

Pantheon Report

Generated at 2019-03-27 04:36:11 (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:

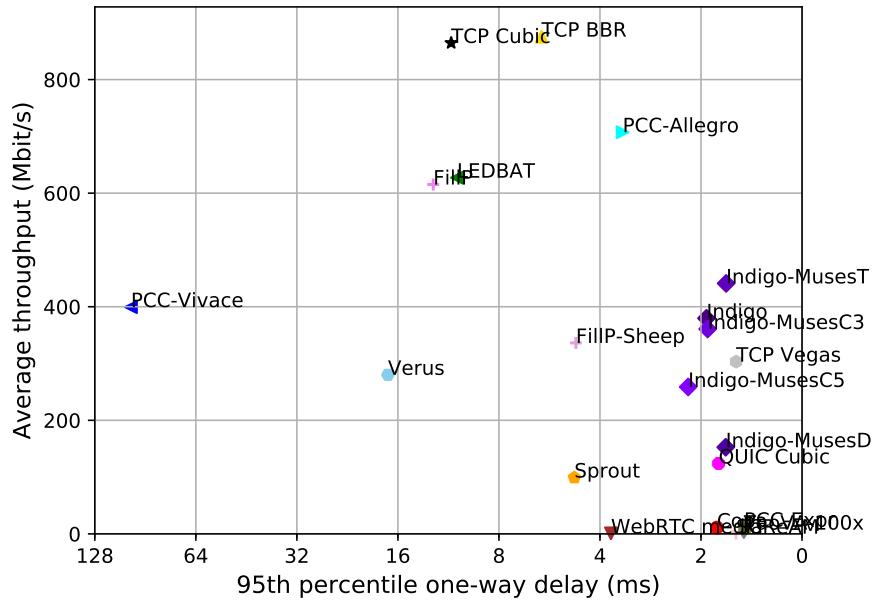
```
Linux 4.15.0-1034-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

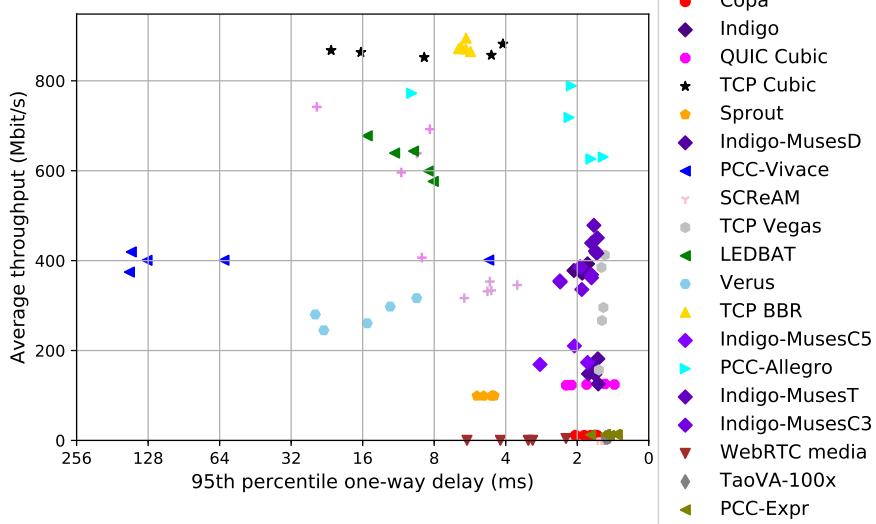
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
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



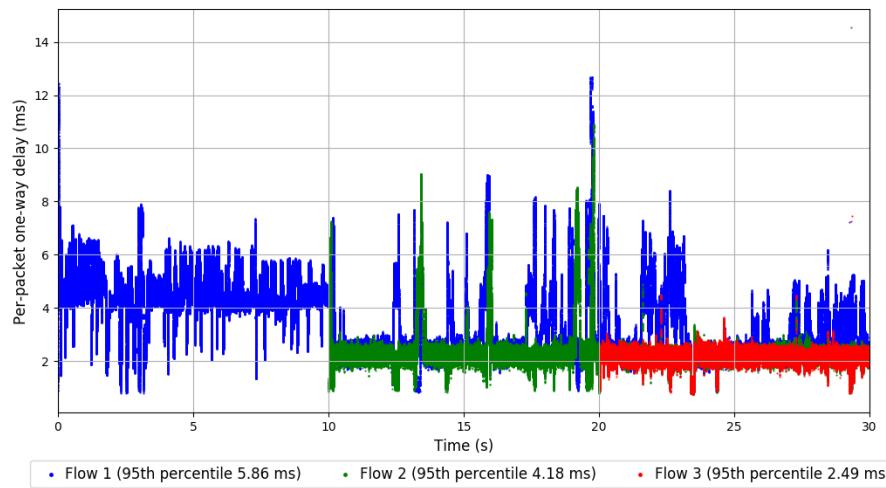
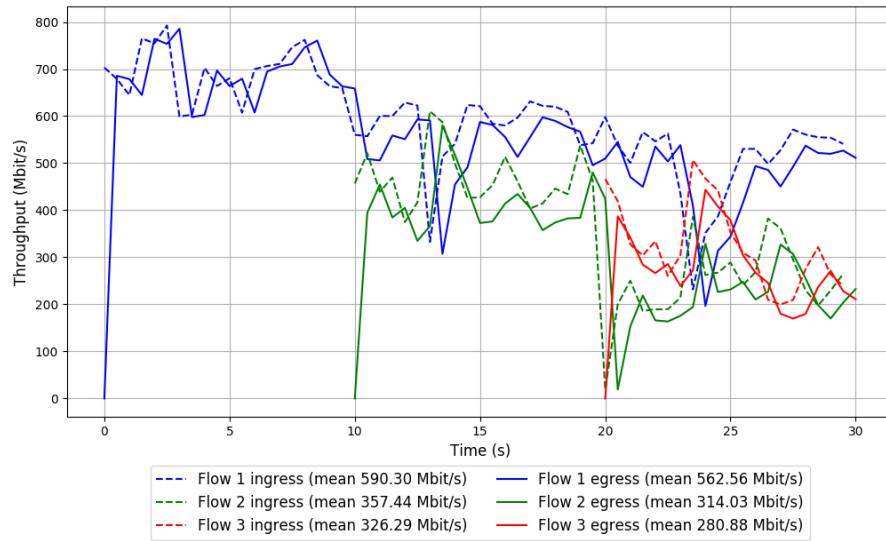
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	518.93	374.91	321.44	5.82	6.07	4.25	4.87	9.41	11.77
Copa	5	6.63	4.84	4.88	1.69	1.69	1.67	49.71	54.53	53.25
TCP Cubic	5	507.90	380.71	309.61	14.43	2.29	2.48	0.09	0.08	0.12
FillP	5	412.41	224.93	160.26	14.11	4.97	4.63	10.09	15.34	13.64
FillP-Sheep	5	298.06	45.61	23.83	4.91	2.18	2.30	3.21	2.72	4.57
Indigo	5	198.44	185.12	180.76	1.73	1.89	2.26	0.02	0.03	0.04
Indigo-MusesC3	5	183.08	187.80	188.73	1.74	1.97	2.01	0.04	0.04	0.10
Indigo-MusesC5	5	111.61	136.98	186.13	1.57	2.29	2.58	0.06	0.11	0.18
Indigo-MusesD	5	83.85	66.56	84.98	1.46	1.42	1.76	0.01	0.02	0.01
Indigo-MusesT	5	245.44	215.32	188.71	1.44	1.52	1.66	0.02	0.02	0.04
LEDBAT	5	358.23	289.31	259.29	11.60	6.81	5.12	0.16	0.26	0.30
PCC-Allegro	5	575.21	168.58	60.70	3.78	1.96	1.78	0.15	0.16	0.17
PCC-Expr	5	7.01	5.72	5.43	1.16	1.12	1.10	96.48	98.11	99.02
QUIC Cubic	5	67.64	59.89	50.62	1.01	1.19	4.85	0.01	0.00	0.01
SCReAM	5	0.22	0.22	0.22	1.30	1.32	1.30	0.00	0.00	0.00
Sprout	5	49.88	49.66	49.32	4.74	4.79	4.78	0.08	0.16	0.25
TaoVA-100x	5	0.00	8.20	6.18	1.15	1.17	1.05	95.92	41.66	52.35
TCP Vegas	5	117.52	154.44	249.14	1.40	1.28	1.33	0.02	0.02	0.04
Verus	5	143.50	134.97	142.57	23.56	12.26	14.12	3.23	3.31	3.33
PCC-Vivace	5	232.16	187.97	127.83	81.59	14.51	70.91	0.84	0.51	3.42
WebRTC media	5	0.48	0.32	0.16	3.23	2.75	3.54	0.01	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-03-27 01:13:12
End at: 2019-03-27 01:13:42
Local clock offset: -5.243 ms
Remote clock offset: 0.252 ms

# Below is generated by plot.py at 2019-03-27 03:52:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 865.17 Mbit/s
95th percentile per-packet one-way delay: 5.628 ms
Loss rate: 7.65%
-- Flow 1:
Average throughput: 562.56 Mbit/s
95th percentile per-packet one-way delay: 5.860 ms
Loss rate: 4.69%
-- Flow 2:
Average throughput: 314.03 Mbit/s
95th percentile per-packet one-way delay: 4.178 ms
Loss rate: 12.14%
-- Flow 3:
Average throughput: 280.88 Mbit/s
95th percentile per-packet one-way delay: 2.492 ms
Loss rate: 13.92%
```

Run 1: Report of TCP BBR — Data Link

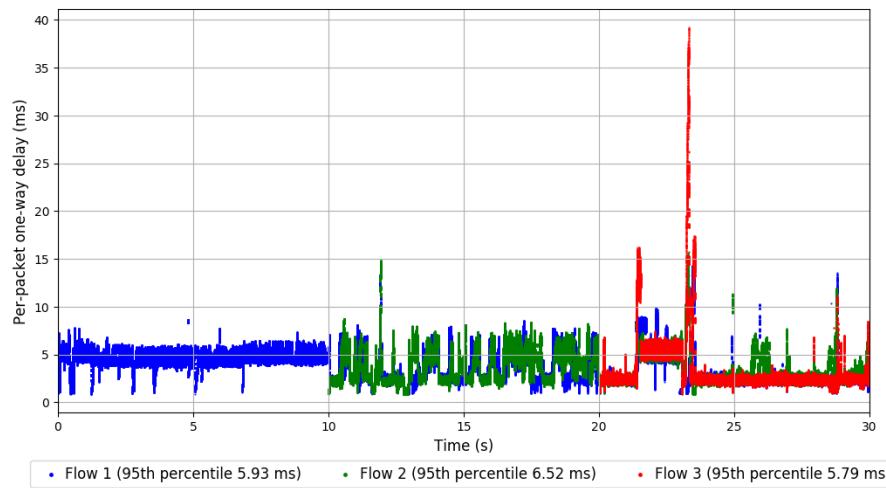
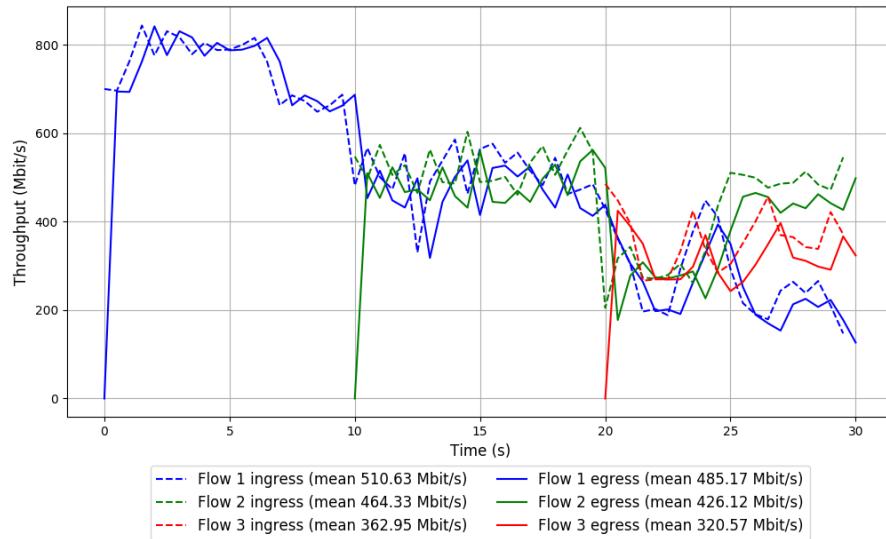


Run 2: Statistics of TCP BBR

```
Start at: 2019-03-27 01:43:22
End at: 2019-03-27 01:43:52
Local clock offset: 1.868 ms
Remote clock offset: 0.709 ms

# Below is generated by plot.py at 2019-03-27 03:52:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.65 Mbit/s
95th percentile per-packet one-way delay: 6.167 ms
Loss rate: 6.91%
-- Flow 1:
Average throughput: 485.17 Mbit/s
95th percentile per-packet one-way delay: 5.931 ms
Loss rate: 4.98%
-- Flow 2:
Average throughput: 426.12 Mbit/s
95th percentile per-packet one-way delay: 6.516 ms
Loss rate: 8.22%
-- Flow 3:
Average throughput: 320.57 Mbit/s
95th percentile per-packet one-way delay: 5.792 ms
Loss rate: 11.68%
```

Run 2: Report of TCP BBR — Data Link

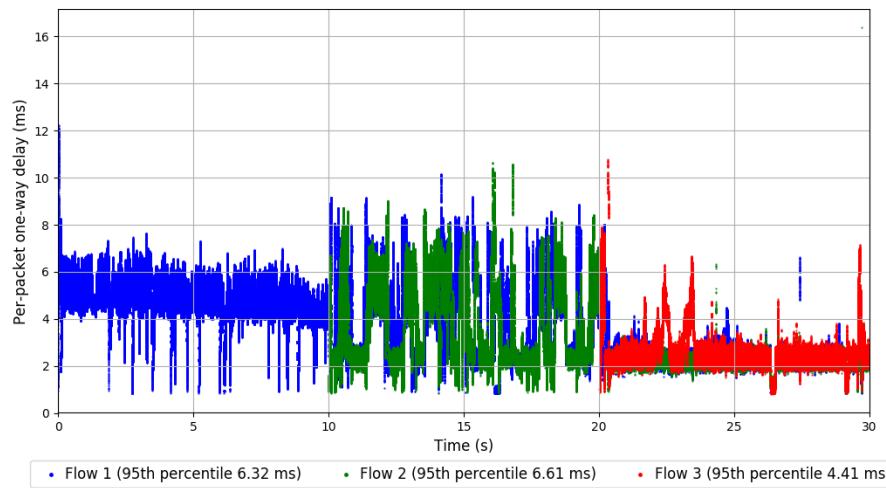
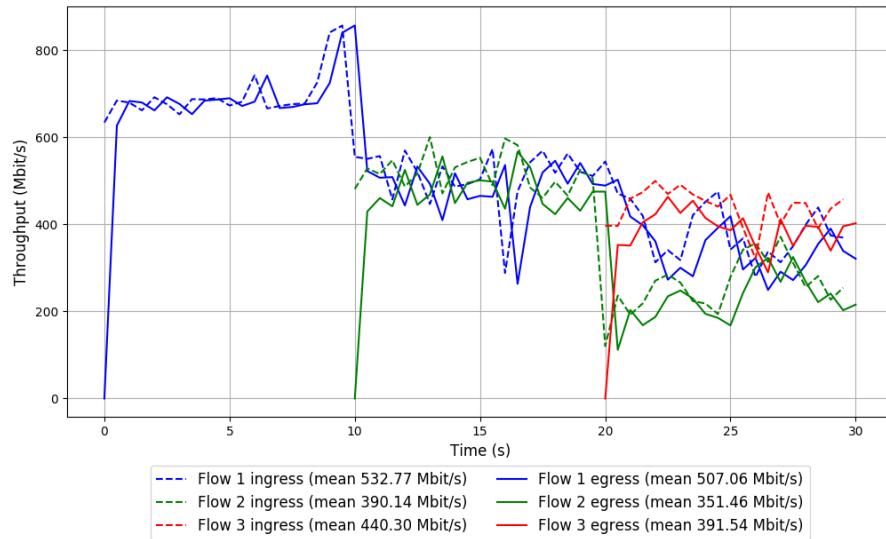


Run 3: Statistics of TCP BBR

```
Start at: 2019-03-27 02:13:29
End at: 2019-03-27 02:13:59
Local clock offset: 1.467 ms
Remote clock offset: 1.25 ms

# Below is generated by plot.py at 2019-03-27 03:52:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 871.49 Mbit/s
95th percentile per-packet one-way delay: 6.313 ms
Loss rate: 7.20%
-- Flow 1:
Average throughput: 507.06 Mbit/s
95th percentile per-packet one-way delay: 6.317 ms
Loss rate: 4.82%
-- Flow 2:
Average throughput: 351.46 Mbit/s
95th percentile per-packet one-way delay: 6.609 ms
Loss rate: 9.91%
-- Flow 3:
Average throughput: 391.54 Mbit/s
95th percentile per-packet one-way delay: 4.406 ms
Loss rate: 11.06%
```

Run 3: Report of TCP BBR — Data Link

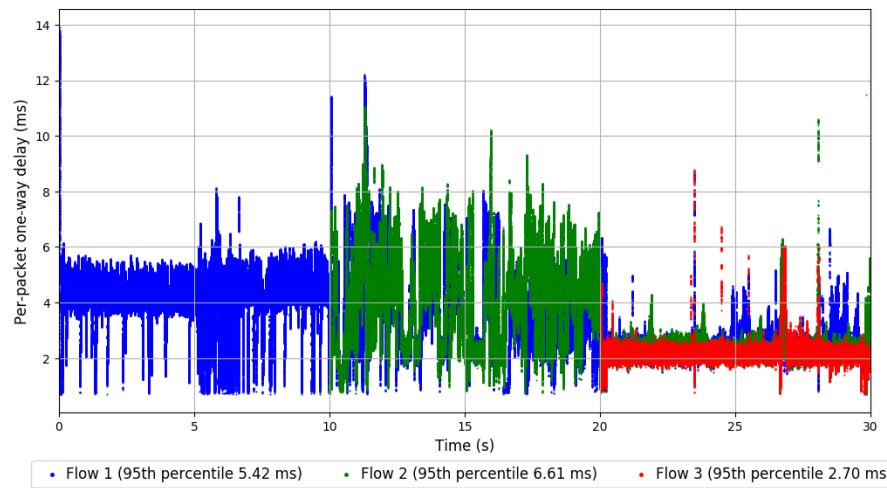
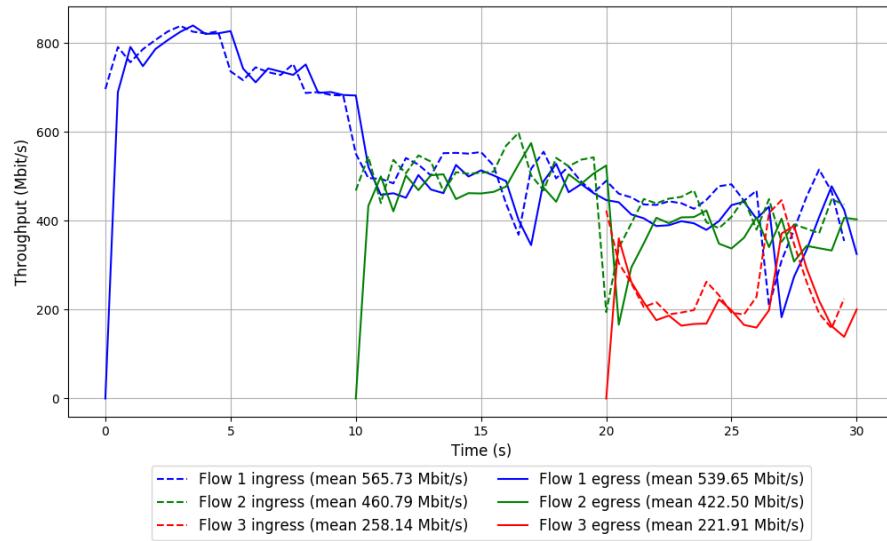


Run 4: Statistics of TCP BBR

```
Start at: 2019-03-27 02:43:38
End at: 2019-03-27 02:44:08
Local clock offset: 4.681 ms
Remote clock offset: 3.47 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 894.93 Mbit/s
95th percentile per-packet one-way delay: 5.873 ms
Loss rate: 6.63%
-- Flow 1:
Average throughput: 539.65 Mbit/s
95th percentile per-packet one-way delay: 5.420 ms
Loss rate: 4.60%
-- Flow 2:
Average throughput: 422.50 Mbit/s
95th percentile per-packet one-way delay: 6.612 ms
Loss rate: 8.30%
-- Flow 3:
Average throughput: 221.91 Mbit/s
95th percentile per-packet one-way delay: 2.696 ms
Loss rate: 14.04%
```

Run 4: Report of TCP BBR — Data Link

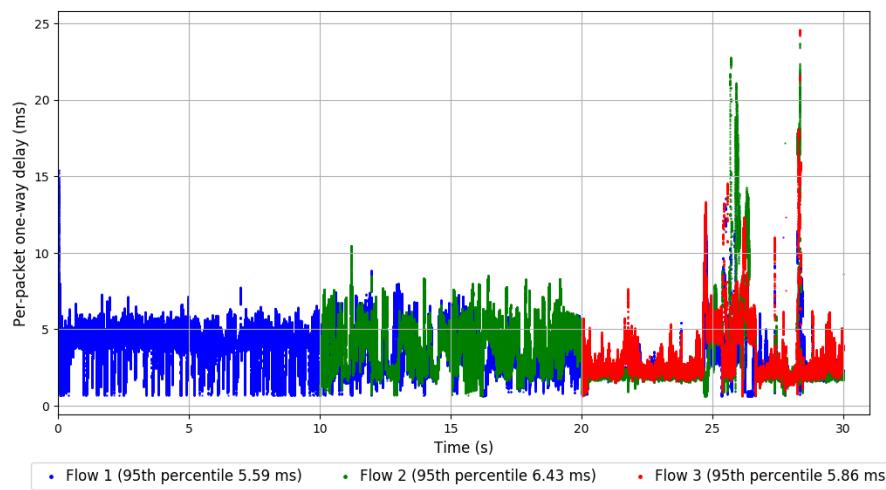
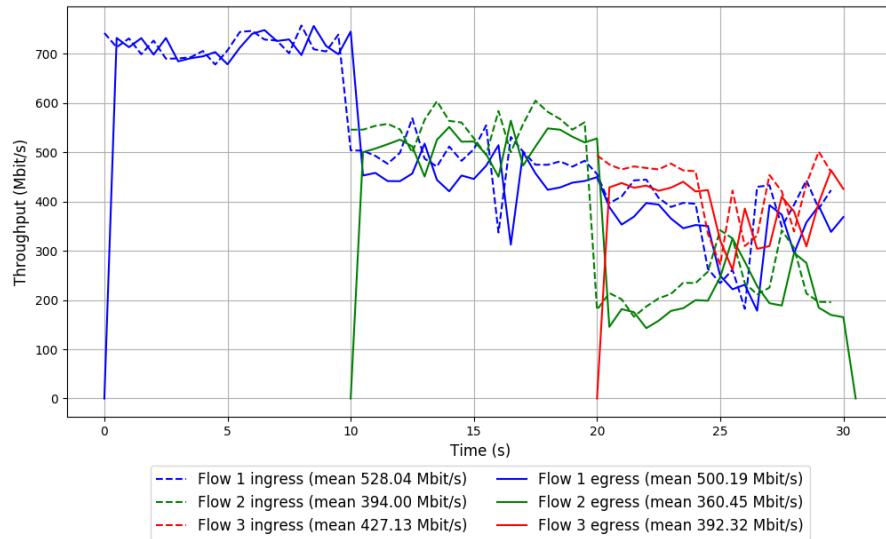


Run 5: Statistics of TCP BBR

```
Start at: 2019-03-27 03:13:49
End at: 2019-03-27 03:14:19
Local clock offset: 0.136 ms
Remote clock offset: 5.092 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 870.66 Mbit/s
95th percentile per-packet one-way delay: 5.884 ms
Loss rate: 6.61%
-- Flow 1:
Average throughput: 500.19 Mbit/s
95th percentile per-packet one-way delay: 5.589 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 360.45 Mbit/s
95th percentile per-packet one-way delay: 6.431 ms
Loss rate: 8.48%
-- Flow 3:
Average throughput: 392.32 Mbit/s
95th percentile per-packet one-way delay: 5.857 ms
Loss rate: 8.15%
```

Run 5: Report of TCP BBR — Data Link

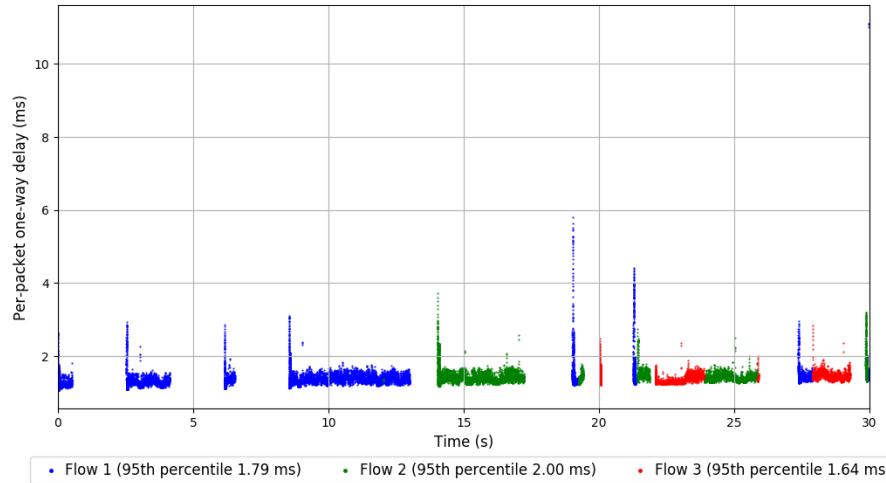
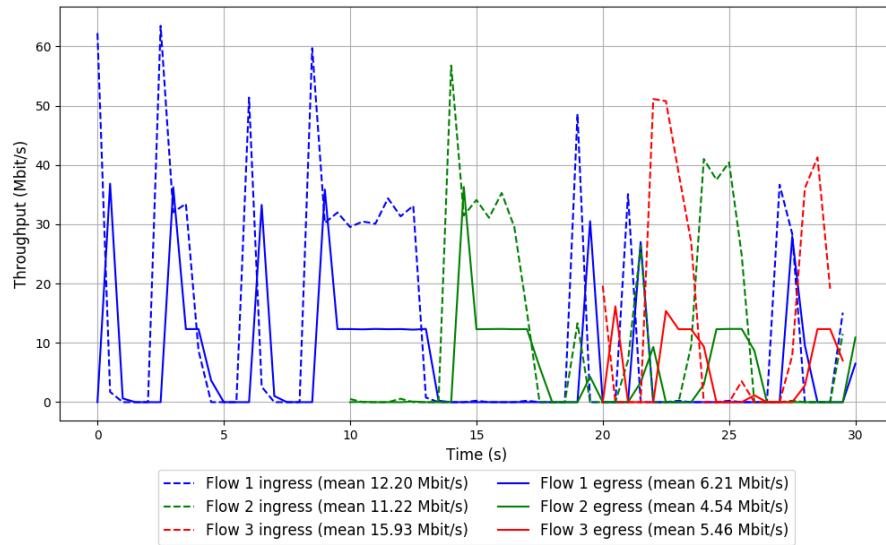


Run 1: Statistics of Copa

```
Start at: 2019-03-27 01:20:22
End at: 2019-03-27 01:20:52
Local clock offset: -2.94 ms
Remote clock offset: 0.354 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 1.804 ms
Loss rate: 55.62%
-- Flow 1:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 1.788 ms
Loss rate: 49.13%
-- Flow 2:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 2.005 ms
Loss rate: 59.57%
-- Flow 3:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 1.642 ms
Loss rate: 65.73%
```

Run 1: Report of Copa — Data Link

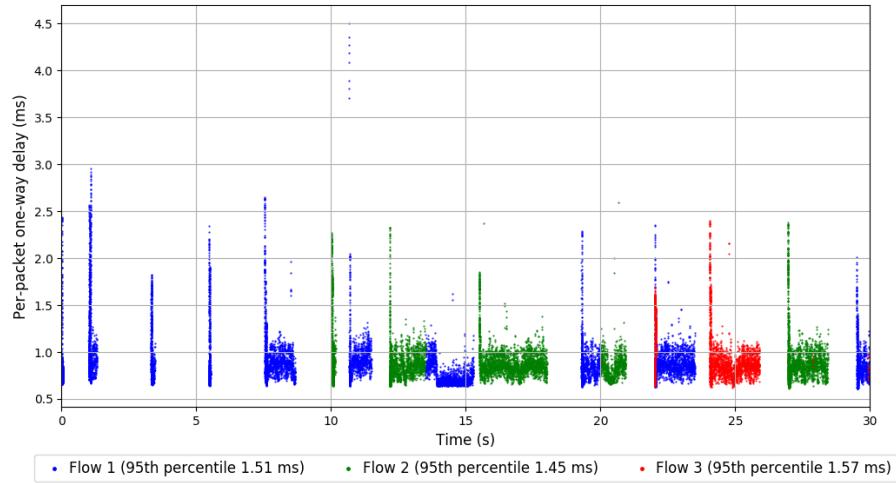
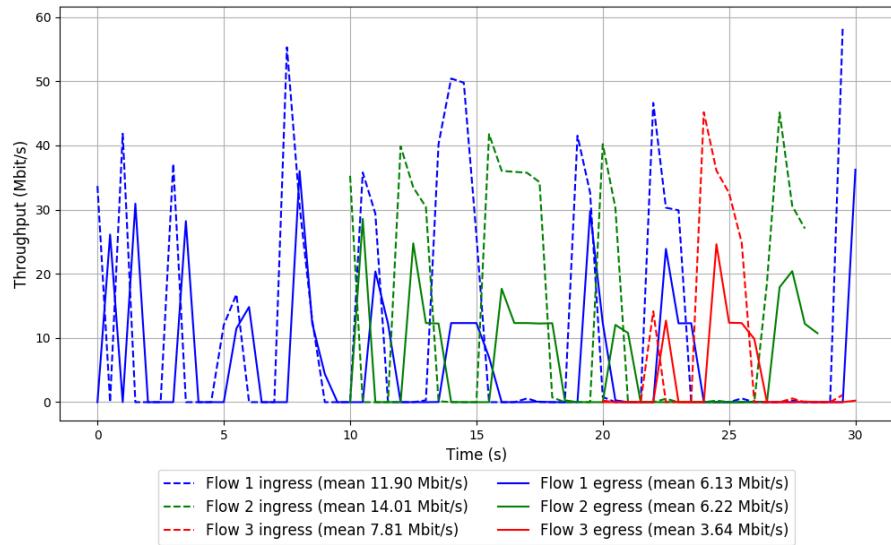


Run 2: Statistics of Copa

```
Start at: 2019-03-27 01:50:30
End at: 2019-03-27 01:51:00
Local clock offset: 1.537 ms
Remote clock offset: 0.71 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 1.523 ms
Loss rate: 51.66%
-- Flow 1:
Average throughput: 6.13 Mbit/s
95th percentile per-packet one-way delay: 1.506 ms
Loss rate: 48.44%
-- Flow 2:
Average throughput: 6.22 Mbit/s
95th percentile per-packet one-way delay: 1.447 ms
Loss rate: 55.60%
-- Flow 3:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 1.574 ms
Loss rate: 53.37%
```

Run 2: Report of Copa — Data Link

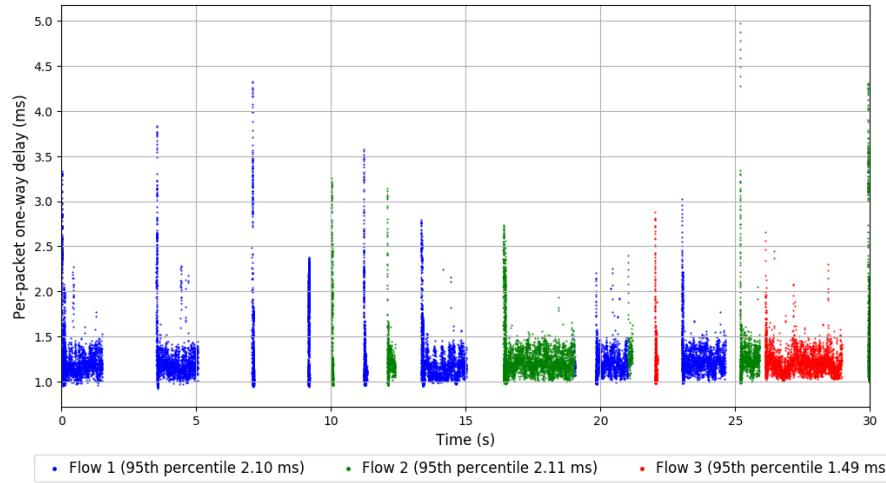
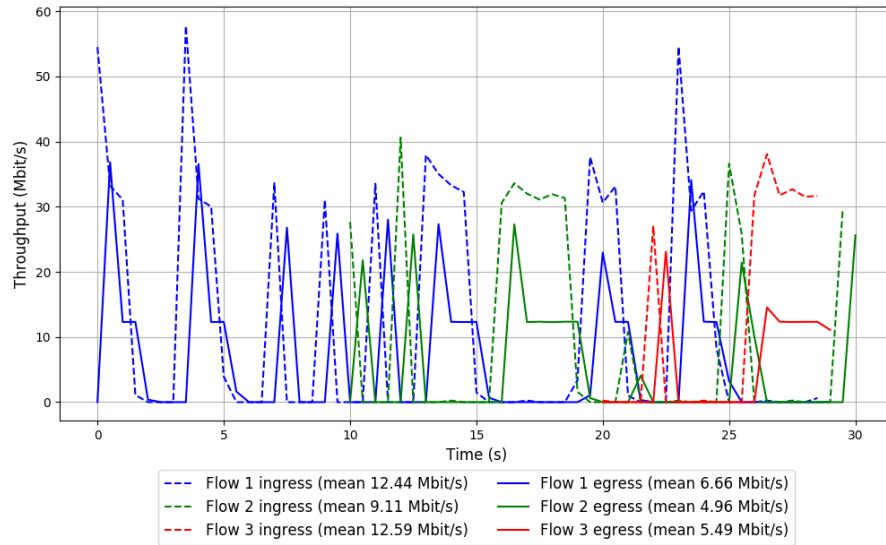


Run 3: Statistics of Copa

```
Start at: 2019-03-27 02:20:36
End at: 2019-03-27 02:21:06
Local clock offset: 2.407 ms
Remote clock offset: 1.386 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 2.033 ms
Loss rate: 47.93%
-- Flow 1:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 2.100 ms
Loss rate: 46.48%
-- Flow 2:
Average throughput: 4.96 Mbit/s
95th percentile per-packet one-way delay: 2.113 ms
Loss rate: 45.54%
-- Flow 3:
Average throughput: 5.49 Mbit/s
95th percentile per-packet one-way delay: 1.493 ms
Loss rate: 56.42%
```

Run 3: Report of Copa — Data Link

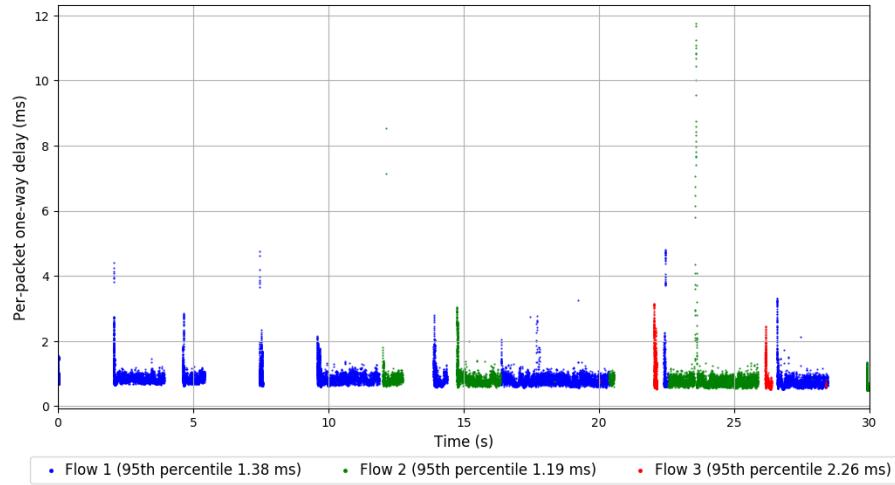
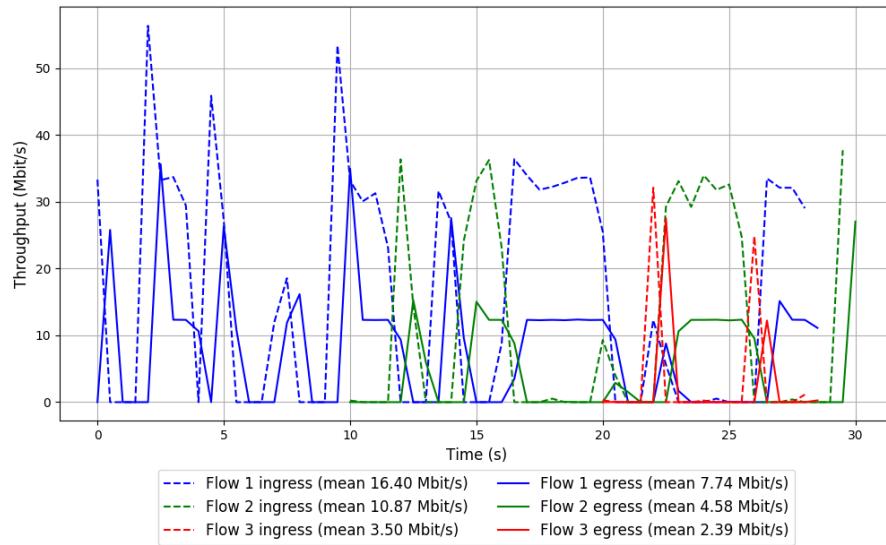


Run 4: Statistics of Copa

```
Start at: 2019-03-27 02:50:44
End at: 2019-03-27 02:51:14
Local clock offset: 2.859 ms
Remote clock offset: 4.039 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.07 Mbit/s
95th percentile per-packet one-way delay: 1.445 ms
Loss rate: 53.46%
-- Flow 1:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 1.376 ms
Loss rate: 52.78%
-- Flow 2:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 1.192 ms
Loss rate: 57.87%
-- Flow 3:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 2.257 ms
Loss rate: 31.69%
```

Run 4: Report of Copa — Data Link

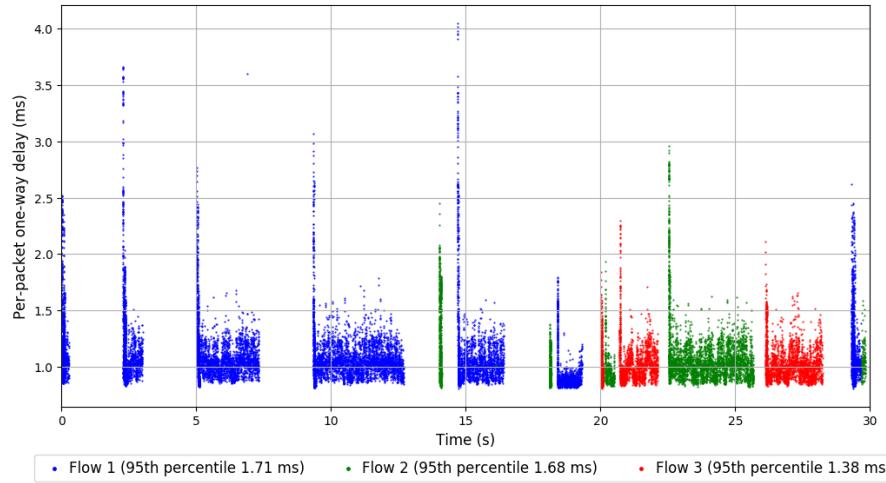
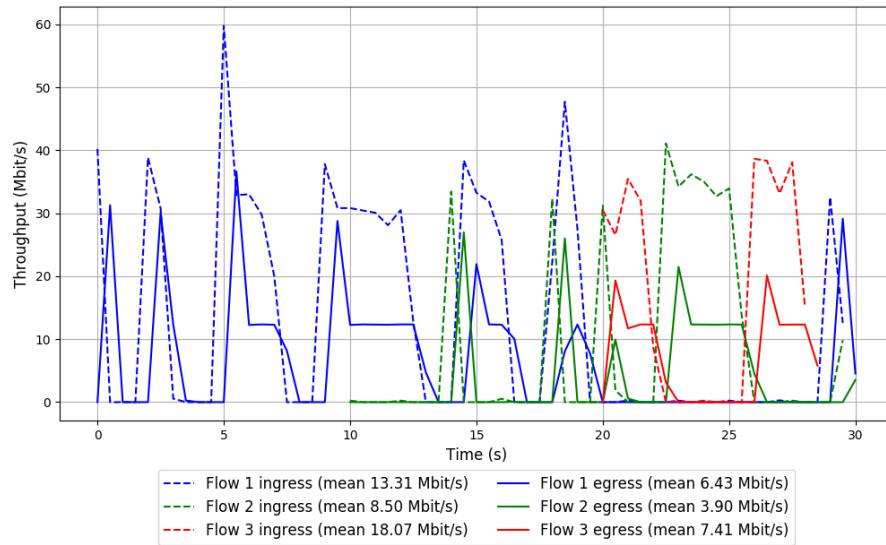


Run 5: Statistics of Copa

```
Start at: 2019-03-27 03:20:55
End at: 2019-03-27 03:21:25
Local clock offset: 0.033 ms
Remote clock offset: 5.581 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 1.620 ms
Loss rate: 53.79%
-- Flow 1:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 1.705 ms
Loss rate: 51.70%
-- Flow 2:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 1.682 ms
Loss rate: 54.07%
-- Flow 3:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 1.380 ms
Loss rate: 59.02%
```

Run 5: Report of Copa — Data Link

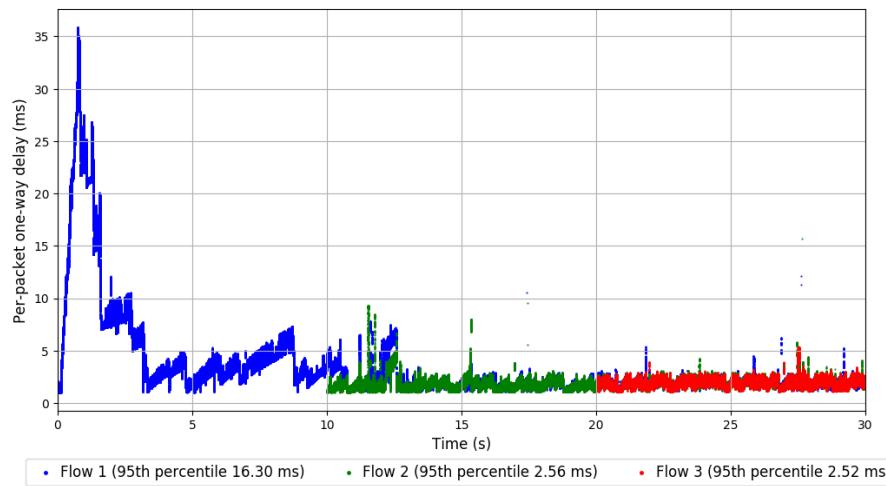
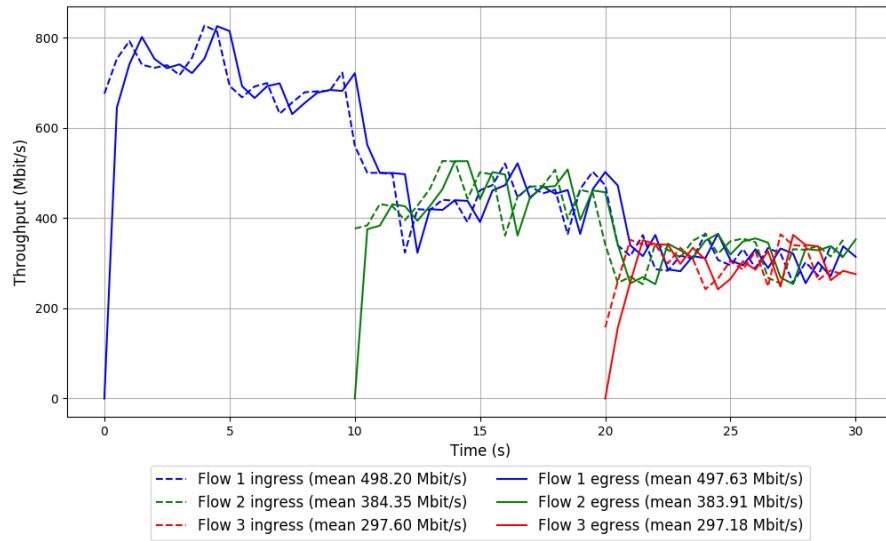


```
Run 1: Statistics of TCP Cubic

Start at: 2019-03-27 01:23:02
End at: 2019-03-27 01:23:32
Local clock offset: -1.823 ms
Remote clock offset: 0.339 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 852.14 Mbit/s
95th percentile per-packet one-way delay: 8.810 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 497.63 Mbit/s
95th percentile per-packet one-way delay: 16.305 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 383.91 Mbit/s
95th percentile per-packet one-way delay: 2.558 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 297.18 Mbit/s
95th percentile per-packet one-way delay: 2.517 ms
Loss rate: 0.14%
```

Run 1: Report of TCP Cubic — Data Link

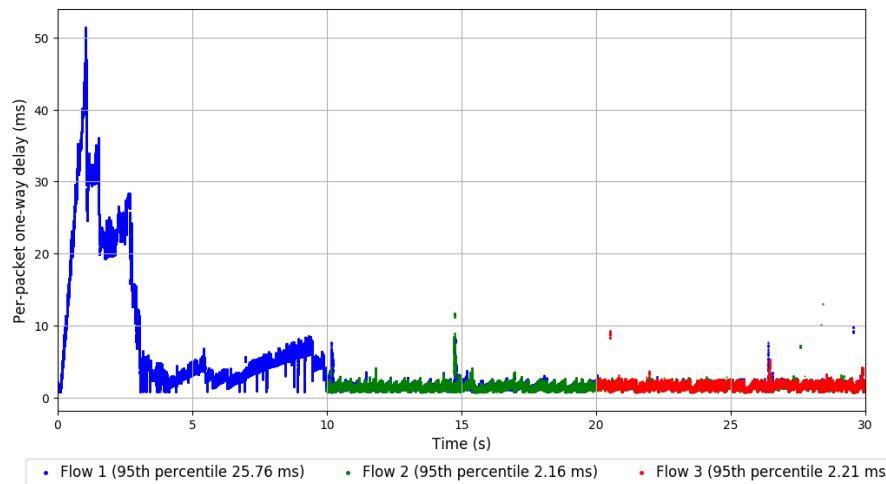
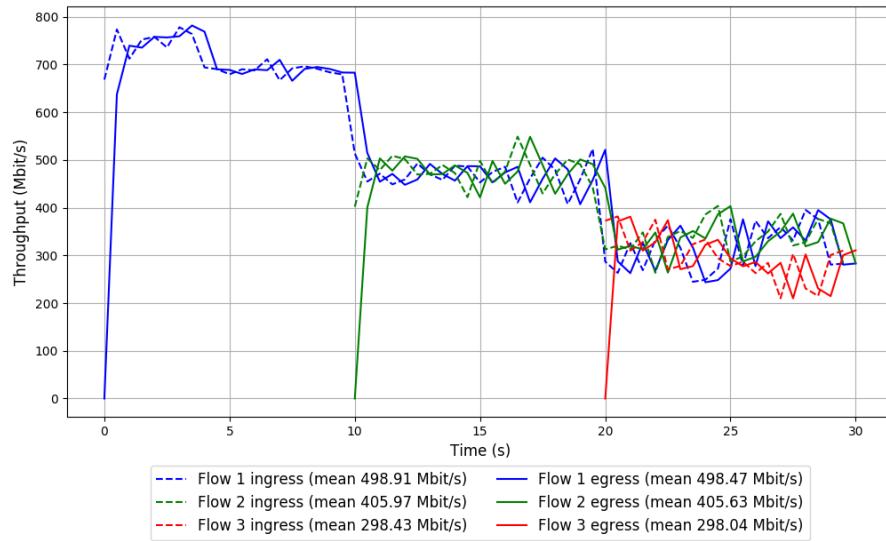


Run 2: Statistics of TCP Cubic

```
Start at: 2019-03-27 01:53:11
End at: 2019-03-27 01:53:41
Local clock offset: 1.332 ms
Remote clock offset: 0.869 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 867.75 Mbit/s
95th percentile per-packet one-way delay: 21.724 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 498.47 Mbit/s
95th percentile per-packet one-way delay: 25.761 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 405.63 Mbit/s
95th percentile per-packet one-way delay: 2.160 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 298.04 Mbit/s
95th percentile per-packet one-way delay: 2.208 ms
Loss rate: 0.14%
```

Run 2: Report of TCP Cubic — Data Link

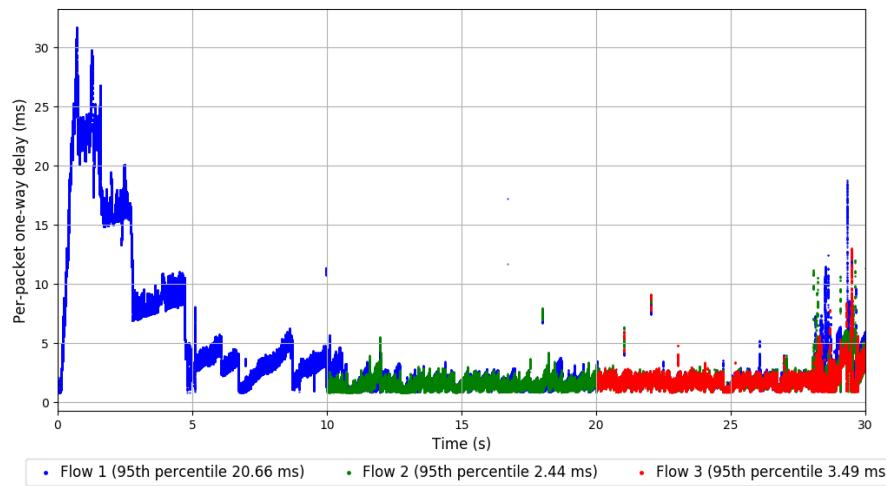
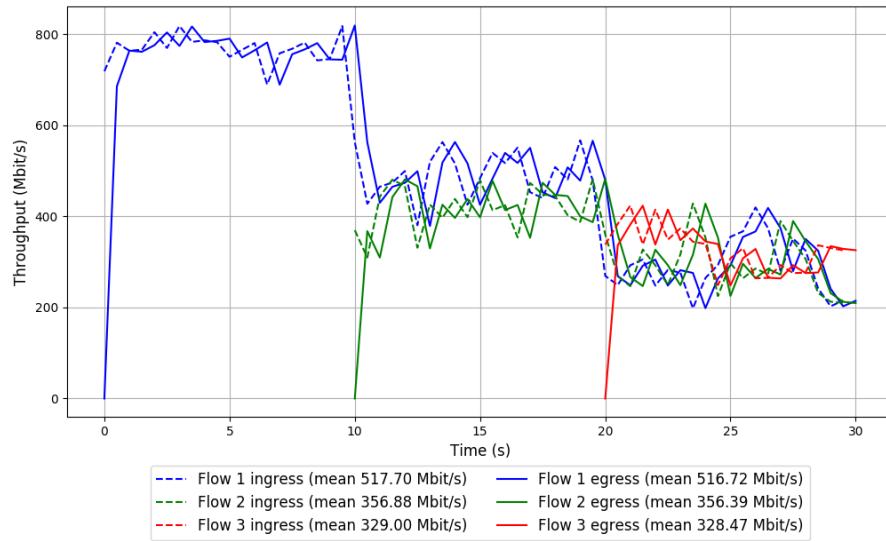


Run 3: Statistics of TCP Cubic

```
Start at: 2019-03-27 02:23:15
End at: 2019-03-27 02:23:45
Local clock offset: 2.801 ms
Remote clock offset: 1.315 ms

# Below is generated by plot.py at 2019-03-27 03:52:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 863.32 Mbit/s
95th percentile per-packet one-way delay: 16.276 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 516.72 Mbit/s
95th percentile per-packet one-way delay: 20.659 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 356.39 Mbit/s
95th percentile per-packet one-way delay: 2.444 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 328.47 Mbit/s
95th percentile per-packet one-way delay: 3.493 ms
Loss rate: 0.15%
```

Run 3: Report of TCP Cubic — Data Link

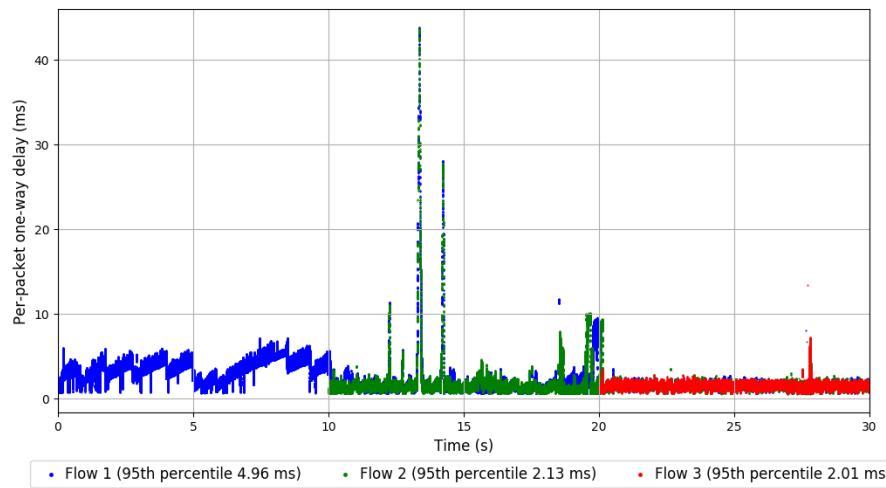
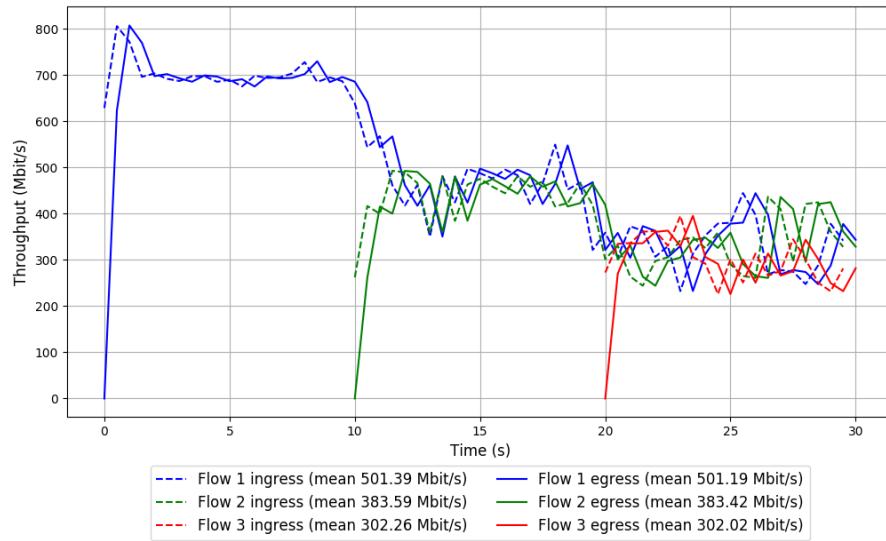


Run 4: Statistics of TCP Cubic

```
Start at: 2019-03-27 02:53:25
End at: 2019-03-27 02:53:55
Local clock offset: 2.08 ms
Remote clock offset: 4.142 ms

# Below is generated by plot.py at 2019-03-27 04:01:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 857.13 Mbit/s
95th percentile per-packet one-way delay: 4.596 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 501.19 Mbit/s
95th percentile per-packet one-way delay: 4.963 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 383.42 Mbit/s
95th percentile per-packet one-way delay: 2.127 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 302.02 Mbit/s
95th percentile per-packet one-way delay: 2.009 ms
Loss rate: 0.08%
```

Run 4: Report of TCP Cubic — Data Link

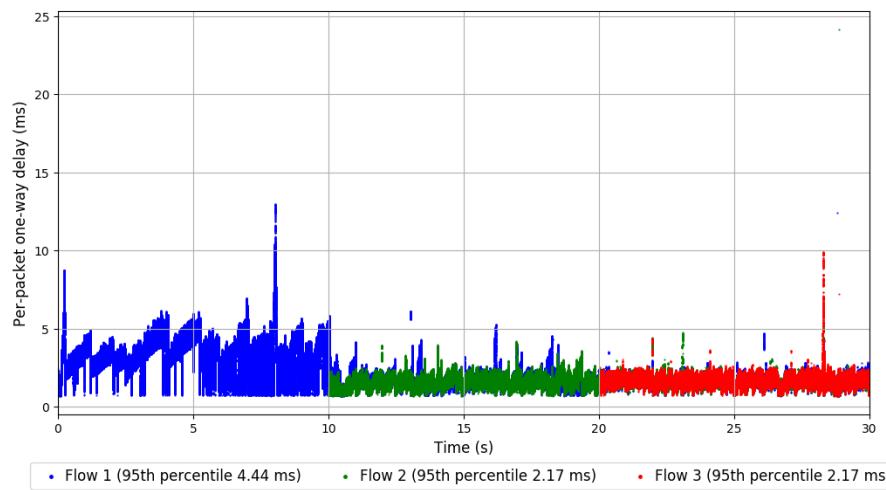
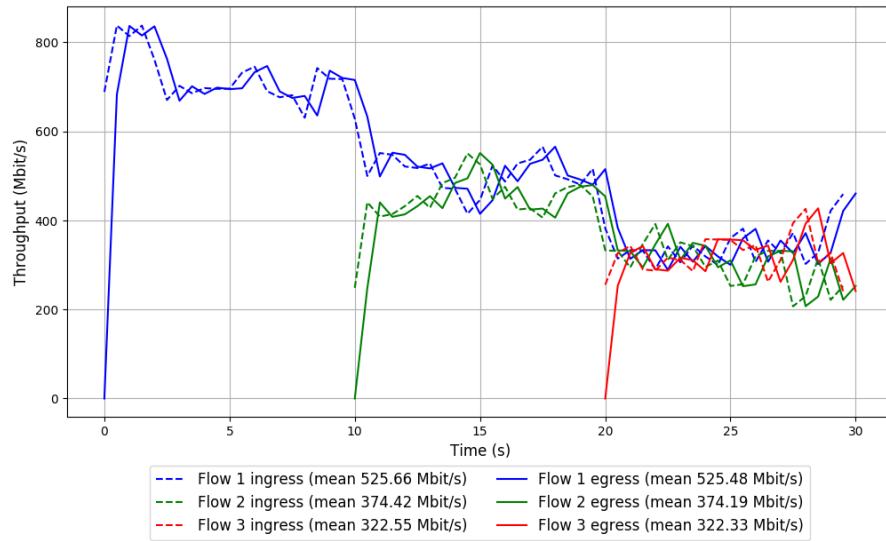


Run 5: Statistics of TCP Cubic

```
Start at: 2019-03-27 03:23:36
End at: 2019-03-27 03:24:06
Local clock offset: 0.045 ms
Remote clock offset: 5.649 ms

# Below is generated by plot.py at 2019-03-27 04:02:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 881.94 Mbit/s
95th percentile per-packet one-way delay: 4.111 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 525.48 Mbit/s
95th percentile per-packet one-way delay: 4.444 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 374.19 Mbit/s
95th percentile per-packet one-way delay: 2.173 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 322.33 Mbit/s
95th percentile per-packet one-way delay: 2.172 ms
Loss rate: 0.07%
```

Run 5: Report of TCP Cubic — Data Link

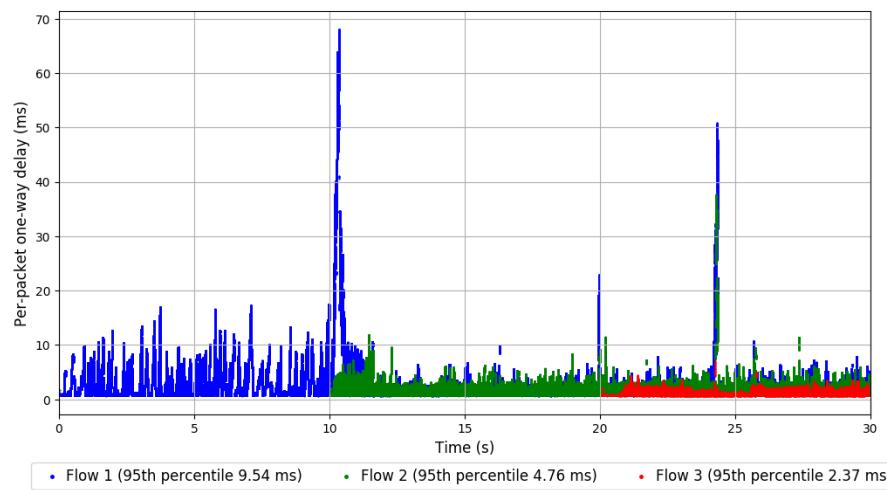
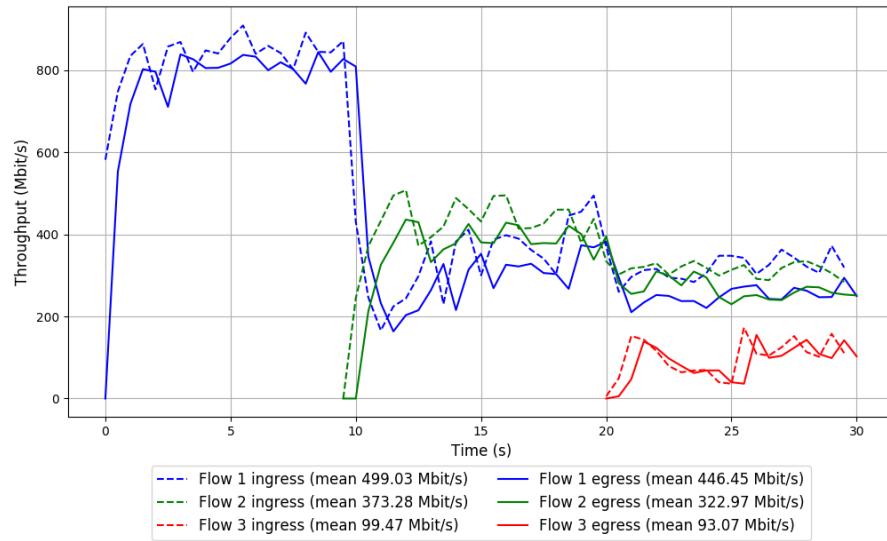


```
Run 1: Statistics of FillP
```

```
Start at: 2019-03-27 01:06:04
End at: 2019-03-27 01:06:34
Local clock offset: -4.927 ms
Remote clock offset: 0.067 ms

# Below is generated by plot.py at 2019-03-27 04:02:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 692.43 Mbit/s
95th percentile per-packet one-way delay: 8.343 ms
Loss rate: 11.29%
-- Flow 1:
Average throughput: 446.45 Mbit/s
95th percentile per-packet one-way delay: 9.545 ms
Loss rate: 10.53%
-- Flow 2:
Average throughput: 322.97 Mbit/s
95th percentile per-packet one-way delay: 4.765 ms
Loss rate: 13.47%
-- Flow 3:
Average throughput: 93.07 Mbit/s
95th percentile per-packet one-way delay: 2.374 ms
Loss rate: 6.44%
```

Run 1: Report of FillP — Data Link

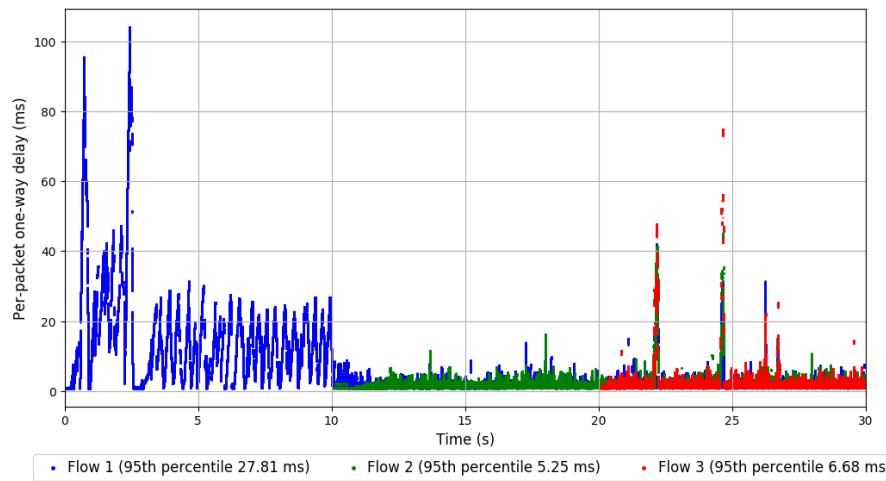
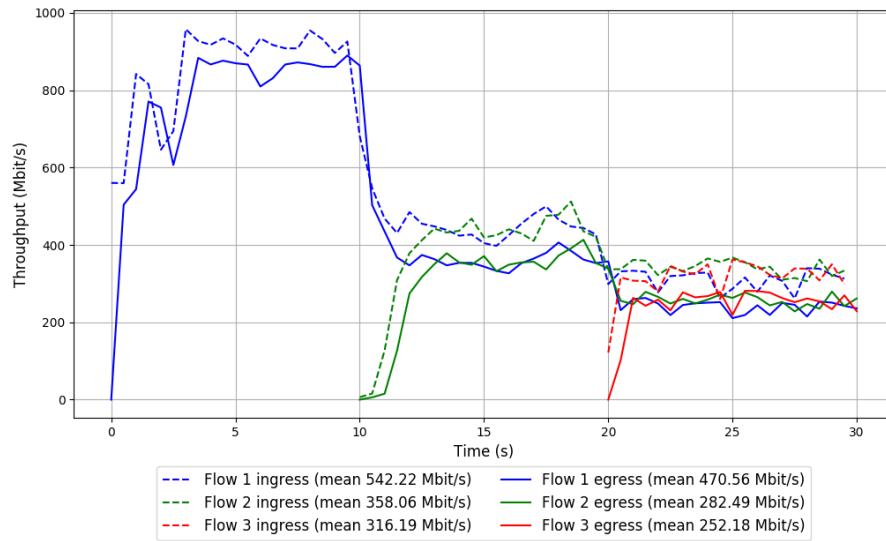


Run 2: Statistics of FillP

```
Start at: 2019-03-27 01:36:13
End at: 2019-03-27 01:36:43
Local clock offset: 1.076 ms
Remote clock offset: 0.484 ms

# Below is generated by plot.py at 2019-03-27 04:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 741.94 Mbit/s
95th percentile per-packet one-way delay: 24.955 ms
Loss rate: 16.17%
-- Flow 1:
Average throughput: 470.56 Mbit/s
95th percentile per-packet one-way delay: 27.813 ms
Loss rate: 13.22%
-- Flow 2:
Average throughput: 282.49 Mbit/s
95th percentile per-packet one-way delay: 5.246 ms
Loss rate: 21.10%
-- Flow 3:
Average throughput: 252.18 Mbit/s
95th percentile per-packet one-way delay: 6.685 ms
Loss rate: 20.24%
```

Run 2: Report of FillP — Data Link

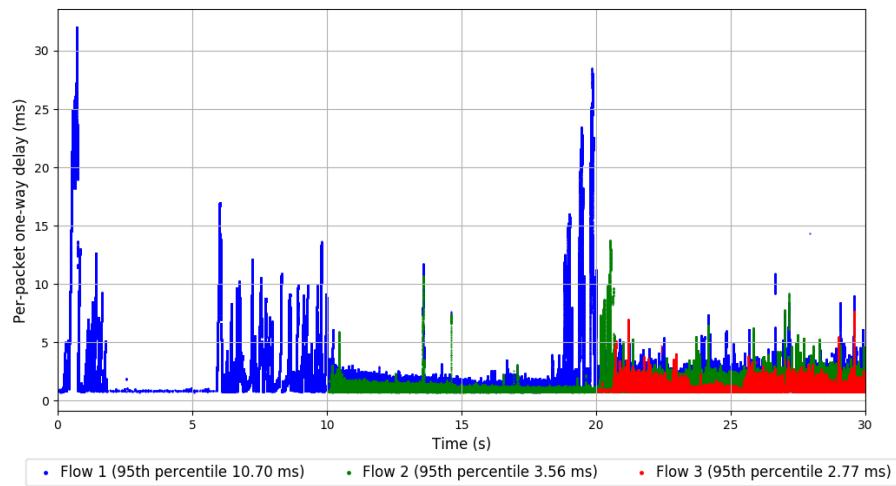
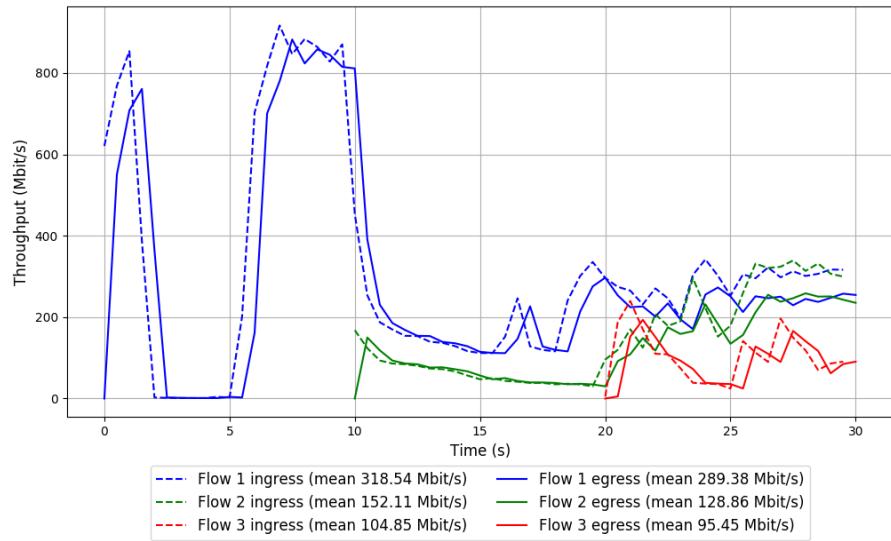


Run 3: Statistics of FillP

```
Start at: 2019-03-27 02:06:25
End at: 2019-03-27 02:06:55
Local clock offset: 1.226 ms
Remote clock offset: 1.072 ms

# Below is generated by plot.py at 2019-03-27 04:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 406.66 Mbit/s
95th percentile per-packet one-way delay: 9.014 ms
Loss rate: 10.50%
-- Flow 1:
Average throughput: 289.38 Mbit/s
95th percentile per-packet one-way delay: 10.700 ms
Loss rate: 9.15%
-- Flow 2:
Average throughput: 128.86 Mbit/s
95th percentile per-packet one-way delay: 3.563 ms
Loss rate: 15.28%
-- Flow 3:
Average throughput: 95.45 Mbit/s
95th percentile per-packet one-way delay: 2.765 ms
Loss rate: 8.96%
```

Run 3: Report of FillP — Data Link

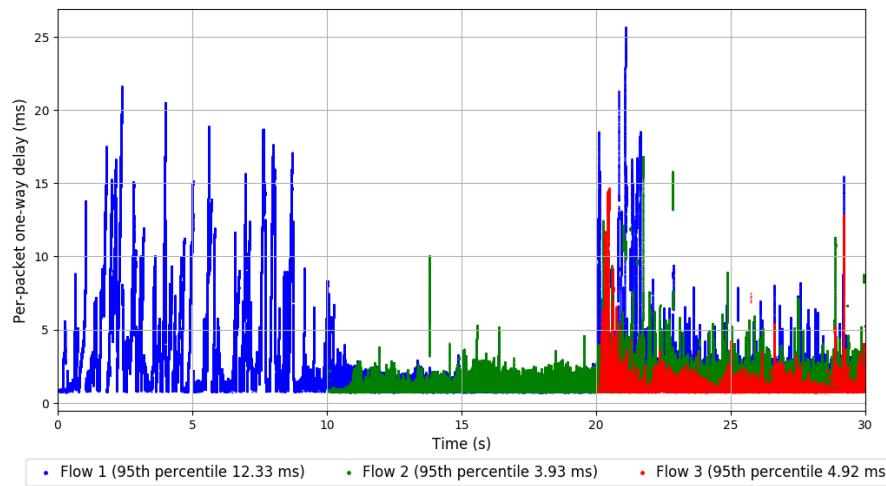
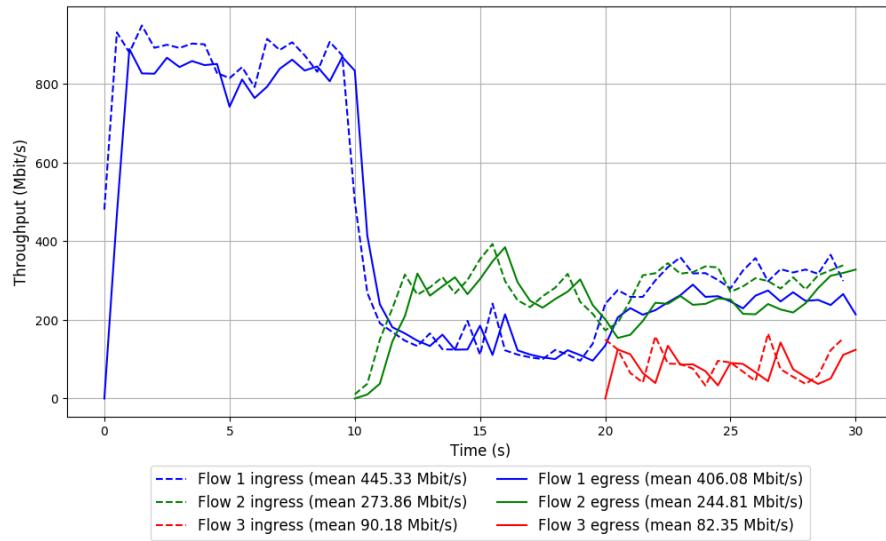


Run 4: Statistics of FillP

```
Start at: 2019-03-27 02:36:23
End at: 2019-03-27 02:36:53
Local clock offset: 4.142 ms
Remote clock offset: 2.892 ms

# Below is generated by plot.py at 2019-03-27 04:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 596.10 Mbit/s
95th percentile per-packet one-way delay: 11.005 ms
Loss rate: 9.30%
-- Flow 1:
Average throughput: 406.08 Mbit/s
95th percentile per-packet one-way delay: 12.328 ms
Loss rate: 8.81%
-- Flow 2:
Average throughput: 244.81 Mbit/s
95th percentile per-packet one-way delay: 3.928 ms
Loss rate: 10.60%
-- Flow 3:
Average throughput: 82.35 Mbit/s
95th percentile per-packet one-way delay: 4.923 ms
Loss rate: 8.65%
```

Run 4: Report of FillP — Data Link

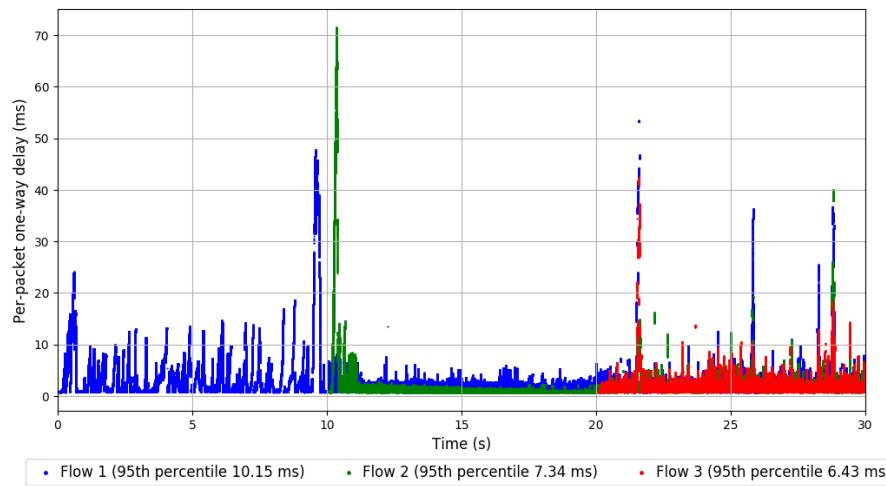
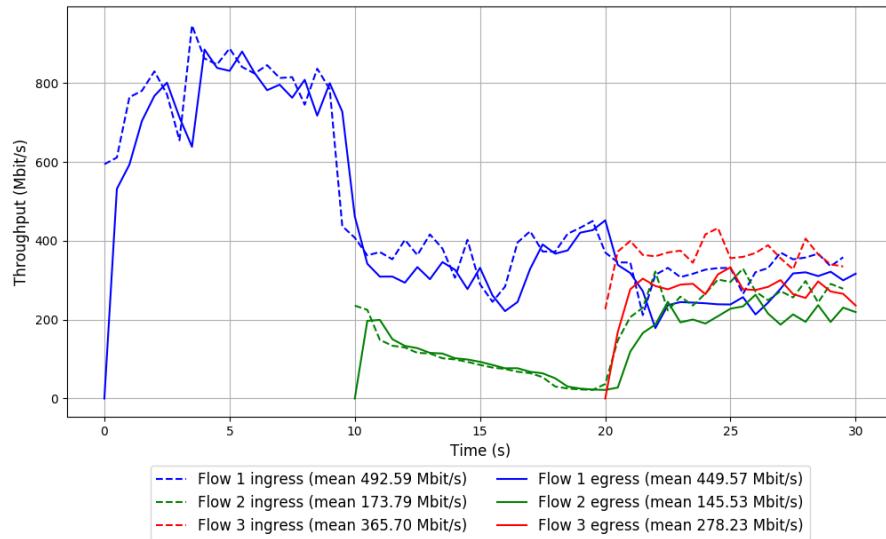


```
Run 5: Statistics of FillP
```

```
Start at: 2019-03-27 03:06:34
End at: 2019-03-27 03:07:04
Local clock offset: 0.416 ms
Remote clock offset: 4.791 ms

# Below is generated by plot.py at 2019-03-27 04:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 638.69 Mbit/s
95th percentile per-packet one-way delay: 9.461 ms
Loss rate: 12.44%
-- Flow 1:
Average throughput: 449.57 Mbit/s
95th percentile per-packet one-way delay: 10.153 ms
Loss rate: 8.73%
-- Flow 2:
Average throughput: 145.53 Mbit/s
95th percentile per-packet one-way delay: 7.341 ms
Loss rate: 16.26%
-- Flow 3:
Average throughput: 278.23 Mbit/s
95th percentile per-packet one-way delay: 6.426 ms
Loss rate: 23.89%
```

Run 5: Report of FillP — Data Link

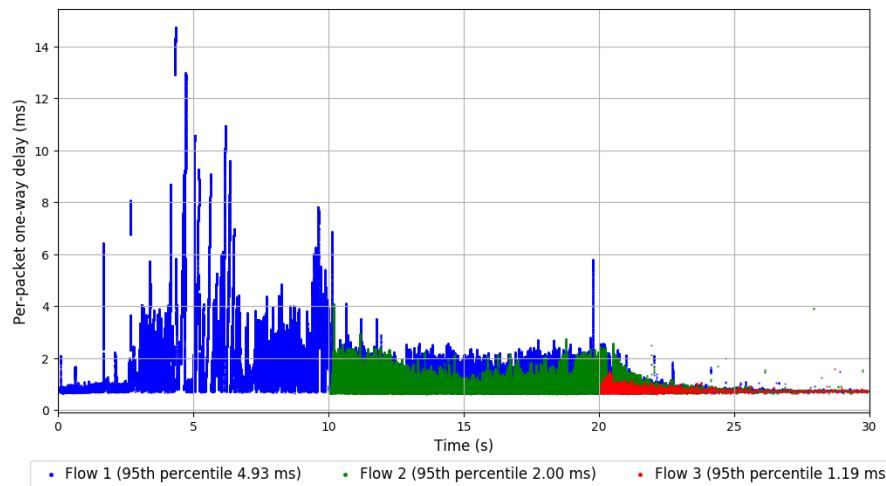
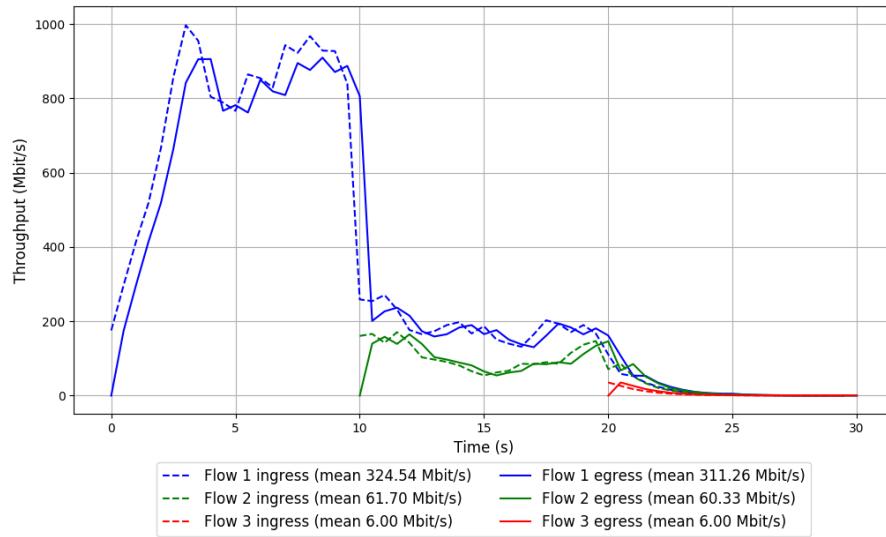


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-03-27 01:04:39
End at: 2019-03-27 01:05:09
Local clock offset: -4.87 ms
Remote clock offset: 0.034 ms

# Below is generated by plot.py at 2019-03-27 04:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 353.39 Mbit/s
95th percentile per-packet one-way delay: 4.665 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 311.26 Mbit/s
95th percentile per-packet one-way delay: 4.930 ms
Loss rate: 4.09%
-- Flow 2:
Average throughput: 60.33 Mbit/s
95th percentile per-packet one-way delay: 2.004 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.00%
```

Run 1: Report of FillP-Sheep — Data Link

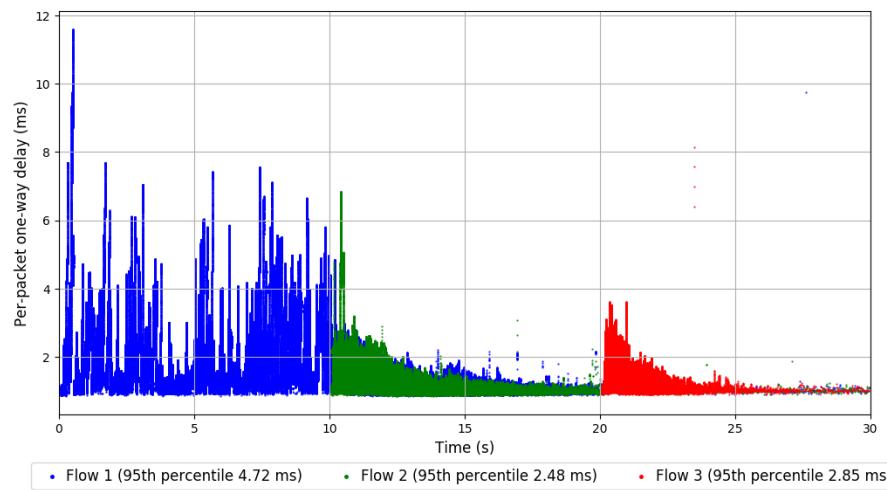
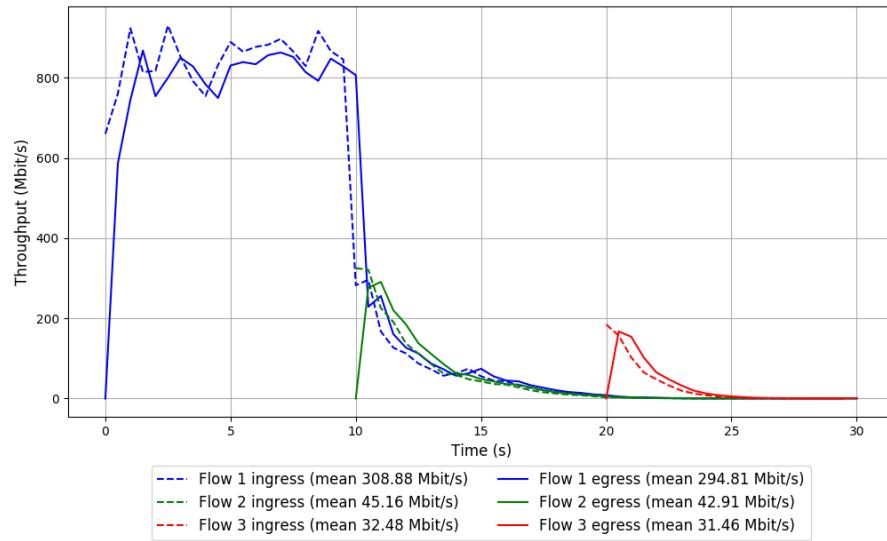


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-03-27 01:34:49
End at: 2019-03-27 01:35:19
Local clock offset: 0.868 ms
Remote clock offset: 0.527 ms

# Below is generated by plot.py at 2019-03-27 04:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.65 Mbit/s
95th percentile per-packet one-way delay: 4.601 ms
Loss rate: 4.55%
-- Flow 1:
Average throughput: 294.81 Mbit/s
95th percentile per-packet one-way delay: 4.722 ms
Loss rate: 4.55%
-- Flow 2:
Average throughput: 42.91 Mbit/s
95th percentile per-packet one-way delay: 2.485 ms
Loss rate: 4.99%
-- Flow 3:
Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 2.845 ms
Loss rate: 3.16%
```

Run 2: Report of FillP-Sheep — Data Link

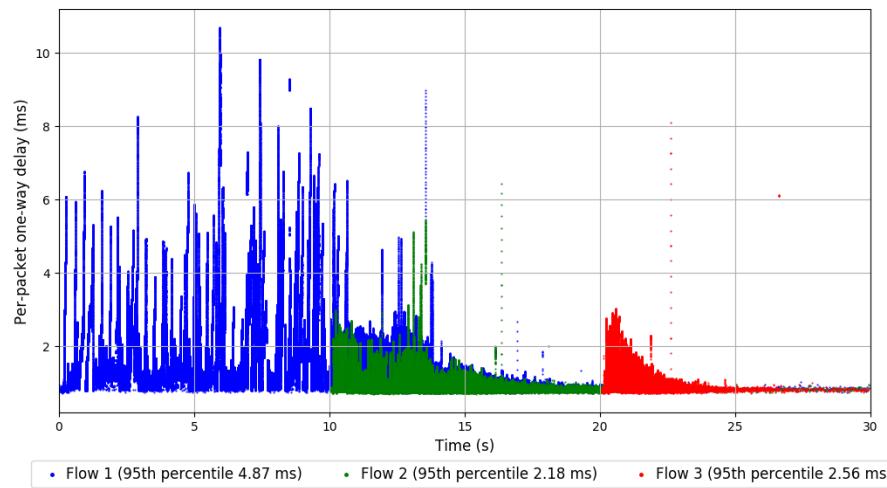
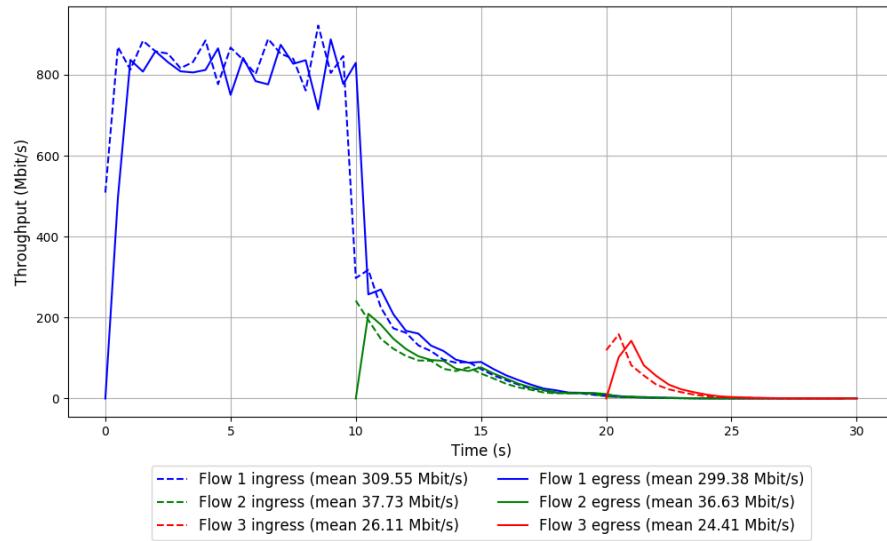


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-03-27 02:05:01
End at: 2019-03-27 02:05:31
Local clock offset: 1.193 ms
Remote clock offset: 1.037 ms

# Below is generated by plot.py at 2019-03-27 04:03:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 331.69 Mbit/s
95th percentile per-packet one-way delay: 4.774 ms
Loss rate: 3.34%
-- Flow 1:
Average throughput: 299.38 Mbit/s
95th percentile per-packet one-way delay: 4.869 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 36.63 Mbit/s
95th percentile per-packet one-way delay: 2.177 ms
Loss rate: 2.92%
-- Flow 3:
Average throughput: 24.41 Mbit/s
95th percentile per-packet one-way delay: 2.562 ms
Loss rate: 6.53%
```

Run 3: Report of FillP-Sheep — Data Link

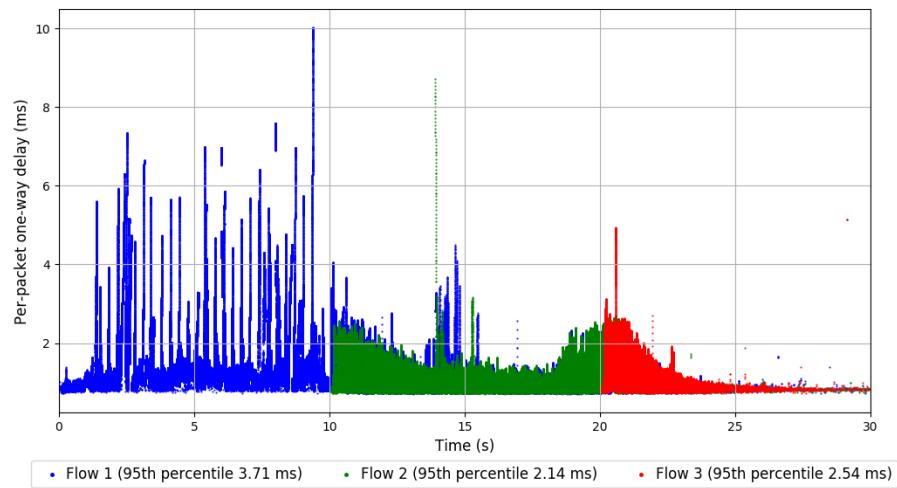
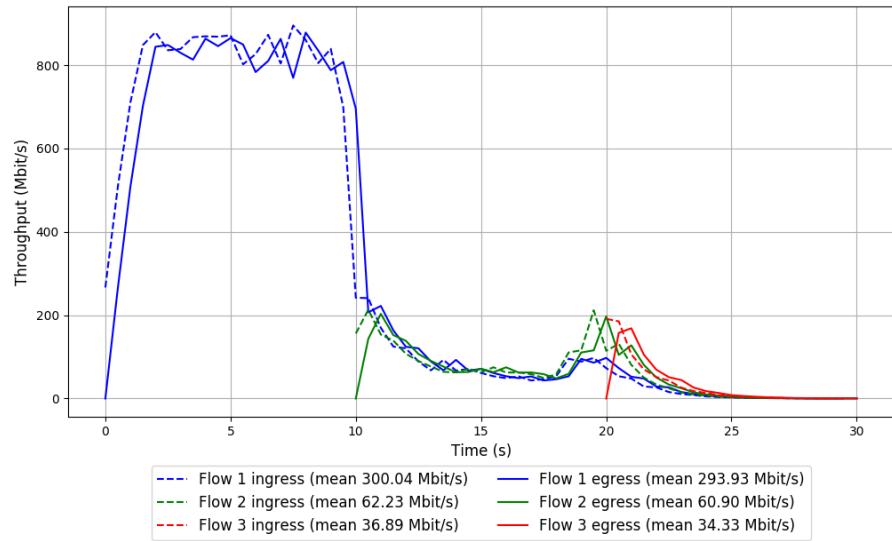


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-03-27 02:34:59
End at: 2019-03-27 02:35:29
Local clock offset: 4.037 ms
Remote clock offset: 2.731 ms

# Below is generated by plot.py at 2019-03-27 04:06:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.71 Mbit/s
95th percentile per-packet one-way delay: 3.578 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 293.93 Mbit/s
95th percentile per-packet one-way delay: 3.711 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 60.90 Mbit/s
95th percentile per-packet one-way delay: 2.141 ms
Loss rate: 2.14%
-- Flow 3:
Average throughput: 34.33 Mbit/s
95th percentile per-packet one-way delay: 2.545 ms
Loss rate: 6.93%
```

Run 4: Report of FillP-Sheep — Data Link

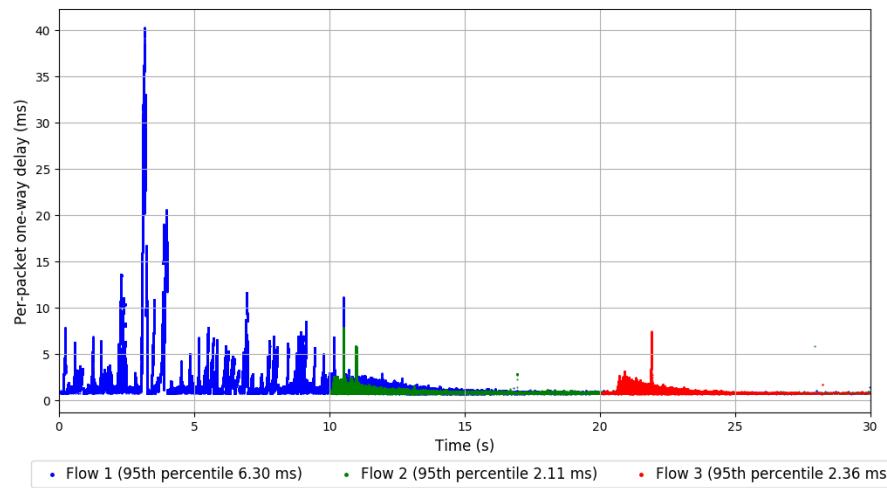
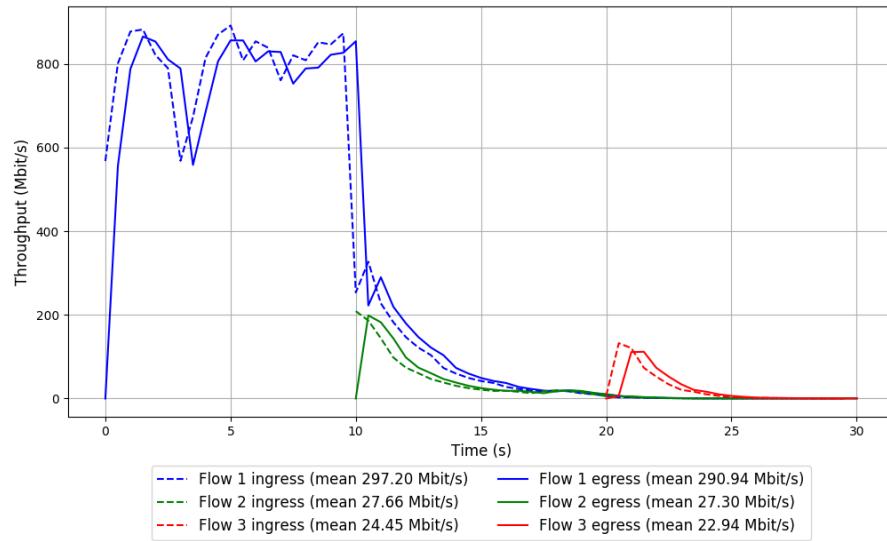


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-03-27 03:05:11
End at: 2019-03-27 03:05:41
Local clock offset: 0.498 ms
Remote clock offset: 4.717 ms

# Below is generated by plot.py at 2019-03-27 04:06:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.69 Mbit/s
95th percentile per-packet one-way delay: 5.978 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 290.94 Mbit/s
95th percentile per-packet one-way delay: 6.303 ms
Loss rate: 2.11%
-- Flow 2:
Average throughput: 27.30 Mbit/s
95th percentile per-packet one-way delay: 2.114 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 22.94 Mbit/s
95th percentile per-packet one-way delay: 2.357 ms
Loss rate: 6.21%
```

Run 5: Report of FillP-Sheep — Data Link

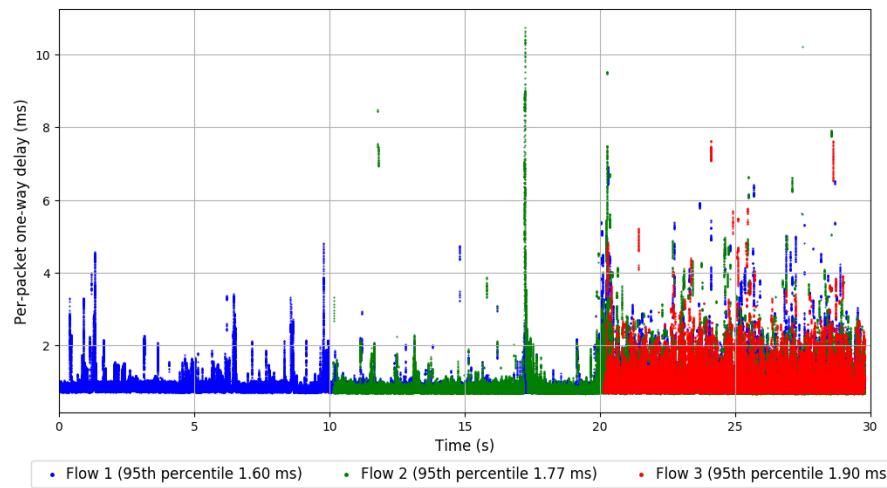
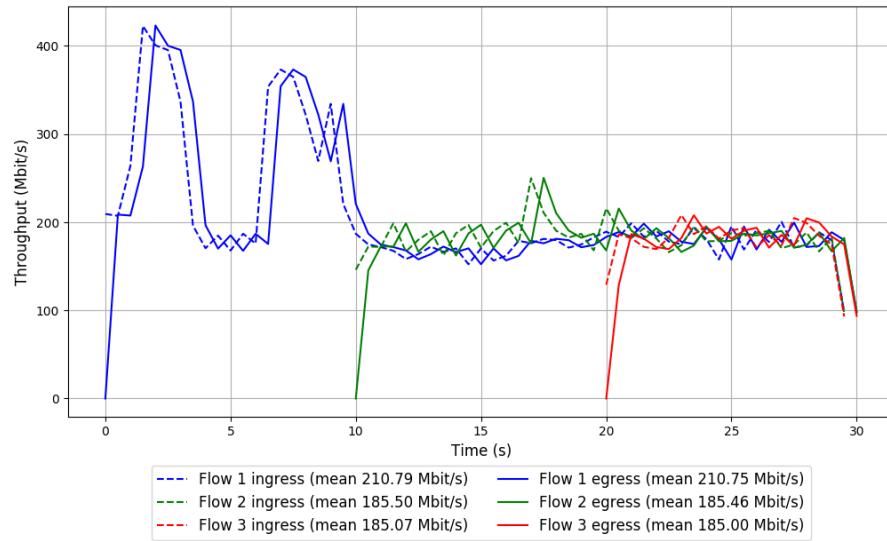


Run 1: Statistics of Indigo

```
Start at: 2019-03-27 01:11:41
End at: 2019-03-27 01:12:11
Local clock offset: -5.176 ms
Remote clock offset: 0.137 ms

# Below is generated by plot.py at 2019-03-27 04:06:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 392.88 Mbit/s
95th percentile per-packet one-way delay: 1.713 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 210.75 Mbit/s
95th percentile per-packet one-way delay: 1.605 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 185.46 Mbit/s
95th percentile per-packet one-way delay: 1.767 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 185.00 Mbit/s
95th percentile per-packet one-way delay: 1.896 ms
Loss rate: 0.04%
```

Run 1: Report of Indigo — Data Link

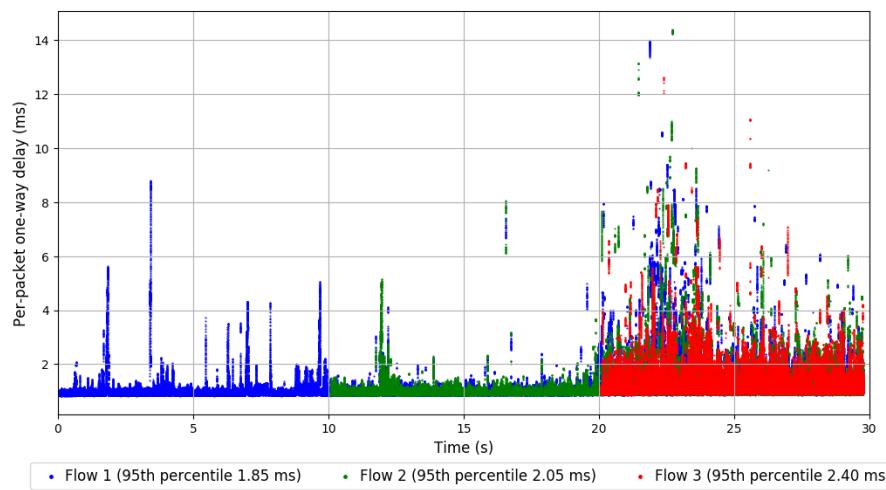
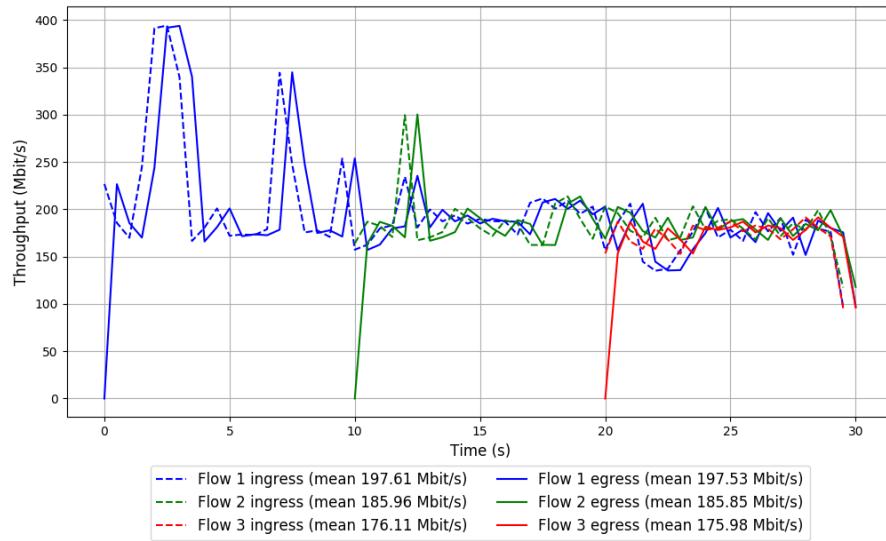


Run 2: Statistics of Indigo

```
Start at: 2019-03-27 01:41:52
End at: 2019-03-27 01:42:22
Local clock offset: 1.693 ms
Remote clock offset: 0.631 ms

# Below is generated by plot.py at 2019-03-27 04:06:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.95 Mbit/s
95th percentile per-packet one-way delay: 2.065 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 197.53 Mbit/s
95th percentile per-packet one-way delay: 1.846 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 185.85 Mbit/s
95th percentile per-packet one-way delay: 2.052 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 175.98 Mbit/s
95th percentile per-packet one-way delay: 2.397 ms
Loss rate: 0.07%
```

Run 2: Report of Indigo — Data Link

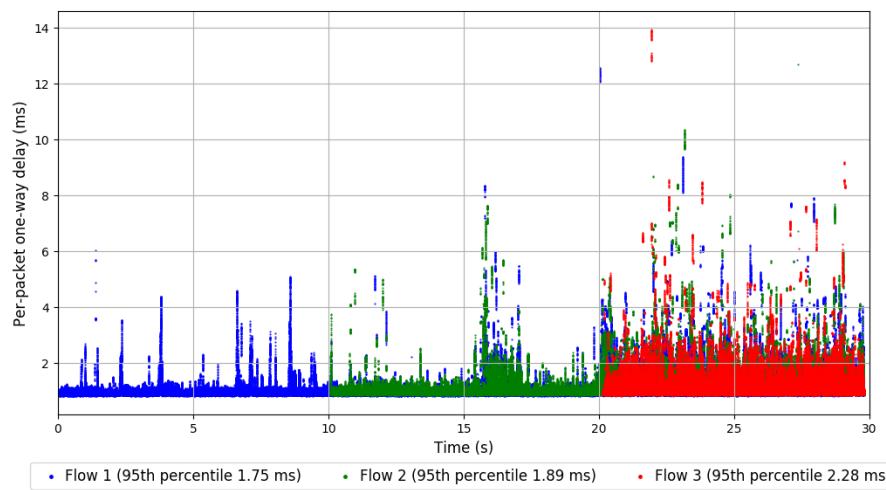
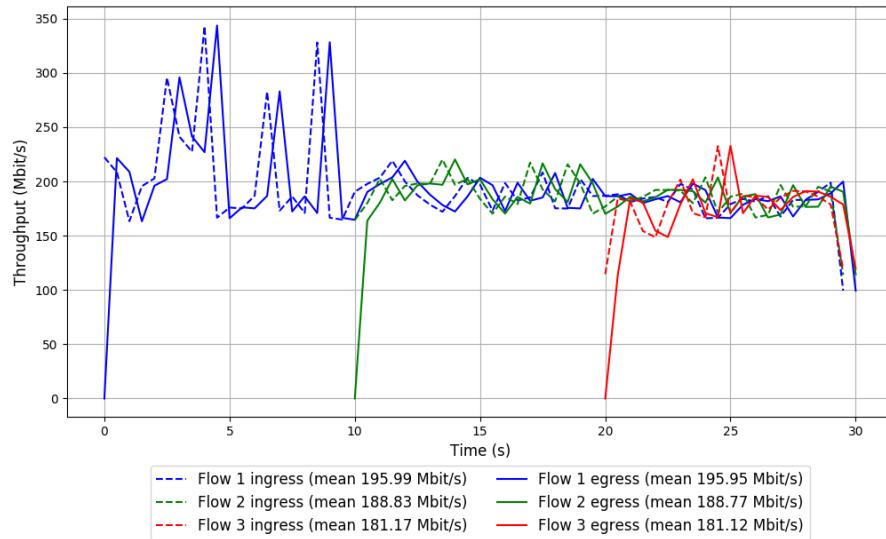


Run 3: Statistics of Indigo

```
Start at: 2019-03-27 02:11:58
End at: 2019-03-27 02:12:28
Local clock offset: 1.393 ms
Remote clock offset: 1.241 ms

# Below is generated by plot.py at 2019-03-27 04:07:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.80 Mbit/s
95th percentile per-packet one-way delay: 1.918 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 195.95 Mbit/s
95th percentile per-packet one-way delay: 1.746 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 188.77 Mbit/s
95th percentile per-packet one-way delay: 1.889 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 181.12 Mbit/s
95th percentile per-packet one-way delay: 2.279 ms
Loss rate: 0.03%
```

Run 3: Report of Indigo — Data Link

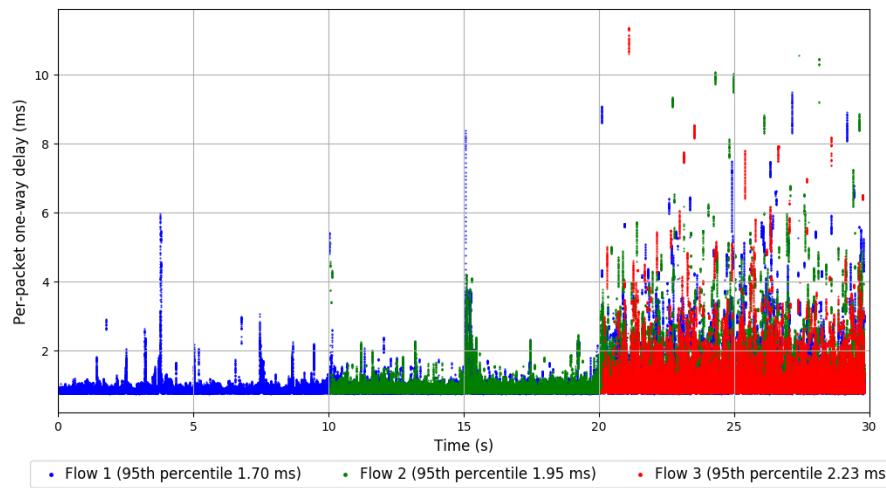
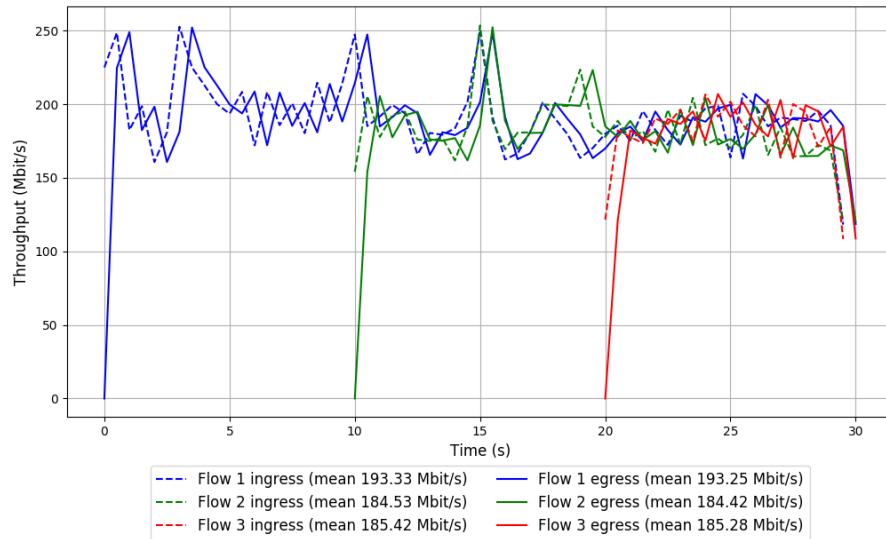


Run 4: Statistics of Indigo

```
Start at: 2019-03-27 02:42:08
End at: 2019-03-27 02:42:38
Local clock offset: 4.554 ms
Remote clock offset: 3.369 ms

# Below is generated by plot.py at 2019-03-27 04:07:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 375.56 Mbit/s
95th percentile per-packet one-way delay: 1.904 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 193.25 Mbit/s
95th percentile per-packet one-way delay: 1.698 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 184.42 Mbit/s
95th percentile per-packet one-way delay: 1.945 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 185.28 Mbit/s
95th percentile per-packet one-way delay: 2.227 ms
Loss rate: 0.08%
```

Run 4: Report of Indigo — Data Link

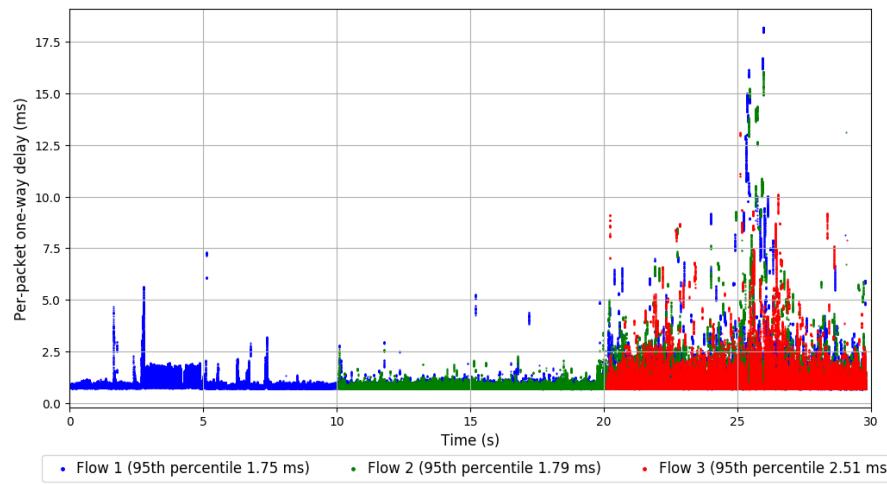
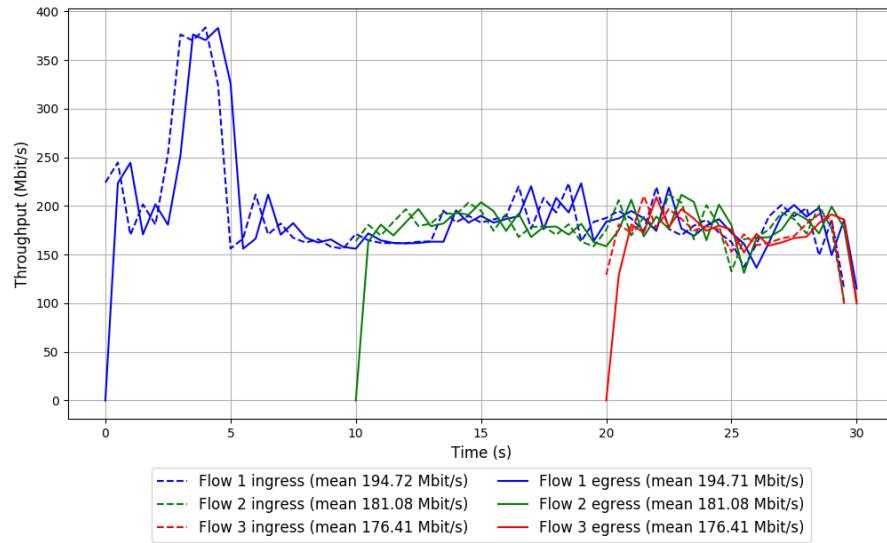


Run 5: Statistics of Indigo

```
Start at: 2019-03-27 03:12:18
End at: 2019-03-27 03:12:48
Local clock offset: 0.162 ms
Remote clock offset: 5.06 ms

# Below is generated by plot.py at 2019-03-27 04:07:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.17 Mbit/s
95th percentile per-packet one-way delay: 1.860 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.71 Mbit/s
95th percentile per-packet one-way delay: 1.751 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.08 Mbit/s
95th percentile per-packet one-way delay: 1.791 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.41 Mbit/s
95th percentile per-packet one-way delay: 2.514 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link

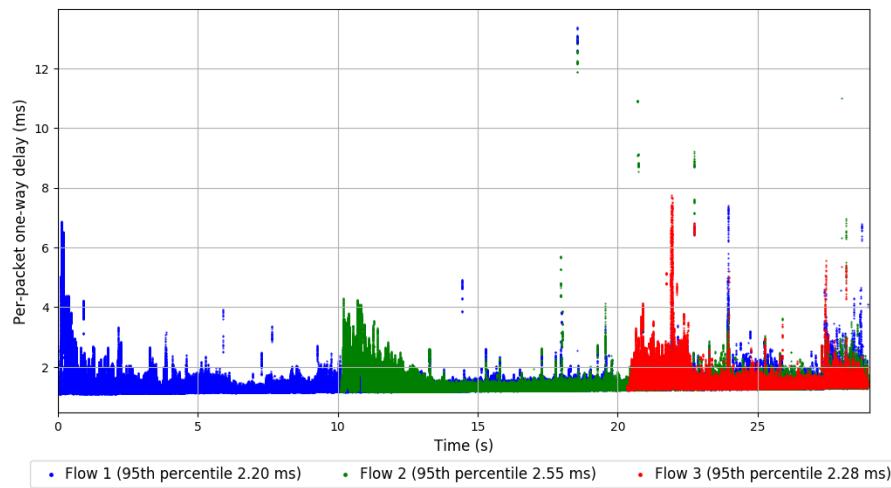
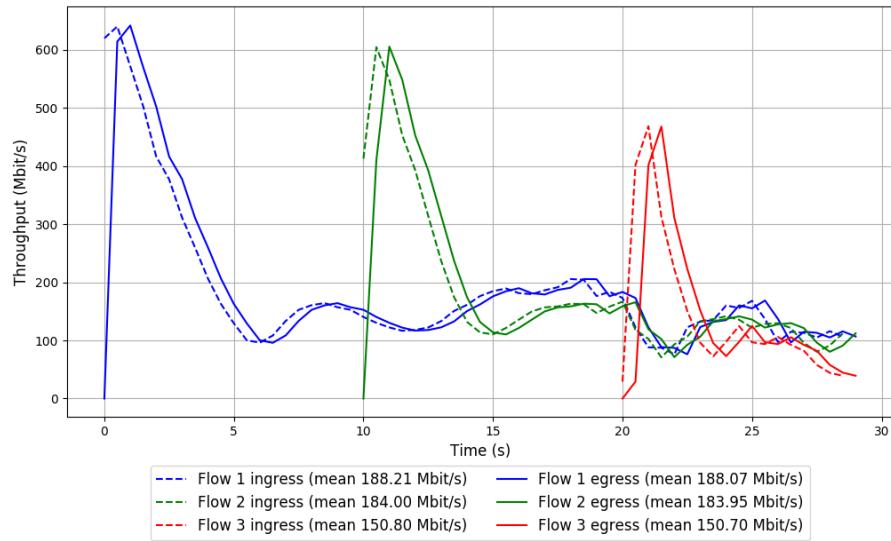


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 01:21:36
End at: 2019-03-27 01:22:06
Local clock offset: -2.431 ms
Remote clock offset: 0.365 ms

# Below is generated by plot.py at 2019-03-27 04:07:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 352.56 Mbit/s
95th percentile per-packet one-way delay: 2.359 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 188.07 Mbit/s
95th percentile per-packet one-way delay: 2.197 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 183.95 Mbit/s
95th percentile per-packet one-way delay: 2.550 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 150.70 Mbit/s
95th percentile per-packet one-way delay: 2.283 ms
Loss rate: 0.06%
```

Run 1: Report of Indigo-MusesC3 — Data Link

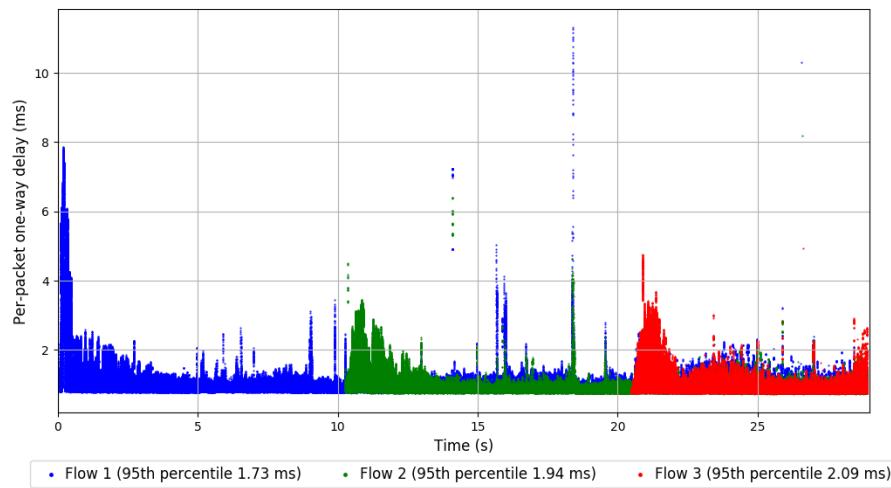
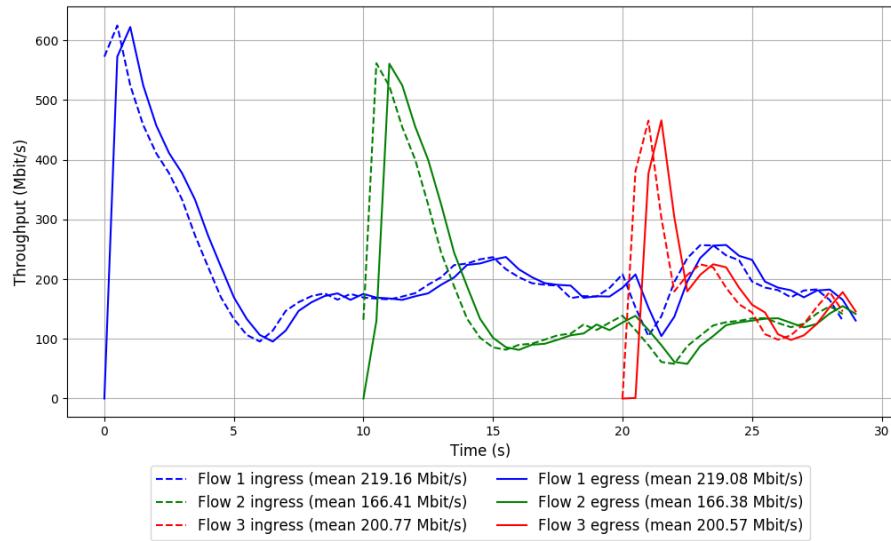


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 01:51:44
End at: 2019-03-27 01:52:14
Local clock offset: 1.431 ms
Remote clock offset: 0.86 ms

# Below is generated by plot.py at 2019-03-27 04:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.86 Mbit/s
95th percentile per-packet one-way delay: 1.906 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 219.08 Mbit/s
95th percentile per-packet one-way delay: 1.730 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 166.38 Mbit/s
95th percentile per-packet one-way delay: 1.938 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 200.57 Mbit/s
95th percentile per-packet one-way delay: 2.091 ms
Loss rate: 0.09%
```

Run 2: Report of Indigo-MusesC3 — Data Link

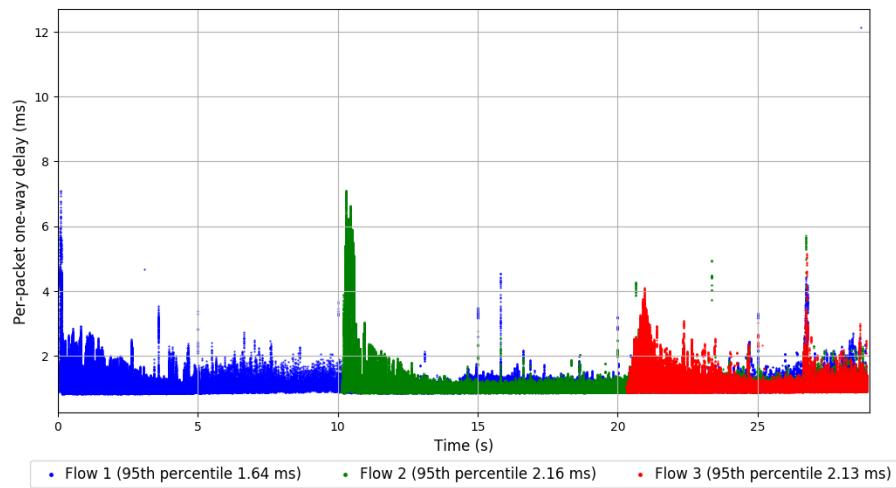
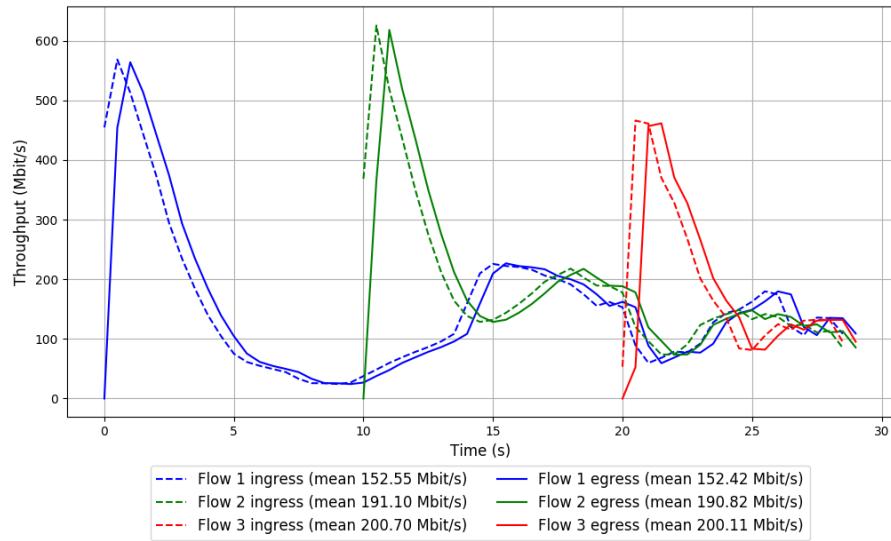


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 02:21:50
End at: 2019-03-27 02:22:20
Local clock offset: 2.638 ms
Remote clock offset: 1.352 ms

# Below is generated by plot.py at 2019-03-27 04:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 335.83 Mbit/s
95th percentile per-packet one-way delay: 1.873 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 152.42 Mbit/s
95th percentile per-packet one-way delay: 1.638 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 190.82 Mbit/s
95th percentile per-packet one-way delay: 2.162 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 200.11 Mbit/s
95th percentile per-packet one-way delay: 2.130 ms
Loss rate: 0.30%
```

Run 3: Report of Indigo-MusesC3 — Data Link

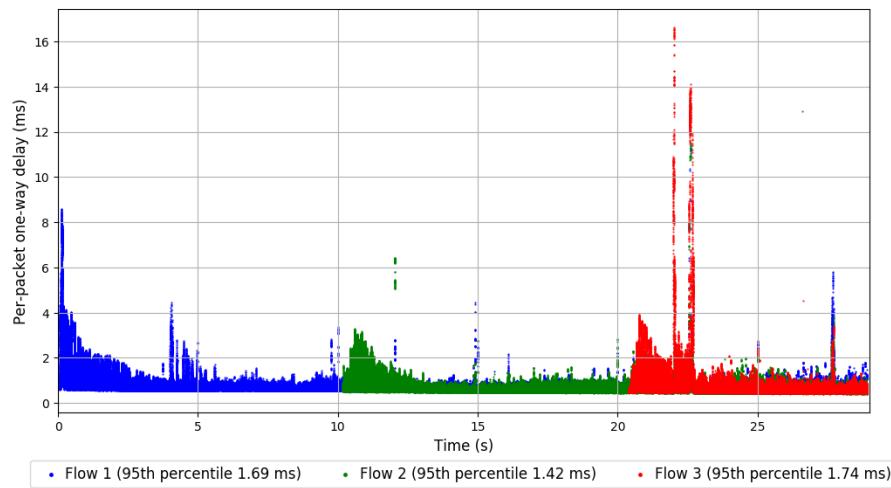
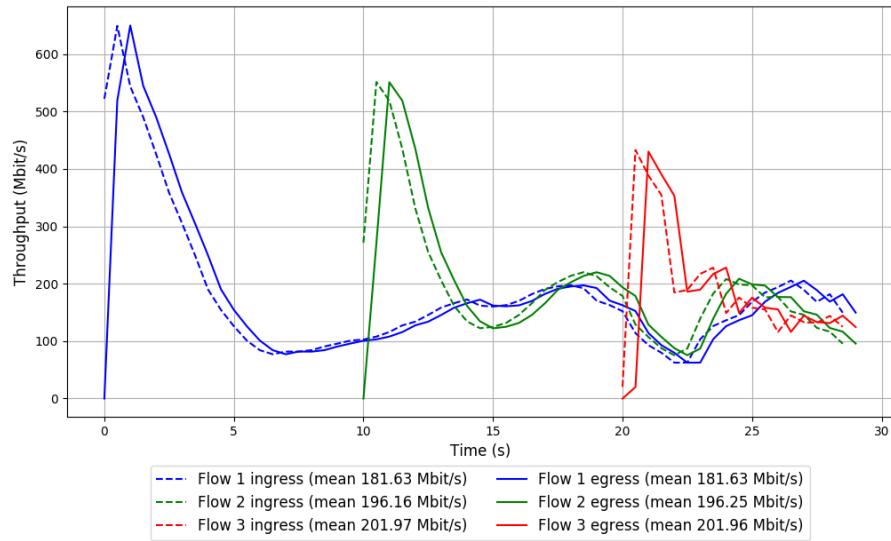


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 02:51:59
End at: 2019-03-27 02:52:29
Local clock offset: 2.495 ms
Remote clock offset: 4.016 ms

# Below is generated by plot.py at 2019-03-27 04:10:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 368.59 Mbit/s
95th percentile per-packet one-way delay: 1.603 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 181.63 Mbit/s
95th percentile per-packet one-way delay: 1.693 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 196.25 Mbit/s
95th percentile per-packet one-way delay: 1.423 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 201.96 Mbit/s
95th percentile per-packet one-way delay: 1.738 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo-MusesC3 — Data Link

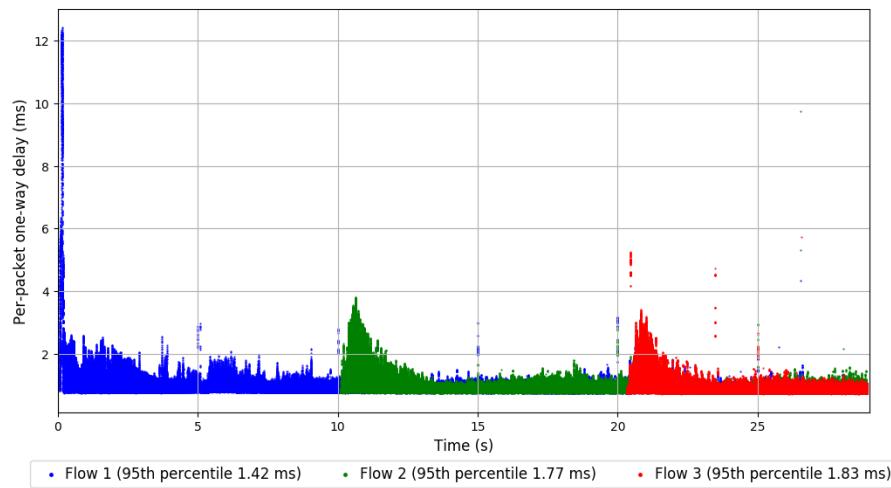
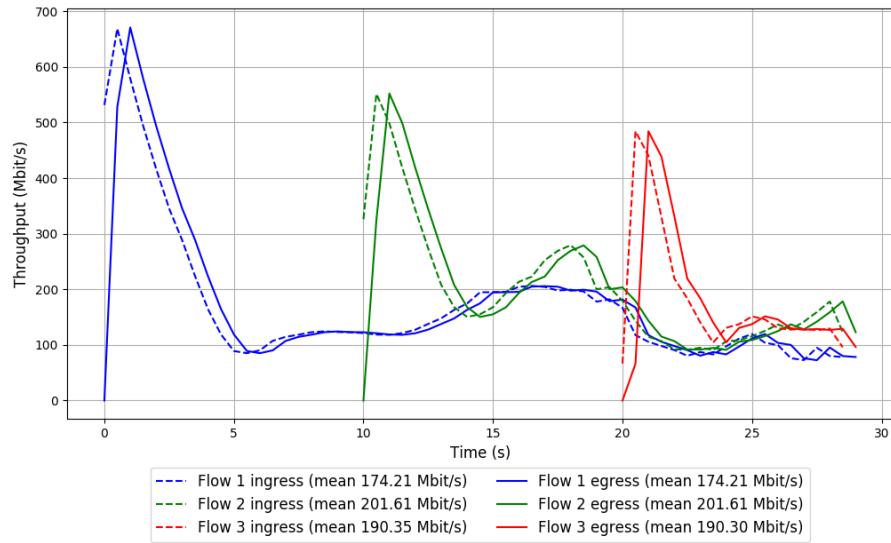


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-03-27 03:22:10
End at: 2019-03-27 03:22:40
Local clock offset: 0.037 ms
Remote clock offset: 5.601 ms

# Below is generated by plot.py at 2019-03-27 04:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.00 Mbit/s
95th percentile per-packet one-way delay: 1.601 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 174.21 Mbit/s
95th percentile per-packet one-way delay: 1.419 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 201.61 Mbit/s
95th percentile per-packet one-way delay: 1.771 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 190.30 Mbit/s
95th percentile per-packet one-way delay: 1.827 ms
Loss rate: 0.02%
```

Run 5: Report of Indigo-MusesC3 — Data Link

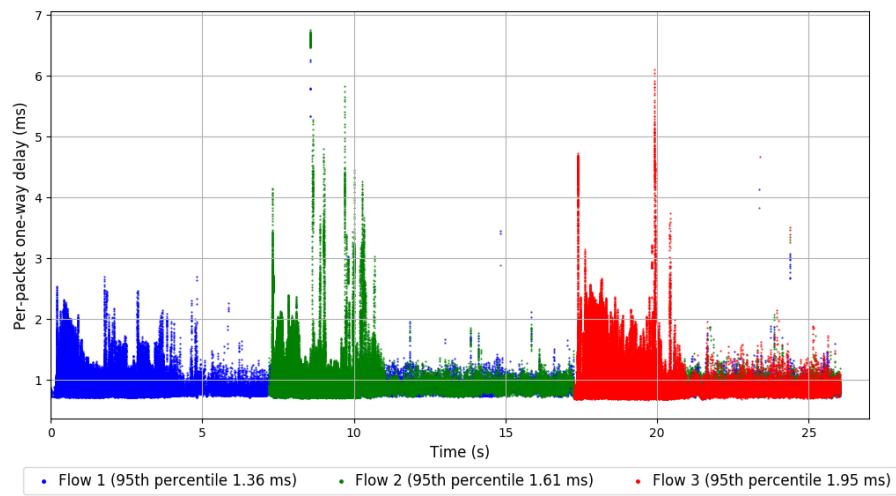
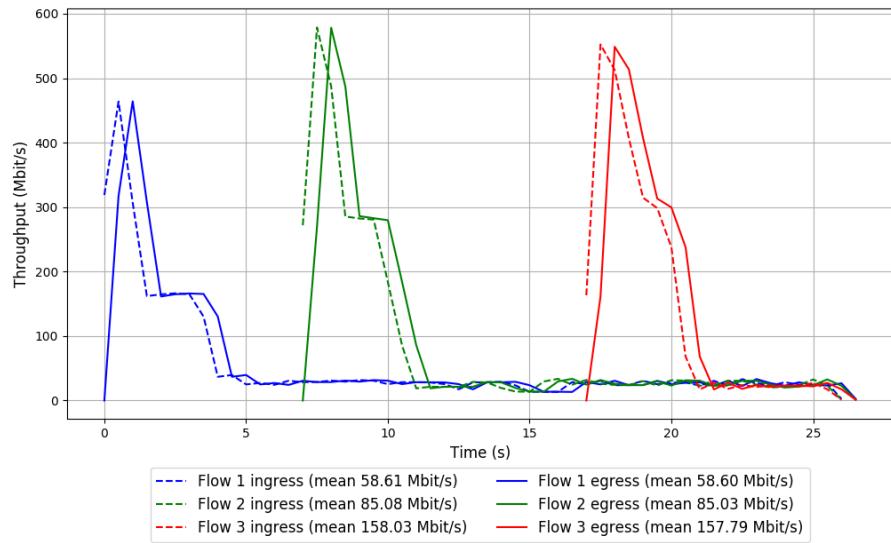


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 01:07:40
End at: 2019-03-27 01:08:10
Local clock offset: -5.016 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2019-03-27 04:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 173.34 Mbit/s
95th percentile per-packet one-way delay: 1.711 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 58.60 Mbit/s
95th percentile per-packet one-way delay: 1.360 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 85.03 Mbit/s
95th percentile per-packet one-way delay: 1.607 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 157.79 Mbit/s
95th percentile per-packet one-way delay: 1.947 ms
Loss rate: 0.15%
```

Run 1: Report of Indigo-MusesC5 — Data Link

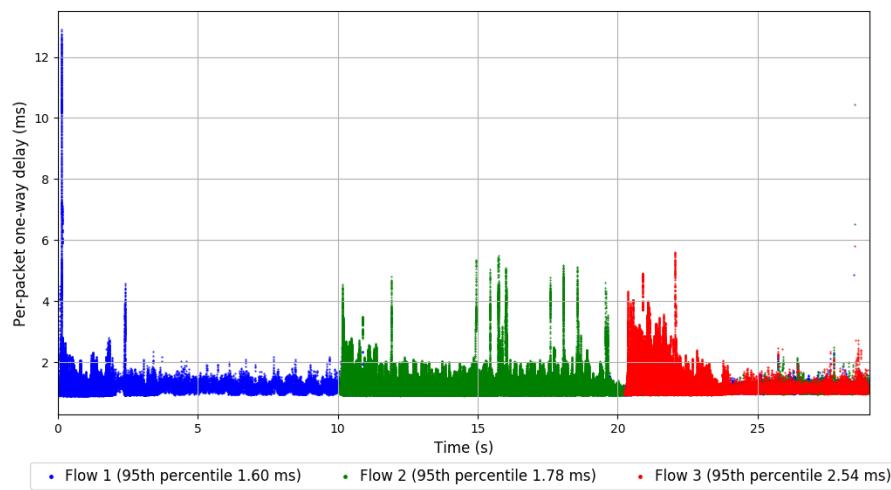
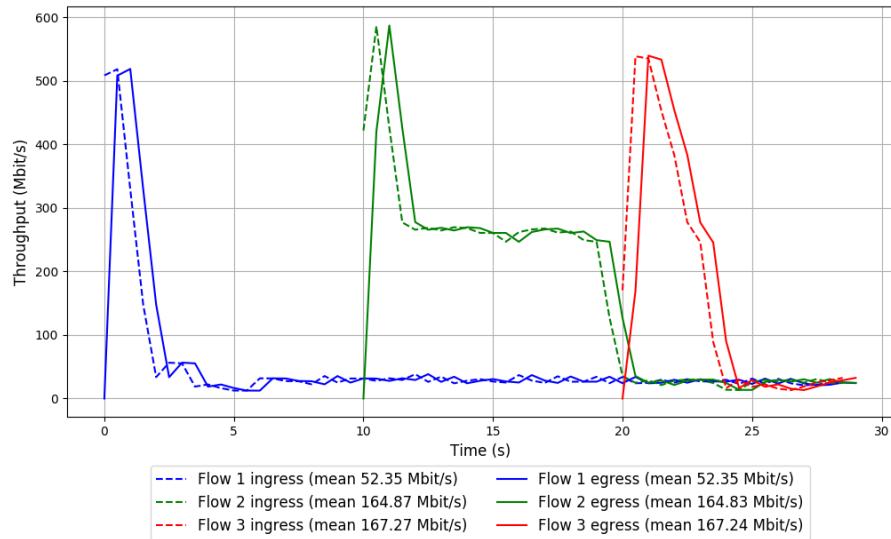


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 01:37:53
End at: 2019-03-27 01:38:23
Local clock offset: 1.262 ms
Remote clock offset: 0.58 ms

# Below is generated by plot.py at 2019-03-27 04:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.21 Mbit/s
95th percentile per-packet one-way delay: 2.056 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 52.35 Mbit/s
95th percentile per-packet one-way delay: 1.598 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 164.83 Mbit/s
95th percentile per-packet one-way delay: 1.782 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 167.24 Mbit/s
95th percentile per-packet one-way delay: 2.535 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo-MusesC5 — Data Link

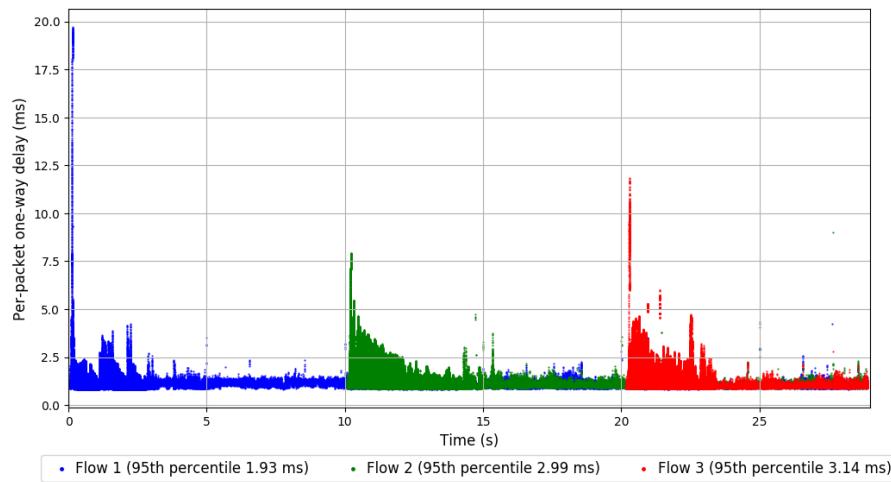
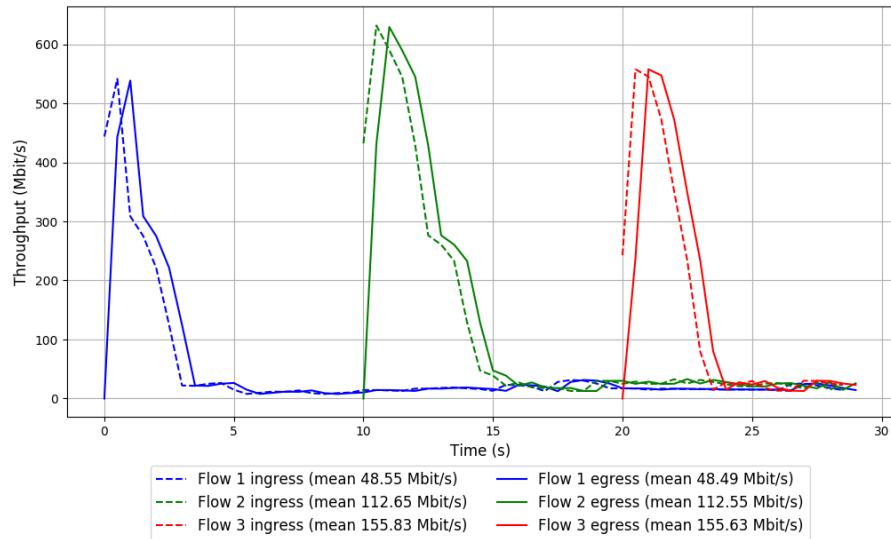


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 02:07:52
End at: 2019-03-27 02:08:22
Local clock offset: 1.255 ms
Remote clock offset: 1.14 ms

# Below is generated by plot.py at 2019-03-27 04:11:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.96 Mbit/s
95th percentile per-packet one-way delay: 2.869 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 48.49 Mbit/s
95th percentile per-packet one-way delay: 1.930 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 112.55 Mbit/s
95th percentile per-packet one-way delay: 2.992 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 155.63 Mbit/s
95th percentile per-packet one-way delay: 3.144 ms
Loss rate: 0.13%
```

Run 3: Report of Indigo-MusesC5 — Data Link

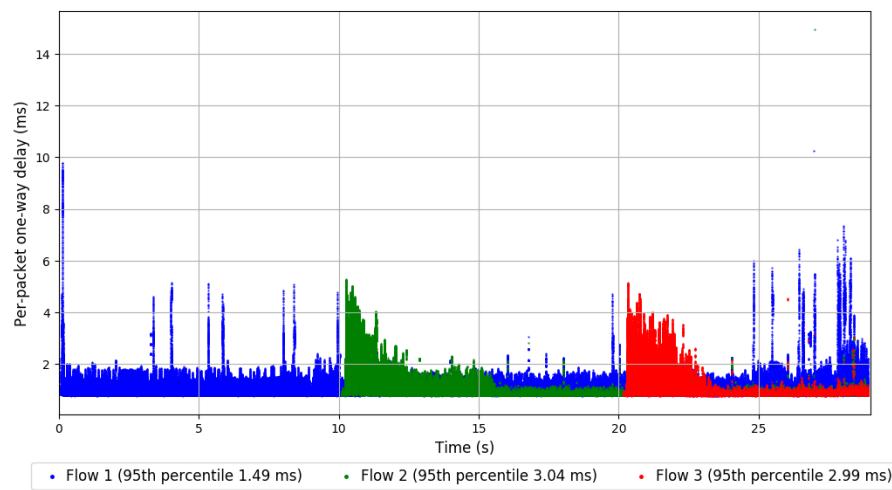
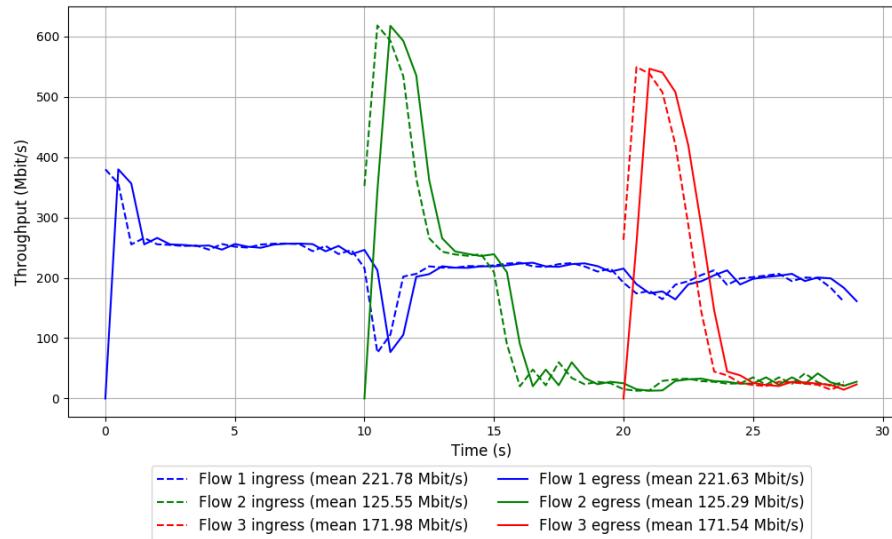


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 02:37:56
End at: 2019-03-27 02:38:26
Local clock offset: 4.266 ms
Remote clock offset: 3.037 ms

# Below is generated by plot.py at 2019-03-27 04:12:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 354.91 Mbit/s
95th percentile per-packet one-way delay: 2.367 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 221.63 Mbit/s
95th percentile per-packet one-way delay: 1.486 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 125.29 Mbit/s
95th percentile per-packet one-way delay: 3.040 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 171.54 Mbit/s
95th percentile per-packet one-way delay: 2.990 ms
Loss rate: 0.25%
```

Run 4: Report of Indigo-MusesC5 — Data Link

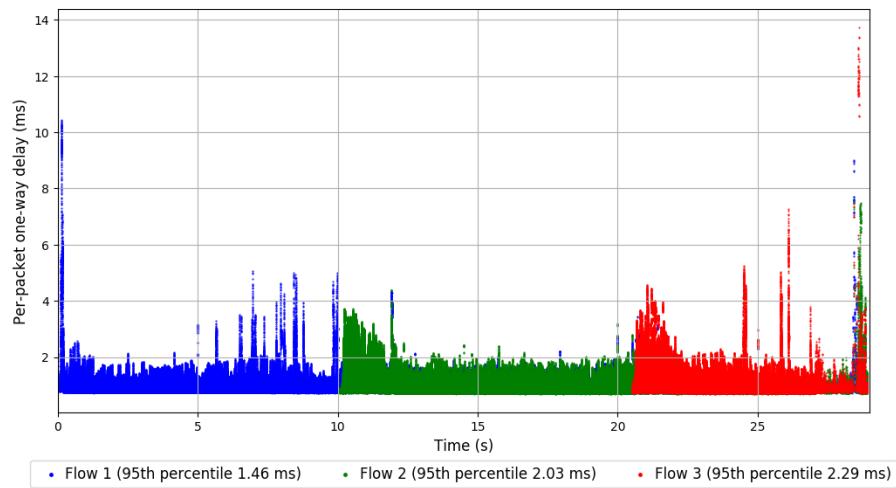
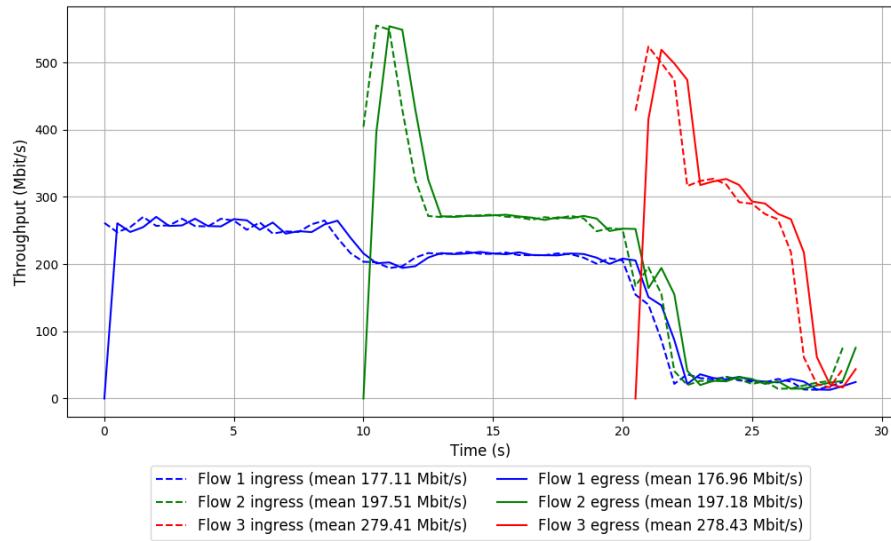


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-03-27 03:08:09
End at: 2019-03-27 03:08:39
Local clock offset: 0.345 ms
Remote clock offset: 4.868 ms

# Below is generated by plot.py at 2019-03-27 04:13:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 386.41 Mbit/s
95th percentile per-packet one-way delay: 1.918 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 176.96 Mbit/s
95th percentile per-packet one-way delay: 1.458 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 197.18 Mbit/s
95th percentile per-packet one-way delay: 2.027 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 278.43 Mbit/s
95th percentile per-packet one-way delay: 2.290 ms
Loss rate: 0.35%
```

Run 5: Report of Indigo-MusesC5 — Data Link

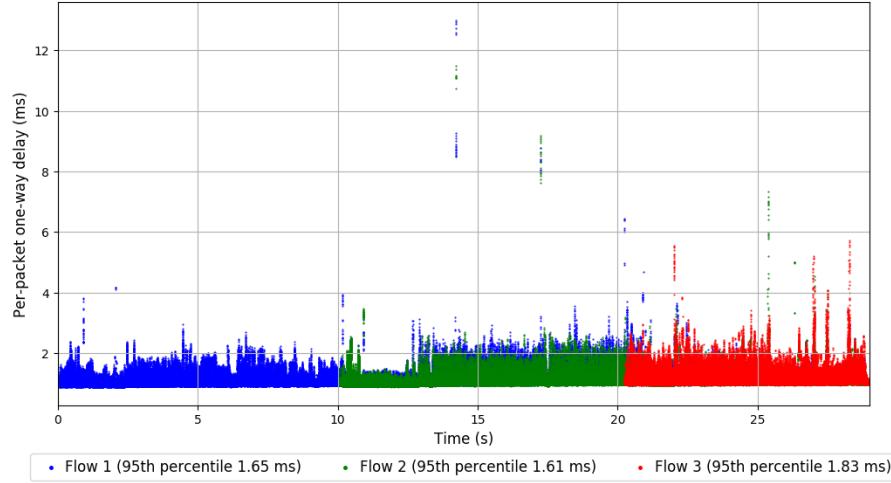
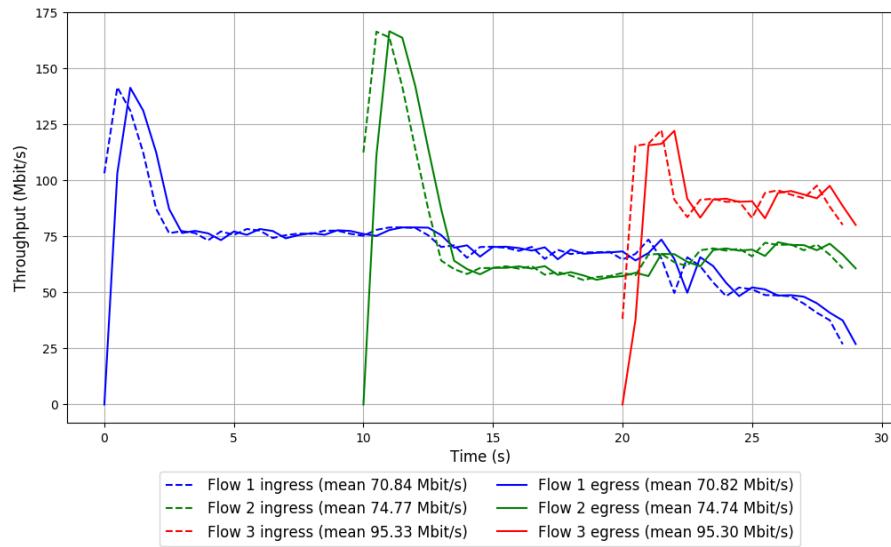


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 01:29:14
End at: 2019-03-27 01:29:44
Local clock offset: -0.106 ms
Remote clock offset: 0.366 ms

# Below is generated by plot.py at 2019-03-27 04:13:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.15 Mbit/s
95th percentile per-packet one-way delay: 1.685 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 70.82 Mbit/s
95th percentile per-packet one-way delay: 1.650 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 74.74 Mbit/s
95th percentile per-packet one-way delay: 1.608 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 95.30 Mbit/s
95th percentile per-packet one-way delay: 1.833 ms
Loss rate: 0.03%
```

Run 1: Report of Indigo-MusesD — Data Link

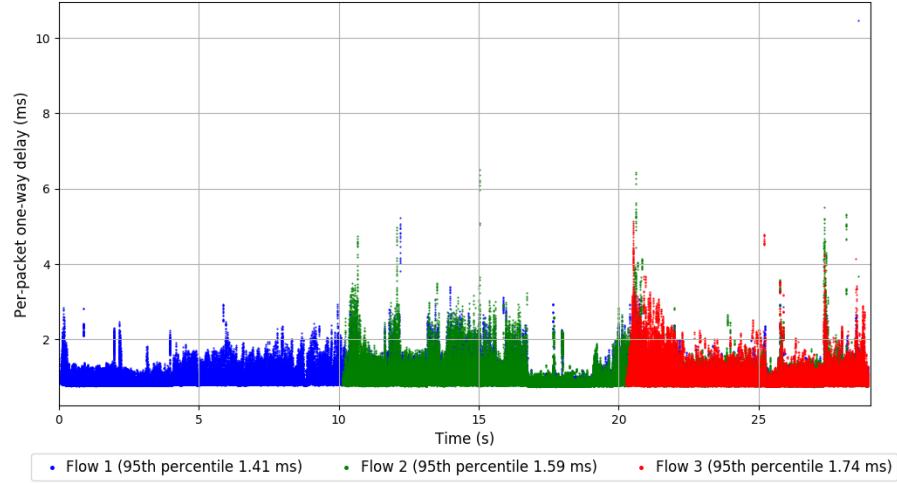
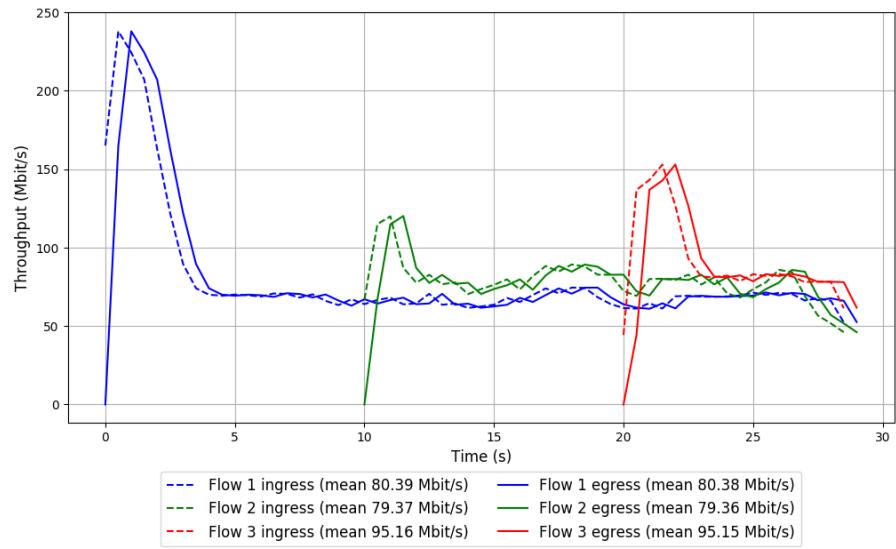


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 01:59:26
End at: 2019-03-27 01:59:56
Local clock offset: 1.148 ms
Remote clock offset: 0.948 ms

# Below is generated by plot.py at 2019-03-27 04:13:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.41 Mbit/s
95th percentile per-packet one-way delay: 1.527 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 80.38 Mbit/s
95th percentile per-packet one-way delay: 1.409 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 79.36 Mbit/s
95th percentile per-packet one-way delay: 1.588 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 95.15 Mbit/s
95th percentile per-packet one-way delay: 1.735 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo-MusesD — Data Link

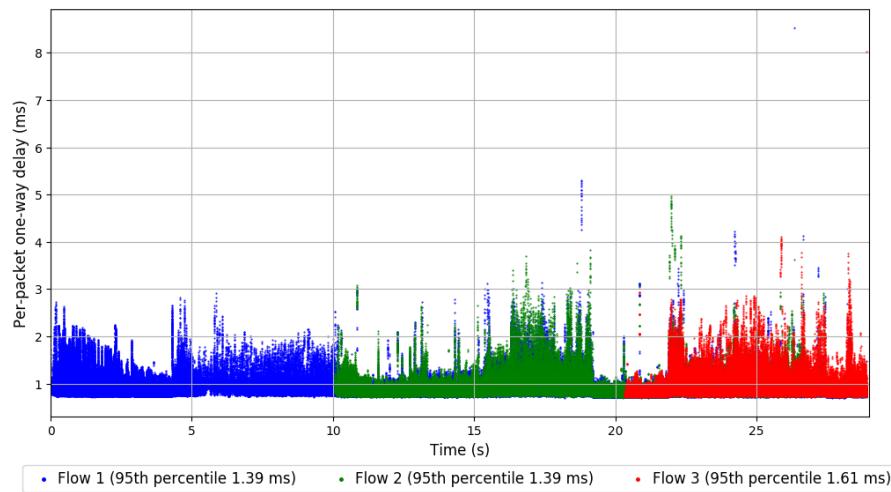
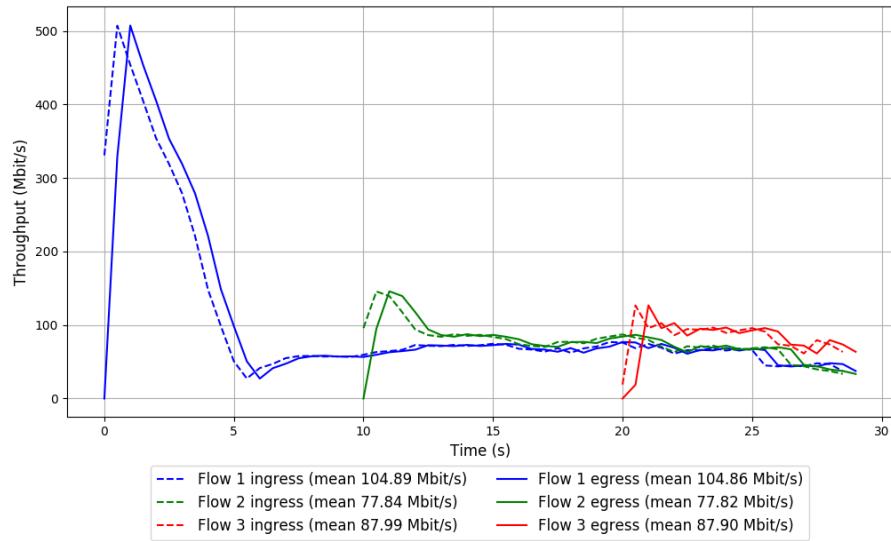


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 02:29:23
End at: 2019-03-27 02:29:53
Local clock offset: 3.547 ms
Remote clock offset: 1.896 ms

# Below is generated by plot.py at 2019-03-27 04:13:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 181.62 Mbit/s
95th percentile per-packet one-way delay: 1.424 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 104.86 Mbit/s
95th percentile per-packet one-way delay: 1.385 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 77.82 Mbit/s
95th percentile per-packet one-way delay: 1.391 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 87.90 Mbit/s
95th percentile per-packet one-way delay: 1.606 ms
Loss rate: 0.02%
```

Run 3: Report of Indigo-MusesD — Data Link

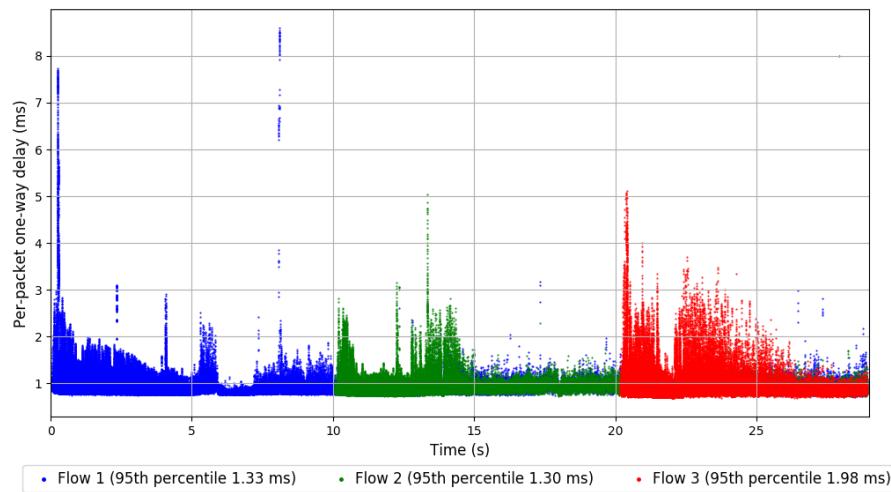
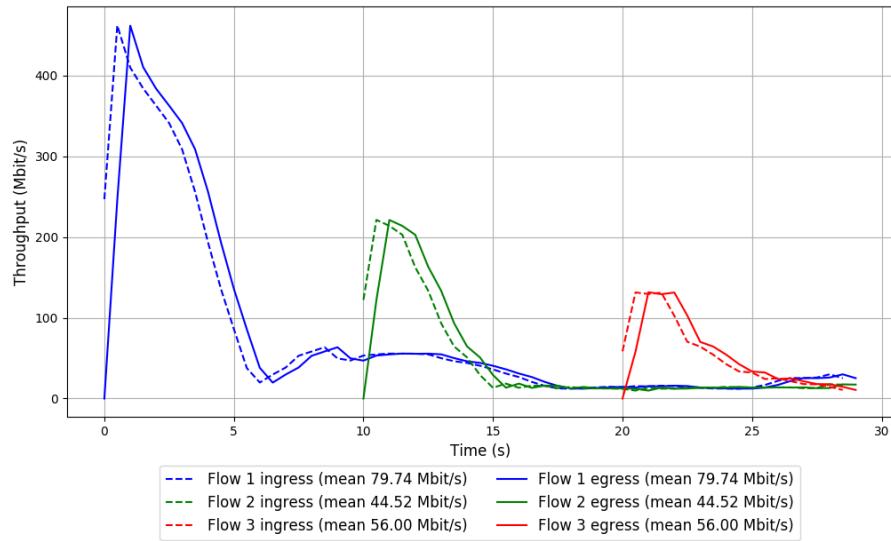


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 02:59:36
End at: 2019-03-27 03:00:06
Local clock offset: 0.998 ms
Remote clock offset: 4.466 ms

# Below is generated by plot.py at 2019-03-27 04:13:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.72 Mbit/s
95th percentile per-packet one-way delay: 1.412 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.74 Mbit/s
95th percentile per-packet one-way delay: 1.327 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.52 Mbit/s
95th percentile per-packet one-way delay: 1.305 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 56.00 Mbit/s
95th percentile per-packet one-way delay: 1.980 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesD — Data Link

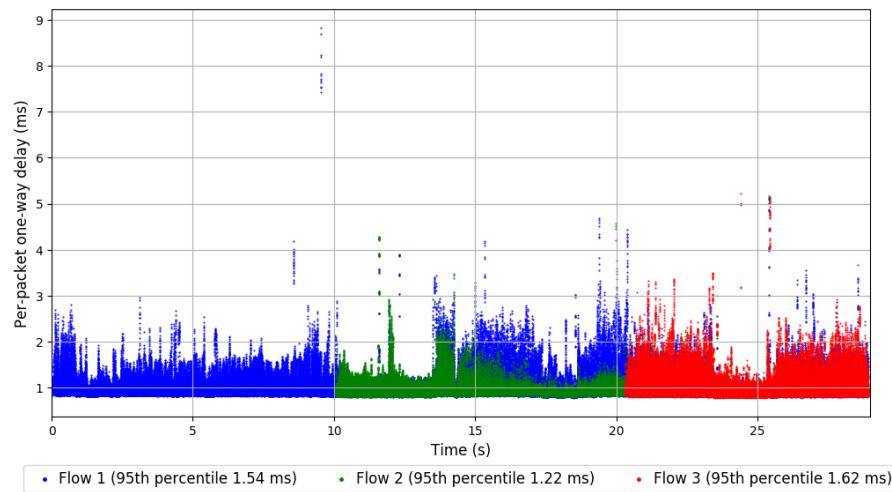
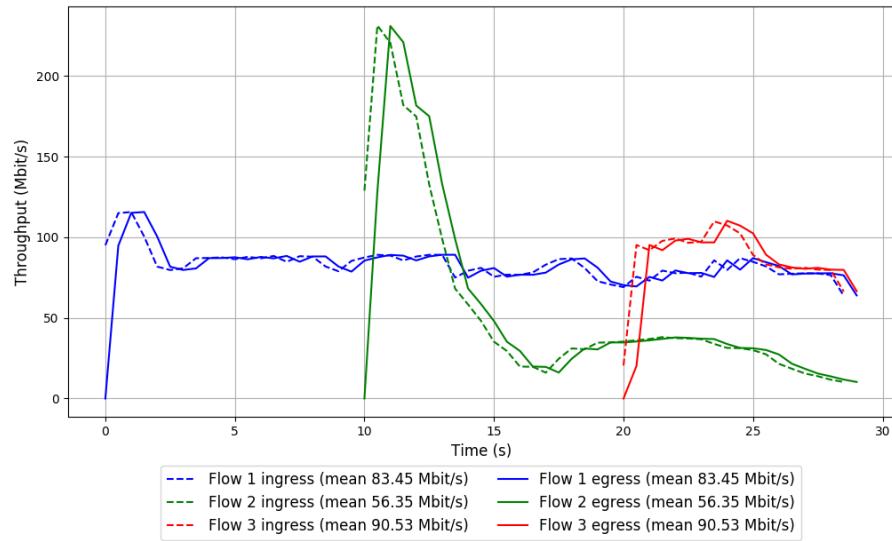


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-03-27 03:29:49
End at: 2019-03-27 03:30:19
Local clock offset: 0.018 ms
Remote clock offset: 6.083 ms

# Below is generated by plot.py at 2019-03-27 04:13:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 147.14 Mbit/s
95th percentile per-packet one-way delay: 1.507 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.45 Mbit/s
95th percentile per-packet one-way delay: 1.543 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 56.35 Mbit/s
95th percentile per-packet one-way delay: 1.217 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 1.625 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

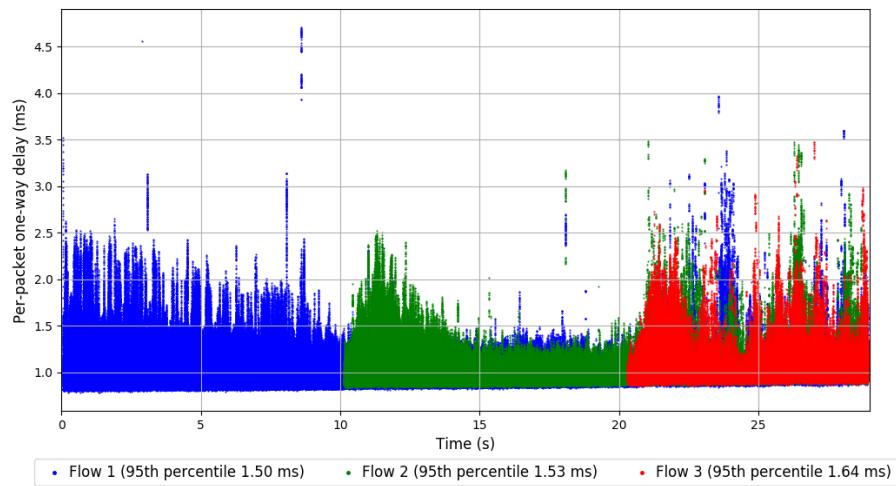
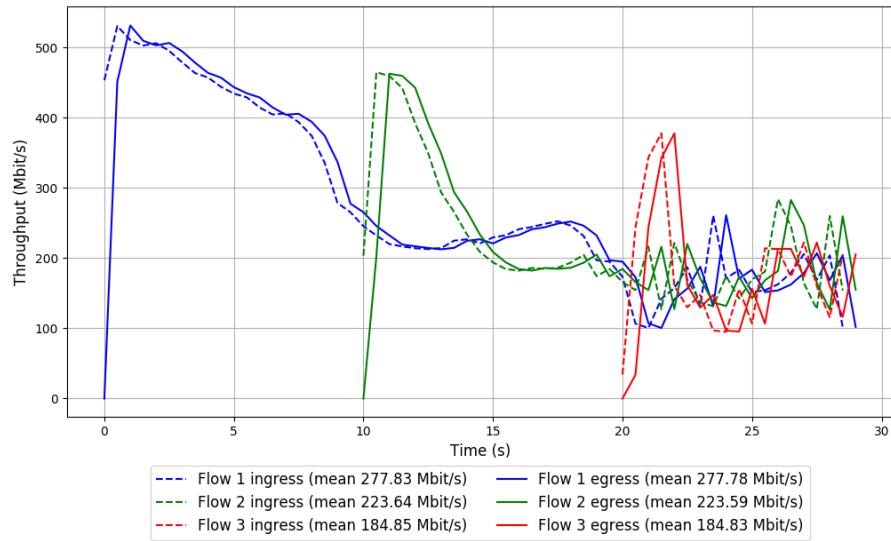


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 01:33:20
End at: 2019-03-27 01:33:50
Local clock offset: 0.677 ms
Remote clock offset: 0.432 ms

# Below is generated by plot.py at 2019-03-27 04:16:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 478.46 Mbit/s
95th percentile per-packet one-way delay: 1.534 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 277.78 Mbit/s
95th percentile per-packet one-way delay: 1.504 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 223.59 Mbit/s
95th percentile per-packet one-way delay: 1.535 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 184.83 Mbit/s
95th percentile per-packet one-way delay: 1.644 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo-MusesT — Data Link

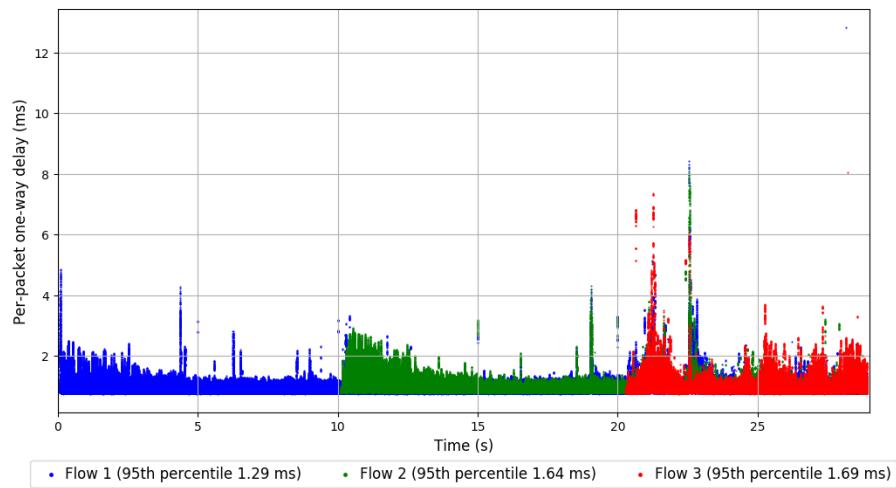
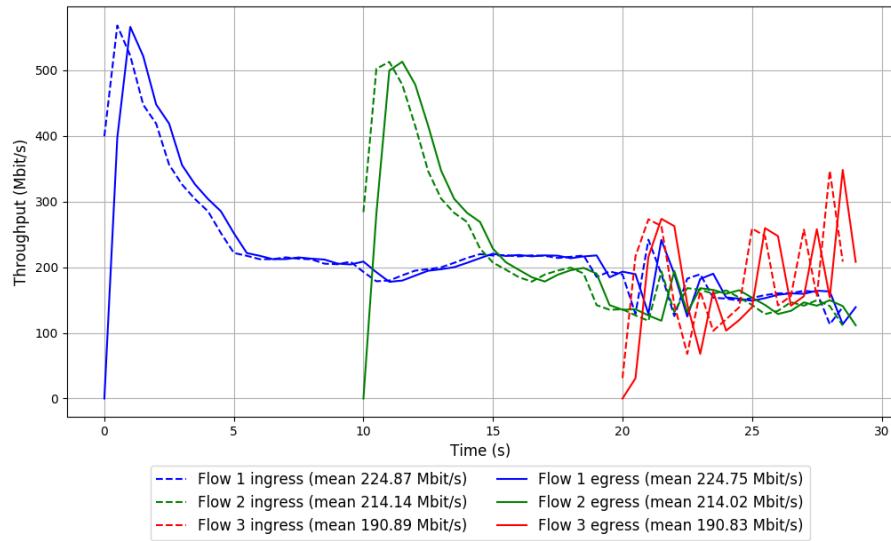


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 02:03:33
End at: 2019-03-27 02:04:03
Local clock offset: 1.172 ms
Remote clock offset: 1.011 ms

# Below is generated by plot.py at 2019-03-27 04:16:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 420.92 Mbit/s
95th percentile per-packet one-way delay: 1.491 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 224.75 Mbit/s
95th percentile per-packet one-way delay: 1.291 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 214.02 Mbit/s
95th percentile per-packet one-way delay: 1.637 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 190.83 Mbit/s
95th percentile per-packet one-way delay: 1.693 ms
Loss rate: 0.03%
```

Run 2: Report of Indigo-MusesT — Data Link

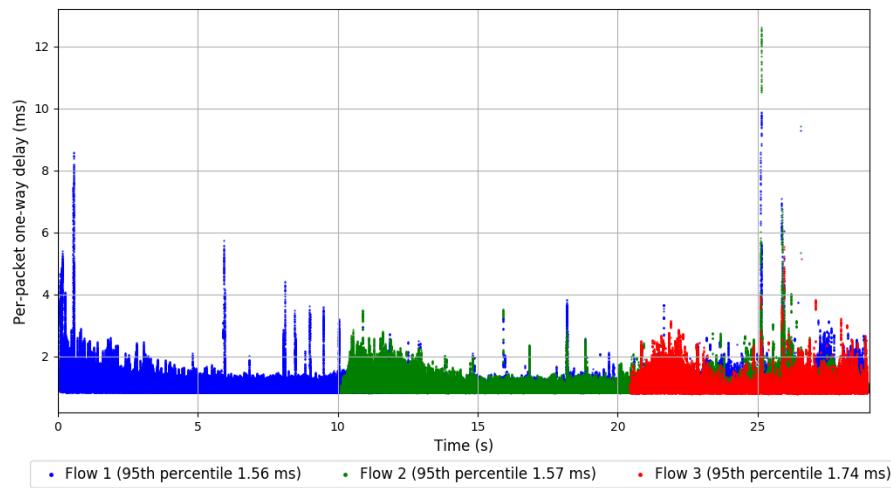
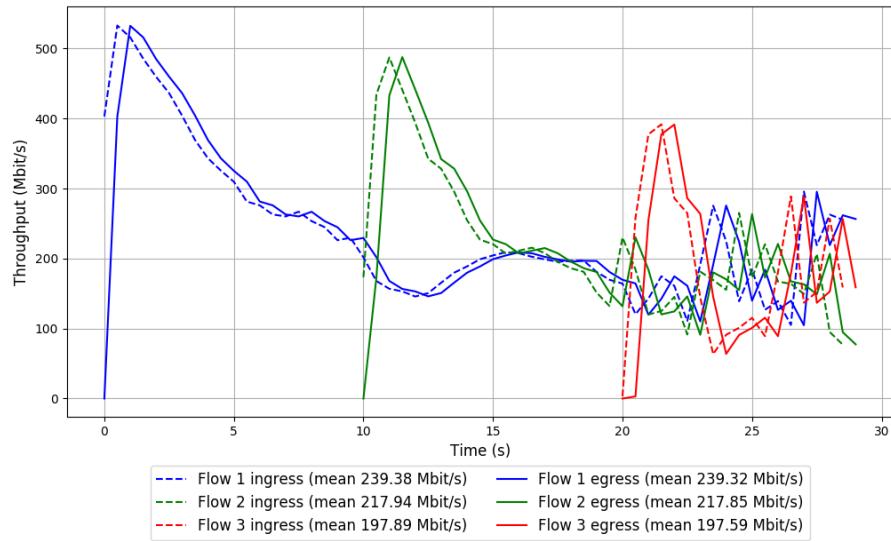


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 02:33:31
End at: 2019-03-27 02:34:01
Local clock offset: 3.908 ms
Remote clock offset: 2.584 ms

# Below is generated by plot.py at 2019-03-27 04:16:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 439.05 Mbit/s
95th percentile per-packet one-way delay: 1.596 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 239.32 Mbit/s
95th percentile per-packet one-way delay: 1.563 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 217.85 Mbit/s
95th percentile per-packet one-way delay: 1.567 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 197.59 Mbit/s
95th percentile per-packet one-way delay: 1.738 ms
Loss rate: 0.15%
```

Run 3: Report of Indigo-MusesT — Data Link

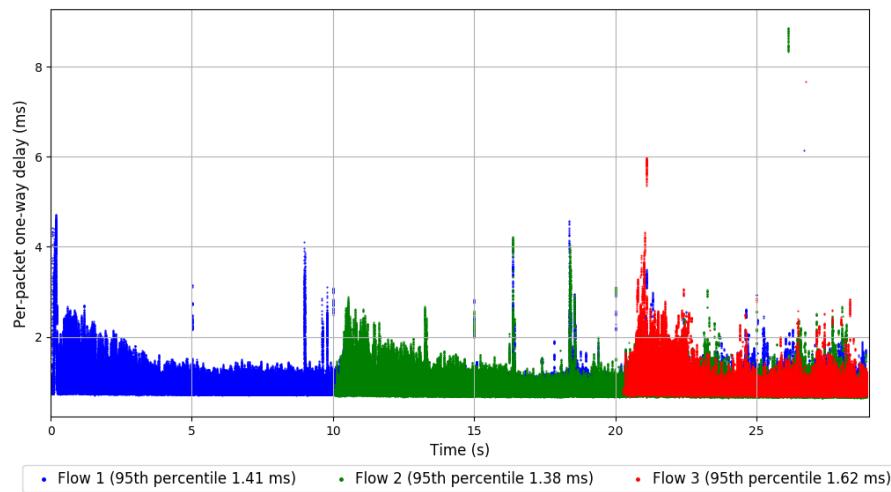
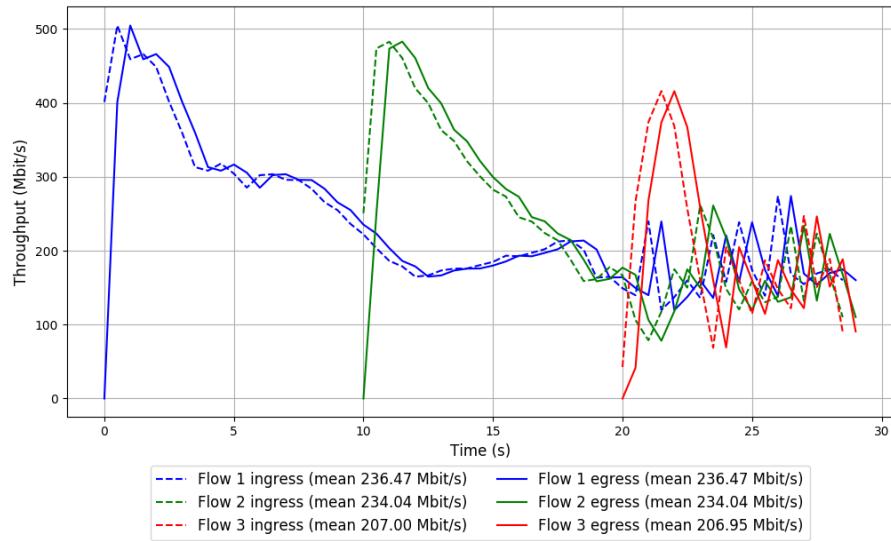


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 03:03:42
End at: 2019-03-27 03:04:12
Local clock offset: 0.589 ms
Remote clock offset: 4.594 ms

# Below is generated by plot.py at 2019-03-27 04:17:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 450.64 Mbit/s
95th percentile per-packet one-way delay: 1.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.47 Mbit/s
95th percentile per-packet one-way delay: 1.413 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 234.04 Mbit/s
95th percentile per-packet one-way delay: 1.383 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 206.95 Mbit/s
95th percentile per-packet one-way delay: 1.625 ms
Loss rate: 0.02%
```

Run 4: Report of Indigo-MusesT — Data Link

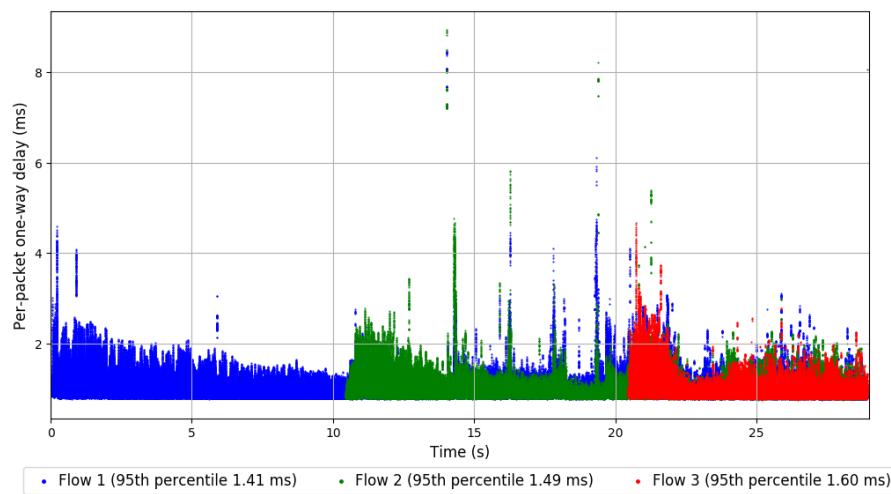
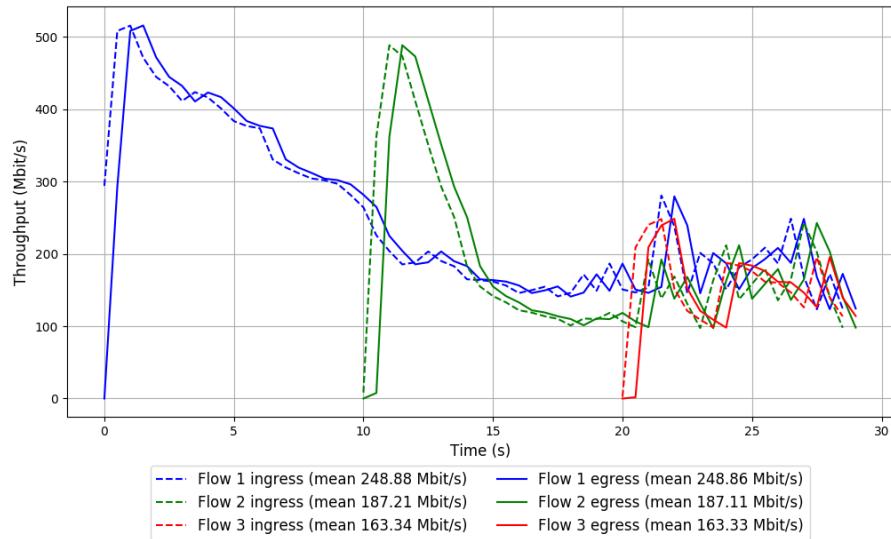


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-03-27 03:33:54
End at: 2019-03-27 03:34:24
Local clock offset: -0.003 ms
Remote clock offset: 6.272 ms

# Below is generated by plot.py at 2019-03-27 04:17:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 416.34 Mbit/s
95th percentile per-packet one-way delay: 1.454 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 248.86 Mbit/s
95th percentile per-packet one-way delay: 1.408 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 187.11 Mbit/s
95th percentile per-packet one-way delay: 1.489 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 163.33 Mbit/s
95th percentile per-packet one-way delay: 1.598 ms
Loss rate: 0.01%
```

Run 5: Report of Indigo-MusesT — Data Link

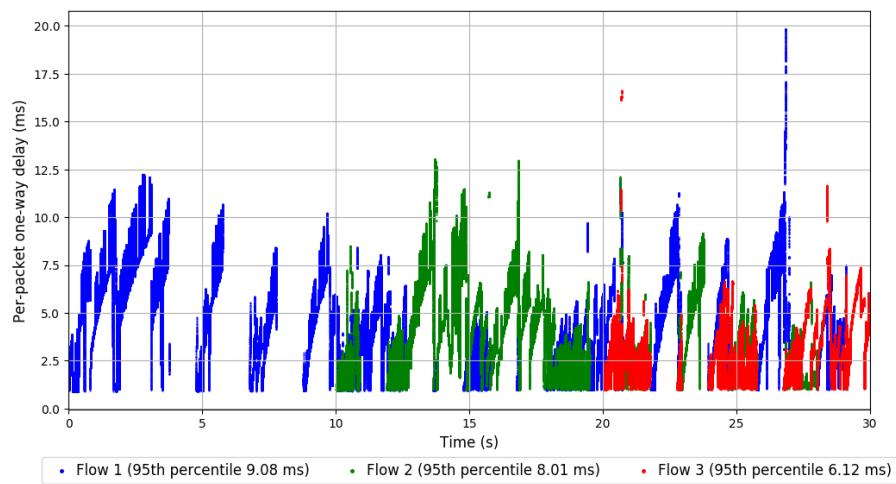
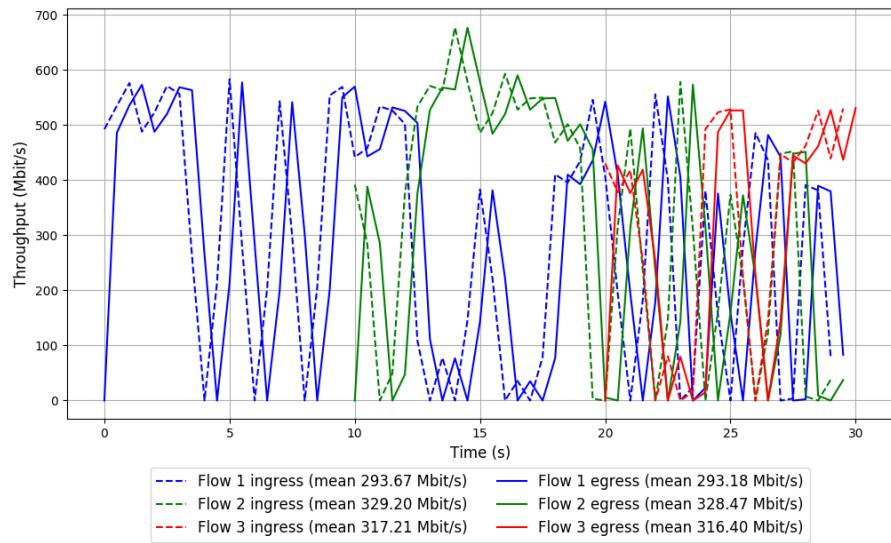


Run 1: Statistics of LEDBAT

```
Start at: 2019-03-27 01:27:33
End at: 2019-03-27 01:28:03
Local clock offset: -0.454 ms
Remote clock offset: 0.39 ms

# Below is generated by plot.py at 2019-03-27 04:19:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 599.30 Mbit/s
95th percentile per-packet one-way delay: 8.457 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 293.18 Mbit/s
95th percentile per-packet one-way delay: 9.083 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 328.47 Mbit/s
95th percentile per-packet one-way delay: 8.009 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 316.40 Mbit/s
95th percentile per-packet one-way delay: 6.123 ms
Loss rate: 0.25%
```

Run 1: Report of LEDBAT — Data Link

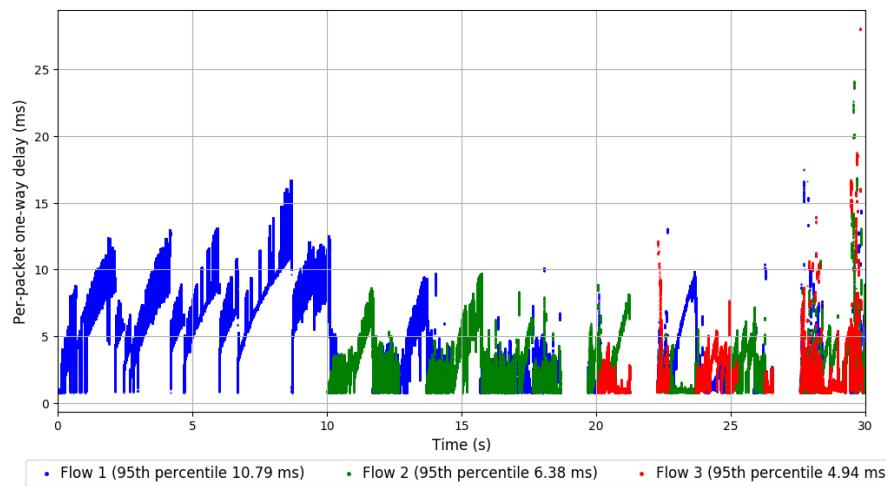
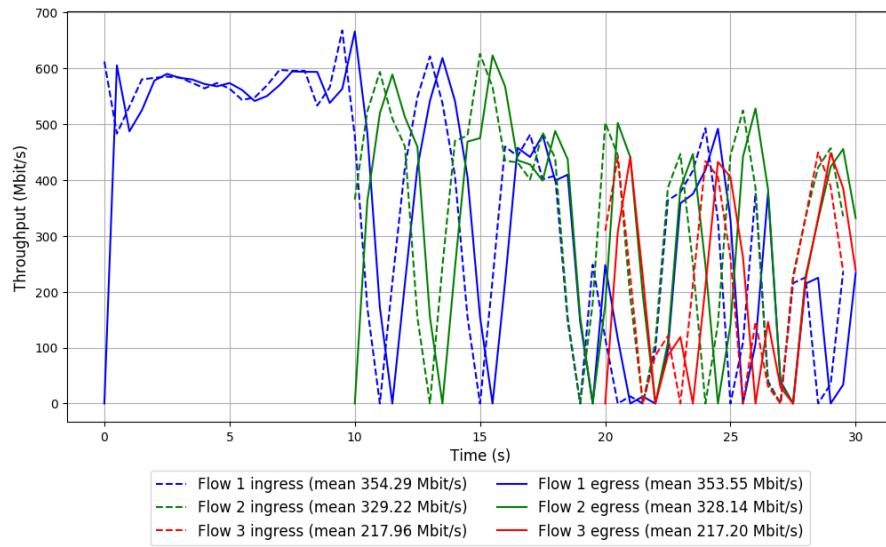


Run 2: Statistics of LEDBAT

```
Start at: 2019-03-27 01:57:44
End at: 2019-03-27 01:58:14
Local clock offset: 1.175 ms
Remote clock offset: 0.939 ms

# Below is generated by plot.py at 2019-03-27 04:20:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 643.63 Mbit/s
95th percentile per-packet one-way delay: 9.774 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 353.55 Mbit/s
95th percentile per-packet one-way delay: 10.791 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 328.14 Mbit/s
95th percentile per-packet one-way delay: 6.377 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 217.20 Mbit/s
95th percentile per-packet one-way delay: 4.942 ms
Loss rate: 0.35%
```

Run 2: Report of LEDBAT — Data Link

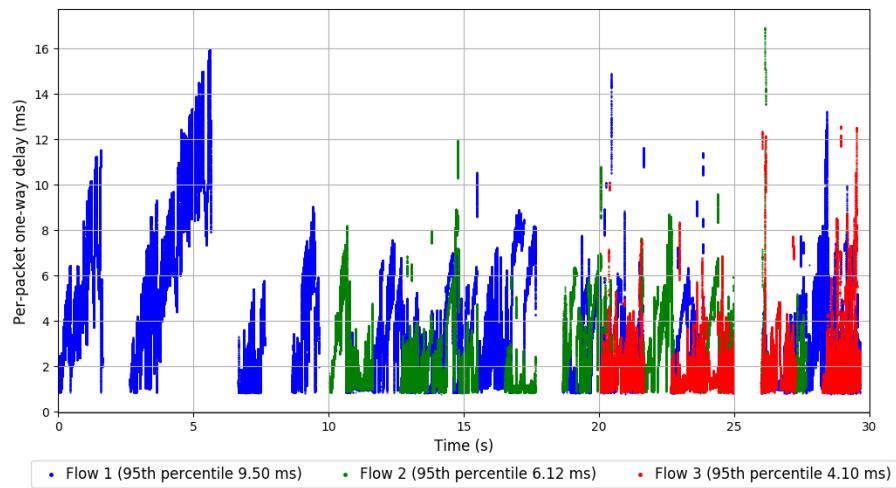
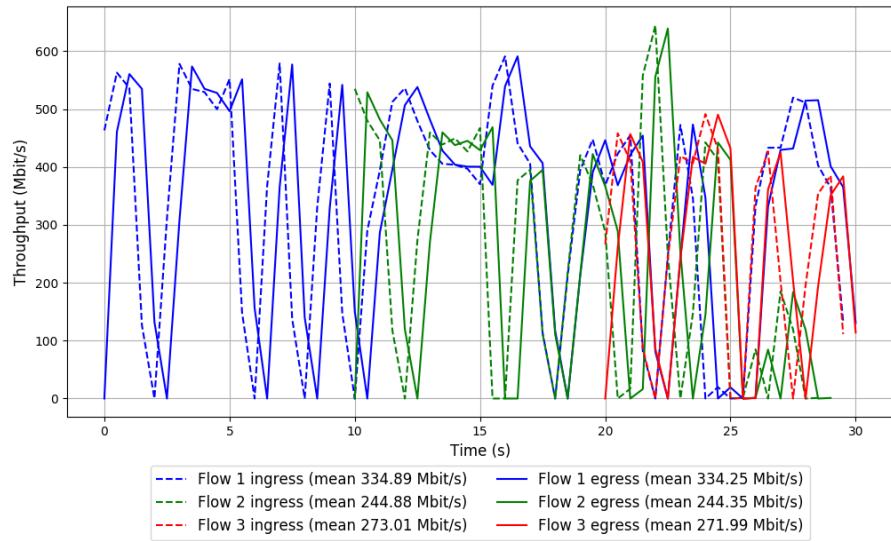


Run 3: Statistics of LEDBAT

```
Start at: 2019-03-27 02:27:45
End at: 2019-03-27 02:28:15
Local clock offset: 3.367 ms
Remote clock offset: 1.668 ms

# Below is generated by plot.py at 2019-03-27 04:20:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.25 Mbit/s
95th percentile per-packet one-way delay: 8.072 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 334.25 Mbit/s
95th percentile per-packet one-way delay: 9.504 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 244.35 Mbit/s
95th percentile per-packet one-way delay: 6.124 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 271.99 Mbit/s
95th percentile per-packet one-way delay: 4.096 ms
Loss rate: 0.36%
```

Run 3: Report of LEDBAT — Data Link

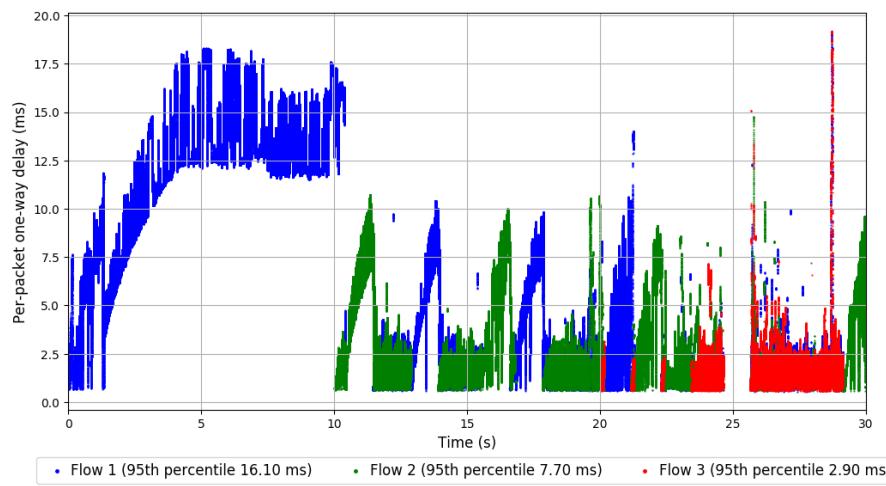
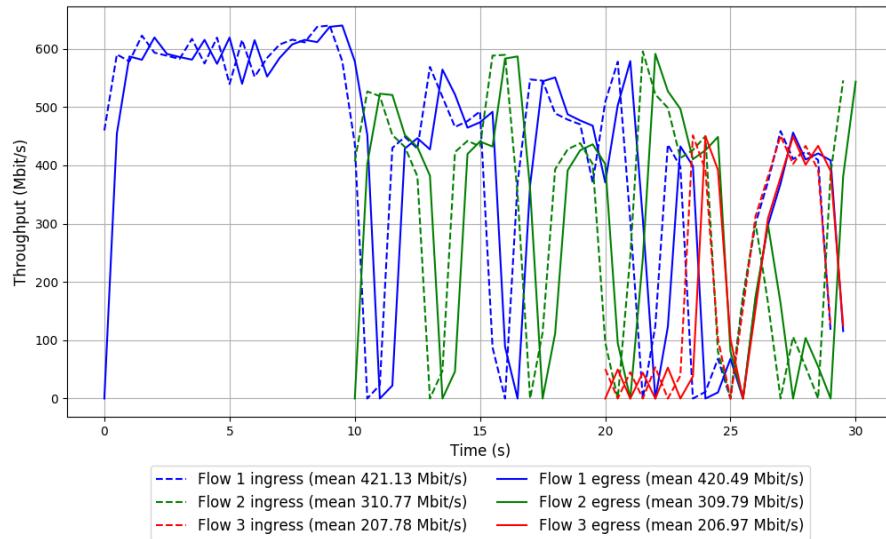


Run 4: Statistics of LEDBAT

```
Start at: 2019-03-27 02:57:54
End at: 2019-03-27 02:58:24
Local clock offset: 1.226 ms
Remote clock offset: 4.288 ms

# Below is generated by plot.py at 2019-03-27 04:24:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 677.66 Mbit/s
95th percentile per-packet one-way delay: 15.312 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 420.49 Mbit/s
95th percentile per-packet one-way delay: 16.098 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 309.79 Mbit/s
95th percentile per-packet one-way delay: 7.700 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 206.97 Mbit/s
95th percentile per-packet one-way delay: 2.895 ms
Loss rate: 0.39%
```

Run 4: Report of LEDBAT — Data Link

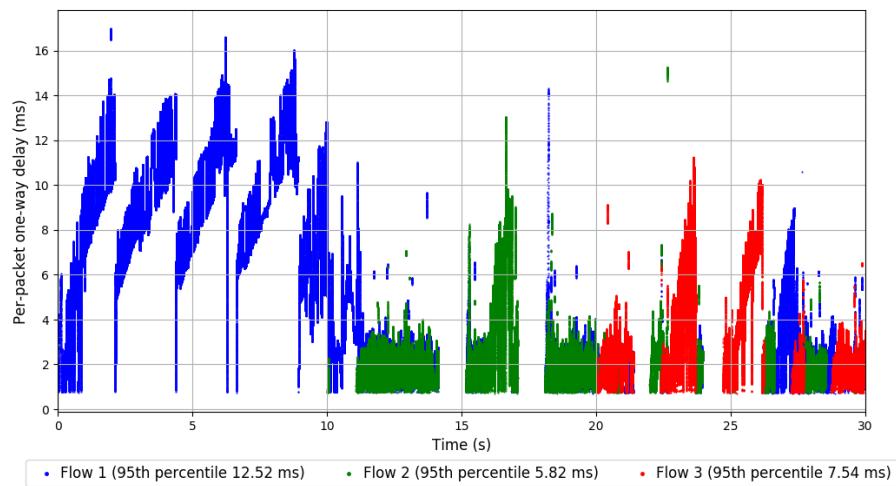
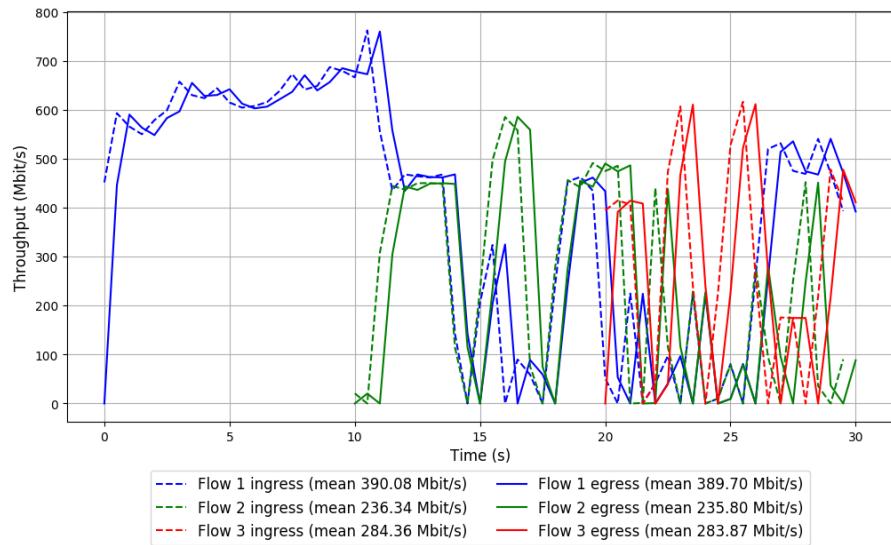


Run 5: Statistics of LEDBAT

```
Start at: 2019-03-27 03:28:08
End at: 2019-03-27 03:28:38
Local clock offset: 0.037 ms
Remote clock offset: 5.927 ms

# Below is generated by plot.py at 2019-03-27 04:24:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 639.28 Mbit/s
95th percentile per-packet one-way delay: 11.745 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 389.70 Mbit/s
95th percentile per-packet one-way delay: 12.522 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 235.80 Mbit/s
95th percentile per-packet one-way delay: 5.820 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 283.87 Mbit/s
95th percentile per-packet one-way delay: 7.541 ms
Loss rate: 0.17%
```

Run 5: Report of LEDBAT — Data Link

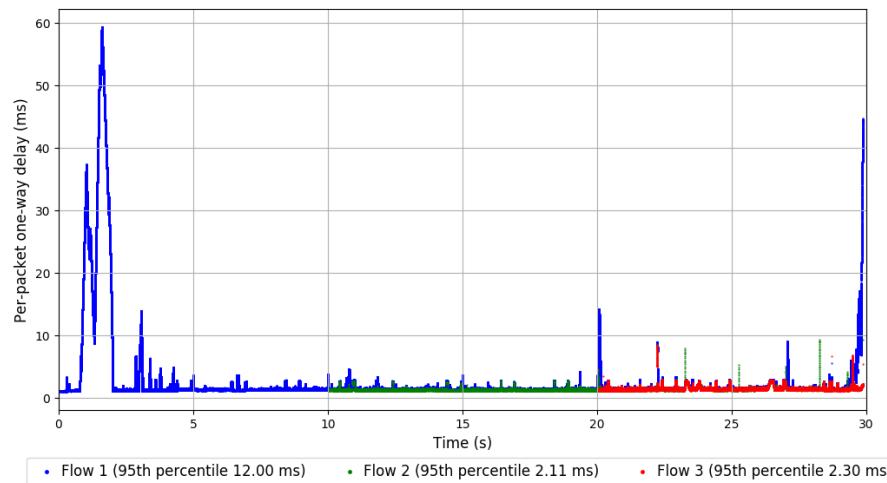
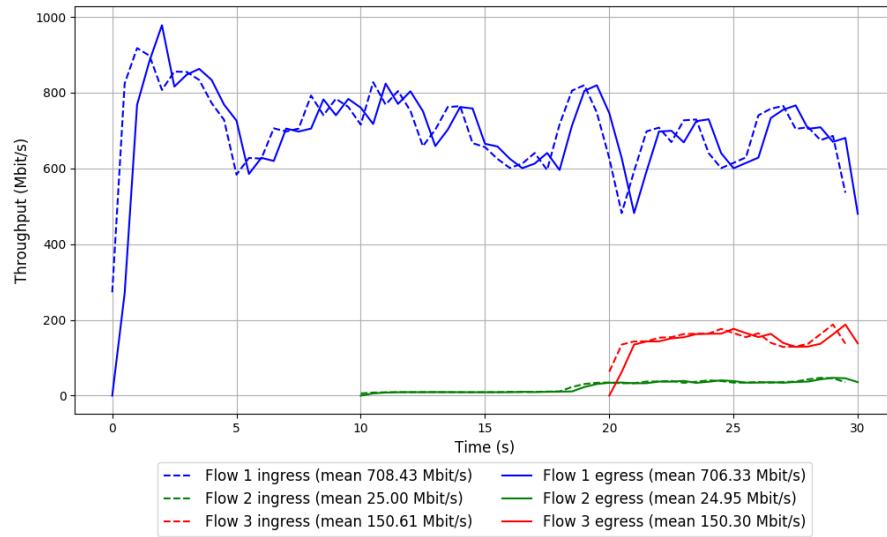


Run 1: Statistics of PCC-Allegro

```
Start at: 2019-03-27 01:24:44
End at: 2019-03-27 01:25:14
Local clock offset: -1.289 ms
Remote clock offset: 0.358 ms

# Below is generated by plot.py at 2019-03-27 04:25:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 772.28 Mbit/s
95th percentile per-packet one-way delay: 9.945 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 706.33 Mbit/s
95th percentile per-packet one-way delay: 11.998 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 24.95 Mbit/s
95th percentile per-packet one-way delay: 2.106 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 150.30 Mbit/s
95th percentile per-packet one-way delay: 2.297 ms
Loss rate: 0.17%
```

Run 1: Report of PCC-Allegro — Data Link

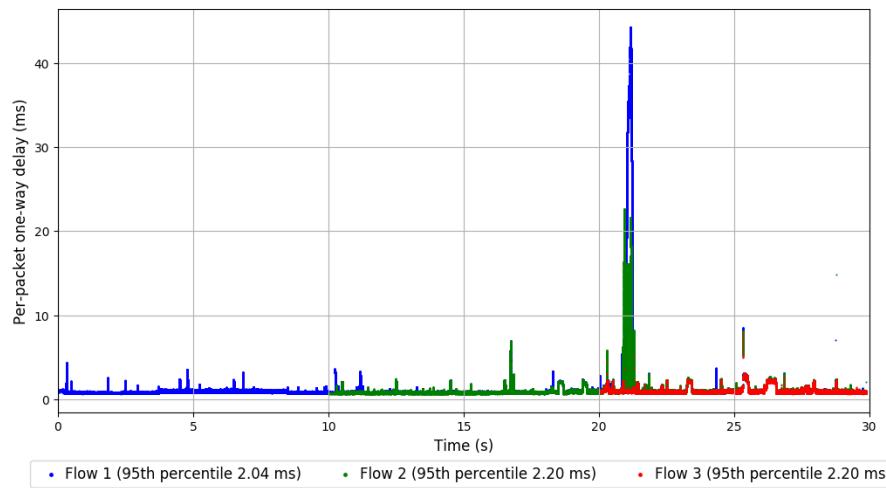
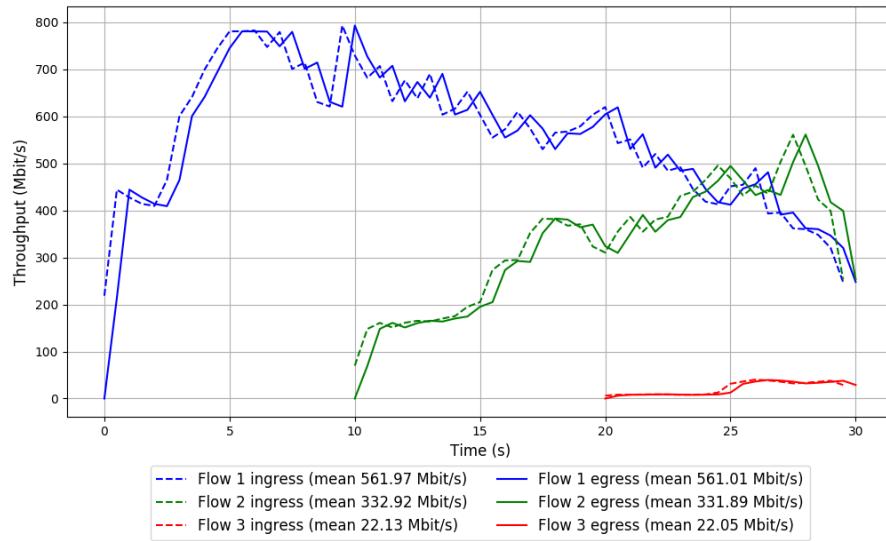


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-03-27 01:54:54
End at: 2019-03-27 01:55:24
Local clock offset: 1.257 ms
Remote clock offset: 0.824 ms

# Below is generated by plot.py at 2019-03-27 04:26:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 788.98 Mbit/s
95th percentile per-packet one-way delay: 2.117 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 561.01 Mbit/s
95th percentile per-packet one-way delay: 2.037 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 331.89 Mbit/s
95th percentile per-packet one-way delay: 2.203 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 22.05 Mbit/s
95th percentile per-packet one-way delay: 2.201 ms
Loss rate: 0.39%
```

Run 2: Report of PCC-Allegro — Data Link

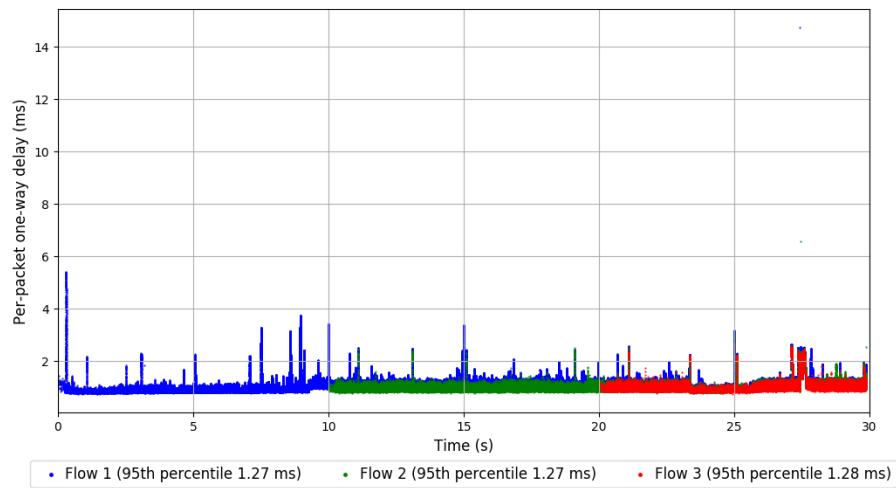
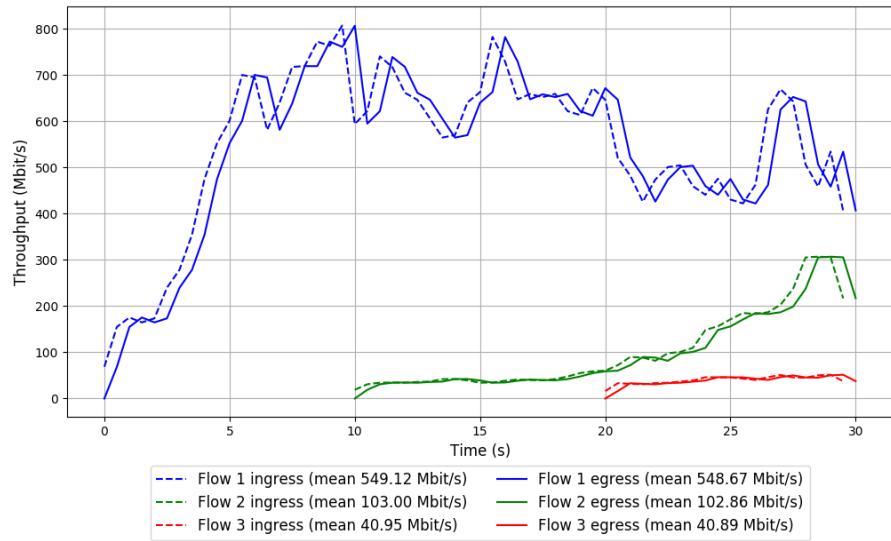


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-03-27 02:24:59
End at: 2019-03-27 02:25:29
Local clock offset: 3.053 ms
Remote clock offset: 1.389 ms

# Below is generated by plot.py at 2019-03-27 04:26:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 630.46 Mbit/s
95th percentile per-packet one-way delay: 1.274 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 548.67 Mbit/s
95th percentile per-packet one-way delay: 1.274 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 102.86 Mbit/s
95th percentile per-packet one-way delay: 1.270 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 40.89 Mbit/s
95th percentile per-packet one-way delay: 1.276 ms
Loss rate: 0.15%
```

Run 3: Report of PCC-Allegro — Data Link

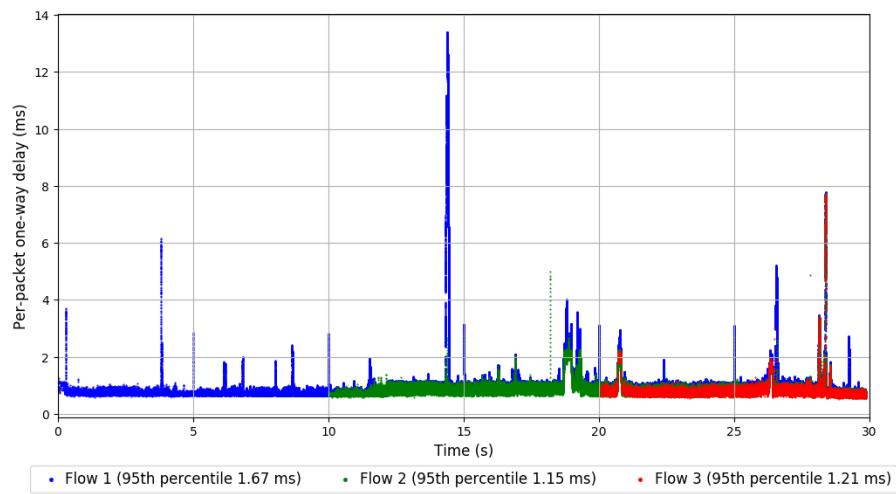
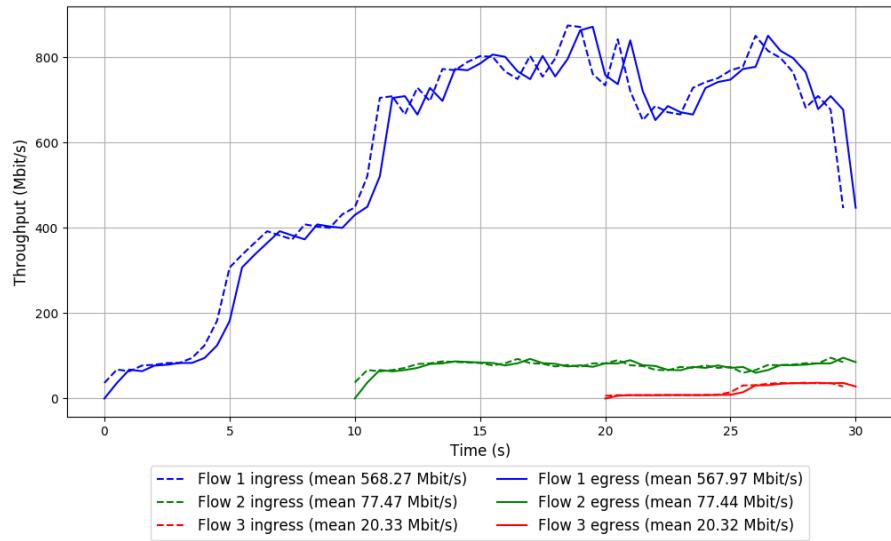


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-03-27 02:55:08
End at: 2019-03-27 02:55:38
Local clock offset: 1.7 ms
Remote clock offset: 4.211 ms

# Below is generated by plot.py at 2019-03-27 04:27:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 626.16 Mbit/s
95th percentile per-packet one-way delay: 1.619 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 567.97 Mbit/s
95th percentile per-packet one-way delay: 1.673 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 77.44 Mbit/s
95th percentile per-packet one-way delay: 1.154 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 20.32 Mbit/s
95th percentile per-packet one-way delay: 1.209 ms
Loss rate: 0.04%
```

Run 4: Report of PCC-Allegro — Data Link

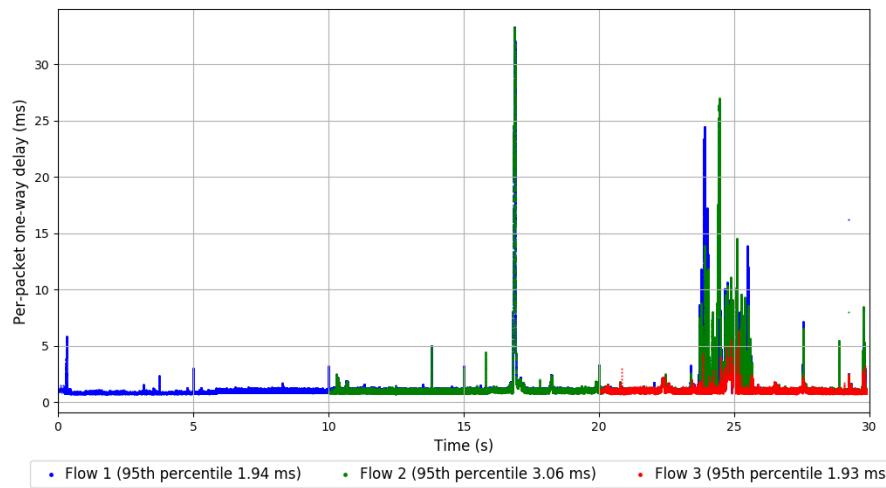
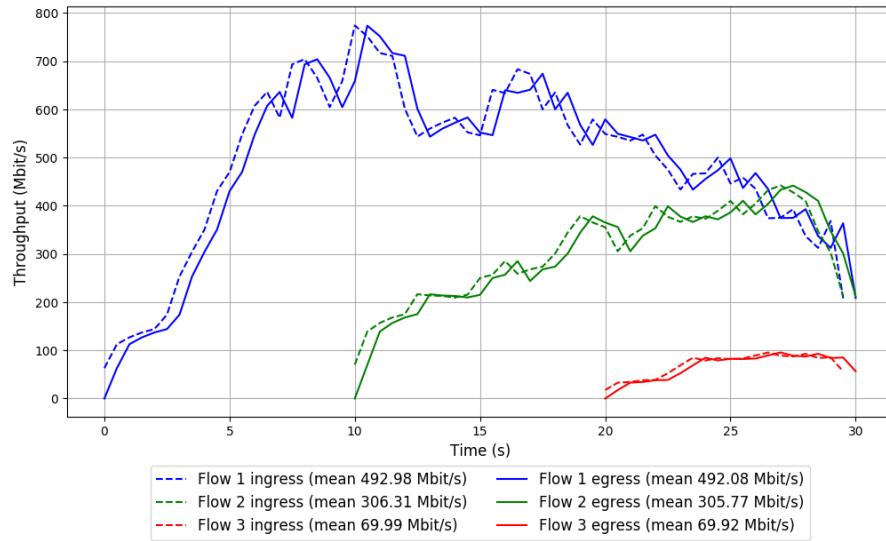


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-03-27 03:25:20
End at: 2019-03-27 03:25:50
Local clock offset: 0.04 ms
Remote clock offset: 5.772 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 718.37 Mbit/s
95th percentile per-packet one-way delay: 2.165 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 492.08 Mbit/s
95th percentile per-packet one-way delay: 1.939 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 305.77 Mbit/s
95th percentile per-packet one-way delay: 3.063 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 69.92 Mbit/s
95th percentile per-packet one-way delay: 1.932 ms
Loss rate: 0.11%
```

Run 5: Report of PCC-Allegro — Data Link

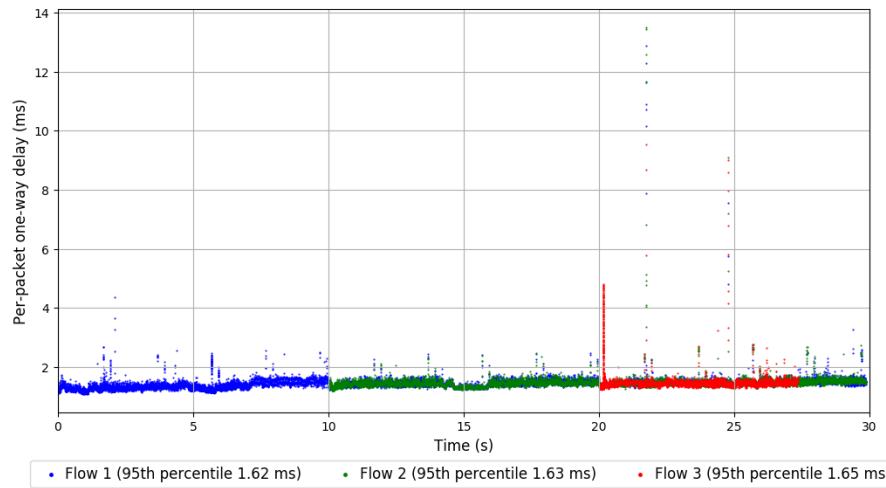
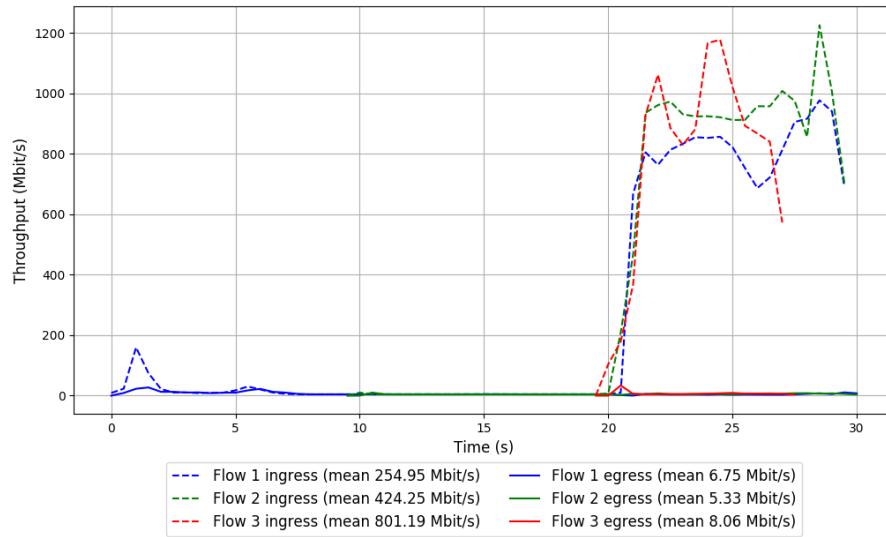


Run 1: Statistics of PCC-Expr

```
Start at: 2019-03-27 01:18:59
End at: 2019-03-27 01:19:29
Local clock offset: -3.644 ms
Remote clock offset: 0.343 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.28 Mbit/s
95th percentile per-packet one-way delay: 1.629 ms
Loss rate: 98.33%
-- Flow 1:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 1.624 ms
Loss rate: 97.35%
-- Flow 2:
Average throughput: 5.33 Mbit/s
95th percentile per-packet one-way delay: 1.632 ms
Loss rate: 98.74%
-- Flow 3:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 1.648 ms
Loss rate: 98.99%
```

Run 1: Report of PCC-Expr — Data Link

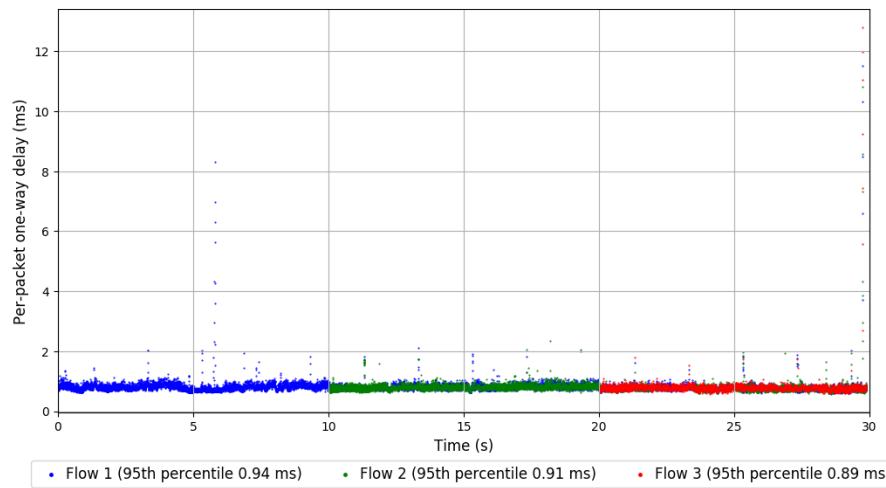
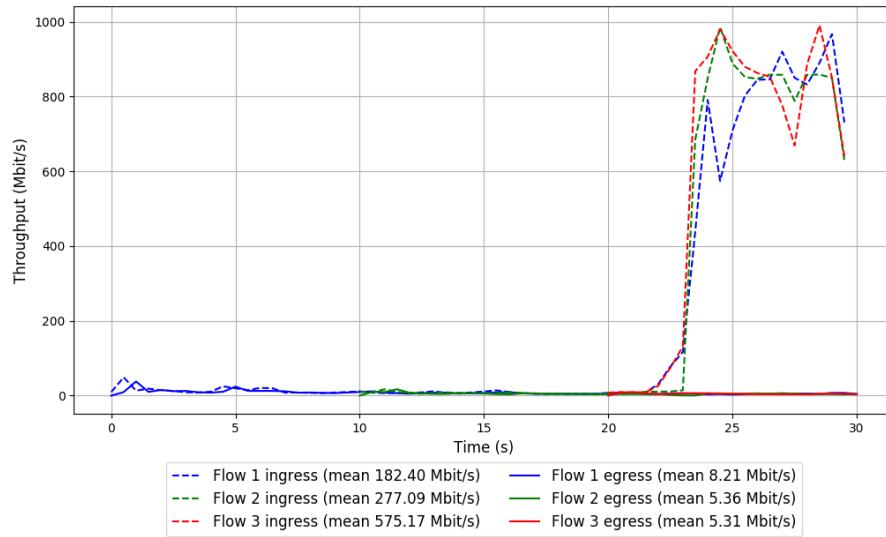


Run 2: Statistics of PCC-Expr

```
Start at: 2019-03-27 01:49:09
End at: 2019-03-27 01:49:39
Local clock offset: 1.703 ms
Remote clock offset: 0.716 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.53 Mbit/s
95th percentile per-packet one-way delay: 0.925 ms
Loss rate: 97.57%
-- Flow 1:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 95.50%
-- Flow 2:
Average throughput: 5.36 Mbit/s
95th percentile per-packet one-way delay: 0.914 ms
Loss rate: 98.07%
-- Flow 3:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 0.886 ms
Loss rate: 99.08%
```

Run 2: Report of PCC-Expr — Data Link

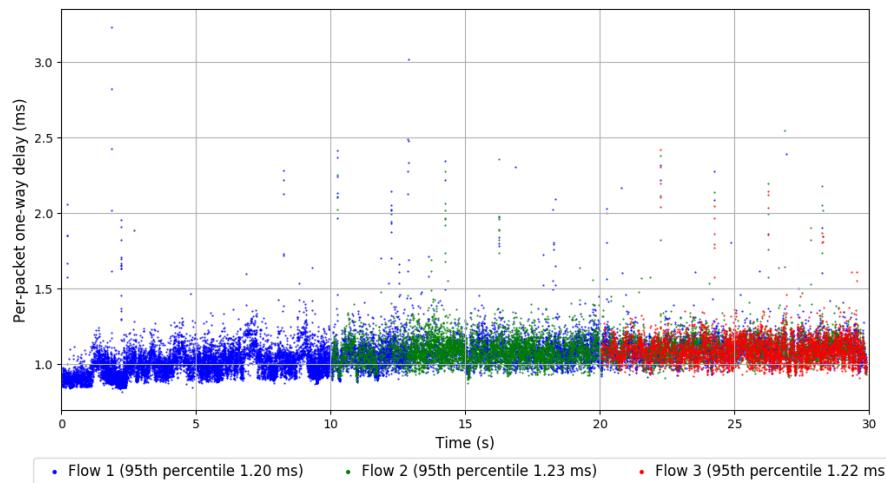
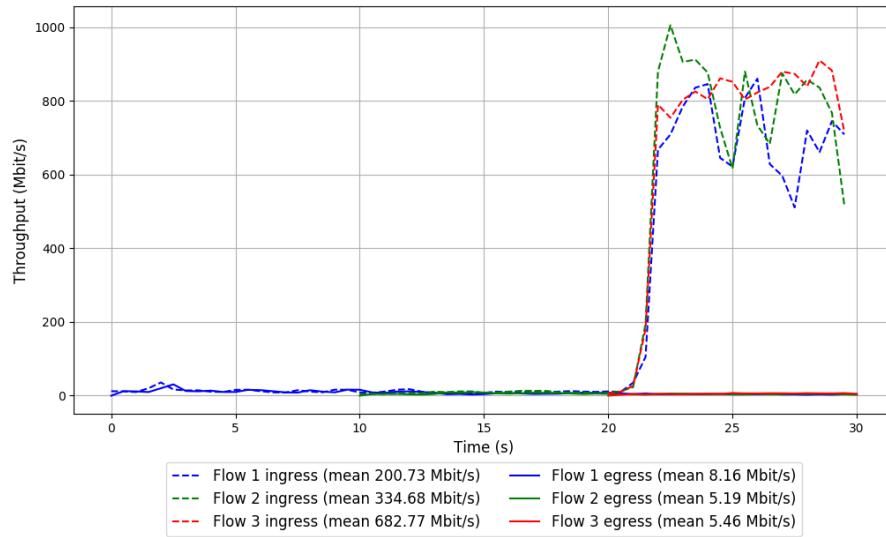


Run 3: Statistics of PCC-Expr

```
Start at: 2019-03-27 02:19:14
End at: 2019-03-27 02:19:44
Local clock offset: 2.191 ms
Remote clock offset: 1.296 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 1.213 ms
Loss rate: 97.93%
-- Flow 1:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 1.200 ms
Loss rate: 95.94%
-- Flow 2:
Average throughput: 5.19 Mbit/s
95th percentile per-packet one-way delay: 1.232 ms
Loss rate: 98.45%
-- Flow 3:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 1.219 ms
Loss rate: 99.20%
```

Run 3: Report of PCC-Expr — Data Link

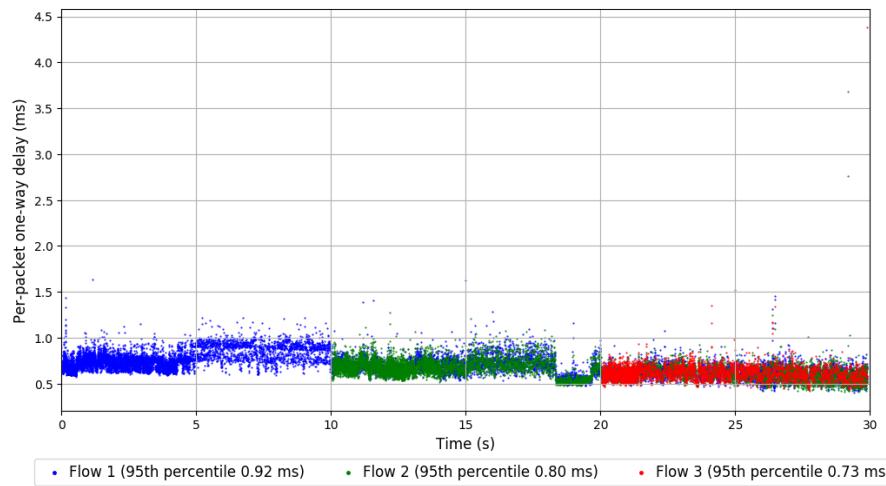
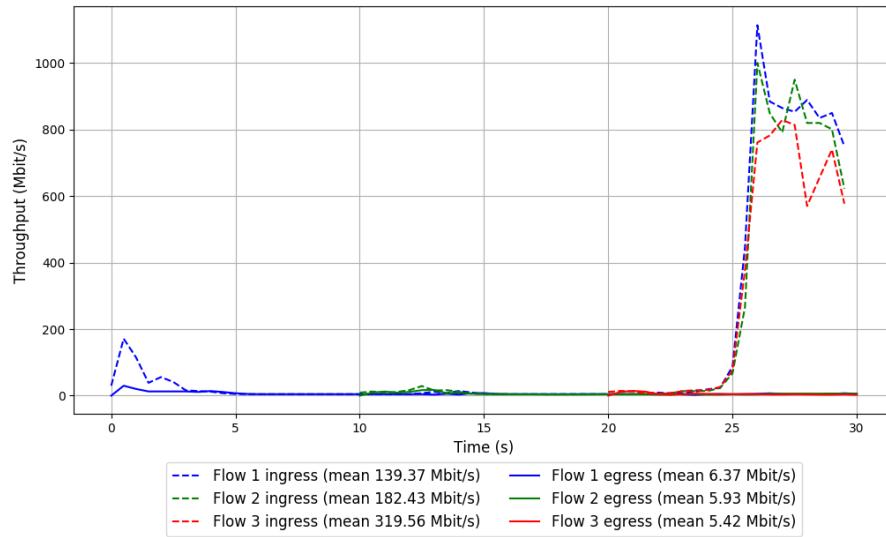


Run 4: Statistics of PCC-Expr

```
Start at: 2019-03-27 02:49:25
End at: 2019-03-27 02:49:55
Local clock offset: 3.33 ms
Remote clock offset: 3.951 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.10 Mbit/s
95th percentile per-packet one-way delay: 0.879 ms
Loss rate: 96.69%
-- Flow 1:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 0.916 ms
Loss rate: 95.43%
-- Flow 2:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 0.802 ms
Loss rate: 96.75%
-- Flow 3:
Average throughput: 5.42 Mbit/s
95th percentile per-packet one-way delay: 0.728 ms
Loss rate: 98.30%
```

Run 4: Report of PCC-Expr — Data Link

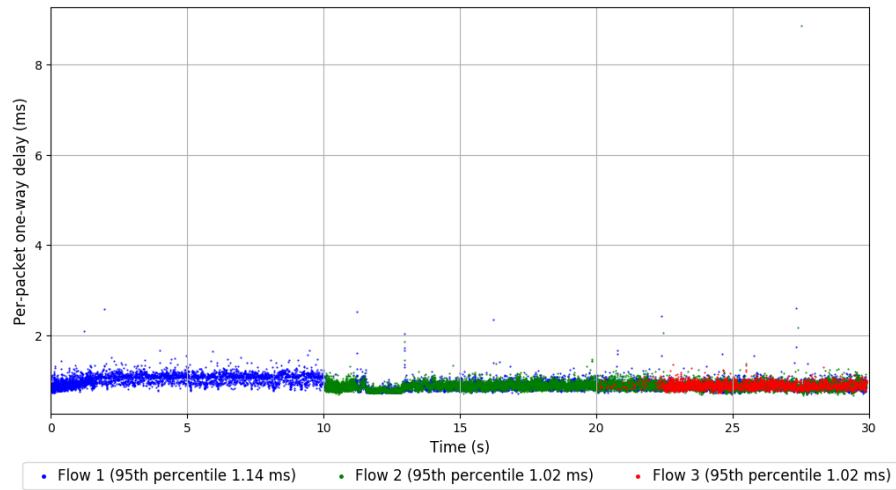
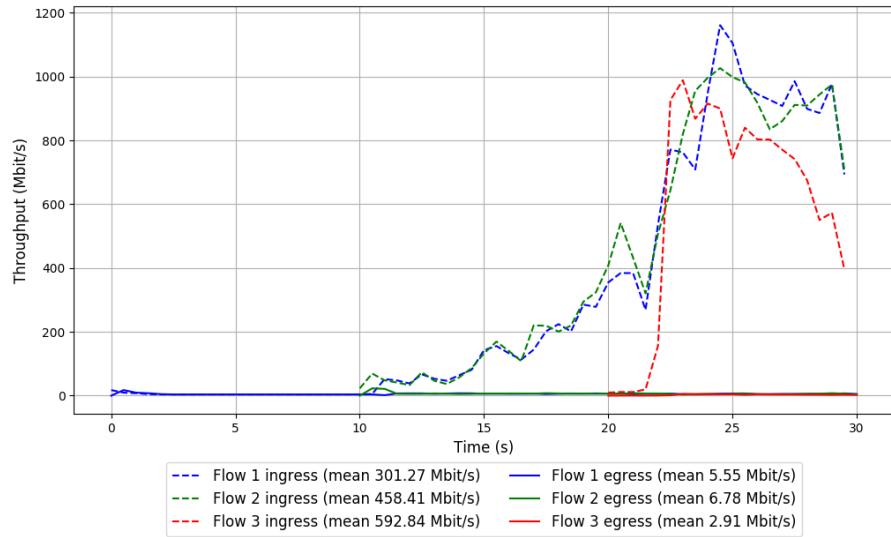


Run 5: Statistics of PCC-Expr

```
Start at: 2019-03-27 03:19:32
End at: 2019-03-27 03:20:02
Local clock offset: 0.052 ms
Remote clock offset: 5.434 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 1.102 ms
Loss rate: 98.63%
-- Flow 1:
Average throughput: 5.55 Mbit/s
95th percentile per-packet one-way delay: 1.142 ms
Loss rate: 98.16%
-- Flow 2:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 1.021 ms
Loss rate: 98.52%
-- Flow 3:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 1.024 ms
Loss rate: 99.51%
```

Run 5: Report of PCC-Expr — Data Link

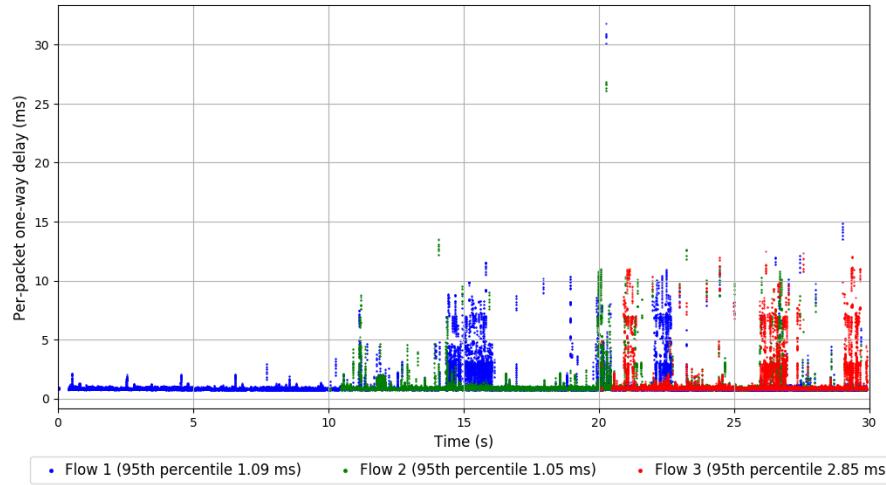
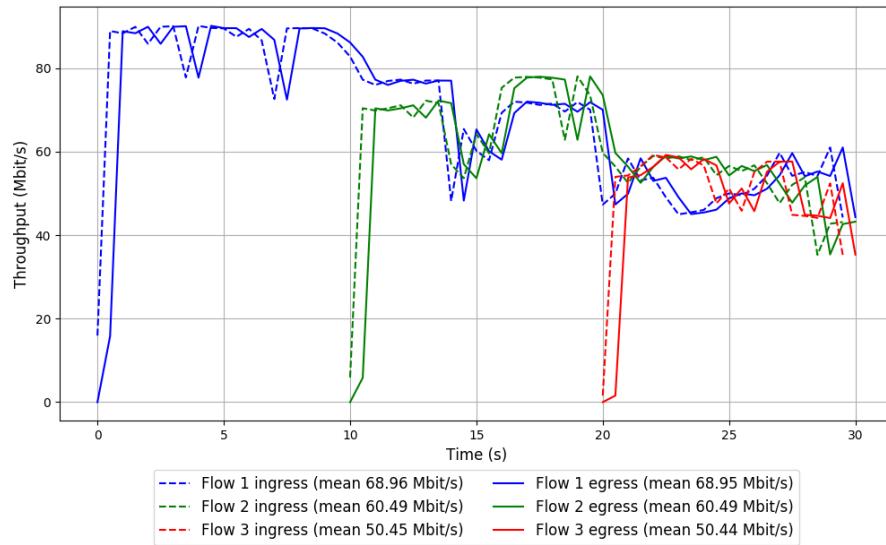


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-03-27 01:08:59
End at: 2019-03-27 01:09:29
Local clock offset: -5.067 ms
Remote clock offset: 0.139 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 125.68 Mbit/s
95th percentile per-packet one-way delay: 1.222 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 68.95 Mbit/s
95th percentile per-packet one-way delay: 1.094 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 60.49 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 50.44 Mbit/s
95th percentile per-packet one-way delay: 2.848 ms
Loss rate: 0.01%
```

Run 1: Report of QUIC Cubic — Data Link

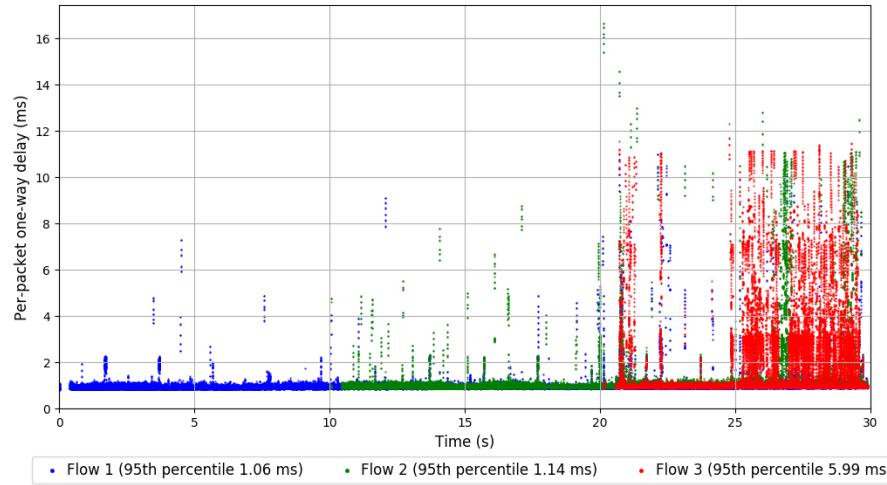
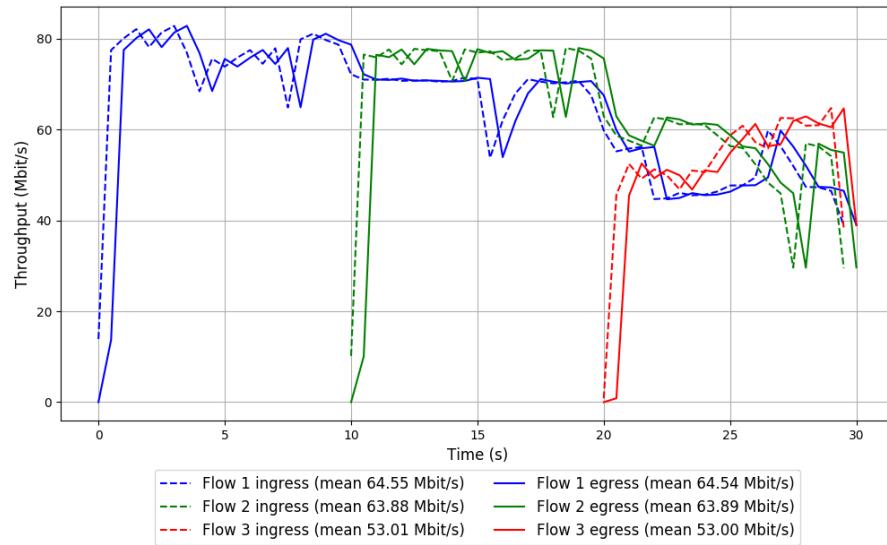


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-03-27 01:39:14
End at: 2019-03-27 01:39:44
Local clock offset: 1.445 ms
Remote clock offset: 0.616 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.28 Mbit/s
95th percentile per-packet one-way delay: 1.738 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.54 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.89 Mbit/s
95th percentile per-packet one-way delay: 1.143 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.00 Mbit/s
95th percentile per-packet one-way delay: 5.992 ms
Loss rate: 0.01%
```

Run 2: Report of QUIC Cubic — Data Link

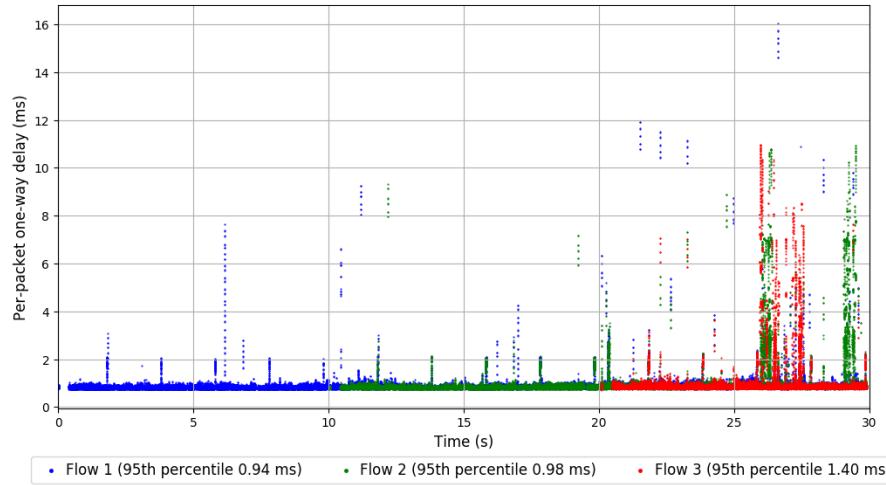
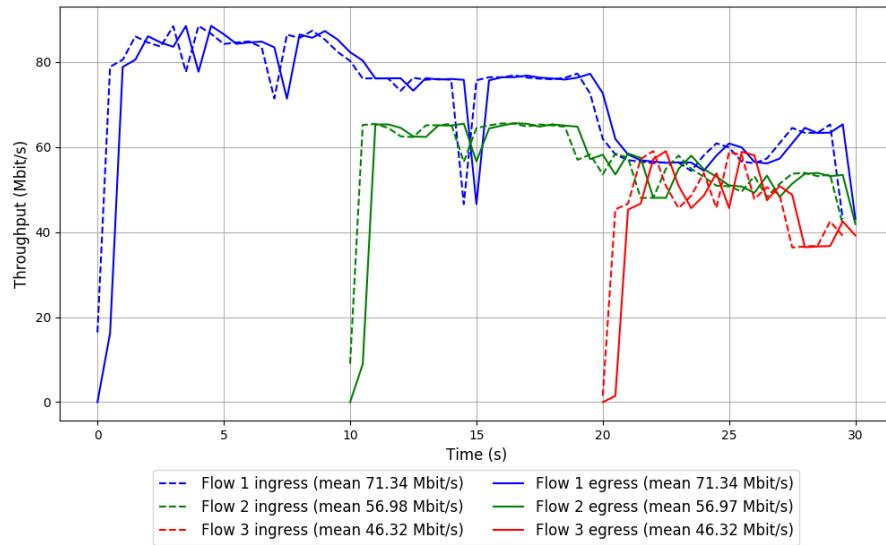


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-03-27 02:09:11
End at: 2019-03-27 02:09:41
Local clock offset: 1.316 ms
Remote clock offset: 1.107 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.41 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 71.34 Mbit/s
95th percentile per-packet one-way delay: 0.936 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 56.97 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.32 Mbit/s
95th percentile per-packet one-way delay: 1.400 ms
Loss rate: 0.01%
```

Run 3: Report of QUIC Cubic — Data Link

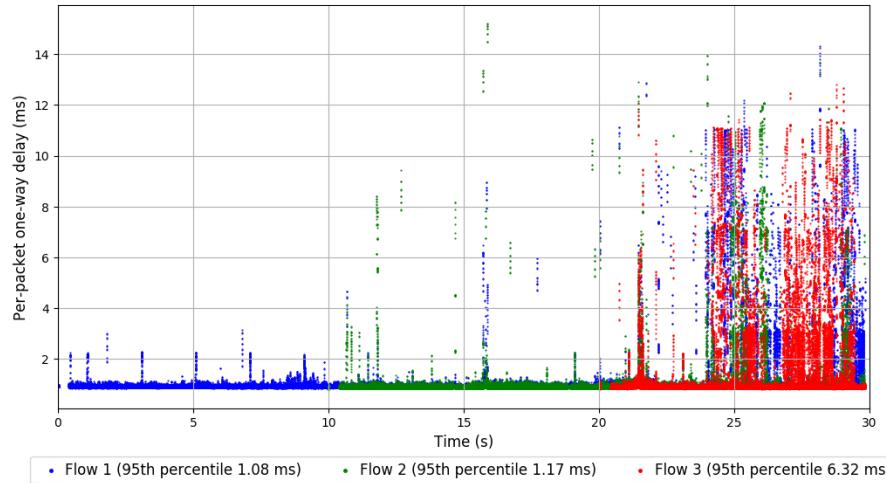
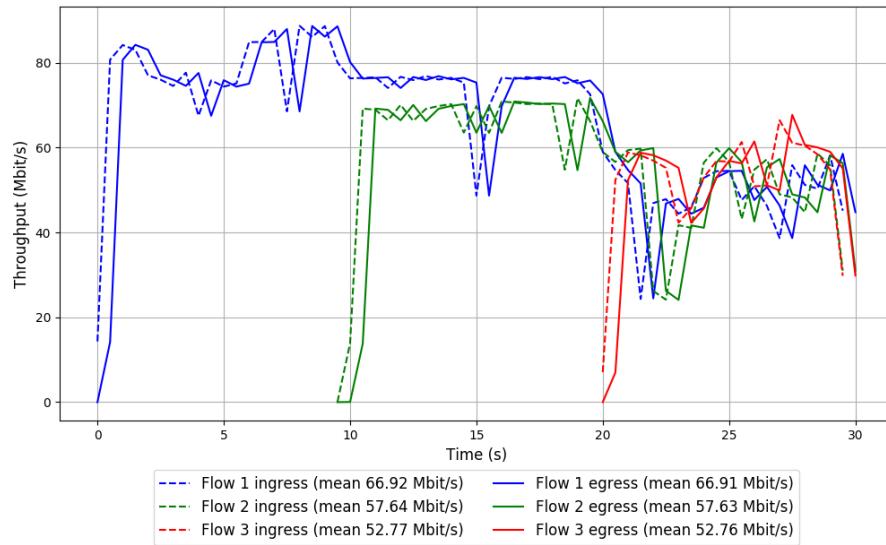


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-03-27 02:39:22
End at: 2019-03-27 02:39:52
Local clock offset: 4.352 ms
Remote clock offset: 3.222 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.62 Mbit/s
95th percentile per-packet one-way delay: 2.225 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 66.91 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 57.63 Mbit/s
95th percentile per-packet one-way delay: 1.169 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 52.76 Mbit/s
95th percentile per-packet one-way delay: 6.323 ms
Loss rate: 0.01%
```

Run 4: Report of QUIC Cubic — Data Link

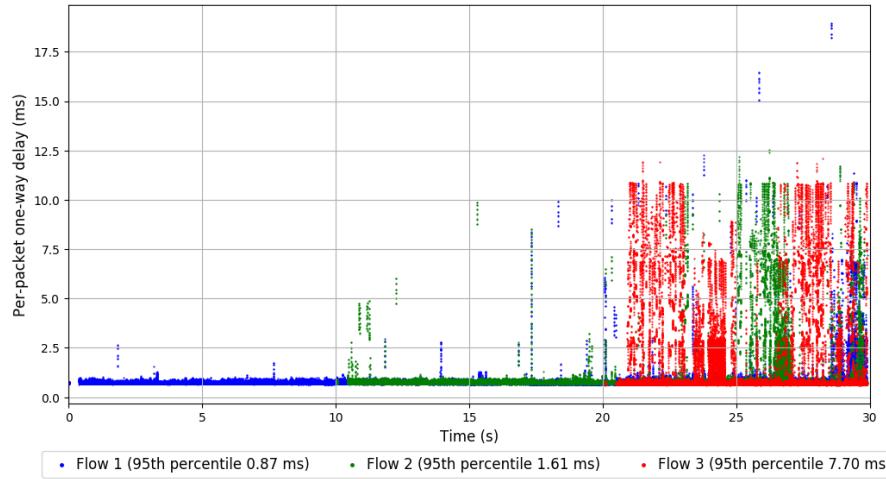
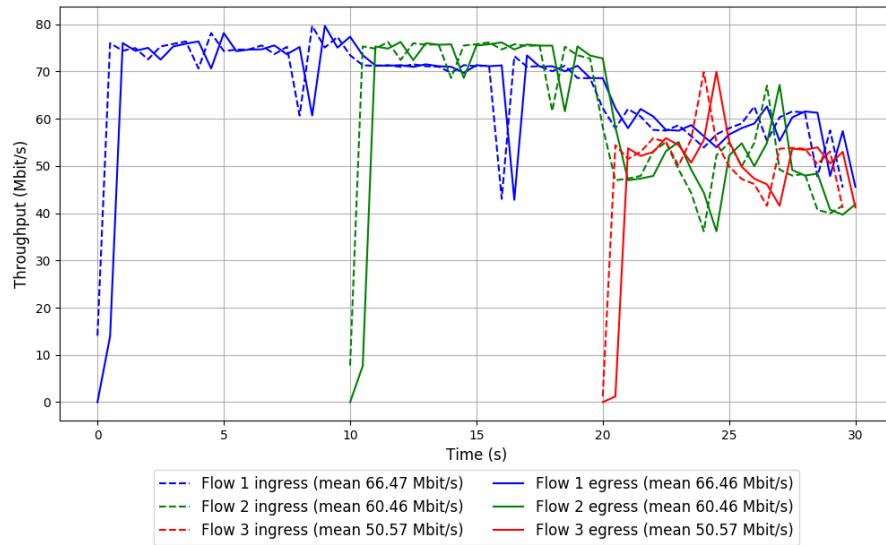


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-03-27 03:09:36
End at: 2019-03-27 03:10:06
Local clock offset: 0.273 ms
Remote clock offset: 4.878 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 123.18 Mbit/s
95th percentile per-packet one-way delay: 2.113 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.46 Mbit/s
95th percentile per-packet one-way delay: 0.871 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.46 Mbit/s
95th percentile per-packet one-way delay: 1.612 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.57 Mbit/s
95th percentile per-packet one-way delay: 7.696 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

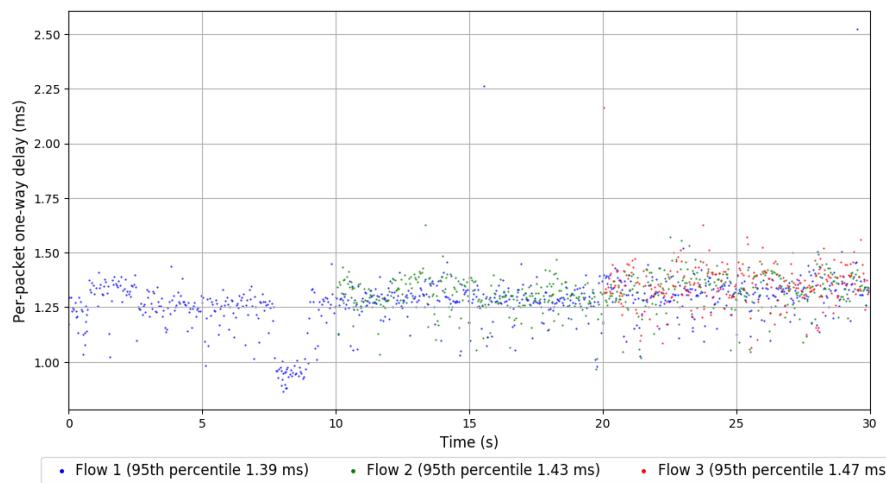
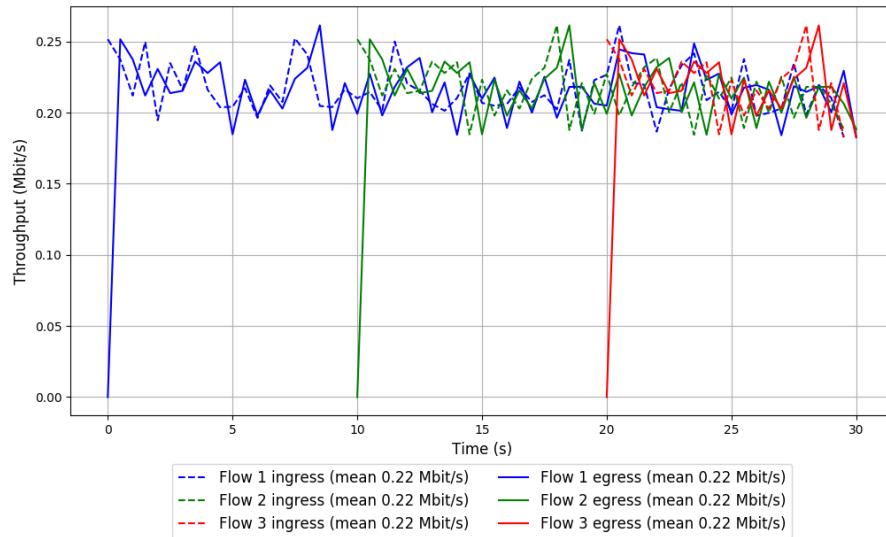


```
Run 1: Statistics of SCReAM

Start at: 2019-03-27 01:32:06
End at: 2019-03-27 01:32:36
Local clock offset: 0.448 ms
Remote clock offset: 0.463 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.431 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.391 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.474 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

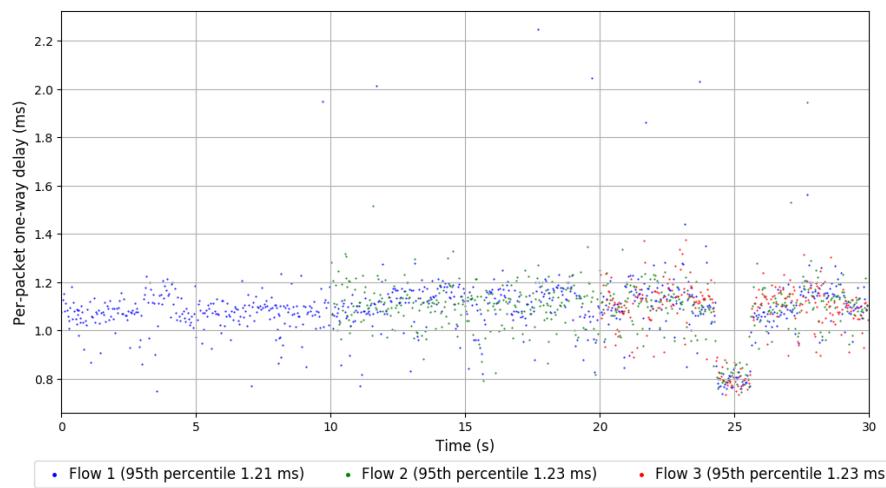
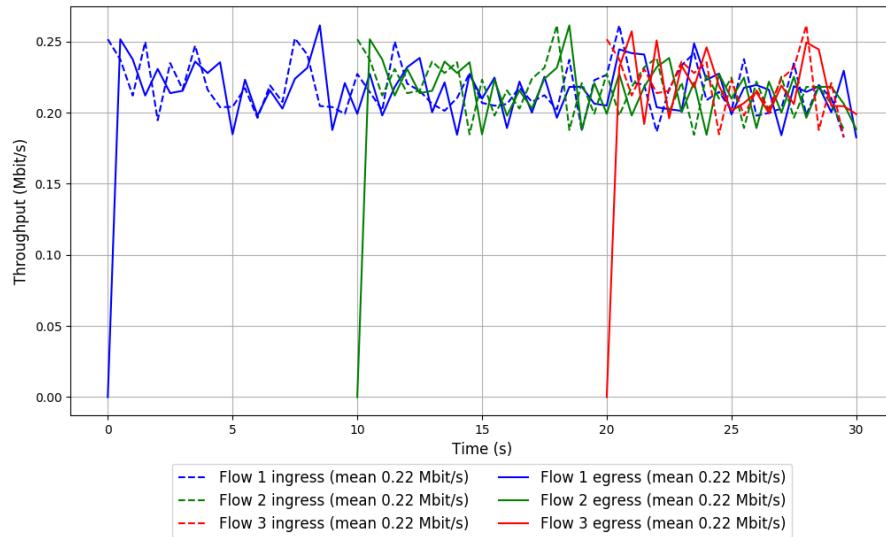


Run 2: Statistics of SCReAM

```
Start at: 2019-03-27 02:02:19
End at: 2019-03-27 02:02:49
Local clock offset: 1.15 ms
Remote clock offset: 0.938 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.223 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.207 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.230 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.232 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

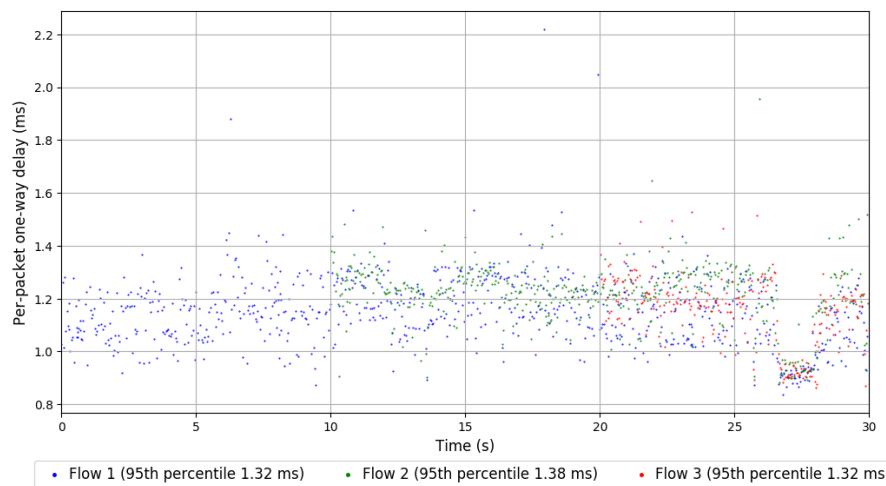
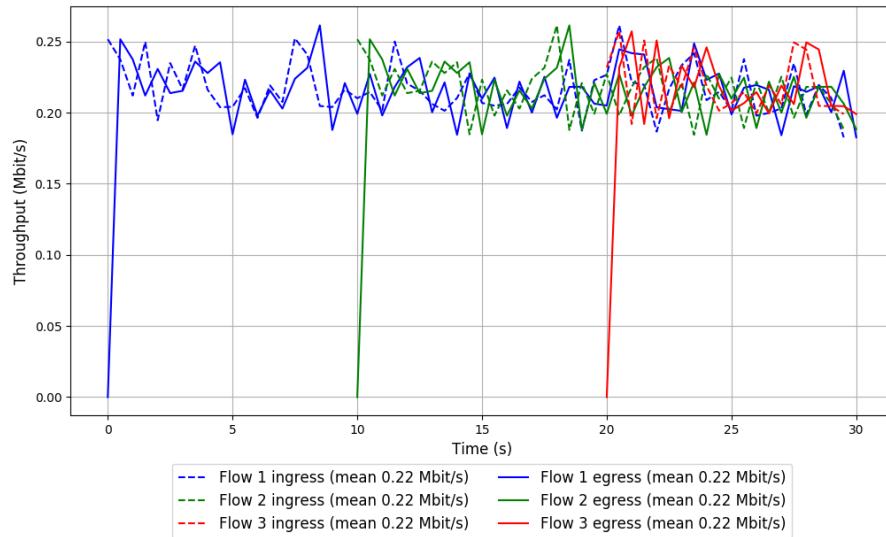


Run 3: Statistics of SCReAM

```
Start at: 2019-03-27 02:32:17
End at: 2019-03-27 02:32:47
Local clock offset: 3.798 ms
Remote clock offset: 2.439 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.335 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.320 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.375 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

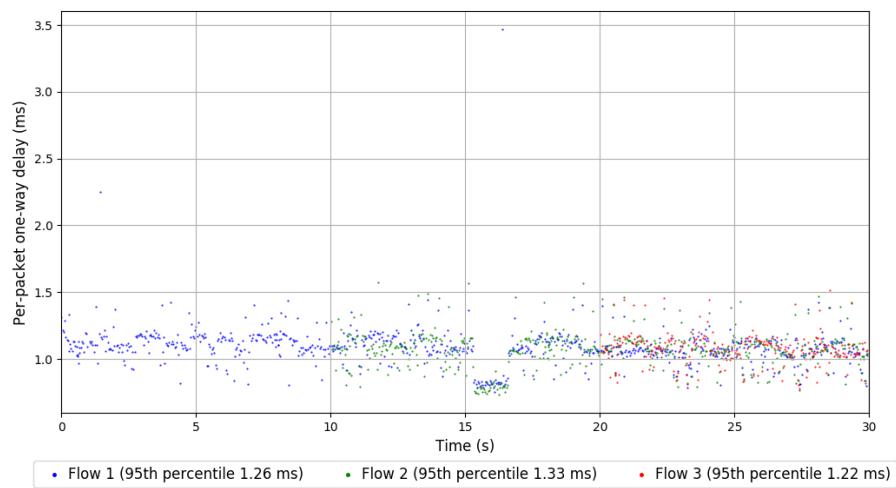
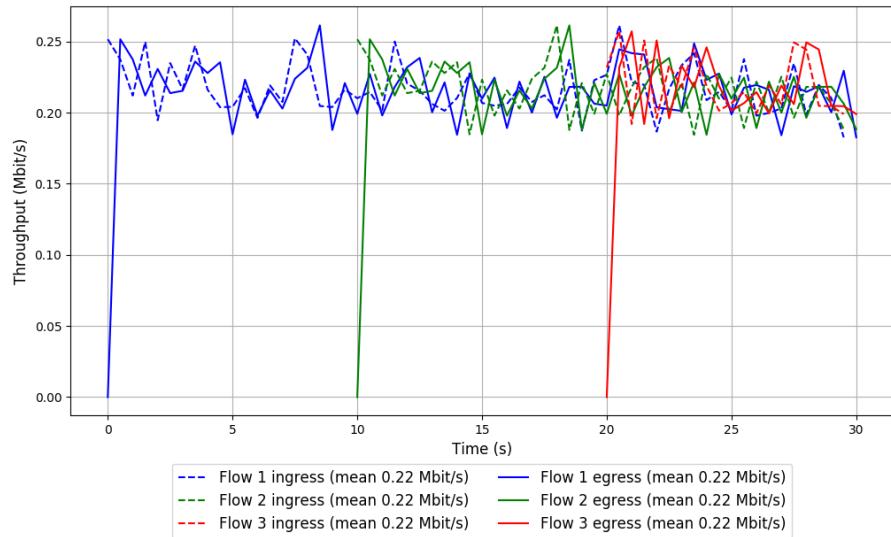


Run 4: Statistics of SCReAM

```
Start at: 2019-03-27 03:02:28
End at: 2019-03-27 03:02:58
Local clock offset: 0.712 ms
Remote clock offset: 4.586 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.278 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.262 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.332 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.219 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

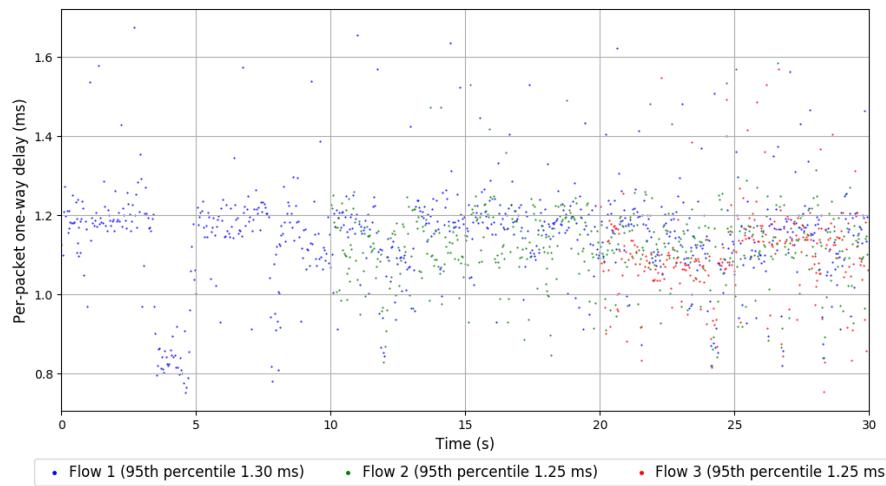
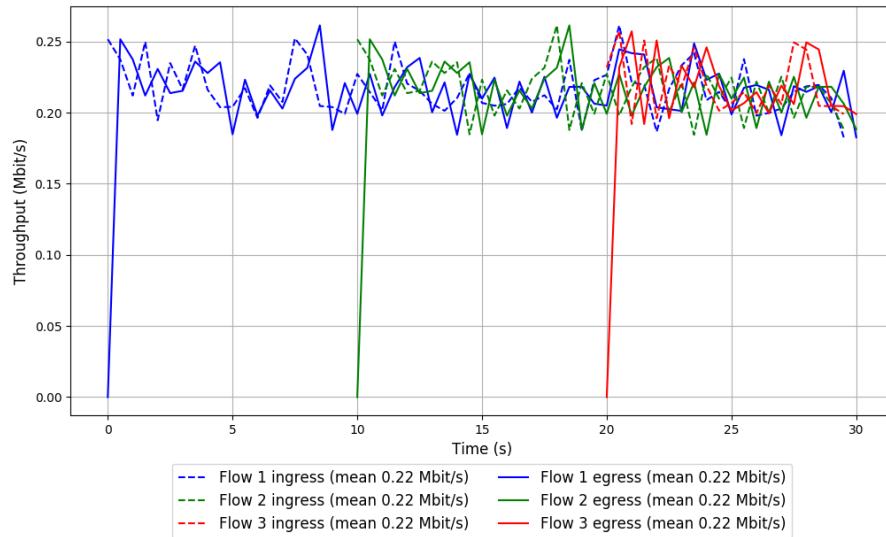


Run 5: Statistics of SCReAM

```
Start at: 2019-03-27 03:32:40
End at: 2019-03-27 03:33:10
Local clock offset: -0.007 ms
Remote clock offset: 6.159 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.268 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.248 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.245 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

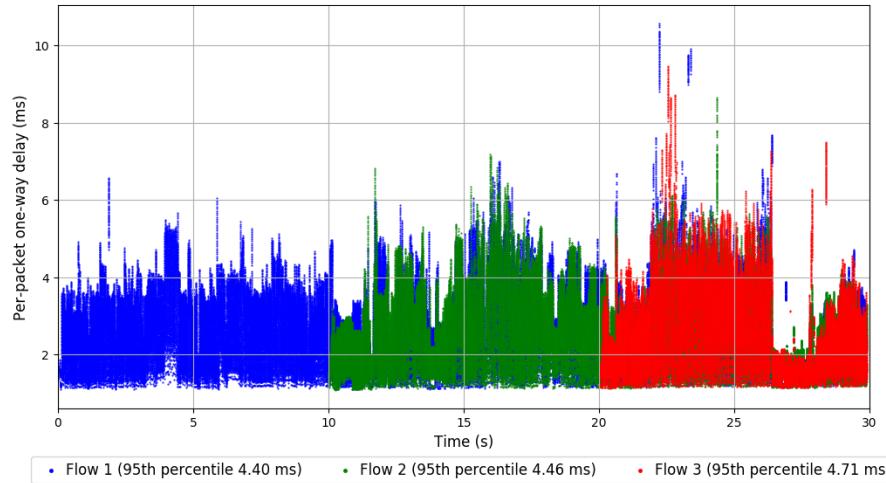
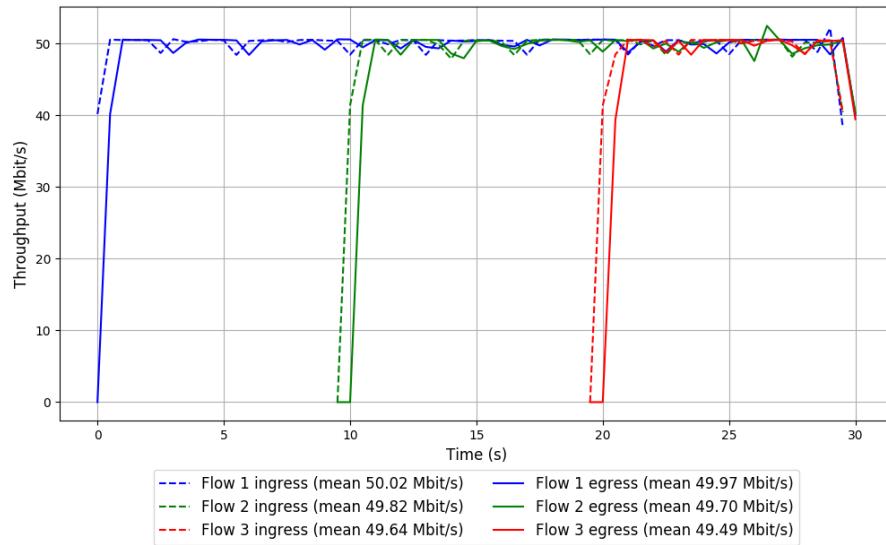


Run 1: Statistics of Sprout

```
Start at: 2019-03-27 01:26:17
End at: 2019-03-27 01:26:47
Local clock offset: -0.85 ms
Remote clock offset: 0.418 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.44 Mbit/s
95th percentile per-packet one-way delay: 4.470 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 49.97 Mbit/s
95th percentile per-packet one-way delay: 4.396 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 49.70 Mbit/s
95th percentile per-packet one-way delay: 4.458 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 4.705 ms
Loss rate: 0.28%
```

Run 1: Report of Sprout — Data Link

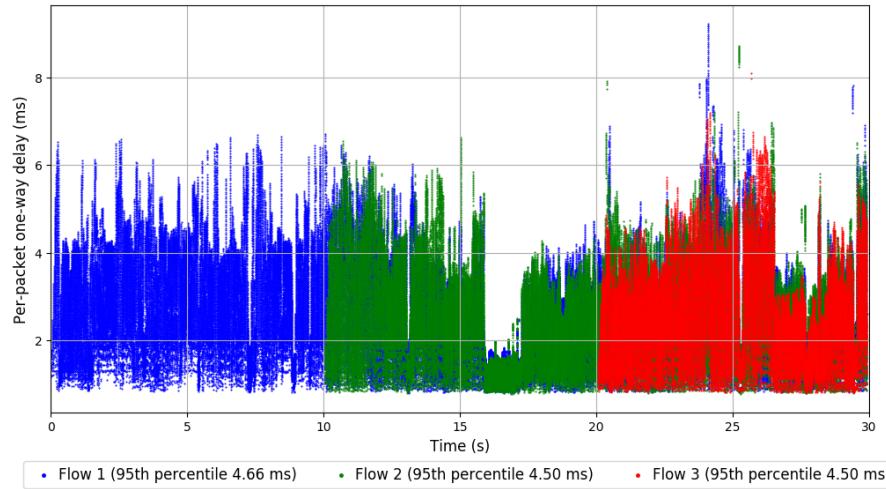
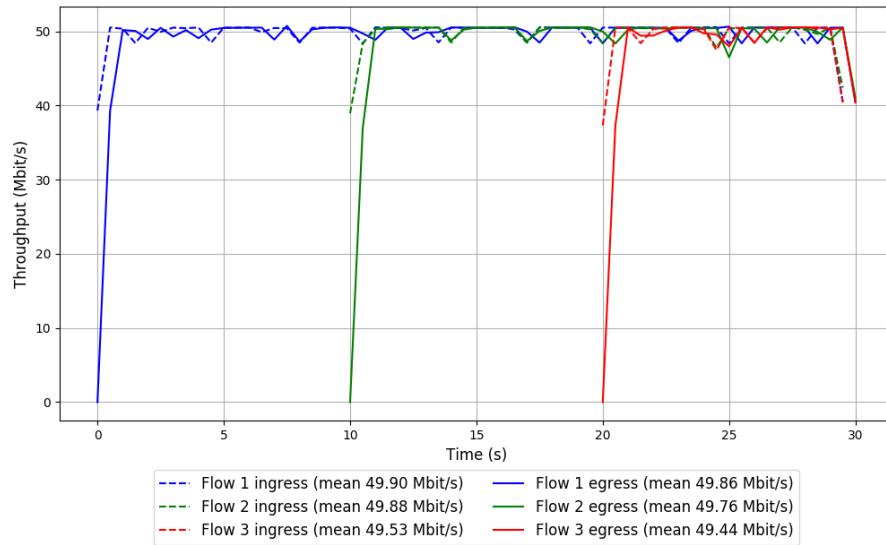


Run 2: Statistics of Sprout

```
Start at: 2019-03-27 01:56:28
End at: 2019-03-27 01:56:58
Local clock offset: 1.194 ms
Remote clock offset: 0.929 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.30 Mbit/s
95th percentile per-packet one-way delay: 4.580 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 49.86 Mbit/s
95th percentile per-packet one-way delay: 4.656 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 49.76 Mbit/s
95th percentile per-packet one-way delay: 4.505 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 49.44 Mbit/s
95th percentile per-packet one-way delay: 4.505 ms
Loss rate: 0.15%
```

Run 2: Report of Sprout — Data Link

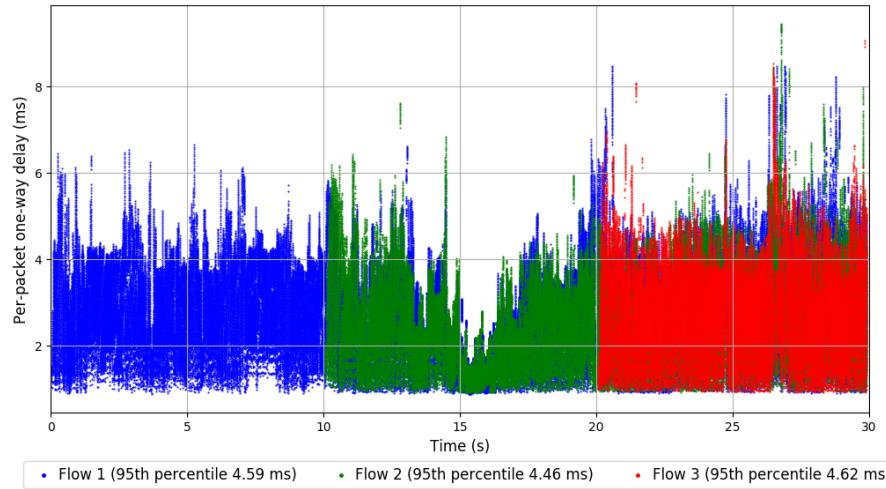
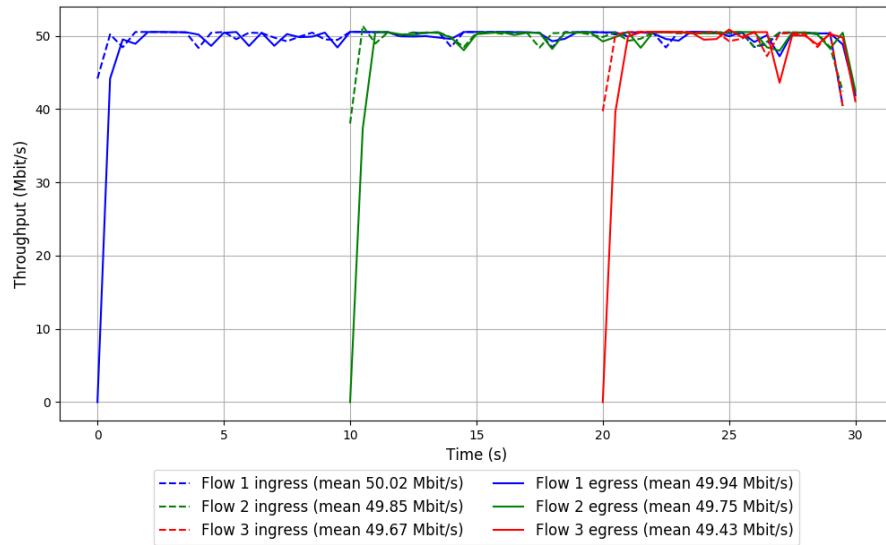


Run 3: Statistics of Sprout

```
Start at: 2019-03-27 02:26:28
End at: 2019-03-27 02:26:58
Local clock offset: 3.23 ms
Remote clock offset: 1.471 ms

# Below is generated by plot.py at 2019-03-27 04:28:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.36 Mbit/s
95th percentile per-packet one-way delay: 4.555 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 49.94 Mbit/s
95th percentile per-packet one-way delay: 4.591 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 49.75 Mbit/s
95th percentile per-packet one-way delay: 4.456 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 49.43 Mbit/s
95th percentile per-packet one-way delay: 4.621 ms
Loss rate: 0.44%
```

Run 3: Report of Sprout — Data Link

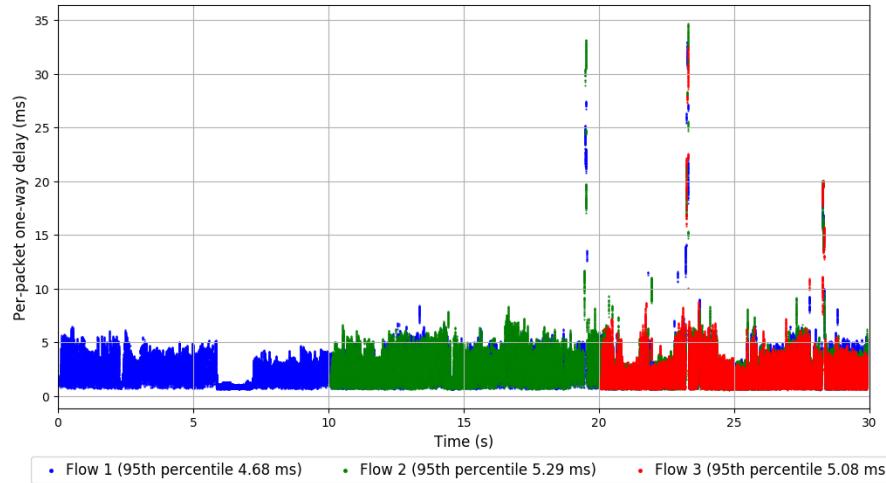
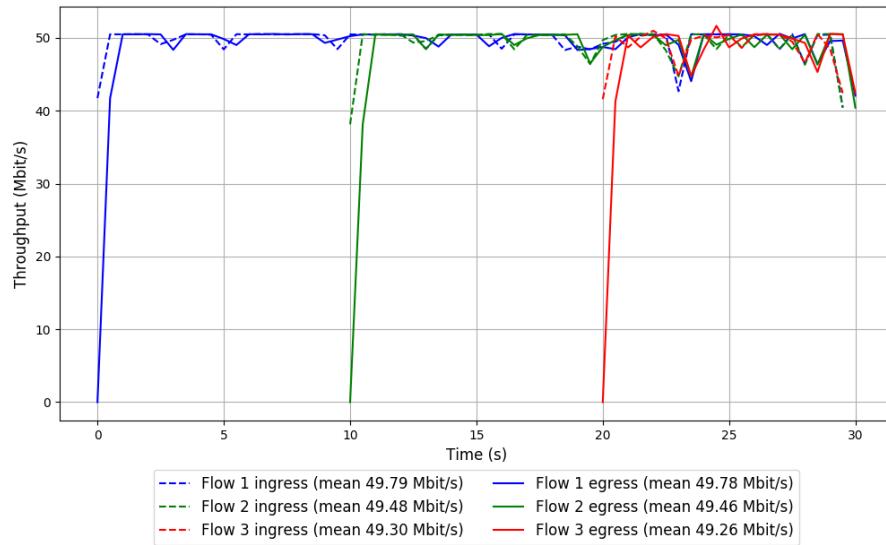


Run 4: Statistics of Sprout

```
Start at: 2019-03-27 02:56:37
End at: 2019-03-27 02:57:07
Local clock offset: 1.437 ms
Remote clock offset: 4.234 ms

# Below is generated by plot.py at 2019-03-27 04:28:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 98.96 Mbit/s
95th percentile per-packet one-way delay: 4.954 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 49.78 Mbit/s
95th percentile per-packet one-way delay: 4.685 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 49.46 Mbit/s
95th percentile per-packet one-way delay: 5.286 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 49.26 Mbit/s
95th percentile per-packet one-way delay: 5.078 ms
Loss rate: 0.04%
```

Run 4: Report of Sprout — Data Link

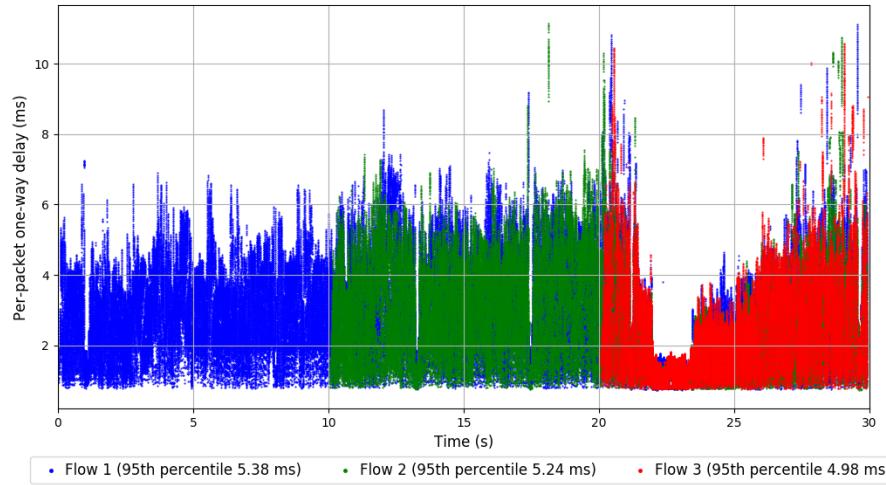
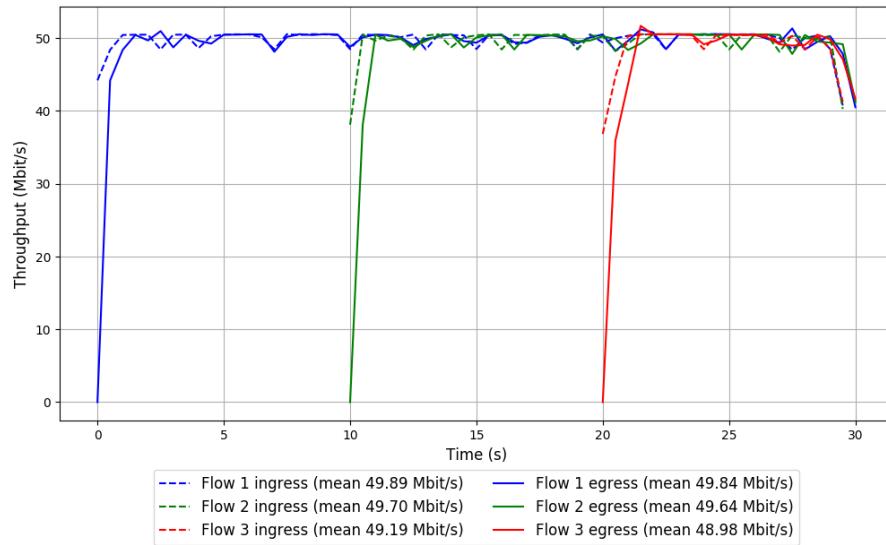


Run 5: Statistics of Sprout

```
Start at: 2019-03-27 03:26:51
End at: 2019-03-27 03:27:21
Local clock offset: 0.03 ms
Remote clock offset: 5.839 ms

# Below is generated by plot.py at 2019-03-27 04:29:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.04 Mbit/s
95th percentile per-packet one-way delay: 5.287 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 49.84 Mbit/s
95th percentile per-packet one-way delay: 5.377 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 49.64 Mbit/s
95th percentile per-packet one-way delay: 5.238 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 48.98 Mbit/s
95th percentile per-packet one-way delay: 4.977 ms
Loss rate: 0.34%
```

Run 5: Report of Sprout — Data Link

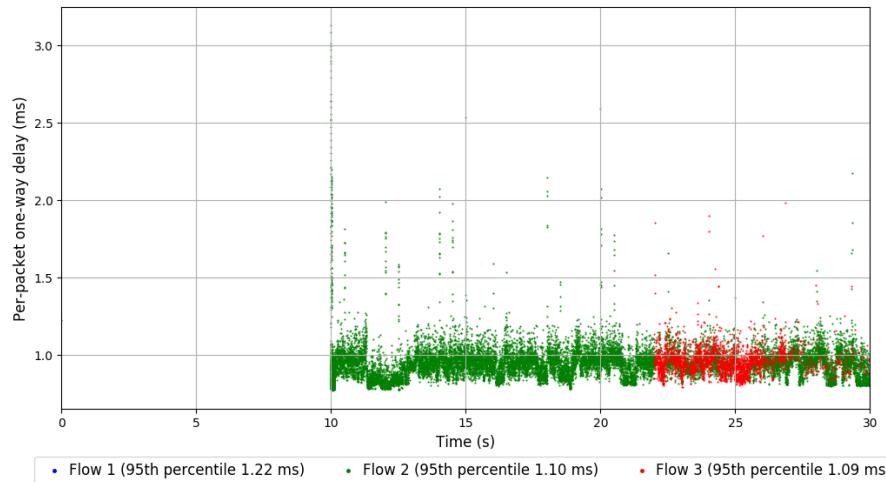
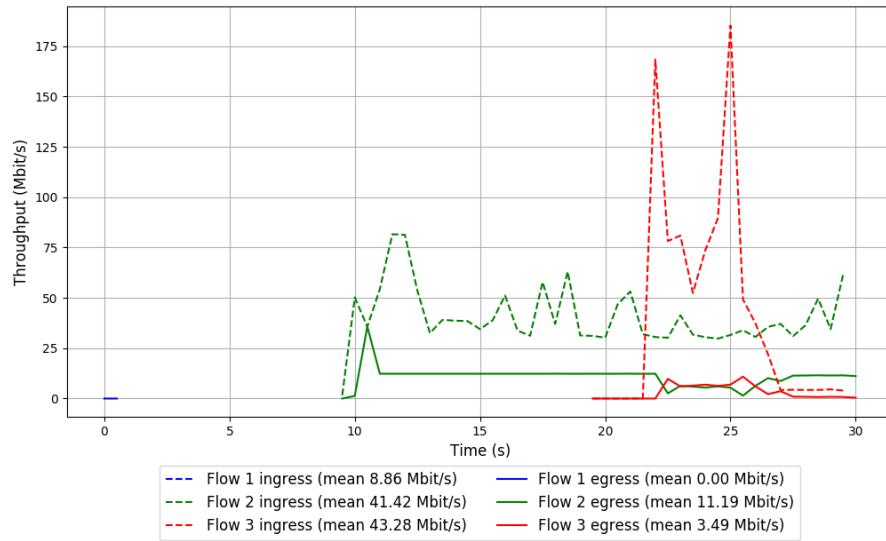


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-03-27 01:15:02
End at: 2019-03-27 01:15:32
Local clock offset: -5.311 ms
Remote clock offset: 0.305 ms

# Below is generated by plot.py at 2019-03-27 04:29:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 1.096 ms
Loss rate: 79.47%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.223 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 11.19 Mbit/s
95th percentile per-packet one-way delay: 1.097 ms
Loss rate: 72.97%
-- Flow 3:
Average throughput: 3.49 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 91.93%
```

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

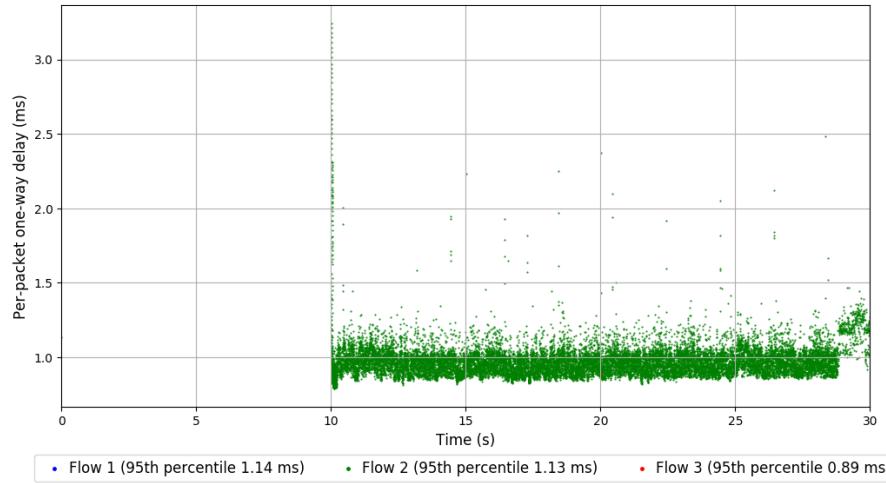
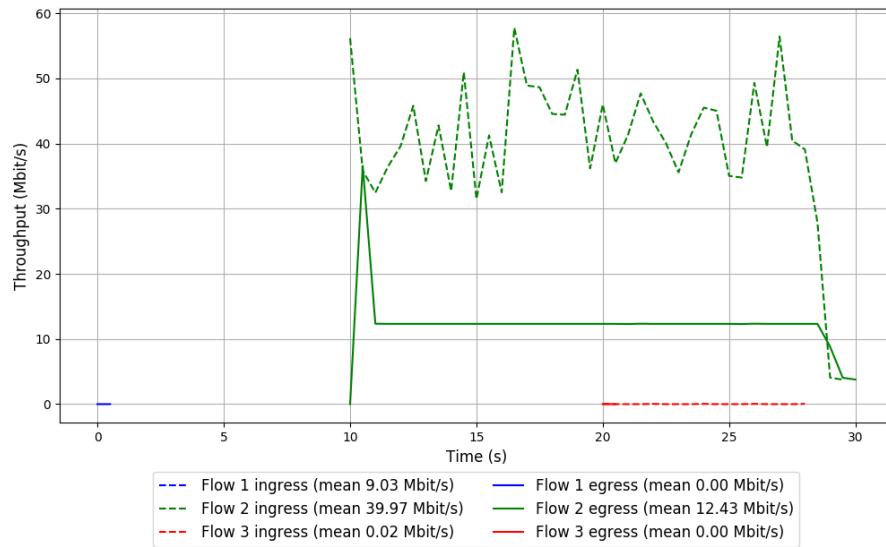


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-03-27 01:45:11
End at: 2019-03-27 01:45:41
Local clock offset: 2.033 ms
Remote clock offset: 0.668 ms

# Below is generated by plot.py at 2019-03-27 04:29:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 1.133 ms
Loss rate: 68.90%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.136 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 1.133 ms
Loss rate: 68.90%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.890 ms
Loss rate: 99.16%
```

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

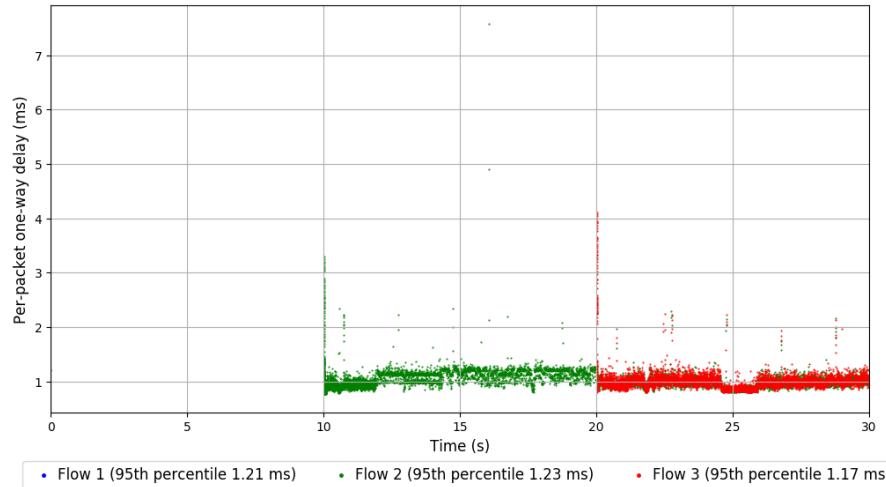
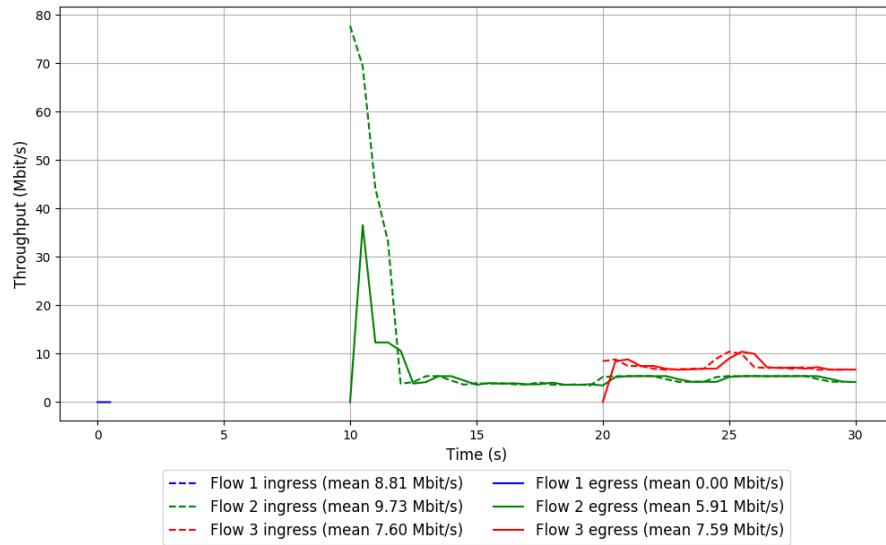


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-03-27 02:15:19
End at: 2019-03-27 02:15:49
Local clock offset: 1.523 ms
Remote clock offset: 1.241 ms

# Below is generated by plot.py at 2019-03-27 04:29:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 1.216 ms
Loss rate: 28.26%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.211 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 5.91 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 39.26%
-- Flow 3:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 1.173 ms
Loss rate: 0.02%
```

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

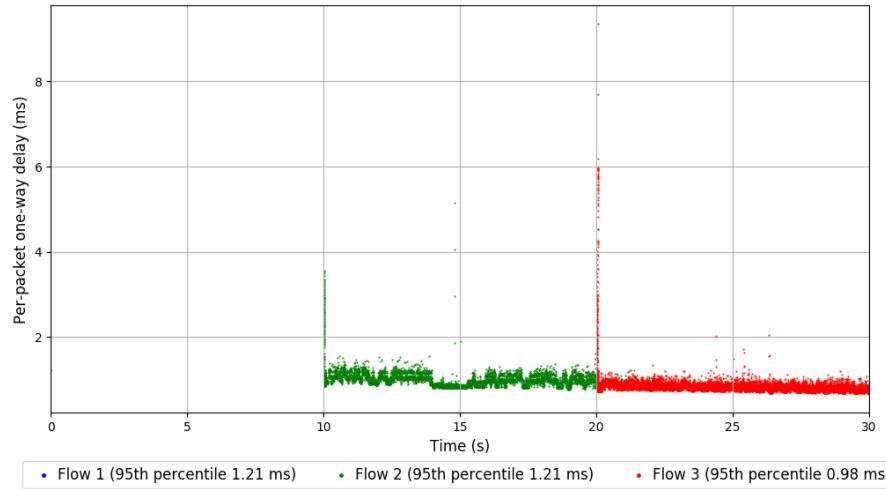
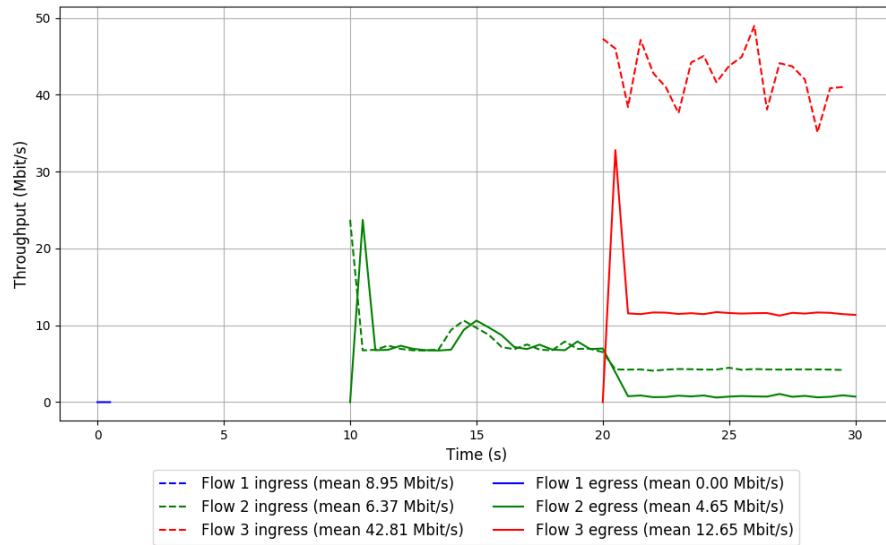


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-03-27 02:45:29
End at: 2019-03-27 02:45:59
Local clock offset: 4.79 ms
Remote clock offset: 3.717 ms

# Below is generated by plot.py at 2019-03-27 04:29:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.30 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 60.50%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.213 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 4.65 Mbit/s
95th percentile per-packet one-way delay: 1.209 ms
Loss rate: 27.08%
-- Flow 3:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 0.979 ms
Loss rate: 70.46%
```

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

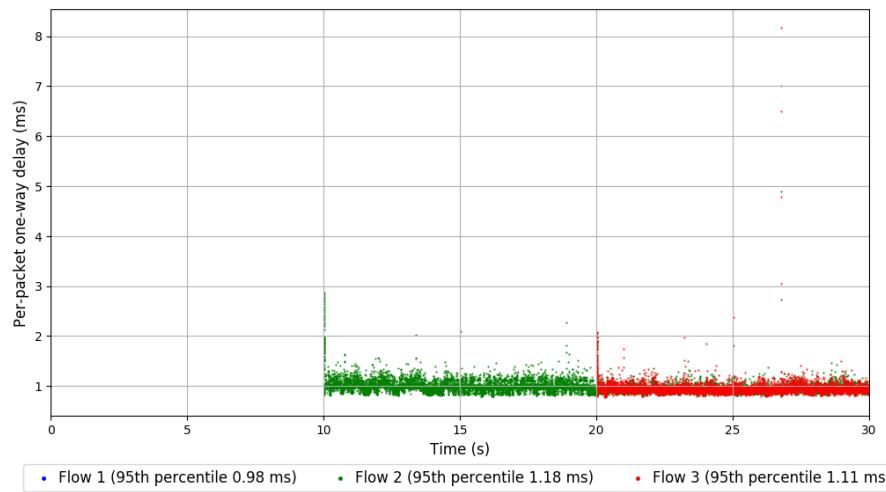
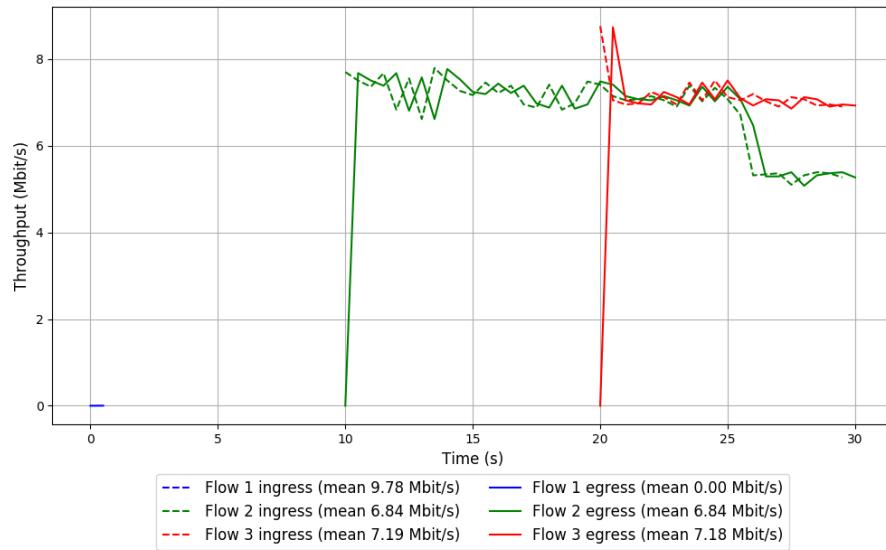


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-03-27 03:15:38
End at: 2019-03-27 03:16:08
Local clock offset: 0.077 ms
Remote clock offset: 5.31 ms

# Below is generated by plot.py at 2019-03-27 04:29:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.94 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 0.985 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 6.84 Mbit/s
95th percentile per-packet one-way delay: 1.175 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.20%
```

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

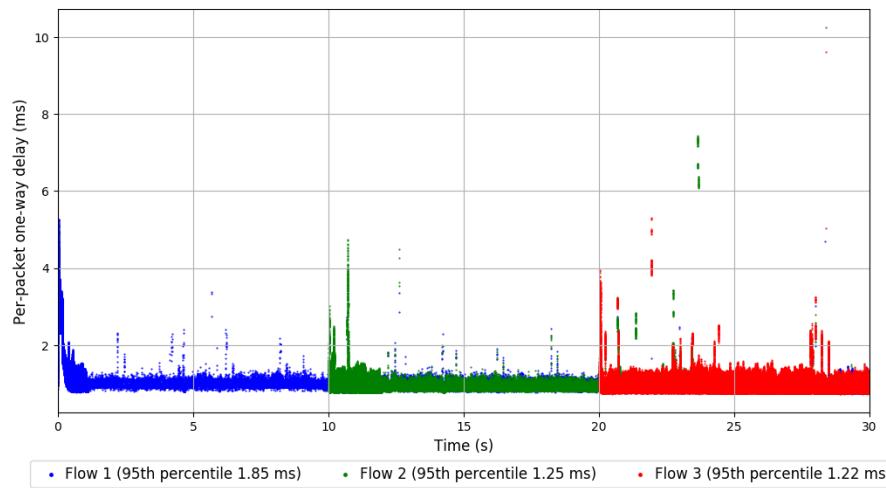
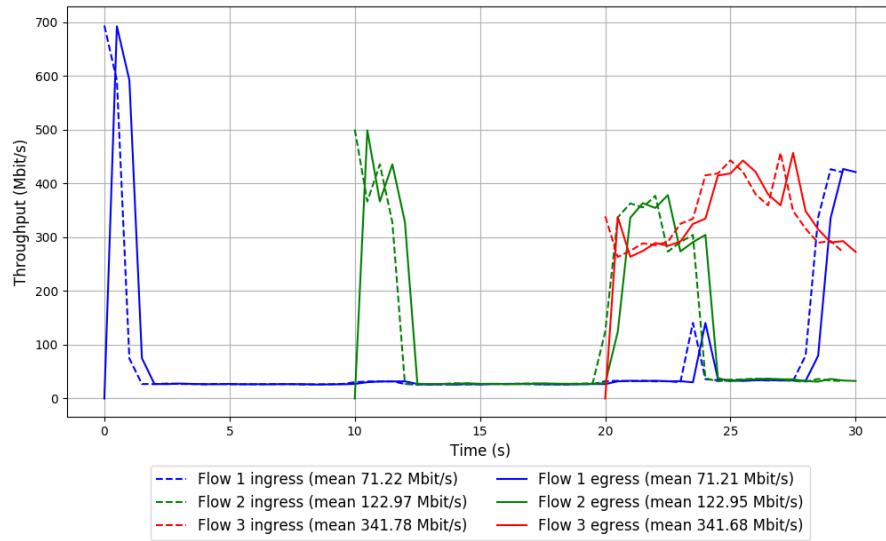


Run 1: Statistics of TCP Vegas

```
Start at: 2019-03-27 01:10:18
End at: 2019-03-27 01:10:48
Local clock offset: -5.109 ms
Remote clock offset: 0.193 ms

# Below is generated by plot.py at 2019-03-27 04:31:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 266.79 Mbit/s
95th percentile per-packet one-way delay: 1.308 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 71.21 Mbit/s
95th percentile per-packet one-way delay: 1.853 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 122.95 Mbit/s
95th percentile per-packet one-way delay: 1.254 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 341.68 Mbit/s
95th percentile per-packet one-way delay: 1.221 ms
Loss rate: 0.03%
```

Run 1: Report of TCP Vegas — Data Link

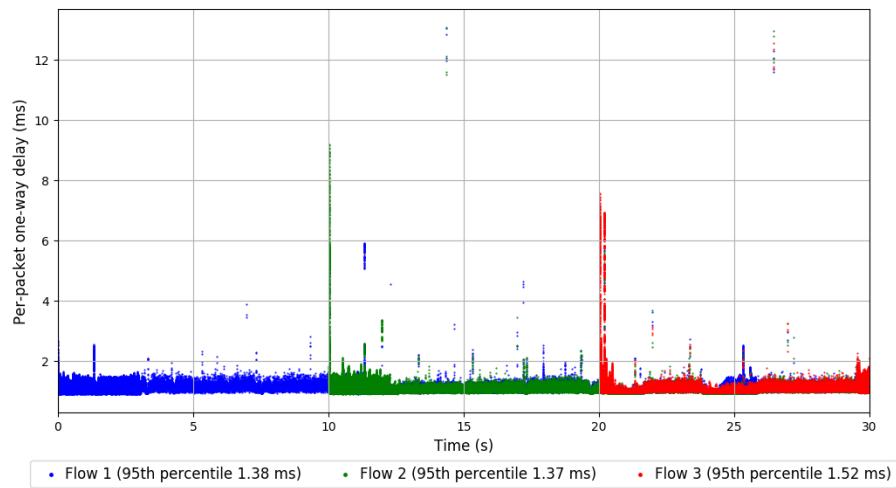
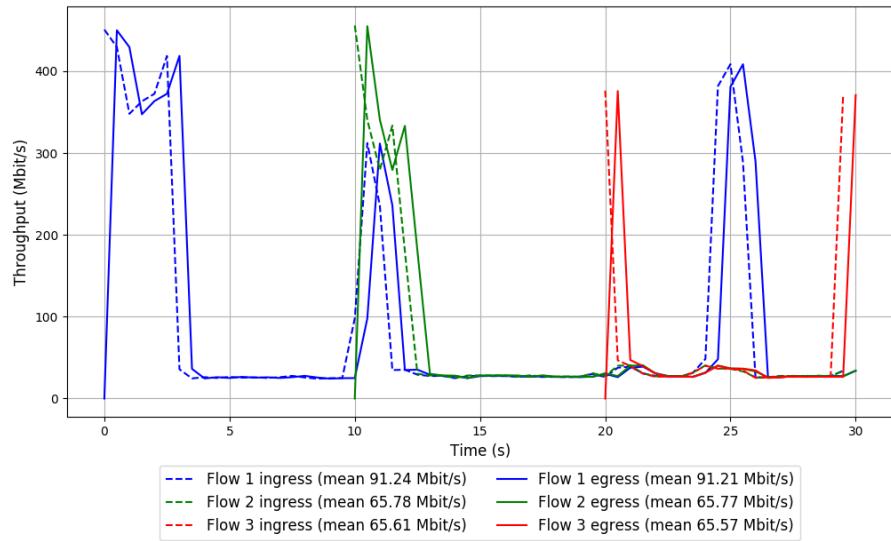


Run 2: Statistics of TCP Vegas

```
Start at: 2019-03-27 01:40:32
End at: 2019-03-27 01:41:02
Local clock offset: 1.568 ms
Remote clock offset: 0.684 ms

# Below is generated by plot.py at 2019-03-27 04:31:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.83 Mbit/s
95th percentile per-packet one-way delay: 1.396 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 91.21 Mbit/s
95th percentile per-packet one-way delay: 1.380 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 65.77 Mbit/s
95th percentile per-packet one-way delay: 1.368 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 65.57 Mbit/s
95th percentile per-packet one-way delay: 1.523 ms
Loss rate: 0.06%
```

Run 2: Report of TCP Vegas — Data Link

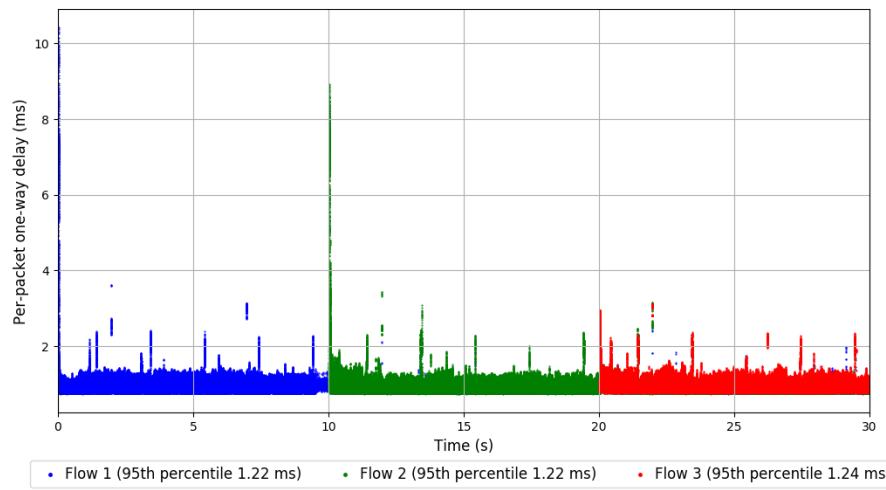
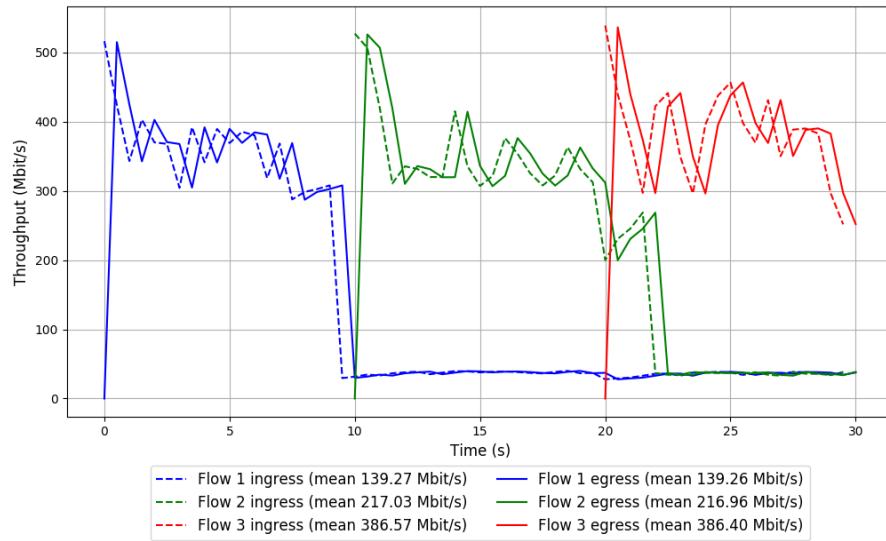


Run 3: Statistics of TCP Vegas

```
Start at: 2019-03-27 02:10:30
End at: 2019-03-27 02:11:00
Local clock offset: 1.363 ms
Remote clock offset: 1.149 ms

# Below is generated by plot.py at 2019-03-27 04:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 412.29 Mbit/s
95th percentile per-packet one-way delay: 1.228 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 139.26 Mbit/s
95th percentile per-packet one-way delay: 1.221 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 216.96 Mbit/s
95th percentile per-packet one-way delay: 1.223 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 386.40 Mbit/s
95th percentile per-packet one-way delay: 1.242 ms
Loss rate: 0.04%
```

Run 3: Report of TCP Vegas — Data Link

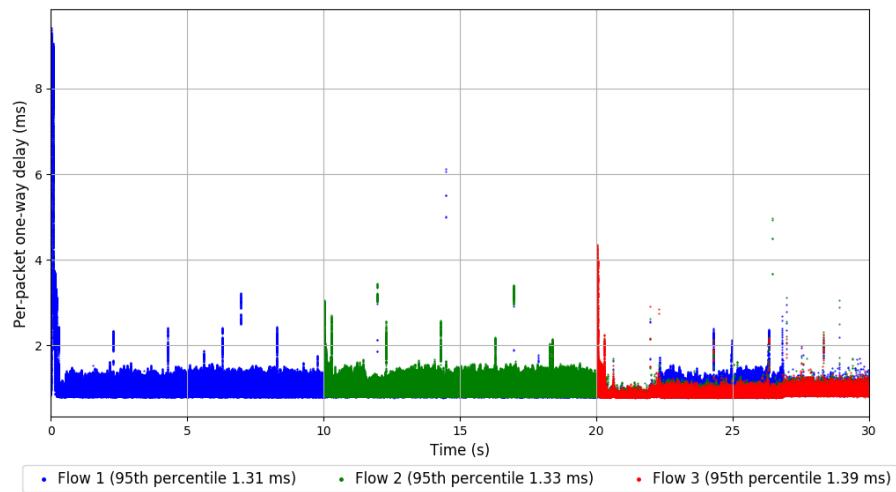
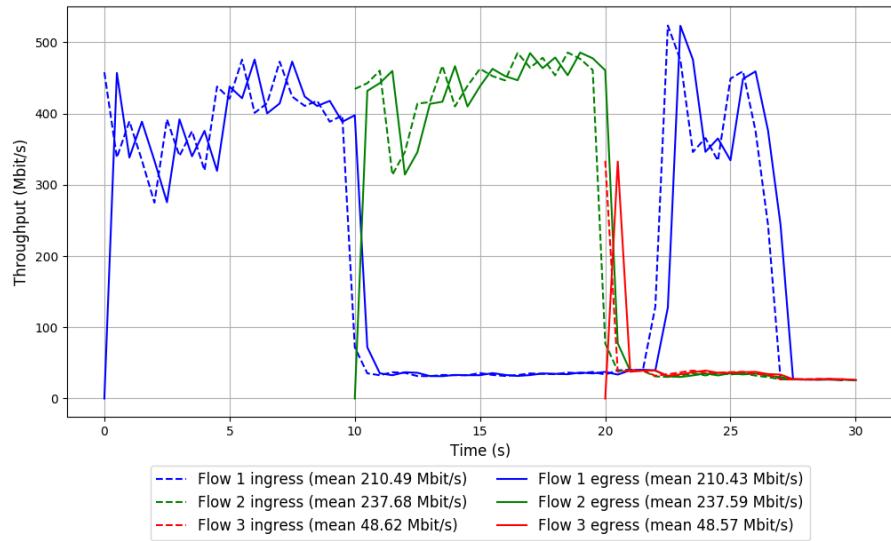


Run 4: Statistics of TCP Vegas

```
Start at: 2019-03-27 02:40:41
End at: 2019-03-27 02:41:11
Local clock offset: 4.481 ms
Remote clock offset: 3.316 ms

# Below is generated by plot.py at 2019-03-27 04:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.84 Mbit/s
95th percentile per-packet one-way delay: 1.323 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 210.43 Mbit/s
95th percentile per-packet one-way delay: 1.315 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 237.59 Mbit/s
95th percentile per-packet one-way delay: 1.327 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 48.57 Mbit/s
95th percentile per-packet one-way delay: 1.387 ms
Loss rate: 0.09%
```

Run 4: Report of TCP Vegas — Data Link

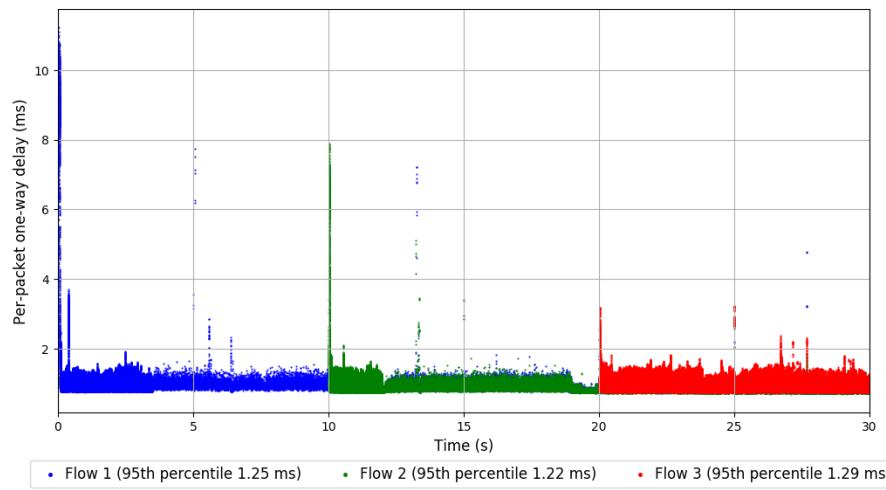
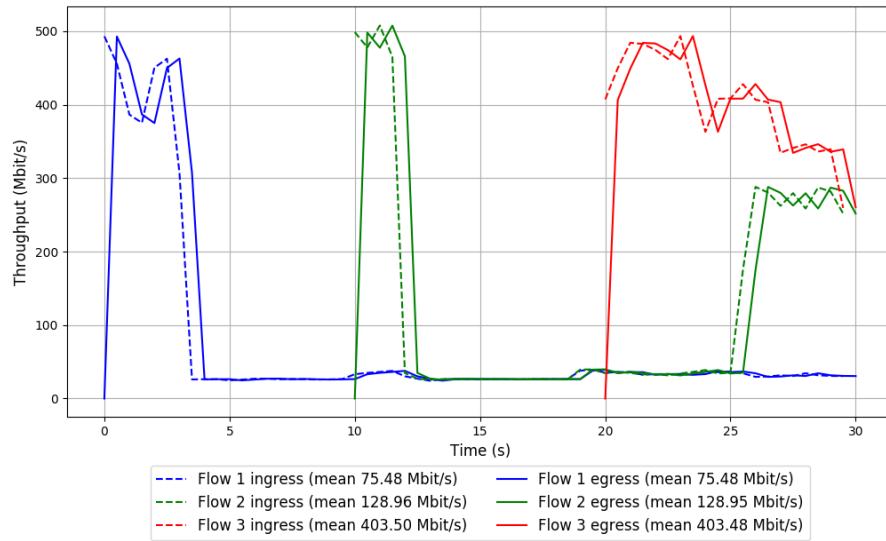


Run 5: Statistics of TCP Vegas

```
Start at: 2019-03-27 03:10:54
End at: 2019-03-27 03:11:24
Local clock offset: 0.219 ms
Remote clock offset: 5.038 ms

# Below is generated by plot.py at 2019-03-27 04:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 295.70 Mbit/s
95th percentile per-packet one-way delay: 1.268 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.48 Mbit/s
95th percentile per-packet one-way delay: 1.253 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 128.95 Mbit/s
95th percentile per-packet one-way delay: 1.217 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 403.48 Mbit/s
95th percentile per-packet one-way delay: 1.291 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link

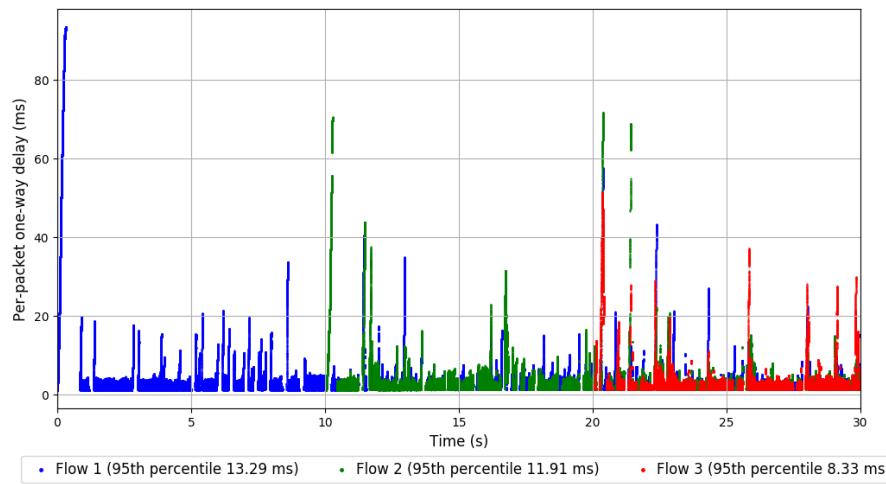
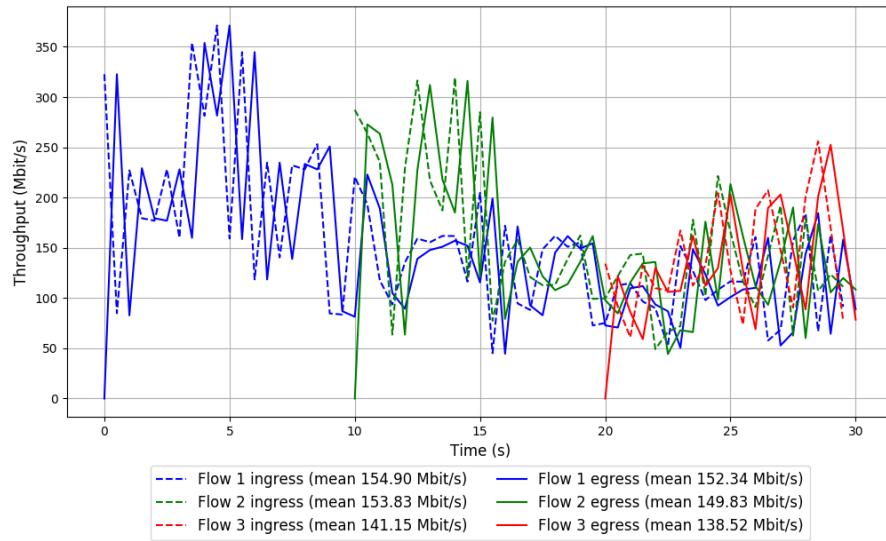


Run 1: Statistics of Verus

```
Start at: 2019-03-27 01:17:31
End at: 2019-03-27 01:18:01
Local clock offset: -4.456 ms
Remote clock offset: 0.331 ms

# Below is generated by plot.py at 2019-03-27 04:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 297.75 Mbit/s
95th percentile per-packet one-way delay: 12.251 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 152.34 Mbit/s
95th percentile per-packet one-way delay: 13.289 ms
Loss rate: 1.63%
-- Flow 2:
Average throughput: 149.83 Mbit/s
95th percentile per-packet one-way delay: 11.908 ms
Loss rate: 2.60%
-- Flow 3:
Average throughput: 138.52 Mbit/s
95th percentile per-packet one-way delay: 8.328 ms
Loss rate: 1.86%
```

Run 1: Report of Verus — Data Link

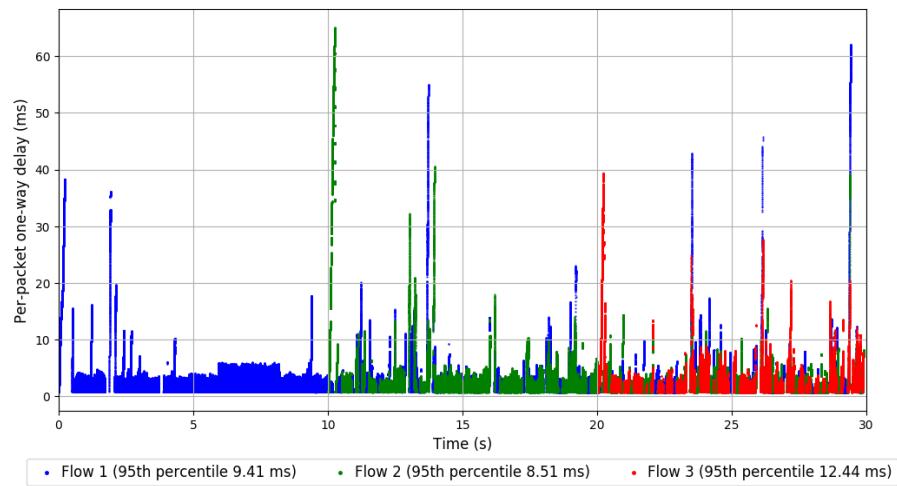
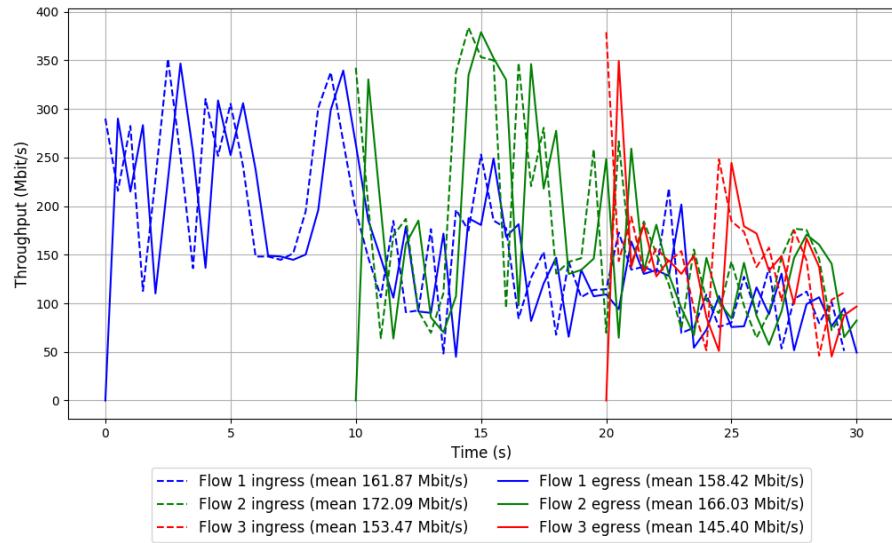


Run 2: Statistics of Verus

```
Start at: 2019-03-27 01:47:40
End at: 2019-03-27 01:48:10
Local clock offset: 1.875 ms
Remote clock offset: 0.781 ms

# Below is generated by plot.py at 2019-03-27 04:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.64 Mbit/s
95th percentile per-packet one-way delay: 9.482 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 158.42 Mbit/s
95th percentile per-packet one-way delay: 9.407 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 166.03 Mbit/s
95th percentile per-packet one-way delay: 8.508 ms
Loss rate: 3.48%
-- Flow 3:
Average throughput: 145.40 Mbit/s
95th percentile per-packet one-way delay: 12.442 ms
Loss rate: 5.24%
```

Run 2: Report of Verus — Data Link

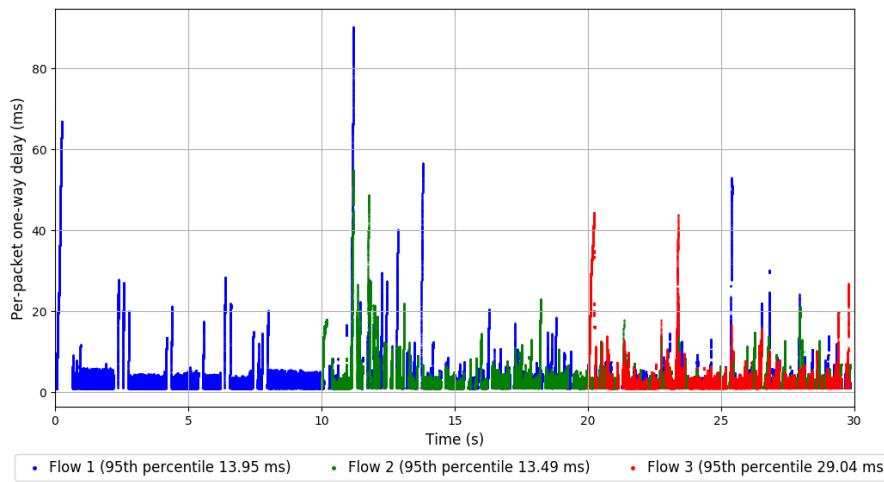
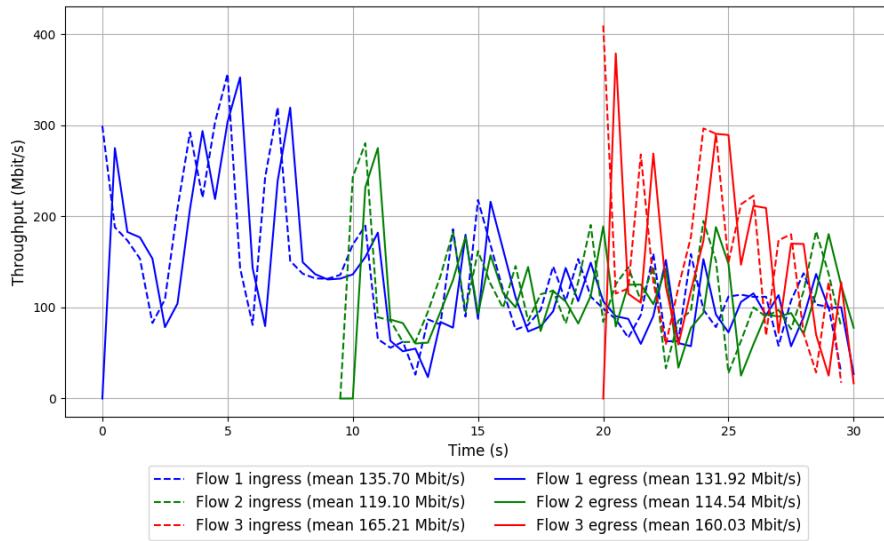


Run 3: Statistics of Verus

```
Start at: 2019-03-27 02:17:48
End at: 2019-03-27 02:18:18
Local clock offset: 1.878 ms
Remote clock offset: 1.337 ms

# Below is generated by plot.py at 2019-03-27 04:33:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.65 Mbit/s
95th percentile per-packet one-way delay: 15.318 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 131.92 Mbit/s
95th percentile per-packet one-way delay: 13.945 ms
Loss rate: 2.79%
-- Flow 2:
Average throughput: 114.54 Mbit/s
95th percentile per-packet one-way delay: 13.495 ms
Loss rate: 3.80%
-- Flow 3:
Average throughput: 160.03 Mbit/s
95th percentile per-packet one-way delay: 29.036 ms
Loss rate: 3.12%
```

Run 3: Report of Verus — Data Link

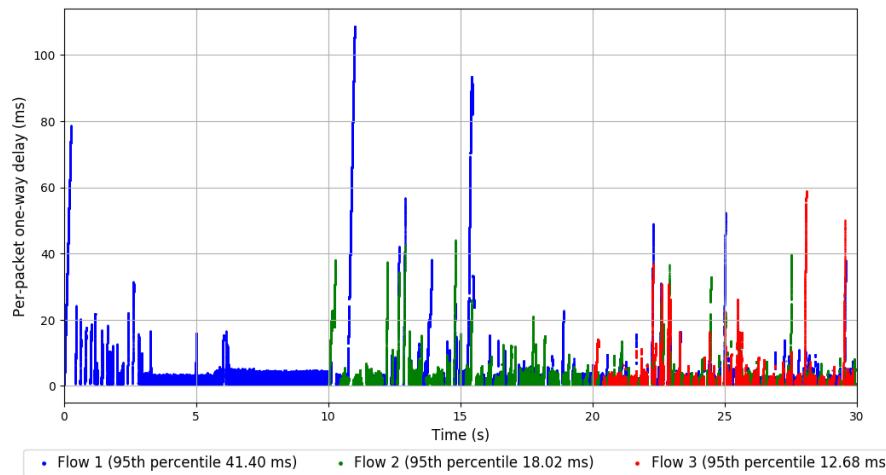
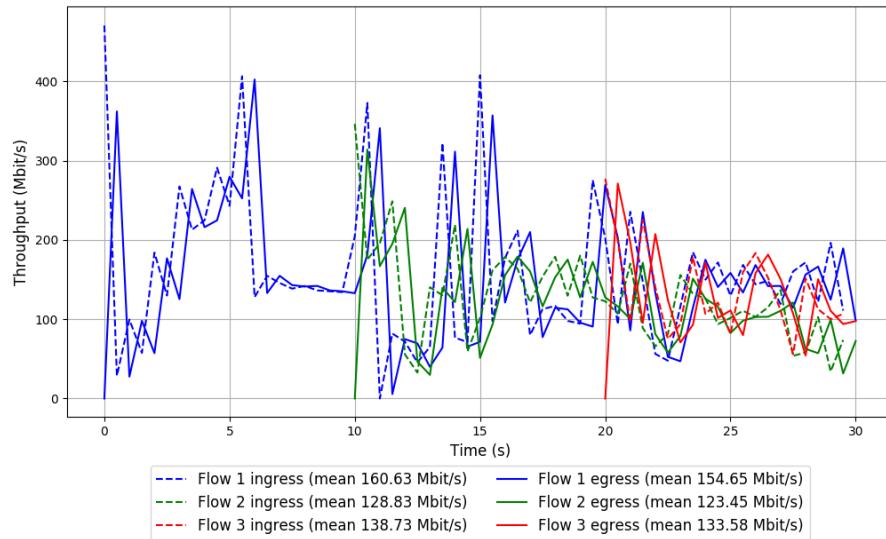


Run 4: Statistics of Verus

```
Start at: 2019-03-27 02:47:58
End at: 2019-03-27 02:48:28
Local clock offset: 3.897 ms
Remote clock offset: 3.883 ms

# Below is generated by plot.py at 2019-03-27 04:33:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 280.21 Mbit/s
95th percentile per-packet one-way delay: 25.318 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 154.65 Mbit/s
95th percentile per-packet one-way delay: 41.398 ms
Loss rate: 3.71%
-- Flow 2:
Average throughput: 123.45 Mbit/s
95th percentile per-packet one-way delay: 18.017 ms
Loss rate: 4.17%
-- Flow 3:
Average throughput: 133.58 Mbit/s
95th percentile per-packet one-way delay: 12.675 ms
Loss rate: 3.71%
```

Run 4: Report of Verus — Data Link

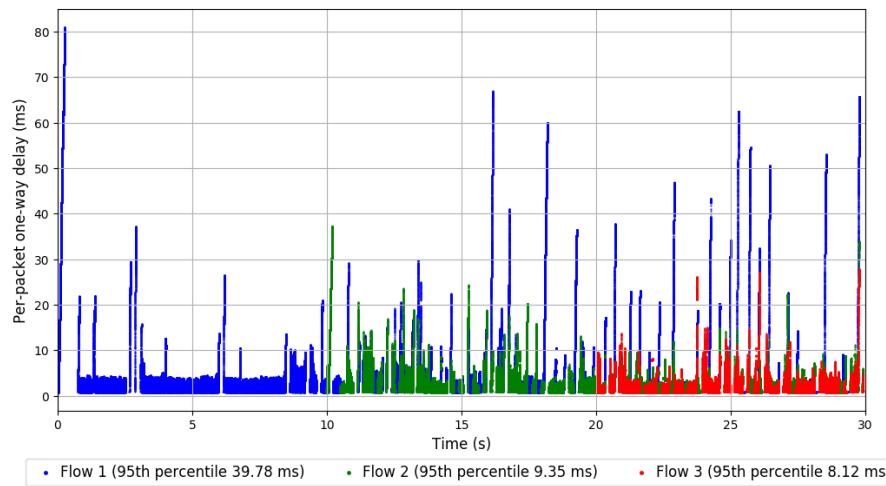
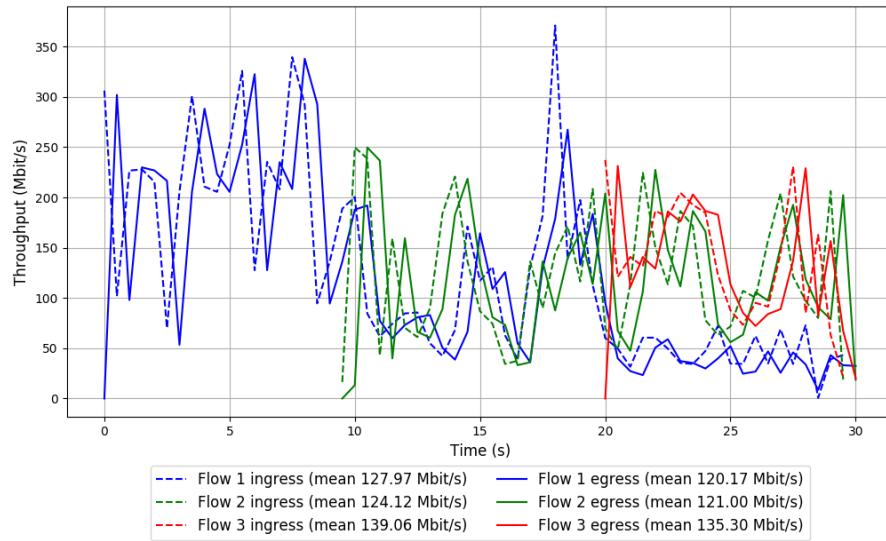


Run 5: Statistics of Verus

```
Start at: 2019-03-27 03:18:07
End at: 2019-03-27 03:18:37
Local clock offset: 0.049 ms
Remote clock offset: 5.417 ms

# Below is generated by plot.py at 2019-03-27 04:34:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.10 Mbit/s
95th percentile per-packet one-way delay: 23.318 ms
Loss rate: 4.22%
-- Flow 1:
Average throughput: 120.17 Mbit/s
95th percentile per-packet one-way delay: 39.780 ms
Loss rate: 5.89%
-- Flow 2:
Average throughput: 121.00 Mbit/s
95th percentile per-packet one-way delay: 9.351 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 135.30 Mbit/s
95th percentile per-packet one-way delay: 8.125 ms
Loss rate: 2.70%
```

Run 5: Report of Verus — Data Link

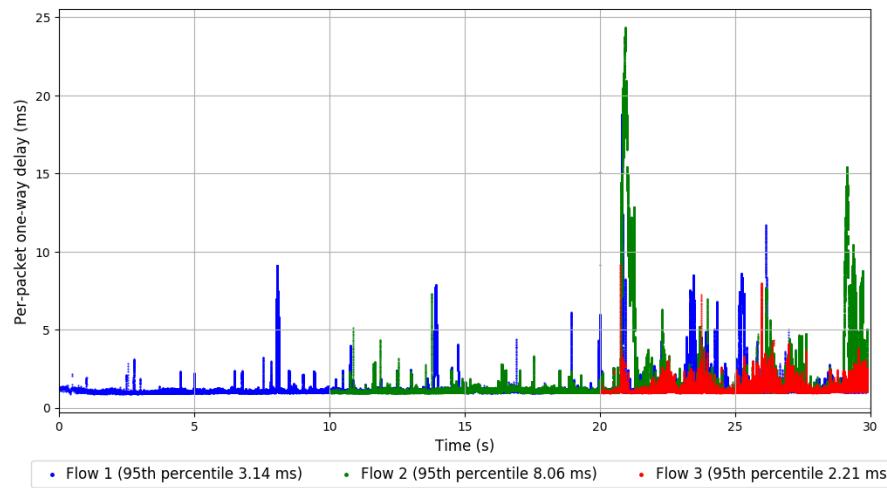
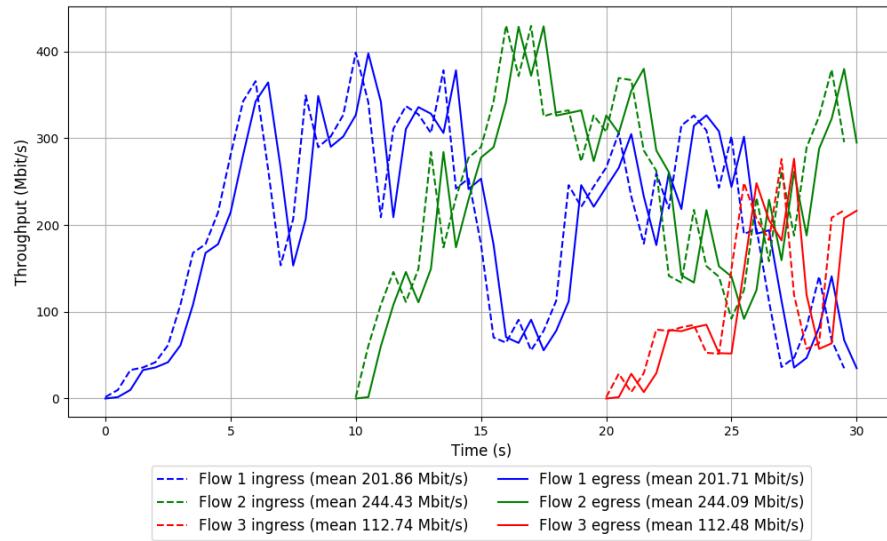


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-03-27 01:30:33
End at: 2019-03-27 01:31:03
Local clock offset: 0.192 ms
Remote clock offset: 0.496 ms

# Below is generated by plot.py at 2019-03-27 04:35:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 401.23 Mbit/s
95th percentile per-packet one-way delay: 4.715 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 201.71 Mbit/s
95th percentile per-packet one-way delay: 3.136 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 244.09 Mbit/s
95th percentile per-packet one-way delay: 8.065 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 112.48 Mbit/s
95th percentile per-packet one-way delay: 2.215 ms
Loss rate: 0.22%
```

Run 1: Report of PCC-Vivace — Data Link

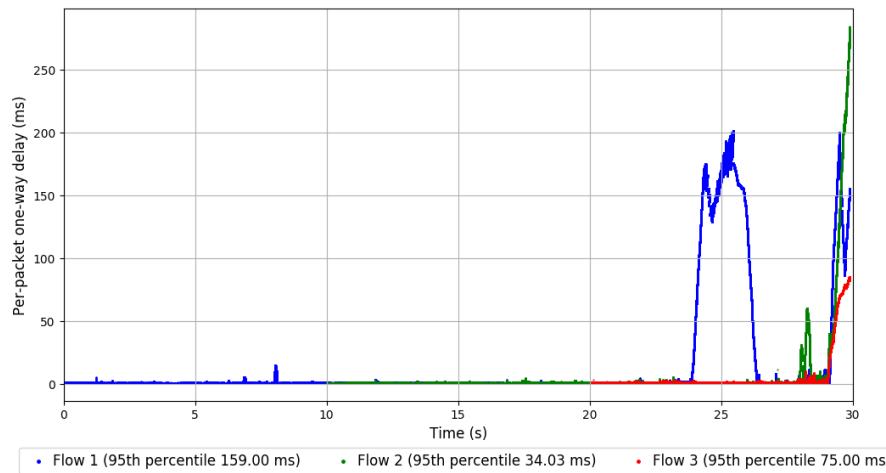
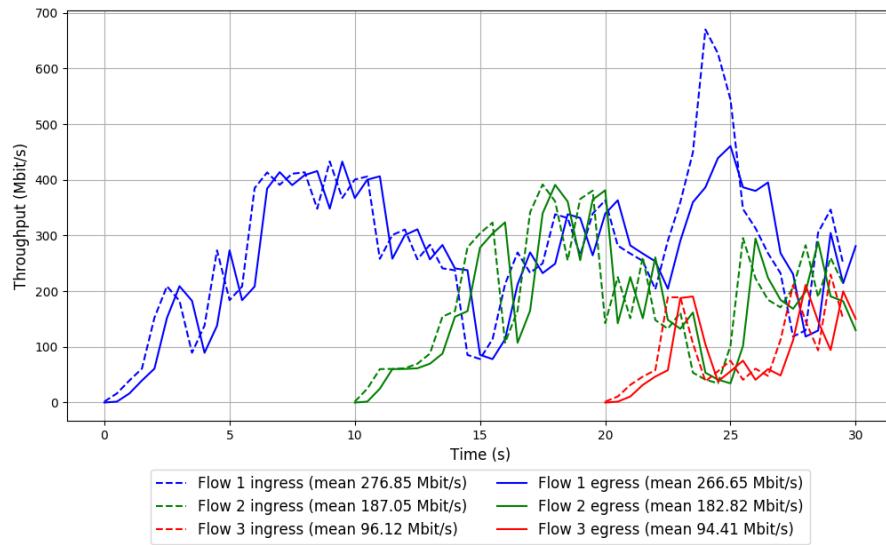


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-03-27 02:00:45
End at: 2019-03-27 02:01:15
Local clock offset: 1.127 ms
Remote clock offset: 0.965 ms

# Below is generated by plot.py at 2019-03-27 04:36:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.37 Mbit/s
95th percentile per-packet one-way delay: 150.657 ms
Loss rate: 3.14%
-- Flow 1:
Average throughput: 266.65 Mbit/s
95th percentile per-packet one-way delay: 158.999 ms
Loss rate: 3.69%
-- Flow 2:
Average throughput: 182.82 Mbit/s
95th percentile per-packet one-way delay: 34.035 ms
Loss rate: 2.26%
-- Flow 3:
Average throughput: 94.41 Mbit/s
95th percentile per-packet one-way delay: 75.003 ms
Loss rate: 1.76%
```

Run 2: Report of PCC-Vivace — Data Link

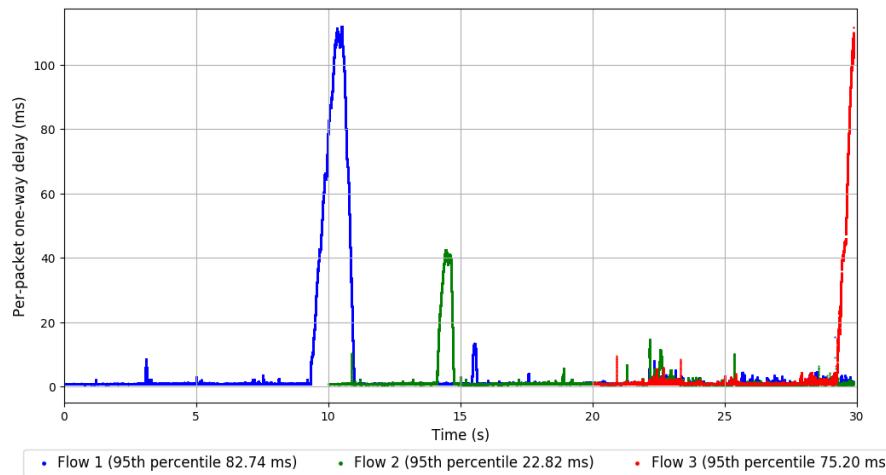
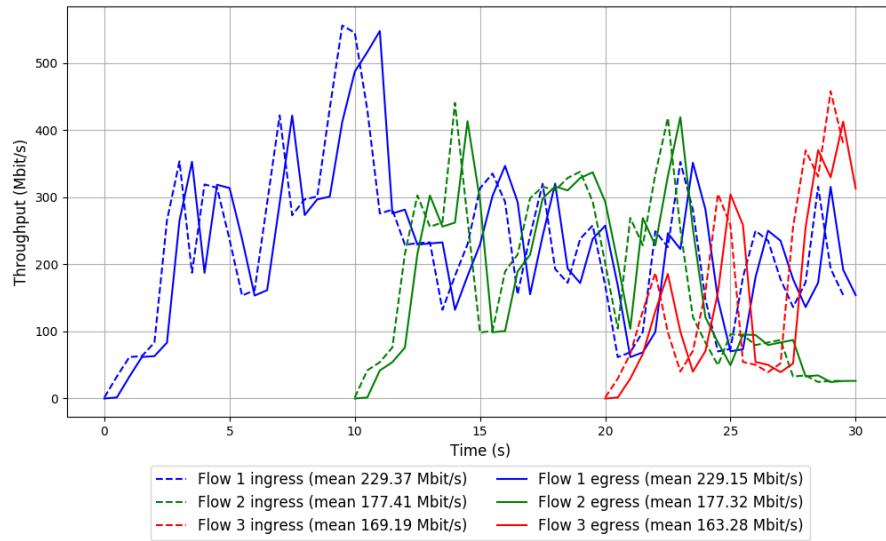


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-03-27 02:30:43
End at: 2019-03-27 02:31:13
Local clock offset: 3.677 ms
Remote clock offset: 2.185 ms

# Below is generated by plot.py at 2019-03-27 04:36:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 400.93 Mbit/s
95th percentile per-packet one-way delay: 61.379 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 229.15 Mbit/s
95th percentile per-packet one-way delay: 82.738 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 177.32 Mbit/s
95th percentile per-packet one-way delay: 22.818 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 163.28 Mbit/s
95th percentile per-packet one-way delay: 75.203 ms
Loss rate: 3.48%
```

Run 3: Report of PCC-Vivace — Data Link

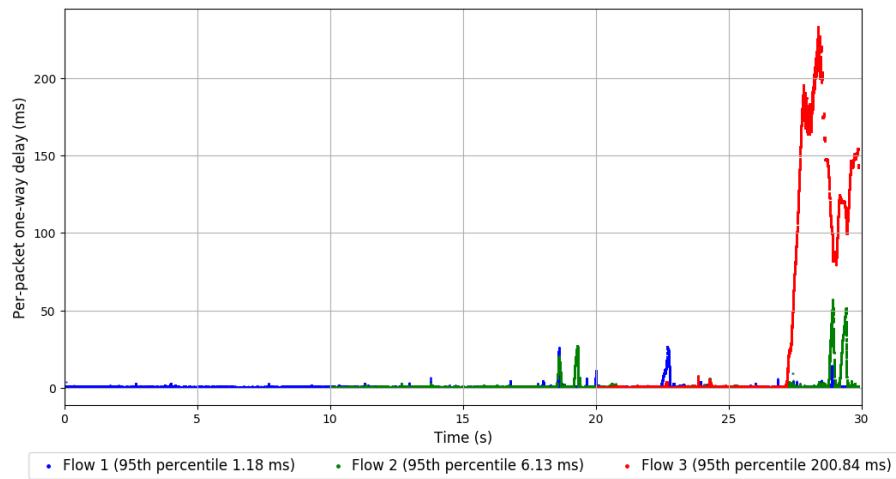
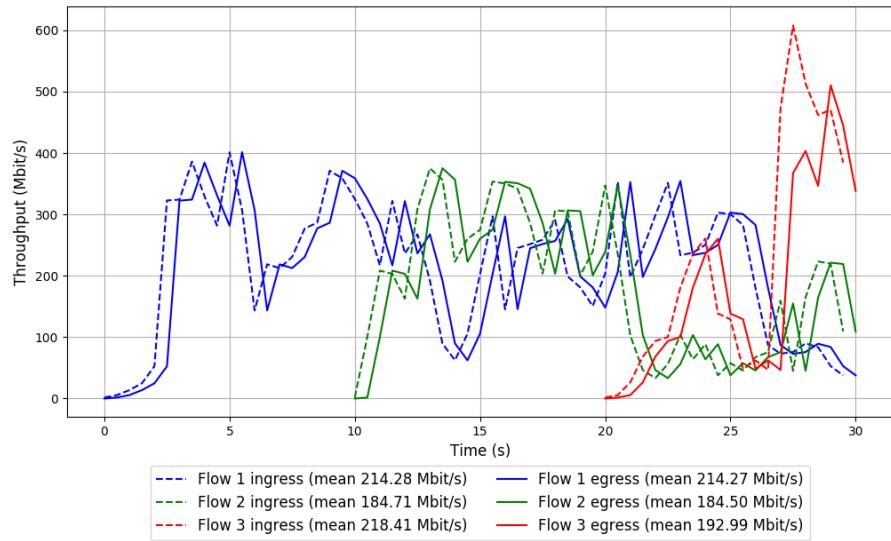


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-03-27 03:00:55
End at: 2019-03-27 03:01:25
Local clock offset: 0.849 ms
Remote clock offset: 4.433 ms

# Below is generated by plot.py at 2019-03-27 04:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 400.66 Mbit/s
95th percentile per-packet one-way delay: 129.360 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 214.27 Mbit/s
95th percentile per-packet one-way delay: 1.175 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 184.50 Mbit/s
95th percentile per-packet one-way delay: 6.130 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 192.99 Mbit/s
95th percentile per-packet one-way delay: 200.837 ms
Loss rate: 11.63%
```

Run 4: Report of PCC-Vivace — Data Link

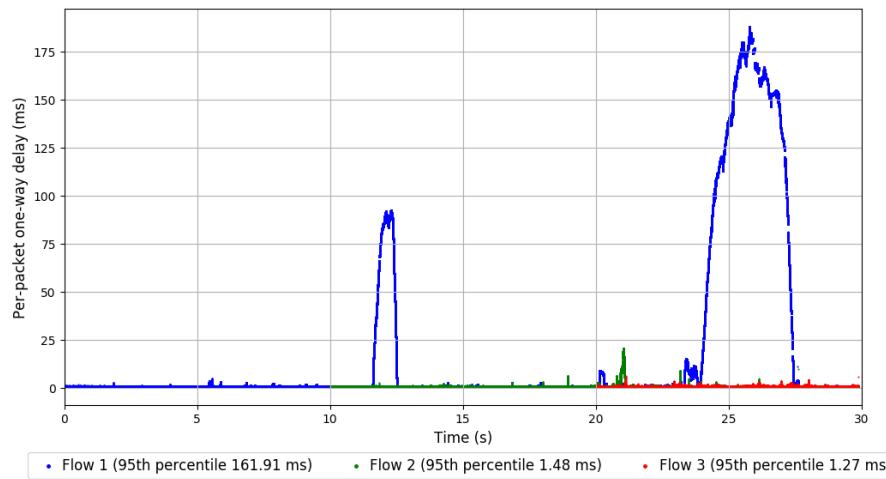
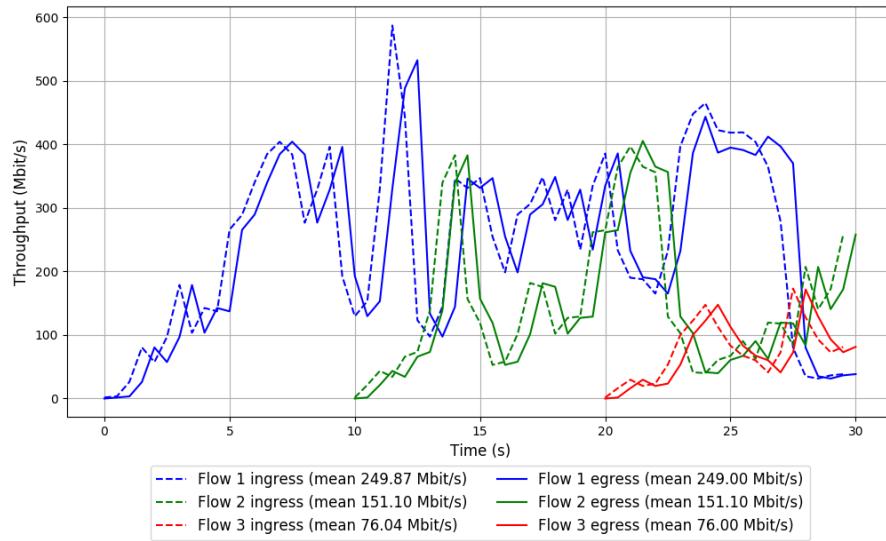


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-03-27 03:31:08
End at: 2019-03-27 03:31:38
Local clock offset: 0.014 ms
Remote clock offset: 6.159 ms

# Below is generated by plot.py at 2019-03-27 04:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.53 Mbit/s
95th percentile per-packet one-way delay: 153.492 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 249.00 Mbit/s
95th percentile per-packet one-way delay: 161.907 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 151.10 Mbit/s
95th percentile per-packet one-way delay: 1.480 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.00 Mbit/s
95th percentile per-packet one-way delay: 1.270 ms
Loss rate: 0.01%
```

Run 5: Report of PCC-Vivace — Data Link

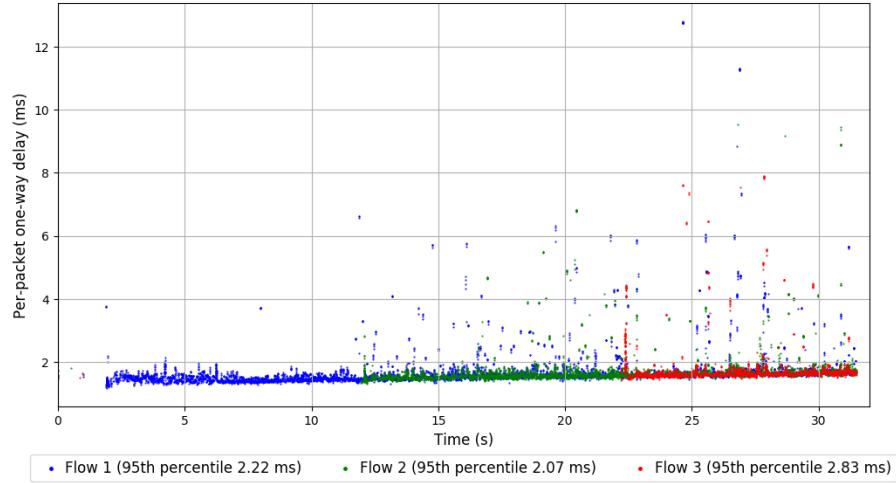
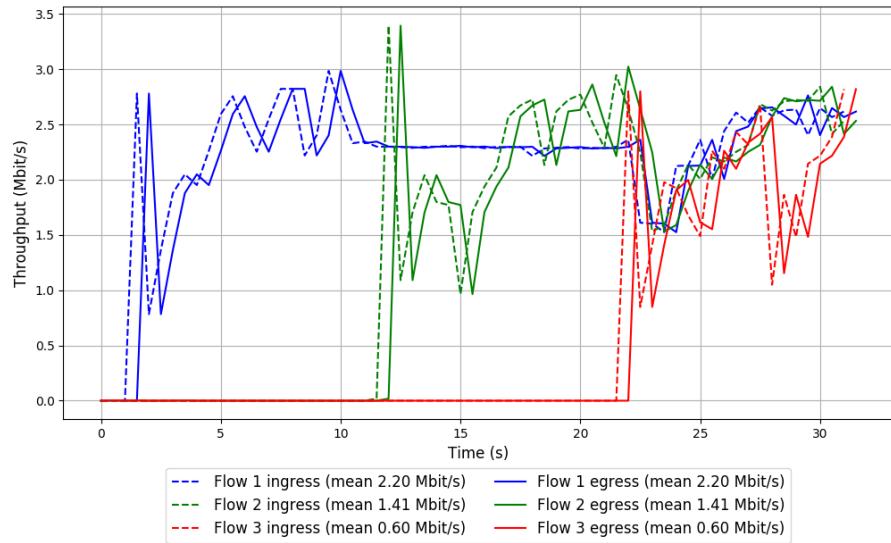


Run 1: Statistics of WebRTC media

```
Start at: 2019-03-27 01:16:17
End at: 2019-03-27 01:16:47
Local clock offset: -5.377 ms
Remote clock offset: 0.311 ms

# Below is generated by plot.py at 2019-03-27 04:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 2.230 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 2.222 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 2.066 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 2.831 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

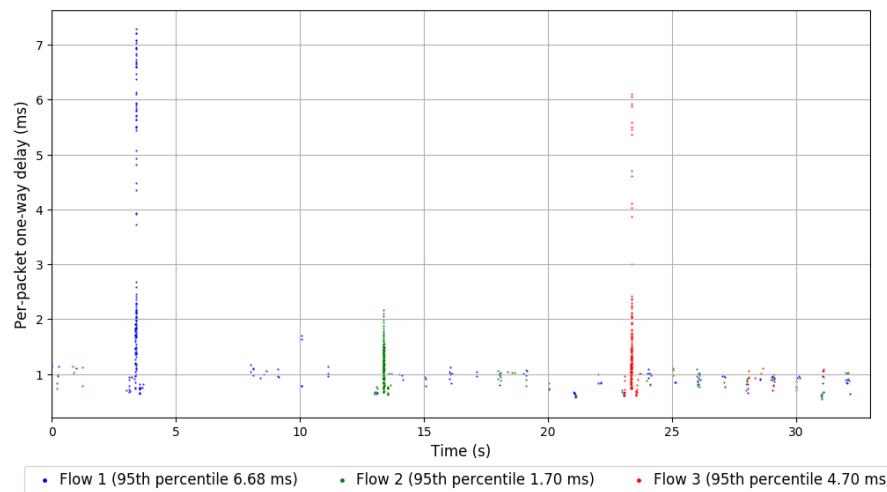
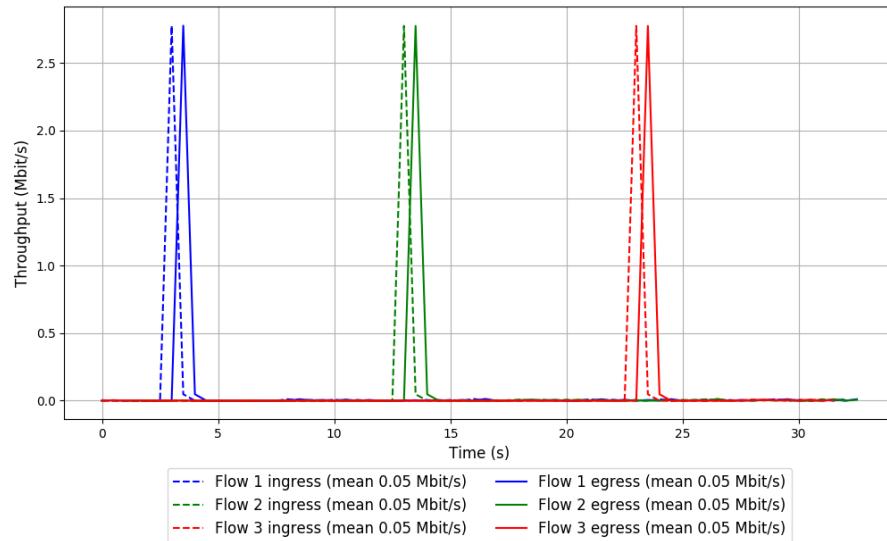


Run 2: Statistics of WebRTC media

```
Start at: 2019-03-27 01:46:26
End at: 2019-03-27 01:46:56
Local clock offset: 2.082 ms
Remote clock offset: 0.741 ms

# Below is generated by plot.py at 2019-03-27 04:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 5.821 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.677 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.704 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.702 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

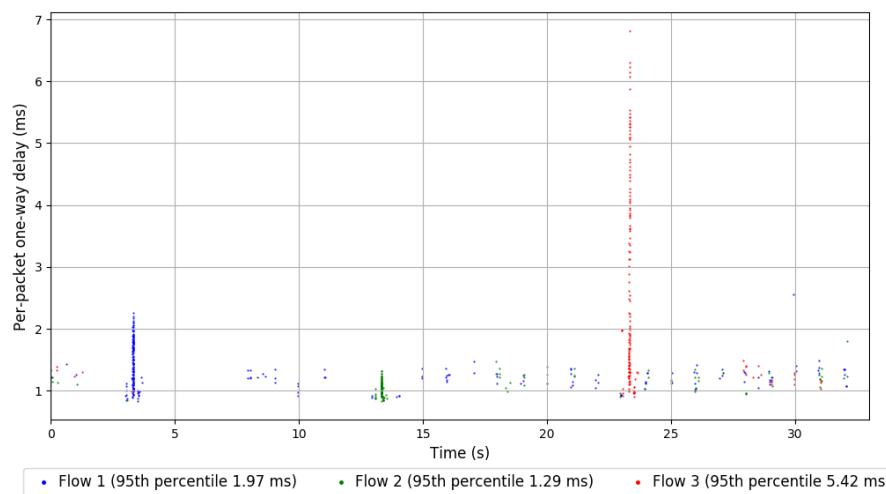
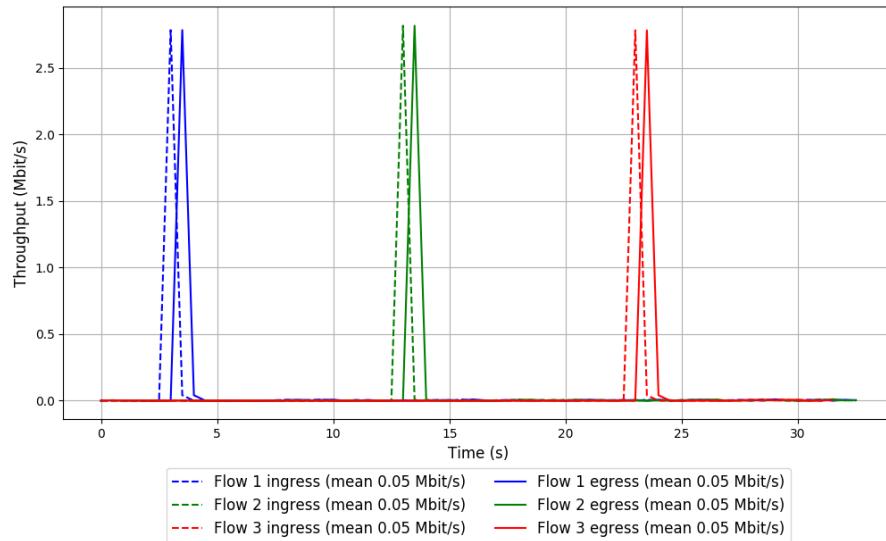


```
Run 3: Statistics of WebRTC media

Start at: 2019-03-27 02:16:33
End at: 2019-03-27 02:17:03
Local clock offset: 1.656 ms
Remote clock offset: 1.261 ms

# Below is generated by plot.py at 2019-03-27 04:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 4.211 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.974 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.287 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 5.421 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

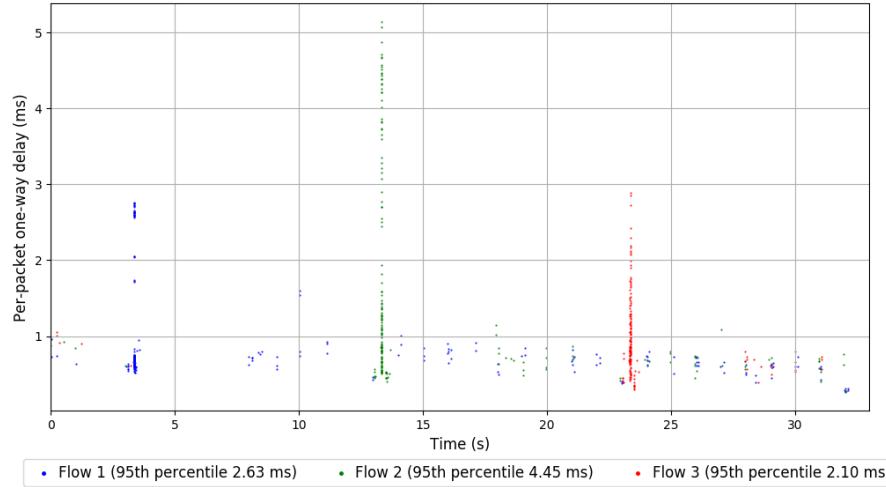
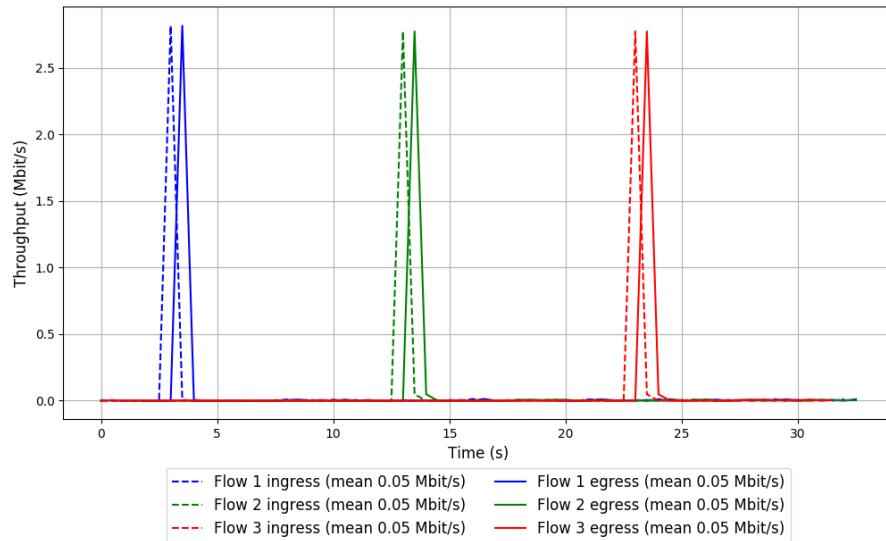


Run 4: Statistics of WebRTC media

```
Start at: 2019-03-27 02:46:44
End at: 2019-03-27 02:47:14
Local clock offset: 4.496 ms
Remote clock offset: 3.785 ms

# Below is generated by plot.py at 2019-03-27 04:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.213 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.627 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.453 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.096 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



```
Run 5: Statistics of WebRTC media

Start at: 2019-03-27 03:16:52
End at: 2019-03-27 03:17:22
Local clock offset: 0.048 ms
Remote clock offset: 5.387 ms

# Below is generated by plot.py at 2019-03-27 04:36:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.640 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.232 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 2.636 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

