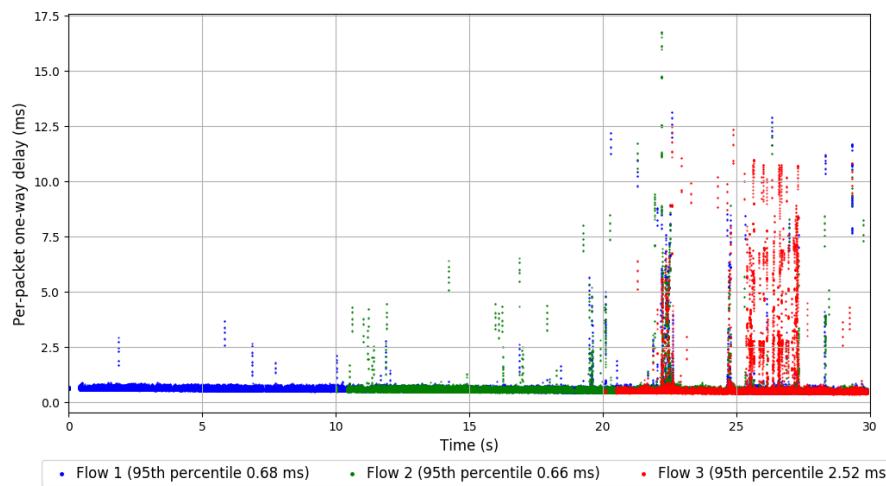
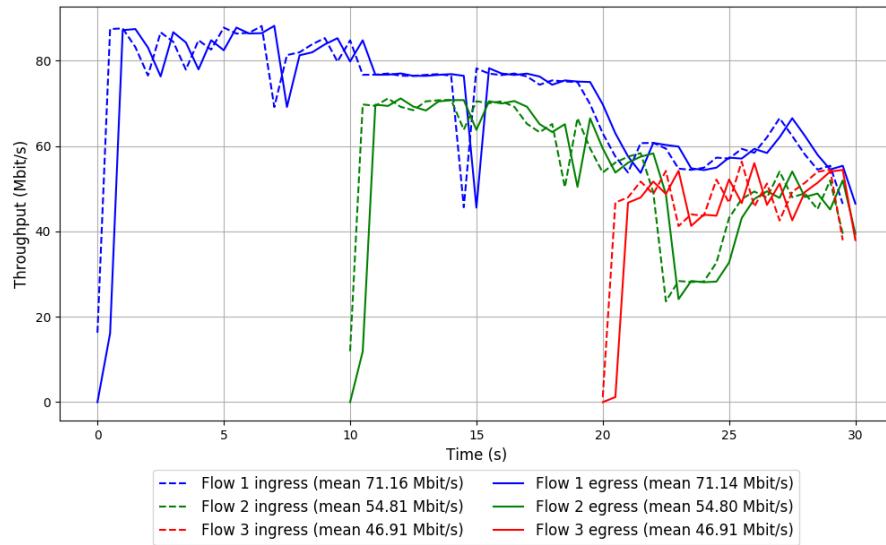


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-04-24 00:45:12
End at: 2019-04-24 00:45:42
Local clock offset: 4.403 ms
Remote clock offset: 2.511 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.99 Mbit/s
95th percentile per-packet one-way delay: 0.681 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 71.14 Mbit/s
95th percentile per-packet one-way delay: 0.682 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 0.659 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.91 Mbit/s
95th percentile per-packet one-way delay: 2.515 ms
Loss rate: 0.01%
```

Run 2: Report of QUIC Cubic — Data Link

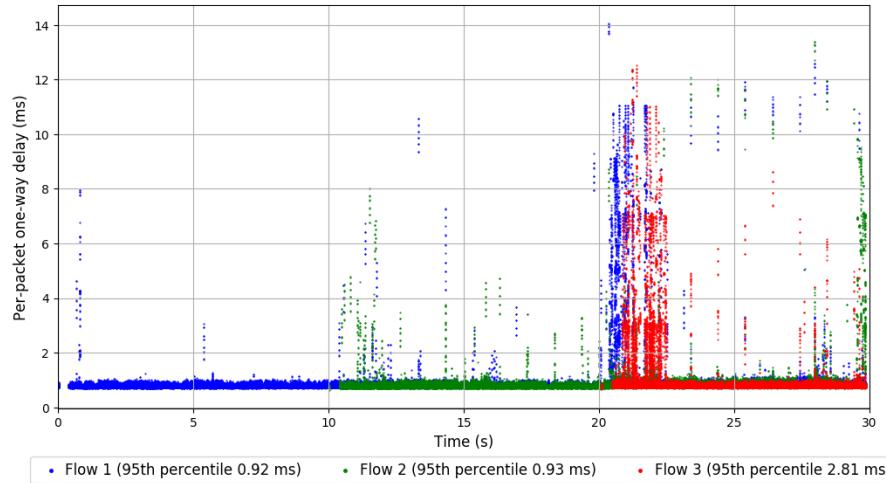
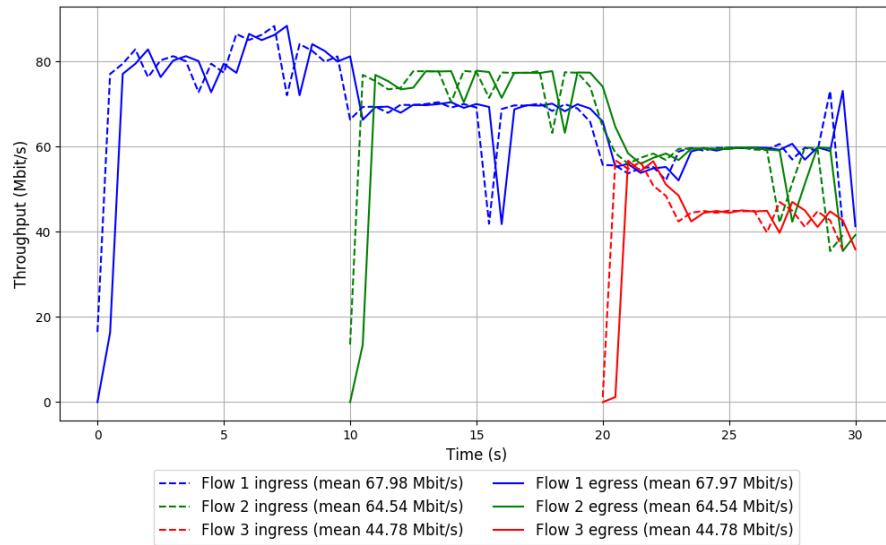


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-04-24 01:14:59
End at: 2019-04-24 01:15:29
Local clock offset: 0.053 ms
Remote clock offset: 1.848 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.54 Mbit/s
95th percentile per-packet one-way delay: 0.935 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 67.97 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 64.54 Mbit/s
95th percentile per-packet one-way delay: 0.926 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.78 Mbit/s
95th percentile per-packet one-way delay: 2.809 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

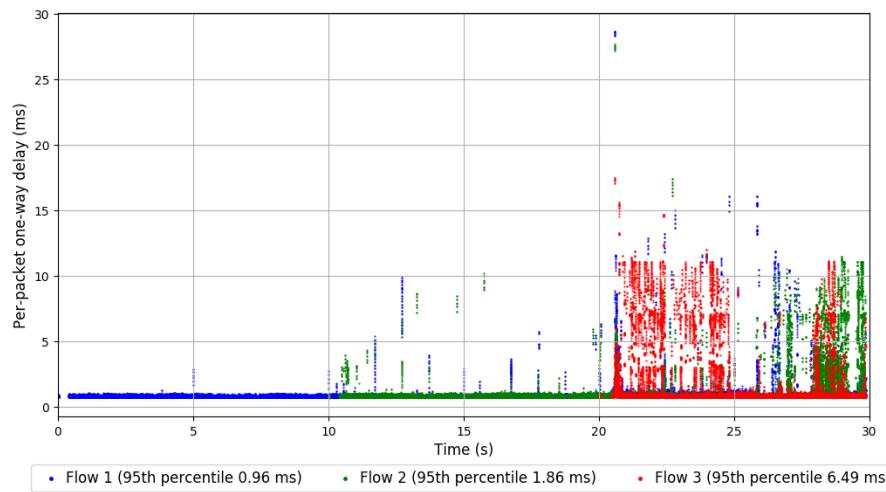
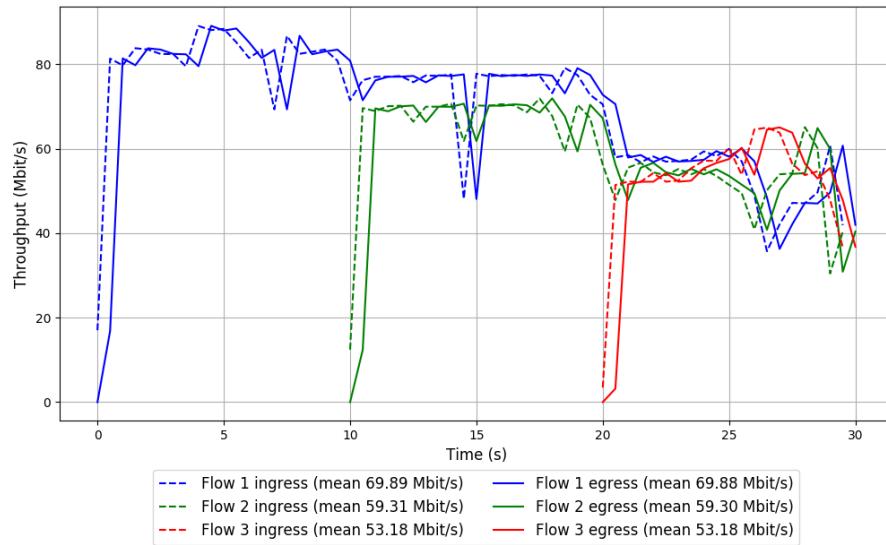


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-04-24 01:45:02
End at: 2019-04-24 01:45:32
Local clock offset: 0.047 ms
Remote clock offset: 1.767 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 126.79 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 69.88 Mbit/s
95th percentile per-packet one-way delay: 0.958 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 59.30 Mbit/s
95th percentile per-packet one-way delay: 1.858 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 53.18 Mbit/s
95th percentile per-packet one-way delay: 6.491 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

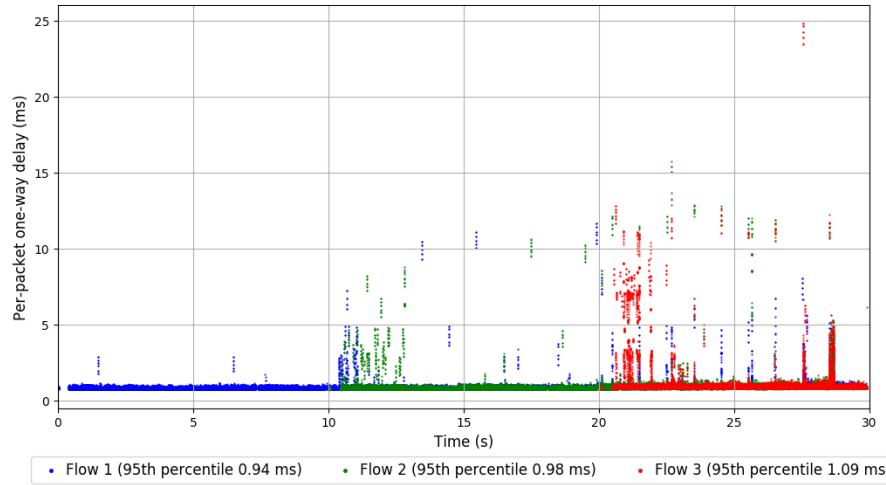
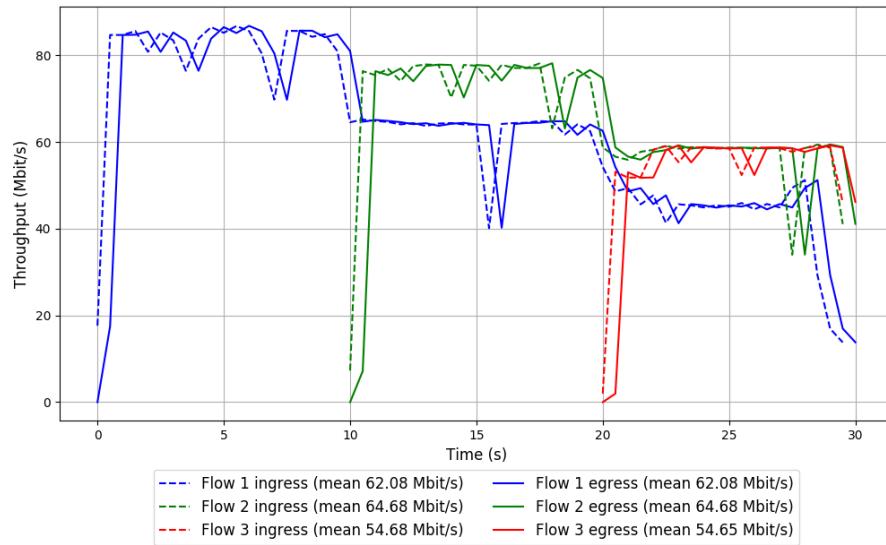


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-04-24 02:15:06
End at: 2019-04-24 02:15:36
Local clock offset: 0.251 ms
Remote clock offset: -1.597 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.97 Mbit/s
95th percentile per-packet one-way delay: 0.976 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 62.08 Mbit/s
95th percentile per-packet one-way delay: 0.941 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 64.68 Mbit/s
95th percentile per-packet one-way delay: 0.981 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.65 Mbit/s
95th percentile per-packet one-way delay: 1.093 ms
Loss rate: 0.01%
```

Run 5: Report of QUIC Cubic — Data Link

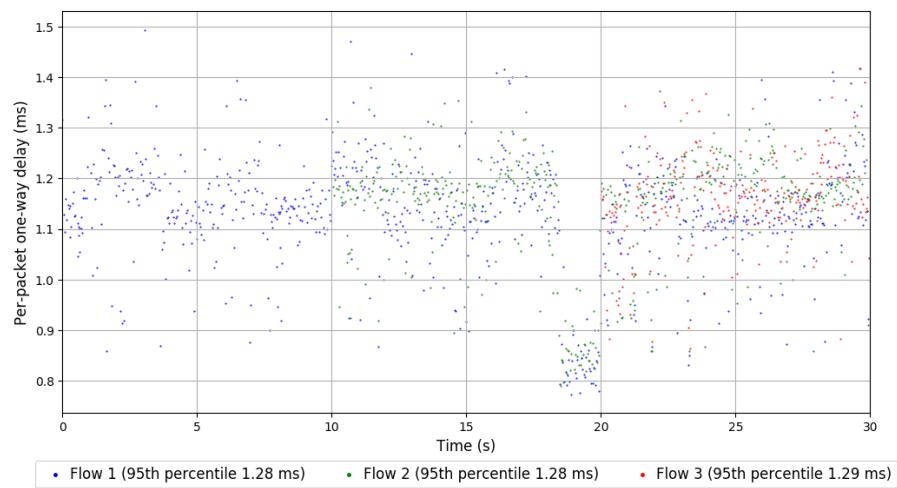
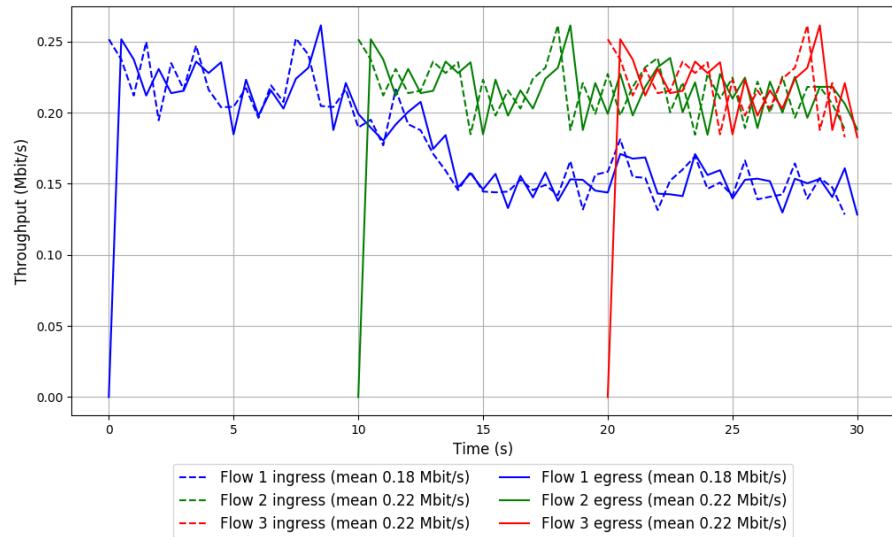


Run 1: Statistics of SCReAM

```
Start at: 2019-04-24 00:36:46
End at: 2019-04-24 00:37:16
Local clock offset: 3.882 ms
Remote clock offset: 2.347 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 1.283 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.295 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

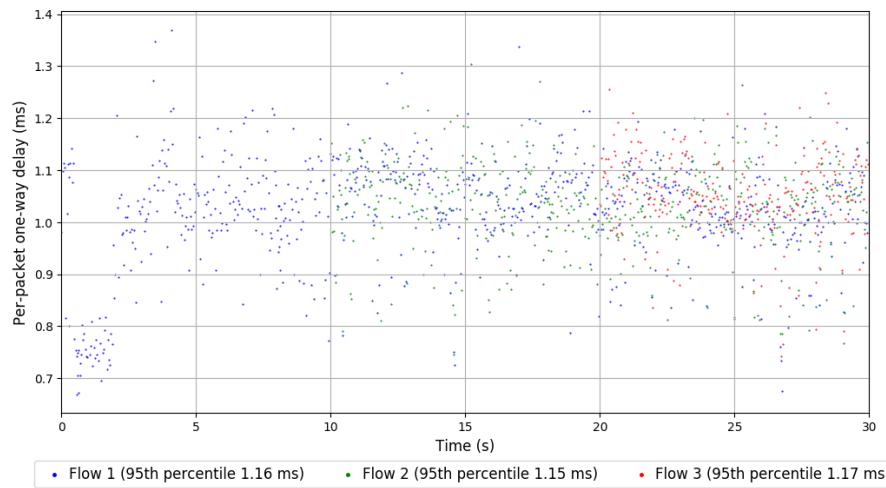
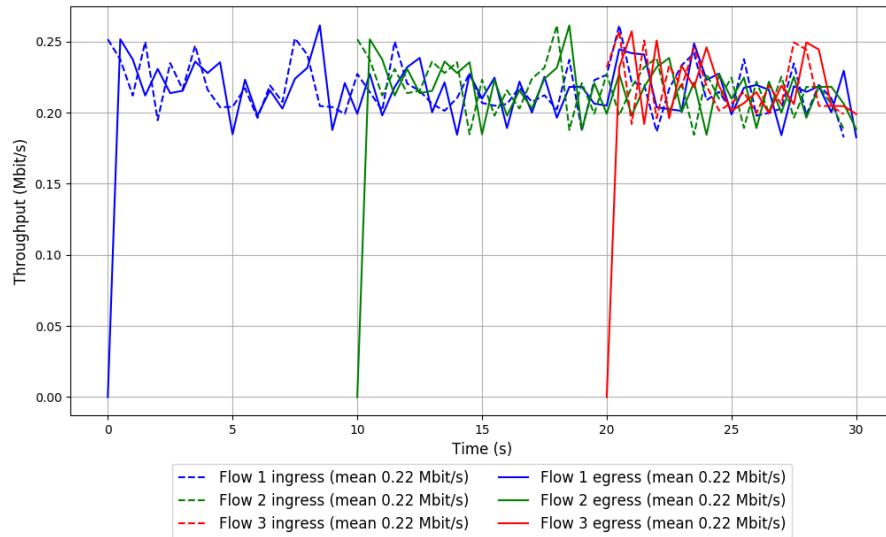


Run 2: Statistics of SCReAM

```
Start at: 2019-04-24 01:06:34
End at: 2019-04-24 01:07:04
Local clock offset: 0.451 ms
Remote clock offset: 1.888 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.154 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

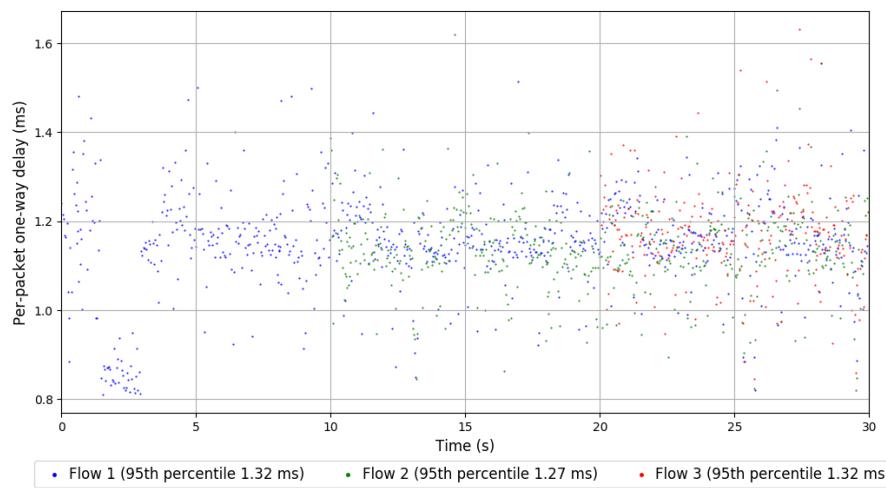
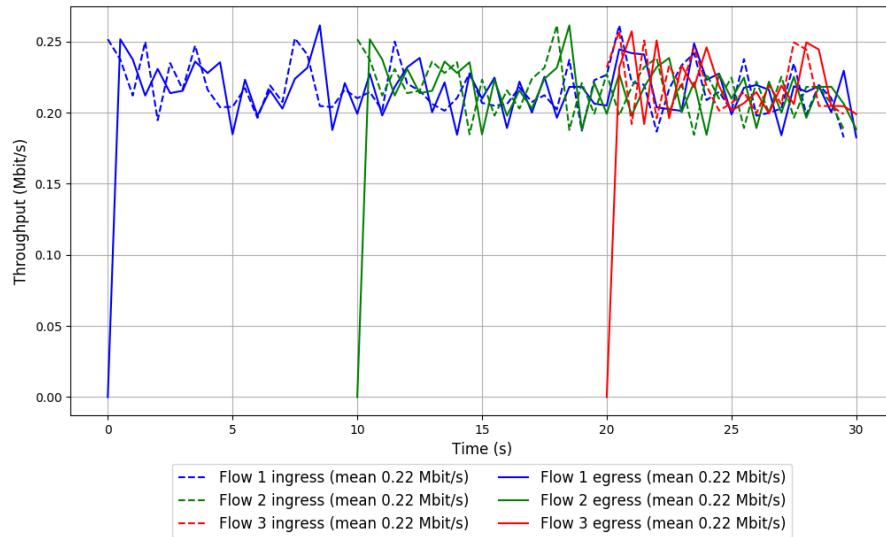


Run 3: Statistics of SCReAM

```
Start at: 2019-04-24 01:36:33
End at: 2019-04-24 01:37:03
Local clock offset: 0.136 ms
Remote clock offset: 1.82 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.309 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.321 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.266 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.325 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

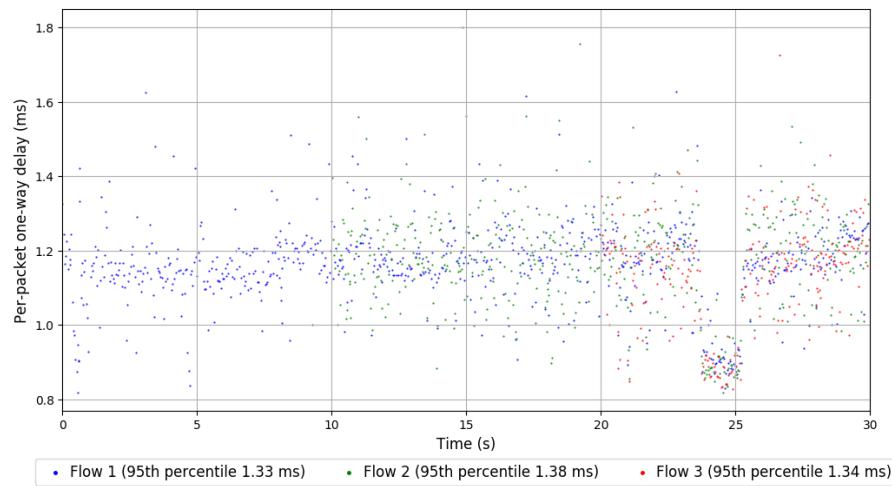
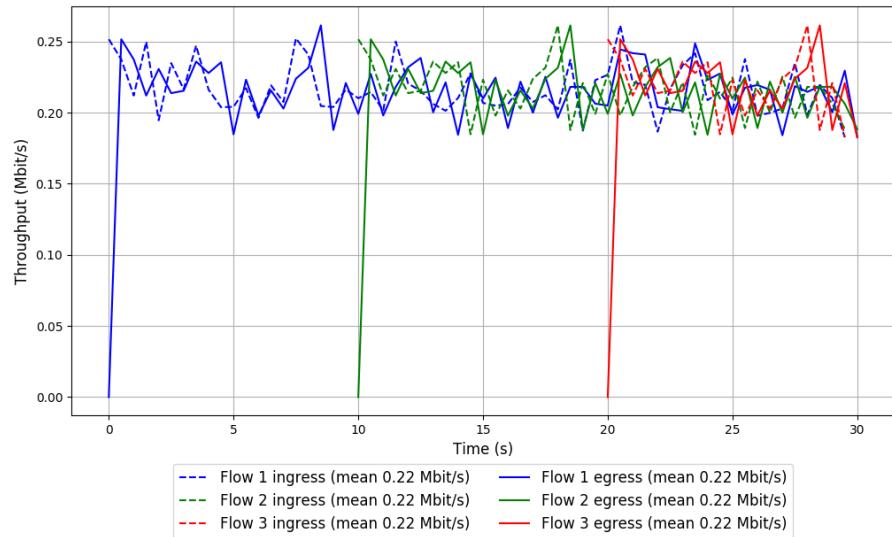


Run 4: Statistics of SCReAM

```
Start at: 2019-04-24 02:06:40
End at: 2019-04-24 02:07:10
Local clock offset: 0.263 ms
Remote clock offset: -0.898 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.344 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.326 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.384 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.338 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

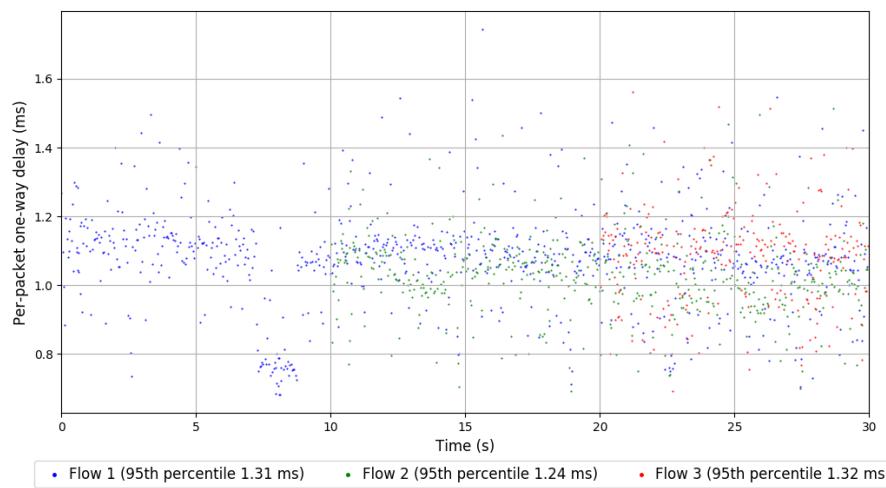
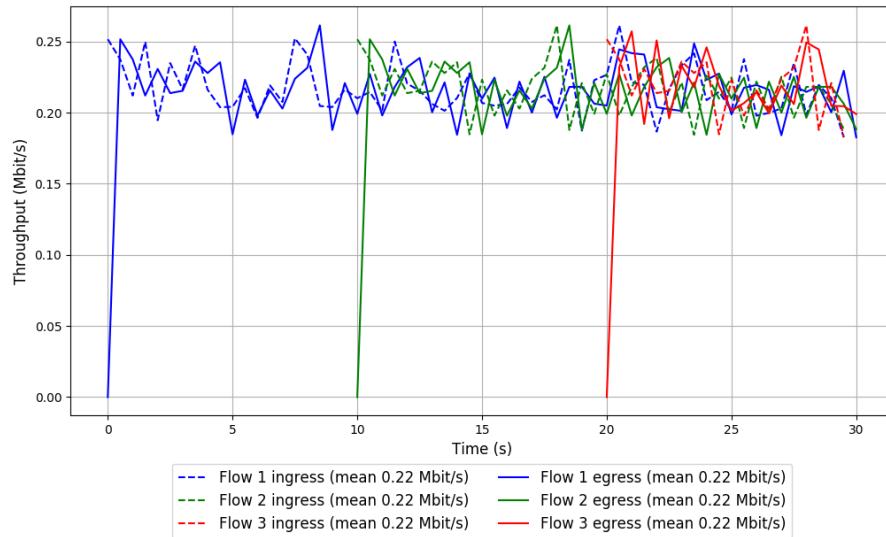


Run 5: Statistics of SCReAM

```
Start at: 2019-04-24 02:36:27
End at: 2019-04-24 02:36:57
Local clock offset: 0.437 ms
Remote clock offset: 1.311 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.293 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.312 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.236 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.323 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

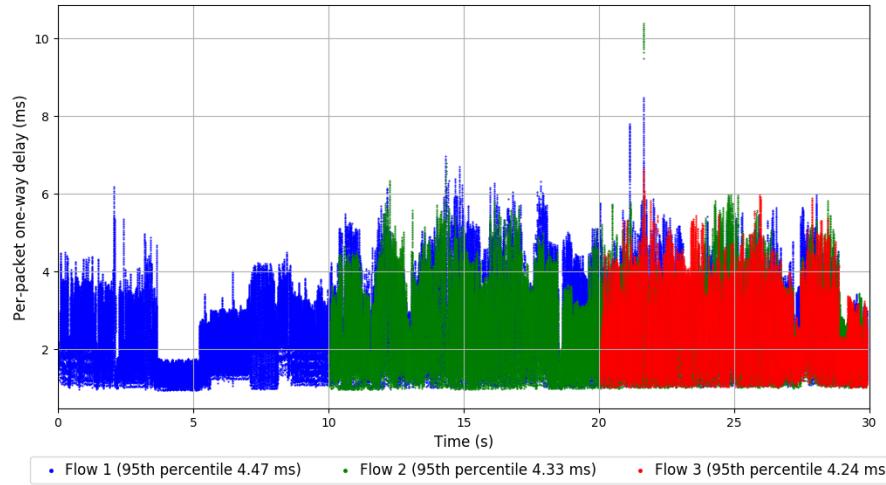
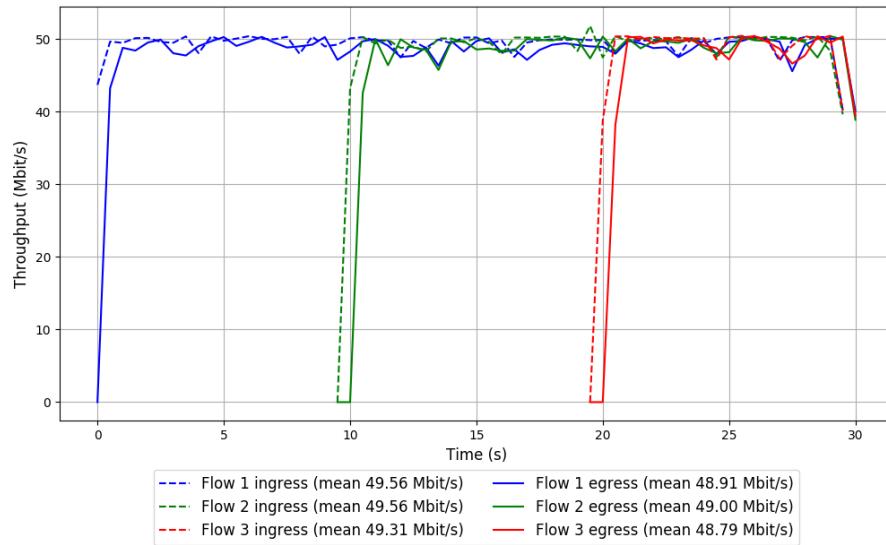


Run 1: Statistics of Sprout

```
Start at: 2019-04-24 00:23:31
End at: 2019-04-24 00:24:01
Local clock offset: 2.265 ms
Remote clock offset: 2.114 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.68 Mbit/s
95th percentile per-packet one-way delay: 4.387 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 48.91 Mbit/s
95th percentile per-packet one-way delay: 4.473 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 49.00 Mbit/s
95th percentile per-packet one-way delay: 4.329 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 48.79 Mbit/s
95th percentile per-packet one-way delay: 4.236 ms
Loss rate: 1.03%
```

Run 1: Report of Sprout — Data Link

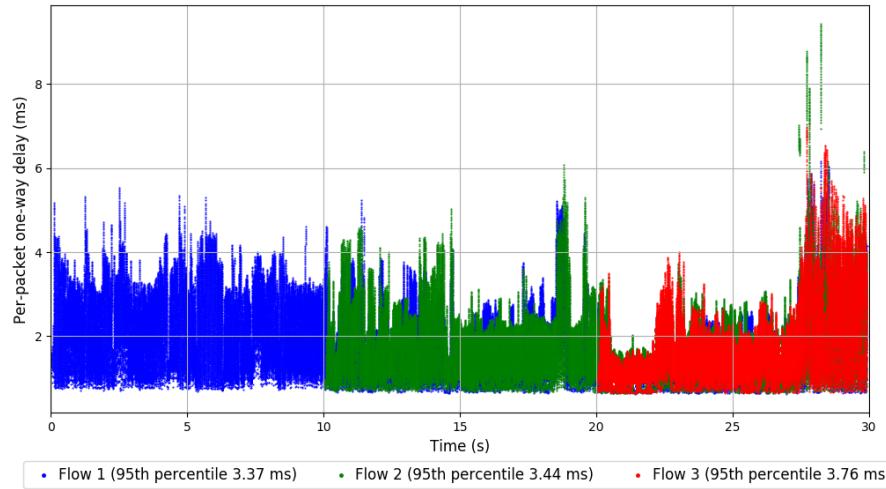
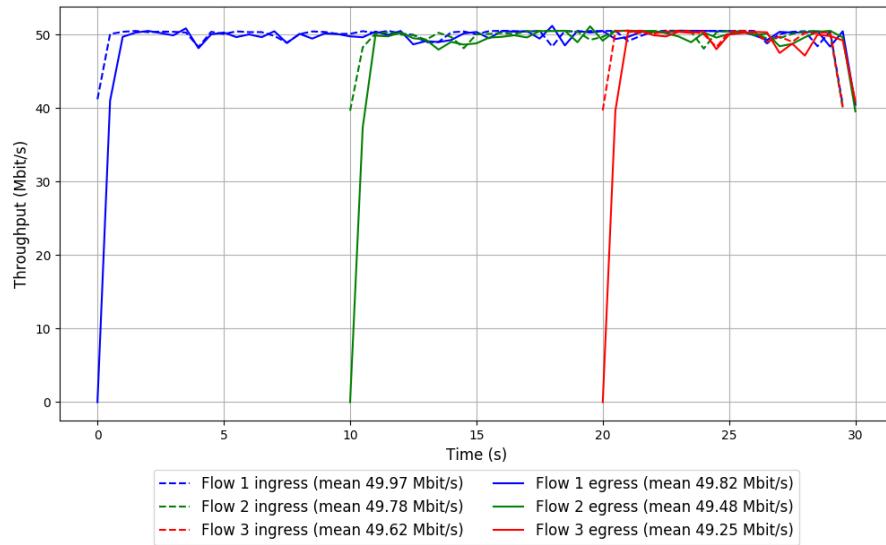


Run 2: Statistics of Sprout

```
Start at: 2019-04-24 00:53:14
End at: 2019-04-24 00:53:44
Local clock offset: 1.878 ms
Remote clock offset: 2.079 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.00 Mbit/s
95th percentile per-packet one-way delay: 3.446 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 49.82 Mbit/s
95th percentile per-packet one-way delay: 3.368 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 49.48 Mbit/s
95th percentile per-packet one-way delay: 3.443 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 49.25 Mbit/s
95th percentile per-packet one-way delay: 3.759 ms
Loss rate: 0.72%
```

Run 2: Report of Sprout — Data Link

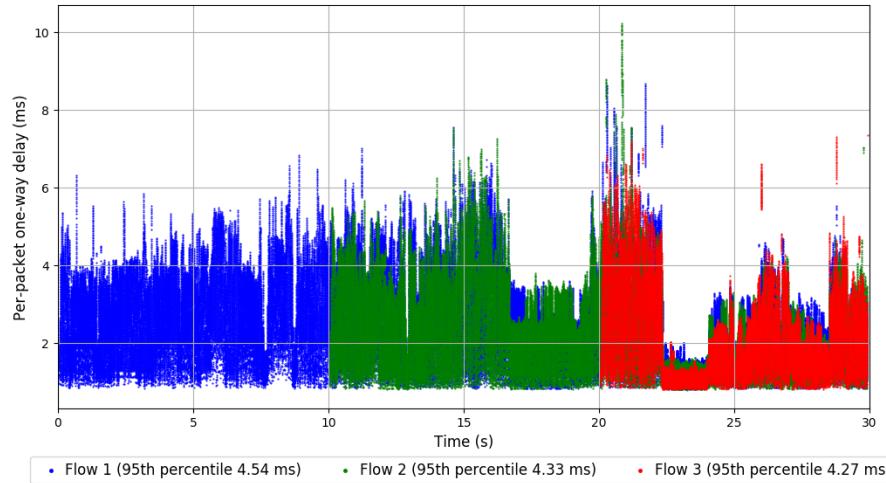
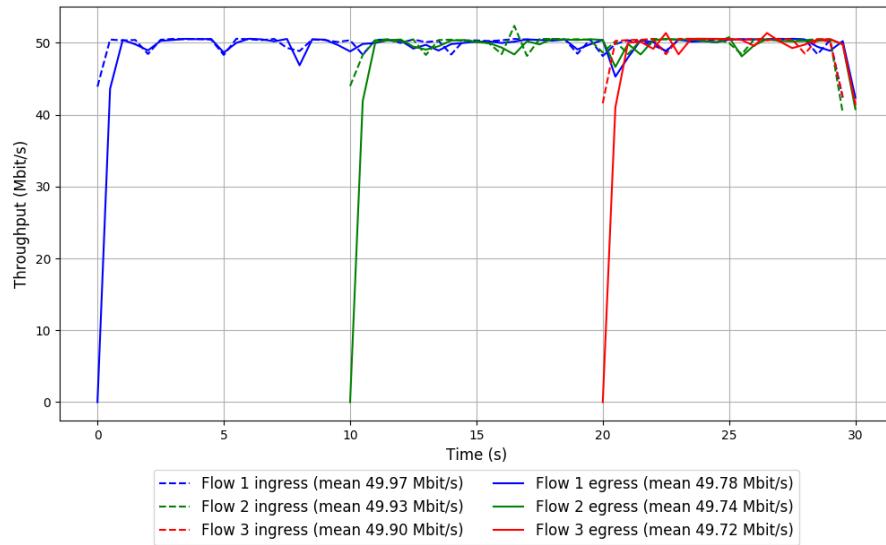


Run 3: Statistics of Sprout

```
Start at: 2019-04-24 01:23:12
End at: 2019-04-24 01:23:42
Local clock offset: 0.199 ms
Remote clock offset: 1.885 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.29 Mbit/s
95th percentile per-packet one-way delay: 4.446 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 49.78 Mbit/s
95th percentile per-packet one-way delay: 4.540 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 4.329 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 49.72 Mbit/s
95th percentile per-packet one-way delay: 4.268 ms
Loss rate: 0.31%
```

Run 3: Report of Sprout — Data Link

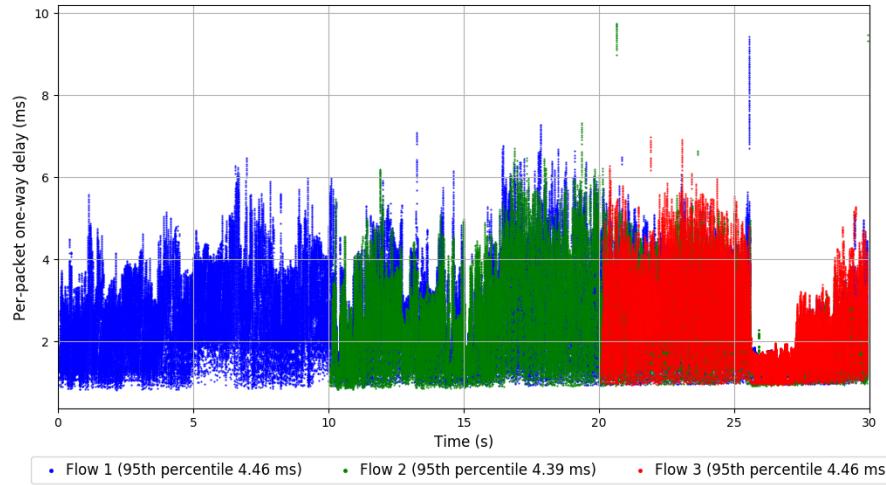
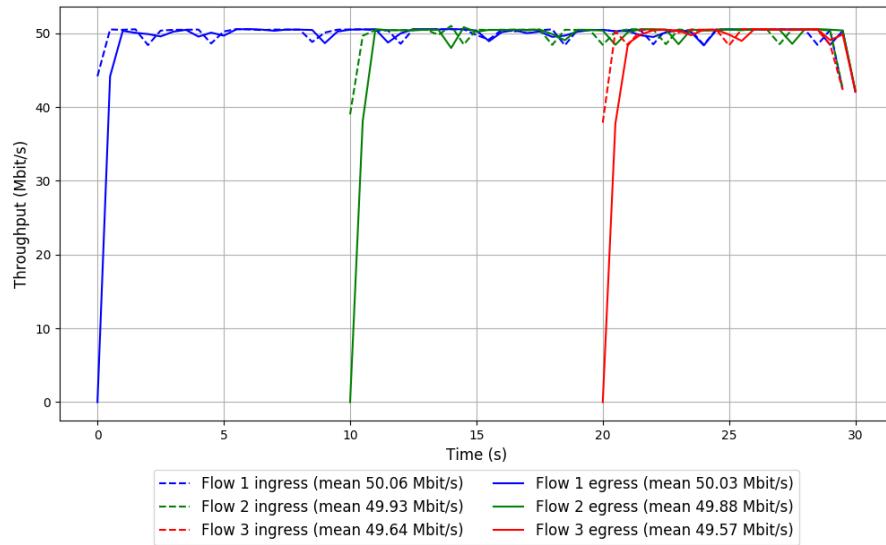


Run 4: Statistics of Sprout

```
Start at: 2019-04-24 01:53:09
End at: 2019-04-24 01:53:39
Local clock offset: 0.261 ms
Remote clock offset: 1.834 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.59 Mbit/s
95th percentile per-packet one-way delay: 4.438 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 50.03 Mbit/s
95th percentile per-packet one-way delay: 4.465 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 49.88 Mbit/s
95th percentile per-packet one-way delay: 4.386 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 4.458 ms
Loss rate: 0.12%
```

Run 4: Report of Sprout — Data Link

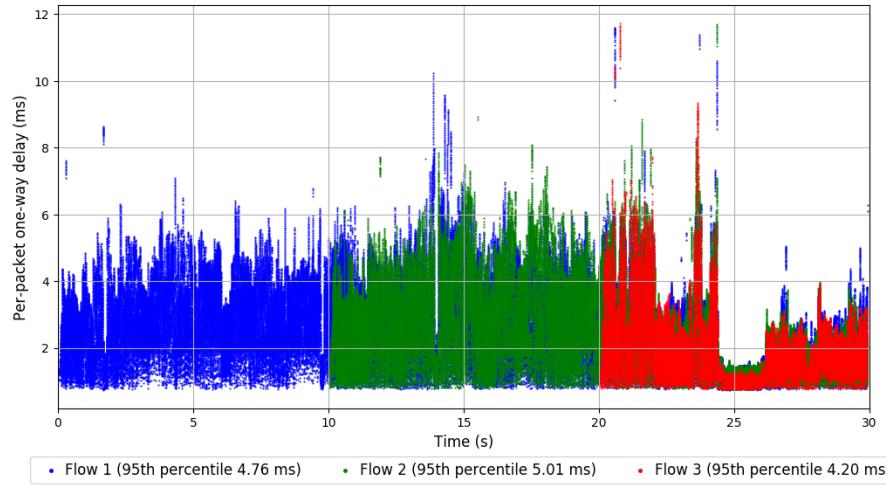
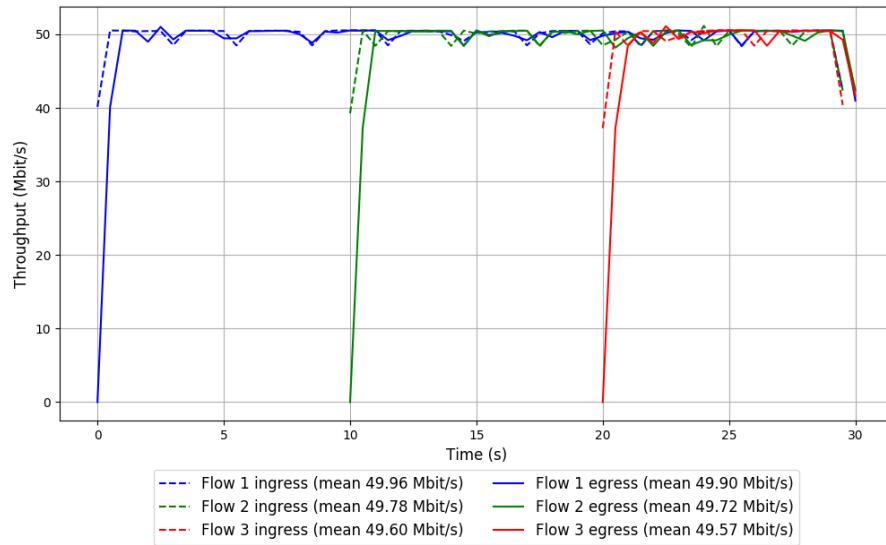


Run 5: Statistics of Sprout

```
Start at: 2019-04-24 02:23:10
End at: 2019-04-24 02:23:40
Local clock offset: 0.418 ms
Remote clock offset: -2.033 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.34 Mbit/s
95th percentile per-packet one-way delay: 4.789 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 49.90 Mbit/s
95th percentile per-packet one-way delay: 4.763 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 49.72 Mbit/s
95th percentile per-packet one-way delay: 5.006 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 49.57 Mbit/s
95th percentile per-packet one-way delay: 4.198 ms
Loss rate: 0.02%
```

Run 5: Report of Sprout — Data Link

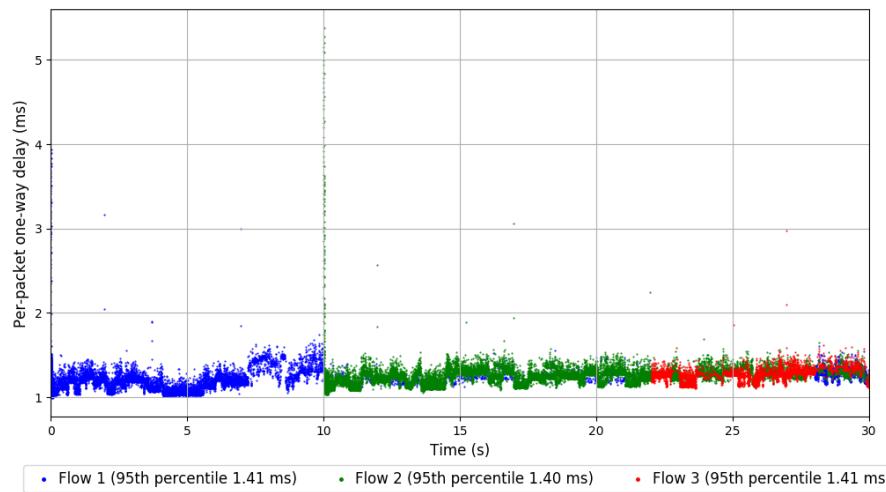
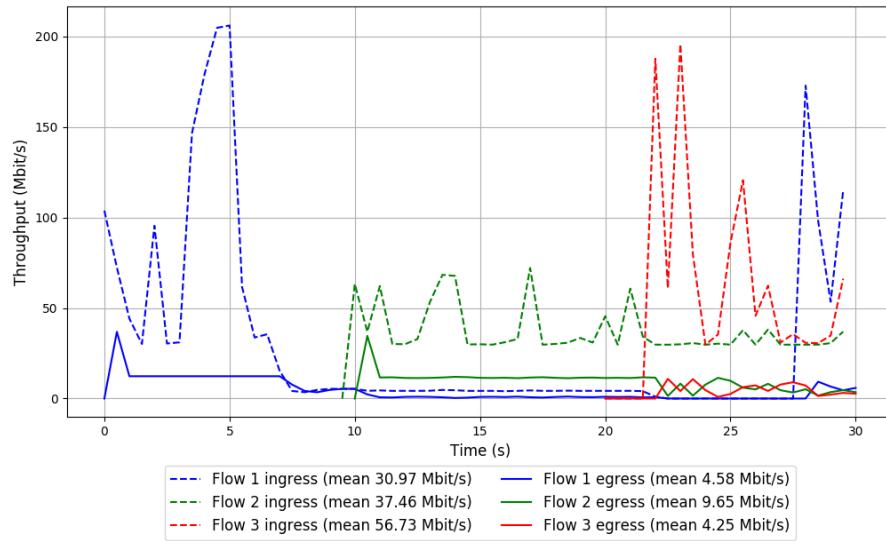


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-04-24 00:19:30
End at: 2019-04-24 00:20:00
Local clock offset: 1.301 ms
Remote clock offset: 2.091 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.42 Mbit/s
95th percentile per-packet one-way delay: 1.407 ms
Loss rate: 83.40%
-- Flow 1:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 1.411 ms
Loss rate: 85.20%
-- Flow 2:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 1.404 ms
Loss rate: 74.28%
-- Flow 3:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 1.411 ms
Loss rate: 92.51%
```

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

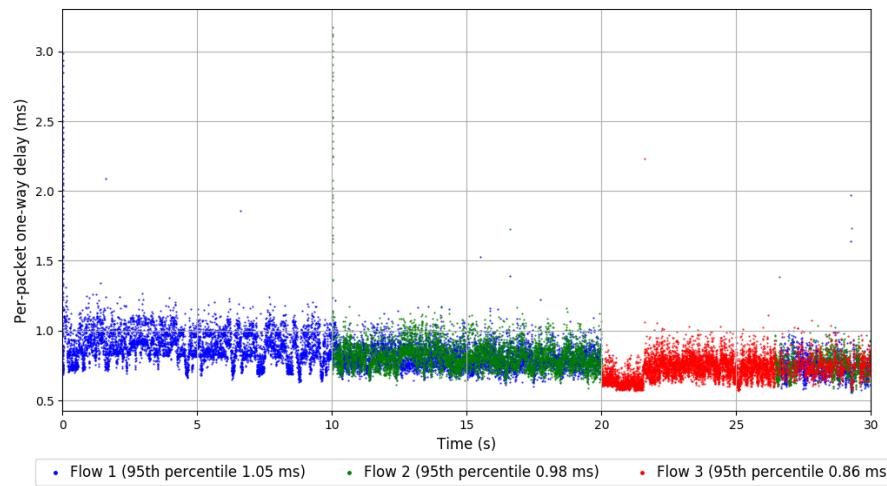
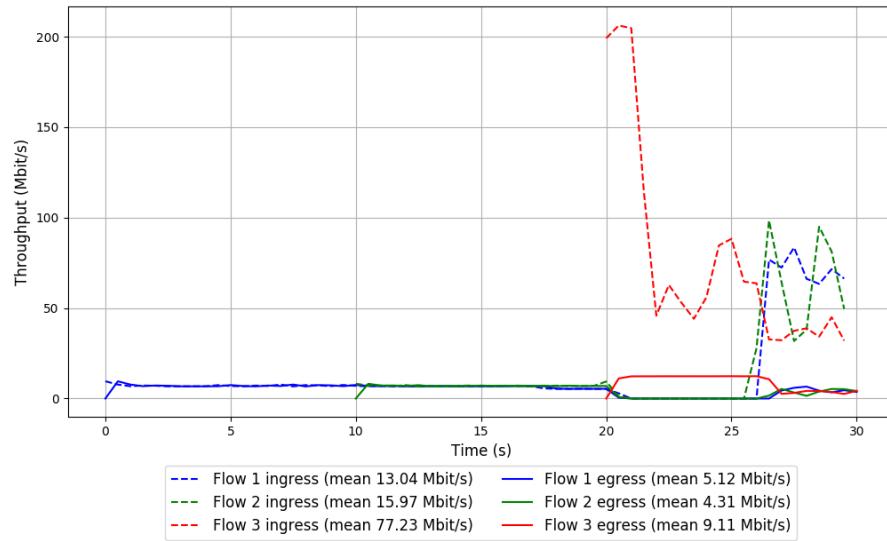


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-04-24 00:49:14
End at: 2019-04-24 00:49:44
Local clock offset: 2.853 ms
Remote clock offset: 2.268 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 1.002 ms
Loss rate: 77.67%
-- Flow 1:
Average throughput: 5.12 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 60.73%
-- Flow 2:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 0.976 ms
Loss rate: 73.03%
-- Flow 3:
Average throughput: 9.11 Mbit/s
95th percentile per-packet one-way delay: 0.858 ms
Loss rate: 88.20%
```

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

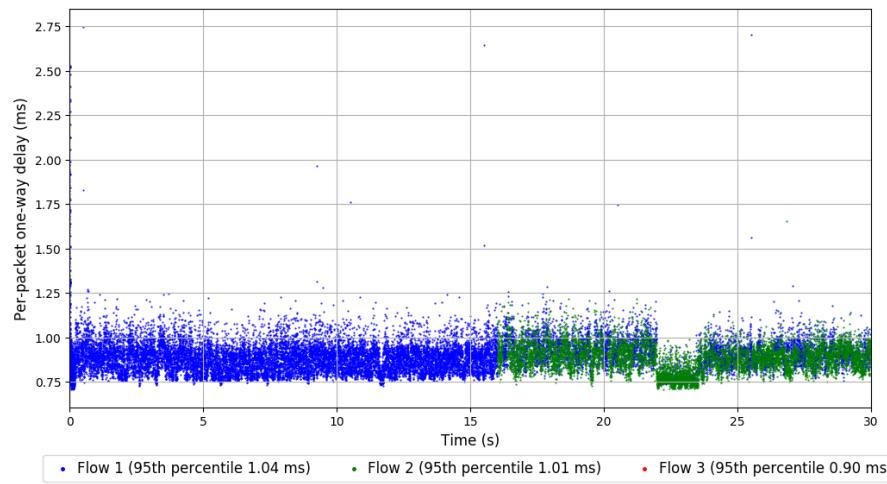
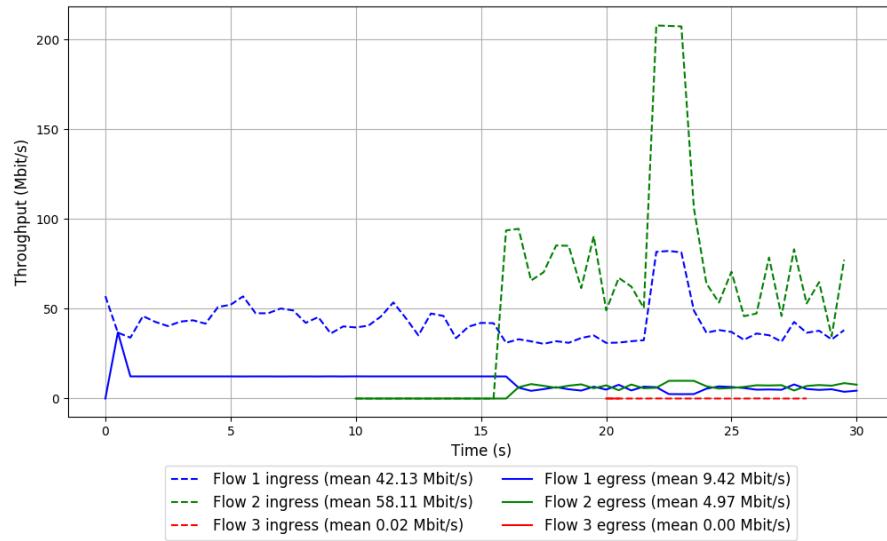


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-04-24 01:19:12
End at: 2019-04-24 01:19:42
Local clock offset: 0.161 ms
Remote clock offset: 1.891 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 1.029 ms
Loss rate: 84.26%
-- Flow 1:
Average throughput: 9.42 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 77.64%
-- Flow 2:
Average throughput: 4.97 Mbit/s
95th percentile per-packet one-way delay: 1.012 ms
Loss rate: 91.45%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.902 ms
Loss rate: 99.16%
```

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

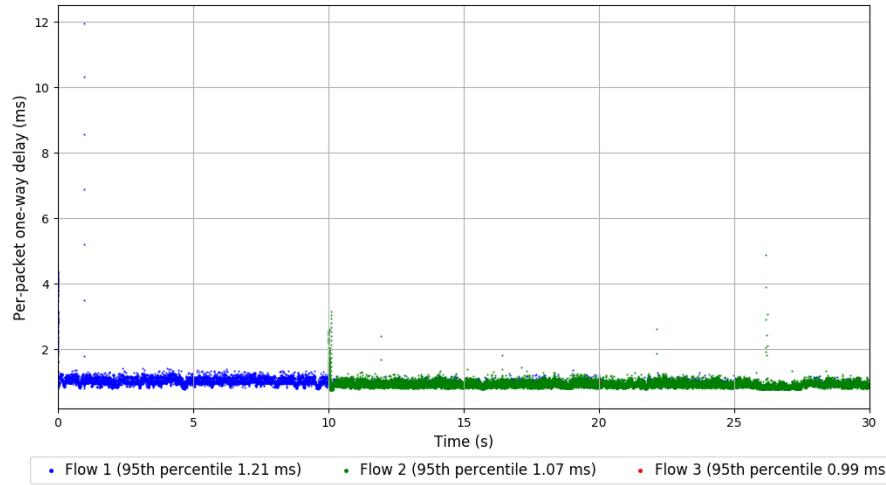
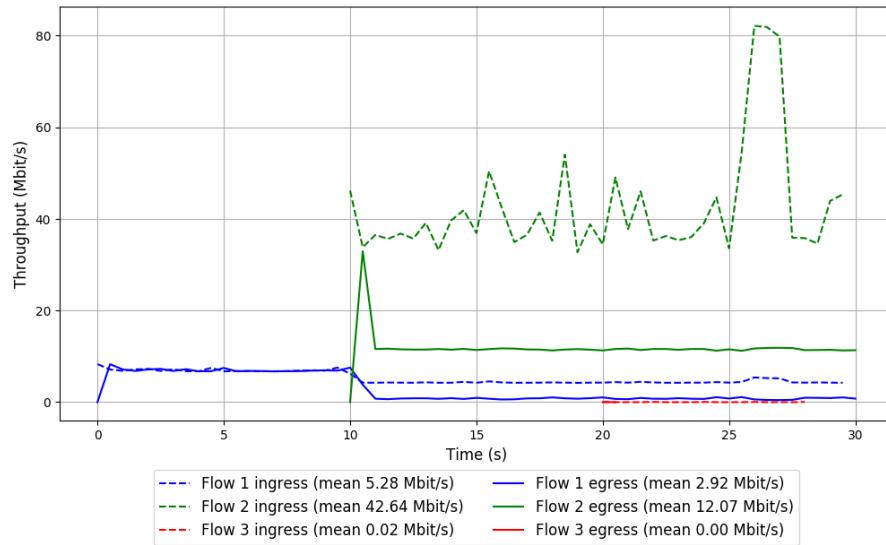


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-04-24 01:49:08
End at: 2019-04-24 01:49:38
Local clock offset: 0.174 ms
Remote clock offset: 1.816 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 1.134 ms
Loss rate: 67.46%
-- Flow 1:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 1.206 ms
Loss rate: 44.72%
-- Flow 2:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 1.071 ms
Loss rate: 71.69%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 99.16%
```

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

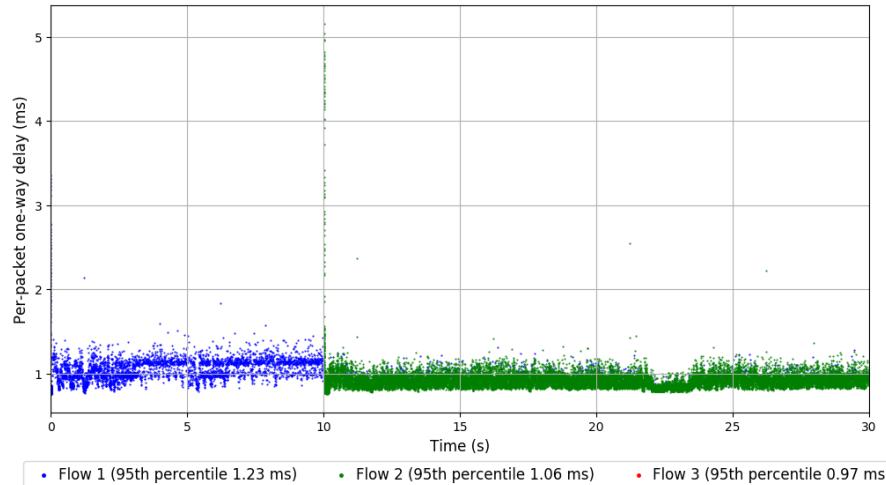
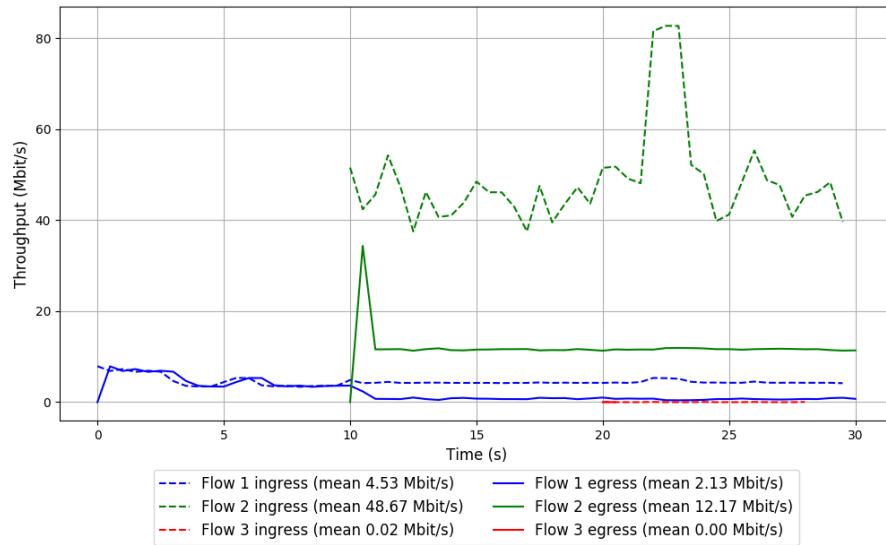


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-04-24 02:19:12
End at: 2019-04-24 02:19:42
Local clock offset: 0.329 ms
Remote clock offset: -1.821 ms

# Below is generated by plot.py at 2019-04-24 03:33:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.24 Mbit/s
95th percentile per-packet one-way delay: 1.144 ms
Loss rate: 72.29%
-- Flow 1:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 1.232 ms
Loss rate: 52.97%
-- Flow 2:
Average throughput: 12.17 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 74.98%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.969 ms
Loss rate: 99.16%
```

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

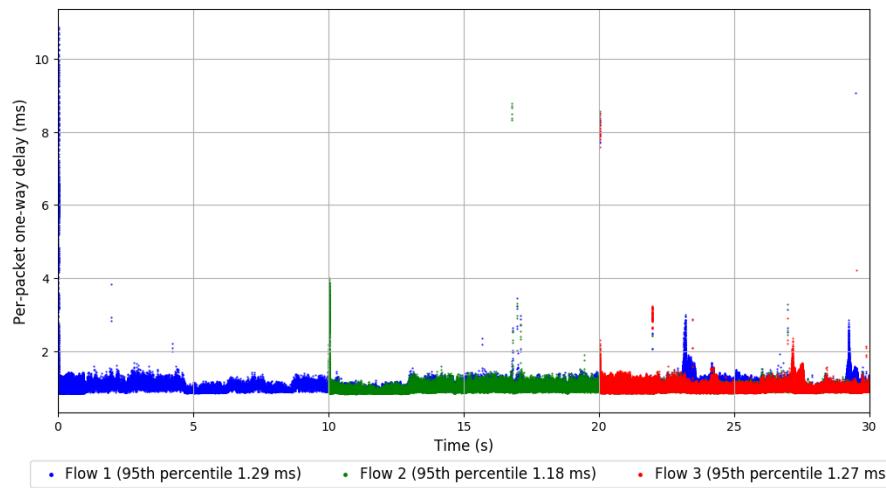
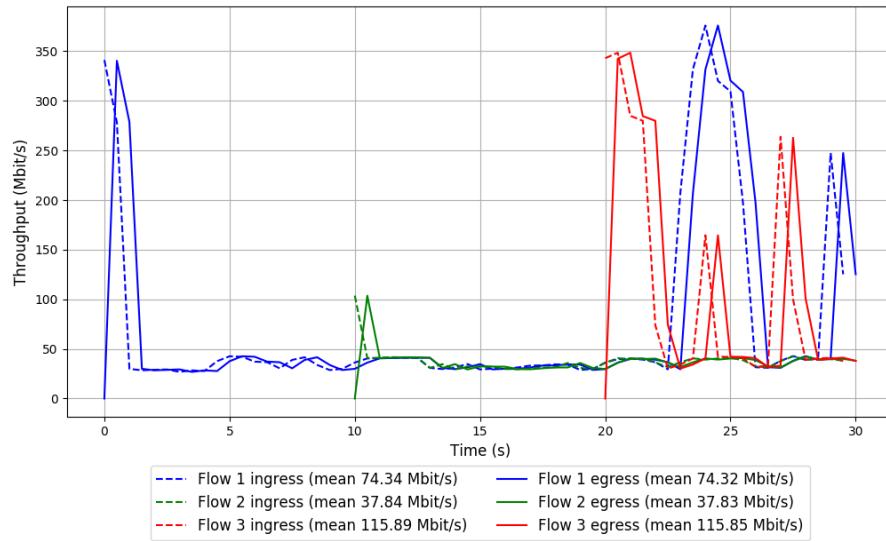


Run 1: Statistics of TCP Vegas

```
Start at: 2019-04-24 00:29:30
End at: 2019-04-24 00:30:00
Local clock offset: 3.193 ms
Remote clock offset: 2.188 ms

# Below is generated by plot.py at 2019-04-24 03:33:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.04 Mbit/s
95th percentile per-packet one-way delay: 1.267 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 74.32 Mbit/s
95th percentile per-packet one-way delay: 1.289 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 37.83 Mbit/s
95th percentile per-packet one-way delay: 1.177 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 115.85 Mbit/s
95th percentile per-packet one-way delay: 1.267 ms
Loss rate: 0.03%
```

Run 1: Report of TCP Vegas — Data Link

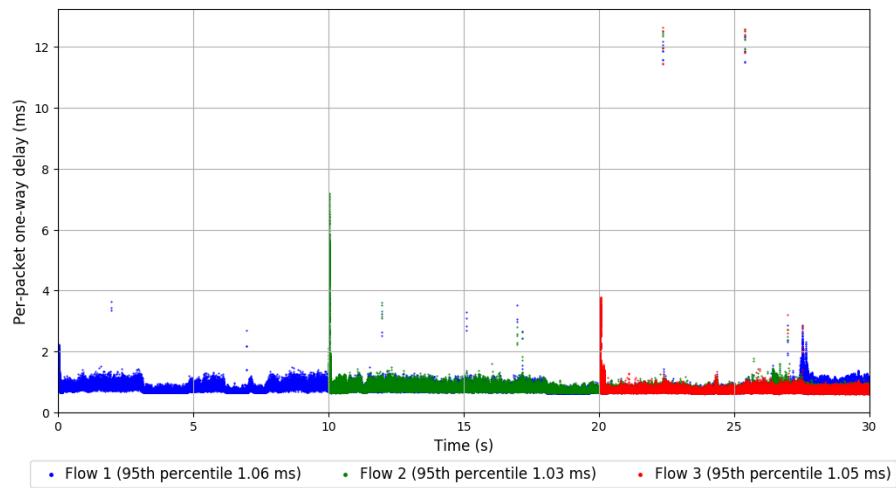
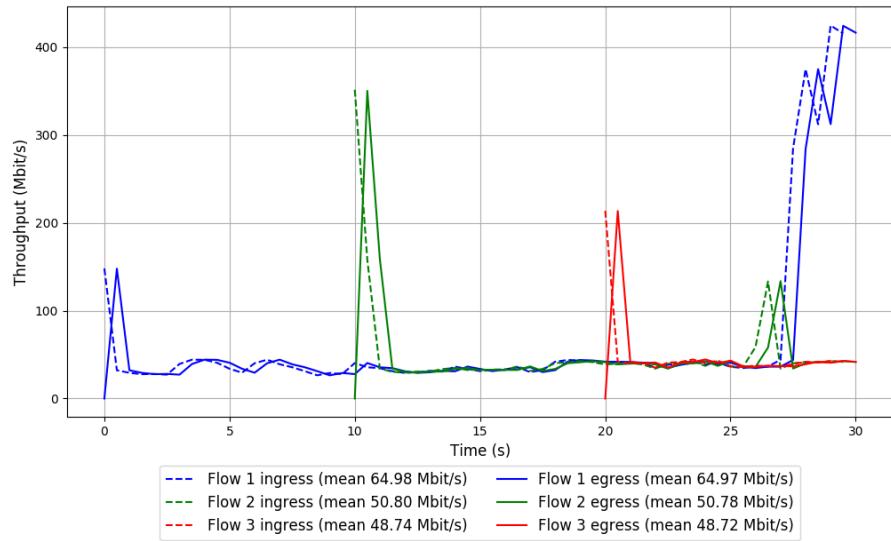


Run 2: Statistics of TCP Vegas

```
Start at: 2019-04-24 00:59:16
End at: 2019-04-24 00:59:46
Local clock offset: 0.98 ms
Remote clock offset: 1.893 ms

# Below is generated by plot.py at 2019-04-24 03:33:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 115.00 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 64.97 Mbit/s
95th percentile per-packet one-way delay: 1.061 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 50.78 Mbit/s
95th percentile per-packet one-way delay: 1.035 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 48.72 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.04%
```

Run 2: Report of TCP Vegas — Data Link

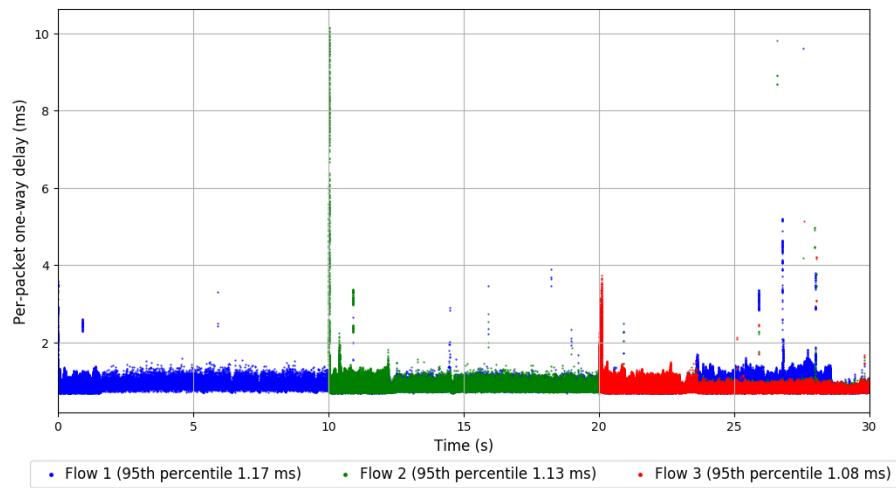
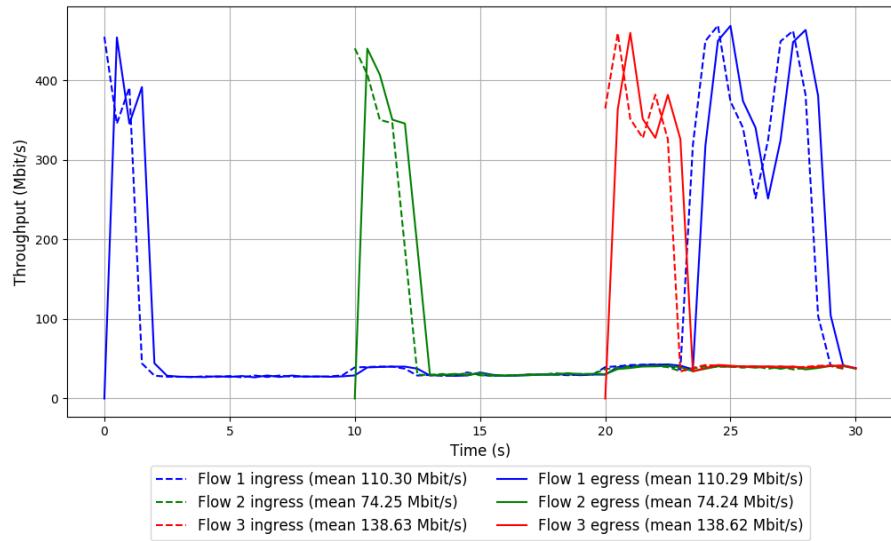


Run 3: Statistics of TCP Vegas

```
Start at: 2019-04-24 01:29:09
End at: 2019-04-24 01:29:39
Local clock offset: 0.205 ms
Remote clock offset: 1.74 ms

# Below is generated by plot.py at 2019-04-24 03:34:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 205.93 Mbit/s
95th percentile per-packet one-way delay: 1.148 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 110.29 Mbit/s
95th percentile per-packet one-way delay: 1.173 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 74.24 Mbit/s
95th percentile per-packet one-way delay: 1.128 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 138.62 Mbit/s
95th percentile per-packet one-way delay: 1.085 ms
Loss rate: 0.01%
```

Run 3: Report of TCP Vegas — Data Link

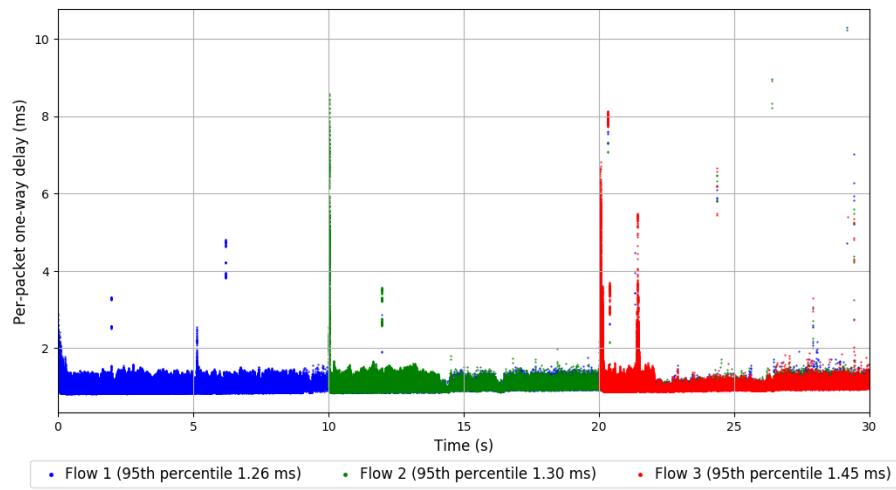
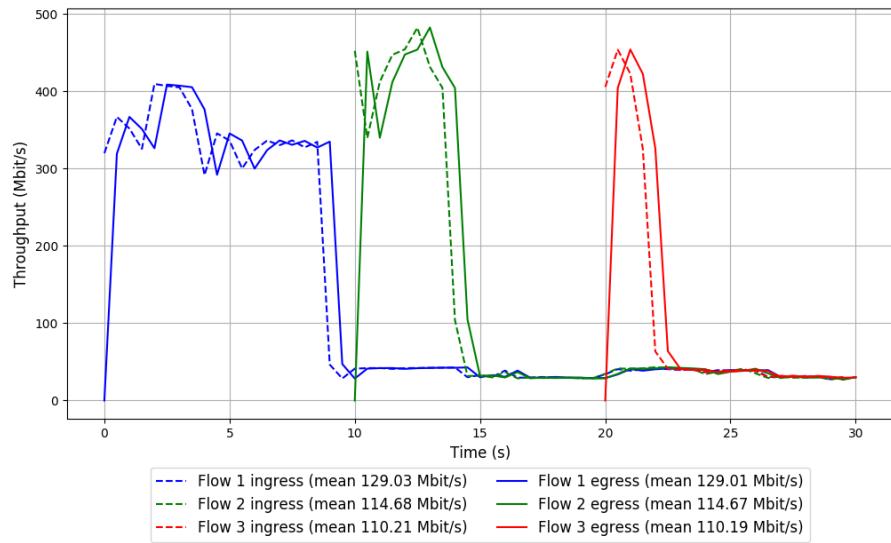


Run 4: Statistics of TCP Vegas

```
Start at: 2019-04-24 01:59:13
End at: 2019-04-24 01:59:43
Local clock offset: 0.301 ms
Remote clock offset: 0.234 ms

# Below is generated by plot.py at 2019-04-24 03:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 242.06 Mbit/s
95th percentile per-packet one-way delay: 1.289 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 129.01 Mbit/s
95th percentile per-packet one-way delay: 1.258 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 114.67 Mbit/s
95th percentile per-packet one-way delay: 1.302 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 110.19 Mbit/s
95th percentile per-packet one-way delay: 1.445 ms
Loss rate: 0.01%
```

Run 4: Report of TCP Vegas — Data Link

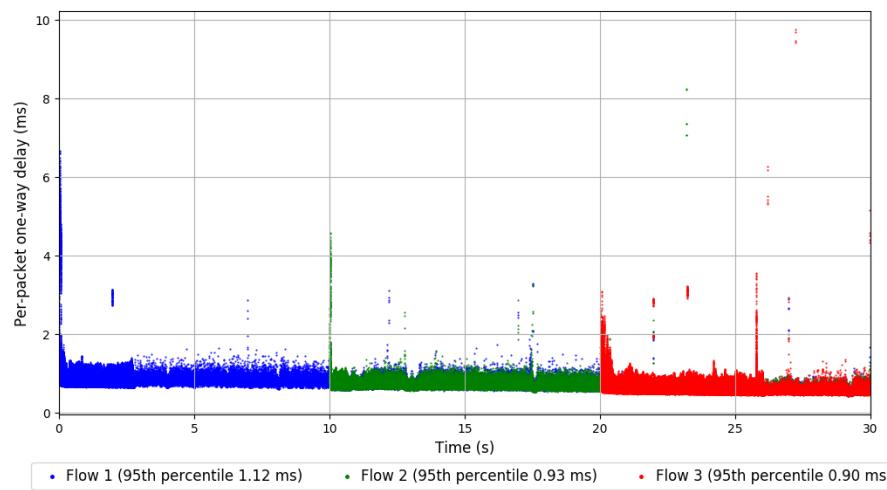
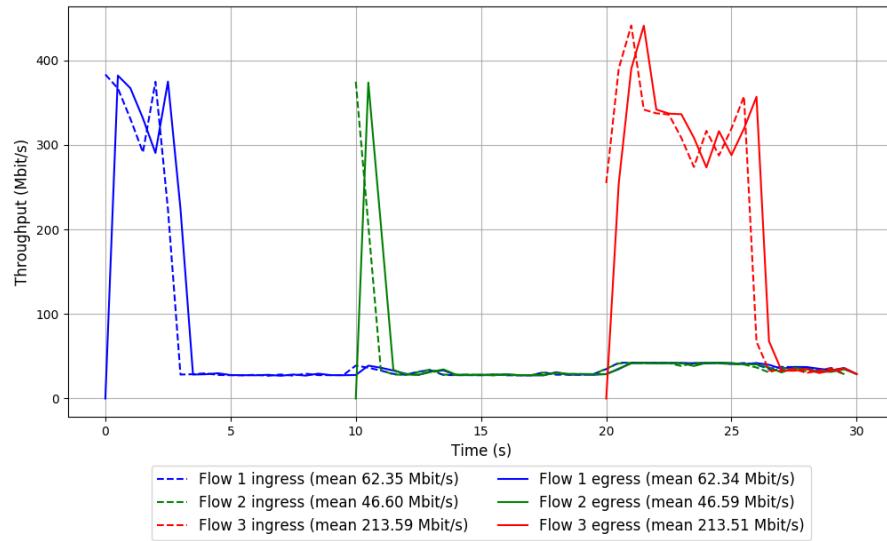


Run 5: Statistics of TCP Vegas

```
Start at: 2019-04-24 02:29:11
End at: 2019-04-24 02:29:41
Local clock offset: 0.443 ms
Remote clock offset: -1.287 ms

# Below is generated by plot.py at 2019-04-24 03:34:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.39 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 62.34 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 46.59 Mbit/s
95th percentile per-packet one-way delay: 0.925 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 213.51 Mbit/s
95th percentile per-packet one-way delay: 0.899 ms
Loss rate: 0.02%
```

Run 5: Report of TCP Vegas — Data Link

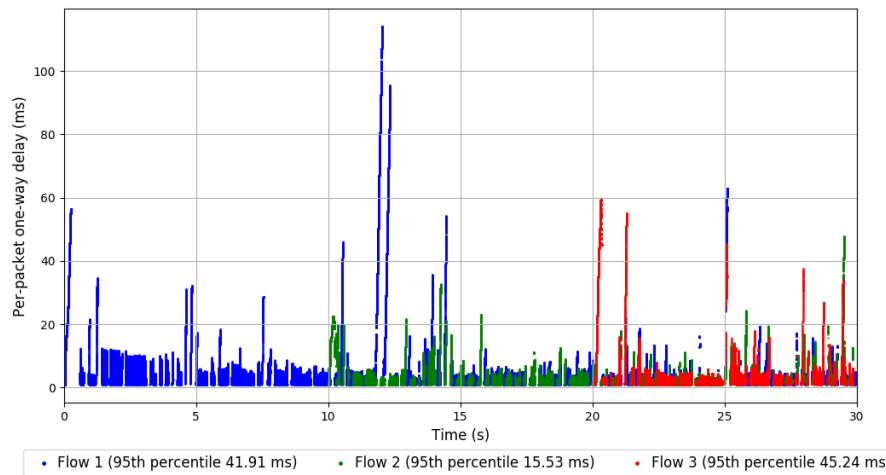
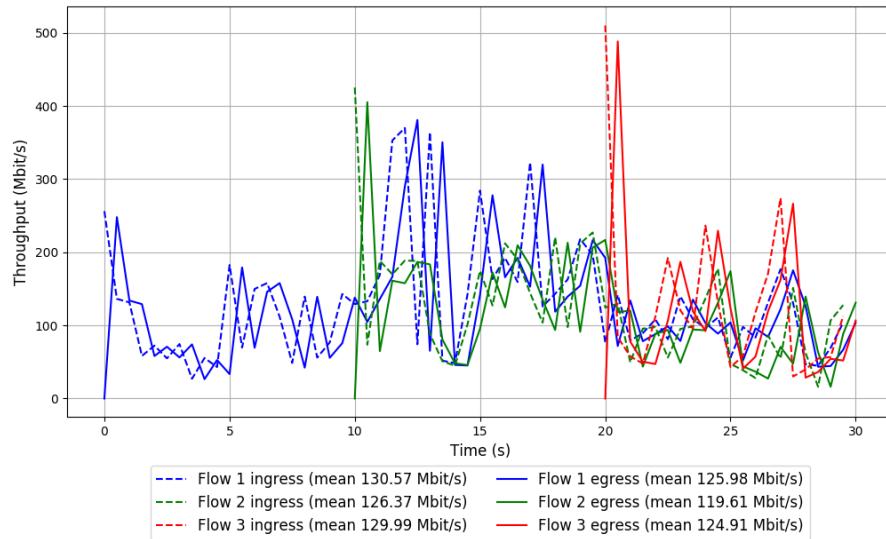


Run 1: Statistics of Verus

```
Start at: 2019-04-24 00:24:47
End at: 2019-04-24 00:25:17
Local clock offset: 2.536 ms
Remote clock offset: 2.015 ms

# Below is generated by plot.py at 2019-04-24 03:35:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.99 Mbit/s
95th percentile per-packet one-way delay: 29.368 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 125.98 Mbit/s
95th percentile per-packet one-way delay: 41.912 ms
Loss rate: 3.51%
-- Flow 2:
Average throughput: 119.61 Mbit/s
95th percentile per-packet one-way delay: 15.534 ms
Loss rate: 5.30%
-- Flow 3:
Average throughput: 124.91 Mbit/s
95th percentile per-packet one-way delay: 45.241 ms
Loss rate: 3.91%
```

Run 1: Report of Verus — Data Link

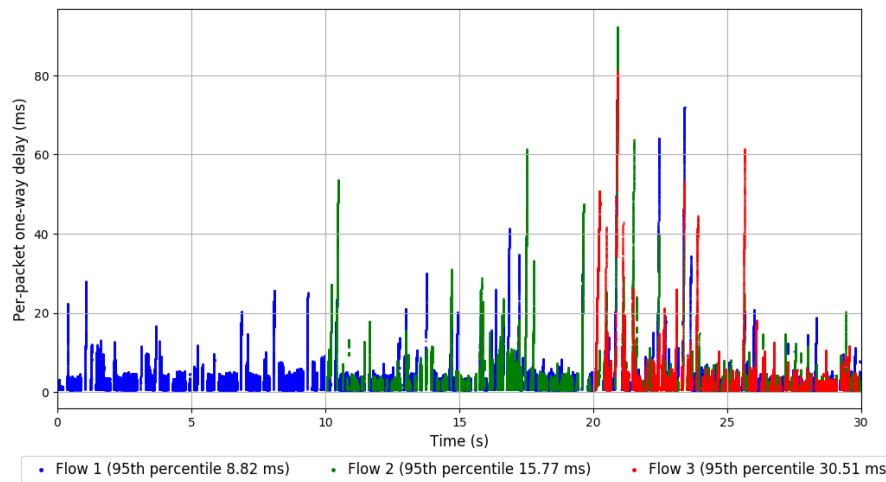
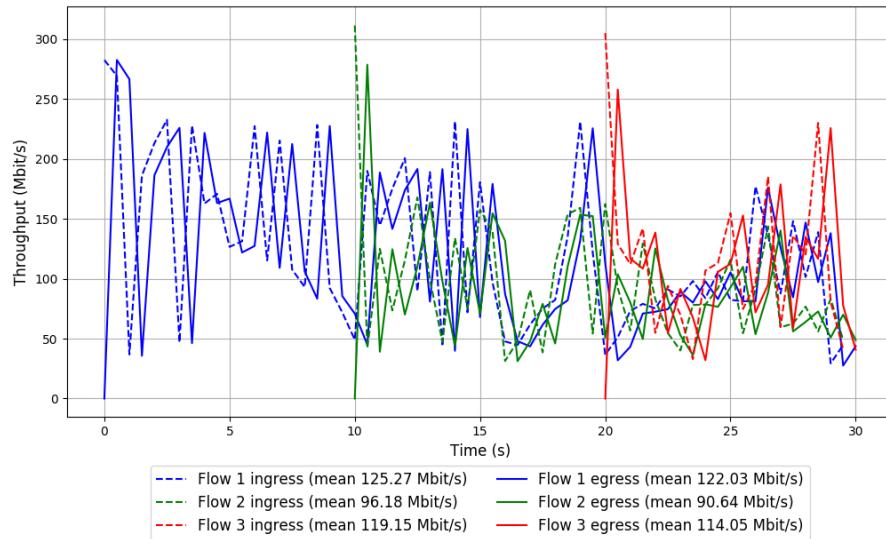


Run 2: Statistics of Verus

```
Start at: 2019-04-24 00:54:30
End at: 2019-04-24 00:55:00
Local clock offset: 1.63 ms
Remote clock offset: 1.935 ms

# Below is generated by plot.py at 2019-04-24 03:35:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.67 Mbit/s
95th percentile per-packet one-way delay: 13.194 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 122.03 Mbit/s
95th percentile per-packet one-way delay: 8.823 ms
Loss rate: 2.57%
-- Flow 2:
Average throughput: 90.64 Mbit/s
95th percentile per-packet one-way delay: 15.770 ms
Loss rate: 5.76%
-- Flow 3:
Average throughput: 114.05 Mbit/s
95th percentile per-packet one-way delay: 30.510 ms
Loss rate: 4.28%
```

Run 2: Report of Verus — Data Link

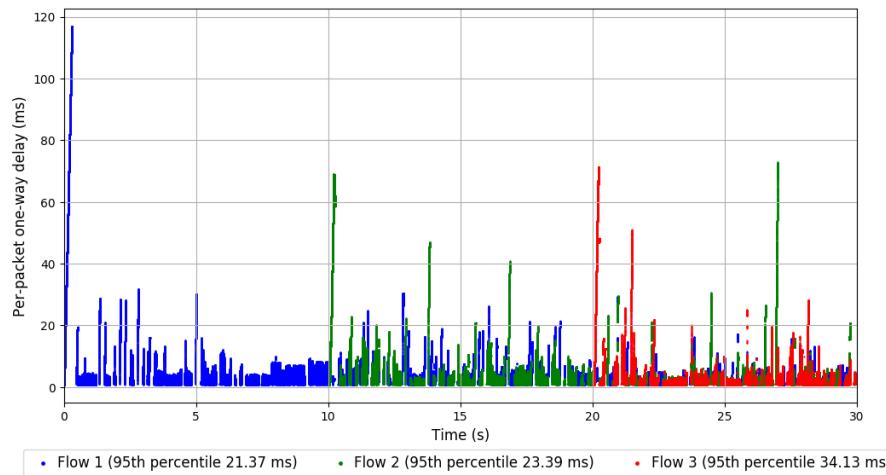
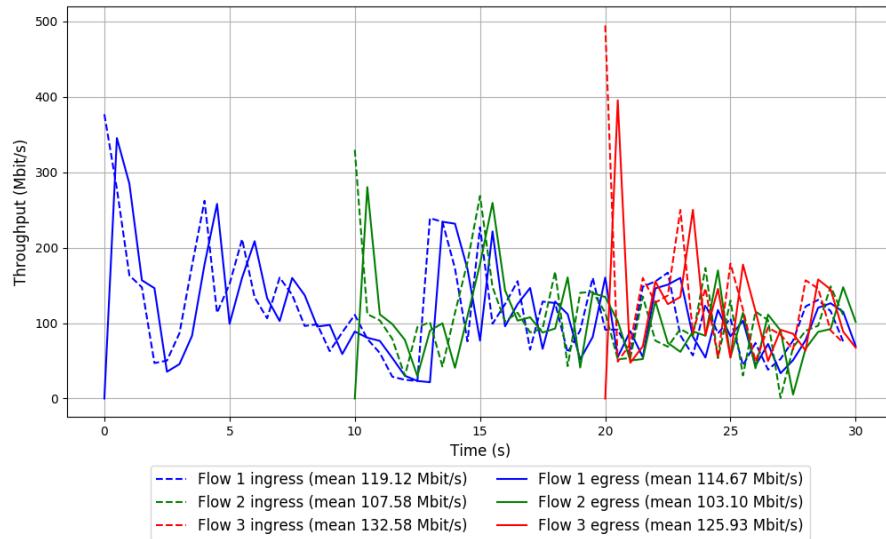


Run 3: Statistics of Verus

```
Start at: 2019-04-24 01:24:28
End at: 2019-04-24 01:24:58
Local clock offset: 0.173 ms
Remote clock offset: 1.873 ms

# Below is generated by plot.py at 2019-04-24 03:36:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 225.04 Mbit/s
95th percentile per-packet one-way delay: 24.279 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 114.67 Mbit/s
95th percentile per-packet one-way delay: 21.371 ms
Loss rate: 3.73%
-- Flow 2:
Average throughput: 103.10 Mbit/s
95th percentile per-packet one-way delay: 23.385 ms
Loss rate: 4.16%
-- Flow 3:
Average throughput: 125.93 Mbit/s
95th percentile per-packet one-way delay: 34.134 ms
Loss rate: 4.99%
```

Run 3: Report of Verus — Data Link

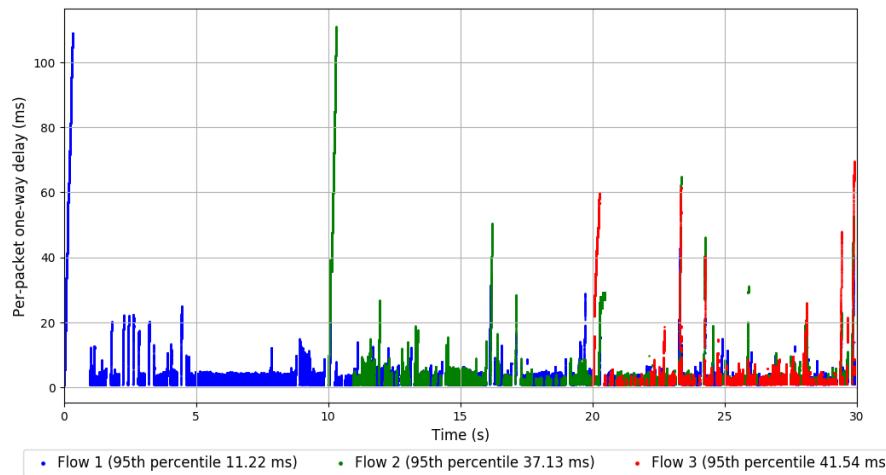
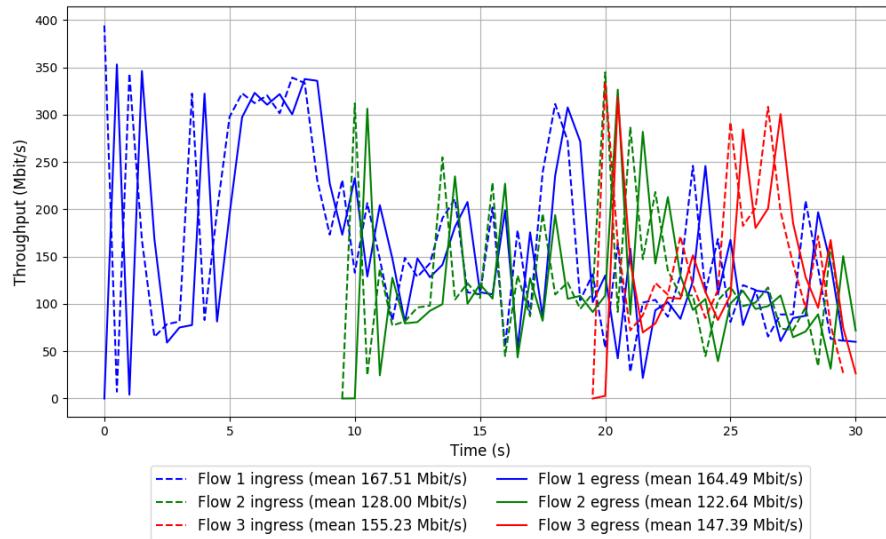


Run 4: Statistics of Verus

```
Start at: 2019-04-24 01:54:25
End at: 2019-04-24 01:54:55
Local clock offset: 0.278 ms
Remote clock offset: 1.414 ms

# Below is generated by plot.py at 2019-04-24 03:36:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 294.92 Mbit/s
95th percentile per-packet one-way delay: 27.694 ms
Loss rate: 2.94%
-- Flow 1:
Average throughput: 164.49 Mbit/s
95th percentile per-packet one-way delay: 11.221 ms
Loss rate: 1.79%
-- Flow 2:
Average throughput: 122.64 Mbit/s
95th percentile per-packet one-way delay: 37.132 ms
Loss rate: 3.94%
-- Flow 3:
Average throughput: 147.39 Mbit/s
95th percentile per-packet one-way delay: 41.538 ms
Loss rate: 5.00%
```

Run 4: Report of Verus — Data Link

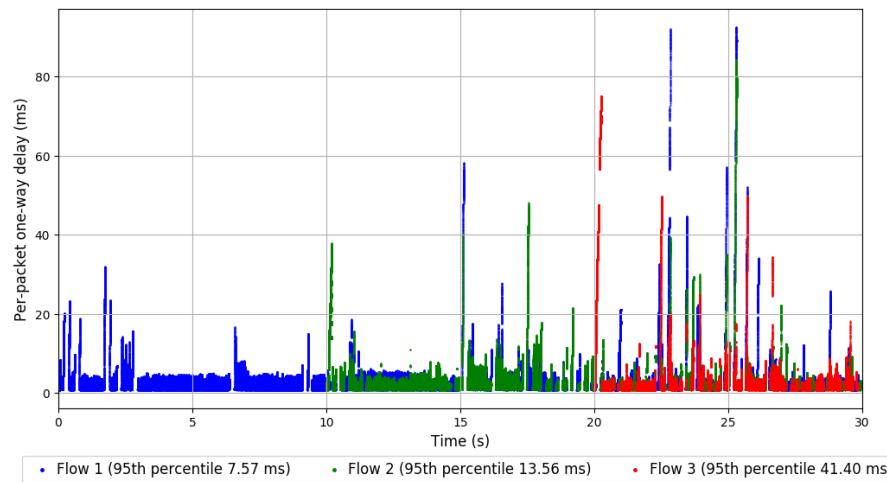
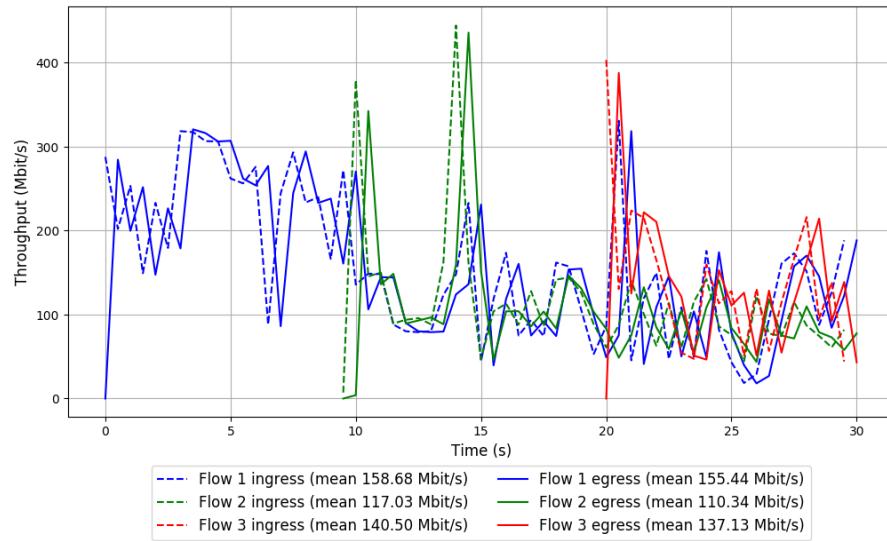


Run 5: Statistics of Verus

```
Start at: 2019-04-24 02:24:26
End at: 2019-04-24 02:24:56
Local clock offset: 0.452 ms
Remote clock offset: -2.047 ms

# Below is generated by plot.py at 2019-04-24 03:36:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 273.77 Mbit/s
95th percentile per-packet one-way delay: 11.539 ms
Loss rate: 3.11%
-- Flow 1:
Average throughput: 155.44 Mbit/s
95th percentile per-packet one-way delay: 7.573 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 110.34 Mbit/s
95th percentile per-packet one-way delay: 13.561 ms
Loss rate: 5.71%
-- Flow 3:
Average throughput: 137.13 Mbit/s
95th percentile per-packet one-way delay: 41.404 ms
Loss rate: 2.39%
```

Run 5: Report of Verus — Data Link

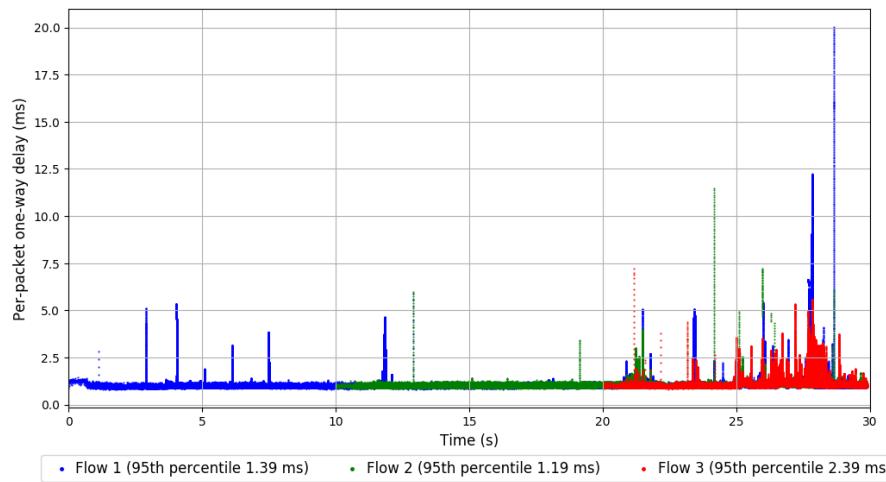
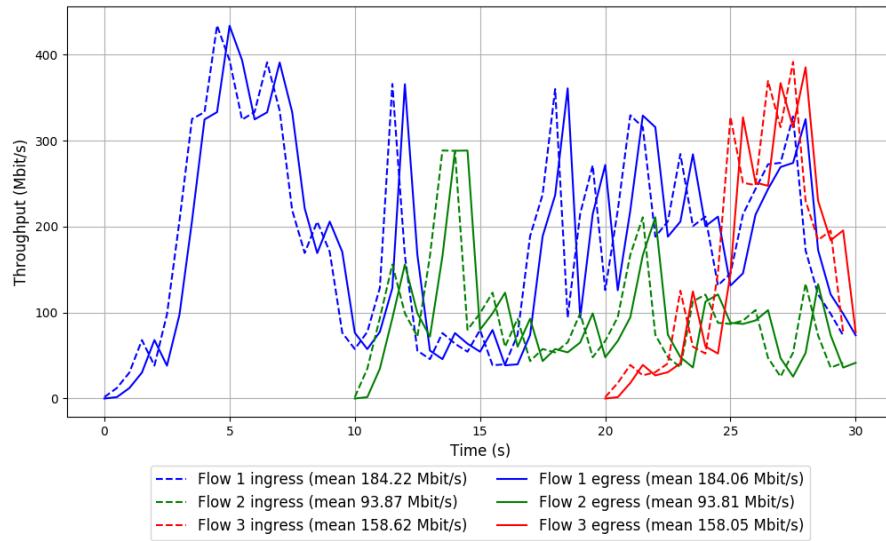


Run 1: Statistics of PCC-Vivace

```
Start at: 2019-04-24 00:28:02
End at: 2019-04-24 00:28:32
Local clock offset: 3.016 ms
Remote clock offset: 2.193 ms

# Below is generated by plot.py at 2019-04-24 03:37:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.66 Mbit/s
95th percentile per-packet one-way delay: 1.599 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 184.06 Mbit/s
95th percentile per-packet one-way delay: 1.393 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 93.81 Mbit/s
95th percentile per-packet one-way delay: 1.190 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 158.05 Mbit/s
95th percentile per-packet one-way delay: 2.387 ms
Loss rate: 0.36%
```

Run 1: Report of PCC-Vivace — Data Link

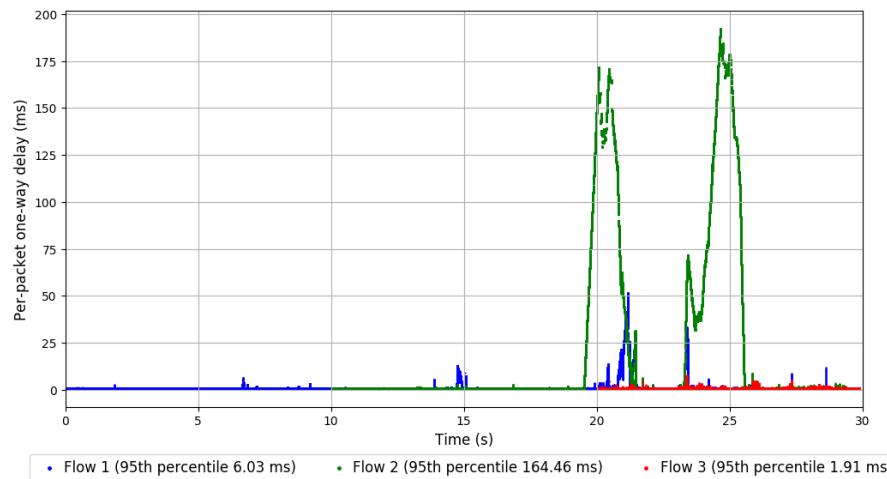
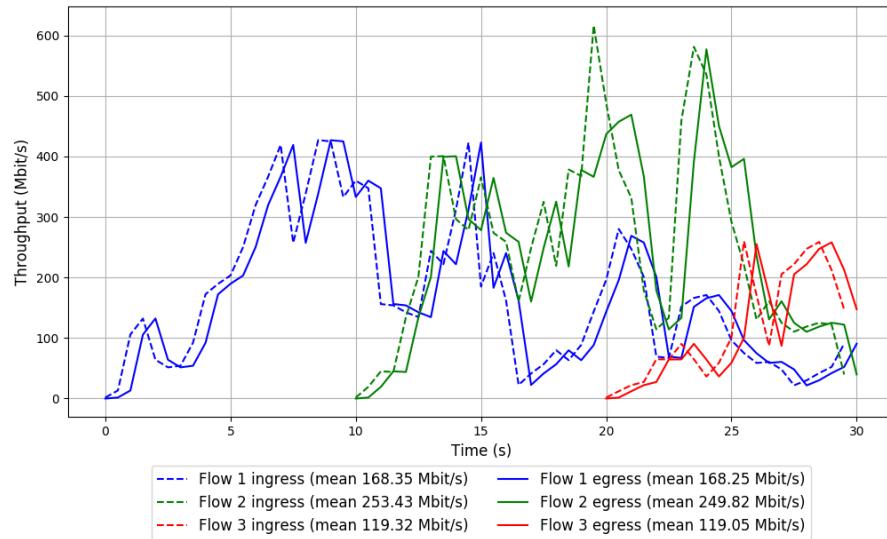


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-04-24 00:57:45
End at: 2019-04-24 00:58:15
Local clock offset: 1.167 ms
Remote clock offset: 1.872 ms

# Below is generated by plot.py at 2019-04-24 03:38:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 373.70 Mbit/s
95th percentile per-packet one-way delay: 136.161 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 168.25 Mbit/s
95th percentile per-packet one-way delay: 6.033 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 249.82 Mbit/s
95th percentile per-packet one-way delay: 164.462 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 119.05 Mbit/s
95th percentile per-packet one-way delay: 1.912 ms
Loss rate: 0.23%
```

Run 2: Report of PCC-Vivace — Data Link

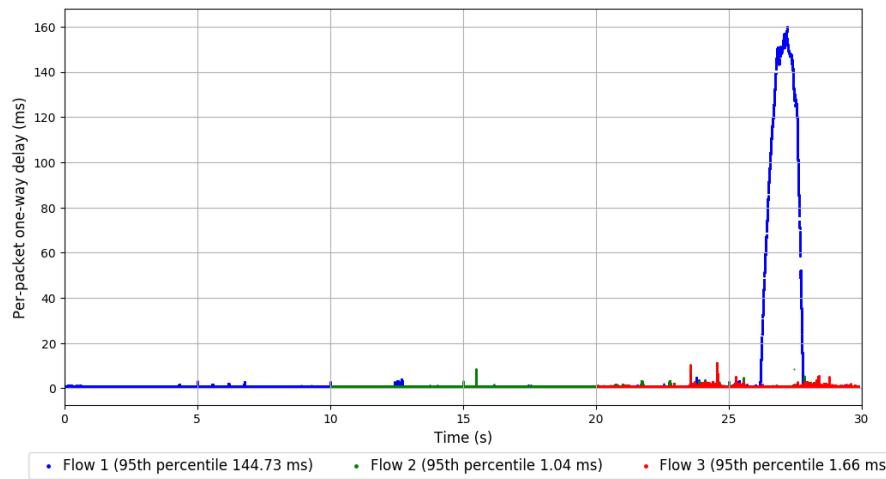
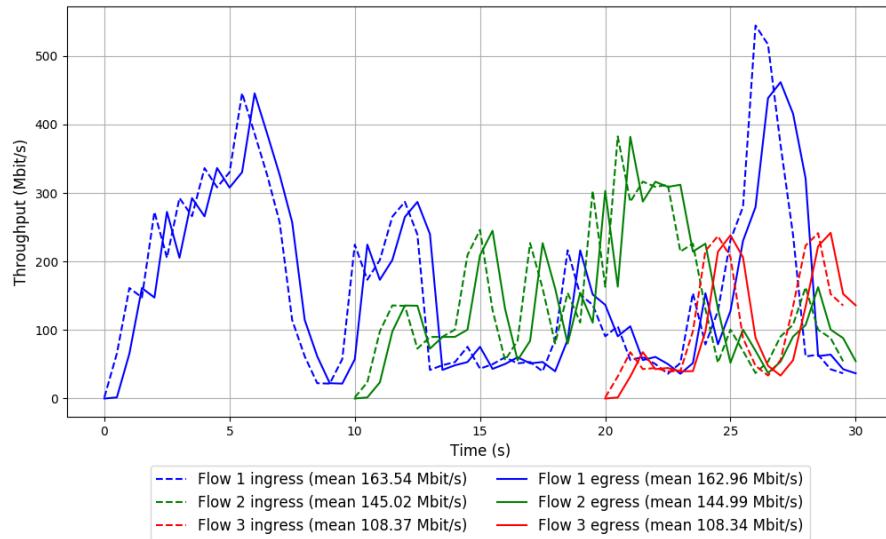


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-04-24 01:27:41
End at: 2019-04-24 01:28:11
Local clock offset: 0.2 ms
Remote clock offset: 1.757 ms

# Below is generated by plot.py at 2019-04-24 03:38:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.16 Mbit/s
95th percentile per-packet one-way delay: 104.078 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 162.96 Mbit/s
95th percentile per-packet one-way delay: 144.732 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 144.99 Mbit/s
95th percentile per-packet one-way delay: 1.038 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 108.34 Mbit/s
95th percentile per-packet one-way delay: 1.655 ms
Loss rate: 0.02%
```

Run 3: Report of PCC-Vivace — Data Link

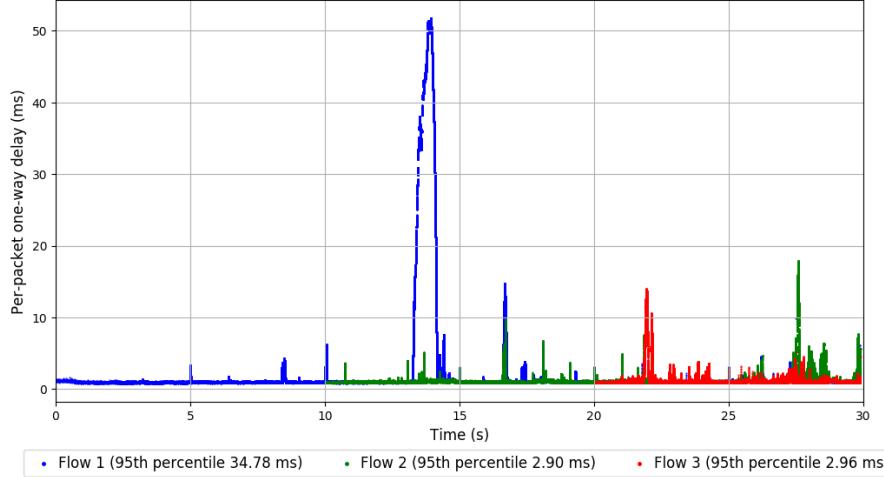
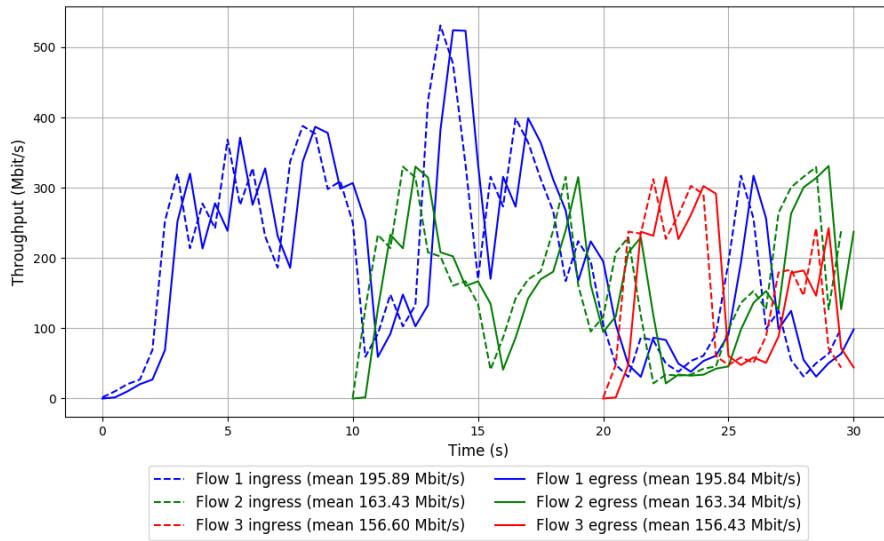


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-04-24 01:57:42
End at: 2019-04-24 01:58:12
Local clock offset: 0.266 ms
Remote clock offset: 0.539 ms

# Below is generated by plot.py at 2019-04-24 03:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 356.08 Mbit/s
95th percentile per-packet one-way delay: 8.995 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 195.84 Mbit/s
95th percentile per-packet one-way delay: 34.776 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 163.34 Mbit/s
95th percentile per-packet one-way delay: 2.895 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 156.43 Mbit/s
95th percentile per-packet one-way delay: 2.959 ms
Loss rate: 0.07%
```

Run 4: Report of PCC-Vivace — Data Link

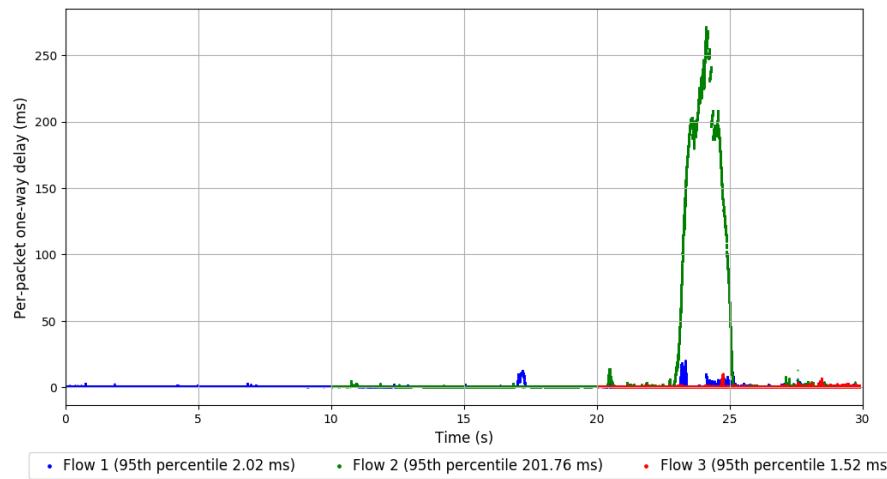
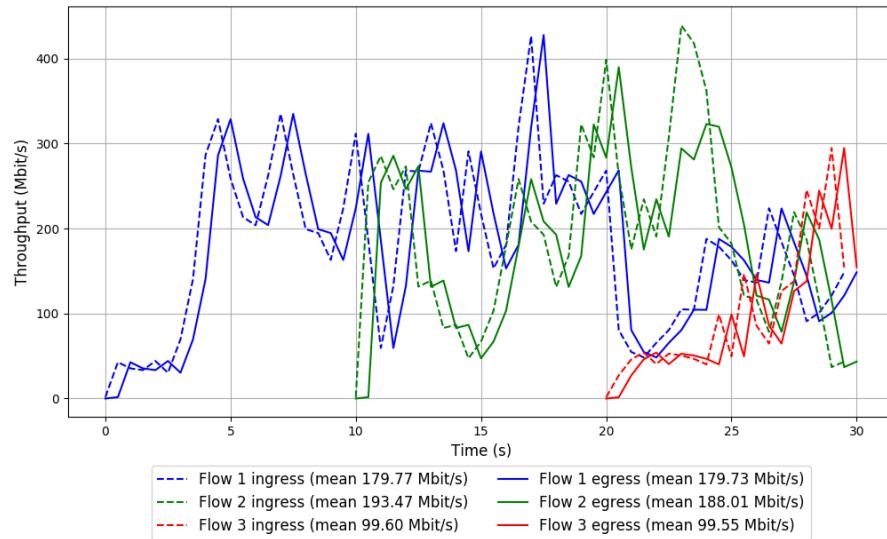


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-04-24 02:27:41
End at: 2019-04-24 02:28:11
Local clock offset: 0.432 ms
Remote clock offset: -2.109 ms

# Below is generated by plot.py at 2019-04-24 03:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.62 Mbit/s
95th percentile per-packet one-way delay: 97.872 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 179.73 Mbit/s
95th percentile per-packet one-way delay: 2.021 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 188.01 Mbit/s
95th percentile per-packet one-way delay: 201.761 ms
Loss rate: 2.83%
-- Flow 3:
Average throughput: 99.55 Mbit/s
95th percentile per-packet one-way delay: 1.517 ms
Loss rate: 0.05%
```

Run 5: Report of PCC-Vivace — Data Link

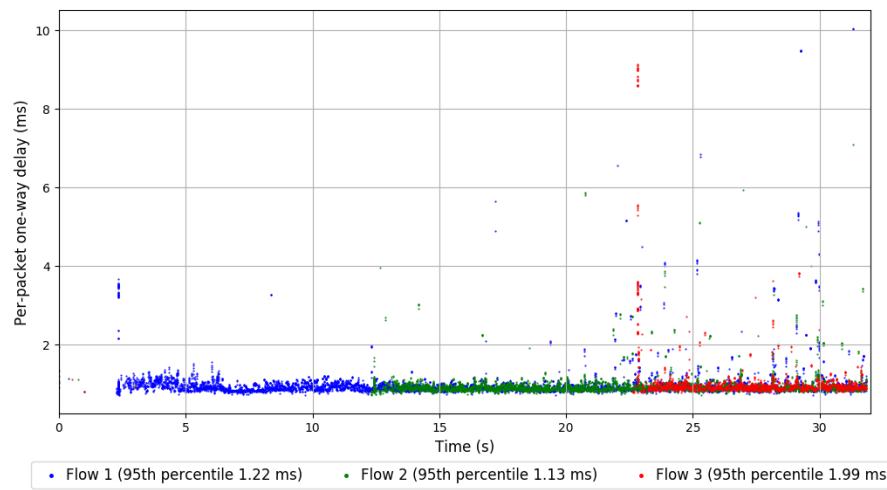
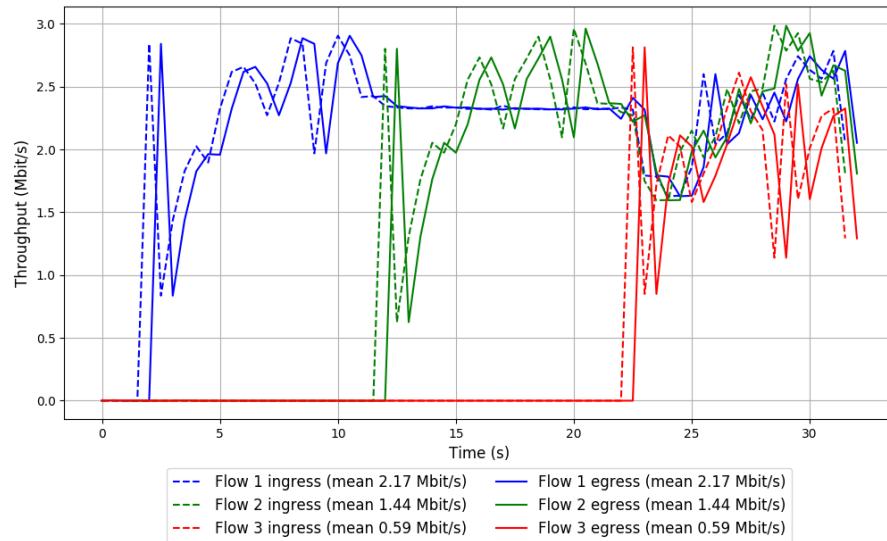


```
Run 1: Statistics of WebRTC media

Start at: 2019-04-24 00:34:00
End at: 2019-04-24 00:34:30
Local clock offset: 3.677 ms
Remote clock offset: 2.248 ms

# Below is generated by plot.py at 2019-04-24 03:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 1.216 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 1.217 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 1.132 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1.986 ms
Loss rate: 0.09%
```

Run 1: Report of WebRTC media — Data Link

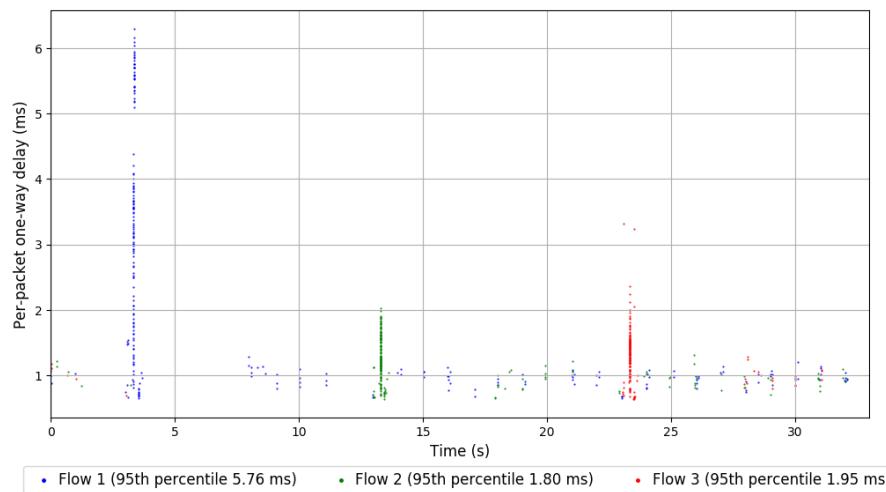
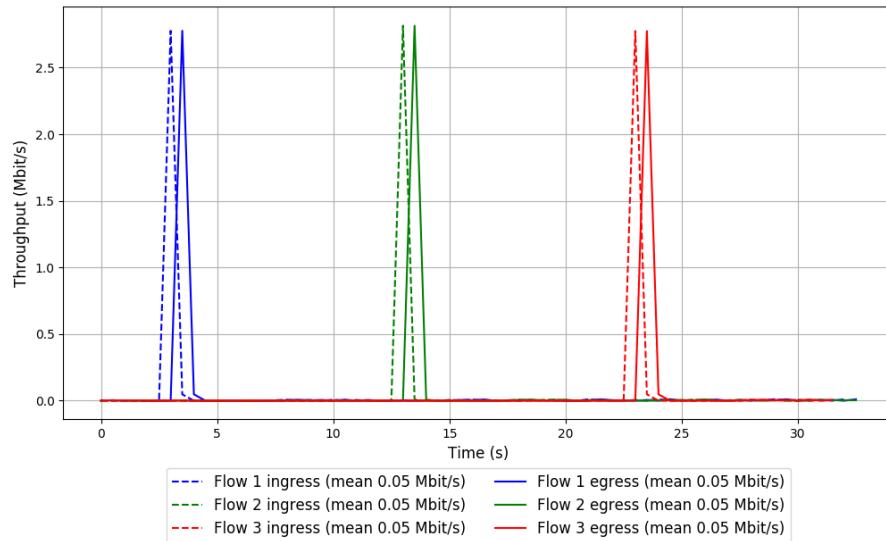


Run 2: Statistics of WebRTC media

```
Start at: 2019-04-24 01:03:50
End at: 2019-04-24 01:04:20
Local clock offset: 0.595 ms
Remote clock offset: 1.878 ms

# Below is generated by plot.py at 2019-04-24 03:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 5.231 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.758 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.796 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.952 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

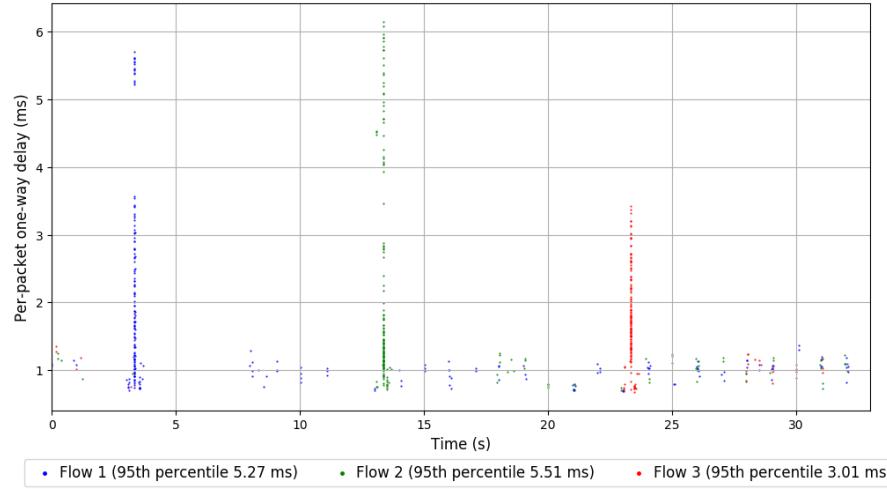
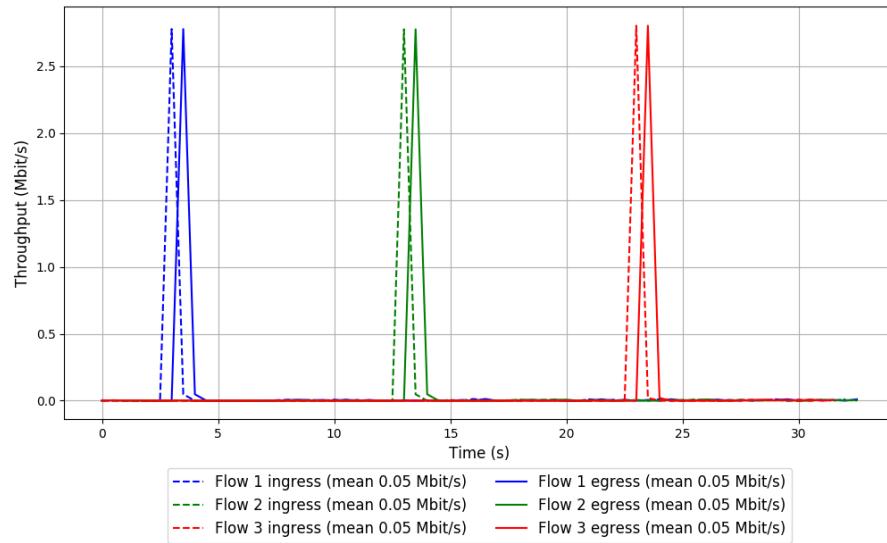


Run 3: Statistics of WebRTC media

```
Start at: 2019-04-24 01:33:47
End at: 2019-04-24 01:34:17
Local clock offset: 0.181 ms
Remote clock offset: 1.769 ms

# Below is generated by plot.py at 2019-04-24 03:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 5.090 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.274 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.509 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.008 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

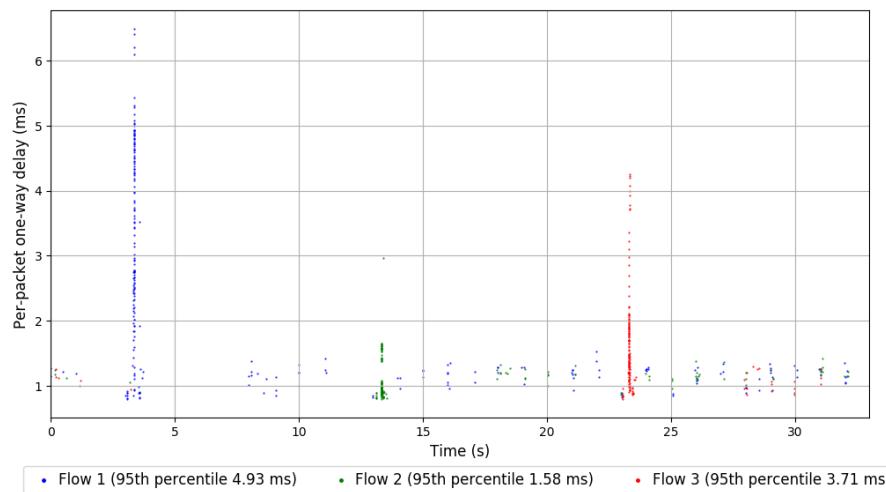
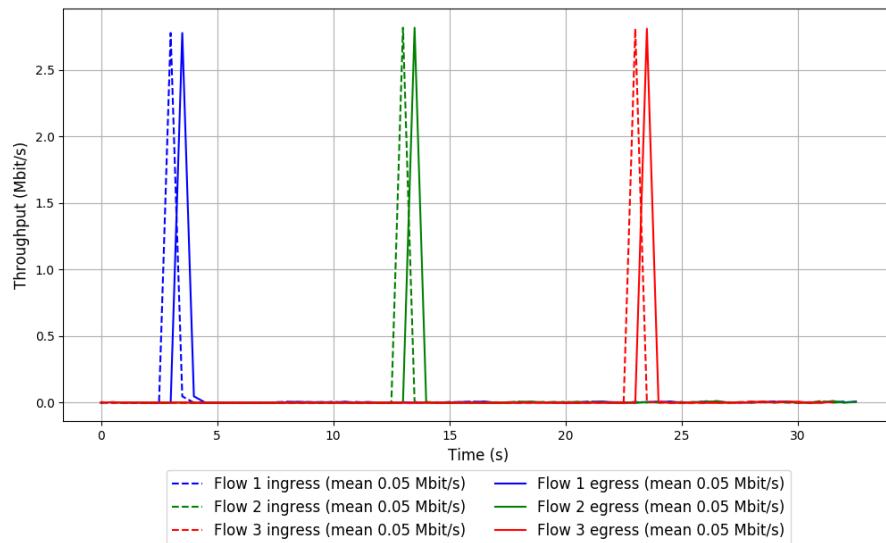


Run 4: Statistics of WebRTC media

```
Start at: 2019-04-24 02:03:55
End at: 2019-04-24 02:04:25
Local clock offset: 0.29 ms
Remote clock offset: -0.524 ms

# Below is generated by plot.py at 2019-04-24 03:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.629 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.931 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.581 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.711 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-04-24 02:33:43
End at: 2019-04-24 02:34:13
Local clock offset: 0.471 ms
Remote clock offset: 0.591 ms

# Below is generated by plot.py at 2019-04-24 03:38:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 7.076 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.044 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.001 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

