

Pantheon Report

Generated at 2019-01-22 15:04:12 (UTC).
Data path: GCE London on `ens4 (local)` → GCE Iowa on `ens4 (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.google.com` and have been applied to correct the timestamps in logs.

System info:

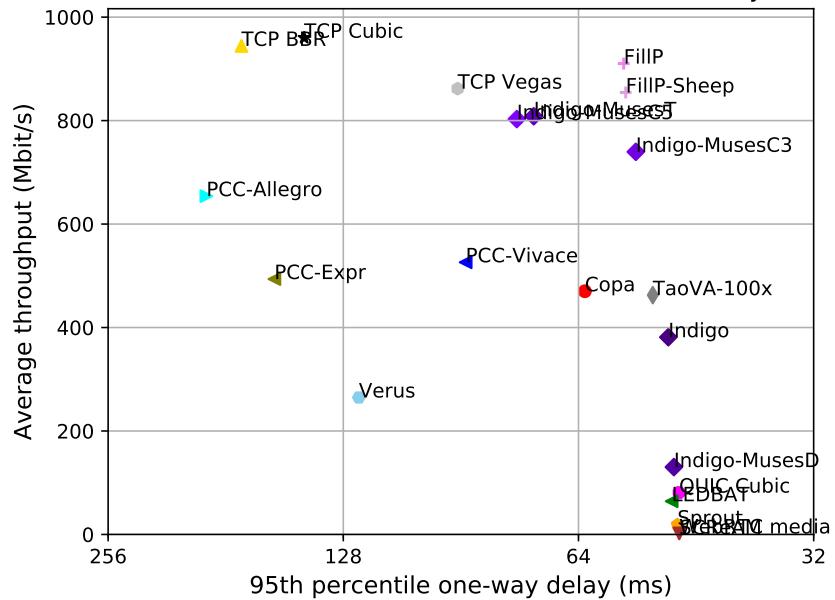
```
Linux 4.15.0-1026-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

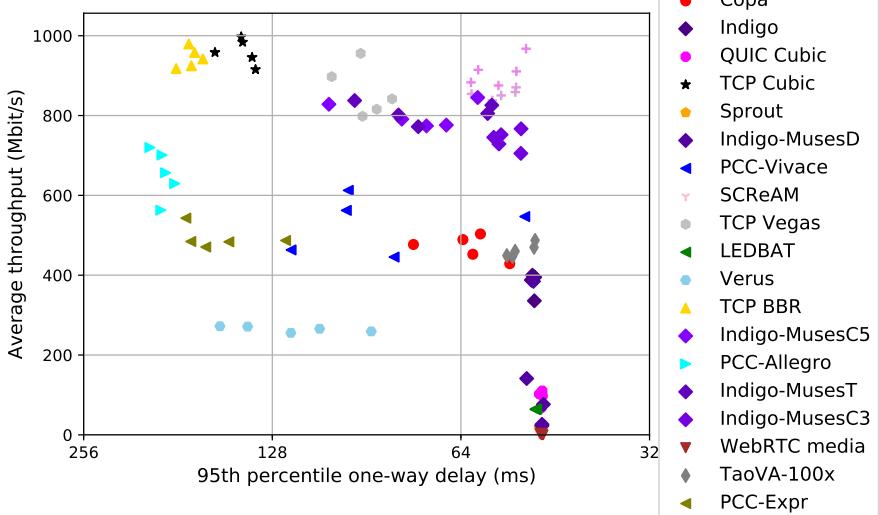
```
branch: muses @ 89d24e57783e7fbfec537a619071de937b639e38
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 1ddcff131048c6962f123bcd22b4d166a422adde
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 GCE London to GCE Iowa, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from GCE London to GCE Iowa, 5 runs of 30s each per scheme
3 flows with 10s interval between flows



4

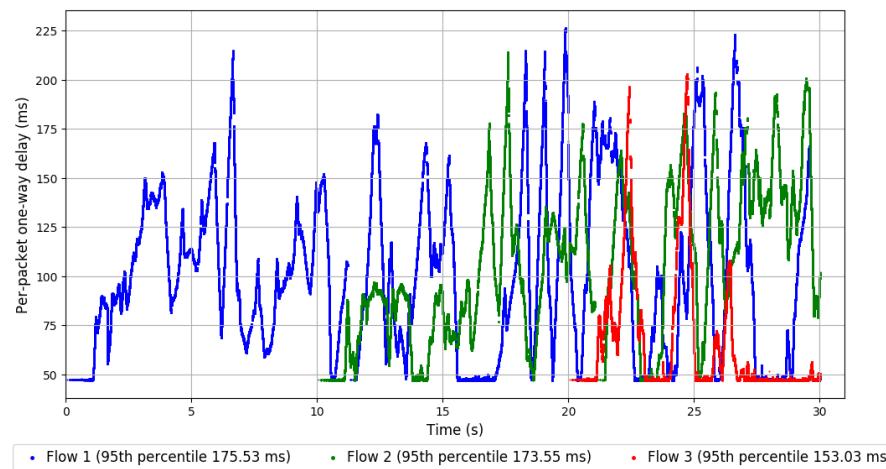
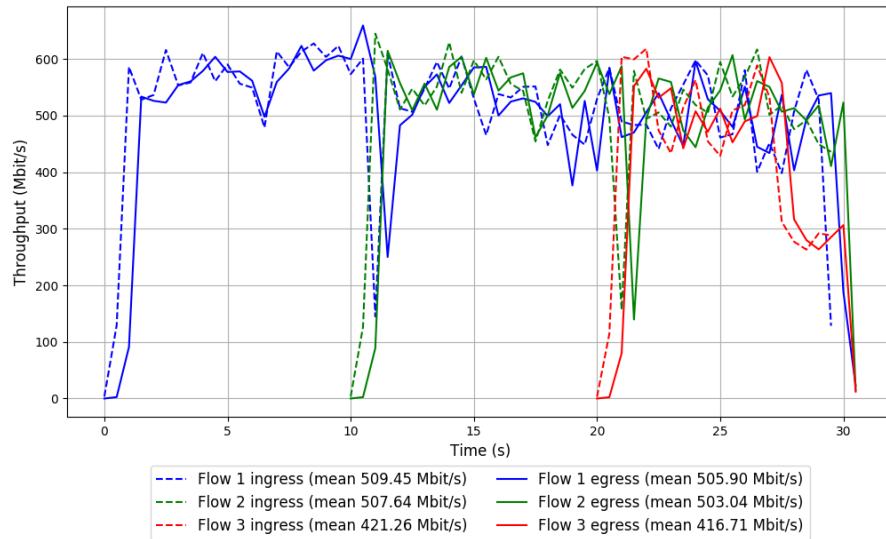
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	491.96	468.49	422.37	173.04	174.83	154.72	0.76	0.92	0.72
Copa	5	237.72	238.81	220.33	60.63	62.44	67.75	0.01	0.00	0.01
TCP Cubic	5	504.15	472.62	424.67	135.09	126.65	111.89	0.14	0.20	0.42
FillP	5	586.35	358.57	257.25	57.73	51.43	50.78	0.00	0.00	0.00
FillP-Sheep	5	551.84	331.67	247.13	58.43	51.17	50.44	0.03	0.00	0.00
Indigo	5	195.49	196.20	172.23	49.05	49.15	49.18	0.00	0.01	0.00
Indigo-MusesC3	5	434.87	370.62	245.37	54.58	54.07	50.20	0.00	0.01	0.01
Indigo-MusesC5	5	487.60	415.03	177.87	71.48	85.30	54.14	0.00	0.01	0.03
Indigo-MusesD	5	62.39	93.66	29.97	47.66	48.31	47.46	0.00	0.00	0.00
Indigo-MusesT	5	489.28	410.01	208.89	74.85	62.19	51.14	0.00	0.00	0.22
LEDBAT	5	41.17	27.75	13.70	48.75	48.34	48.17	0.00	0.00	0.00
PCC-Allegro	5	358.79	303.54	283.55	192.11	154.82	173.18	6.05	0.54	7.66
PCC-Expr	5	275.40	236.35	184.91	161.82	102.92	76.07	4.46	1.00	0.05
QUIC Cubic	5	44.86	38.87	31.19	47.83	47.41	47.45	0.00	0.00	0.00
SCReAM	5	0.22	0.22	0.22	47.37	47.54	47.47	0.00	0.00	0.00
Sprout	5	9.60	9.53	9.17	47.88	47.59	47.70	0.00	0.00	0.00
TaoVA-100x	5	239.99	229.00	210.93	50.92	52.02	52.20	0.00	0.00	0.00
TCP Vegas	5	453.48	414.16	398.42	86.06	90.67	91.55	0.04	0.06	0.14
Verus	5	150.25	121.35	103.91	114.76	113.83	116.59	0.07	0.54	0.04
PCC-Vivace	5	323.43	257.60	94.70	96.52	72.79	50.83	0.18	0.07	0.04
WebRTC media	5	1.25	0.54	0.23	47.33	47.63	47.57	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-01-22 09:17:54
End at: 2019-01-22 09:18:24
Local clock offset: 0.179 ms
Remote clock offset: -0.194 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 979.35 Mbit/s
95th percentile per-packet one-way delay: 173.951 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 505.90 Mbit/s
95th percentile per-packet one-way delay: 175.534 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 503.04 Mbit/s
95th percentile per-packet one-way delay: 173.551 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 416.71 Mbit/s
95th percentile per-packet one-way delay: 153.033 ms
Loss rate: 1.08%
```

Run 1: Report of TCP BBR — Data Link

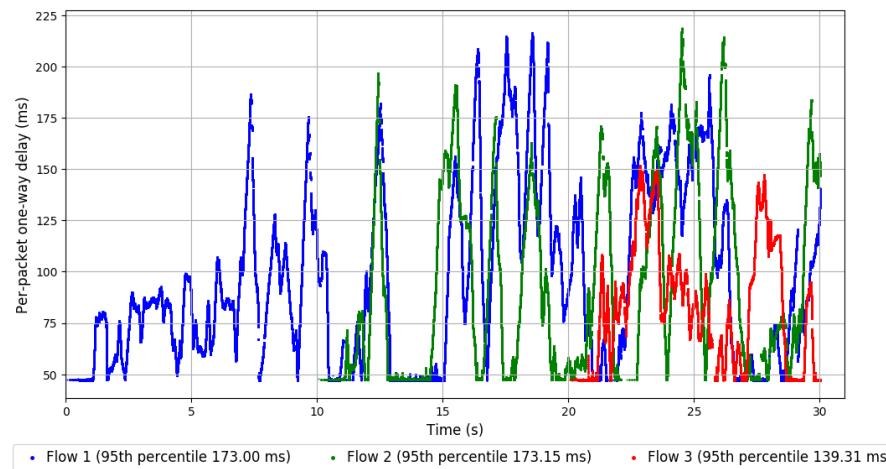
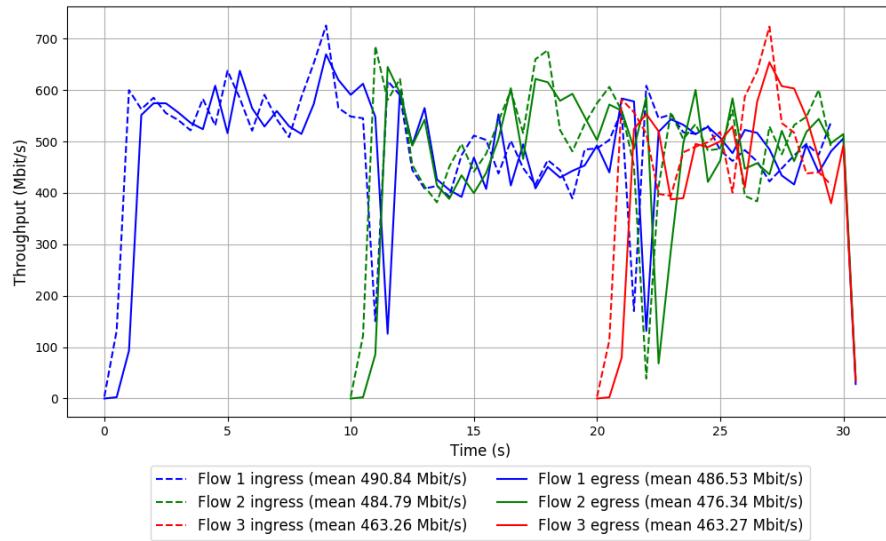


Run 2: Statistics of TCP BBR

```
Start at: 2019-01-22 09:55:02
End at: 2019-01-22 09:55:32
Local clock offset: 0.011 ms
Remote clock offset: 0.03 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 957.92 Mbit/s
95th percentile per-packet one-way delay: 170.307 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 486.53 Mbit/s
95th percentile per-packet one-way delay: 173.000 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 476.34 Mbit/s
95th percentile per-packet one-way delay: 173.153 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 463.27 Mbit/s
95th percentile per-packet one-way delay: 139.314 ms
Loss rate: 0.00%
```

Run 2: Report of TCP BBR — Data Link

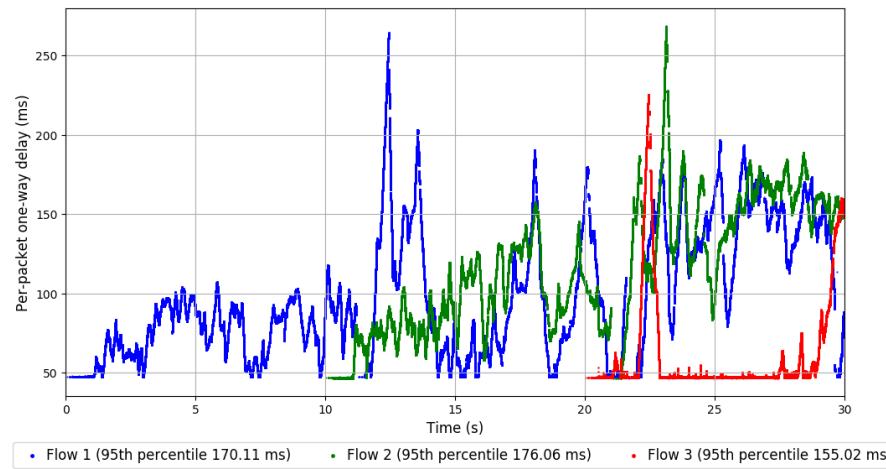
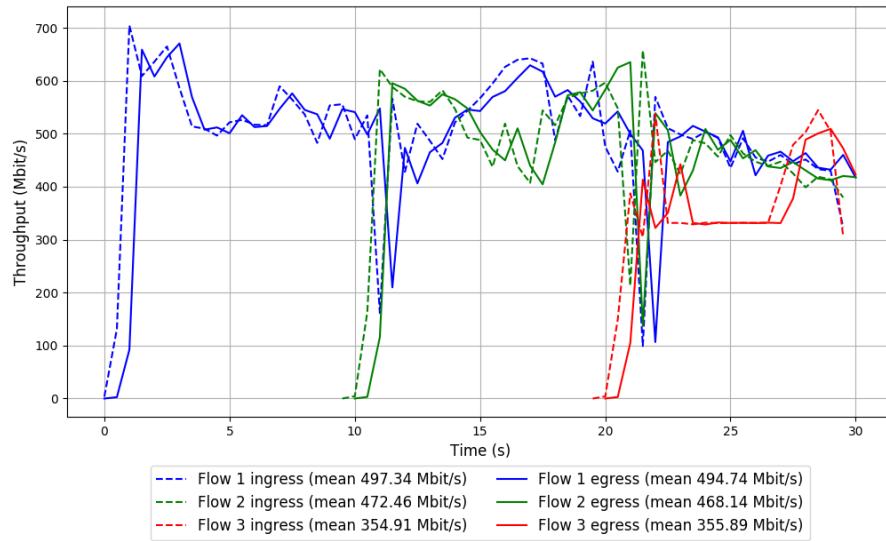


Run 3: Statistics of TCP BBR

```
Start at: 2019-01-22 10:32:21
End at: 2019-01-22 10:32:51
Local clock offset: 0.084 ms
Remote clock offset: 0.128 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 924.74 Mbit/s
95th percentile per-packet one-way delay: 172.313 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 494.74 Mbit/s
95th percentile per-packet one-way delay: 170.113 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 468.14 Mbit/s
95th percentile per-packet one-way delay: 176.064 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 355.89 Mbit/s
95th percentile per-packet one-way delay: 155.023 ms
Loss rate: 0.66%
```

Run 3: Report of TCP BBR — Data Link

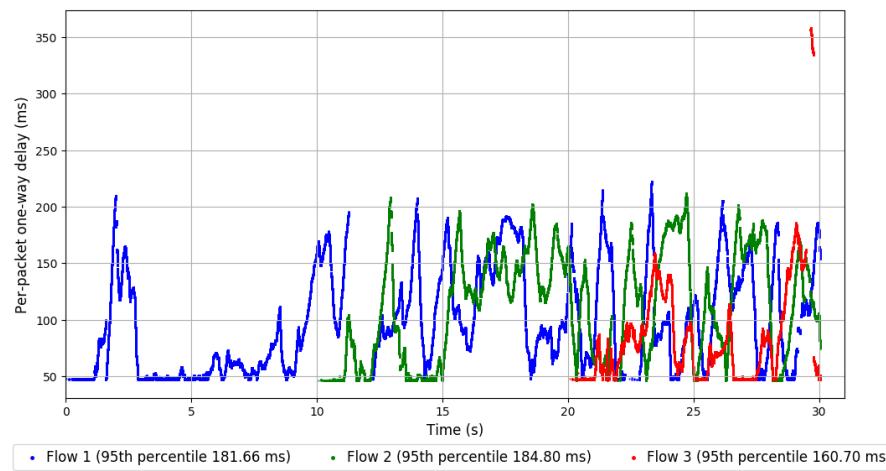
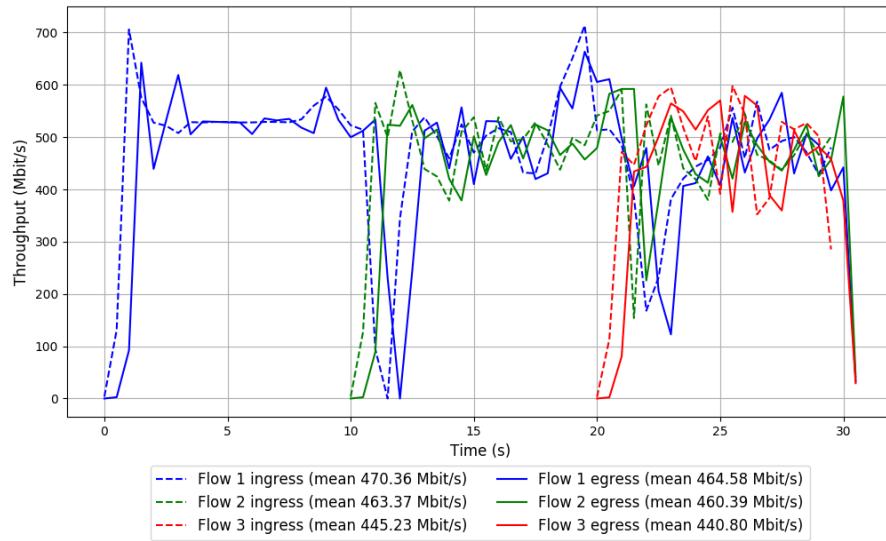


Run 4: Statistics of TCP BBR

```
Start at: 2019-01-22 11:09:05
End at: 2019-01-22 11:09:35
Local clock offset: 0.1 ms
Remote clock offset: -0.103 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 917.74 Mbit/s
95th percentile per-packet one-way delay: 182.233 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 464.58 Mbit/s
95th percentile per-packet one-way delay: 181.659 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 460.39 Mbit/s
95th percentile per-packet one-way delay: 184.804 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 440.80 Mbit/s
95th percentile per-packet one-way delay: 160.697 ms
Loss rate: 0.99%
```

Run 4: Report of TCP BBR — Data Link

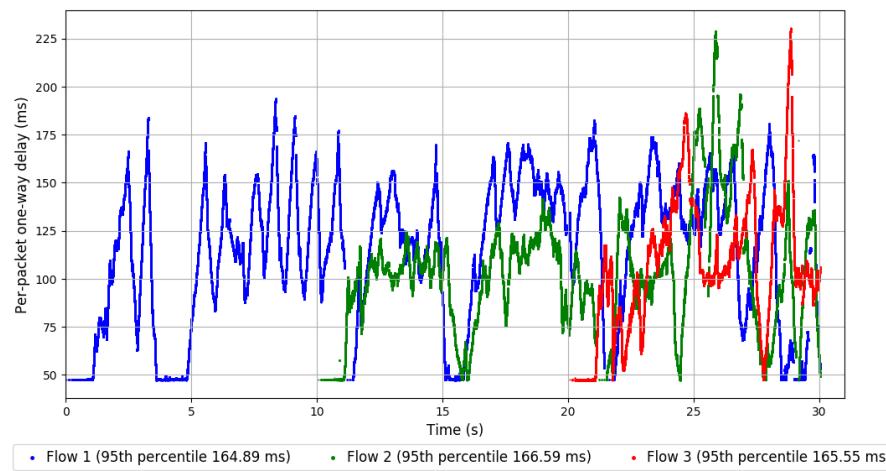
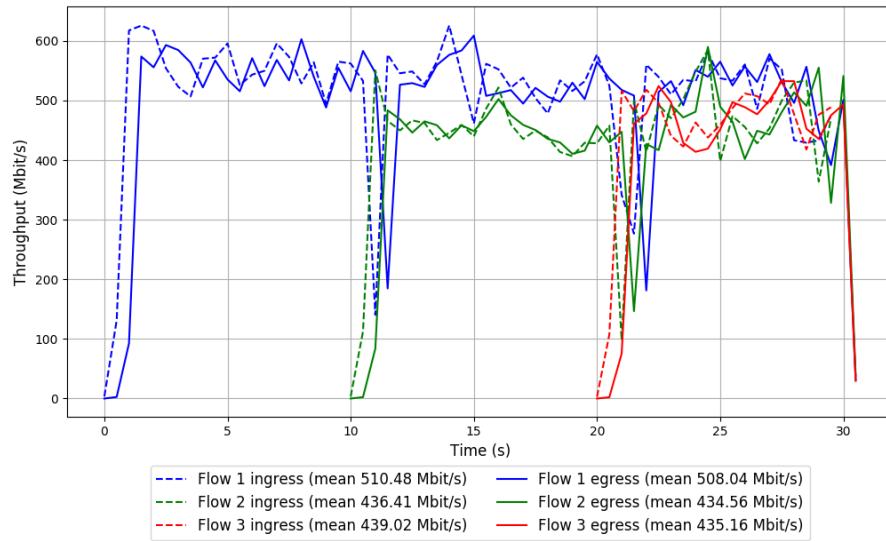


Run 5: Statistics of TCP BBR

```
Start at: 2019-01-22 11:45:56
End at: 2019-01-22 11:46:26
Local clock offset: -0.049 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 942.00 Mbit/s
95th percentile per-packet one-way delay: 165.205 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 508.04 Mbit/s
95th percentile per-packet one-way delay: 164.890 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 434.56 Mbit/s
95th percentile per-packet one-way delay: 166.594 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 435.16 Mbit/s
95th percentile per-packet one-way delay: 165.552 ms
Loss rate: 0.87%
```

Run 5: Report of TCP BBR — Data Link

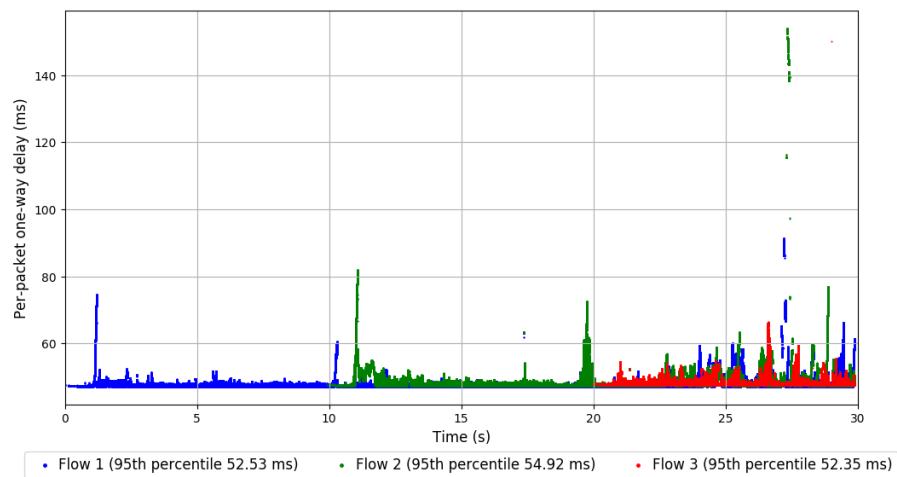
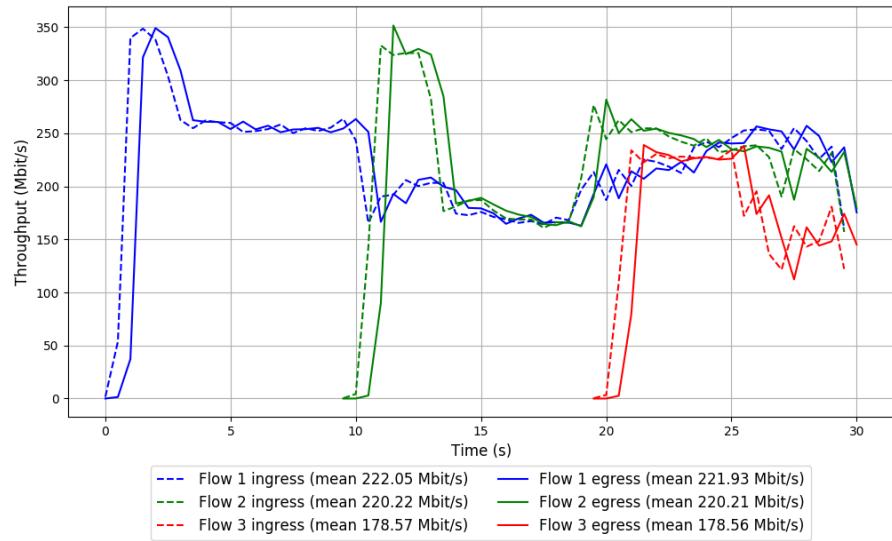


Run 1: Statistics of Copa

```
Start at: 2019-01-22 09:05:31
End at: 2019-01-22 09:06:01
Local clock offset: -0.006 ms
Remote clock offset: -0.283 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 428.84 Mbit/s
95th percentile per-packet one-way delay: 53.488 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 221.93 Mbit/s
95th percentile per-packet one-way delay: 52.529 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 220.21 Mbit/s
95th percentile per-packet one-way delay: 54.920 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 178.56 Mbit/s
95th percentile per-packet one-way delay: 52.348 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link

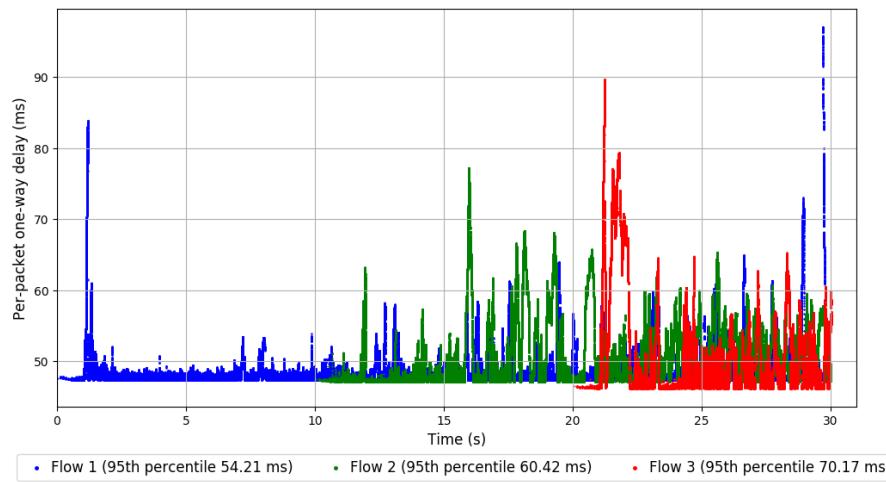
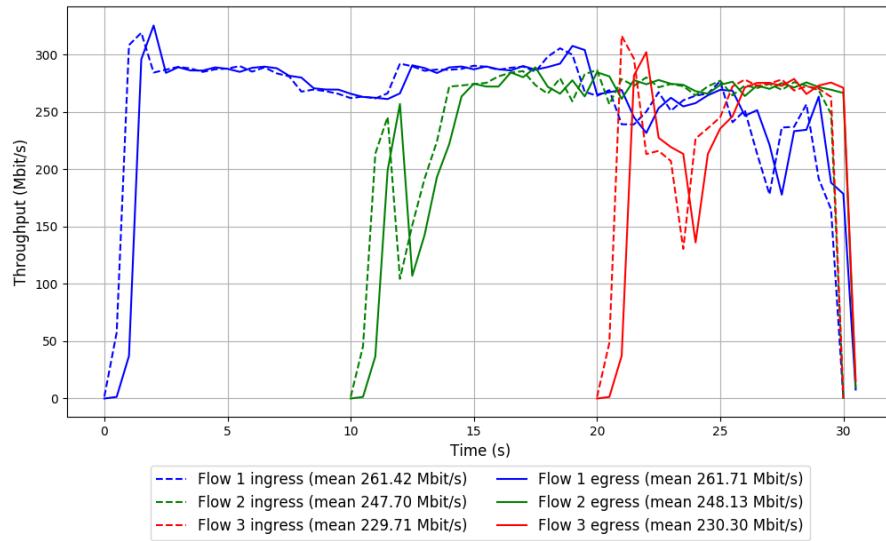


Run 2: Statistics of Copa

```
Start at: 2019-01-22 09:41:47
End at: 2019-01-22 09:42:17
Local clock offset: 0.139 ms
Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.32 Mbit/s
95th percentile per-packet one-way delay: 59.572 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 261.71 Mbit/s
95th percentile per-packet one-way delay: 54.206 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 248.13 Mbit/s
95th percentile per-packet one-way delay: 60.422 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 230.30 Mbit/s
95th percentile per-packet one-way delay: 70.167 ms
Loss rate: 0.00%
```

Run 2: Report of Copa — Data Link

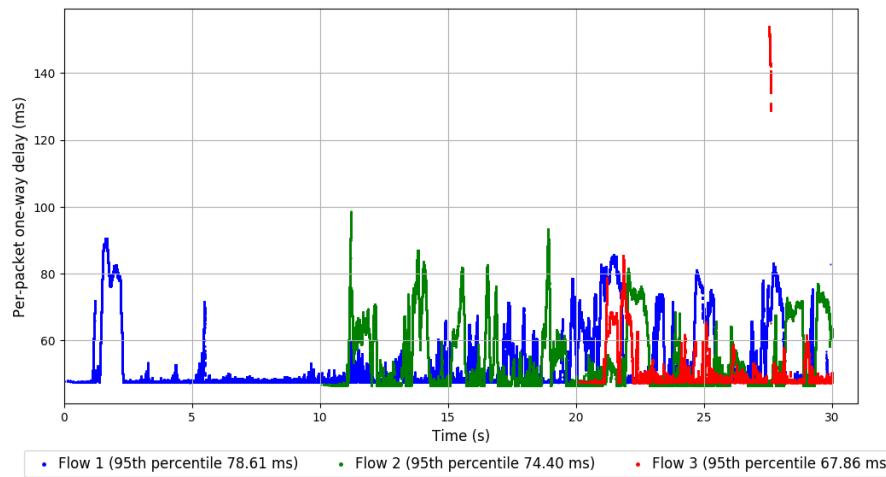
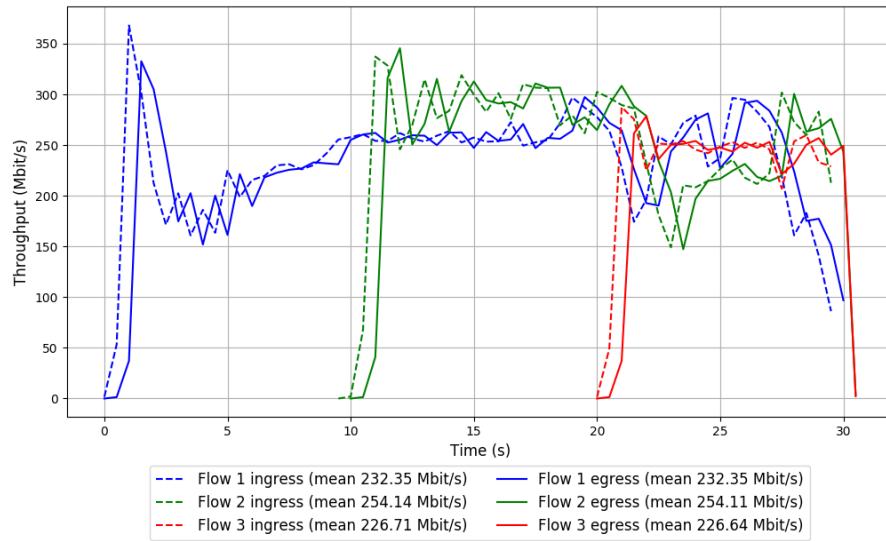


Run 3: Statistics of Copa

```
Start at: 2019-01-22 10:19:17
End at: 2019-01-22 10:19:47
Local clock offset: 0.04 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2019-01-22 12:37:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 476.94 Mbit/s
95th percentile per-packet one-way delay: 76.198 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.35 Mbit/s
95th percentile per-packet one-way delay: 78.609 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 254.11 Mbit/s
95th percentile per-packet one-way delay: 74.399 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 226.64 Mbit/s
95th percentile per-packet one-way delay: 67.855 ms
Loss rate: 0.00%
```

Run 3: Report of Copa — Data Link

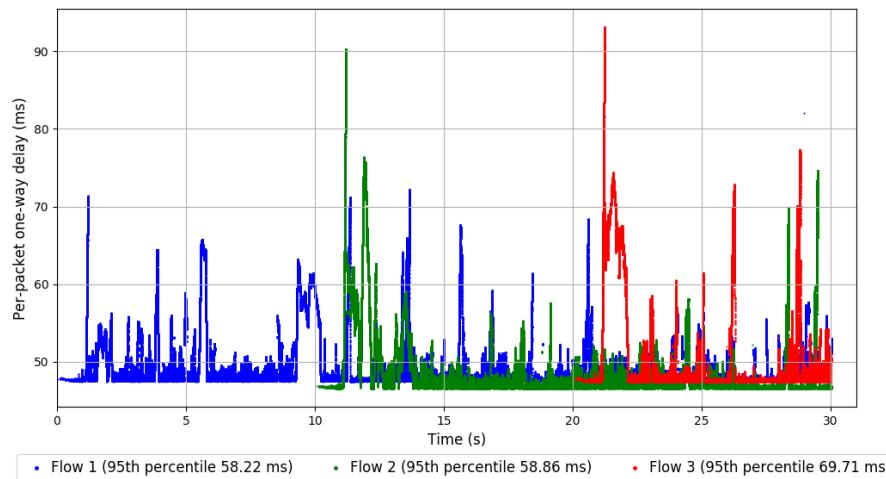
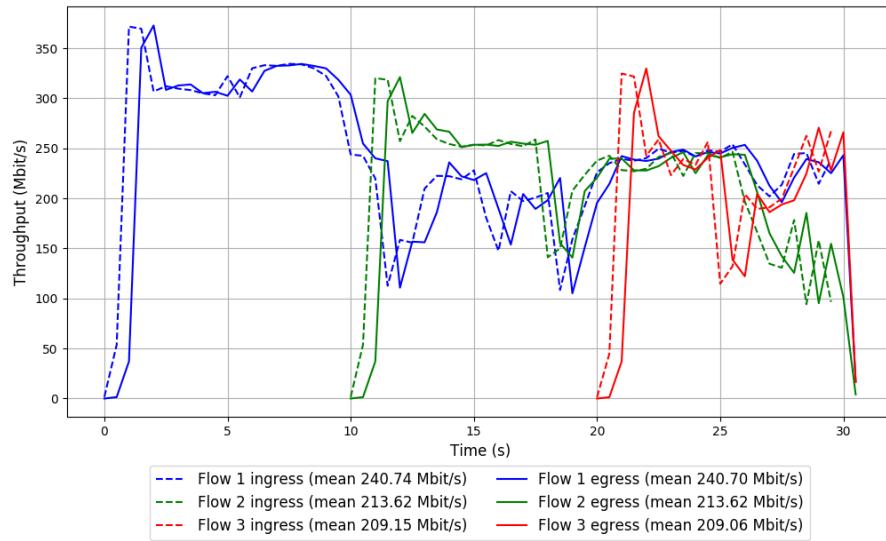


Run 4: Statistics of Copa

```
Start at: 2019-01-22 10:56:03
End at: 2019-01-22 10:56:33
Local clock offset: 0.111 ms
Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2019-01-22 12:48:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 452.43 Mbit/s
95th percentile per-packet one-way delay: 61.259 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 240.70 Mbit/s
95th percentile per-packet one-way delay: 58.221 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 213.62 Mbit/s
95th percentile per-packet one-way delay: 58.858 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 209.06 Mbit/s
95th percentile per-packet one-way delay: 69.707 ms
Loss rate: 0.03%
```

Run 4: Report of Copa — Data Link

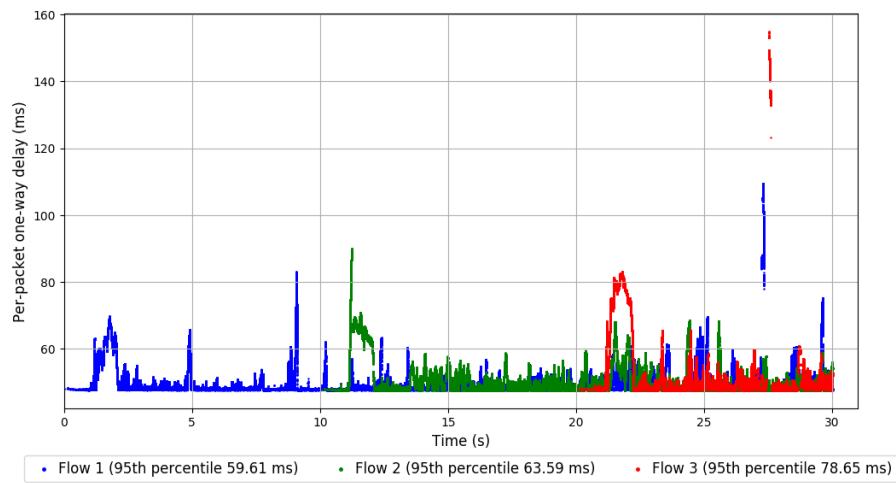
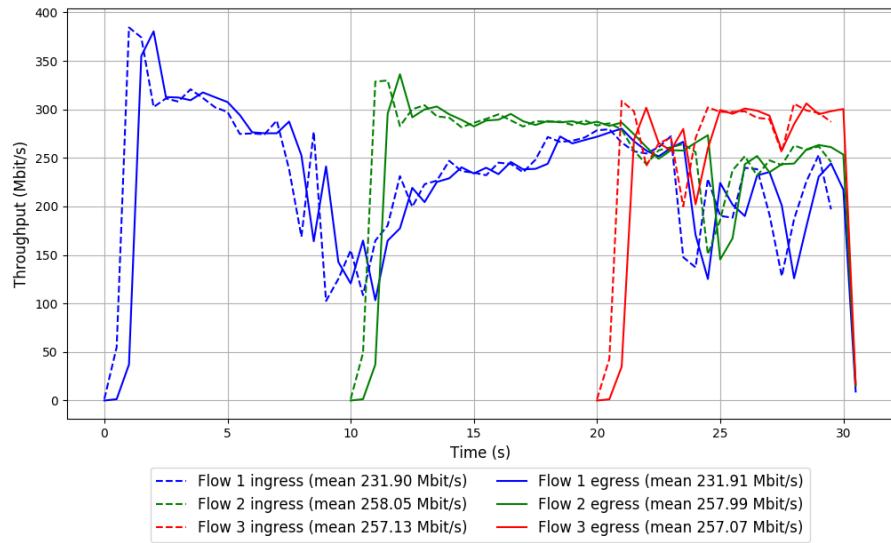


Run 5: Statistics of Copa

```
Start at: 2019-01-22 11:32:39
End at: 2019-01-22 11:33:09
Local clock offset: -0.247 ms
Remote clock offset: -0.05 ms

# Below is generated by plot.py at 2019-01-22 12:53:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.13 Mbit/s
95th percentile per-packet one-way delay: 63.539 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 231.91 Mbit/s
95th percentile per-packet one-way delay: 59.607 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 257.99 Mbit/s
95th percentile per-packet one-way delay: 63.590 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 257.07 Mbit/s
95th percentile per-packet one-way delay: 78.654 ms
Loss rate: 0.01%
```

Run 5: Report of Copa — Data Link

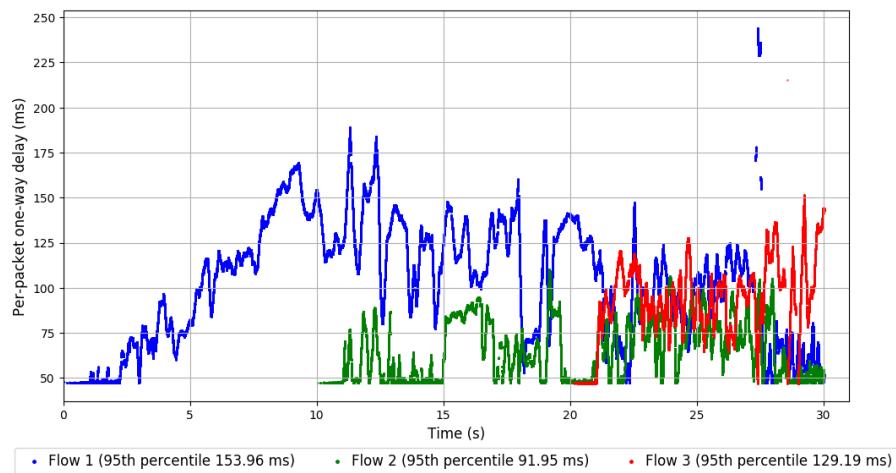
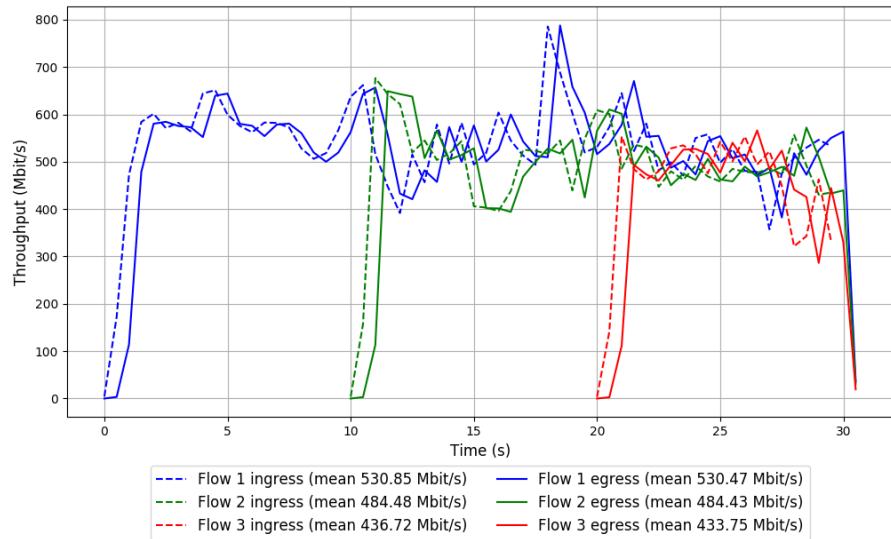


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-01-22 09:19:58
End at: 2019-01-22 09:20:28
Local clock offset: 0.39 ms
Remote clock offset: -0.139 ms

# Below is generated by plot.py at 2019-01-22 12:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 997.23 Mbit/s
95th percentile per-packet one-way delay: 143.471 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 530.47 Mbit/s
95th percentile per-packet one-way delay: 153.961 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 484.43 Mbit/s
95th percentile per-packet one-way delay: 91.948 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 433.75 Mbit/s
95th percentile per-packet one-way delay: 129.188 ms
Loss rate: 0.67%
```

Run 1: Report of TCP Cubic — Data Link

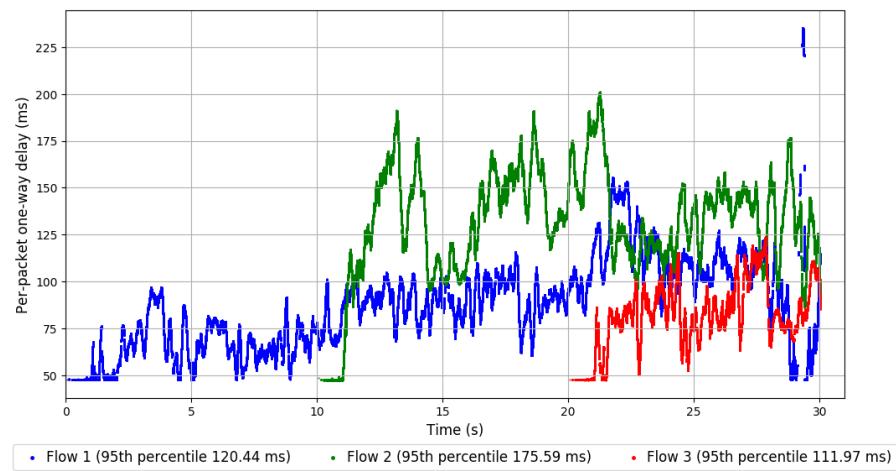
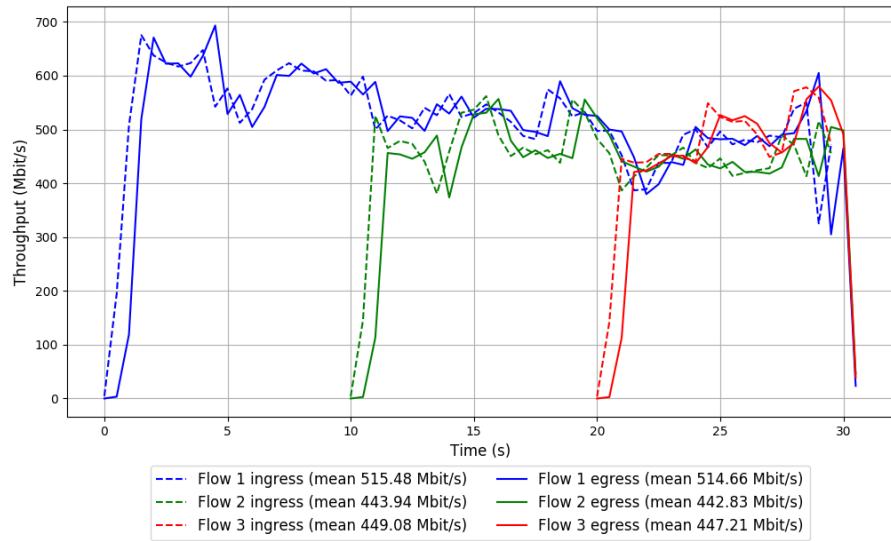


Run 2: Statistics of TCP Cubic

```
Start at: 2019-01-22 09:57:18
End at: 2019-01-22 09:57:48
Local clock offset: -0.018 ms
Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2019-01-22 12:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 958.13 Mbit/s
95th percentile per-packet one-way delay: 158.012 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 514.66 Mbit/s
95th percentile per-packet one-way delay: 120.435 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 442.83 Mbit/s
95th percentile per-packet one-way delay: 175.592 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 447.21 Mbit/s
95th percentile per-packet one-way delay: 111.965 ms
Loss rate: 0.41%
```

Run 2: Report of TCP Cubic — Data Link

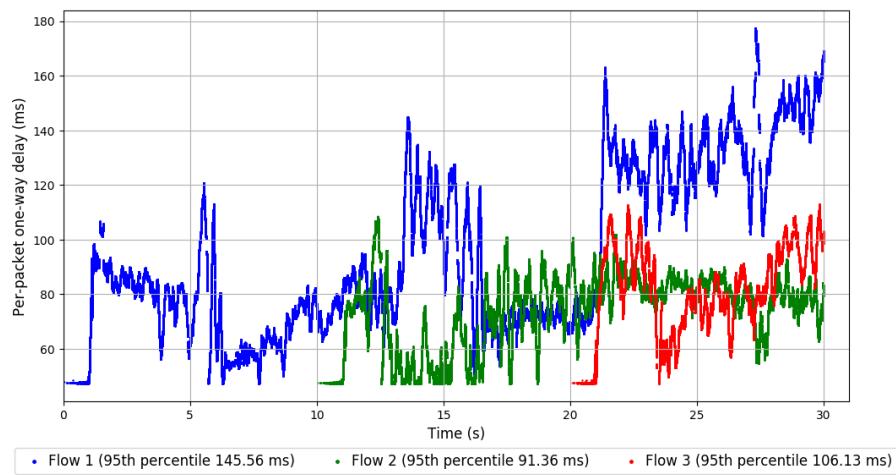
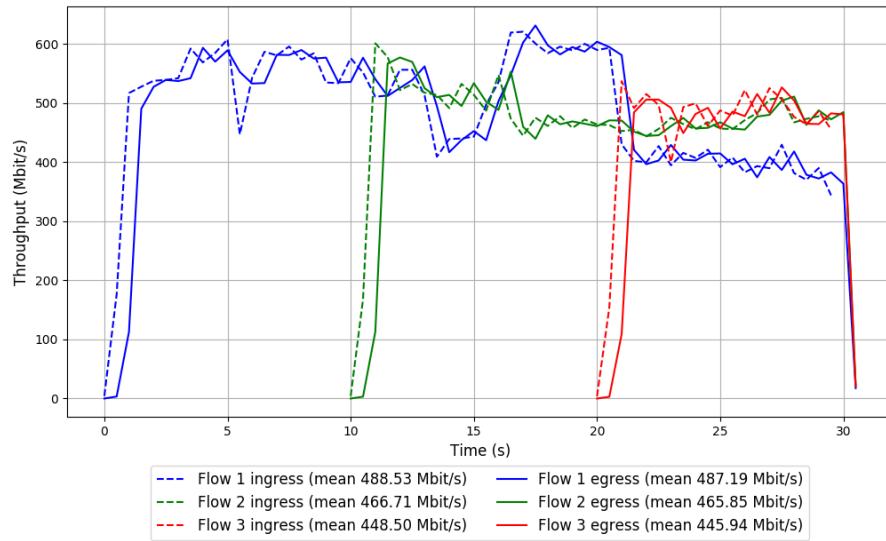


Run 3: Statistics of TCP Cubic

```
Start at: 2019-01-22 10:34:21
End at: 2019-01-22 10:34:51
Local clock offset: 0.087 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2019-01-22 12:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 945.69 Mbit/s
95th percentile per-packet one-way delay: 137.857 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 487.19 Mbit/s
95th percentile per-packet one-way delay: 145.559 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 465.85 Mbit/s
95th percentile per-packet one-way delay: 91.361 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 445.94 Mbit/s
95th percentile per-packet one-way delay: 106.128 ms
Loss rate: 0.56%
```

Run 3: Report of TCP Cubic — Data Link

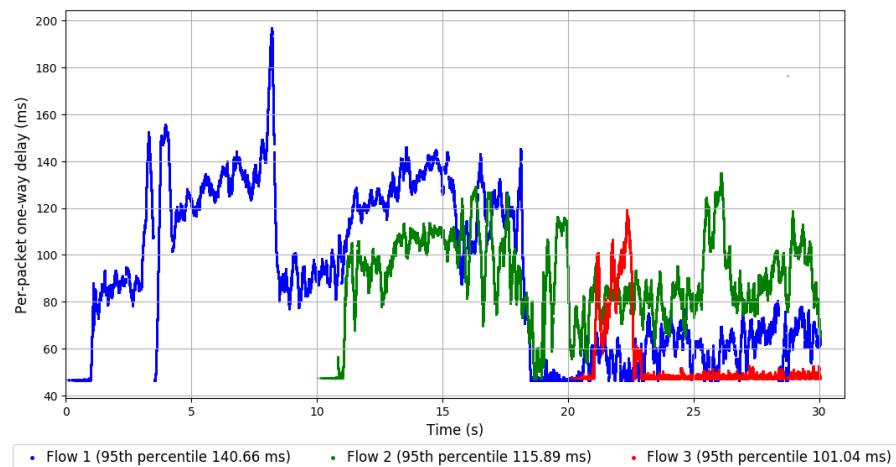
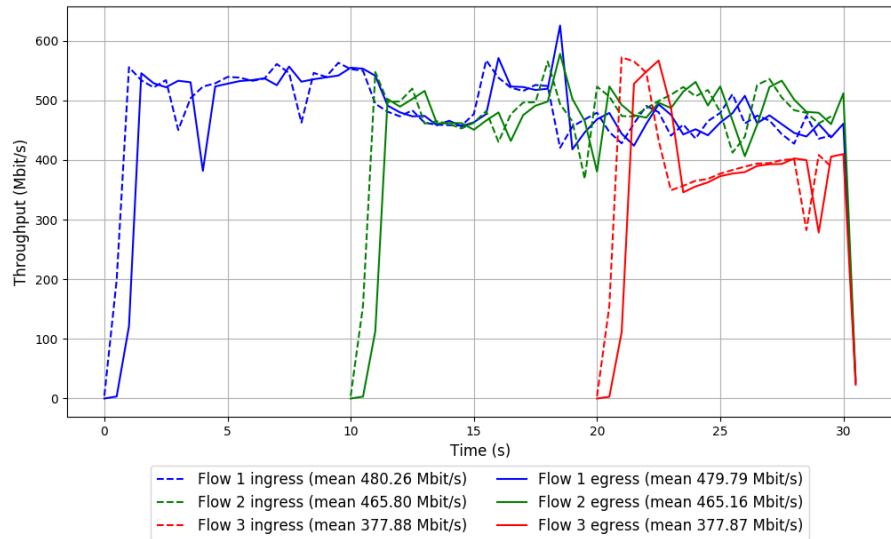


Run 4: Statistics of TCP Cubic

```
Start at: 2019-01-22 11:11:12
End at: 2019-01-22 11:11:42
Local clock offset: 0.14 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2019-01-22 12:56:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 915.32 Mbit/s
95th percentile per-packet one-way delay: 136.131 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 479.79 Mbit/s
95th percentile per-packet one-way delay: 140.657 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 465.16 Mbit/s
95th percentile per-packet one-way delay: 115.887 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 377.87 Mbit/s
95th percentile per-packet one-way delay: 101.044 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Cubic — Data Link

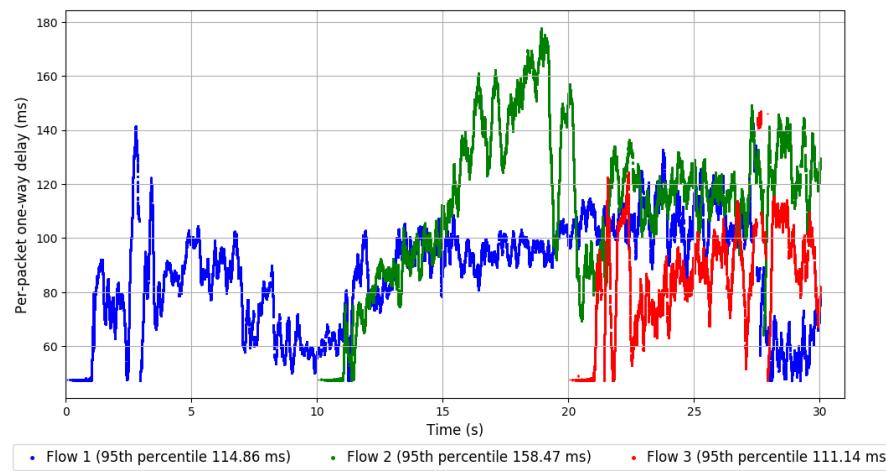
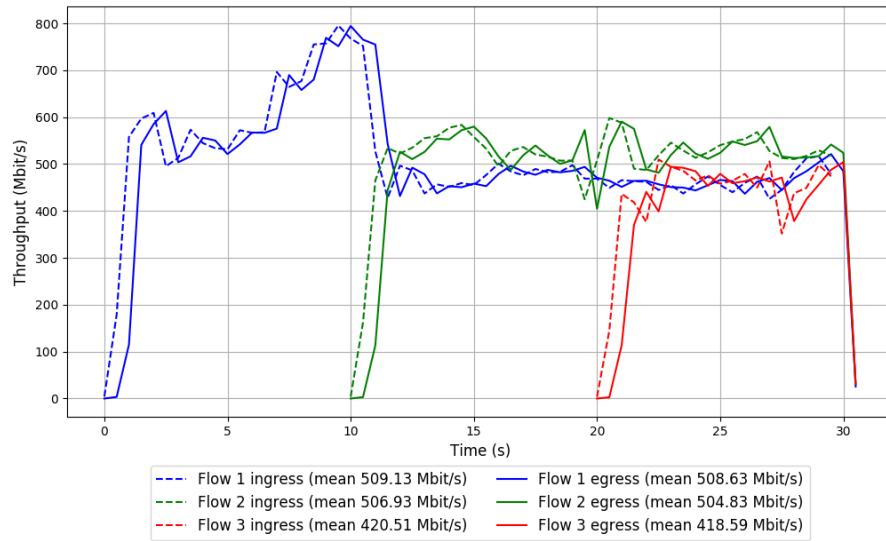


Run 5: Statistics of TCP Cubic

```
Start at: 2019-01-22 11:47:57
End at: 2019-01-22 11:48:27
Local clock offset: -0.045 ms
Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2019-01-22 12:56:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 983.96 Mbit/s
95th percentile per-packet one-way delay: 142.732 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 508.63 Mbit/s
95th percentile per-packet one-way delay: 114.861 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 504.83 Mbit/s
95th percentile per-packet one-way delay: 158.471 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 418.59 Mbit/s
95th percentile per-packet one-way delay: 111.135 ms
Loss rate: 0.45%
```

Run 5: Report of TCP Cubic — Data Link

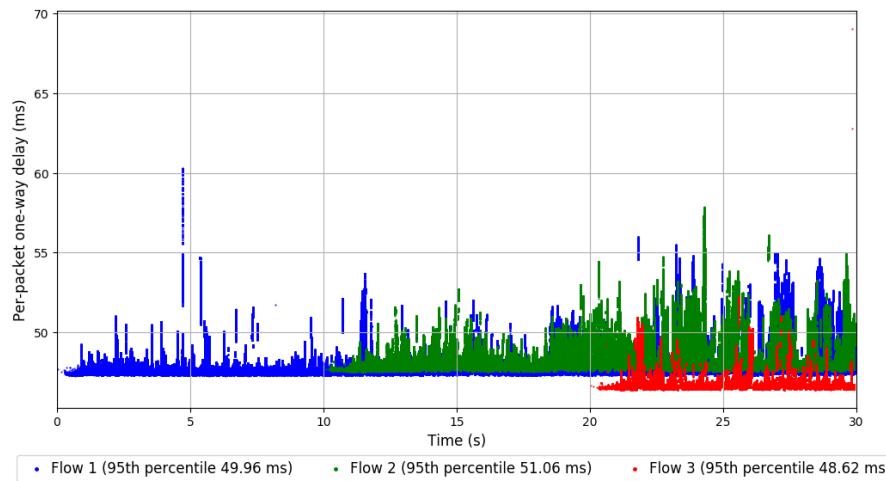
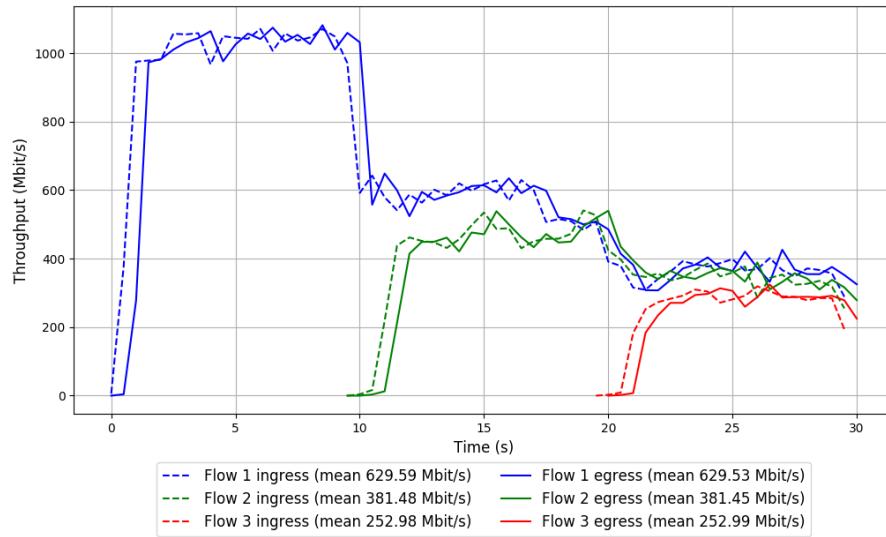


```
Run 1: Statistics of FillP

Start at: 2019-01-22 09:11:10
End at: 2019-01-22 09:11:40
Local clock offset: -0.024 ms
Remote clock offset: -0.305 ms

# Below is generated by plot.py at 2019-01-22 12:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 967.43 Mbit/s
95th percentile per-packet one-way delay: 50.373 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 629.53 Mbit/s
95th percentile per-packet one-way delay: 49.963 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 381.45 Mbit/s
95th percentile per-packet one-way delay: 51.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 252.99 Mbit/s
95th percentile per-packet one-way delay: 48.618 ms
Loss rate: 0.00%
```

Run 1: Report of FillP — Data Link

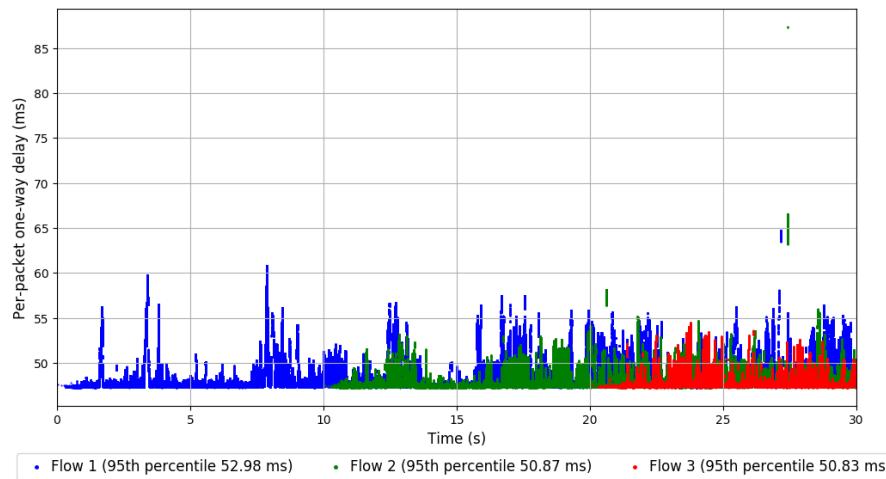
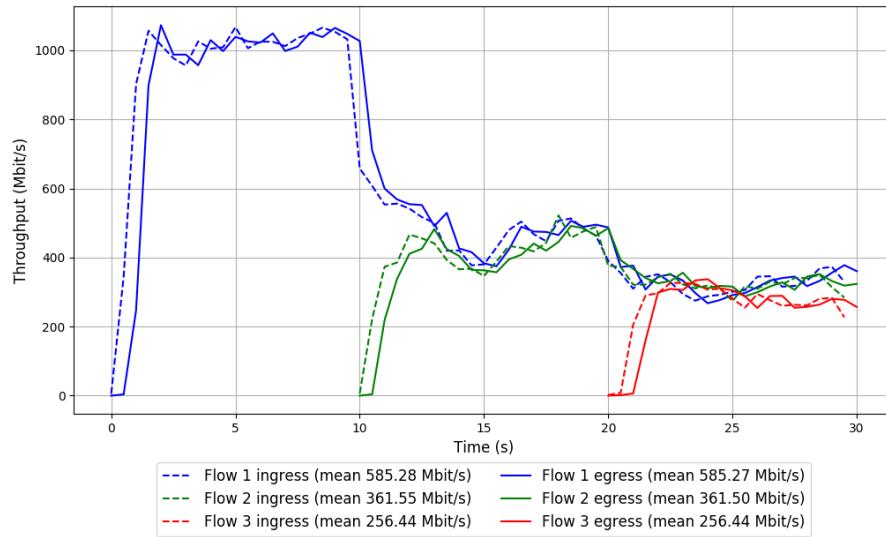


Run 2: Statistics of FillP

```
Start at: 2019-01-22 09:47:45
End at: 2019-01-22 09:48:15
Local clock offset: 0.016 ms
Remote clock offset: 0.089 ms

# Below is generated by plot.py at 2019-01-22 13:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 910.63 Mbit/s
95th percentile per-packet one-way delay: 52.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 585.27 Mbit/s
95th percentile per-packet one-way delay: 52.978 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 361.50 Mbit/s
95th percentile per-packet one-way delay: 50.868 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 256.44 Mbit/s
95th percentile per-packet one-way delay: 50.830 ms
Loss rate: 0.00%
```

Run 2: Report of FillP — Data Link

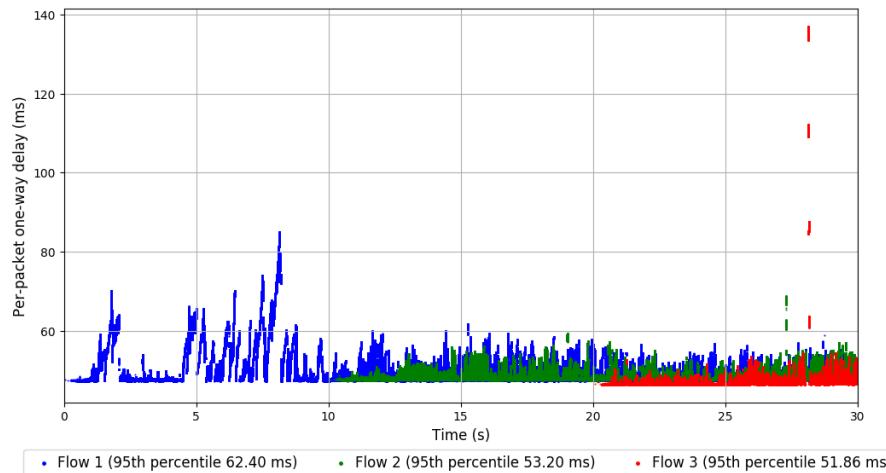
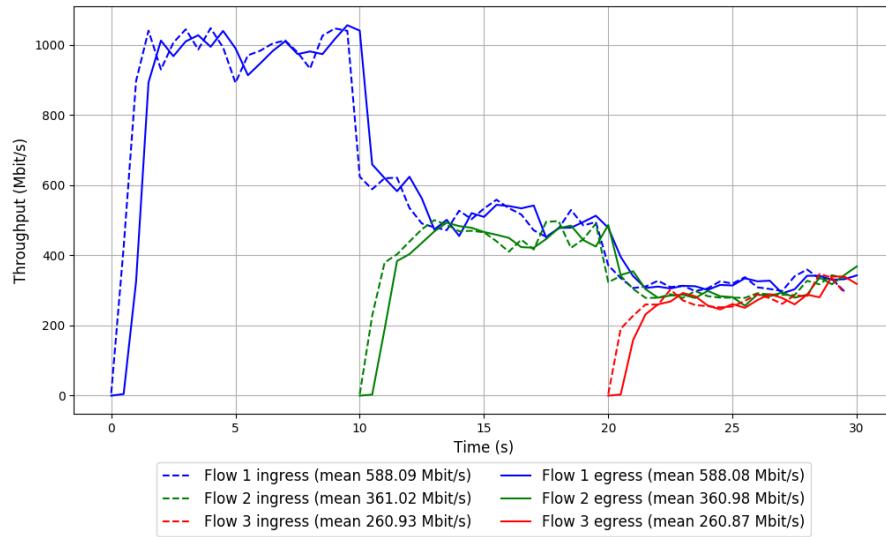


Run 3: Statistics of FillP

```
Start at: 2019-01-22 10:25:37
End at: 2019-01-22 10:26:07
Local clock offset: 0.034 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2019-01-22 13:15:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 914.64 Mbit/s
95th percentile per-packet one-way delay: 60.058 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 588.08 Mbit/s
95th percentile per-packet one-way delay: 62.397 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 360.98 Mbit/s
95th percentile per-packet one-way delay: 53.205 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 260.87 Mbit/s
95th percentile per-packet one-way delay: 51.860 ms
Loss rate: 0.00%
```

Run 3: Report of FillP — Data Link

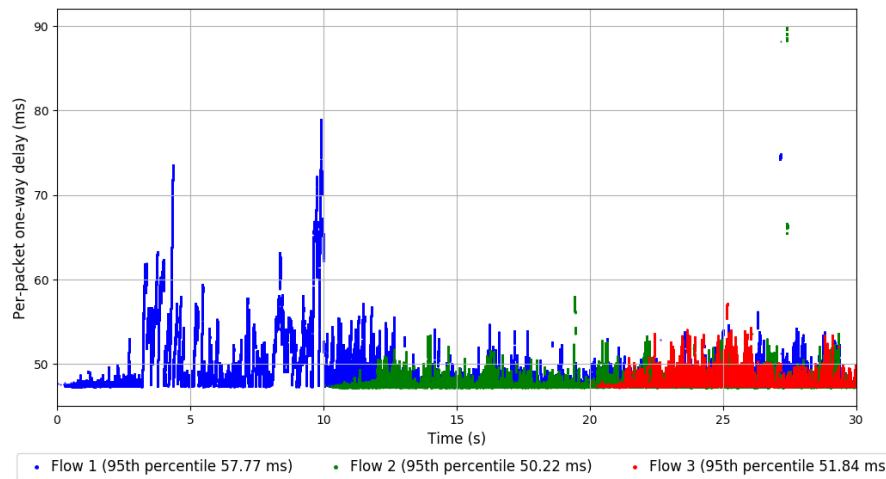
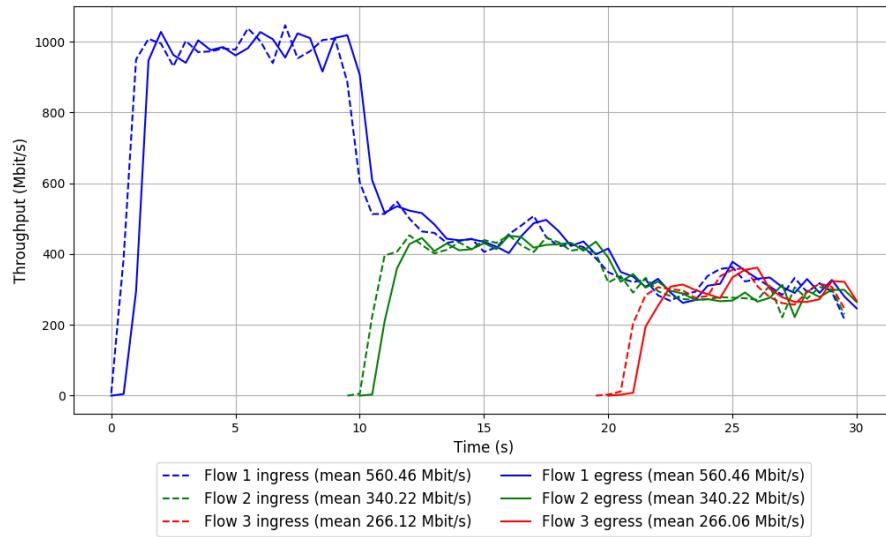


Run 4: Statistics of FillP

```
Start at: 2019-01-22 11:02:07
End at: 2019-01-22 11:02:37
Local clock offset: 0.149 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2019-01-22 13:15:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 875.36 Mbit/s
95th percentile per-packet one-way delay: 55.754 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 560.46 Mbit/s
95th percentile per-packet one-way delay: 57.765 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 340.22 Mbit/s
95th percentile per-packet one-way delay: 50.221 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 266.06 Mbit/s
95th percentile per-packet one-way delay: 51.840 ms
Loss rate: 0.00%
```

Run 4: Report of FillP — Data Link

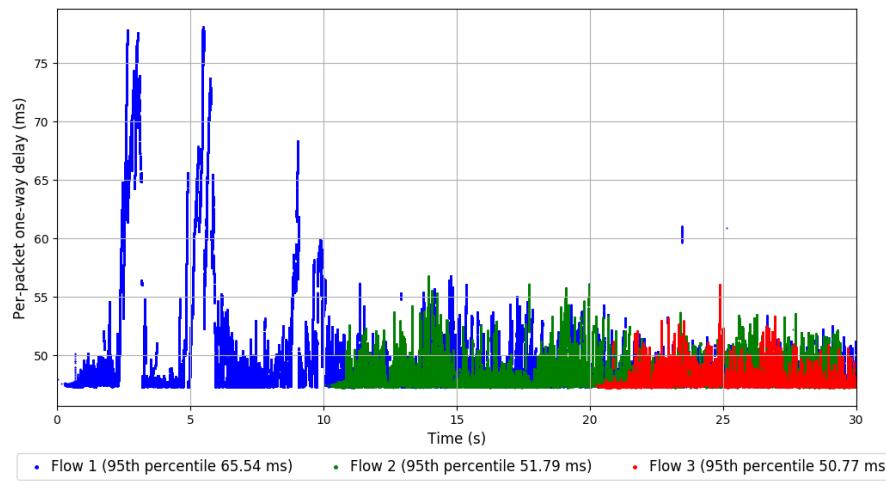
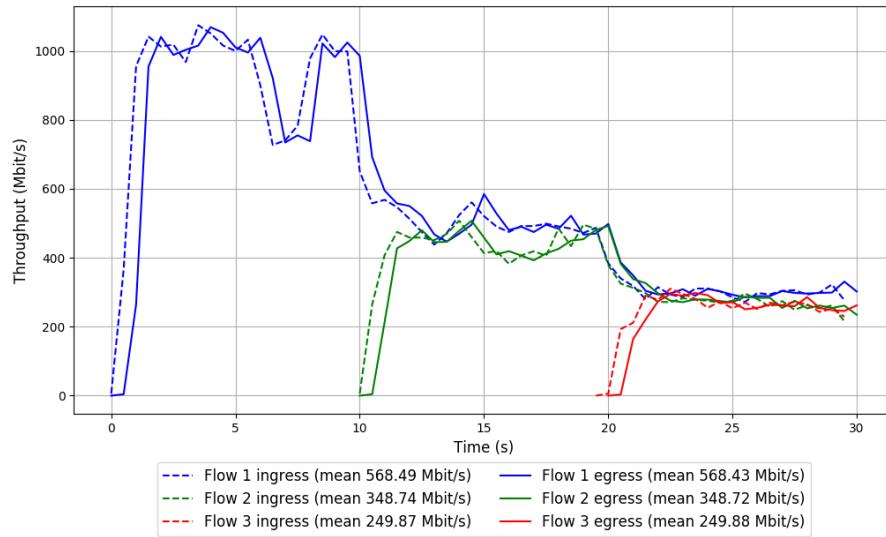


Run 5: Statistics of FillP

```
Start at: 2019-01-22 11:38:49
End at: 2019-01-22 11:39:19
Local clock offset: 0.022 ms
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-01-22 13:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 883.06 Mbit/s
95th percentile per-packet one-way delay: 61.676 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 568.43 Mbit/s
95th percentile per-packet one-way delay: 65.542 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 348.72 Mbit/s
95th percentile per-packet one-way delay: 51.793 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 249.88 Mbit/s
95th percentile per-packet one-way delay: 50.766 ms
Loss rate: 0.00%
```

Run 5: Report of FillP — Data Link

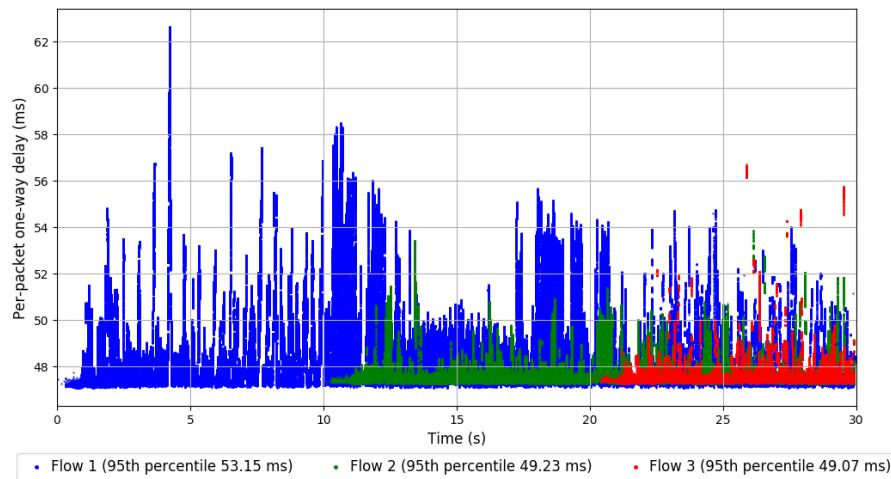
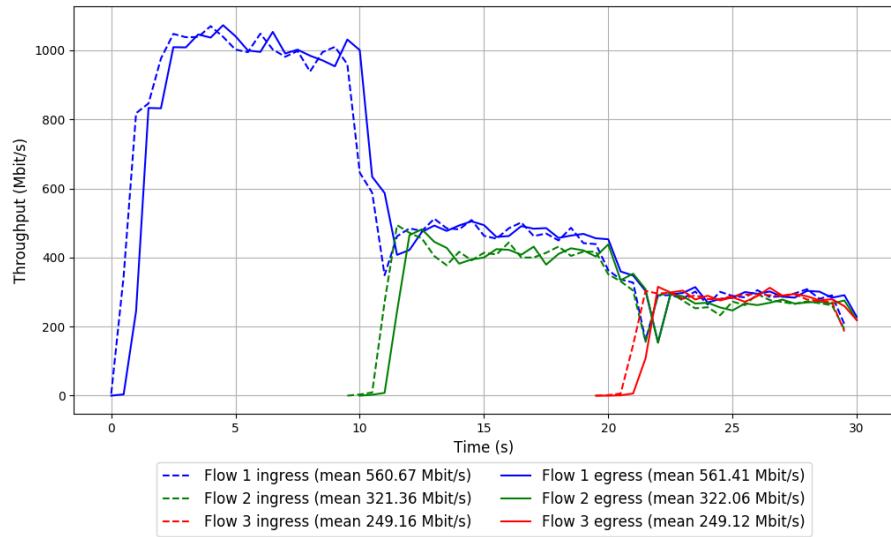


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-01-22 09:23:13
End at: 2019-01-22 09:23:43
Local clock offset: 0.005 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-01-22 13:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 858.74 Mbit/s
95th percentile per-packet one-way delay: 52.401 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 561.41 Mbit/s
95th percentile per-packet one-way delay: 53.145 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 322.06 Mbit/s
95th percentile per-packet one-way delay: 49.225 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 249.12 Mbit/s
95th percentile per-packet one-way delay: 49.074 ms
Loss rate: 0.00%
```

Run 1: Report of FillP-Sheep — Data Link

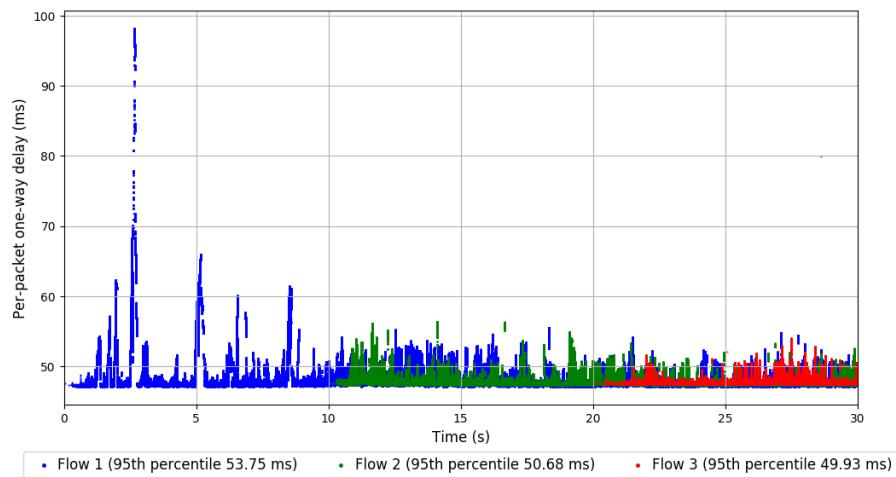
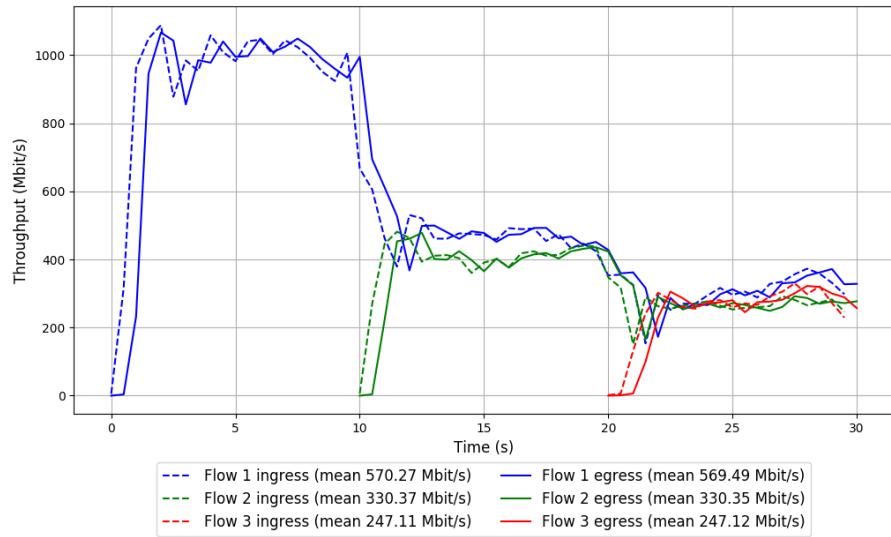


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-01-22 10:00:35
End at: 2019-01-22 10:01:05
Local clock offset: 0.06 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-01-22 13:16:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 870.64 Mbit/s
95th percentile per-packet one-way delay: 52.253 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 569.49 Mbit/s
95th percentile per-packet one-way delay: 53.747 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 330.35 Mbit/s
95th percentile per-packet one-way delay: 50.684 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 247.12 Mbit/s
95th percentile per-packet one-way delay: 49.932 ms
Loss rate: 0.00%
```

Run 2: Report of FillP-Sheep — Data Link

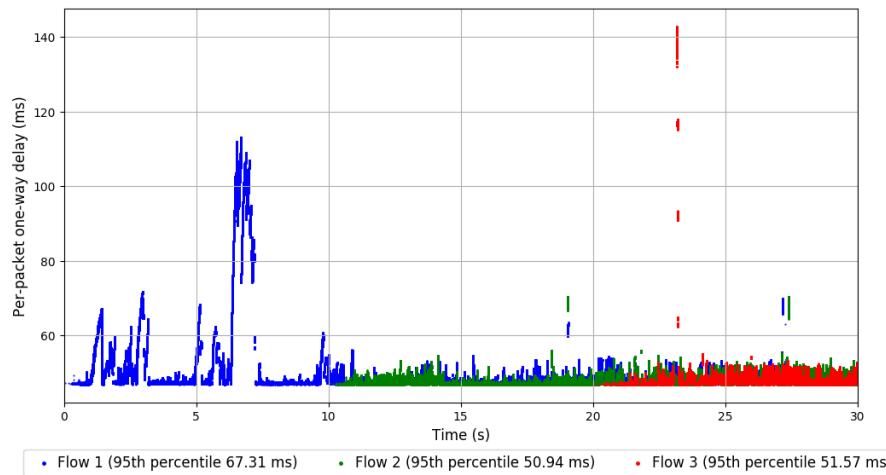
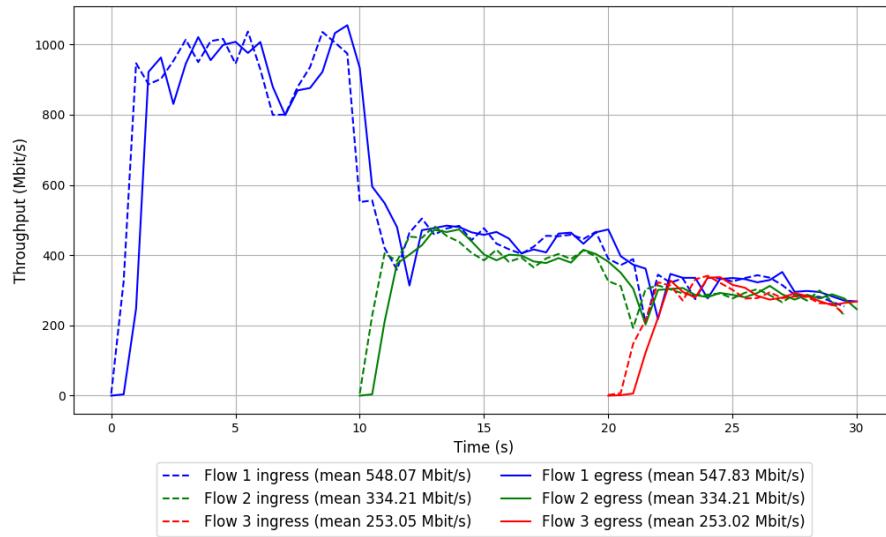


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-01-22 10:37:33
End at: 2019-01-22 10:38:03
Local clock offset: 0.515 ms
Remote clock offset: -0.107 ms

# Below is generated by plot.py at 2019-01-22 13:17:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 854.16 Mbit/s
95th percentile per-packet one-way delay: 61.544 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 547.83 Mbit/s
95th percentile per-packet one-way delay: 67.307 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 334.21 Mbit/s
95th percentile per-packet one-way delay: 50.941 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 253.02 Mbit/s
95th percentile per-packet one-way delay: 51.571 ms
Loss rate: 0.00%
```

Run 3: Report of FillP-Sheep — Data Link

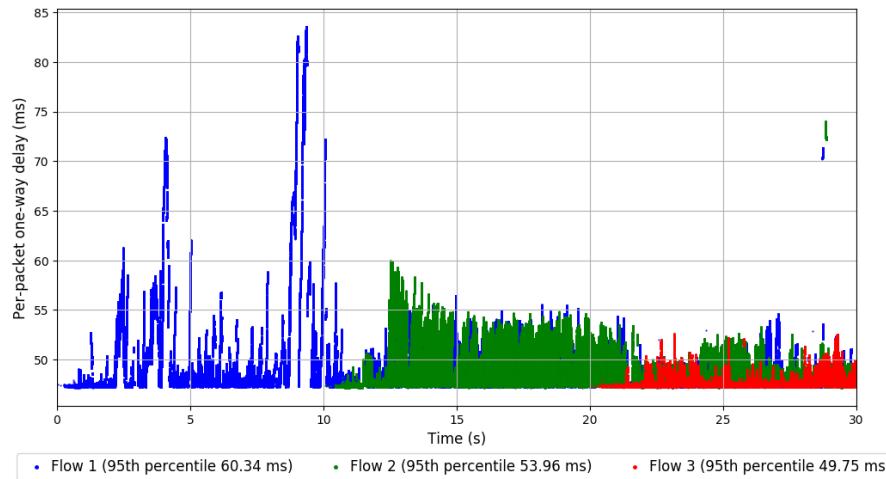
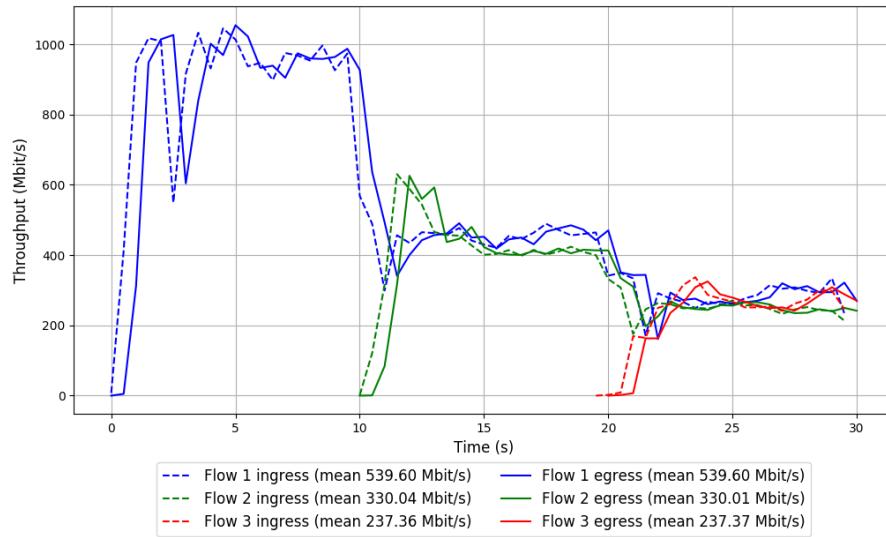


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-01-22 11:14:32
End at: 2019-01-22 11:15:02
Local clock offset: 0.252 ms
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2019-01-22 13:19:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 837.86 Mbit/s
95th percentile per-packet one-way delay: 57.019 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 539.60 Mbit/s
95th percentile per-packet one-way delay: 60.345 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 330.01 Mbit/s
95th percentile per-packet one-way delay: 53.963 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 237.37 Mbit/s
95th percentile per-packet one-way delay: 49.753 ms
Loss rate: 0.00%
```

Run 4: Report of FillP-Sheep — Data Link

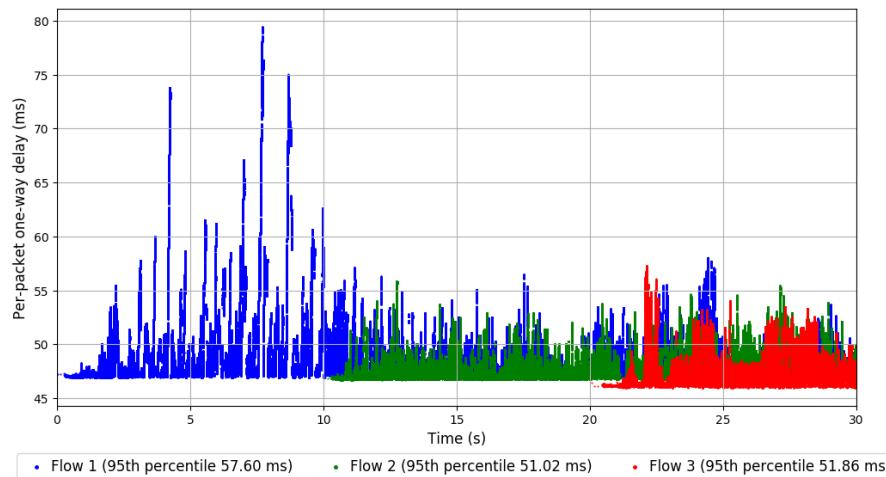
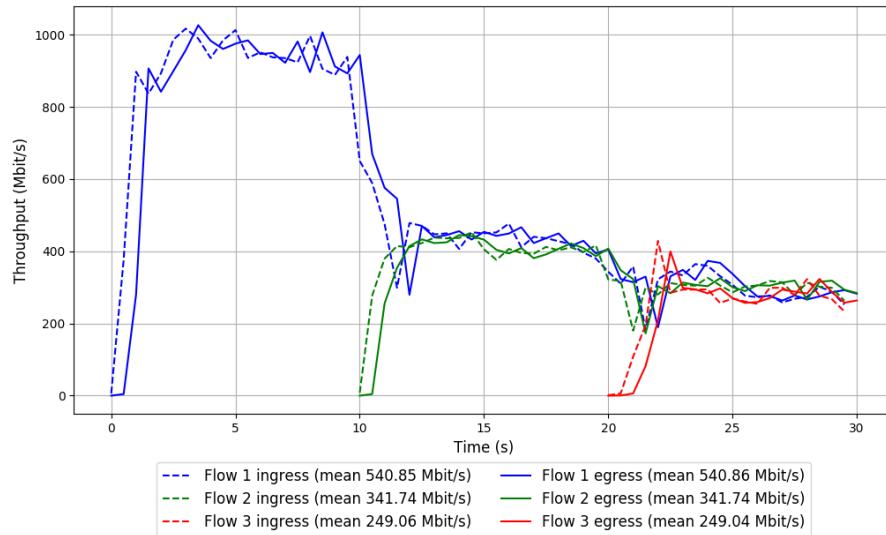


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-01-22 11:51:11
End at: 2019-01-22 11:51:41
Local clock offset: 0.28 ms
Remote clock offset: 0.005 ms

# Below is generated by plot.py at 2019-01-22 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 850.41 Mbit/s
95th percentile per-packet one-way delay: 55.201 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 540.86 Mbit/s
95th percentile per-packet one-way delay: 57.599 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 341.74 Mbit/s
95th percentile per-packet one-way delay: 51.020 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 249.04 Mbit/s
95th percentile per-packet one-way delay: 51.858 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link

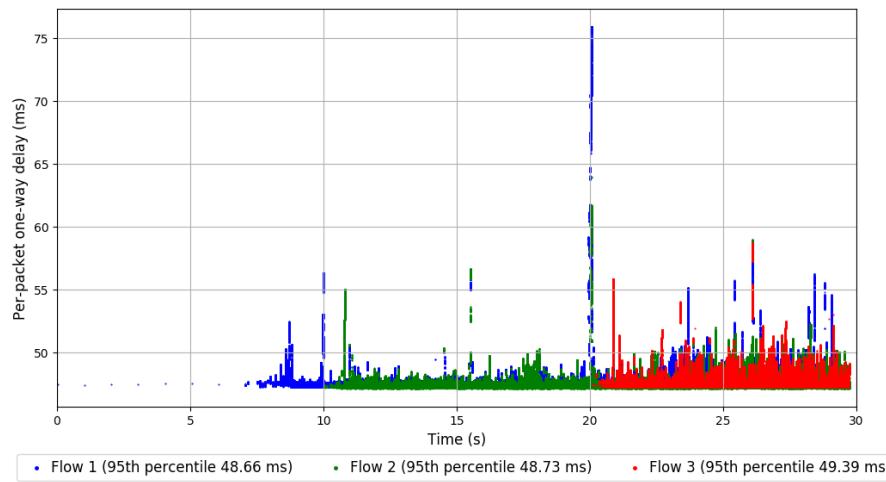
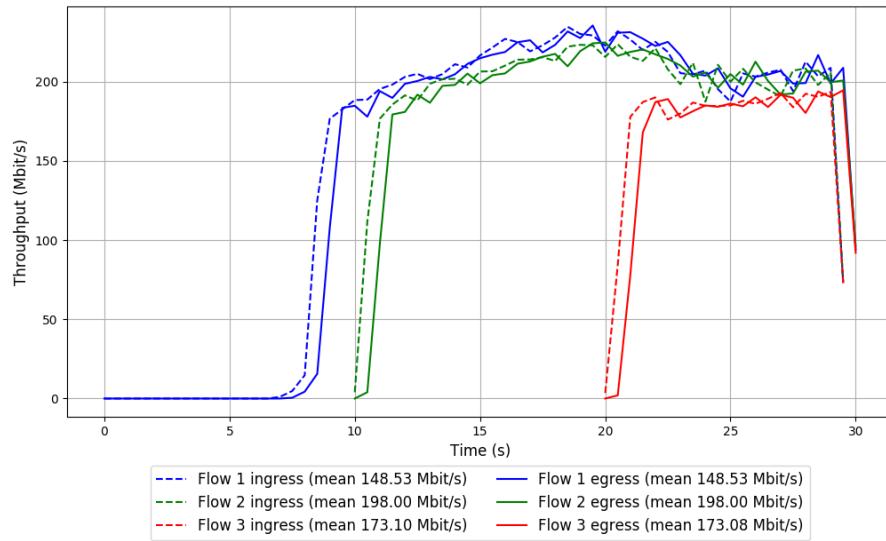


Run 1: Statistics of Indigo

```
Start at: 2019-01-22 08:57:56
End at: 2019-01-22 08:58:26
Local clock offset: 0.024 ms
Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2019-01-22 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 335.82 Mbit/s
95th percentile per-packet one-way delay: 48.861 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 148.53 Mbit/s
95th percentile per-packet one-way delay: 48.664 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 198.00 Mbit/s
95th percentile per-packet one-way delay: 48.728 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 173.08 Mbit/s
95th percentile per-packet one-way delay: 49.390 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link

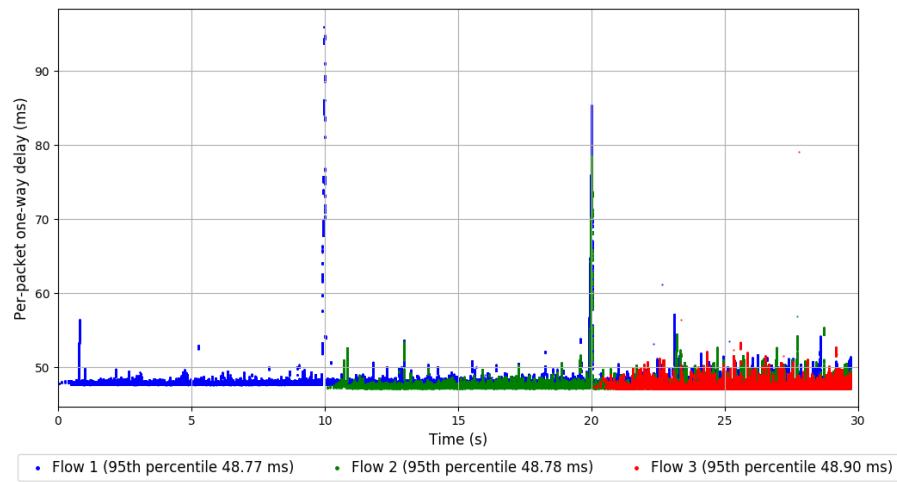
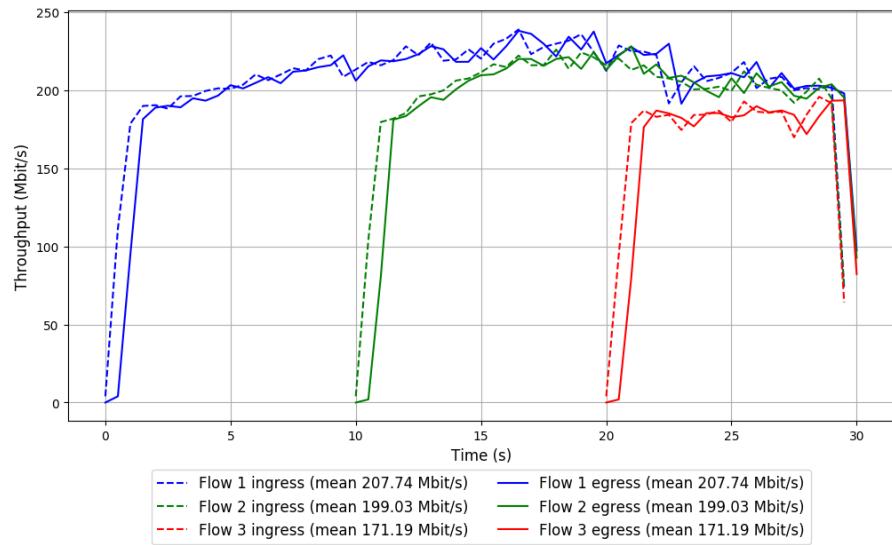


Run 2: Statistics of Indigo

```
Start at: 2019-01-22 09:34:07
End at: 2019-01-22 09:34:37
Local clock offset: -0.01 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2019-01-22 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 394.97 Mbit/s
95th percentile per-packet one-way delay: 48.799 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 207.74 Mbit/s
95th percentile per-packet one-way delay: 48.771 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 199.03 Mbit/s
95th percentile per-packet one-way delay: 48.778 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 171.19 Mbit/s
95th percentile per-packet one-way delay: 48.901 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link

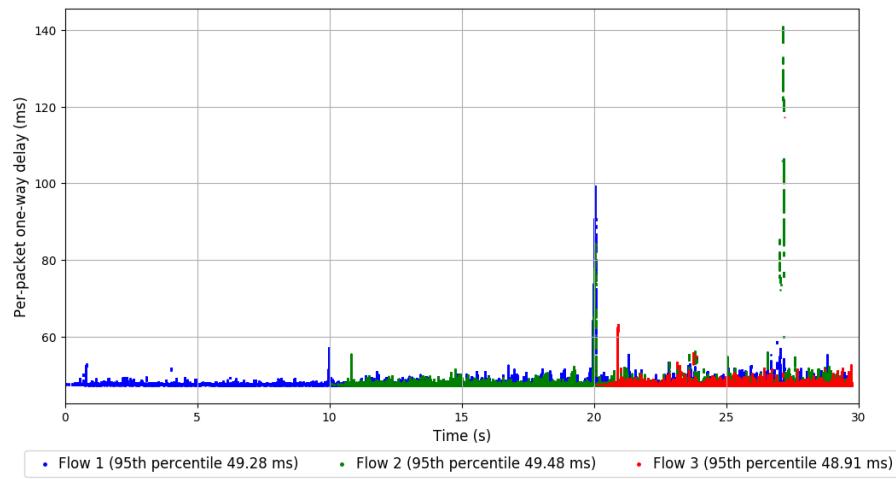
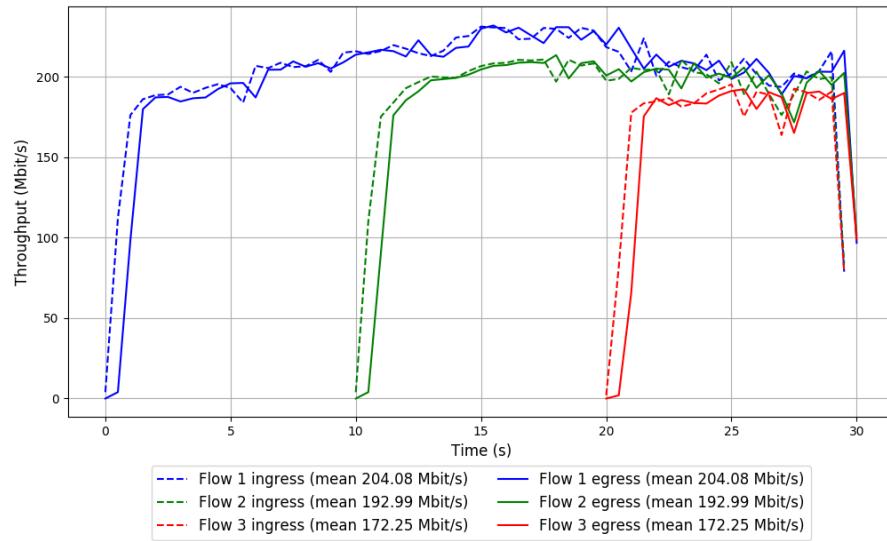


Run 3: Statistics of Indigo

```
Start at: 2019-01-22 10:11:27
End at: 2019-01-22 10:11:57
Local clock offset: 0.037 ms
Remote clock offset: 0.009 ms

# Below is generated by plot.py at 2019-01-22 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.78 Mbit/s
95th percentile per-packet one-way delay: 49.282 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.08 Mbit/s
95th percentile per-packet one-way delay: 49.280 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.99 Mbit/s
95th percentile per-packet one-way delay: 49.478 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 172.25 Mbit/s
95th percentile per-packet one-way delay: 48.908 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link

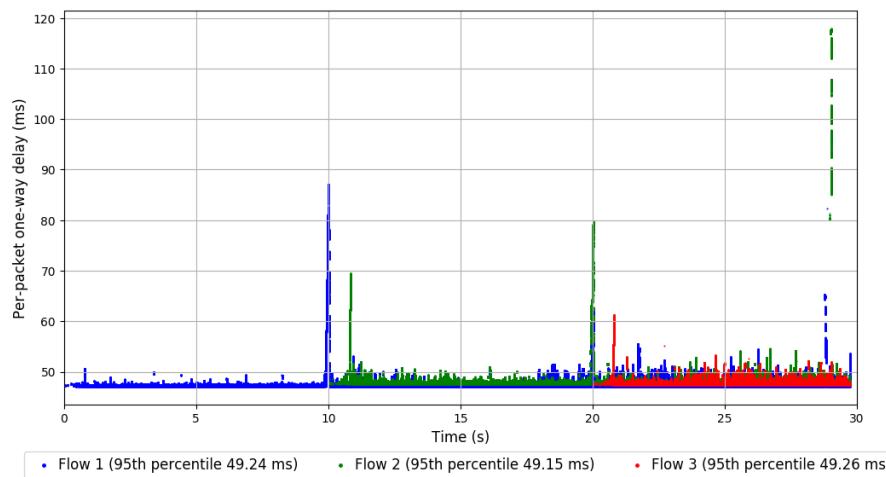
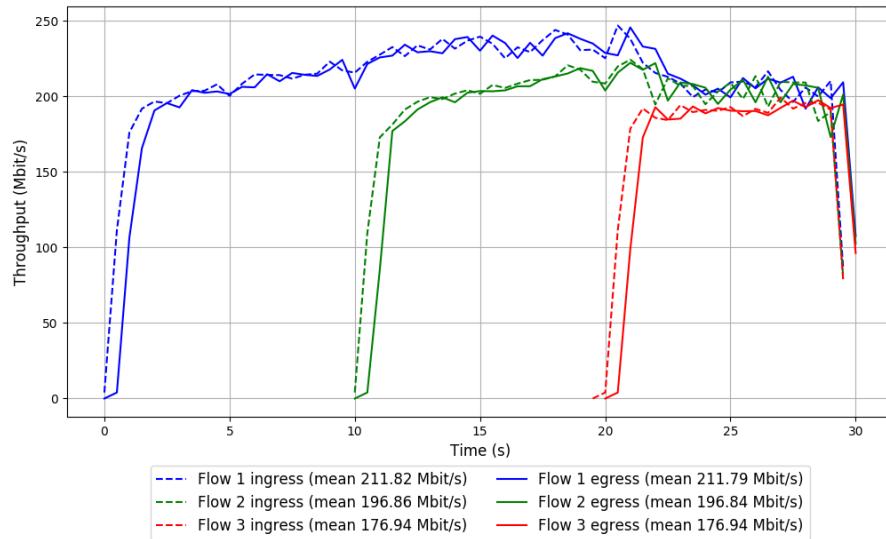


Run 4: Statistics of Indigo

```
Start at: 2019-01-22 10:48:25
End at: 2019-01-22 10:48:55
Local clock offset: 0.145 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2019-01-22 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 399.97 Mbit/s
95th percentile per-packet one-way delay: 49.210 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 211.79 Mbit/s
95th percentile per-packet one-way delay: 49.243 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 196.84 Mbit/s
95th percentile per-packet one-way delay: 49.146 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 176.94 Mbit/s
95th percentile per-packet one-way delay: 49.260 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link

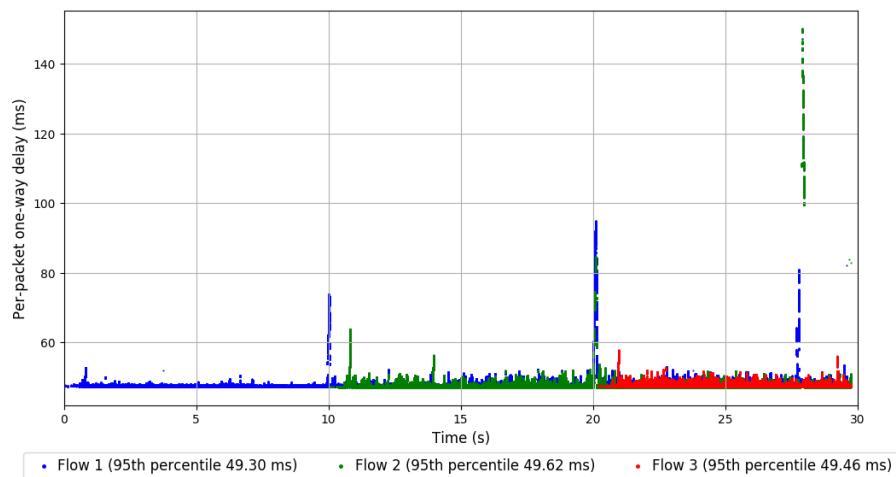
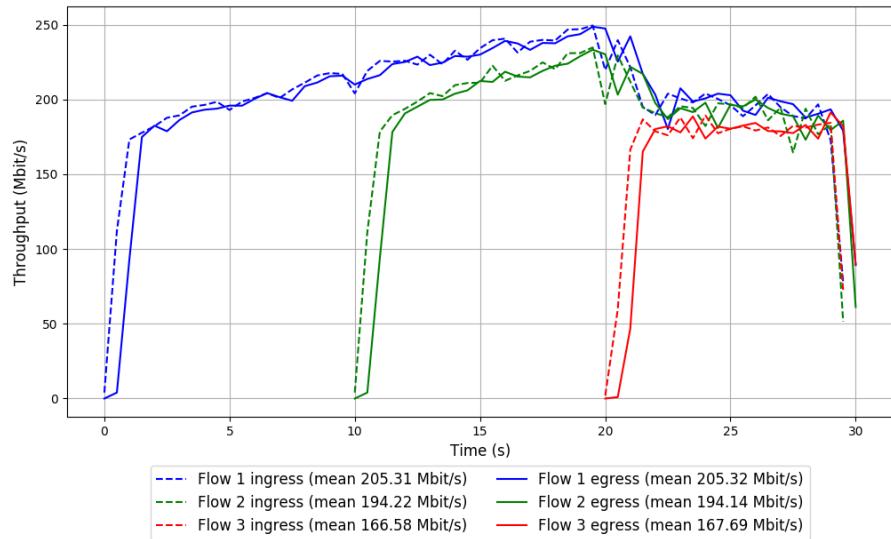


Run 5: Statistics of Indigo

```
Start at: 2019-01-22 11:25:08
End at: 2019-01-22 11:25:38
Local clock offset: 0.132 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2019-01-22 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 387.84 Mbit/s
95th percentile per-packet one-way delay: 49.405 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 205.32 Mbit/s
95th percentile per-packet one-way delay: 49.295 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.14 Mbit/s
95th percentile per-packet one-way delay: 49.620 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 167.69 Mbit/s
95th percentile per-packet one-way delay: 49.458 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link

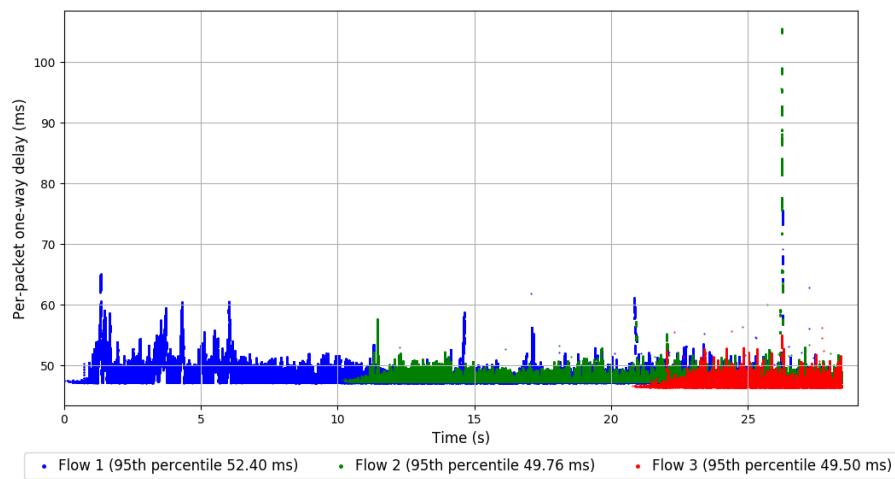
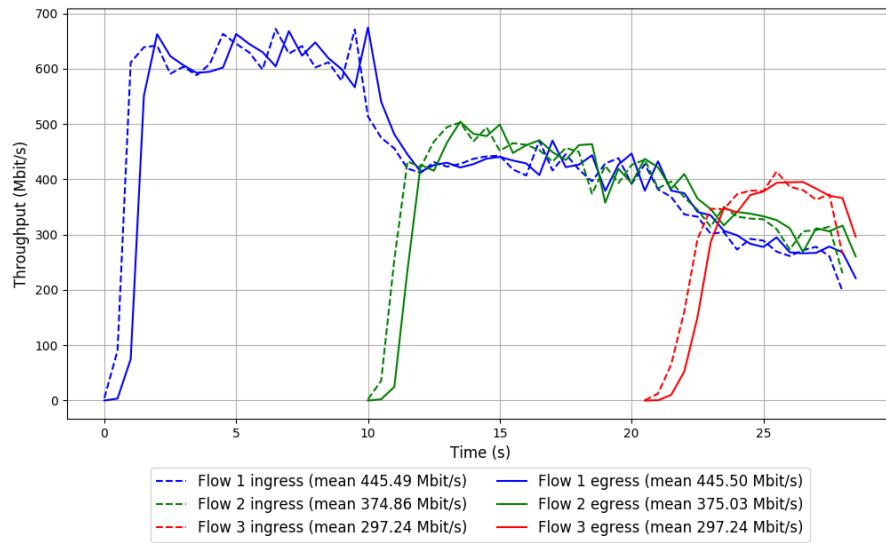


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-01-22 09:26:32
End at: 2019-01-22 09:27:02
Local clock offset: 0.008 ms
Remote clock offset: -0.074 ms

# Below is generated by plot.py at 2019-01-22 13:32:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 766.74 Mbit/s
95th percentile per-packet one-way delay: 51.308 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 445.50 Mbit/s
95th percentile per-packet one-way delay: 52.400 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 375.03 Mbit/s
95th percentile per-packet one-way delay: 49.764 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 297.24 Mbit/s
95th percentile per-packet one-way delay: 49.502 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesC3 — Data Link

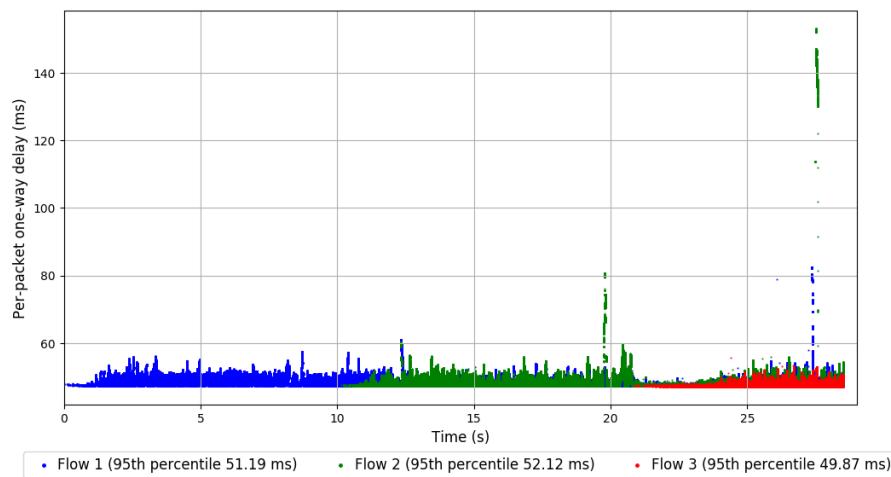
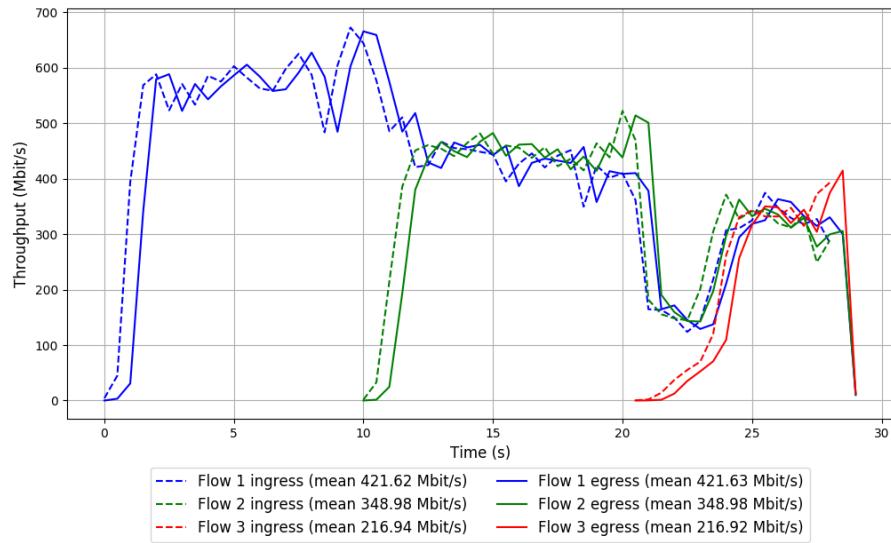


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-01-22 10:03:42
End at: 2019-01-22 10:04:12
Local clock offset: 0.091 ms
Remote clock offset: 0.139 ms

# Below is generated by plot.py at 2019-01-22 13:33:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 705.25 Mbit/s
95th percentile per-packet one-way delay: 51.347 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 421.63 Mbit/s
95th percentile per-packet one-way delay: 51.186 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 348.98 Mbit/s
95th percentile per-packet one-way delay: 52.123 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 216.92 Mbit/s
95th percentile per-packet one-way delay: 49.865 ms
Loss rate: 0.04%
```

Run 2: Report of Indigo-MusesC3 — Data Link

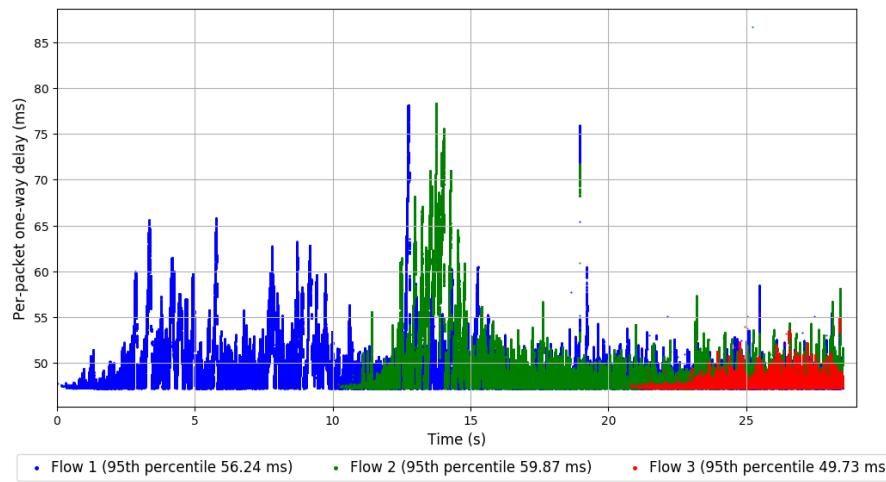
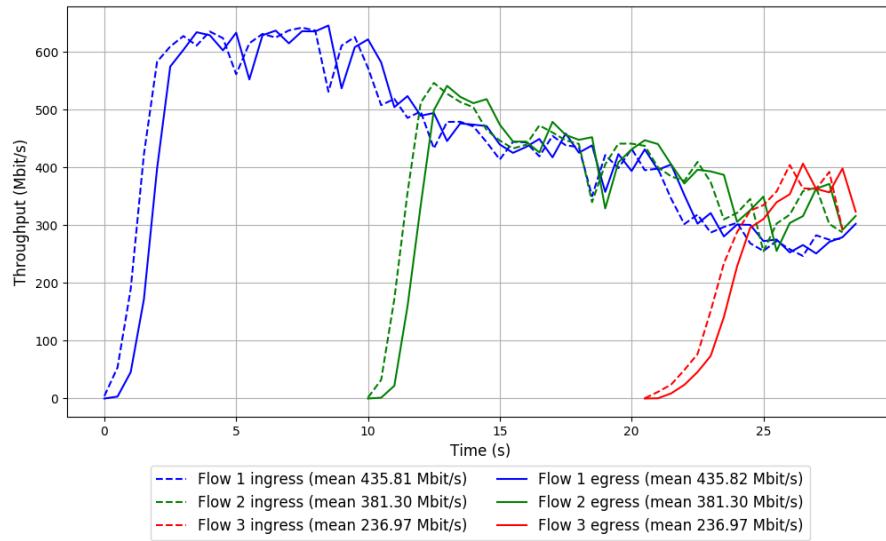


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-01-22 10:40:48
End at: 2019-01-22 10:41:18
Local clock offset: 0.102 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2019-01-22 13:42:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 745.36 Mbit/s
95th percentile per-packet one-way delay: 56.732 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 435.82 Mbit/s
95th percentile per-packet one-way delay: 56.244 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 381.30 Mbit/s
95th percentile per-packet one-way delay: 59.870 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 236.97 Mbit/s
95th percentile per-packet one-way delay: 49.732 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC3 — Data Link

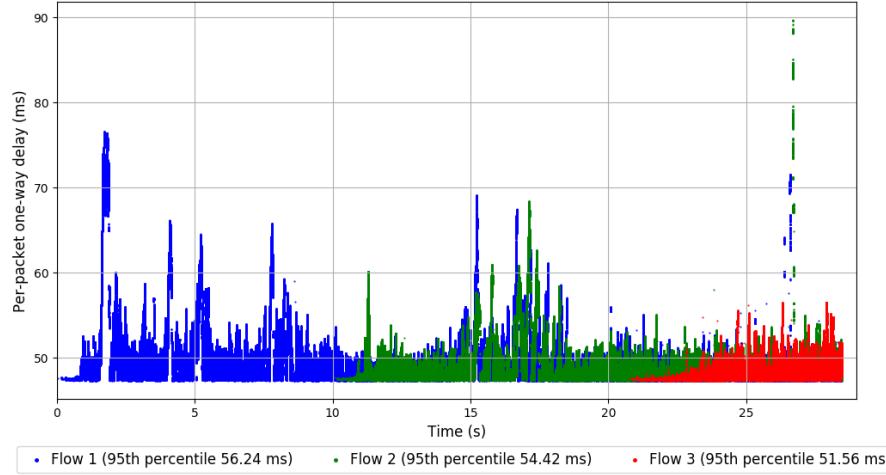
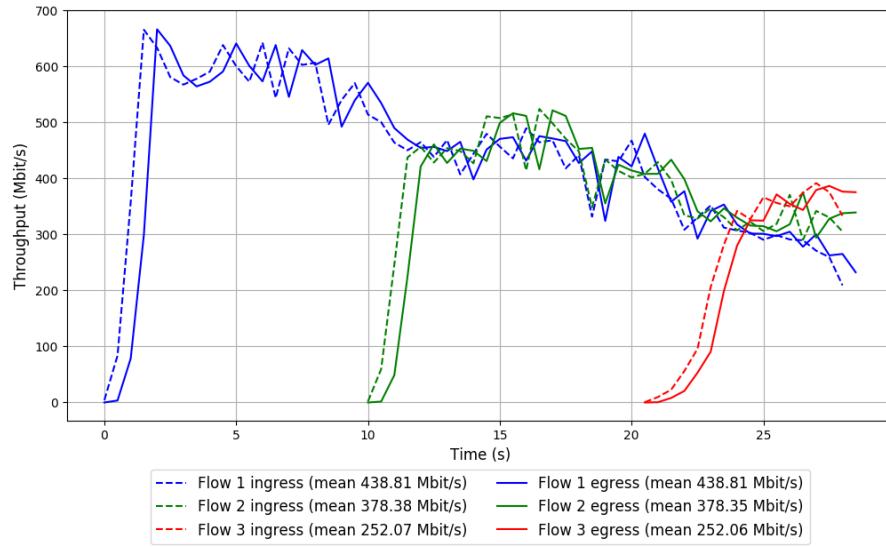


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-01-22 11:17:37
End at: 2019-01-22 11:18:07
Local clock offset: 0.139 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2019-01-22 13:44:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 752.01 Mbit/s
95th percentile per-packet one-way delay: 55.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 438.81 Mbit/s
95th percentile per-packet one-way delay: 56.238 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 378.35 Mbit/s
95th percentile per-packet one-way delay: 54.425 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 252.06 Mbit/s
95th percentile per-packet one-way delay: 51.564 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC3 — Data Link

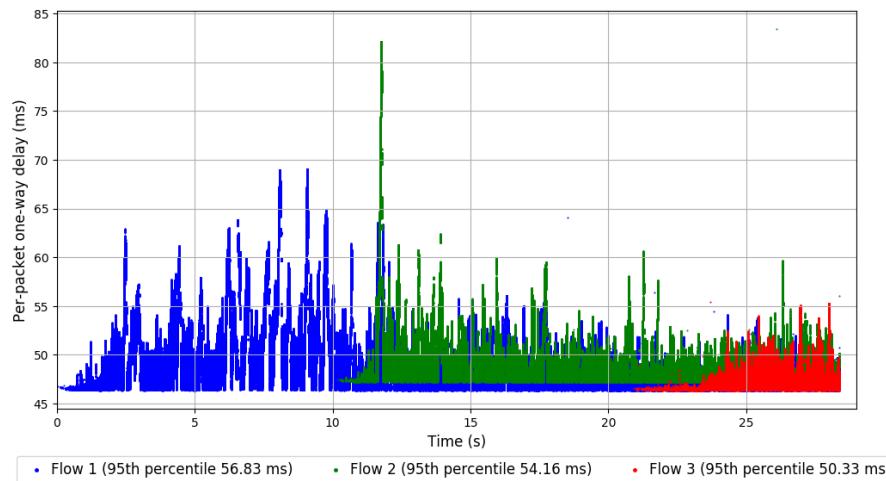
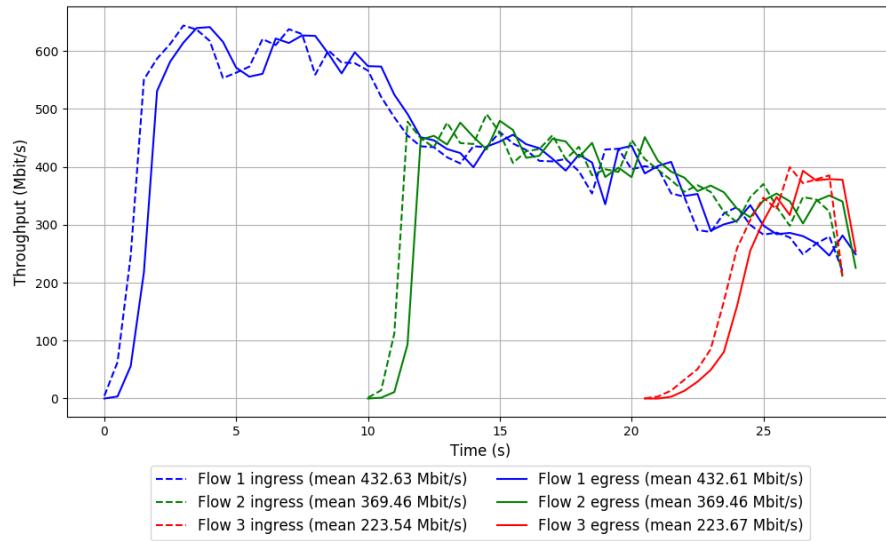


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-01-22 11:54:10
End at: 2019-01-22 11:54:40
Local clock offset: -0.09 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-01-22 13:44:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 728.77 Mbit/s
95th percentile per-packet one-way delay: 55.652 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 432.61 Mbit/s
95th percentile per-packet one-way delay: 56.828 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 369.46 Mbit/s
95th percentile per-packet one-way delay: 54.163 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.67 Mbit/s
95th percentile per-packet one-way delay: 50.330 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC3 — Data Link

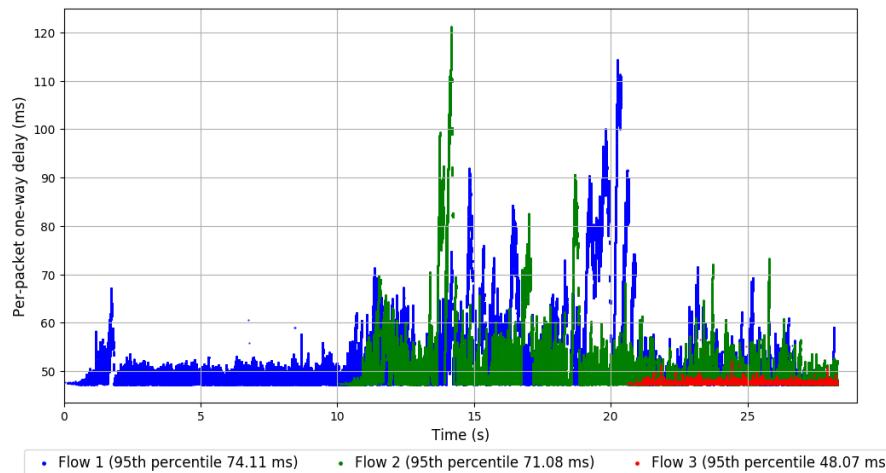
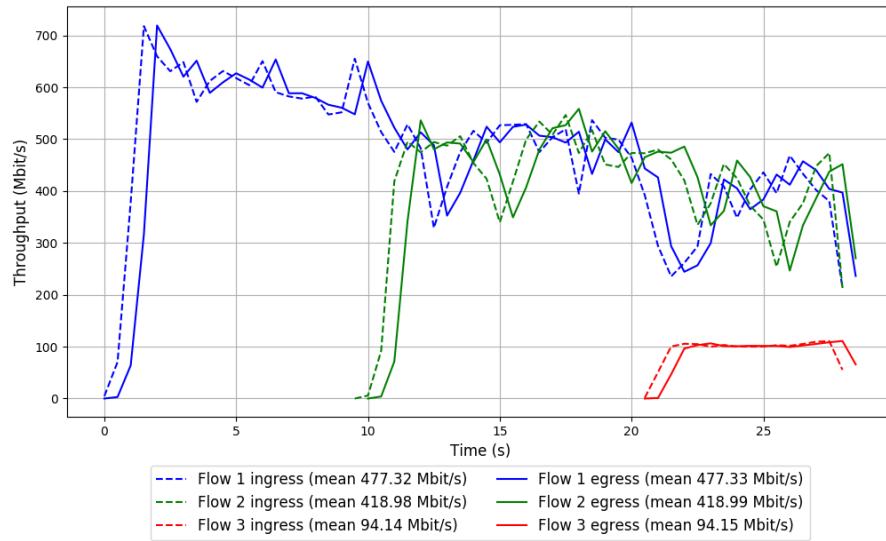


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-01-22 09:14:12
End at: 2019-01-22 09:14:42
Local clock offset: -0.002 ms
Remote clock offset: -0.295 ms

# Below is generated by plot.py at 2019-01-22 13:46:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 774.05 Mbit/s
95th percentile per-packet one-way delay: 72.632 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 477.33 Mbit/s
95th percentile per-packet one-way delay: 74.113 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 418.99 Mbit/s
95th percentile per-packet one-way delay: 71.085 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 94.15 Mbit/s
95th percentile per-packet one-way delay: 48.067 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesC5 — Data Link

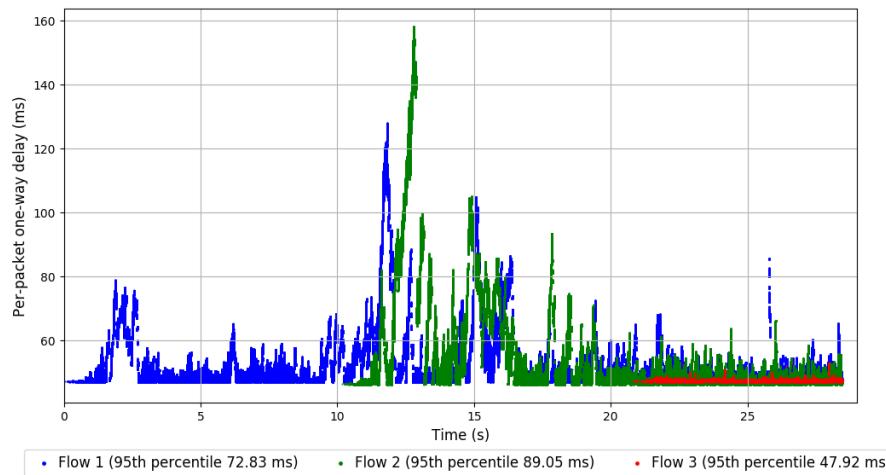
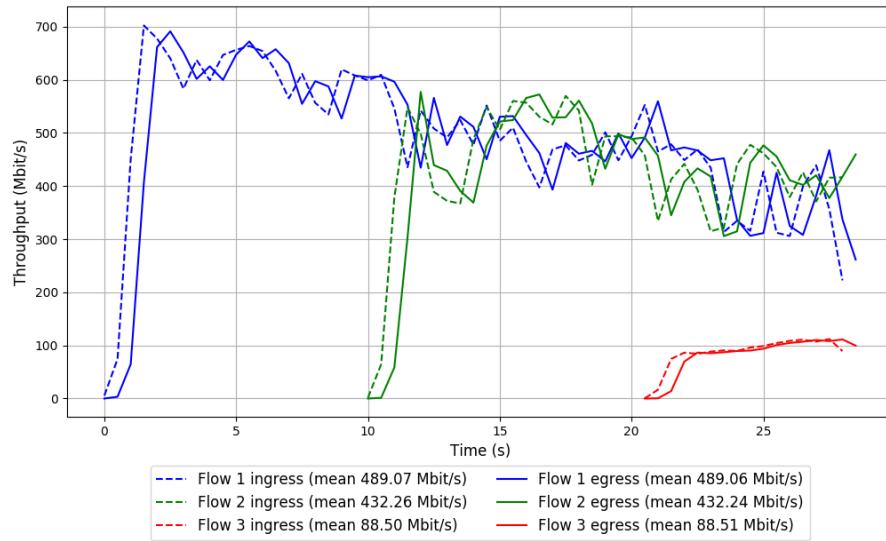


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-01-22 09:50:49
End at: 2019-01-22 09:51:19
Local clock offset: 0.173 ms
Remote clock offset: 0.131 ms

# Below is generated by plot.py at 2019-01-22 13:47:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 790.98 Mbit/s
95th percentile per-packet one-way delay: 79.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 489.06 Mbit/s
95th percentile per-packet one-way delay: 72.827 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 432.24 Mbit/s
95th percentile per-packet one-way delay: 89.048 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 88.51 Mbit/s
95th percentile per-packet one-way delay: 47.922 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesC5 — Data Link

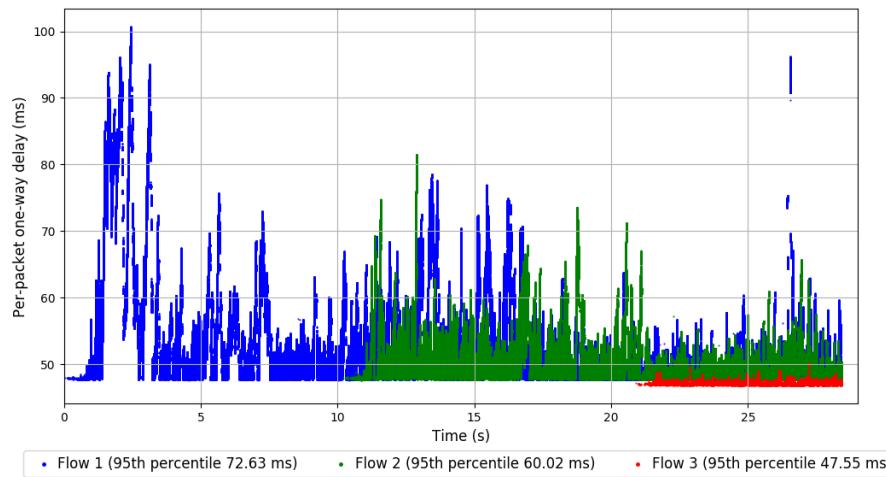
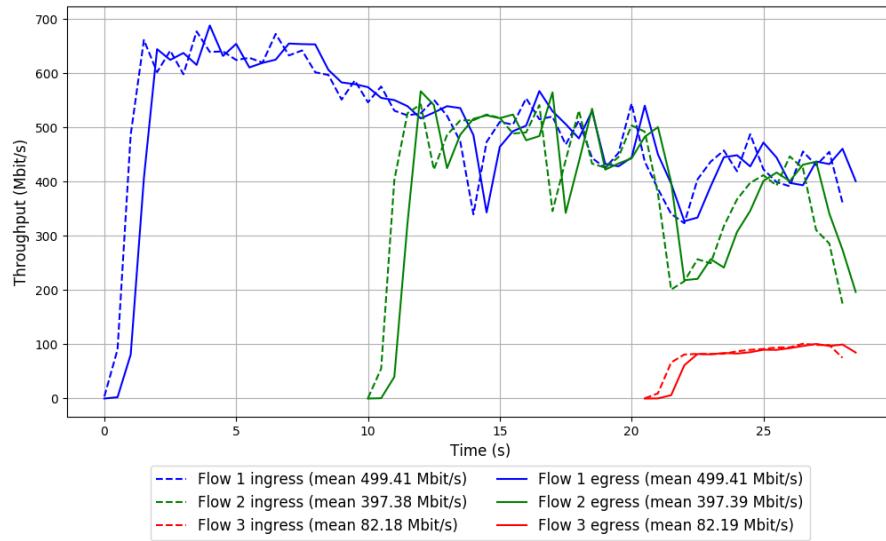


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-01-22 10:28:38
End at: 2019-01-22 10:29:08
Local clock offset: -0.298 ms
Remote clock offset: -0.021 ms

# Below is generated by plot.py at 2019-01-22 13:47:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 776.12 Mbit/s
95th percentile per-packet one-way delay: 67.523 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 499.41 Mbit/s
95th percentile per-packet one-way delay: 72.633 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 397.39 Mbit/s
95th percentile per-packet one-way delay: 60.016 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 82.19 Mbit/s
95th percentile per-packet one-way delay: 47.554 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC5 — Data Link

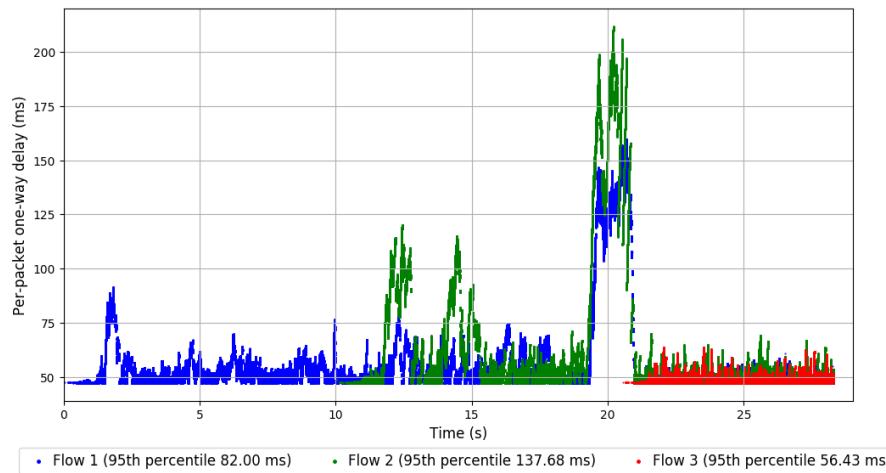
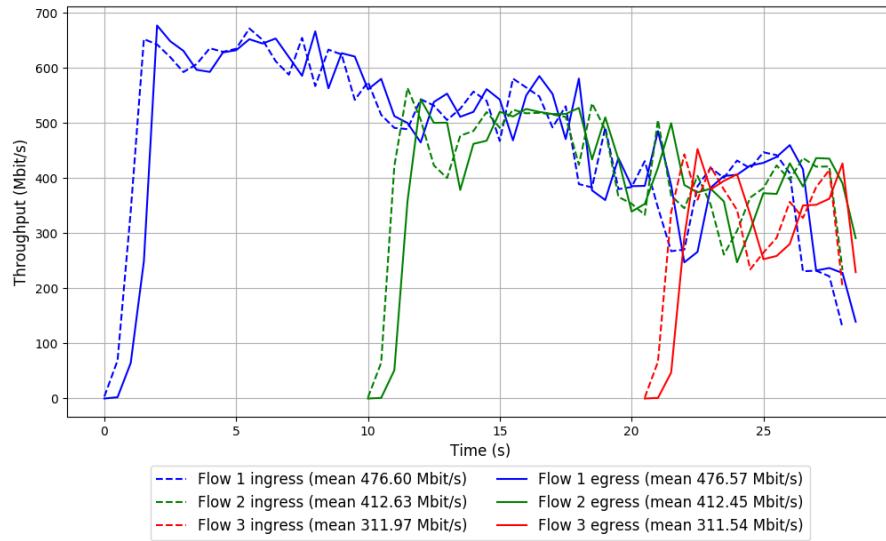


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-01-22 11:05:14
End at: 2019-01-22 11:05:44
Local clock offset: 0.078 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2019-01-22 13:49:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 828.23 Mbit/s
95th percentile per-packet one-way delay: 103.948 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 476.57 Mbit/s
95th percentile per-packet one-way delay: 82.003 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 412.45 Mbit/s
95th percentile per-packet one-way delay: 137.679 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 311.54 Mbit/s
95th percentile per-packet one-way delay: 56.429 ms
Loss rate: 0.13%
```

Run 4: Report of Indigo-MusesC5 — Data Link

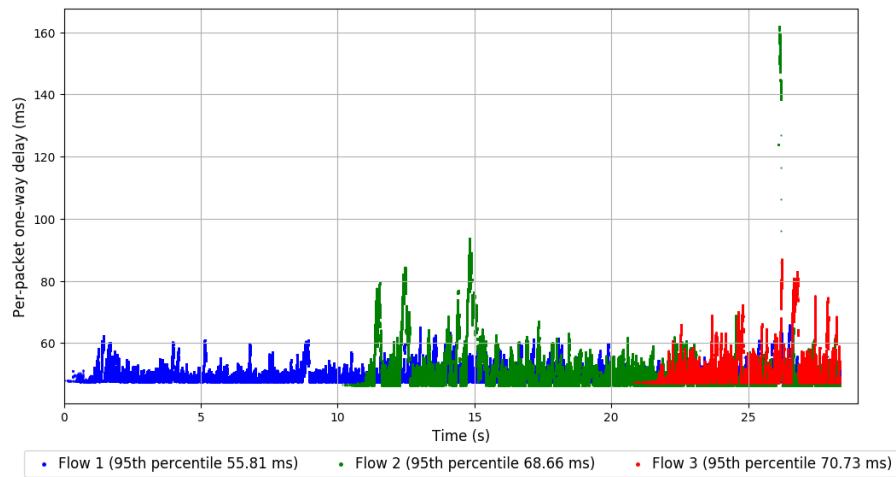
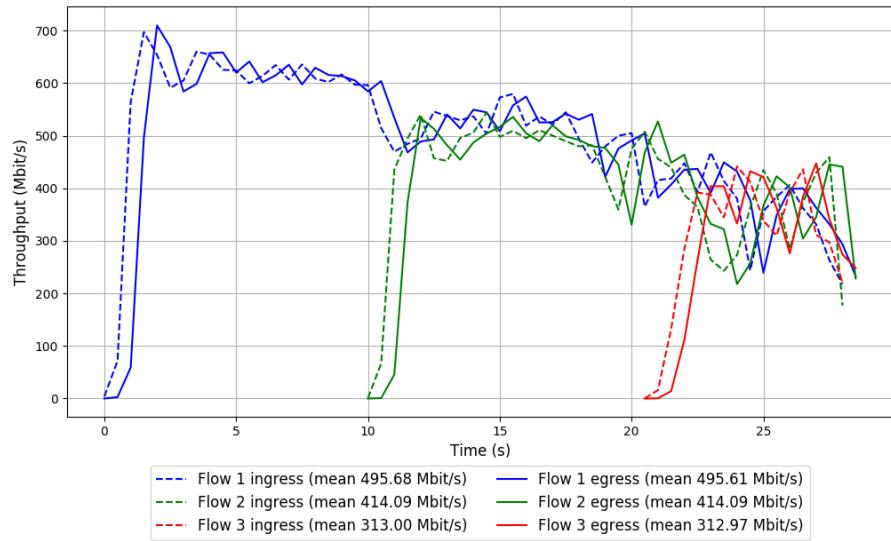


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-01-22 11:41:51
End at: 2019-01-22 11:42:21
Local clock offset: -0.023 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2019-01-22 13:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 845.08 Mbit/s
95th percentile per-packet one-way delay: 60.169 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 495.61 Mbit/s
95th percentile per-packet one-way delay: 55.813 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 414.09 Mbit/s
95th percentile per-packet one-way delay: 68.662 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 312.97 Mbit/s
95th percentile per-packet one-way delay: 70.728 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC5 — Data Link

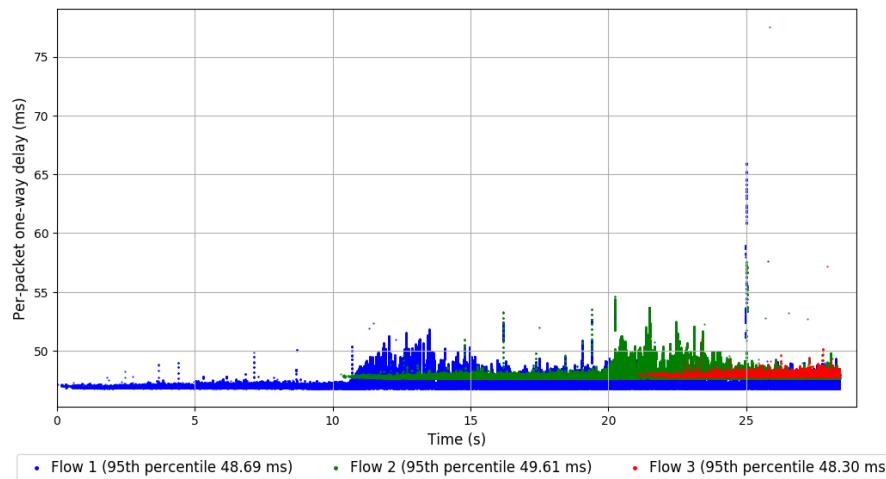
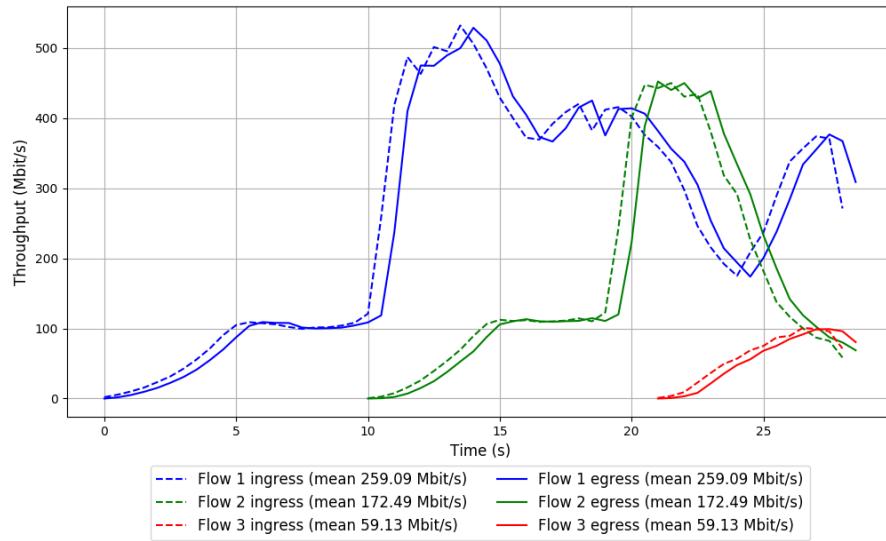


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-01-22 09:25:00
End at: 2019-01-22 09:25:30
Local clock offset: -0.213 ms
Remote clock offset: 0.105 ms

# Below is generated by plot.py at 2019-01-22 13:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 384.55 Mbit/s
95th percentile per-packet one-way delay: 49.024 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 259.09 Mbit/s
95th percentile per-packet one-way delay: 48.692 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 172.49 Mbit/s
95th percentile per-packet one-way delay: 49.607 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.13 Mbit/s
95th percentile per-packet one-way delay: 48.301 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesD — Data Link

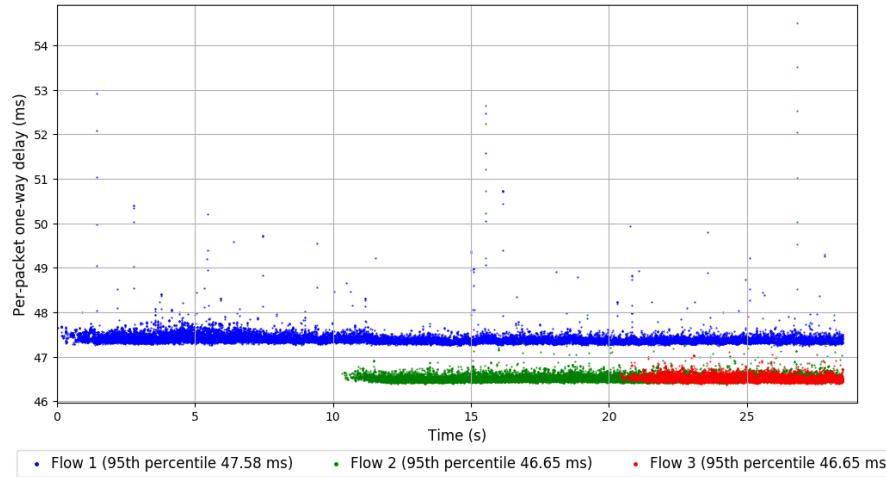
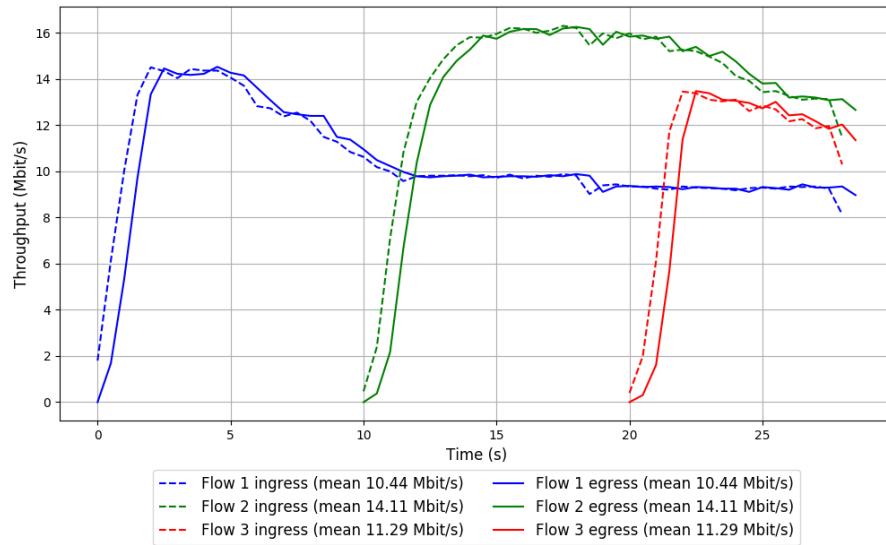


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-01-22 10:02:29
End at: 2019-01-22 10:02:59
Local clock offset: 0.047 ms
Remote clock offset: -0.001 ms

# Below is generated by plot.py at 2019-01-22 13:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.66 Mbit/s
95th percentile per-packet one-way delay: 47.515 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.44 Mbit/s
95th percentile per-packet one-way delay: 47.575 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.11 Mbit/s
95th percentile per-packet one-way delay: 46.647 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 46.652 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesD — Data Link

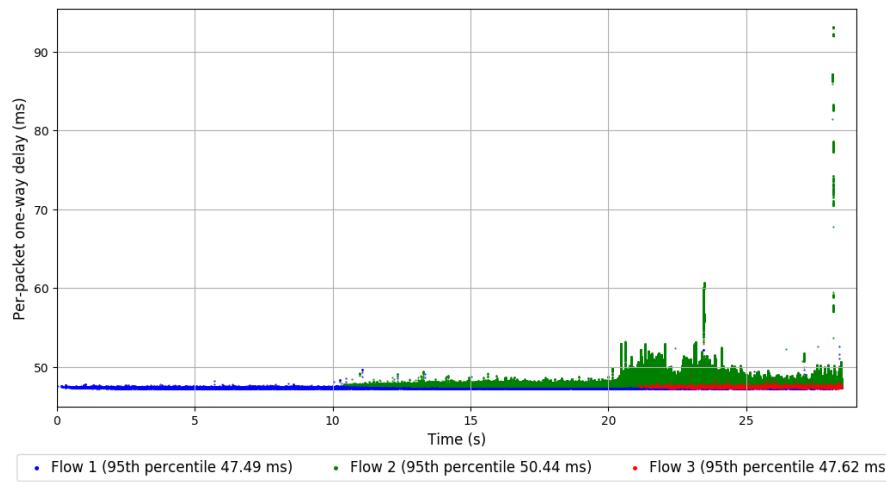
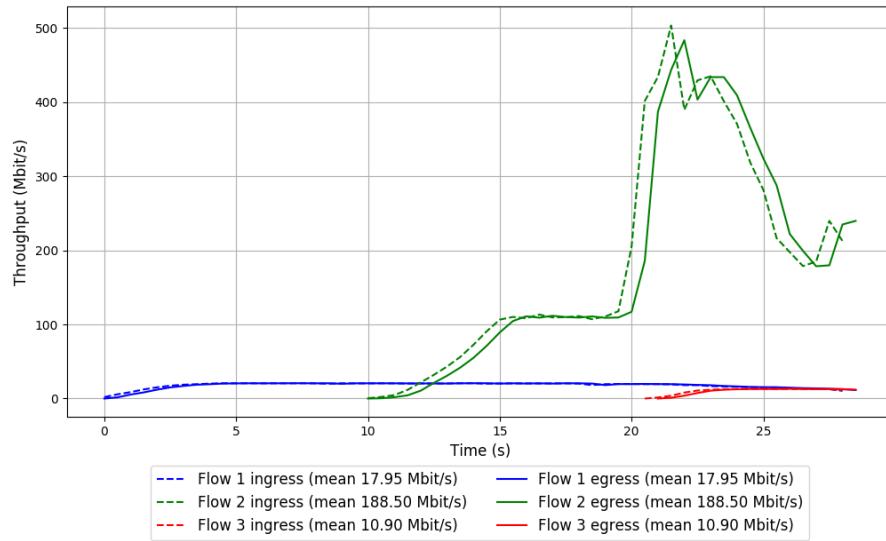


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-01-22 10:39:28
End at: 2019-01-22 10:39:58
Local clock offset: 0.055 ms
Remote clock offset: -0.094 ms

# Below is generated by plot.py at 2019-01-22 13:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 141.09 Mbit/s
95th percentile per-packet one-way delay: 50.263 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 17.95 Mbit/s
95th percentile per-packet one-way delay: 47.495 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 188.50 Mbit/s
95th percentile per-packet one-way delay: 50.437 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 47.622 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesD — Data Link

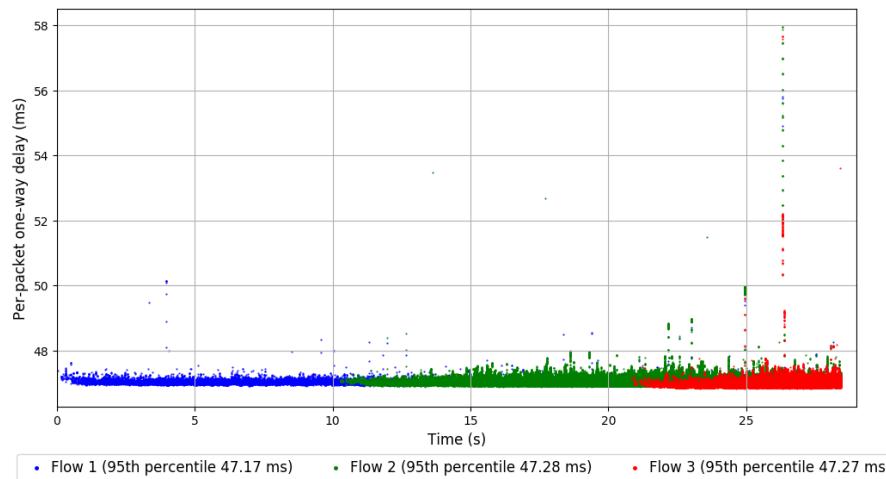
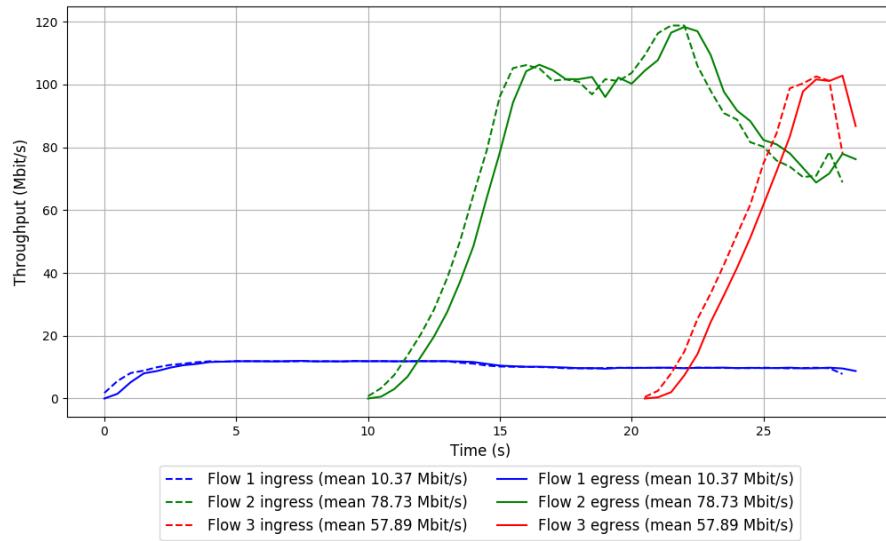


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-01-22 11:16:21
End at: 2019-01-22 11:16:51
Local clock offset: 0.533 ms
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2019-01-22 13:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.49 Mbit/s
95th percentile per-packet one-way delay: 47.262 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.37 Mbit/s
95th percentile per-packet one-way delay: 47.168 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 78.73 Mbit/s
95th percentile per-packet one-way delay: 47.276 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.89 Mbit/s
95th percentile per-packet one-way delay: 47.268 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesD — Data Link

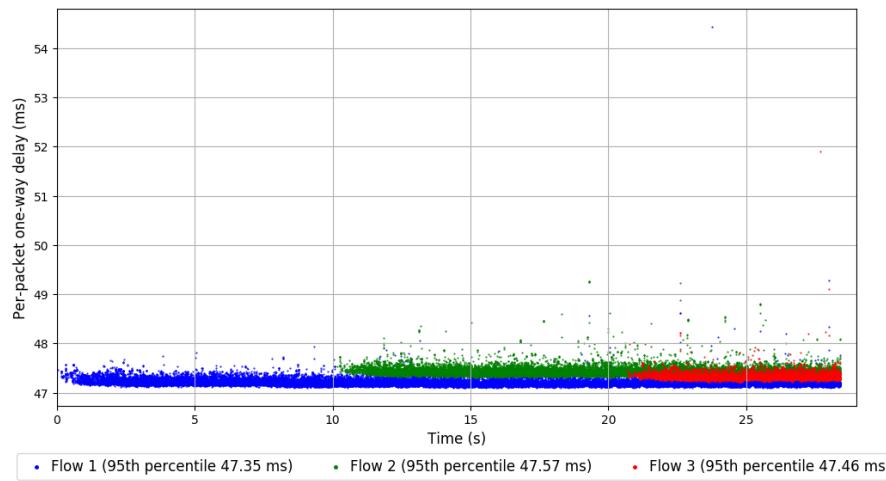
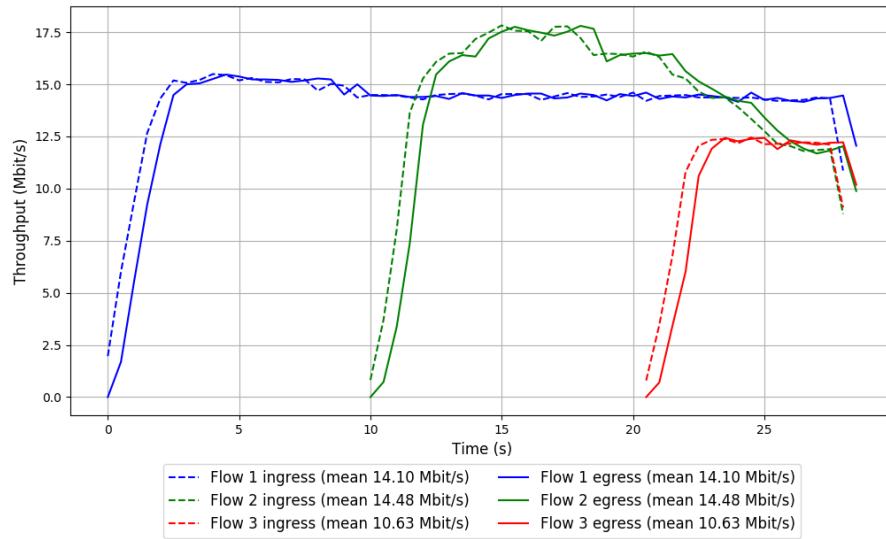


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-01-22 11:52:57
End at: 2019-01-22 11:53:27
Local clock offset: -0.06 ms
Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2019-01-22 13:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.34 Mbit/s
95th percentile per-packet one-way delay: 47.509 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.10 Mbit/s
95th percentile per-packet one-way delay: 47.348 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.48 Mbit/s
95th percentile per-packet one-way delay: 47.574 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.63 Mbit/s
95th percentile per-packet one-way delay: 47.463 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

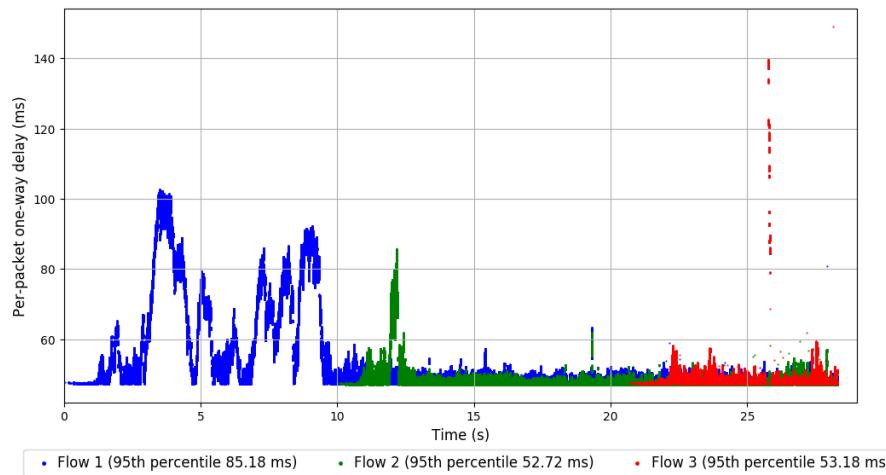
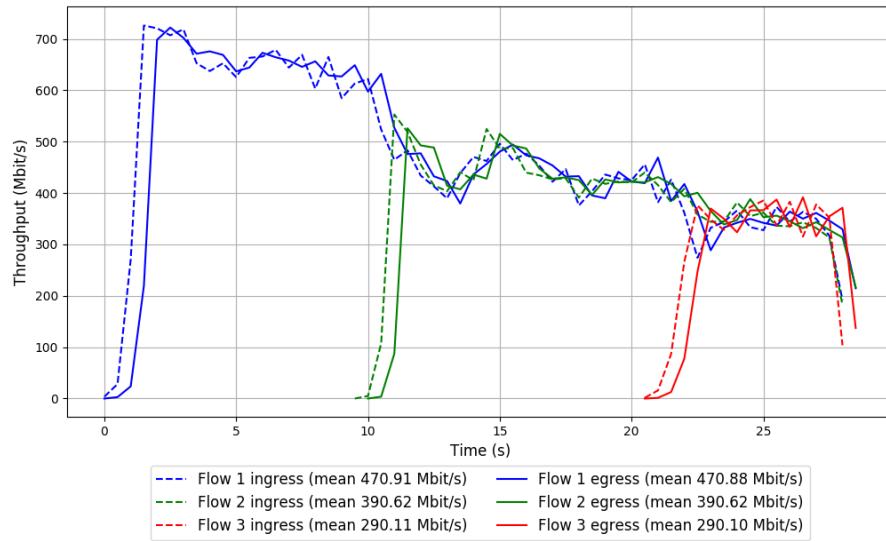


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-01-22 08:59:47
End at: 2019-01-22 09:00:17
Local clock offset: -0.02 ms
Remote clock offset: -0.288 ms

# Below is generated by plot.py at 2019-01-22 14:01:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 801.43 Mbit/s
95th percentile per-packet one-way delay: 80.510 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 470.88 Mbit/s
95th percentile per-packet one-way delay: 85.184 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 390.62 Mbit/s
95th percentile per-packet one-way delay: 52.721 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 290.10 Mbit/s
95th percentile per-packet one-way delay: 53.182 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesT — Data Link

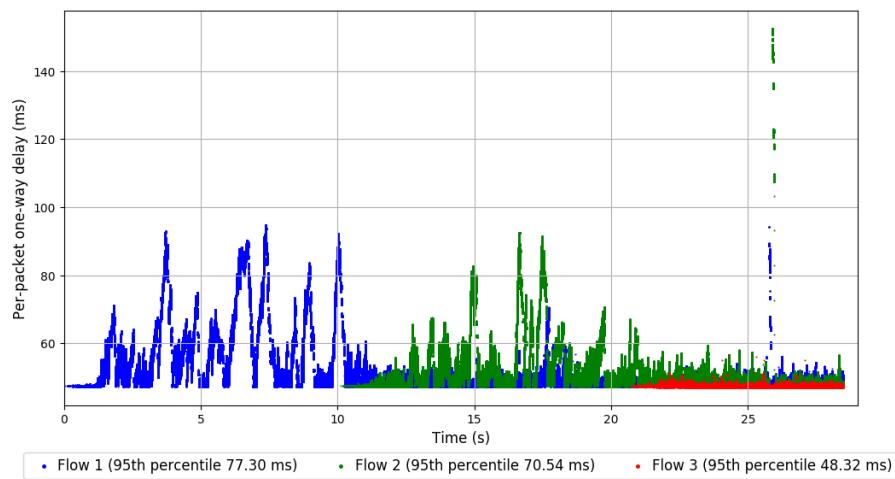
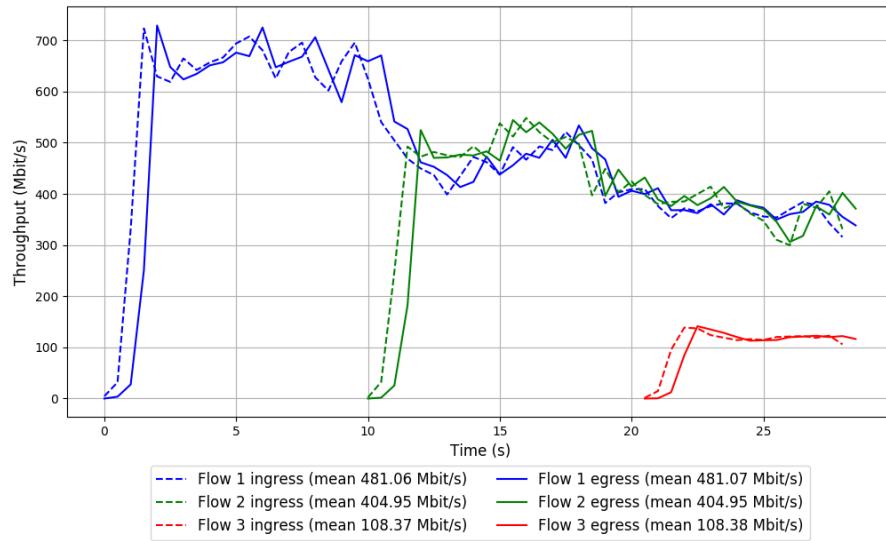


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-01-22 09:36:02
End at: 2019-01-22 09:36:32
Local clock offset: 0.043 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2019-01-22 14:01:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 772.08 Mbit/s
95th percentile per-packet one-way delay: 74.862 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 481.07 Mbit/s
95th percentile per-packet one-way delay: 77.304 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 404.95 Mbit/s
95th percentile per-packet one-way delay: 70.544 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 108.38 Mbit/s
95th percentile per-packet one-way delay: 48.320 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesT — Data Link

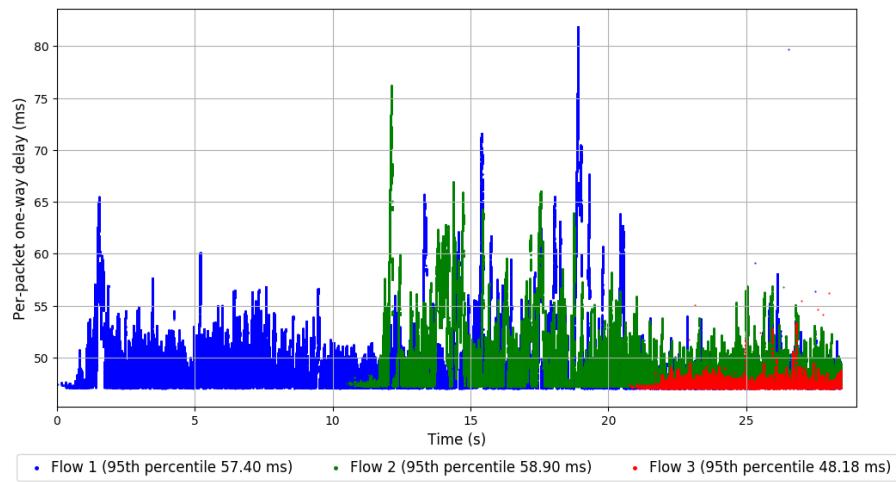
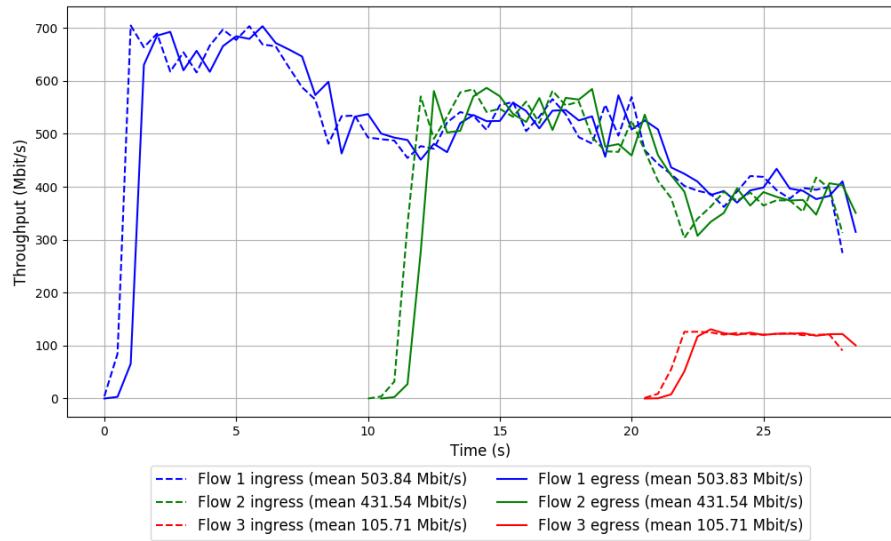


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-01-22 10:13:31
End at: 2019-01-22 10:14:01
Local clock offset: 0.098 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2019-01-22 14:02:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 805.04 Mbit/s
95th percentile per-packet one-way delay: 58.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 503.83 Mbit/s
95th percentile per-packet one-way delay: 57.396 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 431.54 Mbit/s
95th percentile per-packet one-way delay: 58.901 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 105.71 Mbit/s
95th percentile per-packet one-way delay: 48.177 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesT — Data Link

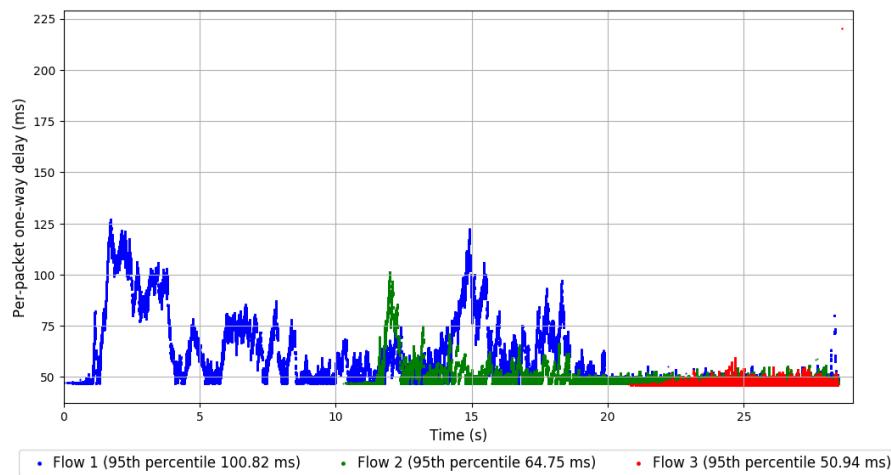
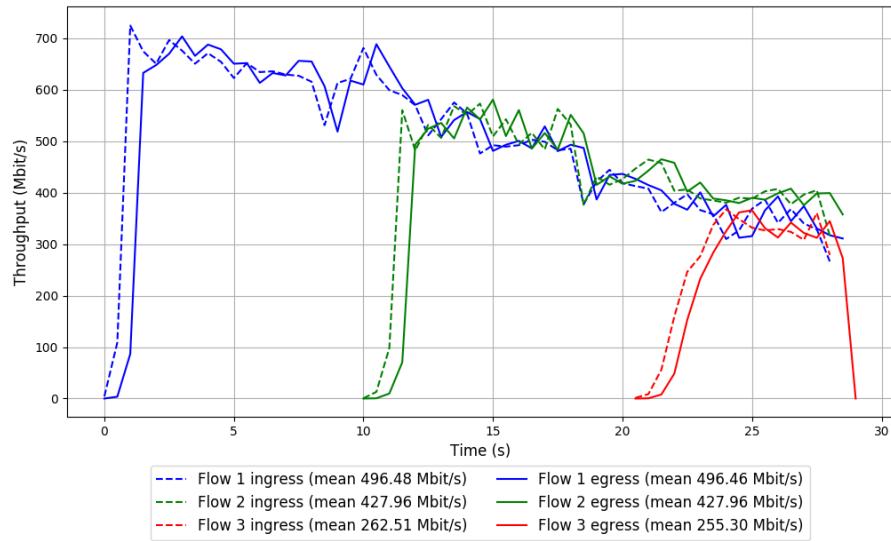


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-01-22 10:50:23
End at: 2019-01-22 10:50:53
Local clock offset: 0.432 ms
Remote clock offset: -0.102 ms

# Below is generated by plot.py at 2019-01-22 14:03:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 837.62 Mbit/s
95th percentile per-packet one-way delay: 94.583 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 496.46 Mbit/s
95th percentile per-packet one-way delay: 100.824 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 427.96 Mbit/s
95th percentile per-packet one-way delay: 64.745 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 255.30 Mbit/s
95th percentile per-packet one-way delay: 50.936 ms
Loss rate: 1.11%
```

Run 4: Report of Indigo-MusesT — Data Link

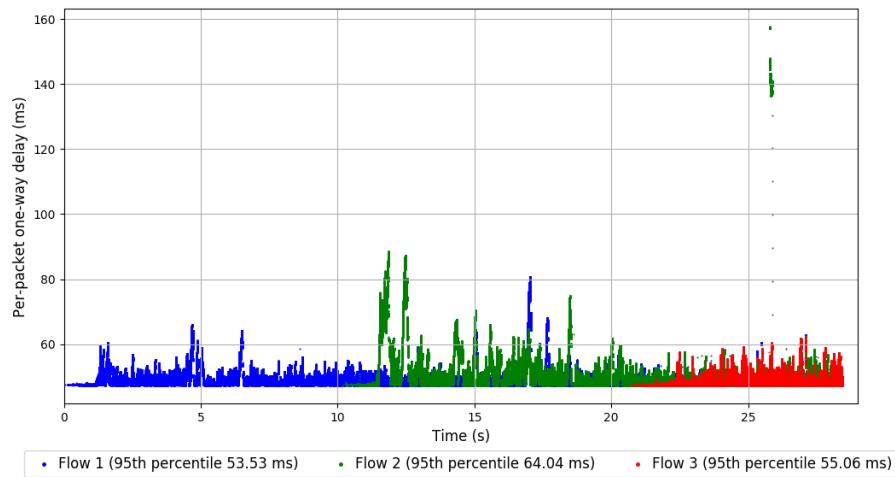
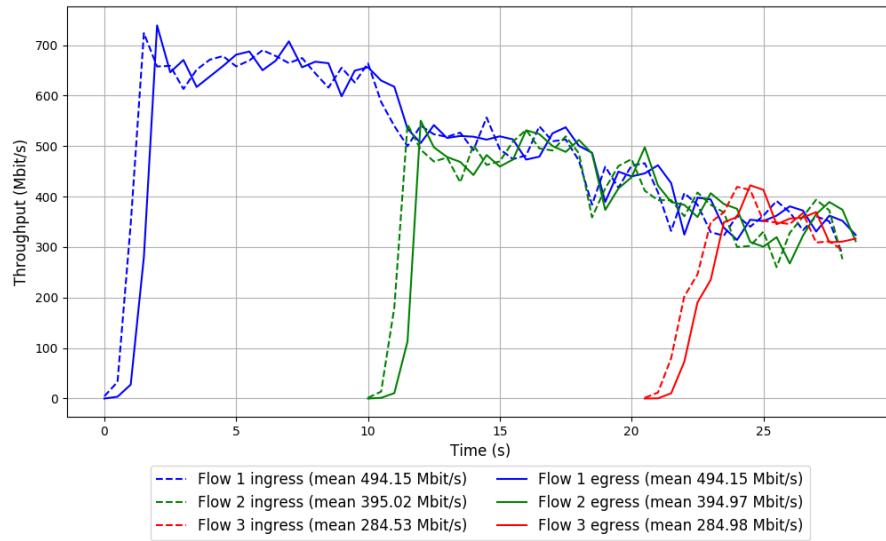


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-01-22 11:27:06
End at: 2019-01-22 11:27:36
Local clock offset: 0.128 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-01-22 14:03:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 825.84 Mbit/s
95th percentile per-packet one-way delay: 57.130 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 494.15 Mbit/s
95th percentile per-packet one-way delay: 53.535 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 394.97 Mbit/s
95th percentile per-packet one-way delay: 64.041 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 284.98 Mbit/s
95th percentile per-packet one-way delay: 55.062 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesT — Data Link

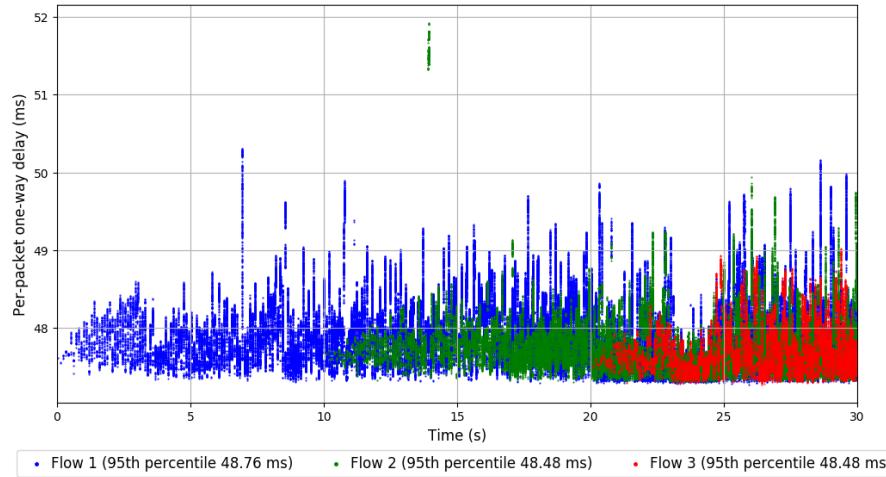
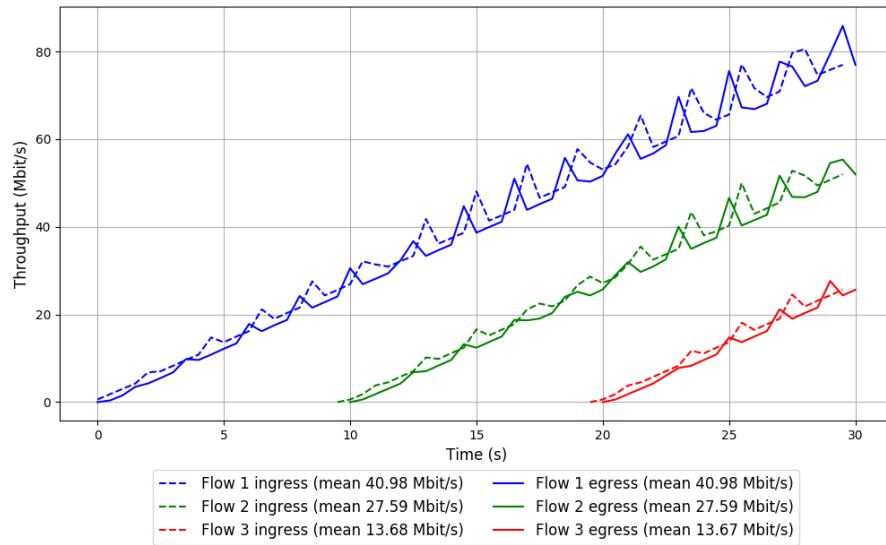


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2019-01-22 09:31:31
End at: 2019-01-22 09:32:01
Local clock offset: -0.025 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2019-01-22 14:03:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.92 Mbit/s
95th percentile per-packet one-way delay: 48.682 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.98 Mbit/s
95th percentile per-packet one-way delay: 48.756 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.59 Mbit/s
95th percentile per-packet one-way delay: 48.480 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.67 Mbit/s
95th percentile per-packet one-way delay: 48.480 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

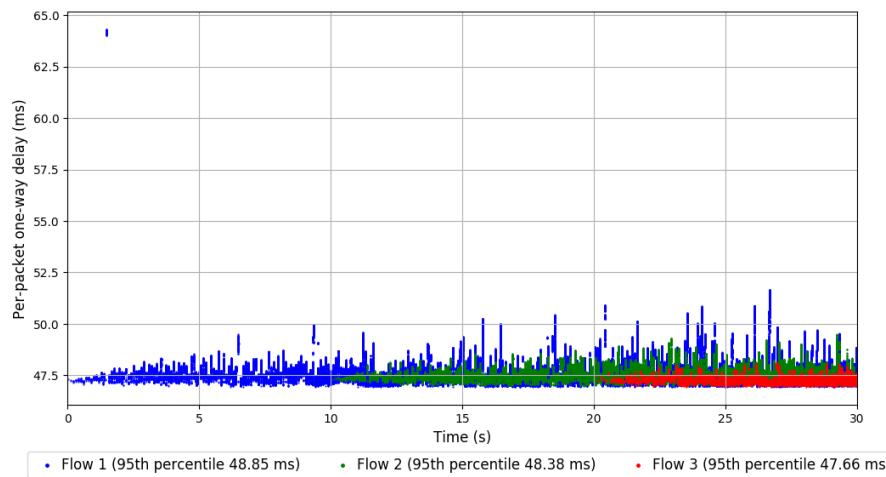
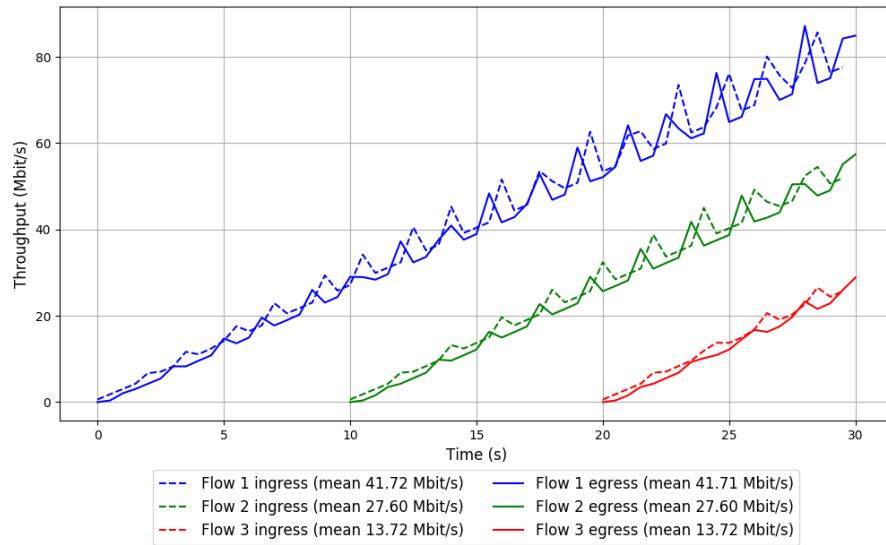


Run 2: Statistics of LEDBAT

```
Start at: 2019-01-22 10:08:48
End at: 2019-01-22 10:09:18
Local clock offset: 0.362 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2019-01-22 14:03:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.63 Mbit/s
95th percentile per-packet one-way delay: 48.679 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.71 Mbit/s
95th percentile per-packet one-way delay: 48.855 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.60 Mbit/s
95th percentile per-packet one-way delay: 48.384 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.72 Mbit/s
95th percentile per-packet one-way delay: 47.658 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

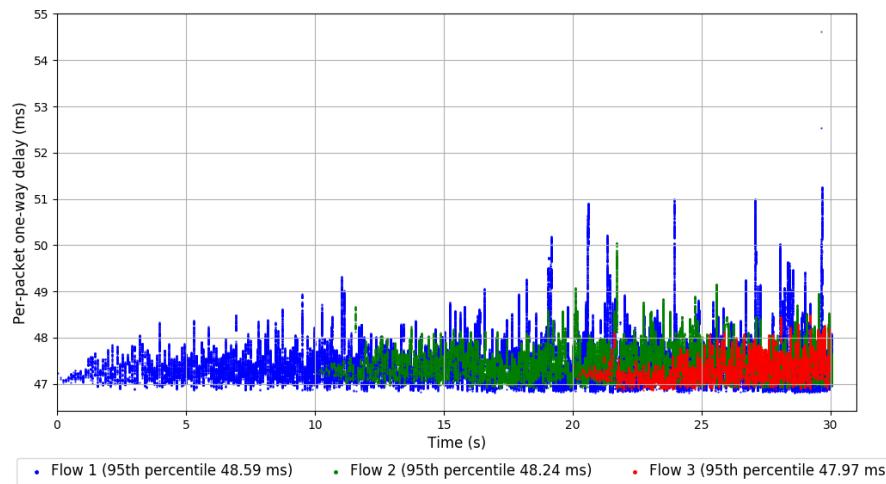
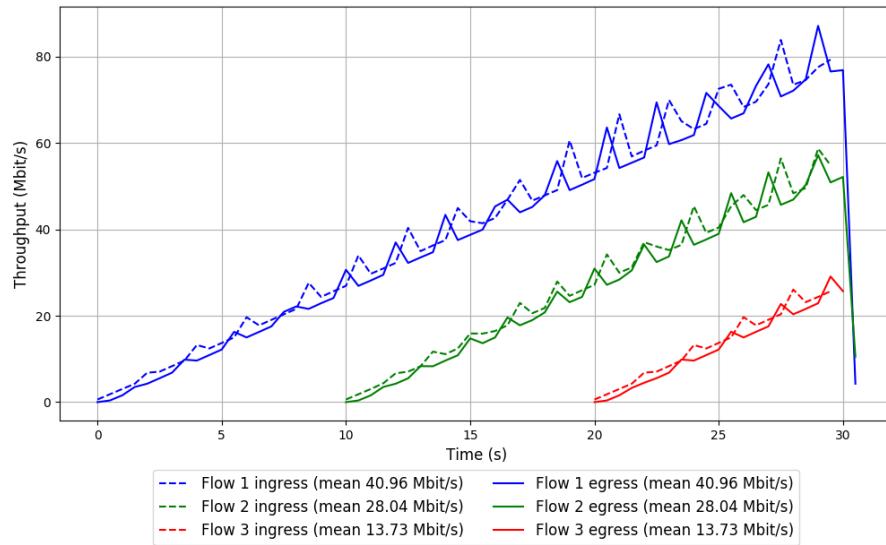


Run 3: Statistics of LEDBAT

```
Start at: 2019-01-22 10:45:51
End at: 2019-01-22 10:46:21
Local clock offset: 0.492 ms
Remote clock offset: -0.096 ms

# Below is generated by plot.py at 2019-01-22 14:03:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.18 Mbit/s
95th percentile per-packet one-way delay: 48.422 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.96 Mbit/s
95th percentile per-packet one-way delay: 48.594 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.04 Mbit/s
95th percentile per-packet one-way delay: 48.245 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.73 Mbit/s
95th percentile per-packet one-way delay: 47.972 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

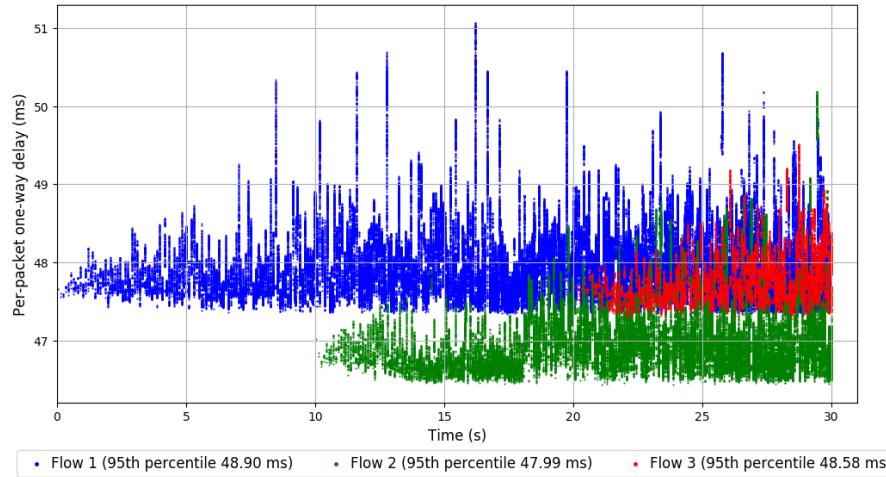
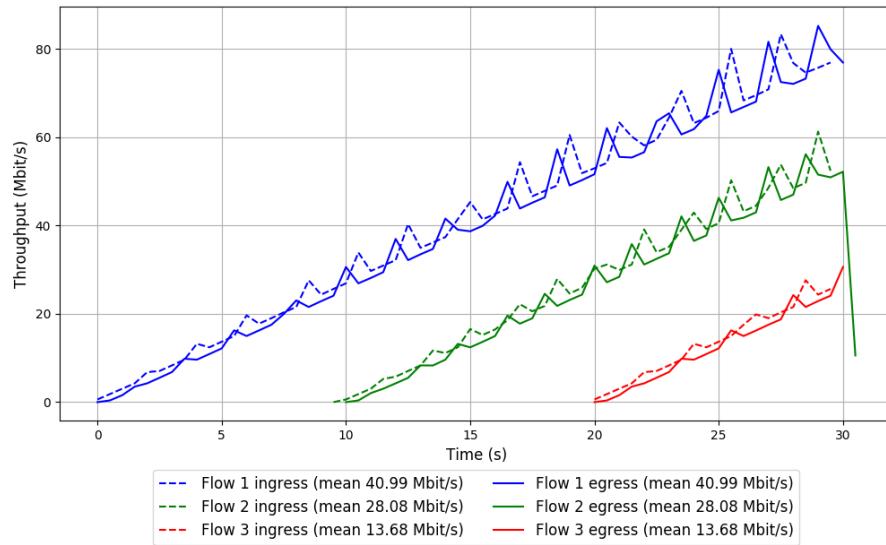


Run 4: Statistics of LEDBAT

```
Start at: 2019-01-22 11:22:32
End at: 2019-01-22 11:23:02
Local clock offset: 0.114 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-01-22 14:03:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.15 Mbit/s
95th percentile per-packet one-way delay: 48.764 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 48.899 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.08 Mbit/s
95th percentile per-packet one-way delay: 47.989 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.68 Mbit/s
95th percentile per-packet one-way delay: 48.575 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

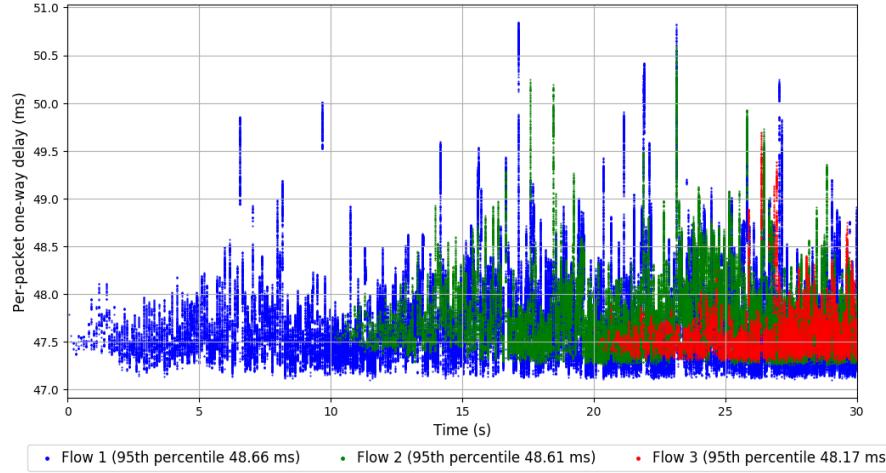
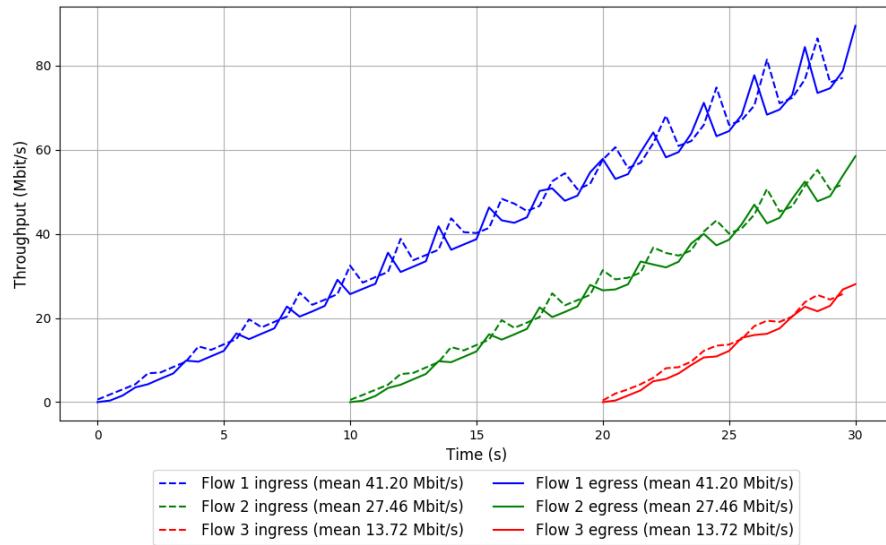


Run 5: Statistics of LEDBAT

```
Start at: 2019-01-22 11:59:13
End at: 2019-01-22 11:59:43
Local clock offset: -0.134 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2019-01-22 14:03:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.01 Mbit/s
95th percentile per-packet one-way delay: 48.627 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.20 Mbit/s
95th percentile per-packet one-way delay: 48.665 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 48.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.72 Mbit/s
95th percentile per-packet one-way delay: 48.173 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

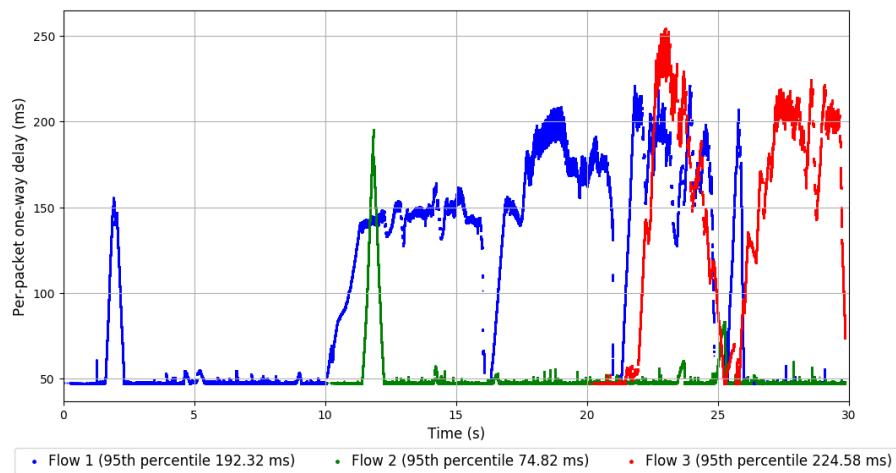
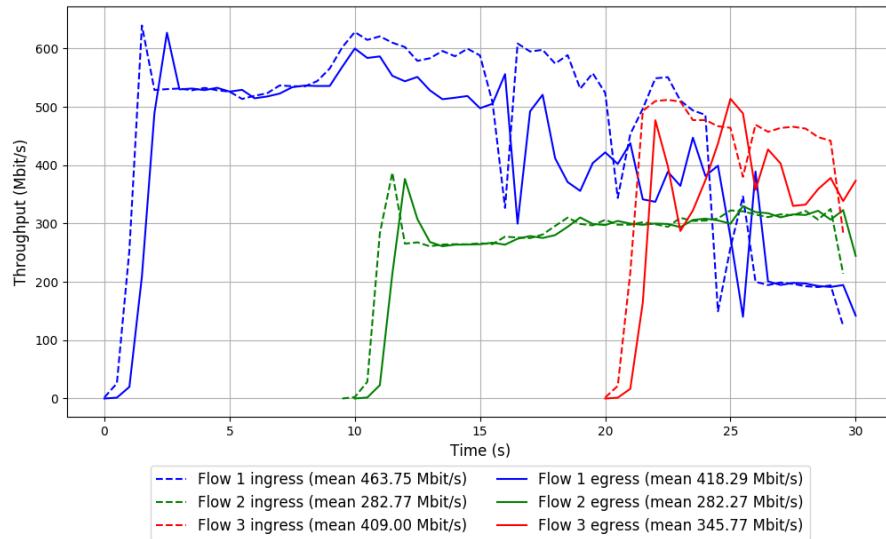


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-01-22 09:01:53
End at: 2019-01-22 09:02:23
Local clock offset: -0.047 ms
Remote clock offset: -0.303 ms

# Below is generated by plot.py at 2019-01-22 14:21:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 719.90 Mbit/s
95th percentile per-packet one-way delay: 200.698 ms
Loss rate: 8.48%
-- Flow 1:
Average throughput: 418.29 Mbit/s
95th percentile per-packet one-way delay: 192.319 ms
Loss rate: 9.82%
-- Flow 2:
Average throughput: 282.27 Mbit/s
95th percentile per-packet one-way delay: 74.816 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 345.77 Mbit/s
95th percentile per-packet one-way delay: 224.579 ms
Loss rate: 15.48%
```

Run 1: Report of PCC-Allegro — Data Link

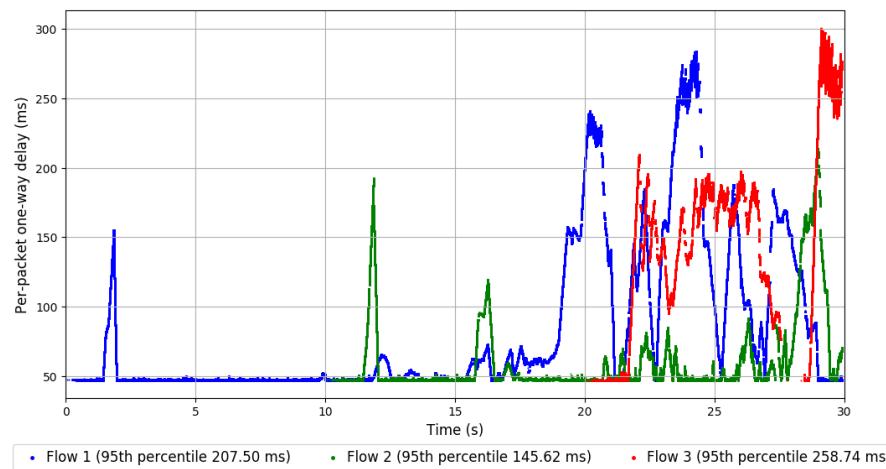
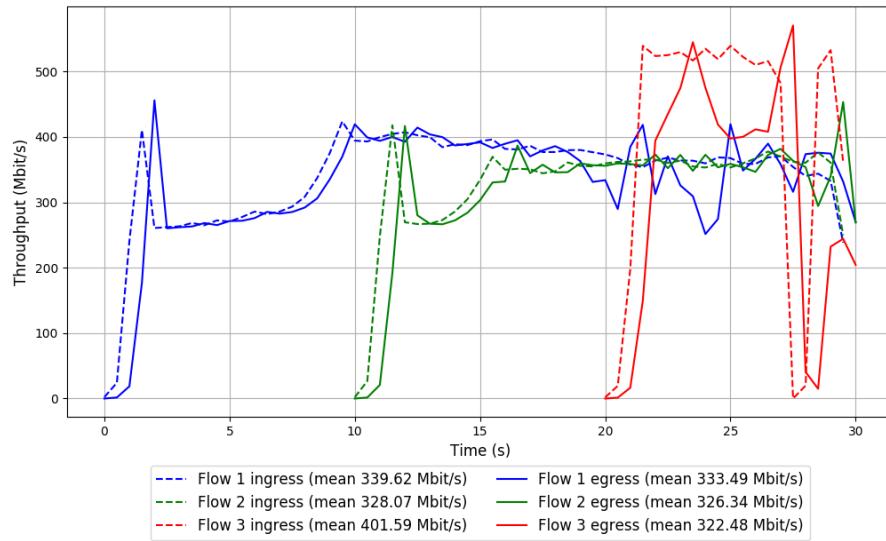


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-01-22 09:37:58
End at: 2019-01-22 09:38:28
Local clock offset: 0.014 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-01-22 14:21:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 656.70 Mbit/s
95th percentile per-packet one-way delay: 189.448 ms
Loss rate: 4.84%
-- Flow 1:
Average throughput: 333.49 Mbit/s
95th percentile per-packet one-way delay: 207.498 ms
Loss rate: 1.81%
-- Flow 2:
Average throughput: 326.34 Mbit/s
95th percentile per-packet one-way delay: 145.615 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 322.48 Mbit/s
95th percentile per-packet one-way delay: 258.742 ms
Loss rate: 19.71%
```

Run 2: Report of PCC-Allegro — Data Link

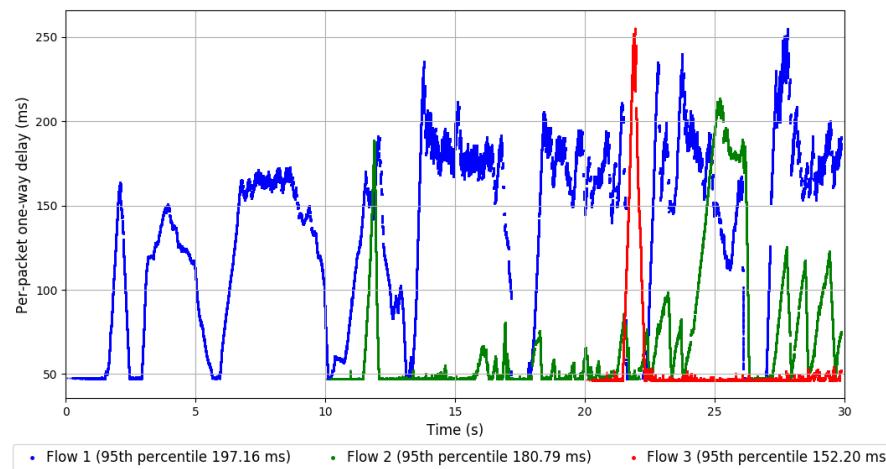
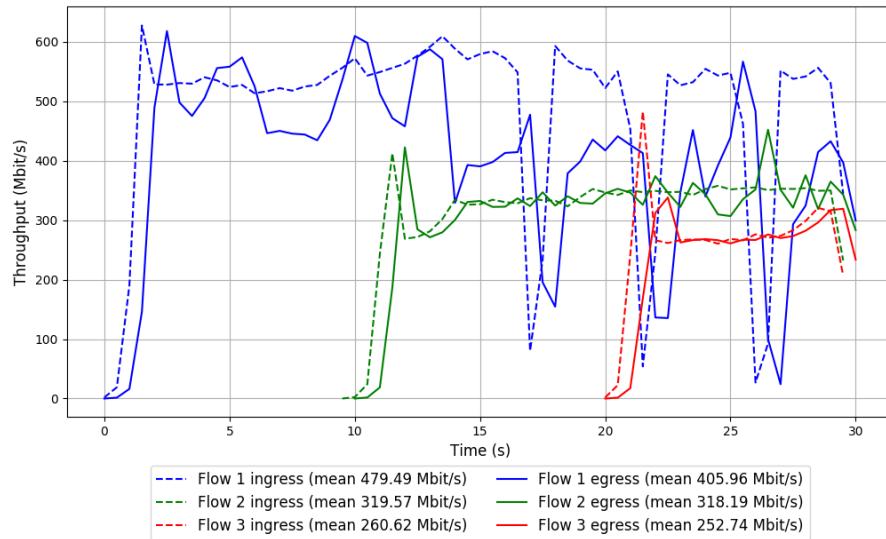


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-01-22 10:15:25
End at: 2019-01-22 10:15:55
Local clock offset: 0.053 ms
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2019-01-22 14:23:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 700.90 Mbit/s
95th percentile per-packet one-way delay: 191.985 ms
Loss rate: 9.90%
-- Flow 1:
Average throughput: 405.96 Mbit/s
95th percentile per-packet one-way delay: 197.157 ms
Loss rate: 15.34%
-- Flow 2:
Average throughput: 318.19 Mbit/s
95th percentile per-packet one-way delay: 180.794 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 252.74 Mbit/s
95th percentile per-packet one-way delay: 152.203 ms
Loss rate: 3.01%
```

Run 3: Report of PCC-Allegro — Data Link

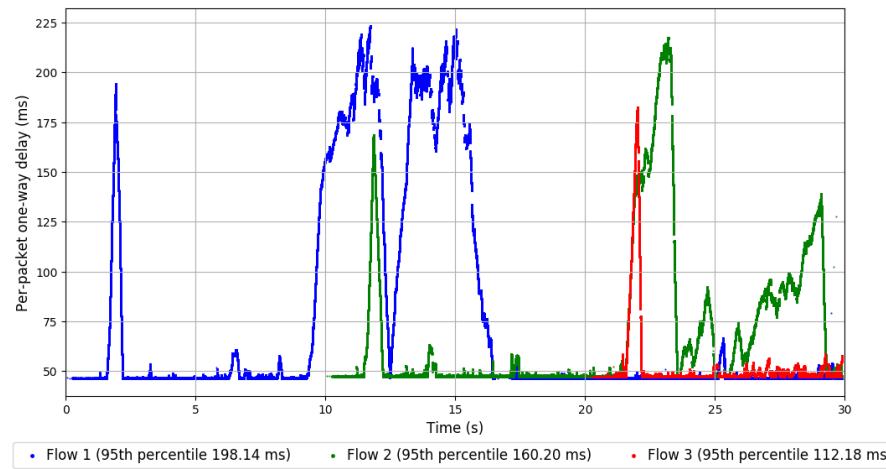
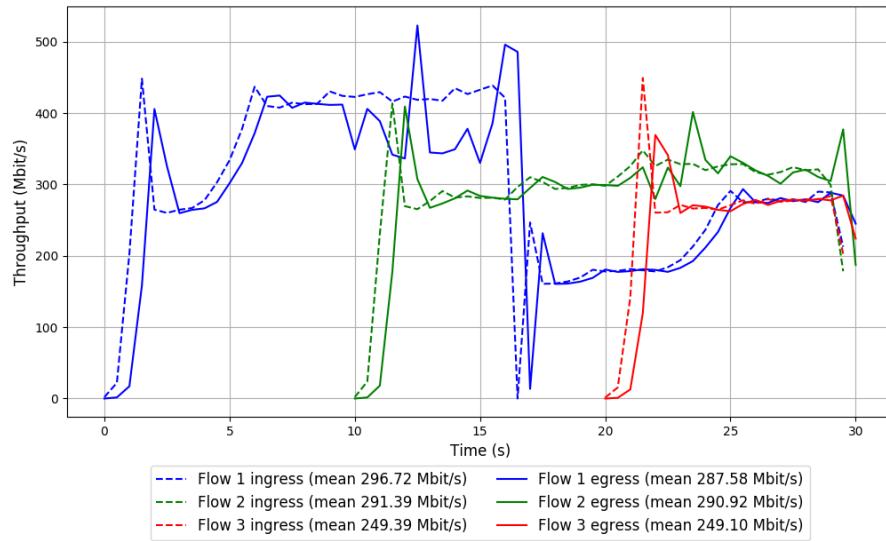


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-01-22 10:52:24
End at: 2019-01-22 10:52:54
Local clock offset: 0.159 ms
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2019-01-22 14:23:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 562.85 Mbit/s
95th percentile per-packet one-way delay: 192.805 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 287.58 Mbit/s
95th percentile per-packet one-way delay: 198.140 ms
Loss rate: 3.08%
-- Flow 2:
Average throughput: 290.92 Mbit/s
95th percentile per-packet one-way delay: 160.199 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 249.10 Mbit/s
95th percentile per-packet one-way delay: 112.184 ms
Loss rate: 0.11%
```

Run 4: Report of PCC-Allegro — Data Link

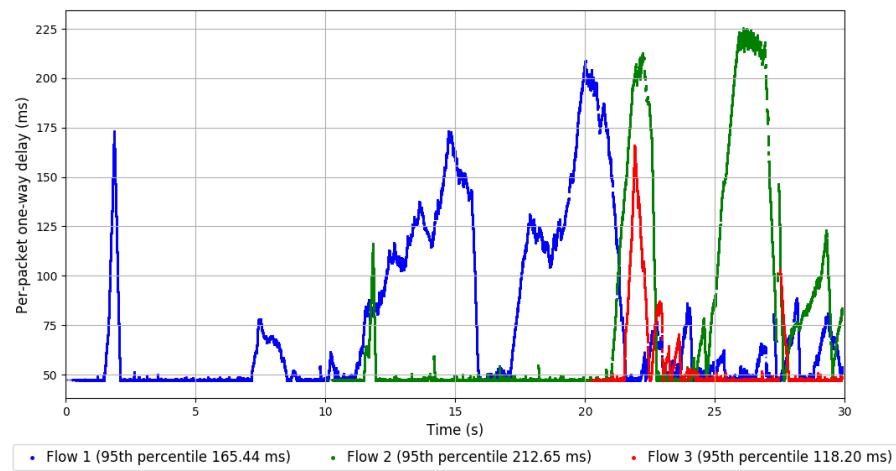
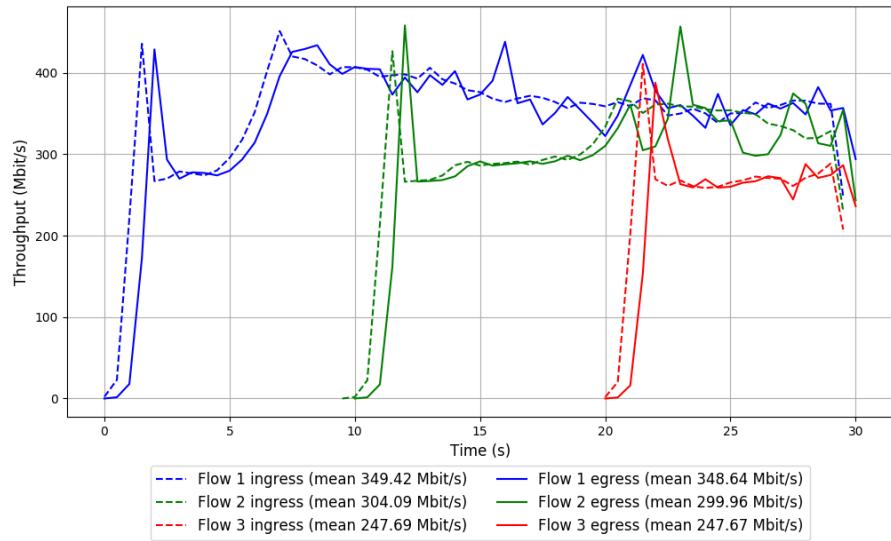


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-01-22 11:29:02
End at: 2019-01-22 11:29:32
Local clock offset: 0.161 ms
Remote clock offset: -0.062 ms

# Below is generated by plot.py at 2019-01-22 14:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 629.57 Mbit/s
95th percentile per-packet one-way delay: 183.224 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 348.64 Mbit/s
95th percentile per-packet one-way delay: 165.441 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 299.96 Mbit/s
95th percentile per-packet one-way delay: 212.652 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 247.67 Mbit/s
95th percentile per-packet one-way delay: 118.202 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link

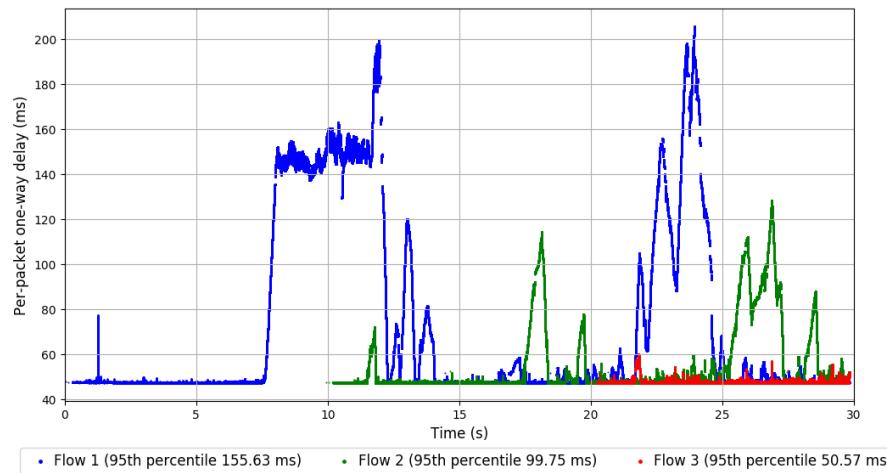
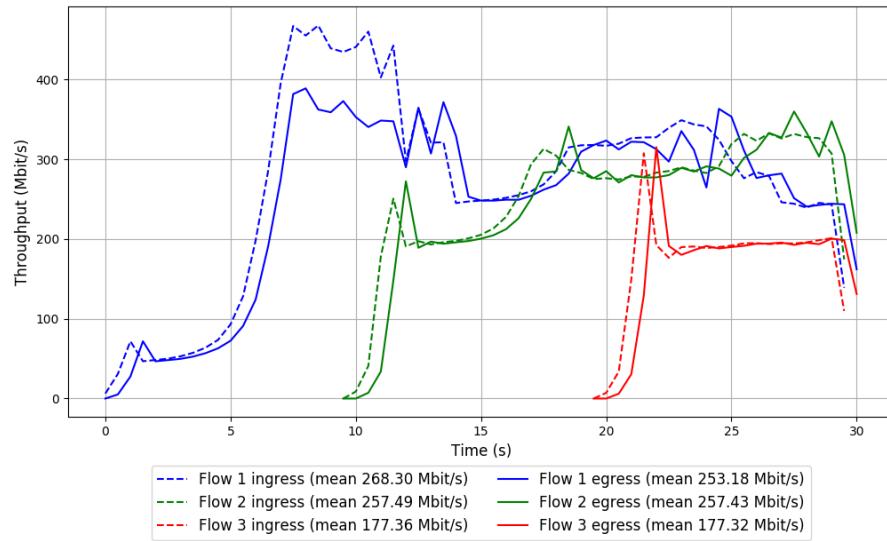


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-01-22 09:16:00
End at: 2019-01-22 09:16:30
Local clock offset: 0.01 ms
Remote clock offset: -0.231 ms

# Below is generated by plot.py at 2019-01-22 14:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.58 Mbit/s
95th percentile per-packet one-way delay: 150.178 ms
Loss rate: 3.04%
-- Flow 1:
Average throughput: 253.18 Mbit/s
95th percentile per-packet one-way delay: 155.631 ms
Loss rate: 5.64%
-- Flow 2:
Average throughput: 257.43 Mbit/s
95th percentile per-packet one-way delay: 99.749 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 177.32 Mbit/s
95th percentile per-packet one-way delay: 50.570 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link

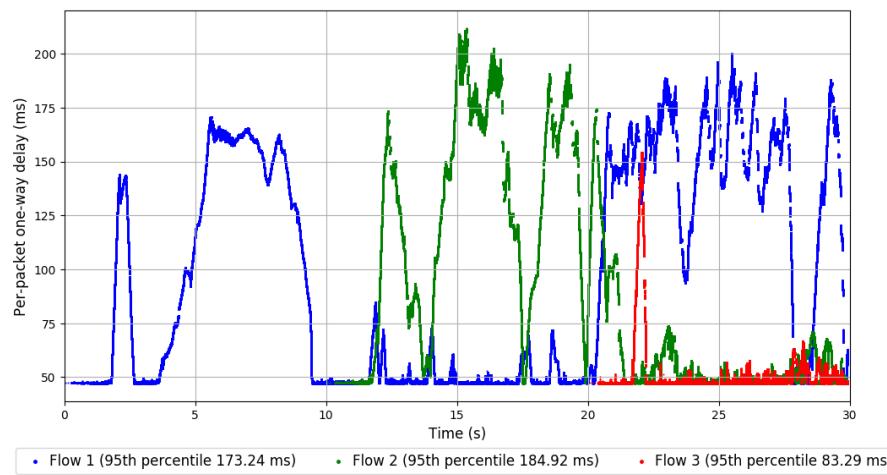
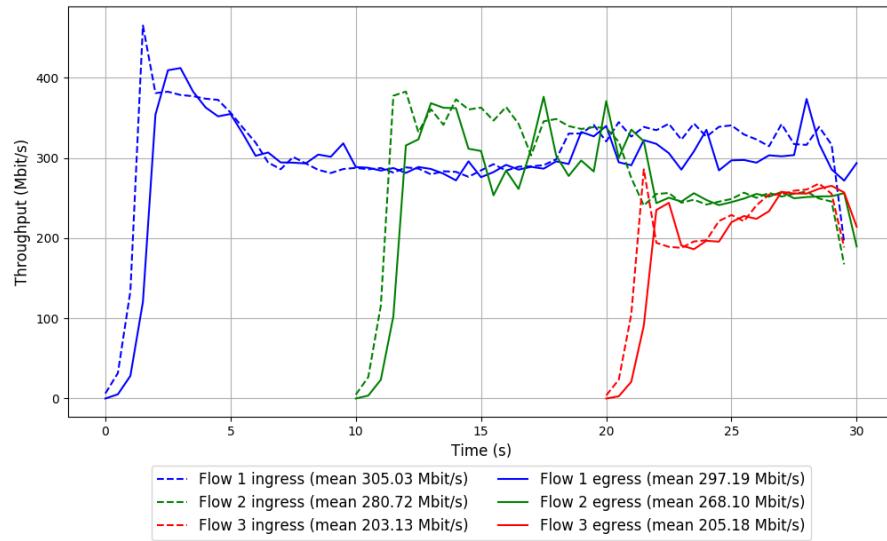


Run 2: Statistics of PCC-Expr

```
Start at: 2019-01-22 09:52:45
End at: 2019-01-22 09:53:15
Local clock offset: 0.152 ms
Remote clock offset: 0.07 ms

# Below is generated by plot.py at 2019-01-22 14:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 542.91 Mbit/s
95th percentile per-packet one-way delay: 175.880 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 297.19 Mbit/s
95th percentile per-packet one-way delay: 173.236 ms
Loss rate: 2.86%
-- Flow 2:
Average throughput: 268.10 Mbit/s
95th percentile per-packet one-way delay: 184.921 ms
Loss rate: 4.97%
-- Flow 3:
Average throughput: 205.18 Mbit/s
95th percentile per-packet one-way delay: 83.292 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Expr — Data Link

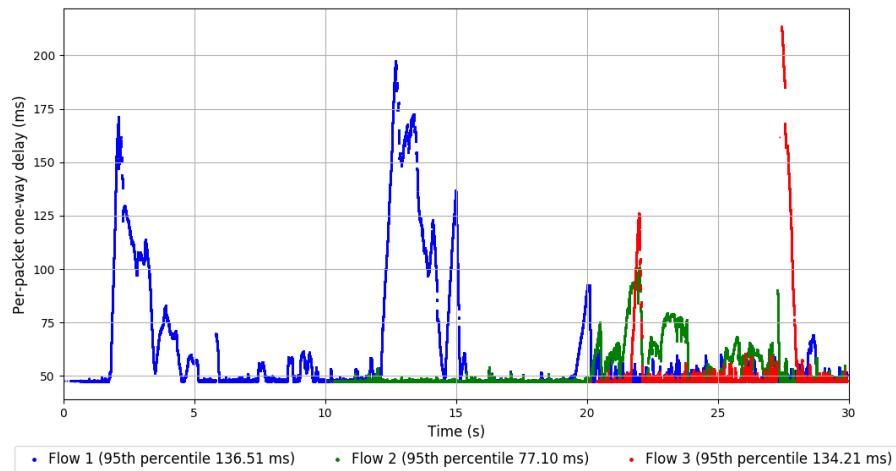
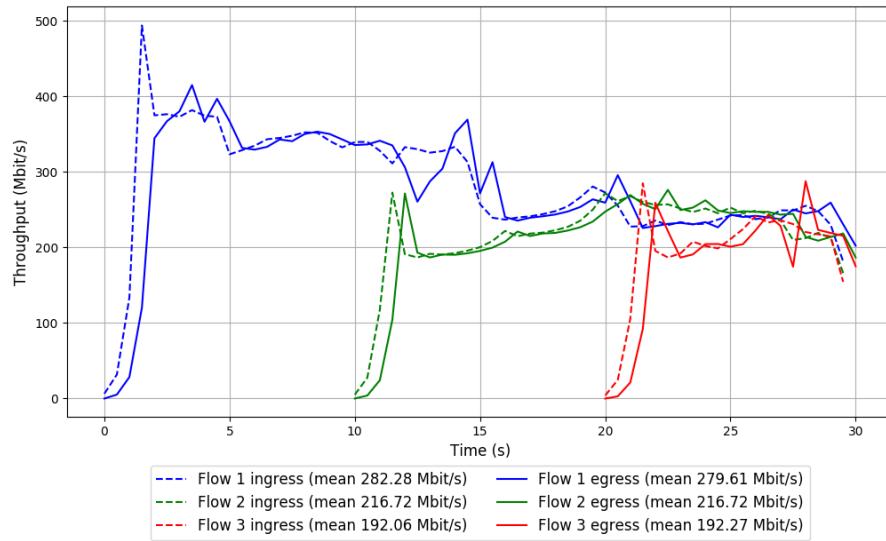


Run 3: Statistics of PCC-Expr

```
Start at: 2019-01-22 10:30:26
End at: 2019-01-22 10:30:56
Local clock offset: 0.104 ms
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-01-22 14:26:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 486.92 Mbit/s
95th percentile per-packet one-way delay: 121.921 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 279.61 Mbit/s
95th percentile per-packet one-way delay: 136.507 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 216.72 Mbit/s
95th percentile per-packet one-way delay: 77.101 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 192.27 Mbit/s
95th percentile per-packet one-way delay: 134.205 ms
Loss rate: 0.20%
```

Run 3: Report of PCC-Expr — Data Link

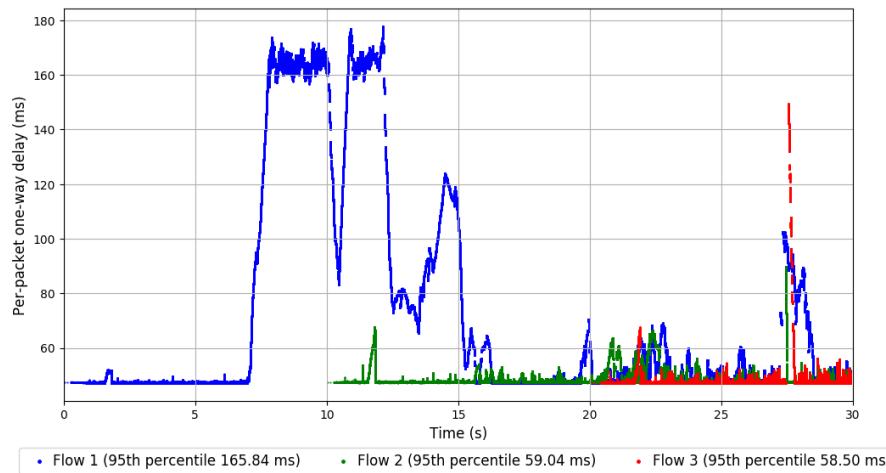
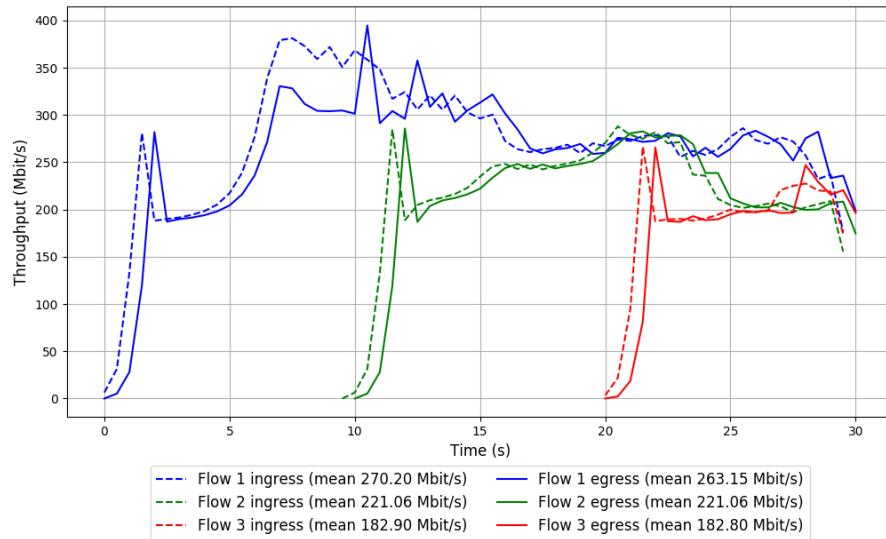


Run 4: Statistics of PCC-Expr

```
Start at: 2019-01-22 11:07:09
End at: 2019-01-22 11:07:39
Local clock offset: 0.132 ms
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2019-01-22 14:35:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.56 Mbit/s
95th percentile per-packet one-way delay: 163.490 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 263.15 Mbit/s
95th percentile per-packet one-way delay: 165.838 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 221.06 Mbit/s
95th percentile per-packet one-way delay: 59.040 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 182.80 Mbit/s
95th percentile per-packet one-way delay: 58.501 ms
Loss rate: 0.05%
```

Run 4: Report of PCC-Expr — Data Link

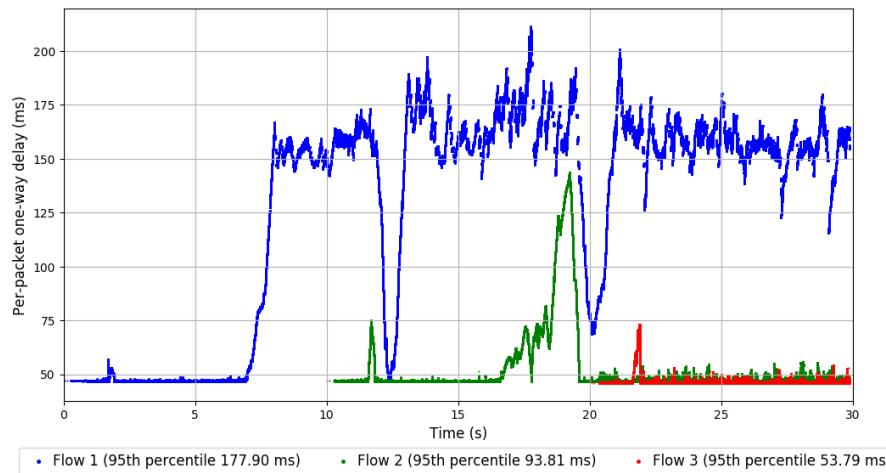
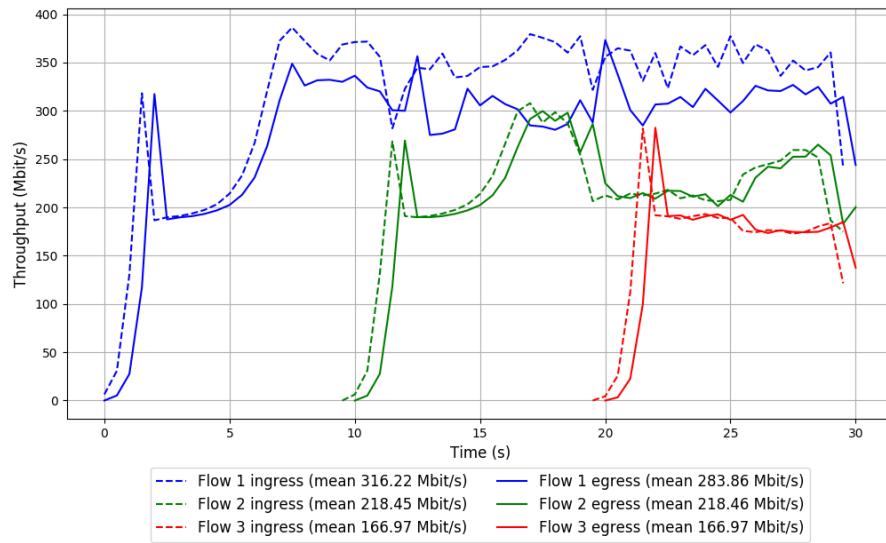


Run 5: Statistics of PCC-Expr

```
Start at: 2019-01-22 11:43:46
End at: 2019-01-22 11:44:16
Local clock offset: 0.337 ms
Remote clock offset: -0.008 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.44 Mbit/s
95th percentile per-packet one-way delay: 172.689 ms
Loss rate: 6.26%
-- Flow 1:
Average throughput: 283.86 Mbit/s
95th percentile per-packet one-way delay: 177.897 ms
Loss rate: 10.23%
-- Flow 2:
Average throughput: 218.46 Mbit/s
95th percentile per-packet one-way delay: 93.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 166.97 Mbit/s
95th percentile per-packet one-way delay: 53.789 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Expr — Data Link

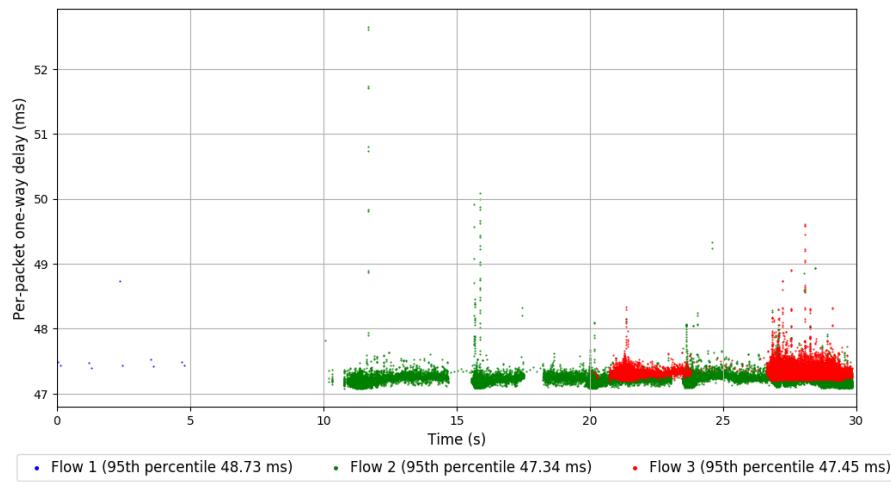
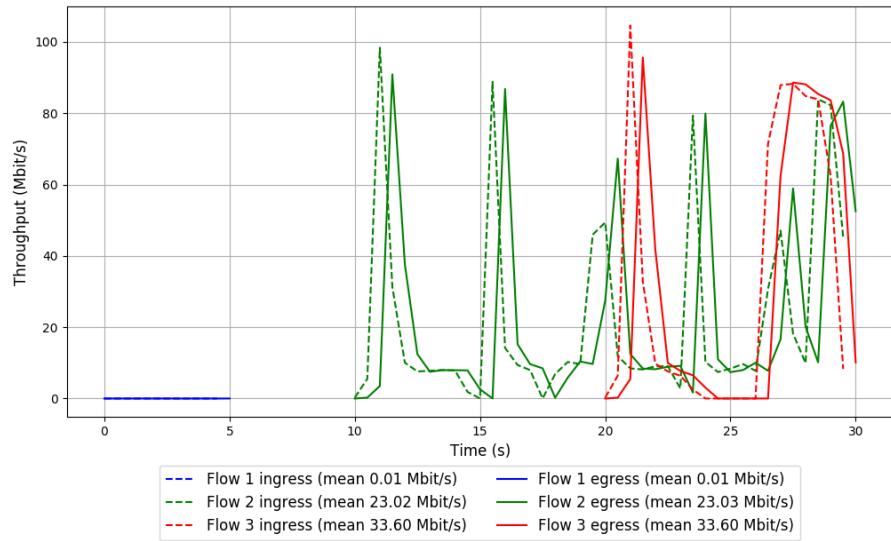


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-22 08:56:43
End at: 2019-01-22 08:57:13
Local clock offset: 0.004 ms
Remote clock offset: -0.276 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.32 Mbit/s
95th percentile per-packet one-way delay: 47.412 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 48.733 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.03 Mbit/s
95th percentile per-packet one-way delay: 47.335 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.60 Mbit/s
95th percentile per-packet one-way delay: 47.455 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

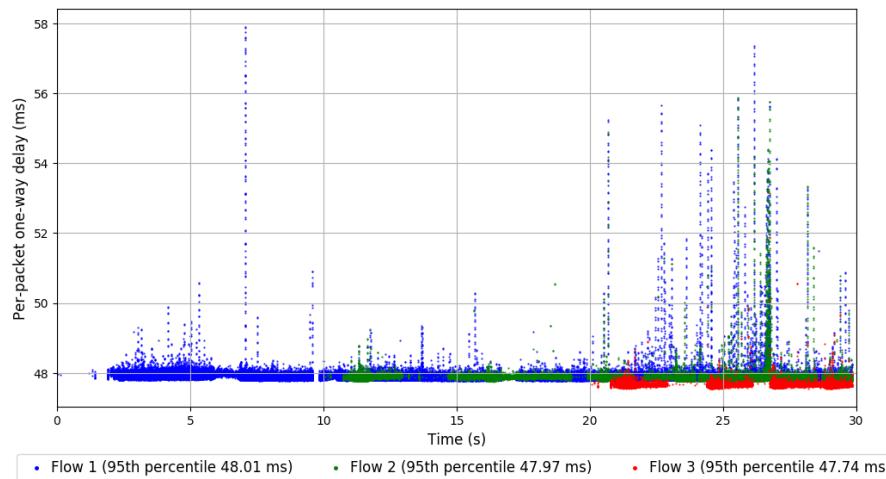
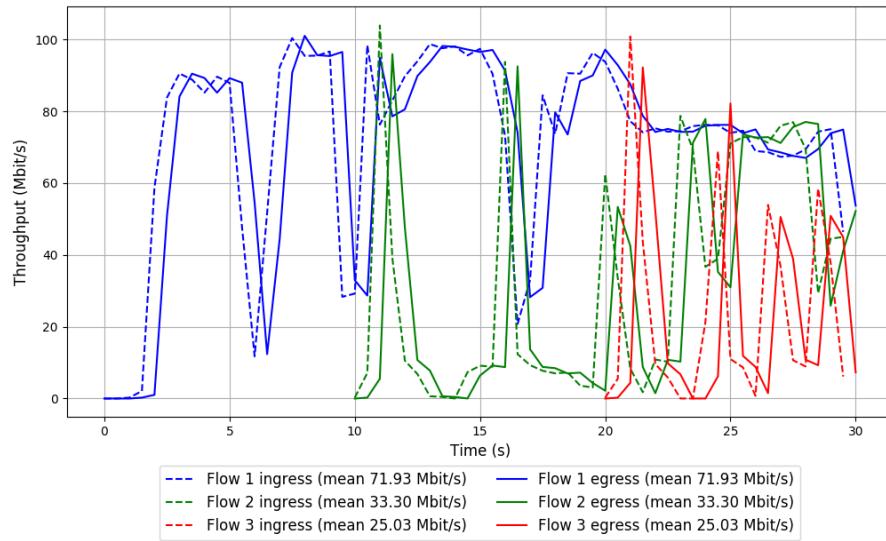


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-01-22 09:32:49
End at: 2019-01-22 09:33:19
Local clock offset: -0.367 ms
Remote clock offset: 0.14 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.25 Mbit/s
95th percentile per-packet one-way delay: 47.997 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.93 Mbit/s
95th percentile per-packet one-way delay: 48.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.30 Mbit/s
95th percentile per-packet one-way delay: 47.966 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.03 Mbit/s
95th percentile per-packet one-way delay: 47.745 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

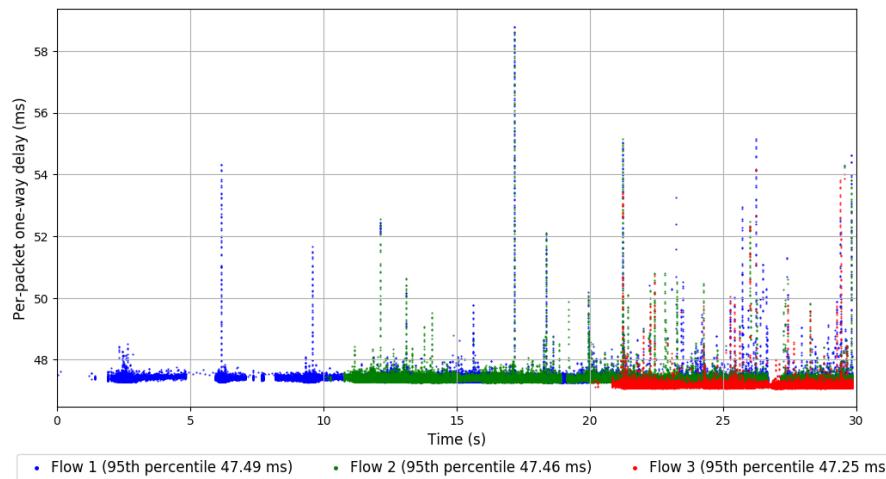
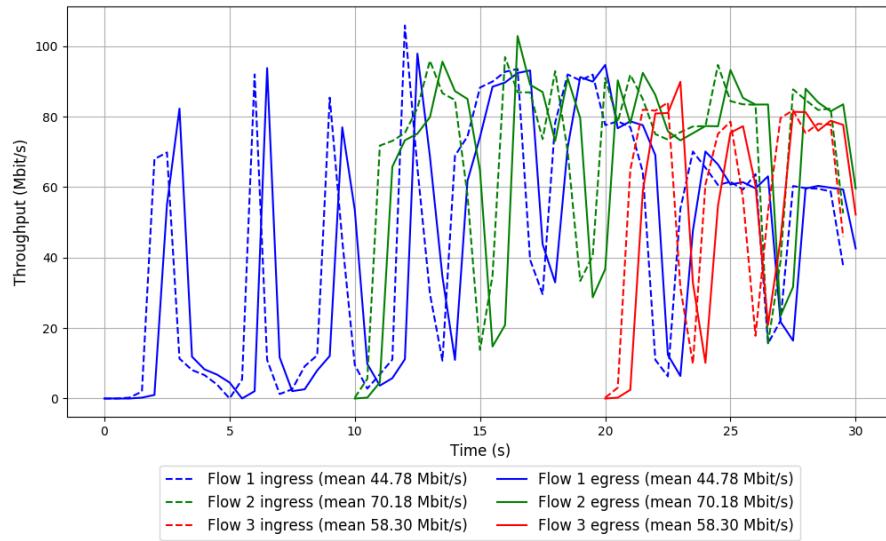


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-01-22 10:10:07
End at: 2019-01-22 10:10:37
Local clock offset: 0.04 ms
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.49 Mbit/s
95th percentile per-packet one-way delay: 47.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.78 Mbit/s
95th percentile per-packet one-way delay: 47.487 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.18 Mbit/s
95th percentile per-packet one-way delay: 47.464 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 58.30 Mbit/s
95th percentile per-packet one-way delay: 47.254 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

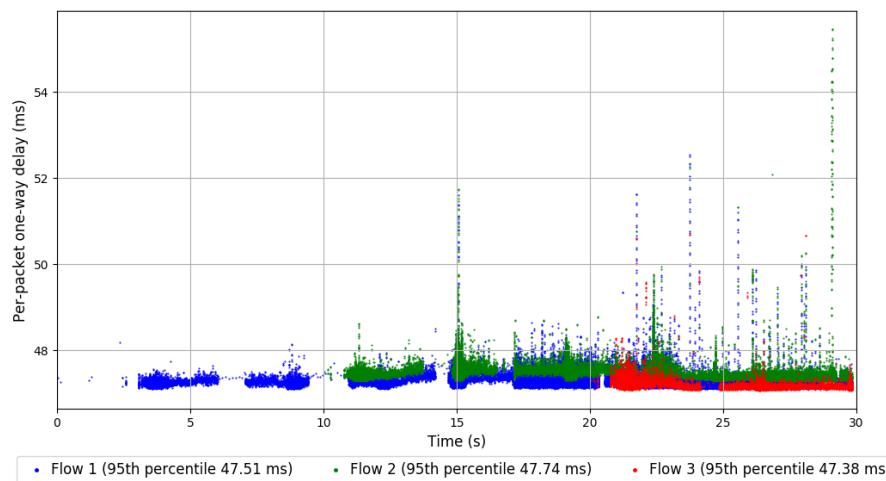
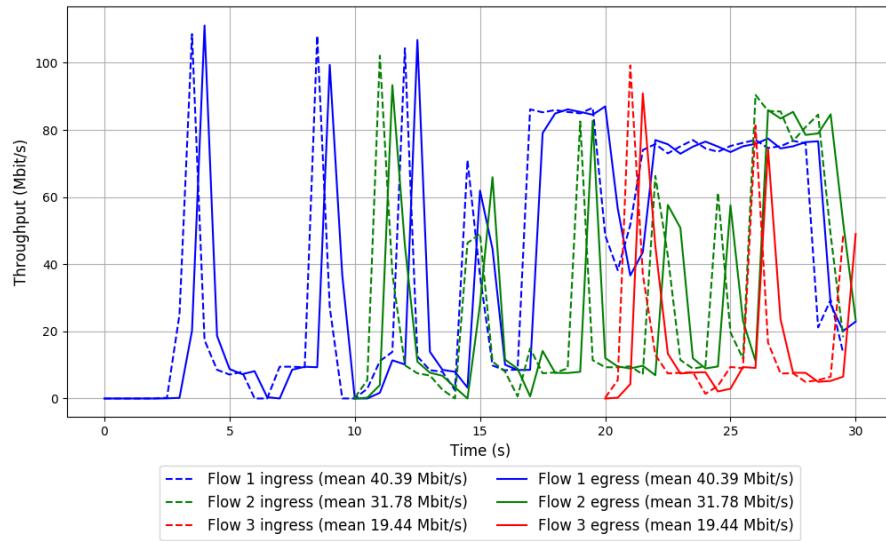


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-01-22 10:47:09
End at: 2019-01-22 10:47:39
Local clock offset: 0.098 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.88 Mbit/s
95th percentile per-packet one-way delay: 47.605 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.39 Mbit/s
95th percentile per-packet one-way delay: 47.505 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.78 Mbit/s
95th percentile per-packet one-way delay: 47.736 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.44 Mbit/s
95th percentile per-packet one-way delay: 47.385 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

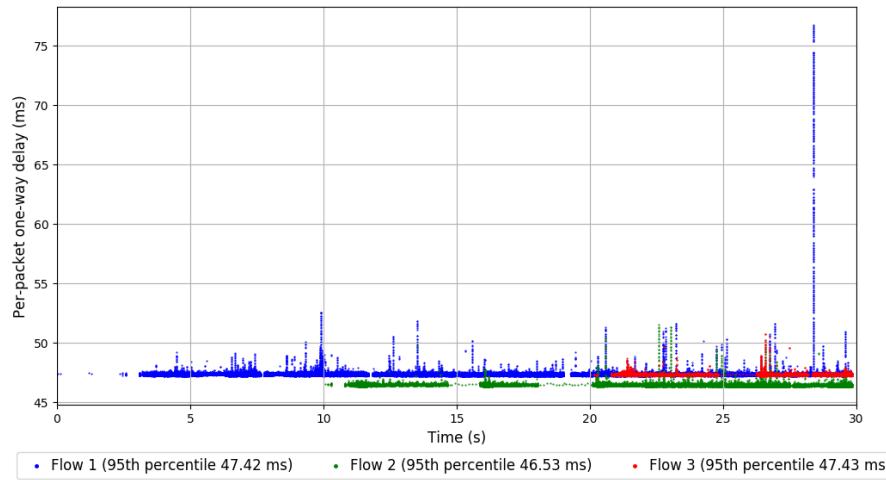
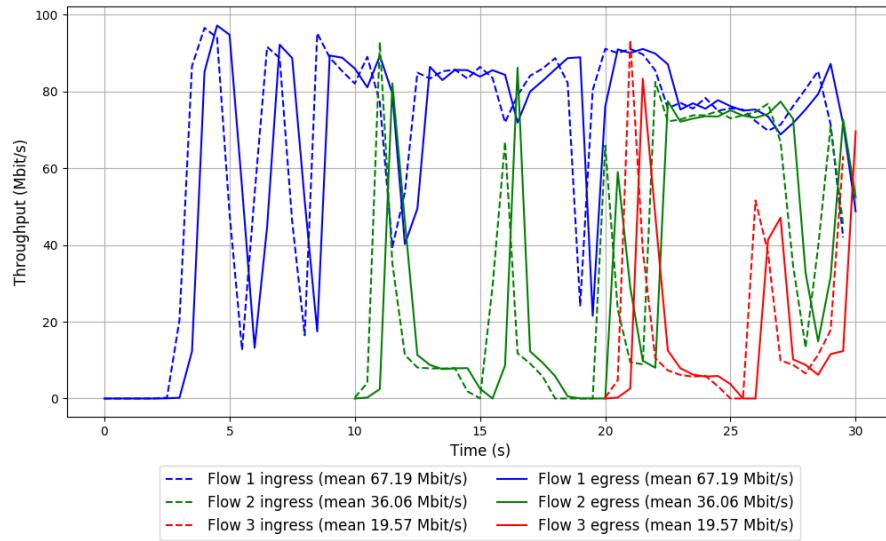


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-01-22 11:23:51
End at: 2019-01-22 11:24:21
Local clock offset: 0.157 ms
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.55 Mbit/s
95th percentile per-packet one-way delay: 47.403 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.19 Mbit/s
95th percentile per-packet one-way delay: 47.419 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 46.535 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.57 Mbit/s
95th percentile per-packet one-way delay: 47.426 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

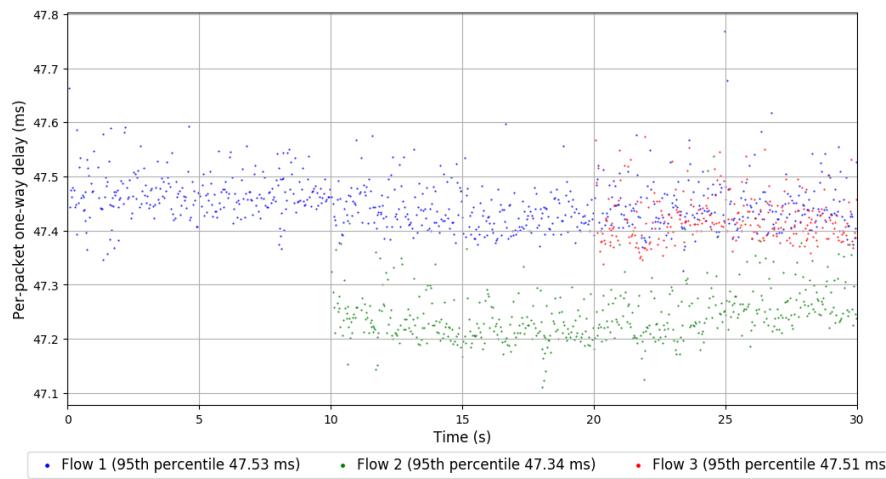
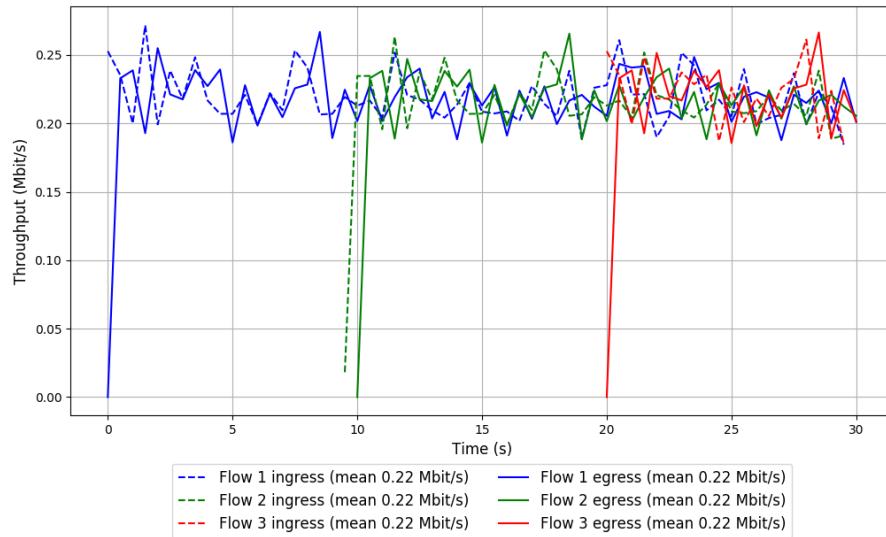


```
Run 1: Statistics of SCReAM

Start at: 2019-01-22 09:28:21
End at: 2019-01-22 09:28:51
Local clock offset: 0.128 ms
Remote clock offset: 0.008 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.514 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.534 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.341 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.514 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

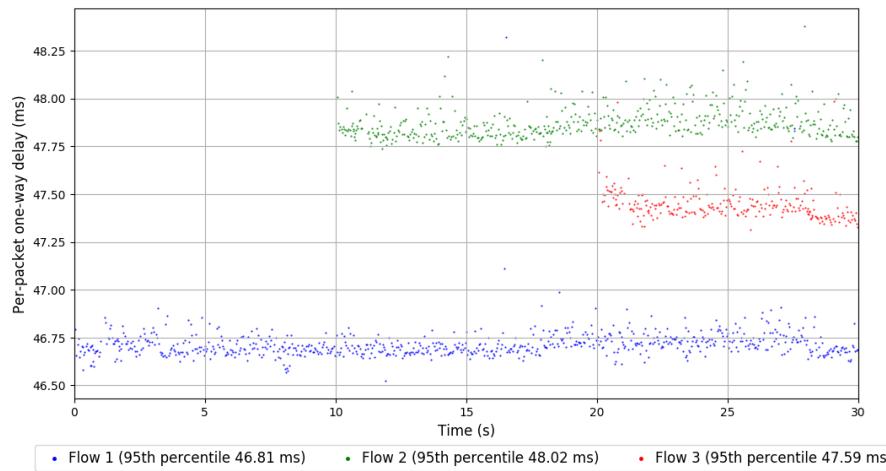
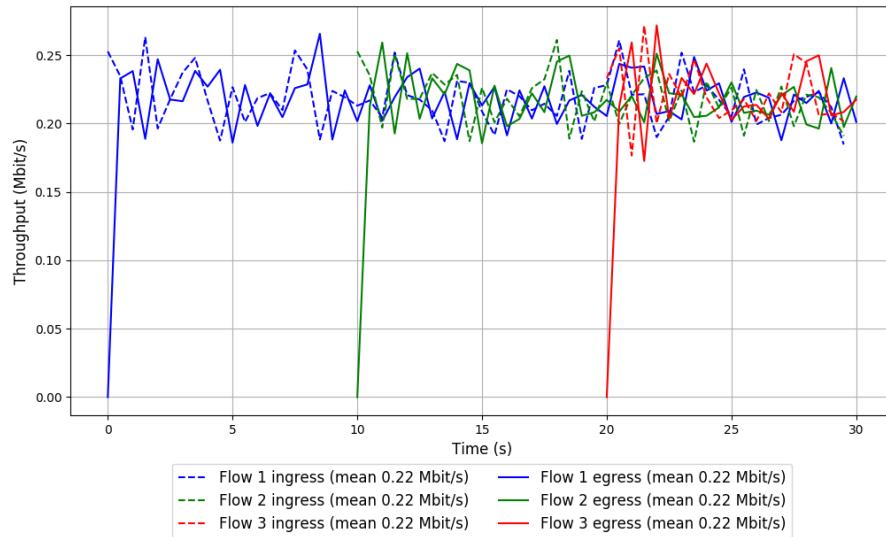


Run 2: Statistics of SCReAM

```
Start at: 2019-01-22 10:05:36
End at: 2019-01-22 10:06:06
Local clock offset: 0.022 ms
Remote clock offset: 0.025 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.950 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.812 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.024 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.593 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

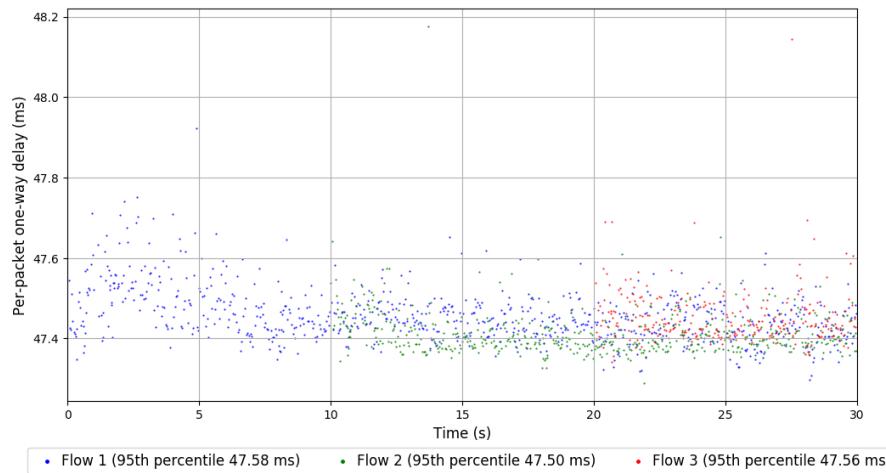
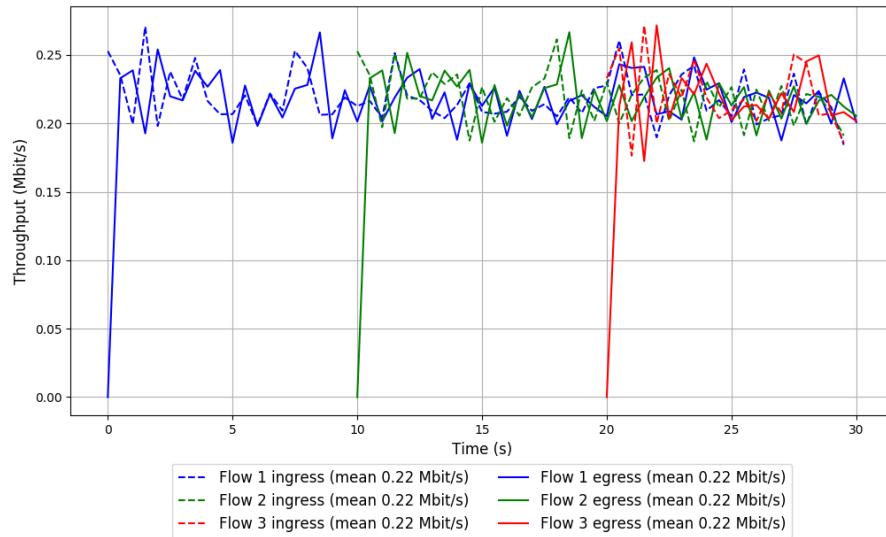


Run 3: Statistics of SCReAM

```
Start at: 2019-01-22 10:42:38
End at: 2019-01-22 10:43:08
Local clock offset: 0.243 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.560 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.580 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.498 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.561 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

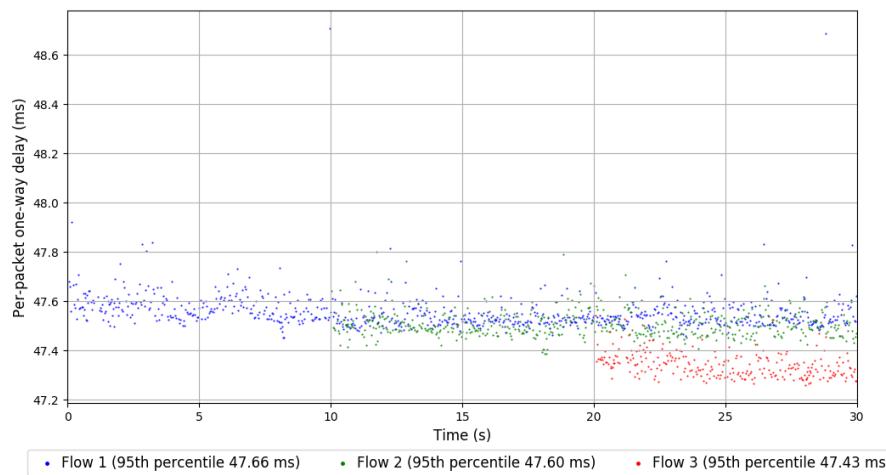
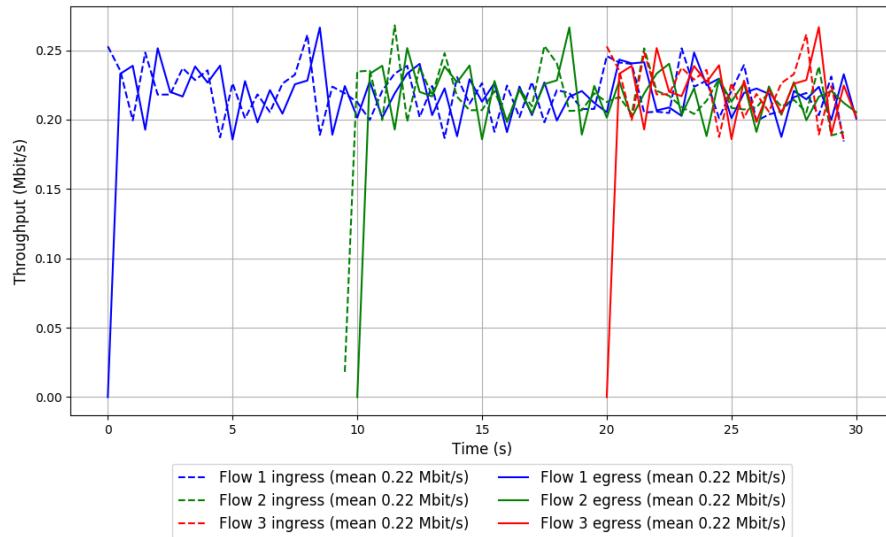


Run 4: Statistics of SCReAM

```
Start at: 2019-01-22 11:19:26
End at: 2019-01-22 11:19:56
Local clock offset: 0.125 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.632 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.658 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.599 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.427 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

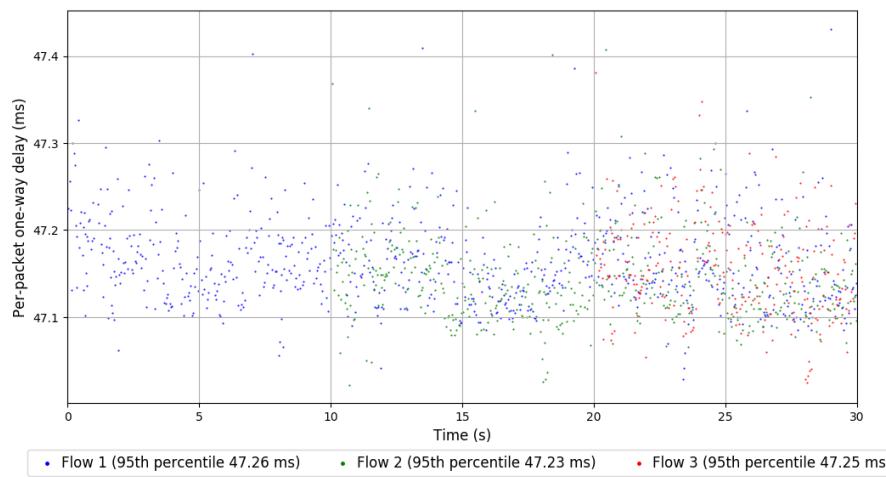
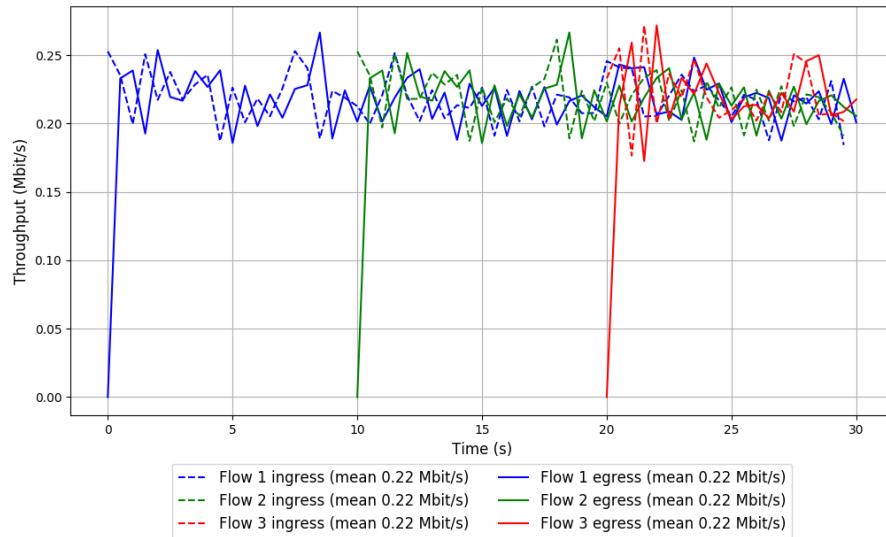


Run 5: Statistics of SCReAM

```
Start at: 2019-01-22 11:56:01
End at: 2019-01-22 11:56:31
Local clock offset: 0.272 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.251 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.256 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.233 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.250 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

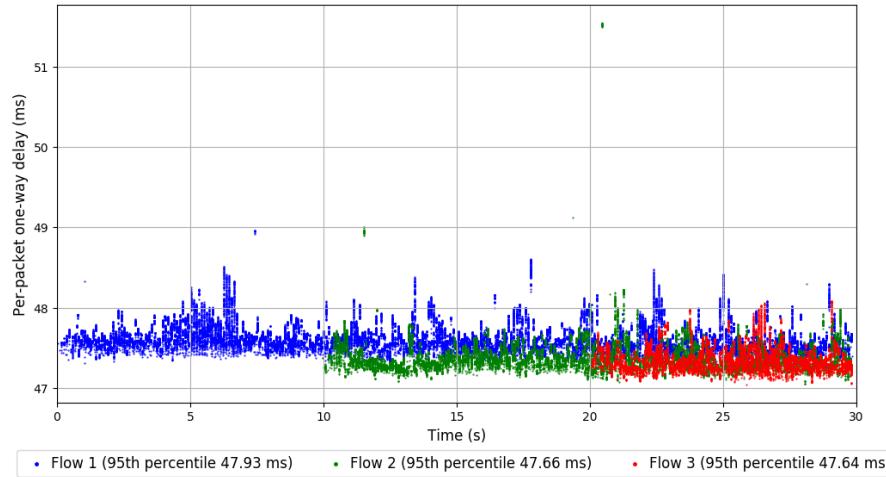
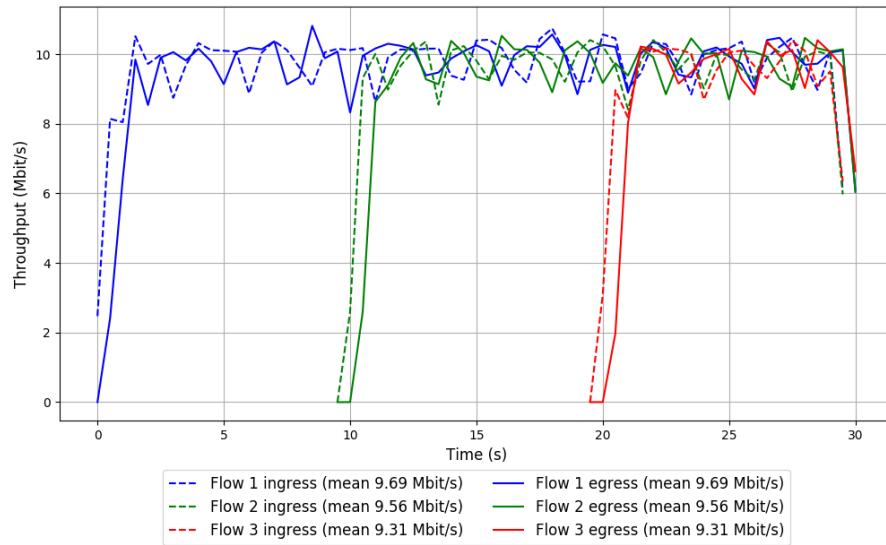


Run 1: Statistics of Sprout

```
Start at: 2019-01-22 09:22:00
End at: 2019-01-22 09:22:30
Local clock offset: 0.101 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.14 Mbit/s
95th percentile per-packet one-way delay: 47.849 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.69 Mbit/s
95th percentile per-packet one-way delay: 47.929 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.56 Mbit/s
95th percentile per-packet one-way delay: 47.656 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 47.641 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

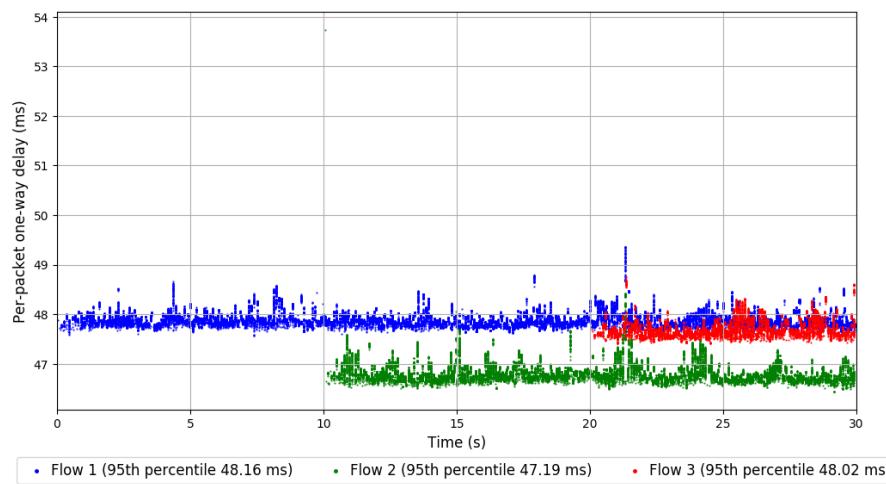
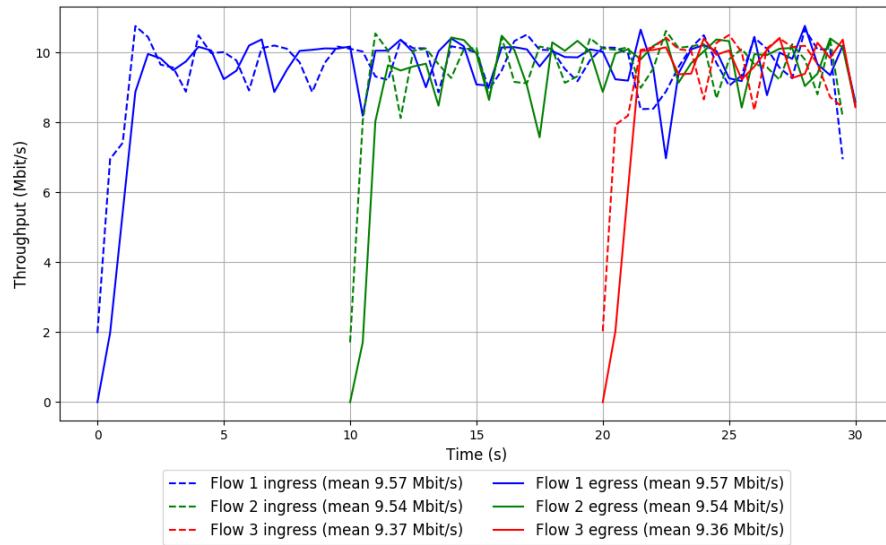


Run 2: Statistics of Sprout

```
Start at: 2019-01-22 09:59:22
End at: 2019-01-22 09:59:52
Local clock offset: 0.019 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.00 Mbit/s
95th percentile per-packet one-way delay: 48.069 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 48.158 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 47.193 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.36 Mbit/s
95th percentile per-packet one-way delay: 48.019 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

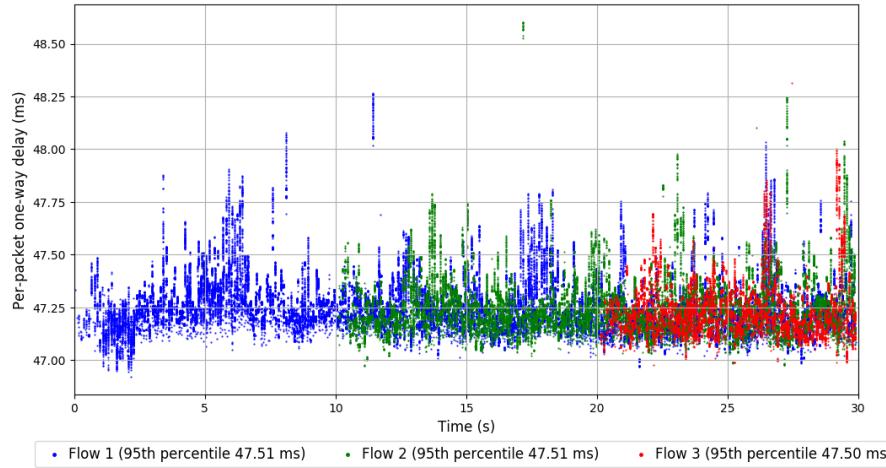
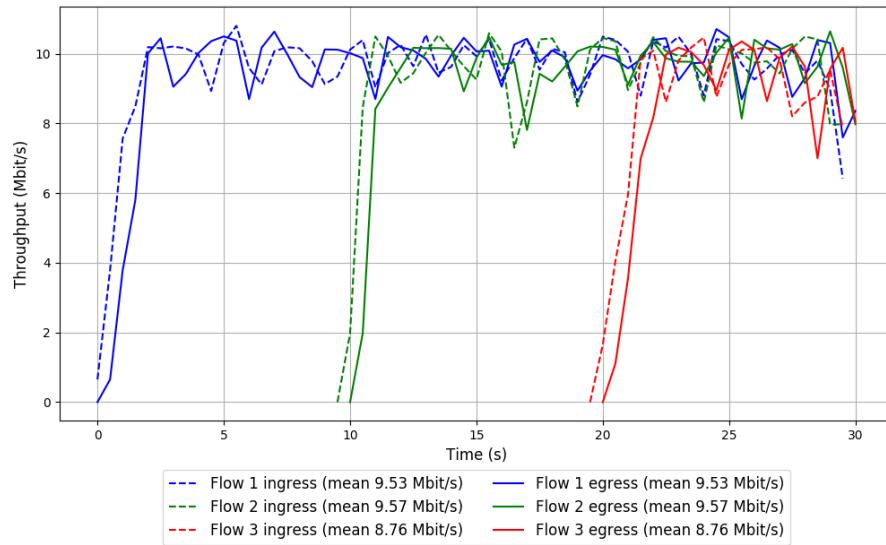


Run 3: Statistics of Sprout

```
Start at: 2019-01-22 10:36:19
End at: 2019-01-22 10:36:49
Local clock offset: 0.463 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.77 Mbit/s
95th percentile per-packet one-way delay: 47.508 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 47.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 47.505 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 47.501 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

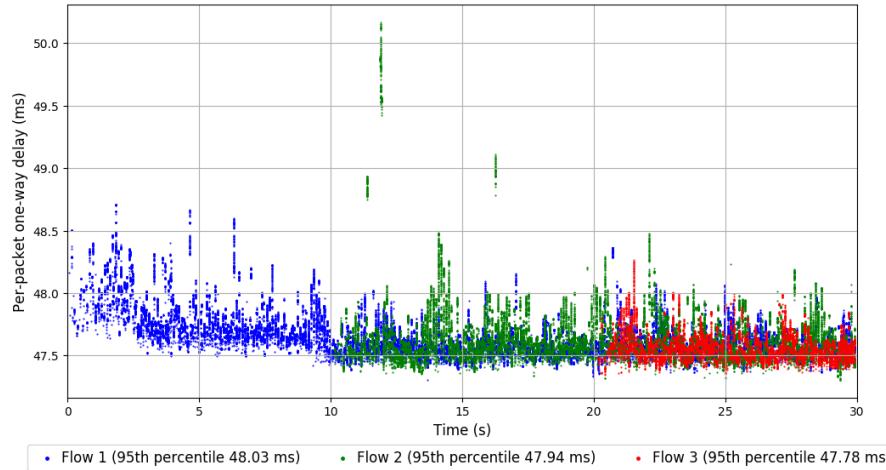
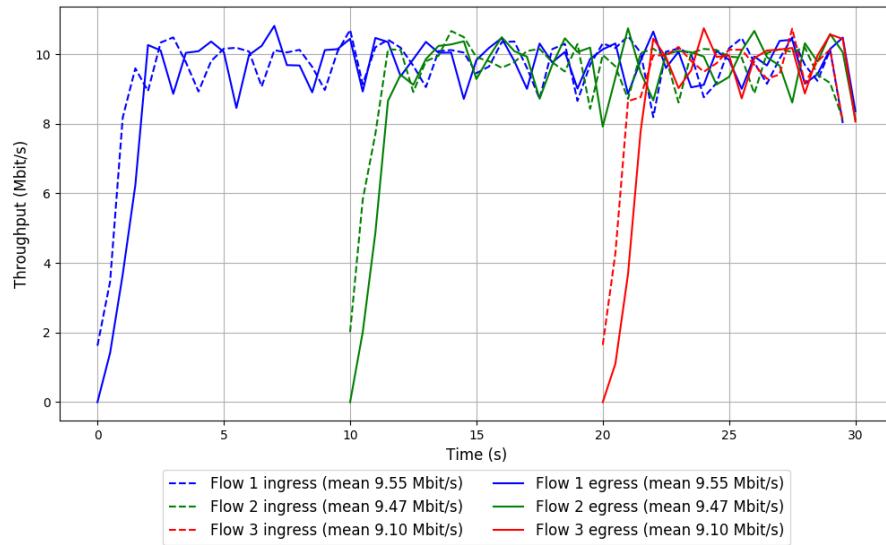


Run 4: Statistics of Sprout

```
Start at: 2019-01-22 11:13:19
End at: 2019-01-22 11:13:49
Local clock offset: 0.142 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.85 Mbit/s
95th percentile per-packet one-way delay: 47.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 48.032 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.47 Mbit/s
95th percentile per-packet one-way delay: 47.935 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.10 Mbit/s
95th percentile per-packet one-way delay: 47.781 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

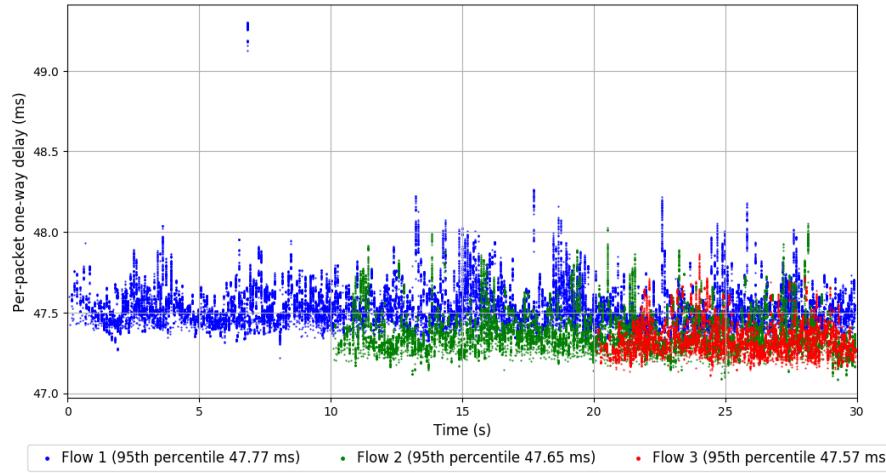
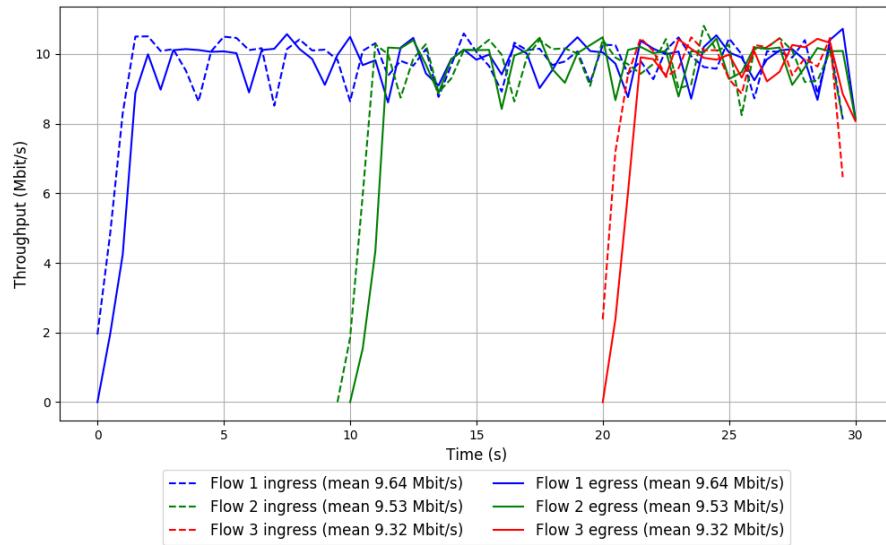


Run 5: Statistics of Sprout

```
Start at: 2019-01-22 11:49:58
End at: 2019-01-22 11:50:28
Local clock offset: -0.094 ms
Remote clock offset: -0.051 ms

# Below is generated by plot.py at 2019-01-22 14:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.05 Mbit/s
95th percentile per-packet one-way delay: 47.719 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.64 Mbit/s
95th percentile per-packet one-way delay: 47.772 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 47.649 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.32 Mbit/s
95th percentile per-packet one-way delay: 47.567 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

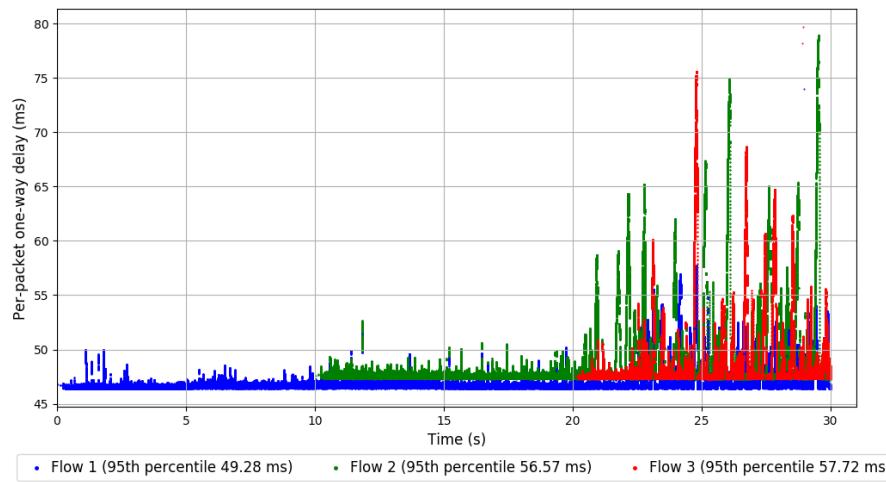
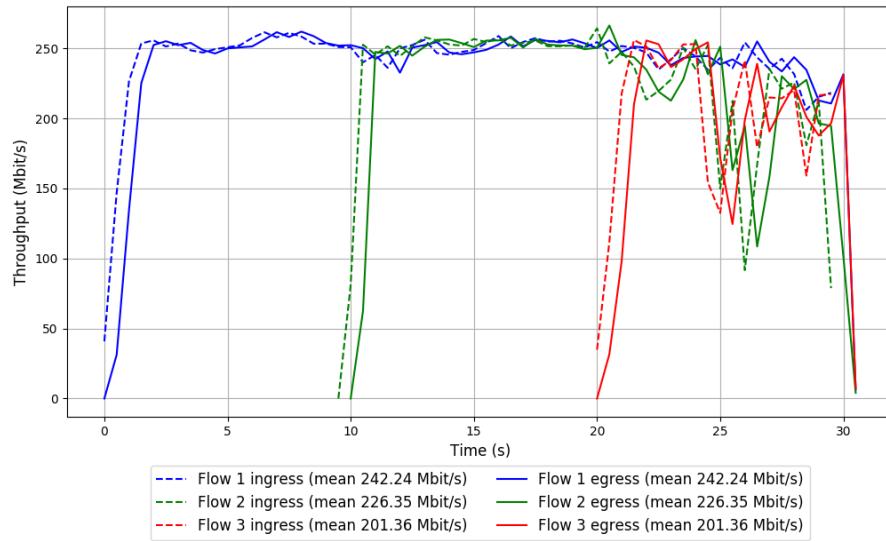


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-01-22 09:29:33
End at: 2019-01-22 09:30:03
Local clock offset: -0.021 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2019-01-22 14:42:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.96 Mbit/s
95th percentile per-packet one-way delay: 52.441 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 242.24 Mbit/s
95th percentile per-packet one-way delay: 49.281 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 226.35 Mbit/s
95th percentile per-packet one-way delay: 56.569 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 201.36 Mbit/s
95th percentile per-packet one-way delay: 57.717 ms
Loss rate: 0.00%
```

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

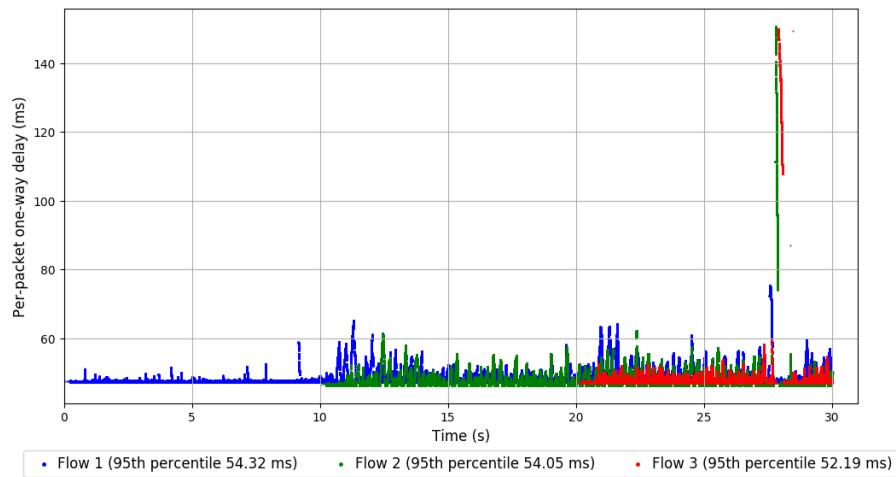
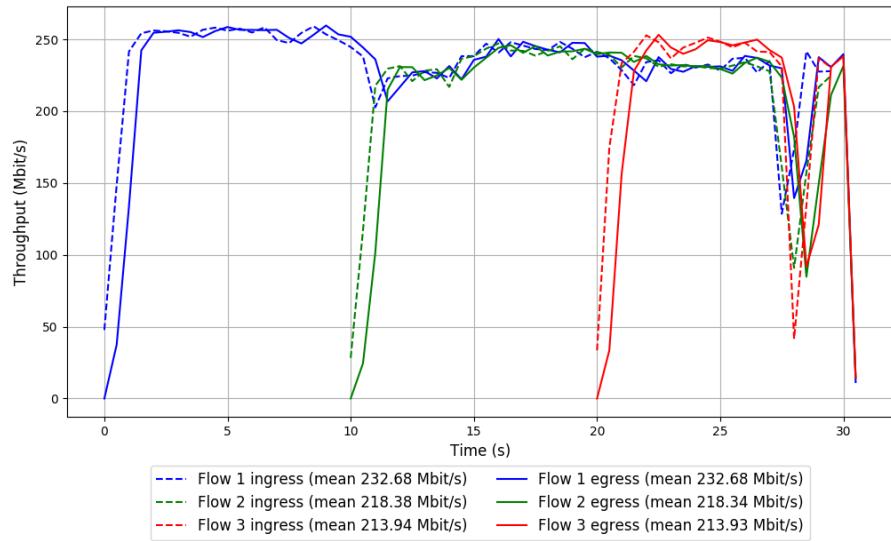


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-01-22 10:06:47
End at: 2019-01-22 10:07:17
Local clock offset: 0.067 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2019-01-22 14:42:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.18 Mbit/s
95th percentile per-packet one-way delay: 54.055 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.68 Mbit/s
95th percentile per-packet one-way delay: 54.316 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 218.34 Mbit/s
95th percentile per-packet one-way delay: 54.053 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 213.93 Mbit/s
95th percentile per-packet one-way delay: 52.189 ms
Loss rate: 0.00%
```

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

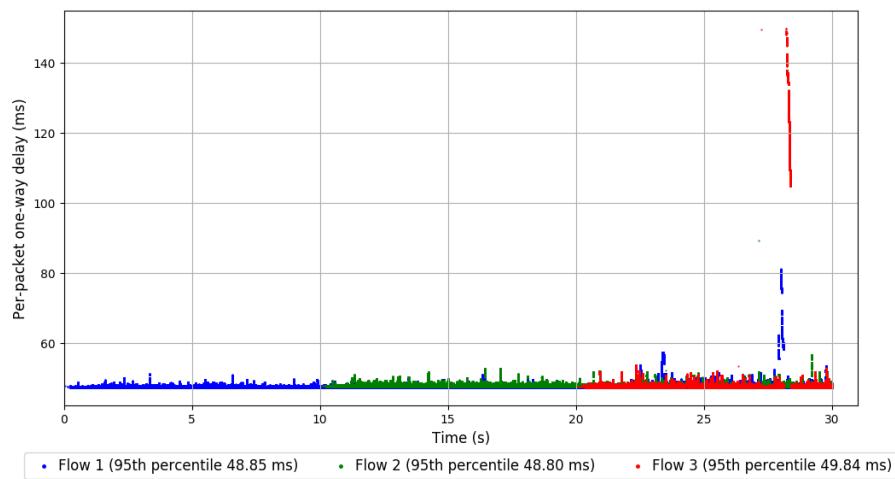
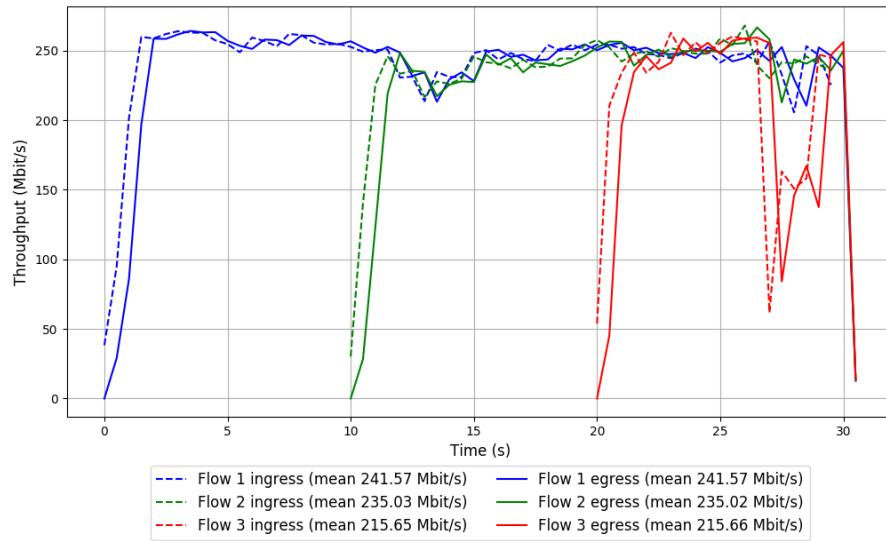


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-01-22 10:43:49
End at: 2019-01-22 10:44:19
Local clock offset: 0.106 ms
Remote clock offset: -0.076 ms

# Below is generated by plot.py at 2019-01-22 14:43:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.70 Mbit/s
95th percentile per-packet one-way delay: 48.918 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 241.57 Mbit/s
95th percentile per-packet one-way delay: 48.848 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 235.02 Mbit/s
95th percentile per-packet one-way delay: 48.796 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 215.66 Mbit/s
95th percentile per-packet one-way delay: 49.844 ms
Loss rate: 0.00%
```

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

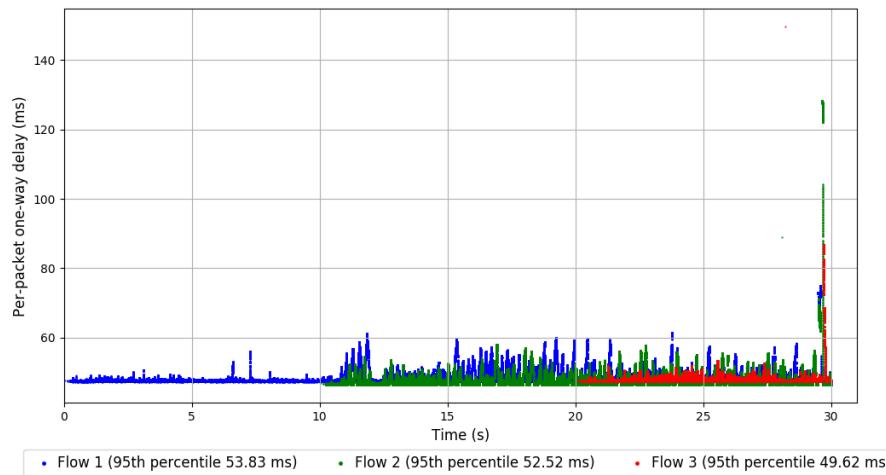
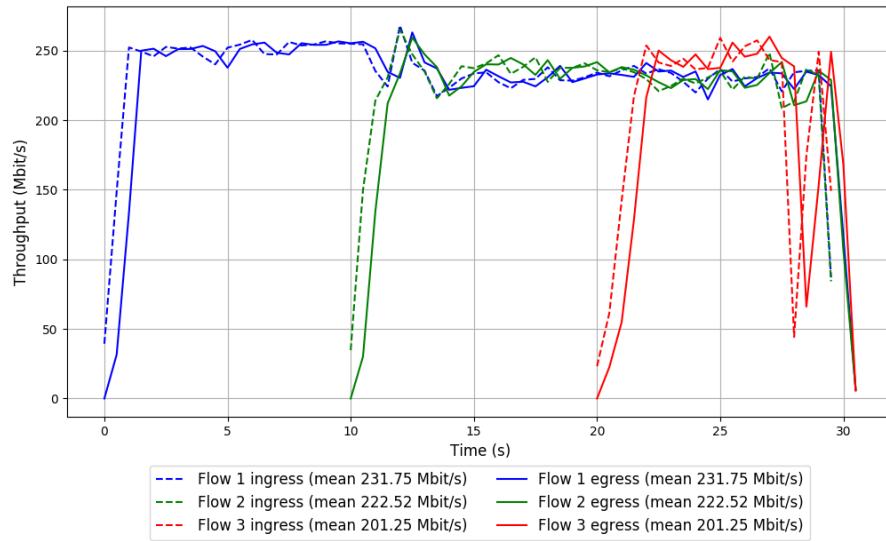


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-01-22 11:20:37
End at: 2019-01-22 11:21:07
Local clock offset: 0.163 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-01-22 14:43:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.84 Mbit/s
95th percentile per-packet one-way delay: 52.934 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.75 Mbit/s
95th percentile per-packet one-way delay: 53.832 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 222.52 Mbit/s
95th percentile per-packet one-way delay: 52.523 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 201.25 Mbit/s
95th percentile per-packet one-way delay: 49.617 ms
Loss rate: 0.00%
```

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

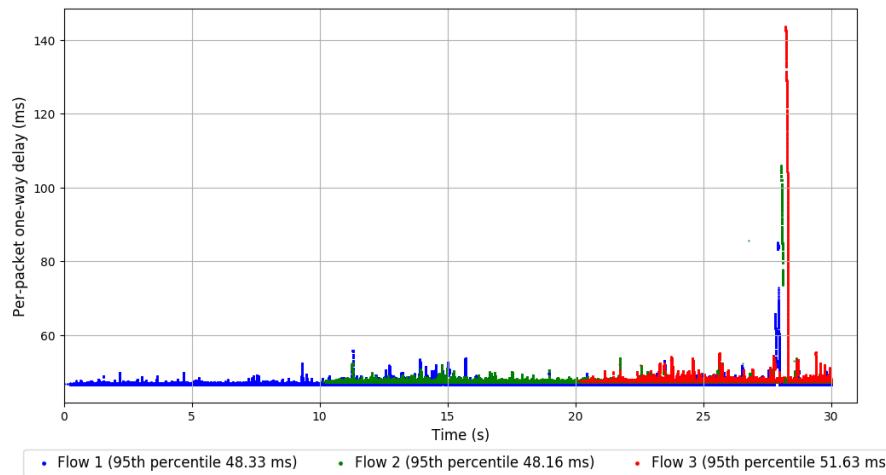
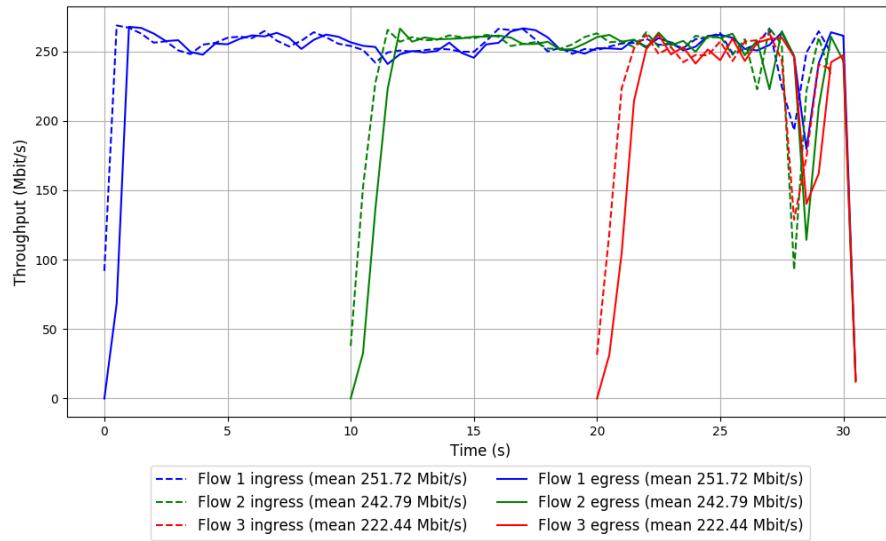


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-01-22 11:57:12
End at: 2019-01-22 11:57:42
Local clock offset: -0.131 ms
Remote clock offset: 0.115 ms

# Below is generated by plot.py at 2019-01-22 14:44:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.28 Mbit/s
95th percentile per-packet one-way delay: 48.730 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.72 Mbit/s
95th percentile per-packet one-way delay: 48.331 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 242.79 Mbit/s
95th percentile per-packet one-way delay: 48.165 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 222.44 Mbit/s
95th percentile per-packet one-way delay: 51.629 ms
Loss rate: 0.00%
```

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

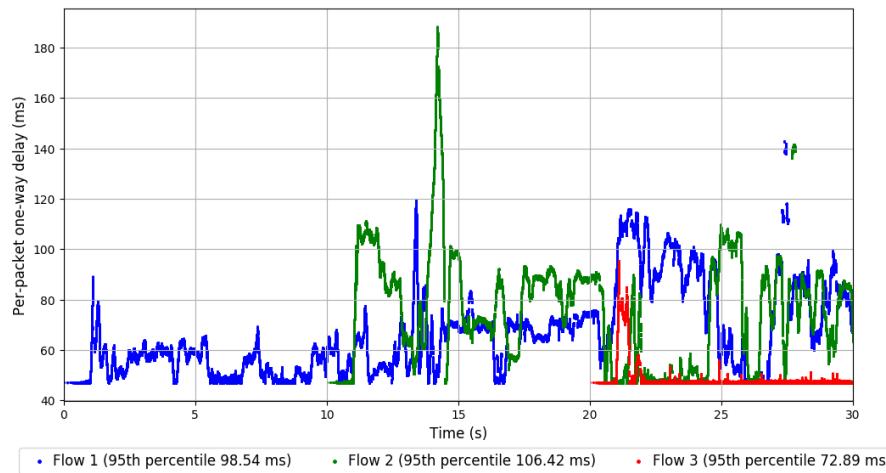
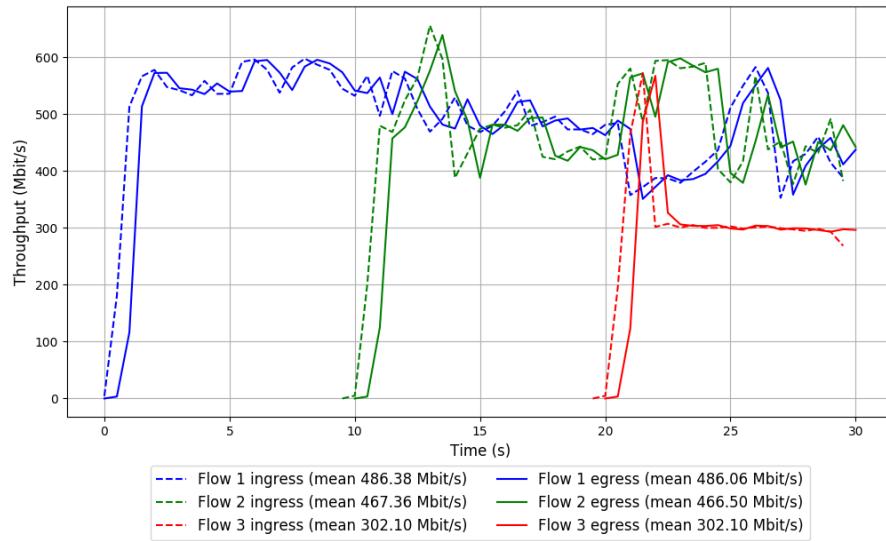


Run 1: Statistics of TCP Vegas

```
Start at: 2019-01-22 09:09:14
End at: 2019-01-22 09:09:44
Local clock offset: 0.358 ms
Remote clock offset: -0.293 ms

# Below is generated by plot.py at 2019-01-22 14:44:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 897.39 Mbit/s
95th percentile per-packet one-way delay: 102.895 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 486.06 Mbit/s
95th percentile per-packet one-way delay: 98.541 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 466.50 Mbit/s
95th percentile per-packet one-way delay: 106.415 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 302.10 Mbit/s
95th percentile per-packet one-way delay: 72.890 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link

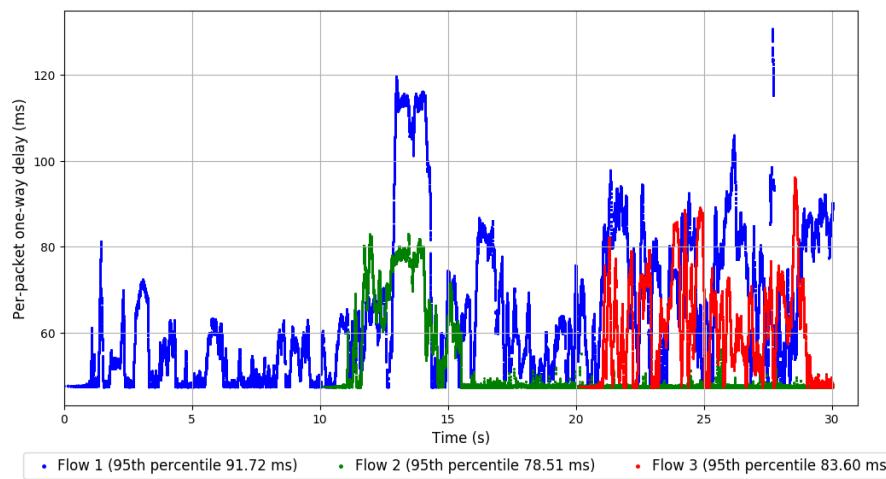
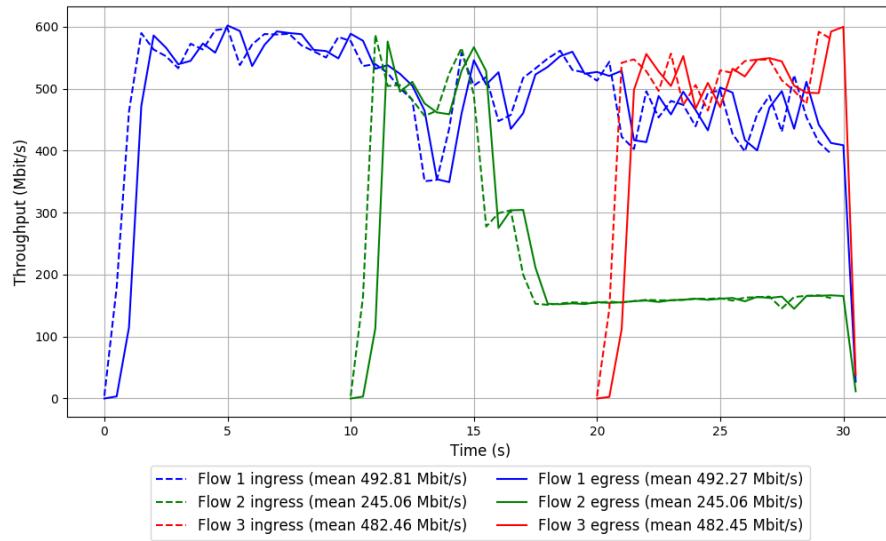


Run 2: Statistics of TCP Vegas

```
Start at: 2019-01-22 09:45:42
End at: 2019-01-22 09:46:12
Local clock offset: 0.021 ms
Remote clock offset: 0.102 ms

# Below is generated by plot.py at 2019-01-22 14:53:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 815.81 Mbit/s
95th percentile per-packet one-way delay: 87.206 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 492.27 Mbit/s
95th percentile per-packet one-way delay: 91.720 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 245.06 Mbit/s
95th percentile per-packet one-way delay: 78.510 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 482.45 Mbit/s
95th percentile per-packet one-way delay: 83.598 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link

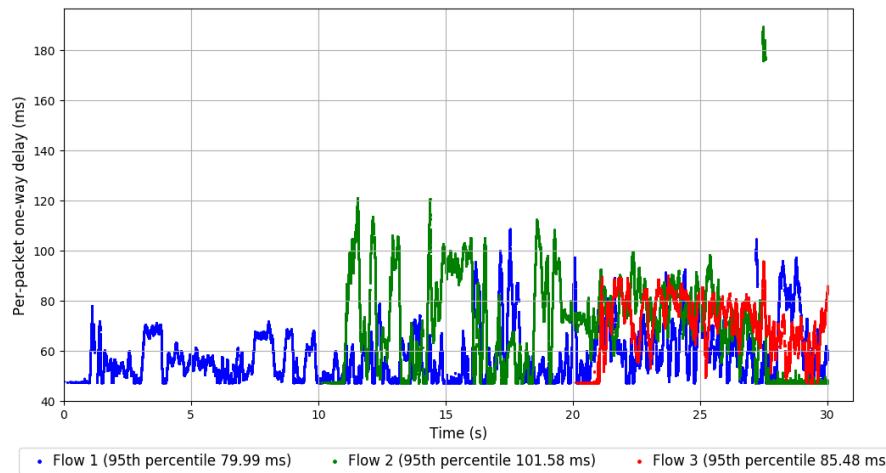
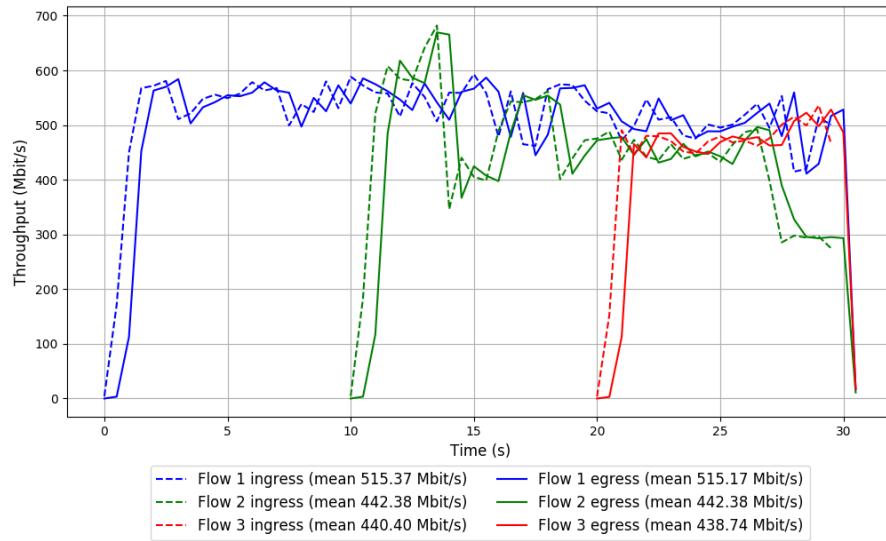


Run 3: Statistics of TCP Vegas

```
Start at: 2019-01-22 10:23:25
End at: 2019-01-22 10:23:55
Local clock offset: 0.103 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-01-22 14:58:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 955.61 Mbit/s
95th percentile per-packet one-way delay: 92.499 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 515.17 Mbit/s
95th percentile per-packet one-way delay: 79.987 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 442.38 Mbit/s
95th percentile per-packet one-way delay: 101.581 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 438.74 Mbit/s
95th percentile per-packet one-way delay: 85.478 ms
Loss rate: 0.36%
```

Run 3: Report of TCP Vegas — Data Link

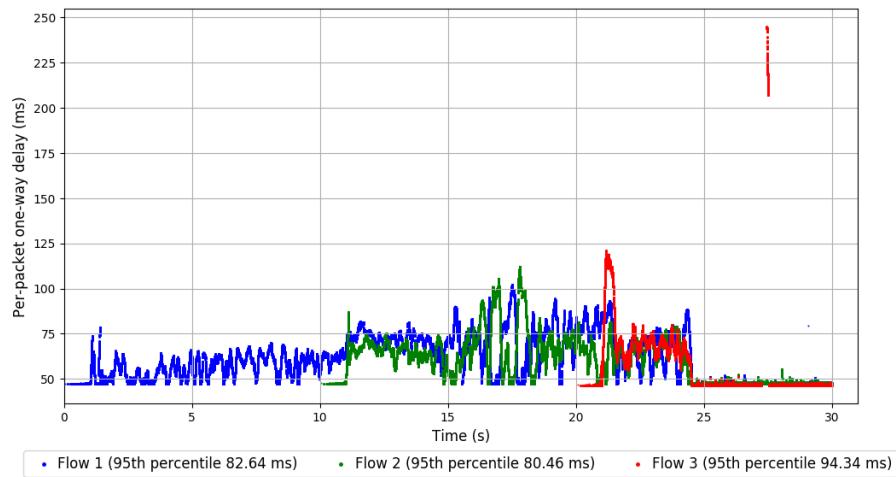
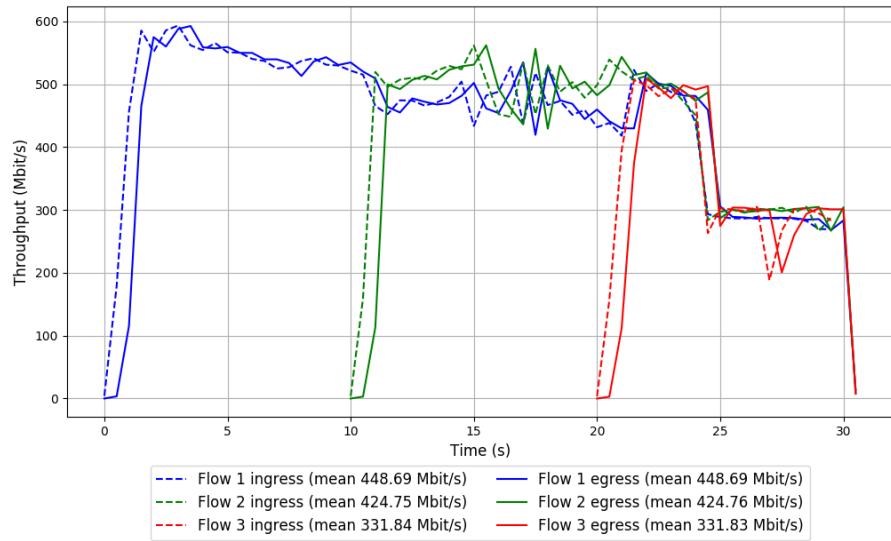


Run 4: Statistics of TCP Vegas

```
Start at: 2019-01-22 11:00:06
End at: 2019-01-22 11:00:36
Local clock offset: 0.124 ms
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2019-01-22 14:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 841.72 Mbit/s
95th percentile per-packet one-way delay: 82.428 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 448.69 Mbit/s
95th percentile per-packet one-way delay: 82.645 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 424.76 Mbit/s
95th percentile per-packet one-way delay: 80.459 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 331.83 Mbit/s
95th percentile per-packet one-way delay: 94.344 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link

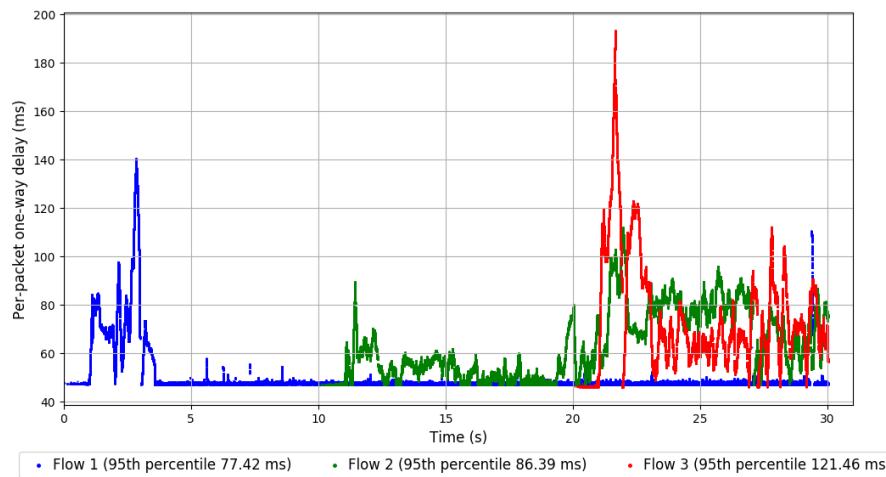
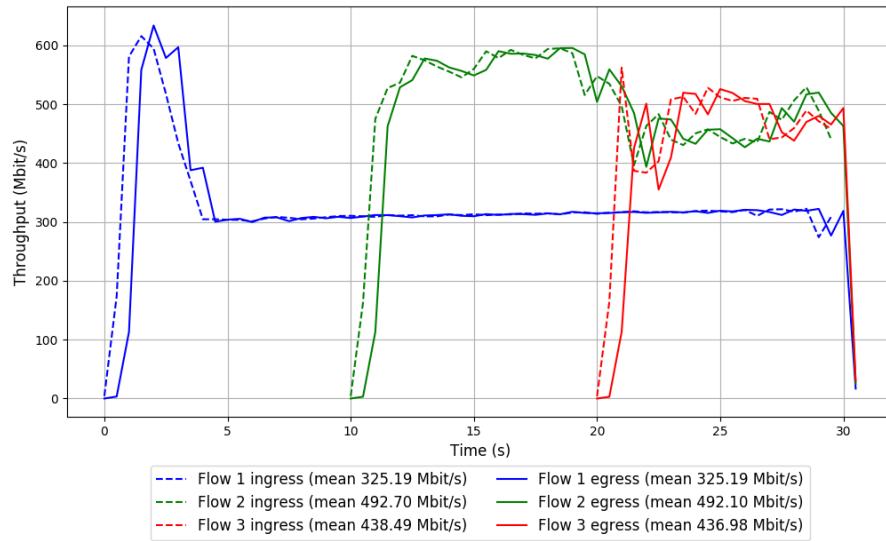


Run 5: Statistics of TCP Vegas

```
Start at: 2019-01-22 11:36:43
End at: 2019-01-22 11:37:13
Local clock offset: 0.427 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2019-01-22 14:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 798.18 Mbit/s
95th percentile per-packet one-way delay: 91.876 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 325.19 Mbit/s
95th percentile per-packet one-way delay: 77.420 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 492.10 Mbit/s
95th percentile per-packet one-way delay: 86.392 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 436.98 Mbit/s
95th percentile per-packet one-way delay: 121.460 ms
Loss rate: 0.33%
```

Run 5: Report of TCP Vegas — Data Link

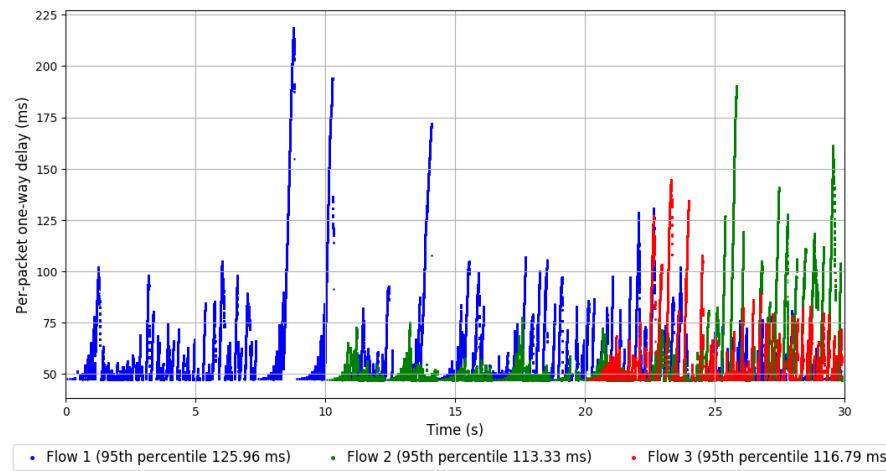
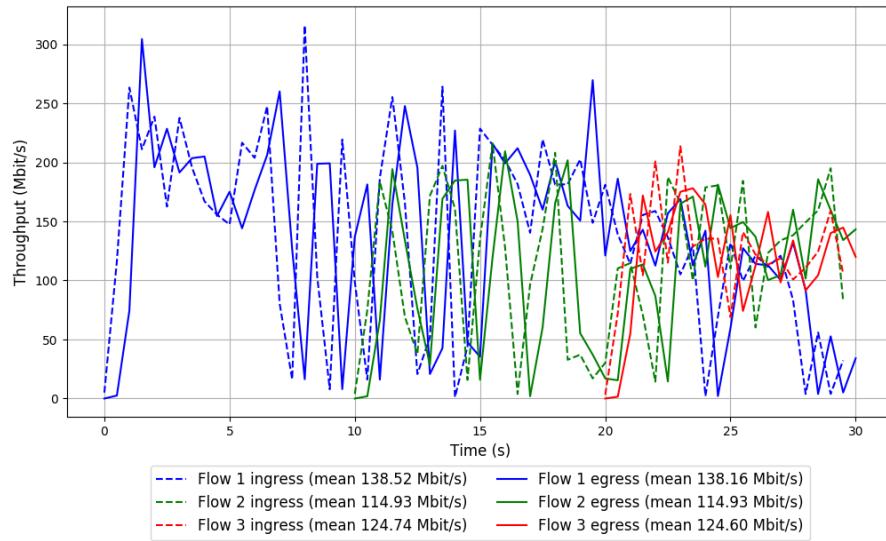


Run 1: Statistics of Verus

```
Start at: 2019-01-22 09:03:55
End at: 2019-01-22 09:04:25
Local clock offset: 0.1 ms
Remote clock offset: -0.31 ms

# Below is generated by plot.py at 2019-01-22 14:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.53 Mbit/s
95th percentile per-packet one-way delay: 119.549 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 138.16 Mbit/s
95th percentile per-packet one-way delay: 125.957 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 114.93 Mbit/s
95th percentile per-packet one-way delay: 113.328 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.60 Mbit/s
95th percentile per-packet one-way delay: 116.788 ms
Loss rate: 0.00%
```

Run 1: Report of Verus — Data Link

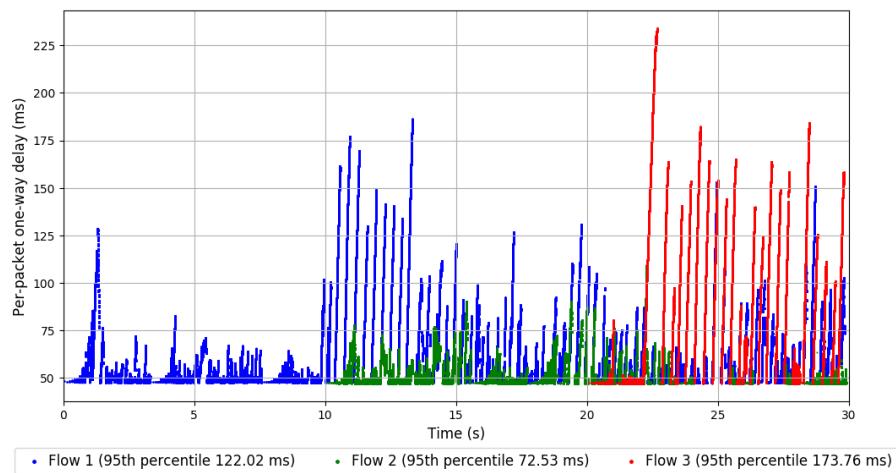
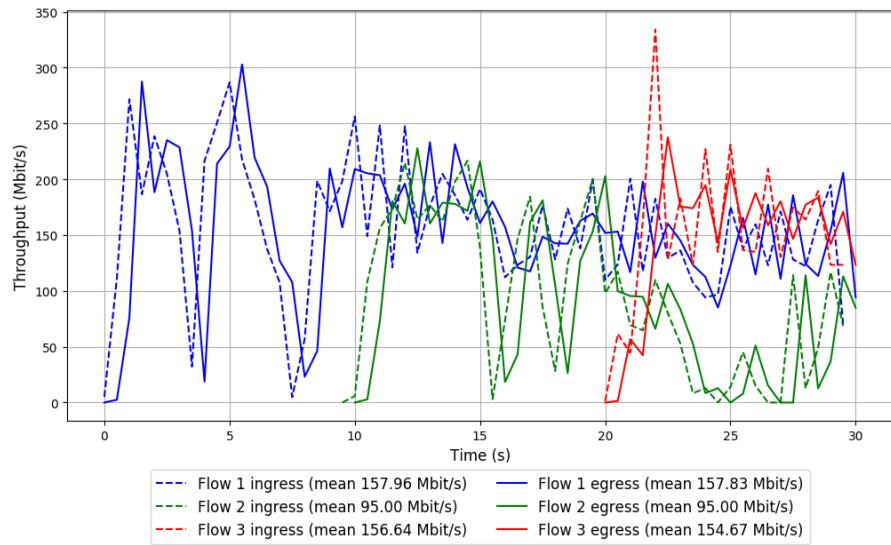


Run 2: Statistics of Verus

```
Start at: 2019-01-22 09:40:03
End at: 2019-01-22 09:40:33
Local clock offset: 0.025 ms
Remote clock offset: 0.099 ms

# Below is generated by plot.py at 2019-01-22 14:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 271.11 Mbit/s
95th percentile per-packet one-way delay: 140.153 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 157.83 Mbit/s
95th percentile per-packet one-way delay: 122.020 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 95.00 Mbit/s
95th percentile per-packet one-way delay: 72.527 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 154.67 Mbit/s
95th percentile per-packet one-way delay: 173.758 ms
Loss rate: 0.18%
```

Run 2: Report of Verus — Data Link

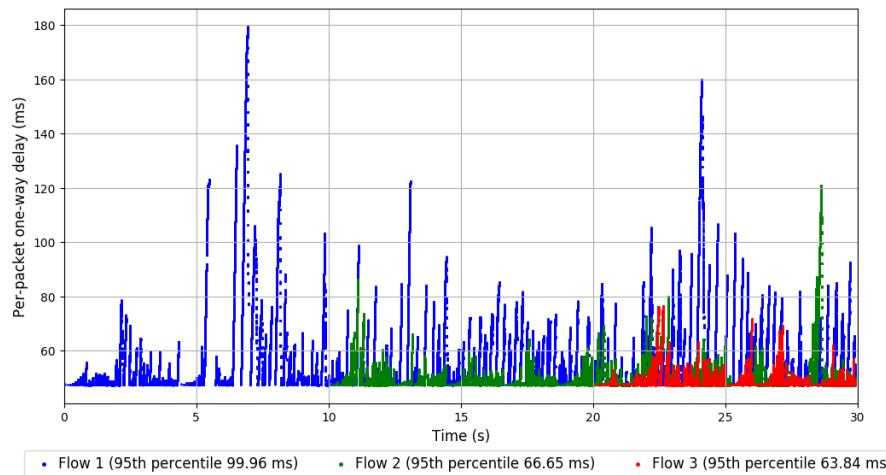
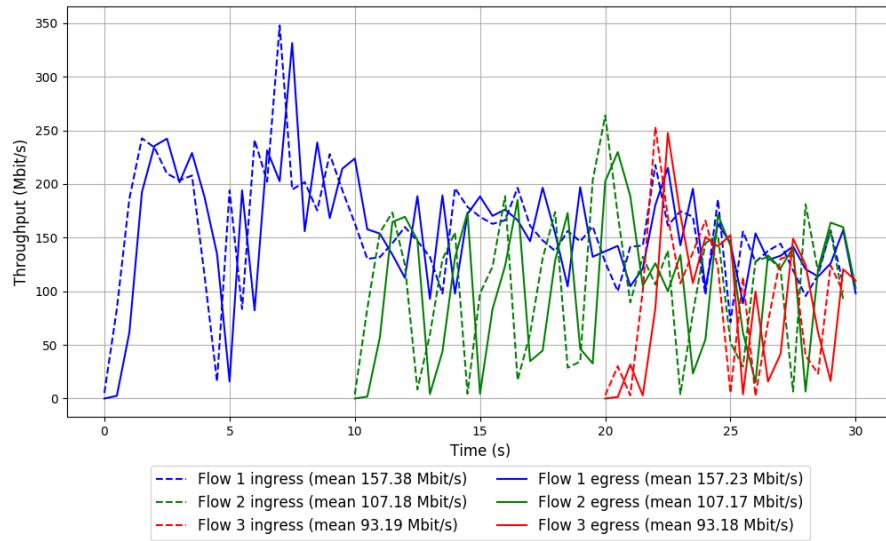


Run 3: Statistics of Verus

```
Start at: 2019-01-22 10:17:33
End at: 2019-01-22 10:18:03
Local clock offset: 0.09 ms
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2019-01-22 14:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.19 Mbit/s
95th percentile per-packet one-way delay: 88.972 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 157.23 Mbit/s
95th percentile per-packet one-way delay: 99.963 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 107.17 Mbit/s
95th percentile per-packet one-way delay: 66.646 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 93.18 Mbit/s
95th percentile per-packet one-way delay: 63.845 ms
Loss rate: 0.00%
```

Run 3: Report of Verus — Data Link

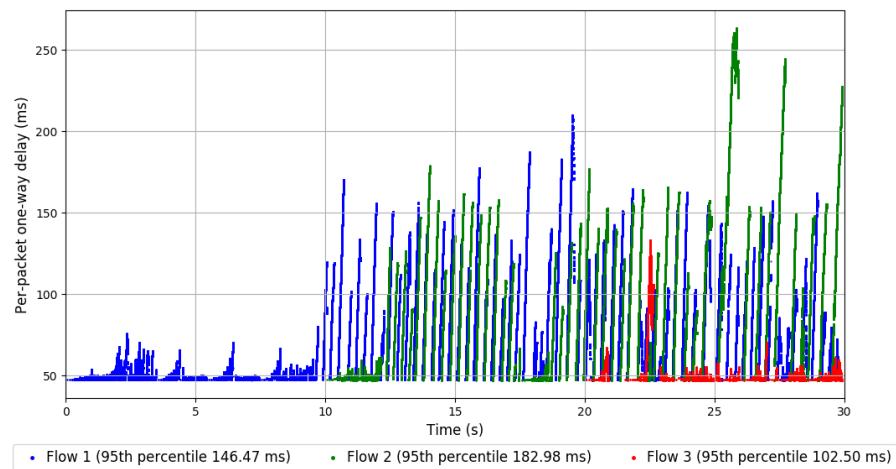
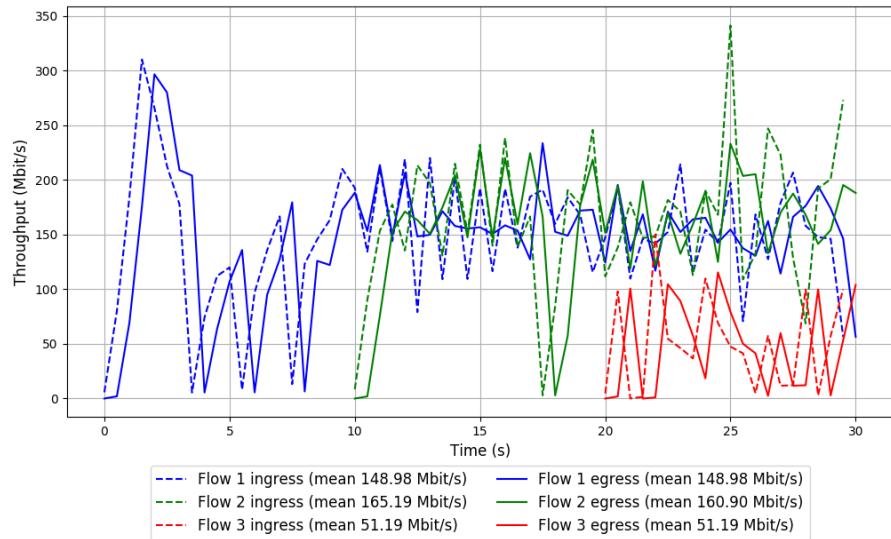


Run 4: Statistics of Verus

```
Start at: 2019-01-22 10:54:20
End at: 2019-01-22 10:54:50
Local clock offset: 0.097 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2019-01-22 14:59:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 272.12 Mbit/s
95th percentile per-packet one-way delay: 155.149 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 148.98 Mbit/s
95th percentile per-packet one-way delay: 146.467 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 160.90 Mbit/s
95th percentile per-packet one-way delay: 182.978 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 51.19 Mbit/s
95th percentile per-packet one-way delay: 102.498 ms
Loss rate: 0.00%
```

Run 4: Report of Verus — Data Link

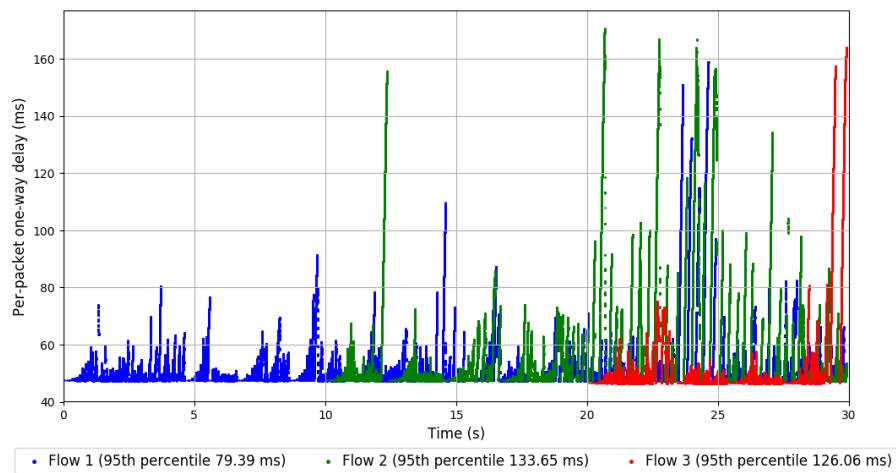
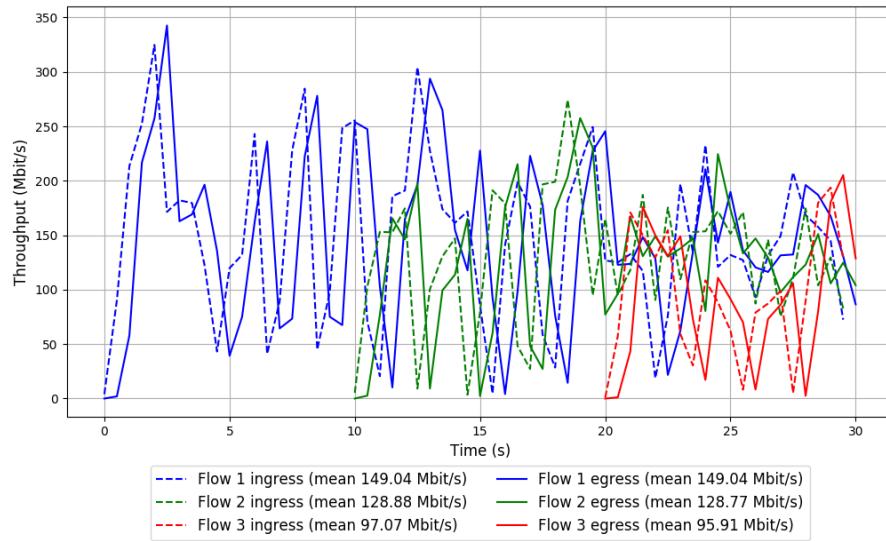


Run 5: Statistics of Verus

```
Start at: 2019-01-22 11:31:00
End at: 2019-01-22 11:31:30
Local clock offset: 0.132 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2019-01-22 15:01:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 265.81 Mbit/s
95th percentile per-packet one-way delay: 107.548 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 149.04 Mbit/s
95th percentile per-packet one-way delay: 79.389 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 128.77 Mbit/s
95th percentile per-packet one-way delay: 133.651 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 95.91 Mbit/s
95th percentile per-packet one-way delay: 126.063 ms
Loss rate: 0.00%
```

Run 5: Report of Verus — Data Link

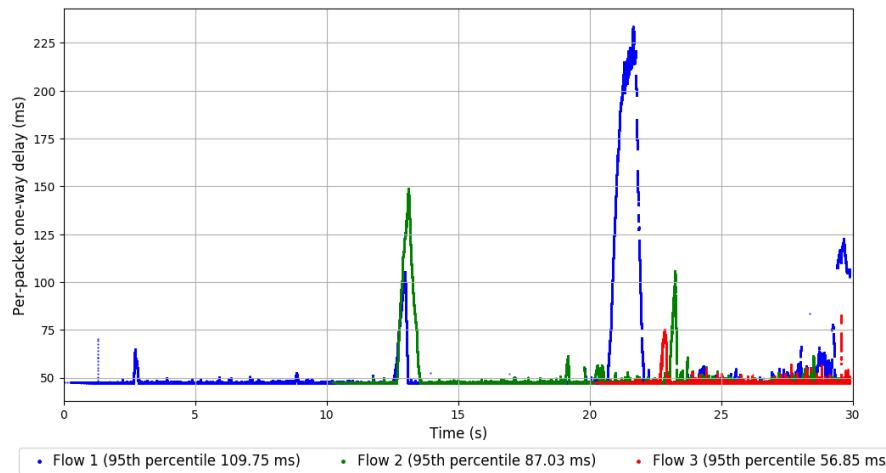
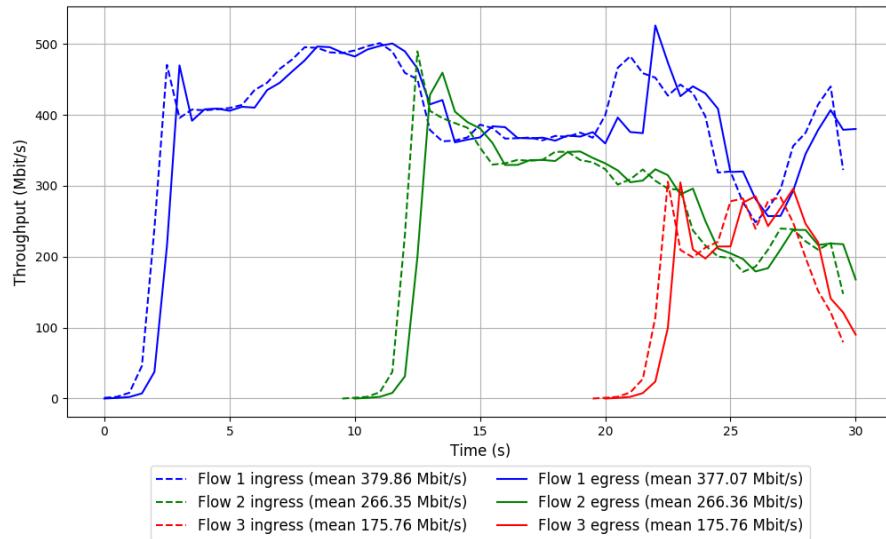


```
Run 1: Statistics of PCC-Vivace

Start at: 2019-01-22 09:07:21
End at: 2019-01-22 09:07:51
Local clock offset: -0.011 ms
Remote clock offset: -0.309 ms

# Below is generated by plot.py at 2019-01-22 15:03:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 612.53 Mbit/s
95th percentile per-packet one-way delay: 96.822 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 377.07 Mbit/s
95th percentile per-packet one-way delay: 109.753 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 266.36 Mbit/s
95th percentile per-packet one-way delay: 87.029 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 175.76 Mbit/s
95th percentile per-packet one-way delay: 56.849 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

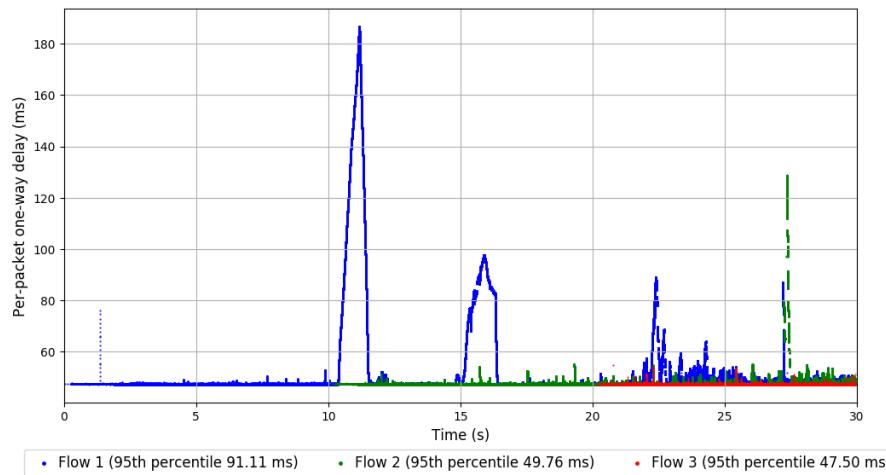
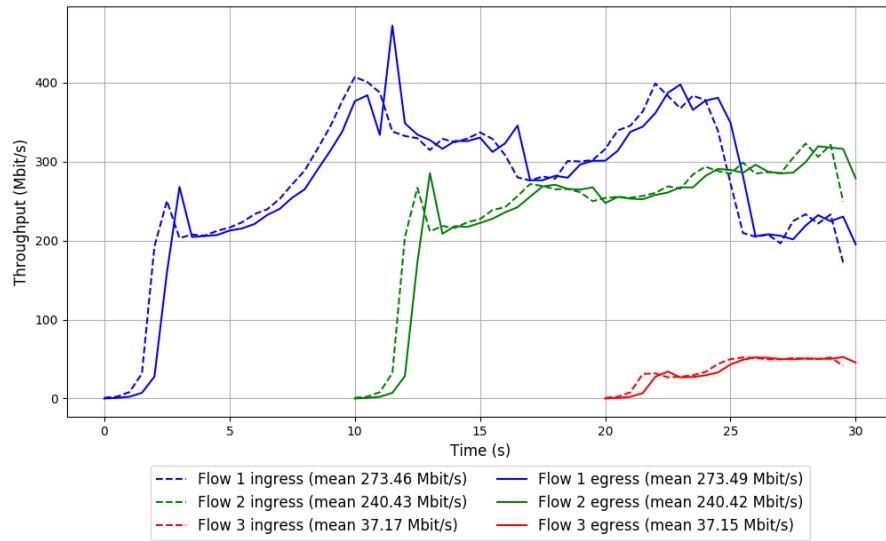


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-01-22 09:43:55
End at: 2019-01-22 09:44:25
Local clock offset: 0.016 ms
Remote clock offset: 0.122 ms

# Below is generated by plot.py at 2019-01-22 15:03:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 445.47 Mbit/s
95th percentile per-packet one-way delay: 81.813 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 273.49 Mbit/s
95th percentile per-packet one-way delay: 91.107 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 240.42 Mbit/s
95th percentile per-packet one-way delay: 49.757 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.15 Mbit/s
95th percentile per-packet one-way delay: 47.504 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link

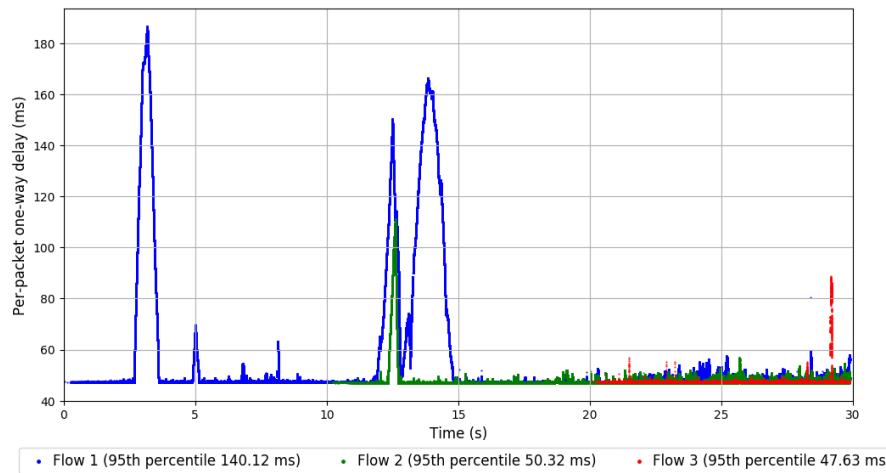
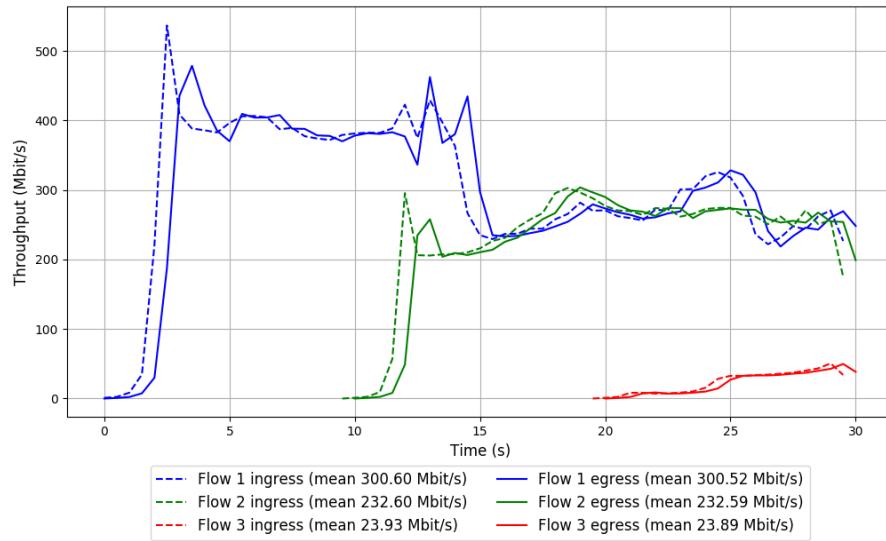


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-01-22 10:21:28
End at: 2019-01-22 10:21:58
Local clock offset: 0.152 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2019-01-22 15:03:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 463.30 Mbit/s
95th percentile per-packet one-way delay: 119.473 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 300.52 Mbit/s
95th percentile per-packet one-way delay: 140.115 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 232.59 Mbit/s
95th percentile per-packet one-way delay: 50.317 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.89 Mbit/s
95th percentile per-packet one-way delay: 47.634 ms
Loss rate: 0.17%
```

Run 3: Report of PCC-Vivace — Data Link

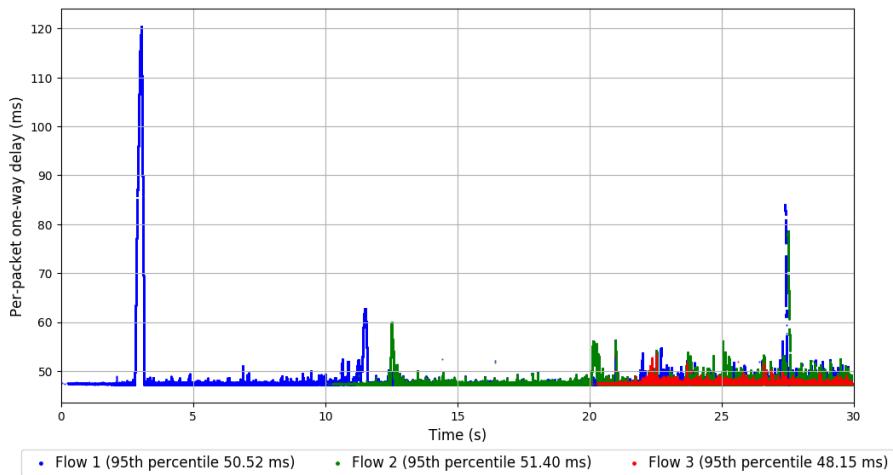
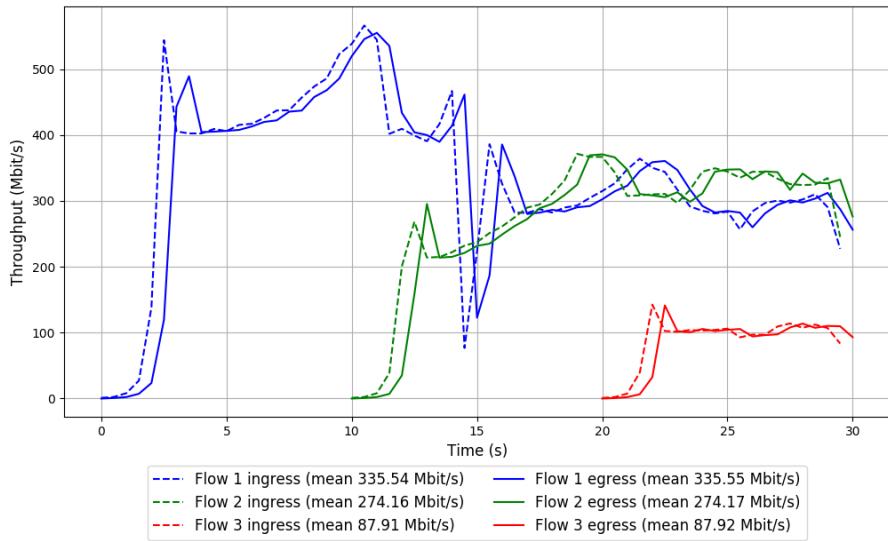


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-01-22 10:58:05
End at: 2019-01-22 10:58:35
Local clock offset: 0.083 ms
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2019-01-22 15:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.91 Mbit/s
95th percentile per-packet one-way delay: 50.621 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 335.55 Mbit/s
95th percentile per-packet one-way delay: 50.522 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 274.17 Mbit/s
95th percentile per-packet one-way delay: 51.401 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 87.92 Mbit/s
95th percentile per-packet one-way delay: 48.152 ms
Loss rate: 0.01%
```

Run 4: Report of PCC-Vivace — Data Link

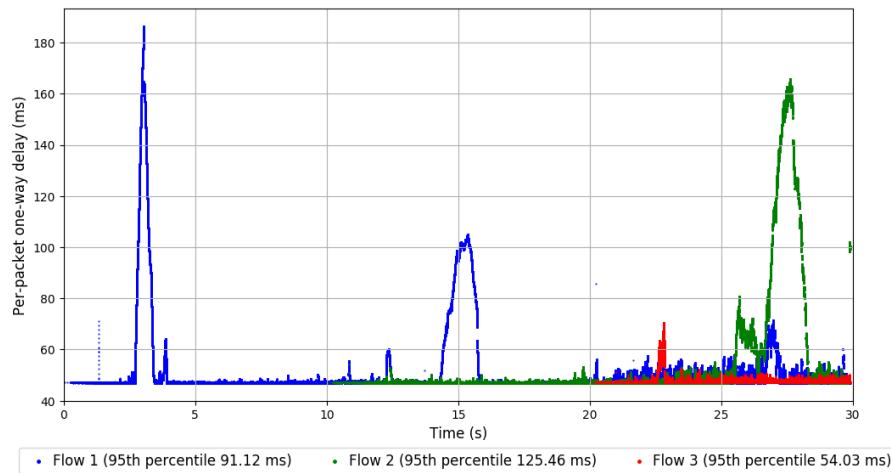
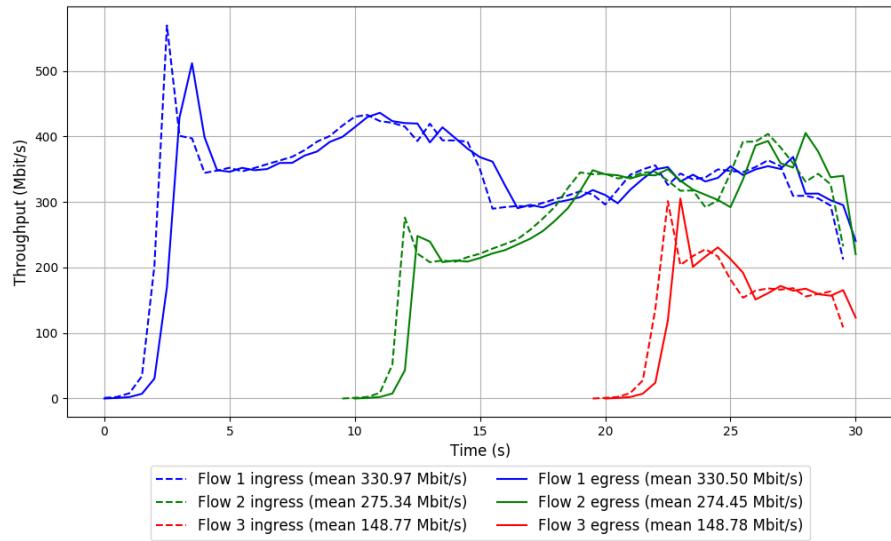


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-01-22 11:34:40
End at: 2019-01-22 11:35:10
Local clock offset: 0.413 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2019-01-22 15:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 562.32 Mbit/s
95th percentile per-packet one-way delay: 97.528 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 330.50 Mbit/s
95th percentile per-packet one-way delay: 91.124 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 274.45 Mbit/s
95th percentile per-packet one-way delay: 125.461 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 148.78 Mbit/s
95th percentile per-packet one-way delay: 54.029 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link

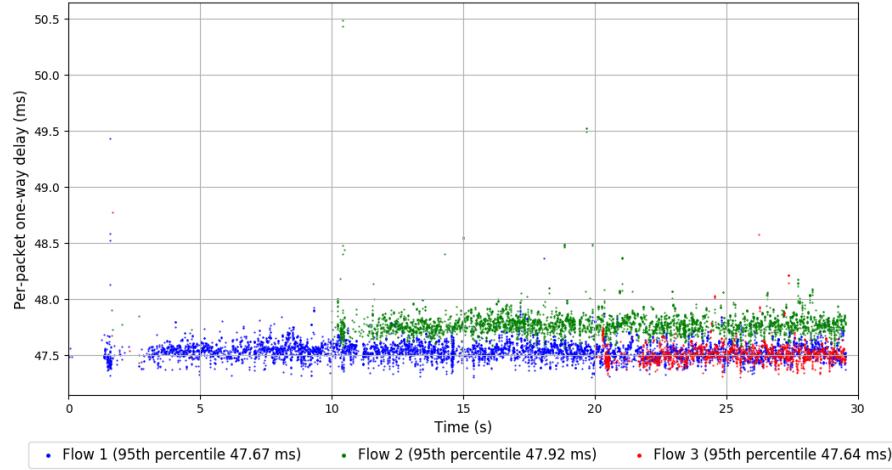
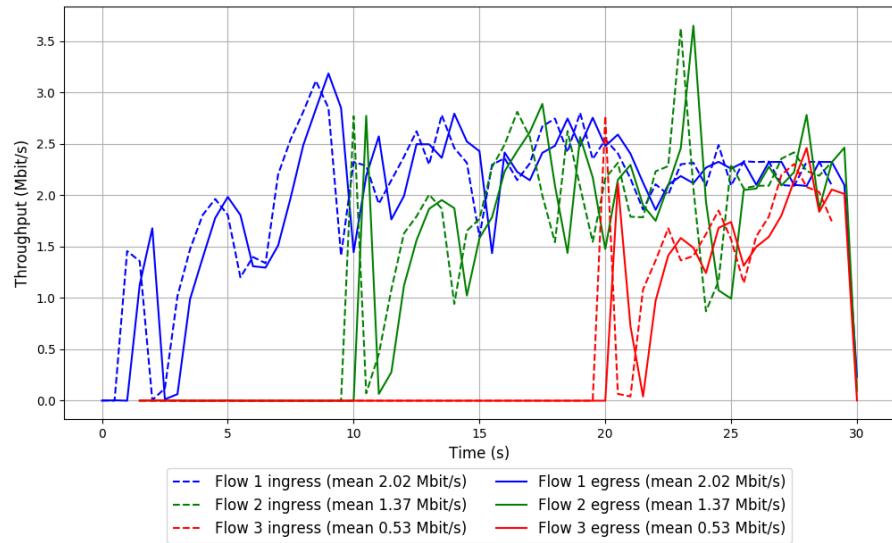


```
Run 1: Statistics of WebRTC media

Start at: 2019-01-22 09:13:00
End at: 2019-01-22 09:13:30
Local clock offset: 0.01 ms
Remote clock offset: -0.29 ms

# Below is generated by plot.py at 2019-01-22 15:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 47.850 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 47.668 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 47.916 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 47.636 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

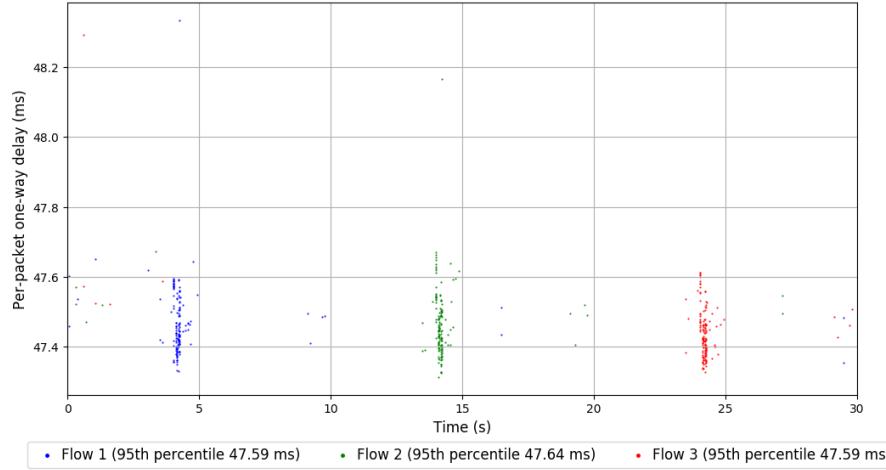
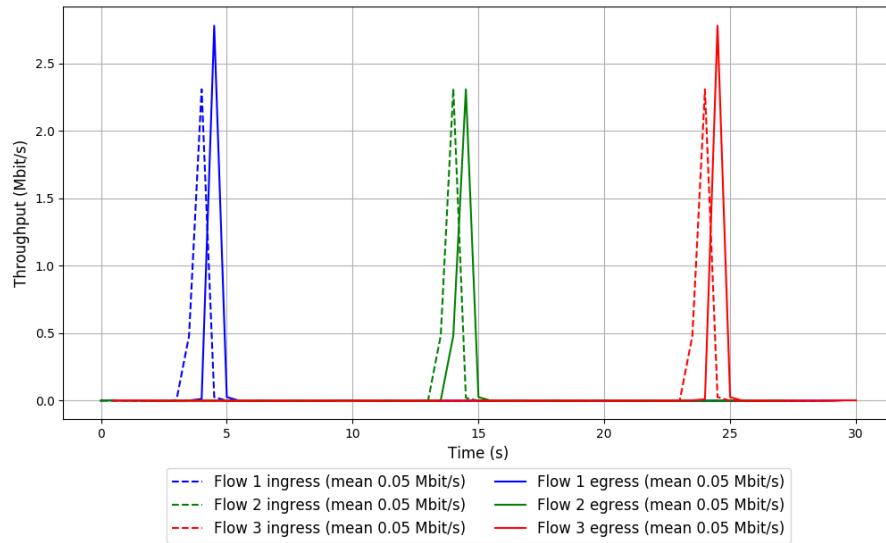


Run 2: Statistics of WebRTC media

```
Start at: 2019-01-22 09:49:38
End at: 2019-01-22 09:50:08
Local clock offset: 0.036 ms
Remote clock offset: 0.104 ms

# Below is generated by plot.py at 2019-01-22 15:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.603 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.590 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.636 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.588 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

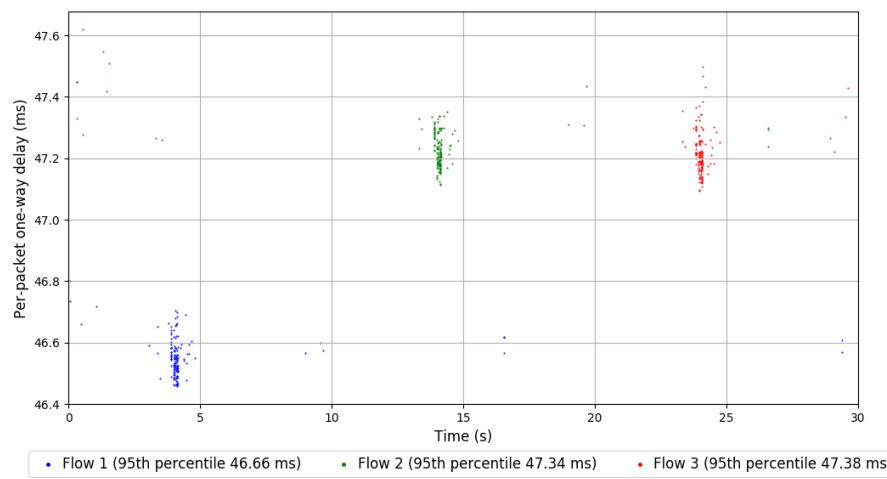
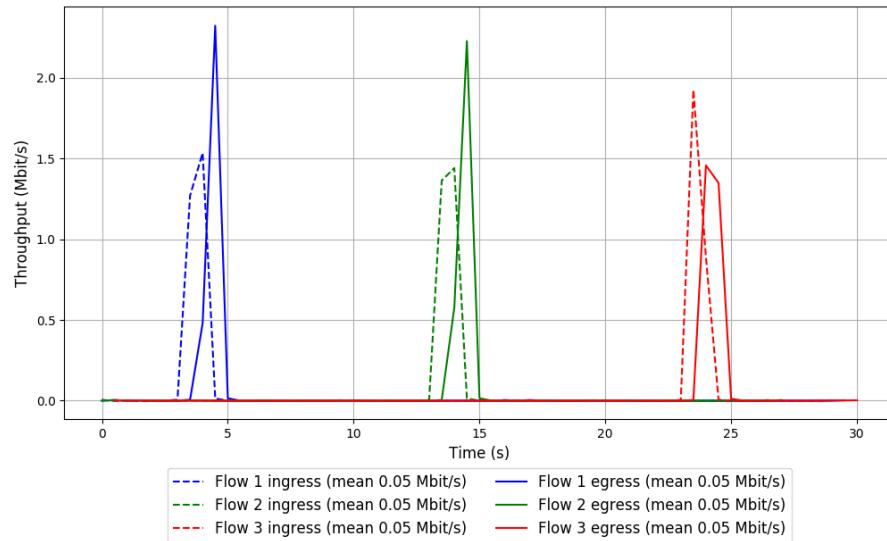


Run 3: Statistics of WebRTC media

```
Start at: 2019-01-22 10:27:27
End at: 2019-01-22 10:27:57
Local clock offset: 0.088 ms
Remote clock offset: -0.04 ms

# Below is generated by plot.py at 2019-01-22 15:04:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.333 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.663 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.336 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.385 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

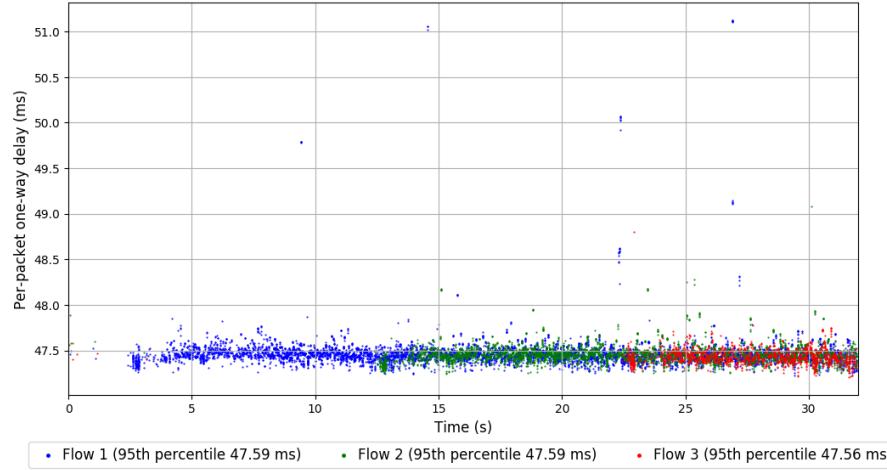
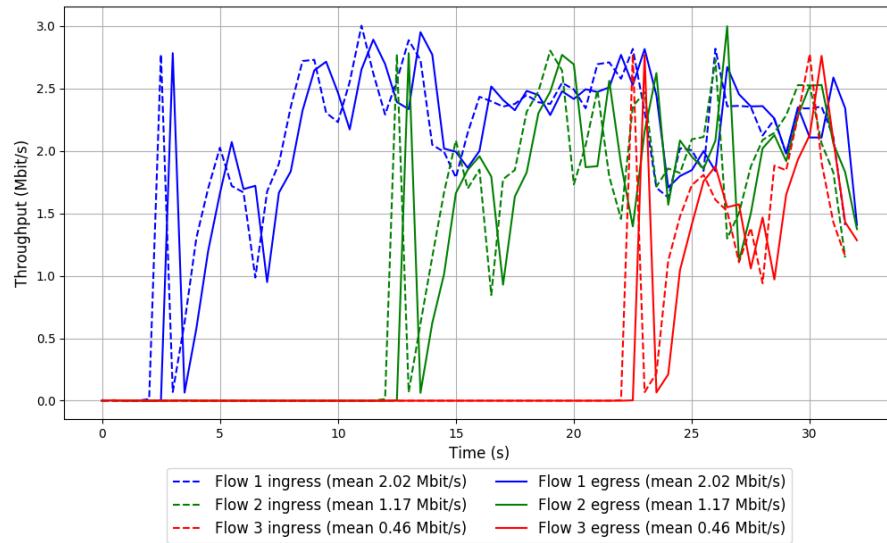


Run 4: Statistics of WebRTC media

```
Start at: 2019-01-22 11:04:03
End at: 2019-01-22 11:04:33
Local clock offset: 0.204 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2019-01-22 15:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 47.586 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 47.587 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 47.589 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 47.562 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-01-22 11:40:39
End at: 2019-01-22 11:41:09
Local clock offset: -0.023 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-01-22 15:04:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 47.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 47.129 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.672 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.696 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

