

Pantheon Report

Generated at 2019-01-19 03:33:02 (UTC).
Data path: AWS India 2 on `ens5` (*local*) → Saudi Arabia on `enp2s0` (*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 `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

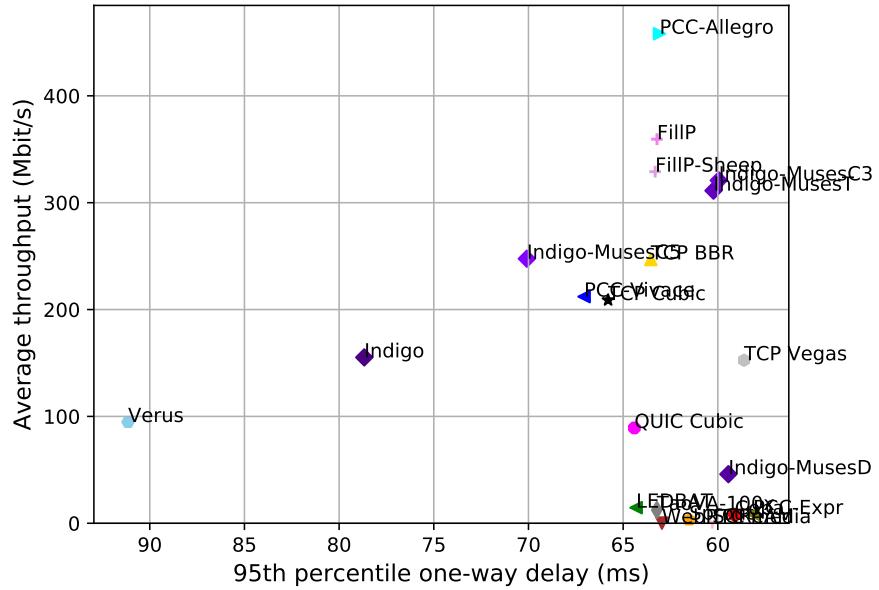
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

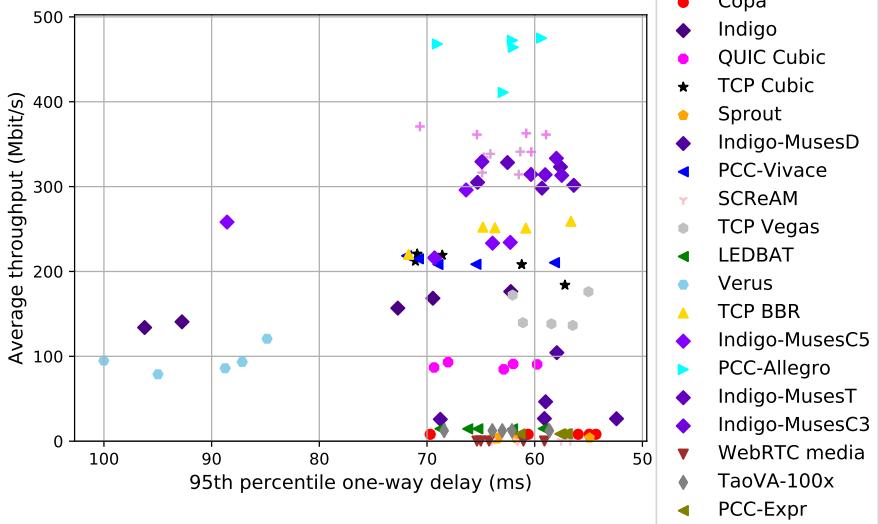
```
branch: muses @ c80a283586bf7b0cc1fe08c69c8f60d56498f81c
third_party/fillp @ d6da1459332fceef56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d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

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

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



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



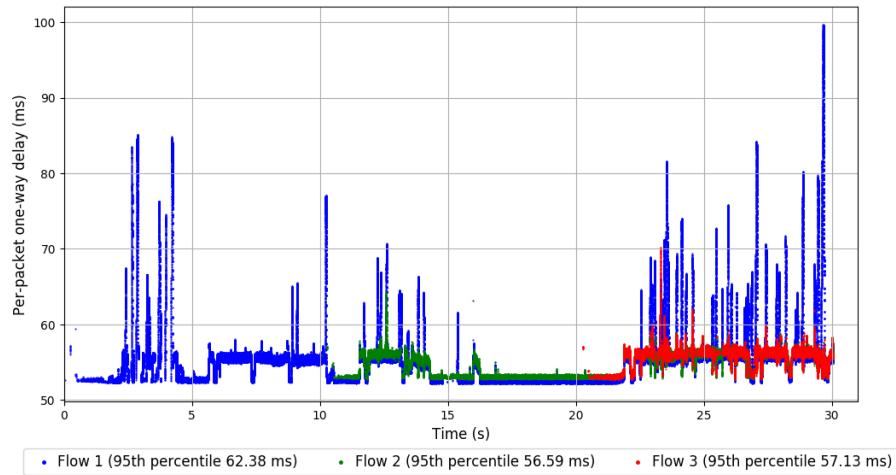
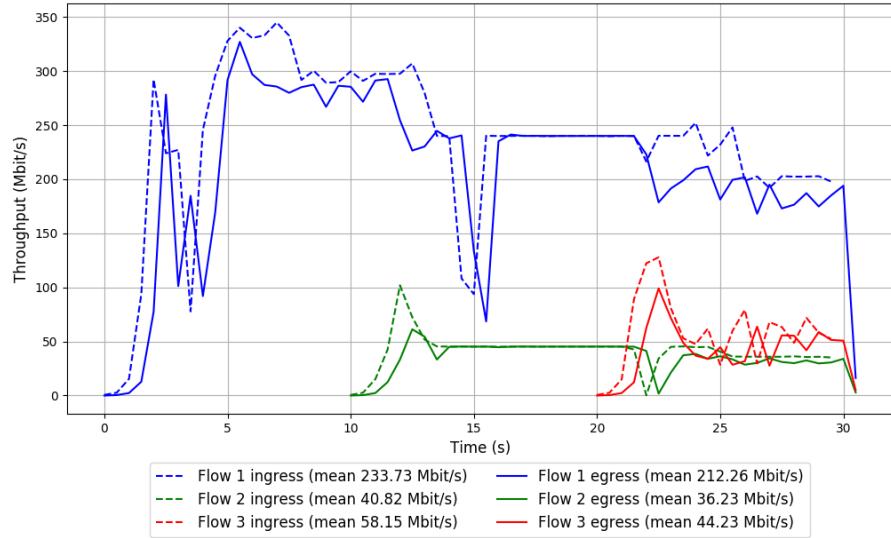
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	187.87	63.32	50.57	65.35	60.26	60.02	10.95	15.11	21.94
Copa	5	0.00	9.49	5.42	59.17	59.40	58.35	98.36	65.98	76.70
TCP Cubic	5	126.91	84.46	77.24	65.65	64.41	66.35	1.21	1.31	1.64
FillP	5	242.30	120.29	112.07	62.81	63.28	63.53	22.73	22.70	24.64
FillP-Sheep	5	231.26	99.90	94.48	63.09	62.62	62.55	14.18	11.40	13.14
Indigo	5	80.13	79.28	70.88	77.52	77.73	74.36	9.64	16.17	27.44
Indigo-MusesC3	5	317.92	3.65	2.05	59.94	60.36	58.78	15.94	18.47	20.79
Indigo-MusesC5	5	219.91	42.21	0.66	70.11	64.96	64.34	22.16	26.22	32.02
Indigo-MusesD	5	32.71	11.03	19.82	58.99	58.20	59.68	1.47	0.69	2.24
Indigo-MusesT	5	302.93	9.99	6.19	59.97	59.16	58.59	12.15	10.94	11.66
LEDBAT	5	9.45	6.23	3.08	63.87	64.51	62.56	0.00	0.00	0.00
PCC-Allegro	5	424.18	33.25	35.86	62.97	63.31	63.95	4.70	2.09	2.99
PCC-Expr	5	0.01	10.15	5.60	58.47	58.13	58.15	84.57	32.51	36.68
QUIC Cubic	5	53.30	40.51	27.97	63.58	63.09	66.07	0.00	0.00	0.00
SCReAM	5	0.22	0.22	0.22	58.46	59.50	59.46	0.00	0.00	0.00
Sprout	5	1.80	1.55	1.54	61.31	60.41	60.87	0.00	0.00	0.00
TaoVA-100x	5	7.31	4.37	6.56	66.64	60.63	60.42	33.21	39.72	72.08
TCP Vegas	5	78.68	54.76	112.44	58.77	57.38	59.79	1.76	2.19	2.43
Verus	5	59.36	46.44	38.14	93.66	80.17	71.34	54.70	40.64	51.28
PCC-Vivace	5	186.81	30.27	15.60	67.01	66.55	66.62	1.49	0.99	1.46
WebRTC media	5	0.05	0.05	0.05	63.46	63.06	63.12	0.00	0.01	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-01-19 00:34:14
End at: 2019-01-19 00:34:44
Local clock offset: 0.443 ms
Remote clock offset: -45.255 ms

# Below is generated by plot.py at 2019-01-19 03:10:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.10 Mbit/s
95th percentile per-packet one-way delay: 60.823 ms
Loss rate: 10.40%
-- Flow 1:
Average throughput: 212.26 Mbit/s
95th percentile per-packet one-way delay: 62.384 ms
Loss rate: 9.18%
-- Flow 2:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 56.593 ms
Loss rate: 11.25%
-- Flow 3:
Average throughput: 44.23 Mbit/s
95th percentile per-packet one-way delay: 57.129 ms
Loss rate: 23.93%
```

Run 1: Report of TCP BBR — Data Link

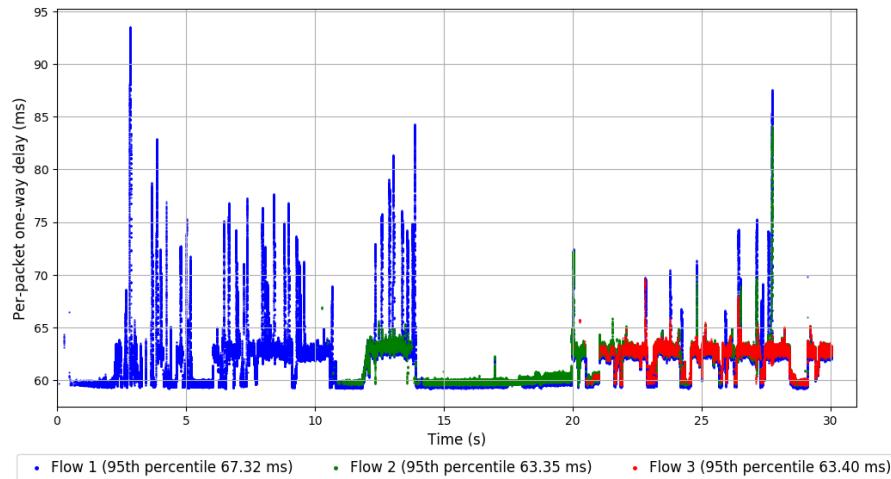
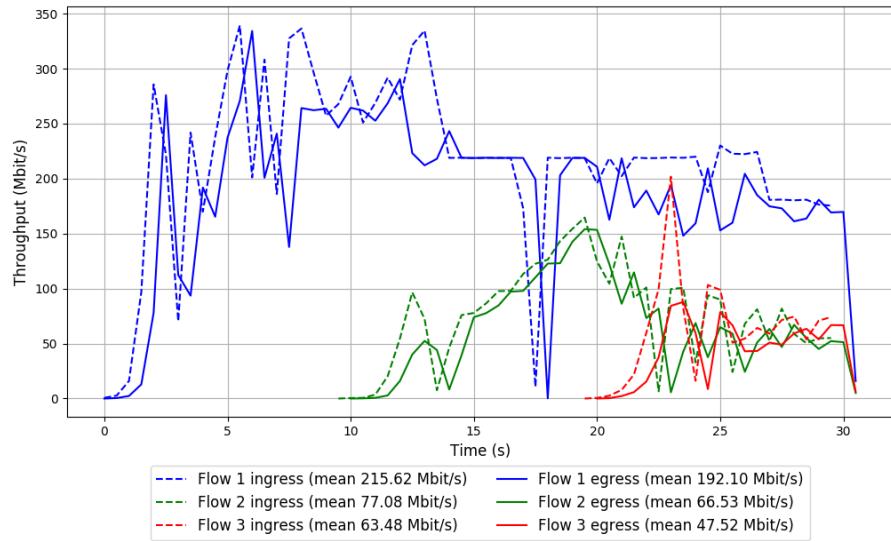


Run 2: Statistics of TCP BBR

```
Start at: 2019-01-19 01:21:35
End at: 2019-01-19 01:22:05
Local clock offset: 1.084 ms
Remote clock offset: -40.032 ms

# Below is generated by plot.py at 2019-01-19 03:10:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.27 Mbit/s
95th percentile per-packet one-way delay: 64.815 ms
Loss rate: 12.44%
-- Flow 1:
Average throughput: 192.10 Mbit/s
95th percentile per-packet one-way delay: 67.321 ms
Loss rate: 10.90%
-- Flow 2:
Average throughput: 66.53 Mbit/s
95th percentile per-packet one-way delay: 63.350 ms
Loss rate: 13.69%
-- Flow 3:
Average throughput: 47.52 Mbit/s
95th percentile per-packet one-way delay: 63.399 ms
Loss rate: 25.13%
```

Run 2: Report of TCP BBR — Data Link

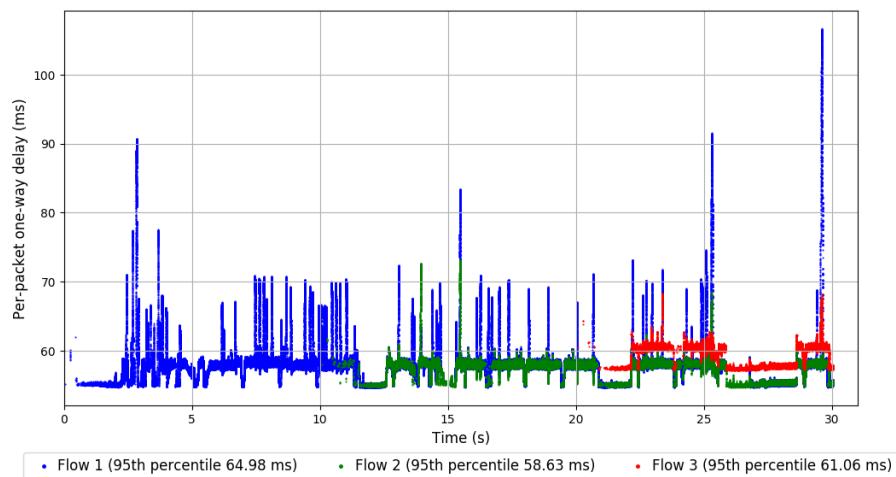
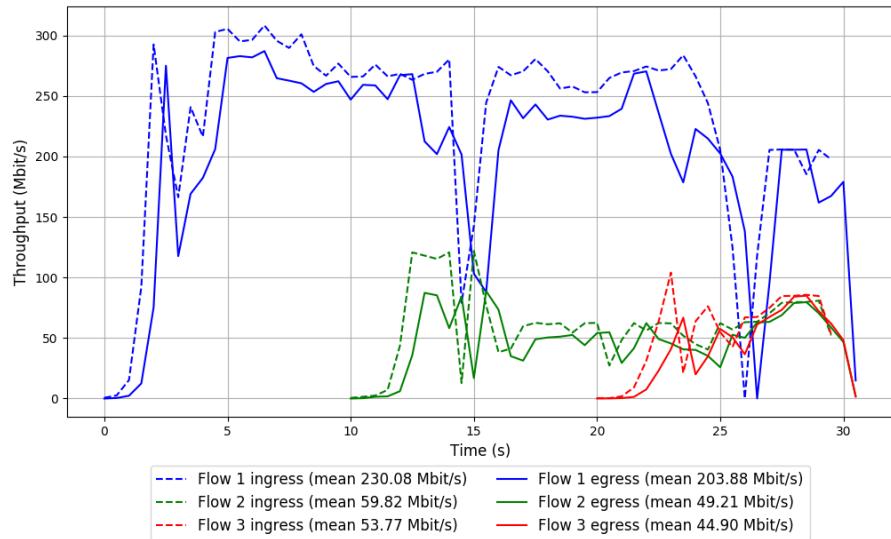


Run 3: Statistics of TCP BBR

```
Start at: 2019-01-19 01:57:28
End at: 2019-01-19 01:57:58
Local clock offset: -1.207 ms
Remote clock offset: -45.246 ms

# Below is generated by plot.py at 2019-01-19 03:10:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 251.56 Mbit/s
95th percentile per-packet one-way delay: 63.695 ms
Loss rate: 12.59%
-- Flow 1:
Average throughput: 203.88 Mbit/s
95th percentile per-packet one-way delay: 64.981 ms
Loss rate: 11.39%
-- Flow 2:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 58.629 ms
Loss rate: 17.74%
-- Flow 3:
Average throughput: 44.90 Mbit/s
95th percentile per-packet one-way delay: 61.061 ms
Loss rate: 16.53%
```

Run 3: Report of TCP BBR — Data Link

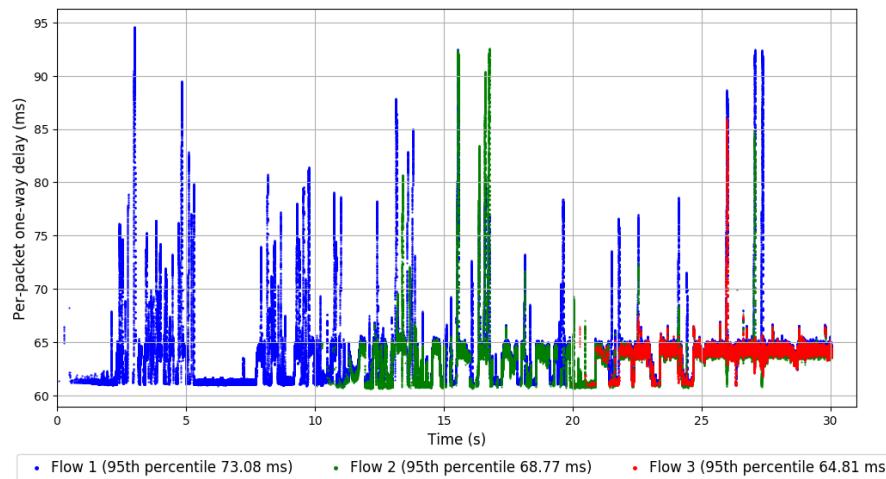
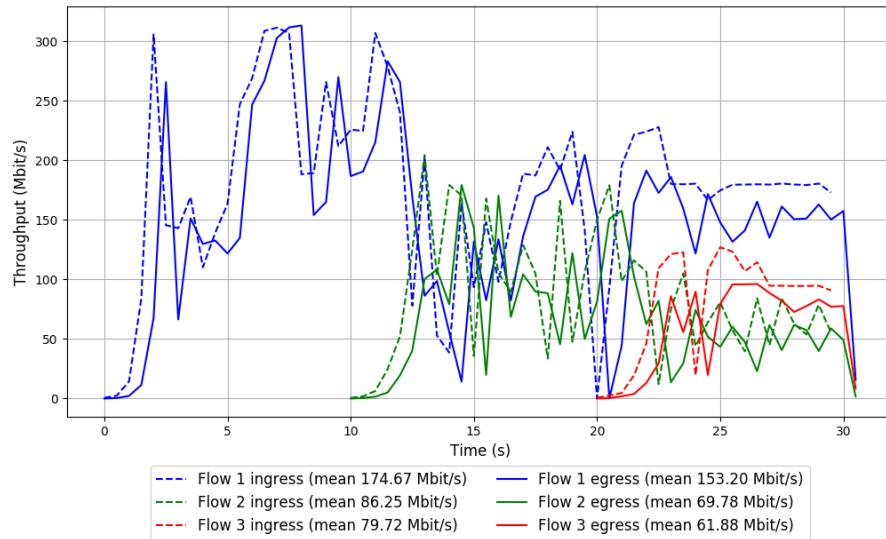


Run 4: Statistics of TCP BBR

```
Start at: 2019-01-19 02:27:37
End at: 2019-01-19 02:28:07
Local clock offset: -1.325 ms
Remote clock offset: -41.616 ms

# Below is generated by plot.py at 2019-01-19 03:10:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.26 Mbit/s
95th percentile per-packet one-way delay: 71.715 ms
Loss rate: 14.83%
-- Flow 1:
Average throughput: 153.20 Mbit/s
95th percentile per-packet one-way delay: 73.081 ms
Loss rate: 12.28%
-- Flow 2:
Average throughput: 69.78 Mbit/s
95th percentile per-packet one-way delay: 68.766 ms
Loss rate: 19.10%
-- Flow 3:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 64.815 ms
Loss rate: 22.36%
```

Run 4: Report of TCP BBR — Data Link

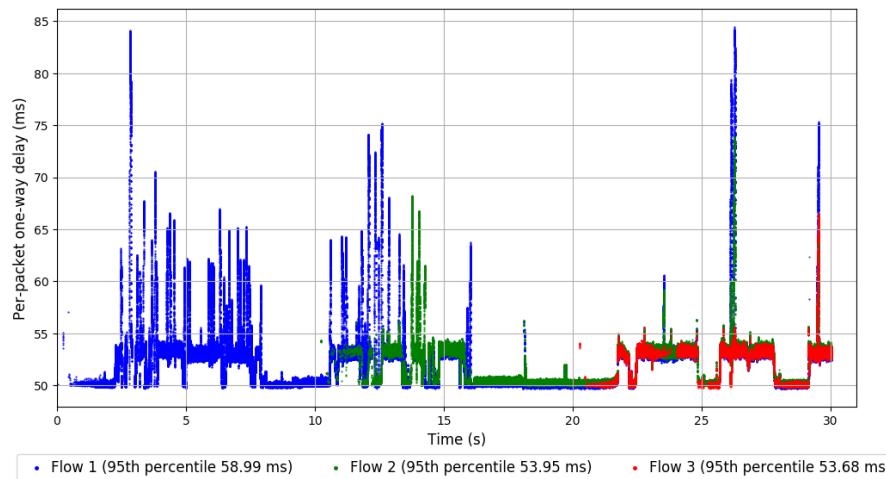
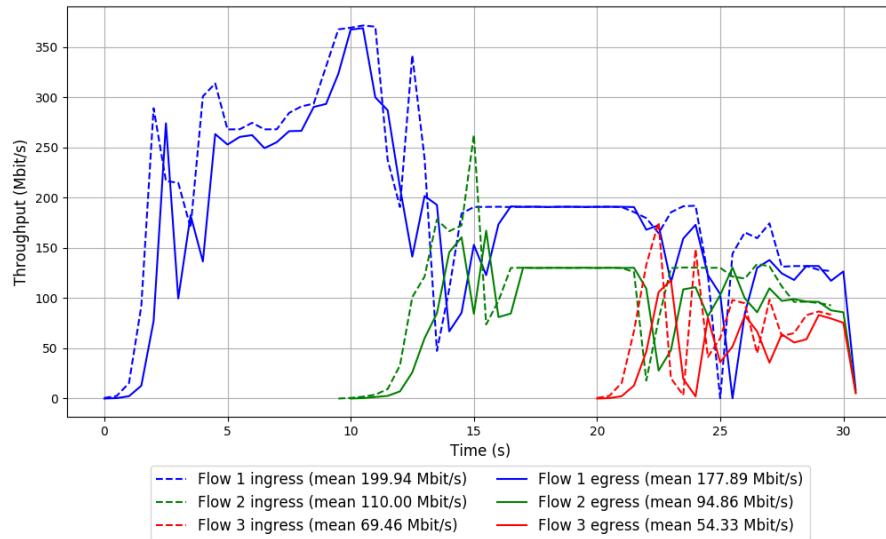


Run 5: Statistics of TCP BBR

```
Start at: 2019-01-19 02:57:57
End at: 2019-01-19 02:58:27
Local clock offset: 0.835 ms
Remote clock offset: -48.181 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.19 Mbit/s
95th percentile per-packet one-way delay: 56.636 ms
Loss rate: 12.53%
-- Flow 1:
Average throughput: 177.89 Mbit/s
95th percentile per-packet one-way delay: 58.990 ms
Loss rate: 11.02%
-- Flow 2:
Average throughput: 94.86 Mbit/s
95th percentile per-packet one-way delay: 53.945 ms
Loss rate: 13.75%
-- Flow 3:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 53.682 ms
Loss rate: 21.75%
```

Run 5: Report of TCP BBR — Data Link

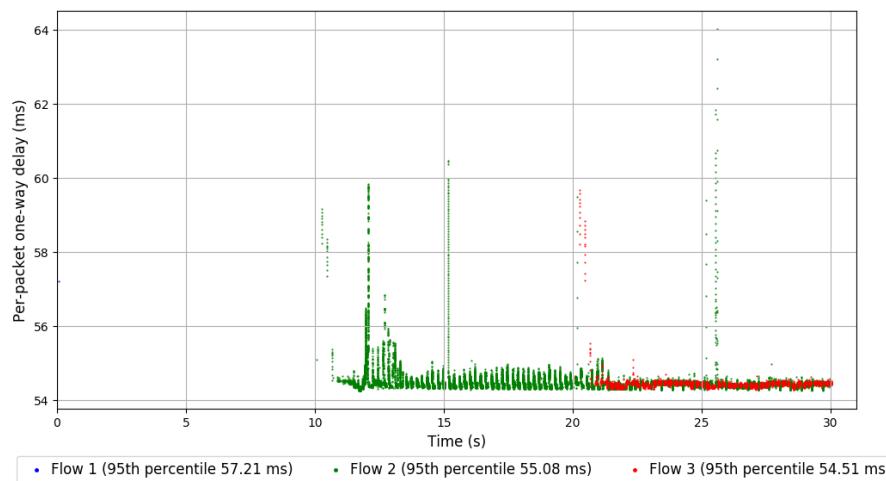
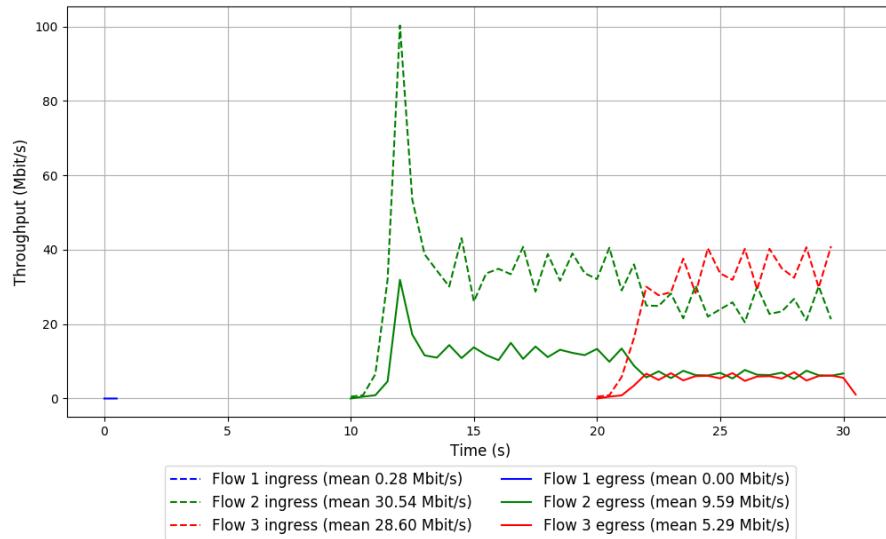


Run 1: Statistics of Copa

```
Start at: 2019-01-19 00:20:56
End at: 2019-01-19 00:21:26
Local clock offset: 0.284 ms
Remote clock offset: -44.838 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 54.938 ms
Loss rate: 72.72%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 57.206 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 55.078 ms
Loss rate: 68.60%
-- Flow 3:
Average throughput: 5.29 Mbit/s
95th percentile per-packet one-way delay: 54.510 ms
Loss rate: 81.51%
```

Run 1: Report of Copa — Data Link

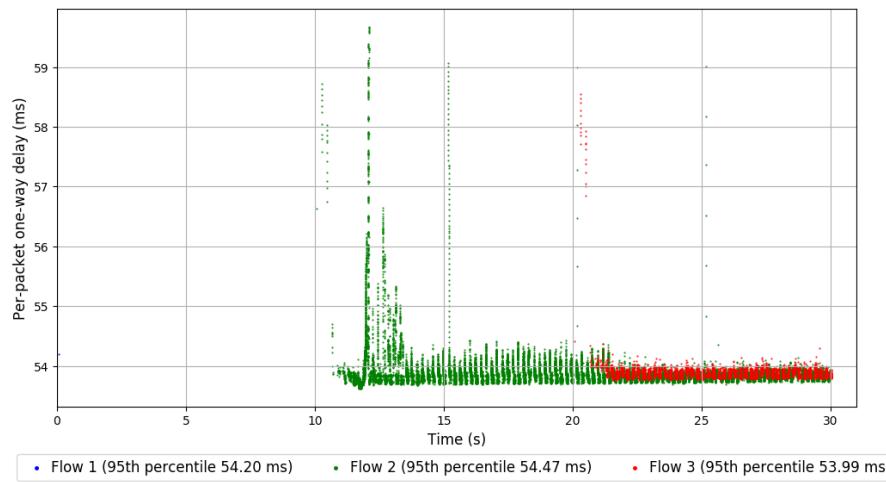
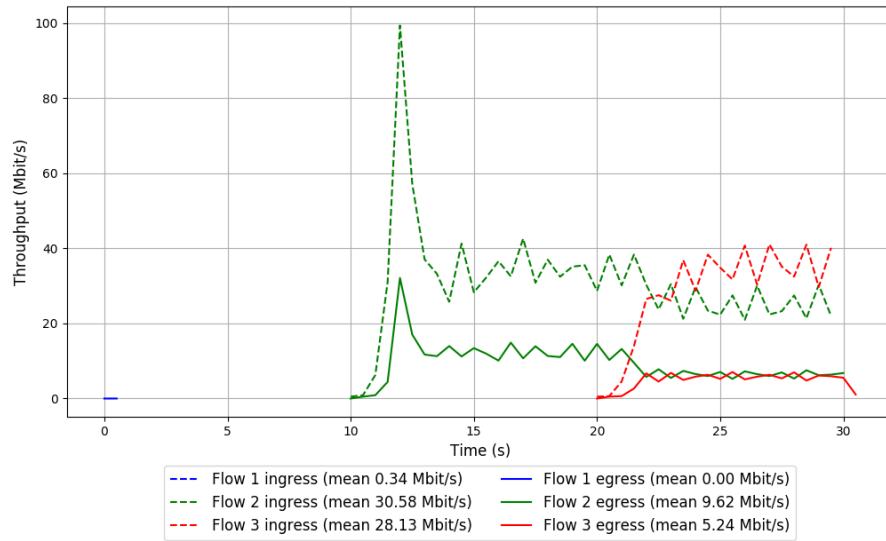


Run 2: Statistics of Copa

```
Start at: 2019-01-19 00:51:26
End at: 2019-01-19 00:51:56
Local clock offset: 0.86 ms
Remote clock offset: -44.483 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 54.314 ms
Loss rate: 72.61%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 54.201 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 9.62 Mbit/s
95th percentile per-packet one-way delay: 54.467 ms
Loss rate: 68.56%
-- Flow 3:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 53.993 ms
Loss rate: 81.39%
```

Run 2: Report of Copa — Data Link

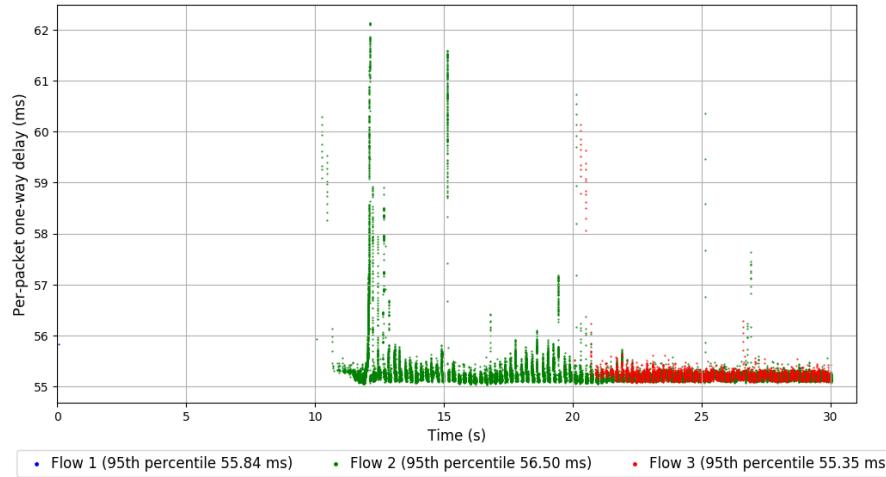
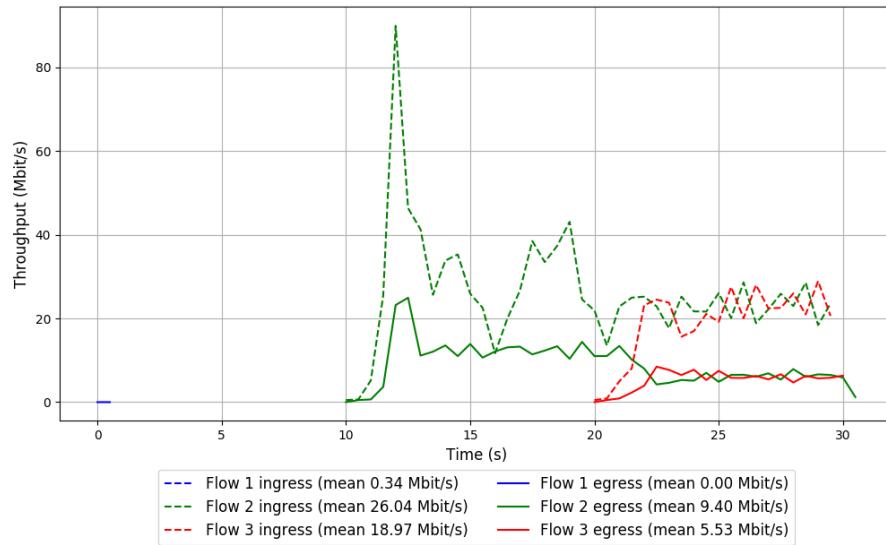


Run 3: Statistics of Copa

```
Start at: 2019-01-19 01:38:26
End at: 2019-01-19 01:38:56
Local clock offset: 0.024 ms
Remote clock offset: -45.587 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 55.965 ms
Loss rate: 65.73%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 55.835 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 56.496 ms
Loss rate: 63.88%
-- Flow 3:
Average throughput: 5.53 Mbit/s
95th percentile per-packet one-way delay: 55.349 ms
Loss rate: 70.84%
```

Run 3: Report of Copa — Data Link

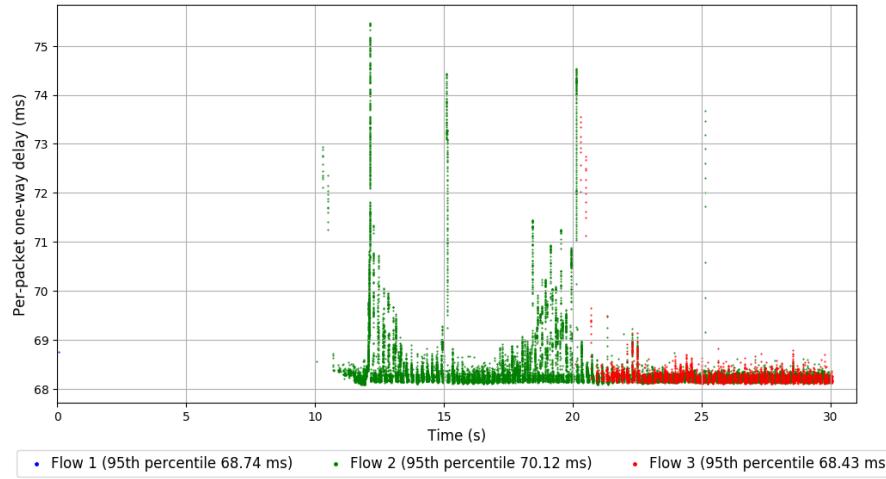
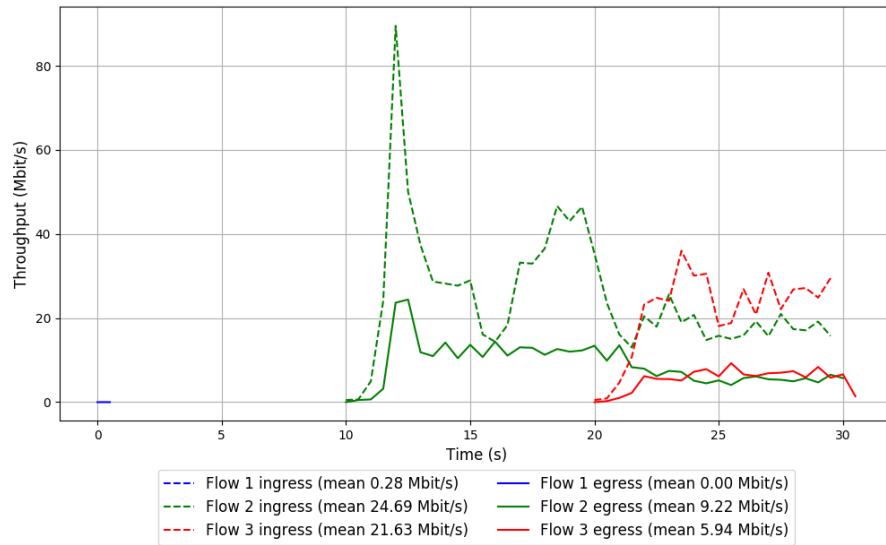


Run 4: Statistics of Copa

```
Start at: 2019-01-19 02:14:17
End at: 2019-01-19 02:14:47
Local clock offset: -2.986 ms
Remote clock offset: -32.521 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 69.703 ms
Loss rate: 65.80%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 68.744 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 9.22 Mbit/s
95th percentile per-packet one-way delay: 70.124 ms
Loss rate: 62.84%
-- Flow 3:
Average throughput: 5.94 Mbit/s
95th percentile per-packet one-way delay: 68.431 ms
Loss rate: 72.55%
```

Run 4: Report of Copa — Data Link

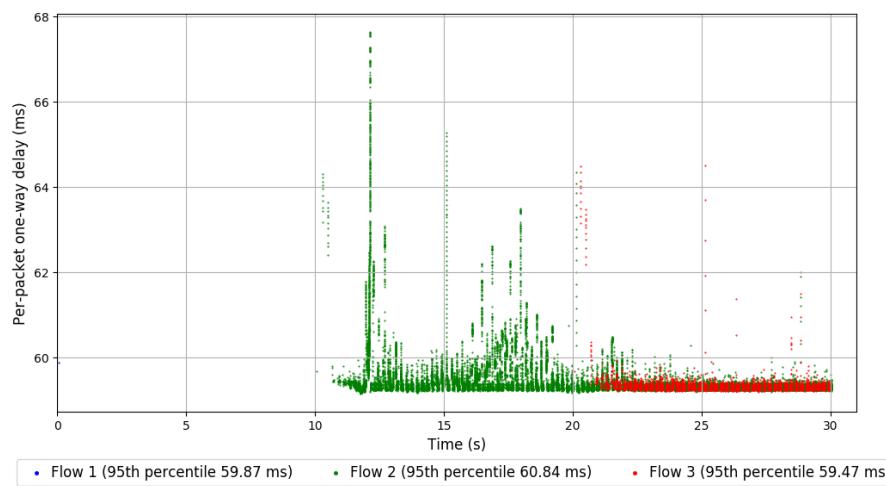
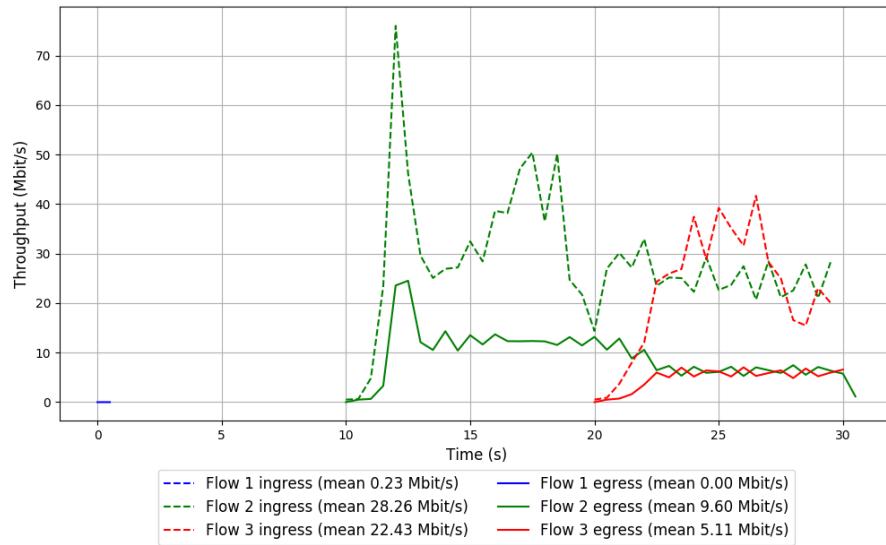


Run 5: Statistics of Copa

```
Start at: 2019-01-19 02:44:25
End at: 2019-01-19 02:44:55
Local clock offset: -0.454 ms
Remote clock offset: -40.566 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 60.608 ms
Loss rate: 69.19%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 59.870 ms
Loss rate: 97.92%
-- Flow 2:
Average throughput: 9.60 Mbit/s
95th percentile per-packet one-way delay: 60.838 ms
Loss rate: 66.03%
-- Flow 3:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 59.471 ms
Loss rate: 77.21%
```

Run 5: Report of Copa — Data Link

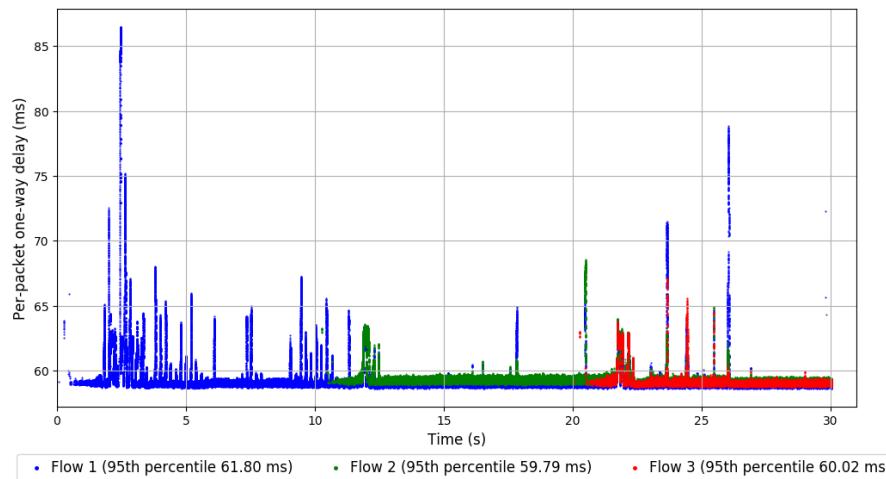
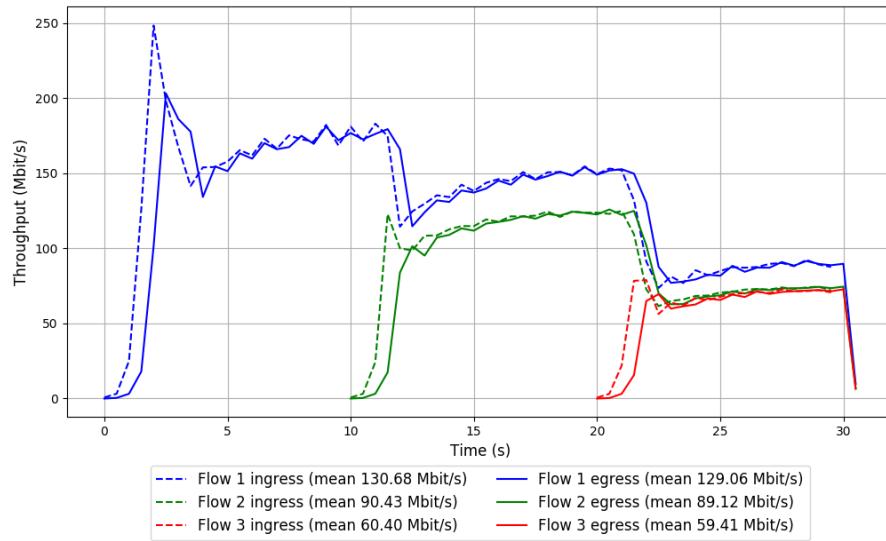


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-01-19 00:23:51
End at: 2019-01-19 00:24:21
Local clock offset: 0.981 ms
Remote clock offset: -39.144 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.19 Mbit/s
95th percentile per-packet one-way delay: 61.206 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 129.06 Mbit/s
95th percentile per-packet one-way delay: 61.798 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 89.12 Mbit/s
95th percentile per-packet one-way delay: 59.789 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 59.41 Mbit/s
95th percentile per-packet one-way delay: 60.019 ms
Loss rate: 1.64%
```

Run 1: Report of TCP Cubic — Data Link

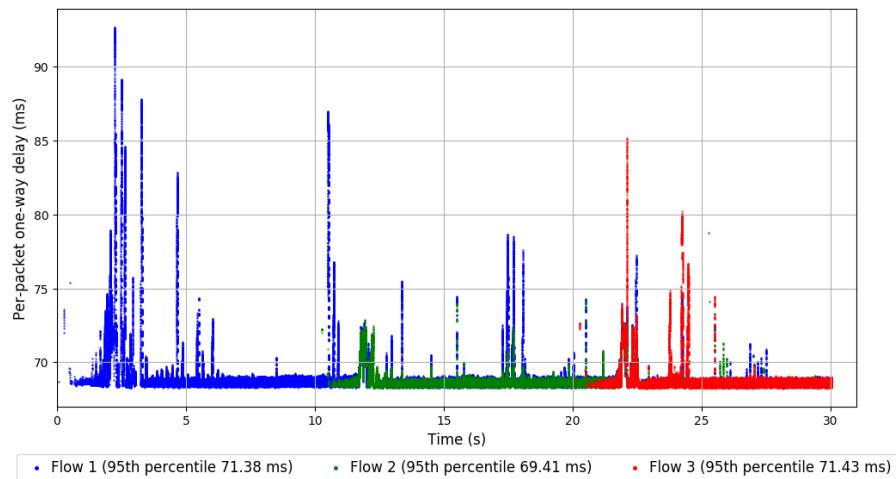
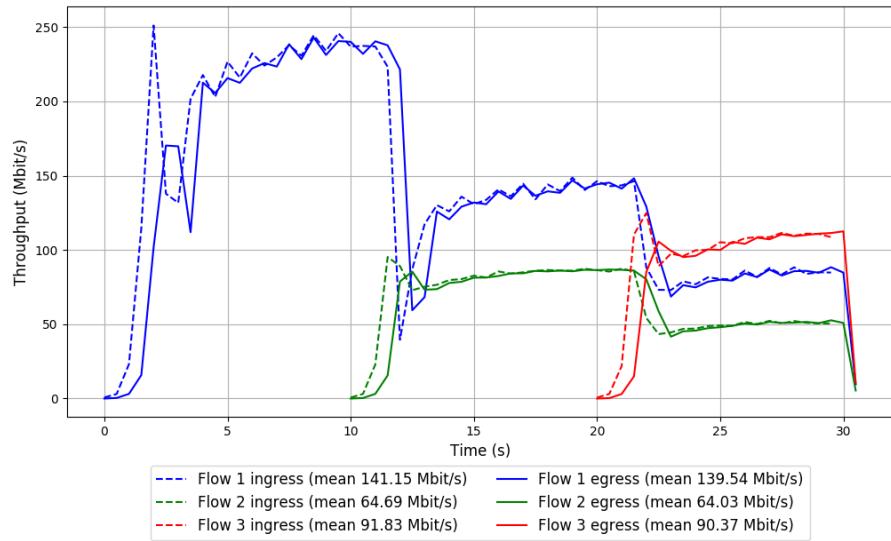


Run 2: Statistics of TCP Cubic

```
Start at: 2019-01-19 00:59:49
End at: 2019-01-19 01:00:19
Local clock offset: -0.608 ms
Remote clock offset: -32.27 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 212.23 Mbit/s
95th percentile per-packet one-way delay: 71.076 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 139.54 Mbit/s
95th percentile per-packet one-way delay: 71.384 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 64.03 Mbit/s
95th percentile per-packet one-way delay: 69.413 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 90.37 Mbit/s
95th percentile per-packet one-way delay: 71.427 ms
Loss rate: 1.59%
```

Run 2: Report of TCP Cubic — Data Link

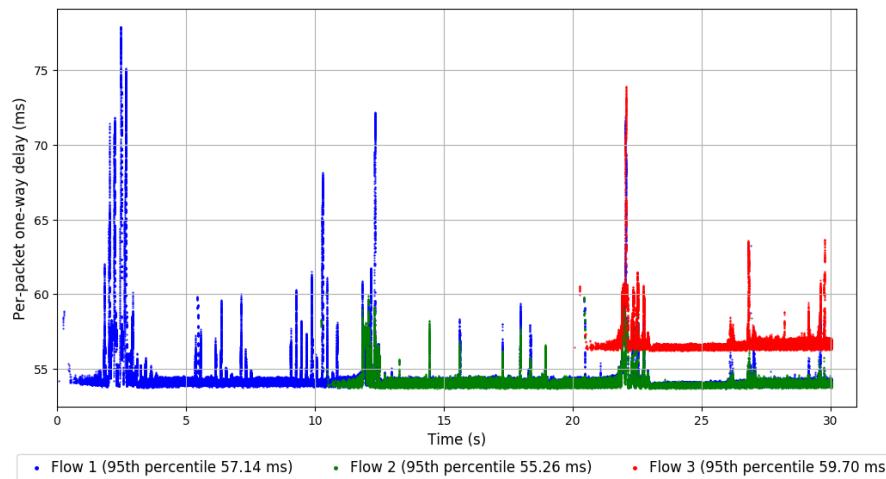
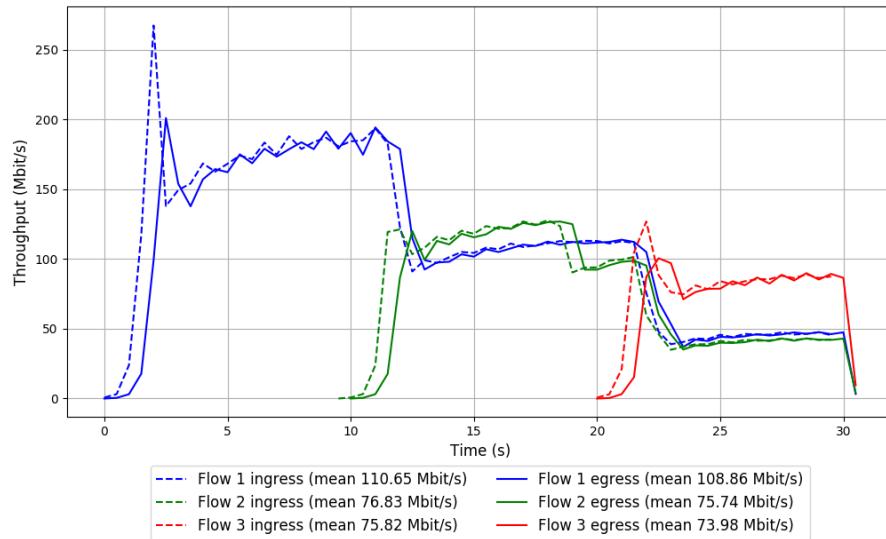


```
Run 3: Statistics of TCP Cubic
```

```
Start at: 2019-01-19 01:41:21
End at: 2019-01-19 01:41:51
Local clock offset: 1.737 ms
Remote clock offset: -45.092 ms

# Below is generated by plot.py at 2019-01-19 03:10:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 183.96 Mbit/s
95th percentile per-packet one-way delay: 57.191 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 108.86 Mbit/s
95th percentile per-packet one-way delay: 57.136 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 75.74 Mbit/s
95th percentile per-packet one-way delay: 55.258 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 73.98 Mbit/s
95th percentile per-packet one-way delay: 59.695 ms
Loss rate: 2.42%
```

Run 3: Report of TCP Cubic — Data Link

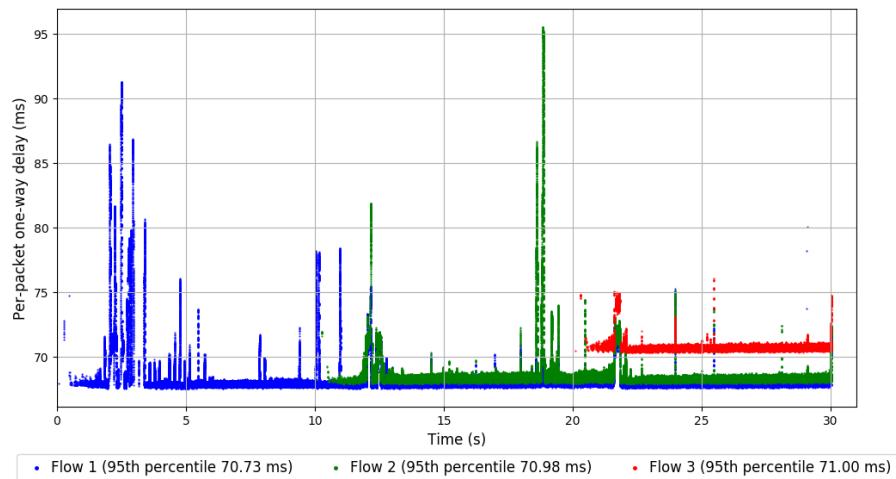
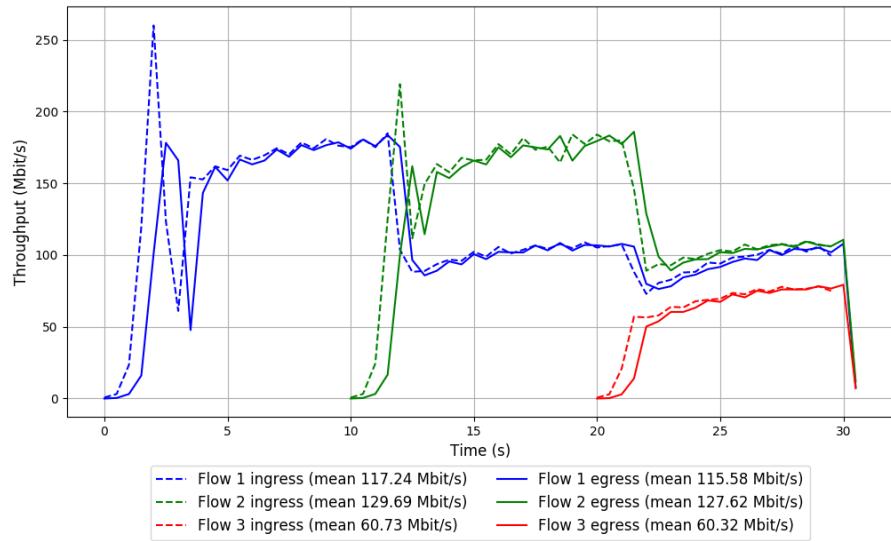


Run 4: Statistics of TCP Cubic

```
Start at: 2019-01-19 02:17:14
End at: 2019-01-19 02:17:44
Local clock offset: -2.498 ms
Remote clock offset: -32.212 ms

# Below is generated by plot.py at 2019-01-19 03:12:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.62 Mbit/s
95th percentile per-packet one-way delay: 70.913 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 115.58 Mbit/s
95th percentile per-packet one-way delay: 70.734 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 127.62 Mbit/s
95th percentile per-packet one-way delay: 70.983 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 60.32 Mbit/s
95th percentile per-packet one-way delay: 71.004 ms
Loss rate: 0.67%
```

Run 4: Report of TCP Cubic — Data Link

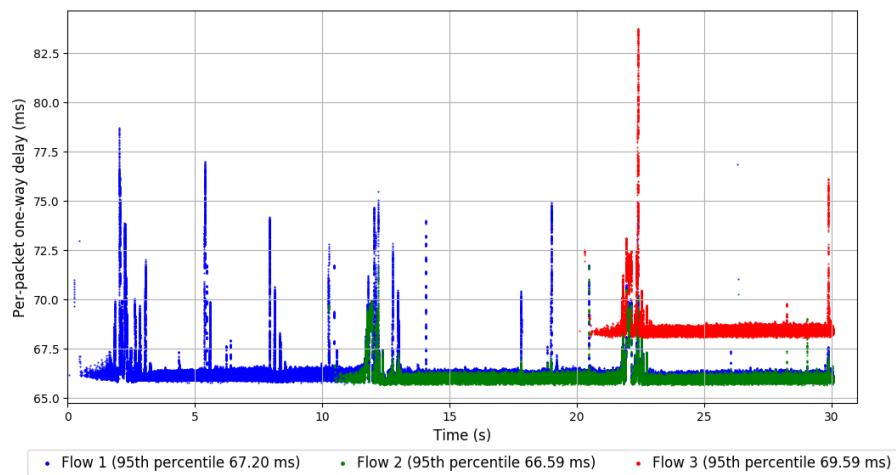
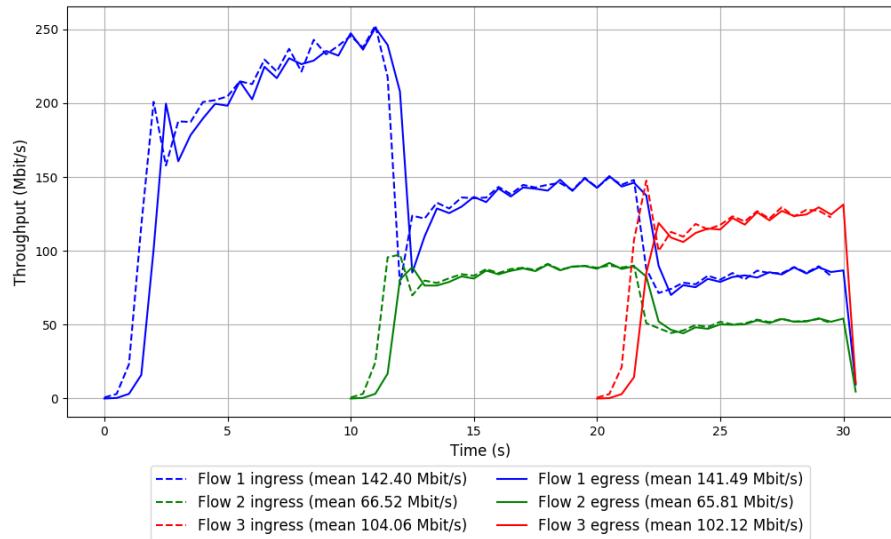


Run 5: Statistics of TCP Cubic

```
Start at: 2019-01-19 02:47:19
End at: 2019-01-19 02:47:49
Local clock offset: -1.128 ms
Remote clock offset: -34.594 ms

# Below is generated by plot.py at 2019-01-19 03:12:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.27 Mbit/s
95th percentile per-packet one-way delay: 68.583 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 141.49 Mbit/s
95th percentile per-packet one-way delay: 67.205 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 65.81 Mbit/s
95th percentile per-packet one-way delay: 66.589 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 102.12 Mbit/s
95th percentile per-packet one-way delay: 69.591 ms
Loss rate: 1.87%
```

Run 5: Report of TCP Cubic — Data Link

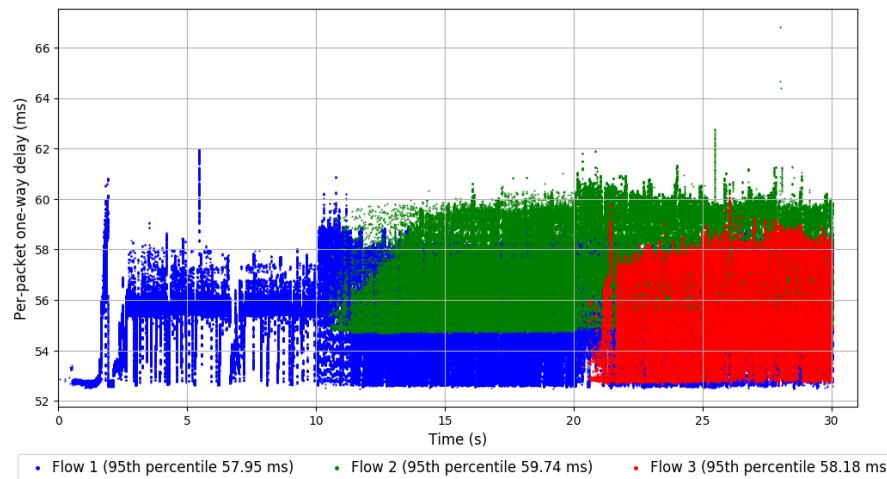
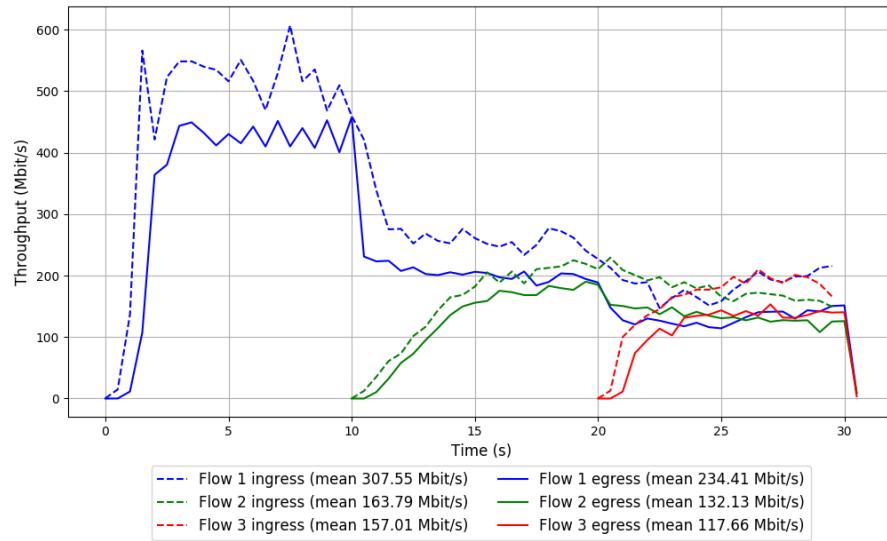


```
Run 1: Statistics of FillP

Start at: 2019-01-19 00:22:15
End at: 2019-01-19 00:22:45
Local clock offset: 1.205 ms
Remote clock offset: -45.438 ms

# Below is generated by plot.py at 2019-01-19 03:15:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.27 Mbit/s
95th percentile per-packet one-way delay: 58.944 ms
Loss rate: 22.88%
-- Flow 1:
Average throughput: 234.41 Mbit/s
95th percentile per-packet one-way delay: 57.952 ms
Loss rate: 23.78%
-- Flow 2:
Average throughput: 132.13 Mbit/s
95th percentile per-packet one-way delay: 59.744 ms
Loss rate: 19.31%
-- Flow 3:
Average throughput: 117.66 Mbit/s
95th percentile per-packet one-way delay: 58.181 ms
Loss rate: 25.06%
```

Run 1: Report of FillP — Data Link

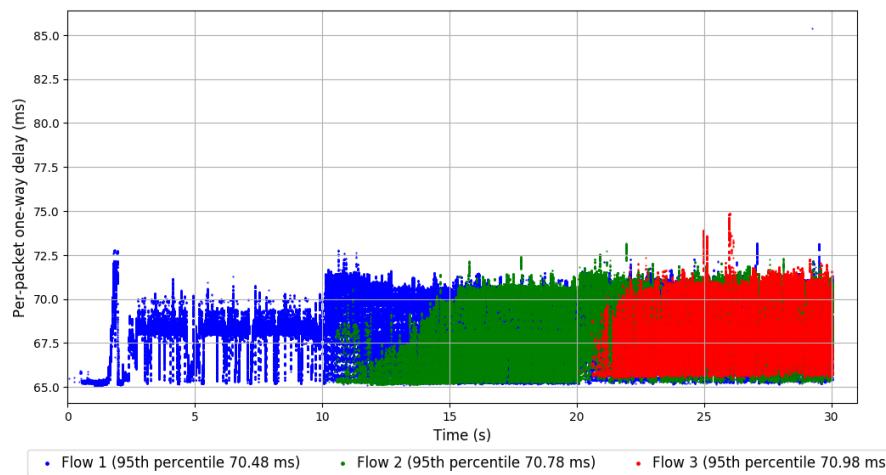
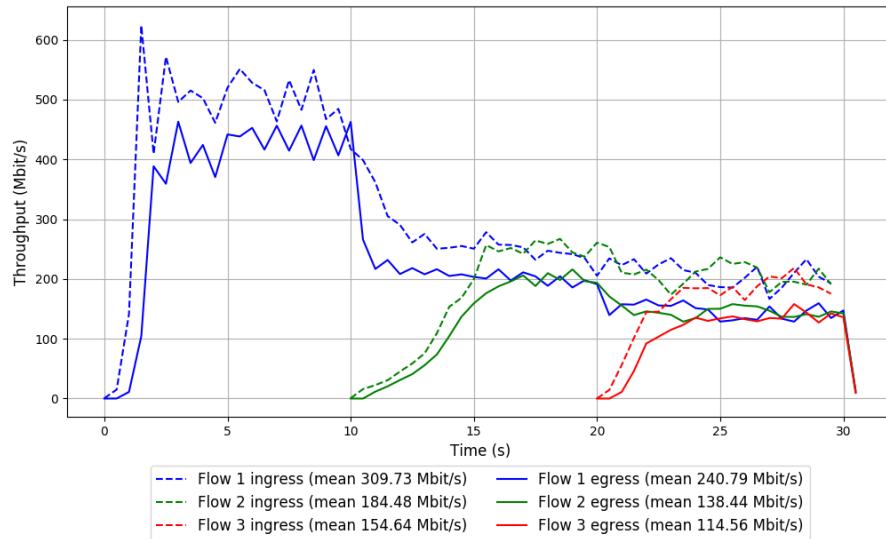


Run 2: Statistics of FillP

```
Start at: 2019-01-19 00:52:45
End at: 2019-01-19 00:53:15
Local clock offset: -0.337 ms
Remote clock offset: -34.257 ms

# Below is generated by plot.py at 2019-01-19 03:15:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 370.85 Mbit/s
95th percentile per-packet one-way delay: 70.657 ms
Loss rate: 23.33%
-- Flow 1:
Average throughput: 240.79 Mbit/s
95th percentile per-packet one-way delay: 70.481 ms
Loss rate: 22.25%
-- Flow 2:
Average throughput: 138.44 Mbit/s
95th percentile per-packet one-way delay: 70.782 ms
Loss rate: 24.96%
-- Flow 3:
Average throughput: 114.56 Mbit/s
95th percentile per-packet one-way delay: 70.981 ms
Loss rate: 25.92%
```

Run 2: Report of FillP — Data Link

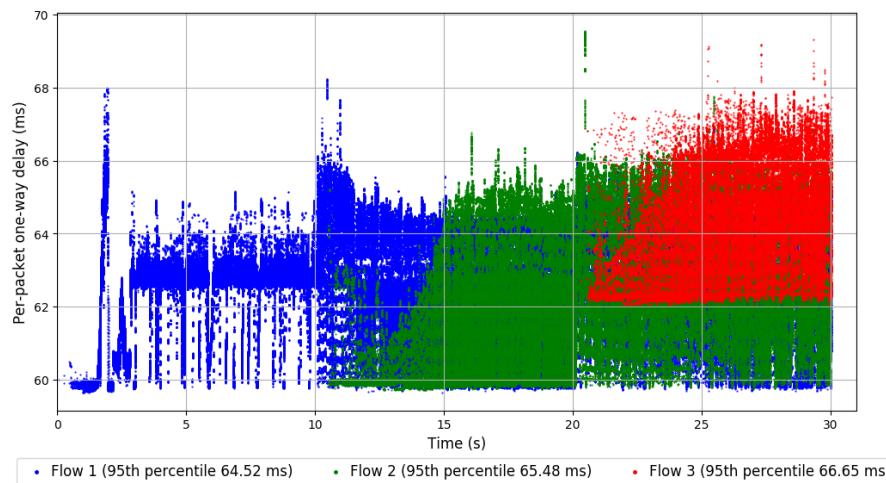
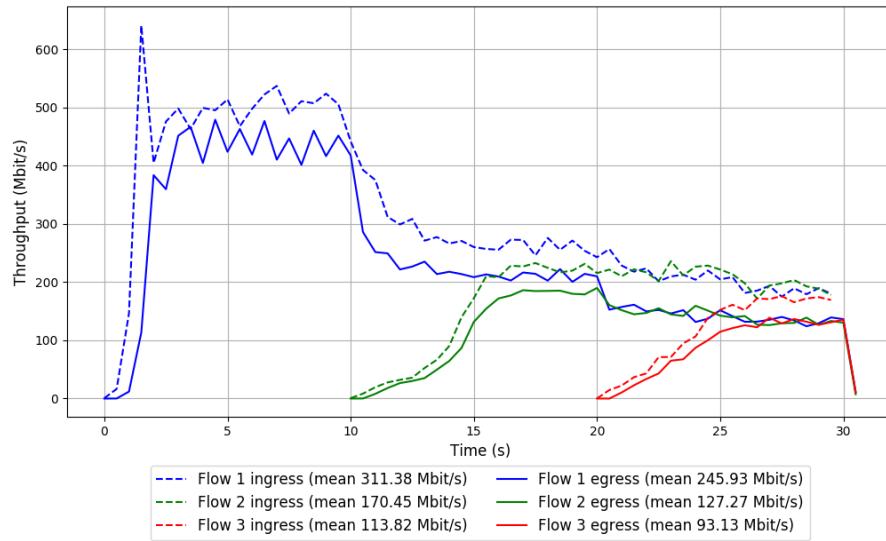


Run 3: Statistics of FillP

```
Start at: 2019-01-19 01:39:45
End at: 2019-01-19 01:40:15
Local clock offset: 1.571 ms
Remote clock offset: -39.377 ms

# Below is generated by plot.py at 2019-01-19 03:15:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 361.29 Mbit/s
95th percentile per-packet one-way delay: 65.361 ms
Loss rate: 21.84%
-- Flow 1:
Average throughput: 245.93 Mbit/s
95th percentile per-packet one-way delay: 64.515 ms
Loss rate: 21.02%
-- Flow 2:
Average throughput: 127.27 Mbit/s
95th percentile per-packet one-way delay: 65.481 ms
Loss rate: 25.34%
-- Flow 3:
Average throughput: 93.13 Mbit/s
95th percentile per-packet one-way delay: 66.648 ms
Loss rate: 18.14%
```

Run 3: Report of FillP — Data Link

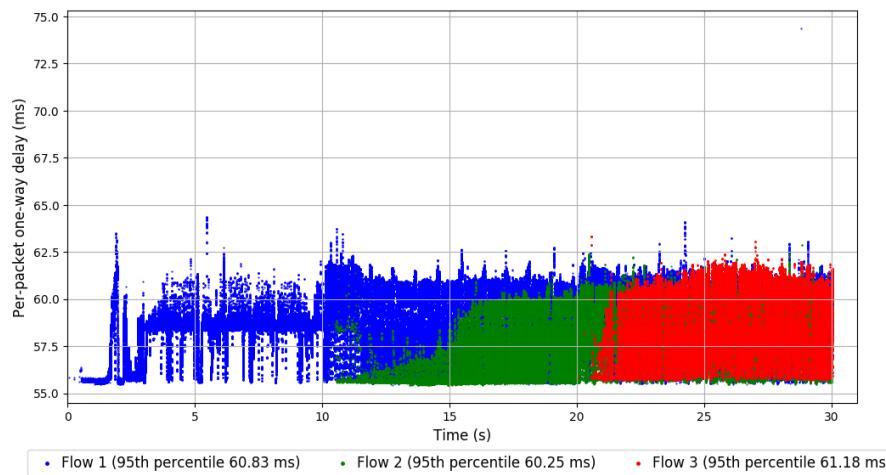
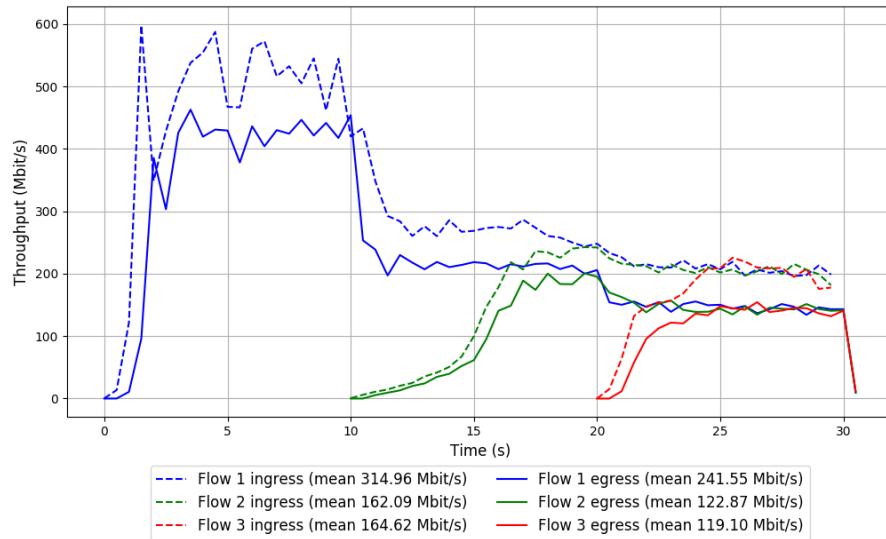


Run 4: Statistics of FillP

```
Start at: 2019-01-19 02:15:37
End at: 2019-01-19 02:16:07
Local clock offset: -2.515 ms
Remote clock offset: -44.474 ms

# Below is generated by plot.py at 2019-01-19 03:15:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.81 Mbit/s
95th percentile per-packet one-way delay: 60.786 ms
Loss rate: 24.00%
-- Flow 1:
Average throughput: 241.55 Mbit/s
95th percentile per-packet one-way delay: 60.834 ms
Loss rate: 23.30%
-- Flow 2:
Average throughput: 122.87 Mbit/s
95th percentile per-packet one-way delay: 60.247 ms
Loss rate: 24.20%
-- Flow 3:
Average throughput: 119.10 Mbit/s
95th percentile per-packet one-way delay: 61.177 ms
Loss rate: 27.64%
```

Run 4: Report of FillP — Data Link

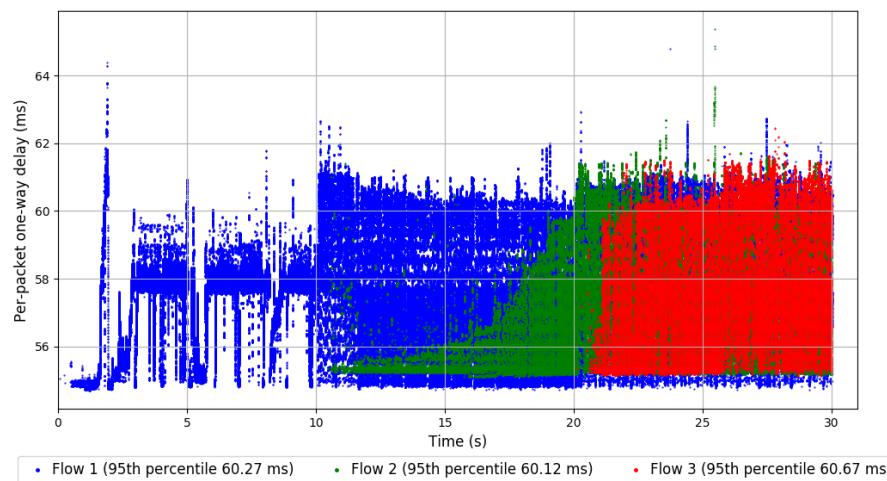
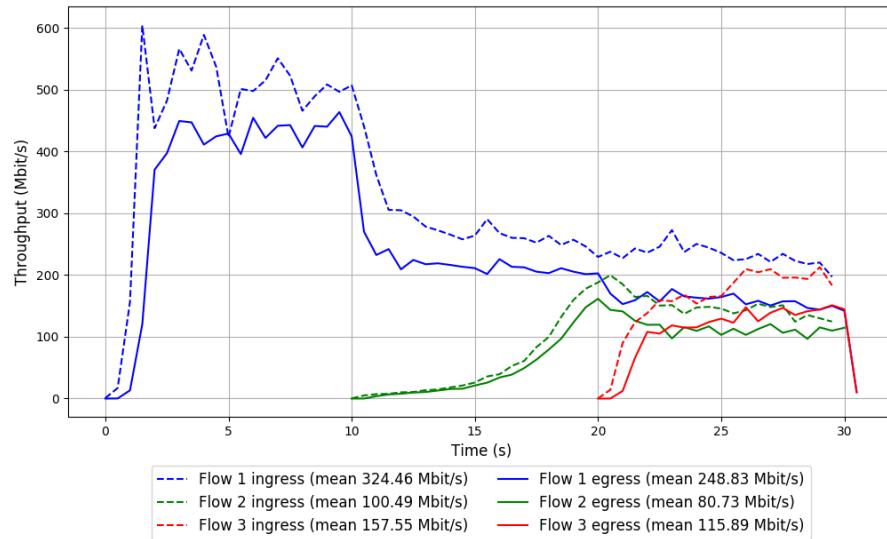


Run 5: Statistics of FillP

```
Start at: 2019-01-19 02:45:44
End at: 2019-01-19 02:46:14
Local clock offset: -0.817 ms
Remote clock offset: -44.89 ms

# Below is generated by plot.py at 2019-01-19 03:15:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 340.90 Mbit/s
95th percentile per-packet one-way delay: 60.317 ms
Loss rate: 23.13%
-- Flow 1:
Average throughput: 248.83 Mbit/s
95th percentile per-packet one-way delay: 60.267 ms
Loss rate: 23.30%
-- Flow 2:
Average throughput: 80.73 Mbit/s
95th percentile per-packet one-way delay: 60.124 ms
Loss rate: 19.67%
-- Flow 3:
Average throughput: 115.89 Mbit/s
95th percentile per-packet one-way delay: 60.675 ms
Loss rate: 26.44%
```

Run 5: Report of FillP — Data Link

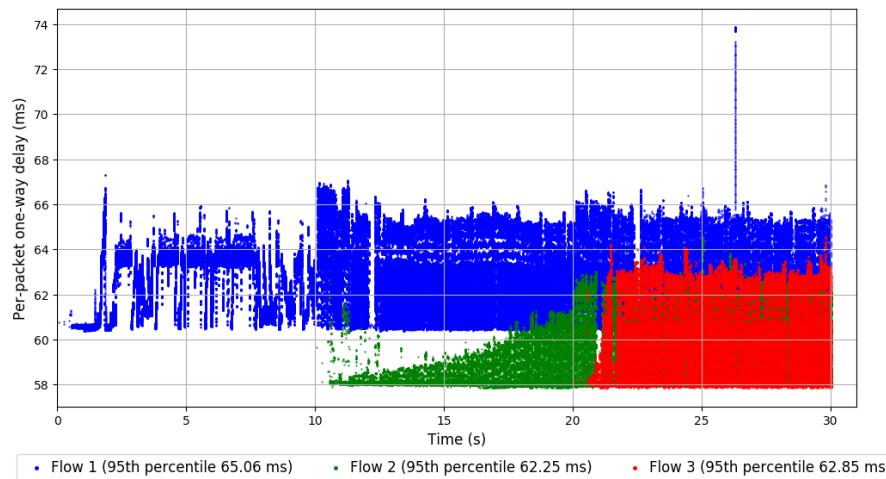
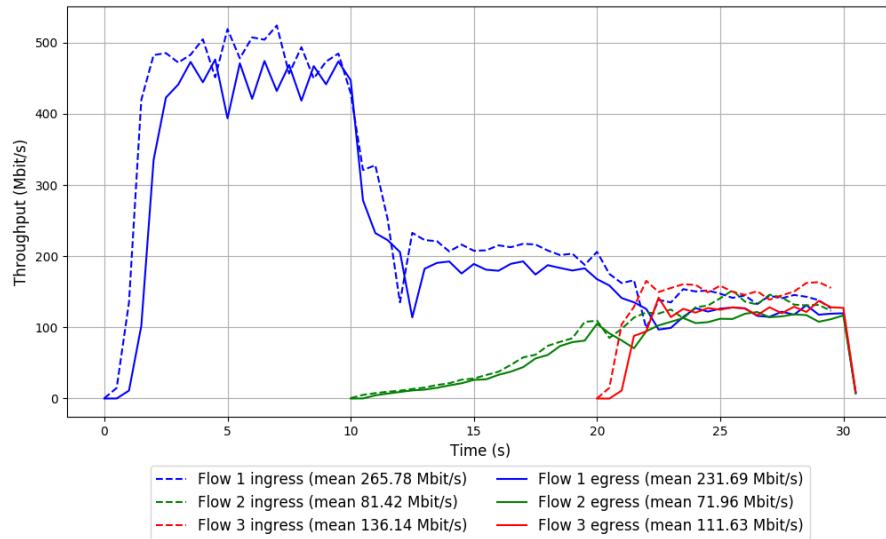


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-01-19 00:32:42
End at: 2019-01-19 00:33:12
Local clock offset: 2.459 ms
Remote clock offset: -37.923 ms

# Below is generated by plot.py at 2019-01-19 03:15:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.52 Mbit/s
95th percentile per-packet one-way delay: 64.881 ms
Loss rate: 13.28%
-- Flow 1:
Average throughput: 231.69 Mbit/s
95th percentile per-packet one-way delay: 65.065 ms
Loss rate: 12.81%
-- Flow 2:
Average throughput: 71.96 Mbit/s
95th percentile per-packet one-way delay: 62.254 ms
Loss rate: 11.62%
-- Flow 3:
Average throughput: 111.63 Mbit/s
95th percentile per-packet one-way delay: 62.849 ms
Loss rate: 18.00%
```

Run 1: Report of FillP-Sheep — Data Link

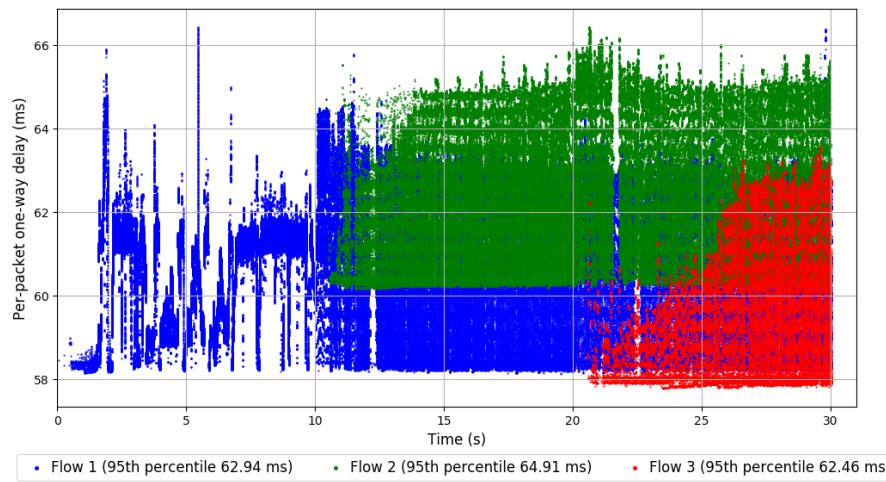
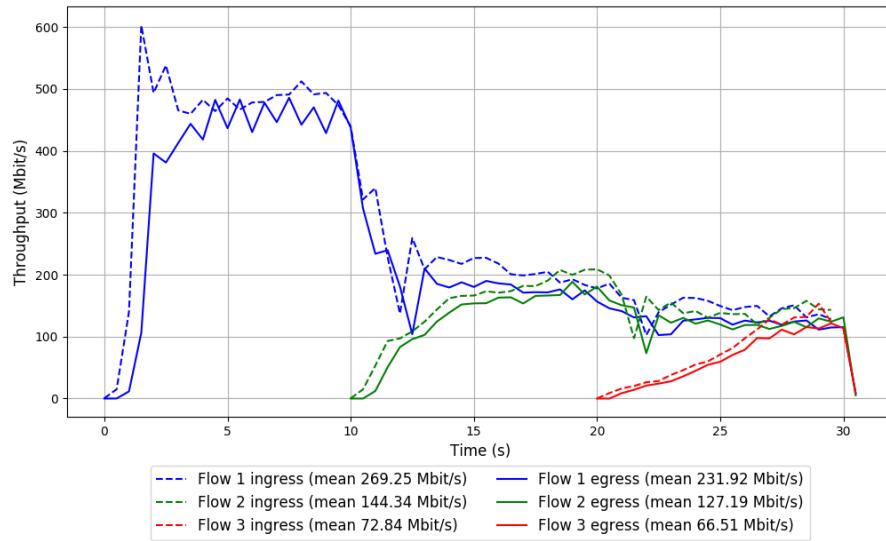


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-01-19 01:20:01
End at: 2019-01-19 01:20:31
Local clock offset: 2.035 ms
Remote clock offset: -40.392 ms

# Below is generated by plot.py at 2019-01-19 03:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 338.60 Mbit/s
95th percentile per-packet one-way delay: 64.120 ms
Loss rate: 13.05%
-- Flow 1:
Average throughput: 231.92 Mbit/s
95th percentile per-packet one-way delay: 62.939 ms
Loss rate: 13.86%
-- Flow 2:
Average throughput: 127.19 Mbit/s
95th percentile per-packet one-way delay: 64.907 ms
Loss rate: 11.86%
-- Flow 3:
Average throughput: 66.51 Mbit/s
95th percentile per-packet one-way delay: 62.462 ms
Loss rate: 8.69%
```

Run 2: Report of FillP-Sheep — Data Link

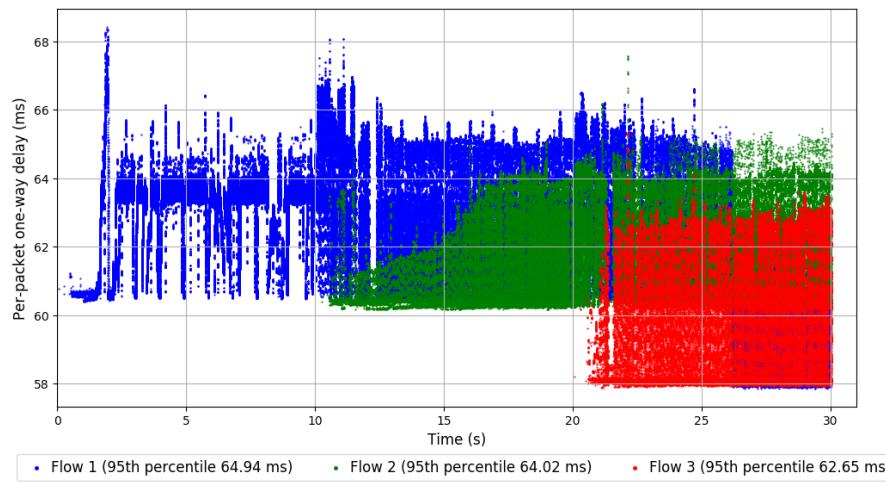
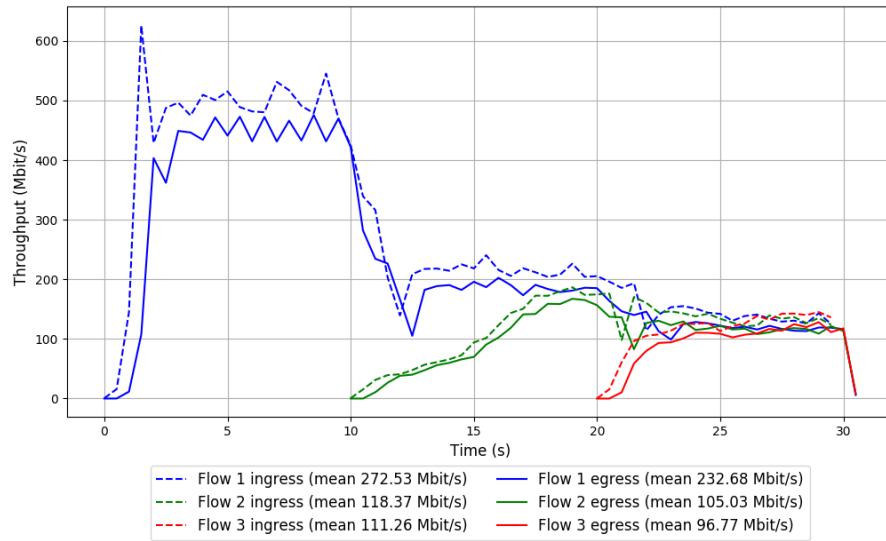


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-01-19 01:55:49
End at: 2019-01-19 01:56:19
Local clock offset: -1.491 ms
Remote clock offset: -42.484 ms

# Below is generated by plot.py at 2019-01-19 03:17:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.55 Mbit/s
95th percentile per-packet one-way delay: 64.728 ms
Loss rate: 13.79%
-- Flow 1:
Average throughput: 232.68 Mbit/s
95th percentile per-packet one-way delay: 64.944 ms
Loss rate: 14.63%
-- Flow 2:
Average throughput: 105.03 Mbit/s
95th percentile per-packet one-way delay: 64.019 ms
Loss rate: 11.26%
-- Flow 3:
Average throughput: 96.77 Mbit/s
95th percentile per-packet one-way delay: 62.653 ms
Loss rate: 13.02%
```

Run 3: Report of FillP-Sheep — Data Link

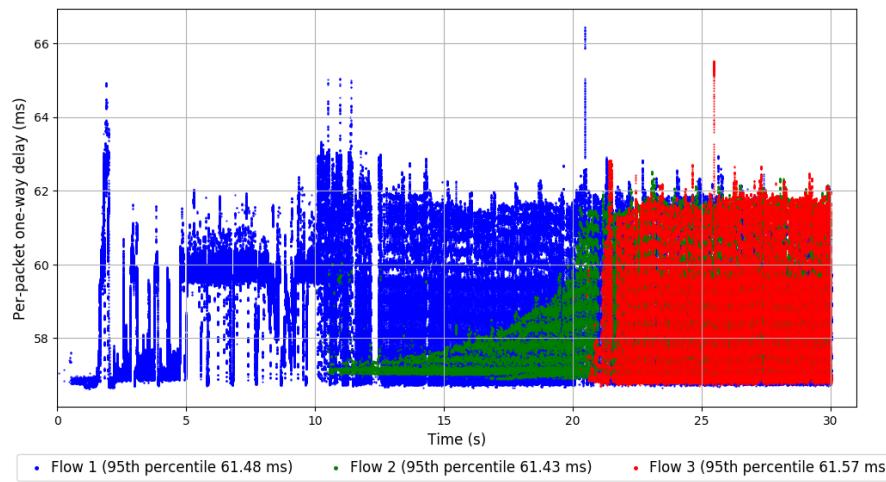
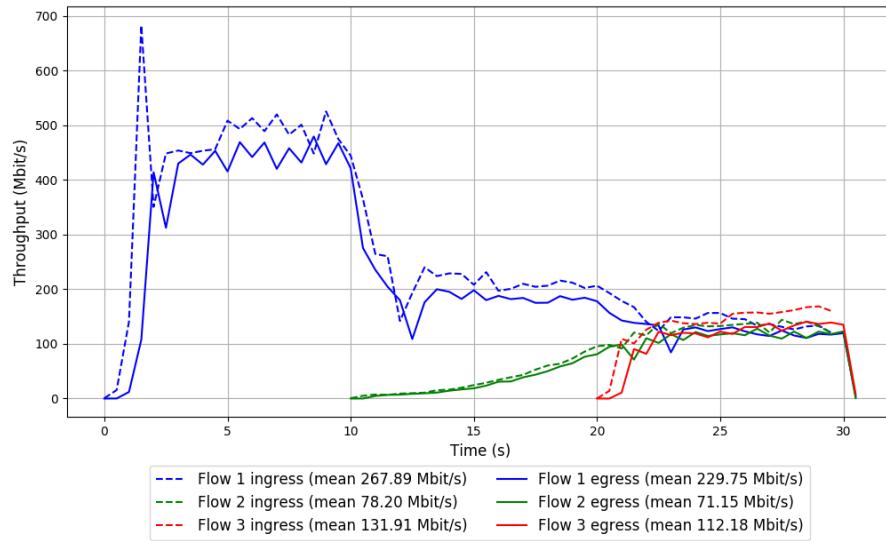


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-01-19 02:26:06
End at: 2019-01-19 02:26:36
Local clock offset: 0.237 ms
Remote clock offset: -41.534 ms

# Below is generated by plot.py at 2019-01-19 03:19:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.29 Mbit/s
95th percentile per-packet one-way delay: 61.483 ms
Loss rate: 13.57%
-- Flow 1:
Average throughput: 229.75 Mbit/s
95th percentile per-packet one-way delay: 61.478 ms
Loss rate: 14.23%
-- Flow 2:
Average throughput: 71.15 Mbit/s
95th percentile per-packet one-way delay: 61.427 ms
Loss rate: 9.02%
-- Flow 3:
Average throughput: 112.18 Mbit/s
95th percentile per-packet one-way delay: 61.570 ms
Loss rate: 14.98%
```

Run 4: Report of FillP-Sheep — Data Link

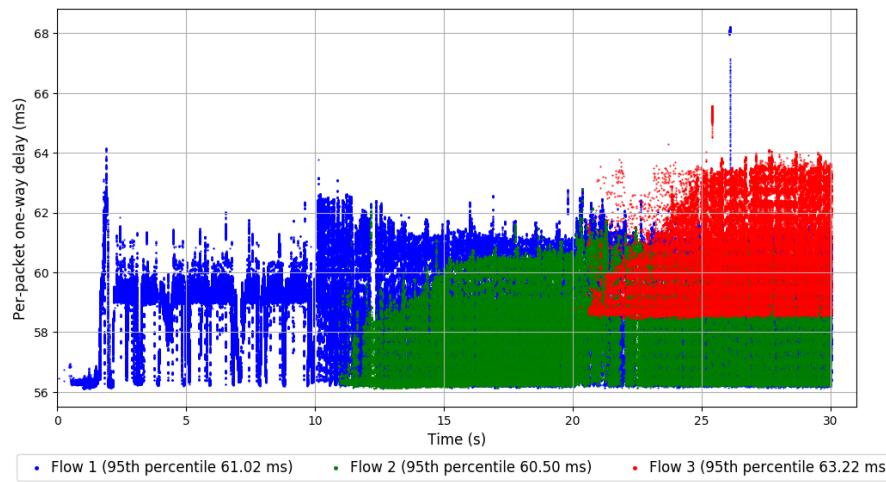
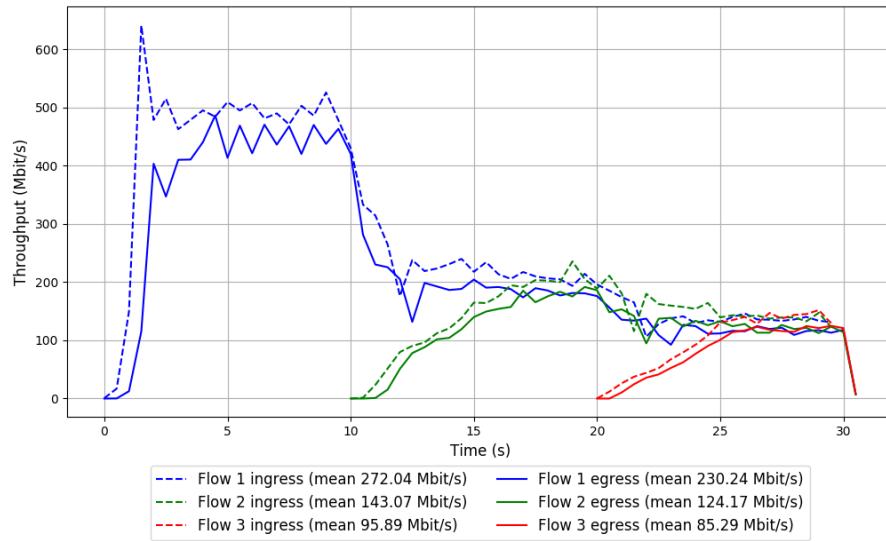


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-01-19 02:56:23
End at: 2019-01-19 02:56:53
Local clock offset: 1.289 ms
Remote clock offset: -41.405 ms

# Below is generated by plot.py at 2019-01-19 03:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 341.17 Mbit/s
95th percentile per-packet one-way delay: 61.338 ms
Loss rate: 14.50%
-- Flow 1:
Average throughput: 230.24 Mbit/s
95th percentile per-packet one-way delay: 61.021 ms
Loss rate: 15.36%
-- Flow 2:
Average throughput: 124.17 Mbit/s
95th percentile per-packet one-way delay: 60.500 ms
Loss rate: 13.22%
-- Flow 3:
Average throughput: 85.29 Mbit/s
95th percentile per-packet one-way delay: 63.218 ms
Loss rate: 11.01%
```

Run 5: Report of FillP-Sheep — Data Link

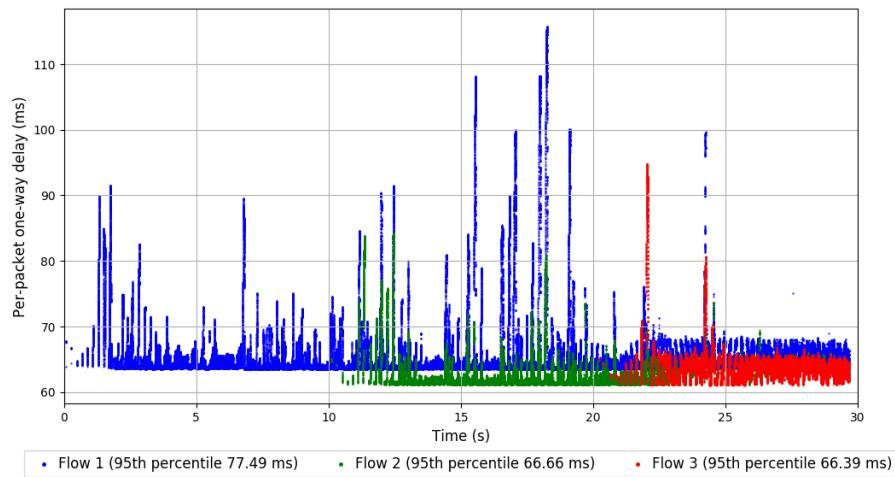
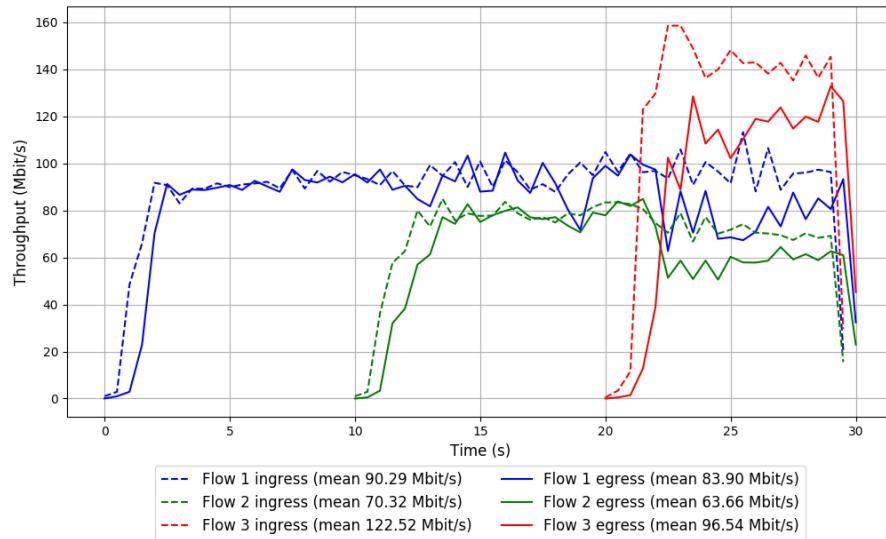


Run 1: Statistics of Indigo

```
Start at: 2019-01-19 00:25:20
End at: 2019-01-19 00:25:50
Local clock offset: -0.592 ms
Remote clock offset: -38.518 ms

# Below is generated by plot.py at 2019-01-19 03:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.79 Mbit/s
95th percentile per-packet one-way delay: 72.713 ms
Loss rate: 10.85%
-- Flow 1:
Average throughput: 83.90 Mbit/s
95th percentile per-packet one-way delay: 77.491 ms
Loss rate: 7.07%
-- Flow 2:
Average throughput: 63.66 Mbit/s
95th percentile per-packet one-way delay: 66.660 ms
Loss rate: 9.48%
-- Flow 3:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 66.390 ms
Loss rate: 21.21%
```

Run 1: Report of Indigo — Data Link

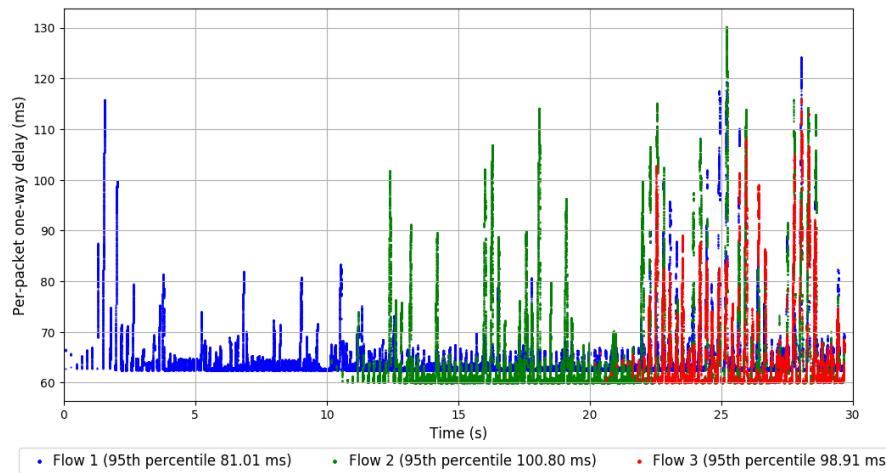
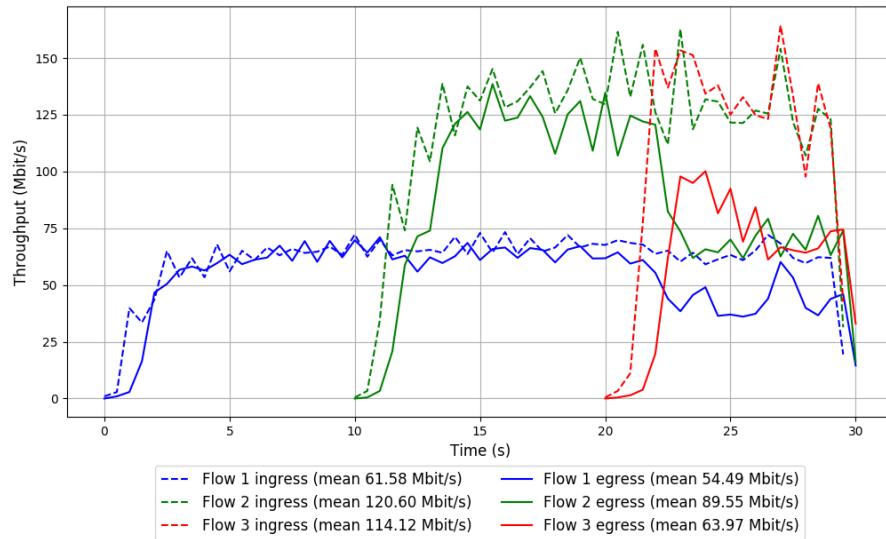


Run 2: Statistics of Indigo

```
Start at: 2019-01-19 01:01:27
End at: 2019-01-19 01:01:57
Local clock offset: 0.721 ms
Remote clock offset: -39.335 ms

# Below is generated by plot.py at 2019-01-19 03:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 133.94 Mbit/s
95th percentile per-packet one-way delay: 96.221 ms
Loss rate: 24.54%
-- Flow 1:
Average throughput: 54.49 Mbit/s
95th percentile per-packet one-way delay: 81.006 ms
Loss rate: 11.50%
-- Flow 2:
Average throughput: 89.55 Mbit/s
95th percentile per-packet one-way delay: 100.803 ms
Loss rate: 25.73%
-- Flow 3:
Average throughput: 63.97 Mbit/s
95th percentile per-packet one-way delay: 98.913 ms
Loss rate: 43.92%
```

Run 2: Report of Indigo — Data Link

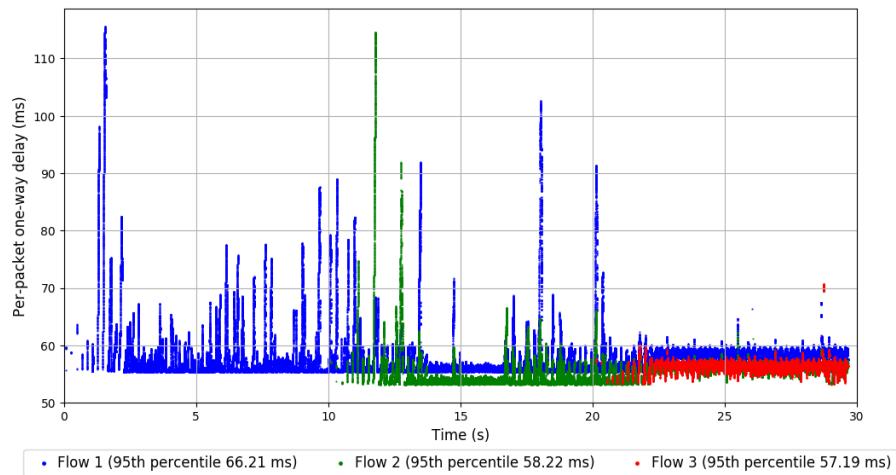
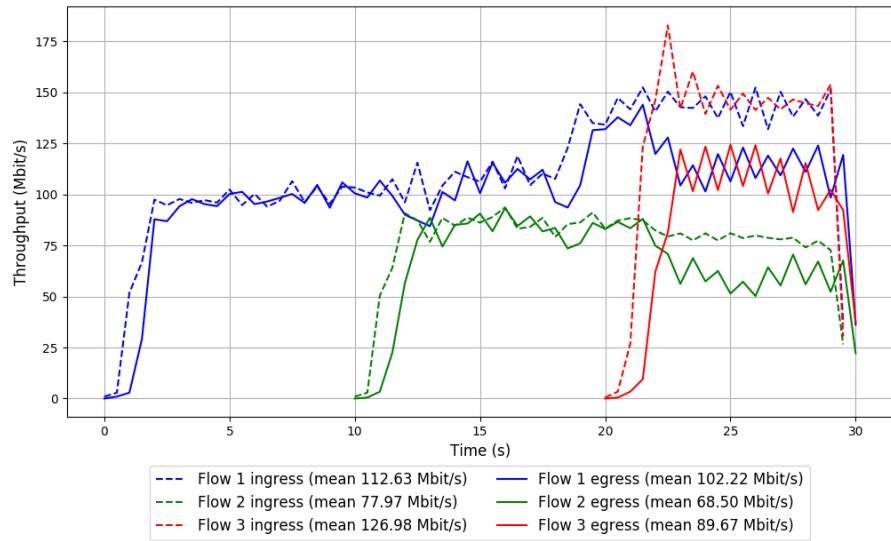


Run 3: Statistics of Indigo

```
Start at: 2019-01-19 01:42:49
End at: 2019-01-19 01:43:19
Local clock offset: 1.788 ms
Remote clock offset: -45.697 ms

# Below is generated by plot.py at 2019-01-19 03:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 176.33 Mbit/s
95th percentile per-packet one-way delay: 62.223 ms
Loss rate: 13.98%
-- Flow 1:
Average throughput: 102.22 Mbit/s
95th percentile per-packet one-way delay: 66.209 ms
Loss rate: 9.24%
-- Flow 2:
Average throughput: 68.50 Mbit/s
95th percentile per-packet one-way delay: 58.216 ms
Loss rate: 12.15%
-- Flow 3:
Average throughput: 89.67 Mbit/s
95th percentile per-packet one-way delay: 57.186 ms
Loss rate: 29.39%
```

Run 3: Report of Indigo — Data Link

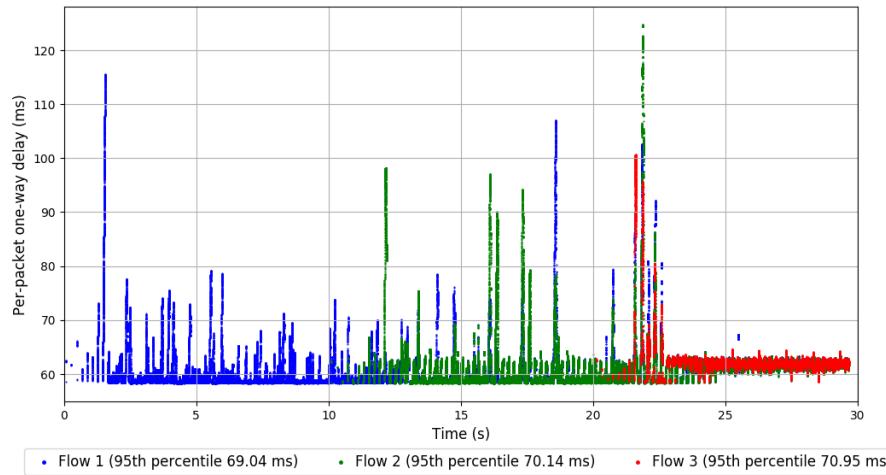
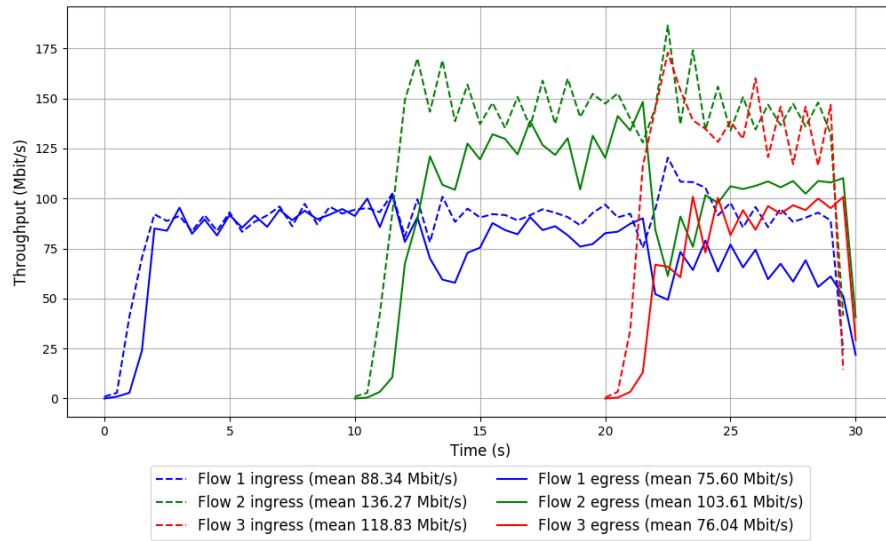


Run 4: Statistics of Indigo

```
Start at: 2019-01-19 02:18:43
End at: 2019-01-19 02:19:13
Local clock offset: -1.123 ms
Remote clock offset: -40.614 ms

# Below is generated by plot.py at 2019-01-19 03:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 168.41 Mbit/s
95th percentile per-packet one-way delay: 69.453 ms
Loss rate: 22.19%
-- Flow 1:
Average throughput: 75.60 Mbit/s
95th percentile per-packet one-way delay: 69.039 ms
Loss rate: 14.41%
-- Flow 2:
Average throughput: 103.61 Mbit/s
95th percentile per-packet one-way delay: 70.143 ms
Loss rate: 23.95%
-- Flow 3:
Average throughput: 76.04 Mbit/s
95th percentile per-packet one-way delay: 70.950 ms
Loss rate: 36.01%
```

Run 4: Report of Indigo — Data Link

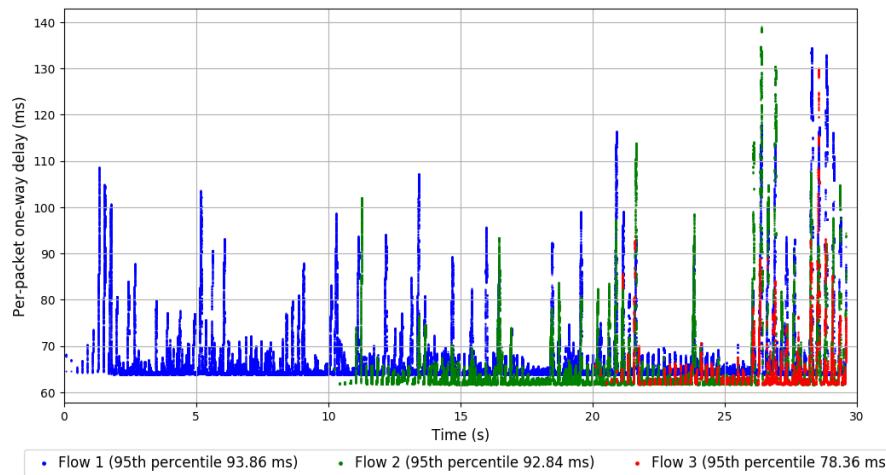
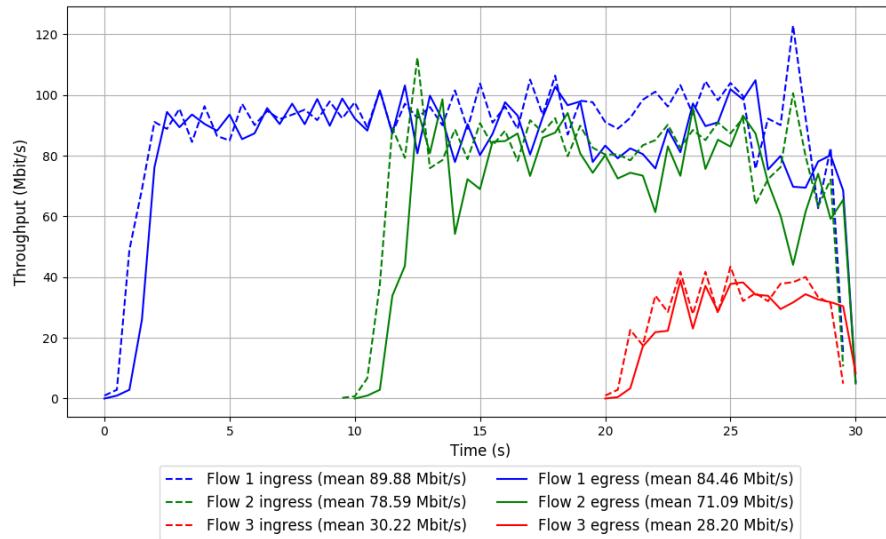


Run 5: Statistics of Indigo

```
Start at: 2019-01-19 02:48:48
End at: 2019-01-19 02:49:18
Local clock offset: -1.424 ms
Remote clock offset: -39.004 ms

# Below is generated by plot.py at 2019-01-19 03:20:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 140.65 Mbit/s
95th percentile per-packet one-way delay: 92.752 ms
Loss rate: 7.25%
-- Flow 1:
Average throughput: 84.46 Mbit/s
95th percentile per-packet one-way delay: 93.857 ms
Loss rate: 6.00%
-- Flow 2:
Average throughput: 71.09 Mbit/s
95th percentile per-packet one-way delay: 92.843 ms
Loss rate: 9.52%
-- Flow 3:
Average throughput: 28.20 Mbit/s
95th percentile per-packet one-way delay: 78.361 ms
Loss rate: 6.65%
```

Run 5: Report of Indigo — Data Link

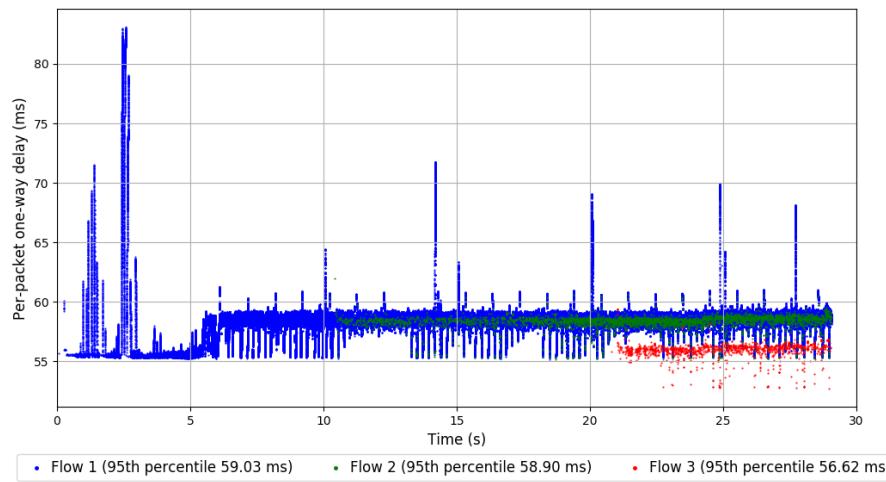
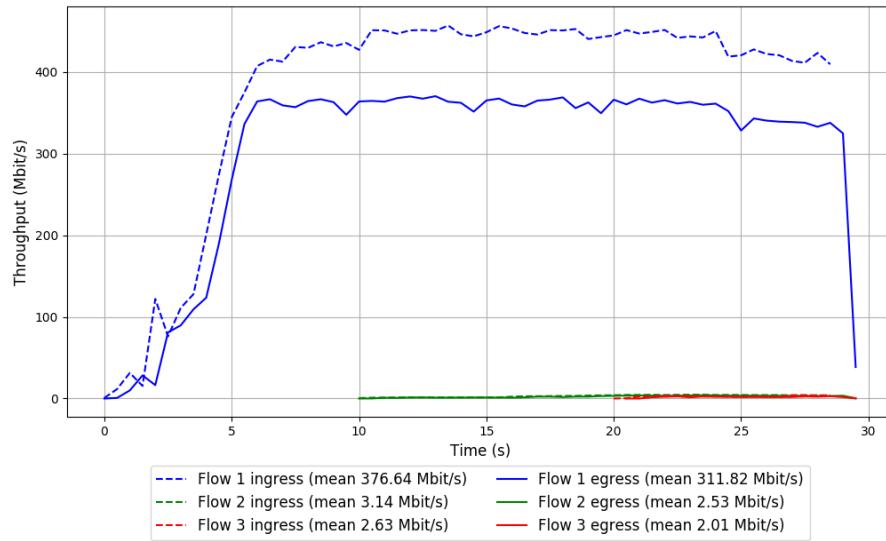


Run 1: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 00:26:49
End at: 2019-01-19 00:27:19
Local clock offset: 1.416 ms
Remote clock offset: -44.666 ms

# Below is generated by plot.py at 2019-01-19 03:20:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.03 Mbit/s
95th percentile per-packet one-way delay: 59.026 ms
Loss rate: 17.24%
-- Flow 1:
Average throughput: 311.82 Mbit/s
95th percentile per-packet one-way delay: 59.027 ms
Loss rate: 17.20%
-- Flow 2:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 58.904 ms
Loss rate: 19.70%
-- Flow 3:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 56.618 ms
Loss rate: 28.01%
```

Run 1: Report of Indigo-MusesC3 — Data Link

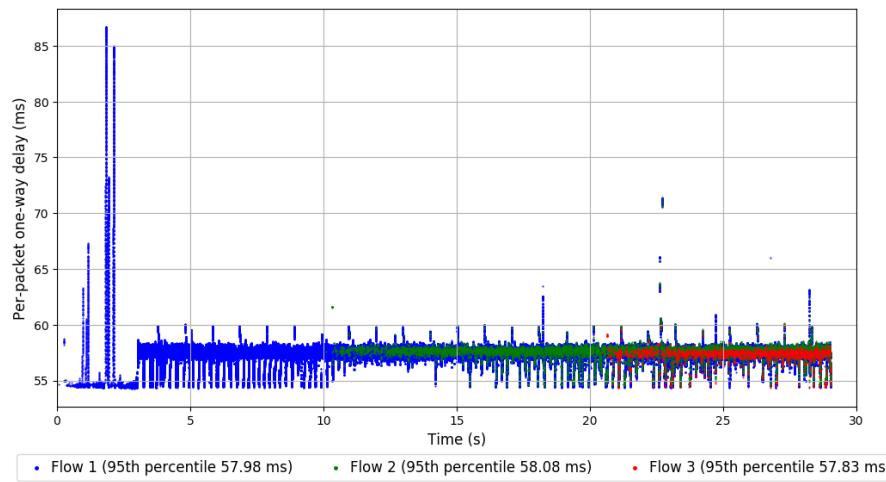
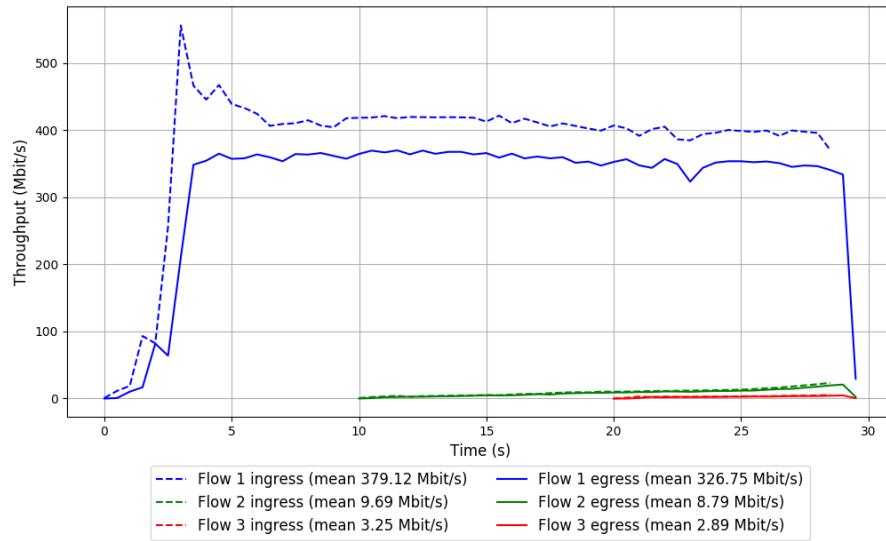


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 01:02:56
End at: 2019-01-19 01:03:26
Local clock offset: 0.736 ms
Remote clock offset: -44.774 ms

# Below is generated by plot.py at 2019-01-19 03:21:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.35 Mbit/s
95th percentile per-packet one-way delay: 57.988 ms
Loss rate: 13.74%
-- Flow 1:
Average throughput: 326.75 Mbit/s
95th percentile per-packet one-way delay: 57.985 ms
Loss rate: 13.82%
-- Flow 2:
Average throughput: 8.79 Mbit/s
95th percentile per-packet one-way delay: 58.081 ms
Loss rate: 9.26%
-- Flow 3:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 57.834 ms
Loss rate: 11.15%
```

Run 2: Report of Indigo-MusesC3 — Data Link

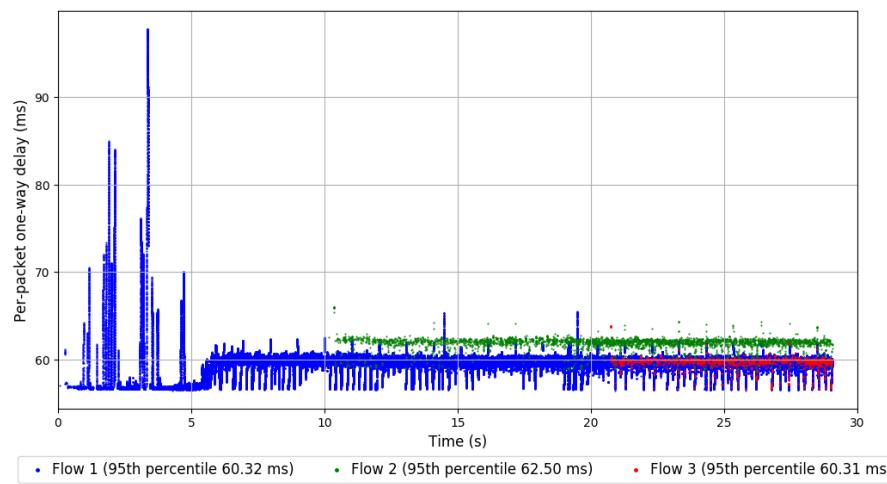
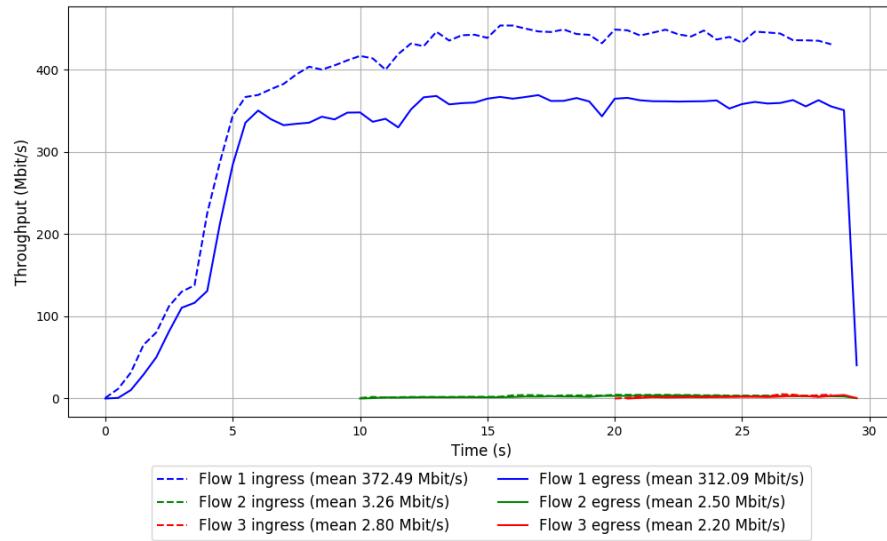


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 01:49:45
End at: 2019-01-19 01:50:15
Local clock offset: 3.004 ms
Remote clock offset: -40.493 ms

# Below is generated by plot.py at 2019-01-19 03:21:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 314.36 Mbit/s
95th percentile per-packet one-way delay: 60.344 ms
Loss rate: 16.26%
-- Flow 1:
Average throughput: 312.09 Mbit/s
95th percentile per-packet one-way delay: 60.323 ms
Loss rate: 16.21%
-- Flow 2:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 62.503 ms
Loss rate: 23.32%
-- Flow 3:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 60.311 ms
Loss rate: 21.45%
```

Run 3: Report of Indigo-MusesC3 — Data Link

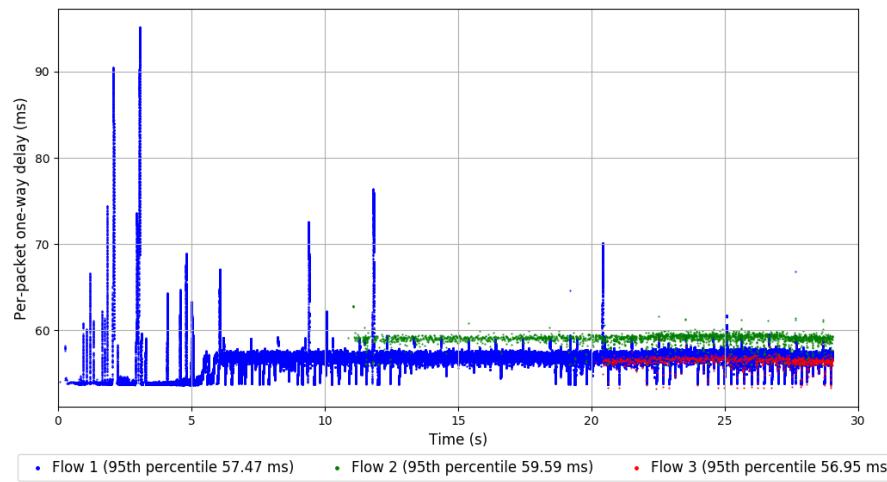
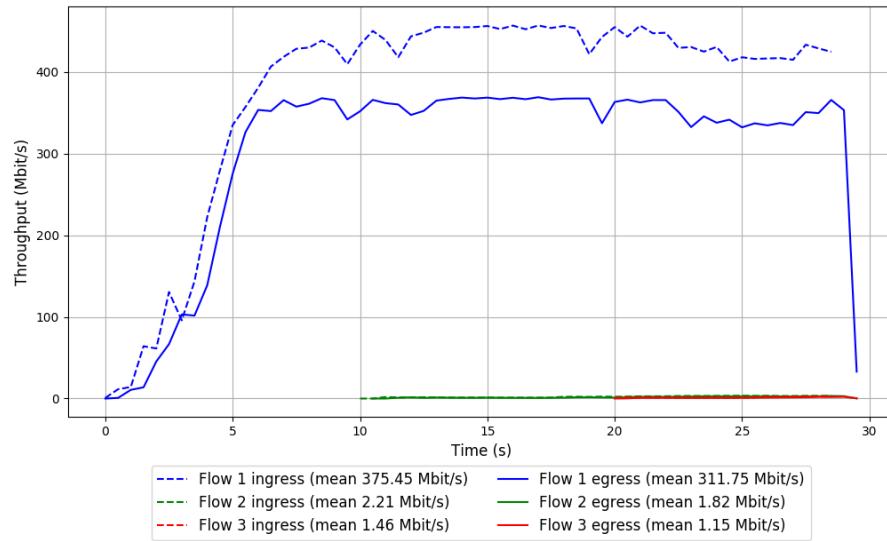


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 02:20:14
End at: 2019-01-19 02:20:44
Local clock offset: -1.413 ms
Remote clock offset: -46.012 ms

# Below is generated by plot.py at 2019-01-19 03:21:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.24 Mbit/s
95th percentile per-packet one-way delay: 57.489 ms
Loss rate: 16.97%
-- Flow 1:
Average throughput: 311.75 Mbit/s
95th percentile per-packet one-way delay: 57.472 ms
Loss rate: 16.96%
-- Flow 2:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 59.593 ms
Loss rate: 19.68%
-- Flow 3:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 56.955 ms
Loss rate: 20.98%
```

Run 4: Report of Indigo-MusesC3 — Data Link

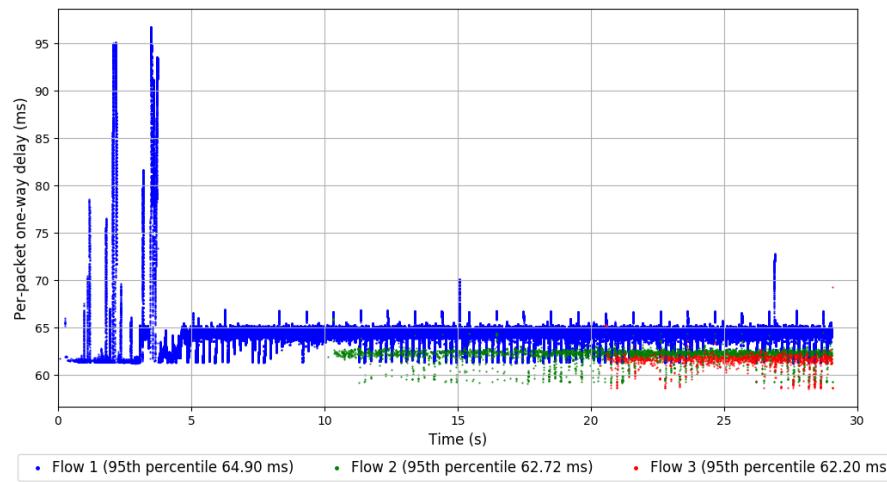
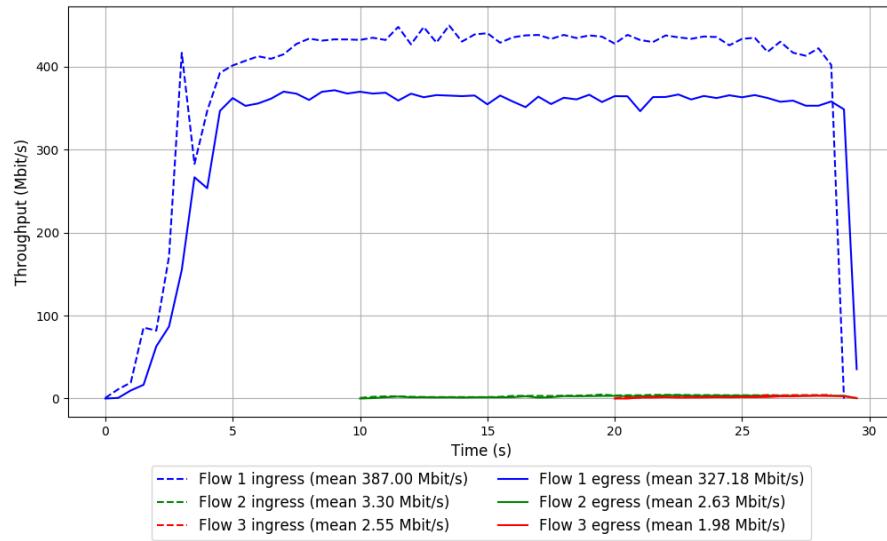


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-01-19 02:50:25
End at: 2019-01-19 02:50:55
Local clock offset: 0.589 ms
Remote clock offset: -39.638 ms

# Below is generated by plot.py at 2019-01-19 03:21:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 329.42 Mbit/s
95th percentile per-packet one-way delay: 64.902 ms
Loss rate: 15.55%
-- Flow 1:
Average throughput: 327.18 Mbit/s
95th percentile per-packet one-way delay: 64.904 ms
Loss rate: 15.51%
-- Flow 2:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 62.717 ms
Loss rate: 20.37%
-- Flow 3:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 62.202 ms
Loss rate: 22.34%
```

Run 5: Report of Indigo-MusesC3 — Data Link

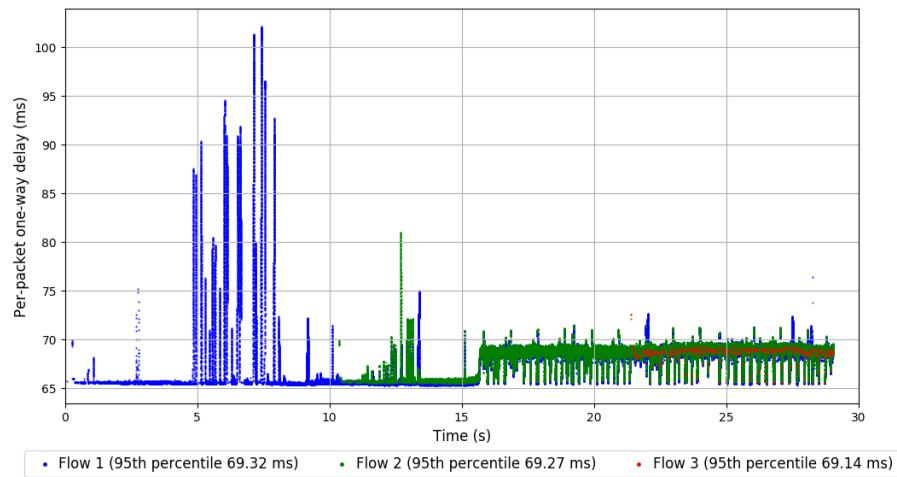
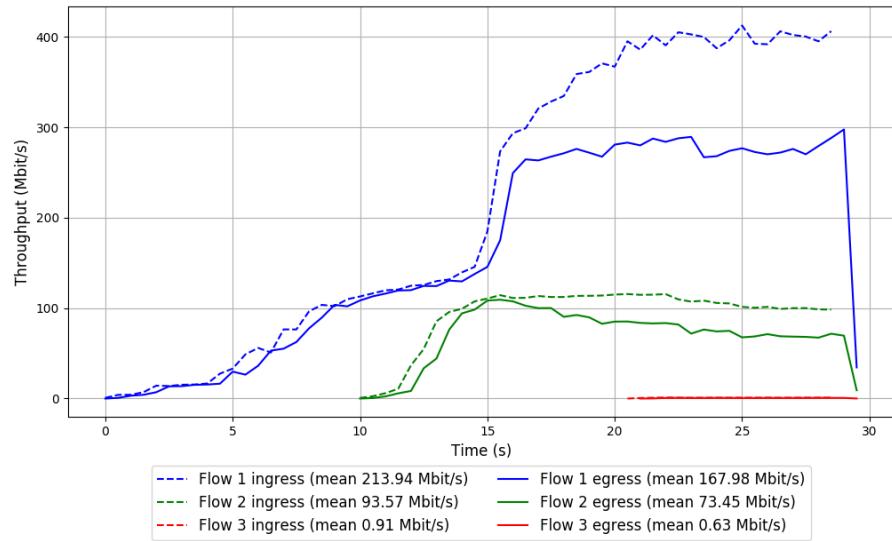


```
Run 1: Statistics of Indigo-MusesC5
```

```
Start at: 2019-01-19 00:15:18
End at: 2019-01-19 00:15:48
Local clock offset: 1.538 ms
Remote clock offset: -33.18 ms

# Below is generated by plot.py at 2019-01-19 03:21:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.05 Mbit/s
95th percentile per-packet one-way delay: 69.298 ms
Loss rate: 21.49%
-- Flow 1:
Average throughput: 167.98 Mbit/s
95th percentile per-packet one-way delay: 69.321 ms
Loss rate: 21.47%
-- Flow 2:
Average throughput: 73.45 Mbit/s
95th percentile per-packet one-way delay: 69.271 ms
Loss rate: 21.49%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 69.140 ms
Loss rate: 34.47%
```

Run 1: Report of Indigo-MusesC5 — Data Link

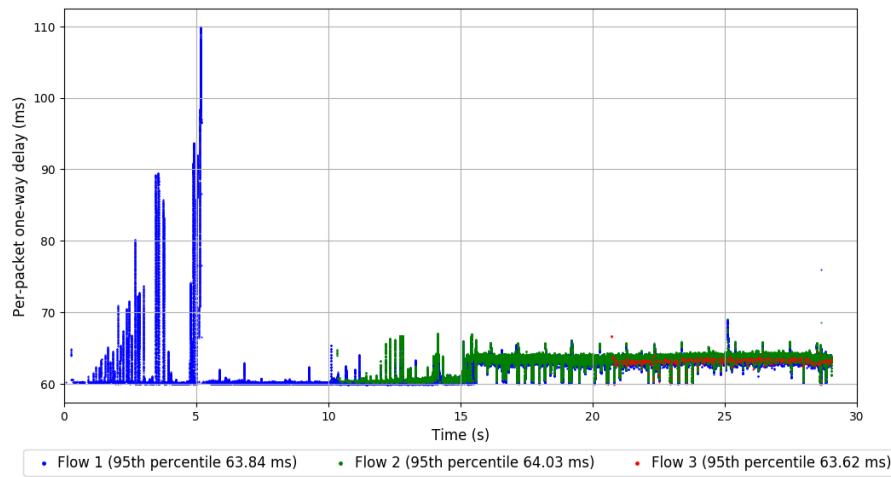
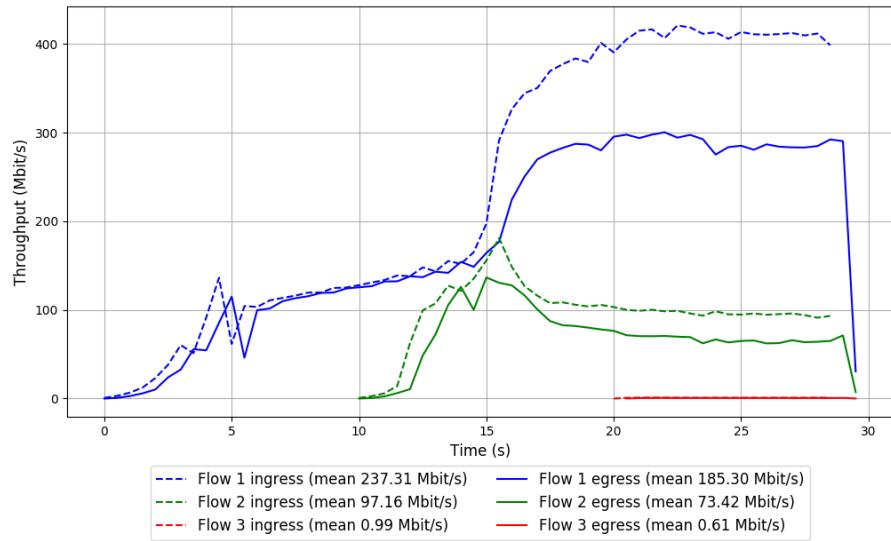


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 00:45:25
End at: 2019-01-19 00:45:55
Local clock offset: -0.34 ms
Remote clock offset: -38.087 ms

# Below is generated by plot.py at 2019-01-19 03:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 233.33 Mbit/s
95th percentile per-packet one-way delay: 63.915 ms
Loss rate: 22.46%
-- Flow 1:
Average throughput: 185.30 Mbit/s
95th percentile per-packet one-way delay: 63.838 ms
Loss rate: 21.91%
-- Flow 2:
Average throughput: 73.42 Mbit/s
95th percentile per-packet one-way delay: 64.030 ms
Loss rate: 24.43%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 63.624 ms
Loss rate: 38.52%
```

Run 2: Report of Indigo-MusesC5 — Data Link

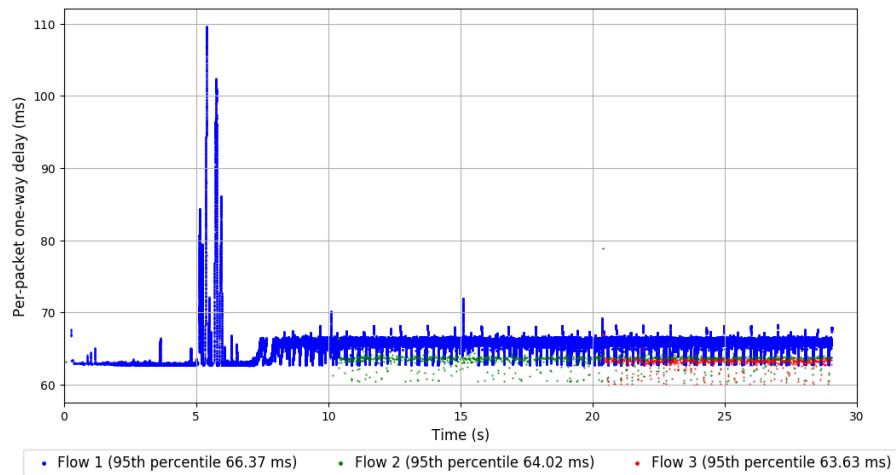
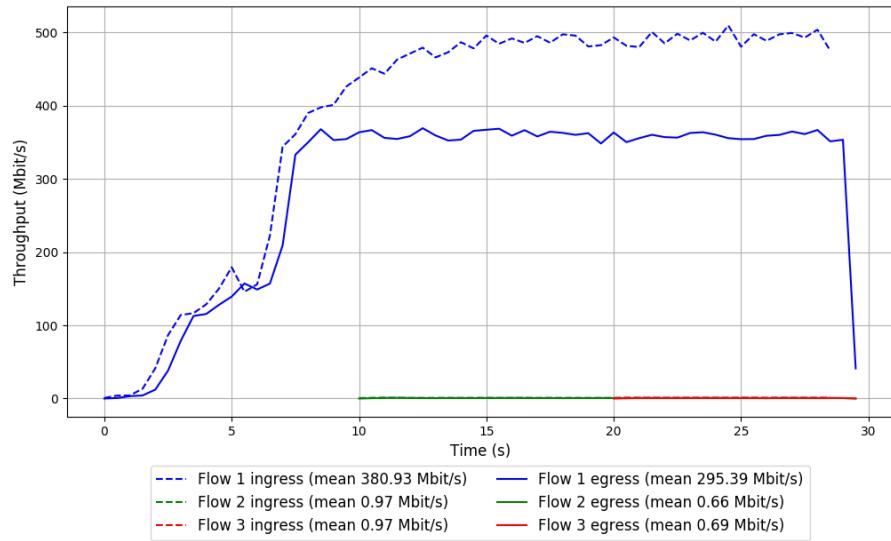


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 01:32:44
End at: 2019-01-19 01:33:14
Local clock offset: 1.039 ms
Remote clock offset: -39.194 ms

# Below is generated by plot.py at 2019-01-19 03:23:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 296.03 Mbit/s
95th percentile per-packet one-way delay: 66.372 ms
Loss rate: 22.47%
-- Flow 1:
Average throughput: 295.39 Mbit/s
95th percentile per-packet one-way delay: 66.372 ms
Loss rate: 22.44%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 64.023 ms
Loss rate: 31.89%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 63.632 ms
Loss rate: 28.84%
```

Run 3: Report of Indigo-MusesC5 — Data Link

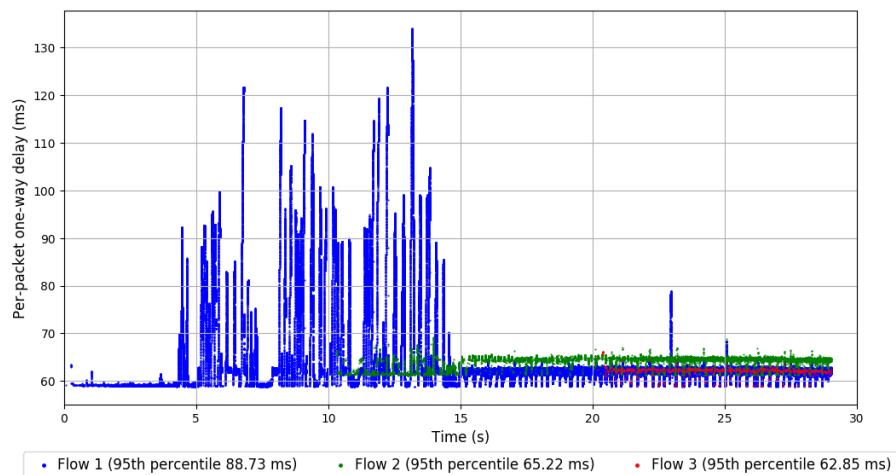
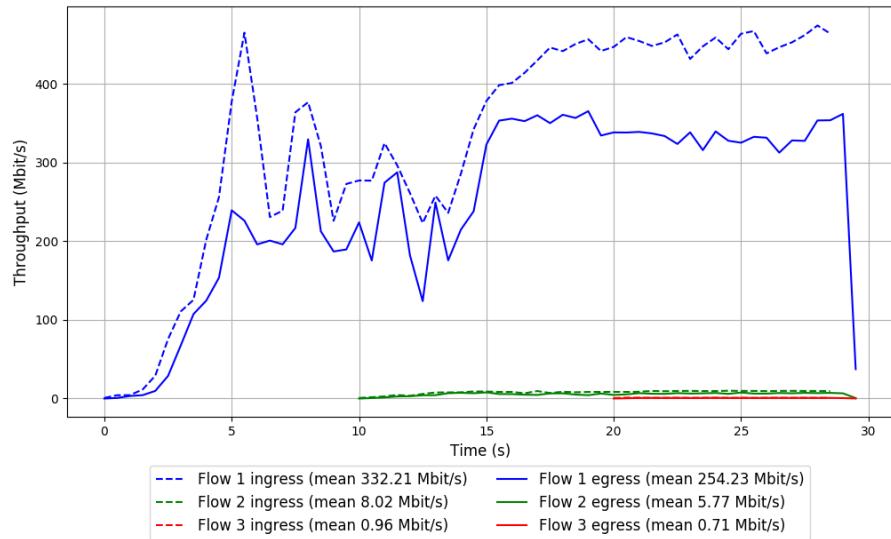


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 02:08:38
End at: 2019-01-19 02:09:08
Local clock offset: -1.641 ms
Remote clock offset: -40.662 ms

# Below is generated by plot.py at 2019-01-19 03:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.22 Mbit/s
95th percentile per-packet one-way delay: 88.569 ms
Loss rate: 23.54%
-- Flow 1:
Average throughput: 254.23 Mbit/s
95th percentile per-packet one-way delay: 88.727 ms
Loss rate: 23.46%
-- Flow 2:
Average throughput: 5.77 Mbit/s
95th percentile per-packet one-way delay: 65.220 ms
Loss rate: 28.03%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 62.853 ms
Loss rate: 26.00%
```

Run 4: Report of Indigo-MusesC5 — Data Link

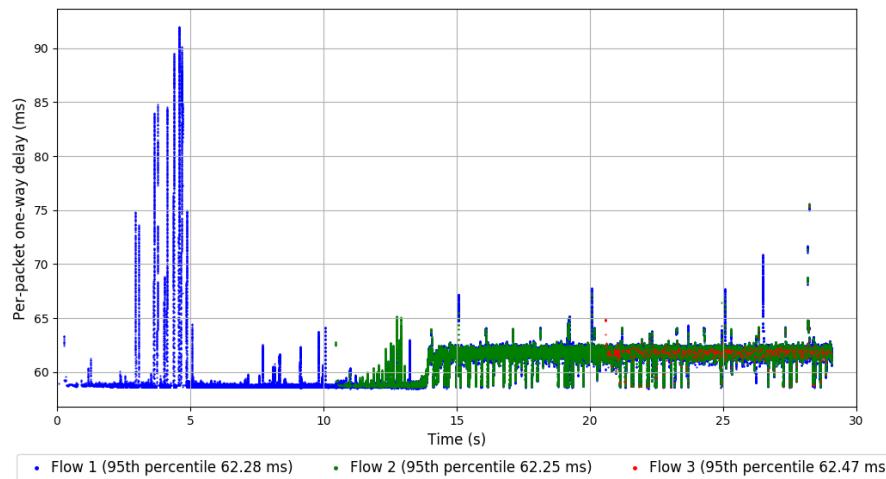
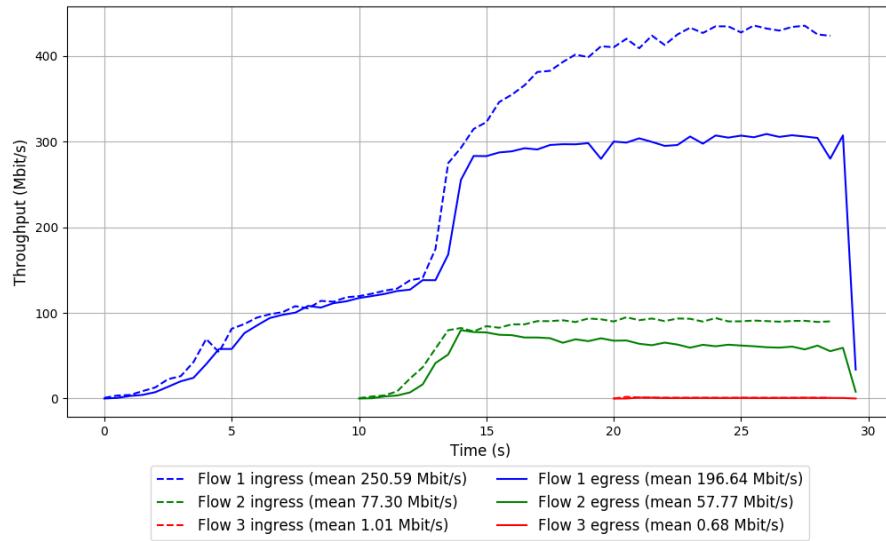


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-01-19 02:38:46
End at: 2019-01-19 02:39:16
Local clock offset: -0.053 ms
Remote clock offset: -40.701 ms

# Below is generated by plot.py at 2019-01-19 03:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 234.29 Mbit/s
95th percentile per-packet one-way delay: 62.271 ms
Loss rate: 22.15%
-- Flow 1:
Average throughput: 196.64 Mbit/s
95th percentile per-packet one-way delay: 62.276 ms
Loss rate: 21.52%
-- Flow 2:
Average throughput: 57.77 Mbit/s
95th percentile per-packet one-way delay: 62.247 ms
Loss rate: 25.25%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 62.471 ms
Loss rate: 32.26%
```

Run 5: Report of Indigo-MusesC5 — Data Link

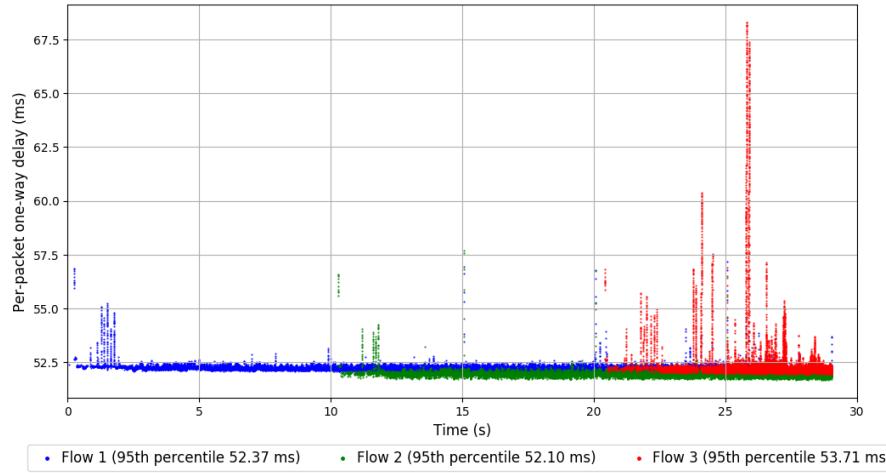
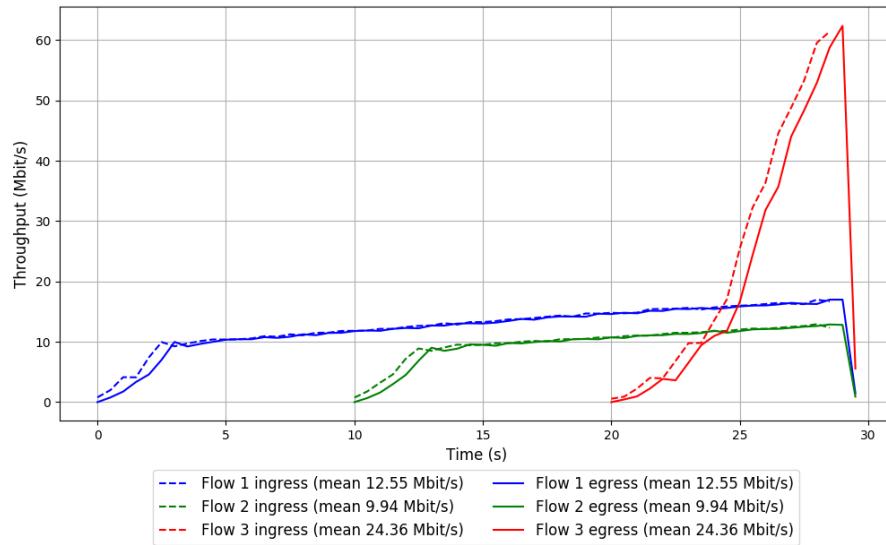


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 00:29:56
End at: 2019-01-19 00:30:26
Local clock offset: -0.874 ms
Remote clock offset: -47.607 ms

# Below is generated by plot.py at 2019-01-19 03:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.46 Mbit/s
95th percentile per-packet one-way delay: 52.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 52.365 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 52.100 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.36 Mbit/s
95th percentile per-packet one-way delay: 53.709 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesD — Data Link

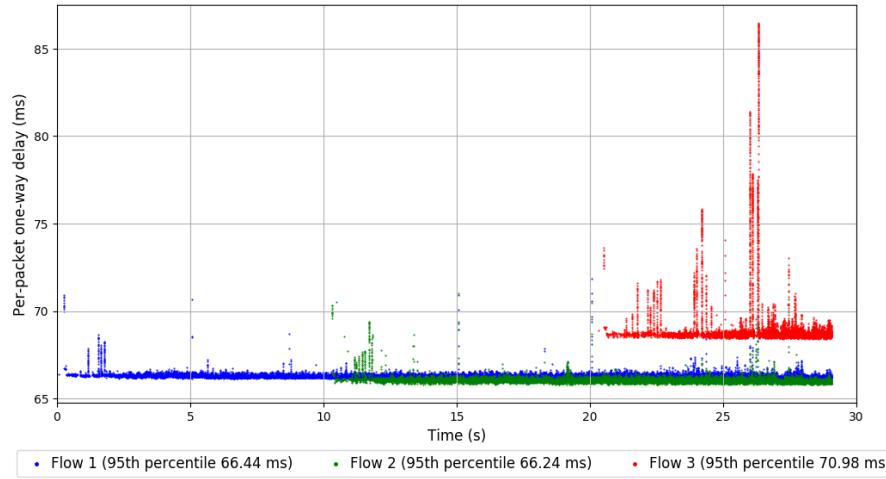
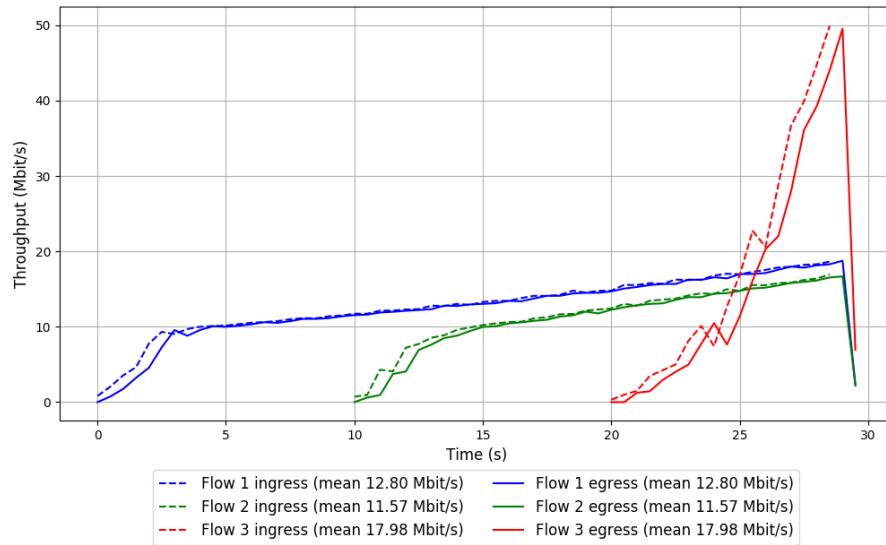


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 01:11:40
End at: 2019-01-19 01:12:10
Local clock offset: 1.003 ms
Remote clock offset: -33.555 ms

# Below is generated by plot.py at 2019-01-19 03:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.77 Mbit/s
95th percentile per-packet one-way delay: 68.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 66.443 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 66.236 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.98 Mbit/s
95th percentile per-packet one-way delay: 70.977 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesD — Data Link

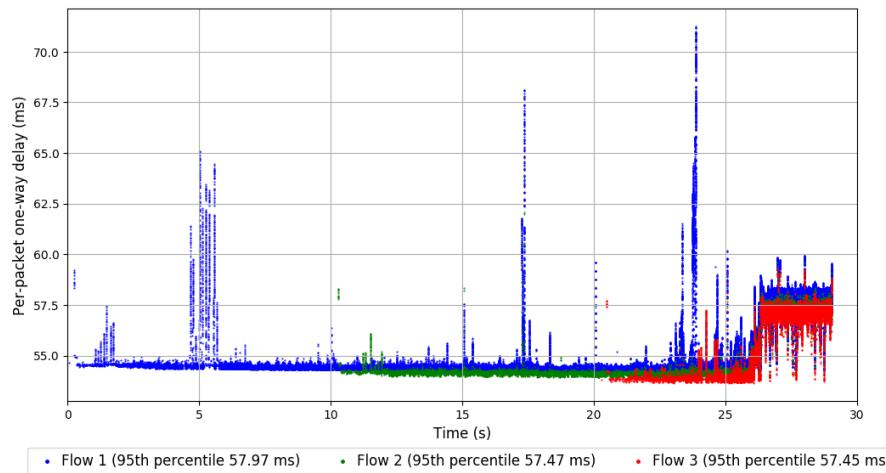
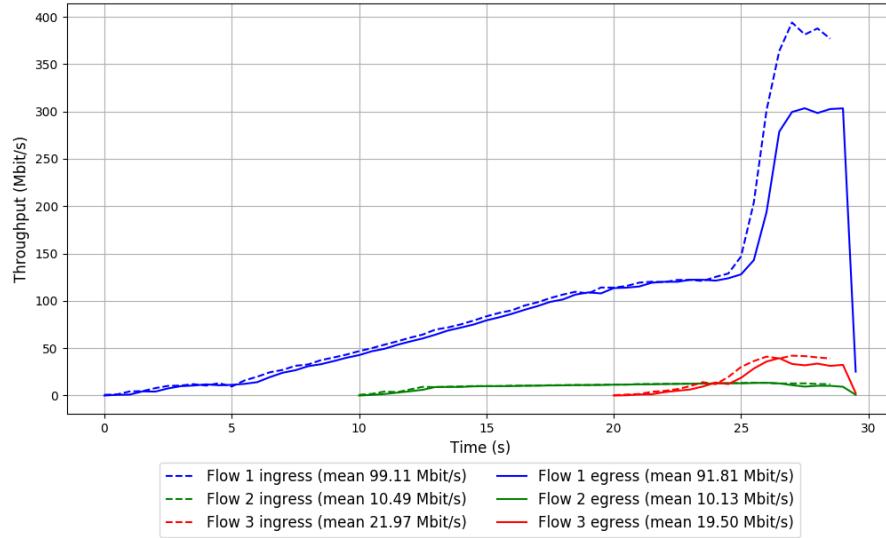


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 01:52:59
End at: 2019-01-19 01:53:29
Local clock offset: 0.331 ms
Remote clock offset: -45.345 ms

# Below is generated by plot.py at 2019-01-19 03:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.31 Mbit/s
95th percentile per-packet one-way delay: 57.946 ms
Loss rate: 7.34%
-- Flow 1:
Average throughput: 91.81 Mbit/s
95th percentile per-packet one-way delay: 57.966 ms
Loss rate: 7.35%
-- Flow 2:
Average throughput: 10.13 Mbit/s
95th percentile per-packet one-way delay: 57.469 ms
Loss rate: 3.43%
-- Flow 3:
Average throughput: 19.50 Mbit/s
95th percentile per-packet one-way delay: 57.447 ms
Loss rate: 11.20%
```

Run 3: Report of Indigo-MusesD — Data Link

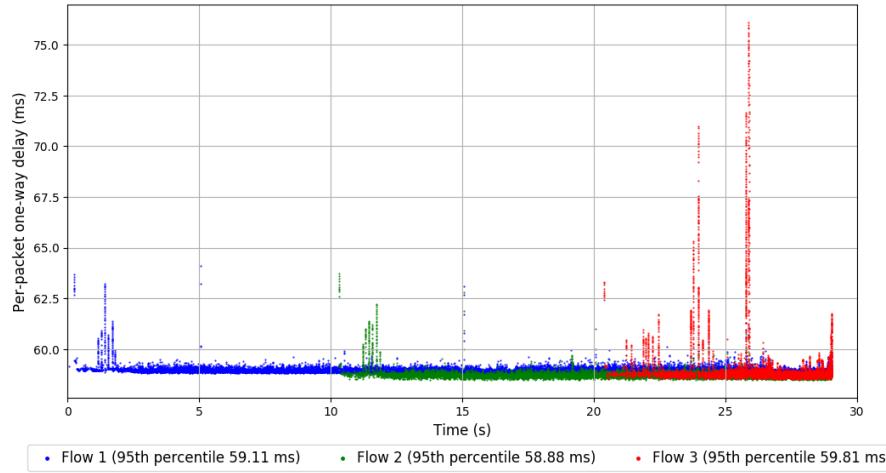
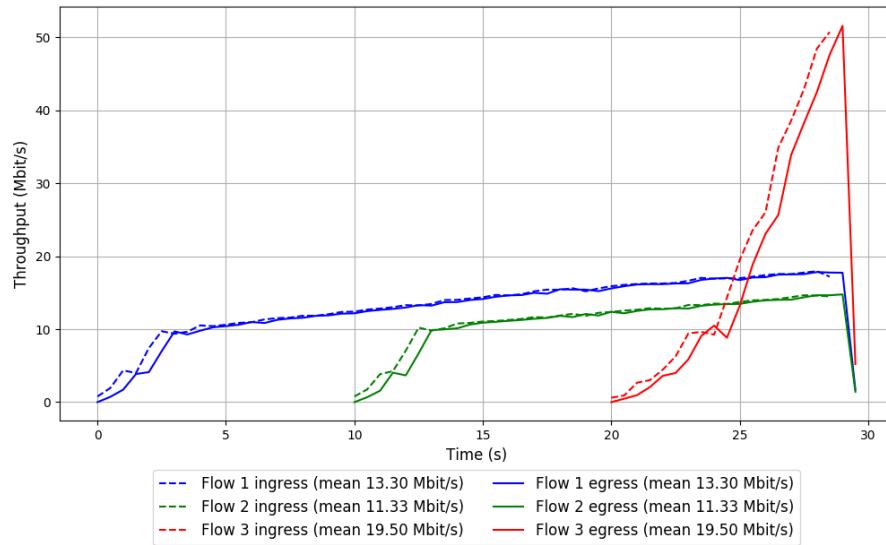


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 02:23:19
End at: 2019-01-19 02:23:49
Local clock offset: -1.724 ms
Remote clock offset: -41.438 ms

# Below is generated by plot.py at 2019-01-19 03:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.66 Mbit/s
95th percentile per-packet one-way delay: 59.102 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 59.113 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.33 Mbit/s
95th percentile per-packet one-way delay: 58.882 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.50 Mbit/s
95th percentile per-packet one-way delay: 59.815 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesD — Data Link

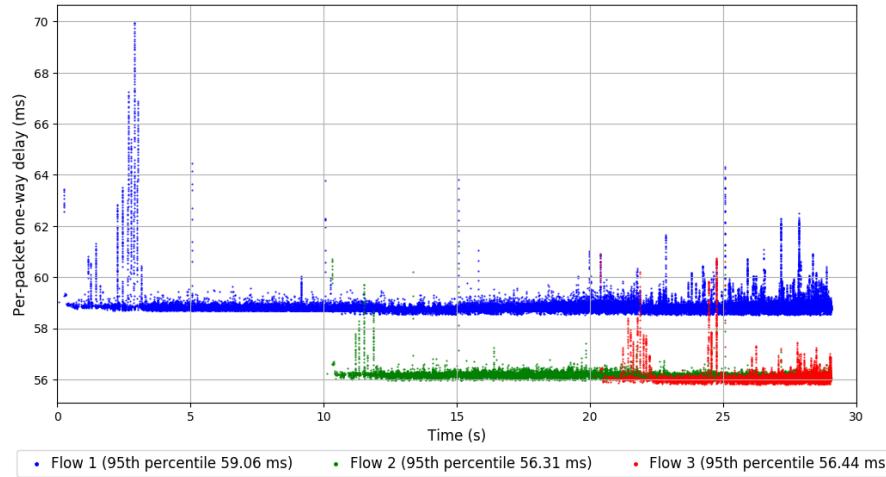
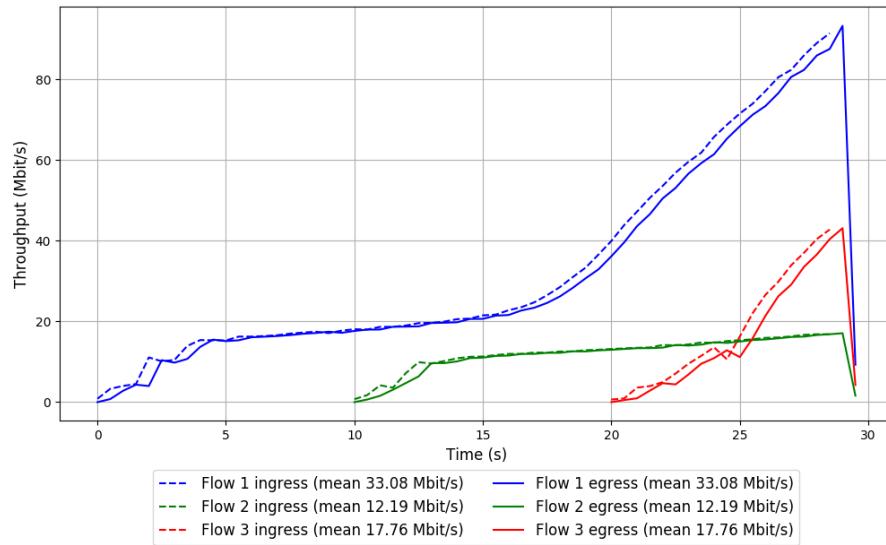


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-01-19 02:53:32
End at: 2019-01-19 02:54:02
Local clock offset: 1.285 ms
Remote clock offset: -41.719 ms

# Below is generated by plot.py at 2019-01-19 03:23:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.48 Mbit/s
95th percentile per-packet one-way delay: 58.989 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 59.056 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.19 Mbit/s
95th percentile per-packet one-way delay: 56.308 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.76 Mbit/s
95th percentile per-packet one-way delay: 56.441 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

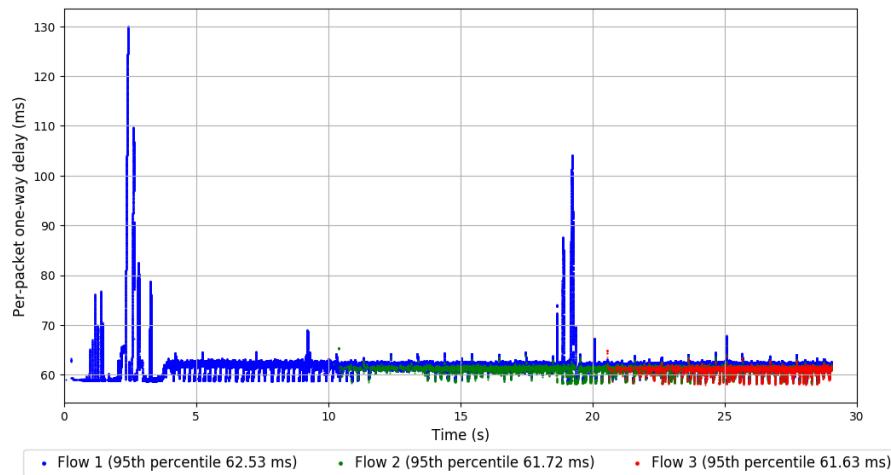
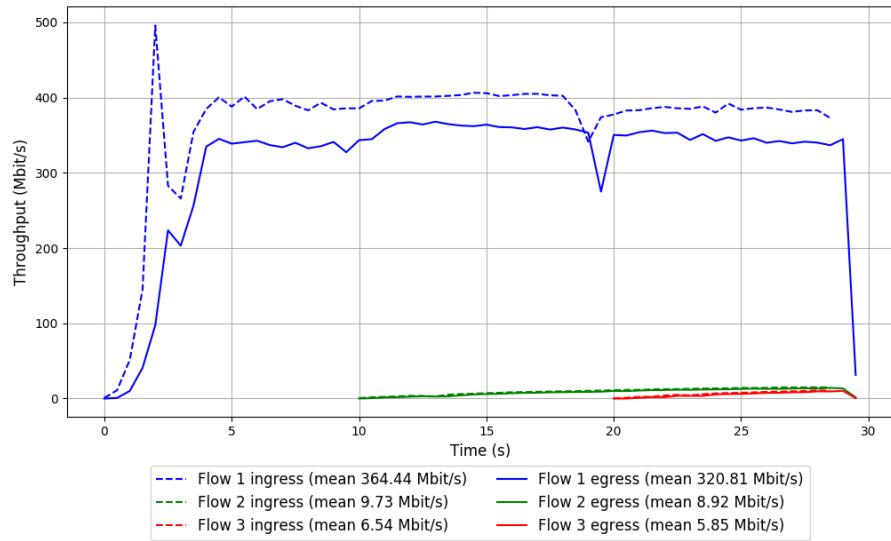


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 00:28:22
End at: 2019-01-19 00:28:52
Local clock offset: 0.326 ms
Remote clock offset: -40.04 ms

# Below is generated by plot.py at 2019-01-19 03:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.37 Mbit/s
95th percentile per-packet one-way delay: 62.526 ms
Loss rate: 11.89%
-- Flow 1:
Average throughput: 320.81 Mbit/s
95th percentile per-packet one-way delay: 62.533 ms
Loss rate: 11.96%
-- Flow 2:
Average throughput: 8.92 Mbit/s
95th percentile per-packet one-way delay: 61.717 ms
Loss rate: 8.33%
-- Flow 3:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 61.626 ms
Loss rate: 10.49%
```

Run 1: Report of Indigo-MusesT — Data Link

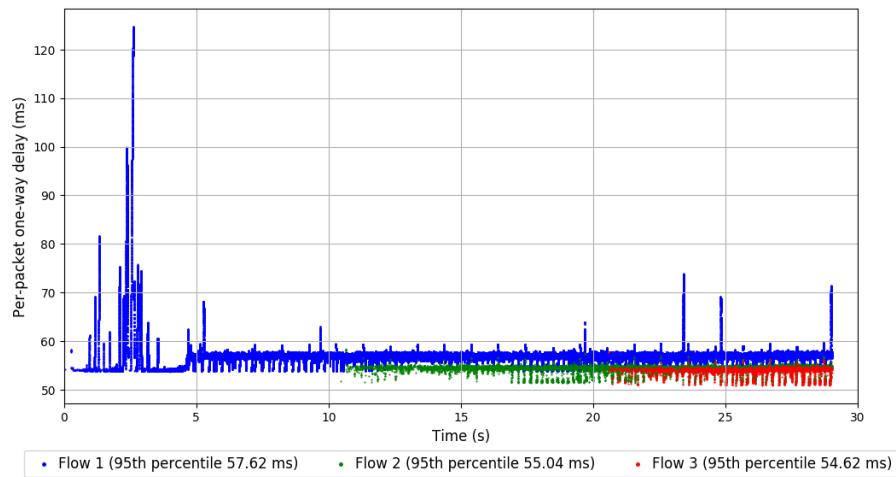
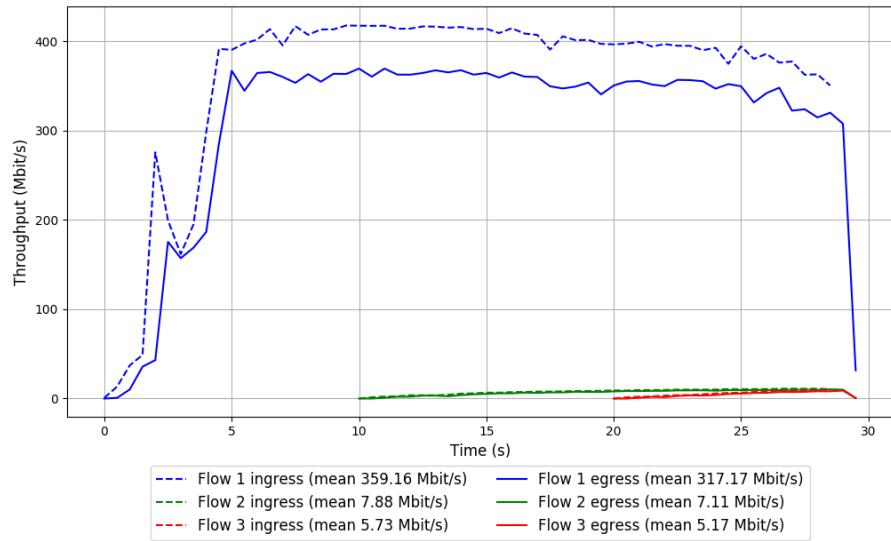


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 01:10:02
End at: 2019-01-19 01:10:32
Local clock offset: 4.367 ms
Remote clock offset: -44.648 ms

# Below is generated by plot.py at 2019-01-19 03:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 323.28 Mbit/s
95th percentile per-packet one-way delay: 57.610 ms
Loss rate: 11.65%
-- Flow 1:
Average throughput: 317.17 Mbit/s
95th percentile per-packet one-way delay: 57.615 ms
Loss rate: 11.68%
-- Flow 2:
Average throughput: 7.11 Mbit/s
95th percentile per-packet one-way delay: 55.042 ms
Loss rate: 9.80%
-- Flow 3:
Average throughput: 5.17 Mbit/s
95th percentile per-packet one-way delay: 54.621 ms
Loss rate: 9.82%
```

Run 2: Report of Indigo-MusesT — Data Link

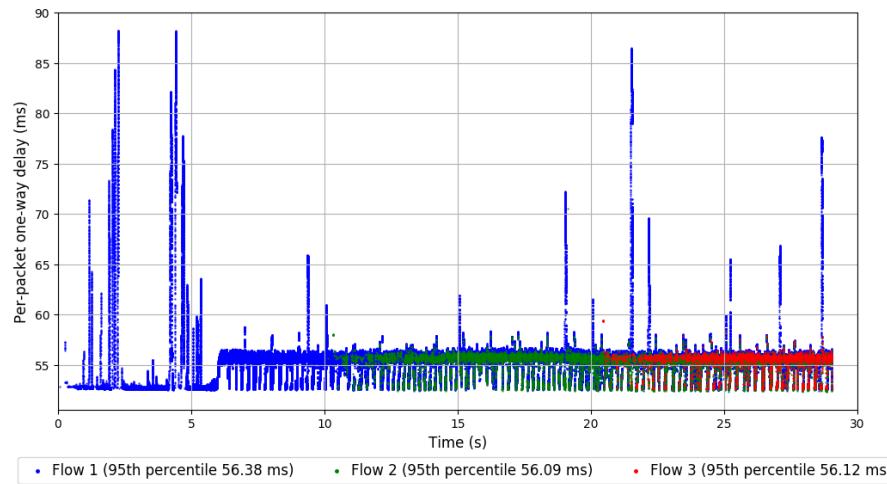
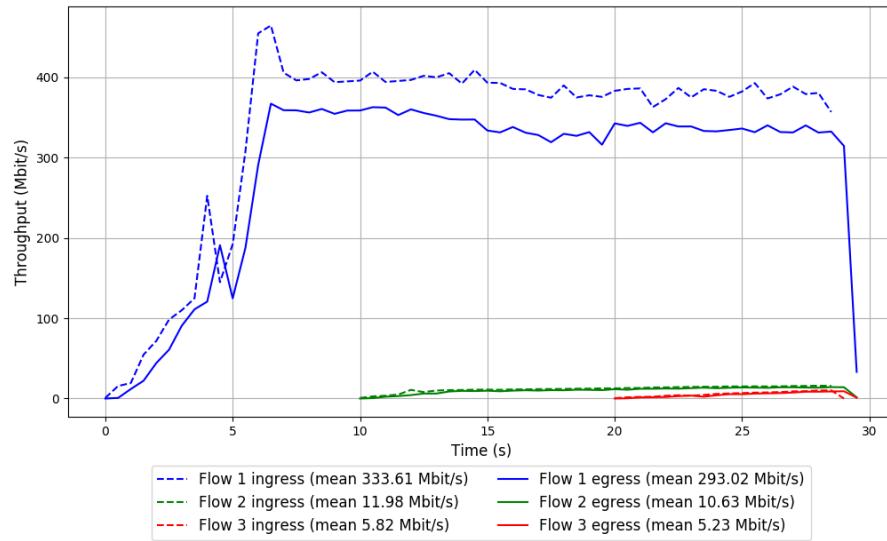


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 01:51:27
End at: 2019-01-19 01:51:57
Local clock offset: 0.451 ms
Remote clock offset: -46.767 ms

# Below is generated by plot.py at 2019-01-19 03:25:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 301.51 Mbit/s
95th percentile per-packet one-way delay: 56.374 ms
Loss rate: 12.14%
-- Flow 1:
Average throughput: 293.02 Mbit/s
95th percentile per-packet one-way delay: 56.384 ms
Loss rate: 12.17%
-- Flow 2:
Average throughput: 10.63 Mbit/s
95th percentile per-packet one-way delay: 56.095 ms
Loss rate: 11.28%
-- Flow 3:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 56.124 ms
Loss rate: 10.11%
```

Run 3: Report of Indigo-MusesT — Data Link

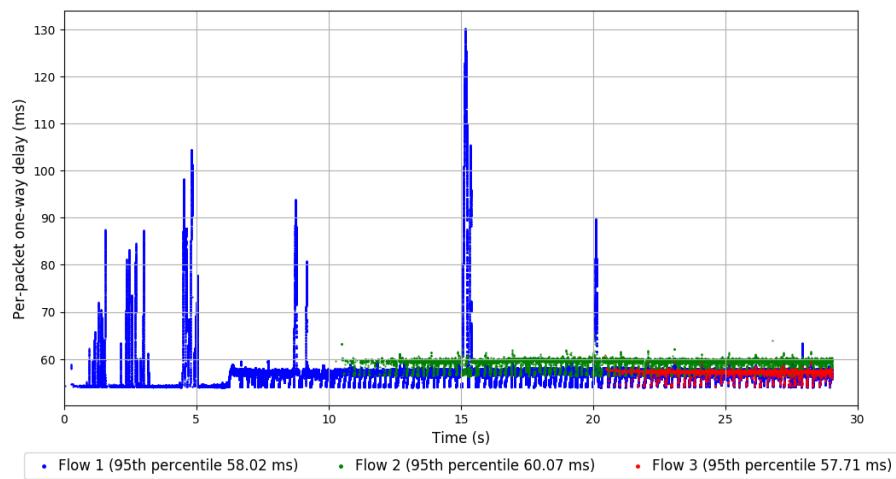
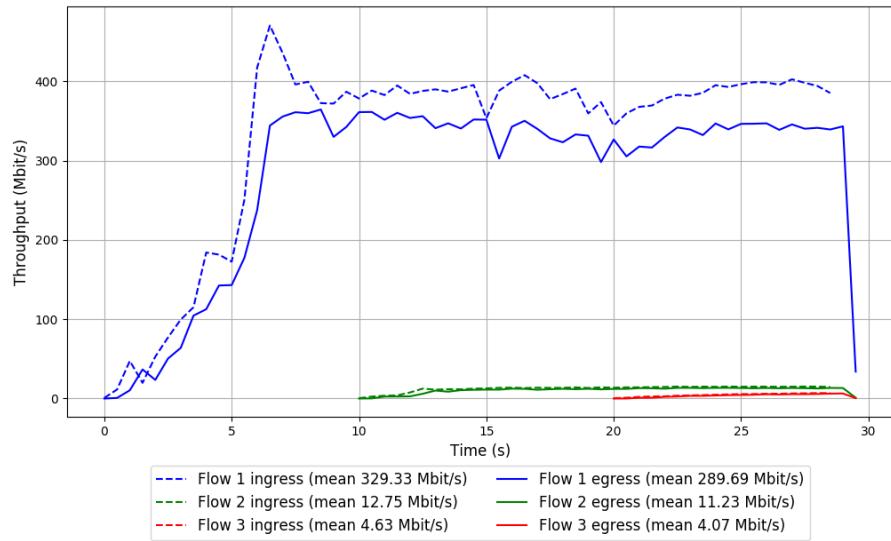


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 02:21:46
End at: 2019-01-19 02:22:16
Local clock offset: -0.846 ms
Remote clock offset: -45.131 ms

# Below is generated by plot.py at 2019-01-19 03:25:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.19 Mbit/s
95th percentile per-packet one-way delay: 59.325 ms
Loss rate: 12.02%
-- Flow 1:
Average throughput: 289.69 Mbit/s
95th percentile per-packet one-way delay: 58.015 ms
Loss rate: 12.03%
-- Flow 2:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 60.067 ms
Loss rate: 11.89%
-- Flow 3:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 57.706 ms
Loss rate: 11.92%
```

Run 4: Report of Indigo-MusesT — Data Link

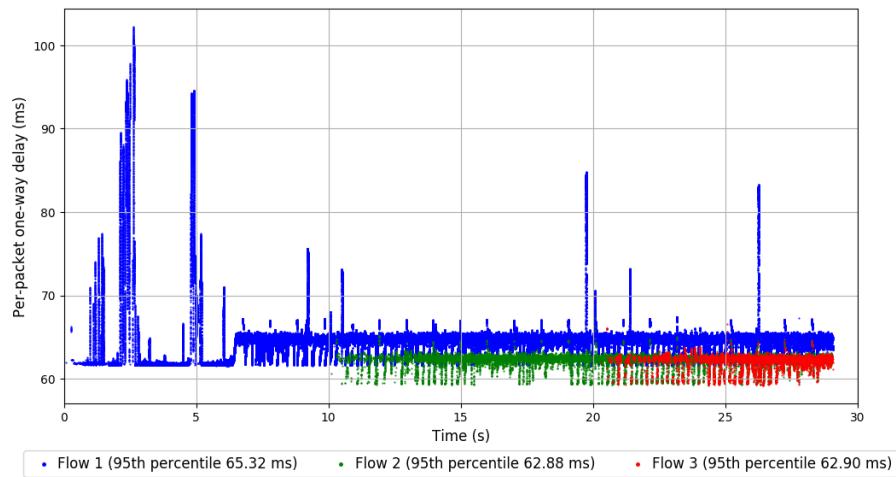
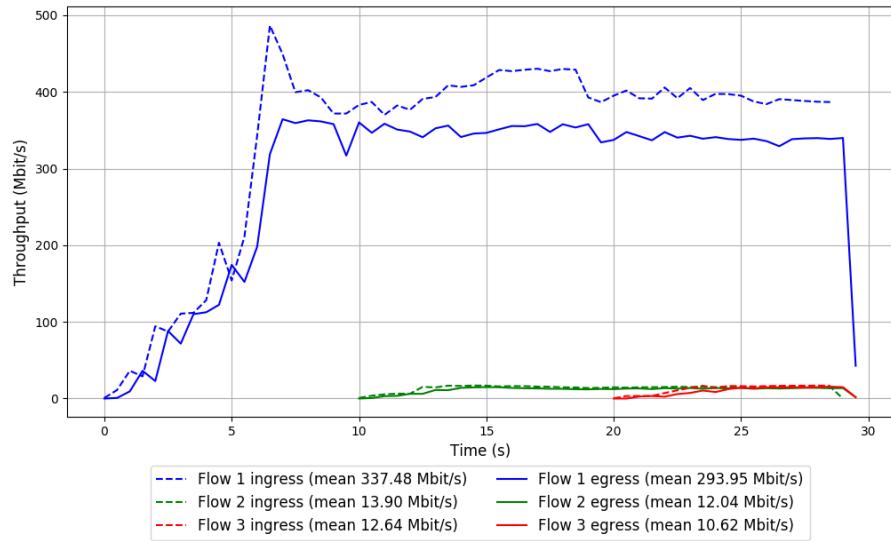


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-01-19 02:51:58
End at: 2019-01-19 02:52:28
Local clock offset: -0.267 ms
Remote clock offset: -40.065 ms

# Below is generated by plot.py at 2019-01-19 03:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 305.03 Mbit/s
95th percentile per-packet one-way delay: 65.307 ms
Loss rate: 12.94%
-- Flow 1:
Average throughput: 293.95 Mbit/s
95th percentile per-packet one-way delay: 65.323 ms
Loss rate: 12.89%
-- Flow 2:
Average throughput: 12.04 Mbit/s
95th percentile per-packet one-way delay: 62.882 ms
Loss rate: 13.42%
-- Flow 3:
Average throughput: 10.62 Mbit/s
95th percentile per-packet one-way delay: 62.896 ms
Loss rate: 15.97%
```

Run 5: Report of Indigo-MusesT — Data Link

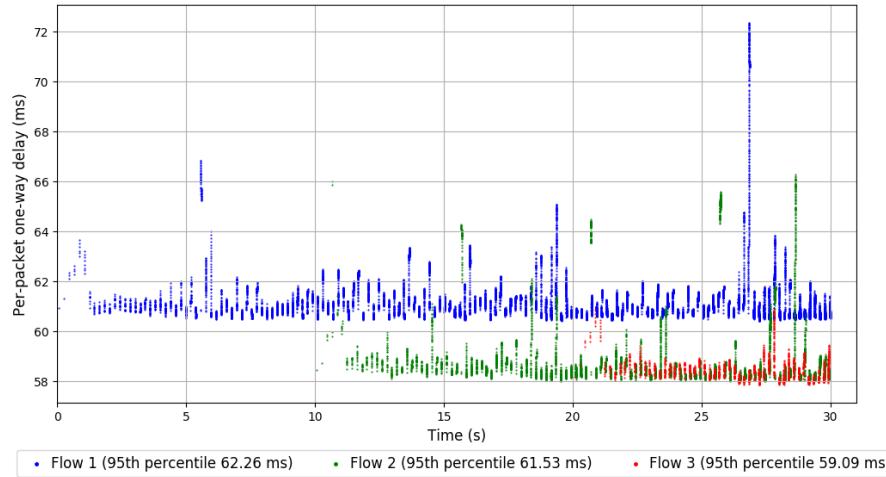
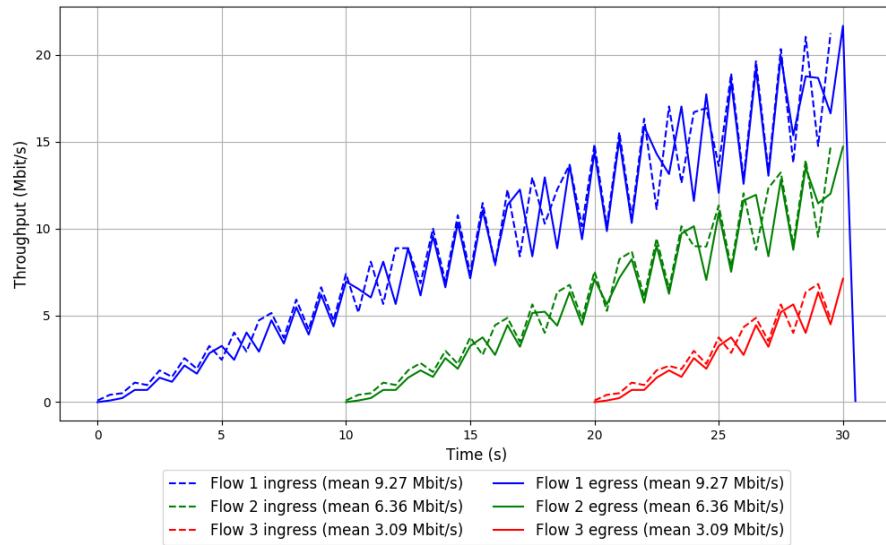


Run 1: Statistics of LEDBAT

```
Start at: 2019-01-19 00:16:48
End at: 2019-01-19 00:17:18
Local clock offset: 2.351 ms
Remote clock offset: -39.603 ms

# Below is generated by plot.py at 2019-01-19 03:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 62.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 62.256 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 61.529 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 59.085 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

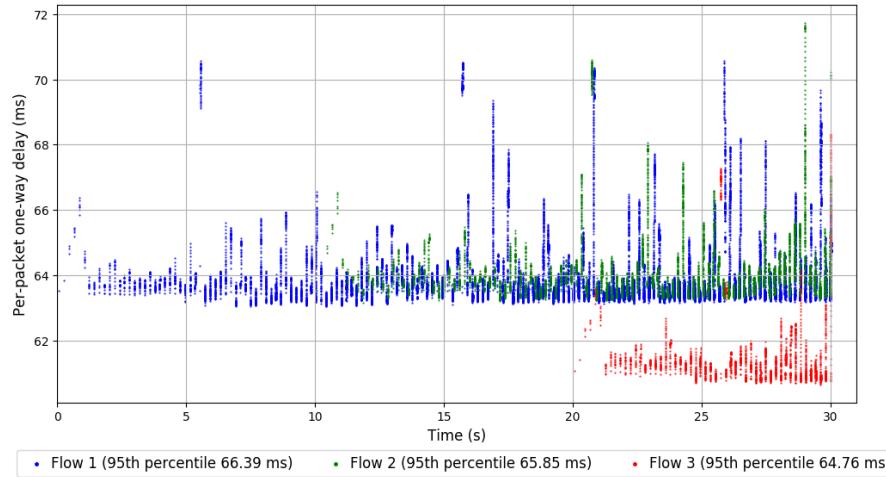
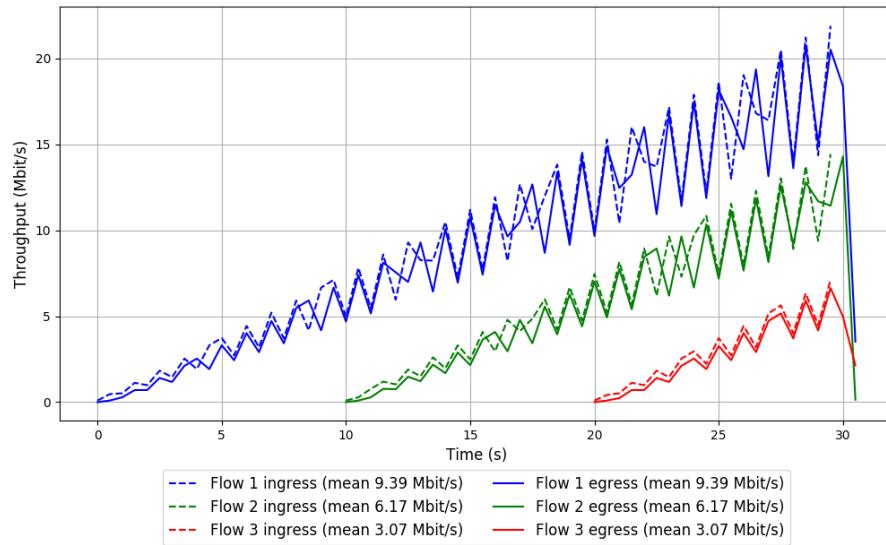


Run 2: Statistics of LEDBAT

```
Start at: 2019-01-19 00:46:55
End at: 2019-01-19 00:47:25
Local clock offset: -1.442 ms
Remote clock offset: -38.79 ms

# Below is generated by plot.py at 2019-01-19 03:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.51 Mbit/s
95th percentile per-packet one-way delay: 66.224 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 66.394 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 65.850 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 64.756 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

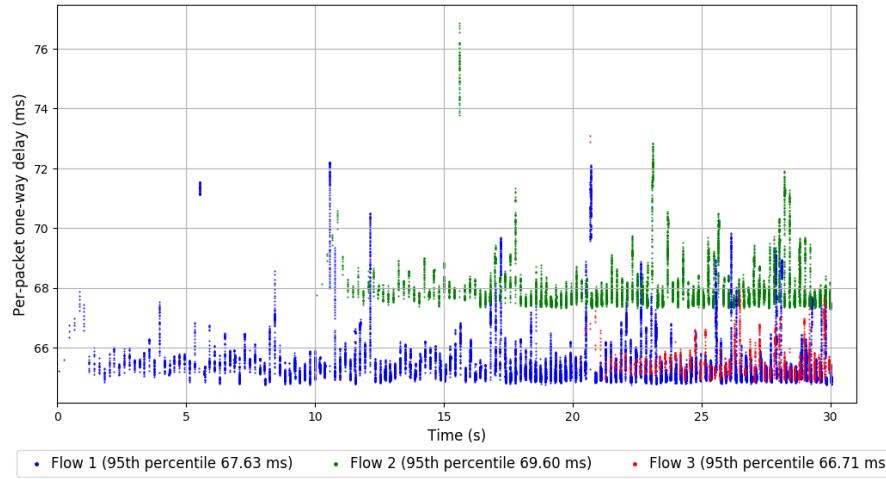
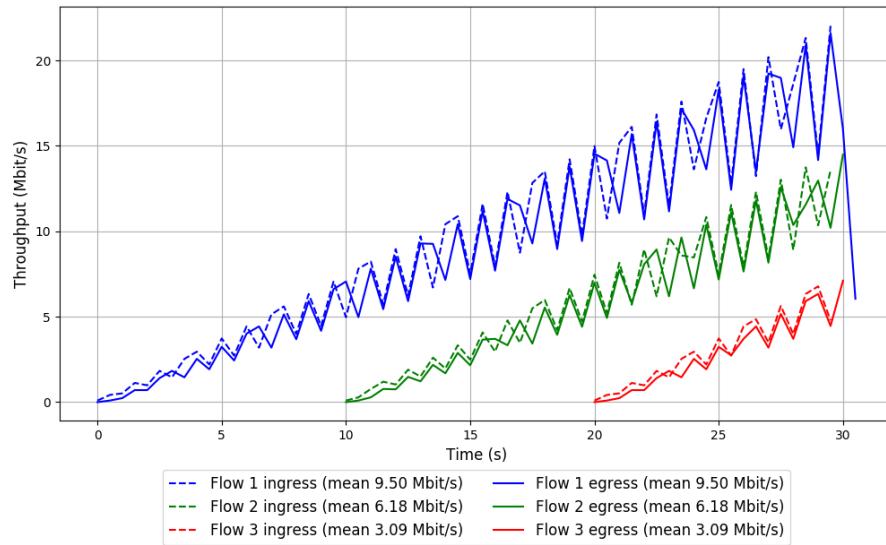


Run 3: Statistics of LEDBAT

```
Start at: 2019-01-19 01:34:17
End at: 2019-01-19 01:34:47
Local clock offset: -7.259 ms
Remote clock offset: -43.06 ms

# Below is generated by plot.py at 2019-01-19 03:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 68.802 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 67.634 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 69.604 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 66.710 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

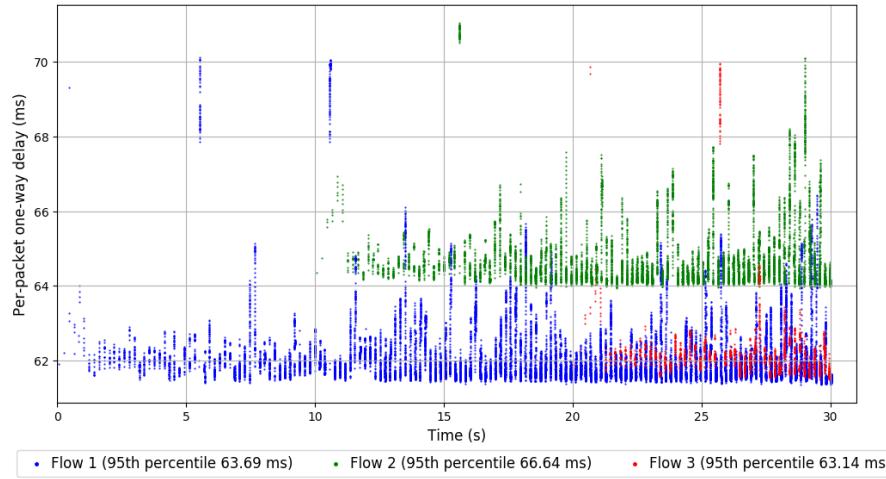
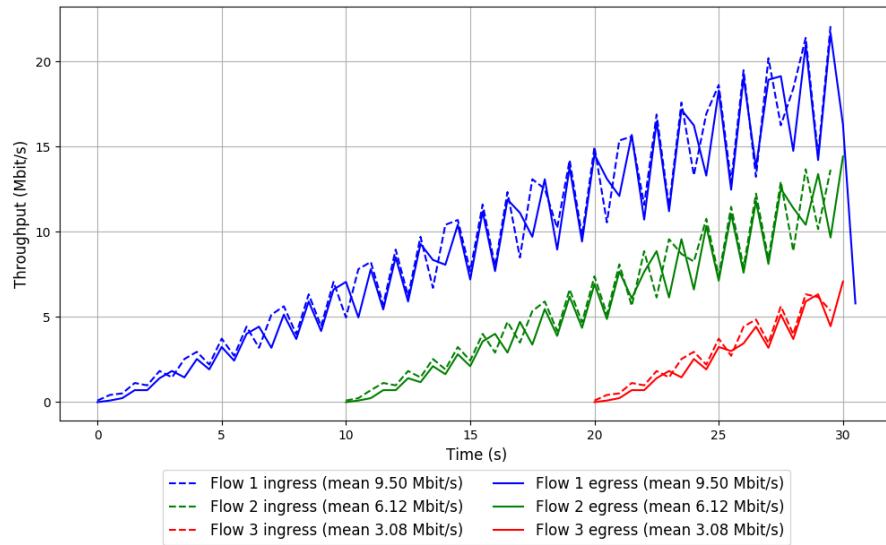


Run 4: Statistics of LEDBAT

```
Start at: 2019-01-19 02:10:08
End at: 2019-01-19 02:10:38
Local clock offset: -2.404 ms
Remote clock offset: -38.728 ms

# Below is generated by plot.py at 2019-01-19 03:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.58 Mbit/s
95th percentile per-packet one-way delay: 65.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.50 Mbit/s
95th percentile per-packet one-way delay: 63.694 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 66.635 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 63.139 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

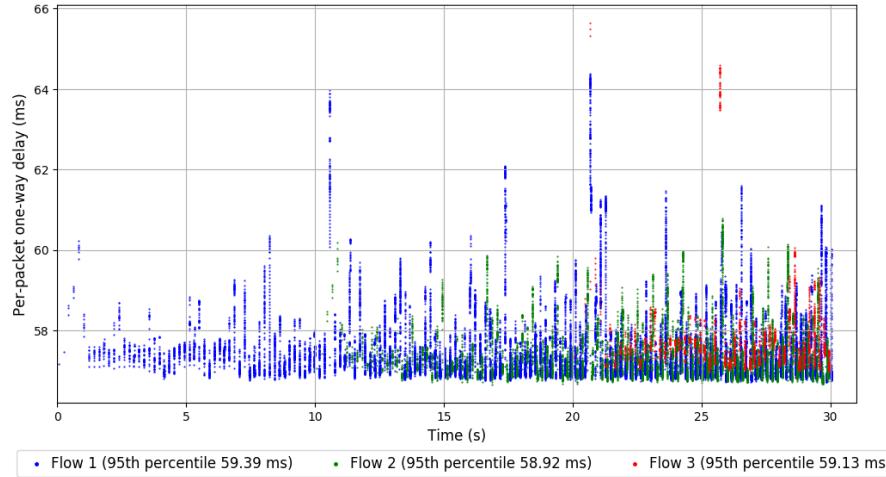
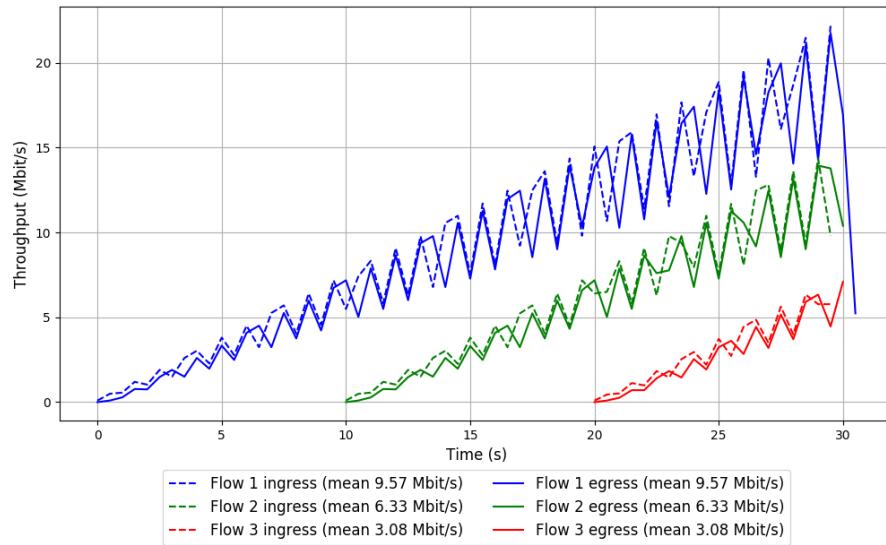


Run 5: Statistics of LEDBAT

```
Start at: 2019-01-19 02:40:17
End at: 2019-01-19 02:40:47
Local clock offset: -0.933 ms
Remote clock offset: -43.293 ms

# Below is generated by plot.py at 2019-01-19 03:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.78 Mbit/s
95th percentile per-packet one-way delay: 59.206 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 59.392 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 58.925 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 59.128 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

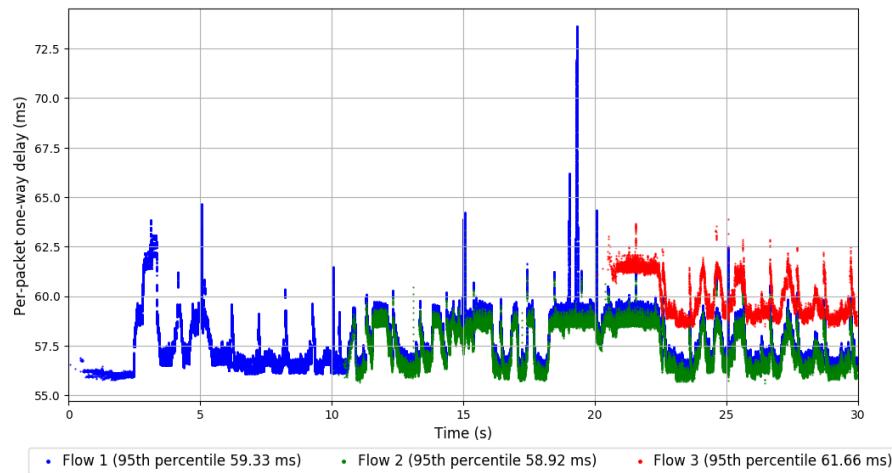
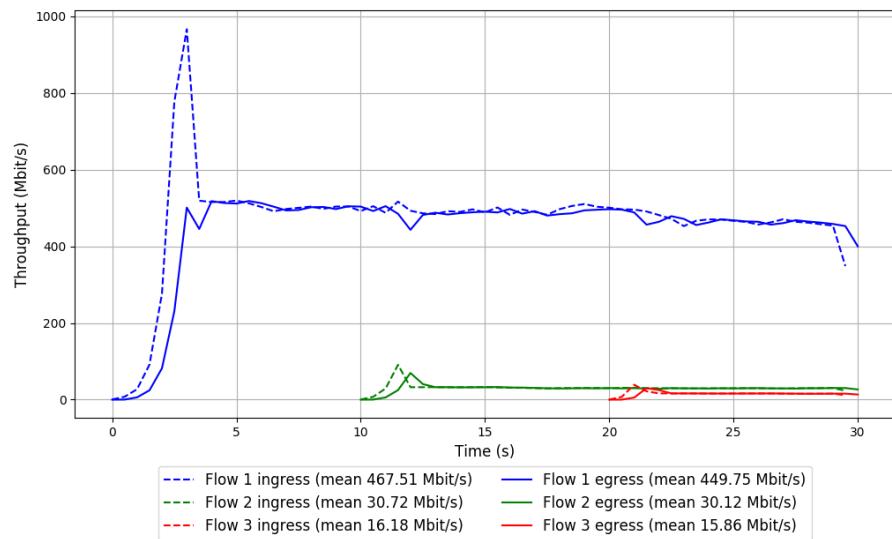


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-01-19 00:09:49
End at: 2019-01-19 00:10:19
Local clock offset: 2.174 ms
Remote clock offset: -42.043 ms

# Below is generated by plot.py at 2019-01-19 03:29:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 474.98 Mbit/s
95th percentile per-packet one-way delay: 59.368 ms
Loss rate: 3.70%
-- Flow 1:
Average throughput: 449.75 Mbit/s
95th percentile per-packet one-way delay: 59.327 ms
Loss rate: 3.80%
-- Flow 2:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 58.918 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 15.86 Mbit/s
95th percentile per-packet one-way delay: 61.657 ms
Loss rate: 1.99%
```

Run 1: Report of PCC-Allegro — Data Link

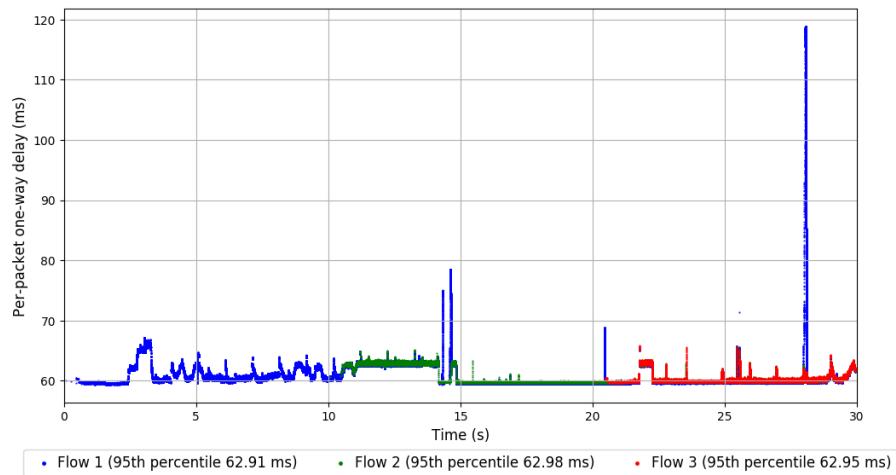
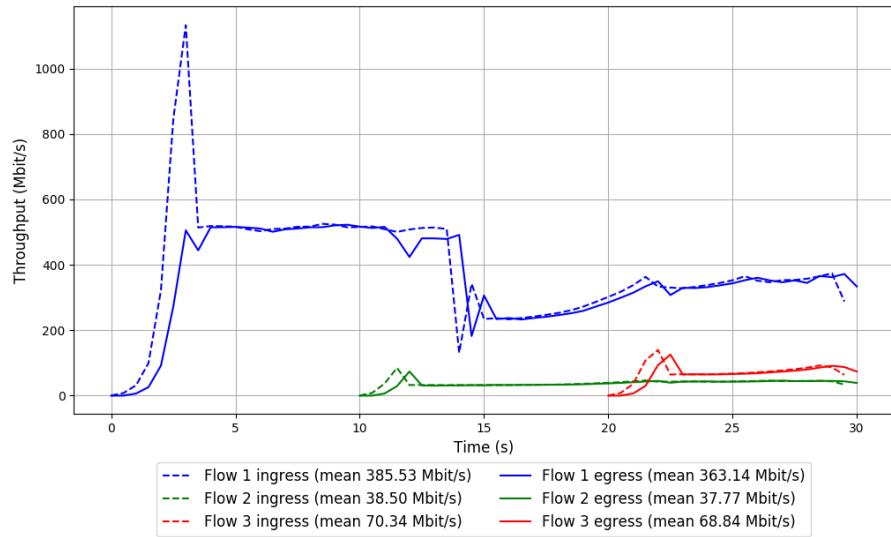


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-01-19 00:39:56
End at: 2019-01-19 00:40:26
Local clock offset: -1.22 ms
Remote clock offset: -39.539 ms

# Below is generated by plot.py at 2019-01-19 03:29:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 410.96 Mbit/s
95th percentile per-packet one-way delay: 62.925 ms
Loss rate: 5.38%
-- Flow 1:
Average throughput: 363.14 Mbit/s
95th percentile per-packet one-way delay: 62.911 ms
Loss rate: 5.80%
-- Flow 2:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 62.976 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 68.84 Mbit/s
95th percentile per-packet one-way delay: 62.954 ms
Loss rate: 2.12%
```

Run 2: Report of PCC-Allegro — Data Link

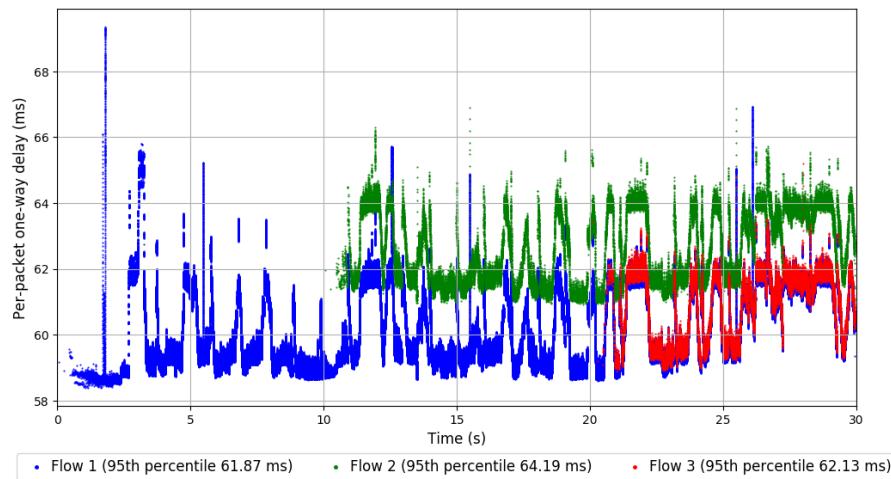
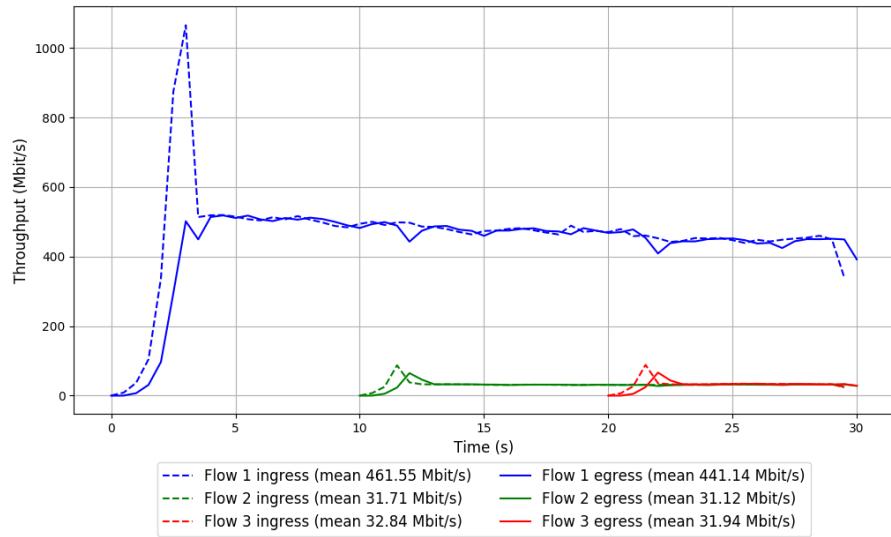


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-01-19 01:27:17
End at: 2019-01-19 01:27:47
Local clock offset: 0.504 ms
Remote clock offset: -41.337 ms

# Below is generated by plot.py at 2019-01-19 03:29:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.35 Mbit/s
95th percentile per-packet one-way delay: 62.071 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 441.14 Mbit/s
95th percentile per-packet one-way delay: 61.874 ms
Loss rate: 4.42%
-- Flow 2:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 64.193 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 31.94 Mbit/s
95th percentile per-packet one-way delay: 62.127 ms
Loss rate: 2.77%
```

Run 3: Report of PCC-Allegro — Data Link

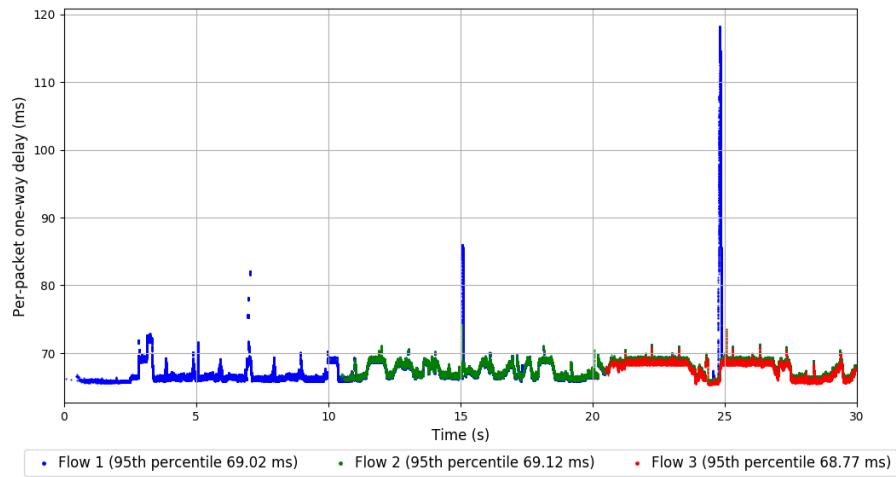
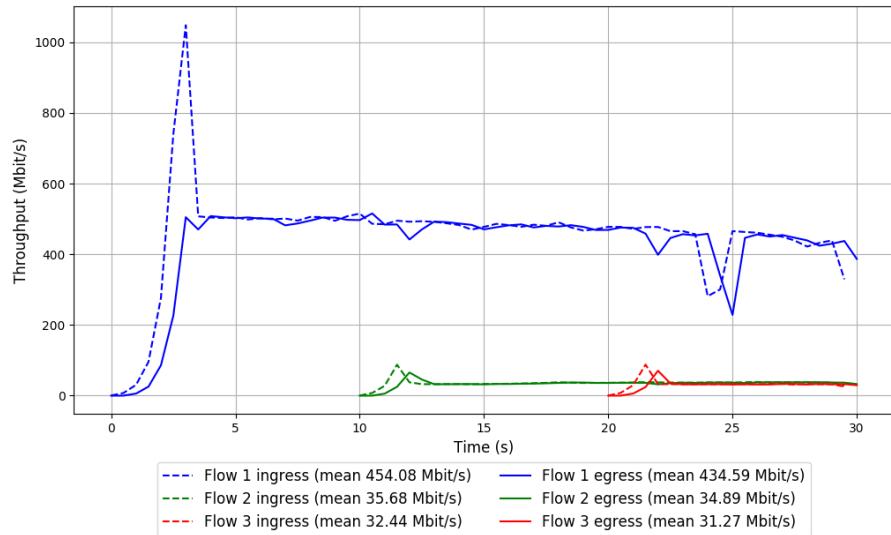


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-01-19 02:03:10
End at: 2019-01-19 02:03:40
Local clock offset: -1.938 ms
Remote clock offset: -34.332 ms

# Below is generated by plot.py at 2019-01-19 03:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.09 Mbit/s
95th percentile per-packet one-way delay: 69.030 ms
Loss rate: 4.17%
-- Flow 1:
Average throughput: 434.59 Mbit/s
95th percentile per-packet one-way delay: 69.024 ms
Loss rate: 4.29%
-- Flow 2:
Average throughput: 34.89 Mbit/s
95th percentile per-packet one-way delay: 69.120 ms
Loss rate: 2.22%
-- Flow 3:
Average throughput: 31.27 Mbit/s
95th percentile per-packet one-way delay: 68.768 ms
Loss rate: 3.61%
```

Run 4: Report of PCC-Allegro — Data Link

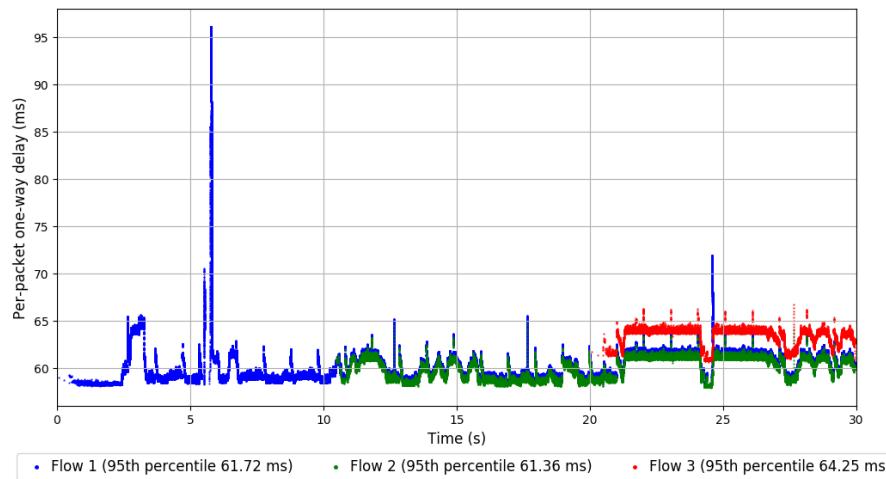
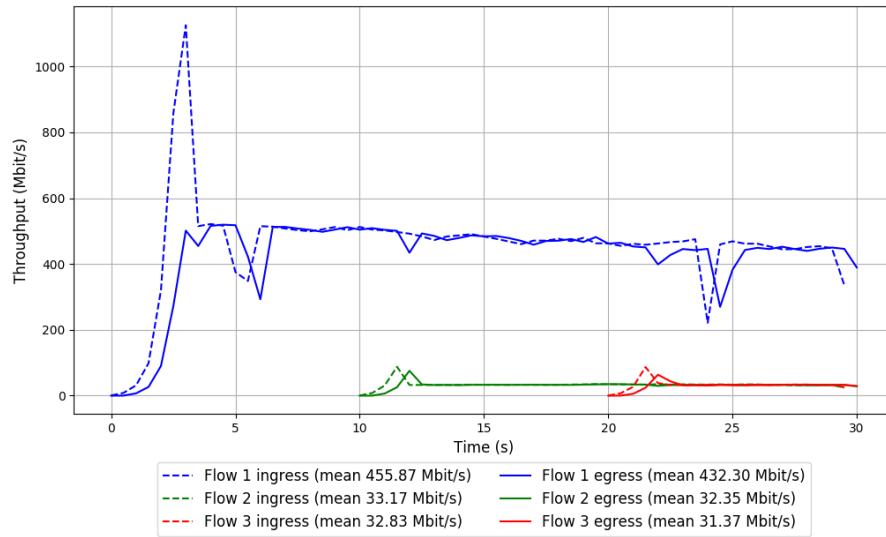


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-01-19 02:33:17
End at: 2019-01-19 02:33:47
Local clock offset: 0.721 ms
Remote clock offset: -39.892 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 464.15 Mbit/s
95th percentile per-packet one-way delay: 61.995 ms
Loss rate: 5.03%
-- Flow 1:
Average throughput: 432.30 Mbit/s
95th percentile per-packet one-way delay: 61.717 ms
Loss rate: 5.17%
-- Flow 2:
Average throughput: 32.35 Mbit/s
95th percentile per-packet one-way delay: 61.357 ms
Loss rate: 2.49%
-- Flow 3:
Average throughput: 31.37 Mbit/s
95th percentile per-packet one-way delay: 64.249 ms
Loss rate: 4.46%
```

Run 5: Report of PCC-Allegro — Data Link

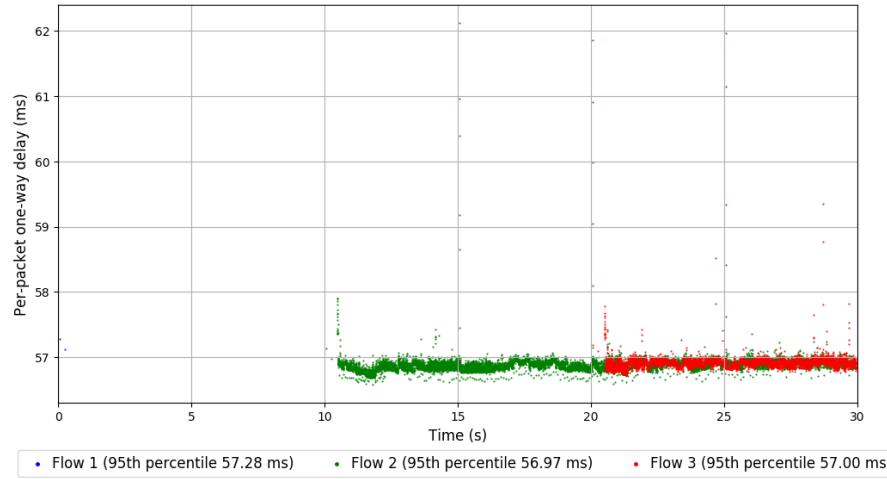
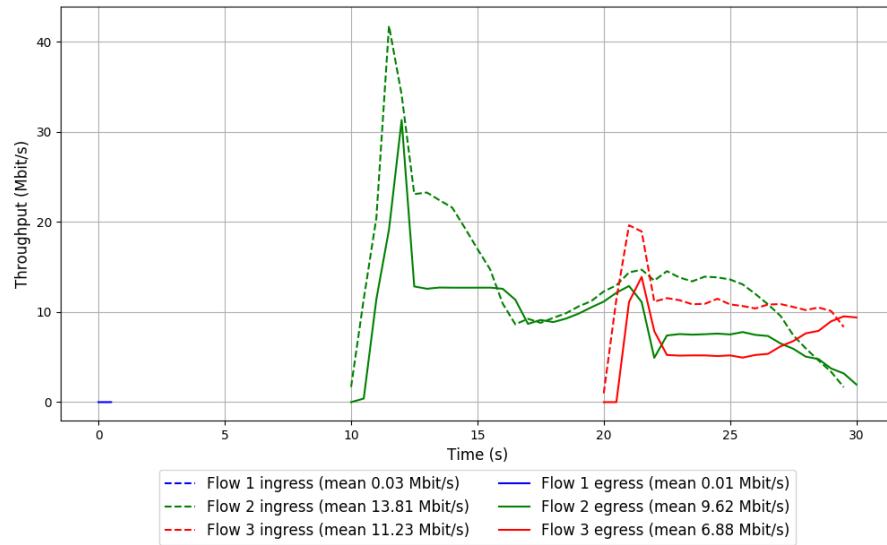


Run 1: Statistics of PCC-Expr

```
Start at: 2019-01-19 00:07:15
End at: 2019-01-19 00:07:45
Local clock offset: 0.904 ms
Remote clock offset: -42.684 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 56.979 ms
Loss rate: 32.73%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 57.281 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.62 Mbit/s
95th percentile per-packet one-way delay: 56.966 ms
Loss rate: 30.33%
-- Flow 3:
Average throughput: 6.88 Mbit/s
95th percentile per-packet one-way delay: 56.996 ms
Loss rate: 38.67%
```

Run 1: Report of PCC-Expr — Data Link

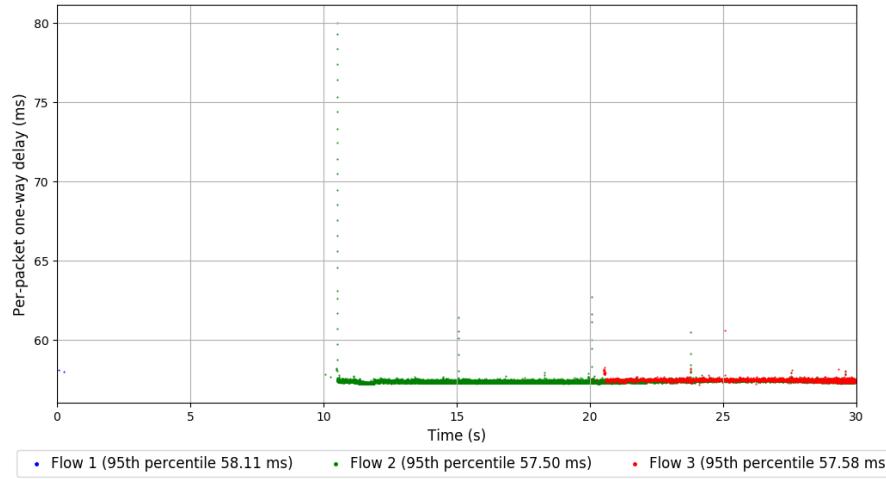
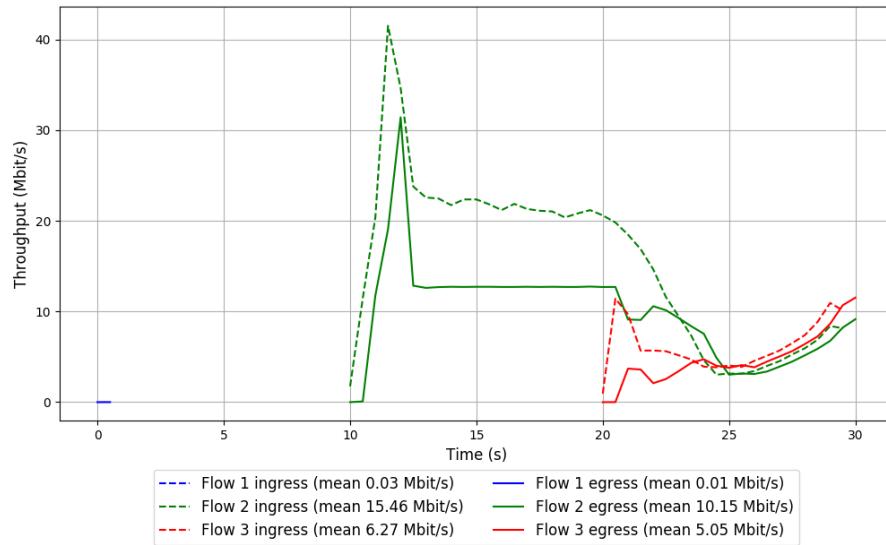


Run 2: Statistics of PCC-Expr

```
Start at: 2019-01-19 00:37:22
End at: 2019-01-19 00:37:52
Local clock offset: -0.727 ms
Remote clock offset: -41.501 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 57.534 ms
Loss rate: 31.85%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 58.107 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 57.502 ms
Loss rate: 34.36%
-- Flow 3:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 57.575 ms
Loss rate: 19.36%
```

Run 2: Report of PCC-Expr — Data Link

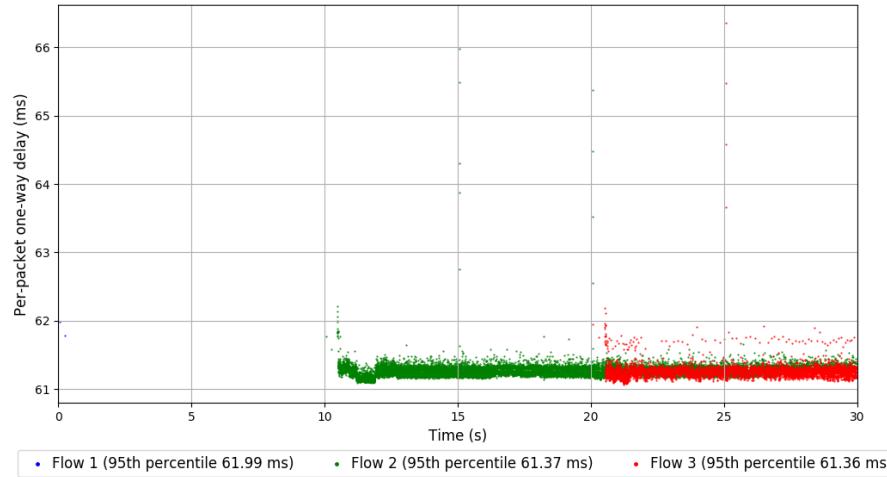
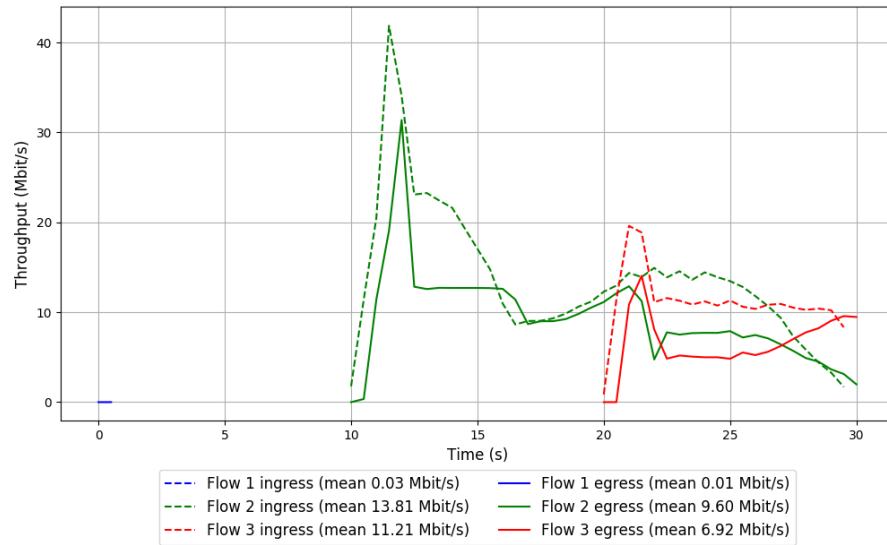


Run 3: Statistics of PCC-Expr

```
Start at: 2019-01-19 01:24:42
End at: 2019-01-19 01:25:12
Local clock offset: 0.232 ms
Remote clock offset: -39.116 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 61.369 ms
Loss rate: 32.72%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 61.988 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.60 Mbit/s
95th percentile per-packet one-way delay: 61.371 ms
Loss rate: 30.47%
-- Flow 3:
Average throughput: 6.92 Mbit/s
95th percentile per-packet one-way delay: 61.357 ms
Loss rate: 38.28%
```

Run 3: Report of PCC-Expr — Data Link

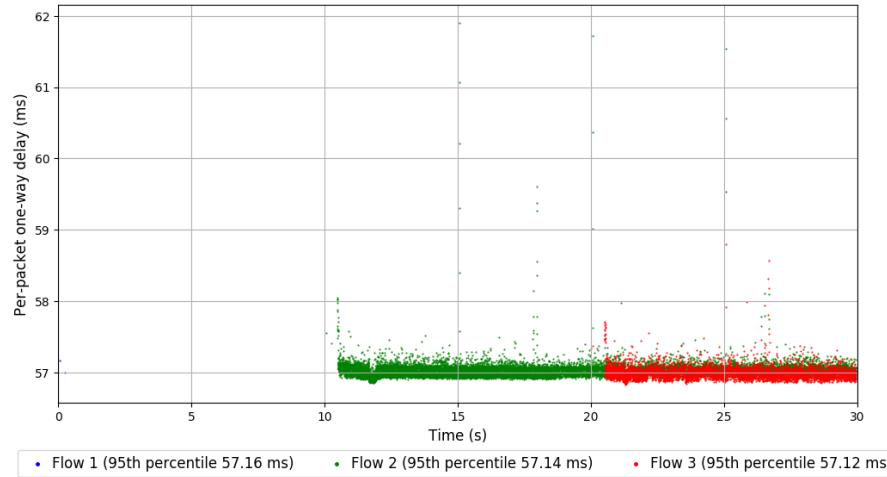
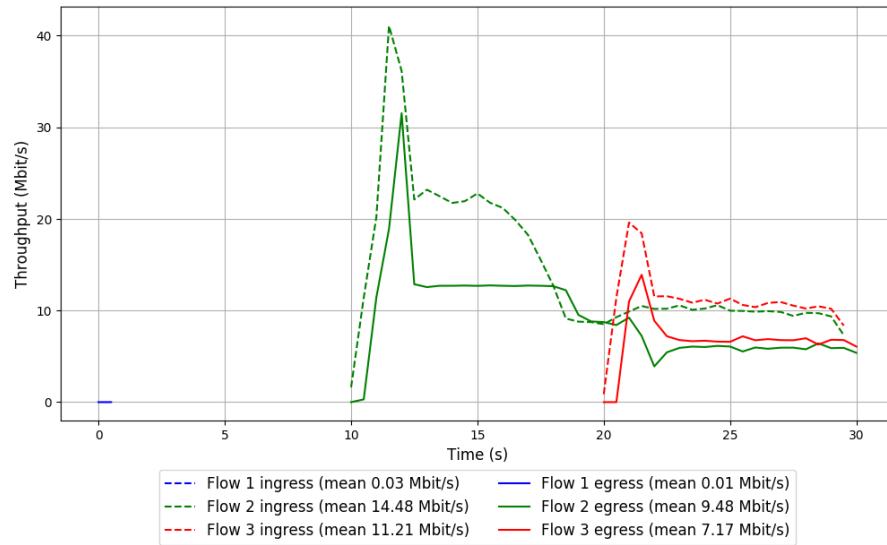


Run 4: Statistics of PCC-Expr

```
Start at: 2019-01-19 02:00:36
End at: 2019-01-19 02:01:06
Local clock offset: -1.927 ms
Remote clock offset: -43.511 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 57.134 ms
Loss rate: 34.96%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 57.164 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 57.137 ms
Loss rate: 34.54%
-- Flow 3:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 57.118 ms
Loss rate: 36.03%
```

Run 4: Report of PCC-Expr — Data Link

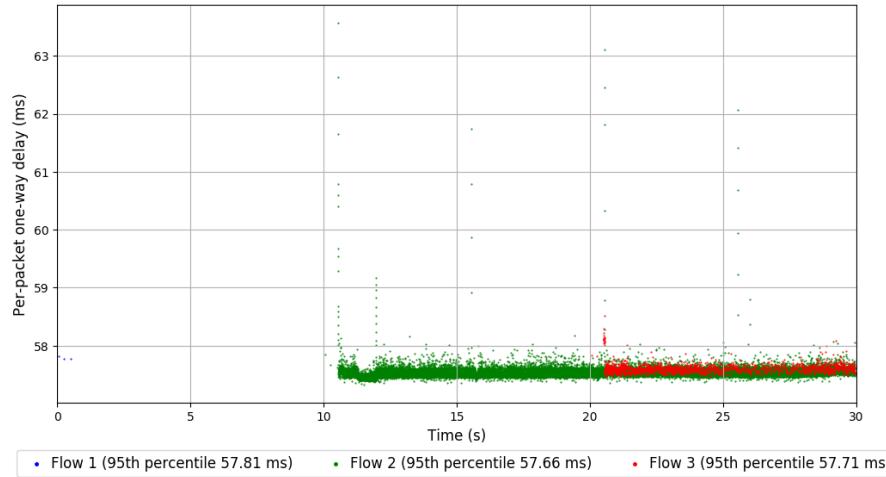
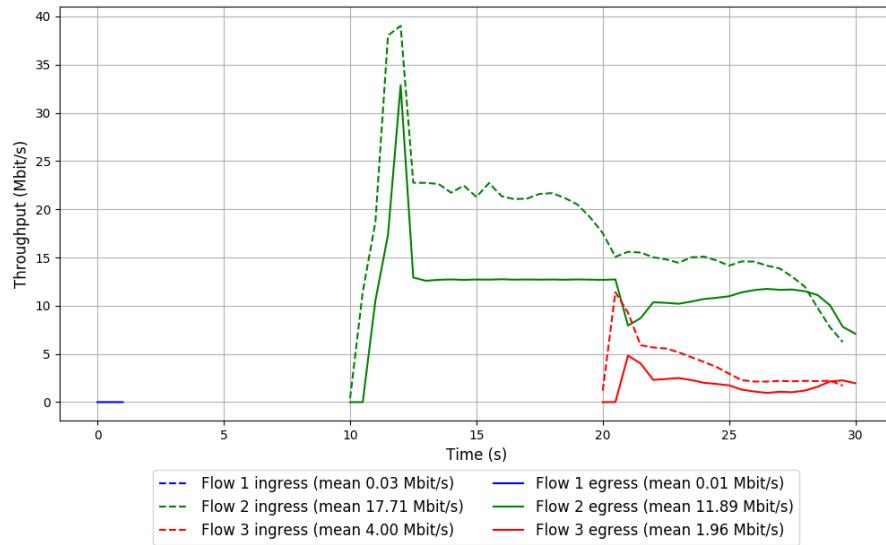


Run 5: Statistics of PCC-Expr

```
Start at: 2019-01-19 02:30:44
End at: 2019-01-19 02:31:14
Local clock offset: 0.56 ms
Remote clock offset: -40.932 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.56 Mbit/s
95th percentile per-packet one-way delay: 57.669 ms
Loss rate: 34.69%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 57.813 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 57.660 ms
Loss rate: 32.85%
-- Flow 3:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 57.713 ms
Loss rate: 51.05%
```

Run 5: Report of PCC-Expr — Data Link

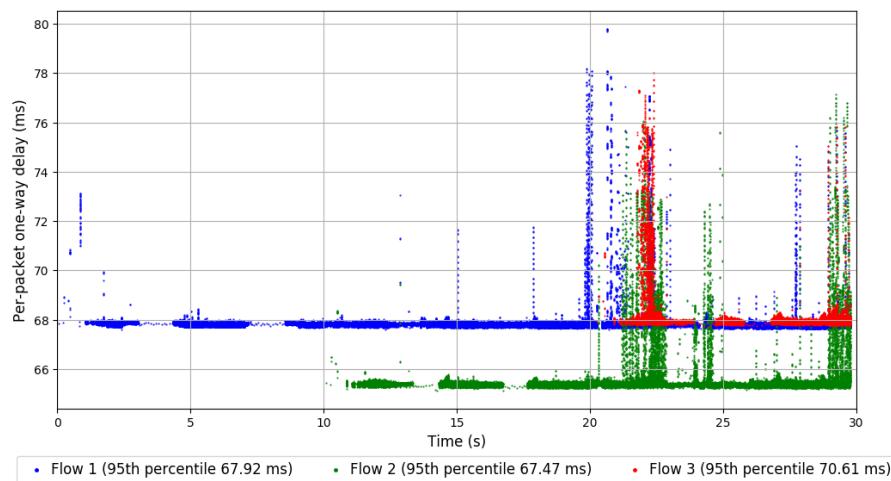
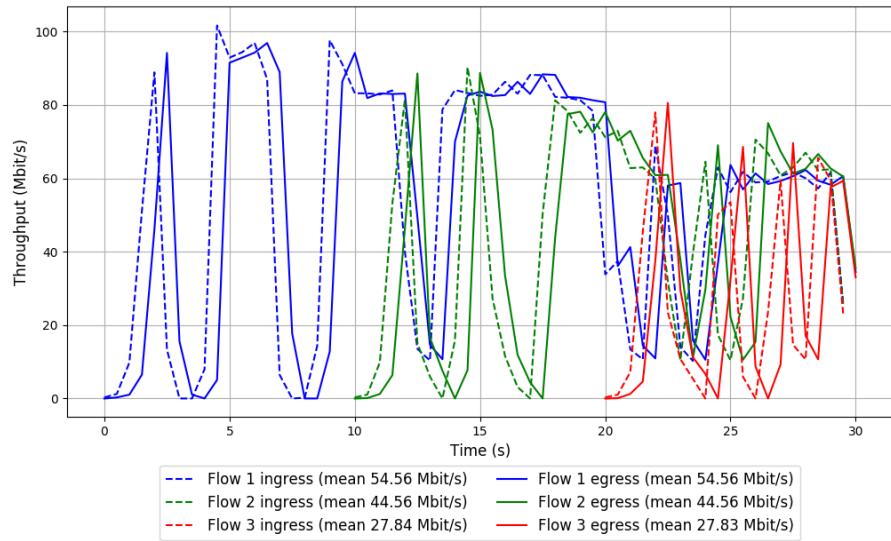


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-01-19 00:18:07
End at: 2019-01-19 00:18:37
Local clock offset: 1.214 ms
Remote clock offset: -33.291 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.13 Mbit/s
95th percentile per-packet one-way delay: 68.043 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.56 Mbit/s
95th percentile per-packet one-way delay: 67.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.56 Mbit/s
95th percentile per-packet one-way delay: 67.467 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.83 Mbit/s
95th percentile per-packet one-way delay: 70.609 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

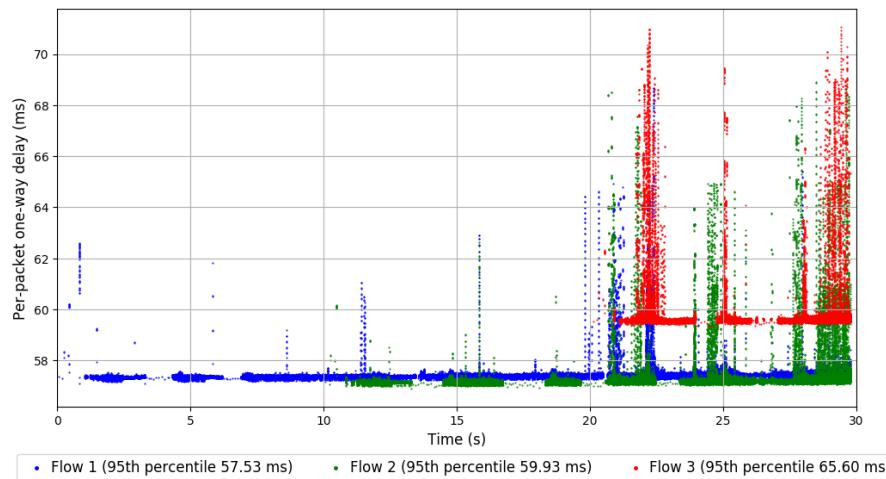
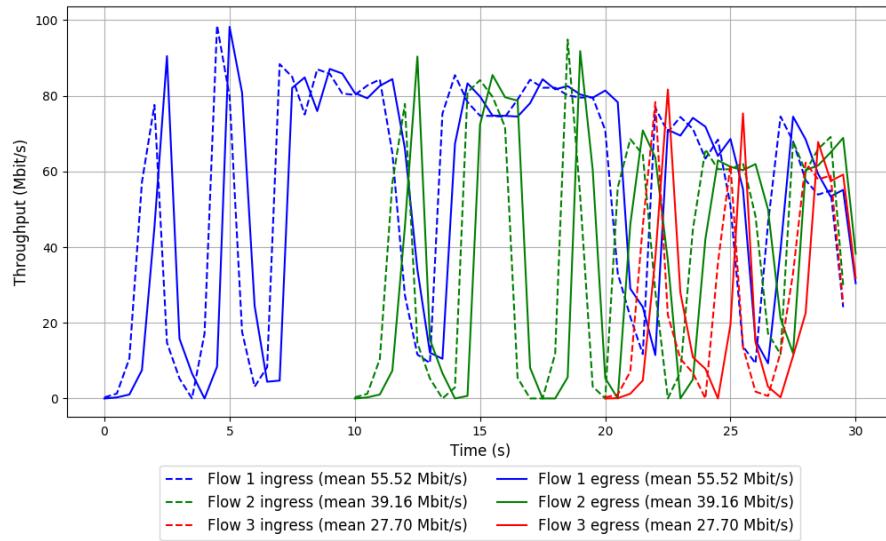


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-01-19 00:48:14
End at: 2019-01-19 00:48:44
Local clock offset: 0.511 ms
Remote clock offset: -40.861 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.48 Mbit/s
95th percentile per-packet one-way delay: 59.773 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.52 Mbit/s
95th percentile per-packet one-way delay: 57.533 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.16 Mbit/s
95th percentile per-packet one-way delay: 59.934 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.70 Mbit/s
95th percentile per-packet one-way delay: 65.603 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

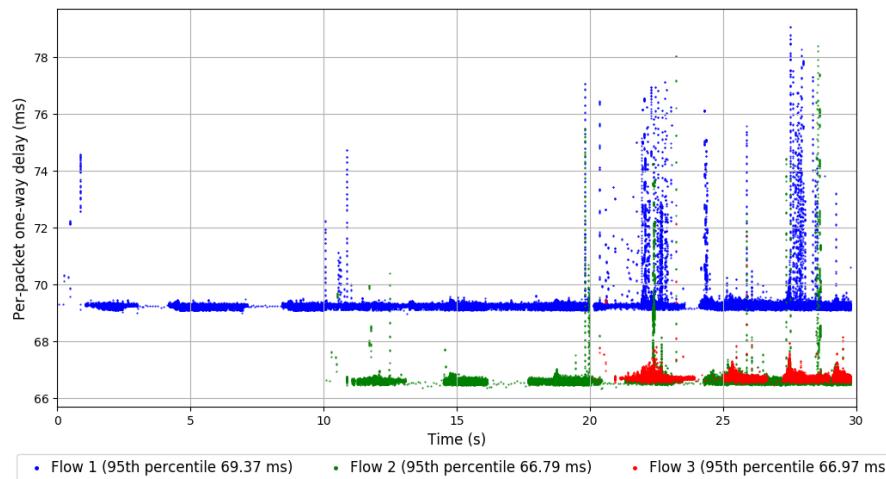
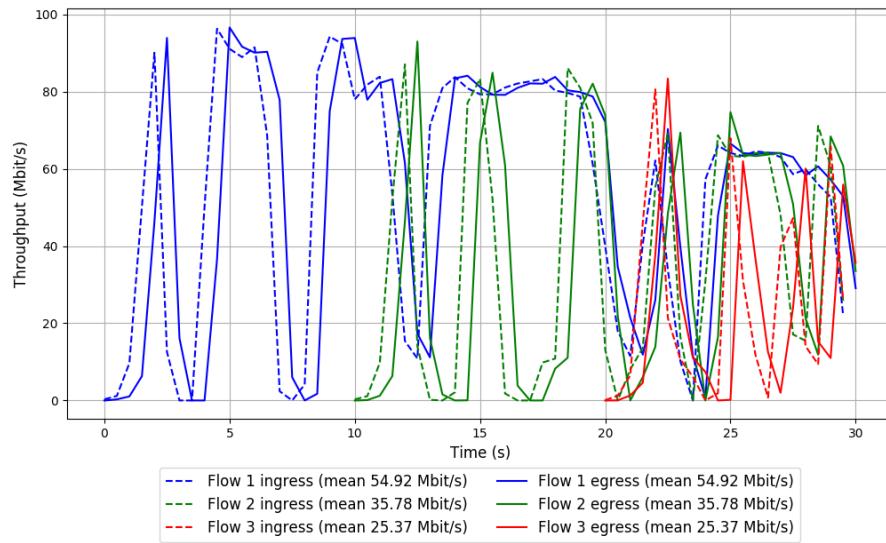


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-01-19 01:35:36
End at: 2019-01-19 01:36:06
Local clock offset: 1.596 ms
Remote clock offset: -32.417 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.84 Mbit/s
95th percentile per-packet one-way delay: 69.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.92 Mbit/s
95th percentile per-packet one-way delay: 69.373 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.78 Mbit/s
95th percentile per-packet one-way delay: 66.789 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.37 Mbit/s
95th percentile per-packet one-way delay: 66.972 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

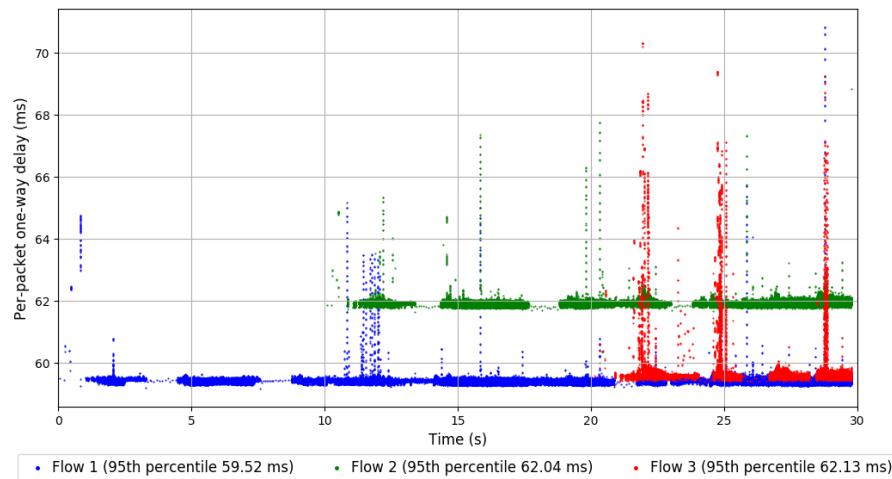
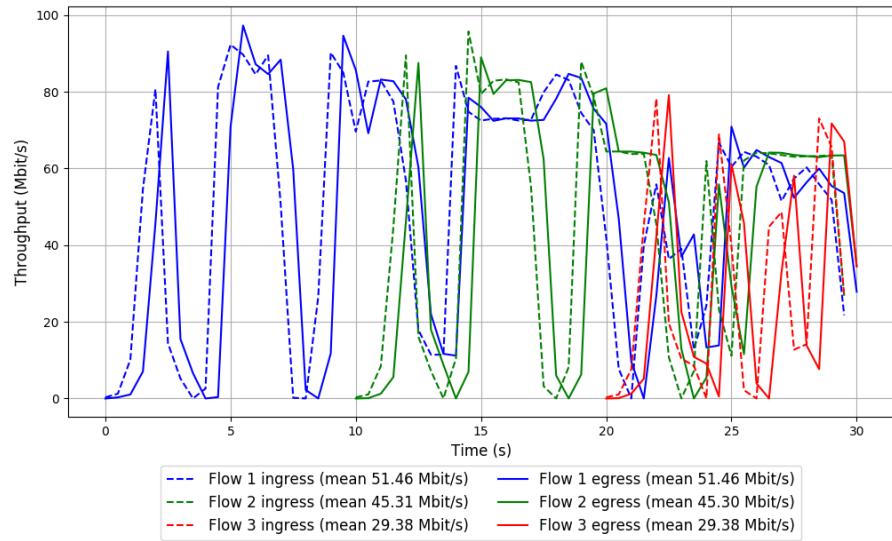


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-01-19 02:11:28
End at: 2019-01-19 02:11:58
Local clock offset: -1.57 ms
Remote clock offset: -39.927 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.00 Mbit/s
95th percentile per-packet one-way delay: 61.995 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.46 Mbit/s
95th percentile per-packet one-way delay: 59.519 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.30 Mbit/s
95th percentile per-packet one-way delay: 62.044 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.38 Mbit/s
95th percentile per-packet one-way delay: 62.131 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

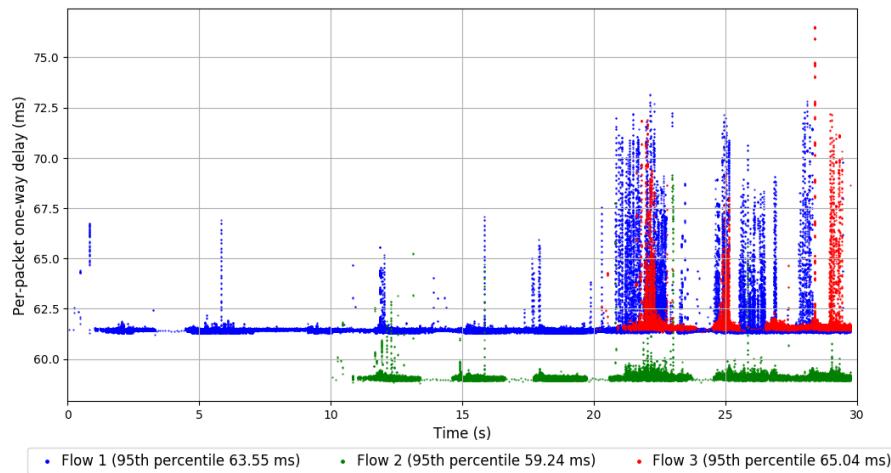
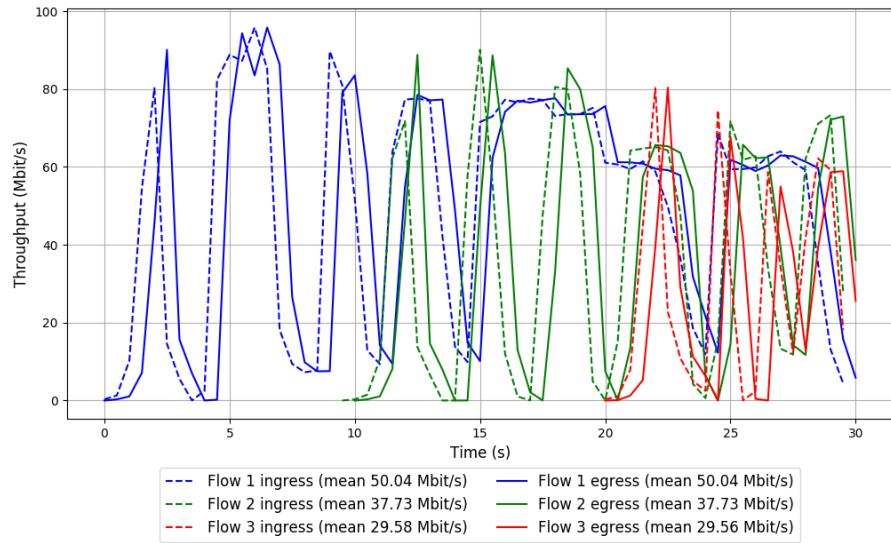


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-01-19 02:41:36
End at: 2019-01-19 02:42:06
Local clock offset: 0.329 ms
Remote clock offset: -39.877 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.67 Mbit/s
95th percentile per-packet one-way delay: 62.879 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.04 Mbit/s
95th percentile per-packet one-way delay: 63.546 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.73 Mbit/s
95th percentile per-packet one-way delay: 59.239 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.56 Mbit/s
95th percentile per-packet one-way delay: 65.042 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

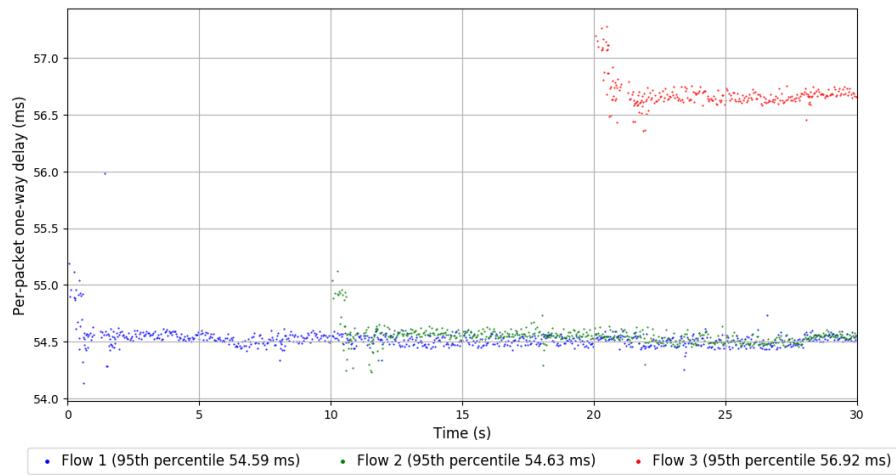
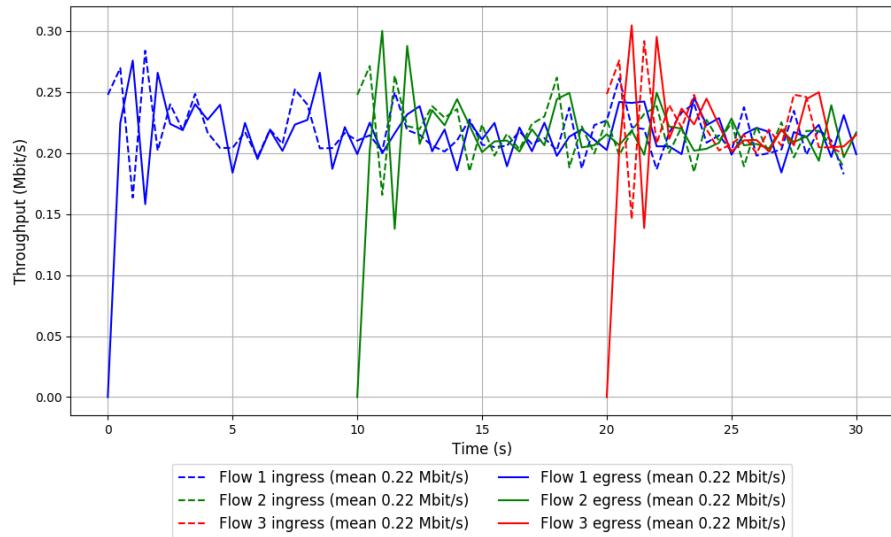


```
Run 1: Statistics of SCReAM

Start at: 2019-01-19 00:11:24
End at: 2019-01-19 00:11:54
Local clock offset: 1.2 ms
Remote clock offset: -45.028 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 56.695 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.593 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.631 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.920 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

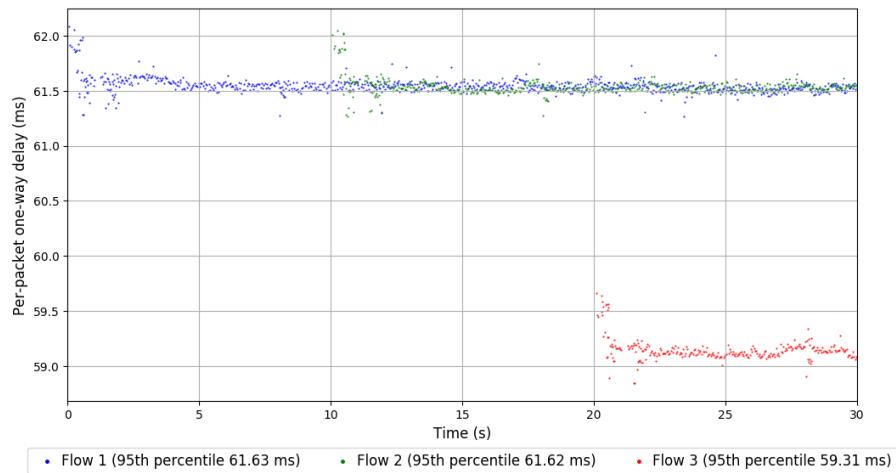
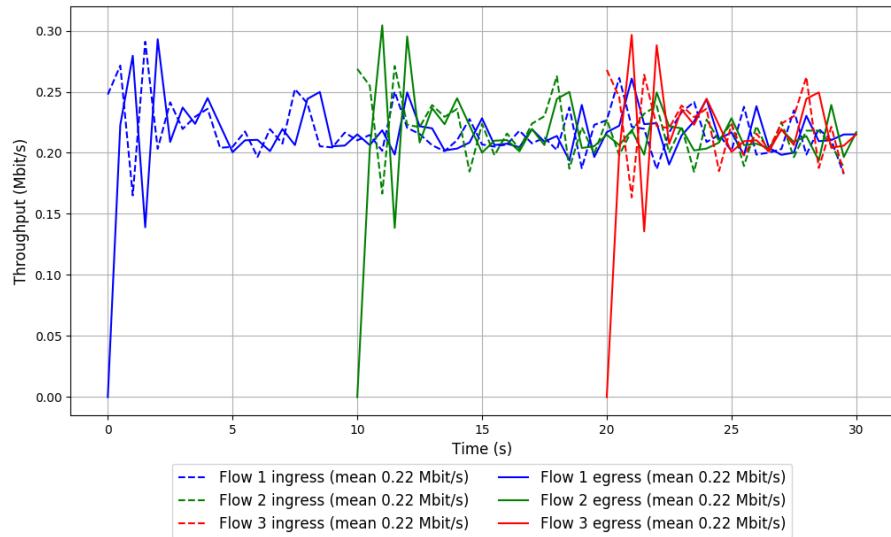


Run 2: Statistics of SCReAM

```
Start at: 2019-01-19 00:41:29
End at: 2019-01-19 00:41:59
Local clock offset: 0.947 ms
Remote clock offset: -37.986 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 61.623 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.632 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.624 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.310 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

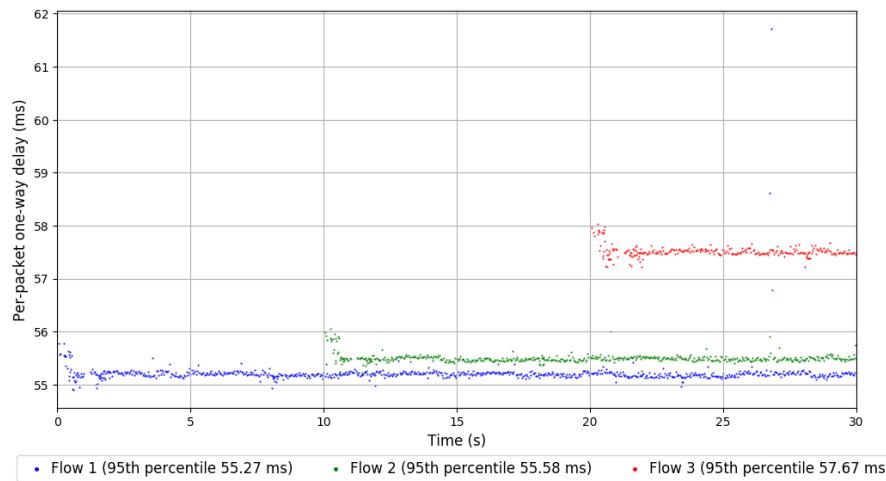
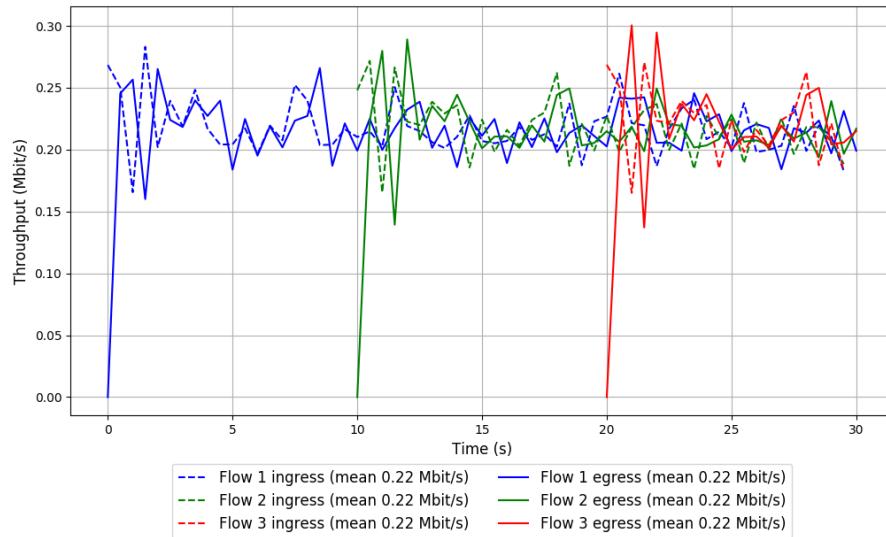


Run 3: Statistics of SCReAM

```
Start at: 2019-01-19 01:28:52
End at: 2019-01-19 01:29:22
Local clock offset: 0.648 ms
Remote clock offset: -45.112 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 57.537 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 55.274 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 55.583 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.670 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

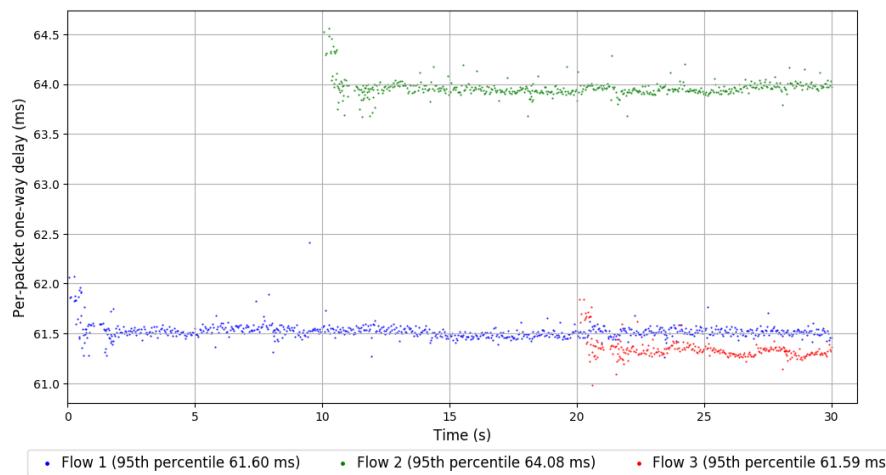
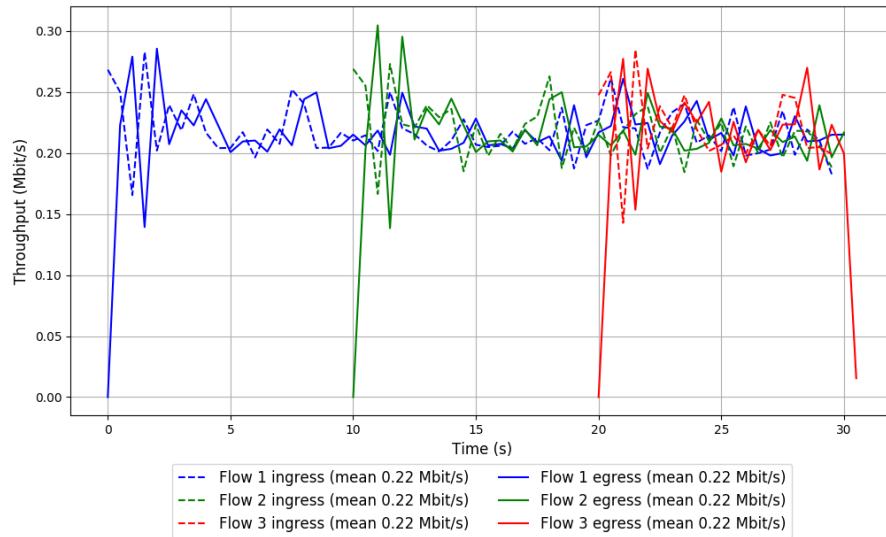


Run 4: Statistics of SCReAM

```
Start at: 2019-01-19 02:04:45
End at: 2019-01-19 02:05:15
Local clock offset: -1.749 ms
Remote clock offset: -38.697 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 64.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.599 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.084 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.594 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

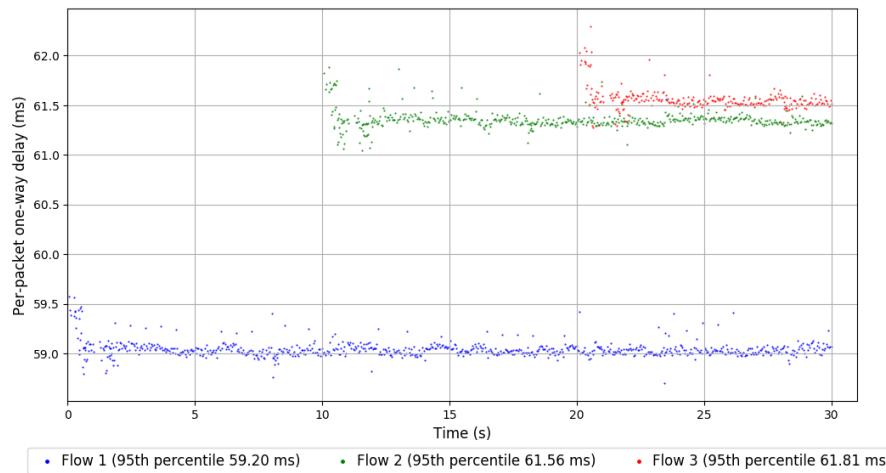
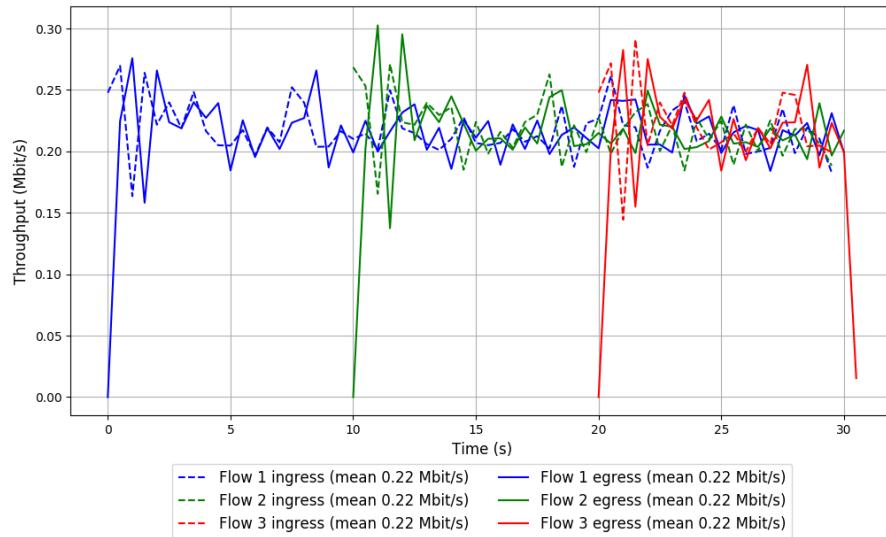


Run 5: Statistics of SCReAM

```
Start at: 2019-01-19 02:34:52
End at: 2019-01-19 02:35:22
Local clock offset: 0.629 ms
Remote clock offset: -39.568 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 61.591 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.197 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.557 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.806 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

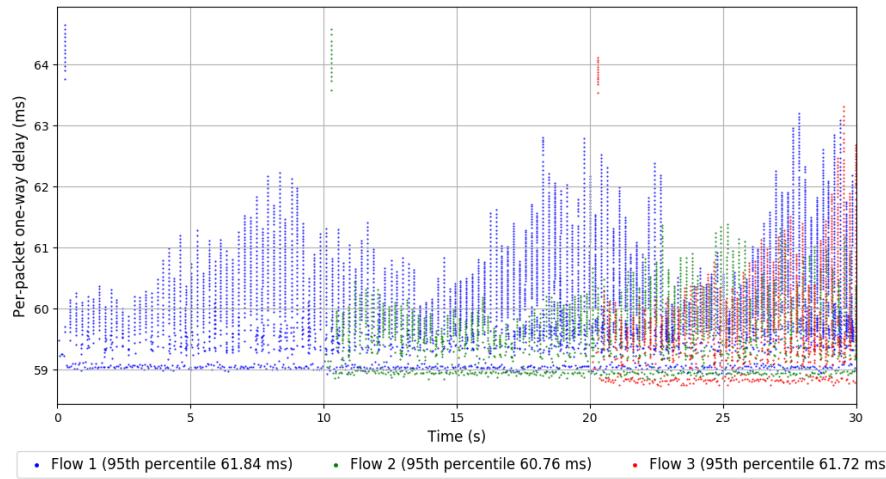
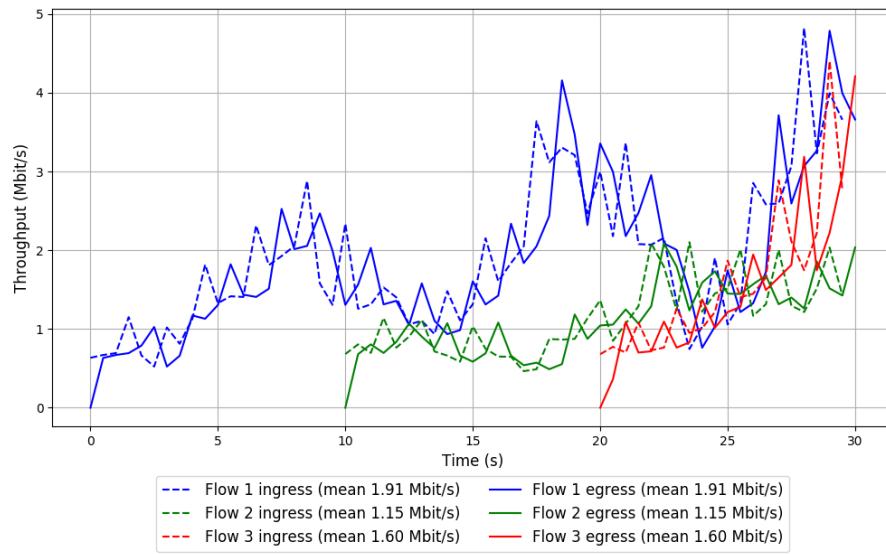


Run 1: Statistics of Sprout

```
Start at: 2019-01-19 00:12:41
End at: 2019-01-19 00:13:11
Local clock offset: 1.39 ms
Remote clock offset: -39.992 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 61.687 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 61.841 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 60.764 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 61.718 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

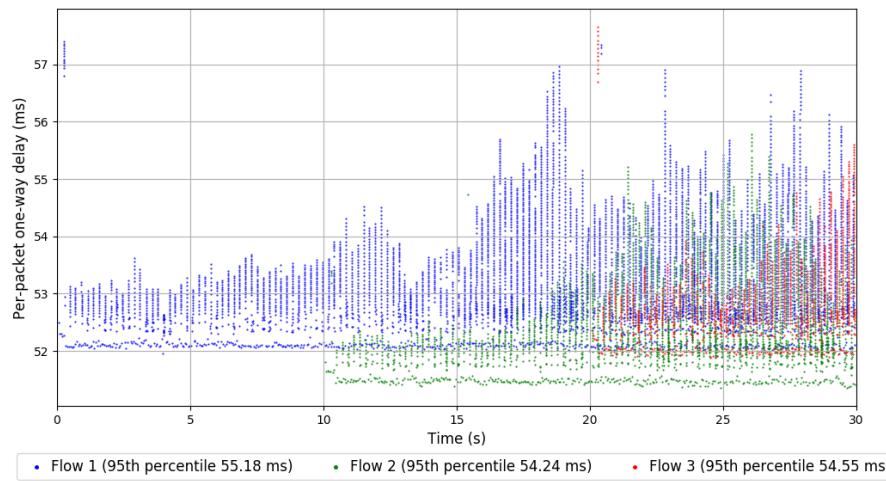
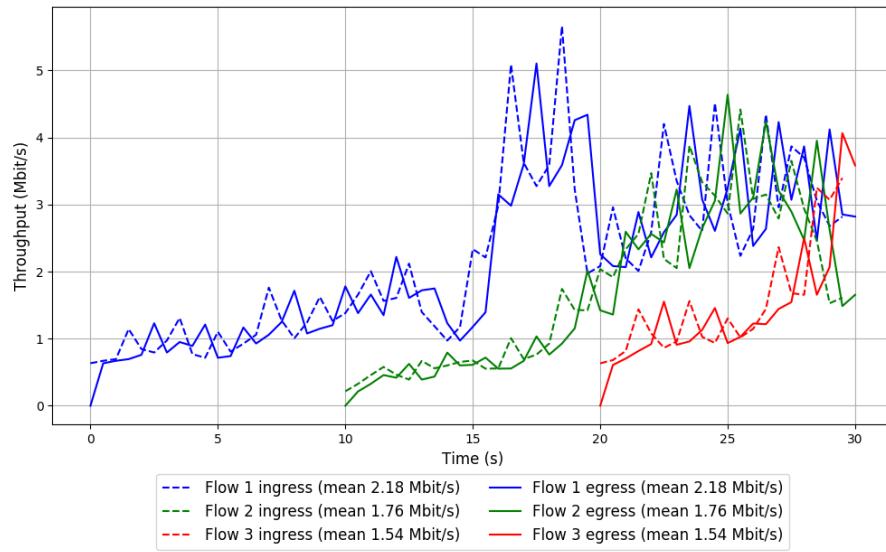


Run 2: Statistics of Sprout

```
Start at: 2019-01-19 00:42:46
End at: 2019-01-19 00:43:16
Local clock offset: 1.116 ms
Remote clock offset: -44.767 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 54.911 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 55.179 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 54.240 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 54.552 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

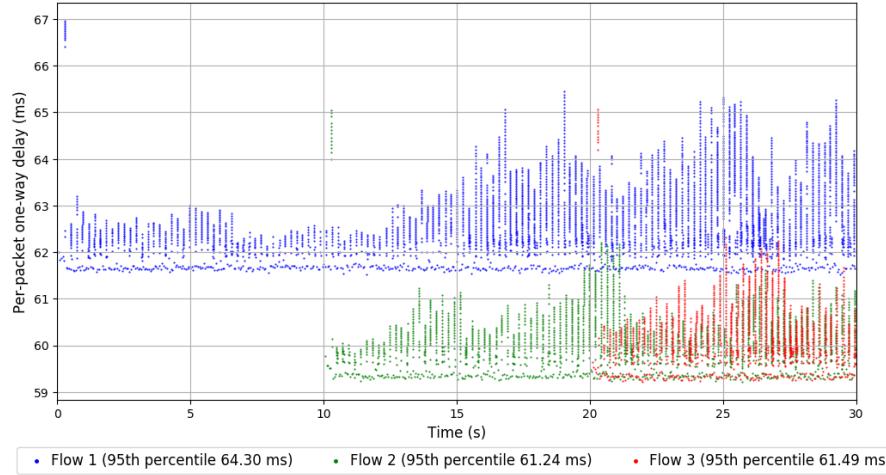
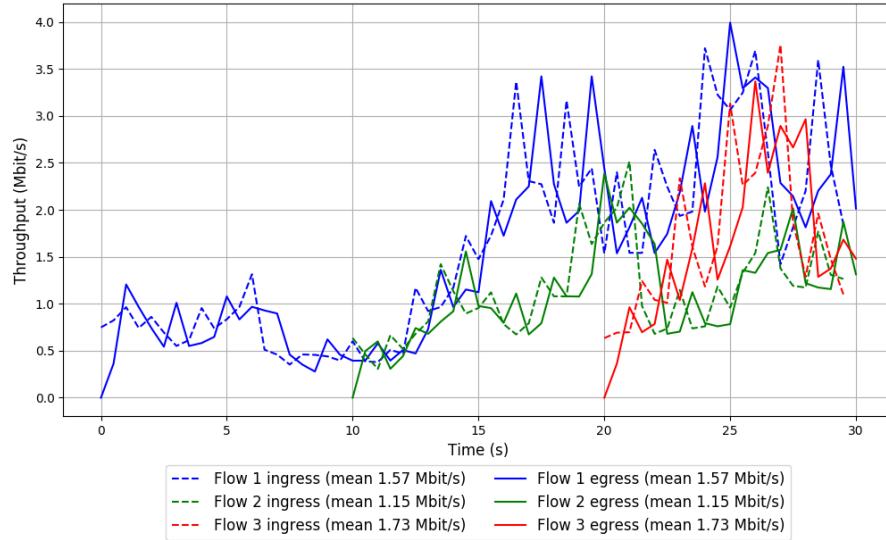


Run 3: Statistics of Sprout

```
Start at: 2019-01-19 01:30:08
End at: 2019-01-19 01:30:38
Local clock offset: 1.112 ms
Remote clock offset: -40.0 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 63.998 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 64.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 61.239 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 61.490 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

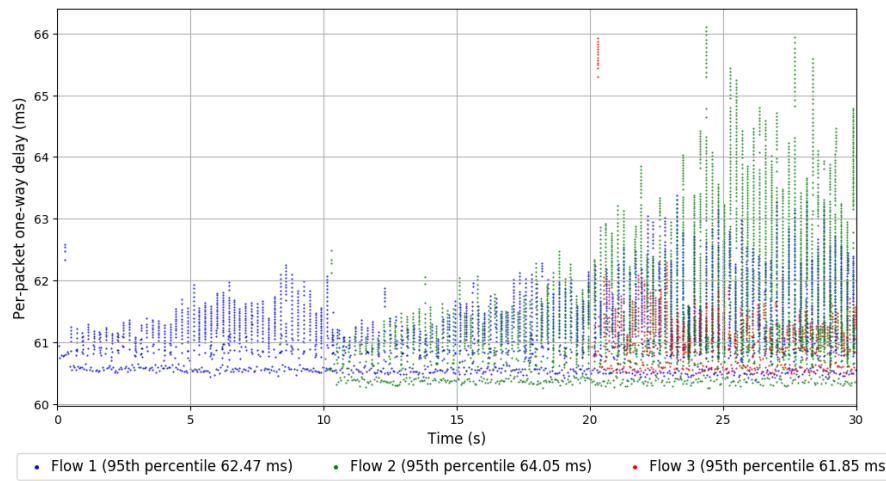
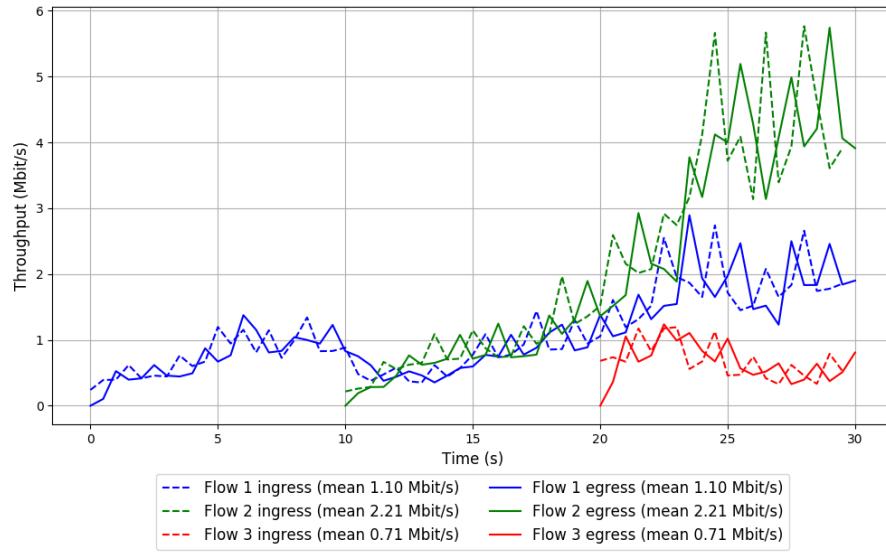


Run 4: Statistics of Sprout

```
Start at: 2019-01-19 02:06:01
End at: 2019-01-19 02:06:31
Local clock offset: -2.208 ms
Remote clock offset: -39.823 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 62.472 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 64.050 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 61.855 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

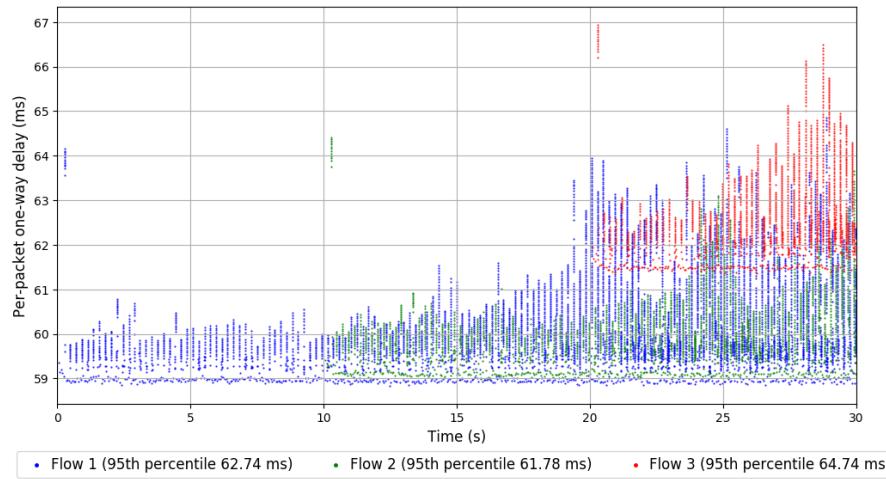
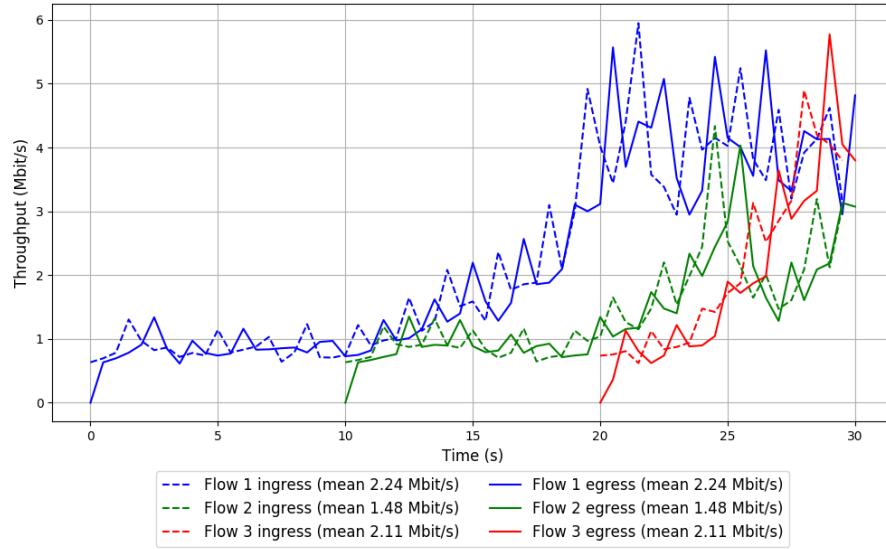


Run 5: Statistics of Sprout

```
Start at: 2019-01-19 02:36:08
End at: 2019-01-19 02:36:38
Local clock offset: -0.656 ms
Remote clock offset: -40.757 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 63.432 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 62.744 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 61.777 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 64.737 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

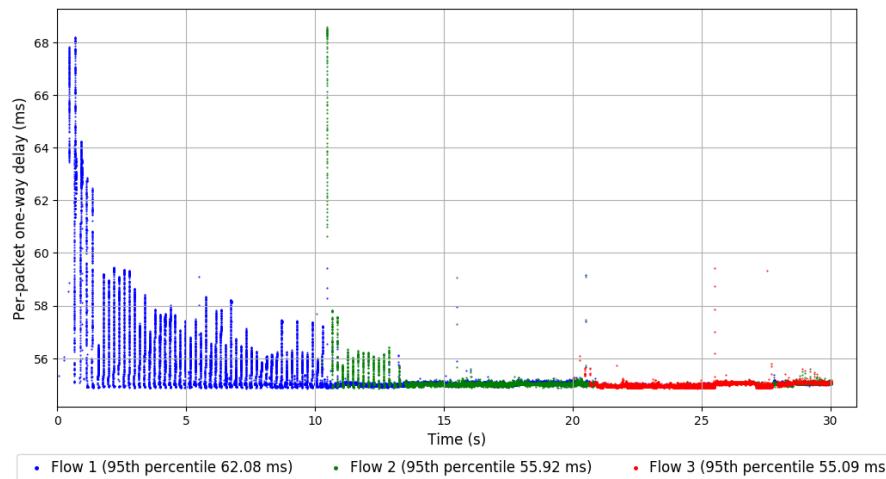
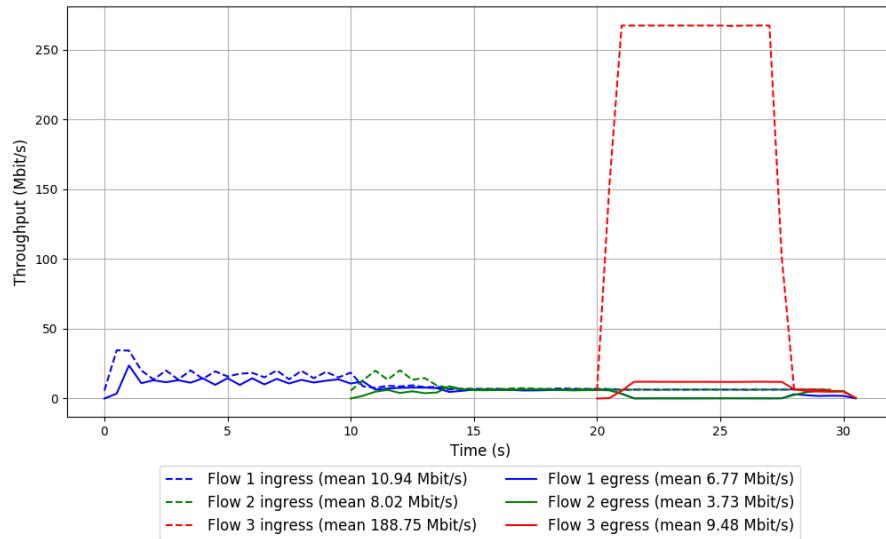


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-01-19 00:13:58
End at: 2019-01-19 00:14:28
Local clock offset: -0.149 ms
Remote clock offset: -45.531 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 58.637 ms
Loss rate: 84.30%
-- Flow 1:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 62.075 ms
Loss rate: 38.09%
-- Flow 2:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 55.925 ms
Loss rate: 53.57%
-- Flow 3:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 55.088 ms
Loss rate: 94.98%
```

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

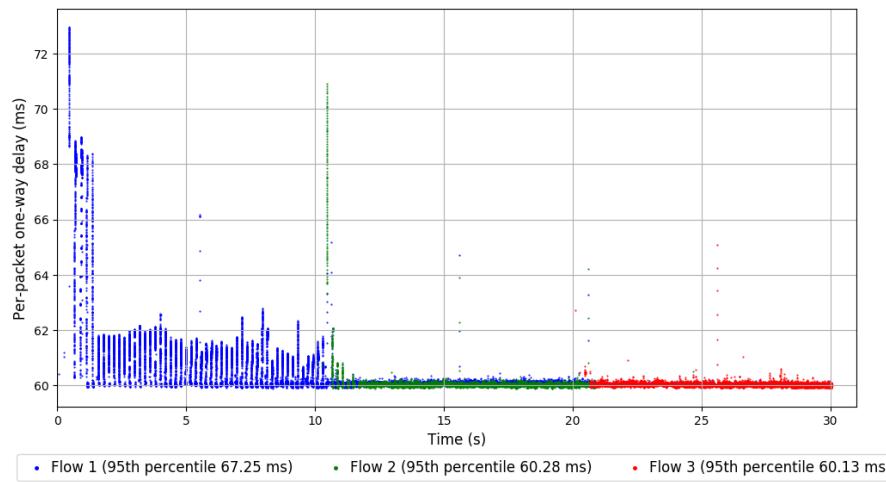
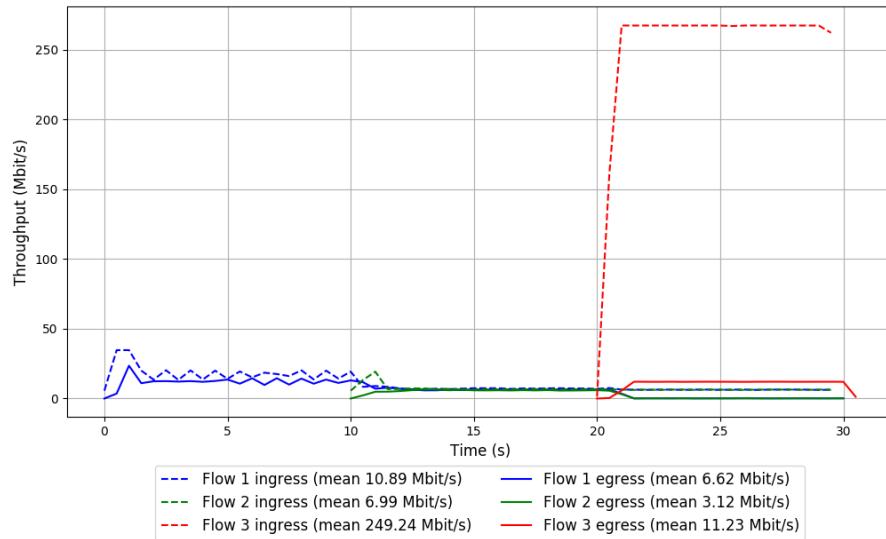


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-01-19 00:44:04
End at: 2019-01-19 00:44:34
Local clock offset: -0.828 ms
Remote clock offset: -38.718 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 62.111 ms
Loss rate: 87.40%
-- Flow 1:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 67.250 ms
Loss rate: 39.42%
-- Flow 2:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 60.283 ms
Loss rate: 55.53%
-- Flow 3:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 60.134 ms
Loss rate: 95.50%
```

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

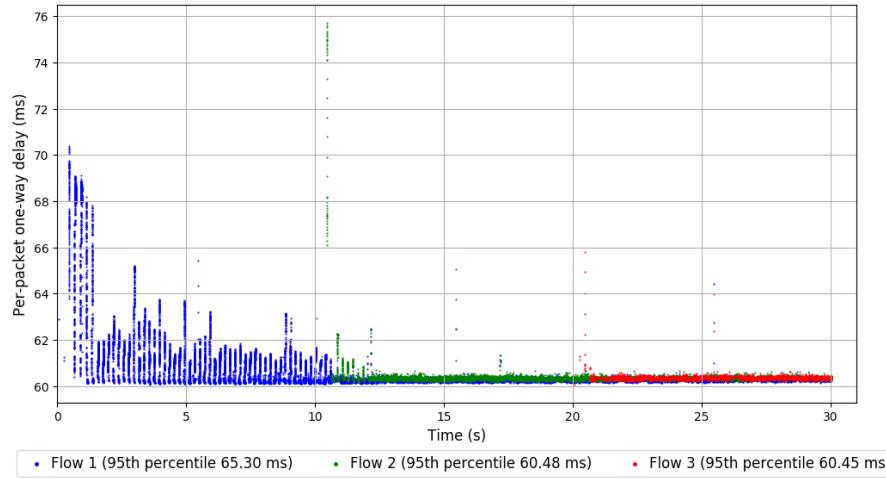
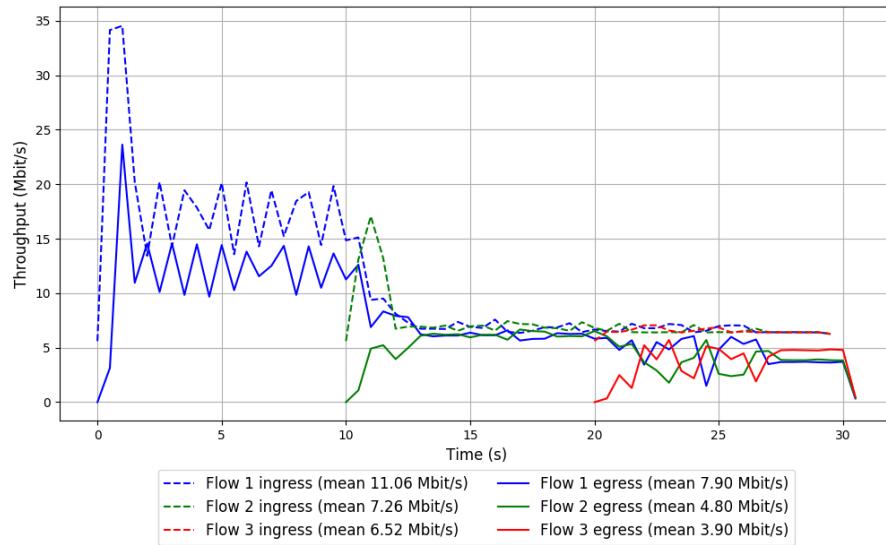


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-01-19 01:31:25
End at: 2019-01-19 01:31:55
Local clock offset: 1.358 ms
Remote clock offset: -39.066 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 63.012 ms
Loss rate: 31.40%
-- Flow 1:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 65.300 ms
Loss rate: 28.58%
-- Flow 2:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 60.480 ms
Loss rate: 33.88%
-- Flow 3:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 60.445 ms
Loss rate: 40.25%
```

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

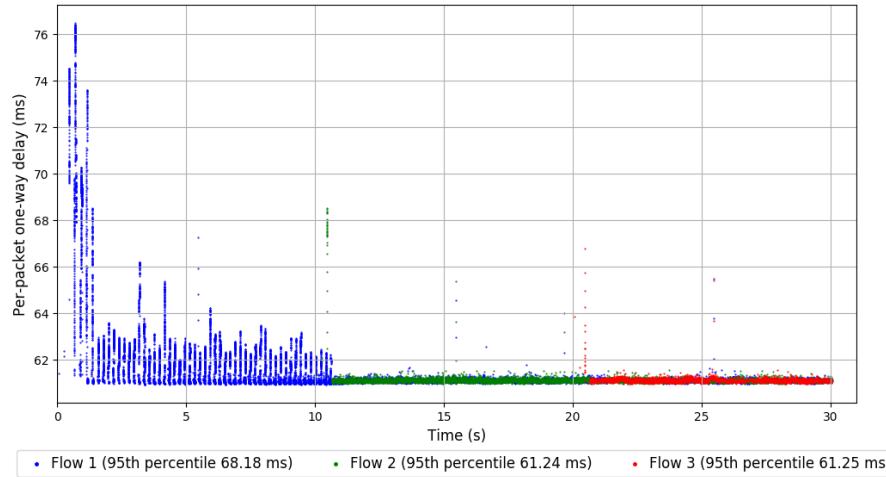
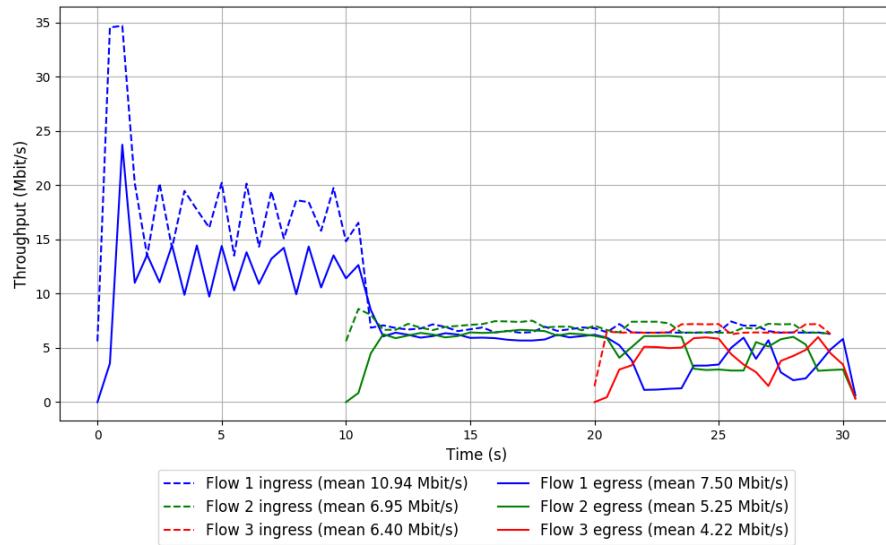


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-01-19 02:07:18
End at: 2019-01-19 02:07:48
Local clock offset: -2.02 ms
Remote clock offset: -39.066 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 63.939 ms
Loss rate: 29.91%
-- Flow 1:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 68.177 ms
Loss rate: 31.40%
-- Flow 2:
Average throughput: 5.25 Mbit/s
95th percentile per-packet one-way delay: 61.237 ms
Loss rate: 24.41%
-- Flow 3:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 61.246 ms
Loss rate: 34.17%
```

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

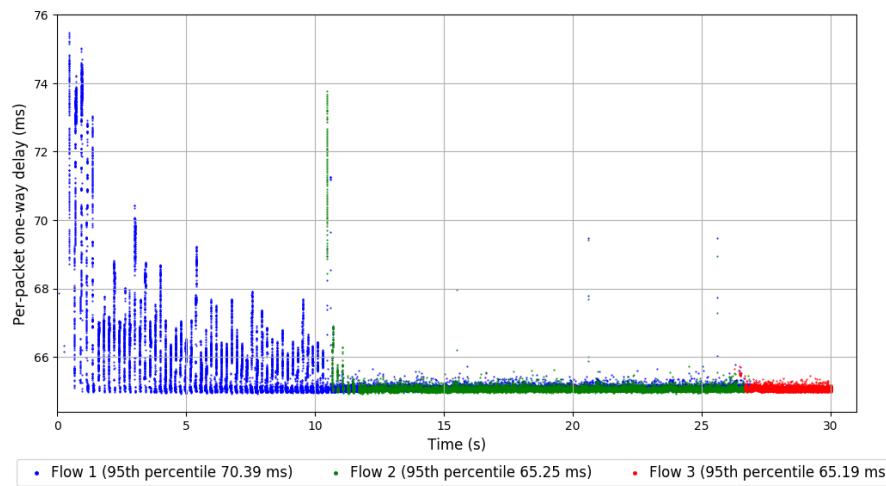
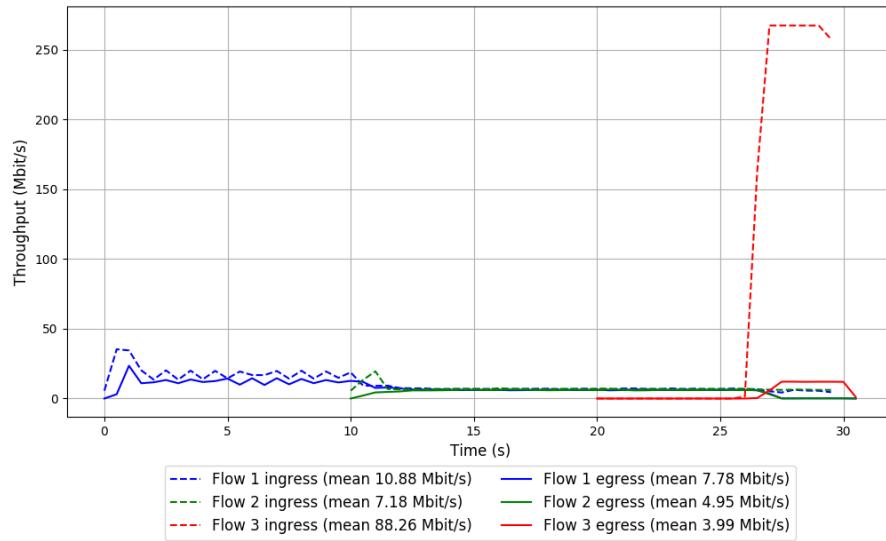


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-01-19 02:37:26
End at: 2019-01-19 02:37:56
Local clock offset: -0.662 ms
Remote clock offset: -34.898 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.39 Mbit/s
95th percentile per-packet one-way delay: 68.408 ms
Loss rate: 72.46%
-- Flow 1:
Average throughput: 7.78 Mbit/s
95th percentile per-packet one-way delay: 70.387 ms
Loss rate: 28.58%
-- Flow 2:
Average throughput: 4.95 Mbit/s
95th percentile per-packet one-way delay: 65.245 ms
Loss rate: 31.21%
-- Flow 3:
Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 65.191 ms
Loss rate: 95.48%
```

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

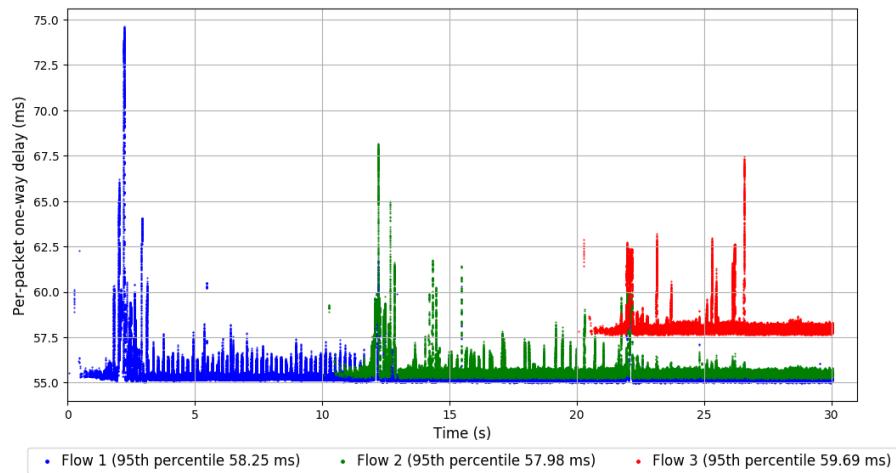
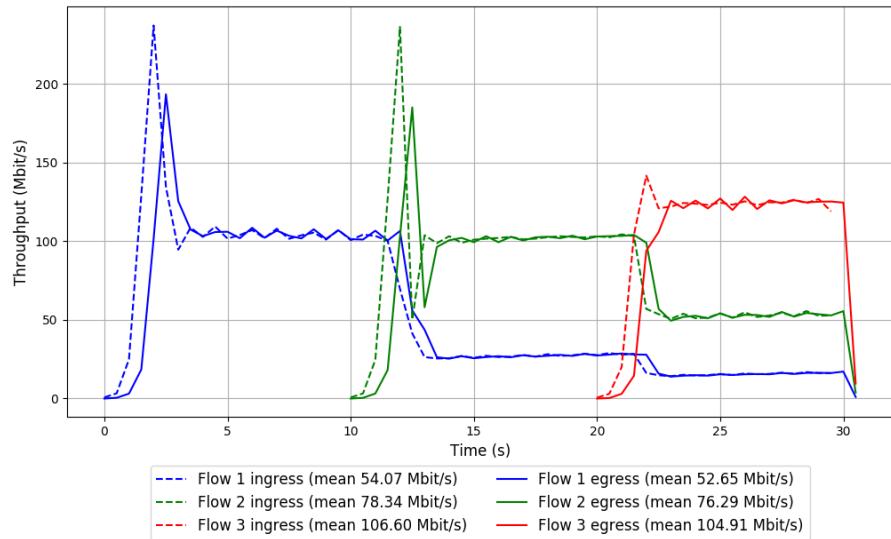


Run 1: Statistics of TCP Vegas

```
Start at: 2019-01-19 00:19:30
End at: 2019-01-19 00:20:00
Local clock offset: -1.158 ms
Remote clock offset: -45.449 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.31 Mbit/s
95th percentile per-packet one-way delay: 58.448 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 52.65 Mbit/s
95th percentile per-packet one-way delay: 58.247 ms
Loss rate: 2.63%
-- Flow 2:
Average throughput: 76.29 Mbit/s
95th percentile per-packet one-way delay: 57.979 ms
Loss rate: 2.62%
-- Flow 3:
Average throughput: 104.91 Mbit/s
95th percentile per-packet one-way delay: 59.687 ms
Loss rate: 1.58%
```

Run 1: Report of TCP Vegas — Data Link

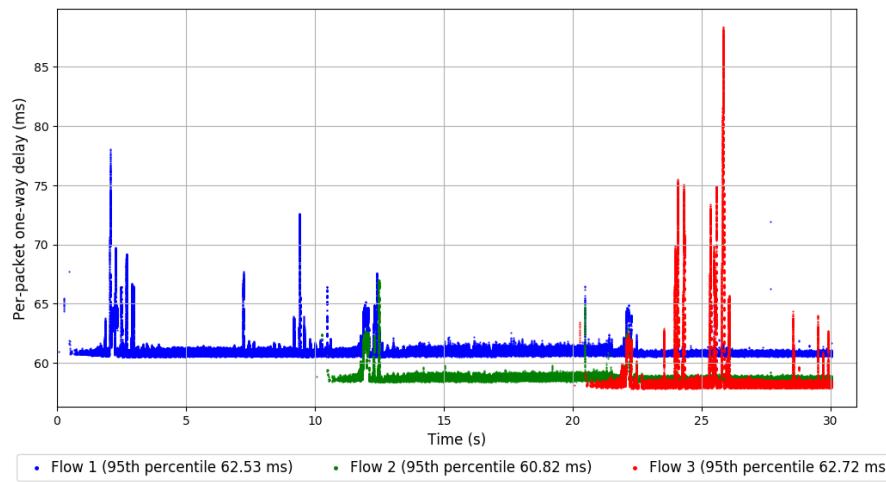
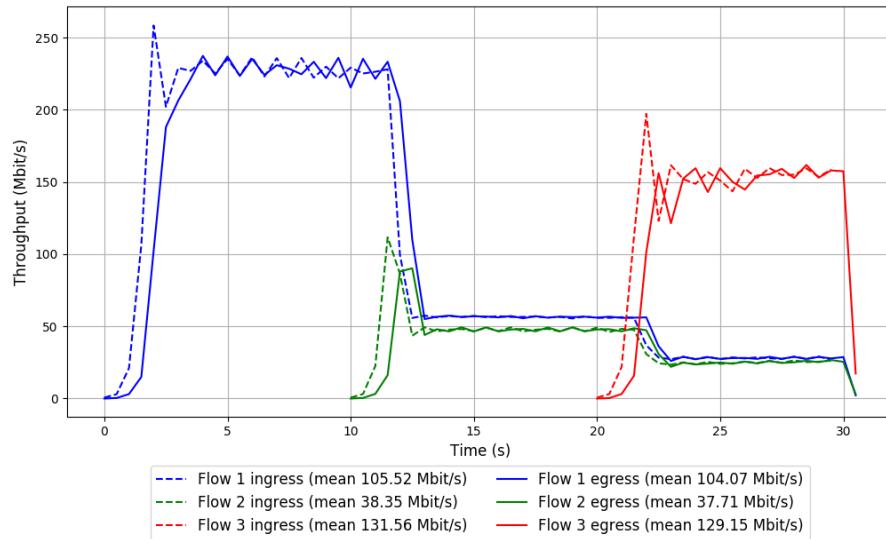


Run 2: Statistics of TCP Vegas

```
Start at: 2019-01-19 00:49:37
End at: 2019-01-19 00:50:07
Local clock offset: -0.028 ms
Remote clock offset: -40.681 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.14 Mbit/s
95th percentile per-packet one-way delay: 62.053 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 104.07 Mbit/s
95th percentile per-packet one-way delay: 62.530 ms
Loss rate: 1.37%
-- Flow 2:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 60.823 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 129.15 Mbit/s
95th percentile per-packet one-way delay: 62.719 ms
Loss rate: 1.83%
```

Run 2: Report of TCP Vegas — Data Link

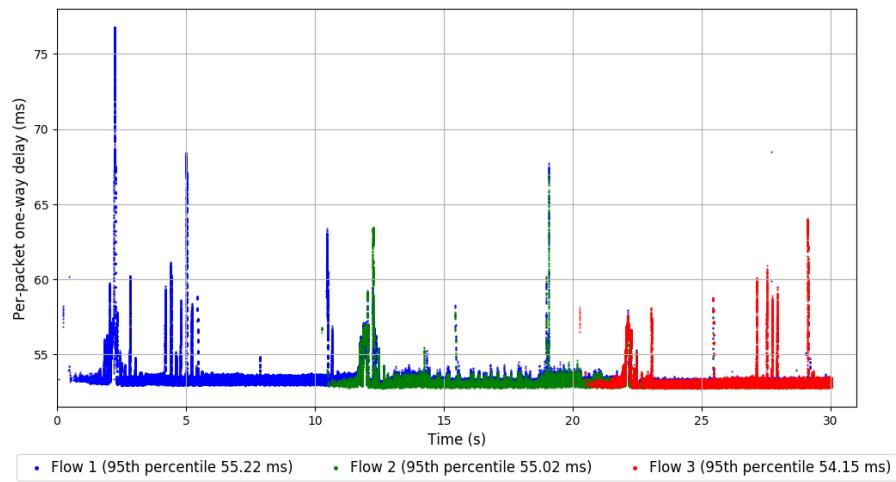
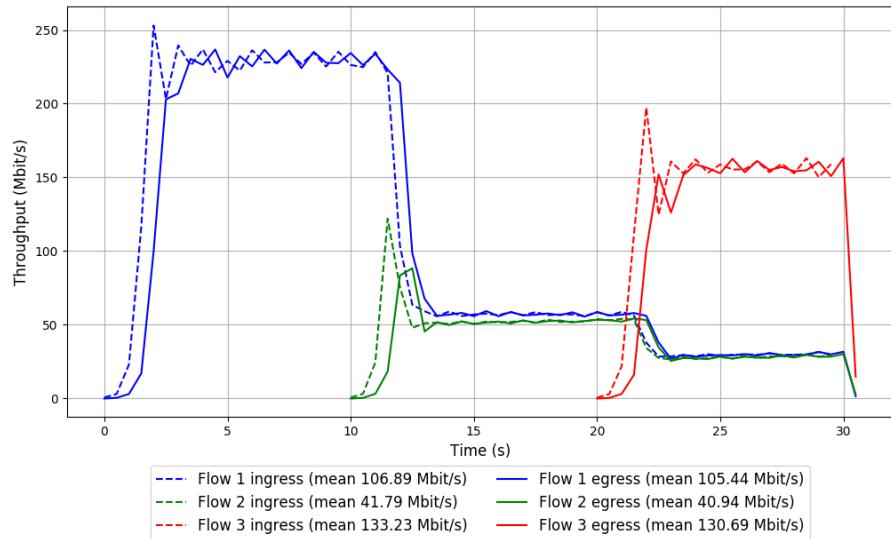


Run 3: Statistics of TCP Vegas

```
Start at: 2019-01-19 01:36:59
End at: 2019-01-19 01:37:29
Local clock offset: 0.485 ms
Remote clock offset: -47.405 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 176.16 Mbit/s
95th percentile per-packet one-way delay: 55.015 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 105.44 Mbit/s
95th percentile per-packet one-way delay: 55.224 ms
Loss rate: 1.36%
-- Flow 2:
Average throughput: 40.94 Mbit/s
95th percentile per-packet one-way delay: 55.016 ms
Loss rate: 2.04%
-- Flow 3:
Average throughput: 130.69 Mbit/s
95th percentile per-packet one-way delay: 54.153 ms
Loss rate: 1.90%
```

Run 3: Report of TCP Vegas — Data Link

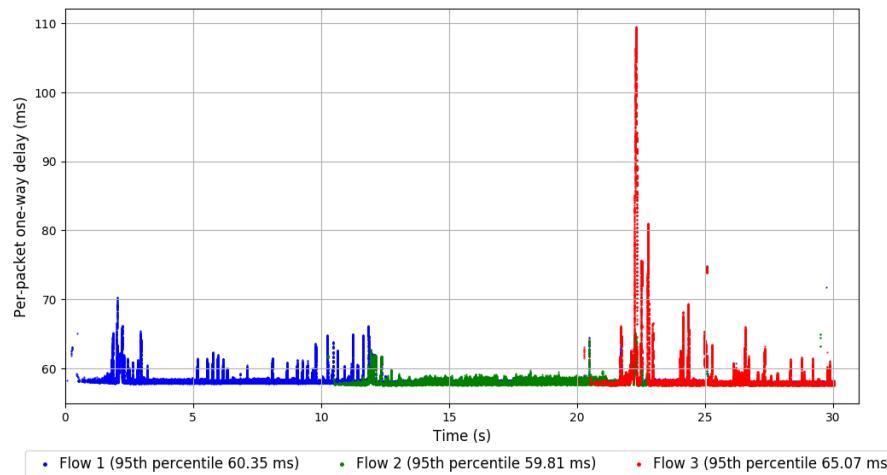
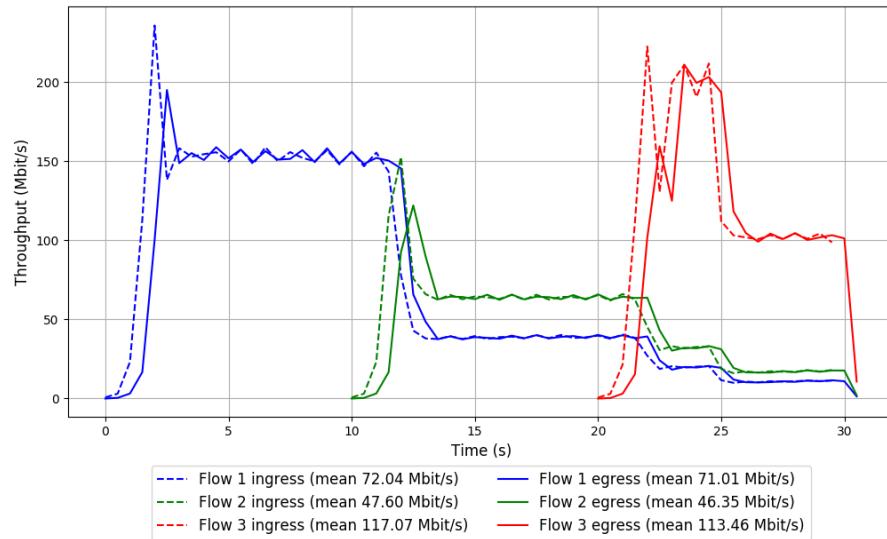


Run 4: Statistics of TCP Vegas

```
Start at: 2019-01-19 02:12:52
End at: 2019-01-19 02:13:22
Local clock offset: -2.724 ms
Remote clock offset: -42.743 ms

# Below is generated by plot.py at 2019-01-19 03:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.62 Mbit/s
95th percentile per-packet one-way delay: 61.099 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 71.01 Mbit/s
95th percentile per-packet one-way delay: 60.352 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 46.35 Mbit/s
95th percentile per-packet one-way delay: 59.812 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 113.46 Mbit/s
95th percentile per-packet one-way delay: 65.072 ms
Loss rate: 3.09%
```

Run 4: Report of TCP Vegas — Data Link

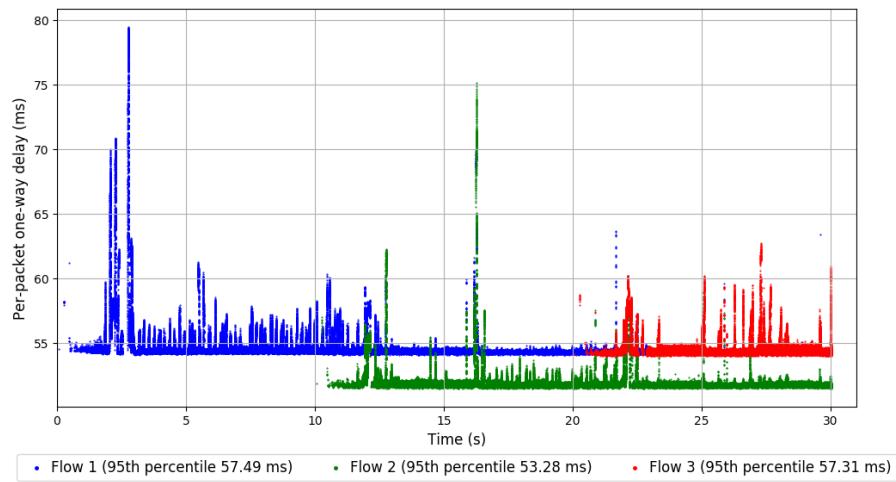
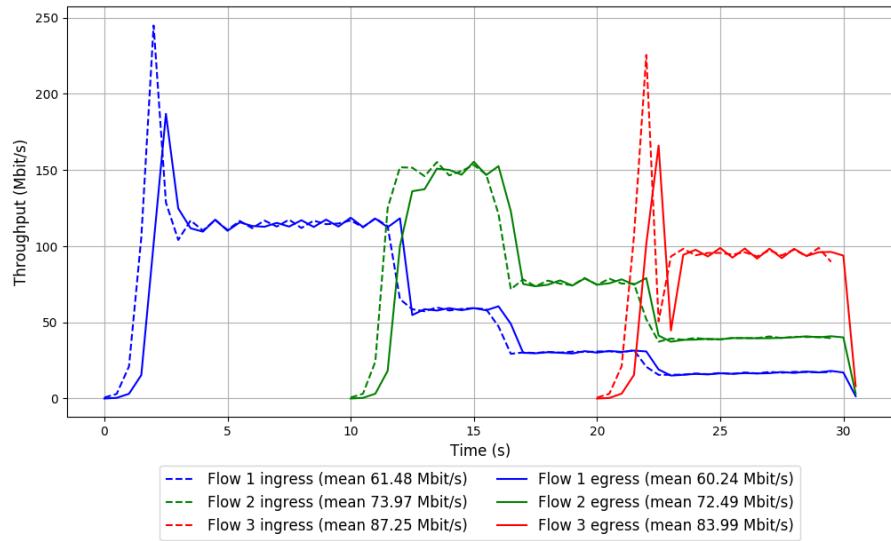


Run 5: Statistics of TCP Vegas

```
Start at: 2019-01-19 02:42:59
End at: 2019-01-19 02:43:29
Local clock offset: 0.553 ms
Remote clock offset: -47.047 ms

# Below is generated by plot.py at 2019-01-19 03:31:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.46 Mbit/s
95th percentile per-packet one-way delay: 56.471 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 60.24 Mbit/s
95th percentile per-packet one-way delay: 57.491 ms
Loss rate: 2.02%
-- Flow 2:
Average throughput: 72.49 Mbit/s
95th percentile per-packet one-way delay: 53.285 ms
Loss rate: 2.00%
-- Flow 3:
Average throughput: 83.99 Mbit/s
95th percentile per-packet one-way delay: 57.313 ms
Loss rate: 3.73%
```

Run 5: Report of TCP Vegas — Data Link

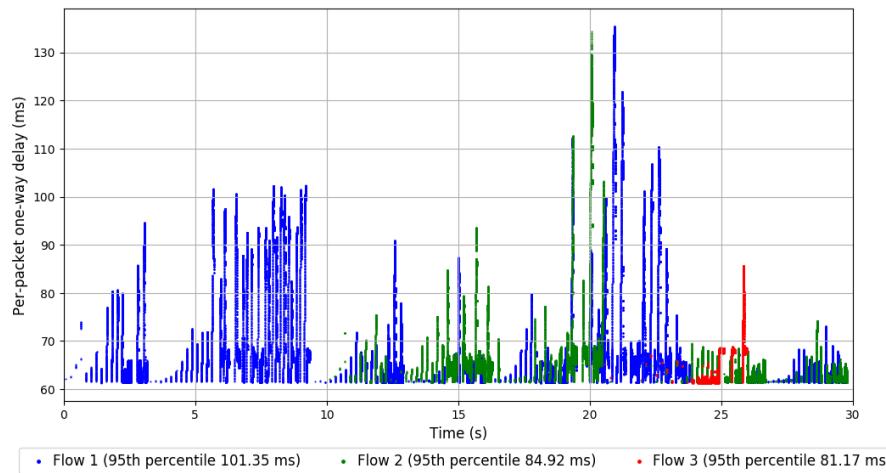
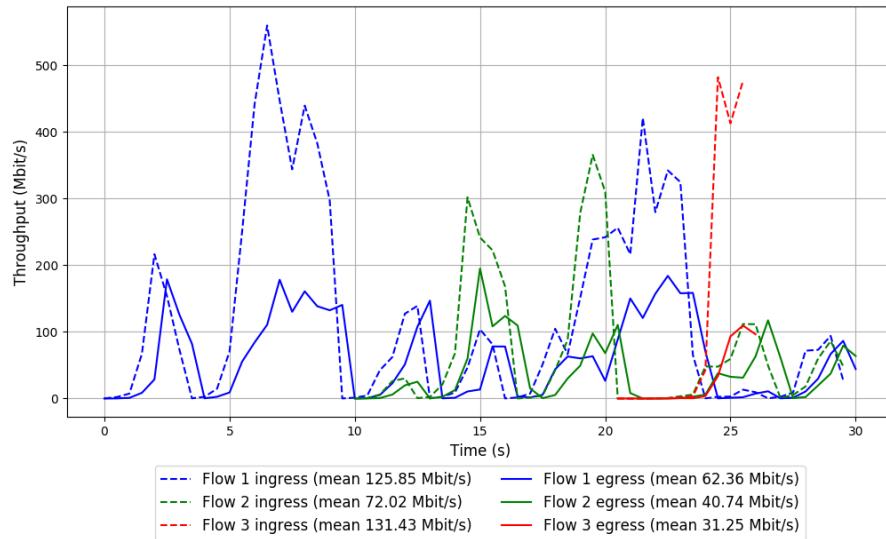


Run 1: Statistics of Verus

```
Start at: 2019-01-19 00:31:16
End at: 2019-01-19 00:31:46
Local clock offset: -0.842 ms
Remote clock offset: -38.143 ms

# Below is generated by plot.py at 2019-01-19 03:31:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.91 Mbit/s
95th percentile per-packet one-way delay: 100.013 ms
Loss rate: 51.87%
-- Flow 1:
Average throughput: 62.36 Mbit/s
95th percentile per-packet one-way delay: 101.347 ms
Loss rate: 50.44%
-- Flow 2:
Average throughput: 40.74 Mbit/s
95th percentile per-packet one-way delay: 84.921 ms
Loss rate: 43.44%
-- Flow 3:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 81.168 ms
Loss rate: 76.21%
```

Run 1: Report of Verus — Data Link

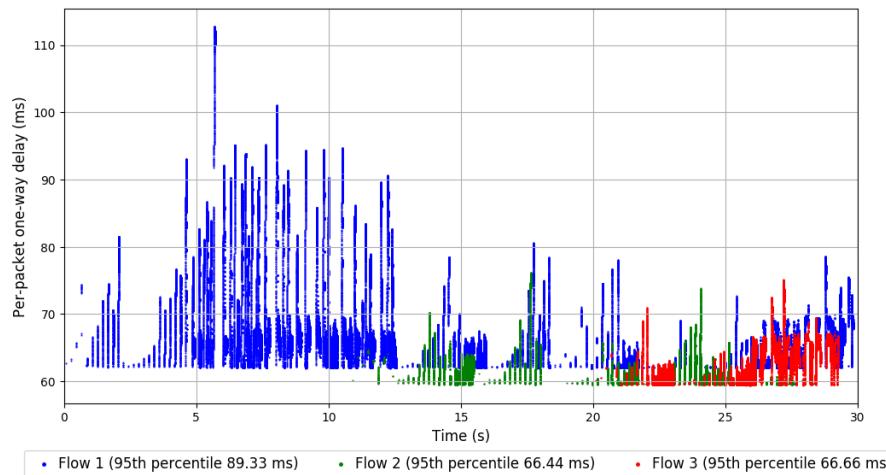
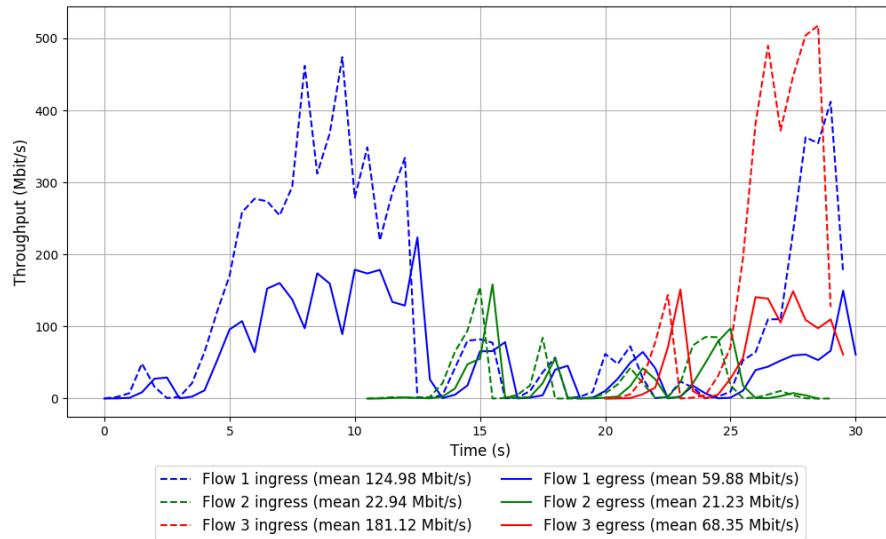


Run 2: Statistics of Verus

```
Start at: 2019-01-19 01:13:00
End at: 2019-01-19 01:13:30
Local clock offset: 0.961 ms
Remote clock offset: -40.223 ms

# Below is generated by plot.py at 2019-01-19 03:31:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.39 Mbit/s
95th percentile per-packet one-way delay: 87.158 ms
Loss rate: 52.44%
-- Flow 1:
Average throughput: 59.88 Mbit/s
95th percentile per-packet one-way delay: 89.334 ms
Loss rate: 52.08%
-- Flow 2:
Average throughput: 21.23 Mbit/s
95th percentile per-packet one-way delay: 66.443 ms
Loss rate: 13.25%
-- Flow 3:
Average throughput: 68.35 Mbit/s
95th percentile per-packet one-way delay: 66.664 ms
Loss rate: 63.05%
```

Run 2: Report of Verus — Data Link

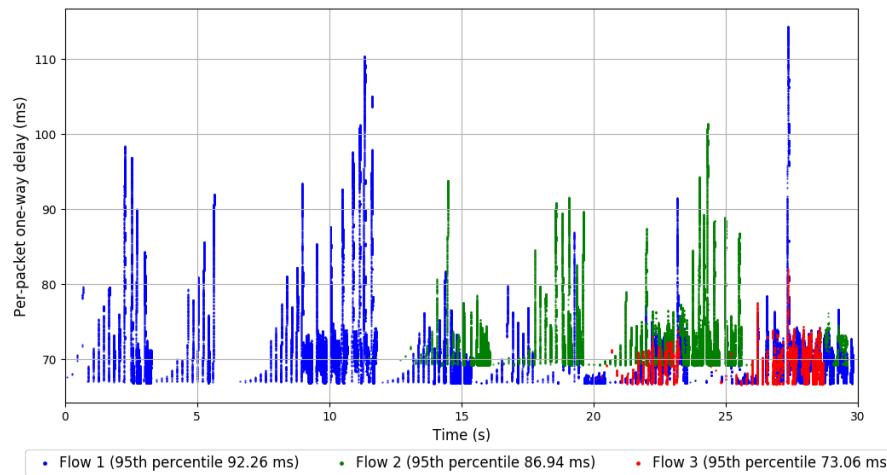
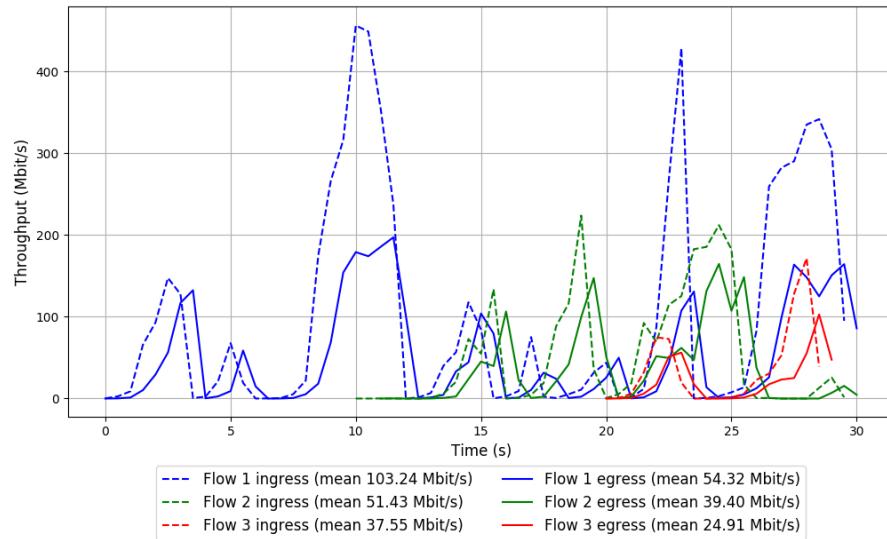


Run 3: Statistics of Verus

```
Start at: 2019-01-19 01:54:23
End at: 2019-01-19 01:54:53
Local clock offset: -0.143 ms
Remote clock offset: -32.67 ms

# Below is generated by plot.py at 2019-01-19 03:31:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.01 Mbit/s
95th percentile per-packet one-way delay: 88.744 ms
Loss rate: 42.03%
-- Flow 1:
Average throughput: 54.32 Mbit/s
95th percentile per-packet one-way delay: 92.264 ms
Loss rate: 47.38%
-- Flow 2:
Average throughput: 39.40 Mbit/s
95th percentile per-packet one-way delay: 86.940 ms
Loss rate: 28.04%
-- Flow 3:
Average throughput: 24.91 Mbit/s
95th percentile per-packet one-way delay: 73.058 ms
Loss rate: 35.13%
```

Run 3: Report of Verus — Data Link

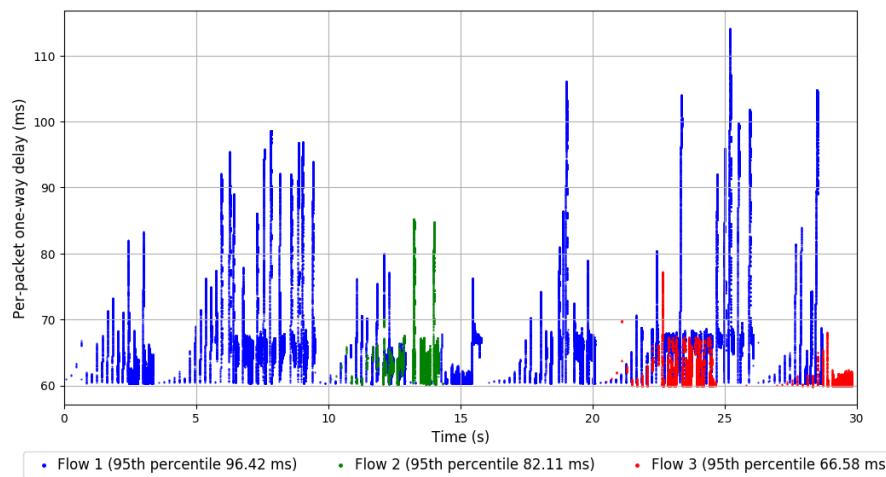
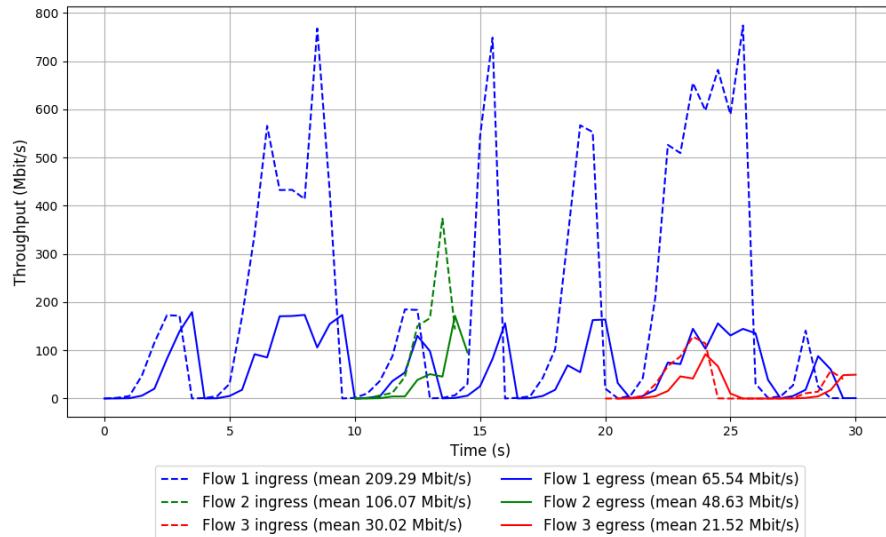


Run 4: Statistics of Verus

```
Start at: 2019-01-19 02:24:39
End at: 2019-01-19 02:25:09
Local clock offset: -0.526 ms
Remote clock offset: -38.873 ms

# Below is generated by plot.py at 2019-01-19 03:31:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.83 Mbit/s
95th percentile per-packet one-way delay: 94.979 ms
Loss rate: 66.12%
-- Flow 1:
Average throughput: 65.54 Mbit/s
95th percentile per-packet one-way delay: 96.419 ms
Loss rate: 68.69%
-- Flow 2:
Average throughput: 48.63 Mbit/s
95th percentile per-packet one-way delay: 82.110 ms
Loss rate: 54.16%
-- Flow 3:
Average throughput: 21.52 Mbit/s
95th percentile per-packet one-way delay: 66.582 ms
Loss rate: 28.30%
```

Run 4: Report of Verus — Data Link

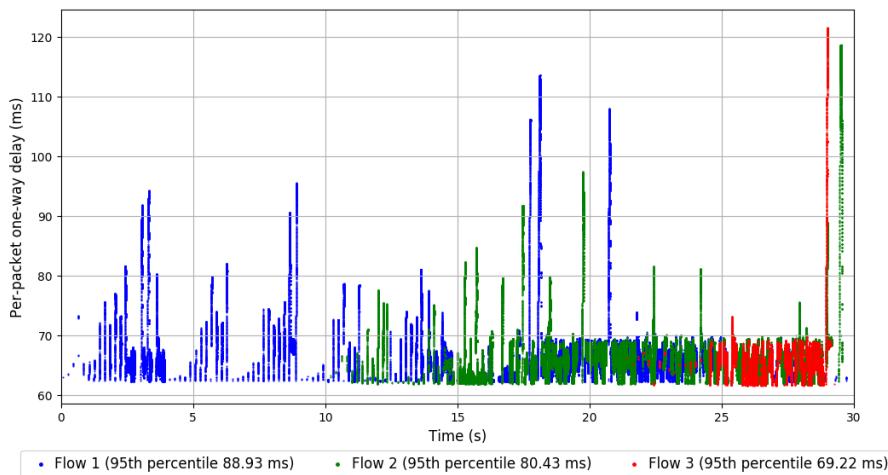
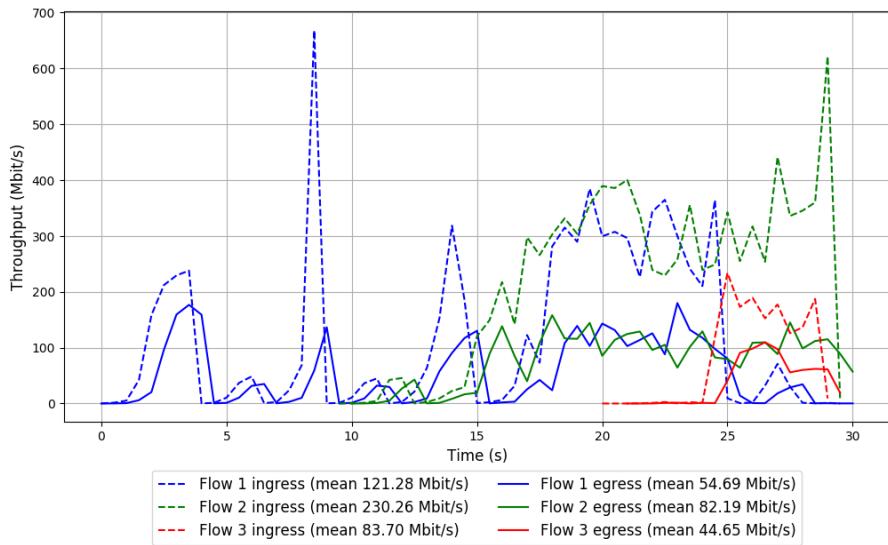


Run 5: Statistics of Verus

```
Start at: 2019-01-19 02:54:53
End at: 2019-01-19 02:55:23
Local clock offset: -1.325 ms
Remote clock offset: -38.433 ms

# Below is generated by plot.py at 2019-01-19 03:32:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 120.68 Mbit/s
95th percentile per-packet one-way delay: 84.849 ms
Loss rate: 59.58%
-- Flow 1:
Average throughput: 54.69 Mbit/s
95th percentile per-packet one-way delay: 88.930 ms
Loss rate: 54.91%
-- Flow 2:
Average throughput: 82.19 Mbit/s
95th percentile per-packet one-way delay: 80.426 ms
Loss rate: 64.30%
-- Flow 3:
Average throughput: 44.65 Mbit/s
95th percentile per-packet one-way delay: 69.225 ms
Loss rate: 53.72%
```

Run 5: Report of Verus — Data Link

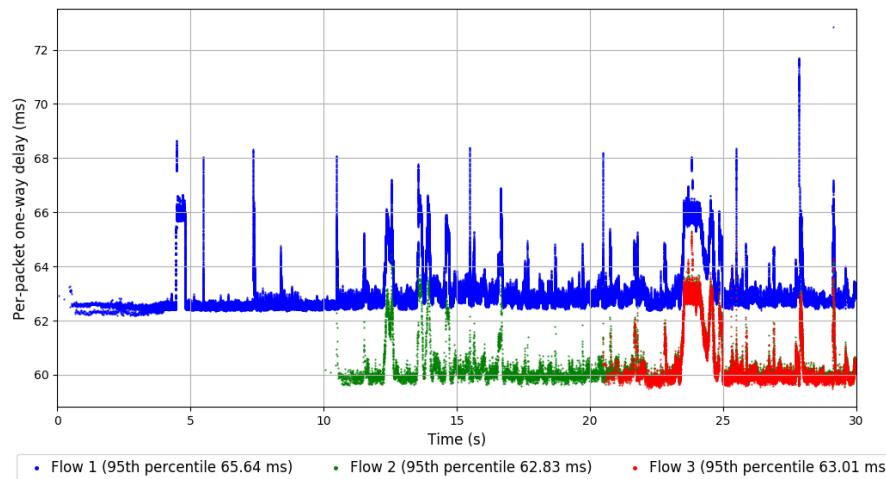
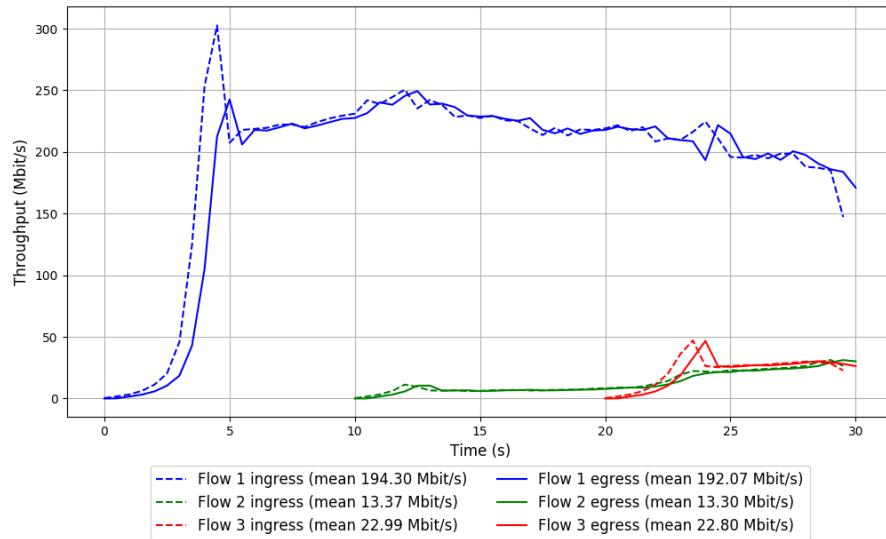


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-01-19 00:05:34
End at: 2019-01-19 00:06:04
Local clock offset: 0.414 ms
Remote clock offset: -40.217 ms

# Below is generated by plot.py at 2019-01-19 03:32:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.45 Mbit/s
95th percentile per-packet one-way delay: 65.458 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 192.07 Mbit/s
95th percentile per-packet one-way delay: 65.636 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 62.827 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 22.80 Mbit/s
95th percentile per-packet one-way delay: 63.005 ms
Loss rate: 0.86%
```

Run 1: Report of PCC-Vivace — Data Link

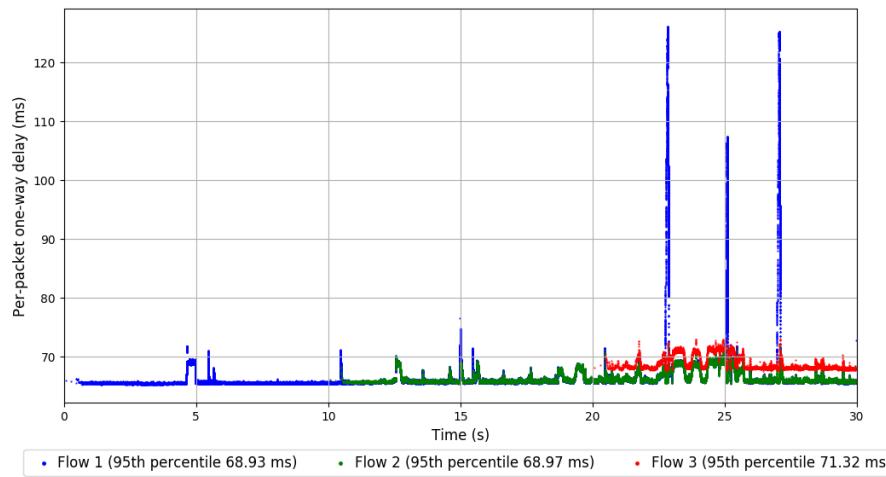
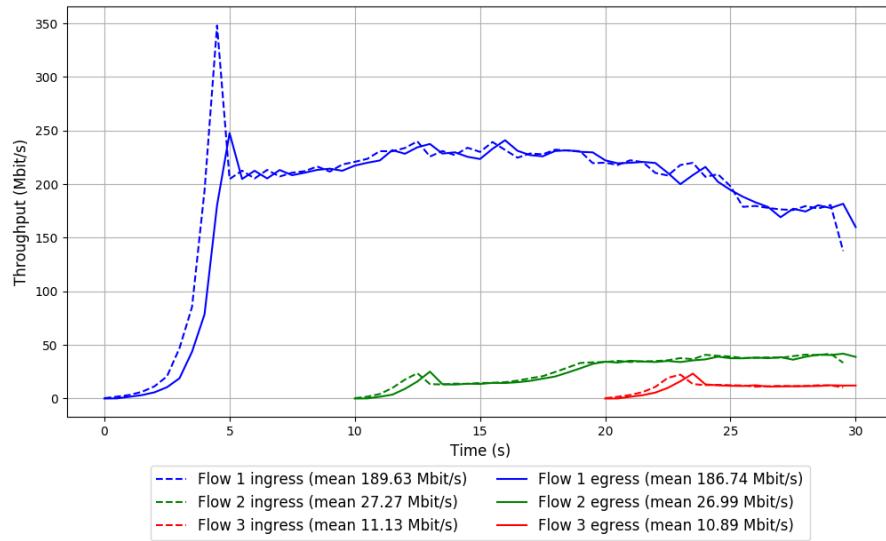


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-01-19 00:35:48
End at: 2019-01-19 00:36:18
Local clock offset: -0.422 ms
Remote clock offset: -33.113 ms

# Below is generated by plot.py at 2019-01-19 03:32:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.28 Mbit/s
95th percentile per-packet one-way delay: 68.986 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 186.74 Mbit/s
95th percentile per-packet one-way delay: 68.926 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: 68.972 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 10.89 Mbit/s
95th percentile per-packet one-way delay: 71.318 ms
Loss rate: 2.19%
```

Run 2: Report of PCC-Vivace — Data Link

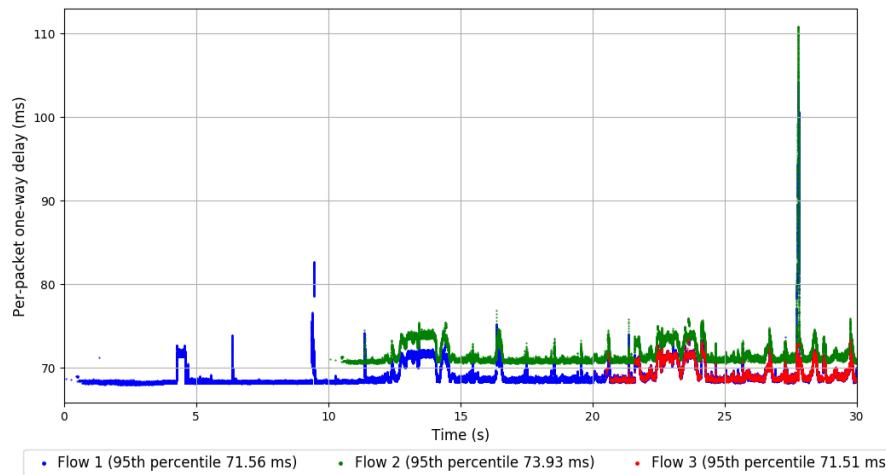
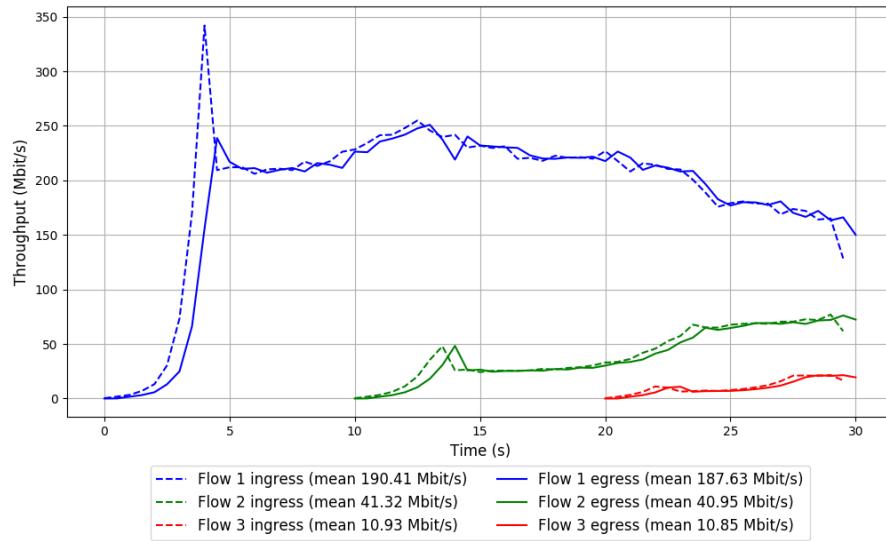


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-01-19 01:23:09
End at: 2019-01-19 01:23:39
Local clock offset: 0.131 ms
Remote clock offset: -32.146 ms

# Below is generated by plot.py at 2019-01-19 03:33:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 218.43 Mbit/s
95th percentile per-packet one-way delay: 71.902 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 187.63 Mbit/s
95th percentile per-packet one-way delay: 71.562 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 40.95 Mbit/s
95th percentile per-packet one-way delay: 73.933 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 10.85 Mbit/s
95th percentile per-packet one-way delay: 71.506 ms
Loss rate: 0.72%
```

Run 3: Report of PCC-Vivace — Data Link

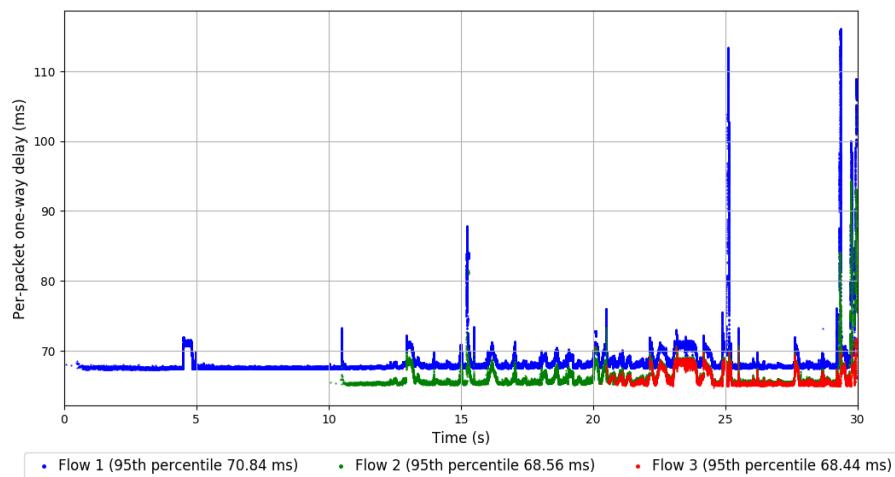
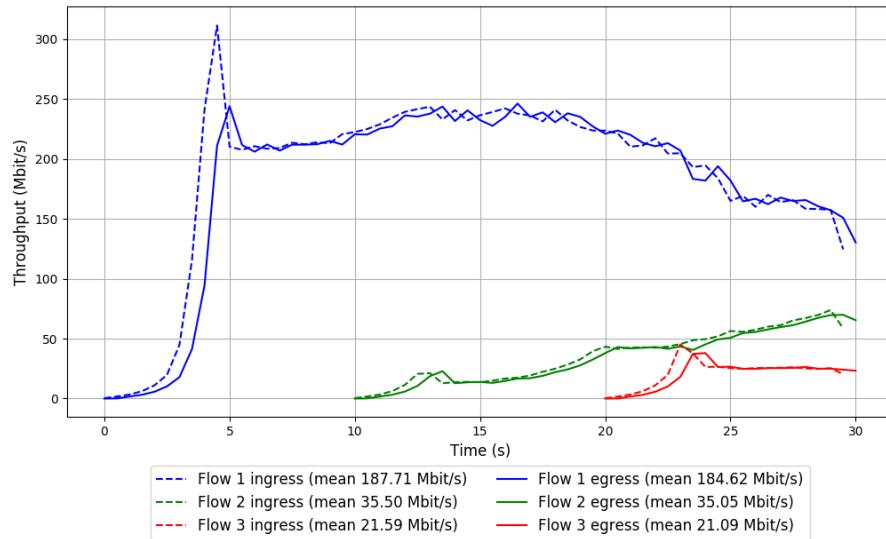


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-01-19 01:59:02
End at: 2019-01-19 01:59:32
Local clock offset: -0.694 ms
Remote clock offset: -34.156 ms

# Below is generated by plot.py at 2019-01-19 03:33:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 214.91 Mbit/s
95th percentile per-packet one-way delay: 70.802 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 184.62 Mbit/s
95th percentile per-packet one-way delay: 70.837 ms
Loss rate: 1.64%
-- Flow 2:
Average throughput: 35.05 Mbit/s
95th percentile per-packet one-way delay: 68.563 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 21.09 Mbit/s
95th percentile per-packet one-way delay: 68.440 ms
Loss rate: 2.35%
```

Run 4: Report of PCC-Vivace — Data Link

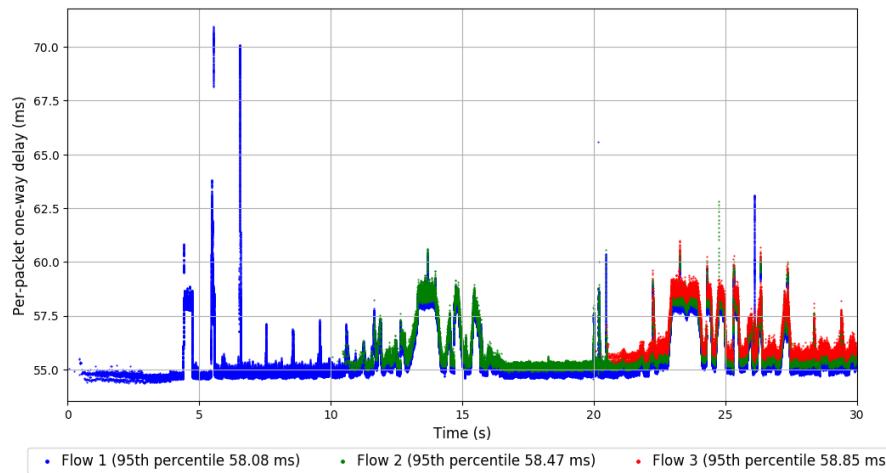
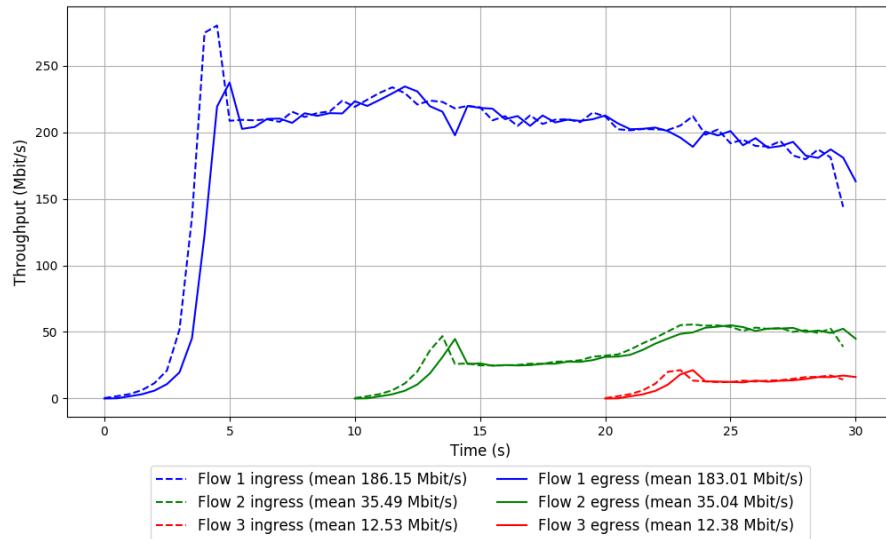


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-01-19 02:29:10
End at: 2019-01-19 02:29:40
Local clock offset: -1.498 ms
Remote clock offset: -45.27 ms

# Below is generated by plot.py at 2019-01-19 03:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 210.40 Mbit/s
95th percentile per-packet one-way delay: 58.168 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 183.01 Mbit/s
95th percentile per-packet one-way delay: 58.083 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 35.04 Mbit/s
95th percentile per-packet one-way delay: 58.465 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 12.38 Mbit/s
95th percentile per-packet one-way delay: 58.852 ms
Loss rate: 1.20%
```

Run 5: Report of PCC-Vivace — Data Link

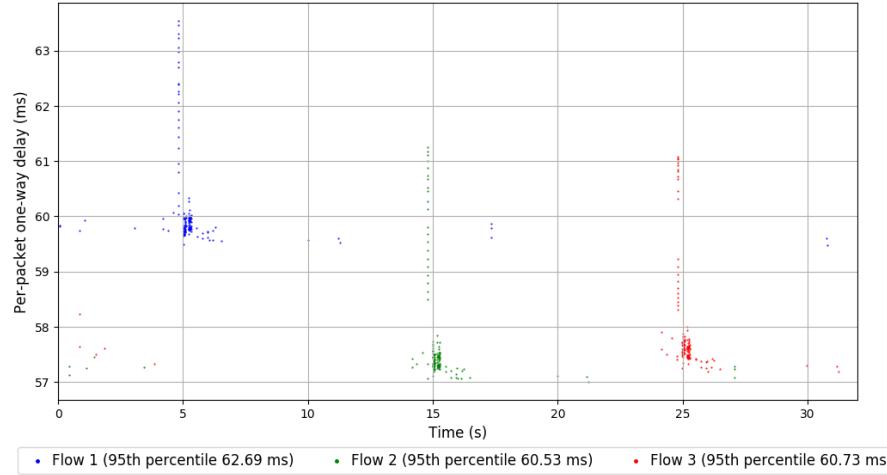
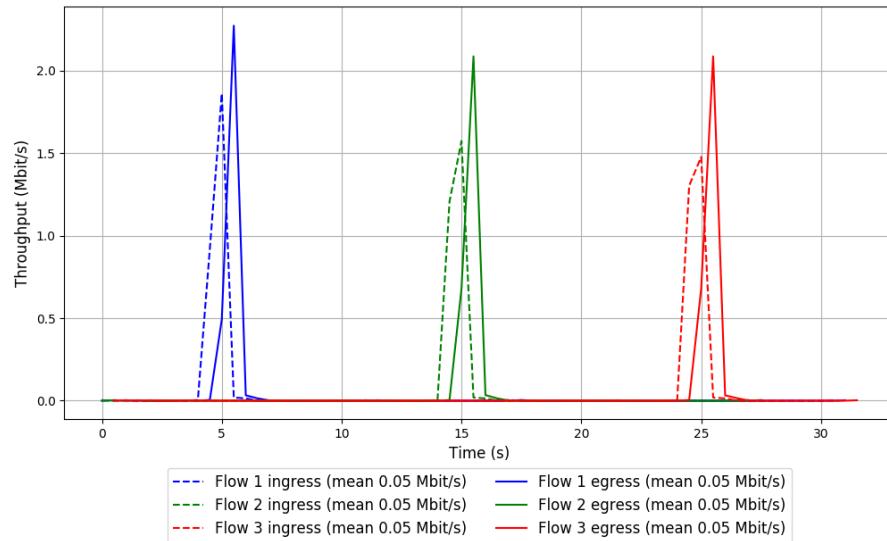


```
Run 1: Statistics of WebRTC media

Start at: 2019-01-19 00:08:33
End at: 2019-01-19 00:09:03
Local clock offset: 1.481 ms
Remote clock offset: -41.828 ms

# Below is generated by plot.py at 2019-01-19 03:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 61.050 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 62.693 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.526 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.725 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

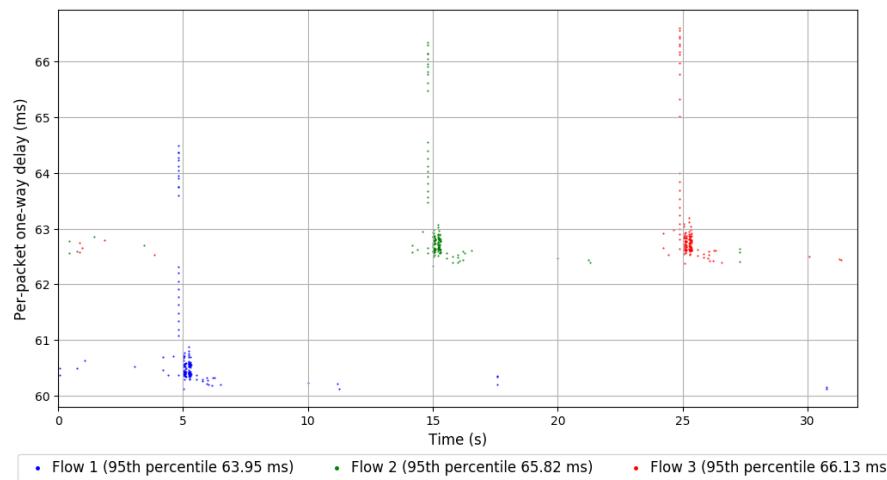
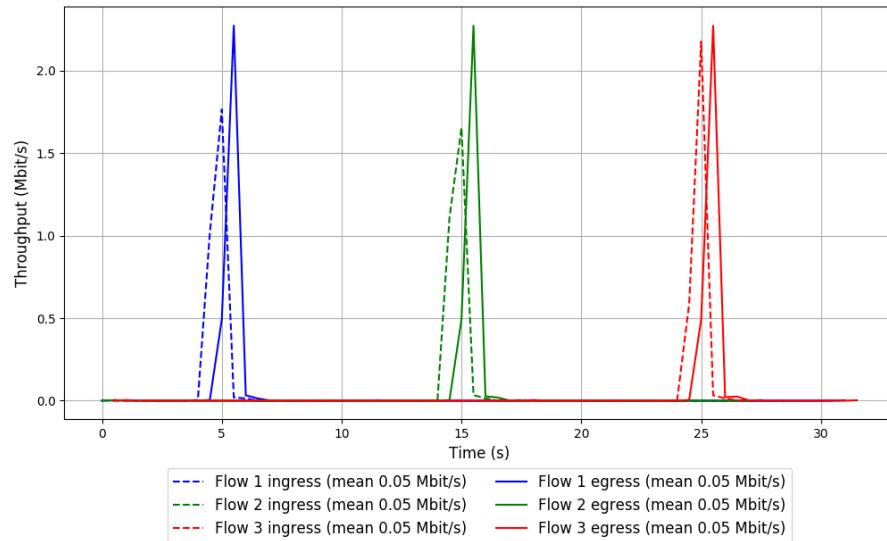


Run 2: Statistics of WebRTC media

```
Start at: 2019-01-19 00:38:40
End at: 2019-01-19 00:39:10
Local clock offset: -0.015 ms
Remote clock offset: -37.838 ms

# Below is generated by plot.py at 2019-01-19 03:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 65.011 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.955 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 65.821 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 66.131 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

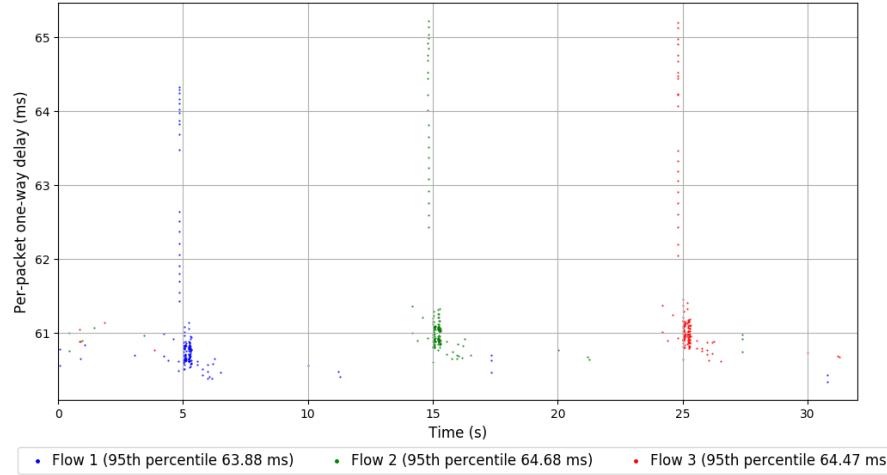
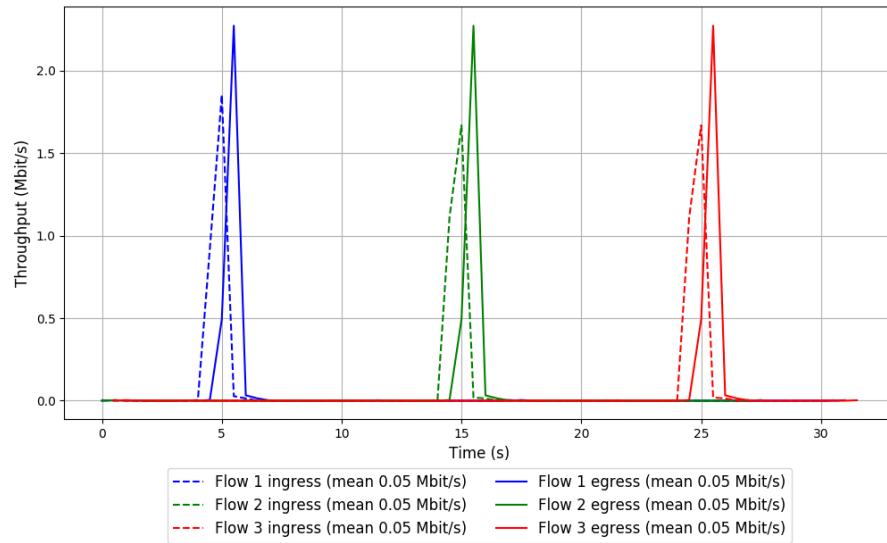


```
Run 3: Statistics of WebRTC media

Start at: 2019-01-19 01:26:01
End at: 2019-01-19 01:26:31
Local clock offset: 0.578 ms
Remote clock offset: -39.197 ms

# Below is generated by plot.py at 2019-01-19 03:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 64.237 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.876 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.682 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.475 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

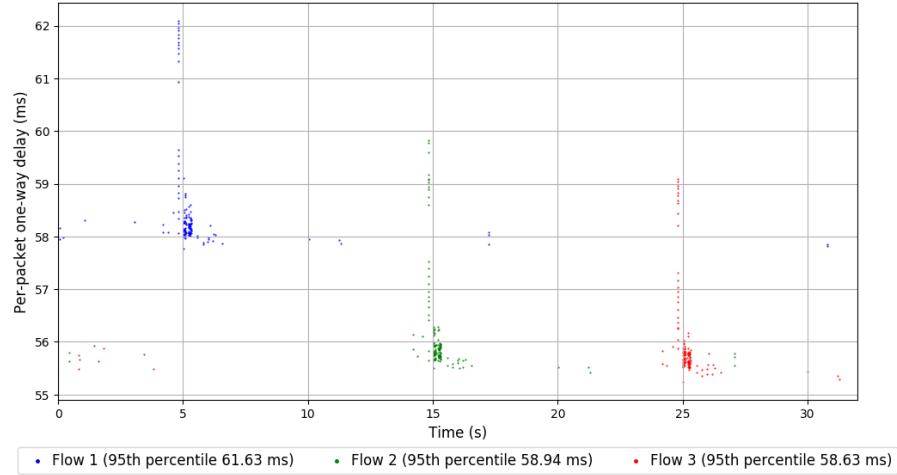
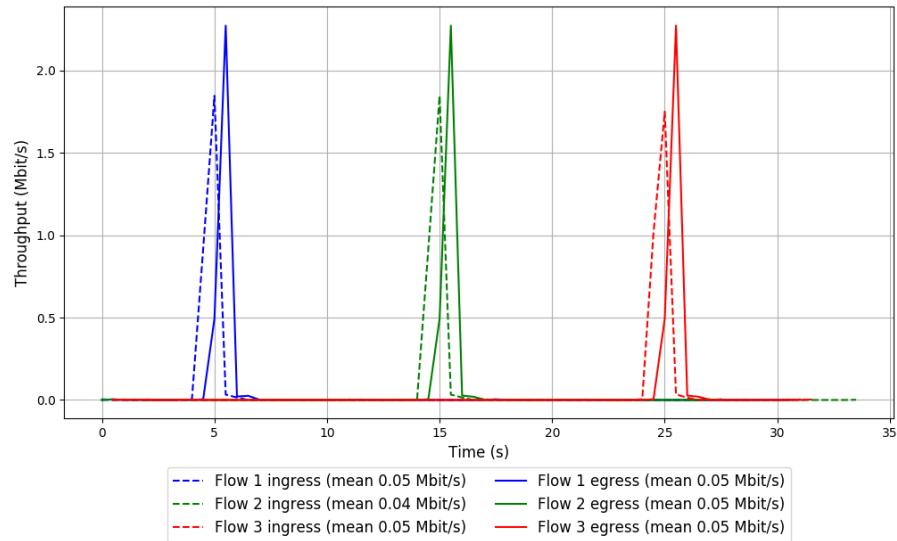


Run 4: Statistics of WebRTC media

```
Start at: 2019-01-19 02:01:54
End at: 2019-01-19 02:02:24
Local clock offset: -1.188 ms
Remote clock offset: -44.224 ms

# Below is generated by plot.py at 2019-01-19 03:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 59.093 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.631 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 58.939 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 58.633 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



```
Run 5: Statistics of WebRTC media

Start at: 2019-01-19 02:32:01
End at: 2019-01-19 02:32:31
Local clock offset: -1.001 ms
Remote clock offset: -38.189 ms

# Below is generated by plot.py at 2019-01-19 03:33:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 65.365 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 65.170 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 65.320 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 65.644 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

