

Pantheon Report

Generated at 2019-05-30 13:20:06 (UTC).

Data path: Mexico on `em1` (*remote*) → AWS California 2 on `ens5` (*local*).

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

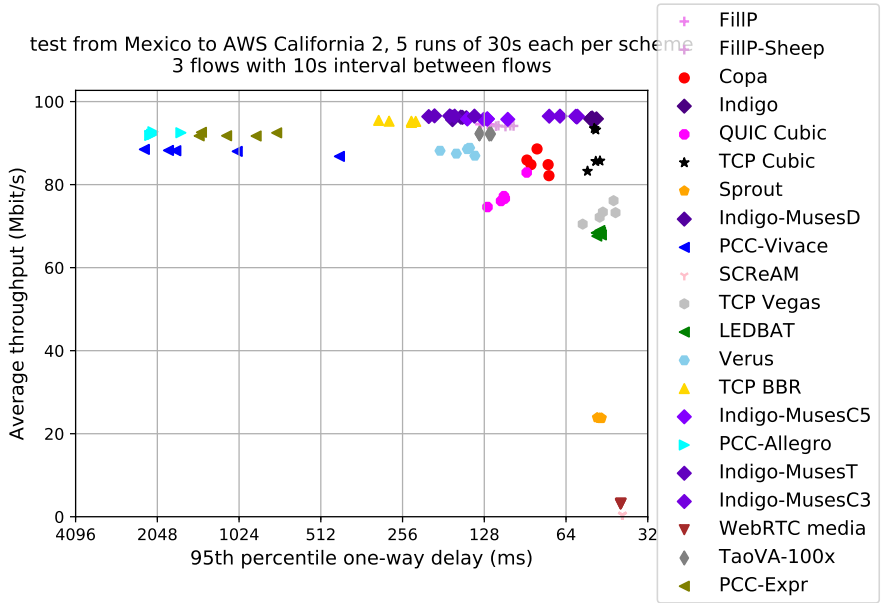
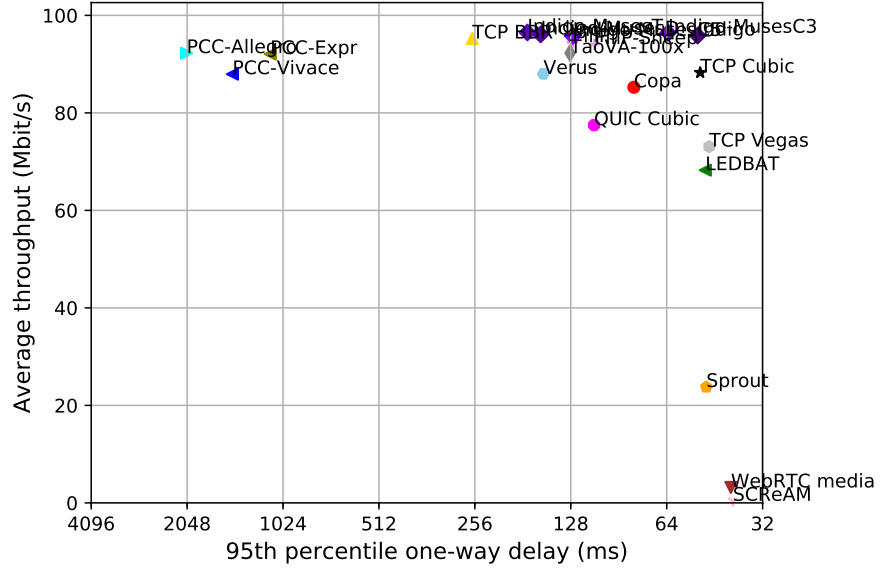
```
Linux 4.15.0-1035-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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-quick @ 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 Mexico to AWS California 2, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



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	57.14	42.68	29.34	217.55	164.92	538.54	0.94	1.33	4.27
Copa	5	47.95	39.63	32.95	110.32	53.35	44.92	0.23	0.27	0.71
TCP Cubic	5	51.80	36.83	36.09	51.85	49.87	50.30	0.16	0.31	0.65
FillP	5	55.21	40.79	36.75	109.67	142.26	97.46	0.32	3.37	1.35
FillP-Sheep	5	57.22	39.80	31.42	106.16	110.70	101.57	0.33	0.64	1.11
Indigo	5	57.97	43.14	28.17	53.44	49.67	50.40	0.18	0.32	0.93
Indigo-MusesC3	5	59.23	40.84	36.03	64.79	63.57	61.95	0.20	0.44	1.10
Indigo-MusesC5	5	58.90	41.35	33.75	117.22	111.01	120.28	1.45	2.74	5.91
Indigo-MusesD	5	59.67	43.17	27.72	154.27	144.35	101.41	5.84	9.23	5.76
Indigo-MusesT	5	61.18	41.50	28.37	137.21	200.44	226.88	2.48	4.84	8.14
LEDBAT	5	40.55	29.73	23.93	48.54	48.76	46.88	0.17	0.29	1.16
PCC-Allegro	5	58.01	38.61	26.17	2095.07	1746.43	568.81	10.50	10.97	5.67
PCC-Expr	5	56.59	40.63	25.70	969.24	895.52	145.05	31.78	7.93	1.40
QUIC Cubic	5	44.47	33.15	33.35	94.48	125.70	130.17	0.20	0.51	1.00
SCReAM	5	0.21	0.21	0.22	39.62	39.65	39.67	0.16	0.40	0.71
Sprout	5	12.01	11.92	11.66	47.95	48.16	48.08	0.22	0.26	0.62
TaoVA-100x	5	54.80	42.14	28.38	125.66	126.88	153.63	0.53	1.19	3.48
TCP Vegas	5	37.96	35.45	34.80	56.58	41.77	43.01	0.29	0.33	0.76
Verus	5	52.87	37.97	29.90	147.88	130.50	340.66	0.47	0.60	1.24
PCC-Vivace	5	55.61	35.83	25.88	1548.95	258.49	109.75	4.78	1.03	1.16
WebRTC media	5	1.76	1.00	0.43	40.21	40.21	40.45	0.10	0.22	0.52

Run 1: Statistics of TCP BBR

Start at: 2019-05-30 10:56:20
End at: 2019-05-30 10:56:50
Local clock offset: 0.109 ms
Remote clock offset: -5.502 ms

Below is generated by plot.py at 2019-05-30 13:05:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.23 Mbit/s
95th percentile per-packet one-way delay: 228.973 ms
Loss rate: 0.91%

-- Flow 1:

Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 236.927 ms
Loss rate: 0.79%

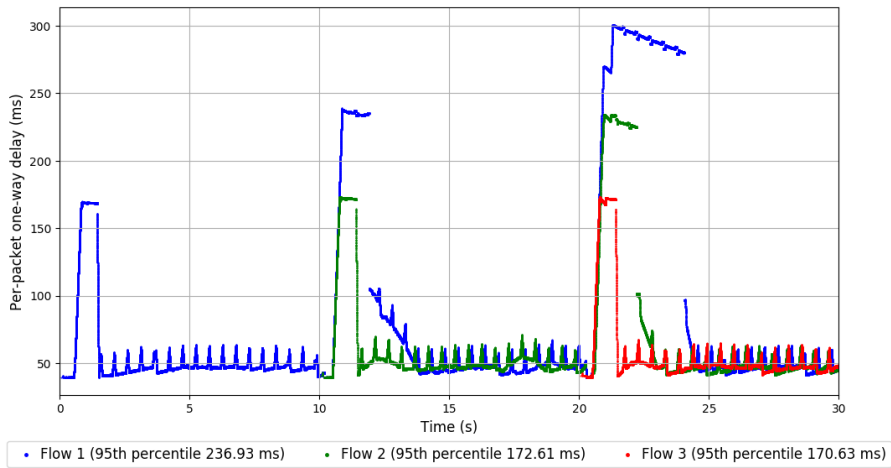
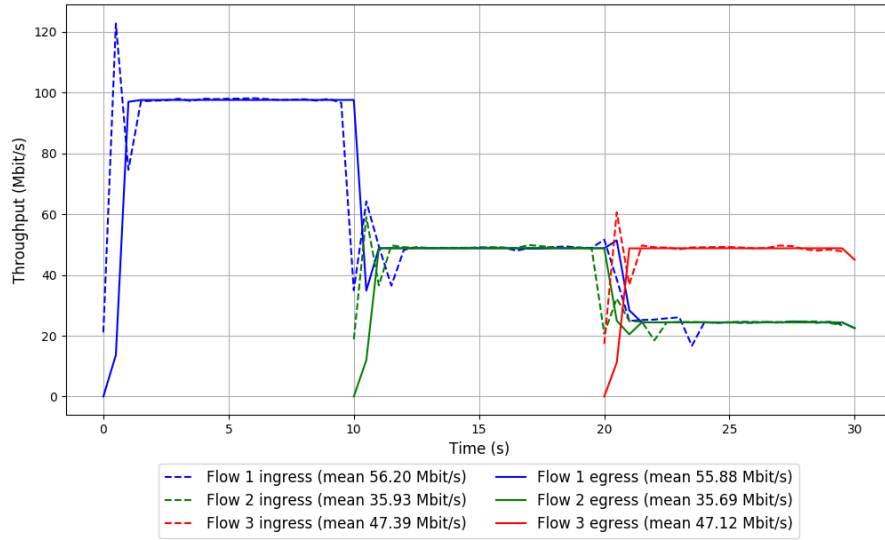
-- Flow 2:

Average throughput: 35.69 Mbit/s
95th percentile per-packet one-way delay: 172.608 ms
Loss rate: 0.99%

-- Flow 3:

Average throughput: 47.12 Mbit/s
95th percentile per-packet one-way delay: 170.635 ms
Loss rate: 1.23%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-05-30 11:22:11
End at: 2019-05-30 11:22:41
Local clock offset: 0.517 ms
Remote clock offset: -4.297 ms

Below is generated by plot.py at 2019-05-30 13:05:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.28 Mbit/s
95th percentile per-packet one-way delay: 286.893 ms
Loss rate: 1.42%

-- Flow 1:

Average throughput: 55.69 Mbit/s
95th percentile per-packet one-way delay: 233.539 ms
Loss rate: 1.08%

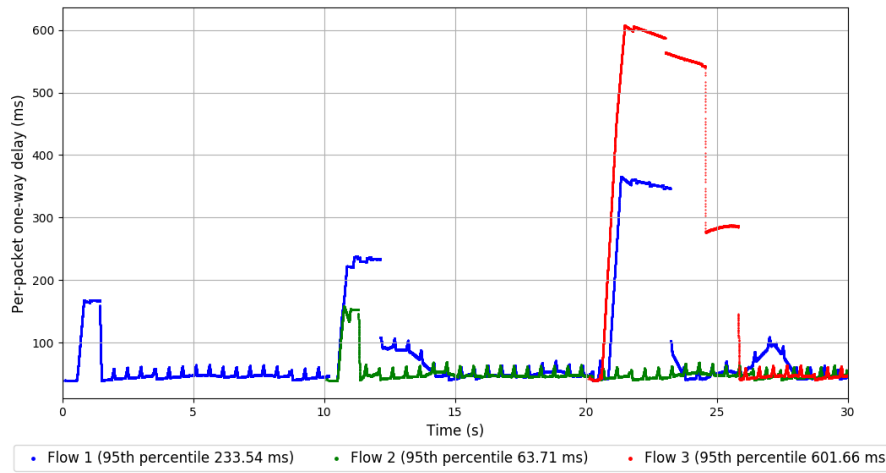
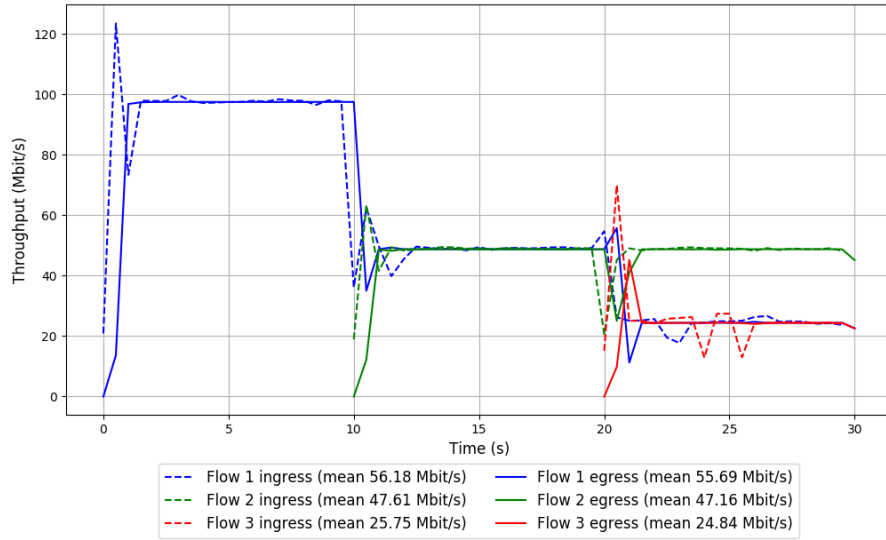
-- Flow 2:

Average throughput: 47.16 Mbit/s
95th percentile per-packet one-way delay: 63.708 ms
Loss rate: 1.28%

-- Flow 3:

Average throughput: 24.84 Mbit/s
95th percentile per-packet one-way delay: 601.662 ms
Loss rate: 4.17%

Run 2: Report of TCP BBR — Data Link

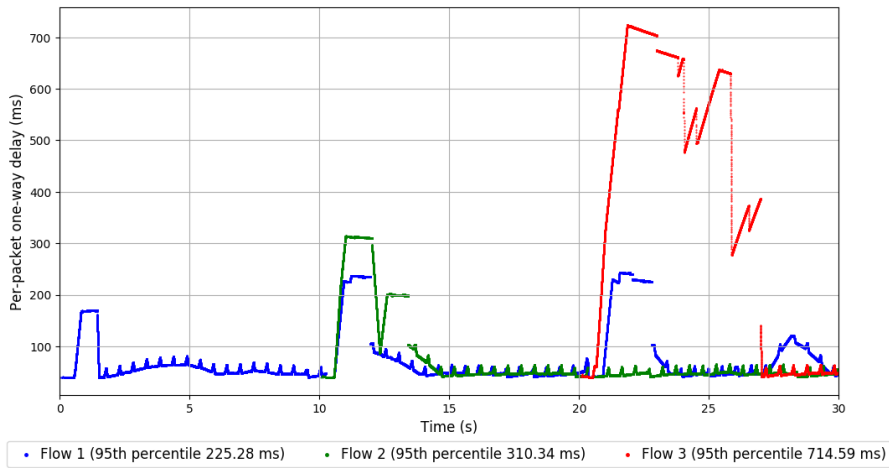
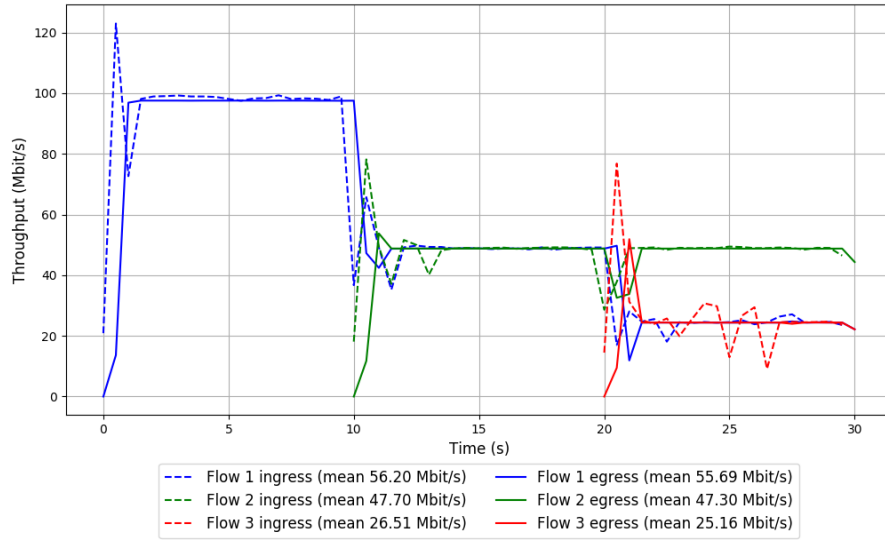


Run 3: Statistics of TCP BBR

Start at: 2019-05-30 11:47:54
End at: 2019-05-30 11:48:24
Local clock offset: 0.414 ms
Remote clock offset: -3.351 ms

```
# Below is generated by plot.py at 2019-05-30 13:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.48 Mbit/s
95th percentile per-packet one-way delay: 313.533 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 55.69 Mbit/s
95th percentile per-packet one-way delay: 225.277 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 47.30 Mbit/s
95th percentile per-packet one-way delay: 310.343 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 25.16 Mbit/s
95th percentile per-packet one-way delay: 714.586 ms
Loss rate: 5.75%
```

Run 3: Report of TCP BBR — Data Link

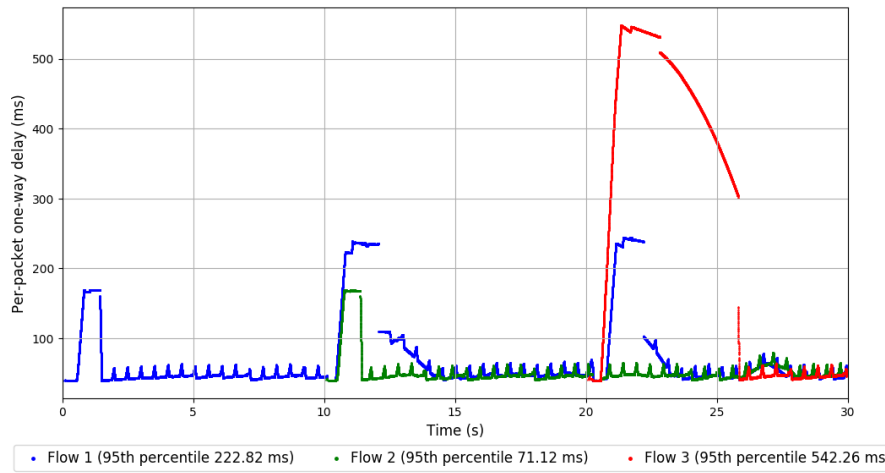
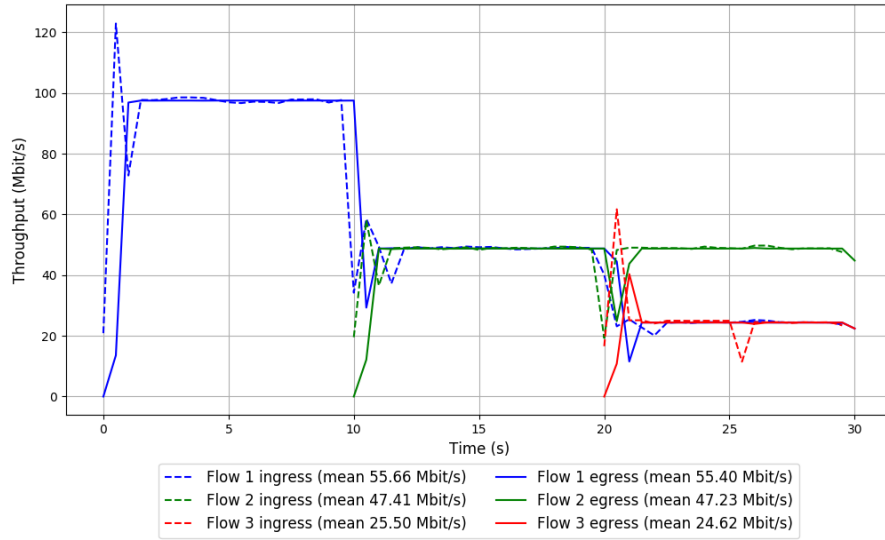


Run 4: Statistics of TCP BBR

Start at: 2019-05-30 12:13:41
End at: 2019-05-30 12:14:11
Local clock offset: 0.315 ms
Remote clock offset: -2.598 ms

```
# Below is generated by plot.py at 2019-05-30 13:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.98 Mbit/s
95th percentile per-packet one-way delay: 237.157 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 55.40 Mbit/s
95th percentile per-packet one-way delay: 222.818 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 47.23 Mbit/s
95th percentile per-packet one-way delay: 71.120 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 24.62 Mbit/s
95th percentile per-packet one-way delay: 542.259 ms
Loss rate: 4.10%
```

Run 4: Report of TCP BBR — Data Link

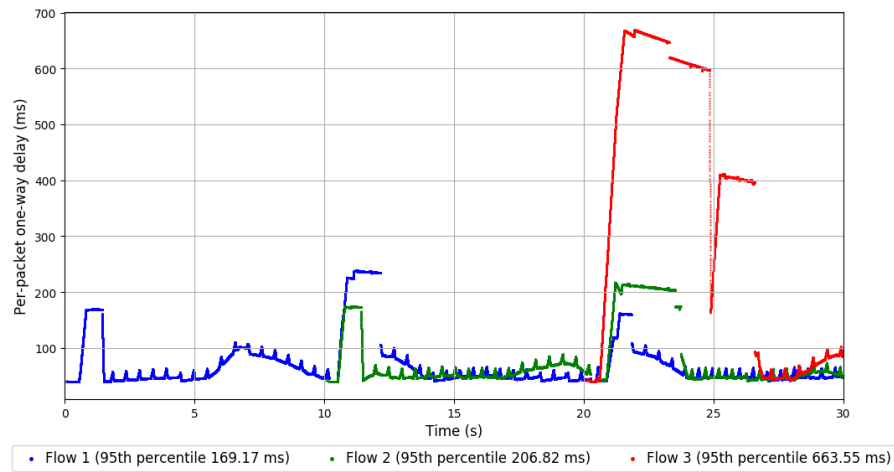
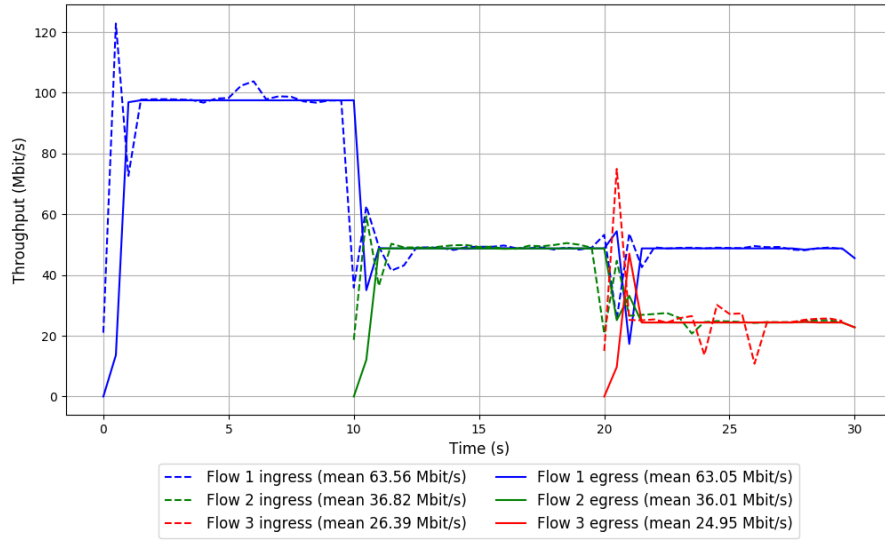


Run 5: Statistics of TCP BBR

Start at: 2019-05-30 12:39:40
End at: 2019-05-30 12:40:10
Local clock offset: 0.28 ms
Remote clock offset: -1.868 ms

```
# Below is generated by plot.py at 2019-05-30 13:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 237.516 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 63.05 Mbit/s
95th percentile per-packet one-way delay: 169.169 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 36.01 Mbit/s
95th percentile per-packet one-way delay: 206.816 ms
Loss rate: 2.53%
-- Flow 3:
Average throughput: 24.95 Mbit/s
95th percentile per-packet one-way delay: 663.549 ms
Loss rate: 6.09%
```

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-05-30 11:01:12
End at: 2019-05-30 11:01:42
Local clock offset: 0.421 ms
Remote clock offset: -5.358 ms

Below is generated by plot.py at 2019-05-30 13:06:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.15 Mbit/s
95th percentile per-packet one-way delay: 73.961 ms
Loss rate: 0.42%

-- Flow 1:

Average throughput: 48.53 Mbit/s
95th percentile per-packet one-way delay: 106.179 ms
Loss rate: 0.38%

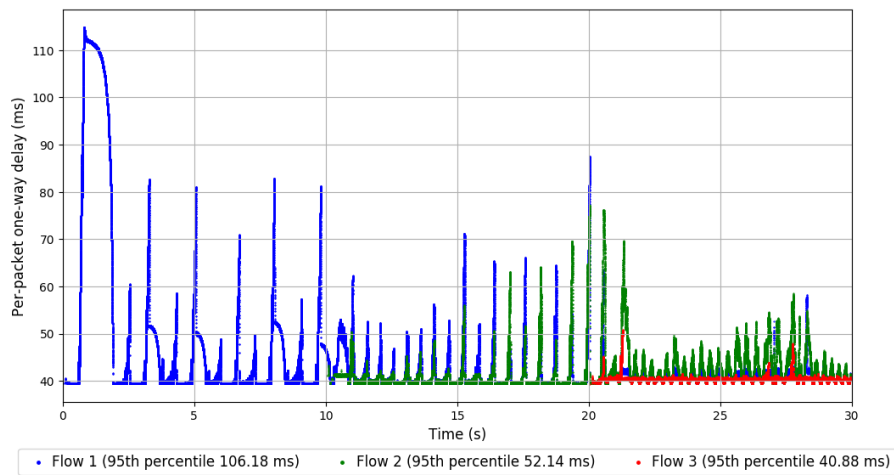
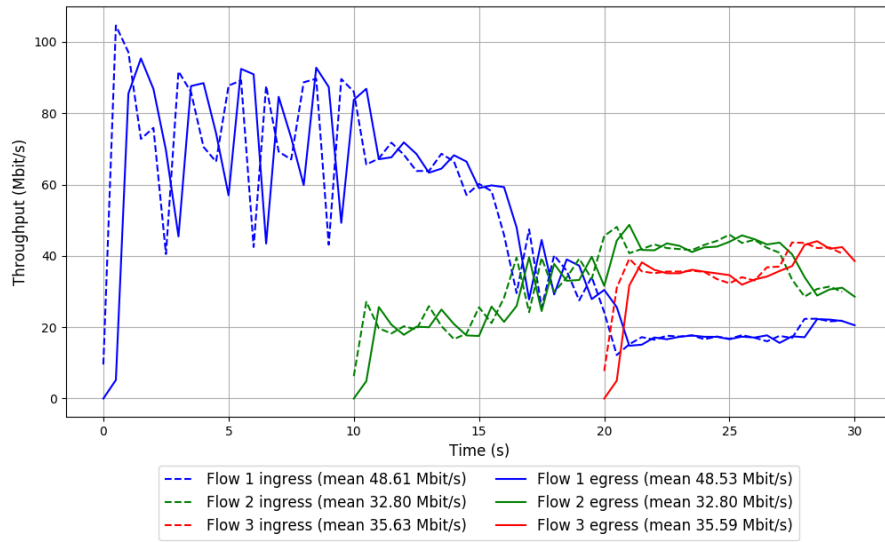
-- Flow 2:

Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 52.143 ms
Loss rate: 0.32%

-- Flow 3:

Average throughput: 35.59 Mbit/s
95th percentile per-packet one-way delay: 40.881 ms
Loss rate: 0.76%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-05-30 11:27:04
End at: 2019-05-30 11:27:34
Local clock offset: 0.606 ms
Remote clock offset: -4.115 ms

Below is generated by plot.py at 2019-05-30 13:06:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.60 Mbit/s
95th percentile per-packet one-way delay: 81.831 ms
Loss rate: 0.26%

-- Flow 1:

Average throughput: 42.60 Mbit/s
95th percentile per-packet one-way delay: 114.494 ms
Loss rate: 0.15%

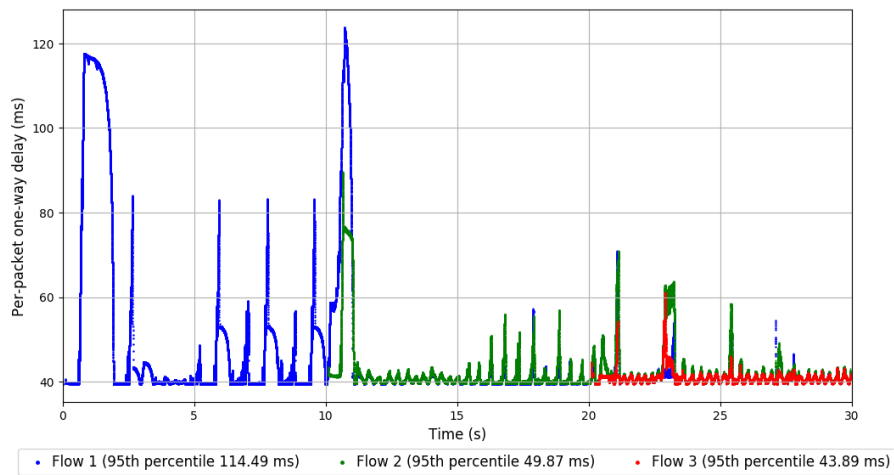
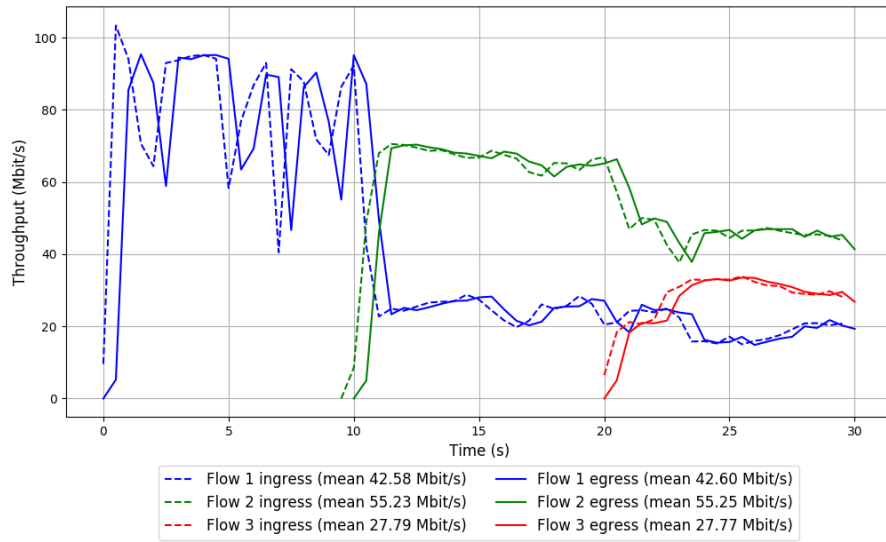
-- Flow 2:

Average throughput: 55.25 Mbit/s
95th percentile per-packet one-way delay: 49.874 ms
Loss rate: 0.28%

-- Flow 3:

Average throughput: 27.77 Mbit/s
95th percentile per-packet one-way delay: 43.886 ms
Loss rate: 0.71%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-05-30 11:52:50
End at: 2019-05-30 11:53:20
Local clock offset: 0.366 ms
Remote clock offset: -3.247 ms

Below is generated by plot.py at 2019-05-30 13:06:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.92 Mbit/s
95th percentile per-packet one-way delay: 89.162 ms
Loss rate: 0.31%

-- Flow 1:

Average throughput: 51.06 Mbit/s
95th percentile per-packet one-way delay: 110.645 ms
Loss rate: 0.24%

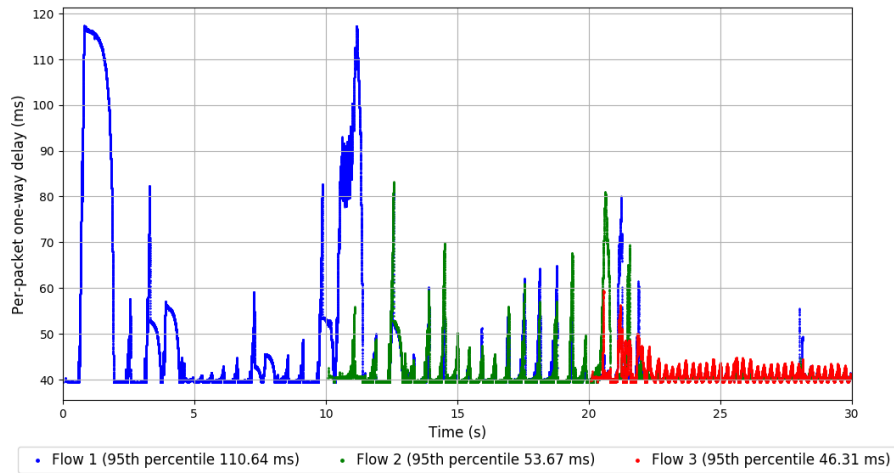
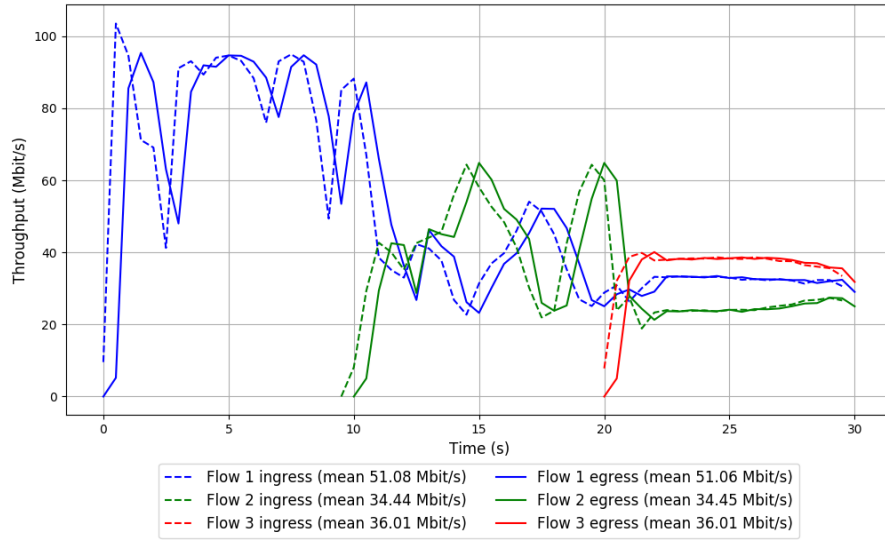
-- Flow 2:

Average throughput: 34.45 Mbit/s
95th percentile per-packet one-way delay: 53.666 ms
Loss rate: 0.28%

-- Flow 3:

Average throughput: 36.01 Mbit/s
95th percentile per-packet one-way delay: 46.313 ms
Loss rate: 0.65%

Run 3: Report of Copa — Data Link

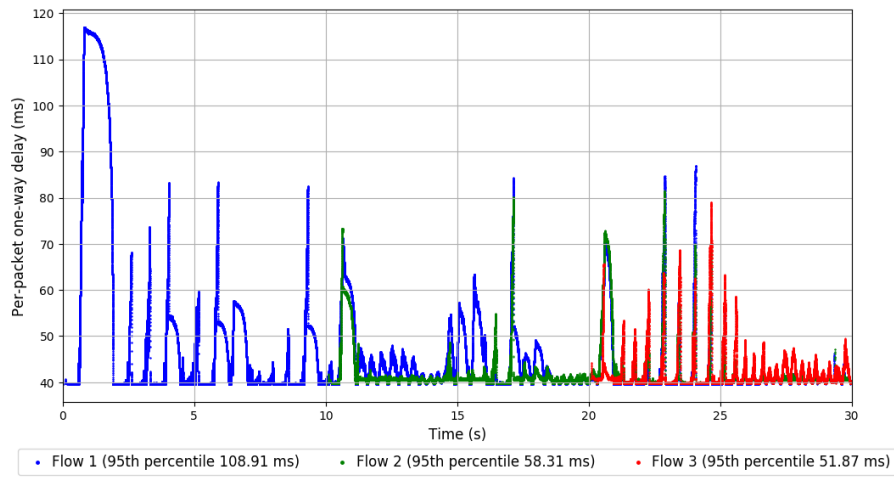
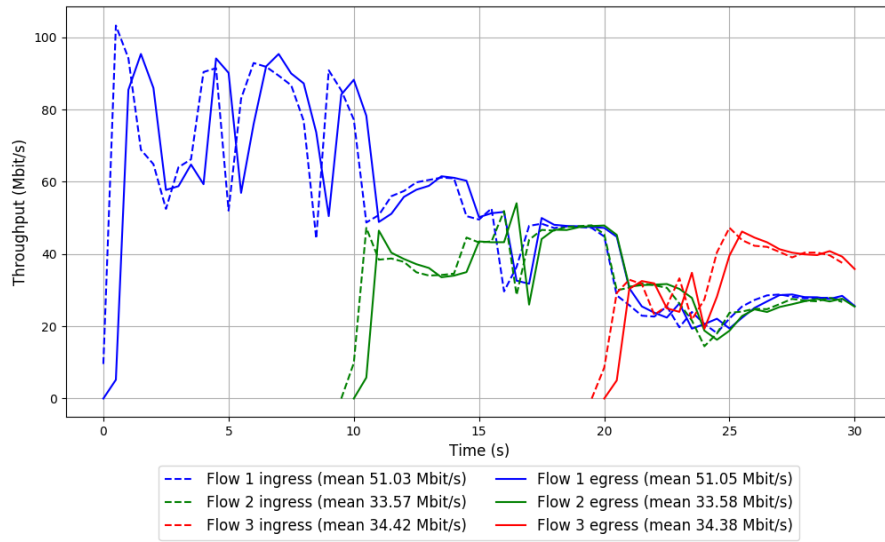


Run 4: Statistics of Copa

Start at: 2019-05-30 12:18:48
End at: 2019-05-30 12:19:18
Local clock offset: 0.291 ms
Remote clock offset: -2.357 ms

```
# Below is generated by plot.py at 2019-05-30 13:07:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.81 Mbit/s
95th percentile per-packet one-way delay: 74.487 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 51.05 Mbit/s
95th percentile per-packet one-way delay: 108.912 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 33.58 Mbit/s
95th percentile per-packet one-way delay: 58.312 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 34.38 Mbit/s
95th percentile per-packet one-way delay: 51.871 ms
Loss rate: 0.77%
```

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-05-30 12:44:39

End at: 2019-05-30 12:45:09

Local clock offset: 0.188 ms

Remote clock offset: -1.63 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.80 Mbit/s

95th percentile per-packet one-way delay: 86.172 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 46.53 Mbit/s

95th percentile per-packet one-way delay: 111.352 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 42.08 Mbit/s

95th percentile per-packet one-way delay: 52.762 ms

Loss rate: 0.16%

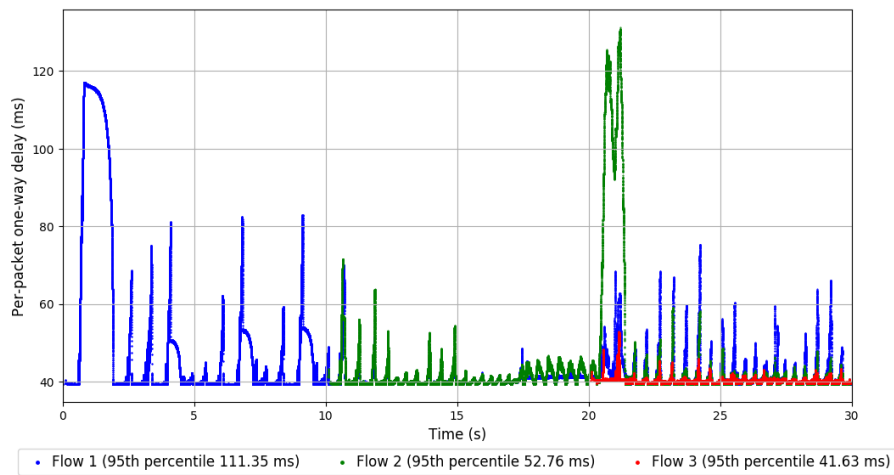
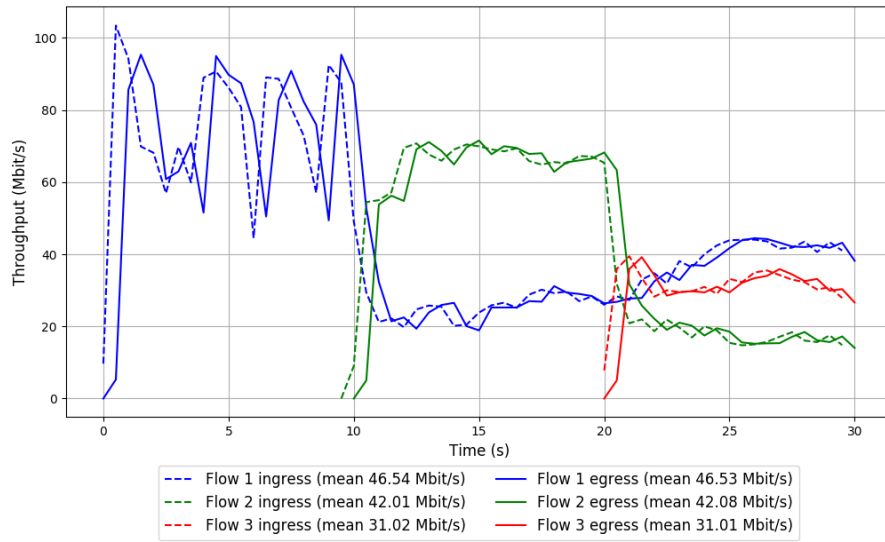
-- Flow 3:

Average throughput: 31.01 Mbit/s

95th percentile per-packet one-way delay: 41.628 ms

Loss rate: 0.68%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-05-30 11:17:03
End at: 2019-05-30 11:17:33
Local clock offset: 0.52 ms
Remote clock offset: -4.736 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.54 Mbit/s
95th percentile per-packet one-way delay: 50.376 ms
Loss rate: 0.26%

-- Flow 1:

Average throughput: 56.05 Mbit/s
95th percentile per-packet one-way delay: 53.286 ms
Loss rate: 0.14%

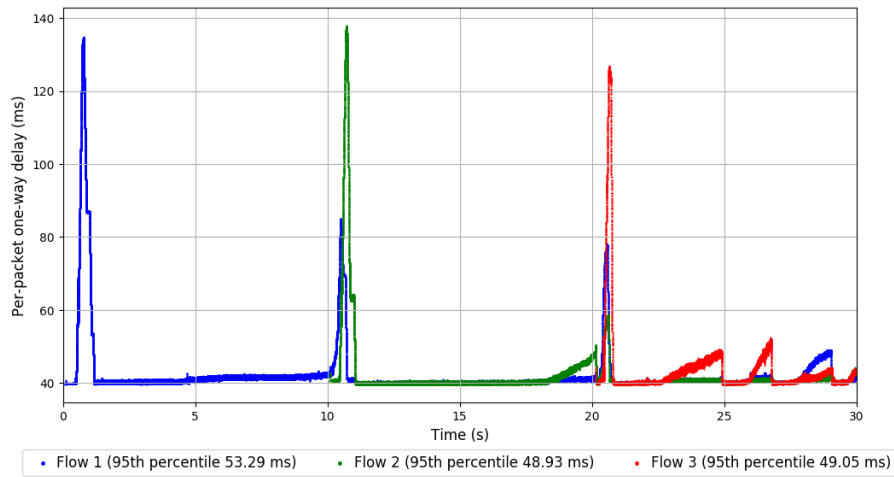
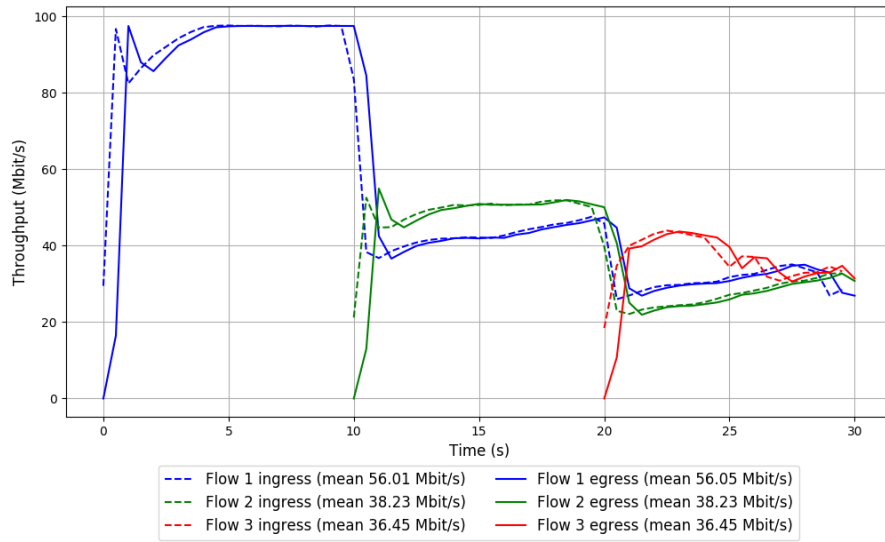
-- Flow 2:

Average throughput: 38.23 Mbit/s
95th percentile per-packet one-way delay: 48.932 ms
Loss rate: 0.32%

-- Flow 3:

Average throughput: 36.45 Mbit/s
95th percentile per-packet one-way delay: 49.049 ms
Loss rate: 0.64%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-05-30 11:42:52
End at: 2019-05-30 11:43:22
Local clock offset: 0.5 ms
Remote clock offset: -3.517 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.71 Mbit/s
95th percentile per-packet one-way delay: 47.999 ms
Loss rate: 0.29%

-- Flow 1:

Average throughput: 48.48 Mbit/s
95th percentile per-packet one-way delay: 46.850 ms
Loss rate: 0.16%

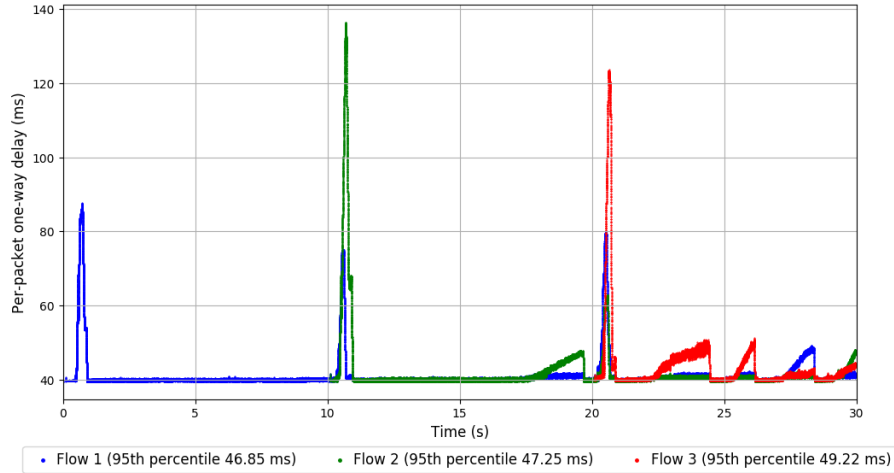
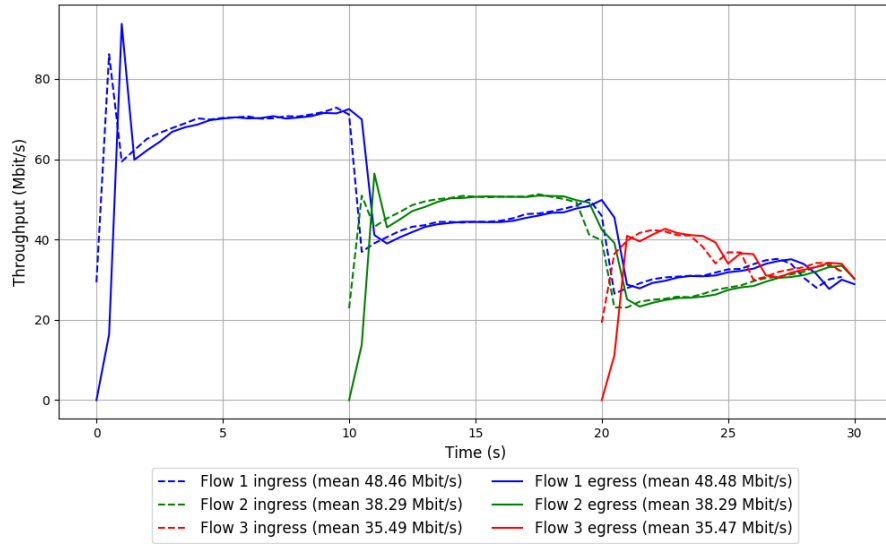
-- Flow 2:

Average throughput: 38.29 Mbit/s
95th percentile per-packet one-way delay: 47.249 ms
Loss rate: 0.33%

-- Flow 3:

Average throughput: 35.47 Mbit/s
95th percentile per-packet one-way delay: 49.215 ms
Loss rate: 0.71%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-05-30 12:08:45
End at: 2019-05-30 12:09:15
Local clock offset: 0.375 ms
Remote clock offset: -2.769 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.62 Mbit/s
95th percentile per-packet one-way delay: 49.743 ms
Loss rate: 0.29%

-- Flow 1:

Average throughput: 52.80 Mbit/s
95th percentile per-packet one-way delay: 48.539 ms
Loss rate: 0.22%

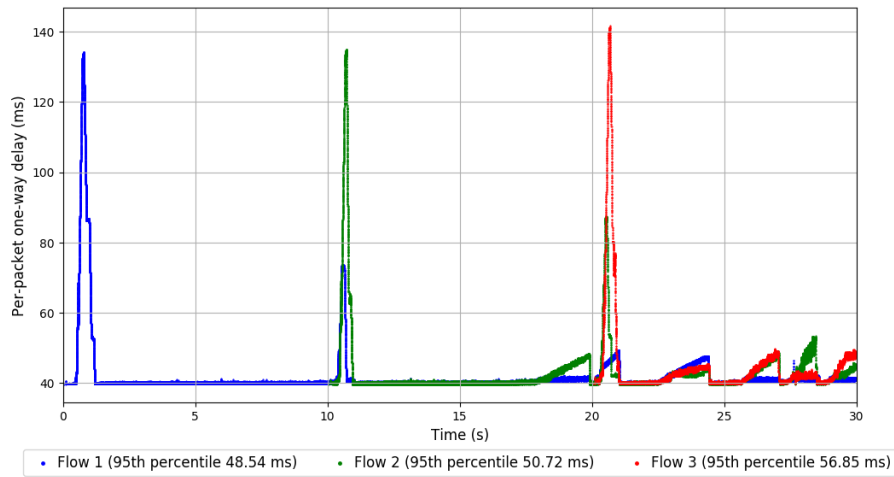
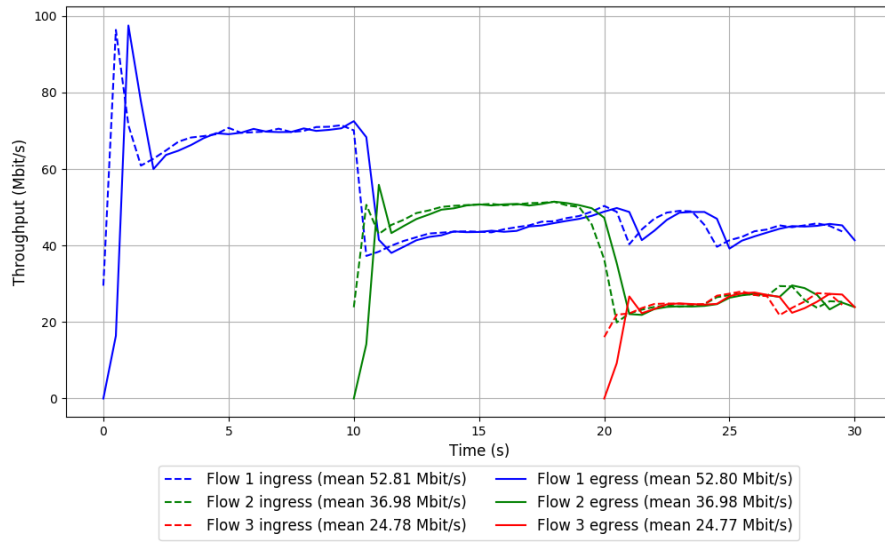
-- Flow 2:

Average throughput: 36.98 Mbit/s
95th percentile per-packet one-way delay: 50.718 ms
Loss rate: 0.30%

-- Flow 3:

Average throughput: 24.77 Mbit/s
95th percentile per-packet one-way delay: 56.852 ms
Loss rate: 0.67%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-05-30 12:34:38
End at: 2019-05-30 12:35:08
Local clock offset: 0.305 ms
Remote clock offset: -1.804 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 49.700 ms
Loss rate: 0.25%

-- Flow 1:

Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 53.356 ms
Loss rate: 0.13%

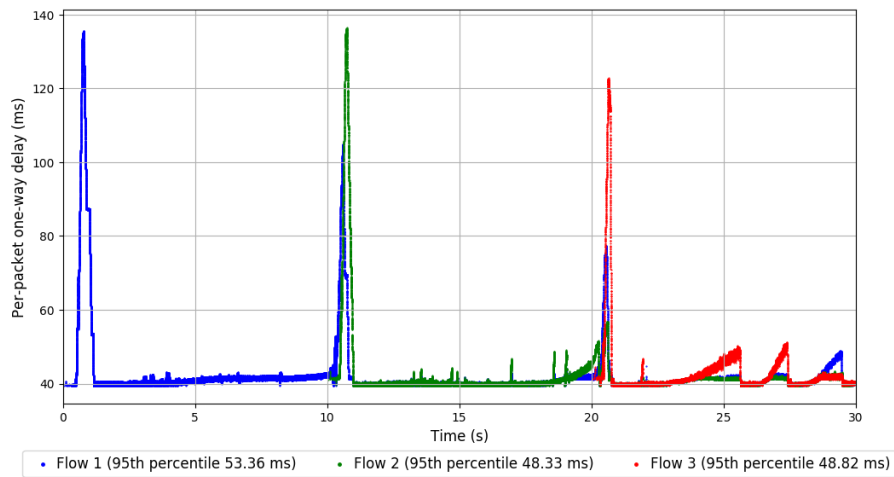
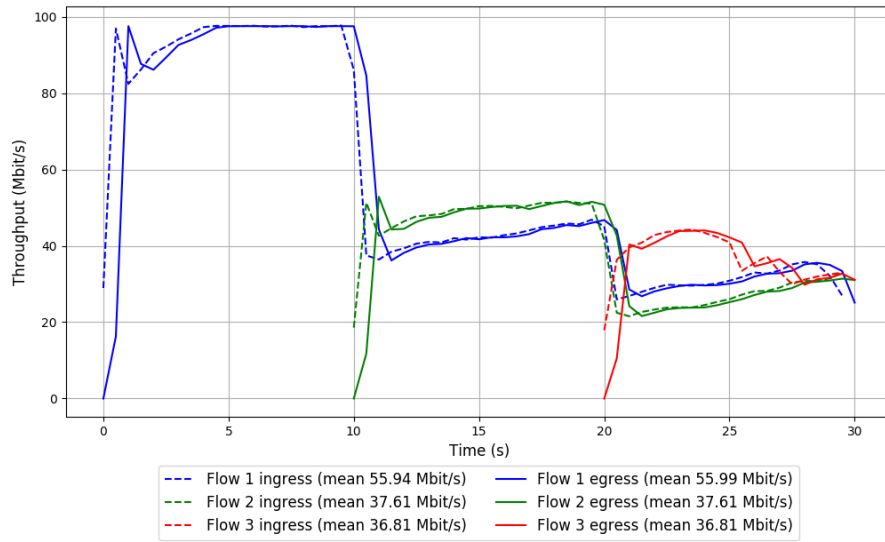
-- Flow 2:

Average throughput: 37.61 Mbit/s
95th percentile per-packet one-way delay: 48.327 ms
Loss rate: 0.32%

-- Flow 3:

Average throughput: 36.81 Mbit/s
95th percentile per-packet one-way delay: 48.820 ms
Loss rate: 0.67%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-05-30 13:00:45
End at: 2019-05-30 13:01:15
Local clock offset: 0.147 ms
Remote clock offset: -1.333 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.24 Mbit/s
95th percentile per-packet one-way delay: 53.337 ms
Loss rate: 0.25%

-- Flow 1:

Average throughput: 45.69 Mbit/s
95th percentile per-packet one-way delay: 57.232 ms
Loss rate: 0.15%

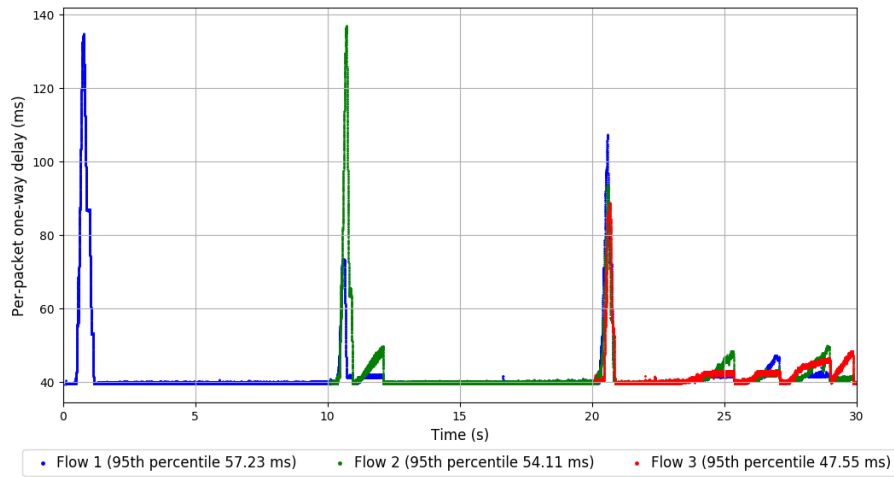
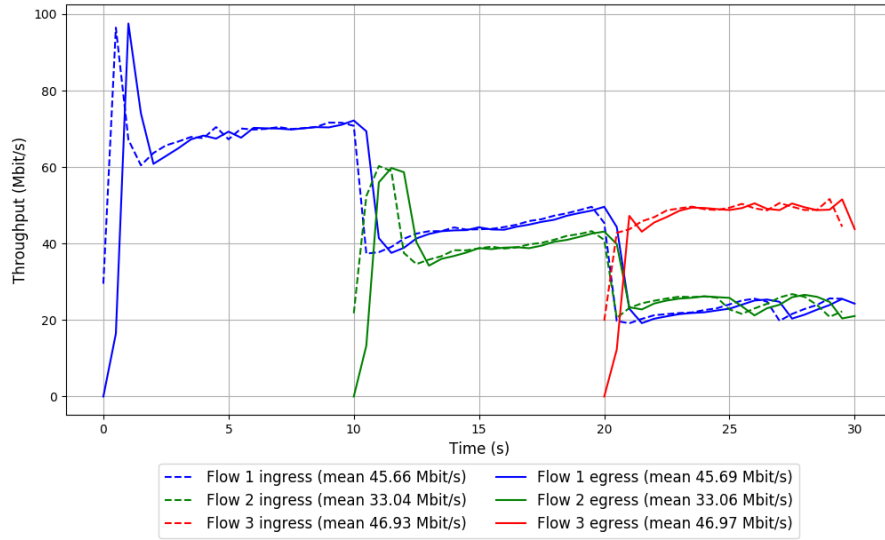
-- Flow 2:

Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 54.109 ms
Loss rate: 0.26%

-- Flow 3:

Average throughput: 46.97 Mbit/s
95th percentile per-packet one-way delay: 47.550 ms
Loss rate: 0.55%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-05-30 10:57:34
End at: 2019-05-30 10:58:04
Local clock offset: 0.216 ms
Remote clock offset: -5.442 ms

Below is generated by plot.py at 2019-05-30 13:08:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 121.264 ms
Loss rate: 1.30%

-- Flow 1:

Average throughput: 55.76 Mbit/s
95th percentile per-packet one-way delay: 107.960 ms
Loss rate: 0.26%

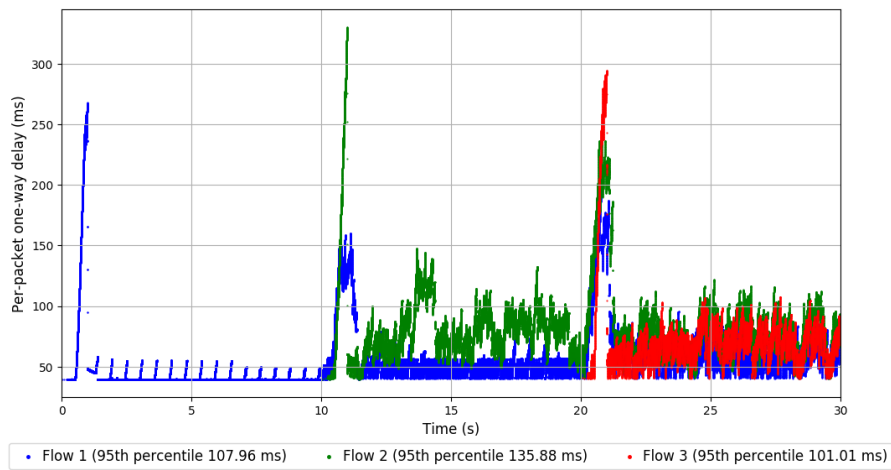
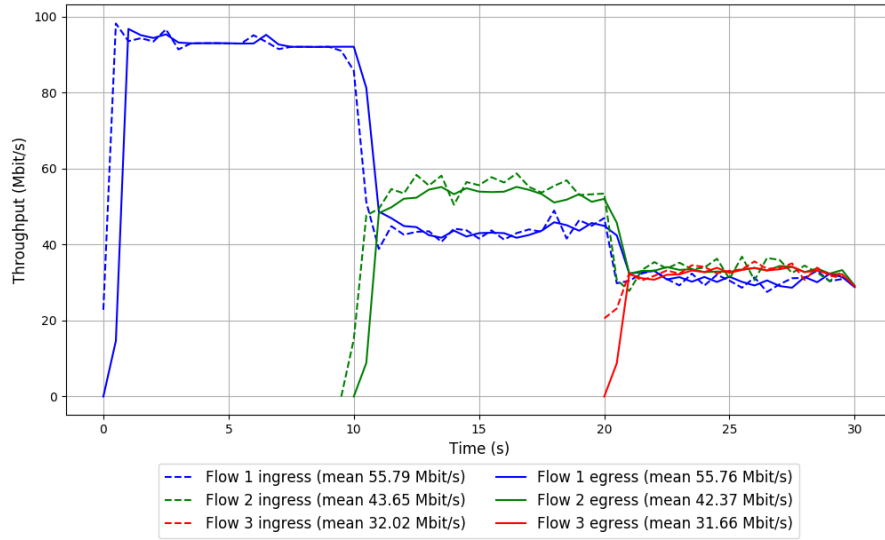
-- Flow 2:

Average throughput: 42.37 Mbit/s
95th percentile per-packet one-way delay: 135.880 ms
Loss rate: 3.17%

-- Flow 3:

Average throughput: 31.66 Mbit/s
95th percentile per-packet one-way delay: 101.007 ms
Loss rate: 1.68%

Run 1: Report of FillP — Data Link

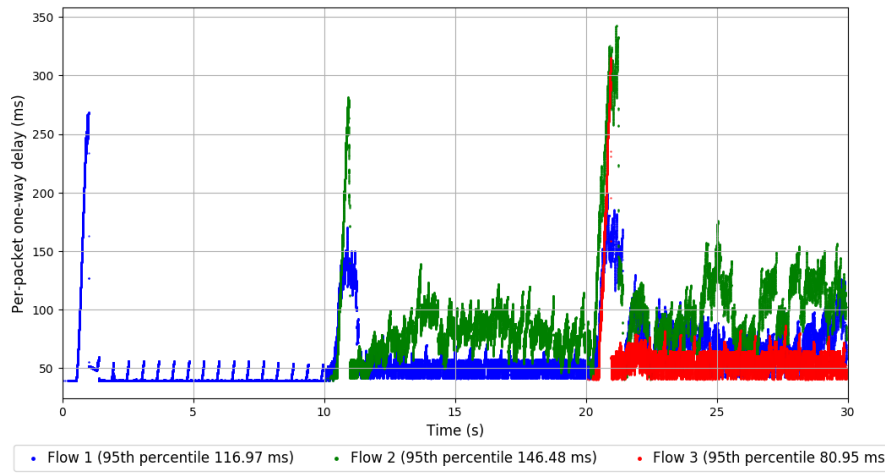
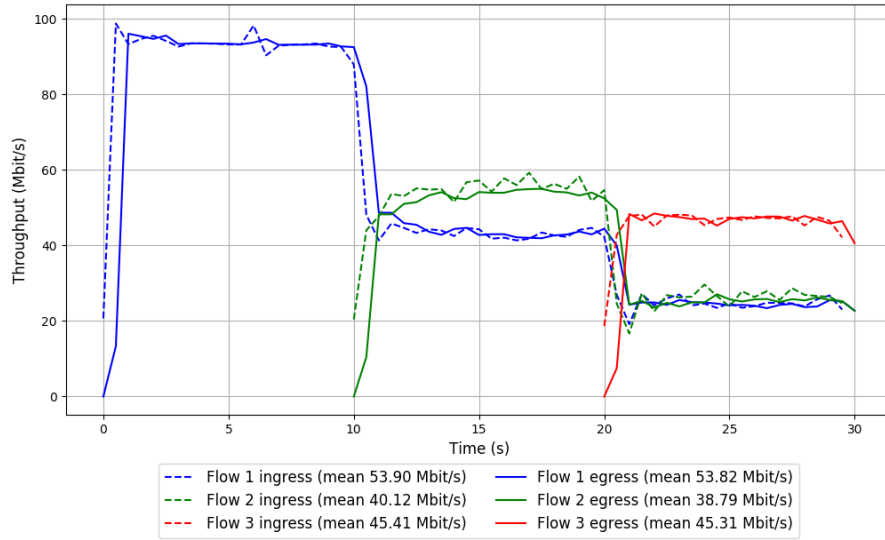


Run 2: Statistics of FillP

Start at: 2019-05-30 11:23:25
End at: 2019-05-30 11:23:55
Local clock offset: 0.564 ms
Remote clock offset: -4.324 ms

```
# Below is generated by plot.py at 2019-05-30 13:08:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 131.468 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 53.82 Mbit/s
95th percentile per-packet one-way delay: 116.973 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 38.79 Mbit/s
95th percentile per-packet one-way delay: 146.479 ms
Loss rate: 3.52%
-- Flow 3:
Average throughput: 45.31 Mbit/s
95th percentile per-packet one-way delay: 80.949 ms
Loss rate: 0.86%
```

Run 2: Report of FillP — Data Link

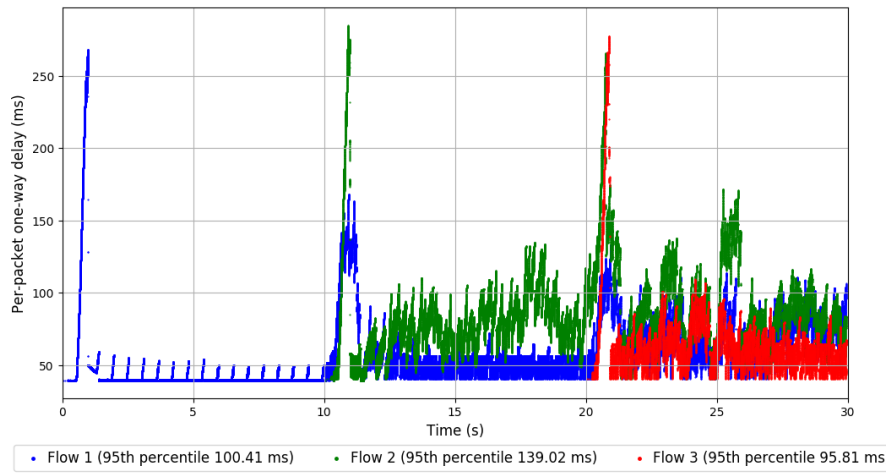
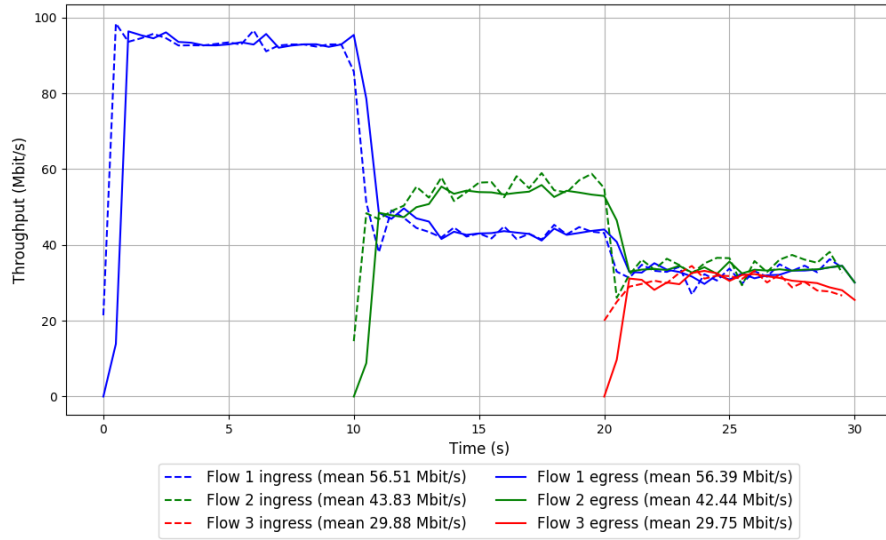


Run 3: Statistics of FillP

Start at: 2019-05-30 11:49:09
End at: 2019-05-30 11:49:39
Local clock offset: 0.364 ms
Remote clock offset: -3.279 ms

```
# Below is generated by plot.py at 2019-05-30 13:08:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.48 Mbit/s
95th percentile per-packet one-way delay: 122.485 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 56.39 Mbit/s
95th percentile per-packet one-way delay: 100.406 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 42.44 Mbit/s
95th percentile per-packet one-way delay: 139.019 ms
Loss rate: 3.49%
-- Flow 3:
Average throughput: 29.75 Mbit/s
95th percentile per-packet one-way delay: 95.810 ms
Loss rate: 0.87%
```

Run 3: Report of FillP — Data Link

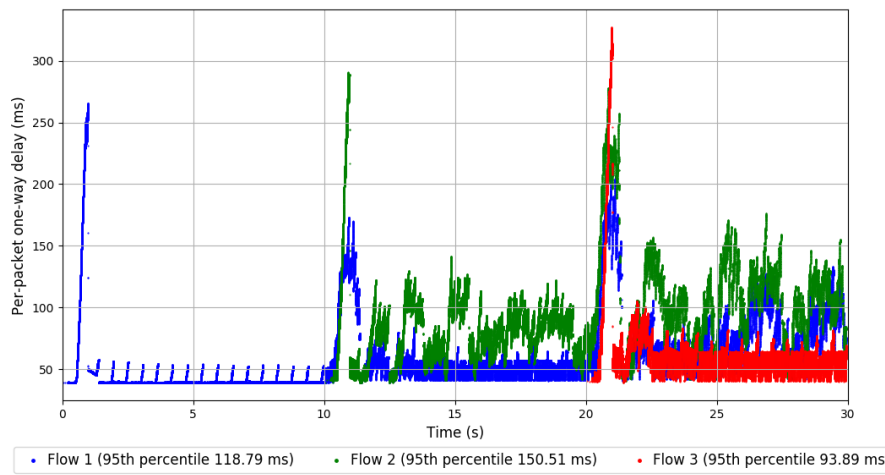
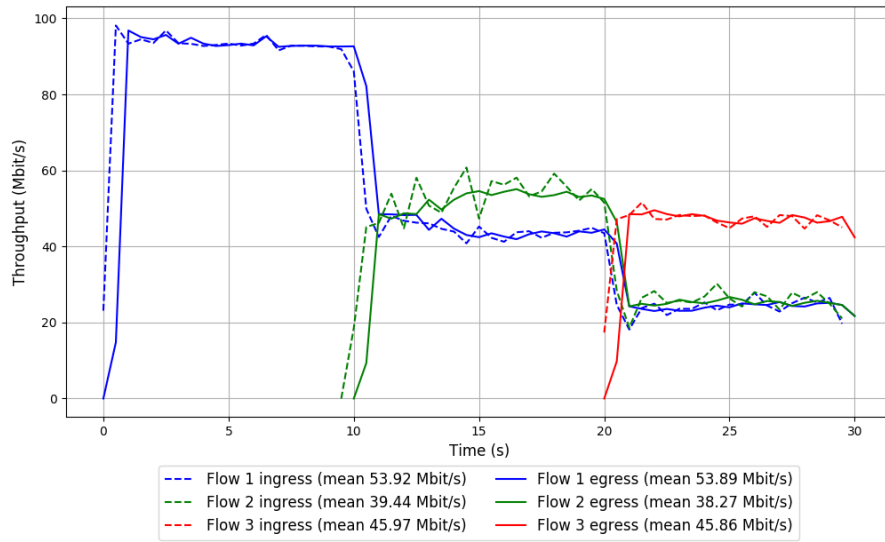


Run 4: Statistics of FillP

Start at: 2019-05-30 12:14:55
End at: 2019-05-30 12:15:25
Local clock offset: 0.284 ms
Remote clock offset: -2.408 ms

```
# Below is generated by plot.py at 2019-05-30 13:08:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.54 Mbit/s
95th percentile per-packet one-way delay: 132.819 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 53.89 Mbit/s
95th percentile per-packet one-way delay: 118.788 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 38.27 Mbit/s
95th percentile per-packet one-way delay: 150.508 ms
Loss rate: 3.18%
-- Flow 3:
Average throughput: 45.86 Mbit/s
95th percentile per-packet one-way delay: 93.889 ms
Loss rate: 0.87%
```

Run 4: Report of FillP — Data Link

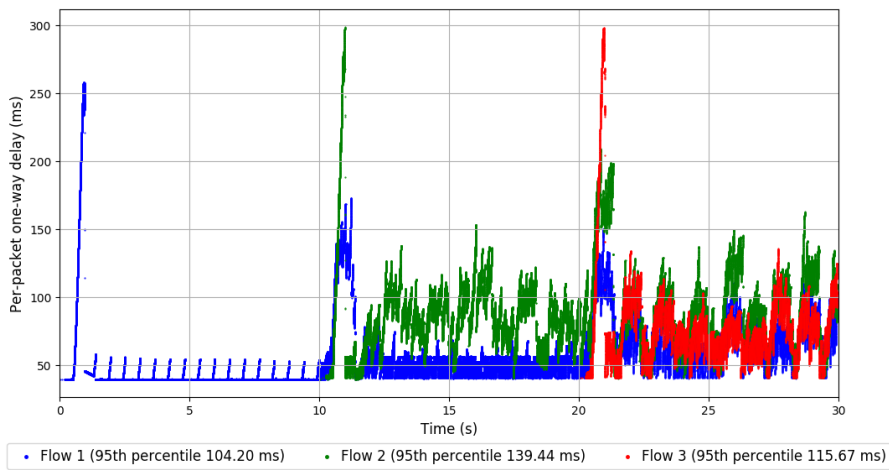
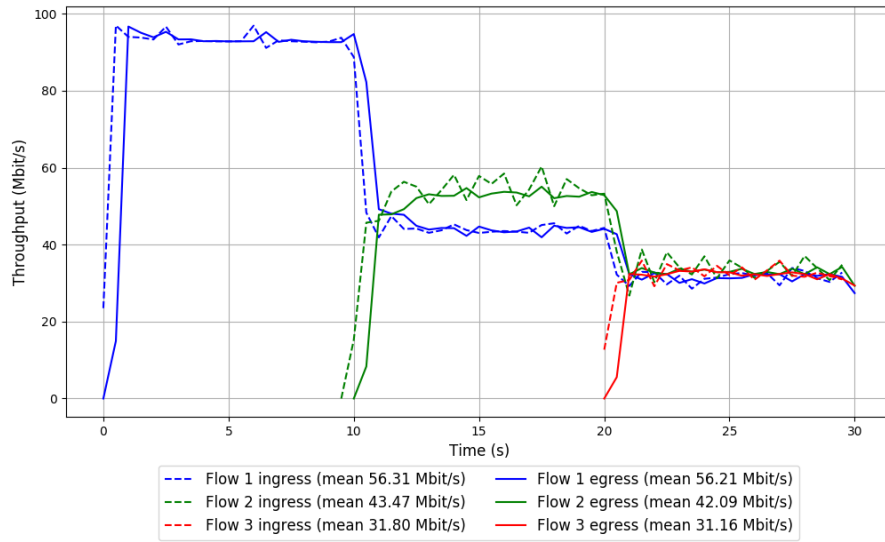


Run 5: Statistics of FillP

Start at: 2019-05-30 12:40:56
End at: 2019-05-30 12:41:26
Local clock offset: 0.231 ms
Remote clock offset: -1.864 ms

```
# Below is generated by plot.py at 2019-05-30 13:09:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 124.392 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 104.203 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 42.09 Mbit/s
95th percentile per-packet one-way delay: 139.436 ms
Loss rate: 3.48%
-- Flow 3:
Average throughput: 31.16 Mbit/s
95th percentile per-packet one-way delay: 115.666 ms
Loss rate: 2.45%
```

Run 5: Report of FillP — Data Link

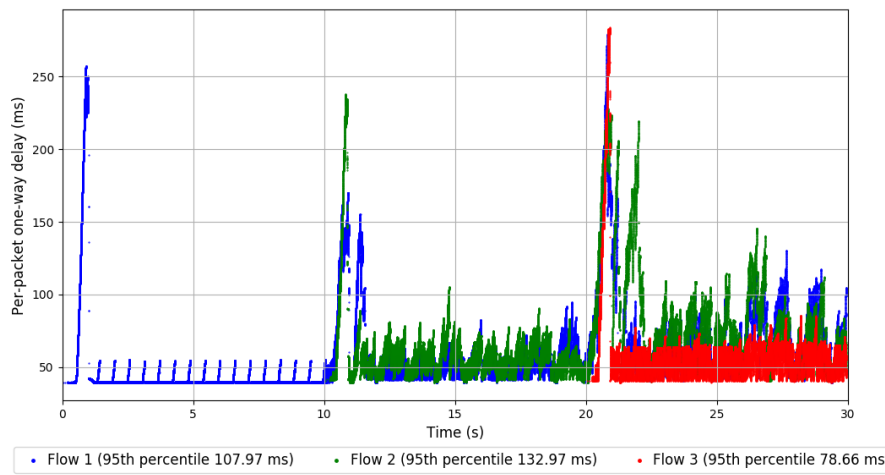
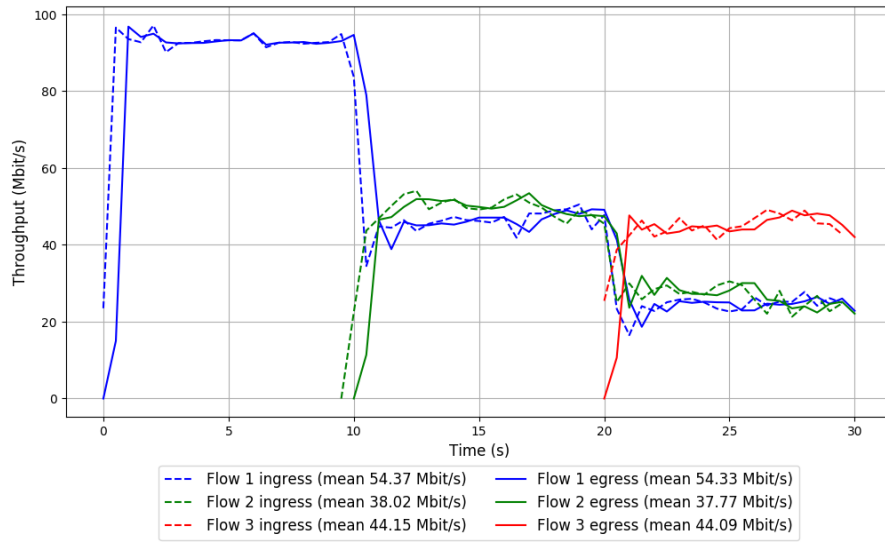


Run 1: Statistics of FillP-Sheep

Start at: 2019-05-30 10:59:59
End at: 2019-05-30 11:00:29
Local clock offset: 0.362 ms
Remote clock offset: -5.379 ms

```
# Below is generated by plot.py at 2019-05-30 13:09:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.08 Mbit/s
95th percentile per-packet one-way delay: 115.925 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 107.972 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 132.965 ms
Loss rate: 0.92%
-- Flow 3:
Average throughput: 44.09 Mbit/s
95th percentile per-packet one-way delay: 78.658 ms
Loss rate: 0.56%
```

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-05-30 11:25:51
End at: 2019-05-30 11:26:21
Local clock offset: 0.595 ms
Remote clock offset: -4.125 ms

Below is generated by plot.py at 2019-05-30 13:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.99 Mbit/s
95th percentile per-packet one-way delay: 106.943 ms
Loss rate: 0.45%

-- Flow 1:

Average throughput: 57.42 Mbit/s
95th percentile per-packet one-way delay: 113.692 ms
Loss rate: 0.30%

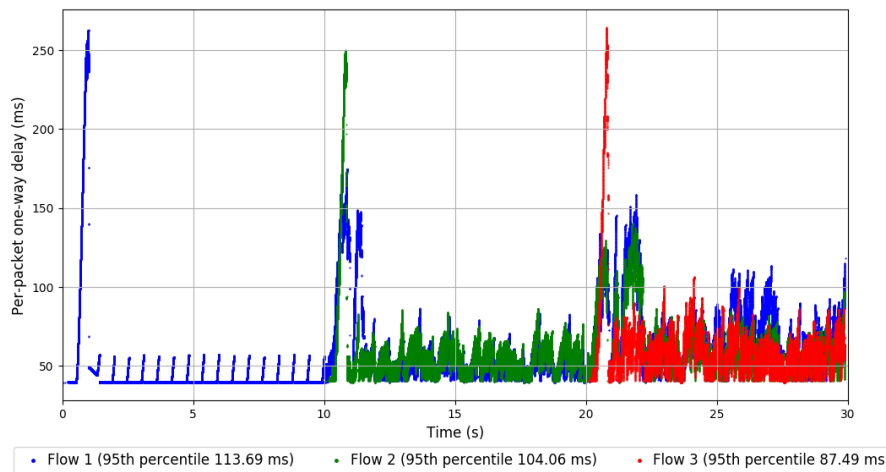
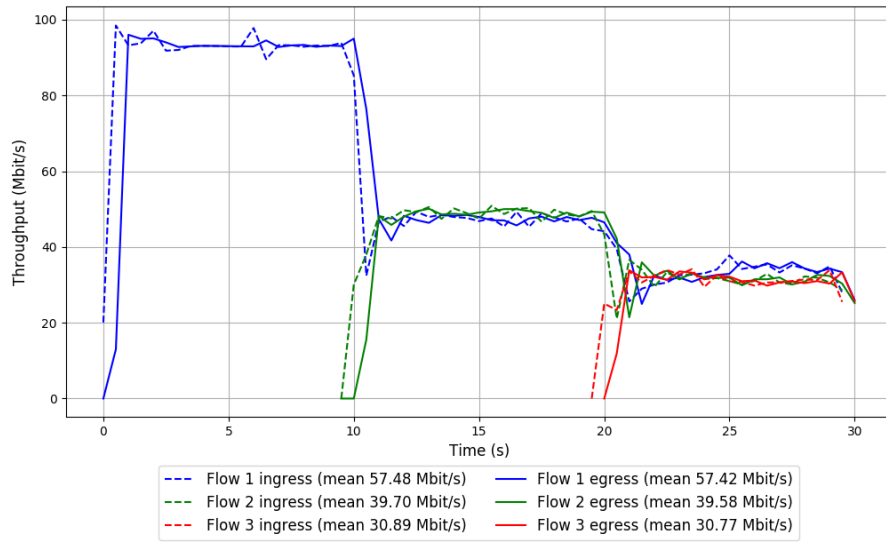
-- Flow 2:

Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 104.064 ms
Loss rate: 0.59%

-- Flow 3:

Average throughput: 30.77 Mbit/s
95th percentile per-packet one-way delay: 87.487 ms
Loss rate: 0.89%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-05-30 11:51:37

End at: 2019-05-30 11:52:07

Local clock offset: 0.351 ms

Remote clock offset: -3.36 ms

Below is generated by plot.py at 2019-05-30 13:09:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.19 Mbit/s

95th percentile per-packet one-way delay: 102.655 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 61.66 Mbit/s

95th percentile per-packet one-way delay: 85.392 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 36.48 Mbit/s

95th percentile per-packet one-way delay: 134.416 ms

Loss rate: 0.65%

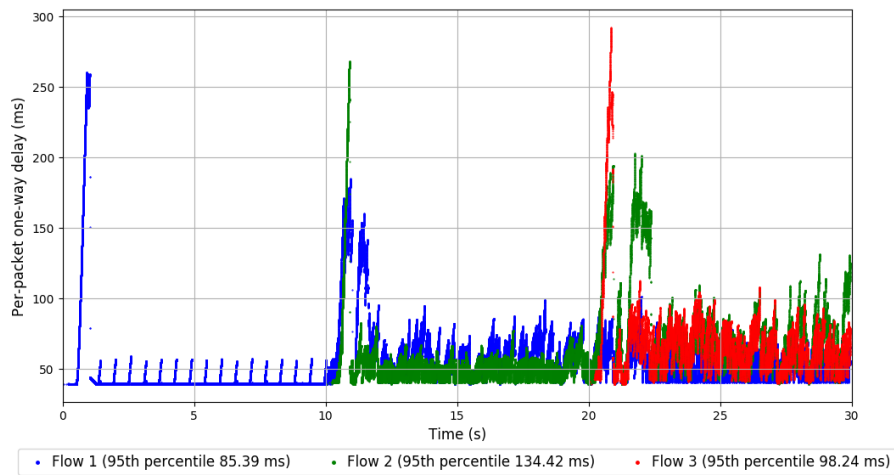
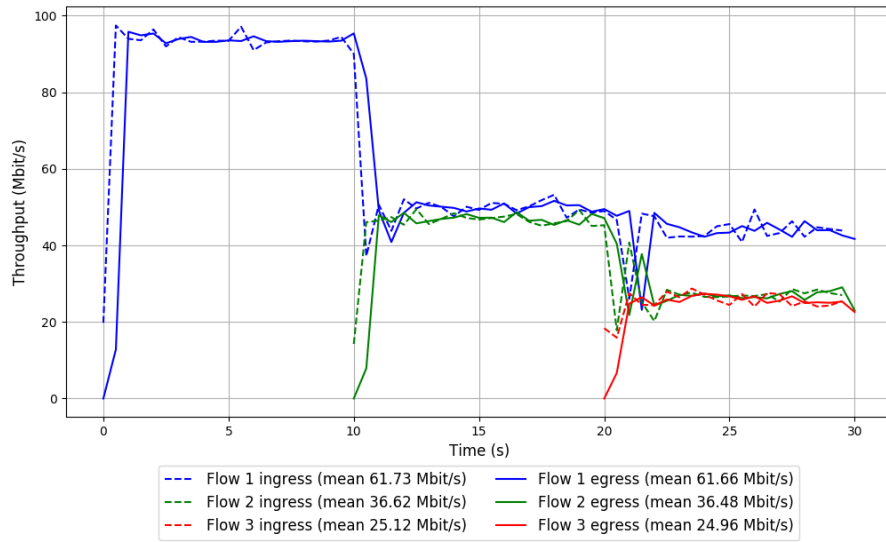
-- Flow 3:

Average throughput: 24.96 Mbit/s

95th percentile per-packet one-way delay: 98.238 ms

Loss rate: 1.27%

Run 3: Report of FillP-Sheep — Data Link

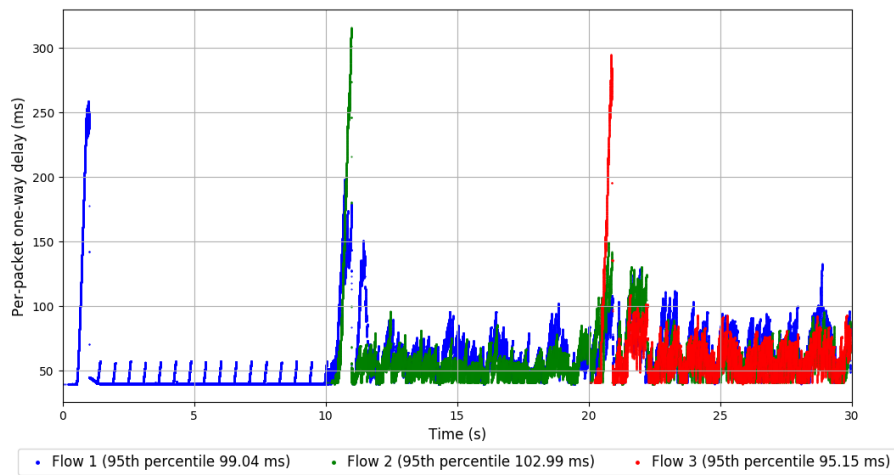
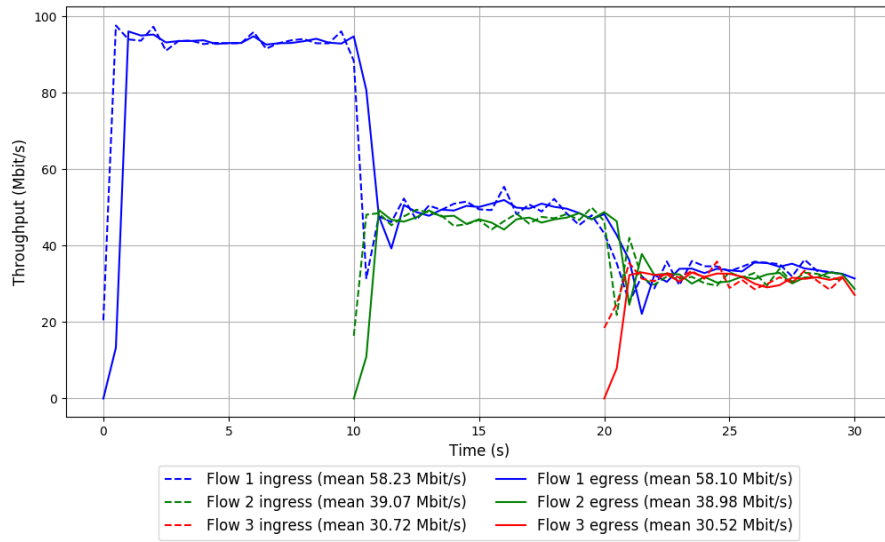


Run 4: Statistics of FillP-Sheep

Start at: 2019-05-30 12:17:31
End at: 2019-05-30 12:18:01
Local clock offset: 0.277 ms
Remote clock offset: -2.531 ms

```
# Below is generated by plot.py at 2019-05-30 13:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.13 Mbit/s
95th percentile per-packet one-way delay: 99.871 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 58.10 Mbit/s
95th percentile per-packet one-way delay: 99.036 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 102.986 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 30.52 Mbit/s
95th percentile per-packet one-way delay: 95.147 ms
Loss rate: 1.09%
```

Run 4: Report of FillP-Sheep — Data Link

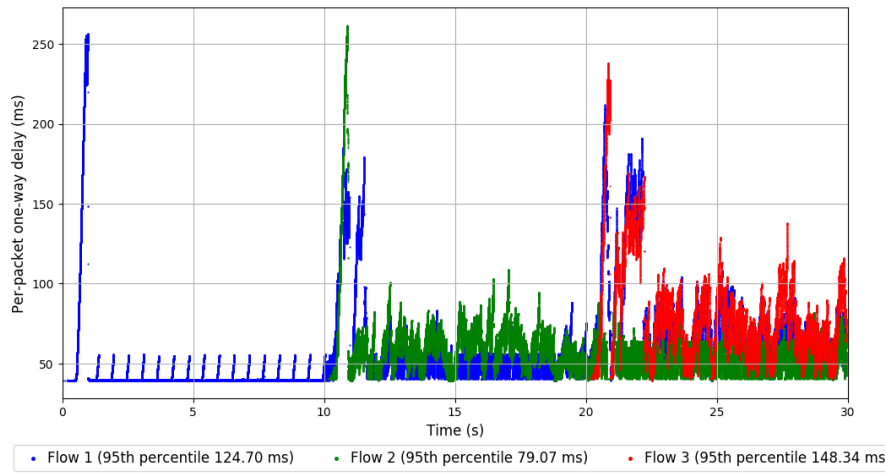
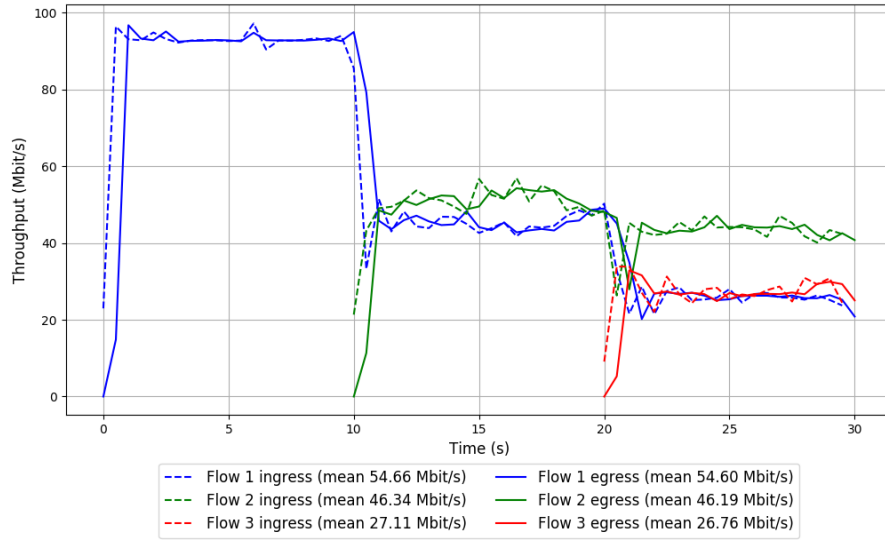


Run 5: Statistics of FillP-Sheep

Start at: 2019-05-30 12:43:23
End at: 2019-05-30 12:43:53
Local clock offset: 0.211 ms
Remote clock offset: -1.679 ms

```
# Below is generated by plot.py at 2019-05-30 13:09:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.20 Mbit/s
95th percentile per-packet one-way delay: 113.516 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 54.60 Mbit/s
95th percentile per-packet one-way delay: 124.702 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 46.19 Mbit/s
95th percentile per-packet one-way delay: 79.072 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 26.76 Mbit/s
95th percentile per-packet one-way delay: 148.336 ms
Loss rate: 1.75%
```

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-05-30 11:18:18
End at: 2019-05-30 11:18:48
Local clock offset: 0.5 ms
Remote clock offset: -4.531 ms

Below is generated by plot.py at 2019-05-30 13:09:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.05 Mbit/s
95th percentile per-packet one-way delay: 51.289 ms
Loss rate: 0.30%

-- Flow 1:

Average throughput: 56.55 Mbit/s
95th percentile per-packet one-way delay: 58.005 ms
Loss rate: 0.18%

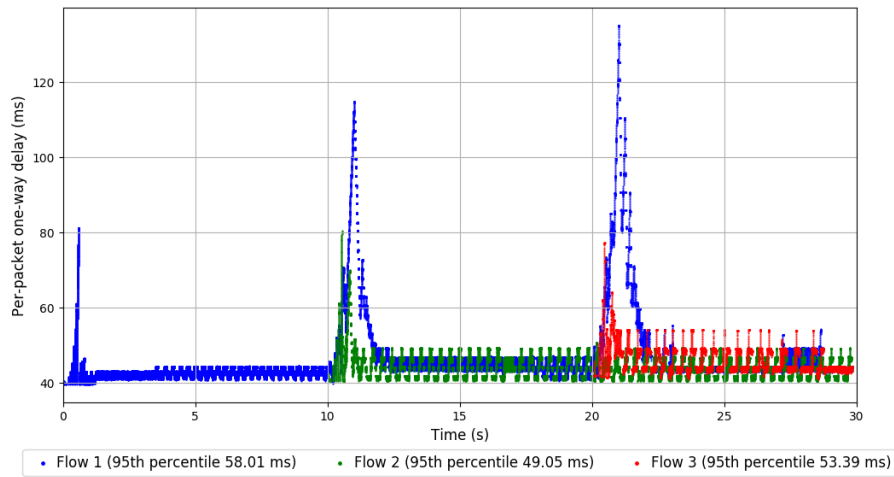
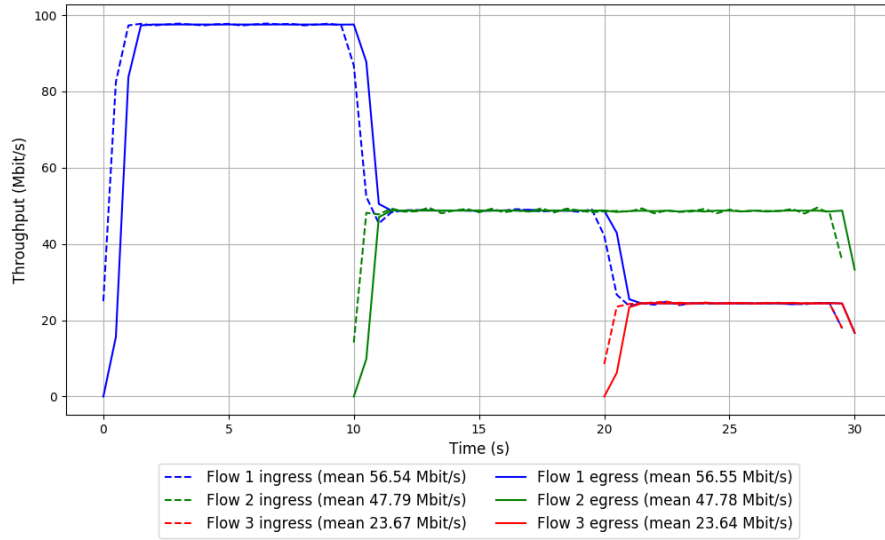
-- Flow 2:

Average throughput: 47.78 Mbit/s
95th percentile per-packet one-way delay: 49.045 ms
Loss rate: 0.36%

-- Flow 3:

Average throughput: 23.64 Mbit/s
95th percentile per-packet one-way delay: 53.386 ms
Loss rate: 0.83%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-05-30 11:44:05
End at: 2019-05-30 11:44:35
Local clock offset: 0.45 ms
Remote clock offset: -3.667 ms

Below is generated by plot.py at 2019-05-30 13:09:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 51.862 ms
Loss rate: 0.28%

-- Flow 1:

Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 52.319 ms
Loss rate: 0.19%

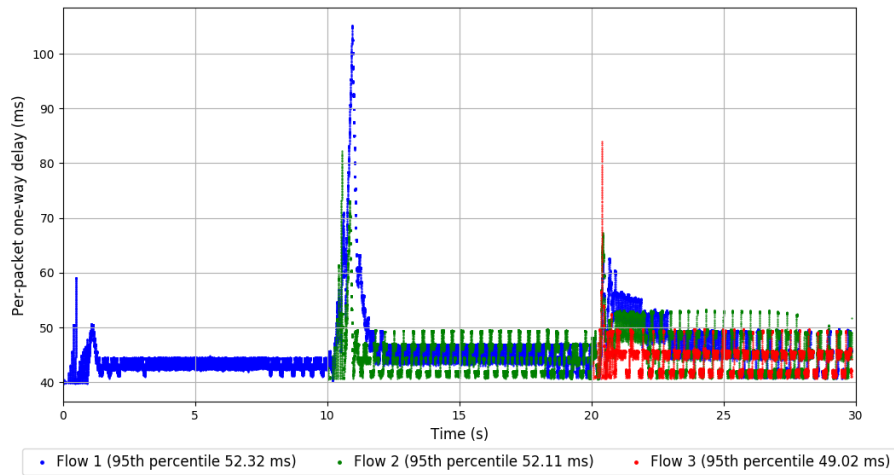
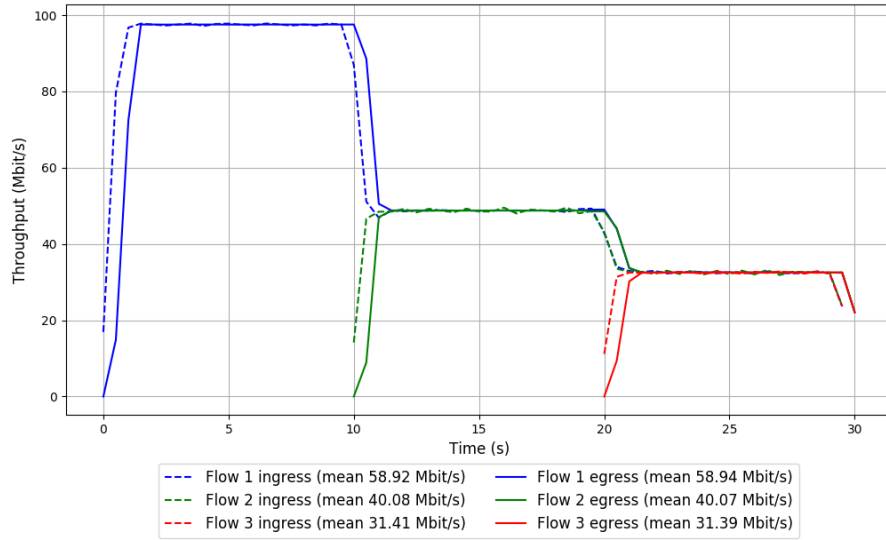
-- Flow 2:

Average throughput: 40.07 Mbit/s
95th percentile per-packet one-way delay: 52.112 ms
Loss rate: 0.33%

-- Flow 3:

Average throughput: 31.39 Mbit/s
95th percentile per-packet one-way delay: 49.015 ms
Loss rate: 0.69%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-05-30 12:09:58
End at: 2019-05-30 12:10:28
Local clock offset: 0.366 ms
Remote clock offset: -2.548 ms

Below is generated by plot.py at 2019-05-30 13:10:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.87 Mbit/s
95th percentile per-packet one-way delay: 51.843 ms
Loss rate: 0.28%

-- Flow 1:

Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 53.352 ms
Loss rate: 0.21%

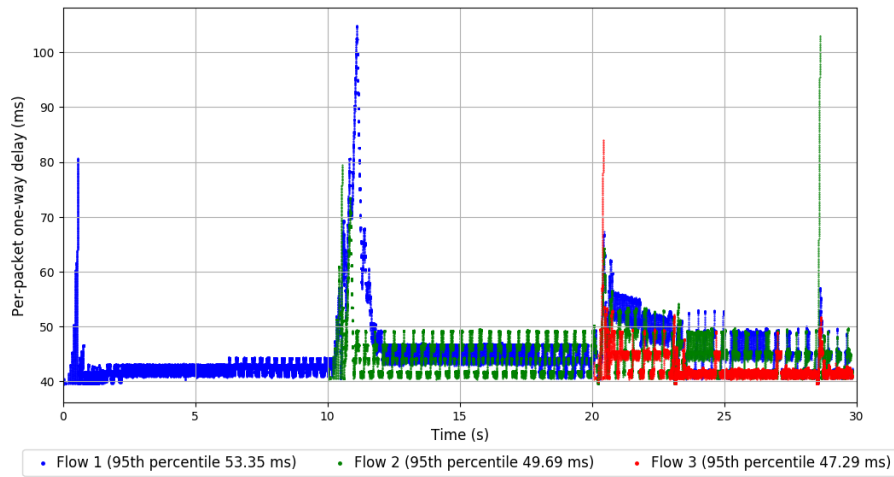
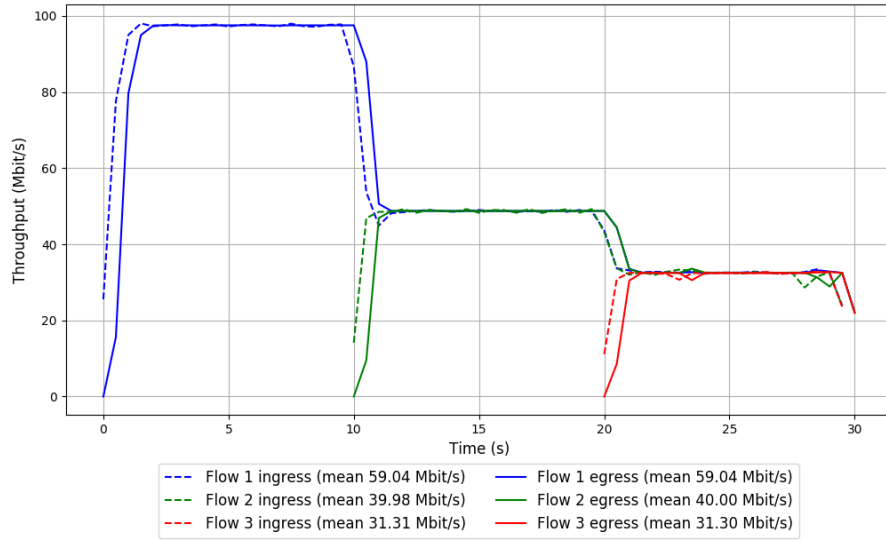
-- Flow 2:

Average throughput: 40.00 Mbit/s
95th percentile per-packet one-way delay: 49.690 ms
Loss rate: 0.28%

-- Flow 3:

Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 47.287 ms
Loss rate: 0.70%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-05-30 12:35:51
End at: 2019-05-30 12:36:21
Local clock offset: 0.332 ms
Remote clock offset: -1.993 ms

Below is generated by plot.py at 2019-05-30 13:10:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 49.446 ms
Loss rate: 0.35%

-- Flow 1:

Average throughput: 56.29 Mbit/s
95th percentile per-packet one-way delay: 51.260 ms
Loss rate: 0.16%

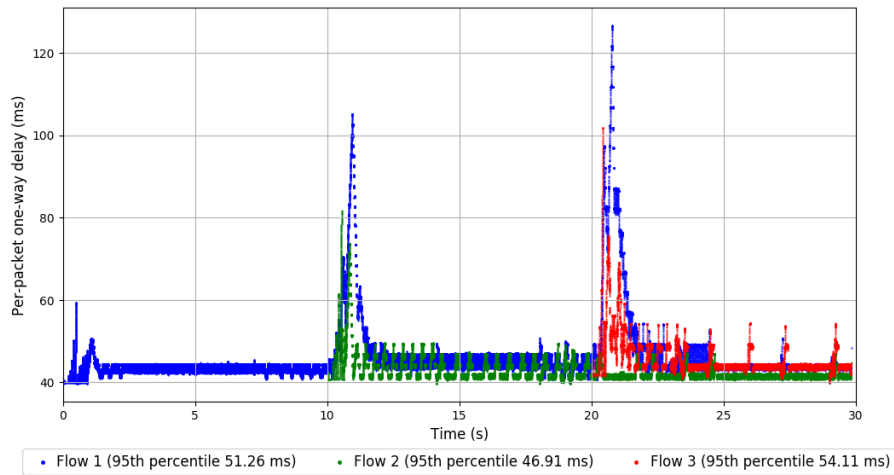
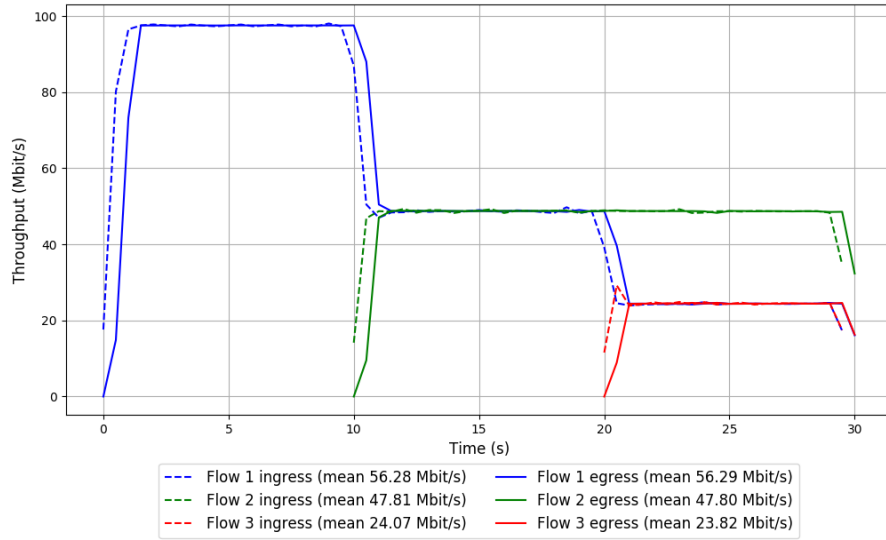
-- Flow 2:

Average throughput: 47.80 Mbit/s
95th percentile per-packet one-way delay: 46.911 ms
Loss rate: 0.34%

-- Flow 3:

Average throughput: 23.82 Mbit/s
95th percentile per-packet one-way delay: 54.112 ms
Loss rate: 1.72%

Run 4: Report of Indigo — Data Link

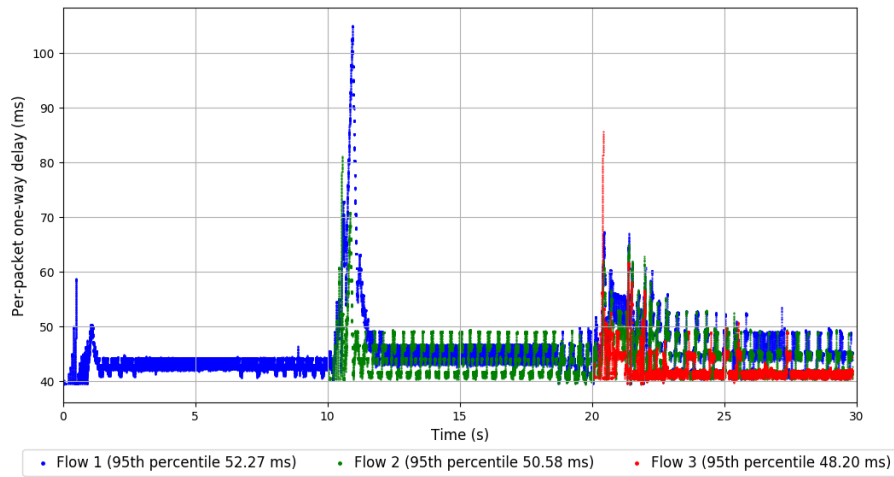
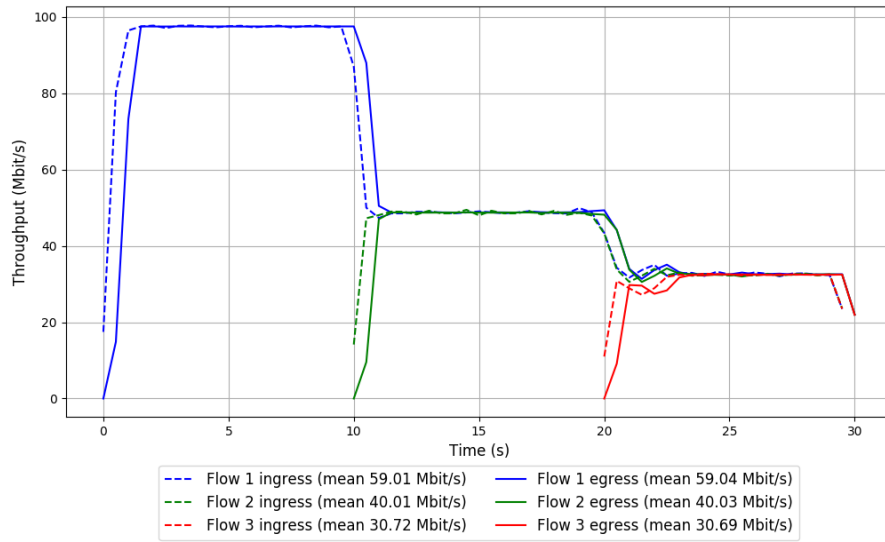


Run 5: Statistics of Indigo

Start at: 2019-05-30 13:01:58
End at: 2019-05-30 13:02:28
Local clock offset: 0.143 ms
Remote clock offset: -1.264 ms

```
# Below is generated by plot.py at 2019-05-30 13:10:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.68 Mbit/s
95th percentile per-packet one-way delay: 51.379 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 52.273 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 40.03 Mbit/s
95th percentile per-packet one-way delay: 50.577 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 30.69 Mbit/s
95th percentile per-packet one-way delay: 48.200 ms
Loss rate: 0.71%
```

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-05-30 10:58:46
End at: 2019-05-30 10:59:16
Local clock offset: 0.282 ms
Remote clock offset: -5.393 ms

Below is generated by plot.py at 2019-05-30 13:10:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 58.927 ms
Loss rate: 0.34%

-- Flow 1:

Average throughput: 60.51 Mbit/s
95th percentile per-packet one-way delay: 59.219 ms
Loss rate: 0.20%

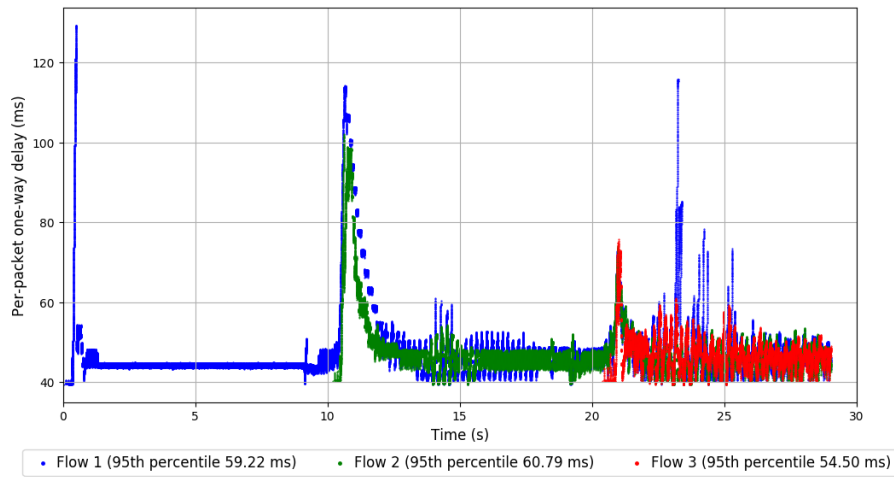
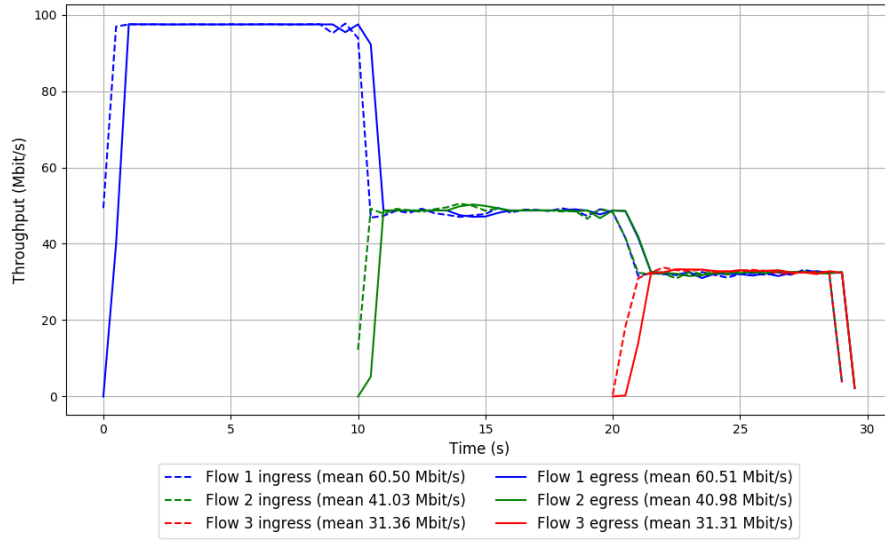
-- Flow 2:

Average throughput: 40.98 Mbit/s
95th percentile per-packet one-way delay: 60.787 ms
Loss rate: 0.47%

-- Flow 3:

Average throughput: 31.31 Mbit/s
95th percentile per-packet one-way delay: 54.497 ms
Loss rate: 0.86%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-05-30 11:24:38

End at: 2019-05-30 11:25:08

Local clock offset: 0.565 ms

Remote clock offset: -4.27 ms

Below is generated by plot.py at 2019-05-30 13:10:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.46 Mbit/s

95th percentile per-packet one-way delay: 58.096 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 60.99 Mbit/s

95th percentile per-packet one-way delay: 62.301 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 40.17 Mbit/s

95th percentile per-packet one-way delay: 53.089 ms

Loss rate: 0.35%

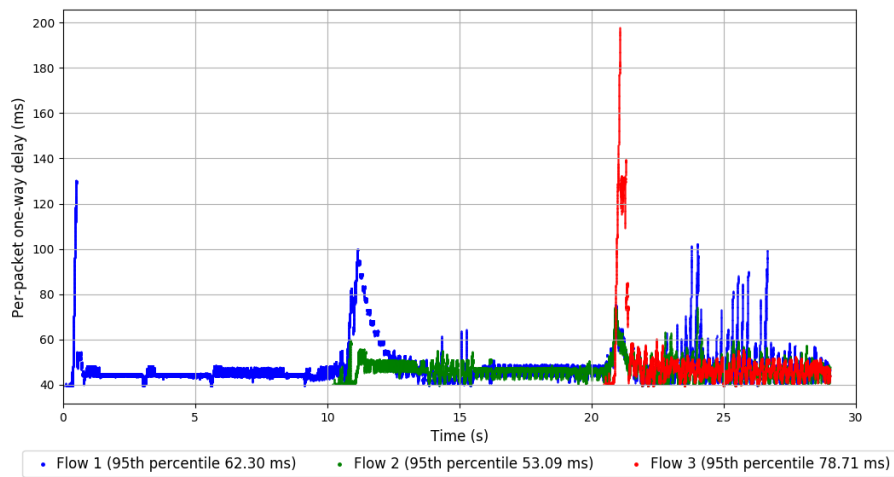
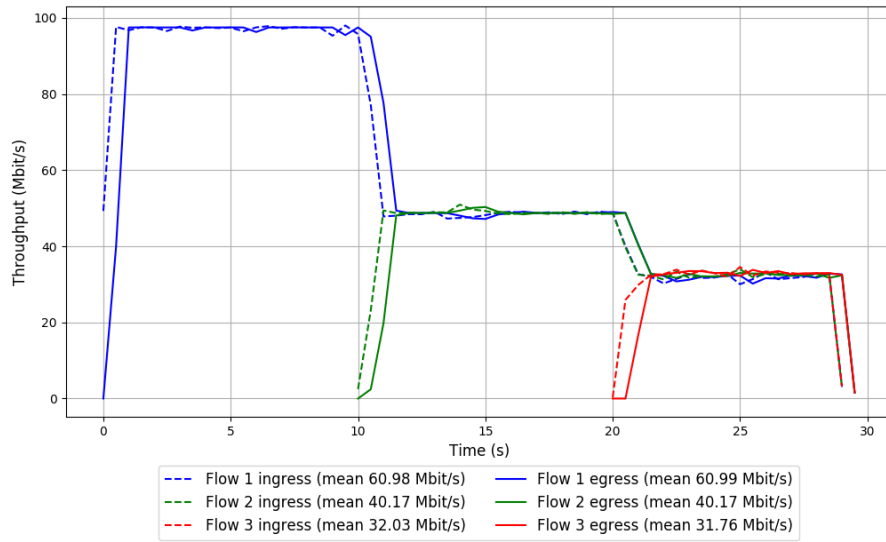
-- Flow 3:

Average throughput: 31.76 Mbit/s

95th percentile per-packet one-way delay: 78.706 ms

Loss rate: 1.56%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-05-30 11:50:22
End at: 2019-05-30 11:50:52
Local clock offset: 0.347 ms
Remote clock offset: -3.395 ms

Below is generated by plot.py at 2019-05-30 13:10:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.49 Mbit/s
95th percentile per-packet one-way delay: 67.378 ms
Loss rate: 0.39%

-- Flow 1:

Average throughput: 58.37 Mbit/s
95th percentile per-packet one-way delay: 66.678 ms
Loss rate: 0.20%

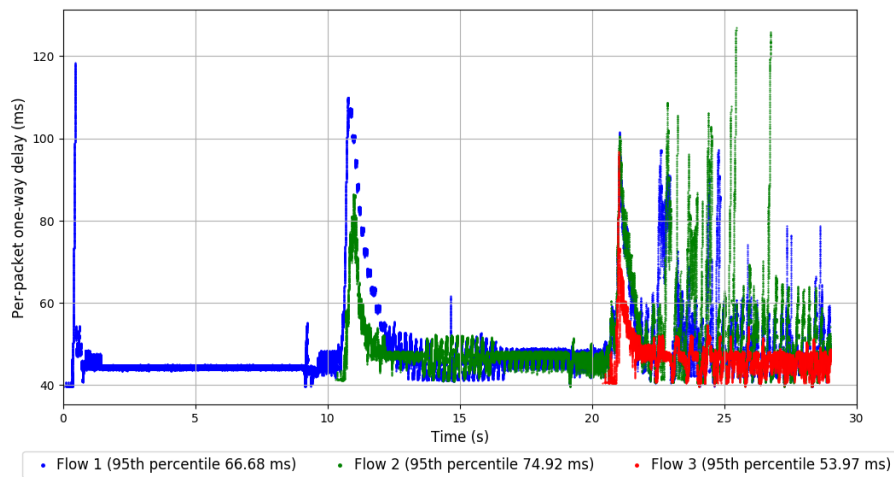
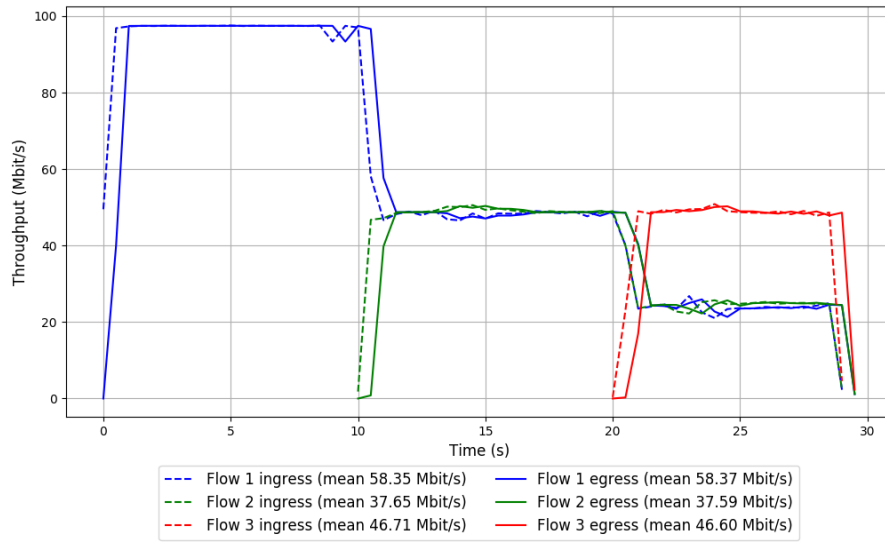
-- Flow 2:

Average throughput: 37.59 Mbit/s
95th percentile per-packet one-way delay: 74.920 ms
Loss rate: 0.49%

-- Flow 3:

Average throughput: 46.60 Mbit/s
95th percentile per-packet one-way delay: 53.974 ms
Loss rate: 1.01%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-05-30 12:16:08

End at: 2019-05-30 12:16:38

Local clock offset: 0.304 ms

Remote clock offset: -2.4 ms

Below is generated by plot.py at 2019-05-30 13:10:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.29 Mbit/s

95th percentile per-packet one-way delay: 58.423 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 58.18 Mbit/s

95th percentile per-packet one-way delay: 62.990 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 48.04 Mbit/s

95th percentile per-packet one-way delay: 51.491 ms

Loss rate: 0.42%

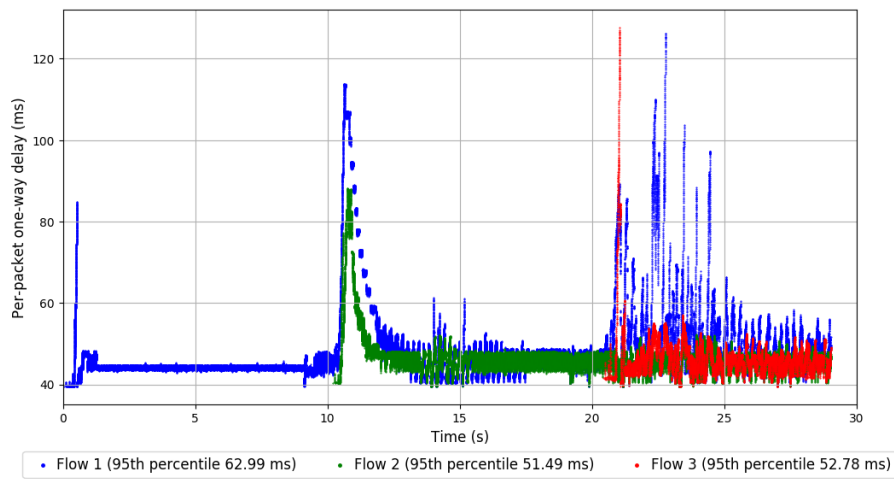
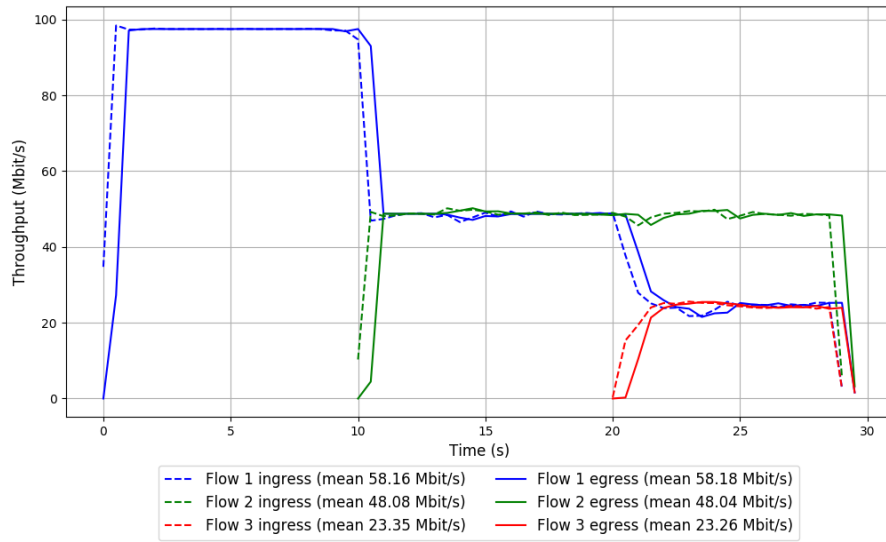
-- Flow 3:

Average throughput: 23.26 Mbit/s

95th percentile per-packet one-way delay: 52.783 ms

Loss rate: 1.16%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-05-30 12:42:09

End at: 2019-05-30 12:42:39

Local clock offset: 0.22 ms

Remote clock offset: -1.89 ms

Below is generated by plot.py at 2019-05-30 13:11:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.48 Mbit/s

95th percentile per-packet one-way delay: 73.767 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 58.12 Mbit/s

95th percentile per-packet one-way delay: 72.770 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 37.43 Mbit/s

95th percentile per-packet one-way delay: 77.561 ms

Loss rate: 0.48%

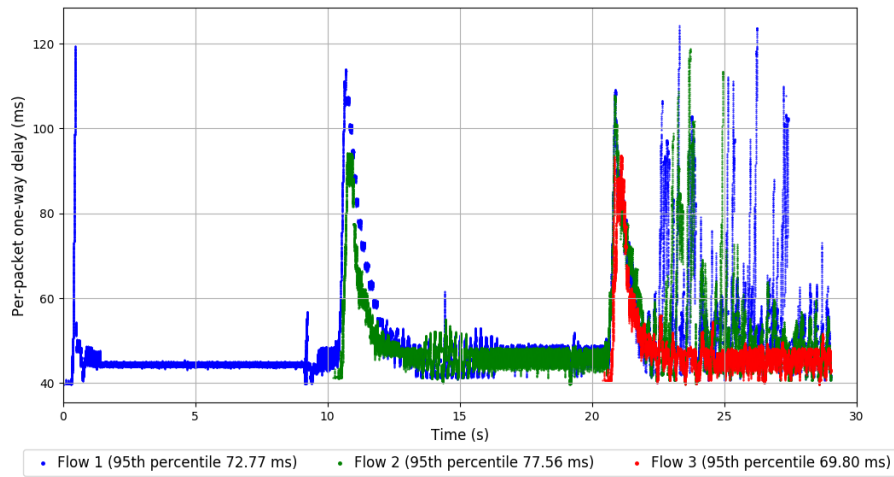
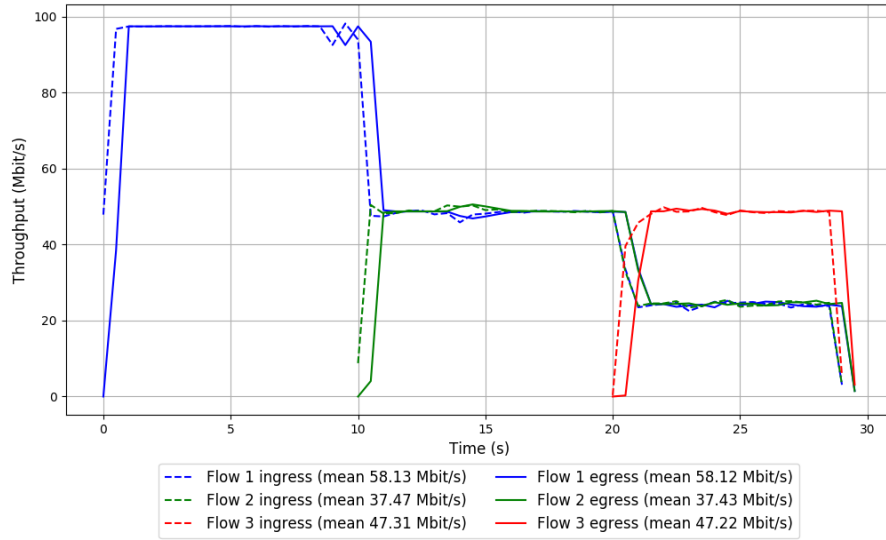
-- Flow 3:

Average throughput: 47.22 Mbit/s

95th percentile per-packet one-way delay: 69.796 ms

Loss rate: 0.92%

Run 5: Report of Indigo-MusesC3 — Data Link

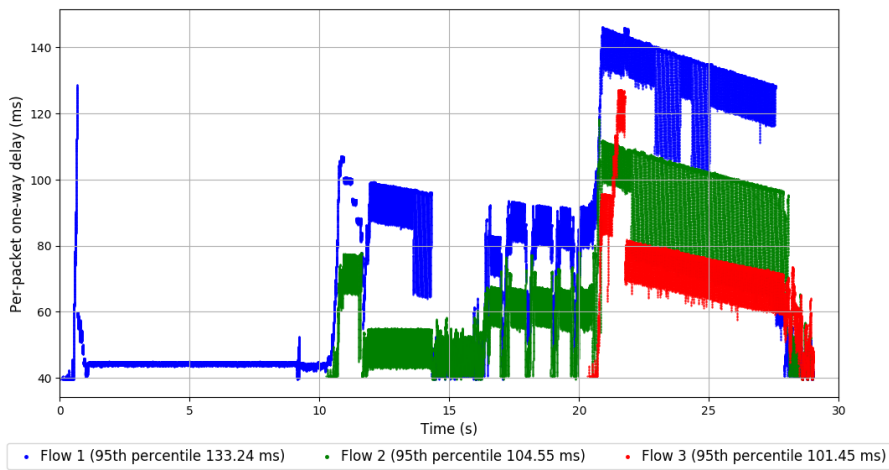
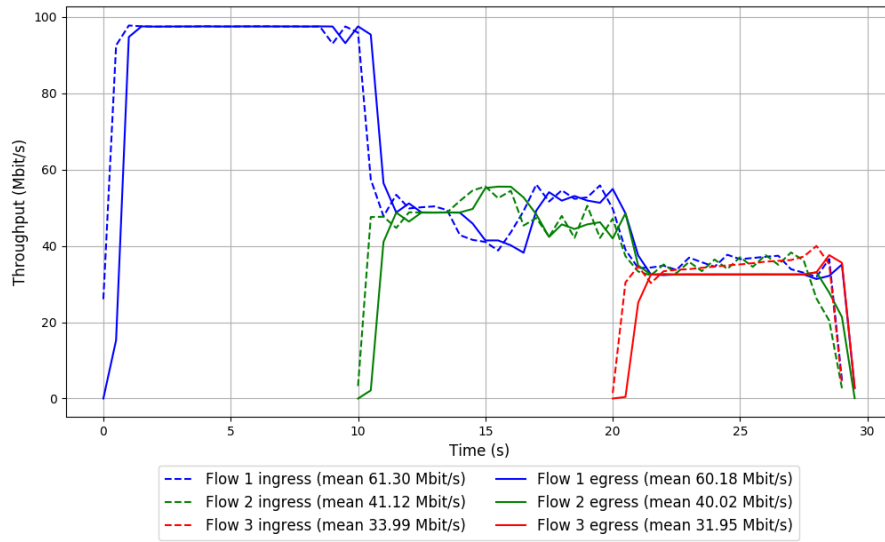


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-05-30 11:10:59
End at: 2019-05-30 11:11:29
Local clock offset: 0.581 ms
Remote clock offset: -4.899 ms

```
# Below is generated by plot.py at 2019-05-30 13:11:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.72 Mbit/s
95th percentile per-packet one-way delay: 128.607 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 60.18 Mbit/s
95th percentile per-packet one-way delay: 133.237 ms
Loss rate: 2.01%
-- Flow 2:
Average throughput: 40.02 Mbit/s
95th percentile per-packet one-way delay: 104.549 ms
Loss rate: 2.95%
-- Flow 3:
Average throughput: 31.95 Mbit/s
95th percentile per-packet one-way delay: 101.447 ms
Loss rate: 6.60%
```

Run 1: Report of Indigo-MusesC5 — Data Link

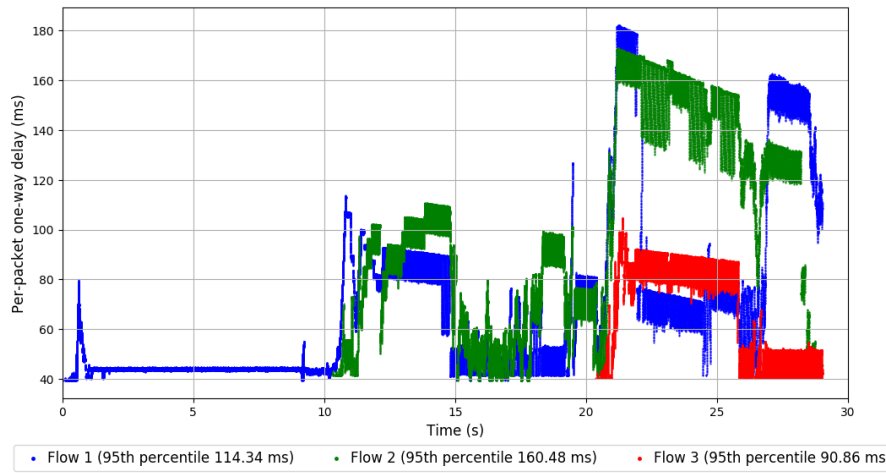
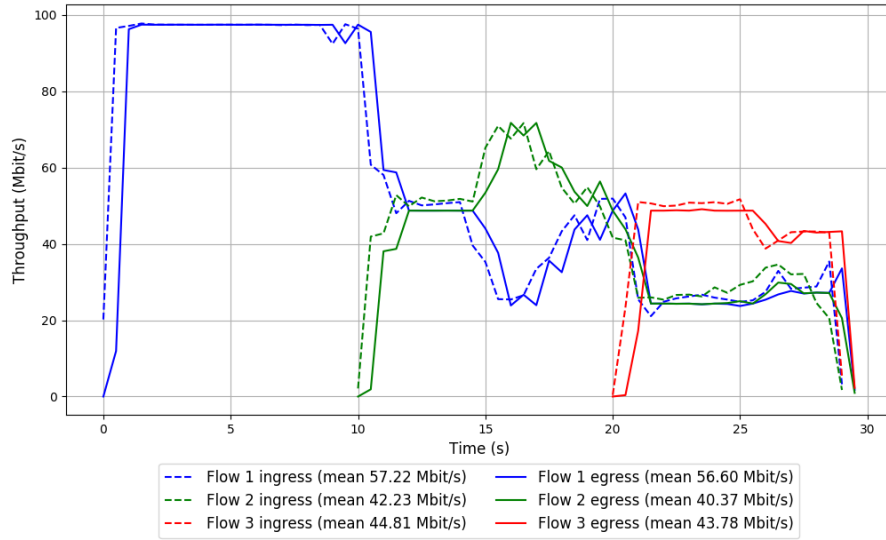


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-05-30 11:36:52
End at: 2019-05-30 11:37:22
Local clock offset: 0.681 ms
Remote clock offset: -3.736 ms

```
# Below is generated by plot.py at 2019-05-30 13:11:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 147.742 ms
Loss rate: 2.47%
-- Flow 1:
Average throughput: 56.60 Mbit/s
95th percentile per-packet one-way delay: 114.336 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 40.37 Mbit/s
95th percentile per-packet one-way delay: 160.481 ms
Loss rate: 4.71%
-- Flow 3:
Average throughput: 43.78 Mbit/s
95th percentile per-packet one-way delay: 90.859 ms
Loss rate: 3.02%
```

Run 2: Report of Indigo-MusesC5 — Data Link

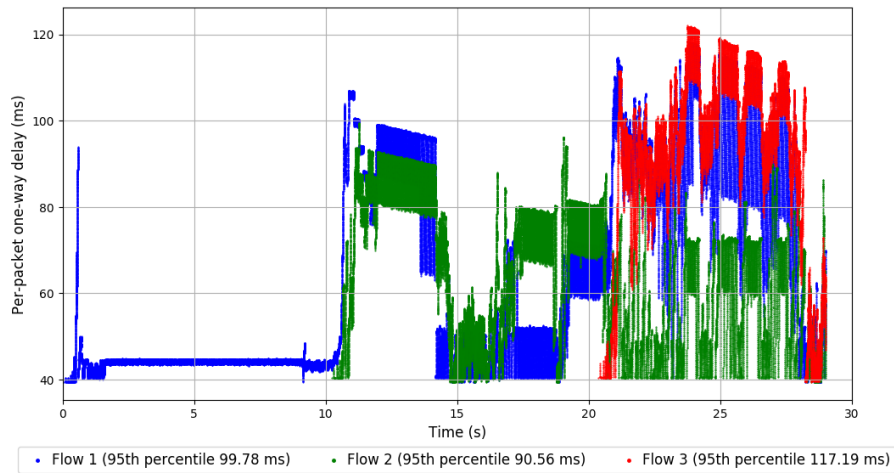
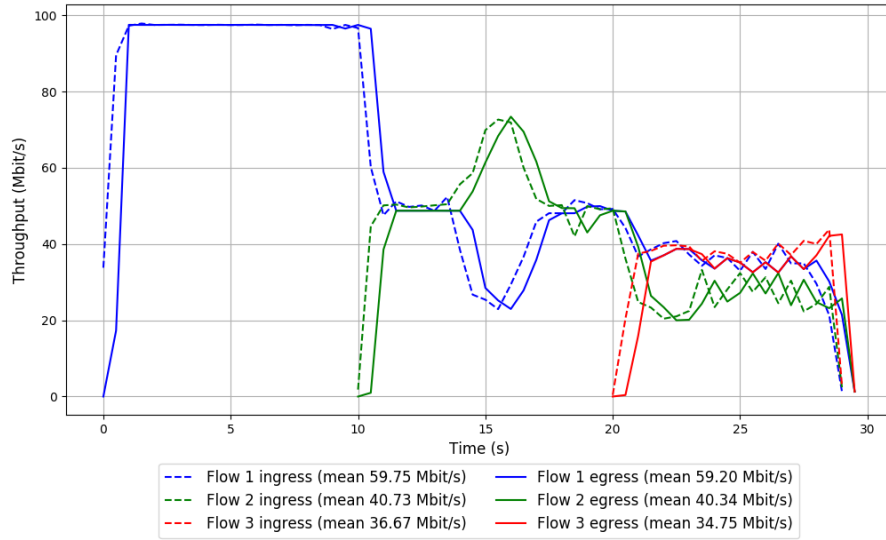


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-05-30 12:02:44
End at: 2019-05-30 12:03:14
Local clock offset: 0.335 ms
Remote clock offset: -2.865 ms

```
# Below is generated by plot.py at 2019-05-30 13:11:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 104.886 ms
Loss rate: 1.65%
-- Flow 1:
Average throughput: 59.20 Mbit/s
95th percentile per-packet one-way delay: 99.781 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 40.34 Mbit/s
95th percentile per-packet one-way delay: 90.563 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 34.75 Mbit/s
95th percentile per-packet one-way delay: 117.190 ms
Loss rate: 5.87%
```

Run 3: Report of Indigo-MusesC5 — Data Link

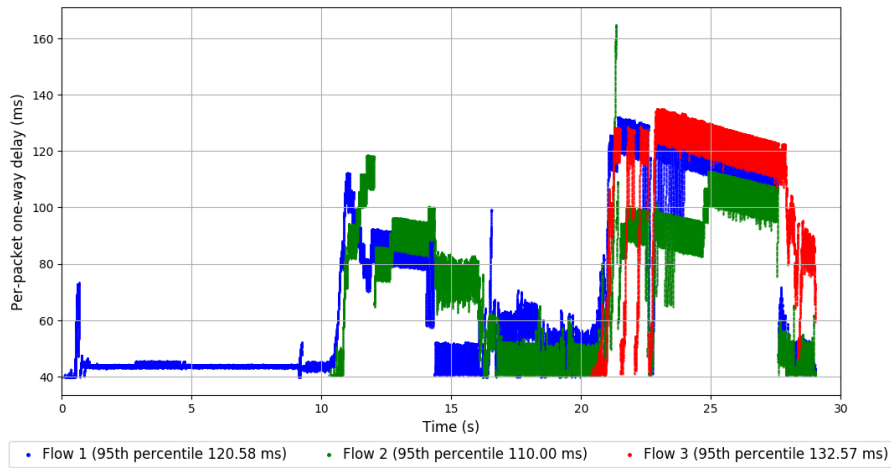
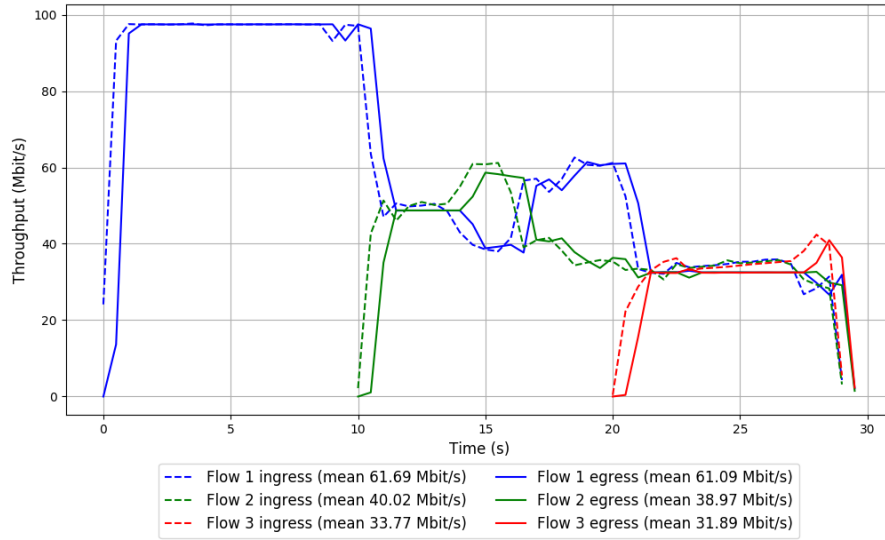


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-05-30 12:28:38
End at: 2019-05-30 12:29:08
Local clock offset: 0.318 ms
Remote clock offset: -2.185 ms

```
# Below is generated by plot.py at 2019-05-30 13:11:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 124.690 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 61.09 Mbit/s
95th percentile per-packet one-way delay: 120.581 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 38.97 Mbit/s
95th percentile per-packet one-way delay: 110.001 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 31.89 Mbit/s
95th percentile per-packet one-way delay: 132.570 ms
Loss rate: 6.28%
```

Run 4: Report of Indigo-MusesC5 — Data Link

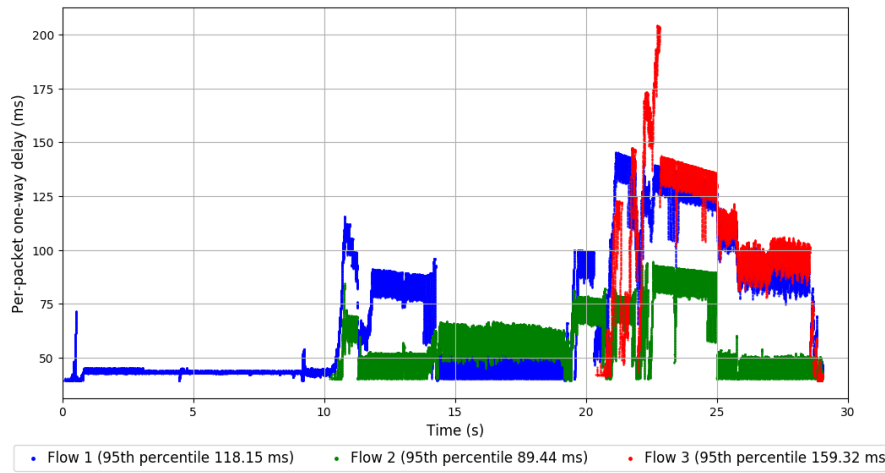
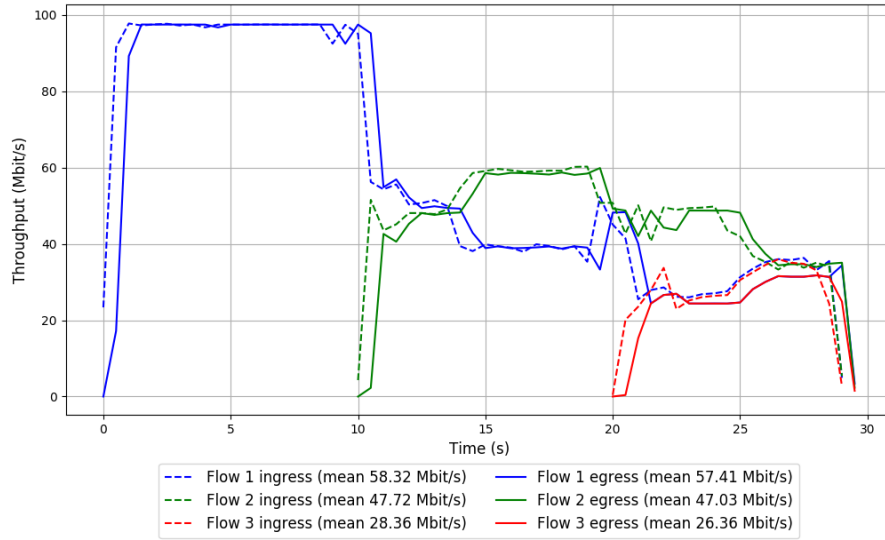


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-05-30 12:54:44
End at: 2019-05-30 12:55:14
Local clock offset: 0.136 ms
Remote clock offset: -1.444 ms

```
# Below is generated by plot.py at 2019-05-30 13:12:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 124.890 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 57.41 Mbit/s
95th percentile per-packet one-way delay: 118.147 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 47.03 Mbit/s
95th percentile per-packet one-way delay: 89.436 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 26.36 Mbit/s
95th percentile per-packet one-way delay: 159.320 ms
Loss rate: 7.76%
```

Run 5: Report of Indigo-MusesC5 — Data Link

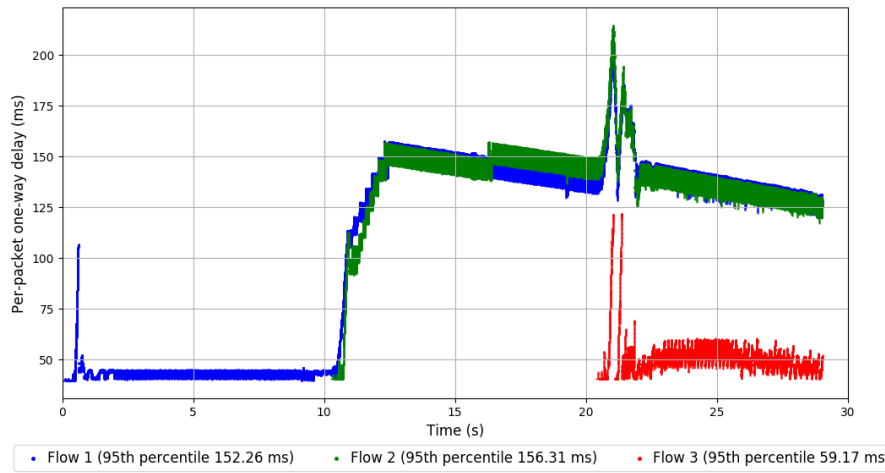
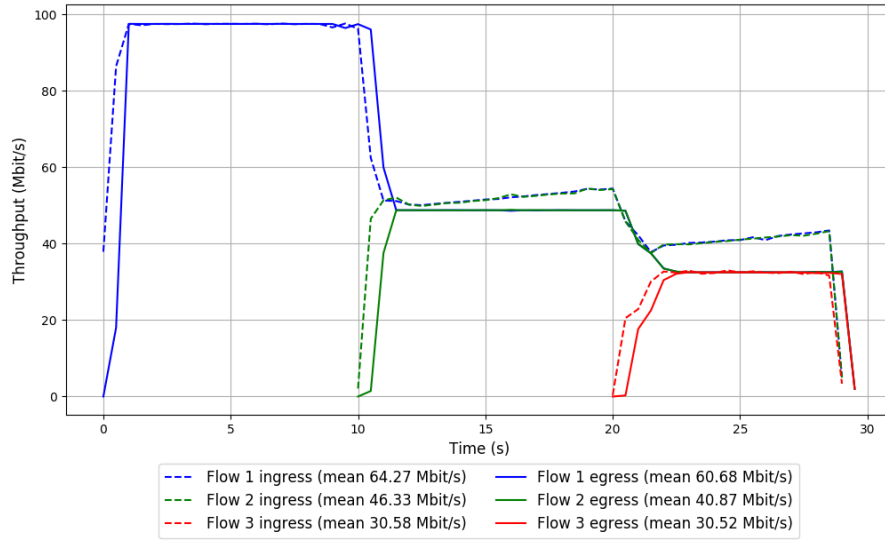


Run 1: Statistics of Indigo-MusesD

Start at: 2019-05-30 11:09:46
End at: 2019-05-30 11:10:16
Local clock offset: 0.598 ms
Remote clock offset: -5.057 ms

Below is generated by plot.py at 2019-05-30 13:12:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.20 Mbit/s
95th percentile per-packet one-way delay: 154.057 ms
Loss rate: 7.16%
-- Flow 1:
Average throughput: 60.68 Mbit/s
95th percentile per-packet one-way delay: 152.264 ms
Loss rate: 5.76%
-- Flow 2:
Average throughput: 40.87 Mbit/s
95th percentile per-packet one-way delay: 156.315 ms
Loss rate: 12.05%
-- Flow 3:
Average throughput: 30.52 Mbit/s
95th percentile per-packet one-way delay: 59.169 ms
Loss rate: 0.92%

Run 1: Report of Indigo-MusesD — Data Link

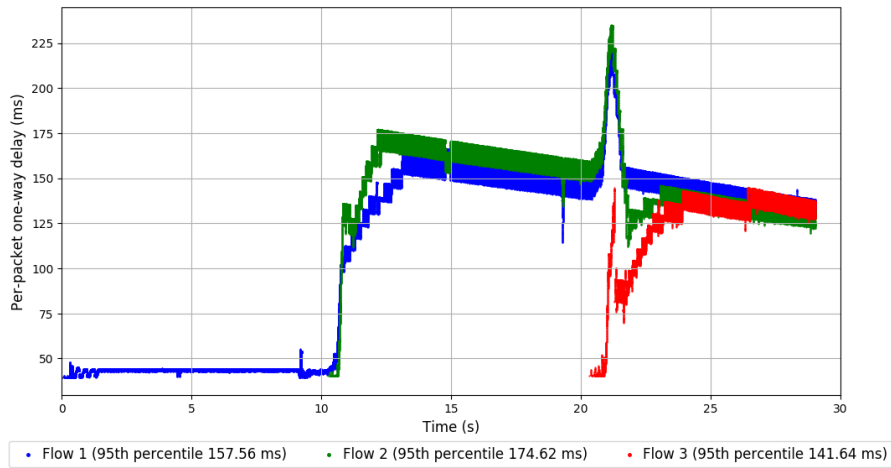
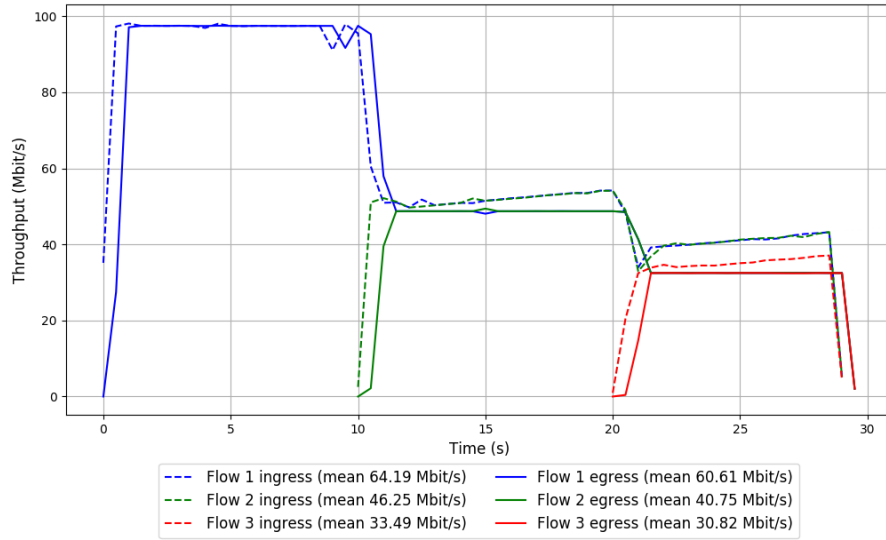


Run 2: Statistics of Indigo-MusesD

Start at: 2019-05-30 11:35:39
End at: 2019-05-30 11:36:09
Local clock offset: 0.71 ms
Remote clock offset: -3.818 ms

Below is generated by plot.py at 2019-05-30 13:12:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 168.615 ms
Loss rate: 7.88%
-- Flow 1:
Average throughput: 60.61 Mbit/s
95th percentile per-packet one-way delay: 157.556 ms
Loss rate: 5.76%
-- Flow 2:
Average throughput: 40.75 Mbit/s
95th percentile per-packet one-way delay: 174.618 ms
Loss rate: 12.16%
-- Flow 3:
Average throughput: 30.82 Mbit/s
95th percentile per-packet one-way delay: 141.643 ms
Loss rate: 8.64%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-05-30 12:01:31
End at: 2019-05-30 12:02:01
Local clock offset: 0.347 ms
Remote clock offset: -2.865 ms

Below is generated by plot.py at 2019-05-30 13:12:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 148.985 ms
Loss rate: 3.81%

-- Flow 1:

Average throughput: 62.01 Mbit/s
95th percentile per-packet one-way delay: 151.417 ms
Loss rate: 5.41%

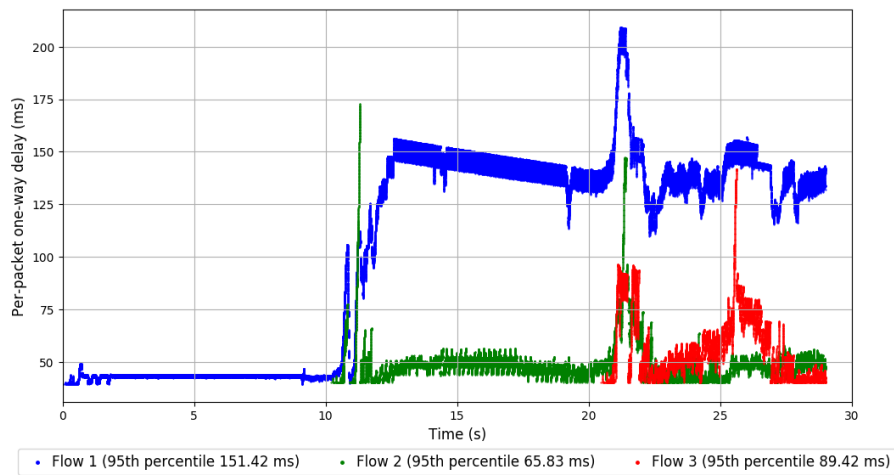
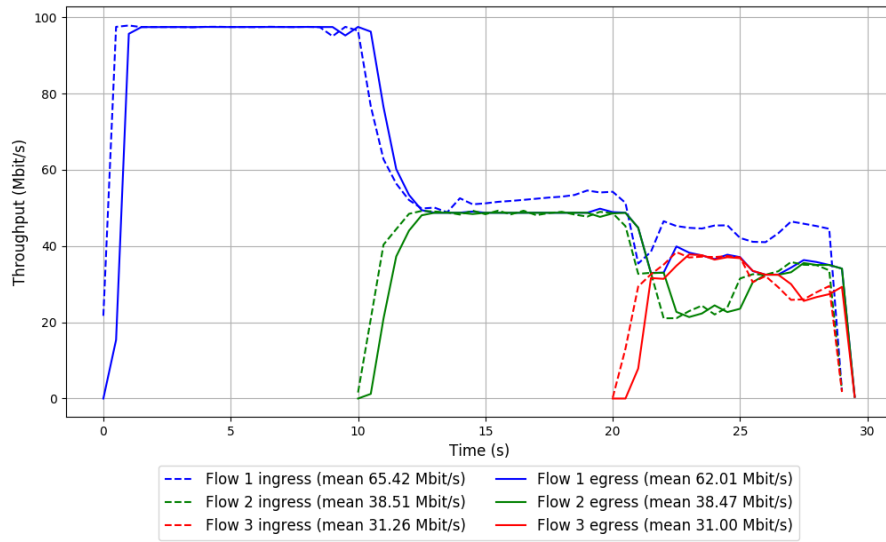
-- Flow 2:

Average throughput: 38.47 Mbit/s
95th percentile per-packet one-way delay: 65.828 ms
Loss rate: 0.45%

-- Flow 3:

Average throughput: 31.00 Mbit/s
95th percentile per-packet one-way delay: 89.425 ms
Loss rate: 1.53%

Run 3: Report of Indigo-MusesD — Data Link

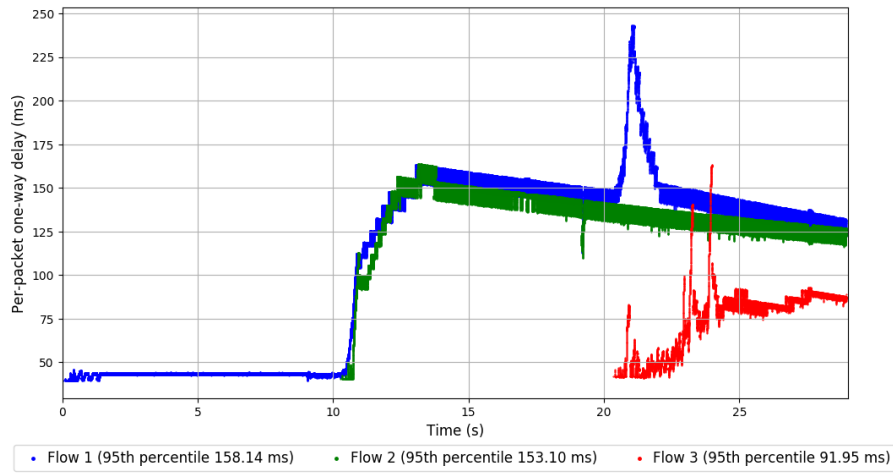
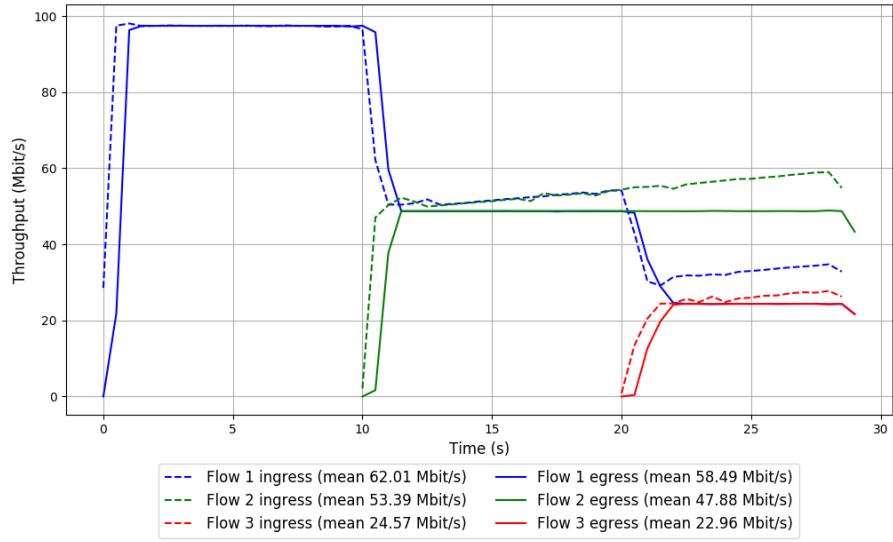


Run 4: Statistics of Indigo-MusesD

Start at: 2019-05-30 12:27:24
End at: 2019-05-30 12:27:54
Local clock offset: 0.304 ms
Remote clock offset: -2.033 ms

Below is generated by plot.py at 2019-05-30 13:12:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 156.254 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 158.142 ms
Loss rate: 5.88%
-- Flow 2:
Average throughput: 47.88 Mbit/s
95th percentile per-packet one-way delay: 153.098 ms
Loss rate: 10.61%
-- Flow 3:
Average throughput: 22.96 Mbit/s
95th percentile per-packet one-way delay: 91.954 ms
Loss rate: 7.23%

Run 4: Report of Indigo-MusesD — Data Link

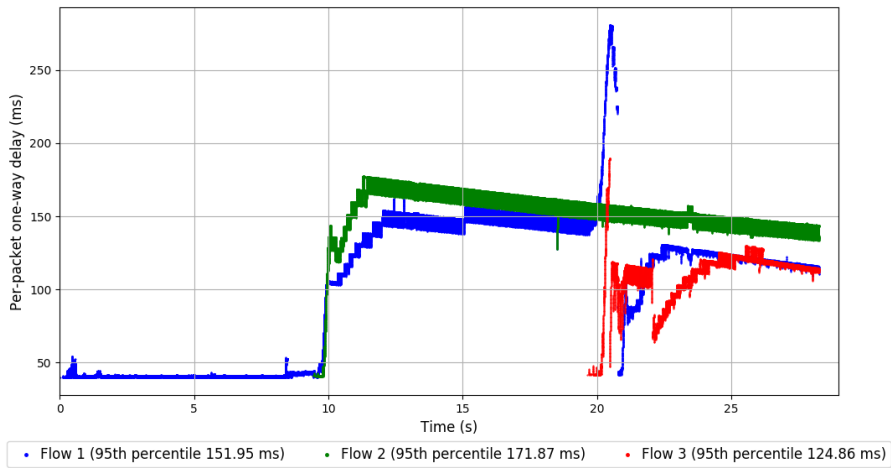
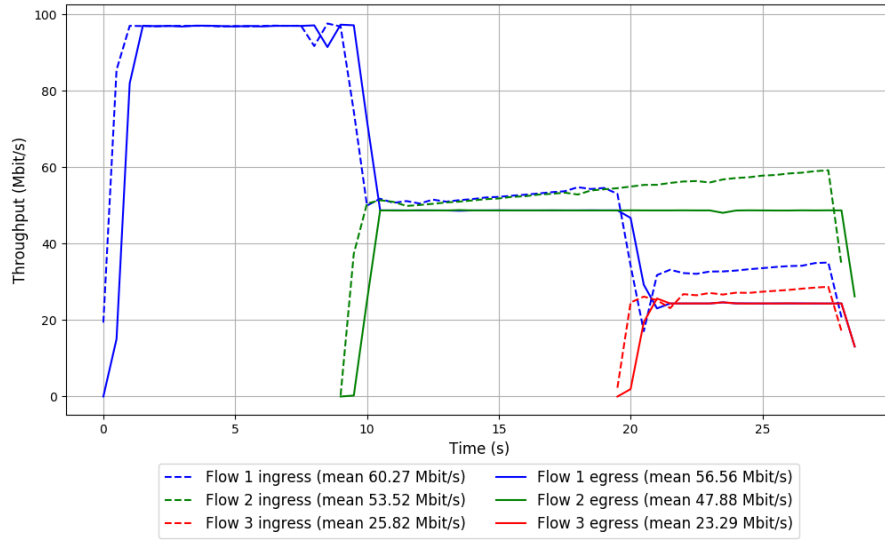


Run 5: Statistics of Indigo-MusesD

Start at: 2019-05-30 12:53:30
End at: 2019-05-30 12:54:00
Local clock offset: 0.124 ms
Remote clock offset: -1.477 ms

```
# Below is generated by plot.py at 2019-05-30 13:12:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.64 Mbit/s
95th percentile per-packet one-way delay: 167.610 ms
Loss rate: 8.23%
-- Flow 1:
Average throughput: 56.56 Mbit/s
95th percentile per-packet one-way delay: 151.953 ms
Loss rate: 6.37%
-- Flow 2:
Average throughput: 47.88 Mbit/s
95th percentile per-packet one-way delay: 171.868 ms
Loss rate: 10.86%
-- Flow 3:
Average throughput: 23.29 Mbit/s
95th percentile per-packet one-way delay: 124.861 ms
Loss rate: 10.48%
```

Run 5: Report of Indigo-MusesD — Data Link

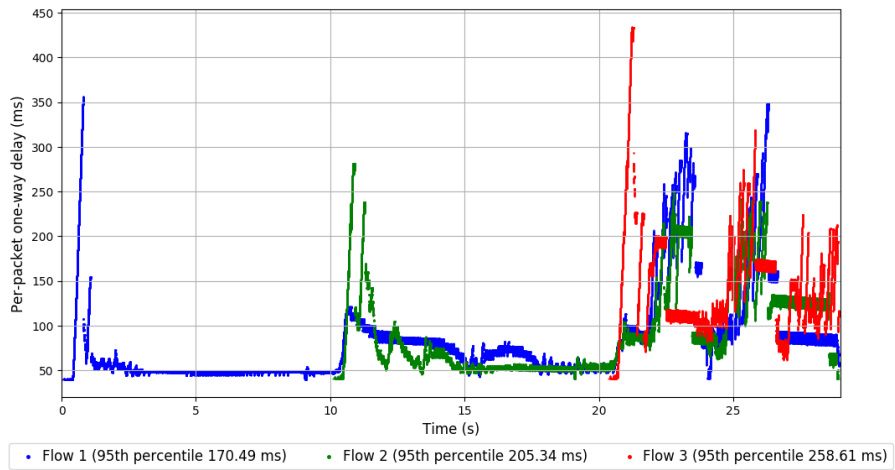
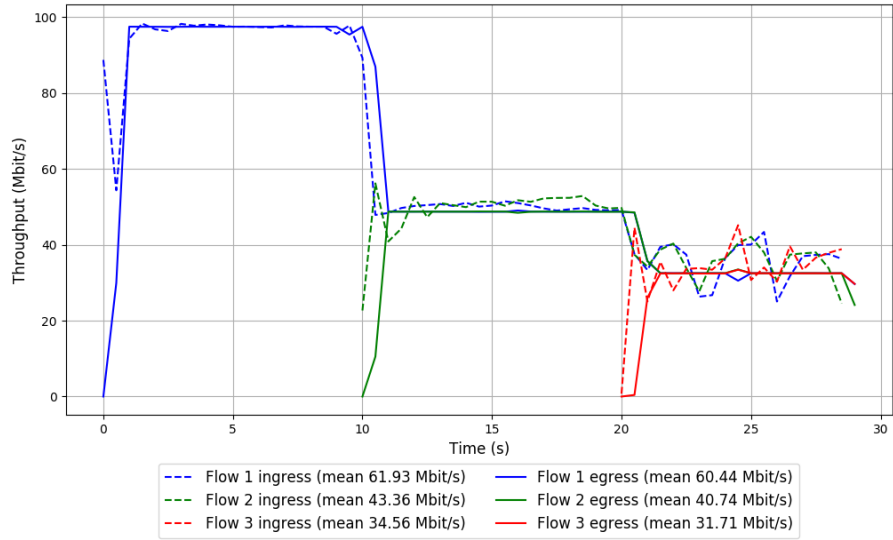


Run 1: Statistics of Indigo-MuseST

Start at: 2019-05-30 11:02:28
End at: 2019-05-30 11:02:58
Local clock offset: 0.493 ms
Remote clock offset: -5.426 ms

```
# Below is generated by plot.py at 2019-05-30 13:12:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 204.984 ms
Loss rate: 4.32%
-- Flow 1:
Average throughput: 60.44 Mbit/s
95th percentile per-packet one-way delay: 170.491 ms
Loss rate: 2.62%
-- Flow 2:
Average throughput: 40.74 Mbit/s
95th percentile per-packet one-way delay: 205.344 ms
Loss rate: 6.38%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 258.608 ms
Loss rate: 8.95%
```

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MuseST

Start at: 2019-05-30 11:28:20
End at: 2019-05-30 11:28:50
Local clock offset: 0.619 ms
Remote clock offset: -4.266 ms

Below is generated by plot.py at 2019-05-30 13:12:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.49 Mbit/s
95th percentile per-packet one-way delay: 164.612 ms
Loss rate: 2.54%

-- Flow 1:

Average throughput: 65.45 Mbit/s
95th percentile per-packet one-way delay: 95.470 ms
Loss rate: 1.11%

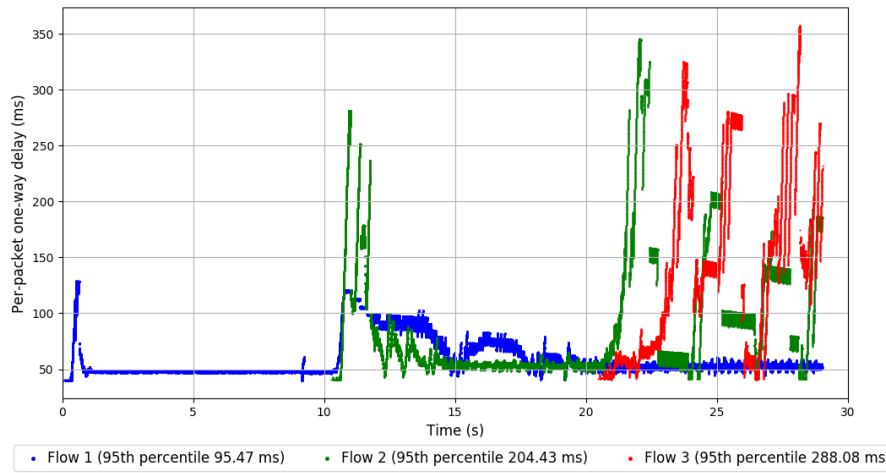
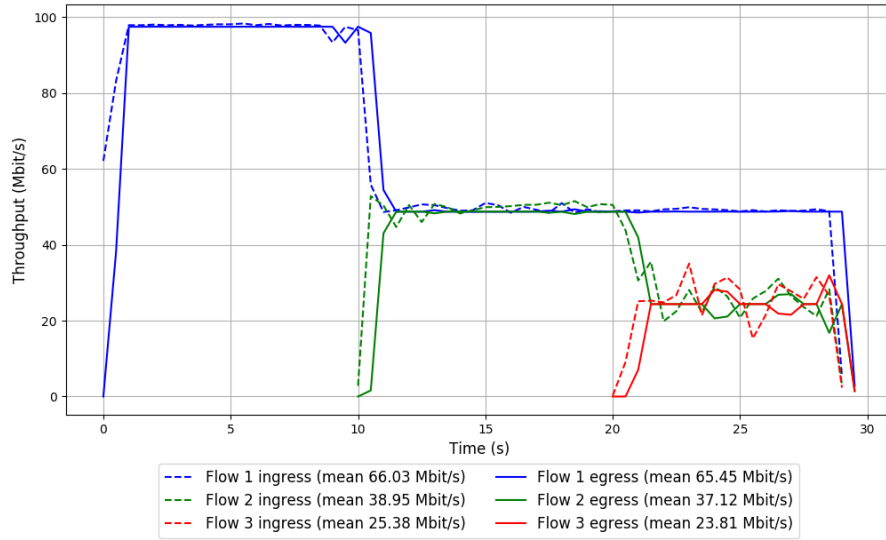
-- Flow 2:

Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 204.433 ms
Loss rate: 5.02%

-- Flow 3:

Average throughput: 23.81 Mbit/s
95th percentile per-packet one-way delay: 288.085 ms
Loss rate: 6.77%

Run 2: Report of Indigo-MusesT — Data Link

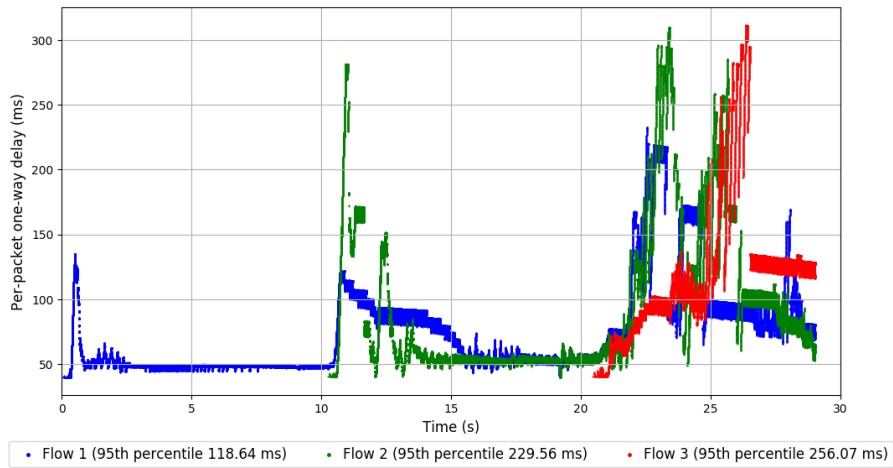
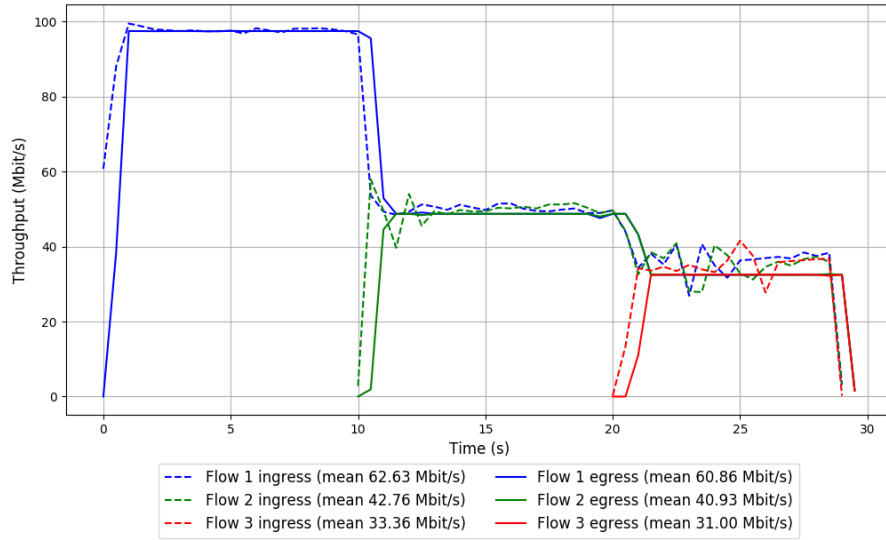


Run 3: Statistics of Indigo-MuseST

Start at: 2019-05-30 11:54:09
End at: 2019-05-30 11:54:39
Local clock offset: 0.358 ms
Remote clock offset: -3.399 ms

```
# Below is generated by plot.py at 2019-05-30 13:13:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 171.584 ms
Loss rate: 3.90%
-- Flow 1:
Average throughput: 60.86 Mbit/s
95th percentile per-packet one-way delay: 118.644 ms
Loss rate: 3.00%
-- Flow 2:
Average throughput: 40.93 Mbit/s
95th percentile per-packet one-way delay: 229.555 ms
Loss rate: 4.56%
-- Flow 3:
Average throughput: 31.00 Mbit/s
95th percentile per-packet one-way delay: 256.066 ms
Loss rate: 7.76%
```

Run 3: Report of Indigo-MusesT — Data Link

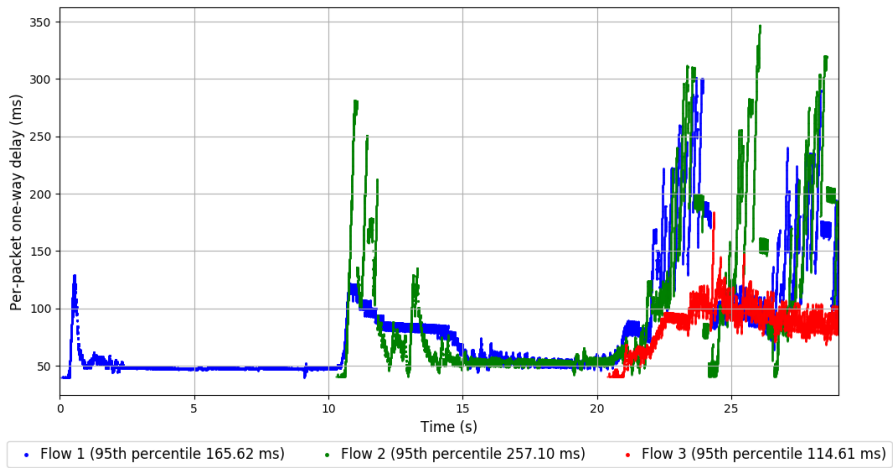
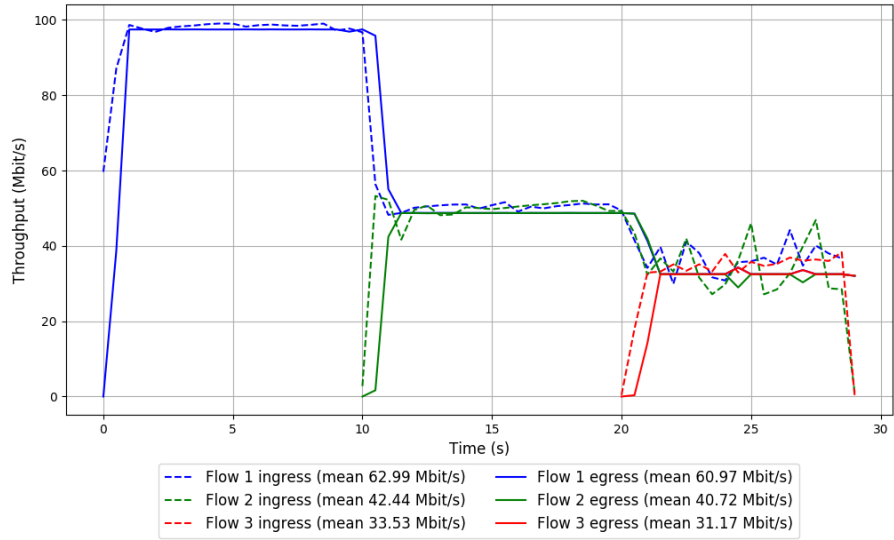


Run 4: Statistics of Indigo-MuseST

Start at: 2019-05-30 12:20:06
End at: 2019-05-30 12:20:36
Local clock offset: 0.284 ms
Remote clock offset: -2.302 ms

```
# Below is generated by plot.py at 2019-05-30 13:13:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.57 Mbit/s
95th percentile per-packet one-way delay: 195.196 ms
Loss rate: 4.02%
-- Flow 1:
Average throughput: 60.97 Mbit/s
95th percentile per-packet one-way delay: 165.620 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 40.72 Mbit/s
95th percentile per-packet one-way delay: 257.100 ms
Loss rate: 4.38%
-- Flow 3:
Average throughput: 31.17 Mbit/s
95th percentile per-packet one-way delay: 114.614 ms
Loss rate: 7.71%
```

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MuseST

Start at: 2019-05-30 12:46:00
End at: 2019-05-30 12:46:30
Local clock offset: 0.183 ms
Remote clock offset: -1.683 ms

Below is generated by plot.py at 2019-05-30 13:13:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 139.130 ms
Loss rate: 3.44%

-- Flow 1:

Average throughput: 58.16 Mbit/s
95th percentile per-packet one-way delay: 135.833 ms
Loss rate: 2.40%

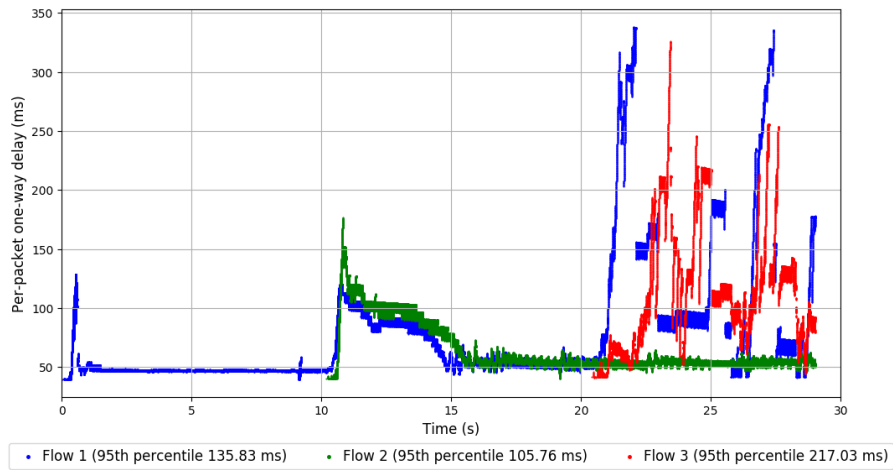
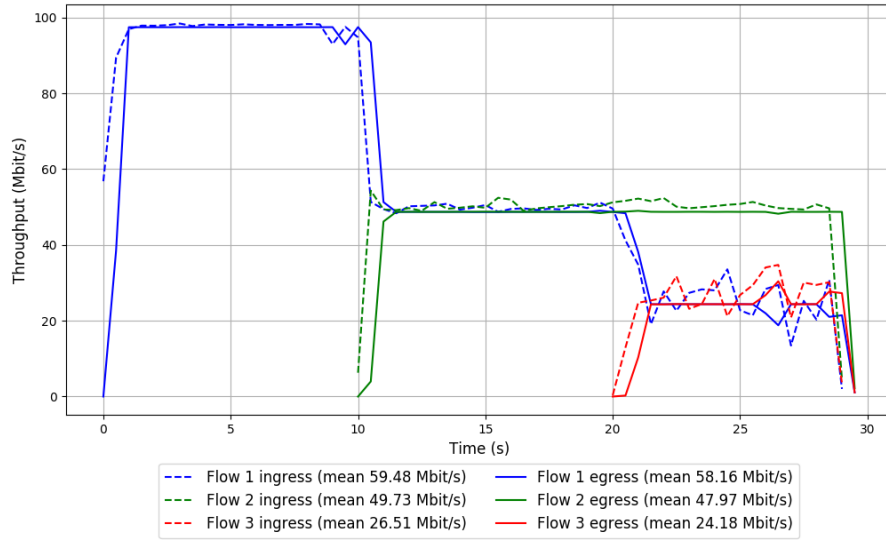
-- Flow 2:

Average throughput: 47.97 Mbit/s
95th percentile per-packet one-way delay: 105.759 ms
Loss rate: 3.87%

-- Flow 3:

Average throughput: 24.18 Mbit/s
95th percentile per-packet one-way delay: 217.029 ms
Loss rate: 9.53%

Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-05-30 11:06:10

End at: 2019-05-30 11:06:40

Local clock offset: 0.631 ms

Remote clock offset: -5.18 ms

Below is generated by plot.py at 2019-05-30 13:13:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.60 Mbit/s

95th percentile per-packet one-way delay: 49.306 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 42.26 Mbit/s

95th percentile per-packet one-way delay: 49.623 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 27.81 Mbit/s

95th percentile per-packet one-way delay: 47.794 ms

Loss rate: 0.35%

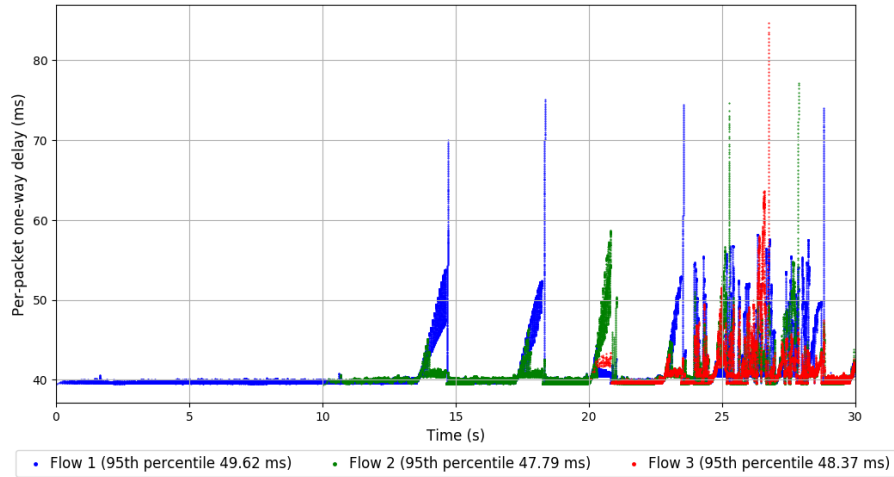
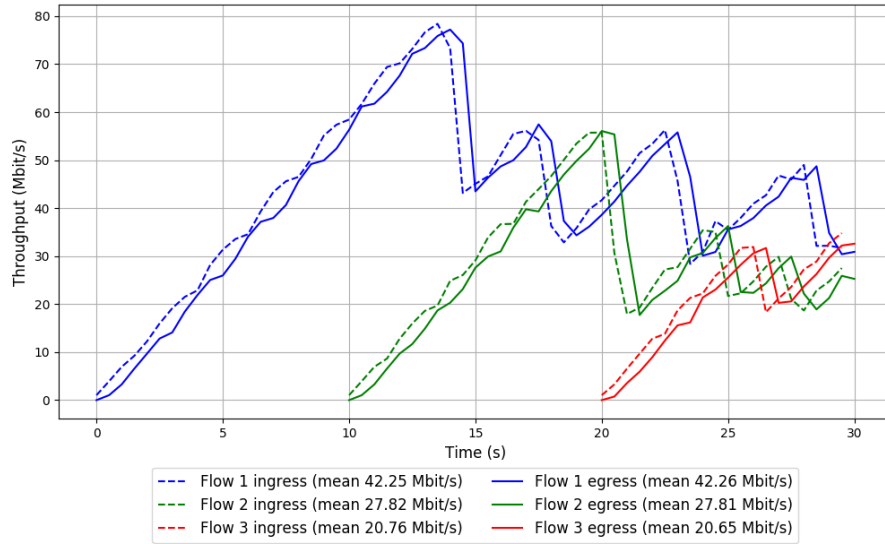
-- Flow 3:

Average throughput: 20.65 Mbit/s

95th percentile per-packet one-way delay: 48.365 ms

Loss rate: 1.16%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-05-30 11:32:03
End at: 2019-05-30 11:32:33
Local clock offset: 0.658 ms
Remote clock offset: -3.956 ms

Below is generated by plot.py at 2019-05-30 13:13:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.38 Mbit/s
95th percentile per-packet one-way delay: 49.524 ms
Loss rate: 0.29%

-- Flow 1:

Average throughput: 39.89 Mbit/s
95th percentile per-packet one-way delay: 50.302 ms
Loss rate: 0.12%

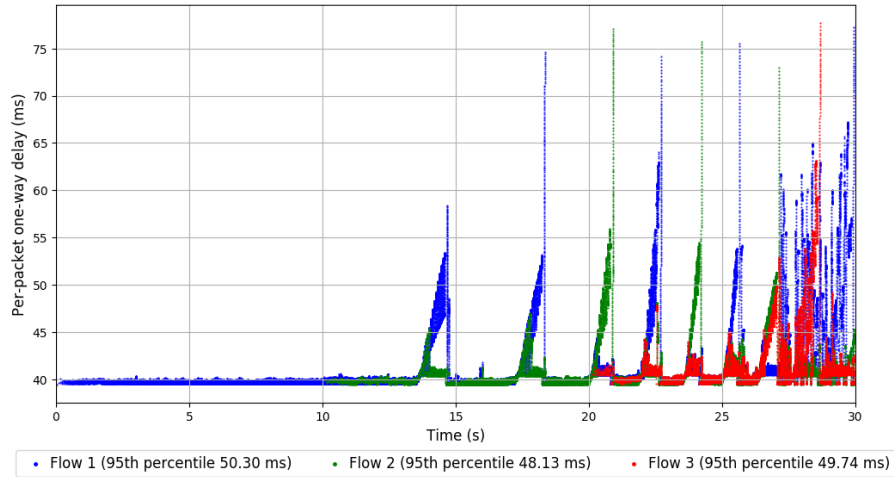
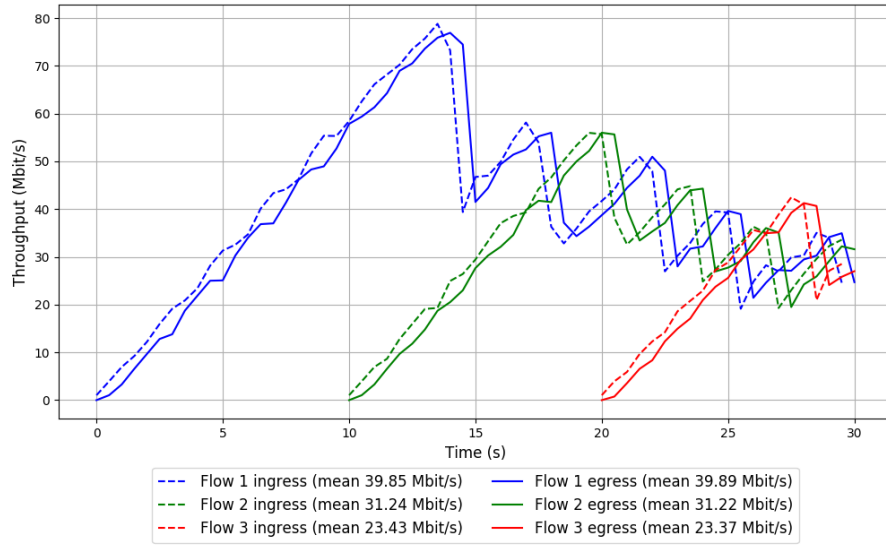
-- Flow 2:

Average throughput: 31.22 Mbit/s
95th percentile per-packet one-way delay: 48.129 ms
Loss rate: 0.38%

-- Flow 3:

Average throughput: 23.37 Mbit/s
95th percentile per-packet one-way delay: 49.745 ms
Loss rate: 0.86%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-05-30 11:57:55
End at: 2019-05-30 11:58:25
Local clock offset: 0.345 ms
Remote clock offset: -3.022 ms

Below is generated by plot.py at 2019-05-30 13:13:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.88 Mbit/s
95th percentile per-packet one-way delay: 47.441 ms
Loss rate: 0.33%

-- Flow 1:

Average throughput: 41.83 Mbit/s
95th percentile per-packet one-way delay: 47.052 ms
Loss rate: 0.21%

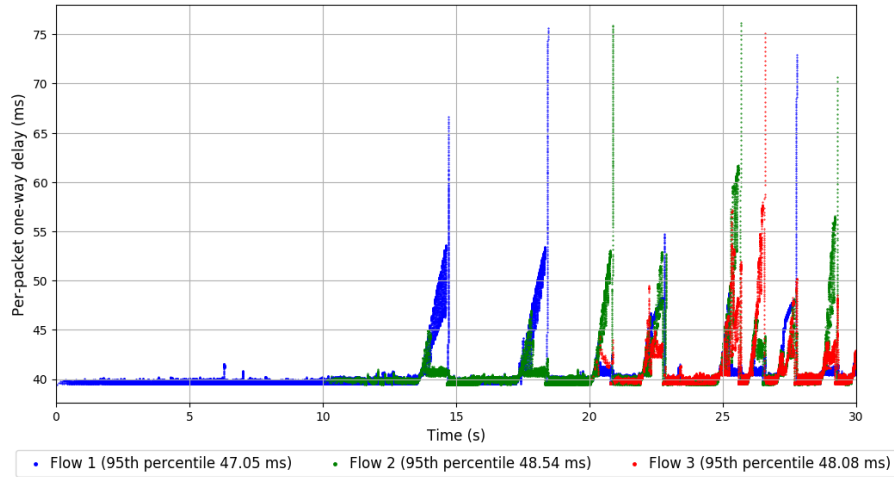
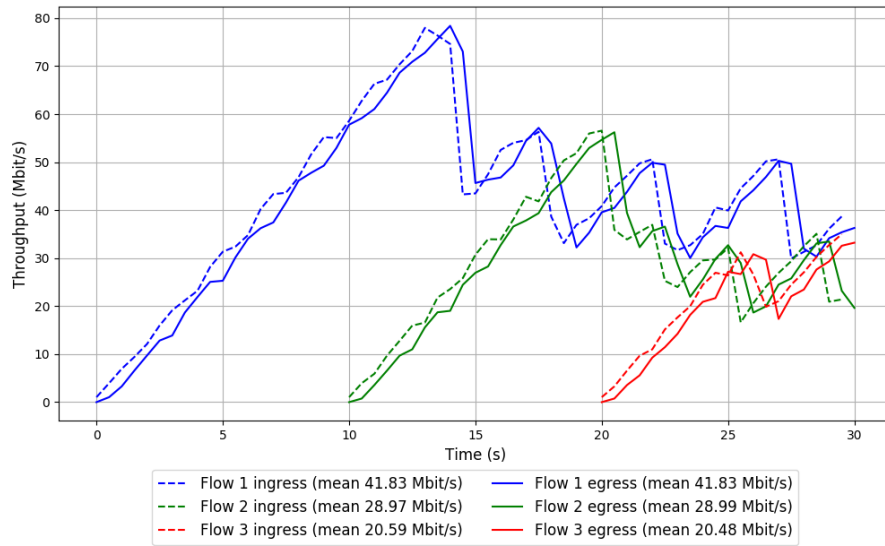
-- Flow 2:

Average throughput: 28.99 Mbit/s
95th percentile per-packet one-way delay: 48.541 ms
Loss rate: 0.27%

-- Flow 3:

Average throughput: 20.48 Mbit/s
95th percentile per-packet one-way delay: 48.077 ms
Loss rate: 1.18%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-05-30 12:23:49
End at: 2019-05-30 12:24:19
Local clock offset: 0.278 ms
Remote clock offset: -2.278 ms

Below is generated by plot.py at 2019-05-30 13:13:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.94 Mbit/s
95th percentile per-packet one-way delay: 48.043 ms
Loss rate: 0.33%

-- Flow 1:

Average throughput: 39.50 Mbit/s
95th percentile per-packet one-way delay: 47.936 ms
Loss rate: 0.16%

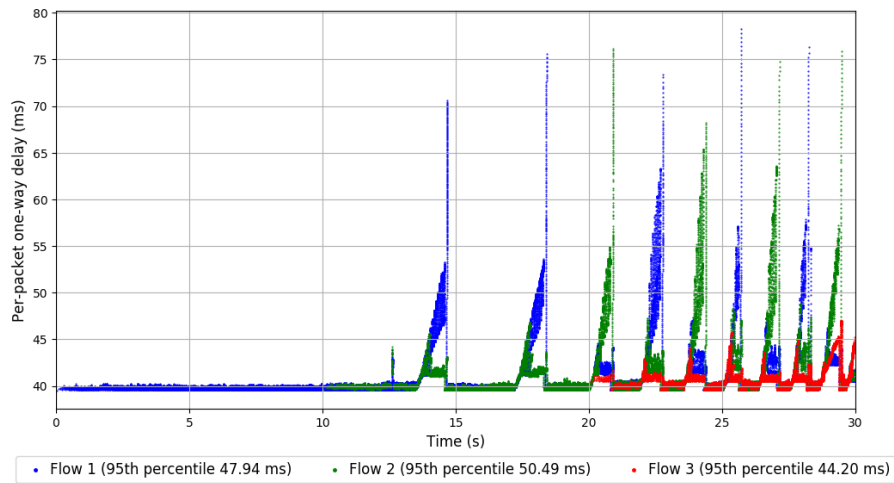
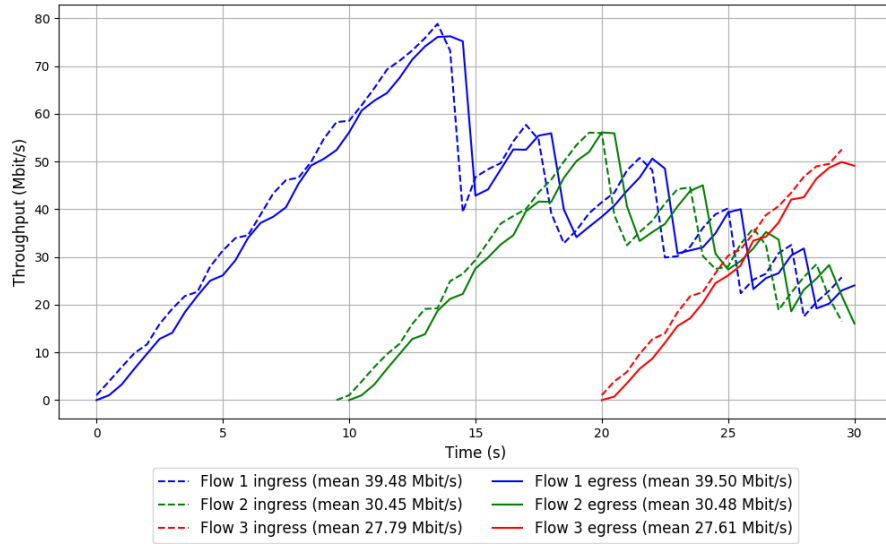
-- Flow 2:

Average throughput: 30.48 Mbit/s
95th percentile per-packet one-way delay: 50.495 ms
Loss rate: 0.21%

-- Flow 3:

Average throughput: 27.61 Mbit/s
95th percentile per-packet one-way delay: 44.199 ms
Loss rate: 1.30%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-05-30 12:49:54
End at: 2019-05-30 12:50:24
Local clock offset: 0.157 ms
Remote clock offset: -1.564 ms

Below is generated by plot.py at 2019-05-30 13:13:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.47 Mbit/s
95th percentile per-packet one-way delay: 47.756 ms
Loss rate: 0.33%

-- Flow 1:

Average throughput: 39.29 Mbit/s
95th percentile per-packet one-way delay: 47.800 ms
Loss rate: 0.16%

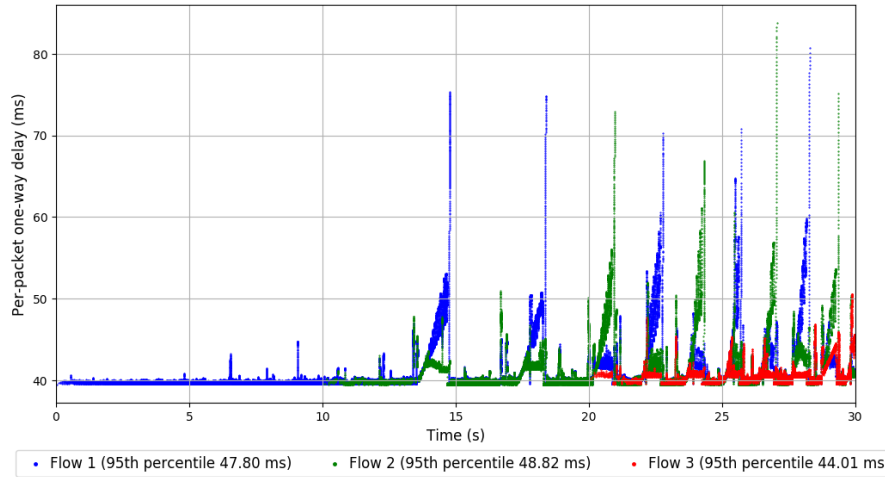
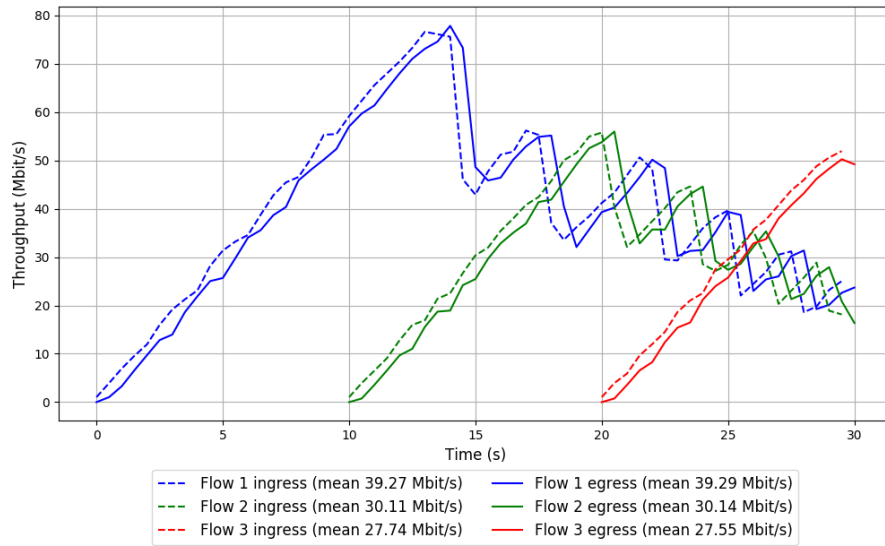
-- Flow 2:

Average throughput: 30.14 Mbit/s
95th percentile per-packet one-way delay: 48.824 ms
Loss rate: 0.22%

-- Flow 3:

Average throughput: 27.55 Mbit/s
95th percentile per-packet one-way delay: 44.006 ms
Loss rate: 1.31%

Run 5: Report of LEDBAT — Data Link

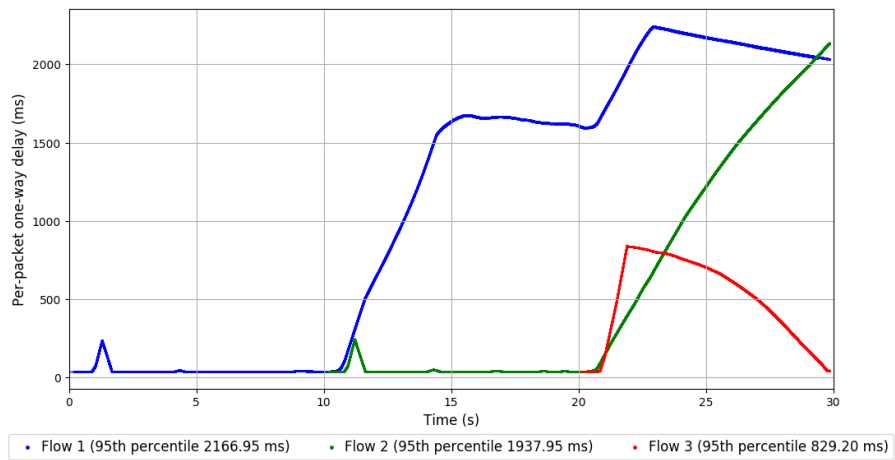
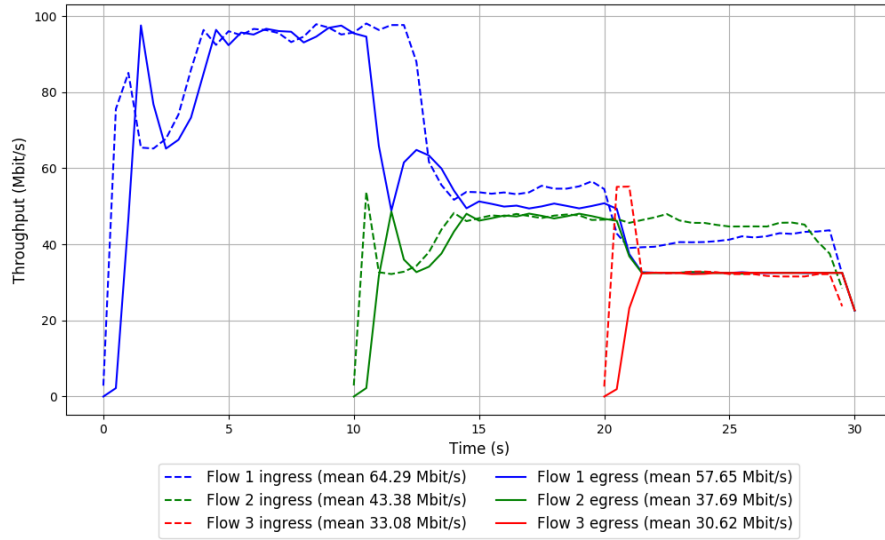


Run 1: Statistics of PCC-Allegro

Start at: 2019-05-30 11:04:57
End at: 2019-05-30 11:05:27
Local clock offset: 0.602 ms
Remote clock offset: -5.318 ms

```
# Below is generated by plot.py at 2019-05-30 13:14:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.73 Mbit/s
95th percentile per-packet one-way delay: 2125.783 ms
Loss rate: 11.05%
-- Flow 1:
Average throughput: 57.65 Mbit/s
95th percentile per-packet one-way delay: 2166.953 ms
Loss rate: 10.51%
-- Flow 2:
Average throughput: 37.69 Mbit/s
95th percentile per-packet one-way delay: 1937.950 ms
Loss rate: 13.40%
-- Flow 3:
Average throughput: 30.62 Mbit/s
95th percentile per-packet one-way delay: 829.202 ms
Loss rate: 8.04%
```

Run 1: Report of PCC-Allegro — Data Link

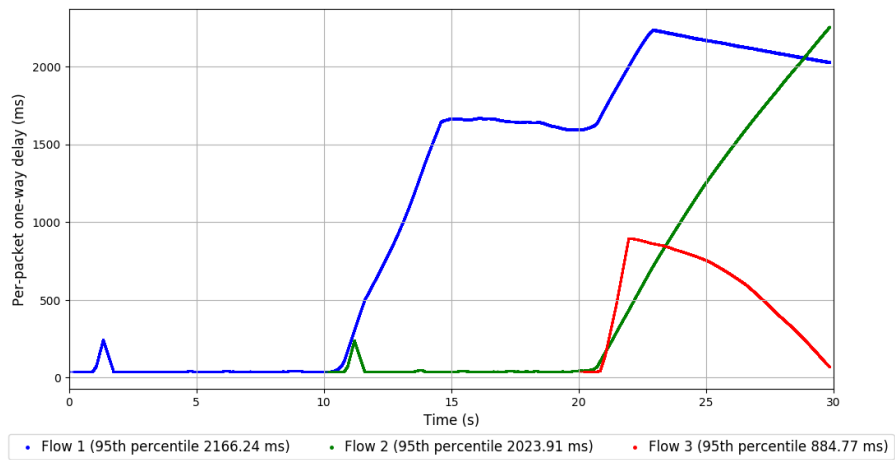
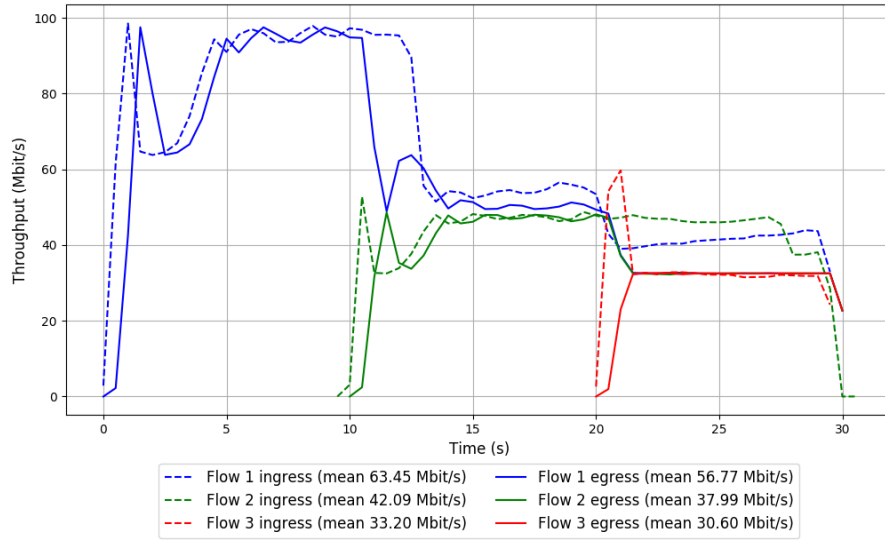


Run 2: Statistics of PCC-Allegro

Start at: 2019-05-30 11:30:50
End at: 2019-05-30 11:31:20
Local clock offset: 0.652 ms
Remote clock offset: -3.914 ms

```
# Below is generated by plot.py at 2019-05-30 13:14:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.07 Mbit/s
95th percentile per-packet one-way delay: 2138.617 ms
Loss rate: 11.25%
-- Flow 1:
Average throughput: 56.77 Mbit/s
95th percentile per-packet one-way delay: 2166.241 ms
Loss rate: 10.71%
-- Flow 2:
Average throughput: 37.99 Mbit/s
95th percentile per-packet one-way delay: 2023.907 ms
Loss rate: 13.49%
-- Flow 3:
Average throughput: 30.60 Mbit/s
95th percentile per-packet one-way delay: 884.771 ms
Loss rate: 8.42%
```

Run 2: Report of PCC-Allegro — Data Link

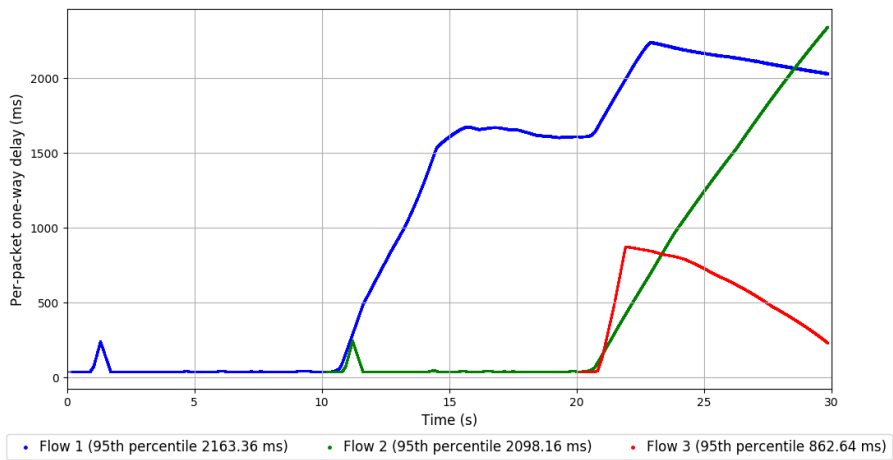
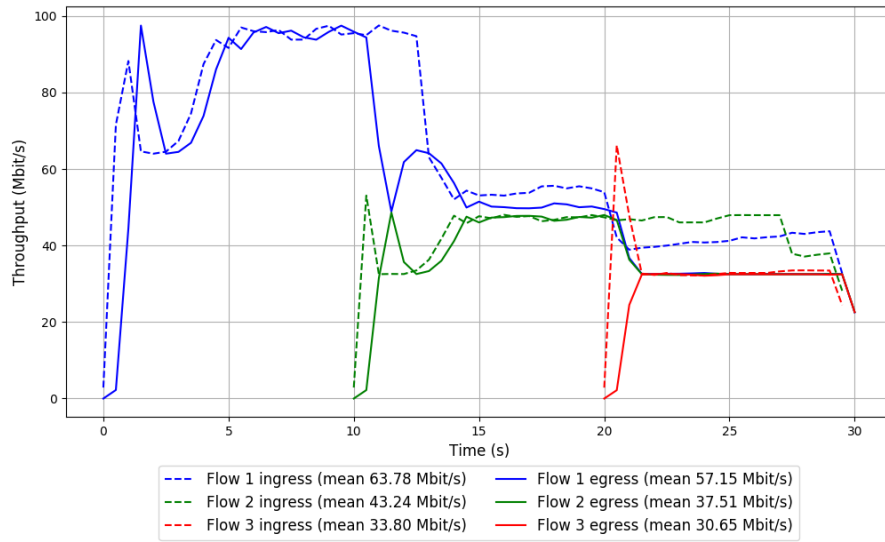


Run 3: Statistics of PCC-Allegro

Start at: 2019-05-30 11:56:42
End at: 2019-05-30 11:57:12
Local clock offset: 0.323 ms
Remote clock offset: -3.092 ms

```
# Below is generated by plot.py at 2019-05-30 13:14:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.15 Mbit/s
95th percentile per-packet one-way delay: 2148.560 ms
Loss rate: 11.33%
-- Flow 1:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 2163.363 ms
Loss rate: 10.60%
-- Flow 2:
Average throughput: 37.51 Mbit/s
95th percentile per-packet one-way delay: 2098.165 ms
Loss rate: 13.52%
-- Flow 3:
Average throughput: 30.65 Mbit/s
95th percentile per-packet one-way delay: 862.639 ms
Loss rate: 9.90%
```

Run 3: Report of PCC-Allegro — Data Link

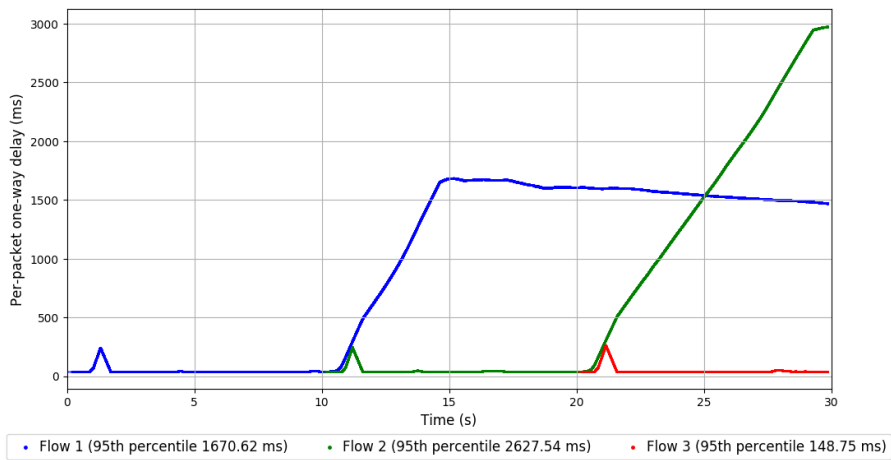
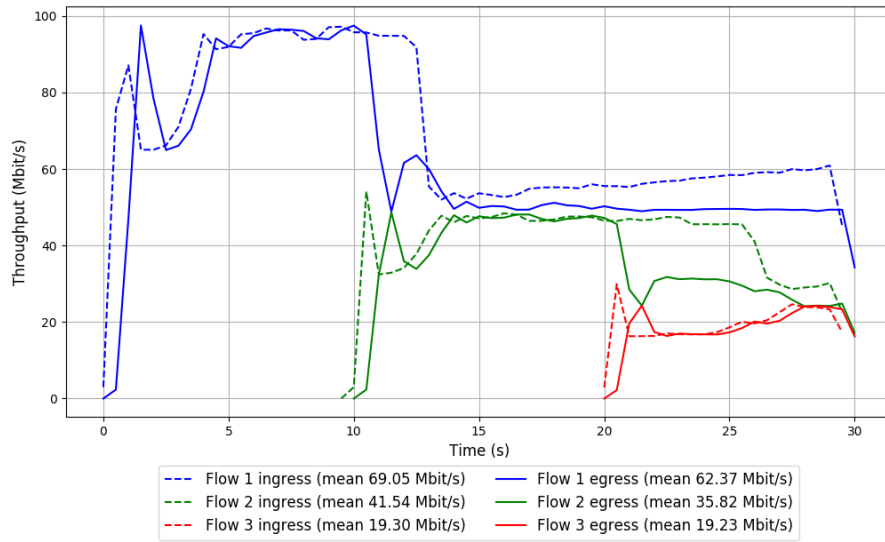


Run 4: Statistics of PCC-Allegro

Start at: 2019-05-30 12:22:36
End at: 2019-05-30 12:23:06
Local clock offset: 0.267 ms
Remote clock offset: -2.194 ms

Below is generated by plot.py at 2019-05-30 13:14:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.50 Mbit/s
95th percentile per-packet one-way delay: 1676.875 ms
Loss rate: 10.43%
-- Flow 1:
Average throughput: 62.37 Mbit/s
95th percentile per-packet one-way delay: 1670.623 ms
Loss rate: 9.85%
-- Flow 2:
Average throughput: 35.82 Mbit/s
95th percentile per-packet one-way delay: 2627.538 ms
Loss rate: 14.05%
-- Flow 3:
Average throughput: 19.23 Mbit/s
95th percentile per-packet one-way delay: 148.746 ms
Loss rate: 1.01%

Run 4: Report of PCC-Allegro — Data Link

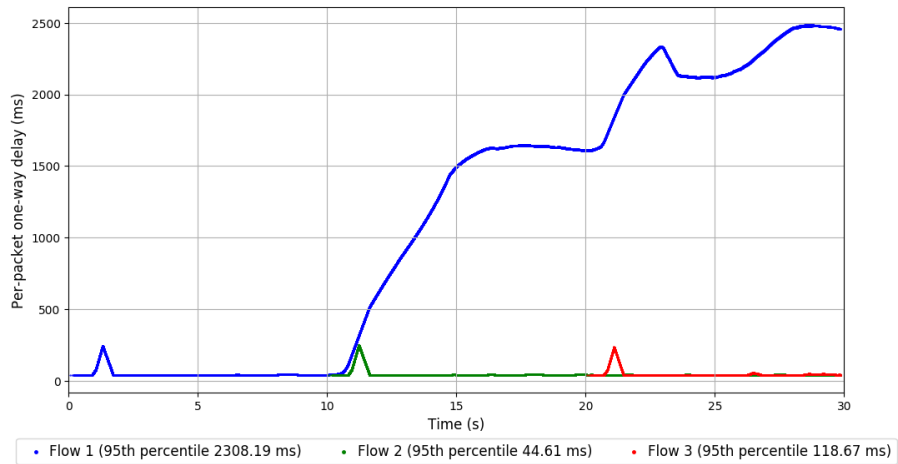
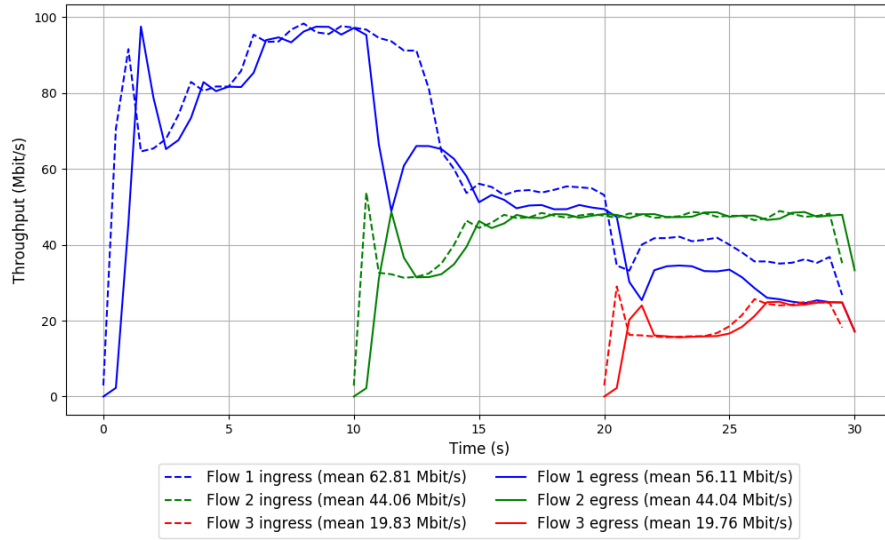


Run 5: Statistics of PCC-Allegro

Start at: 2019-05-30 12:48:41
End at: 2019-05-30 12:49:11
Local clock offset: 0.164 ms
Remote clock offset: -1.614 ms

```
# Below is generated by plot.py at 2019-05-30 13:14:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.85 Mbit/s
95th percentile per-packet one-way delay: 2184.335 ms
Loss rate: 7.08%
-- Flow 1:
Average throughput: 56.11 Mbit/s
95th percentile per-packet one-way delay: 2308.191 ms
Loss rate: 10.85%
-- Flow 2:
Average throughput: 44.04 Mbit/s
95th percentile per-packet one-way delay: 44.607 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 19.76 Mbit/s
95th percentile per-packet one-way delay: 118.675 ms
Loss rate: 0.97%
```

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-05-30 11:13:21
End at: 2019-05-30 11:13:51
Local clock offset: 0.513 ms
Remote clock offset: -4.748 ms

Below is generated by plot.py at 2019-05-30 13:16:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.47 Mbit/s
95th percentile per-packet one-way delay: 744.568 ms
Loss rate: 28.63%

-- Flow 1:

Average throughput: 55.29 Mbit/s
95th percentile per-packet one-way delay: 767.924 ms
Loss rate: 39.99%

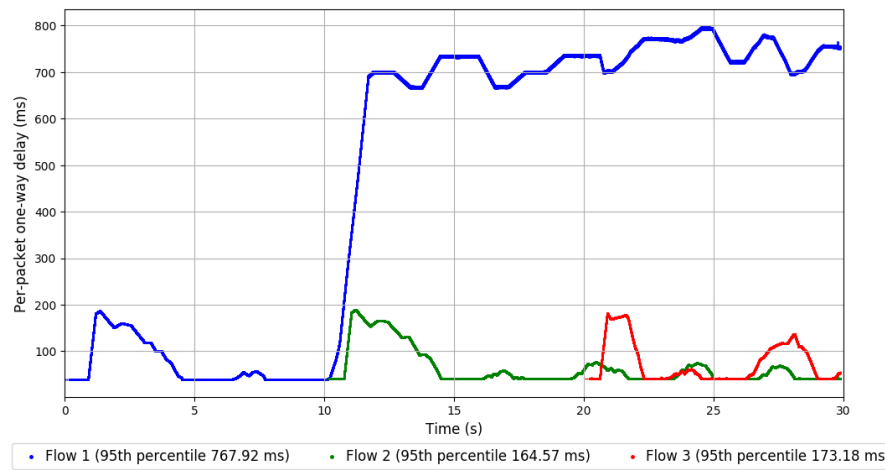
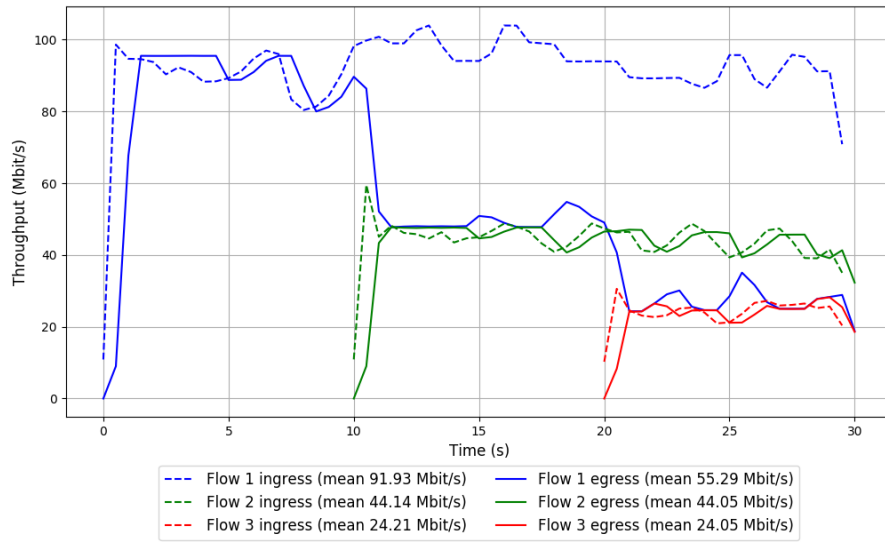
-- Flow 2:

Average throughput: 44.05 Mbit/s
95th percentile per-packet one-way delay: 164.567 ms
Loss rate: 0.52%

-- Flow 3:

Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 173.178 ms
Loss rate: 1.28%

Run 1: Report of PCC-Expr — Data Link

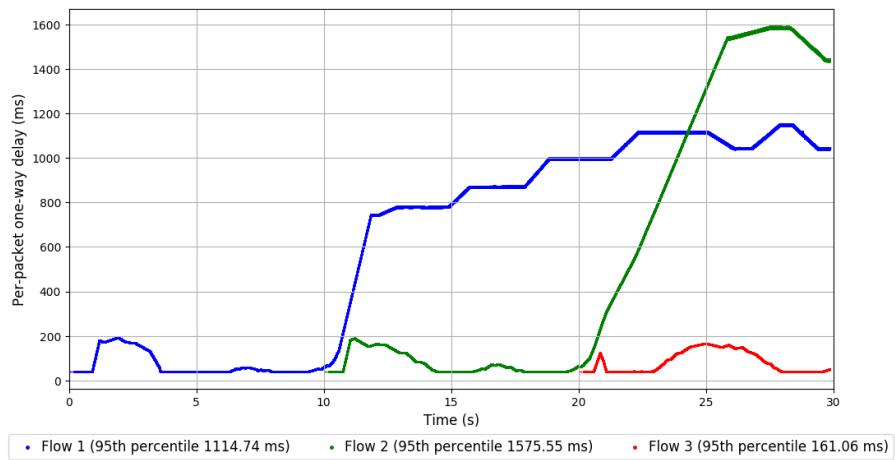
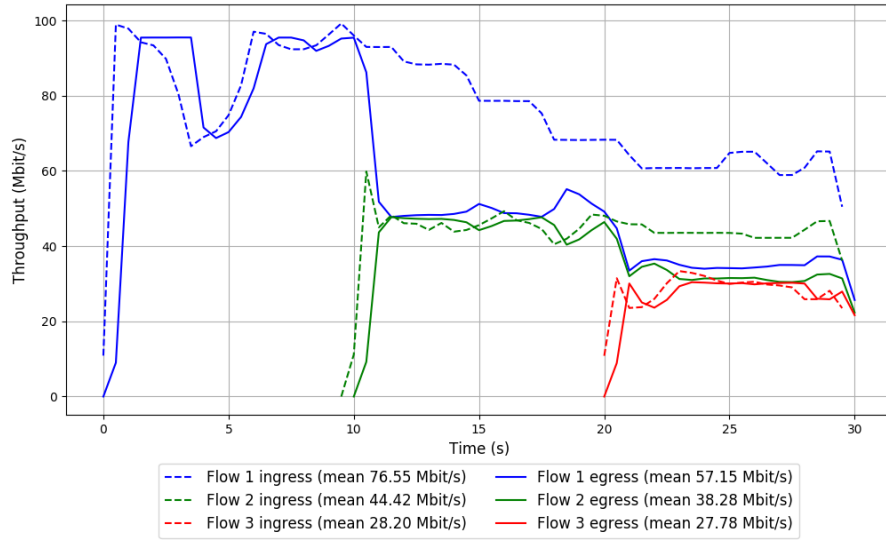


Run 2: Statistics of PCC-Expr

Start at: 2019-05-30 11:39:14
End at: 2019-05-30 11:39:44
Local clock offset: 0.636 ms
Remote clock offset: -3.815 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 1436.605 ms
Loss rate: 20.69%
-- Flow 1:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 1114.744 ms
Loss rate: 25.49%
-- Flow 2:
Average throughput: 38.28 Mbit/s
95th percentile per-packet one-way delay: 1575.554 ms
Loss rate: 14.10%
-- Flow 3:
Average throughput: 27.78 Mbit/s
95th percentile per-packet one-way delay: 161.063 ms
Loss rate: 2.14%
```

Run 2: Report of PCC-Expr — Data Link

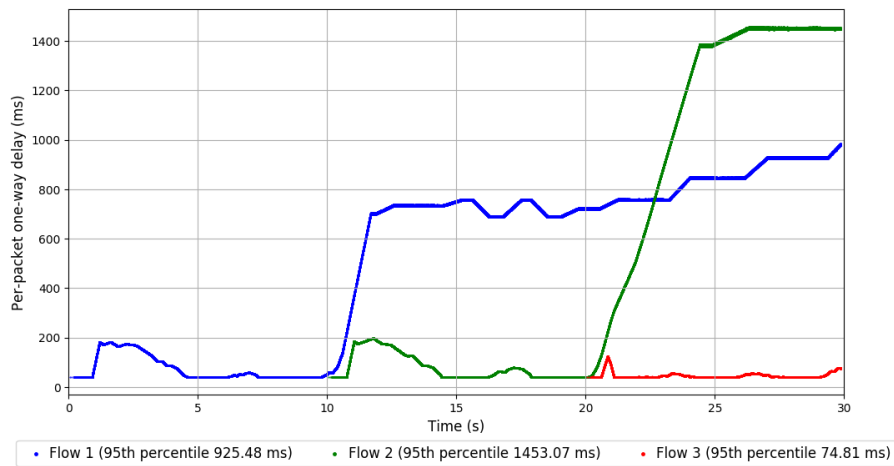
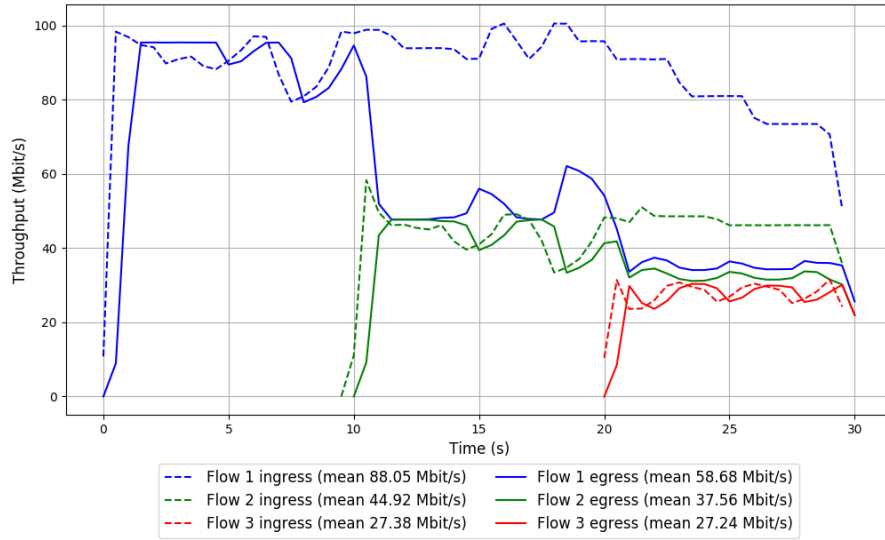


Run 3: Statistics of PCC-Expr

Start at: 2019-05-30 12:05:06
End at: 2019-05-30 12:05:36
Local clock offset: 0.38 ms
Remote clock offset: -2.738 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.60 Mbit/s
95th percentile per-packet one-way delay: 1409.199 ms
Loss rate: 27.24%
-- Flow 1:
Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 925.483 ms
Loss rate: 33.51%
-- Flow 2:
Average throughput: 37.56 Mbit/s
95th percentile per-packet one-way delay: 1453.069 ms
Loss rate: 16.65%
-- Flow 3:
Average throughput: 27.24 Mbit/s
95th percentile per-packet one-way delay: 74.807 ms
Loss rate: 1.16%
```

Run 3: Report of PCC-Expr — Data Link

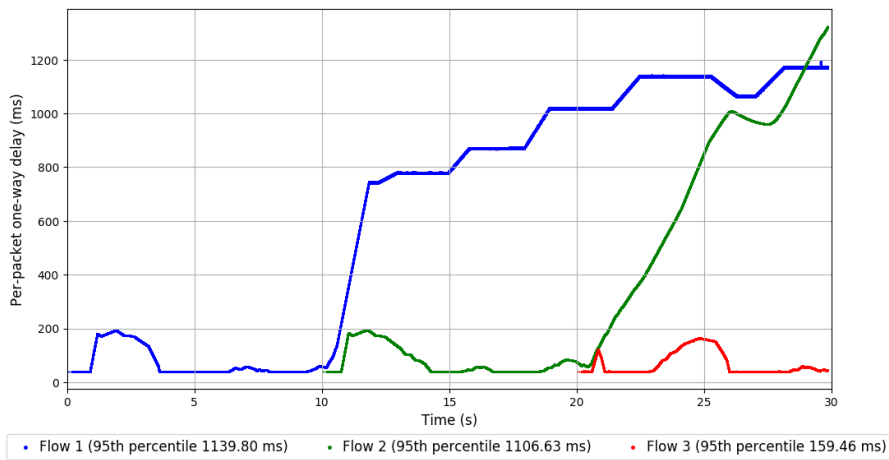
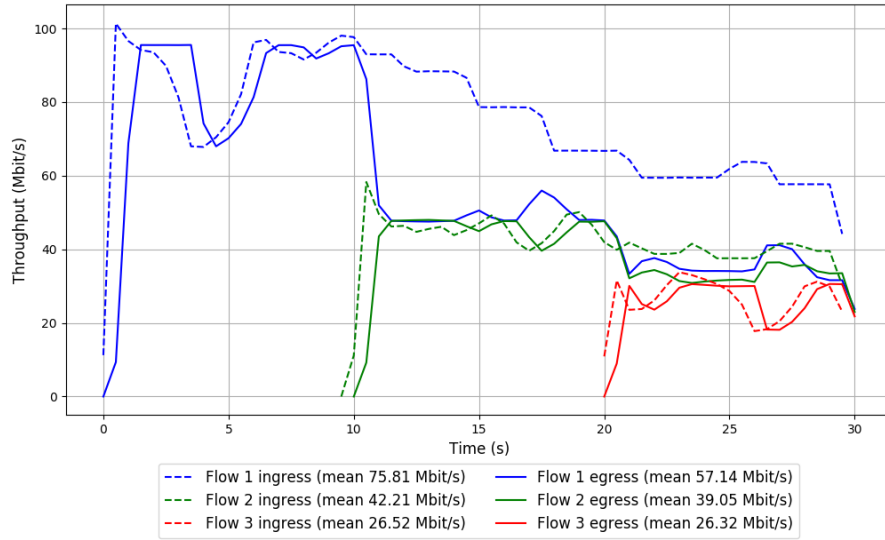


Run 4: Statistics of PCC-Expr

Start at: 2019-05-30 12:31:00
End at: 2019-05-30 12:31:30
Local clock offset: 0.284 ms
Remote clock offset: -1.862 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.77 Mbit/s
95th percentile per-packet one-way delay: 1138.397 ms
Loss rate: 18.73%
-- Flow 1:
Average throughput: 57.14 Mbit/s
95th percentile per-packet one-way delay: 1139.802 ms
Loss rate: 24.79%
-- Flow 2:
Average throughput: 39.05 Mbit/s
95th percentile per-packet one-way delay: 1106.631 ms
Loss rate: 7.78%
-- Flow 3:
Average throughput: 26.32 Mbit/s
95th percentile per-packet one-way delay: 159.458 ms
Loss rate: 1.40%
```

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-05-30 12:57:06

End at: 2019-05-30 12:57:36

Local clock offset: 0.156 ms

Remote clock offset: -1.45 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.71 Mbit/s

95th percentile per-packet one-way delay: 886.284 ms

Loss rate: 24.58%

-- Flow 1:

Average throughput: 54.71 Mbit/s

95th percentile per-packet one-way delay: 898.240 ms

Loss rate: 35.13%

-- Flow 2:

Average throughput: 44.23 Mbit/s

95th percentile per-packet one-way delay: 177.761 ms

Loss rate: 0.62%

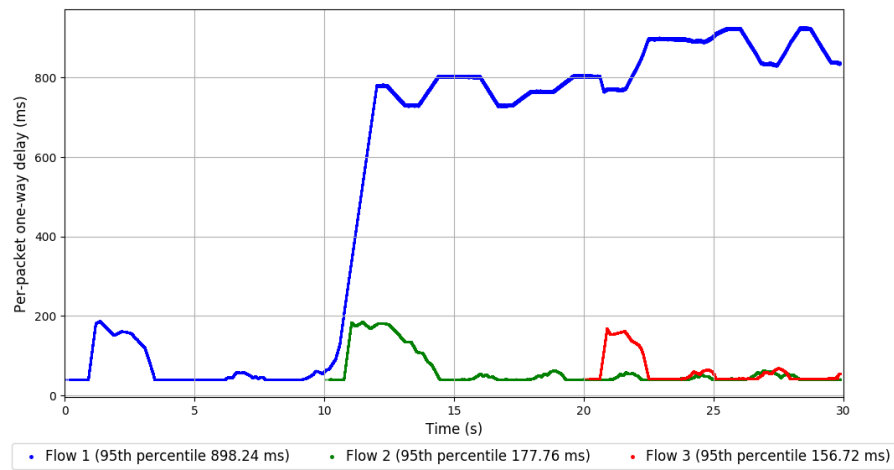
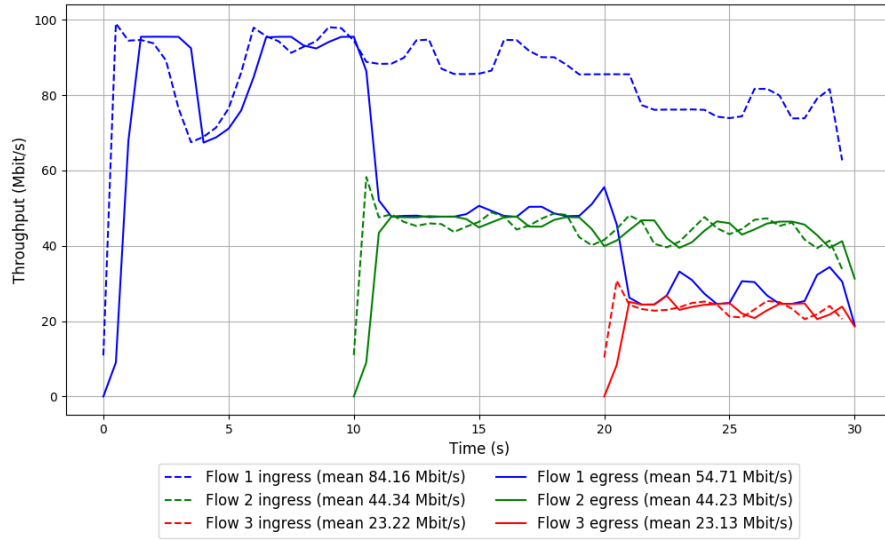
-- Flow 3:

Average throughput: 23.13 Mbit/s

95th percentile per-packet one-way delay: 156.721 ms

Loss rate: 1.04%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-05-30 11:08:33
End at: 2019-05-30 11:09:03
Local clock offset: 0.622 ms
Remote clock offset: -5.046 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.22 Mbit/s
95th percentile per-packet one-way delay: 108.347 ms
Loss rate: 0.35%

-- Flow 1:

Average throughput: 43.78 Mbit/s
95th percentile per-packet one-way delay: 96.677 ms
Loss rate: 0.20%

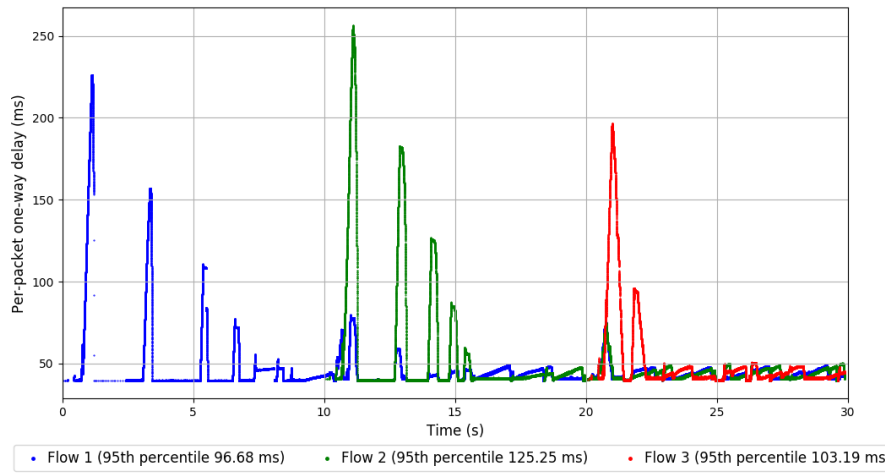
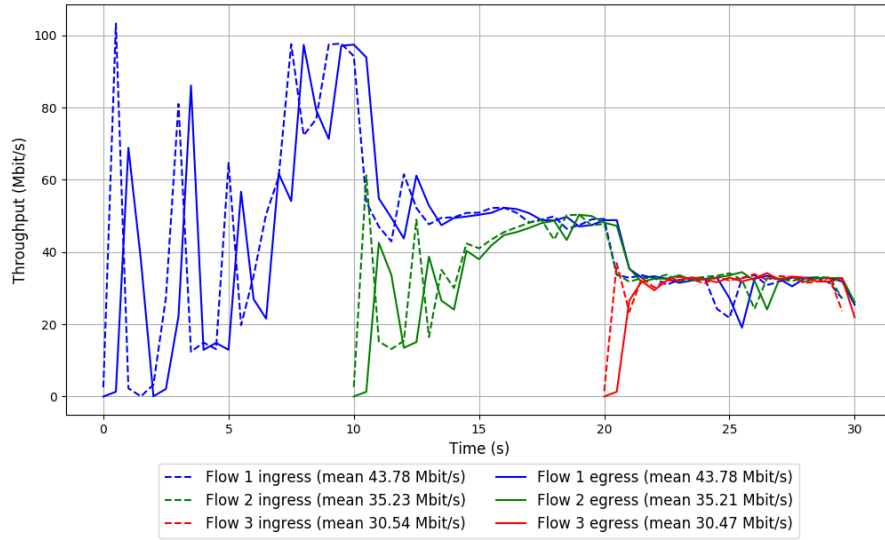
-- Flow 2:

Average throughput: 35.21 Mbit/s
95th percentile per-packet one-way delay: 125.246 ms
Loss rate: 0.40%

-- Flow 3:

Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 103.190 ms
Loss rate: 0.89%

Run 1: Report of QUIC Cubic — Data Link

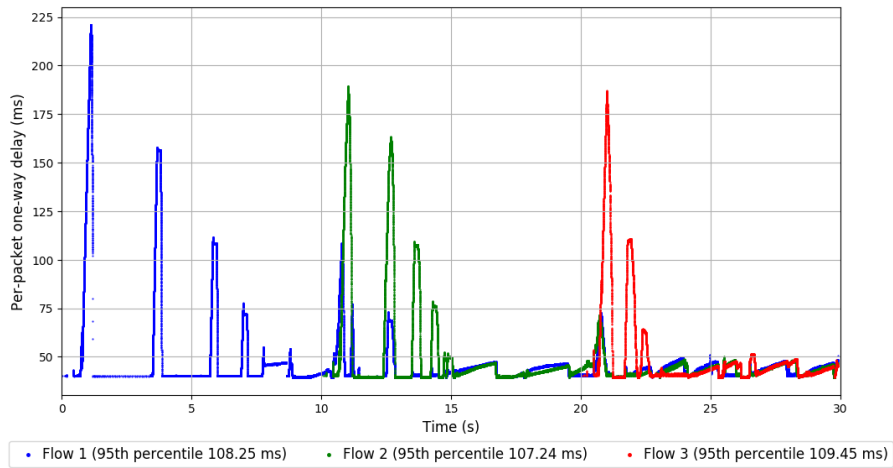
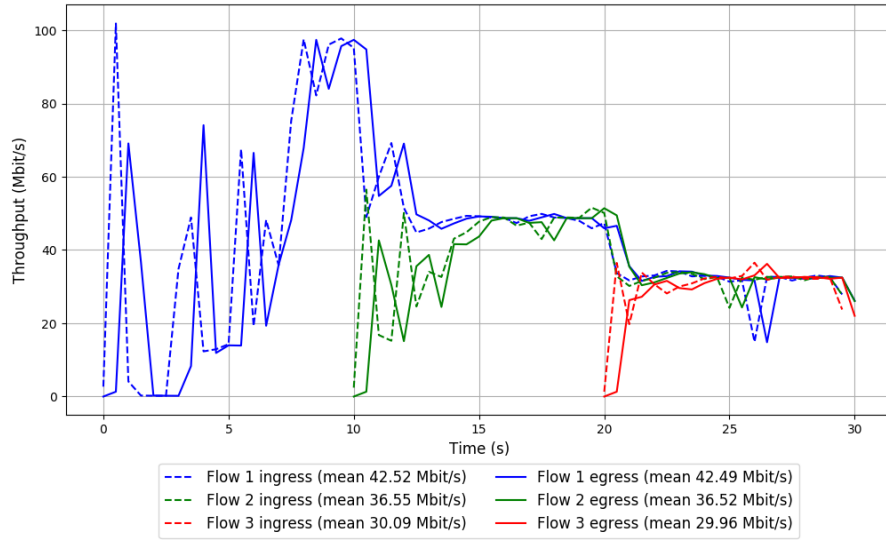


Run 2: Statistics of QUIC Cubic

Start at: 2019-05-30 11:34:26
End at: 2019-05-30 11:34:56
Local clock offset: 0.692 ms
Remote clock offset: -3.847 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.64 Mbit/s
95th percentile per-packet one-way delay: 107.553 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 42.49 Mbit/s
95th percentile per-packet one-way delay: 108.249 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 36.52 Mbit/s
95th percentile per-packet one-way delay: 107.241 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 29.96 Mbit/s
95th percentile per-packet one-way delay: 109.447 ms
Loss rate: 1.06%
```

Run 2: Report of QUIC Cubic — Data Link

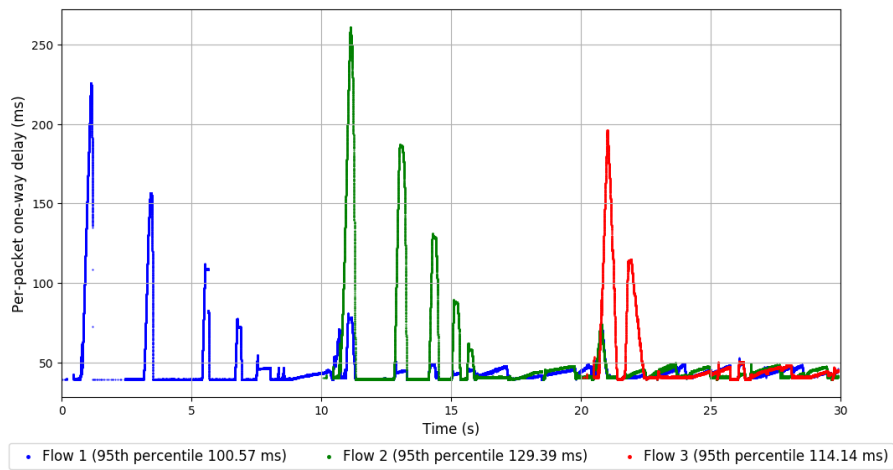
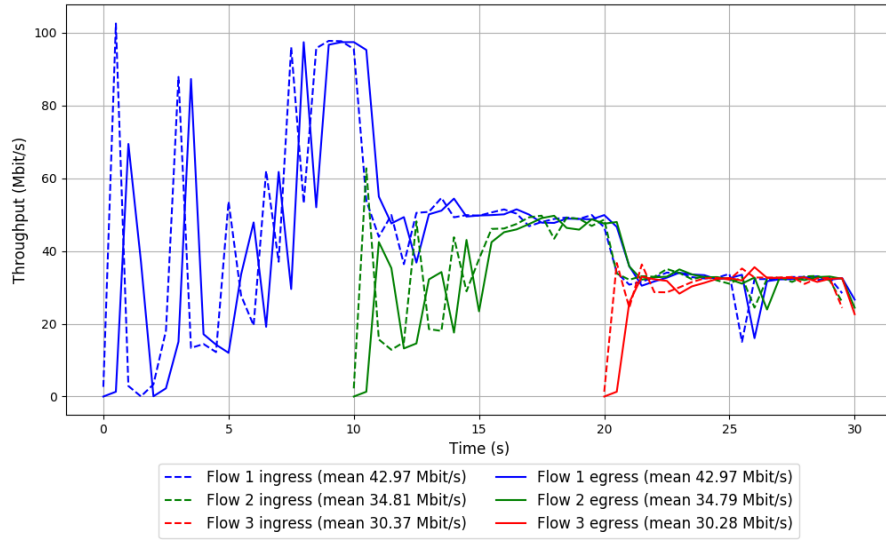


Run 3: Statistics of QUIC Cubic

Start at: 2019-05-30 12:00:18
End at: 2019-05-30 12:00:48
Local clock offset: 0.356 ms
Remote clock offset: -2.918 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.06 Mbit/s
95th percentile per-packet one-way delay: 111.048 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 42.97 Mbit/s
95th percentile per-packet one-way delay: 100.566 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 129.394 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 30.28 Mbit/s
95th percentile per-packet one-way delay: 114.140 ms
Loss rate: 0.94%
```

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-05-30 12:26:12
End at: 2019-05-30 12:26:42
Local clock offset: 0.301 ms
Remote clock offset: -2.226 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.60 Mbit/s
95th percentile per-packet one-way delay: 124.562 ms
Loss rate: 0.37%

-- Flow 1:

Average throughput: 41.12 Mbit/s
95th percentile per-packet one-way delay: 106.686 ms
Loss rate: 0.17%

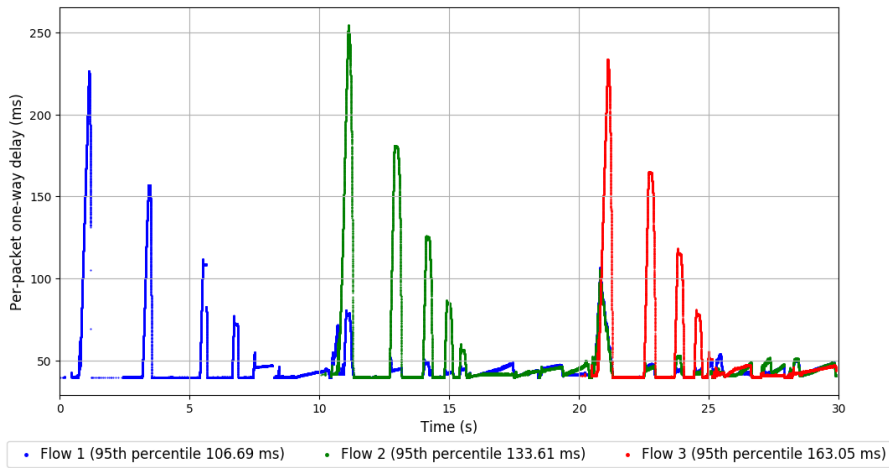
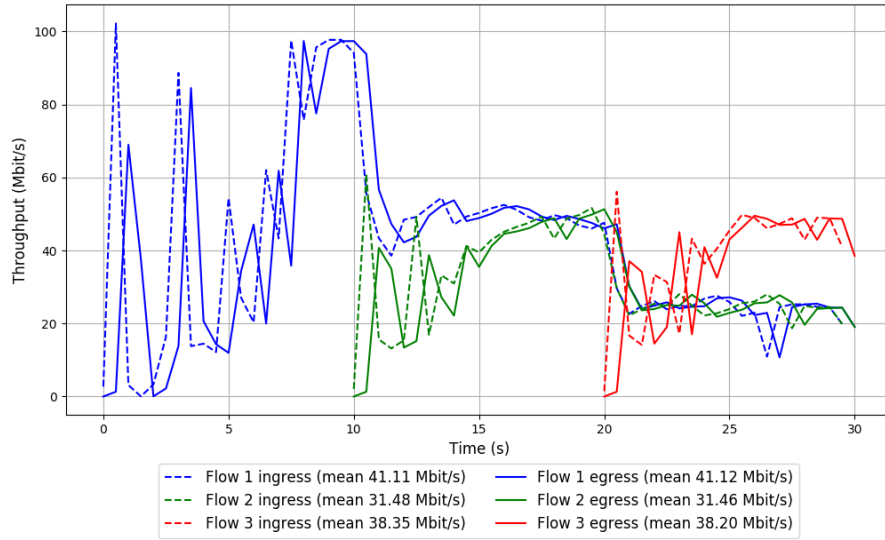
-- Flow 2:

Average throughput: 31.46 Mbit/s
95th percentile per-packet one-way delay: 133.609 ms
Loss rate: 0.37%

-- Flow 3:

Average throughput: 38.20 Mbit/s
95th percentile per-packet one-way delay: 163.049 ms
Loss rate: 1.04%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-05-30 12:52:17
End at: 2019-05-30 12:52:47
Local clock offset: 0.154 ms
Remote clock offset: -1.453 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.92 Mbit/s
95th percentile per-packet one-way delay: 89.328 ms
Loss rate: 0.46%

-- Flow 1:

Average throughput: 52.01 Mbit/s
95th percentile per-packet one-way delay: 60.203 ms
Loss rate: 0.13%

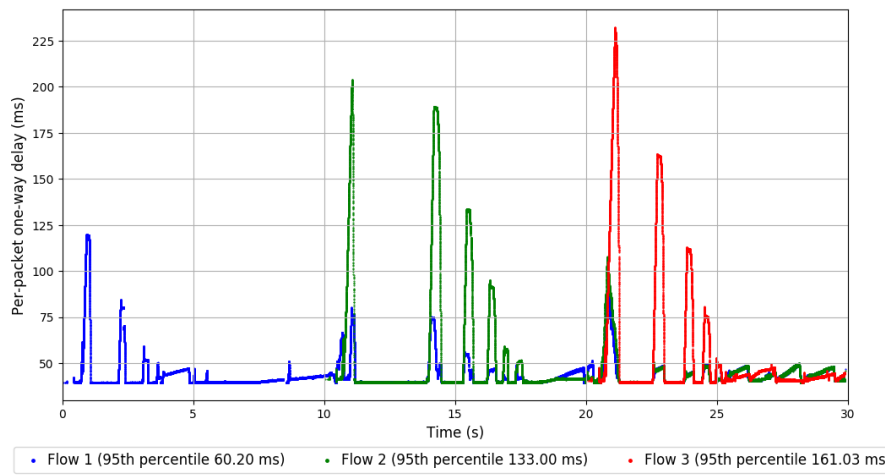
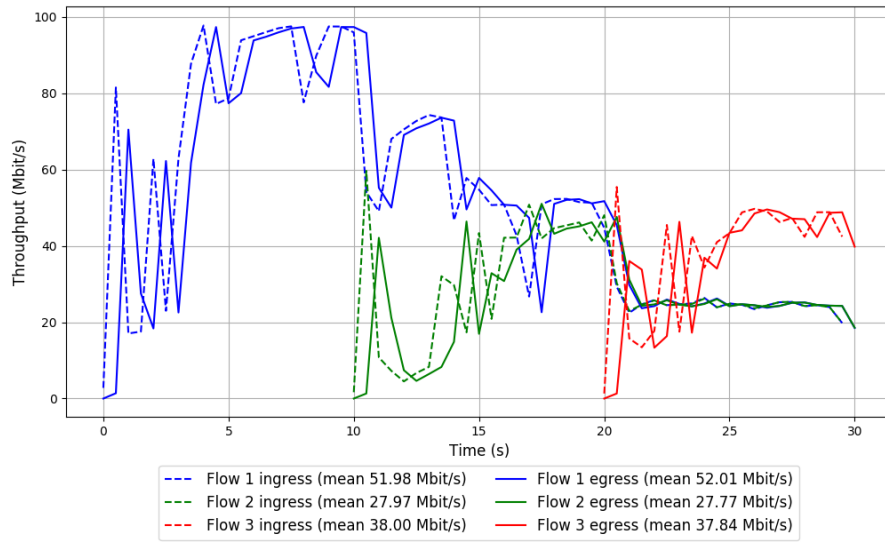
-- Flow 2:

Average throughput: 27.77 Mbit/s
95th percentile per-packet one-way delay: 132.996 ms
Loss rate: 0.99%

-- Flow 3:

Average throughput: 37.84 Mbit/s
95th percentile per-packet one-way delay: 161.026 ms
Loss rate: 1.06%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2019-05-30 11:14:41
End at: 2019-05-30 11:15:11
Local clock offset: 0.549 ms
Remote clock offset: -4.781 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 39.686 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 39.596 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 39.657 ms

Loss rate: 0.40%

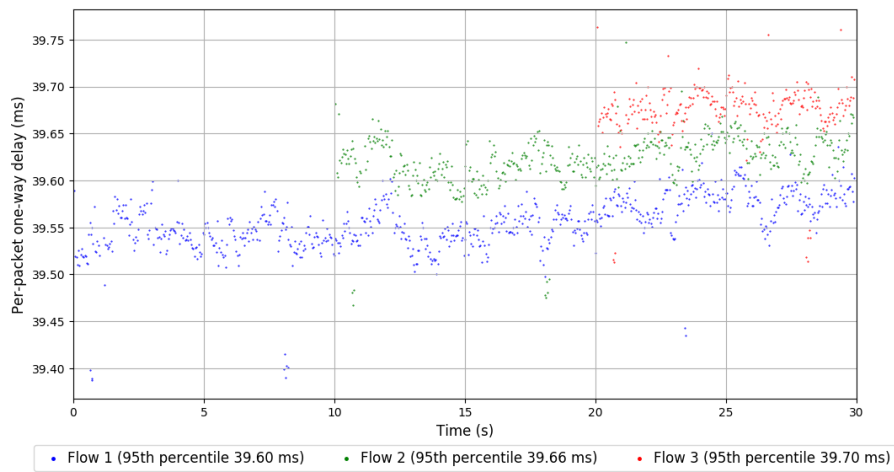
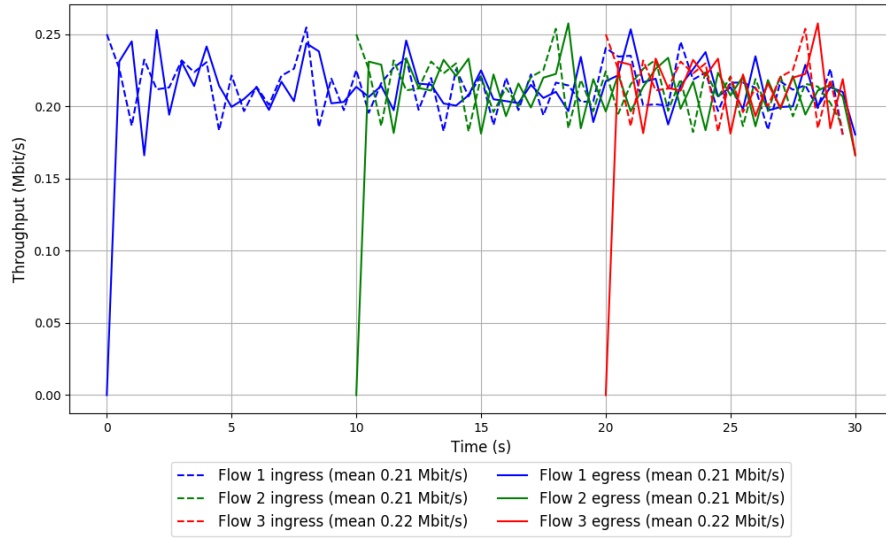
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 39.704 ms

Loss rate: 0.71%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-05-30 11:40:32
End at: 2019-05-30 11:41:02
Local clock offset: 0.604 ms
Remote clock offset: -3.574 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 39.695 ms
Loss rate: 0.31%

-- Flow 1:

Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.618 ms
Loss rate: 0.13%

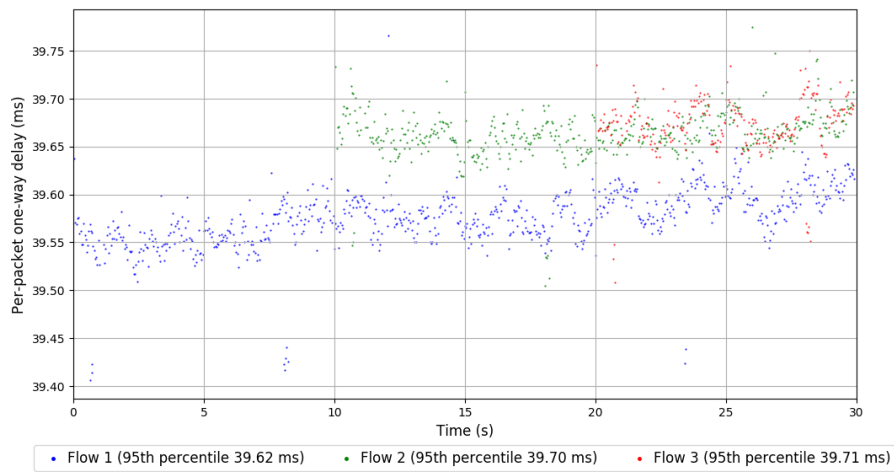
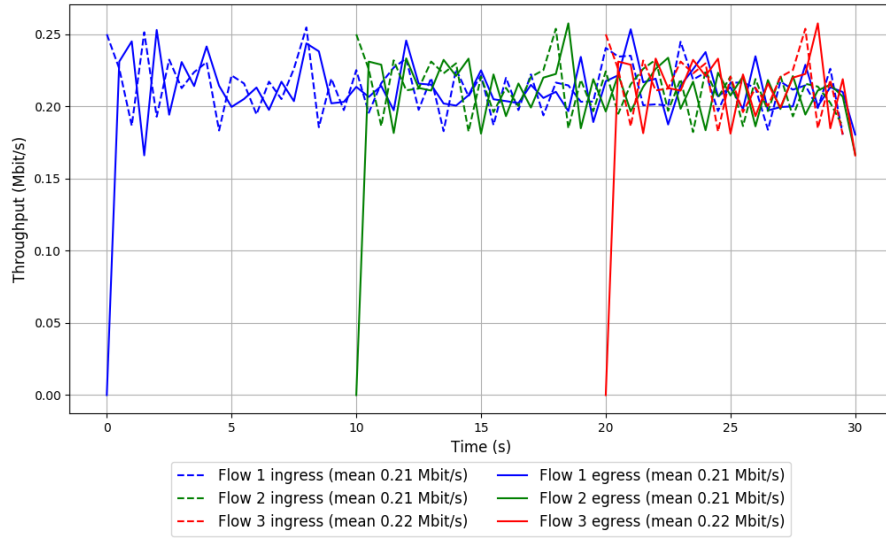
-- Flow 2:

Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.697 ms
Loss rate: 0.40%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.710 ms
Loss rate: 0.71%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-05-30 12:06:24
End at: 2019-05-30 12:06:54
Local clock offset: 0.382 ms
Remote clock offset: -2.748 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 39.636 ms
Loss rate: 0.31%

-- Flow 1:

Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.637 ms
Loss rate: 0.13%

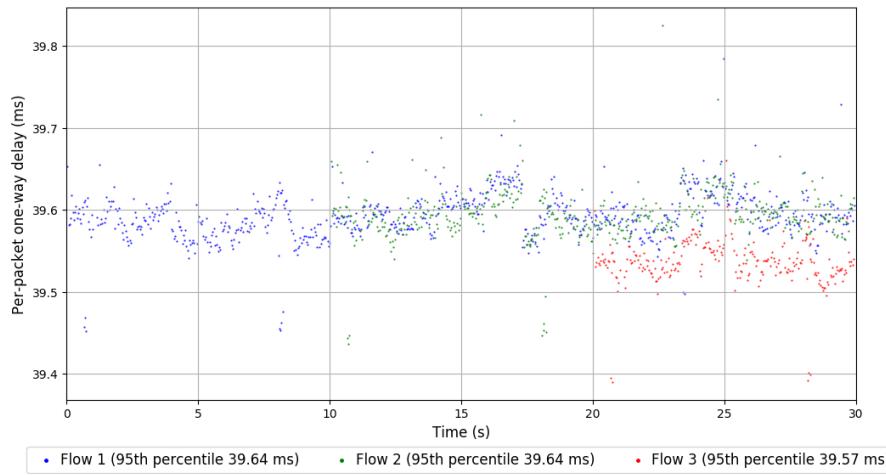
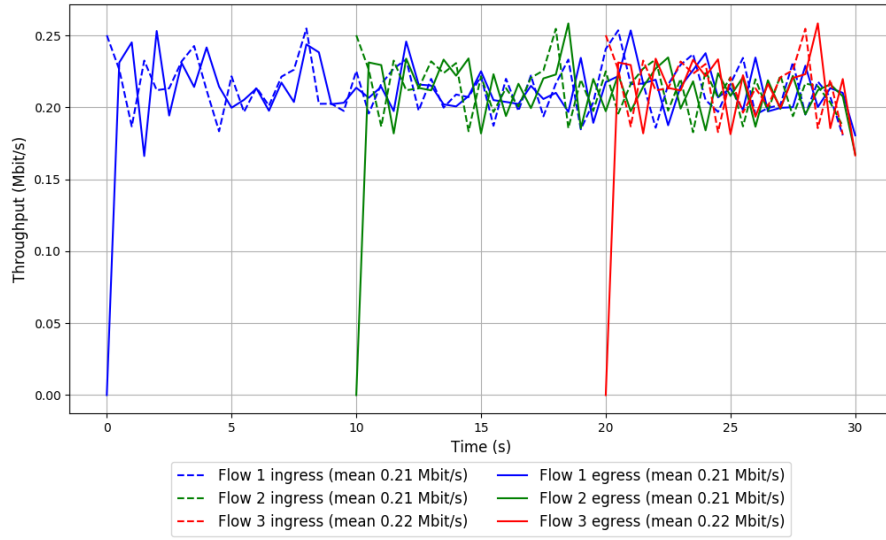
-- Flow 2:

Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.640 ms
Loss rate: 0.40%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.574 ms
Loss rate: 0.71%

Run 3: Report of SCReAM — Data Link

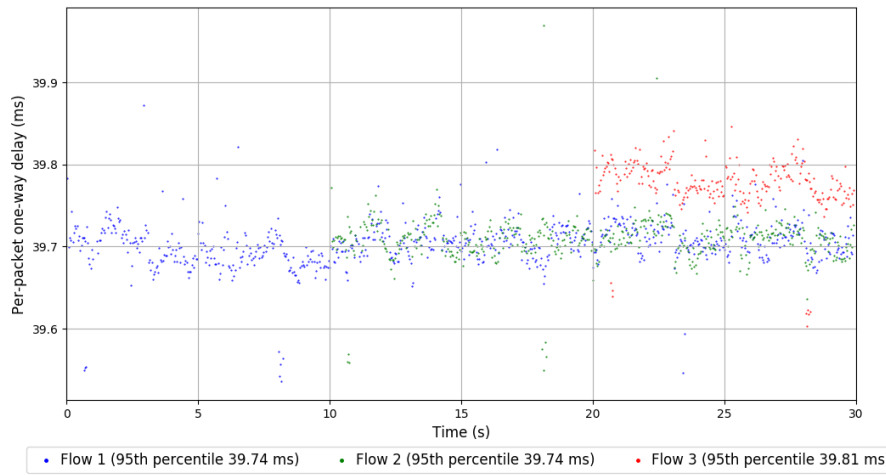
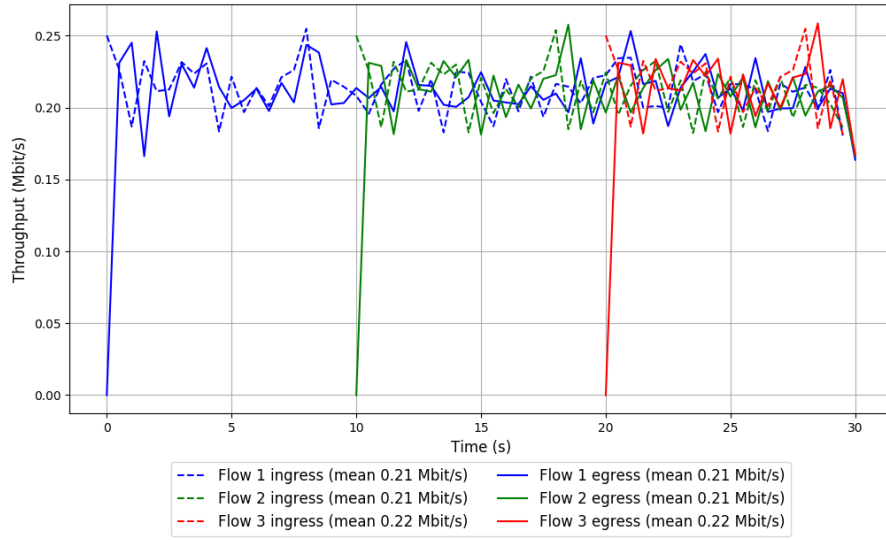


Run 4: Statistics of SCReAM

Start at: 2019-05-30 12:32:18
End at: 2019-05-30 12:32:48
Local clock offset: 0.305 ms
Remote clock offset: -2.062 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 39.793 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.740 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.737 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.812 ms
Loss rate: 0.71%
```

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-05-30 12:58:24
End at: 2019-05-30 12:58:54
Local clock offset: 0.142 ms
Remote clock offset: -1.367 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 39.533 ms
Loss rate: 0.31%

-- Flow 1:

Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.515 ms
Loss rate: 0.13%

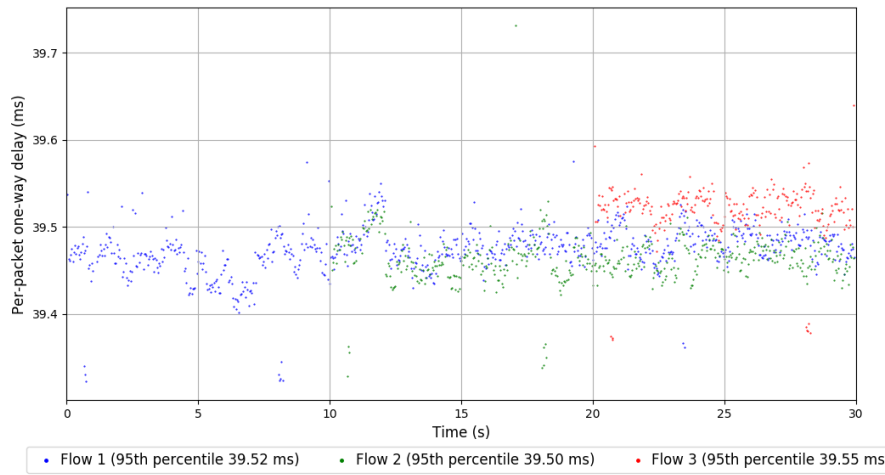
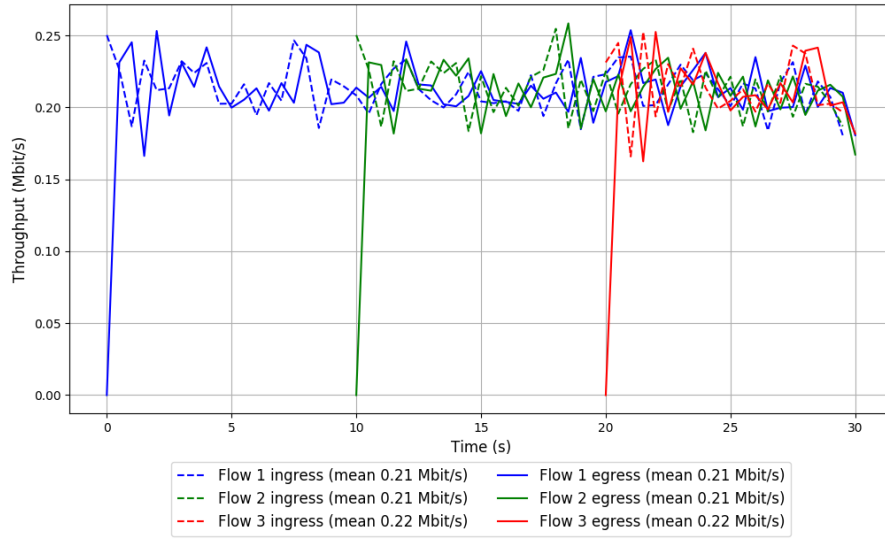
-- Flow 2:

Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 39.504 ms
Loss rate: 0.40%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 39.546 ms
Loss rate: 0.71%

Run 5: Report of SCReAM — Data Link

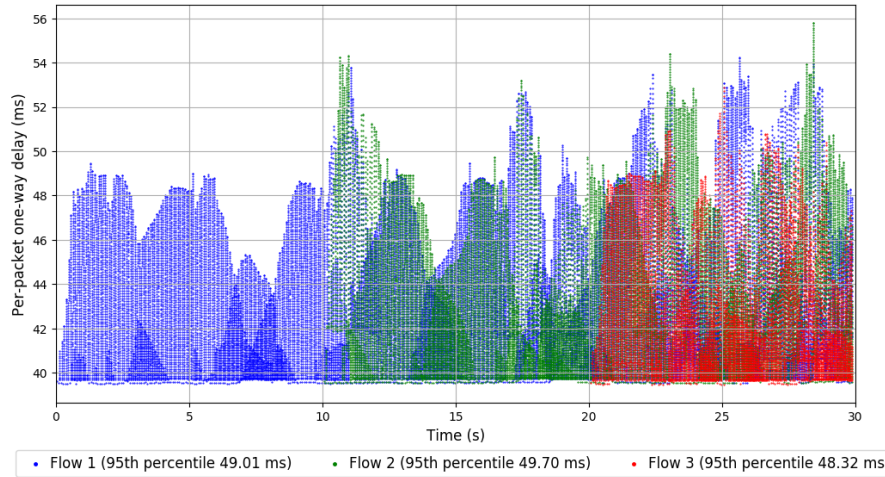
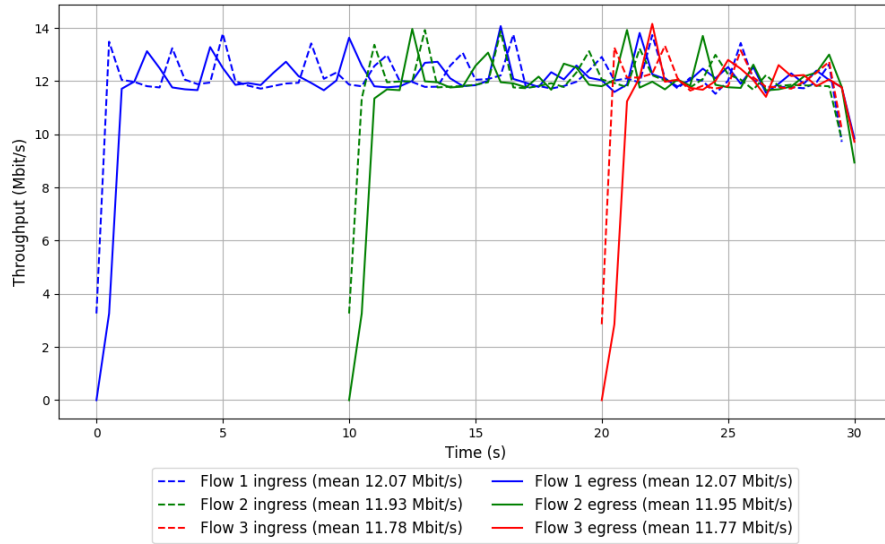


Run 1: Statistics of Sprout

Start at: 2019-05-30 11:07:23
End at: 2019-05-30 11:07:53
Local clock offset: 0.708 ms
Remote clock offset: -5.115 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.88 Mbit/s
95th percentile per-packet one-way delay: 49.126 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 49.008 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 11.95 Mbit/s
95th percentile per-packet one-way delay: 49.699 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 48.319 ms
Loss rate: 0.83%
```

Run 1: Report of Sprout — Data Link

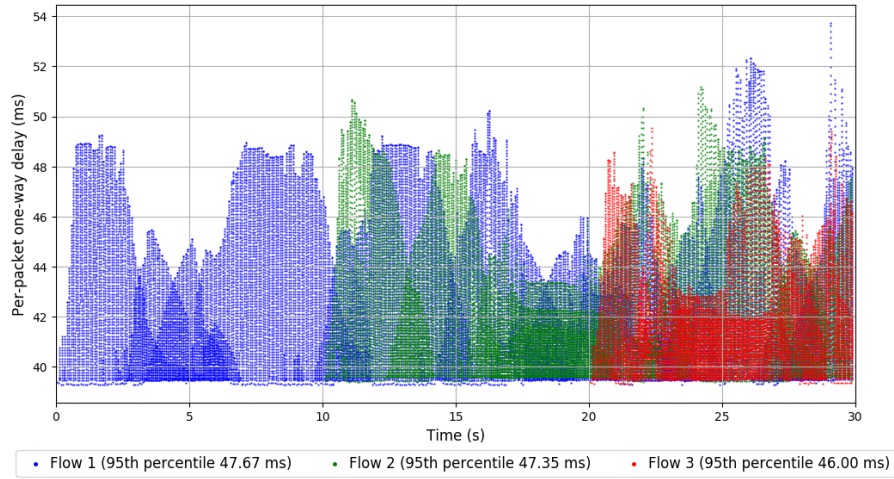
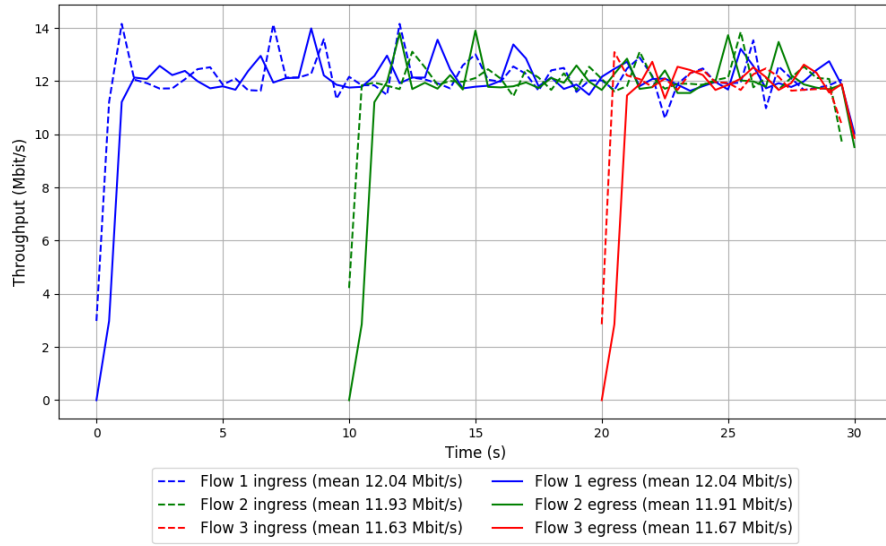


Run 2: Statistics of Sprout

Start at: 2019-05-30 11:33:16
End at: 2019-05-30 11:33:46
Local clock offset: 0.674 ms
Remote clock offset: -3.913 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.79 Mbit/s
95th percentile per-packet one-way delay: 47.371 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 12.04 Mbit/s
95th percentile per-packet one-way delay: 47.669 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 47.347 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 46.003 ms
Loss rate: 0.22%
```

Run 2: Report of Sprout — Data Link

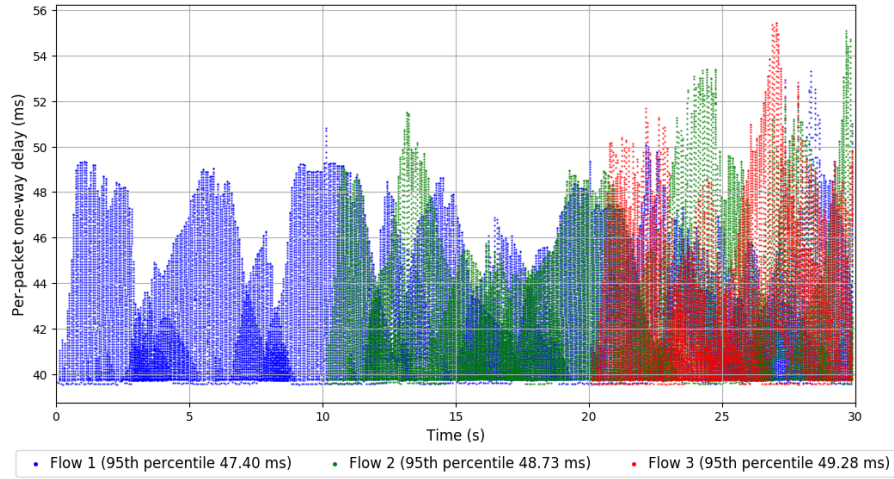
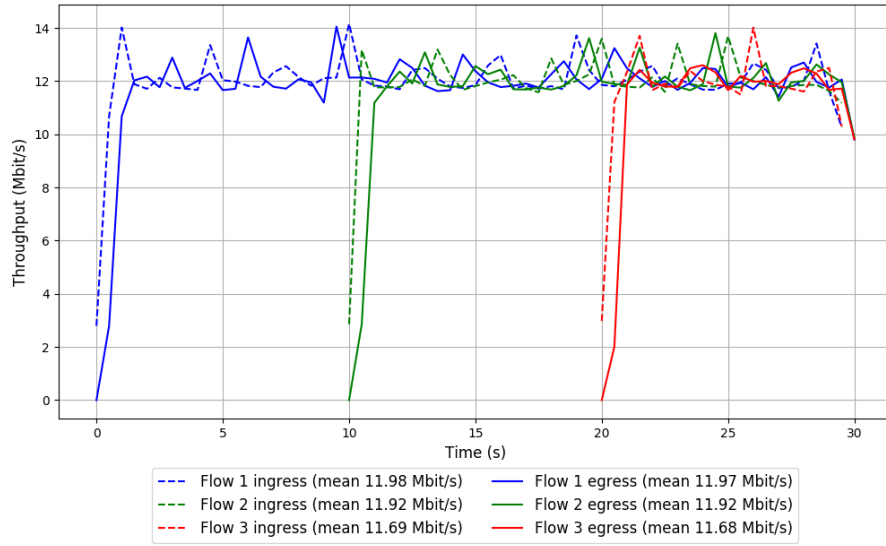


Run 3: Statistics of Sprout

Start at: 2019-05-30 11:59:08
End at: 2019-05-30 11:59:38
Local clock offset: 0.372 ms
Remote clock offset: -3.137 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.73 Mbit/s
95th percentile per-packet one-way delay: 48.141 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 47.399 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 11.92 Mbit/s
95th percentile per-packet one-way delay: 48.725 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 11.68 Mbit/s
95th percentile per-packet one-way delay: 49.278 ms
Loss rate: 0.84%
```

Run 3: Report of Sprout — Data Link

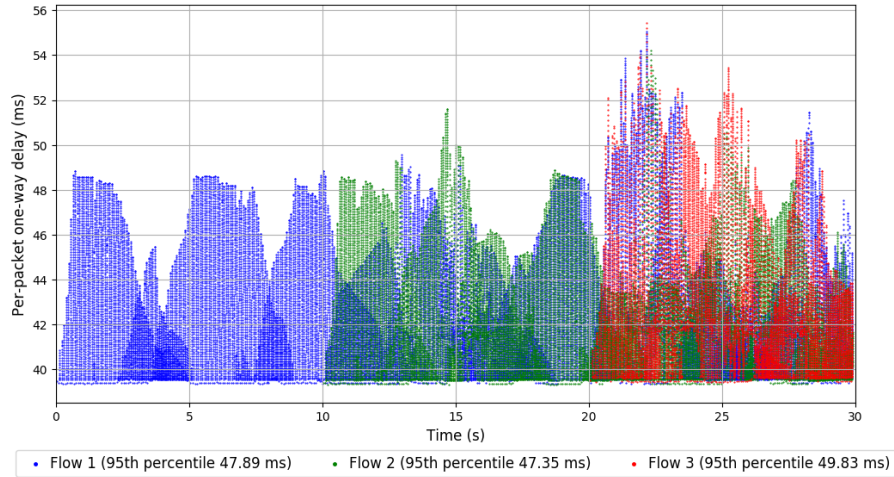
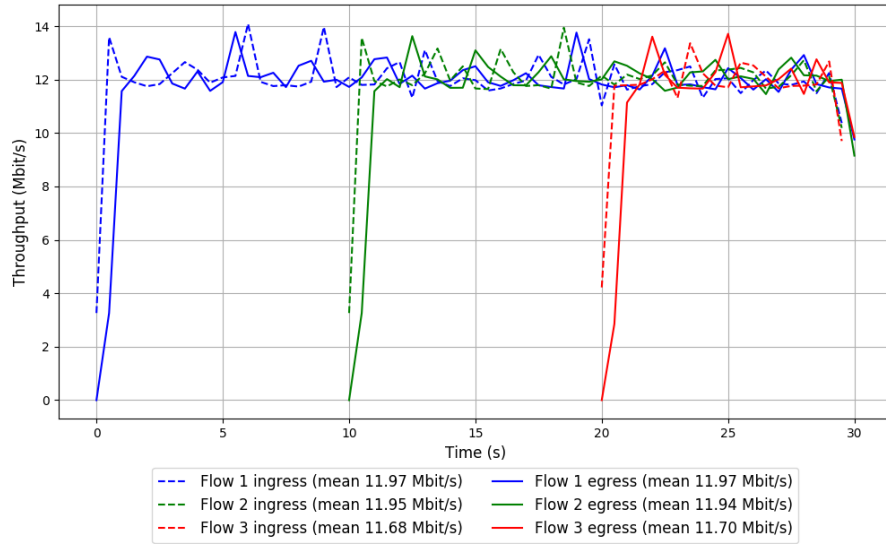


Run 4: Statistics of Sprout

Start at: 2019-05-30 12:25:02
End at: 2019-05-30 12:25:32
Local clock offset: 0.306 ms
Remote clock offset: -2.102 ms

```
# Below is generated by plot.py at 2019-05-30 13:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.76 Mbit/s
95th percentile per-packet one-way delay: 48.074 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 47.887 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 47.354 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 49.825 ms
Loss rate: 0.38%
```

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-05-30 12:51:07
End at: 2019-05-30 12:51:37
Local clock offset: 0.124 ms
Remote clock offset: -1.484 ms

Below is generated by plot.py at 2019-05-30 13:16:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.68 Mbit/s
95th percentile per-packet one-way delay: 47.619 ms
Loss rate: 0.31%

-- Flow 1:

Average throughput: 12.01 Mbit/s
95th percentile per-packet one-way delay: 47.762 ms
Loss rate: 0.27%

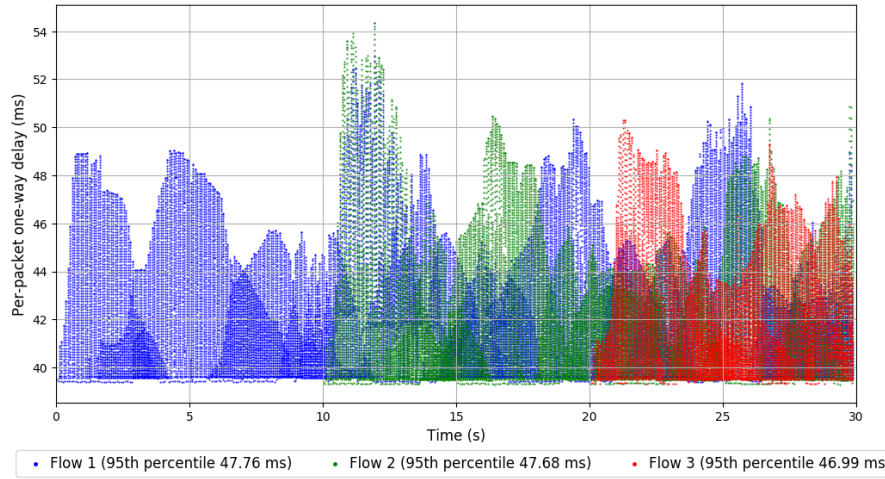
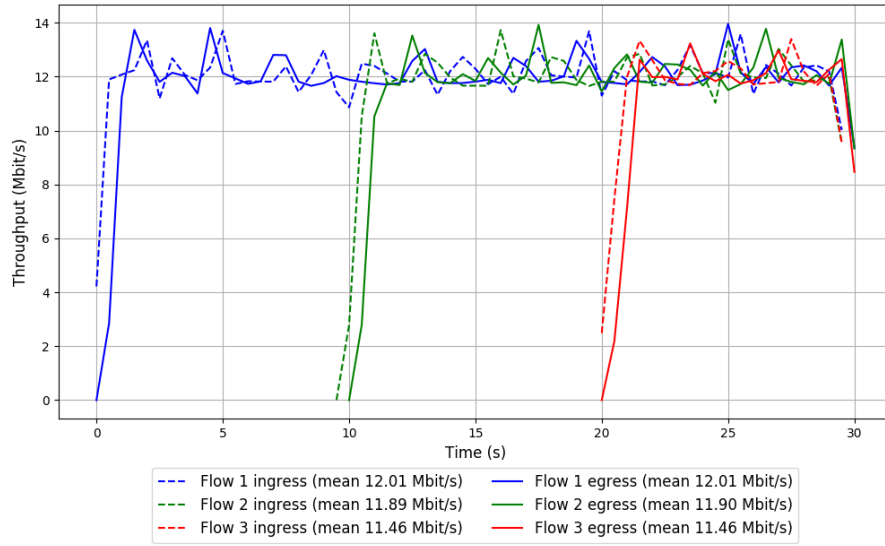
-- Flow 2:

Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 47.677 ms
Loss rate: 0.13%

-- Flow 3:

Average throughput: 11.46 Mbit/s
95th percentile per-packet one-way delay: 46.991 ms
Loss rate: 0.84%

Run 5: Report of Sprout — Data Link

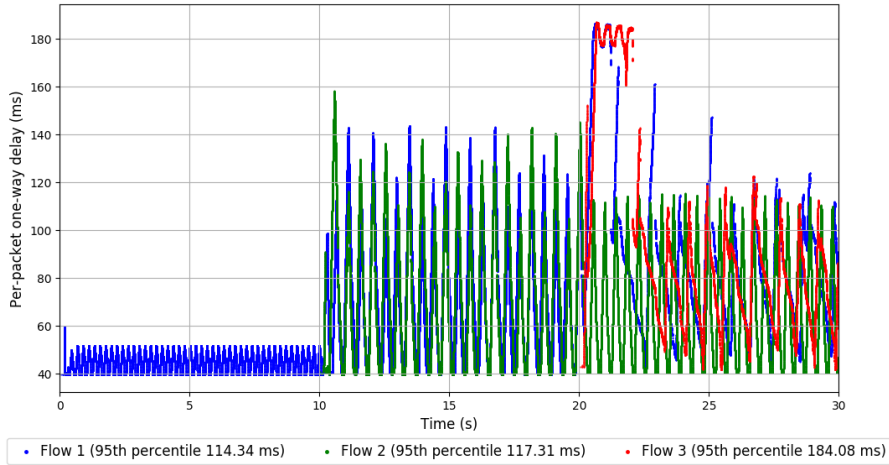
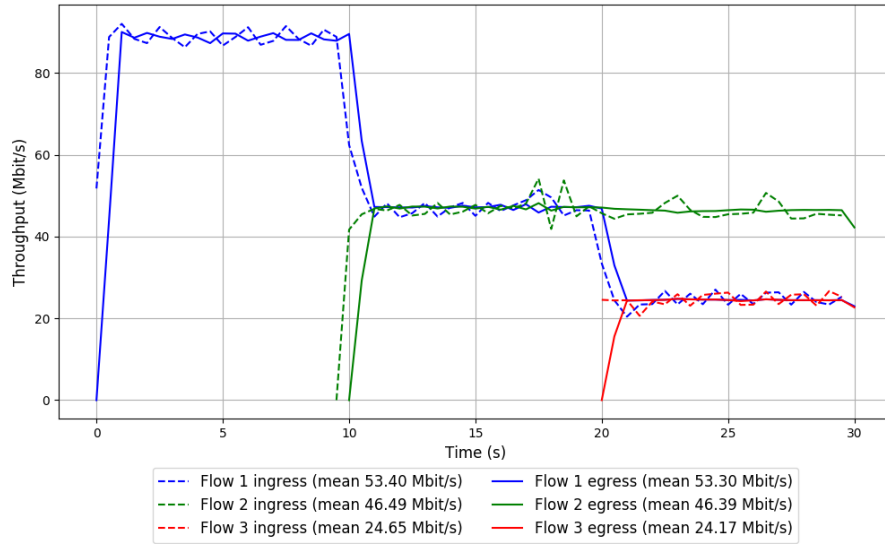


Run 1: Statistics of TaoVA-100x

Start at: 2019-05-30 11:03:41
End at: 2019-05-30 11:04:11
Local clock offset: 0.561 ms
Remote clock offset: -5.402 ms

```
# Below is generated by plot.py at 2019-05-30 13:18:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.21 Mbit/s
95th percentile per-packet one-way delay: 120.705 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 114.344 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 46.39 Mbit/s
95th percentile per-packet one-way delay: 117.310 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 24.17 Mbit/s
95th percentile per-packet one-way delay: 184.080 ms
Loss rate: 2.60%
```

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-05-30 11:29:33
End at: 2019-05-30 11:30:03
Local clock offset: 0.614 ms
Remote clock offset: -3.986 ms

Below is generated by plot.py at 2019-05-30 13:18:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.25 Mbit/s
95th percentile per-packet one-way delay: 133.572 ms
Loss rate: 1.45%

-- Flow 1:

Average throughput: 55.91 Mbit/s
95th percentile per-packet one-way delay: 132.648 ms
Loss rate: 0.51%

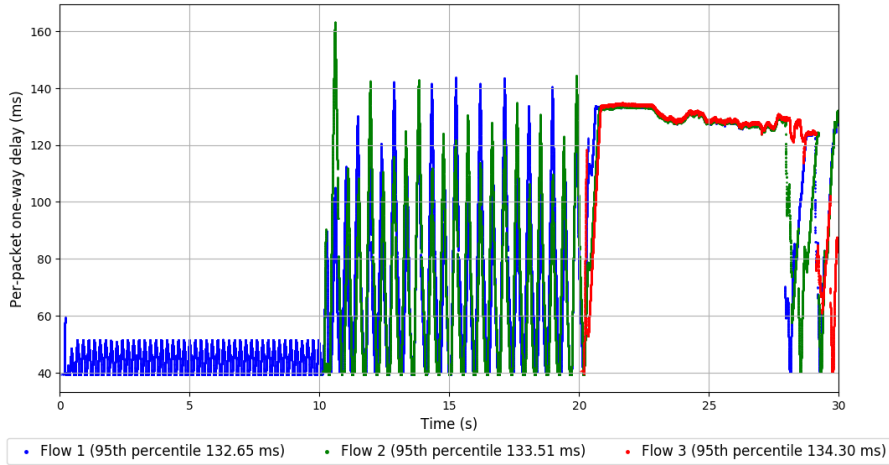
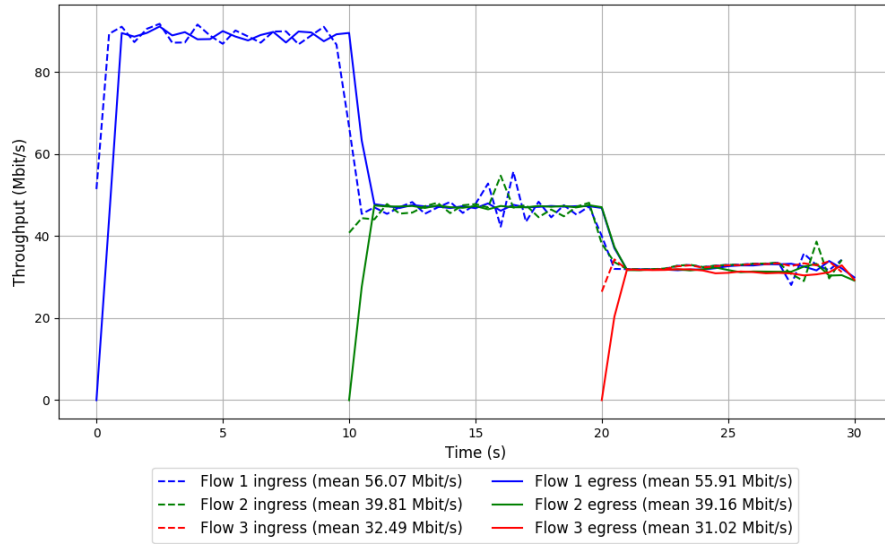
-- Flow 2:

Average throughput: 39.16 Mbit/s
95th percentile per-packet one-way delay: 133.512 ms
Loss rate: 1.96%

-- Flow 3:

Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 134.302 ms
Loss rate: 5.15%

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

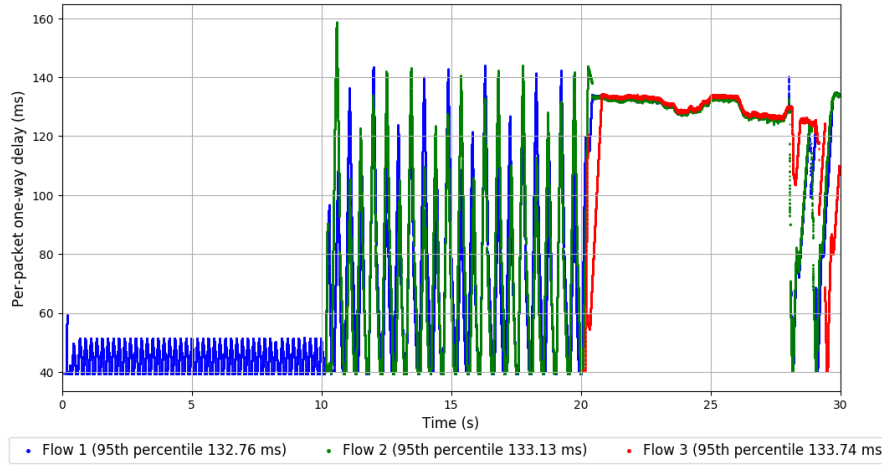
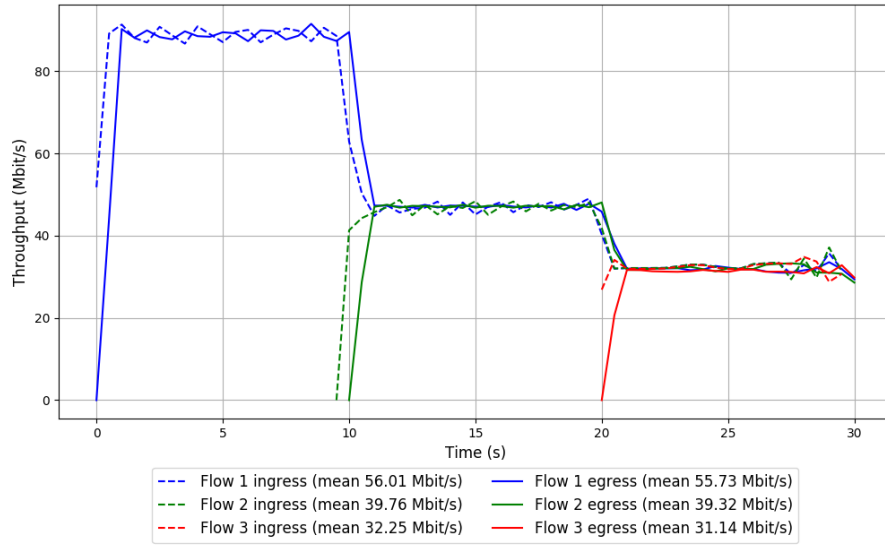


Run 3: Statistics of TaoVA-100x

Start at: 2019-05-30 11:55:24
End at: 2019-05-30 11:55:54
Local clock offset: 0.361 ms
Remote clock offset: -3.164 ms

```
# Below is generated by plot.py at 2019-05-30 13:18:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.23 Mbit/s
95th percentile per-packet one-way delay: 133.270 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 55.73 Mbit/s
95th percentile per-packet one-way delay: 132.762 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 39.32 Mbit/s
95th percentile per-packet one-way delay: 133.128 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 133.744 ms
Loss rate: 4.06%
```

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

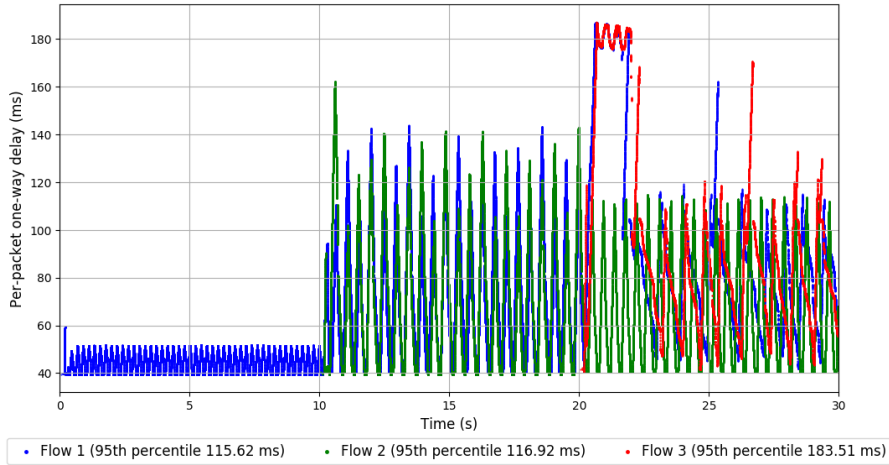
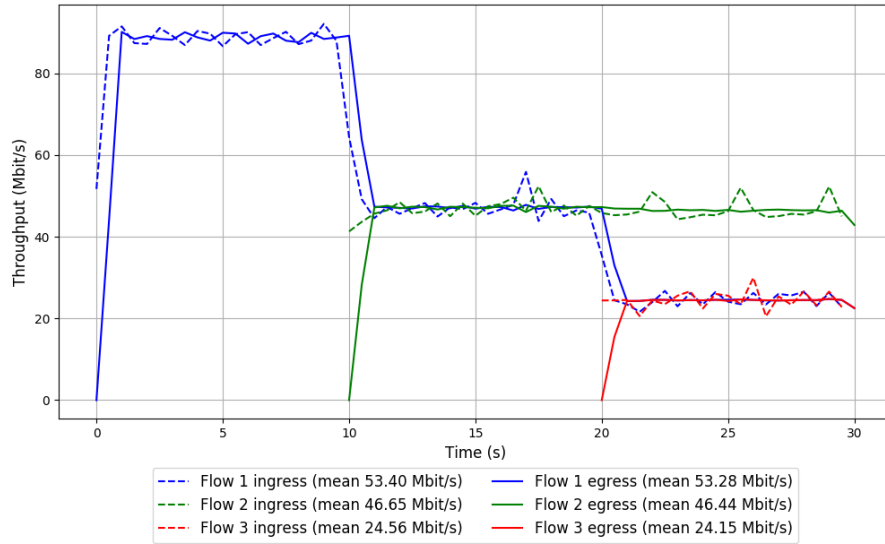


Run 4: Statistics of TaoVA-100x

Start at: 2019-05-30 12:21:19
End at: 2019-05-30 12:21:49
Local clock offset: 0.288 ms
Remote clock offset: -2.163 ms

```
# Below is generated by plot.py at 2019-05-30 13:18:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 122.629 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 53.28 Mbit/s
95th percentile per-packet one-way delay: 115.616 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 46.44 Mbit/s
95th percentile per-packet one-way delay: 116.916 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 24.15 Mbit/s
95th percentile per-packet one-way delay: 183.513 ms
Loss rate: 2.31%
```

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

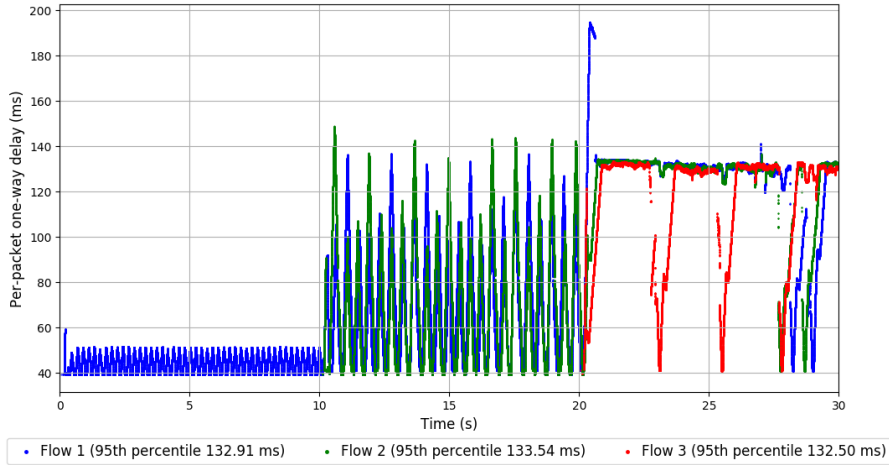
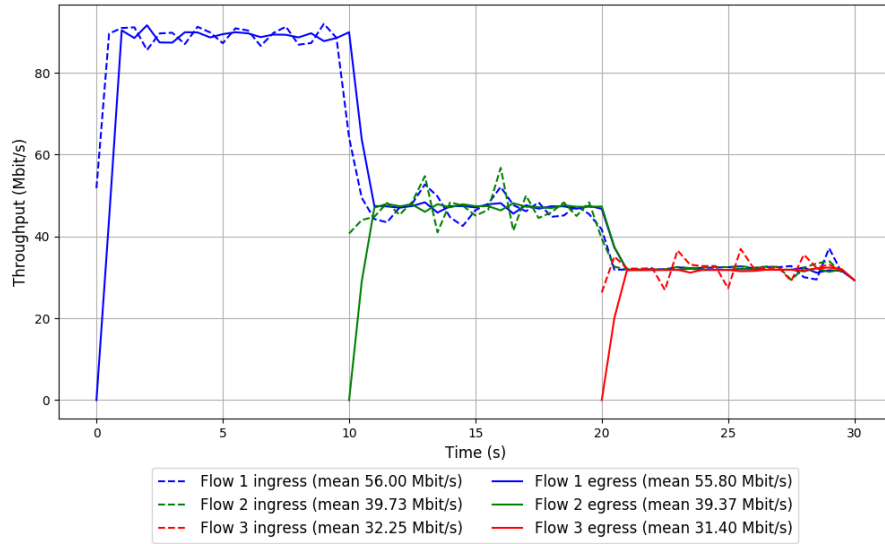


Run 5: Statistics of TaoVA-100x

Start at: 2019-05-30 12:47:18
End at: 2019-05-30 12:47:48
Local clock offset: 0.169 ms
Remote clock offset: -1.572 ms

```
# Below is generated by plot.py at 2019-05-30 13:18:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.40 Mbit/s
95th percentile per-packet one-way delay: 133.210 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 55.80 Mbit/s
95th percentile per-packet one-way delay: 132.907 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 39.37 Mbit/s
95th percentile per-packet one-way delay: 133.542 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 31.40 Mbit/s
95th percentile per-packet one-way delay: 132.502 ms
Loss rate: 3.26%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2019-05-30 11:15:49
End at: 2019-05-30 11:16:19
Local clock offset: 0.511 ms
Remote clock offset: -4.665 ms

Below is generated by plot.py at 2019-05-30 13:18:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.15 Mbit/s
95th percentile per-packet one-way delay: 48.121 ms
Loss rate: 0.31%

-- Flow 1:

Average throughput: 38.46 Mbit/s
95th percentile per-packet one-way delay: 62.425 ms
Loss rate: 0.20%

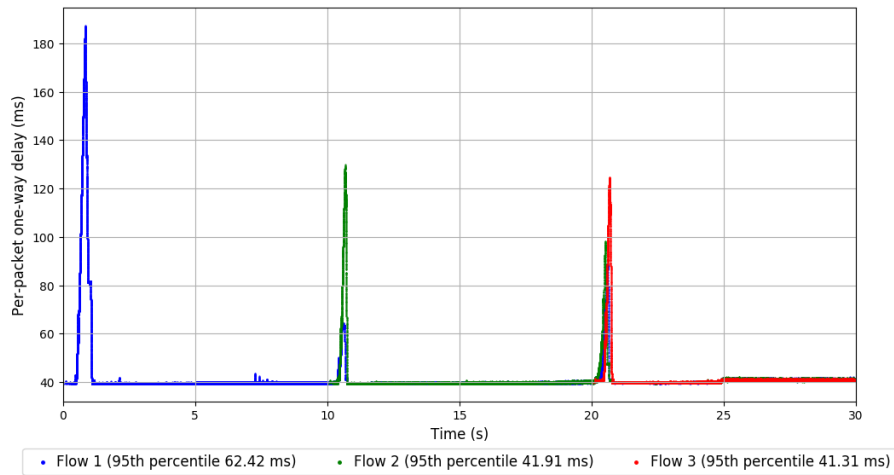
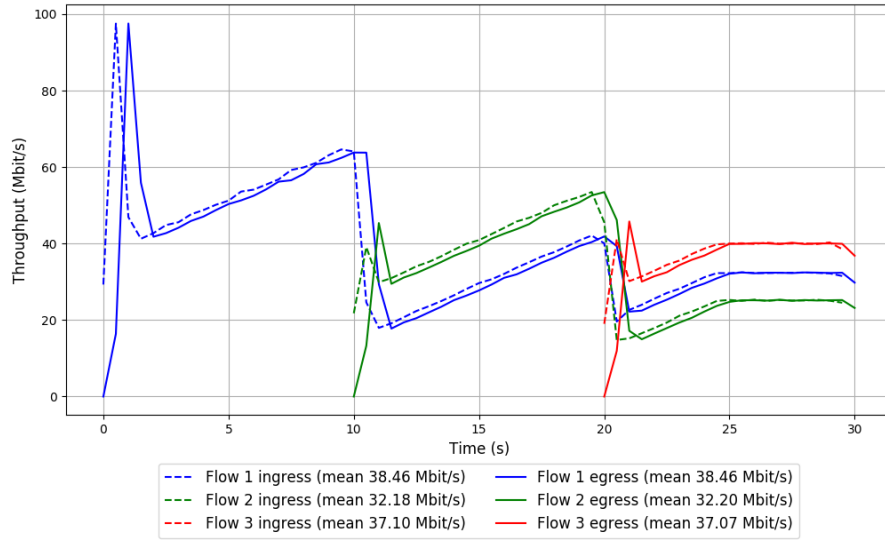
-- Flow 2:

Average throughput: 32.20 Mbit/s
95th percentile per-packet one-way delay: 41.907 ms
Loss rate: 0.27%

-- Flow 3:

Average throughput: 37.07 Mbit/s
95th percentile per-packet one-way delay: 41.309 ms
Loss rate: 0.72%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-05-30 11:41:40
End at: 2019-05-30 11:42:10
Local clock offset: 0.54 ms
Remote clock offset: -3.552 ms

Below is generated by plot.py at 2019-05-30 13:18:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.38 Mbit/s
95th percentile per-packet one-way delay: 46.831 ms
Loss rate: 0.34%

-- Flow 1:

Average throughput: 37.20 Mbit/s
95th percentile per-packet one-way delay: 57.947 ms
Loss rate: 0.18%

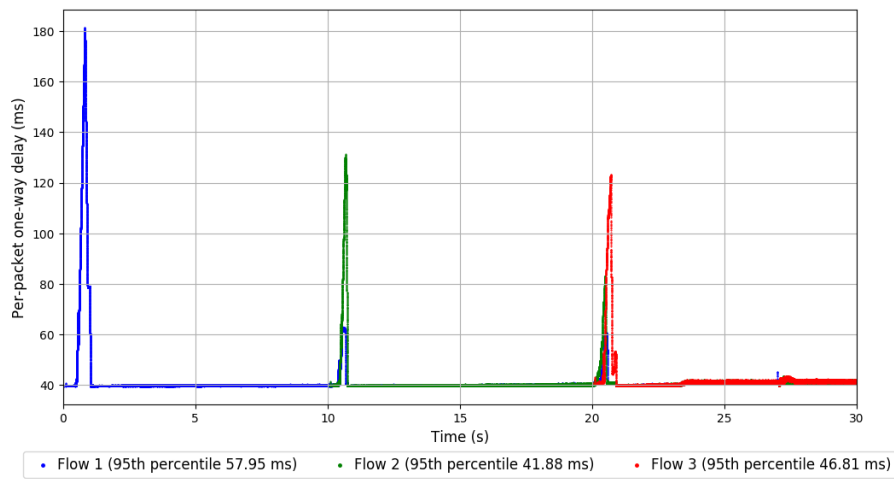
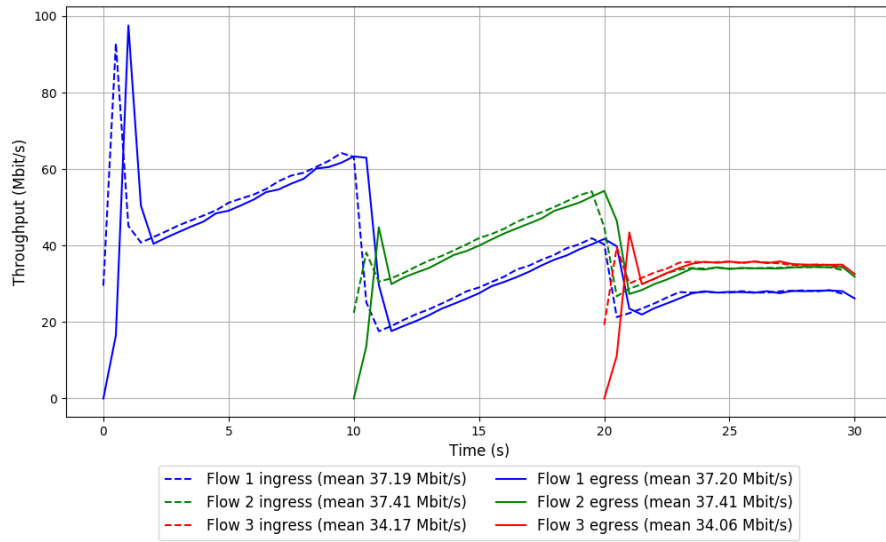
-- Flow 2:

Average throughput: 37.41 Mbit/s
95th percentile per-packet one-way delay: 41.875 ms
Loss rate: 0.31%

-- Flow 3:

Average throughput: 34.06 Mbit/s
95th percentile per-packet one-way delay: 46.814 ms
Loss rate: 0.96%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-05-30 12:07:33
End at: 2019-05-30 12:08:03
Local clock offset: 0.405 ms
Remote clock offset: -2.624 ms

Below is generated by plot.py at 2019-05-30 13:18:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.13 Mbit/s
95th percentile per-packet one-way delay: 42.763 ms
Loss rate: 0.29%

-- Flow 1:

Average throughput: 41.68 Mbit/s
95th percentile per-packet one-way delay: 45.608 ms
Loss rate: 0.12%

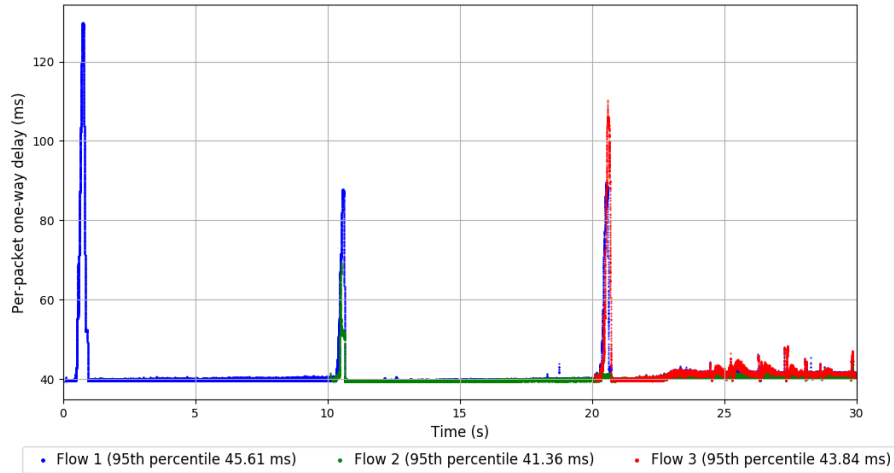
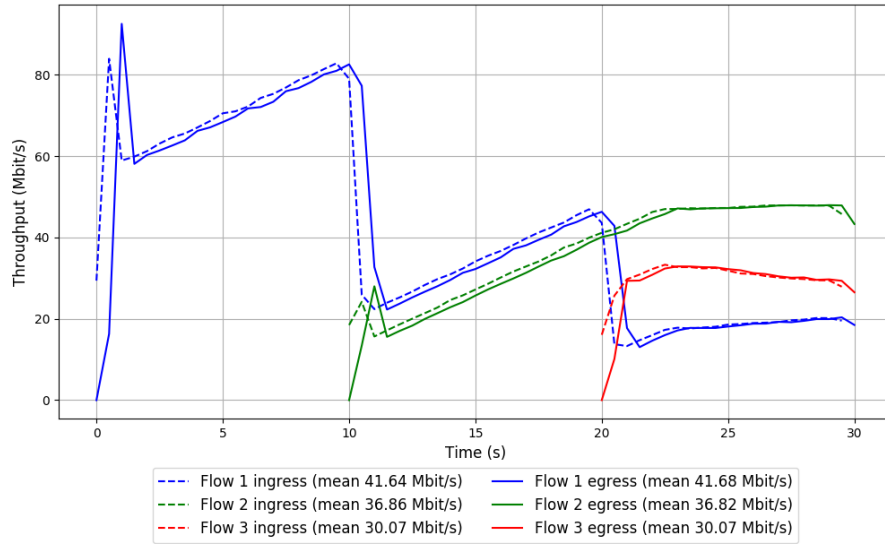
-- Flow 2:

Average throughput: 36.82 Mbit/s
95th percentile per-packet one-way delay: 41.357 ms
Loss rate: 0.44%

-- Flow 3:

Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 43.841 ms
Loss rate: 0.65%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-05-30 12:33:26
End at: 2019-05-30 12:33:56
Local clock offset: 0.329 ms
Remote clock offset: -1.839 ms

Below is generated by plot.py at 2019-05-30 13:18:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 70.48 Mbit/s
95th percentile per-packet one-way delay: 55.566 ms
Loss rate: 0.63%

-- Flow 1:

Average throughput: 35.43 Mbit/s
95th percentile per-packet one-way delay: 61.559 ms
Loss rate: 0.79%

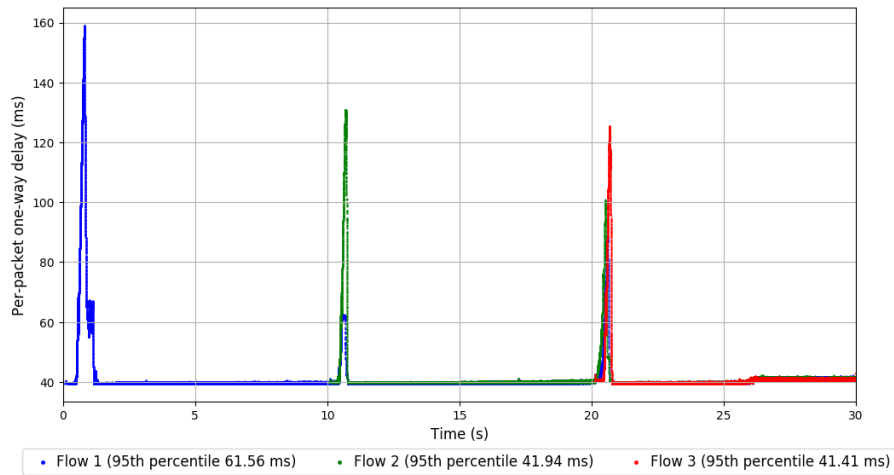
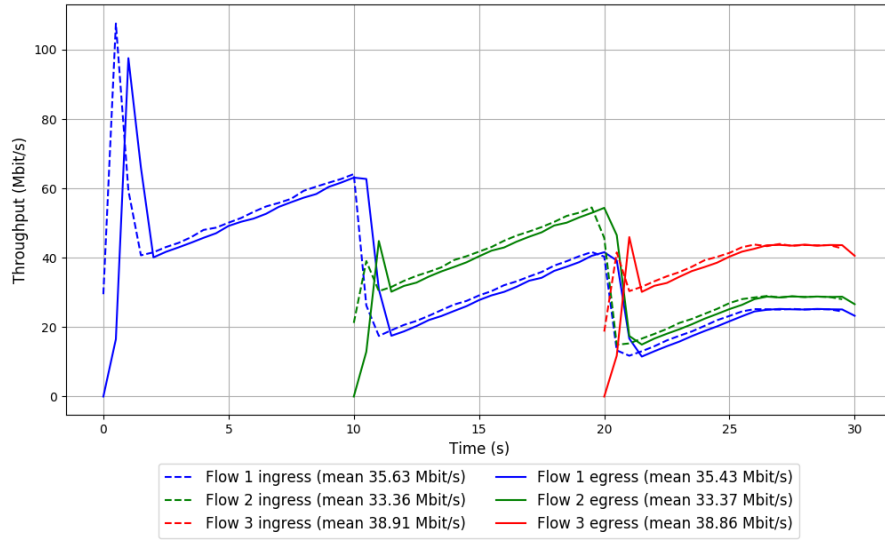
-- Flow 2:

Average throughput: 33.37 Mbit/s
95th percentile per-packet one-way delay: 41.944 ms
Loss rate: 0.30%

-- Flow 3:

Average throughput: 38.86 Mbit/s
95th percentile per-packet one-way delay: 41.408 ms
Loss rate: 0.75%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-05-30 12:59:33
End at: 2019-05-30 13:00:03
Local clock offset: 0.163 ms
Remote clock offset: -1.371 ms

Below is generated by plot.py at 2019-05-30 13:18:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.24 Mbit/s
95th percentile per-packet one-way delay: 42.060 ms
Loss rate: 0.30%

-- Flow 1:

Average throughput: 37.04 Mbit/s
95th percentile per-packet one-way delay: 55.369 ms
Loss rate: 0.18%

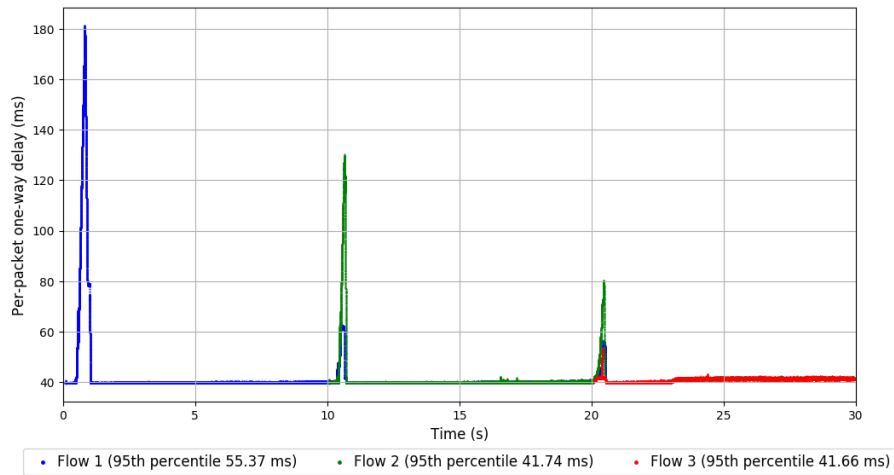
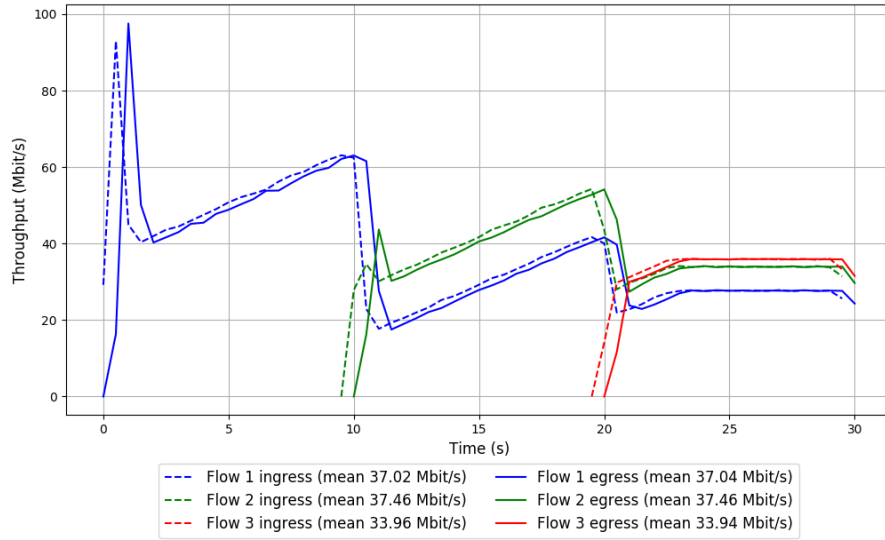
-- Flow 2:

Average throughput: 37.46 Mbit/s
95th percentile per-packet one-way delay: 41.744 ms
Loss rate: 0.31%

-- Flow 3:

Average throughput: 33.94 Mbit/s
95th percentile per-packet one-way delay: 41.657 ms
Loss rate: 0.70%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-05-30 10:55:06
End at: 2019-05-30 10:55:36
Local clock offset: 0.075 ms
Remote clock offset: -5.488 ms

Below is generated by plot.py at 2019-05-30 13:18:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.97 Mbit/s
95th percentile per-packet one-way delay: 138.646 ms
Loss rate: 0.48%

-- Flow 1:

Average throughput: 49.39 Mbit/s
95th percentile per-packet one-way delay: 142.824 ms
Loss rate: 0.29%

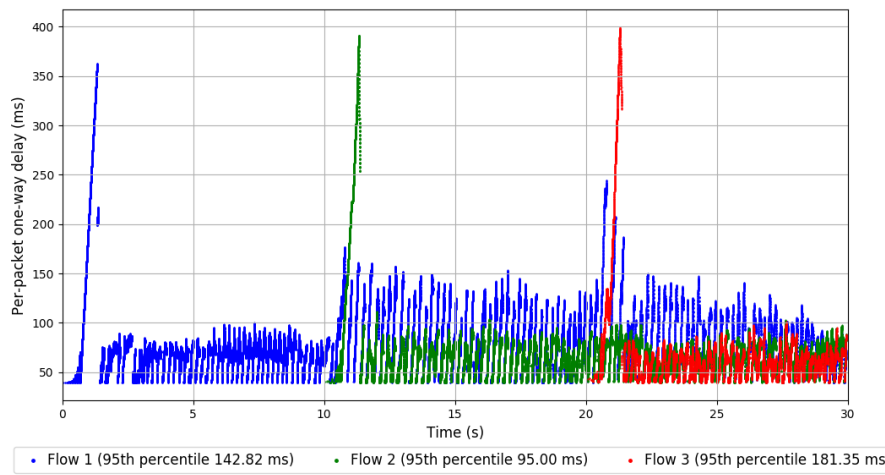
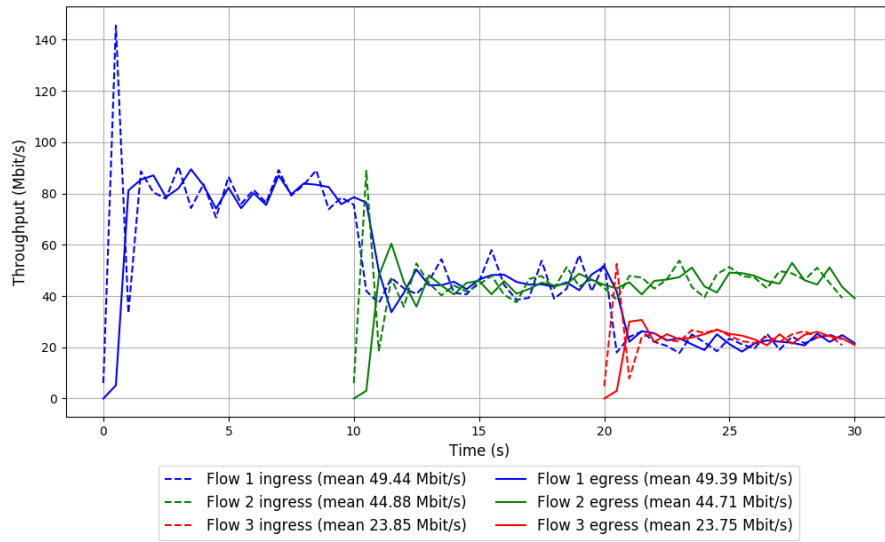
-- Flow 2:

Average throughput: 44.71 Mbit/s
95th percentile per-packet one-way delay: 94.996 ms
Loss rate: 0.64%

-- Flow 3:

Average throughput: 23.75 Mbit/s
95th percentile per-packet one-way delay: 181.351 ms
Loss rate: 1.10%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-05-30 11:20:55
End at: 2019-05-30 11:21:25
Local clock offset: 0.545 ms
Remote clock offset: -4.342 ms

Below is generated by plot.py at 2019-05-30 13:19:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.46 Mbit/s
95th percentile per-packet one-way delay: 162.227 ms
Loss rate: 0.88%

-- Flow 1:

Average throughput: 50.59 Mbit/s
95th percentile per-packet one-way delay: 154.606 ms
Loss rate: 0.91%

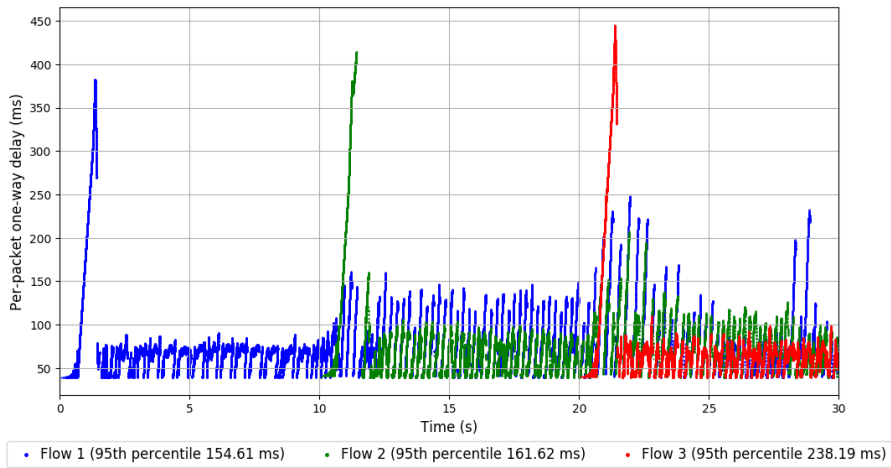
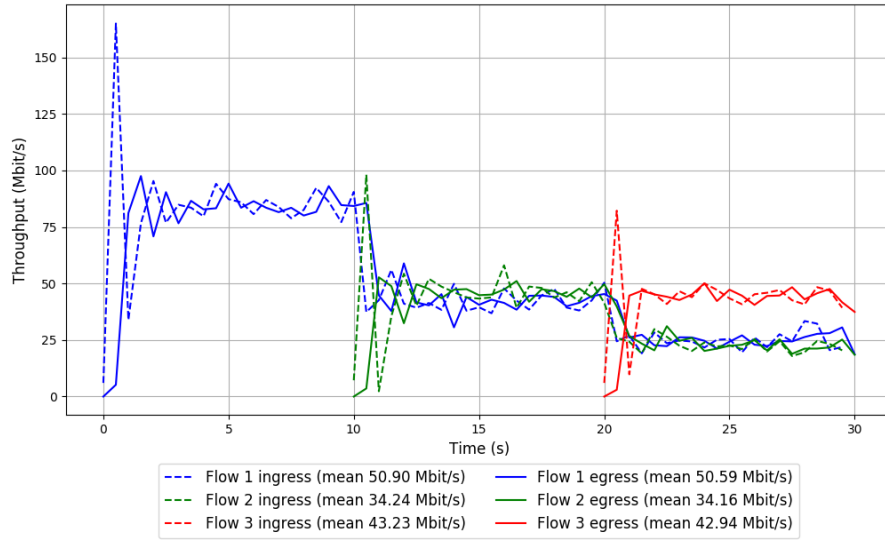
-- Flow 2:

Average throughput: 34.16 Mbit/s
95th percentile per-packet one-way delay: 161.621 ms
Loss rate: 0.59%

-- Flow 3:

Average throughput: 42.94 Mbit/s
95th percentile per-packet one-way delay: 238.190 ms
Loss rate: 1.25%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-05-30 11:46:40

End at: 2019-05-30 11:47:10

Local clock offset: 0.399 ms

Remote clock offset: -3.59 ms

Below is generated by plot.py at 2019-05-30 13:19:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.87 Mbit/s

95th percentile per-packet one-way delay: 144.974 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 58.42 Mbit/s

95th percentile per-packet one-way delay: 140.922 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 34.30 Mbit/s

95th percentile per-packet one-way delay: 146.617 ms

Loss rate: 0.49%

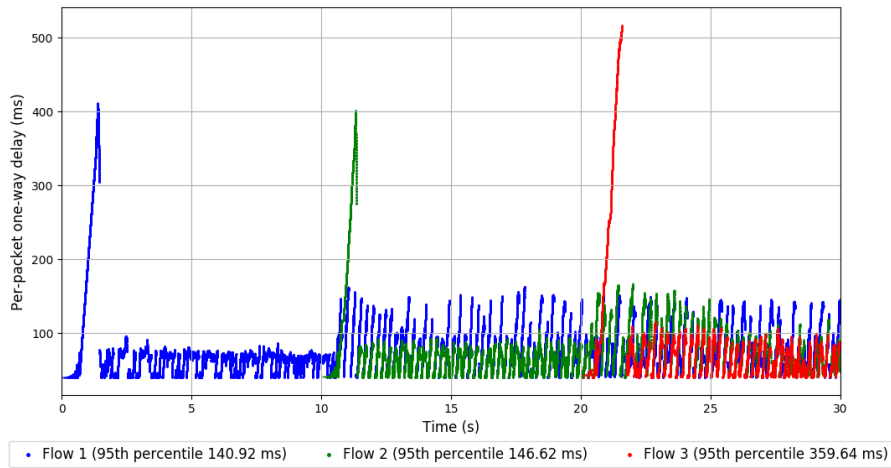
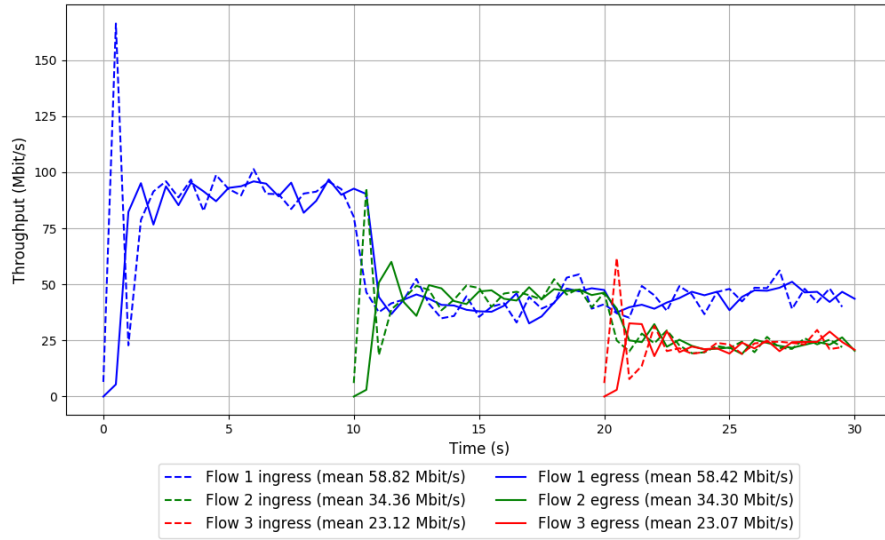
-- Flow 3:

Average throughput: 23.07 Mbit/s

95th percentile per-packet one-way delay: 359.642 ms

Loss rate: 0.71%

Run 3: Report of Verus — Data Link

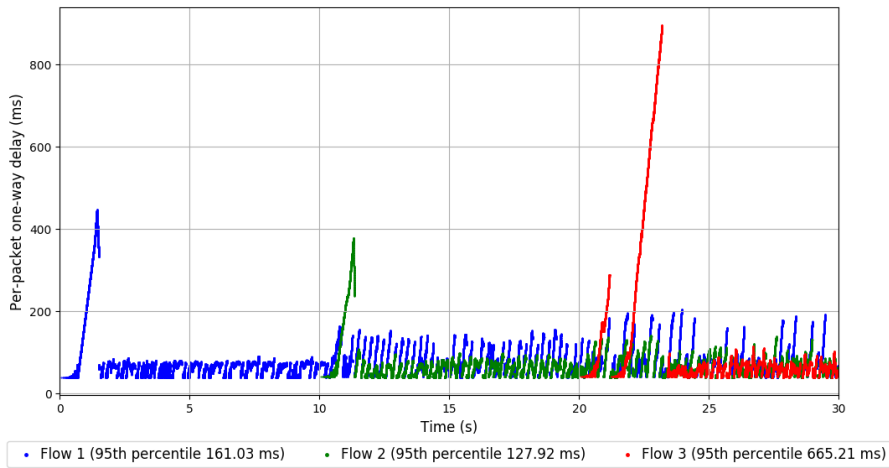
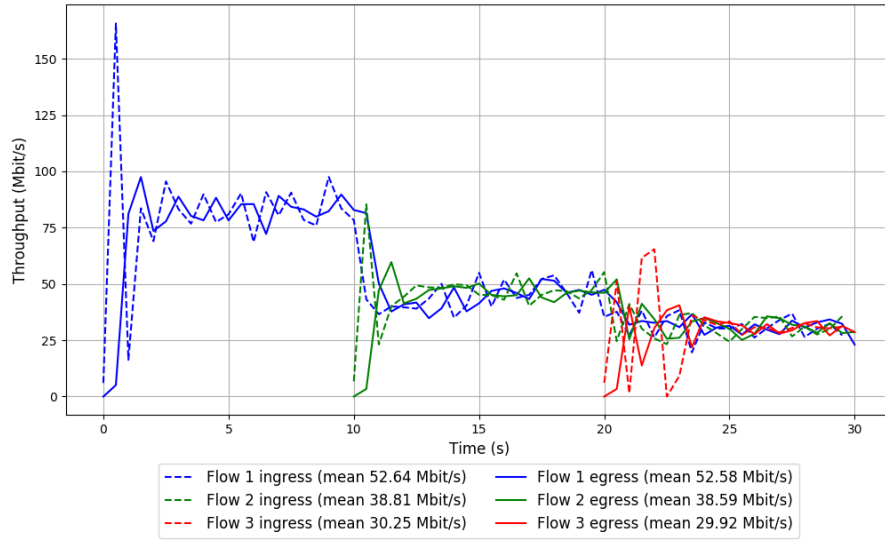


Run 4: Statistics of Verus

Start at: 2019-05-30 12:12:27
End at: 2019-05-30 12:12:57
Local clock offset: 0.326 ms
Remote clock offset: -2.499 ms

```
# Below is generated by plot.py at 2019-05-30 13:19:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.16 Mbit/s
95th percentile per-packet one-way delay: 186.309 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 52.58 Mbit/s
95th percentile per-packet one-way delay: 161.028 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 127.922 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 29.92 Mbit/s
95th percentile per-packet one-way delay: 665.213 ms
Loss rate: 1.70%
```

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-05-30 12:38:24

End at: 2019-05-30 12:38:54

Local clock offset: 0.325 ms

Remote clock offset: -1.91 ms

Below is generated by plot.py at 2019-05-30 13:19:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.55 Mbit/s

95th percentile per-packet one-way delay: 147.777 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 53.36 Mbit/s

95th percentile per-packet one-way delay: 140.034 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 38.09 Mbit/s

95th percentile per-packet one-way delay: 121.333 ms

Loss rate: 0.54%

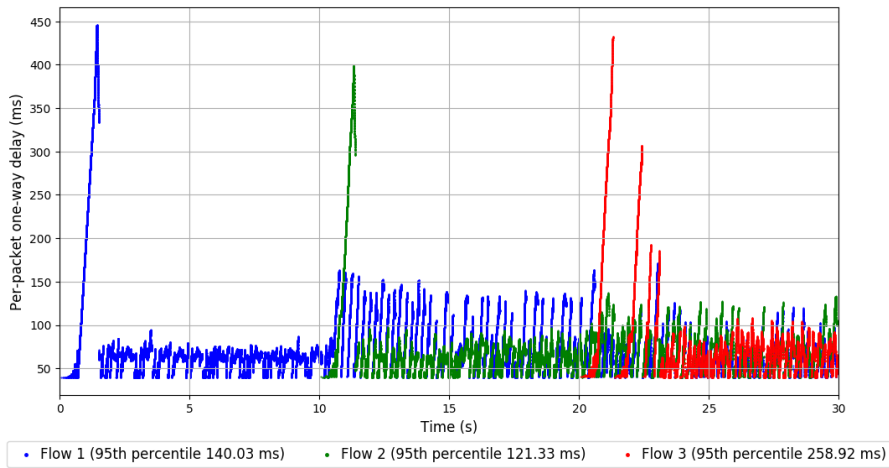
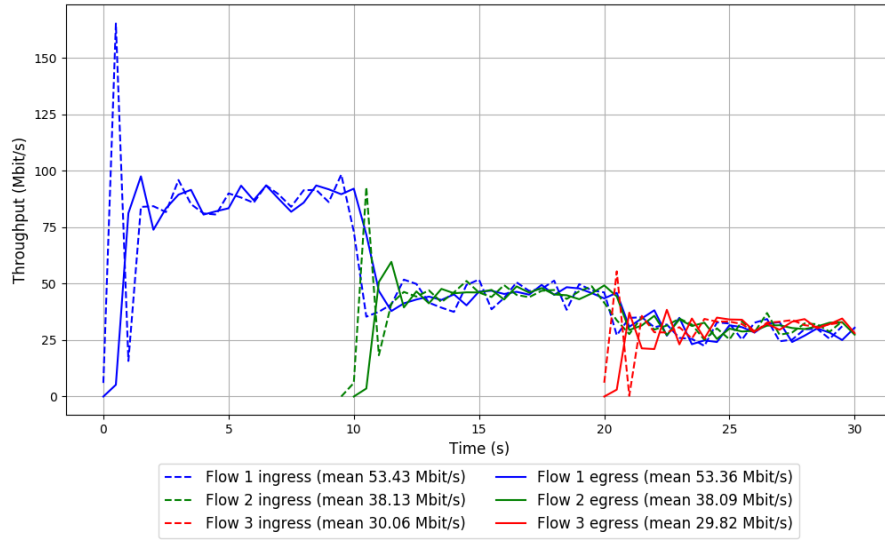
-- Flow 3:

Average throughput: 29.82 Mbit/s

95th percentile per-packet one-way delay: 258.916 ms

Loss rate: 1.42%

Run 5: Report of Verus — Data Link

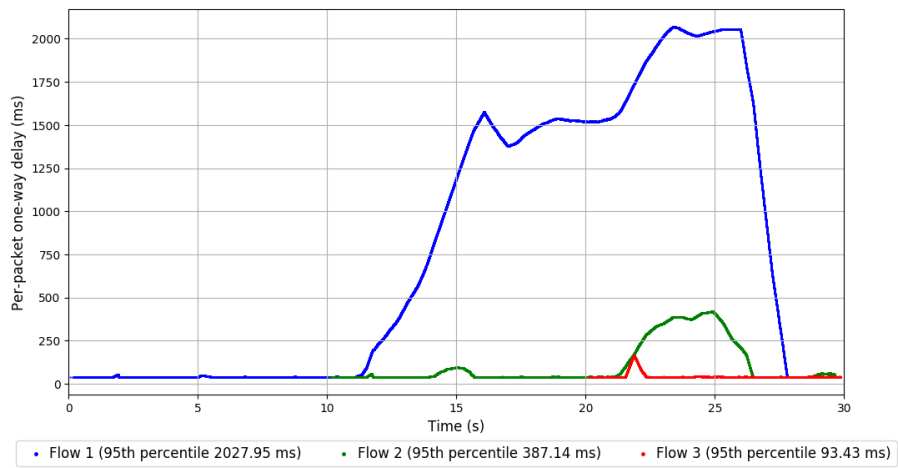
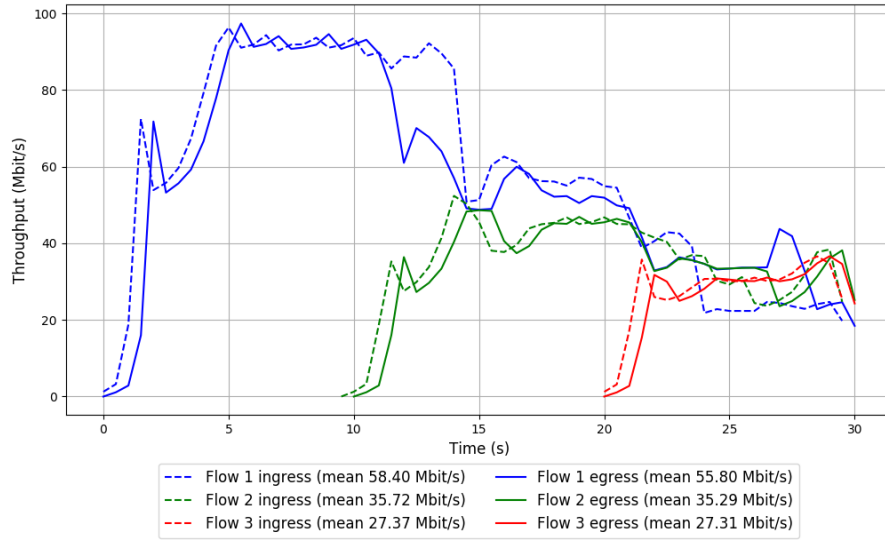


Run 1: Statistics of PCC-Vivace

Start at: 2019-05-30 10:53:51
End at: 2019-05-30 10:54:21
Local clock offset: -0.054 ms
Remote clock offset: -5.571 ms

```
# Below is generated by plot.py at 2019-05-30 13:19:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.24 Mbit/s
95th percentile per-packet one-way delay: 1863.648 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 55.80 Mbit/s
95th percentile per-packet one-way delay: 2027.953 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 35.29 Mbit/s
95th percentile per-packet one-way delay: 387.143 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 27.31 Mbit/s
95th percentile per-packet one-way delay: 93.430 ms
Loss rate: 0.87%
```

Run 1: Report of PCC-Vivace — Data Link

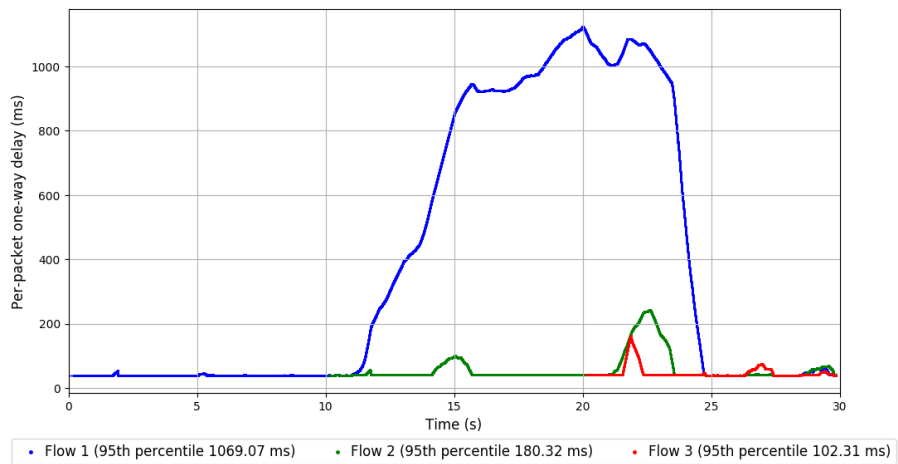
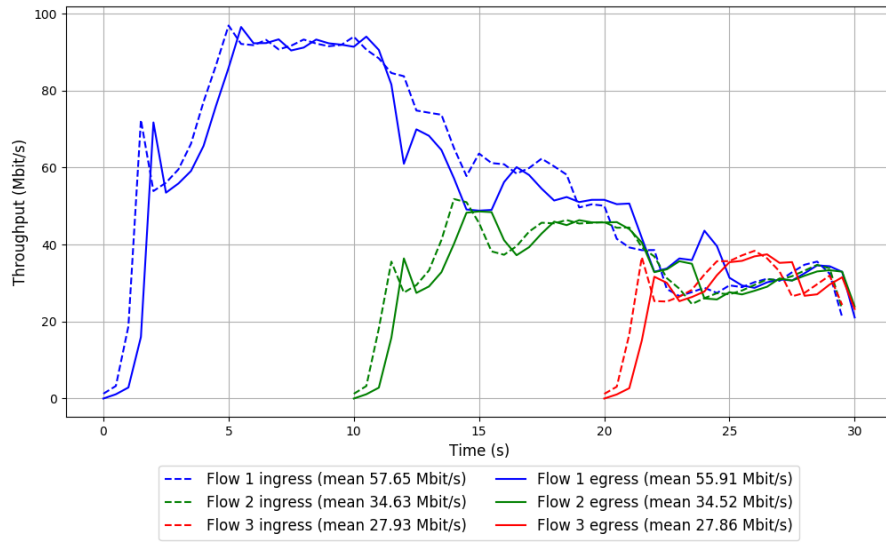


Run 2: Statistics of PCC-Vivace

Start at: 2019-05-30 11:19:35
End at: 2019-05-30 11:20:05
Local clock offset: 0.536 ms
Remote clock offset: -4.418 ms

```
# Below is generated by plot.py at 2019-05-30 13:19:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.01 Mbit/s
95th percentile per-packet one-way delay: 1040.442 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 55.91 Mbit/s
95th percentile per-packet one-way delay: 1069.067 ms
Loss rate: 3.20%
-- Flow 2:
Average throughput: 34.52 Mbit/s
95th percentile per-packet one-way delay: 180.318 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 27.86 Mbit/s
95th percentile per-packet one-way delay: 102.305 ms
Loss rate: 0.91%
```

Run 2: Report of PCC-Vivace — Data Link

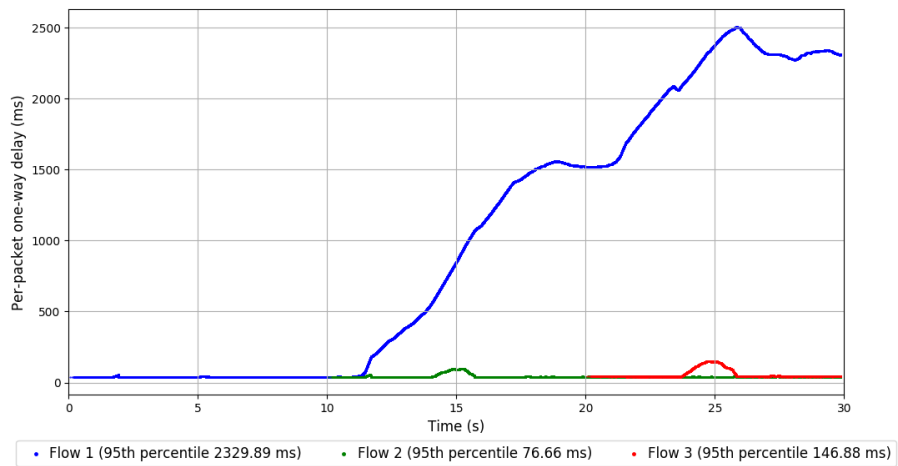
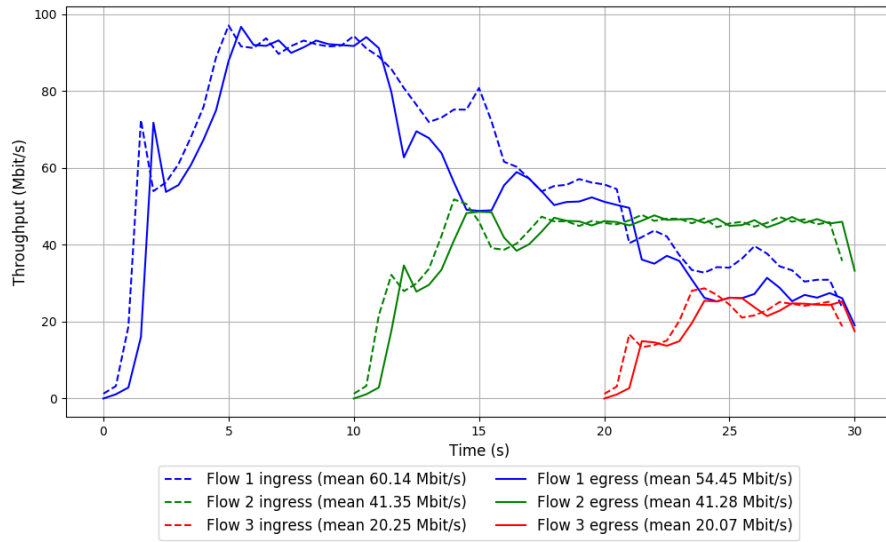


Run 3: Statistics of PCC-Vivace

Start at: 2019-05-30 11:45:25
End at: 2019-05-30 11:45:55
Local clock offset: 0.419 ms
Remote clock offset: -3.478 ms

```
# Below is generated by plot.py at 2019-05-30 13:19:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.49 Mbit/s
95th percentile per-packet one-way delay: 2286.664 ms
Loss rate: 6.39%
-- Flow 1:
Average throughput: 54.45 Mbit/s
95th percentile per-packet one-way delay: 2329.894 ms
Loss rate: 9.64%
-- Flow 2:
Average throughput: 41.28 Mbit/s
95th percentile per-packet one-way delay: 76.660 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 20.07 Mbit/s
95th percentile per-packet one-way delay: 146.880 ms
Loss rate: 1.55%
```

Run 3: Report of PCC-Vivace — Data Link

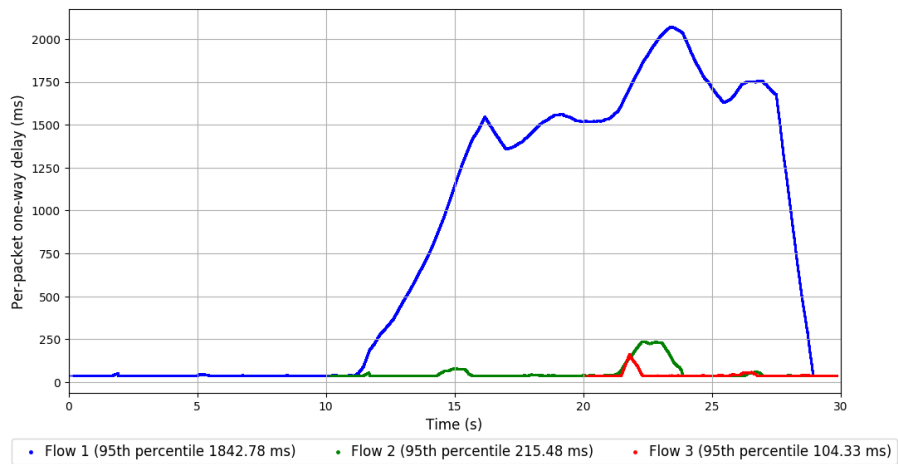
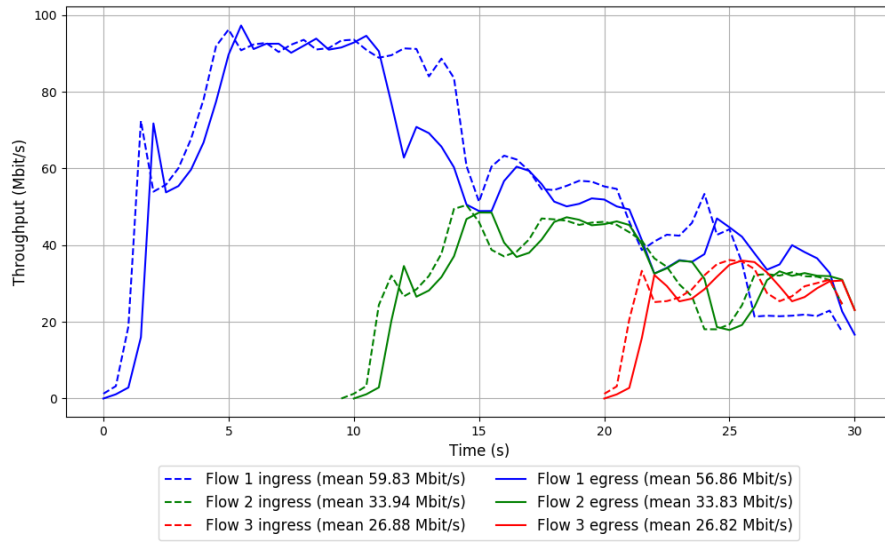


Run 4: Statistics of PCC-Vivace

Start at: 2019-05-30 12:11:13
End at: 2019-05-30 12:11:43
Local clock offset: 0.345 ms
Remote clock offset: -2.519 ms

```
# Below is generated by plot.py at 2019-05-30 13:20:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.17 Mbit/s
95th percentile per-packet one-way delay: 1751.139 ms
Loss rate: 3.64%
-- Flow 1:
Average throughput: 56.86 Mbit/s
95th percentile per-packet one-way delay: 1842.781 ms
Loss rate: 5.17%
-- Flow 2:
Average throughput: 33.83 Mbit/s
95th percentile per-packet one-way delay: 215.481 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 26.82 Mbit/s
95th percentile per-packet one-way delay: 104.330 ms
Loss rate: 0.88%
```

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-05-30 12:37:07

End at: 2019-05-30 12:37:37

Local clock offset: 0.328 ms

Remote clock offset: -1.755 ms

Below is generated by plot.py at 2019-05-30 13:20:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.80 Mbit/s

95th percentile per-packet one-way delay: 437.334 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 55.02 Mbit/s

95th percentile per-packet one-way delay: 475.067 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 34.25 Mbit/s

95th percentile per-packet one-way delay: 432.867 ms

Loss rate: 1.82%

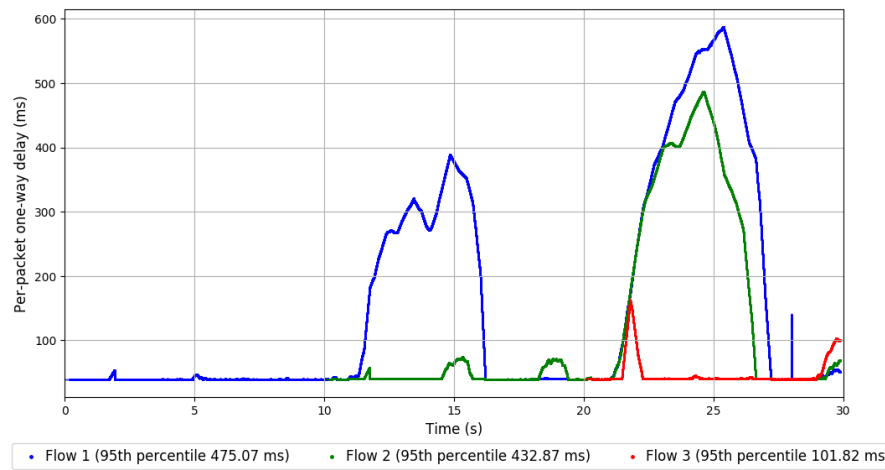
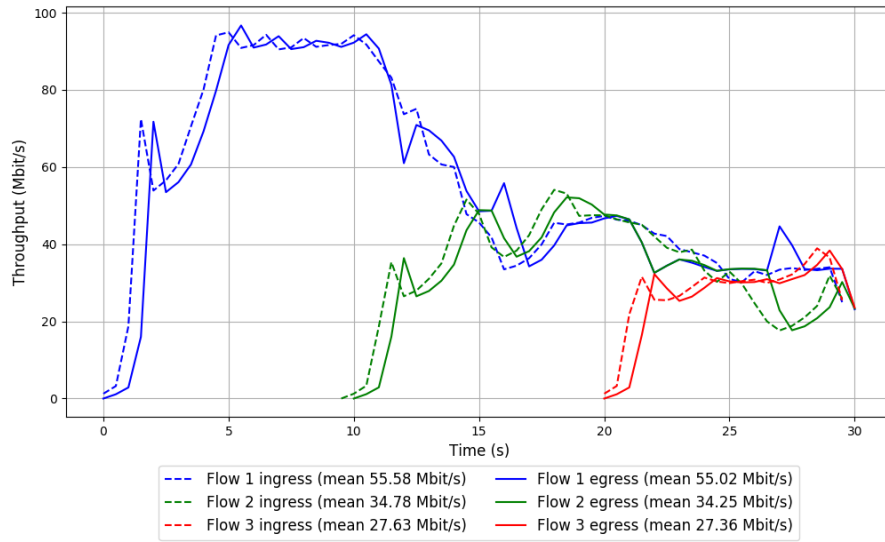
-- Flow 3:

Average throughput: 27.36 Mbit/s

95th percentile per-packet one-way delay: 101.820 ms

Loss rate: 1.60%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-05-30 11:12:12

End at: 2019-05-30 11:12:42

Local clock offset: 0.577 ms

Remote clock offset: -5.07 ms

Below is generated by plot.py at 2019-05-30 13:20:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 40.374 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 40.357 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 40.375 ms

Loss rate: 0.00%

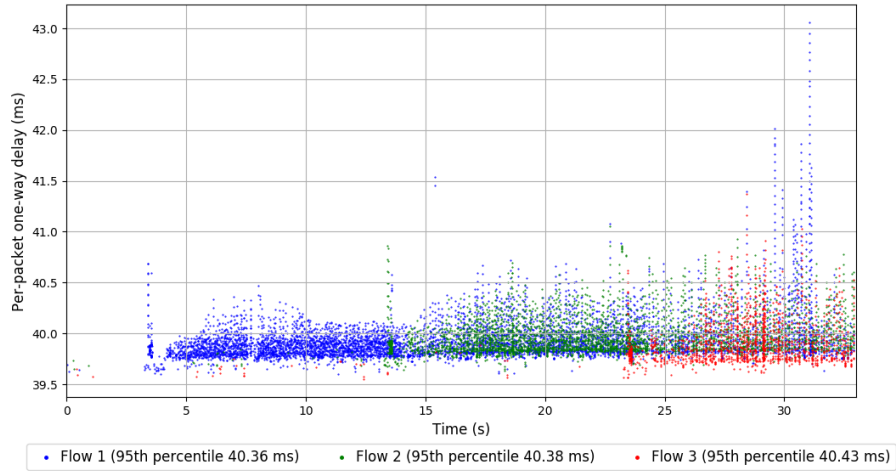
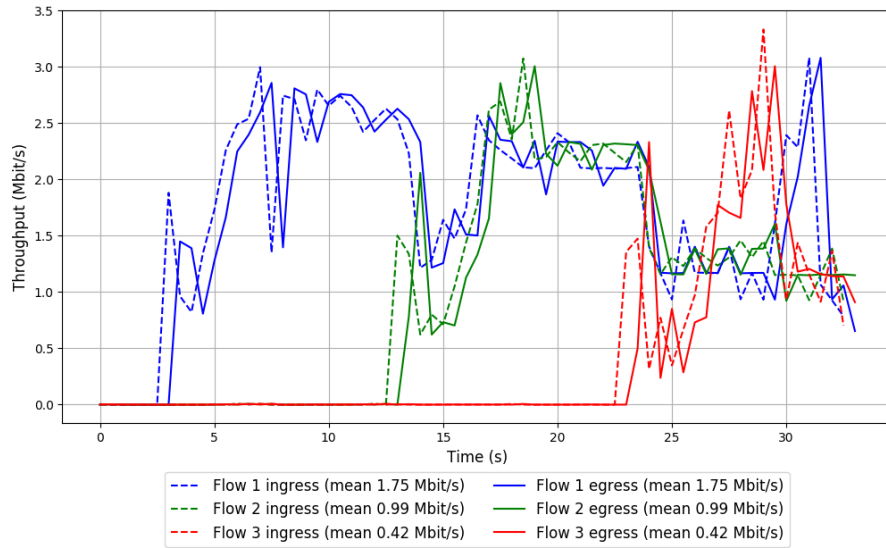
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 40.426 ms

Loss rate: 0.07%

Run 1: Report of WebRTC media — Data Link

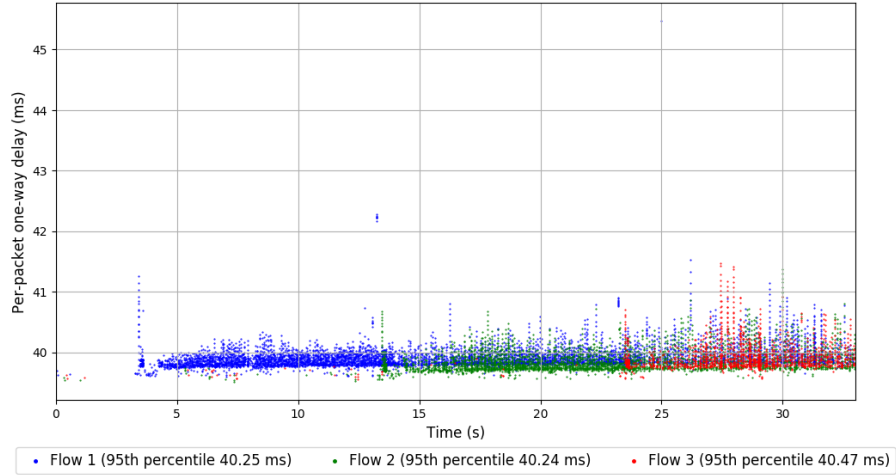
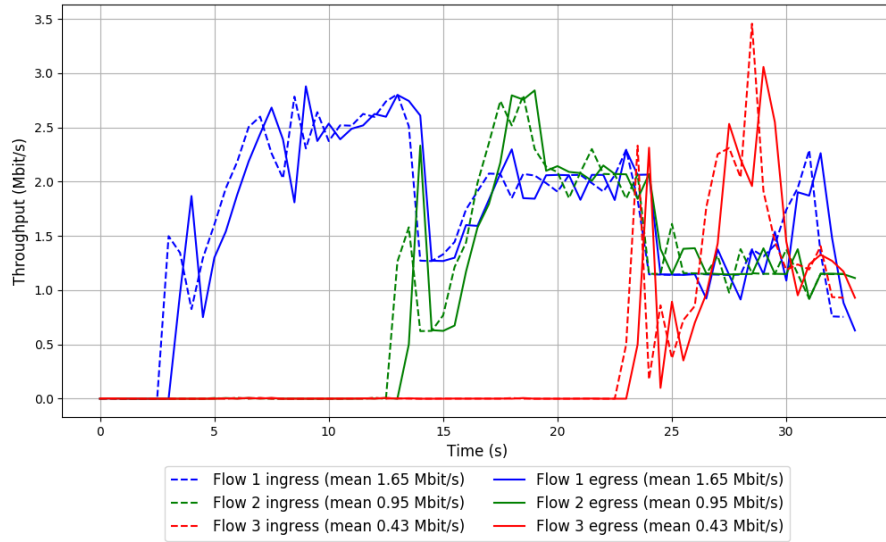


Run 2: Statistics of WebRTC media

Start at: 2019-05-30 11:38:05
End at: 2019-05-30 11:38:35
Local clock offset: 0.651 ms
Remote clock offset: -3.884 ms

```
# Below is generated by plot.py at 2019-05-30 13:20:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 40.280 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 40.246 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 40.242 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 40.467 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

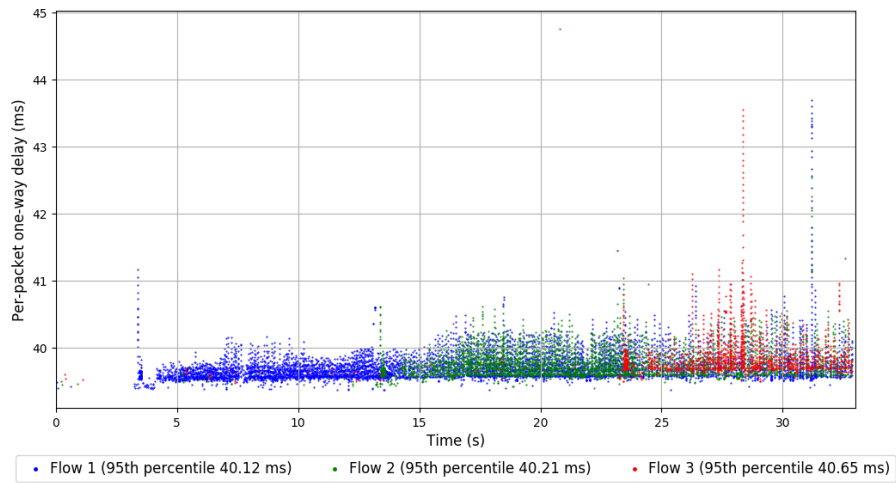
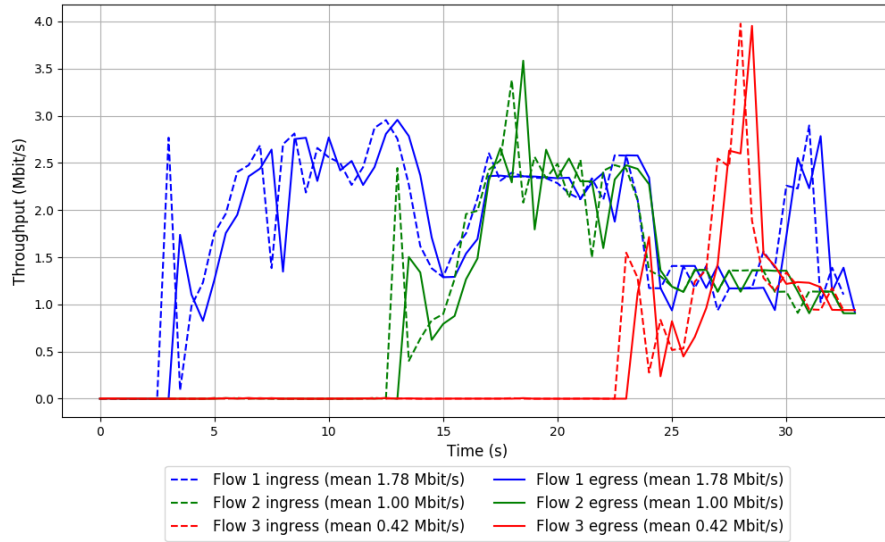


Run 3: Statistics of WebRTC media

Start at: 2019-05-30 12:03:57
End at: 2019-05-30 12:04:27
Local clock offset: 0.395 ms
Remote clock offset: -2.895 ms

```
# Below is generated by plot.py at 2019-05-30 13:20:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 40.218 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 40.125 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 40.208 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 40.653 ms
Loss rate: 0.85%
```

Run 3: Report of WebRTC media — Data Link

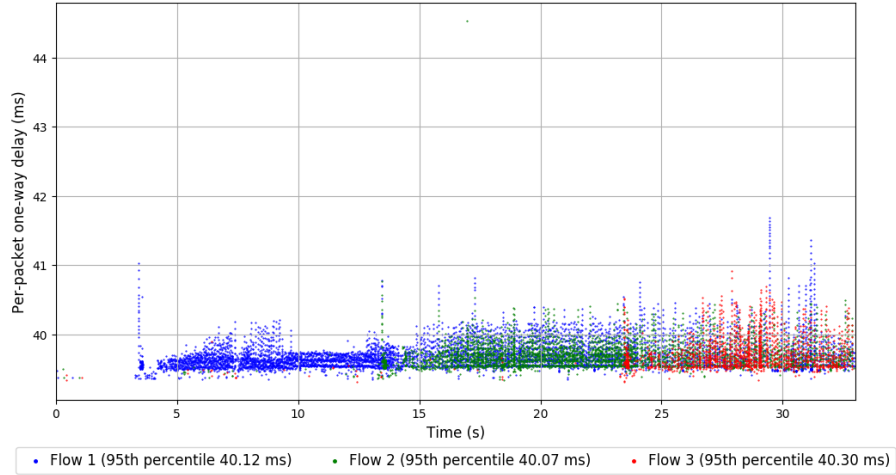
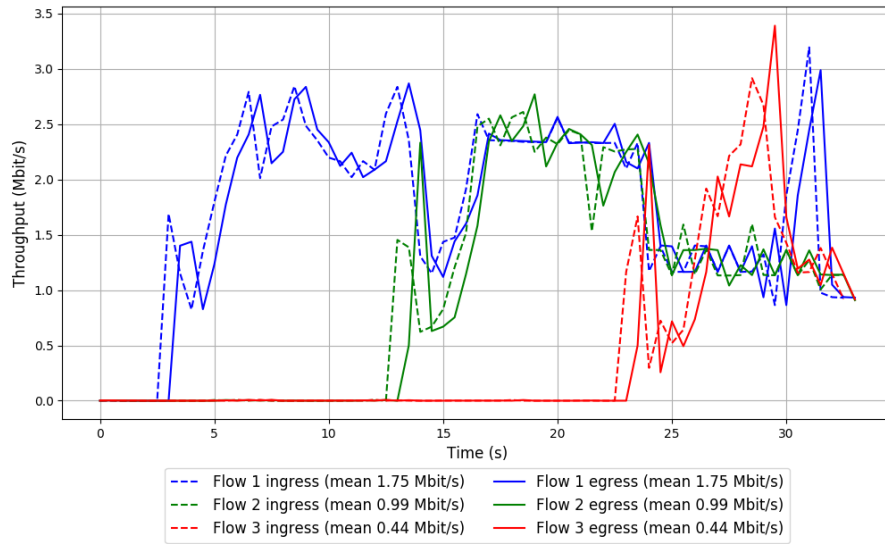


Run 4: Statistics of WebRTC media

Start at: 2019-05-30 12:29:51
End at: 2019-05-30 12:30:21
Local clock offset: 0.289 ms
Remote clock offset: -1.955 ms

```
# Below is generated by plot.py at 2019-05-30 13:20:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.17 Mbit/s
95th percentile per-packet one-way delay: 40.134 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 40.117 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 40.073 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 40.299 ms
Loss rate: 0.80%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-05-30 12:55:57
End at: 2019-05-30 12:56:27
Local clock offset: 0.134 ms
Remote clock offset: -1.467 ms

```
# Below is generated by plot.py at 2019-05-30 13:20:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 40.212 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 40.195 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 40.140 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 40.430 ms
Loss rate: 0.87%
```

Run 5: Report of WebRTC media — Data Link

