

Pantheon Report

Generated at 2019-06-28 14:17:20 (UTC).

Data path: Colombia on p4p1 (*remote*) → AWS Brazil 2 on ens5 (*local*).

Repeated the test of 22 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 `gps.ntp.br` and have been applied to correct the timestamps in logs.

System info:

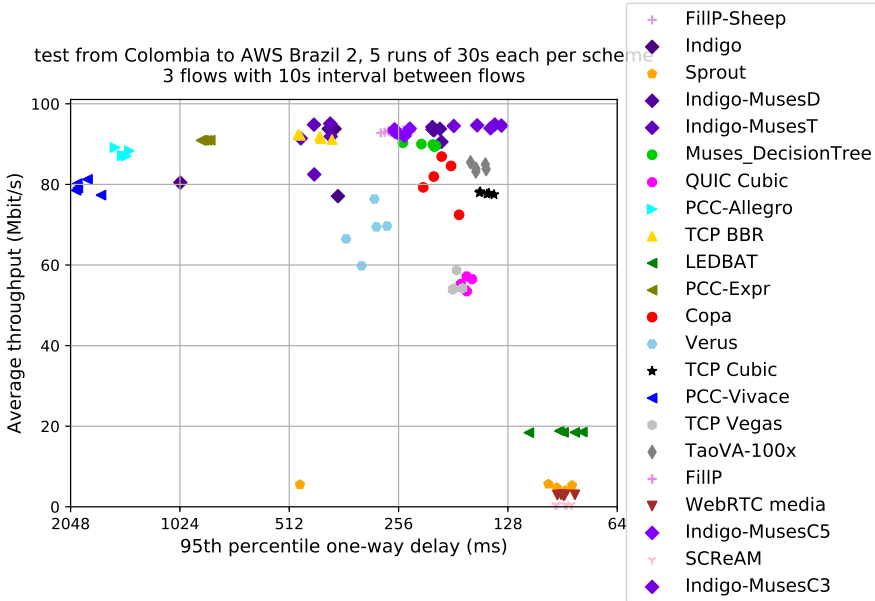
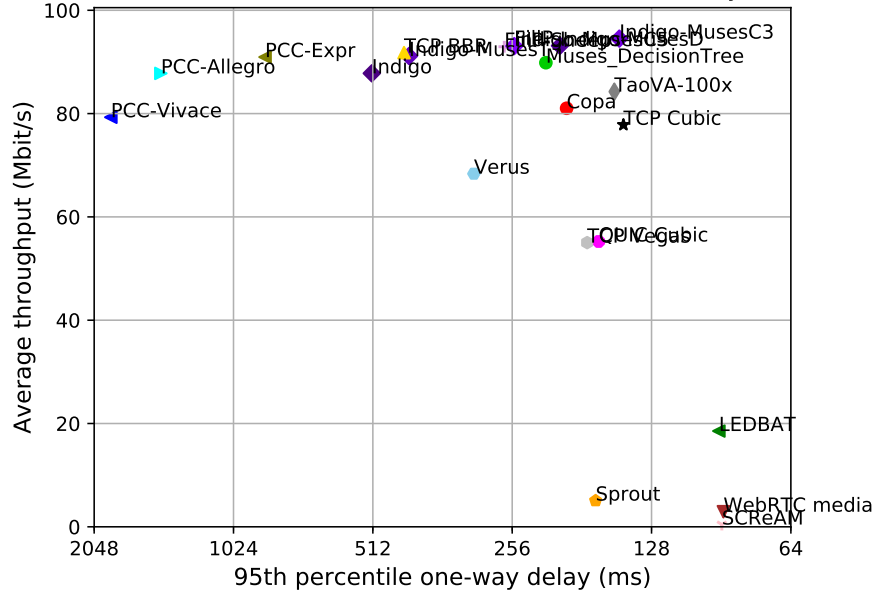
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
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/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utls.pyc
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 Colombia to AWS Brazil 2, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



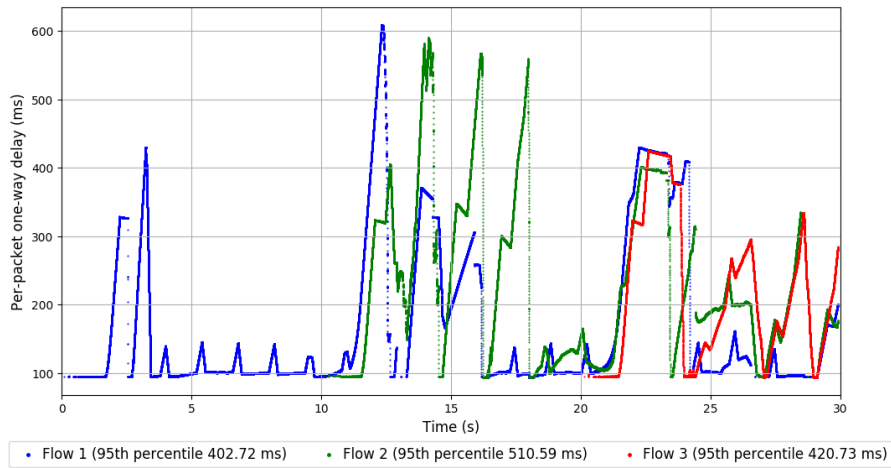
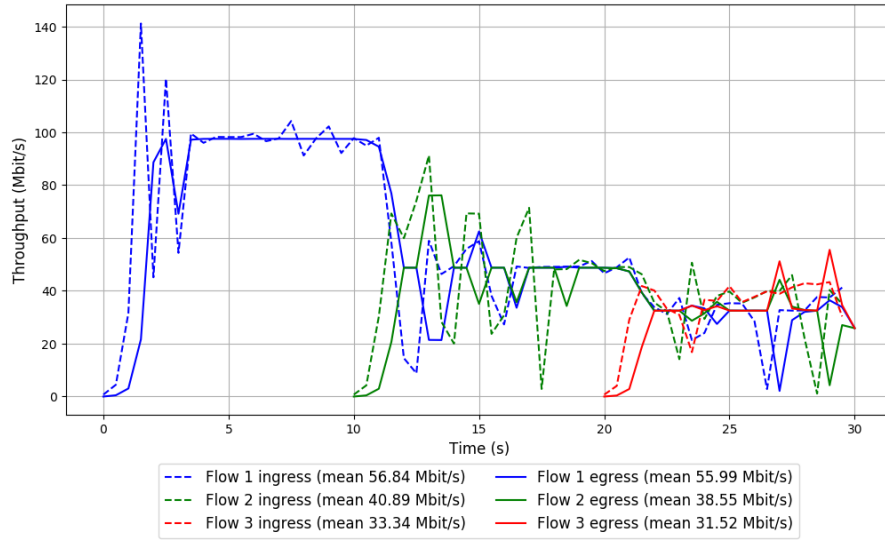
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	56.32	38.41	30.38	409.02	504.34	436.06	2.34	5.09	7.80
Copa	5	48.37	36.07	26.45	192.00	142.99	149.07	3.96	4.38	6.16
TCP Cubic	5	42.48	35.68	35.43	182.50	139.37	132.15	0.37	0.75	2.05
FillP	5	57.31	39.55	29.66	265.82	242.58	291.77	1.15	3.60	3.27
FillP-Sheep	5	56.90	39.16	30.53	276.97	235.35	330.59	0.80	1.91	3.74
Indigo	5	57.23	30.71	31.44	511.22	282.26	324.58	7.04	5.14	6.99
Indigo-MusesC3	5	60.55	40.28	29.79	147.31	146.12	170.42	2.30	2.95	3.35
Indigo-MusesC5	5	57.89	41.50	30.80	249.03	232.63	307.82	2.79	3.90	6.71
Indigo-MusesD	5	60.88	37.76	28.34	206.83	153.17	145.60	6.27	5.30	7.27
Indigo-MusesT	5	58.17	39.65	27.22	401.07	399.80	510.42	5.85	6.93	8.06
LEDBAT	5	12.02	7.95	3.85	91.54	90.09	88.58	1.15	1.74	3.50
Muses_DecisionTree	5	53.11	40.87	30.44	237.64	172.75	129.91	0.83	1.33	2.54
PCC-Allegro	5	55.25	34.54	29.52	1527.97	1134.16	1442.20	26.36	14.58	21.28
PCC-Expr	5	56.60	38.78	26.41	869.58	898.63	255.54	27.76	7.62	3.92
QUIC Cubic	5	35.27	21.42	17.60	123.59	201.99	286.14	0.56	1.29	1.92
SCReAM	5	0.22	0.22	0.22	89.48	88.32	86.31	0.51	0.86	1.69
Sprout	5	3.11	2.08	1.81	169.51	166.12	165.19	0.64	1.12	2.13
TaoVA-100x	5	49.56	37.61	29.52	150.29	160.57	149.82	0.41	0.78	1.89
TCP Vegas	5	32.62	24.07	19.53	193.06	170.50	162.69	0.45	0.75	1.94
Verus	5	41.19	28.69	24.73	287.31	284.65	472.92	0.66	1.65	2.50
PCC-Vivace	5	51.28	31.24	22.33	1961.24	884.13	343.24	6.20	6.03	2.99
WebRTC media	5	1.69	0.89	0.35	89.41	87.15	85.27	0.38	0.71	1.97

Run 1: Statistics of TCP BBR

Start at: 2019-06-28 11:38:03
End at: 2019-06-28 11:38:33
Local clock offset: -6.433 ms
Remote clock offset: -267.287 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.93 Mbit/s
95th percentile per-packet one-way delay: 422.167 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 55.99 Mbit/s
95th percentile per-packet one-way delay: 402.716 ms
Loss rate: 2.08%
-- Flow 2:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 510.590 ms
Loss rate: 6.56%
-- Flow 3:
Average throughput: 31.52 Mbit/s
95th percentile per-packet one-way delay: 420.732 ms
Loss rate: 7.11%
```

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-06-28 12:06:32
End at: 2019-06-28 12:07:02
Local clock offset: -6.331 ms
Remote clock offset: -307.755 ms

Below is generated by plot.py at 2019-06-28 14:04:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.16 Mbit/s
95th percentile per-packet one-way delay: 477.352 ms
Loss rate: 4.00%

-- Flow 1:

Average throughput: 57.00 Mbit/s
95th percentile per-packet one-way delay: 409.403 ms
Loss rate: 2.75%

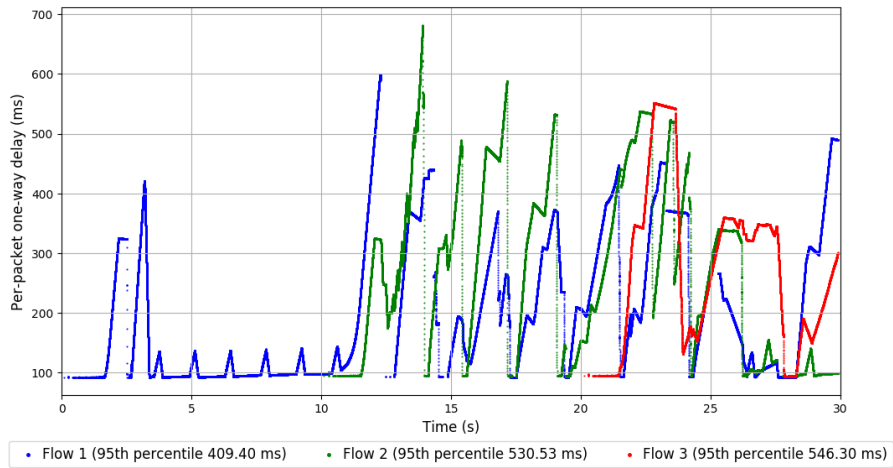
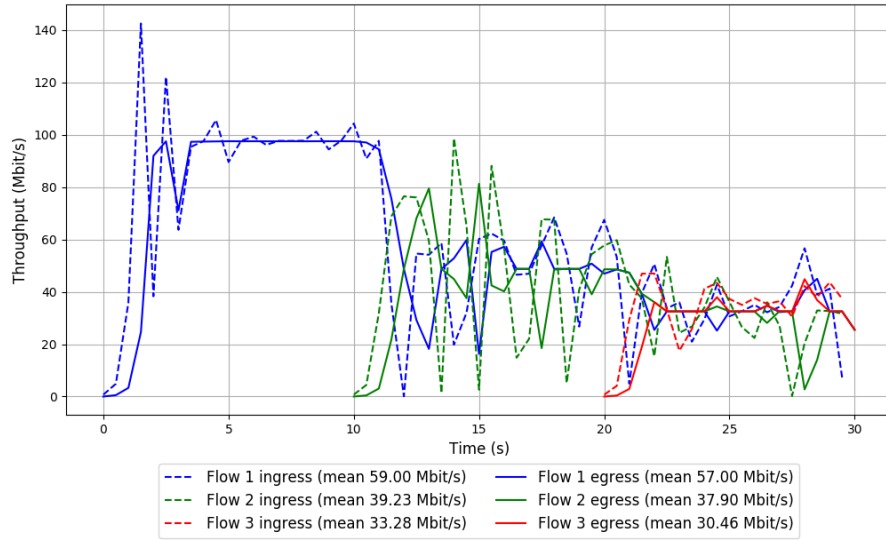
-- Flow 2:

Average throughput: 37.90 Mbit/s
95th percentile per-packet one-way delay: 530.532 ms
Loss rate: 4.23%

-- Flow 3:

Average throughput: 30.46 Mbit/s
95th percentile per-packet one-way delay: 546.303 ms
Loss rate: 10.08%

Run 2: Report of TCP BBR — Data Link

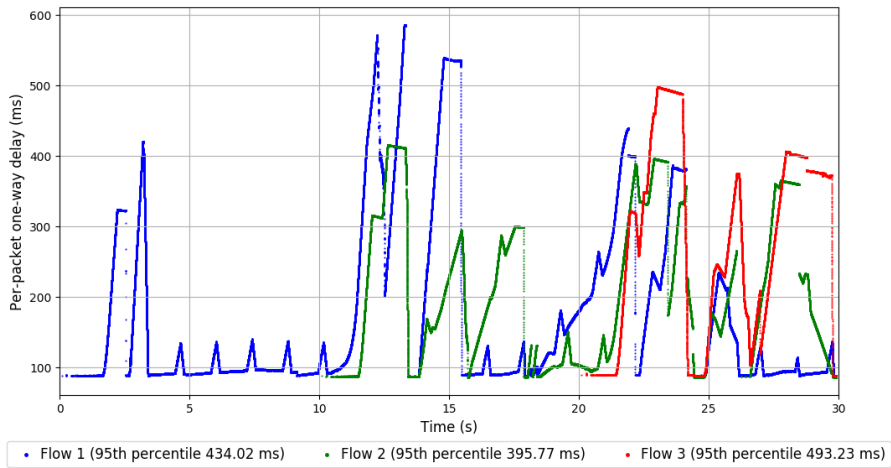
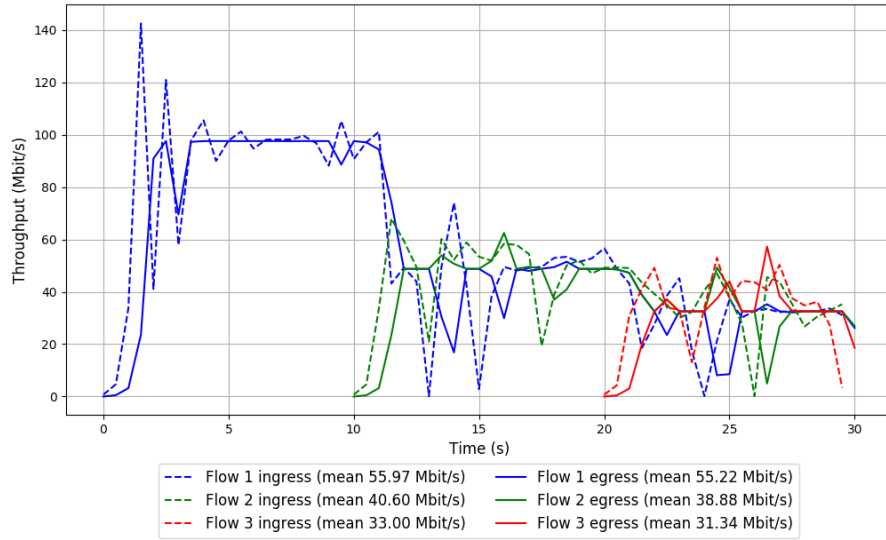


Run 3: Statistics of TCP BBR

Start at: 2019-06-28 12:34:56
End at: 2019-06-28 12:35:26
Local clock offset: -6.787 ms
Remote clock offset: -344.977 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.35 Mbit/s
95th percentile per-packet one-way delay: 418.633 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 55.22 Mbit/s
95th percentile per-packet one-way delay: 434.019 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 38.88 Mbit/s
95th percentile per-packet one-way delay: 395.774 ms
Loss rate: 5.08%
-- Flow 3:
Average throughput: 31.34 Mbit/s
95th percentile per-packet one-way delay: 493.228 ms
Loss rate: 5.40%
```

Run 3: Report of TCP BBR — Data Link

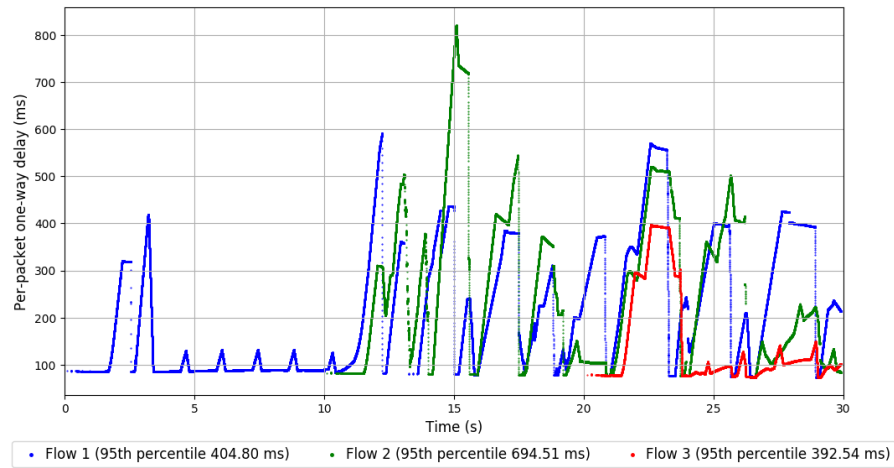
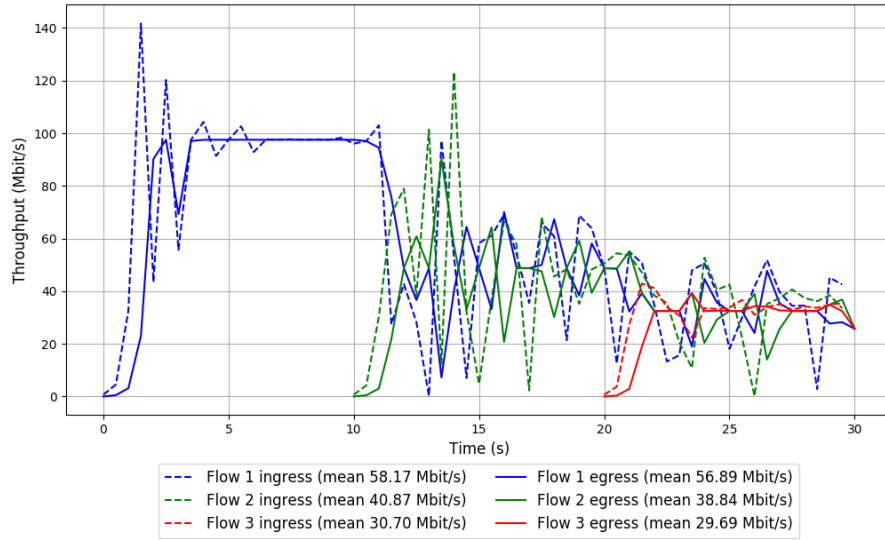


Run 4: Statistics of TCP BBR

Start at: 2019-06-28 13:03:20
End at: 2019-06-28 13:03:50
Local clock offset: -5.713 ms
Remote clock offset: -338.717 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.43 Mbit/s
95th percentile per-packet one-way delay: 483.731 ms
Loss rate: 3.91%
-- Flow 1:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 404.795 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 38.84 Mbit/s
95th percentile per-packet one-way delay: 694.514 ms
Loss rate: 5.84%
-- Flow 3:
Average throughput: 29.69 Mbit/s
95th percentile per-packet one-way delay: 392.544 ms
Loss rate: 5.03%
```

Run 4: Report of TCP BBR — Data Link

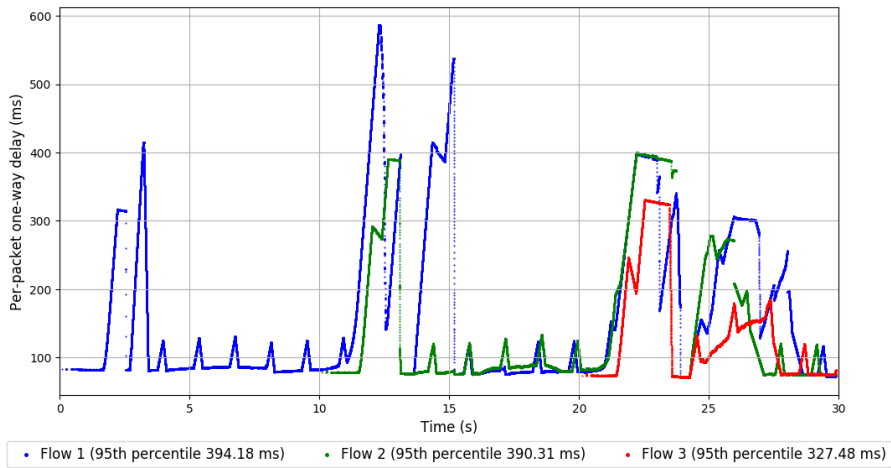
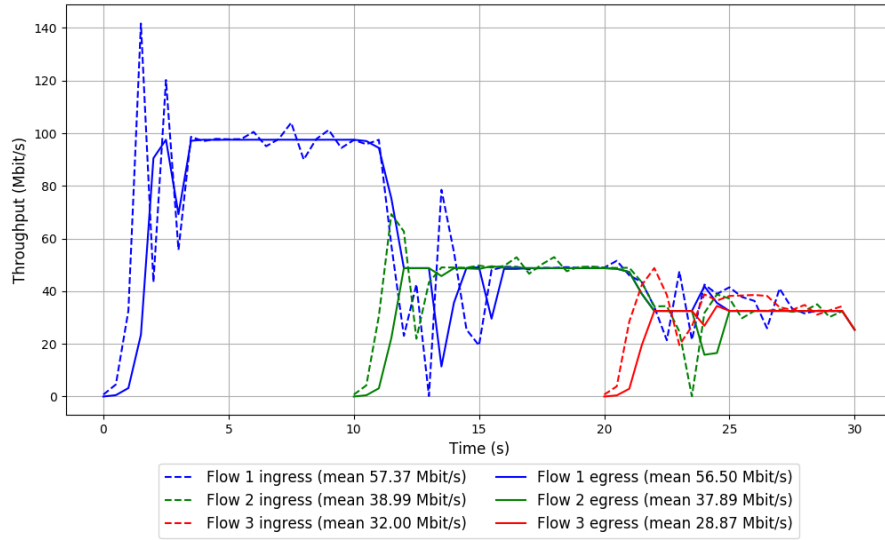


Run 5: Statistics of TCP BBR

Start at: 2019-06-28 13:31:44
End at: 2019-06-28 13:32:14
Local clock offset: -6.1 ms
Remote clock offset: -399.884 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.13 Mbit/s
95th percentile per-packet one-way delay: 390.416 ms
Loss rate: 3.63%
-- Flow 1:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 394.184 ms
Loss rate: 2.14%
-- Flow 2:
Average throughput: 37.89 Mbit/s
95th percentile per-packet one-way delay: 390.305 ms
Loss rate: 3.73%
-- Flow 3:
Average throughput: 28.87 Mbit/s
95th percentile per-packet one-way delay: 327.482 ms
Loss rate: 11.40%
```

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-06-28 11:43:18
End at: 2019-06-28 11:43:48
Local clock offset: -5.975 ms
Remote clock offset: -269.537 ms

Below is generated by plot.py at 2019-06-28 14:04:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.58 Mbit/s
95th percentile per-packet one-way delay: 183.557 ms
Loss rate: 0.84%

-- Flow 1:

Average throughput: 51.93 Mbit/s
95th percentile per-packet one-way delay: 210.950 ms
Loss rate: 0.50%

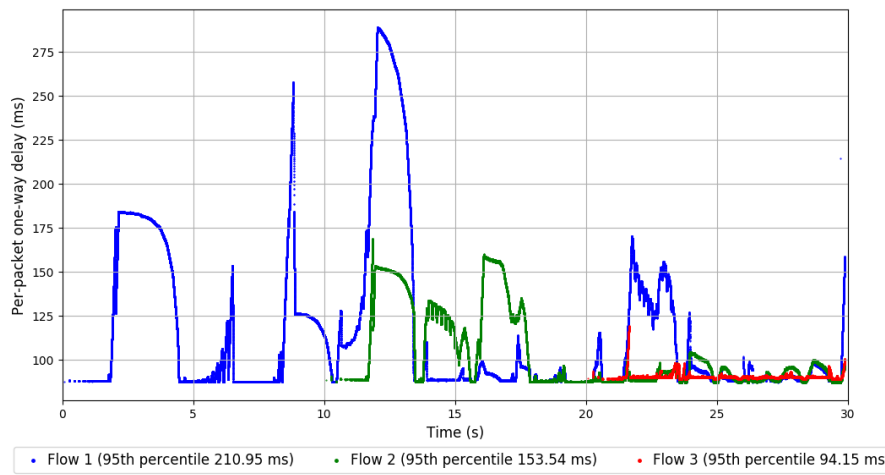
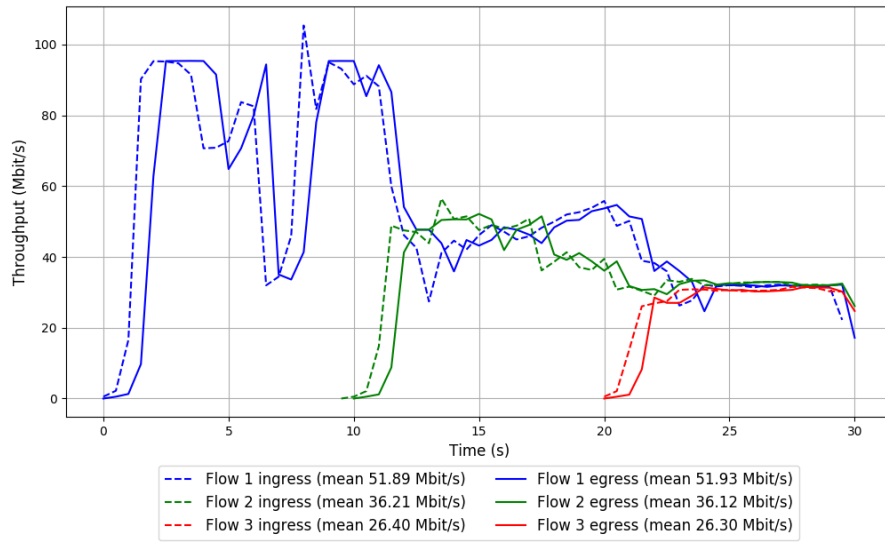
-- Flow 2:

Average throughput: 36.12 Mbit/s
95th percentile per-packet one-way delay: 153.541 ms
Loss rate: 1.10%

-- Flow 3:

Average throughput: 26.30 Mbit/s
95th percentile per-packet one-way delay: 94.149 ms
Loss rate: 2.11%

Run 1: Report of Copa — Data Link

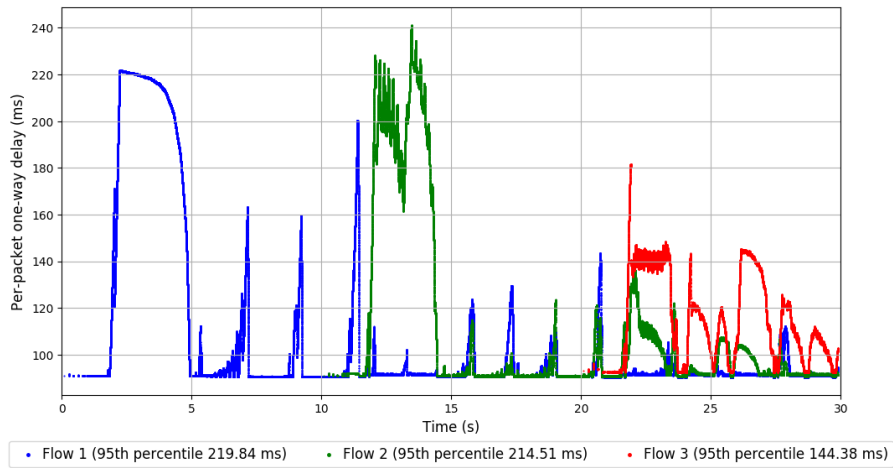
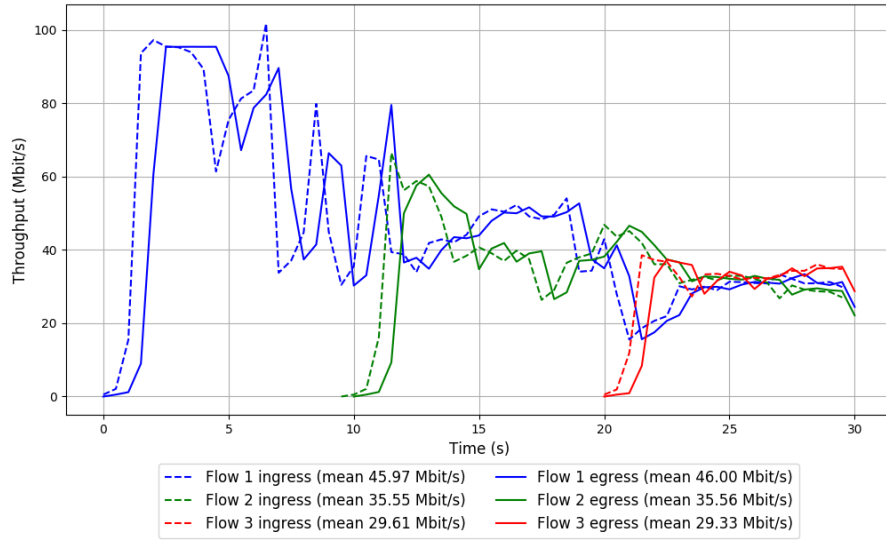


Run 2: Statistics of Copa

Start at: 2019-06-28 12:11:42
End at: 2019-06-28 12:12:12
Local clock offset: -7.175 ms
Remote clock offset: -315.06 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 218.906 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 46.00 Mbit/s
95th percentile per-packet one-way delay: 219.843 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 35.56 Mbit/s
95th percentile per-packet one-way delay: 214.508 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 144.382 ms
Loss rate: 2.67%
```

Run 2: Report of Copa — Data Link

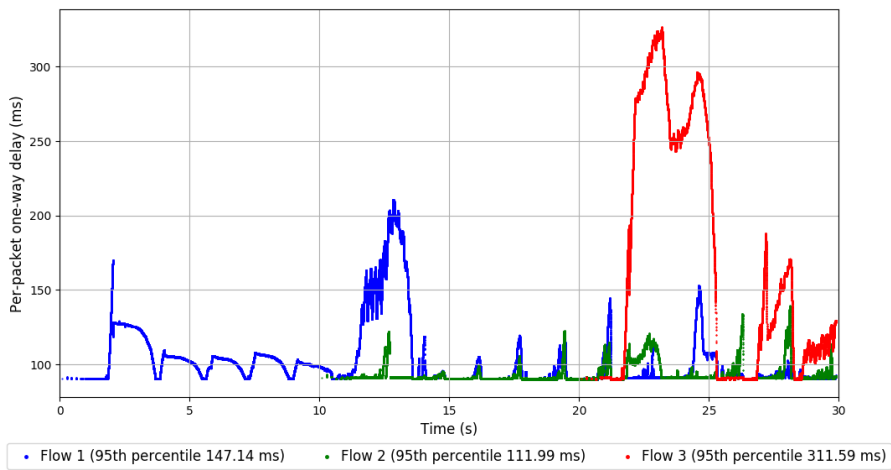
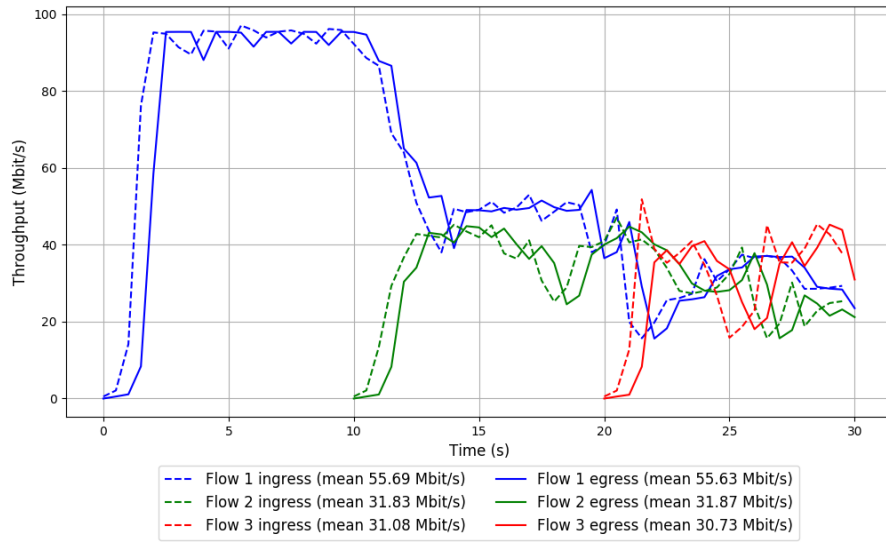


Run 3: Statistics of Copa

Start at: 2019-06-28 12:40:06
End at: 2019-06-28 12:40:36
Local clock offset: -6.73 ms
Remote clock offset: -353.943 ms

```
# Below is generated by plot.py at 2019-06-28 14:04:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.91 Mbit/s
95th percentile per-packet one-way delay: 194.783 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 147.138 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 111.990 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 311.588 ms
Loss rate: 2.84%
```

Run 3: Report of Copa — Data Link

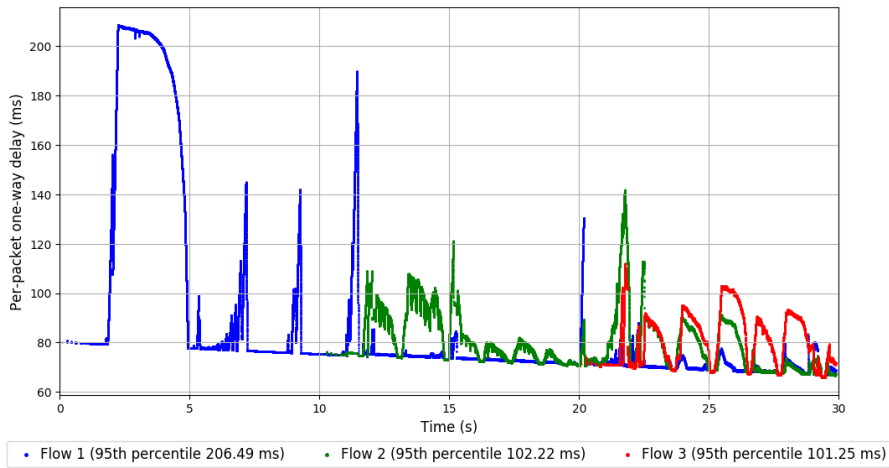
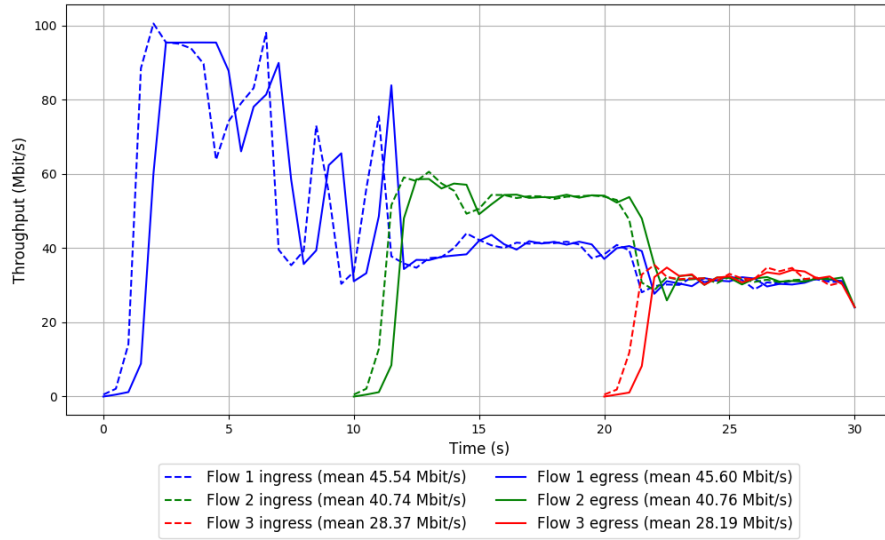


Run 4: Statistics of Copa

Start at: 2019-06-28 13:08:31
End at: 2019-06-28 13:09:01
Local clock offset: -5.667 ms
Remote clock offset: -482.097 ms

```
# Below is generated by plot.py at 2019-06-28 14:05:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.94 Mbit/s
95th percentile per-packet one-way delay: 204.737 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 45.60 Mbit/s
95th percentile per-packet one-way delay: 206.492 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 40.76 Mbit/s
95th percentile per-packet one-way delay: 102.219 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 28.19 Mbit/s
95th percentile per-packet one-way delay: 101.253 ms
Loss rate: 2.38%
```

Run 4: Report of Copa — Data Link

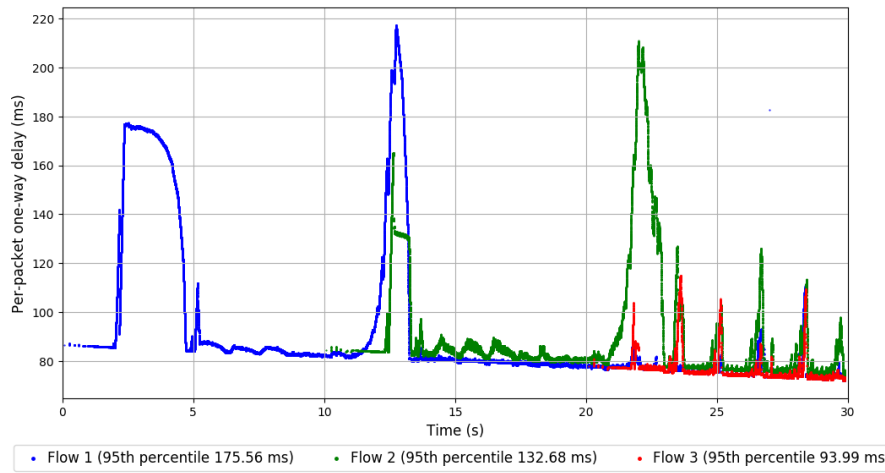
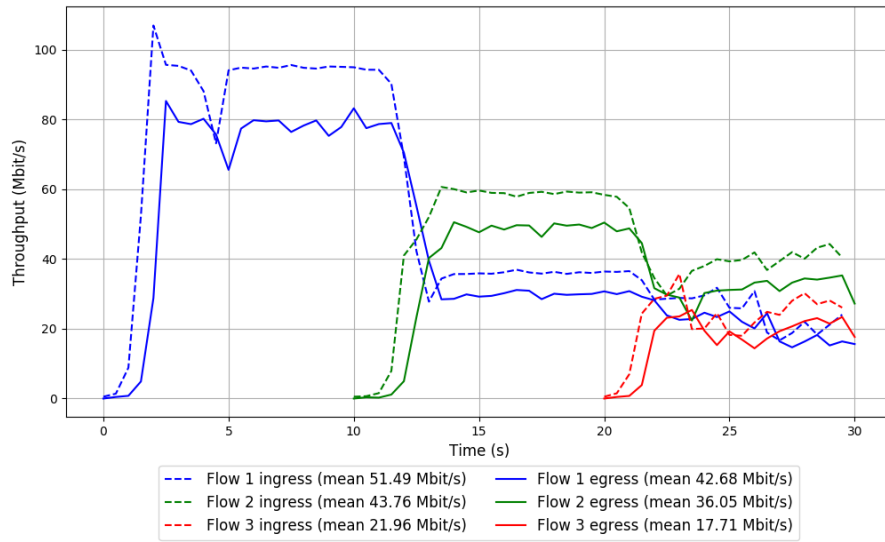


Run 5: Statistics of Copa

Start at: 2019-06-28 13:41:01
End at: 2019-06-28 13:41:31
Local clock offset: -6.633 ms
Remote clock offset: -675.878 ms

```
# Below is generated by plot.py at 2019-06-28 14:05:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.46 Mbit/s
95th percentile per-packet one-way delay: 174.433 ms
Loss rate: 18.12%
-- Flow 1:
Average throughput: 42.68 Mbit/s
95th percentile per-packet one-way delay: 175.564 ms
Loss rate: 17.61%
-- Flow 2:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 132.683 ms
Loss rate: 18.36%
-- Flow 3:
Average throughput: 17.71 Mbit/s
95th percentile per-packet one-way delay: 93.990 ms
Loss rate: 20.78%
```

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 11:57:28
End at: 2019-06-28 11:57:58
Local clock offset: -6.981 ms
Remote clock offset: -294.184 ms

Below is generated by plot.py at 2019-06-28 14:05:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.21 Mbit/s
95th percentile per-packet one-way delay: 152.502 ms
Loss rate: 0.74%

-- Flow 1:

Average throughput: 42.54 Mbit/s
95th percentile per-packet one-way delay: 186.513 ms
Loss rate: 0.37%

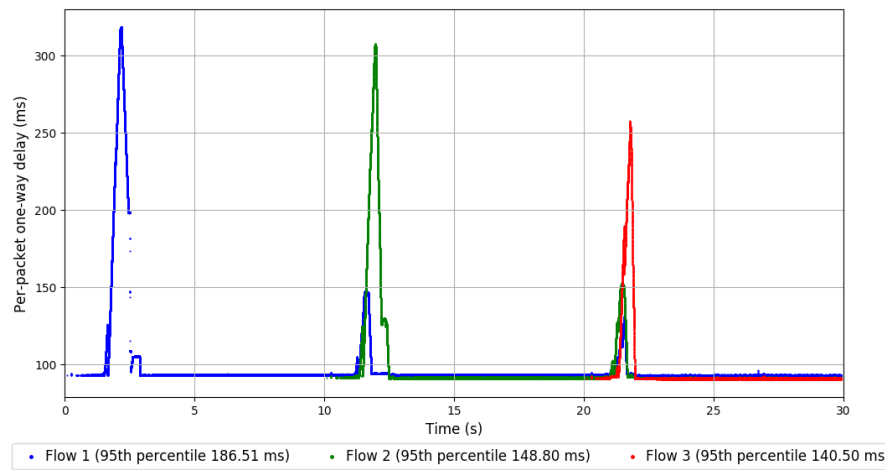
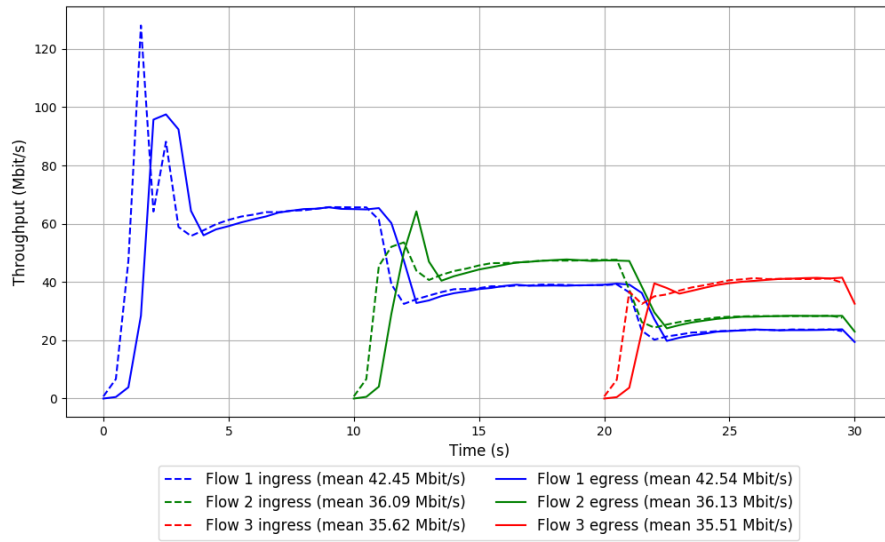
-- Flow 2:

Average throughput: 36.13 Mbit/s
95th percentile per-packet one-way delay: 148.804 ms
Loss rate: 0.74%

-- Flow 3:

Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 140.497 ms
Loss rate: 2.04%

Run 1: Report of TCP Cubic — Data Link

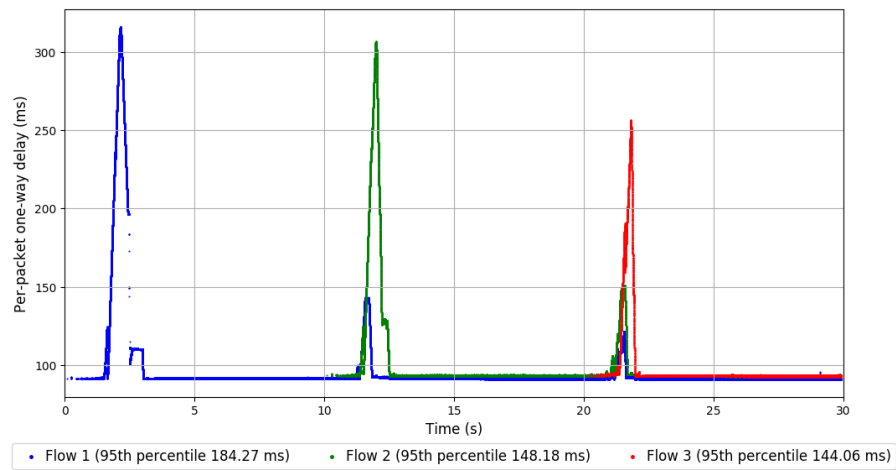
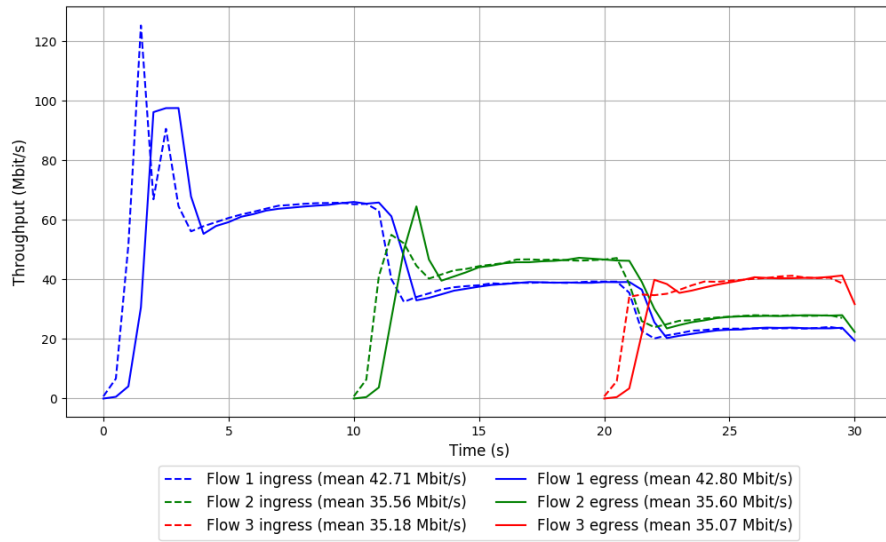


Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 12:25:51
End at: 2019-06-28 12:26:21
Local clock offset: -6.904 ms
Remote clock offset: -336.001 ms

```
# Below is generated by plot.py at 2019-06-28 14:05:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.96 Mbit/s
95th percentile per-packet one-way delay: 153.346 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 42.80 Mbit/s
95th percentile per-packet one-way delay: 184.274 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 35.60 Mbit/s
95th percentile per-packet one-way delay: 148.175 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 35.07 Mbit/s
95th percentile per-packet one-way delay: 144.056 ms
Loss rate: 2.07%
```

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 12:54:16
End at: 2019-06-28 12:54:46
Local clock offset: -6.386 ms
Remote clock offset: -71.872 ms

Below is generated by plot.py at 2019-06-28 14:05:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.49 Mbit/s
95th percentile per-packet one-way delay: 139.724 ms
Loss rate: 0.74%

-- Flow 1:

Average throughput: 42.18 Mbit/s
95th percentile per-packet one-way delay: 178.000 ms
Loss rate: 0.37%

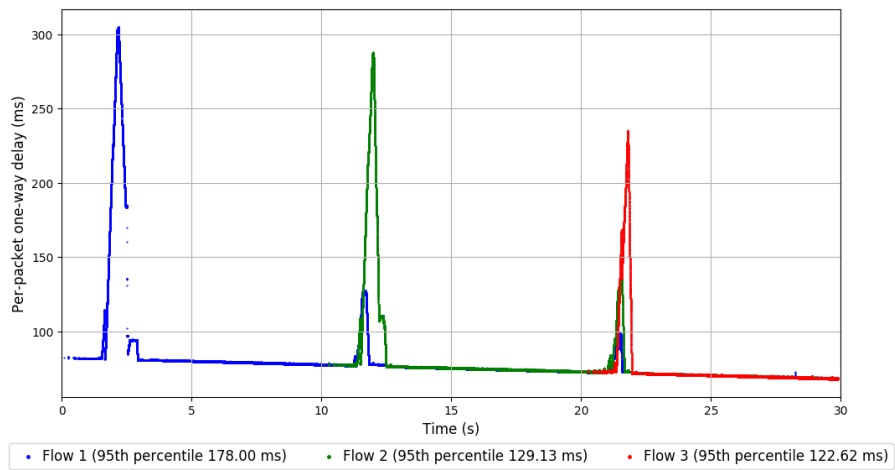
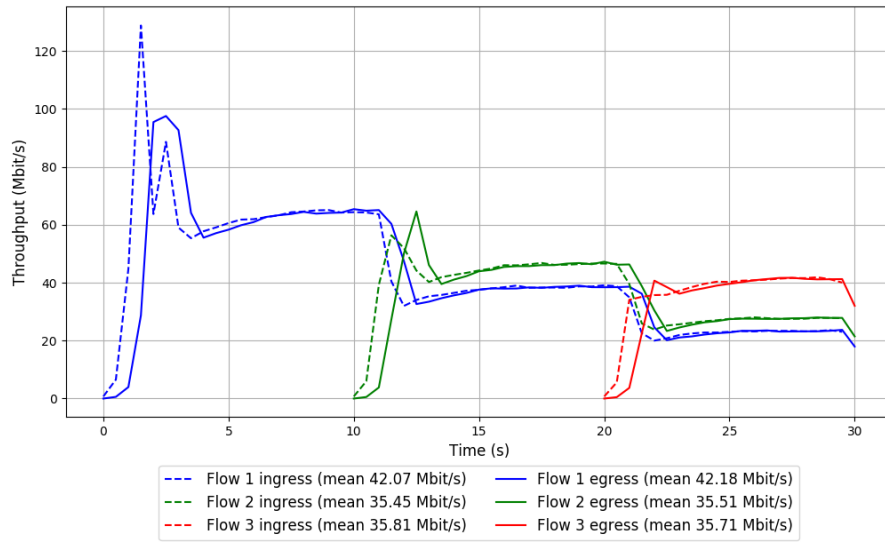
-- Flow 2:

Average throughput: 35.51 Mbit/s
95th percentile per-packet one-way delay: 129.135 ms
Loss rate: 0.75%

-- Flow 3:

Average throughput: 35.71 Mbit/s
95th percentile per-packet one-way delay: 122.621 ms
Loss rate: 2.05%

Run 3: Report of TCP Cubic — Data Link

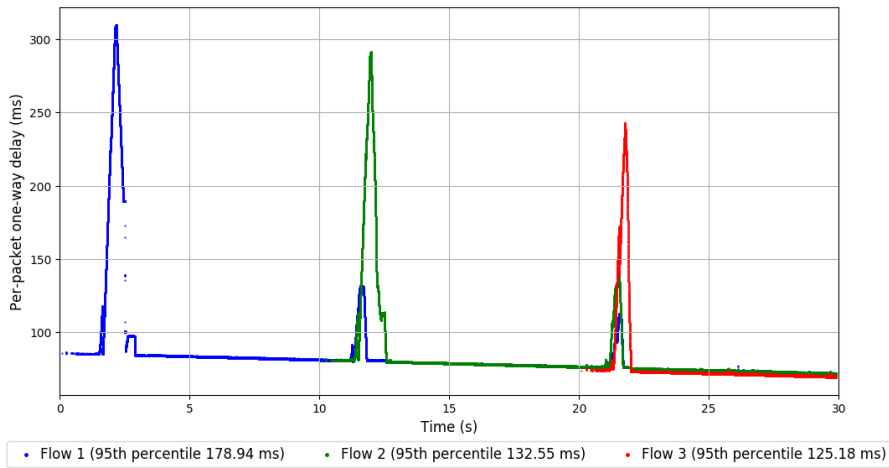
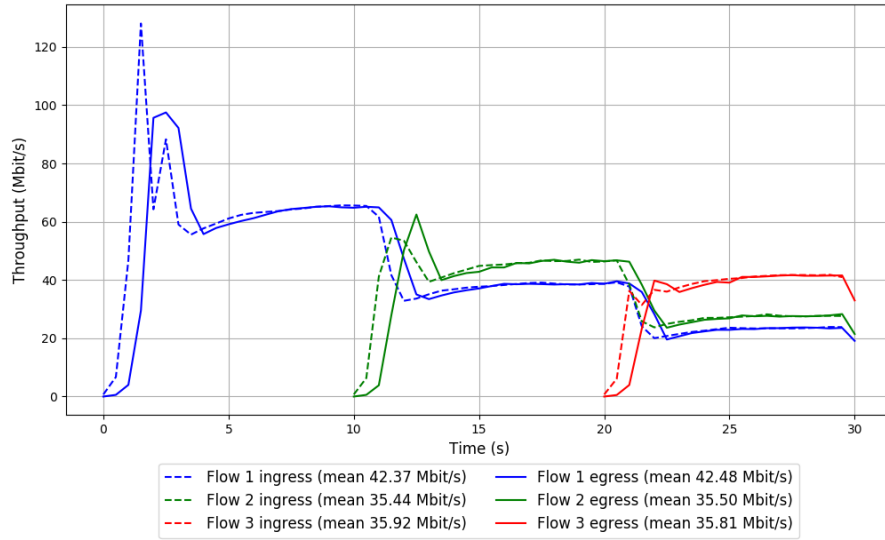


Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 13:22:39
End at: 2019-06-28 13:23:09
Local clock offset: -5.466 ms
Remote clock offset: -139.192 ms

```
# Below is generated by plot.py at 2019-06-28 14:05:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.83 Mbit/s
95th percentile per-packet one-way delay: 144.359 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 42.48 Mbit/s
95th percentile per-packet one-way delay: 178.941 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 35.50 Mbit/s
95th percentile per-packet one-way delay: 132.550 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 35.81 Mbit/s
95th percentile per-packet one-way delay: 125.176 ms
Loss rate: 2.02%
```

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 14:00:10
End at: 2019-06-28 14:00:40
Local clock offset: -6.858 ms
Remote clock offset: -1233.249 ms

Below is generated by plot.py at 2019-06-28 14:05:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.63 Mbit/s
95th percentile per-packet one-way delay: 146.122 ms
Loss rate: 0.74%

-- Flow 1:

Average throughput: 42.40 Mbit/s
95th percentile per-packet one-way delay: 184.796 ms
Loss rate: 0.37%

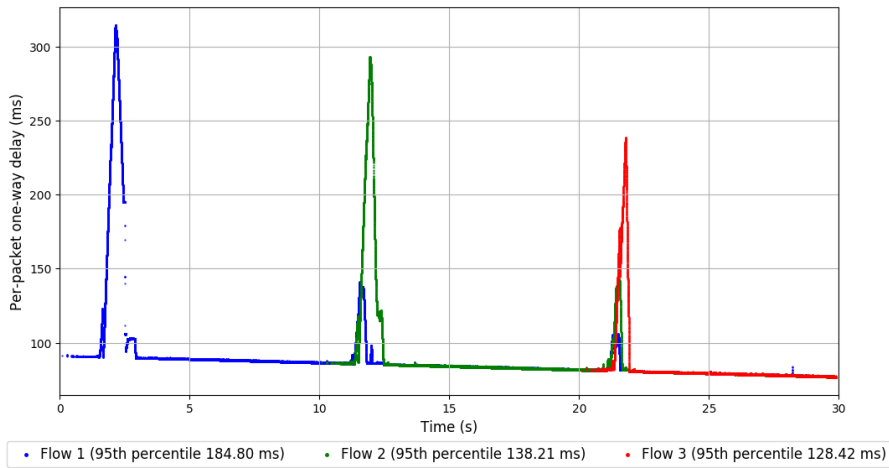
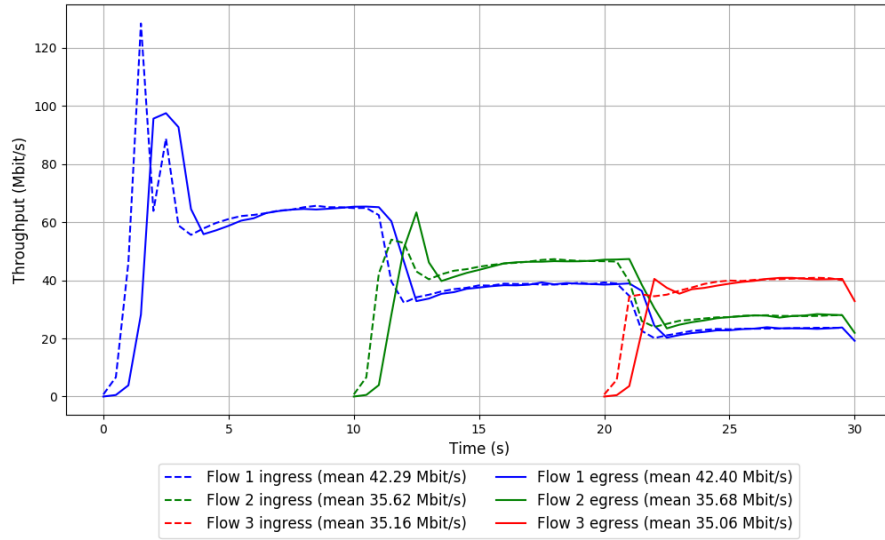
-- Flow 2:

Average throughput: 35.68 Mbit/s
95th percentile per-packet one-way delay: 138.206 ms
Loss rate: 0.74%

-- Flow 3:

Average throughput: 35.06 Mbit/s
95th percentile per-packet one-way delay: 128.416 ms
Loss rate: 2.05%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-06-28 11:51:01
End at: 2019-06-28 11:51:31
Local clock offset: -6.065 ms
Remote clock offset: -281.093 ms

Below is generated by plot.py at 2019-06-28 14:06:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 272.418 ms
Loss rate: 2.12%

-- Flow 1:

Average throughput: 57.11 Mbit/s
95th percentile per-packet one-way delay: 272.202 ms
Loss rate: 0.77%

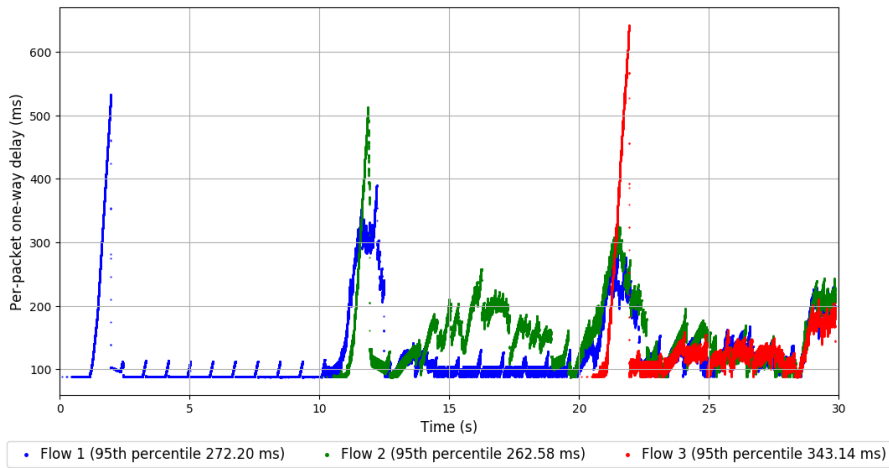
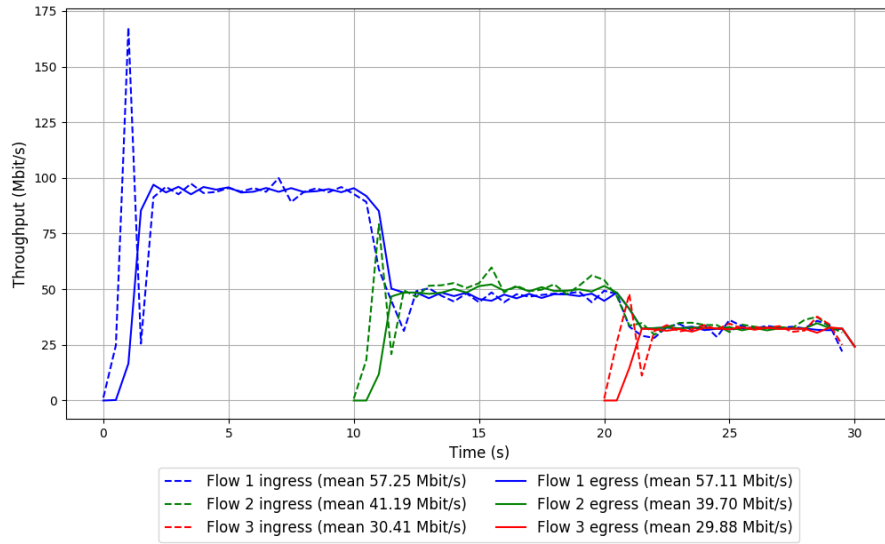
-- Flow 2:

Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 262.578 ms
Loss rate: 4.47%

-- Flow 3:

Average throughput: 29.88 Mbit/s
95th percentile per-packet one-way delay: 343.142 ms
Loss rate: 3.38%

Run 1: Report of FillP — Data Link

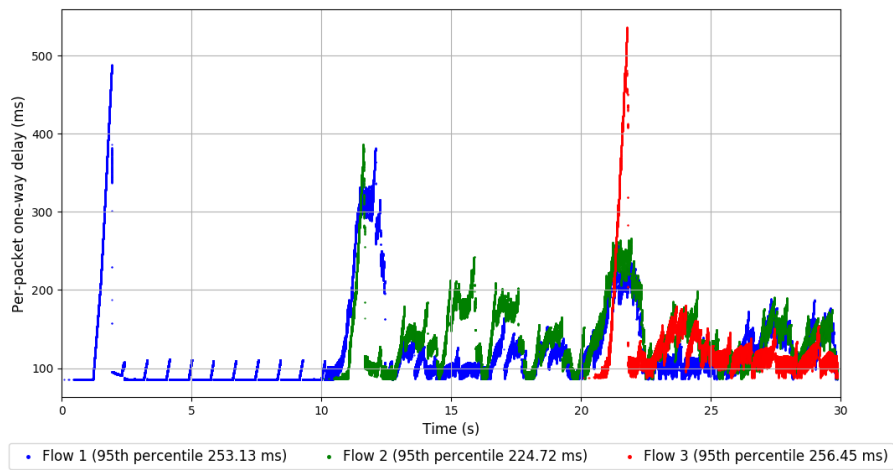
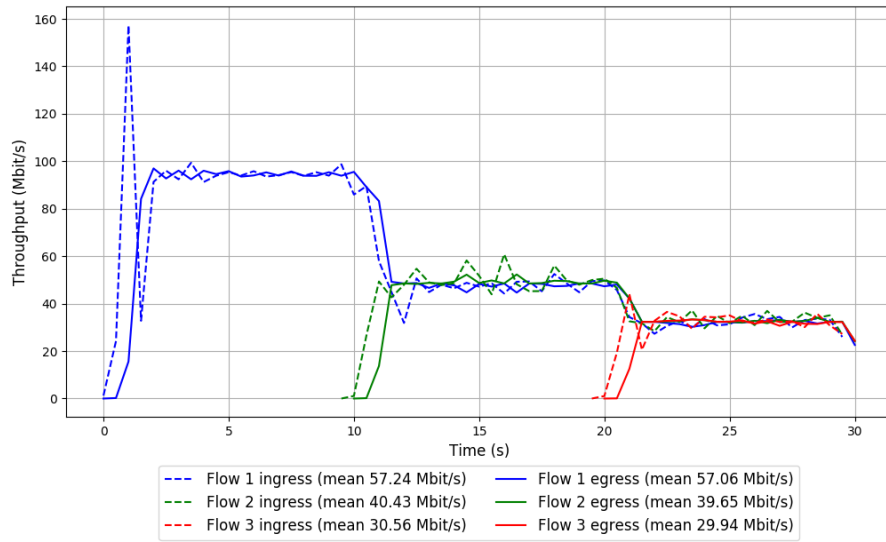


Run 2: Statistics of FillP

Start at: 2019-06-28 12:19:24
End at: 2019-06-28 12:19:54
Local clock offset: -7.148 ms
Remote clock offset: -321.216 ms

```
# Below is generated by plot.py at 2019-06-28 14:06:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 236.170 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 253.126 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 39.65 Mbit/s
95th percentile per-packet one-way delay: 224.721 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 29.94 Mbit/s
95th percentile per-packet one-way delay: 256.451 ms
Loss rate: 3.71%
```

Run 2: Report of FillP — Data Link

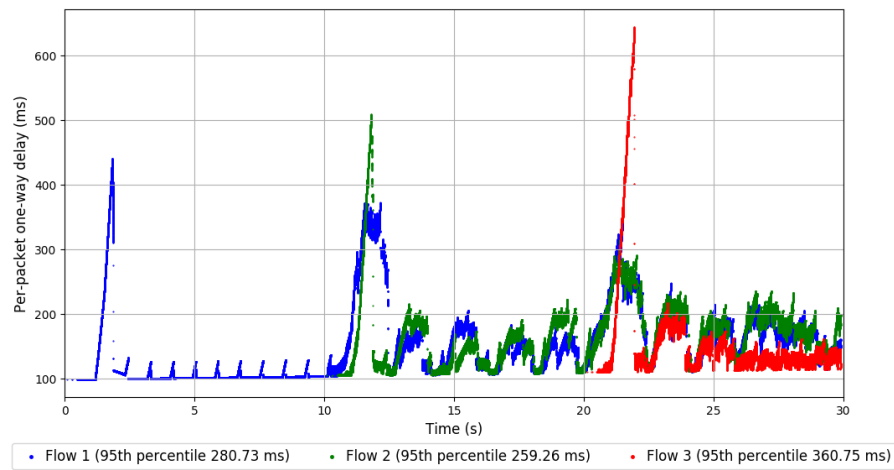
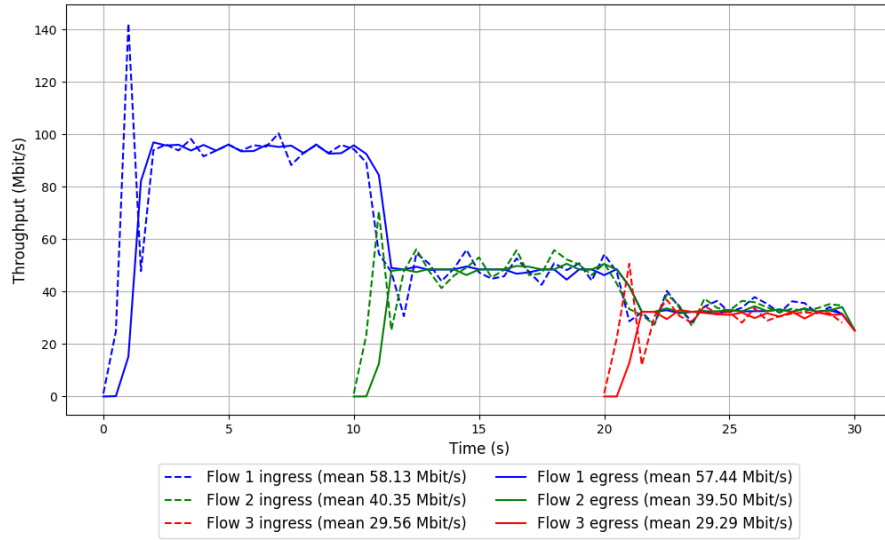


Run 3: Statistics of FillP

Start at: 2019-06-28 12:47:49
End at: 2019-06-28 12:48:19
Local clock offset: -6.263 ms
Remote clock offset: 49.798 ms

Below is generated by plot.py at 2019-06-28 14:06:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 272.133 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 57.44 Mbit/s
95th percentile per-packet one-way delay: 280.725 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 39.50 Mbit/s
95th percentile per-packet one-way delay: 259.257 ms
Loss rate: 2.86%
-- Flow 3:
Average throughput: 29.29 Mbit/s
95th percentile per-packet one-way delay: 360.750 ms
Loss rate: 2.58%

Run 3: Report of FillP — Data Link

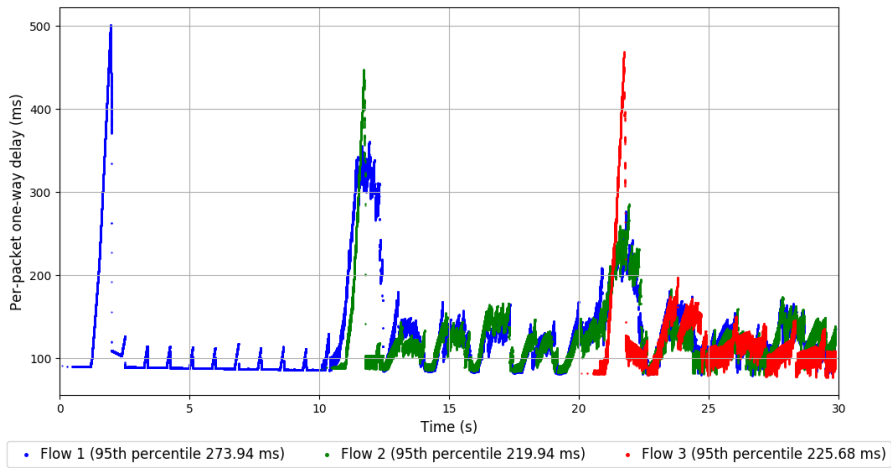
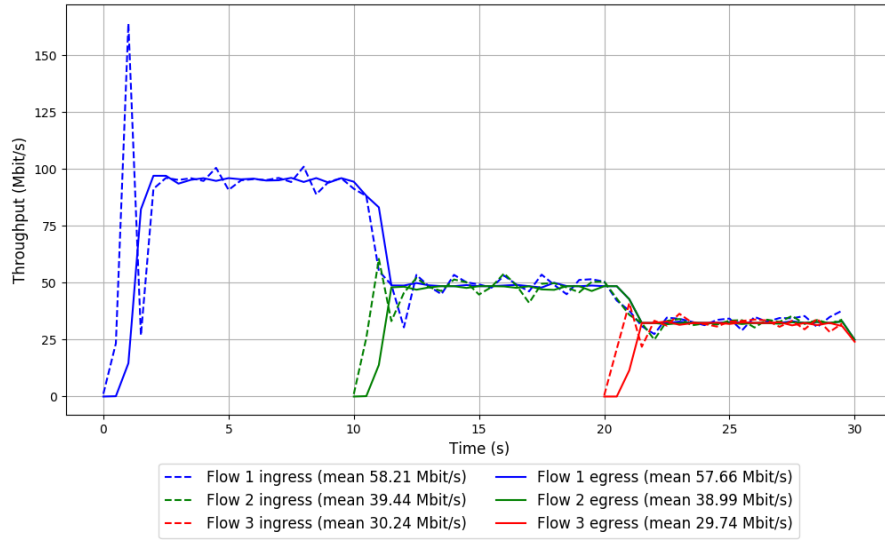


Run 4: Statistics of FillP

Start at: 2019-06-28 13:16:13
End at: 2019-06-28 13:16:43
Local clock offset: -6.003 ms
Remote clock offset: -717.844 ms

```
# Below is generated by plot.py at 2019-06-28 14:06:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.32 Mbit/s
95th percentile per-packet one-way delay: 238.976 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 57.66 Mbit/s
95th percentile per-packet one-way delay: 273.943 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 219.943 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 29.74 Mbit/s
95th percentile per-packet one-way delay: 225.683 ms
Loss rate: 3.33%
```

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-06-28 13:50:35
End at: 2019-06-28 13:51:05
Local clock offset: -5.94 ms
Remote clock offset: -946.64 ms

Below is generated by plot.py at 2019-06-28 14:07:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.49 Mbit/s
95th percentile per-packet one-way delay: 248.244 ms
Loss rate: 2.58%

-- Flow 1:

Average throughput: 57.28 Mbit/s
95th percentile per-packet one-way delay: 249.118 ms
Loss rate: 0.84%

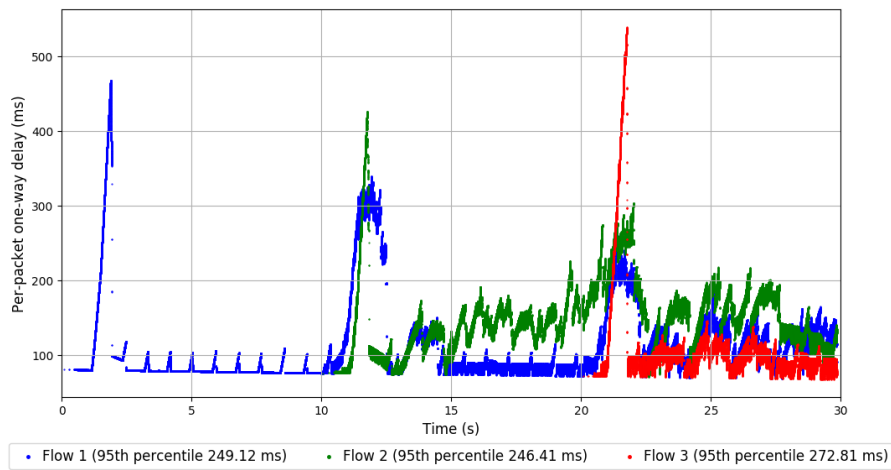
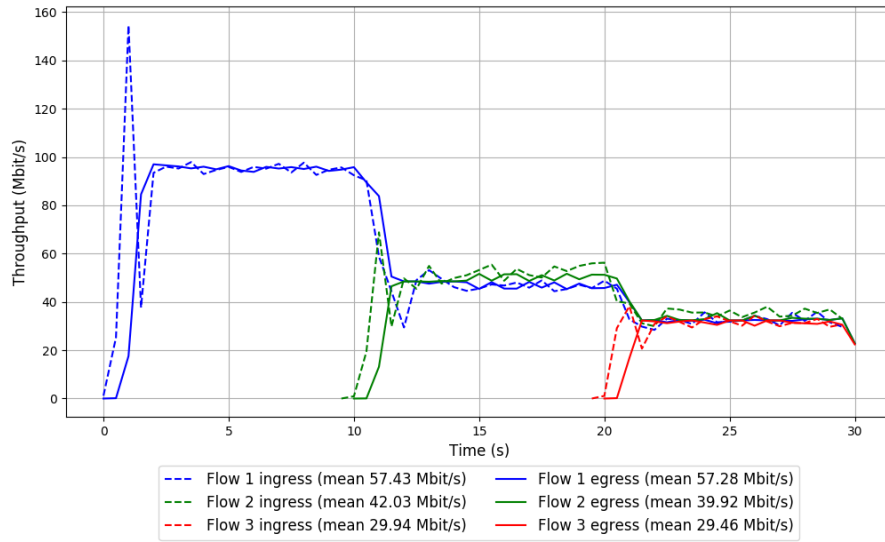
-- Flow 2:

Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 246.407 ms
Loss rate: 5.88%

-- Flow 3:

Average throughput: 29.46 Mbit/s
95th percentile per-packet one-way delay: 272.811 ms
Loss rate: 3.34%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 11:30:16
End at: 2019-06-28 11:30:46
Local clock offset: -7.126 ms
Remote clock offset: -255.966 ms

Below is generated by plot.py at 2019-06-28 14:07:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.85 Mbit/s
95th percentile per-packet one-way delay: 268.310 ms
Loss rate: 1.40%

-- Flow 1:

Average throughput: 56.75 Mbit/s
95th percentile per-packet one-way delay: 281.500 ms
Loss rate: 0.78%

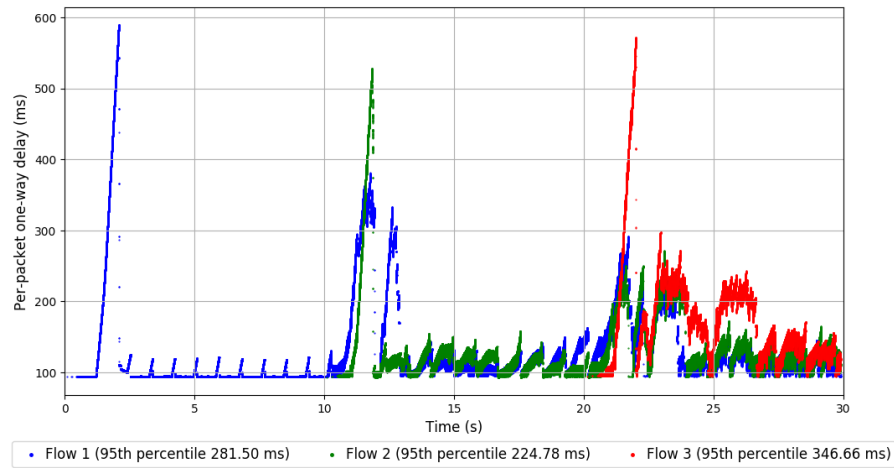
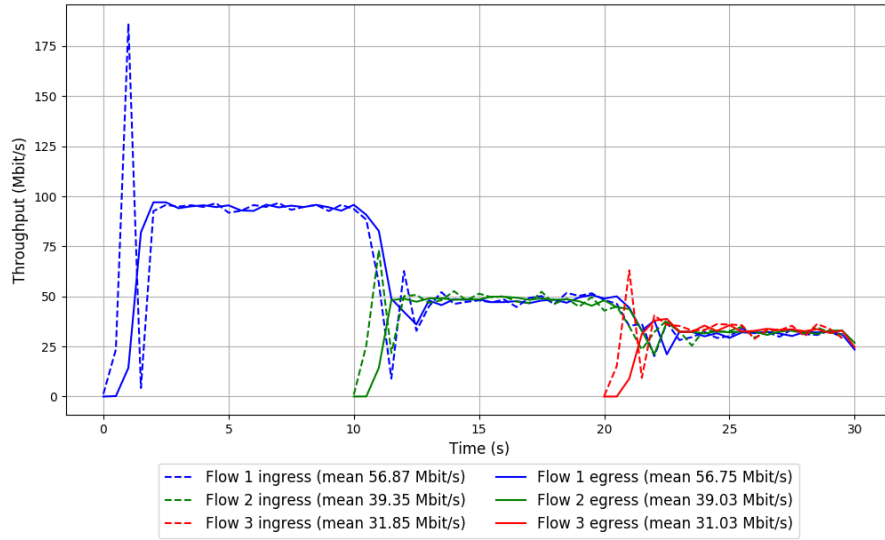
-- Flow 2:

Average throughput: 39.03 Mbit/s
95th percentile per-packet one-way delay: 224.780 ms
Loss rate: 1.60%

-- Flow 3:

Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 346.656 ms
Loss rate: 4.19%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 11:58:45
End at: 2019-06-28 11:59:15
Local clock offset: -6.568 ms
Remote clock offset: -297.467 ms

Below is generated by plot.py at 2019-06-28 14:07:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.76 Mbit/s
95th percentile per-packet one-way delay: 286.556 ms
Loss rate: 1.44%

-- Flow 1:

Average throughput: 56.32 Mbit/s
95th percentile per-packet one-way delay: 283.708 ms
Loss rate: 0.61%

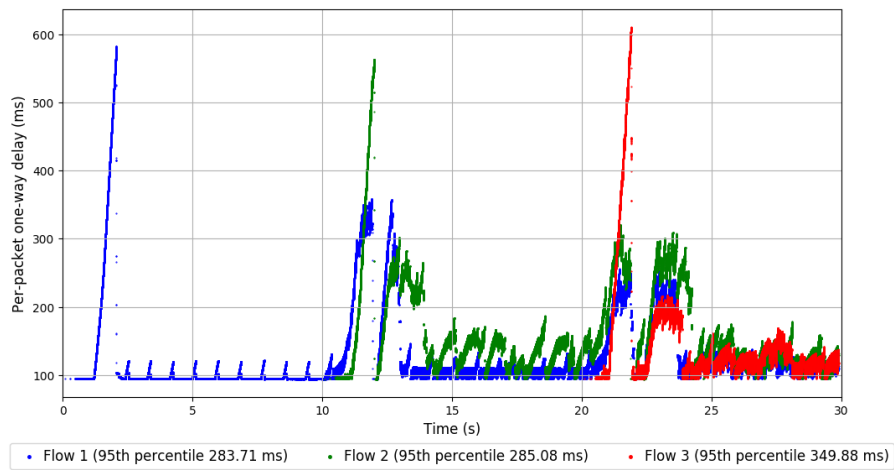
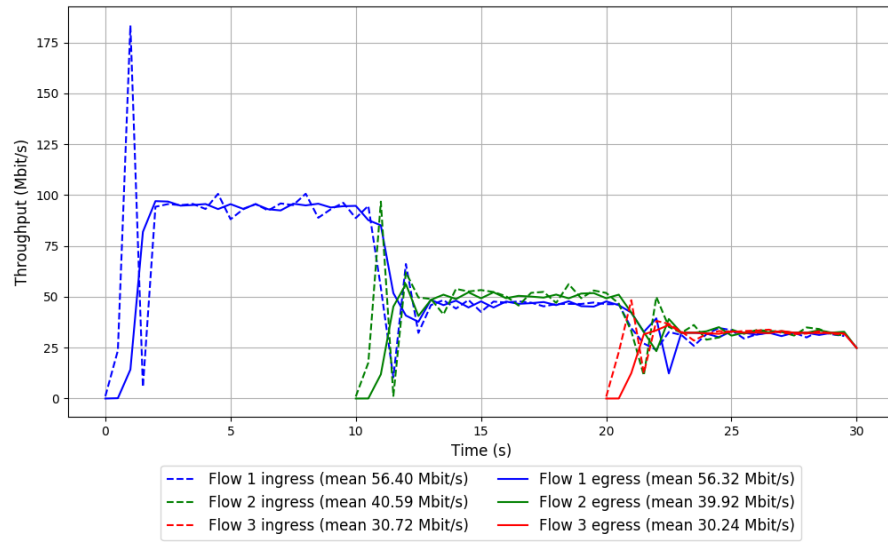
-- Flow 2:

Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 285.084 ms
Loss rate: 2.50%

-- Flow 3:

Average throughput: 30.24 Mbit/s
95th percentile per-packet one-way delay: 349.880 ms
Loss rate: 3.24%

Run 2: Report of FillP-Sheep — Data Link

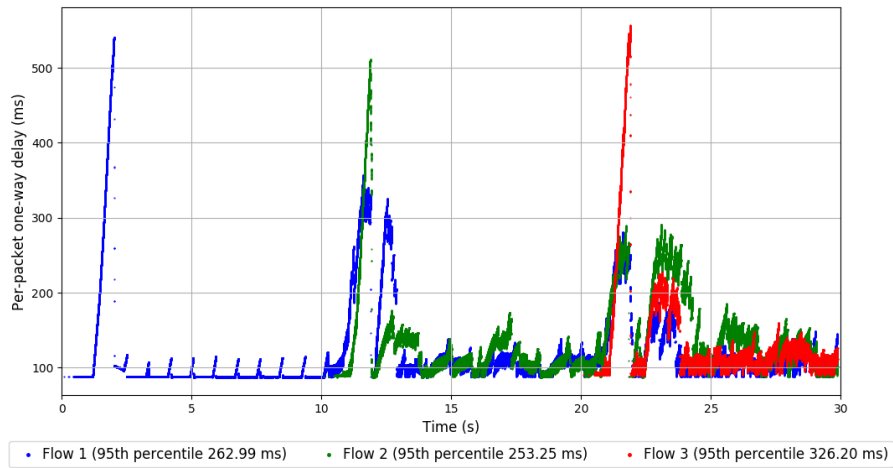
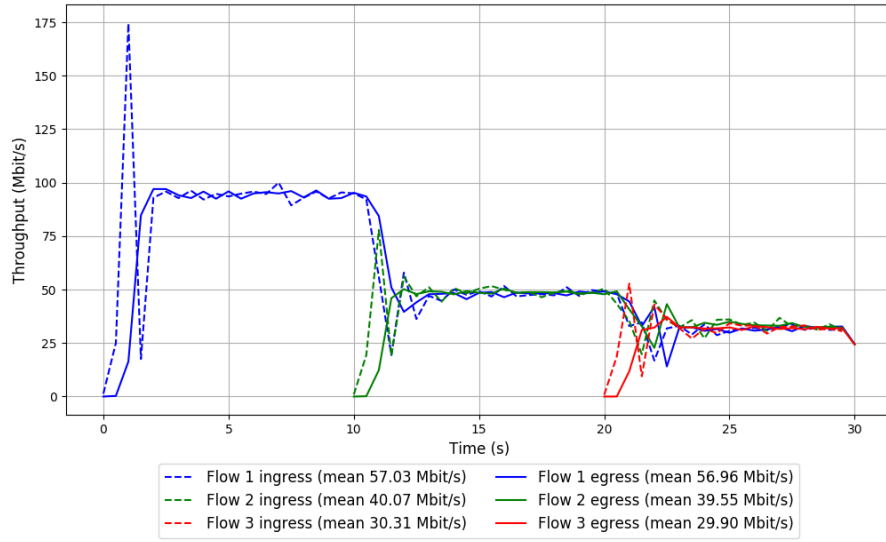


Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 12:27:08
End at: 2019-06-28 12:27:38
Local clock offset: -6.942 ms
Remote clock offset: -333.874 ms

```
# Below is generated by plot.py at 2019-06-28 14:07:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.05 Mbit/s
95th percentile per-packet one-way delay: 258.854 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 56.96 Mbit/s
95th percentile per-packet one-way delay: 262.993 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 39.55 Mbit/s
95th percentile per-packet one-way delay: 253.246 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 29.90 Mbit/s
95th percentile per-packet one-way delay: 326.205 ms
Loss rate: 3.05%
```

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 12:55:33
End at: 2019-06-28 12:56:03
Local clock offset: -5.908 ms
Remote clock offset: -115.787 ms

Below is generated by plot.py at 2019-06-28 14:07:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.95 Mbit/s
95th percentile per-packet one-way delay: 279.905 ms
Loss rate: 1.43%

-- Flow 1:

Average throughput: 57.38 Mbit/s
95th percentile per-packet one-way delay: 300.748 ms
Loss rate: 0.96%

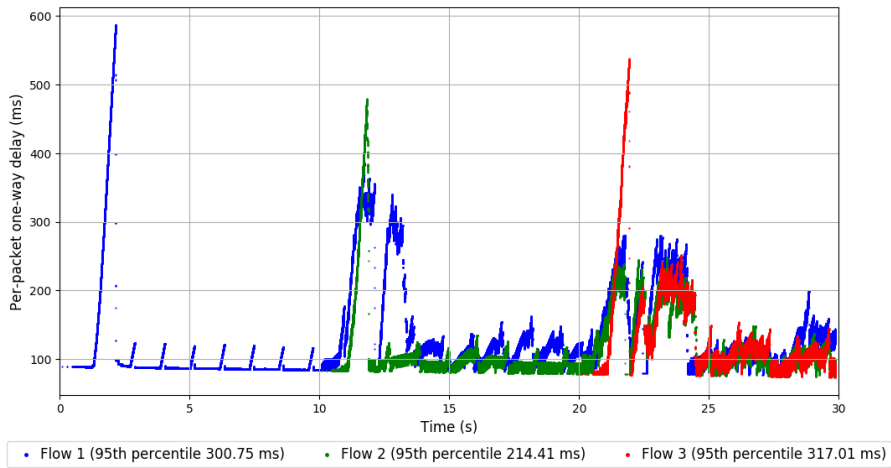
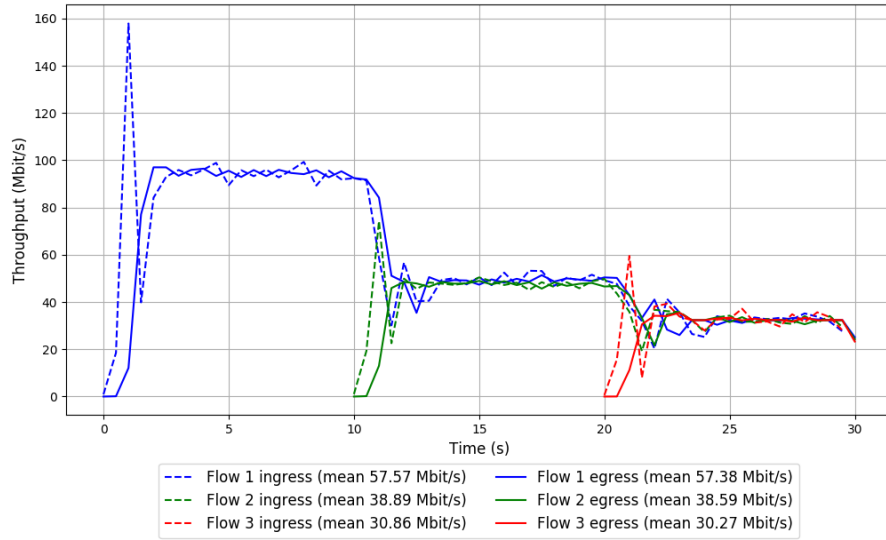
-- Flow 2:

Average throughput: 38.59 Mbit/s
95th percentile per-packet one-way delay: 214.414 ms
Loss rate: 1.62%

-- Flow 3:

Average throughput: 30.27 Mbit/s
95th percentile per-packet one-way delay: 317.010 ms
Loss rate: 3.65%

Run 4: Report of FillP-Sheep — Data Link

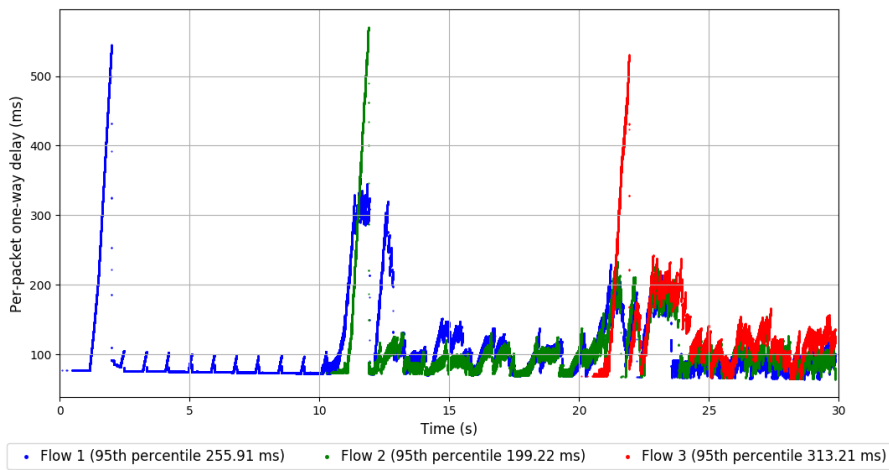
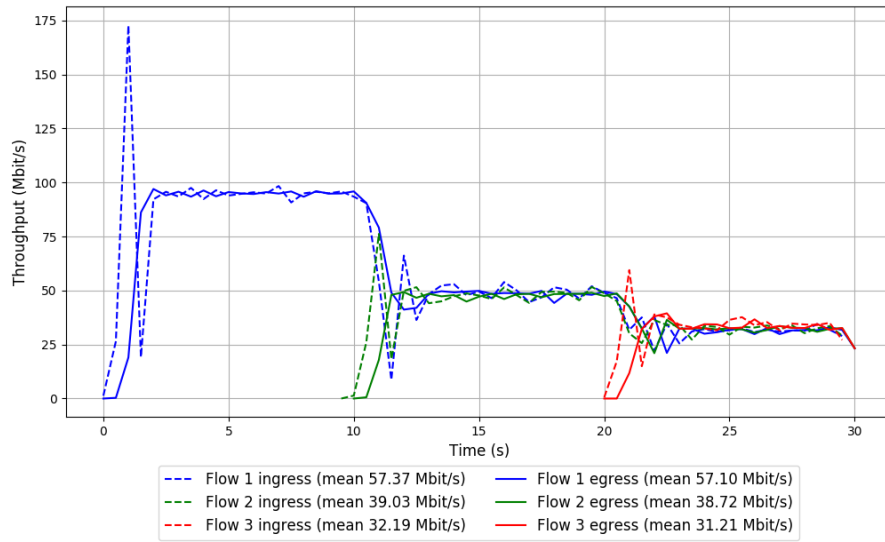


Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 13:23:56
End at: 2019-06-28 13:24:26
Local clock offset: -5.529 ms
Remote clock offset: -170.23 ms

```
# Below is generated by plot.py at 2019-06-28 14:07:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.08 Mbit/s
95th percentile per-packet one-way delay: 237.696 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 57.10 Mbit/s
95th percentile per-packet one-way delay: 255.908 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 199.225 ms
Loss rate: 1.70%
-- Flow 3:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 313.212 ms
Loss rate: 4.57%
```

Run 5: Report of FillP-Sheep — Data Link

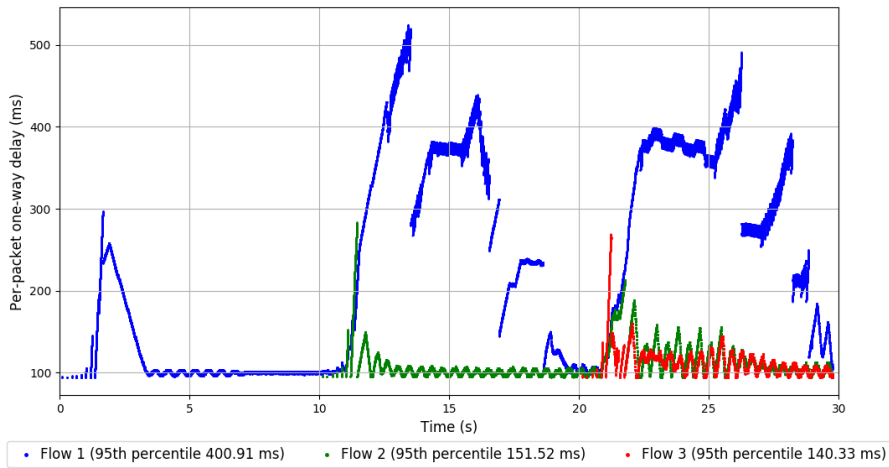
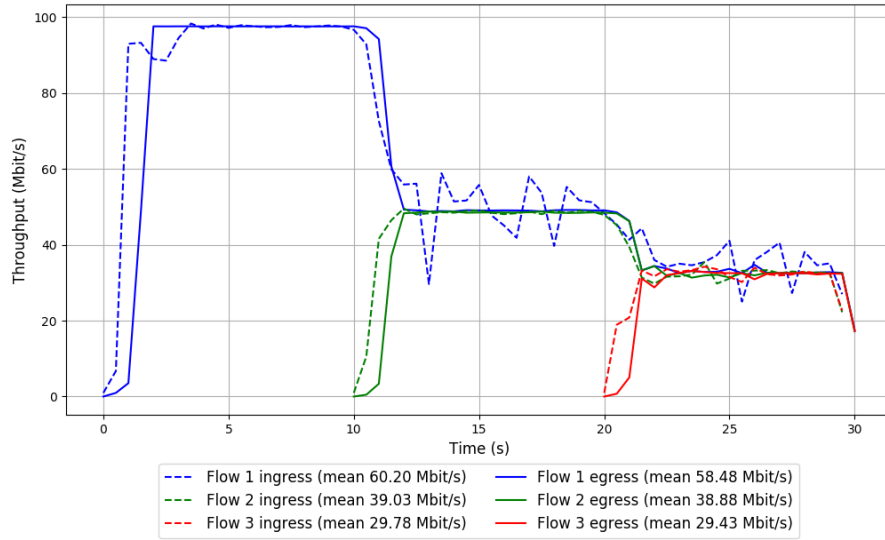


Run 1: Statistics of Indigo

Start at: 2019-06-28 11:52:18
End at: 2019-06-28 11:52:48
Local clock offset: -6.089 ms
Remote clock offset: -287.058 ms

```
# Below is generated by plot.py at 2019-06-28 14:07:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.80 Mbit/s
95th percentile per-packet one-way delay: 383.957 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 58.48 Mbit/s
95th percentile per-packet one-way delay: 400.913 ms
Loss rate: 3.42%
-- Flow 2:
Average throughput: 38.88 Mbit/s
95th percentile per-packet one-way delay: 151.516 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 29.43 Mbit/s
95th percentile per-packet one-way delay: 140.333 ms
Loss rate: 2.91%
```

Run 1: Report of Indigo — Data Link

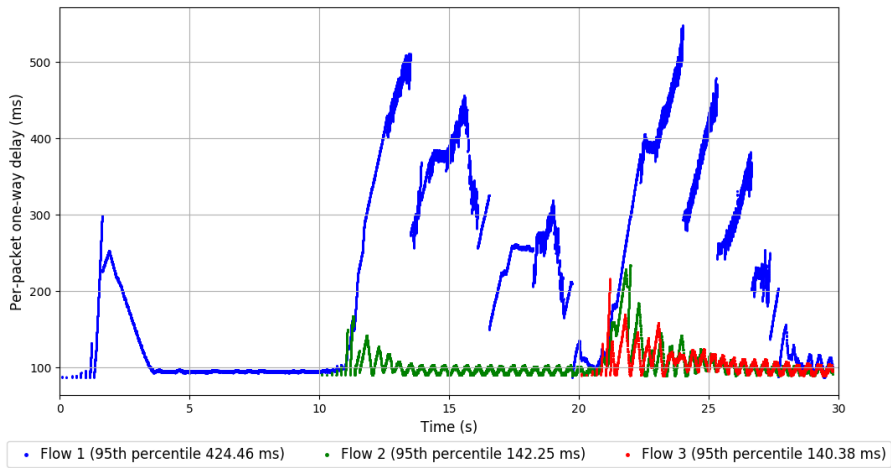
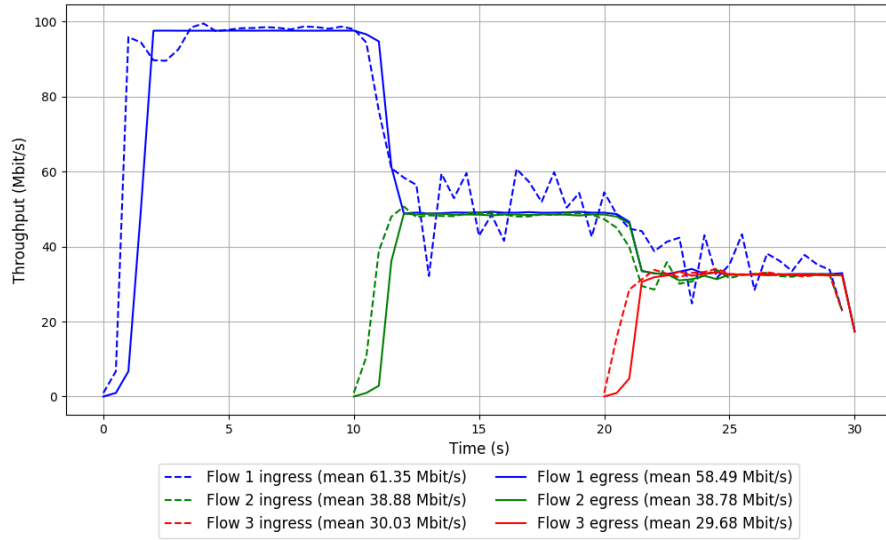


Run 2: Statistics of Indigo

Start at: 2019-06-28 12:20:41
End at: 2019-06-28 12:21:11
Local clock offset: -6.73 ms
Remote clock offset: -324.188 ms

```
# Below is generated by plot.py at 2019-06-28 14:07:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.84 Mbit/s
95th percentile per-packet one-way delay: 393.899 ms
Loss rate: 3.89%
-- Flow 1:
Average throughput: 58.49 Mbit/s
95th percentile per-packet one-way delay: 424.459 ms
Loss rate: 5.21%
-- Flow 2:
Average throughput: 38.78 Mbit/s
95th percentile per-packet one-way delay: 142.253 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 29.68 Mbit/s
95th percentile per-packet one-way delay: 140.385 ms
Loss rate: 2.91%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-06-28 12:49:07
End at: 2019-06-28 12:49:37
Local clock offset: -6.639 ms
Remote clock offset: 88.609 ms

Below is generated by plot.py at 2019-06-28 14:08:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.80 Mbit/s
95th percentile per-packet one-way delay: 398.341 ms
Loss rate: 4.85%

-- Flow 1:

Average throughput: 58.67 Mbit/s
95th percentile per-packet one-way delay: 438.955 ms
Loss rate: 6.55%

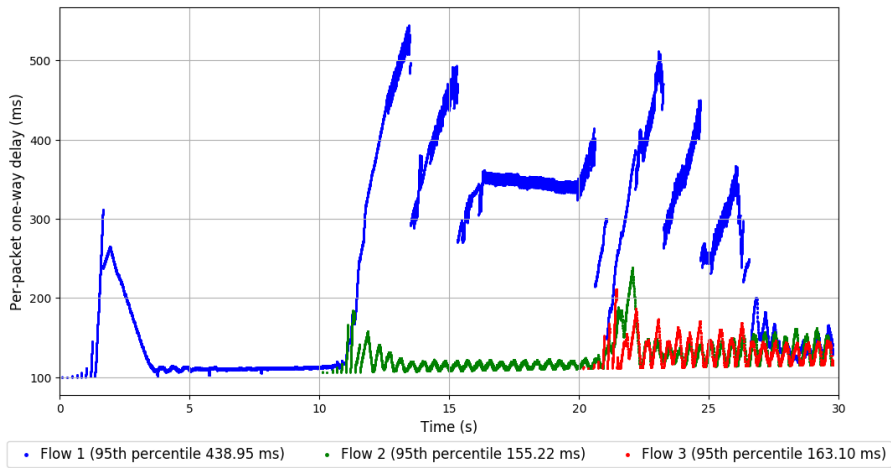
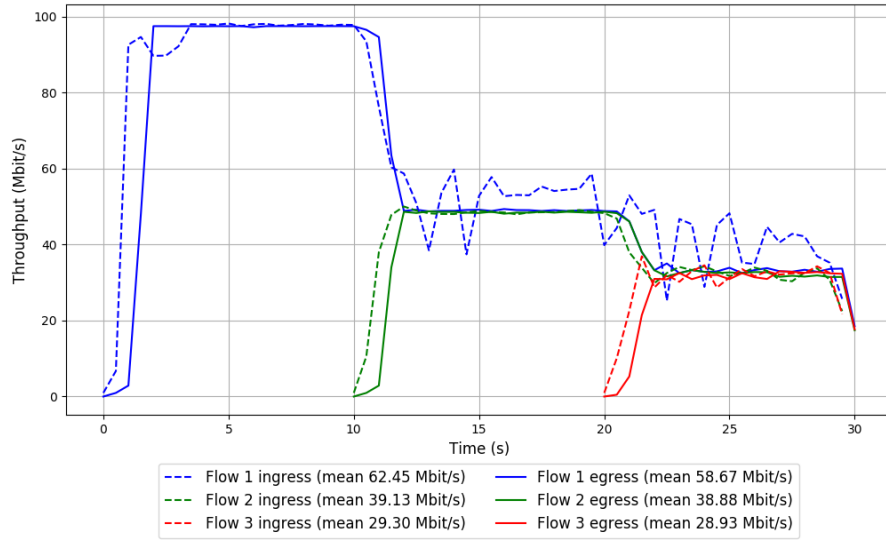
-- Flow 2:

Average throughput: 38.88 Mbit/s
95th percentile per-packet one-way delay: 155.215 ms
Loss rate: 1.45%

-- Flow 3:

Average throughput: 28.93 Mbit/s
95th percentile per-packet one-way delay: 163.102 ms
Loss rate: 2.97%

Run 3: Report of Indigo — Data Link

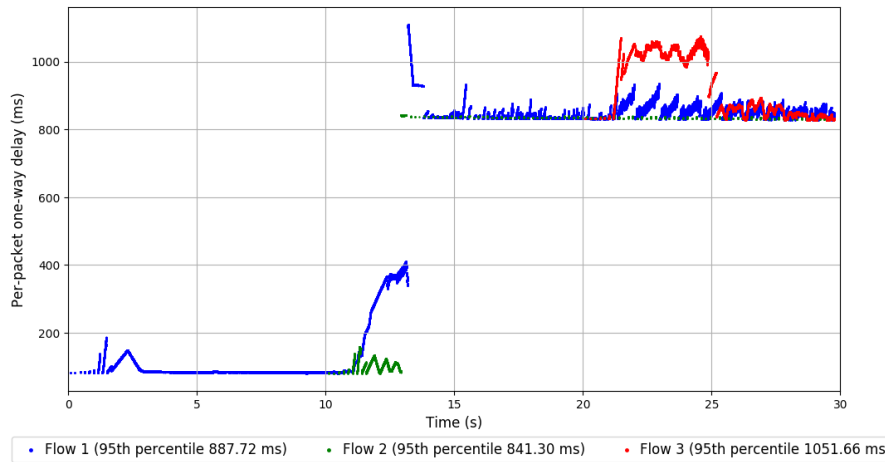
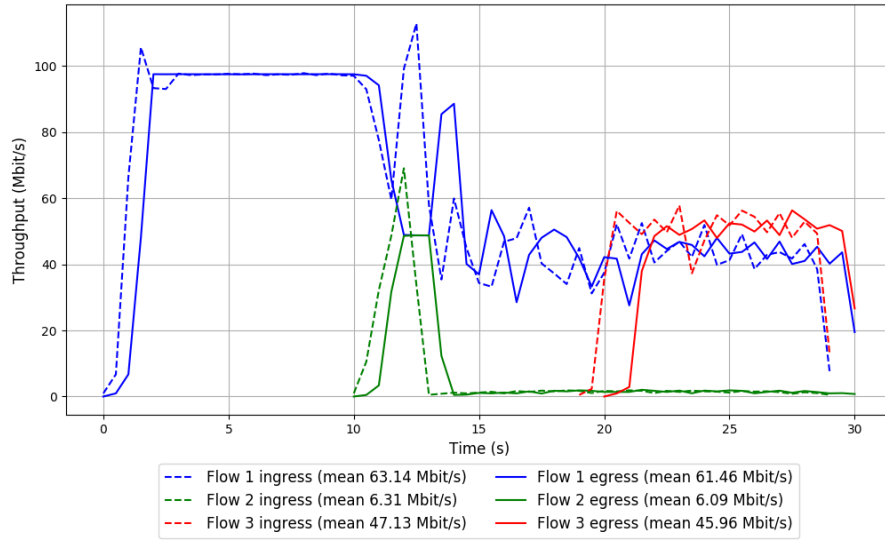


Run 4: Statistics of Indigo

Start at: 2019-06-28 13:17:30
End at: 2019-06-28 13:18:00
Local clock offset: -6.004 ms
Remote clock offset: -748.147 ms

```
# Below is generated by plot.py at 2019-06-28 14:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.44 Mbit/s
95th percentile per-packet one-way delay: 1021.594 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 61.46 Mbit/s
95th percentile per-packet one-way delay: 887.723 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 841.300 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 45.96 Mbit/s
95th percentile per-packet one-way delay: 1051.659 ms
Loss rate: 4.20%
```

Run 4: Report of Indigo — Data Link

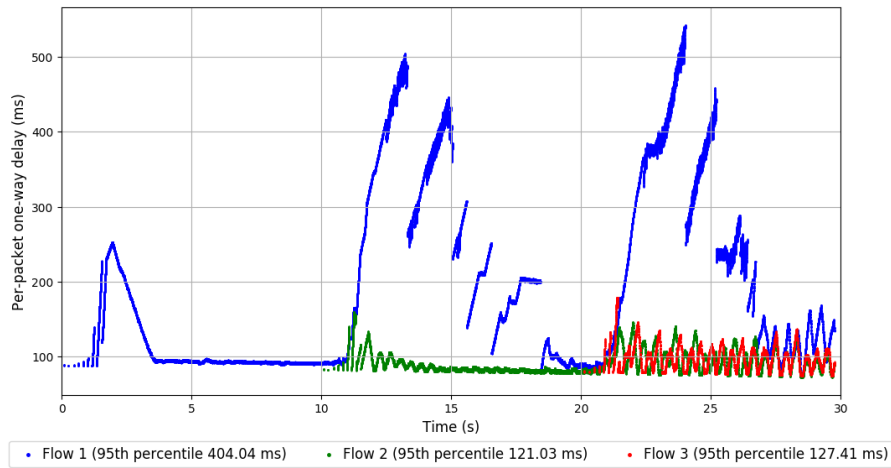
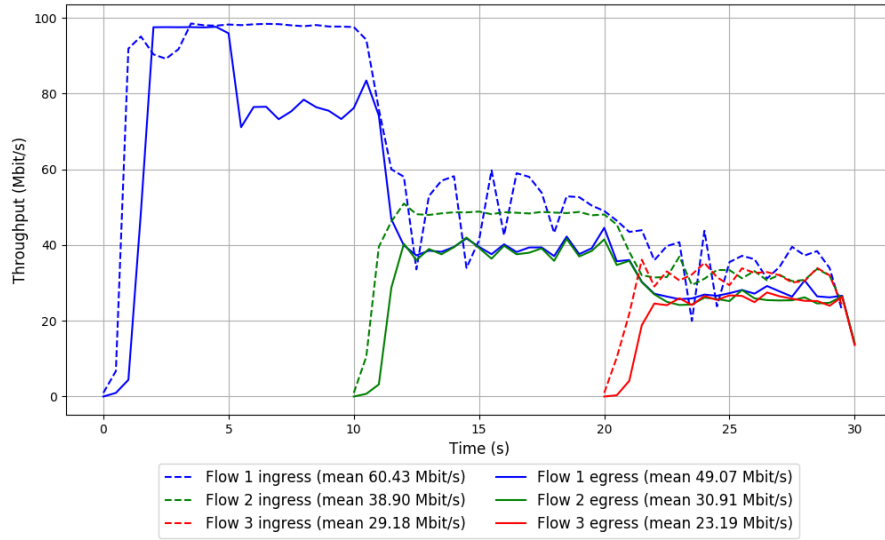


Run 5: Statistics of Indigo

Start at: 2019-06-28 13:51:53
End at: 2019-06-28 13:52:23
Local clock offset: -6.016 ms
Remote clock offset: -989.467 ms

```
# Below is generated by plot.py at 2019-06-28 14:08:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.09 Mbit/s
95th percentile per-packet one-way delay: 375.954 ms
Loss rate: 20.10%
-- Flow 1:
Average throughput: 49.07 Mbit/s
95th percentile per-packet one-way delay: 404.044 ms
Loss rate: 19.30%
-- Flow 2:
Average throughput: 30.91 Mbit/s
95th percentile per-packet one-way delay: 121.028 ms
Loss rate: 21.26%
-- Flow 3:
Average throughput: 23.19 Mbit/s
95th percentile per-packet one-way delay: 127.411 ms
Loss rate: 21.98%
```

Run 5: Report of Indigo — Data Link

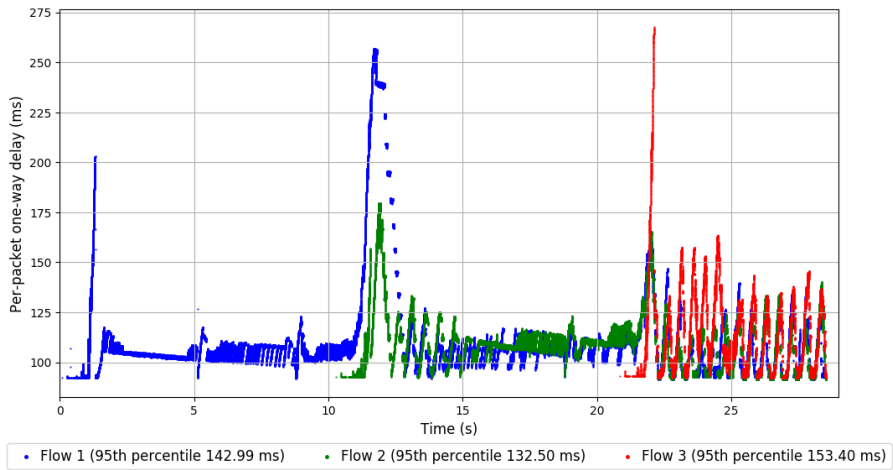
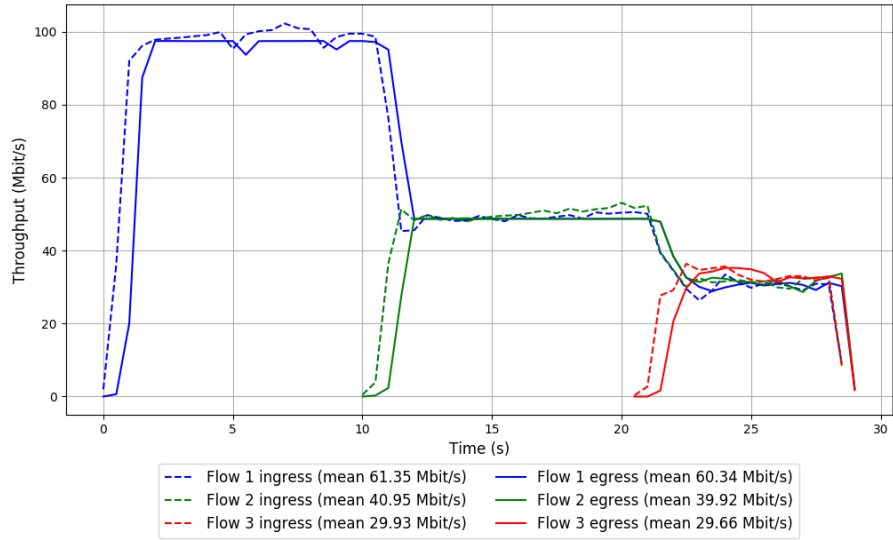


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 11:32:54
End at: 2019-06-28 11:33:24
Local clock offset: -7.056 ms
Remote clock offset: -258.398 ms

```
# Below is generated by plot.py at 2019-06-28 14:08:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.93 Mbit/s
95th percentile per-packet one-way delay: 142.885 ms
Loss rate: 2.64%
-- Flow 1:
Average throughput: 60.34 Mbit/s
95th percentile per-packet one-way delay: 142.990 ms
Loss rate: 2.23%
-- Flow 2:
Average throughput: 39.92 Mbit/s
95th percentile per-packet one-way delay: 132.500 ms
Loss rate: 3.44%
-- Flow 3:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 153.402 ms
Loss rate: 3.12%
```

Run 1: Report of Indigo-MusesC3 — Data Link

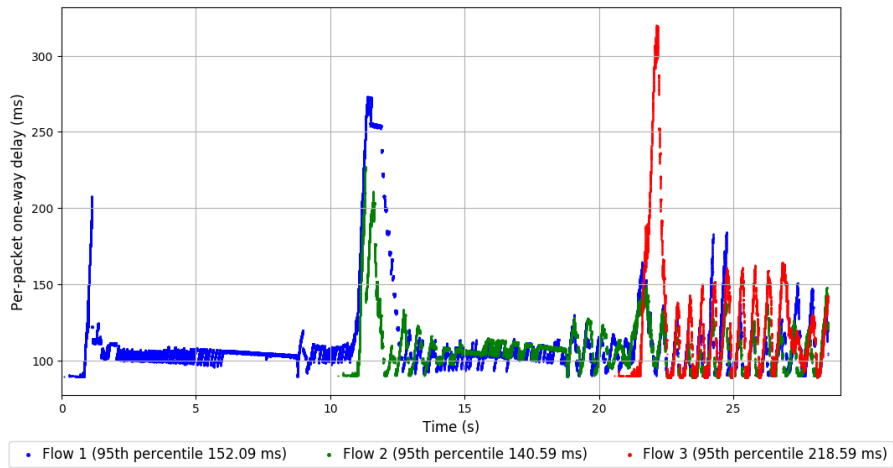
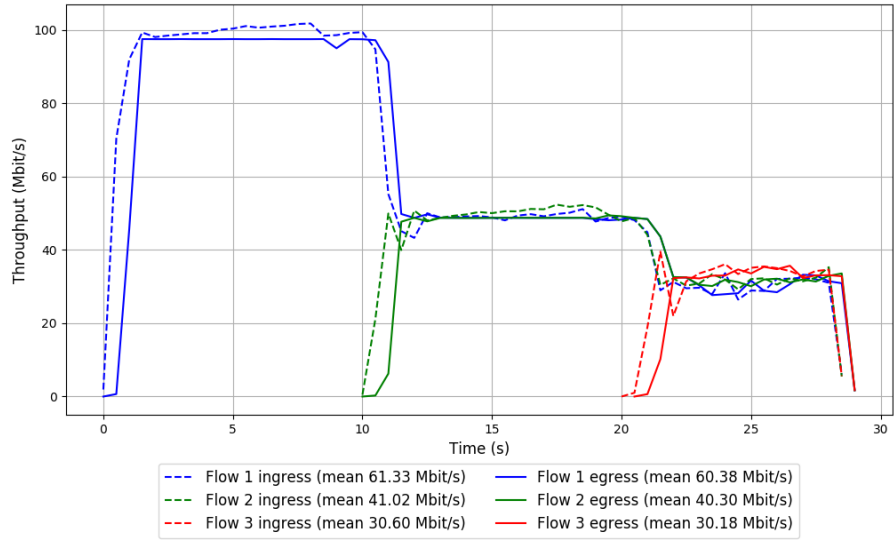


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:01:23
End at: 2019-06-28 12:01:53
Local clock offset: -6.286 ms
Remote clock offset: -295.792 ms

```
# Below is generated by plot.py at 2019-06-28 14:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.66 Mbit/s
95th percentile per-packet one-way delay: 155.563 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 60.38 Mbit/s
95th percentile per-packet one-way delay: 152.093 ms
Loss rate: 2.15%
-- Flow 2:
Average throughput: 40.30 Mbit/s
95th percentile per-packet one-way delay: 140.586 ms
Loss rate: 2.69%
-- Flow 3:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 218.595 ms
Loss rate: 3.40%
```

Run 2: Report of Indigo-MusesC3 — Data Link

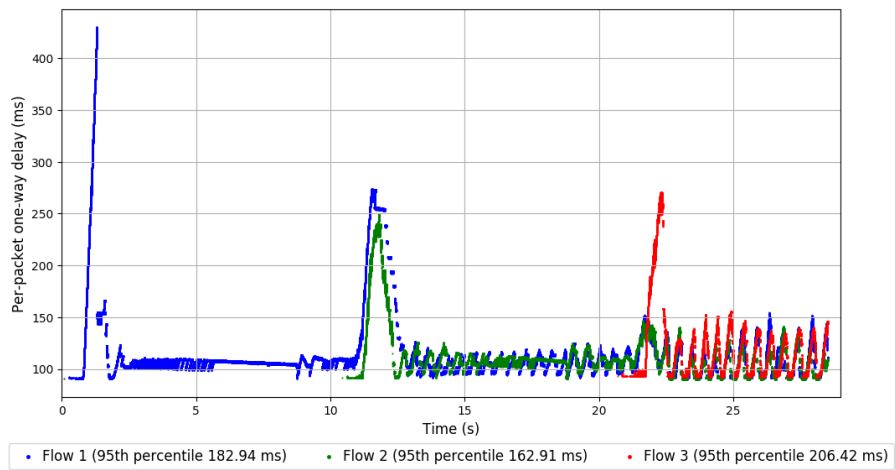
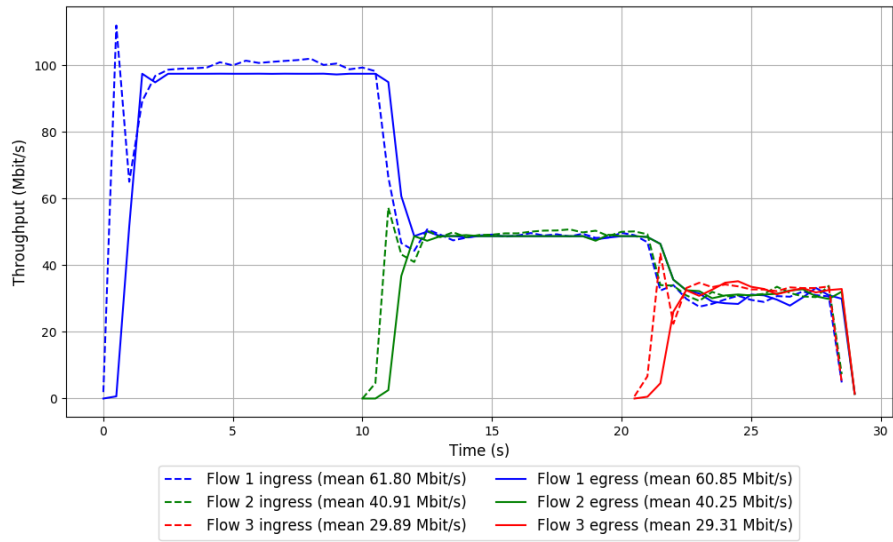


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:29:47
End at: 2019-06-28 12:30:17
Local clock offset: -6.916 ms
Remote clock offset: -341.348 ms

```
# Below is generated by plot.py at 2019-06-28 14:08:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.50 Mbit/s
95th percentile per-packet one-way delay: 180.399 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 60.85 Mbit/s
95th percentile per-packet one-way delay: 182.936 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 40.25 Mbit/s
95th percentile per-packet one-way delay: 162.913 ms
Loss rate: 2.53%
-- Flow 3:
Average throughput: 29.31 Mbit/s
95th percentile per-packet one-way delay: 206.421 ms
Loss rate: 4.06%
```

Run 3: Report of Indigo-MusesC3 — Data Link

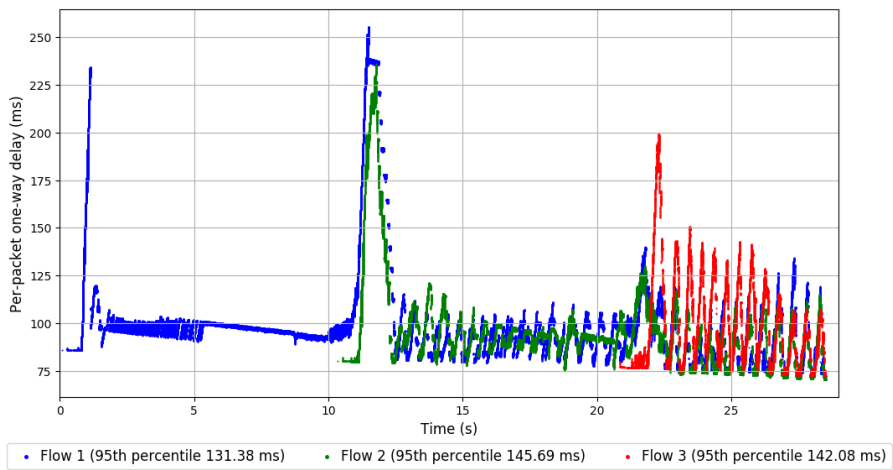
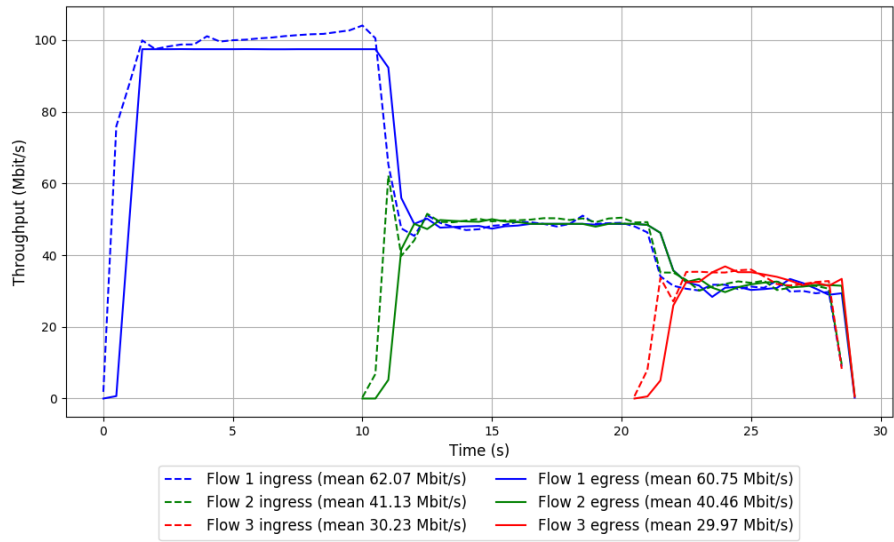


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 12:58:12
End at: 2019-06-28 12:58:42
Local clock offset: -5.499 ms
Remote clock offset: -189.262 ms

```
# Below is generated by plot.py at 2019-06-28 14:08:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.87 Mbit/s
95th percentile per-packet one-way delay: 139.098 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 60.75 Mbit/s
95th percentile per-packet one-way delay: 131.382 ms
Loss rate: 2.77%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 145.694 ms
Loss rate: 2.61%
-- Flow 3:
Average throughput: 29.97 Mbit/s
95th percentile per-packet one-way delay: 142.084 ms
Loss rate: 3.15%
```

Run 4: Report of Indigo-MusesC3 — Data Link

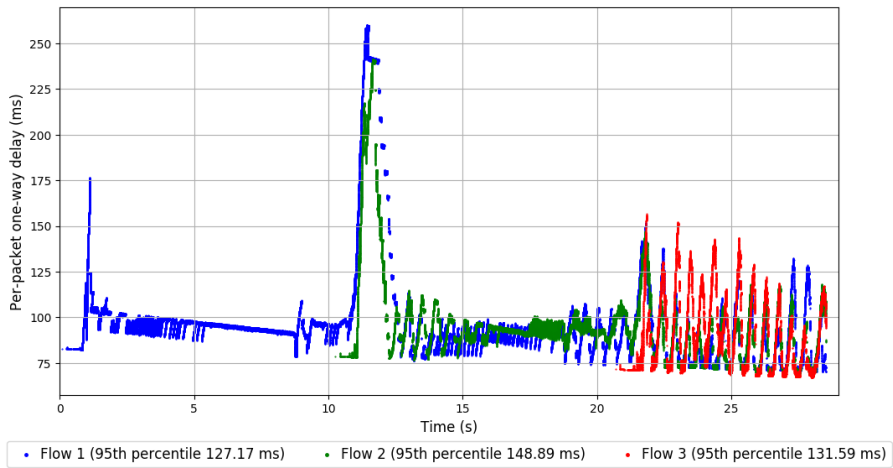
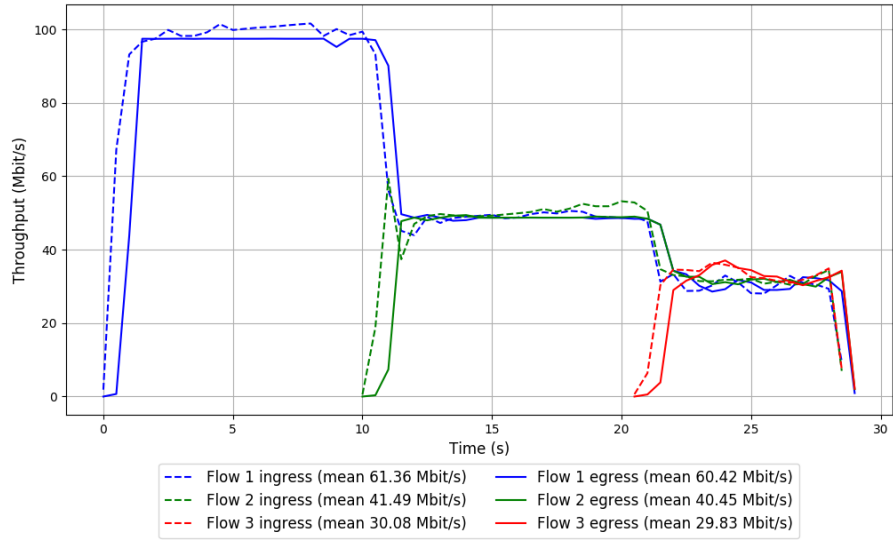


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 13:26:35
End at: 2019-06-28 13:27:05
Local clock offset: -6.413 ms
Remote clock offset: -251.745 ms

```
# Below is generated by plot.py at 2019-06-28 14:08:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.60 Mbit/s
95th percentile per-packet one-way delay: 133.360 ms
Loss rate: 2.63%
-- Flow 1:
Average throughput: 60.42 Mbit/s
95th percentile per-packet one-way delay: 127.171 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 148.888 ms
Loss rate: 3.48%
-- Flow 3:
Average throughput: 29.83 Mbit/s
95th percentile per-packet one-way delay: 131.592 ms
Loss rate: 3.00%
```

Run 5: Report of Indigo-MusesC3 — Data Link

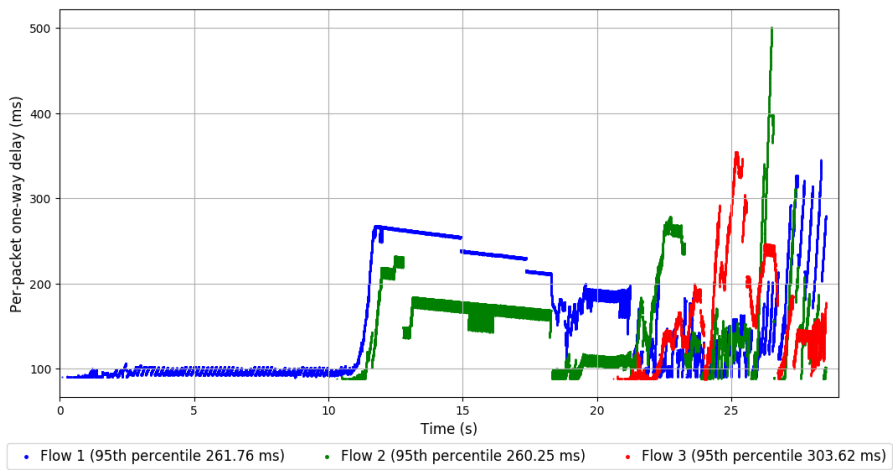
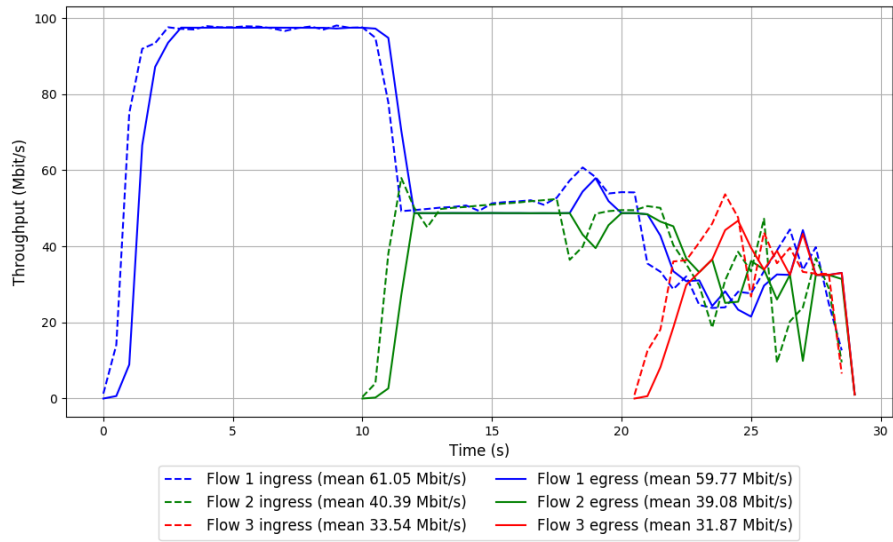


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 11:44:39
End at: 2019-06-28 11:45:09
Local clock offset: -6.331 ms
Remote clock offset: -272.101 ms

```
# Below is generated by plot.py at 2019-06-28 14:09:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 262.578 ms
Loss rate: 3.50%
-- Flow 1:
Average throughput: 59.77 Mbit/s
95th percentile per-packet one-way delay: 261.758 ms
Loss rate: 2.68%
-- Flow 2:
Average throughput: 39.08 Mbit/s
95th percentile per-packet one-way delay: 260.251 ms
Loss rate: 4.15%
-- Flow 3:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 303.619 ms
Loss rate: 6.99%
```

Run 1: Report of Indigo-MusesC5 — Data Link

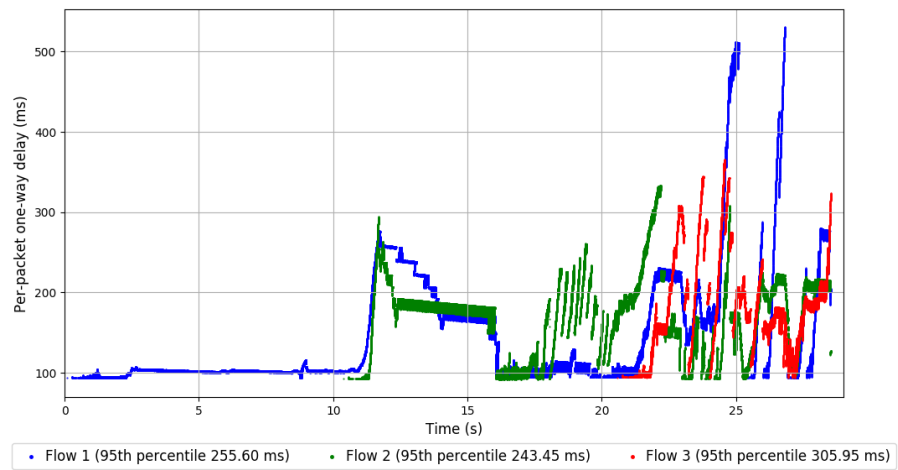
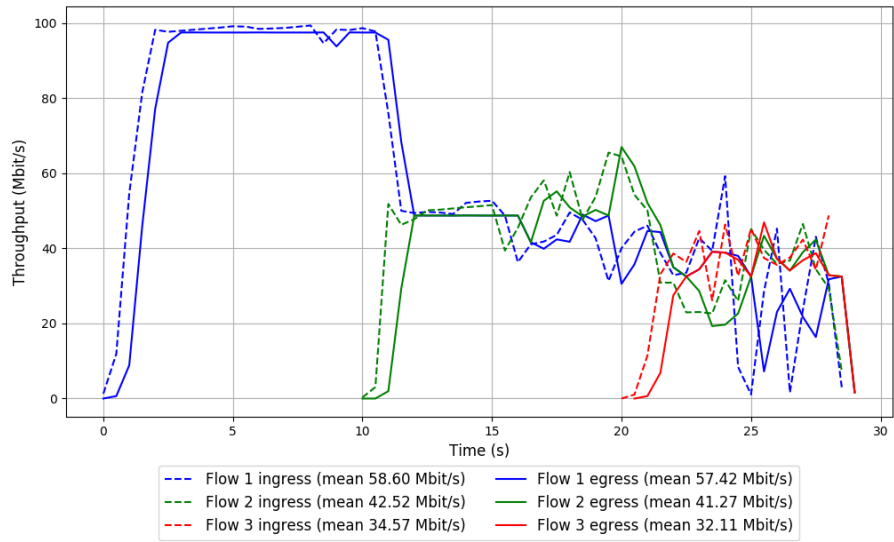


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 12:13:03
End at: 2019-06-28 12:13:33
Local clock offset: -6.74 ms
Remote clock offset: -317.434 ms

```
# Below is generated by plot.py at 2019-06-28 14:09:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.72 Mbit/s
95th percentile per-packet one-way delay: 257.262 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 57.42 Mbit/s
95th percentile per-packet one-way delay: 255.604 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 41.27 Mbit/s
95th percentile per-packet one-way delay: 243.450 ms
Loss rate: 3.85%
-- Flow 3:
Average throughput: 32.11 Mbit/s
95th percentile per-packet one-way delay: 305.953 ms
Loss rate: 7.52%
```

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 12:41:27
End at: 2019-06-28 12:41:57
Local clock offset: -6.29 ms
Remote clock offset: -358.735 ms

Below is generated by plot.py at 2019-06-28 14:09:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 262.010 ms
Loss rate: 2.95%

-- Flow 1:

Average throughput: 57.04 Mbit/s
95th percentile per-packet one-way delay: 260.703 ms
Loss rate: 2.18%

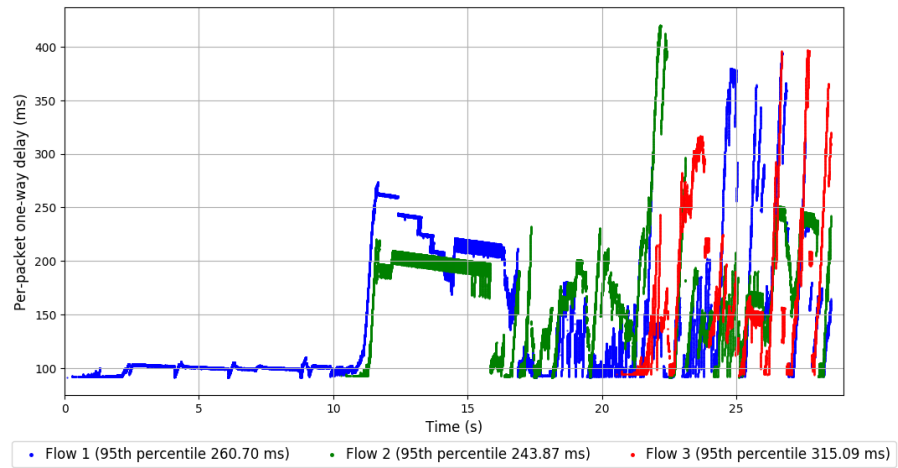
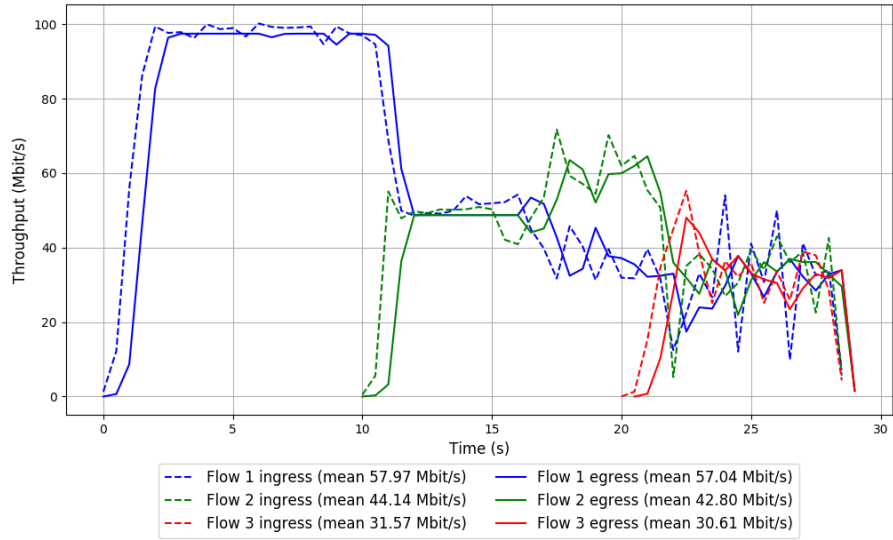
-- Flow 2:

Average throughput: 42.80 Mbit/s
95th percentile per-packet one-way delay: 243.874 ms
Loss rate: 3.84%

-- Flow 3:

Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 315.091 ms
Loss rate: 5.14%

Run 3: Report of Indigo-MusesC5 — Data Link

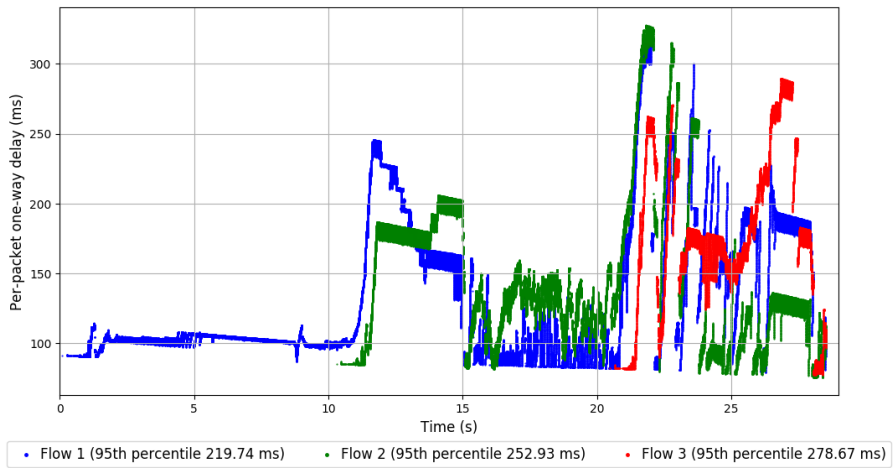
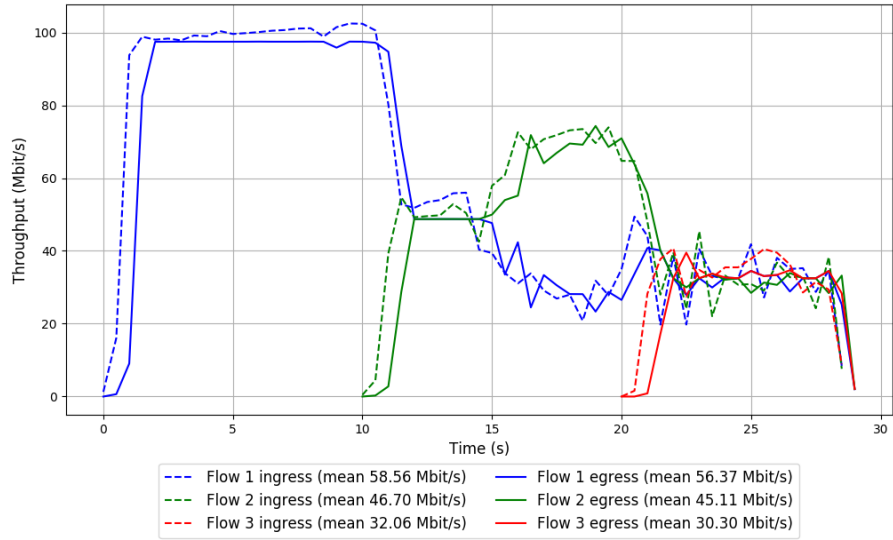


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 13:09:52
End at: 2019-06-28 13:10:22
Local clock offset: -5.658 ms
Remote clock offset: -532.577 ms

```
# Below is generated by plot.py at 2019-06-28 14:09:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.85 Mbit/s
95th percentile per-packet one-way delay: 238.450 ms
Loss rate: 4.63%
-- Flow 1:
Average throughput: 56.37 Mbit/s
95th percentile per-packet one-way delay: 219.743 ms
Loss rate: 4.35%
-- Flow 2:
Average throughput: 45.11 Mbit/s
95th percentile per-packet one-way delay: 252.933 ms
Loss rate: 4.30%
-- Flow 3:
Average throughput: 30.30 Mbit/s
95th percentile per-packet one-way delay: 278.671 ms
Loss rate: 7.52%
```

Run 4: Report of Indigo-MusesC5 — Data Link

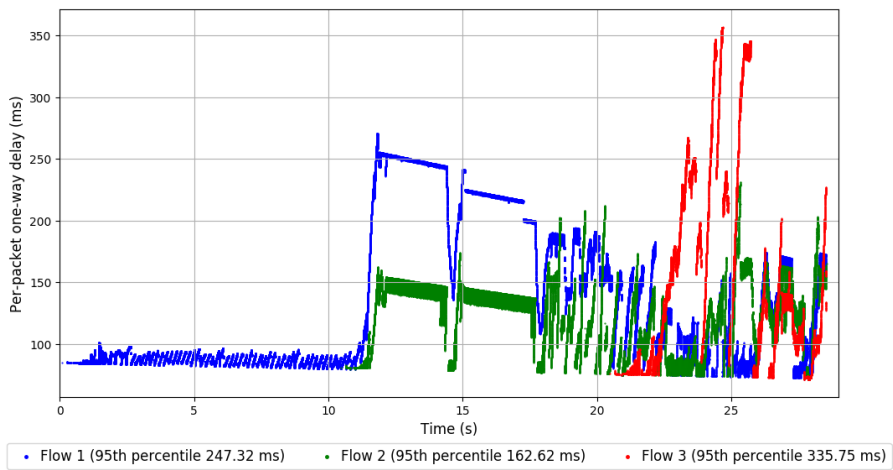
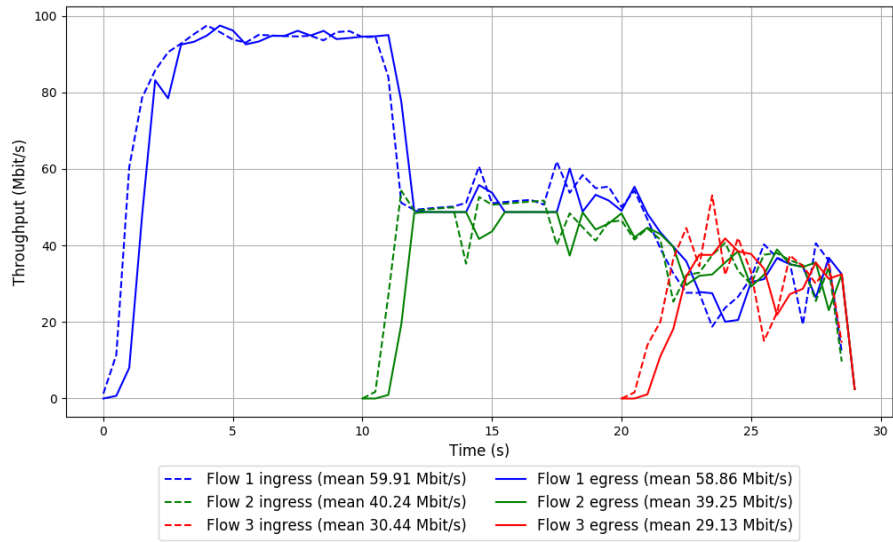


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 13:44:12
End at: 2019-06-28 13:44:42
Local clock offset: -5.867 ms
Remote clock offset: -763.847 ms

```
# Below is generated by plot.py at 2019-06-28 14:09:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.02 Mbit/s
95th percentile per-packet one-way delay: 246.536 ms
Loss rate: 3.02%
-- Flow 1:
Average throughput: 58.86 Mbit/s
95th percentile per-packet one-way delay: 247.319 ms
Loss rate: 2.37%
-- Flow 2:
Average throughput: 39.25 Mbit/s
95th percentile per-packet one-way delay: 162.620 ms
Loss rate: 3.38%
-- Flow 3:
Average throughput: 29.13 Mbit/s
95th percentile per-packet one-way delay: 335.746 ms
Loss rate: 6.39%
```

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 11:41:56
End at: 2019-06-28 11:42:26
Local clock offset: -6.336 ms
Remote clock offset: -266.362 ms

Below is generated by plot.py at 2019-06-28 14:09:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.65 Mbit/s
95th percentile per-packet one-way delay: 206.248 ms
Loss rate: 7.23%

-- Flow 1:

Average throughput: 60.15 Mbit/s
95th percentile per-packet one-way delay: 207.796 ms
Loss rate: 5.73%

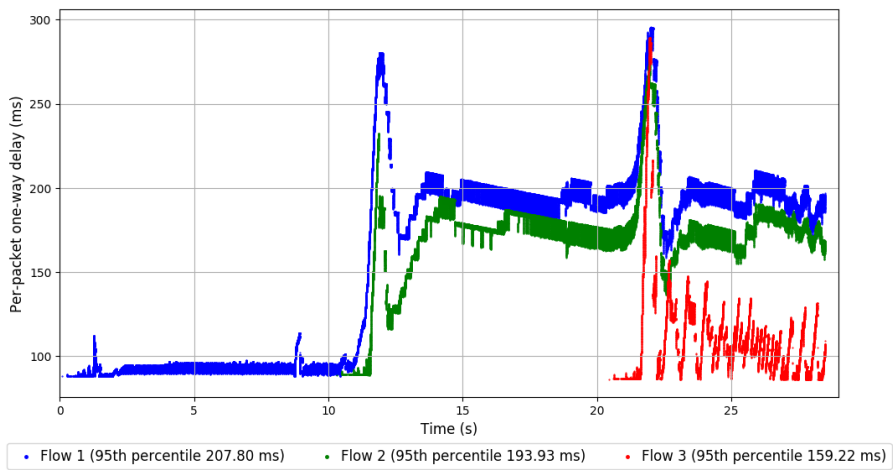
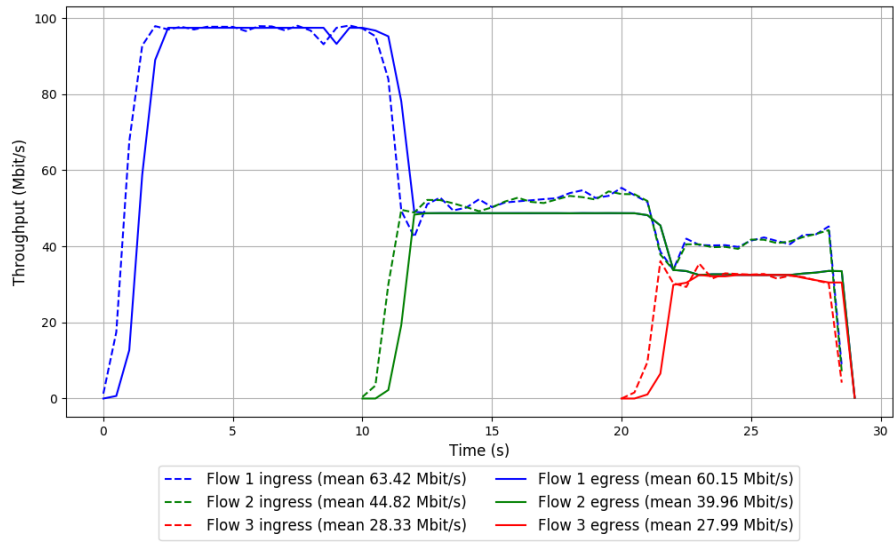
-- Flow 2:

Average throughput: 39.96 Mbit/s
95th percentile per-packet one-way delay: 193.929 ms
Loss rate: 11.67%

-- Flow 3:

Average throughput: 27.99 Mbit/s
95th percentile per-packet one-way delay: 159.222 ms
Loss rate: 3.21%

Run 1: Report of Indigo-MusesD — Data Link

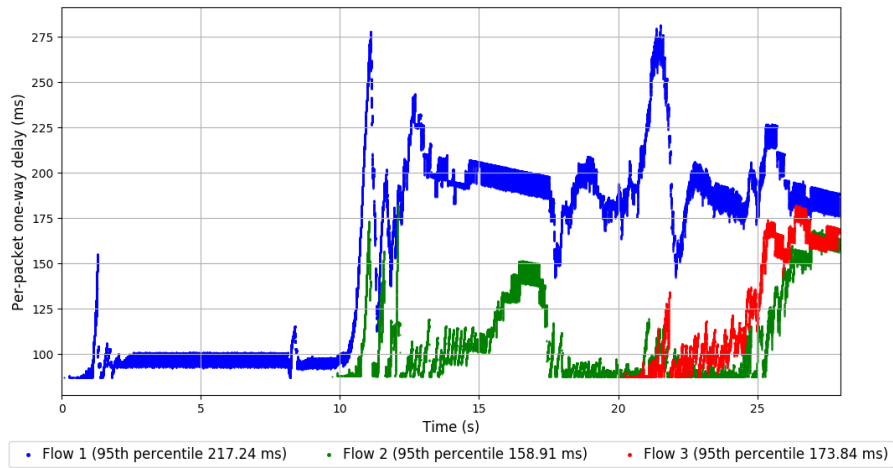
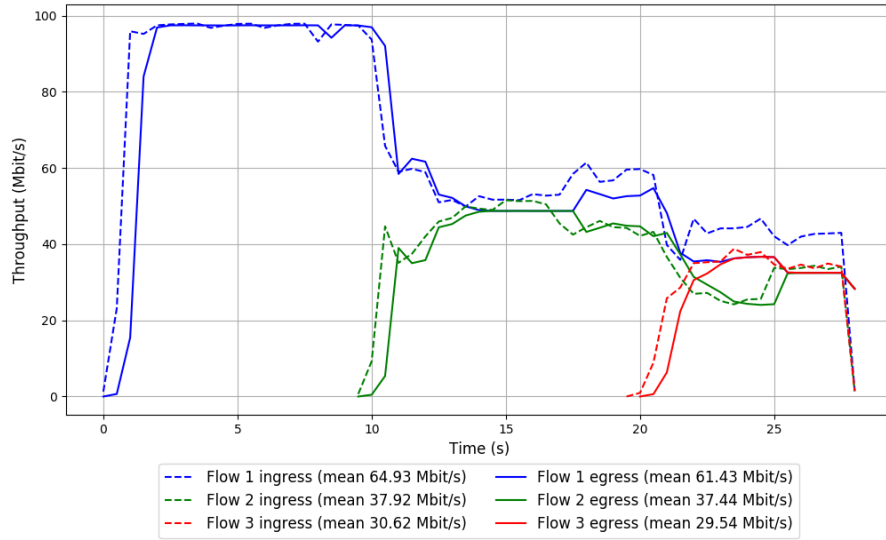


Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 12:10:24
End at: 2019-06-28 12:10:54
Local clock offset: -6.792 ms
Remote clock offset: -309.232 ms

```
# Below is generated by plot.py at 2019-06-28 14:10:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.24 Mbit/s
95th percentile per-packet one-way delay: 206.582 ms
Loss rate: 4.96%
-- Flow 1:
Average throughput: 61.43 Mbit/s
95th percentile per-packet one-way delay: 217.239 ms
Loss rate: 5.95%
-- Flow 2:
Average throughput: 37.44 Mbit/s
95th percentile per-packet one-way delay: 158.910 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 173.845 ms
Loss rate: 5.51%
```

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 12:38:48
End at: 2019-06-28 12:39:18
Local clock offset: -6.305 ms
Remote clock offset: -350.888 ms

Below is generated by plot.py at 2019-06-28 14:10:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.45 Mbit/s
95th percentile per-packet one-way delay: 204.531 ms
Loss rate: 4.91%

-- Flow 1:

Average throughput: 60.56 Mbit/s
95th percentile per-packet one-way delay: 209.195 ms
Loss rate: 5.73%

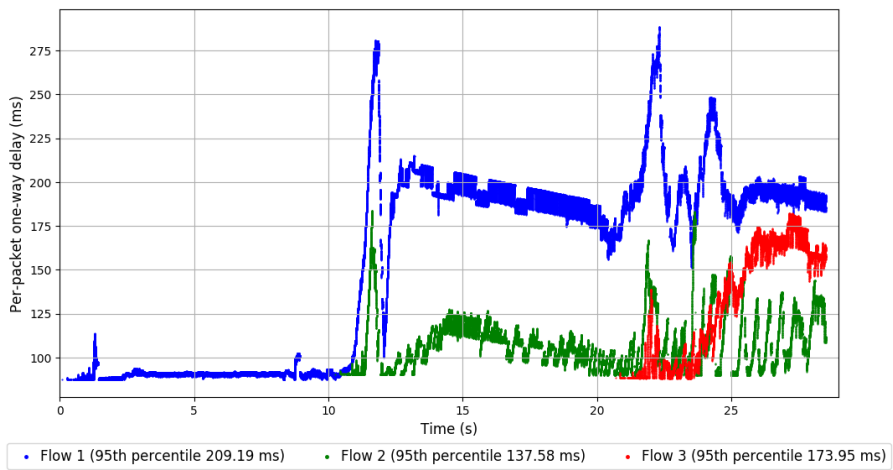
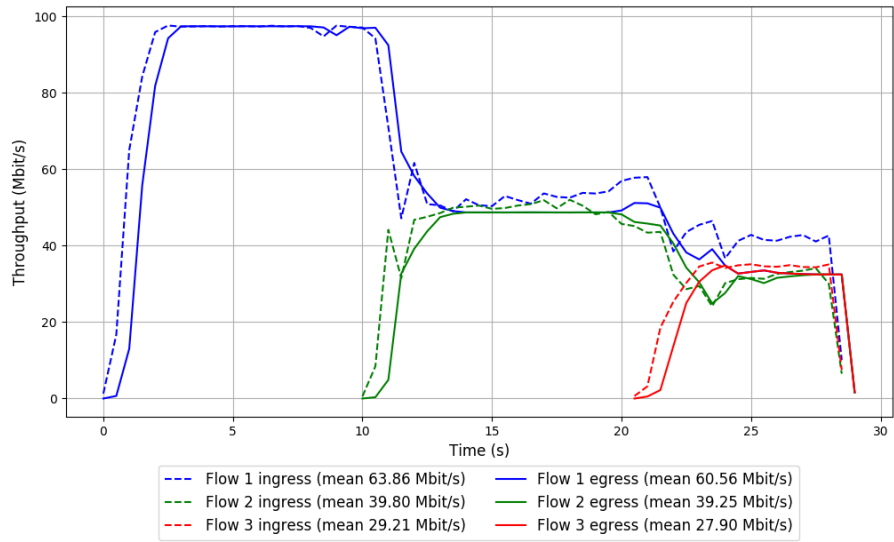
-- Flow 2:

Average throughput: 39.25 Mbit/s
95th percentile per-packet one-way delay: 137.581 ms
Loss rate: 2.33%

-- Flow 3:

Average throughput: 27.90 Mbit/s
95th percentile per-packet one-way delay: 173.947 ms
Loss rate: 6.55%

Run 3: Report of Indigo-MusesD — Data Link

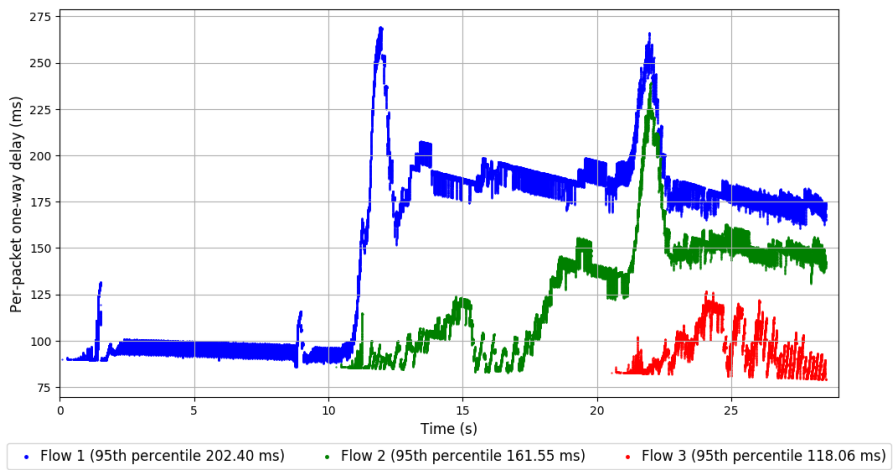
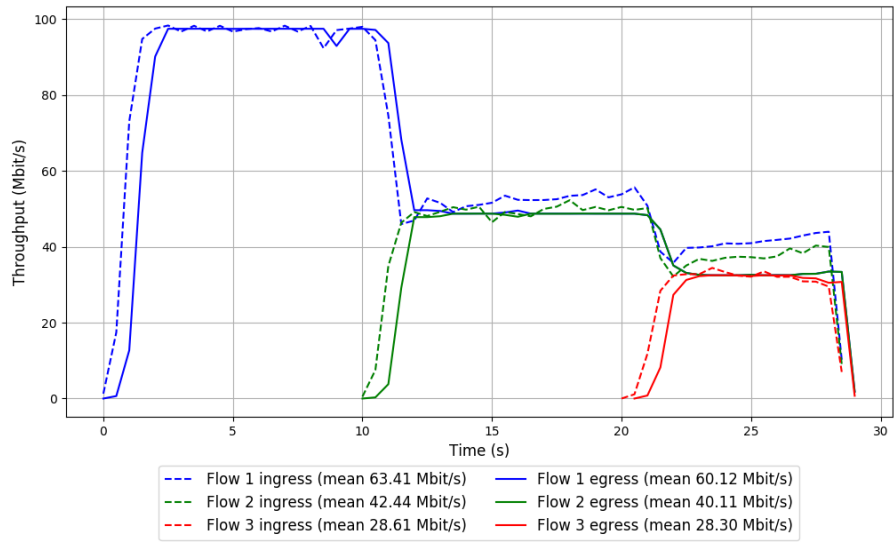


Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 13:07:13
End at: 2019-06-28 13:07:43
Local clock offset: -5.682 ms
Remote clock offset: -456.945 ms

```
# Below is generated by plot.py at 2019-06-28 14:10:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 196.918 ms
Loss rate: 5.76%
-- Flow 1:
Average throughput: 60.12 Mbit/s
95th percentile per-packet one-way delay: 202.400 ms
Loss rate: 5.80%
-- Flow 2:
Average throughput: 40.11 Mbit/s
95th percentile per-packet one-way delay: 161.546 ms
Loss rate: 6.41%
-- Flow 3:
Average throughput: 28.30 Mbit/s
95th percentile per-packet one-way delay: 118.056 ms
Loss rate: 3.23%
```

Run 4: Report of Indigo-MusesD — Data Link

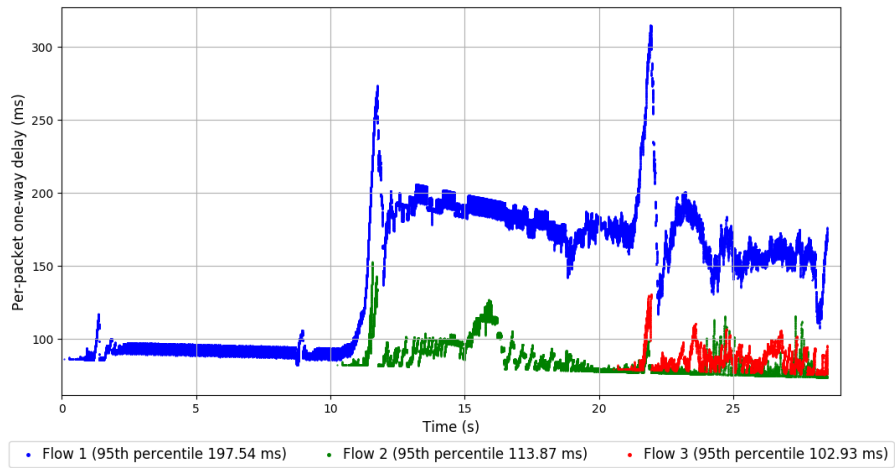
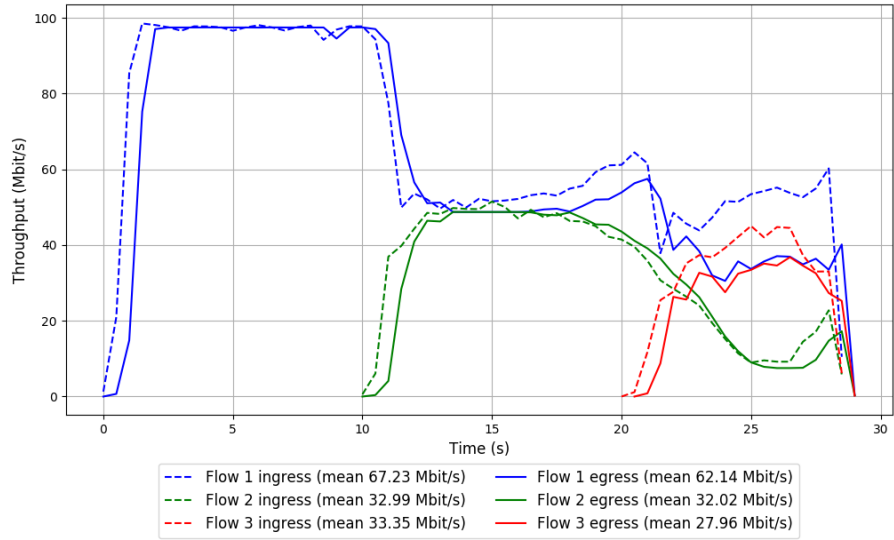


Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 13:35:36
End at: 2019-06-28 13:36:06
Local clock offset: -6.222 ms
Remote clock offset: -518.73 ms

```
# Below is generated by plot.py at 2019-06-28 14:10:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.55 Mbit/s
95th percentile per-packet one-way delay: 195.054 ms
Loss rate: 8.17%
-- Flow 1:
Average throughput: 62.14 Mbit/s
95th percentile per-packet one-way delay: 197.538 ms
Loss rate: 8.15%
-- Flow 2:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 113.869 ms
Loss rate: 3.90%
-- Flow 3:
Average throughput: 27.96 Mbit/s
95th percentile per-packet one-way delay: 102.932 ms
Loss rate: 17.85%
```

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MuseST

Start at: 2019-06-28 11:56:10
End at: 2019-06-28 11:56:40
Local clock offset: -6.204 ms
Remote clock offset: -288.622 ms

Below is generated by plot.py at 2019-06-28 14:10:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 393.645 ms
Loss rate: 5.77%

-- Flow 1:

Average throughput: 58.06 Mbit/s
95th percentile per-packet one-way delay: 412.687 ms
Loss rate: 6.17%

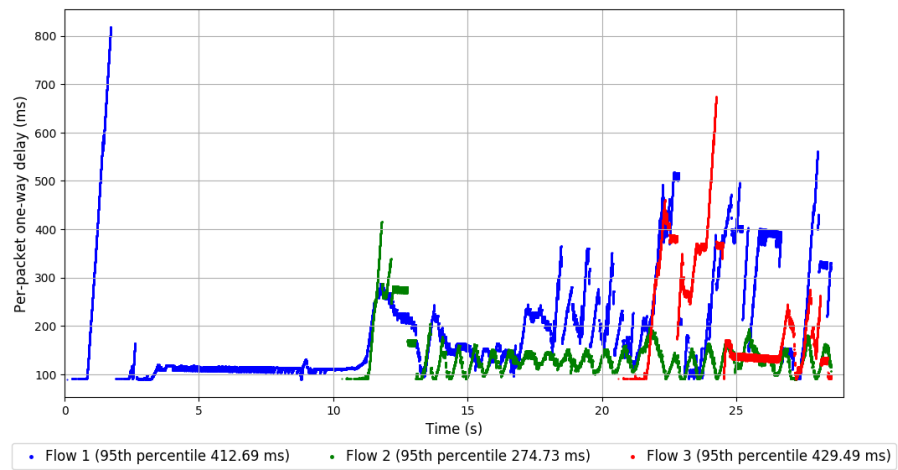
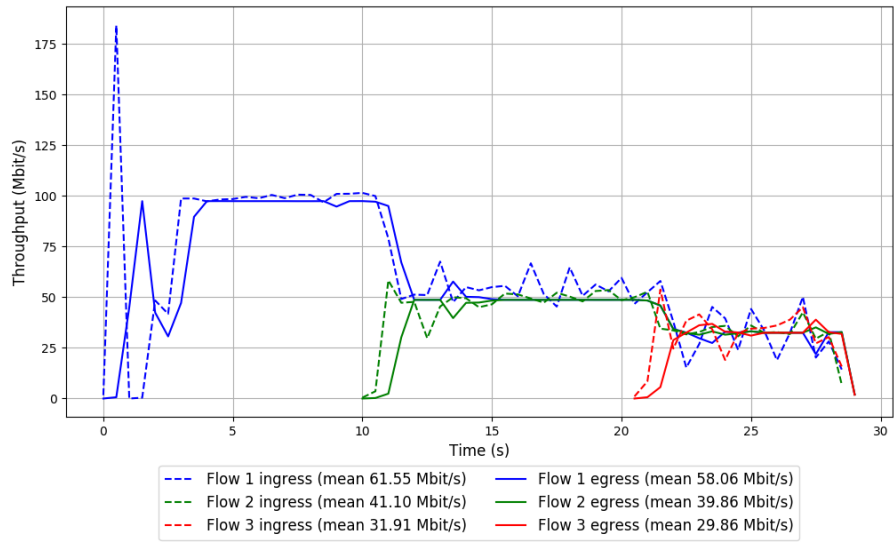
-- Flow 2:

Average throughput: 39.86 Mbit/s
95th percentile per-packet one-way delay: 274.733 ms
Loss rate: 3.94%

-- Flow 3:

Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 429.485 ms
Loss rate: 8.42%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MuseST

Start at: 2019-06-28 12:24:33
End at: 2019-06-28 12:25:03
Local clock offset: -6.171 ms
Remote clock offset: -335.252 ms

Below is generated by plot.py at 2019-06-28 14:10:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.09 Mbit/s
95th percentile per-packet one-way delay: 394.739 ms
Loss rate: 7.36%

-- Flow 1:

Average throughput: 61.80 Mbit/s
95th percentile per-packet one-way delay: 383.238 ms
Loss rate: 6.36%

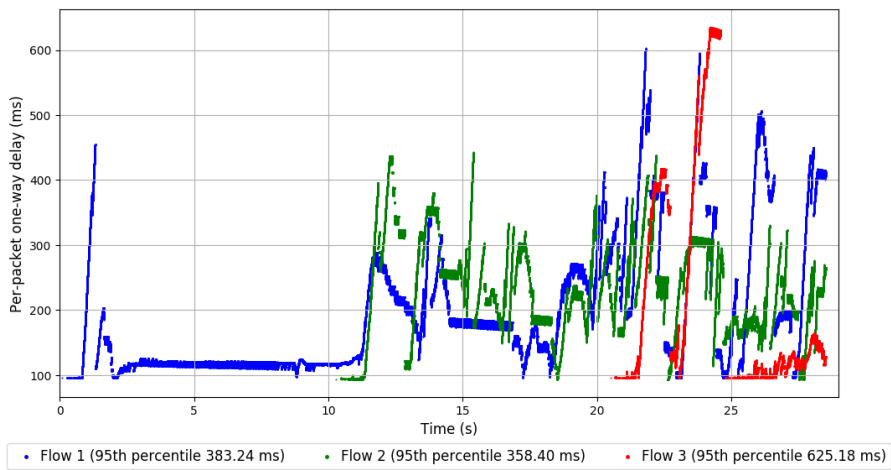
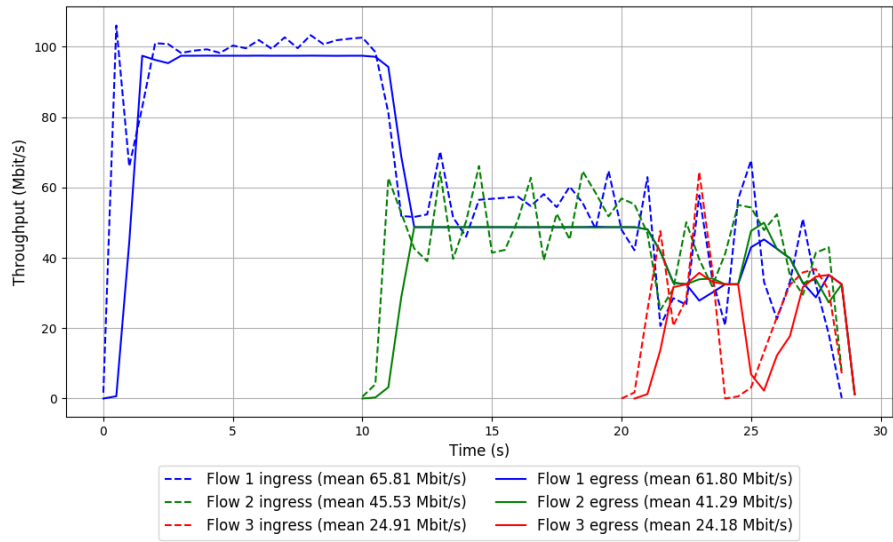
-- Flow 2:

Average throughput: 41.29 Mbit/s
95th percentile per-packet one-way delay: 358.405 ms
Loss rate: 10.17%

-- Flow 3:

Average throughput: 24.18 Mbit/s
95th percentile per-packet one-way delay: 625.180 ms
Loss rate: 4.98%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MuseST

Start at: 2019-06-28 12:52:58
End at: 2019-06-28 12:53:28
Local clock offset: -6.472 ms
Remote clock offset: -42.096 ms

Below is generated by plot.py at 2019-06-28 14:11:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.42 Mbit/s
95th percentile per-packet one-way delay: 475.783 ms
Loss rate: 5.86%

-- Flow 1:

Average throughput: 56.97 Mbit/s
95th percentile per-packet one-way delay: 474.151 ms
Loss rate: 5.45%

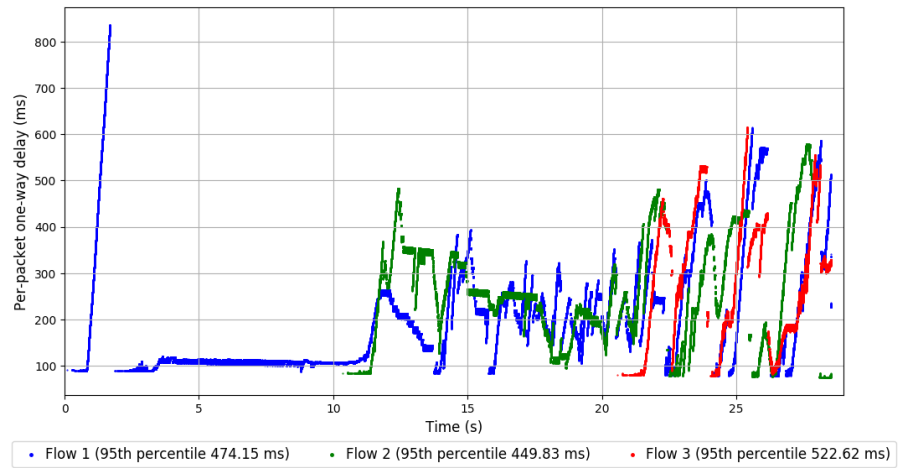
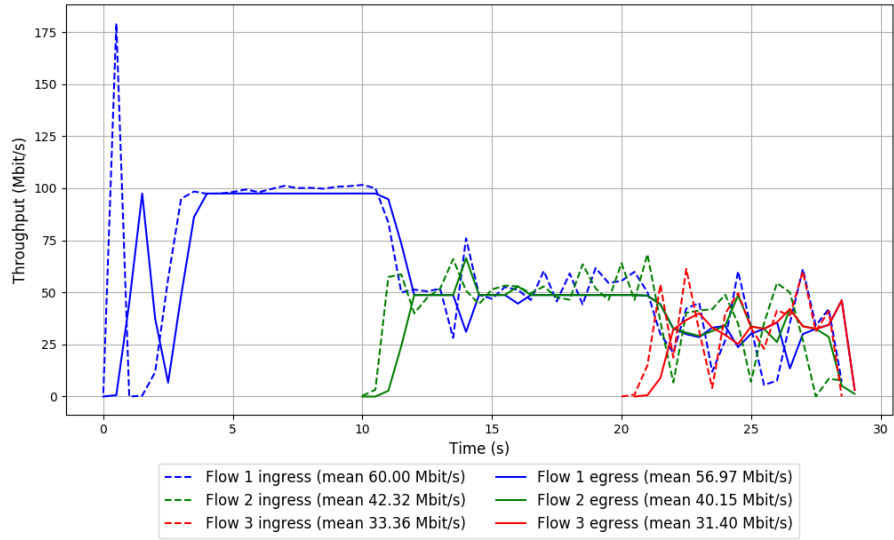
-- Flow 2:

Average throughput: 40.15 Mbit/s
95th percentile per-packet one-way delay: 449.835 ms
Loss rate: 6.04%

-- Flow 3:

Average throughput: 31.40 Mbit/s
95th percentile per-packet one-way delay: 522.616 ms
Loss rate: 7.93%

Run 3: Report of Indigo-MusesT — Data Link

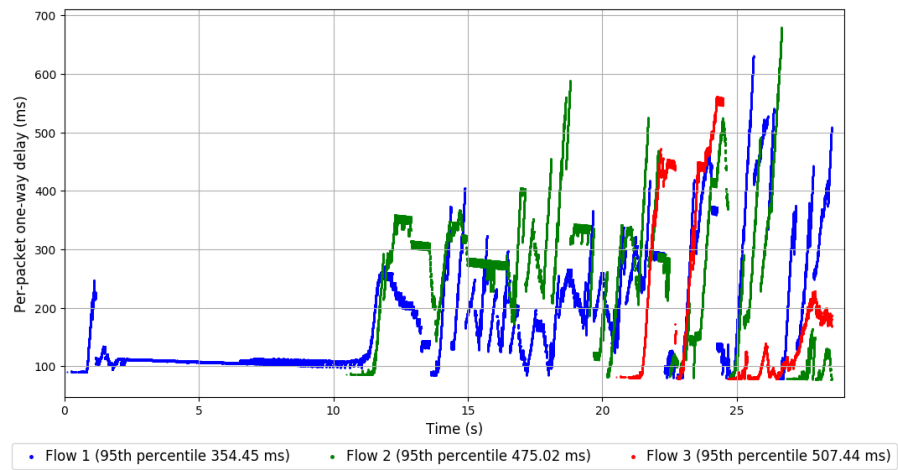
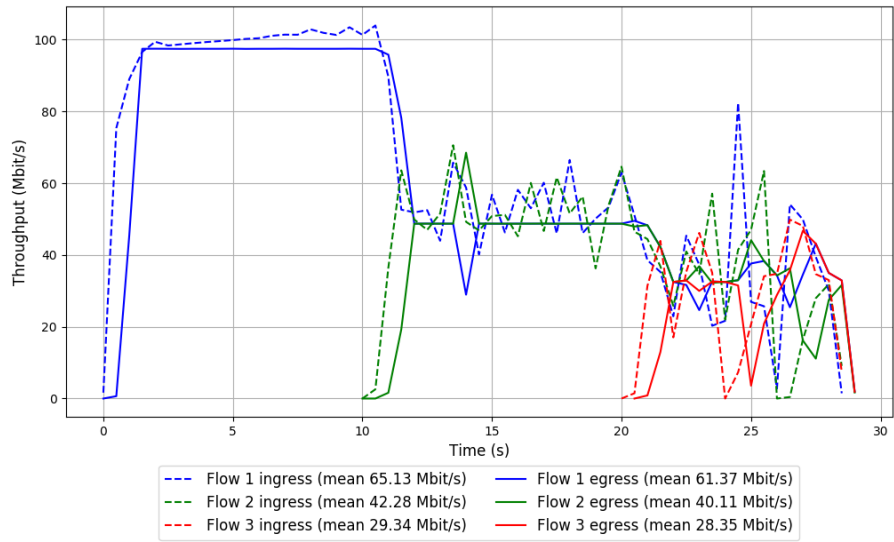


Run 4: Statistics of Indigo-MuseST

Start at: 2019-06-28 13:21:21
End at: 2019-06-28 13:21:51
Local clock offset: -5.421 ms
Remote clock offset: -109.008 ms

```
# Below is generated by plot.py at 2019-06-28 14:11:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.83 Mbit/s
95th percentile per-packet one-way delay: 437.662 ms
Loss rate: 6.01%
-- Flow 1:
Average throughput: 61.37 Mbit/s
95th percentile per-packet one-way delay: 354.453 ms
Loss rate: 6.07%
-- Flow 2:
Average throughput: 40.11 Mbit/s
95th percentile per-packet one-way delay: 475.018 ms
Loss rate: 6.05%
-- Flow 3:
Average throughput: 28.35 Mbit/s
95th percentile per-packet one-way delay: 507.439 ms
Loss rate: 5.37%
```

Run 4: Report of Indigo-MusesT — Data Link

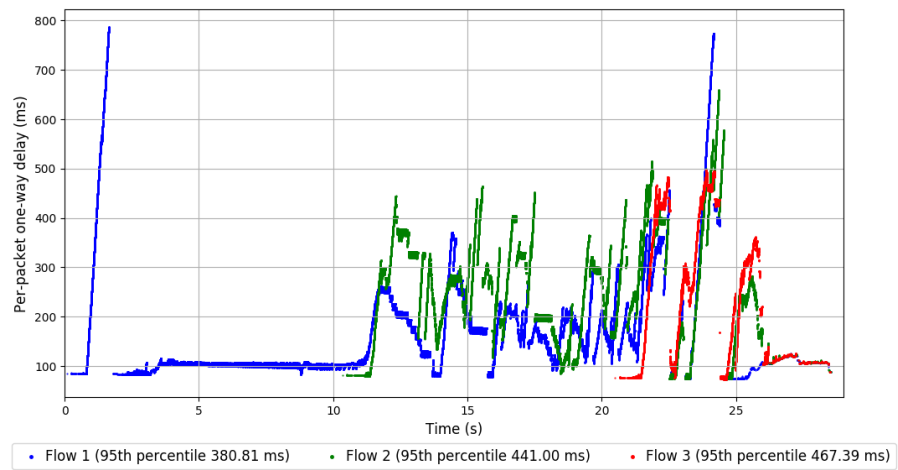
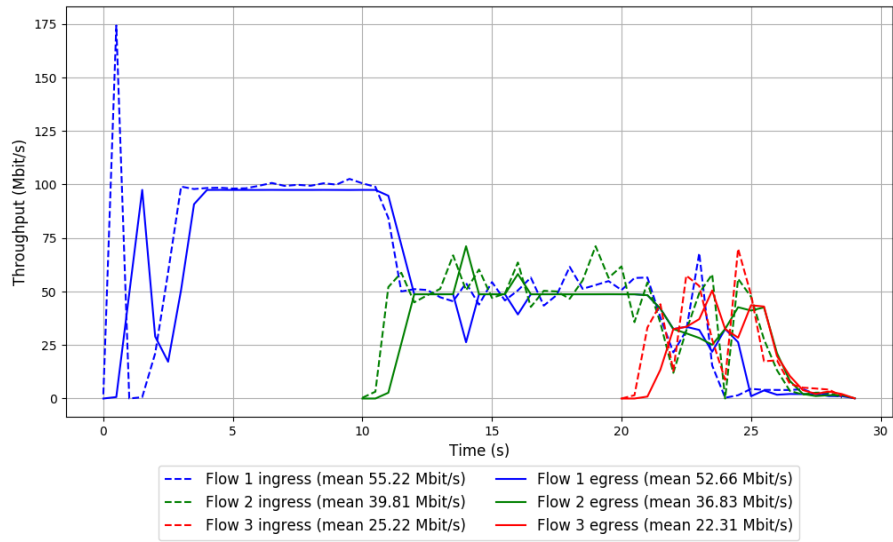


Run 5: Statistics of Indigo-MuseST

Start at: 2019-06-28 13:58:27
End at: 2019-06-28 13:58:57
Local clock offset: -6.008 ms
Remote clock offset: -1179.796 ms

```
# Below is generated by plot.py at 2019-06-28 14:11:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.48 Mbit/s
95th percentile per-packet one-way delay: 436.882 ms
Loss rate: 6.85%
-- Flow 1:
Average throughput: 52.66 Mbit/s
95th percentile per-packet one-way delay: 380.814 ms
Loss rate: 5.22%
-- Flow 2:
Average throughput: 36.83 Mbit/s
95th percentile per-packet one-way delay: 440.999 ms
Loss rate: 8.45%
-- Flow 3:
Average throughput: 22.31 Mbit/s
95th percentile per-packet one-way delay: 467.389 ms
Loss rate: 13.62%
```

Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-06-28 11:53:38
End at: 2019-06-28 11:54:08
Local clock offset: -6.547 ms
Remote clock offset: -284.862 ms

Below is generated by plot.py at 2019-06-28 14:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.46 Mbit/s
95th percentile per-packet one-way delay: 89.941 ms
Loss rate: 1.48%

-- Flow 1:

Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 90.054 ms
Loss rate: 1.16%

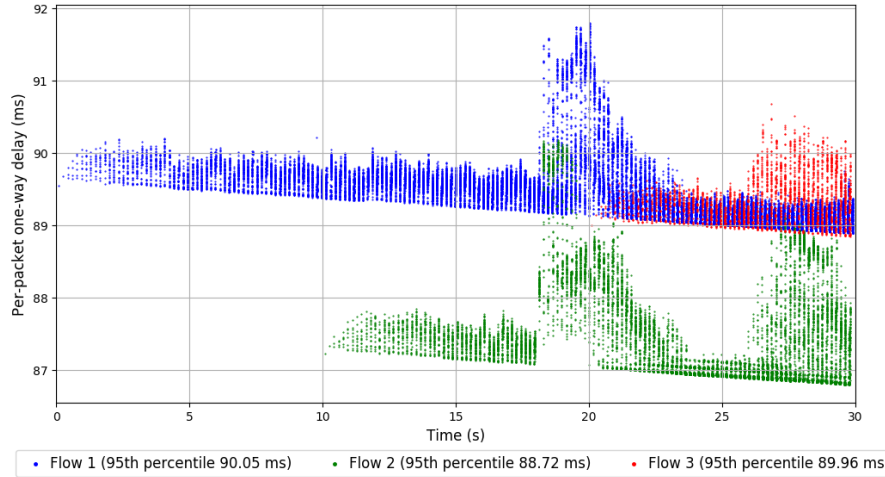
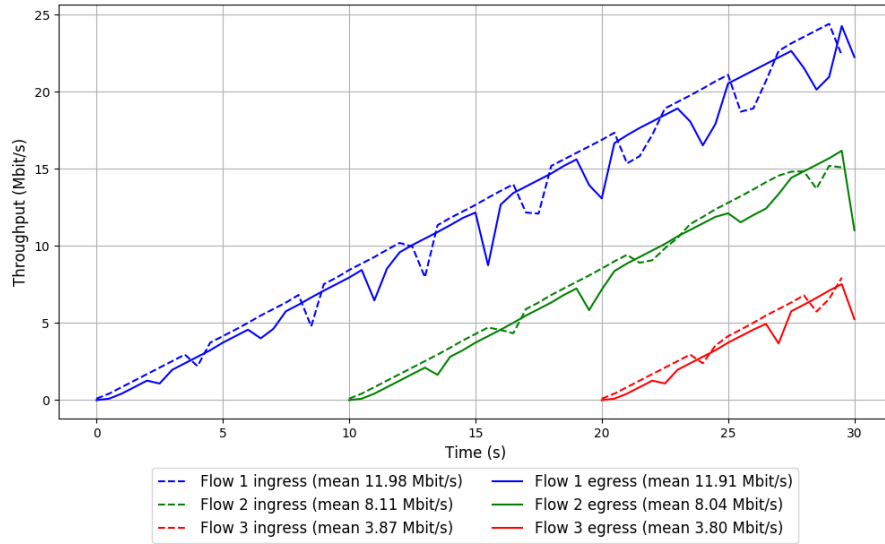
-- Flow 2:

Average throughput: 8.04 Mbit/s
95th percentile per-packet one-way delay: 88.720 ms
Loss rate: 1.73%

-- Flow 3:

Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 89.962 ms
Loss rate: 3.53%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-06-28 12:22:00
End at: 2019-06-28 12:22:30
Local clock offset: -6.265 ms
Remote clock offset: -330.193 ms

Below is generated by plot.py at 2019-06-28 14:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.83 Mbit/s
95th percentile per-packet one-way delay: 92.360 ms
Loss rate: 1.47%

-- Flow 1:

Average throughput: 12.22 Mbit/s
95th percentile per-packet one-way delay: 92.391 ms
Loss rate: 1.14%

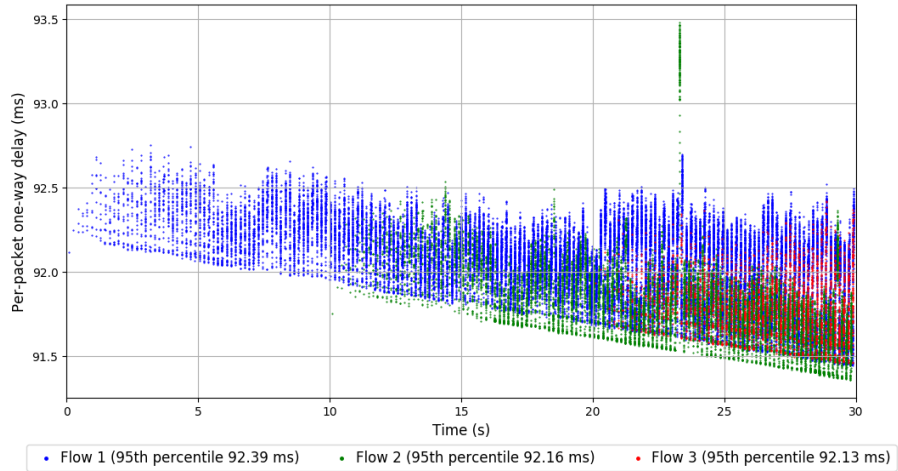
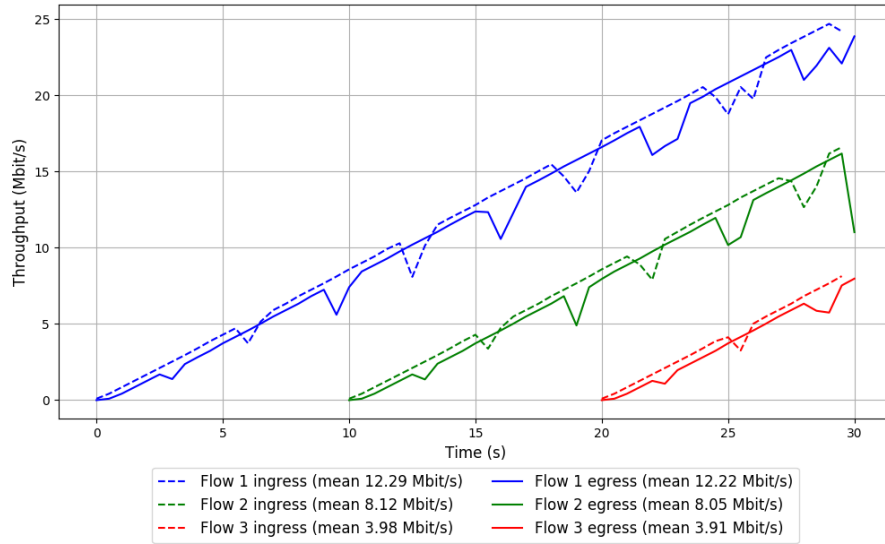
-- Flow 2:

Average throughput: 8.05 Mbit/s
95th percentile per-packet one-way delay: 92.158 ms
Loss rate: 1.73%

-- Flow 3:

Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 92.131 ms
Loss rate: 3.49%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-06-28 12:50:26

End at: 2019-06-28 12:50:56

Local clock offset: -6.654 ms

Remote clock offset: 132.3 ms

Below is generated by plot.py at 2019-06-28 14:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.39 Mbit/s

95th percentile per-packet one-way delay: 112.059 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 12.02 Mbit/s

95th percentile per-packet one-way delay: 110.180 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 112.248 ms

Loss rate: 1.76%

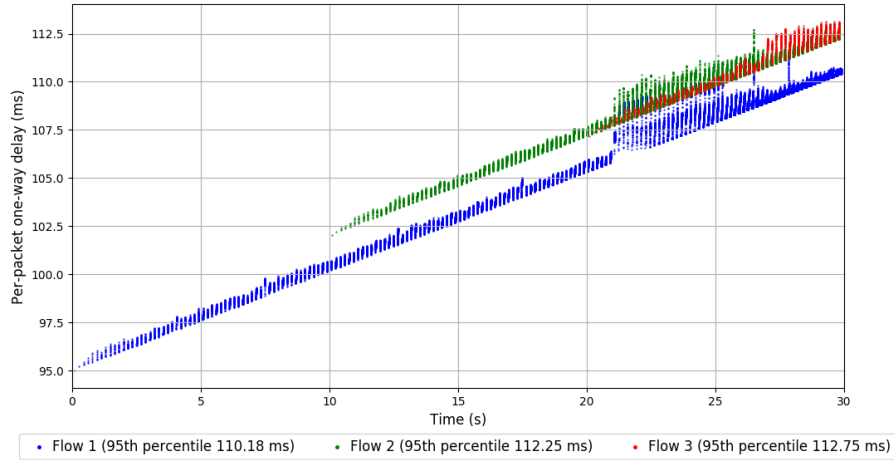
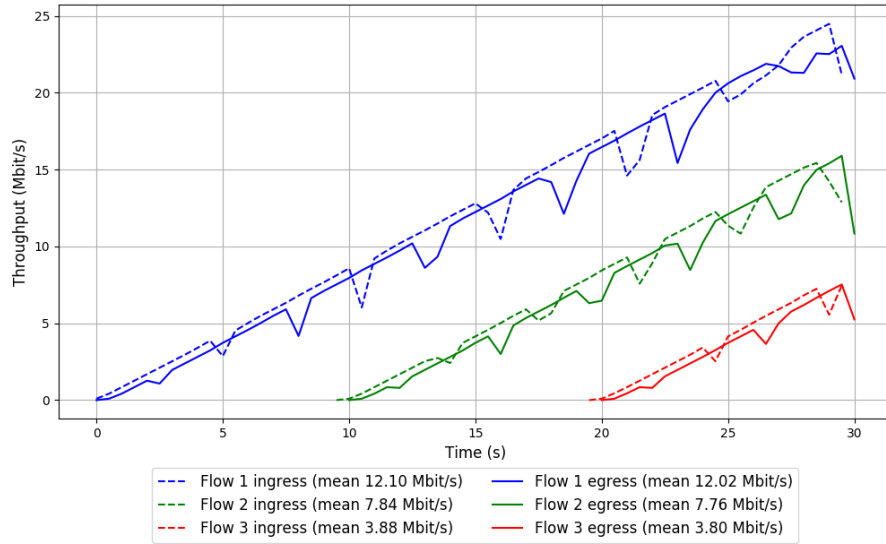
-- Flow 3:

Average throughput: 3.80 Mbit/s

95th percentile per-packet one-way delay: 112.749 ms

Loss rate: 3.53%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-06-28 13:18:49
End at: 2019-06-28 13:19:19
Local clock offset: -5.613 ms
Remote clock offset: -31.806 ms

Below is generated by plot.py at 2019-06-28 14:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.47 Mbit/s
95th percentile per-packet one-way delay: 83.722 ms
Loss rate: 1.48%

-- Flow 1:

Average throughput: 11.97 Mbit/s
95th percentile per-packet one-way delay: 84.400 ms
Loss rate: 1.15%

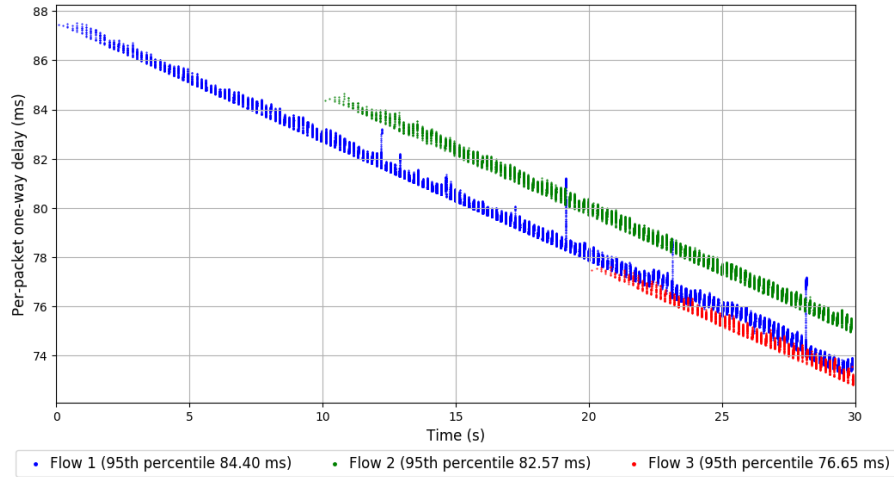
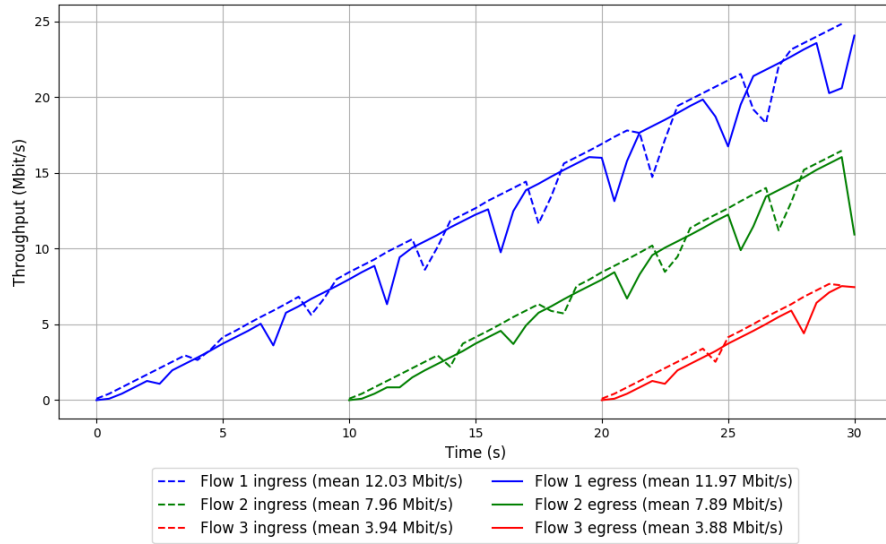
-- Flow 2:

Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 82.574 ms
Loss rate: 1.74%

-- Flow 3:

Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 76.654 ms
Loss rate: 3.46%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-06-28 13:55:27
End at: 2019-06-28 13:55:57
Local clock offset: -6.785 ms
Remote clock offset: -1089.468 ms

Below is generated by plot.py at 2019-06-28 14:11:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.56 Mbit/s
95th percentile per-packet one-way delay: 79.818 ms
Loss rate: 1.48%

-- Flow 1:

Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 80.662 ms
Loss rate: 1.15%

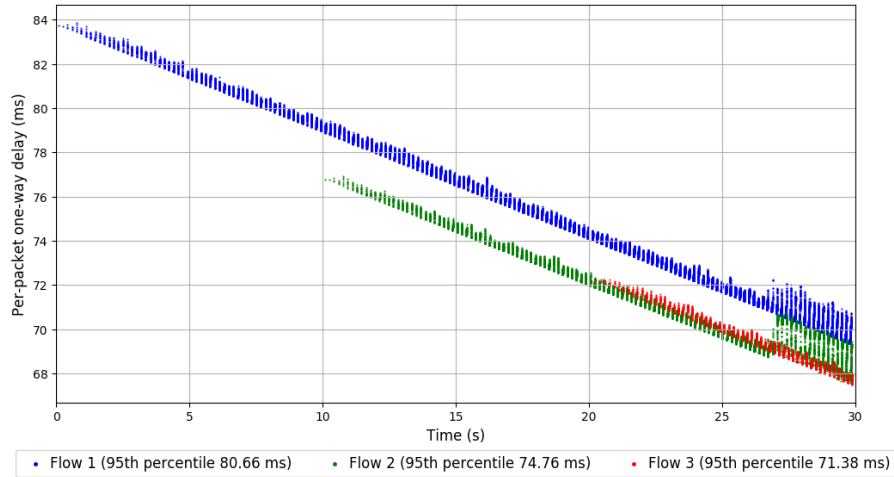
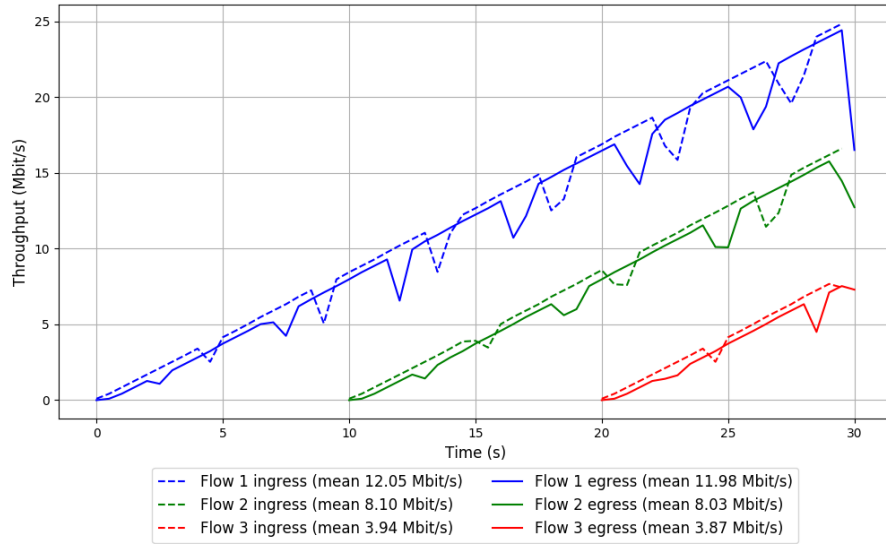
-- Flow 2:

Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 74.763 ms
Loss rate: 1.73%

-- Flow 3:

Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 71.382 ms
Loss rate: 3.50%

Run 5: Report of LEDBAT — Data Link

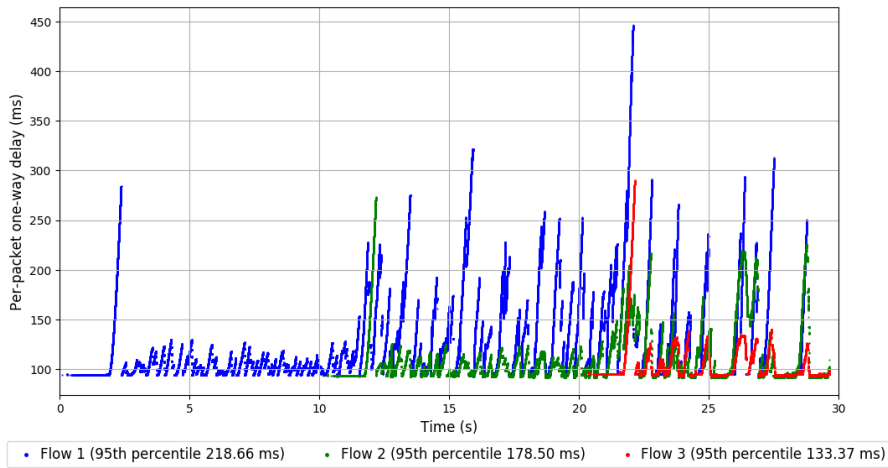
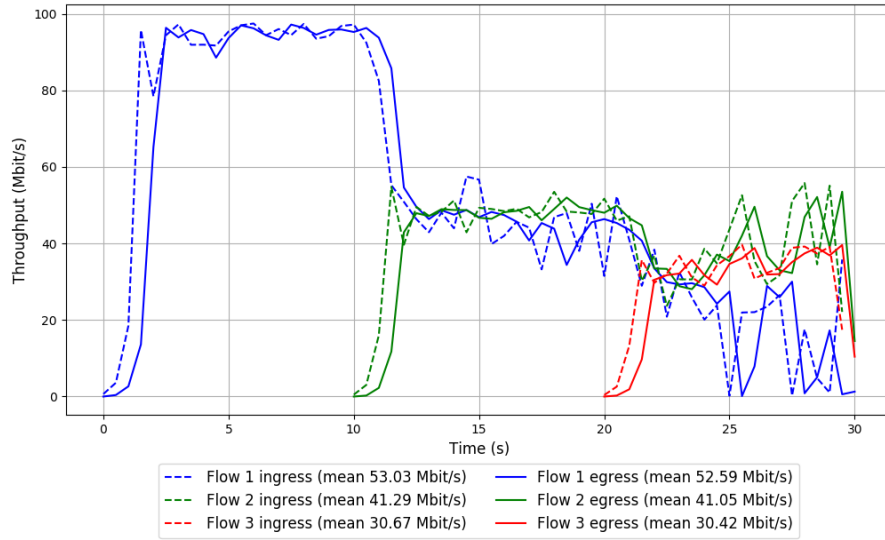


Run 1: Statistics of Muses_DecisionTree

Start at: 2019-06-28 11:45:57
End at: 2019-06-28 11:46:27
Local clock offset: -6.768 ms
Remote clock offset: -278.689 ms

Below is generated by plot.py at 2019-06-28 14:11:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.38 Mbit/s
95th percentile per-packet one-way delay: 204.149 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 52.59 Mbit/s
95th percentile per-packet one-way delay: 218.664 ms
Loss rate: 1.40%
-- Flow 2:
Average throughput: 41.05 Mbit/s
95th percentile per-packet one-way delay: 178.496 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 30.42 Mbit/s
95th percentile per-packet one-way delay: 133.370 ms
Loss rate: 2.62%

Run 1: Report of Muses_DecisionTree — Data Link



Run 2: Statistics of Muses_DecisionTree

Start at: 2019-06-28 12:14:21
End at: 2019-06-28 12:14:51
Local clock offset: -6.398 ms
Remote clock offset: -318.981 ms

Below is generated by plot.py at 2019-06-28 14:11:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.01 Mbit/s
95th percentile per-packet one-way delay: 221.449 ms
Loss rate: 0.94%

-- Flow 1:

Average throughput: 53.86 Mbit/s
95th percentile per-packet one-way delay: 242.277 ms
Loss rate: 0.61%

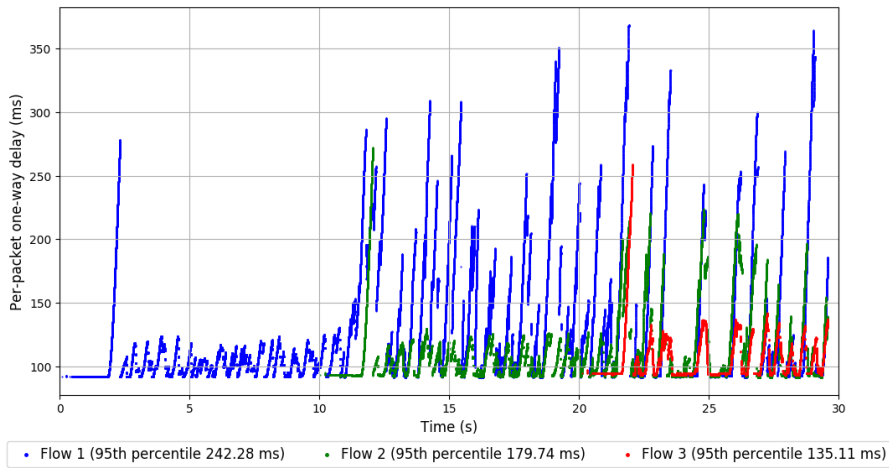
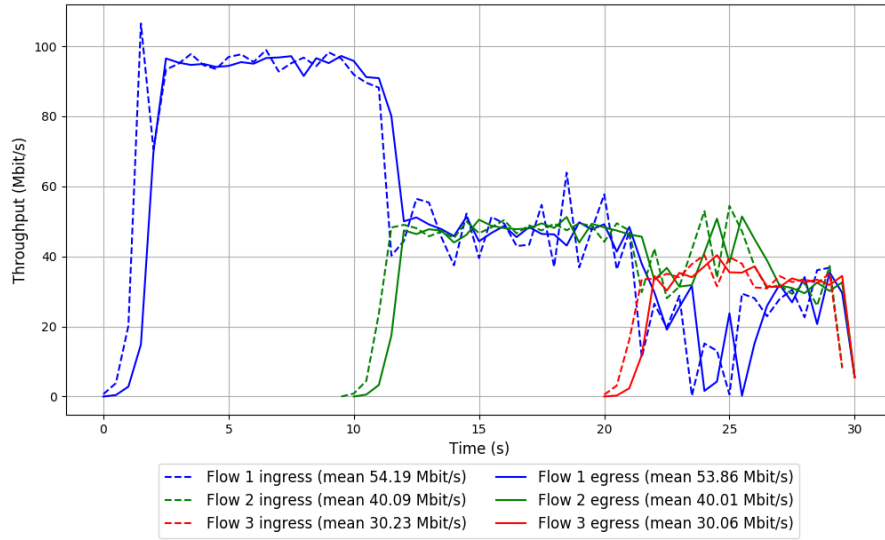
-- Flow 2:

Average throughput: 40.01 Mbit/s
95th percentile per-packet one-way delay: 179.742 ms
Loss rate: 1.06%

-- Flow 3:

Average throughput: 30.06 Mbit/s
95th percentile per-packet one-way delay: 135.112 ms
Loss rate: 2.37%

Run 2: Report of Muses_DecisionTree — Data Link



Run 3: Statistics of Muses_DecisionTree

Start at: 2019-06-28 12:42:45
End at: 2019-06-28 12:43:15
Local clock offset: -5.933 ms
Remote clock offset: -357.932 ms

Below is generated by plot.py at 2019-06-28 14:11:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 249.123 ms
Loss rate: 0.93%

-- Flow 1:

Average throughput: 54.71 Mbit/s
95th percentile per-packet one-way delay: 272.906 ms
Loss rate: 0.52%

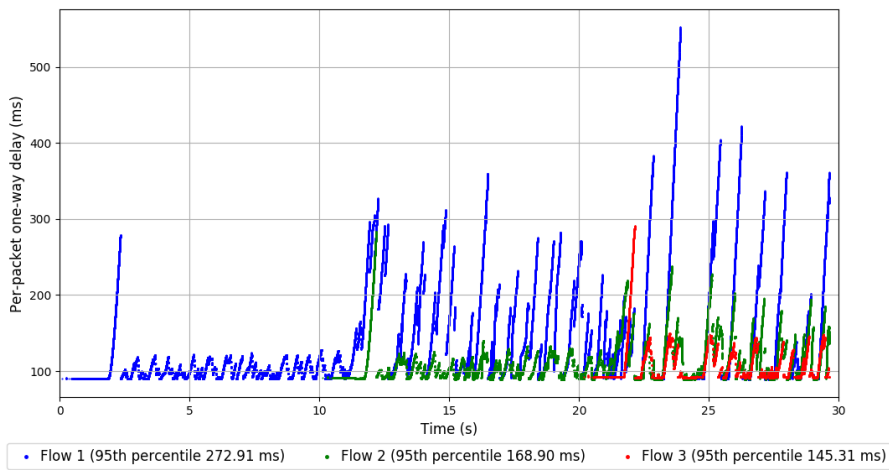
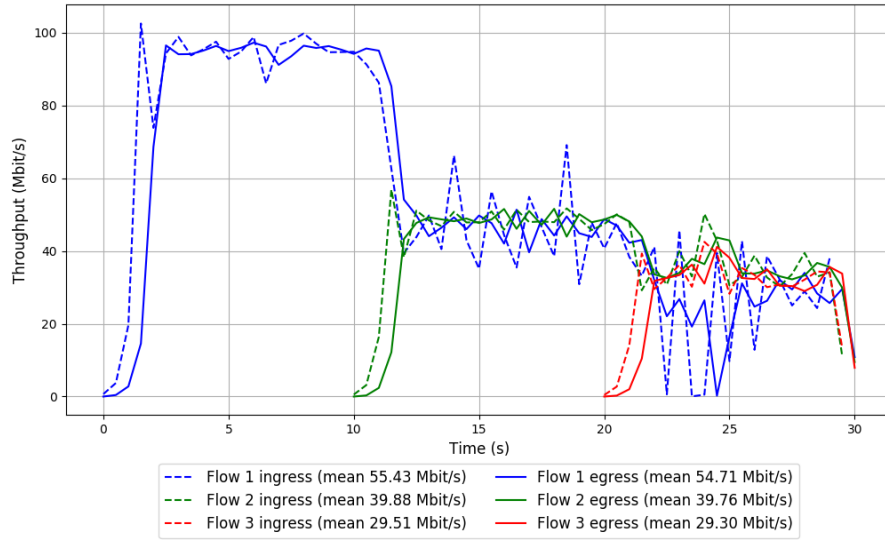
-- Flow 2:

Average throughput: 39.76 Mbit/s
95th percentile per-packet one-way delay: 168.901 ms
Loss rate: 1.19%

-- Flow 3:

Average throughput: 29.30 Mbit/s
95th percentile per-packet one-way delay: 145.314 ms
Loss rate: 2.52%

Run 3: Report of Muses_DecisionTree — Data Link



Run 4: Statistics of Muses_DecisionTree

Start at: 2019-06-28 13:11:10
End at: 2019-06-28 13:11:40
Local clock offset: -5.683 ms
Remote clock offset: -571.362 ms

Below is generated by plot.py at 2019-06-28 14:11:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.89 Mbit/s
95th percentile per-packet one-way delay: 205.882 ms
Loss rate: 1.43%

-- Flow 1:

Average throughput: 51.34 Mbit/s
95th percentile per-packet one-way delay: 230.192 ms
Loss rate: 1.23%

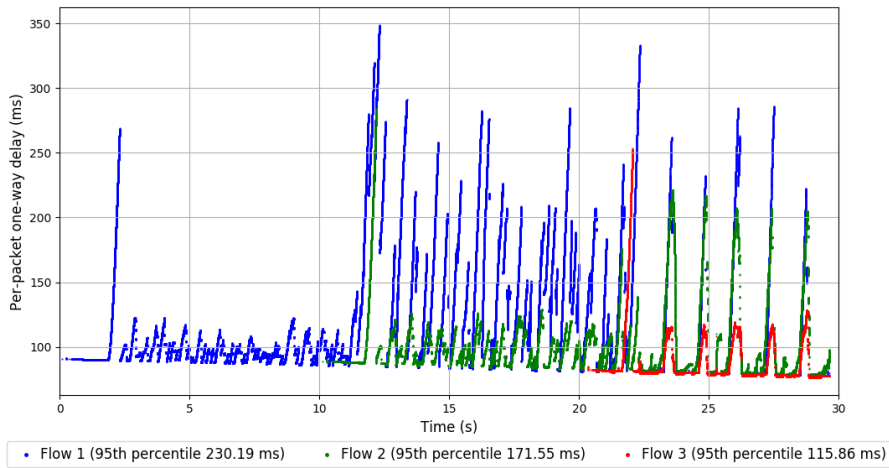
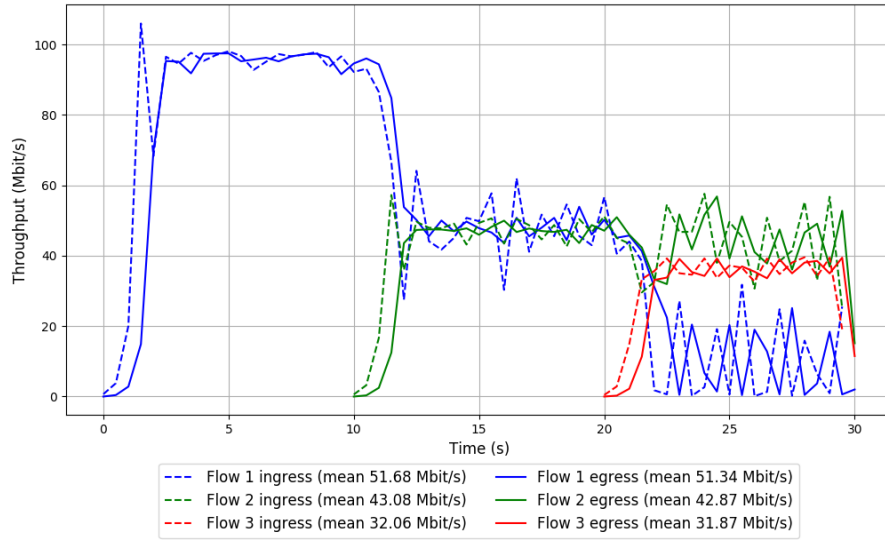
-- Flow 2:

Average throughput: 42.87 Mbit/s
95th percentile per-packet one-way delay: 171.552 ms
Loss rate: 1.42%

-- Flow 3:

Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 115.865 ms
Loss rate: 2.39%

Run 4: Report of Muses_DecisionTree — Data Link



Run 5: Statistics of Muses_DecisionTree

Start at: 2019-06-28 13:45:30
End at: 2019-06-28 13:46:00
Local clock offset: -6.237 ms
Remote clock offset: -805.284 ms

Below is generated by plot.py at 2019-06-28 14:11:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.63 Mbit/s
95th percentile per-packet one-way delay: 201.991 ms
Loss rate: 1.00%

-- Flow 1:

Average throughput: 53.04 Mbit/s
95th percentile per-packet one-way delay: 224.151 ms
Loss rate: 0.37%

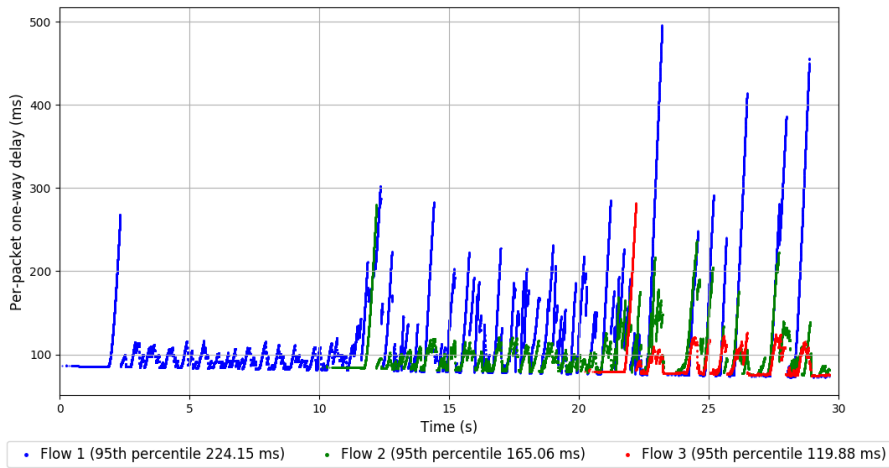
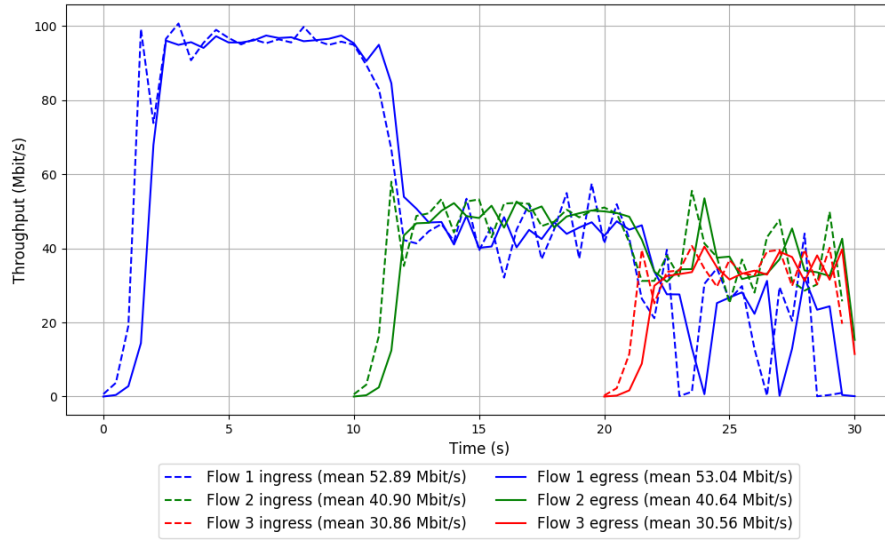
-- Flow 2:

Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 165.059 ms
Loss rate: 1.57%

-- Flow 3:

Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 119.879 ms
Loss rate: 2.82%

Run 5: Report of Muses_DecisionTree — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 11:39:22
End at: 2019-06-28 11:39:52
Local clock offset: -6.414 ms
Remote clock offset: -268.047 ms

Below is generated by plot.py at 2019-06-28 14:12:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 1474.962 ms
Loss rate: 23.30%

-- Flow 1:

Average throughput: 54.49 Mbit/s
95th percentile per-packet one-way delay: 1555.382 ms
Loss rate: 26.55%

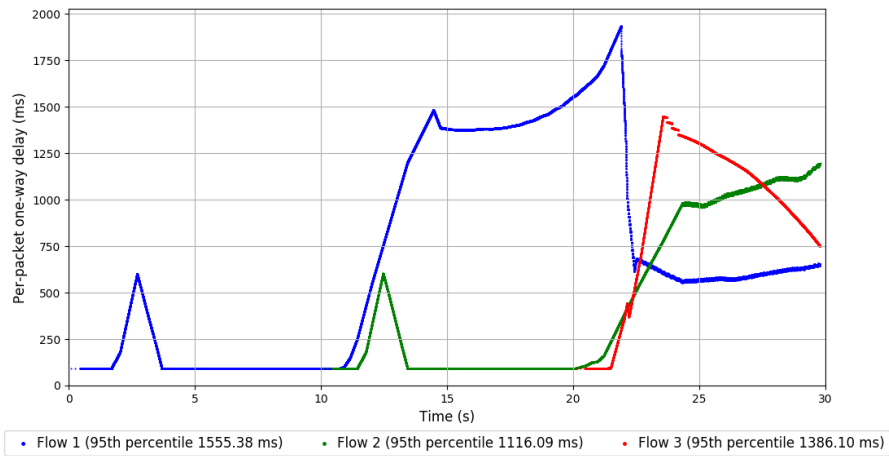
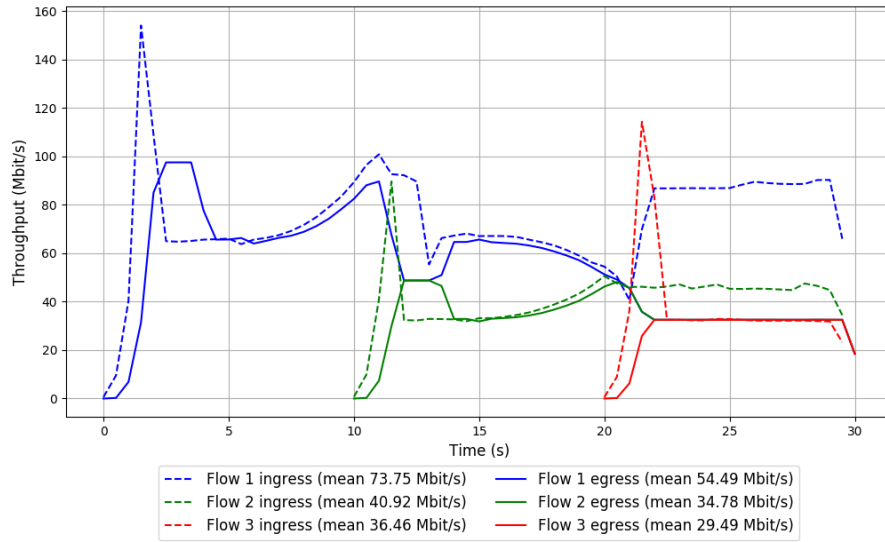
-- Flow 2:

Average throughput: 34.78 Mbit/s
95th percentile per-packet one-way delay: 1116.087 ms
Loss rate: 15.71%

-- Flow 3:

Average throughput: 29.49 Mbit/s
95th percentile per-packet one-way delay: 1386.101 ms
Loss rate: 20.53%

Run 1: Report of PCC-Allegro — Data Link

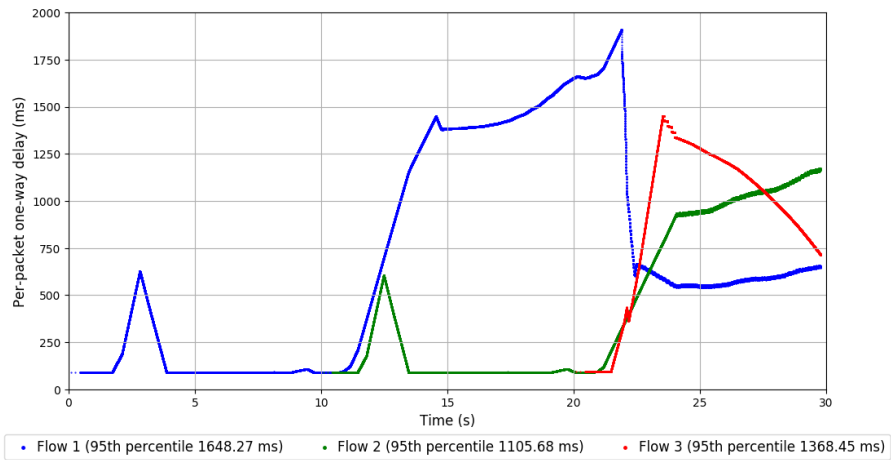
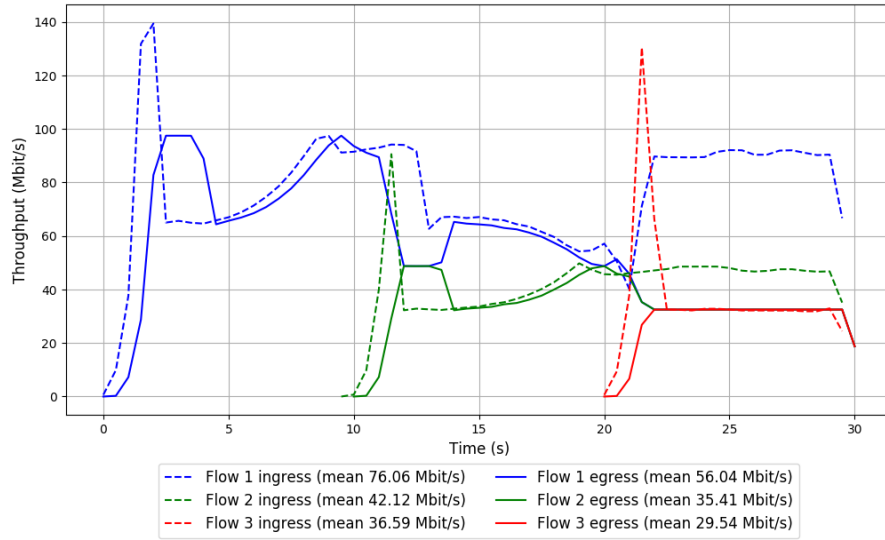


Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 12:07:51
End at: 2019-06-28 12:08:21
Local clock offset: -6.343 ms
Remote clock offset: -309.548 ms

Below is generated by plot.py at 2019-06-28 14:12:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.17 Mbit/s
95th percentile per-packet one-way delay: 1545.949 ms
Loss rate: 23.68%
-- Flow 1:
Average throughput: 56.04 Mbit/s
95th percentile per-packet one-way delay: 1648.273 ms
Loss rate: 26.74%
-- Flow 2:
Average throughput: 35.41 Mbit/s
95th percentile per-packet one-way delay: 1105.683 ms
Loss rate: 16.67%
-- Flow 3:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 1368.446 ms
Loss rate: 20.67%

Run 2: Report of PCC-Allegro — Data Link

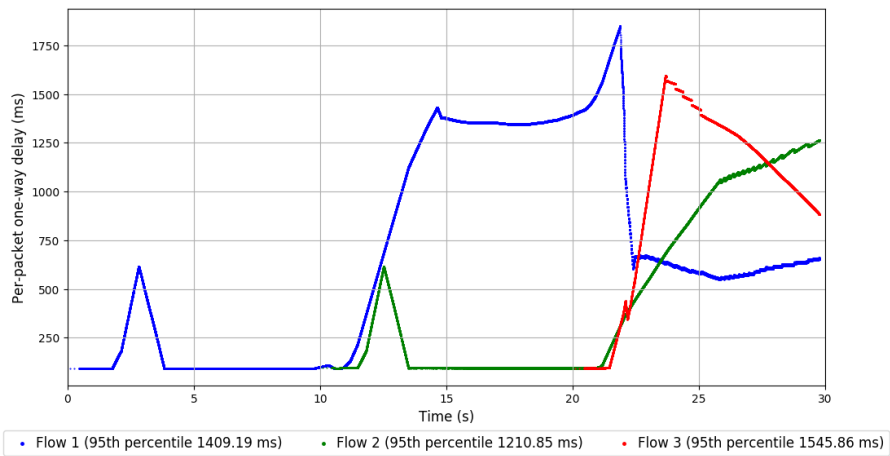
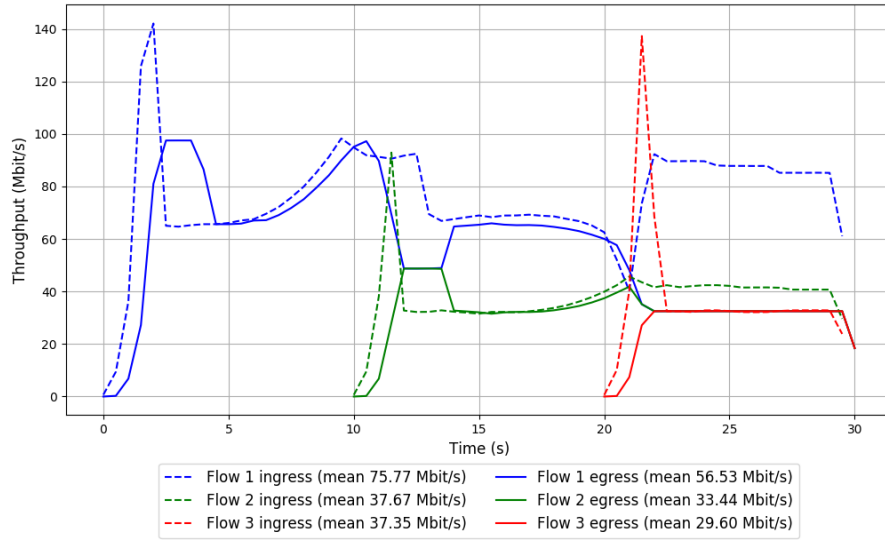


Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 12:36:15
End at: 2019-06-28 12:36:45
Local clock offset: -6.408 ms
Remote clock offset: -352.129 ms

```
# Below is generated by plot.py at 2019-06-28 14:12:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.35 Mbit/s
95th percentile per-packet one-way delay: 1411.994 ms
Loss rate: 22.36%
-- Flow 1:
Average throughput: 56.53 Mbit/s
95th percentile per-packet one-way delay: 1409.194 ms
Loss rate: 25.82%
-- Flow 2:
Average throughput: 33.44 Mbit/s
95th percentile per-packet one-way delay: 1210.849 ms
Loss rate: 12.01%
-- Flow 3:
Average throughput: 29.60 Mbit/s
95th percentile per-packet one-way delay: 1545.858 ms
Loss rate: 22.14%
```

Run 3: Report of PCC-Allegro — Data Link

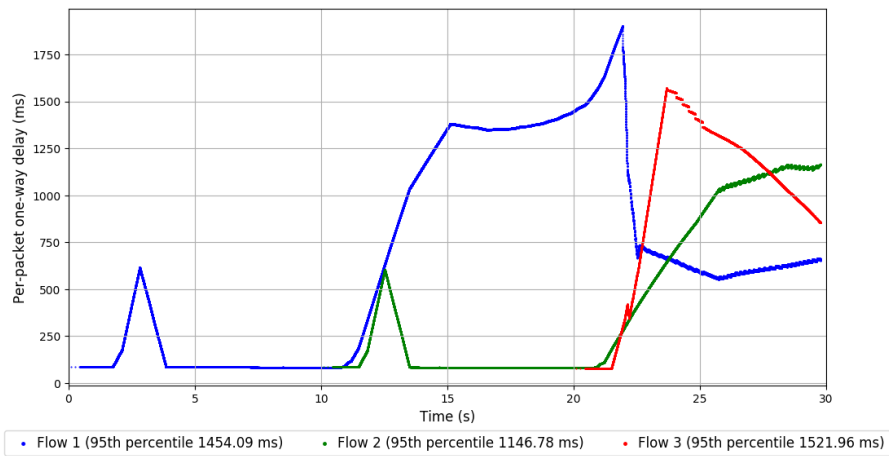
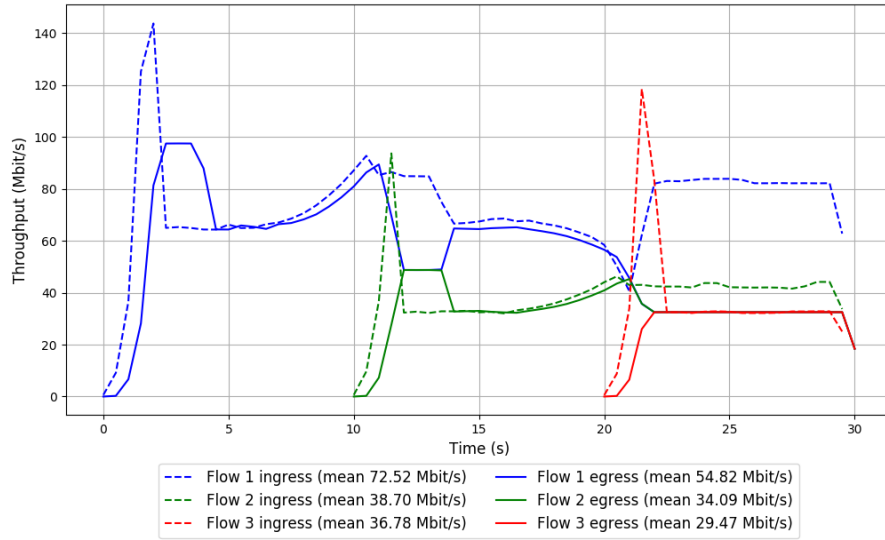


Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 13:04:39
End at: 2019-06-28 13:05:09
Local clock offset: -6.161 ms
Remote clock offset: -380.476 ms

```
# Below is generated by plot.py at 2019-06-28 14:12:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.03 Mbit/s
95th percentile per-packet one-way delay: 1438.938 ms
Loss rate: 21.65%
-- Flow 1:
Average throughput: 54.82 Mbit/s
95th percentile per-packet one-way delay: 1454.091 ms
Loss rate: 24.88%
-- Flow 2:
Average throughput: 34.09 Mbit/s
95th percentile per-packet one-way delay: 1146.779 ms
Loss rate: 12.72%
-- Flow 3:
Average throughput: 29.47 Mbit/s
95th percentile per-packet one-way delay: 1521.960 ms
Loss rate: 21.26%
```

Run 4: Report of PCC-Allegro — Data Link

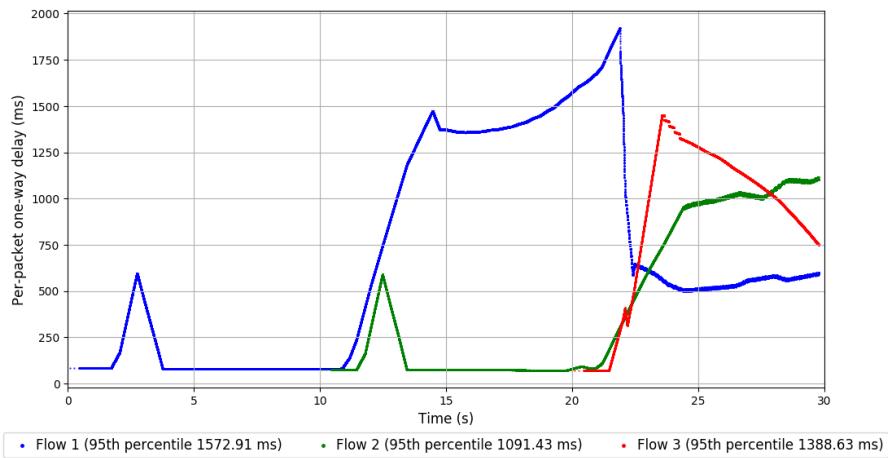
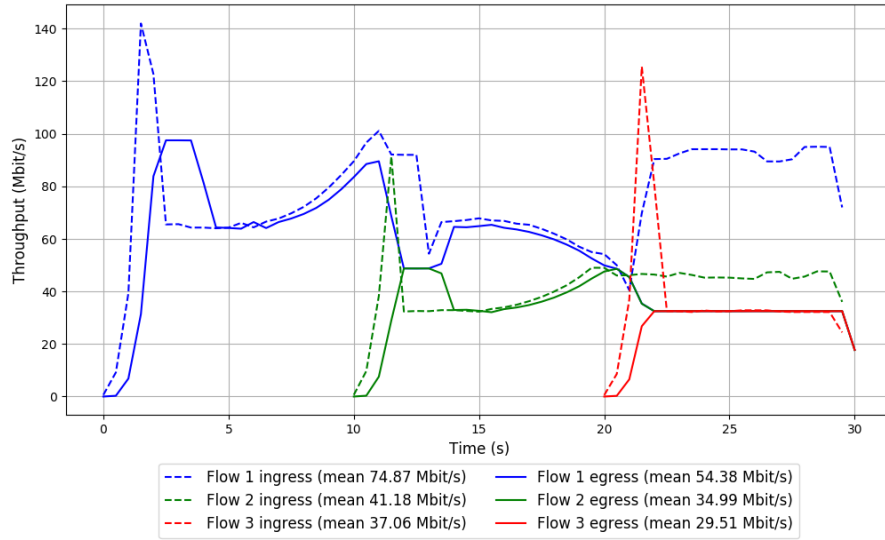


Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 13:33:03
End at: 2019-06-28 13:33:33
Local clock offset: -6.159 ms
Remote clock offset: -437.758 ms

```
# Below is generated by plot.py at 2019-06-28 14:12:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.19 Mbit/s
95th percentile per-packet one-way delay: 1476.410 ms
Loss rate: 24.31%
-- Flow 1:
Average throughput: 54.38 Mbit/s
95th percentile per-packet one-way delay: 1572.910 ms
Loss rate: 27.82%
-- Flow 2:
Average throughput: 34.99 Mbit/s
95th percentile per-packet one-way delay: 1091.427 ms
Loss rate: 15.81%
-- Flow 3:
Average throughput: 29.51 Mbit/s
95th percentile per-packet one-way delay: 1388.633 ms
Loss rate: 21.81%
```

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 11:34:12
End at: 2019-06-28 11:34:42
Local clock offset: -6.509 ms
Remote clock offset: -260.511 ms

Below is generated by plot.py at 2019-06-28 14:14:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.94 Mbit/s
95th percentile per-packet one-way delay: 881.318 ms
Loss rate: 20.46%

-- Flow 1:

Average throughput: 56.70 Mbit/s
95th percentile per-packet one-way delay: 885.143 ms
Loss rate: 27.08%

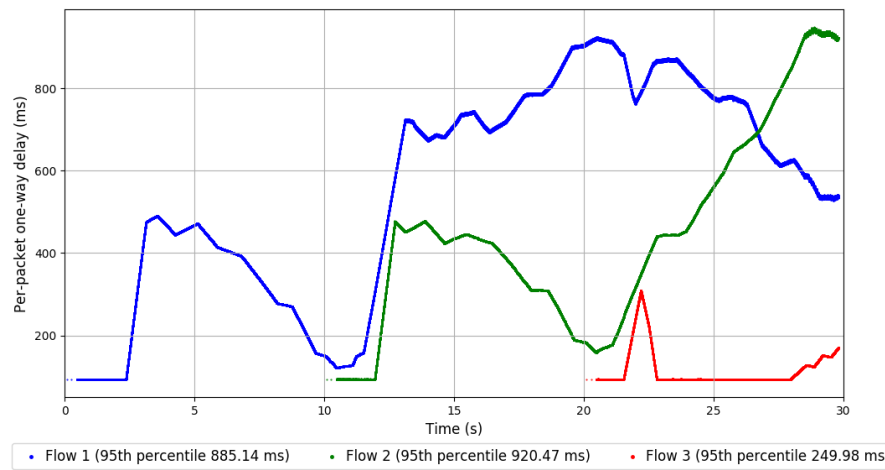
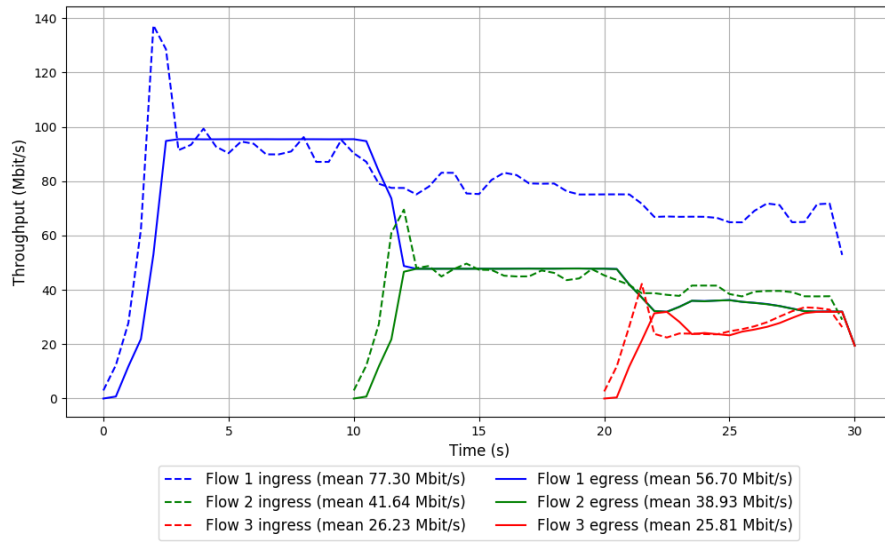
-- Flow 2:

Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 920.468 ms
Loss rate: 7.32%

-- Flow 3:

Average throughput: 25.81 Mbit/s
95th percentile per-packet one-way delay: 249.976 ms
Loss rate: 3.37%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 12:02:41
End at: 2019-06-28 12:03:11
Local clock offset: -6.626 ms
Remote clock offset: -298.046 ms

Below is generated by plot.py at 2019-06-28 14:14:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 862.631 ms
Loss rate: 22.11%

-- Flow 1:

Average throughput: 56.66 Mbit/s
95th percentile per-packet one-way delay: 820.147 ms
Loss rate: 29.18%

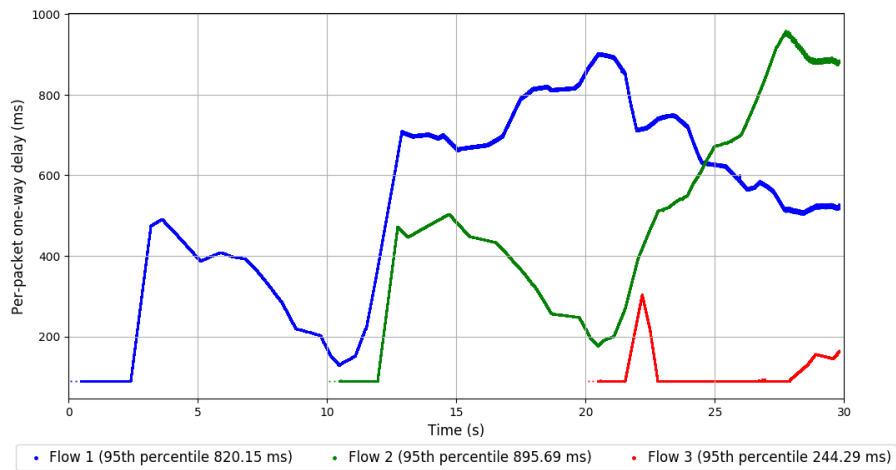
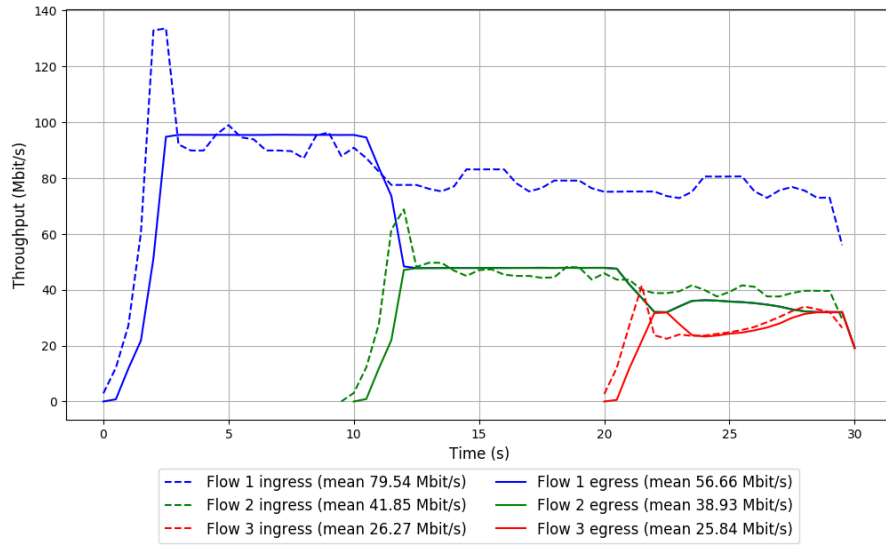
-- Flow 2:

Average throughput: 38.93 Mbit/s
95th percentile per-packet one-way delay: 895.689 ms
Loss rate: 7.78%

-- Flow 3:

Average throughput: 25.84 Mbit/s
95th percentile per-packet one-way delay: 244.292 ms
Loss rate: 3.34%

Run 2: Report of PCC-Expr — Data Link

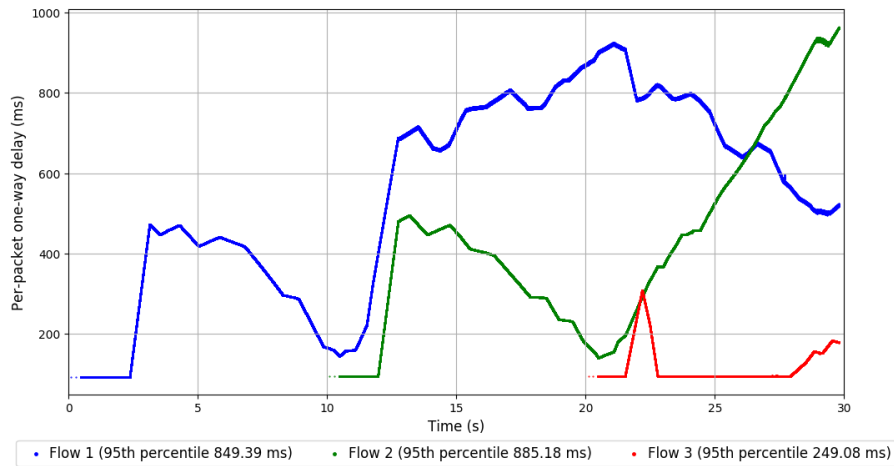
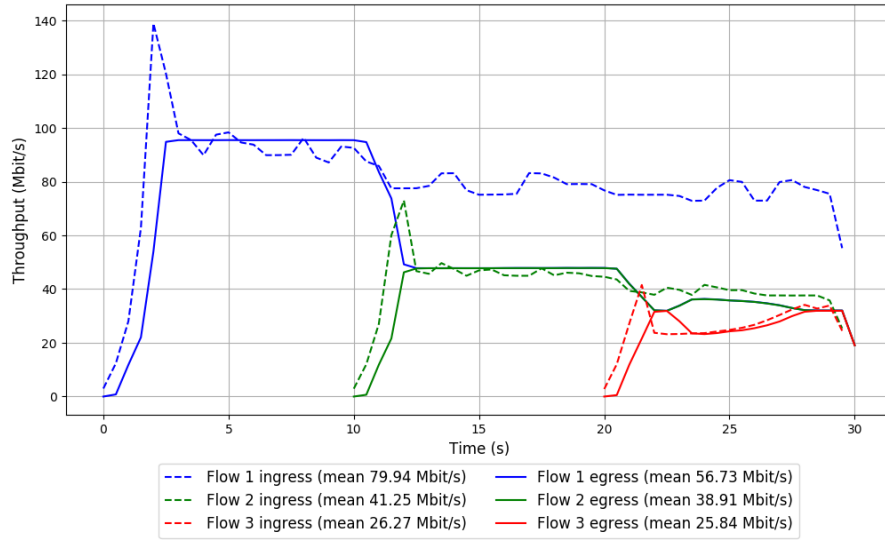


Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 12:31:05
End at: 2019-06-28 12:31:35
Local clock offset: -6.399 ms
Remote clock offset: -344.415 ms

```
# Below is generated by plot.py at 2019-06-28 14:14:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 844.870 ms
Loss rate: 22.07%
-- Flow 1:
Average throughput: 56.73 Mbit/s
95th percentile per-packet one-way delay: 849.394 ms
Loss rate: 29.44%
-- Flow 2:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 885.181 ms
Loss rate: 6.50%
-- Flow 3:
Average throughput: 25.84 Mbit/s
95th percentile per-packet one-way delay: 249.076 ms
Loss rate: 3.37%
```

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 12:59:30
End at: 2019-06-28 13:00:00
Local clock offset: -5.868 ms
Remote clock offset: -225.749 ms

Below is generated by plot.py at 2019-06-28 14:14:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.91 Mbit/s
95th percentile per-packet one-way delay: 895.185 ms
Loss rate: 18.05%

-- Flow 1:

Average throughput: 56.41 Mbit/s
95th percentile per-packet one-way delay: 920.700 ms
Loss rate: 23.37%

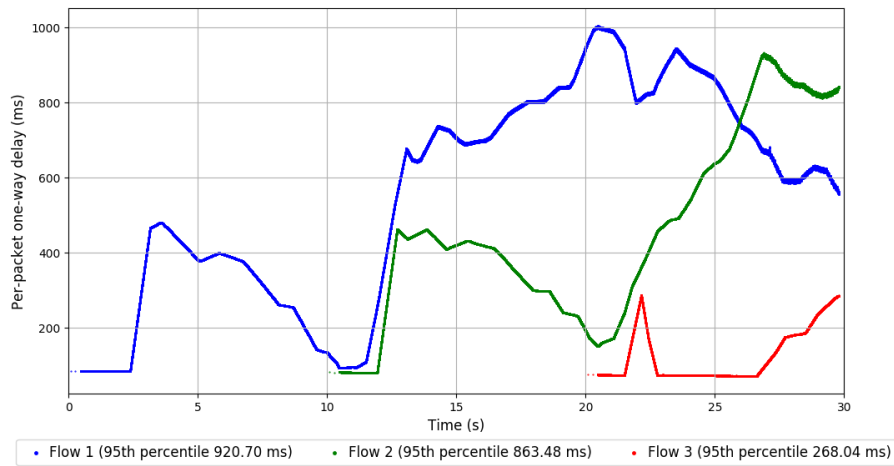
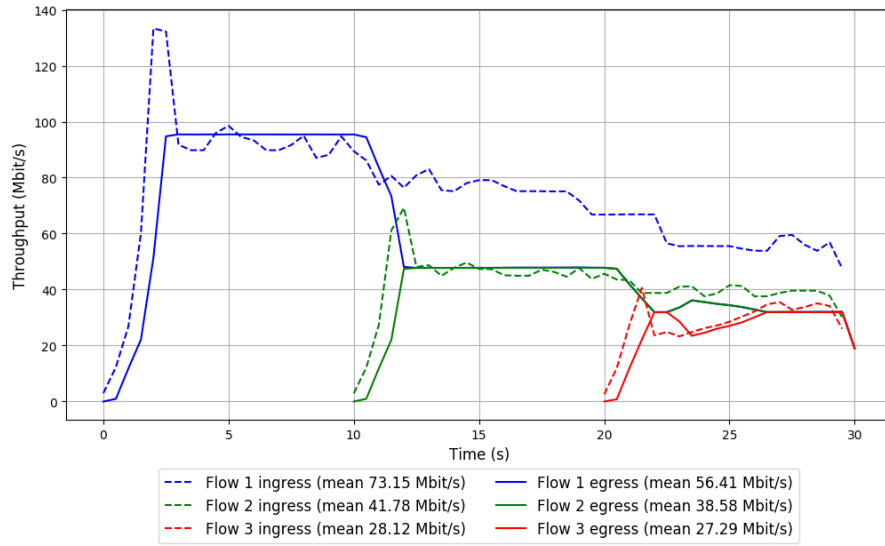
-- Flow 2:

Average throughput: 38.58 Mbit/s
95th percentile per-packet one-way delay: 863.480 ms
Loss rate: 8.51%

-- Flow 3:

Average throughput: 27.29 Mbit/s
95th percentile per-packet one-way delay: 268.043 ms
Loss rate: 4.70%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 13:27:53
End at: 2019-06-28 13:28:23
Local clock offset: -6.531 ms
Remote clock offset: -288.297 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 892.941 ms
Loss rate: 22.59%

-- Flow 1:

Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 872.516 ms
Loss rate: 29.71%

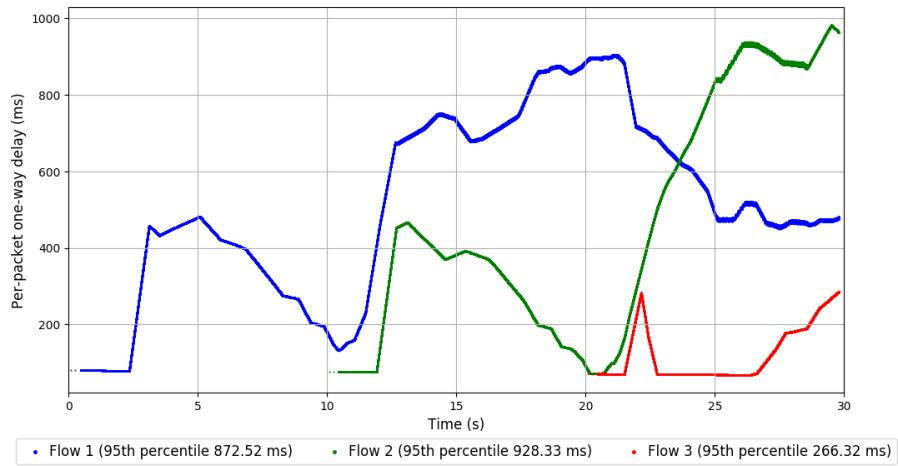
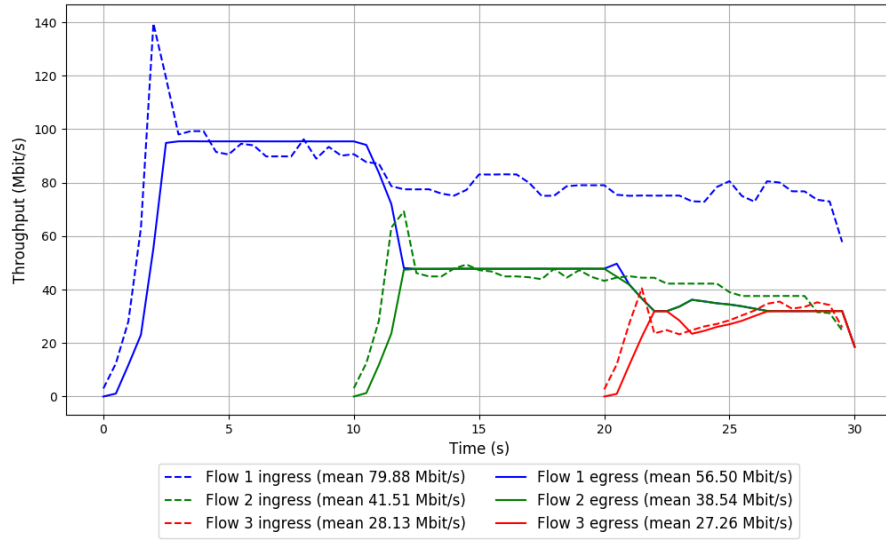
-- Flow 2:

Average throughput: 38.54 Mbit/s
95th percentile per-packet one-way delay: 928.327 ms
Loss rate: 7.99%

-- Flow 3:

Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 266.322 ms
Loss rate: 4.80%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 11:40:39
End at: 2019-06-28 11:41:09
Local clock offset: -6.389 ms
Remote clock offset: -264.911 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.18 Mbit/s
95th percentile per-packet one-way delay: 166.187 ms
Loss rate: 0.95%

-- Flow 1:

Average throughput: 37.33 Mbit/s
95th percentile per-packet one-way delay: 131.110 ms
Loss rate: 0.53%

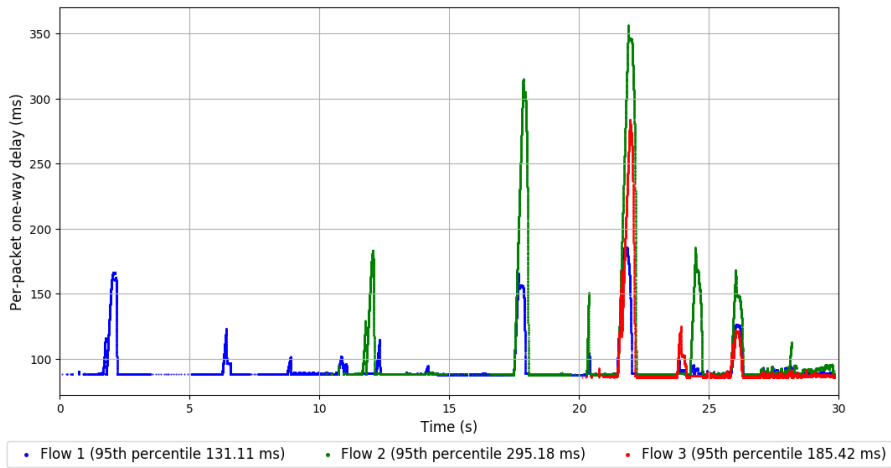
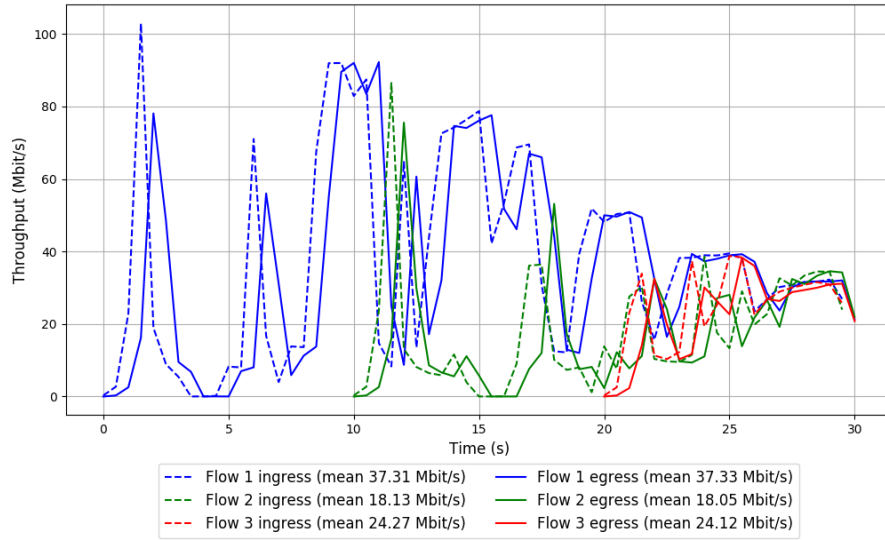
-- Flow 2:

Average throughput: 18.05 Mbit/s
95th percentile per-packet one-way delay: 295.184 ms
Loss rate: 1.30%

-- Flow 3:

Average throughput: 24.12 Mbit/s
95th percentile per-packet one-way delay: 185.421 ms
Loss rate: 2.36%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 12:09:08
End at: 2019-06-28 12:09:38
Local clock offset: -6.362 ms
Remote clock offset: -307.305 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 56.48 Mbit/s
95th percentile per-packet one-way delay: 160.583 ms
Loss rate: 1.01%

-- Flow 1:

Average throughput: 36.69 Mbit/s
95th percentile per-packet one-way delay: 123.517 ms
Loss rate: 0.57%

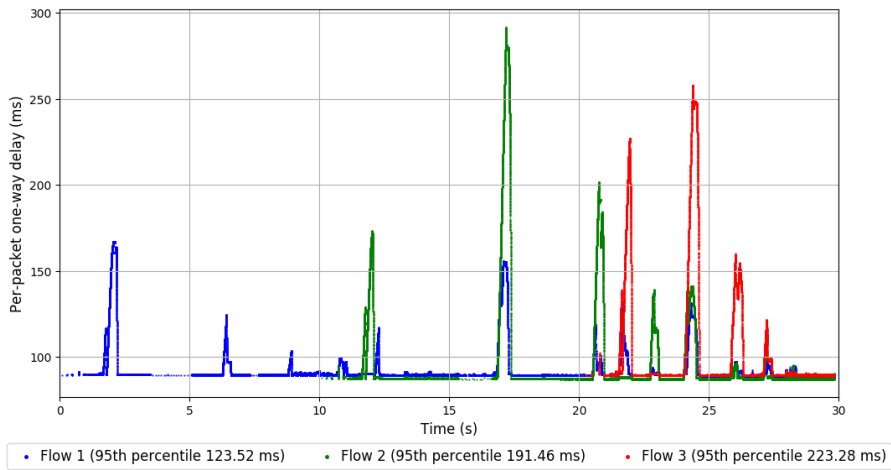
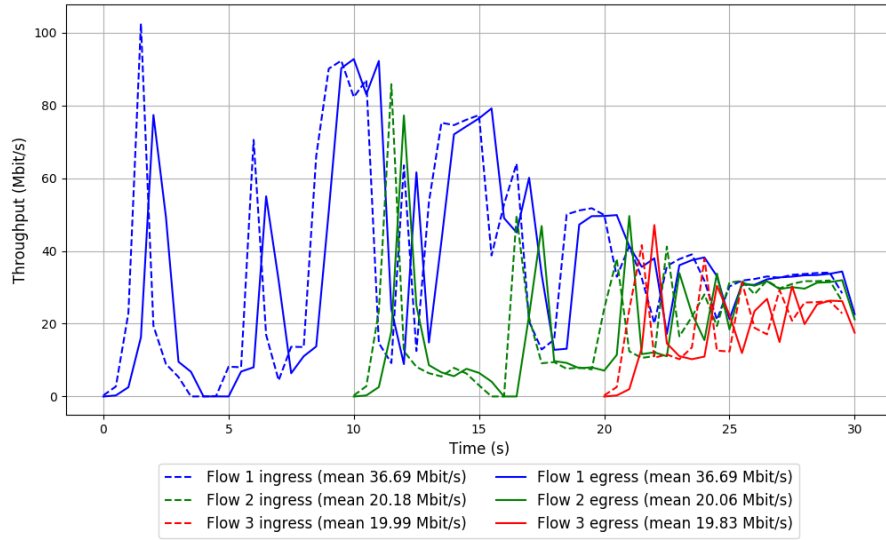
-- Flow 2:

Average throughput: 20.06 Mbit/s
95th percentile per-packet one-way delay: 191.464 ms
Loss rate: 1.46%

-- Flow 3:

Average throughput: 19.83 Mbit/s
95th percentile per-packet one-way delay: 223.275 ms
Loss rate: 2.56%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 12:37:32
End at: 2019-06-28 12:38:02
Local clock offset: -6.323 ms
Remote clock offset: -348.951 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.77 Mbit/s
95th percentile per-packet one-way delay: 167.272 ms
Loss rate: 0.87%

-- Flow 1:

Average throughput: 33.06 Mbit/s
95th percentile per-packet one-way delay: 122.428 ms
Loss rate: 0.61%

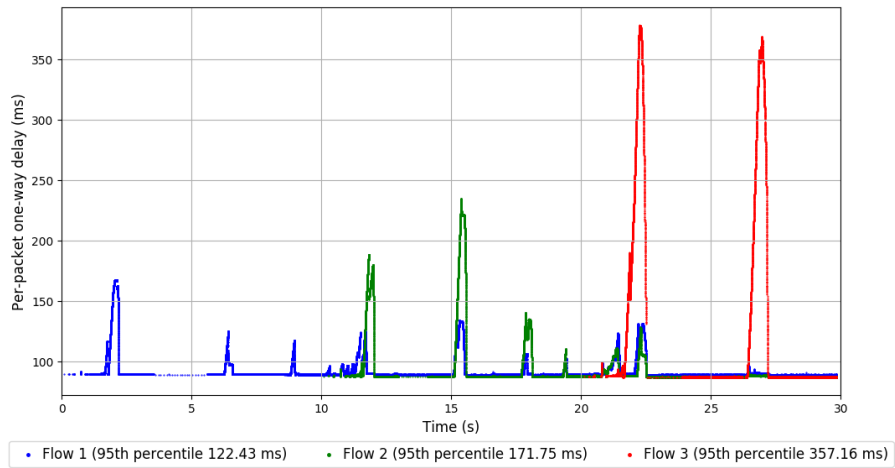
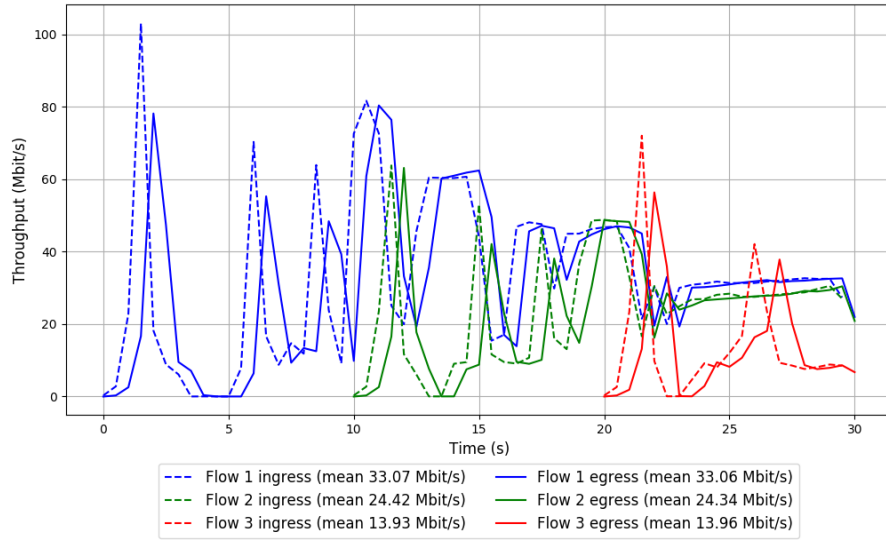
-- Flow 2:

Average throughput: 24.34 Mbit/s
95th percentile per-packet one-way delay: 171.755 ms
Loss rate: 1.19%

-- Flow 3:

Average throughput: 13.96 Mbit/s
95th percentile per-packet one-way delay: 357.162 ms
Loss rate: 1.59%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 13:05:57
End at: 2019-06-28 13:06:27
Local clock offset: -5.364 ms
Remote clock offset: -416.806 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 165.993 ms
Loss rate: 0.84%

-- Flow 1:

Average throughput: 32.68 Mbit/s
95th percentile per-packet one-way delay: 120.082 ms
Loss rate: 0.60%

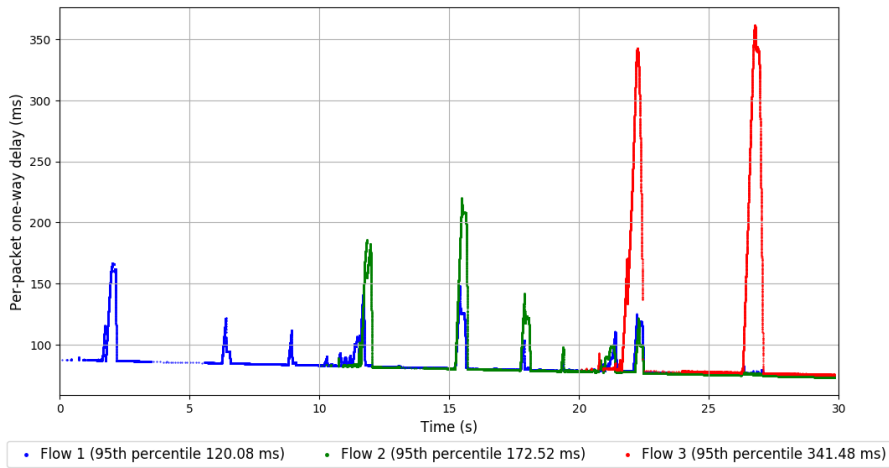
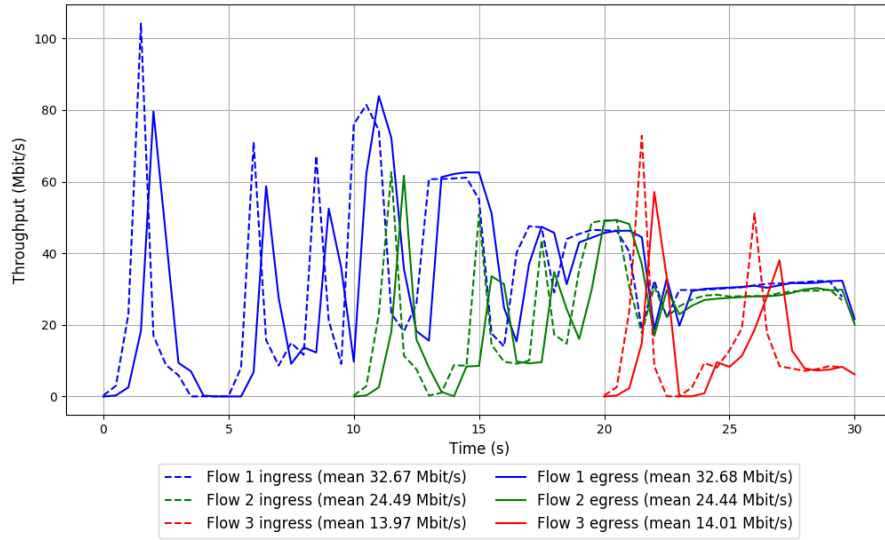
-- Flow 2:

Average throughput: 24.44 Mbit/s
95th percentile per-packet one-way delay: 172.516 ms
Loss rate: 1.12%

-- Flow 3:

Average throughput: 14.01 Mbit/s
95th percentile per-packet one-way delay: 341.484 ms
Loss rate: 1.52%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 13:34:20
End at: 2019-06-28 13:34:50
Local clock offset: -6.188 ms
Remote clock offset: -476.593 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 55.29 Mbit/s
95th percentile per-packet one-way delay: 172.597 ms
Loss rate: 0.82%

-- Flow 1:

Average throughput: 36.61 Mbit/s
95th percentile per-packet one-way delay: 120.832 ms
Loss rate: 0.49%

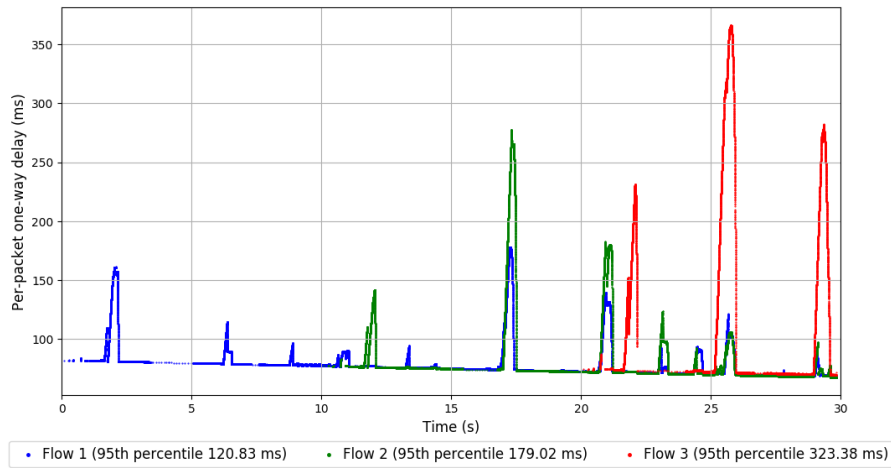
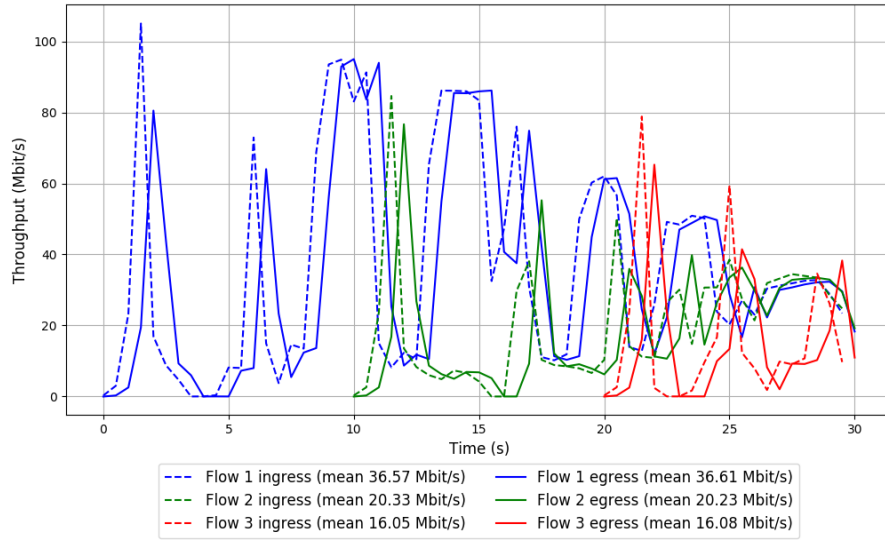
-- Flow 2:

Average throughput: 20.23 Mbit/s
95th percentile per-packet one-way delay: 179.017 ms
Loss rate: 1.40%

-- Flow 3:

Average throughput: 16.08 Mbit/s
95th percentile per-packet one-way delay: 323.383 ms
Loss rate: 1.56%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2019-06-28 11:36:51
End at: 2019-06-28 11:37:21
Local clock offset: -6.37 ms
Remote clock offset: -265.656 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 94.681 ms
Loss rate: 0.77%

-- Flow 1:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.084 ms
Loss rate: 0.51%

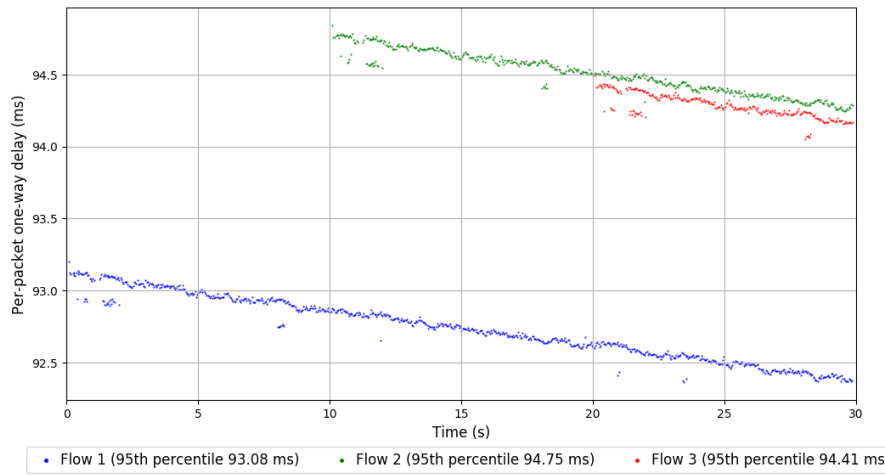
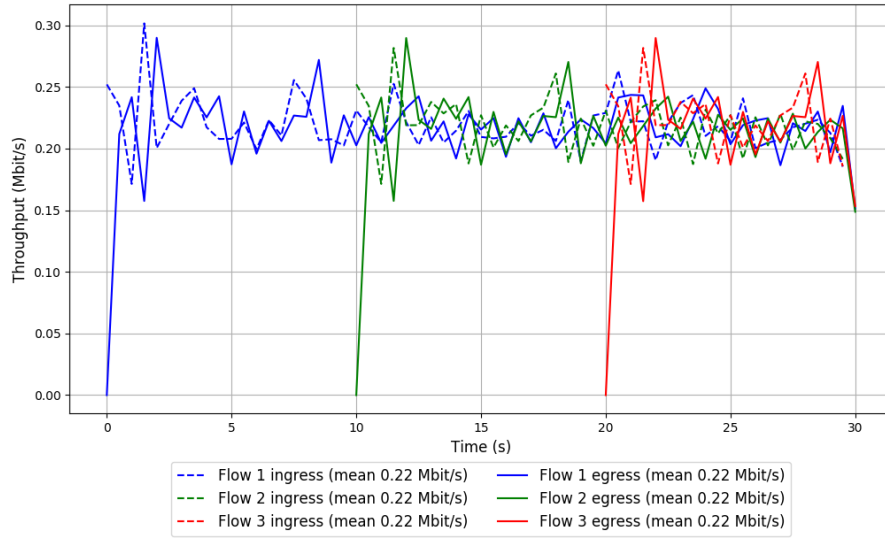
-- Flow 2:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 94.748 ms
Loss rate: 0.82%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 94.414 ms
Loss rate: 1.46%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-06-28 12:05:19
End at: 2019-06-28 12:05:49
Local clock offset: -6.33 ms
Remote clock offset: -300.68 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 88.227 ms
Loss rate: 0.84%

-- Flow 1:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.652 ms
Loss rate: 0.51%

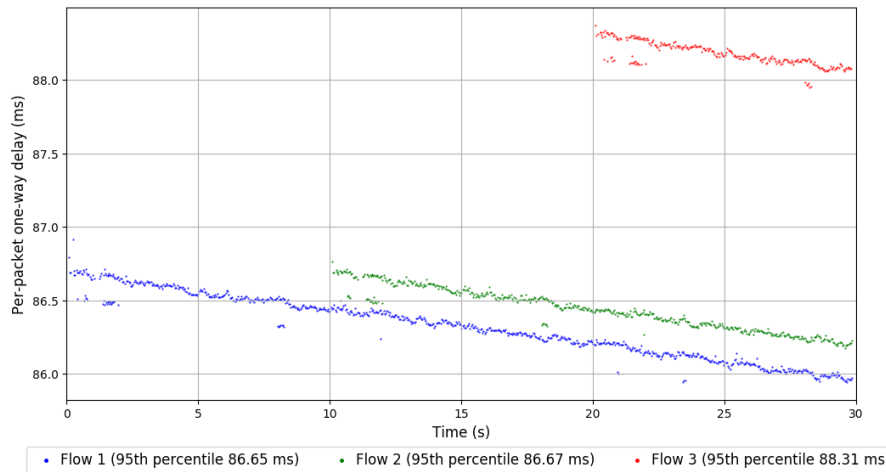
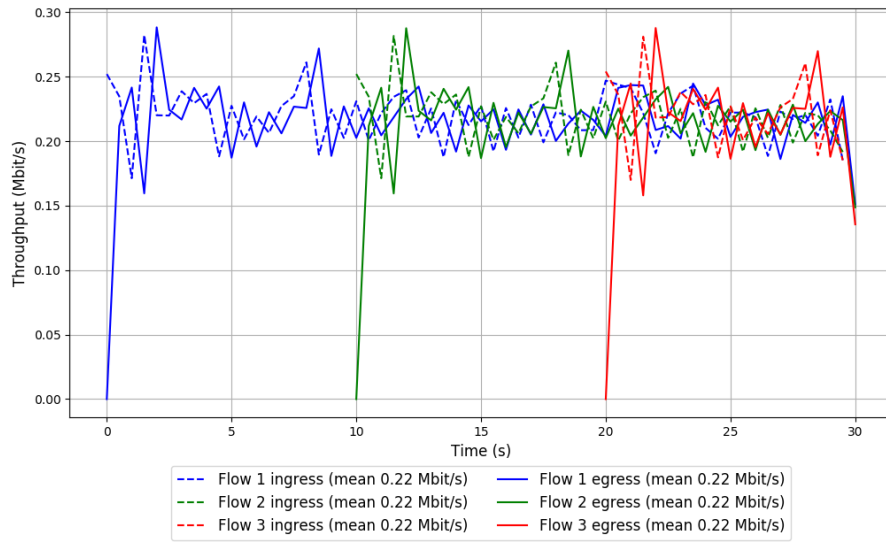
-- Flow 2:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.672 ms
Loss rate: 0.82%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.307 ms
Loss rate: 1.85%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-06-28 12:33:43
End at: 2019-06-28 12:34:13
Local clock offset: -5.992 ms
Remote clock offset: -347.414 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 93.775 ms
Loss rate: 0.91%

-- Flow 1:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.214 ms
Loss rate: 0.51%

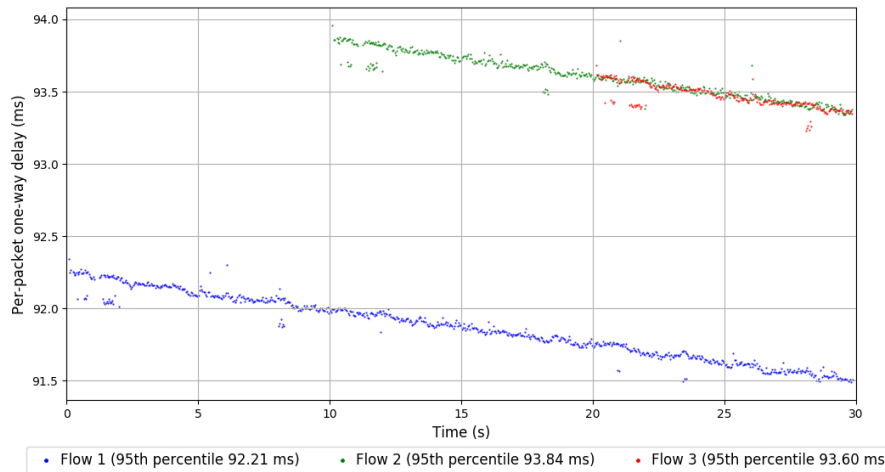
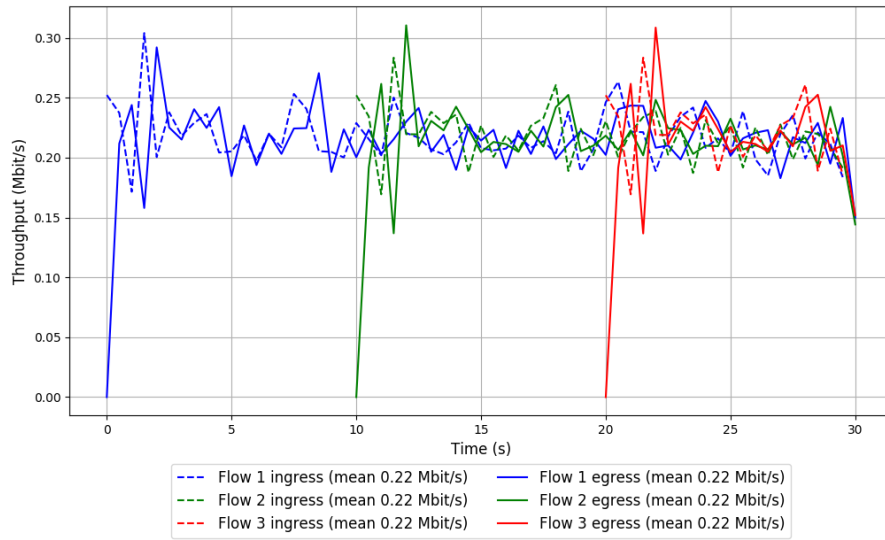
-- Flow 2:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.836 ms
Loss rate: 1.04%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.601 ms
Loss rate: 1.85%

Run 3: Report of SCReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2019-06-28 13:02:08
End at: 2019-06-28 13:02:38
Local clock offset: -5.761 ms
Remote clock offset: -303.624 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 85.472 ms
Loss rate: 0.77%

-- Flow 1:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.008 ms
Loss rate: 0.51%

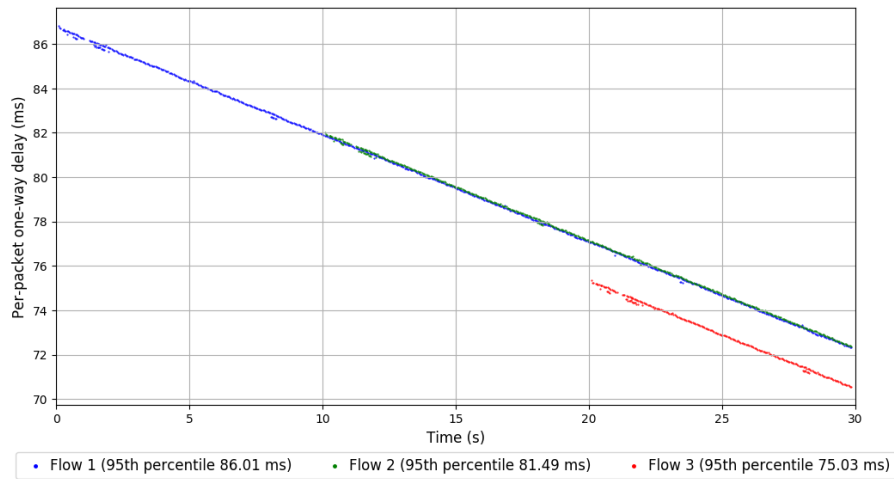
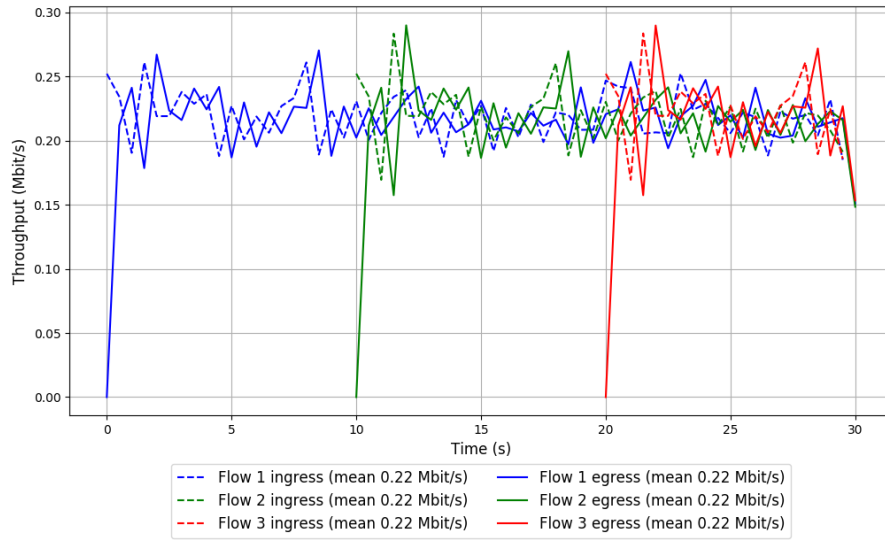
-- Flow 2:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.490 ms
Loss rate: 0.82%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 75.034 ms
Loss rate: 1.46%

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-06-28 13:30:31
End at: 2019-06-28 13:31:01
Local clock offset: -6.125 ms
Remote clock offset: -372.236 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 88.959 ms
Loss rate: 0.84%

-- Flow 1:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.458 ms
Loss rate: 0.51%

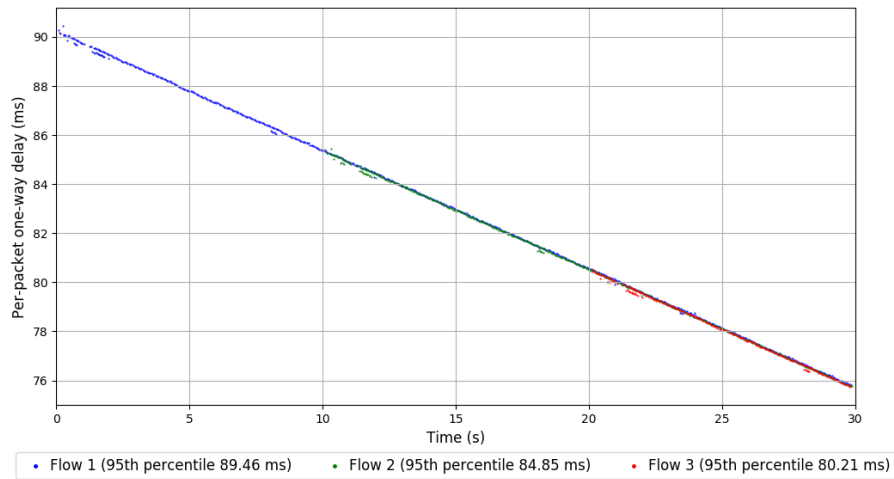
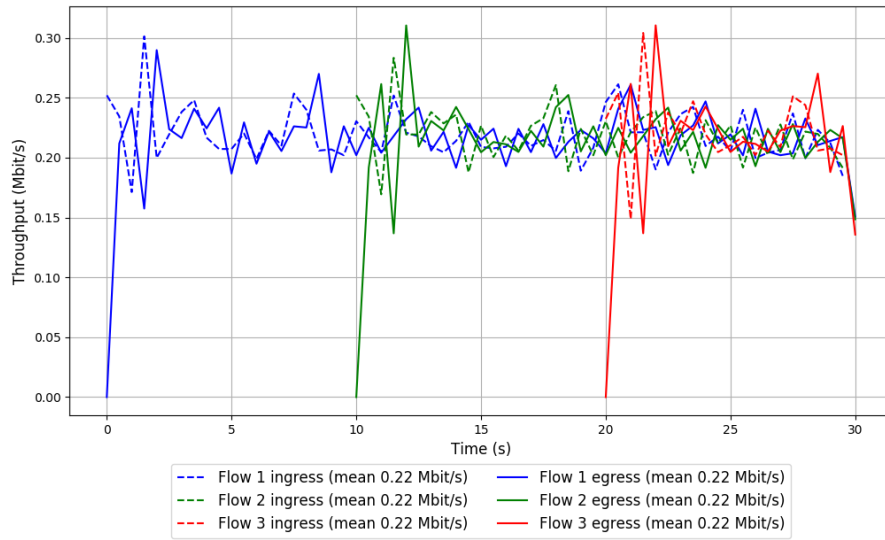
-- Flow 2:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.850 ms
Loss rate: 0.82%

-- Flow 3:

Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.212 ms
Loss rate: 1.85%

Run 5: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-06-28 11:49:48
End at: 2019-06-28 11:50:18
Local clock offset: -6.372 ms
Remote clock offset: -283.065 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 99.027 ms
Loss rate: 1.04%

-- Flow 1:

Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 99.807 ms
Loss rate: 0.60%

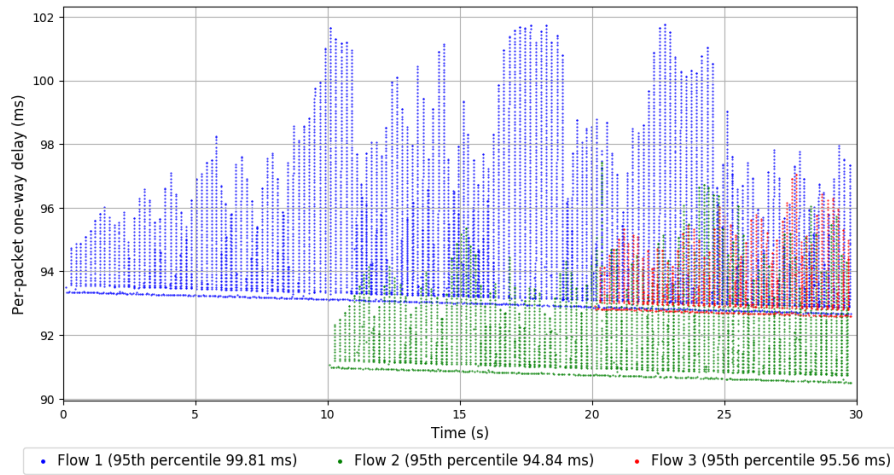
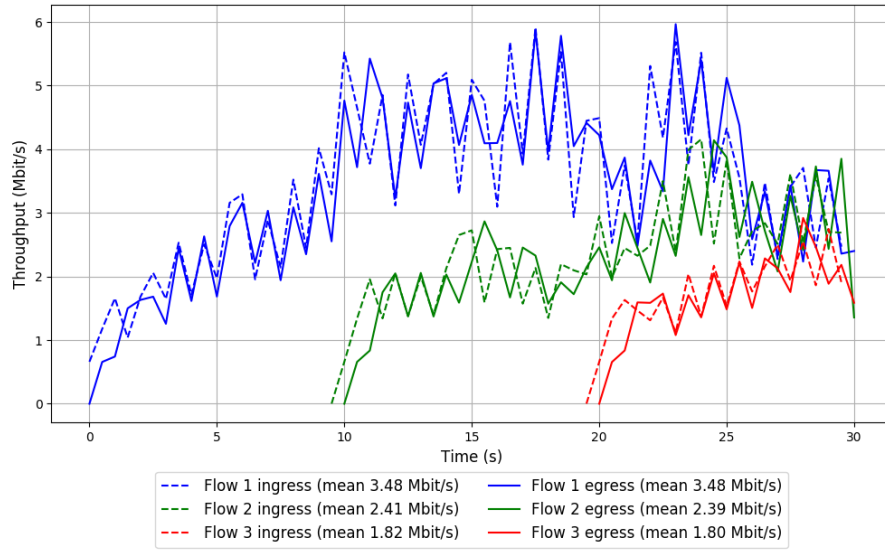
-- Flow 2:

Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 94.844 ms
Loss rate: 1.40%

-- Flow 3:

Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 95.565 ms
Loss rate: 2.64%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2019-06-28 12:18:11
End at: 2019-06-28 12:18:41
Local clock offset: -6.41 ms
Remote clock offset: -319.331 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 93.955 ms
Loss rate: 1.16%

-- Flow 1:

Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 94.991 ms
Loss rate: 0.60%

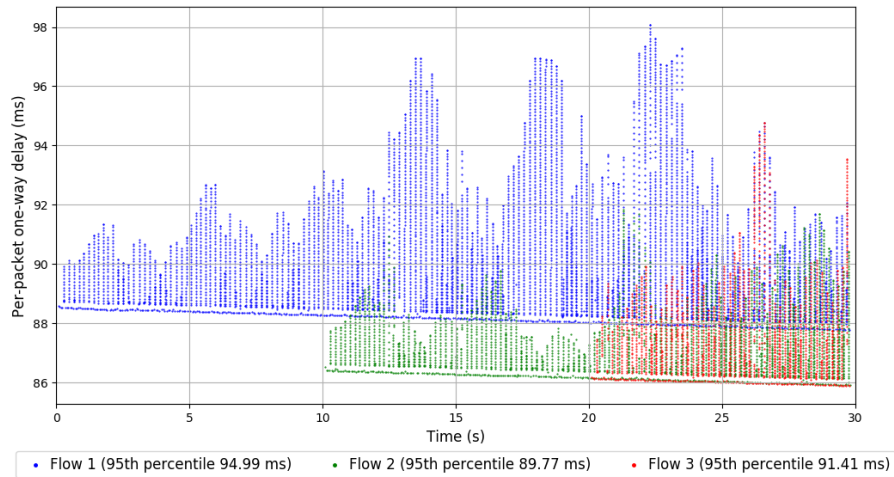
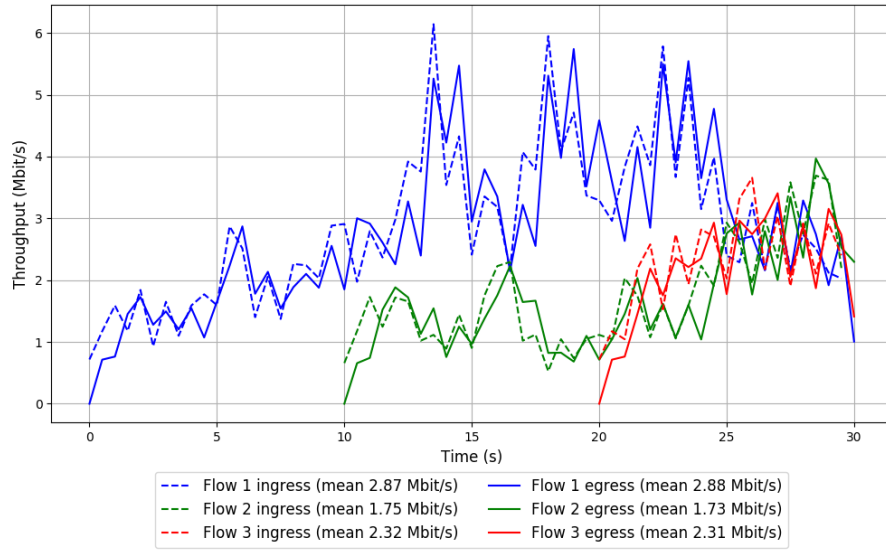
-- Flow 2:

Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 89.774 ms
Loss rate: 1.62%

-- Flow 3:

Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 91.405 ms
Loss rate: 2.56%

Run 2: Report of Sprout — Data Link

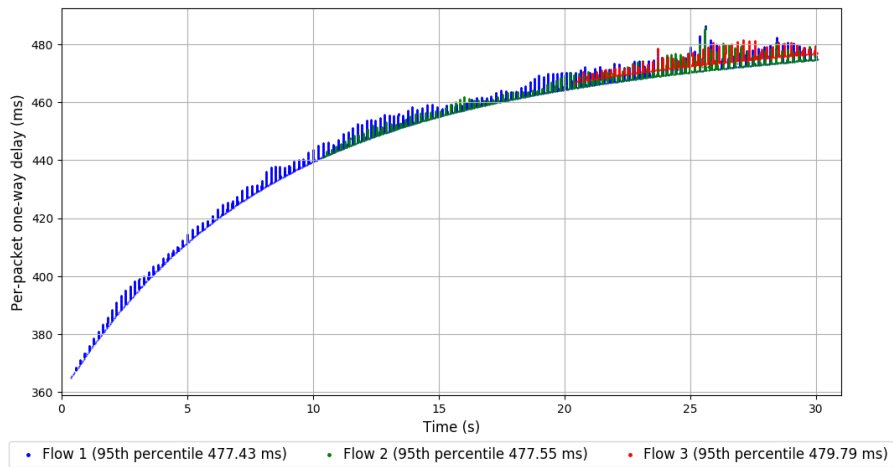
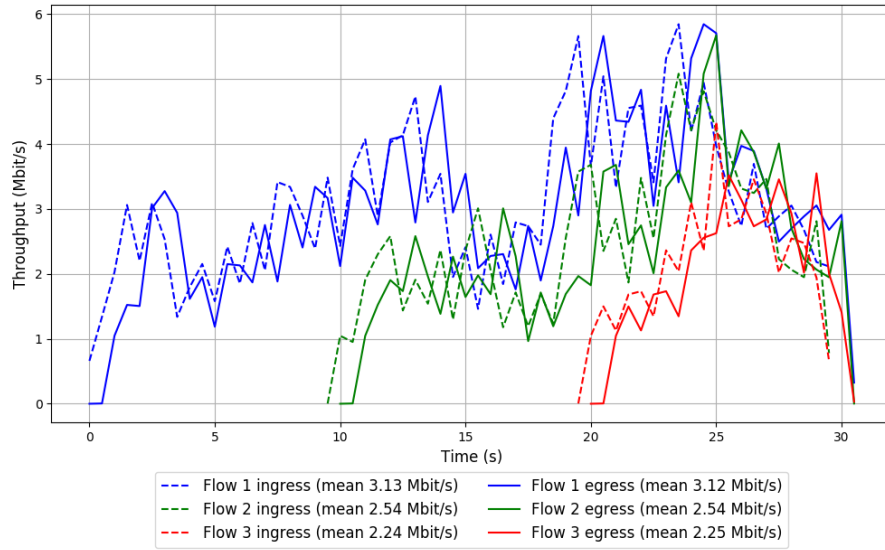


Run 3: Statistics of Sprout

Start at: 2019-06-28 12:46:35
End at: 2019-06-28 12:47:05
Local clock offset: -5.924 ms
Remote clock offset: -352.781 ms

```
# Below is generated by plot.py at 2019-06-28 14:14:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.54 Mbit/s
95th percentile per-packet one-way delay: 478.278 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 477.427 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 477.553 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 479.787 ms
Loss rate: 1.42%
```

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2019-06-28 13:15:00
End at: 2019-06-28 13:15:30
Local clock offset: -5.233 ms
Remote clock offset: -680.006 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 88.846 ms
Loss rate: 0.83%

-- Flow 1:

Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 89.660 ms
Loss rate: 0.65%

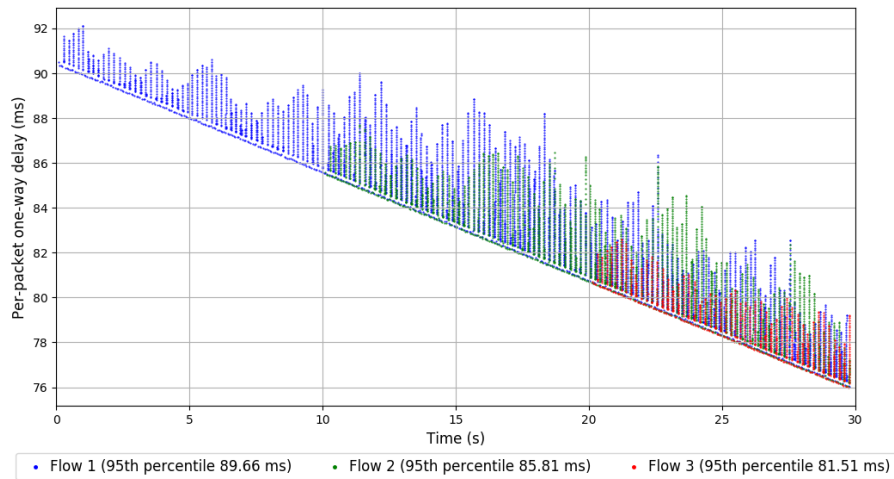
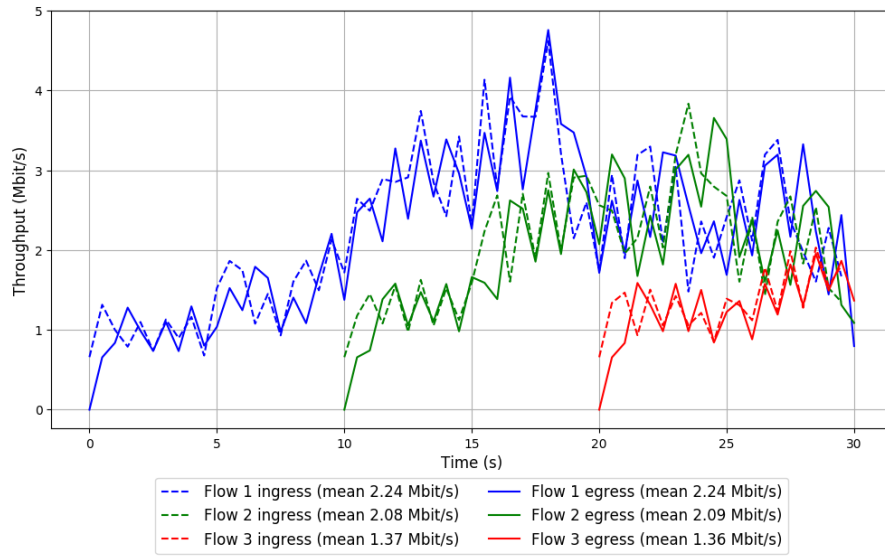
-- Flow 2:

Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 85.806 ms
Loss rate: 0.57%

-- Flow 3:

Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 81.506 ms
Loss rate: 2.46%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-06-28 13:49:22
End at: 2019-06-28 13:49:52
Local clock offset: -5.954 ms
Remote clock offset: -914.838 ms

Below is generated by plot.py at 2019-06-28 14:14:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.32 Mbit/s
95th percentile per-packet one-way delay: 85.211 ms
Loss rate: 0.94%

-- Flow 1:

Average throughput: 3.81 Mbit/s
95th percentile per-packet one-way delay: 85.641 ms
Loss rate: 0.78%

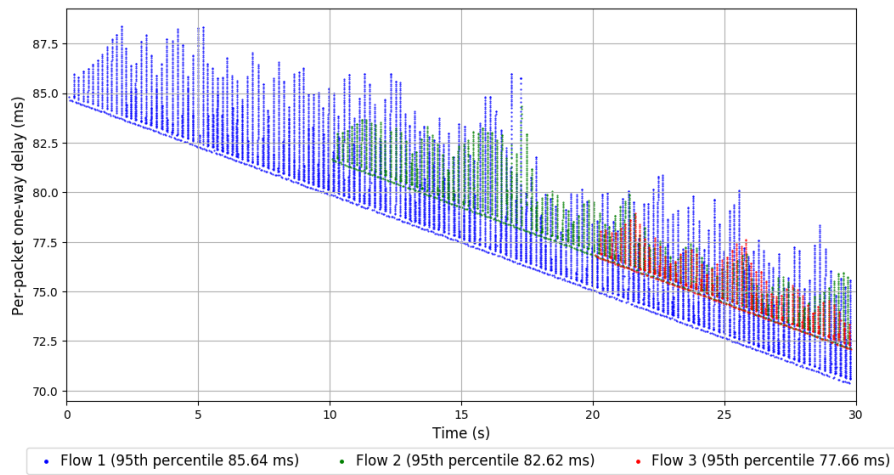
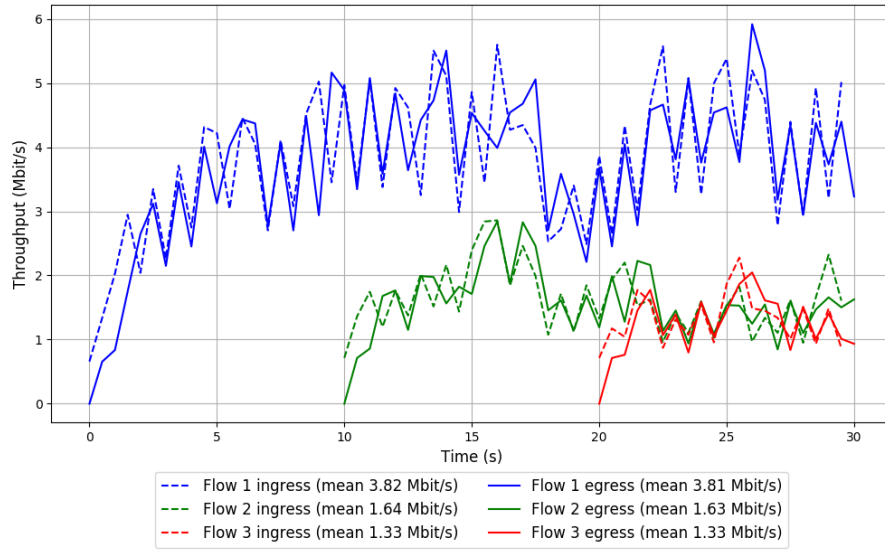
-- Flow 2:

Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 82.618 ms
Loss rate: 1.23%

-- Flow 3:

Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 77.662 ms
Loss rate: 1.55%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-06-28 11:31:33
End at: 2019-06-28 11:32:03
Local clock offset: -6.074 ms
Remote clock offset: -252.659 ms

Below is generated by plot.py at 2019-06-28 14:16:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.20 Mbit/s
95th percentile per-packet one-way delay: 156.818 ms
Loss rate: 0.68%

-- Flow 1:

Average throughput: 49.10 Mbit/s
95th percentile per-packet one-way delay: 153.788 ms
Loss rate: 0.41%

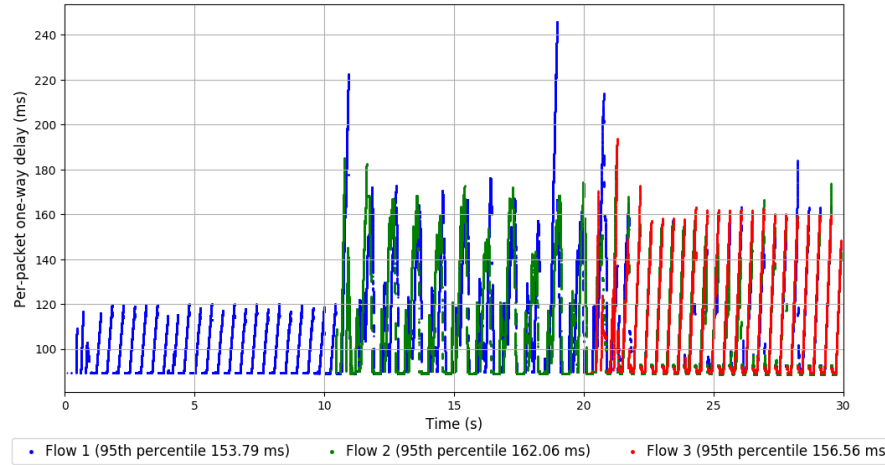
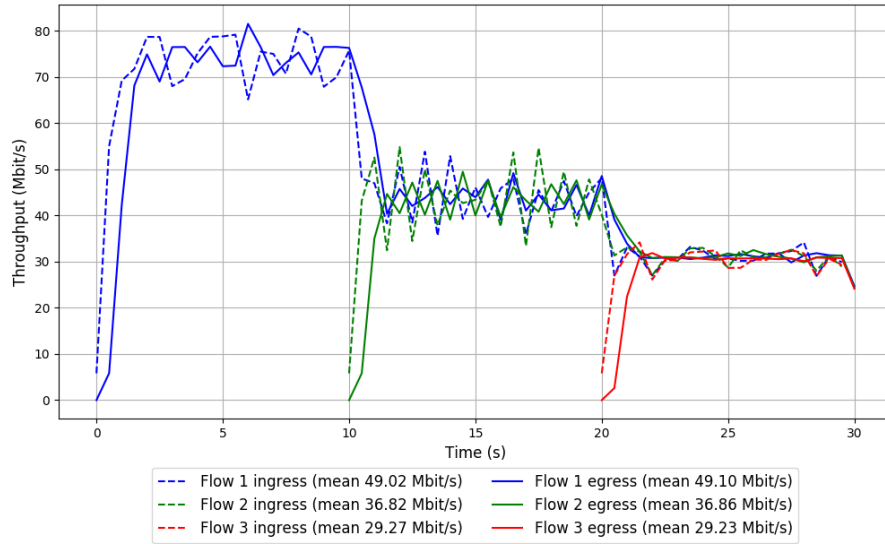
-- Flow 2:

Average throughput: 36.86 Mbit/s
95th percentile per-packet one-way delay: 162.061 ms
Loss rate: 0.73%

-- Flow 3:

Average throughput: 29.23 Mbit/s
95th percentile per-packet one-way delay: 156.562 ms
Loss rate: 1.87%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-06-28 12:00:02
End at: 2019-06-28 12:00:32
Local clock offset: -6.254 ms
Remote clock offset: -294.449 ms

Below is generated by plot.py at 2019-06-28 14:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.85 Mbit/s
95th percentile per-packet one-way delay: 156.653 ms
Loss rate: 0.66%

-- Flow 1:

Average throughput: 49.56 Mbit/s
95th percentile per-packet one-way delay: 152.957 ms
Loss rate: 0.39%

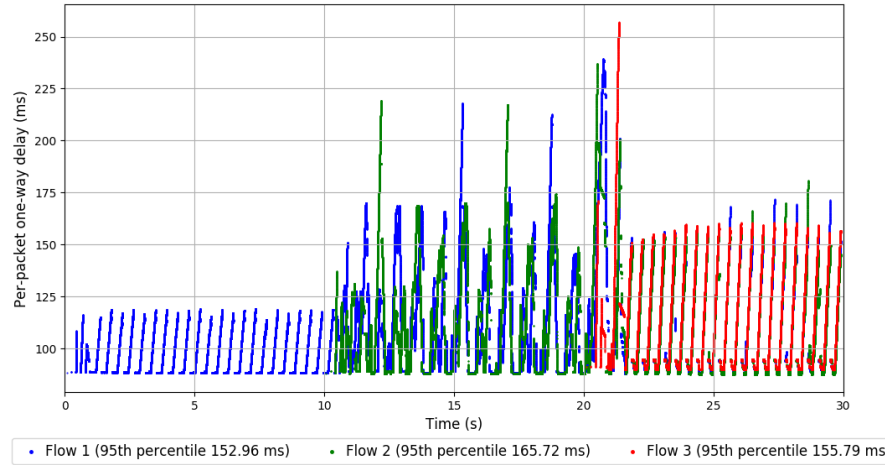
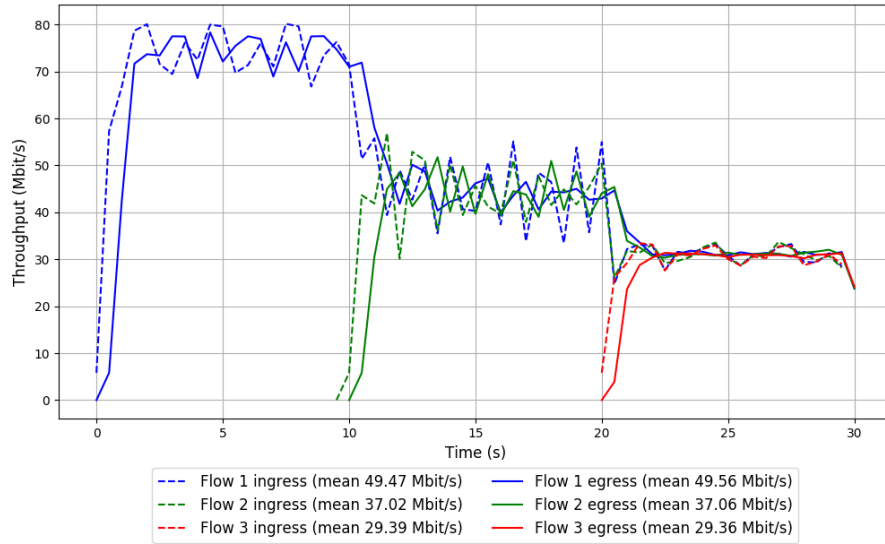
-- Flow 2:

Average throughput: 37.06 Mbit/s
95th percentile per-packet one-way delay: 165.716 ms
Loss rate: 0.75%

-- Flow 3:

Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 155.794 ms
Loss rate: 1.80%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-06-28 12:28:25
End at: 2019-06-28 12:28:55
Local clock offset: -6.078 ms
Remote clock offset: -340.825 ms

Below is generated by plot.py at 2019-06-28 14:16:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.47 Mbit/s
95th percentile per-packet one-way delay: 162.183 ms
Loss rate: 0.72%

-- Flow 1:

Average throughput: 49.85 Mbit/s
95th percentile per-packet one-way delay: 158.155 ms
Loss rate: 0.42%

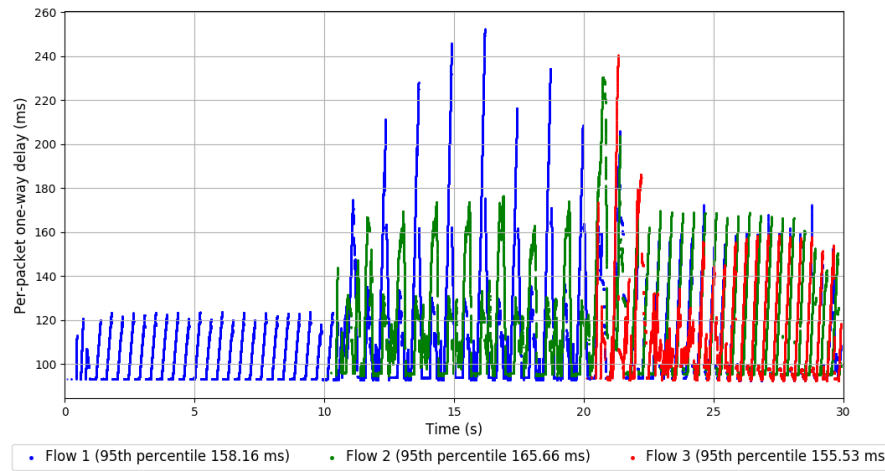
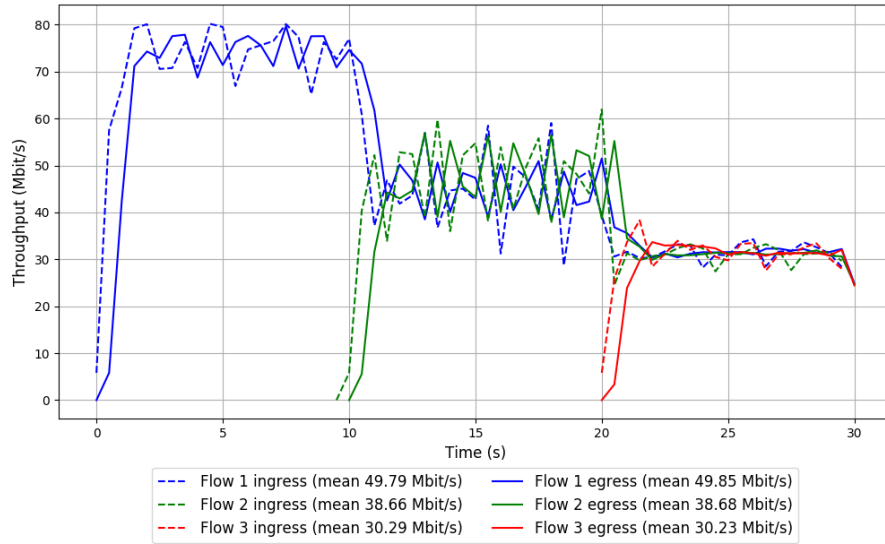
-- Flow 2:

Average throughput: 38.68 Mbit/s
95th percentile per-packet one-way delay: 165.659 ms
Loss rate: 0.82%

-- Flow 3:

Average throughput: 30.23 Mbit/s
95th percentile per-packet one-way delay: 155.534 ms
Loss rate: 1.92%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-06-28 12:56:51
End at: 2019-06-28 12:57:21
Local clock offset: -5.604 ms
Remote clock offset: -154.109 ms

Below is generated by plot.py at 2019-06-28 14:16:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.94 Mbit/s
95th percentile per-packet one-way delay: 147.617 ms
Loss rate: 0.69%

-- Flow 1:

Average throughput: 49.78 Mbit/s
95th percentile per-packet one-way delay: 145.970 ms
Loss rate: 0.41%

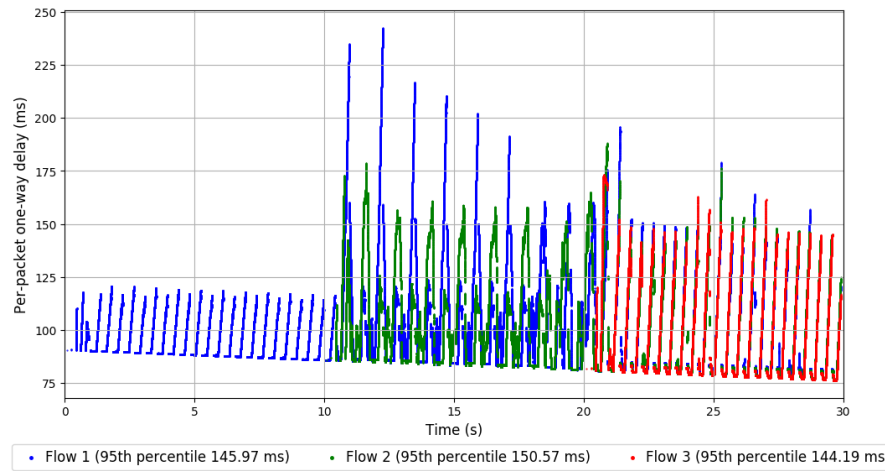
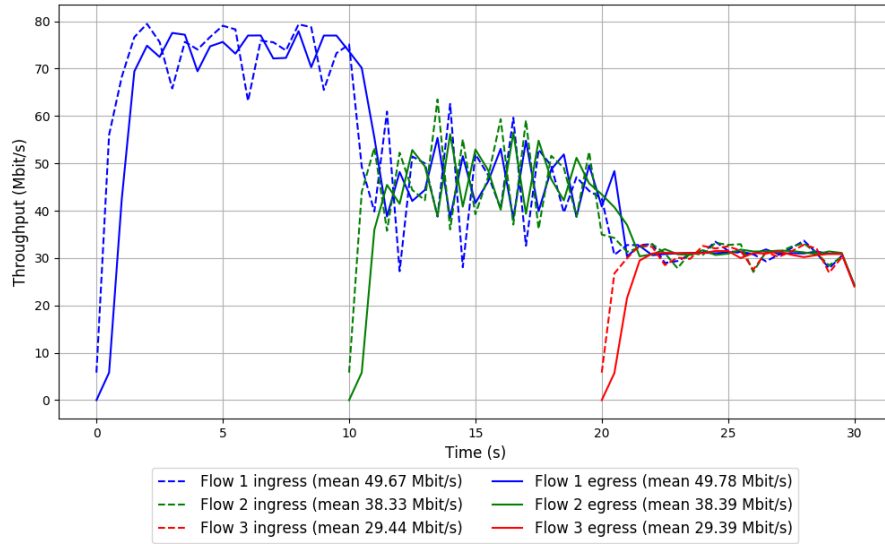
-- Flow 2:

Average throughput: 38.39 Mbit/s
95th percentile per-packet one-way delay: 150.567 ms
Loss rate: 0.77%

-- Flow 3:

Average throughput: 29.39 Mbit/s
95th percentile per-packet one-way delay: 144.186 ms
Loss rate: 1.94%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-06-28 13:25:14
End at: 2019-06-28 13:25:44
Local clock offset: -6.351 ms
Remote clock offset: -219.031 ms

Below is generated by plot.py at 2019-06-28 14:16:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.78 Mbit/s
95th percentile per-packet one-way delay: 146.874 ms
Loss rate: 0.71%

-- Flow 1:

Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 140.572 ms
Loss rate: 0.42%

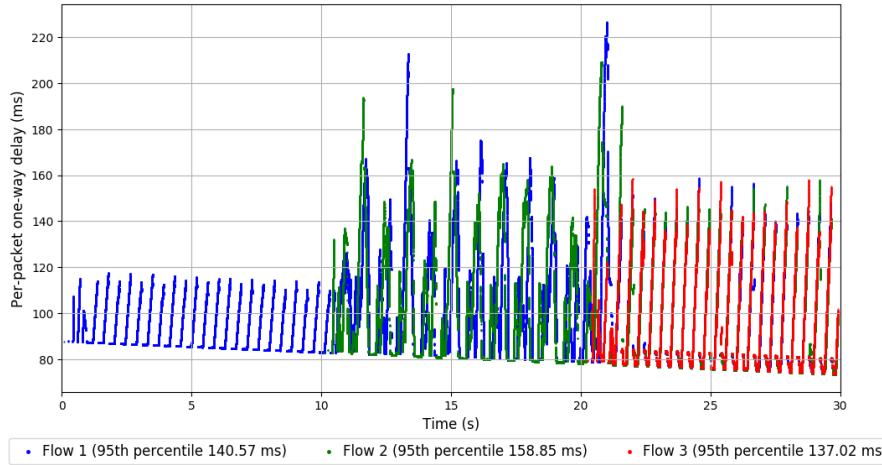
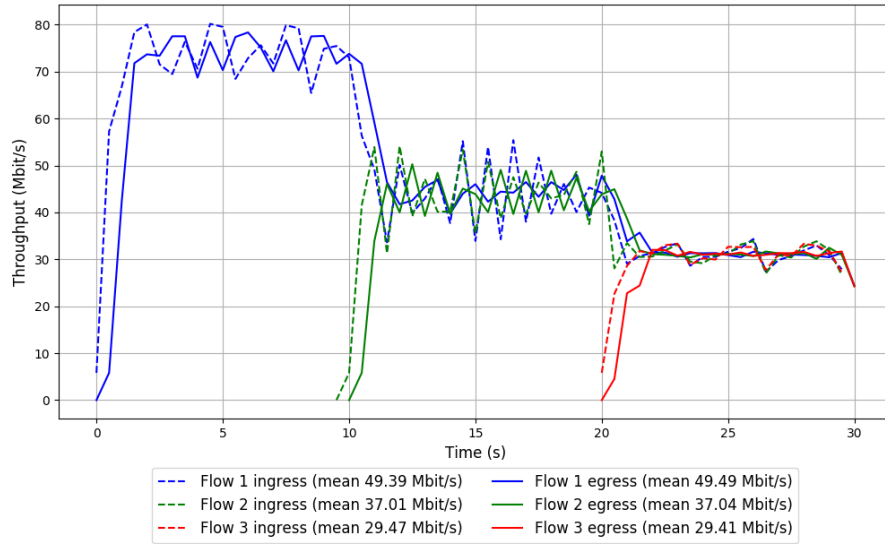
-- Flow 2:

Average throughput: 37.04 Mbit/s
95th percentile per-packet one-way delay: 158.852 ms
Loss rate: 0.82%

-- Flow 3:

Average throughput: 29.41 Mbit/s
95th percentile per-packet one-way delay: 137.021 ms
Loss rate: 1.94%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 11:35:34
End at: 2019-06-28 11:36:04
Local clock offset: -6.415 ms
Remote clock offset: -262.702 ms

Below is generated by plot.py at 2019-06-28 14:16:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.68 Mbit/s
95th percentile per-packet one-way delay: 177.177 ms
Loss rate: 0.90%

-- Flow 1:

Average throughput: 37.39 Mbit/s
95th percentile per-packet one-way delay: 174.498 ms
Loss rate: 0.66%

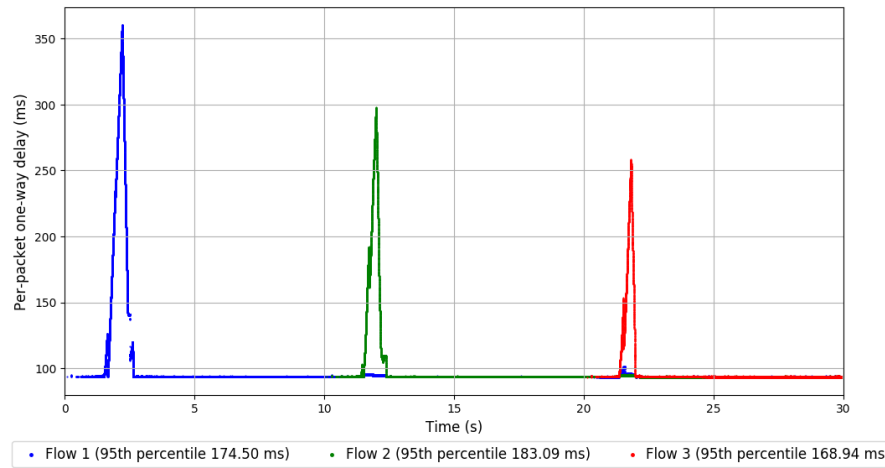
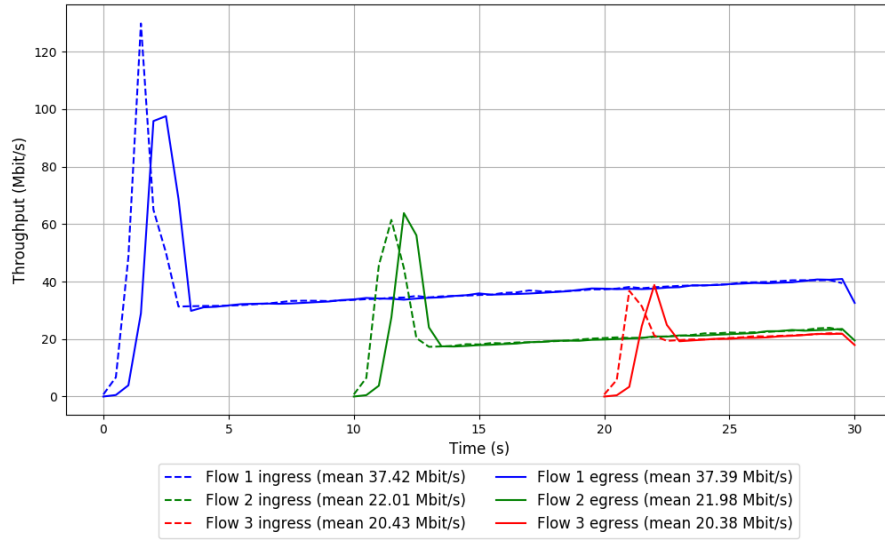
-- Flow 2:

Average throughput: 21.98 Mbit/s
95th percentile per-packet one-way delay: 183.089 ms
Loss rate: 1.00%

-- Flow 3:

Average throughput: 20.38 Mbit/s
95th percentile per-packet one-way delay: 168.935 ms
Loss rate: 1.96%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 12:04:03
End at: 2019-06-28 12:04:33
Local clock offset: -6.65 ms
Remote clock offset: -298.925 ms

Below is generated by plot.py at 2019-06-28 14:16:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.86 Mbit/s
95th percentile per-packet one-way delay: 181.734 ms
Loss rate: 0.78%

-- Flow 1:

Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 195.578 ms
Loss rate: 0.43%

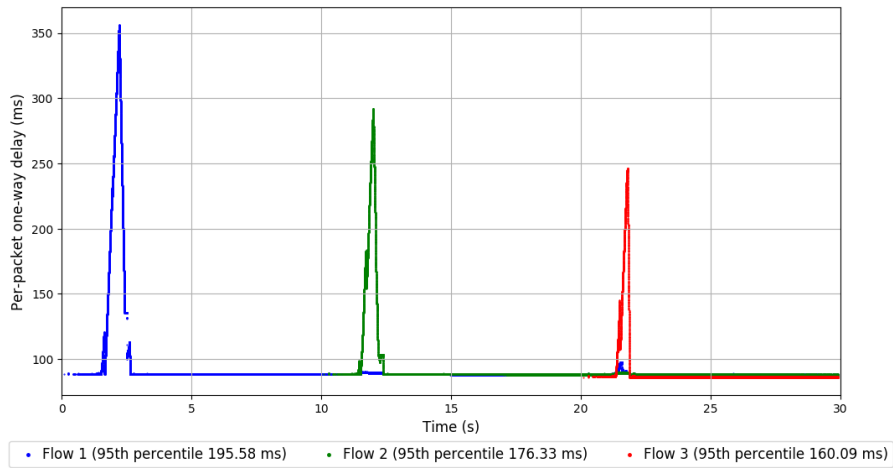
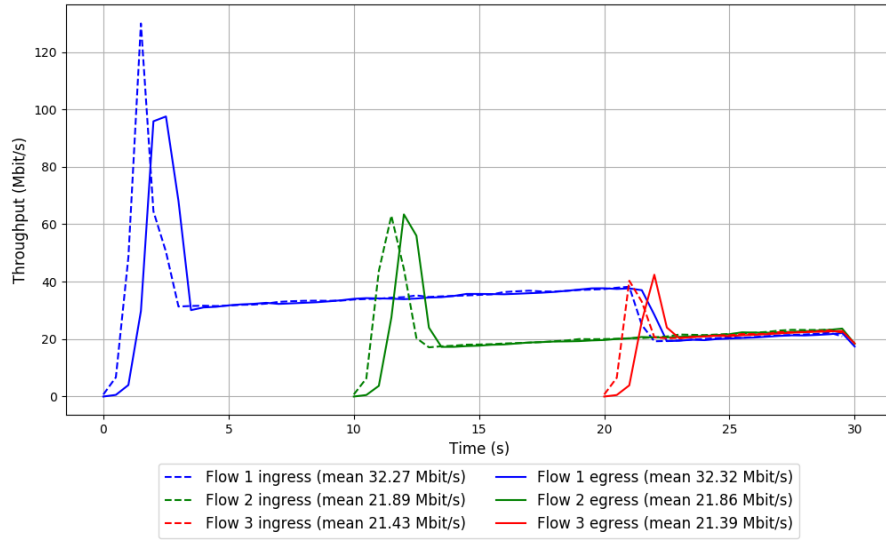
-- Flow 2:

Average throughput: 21.86 Mbit/s
95th percentile per-packet one-way delay: 176.331 ms
Loss rate: 1.00%

-- Flow 3:

Average throughput: 21.39 Mbit/s
95th percentile per-packet one-way delay: 160.093 ms
Loss rate: 1.92%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 12:32:27
End at: 2019-06-28 12:32:57
Local clock offset: -6.004 ms
Remote clock offset: -340.425 ms

Below is generated by plot.py at 2019-06-28 14:16:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.20 Mbit/s
95th percentile per-packet one-way delay: 170.958 ms
Loss rate: 0.62%

-- Flow 1:

Average throughput: 31.90 Mbit/s
95th percentile per-packet one-way delay: 195.864 ms
Loss rate: 0.44%

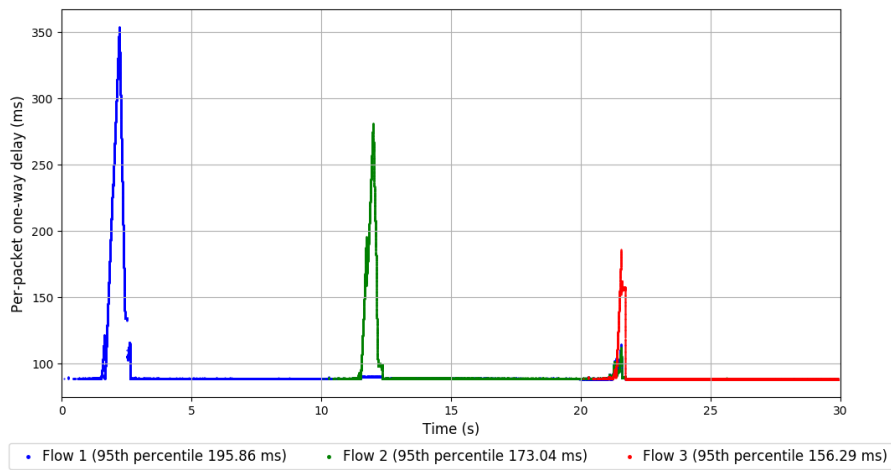
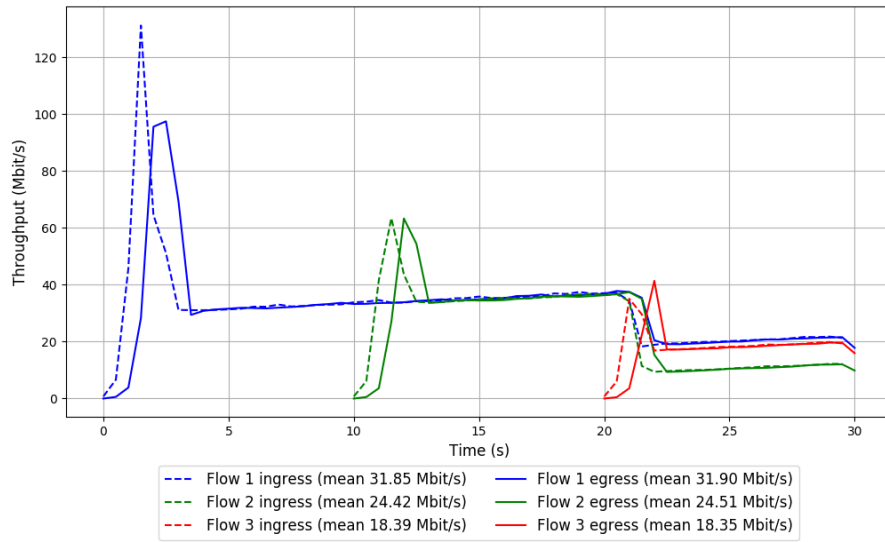
-- Flow 2:

Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 173.042 ms
Loss rate: 0.50%

-- Flow 3:

Average throughput: 18.35 Mbit/s
95th percentile per-packet one-way delay: 156.286 ms
Loss rate: 1.93%

Run 3: Report of TCP Vegas — Data Link

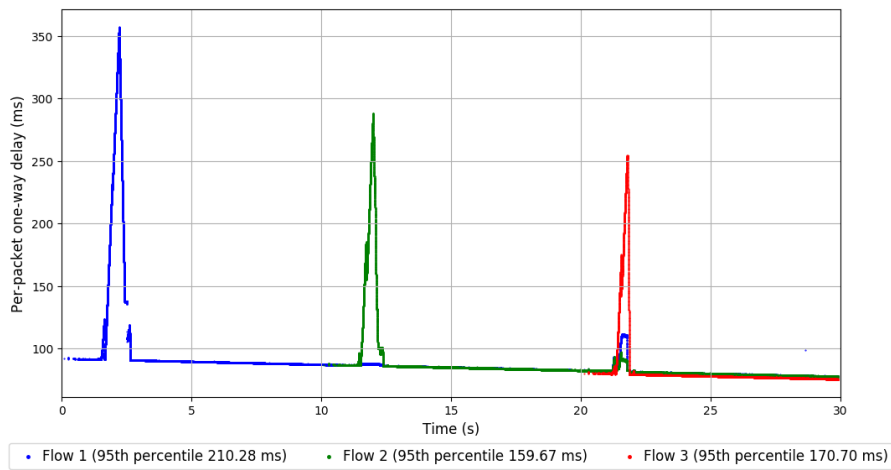
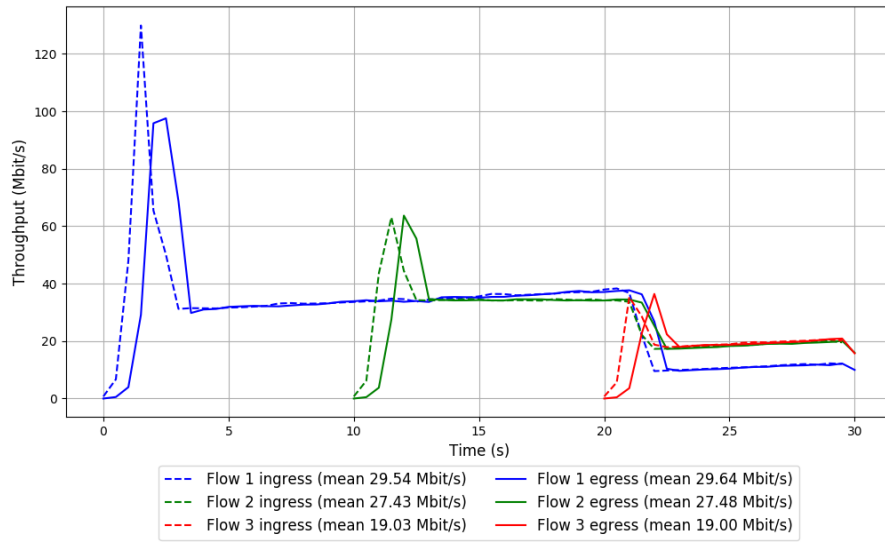


Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 13:00:52
End at: 2019-06-28 13:01:22
Local clock offset: -5.43 ms
Remote clock offset: -271.623 ms

```
# Below is generated by plot.py at 2019-06-28 14:16:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 54.12 Mbit/s
95th percentile per-packet one-way delay: 180.924 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 29.64 Mbit/s
95th percentile per-packet one-way delay: 210.281 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 27.48 Mbit/s
95th percentile per-packet one-way delay: 159.671 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 19.00 Mbit/s
95th percentile per-packet one-way delay: 170.704 ms
Loss rate: 1.94%
```

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 13:29:15
End at: 2019-06-28 13:29:45
Local clock offset: -5.706 ms
Remote clock offset: -327.839 ms

Below is generated by plot.py at 2019-06-28 14:16:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.21 Mbit/s
95th percentile per-packet one-way delay: 170.741 ms
Loss rate: 0.63%

-- Flow 1:

Average throughput: 31.86 Mbit/s
95th percentile per-packet one-way delay: 189.055 ms
Loss rate: 0.44%

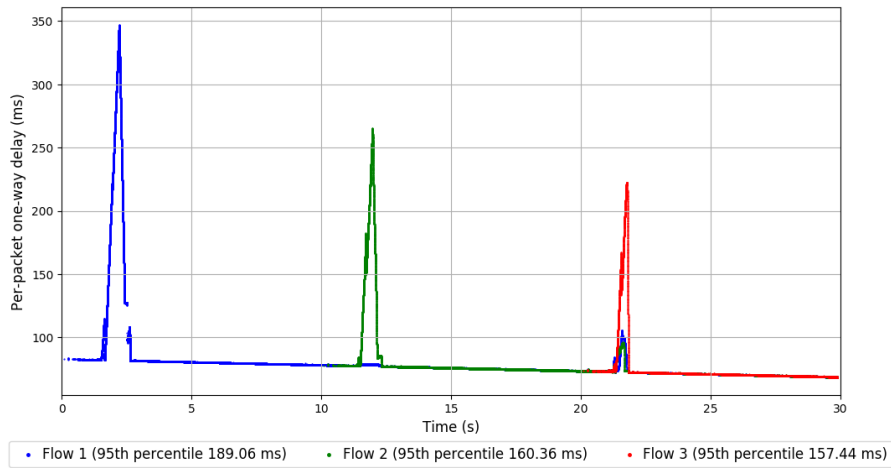
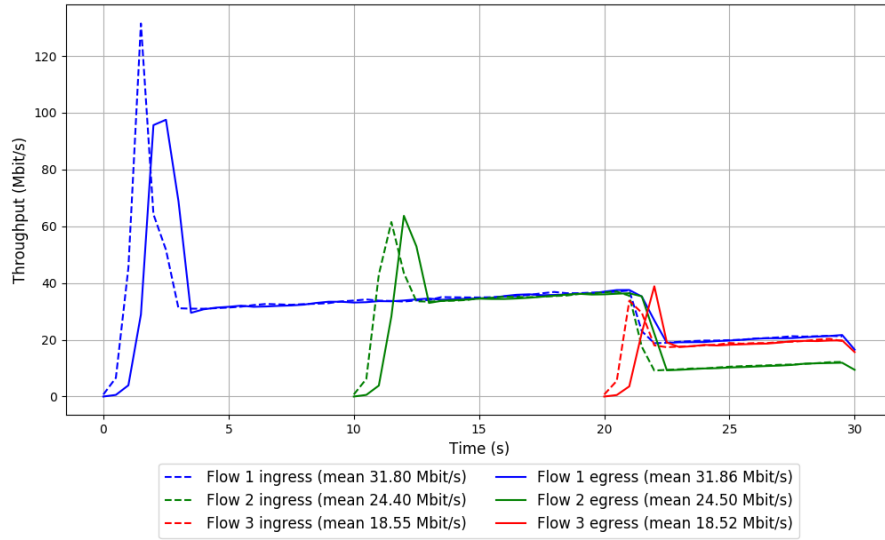
-- Flow 2:

Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 160.359 ms
Loss rate: 0.49%

-- Flow 3:

Average throughput: 18.52 Mbit/s
95th percentile per-packet one-way delay: 157.445 ms
Loss rate: 1.97%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-06-28 11:54:52
End at: 2019-06-28 11:55:22
Local clock offset: -6.562 ms
Remote clock offset: -285.723 ms

Below is generated by plot.py at 2019-06-28 14:16:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.49 Mbit/s
95th percentile per-packet one-way delay: 357.165 ms
Loss rate: 1.12%

-- Flow 1:

Average throughput: 34.74 Mbit/s
95th percentile per-packet one-way delay: 310.473 ms
Loss rate: 0.79%

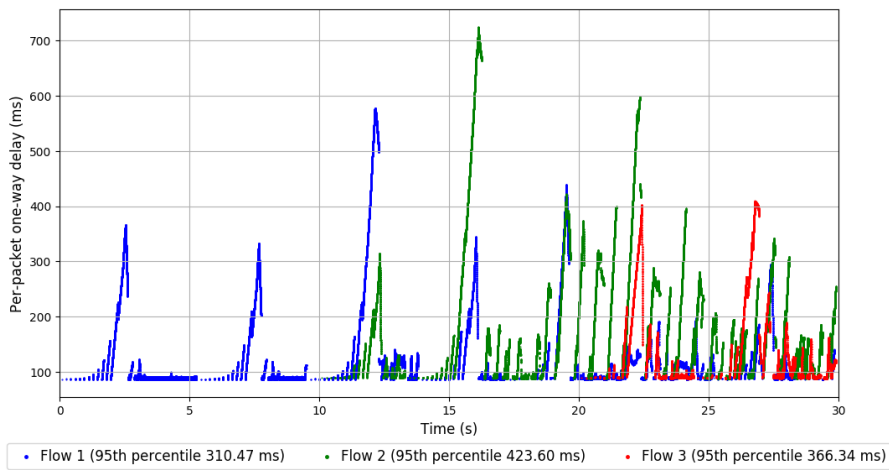
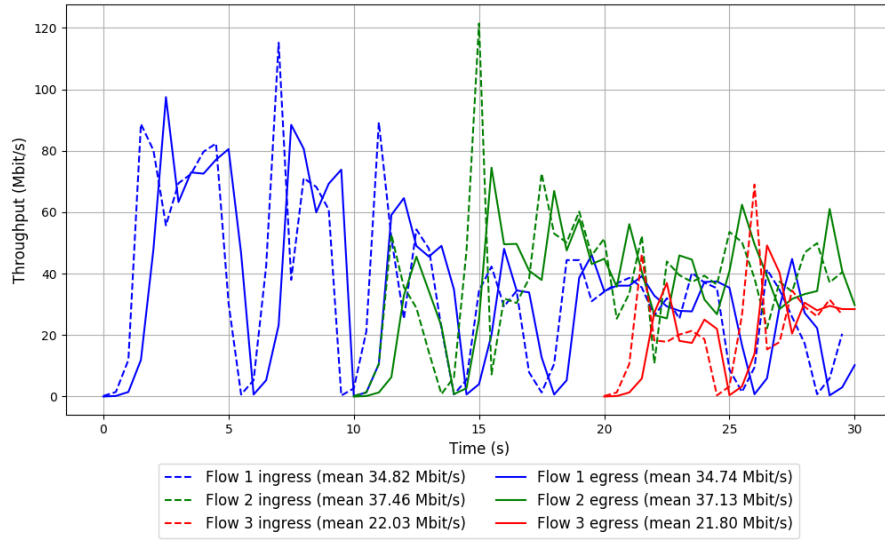
-- Flow 2:

Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 423.596 ms
Loss rate: 1.35%

-- Flow 3:

Average throughput: 21.80 Mbit/s
95th percentile per-packet one-way delay: 366.339 ms
Loss rate: 1.87%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-06-28 12:23:15
End at: 2019-06-28 12:23:45
Local clock offset: -6.99 ms
Remote clock offset: -328.174 ms

Below is generated by plot.py at 2019-06-28 14:16:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.68 Mbit/s
95th percentile per-packet one-way delay: 275.336 ms
Loss rate: 1.30%

-- Flow 1:

Average throughput: 45.74 Mbit/s
95th percentile per-packet one-way delay: 252.087 ms
Loss rate: 0.54%

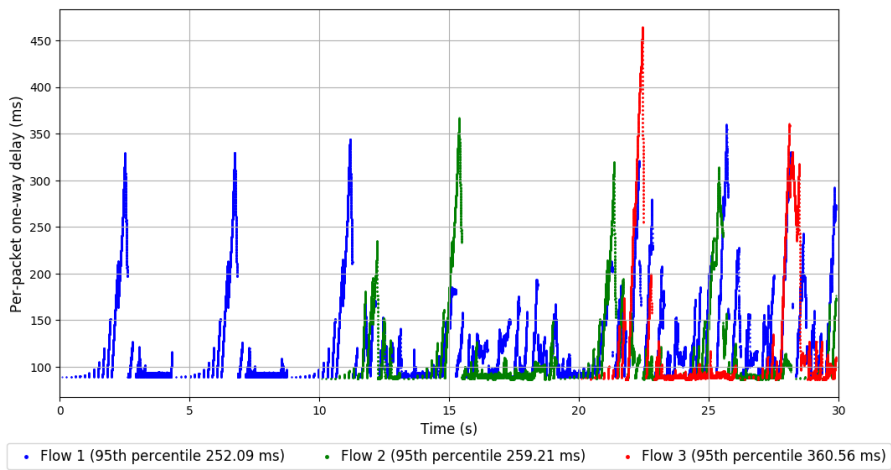
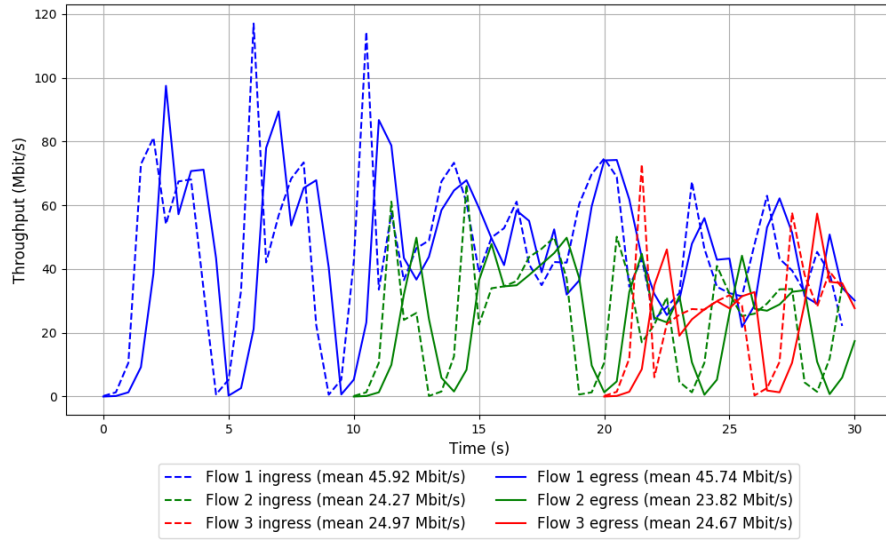
-- Flow 2:

Average throughput: 23.82 Mbit/s
95th percentile per-packet one-way delay: 259.210 ms
Loss rate: 2.67%

-- Flow 3:

Average throughput: 24.67 Mbit/s
95th percentile per-packet one-way delay: 360.555 ms
Loss rate: 2.77%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-06-28 12:51:41
End at: 2019-06-28 12:52:11
Local clock offset: -6.513 ms
Remote clock offset: 165.701 ms

Below is generated by plot.py at 2019-06-28 14:16:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.80 Mbit/s
95th percentile per-packet one-way delay: 323.472 ms
Loss rate: 1.06%

-- Flow 1:

Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 299.180 ms
Loss rate: 0.71%

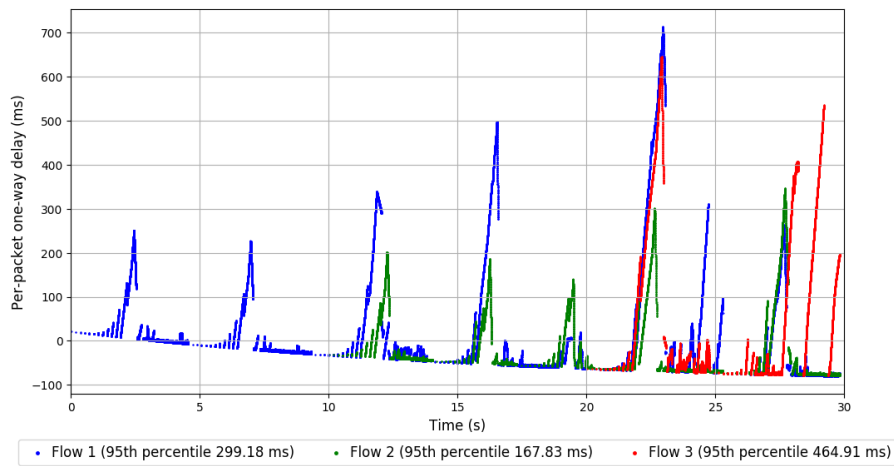
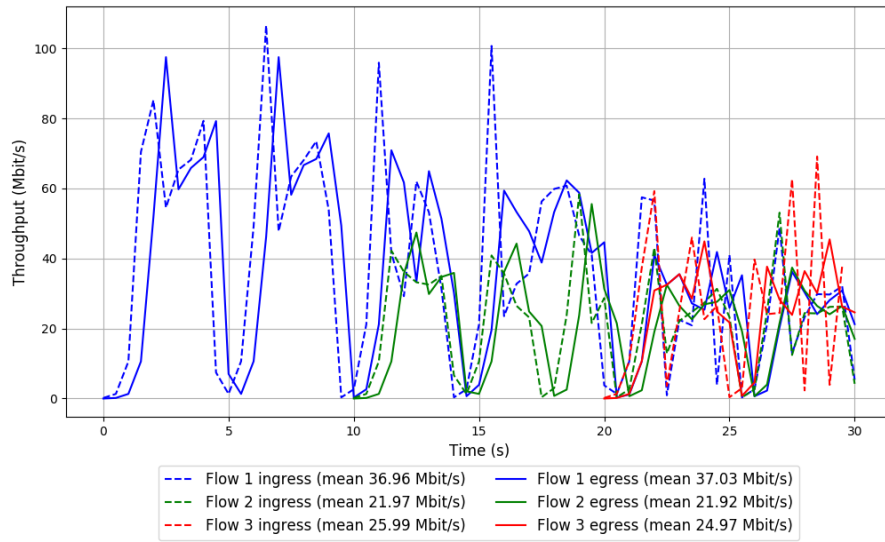
-- Flow 2:

Average throughput: 21.92 Mbit/s
95th percentile per-packet one-way delay: 167.831 ms
Loss rate: 1.32%

-- Flow 3:

Average throughput: 24.97 Mbit/s
95th percentile per-packet one-way delay: 464.912 ms
Loss rate: 2.18%

Run 3: Report of Verus — Data Link

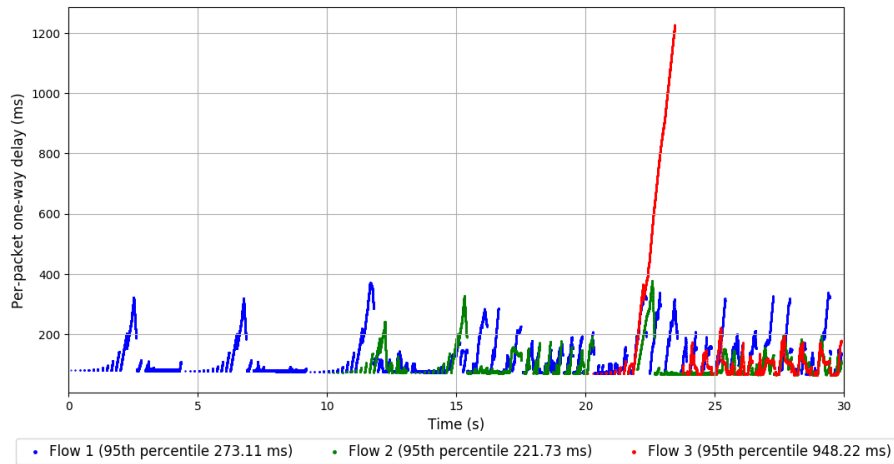
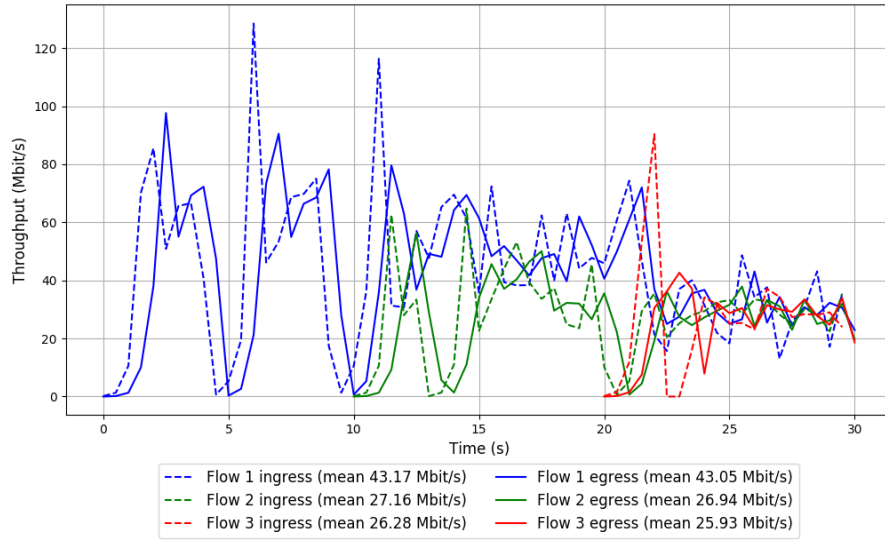


Run 4: Statistics of Verus

Start at: 2019-06-28 13:20:03
End at: 2019-06-28 13:20:33
Local clock offset: -5.363 ms
Remote clock offset: -59.182 ms

```
# Below is generated by plot.py at 2019-06-28 14:16:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 69.46 Mbit/s
95th percentile per-packet one-way delay: 294.551 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 273.110 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 221.730 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 25.93 Mbit/s
95th percentile per-packet one-way delay: 948.220 ms
Loss rate: 2.60%
```

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-06-28 13:57:00
End at: 2019-06-28 13:57:30
Local clock offset: -6.056 ms
Remote clock offset: -1134.941 ms

Below is generated by plot.py at 2019-06-28 14:17:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.38 Mbit/s
95th percentile per-packet one-way delay: 298.289 ms
Loss rate: 1.05%

-- Flow 1:

Average throughput: 45.40 Mbit/s
95th percentile per-packet one-way delay: 301.721 ms
Loss rate: 0.56%

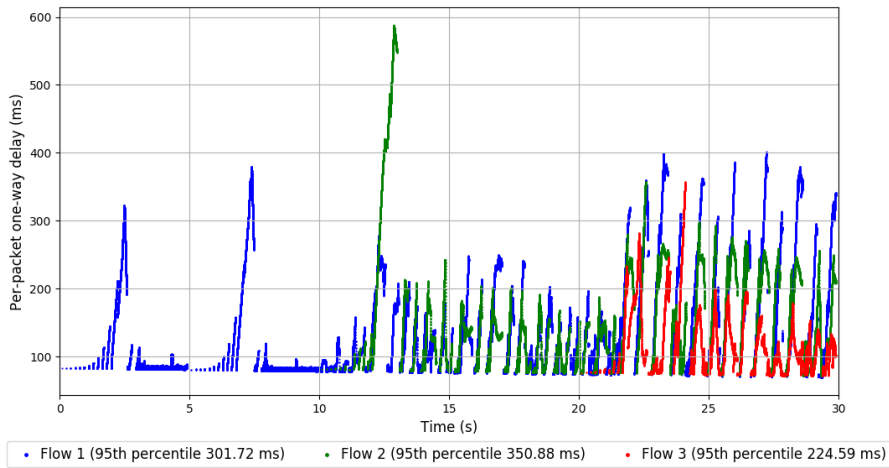
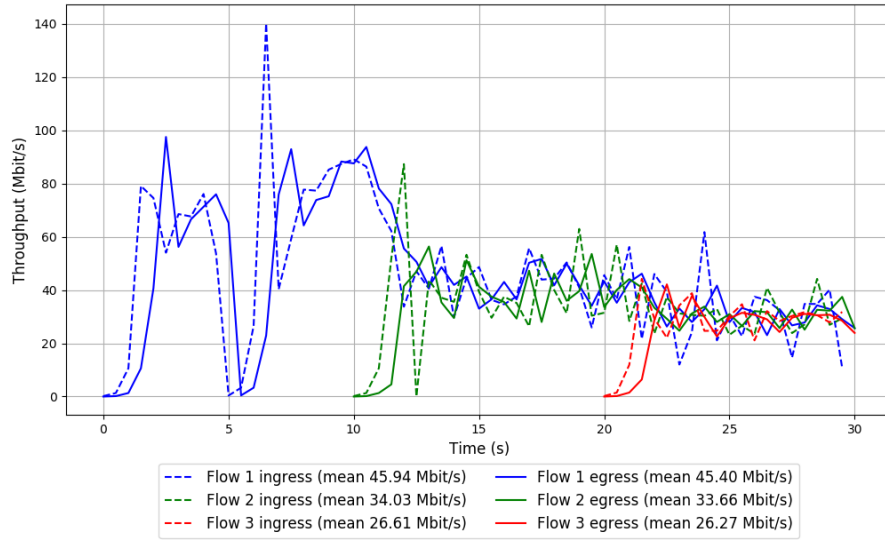
-- Flow 2:

Average throughput: 33.66 Mbit/s
95th percentile per-packet one-way delay: 350.879 ms
Loss rate: 1.25%

-- Flow 3:

Average throughput: 26.27 Mbit/s
95th percentile per-packet one-way delay: 224.585 ms
Loss rate: 3.06%

Run 5: Report of Verus — Data Link

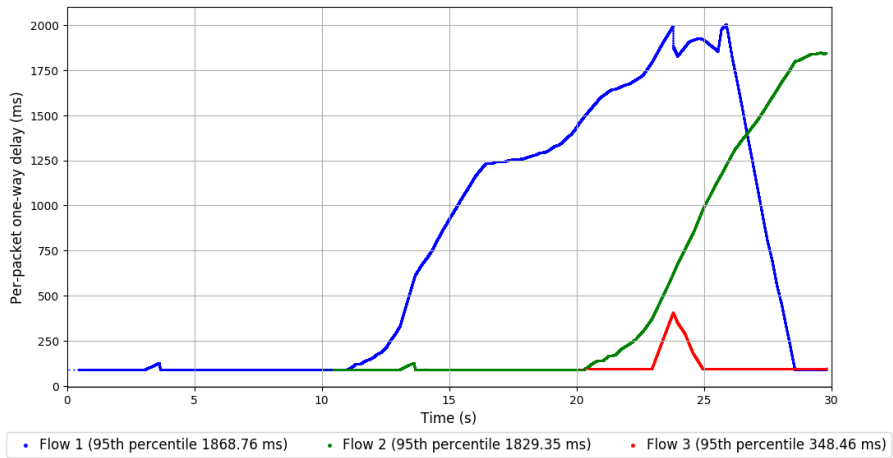
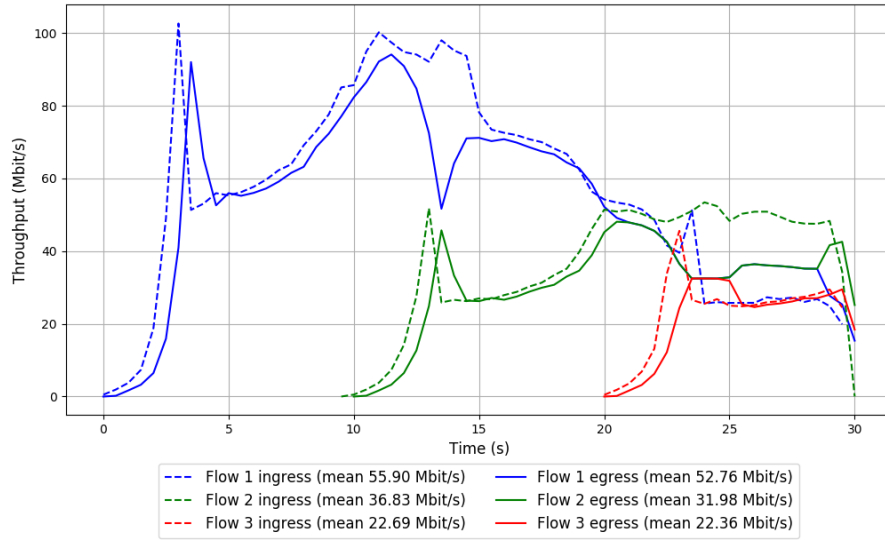


Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 11:47:15
End at: 2019-06-28 11:47:45
Local clock offset: -5.966 ms
Remote clock offset: -279.39 ms

Below is generated by plot.py at 2019-06-28 14:17:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 81.26 Mbit/s
95th percentile per-packet one-way delay: 1839.745 ms
Loss rate: 8.59%
-- Flow 1:
Average throughput: 52.76 Mbit/s
95th percentile per-packet one-way delay: 1868.756 ms
Loss rate: 6.17%
-- Flow 2:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 1829.349 ms
Loss rate: 15.64%
-- Flow 3:
Average throughput: 22.36 Mbit/s
95th percentile per-packet one-way delay: 348.457 ms
Loss rate: 3.12%

Run 1: Report of PCC-Vivace — Data Link

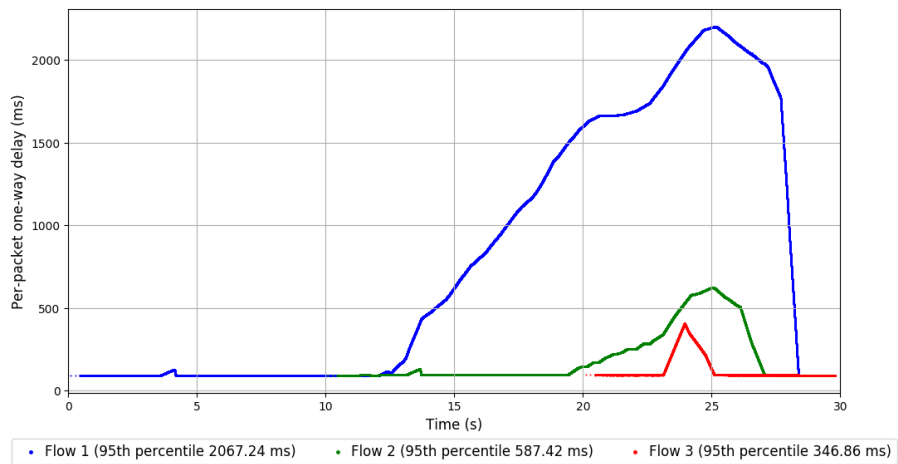
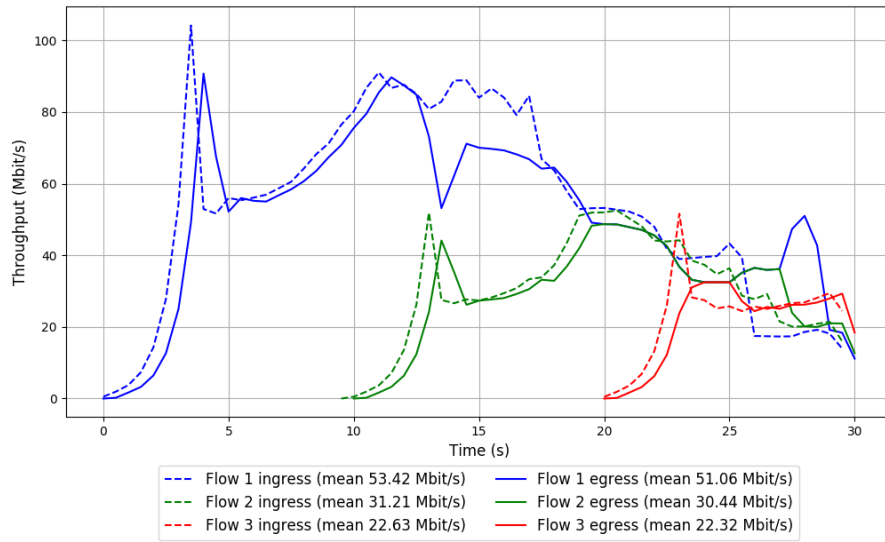


Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 12:15:38
End at: 2019-06-28 12:16:08
Local clock offset: -6.772 ms
Remote clock offset: -321.235 ms

```
# Below is generated by plot.py at 2019-06-28 14:17:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.53 Mbit/s
95th percentile per-packet one-way delay: 1976.930 ms
Loss rate: 4.38%
-- Flow 1:
Average throughput: 51.06 Mbit/s
95th percentile per-packet one-way delay: 2067.240 ms
Loss rate: 4.97%
-- Flow 2:
Average throughput: 30.44 Mbit/s
95th percentile per-packet one-way delay: 587.416 ms
Loss rate: 3.33%
-- Flow 3:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 346.856 ms
Loss rate: 3.12%
```

Run 2: Report of PCC-Vivace — Data Link

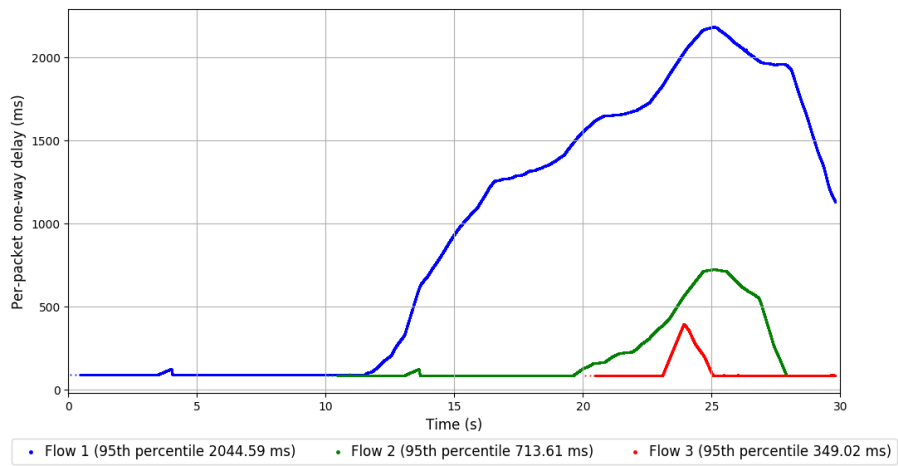
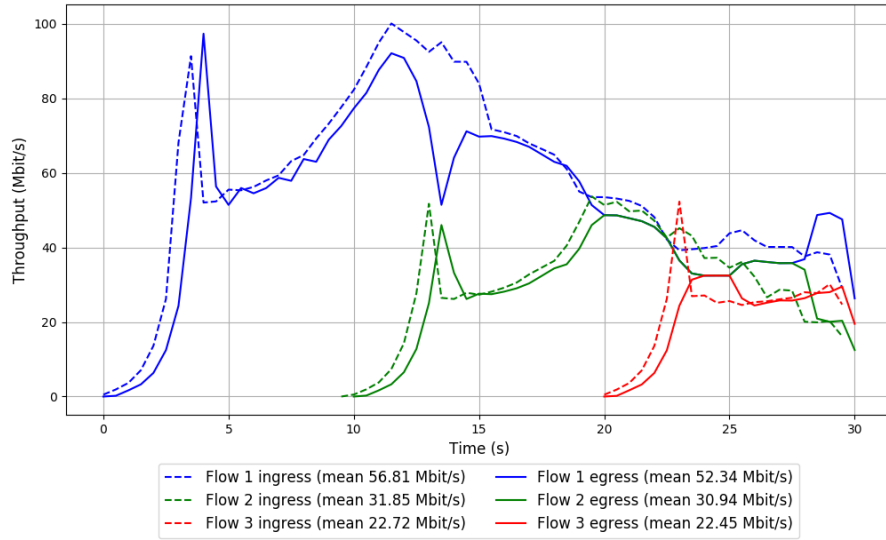


Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 12:44:03
End at: 2019-06-28 12:44:33
Local clock offset: -6.274 ms
Remote clock offset: -358.469 ms

```
# Below is generated by plot.py at 2019-06-28 14:17:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.21 Mbit/s
95th percentile per-packet one-way delay: 1963.764 ms
Loss rate: 6.75%
-- Flow 1:
Average throughput: 52.34 Mbit/s
95th percentile per-packet one-way delay: 2044.594 ms
Loss rate: 8.40%
-- Flow 2:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 713.606 ms
Loss rate: 3.69%
-- Flow 3:
Average throughput: 22.45 Mbit/s
95th percentile per-packet one-way delay: 349.017 ms
Loss rate: 2.90%
```

Run 3: Report of PCC-Vivace — Data Link

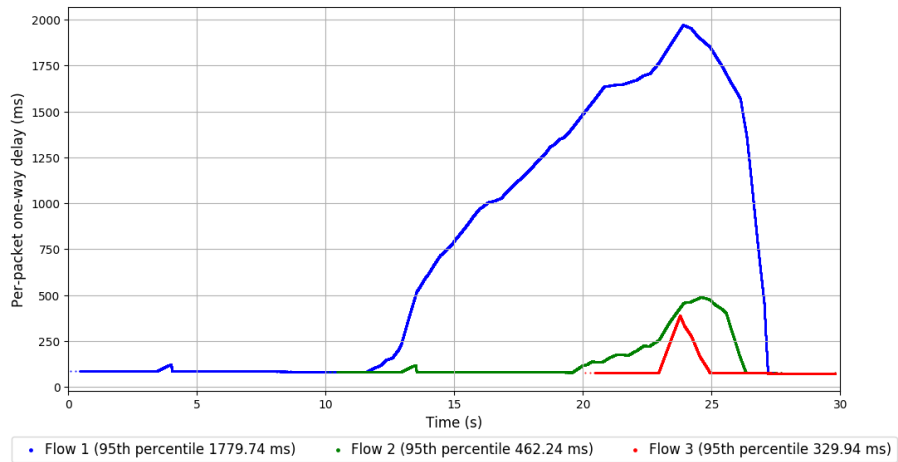
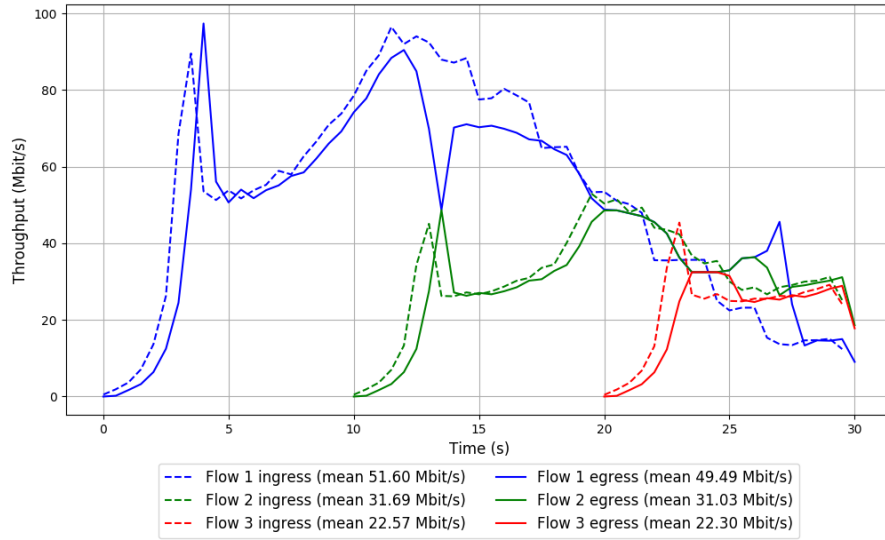


Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 13:12:28
End at: 2019-06-28 13:12:58
Local clock offset: -6.05 ms
Remote clock offset: -605.248 ms

```
# Below is generated by plot.py at 2019-06-28 14:17:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.34 Mbit/s
95th percentile per-packet one-way delay: 1688.940 ms
Loss rate: 4.08%
-- Flow 1:
Average throughput: 49.49 Mbit/s
95th percentile per-packet one-way delay: 1779.740 ms
Loss rate: 4.70%
-- Flow 2:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 462.239 ms
Loss rate: 2.98%
-- Flow 3:
Average throughput: 22.30 Mbit/s
95th percentile per-packet one-way delay: 329.944 ms
Loss rate: 2.94%
```

Run 4: Report of PCC-Vivace — Data Link

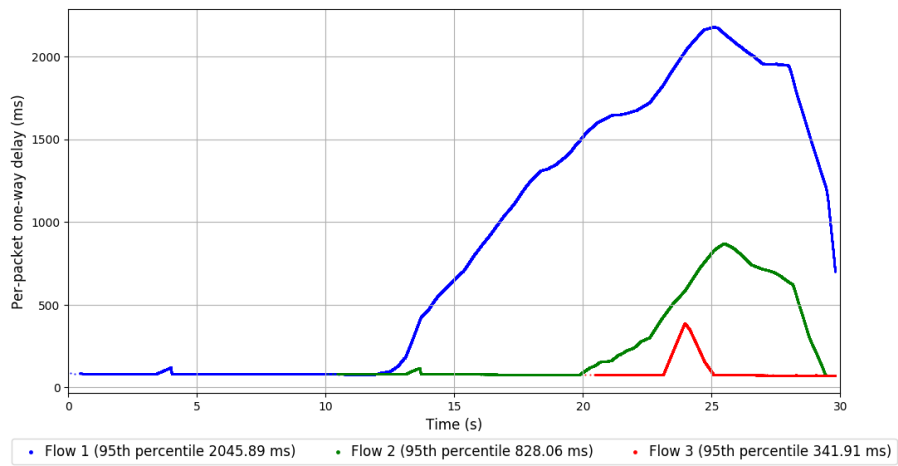
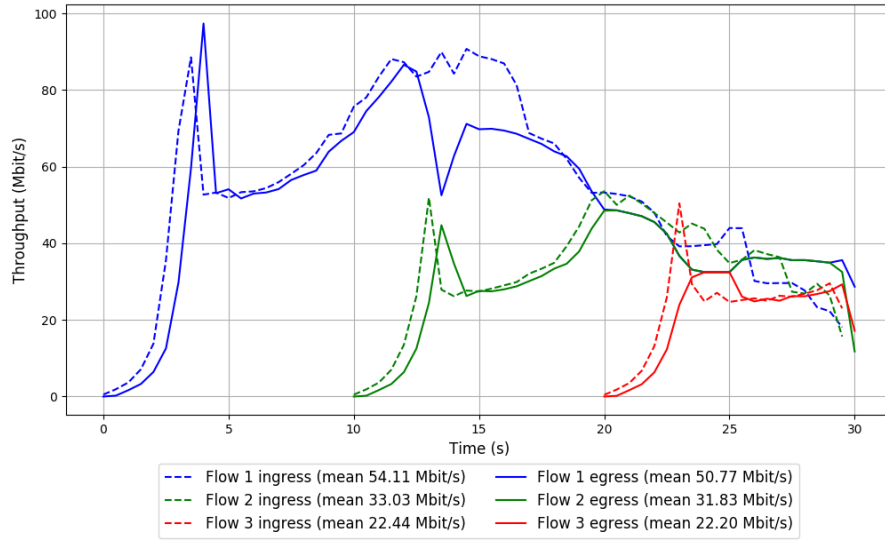


Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 13:46:49
End at: 2019-06-28 13:47:19
Local clock offset: -6.642 ms
Remote clock offset: -841.082 ms

```
# Below is generated by plot.py at 2019-06-28 14:17:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.13 Mbit/s
95th percentile per-packet one-way delay: 1956.272 ms
Loss rate: 5.82%
-- Flow 1:
Average throughput: 50.77 Mbit/s
95th percentile per-packet one-way delay: 2045.890 ms
Loss rate: 6.75%
-- Flow 2:
Average throughput: 31.83 Mbit/s
95th percentile per-packet one-way delay: 828.059 ms
Loss rate: 4.53%
-- Flow 3:
Average throughput: 22.20 Mbit/s
95th percentile per-packet one-way delay: 341.906 ms
Loss rate: 2.86%
```

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-06-28 11:48:35
End at: 2019-06-28 11:49:05
Local clock offset: -6.039 ms
Remote clock offset: -277.304 ms

Below is generated by plot.py at 2019-06-28 14:17:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.71 Mbit/s
95th percentile per-packet one-way delay: 89.863 ms
Loss rate: 0.70%

-- Flow 1:

Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 89.915 ms
Loss rate: 0.36%

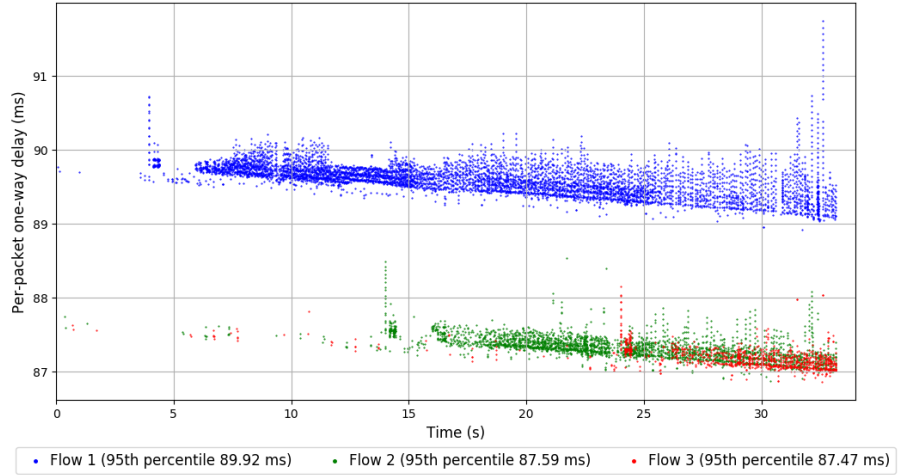
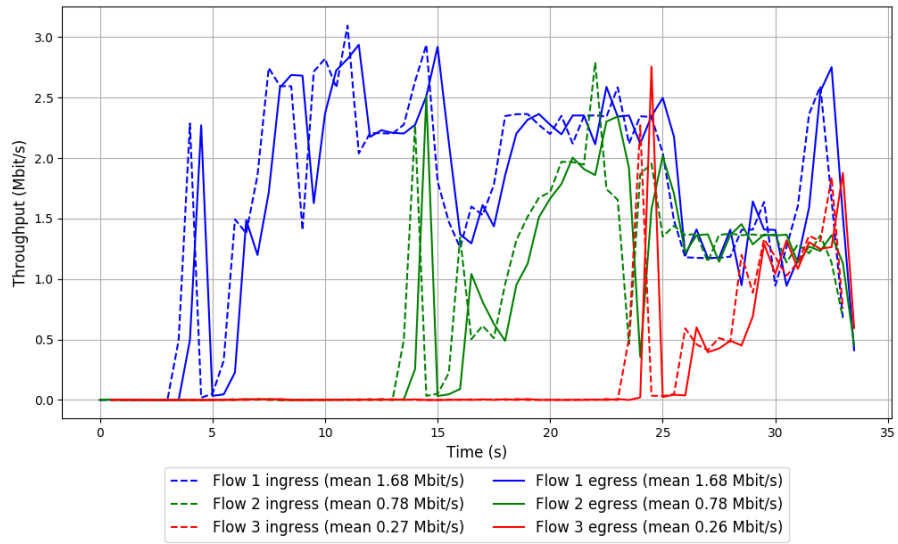
-- Flow 2:

Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 87.590 ms
Loss rate: 0.88%

-- Flow 3:

Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 87.473 ms
Loss rate: 2.38%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-06-28 12:16:57
End at: 2019-06-28 12:17:27
Local clock offset: -6.794 ms
Remote clock offset: -322.882 ms

Below is generated by plot.py at 2019-06-28 14:17:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 93.548 ms
Loss rate: 0.80%

-- Flow 1:

Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 91.994 ms
Loss rate: 0.37%

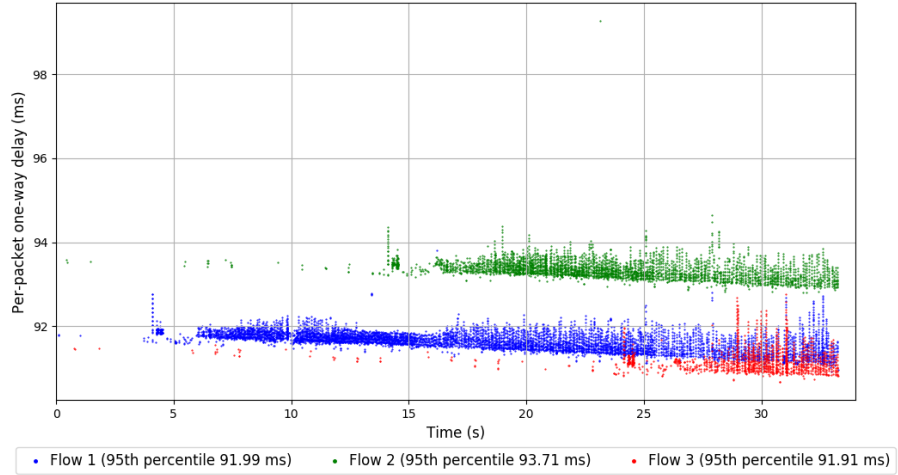
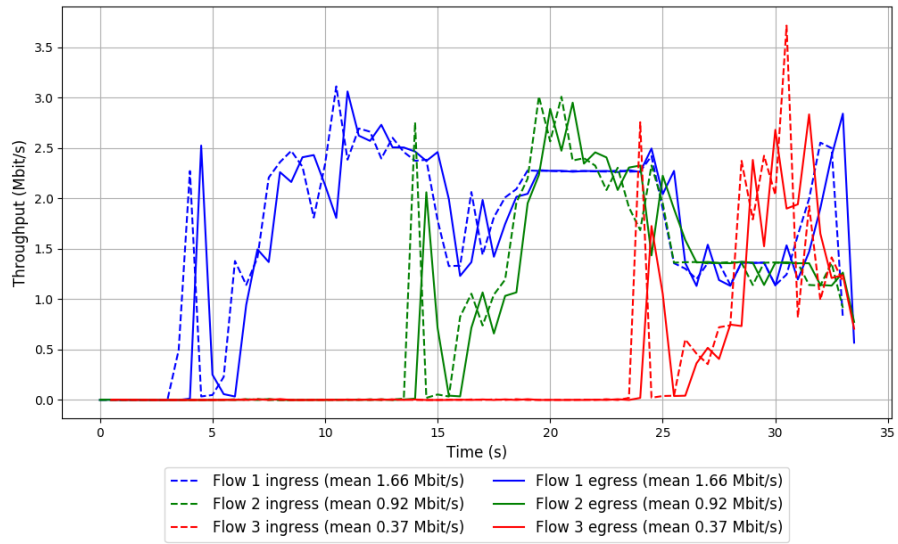
-- Flow 2:

Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 93.714 ms
Loss rate: 0.76%

-- Flow 3:

Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 91.908 ms
Loss rate: 2.86%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-06-28 12:45:22
End at: 2019-06-28 12:45:52
Local clock offset: -5.905 ms
Remote clock offset: -361.563 ms

Below is generated by plot.py at 2019-06-28 14:17:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 91.381 ms
Loss rate: 0.55%

-- Flow 1:

Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 91.420 ms
Loss rate: 0.35%

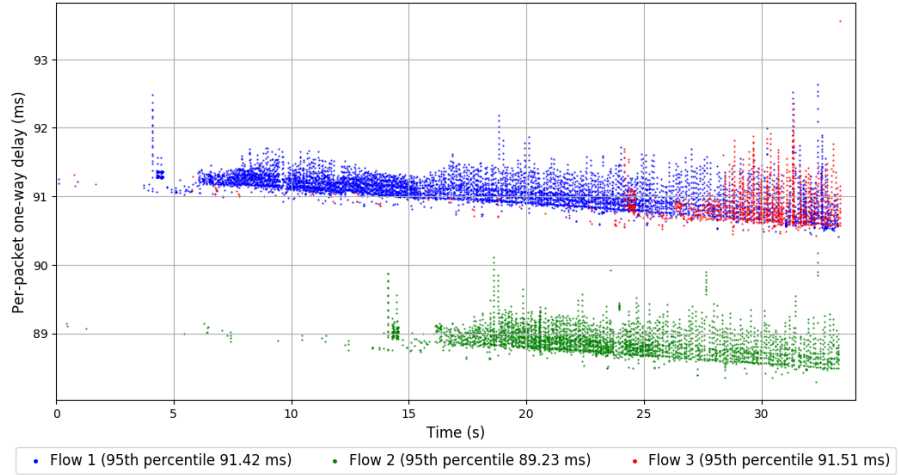
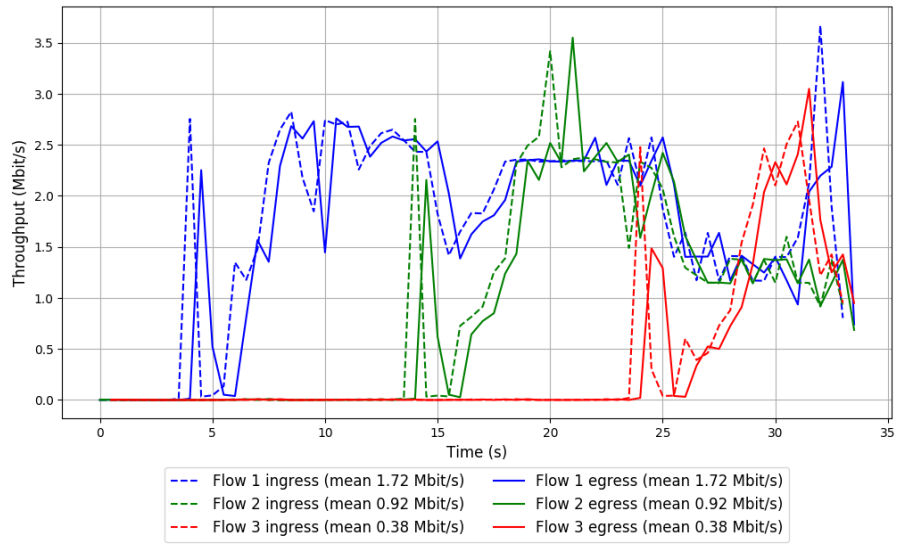
-- Flow 2:

Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 89.235 ms
Loss rate: 0.76%

-- Flow 3:

Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 91.510 ms
Loss rate: 0.95%

Run 3: Report of WebRTC media — Data Link

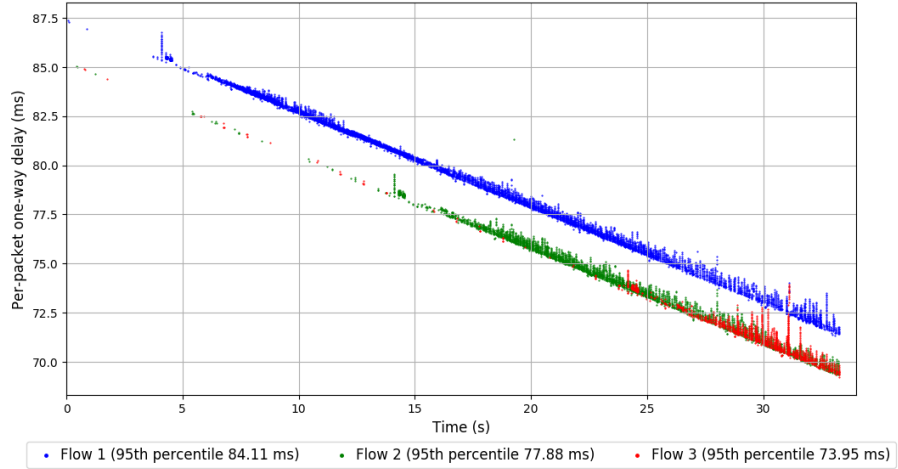
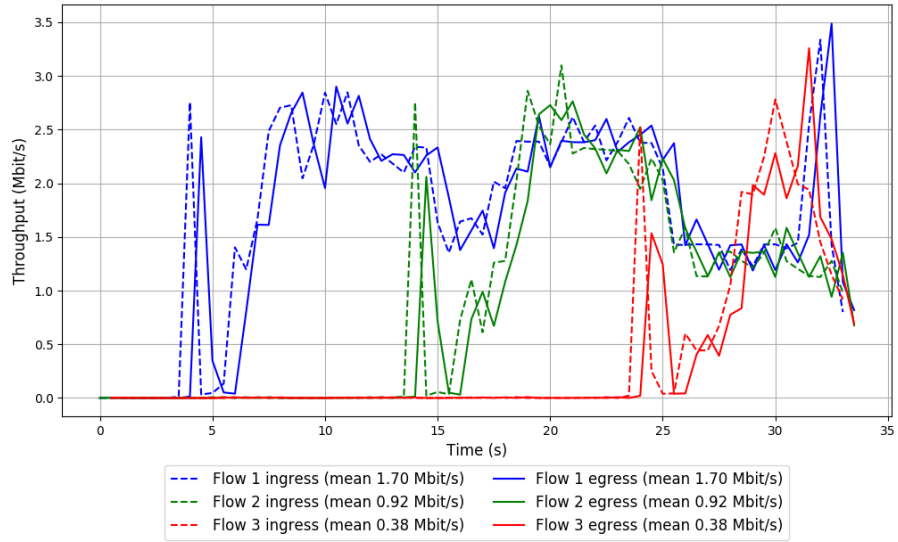


Run 4: Statistics of WebRTC media

Start at: 2019-06-28 13:13:46
End at: 2019-06-28 13:14:16
Local clock offset: -5.24 ms
Remote clock offset: -639.849 ms

```
# Below is generated by plot.py at 2019-06-28 14:17:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 83.696 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 84.105 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 77.875 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 73.948 ms
Loss rate: 1.83%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-06-28 13:48:08
End at: 2019-06-28 13:48:38
Local clock offset: -5.902 ms
Remote clock offset: -885.905 ms

```
# Below is generated by plot.py at 2019-06-28 14:17:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 89.193 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 89.592 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 87.343 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 81.511 ms
Loss rate: 1.81%
```

Run 5: Report of WebRTC media — Data Link

