

Pantheon Report

Generated at 2019-05-31 00:59:30 (UTC).

Data path: GCE Iowa on `ens4` (*remote*) → GCE London 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:

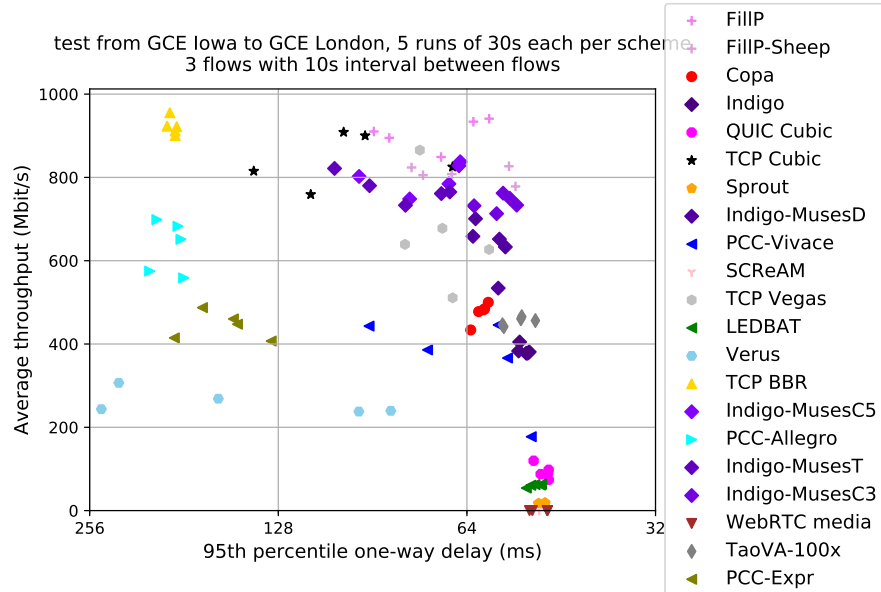
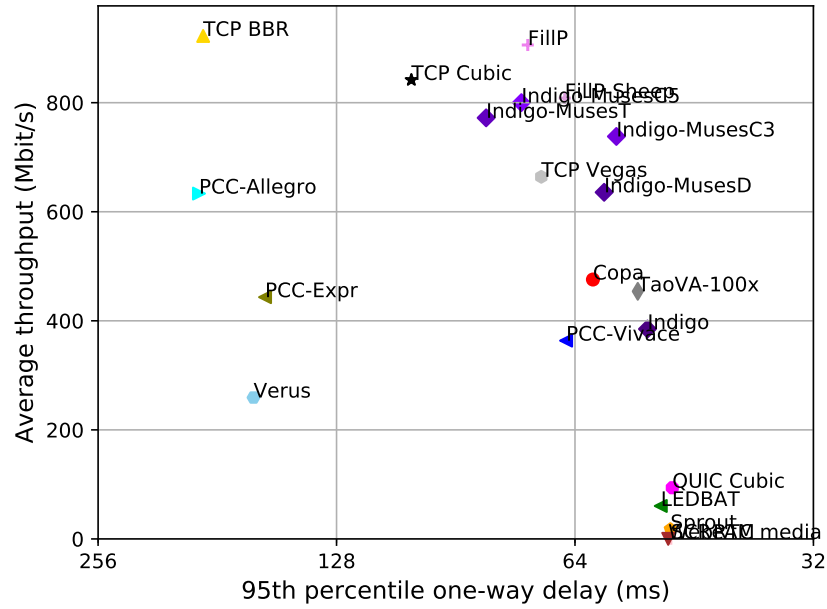
```
Linux 4.15.0-1029-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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 Iowa to GCE London, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



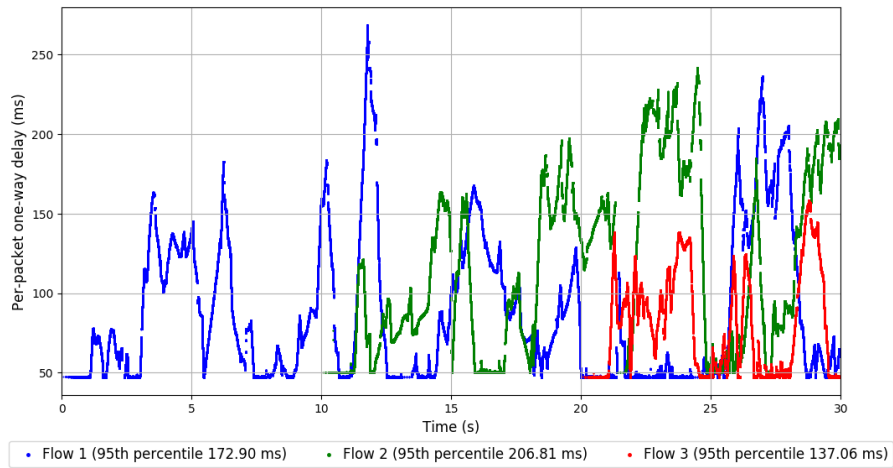
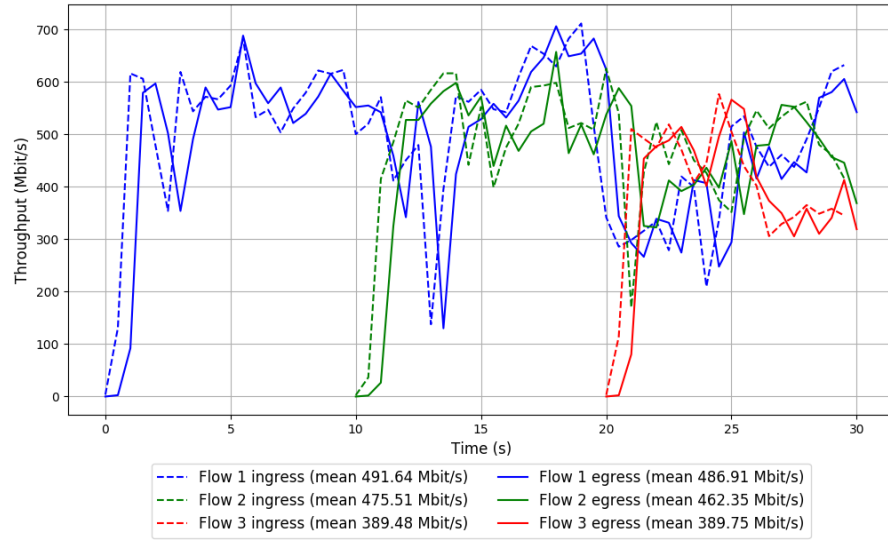
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	485.08	453.60	416.78	177.68	199.99	180.77	1.28	2.12	2.02
Copa	5	252.49	233.42	206.08	60.20	59.98	61.37	0.31	0.50	1.02
TCP Cubic	5	447.17	402.49	384.05	89.37	81.74	92.00	0.40	0.66	1.32
FillP	5	558.88	388.22	270.69	78.14	54.04	52.49	0.34	0.54	1.05
FillP-Sheep	5	512.78	318.20	256.43	70.83	52.40	52.43	0.42	0.41	1.04
Indigo	5	202.03	189.31	169.80	51.20	52.37	51.57	0.34	0.59	1.06
Indigo-MusesC3	5	432.20	370.28	249.54	57.70	55.62	53.62	0.28	0.55	1.71
Indigo-MusesC5	5	472.06	406.59	254.24	77.48	77.53	55.05	0.28	0.64	1.44
Indigo-MusesD	5	390.98	271.97	258.22	60.99	55.51	51.84	0.32	0.46	1.67
Indigo-MusesT	5	477.24	389.36	172.68	85.12	74.03	51.09	0.37	0.58	1.62
LEDBAT	5	39.46	25.08	13.19	49.94	49.03	48.41	0.42	0.90	1.94
PCC-Allegro	5	365.85	301.77	205.97	202.75	110.32	131.39	4.62	0.76	2.54
PCC-Expr	5	256.72	212.12	139.79	159.28	103.82	62.24	2.83	1.98	2.00
QUIC Cubic	5	57.02	36.11	38.16	47.71	47.40	47.74	0.50	0.80	0.73
SCReAM	5	0.22	0.22	0.22	47.91	48.11	47.87	0.26	0.53	1.09
Sprout	5	8.88	9.23	9.07	48.01	48.28	48.33	0.31	0.55	0.96
TaoVA-100x	5	234.95	225.90	208.69	52.45	53.34	55.35	0.61	0.84	1.15
TCP Vegas	5	344.23	298.62	367.44	59.93	54.69	74.67	0.24	0.42	0.82
Verus	5	150.45	119.12	90.73	152.88	118.11	143.58	2.81	1.60	2.36
PCC-Vivace	5	185.76	224.09	88.79	70.30	57.07	48.43	0.54	0.80	1.60
WebRTC media	5	0.05	0.05	0.05	48.74	48.96	47.56	0.00	0.01	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-05-30 19:32:30
End at: 2019-05-30 19:33:00
Local clock offset: -0.093 ms
Remote clock offset: -0.064 ms

Below is generated by plot.py at 2019-05-30 22:35:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 923.01 Mbit/s
95th percentile per-packet one-way delay: 192.597 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 486.91 Mbit/s
95th percentile per-packet one-way delay: 172.899 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 462.35 Mbit/s
95th percentile per-packet one-way delay: 206.810 ms
Loss rate: 3.25%
-- Flow 3:
Average throughput: 389.75 Mbit/s
95th percentile per-packet one-way delay: 137.059 ms
Loss rate: 0.89%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-05-30 20:07:22

End at: 2019-05-30 20:07:52

Local clock offset: 0.049 ms

Remote clock offset: -0.05 ms

Below is generated by plot.py at 2019-05-30 22:35:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 911.56 Mbit/s

95th percentile per-packet one-way delay: 186.996 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 481.81 Mbit/s

95th percentile per-packet one-way delay: 175.708 ms

Loss rate: 1.36%

-- Flow 2:

Average throughput: 442.46 Mbit/s

95th percentile per-packet one-way delay: 202.769 ms

Loss rate: 1.95%

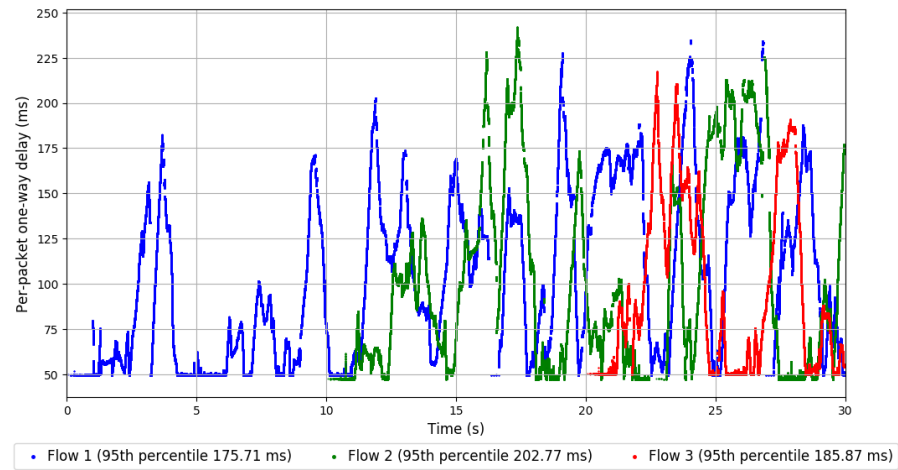
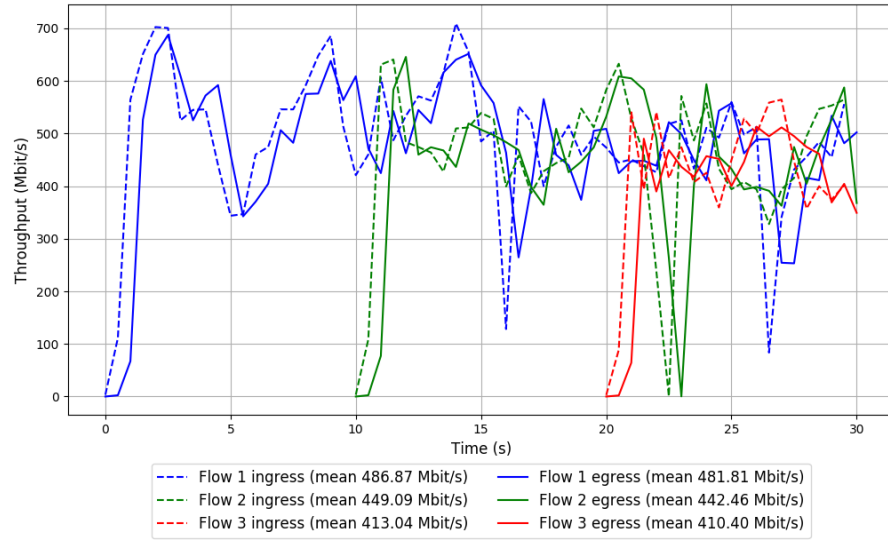
-- Flow 3:

Average throughput: 410.40 Mbit/s

95th percentile per-packet one-way delay: 185.870 ms

Loss rate: 1.62%

Run 2: Report of TCP BBR — Data Link

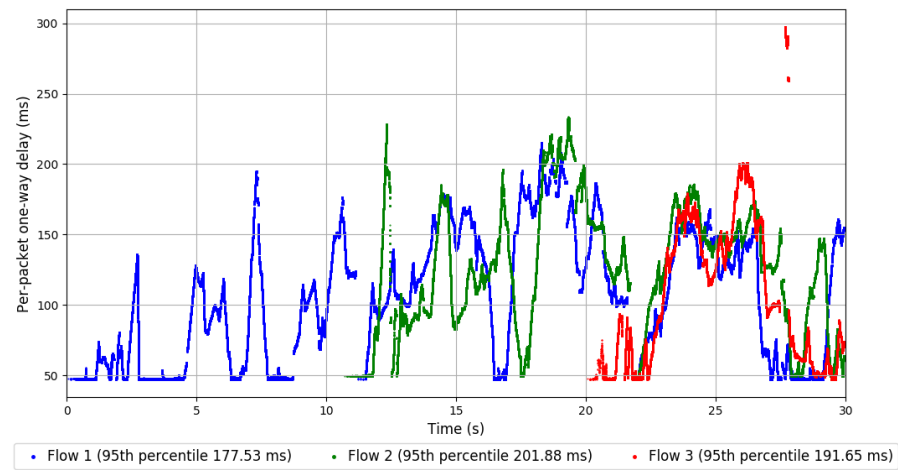
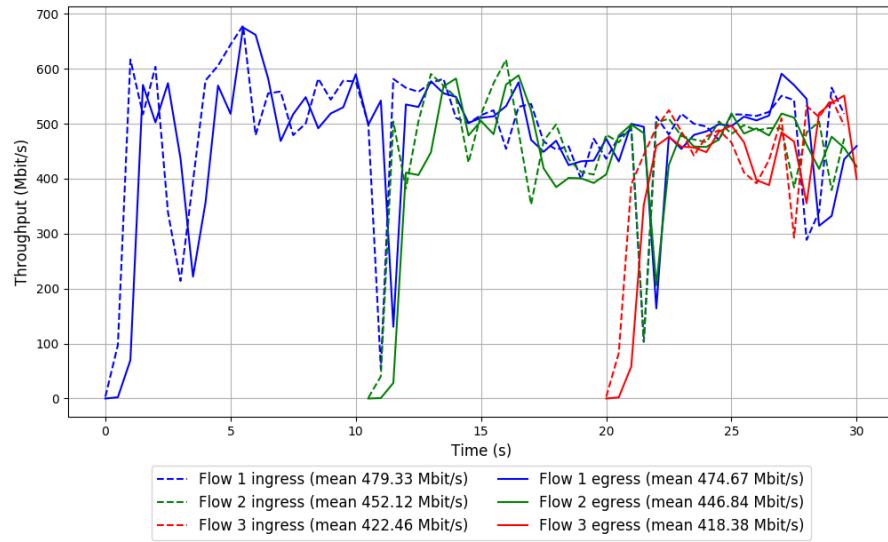


Run 3: Statistics of TCP BBR

Start at: 2019-05-30 20:42:30
End at: 2019-05-30 20:43:00
Local clock offset: 0.132 ms
Remote clock offset: -0.026 ms

Below is generated by plot.py at 2019-05-30 22:35:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 900.54 Mbit/s
95th percentile per-packet one-way delay: 186.927 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 474.67 Mbit/s
95th percentile per-packet one-way delay: 177.527 ms
Loss rate: 1.29%
-- Flow 2:
Average throughput: 446.84 Mbit/s
95th percentile per-packet one-way delay: 201.885 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 418.38 Mbit/s
95th percentile per-packet one-way delay: 191.653 ms
Loss rate: 1.91%

Run 3: Report of TCP BBR — Data Link

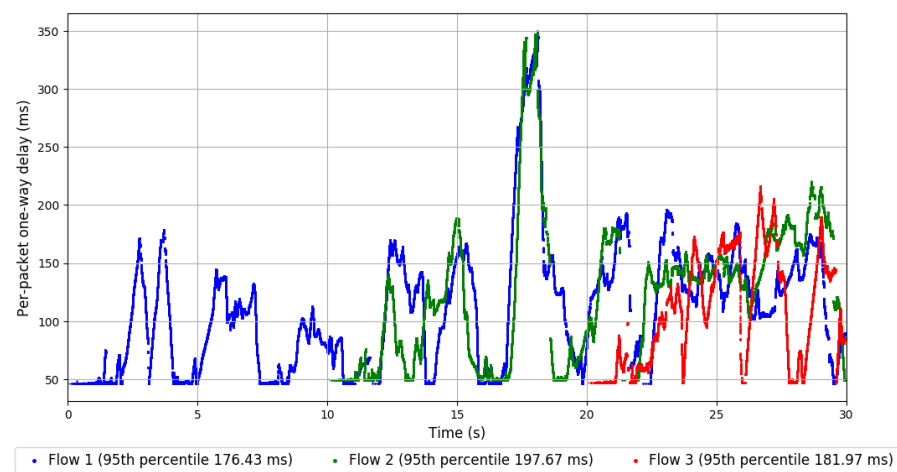
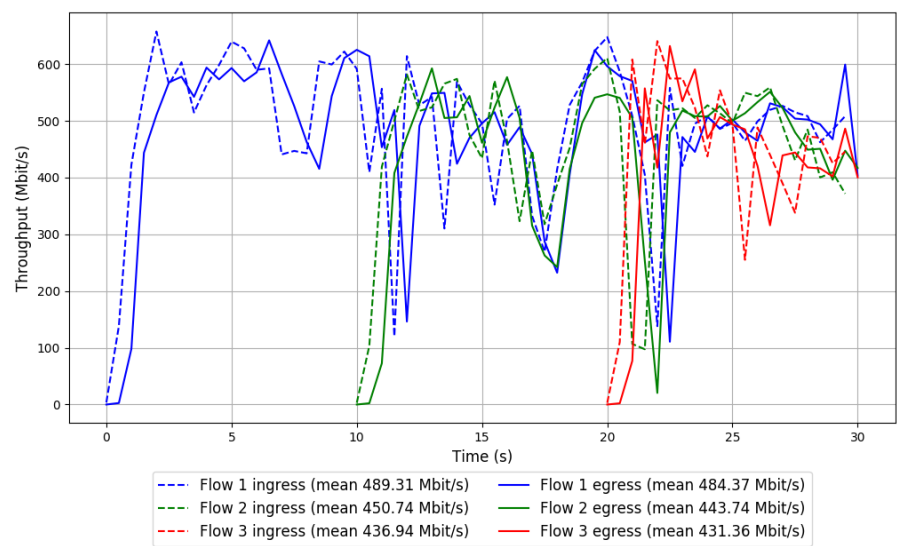


Run 4: Statistics of TCP BBR

Start at: 2019-05-30 21:17:49
End at: 2019-05-30 21:18:19
Local clock offset: 0.16 ms
Remote clock offset: -0.015 ms

Below is generated by plot.py at 2019-05-30 22:35:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 921.79 Mbit/s
95th percentile per-packet one-way delay: 185.942 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 484.37 Mbit/s
95th percentile per-packet one-way delay: 176.428 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 443.74 Mbit/s
95th percentile per-packet one-way delay: 197.671 ms
Loss rate: 2.05%
-- Flow 3:
Average throughput: 431.36 Mbit/s
95th percentile per-packet one-way delay: 181.973 ms
Loss rate: 2.24%

Run 4: Report of TCP BBR — Data Link

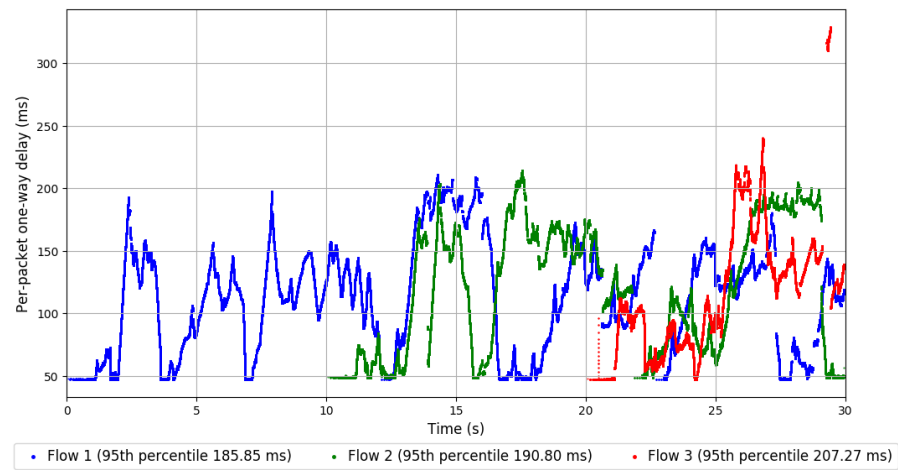
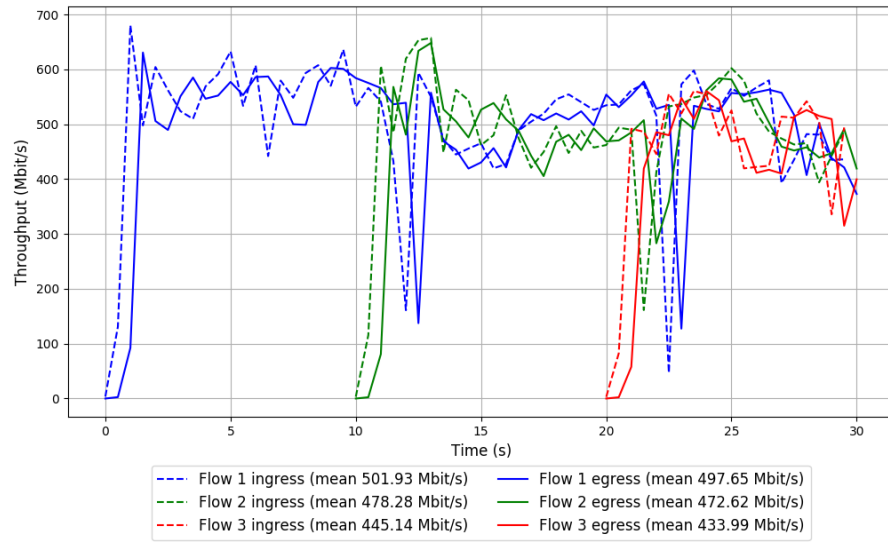


Run 5: Statistics of TCP BBR

Start at: 2019-05-30 21:53:20
End at: 2019-05-30 21:53:50
Local clock offset: 0.269 ms
Remote clock offset: -0.067 ms

Below is generated by plot.py at 2019-05-30 22:36:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 955.31 Mbit/s
95th percentile per-packet one-way delay: 190.662 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 497.65 Mbit/s
95th percentile per-packet one-way delay: 185.851 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 472.62 Mbit/s
95th percentile per-packet one-way delay: 190.799 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 433.99 Mbit/s
95th percentile per-packet one-way delay: 207.271 ms
Loss rate: 3.44%

Run 5: Report of TCP BBR — Data Link

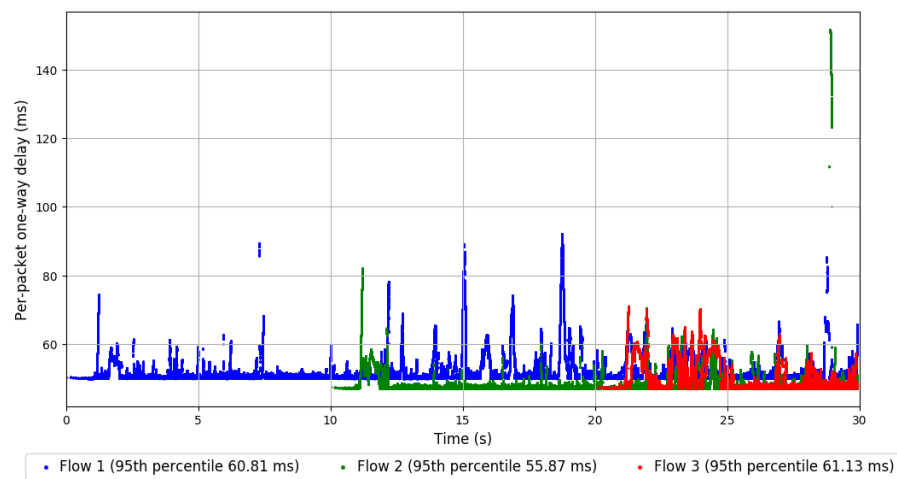
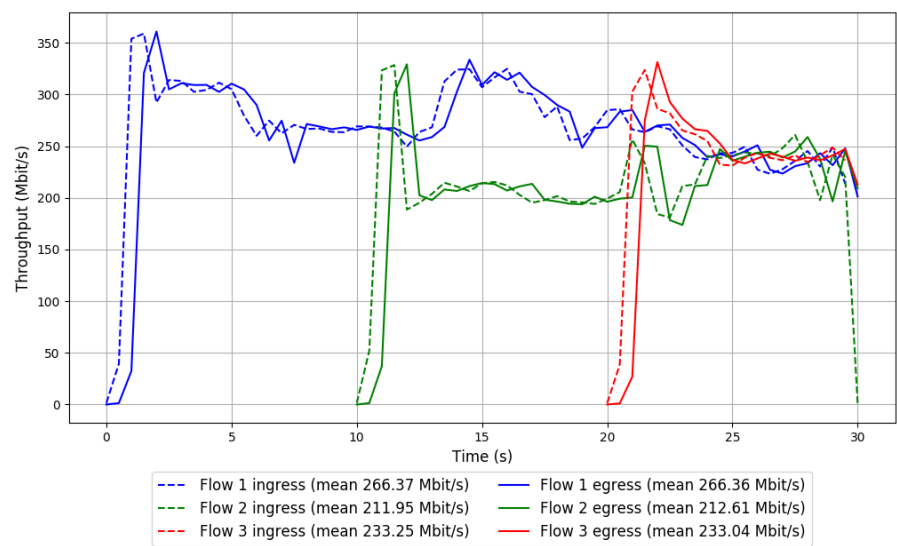


Run 1: Statistics of Copa

Start at: 2019-05-30 19:30:33
End at: 2019-05-30 19:31:03
Local clock offset: -0.089 ms
Remote clock offset: -0.062 ms

Below is generated by plot.py at 2019-05-30 22:36:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 484.63 Mbit/s
95th percentile per-packet one-way delay: 59.964 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 266.36 Mbit/s
95th percentile per-packet one-way delay: 60.813 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 212.61 Mbit/s
95th percentile per-packet one-way delay: 55.866 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 233.04 Mbit/s
95th percentile per-packet one-way delay: 61.130 ms
Loss rate: 1.04%

Run 1: Report of Copa — Data Link

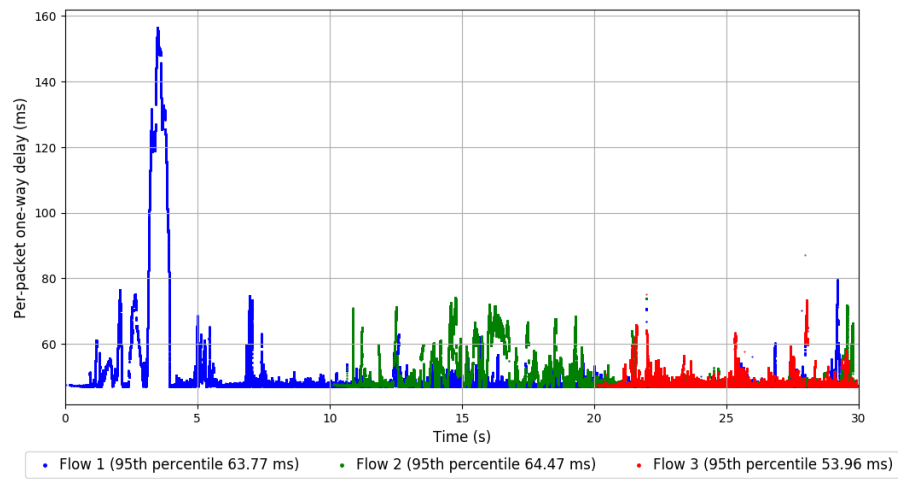
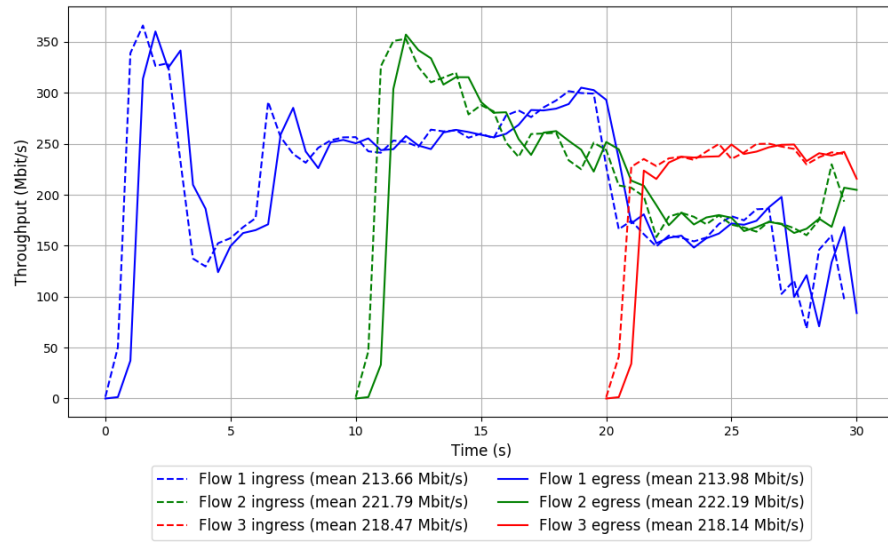


Run 2: Statistics of Copa

Start at: 2019-05-30 20:05:29
End at: 2019-05-30 20:05:59
Local clock offset: 0.036 ms
Remote clock offset: -0.099 ms

Below is generated by plot.py at 2019-05-30 22:36:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 433.72 Mbit/s
95th percentile per-packet one-way delay: 63.118 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 213.98 Mbit/s
95th percentile per-packet one-way delay: 63.772 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 222.19 Mbit/s
95th percentile per-packet one-way delay: 64.475 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 218.14 Mbit/s
95th percentile per-packet one-way delay: 53.964 ms
Loss rate: 1.10%

Run 2: Report of Copa — Data Link

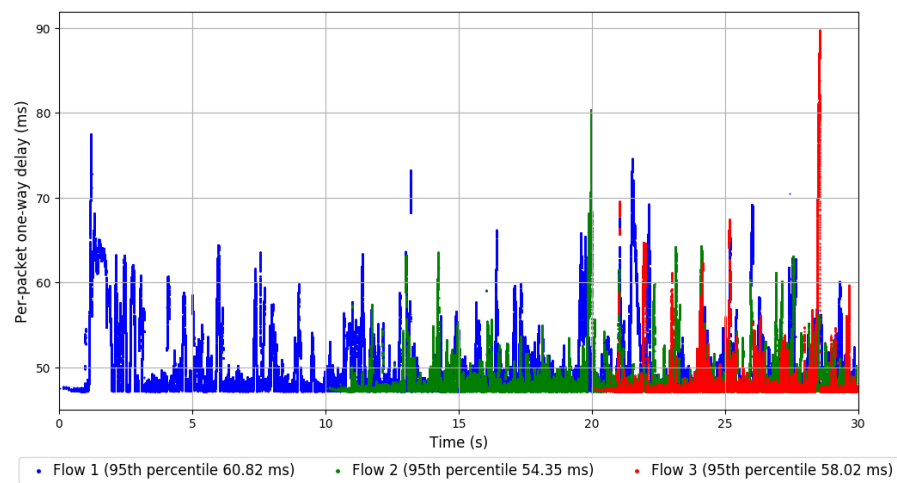
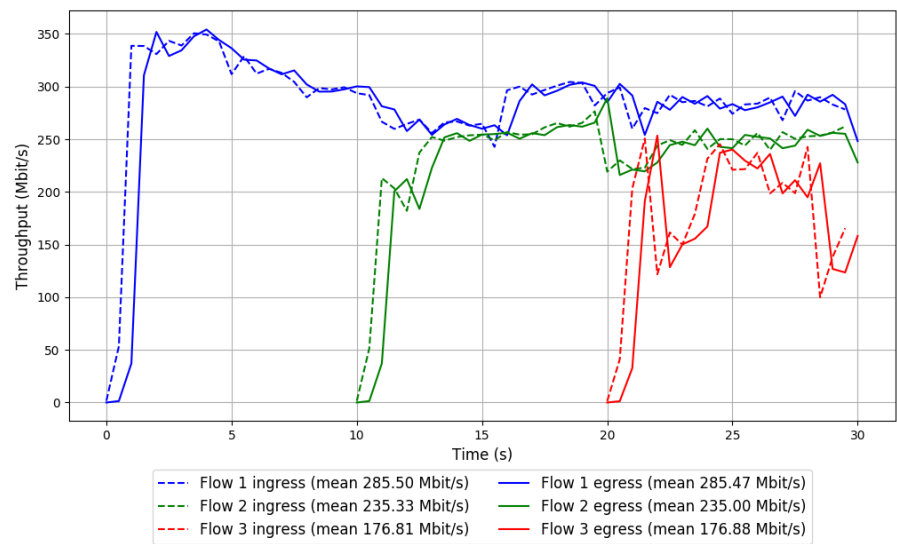


Run 3: Statistics of Copa

Start at: 2019-05-30 20:40:32
End at: 2019-05-30 20:41:02
Local clock offset: 0.133 ms
Remote clock offset: -0.048 ms

Below is generated by plot.py at 2019-05-30 22:36:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 500.10 Mbit/s
95th percentile per-packet one-way delay: 59.165 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 285.47 Mbit/s
95th percentile per-packet one-way delay: 60.816 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 235.00 Mbit/s
95th percentile per-packet one-way delay: 54.355 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 176.88 Mbit/s
95th percentile per-packet one-way delay: 58.025 ms
Loss rate: 0.91%

Run 3: Report of Copa — Data Link

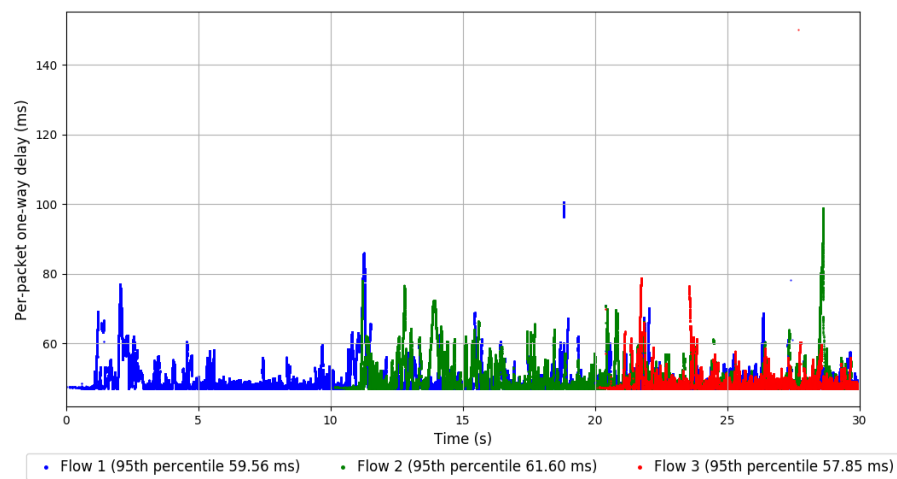
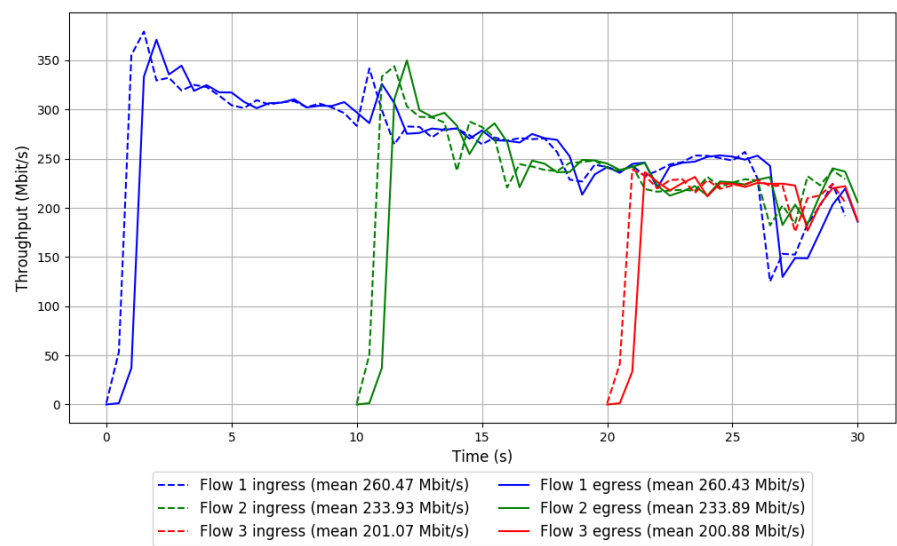


Run 4: Statistics of Copa

Start at: 2019-05-30 21:15:51
End at: 2019-05-30 21:16:21
Local clock offset: 0.169 ms
Remote clock offset: -0.004 ms

Below is generated by plot.py at 2019-05-30 22:50:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 482.27 Mbit/s
95th percentile per-packet one-way delay: 60.190 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 260.43 Mbit/s
95th percentile per-packet one-way delay: 59.556 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 233.89 Mbit/s
95th percentile per-packet one-way delay: 61.600 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 200.88 Mbit/s
95th percentile per-packet one-way delay: 57.848 ms
Loss rate: 1.05%

Run 4: Report of Copa — Data Link

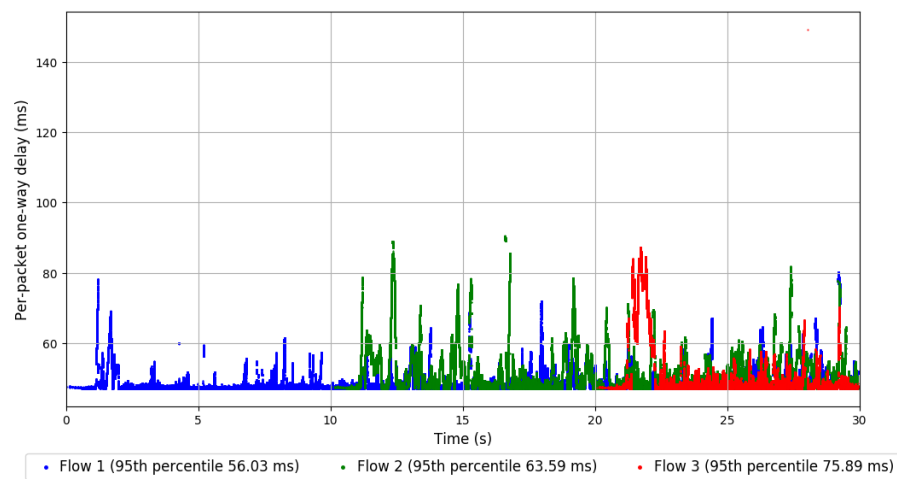
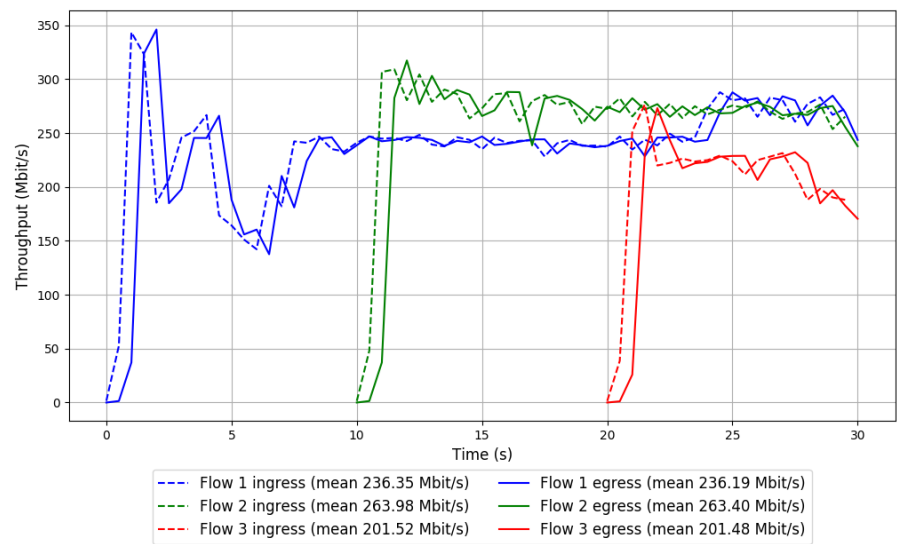


Run 5: Statistics of Copa

Start at: 2019-05-30 21:51:24
End at: 2019-05-30 21:51:54
Local clock offset: 0.22 ms
Remote clock offset: -0.093 ms

Below is generated by plot.py at 2019-05-30 22:52:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 477.80 Mbit/s
95th percentile per-packet one-way delay: 61.308 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 236.19 Mbit/s
95th percentile per-packet one-way delay: 56.031 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 263.40 Mbit/s
95th percentile per-packet one-way delay: 63.593 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 201.48 Mbit/s
95th percentile per-packet one-way delay: 75.894 ms
Loss rate: 0.98%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-05-30 19:10:47

End at: 2019-05-30 19:11:17

Local clock offset: -0.183 ms

Remote clock offset: 0.008 ms

Below is generated by plot.py at 2019-05-30 22:52:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 815.11 Mbit/s

95th percentile per-packet one-way delay: 140.088 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 484.96 Mbit/s

95th percentile per-packet one-way delay: 148.770 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 333.48 Mbit/s

95th percentile per-packet one-way delay: 92.072 ms

Loss rate: 0.64%

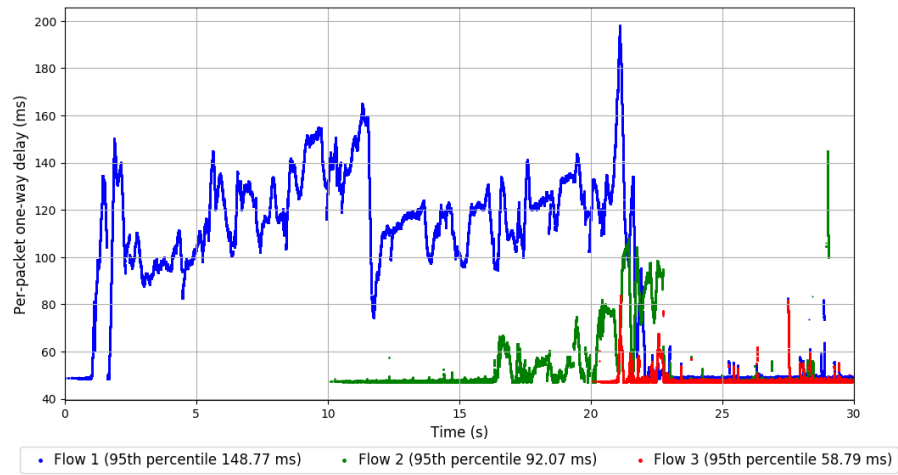
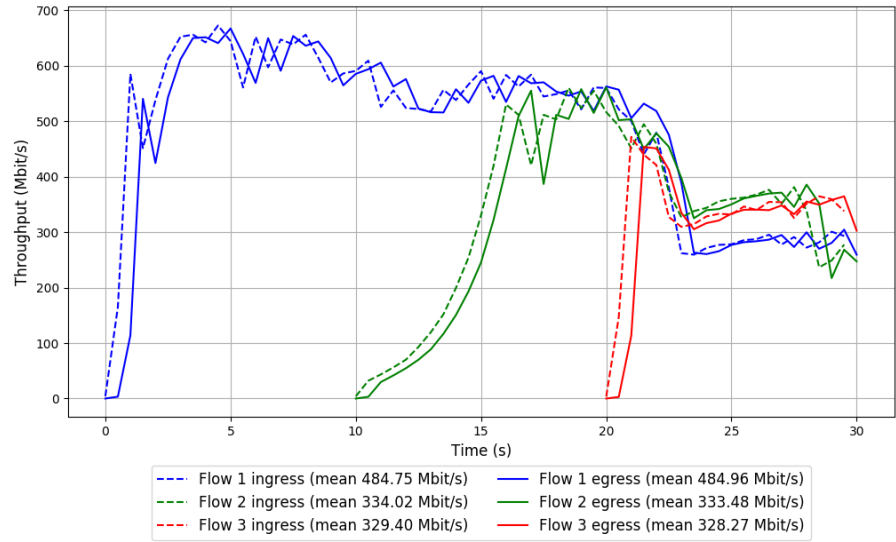
-- Flow 3:

Average throughput: 328.27 Mbit/s

95th percentile per-packet one-way delay: 58.794 ms

Loss rate: 1.31%

Run 1: Report of TCP Cubic — Data Link

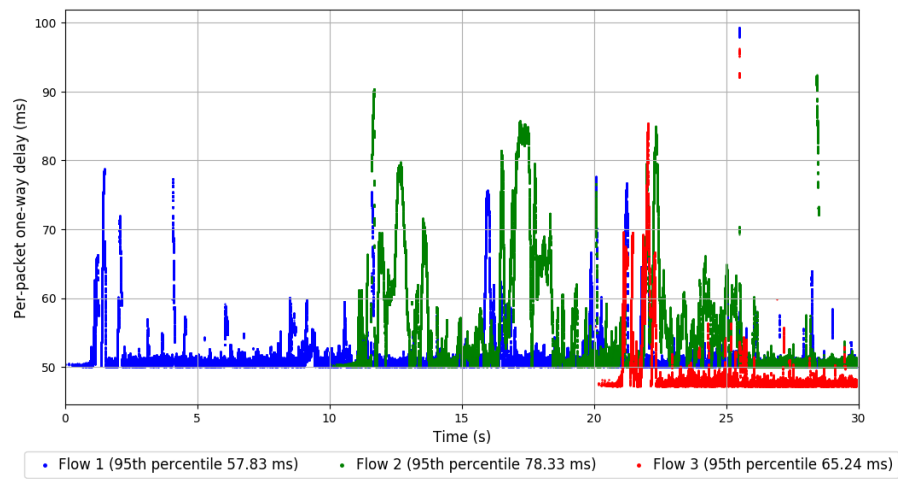
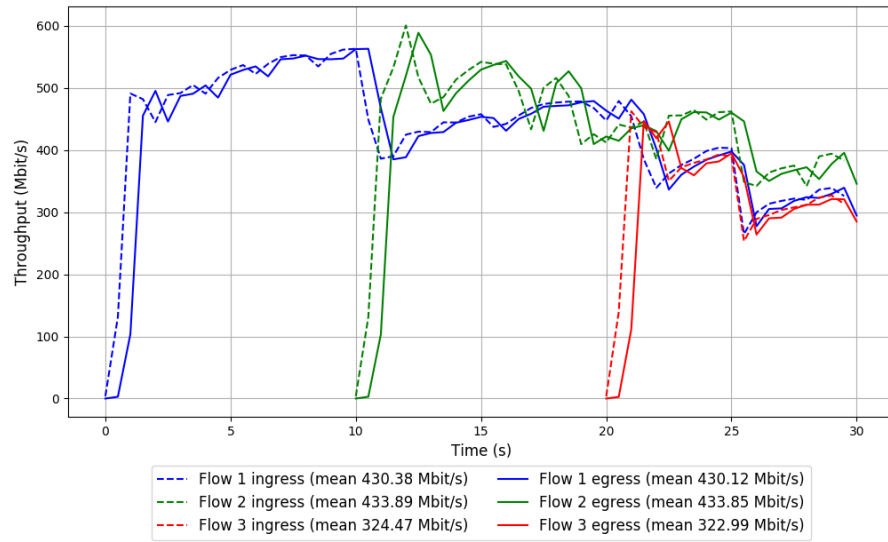


Run 2: Statistics of TCP Cubic

Start at: 2019-05-30 19:45:45
End at: 2019-05-30 19:46:15
Local clock offset: -0.04 ms
Remote clock offset: -0.092 ms

Below is generated by plot.py at 2019-05-30 22:52:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 825.35 Mbit/s
95th percentile per-packet one-way delay: 67.471 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 430.12 Mbit/s
95th percentile per-packet one-way delay: 57.830 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 433.85 Mbit/s
95th percentile per-packet one-way delay: 78.335 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 322.99 Mbit/s
95th percentile per-packet one-way delay: 65.240 ms
Loss rate: 1.49%

Run 2: Report of TCP Cubic — Data Link

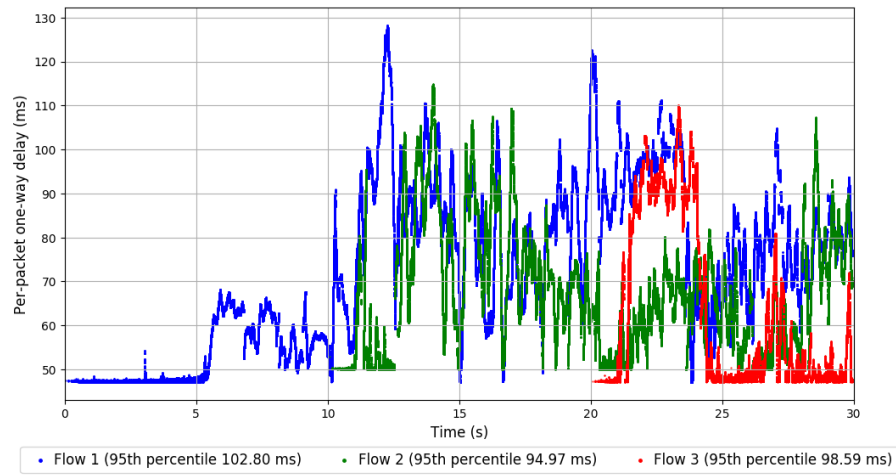
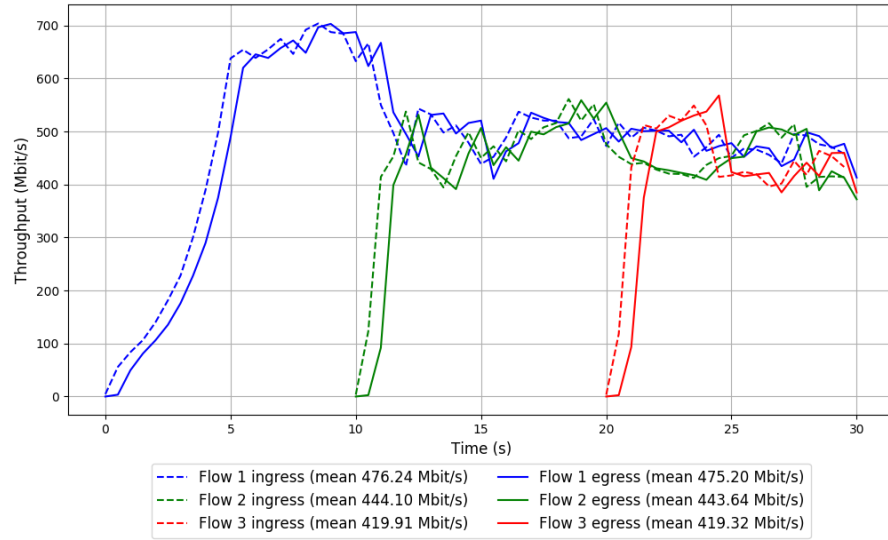


Run 3: Statistics of TCP Cubic

Start at: 2019-05-30 20:20:47
End at: 2019-05-30 20:21:17
Local clock offset: 0.089 ms
Remote clock offset: -0.035 ms

Below is generated by plot.py at 2019-05-30 22:53:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 908.69 Mbit/s
95th percentile per-packet one-way delay: 100.686 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 475.20 Mbit/s
95th percentile per-packet one-way delay: 102.800 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 443.64 Mbit/s
95th percentile per-packet one-way delay: 94.970 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 419.32 Mbit/s
95th percentile per-packet one-way delay: 98.590 ms
Loss rate: 1.09%

Run 3: Report of TCP Cubic — Data Link

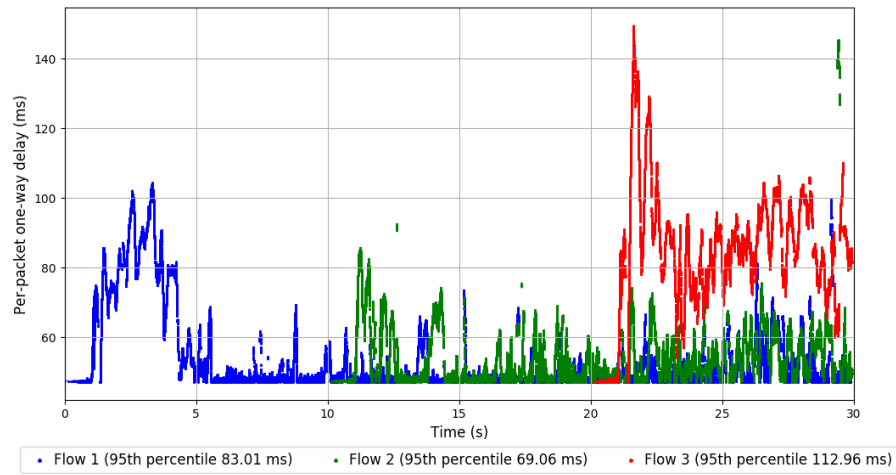
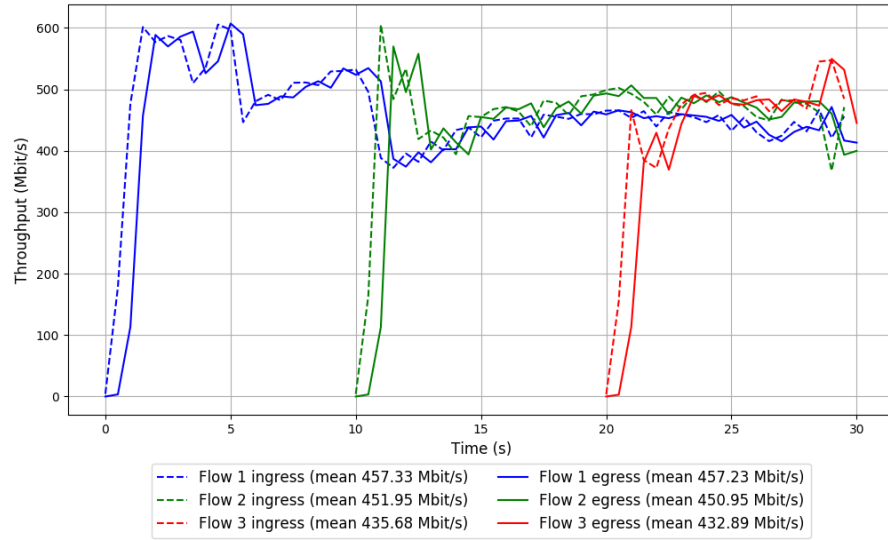


Run 4: Statistics of TCP Cubic

Start at: 2019-05-30 20:55:58
End at: 2019-05-30 20:56:28
Local clock offset: 0.159 ms
Remote clock offset: -0.018 ms

Below is generated by plot.py at 2019-05-30 22:53:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 900.19 Mbit/s
95th percentile per-packet one-way delay: 93.036 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 457.23 Mbit/s
95th percentile per-packet one-way delay: 83.009 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 450.95 Mbit/s
95th percentile per-packet one-way delay: 69.056 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 432.89 Mbit/s
95th percentile per-packet one-way delay: 112.961 ms
Loss rate: 1.59%

Run 4: Report of TCP Cubic — Data Link

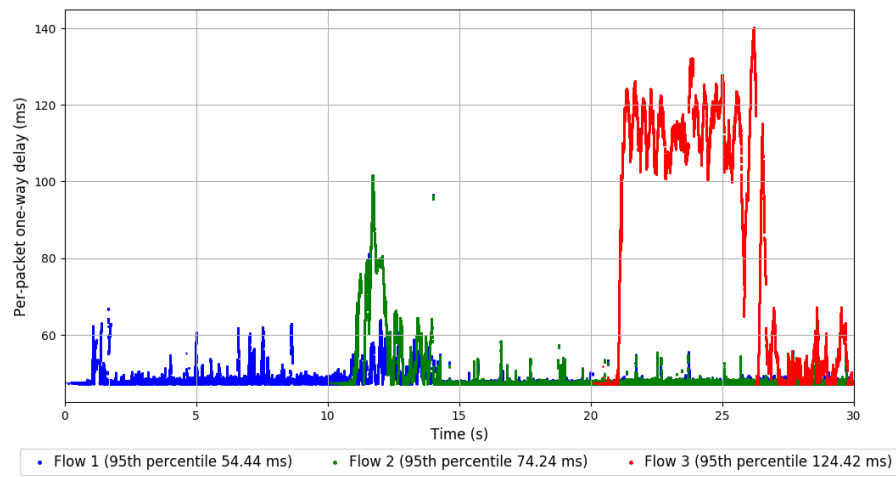
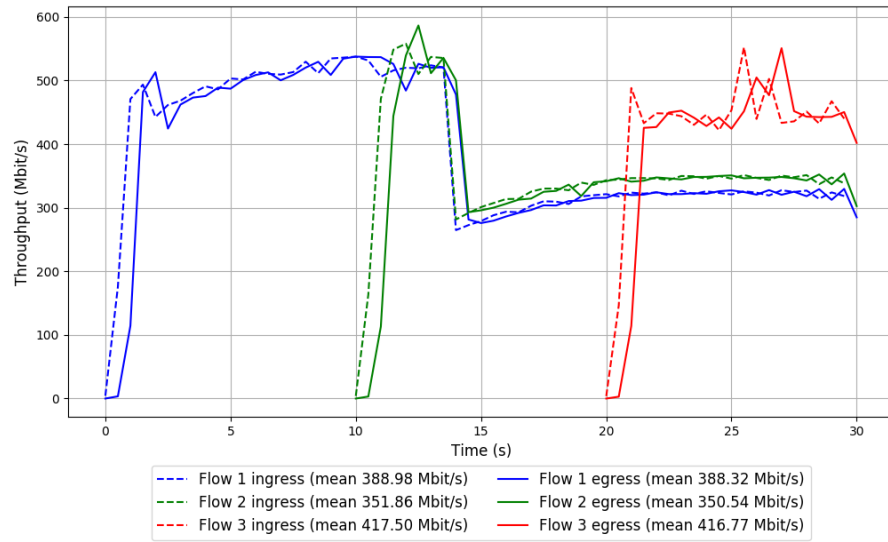


Run 5: Statistics of TCP Cubic

Start at: 2019-05-30 21:31:26
End at: 2019-05-30 21:31:56
Local clock offset: 0.209 ms
Remote clock offset: -0.048 ms

Below is generated by plot.py at 2019-05-30 22:53:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 759.07 Mbit/s
95th percentile per-packet one-way delay: 113.621 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 388.32 Mbit/s
95th percentile per-packet one-way delay: 54.441 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 350.54 Mbit/s
95th percentile per-packet one-way delay: 74.244 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 416.77 Mbit/s
95th percentile per-packet one-way delay: 124.423 ms
Loss rate: 1.13%

Run 5: Report of TCP Cubic — Data Link

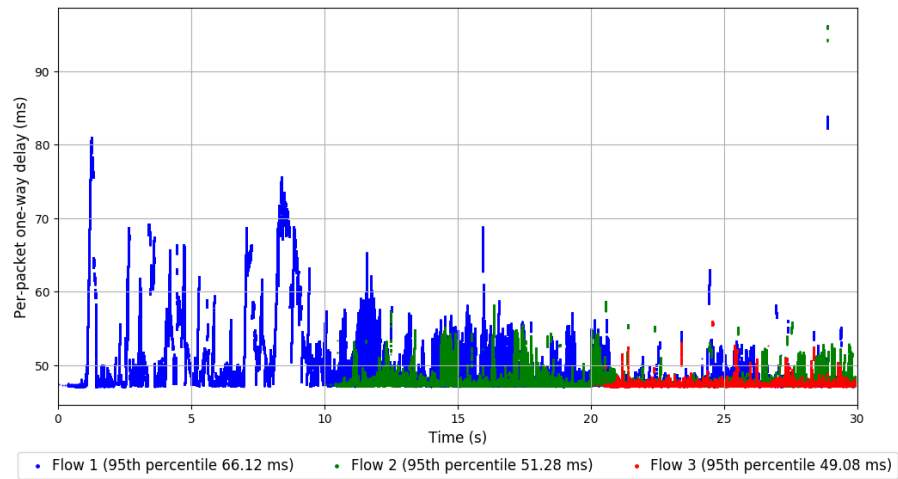
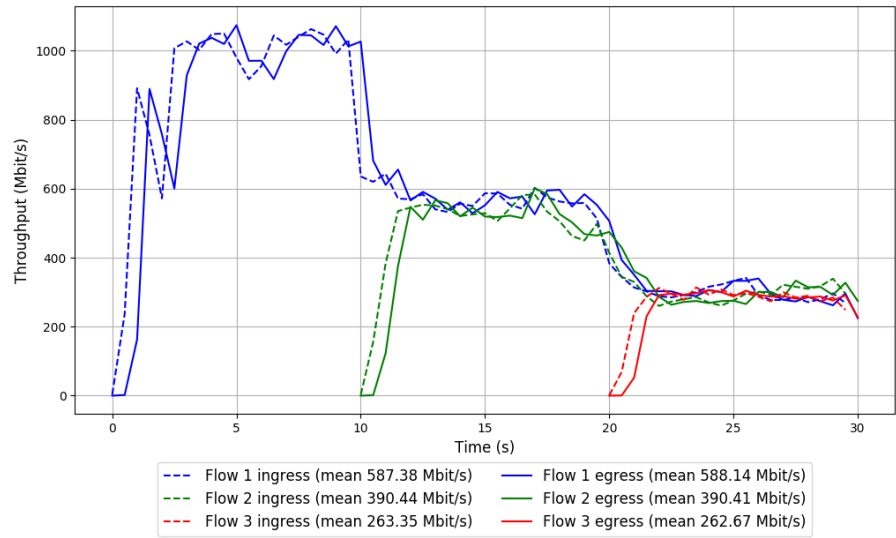


Run 1: Statistics of FillP

Start at: 2019-05-30 19:37:41
End at: 2019-05-30 19:38:11
Local clock offset: -0.036 ms
Remote clock offset: -0.037 ms

Below is generated by plot.py at 2019-05-30 22:57:47
Datalink statistics
-- Total of 3 flows:
Average throughput: 933.83 Mbit/s
95th percentile per-packet one-way delay: 62.492 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 588.14 Mbit/s
95th percentile per-packet one-way delay: 66.123 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 390.41 Mbit/s
95th percentile per-packet one-way delay: 51.280 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 262.67 Mbit/s
95th percentile per-packet one-way delay: 49.077 ms
Loss rate: 1.05%

Run 1: Report of FillP — Data Link

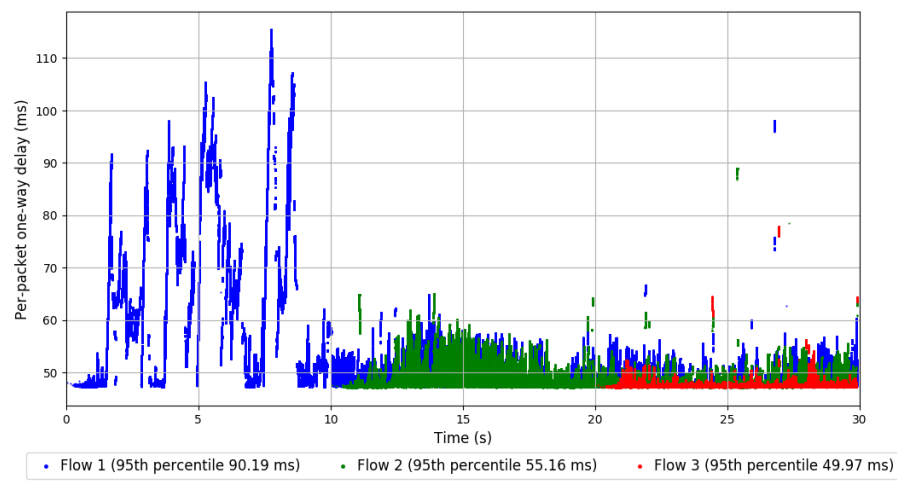
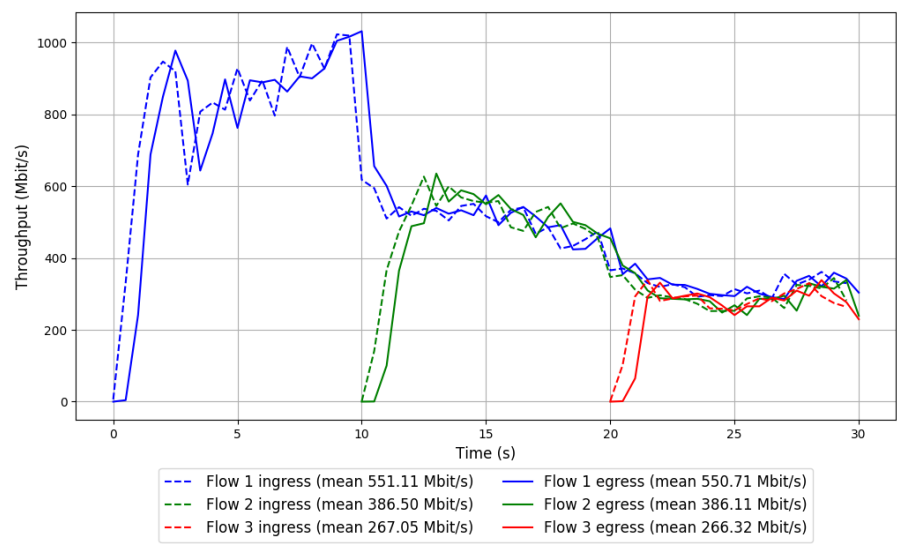


Run 2: Statistics of FillP

Start at: 2019-05-30 20:12:45
End at: 2019-05-30 20:13:15
Local clock offset: 0.083 ms
Remote clock offset: -0.052 ms

Below is generated by plot.py at 2019-05-30 23:11:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 894.92 Mbit/s
95th percentile per-packet one-way delay: 85.134 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 550.71 Mbit/s
95th percentile per-packet one-way delay: 90.194 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 386.11 Mbit/s
95th percentile per-packet one-way delay: 55.163 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 266.32 Mbit/s
95th percentile per-packet one-way delay: 49.966 ms
Loss rate: 1.05%

Run 2: Report of FillP — Data Link

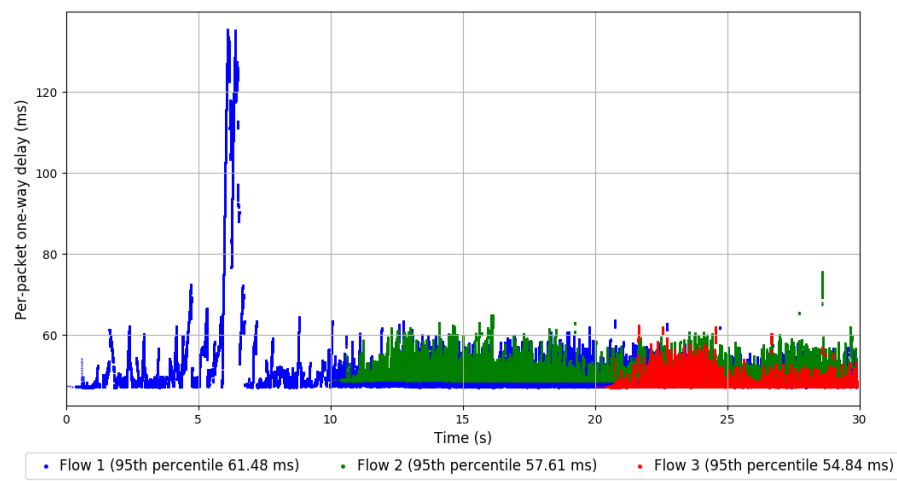
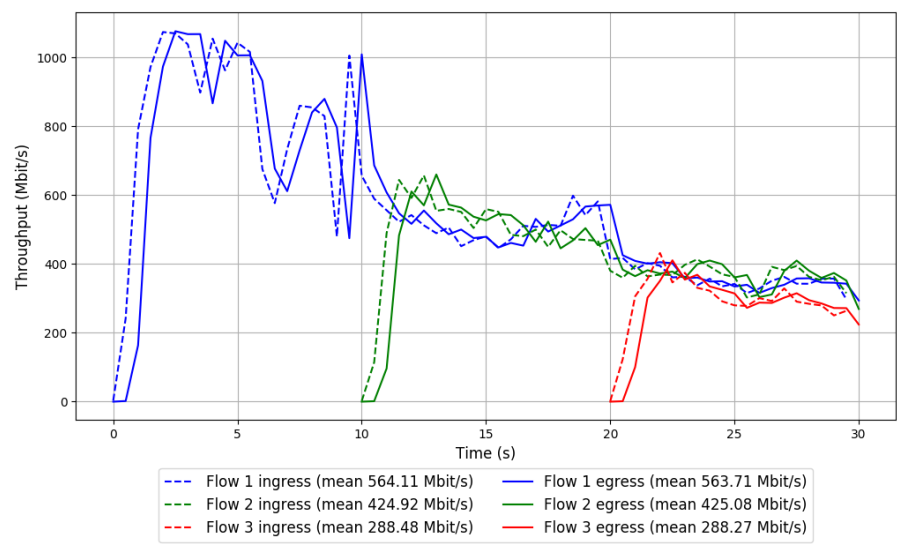


Run 3: Statistics of FillP

Start at: 2019-05-30 20:47:54
End at: 2019-05-30 20:48:24
Local clock offset: 0.129 ms
Remote clock offset: -0.031 ms

Below is generated by plot.py at 2019-05-30 23:13:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 941.07 Mbit/s
95th percentile per-packet one-way delay: 58.982 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 563.71 Mbit/s
95th percentile per-packet one-way delay: 61.478 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 425.08 Mbit/s
95th percentile per-packet one-way delay: 57.611 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 288.27 Mbit/s
95th percentile per-packet one-way delay: 54.837 ms
Loss rate: 1.04%

Run 3: Report of FillP — Data Link

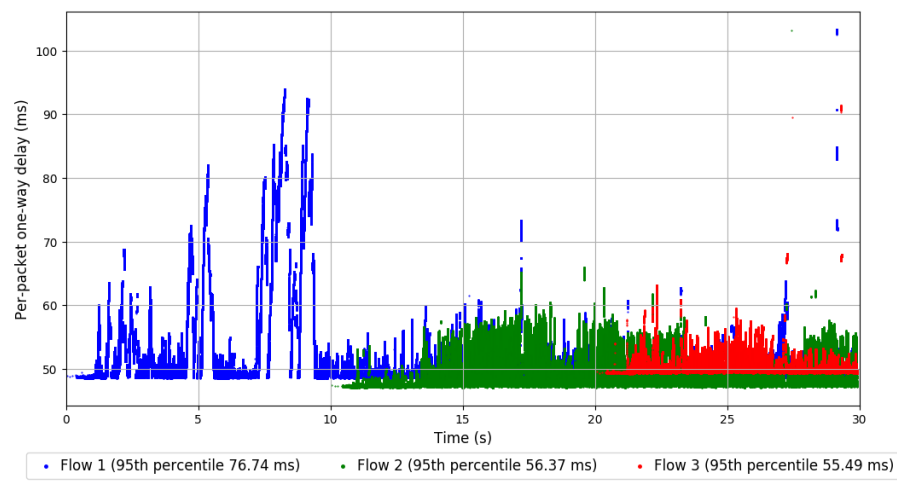
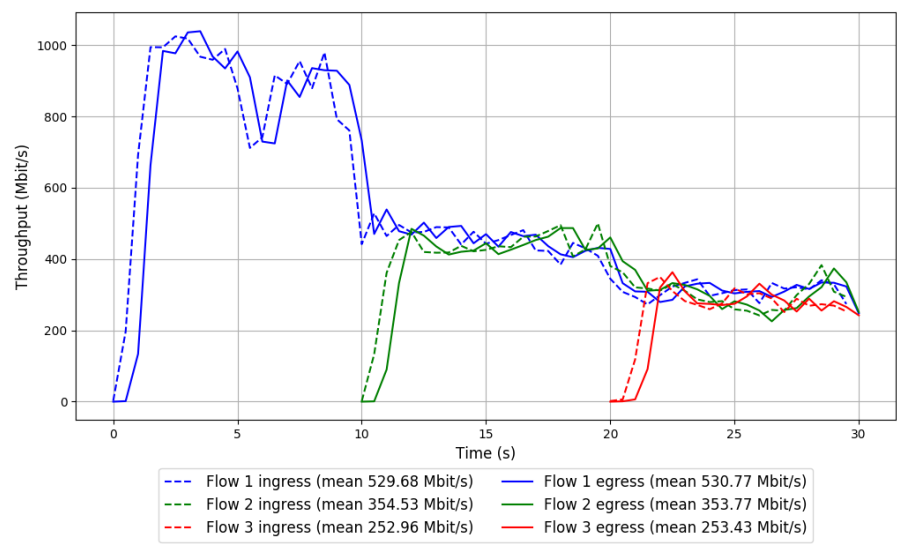


Run 4: Statistics of FillP

Start at: 2019-05-30 21:23:21
End at: 2019-05-30 21:23:51
Local clock offset: 0.158 ms
Remote clock offset: -0.032 ms

Below is generated by plot.py at 2019-05-30 23:13:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 848.98 Mbit/s
95th percentile per-packet one-way delay: 70.375 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 530.77 Mbit/s
95th percentile per-packet one-way delay: 76.738 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 353.77 Mbit/s
95th percentile per-packet one-way delay: 56.368 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 253.43 Mbit/s
95th percentile per-packet one-way delay: 55.486 ms
Loss rate: 0.82%

Run 4: Report of FillP — Data Link

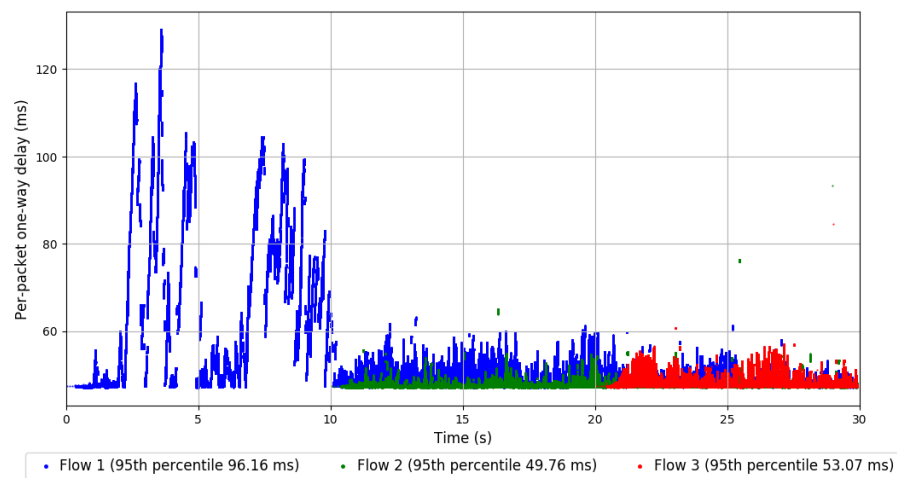
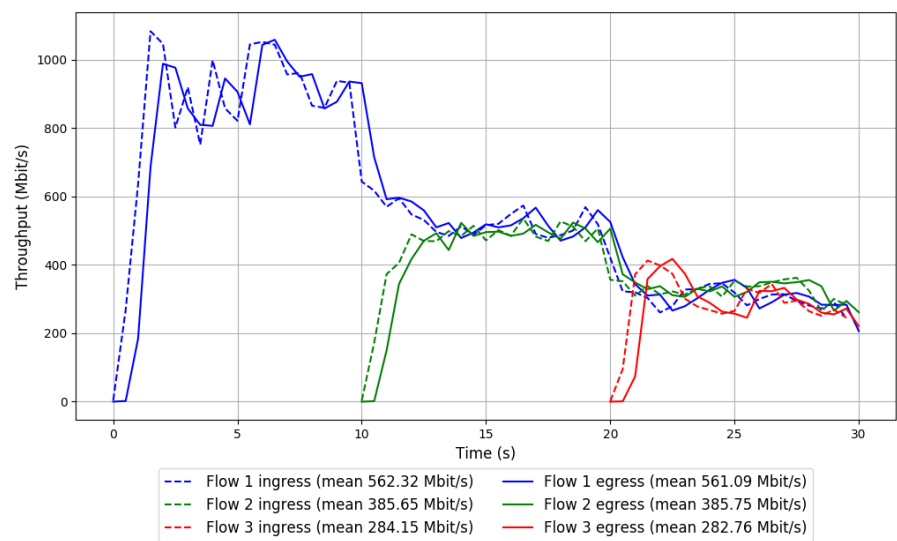


Run 5: Statistics of FillP

Start at: 2019-05-30 21:58:45
End at: 2019-05-30 21:59:15
Local clock offset: 0.208 ms
Remote clock offset: -0.087 ms

Below is generated by plot.py at 2019-05-30 23:13:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 910.25 Mbit/s
95th percentile per-packet one-way delay: 90.094 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 561.09 Mbit/s
95th percentile per-packet one-way delay: 96.161 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 385.75 Mbit/s
95th percentile per-packet one-way delay: 49.761 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 282.76 Mbit/s
95th percentile per-packet one-way delay: 53.067 ms
Loss rate: 1.29%

Run 5: Report of FillP — Data Link

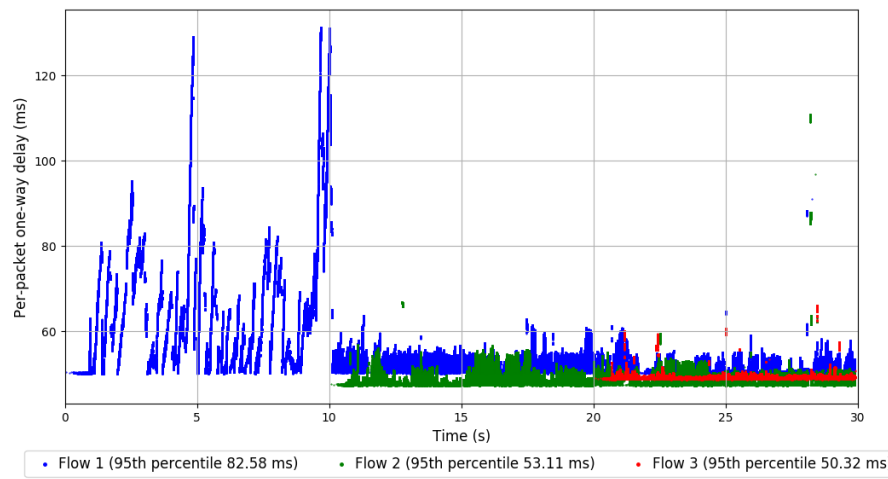
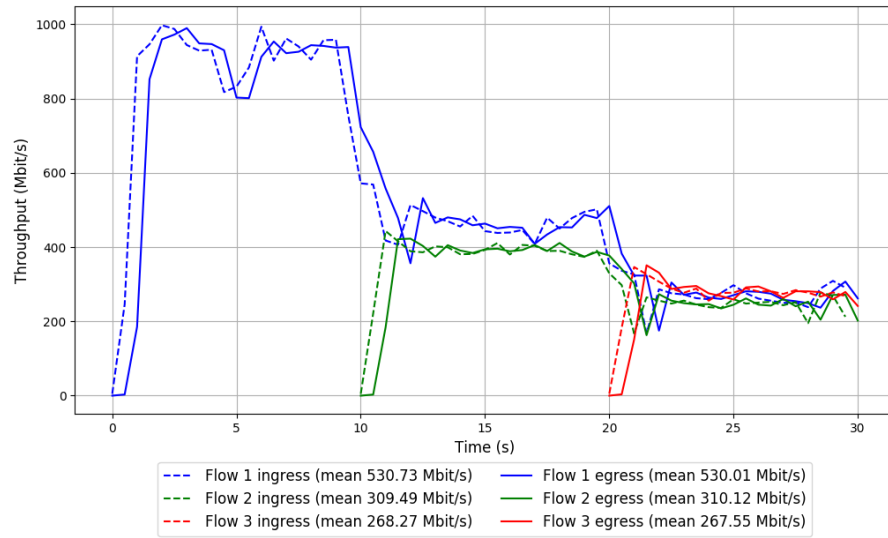


Run 1: Statistics of FillP-Sheep

Start at: 2019-05-30 19:22:27
End at: 2019-05-30 19:22:57
Local clock offset: -0.077 ms
Remote clock offset: -0.022 ms

Below is generated by plot.py at 2019-05-30 23:13:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 823.84 Mbit/s
95th percentile per-packet one-way delay: 78.433 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 530.01 Mbit/s
95th percentile per-packet one-way delay: 82.576 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 310.12 Mbit/s
95th percentile per-packet one-way delay: 53.111 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 267.55 Mbit/s
95th percentile per-packet one-way delay: 50.316 ms
Loss rate: 1.22%

Run 1: Report of FillP-Sheep — Data Link

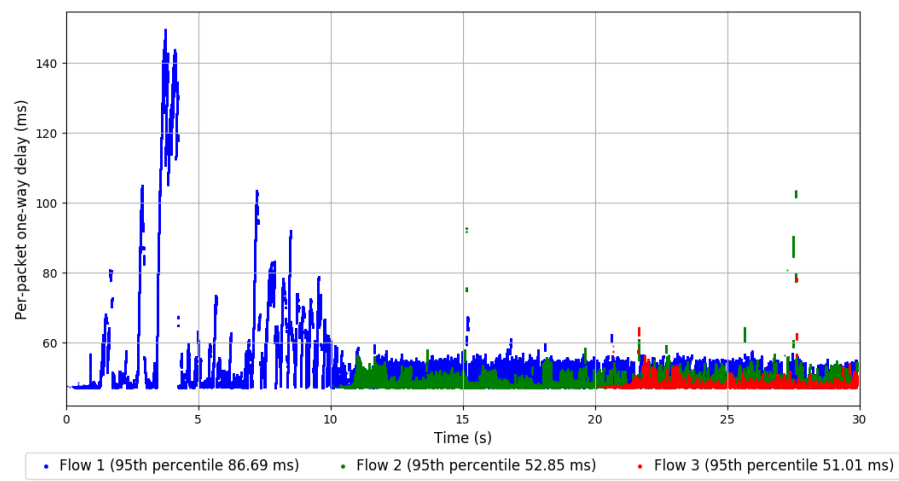
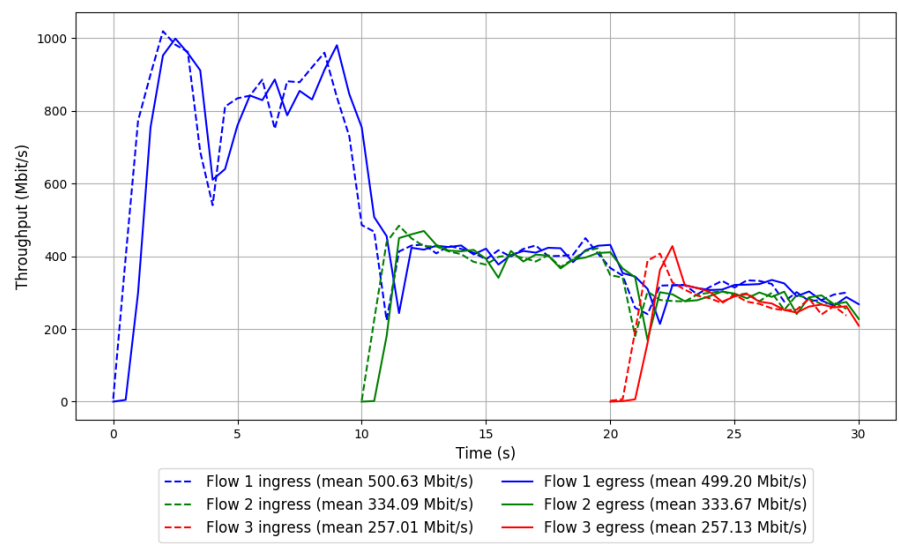


Run 2: Statistics of FillP-Sheep

Start at: 2019-05-30 19:57:25
End at: 2019-05-30 19:57:55
Local clock offset: -0.011 ms
Remote clock offset: -0.064 ms

Below is generated by plot.py at 2019-05-30 23:13:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 805.34 Mbit/s
95th percentile per-packet one-way delay: 75.207 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 499.20 Mbit/s
95th percentile per-packet one-way delay: 86.693 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 333.67 Mbit/s
95th percentile per-packet one-way delay: 52.855 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 257.13 Mbit/s
95th percentile per-packet one-way delay: 51.007 ms
Loss rate: 0.92%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-05-30 20:32:36

End at: 2019-05-30 20:33:07

Local clock offset: 0.114 ms

Remote clock offset: -0.06 ms

Below is generated by plot.py at 2019-05-30 23:13:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 826.79 Mbit/s

95th percentile per-packet one-way delay: 54.840 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 524.49 Mbit/s

95th percentile per-packet one-way delay: 56.886 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 319.42 Mbit/s

95th percentile per-packet one-way delay: 51.440 ms

Loss rate: 0.33%

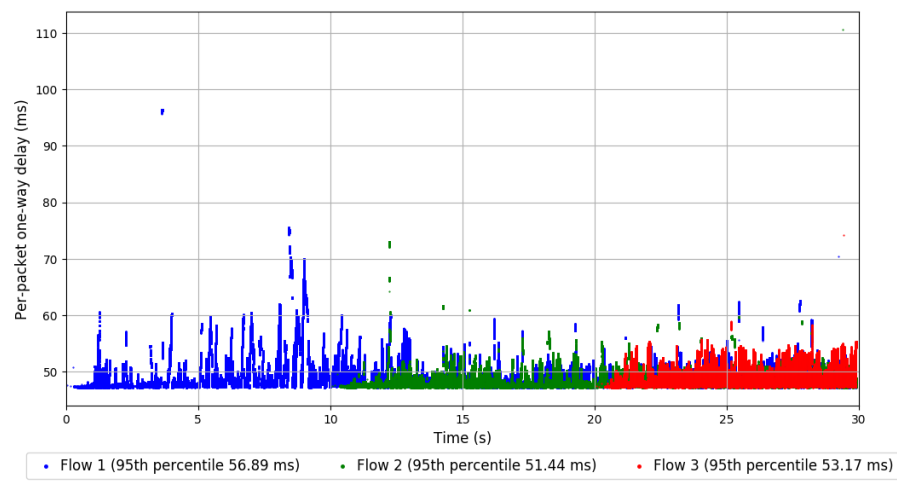
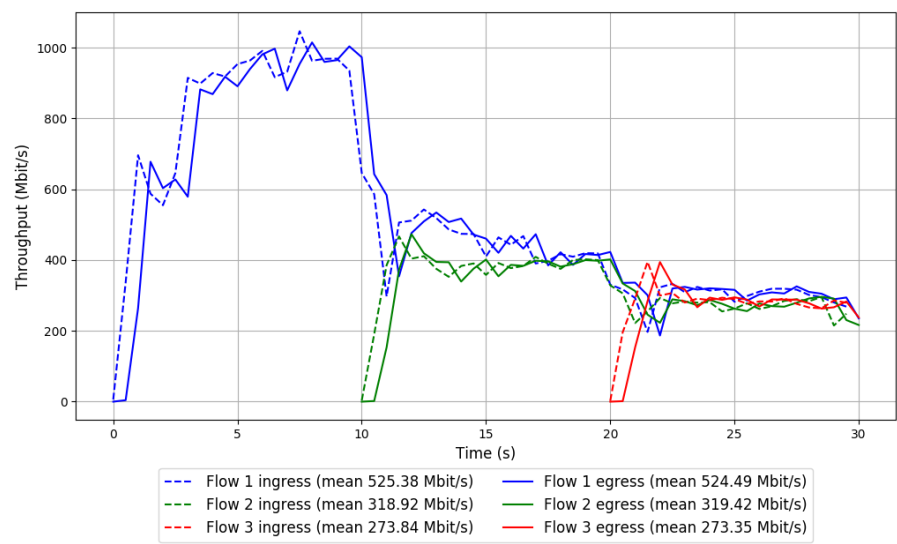
-- Flow 3:

Average throughput: 273.35 Mbit/s

95th percentile per-packet one-way delay: 53.174 ms

Loss rate: 1.19%

Run 3: Report of FillP-Sheep — Data Link

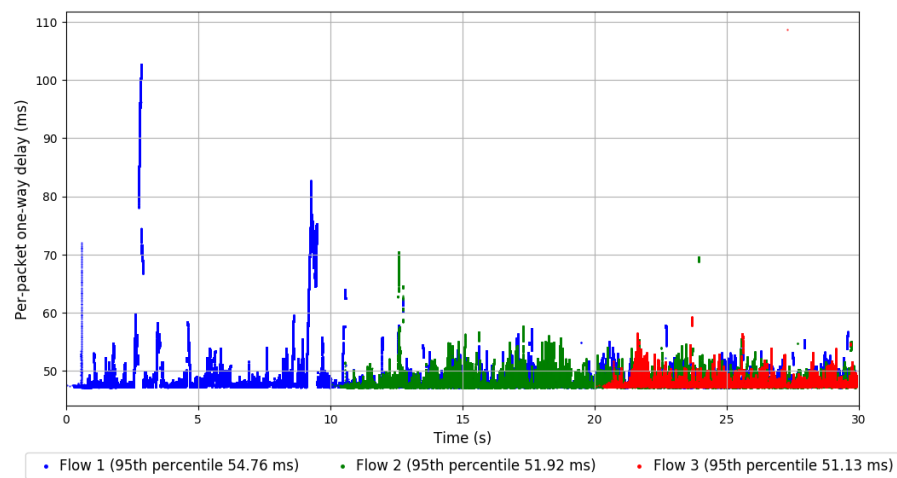
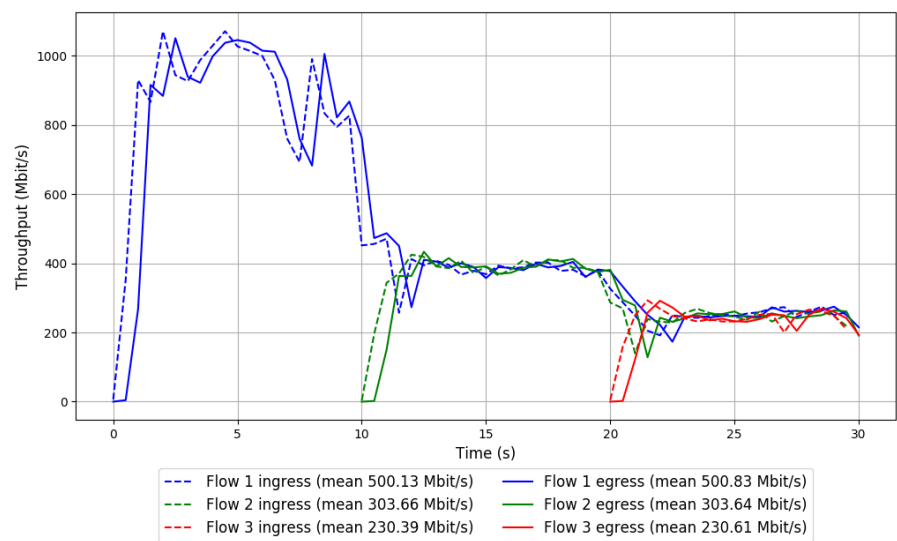


Run 4: Statistics of FillP-Sheep

Start at: 2019-05-30 21:07:42
End at: 2019-05-30 21:08:12
Local clock offset: 0.14 ms
Remote clock offset: -0.033 ms

Below is generated by plot.py at 2019-05-30 23:17:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 778.30 Mbit/s
95th percentile per-packet one-way delay: 53.534 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 500.83 Mbit/s
95th percentile per-packet one-way delay: 54.757 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 303.64 Mbit/s
95th percentile per-packet one-way delay: 51.920 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 230.61 Mbit/s
95th percentile per-packet one-way delay: 51.130 ms
Loss rate: 0.93%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-05-30 21:43:09

End at: 2019-05-30 21:43:39

Local clock offset: 0.284 ms

Remote clock offset: -0.05 ms

Below is generated by plot.py at 2019-05-30 23:30:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 807.94 Mbit/s

95th percentile per-packet one-way delay: 67.659 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 509.37 Mbit/s

95th percentile per-packet one-way delay: 73.232 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 324.13 Mbit/s

95th percentile per-packet one-way delay: 52.664 ms

Loss rate: 0.42%

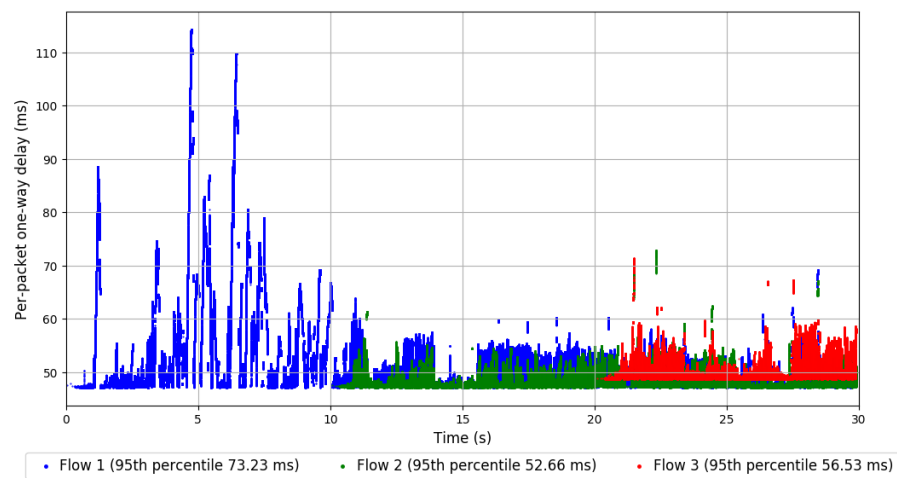
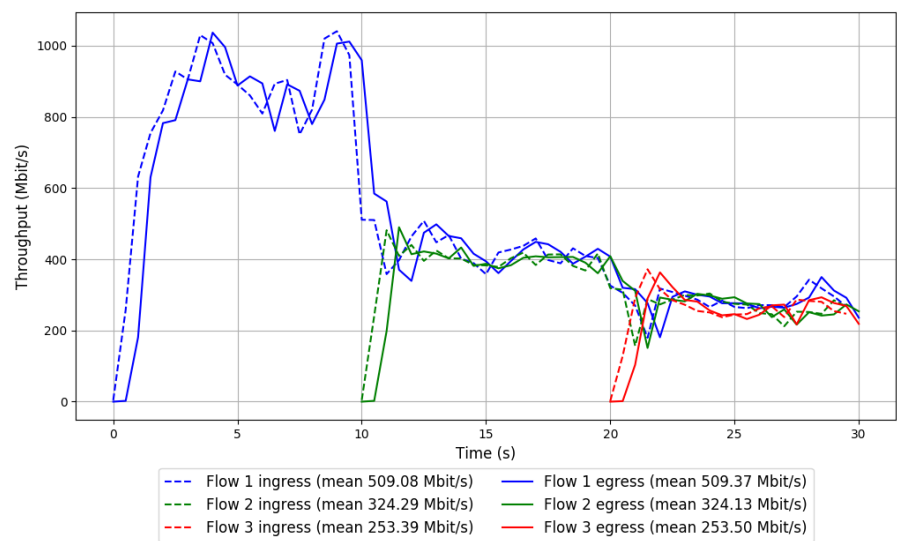
-- Flow 3:

Average throughput: 253.50 Mbit/s

95th percentile per-packet one-way delay: 56.532 ms

Loss rate: 0.96%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-05-30 19:13:51

End at: 2019-05-30 19:14:21

Local clock offset: -0.175 ms

Remote clock offset: 0.055 ms

Below is generated by plot.py at 2019-05-30 23:30:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 377.93 Mbit/s

95th percentile per-packet one-way delay: 51.200 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 195.90 Mbit/s

95th percentile per-packet one-way delay: 50.086 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 183.97 Mbit/s

95th percentile per-packet one-way delay: 52.853 ms

Loss rate: 0.68%

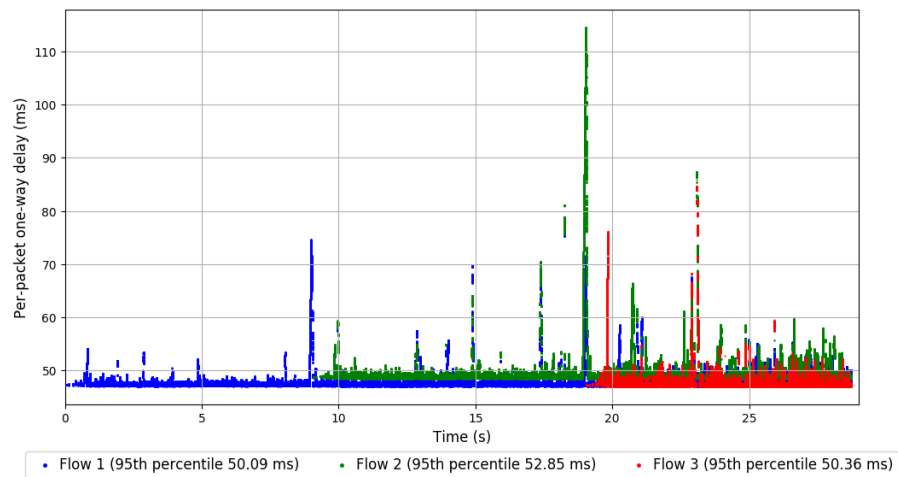
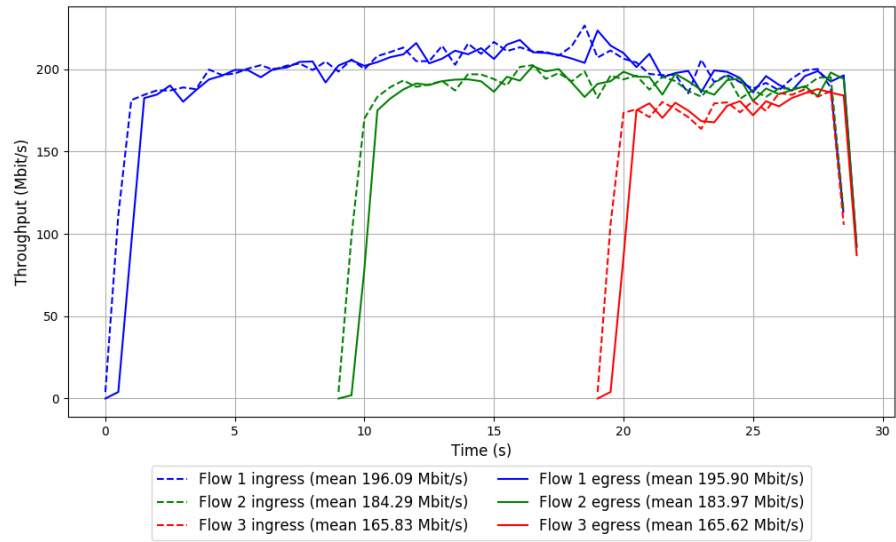
-- Flow 3:

Average throughput: 165.62 Mbit/s

95th percentile per-packet one-way delay: 50.357 ms

Loss rate: 1.11%

Run 1: Report of Indigo — Data Link

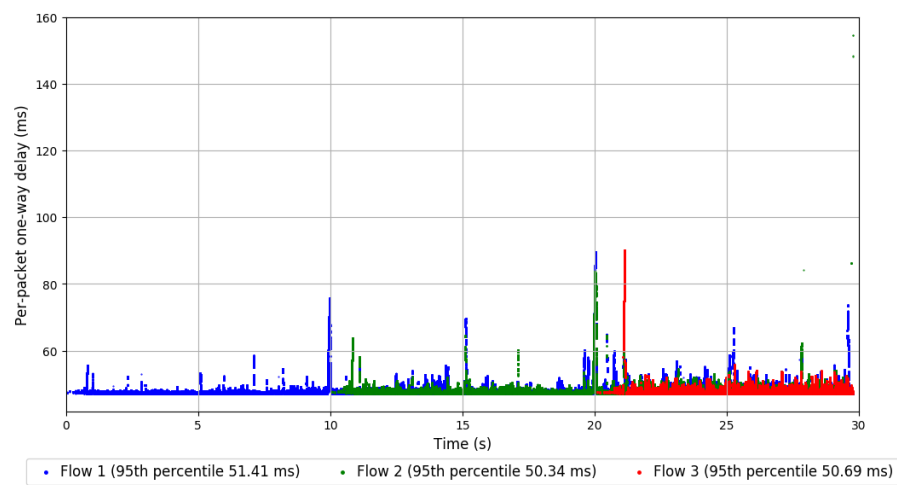
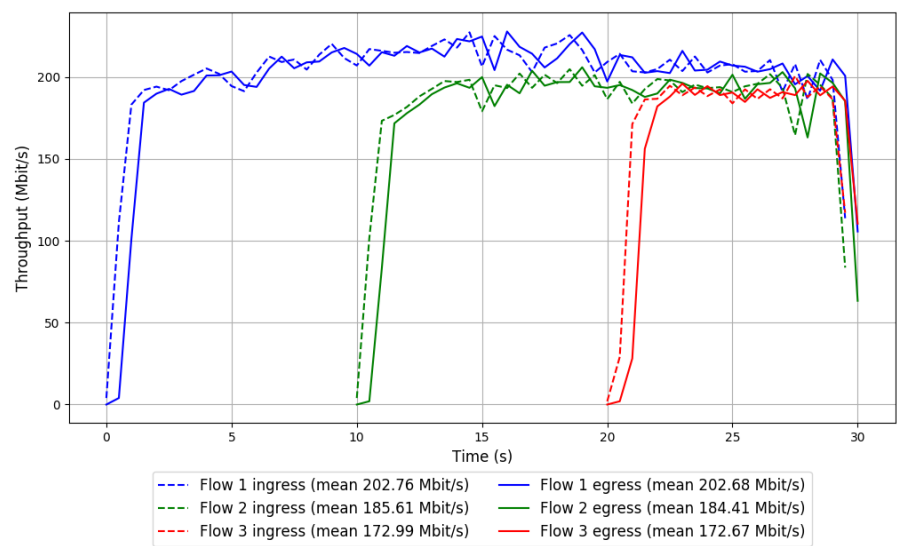


Run 2: Statistics of Indigo

Start at: 2019-05-30 19:48:49
End at: 2019-05-30 19:49:19
Local clock offset: -0.027 ms
Remote clock offset: -0.068 ms

Below is generated by plot.py at 2019-05-30 23:30:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 381.01 Mbit/s
95th percentile per-packet one-way delay: 50.900 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 202.68 Mbit/s
95th percentile per-packet one-way delay: 51.406 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 184.41 Mbit/s
95th percentile per-packet one-way delay: 50.336 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 172.67 Mbit/s
95th percentile per-packet one-way delay: 50.693 ms
Loss rate: 0.75%

Run 2: Report of Indigo — Data Link

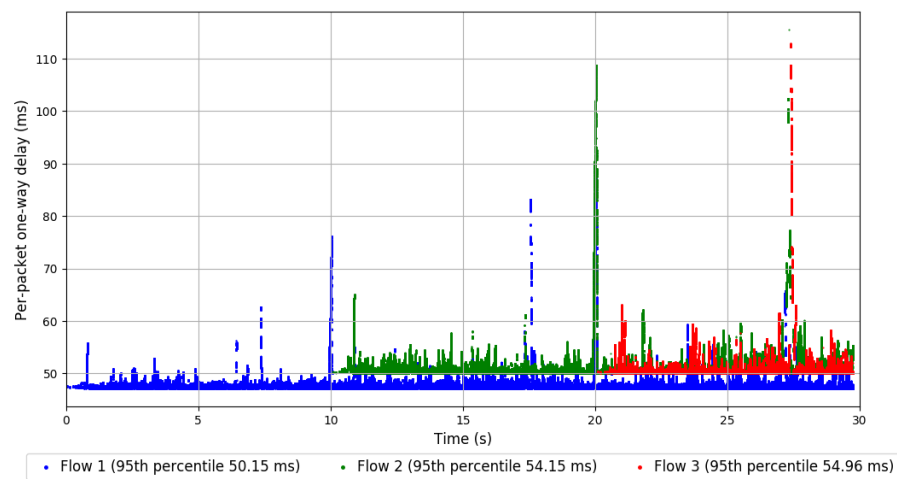
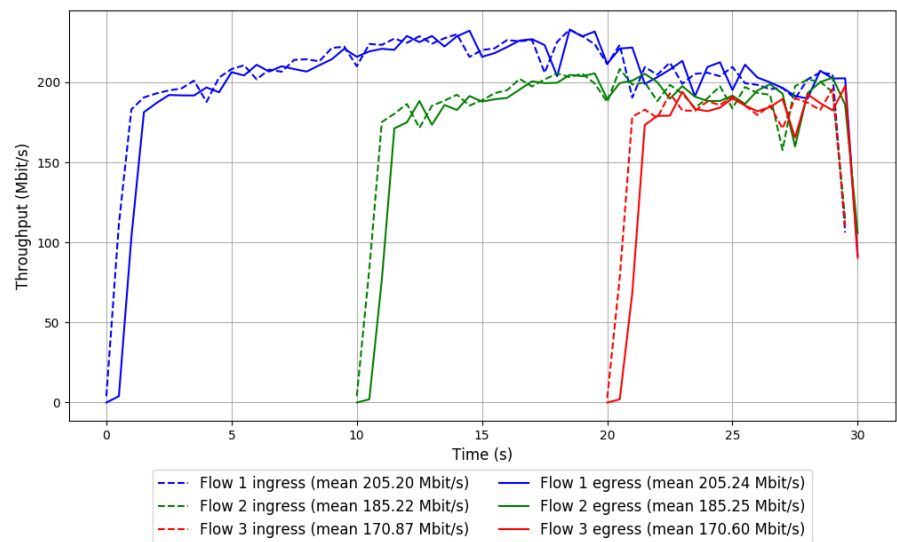


Run 3: Statistics of Indigo

Start at: 2019-05-30 20:23:57
End at: 2019-05-30 20:24:27
Local clock offset: 0.085 ms
Remote clock offset: -0.089 ms

Below is generated by plot.py at 2019-05-30 23:30:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 383.27 Mbit/s
95th percentile per-packet one-way delay: 52.922 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 205.24 Mbit/s
95th percentile per-packet one-way delay: 50.152 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 185.25 Mbit/s
95th percentile per-packet one-way delay: 54.154 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 170.60 Mbit/s
95th percentile per-packet one-way delay: 54.956 ms
Loss rate: 1.14%

Run 3: Report of Indigo — Data Link

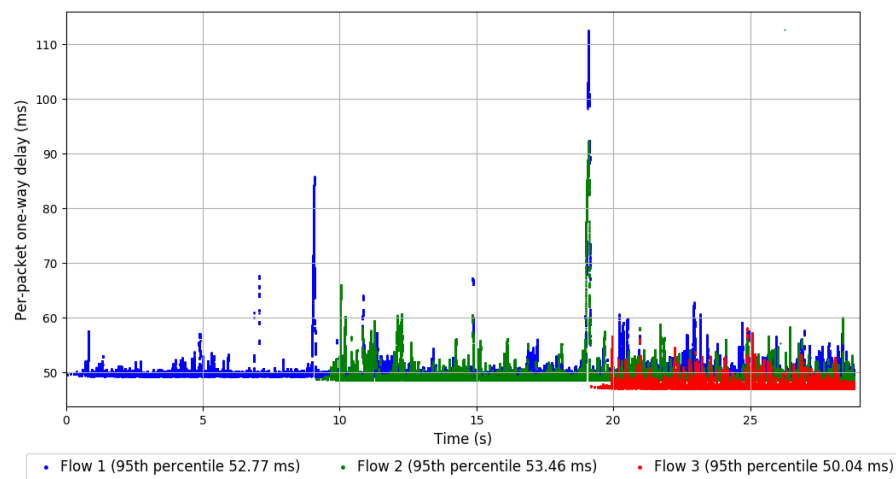
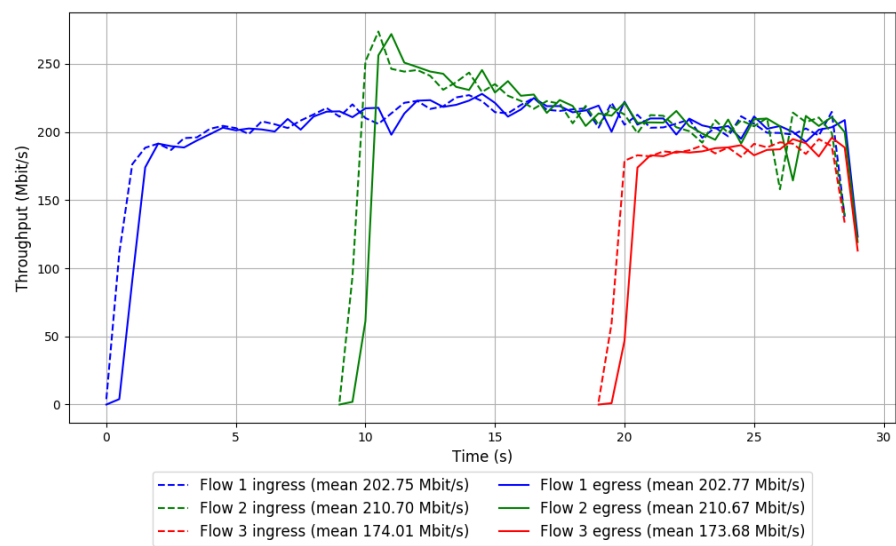


Run 4: Statistics of Indigo

Start at: 2019-05-30 20:59:07
End at: 2019-05-30 20:59:37
Local clock offset: 0.144 ms
Remote clock offset: -0.007 ms

Below is generated by plot.py at 2019-05-30 23:30:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 404.81 Mbit/s
95th percentile per-packet one-way delay: 52.728 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 202.77 Mbit/s
95th percentile per-packet one-way delay: 52.774 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 210.67 Mbit/s
95th percentile per-packet one-way delay: 53.461 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 173.68 Mbit/s
95th percentile per-packet one-way delay: 50.042 ms
Loss rate: 1.17%

Run 4: Report of Indigo — Data Link

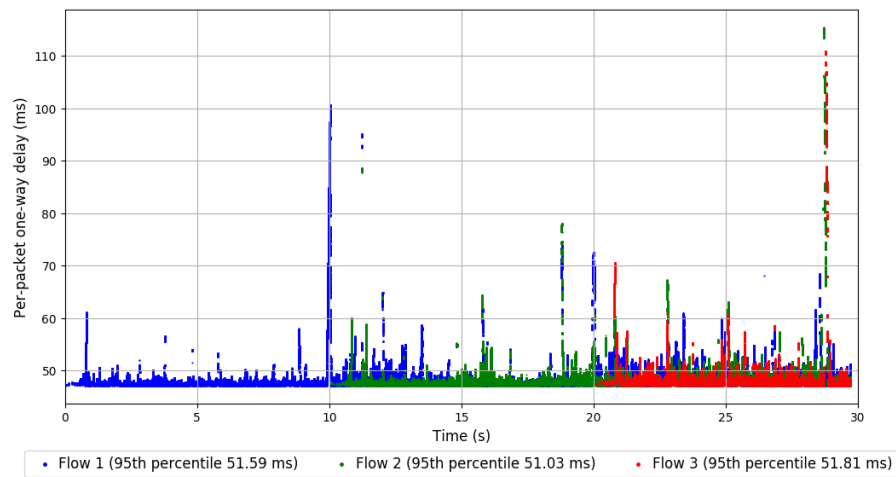
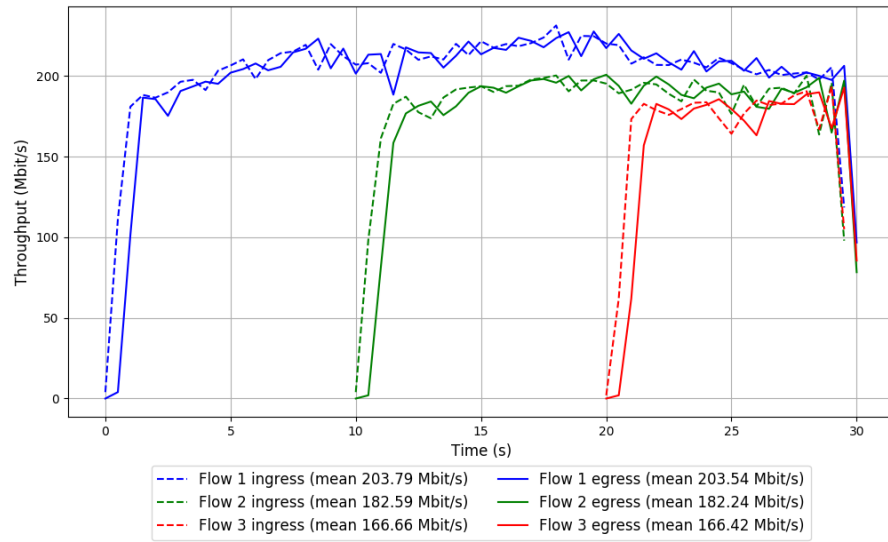


Run 5: Statistics of Indigo

Start at: 2019-05-30 21:34:29
End at: 2019-05-30 21:34:59
Local clock offset: 0.212 ms
Remote clock offset: -0.042 ms

Below is generated by plot.py at 2019-05-30 23:30:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 377.93 Mbit/s
95th percentile per-packet one-way delay: 51.462 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 203.54 Mbit/s
95th percentile per-packet one-way delay: 51.590 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 182.24 Mbit/s
95th percentile per-packet one-way delay: 51.035 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 166.42 Mbit/s
95th percentile per-packet one-way delay: 51.814 ms
Loss rate: 1.13%

Run 5: Report of Indigo — Data Link

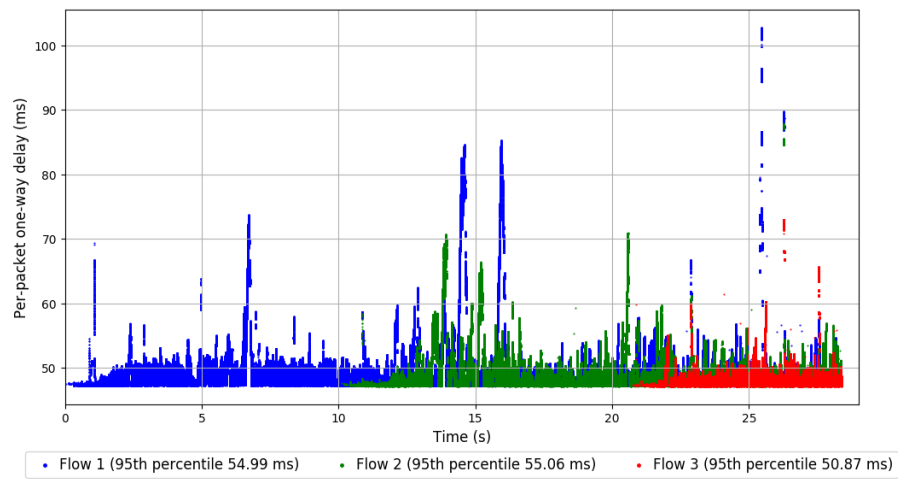
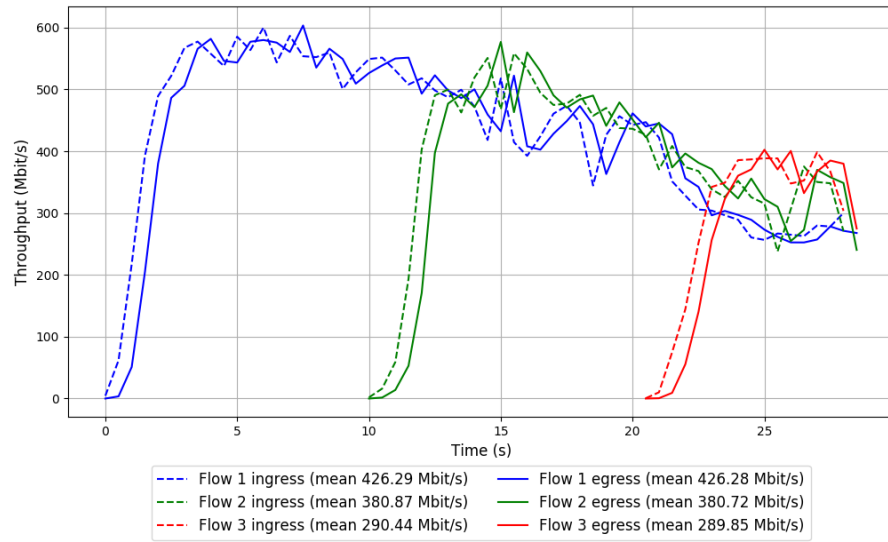


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-05-30 19:24:12
End at: 2019-05-30 19:24:42
Local clock offset: -0.069 ms
Remote clock offset: -0.045 ms

Below is generated by plot.py at 2019-05-30 23:30:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 749.81 Mbit/s
95th percentile per-packet one-way delay: 54.668 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 426.28 Mbit/s
95th percentile per-packet one-way delay: 54.988 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 380.72 Mbit/s
95th percentile per-packet one-way delay: 55.058 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 289.85 Mbit/s
95th percentile per-packet one-way delay: 50.873 ms
Loss rate: 1.42%

Run 1: Report of Indigo-MusesC3 — Data Link

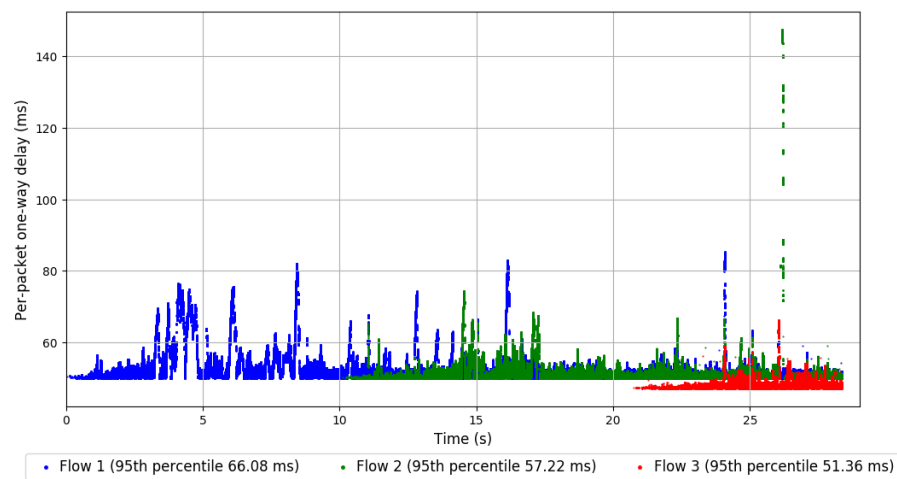
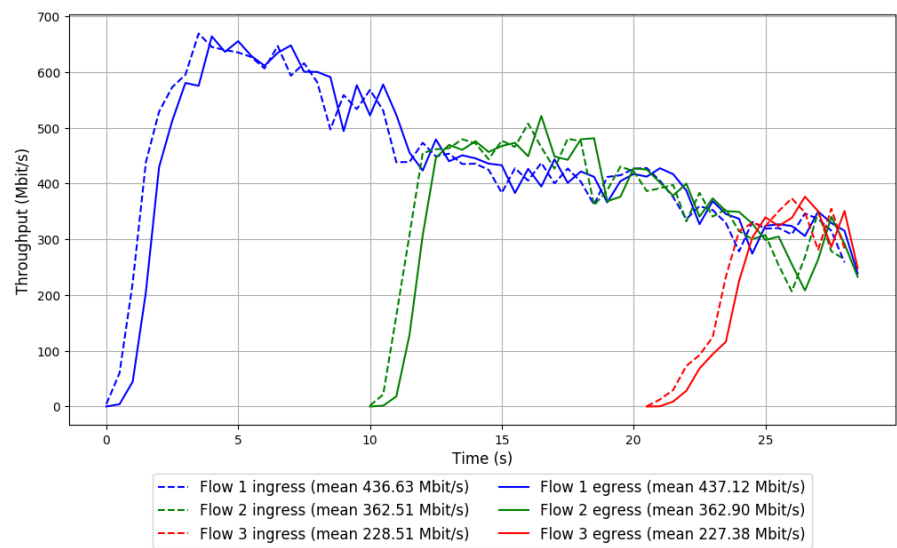


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-05-30 19:59:09
End at: 2019-05-30 19:59:39
Local clock offset: 0.05 ms
Remote clock offset: -0.021 ms

Below is generated by plot.py at 2019-05-30 23:32:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 731.92 Mbit/s
95th percentile per-packet one-way delay: 62.341 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 437.12 Mbit/s
95th percentile per-packet one-way delay: 66.084 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 362.90 Mbit/s
95th percentile per-packet one-way delay: 57.221 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 227.38 Mbit/s
95th percentile per-packet one-way delay: 51.364 ms
Loss rate: 1.87%

Run 2: Report of Indigo-MusesC3 — Data Link

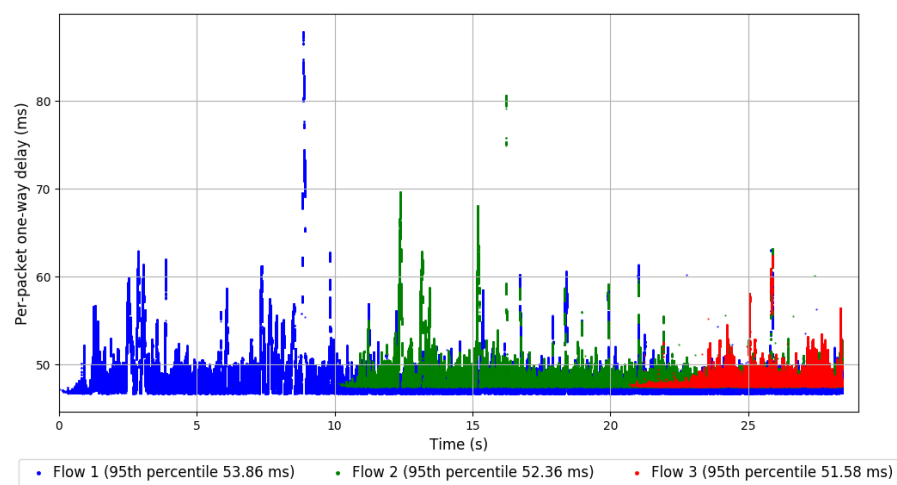
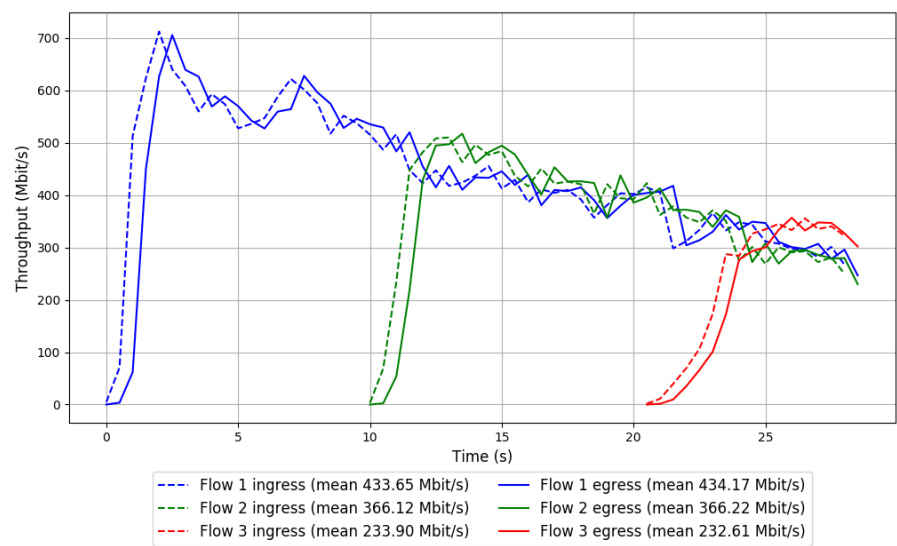


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-05-30 20:34:22
End at: 2019-05-30 20:34:52
Local clock offset: 0.494 ms
Remote clock offset: -0.019 ms

Below is generated by plot.py at 2019-05-30 23:39:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 733.45 Mbit/s
95th percentile per-packet one-way delay: 53.300 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 434.17 Mbit/s
95th percentile per-packet one-way delay: 53.859 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 366.22 Mbit/s
95th percentile per-packet one-way delay: 52.360 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 232.61 Mbit/s
95th percentile per-packet one-way delay: 51.581 ms
Loss rate: 1.74%

Run 3: Report of Indigo-MusesC3 — Data Link

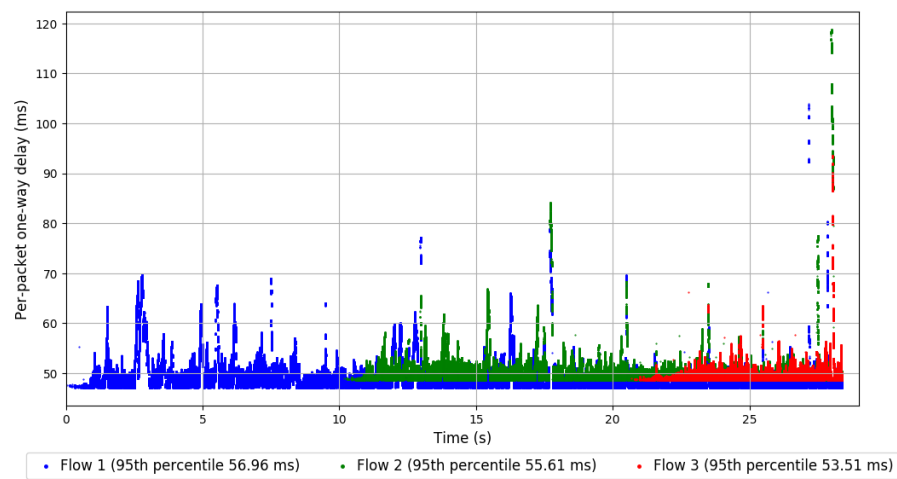
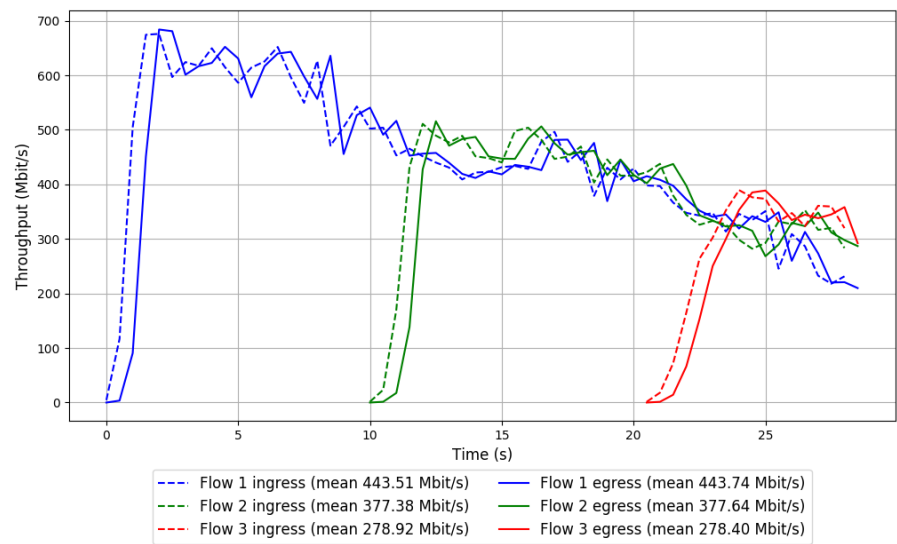


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-05-30 21:09:26
End at: 2019-05-30 21:09:56
Local clock offset: 0.146 ms
Remote clock offset: -0.042 ms

Below is generated by plot.py at 2019-05-30 23:40:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 762.23 Mbit/s
95th percentile per-packet one-way delay: 56.035 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 443.74 Mbit/s
95th percentile per-packet one-way delay: 56.958 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 377.64 Mbit/s
95th percentile per-packet one-way delay: 55.614 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 278.40 Mbit/s
95th percentile per-packet one-way delay: 53.507 ms
Loss rate: 1.55%

Run 4: Report of Indigo-MusesC3 — Data Link

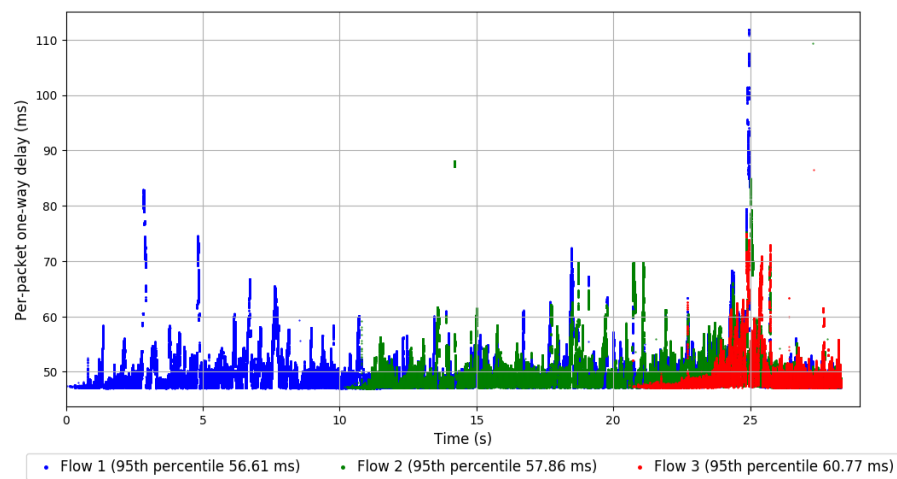
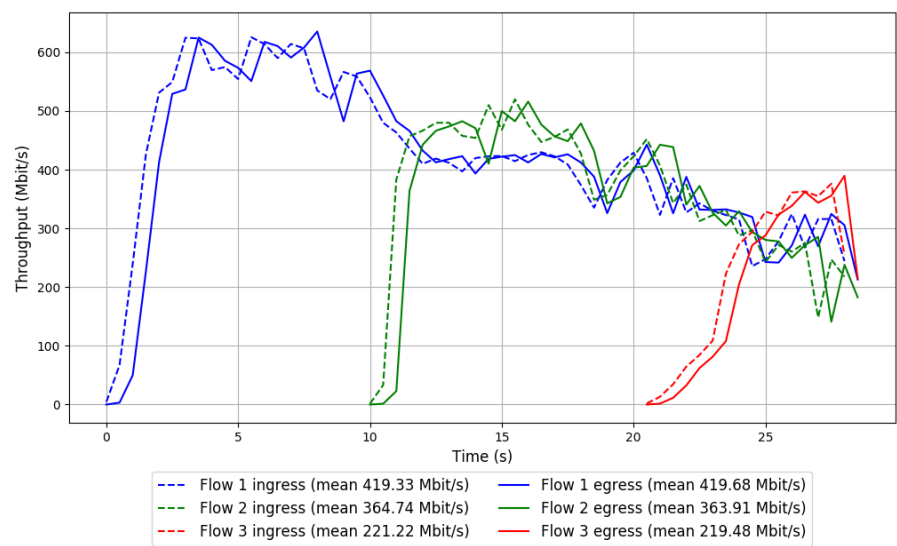


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-05-30 21:44:54
End at: 2019-05-30 21:45:24
Local clock offset: 0.23 ms
Remote clock offset: -0.046 ms

Below is generated by plot.py at 2019-05-30 23:40:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 713.09 Mbit/s
95th percentile per-packet one-way delay: 57.384 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 419.68 Mbit/s
95th percentile per-packet one-way delay: 56.607 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 363.91 Mbit/s
95th percentile per-packet one-way delay: 57.858 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 219.48 Mbit/s
95th percentile per-packet one-way delay: 60.771 ms
Loss rate: 1.99%

Run 5: Report of Indigo-MusesC3 — Data Link

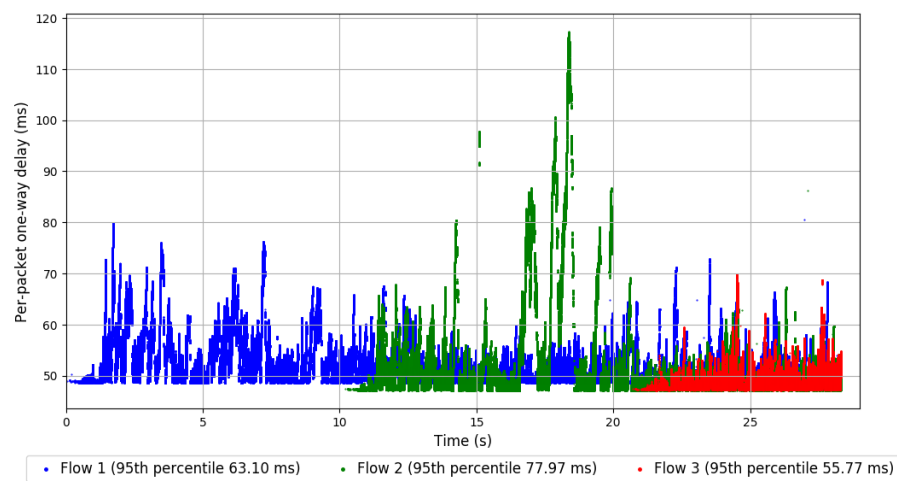
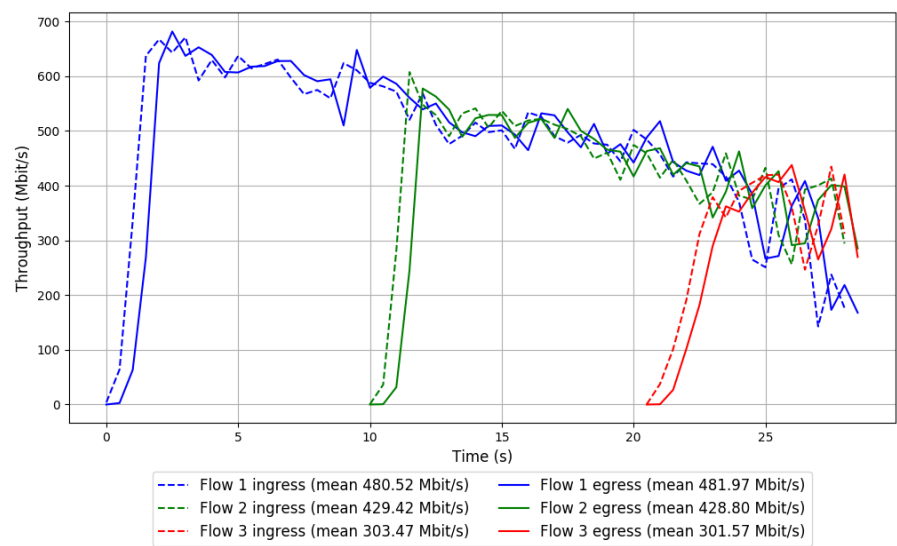


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-05-30 19:17:23
End at: 2019-05-30 19:17:53
Local clock offset: -0.158 ms
Remote clock offset: -0.015 ms

Below is generated by plot.py at 2019-05-30 23:43:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 837.60 Mbit/s
95th percentile per-packet one-way delay: 65.589 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 481.97 Mbit/s
95th percentile per-packet one-way delay: 63.096 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 428.80 Mbit/s
95th percentile per-packet one-way delay: 77.971 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 301.57 Mbit/s
95th percentile per-packet one-way delay: 55.772 ms
Loss rate: 1.87%

Run 1: Report of Indigo-MusesC5 — Data Link

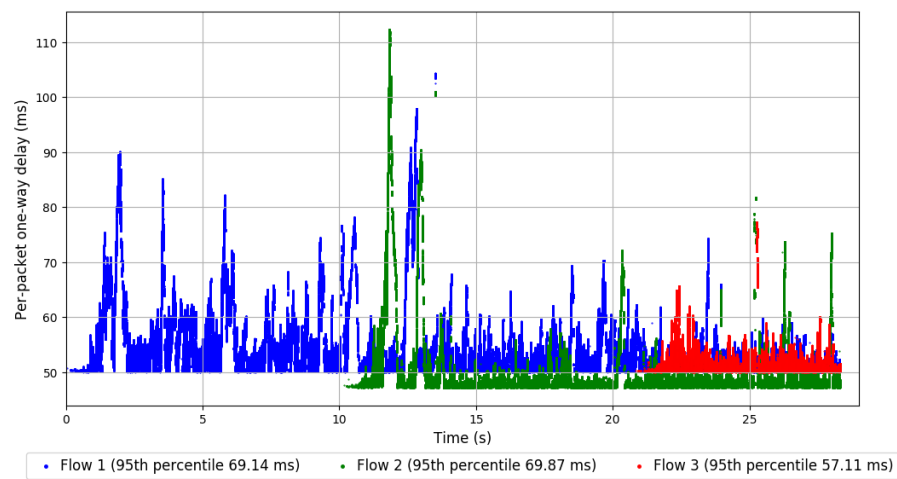
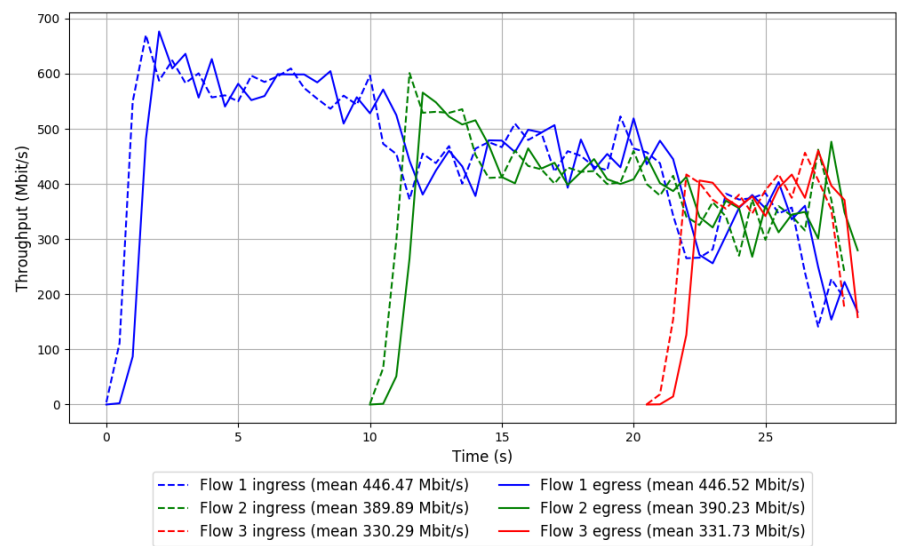


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-05-30 19:52:25
End at: 2019-05-30 19:52:55
Local clock offset: -0.004 ms
Remote clock offset: -0.089 ms

Below is generated by plot.py at 2019-05-30 23:43:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 784.59 Mbit/s
95th percentile per-packet one-way delay: 68.371 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 446.52 Mbit/s
95th percentile per-packet one-way delay: 69.135 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 390.23 Mbit/s
95th percentile per-packet one-way delay: 69.869 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 331.73 Mbit/s
95th percentile per-packet one-way delay: 57.109 ms
Loss rate: 0.88%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-05-30 20:27:33

End at: 2019-05-30 20:28:03

Local clock offset: 0.093 ms

Remote clock offset: 0.016 ms

Below is generated by plot.py at 2019-05-30 23:43:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 827.94 Mbit/s

95th percentile per-packet one-way delay: 65.897 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 476.25 Mbit/s

95th percentile per-packet one-way delay: 67.230 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 419.47 Mbit/s

95th percentile per-packet one-way delay: 64.743 ms

Loss rate: 0.60%

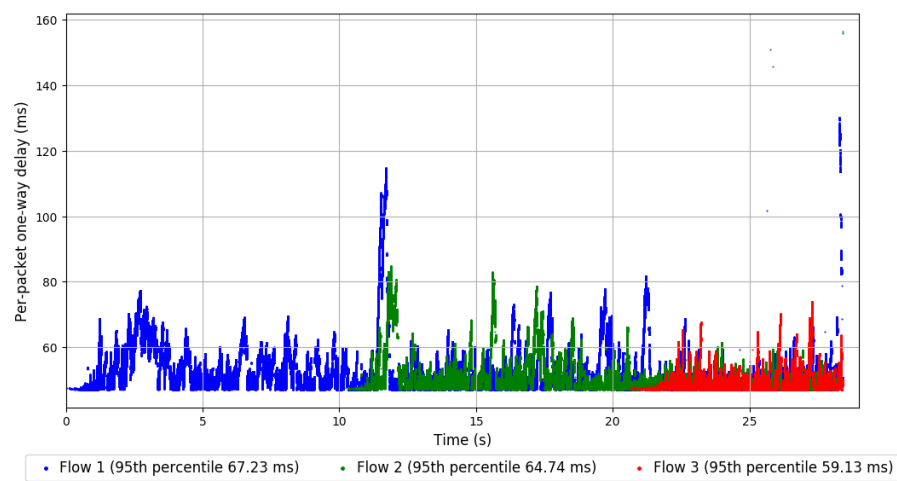
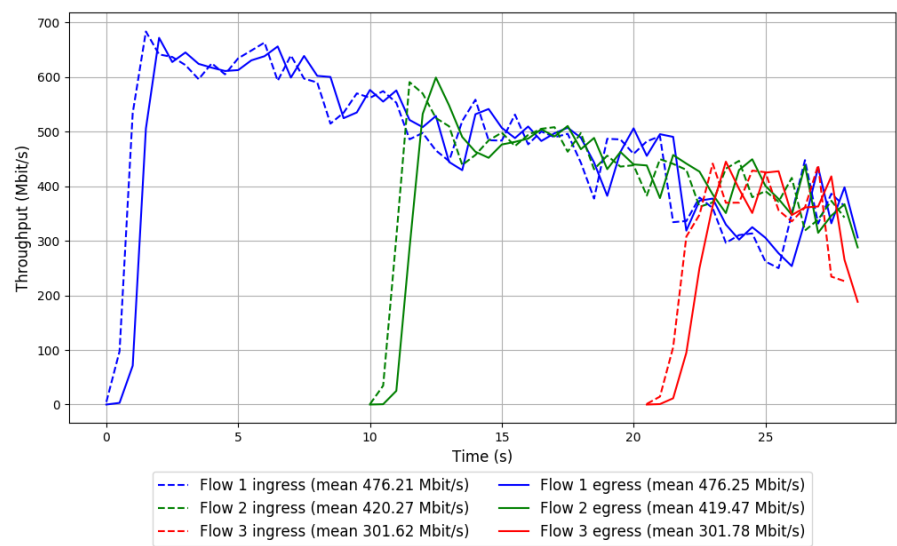
-- Flow 3:

Average throughput: 301.78 Mbit/s

95th percentile per-packet one-way delay: 59.134 ms

Loss rate: 1.17%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-05-30 21:02:44

End at: 2019-05-30 21:03:14

Local clock offset: 0.161 ms

Remote clock offset: 0.025 ms

Below is generated by plot.py at 2019-05-30 23:45:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 748.30 Mbit/s

95th percentile per-packet one-way delay: 78.986 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 474.70 Mbit/s

95th percentile per-packet one-way delay: 80.767 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 399.10 Mbit/s

95th percentile per-packet one-way delay: 78.226 ms

Loss rate: 0.89%

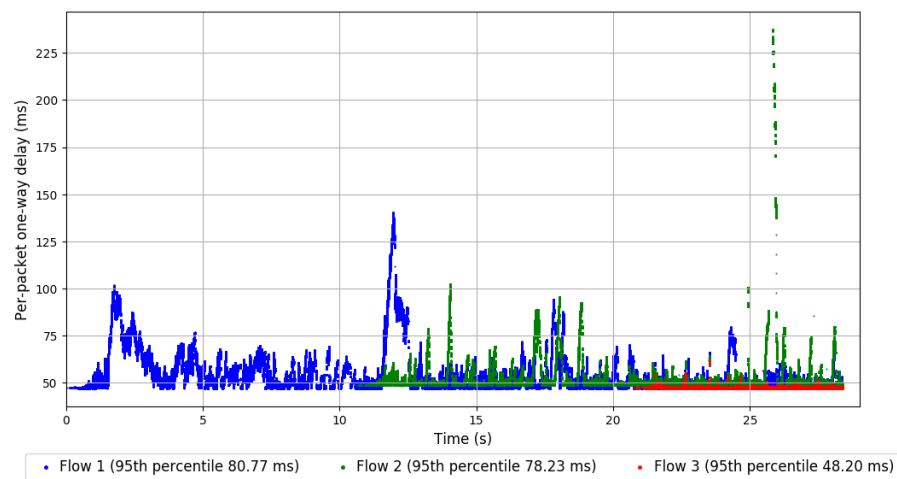
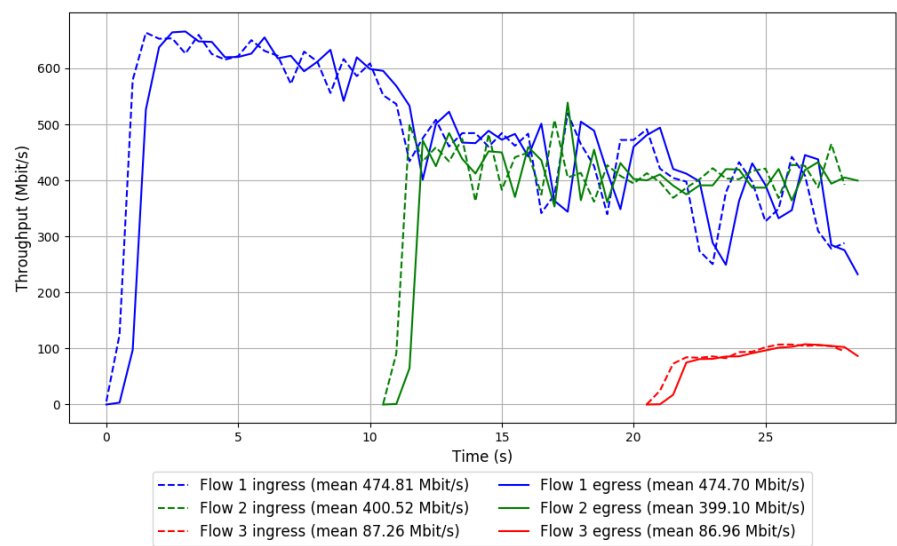
-- Flow 3:

Average throughput: 86.96 Mbit/s

95th percentile per-packet one-way delay: 48.198 ms

Loss rate: 1.53%

Run 4: Report of Indigo-MusesC5 — Data Link

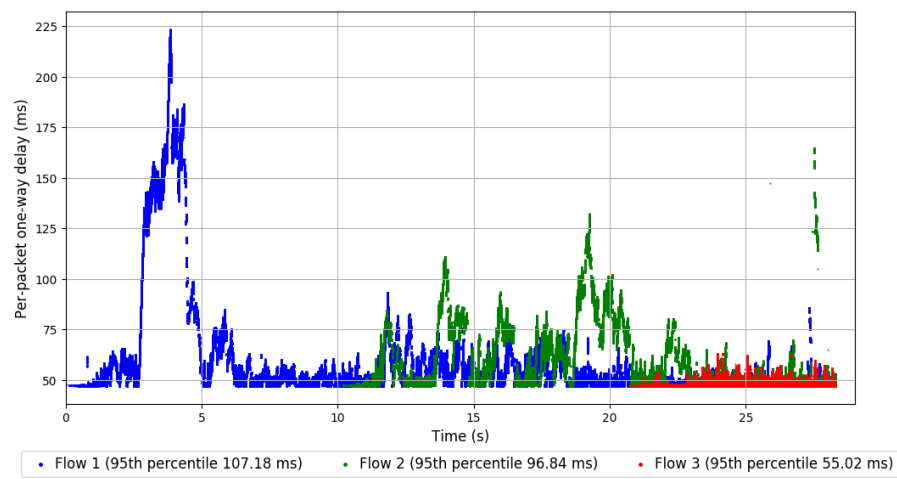
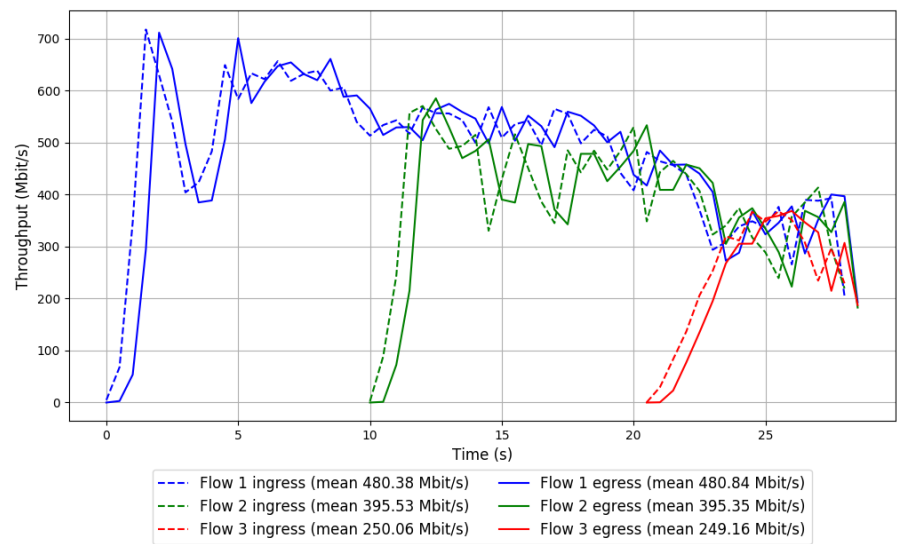


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-05-30 21:38:07
End at: 2019-05-30 21:38:37
Local clock offset: 0.238 ms
Remote clock offset: -0.075 ms

Below is generated by plot.py at 2019-05-30 23:49:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 802.34 Mbit/s
95th percentile per-packet one-way delay: 95.120 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 480.84 Mbit/s
95th percentile per-packet one-way delay: 107.176 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 395.35 Mbit/s
95th percentile per-packet one-way delay: 96.845 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 249.16 Mbit/s
95th percentile per-packet one-way delay: 55.015 ms
Loss rate: 1.77%

Run 5: Report of Indigo-MusesC5 — Data Link

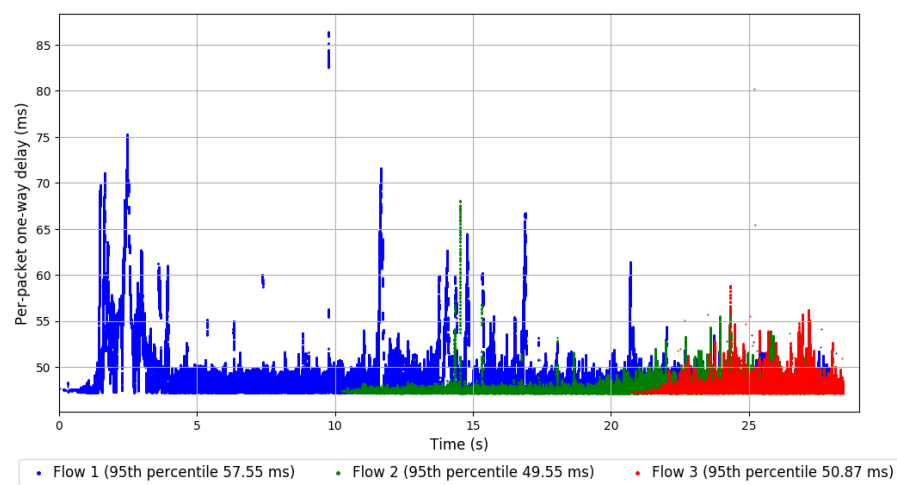
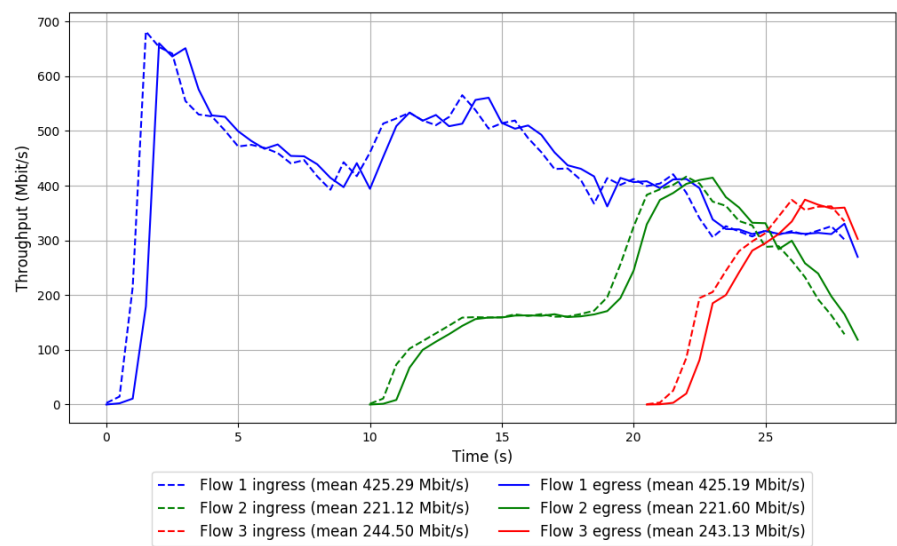


Run 1: Statistics of Indigo-MusesD

Start at: 2019-05-30 19:35:59
End at: 2019-05-30 19:36:29
Local clock offset: -0.026 ms
Remote clock offset: -0.061 ms

Below is generated by plot.py at 2019-05-30 23:51:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 632.98 Mbit/s
95th percentile per-packet one-way delay: 55.566 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 425.19 Mbit/s
95th percentile per-packet one-way delay: 57.548 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 221.60 Mbit/s
95th percentile per-packet one-way delay: 49.549 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 243.13 Mbit/s
95th percentile per-packet one-way delay: 50.870 ms
Loss rate: 1.80%

Run 1: Report of Indigo-MusesD — Data Link

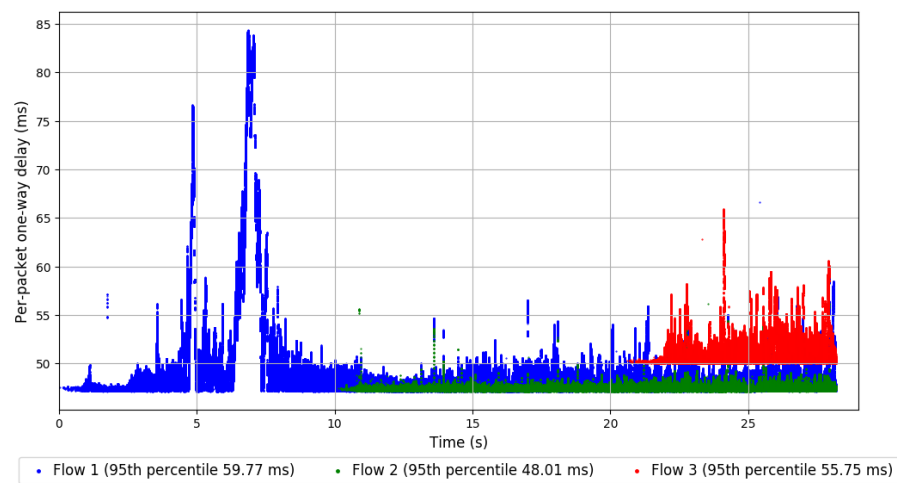
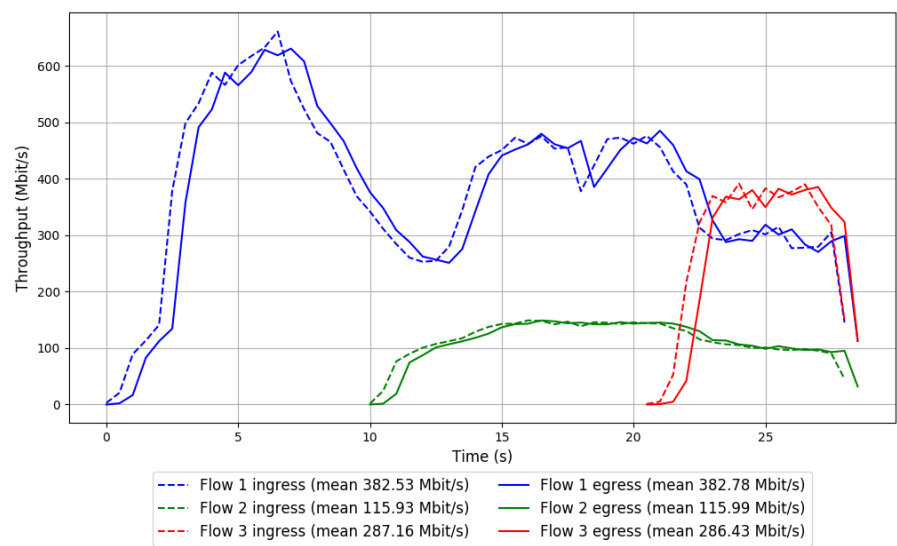


Run 2: Statistics of Indigo-MusesD

Start at: 2019-05-30 20:11:07
End at: 2019-05-30 20:11:37
Local clock offset: 0.053 ms
Remote clock offset: -0.091 ms

Below is generated by plot.py at 2019-05-30 23:51:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 534.16 Mbit/s
95th percentile per-packet one-way delay: 57.043 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 382.78 Mbit/s
95th percentile per-packet one-way delay: 59.769 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 115.99 Mbit/s
95th percentile per-packet one-way delay: 48.005 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 286.43 Mbit/s
95th percentile per-packet one-way delay: 55.753 ms
Loss rate: 1.51%

Run 2: Report of Indigo-MusesD — Data Link

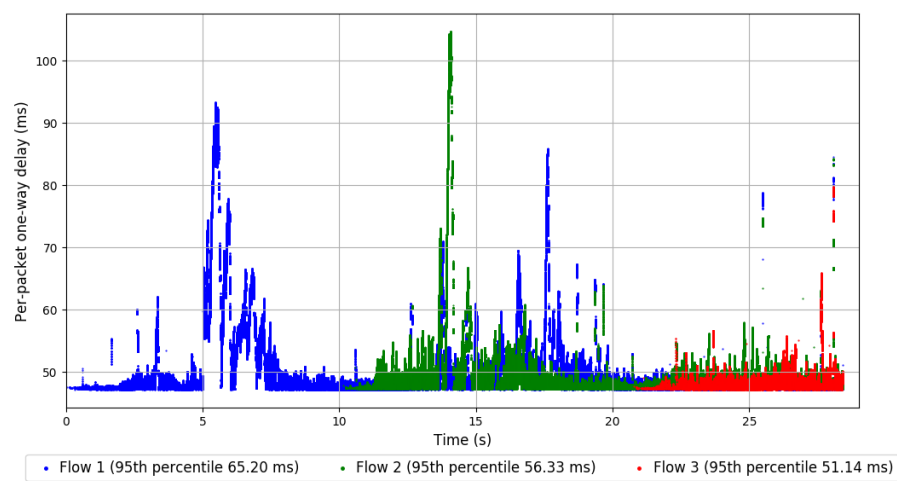
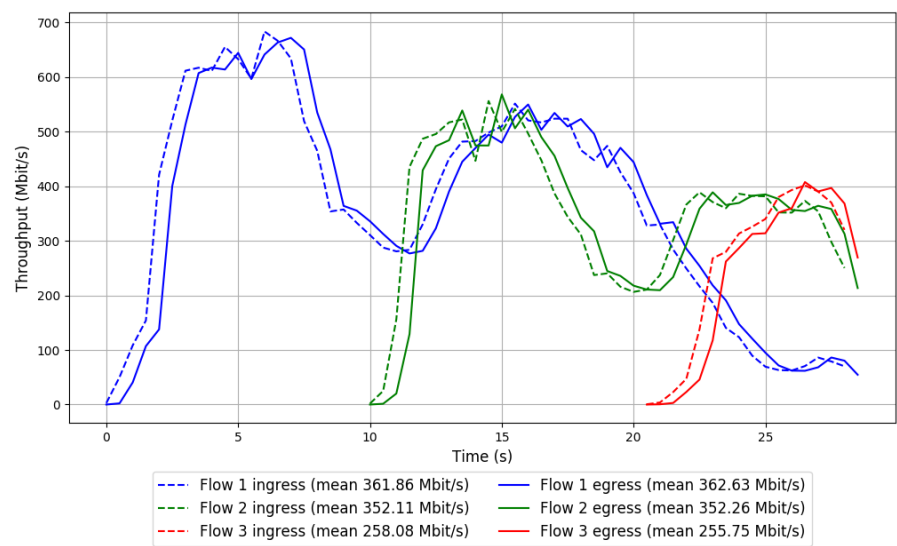


Run 3: Statistics of Indigo-MusesD

Start at: 2019-05-30 20:46:11
End at: 2019-05-30 20:46:41
Local clock offset: 0.121 ms
Remote clock offset: -0.035 ms

Below is generated by plot.py at 2019-05-30 23:53:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 658.53 Mbit/s
95th percentile per-packet one-way delay: 62.600 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 362.63 Mbit/s
95th percentile per-packet one-way delay: 65.196 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 352.26 Mbit/s
95th percentile per-packet one-way delay: 56.330 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 255.75 Mbit/s
95th percentile per-packet one-way delay: 51.140 ms
Loss rate: 2.13%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-05-30 21:21:35

End at: 2019-05-30 21:22:05

Local clock offset: 0.18 ms

Remote clock offset: -0.05 ms

Below is generated by plot.py at 2019-05-30 23:55:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 700.84 Mbit/s

95th percentile per-packet one-way delay: 62.009 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 396.92 Mbit/s

95th percentile per-packet one-way delay: 65.419 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 353.44 Mbit/s

95th percentile per-packet one-way delay: 61.438 ms

Loss rate: 0.50%

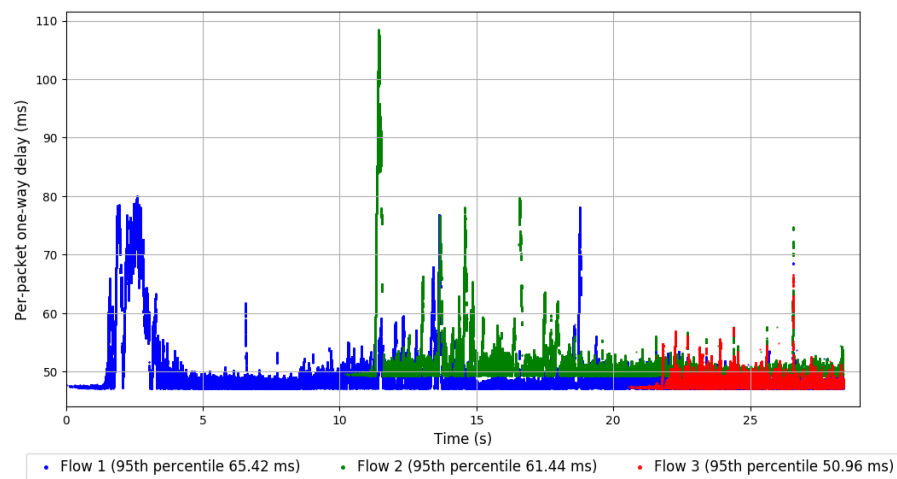
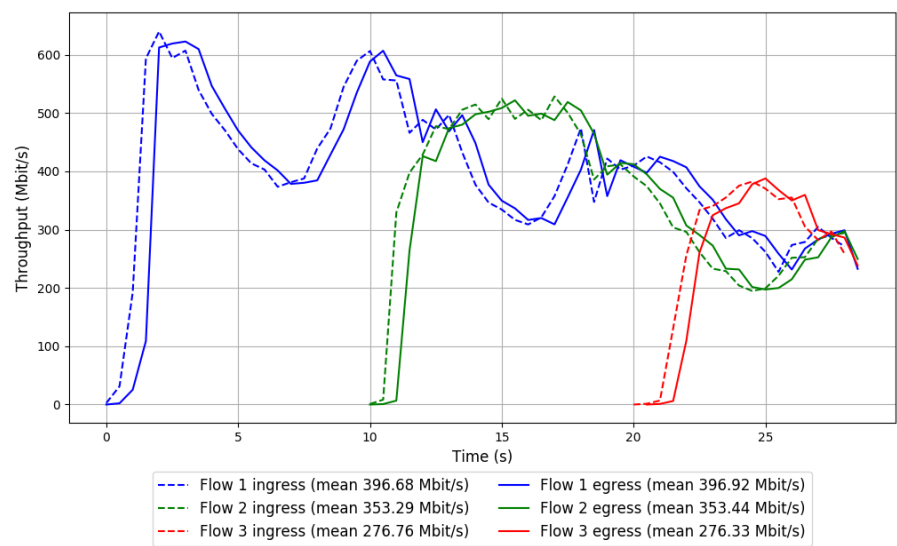
-- Flow 3:

Average throughput: 276.33 Mbit/s

95th percentile per-packet one-way delay: 50.956 ms

Loss rate: 1.34%

Run 4: Report of Indigo-MusesD — Data Link

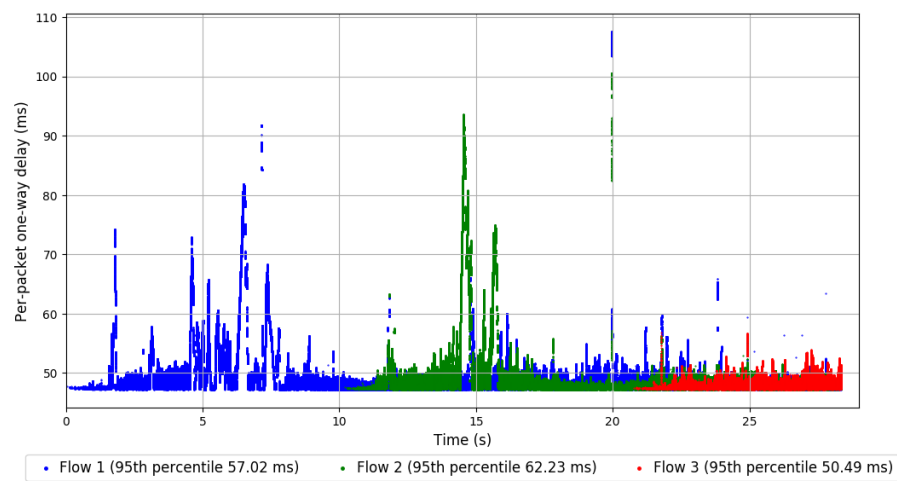
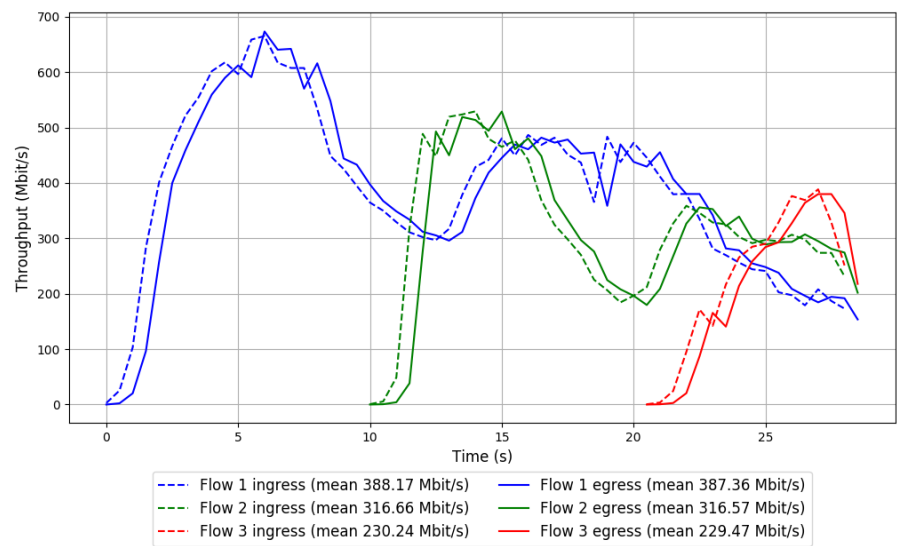


Run 5: Statistics of Indigo-MusesD

Start at: 2019-05-30 21:57:01
End at: 2019-05-30 21:57:31
Local clock offset: 0.301 ms
Remote clock offset: -0.089 ms

Below is generated by plot.py at 2019-05-30 23:55:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 651.84 Mbit/s
95th percentile per-packet one-way delay: 56.792 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 387.36 Mbit/s
95th percentile per-packet one-way delay: 57.022 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 316.57 Mbit/s
95th percentile per-packet one-way delay: 62.231 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 229.47 Mbit/s
95th percentile per-packet one-way delay: 50.489 ms
Loss rate: 1.58%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-05-30 19:15:37

End at: 2019-05-30 19:16:07

Local clock offset: -0.163 ms

Remote clock offset: 0.014 ms

Below is generated by plot.py at 2019-05-30 23:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 733.14 Mbit/s

95th percentile per-packet one-way delay: 80.219 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 468.00 Mbit/s

95th percentile per-packet one-way delay: 84.221 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 372.31 Mbit/s

95th percentile per-packet one-way delay: 55.231 ms

Loss rate: 0.58%

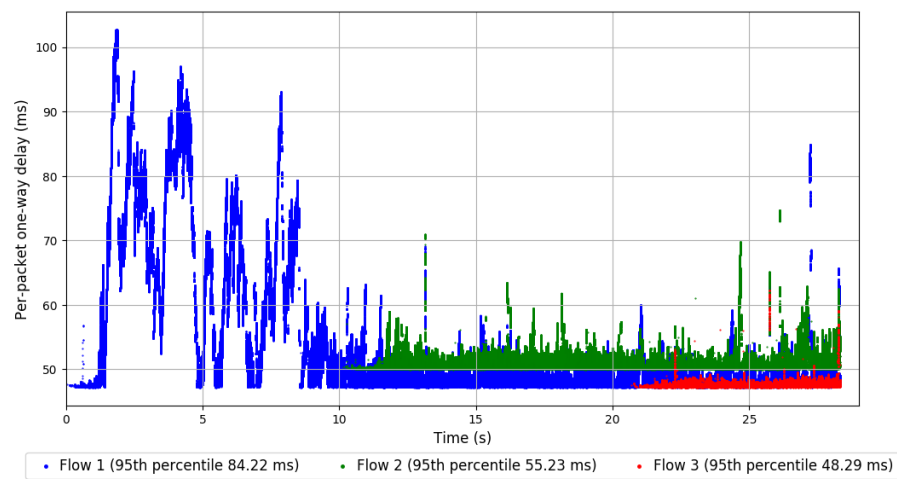
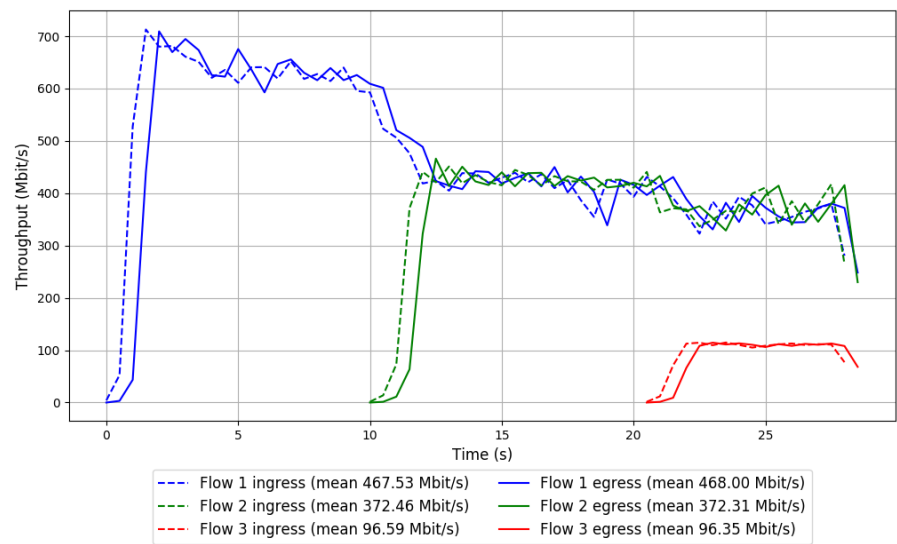
-- Flow 3:

Average throughput: 96.35 Mbit/s

95th percentile per-packet one-way delay: 48.292 ms

Loss rate: 1.44%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-05-30 19:50:37

End at: 2019-05-30 19:51:07

Local clock offset: -0.016 ms

Remote clock offset: -0.06 ms

Below is generated by plot.py at 2019-05-31 00:01:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 765.11 Mbit/s

95th percentile per-packet one-way delay: 68.159 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 451.54 Mbit/s

95th percentile per-packet one-way delay: 73.266 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 375.25 Mbit/s

95th percentile per-packet one-way delay: 53.473 ms

Loss rate: 0.57%

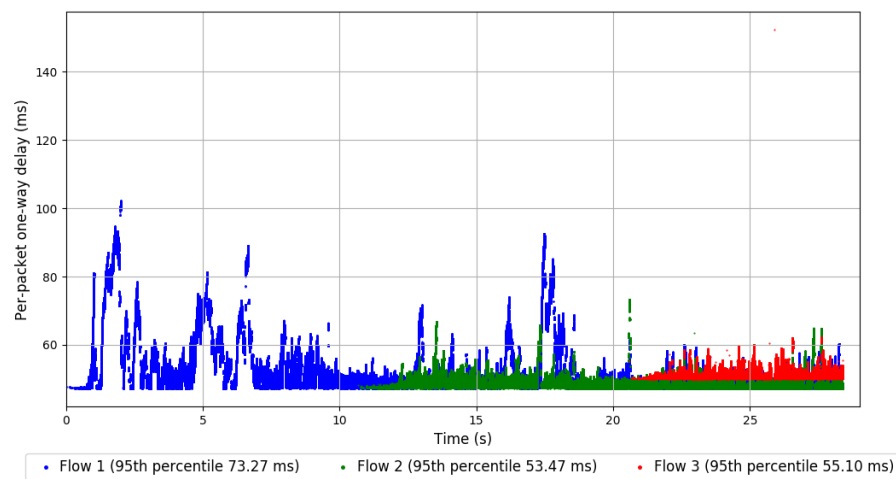
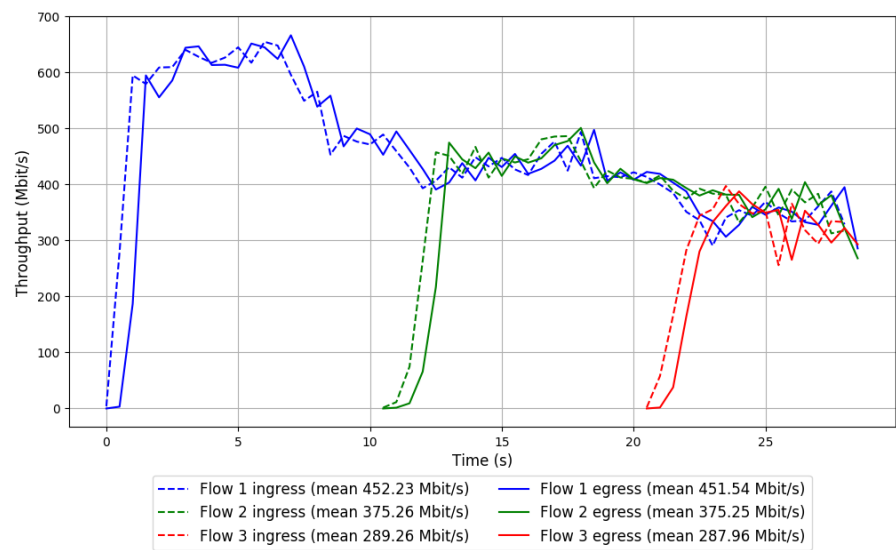
-- Flow 3:

Average throughput: 287.96 Mbit/s

95th percentile per-packet one-way delay: 55.104 ms

Loss rate: 1.77%

Run 2: Report of Indigo-MusesT — Data Link

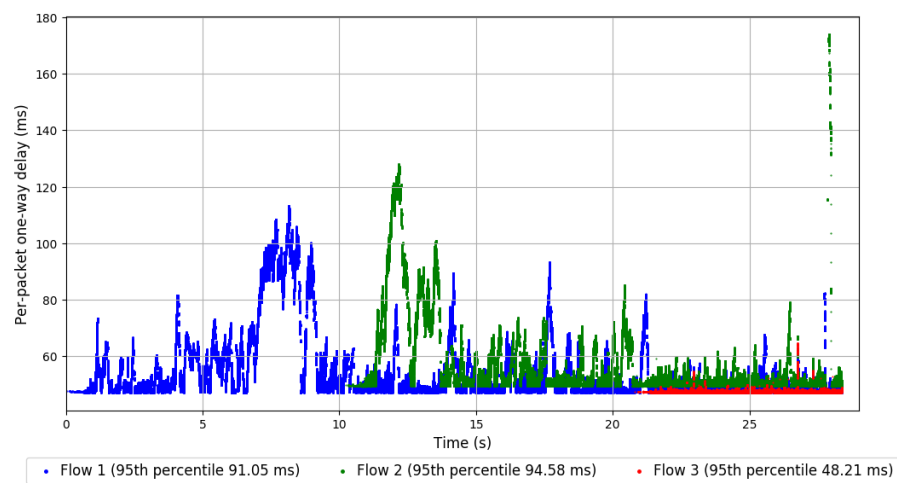
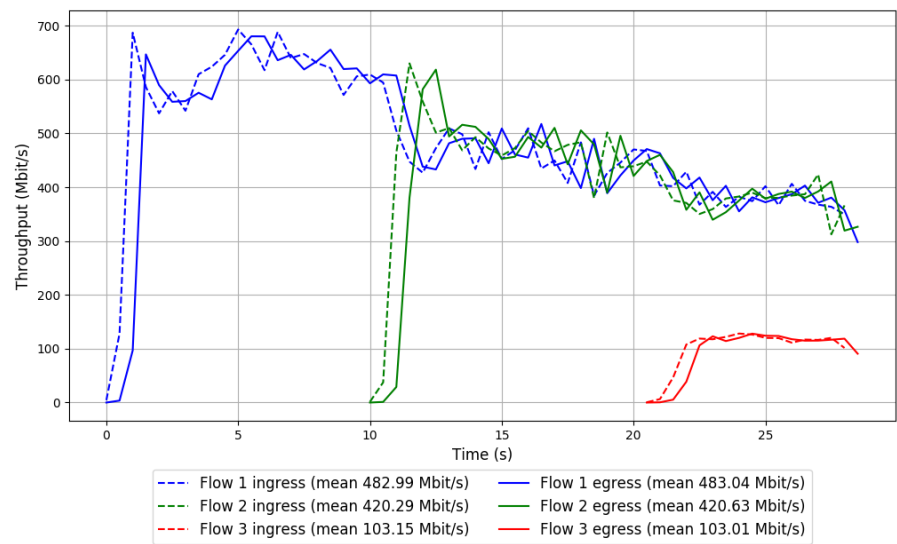


Run 3: Statistics of Indigo-MusesT

Start at: 2019-05-30 20:25:44
End at: 2019-05-30 20:26:14
Local clock offset: 0.086 ms
Remote clock offset: -0.089 ms

Below is generated by plot.py at 2019-05-31 00:04:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 780.13 Mbit/s
95th percentile per-packet one-way delay: 91.531 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 483.04 Mbit/s
95th percentile per-packet one-way delay: 91.048 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 420.63 Mbit/s
95th percentile per-packet one-way delay: 94.584 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 103.01 Mbit/s
95th percentile per-packet one-way delay: 48.207 ms
Loss rate: 1.44%

Run 3: Report of Indigo-MusesT — Data Link

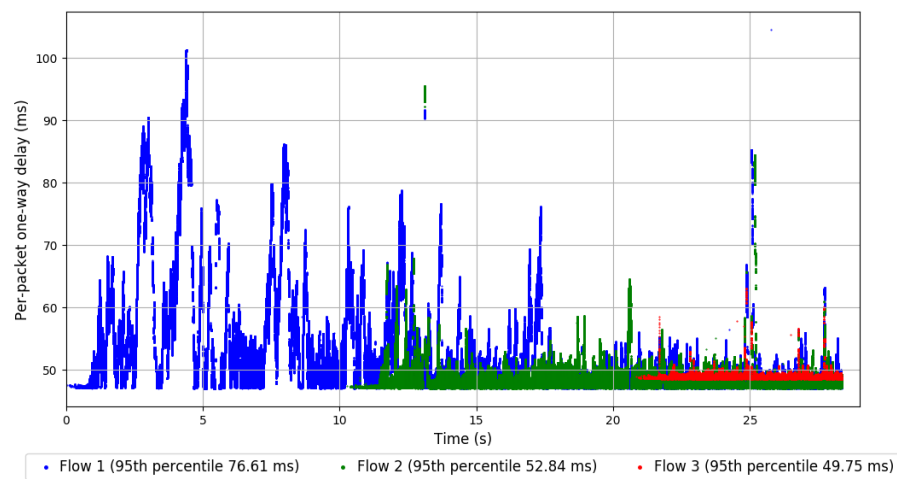
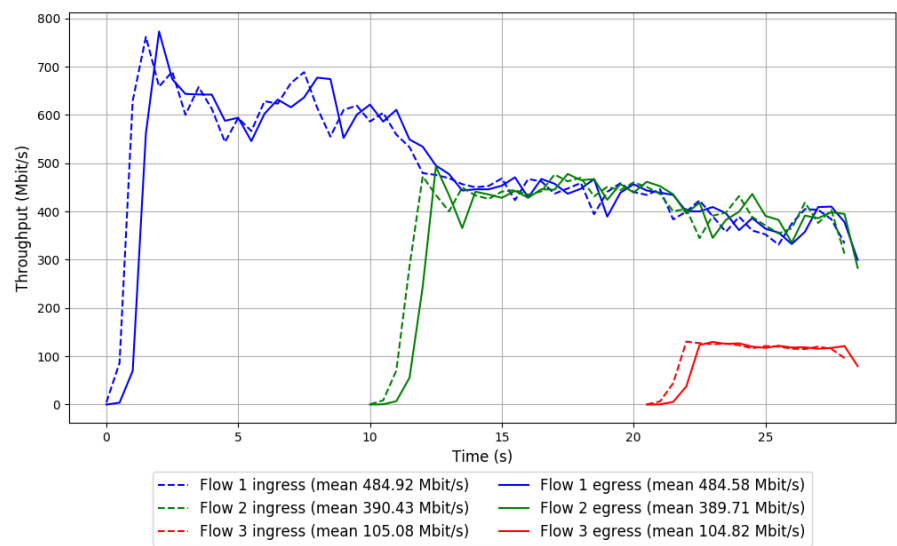


Run 4: Statistics of Indigo-MusesT

Start at: 2019-05-30 21:00:55
End at: 2019-05-30 21:01:25
Local clock offset: 0.104 ms
Remote clock offset: -0.041 ms

Below is generated by plot.py at 2019-05-31 00:04:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 761.17 Mbit/s
95th percentile per-packet one-way delay: 70.305 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 484.58 Mbit/s
95th percentile per-packet one-way delay: 76.615 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 389.71 Mbit/s
95th percentile per-packet one-way delay: 52.842 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 104.82 Mbit/s
95th percentile per-packet one-way delay: 49.752 ms
Loss rate: 1.52%

Run 4: Report of Indigo-MusesT — Data Link

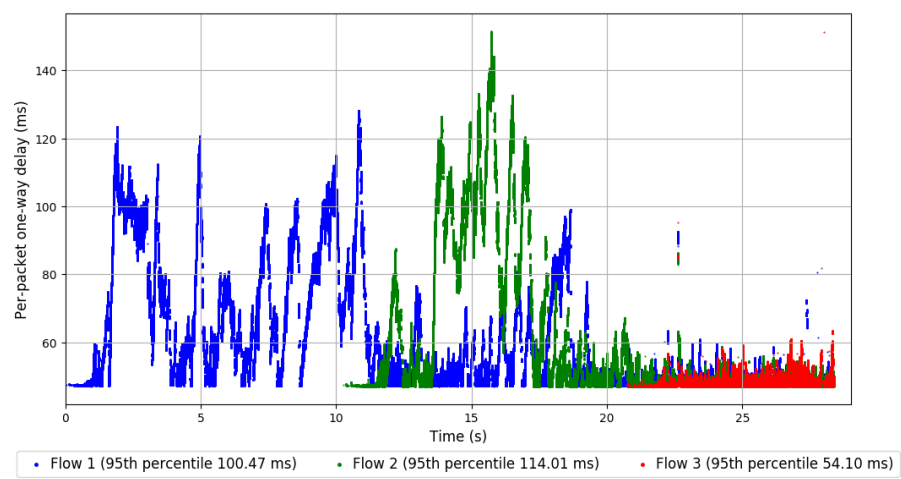
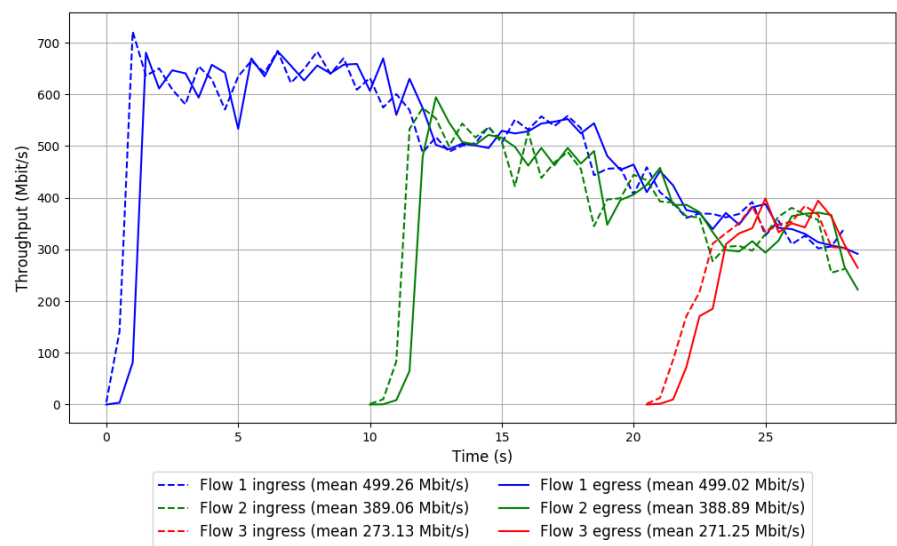


Run 5: Statistics of Indigo-MusesT

Start at: 2019-05-30 21:36:16
End at: 2019-05-30 21:36:46
Local clock offset: 0.215 ms
Remote clock offset: -0.026 ms

Below is generated by plot.py at 2019-05-31 00:07:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 821.55 Mbit/s
95th percentile per-packet one-way delay: 104.101 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 499.02 Mbit/s
95th percentile per-packet one-way delay: 100.469 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 388.89 Mbit/s
95th percentile per-packet one-way delay: 114.014 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 271.25 Mbit/s
95th percentile per-packet one-way delay: 54.101 ms
Loss rate: 1.92%

Run 5: Report of Indigo-MusesT — Data Link

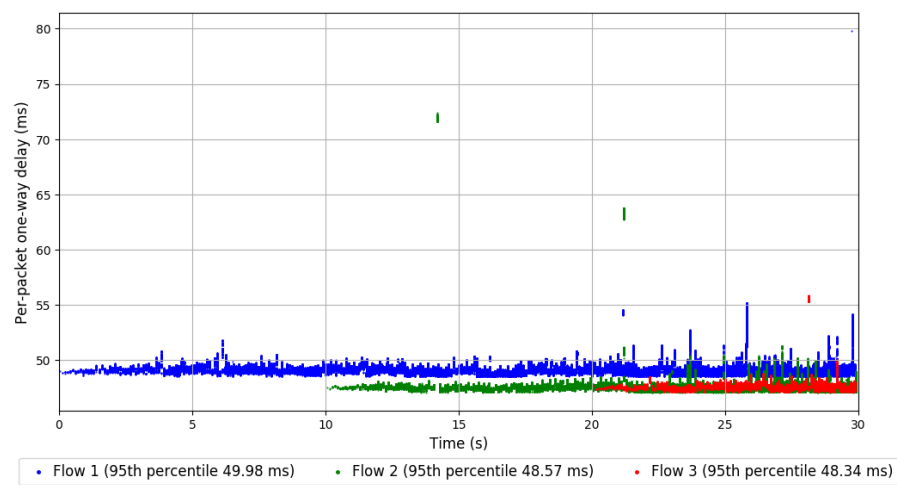
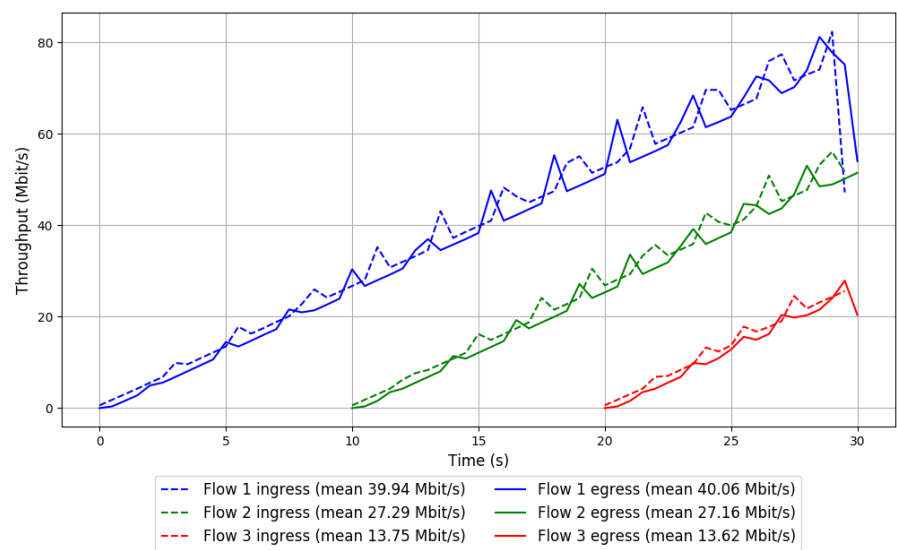


```
Run 1: Statistics of LEDBAT

Start at: 2019-05-30 19:08:17
End at: 2019-05-30 19:08:47
Local clock offset: -0.202 ms
Remote clock offset: 0.022 ms

# Below is generated by plot.py at 2019-05-31 00:07:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.52 Mbit/s
95th percentile per-packet one-way delay: 49.833 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 40.06 Mbit/s
95th percentile per-packet one-way delay: 49.976 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 27.16 Mbit/s
95th percentile per-packet one-way delay: 48.570 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 13.62 Mbit/s
95th percentile per-packet one-way delay: 48.338 ms
Loss rate: 1.93%
```

Run 1: Report of LEDBAT — Data Link

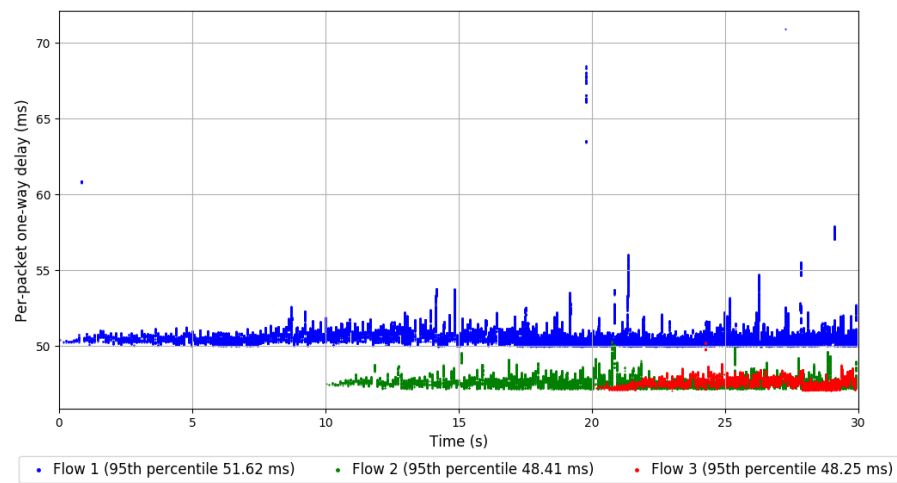
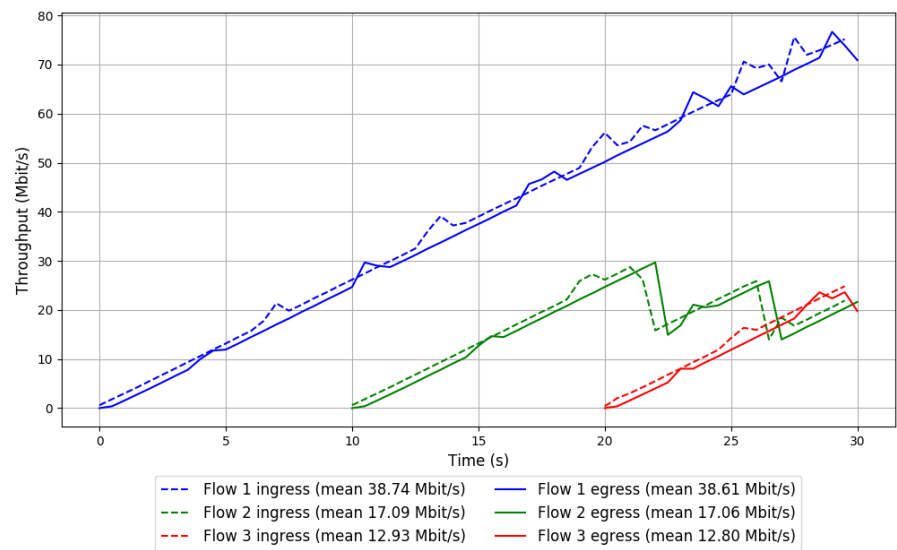


Run 2: Statistics of LEDBAT

Start at: 2019-05-30 19:43:15
End at: 2019-05-30 19:43:45
Local clock offset: -0.012 ms
Remote clock offset: -0.037 ms

Below is generated by plot.py at 2019-05-31 00:07:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 54.16 Mbit/s
95th percentile per-packet one-way delay: 51.451 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 38.61 Mbit/s
95th percentile per-packet one-way delay: 51.615 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 17.06 Mbit/s
95th percentile per-packet one-way delay: 48.413 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 48.254 ms
Loss rate: 1.98%

Run 2: Report of LEDBAT — Data Link

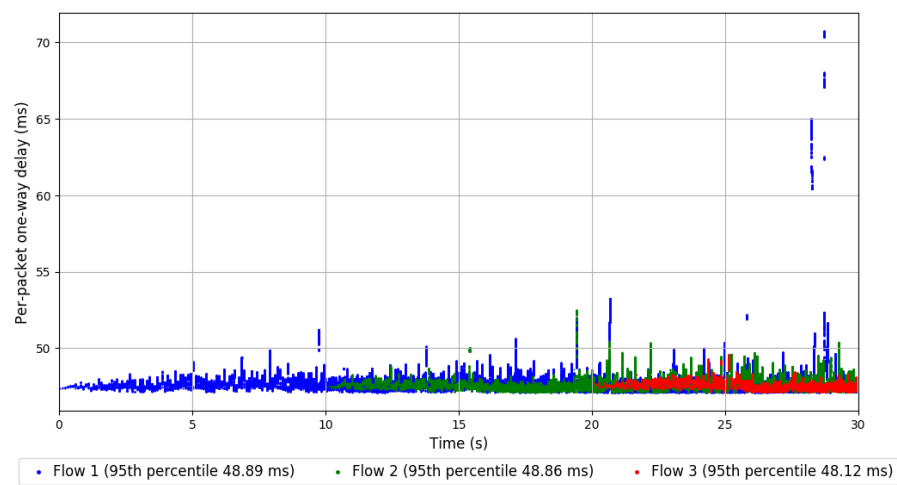
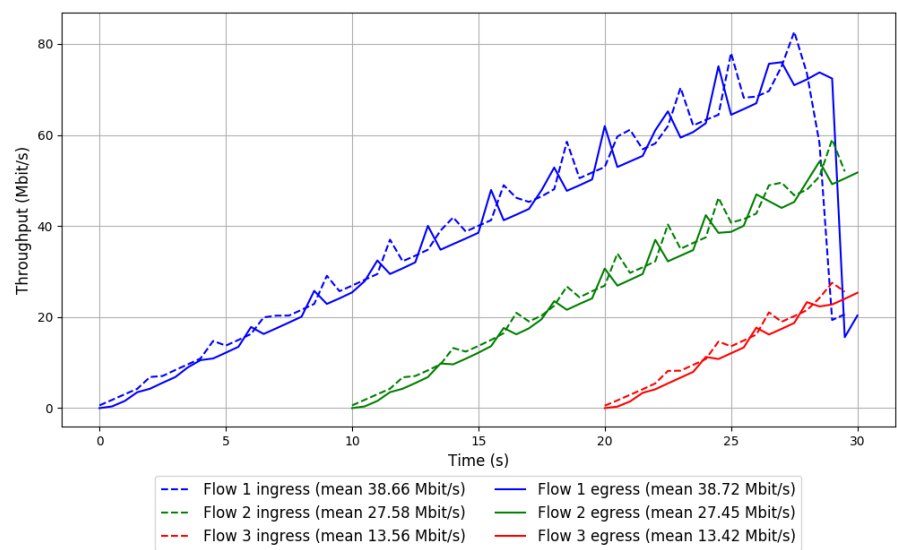


Run 3: Statistics of LEDBAT

Start at: 2019-05-30 20:18:16
End at: 2019-05-30 20:18:46
Local clock offset: 0.095 ms
Remote clock offset: -0.037 ms

Below is generated by plot.py at 2019-05-31 00:07:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 61.37 Mbit/s
95th percentile per-packet one-way delay: 48.836 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 48.892 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 27.45 Mbit/s
95th percentile per-packet one-way delay: 48.858 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 48.115 ms
Loss rate: 1.93%

Run 3: Report of LEDBAT — Data Link

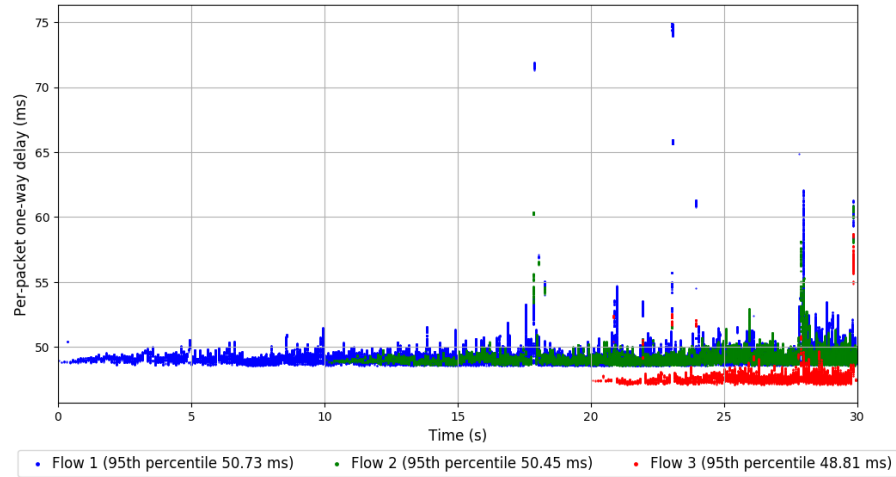
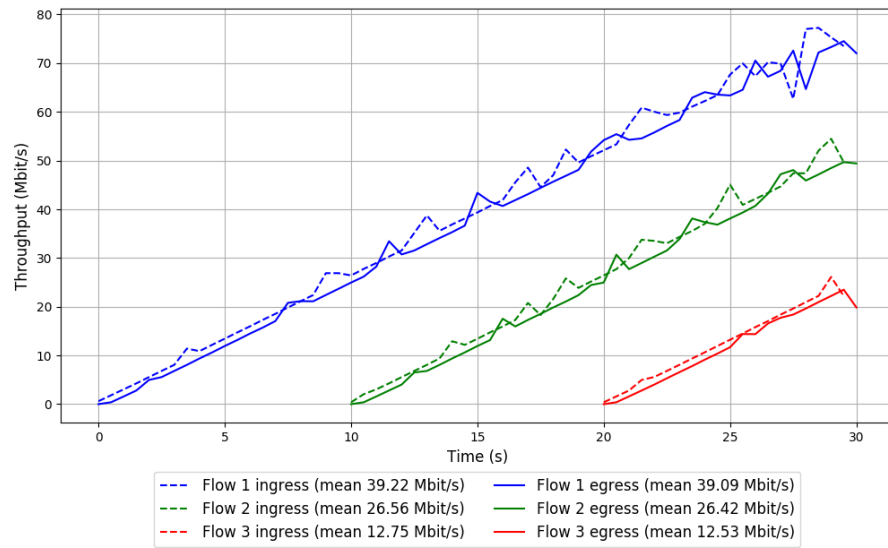


Run 4: Statistics of LEDBAT

Start at: 2019-05-30 20:53:27
End at: 2019-05-30 20:53:57
Local clock offset: 0.09 ms
Remote clock offset: -0.018 ms

Below is generated by plot.py at 2019-05-31 00:07:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 60.79 Mbit/s
95th percentile per-packet one-way delay: 50.612 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 39.09 Mbit/s
95th percentile per-packet one-way delay: 50.732 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 26.42 Mbit/s
95th percentile per-packet one-way delay: 50.449 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 12.53 Mbit/s
95th percentile per-packet one-way delay: 48.807 ms
Loss rate: 1.96%

Run 4: Report of LEDBAT — Data Link

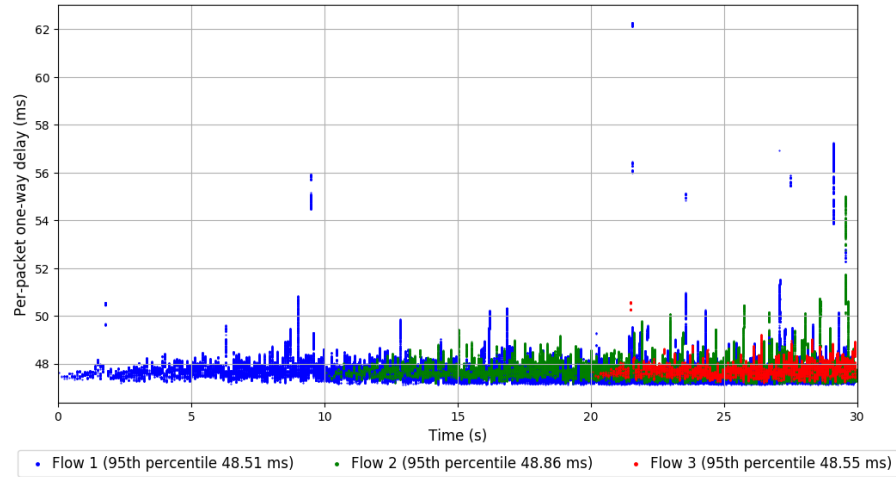
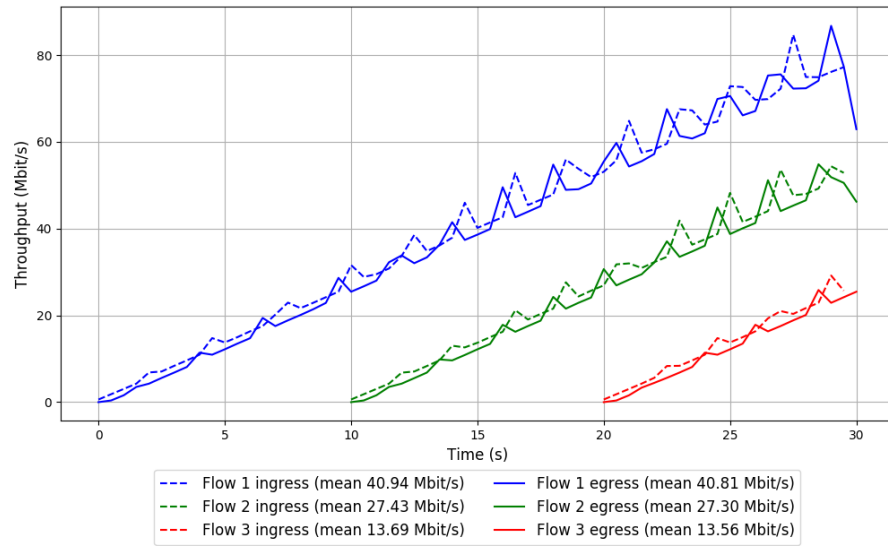


Run 5: Statistics of LEDBAT

Start at: 2019-05-30 21:28:55
End at: 2019-05-30 21:29:25
Local clock offset: 0.225 ms
Remote clock offset: -0.038 ms

Below is generated by plot.py at 2019-05-31 00:07:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 63.37 Mbit/s
95th percentile per-packet one-way delay: 48.653 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 48.509 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 27.30 Mbit/s
95th percentile per-packet one-way delay: 48.860 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 13.56 Mbit/s
95th percentile per-packet one-way delay: 48.551 ms
Loss rate: 1.92%

Run 5: Report of LEDBAT — Data Link

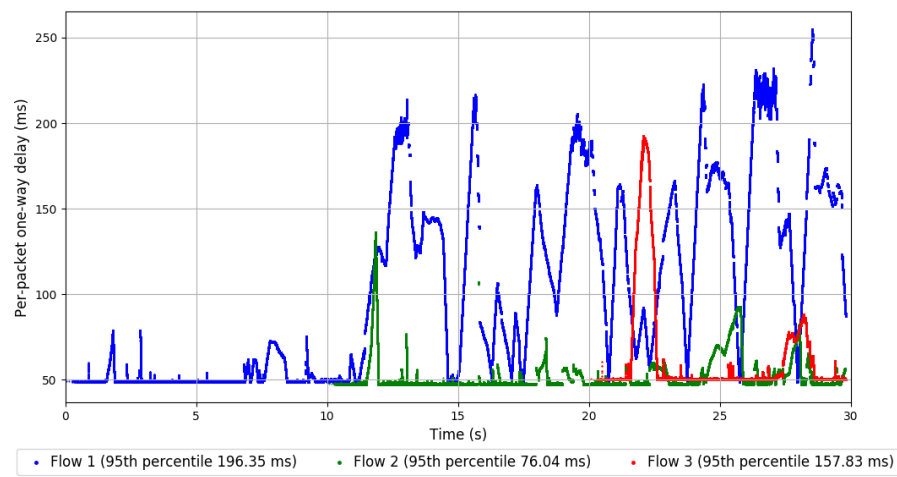
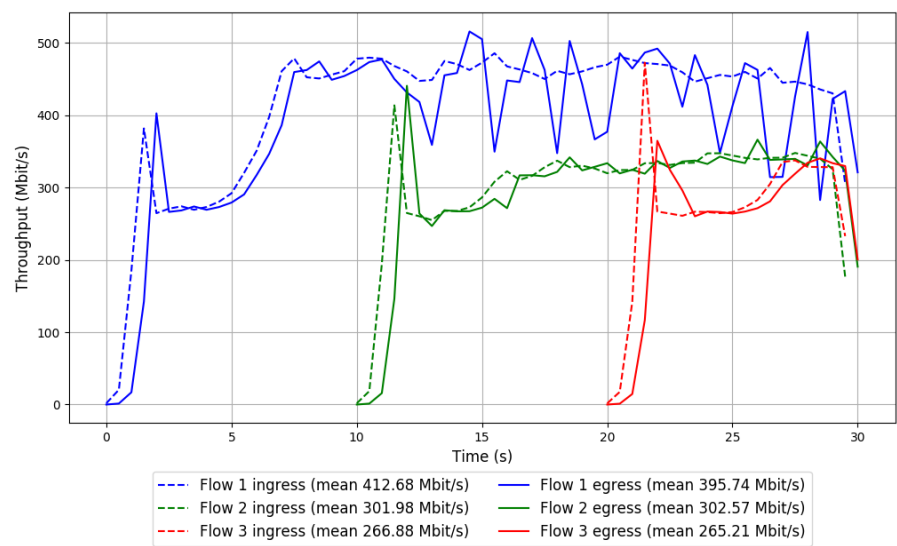


Run 1: Statistics of PCC-Allegro

Start at: 2019-05-30 19:04:24
End at: 2019-05-30 19:04:54
Local clock offset: -0.16 ms
Remote clock offset: -0.039 ms

Below is generated by plot.py at 2019-05-31 00:24:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 682.76 Mbit/s
95th percentile per-packet one-way delay: 185.052 ms
Loss rate: 2.94%
-- Flow 1:
Average throughput: 395.74 Mbit/s
95th percentile per-packet one-way delay: 196.350 ms
Loss rate: 4.42%
-- Flow 2:
Average throughput: 302.57 Mbit/s
95th percentile per-packet one-way delay: 76.038 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 265.21 Mbit/s
95th percentile per-packet one-way delay: 157.826 ms
Loss rate: 1.62%

Run 1: Report of PCC-Allegro — Data Link

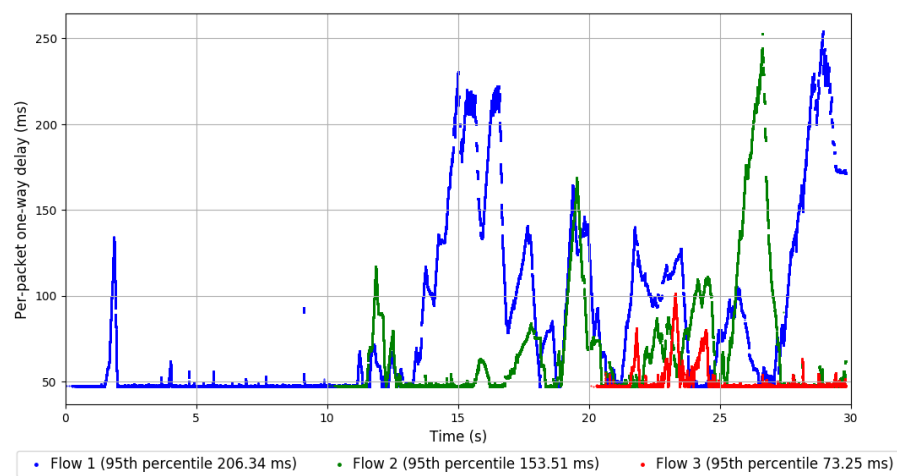
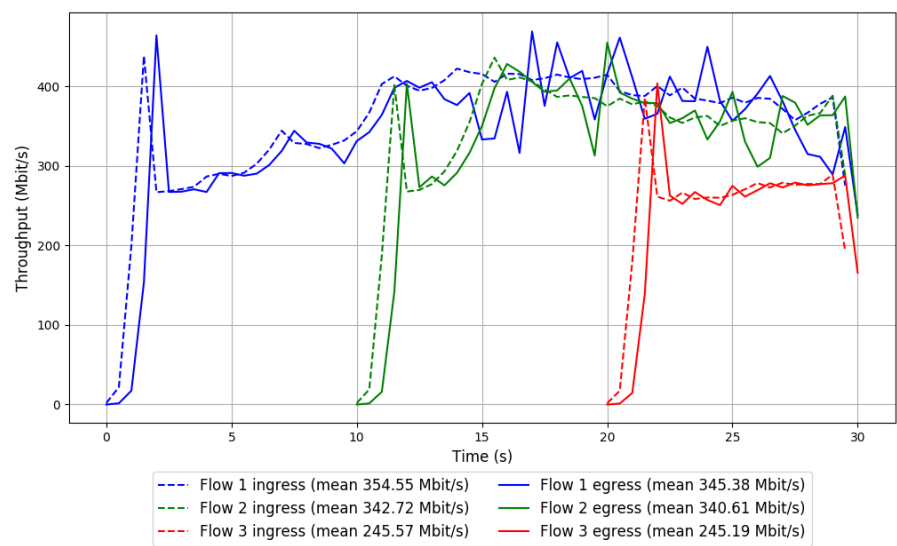


Run 2: Statistics of PCC-Allegro

Start at: 2019-05-30 19:39:31
End at: 2019-05-30 19:40:01
Local clock offset: 0.003 ms
Remote clock offset: -0.094 ms

Below is generated by plot.py at 2019-05-31 00:24:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 651.51 Mbit/s
95th percentile per-packet one-way delay: 183.045 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 345.38 Mbit/s
95th percentile per-packet one-way delay: 206.345 ms
Loss rate: 2.90%
-- Flow 2:
Average throughput: 340.61 Mbit/s
95th percentile per-packet one-way delay: 153.512 ms
Loss rate: 1.11%
-- Flow 3:
Average throughput: 245.19 Mbit/s
95th percentile per-packet one-way delay: 73.250 ms
Loss rate: 1.14%

Run 2: Report of PCC-Allegro — Data Link

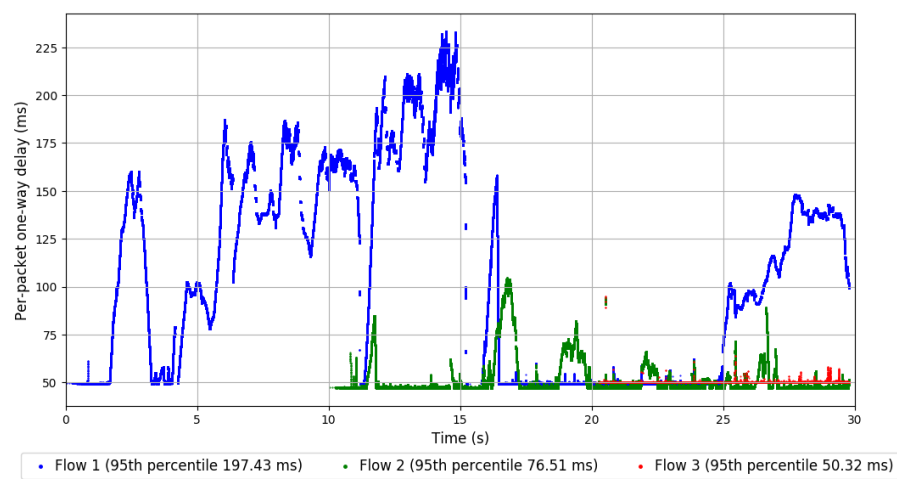
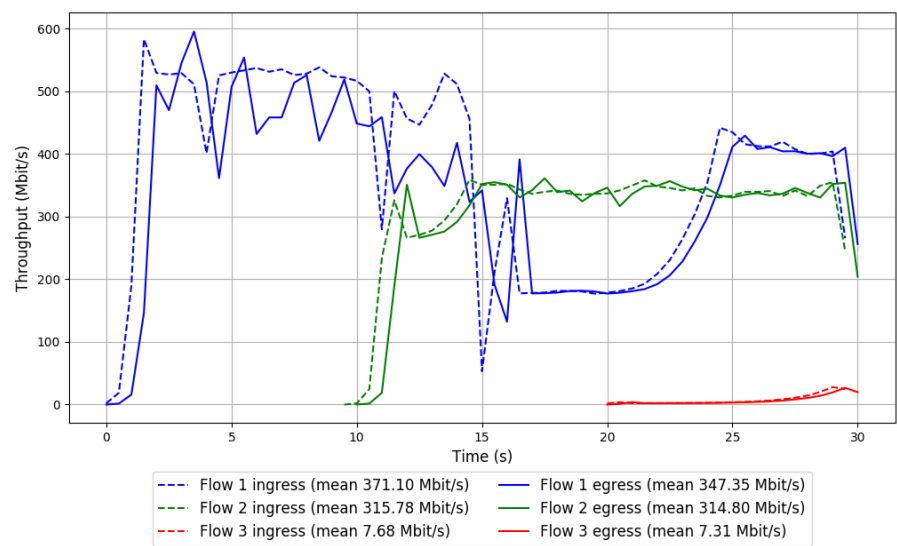


Run 3: Statistics of PCC-Allegro

Start at: 2019-05-30 20:14:34
End at: 2019-05-30 20:15:04
Local clock offset: 0.078 ms
Remote clock offset: -0.048 ms

Below is generated by plot.py at 2019-05-31 00:24:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 558.71 Mbit/s
95th percentile per-packet one-way delay: 181.220 ms
Loss rate: 4.58%
-- Flow 1:
Average throughput: 347.35 Mbit/s
95th percentile per-packet one-way delay: 197.427 ms
Loss rate: 6.71%
-- Flow 2:
Average throughput: 314.80 Mbit/s
95th percentile per-packet one-way delay: 76.509 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 50.322 ms
Loss rate: 5.81%

Run 3: Report of PCC-Allegro — Data Link

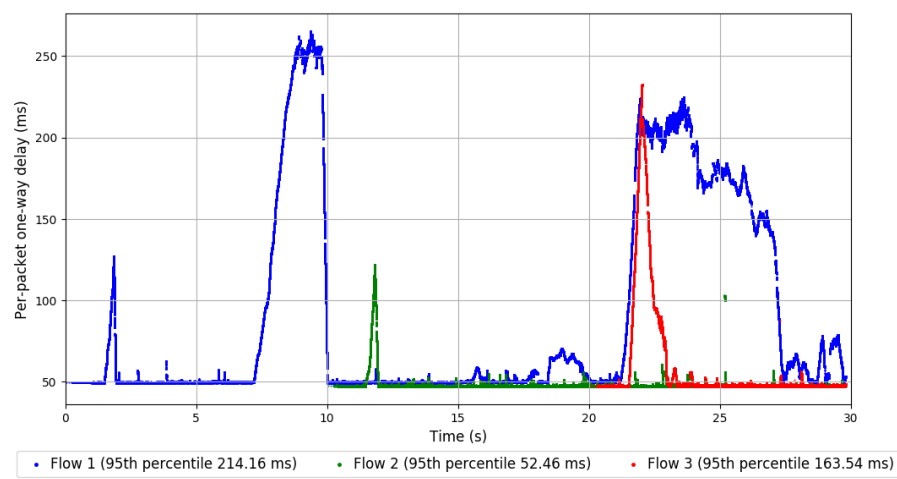
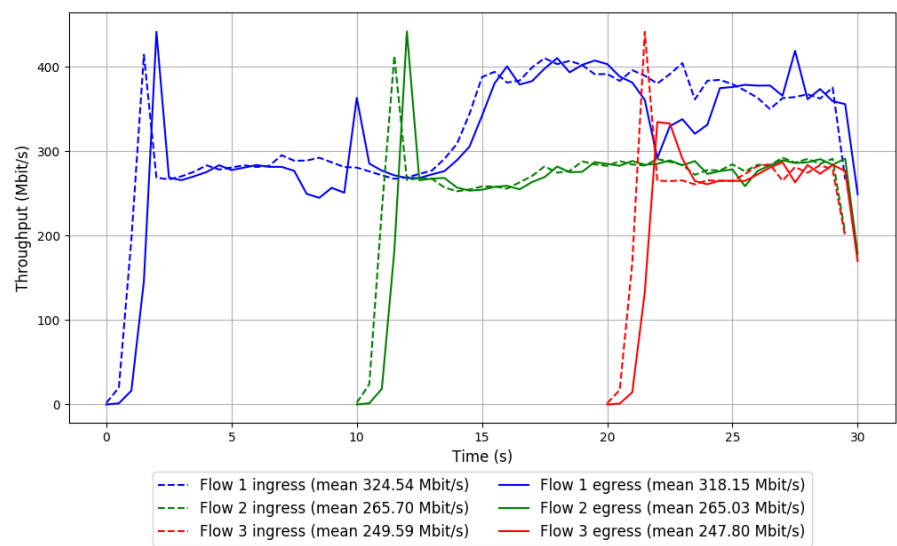


Run 4: Statistics of PCC-Allegro

Start at: 2019-05-30 20:49:45
End at: 2019-05-30 20:50:15
Local clock offset: 0.134 ms
Remote clock offset: -0.006 ms

Below is generated by plot.py at 2019-05-31 00:24:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 575.02 Mbit/s
95th percentile per-packet one-way delay: 205.333 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 318.15 Mbit/s
95th percentile per-packet one-way delay: 214.155 ms
Loss rate: 2.29%
-- Flow 2:
Average throughput: 265.03 Mbit/s
95th percentile per-packet one-way delay: 52.456 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 247.80 Mbit/s
95th percentile per-packet one-way delay: 163.536 ms
Loss rate: 1.68%

Run 4: Report of PCC-Allegro — Data Link

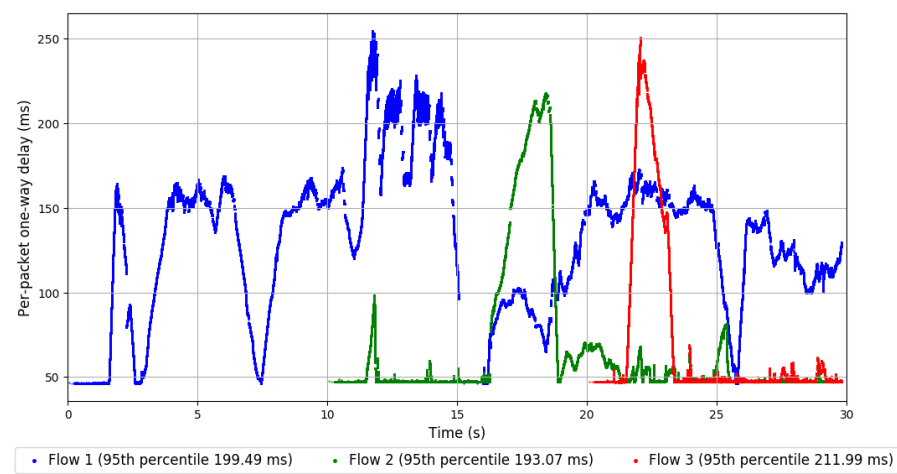
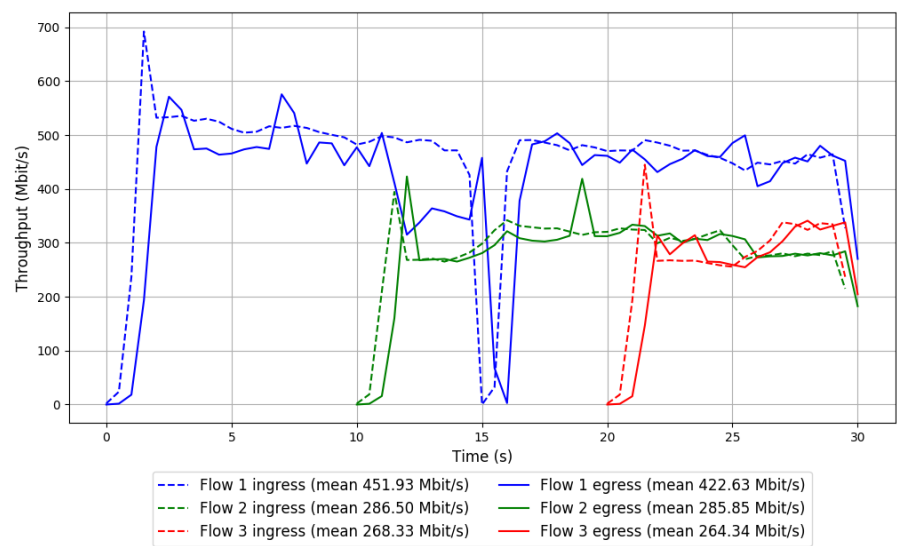


Run 5: Statistics of PCC-Allegro

Start at: 2019-05-30 21:25:08
End at: 2019-05-30 21:25:38
Local clock offset: 0.13 ms
Remote clock offset: -0.017 ms

Below is generated by plot.py at 2019-05-31 00:28:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 698.63 Mbit/s
95th percentile per-packet one-way delay: 199.980 ms
Loss rate: 4.68%
-- Flow 1:
Average throughput: 422.63 Mbit/s
95th percentile per-packet one-way delay: 199.489 ms
Loss rate: 6.79%
-- Flow 2:
Average throughput: 285.85 Mbit/s
95th percentile per-packet one-way delay: 193.075 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 264.34 Mbit/s
95th percentile per-packet one-way delay: 211.993 ms
Loss rate: 2.46%

Run 5: Report of PCC-Allegro — Data Link

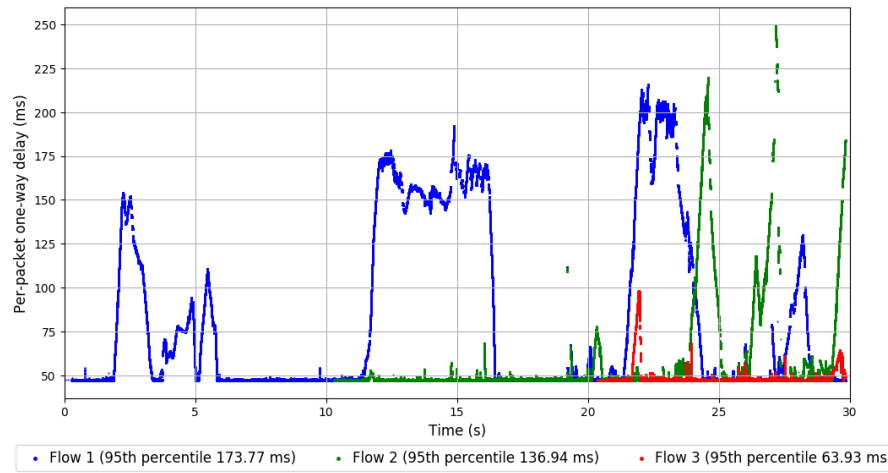
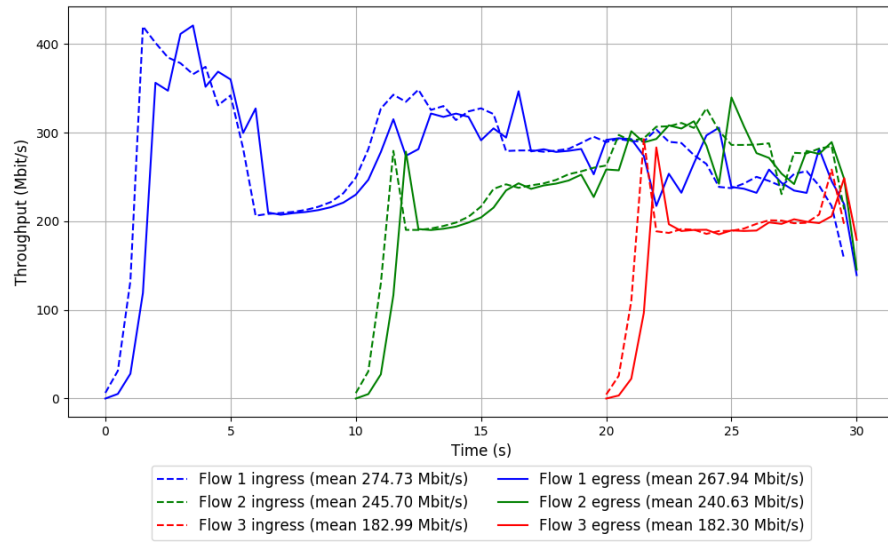



```
Run 1: Statistics of PCC-Expr

Start at: 2019-05-30 19:06:21
End at: 2019-05-30 19:06:51
Local clock offset: -0.157 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2019-05-31 00:28:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.39 Mbit/s
95th percentile per-packet one-way delay: 169.172 ms
Loss rate: 2.53%
-- Flow 1:
Average throughput: 267.94 Mbit/s
95th percentile per-packet one-way delay: 173.772 ms
Loss rate: 2.79%
-- Flow 2:
Average throughput: 240.63 Mbit/s
95th percentile per-packet one-way delay: 136.935 ms
Loss rate: 2.54%
-- Flow 3:
Average throughput: 182.30 Mbit/s
95th percentile per-packet one-way delay: 63.929 ms
Loss rate: 1.35%
```

Run 1: Report of PCC-Expr — Data Link

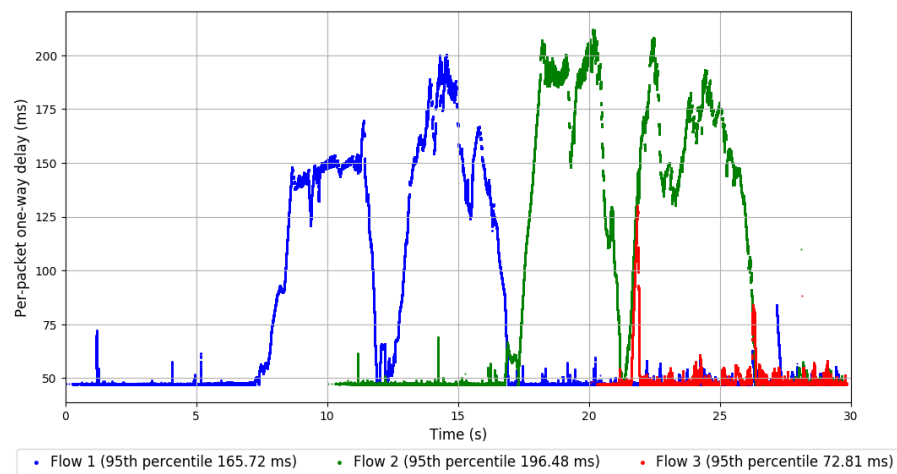
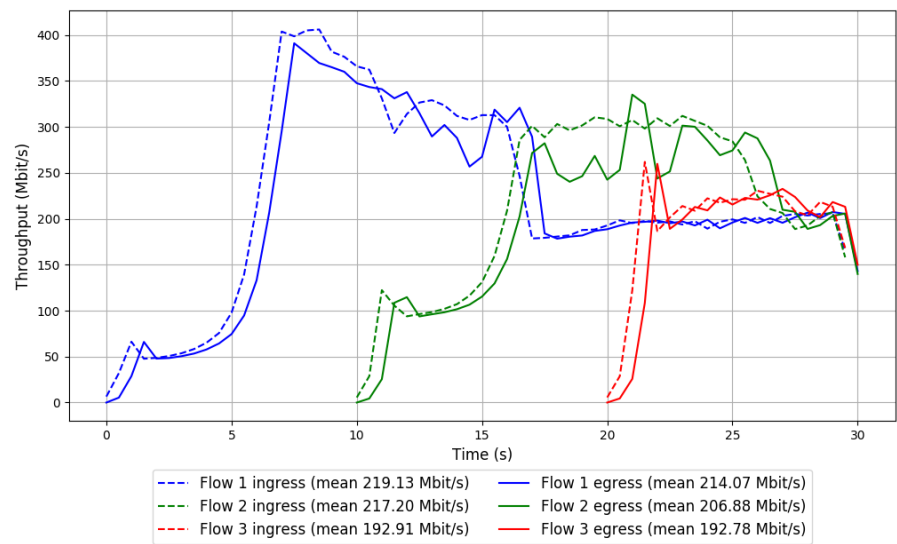


Run 2: Statistics of PCC-Expr

Start at: 2019-05-30 19:41:25
End at: 2019-05-30 19:41:55
Local clock offset: -0.041 ms
Remote clock offset: -0.049 ms

Below is generated by plot.py at 2019-05-31 00:28:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 414.60 Mbit/s
95th percentile per-packet one-way delay: 187.567 ms
Loss rate: 3.26%
-- Flow 1:
Average throughput: 214.07 Mbit/s
95th percentile per-packet one-way delay: 165.718 ms
Loss rate: 2.62%
-- Flow 2:
Average throughput: 206.88 Mbit/s
95th percentile per-packet one-way delay: 196.480 ms
Loss rate: 5.21%
-- Flow 3:
Average throughput: 192.78 Mbit/s
95th percentile per-packet one-way delay: 72.810 ms
Loss rate: 1.04%

Run 2: Report of PCC-Expr — Data Link

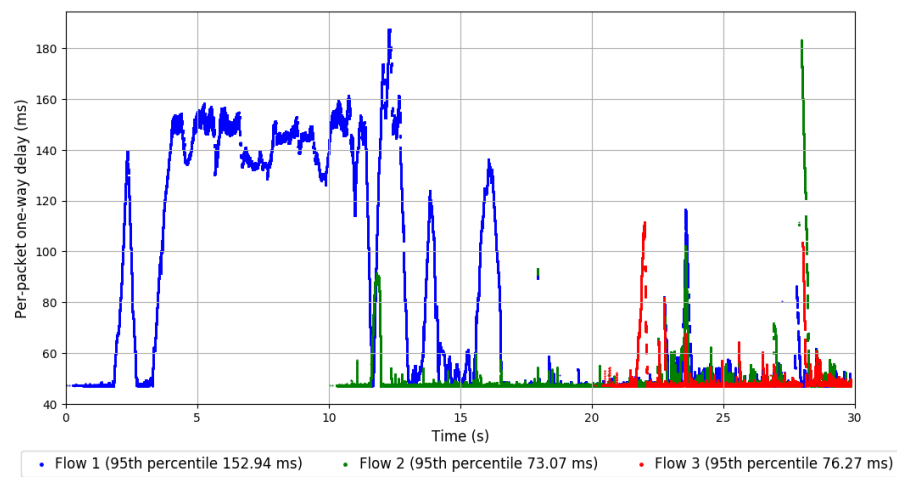
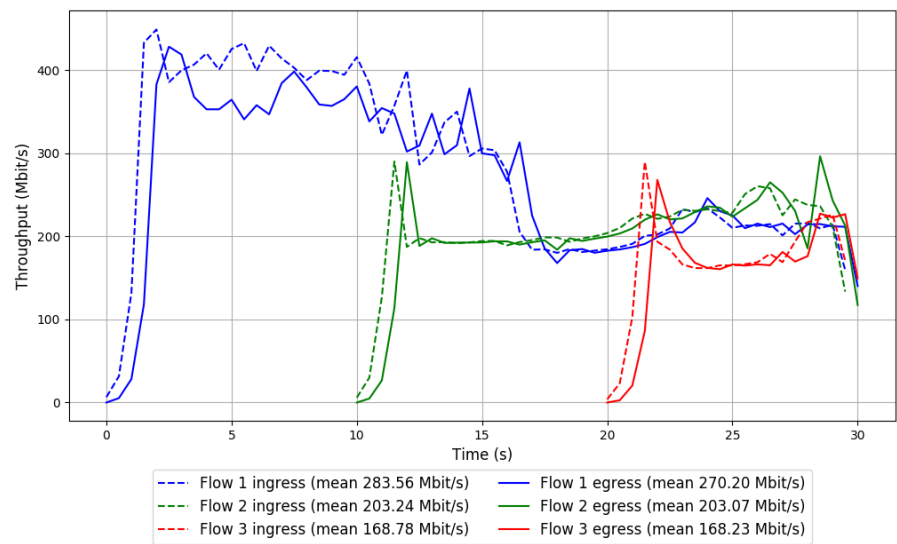


Run 3: Statistics of PCC-Expr

Start at: 2019-05-30 20:16:22
End at: 2019-05-30 20:16:52
Local clock offset: 0.078 ms
Remote clock offset: -0.109 ms

Below is generated by plot.py at 2019-05-31 00:28:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 460.24 Mbit/s
95th percentile per-packet one-way delay: 150.984 ms
Loss rate: 3.32%
-- Flow 1:
Average throughput: 270.20 Mbit/s
95th percentile per-packet one-way delay: 152.943 ms
Loss rate: 5.02%
-- Flow 2:
Average throughput: 203.07 Mbit/s
95th percentile per-packet one-way delay: 73.071 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 168.23 Mbit/s
95th percentile per-packet one-way delay: 76.271 ms
Loss rate: 1.31%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-05-30 20:51:35

End at: 2019-05-30 20:52:05

Local clock offset: 0.151 ms

Remote clock offset: 0.001 ms

Below is generated by plot.py at 2019-05-31 00:35:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 447.53 Mbit/s

95th percentile per-packet one-way delay: 148.734 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 283.99 Mbit/s

95th percentile per-packet one-way delay: 153.018 ms

Loss rate: 2.31%

-- Flow 2:

Average throughput: 217.51 Mbit/s

95th percentile per-packet one-way delay: 57.407 ms

Loss rate: 0.52%

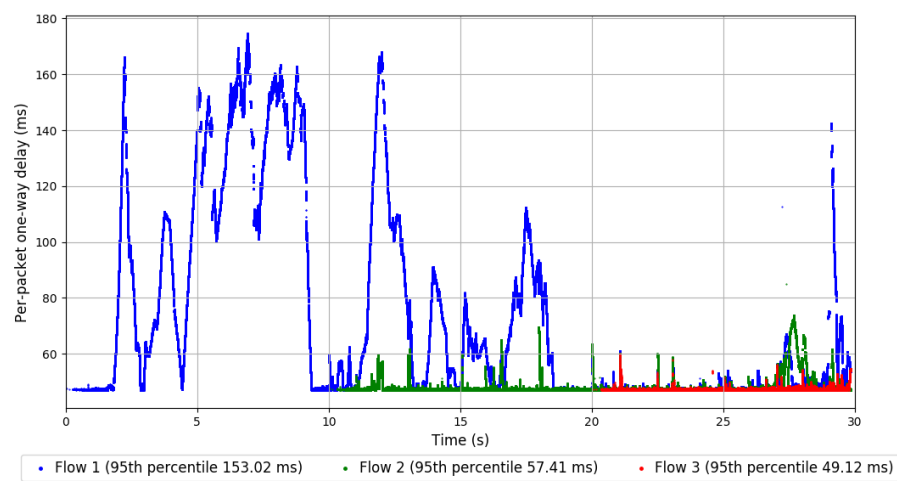
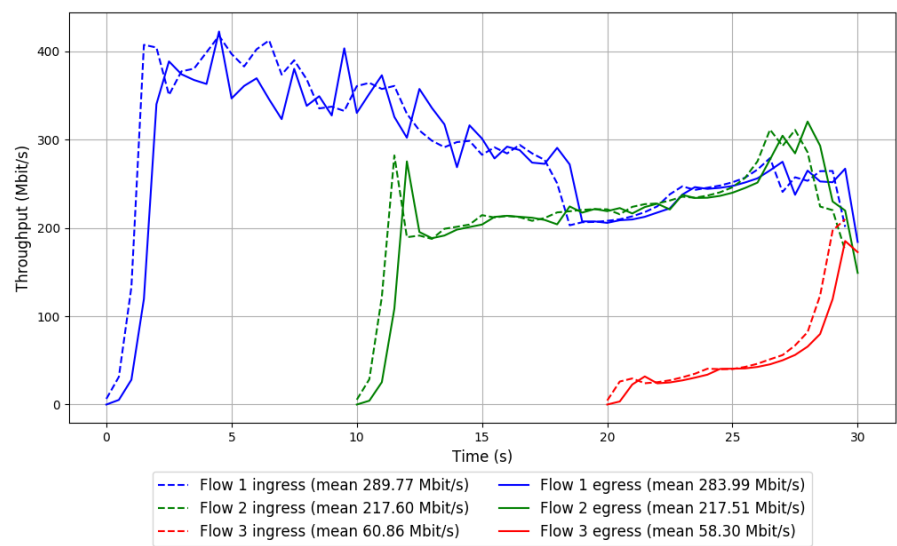
-- Flow 3:

Average throughput: 58.30 Mbit/s

95th percentile per-packet one-way delay: 49.120 ms

Loss rate: 5.14%

Run 4: Report of PCC-Expr — Data Link

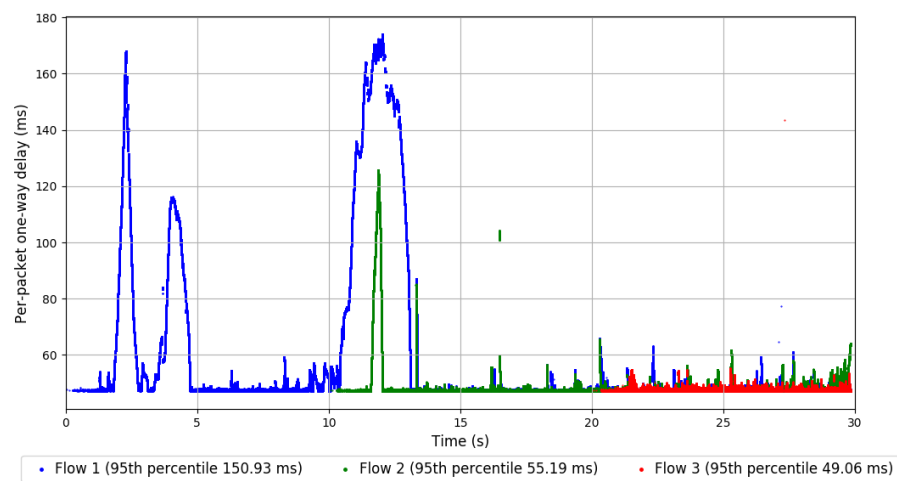
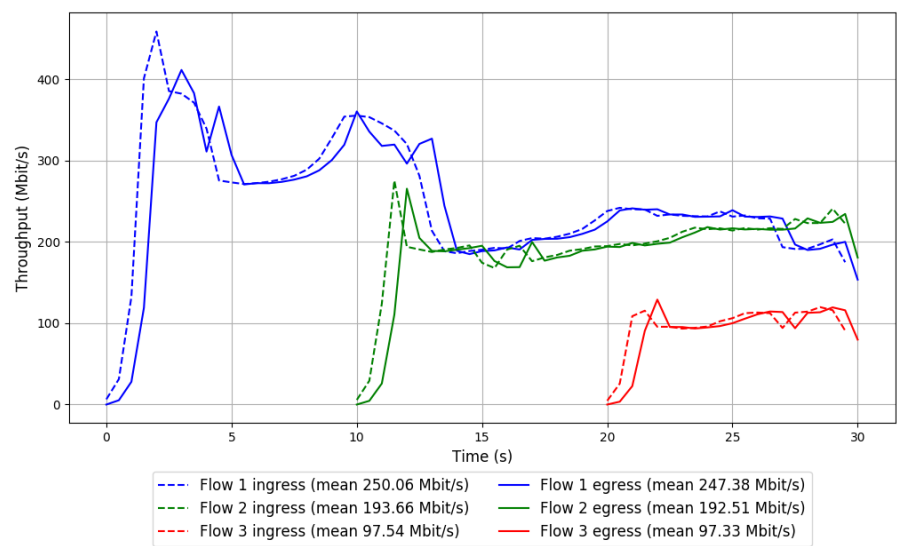


Run 5: Statistics of PCC-Expr

Start at: 2019-05-30 21:27:06
End at: 2019-05-30 21:27:36
Local clock offset: 0.191 ms
Remote clock offset: -0.047 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 407.11 Mbit/s
95th percentile per-packet one-way delay: 131.395 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 247.38 Mbit/s
95th percentile per-packet one-way delay: 150.932 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 192.51 Mbit/s
95th percentile per-packet one-way delay: 55.189 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 97.33 Mbit/s
95th percentile per-packet one-way delay: 49.058 ms
Loss rate: 1.18%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-05-30 19:19:14

End at: 2019-05-30 19:19:44

Local clock offset: -0.146 ms

Remote clock offset: 0.027 ms

Below is generated by plot.py at 2019-05-31 00:35:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.77 Mbit/s

95th percentile per-packet one-way delay: 50.088 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 66.62 Mbit/s

95th percentile per-packet one-way delay: 47.396 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 46.79 Mbit/s

95th percentile per-packet one-way delay: 47.425 ms

Loss rate: 0.99%

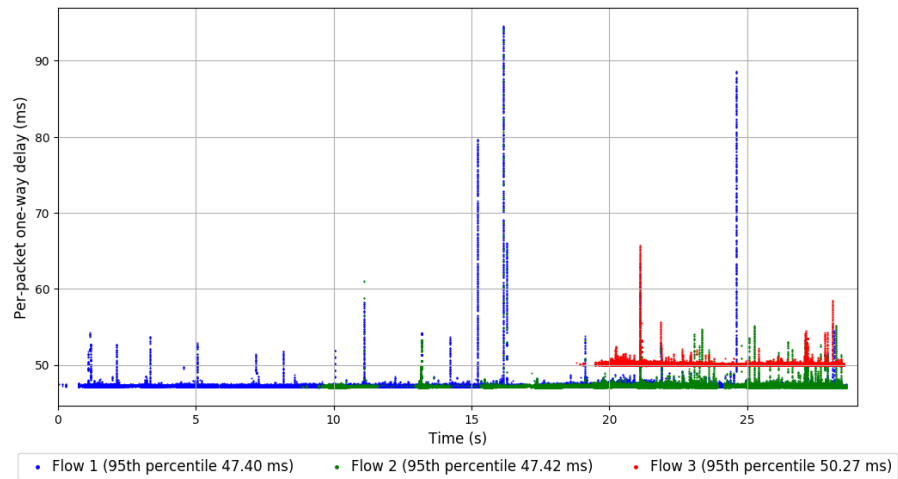
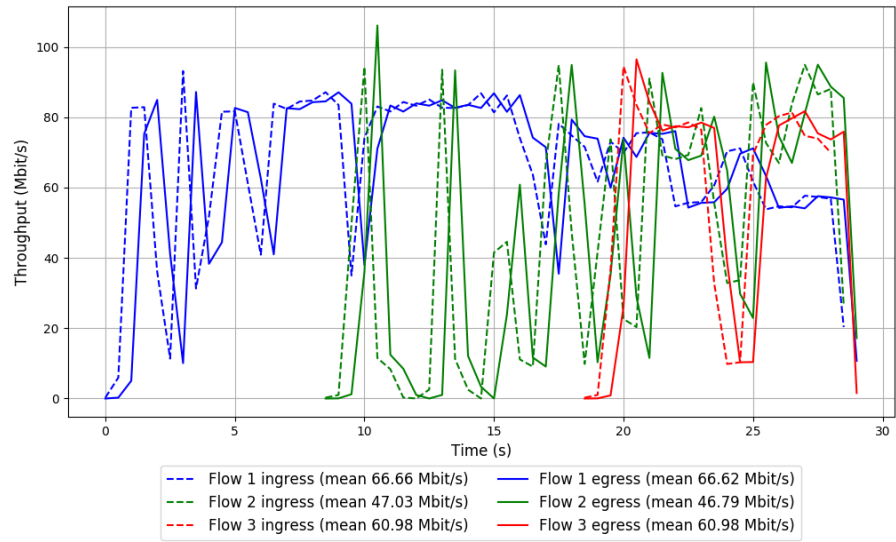
-- Flow 3:

Average throughput: 60.98 Mbit/s

95th percentile per-packet one-way delay: 50.266 ms

Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link

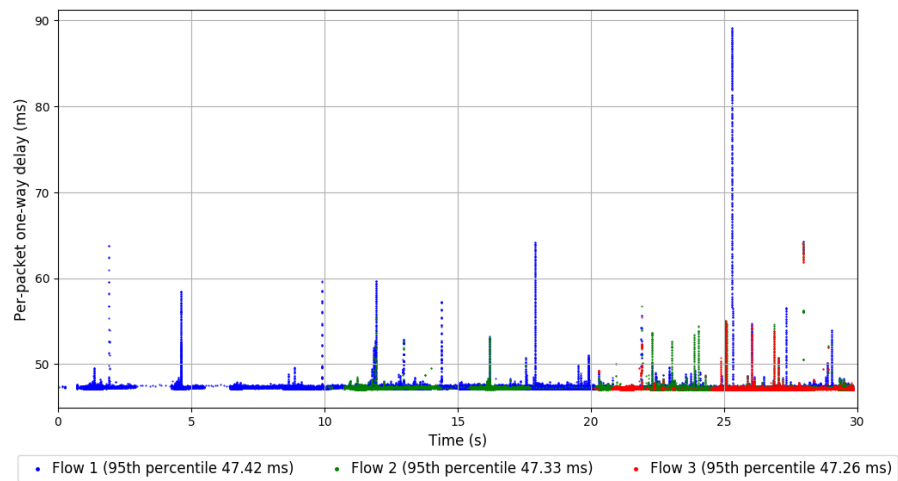
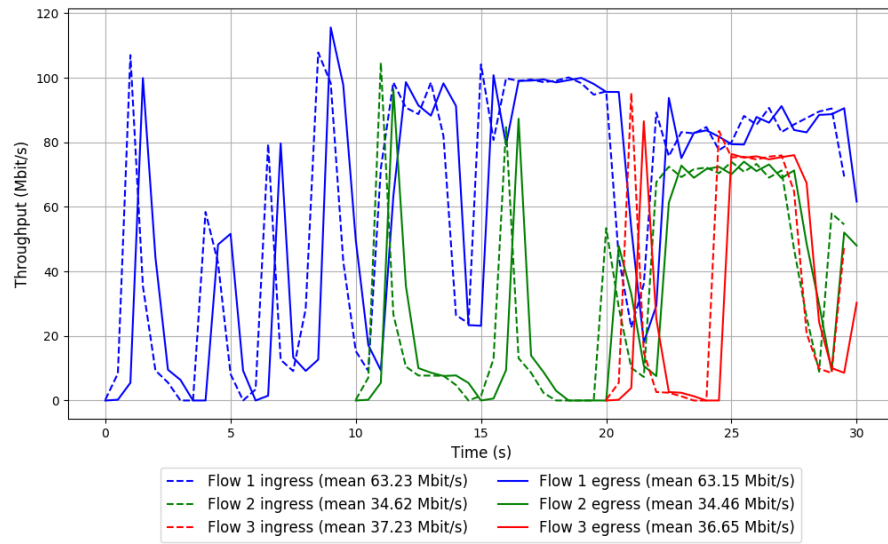


Run 2: Statistics of QUIC Cubic

Start at: 2019-05-30 19:54:15
End at: 2019-05-30 19:54:45
Local clock offset: -0.003 ms
Remote clock offset: -0.045 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 98.05 Mbit/s
95th percentile per-packet one-way delay: 47.395 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 63.15 Mbit/s
95th percentile per-packet one-way delay: 47.416 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 34.46 Mbit/s
95th percentile per-packet one-way delay: 47.334 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 36.65 Mbit/s
95th percentile per-packet one-way delay: 47.264 ms
Loss rate: 2.51%

Run 2: Report of QUIC Cubic — Data Link

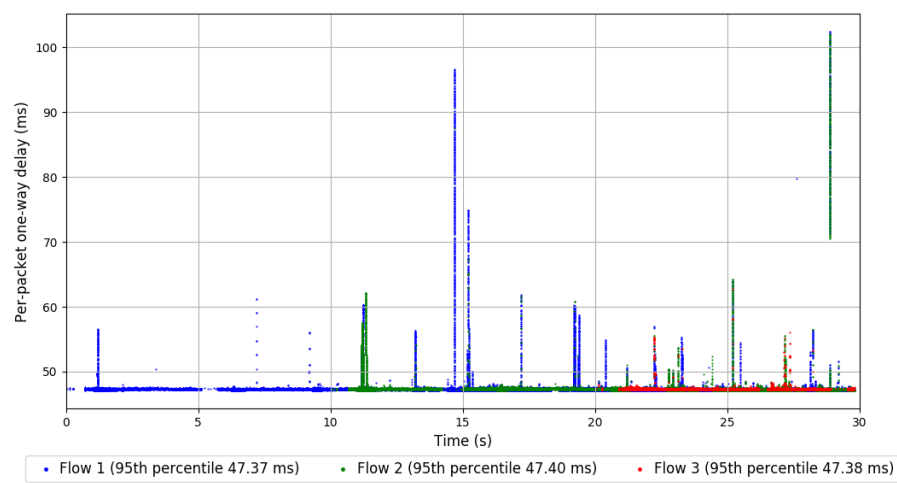
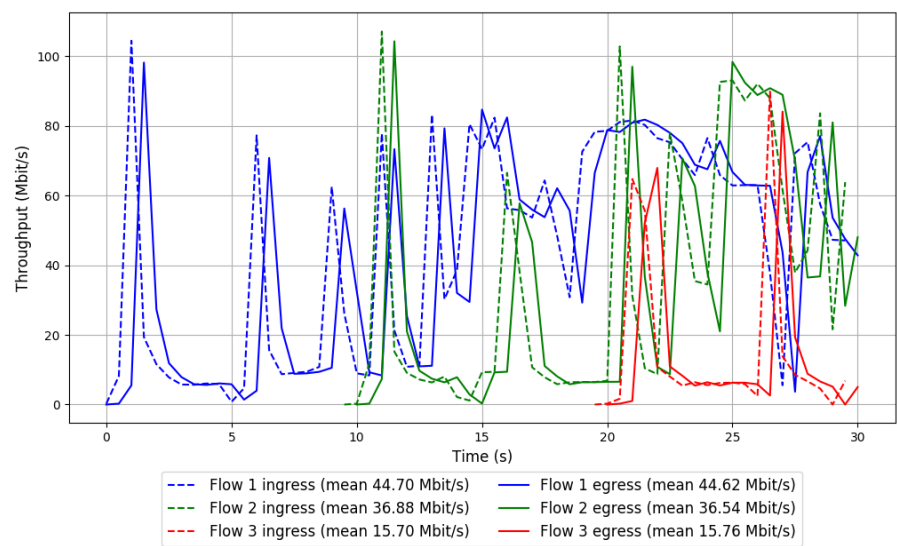


Run 3: Statistics of QUIC Cubic

Start at: 2019-05-30 20:29:25
End at: 2019-05-30 20:29:55
Local clock offset: 0.109 ms
Remote clock offset: -0.013 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 74.08 Mbit/s
95th percentile per-packet one-way delay: 47.379 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 44.62 Mbit/s
95th percentile per-packet one-way delay: 47.366 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 36.54 Mbit/s
95th percentile per-packet one-way delay: 47.400 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 15.76 Mbit/s
95th percentile per-packet one-way delay: 47.378 ms
Loss rate: 0.58%

Run 3: Report of QUIC Cubic — Data Link

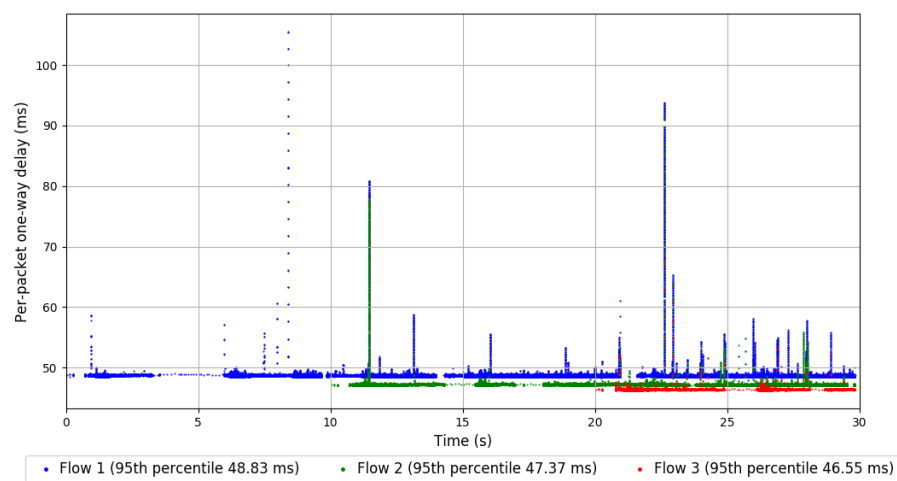
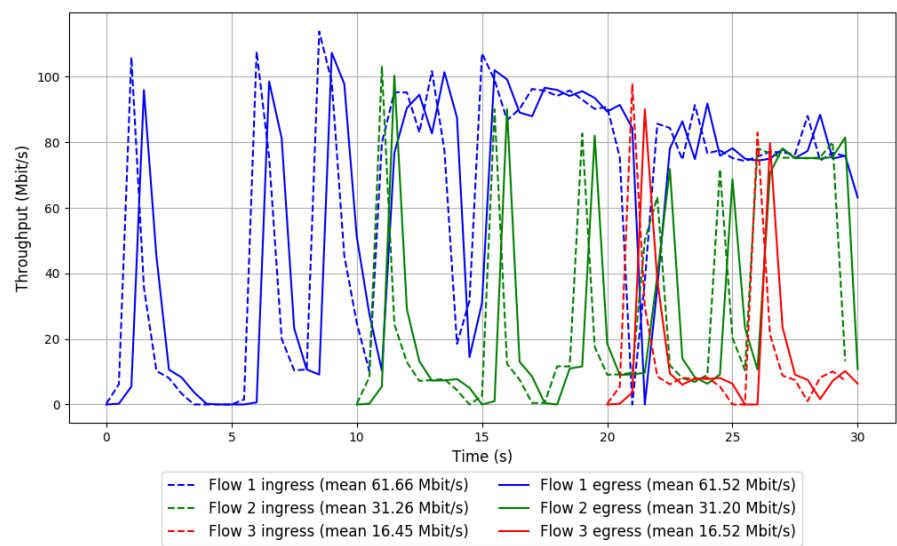


Run 4: Statistics of QUIC Cubic

Start at: 2019-05-30 21:04:32
End at: 2019-05-30 21:05:02
Local clock offset: 0.145 ms
Remote clock offset: -0.019 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 87.66 Mbit/s
95th percentile per-packet one-way delay: 48.806 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 61.52 Mbit/s
95th percentile per-packet one-way delay: 48.833 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 31.20 Mbit/s
95th percentile per-packet one-way delay: 47.369 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 16.52 Mbit/s
95th percentile per-packet one-way delay: 46.546 ms
Loss rate: 0.57%

Run 4: Report of QUIC Cubic — Data Link

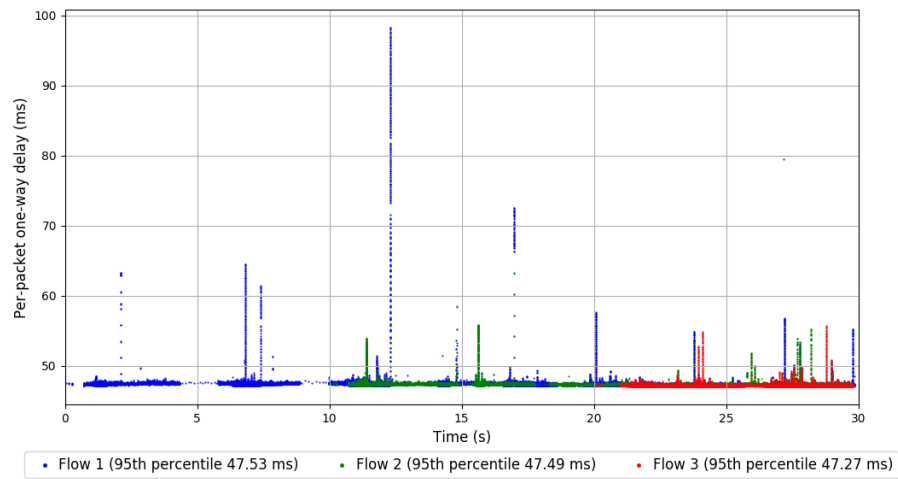
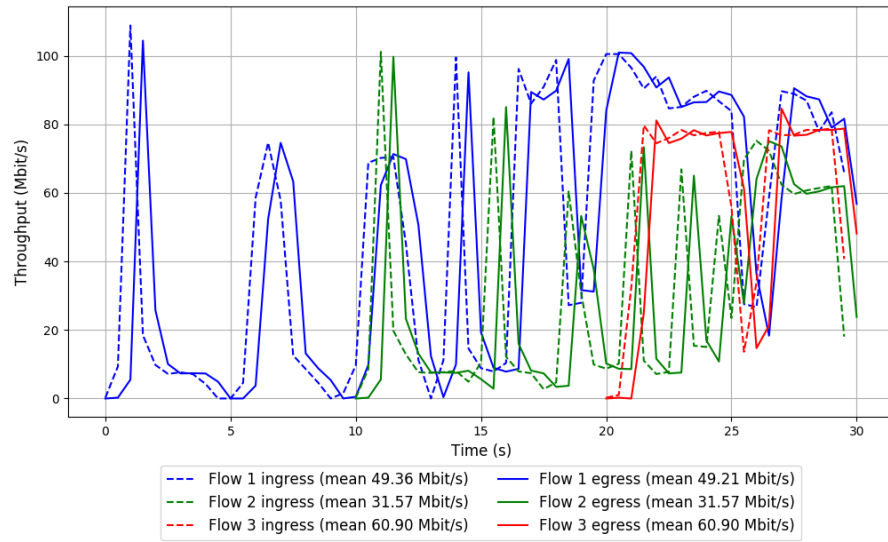


Run 5: Statistics of QUIC Cubic

Start at: 2019-05-30 21:39:58
End at: 2019-05-30 21:40:28
Local clock offset: 0.238 ms
Remote clock offset: -0.084 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.93 Mbit/s
95th percentile per-packet one-way delay: 47.498 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 47.532 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 31.57 Mbit/s
95th percentile per-packet one-way delay: 47.493 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 60.90 Mbit/s
95th percentile per-packet one-way delay: 47.270 ms
Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link

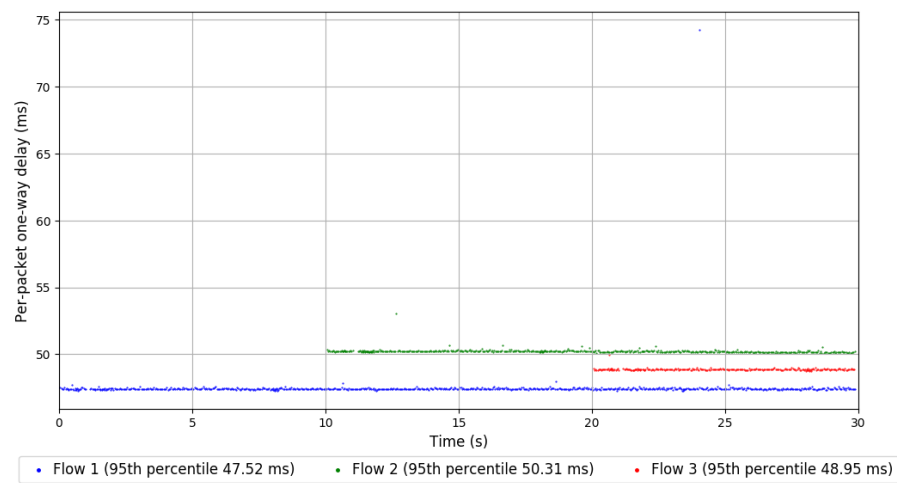
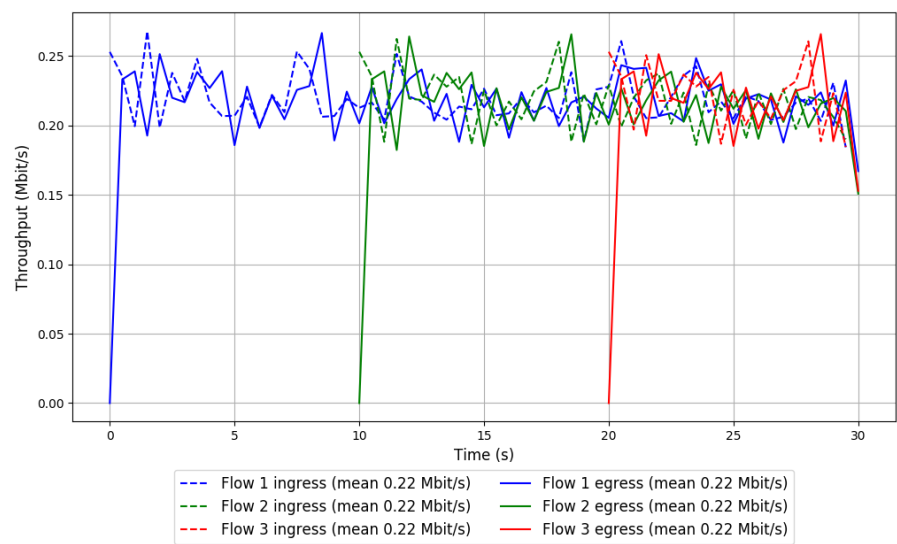


Run 1: Statistics of SReAM

Start at: 2019-05-30 19:27:46
End at: 2019-05-30 19:28:16
Local clock offset: -0.077 ms
Remote clock offset: -0.035 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 50.267 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.522 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.314 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.951 ms
Loss rate: 1.09%

Run 1: Report of SReAM — Data Link

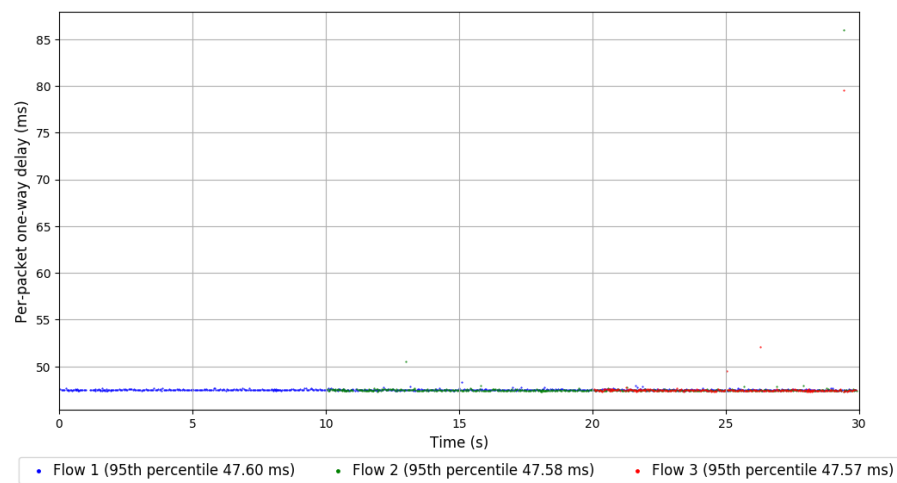
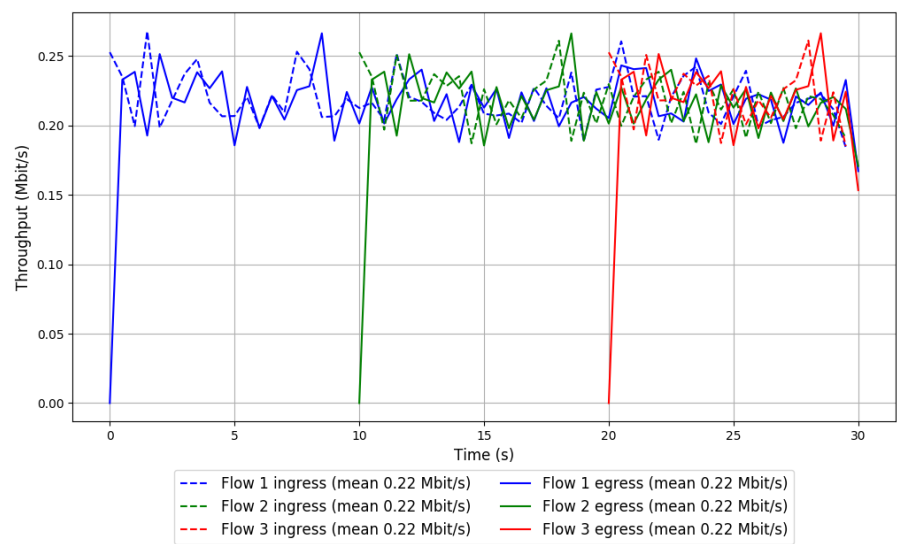


Run 2: Statistics of SReAM

Start at: 2019-05-30 20:02:41
End at: 2019-05-30 20:03:11
Local clock offset: 0.026 ms
Remote clock offset: -0.08 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.590 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.603 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.581 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.574 ms
Loss rate: 1.09%

Run 2: Report of SReAM — Data Link

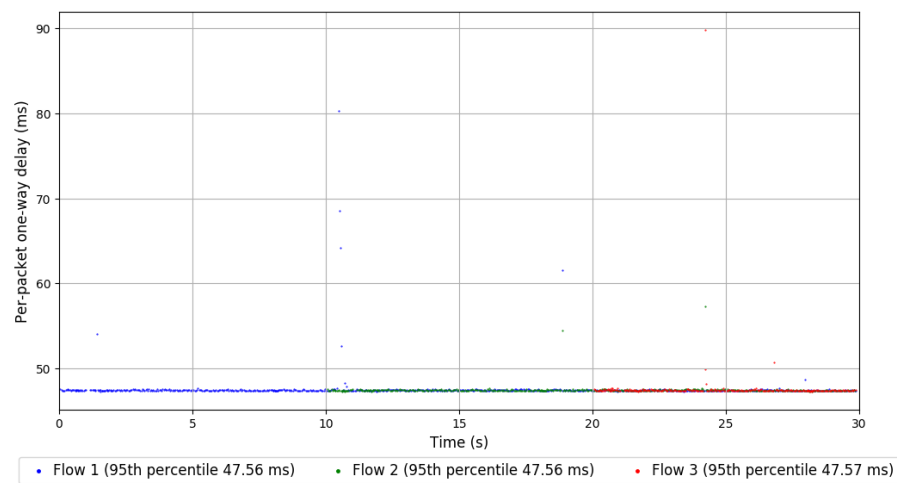
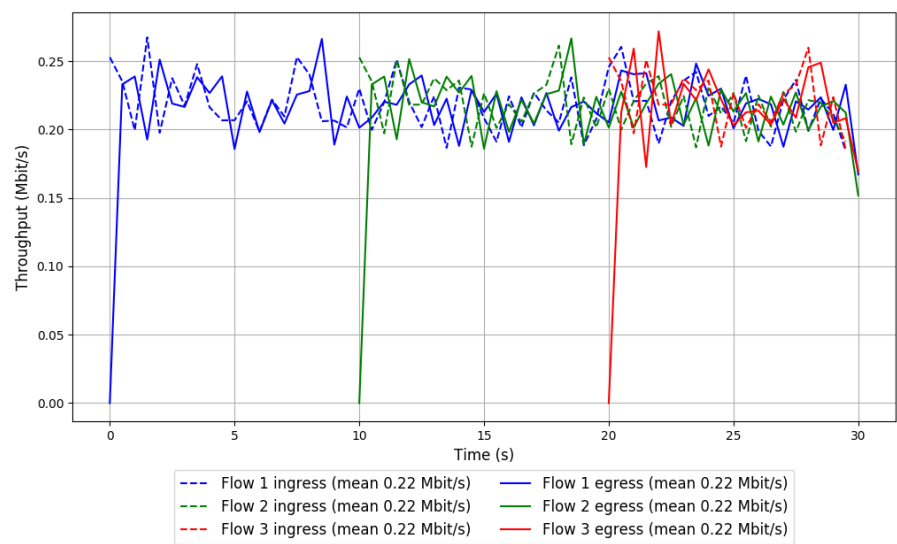


Run 3: Statistics of SReAM

Start at: 2019-05-30 20:37:46
End at: 2019-05-30 20:38:16
Local clock offset: 0.149 ms
Remote clock offset: -0.015 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.566 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.565 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.563 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.573 ms
Loss rate: 1.09%

Run 3: Report of SReAM — Data Link

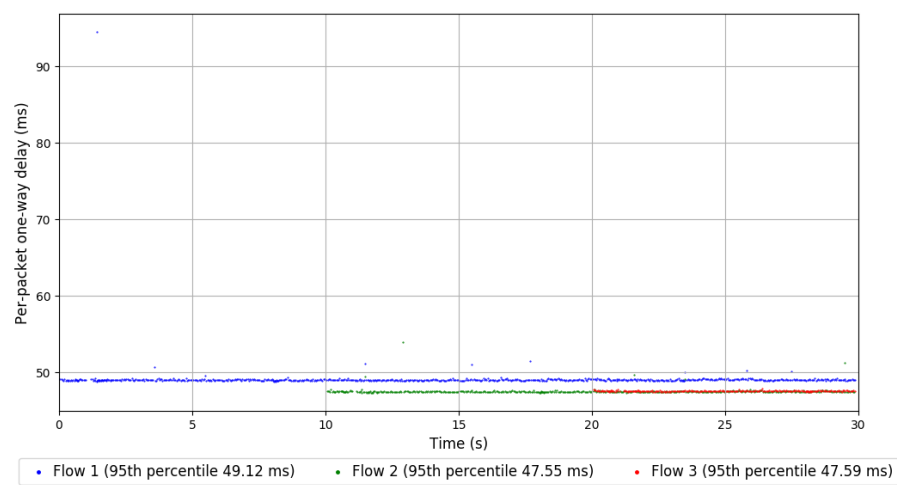
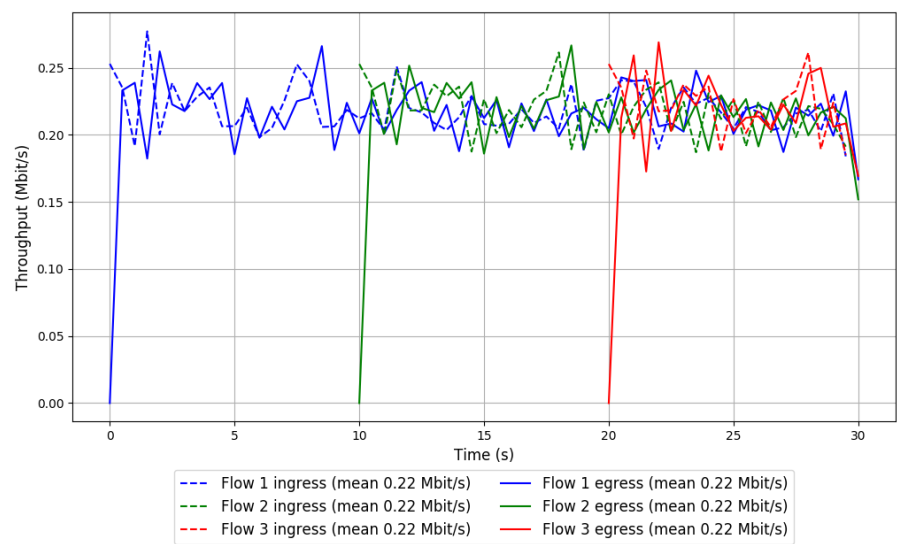


Run 4: Statistics of SReAM

Start at: 2019-05-30 21:12:57
End at: 2019-05-30 21:13:27
Local clock offset: 0.183 ms
Remote clock offset: -0.037 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 49.070 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.123 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.545 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.594 ms
Loss rate: 1.09%

Run 4: Report of SReAM — Data Link

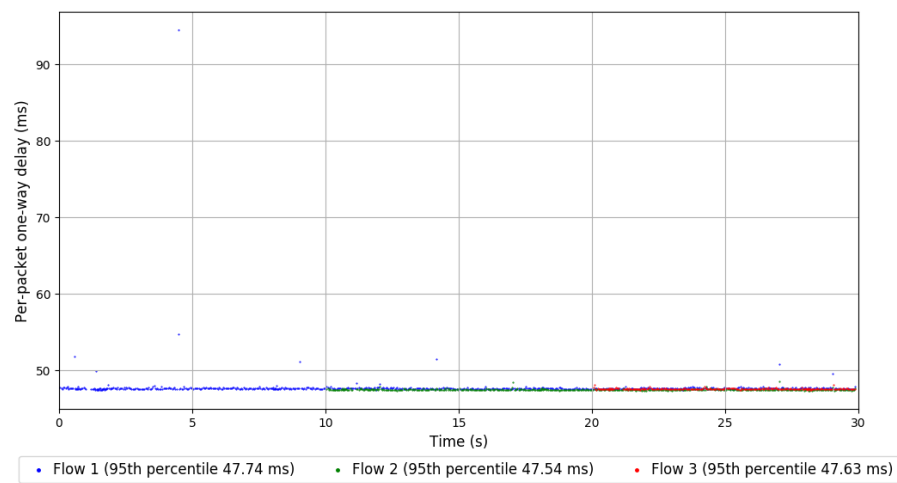
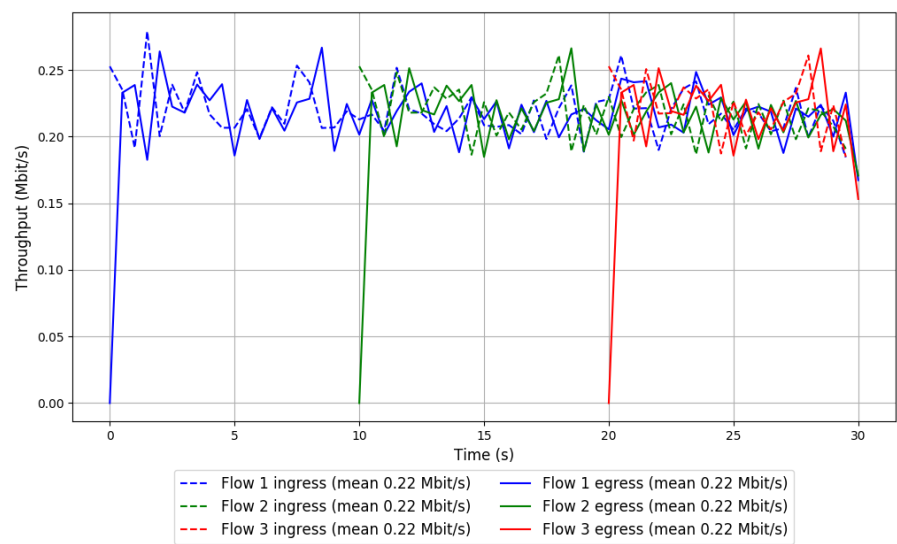


Run 5: Statistics of SReAM

Start at: 2019-05-30 21:48:36
End at: 2019-05-30 21:49:06
Local clock offset: 0.251 ms
Remote clock offset: -0.102 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 47.701 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.744 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.543 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.634 ms
Loss rate: 1.09%

Run 5: Report of SCReAM — Data Link

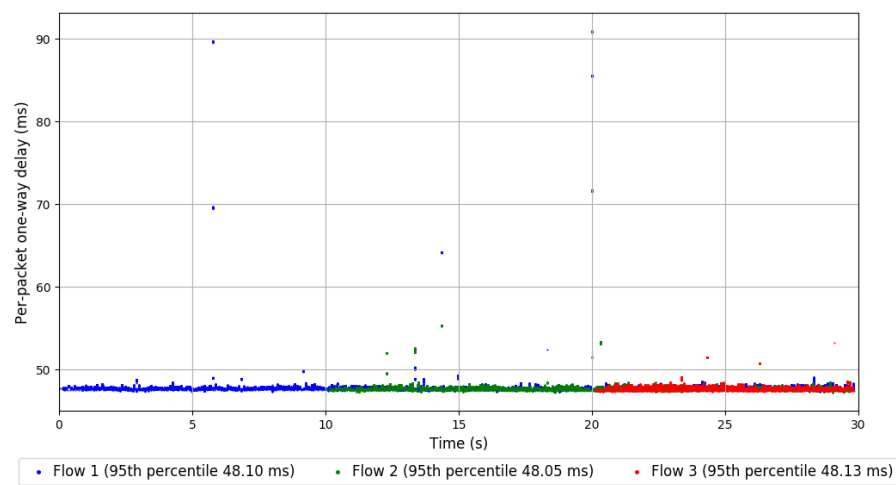
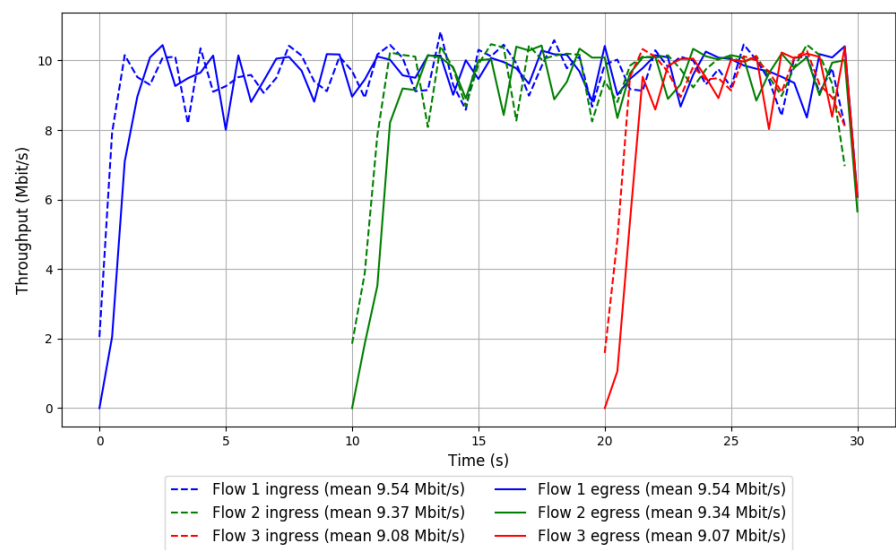


Run 1: Statistics of Sprout

Start at: 2019-05-30 19:09:34
End at: 2019-05-30 19:10:04
Local clock offset: -0.157 ms
Remote clock offset: -0.031 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 18.70 Mbit/s
95th percentile per-packet one-way delay: 48.087 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 48.098 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 48.050 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 9.07 Mbit/s
95th percentile per-packet one-way delay: 48.134 ms
Loss rate: 1.15%

Run 1: Report of Sprout — Data Link

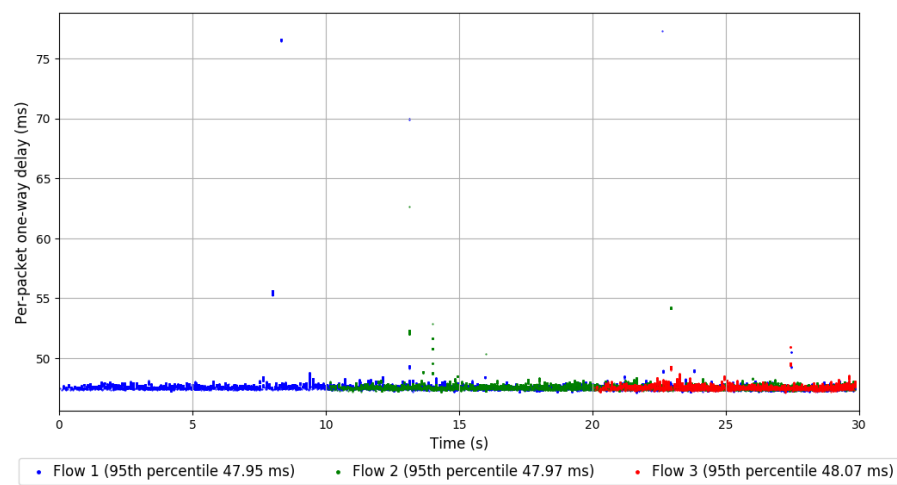
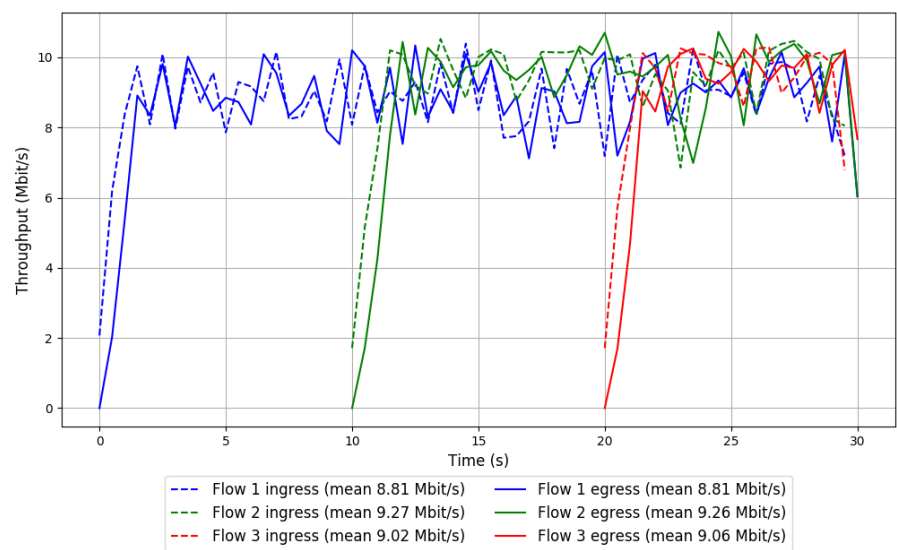


Run 2: Statistics of Sprout

Start at: 2019-05-30 19:44:32
End at: 2019-05-30 19:45:02
Local clock offset: -0.018 ms
Remote clock offset: -0.069 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 17.93 Mbit/s
95th percentile per-packet one-way delay: 47.981 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 8.81 Mbit/s
95th percentile per-packet one-way delay: 47.952 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 9.26 Mbit/s
95th percentile per-packet one-way delay: 47.967 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 9.06 Mbit/s
95th percentile per-packet one-way delay: 48.072 ms
Loss rate: 0.43%

Run 2: Report of Sprout — Data Link

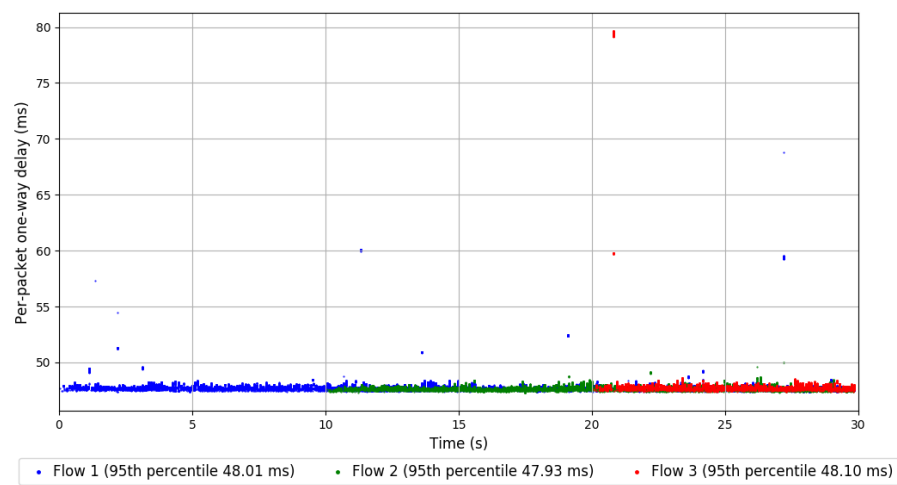
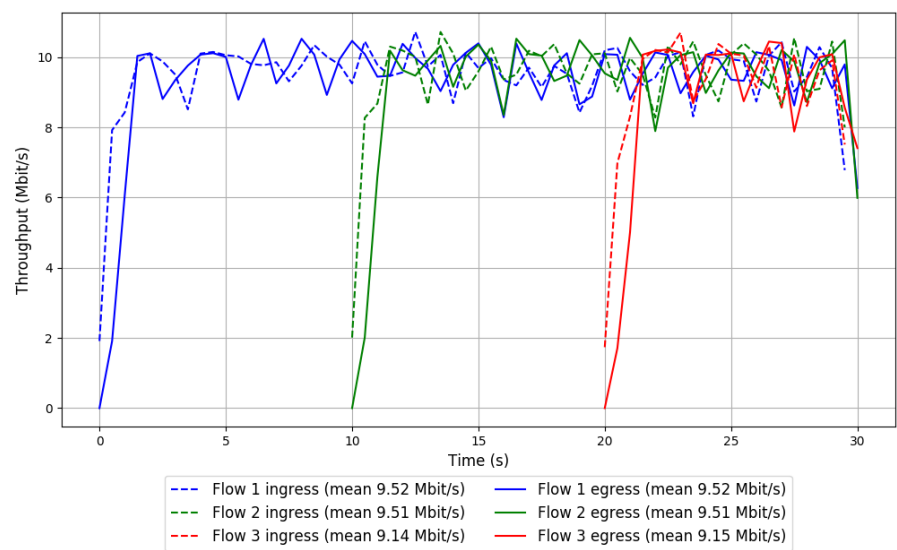


Run 3: Statistics of Sprout

Start at: 2019-05-30 20:19:34
End at: 2019-05-30 20:20:04
Local clock offset: 0.105 ms
Remote clock offset: -0.075 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 18.83 Mbit/s
95th percentile per-packet one-way delay: 48.011 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 48.014 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 47.930 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 9.15 Mbit/s
95th percentile per-packet one-way delay: 48.098 ms
Loss rate: 0.90%

Run 3: Report of Sprout — Data Link

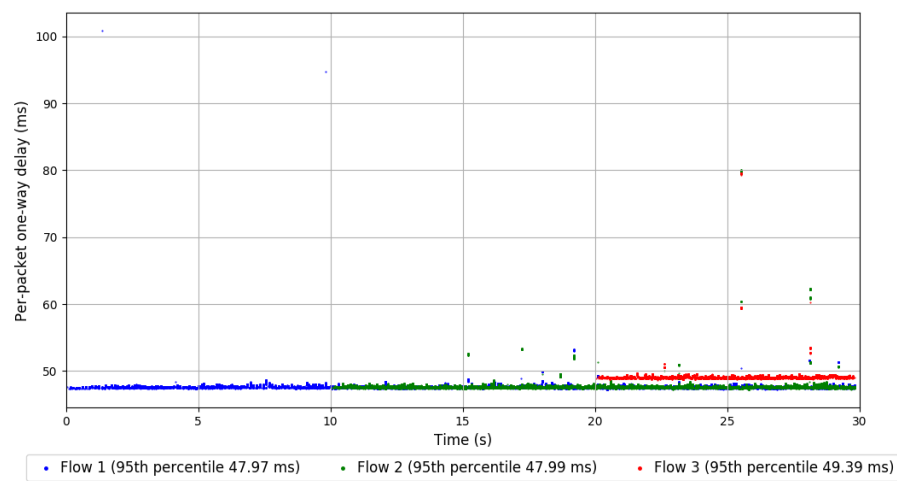
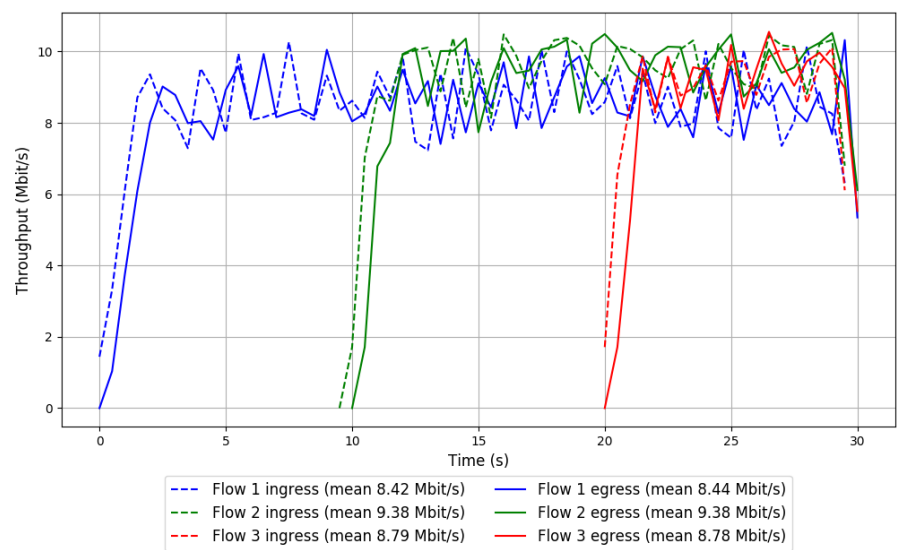


Run 4: Statistics of Sprout

Start at: 2019-05-30 20:54:45
End at: 2019-05-30 20:55:15
Local clock offset: 0.149 ms
Remote clock offset: -0.061 ms

```
# Below is generated by plot.py at 2019-05-31 00:35:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.55 Mbit/s
95th percentile per-packet one-way delay: 49.157 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 8.44 Mbit/s
95th percentile per-packet one-way delay: 47.974 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 47.995 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 8.78 Mbit/s
95th percentile per-packet one-way delay: 49.387 ms
Loss rate: 1.18%
```

Run 4: Report of Sprout — Data Link

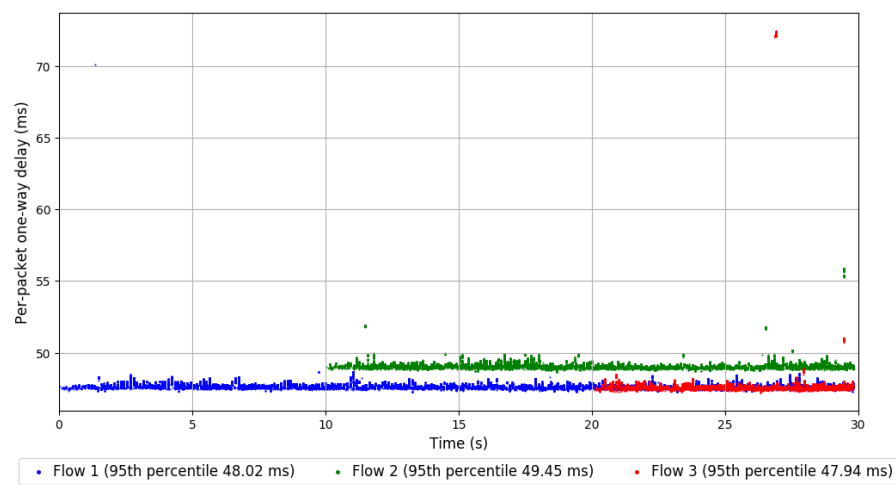
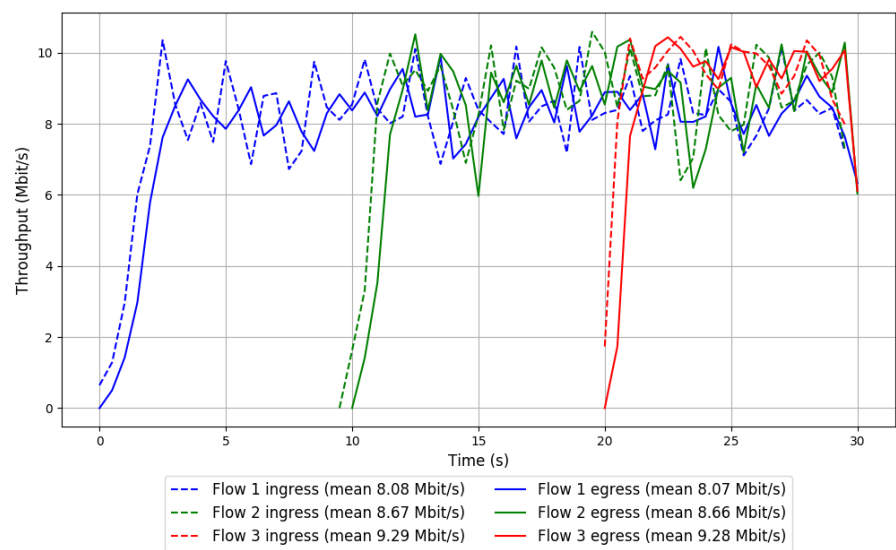


Run 5: Statistics of Sprout

Start at: 2019-05-30 21:30:13
End at: 2019-05-30 21:30:43
Local clock offset: 0.236 ms
Remote clock offset: -0.047 ms

Below is generated by plot.py at 2019-05-31 00:35:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 16.86 Mbit/s
95th percentile per-packet one-way delay: 49.244 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 8.07 Mbit/s
95th percentile per-packet one-way delay: 48.016 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 49.446 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 9.28 Mbit/s
95th percentile per-packet one-way delay: 47.944 ms
Loss rate: 1.12%

Run 5: Report of Sprout — Data Link

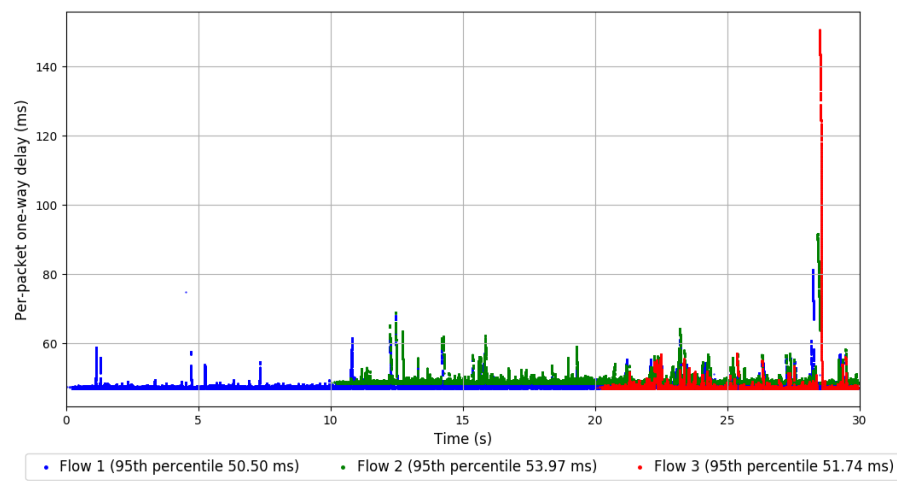
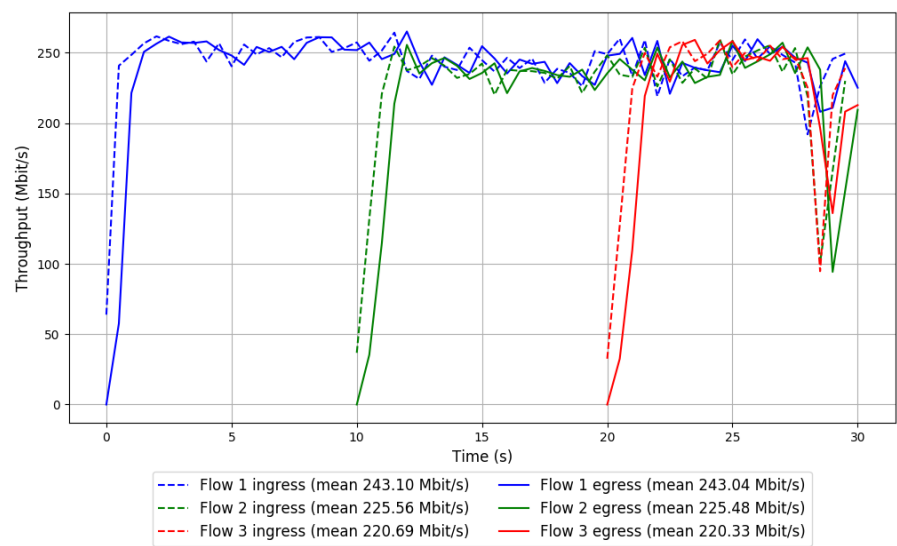



```
Run 1: Statistics of TaoVA-100x

Start at: 2019-05-30 19:20:32
End at: 2019-05-30 19:21:03
Local clock offset: -0.148 ms
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2019-05-31 00:43:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 465.66 Mbit/s
95th percentile per-packet one-way delay: 52.321 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 243.04 Mbit/s
95th percentile per-packet one-way delay: 50.499 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 225.48 Mbit/s
95th percentile per-packet one-way delay: 53.967 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 220.33 Mbit/s
95th percentile per-packet one-way delay: 51.739 ms
Loss rate: 1.12%
```

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

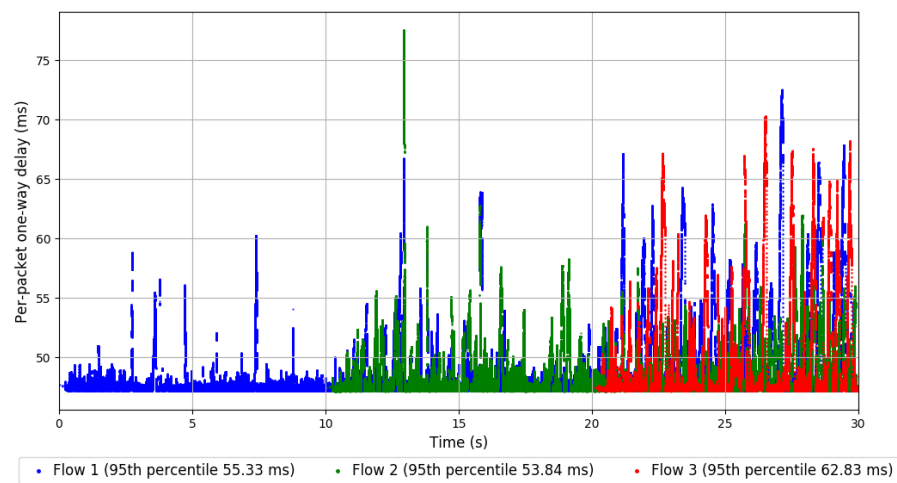
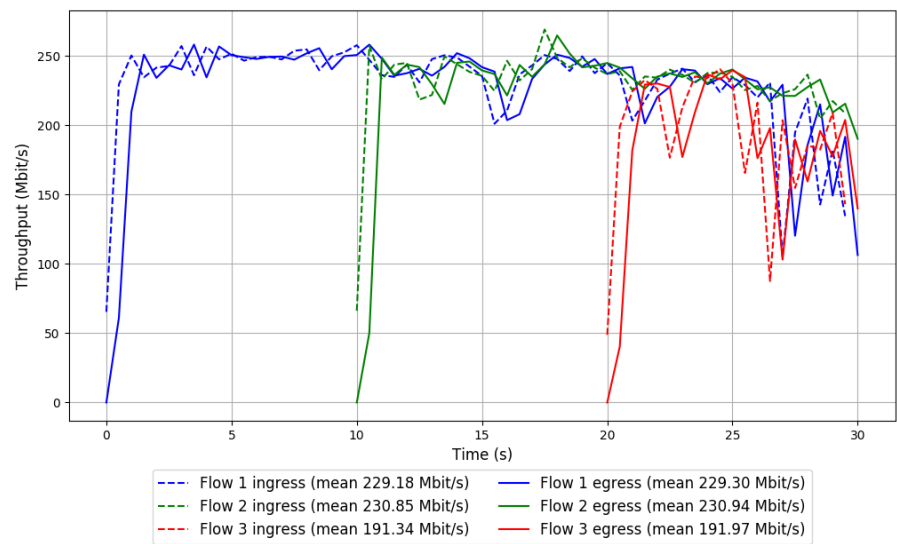


Run 2: Statistics of TaoVA-100x

Start at: 2019-05-30 19:55:32
End at: 2019-05-30 19:56:02
Local clock offset: 0.024 ms
Remote clock offset: -0.053 ms

Below is generated by plot.py at 2019-05-31 00:43:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 446.17 Mbit/s
95th percentile per-packet one-way delay: 56.166 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 229.30 Mbit/s
95th percentile per-packet one-way delay: 55.327 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 230.94 Mbit/s
95th percentile per-packet one-way delay: 53.841 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 191.97 Mbit/s
95th percentile per-packet one-way delay: 62.833 ms
Loss rate: 0.64%

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

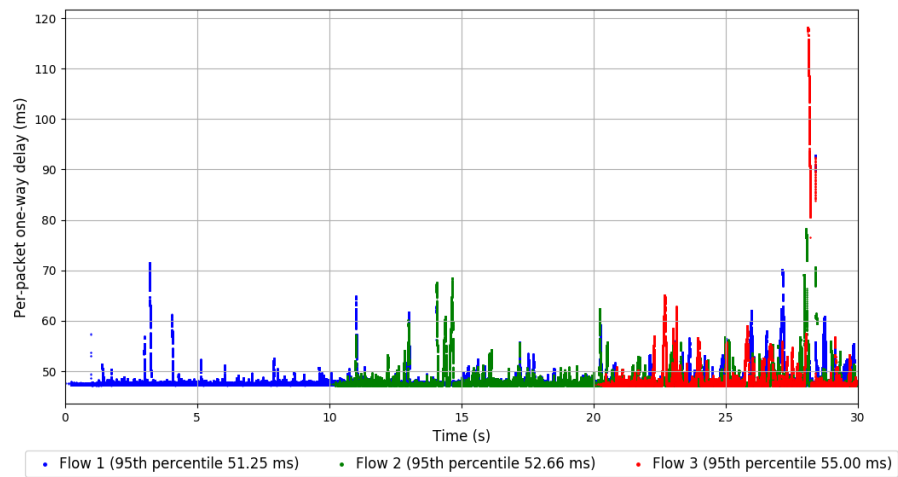
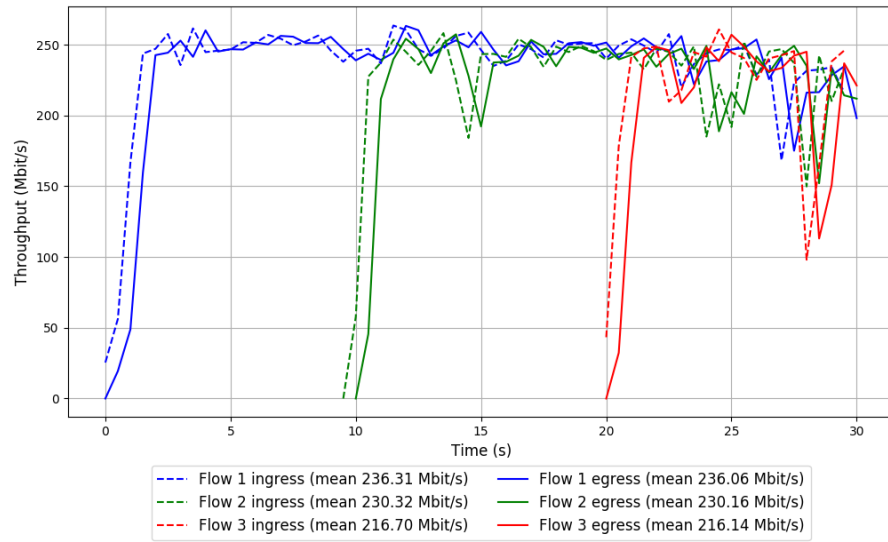


Run 3: Statistics of TaoVA-100x

Start at: 2019-05-30 20:30:42
End at: 2019-05-30 20:31:12
Local clock offset: 0.099 ms
Remote clock offset: -0.029 ms

Below is generated by plot.py at 2019-05-31 00:43:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 460.61 Mbit/s
95th percentile per-packet one-way delay: 52.486 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 236.06 Mbit/s
95th percentile per-packet one-way delay: 51.246 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 230.16 Mbit/s
95th percentile per-packet one-way delay: 52.657 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 216.14 Mbit/s
95th percentile per-packet one-way delay: 54.996 ms
Loss rate: 1.21%

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

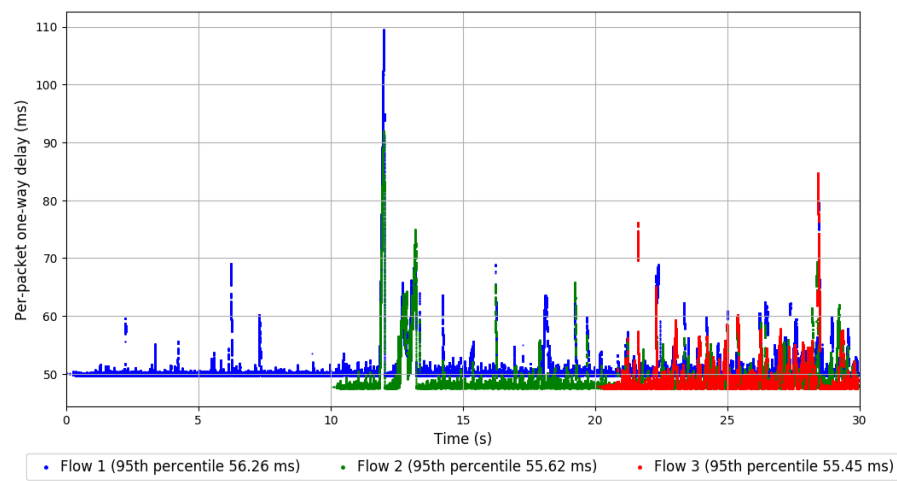
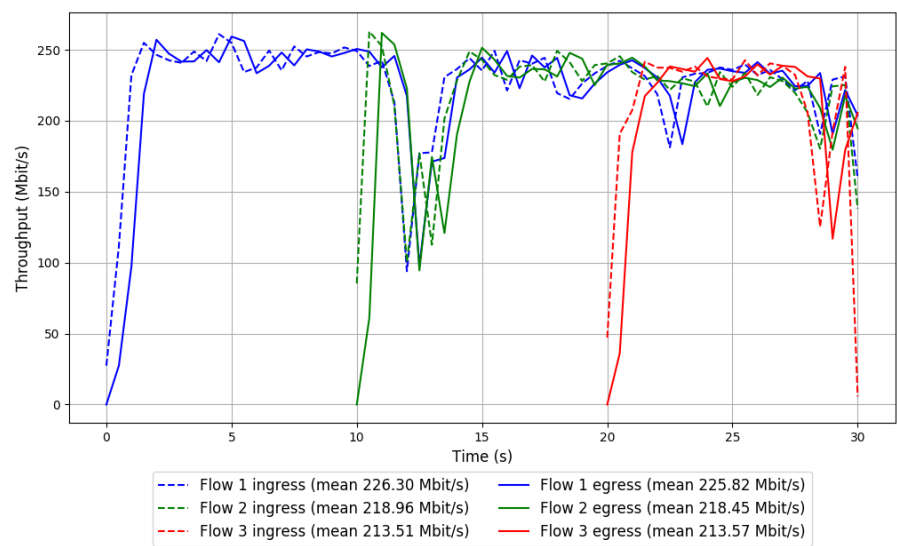


Run 4: Statistics of TaoVA-100x

Start at: 2019-05-30 21:05:49
End at: 2019-05-30 21:06:19
Local clock offset: 0.543 ms
Remote clock offset: -0.046 ms

Below is generated by plot.py at 2019-05-31 00:43:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 441.58 Mbit/s
95th percentile per-packet one-way delay: 55.878 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 225.82 Mbit/s
95th percentile per-packet one-way delay: 56.260 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 218.45 Mbit/s
95th percentile per-packet one-way delay: 55.623 ms
Loss rate: 2.18%
-- Flow 3:
Average throughput: 213.57 Mbit/s
95th percentile per-packet one-way delay: 55.453 ms
Loss rate: 1.55%

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

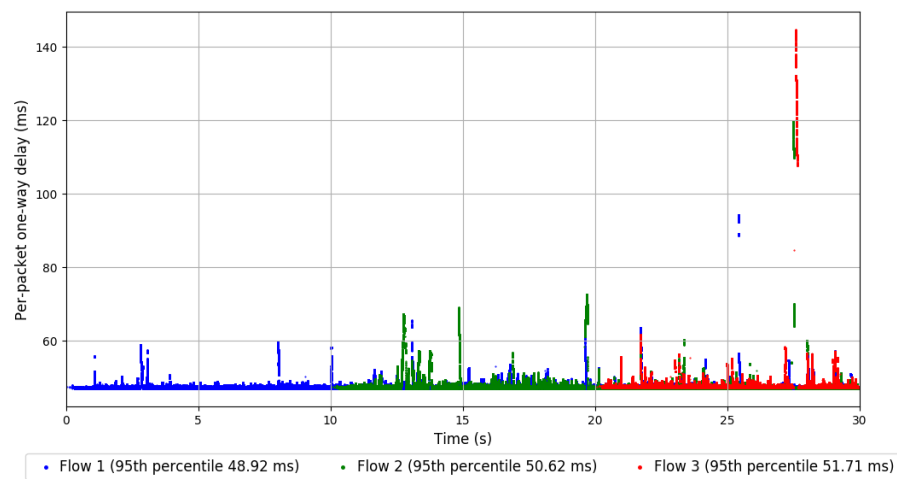
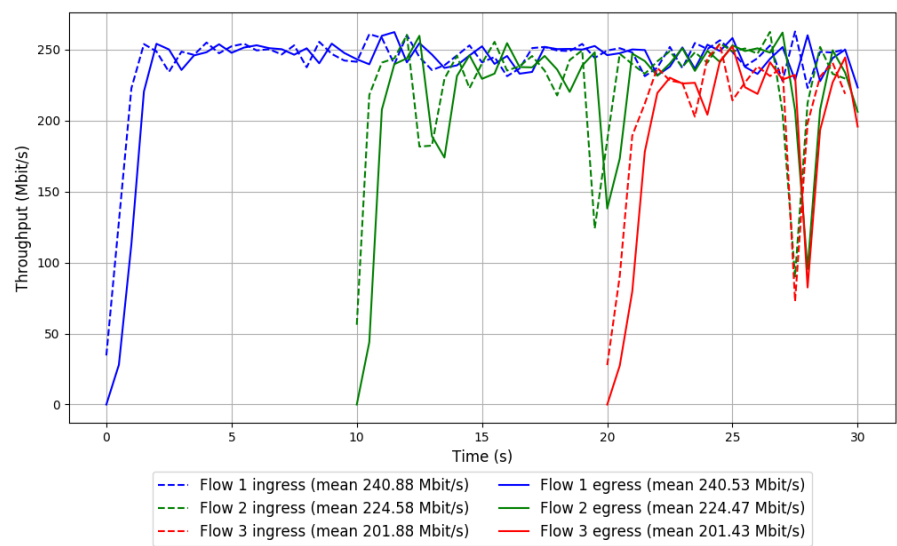


Run 5: Statistics of TaoVA-100x

Start at: 2019-05-30 21:41:15
End at: 2019-05-30 21:41:45
Local clock offset: 0.231 ms
Remote clock offset: -0.048 ms

Below is generated by plot.py at 2019-05-31 00:43:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 456.26 Mbit/s
95th percentile per-packet one-way delay: 49.759 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 240.53 Mbit/s
95th percentile per-packet one-way delay: 48.924 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 224.47 Mbit/s
95th percentile per-packet one-way delay: 50.623 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 201.43 Mbit/s
95th percentile per-packet one-way delay: 51.710 ms
Loss rate: 1.21%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-05-30 19:26:00

End at: 2019-05-30 19:26:30

Local clock offset: -0.091 ms

Remote clock offset: 0.026 ms

Below is generated by plot.py at 2019-05-31 00:43:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 677.81 Mbit/s

95th percentile per-packet one-way delay: 70.039 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 349.77 Mbit/s

95th percentile per-packet one-way delay: 60.424 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 295.73 Mbit/s

95th percentile per-packet one-way delay: 51.299 ms

Loss rate: 0.46%

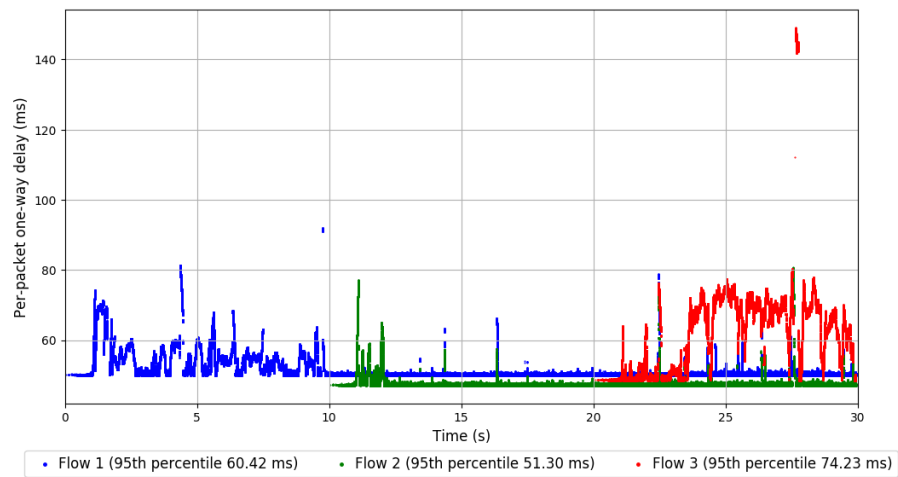
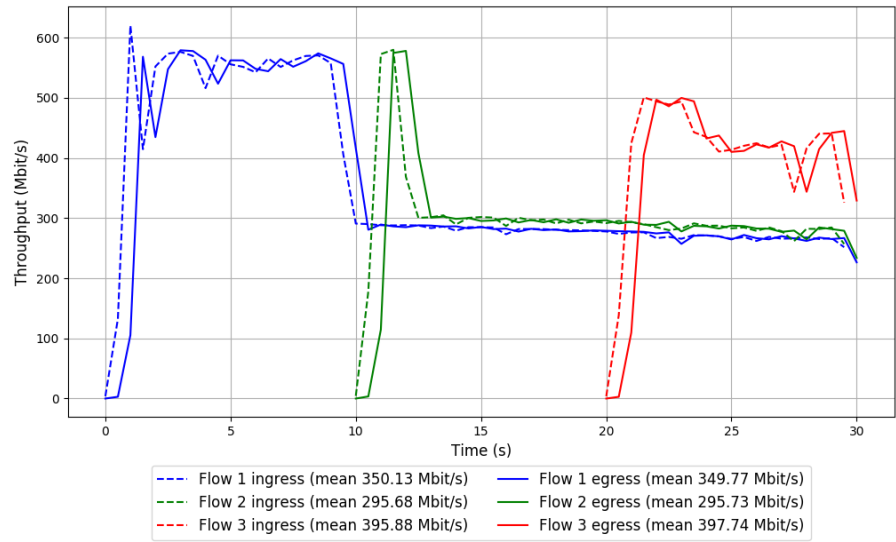
-- Flow 3:

Average throughput: 397.74 Mbit/s

95th percentile per-packet one-way delay: 74.227 ms

Loss rate: 0.63%

Run 1: Report of TCP Vegas — Data Link

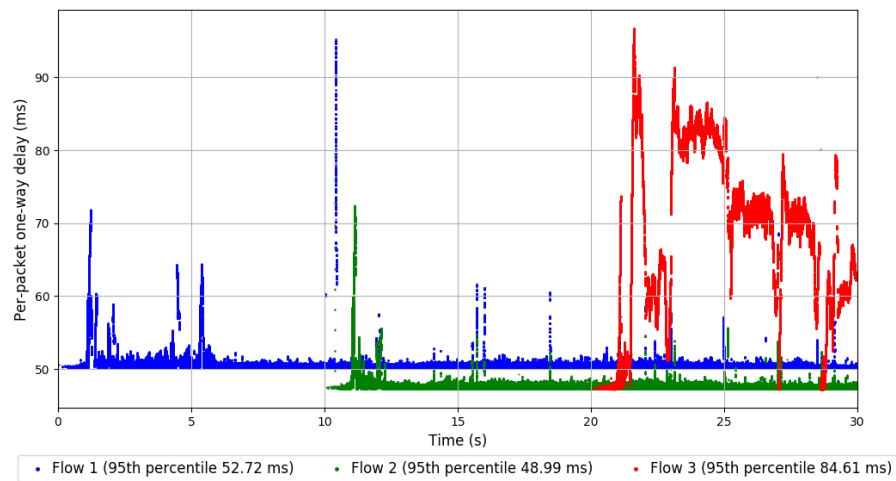
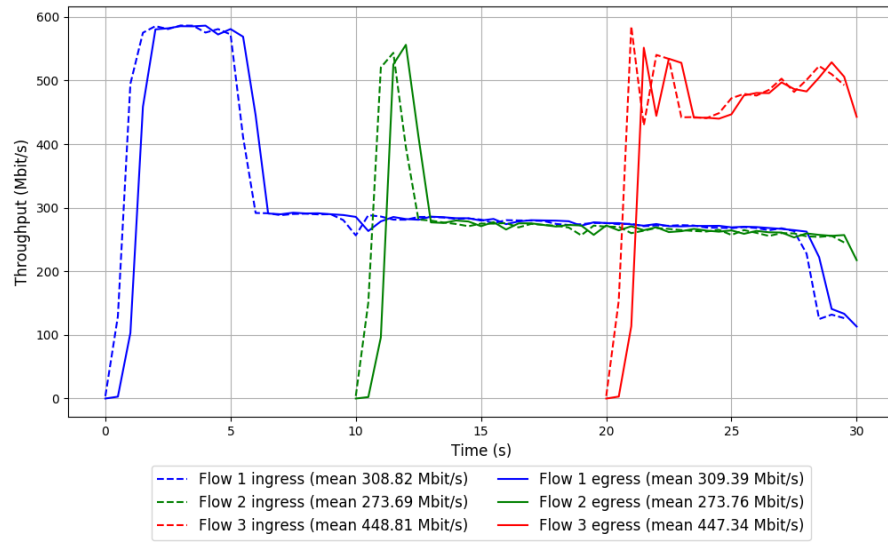


Run 2: Statistics of TCP Vegas

Start at: 2019-05-30 20:00:56
End at: 2019-05-30 20:01:26
Local clock offset: 0.02 ms
Remote clock offset: -0.089 ms

Below is generated by plot.py at 2019-05-31 00:48:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 639.26 Mbit/s
95th percentile per-packet one-way delay: 80.364 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 309.39 Mbit/s
95th percentile per-packet one-way delay: 52.716 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 273.76 Mbit/s
95th percentile per-packet one-way delay: 48.993 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 447.34 Mbit/s
95th percentile per-packet one-way delay: 84.610 ms
Loss rate: 1.28%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-05-30 20:36:09

End at: 2019-05-30 20:36:39

Local clock offset: 0.105 ms

Remote clock offset: -0.05 ms

Below is generated by plot.py at 2019-05-31 00:48:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 510.85 Mbit/s

95th percentile per-packet one-way delay: 67.445 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 268.37 Mbit/s

95th percentile per-packet one-way delay: 48.659 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 211.46 Mbit/s

95th percentile per-packet one-way delay: 50.097 ms

Loss rate: 0.35%

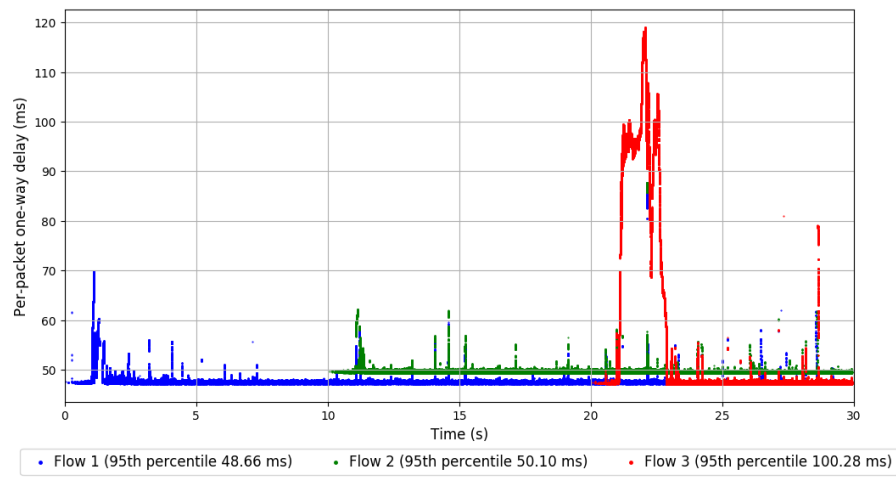
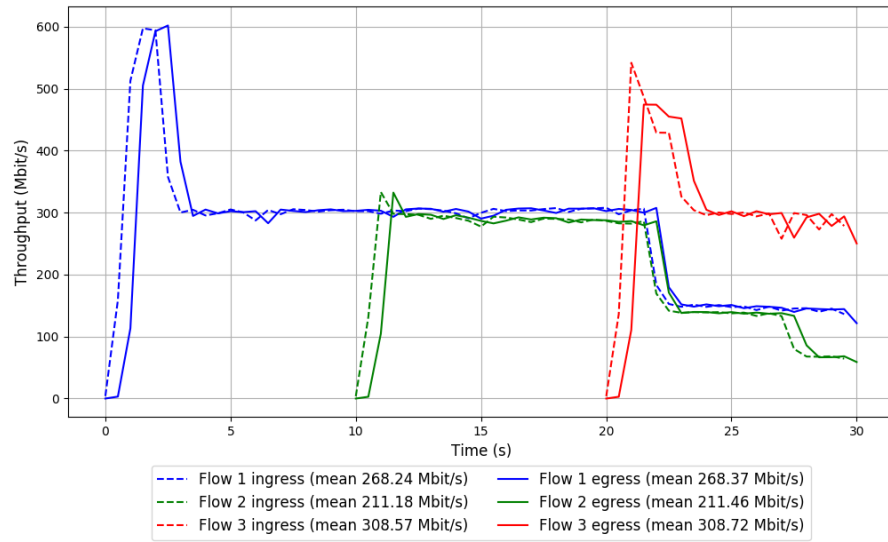
-- Flow 3:

Average throughput: 308.72 Mbit/s

95th percentile per-packet one-way delay: 100.278 ms

Loss rate: 0.91%

Run 3: Report of TCP Vegas — Data Link

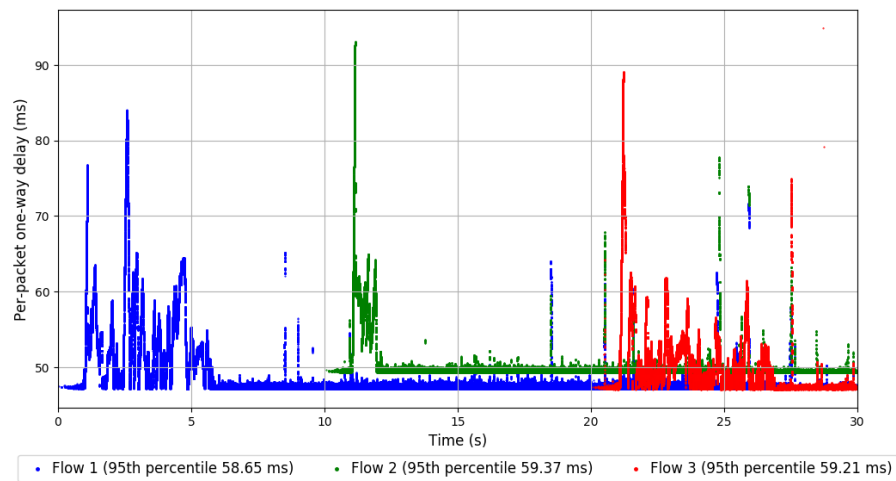
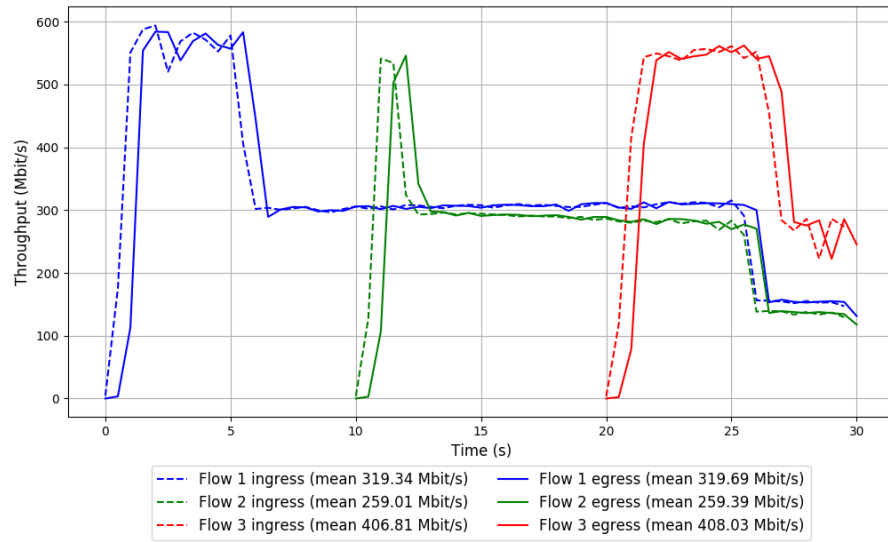


Run 4: Statistics of TCP Vegas

Start at: 2019-05-30 21:11:14
End at: 2019-05-30 21:11:44
Local clock offset: 0.175 ms
Remote clock offset: -0.023 ms

Below is generated by plot.py at 2019-05-31 00:54:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 626.95 Mbit/s
95th percentile per-packet one-way delay: 58.990 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 319.69 Mbit/s
95th percentile per-packet one-way delay: 58.645 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 259.39 Mbit/s
95th percentile per-packet one-way delay: 59.370 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 408.03 Mbit/s
95th percentile per-packet one-way delay: 59.212 ms
Loss rate: 0.67%

Run 4: Report of TCP Vegas — Data Link

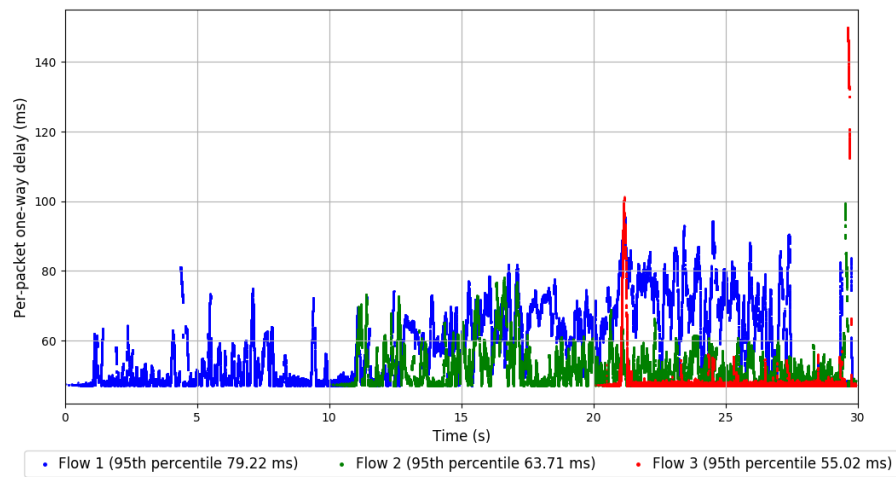
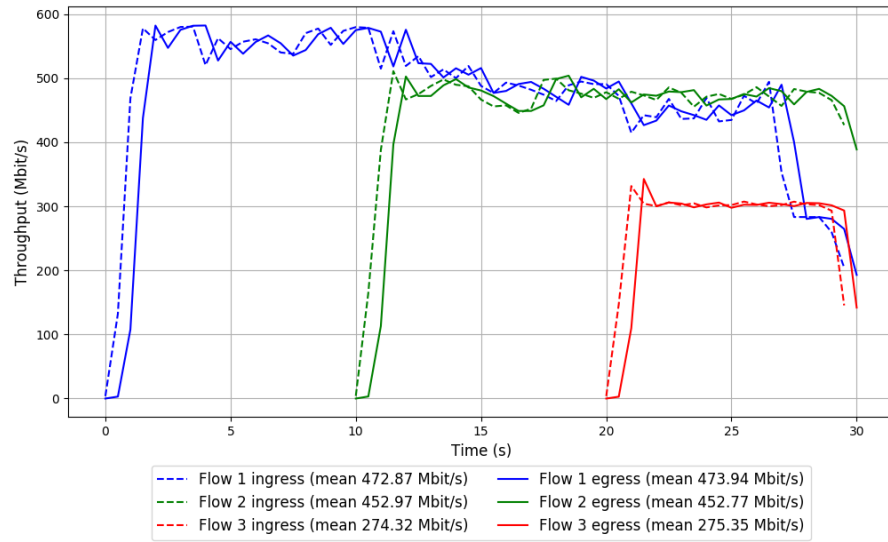


Run 5: Statistics of TCP Vegas

Start at: 2019-05-30 21:46:40
End at: 2019-05-30 21:47:10
Local clock offset: 0.221 ms
Remote clock offset: -0.056 ms

Below is generated by plot.py at 2019-05-31 00:58:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 865.51 Mbit/s
95th percentile per-packet one-way delay: 76.090 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 473.94 Mbit/s
95th percentile per-packet one-way delay: 79.221 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 452.77 Mbit/s
95th percentile per-packet one-way delay: 63.707 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 275.35 Mbit/s
95th percentile per-packet one-way delay: 55.019 ms
Loss rate: 0.59%

Run 5: Report of TCP Vegas — Data Link

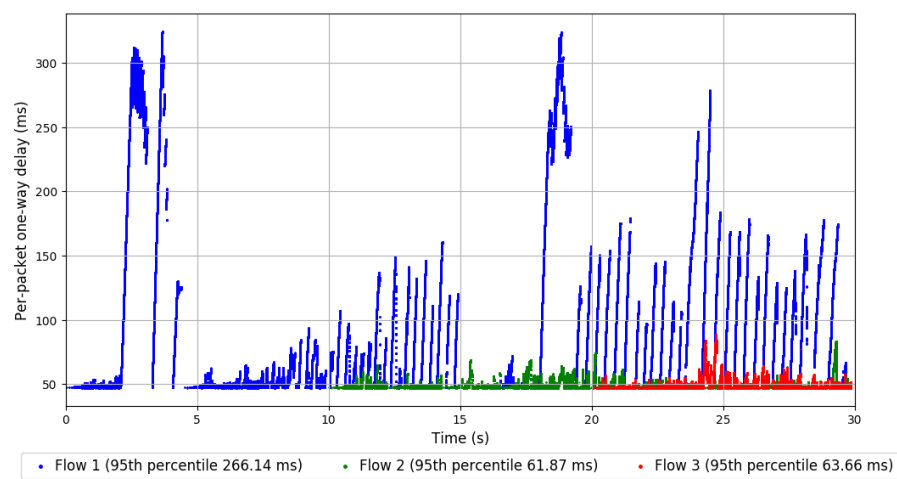
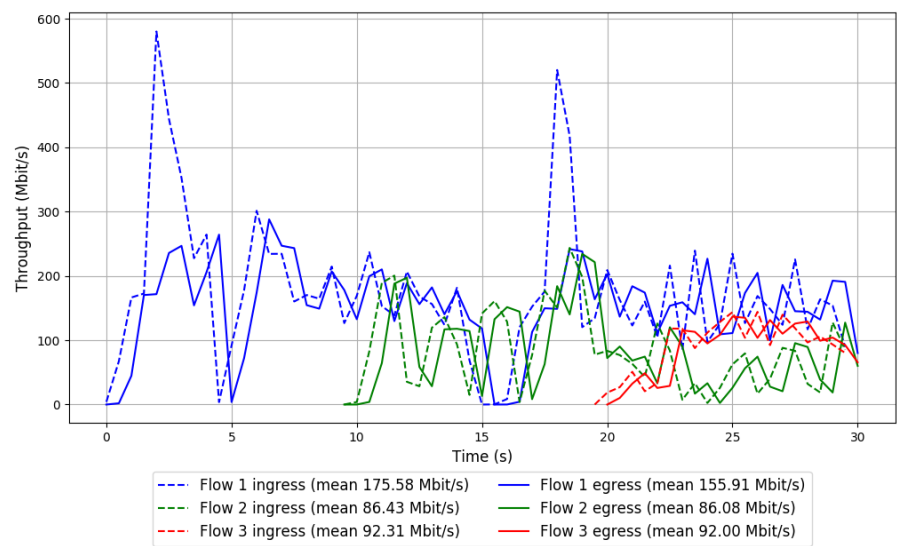


Run 1: Statistics of Verus

Start at: 2019-05-30 19:28:57
End at: 2019-05-30 19:29:27
Local clock offset: -0.044 ms
Remote clock offset: -0.061 ms

Below is generated by plot.py at 2019-05-31 00:58:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 243.63 Mbit/s
95th percentile per-packet one-way delay: 245.269 ms
Loss rate: 7.86%
-- Flow 1:
Average throughput: 155.91 Mbit/s
95th percentile per-packet one-way delay: 266.142 ms
Loss rate: 11.36%
-- Flow 2:
Average throughput: 86.08 Mbit/s
95th percentile per-packet one-way delay: 61.873 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 92.00 Mbit/s
95th percentile per-packet one-way delay: 63.657 ms
Loss rate: 1.18%

Run 1: Report of Verus — Data Link

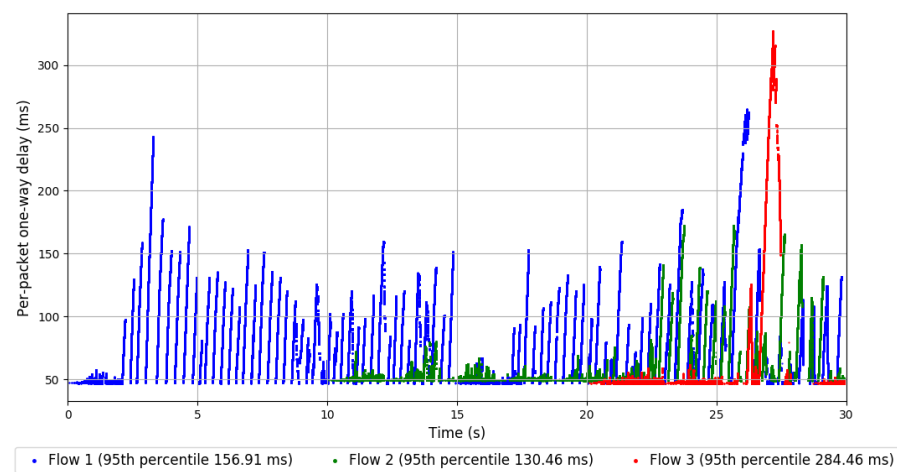
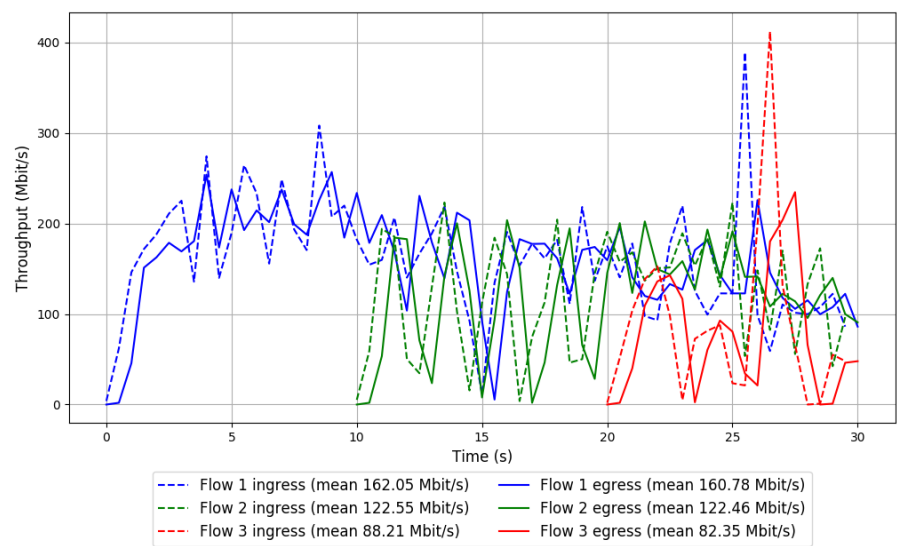


Run 2: Statistics of Verus

Start at: 2019-05-30 20:03:52
End at: 2019-05-30 20:04:22
Local clock offset: 0.03 ms
Remote clock offset: -0.005 ms

Below is generated by plot.py at 2019-05-31 00:58:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 268.70 Mbit/s
95th percentile per-packet one-way delay: 159.558 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 160.78 Mbit/s
95th percentile per-packet one-way delay: 156.915 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 122.46 Mbit/s
95th percentile per-packet one-way delay: 130.456 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 82.35 Mbit/s
95th percentile per-packet one-way delay: 284.456 ms
Loss rate: 7.53%

Run 2: Report of Verus — Data Link

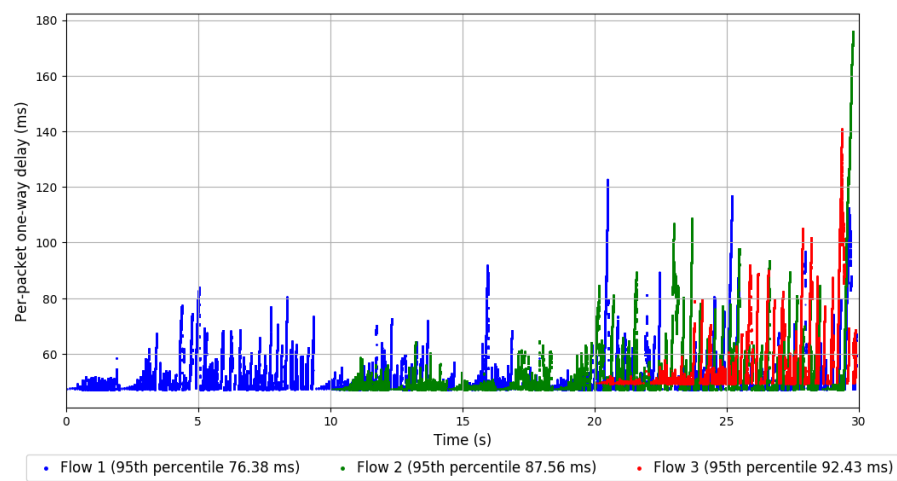
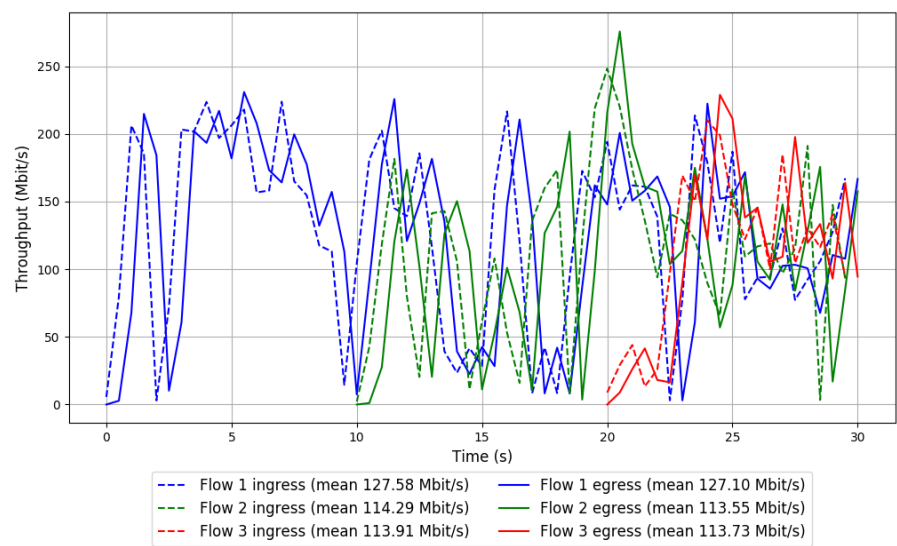


Run 3: Statistics of Verus

Start at: 2019-05-30 20:38:57
End at: 2019-05-30 20:39:27
Local clock offset: 0.153 ms
Remote clock offset: -0.022 ms

Below is generated by plot.py at 2019-05-31 00:58:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 239.55 Mbit/s
95th percentile per-packet one-way delay: 84.653 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 127.10 Mbit/s
95th percentile per-packet one-way delay: 76.379 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 113.55 Mbit/s
95th percentile per-packet one-way delay: 87.555 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 113.73 Mbit/s
95th percentile per-packet one-way delay: 92.428 ms
Loss rate: 0.01%

Run 3: Report of Verus — Data Link

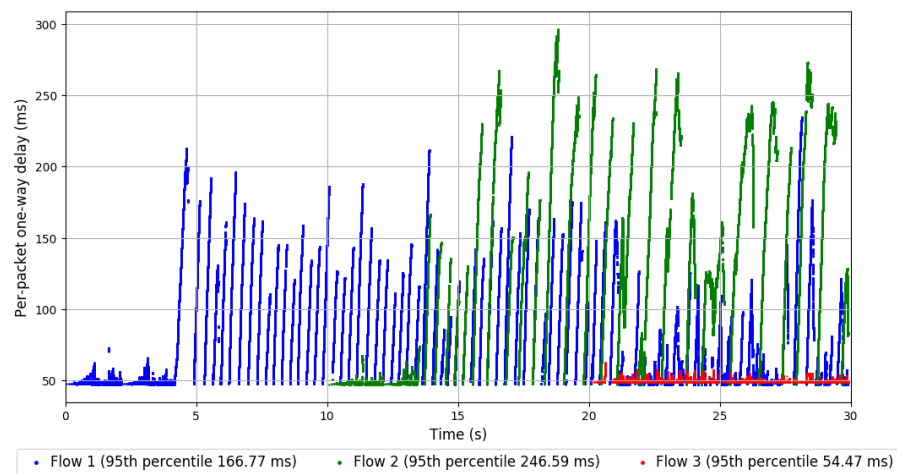
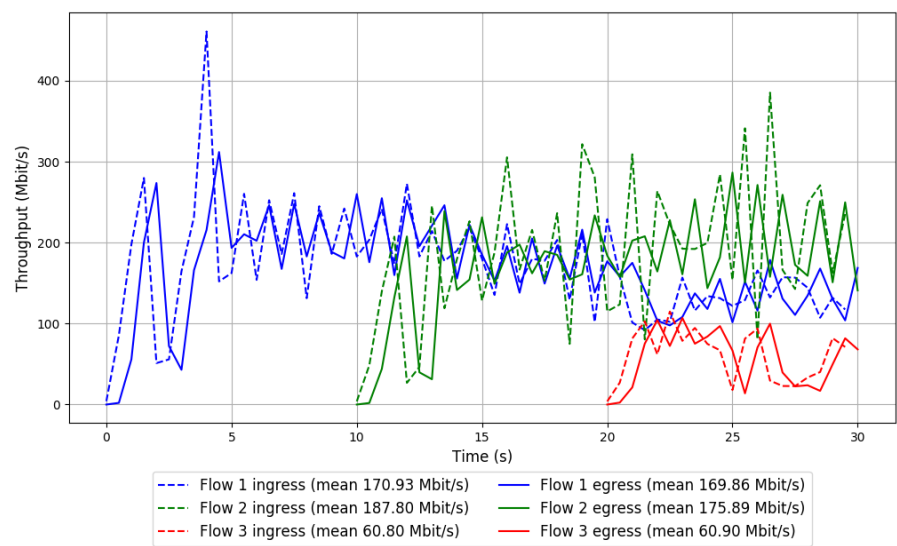


Run 4: Statistics of Verus

Start at: 2019-05-30 21:14:09
End at: 2019-05-30 21:14:39
Local clock offset: 0.169 ms
Remote clock offset: -0.062 ms

Below is generated by plot.py at 2019-05-31 00:58:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 306.66 Mbit/s
95th percentile per-packet one-way delay: 230.012 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 169.86 Mbit/s
95th percentile per-packet one-way delay: 166.766 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 175.89 Mbit/s
95th percentile per-packet one-way delay: 246.595 ms
Loss rate: 6.79%
-- Flow 3:
Average throughput: 60.90 Mbit/s
95th percentile per-packet one-way delay: 54.473 ms
Loss rate: 0.85%

Run 4: Report of Verus — Data Link

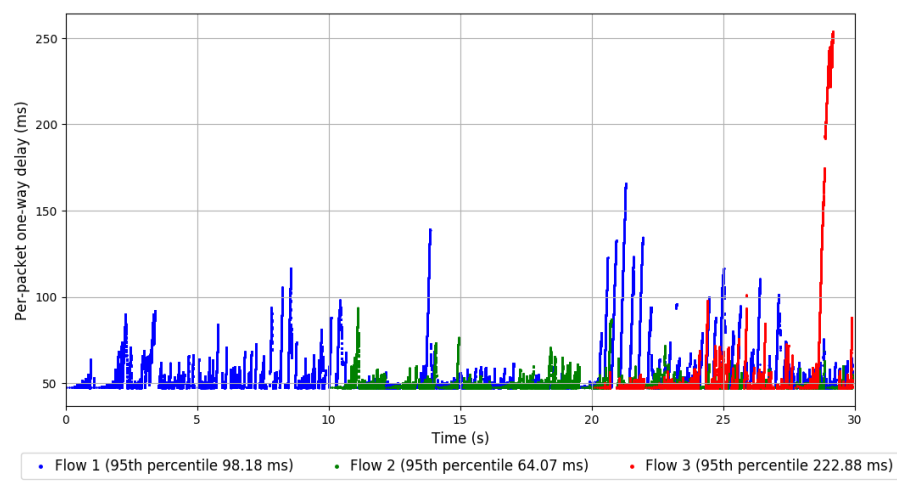
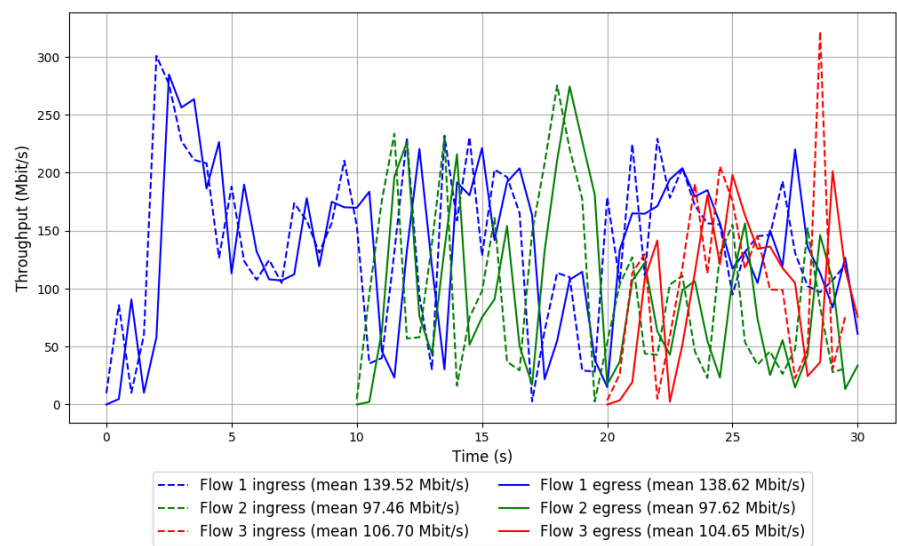


Run 5: Statistics of Verus

Start at: 2019-05-30 21:49:47
End at: 2019-05-30 21:50:17
Local clock offset: 0.247 ms
Remote clock offset: -0.069 ms

Below is generated by plot.py at 2019-05-31 00:58:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 237.85 Mbit/s
95th percentile per-packet one-way delay: 95.192 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 138.62 Mbit/s
95th percentile per-packet one-way delay: 98.177 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 97.62 Mbit/s
95th percentile per-packet one-way delay: 64.067 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 104.65 Mbit/s
95th percentile per-packet one-way delay: 222.875 ms
Loss rate: 2.22%

Run 5: Report of Verus — Data Link

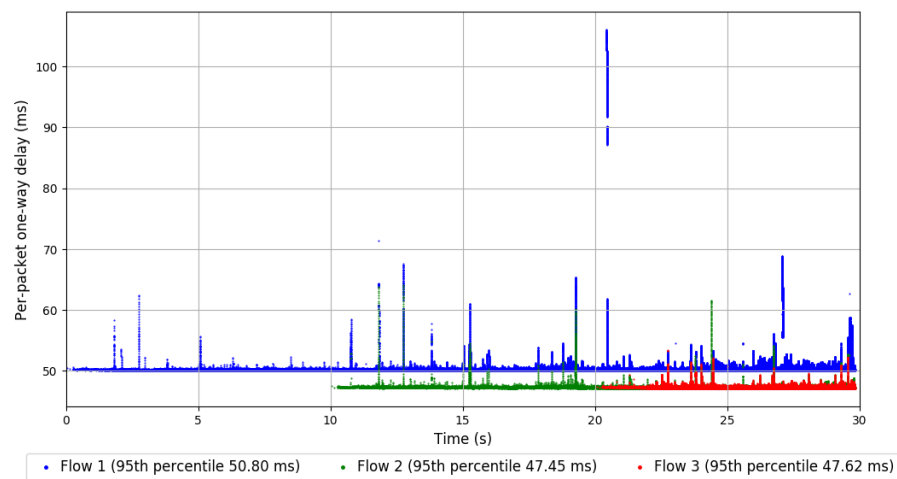
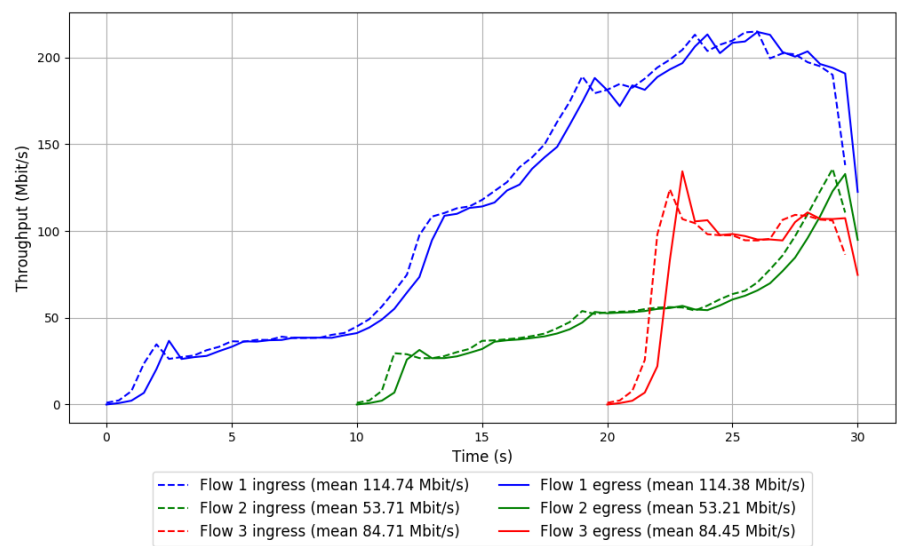


Run 1: Statistics of PCC-Vivace

Start at: 2019-05-30 19:34:34
End at: 2019-05-30 19:35:04
Local clock offset: -0.065 ms
Remote clock offset: -0.081 ms

Below is generated by plot.py at 2019-05-31 00:58:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 177.41 Mbit/s
95th percentile per-packet one-way delay: 50.529 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 114.38 Mbit/s
95th percentile per-packet one-way delay: 50.803 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 53.21 Mbit/s
95th percentile per-packet one-way delay: 47.452 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 84.45 Mbit/s
95th percentile per-packet one-way delay: 47.617 ms
Loss rate: 1.24%

Run 1: Report of PCC-Vivace — Data Link

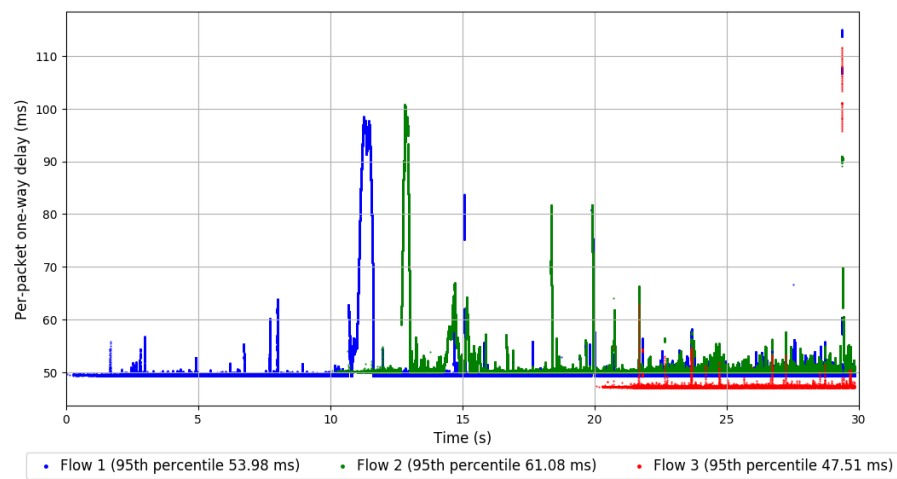
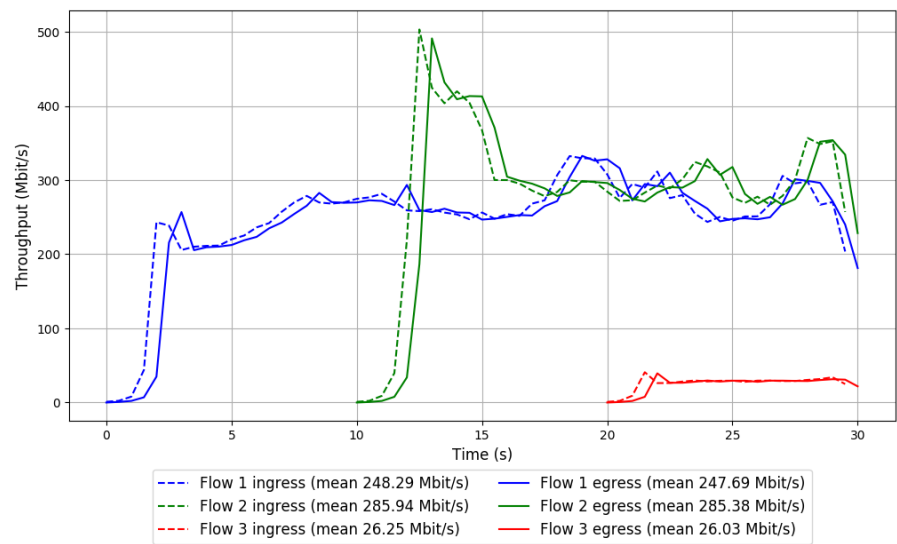


Run 2: Statistics of PCC-Vivace

Start at: 2019-05-30 20:09:25
End at: 2019-05-30 20:09:55
Local clock offset: 0.05 ms
Remote clock offset: -0.051 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 445.67 Mbit/s
95th percentile per-packet one-way delay: 57.060 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 247.69 Mbit/s
95th percentile per-packet one-way delay: 53.975 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 285.38 Mbit/s
95th percentile per-packet one-way delay: 61.076 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 26.03 Mbit/s
95th percentile per-packet one-way delay: 47.511 ms
Loss rate: 1.81%

Run 2: Report of PCC-Vivace — Data Link

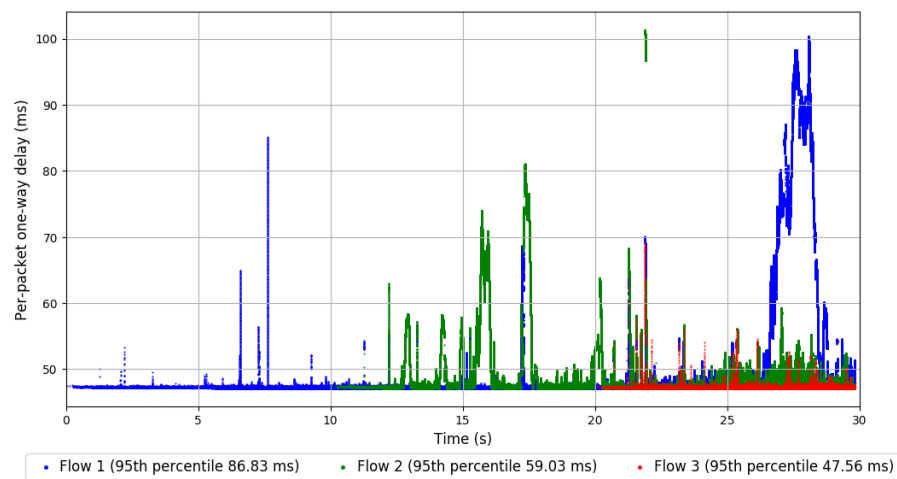
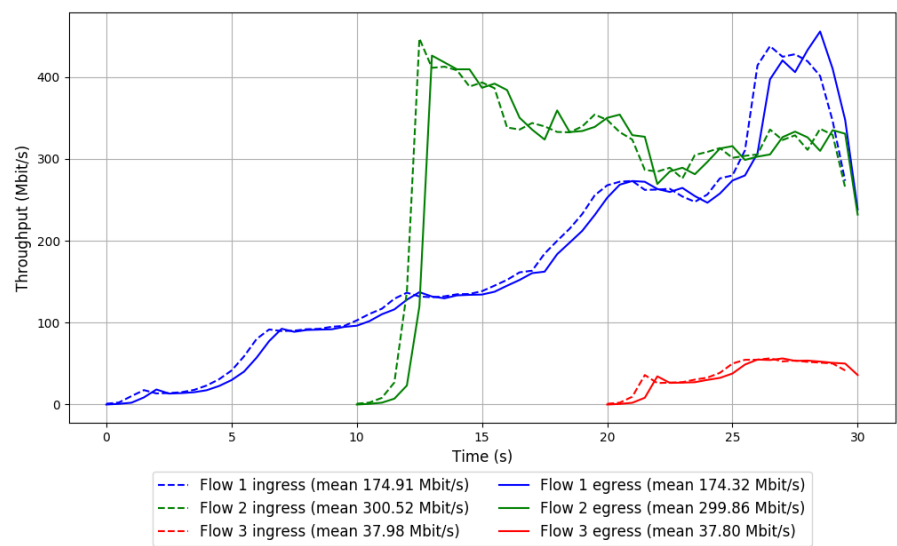


Run 3: Statistics of PCC-Vivace

Start at: 2019-05-30 20:44:32
End at: 2019-05-30 20:45:02
Local clock offset: 0.114 ms
Remote clock offset: -0.043 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 385.85 Mbit/s
95th percentile per-packet one-way delay: 73.969 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 174.32 Mbit/s
95th percentile per-packet one-way delay: 86.827 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 299.86 Mbit/s
95th percentile per-packet one-way delay: 59.029 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 37.80 Mbit/s
95th percentile per-packet one-way delay: 47.562 ms
Loss rate: 1.45%

Run 3: Report of PCC-Vivace — Data Link

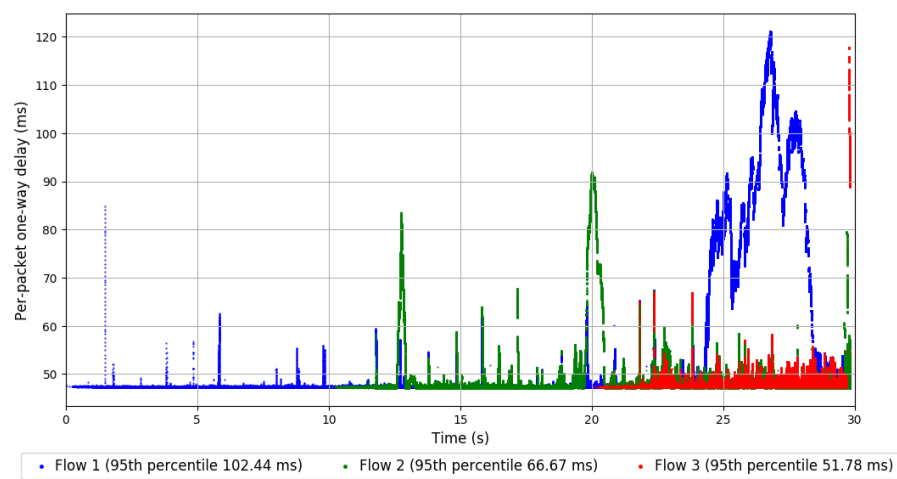
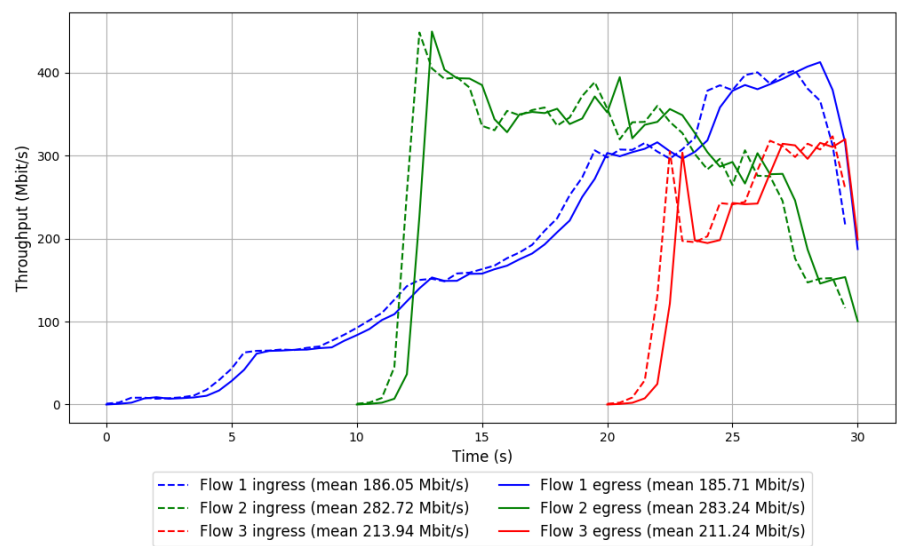


Run 4: Statistics of PCC-Vivace

Start at: 2019-05-30 21:19:53
End at: 2019-05-30 21:20:23
Local clock offset: 0.201 ms
Remote clock offset: -0.058 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 443.00 Mbit/s
95th percentile per-packet one-way delay: 91.700 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 185.71 Mbit/s
95th percentile per-packet one-way delay: 102.436 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 283.24 Mbit/s
95th percentile per-packet one-way delay: 66.674 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 211.24 Mbit/s
95th percentile per-packet one-way delay: 51.784 ms
Loss rate: 2.22%

Run 4: Report of PCC-Vivace — Data Link

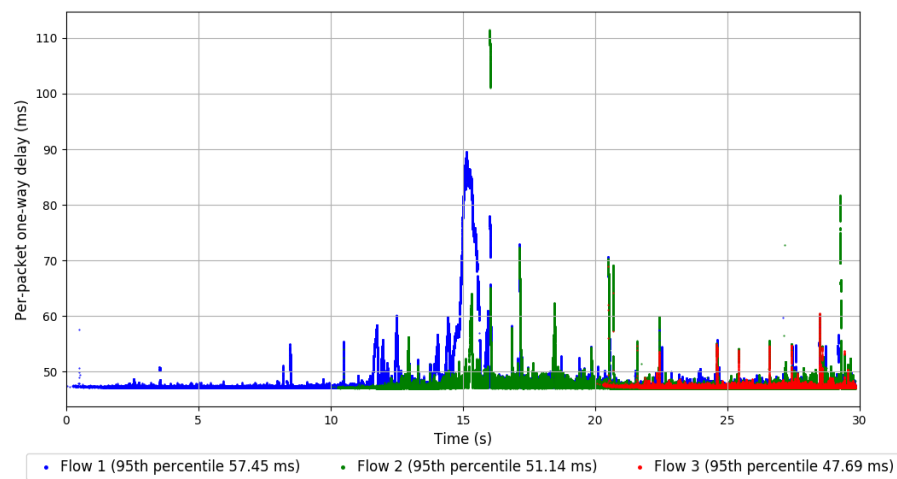
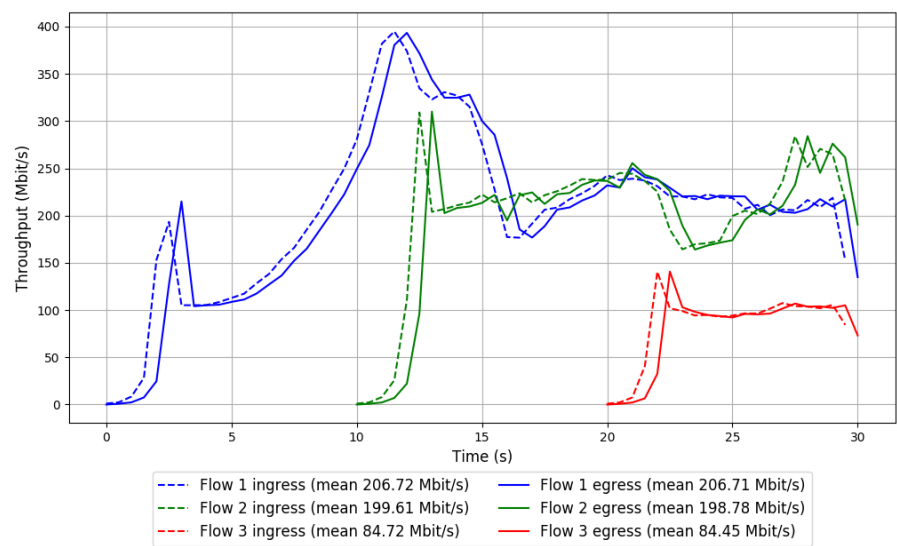


Run 5: Statistics of PCC-Vivace

Start at: 2019-05-30 21:55:24
End at: 2019-05-30 21:55:54
Local clock offset: 0.206 ms
Remote clock offset: -0.059 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 366.36 Mbit/s
95th percentile per-packet one-way delay: 55.131 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 206.71 Mbit/s
95th percentile per-packet one-way delay: 57.446 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 198.78 Mbit/s
95th percentile per-packet one-way delay: 51.141 ms
Loss rate: 0.89%
-- Flow 3:
Average throughput: 84.45 Mbit/s
95th percentile per-packet one-way delay: 47.685 ms
Loss rate: 1.30%

Run 5: Report of PCC-Vivace — Data Link

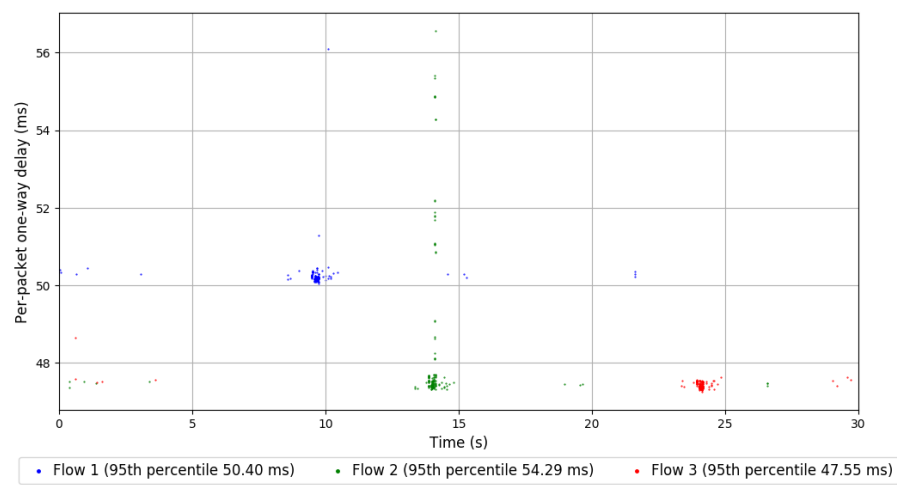
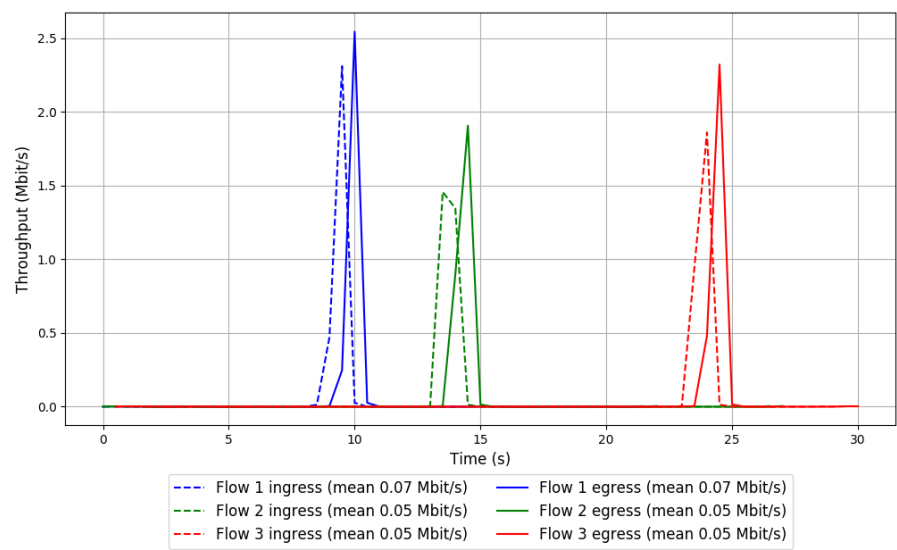


Run 1: Statistics of WebRTC media

Start at: 2019-05-30 19:12:40
End at: 2019-05-30 19:13:10
Local clock offset: -0.164 ms
Remote clock offset: -0.002 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 50.848 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 50.401 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 54.290 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.547 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

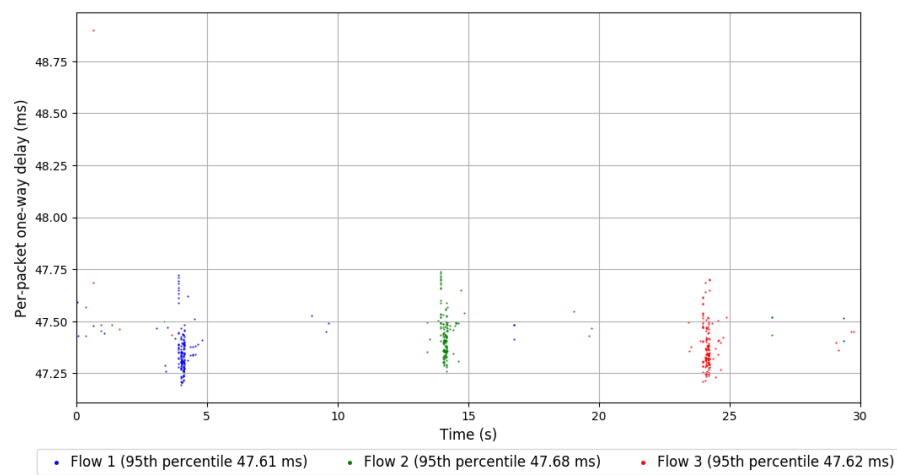
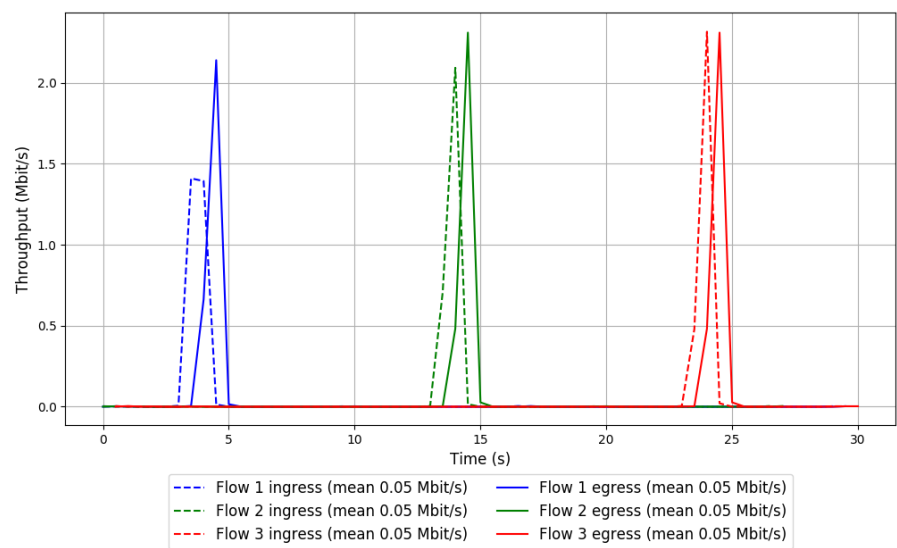


Run 2: Statistics of WebRTC media

Start at: 2019-05-30 19:47:38
End at: 2019-05-30 19:48:08
Local clock offset: -0.006 ms
Remote clock offset: -0.082 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.648 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.614 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.677 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.617 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

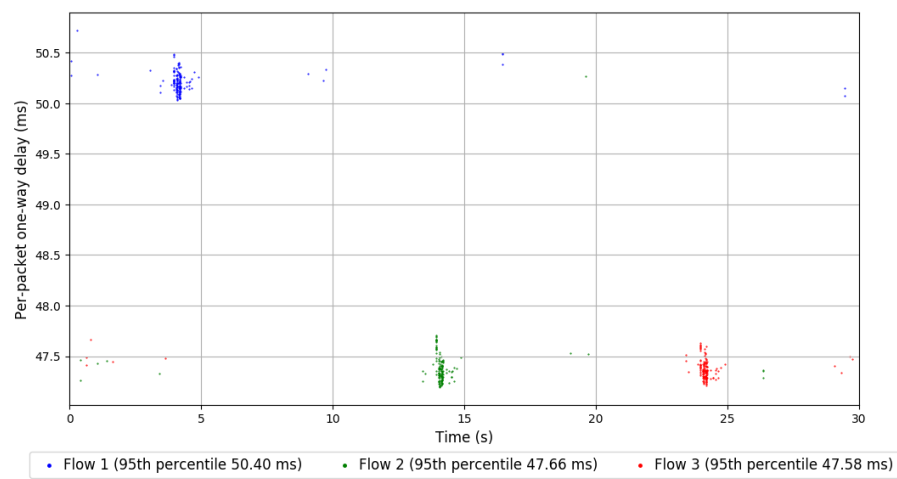
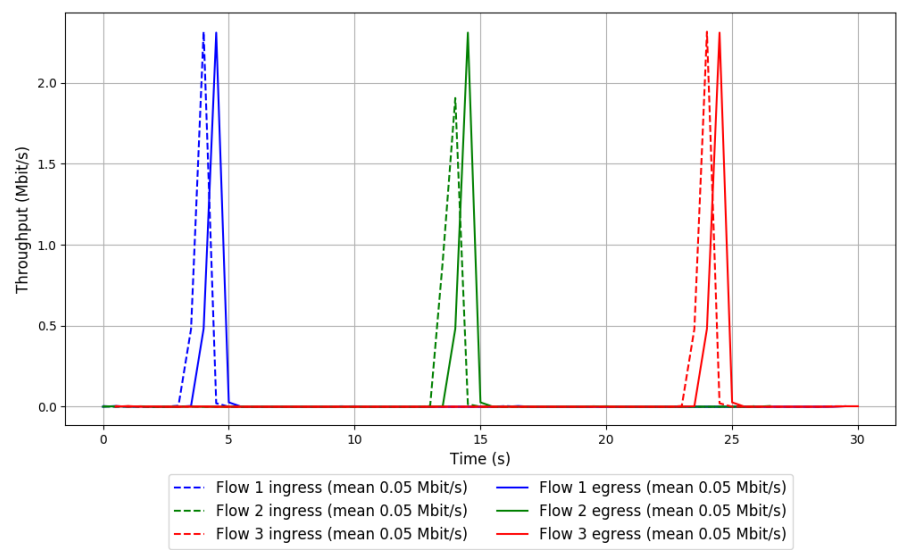


Run 3: Statistics of WebRTC media

Start at: 2019-05-30 20:22:46
End at: 2019-05-30 20:23:16
Local clock offset: 0.061 ms
Remote clock offset: -0.065 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 50.320 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 50.396 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.656 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.581 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

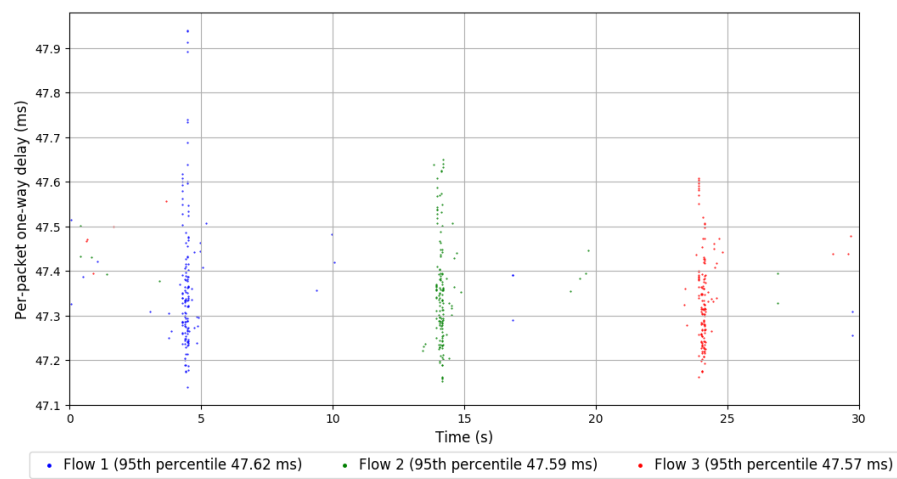
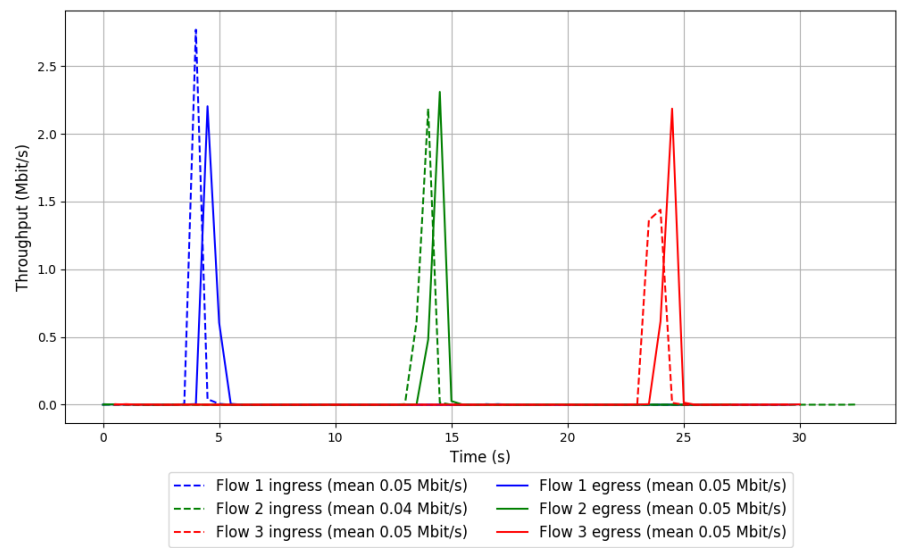


Run 4: Statistics of WebRTC media

Start at: 2019-05-30 20:57:55
End at: 2019-05-30 20:58:25
Local clock offset: 0.097 ms
Remote clock offset: -0.012 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.597 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.617 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.587 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.571 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-05-30 21:33:18
End at: 2019-05-30 21:33:48
Local clock offset: 0.208 ms
Remote clock offset: -0.052 ms

Below is generated by plot.py at 2019-05-31 00:59:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 47.620 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.607 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.503 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

