

Pantheon Report

Generated at 2019-05-30 04:03:06 (UTC).

Data path: GCE London on *ens4 (remote)* → GCE Tokyo on *ens4 (local)*.

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

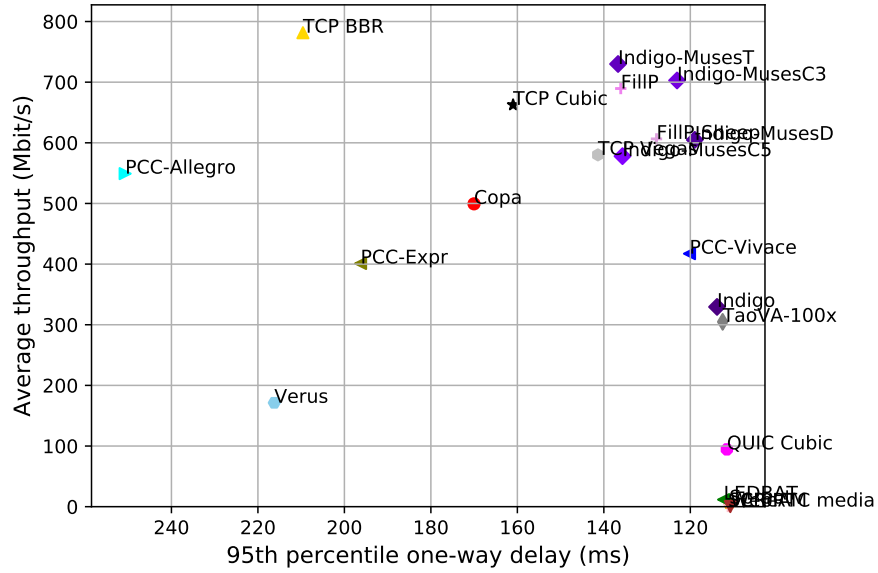
```
Linux 4.15.0-1029-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

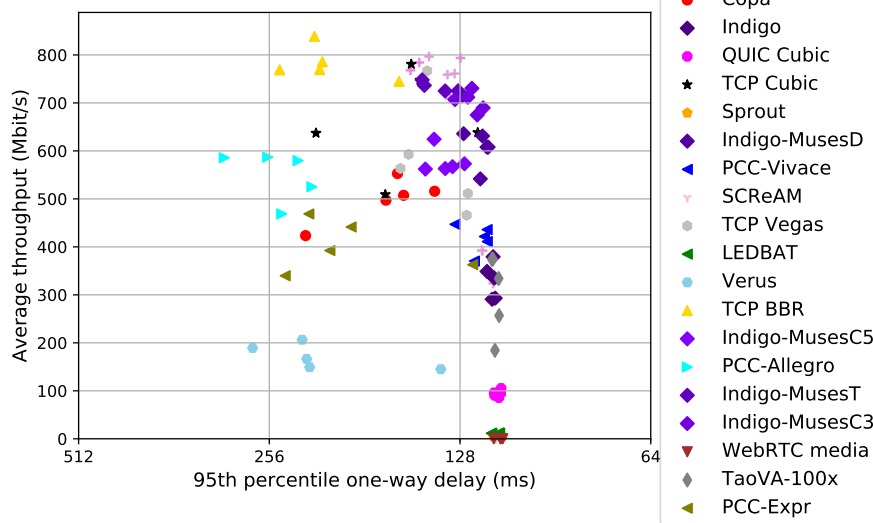
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

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

test from GCE London to GCE Tokyo, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	441.25	371.38	286.59	208.40	179.81	180.34	1.62	2.48	4.18
Copa	5	272.06	243.50	200.86	168.65	152.99	174.33	0.76	1.39	2.86
TCP Cubic	5	371.81	303.29	273.31	154.08	157.41	164.41	0.84	1.90	3.13
FillP	5	396.52	329.62	228.52	144.50	115.76	114.15	0.77	0.98	2.62
FillP-Sheep	5	324.42	316.78	220.81	140.38	114.98	113.15	0.55	1.08	2.55
Indigo	5	177.89	161.15	136.96	113.09	113.80	116.64	0.72	1.16	2.69
Indigo-MusesC3	5	411.11	350.22	255.43	124.05	121.42	122.36	0.65	1.14	4.02
Indigo-MusesC5	5	347.03	306.74	128.72	137.60	136.61	112.74	0.55	1.10	5.39
Indigo-MusesD	5	366.63	317.88	132.24	119.66	118.80	112.13	0.79	1.41	4.01
Indigo-MusesT	5	455.49	375.14	128.55	143.11	129.40	112.95	0.81	1.38	3.59
LEDBAT	5	7.56	5.04	2.43	112.49	110.70	111.31	1.49	2.23	4.49
PCC-Allegro	5	333.04	216.00	226.20	246.98	202.90	238.02	6.50	3.76	4.99
PCC-Expr	5	231.17	184.13	147.55	204.03	169.17	150.83	2.48	2.20	3.98
QUIC Cubic	5	51.73	46.90	34.82	111.42	111.33	110.19	1.15	1.56	3.10
SCReAM	5	0.22	0.20	0.22	110.54	109.90	111.02	0.72	1.22	2.14
Sprout	5	3.03	2.47	1.59	110.07	110.28	110.53	0.87	1.25	3.78
TaoVA-100x	5	159.20	151.21	138.43	112.54	111.24	113.30	0.72	1.05	2.12
TCP Vegas	5	296.52	290.53	277.45	124.92	146.19	142.34	0.76	0.93	3.17
Verus	5	109.45	62.13	64.31	201.40	144.08	193.84	3.21	4.44	1.67
PCC-Vivace	5	250.43	183.98	138.21	130.19	115.85	118.52	0.80	1.30	3.99
WebRTC media	5	0.05	0.05	0.05	109.80	110.32	109.92	0.01	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-05-29 22:58:44

End at: 2019-05-29 22:59:14

Local clock offset: -0.175 ms

Remote clock offset: 0.055 ms

Below is generated by plot.py at 2019-05-30 02:07:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 744.90 Mbit/s

95th percentile per-packet one-way delay: 159.748 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 445.56 Mbit/s

95th percentile per-packet one-way delay: 169.828 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 328.32 Mbit/s

95th percentile per-packet one-way delay: 143.982 ms

Loss rate: 2.35%

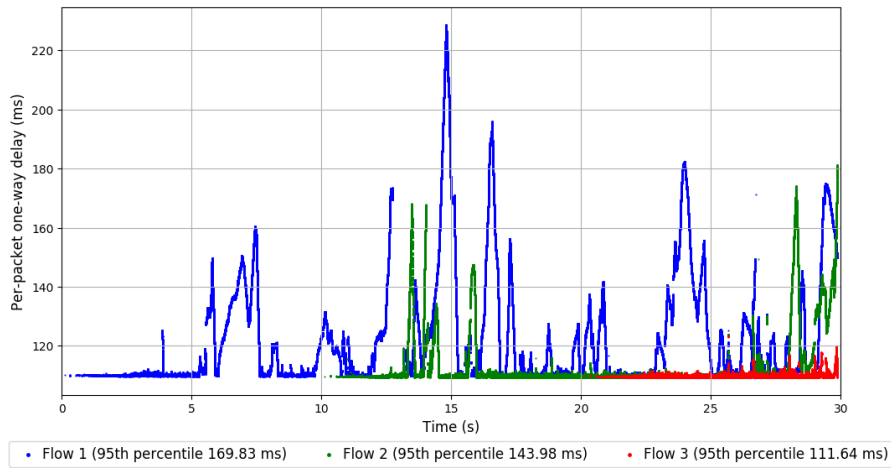
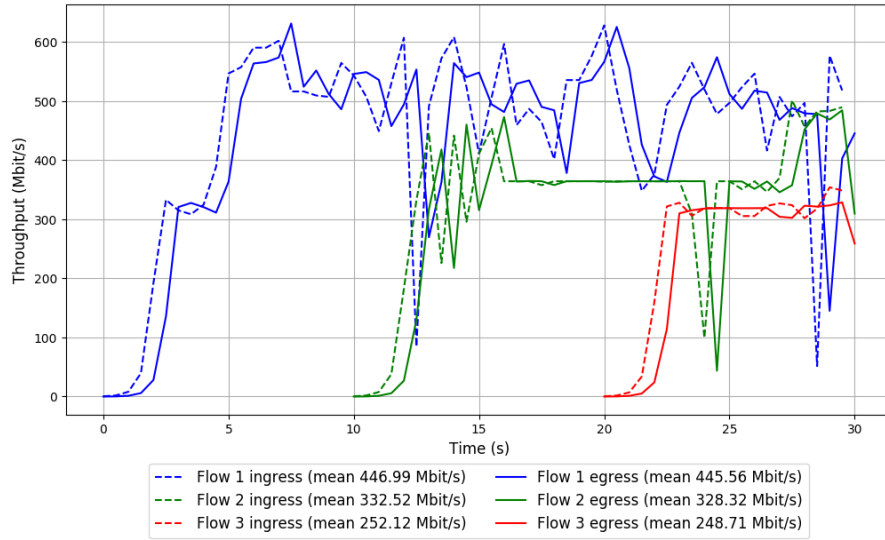
-- Flow 3:

Average throughput: 248.71 Mbit/s

95th percentile per-packet one-way delay: 111.635 ms

Loss rate: 3.54%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-05-29 23:35:34
End at: 2019-05-29 23:36:04
Local clock offset: -0.082 ms
Remote clock offset: -0.085 ms

Below is generated by plot.py at 2019-05-30 02:07:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 768.99 Mbit/s
95th percentile per-packet one-way delay: 246.586 ms
Loss rate: 3.09%

-- Flow 1:

Average throughput: 422.81 Mbit/s
95th percentile per-packet one-way delay: 193.857 ms
Loss rate: 1.42%

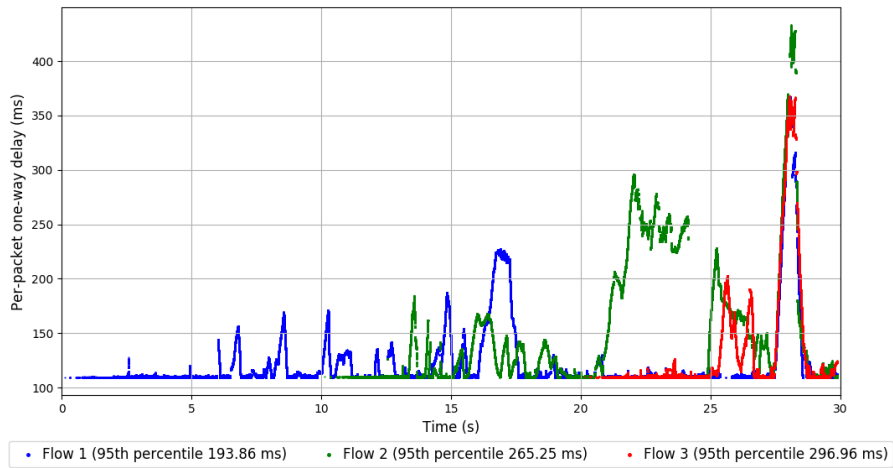
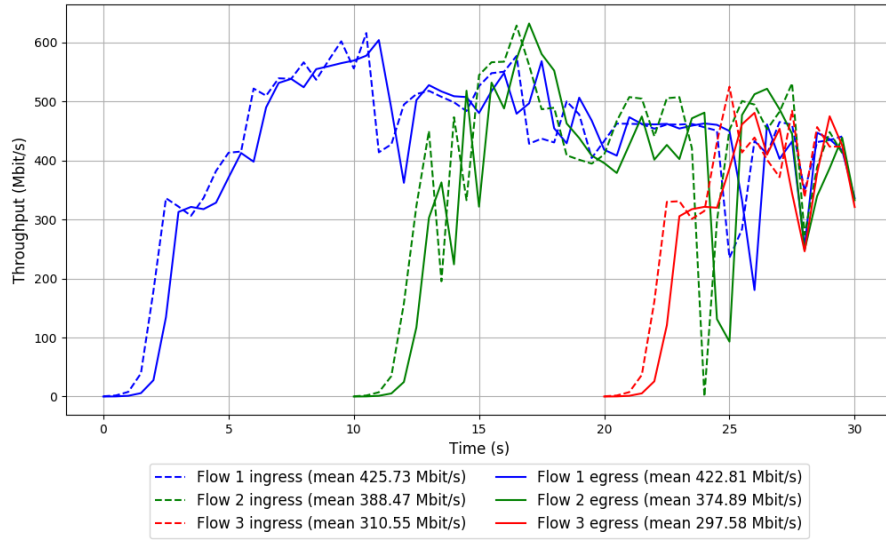
-- Flow 2:

Average throughput: 374.89 Mbit/s
95th percentile per-packet one-way delay: 265.254 ms
Loss rate: 4.57%

-- Flow 3:

Average throughput: 297.58 Mbit/s
95th percentile per-packet one-way delay: 296.956 ms
Loss rate: 6.30%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-05-30 00:12:16
End at: 2019-05-30 00:12:46
Local clock offset: 0.623 ms
Remote clock offset: -0.058 ms

Below is generated by plot.py at 2019-05-30 02:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 785.66 Mbit/s
95th percentile per-packet one-way delay: 211.121 ms
Loss rate: 2.06%

-- Flow 1:

Average throughput: 441.16 Mbit/s
95th percentile per-packet one-way delay: 226.028 ms
Loss rate: 2.06%

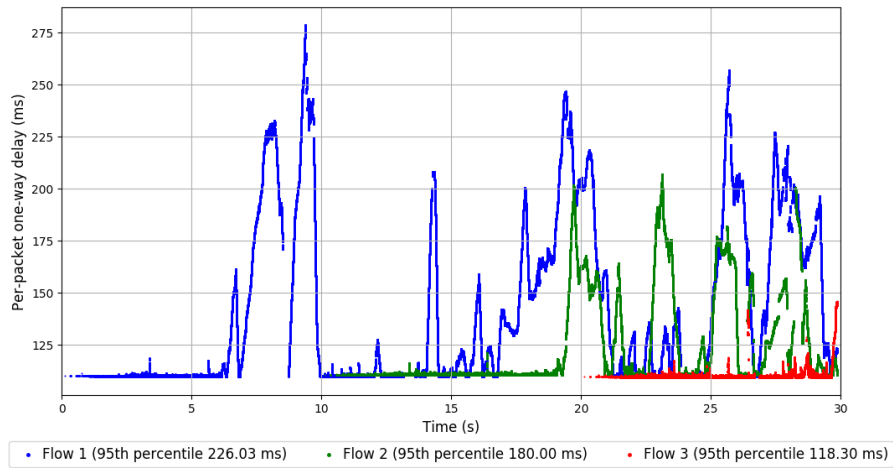
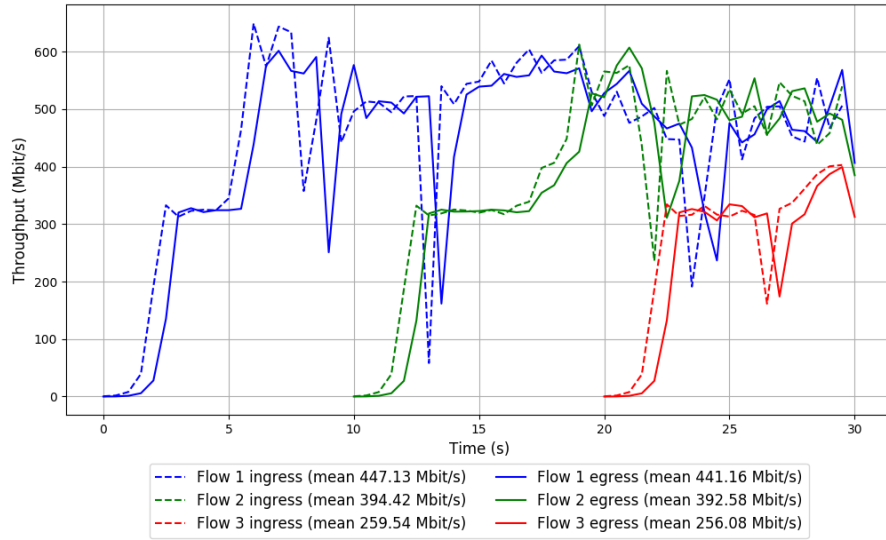
-- Flow 2:

Average throughput: 392.58 Mbit/s
95th percentile per-packet one-way delay: 180.000 ms
Loss rate: 1.57%

-- Flow 3:

Average throughput: 256.08 Mbit/s
95th percentile per-packet one-way delay: 118.302 ms
Loss rate: 3.52%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-05-30 00:49:19

End at: 2019-05-30 00:49:49

Local clock offset: -0.16 ms

Remote clock offset: -0.12 ms

Below is generated by plot.py at 2019-05-30 02:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 769.54 Mbit/s

95th percentile per-packet one-way delay: 213.220 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 434.19 Mbit/s

95th percentile per-packet one-way delay: 228.348 ms

Loss rate: 1.73%

-- Flow 2:

Average throughput: 356.66 Mbit/s

95th percentile per-packet one-way delay: 125.515 ms

Loss rate: 1.61%

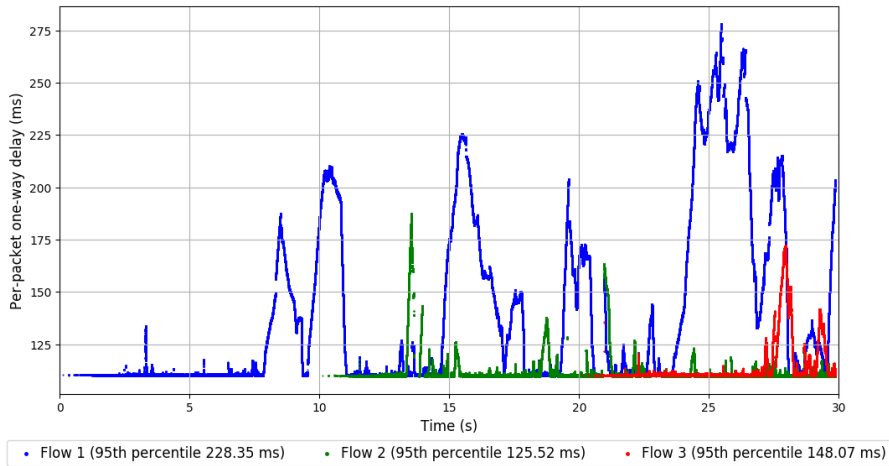
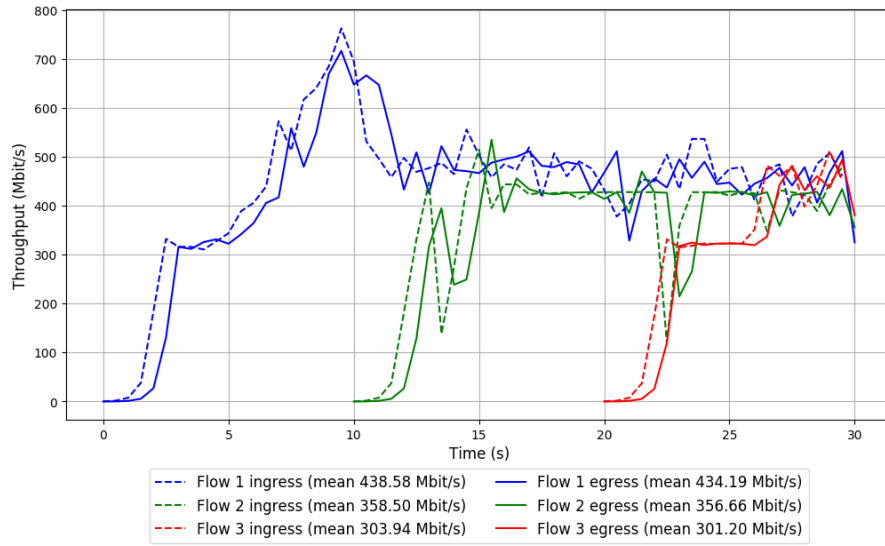
-- Flow 3:

Average throughput: 301.20 Mbit/s

95th percentile per-packet one-way delay: 148.072 ms

Loss rate: 3.10%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-05-30 01:26:34
End at: 2019-05-30 01:27:04
Local clock offset: -0.079 ms
Remote clock offset: -0.099 ms

Below is generated by plot.py at 2019-05-30 02:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 838.67 Mbit/s
95th percentile per-packet one-way delay: 217.288 ms
Loss rate: 2.32%

-- Flow 1:

Average throughput: 462.53 Mbit/s
95th percentile per-packet one-way delay: 223.932 ms
Loss rate: 1.83%

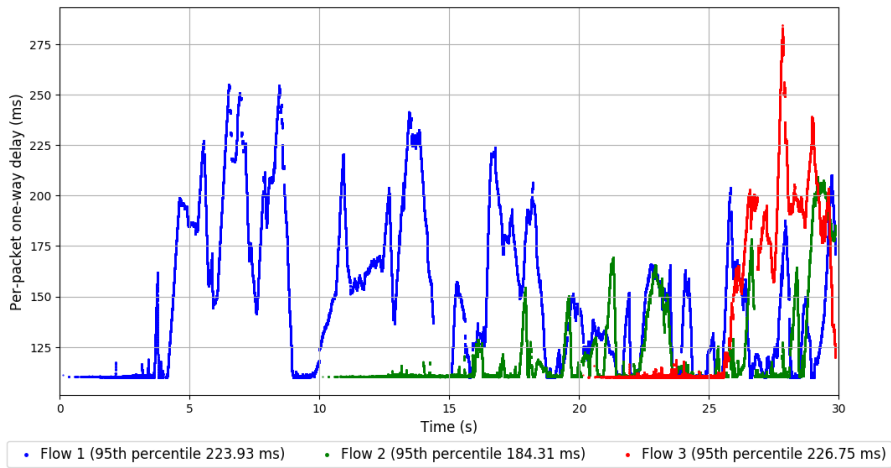
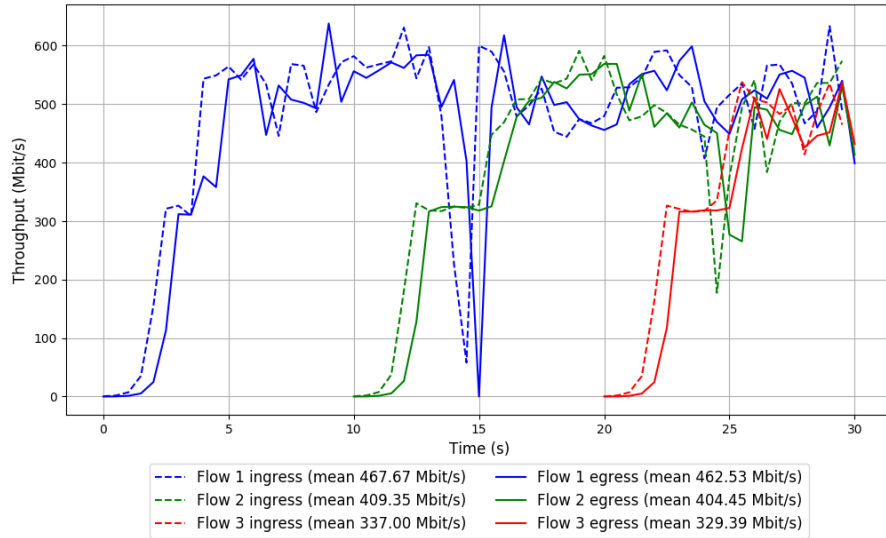
-- Flow 2:

Average throughput: 404.45 Mbit/s
95th percentile per-packet one-way delay: 184.309 ms
Loss rate: 2.29%

-- Flow 3:

Average throughput: 329.39 Mbit/s
95th percentile per-packet one-way delay: 226.752 ms
Loss rate: 4.44%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-05-29 23:06:45

End at: 2019-05-29 23:07:15

Local clock offset: 0.046 ms

Remote clock offset: 0.041 ms

Below is generated by plot.py at 2019-05-30 02:11:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 507.41 Mbit/s

95th percentile per-packet one-way delay: 157.126 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 276.76 Mbit/s

95th percentile per-packet one-way delay: 156.787 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 251.19 Mbit/s

95th percentile per-packet one-way delay: 158.369 ms

Loss rate: 1.27%

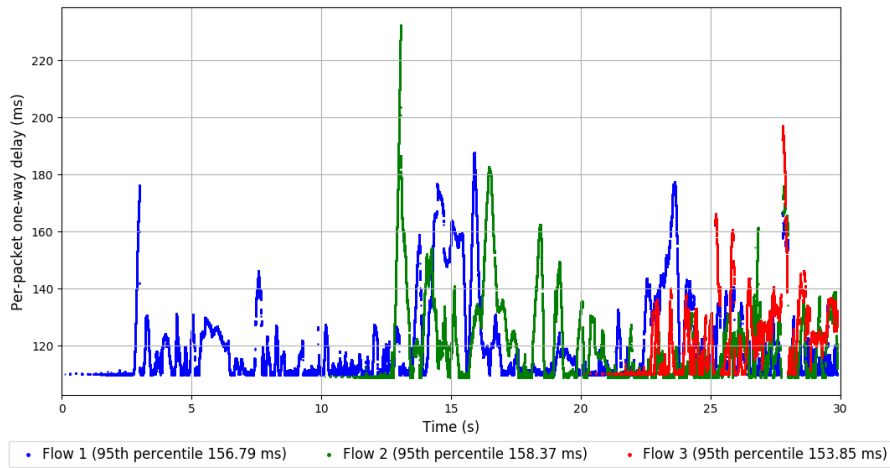
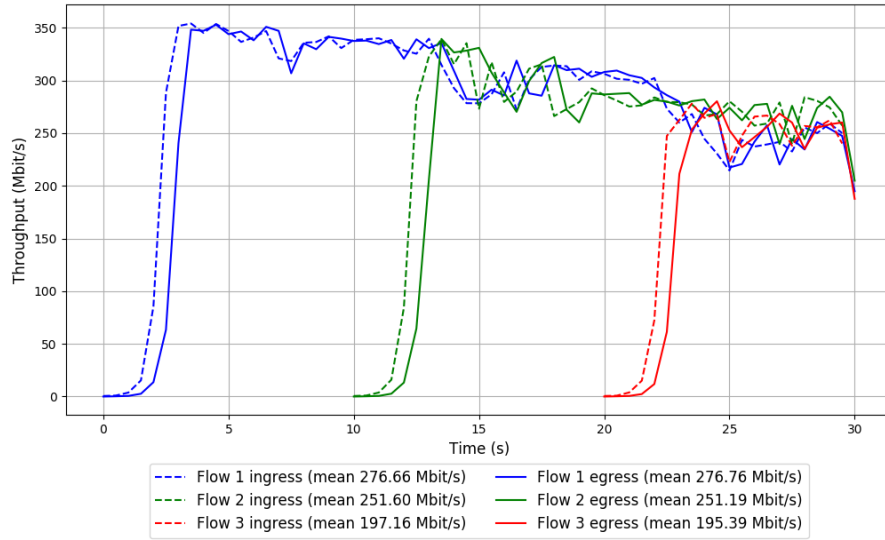
-- Flow 3:

Average throughput: 195.39 Mbit/s

95th percentile per-packet one-way delay: 153.849 ms

Loss rate: 3.07%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-05-29 23:43:27
End at: 2019-05-29 23:43:57
Local clock offset: -0.099 ms
Remote clock offset: -0.056 ms

Below is generated by plot.py at 2019-05-30 02:11:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 497.29 Mbit/s
95th percentile per-packet one-way delay: 167.561 ms
Loss rate: 1.37%

-- Flow 1:

Average throughput: 261.88 Mbit/s
95th percentile per-packet one-way delay: 156.597 ms
Loss rate: 0.83%

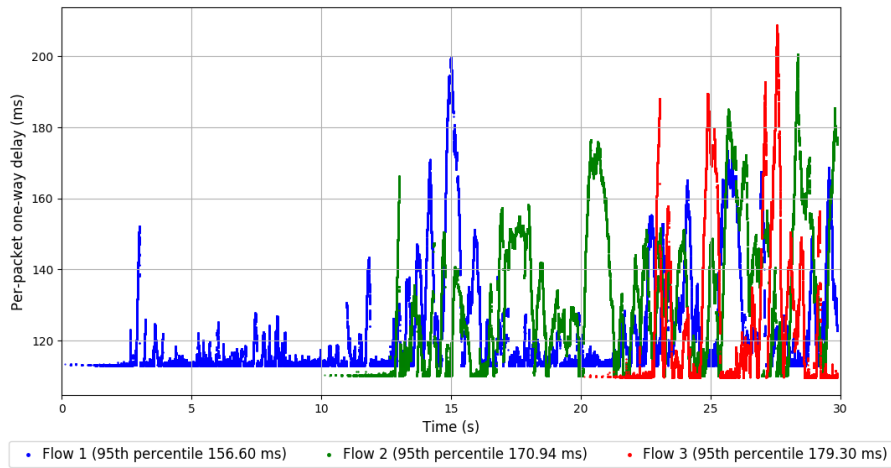
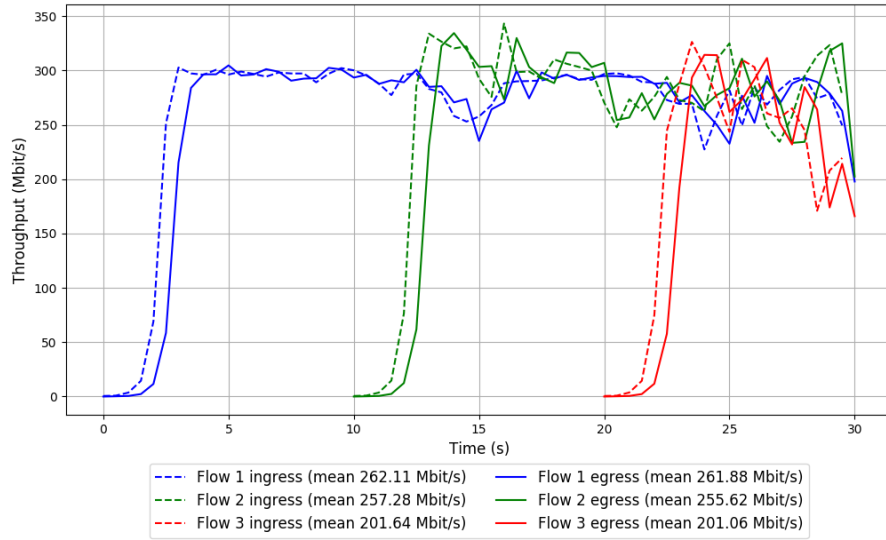
-- Flow 2:

Average throughput: 255.62 Mbit/s
95th percentile per-packet one-way delay: 170.942 ms
Loss rate: 1.74%

-- Flow 3:

Average throughput: 201.06 Mbit/s
95th percentile per-packet one-way delay: 179.300 ms
Loss rate: 2.49%

Run 2: Report of Copa — Data Link

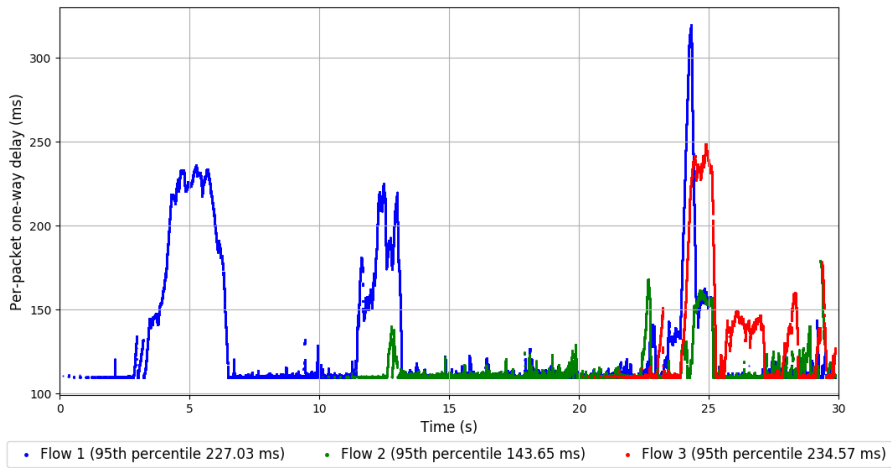
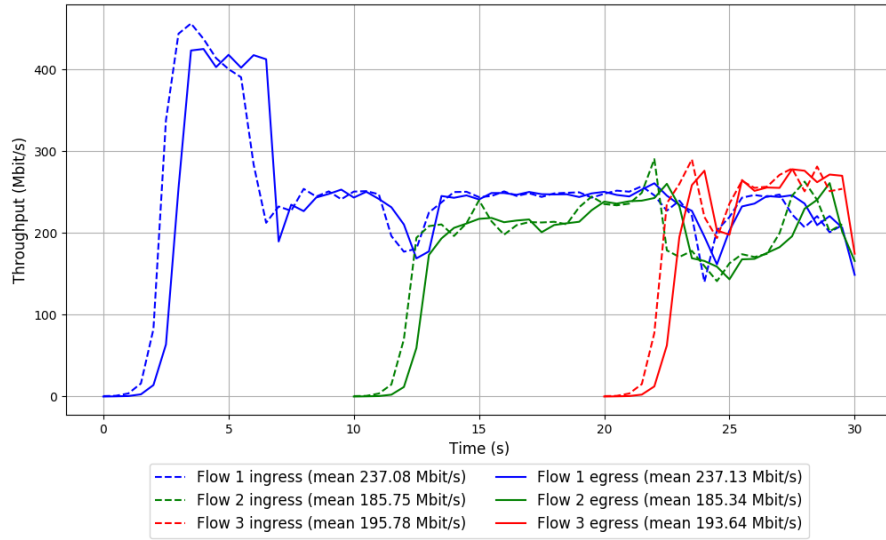


Run 3: Statistics of Copa

Start at: 2019-05-30 00:19:55
End at: 2019-05-30 00:20:25
Local clock offset: 0.125 ms
Remote clock offset: -0.102 ms

```
# Below is generated by plot.py at 2019-05-30 02:11:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 423.45 Mbit/s
95th percentile per-packet one-way delay: 224.384 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 237.13 Mbit/s
95th percentile per-packet one-way delay: 227.026 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 185.34 Mbit/s
95th percentile per-packet one-way delay: 143.653 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 193.64 Mbit/s
95th percentile per-packet one-way delay: 234.569 ms
Loss rate: 3.28%
```

Run 3: Report of Copa — Data Link

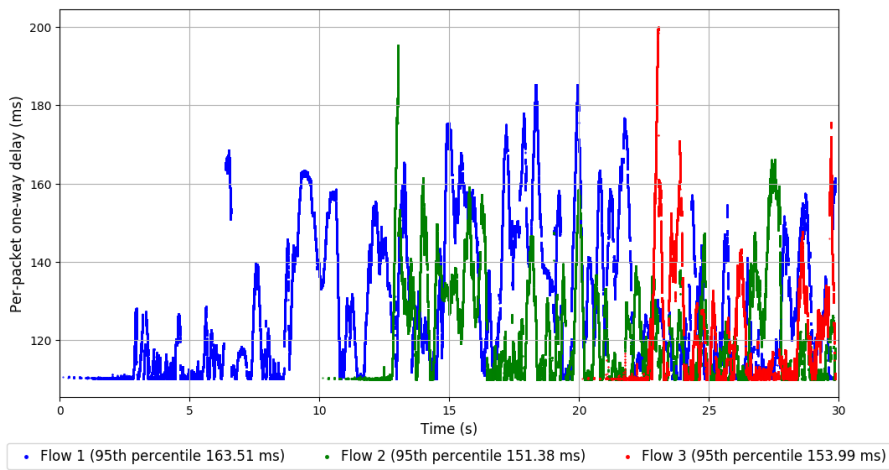
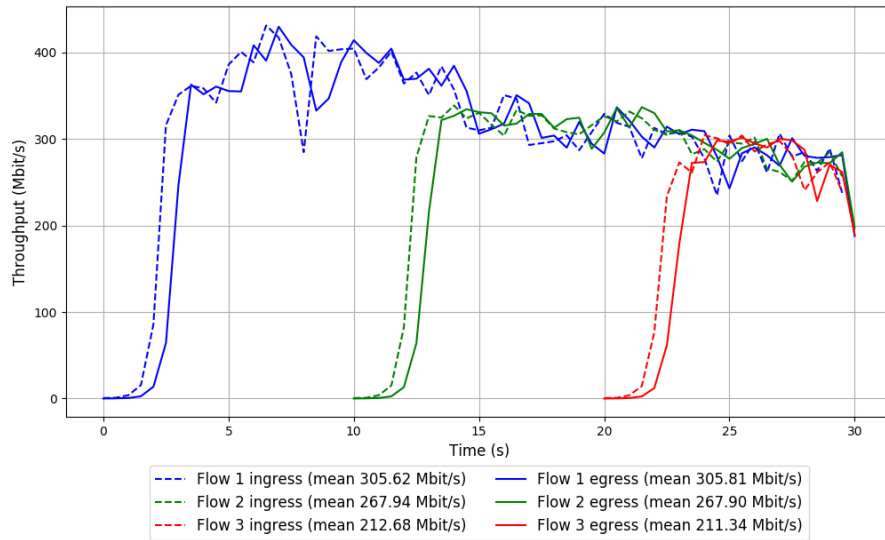


Run 4: Statistics of Copa

Start at: 2019-05-30 00:57:04
End at: 2019-05-30 00:57:34
Local clock offset: -0.104 ms
Remote clock offset: -0.136 ms

```
# Below is generated by plot.py at 2019-05-30 02:26:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 552.82 Mbit/s
95th percentile per-packet one-way delay: 160.667 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 305.81 Mbit/s
95th percentile per-packet one-way delay: 163.514 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 267.90 Mbit/s
95th percentile per-packet one-way delay: 151.380 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 211.34 Mbit/s
95th percentile per-packet one-way delay: 153.987 ms
Loss rate: 2.83%
```

Run 4: Report of Copa — Data Link

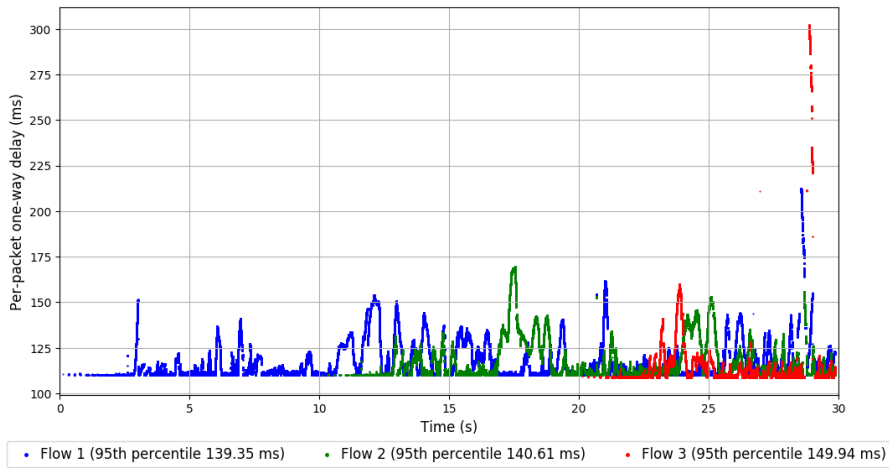
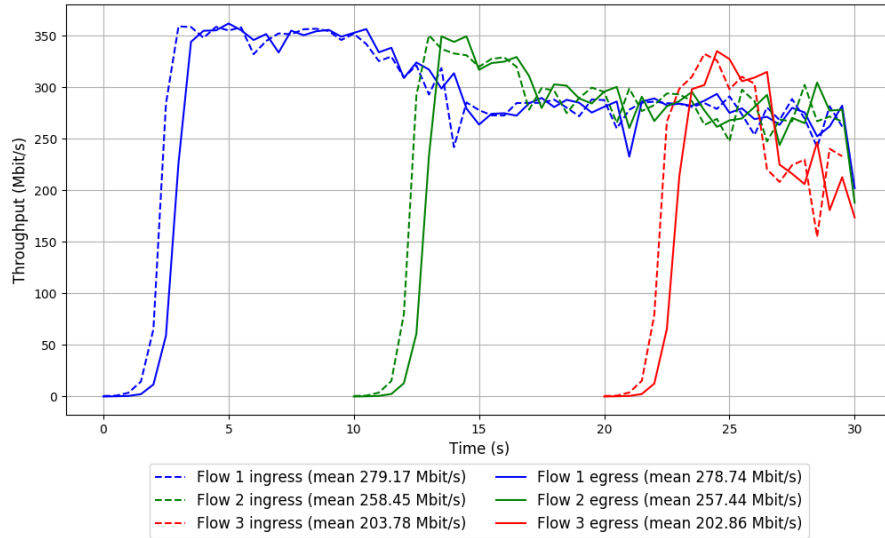


Run 5: Statistics of Copa

Start at: 2019-05-30 01:34:20
End at: 2019-05-30 01:34:50
Local clock offset: -0.088 ms
Remote clock offset: -0.076 ms

```
# Below is generated by plot.py at 2019-05-30 02:26:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 515.91 Mbit/s
95th percentile per-packet one-way delay: 140.382 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 278.74 Mbit/s
95th percentile per-packet one-way delay: 139.349 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 257.44 Mbit/s
95th percentile per-packet one-way delay: 140.609 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 202.86 Mbit/s
95th percentile per-packet one-way delay: 149.945 ms
Loss rate: 2.64%
```

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-05-29 22:51:43

End at: 2019-05-29 22:52:13

Local clock offset: -0.171 ms

Remote clock offset: -0.37 ms

Below is generated by plot.py at 2019-05-30 02:26:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 638.27 Mbit/s

95th percentile per-packet one-way delay: 120.021 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 348.63 Mbit/s

95th percentile per-packet one-way delay: 112.814 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 315.85 Mbit/s

95th percentile per-packet one-way delay: 145.145 ms

Loss rate: 1.16%

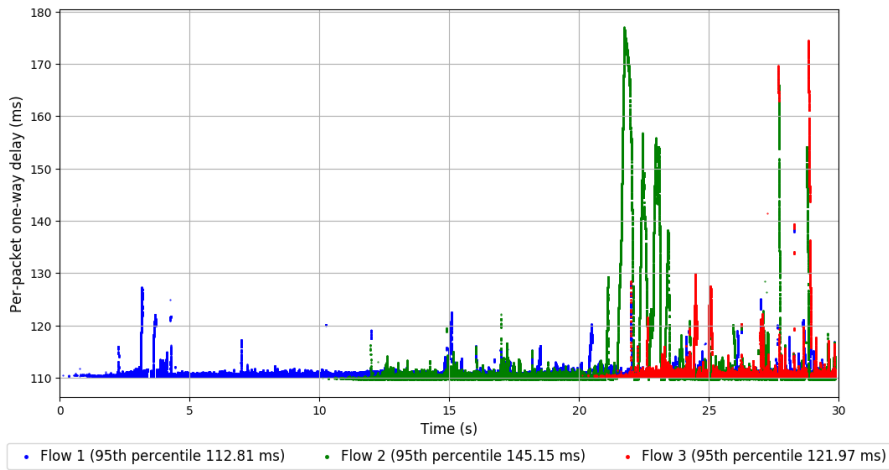
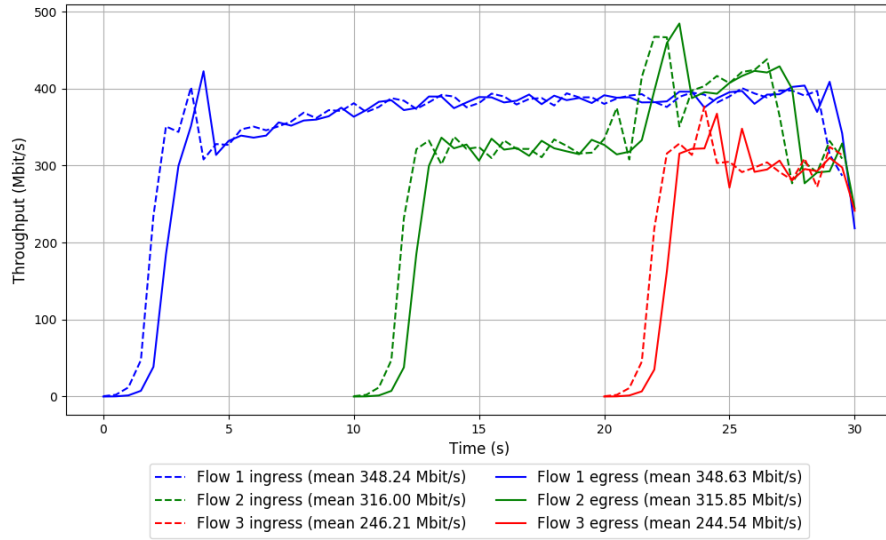
-- Flow 3:

Average throughput: 244.54 Mbit/s

95th percentile per-packet one-way delay: 121.967 ms

Loss rate: 2.90%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-05-29 23:28:39
End at: 2019-05-29 23:29:09
Local clock offset: -0.176 ms
Remote clock offset: -0.024 ms

Below is generated by plot.py at 2019-05-30 02:26:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 637.11 Mbit/s
95th percentile per-packet one-way delay: 216.057 ms
Loss rate: 1.51%

-- Flow 1:

Average throughput: 254.11 Mbit/s
95th percentile per-packet one-way delay: 258.461 ms
Loss rate: 1.05%

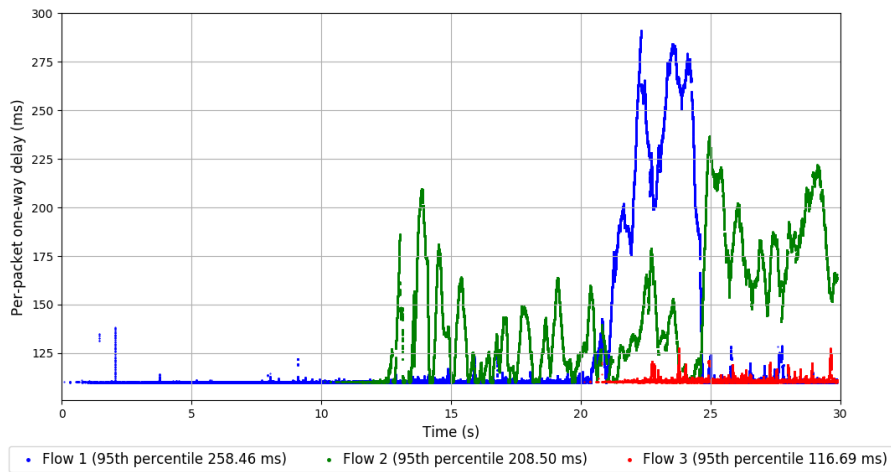
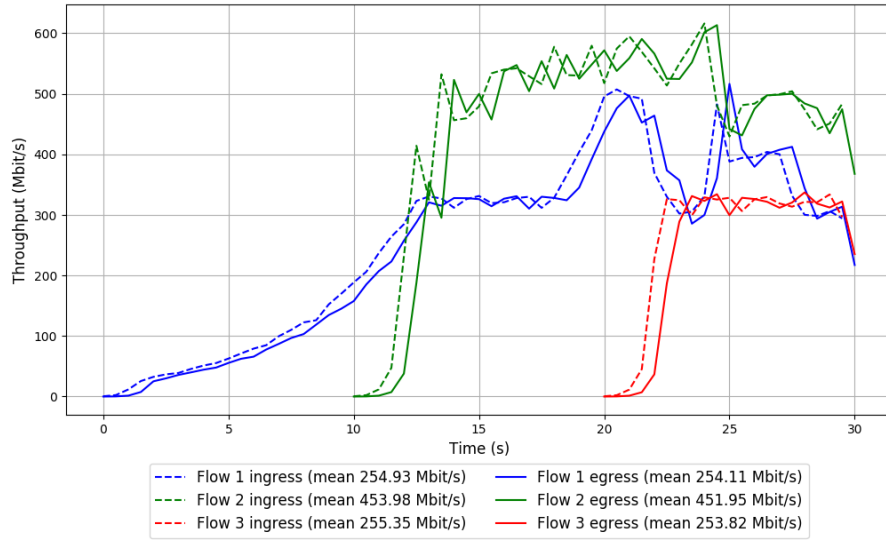
-- Flow 2:

Average throughput: 451.95 Mbit/s
95th percentile per-packet one-way delay: 208.497 ms
Loss rate: 1.54%

-- Flow 3:

Average throughput: 253.82 Mbit/s
95th percentile per-packet one-way delay: 116.690 ms
Loss rate: 2.80%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-05-30 00:05:11
End at: 2019-05-30 00:05:41
Local clock offset: -0.238 ms
Remote clock offset: -0.071 ms

Below is generated by plot.py at 2019-05-30 02:26:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 509.01 Mbit/s
95th percentile per-packet one-way delay: 167.935 ms
Loss rate: 1.57%

-- Flow 1:

Average throughput: 390.85 Mbit/s
95th percentile per-packet one-way delay: 116.958 ms
Loss rate: 0.85%

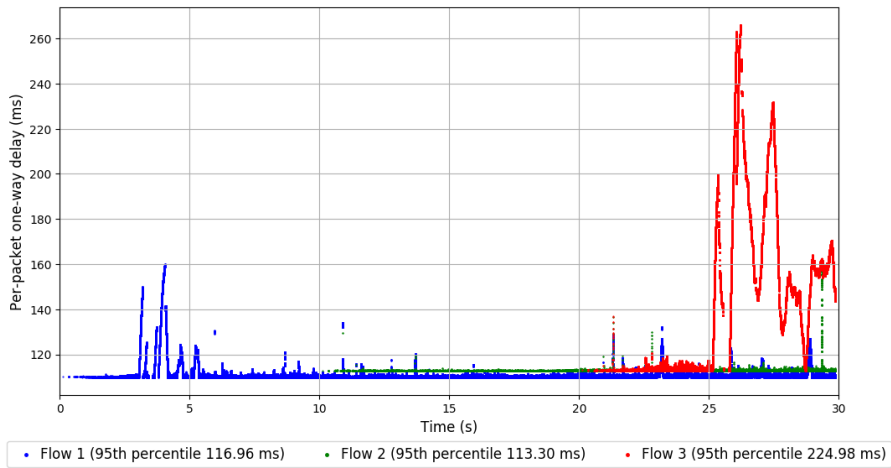
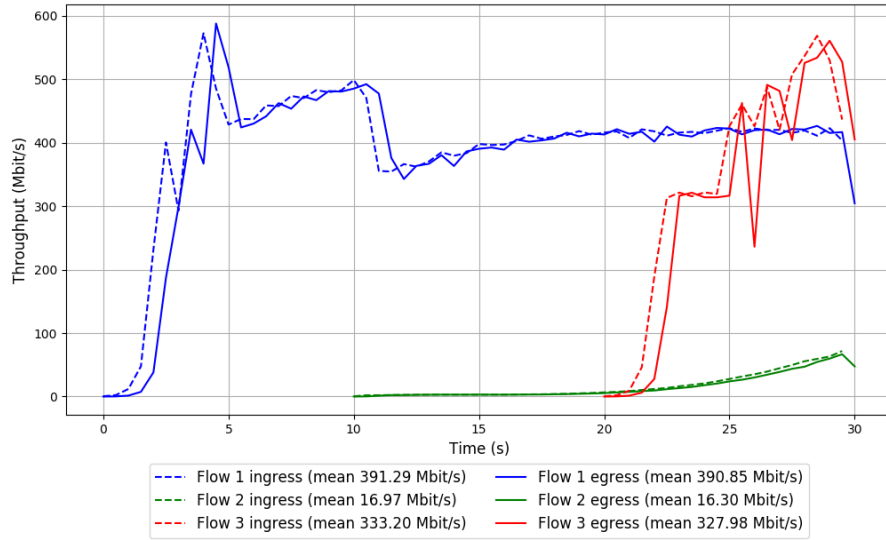
-- Flow 2:

Average throughput: 16.30 Mbit/s
95th percentile per-packet one-way delay: 113.303 ms
Loss rate: 5.02%

-- Flow 3:

Average throughput: 327.98 Mbit/s
95th percentile per-packet one-way delay: 224.981 ms
Loss rate: 3.79%

Run 3: Report of TCP Cubic — Data Link

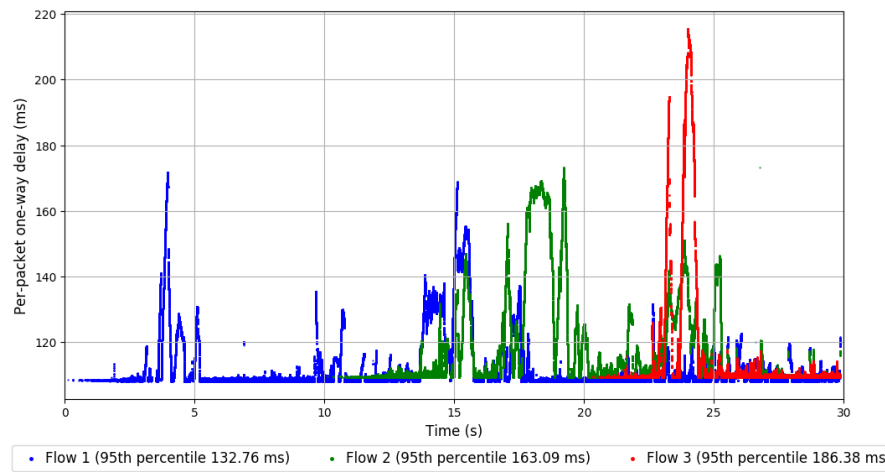
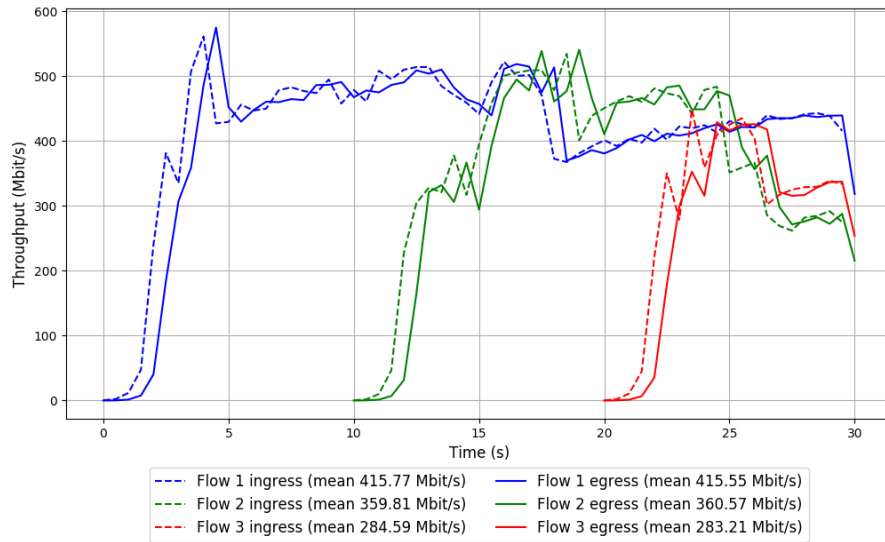


Run 4: Statistics of TCP Cubic

Start at: 2019-05-30 00:42:00
End at: 2019-05-30 00:42:30
Local clock offset: -0.902 ms
Remote clock offset: -0.111 ms

```
# Below is generated by plot.py at 2019-05-30 02:26:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 747.46 Mbit/s
95th percentile per-packet one-way delay: 148.075 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 415.55 Mbit/s
95th percentile per-packet one-way delay: 132.762 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 360.57 Mbit/s
95th percentile per-packet one-way delay: 163.089 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 283.21 Mbit/s
95th percentile per-packet one-way delay: 186.376 ms
Loss rate: 2.69%
```

Run 4: Report of TCP Cubic — Data Link

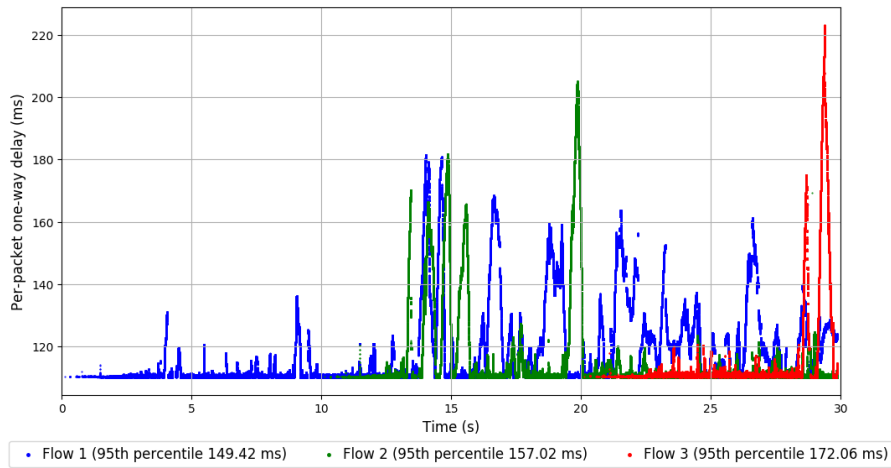
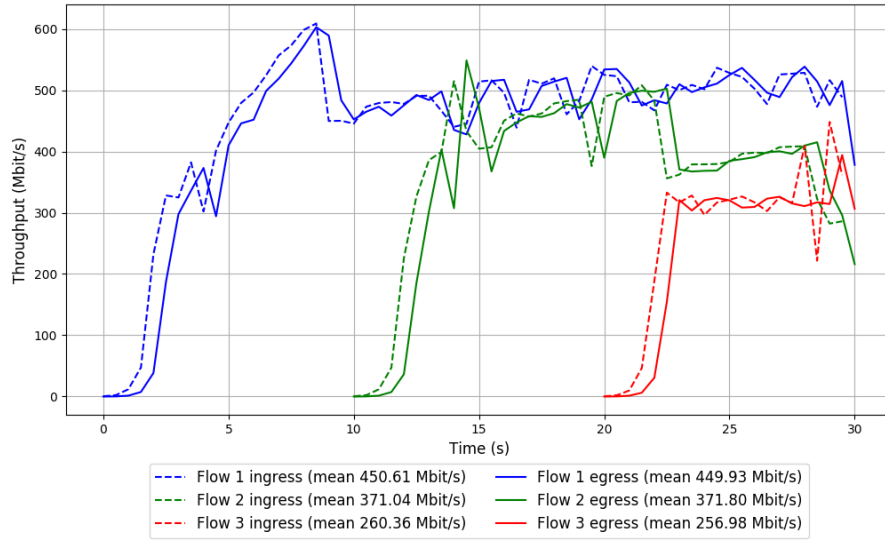


Run 5: Statistics of TCP Cubic

Start at: 2019-05-30 01:19:18
End at: 2019-05-30 01:19:48
Local clock offset: -0.042 ms
Remote clock offset: -0.065 ms

```
# Below is generated by plot.py at 2019-05-30 02:26:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 780.80 Mbit/s
95th percentile per-packet one-way delay: 152.824 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 449.93 Mbit/s
95th percentile per-packet one-way delay: 149.422 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 371.80 Mbit/s
95th percentile per-packet one-way delay: 157.016 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 256.98 Mbit/s
95th percentile per-packet one-way delay: 172.058 ms
Loss rate: 3.49%
```

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-05-29 22:39:52

End at: 2019-05-29 22:40:22

Local clock offset: 0.734 ms

Remote clock offset: 0.104 ms

Below is generated by plot.py at 2019-05-30 02:28:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 784.28 Mbit/s

95th percentile per-packet one-way delay: 148.415 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 512.30 Mbit/s

95th percentile per-packet one-way delay: 152.766 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 307.07 Mbit/s

95th percentile per-packet one-way delay: 113.635 ms

Loss rate: 1.22%

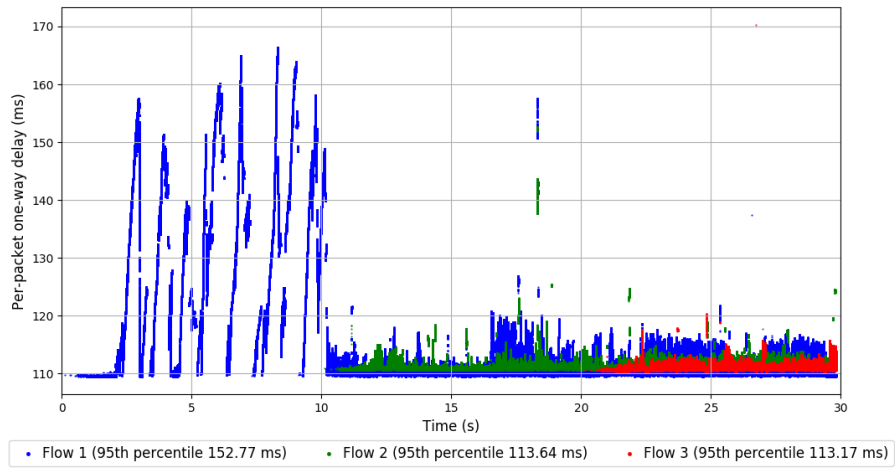
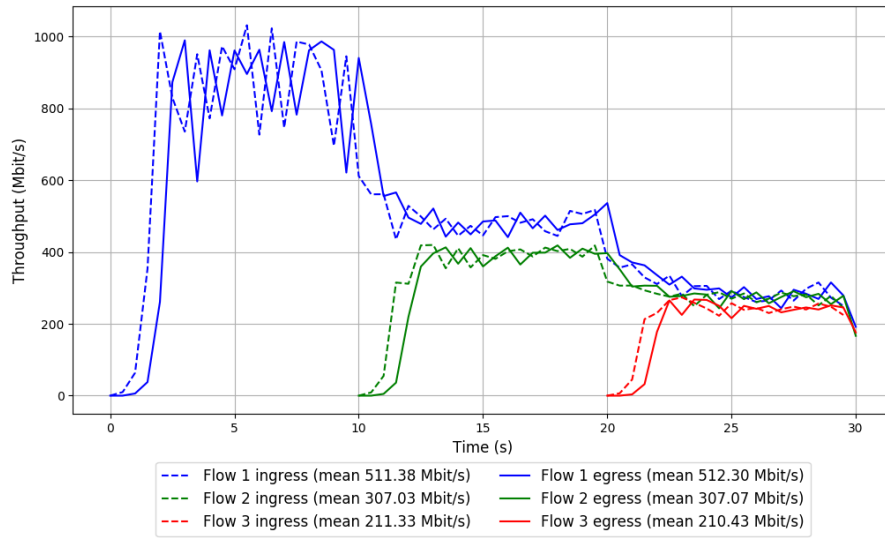
-- Flow 3:

Average throughput: 210.43 Mbit/s

95th percentile per-packet one-way delay: 113.169 ms

Loss rate: 2.67%

Run 1: Report of FillP — Data Link

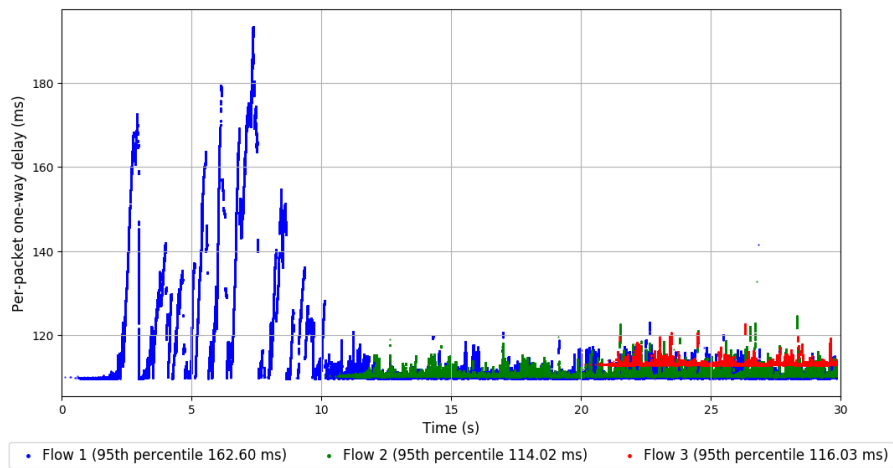
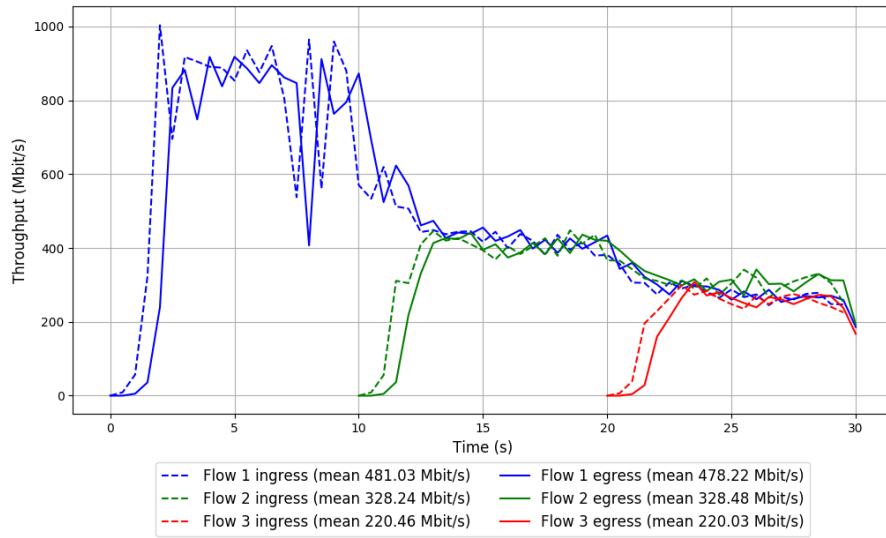


Run 2: Statistics of FillP

Start at: 2019-05-29 23:17:04
End at: 2019-05-29 23:17:34
Local clock offset: 0.104 ms
Remote clock offset: -0.011 ms

Below is generated by plot.py at 2019-05-30 02:34:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 767.85 Mbit/s
95th percentile per-packet one-way delay: 153.244 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 478.22 Mbit/s
95th percentile per-packet one-way delay: 162.599 ms
Loss rate: 1.30%
-- Flow 2:
Average throughput: 328.48 Mbit/s
95th percentile per-packet one-way delay: 114.022 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 220.03 Mbit/s
95th percentile per-packet one-way delay: 116.029 ms
Loss rate: 2.64%

Run 2: Report of FillP — Data Link

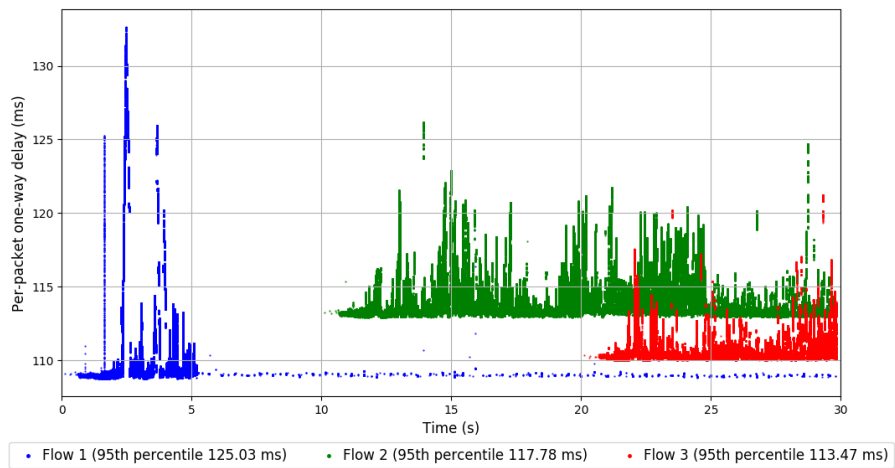
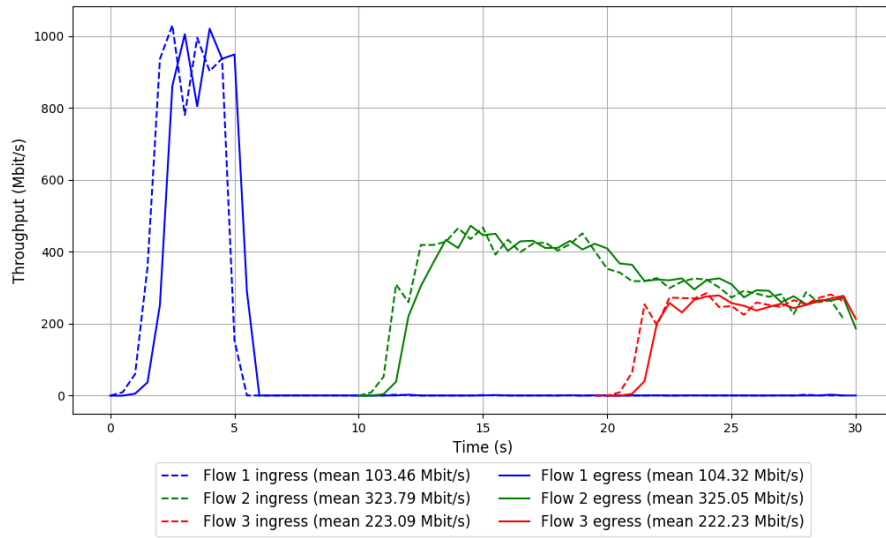


Run 3: Statistics of FillP

Start at: 2019-05-29 23:53:41
End at: 2019-05-29 23:54:11
Local clock offset: -0.025 ms
Remote clock offset: -0.054 ms

Below is generated by plot.py at 2019-05-30 02:34:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 392.51 Mbit/s
95th percentile per-packet one-way delay: 118.176 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 104.32 Mbit/s
95th percentile per-packet one-way delay: 125.030 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 325.05 Mbit/s
95th percentile per-packet one-way delay: 117.778 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 222.23 Mbit/s
95th percentile per-packet one-way delay: 113.469 ms
Loss rate: 2.53%

Run 3: Report of FillP — Data Link

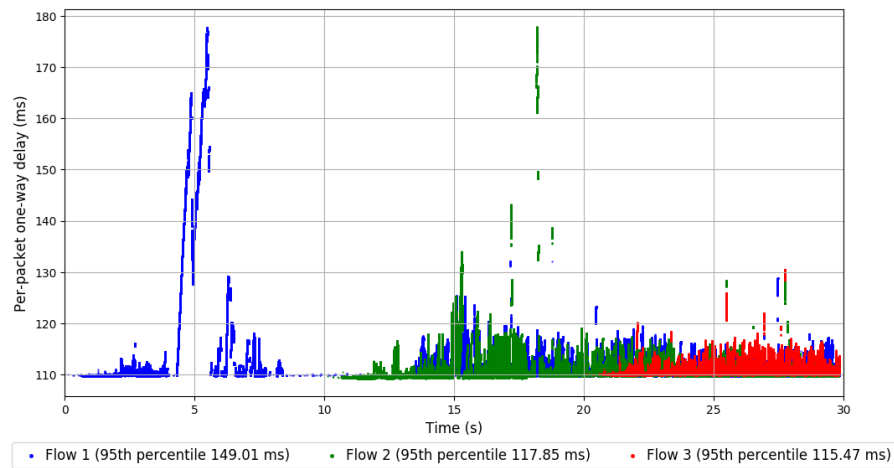
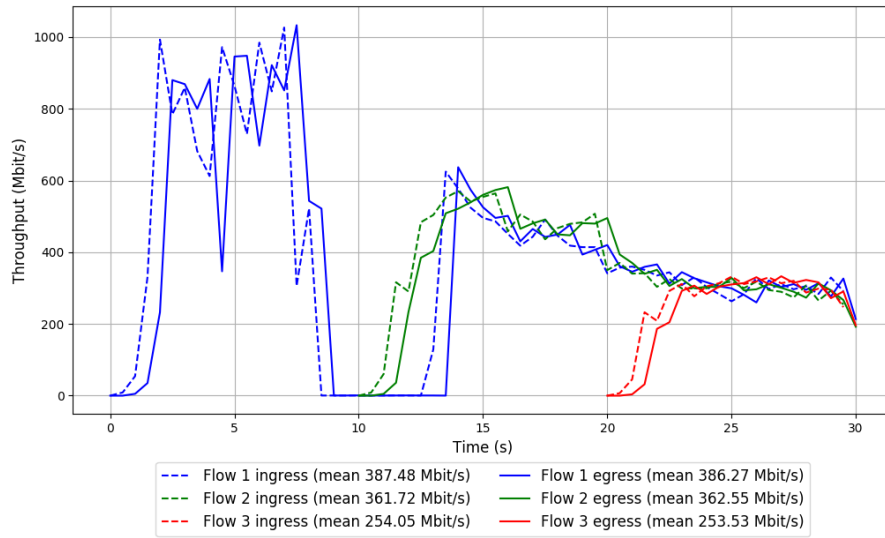


Run 4: Statistics of FillP

Start at: 2019-05-30 00:30:22
End at: 2019-05-30 00:30:52
Local clock offset: -0.238 ms
Remote clock offset: -0.081 ms

```
# Below is generated by plot.py at 2019-05-30 02:35:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 709.26 Mbit/s
95th percentile per-packet one-way delay: 132.815 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 386.27 Mbit/s
95th percentile per-packet one-way delay: 149.009 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 362.55 Mbit/s
95th percentile per-packet one-way delay: 117.851 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 253.53 Mbit/s
95th percentile per-packet one-way delay: 115.472 ms
Loss rate: 2.45%
```

Run 4: Report of FillP — Data Link

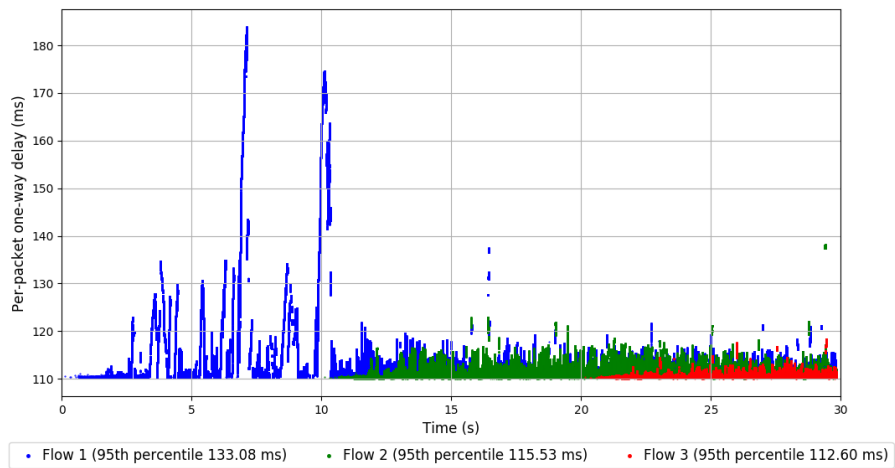
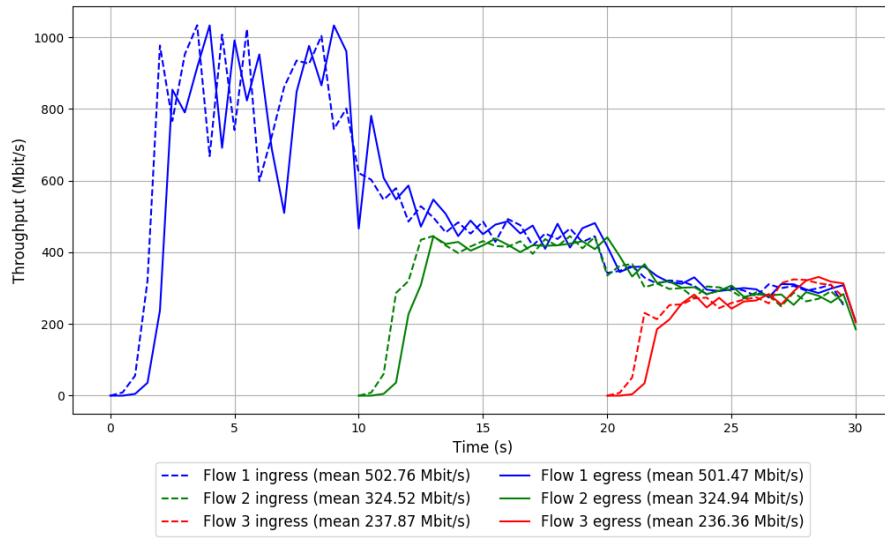


Run 5: Statistics of FillP

Start at: 2019-05-30 01:07:34
End at: 2019-05-30 01:08:04
Local clock offset: -0.036 ms
Remote clock offset: -0.087 ms

```
# Below is generated by plot.py at 2019-05-30 02:40:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 793.67 Mbit/s
95th percentile per-packet one-way delay: 127.793 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 501.47 Mbit/s
95th percentile per-packet one-way delay: 133.079 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 324.94 Mbit/s
95th percentile per-packet one-way delay: 115.530 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 236.36 Mbit/s
95th percentile per-packet one-way delay: 112.601 ms
Loss rate: 2.81%
```

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-05-29 22:34:48

End at: 2019-05-29 22:35:18

Local clock offset: 0.096 ms

Remote clock offset: 0.052 ms

Below is generated by plot.py at 2019-05-30 02:42:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 761.11 Mbit/s

95th percentile per-packet one-way delay: 130.546 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 475.00 Mbit/s

95th percentile per-packet one-way delay: 142.866 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 318.00 Mbit/s

95th percentile per-packet one-way delay: 116.527 ms

Loss rate: 1.18%

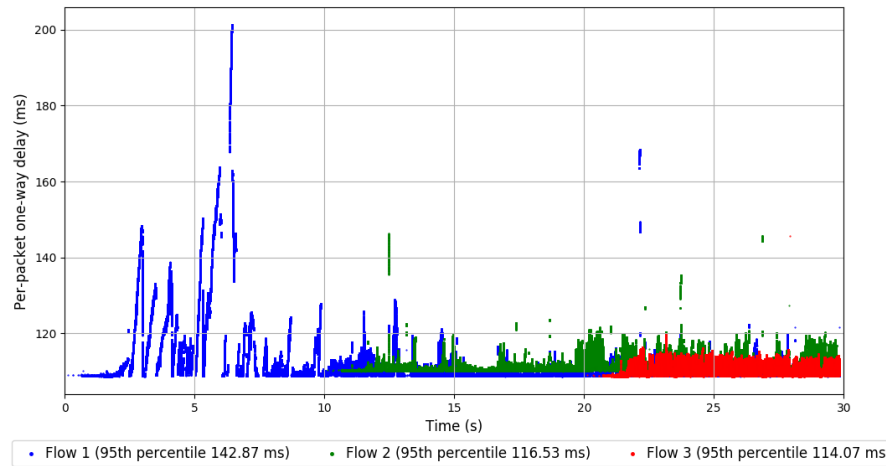
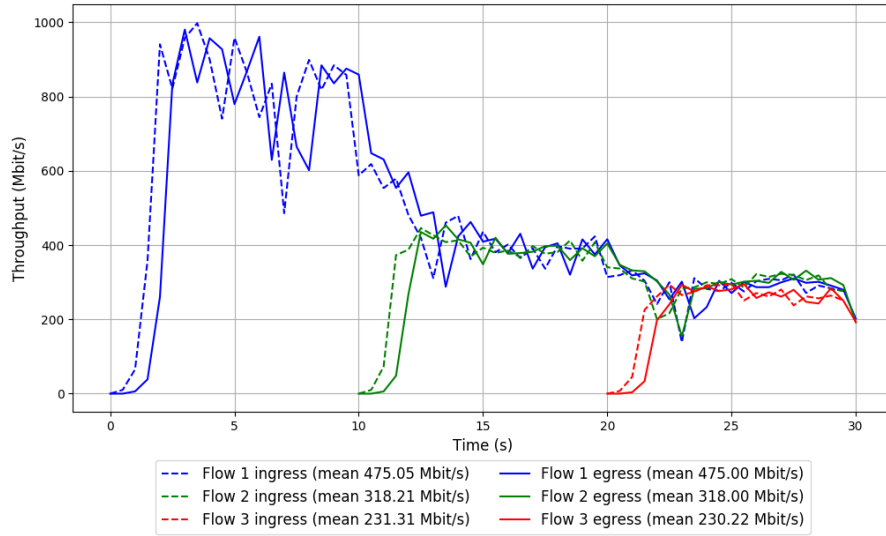
-- Flow 3:

Average throughput: 230.22 Mbit/s

95th percentile per-packet one-way delay: 114.072 ms

Loss rate: 2.49%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-05-29 23:12:06

End at: 2019-05-29 23:12:36

Local clock offset: -0.099 ms

Remote clock offset: 0.075 ms

Below is generated by plot.py at 2019-05-30 02:42:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 391.91 Mbit/s

95th percentile per-packet one-way delay: 117.920 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 123.14 Mbit/s

95th percentile per-packet one-way delay: 151.217 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 301.35 Mbit/s

95th percentile per-packet one-way delay: 114.146 ms

Loss rate: 1.04%

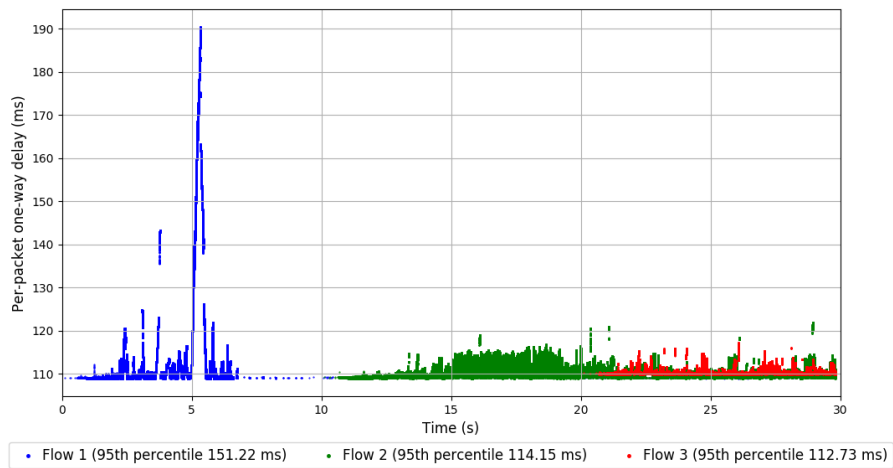
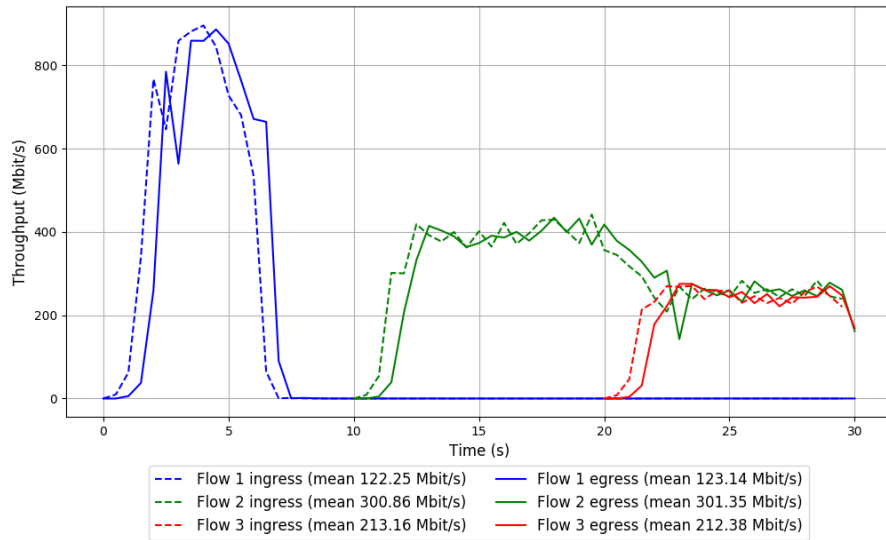
-- Flow 3:

Average throughput: 212.38 Mbit/s

95th percentile per-packet one-way delay: 112.735 ms

Loss rate: 2.51%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-05-29 23:48:46

End at: 2019-05-29 23:49:16

Local clock offset: -0.055 ms

Remote clock offset: -0.07 ms

Below is generated by plot.py at 2019-05-30 02:42:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.73 Mbit/s

95th percentile per-packet one-way delay: 113.453 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 41.26 Mbit/s

95th percentile per-packet one-way delay: 111.032 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 315.75 Mbit/s

95th percentile per-packet one-way delay: 113.703 ms

Loss rate: 0.88%

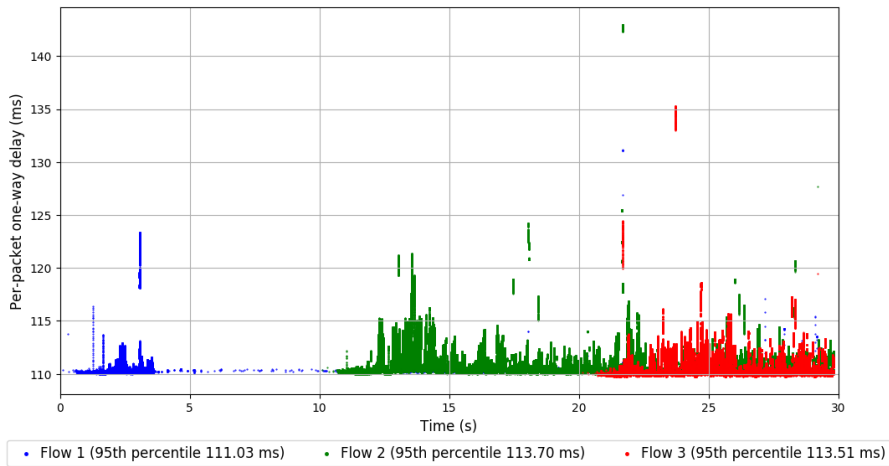
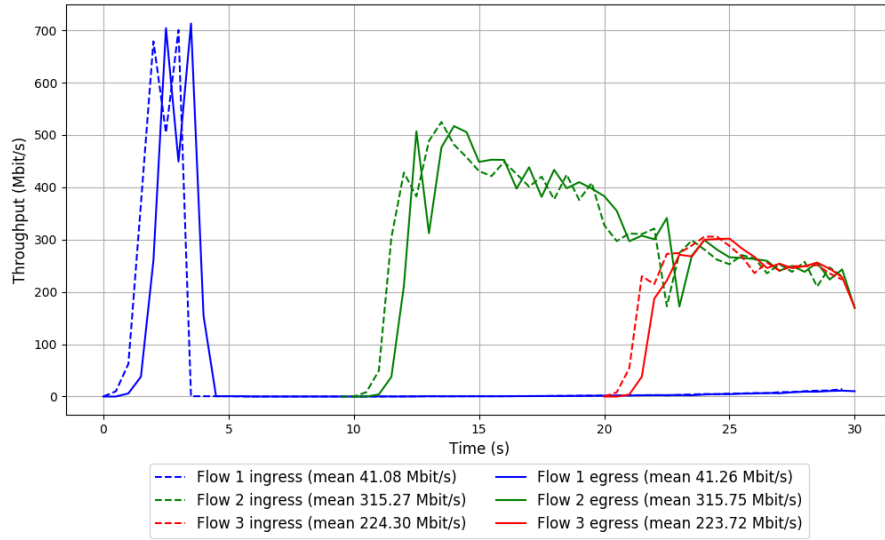
-- Flow 3:

Average throughput: 223.72 Mbit/s

95th percentile per-packet one-way delay: 113.514 ms

Loss rate: 2.59%

Run 3: Report of FillP-Sheep — Data Link

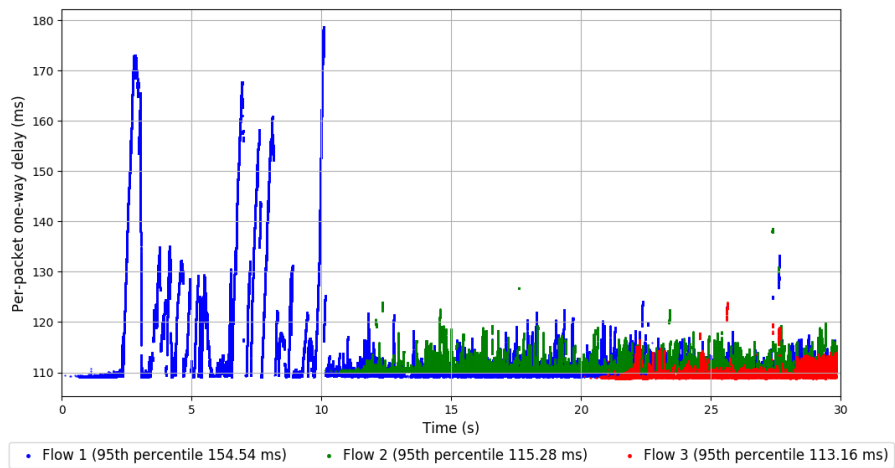
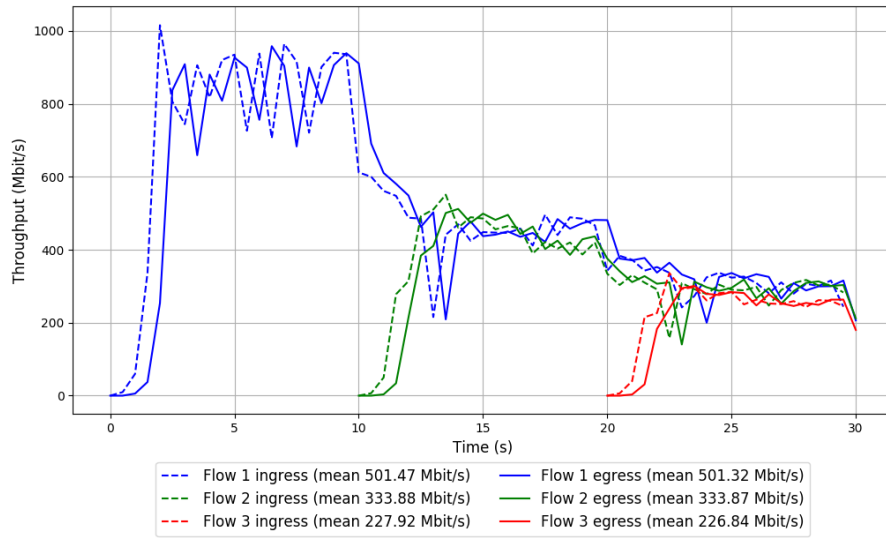


Run 4: Statistics of FillP-Sheep

Start at: 2019-05-30 00:25:07
End at: 2019-05-30 00:25:37
Local clock offset: 0.007 ms
Remote clock offset: -0.081 ms

```
# Below is generated by plot.py at 2019-05-30 02:47:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 796.60 Mbit/s
95th percentile per-packet one-way delay: 143.251 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 501.32 Mbit/s
95th percentile per-packet one-way delay: 154.539 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 333.87 Mbit/s
95th percentile per-packet one-way delay: 115.275 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 226.84 Mbit/s
95th percentile per-packet one-way delay: 113.159 ms
Loss rate: 2.67%
```

Run 4: Report of FillP-Sheep — Data Link

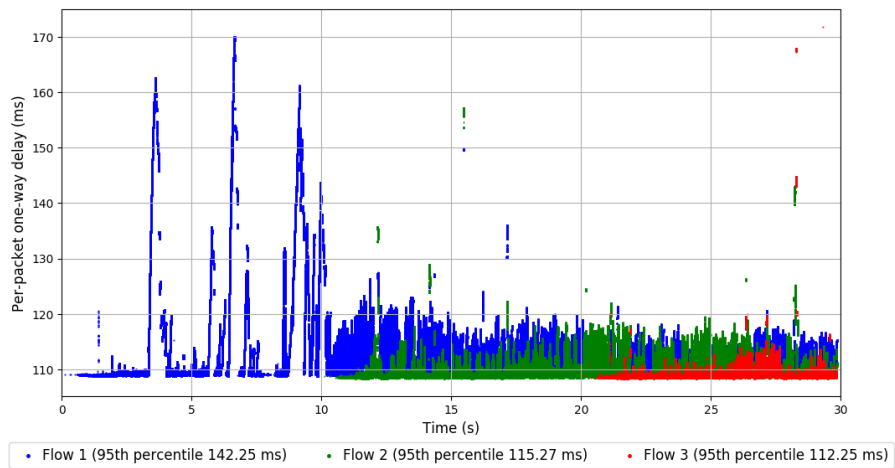
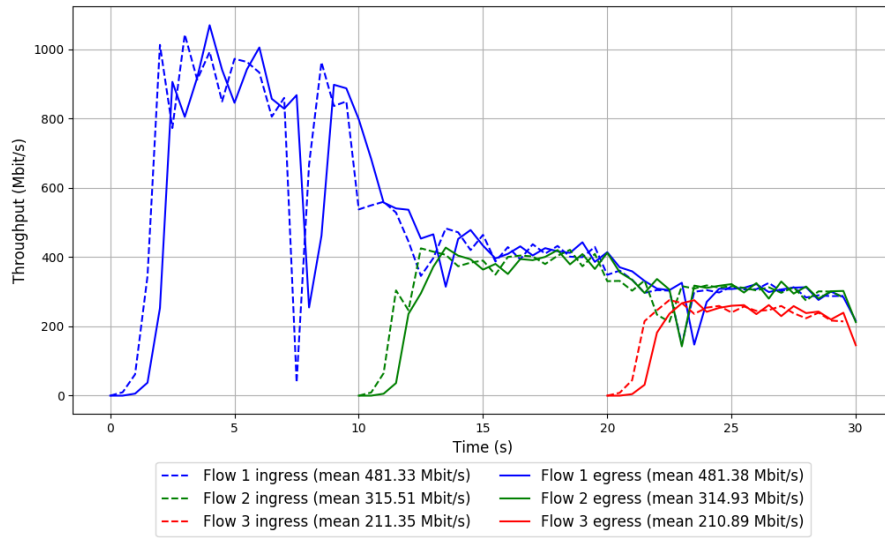


Run 5: Statistics of FillP-Sheep

Start at: 2019-05-30 01:02:25
End at: 2019-05-30 01:02:55
Local clock offset: -1.413 ms
Remote clock offset: -0.123 ms

```
# Below is generated by plot.py at 2019-05-30 02:47:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 758.95 Mbit/s
95th percentile per-packet one-way delay: 133.945 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 481.38 Mbit/s
95th percentile per-packet one-way delay: 142.248 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 314.93 Mbit/s
95th percentile per-packet one-way delay: 115.265 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 210.89 Mbit/s
95th percentile per-packet one-way delay: 112.248 ms
Loss rate: 2.47%
```

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-05-29 23:00:49

End at: 2019-05-29 23:01:19

Local clock offset: -0.715 ms

Remote clock offset: 0.054 ms

Below is generated by plot.py at 2019-05-30 02:47:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 379.36 Mbit/s

95th percentile per-packet one-way delay: 113.505 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 207.97 Mbit/s

95th percentile per-packet one-way delay: 112.525 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 187.37 Mbit/s

95th percentile per-packet one-way delay: 116.026 ms

Loss rate: 1.04%

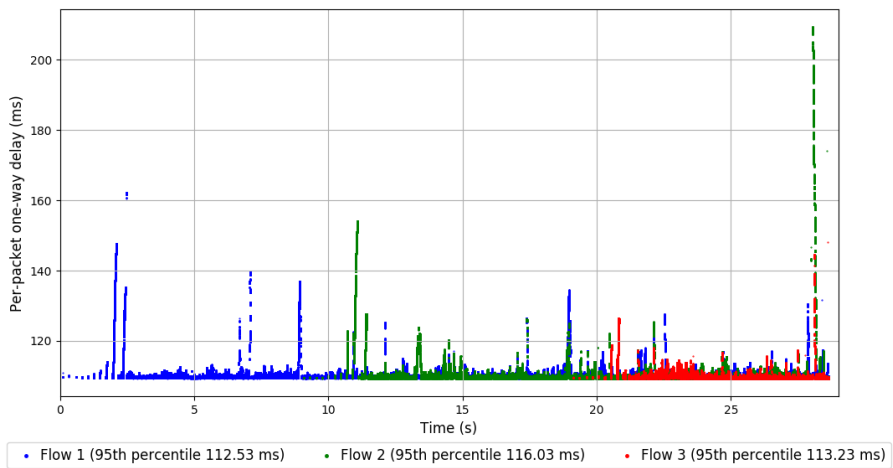
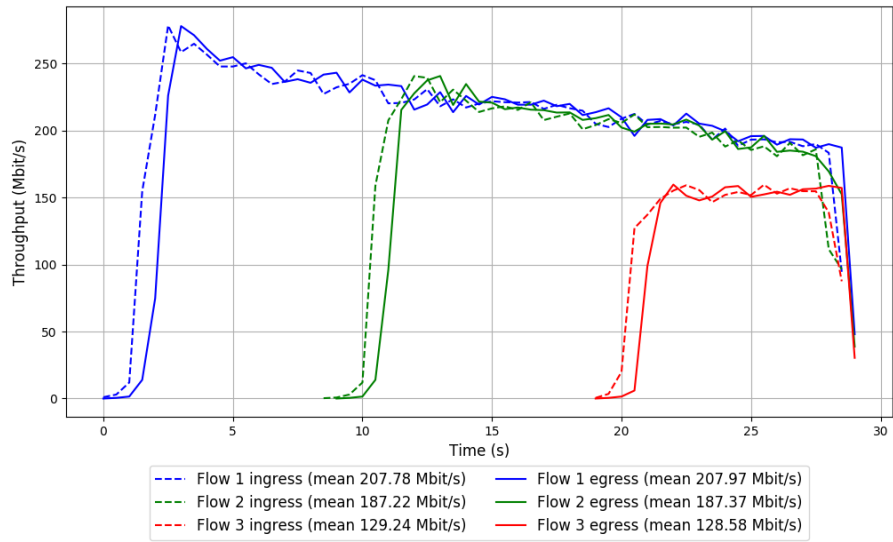
-- Flow 3:

Average throughput: 128.58 Mbit/s

95th percentile per-packet one-way delay: 113.231 ms

Loss rate: 2.78%

Run 1: Report of Indigo — Data Link

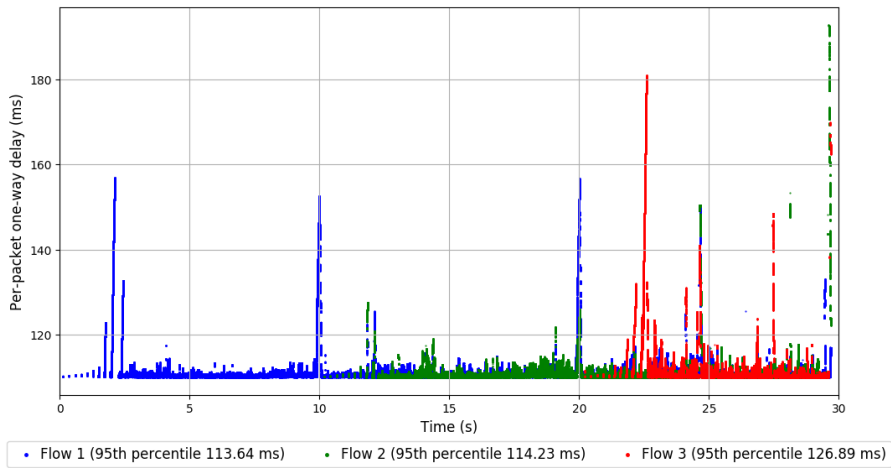
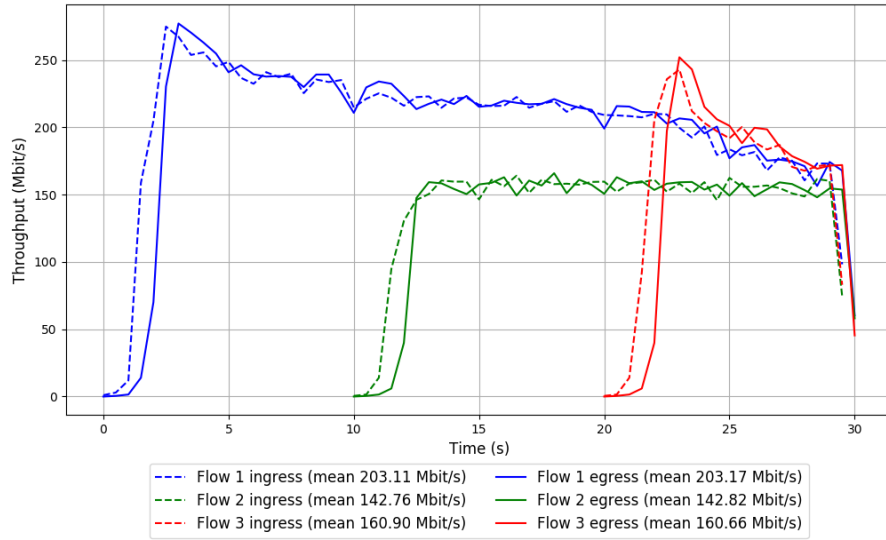


Run 2: Statistics of Indigo

Start at: 2019-05-29 23:37:42
End at: 2019-05-29 23:38:13
Local clock offset: 0.005 ms
Remote clock offset: -0.039 ms

```
# Below is generated by plot.py at 2019-05-30 02:47:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 348.80 Mbit/s
95th percentile per-packet one-way delay: 116.026 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 203.17 Mbit/s
95th percentile per-packet one-way delay: 113.638 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 142.82 Mbit/s
95th percentile per-packet one-way delay: 114.235 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 160.66 Mbit/s
95th percentile per-packet one-way delay: 126.895 ms
Loss rate: 2.41%
```

Run 2: Report of Indigo — Data Link

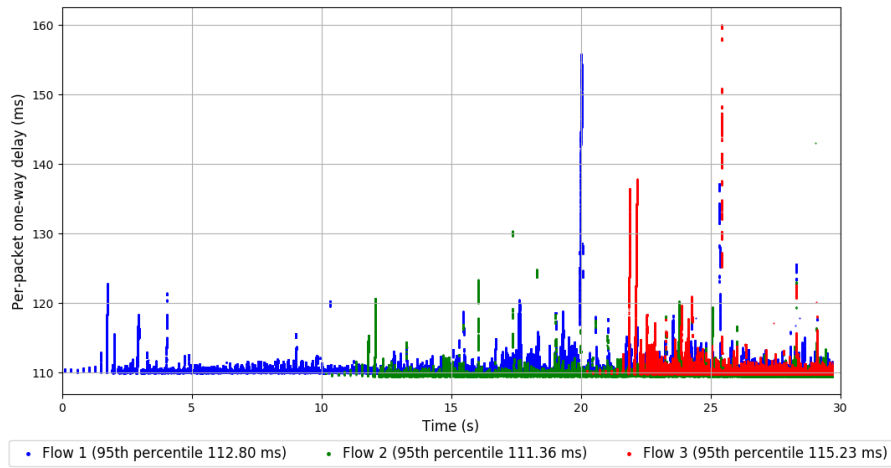
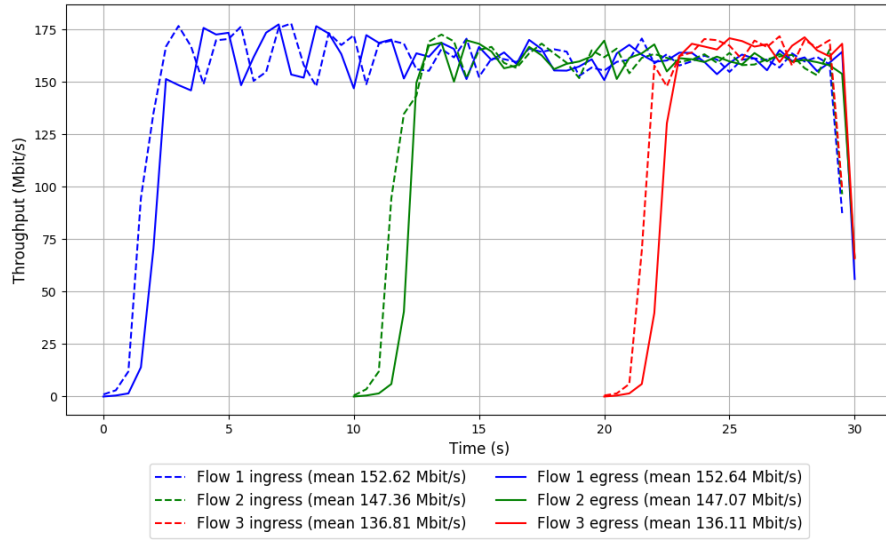


Run 3: Statistics of Indigo

Start at: 2019-05-30 00:14:23
End at: 2019-05-30 00:14:53
Local clock offset: -0.069 ms
Remote clock offset: -0.098 ms

```
# Below is generated by plot.py at 2019-05-30 02:47:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 293.15 Mbit/s
95th percentile per-packet one-way delay: 112.653 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 152.64 Mbit/s
95th percentile per-packet one-way delay: 112.797 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 147.07 Mbit/s
95th percentile per-packet one-way delay: 111.365 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 136.11 Mbit/s
95th percentile per-packet one-way delay: 115.233 ms
Loss rate: 2.79%
```

Run 3: Report of Indigo — Data Link

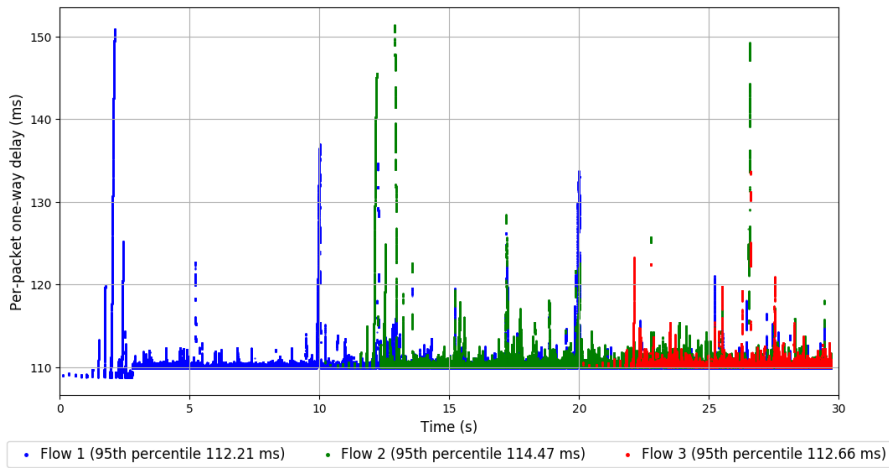
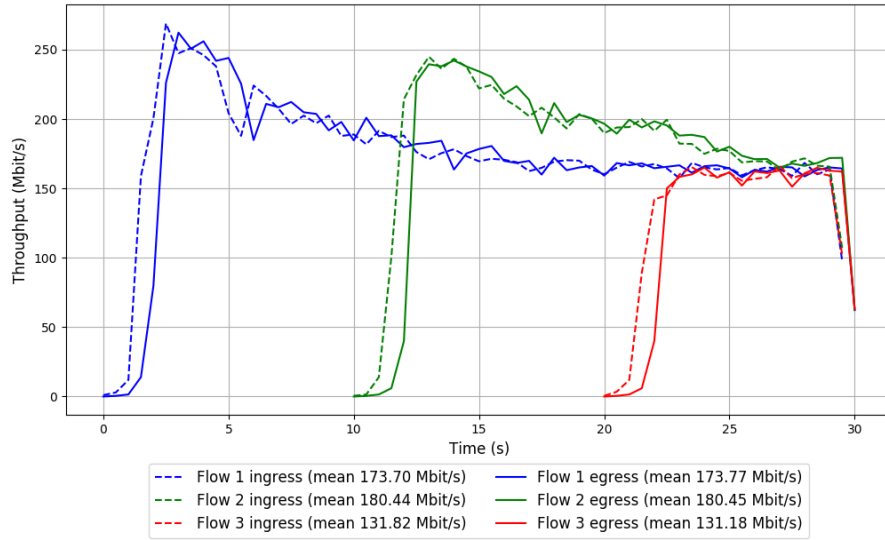


Run 4: Statistics of Indigo

Start at: 2019-05-30 00:51:27
End at: 2019-05-30 00:51:57
Local clock offset: -0.205 ms
Remote clock offset: -0.121 ms

```
# Below is generated by plot.py at 2019-05-30 02:48:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.98 Mbit/s
95th percentile per-packet one-way delay: 113.034 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 173.77 Mbit/s
95th percentile per-packet one-way delay: 112.208 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 180.45 Mbit/s
95th percentile per-packet one-way delay: 114.473 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 131.18 Mbit/s
95th percentile per-packet one-way delay: 112.656 ms
Loss rate: 2.73%
```

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-05-30 01:28:46

End at: 2019-05-30 01:29:16

Local clock offset: -0.097 ms

Remote clock offset: -0.12 ms

Below is generated by plot.py at 2019-05-30 02:51:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.80 Mbit/s

95th percentile per-packet one-way delay: 113.895 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 151.89 Mbit/s

95th percentile per-packet one-way delay: 114.266 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 148.05 Mbit/s

95th percentile per-packet one-way delay: 112.877 ms

Loss rate: 1.24%

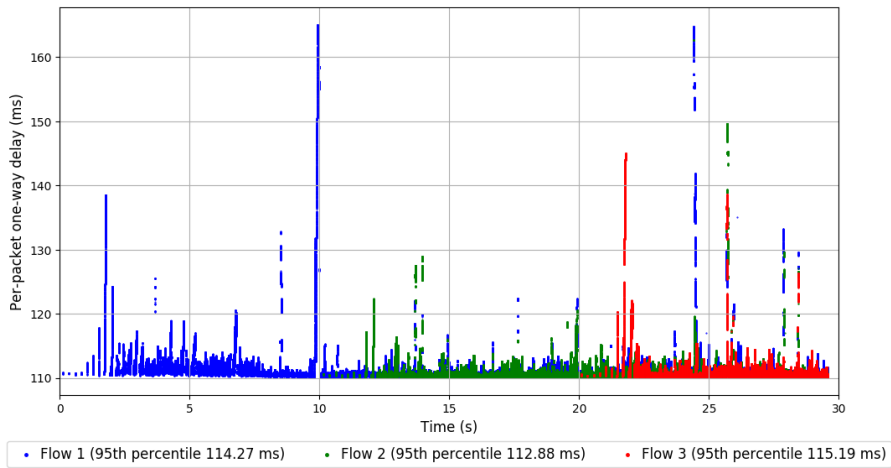
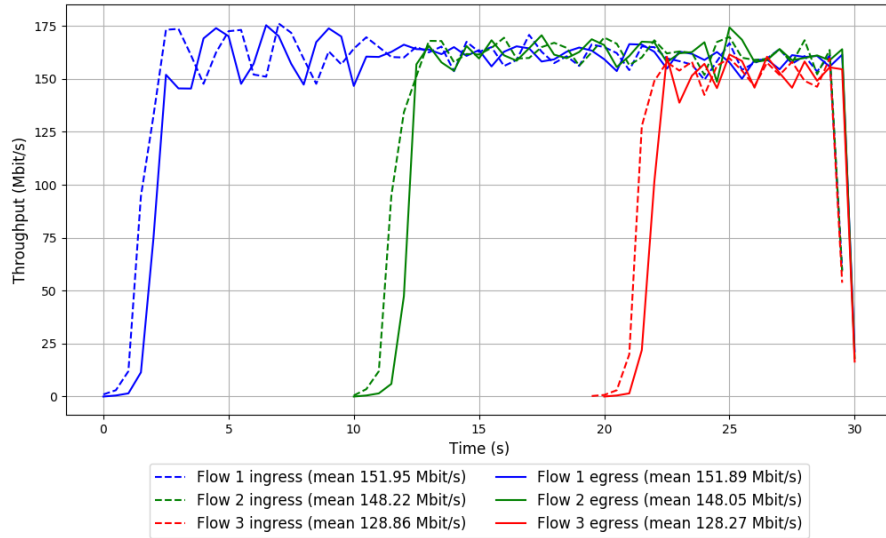
-- Flow 3:

Average throughput: 128.27 Mbit/s

95th percentile per-packet one-way delay: 115.192 ms

Loss rate: 2.72%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-05-29 23:02:45

End at: 2019-05-29 23:03:15

Local clock offset: 0.036 ms

Remote clock offset: 0.425 ms

Below is generated by plot.py at 2019-05-30 02:56:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 730.55 Mbit/s

95th percentile per-packet one-way delay: 122.592 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 424.82 Mbit/s

95th percentile per-packet one-way delay: 121.147 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 360.91 Mbit/s

95th percentile per-packet one-way delay: 125.555 ms

Loss rate: 1.29%

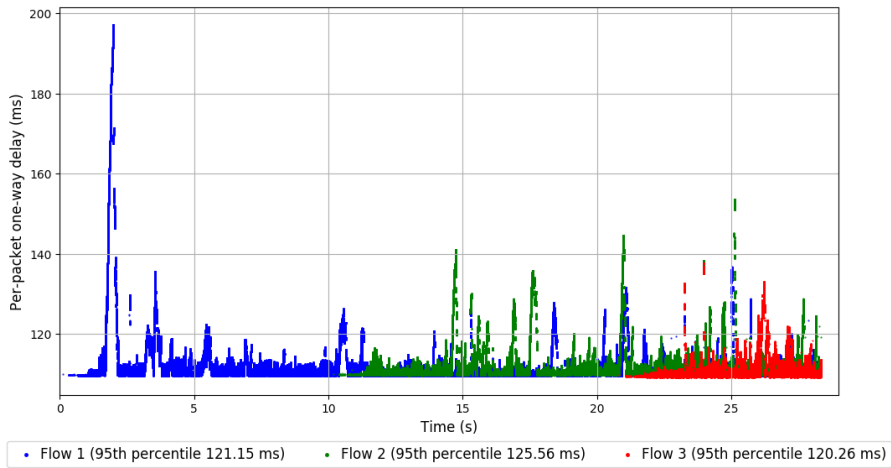
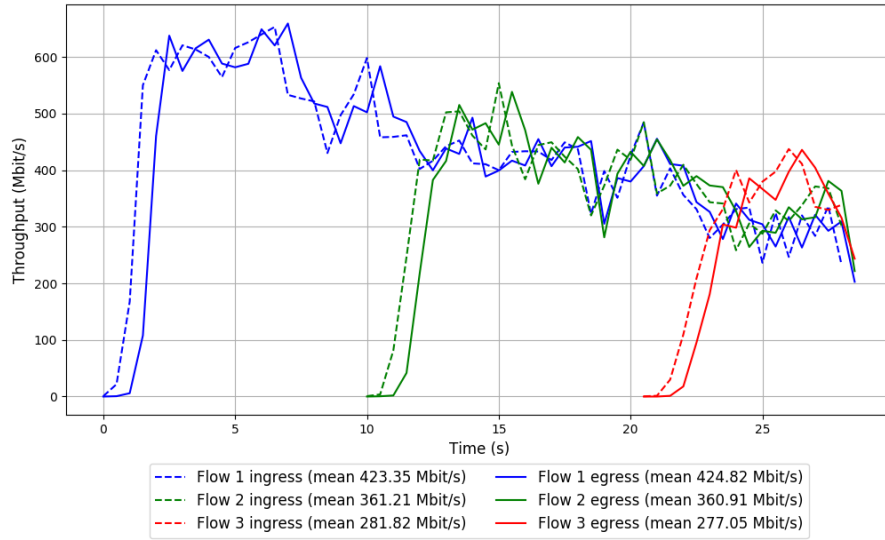
-- Flow 3:

Average throughput: 277.05 Mbit/s

95th percentile per-packet one-way delay: 120.262 ms

Loss rate: 4.48%

Run 1: Report of Indigo-MusesC3 — Data Link

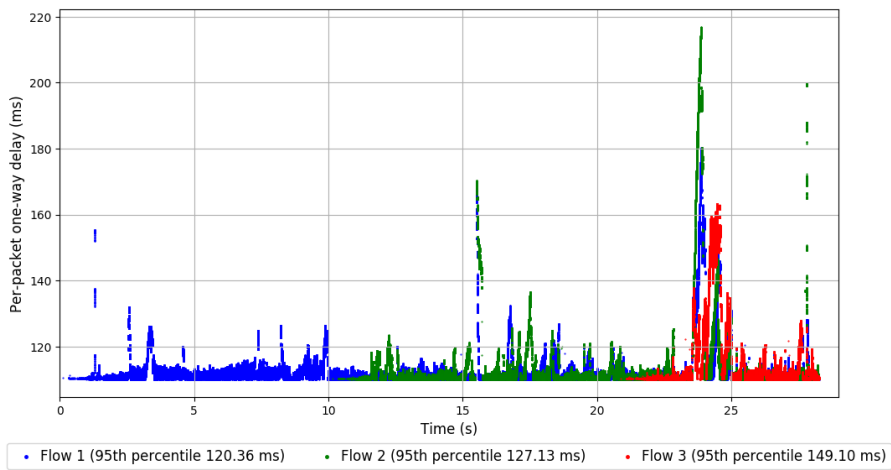
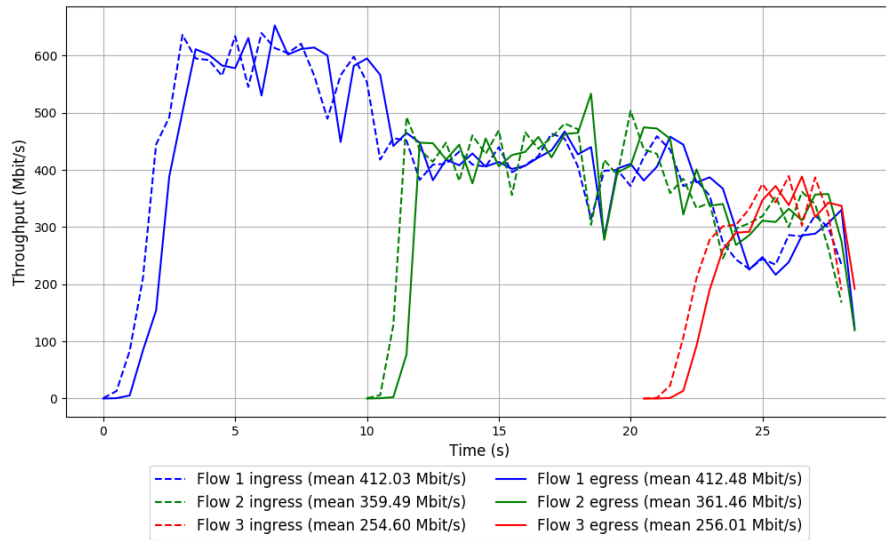


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-05-29 23:39:37
End at: 2019-05-29 23:40:07
Local clock offset: -0.023 ms
Remote clock offset: -0.038 ms

```
# Below is generated by plot.py at 2019-05-30 02:58:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 711.85 Mbit/s
95th percentile per-packet one-way delay: 124.445 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 412.48 Mbit/s
95th percentile per-packet one-way delay: 120.361 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 361.46 Mbit/s
95th percentile per-packet one-way delay: 127.133 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 256.01 Mbit/s
95th percentile per-packet one-way delay: 149.099 ms
Loss rate: 2.38%
```

Run 2: Report of Indigo-MusesC3 — Data Link

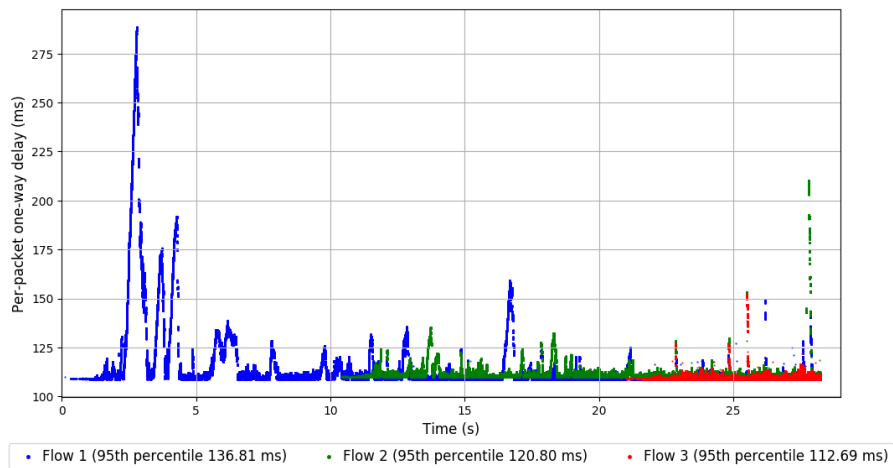
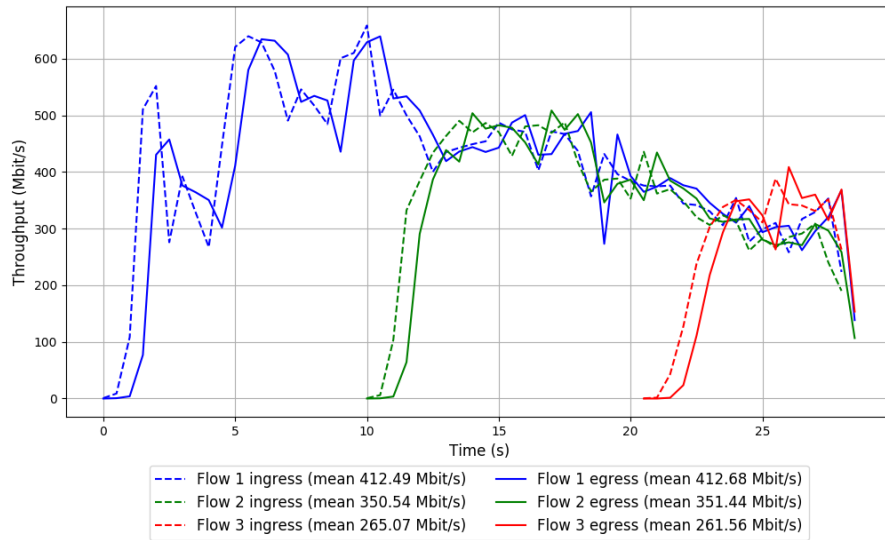


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-05-30 00:16:13
End at: 2019-05-30 00:16:43
Local clock offset: 0.003 ms
Remote clock offset: -0.101 ms

```
# Below is generated by plot.py at 2019-05-30 02:58:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 707.08 Mbit/s
95th percentile per-packet one-way delay: 130.387 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 412.68 Mbit/s
95th percentile per-packet one-way delay: 136.807 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 351.44 Mbit/s
95th percentile per-packet one-way delay: 120.802 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 261.56 Mbit/s
95th percentile per-packet one-way delay: 112.690 ms
Loss rate: 4.18%
```

Run 3: Report of Indigo-MusesC3 — Data Link

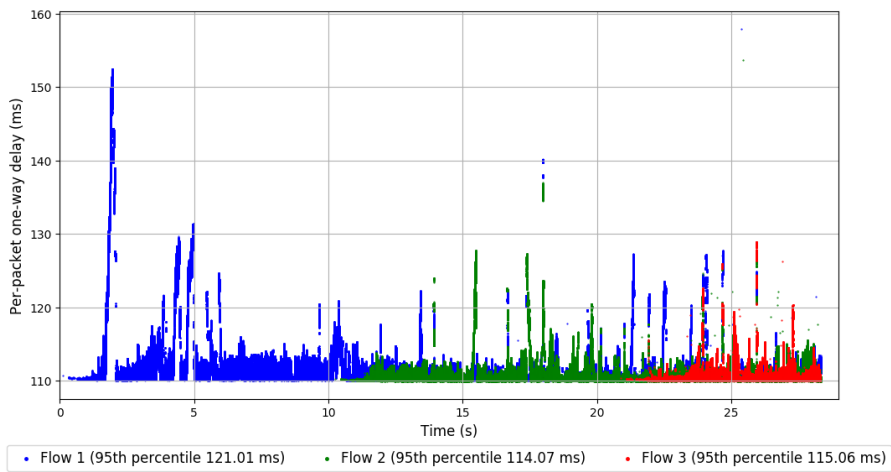
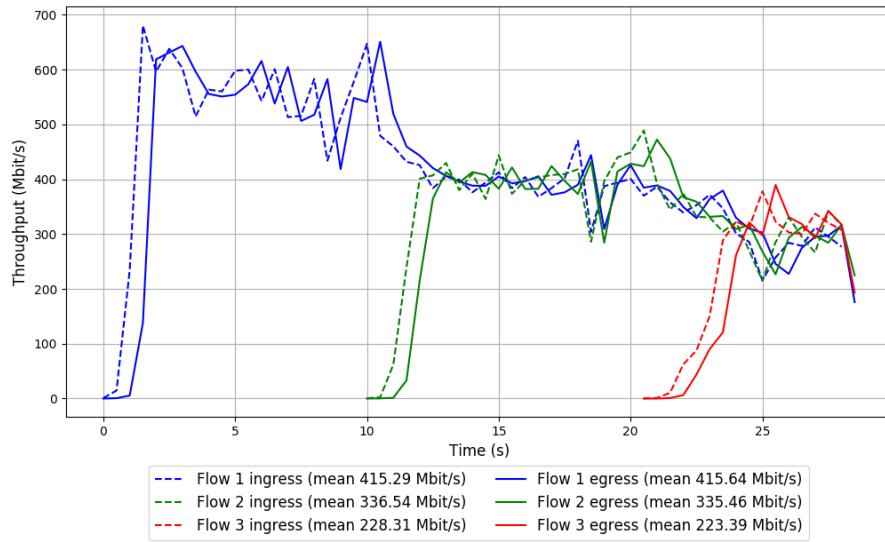


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-05-30 00:53:21
End at: 2019-05-30 00:53:51
Local clock offset: -0.169 ms
Remote clock offset: -0.108 ms

```
# Below is generated by plot.py at 2019-05-30 02:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 689.59 Mbit/s
95th percentile per-packet one-way delay: 117.679 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 415.64 Mbit/s
95th percentile per-packet one-way delay: 121.012 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 335.46 Mbit/s
95th percentile per-packet one-way delay: 114.072 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 223.39 Mbit/s
95th percentile per-packet one-way delay: 115.056 ms
Loss rate: 5.12%
```

Run 4: Report of Indigo-MusesC3 — Data Link

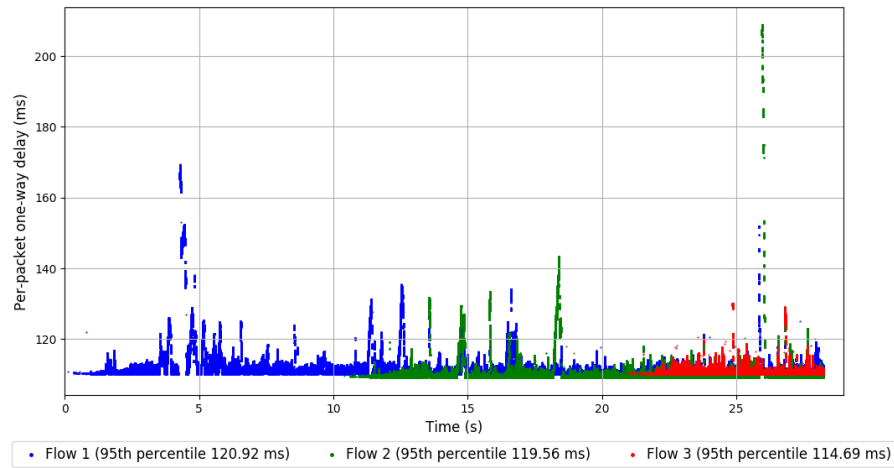
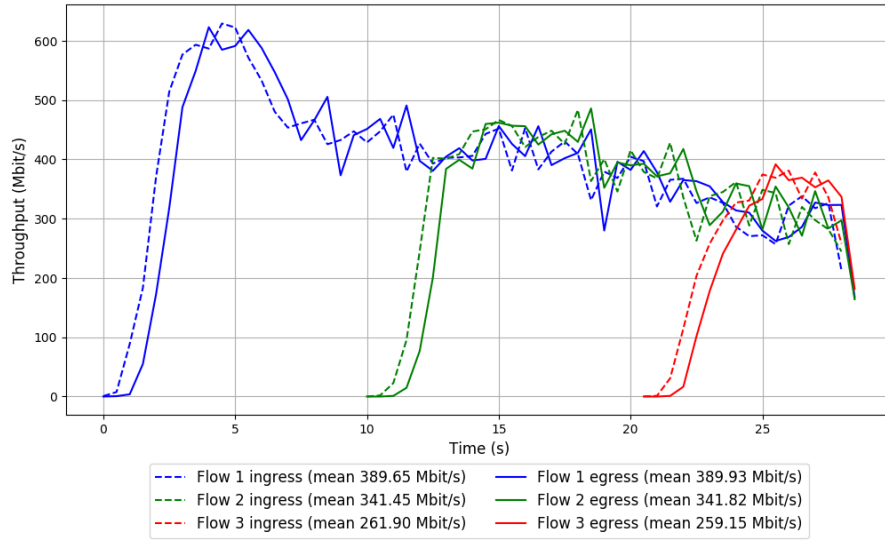


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-05-30 01:30:34
End at: 2019-05-30 01:31:04
Local clock offset: -0.203 ms
Remote clock offset: -0.096 ms

```
# Below is generated by plot.py at 2019-05-30 02:59:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 674.92 Mbit/s
95th percentile per-packet one-way delay: 120.249 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 389.93 Mbit/s
95th percentile per-packet one-way delay: 120.922 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 341.82 Mbit/s
95th percentile per-packet one-way delay: 119.563 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 259.15 Mbit/s
95th percentile per-packet one-way delay: 114.689 ms
Loss rate: 3.94%
```

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-05-29 22:46:46

End at: 2019-05-29 22:47:16

Local clock offset: 0.099 ms

Remote clock offset: 0.009 ms

Below is generated by plot.py at 2019-05-30 02:59:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 567.13 Mbit/s

95th percentile per-packet one-way delay: 131.557 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 326.76 Mbit/s

95th percentile per-packet one-way delay: 137.964 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 334.31 Mbit/s

95th percentile per-packet one-way delay: 122.986 ms

Loss rate: 0.74%

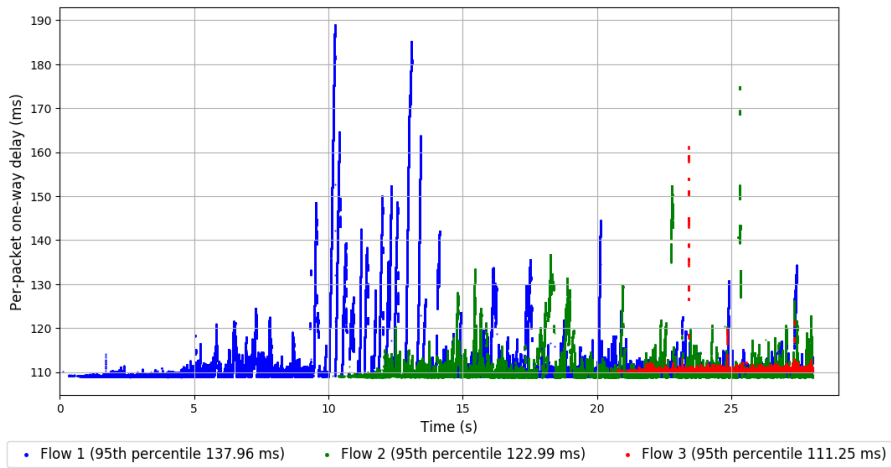
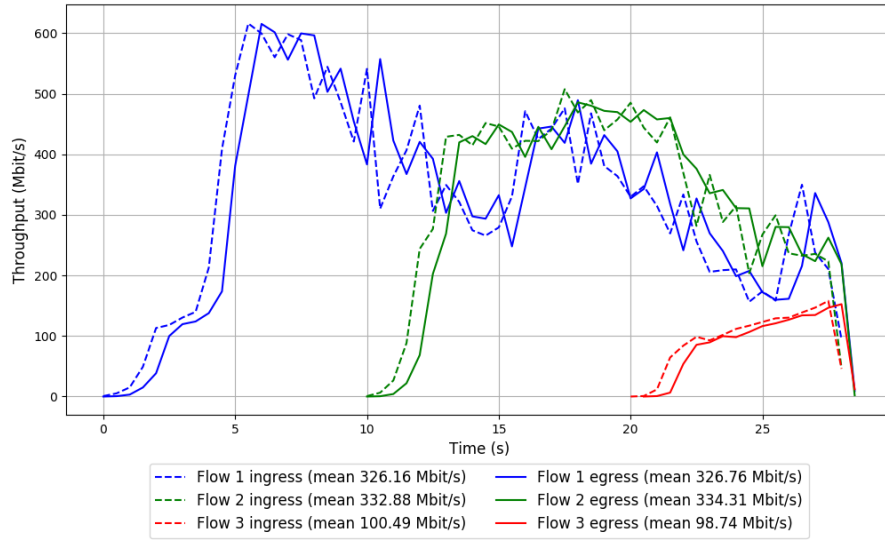
-- Flow 3:

Average throughput: 98.74 Mbit/s

95th percentile per-packet one-way delay: 111.249 ms

Loss rate: 4.55%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-05-29 23:23:46

End at: 2019-05-29 23:24:16

Local clock offset: 0.114 ms

Remote clock offset: 0.026 ms

Below is generated by plot.py at 2019-05-30 02:59:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 573.15 Mbit/s

95th percentile per-packet one-way delay: 125.964 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 331.14 Mbit/s

95th percentile per-packet one-way delay: 120.731 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 316.80 Mbit/s

95th percentile per-packet one-way delay: 153.471 ms

Loss rate: 1.32%

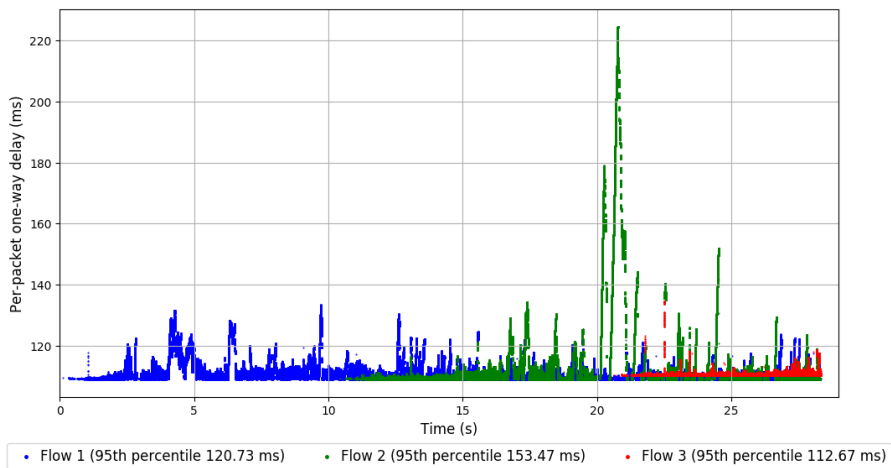
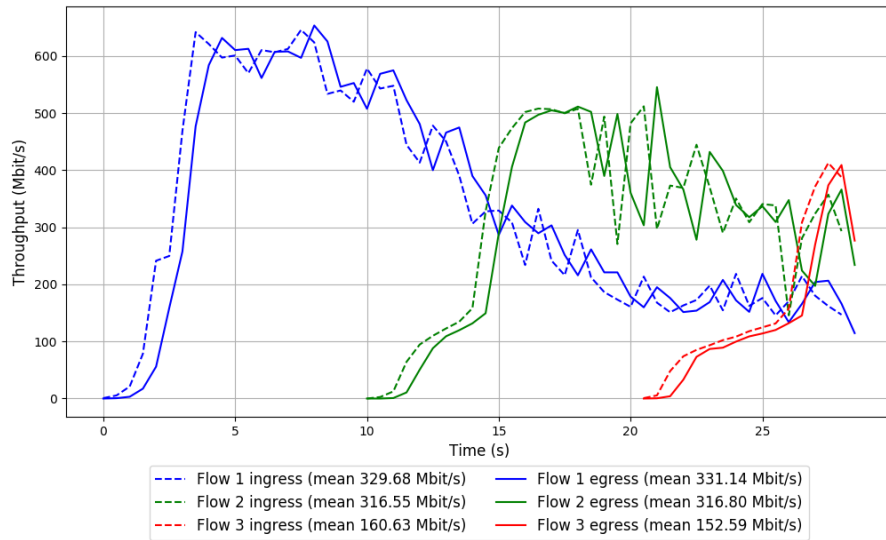
-- Flow 3:

Average throughput: 152.59 Mbit/s

95th percentile per-packet one-way delay: 112.667 ms

Loss rate: 7.66%

Run 2: Report of Indigo-MusesC5 — Data Link

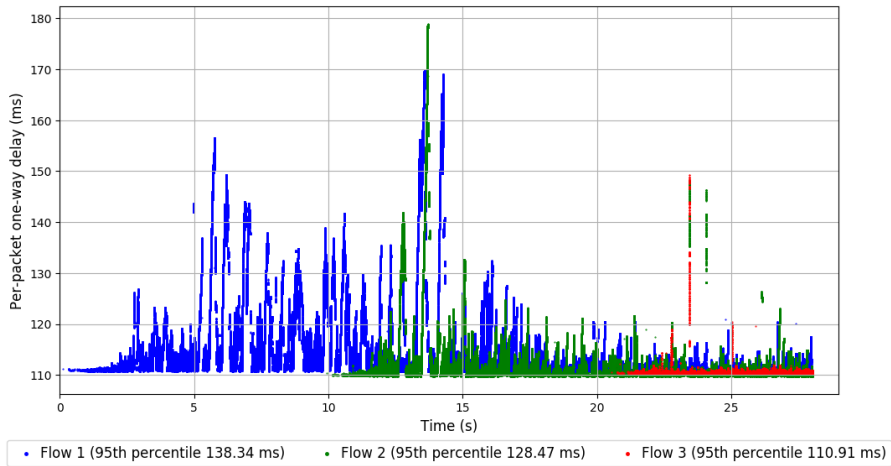
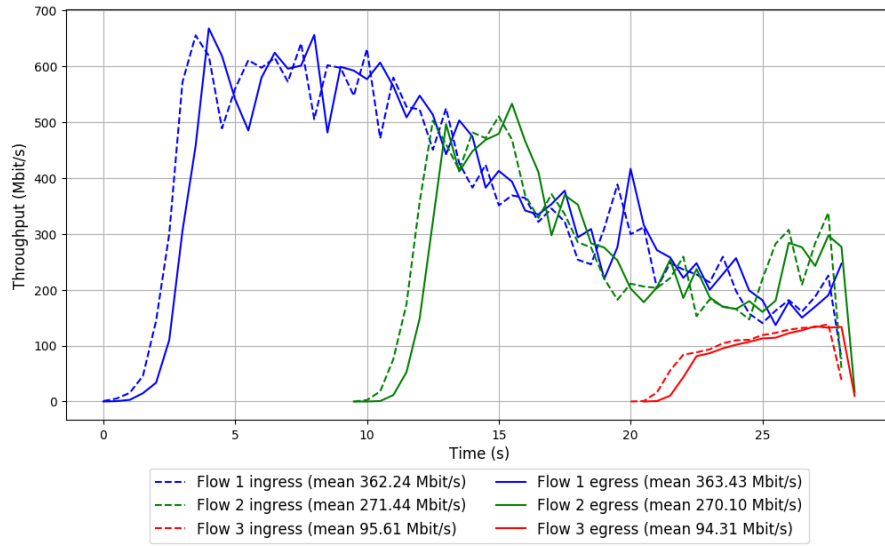


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-05-30 00:00:15
End at: 2019-05-30 00:00:45
Local clock offset: 0.623 ms
Remote clock offset: -0.087 ms

```
# Below is generated by plot.py at 2019-05-30 03:01:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 563.16 Mbit/s
95th percentile per-packet one-way delay: 135.071 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 363.43 Mbit/s
95th percentile per-packet one-way delay: 138.336 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 270.10 Mbit/s
95th percentile per-packet one-way delay: 128.473 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 94.31 Mbit/s
95th percentile per-packet one-way delay: 110.912 ms
Loss rate: 4.17%
```

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-05-30 00:37:03

End at: 2019-05-30 00:37:33

Local clock offset: -0.266 ms

Remote clock offset: 0.292 ms

Below is generated by plot.py at 2019-05-30 03:06:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 562.13 Mbit/s

95th percentile per-packet one-way delay: 145.184 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 329.98 Mbit/s

95th percentile per-packet one-way delay: 147.256 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 320.53 Mbit/s

95th percentile per-packet one-way delay: 144.460 ms

Loss rate: 1.27%

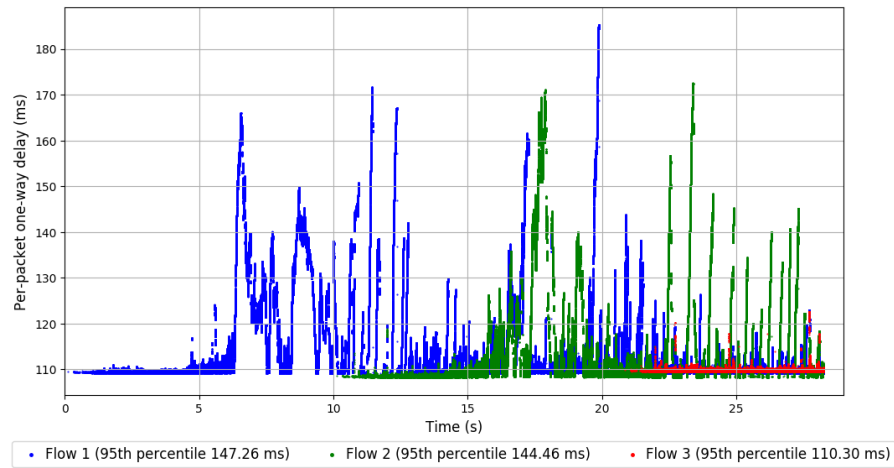
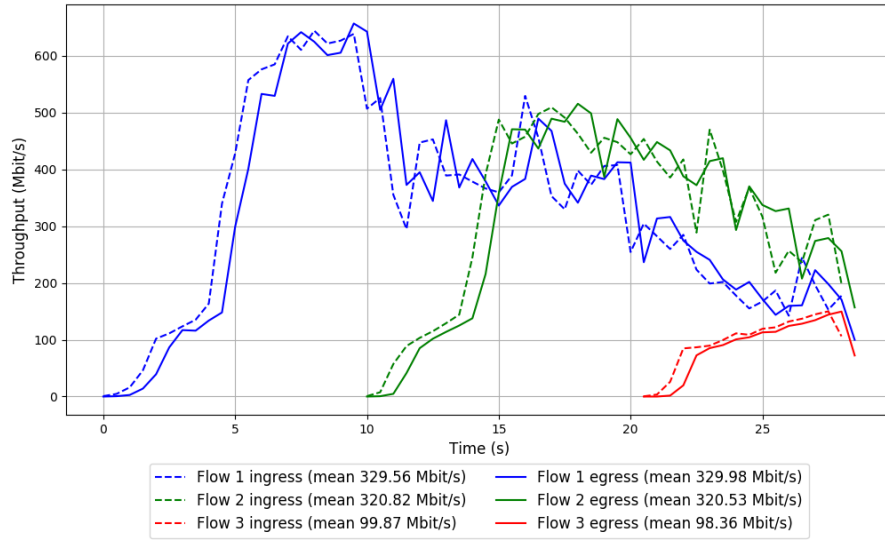
-- Flow 3:

Average throughput: 98.36 Mbit/s

95th percentile per-packet one-way delay: 110.300 ms

Loss rate: 4.38%

Run 4: Report of Indigo-MusesC5 — Data Link

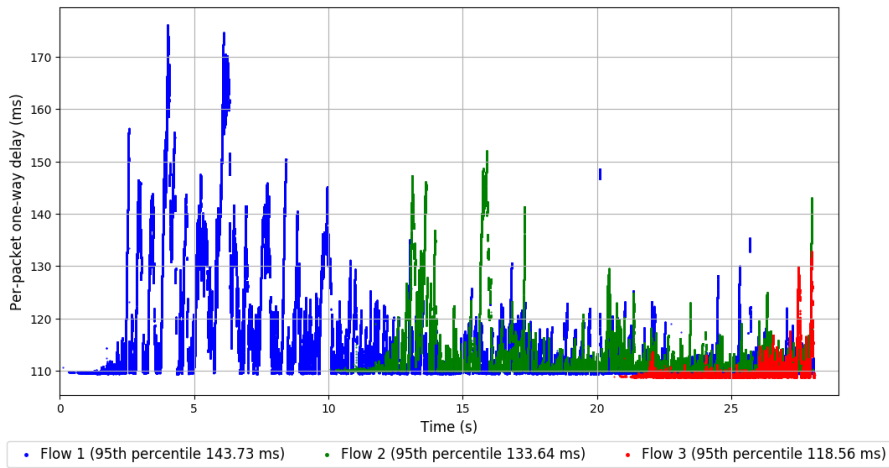
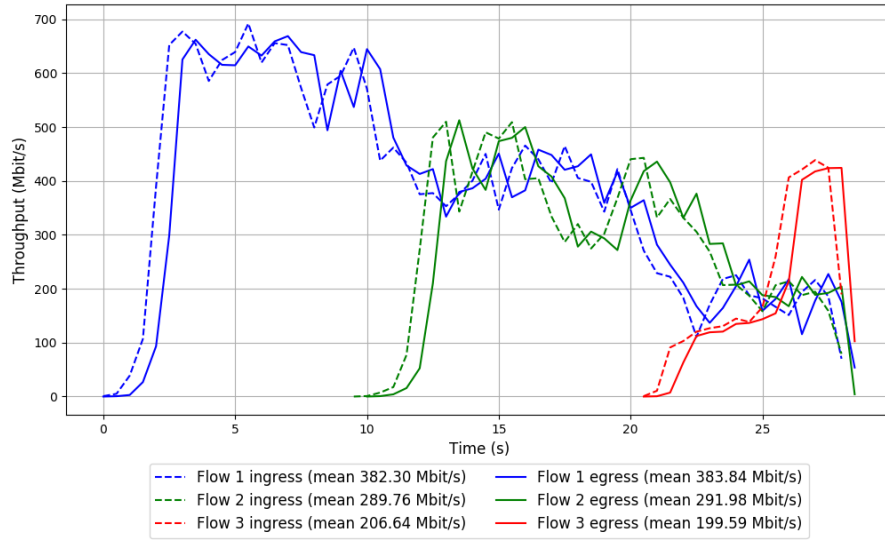


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-05-30 01:14:19
End at: 2019-05-30 01:14:49
Local clock offset: -0.188 ms
Remote clock offset: -0.084 ms

```
# Below is generated by plot.py at 2019-05-30 03:08:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 624.41 Mbit/s
95th percentile per-packet one-way delay: 140.658 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 383.84 Mbit/s
95th percentile per-packet one-way delay: 143.727 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 291.98 Mbit/s
95th percentile per-packet one-way delay: 133.639 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 199.59 Mbit/s
95th percentile per-packet one-way delay: 118.559 ms
Loss rate: 6.18%
```

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-05-29 22:49:51

End at: 2019-05-29 22:50:21

Local clock offset: 0.16 ms

Remote clock offset: 0.384 ms

Below is generated by plot.py at 2019-05-30 03:10:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 631.11 Mbit/s

95th percentile per-packet one-way delay: 117.961 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 367.32 Mbit/s

95th percentile per-packet one-way delay: 119.084 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 311.53 Mbit/s

95th percentile per-packet one-way delay: 115.931 ms

Loss rate: 1.65%

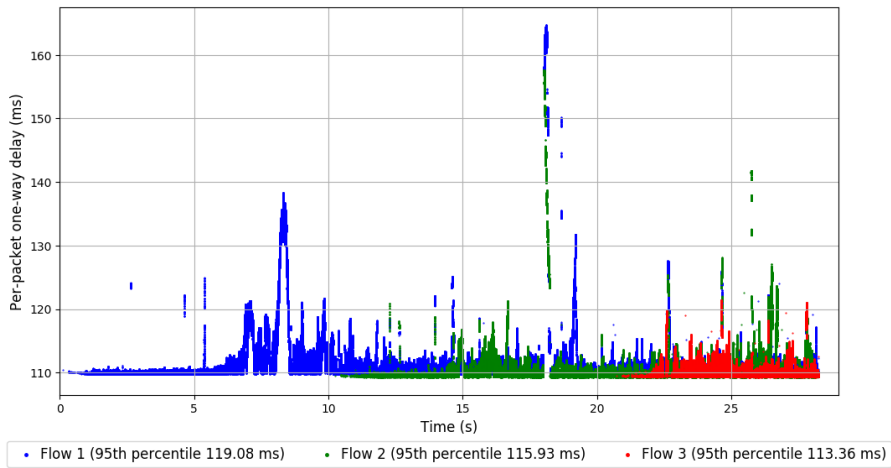
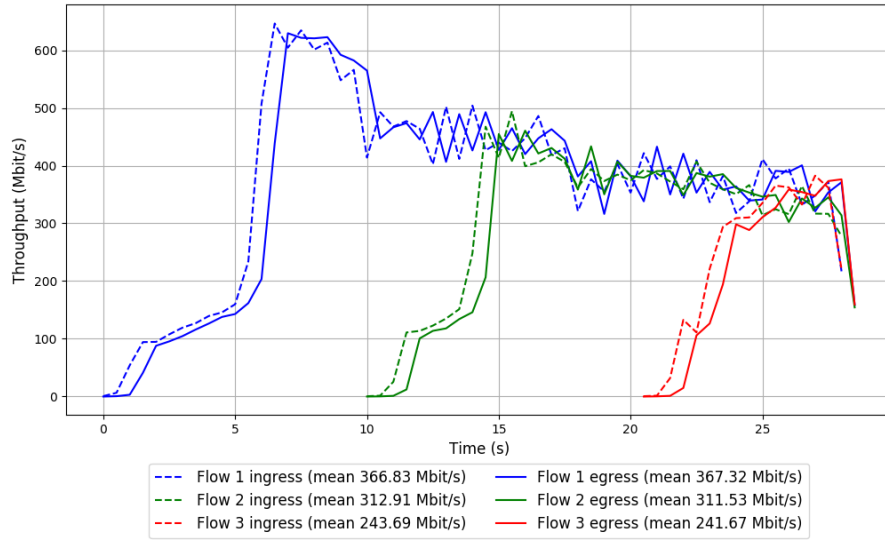
-- Flow 3:

Average throughput: 241.67 Mbit/s

95th percentile per-packet one-way delay: 113.365 ms

Loss rate: 3.61%

Run 1: Report of Indigo-MusesD — Data Link

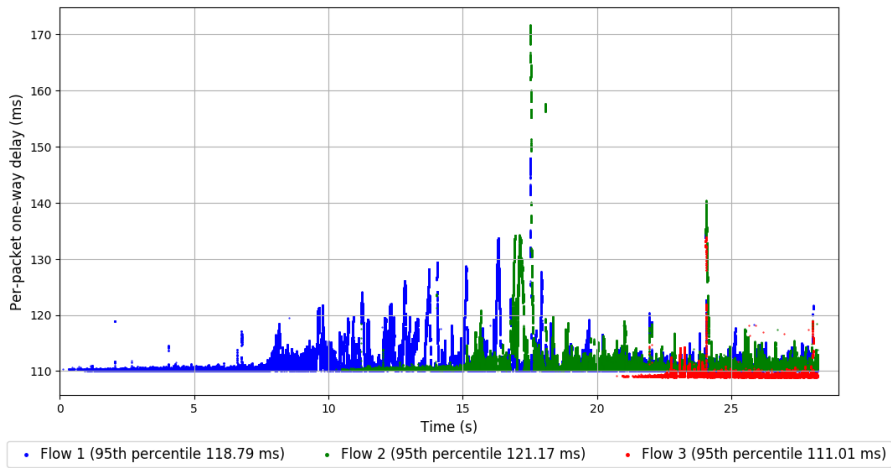
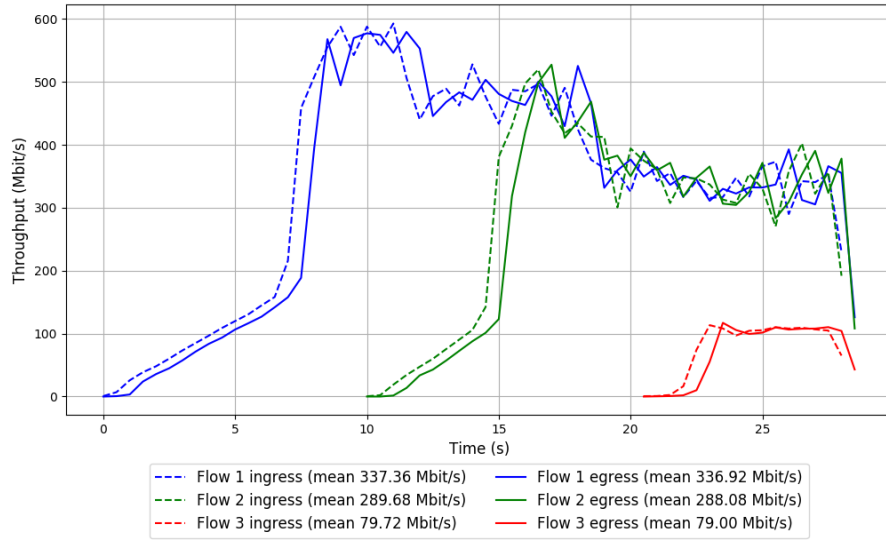


Run 2: Statistics of Indigo-MusesD

Start at: 2019-05-29 23:26:51
End at: 2019-05-29 23:27:21
Local clock offset: 0.01 ms
Remote clock offset: -0.036 ms

Below is generated by plot.py at 2019-05-30 03:10:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 541.69 Mbit/s
95th percentile per-packet one-way delay: 118.900 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 336.92 Mbit/s
95th percentile per-packet one-way delay: 118.790 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 288.08 Mbit/s
95th percentile per-packet one-way delay: 121.174 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 79.00 Mbit/s
95th percentile per-packet one-way delay: 111.013 ms
Loss rate: 3.72%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-05-30 00:03:20
End at: 2019-05-30 00:03:50
Local clock offset: 0.647 ms
Remote clock offset: -0.077 ms

Below is generated by plot.py at 2019-05-30 03:10:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 607.87 Mbit/s
95th percentile per-packet one-way delay: 116.034 ms
Loss rate: 1.06%

-- Flow 1:

Average throughput: 362.95 Mbit/s
95th percentile per-packet one-way delay: 116.260 ms
Loss rate: 0.83%

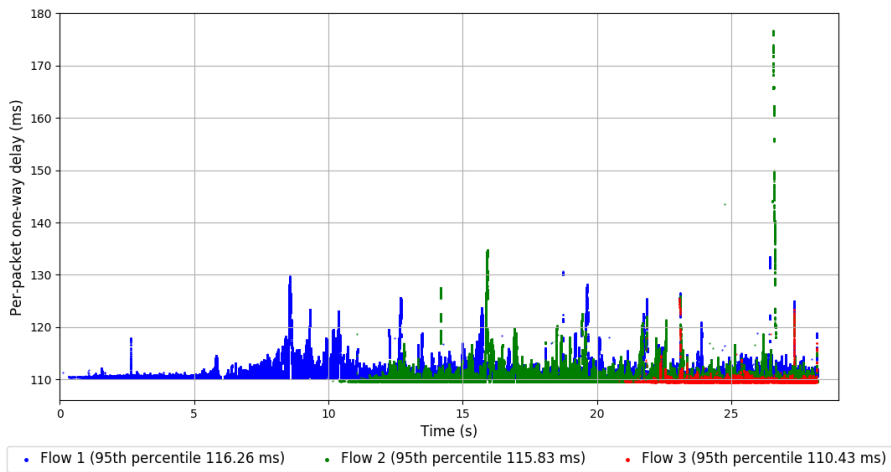
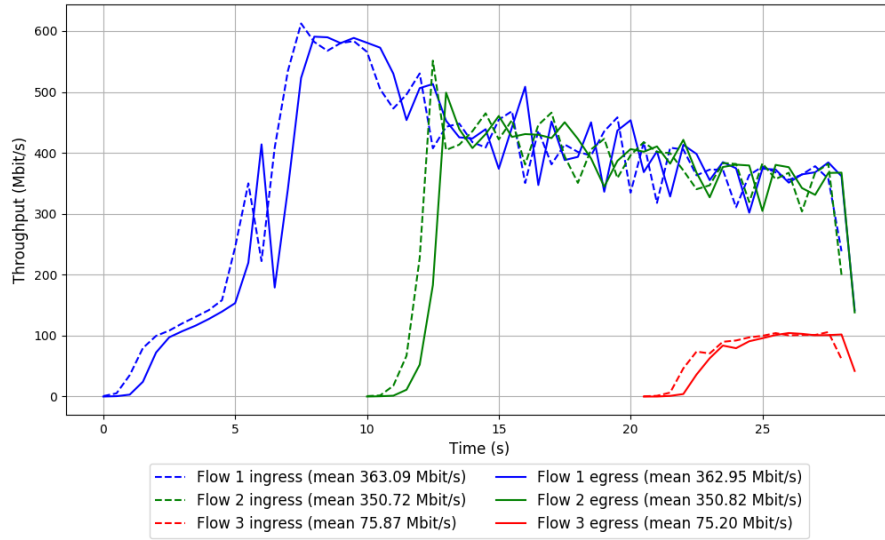
-- Flow 2:

Average throughput: 350.82 Mbit/s
95th percentile per-packet one-way delay: 115.835 ms
Loss rate: 1.17%

-- Flow 3:

Average throughput: 75.20 Mbit/s
95th percentile per-packet one-way delay: 110.431 ms
Loss rate: 3.87%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-05-30 00:40:08
End at: 2019-05-30 00:40:38
Local clock offset: -0.086 ms
Remote clock offset: -0.132 ms

Below is generated by plot.py at 2019-05-30 03:10:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 635.80 Mbit/s
95th percentile per-packet one-way delay: 126.359 ms
Loss rate: 1.27%

-- Flow 1:

Average throughput: 397.02 Mbit/s
95th percentile per-packet one-way delay: 126.939 ms
Loss rate: 0.77%

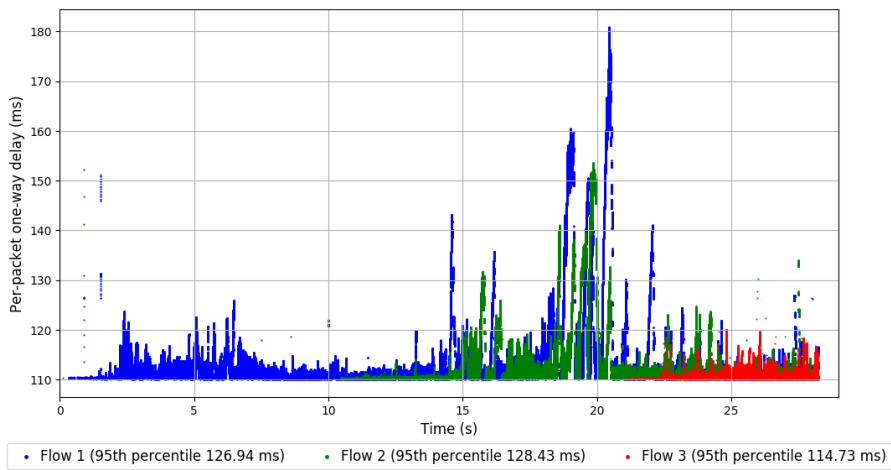
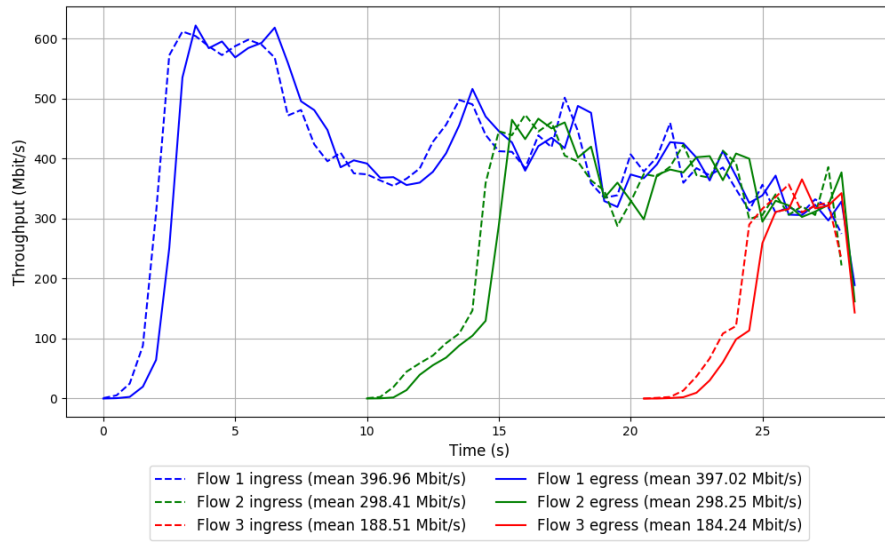
-- Flow 2:

Average throughput: 298.25 Mbit/s
95th percentile per-packet one-way delay: 128.429 ms
Loss rate: 1.27%

-- Flow 3:

Average throughput: 184.24 Mbit/s
95th percentile per-packet one-way delay: 114.731 ms
Loss rate: 5.23%

Run 4: Report of Indigo-MusesD — Data Link

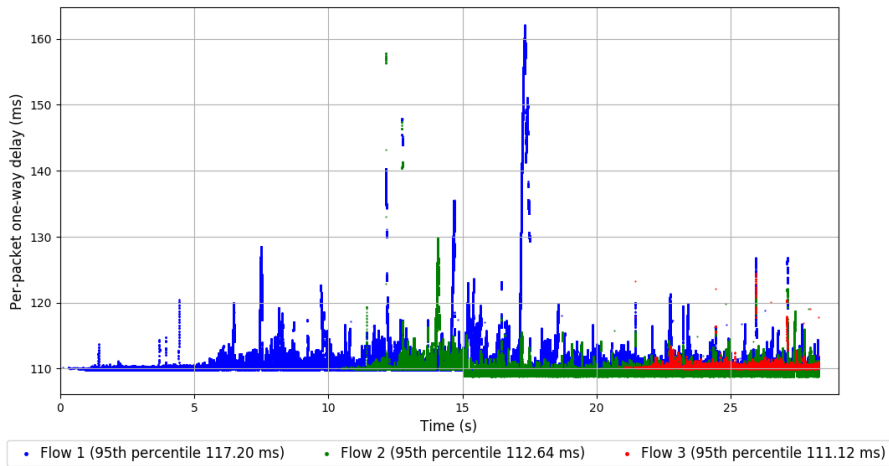
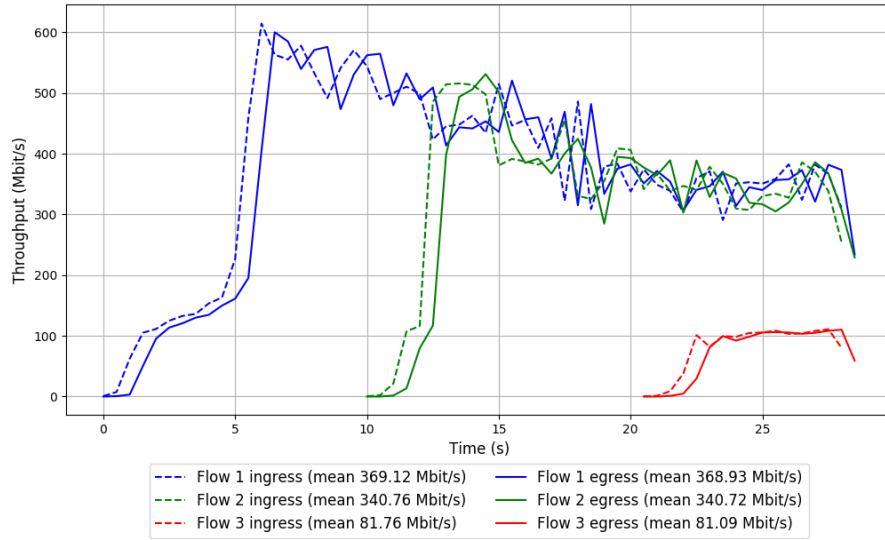


Run 5: Statistics of Indigo-MusesD

Start at: 2019-05-30 01:17:26
End at: 2019-05-30 01:17:56
Local clock offset: -0.23 ms
Remote clock offset: -0.103 ms

Below is generated by plot.py at 2019-05-30 03:10:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 607.98 Mbit/s
95th percentile per-packet one-way delay: 115.581 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 368.93 Mbit/s
95th percentile per-packet one-way delay: 117.202 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 340.72 Mbit/s
95th percentile per-packet one-way delay: 112.642 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 81.09 Mbit/s
95th percentile per-packet one-way delay: 111.117 ms
Loss rate: 3.63%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MuseST

Start at: 2019-05-29 22:56:46

End at: 2019-05-29 22:57:16

Local clock offset: -0.002 ms

Remote clock offset: 0.027 ms

Below is generated by plot.py at 2019-05-30 03:15:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 736.51 Mbit/s

95th percentile per-packet one-way delay: 145.727 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 465.88 Mbit/s

95th percentile per-packet one-way delay: 166.808 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 381.07 Mbit/s

95th percentile per-packet one-way delay: 123.634 ms

Loss rate: 1.42%

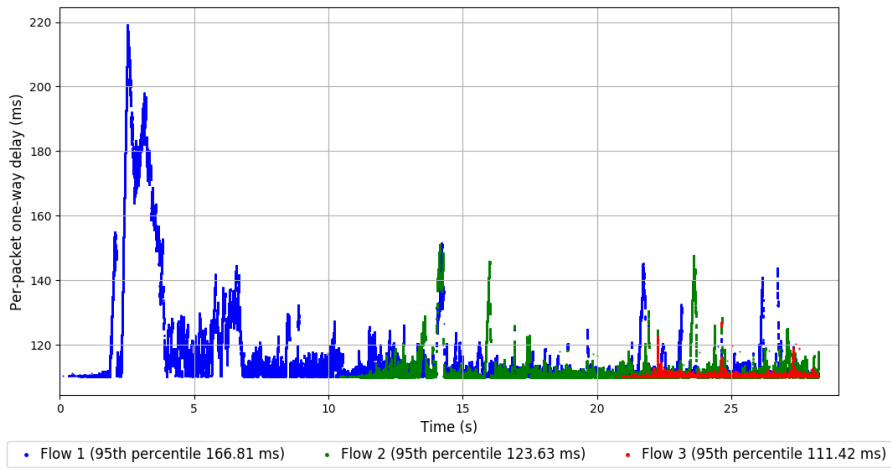
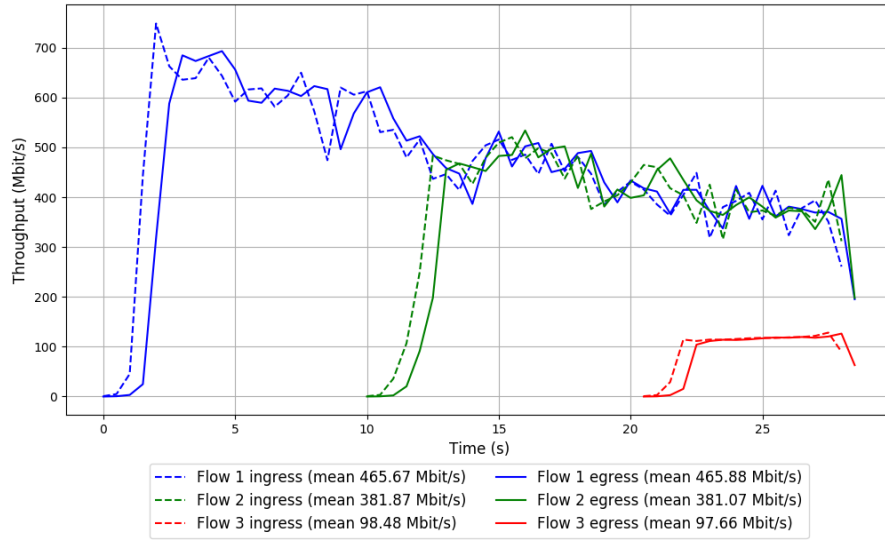
-- Flow 3:

Average throughput: 97.66 Mbit/s

95th percentile per-packet one-way delay: 111.422 ms

Loss rate: 3.65%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MuseST

Start at: 2019-05-29 23:33:37

End at: 2019-05-29 23:34:07

Local clock offset: 0.019 ms

Remote clock offset: -0.02 ms

Below is generated by plot.py at 2019-05-30 03:19:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 725.12 Mbit/s

95th percentile per-packet one-way delay: 128.890 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 431.51 Mbit/s

95th percentile per-packet one-way delay: 134.491 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 359.25 Mbit/s

95th percentile per-packet one-way delay: 120.670 ms

Loss rate: 1.35%

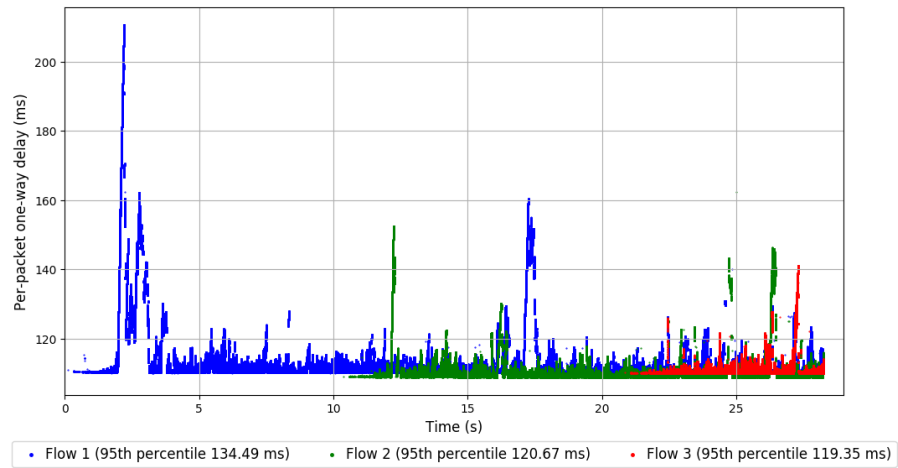
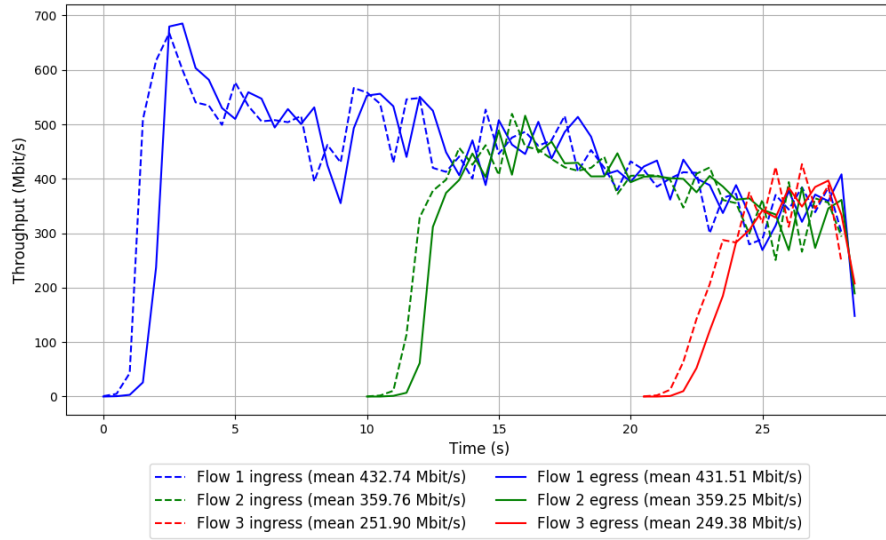
-- Flow 3:

Average throughput: 249.38 Mbit/s

95th percentile per-packet one-way delay: 119.347 ms

Loss rate: 3.89%

Run 2: Report of Indigo-MusesT — Data Link

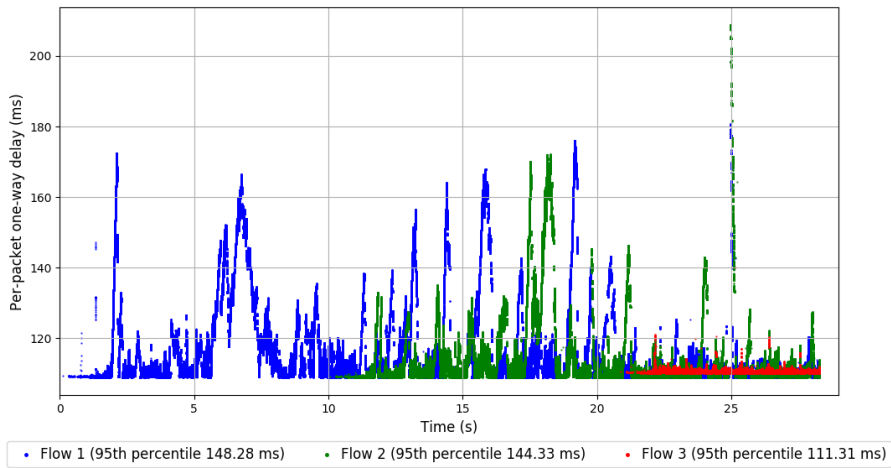
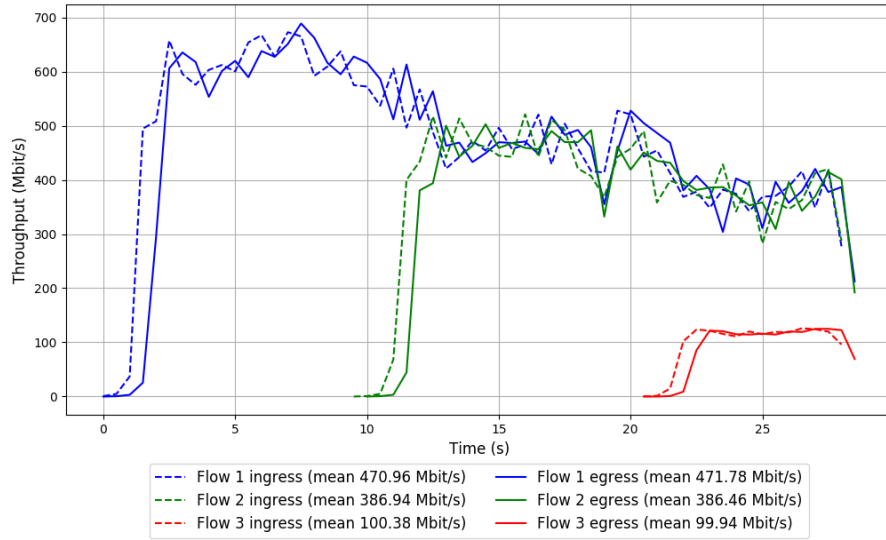


Run 3: Statistics of Indigo-MuseST

Start at: 2019-05-30 00:10:19
End at: 2019-05-30 00:10:49
Local clock offset: 0.13 ms
Remote clock offset: -0.091 ms

```
# Below is generated by plot.py at 2019-05-30 03:20:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 747.98 Mbit/s
95th percentile per-packet one-way delay: 146.861 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 471.78 Mbit/s
95th percentile per-packet one-way delay: 148.280 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 386.46 Mbit/s
95th percentile per-packet one-way delay: 144.328 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 99.94 Mbit/s
95th percentile per-packet one-way delay: 111.313 ms
Loss rate: 3.30%
```

Run 3: Report of Indigo-MusesT — Data Link

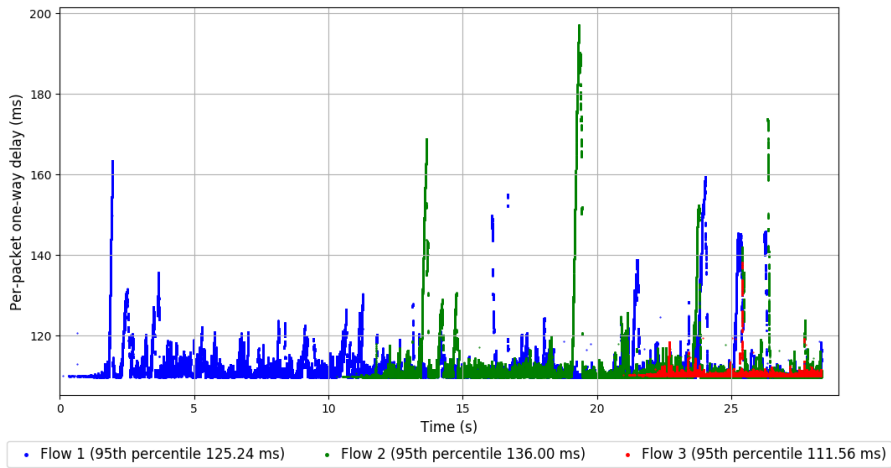
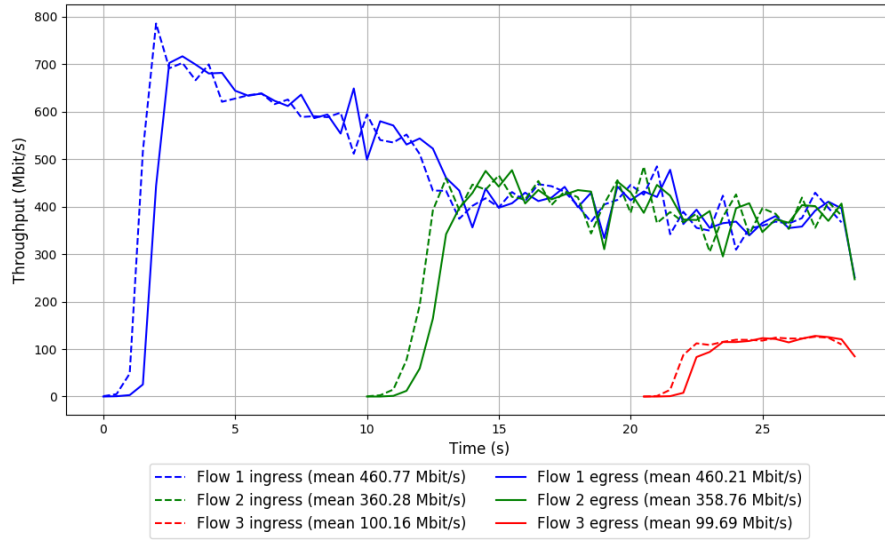


Run 4: Statistics of Indigo-MuseST

Start at: 2019-05-30 00:47:23
End at: 2019-05-30 00:47:53
Local clock offset: -0.029 ms
Remote clock offset: -0.085 ms

```
# Below is generated by plot.py at 2019-05-30 03:20:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 715.29 Mbit/s
95th percentile per-packet one-way delay: 126.977 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 460.21 Mbit/s
95th percentile per-packet one-way delay: 125.236 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 358.76 Mbit/s
95th percentile per-packet one-way delay: 135.995 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 99.69 Mbit/s
95th percentile per-packet one-way delay: 111.558 ms
Loss rate: 3.45%
```

Run 4: Report of Indigo-MusesT — Data Link

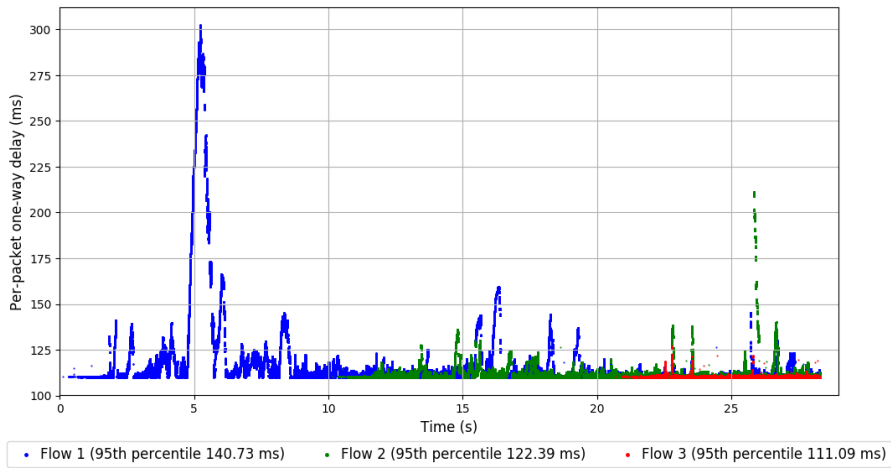
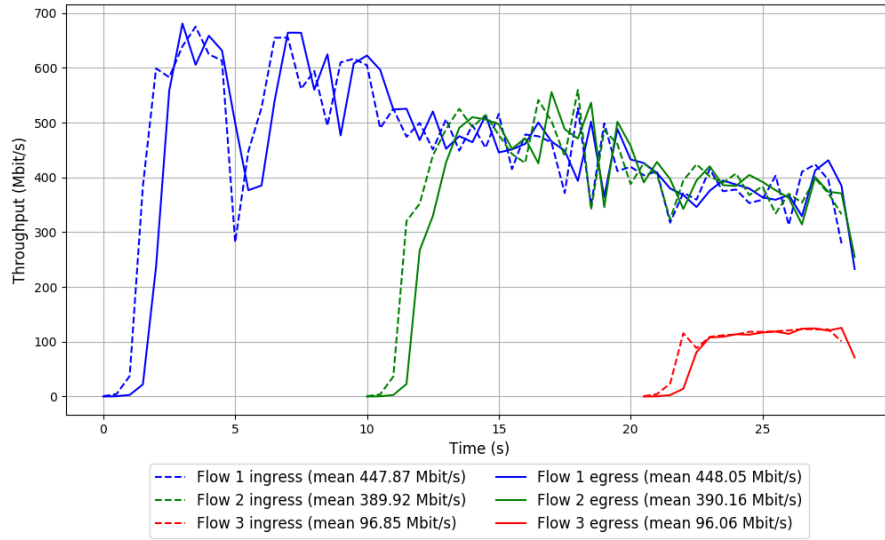


Run 5: Statistics of Indigo-MuseST

Start at: 2019-05-30 01:24:37
End at: 2019-05-30 01:25:07
Local clock offset: -0.113 ms
Remote clock offset: -0.105 ms

```
# Below is generated by plot.py at 2019-05-30 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 724.91 Mbit/s
95th percentile per-packet one-way delay: 135.118 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 448.05 Mbit/s
95th percentile per-packet one-way delay: 140.733 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 390.16 Mbit/s
95th percentile per-packet one-way delay: 122.386 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 111.087 ms
Loss rate: 3.64%
```

Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-05-29 23:10:48

End at: 2019-05-29 23:11:18

Local clock offset: 0.055 ms

Remote clock offset: 0.06 ms

Below is generated by plot.py at 2019-05-30 03:22:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.52 Mbit/s

95th percentile per-packet one-way delay: 114.010 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 7.41 Mbit/s

95th percentile per-packet one-way delay: 114.179 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 5.06 Mbit/s

95th percentile per-packet one-way delay: 110.681 ms

Loss rate: 2.23%

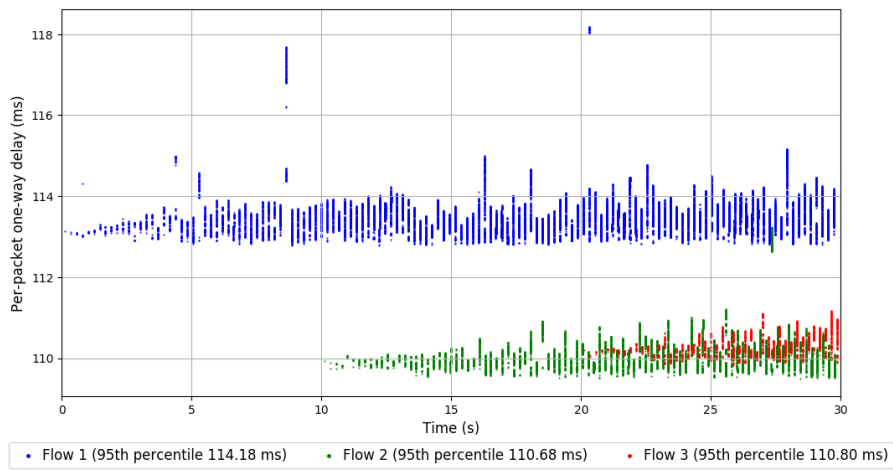
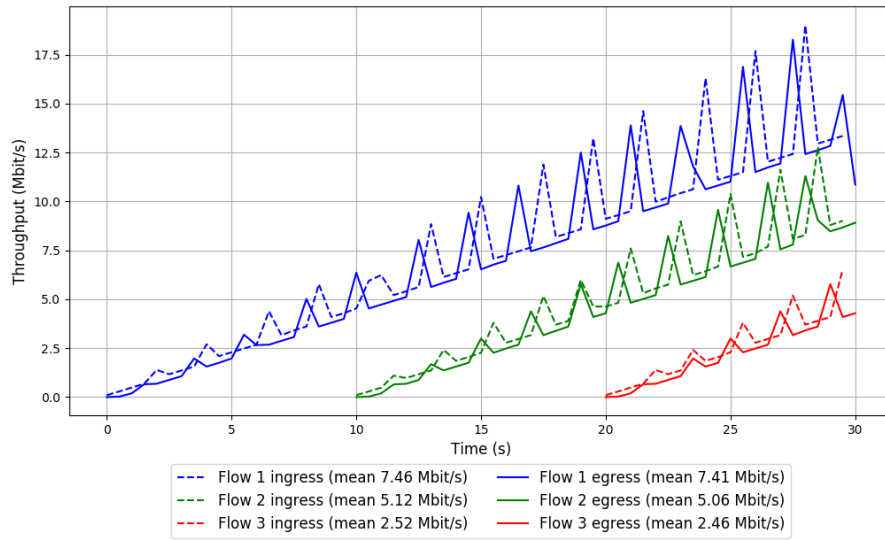
-- Flow 3:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 110.797 ms

Loss rate: 4.46%

Run 1: Report of LEDBAT — Data Link

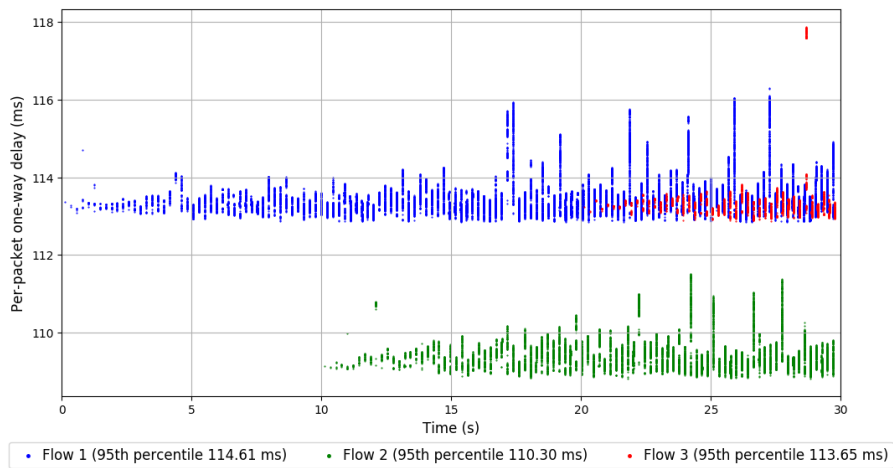
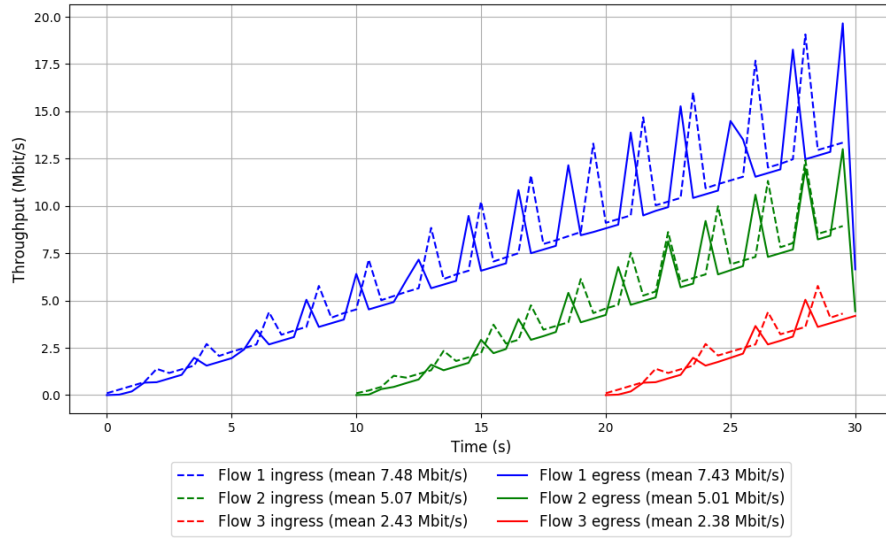


Run 2: Statistics of LEDBAT

Start at: 2019-05-29 23:47:28
End at: 2019-05-29 23:47:58
Local clock offset: -0.075 ms
Remote clock offset: -0.046 ms

Below is generated by plot.py at 2019-05-30 03:22:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.50 Mbit/s
95th percentile per-packet one-way delay: 114.264 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 114.609 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 5.01 Mbit/s
95th percentile per-packet one-way delay: 110.297 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 113.654 ms
Loss rate: 4.56%

Run 2: Report of LEDBAT — Data Link

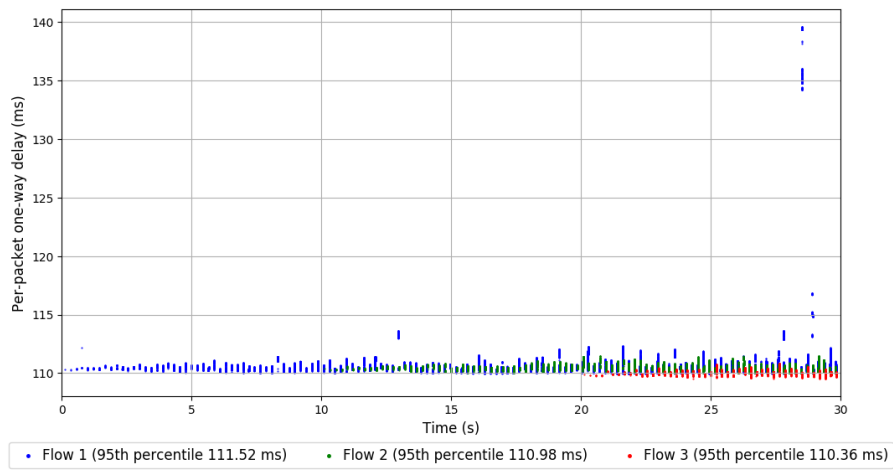
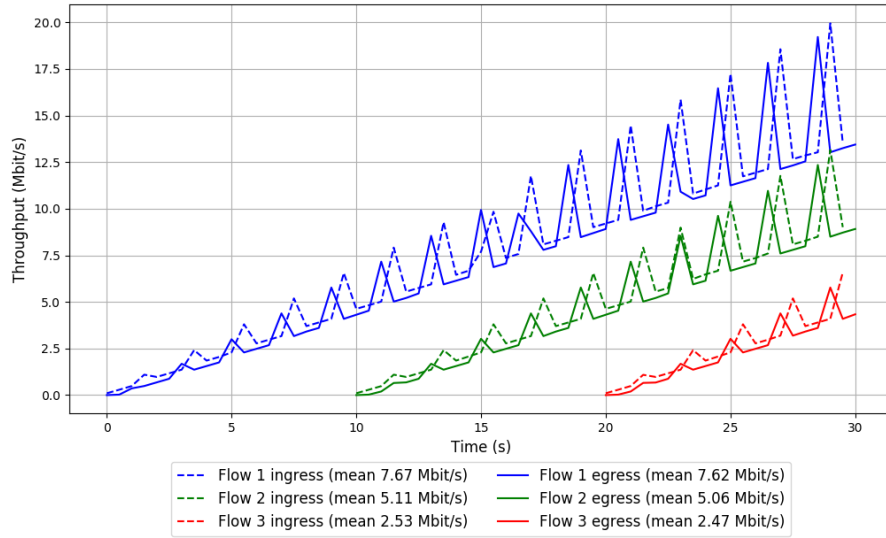


Run 3: Statistics of LEDBAT

Start at: 2019-05-30 00:23:49
End at: 2019-05-30 00:24:19
Local clock offset: -0.071 ms
Remote clock offset: -0.107 ms

```
# Below is generated by plot.py at 2019-05-30 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 111.253 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 7.62 Mbit/s
95th percentile per-packet one-way delay: 111.516 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 110.983 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 110.363 ms
Loss rate: 4.46%
```

Run 3: Report of LEDBAT — Data Link

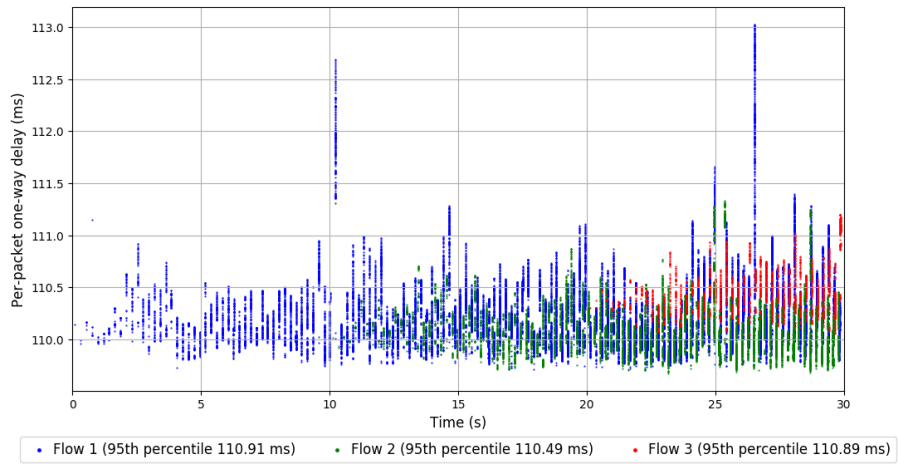
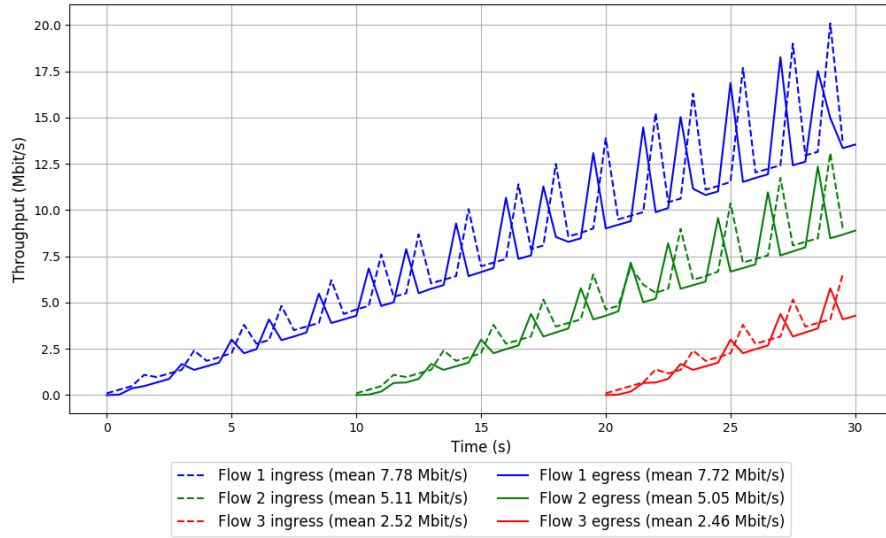


Run 4: Statistics of LEDBAT

Start at: 2019-05-30 01:01:07
End at: 2019-05-30 01:01:37
Local clock offset: -0.156 ms
Remote clock offset: -0.111 ms

```
# Below is generated by plot.py at 2019-05-30 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 110.851 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 7.72 Mbit/s
95th percentile per-packet one-way delay: 110.912 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 110.486 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 110.895 ms
Loss rate: 4.47%
```

Run 4: Report of LEDBAT — Data Link

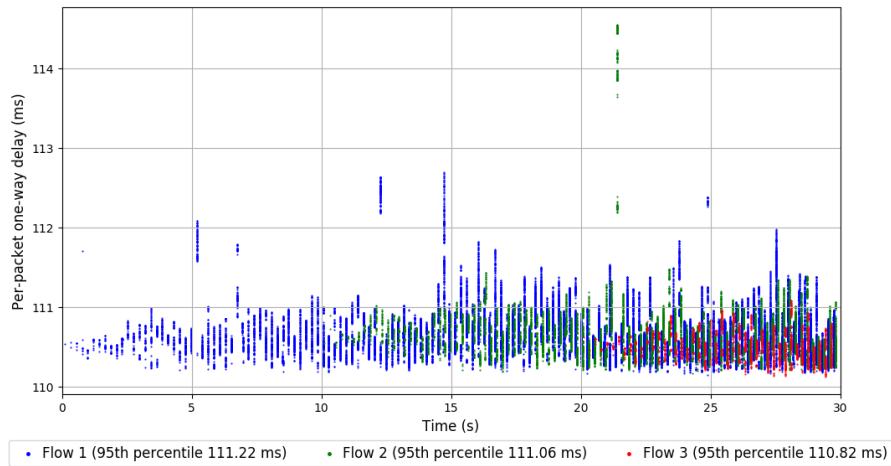
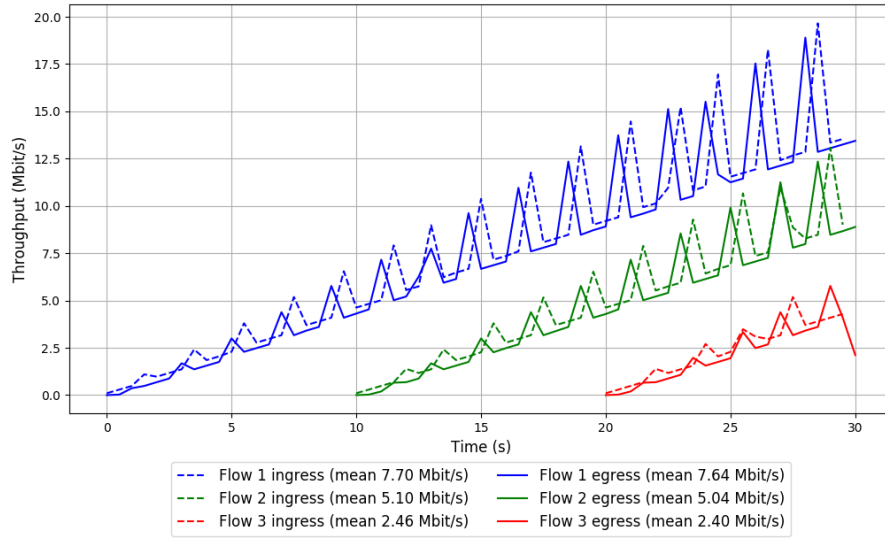


Run 5: Statistics of LEDBAT

Start at: 2019-05-30 01:38:26
End at: 2019-05-30 01:38:56
Local clock offset: 0.031 ms
Remote clock offset: -0.117 ms

```
# Below is generated by plot.py at 2019-05-30 03:22:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 111.165 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 111.216 ms
Loss rate: 1.48%
-- Flow 2:
Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 111.060 ms
Loss rate: 2.23%
-- Flow 3:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 110.819 ms
Loss rate: 4.52%
```

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-05-29 22:37:59

End at: 2019-05-29 22:38:29

Local clock offset: 0.157 ms

Remote clock offset: 0.051 ms

Below is generated by plot.py at 2019-05-30 03:27:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 468.66 Mbit/s

95th percentile per-packet one-way delay: 244.718 ms

Loss rate: 3.95%

-- Flow 1:

Average throughput: 365.60 Mbit/s

95th percentile per-packet one-way delay: 244.891 ms

Loss rate: 3.42%

-- Flow 2:

Average throughput: 46.23 Mbit/s

95th percentile per-packet one-way delay: 110.013 ms

Loss rate: 5.09%

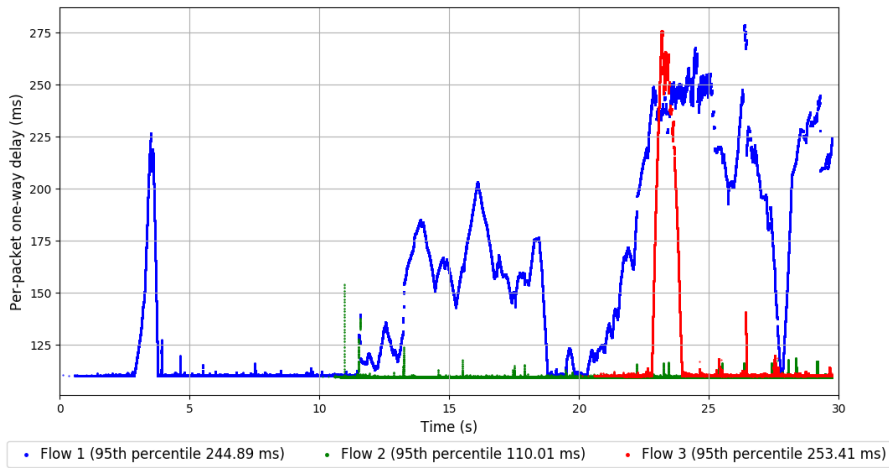
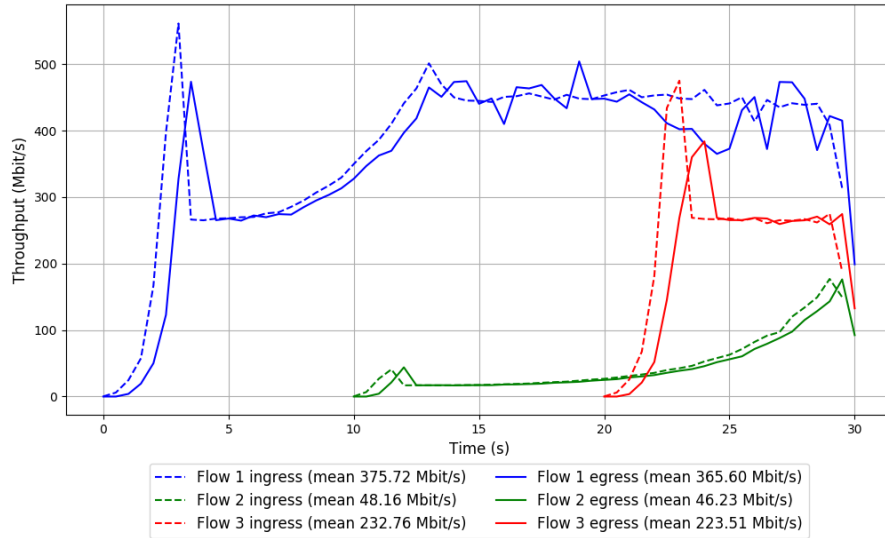
-- Flow 3:

Average throughput: 223.51 Mbit/s

95th percentile per-packet one-way delay: 253.405 ms

Loss rate: 6.12%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-05-29 23:15:01

End at: 2019-05-29 23:15:31

Local clock offset: 0.132 ms

Remote clock offset: 0.038 ms

Below is generated by plot.py at 2019-05-30 03:31:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 586.85 Mbit/s

95th percentile per-packet one-way delay: 257.434 ms

Loss rate: 7.45%

-- Flow 1:

Average throughput: 340.90 Mbit/s

95th percentile per-packet one-way delay: 264.026 ms

Loss rate: 10.51%

-- Flow 2:

Average throughput: 262.98 Mbit/s

95th percentile per-packet one-way delay: 197.691 ms

Loss rate: 2.91%

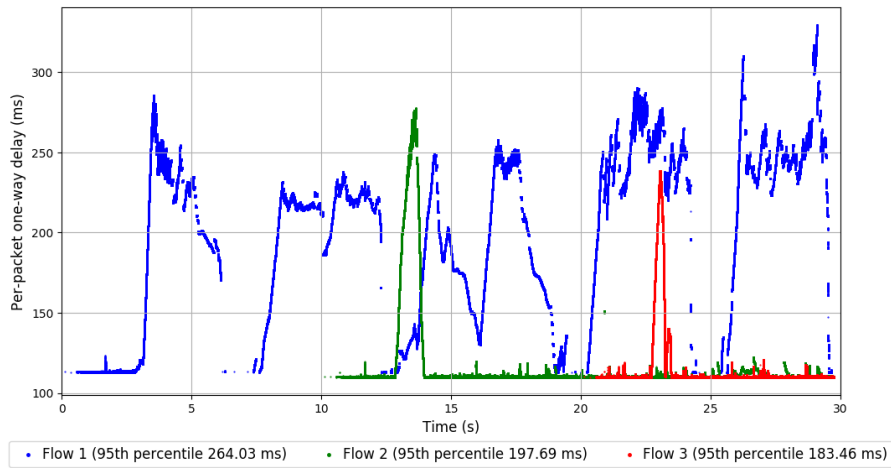
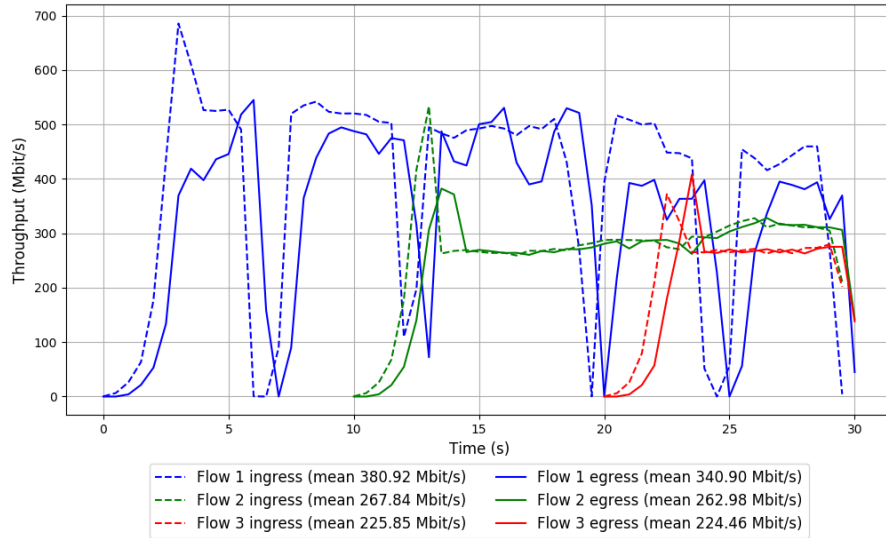
-- Flow 3:

Average throughput: 224.46 Mbit/s

95th percentile per-packet one-way delay: 183.459 ms

Loss rate: 2.84%

Run 2: Report of PCC-Allegro — Data Link

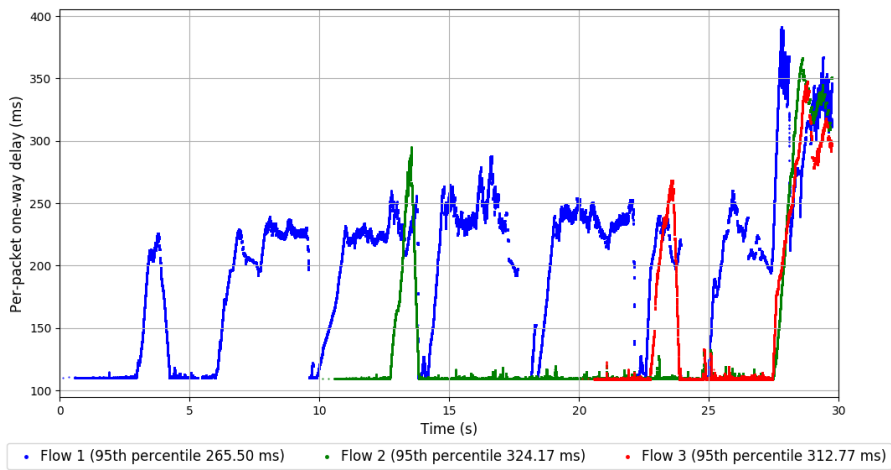
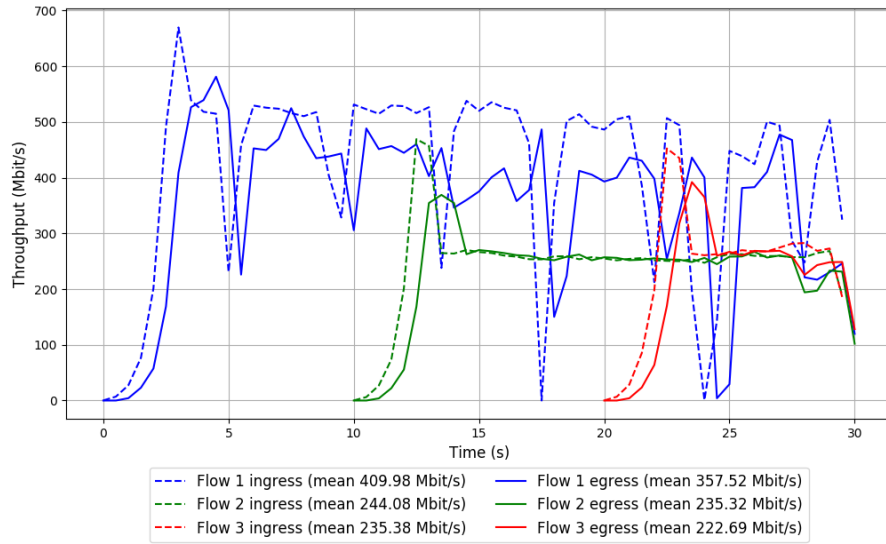


Run 3: Statistics of PCC-Allegro

Start at: 2019-05-29 23:51:38
End at: 2019-05-29 23:52:08
Local clock offset: -0.007 ms
Remote clock offset: -0.034 ms

```
# Below is generated by plot.py at 2019-05-30 03:32:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.59 Mbit/s
95th percentile per-packet one-way delay: 301.433 ms
Loss rate: 10.54%
-- Flow 1:
Average throughput: 357.52 Mbit/s
95th percentile per-packet one-way delay: 265.504 ms
Loss rate: 13.43%
-- Flow 2:
Average throughput: 235.32 Mbit/s
95th percentile per-packet one-way delay: 324.167 ms
Loss rate: 4.65%
-- Flow 3:
Average throughput: 222.69 Mbit/s
95th percentile per-packet one-way delay: 312.775 ms
Loss rate: 7.51%
```

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-05-30 00:28:21

End at: 2019-05-30 00:28:51

Local clock offset: -0.07 ms

Remote clock offset: -0.148 ms

Below is generated by plot.py at 2019-05-30 03:36:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 579.70 Mbit/s

95th percentile per-packet one-way delay: 230.616 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 323.35 Mbit/s

95th percentile per-packet one-way delay: 236.636 ms

Loss rate: 1.78%

-- Flow 2:

Average throughput: 274.56 Mbit/s

95th percentile per-packet one-way delay: 176.744 ms

Loss rate: 2.20%

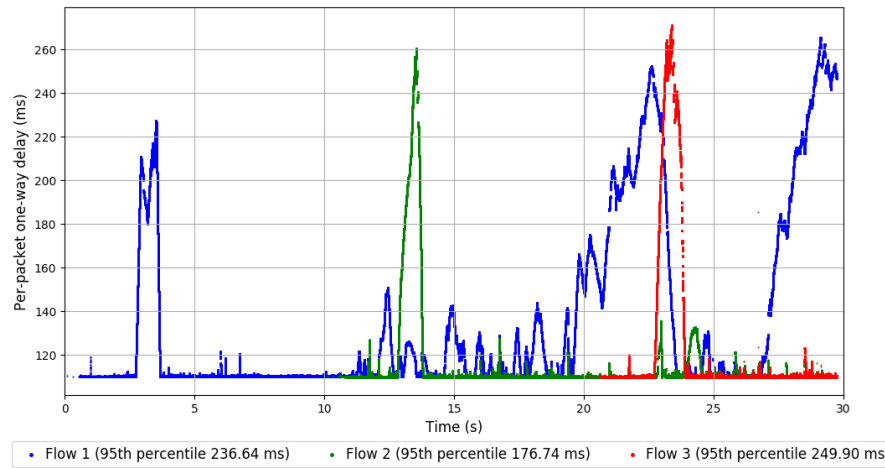
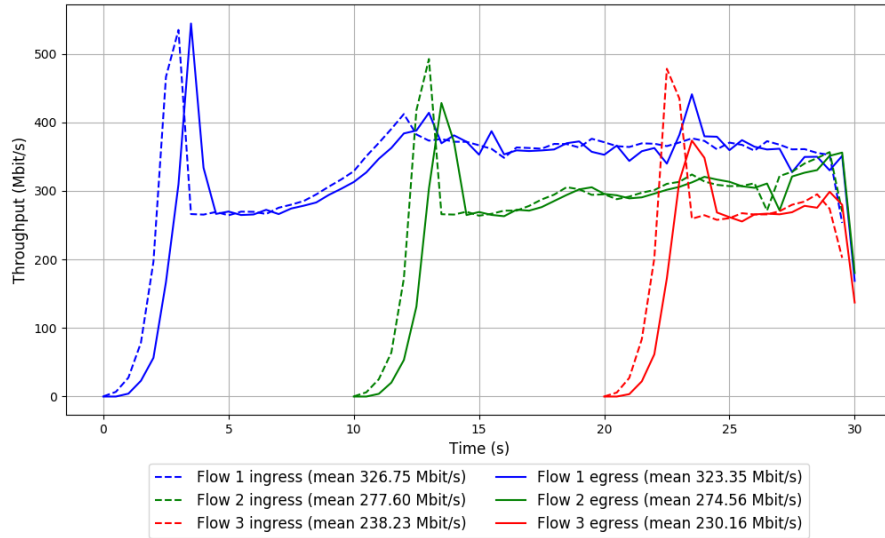
-- Flow 3:

Average throughput: 230.16 Mbit/s

95th percentile per-packet one-way delay: 249.900 ms

Loss rate: 5.57%

Run 4: Report of PCC-Allegro — Data Link

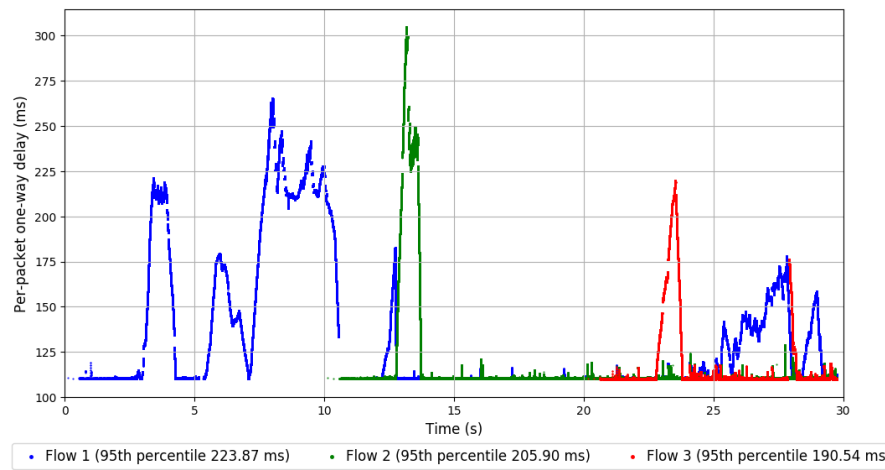
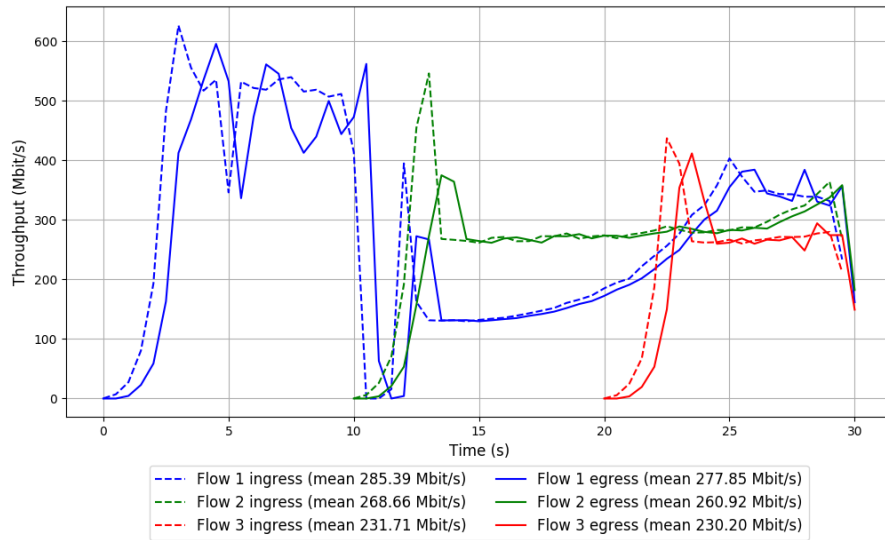


Run 5: Statistics of PCC-Allegro

Start at: 2019-05-30 01:05:36
End at: 2019-05-30 01:06:06
Local clock offset: 0.015 ms
Remote clock offset: -0.083 ms

```
# Below is generated by plot.py at 2019-05-30 03:39:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 525.18 Mbit/s
95th percentile per-packet one-way delay: 219.294 ms
Loss rate: 3.49%
-- Flow 1:
Average throughput: 277.85 Mbit/s
95th percentile per-packet one-way delay: 223.868 ms
Loss rate: 3.36%
-- Flow 2:
Average throughput: 260.92 Mbit/s
95th percentile per-packet one-way delay: 205.898 ms
Loss rate: 3.96%
-- Flow 3:
Average throughput: 230.20 Mbit/s
95th percentile per-packet one-way delay: 190.536 ms
Loss rate: 2.89%
```

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-05-29 22:44:42

End at: 2019-05-29 22:45:12

Local clock offset: 0.205 ms

Remote clock offset: 0.052 ms

Below is generated by plot.py at 2019-05-30 03:39:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 441.45 Mbit/s

95th percentile per-packet one-way delay: 190.185 ms

Loss rate: 2.53%

-- Flow 1:

Average throughput: 266.07 Mbit/s

95th percentile per-packet one-way delay: 207.986 ms

Loss rate: 2.74%

-- Flow 2:

Average throughput: 189.43 Mbit/s

95th percentile per-packet one-way delay: 130.780 ms

Loss rate: 1.78%

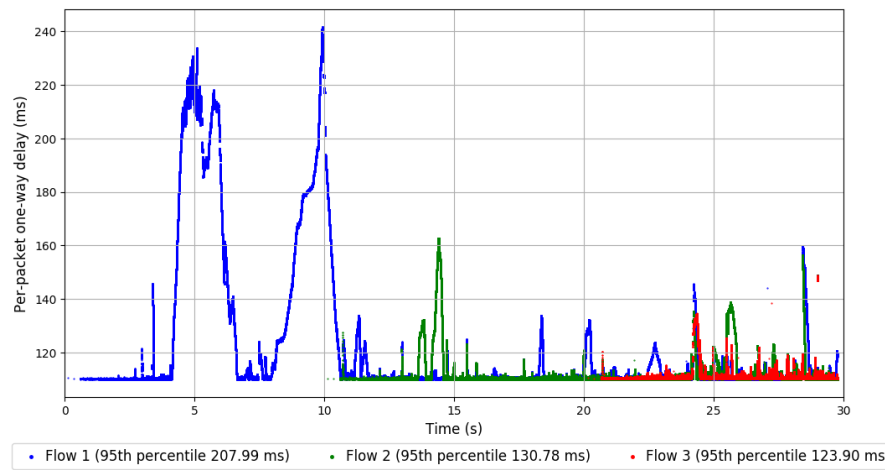
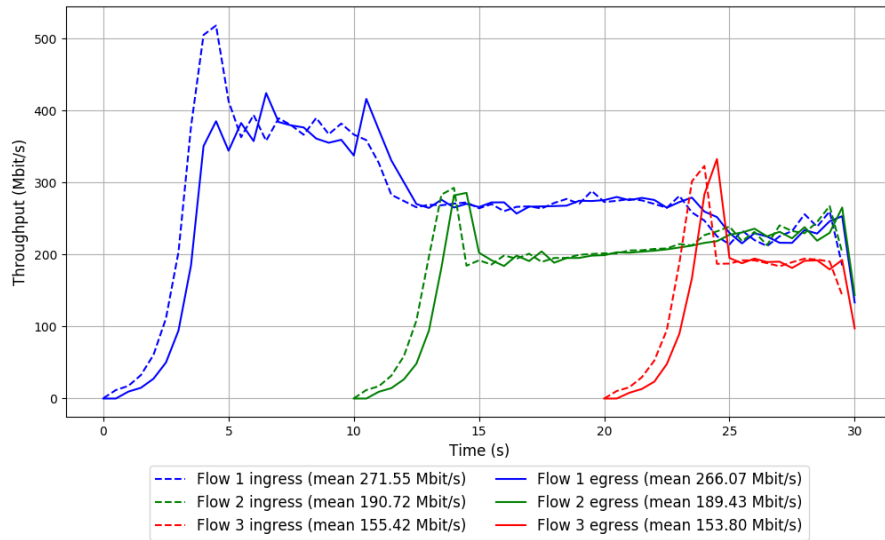
-- Flow 3:

Average throughput: 153.80 Mbit/s

95th percentile per-packet one-way delay: 123.902 ms

Loss rate: 3.28%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-05-29 23:21:48
End at: 2019-05-29 23:22:18
Local clock offset: -0.009 ms
Remote clock offset: -0.025 ms

Below is generated by plot.py at 2019-05-30 03:39:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 392.31 Mbit/s
95th percentile per-packet one-way delay: 205.449 ms
Loss rate: 2.83%

-- Flow 1:

Average throughput: 260.02 Mbit/s
95th percentile per-packet one-way delay: 208.670 ms
Loss rate: 3.25%

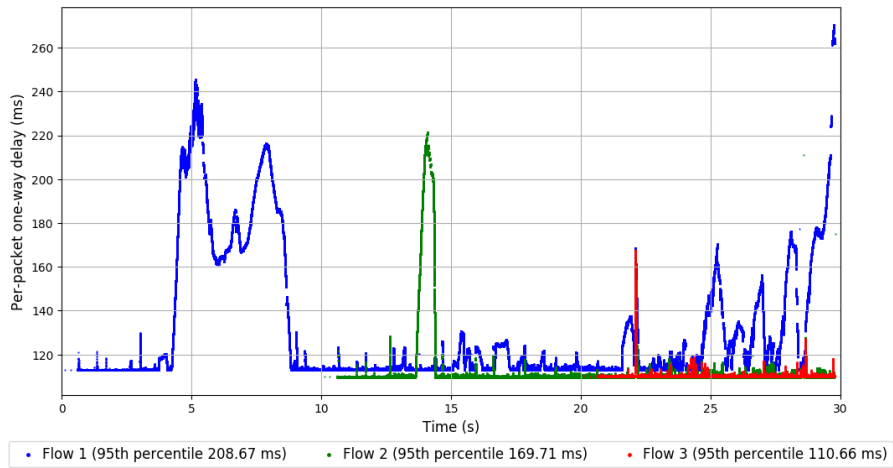
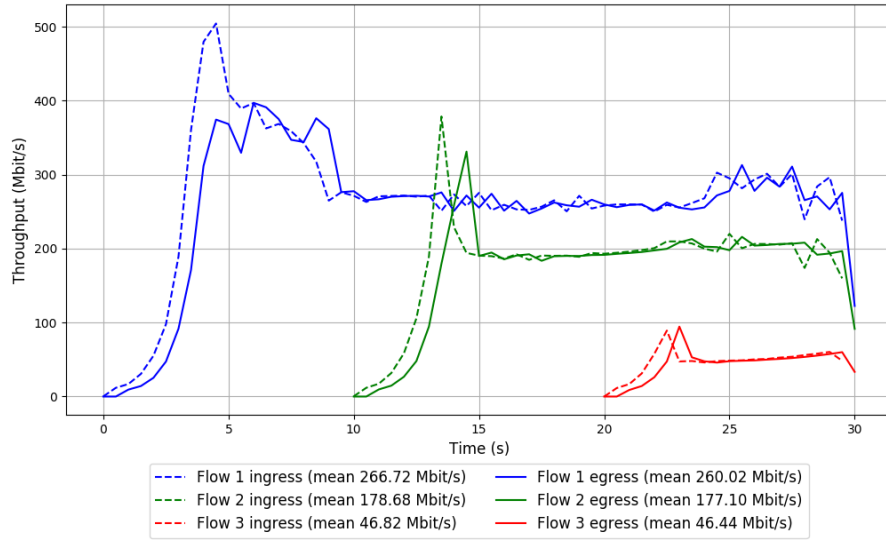
-- Flow 2:

Average throughput: 177.10 Mbit/s
95th percentile per-packet one-way delay: 169.708 ms
Loss rate: 1.85%

-- Flow 3:

Average throughput: 46.44 Mbit/s
95th percentile per-packet one-way delay: 110.656 ms
Loss rate: 3.08%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-05-29 23:58:09

End at: 2019-05-29 23:58:39

Local clock offset: -0.08 ms

Remote clock offset: -0.06 ms

Below is generated by plot.py at 2019-05-30 03:40:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 468.64 Mbit/s

95th percentile per-packet one-way delay: 221.770 ms

Loss rate: 3.22%

-- Flow 1:

Average throughput: 293.95 Mbit/s

95th percentile per-packet one-way delay: 229.438 ms

Loss rate: 3.76%

-- Flow 2:

Average throughput: 188.82 Mbit/s

95th percentile per-packet one-way delay: 146.060 ms

Loss rate: 2.11%

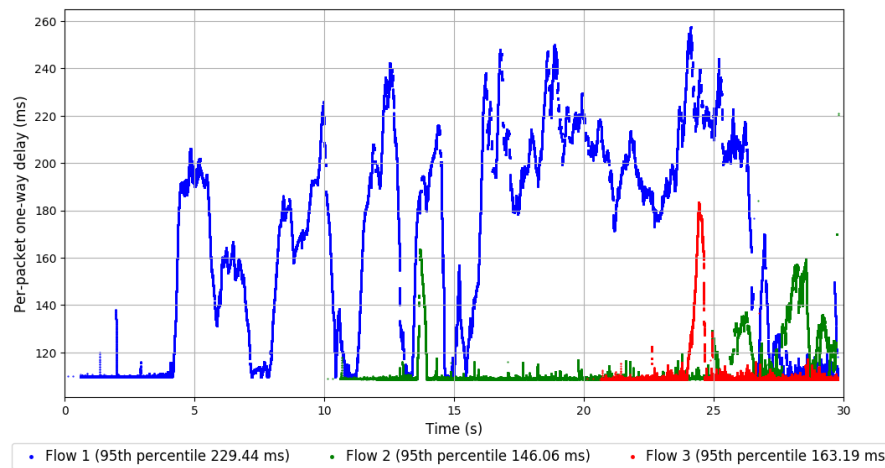
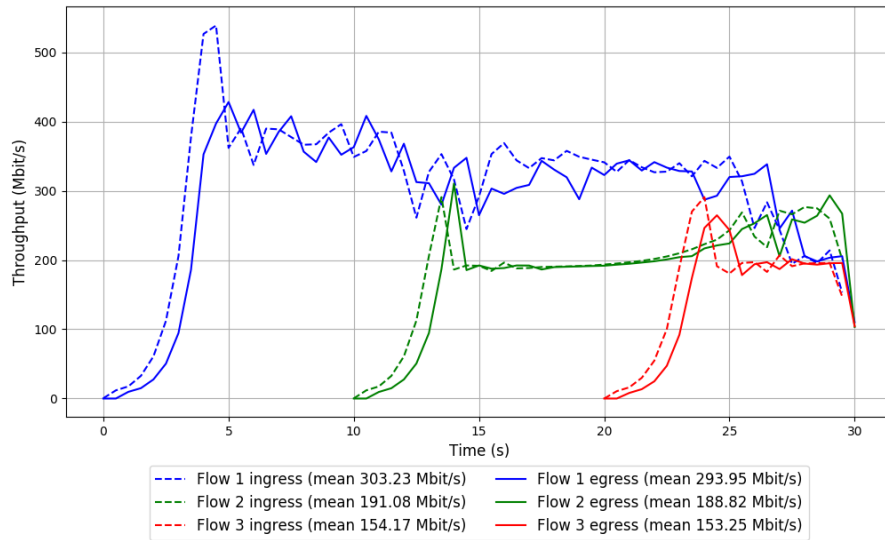
-- Flow 3:

Average throughput: 153.25 Mbit/s

95th percentile per-packet one-way delay: 163.193 ms

Loss rate: 2.82%

Run 3: Report of PCC-Expr — Data Link

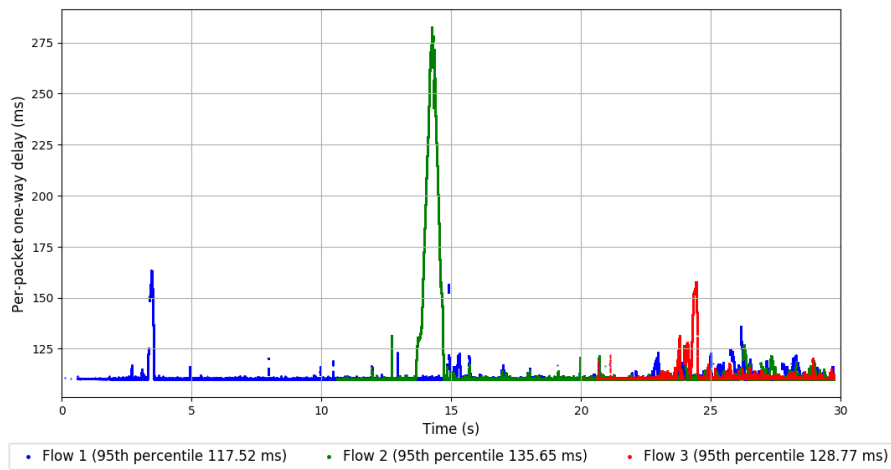
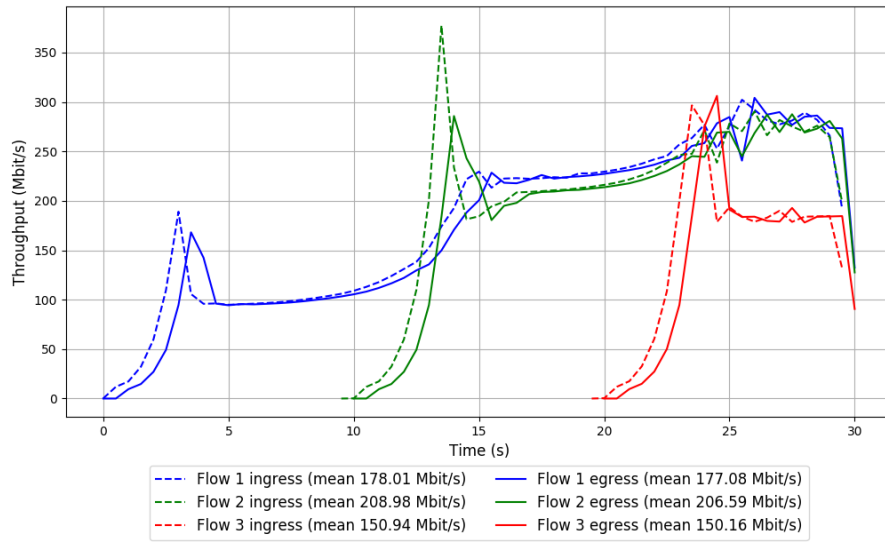


Run 4: Statistics of PCC-Expr

Start at: 2019-05-30 00:35:07
End at: 2019-05-30 00:35:37
Local clock offset: -0.035 ms
Remote clock offset: -0.131 ms

```
# Below is generated by plot.py at 2019-05-30 03:41:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.91 Mbit/s
95th percentile per-packet one-way delay: 122.255 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 177.08 Mbit/s
95th percentile per-packet one-way delay: 117.522 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 206.59 Mbit/s
95th percentile per-packet one-way delay: 135.648 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 150.16 Mbit/s
95th percentile per-packet one-way delay: 128.774 ms
Loss rate: 2.75%
```

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-05-30 01:12:26

End at: 2019-05-30 01:12:56

Local clock offset: -0.094 ms

Remote clock offset: 0.292 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.80 Mbit/s

95th percentile per-packet one-way delay: 241.674 ms

Loss rate: 3.44%

-- Flow 1:

Average throughput: 158.74 Mbit/s

95th percentile per-packet one-way delay: 256.549 ms

Loss rate: 1.38%

-- Flow 2:

Average throughput: 158.70 Mbit/s

95th percentile per-packet one-way delay: 263.647 ms

Loss rate: 3.04%

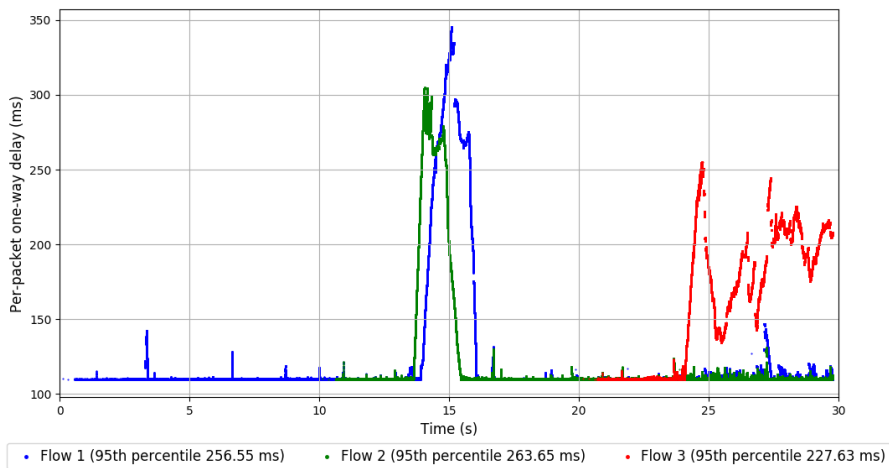
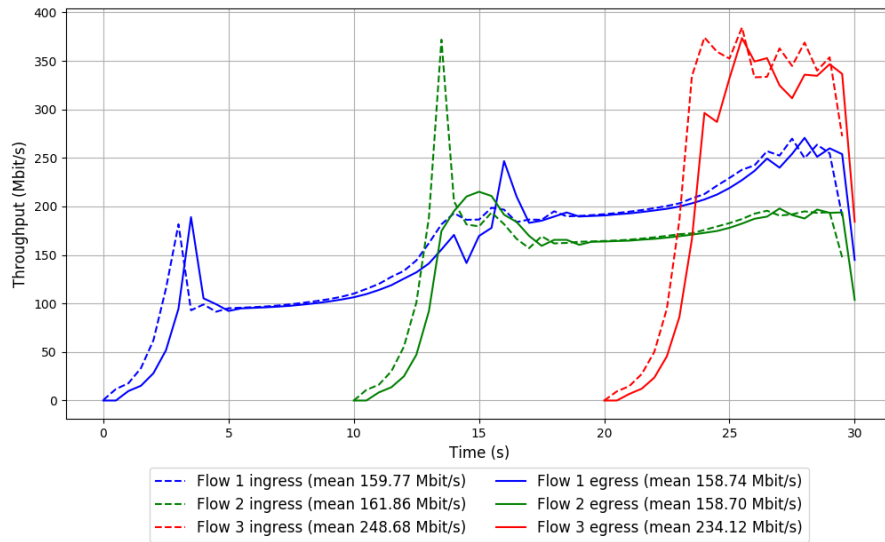
-- Flow 3:

Average throughput: 234.12 Mbit/s

95th percentile per-packet one-way delay: 227.633 ms

Loss rate: 7.97%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-05-29 22:55:23

End at: 2019-05-29 22:55:53

Local clock offset: 0.069 ms

Remote clock offset: 0.024 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.32 Mbit/s

95th percentile per-packet one-way delay: 110.246 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 56.48 Mbit/s

95th percentile per-packet one-way delay: 110.287 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 60.69 Mbit/s

95th percentile per-packet one-way delay: 109.103 ms

Loss rate: 0.44%

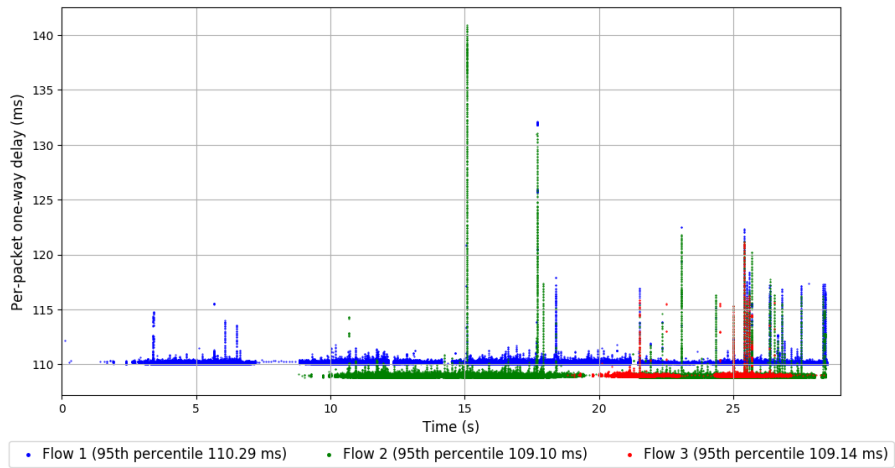
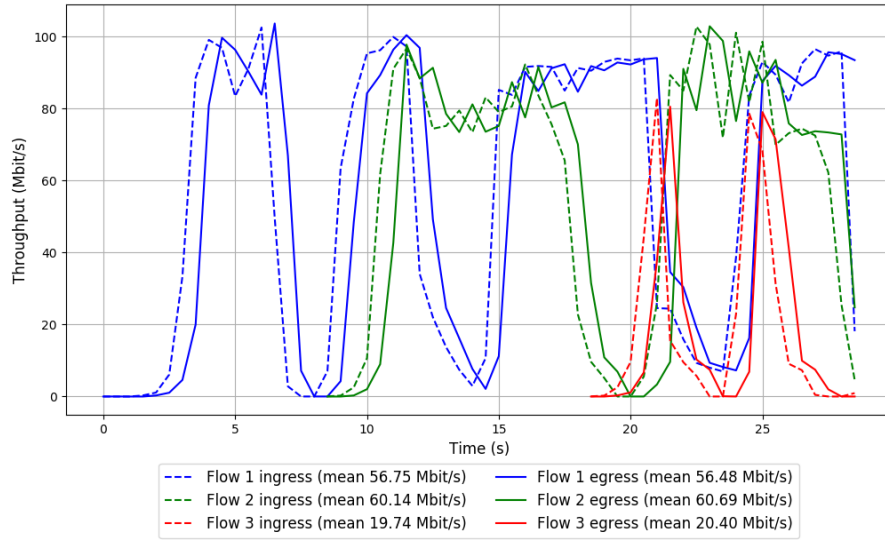
-- Flow 3:

Average throughput: 20.40 Mbit/s

95th percentile per-packet one-way delay: 109.139 ms

Loss rate: 0.25%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-05-29 23:32:13
End at: 2019-05-29 23:32:43
Local clock offset: -0.046 ms
Remote clock offset: -0.019 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.12 Mbit/s
95th percentile per-packet one-way delay: 113.091 ms
Loss rate: 1.35%

-- Flow 1:

Average throughput: 48.49 Mbit/s
95th percentile per-packet one-way delay: 113.053 ms
Loss rate: 1.11%

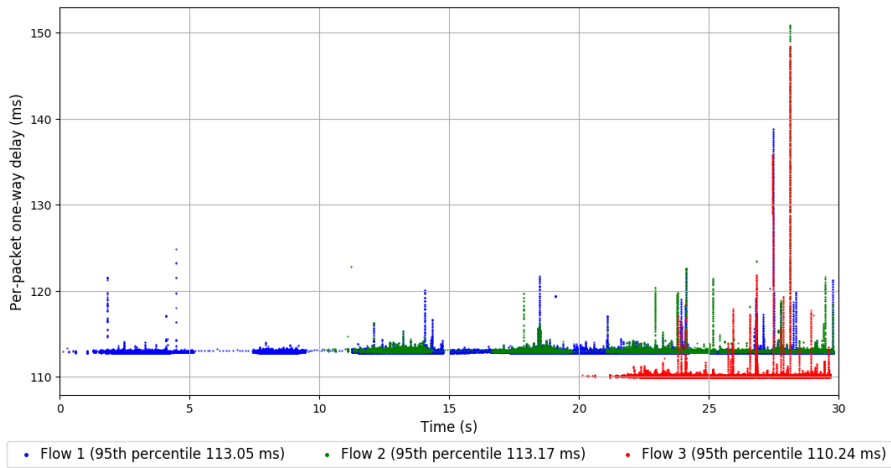
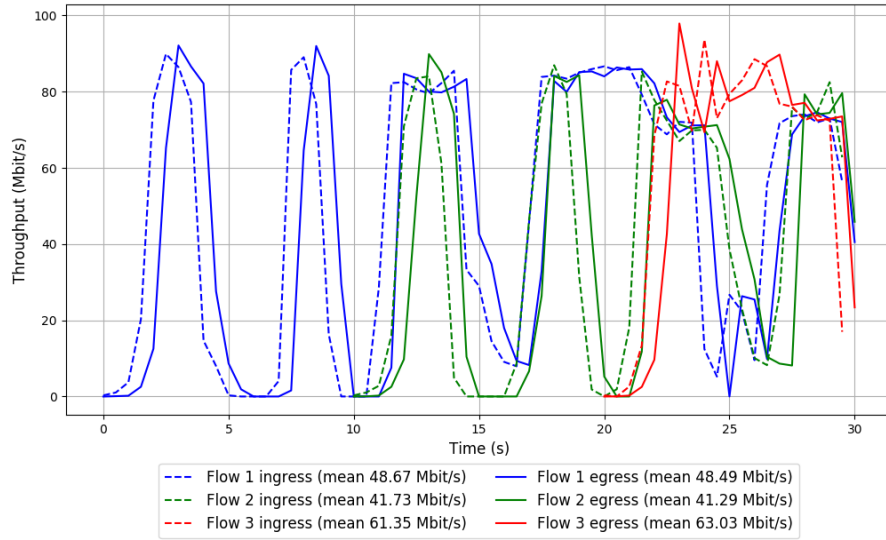
-- Flow 2:

Average throughput: 41.29 Mbit/s
95th percentile per-packet one-way delay: 113.171 ms
Loss rate: 2.16%

-- Flow 3:

Average throughput: 63.03 Mbit/s
95th percentile per-packet one-way delay: 110.242 ms
Loss rate: 0.79%

Run 2: Report of QUIC Cubic — Data Link

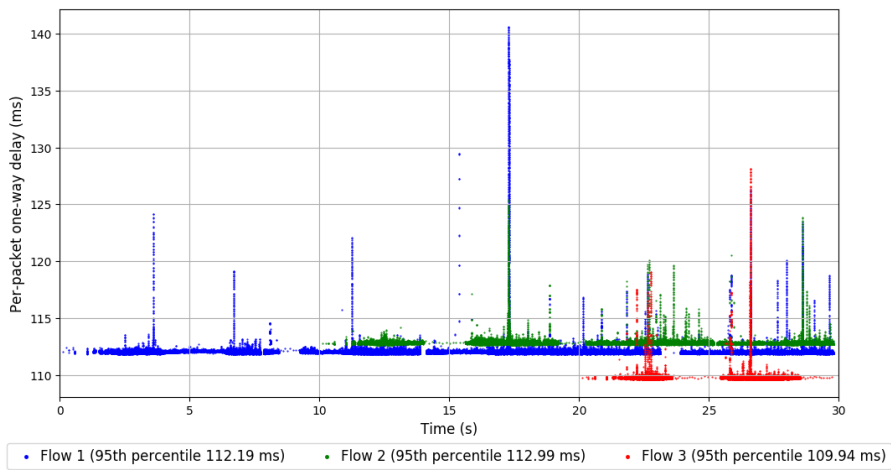
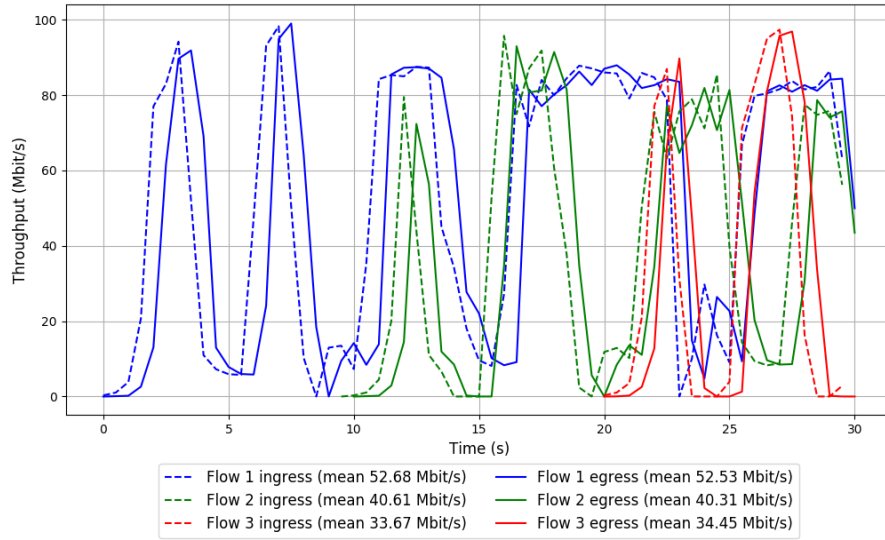


Run 3: Statistics of QUIC Cubic

Start at: 2019-05-30 00:08:56
End at: 2019-05-30 00:09:26
Local clock offset: -0.232 ms
Remote clock offset: -0.114 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.42 Mbit/s
95th percentile per-packet one-way delay: 112.885 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 52.53 Mbit/s
95th percentile per-packet one-way delay: 112.188 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 40.31 Mbit/s
95th percentile per-packet one-way delay: 112.986 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 34.45 Mbit/s
95th percentile per-packet one-way delay: 109.935 ms
Loss rate: 0.43%
```

Run 3: Report of QUIC Cubic — Data Link

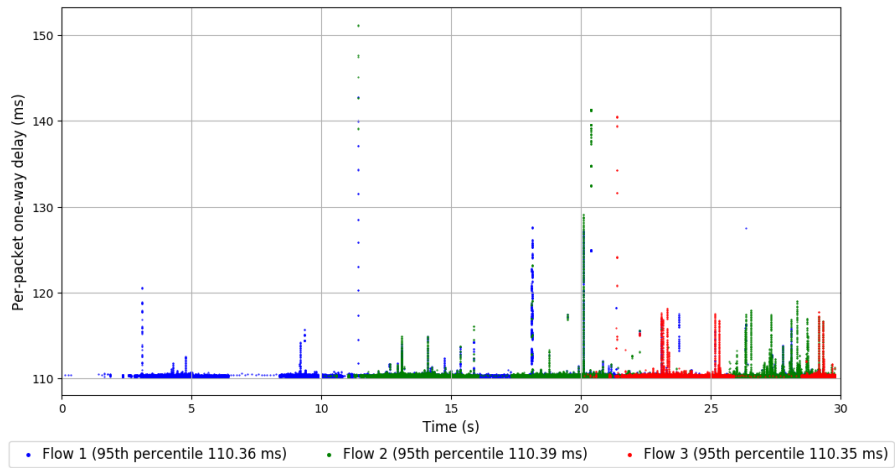
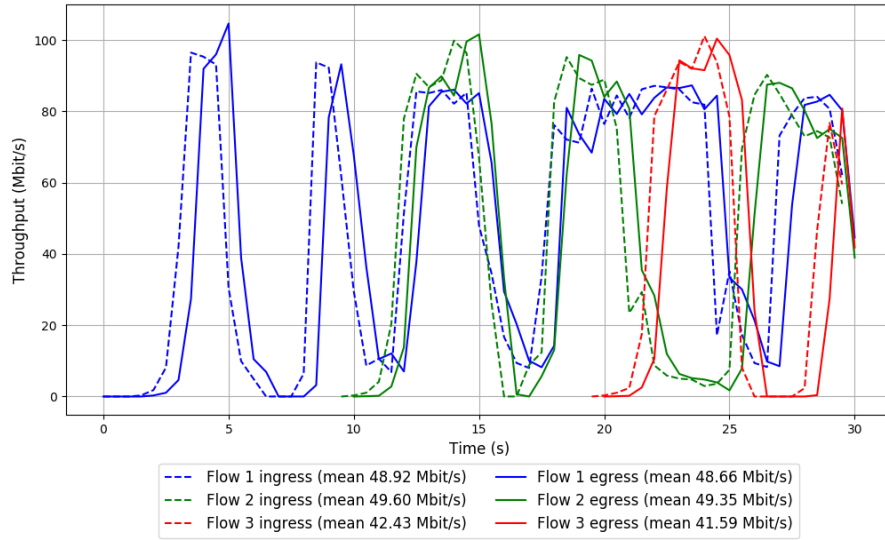


Run 4: Statistics of QUIC Cubic

Start at: 2019-05-30 00:45:59
End at: 2019-05-30 00:46:29
Local clock offset: -0.008 ms
Remote clock offset: -0.128 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.93 Mbit/s
95th percentile per-packet one-way delay: 110.373 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 48.66 Mbit/s
95th percentile per-packet one-way delay: 110.365 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 49.35 Mbit/s
95th percentile per-packet one-way delay: 110.392 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 110.347 ms
Loss rate: 4.14%
```

Run 4: Report of QUIC Cubic — Data Link

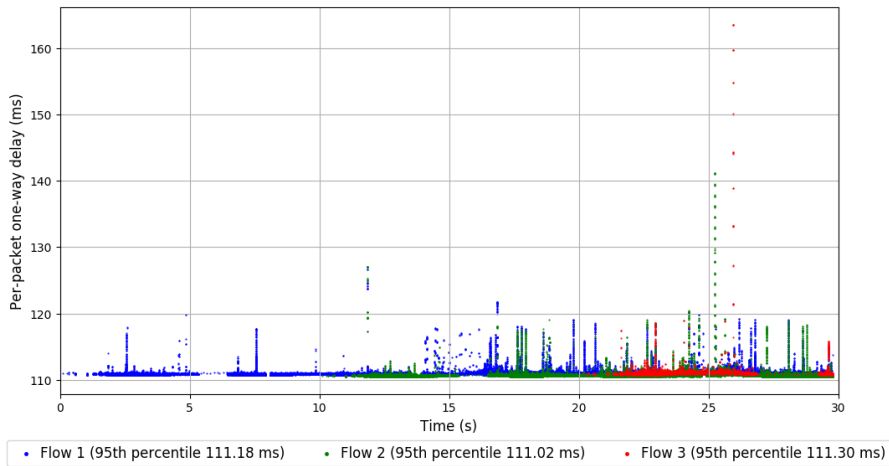
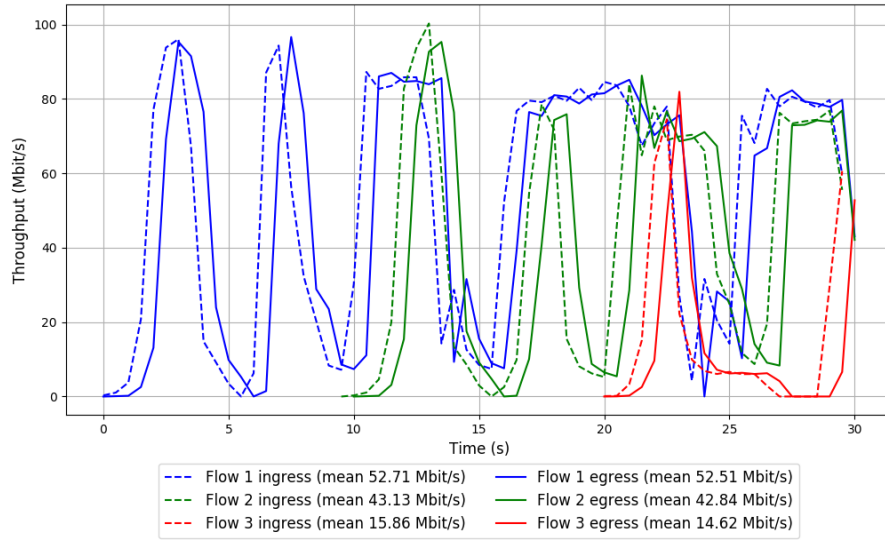


Run 5: Statistics of QUIC Cubic

Start at: 2019-05-30 01:23:15
End at: 2019-05-30 01:23:45
Local clock offset: 0.497 ms
Remote clock offset: -0.134 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 85.67 Mbit/s
95th percentile per-packet one-way delay: 111.154 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 52.51 Mbit/s
95th percentile per-packet one-way delay: 111.184 ms
Loss rate: 1.10%
-- Flow 2:
Average throughput: 42.84 Mbit/s
95th percentile per-packet one-way delay: 111.015 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 111.302 ms
Loss rate: 9.89%
```

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2019-05-29 22:43:25

End at: 2019-05-29 22:43:55

Local clock offset: 0.112 ms

Remote clock offset: 0.038 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 110.398 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.431 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 110.242 ms

Loss rate: 1.15%

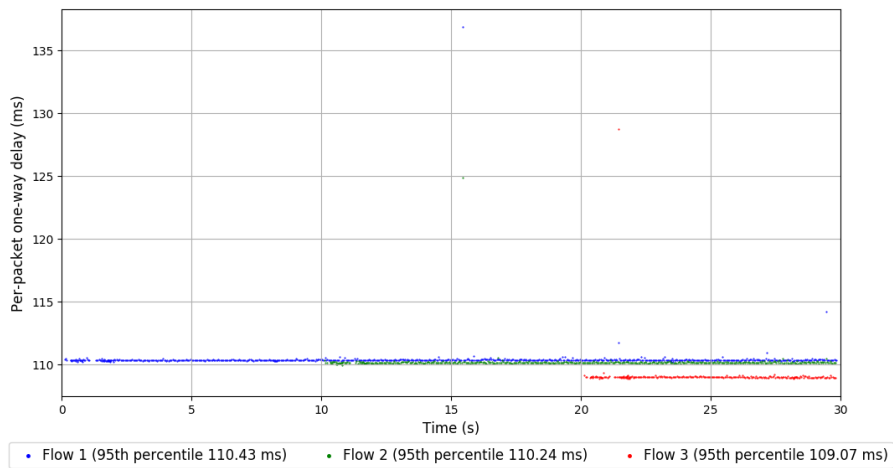
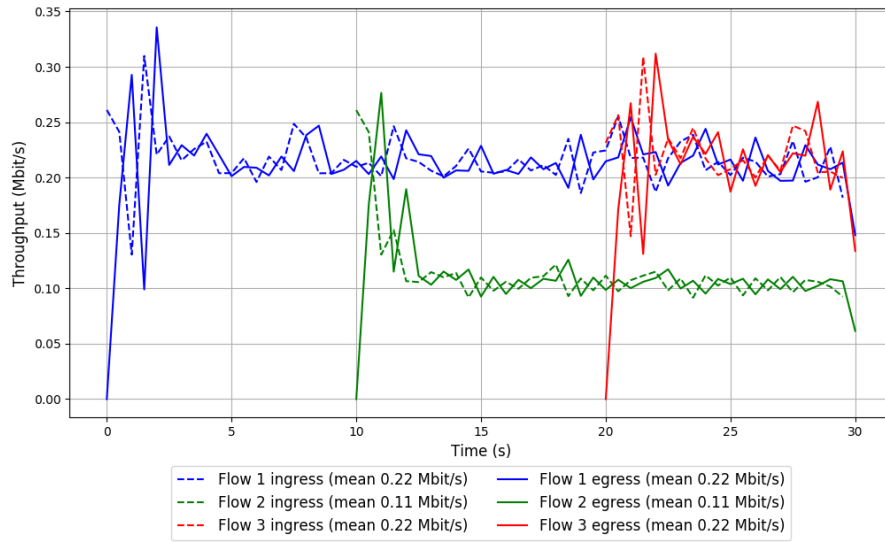
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.070 ms

Loss rate: 2.22%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-05-29 23:20:32

End at: 2019-05-29 23:21:02

Local clock offset: -0.585 ms

Remote clock offset: 0.008 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.469 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.807 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.788 ms

Loss rate: 1.24%

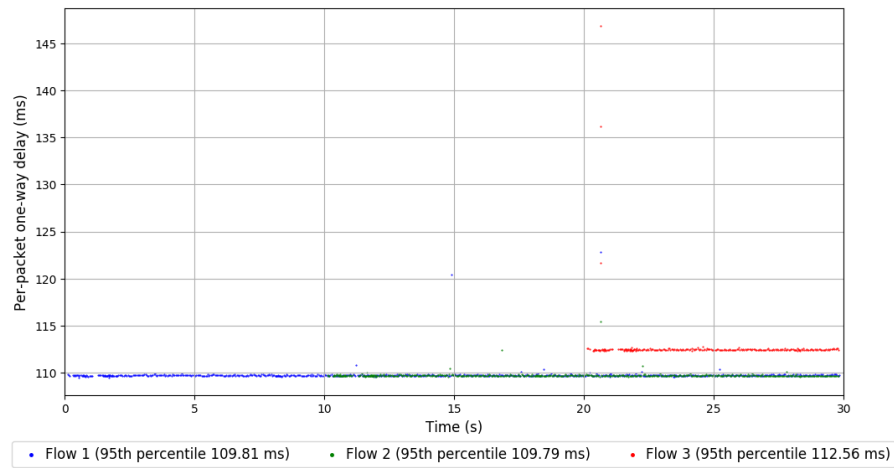
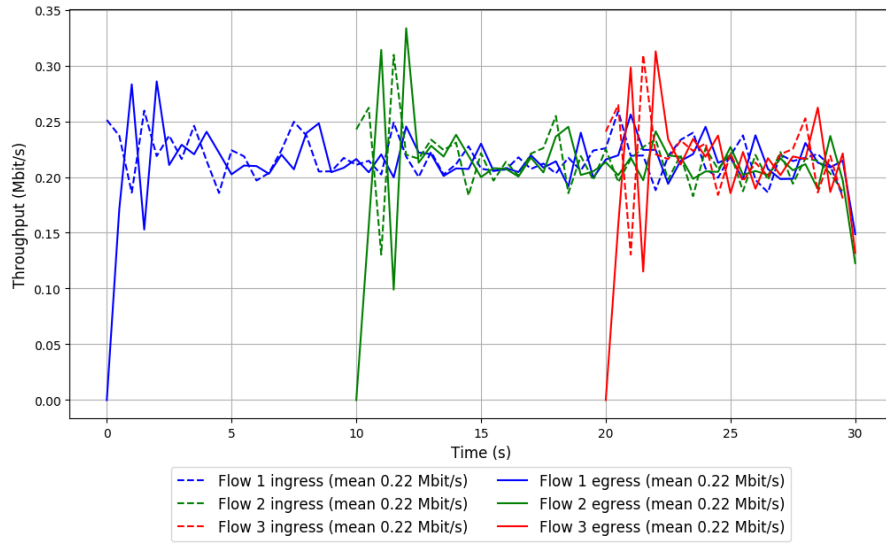
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.555 ms

Loss rate: 2.21%

Run 2: Report of SCReAM — Data Link

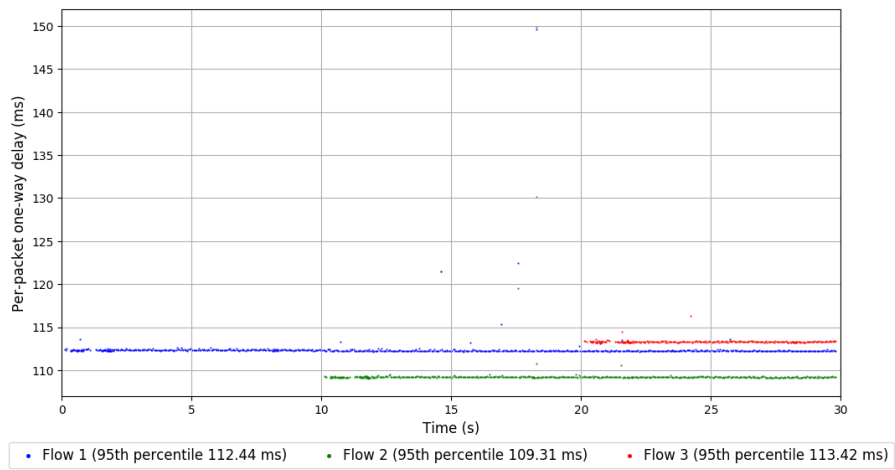
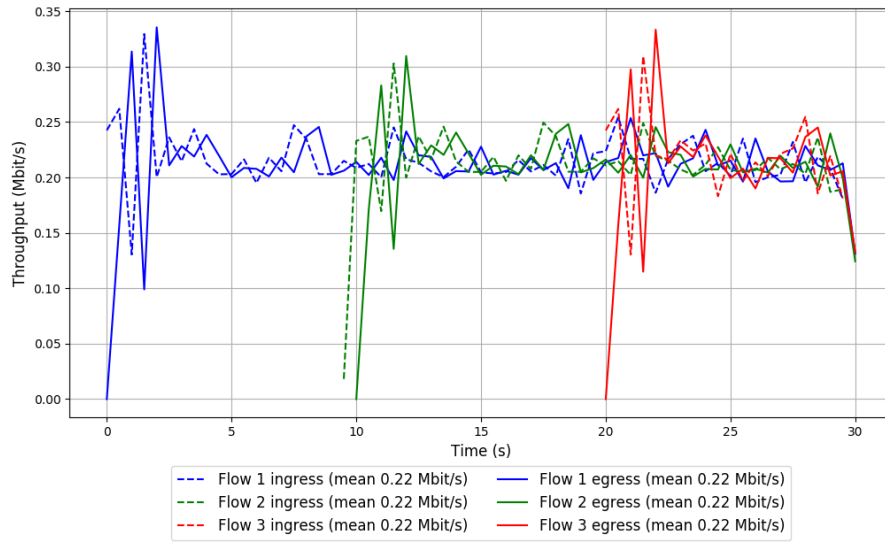


Run 3: Statistics of SCReAM

Start at: 2019-05-29 23:56:53
End at: 2019-05-29 23:57:23
Local clock offset: 0.135 ms
Remote clock offset: -0.064 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.341 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.443 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.308 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.416 ms
Loss rate: 2.21%
```

Run 3: Report of SCReAM — Data Link

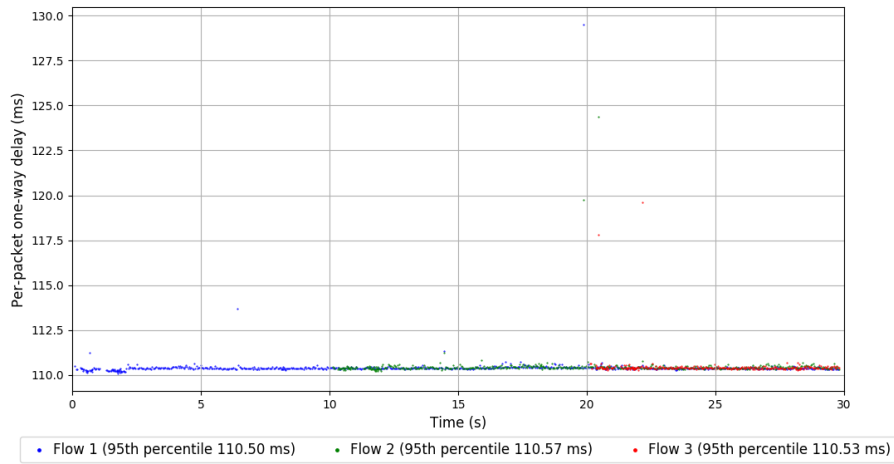
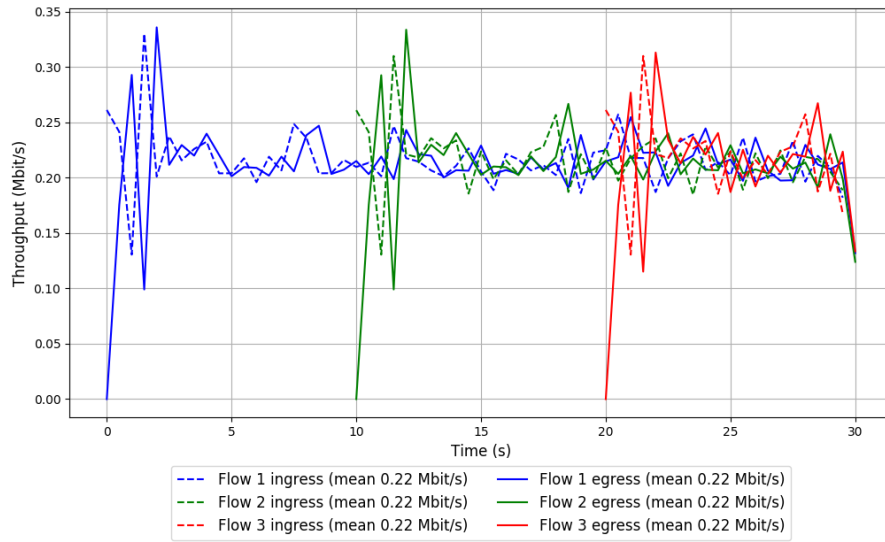


Run 4: Statistics of SCReAM

Start at: 2019-05-30 00:33:50
End at: 2019-05-30 00:34:20
Local clock offset: -0.092 ms
Remote clock offset: -0.115 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 110.529 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.496 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.568 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.529 ms
Loss rate: 1.87%
```

Run 4: Report of SCReAM — Data Link

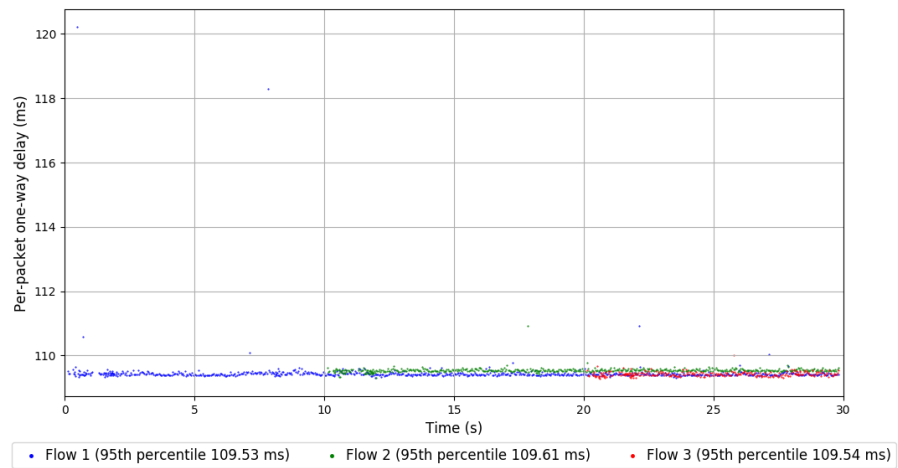
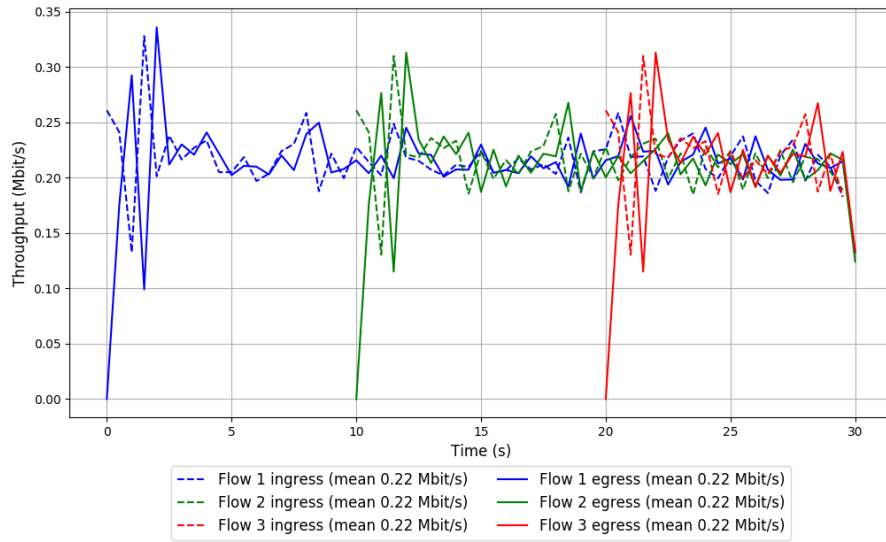


Run 5: Statistics of SCReAM

Start at: 2019-05-30 01:11:10
End at: 2019-05-30 01:11:40
Local clock offset: -1.011 ms
Remote clock offset: -0.097 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 109.589 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.532 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.612 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.540 ms
Loss rate: 2.21%
```

Run 5: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-05-29 22:36:41

End at: 2019-05-29 22:37:11

Local clock offset: 0.027 ms

Remote clock offset: 0.121 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.22 Mbit/s

95th percentile per-packet one-way delay: 110.818 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 109.606 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 111.020 ms

Loss rate: 0.00%

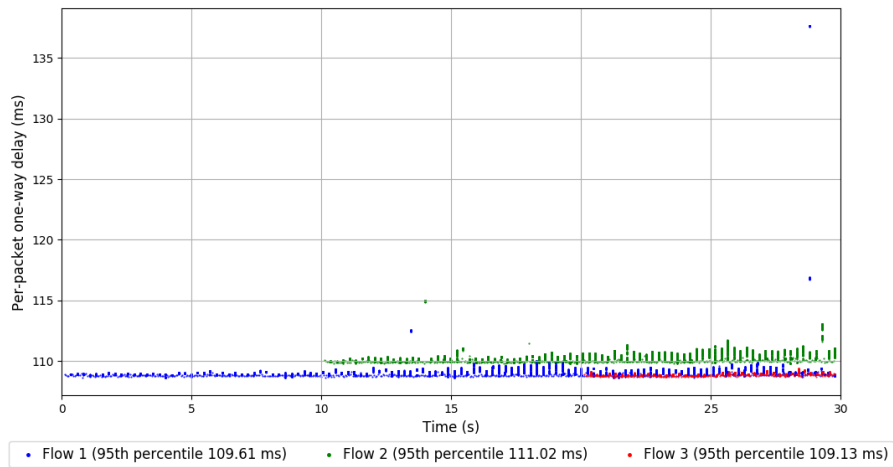
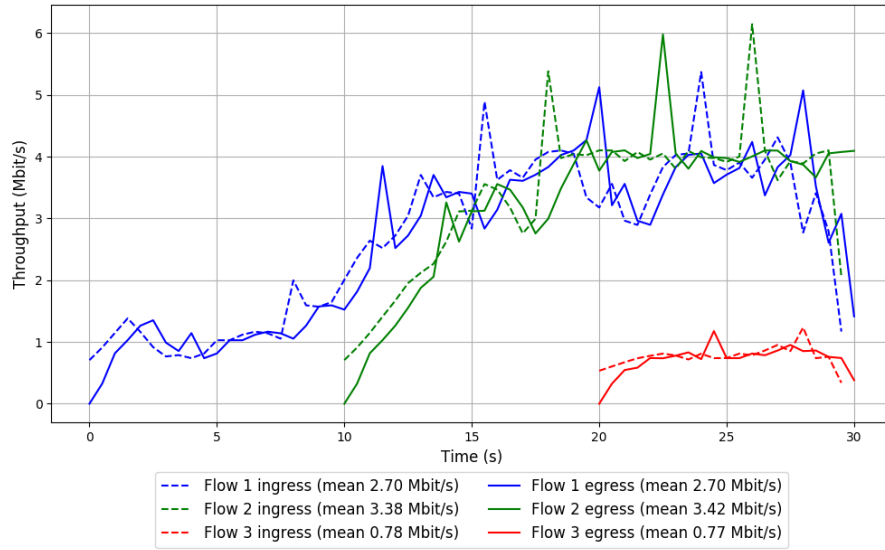
-- Flow 3:

Average throughput: 0.77 Mbit/s

95th percentile per-packet one-way delay: 109.132 ms

Loss rate: 2.18%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2019-05-29 23:13:43

End at: 2019-05-29 23:14:13

Local clock offset: -0.115 ms

Remote clock offset: 0.056 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.46 Mbit/s

95th percentile per-packet one-way delay: 110.783 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 3.26 Mbit/s

95th percentile per-packet one-way delay: 110.935 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 110.618 ms

Loss rate: 1.22%

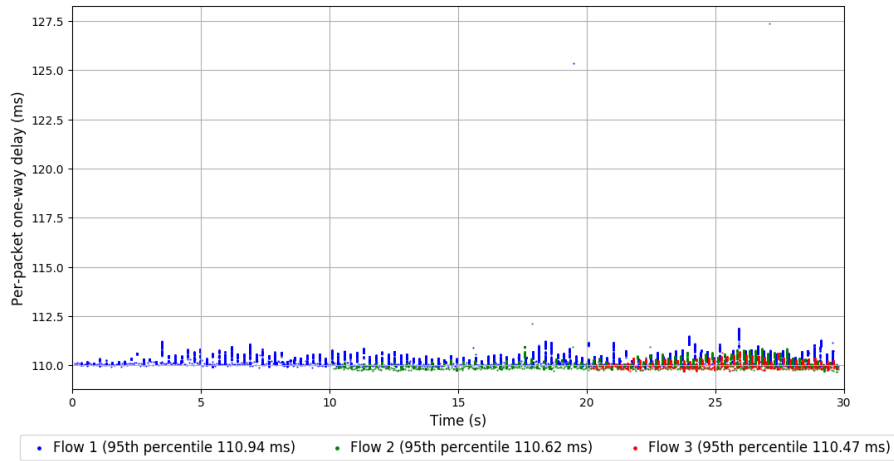
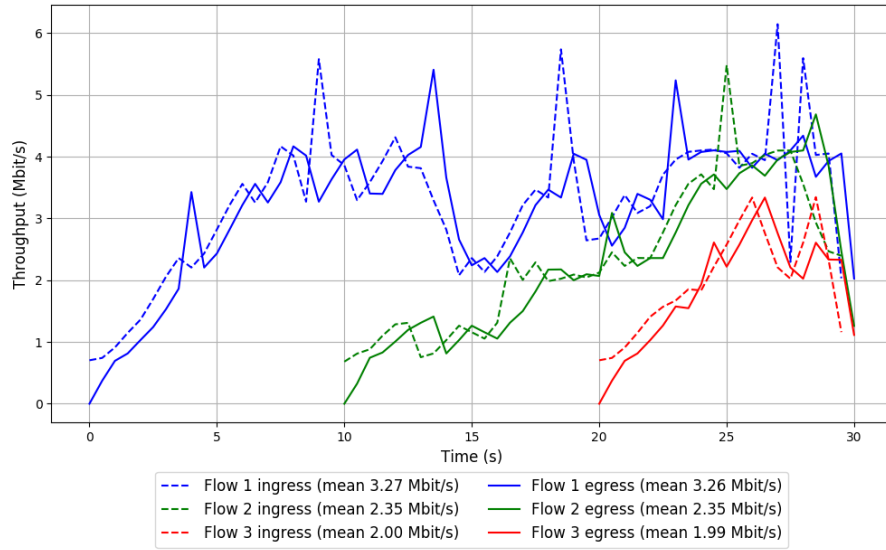
-- Flow 3:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 110.471 ms

Loss rate: 2.68%

Run 2: Report of Sprout — Data Link

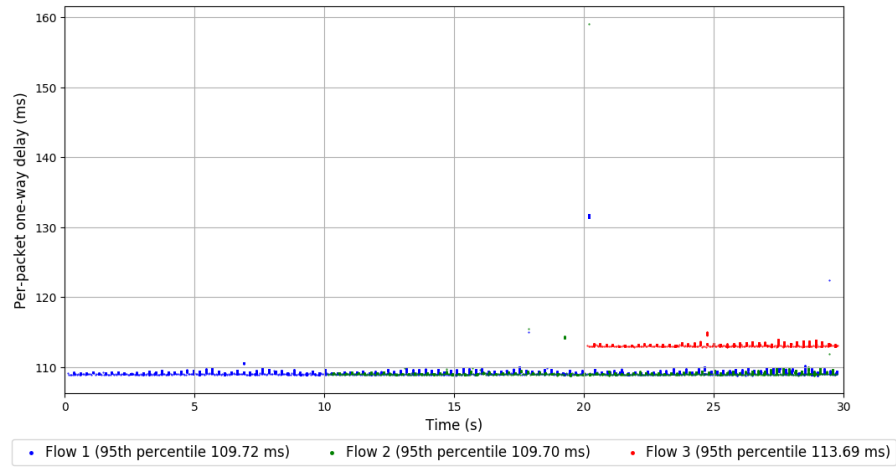
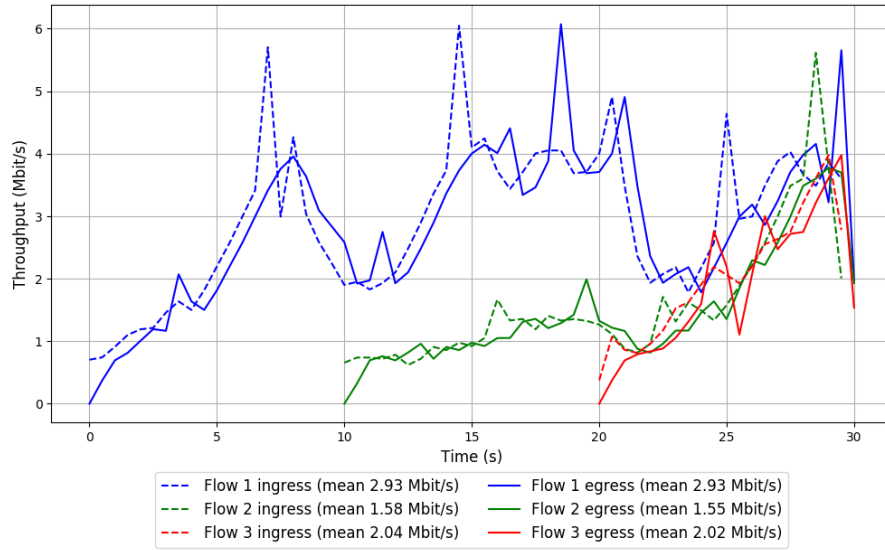


Run 3: Statistics of Sprout

Start at: 2019-05-29 23:50:20
End at: 2019-05-29 23:50:50
Local clock offset: -0.151 ms
Remote clock offset: -0.046 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 113.374 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 109.718 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 109.701 ms
Loss rate: 3.18%
-- Flow 3:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 113.691 ms
Loss rate: 3.09%
```

Run 3: Report of Sprout — Data Link

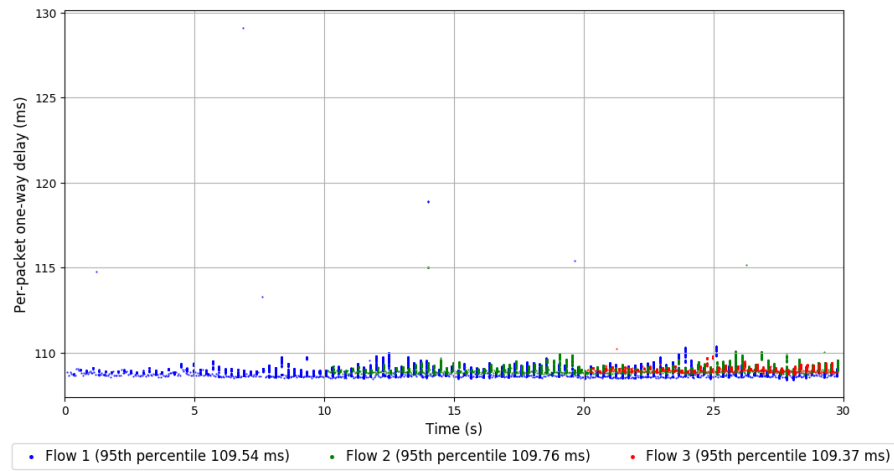
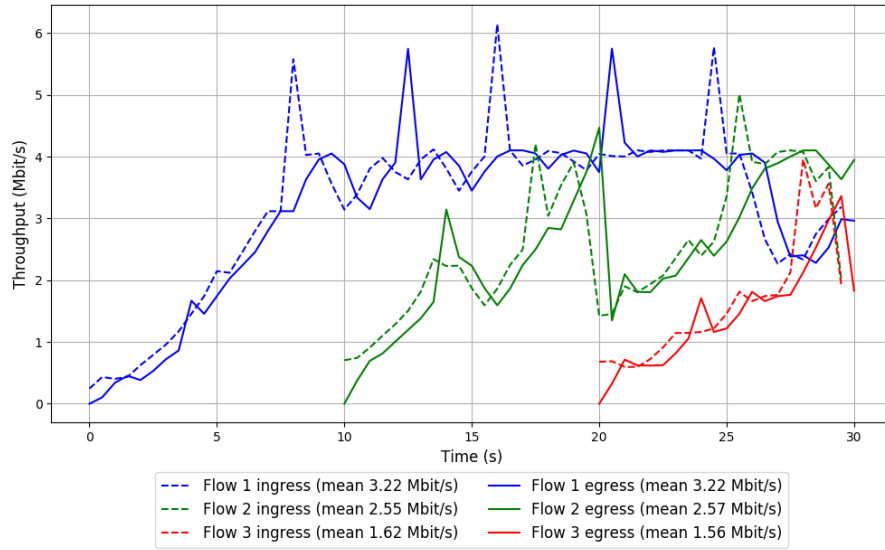


Run 4: Statistics of Sprout

Start at: 2019-05-30 00:27:03
End at: 2019-05-30 00:27:33
Local clock offset: -1.431 ms
Remote clock offset: -0.112 ms

```
# Below is generated by plot.py at 2019-05-30 03:44:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.43 Mbit/s
95th percentile per-packet one-way delay: 109.601 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 109.544 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 109.759 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 109.371 ms
Loss rate: 5.94%
```

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-05-30 01:04:19

End at: 2019-05-30 01:04:49

Local clock offset: -0.576 ms

Remote clock offset: -0.1 ms

Below is generated by plot.py at 2019-05-30 03:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.20 Mbit/s

95th percentile per-packet one-way delay: 110.343 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 3.03 Mbit/s

95th percentile per-packet one-way delay: 110.537 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 2.48 Mbit/s

95th percentile per-packet one-way delay: 110.301 ms

Loss rate: 1.85%

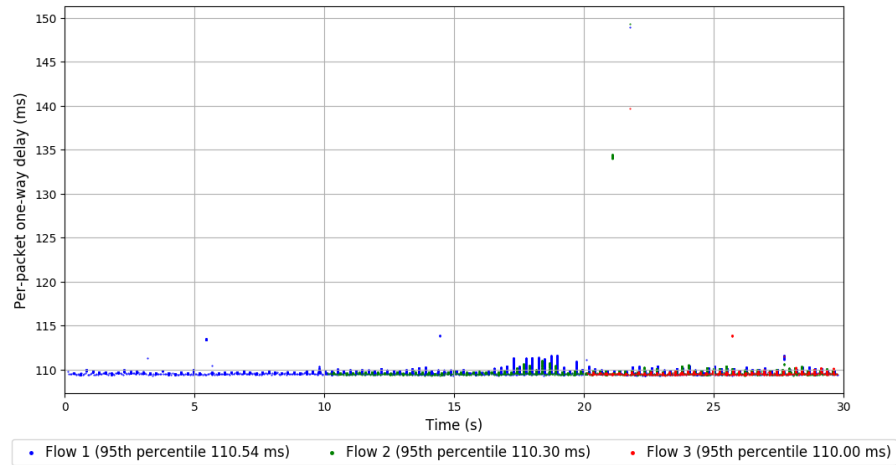
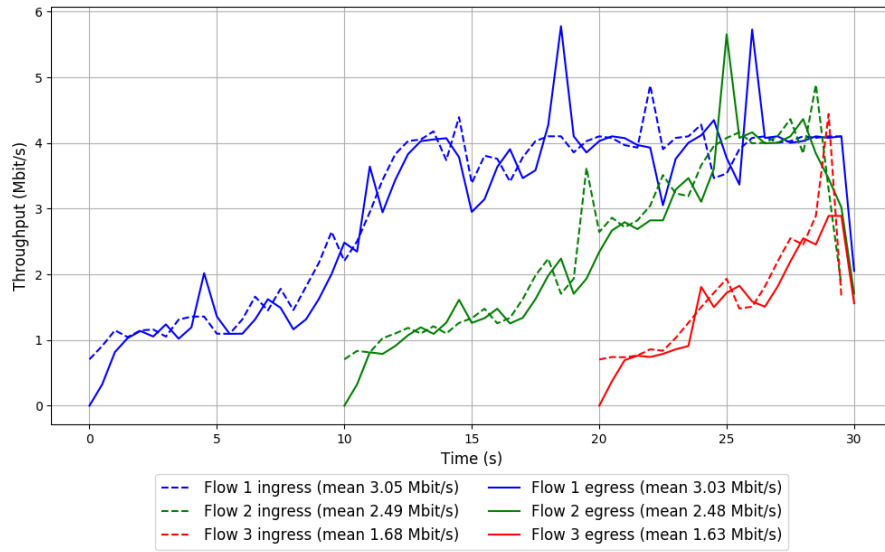
-- Flow 3:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 109.998 ms

Loss rate: 5.01%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-05-29 22:53:38

End at: 2019-05-29 22:54:08

Local clock offset: 0.064 ms

Remote clock offset: 0.026 ms

Below is generated by plot.py at 2019-05-30 03:46:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 256.81 Mbit/s

95th percentile per-packet one-way delay: 111.061 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 191.55 Mbit/s

95th percentile per-packet one-way delay: 111.013 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 15.61 Mbit/s

95th percentile per-packet one-way delay: 109.137 ms

Loss rate: 1.13%

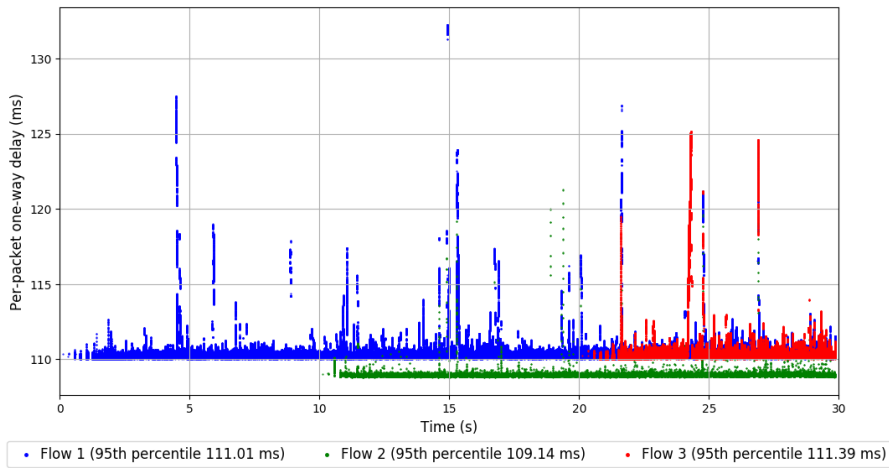
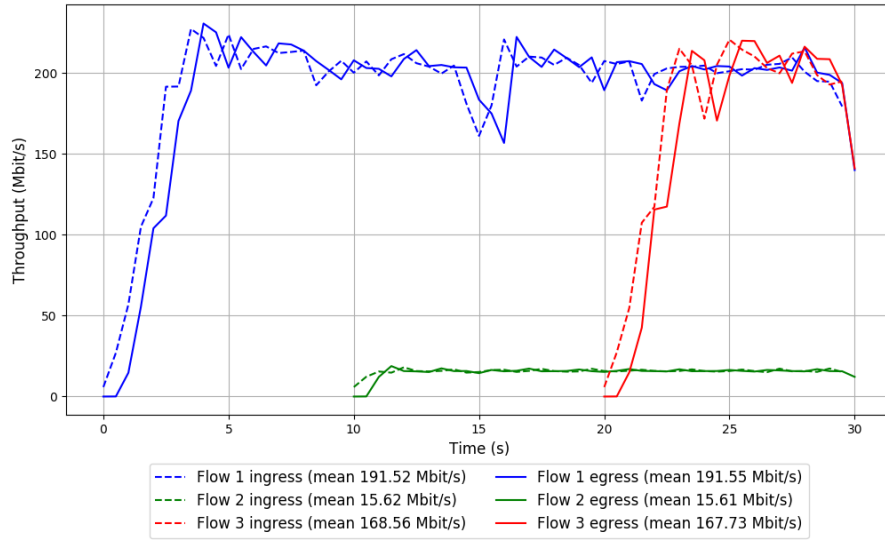
-- Flow 3:

Average throughput: 167.73 Mbit/s

95th percentile per-packet one-way delay: 111.391 ms

Loss rate: 2.70%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-05-29 23:30:34
End at: 2019-05-29 23:31:04
Local clock offset: -0.234 ms
Remote clock offset: -0.034 ms

Below is generated by plot.py at 2019-05-30 03:46:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 184.42 Mbit/s
95th percentile per-packet one-way delay: 112.741 ms
Loss rate: 1.24%

-- Flow 1:

Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 112.895 ms
Loss rate: 0.76%

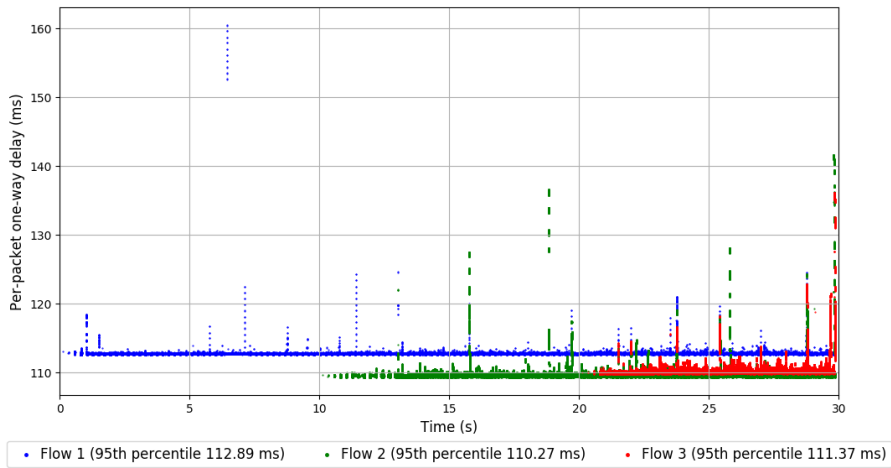
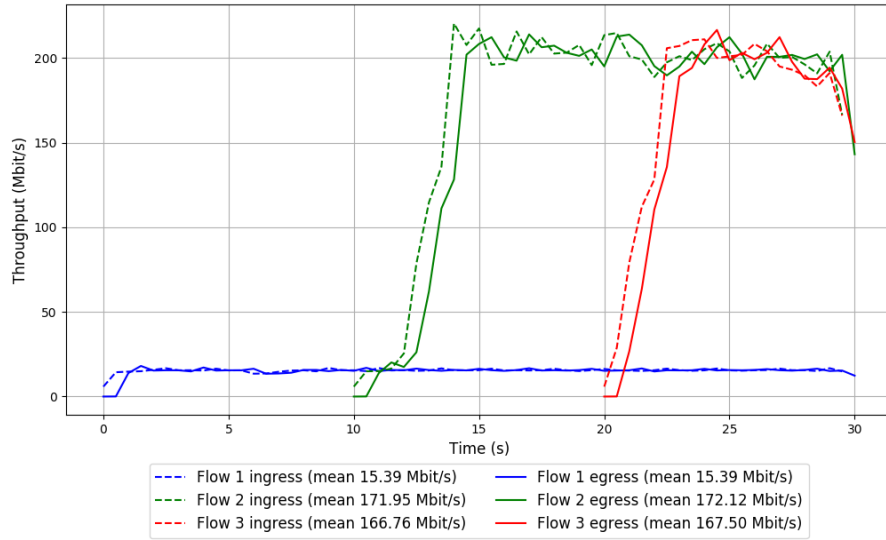
-- Flow 2:

Average throughput: 172.12 Mbit/s
95th percentile per-packet one-way delay: 110.269 ms
Loss rate: 1.01%

-- Flow 3:

Average throughput: 167.50 Mbit/s
95th percentile per-packet one-way delay: 111.366 ms
Loss rate: 1.85%

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

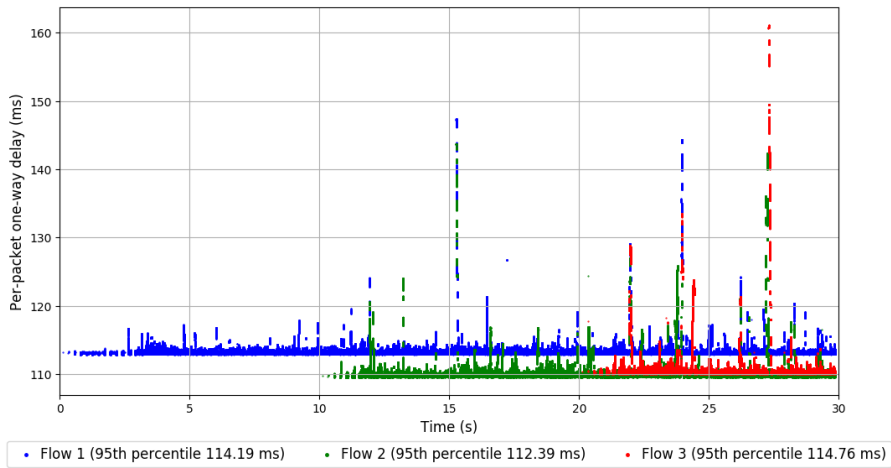
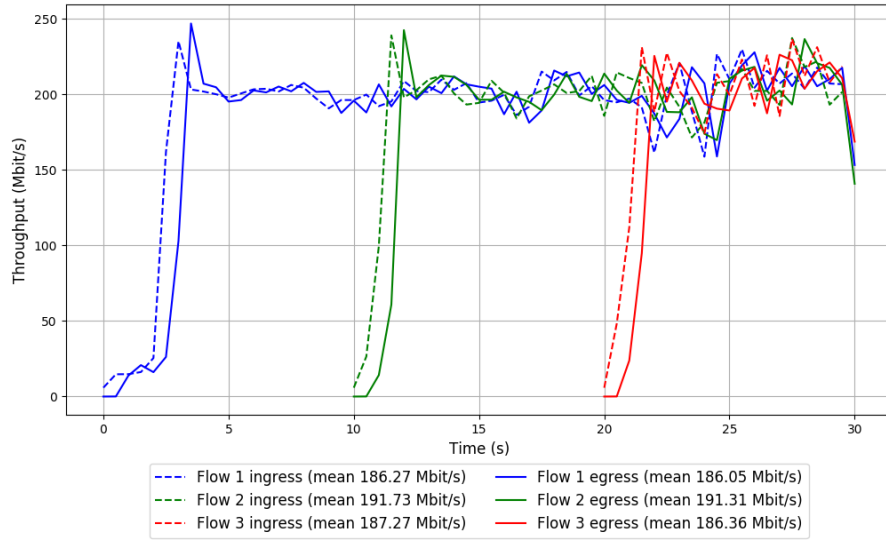


Run 3: Statistics of TaoVA-100x

Start at: 2019-05-30 00:06:58
End at: 2019-05-30 00:07:28
Local clock offset: -0.01 ms
Remote clock offset: -0.106 ms

```
# Below is generated by plot.py at 2019-05-30 03:51:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.00 Mbit/s
95th percentile per-packet one-way delay: 114.013 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 186.05 Mbit/s
95th percentile per-packet one-way delay: 114.195 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 191.31 Mbit/s
95th percentile per-packet one-way delay: 112.393 ms
Loss rate: 1.31%
-- Flow 3:
Average throughput: 186.36 Mbit/s
95th percentile per-packet one-way delay: 114.764 ms
Loss rate: 2.69%
```

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

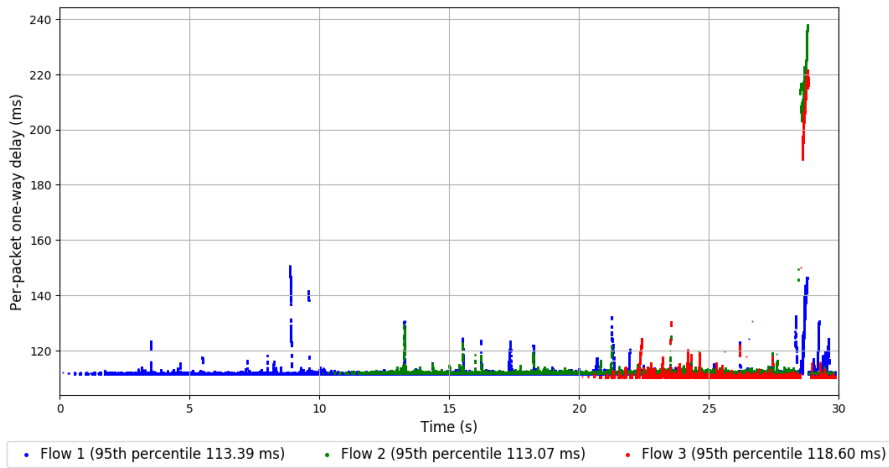
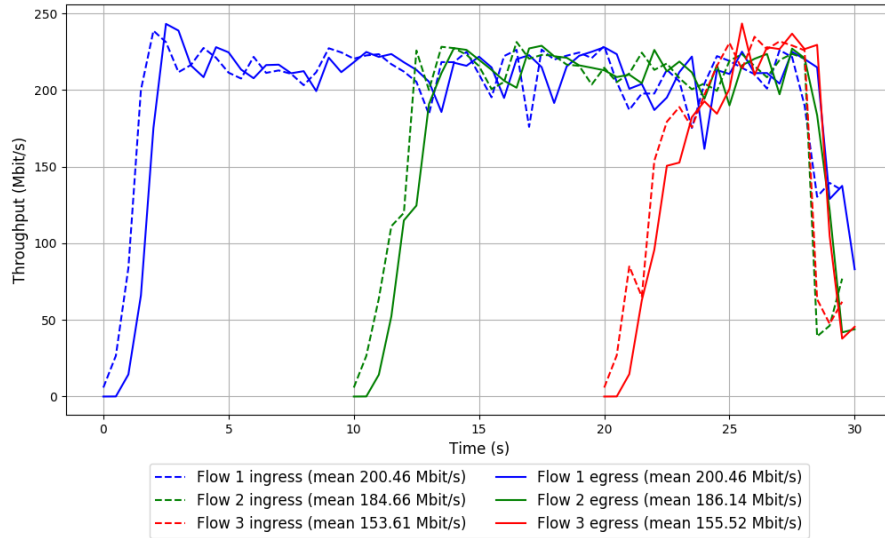


Run 4: Statistics of TaoVA-100x

Start at: 2019-05-30 00:44:01
End at: 2019-05-30 00:44:31
Local clock offset: 1.374 ms
Remote clock offset: -0.133 ms

```
# Below is generated by plot.py at 2019-05-30 03:52:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.53 Mbit/s
95th percentile per-packet one-way delay: 113.565 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 200.46 Mbit/s
95th percentile per-packet one-way delay: 113.388 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 186.14 Mbit/s
95th percentile per-packet one-way delay: 113.072 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 155.52 Mbit/s
95th percentile per-packet one-way delay: 118.604 ms
Loss rate: 1.07%
```

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

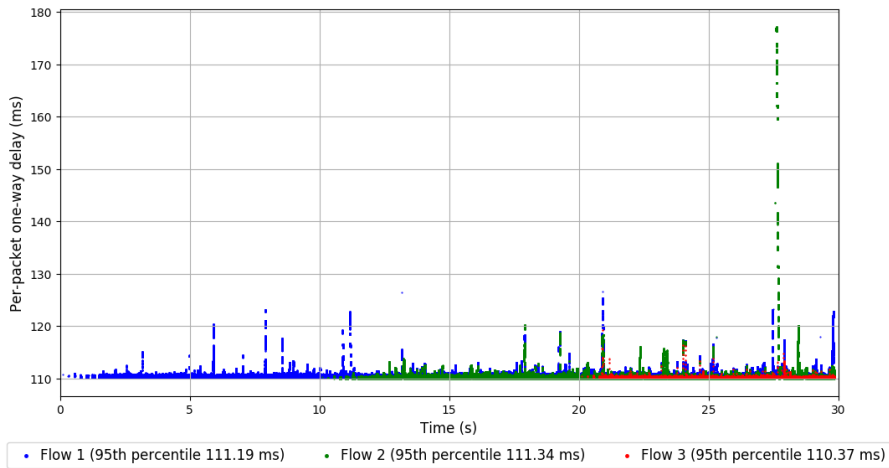
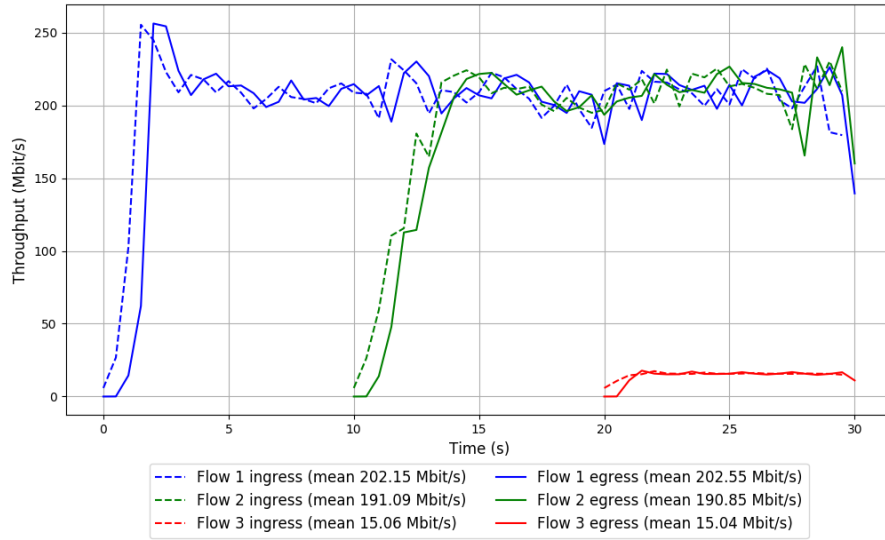


Run 5: Statistics of TaoVA-100x

Start at: 2019-05-30 01:21:22
End at: 2019-05-30 01:21:52
Local clock offset: -0.151 ms
Remote clock offset: -0.121 ms

```
# Below is generated by plot.py at 2019-05-30 03:52:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 334.13 Mbit/s
95th percentile per-packet one-way delay: 111.229 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 202.55 Mbit/s
95th percentile per-packet one-way delay: 111.192 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 190.85 Mbit/s
95th percentile per-packet one-way delay: 111.336 ms
Loss rate: 1.22%
-- Flow 3:
Average throughput: 15.04 Mbit/s
95th percentile per-packet one-way delay: 110.366 ms
Loss rate: 2.31%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2019-05-29 23:04:44

End at: 2019-05-29 23:05:14

Local clock offset: 0.008 ms

Remote clock offset: 0.039 ms

Below is generated by plot.py at 2019-05-30 03:54:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 766.81 Mbit/s

95th percentile per-packet one-way delay: 144.240 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 447.41 Mbit/s

95th percentile per-packet one-way delay: 143.219 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 336.46 Mbit/s

95th percentile per-packet one-way delay: 146.038 ms

Loss rate: 0.44%

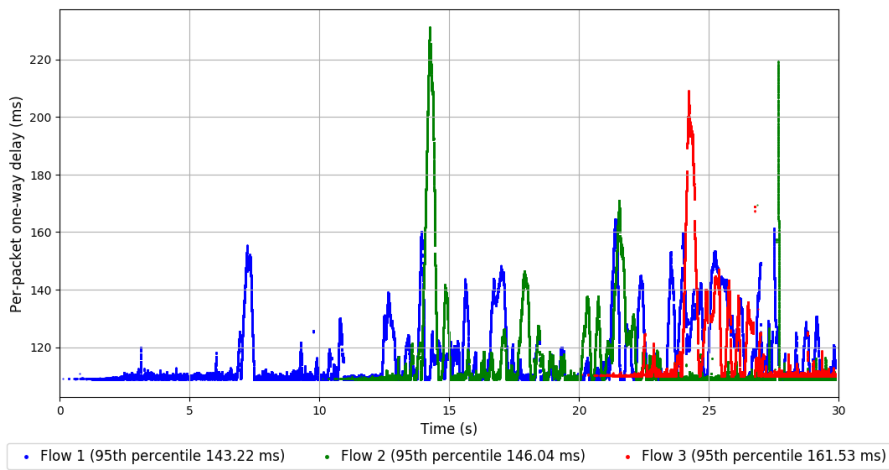
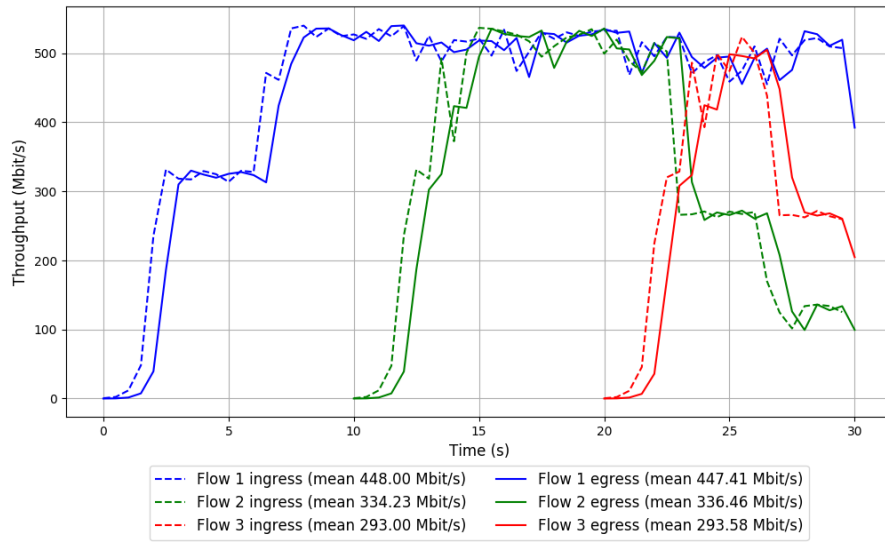
-- Flow 3:

Average throughput: 293.58 Mbit/s

95th percentile per-packet one-way delay: 161.530 ms

Loss rate: 2.03%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-05-29 23:41:34
End at: 2019-05-29 23:42:04
Local clock offset: -0.03 ms
Remote clock offset: -0.026 ms

Below is generated by plot.py at 2019-05-30 03:54:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 592.82 Mbit/s
95th percentile per-packet one-way delay: 154.330 ms
Loss rate: 1.36%

-- Flow 1:

Average throughput: 225.97 Mbit/s
95th percentile per-packet one-way delay: 128.551 ms
Loss rate: 0.71%

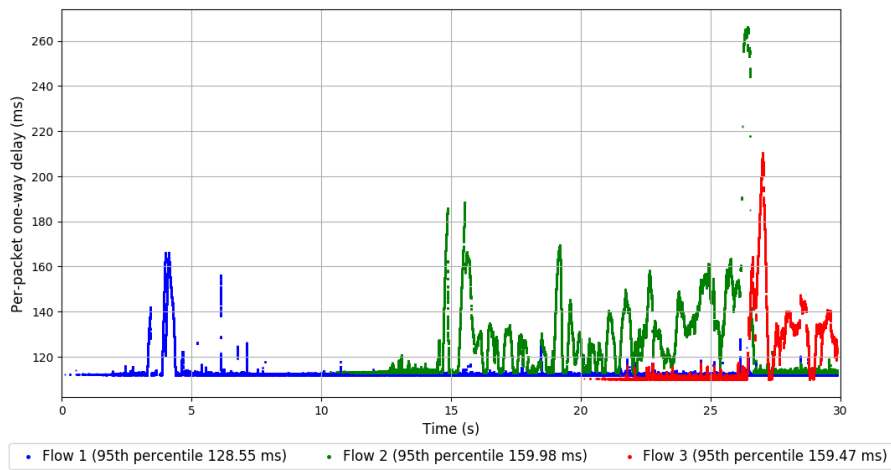
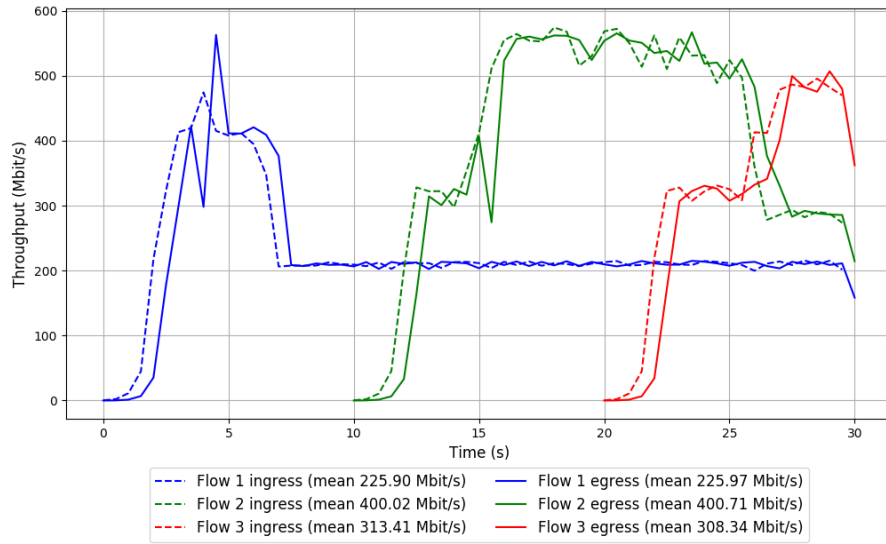
-- Flow 2:

Average throughput: 400.71 Mbit/s
95th percentile per-packet one-way delay: 159.980 ms
Loss rate: 0.95%

-- Flow 3:

Average throughput: 308.34 Mbit/s
95th percentile per-packet one-way delay: 159.466 ms
Loss rate: 3.79%

Run 2: Report of TCP Vegas — Data Link

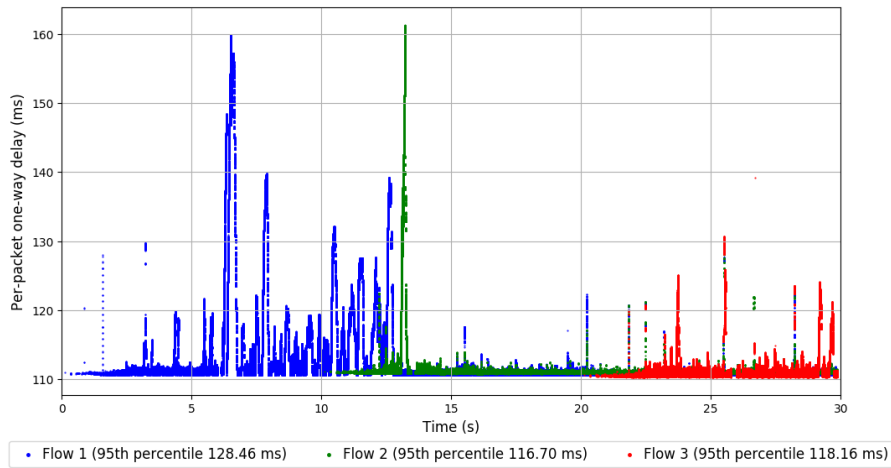
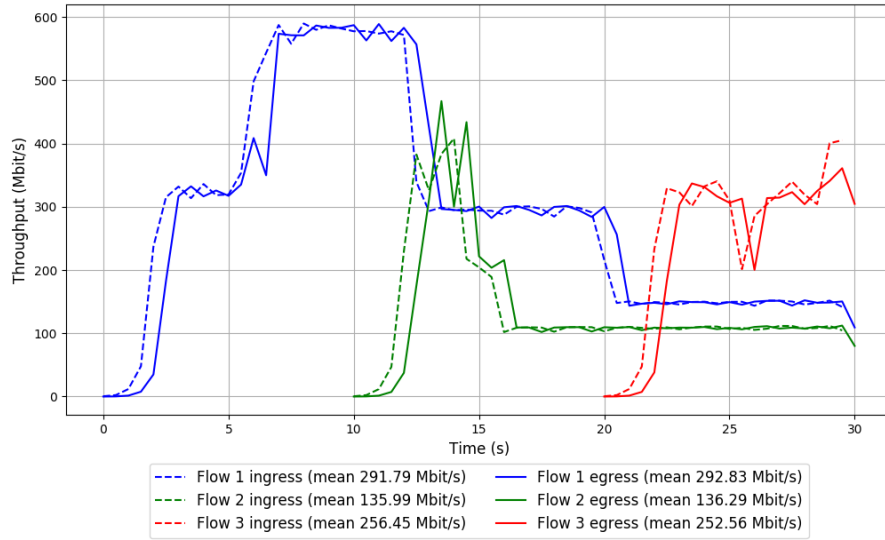


Run 3: Statistics of TCP Vegas

Start at: 2019-05-30 00:18:09
End at: 2019-05-30 00:18:39
Local clock offset: 0.781 ms
Remote clock offset: -0.101 ms

```
# Below is generated by plot.py at 2019-05-30 03:54:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 466.00 Mbit/s
95th percentile per-packet one-way delay: 124.942 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 292.83 Mbit/s
95th percentile per-packet one-way delay: 128.460 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 136.29 Mbit/s
95th percentile per-packet one-way delay: 116.699 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 252.56 Mbit/s
95th percentile per-packet one-way delay: 118.163 ms
Loss rate: 3.68%
```

Run 3: Report of TCP Vegas — Data Link

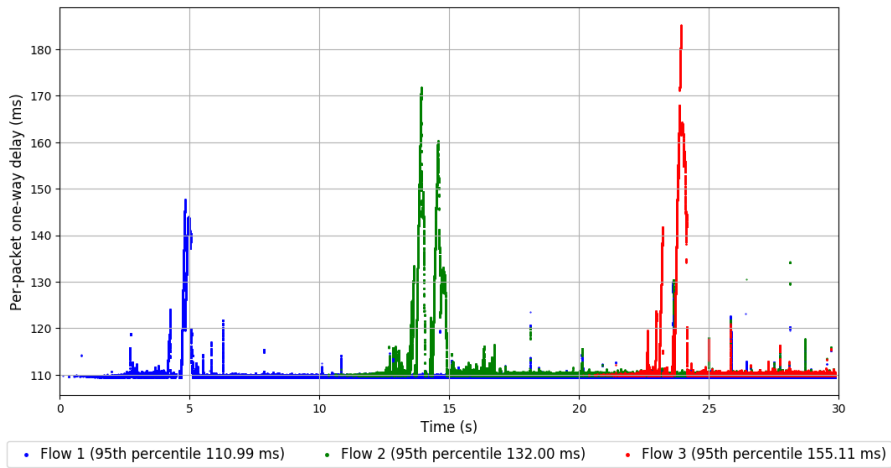
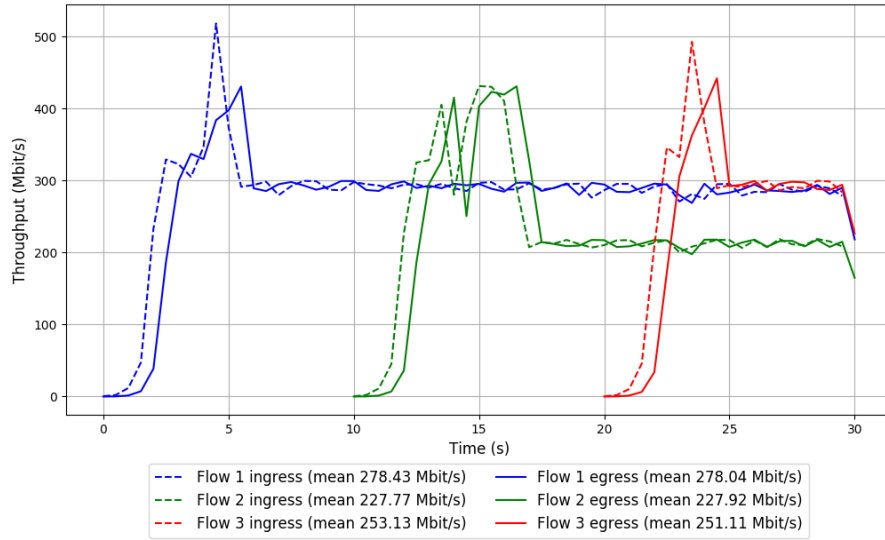


Run 4: Statistics of TCP Vegas

Start at: 2019-05-30 00:55:17
End at: 2019-05-30 00:55:47
Local clock offset: -0.381 ms
Remote clock offset: -0.115 ms

```
# Below is generated by plot.py at 2019-05-30 03:55:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.28 Mbit/s
95th percentile per-packet one-way delay: 124.402 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 278.04 Mbit/s
95th percentile per-packet one-way delay: 110.988 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 227.92 Mbit/s
95th percentile per-packet one-way delay: 132.000 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 251.11 Mbit/s
95th percentile per-packet one-way delay: 155.107 ms
Loss rate: 3.01%
```

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-05-30 01:32:29
End at: 2019-05-30 01:32:59
Local clock offset: -0.285 ms
Remote clock offset: -0.077 ms

Below is generated by plot.py at 2019-05-30 03:58:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 563.51 Mbit/s
95th percentile per-packet one-way delay: 158.933 ms
Loss rate: 1.51%

-- Flow 1:

Average throughput: 238.33 Mbit/s
95th percentile per-packet one-way delay: 113.360 ms
Loss rate: 0.95%

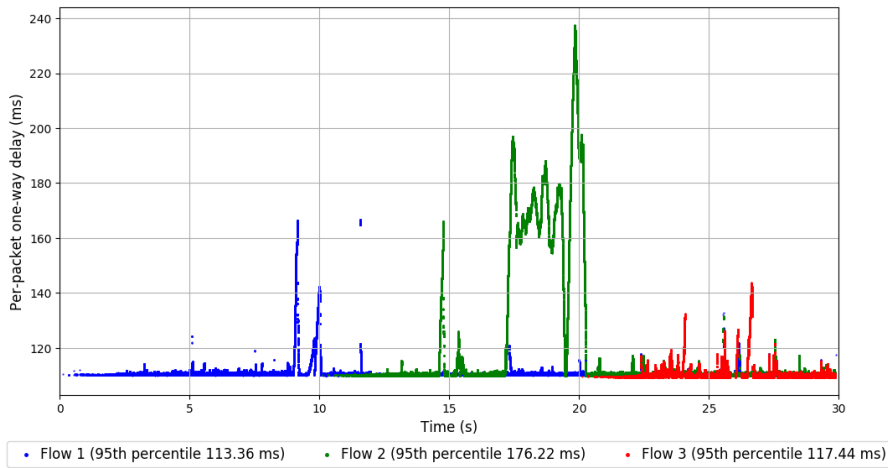
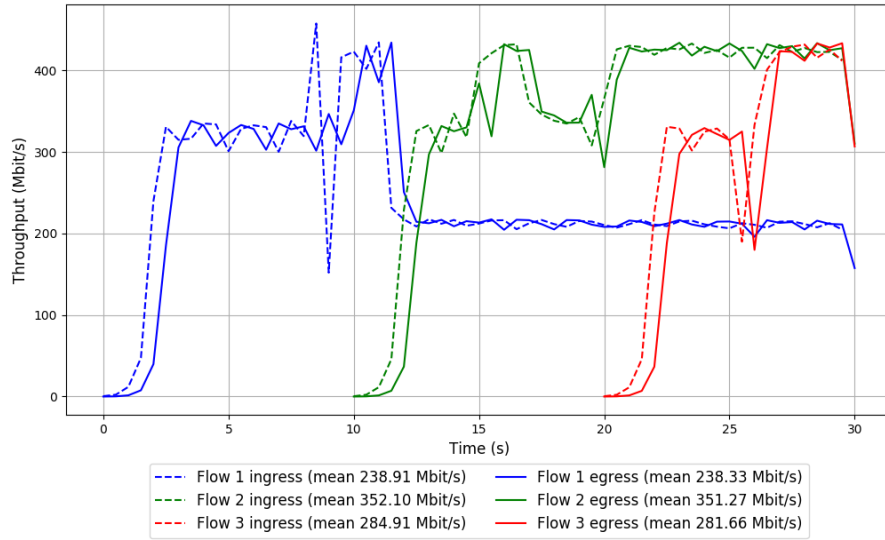
-- Flow 2:

Average throughput: 351.27 Mbit/s
95th percentile per-packet one-way delay: 176.218 ms
Loss rate: 1.34%

-- Flow 3:

Average throughput: 281.66 Mbit/s
95th percentile per-packet one-way delay: 117.438 ms
Loss rate: 3.32%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-05-29 22:41:46

End at: 2019-05-29 22:42:16

Local clock offset: 0.07 ms

Remote clock offset: 0.097 ms

Below is generated by plot.py at 2019-05-30 03:58:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.35 Mbit/s

95th percentile per-packet one-way delay: 272.027 ms

Loss rate: 6.22%

-- Flow 1:

Average throughput: 145.99 Mbit/s

95th percentile per-packet one-way delay: 278.673 ms

Loss rate: 7.38%

-- Flow 2:

Average throughput: 32.29 Mbit/s

95th percentile per-packet one-way delay: 112.605 ms

Loss rate: 3.07%

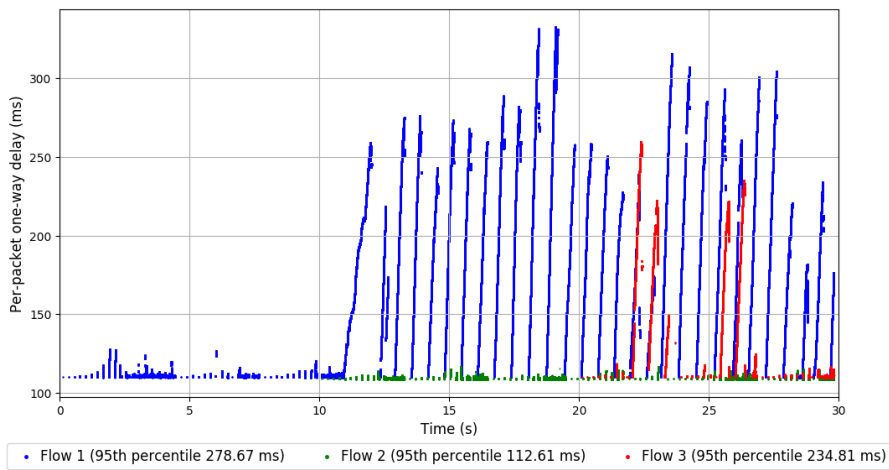
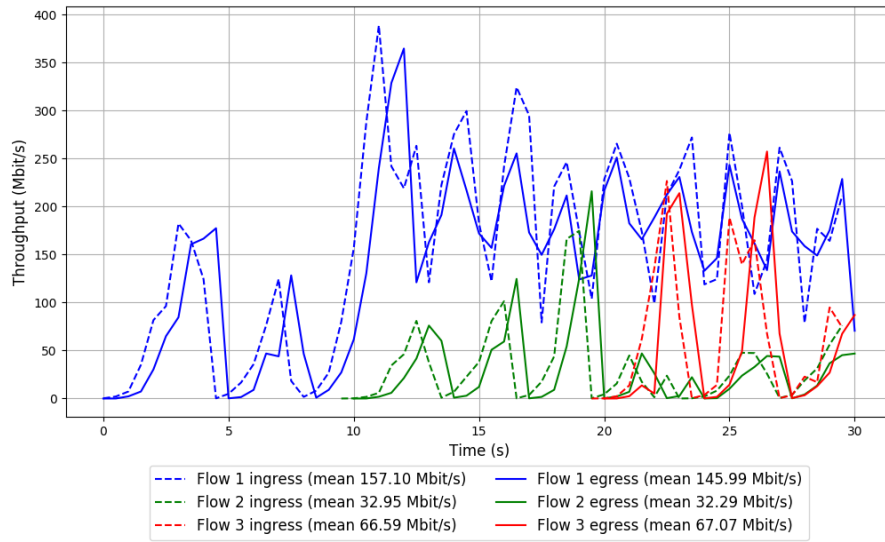
-- Flow 3:

Average throughput: 67.07 Mbit/s

95th percentile per-packet one-way delay: 234.810 ms

Loss rate: 1.10%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-05-29 23:18:58
End at: 2019-05-29 23:19:28
Local clock offset: 0.061 ms
Remote clock offset: -0.004 ms

Below is generated by plot.py at 2019-05-30 03:58:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.23 Mbit/s
95th percentile per-packet one-way delay: 221.089 ms
Loss rate: 3.63%

-- Flow 1:

Average throughput: 98.21 Mbit/s
95th percentile per-packet one-way delay: 138.423 ms
Loss rate: 0.08%

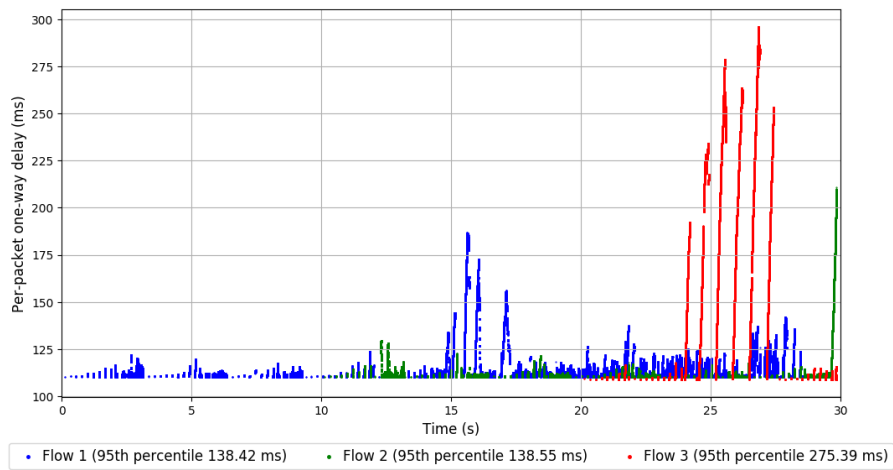
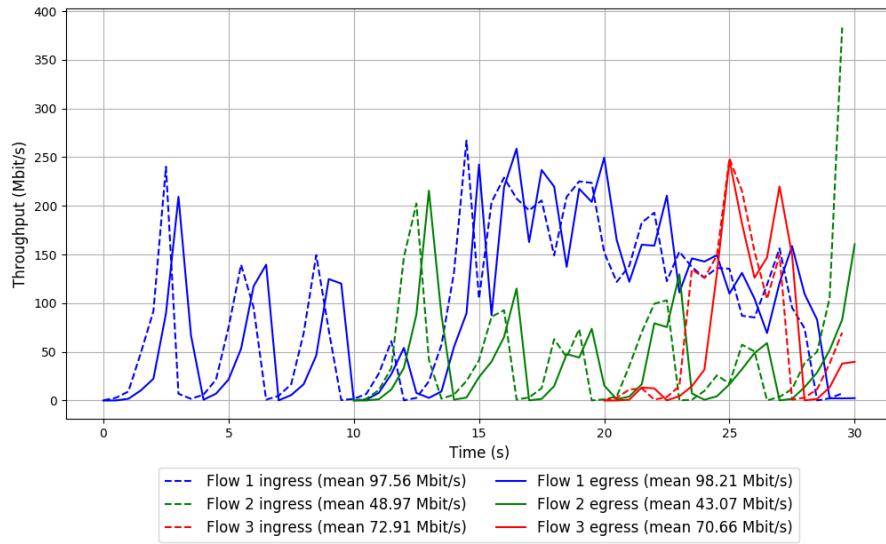
-- Flow 2:

Average throughput: 43.07 Mbit/s
95th percentile per-packet one-way delay: 138.547 ms
Loss rate: 12.96%

-- Flow 3:

Average throughput: 70.66 Mbit/s
95th percentile per-packet one-way delay: 275.386 ms
Loss rate: 5.29%

Run 2: Report of Verus — Data Link

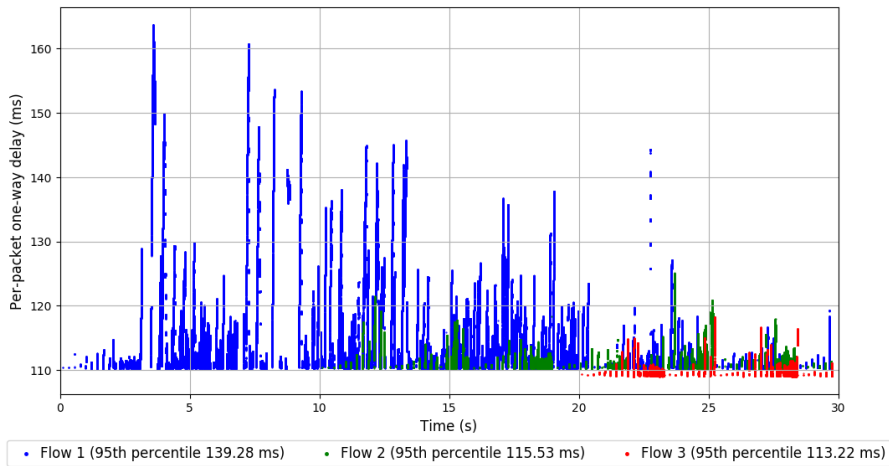
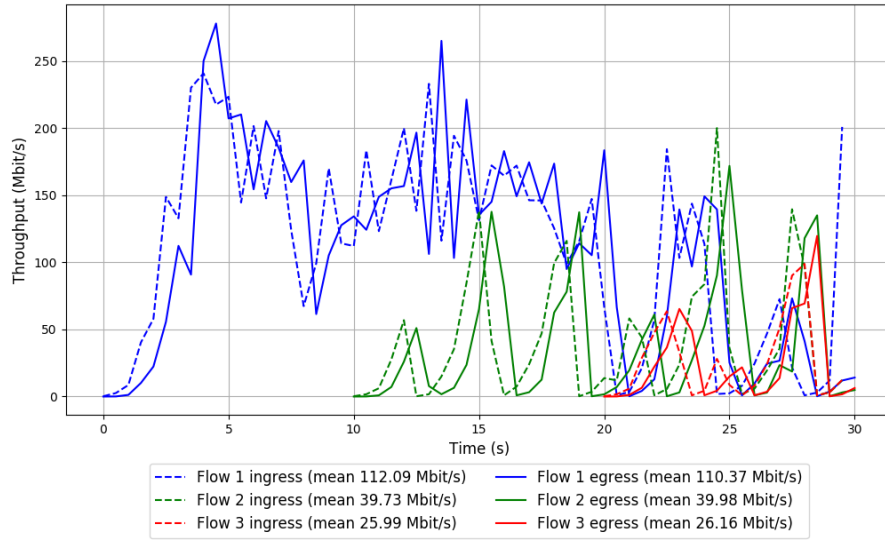


Run 3: Statistics of Verus

Start at: 2019-05-29 23:55:18
End at: 2019-05-29 23:55:48
Local clock offset: 0.161 ms
Remote clock offset: -0.048 ms

Below is generated by plot.py at 2019-05-30 03:58:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 145.03 Mbit/s
95th percentile per-packet one-way delay: 137.267 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 110.37 Mbit/s
95th percentile per-packet one-way delay: 139.275 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 39.98 Mbit/s
95th percentile per-packet one-way delay: 115.532 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 26.16 Mbit/s
95th percentile per-packet one-way delay: 113.215 ms
Loss rate: 1.61%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-05-30 00:32:14

End at: 2019-05-30 00:32:44

Local clock offset: -0.152 ms

Remote clock offset: -0.13 ms

Below is generated by plot.py at 2019-05-30 03:58:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 166.35 Mbit/s

95th percentile per-packet one-way delay: 223.490 ms

Loss rate: 2.11%

-- Flow 1:

Average throughput: 94.26 Mbit/s

95th percentile per-packet one-way delay: 249.230 ms

Loss rate: 2.79%

-- Flow 2:

Average throughput: 40.90 Mbit/s

95th percentile per-packet one-way delay: 117.543 ms

Loss rate: 2.68%

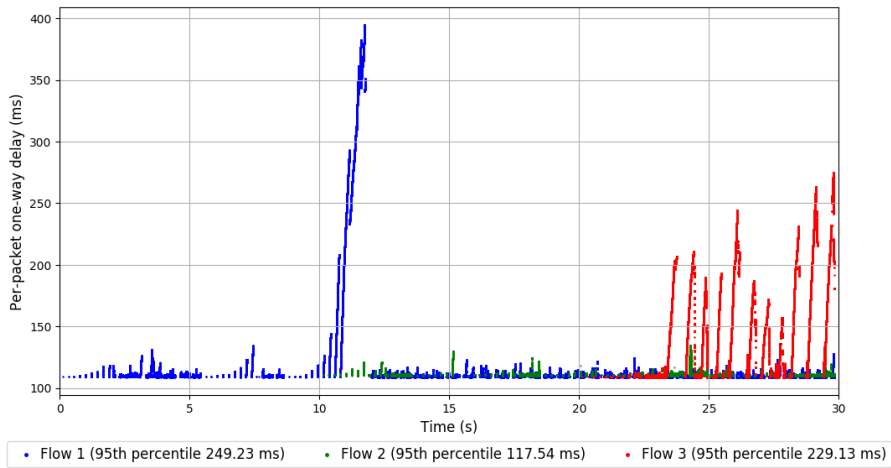
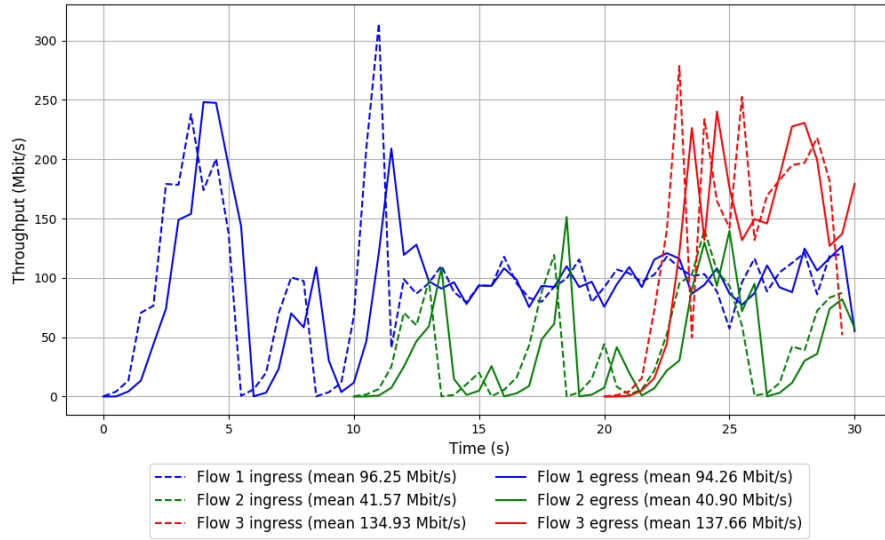
-- Flow 3:

Average throughput: 137.66 Mbit/s

95th percentile per-packet one-way delay: 229.135 ms

Loss rate: 0.30%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-05-30 01:09:29

End at: 2019-05-30 01:09:59

Local clock offset: -0.18 ms

Remote clock offset: -0.13 ms

Below is generated by plot.py at 2019-05-30 04:01:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.47 Mbit/s

95th percentile per-packet one-way delay: 227.224 ms

Loss rate: 2.87%

-- Flow 1:

Average throughput: 98.40 Mbit/s

95th percentile per-packet one-way delay: 201.415 ms

Loss rate: 2.98%

-- Flow 2:

Average throughput: 154.42 Mbit/s

95th percentile per-packet one-way delay: 236.164 ms

Loss rate: 2.95%

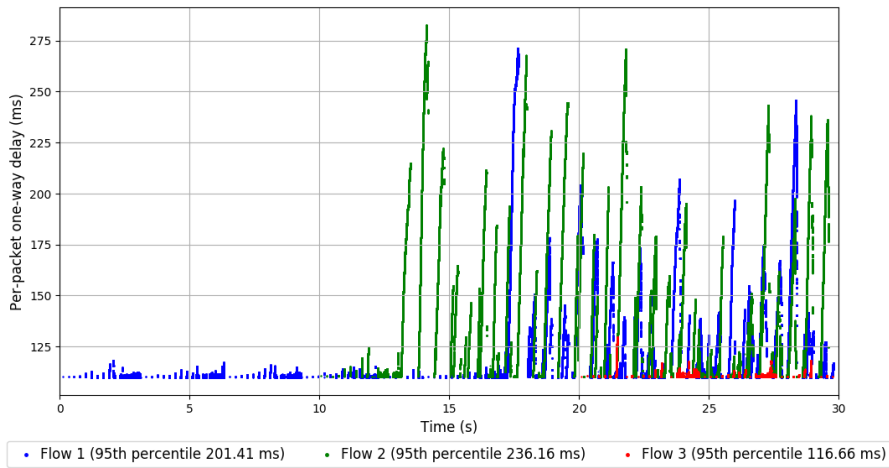
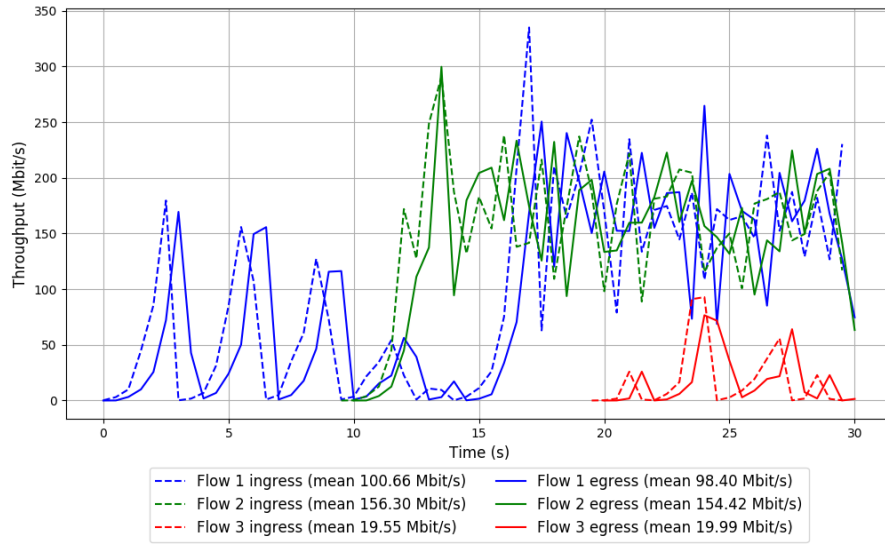
-- Flow 3:

Average throughput: 19.99 Mbit/s

95th percentile per-packet one-way delay: 116.664 ms

Loss rate: 0.04%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-05-29 23:08:56

End at: 2019-05-29 23:09:26

Local clock offset: -0.179 ms

Remote clock offset: 0.04 ms

Below is generated by plot.py at 2019-05-30 04:02:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.02 Mbit/s

95th percentile per-packet one-way delay: 116.003 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 271.73 Mbit/s

95th percentile per-packet one-way delay: 116.376 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 181.92 Mbit/s

95th percentile per-packet one-way delay: 112.407 ms

Loss rate: 1.37%

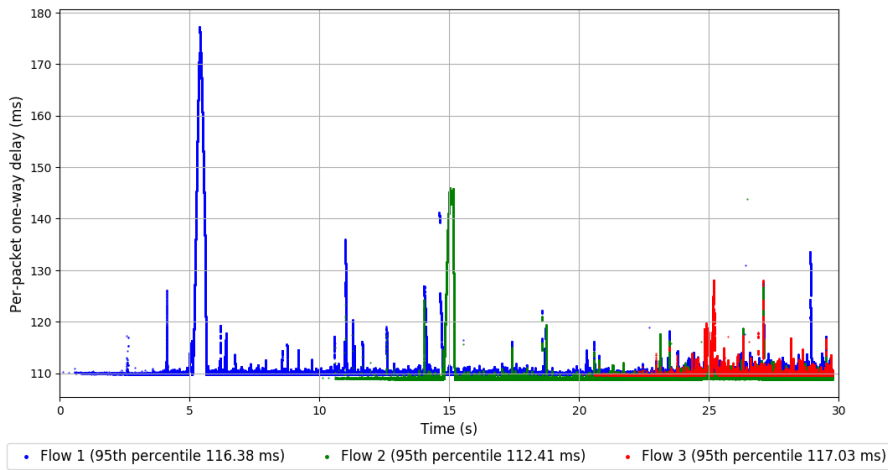
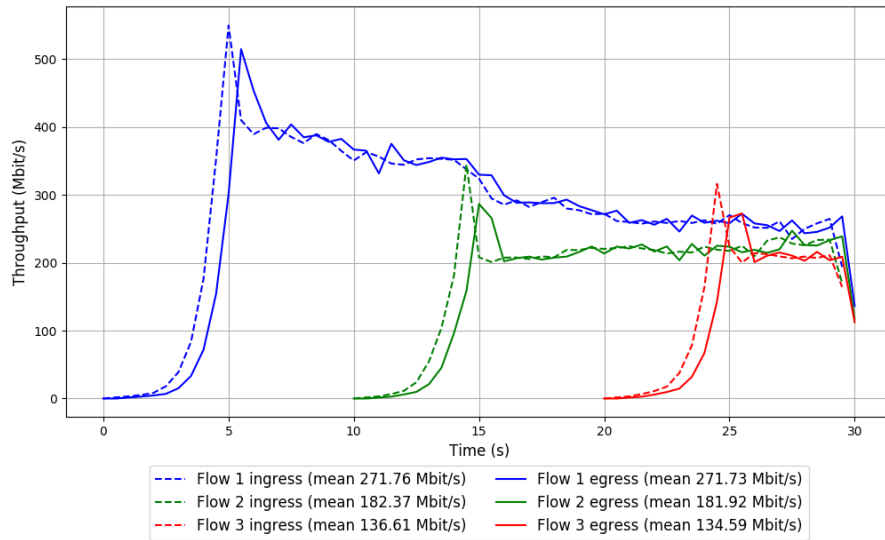
-- Flow 3:

Average throughput: 134.59 Mbit/s

95th percentile per-packet one-way delay: 117.035 ms

Loss rate: 3.69%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-05-29 23:45:38

End at: 2019-05-29 23:46:08

Local clock offset: 0.082 ms

Remote clock offset: -0.02 ms

Below is generated by plot.py at 2019-05-30 04:02:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 421.64 Mbit/s

95th percentile per-packet one-way delay: 117.160 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 264.63 Mbit/s

95th percentile per-packet one-way delay: 119.389 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 168.32 Mbit/s

95th percentile per-packet one-way delay: 111.584 ms

Loss rate: 1.18%

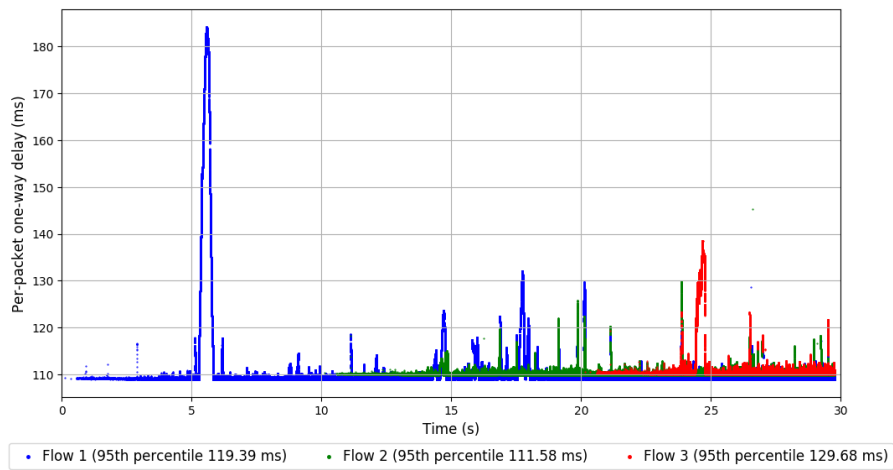
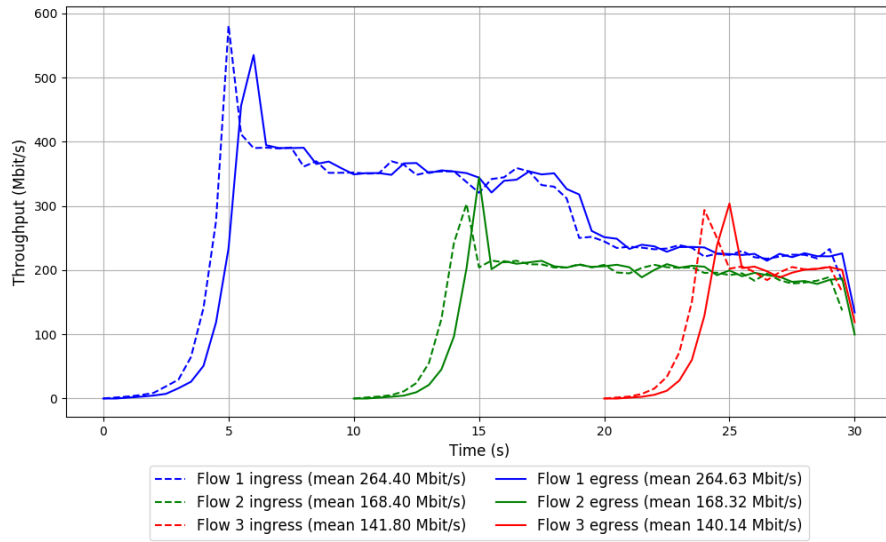
-- Flow 3:

Average throughput: 140.14 Mbit/s

95th percentile per-packet one-way delay: 129.680 ms

Loss rate: 3.38%

Run 2: Report of PCC-Vivace — Data Link

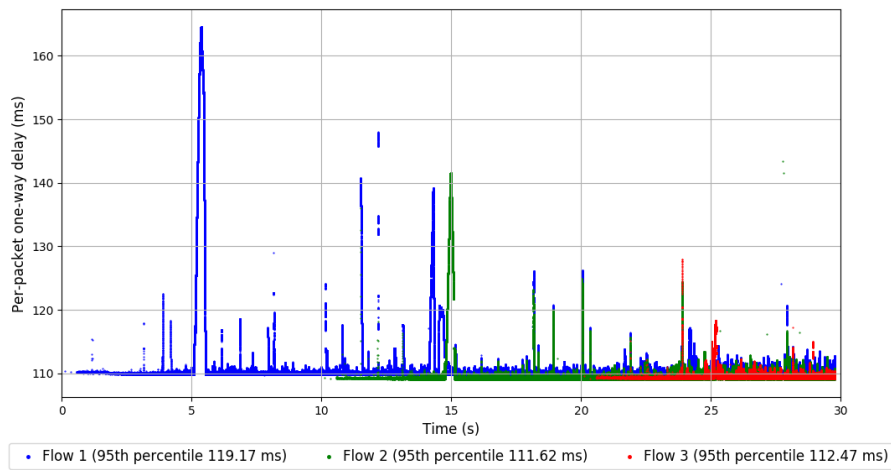
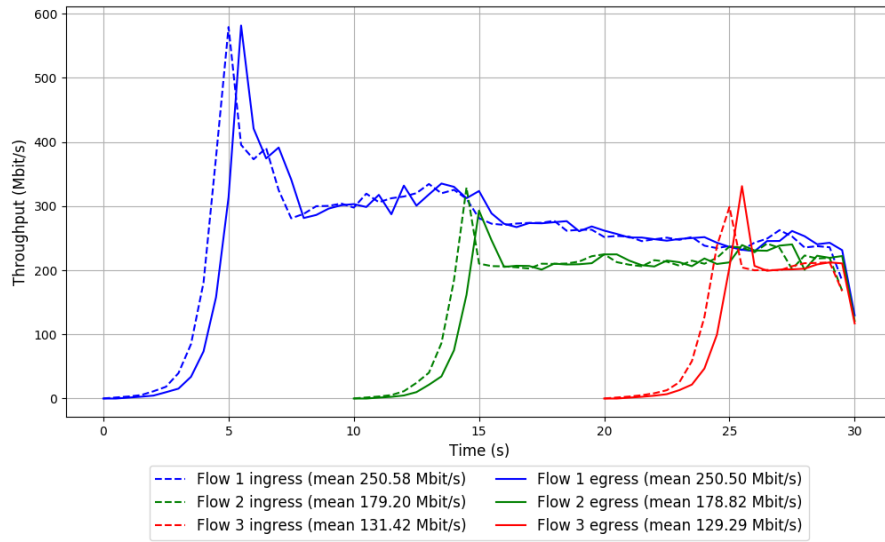


Run 3: Statistics of PCC-Vivace

Start at: 2019-05-30 00:21:59
End at: 2019-05-30 00:22:29
Local clock offset: -0.001 ms
Remote clock offset: -0.104 ms

```
# Below is generated by plot.py at 2019-05-30 04:02:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 411.02 Mbit/s
95th percentile per-packet one-way delay: 115.942 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 250.50 Mbit/s
95th percentile per-packet one-way delay: 119.174 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 178.82 Mbit/s
95th percentile per-packet one-way delay: 111.617 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 129.29 Mbit/s
95th percentile per-packet one-way delay: 112.472 ms
Loss rate: 3.82%
```

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-05-30 00:59:20
End at: 2019-05-30 00:59:50
Local clock offset: 0.074 ms
Remote clock offset: -0.127 ms

Below is generated by plot.py at 2019-05-30 04:02:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 370.45 Mbit/s
95th percentile per-packet one-way delay: 121.493 ms
Loss rate: 1.12%

-- Flow 1:

Average throughput: 181.50 Mbit/s
95th percentile per-packet one-way delay: 117.660 ms
Loss rate: 0.39%

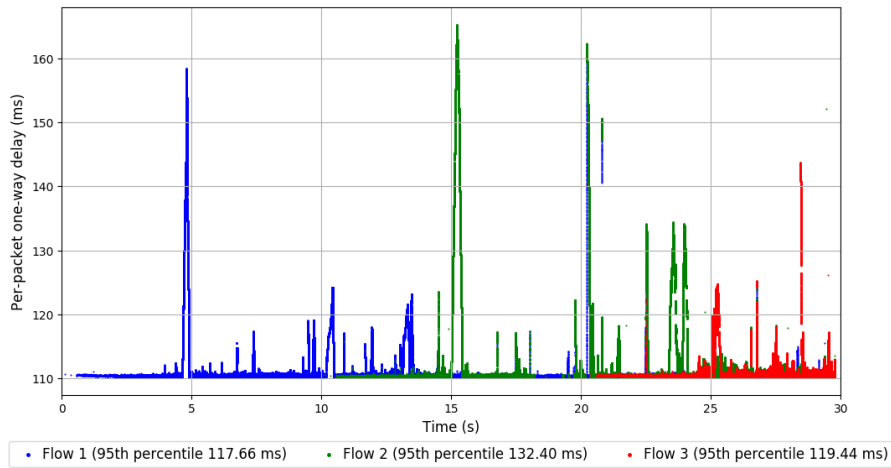
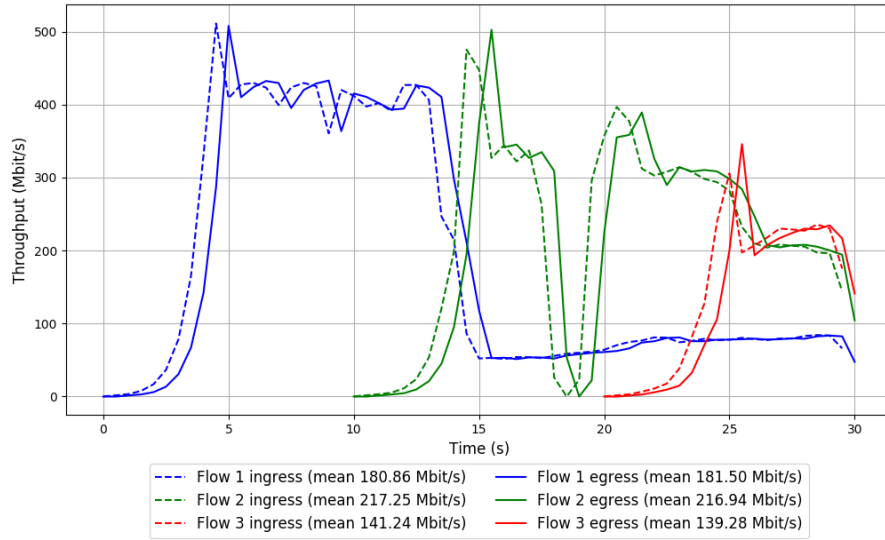
-- Flow 2:

Average throughput: 216.94 Mbit/s
95th percentile per-packet one-way delay: 132.404 ms
Loss rate: 1.23%

-- Flow 3:

Average throughput: 139.28 Mbit/s
95th percentile per-packet one-way delay: 119.443 ms
Loss rate: 3.59%

Run 4: Report of PCC-Vivace — Data Link

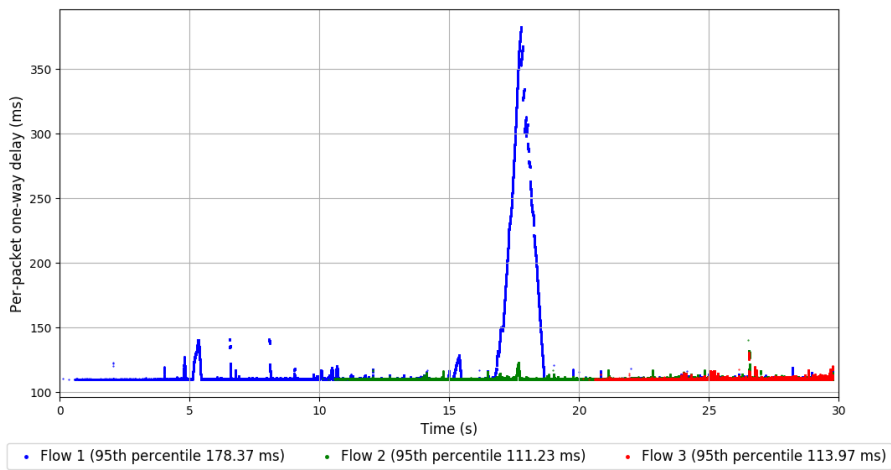
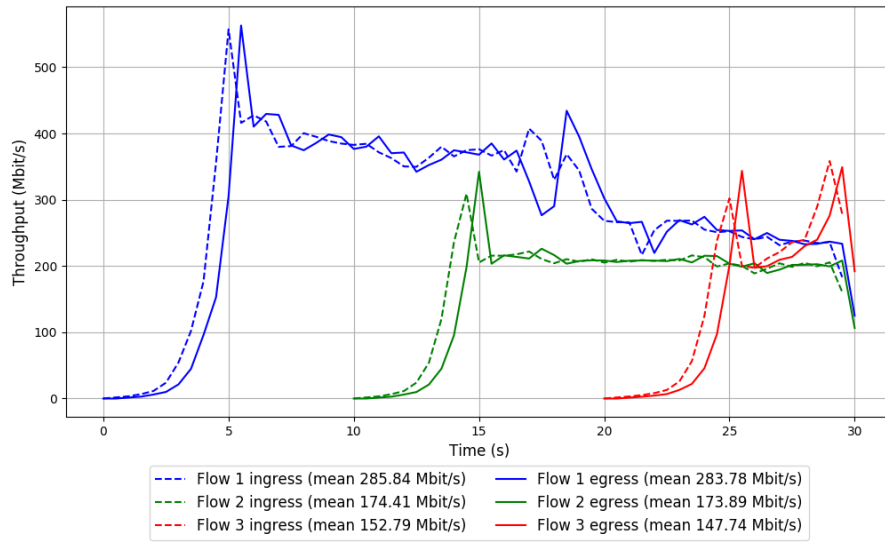


Run 5: Statistics of PCC-Vivace

Start at: 2019-05-30 01:36:33
End at: 2019-05-30 01:37:03
Local clock offset: -0.046 ms
Remote clock offset: -0.097 ms

```
# Below is generated by plot.py at 2019-05-30 04:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 446.94 Mbit/s
95th percentile per-packet one-way delay: 130.372 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 283.78 Mbit/s
95th percentile per-packet one-way delay: 178.372 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 173.89 Mbit/s
95th percentile per-packet one-way delay: 111.230 ms
Loss rate: 1.41%
-- Flow 3:
Average throughput: 147.74 Mbit/s
95th percentile per-packet one-way delay: 113.969 ms
Loss rate: 5.48%
```

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-05-29 22:48:34

End at: 2019-05-29 22:49:04

Local clock offset: -0.821 ms

Remote clock offset: 0.024 ms

Below is generated by plot.py at 2019-05-30 04:03:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 109.596 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.07 Mbit/s

95th percentile per-packet one-way delay: 109.531 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 108.430 ms

Loss rate: 0.00%

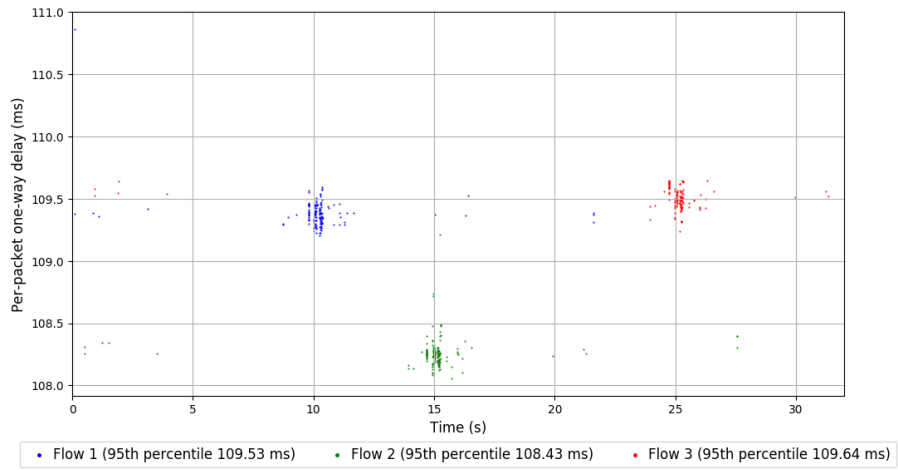
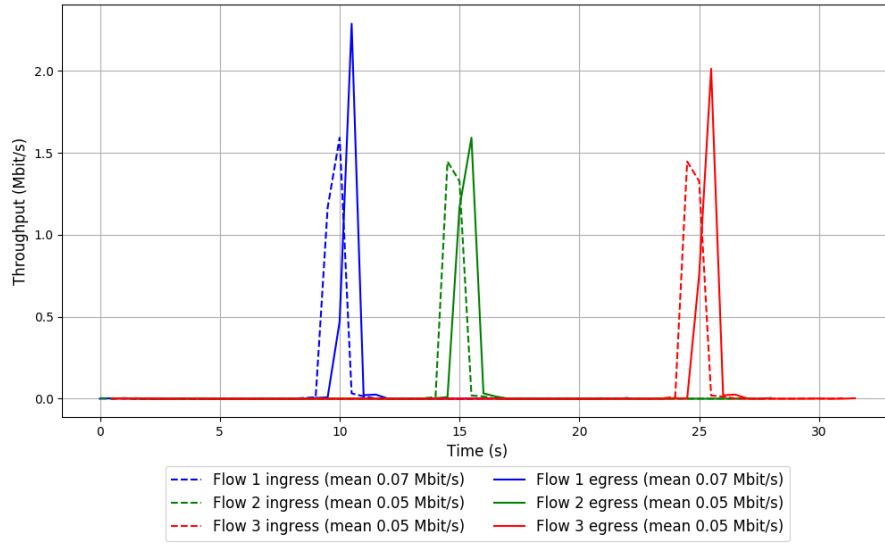
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 109.640 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

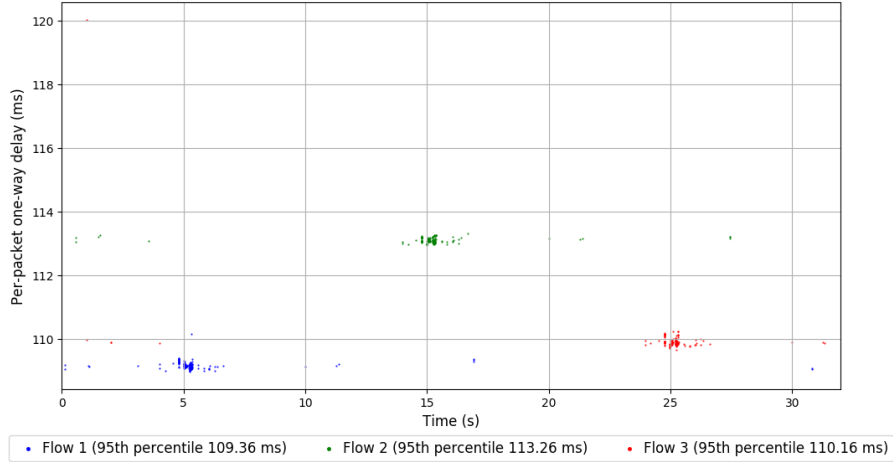
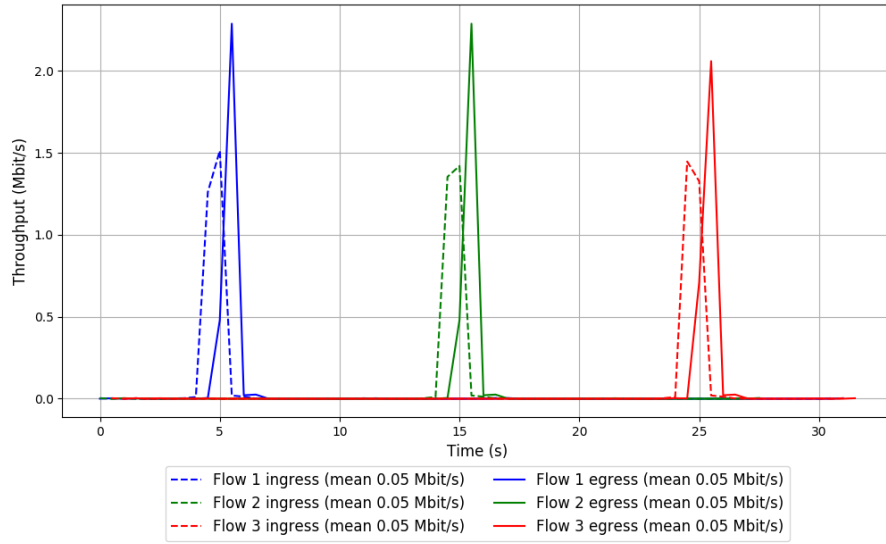


Run 2: Statistics of WebRTC media

Start at: 2019-05-29 23:25:35
End at: 2019-05-29 23:26:05
Local clock offset: 0.044 ms
Remote clock offset: -0.004 ms

```
# Below is generated by plot.py at 2019-05-30 04:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 113.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.361 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 113.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.157 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

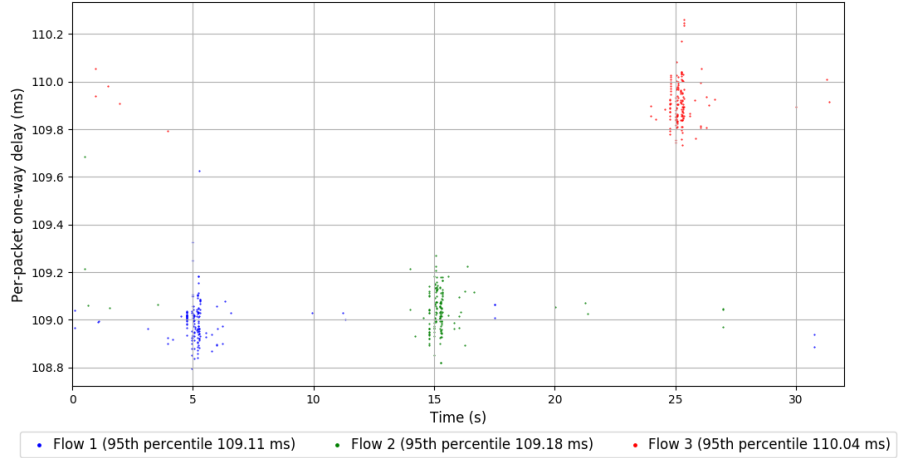
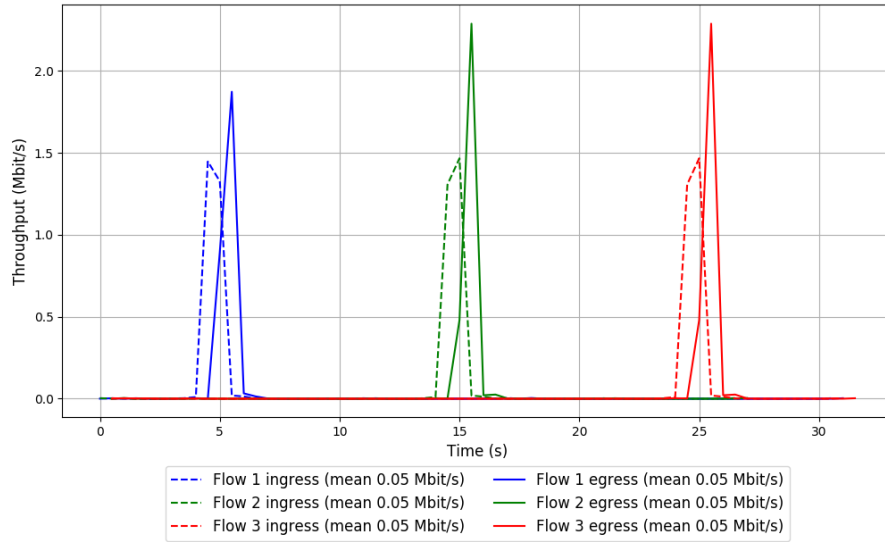


Run 3: Statistics of WebRTC media

Start at: 2019-05-30 00:02:04
End at: 2019-05-30 00:02:34
Local clock offset: -0.095 ms
Remote clock offset: -0.106 ms

```
# Below is generated by plot.py at 2019-05-30 04:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 110.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.183 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.042 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

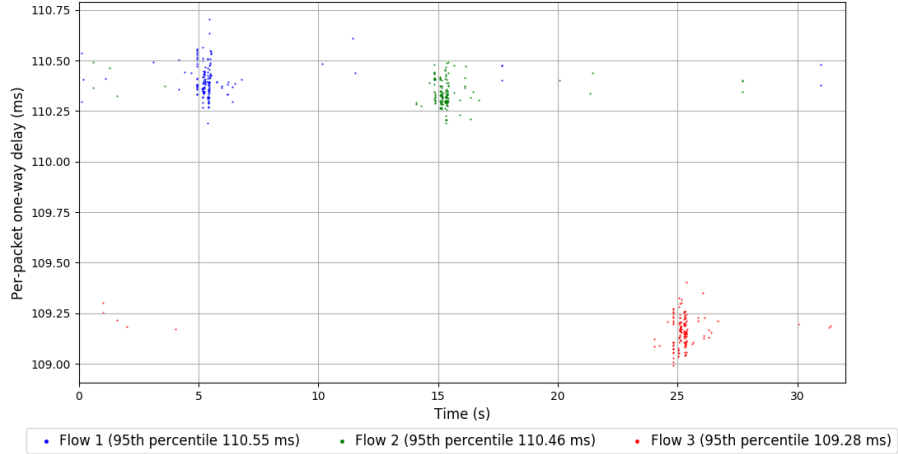
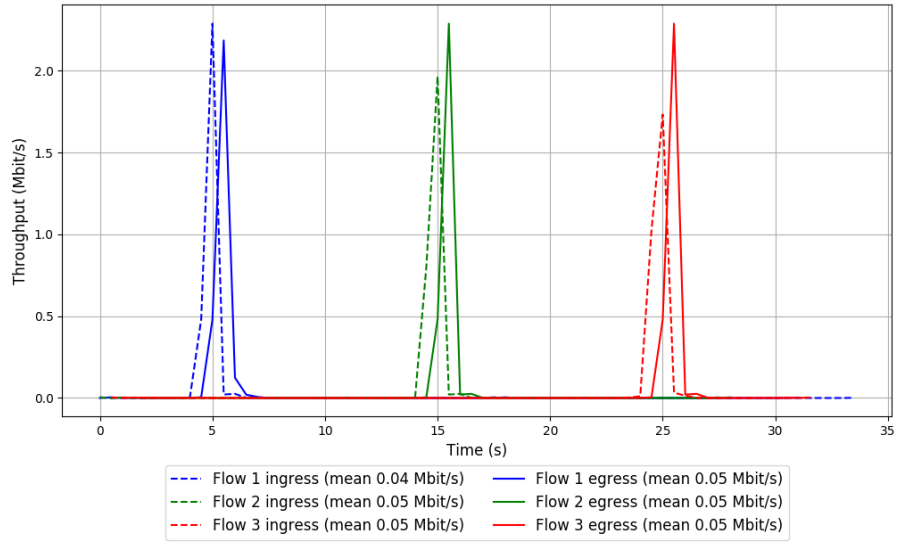


Run 4: Statistics of WebRTC media

Start at: 2019-05-30 00:38:51
End at: 2019-05-30 00:39:21
Local clock offset: 0.01 ms
Remote clock offset: -0.112 ms

```
# Below is generated by plot.py at 2019-05-30 04:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 110.499 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.546 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.462 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 109.281 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-05-30 01:16:10
End at: 2019-05-30 01:16:40
Local clock offset: -0.12 ms
Remote clock offset: -0.101 ms

```
# Below is generated by plot.py at 2019-05-30 04:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 110.457 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.458 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.245 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 110.480 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

