

Pantheon Report

Generated at 2019-03-09 04:46:56 (UTC).

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

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

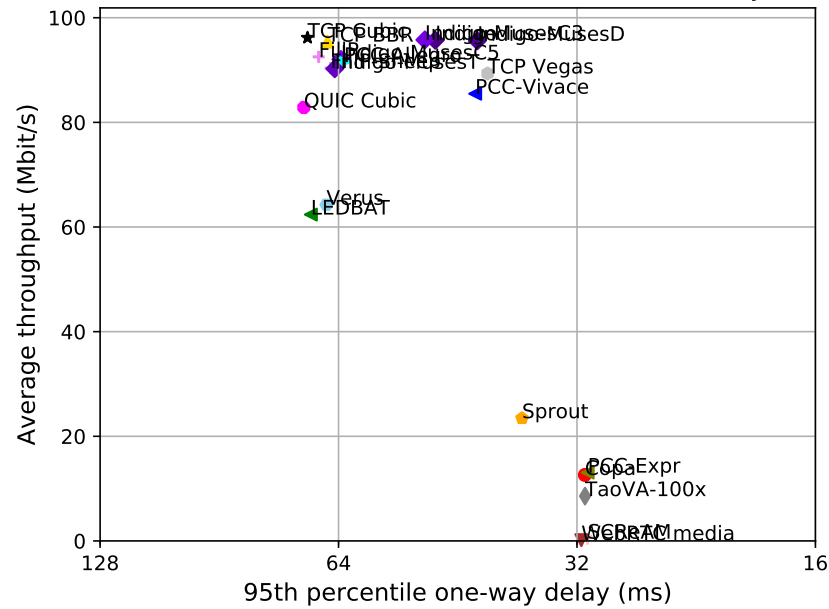
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

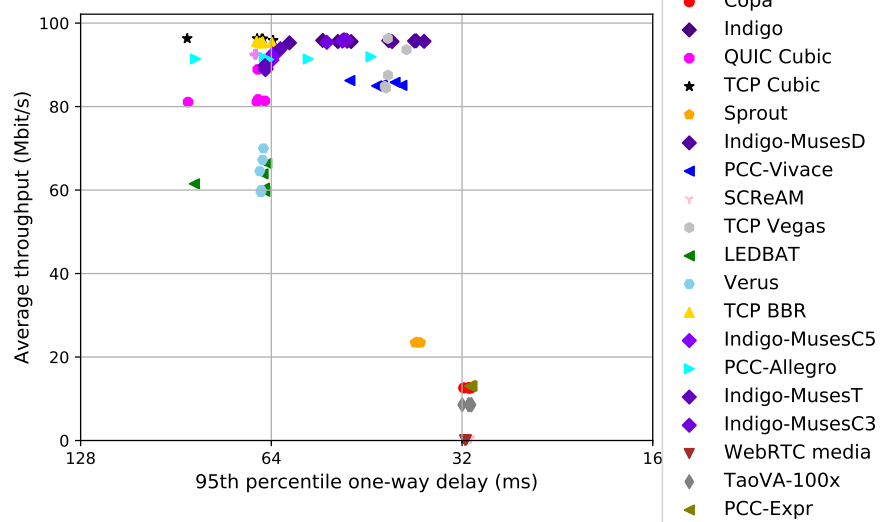
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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 AWS California 2 to Mexico, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



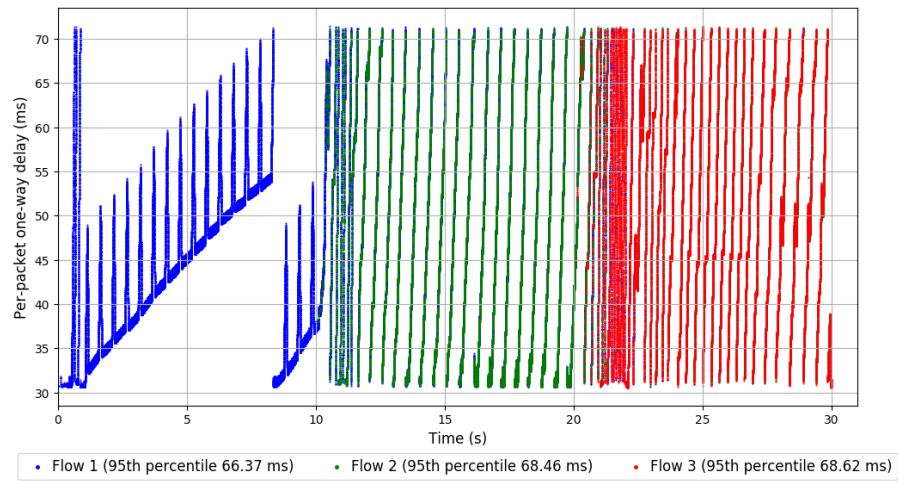
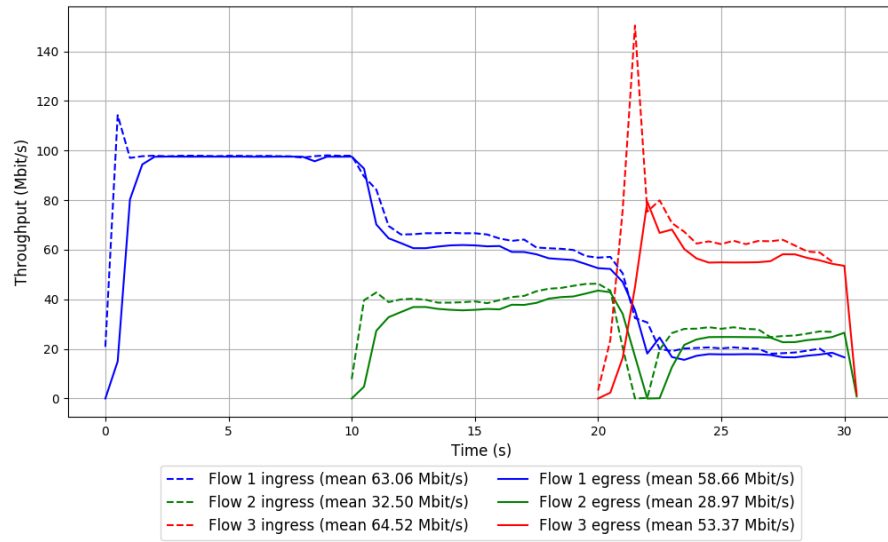
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	61.11	32.49	38.24	64.63	67.21	67.85	5.75	9.29	11.95
Copa	5	9.26	4.53	0.99	31.37	31.09	30.93	71.66	78.81	93.83
TCP Cubic	5	71.93	19.55	33.83	70.30	70.06	67.53	0.90	0.63	0.84
FillP	5	57.88	41.13	22.65	66.45	68.88	68.44	29.85	46.91	55.26
FillP-Sheep	5	57.12	37.64	24.82	63.92	67.16	66.37	9.12	17.10	16.31
Indigo	5	63.66	32.70	31.69	45.20	50.42	54.92	0.03	0.14	0.37
Indigo-MusesC3	5	54.90	47.97	32.66	45.80	49.26	58.74	0.31	0.36	2.08
Indigo-MusesC5	5	58.54	50.52	2.65	62.20	65.19	65.46	10.49	18.18	27.63
Indigo-MusesD	5	55.25	47.75	31.40	37.30	42.56	45.22	0.16	1.57	3.50
Indigo-MusesT	5	57.99	47.36	4.97	61.94	66.56	66.09	19.48	32.55	29.02
LEDBAT	5	41.09	22.98	18.17	68.93	70.51	61.17	0.18	0.29	0.43
PCC-Allegro	5	81.12	11.07	9.31	62.67	64.53	64.19	2.13	2.31	3.12
PCC-Expr	5	8.47	4.74	4.33	31.01	31.03	31.06	44.81	37.50	29.94
QUIC Cubic	5	62.62	22.80	15.48	70.66	70.99	70.96	2.42	0.87	0.64
SCReAM	5	0.21	0.21	0.22	31.03	31.01	31.02	0.00	0.00	0.00
Sprout	5	11.82	11.76	11.57	37.26	37.71	38.12	0.01	0.07	0.02
TaoVA-100x	5	0.00	9.00	8.18	30.89	31.96	31.01	95.92	78.35	65.86
TCP Vegas	5	60.99	27.99	29.21	41.97	37.47	36.30	0.63	0.23	0.33
Verus	5	37.39	31.32	20.23	66.02	66.54	66.32	26.45	35.00	37.04
PCC-Vivace	5	65.16	23.93	13.32	42.31	45.51	45.89	0.00	0.00	0.00
WebRTC media	5	0.05	0.05	0.05	31.54	31.62	31.67	0.00	0.00	0.01

Run 1: Statistics of TCP BBR

Start at: 2019-03-09 02:25:33
End at: 2019-03-09 02:26:03
Local clock offset: 0.532 ms
Remote clock offset: -4.058 ms

Below is generated by plot.py at 2019-03-09 04:36:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.64 Mbit/s
95th percentile per-packet one-way delay: 67.495 ms
Loss rate: 9.88%
-- Flow 1:
Average throughput: 58.66 Mbit/s
95th percentile per-packet one-way delay: 66.370 ms
Loss rate: 6.97%
-- Flow 2:
Average throughput: 28.97 Mbit/s
95th percentile per-packet one-way delay: 68.459 ms
Loss rate: 10.91%
-- Flow 3:
Average throughput: 53.37 Mbit/s
95th percentile per-packet one-way delay: 68.623 ms
Loss rate: 17.39%

Run 1: Report of TCP BBR — Data Link

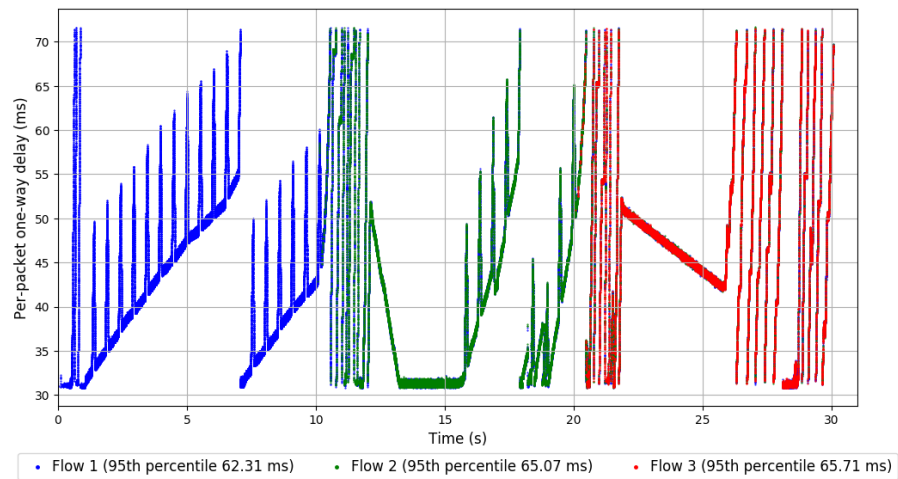
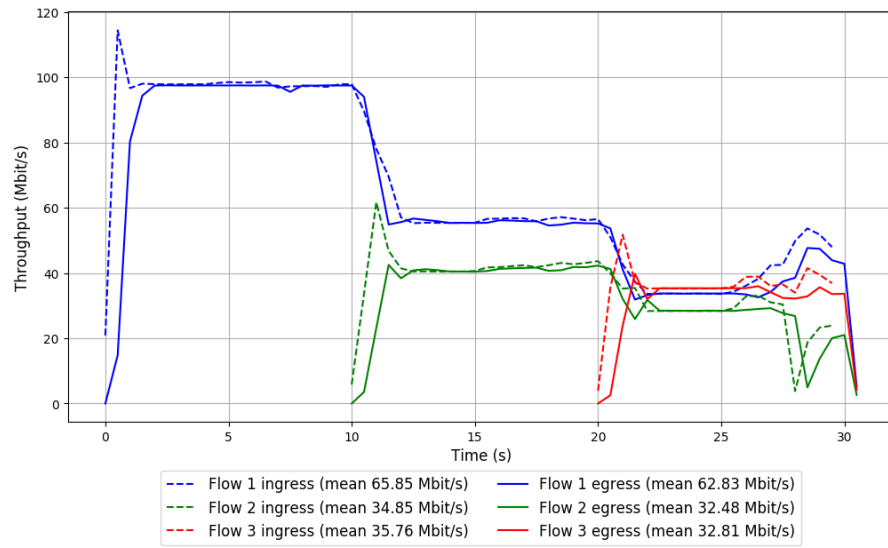


Run 2: Statistics of TCP BBR

Start at: 2019-03-09 02:54:22
End at: 2019-03-09 02:54:52
Local clock offset: 0.315 ms
Remote clock offset: -2.092 ms

Below is generated by plot.py at 2019-03-09 04:36:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.39 Mbit/s
95th percentile per-packet one-way delay: 63.854 ms
Loss rate: 5.39%
-- Flow 1:
Average throughput: 62.83 Mbit/s
95th percentile per-packet one-way delay: 62.306 ms
Loss rate: 4.46%
-- Flow 2:
Average throughput: 32.48 Mbit/s
95th percentile per-packet one-way delay: 65.070 ms
Loss rate: 6.66%
-- Flow 3:
Average throughput: 32.81 Mbit/s
95th percentile per-packet one-way delay: 65.709 ms
Loss rate: 8.09%

Run 2: Report of TCP BBR — Data Link

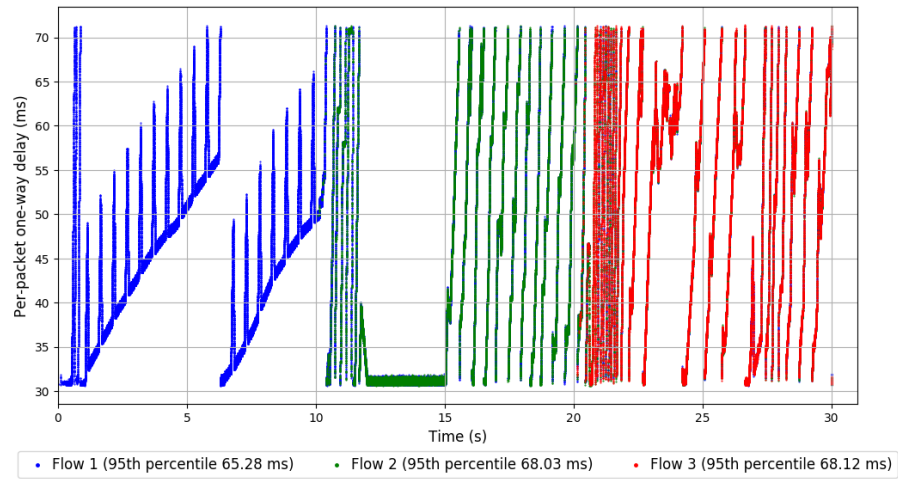
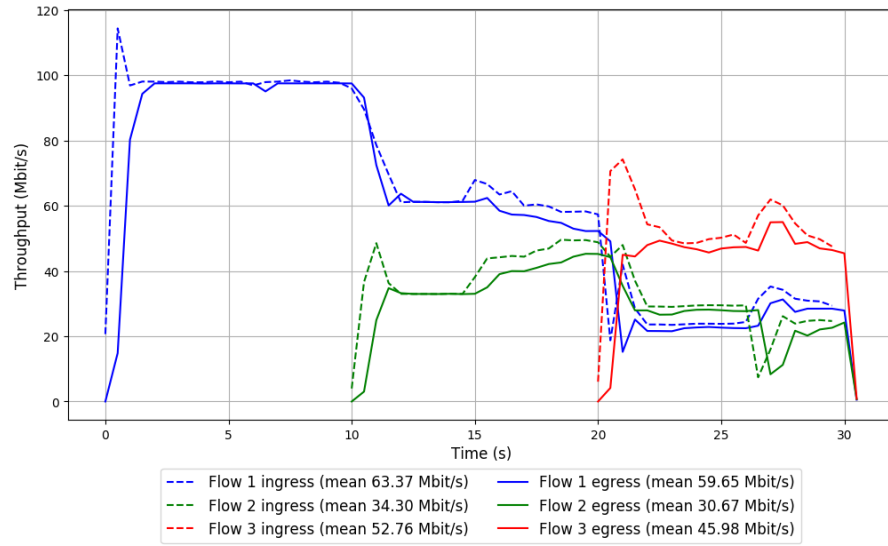


Run 3: Statistics of TCP BBR

Start at: 2019-03-09 03:20:43
End at: 2019-03-09 03:21:13
Local clock offset: 0.285 ms
Remote clock offset: -1.089 ms

Below is generated by plot.py at 2019-03-09 04:36:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.30 Mbit/s
95th percentile per-packet one-way delay: 66.719 ms
Loss rate: 8.15%
-- Flow 1:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 65.283 ms
Loss rate: 5.86%
-- Flow 2:
Average throughput: 30.67 Mbit/s
95th percentile per-packet one-way delay: 68.025 ms
Loss rate: 10.67%
-- Flow 3:
Average throughput: 45.98 Mbit/s
95th percentile per-packet one-way delay: 68.117 ms
Loss rate: 13.16%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-03-09 03:47:26

End at: 2019-03-09 03:47:56

Local clock offset: 0.252 ms

Remote clock offset: -0.34 ms

Below is generated by plot.py at 2019-03-09 04:36:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.55 Mbit/s

95th percentile per-packet one-way delay: 66.075 ms

Loss rate: 7.51%

-- Flow 1:

Average throughput: 64.86 Mbit/s

95th percentile per-packet one-way delay: 64.313 ms

Loss rate: 6.25%

-- Flow 2:

Average throughput: 33.58 Mbit/s

95th percentile per-packet one-way delay: 67.222 ms

Loss rate: 9.55%

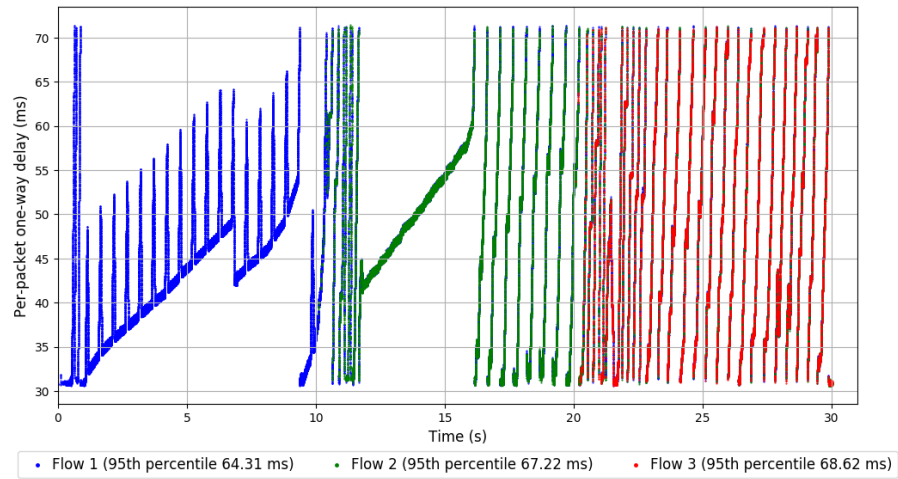
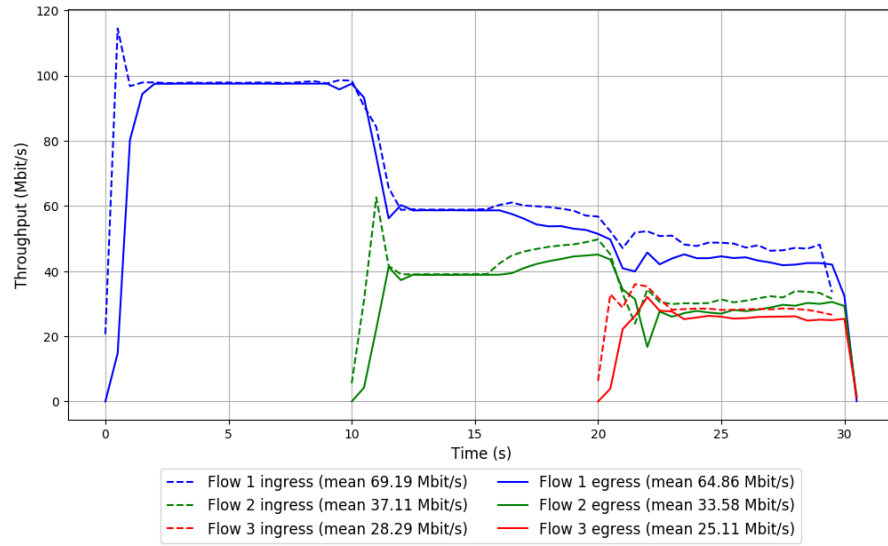
-- Flow 3:

Average throughput: 25.11 Mbit/s

95th percentile per-packet one-way delay: 68.622 ms

Loss rate: 11.44%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-03-09 04:13:30

End at: 2019-03-09 04:14:00

Local clock offset: 0.244 ms

Remote clock offset: 0.182 ms

Below is generated by plot.py at 2019-03-09 04:36:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.27 Mbit/s

95th percentile per-packet one-way delay: 66.247 ms

Loss rate: 6.65%

-- Flow 1:

Average throughput: 59.54 Mbit/s

95th percentile per-packet one-way delay: 64.858 ms

Loss rate: 5.20%

-- Flow 2:

Average throughput: 36.77 Mbit/s

95th percentile per-packet one-way delay: 67.295 ms

Loss rate: 8.65%

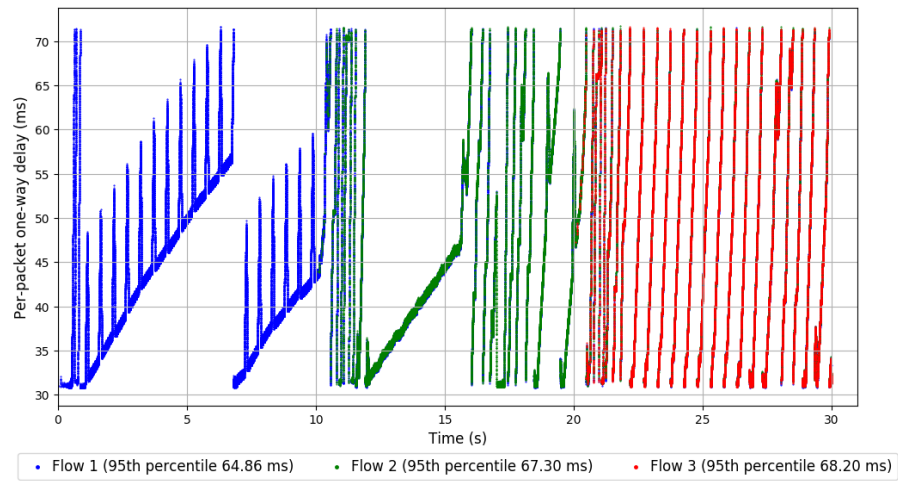
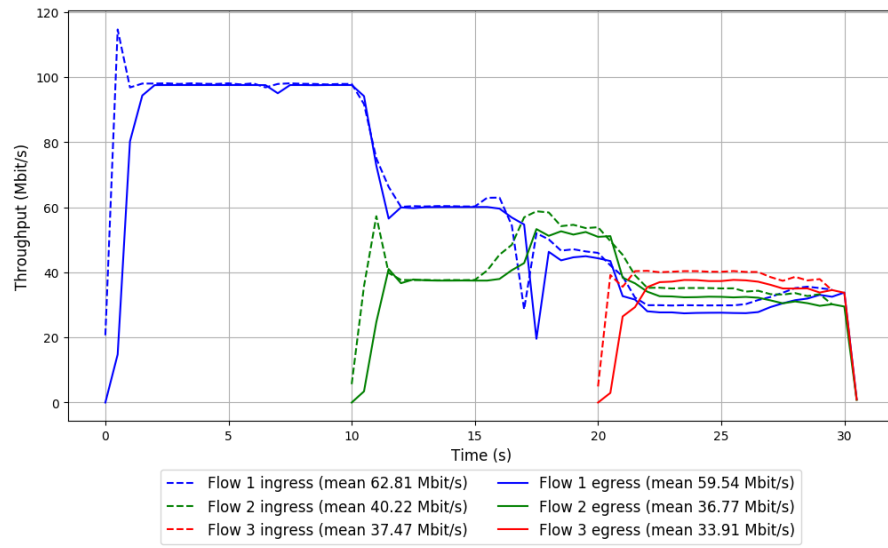
-- Flow 3:

Average throughput: 33.91 Mbit/s

95th percentile per-packet one-way delay: 68.198 ms

Loss rate: 9.66%

Run 5: Report of TCP BBR — Data Link

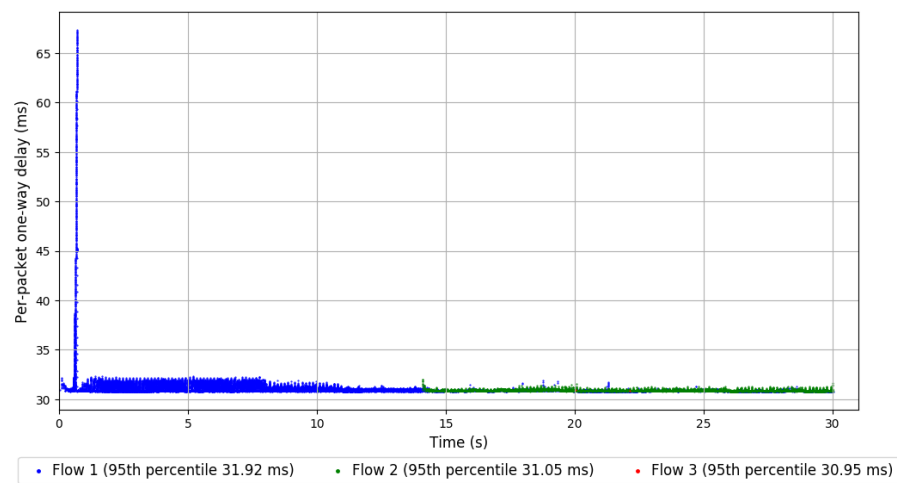
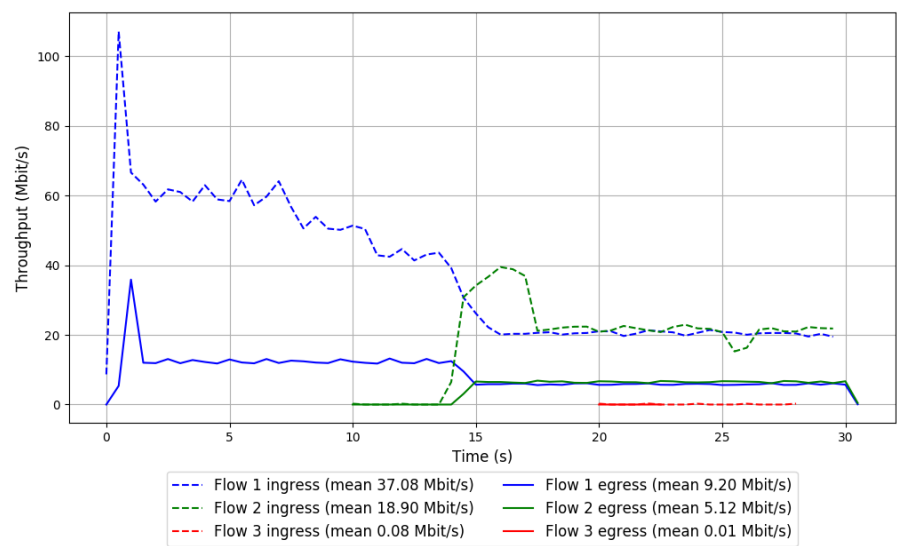


Run 1: Statistics of Copa

Start at: 2019-03-09 02:28:20
End at: 2019-03-09 02:28:50
Local clock offset: 0.475 ms
Remote clock offset: -3.747 ms

Below is generated by plot.py at 2019-03-09 04:36:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.801 ms
Loss rate: 74.62%
-- Flow 1:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 31.920 ms
Loss rate: 75.19%
-- Flow 2:
Average throughput: 5.12 Mbit/s
95th percentile per-packet one-way delay: 31.052 ms
Loss rate: 72.89%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 30.955 ms
Loss rate: 97.92%

Run 1: Report of Copa — Data Link

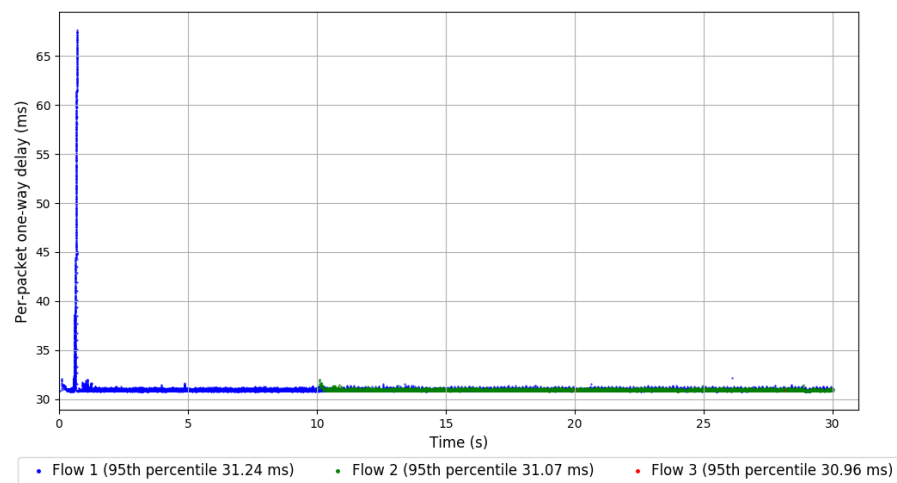
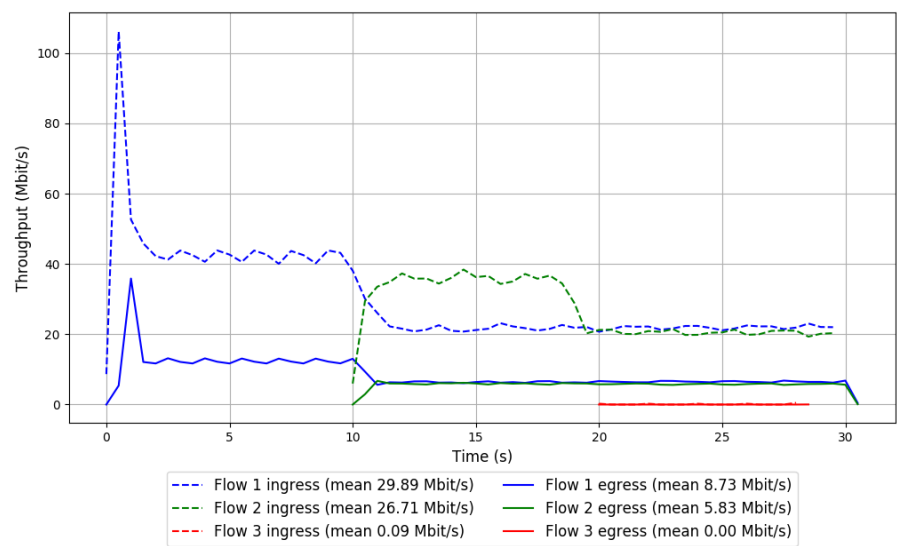


Run 2: Statistics of Copa

Start at: 2019-03-09 02:56:58
End at: 2019-03-09 02:57:28
Local clock offset: 0.289 ms
Remote clock offset: -2.047 ms

Below is generated by plot.py at 2019-03-09 04:36:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.147 ms
Loss rate: 73.57%
-- Flow 1:
Average throughput: 8.73 Mbit/s
95th percentile per-packet one-way delay: 31.240 ms
Loss rate: 70.80%
-- Flow 2:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 31.066 ms
Loss rate: 78.18%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.961 ms
Loss rate: 98.19%

Run 2: Report of Copa — Data Link

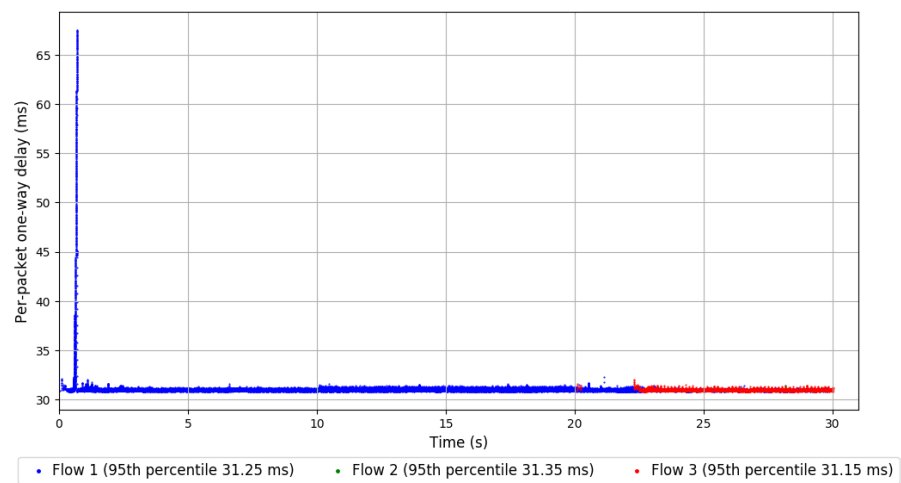
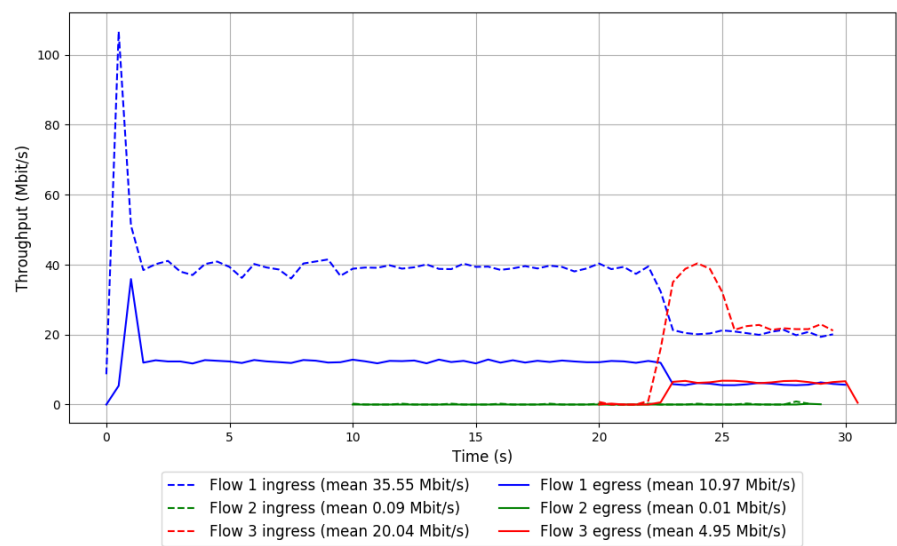


Run 3: Statistics of Copa

Start at: 2019-03-09 03:23:22
End at: 2019-03-09 03:23:52
Local clock offset: 0.306 ms
Remote clock offset: -0.768 ms

Below is generated by plot.py at 2019-03-09 04:36:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.238 ms
Loss rate: 70.13%
-- Flow 1:
Average throughput: 10.97 Mbit/s
95th percentile per-packet one-way delay: 31.254 ms
Loss rate: 69.13%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 31.353 ms
Loss rate: 90.59%
-- Flow 3:
Average throughput: 4.95 Mbit/s
95th percentile per-packet one-way delay: 31.146 ms
Loss rate: 75.31%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-03-09 03:49:54

End at: 2019-03-09 03:50:24

Local clock offset: 0.261 ms

Remote clock offset: -0.29 ms

Below is generated by plot.py at 2019-03-09 04:36:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.61 Mbit/s

95th percentile per-packet one-way delay: 30.966 ms

Loss rate: 74.44%

-- Flow 1:

Average throughput: 8.69 Mbit/s

95th percentile per-packet one-way delay: 31.082 ms

Loss rate: 70.95%

-- Flow 2:

Average throughput: 5.89 Mbit/s

95th percentile per-packet one-way delay: 30.891 ms

Loss rate: 79.79%

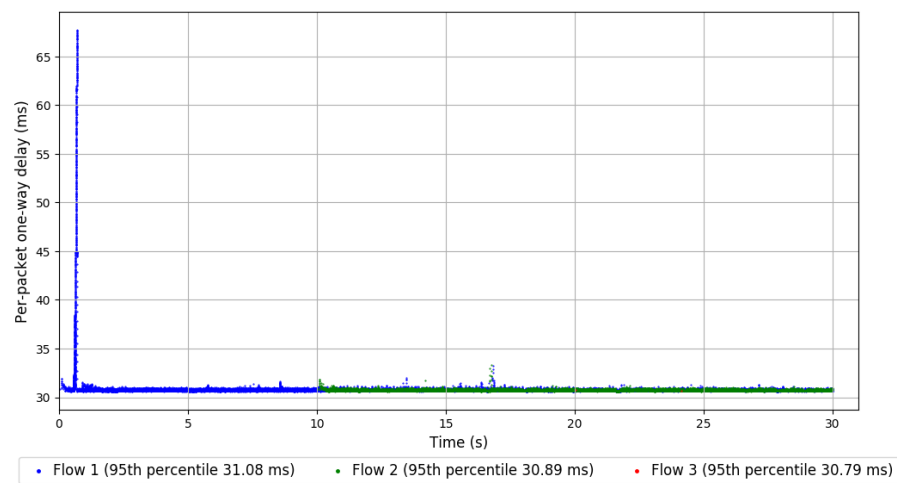
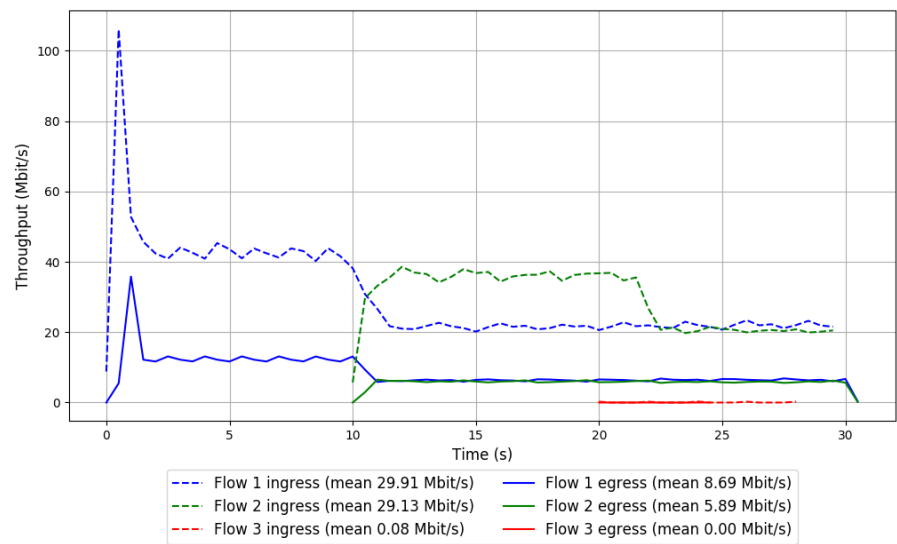
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 30.791 ms

Loss rate: 97.92%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-03-09 04:16:04

End at: 2019-03-09 04:16:34

Local clock offset: 0.236 ms

Remote clock offset: 0.139 ms

Below is generated by plot.py at 2019-03-09 04:36:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.61 Mbit/s

95th percentile per-packet one-way delay: 31.225 ms

Loss rate: 72.38%

-- Flow 1:

Average throughput: 8.73 Mbit/s

95th percentile per-packet one-way delay: 31.359 ms

Loss rate: 72.25%

-- Flow 2:

Average throughput: 5.82 Mbit/s

95th percentile per-packet one-way delay: 31.065 ms

Loss rate: 72.62%

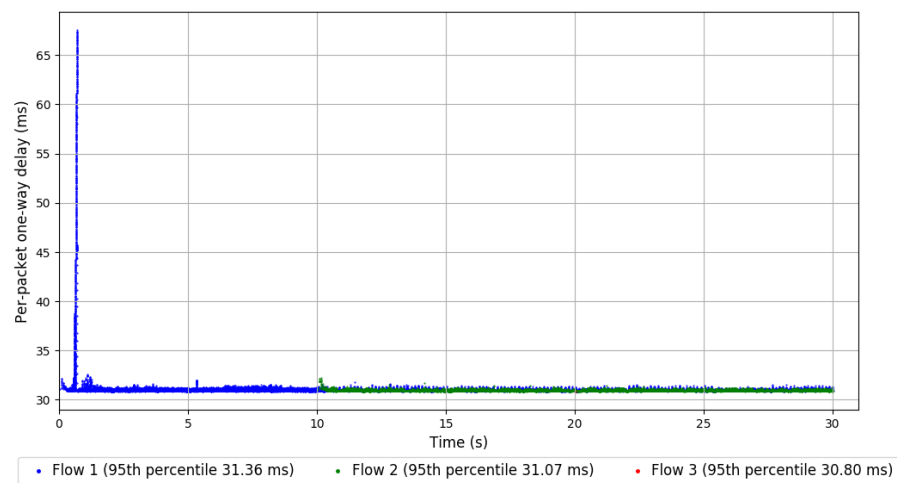
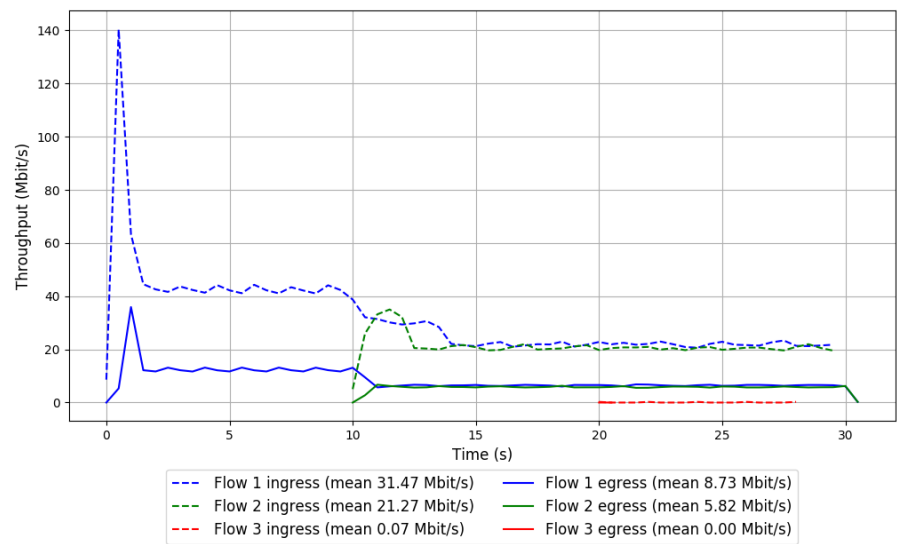
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 30.805 ms

Loss rate: 99.83%

Run 5: Report of Copa — Data Link

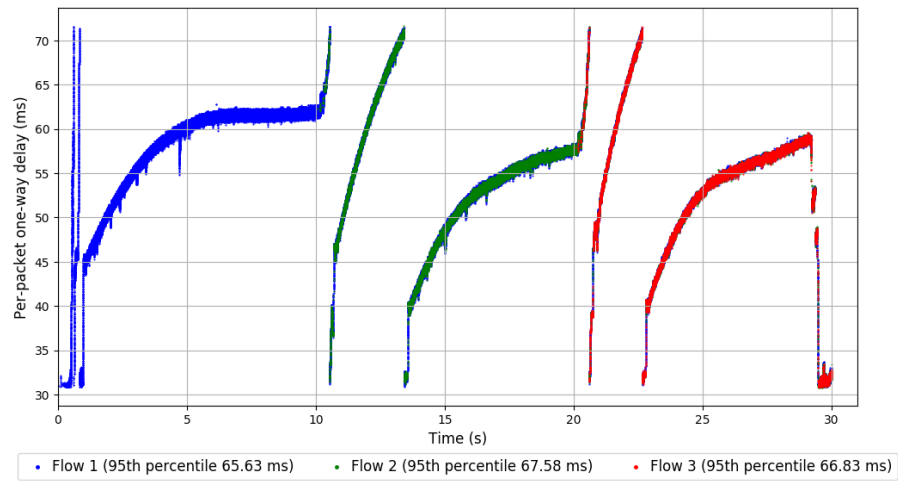
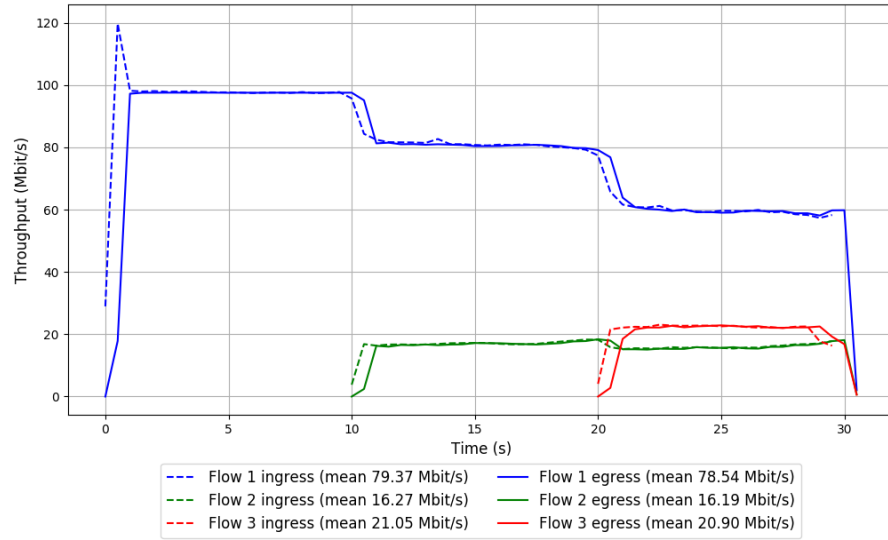


Run 1: Statistics of TCP Cubic

Start at: 2019-03-09 02:37:30
End at: 2019-03-09 02:38:00
Local clock offset: 0.426 ms
Remote clock offset: -3.151 ms

Below is generated by plot.py at 2019-03-09 04:36:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.22 Mbit/s
95th percentile per-packet one-way delay: 65.976 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 78.54 Mbit/s
95th percentile per-packet one-way delay: 65.633 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 16.19 Mbit/s
95th percentile per-packet one-way delay: 67.577 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 20.90 Mbit/s
95th percentile per-packet one-way delay: 66.826 ms
Loss rate: 0.99%

Run 1: Report of TCP Cubic — Data Link

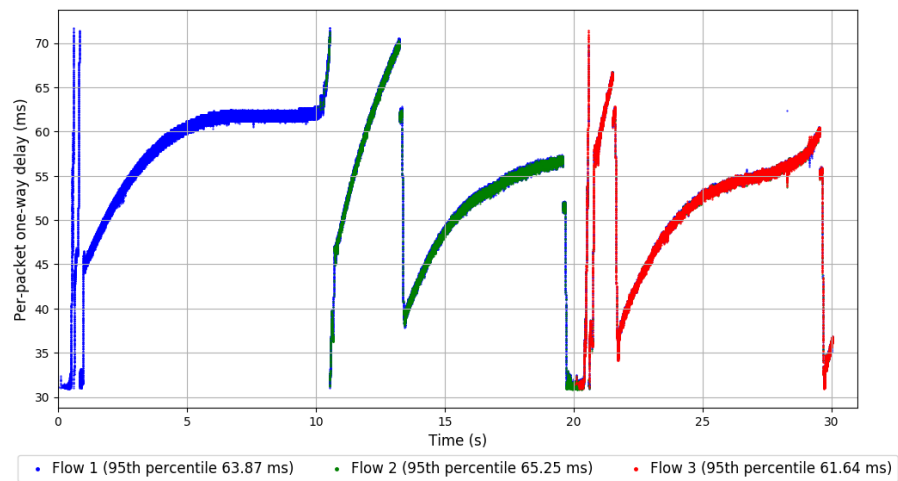
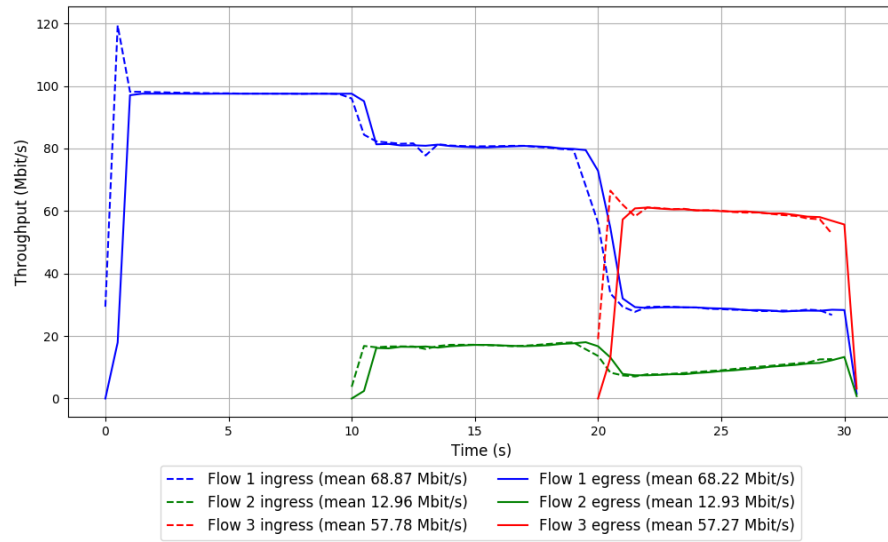


Run 2: Statistics of TCP Cubic

Start at: 2019-03-09 03:04:38
End at: 2019-03-09 03:05:08
Local clock offset: 0.257 ms
Remote clock offset: -1.609 ms

Below is generated by plot.py at 2019-03-09 04:36:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.87 Mbit/s
95th percentile per-packet one-way delay: 63.607 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 68.22 Mbit/s
95th percentile per-packet one-way delay: 63.871 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 65.253 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 57.27 Mbit/s
95th percentile per-packet one-way delay: 61.643 ms
Loss rate: 0.82%

Run 2: Report of TCP Cubic — Data Link

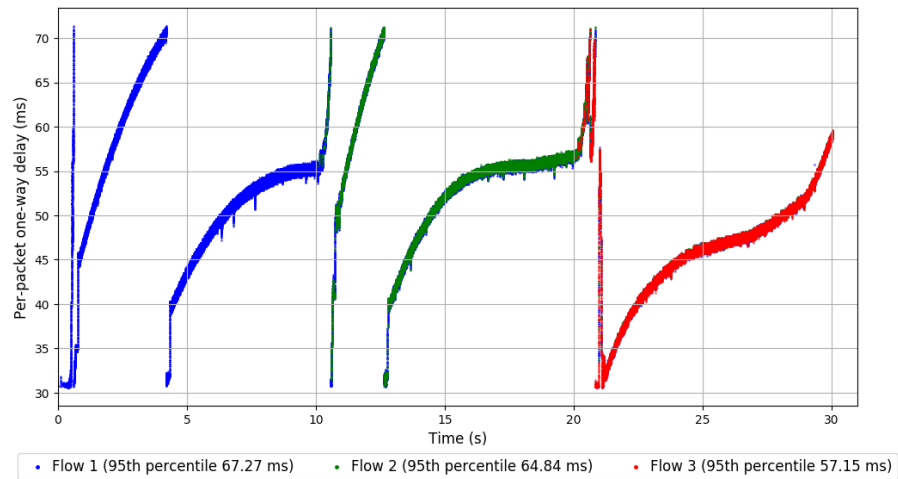
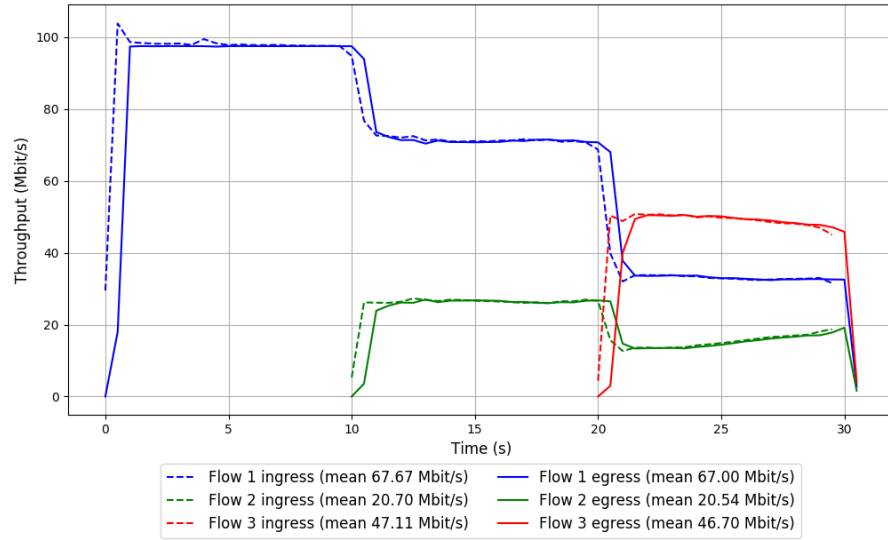


Run 3: Statistics of TCP Cubic

Start at: 2019-03-09 03:31:09
End at: 2019-03-09 03:31:39
Local clock offset: 0.296 ms
Remote clock offset: -0.792 ms

Below is generated by plot.py at 2019-03-09 04:36:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.19 Mbit/s
95th percentile per-packet one-way delay: 66.308 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 67.00 Mbit/s
95th percentile per-packet one-way delay: 67.272 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 20.54 Mbit/s
95th percentile per-packet one-way delay: 64.843 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 46.70 Mbit/s
95th percentile per-packet one-way delay: 57.153 ms
Loss rate: 0.83%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-03-09 03:57:23

End at: 2019-03-09 03:57:53

Local clock offset: 0.28 ms

Remote clock offset: 0.116 ms

Below is generated by plot.py at 2019-03-09 04:37:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 67.380 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 72.91 Mbit/s

95th percentile per-packet one-way delay: 67.611 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 24.06 Mbit/s

95th percentile per-packet one-way delay: 66.666 ms

Loss rate: 0.74%

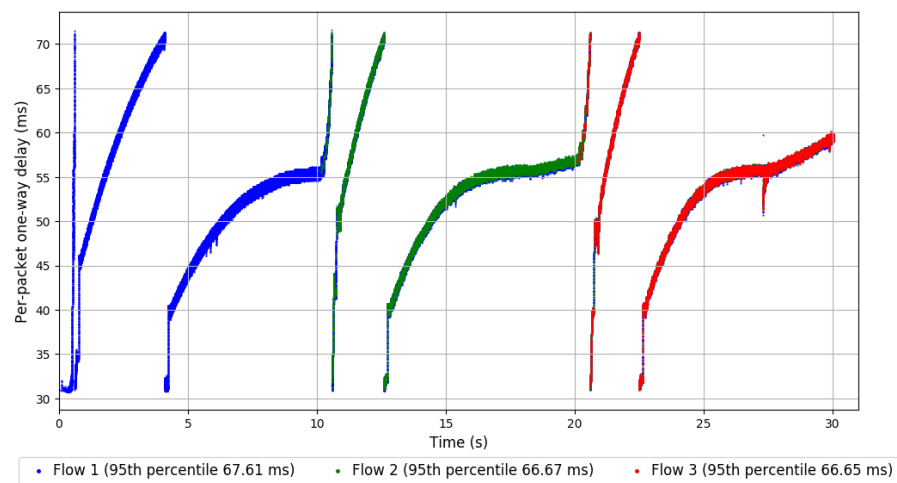
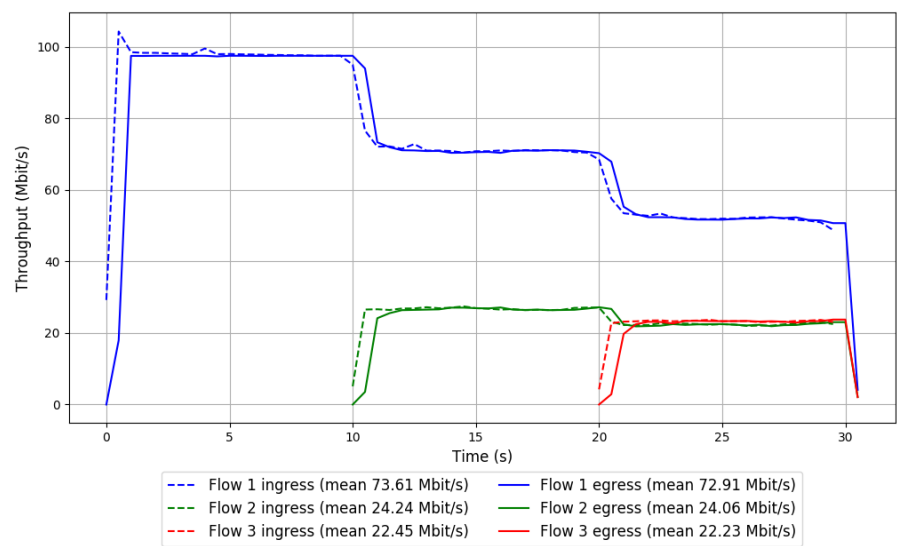
-- Flow 3:

Average throughput: 22.23 Mbit/s

95th percentile per-packet one-way delay: 66.650 ms

Loss rate: 0.96%

Run 4: Report of TCP Cubic — Data Link

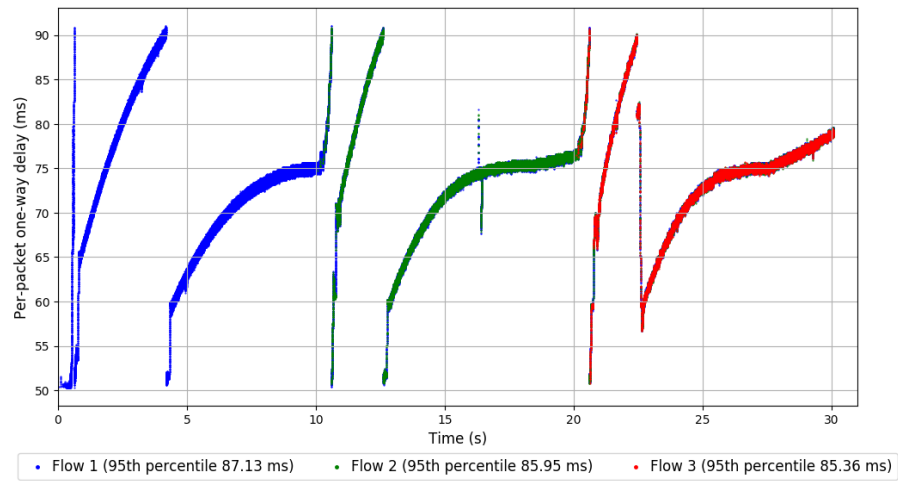
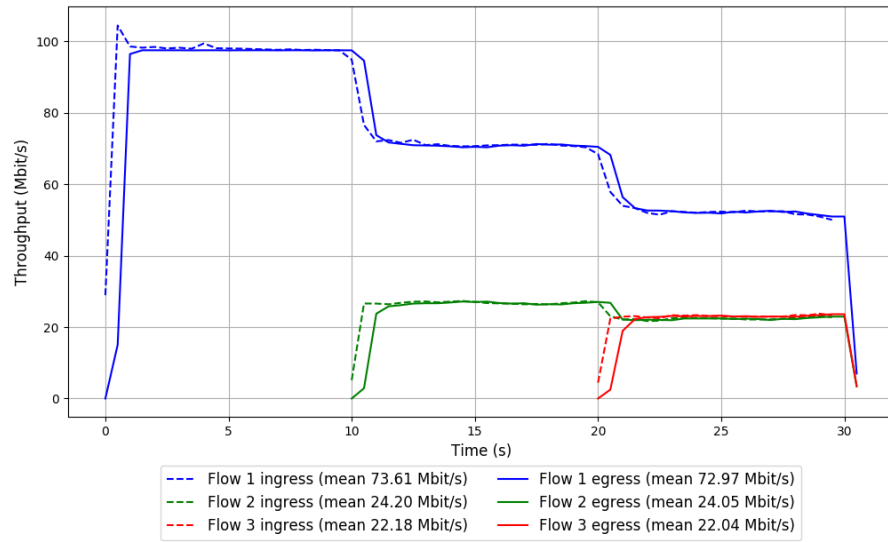


Run 5: Statistics of TCP Cubic

Start at: 2019-03-09 04:23:45
End at: 2019-03-09 04:24:15
Local clock offset: 0.208 ms
Remote clock offset: 19.388 ms

Below is generated by plot.py at 2019-03-09 04:37:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 86.882 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 72.97 Mbit/s
95th percentile per-packet one-way delay: 87.133 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 24.05 Mbit/s
95th percentile per-packet one-way delay: 85.949 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 22.04 Mbit/s
95th percentile per-packet one-way delay: 85.356 ms
Loss rate: 0.62%

Run 5: Report of TCP Cubic — Data Link

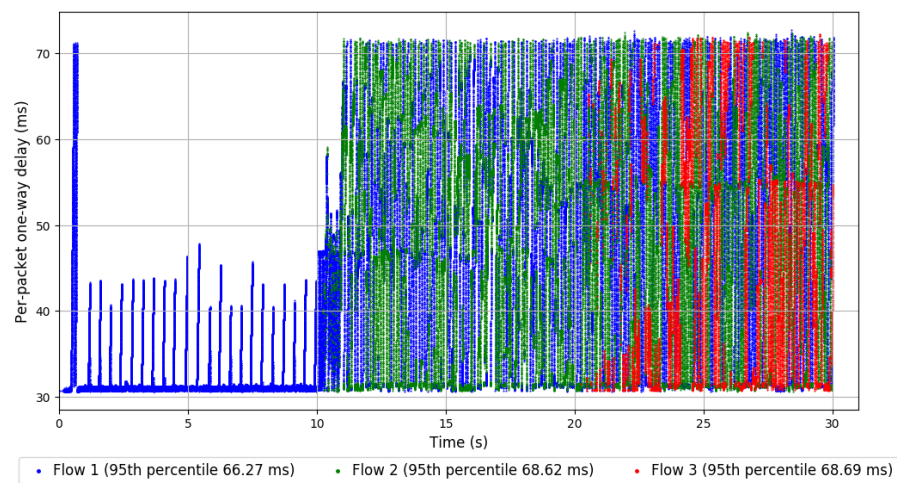
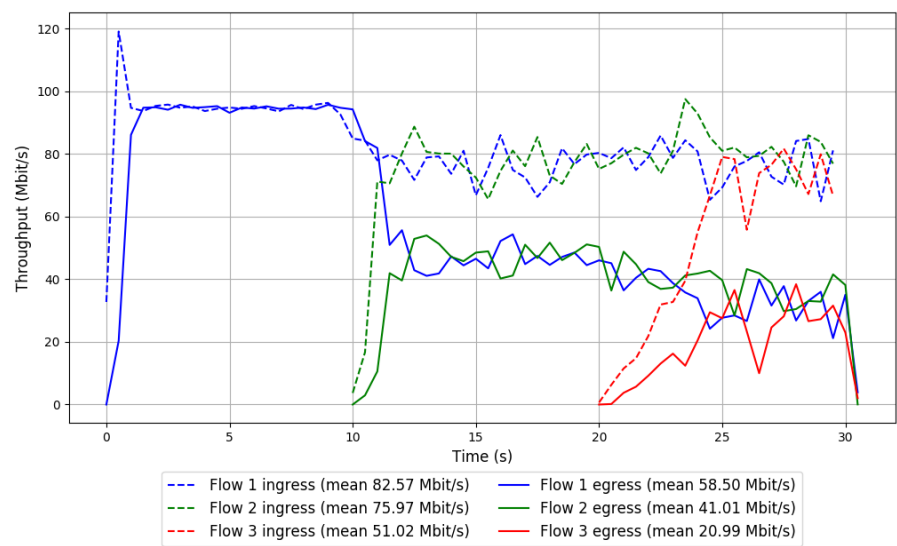


Run 1: Statistics of FillP

Start at: 2019-03-09 02:29:33
End at: 2019-03-09 02:30:03
Local clock offset: 0.479 ms
Remote clock offset: -3.685 ms

Below is generated by plot.py at 2019-03-09 04:37:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.62 Mbit/s
95th percentile per-packet one-way delay: 67.475 ms
Loss rate: 38.21%
-- Flow 1:
Average throughput: 58.50 Mbit/s
95th percentile per-packet one-way delay: 66.271 ms
Loss rate: 29.08%
-- Flow 2:
Average throughput: 41.01 Mbit/s
95th percentile per-packet one-way delay: 68.625 ms
Loss rate: 45.95%
-- Flow 3:
Average throughput: 20.99 Mbit/s
95th percentile per-packet one-way delay: 68.690 ms
Loss rate: 59.66%

Run 1: Report of FillP — Data Link

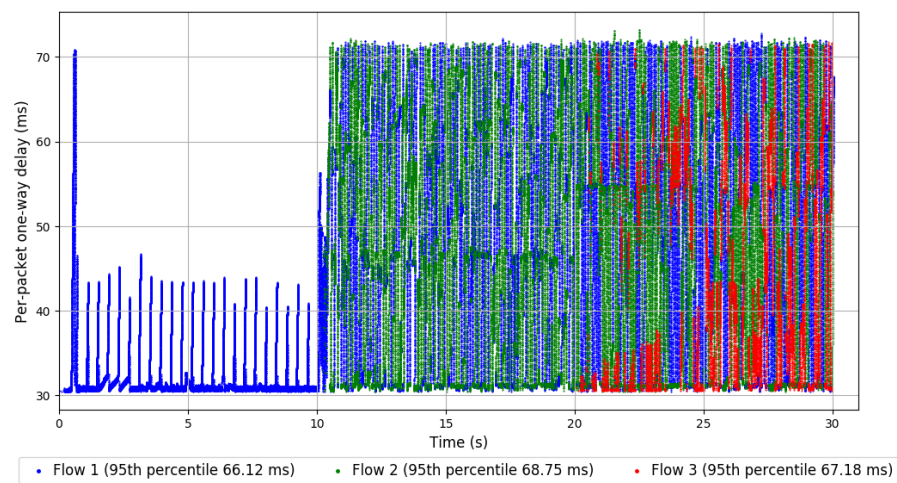
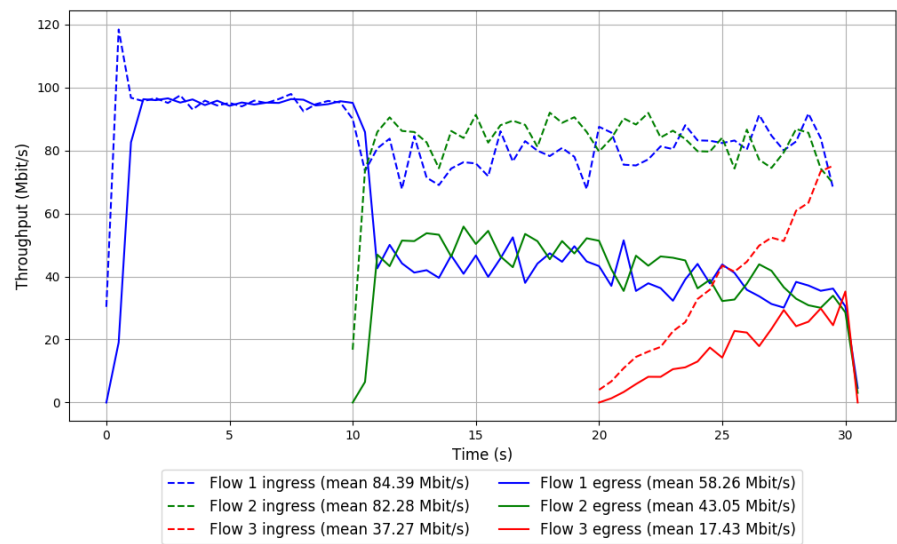


Run 2: Statistics of FillP

Start at: 2019-03-09 02:58:09
End at: 2019-03-09 02:58:39
Local clock offset: 0.286 ms
Remote clock offset: -2.206 ms

Below is generated by plot.py at 2019-03-09 04:37:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.70 Mbit/s
95th percentile per-packet one-way delay: 67.805 ms
Loss rate: 38.75%
-- Flow 1:
Average throughput: 58.26 Mbit/s
95th percentile per-packet one-way delay: 66.118 ms
Loss rate: 30.89%
-- Flow 2:
Average throughput: 43.05 Mbit/s
95th percentile per-packet one-way delay: 68.747 ms
Loss rate: 47.62%
-- Flow 3:
Average throughput: 17.43 Mbit/s
95th percentile per-packet one-way delay: 67.183 ms
Loss rate: 53.08%

Run 2: Report of FillP — Data Link

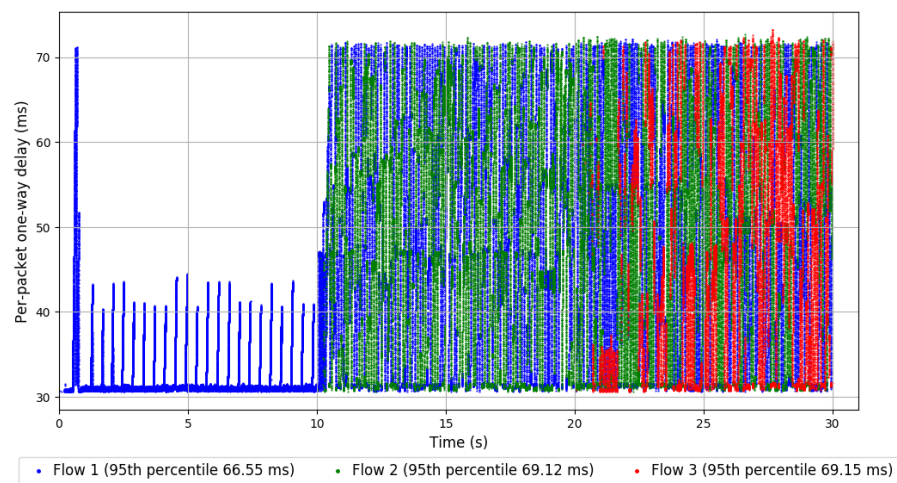
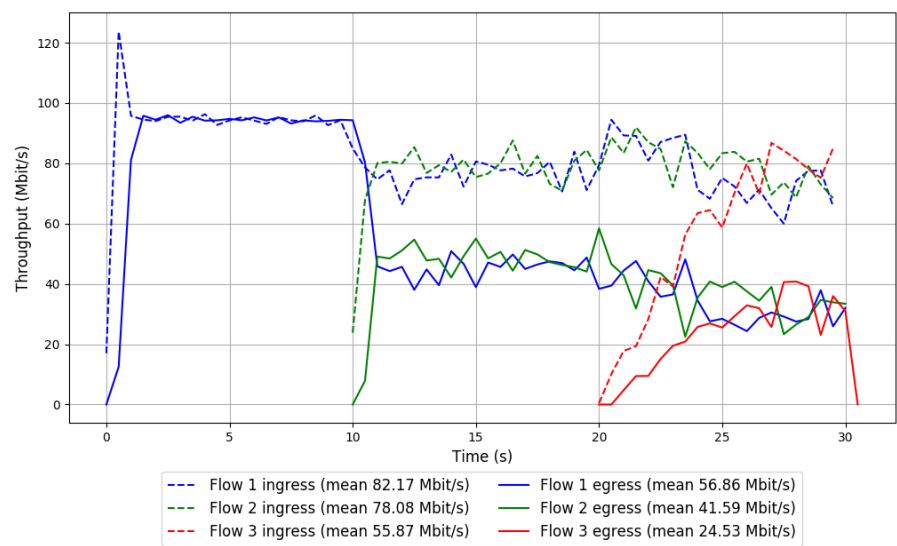


Run 3: Statistics of FillP

Start at: 2019-03-09 03:24:32
End at: 2019-03-09 03:25:02
Local clock offset: 0.312 ms
Remote clock offset: -0.752 ms

Below is generated by plot.py at 2019-03-09 04:37:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.59 Mbit/s
95th percentile per-packet one-way delay: 68.117 ms
Loss rate: 39.34%
-- Flow 1:
Average throughput: 56.86 Mbit/s
95th percentile per-packet one-way delay: 66.551 ms
Loss rate: 30.85%
-- Flow 2:
Average throughput: 41.59 Mbit/s
95th percentile per-packet one-way delay: 69.123 ms
Loss rate: 46.77%
-- Flow 3:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 69.146 ms
Loss rate: 56.09%

Run 3: Report of FillP — Data Link

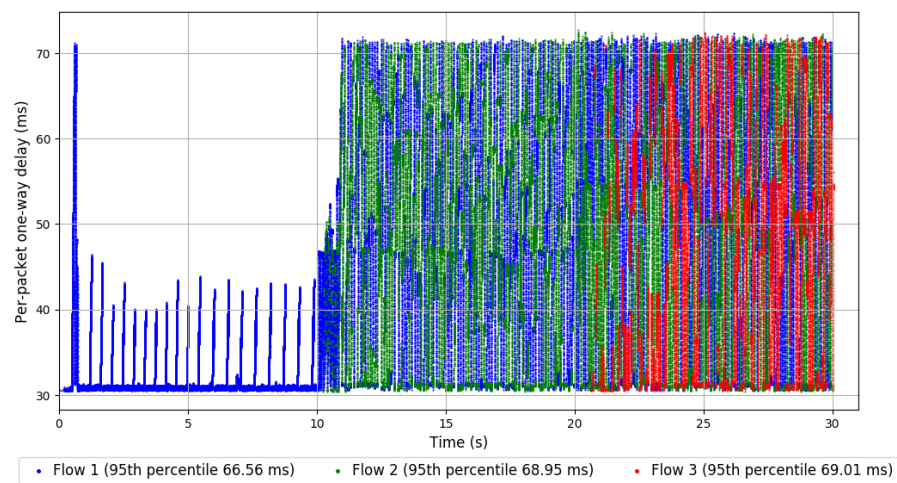
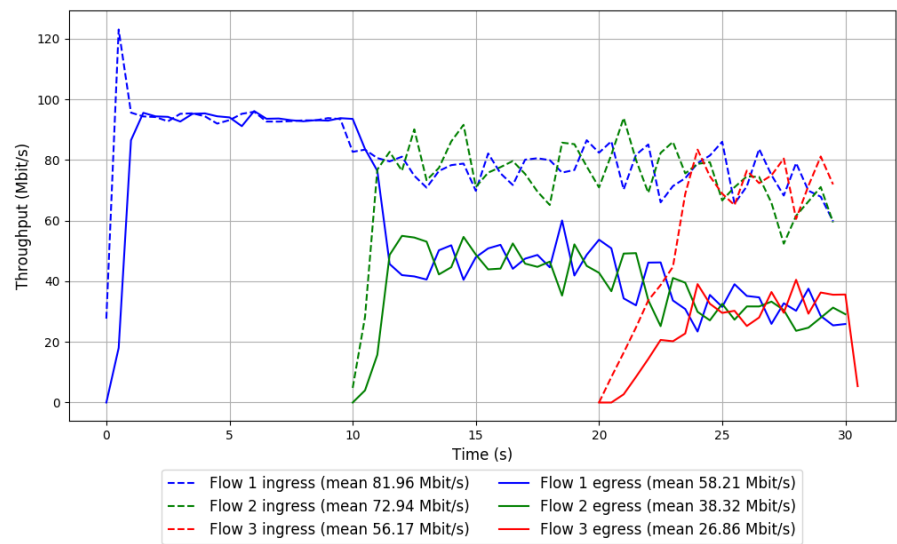


Run 4: Statistics of FillP

Start at: 2019-03-09 03:51:04
End at: 2019-03-09 03:51:34
Local clock offset: 0.274 ms
Remote clock offset: -0.289 ms

Below is generated by plot.py at 2019-03-09 04:37:58
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 67.931 ms
Loss rate: 38.03%
-- Flow 1:
Average throughput: 58.21 Mbit/s
95th percentile per-packet one-way delay: 66.555 ms
Loss rate: 28.99%
-- Flow 2:
Average throughput: 38.32 Mbit/s
95th percentile per-packet one-way delay: 68.953 ms
Loss rate: 47.46%
-- Flow 3:
Average throughput: 26.86 Mbit/s
95th percentile per-packet one-way delay: 69.009 ms
Loss rate: 53.21%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-03-09 04:17:15

End at: 2019-03-09 04:17:45

Local clock offset: 0.257 ms

Remote clock offset: 0.152 ms

Below is generated by plot.py at 2019-03-09 04:38:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.39 Mbit/s

95th percentile per-packet one-way delay: 67.704 ms

Loss rate: 38.08%

-- Flow 1:

Average throughput: 57.59 Mbit/s

95th percentile per-packet one-way delay: 66.777 ms

Loss rate: 29.44%

-- Flow 2:

Average throughput: 41.66 Mbit/s

95th percentile per-packet one-way delay: 68.941 ms

Loss rate: 46.75%

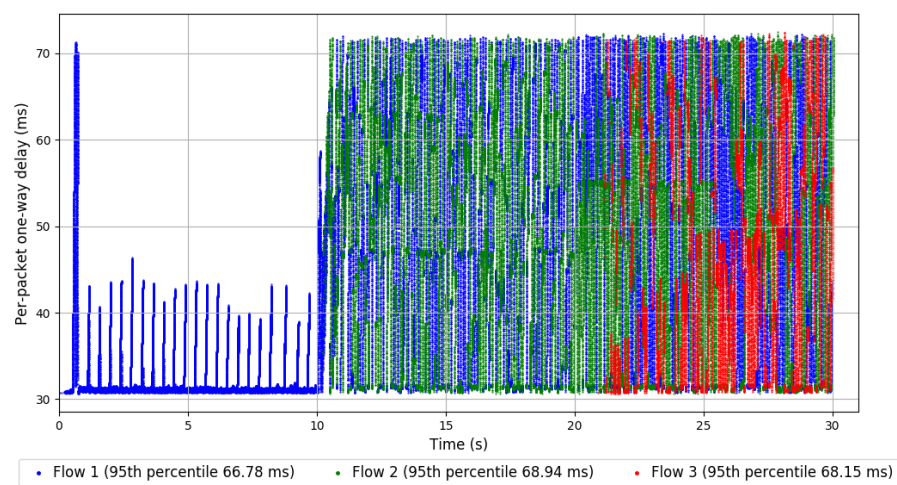
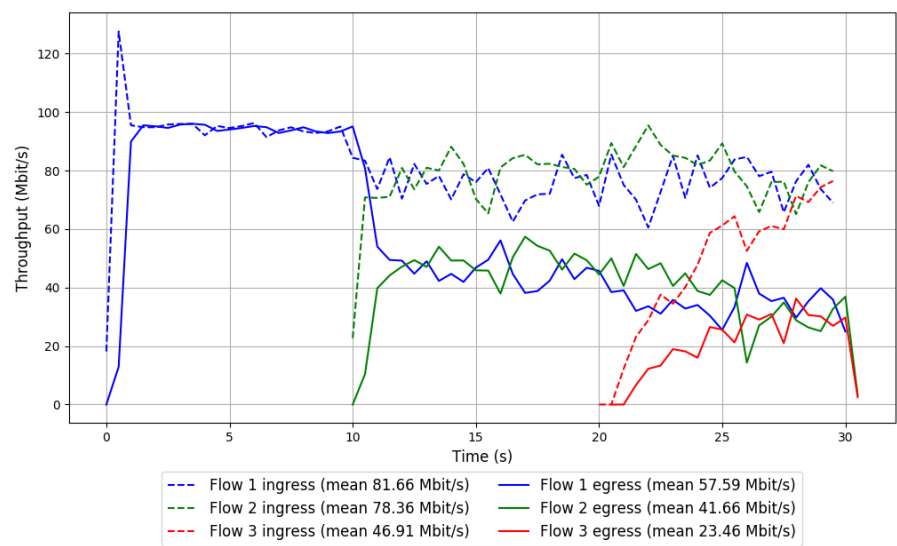
-- Flow 3:

Average throughput: 23.46 Mbit/s

95th percentile per-packet one-way delay: 68.154 ms

Loss rate: 54.25%

Run 5: Report of FillP — Data Link

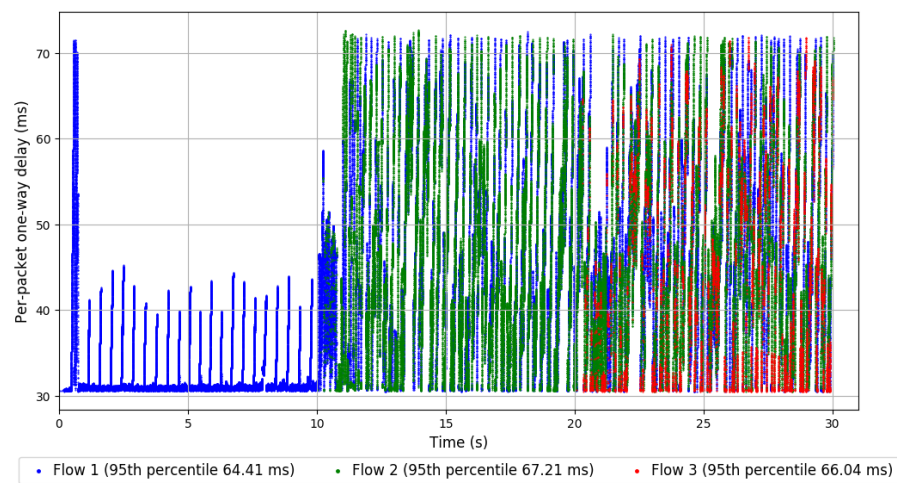
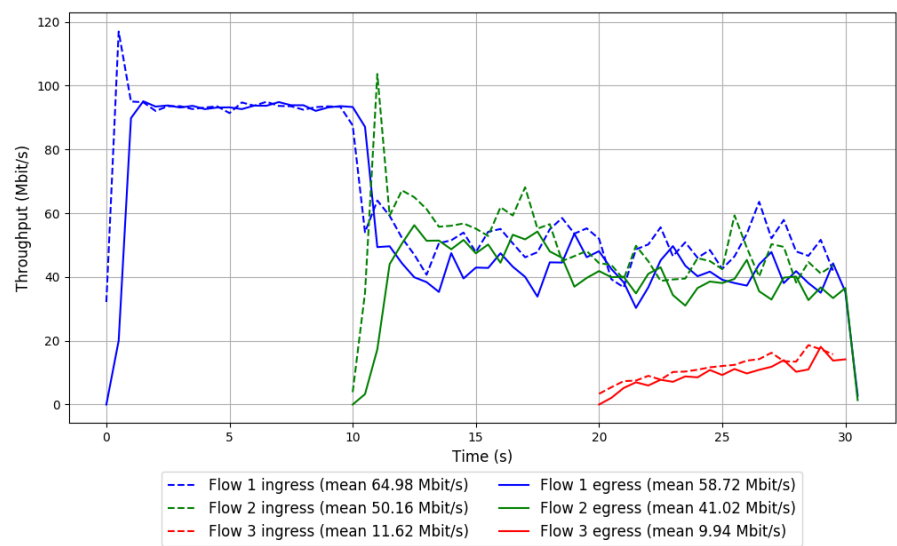


Run 1: Statistics of FillP-Sheep

Start at: 2019-03-09 02:40:08
End at: 2019-03-09 02:40:38
Local clock offset: 0.407 ms
Remote clock offset: -3.124 ms

Below is generated by plot.py at 2019-03-09 04:38:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.33 Mbit/s
95th percentile per-packet one-way delay: 65.657 ms
Loss rate: 12.57%
-- Flow 1:
Average throughput: 58.72 Mbit/s
95th percentile per-packet one-way delay: 64.409 ms
Loss rate: 9.61%
-- Flow 2:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 67.210 ms
Loss rate: 18.09%
-- Flow 3:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 66.044 ms
Loss rate: 14.57%

Run 1: Report of FillP-Sheep — Data Link

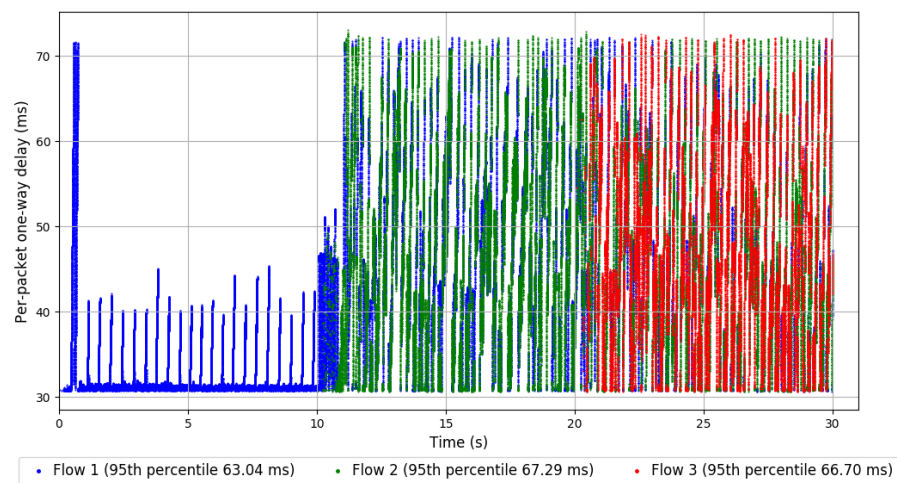
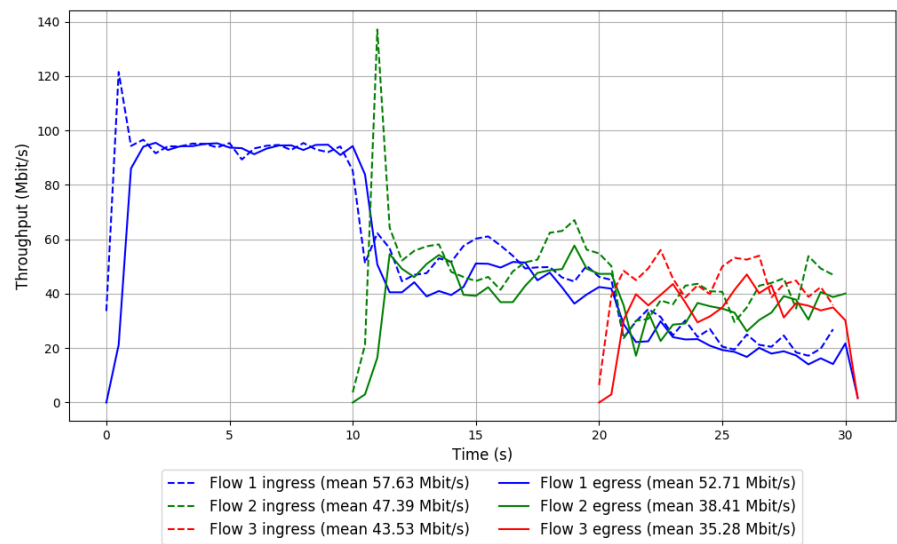


Run 2: Statistics of FillP-Sheep

Start at: 2019-03-09 03:07:15
End at: 2019-03-09 03:07:45
Local clock offset: 0.262 ms
Remote clock offset: -1.487 ms

Below is generated by plot.py at 2019-03-09 04:38:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.95 Mbit/s
95th percentile per-packet one-way delay: 65.266 ms
Loss rate: 13.14%
-- Flow 1:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 63.036 ms
Loss rate: 8.50%
-- Flow 2:
Average throughput: 38.41 Mbit/s
95th percentile per-packet one-way delay: 67.287 ms
Loss rate: 18.90%
-- Flow 3:
Average throughput: 35.28 Mbit/s
95th percentile per-packet one-way delay: 66.698 ms
Loss rate: 19.04%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-03-09 03:33:48

End at: 2019-03-09 03:34:18

Local clock offset: 0.283 ms

Remote clock offset: -0.47 ms

Below is generated by plot.py at 2019-03-09 04:38:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.37 Mbit/s

95th percentile per-packet one-way delay: 65.507 ms

Loss rate: 11.57%

-- Flow 1:

Average throughput: 59.04 Mbit/s

95th percentile per-packet one-way delay: 64.193 ms

Loss rate: 8.93%

-- Flow 2:

Average throughput: 38.35 Mbit/s

95th percentile per-packet one-way delay: 66.994 ms

Loss rate: 16.05%

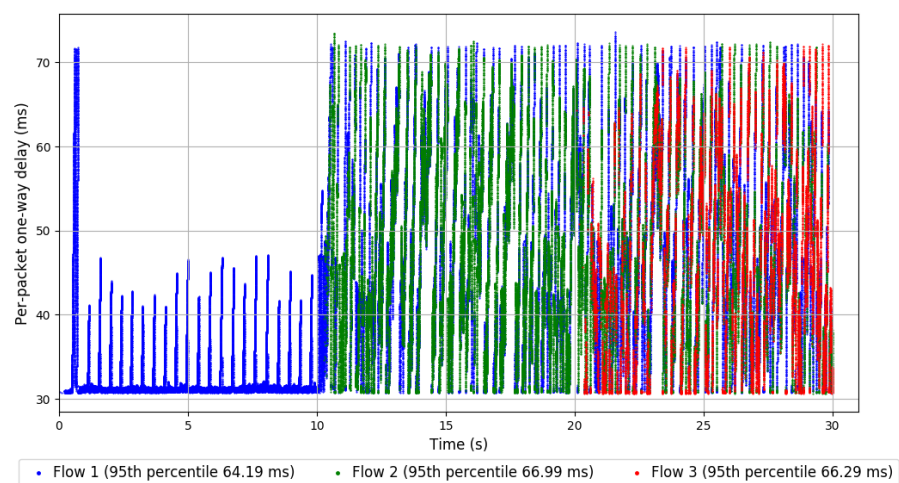
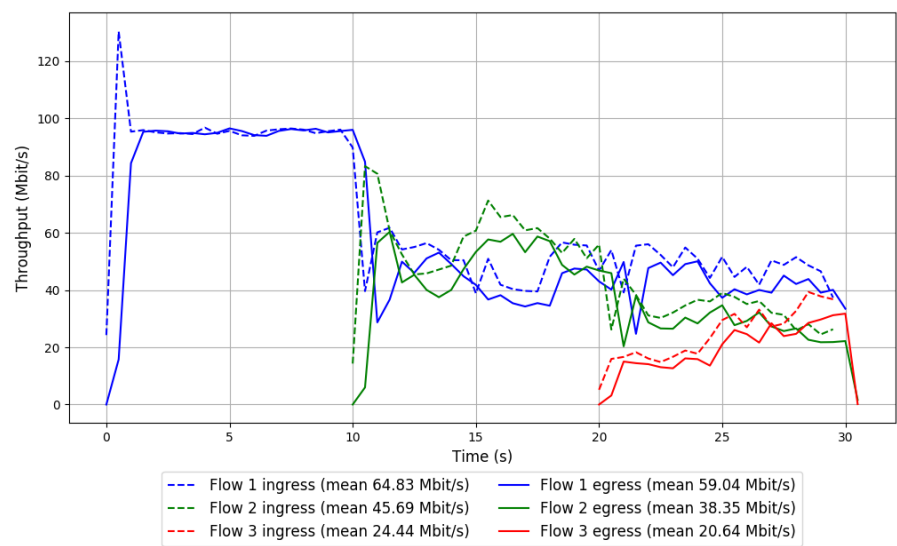
-- Flow 3:

Average throughput: 20.64 Mbit/s

95th percentile per-packet one-way delay: 66.291 ms

Loss rate: 15.86%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-03-09 03:59:59

End at: 2019-03-09 04:00:29

Local clock offset: 0.301 ms

Remote clock offset: 0.218 ms

Below is generated by plot.py at 2019-03-09 04:39:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.72 Mbit/s

95th percentile per-packet one-way delay: 65.506 ms

Loss rate: 11.64%

-- Flow 1:

Average throughput: 58.02 Mbit/s

95th percentile per-packet one-way delay: 64.143 ms

Loss rate: 9.41%

-- Flow 2:

Average throughput: 32.60 Mbit/s

95th percentile per-packet one-way delay: 67.022 ms

Loss rate: 15.17%

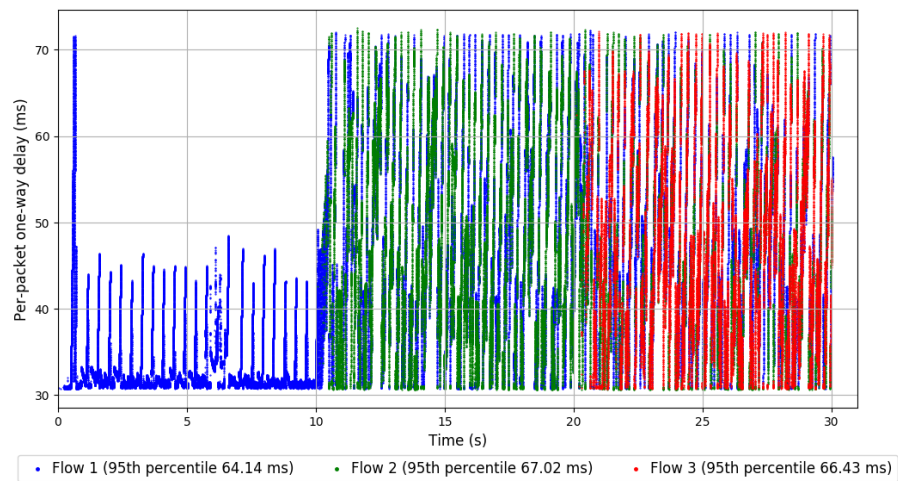
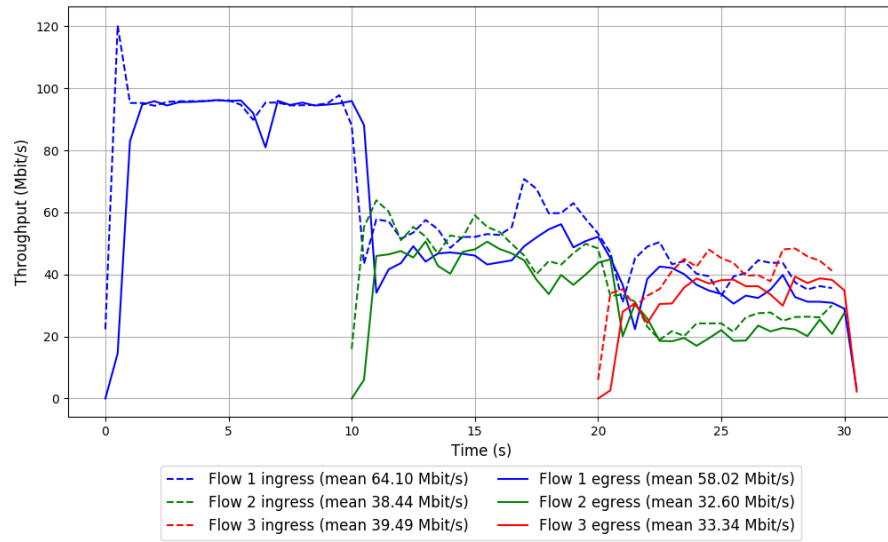
-- Flow 3:

Average throughput: 33.34 Mbit/s

95th percentile per-packet one-way delay: 66.432 ms

Loss rate: 15.64%

Run 4: Report of FillP-Sheep — Data Link

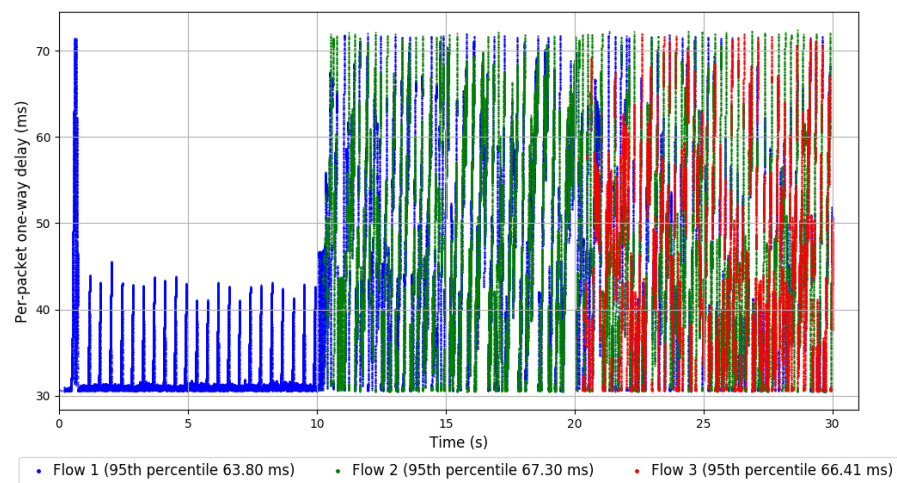
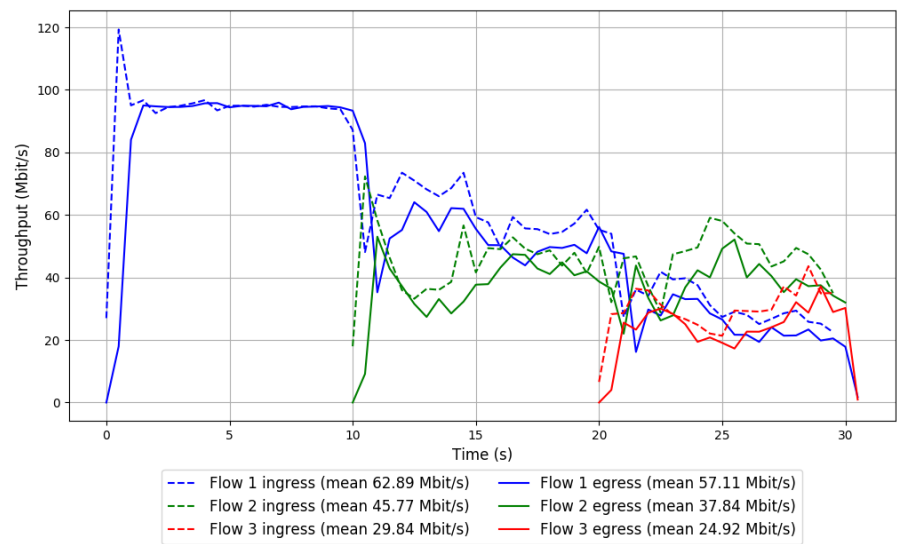


Run 5: Statistics of FillP-Sheep

Start at: 2019-03-09 04:26:23
End at: 2019-03-09 04:26:53
Local clock offset: 0.183 ms
Remote clock offset: -0.227 ms

Below is generated by plot.py at 2019-03-09 04:39:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 65.583 ms
Loss rate: 12.25%
-- Flow 1:
Average throughput: 57.11 Mbit/s
95th percentile per-packet one-way delay: 63.801 ms
Loss rate: 9.14%
-- Flow 2:
Average throughput: 37.84 Mbit/s
95th percentile per-packet one-way delay: 67.295 ms
Loss rate: 17.31%
-- Flow 3:
Average throughput: 24.92 Mbit/s
95th percentile per-packet one-way delay: 66.407 ms
Loss rate: 16.45%

Run 5: Report of FillP-Sheep — Data Link

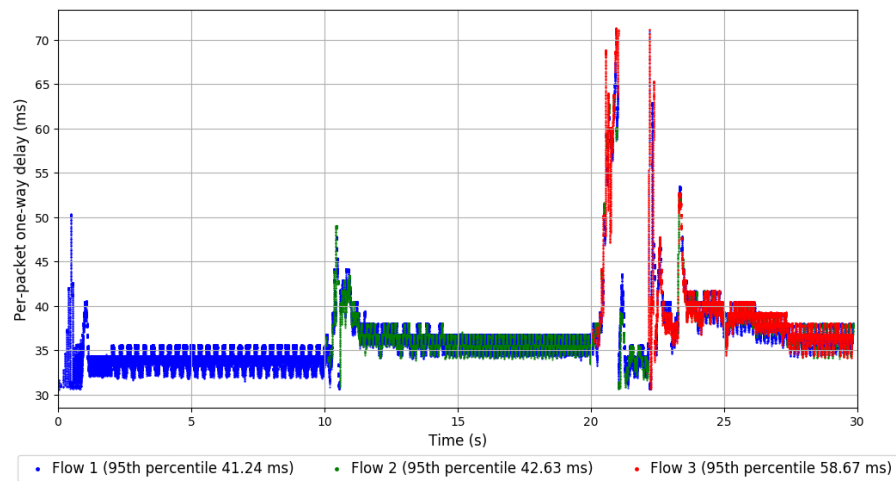
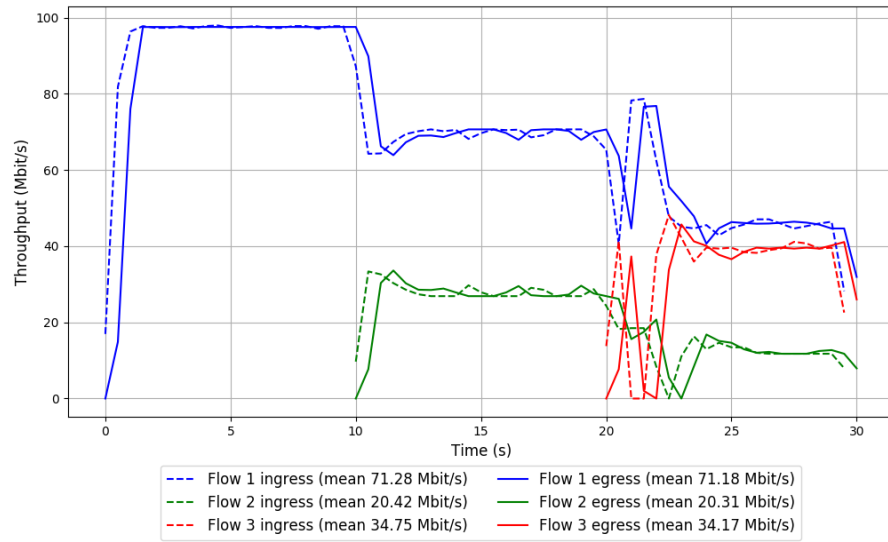


Run 1: Statistics of Indigo

Start at: 2019-03-09 02:43:00
End at: 2019-03-09 02:43:30
Local clock offset: 0.391 ms
Remote clock offset: -2.953 ms

Below is generated by plot.py at 2019-03-09 04:39:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 41.767 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 71.18 Mbit/s
95th percentile per-packet one-way delay: 41.242 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 20.31 Mbit/s
95th percentile per-packet one-way delay: 42.635 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 34.17 Mbit/s
95th percentile per-packet one-way delay: 58.672 ms
Loss rate: 1.68%

Run 1: Report of Indigo — Data Link

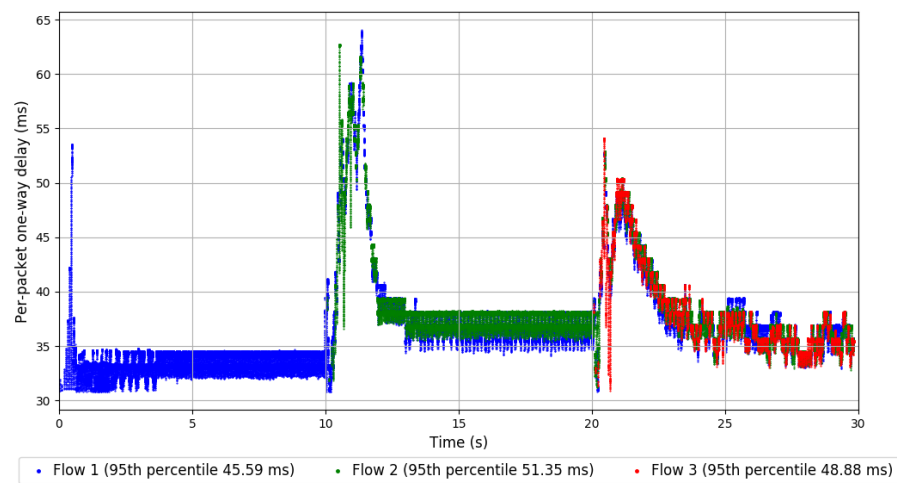
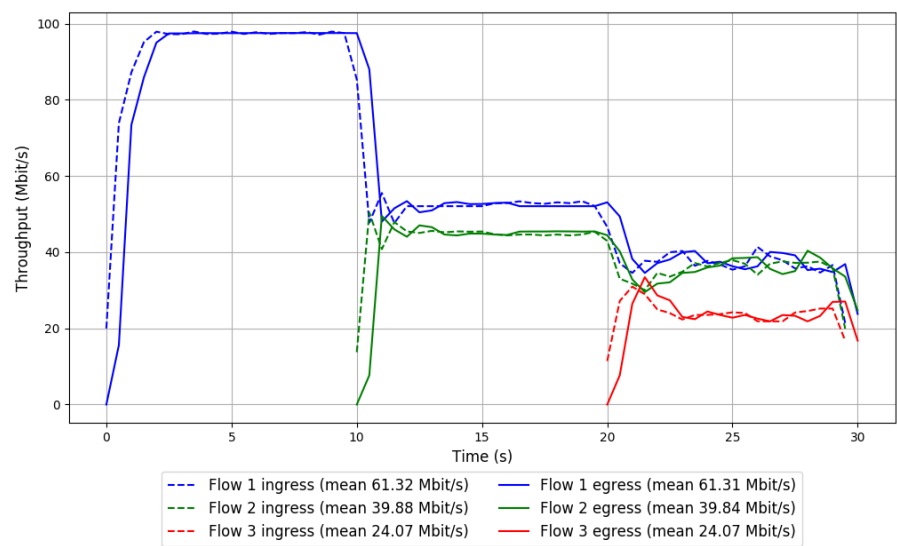


Run 2: Statistics of Indigo

Start at: 2019-03-09 03:09:45
End at: 2019-03-09 03:10:15
Local clock offset: 0.24 ms
Remote clock offset: -1.471 ms

Below is generated by plot.py at 2019-03-09 04:39:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.57 Mbit/s
95th percentile per-packet one-way delay: 47.879 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 61.31 Mbit/s
95th percentile per-packet one-way delay: 45.592 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 51.351 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 24.07 Mbit/s
95th percentile per-packet one-way delay: 48.885 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

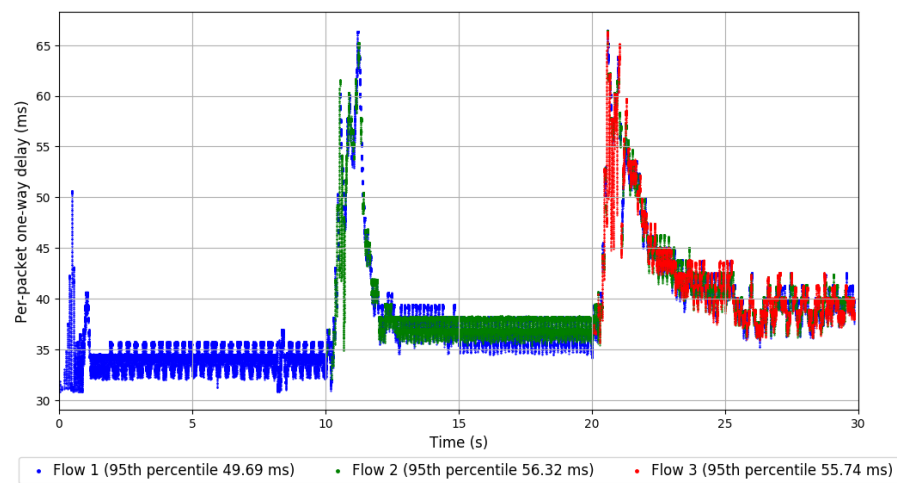
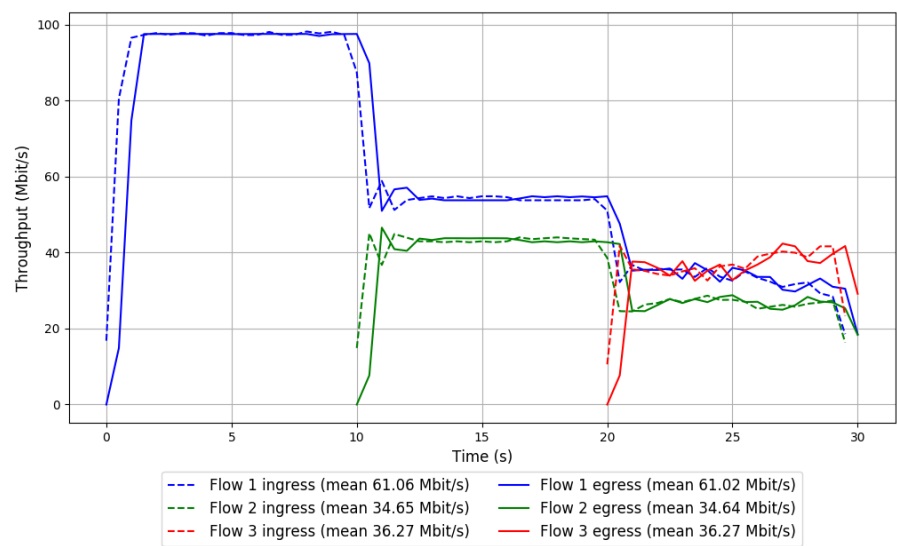


Run 3: Statistics of Indigo

Start at: 2019-03-09 03:36:22
End at: 2019-03-09 03:36:52
Local clock offset: 0.262 ms
Remote clock offset: -0.431 ms

Below is generated by plot.py at 2019-03-09 04:39:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 53.095 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 61.02 Mbit/s
95th percentile per-packet one-way delay: 49.685 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 34.64 Mbit/s
95th percentile per-packet one-way delay: 56.322 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.27 Mbit/s
95th percentile per-packet one-way delay: 55.739 ms
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-03-09 04:02:30

End at: 2019-03-09 04:03:00

Local clock offset: 0.293 ms

Remote clock offset: 0.211 ms

Below is generated by plot.py at 2019-03-09 04:39:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.59 Mbit/s

95th percentile per-packet one-way delay: 50.259 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 61.54 Mbit/s

95th percentile per-packet one-way delay: 45.605 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 35.64 Mbit/s

95th percentile per-packet one-way delay: 51.794 ms

Loss rate: 0.06%

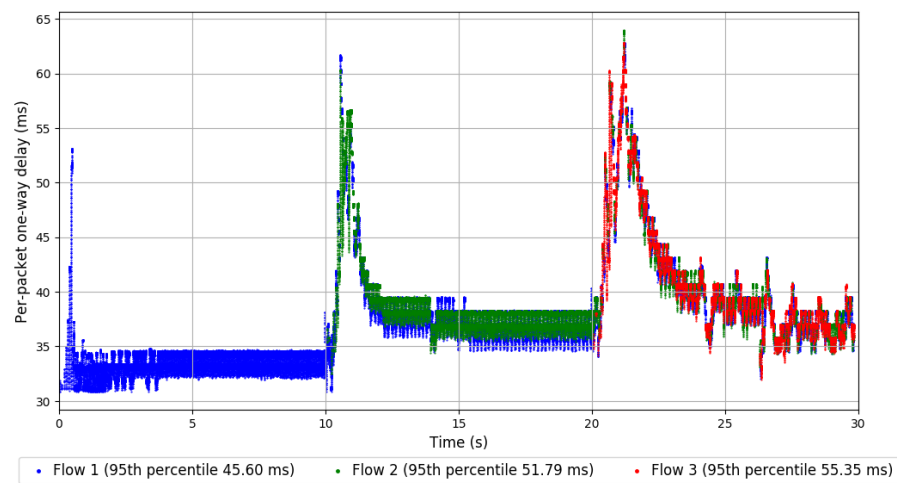
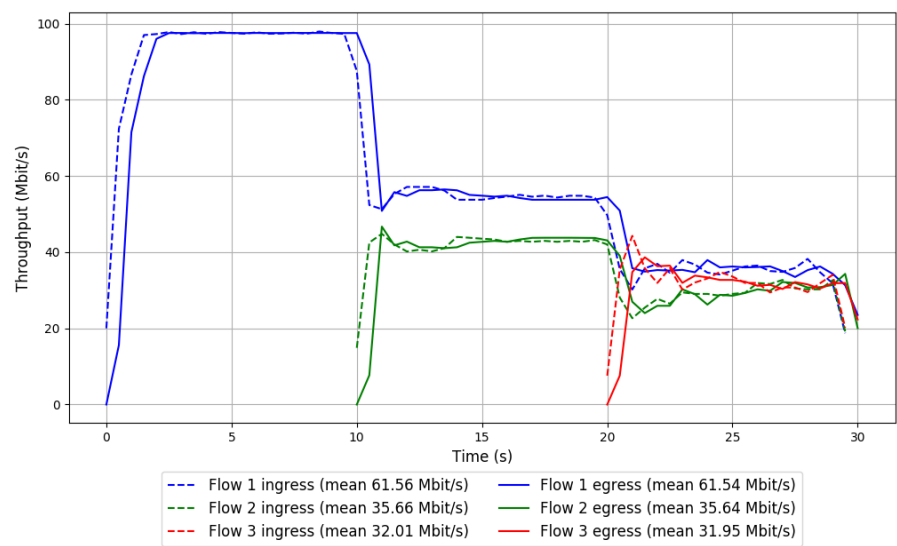
-- Flow 3:

Average throughput: 31.95 Mbit/s

95th percentile per-packet one-way delay: 55.348 ms

Loss rate: 0.16%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-03-09 04:28:54

End at: 2019-03-09 04:29:24

Local clock offset: 0.175 ms

Remote clock offset: 0.036 ms

Below is generated by plot.py at 2019-03-09 04:39:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.67 Mbit/s

95th percentile per-packet one-way delay: 48.582 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.27 Mbit/s

95th percentile per-packet one-way delay: 43.901 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.09 Mbit/s

95th percentile per-packet one-way delay: 50.016 ms

Loss rate: 0.00%

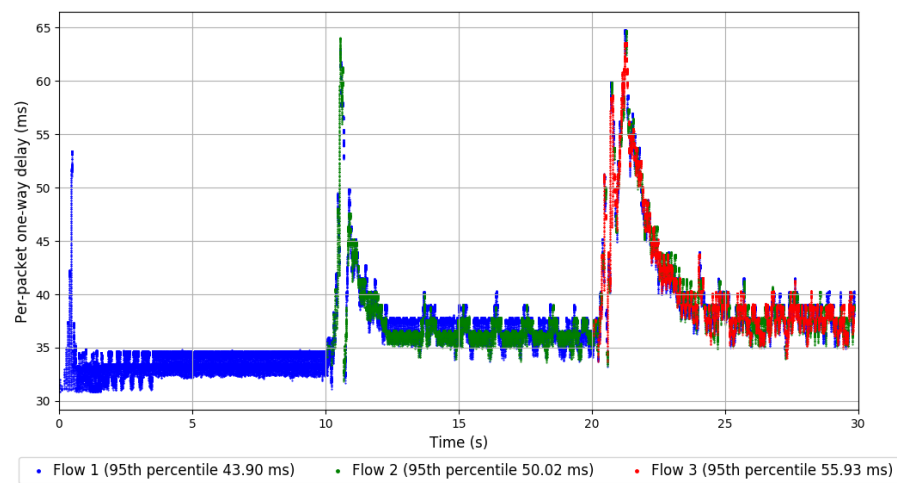
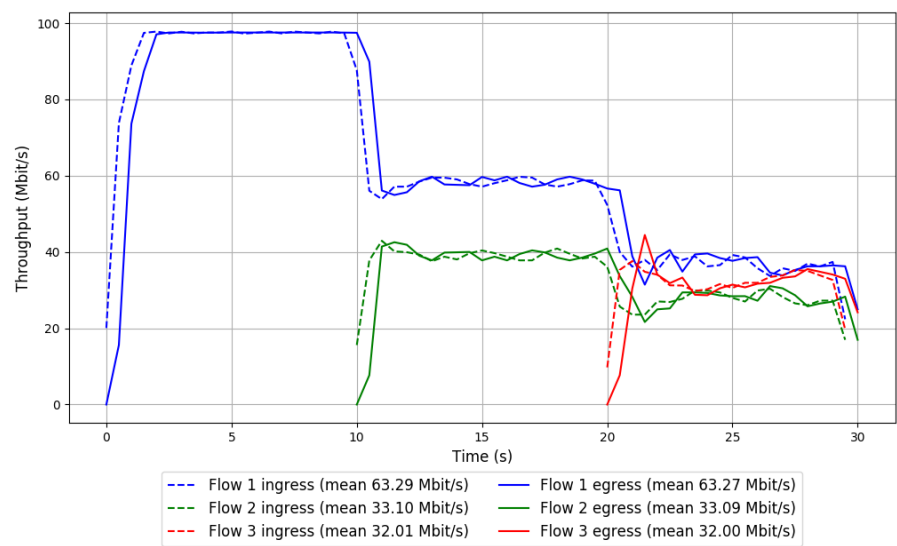
-- Flow 3:

Average throughput: 32.00 Mbit/s

95th percentile per-packet one-way delay: 55.932 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

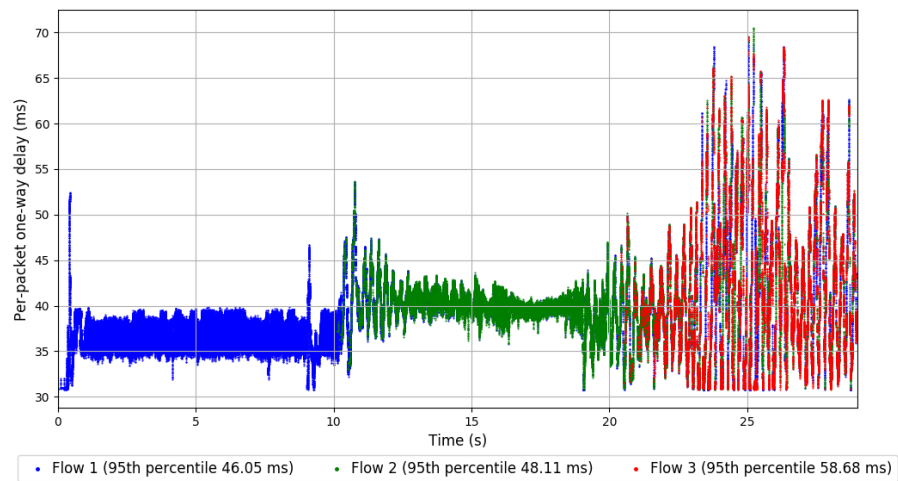
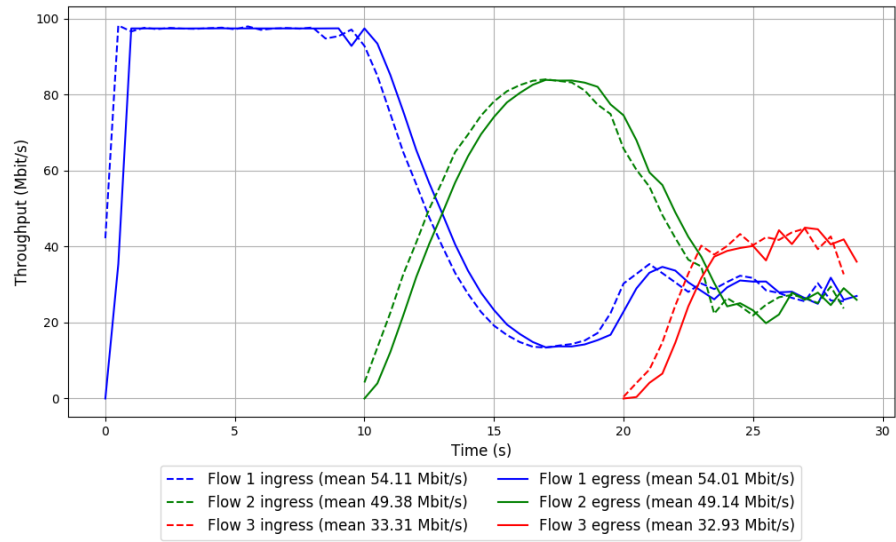


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-09 02:35:45
End at: 2019-03-09 02:36:15
Local clock offset: 0.435 ms
Remote clock offset: -3.209 ms

Below is generated by plot.py at 2019-03-09 04:39:47
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 49.403 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 54.01 Mbit/s
95th percentile per-packet one-way delay: 46.049 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 49.14 Mbit/s
95th percentile per-packet one-way delay: 48.114 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 32.93 Mbit/s
95th percentile per-packet one-way delay: 58.682 ms
Loss rate: 1.15%

Run 1: Report of Indigo-MusesC3 — Data Link

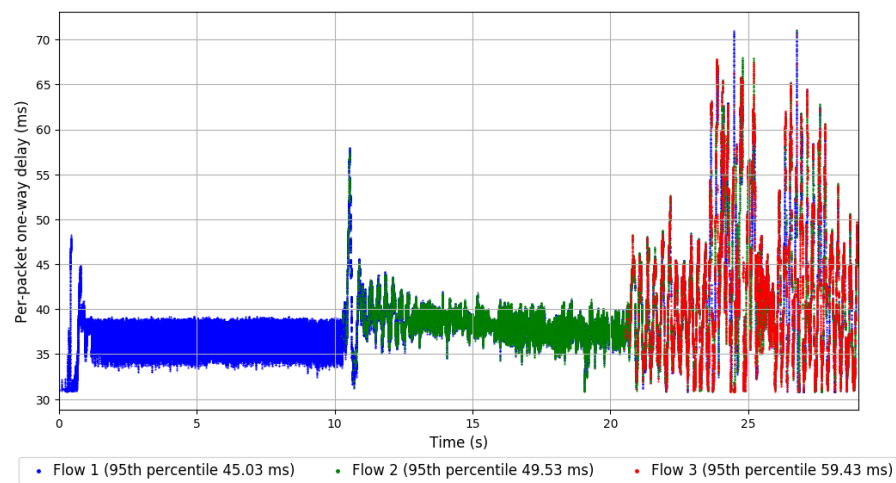
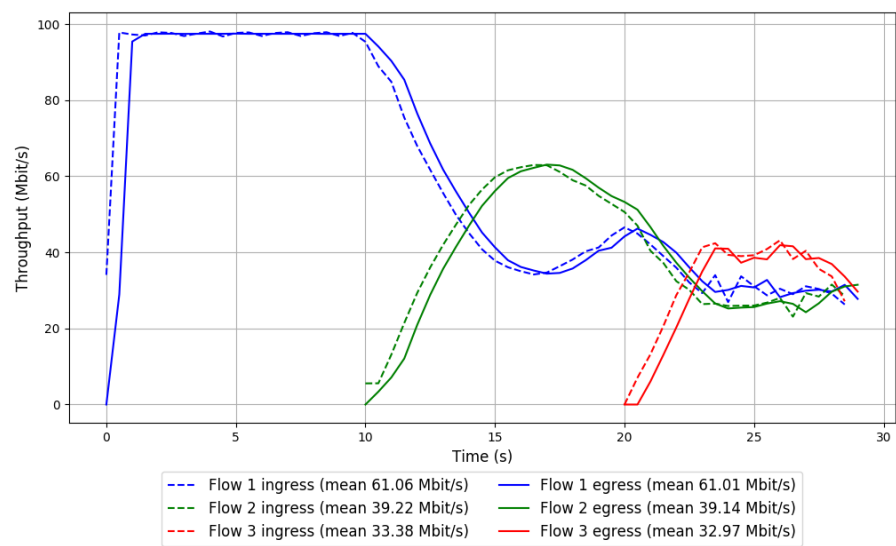


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-03-09 03:03:21
End at: 2019-03-09 03:03:51
Local clock offset: 0.26 ms
Remote clock offset: -1.745 ms

Below is generated by plot.py at 2019-03-09 04:40:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.01 Mbit/s
95th percentile per-packet one-way delay: 49.141 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 61.01 Mbit/s
95th percentile per-packet one-way delay: 45.031 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 49.529 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 32.97 Mbit/s
95th percentile per-packet one-way delay: 59.434 ms
Loss rate: 1.10%

Run 2: Report of Indigo-MusesC3 — Data Link

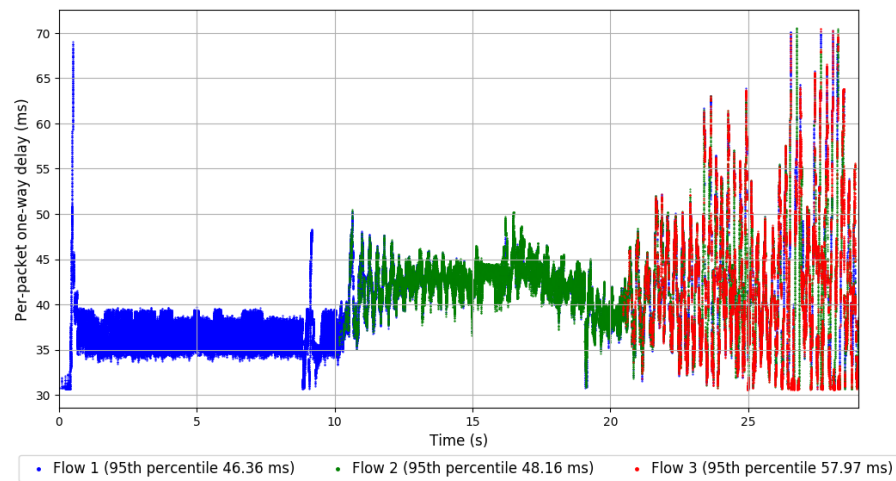
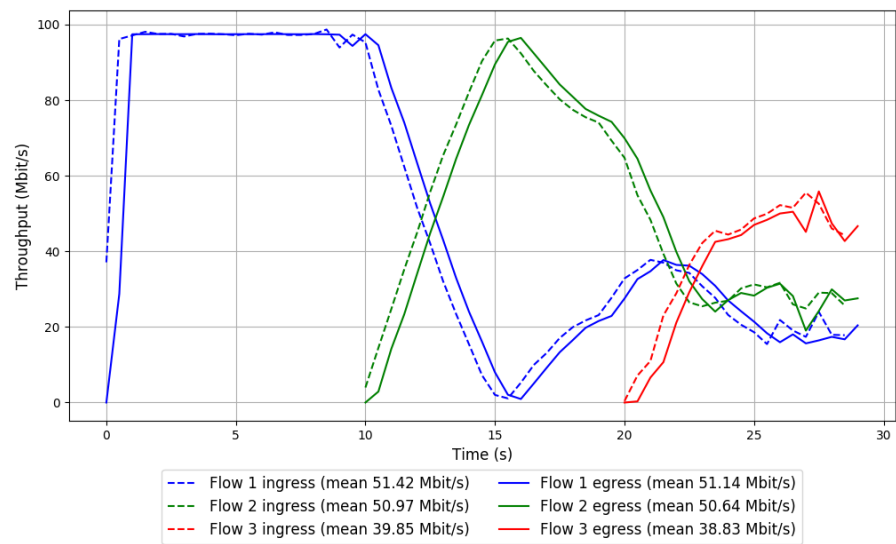


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-03-09 03:29:49
End at: 2019-03-09 03:30:19
Local clock offset: 0.321 ms
Remote clock offset: -0.815 ms

Below is generated by plot.py at 2019-03-09 04:40:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 49.444 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 51.14 Mbit/s
95th percentile per-packet one-way delay: 46.356 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 50.64 Mbit/s
95th percentile per-packet one-way delay: 48.164 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 57.966 ms
Loss rate: 2.60%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-03-09 03:56:07

End at: 2019-03-09 03:56:37

Local clock offset: 0.296 ms

Remote clock offset: 0.072 ms

Below is generated by plot.py at 2019-03-09 04:40:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.91 Mbit/s

95th percentile per-packet one-way delay: 48.683 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 54.73 Mbit/s

95th percentile per-packet one-way delay: 45.261 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 49.16 Mbit/s

95th percentile per-packet one-way delay: 48.448 ms

Loss rate: 0.11%

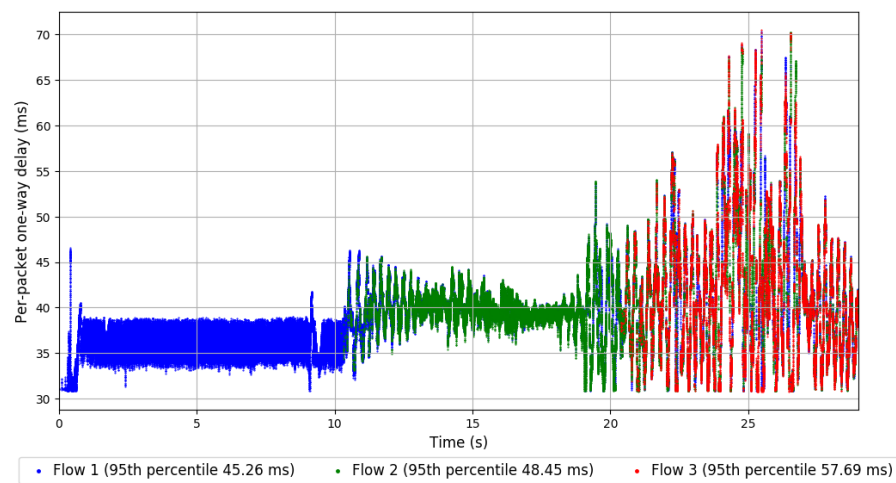
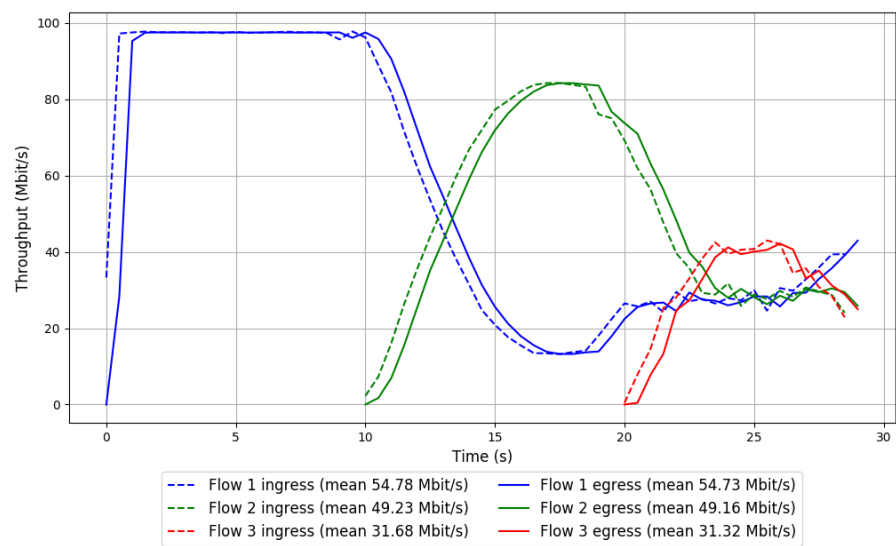
-- Flow 3:

Average throughput: 31.32 Mbit/s

95th percentile per-packet one-way delay: 57.688 ms

Loss rate: 1.10%

Run 4: Report of Indigo-MusesC3 — Data Link

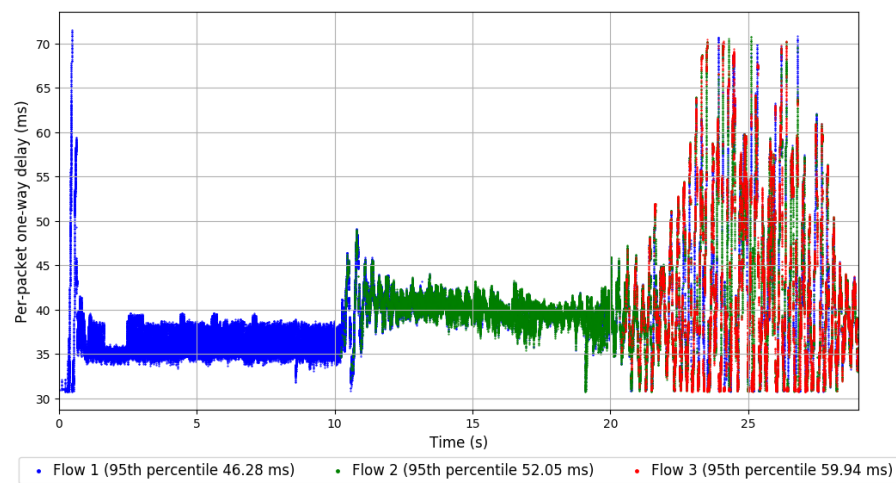
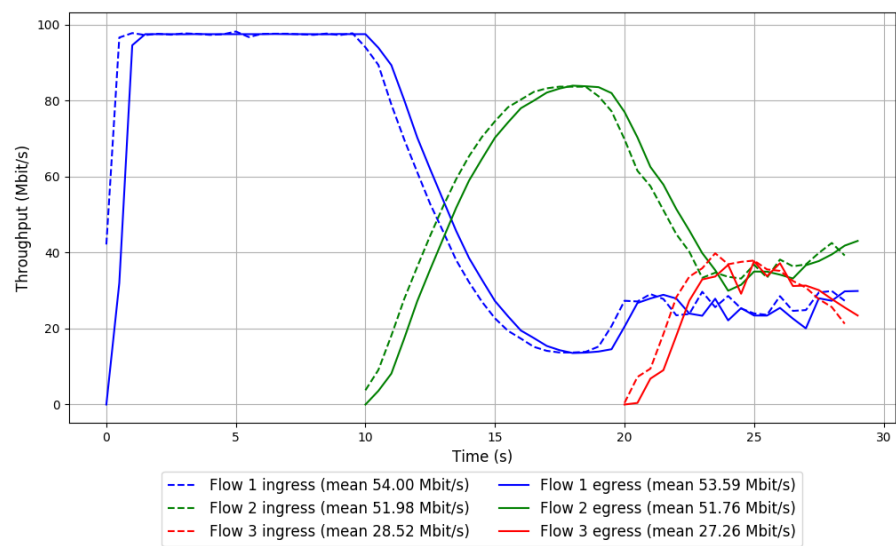


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-03-09 04:22:28
End at: 2019-03-09 04:22:58
Local clock offset: 0.217 ms
Remote clock offset: -0.057 ms

Below is generated by plot.py at 2019-03-09 04:40:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 52.309 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 53.59 Mbit/s
95th percentile per-packet one-way delay: 46.281 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 51.76 Mbit/s
95th percentile per-packet one-way delay: 52.048 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 59.935 ms
Loss rate: 4.45%

Run 5: Report of Indigo-MusesC3 — Data Link

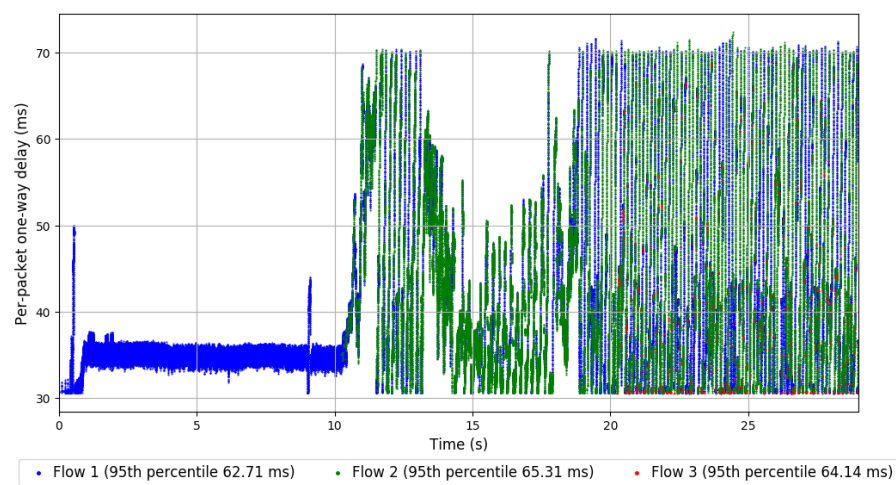
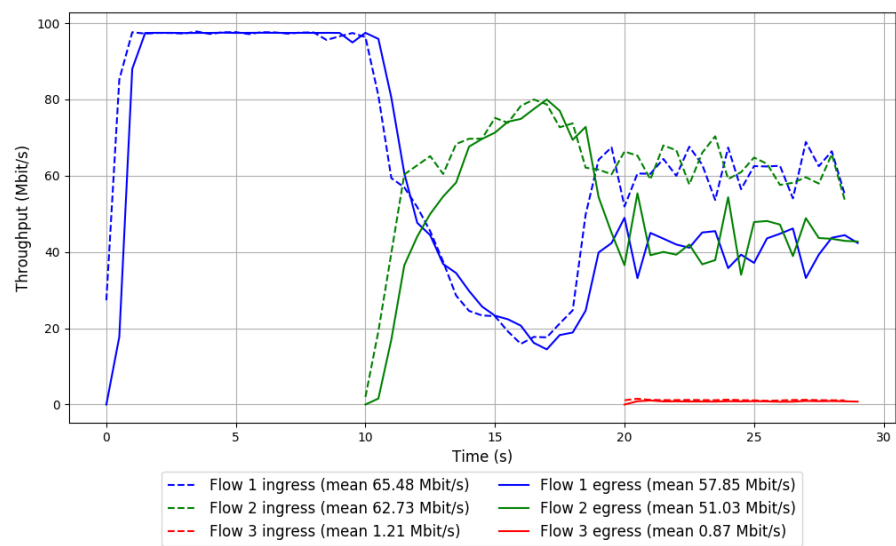


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-03-09 02:38:51
End at: 2019-03-09 02:39:21
Local clock offset: 0.422 ms
Remote clock offset: -3.251 ms

Below is generated by plot.py at 2019-03-09 04:40:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.15 Mbit/s
95th percentile per-packet one-way delay: 63.849 ms
Loss rate: 14.38%
-- Flow 1:
Average throughput: 57.85 Mbit/s
95th percentile per-packet one-way delay: 62.710 ms
Loss rate: 11.65%
-- Flow 2:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 65.310 ms
Loss rate: 18.65%
-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 64.139 ms
Loss rate: 28.35%

Run 1: Report of Indigo-MusesC5 — Data Link

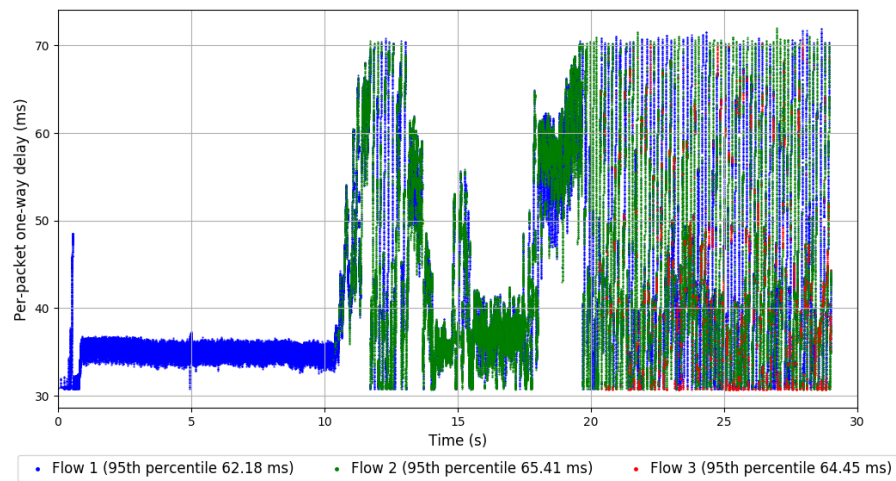
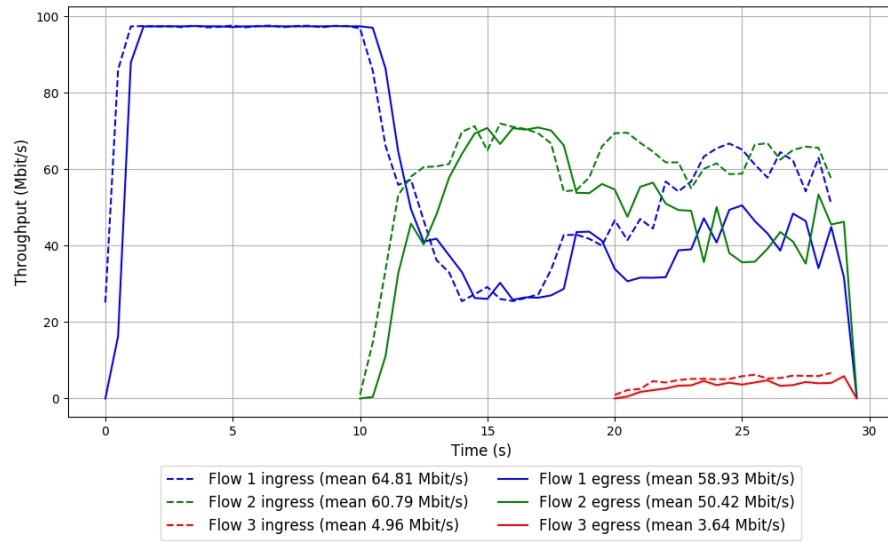


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-09 03:05:55
End at: 2019-03-09 03:06:25
Local clock offset: 0.251 ms
Remote clock offset: -1.654 ms

Below is generated by plot.py at 2019-03-09 04:40:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.55 Mbit/s
95th percentile per-packet one-way delay: 63.661 ms
Loss rate: 12.24%
-- Flow 1:
Average throughput: 58.93 Mbit/s
95th percentile per-packet one-way delay: 62.179 ms
Loss rate: 9.02%
-- Flow 2:
Average throughput: 50.42 Mbit/s
95th percentile per-packet one-way delay: 65.408 ms
Loss rate: 17.02%
-- Flow 3:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 64.450 ms
Loss rate: 26.49%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-03-09 03:32:29

End at: 2019-03-09 03:32:59

Local clock offset: 0.298 ms

Remote clock offset: -0.58 ms

Below is generated by plot.py at 2019-03-09 04:40:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.26 Mbit/s

95th percentile per-packet one-way delay: 62.444 ms

Loss rate: 10.36%

-- Flow 1:

Average throughput: 57.62 Mbit/s

95th percentile per-packet one-way delay: 60.734 ms

Loss rate: 7.95%

-- Flow 2:

Average throughput: 52.83 Mbit/s

95th percentile per-packet one-way delay: 64.374 ms

Loss rate: 13.49%

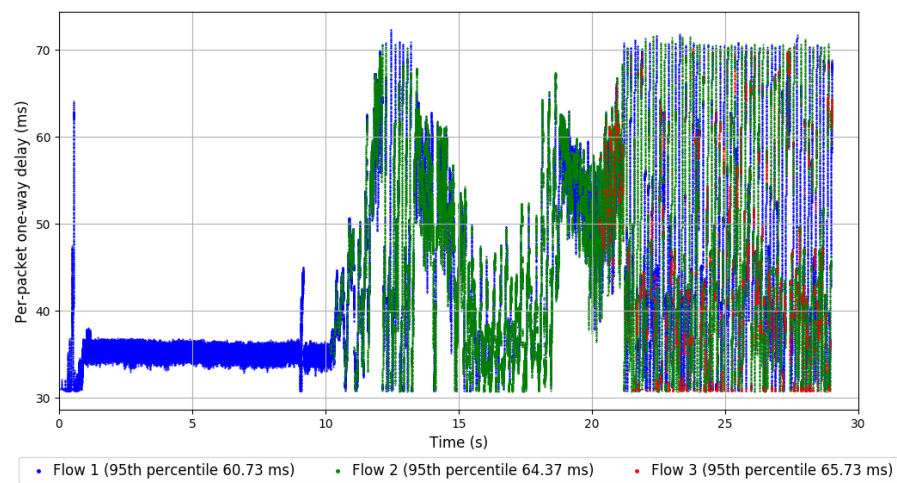
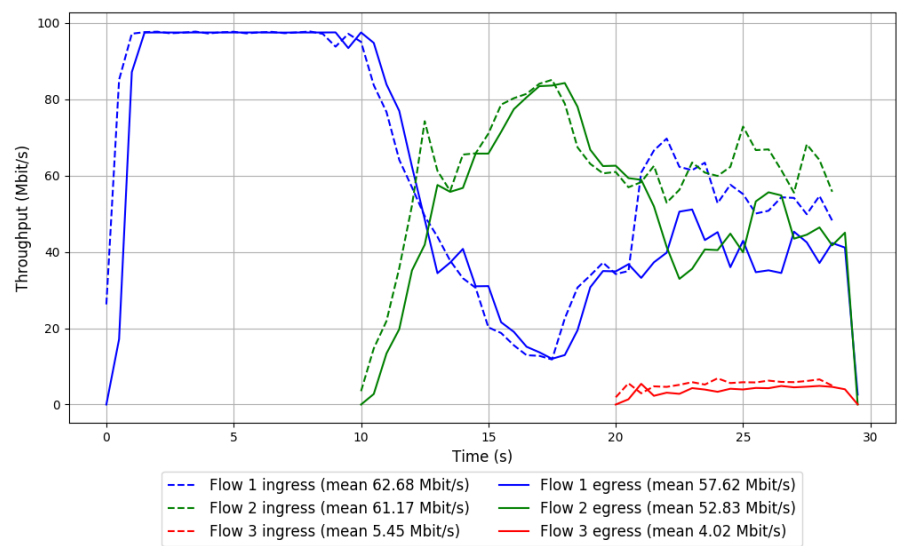
-- Flow 3:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 65.734 ms

Loss rate: 26.15%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-09 03:58:43

End at: 2019-03-09 03:59:13

Local clock offset: 0.294 ms

Remote clock offset: 0.191 ms

Below is generated by plot.py at 2019-03-09 04:40:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.10 Mbit/s

95th percentile per-packet one-way delay: 64.301 ms

Loss rate: 15.68%

-- Flow 1:

Average throughput: 58.79 Mbit/s

95th percentile per-packet one-way delay: 63.027 ms

Loss rate: 12.61%

-- Flow 2:

Average throughput: 49.60 Mbit/s

95th percentile per-packet one-way delay: 65.638 ms

Loss rate: 20.66%

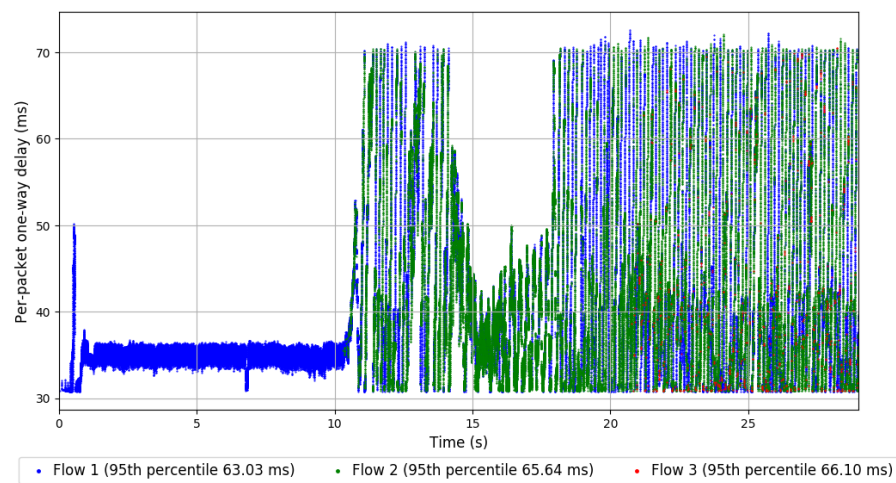
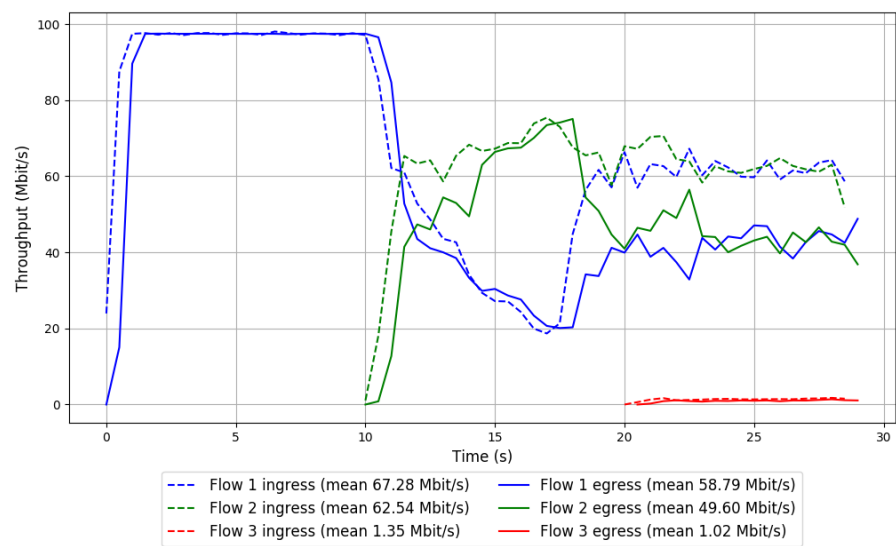
-- Flow 3:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 66.098 ms

Loss rate: 28.86%

Run 4: Report of Indigo-MusesC5 — Data Link

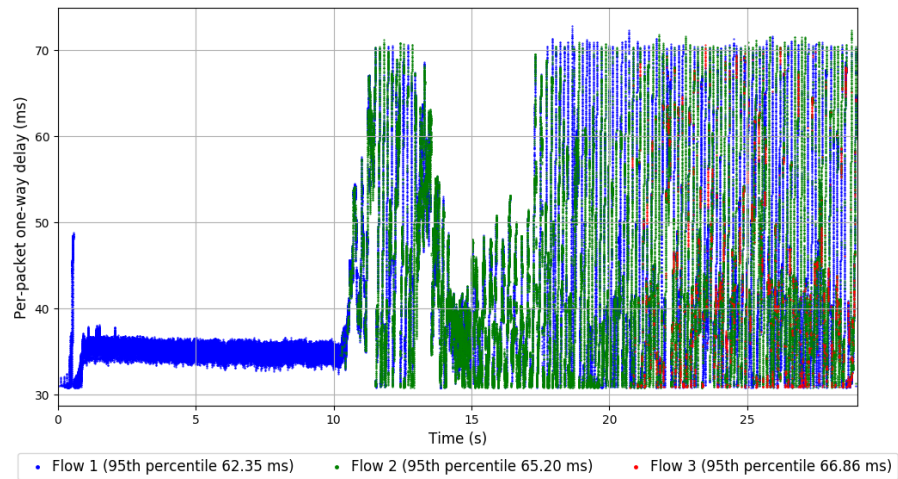
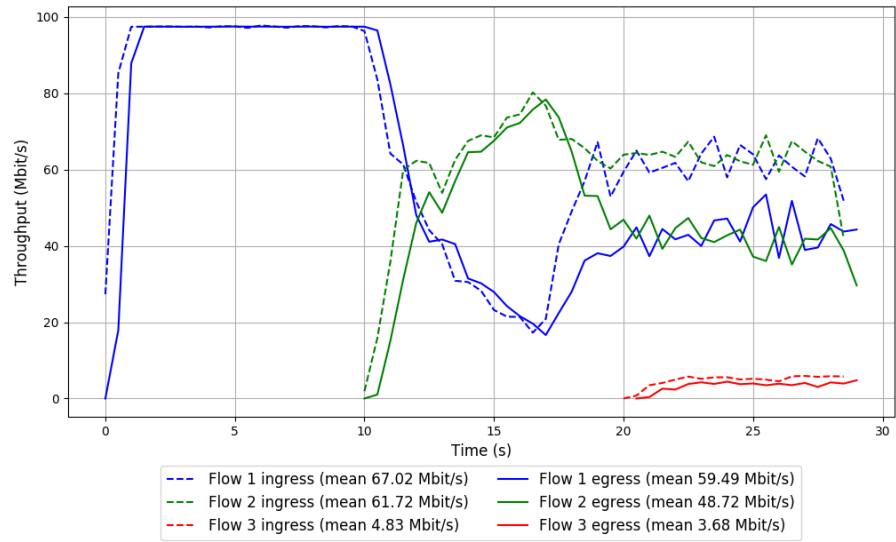


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-09 04:25:03
End at: 2019-03-09 04:25:33
Local clock offset: 0.186 ms
Remote clock offset: -0.068 ms

Below is generated by plot.py at 2019-03-09 04:41:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.07 Mbit/s
95th percentile per-packet one-way delay: 63.571 ms
Loss rate: 15.09%
-- Flow 1:
Average throughput: 59.49 Mbit/s
95th percentile per-packet one-way delay: 62.346 ms
Loss rate: 11.23%
-- Flow 2:
Average throughput: 48.72 Mbit/s
95th percentile per-packet one-way delay: 65.205 ms
Loss rate: 21.07%
-- Flow 3:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 66.864 ms
Loss rate: 28.29%

Run 5: Report of Indigo-MusesC5 — Data Link

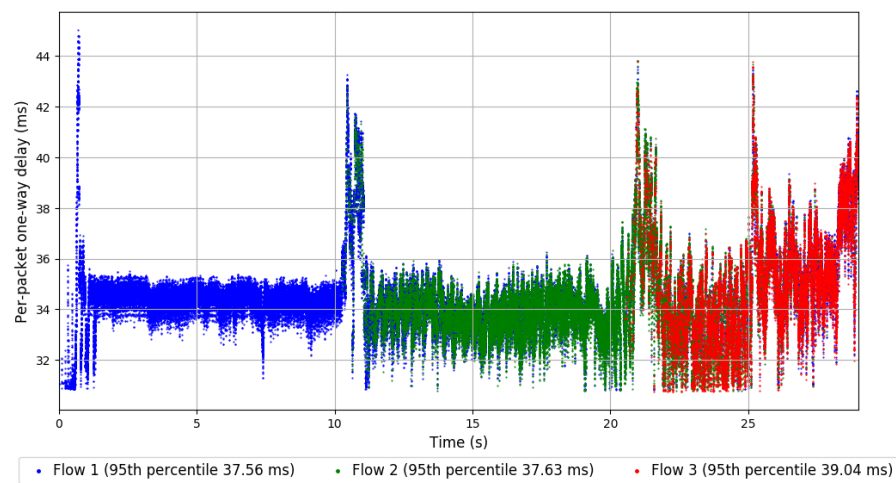
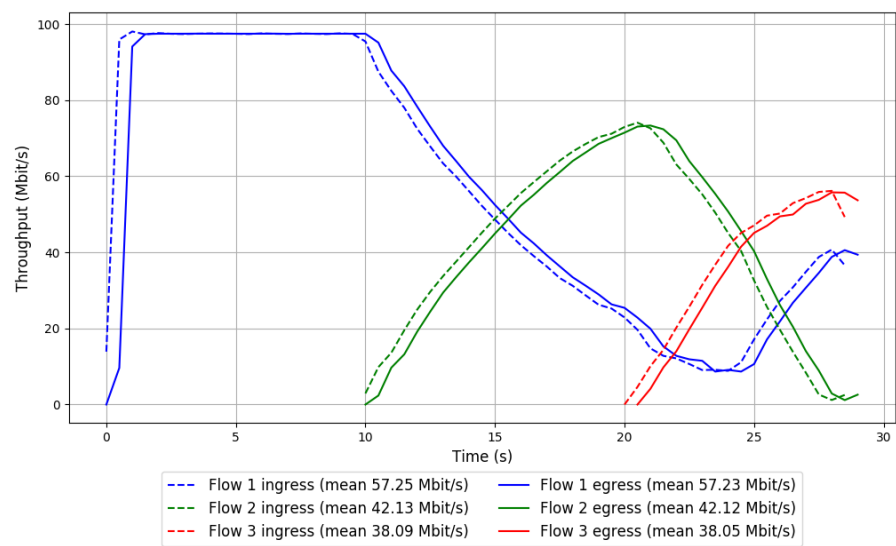


Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-09 02:41:37
End at: 2019-03-09 02:42:07
Local clock offset: 0.39 ms
Remote clock offset: -2.886 ms

Below is generated by plot.py at 2019-03-09 04:41:24
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 38.031 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 37.562 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.12 Mbit/s
95th percentile per-packet one-way delay: 37.630 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.05 Mbit/s
95th percentile per-packet one-way delay: 39.038 ms
Loss rate: 0.04%

Run 1: Report of Indigo-MusesD — Data Link

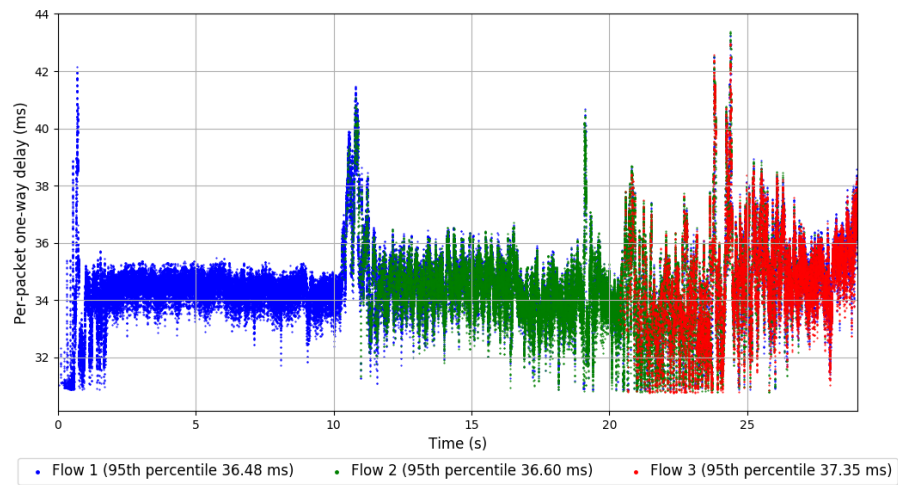
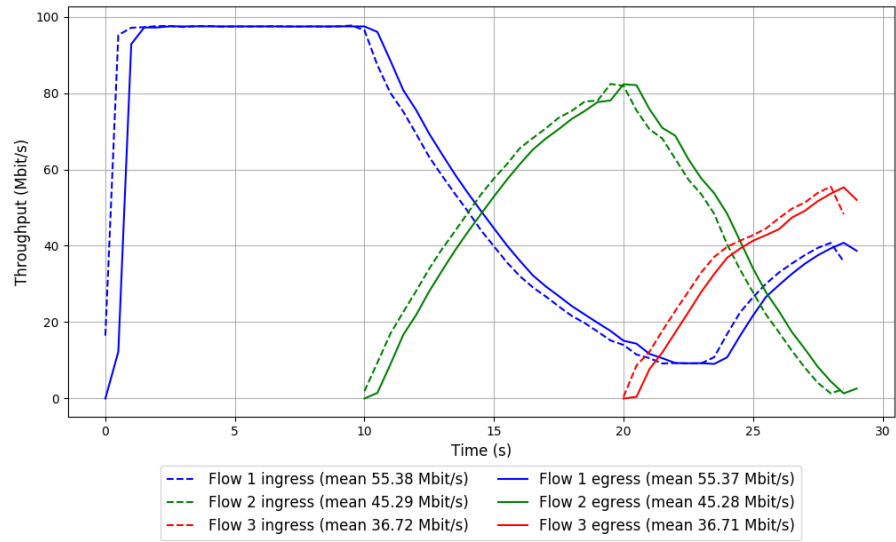


Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-09 03:08:30
End at: 2019-03-09 03:09:00
Local clock offset: 0.25 ms
Remote clock offset: -1.466 ms

Below is generated by plot.py at 2019-03-09 04:41:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 36.734 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.37 Mbit/s
95th percentile per-packet one-way delay: 36.477 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.28 Mbit/s
95th percentile per-packet one-way delay: 36.600 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.71 Mbit/s
95th percentile per-packet one-way delay: 37.353 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link

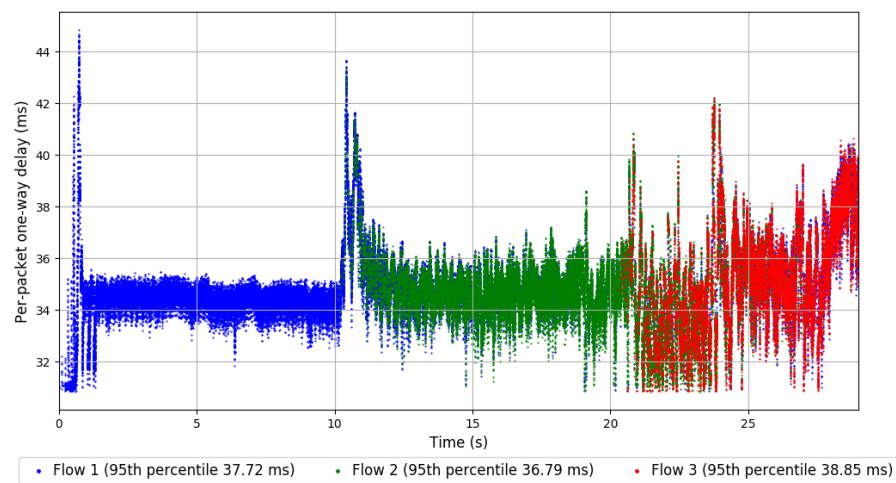
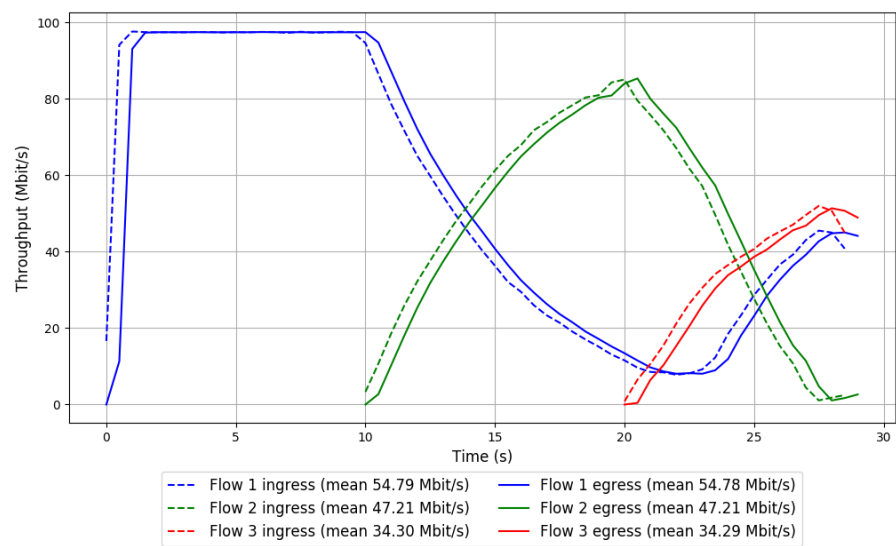


Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-09 03:35:04
End at: 2019-03-09 03:35:34
Local clock offset: 0.266 ms
Remote clock offset: -0.424 ms

Below is generated by plot.py at 2019-03-09 04:41:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 37.809 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.78 Mbit/s
95th percentile per-packet one-way delay: 37.723 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.21 Mbit/s
95th percentile per-packet one-way delay: 36.794 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.29 Mbit/s
95th percentile per-packet one-way delay: 38.855 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-03-09 04:01:14

End at: 2019-03-09 04:01:44

Local clock offset: 0.274 ms

Remote clock offset: 0.263 ms

Below is generated by plot.py at 2019-03-09 04:41:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.27 Mbit/s

95th percentile per-packet one-way delay: 59.918 ms

Loss rate: 4.50%

-- Flow 1:

Average throughput: 51.34 Mbit/s

95th percentile per-packet one-way delay: 36.155 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 63.36 Mbit/s

95th percentile per-packet one-way delay: 63.278 ms

Loss rate: 7.83%

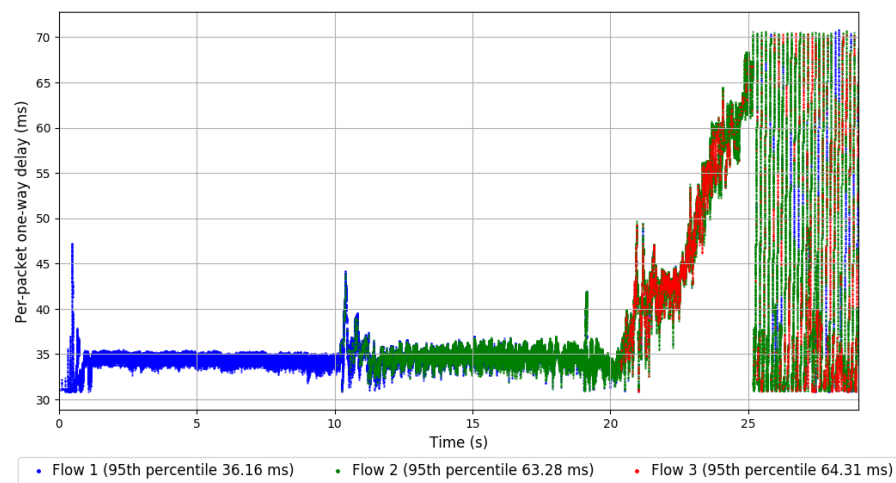
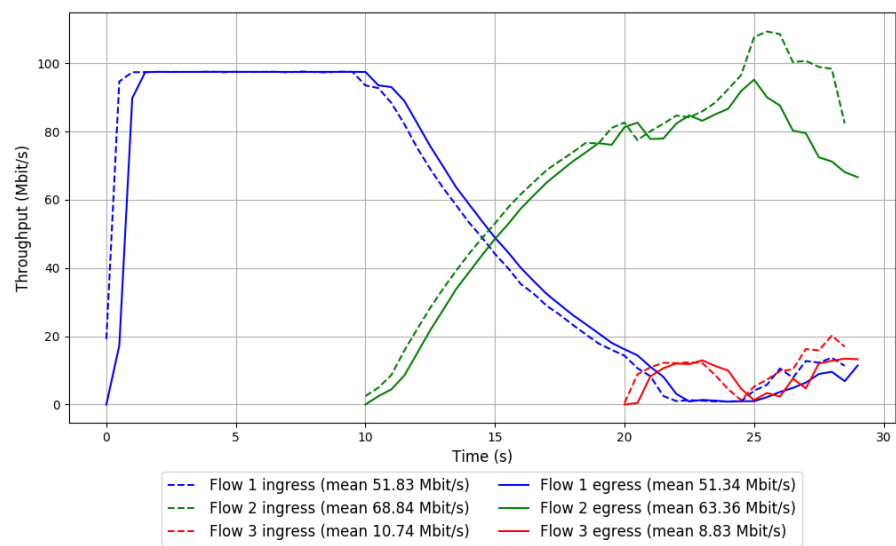
-- Flow 3:

Average throughput: 8.83 Mbit/s

95th percentile per-packet one-way delay: 64.315 ms

Loss rate: 17.48%

Run 4: Report of Indigo-MusesD — Data Link

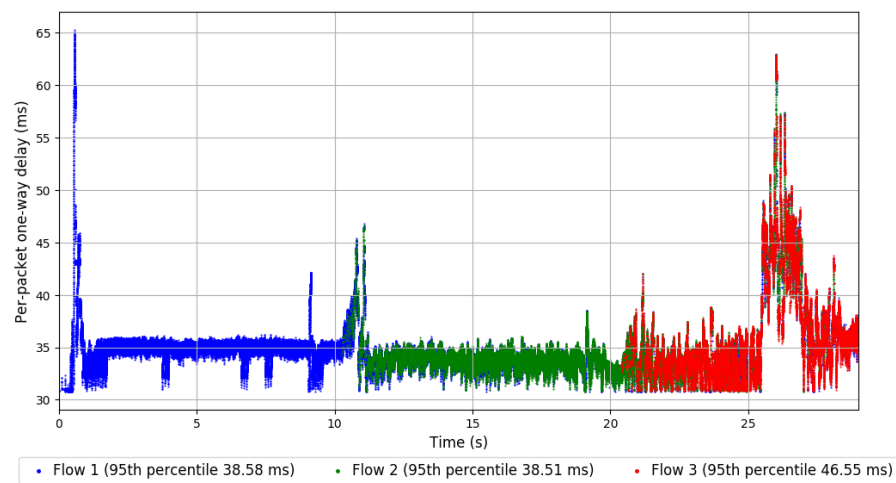
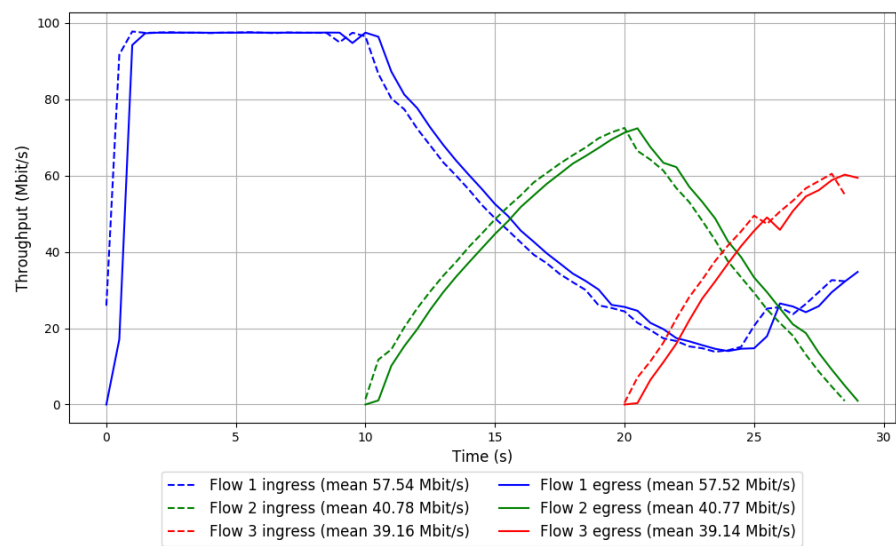


Run 5: Statistics of Indigo-MusesD

Start at: 2019-03-09 04:27:38
End at: 2019-03-09 04:28:08
Local clock offset: 0.169 ms
Remote clock offset: -0.046 ms

Below is generated by plot.py at 2019-03-09 04:41:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.56 Mbit/s
95th percentile per-packet one-way delay: 41.264 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 38.575 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.77 Mbit/s
95th percentile per-packet one-way delay: 38.511 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 46.548 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

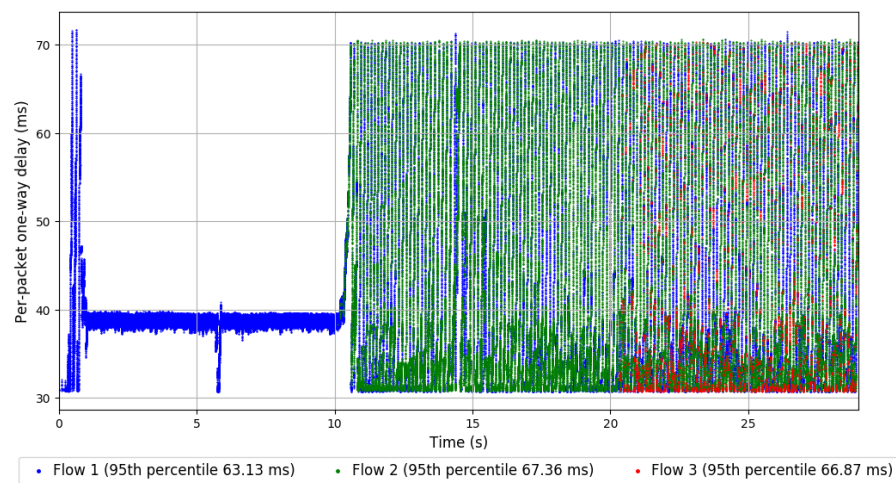
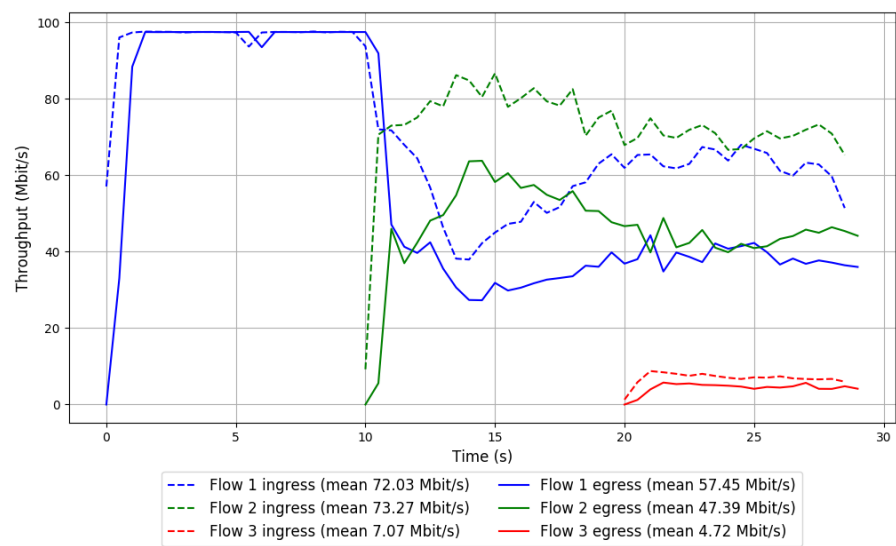


Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-09 02:44:29
End at: 2019-03-09 02:44:59
Local clock offset: 0.396 ms
Remote clock offset: -2.731 ms

Below is generated by plot.py at 2019-03-09 04:42:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.75 Mbit/s
95th percentile per-packet one-way delay: 65.429 ms
Loss rate: 26.39%
-- Flow 1:
Average throughput: 57.45 Mbit/s
95th percentile per-packet one-way delay: 63.134 ms
Loss rate: 20.25%
-- Flow 2:
Average throughput: 47.39 Mbit/s
95th percentile per-packet one-way delay: 67.360 ms
Loss rate: 35.33%
-- Flow 3:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 66.870 ms
Loss rate: 33.28%

Run 1: Report of Indigo-MusesT — Data Link

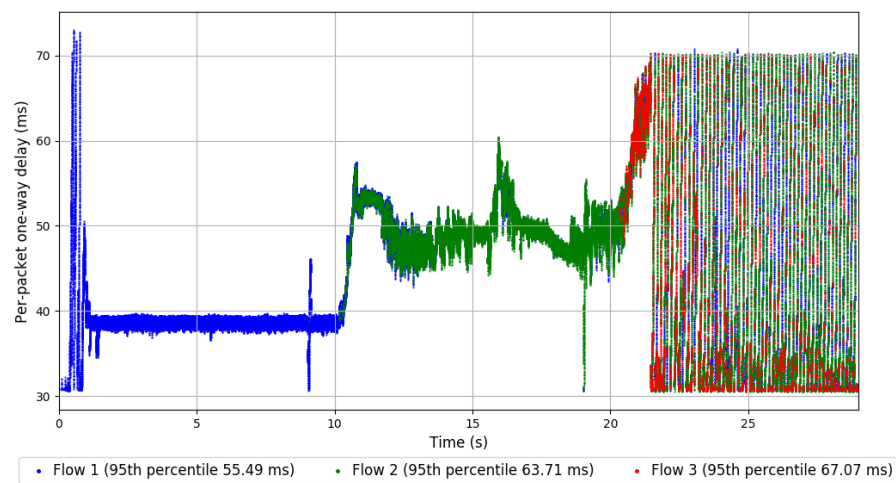
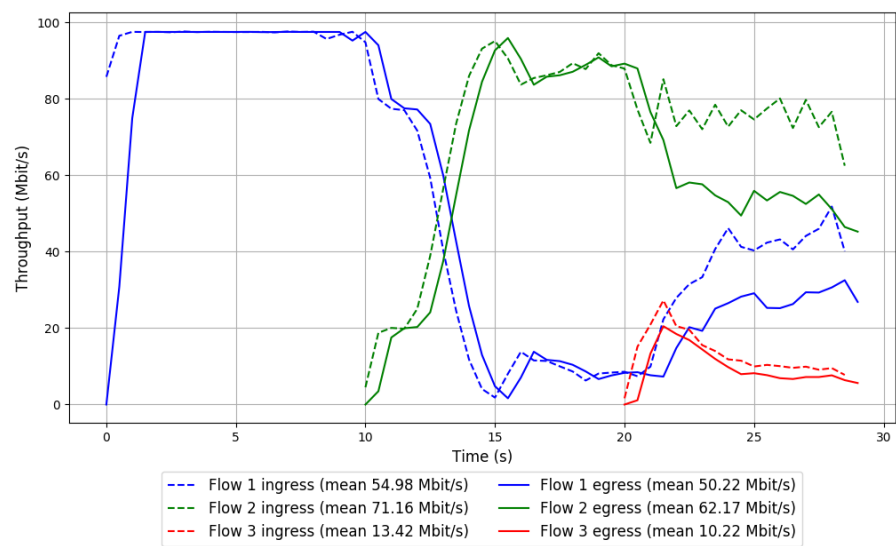


Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-09 03:11:02
End at: 2019-03-09 03:11:32
Local clock offset: 0.227 ms
Remote clock offset: -1.562 ms

Below is generated by plot.py at 2019-03-09 04:42:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.84 Mbit/s
95th percentile per-packet one-way delay: 61.925 ms
Loss rate: 11.01%
-- Flow 1:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 55.491 ms
Loss rate: 8.65%
-- Flow 2:
Average throughput: 62.17 Mbit/s
95th percentile per-packet one-way delay: 63.710 ms
Loss rate: 12.67%
-- Flow 3:
Average throughput: 10.22 Mbit/s
95th percentile per-packet one-way delay: 67.070 ms
Loss rate: 24.03%

Run 2: Report of Indigo-MusesT — Data Link

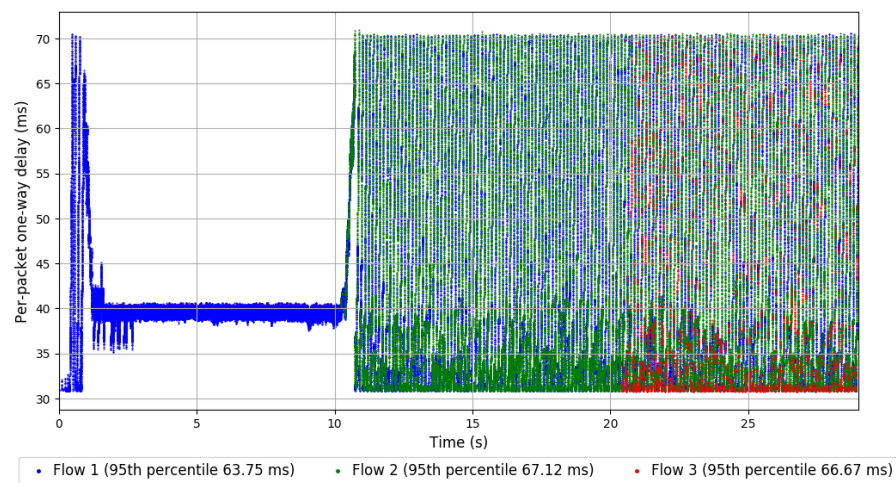
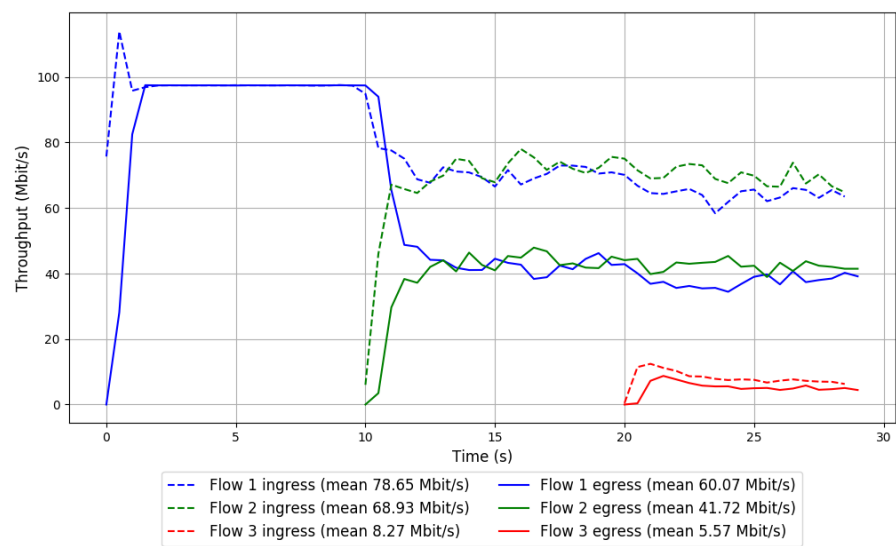


Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-09 03:37:44
End at: 2019-03-09 03:38:14
Local clock offset: 0.23 ms
Remote clock offset: -0.413 ms

Below is generated by plot.py at 2019-03-09 04:42:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 88.85 Mbit/s
95th percentile per-packet one-way delay: 65.395 ms
Loss rate: 29.42%
-- Flow 1:
Average throughput: 60.07 Mbit/s
95th percentile per-packet one-way delay: 63.750 ms
Loss rate: 23.59%
-- Flow 2:
Average throughput: 41.72 Mbit/s
95th percentile per-packet one-way delay: 67.116 ms
Loss rate: 39.47%
-- Flow 3:
Average throughput: 5.57 Mbit/s
95th percentile per-packet one-way delay: 66.670 ms
Loss rate: 32.63%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-09 04:03:47

End at: 2019-03-09 04:04:17

Local clock offset: 0.257 ms

Remote clock offset: 0.196 ms

Below is generated by plot.py at 2019-03-09 04:42:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.74 Mbit/s

95th percentile per-packet one-way delay: 65.556 ms

Loss rate: 26.48%

-- Flow 1:

Average throughput: 61.63 Mbit/s

95th percentile per-packet one-way delay: 63.981 ms

Loss rate: 21.23%

-- Flow 2:

Average throughput: 42.87 Mbit/s

95th percentile per-packet one-way delay: 67.318 ms

Loss rate: 35.99%

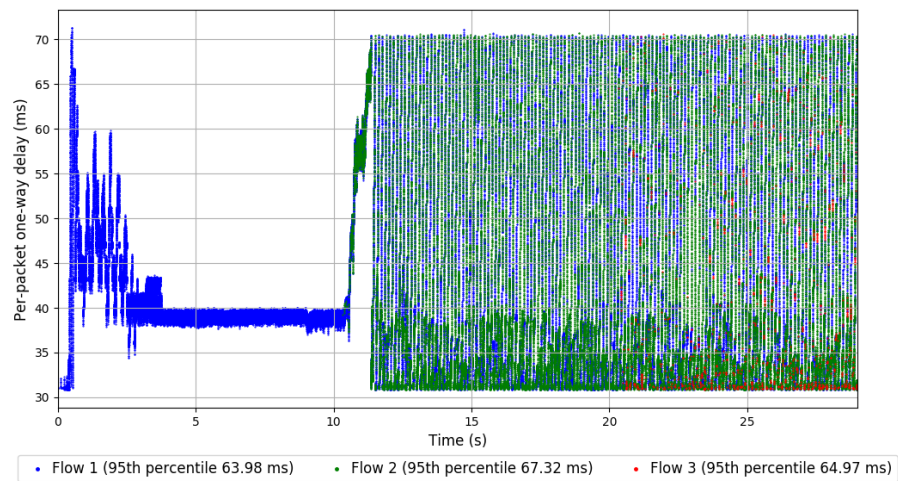
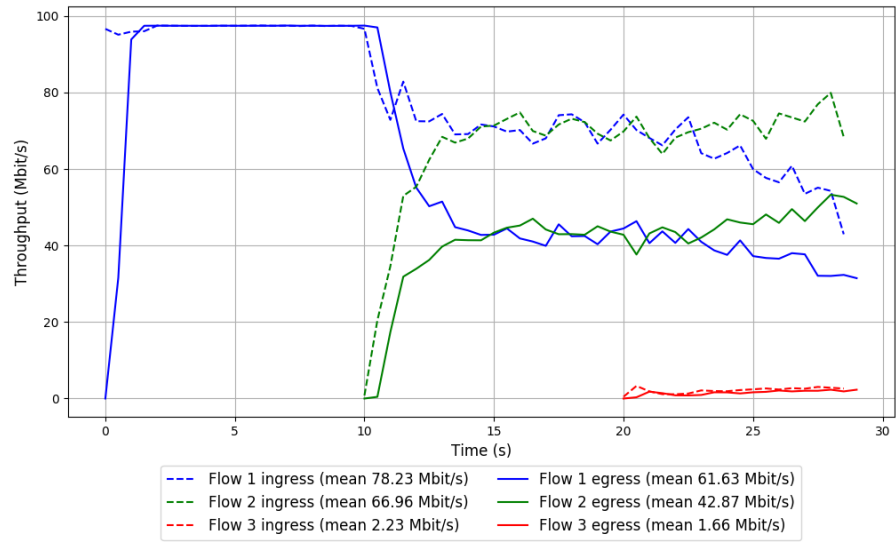
-- Flow 3:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 64.970 ms

Loss rate: 25.85%

Run 4: Report of Indigo-MusesT — Data Link

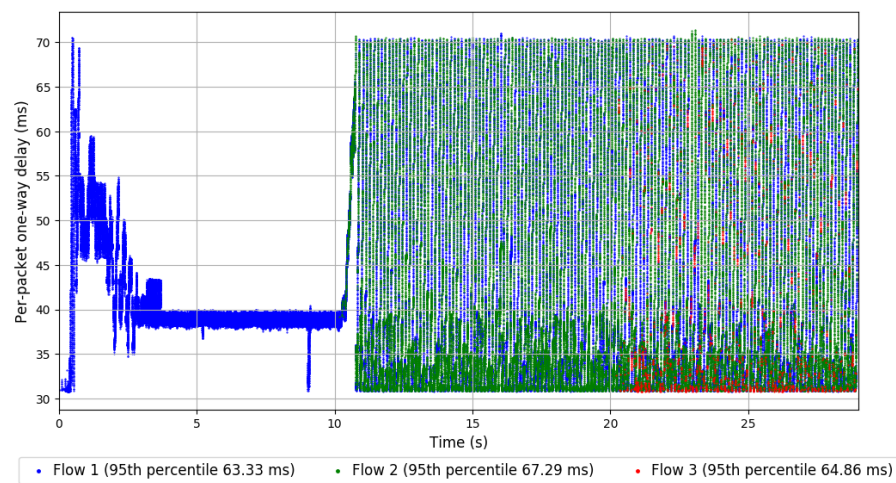
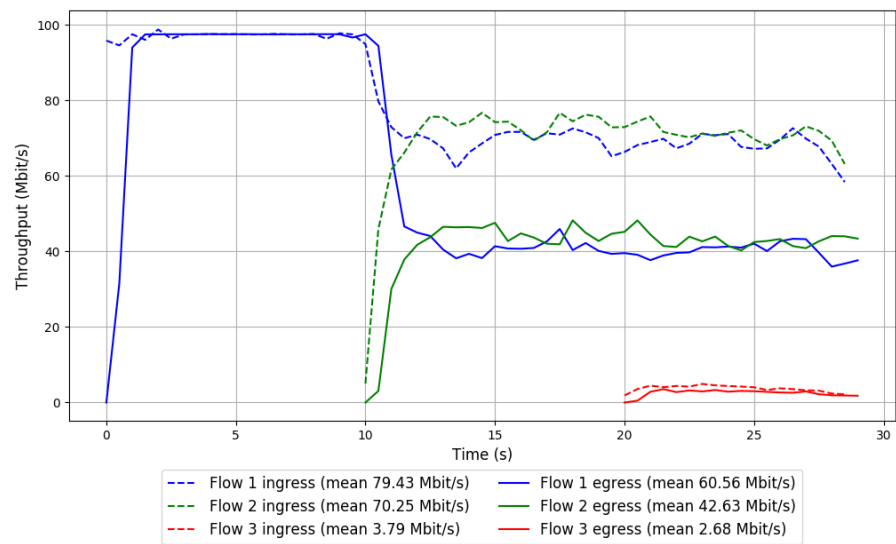


Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-09 04:30:11
End at: 2019-03-09 04:30:41
Local clock offset: 0.133 ms
Remote clock offset: -0.044 ms

Below is generated by plot.py at 2019-03-09 04:42:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.05 Mbit/s
95th percentile per-packet one-way delay: 65.214 ms
Loss rate: 29.38%
-- Flow 1:
Average throughput: 60.56 Mbit/s
95th percentile per-packet one-way delay: 63.328 ms
Loss rate: 23.70%
-- Flow 2:
Average throughput: 42.63 Mbit/s
95th percentile per-packet one-way delay: 67.286 ms
Loss rate: 39.28%
-- Flow 3:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 64.858 ms
Loss rate: 29.29%

Run 5: Report of Indigo-MusesT — Data Link

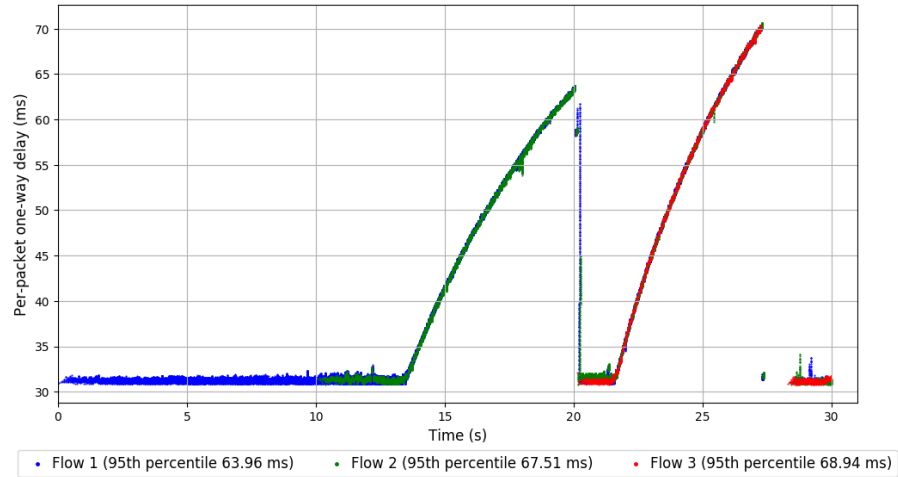
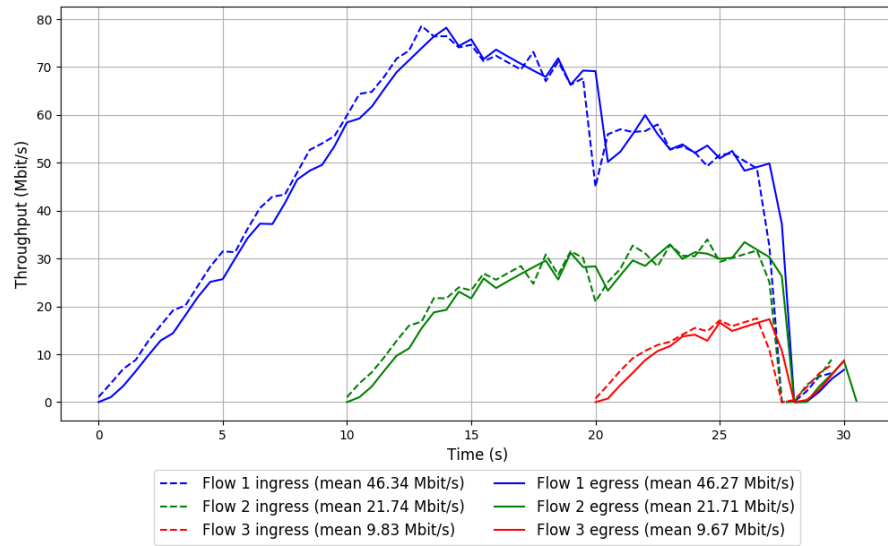


```
Run 1: Statistics of LEDBAT

Start at: 2019-03-09 02:26:54
End at: 2019-03-09 02:27:24
Local clock offset: 0.51 ms
Remote clock offset: -3.78 ms

# Below is generated by plot.py at 2019-03-09 04:42:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.88 Mbit/s
95th percentile per-packet one-way delay: 65.954 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 46.27 Mbit/s
95th percentile per-packet one-way delay: 63.963 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 21.71 Mbit/s
95th percentile per-packet one-way delay: 67.514 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 9.67 Mbit/s
95th percentile per-packet one-way delay: 68.943 ms
Loss rate: 1.88%
```

Run 1: Report of LEDBAT — Data Link

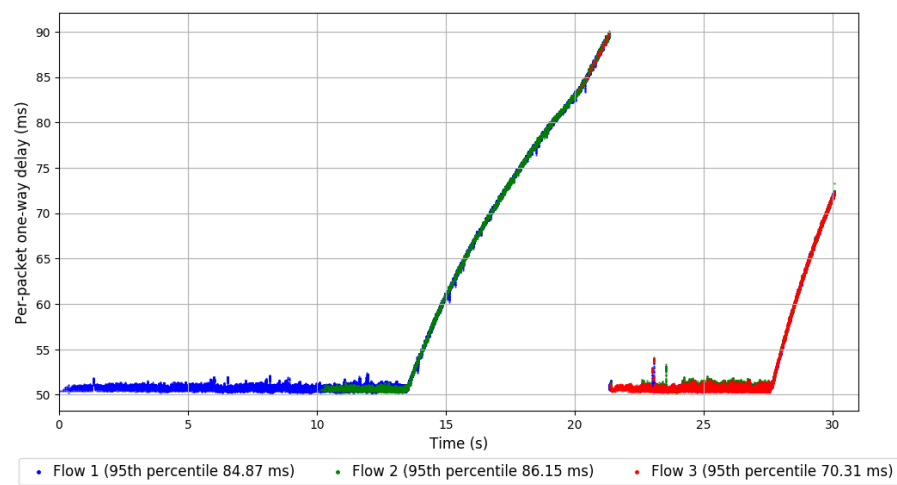
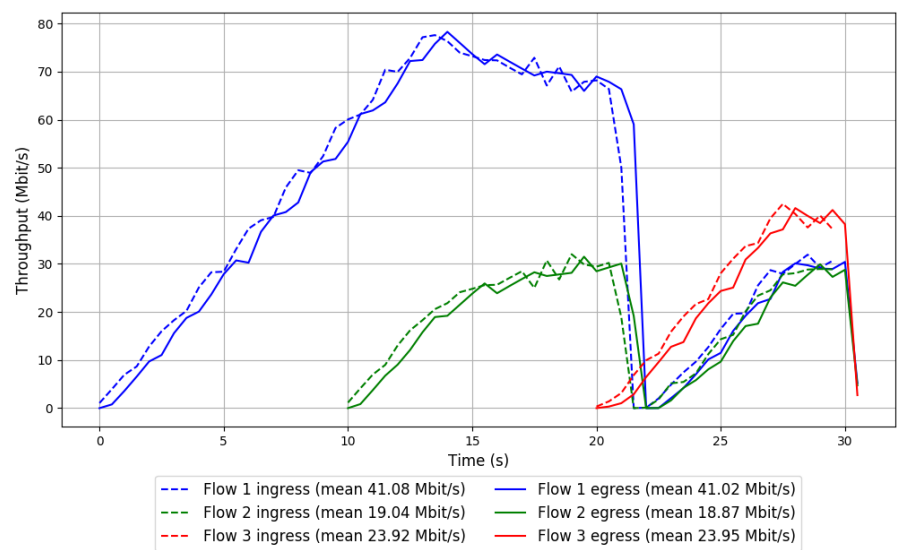


Run 2: Statistics of LEDBAT

Start at: 2019-03-09 02:55:41
End at: 2019-03-09 02:56:11
Local clock offset: 0.291 ms
Remote clock offset: 17.409 ms

Below is generated by plot.py at 2019-03-09 04:42:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 61.50 Mbit/s
95th percentile per-packet one-way delay: 84.658 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 84.873 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 18.87 Mbit/s
95th percentile per-packet one-way delay: 86.147 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 23.95 Mbit/s
95th percentile per-packet one-way delay: 70.306 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

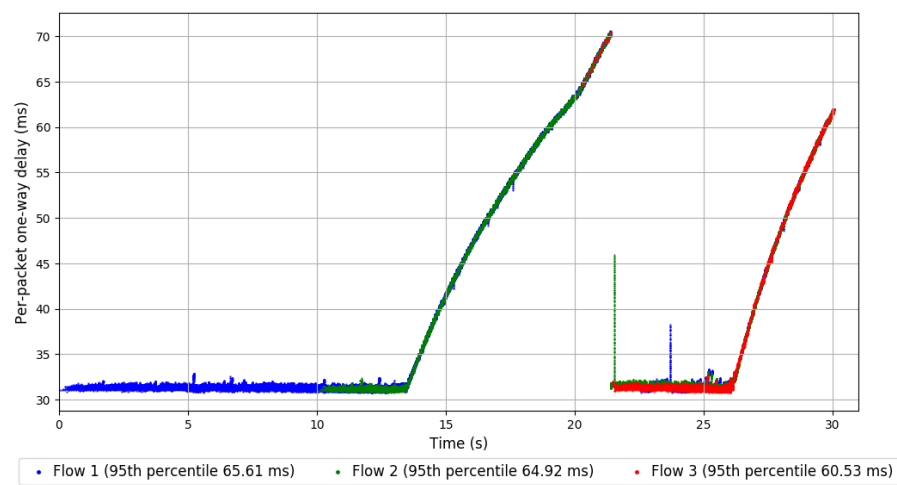
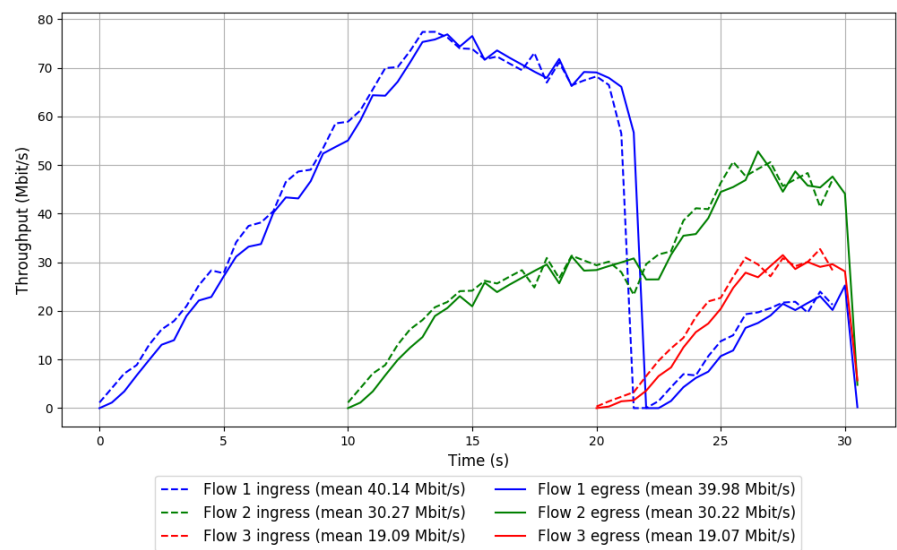


Run 3: Statistics of LEDBAT

Start at: 2019-03-09 03:22:04
End at: 2019-03-09 03:22:34
Local clock offset: 0.298 ms
Remote clock offset: -0.874 ms

Below is generated by plot.py at 2019-03-09 04:42:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 66.37 Mbit/s
95th percentile per-packet one-way delay: 65.084 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 39.98 Mbit/s
95th percentile per-packet one-way delay: 65.613 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 64.917 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 60.533 ms
Loss rate: 0.11%

Run 3: Report of LEDBAT — Data Link

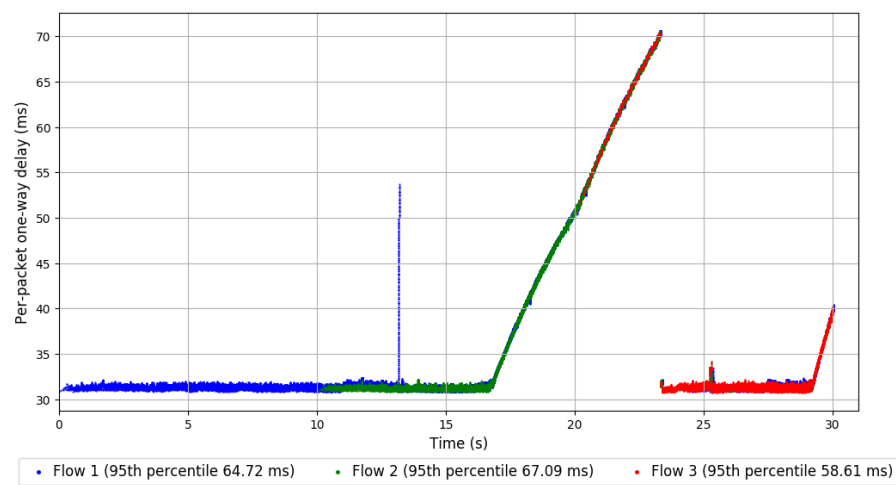
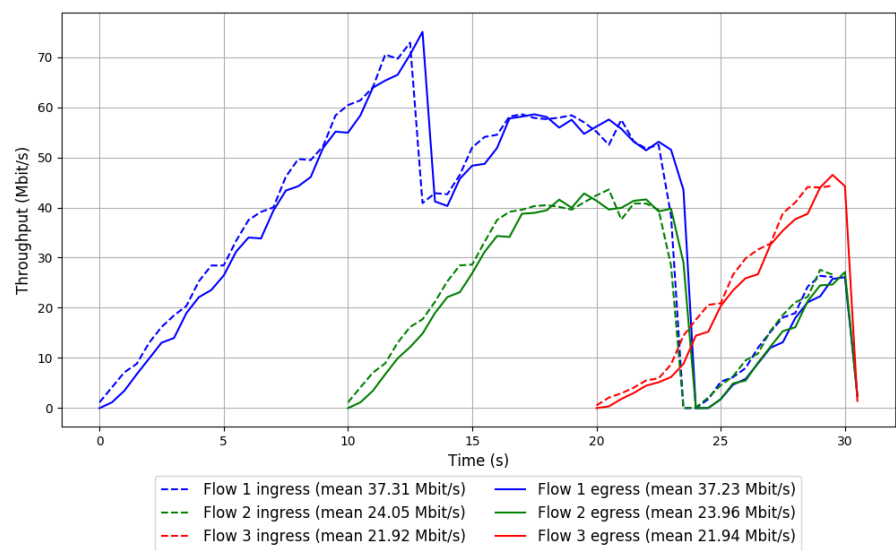


Run 4: Statistics of LEDBAT

Start at: 2019-03-09 03:48:41
End at: 2019-03-09 03:49:11
Local clock offset: 0.26 ms
Remote clock offset: -0.126 ms

Below is generated by plot.py at 2019-03-09 04:42:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 60.45 Mbit/s
95th percentile per-packet one-way delay: 65.610 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 37.23 Mbit/s
95th percentile per-packet one-way delay: 64.715 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 67.087 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 21.94 Mbit/s
95th percentile per-packet one-way delay: 58.614 ms
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-03-09 04:14:49

End at: 2019-03-09 04:15:19

Local clock offset: 0.254 ms

Remote clock offset: 0.152 ms

Below is generated by plot.py at 2019-03-09 04:42:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.69 Mbit/s

95th percentile per-packet one-way delay: 65.507 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 40.95 Mbit/s

95th percentile per-packet one-way delay: 65.504 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 20.15 Mbit/s

95th percentile per-packet one-way delay: 66.906 ms

Loss rate: 0.18%

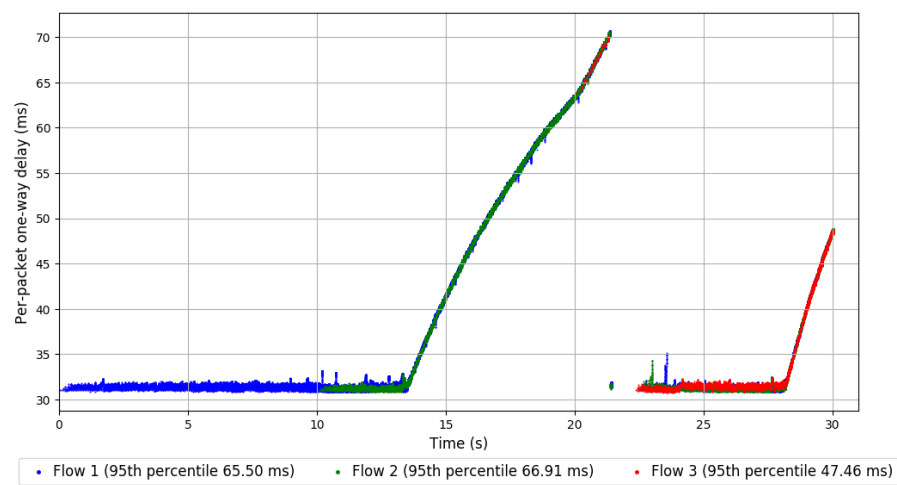
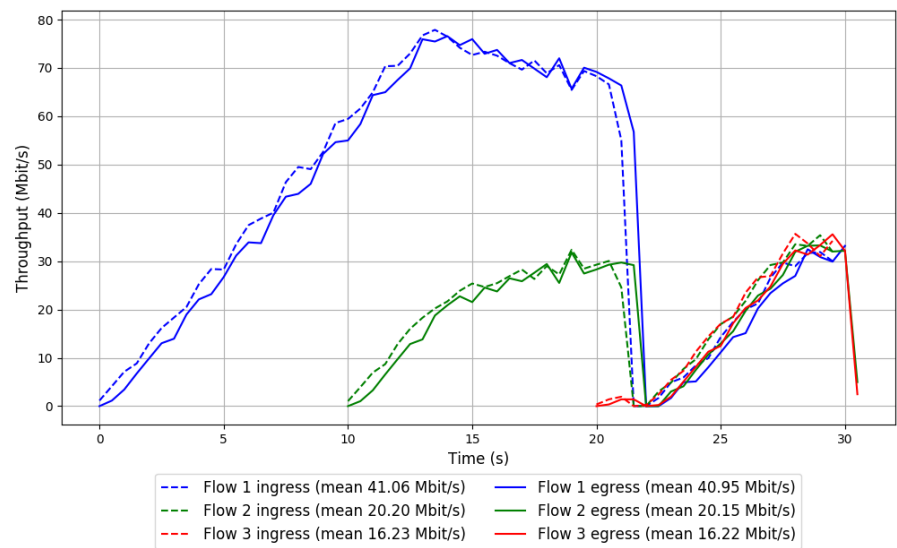
-- Flow 3:

Average throughput: 16.22 Mbit/s

95th percentile per-packet one-way delay: 47.462 ms

Loss rate: 0.17%

Run 5: Report of LEDBAT — Data Link

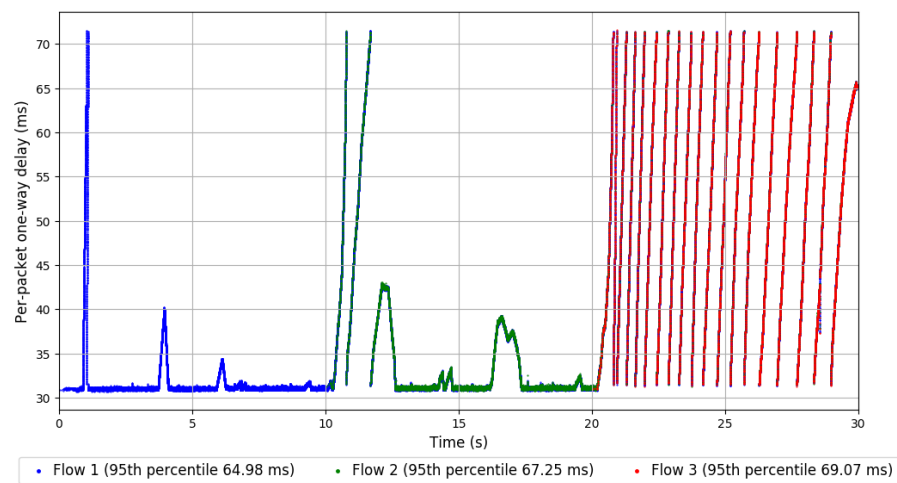
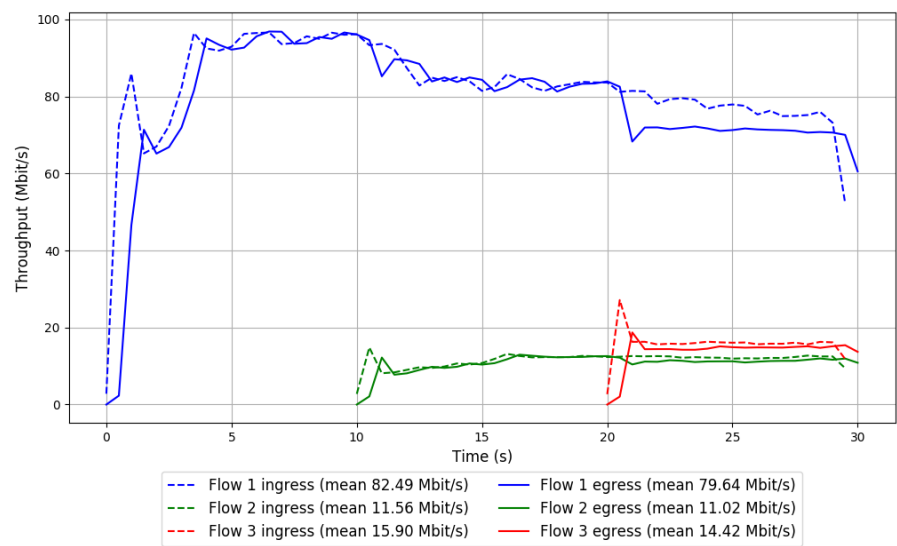


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-03-09 02:21:53
End at: 2019-03-09 02:22:23
Local clock offset: 0.551 ms
Remote clock offset: -4.014 ms

# Below is generated by plot.py at 2019-03-09 04:43:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.74 Mbit/s
95th percentile per-packet one-way delay: 65.624 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 79.64 Mbit/s
95th percentile per-packet one-way delay: 64.982 ms
Loss rate: 3.35%
-- Flow 2:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 67.255 ms
Loss rate: 4.54%
-- Flow 3:
Average throughput: 14.42 Mbit/s
95th percentile per-packet one-way delay: 69.070 ms
Loss rate: 8.98%
```

Run 1: Report of PCC-Allegro — Data Link

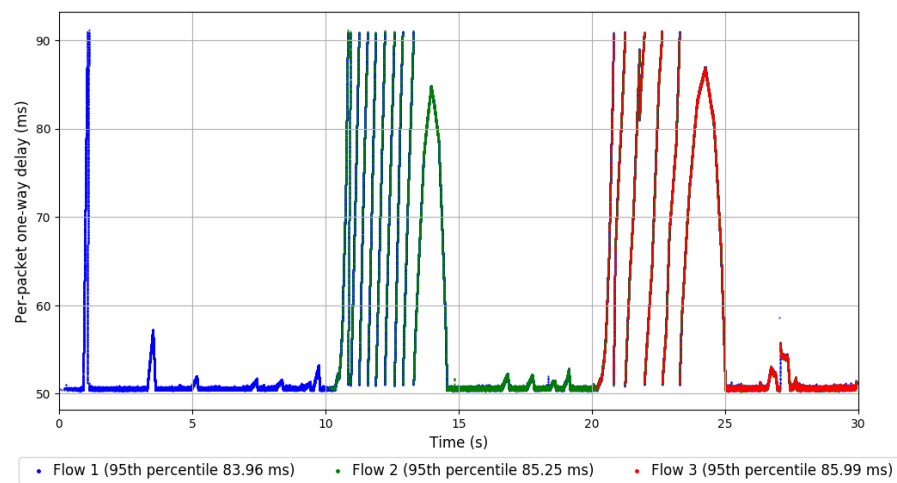
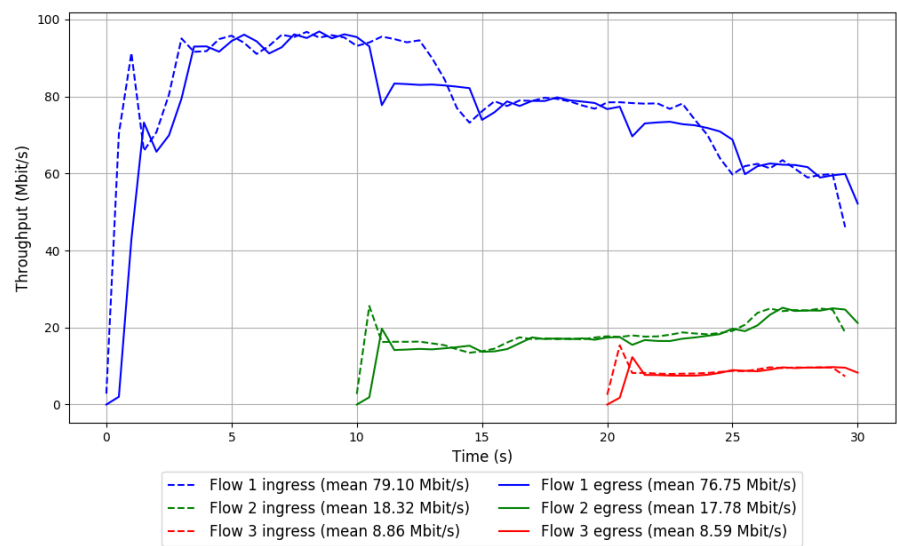


Run 2: Statistics of PCC-Allegro

Start at: 2019-03-09 02:50:44
End at: 2019-03-09 02:51:14
Local clock offset: 0.354 ms
Remote clock offset: 17.193 ms

Below is generated by plot.py at 2019-03-09 04:43:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.41 Mbit/s
95th percentile per-packet one-way delay: 84.282 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 76.75 Mbit/s
95th percentile per-packet one-way delay: 83.956 ms
Loss rate: 2.96%
-- Flow 2:
Average throughput: 17.78 Mbit/s
95th percentile per-packet one-way delay: 85.245 ms
Loss rate: 2.93%
-- Flow 3:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 85.986 ms
Loss rate: 3.04%

Run 2: Report of PCC-Allegro — Data Link

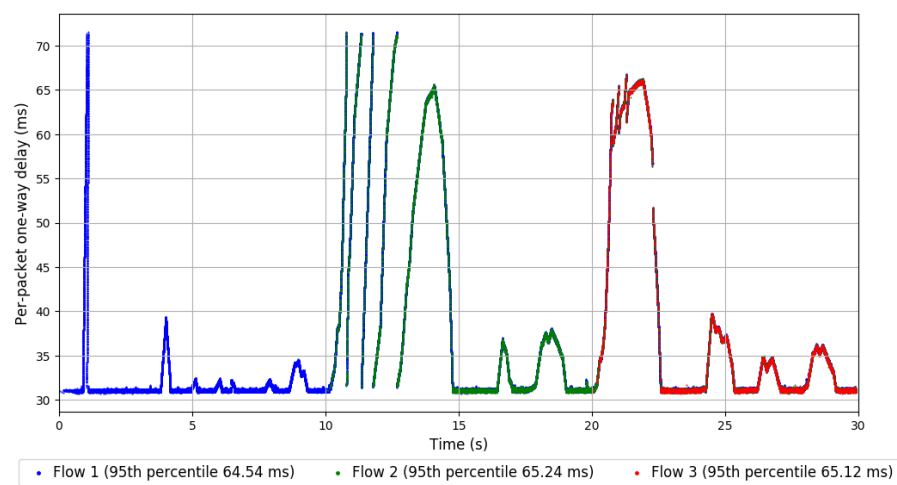
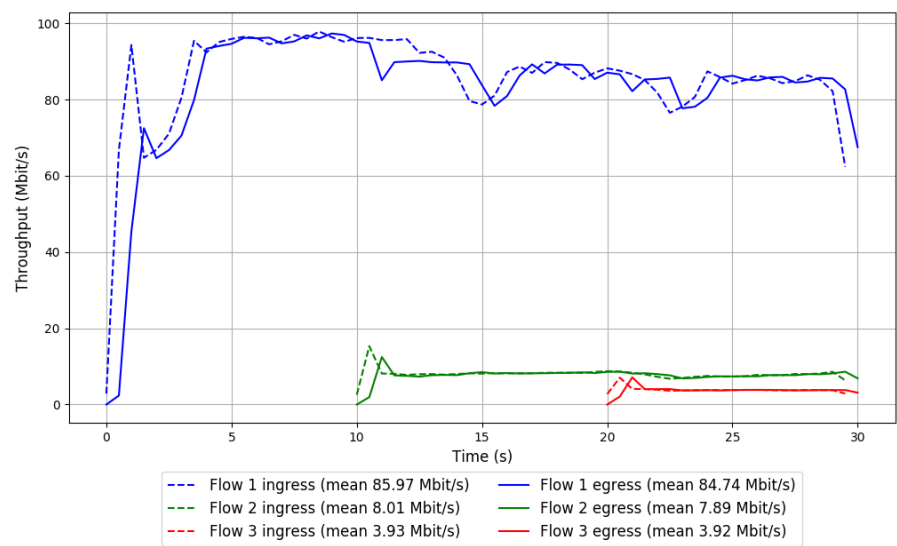


Run 3: Statistics of PCC-Allegro

Start at: 2019-03-09 03:17:03
End at: 2019-03-09 03:17:33
Local clock offset: 0.261 ms
Remote clock offset: -1.042 ms

Below is generated by plot.py at 2019-03-09 04:43:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.28 Mbit/s
95th percentile per-packet one-way delay: 64.637 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 84.74 Mbit/s
95th percentile per-packet one-way delay: 64.541 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 7.89 Mbit/s
95th percentile per-packet one-way delay: 65.241 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 65.122 ms
Loss rate: 0.22%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-03-09 03:43:51

End at: 2019-03-09 03:44:22

Local clock offset: 0.2 ms

Remote clock offset: -0.427 ms

Below is generated by plot.py at 2019-03-09 04:43:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.40 Mbit/s

95th percentile per-packet one-way delay: 55.966 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 82.01 Mbit/s

95th percentile per-packet one-way delay: 55.920 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 8.66 Mbit/s

95th percentile per-packet one-way delay: 57.282 ms

Loss rate: 1.60%

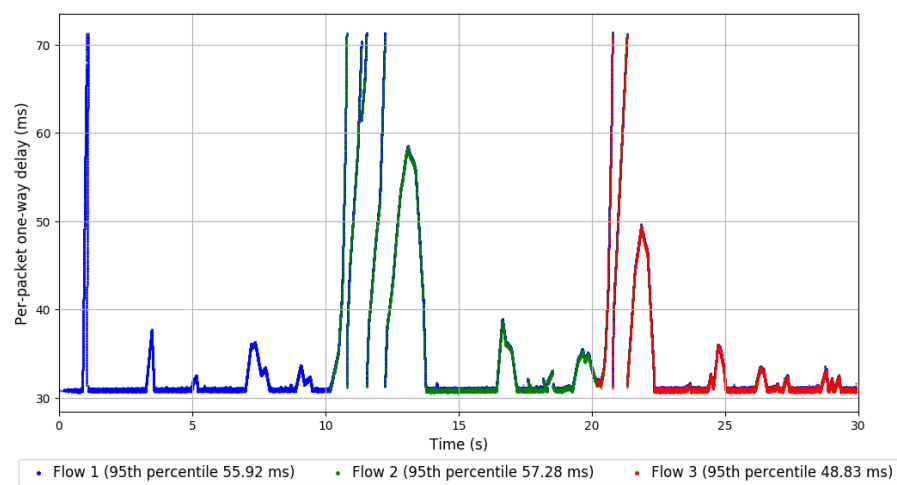
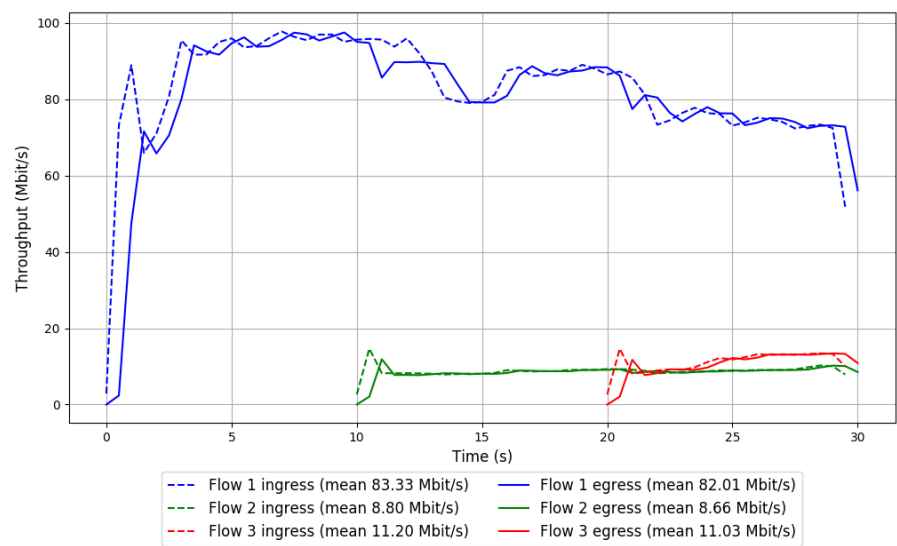
-- Flow 3:

Average throughput: 11.03 Mbit/s

95th percentile per-packet one-way delay: 48.829 ms

Loss rate: 1.48%

Run 4: Report of PCC-Allegro — Data Link

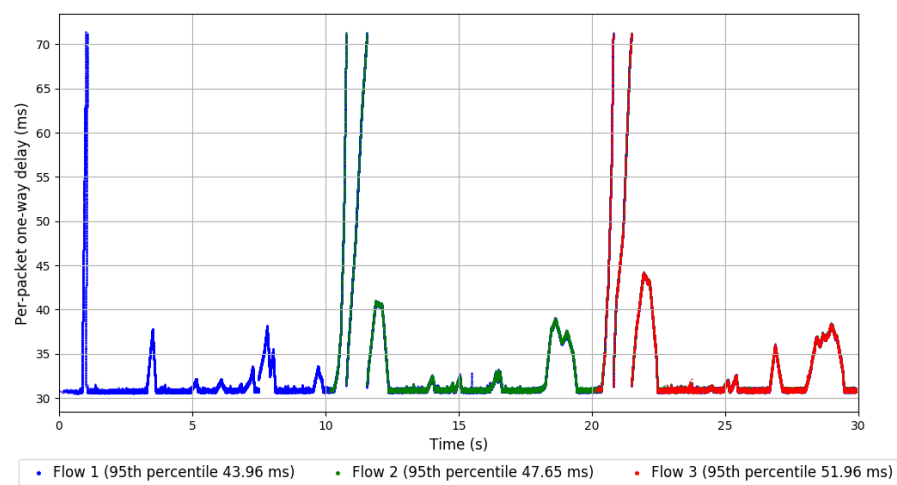
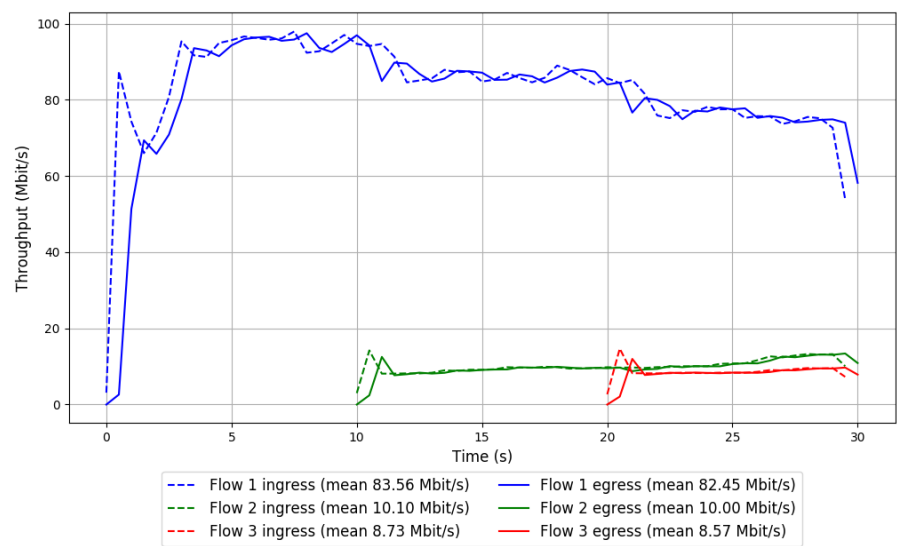


Run 5: Statistics of PCC-Allegro

Start at: 2019-03-09 04:09:53
End at: 2019-03-09 04:10:23
Local clock offset: 0.238 ms
Remote clock offset: -0.026 ms

Below is generated by plot.py at 2019-03-09 04:43:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.93 Mbit/s
95th percentile per-packet one-way delay: 44.550 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 82.45 Mbit/s
95th percentile per-packet one-way delay: 43.961 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 47.650 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 51.957 ms
Loss rate: 1.89%

Run 5: Report of PCC-Allegro — Data Link

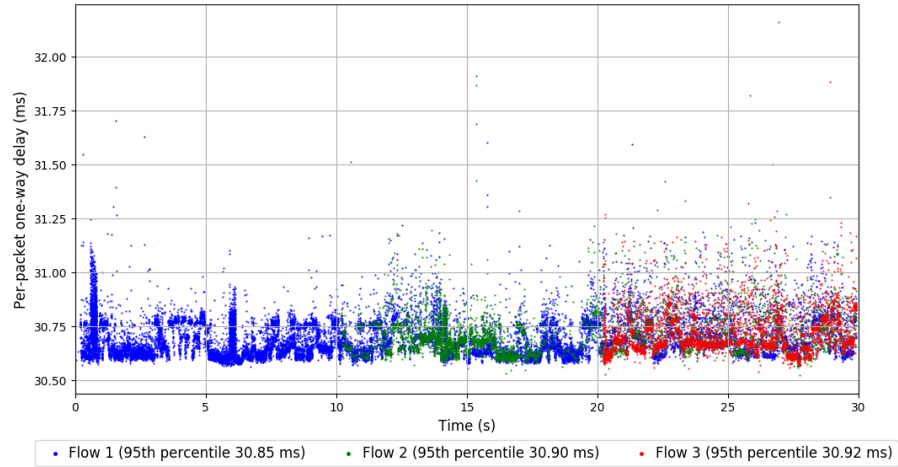
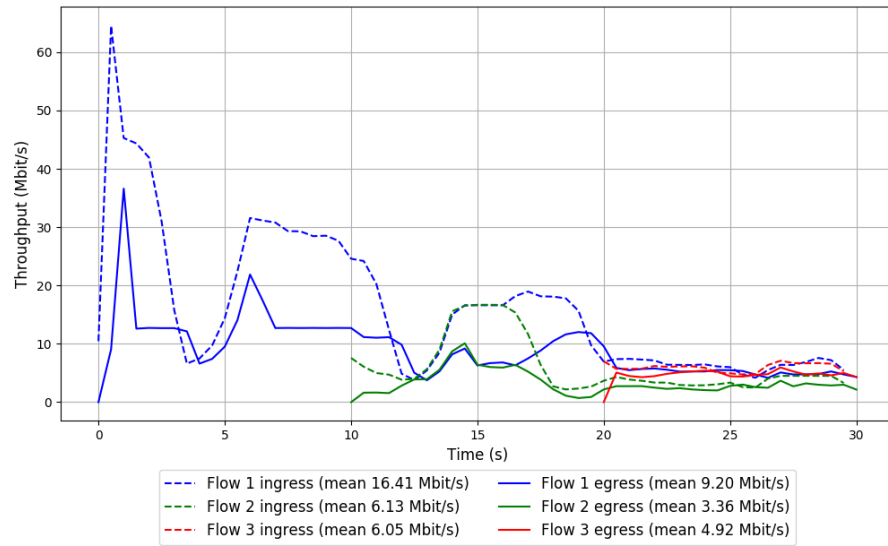



```
Run 1: Statistics of PCC-Expr

Start at: 2019-03-09 02:24:22
End at: 2019-03-09 02:24:52
Local clock offset: 0.543 ms
Remote clock offset: -4.12 ms

# Below is generated by plot.py at 2019-03-09 04:43:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.868 ms
Loss rate: 41.90%
-- Flow 1:
Average throughput: 9.20 Mbit/s
95th percentile per-packet one-way delay: 30.849 ms
Loss rate: 43.94%
-- Flow 2:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 30.896 ms
Loss rate: 45.08%
-- Flow 3:
Average throughput: 4.92 Mbit/s
95th percentile per-packet one-way delay: 30.918 ms
Loss rate: 18.73%
```

Run 1: Report of PCC-Expr — Data Link

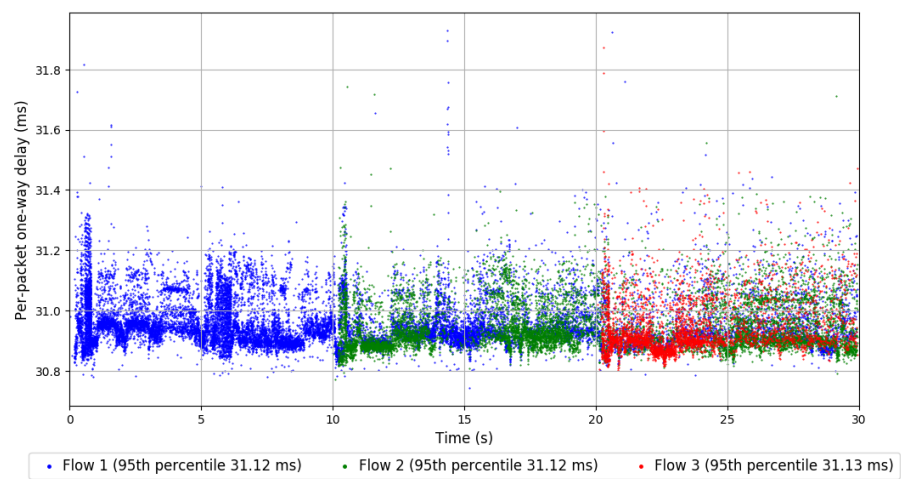
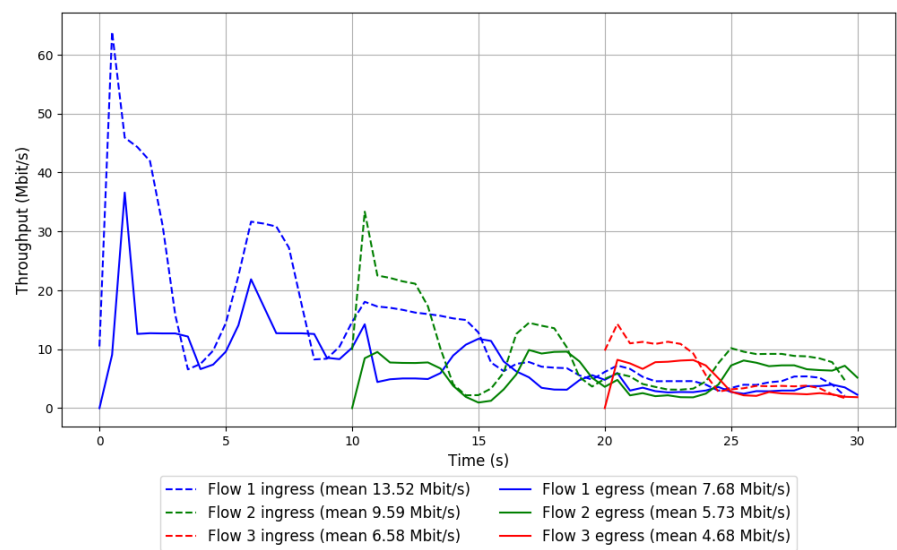


Run 2: Statistics of PCC-Expr

Start at: 2019-03-09 02:53:11
End at: 2019-03-09 02:53:41
Local clock offset: 0.301 ms
Remote clock offset: -2.145 ms

Below is generated by plot.py at 2019-03-09 04:43:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.04 Mbit/s
95th percentile per-packet one-way delay: 31.123 ms
Loss rate: 40.92%
-- Flow 1:
Average throughput: 7.68 Mbit/s
95th percentile per-packet one-way delay: 31.125 ms
Loss rate: 43.18%
-- Flow 2:
Average throughput: 5.73 Mbit/s
95th percentile per-packet one-way delay: 31.118 ms
Loss rate: 40.26%
-- Flow 3:
Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 31.126 ms
Loss rate: 28.85%

Run 2: Report of PCC-Expr — Data Link

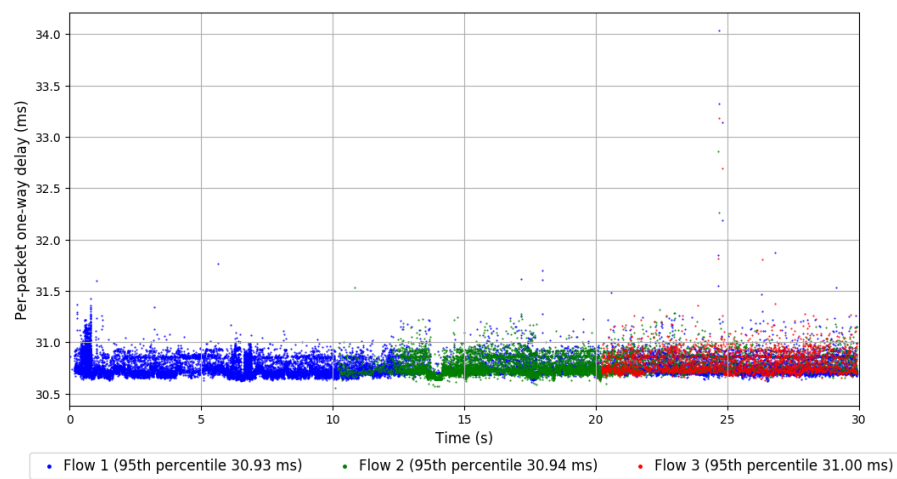
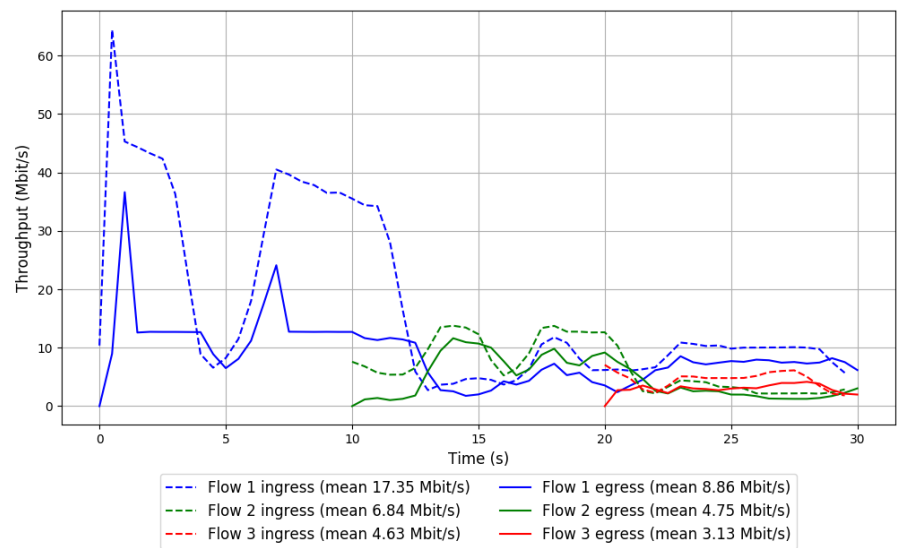


Run 3: Statistics of PCC-Expr

Start at: 2019-03-09 03:19:32
End at: 2019-03-09 03:20:02
Local clock offset: 0.28 ms
Remote clock offset: -1.092 ms

Below is generated by plot.py at 2019-03-09 04:43:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.937 ms
Loss rate: 44.26%
-- Flow 1:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 30.927 ms
Loss rate: 48.92%
-- Flow 2:
Average throughput: 4.75 Mbit/s
95th percentile per-packet one-way delay: 30.944 ms
Loss rate: 30.53%
-- Flow 3:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 30.998 ms
Loss rate: 32.24%

Run 3: Report of PCC-Expr — Data Link

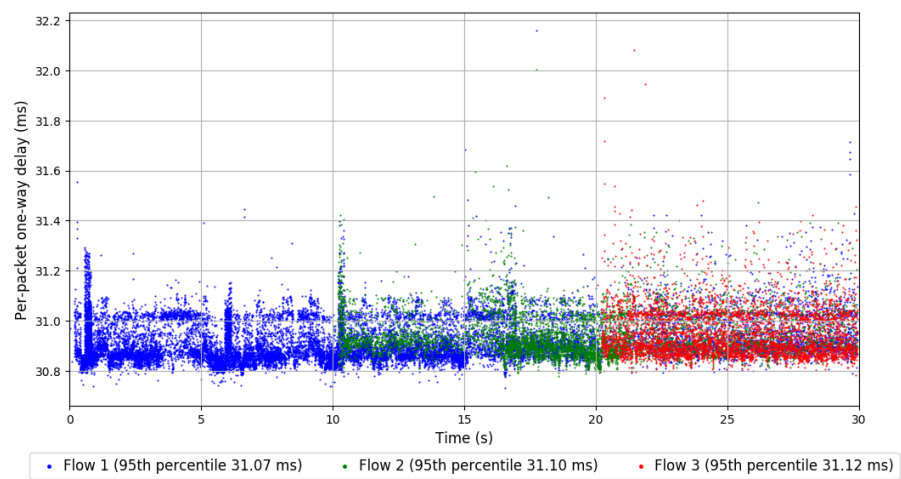
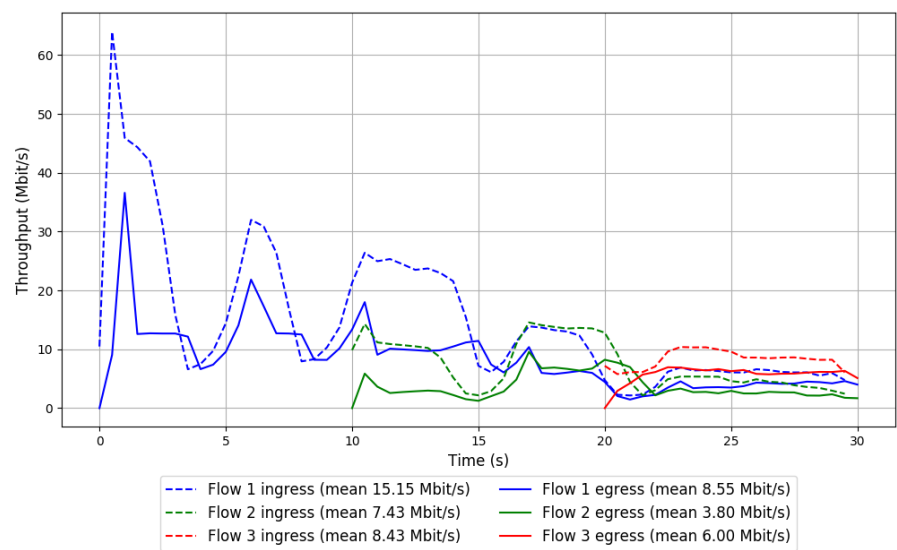


Run 4: Statistics of PCC-Expr

Start at: 2019-03-09 03:46:16
End at: 2019-03-09 03:46:46
Local clock offset: 0.216 ms
Remote clock offset: -0.184 ms

Below is generated by plot.py at 2019-03-09 04:43:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 31.083 ms
Loss rate: 42.89%
-- Flow 1:
Average throughput: 8.55 Mbit/s
95th percentile per-packet one-way delay: 31.065 ms
Loss rate: 43.54%
-- Flow 2:
Average throughput: 3.80 Mbit/s
95th percentile per-packet one-way delay: 31.101 ms
Loss rate: 48.80%
-- Flow 3:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 31.117 ms
Loss rate: 28.85%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-03-09 04:12:19

End at: 2019-03-09 04:12:49

Local clock offset: 0.246 ms

Remote clock offset: 0.148 ms

Below is generated by plot.py at 2019-03-09 04:43:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.06 Mbit/s

95th percentile per-packet one-way delay: 31.098 ms

Loss rate: 38.93%

-- Flow 1:

Average throughput: 8.07 Mbit/s

95th percentile per-packet one-way delay: 31.080 ms

Loss rate: 44.49%

-- Flow 2:

Average throughput: 6.06 Mbit/s

95th percentile per-packet one-way delay: 31.115 ms

Loss rate: 22.85%

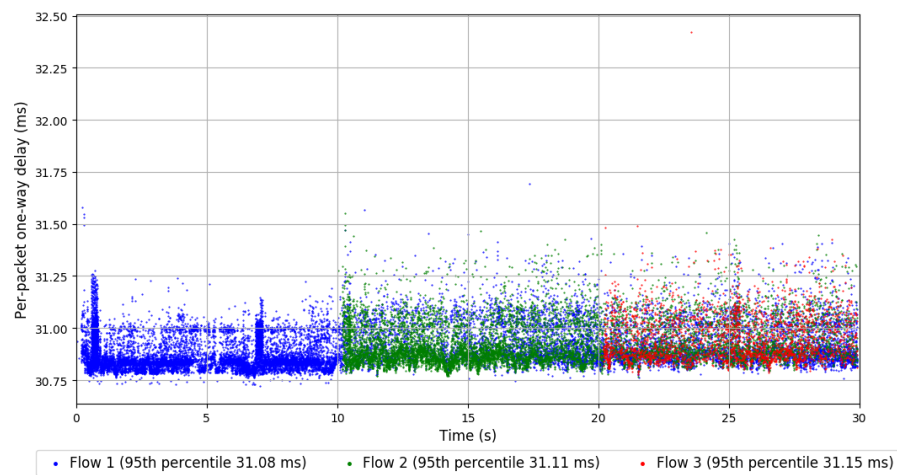
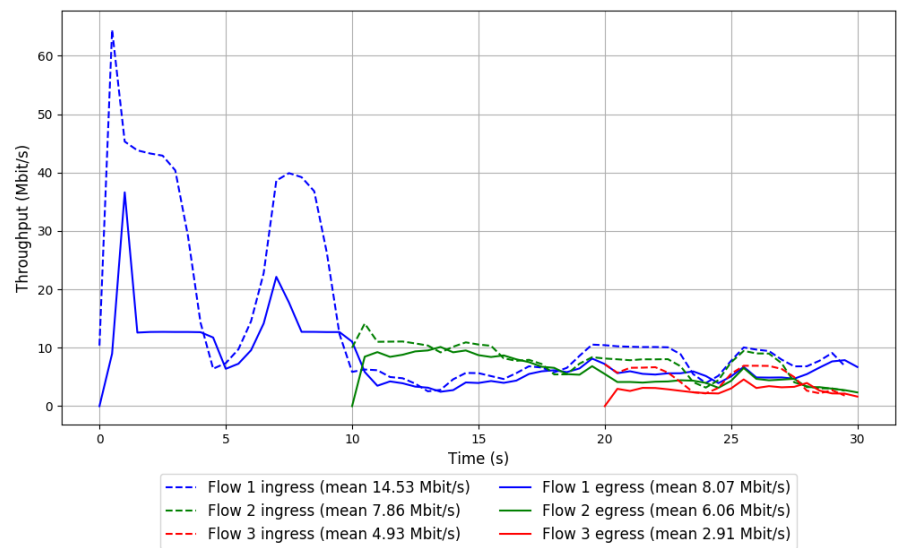
-- Flow 3:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 31.154 ms

Loss rate: 41.02%

Run 5: Report of PCC-Expr — Data Link

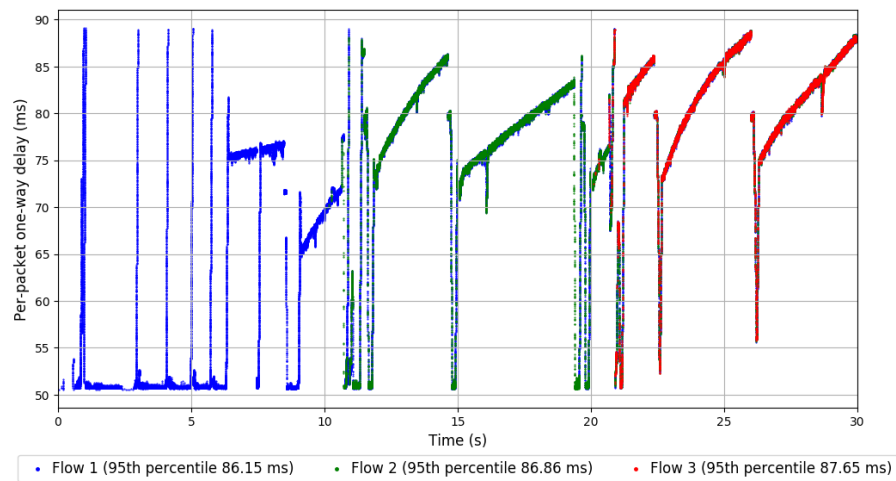
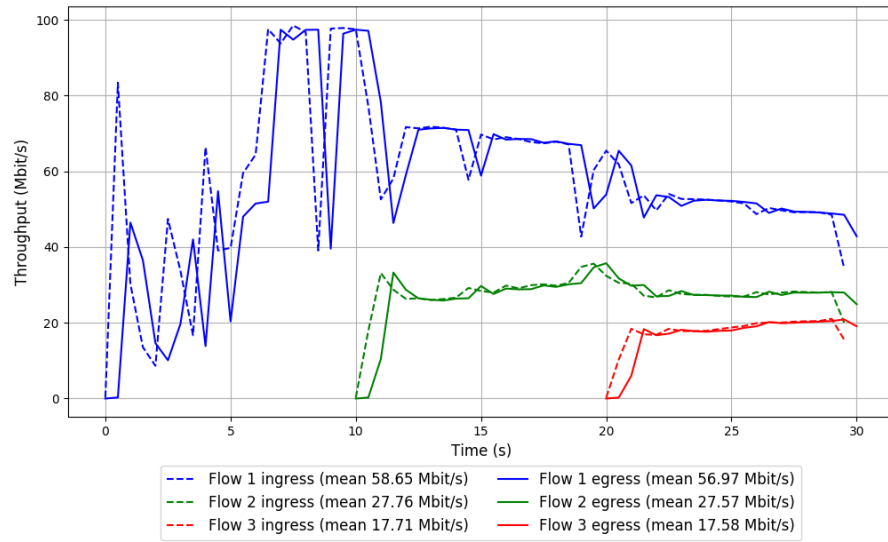


Run 1: Statistics of QUIC Cubic

Start at: 2019-03-09 02:34:08
End at: 2019-03-09 02:34:38
Local clock offset: 0.452 ms
Remote clock offset: 16.567 ms

Below is generated by plot.py at 2019-03-09 04:44:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 81.08 Mbit/s
95th percentile per-packet one-way delay: 86.617 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 56.97 Mbit/s
95th percentile per-packet one-way delay: 86.154 ms
Loss rate: 2.73%
-- Flow 2:
Average throughput: 27.57 Mbit/s
95th percentile per-packet one-way delay: 86.861 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 17.58 Mbit/s
95th percentile per-packet one-way delay: 87.654 ms
Loss rate: 0.60%

Run 1: Report of QUIC Cubic — Data Link

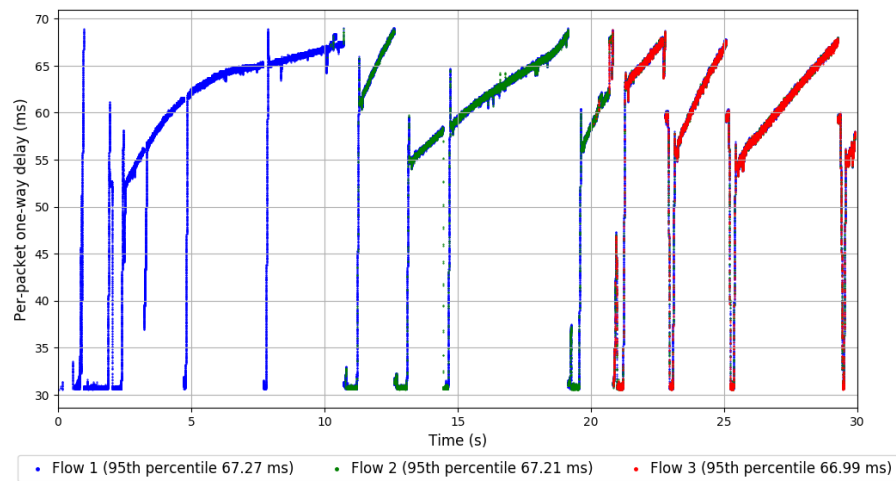
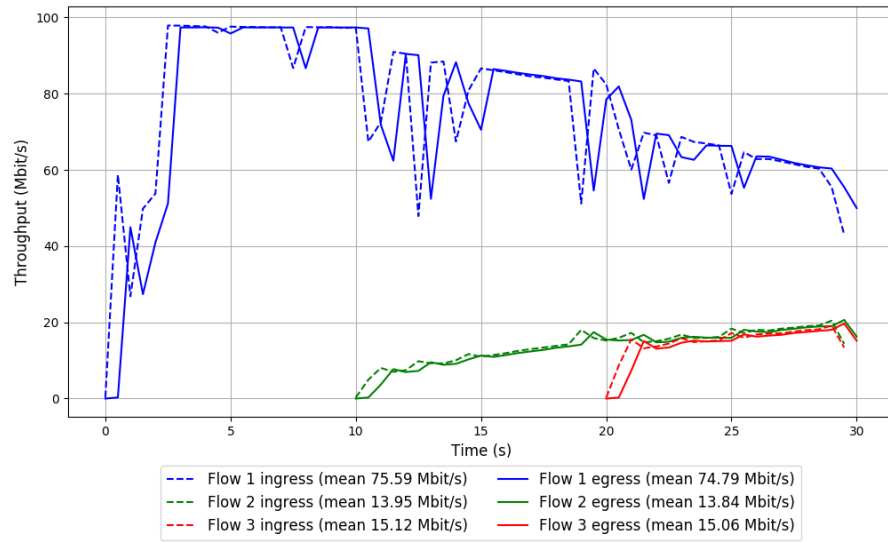


Run 2: Statistics of QUIC Cubic

Start at: 2019-03-09 03:02:02
End at: 2019-03-09 03:02:32
Local clock offset: 0.282 ms
Remote clock offset: -2.025 ms

Below is generated by plot.py at 2019-03-09 04:44:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 88.91 Mbit/s
95th percentile per-packet one-way delay: 67.249 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 74.79 Mbit/s
95th percentile per-packet one-way delay: 67.266 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 13.84 Mbit/s
95th percentile per-packet one-way delay: 67.207 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 15.06 Mbit/s
95th percentile per-packet one-way delay: 66.989 ms
Loss rate: 0.38%

Run 2: Report of QUIC Cubic — Data Link

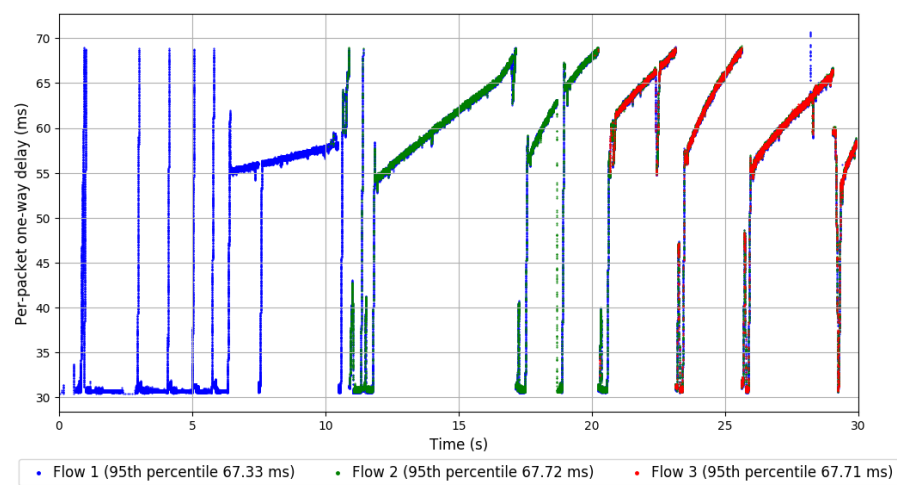
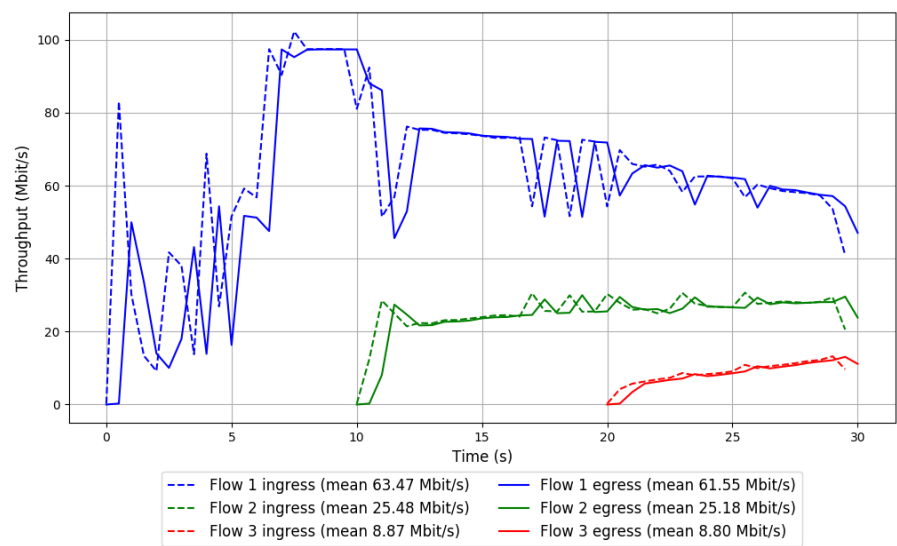


Run 3: Statistics of QUIC Cubic

Start at: 2019-03-09 03:28:30
End at: 2019-03-09 03:29:00
Local clock offset: 0.322 ms
Remote clock offset: -0.868 ms

Below is generated by plot.py at 2019-03-09 04:44:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 81.15 Mbit/s
95th percentile per-packet one-way delay: 67.461 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 61.55 Mbit/s
95th percentile per-packet one-way delay: 67.331 ms
Loss rate: 2.92%
-- Flow 2:
Average throughput: 25.18 Mbit/s
95th percentile per-packet one-way delay: 67.716 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 8.80 Mbit/s
95th percentile per-packet one-way delay: 67.710 ms
Loss rate: 0.88%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-03-09 03:54:50

End at: 2019-03-09 03:55:20

Local clock offset: 0.292 ms

Remote clock offset: 0.022 ms

Below is generated by plot.py at 2019-03-09 04:44:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.73 Mbit/s

95th percentile per-packet one-way delay: 67.150 ms

Loss rate: 2.12%

-- Flow 1:

Average throughput: 62.61 Mbit/s

95th percentile per-packet one-way delay: 66.996 ms

Loss rate: 2.53%

-- Flow 2:

Average throughput: 24.78 Mbit/s

95th percentile per-packet one-way delay: 67.333 ms

Loss rate: 0.83%

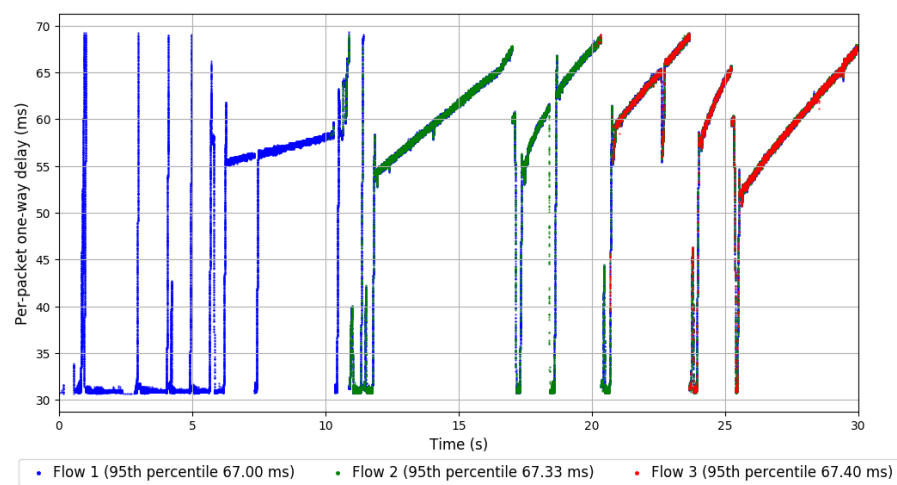
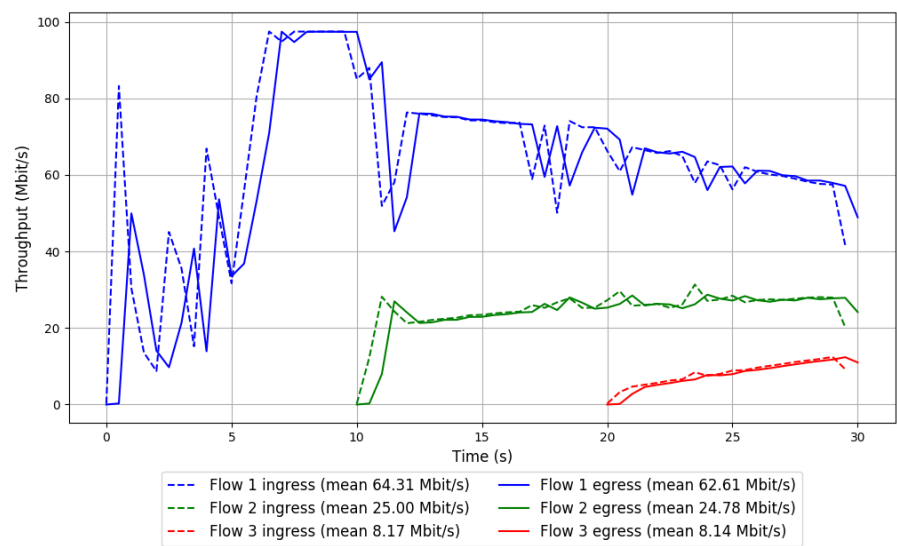
-- Flow 3:

Average throughput: 8.14 Mbit/s

95th percentile per-packet one-way delay: 67.401 ms

Loss rate: 0.42%

Run 4: Report of QUIC Cubic — Data Link

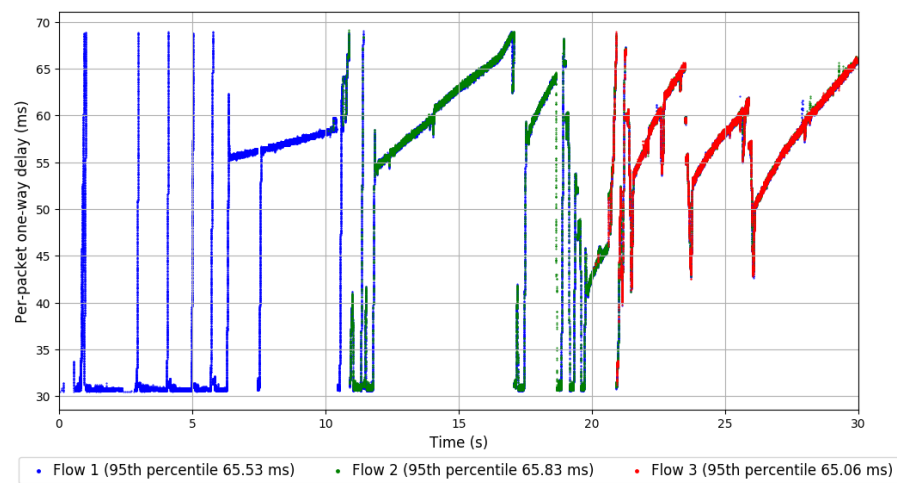
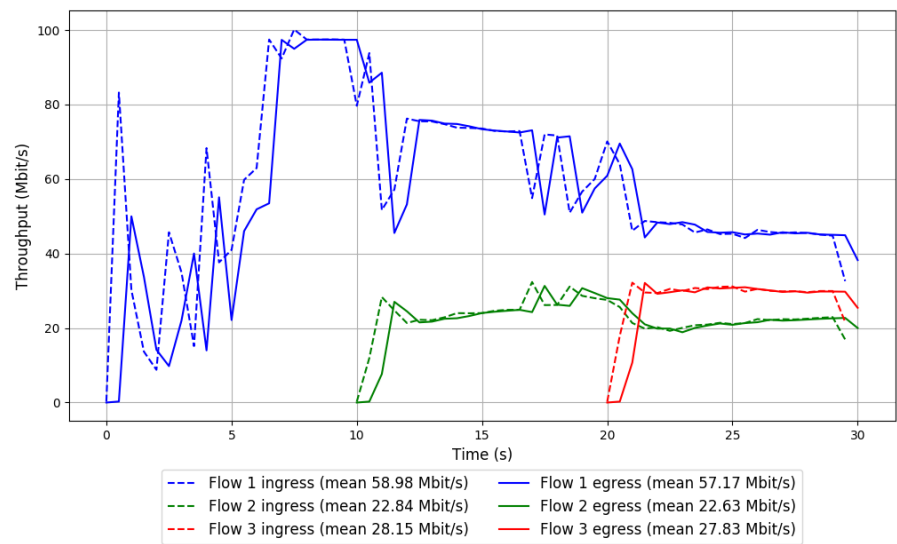


Run 5: Statistics of QUIC Cubic

Start at: 2019-03-09 04:21:12
End at: 2019-03-09 04:21:42
Local clock offset: 0.205 ms
Remote clock offset: -0.183 ms

Below is generated by plot.py at 2019-03-09 04:44:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 81.37 Mbit/s
95th percentile per-packet one-way delay: 65.487 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 65.529 ms
Loss rate: 2.95%
-- Flow 2:
Average throughput: 22.63 Mbit/s
95th percentile per-packet one-way delay: 65.829 ms
Loss rate: 0.91%
-- Flow 3:
Average throughput: 27.83 Mbit/s
95th percentile per-packet one-way delay: 65.063 ms
Loss rate: 0.90%

Run 5: Report of QUIC Cubic — Data Link

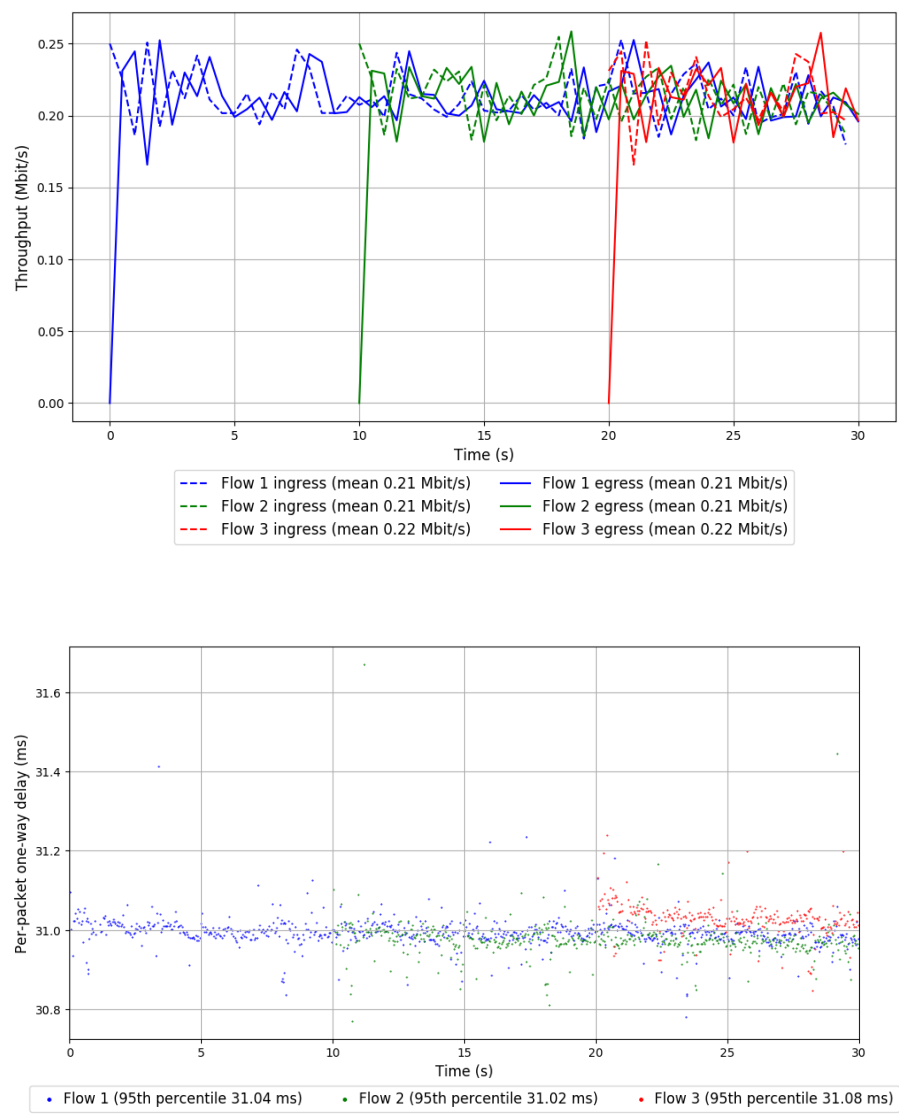


```
Run 1: Statistics of SReAM

Start at: 2019-03-09 02:45:51
End at: 2019-03-09 02:46:21
Local clock offset: 0.381 ms
Remote clock offset: -2.597 ms

# Below is generated by plot.py at 2019-03-09 04:44:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 31.055 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.038 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.022 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.081 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

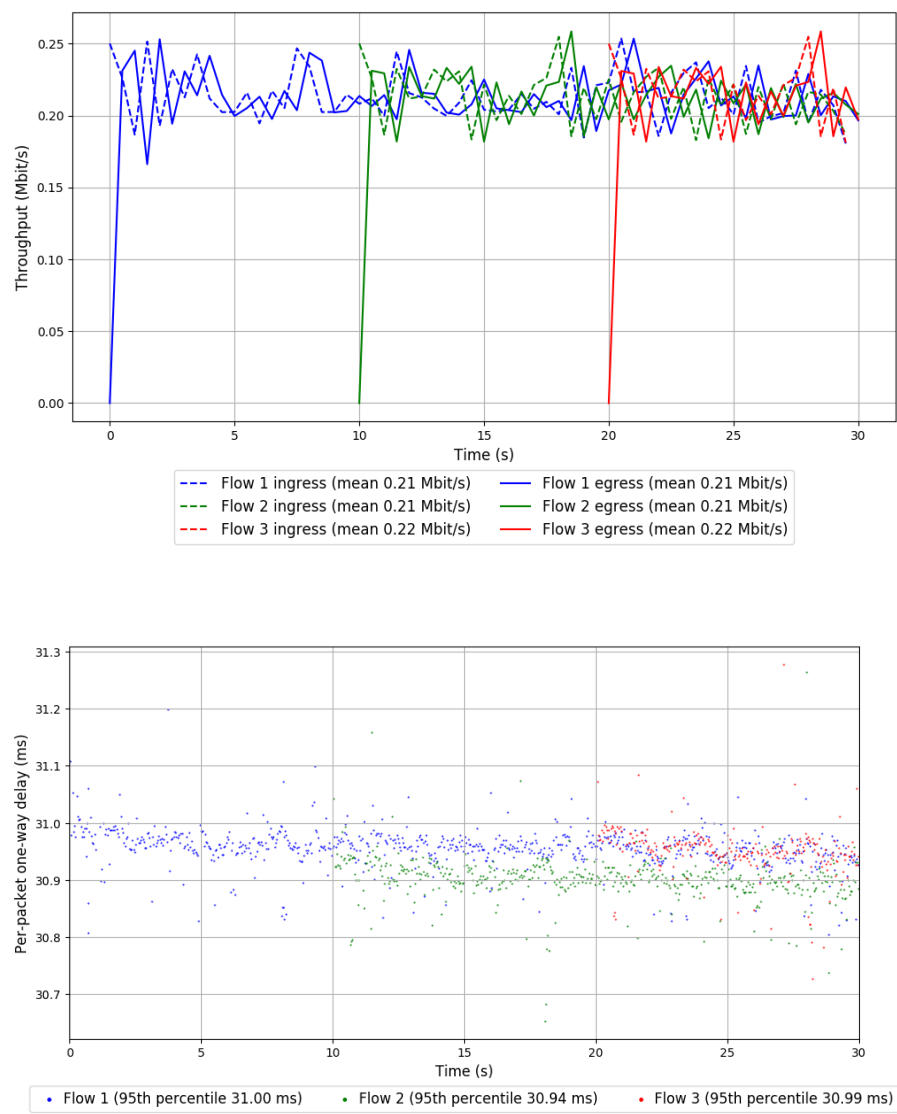


Run 2: Statistics of SReAM

Start at: 2019-03-09 03:12:17
End at: 2019-03-09 03:12:47
Local clock offset: 0.227 ms
Remote clock offset: -1.348 ms

Below is generated by plot.py at 2019-03-09 04:44:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 30.992 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.000 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.941 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.993 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2019-03-09 03:39:06

End at: 2019-03-09 03:39:36

Local clock offset: 0.209 ms

Remote clock offset: -0.38 ms

Below is generated by plot.py at 2019-03-09 04:44:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 31.024 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 31.035 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 31.019 ms

Loss rate: 0.00%

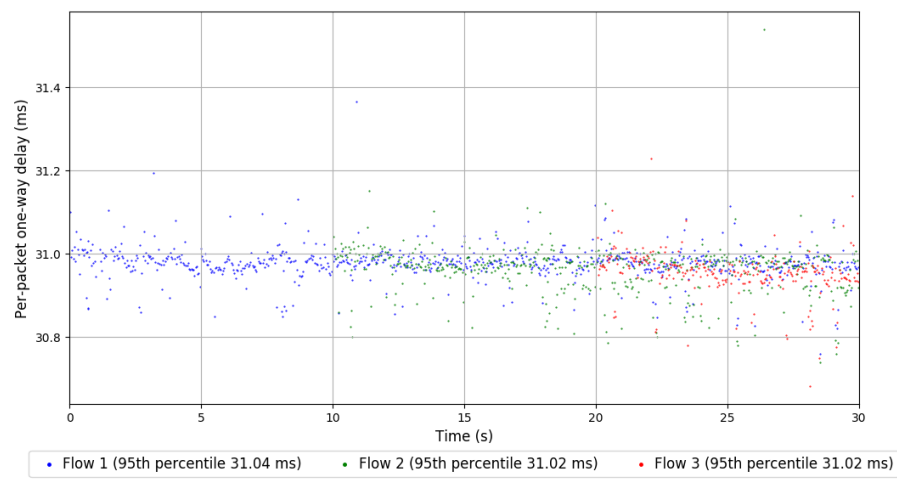
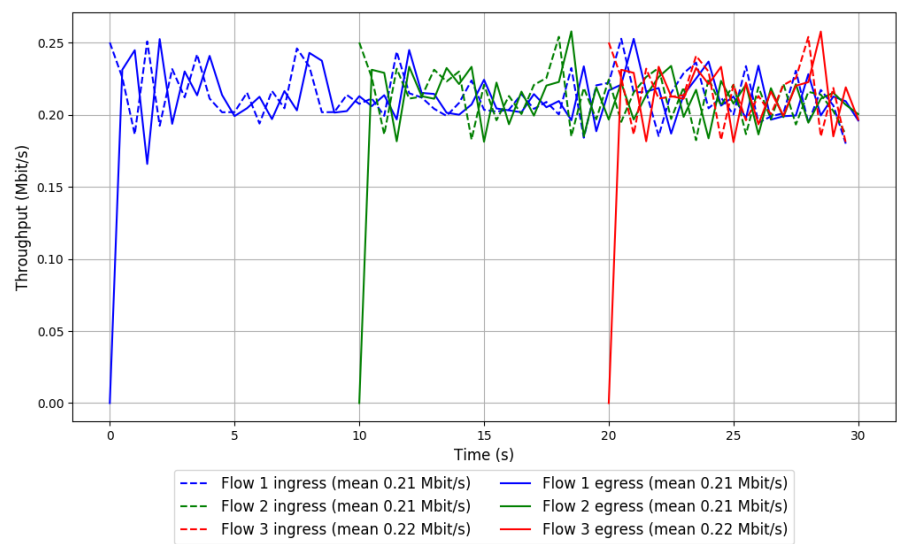
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 31.018 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2019-03-09 04:05:04

End at: 2019-03-09 04:05:34

Local clock offset: 0.252 ms

Remote clock offset: 0.139 ms

Below is generated by plot.py at 2019-03-09 04:44:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 31.033 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 31.057 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 30.976 ms

Loss rate: 0.00%

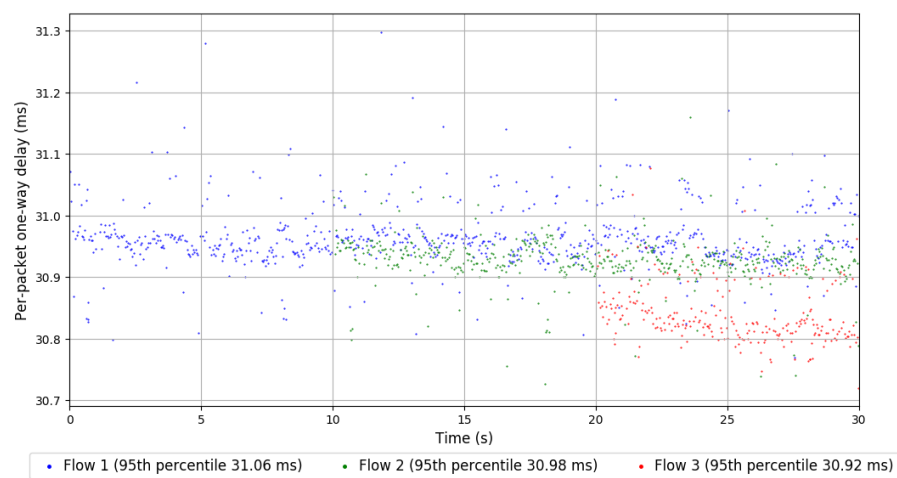
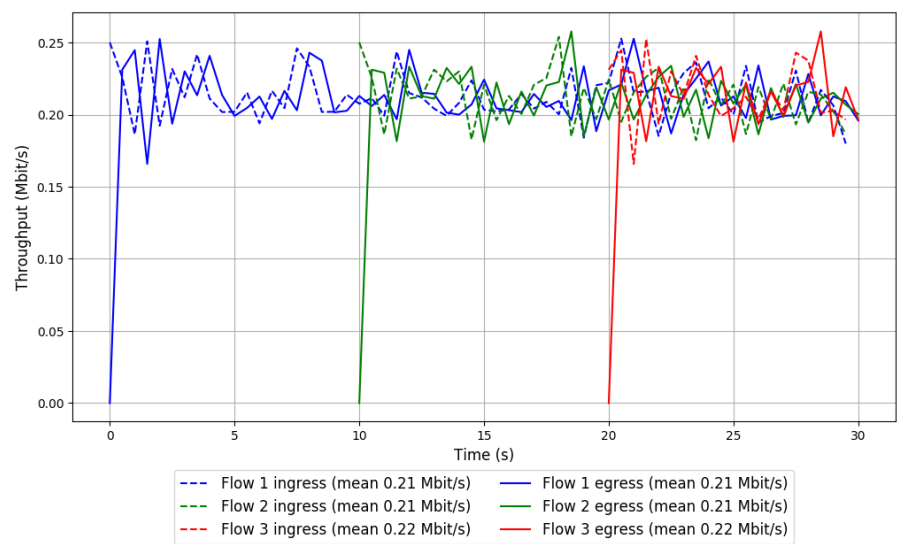
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 30.922 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

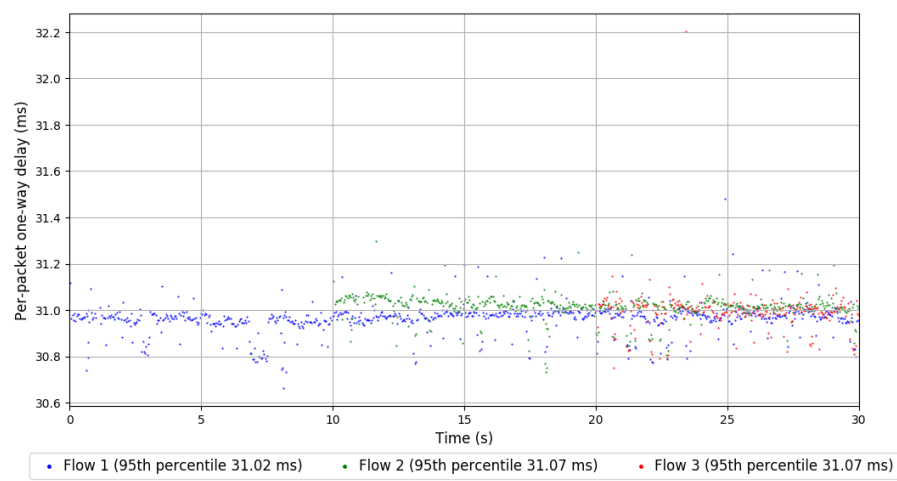
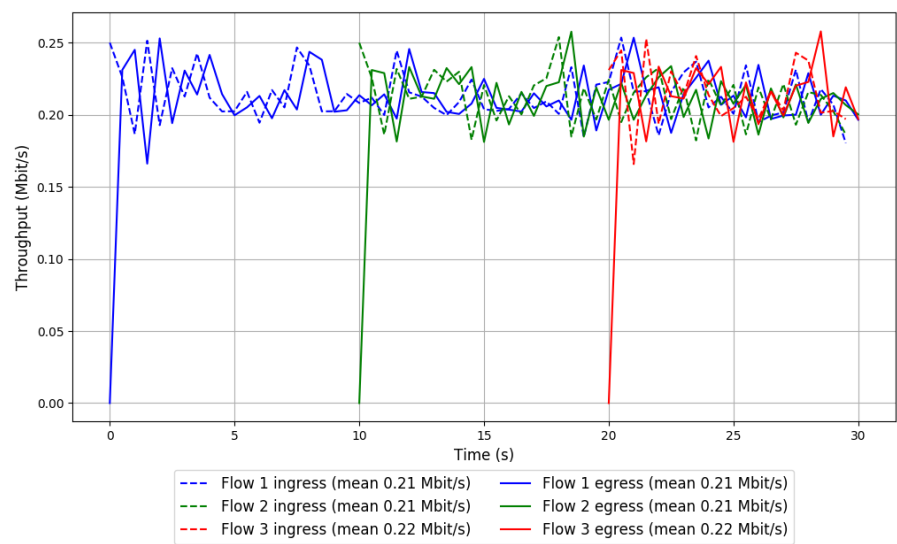


Run 5: Statistics of SReAM

Start at: 2019-03-09 04:31:27
End at: 2019-03-09 04:31:57
Local clock offset: 0.132 ms
Remote clock offset: -0.044 ms

Below is generated by plot.py at 2019-03-09 04:44:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 31.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.017 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.069 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.065 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

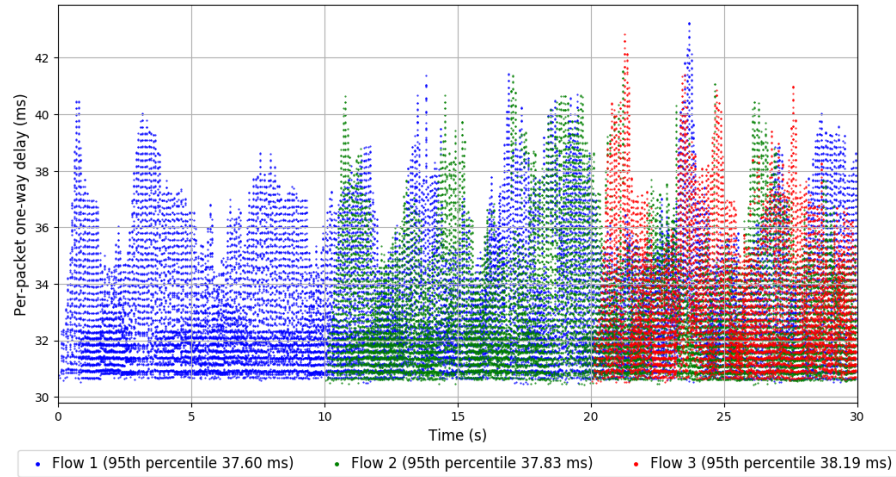
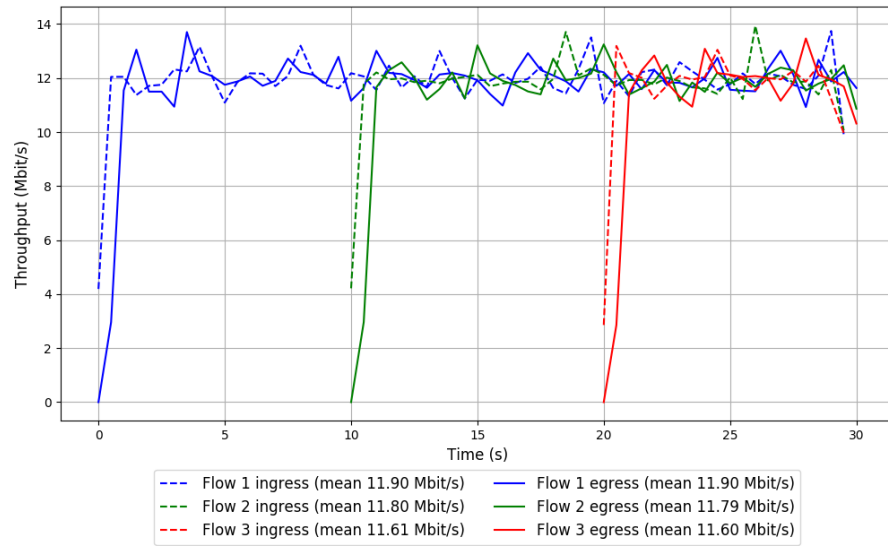


Run 1: Statistics of Sprout

Start at: 2019-03-09 02:20:44
End at: 2019-03-09 02:21:14
Local clock offset: 0.574 ms
Remote clock offset: -4.331 ms

Below is generated by plot.py at 2019-03-09 04:44:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 23.57 Mbit/s
95th percentile per-packet one-way delay: 37.764 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 37.605 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 37.832 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 11.60 Mbit/s
95th percentile per-packet one-way delay: 38.191 ms
Loss rate: 0.06%

Run 1: Report of Sprout — Data Link

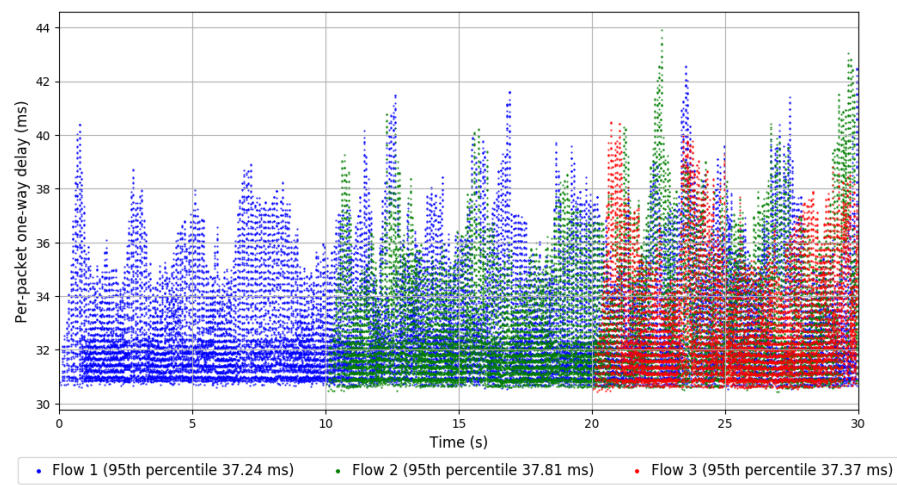
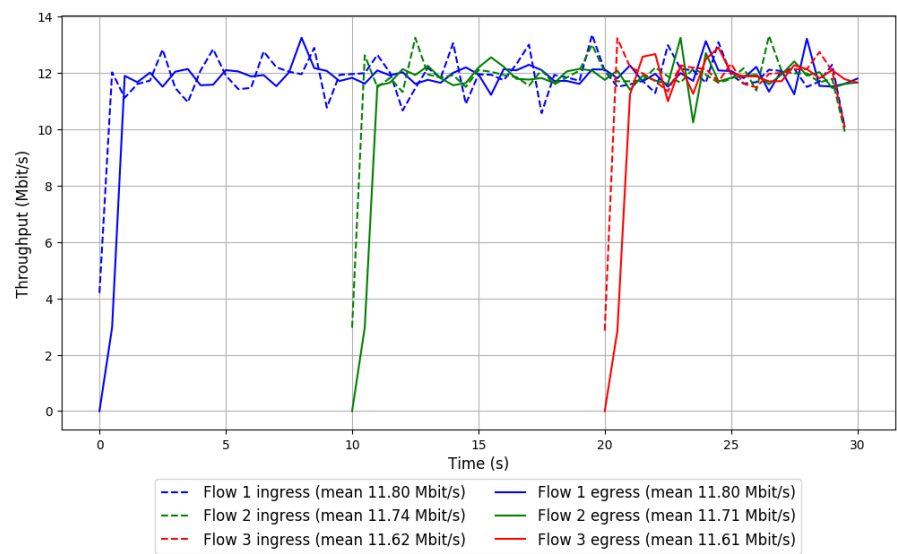


Run 2: Statistics of Sprout

Start at: 2019-03-09 02:49:33
End at: 2019-03-09 02:50:03
Local clock offset: 0.342 ms
Remote clock offset: -2.609 ms

```
# Below is generated by plot.py at 2019-03-09 04:44:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.44 Mbit/s
95th percentile per-packet one-way delay: 37.430 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 37.238 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 37.810 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 37.365 ms
Loss rate: 0.02%
```

Run 2: Report of Sprout — Data Link

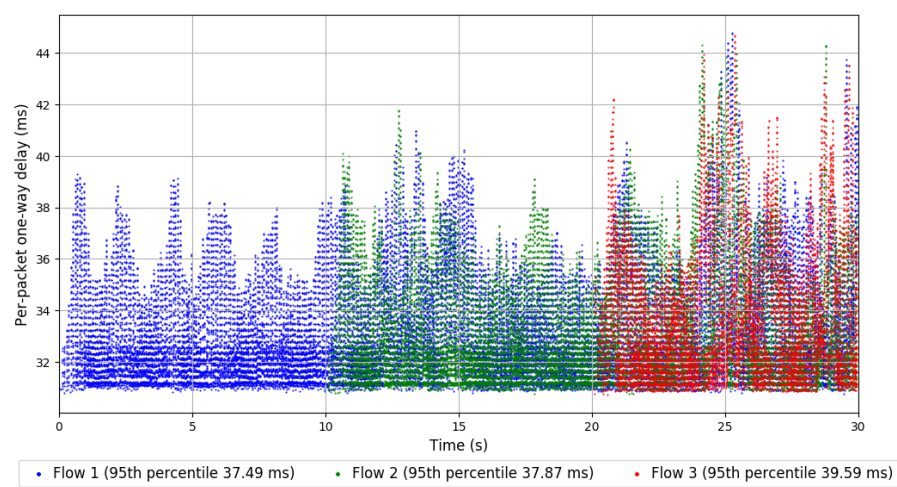
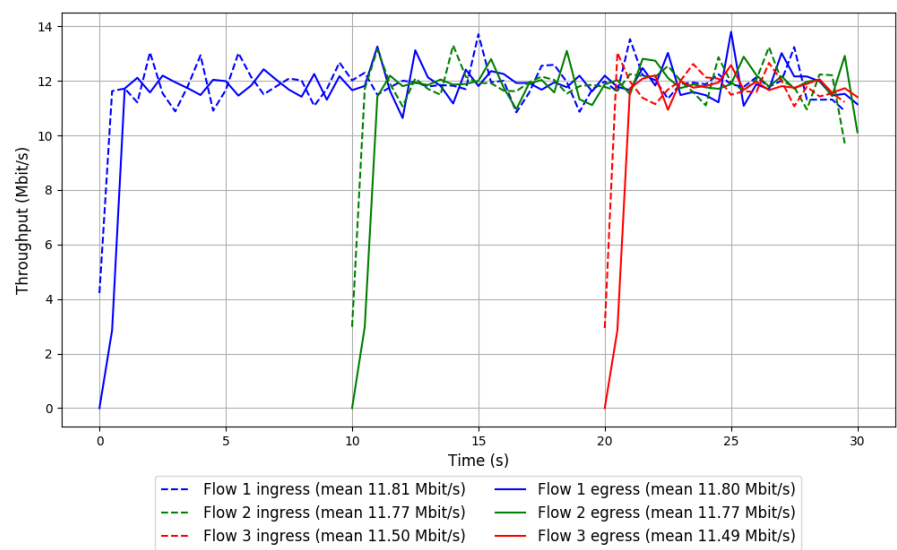


Run 3: Statistics of Sprout

Start at: 2019-03-09 03:15:52
End at: 2019-03-09 03:16:22
Local clock offset: 0.24 ms
Remote clock offset: -1.058 ms

```
# Below is generated by plot.py at 2019-03-09 04:44:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.41 Mbit/s
95th percentile per-packet one-way delay: 37.967 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.80 Mbit/s
95th percentile per-packet one-way delay: 37.488 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 37.866 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 39.594 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

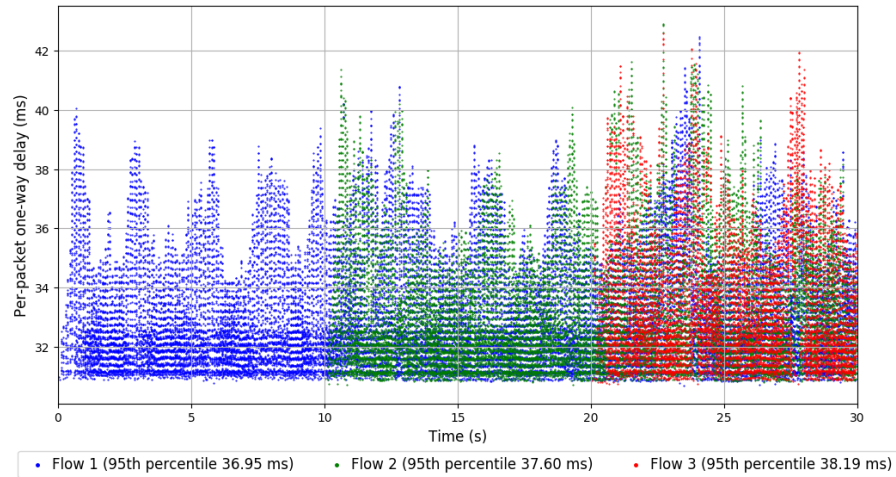
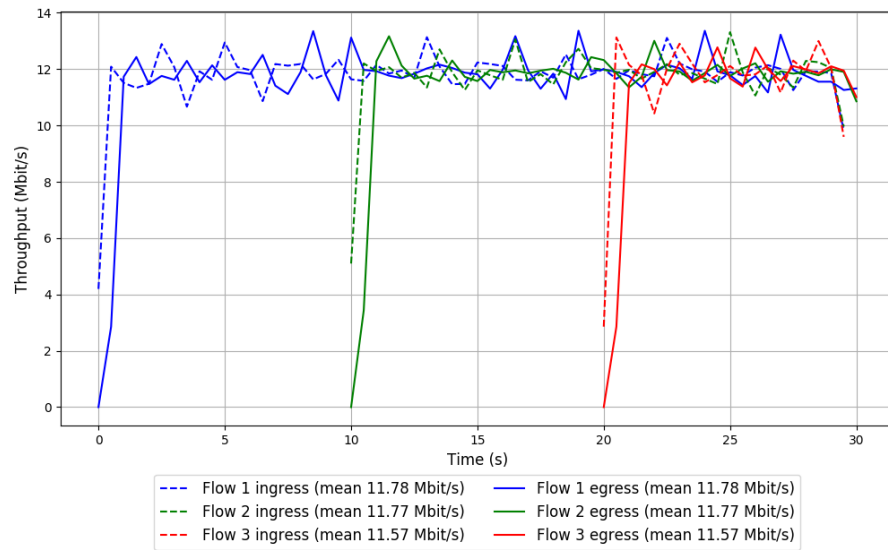


Run 4: Statistics of Sprout

Start at: 2019-03-09 03:42:41
End at: 2019-03-09 03:43:11
Local clock offset: 0.192 ms
Remote clock offset: -0.283 ms

Below is generated by plot.py at 2019-03-09 04:44:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 23.44 Mbit/s
95th percentile per-packet one-way delay: 37.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 36.955 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 37.603 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 38.185 ms
Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-03-09 04:08:42

End at: 2019-03-09 04:09:12

Local clock offset: 0.226 ms

Remote clock offset: 0.159 ms

Below is generated by plot.py at 2019-03-09 04:44:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.45 Mbit/s

95th percentile per-packet one-way delay: 37.191 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.81 Mbit/s

95th percentile per-packet one-way delay: 36.994 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.78 Mbit/s

95th percentile per-packet one-way delay: 37.429 ms

Loss rate: 0.00%

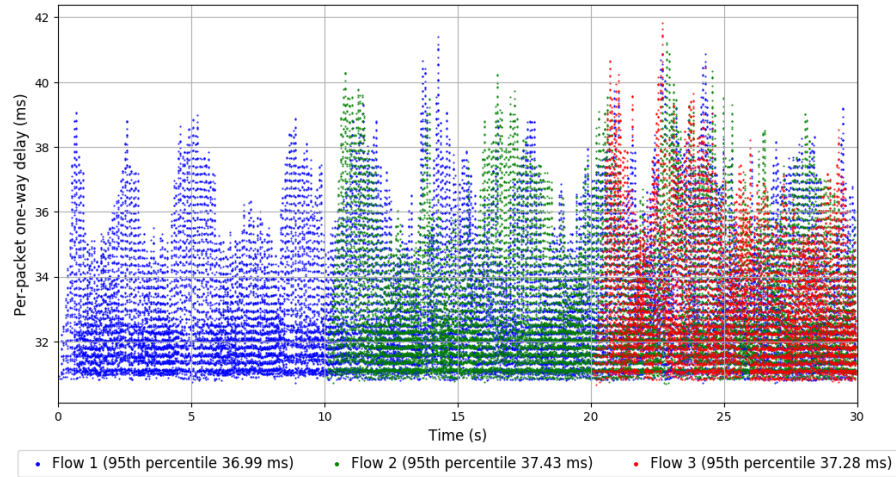
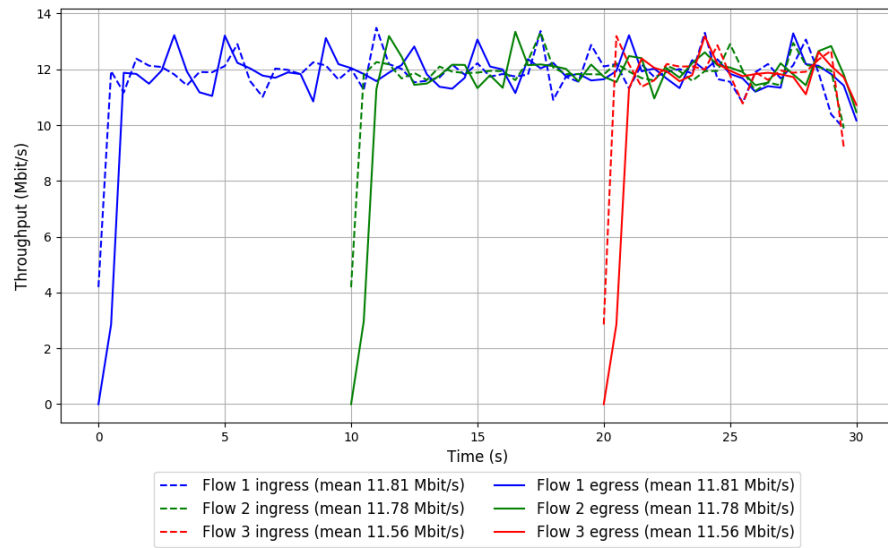
-- Flow 3:

Average throughput: 11.56 Mbit/s

95th percentile per-packet one-way delay: 37.280 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

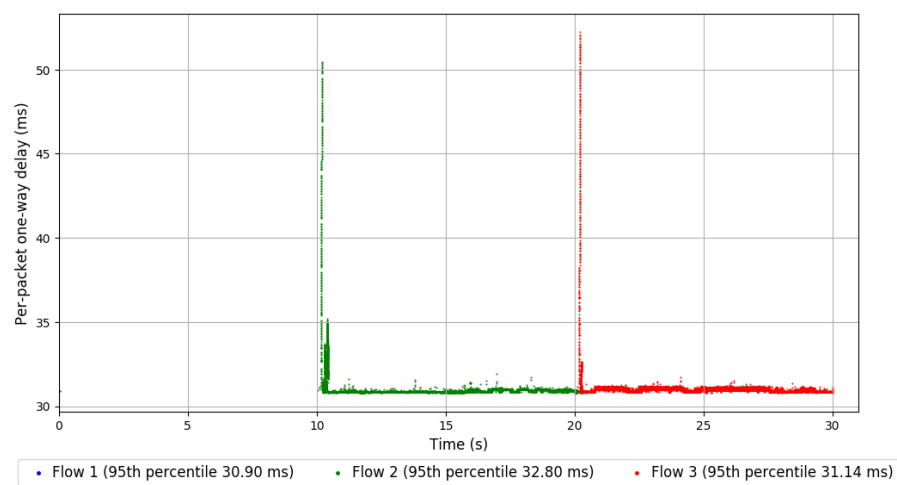
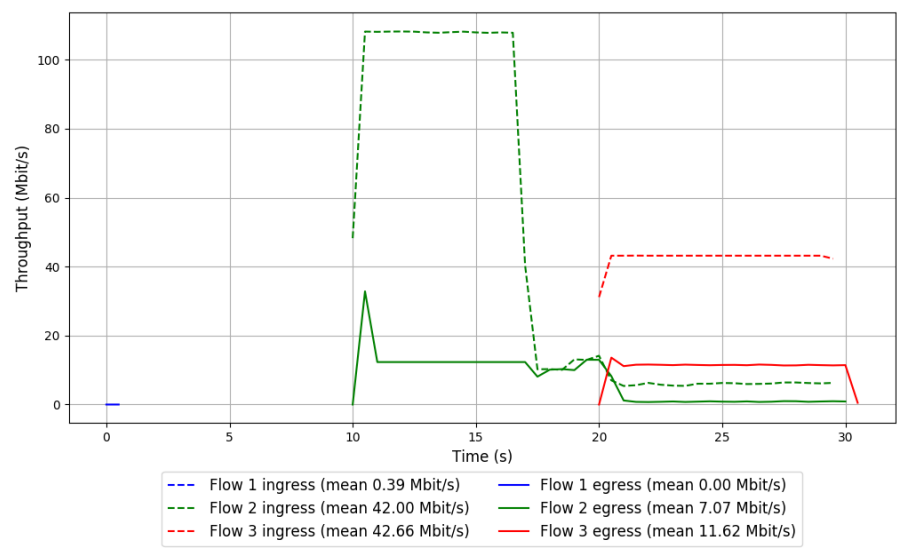


Run 1: Statistics of TaoVA-100x

Start at: 2019-03-09 02:23:11
End at: 2019-03-09 02:23:41
Local clock offset: 0.56 ms
Remote clock offset: -3.928 ms

Below is generated by plot.py at 2019-03-09 04:44:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 31.983 ms
Loss rate: 79.68%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.902 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 32.799 ms
Loss rate: 83.19%
-- Flow 3:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 31.145 ms
Loss rate: 72.75%

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

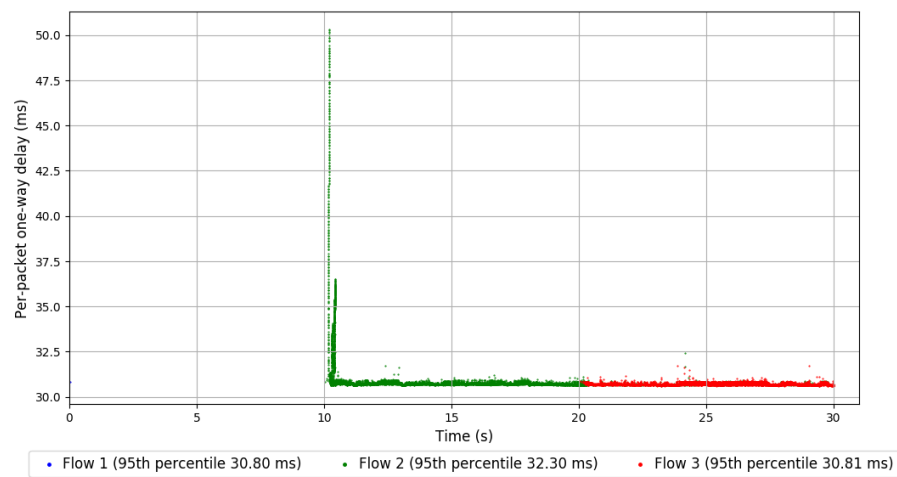
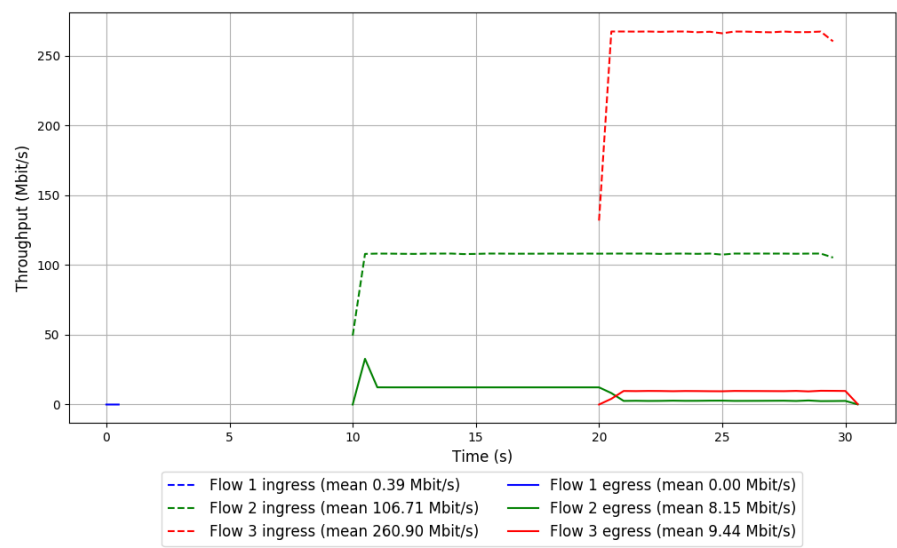


Run 2: Statistics of TaoVA-100x

Start at: 2019-03-09 02:52:00
End at: 2019-03-09 02:52:30
Local clock offset: 0.328 ms
Remote clock offset: -2.406 ms

Below is generated by plot.py at 2019-03-09 04:45:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 30.931 ms
Loss rate: 94.57%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.804 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 32.297 ms
Loss rate: 92.36%
-- Flow 3:
Average throughput: 9.44 Mbit/s
95th percentile per-packet one-way delay: 30.809 ms
Loss rate: 96.38%

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

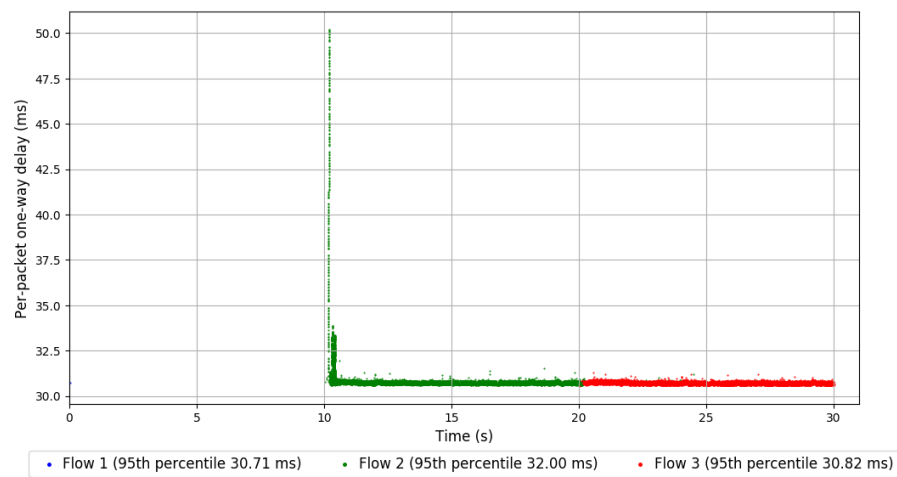
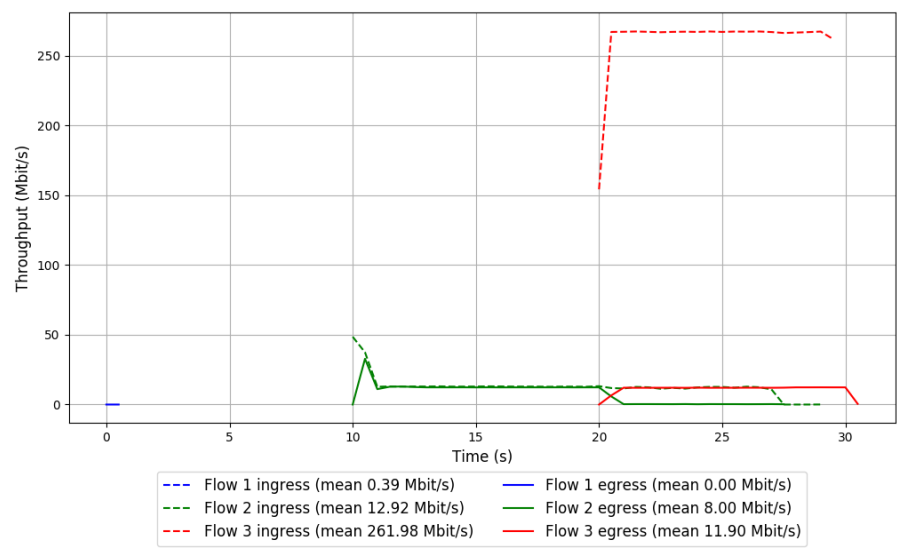


Run 3: Statistics of TaoVA-100x

Start at: 2019-03-09 03:18:20
End at: 2019-03-09 03:18:50
Local clock offset: 0.276 ms
Remote clock offset: -1.181 ms

Below is generated by plot.py at 2019-03-09 04:45:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 30.932 ms
Loss rate: 91.02%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 30.709 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 32.002 ms
Loss rate: 44.69%
-- Flow 3:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 30.819 ms
Loss rate: 95.46%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-03-09 03:45:06

End at: 2019-03-09 03:45:36

Local clock offset: 0.216 ms

Remote clock offset: -0.21 ms

Below is generated by plot.py at 2019-03-09 04:45:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 31.209 ms

Loss rate: 83.79%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 31.015 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 10.92 Mbit/s

95th percentile per-packet one-way delay: 31.326 ms

Loss rate: 85.71%

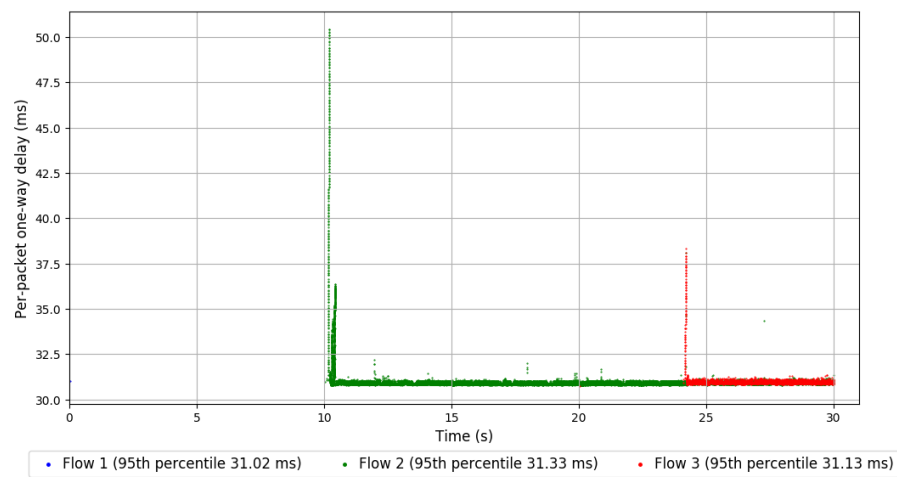
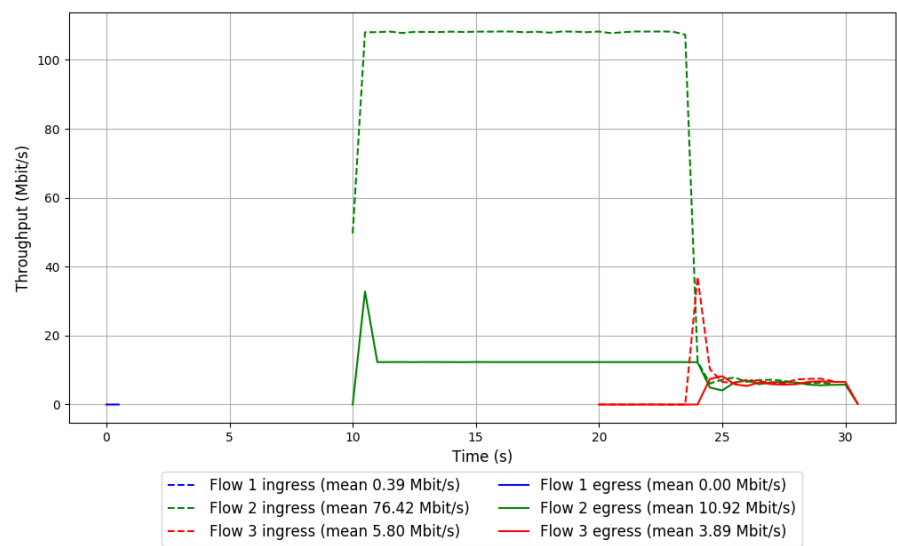
-- Flow 3:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 31.131 ms

Loss rate: 32.88%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-03-09 04:11:09

End at: 2019-03-09 04:11:39

Local clock offset: 0.252 ms

Remote clock offset: 0.192 ms

Below is generated by plot.py at 2019-03-09 04:45:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 31.255 ms

Loss rate: 83.78%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 30.995 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 10.85 Mbit/s

95th percentile per-packet one-way delay: 31.354 ms

Loss rate: 85.79%

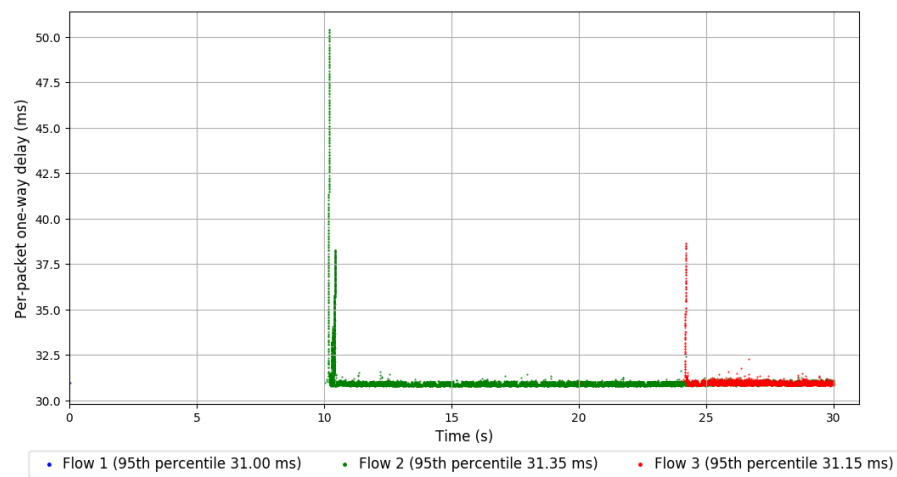
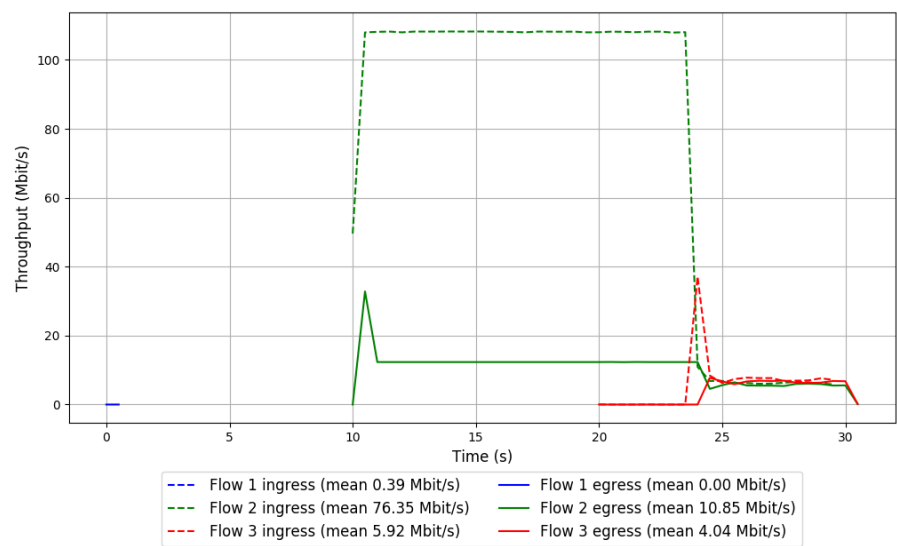
-- Flow 3:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 31.150 ms

Loss rate: 31.81%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-03-09 02:32:43

End at: 2019-03-09 02:33:13

Local clock offset: 0.47 ms

Remote clock offset: -3.45 ms

Below is generated by plot.py at 2019-03-09 04:45:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.53 Mbit/s

95th percentile per-packet one-way delay: 41.882 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 63.52 Mbit/s

95th percentile per-packet one-way delay: 42.349 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 14.82 Mbit/s

95th percentile per-packet one-way delay: 37.741 ms

Loss rate: 0.17%

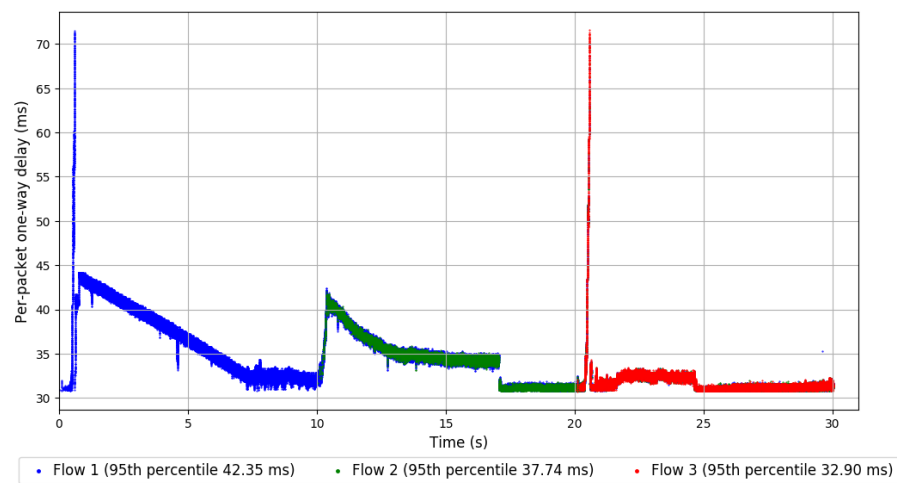
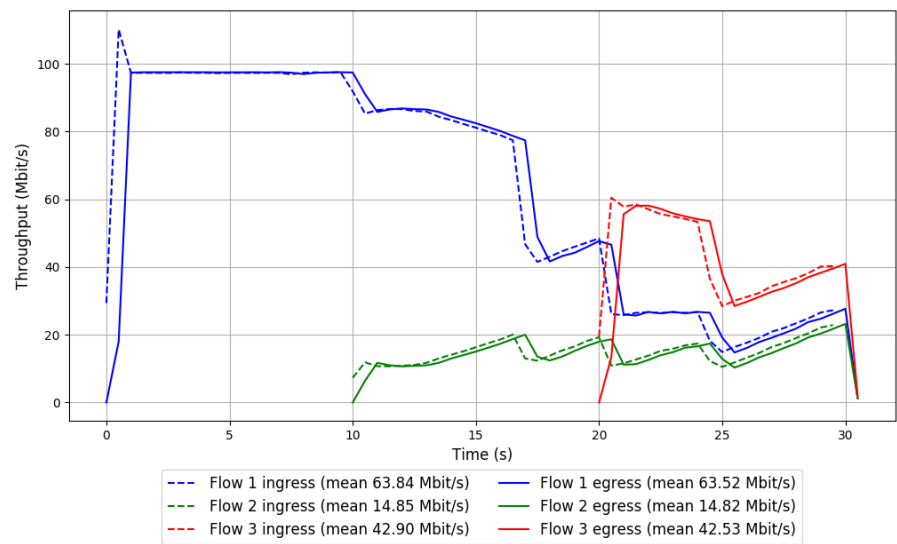
-- Flow 3:

Average throughput: 42.53 Mbit/s

95th percentile per-packet one-way delay: 32.895 ms

Loss rate: 0.87%

Run 1: Report of TCP Vegas — Data Link

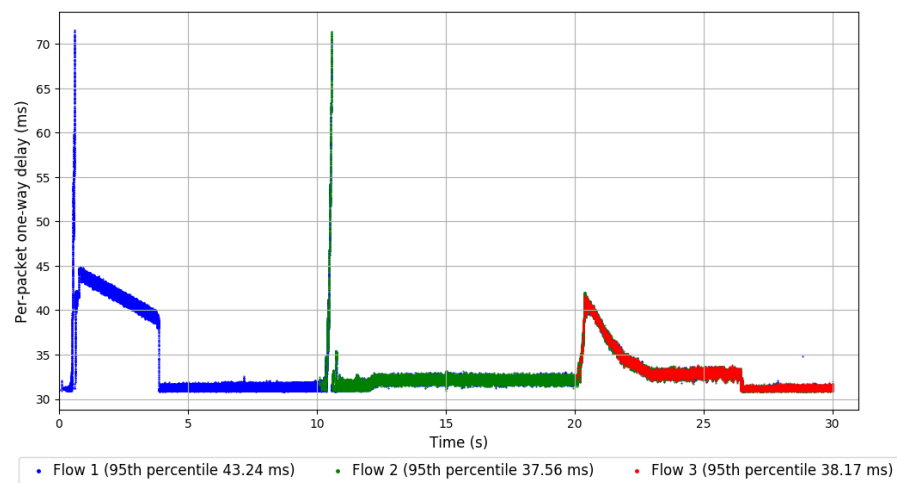
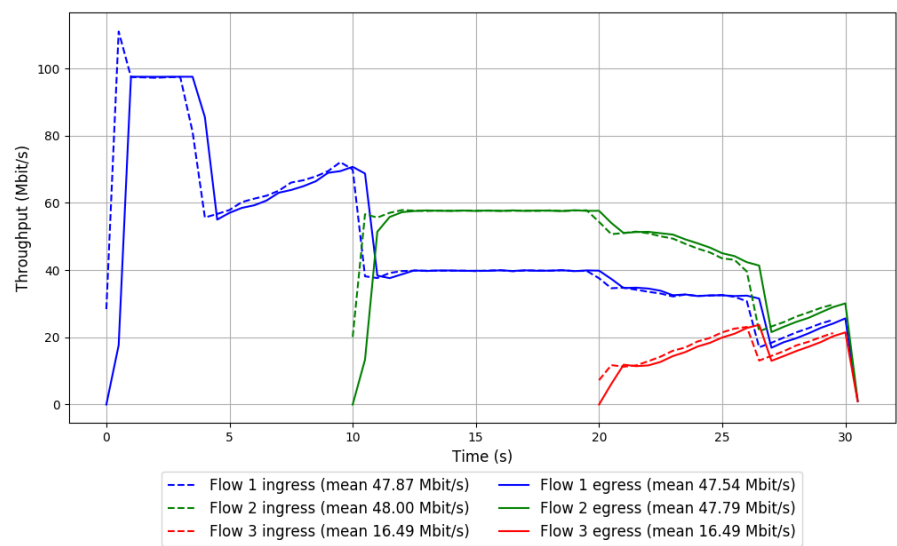


Run 2: Statistics of TCP Vegas

Start at: 2019-03-09 03:00:47
End at: 2019-03-09 03:01:17
Local clock offset: 0.269 ms
Remote clock offset: -1.863 ms

Below is generated by plot.py at 2019-03-09 04:45:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 84.85 Mbit/s
95th percentile per-packet one-way delay: 42.364 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 47.54 Mbit/s
95th percentile per-packet one-way delay: 43.241 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 47.79 Mbit/s
95th percentile per-packet one-way delay: 37.562 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 16.49 Mbit/s
95th percentile per-packet one-way delay: 38.171 ms
Loss rate: 0.01%

Run 2: Report of TCP Vegas — Data Link

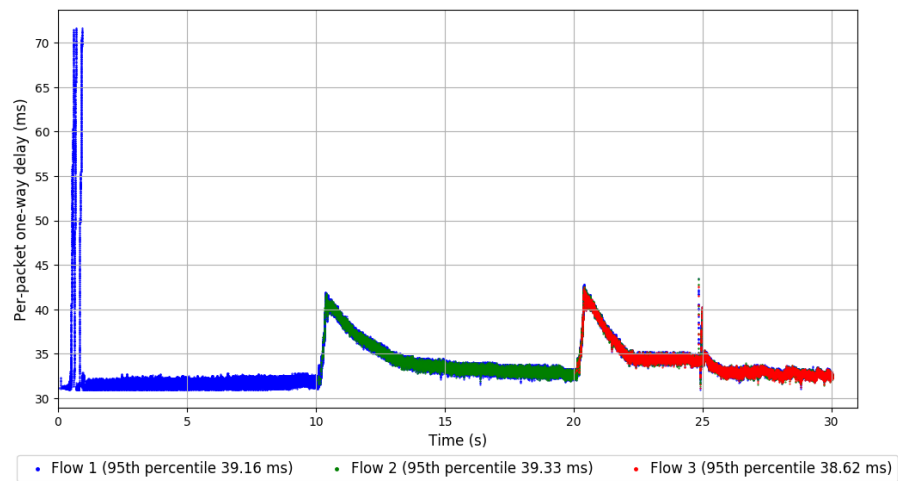
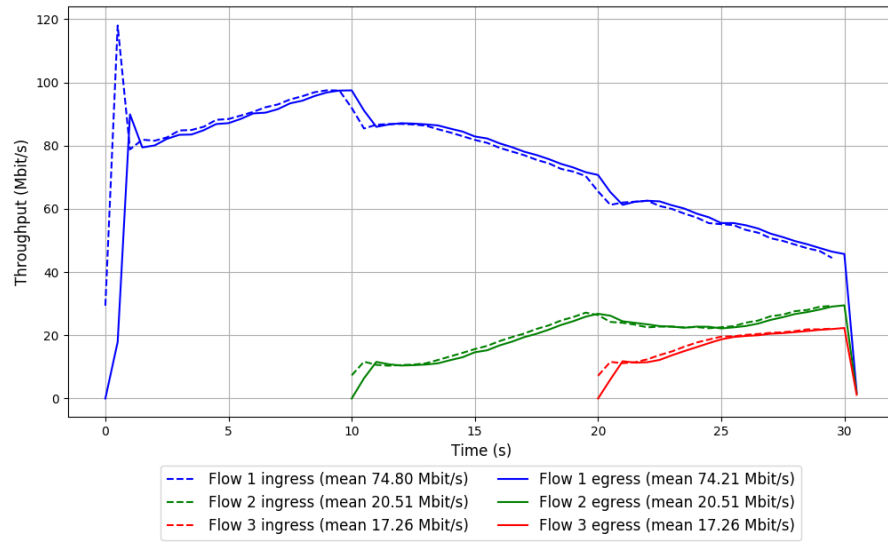


Run 3: Statistics of TCP Vegas

Start at: 2019-03-09 03:27:12
End at: 2019-03-09 03:27:42
Local clock offset: 0.313 ms
Remote clock offset: -0.593 ms

Below is generated by plot.py at 2019-03-09 04:45:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.62 Mbit/s
95th percentile per-packet one-way delay: 39.157 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 74.21 Mbit/s
95th percentile per-packet one-way delay: 39.159 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 20.51 Mbit/s
95th percentile per-packet one-way delay: 39.328 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.26 Mbit/s
95th percentile per-packet one-way delay: 38.622 ms
Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link

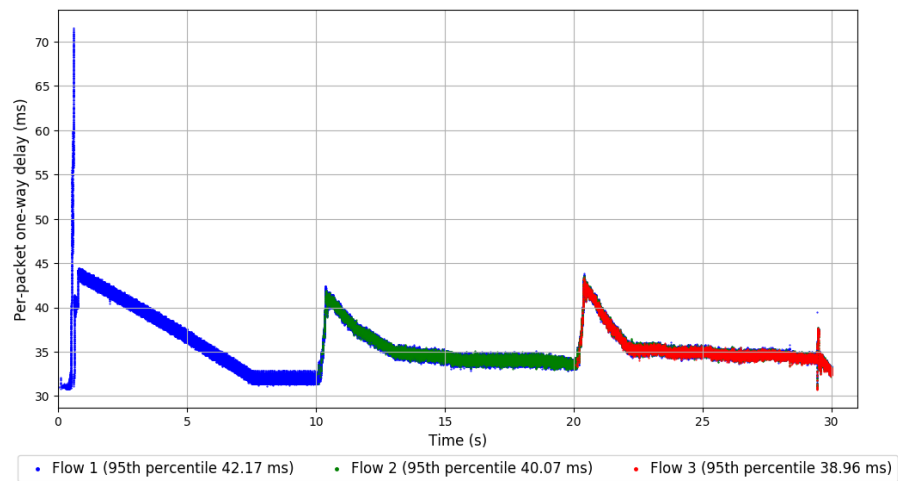
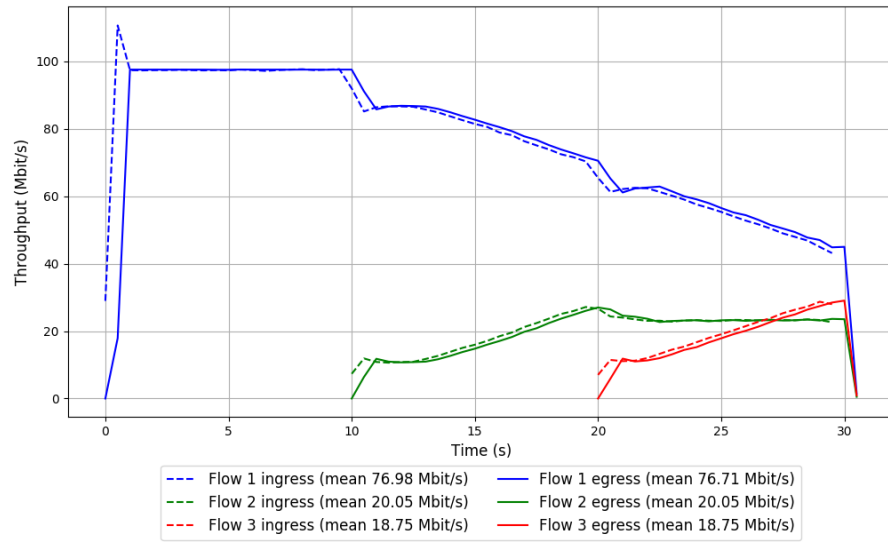


Run 4: Statistics of TCP Vegas

Start at: 2019-03-09 03:53:36
End at: 2019-03-09 03:54:06
Local clock offset: 0.306 ms
Remote clock offset: -0.057 ms

Below is generated by plot.py at 2019-03-09 04:46:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 41.898 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 76.71 Mbit/s
95th percentile per-packet one-way delay: 42.173 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 40.068 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.75 Mbit/s
95th percentile per-packet one-way delay: 38.960 ms
Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-03-09 04:19:55

End at: 2019-03-09 04:20:25

Local clock offset: 0.223 ms

Remote clock offset: 0.036 ms

Below is generated by plot.py at 2019-03-09 04:46:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.43 Mbit/s

95th percentile per-packet one-way delay: 42.190 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 42.97 Mbit/s

95th percentile per-packet one-way delay: 42.947 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 36.80 Mbit/s

95th percentile per-packet one-way delay: 32.659 ms

Loss rate: 0.55%

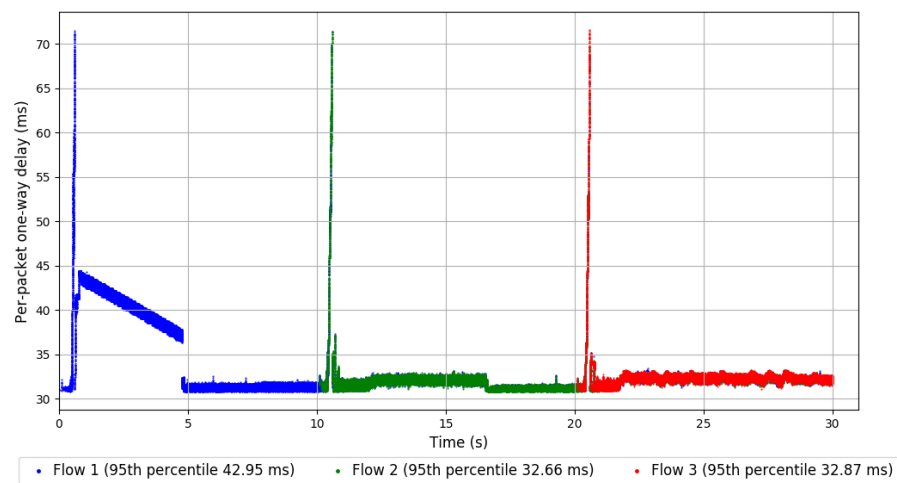
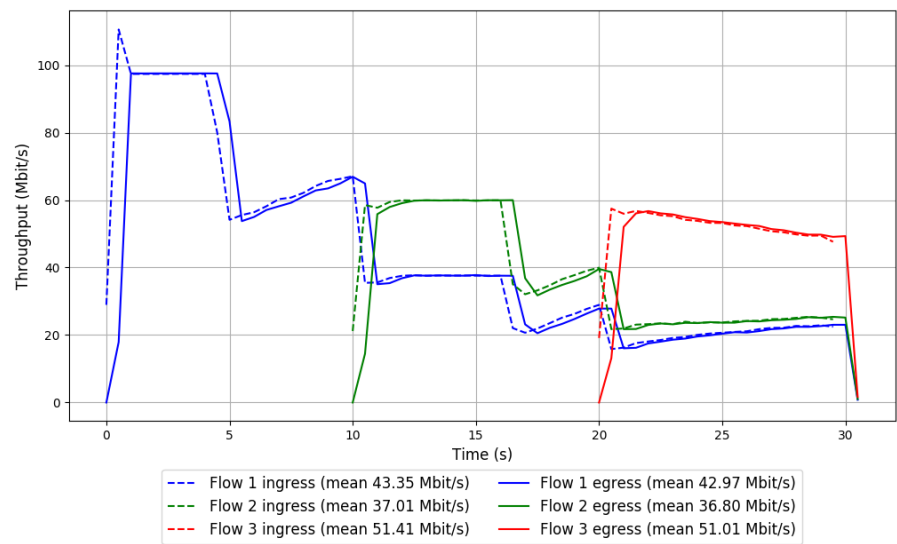
-- Flow 3:

Average throughput: 51.01 Mbit/s

95th percentile per-packet one-way delay: 32.869 ms

Loss rate: 0.76%

Run 5: Report of TCP Vegas — Data Link

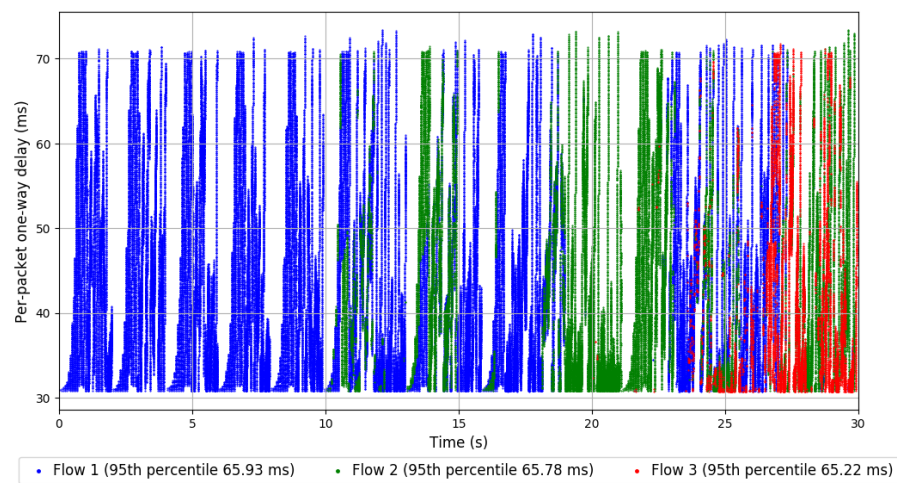
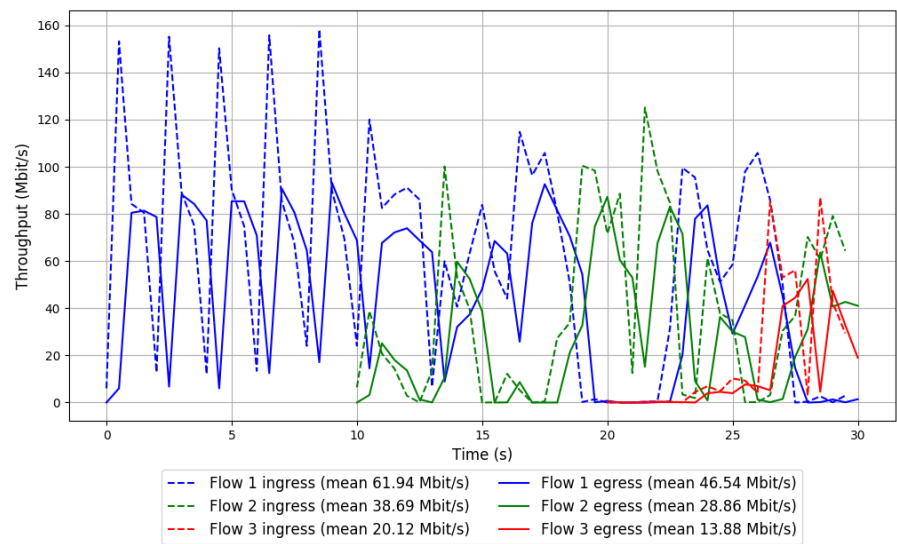


Run 1: Statistics of Verus

Start at: 2019-03-09 02:47:00
End at: 2019-03-09 02:47:30
Local clock offset: 0.379 ms
Remote clock offset: -2.582 ms

Below is generated by plot.py at 2019-03-09 04:46:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 69.99 Mbit/s
95th percentile per-packet one-way delay: 65.851 ms
Loss rate: 25.53%
-- Flow 1:
Average throughput: 46.54 Mbit/s
95th percentile per-packet one-way delay: 65.931 ms
Loss rate: 25.02%
-- Flow 2:
Average throughput: 28.86 Mbit/s
95th percentile per-packet one-way delay: 65.781 ms
Loss rate: 25.38%
-- Flow 3:
Average throughput: 13.88 Mbit/s
95th percentile per-packet one-way delay: 65.216 ms
Loss rate: 30.91%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-03-09 03:13:26

End at: 2019-03-09 03:13:56

Local clock offset: 0.233 ms

Remote clock offset: -1.44 ms

Below is generated by plot.py at 2019-03-09 04:46:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.52 Mbit/s

95th percentile per-packet one-way delay: 66.461 ms

Loss rate: 36.75%

-- Flow 1:

Average throughput: 30.03 Mbit/s

95th percentile per-packet one-way delay: 65.581 ms

Loss rate: 25.65%

-- Flow 2:

Average throughput: 29.55 Mbit/s

95th percentile per-packet one-way delay: 66.836 ms

Loss rate: 36.96%

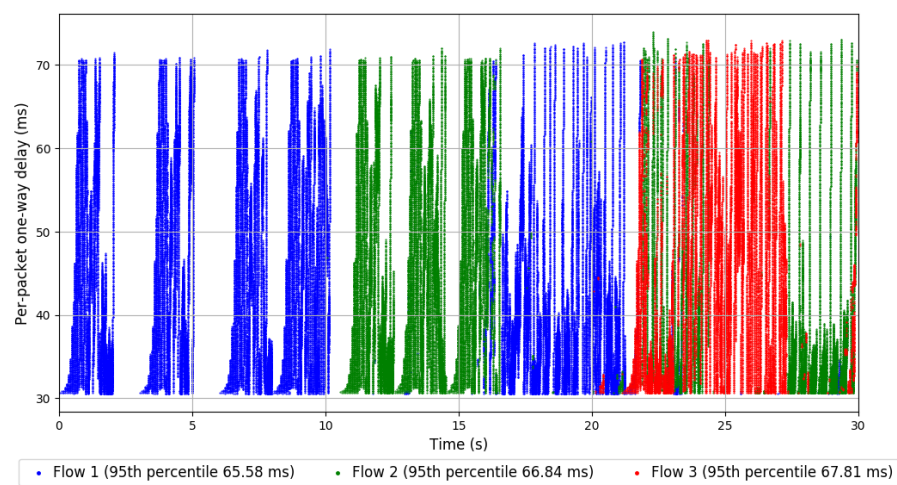
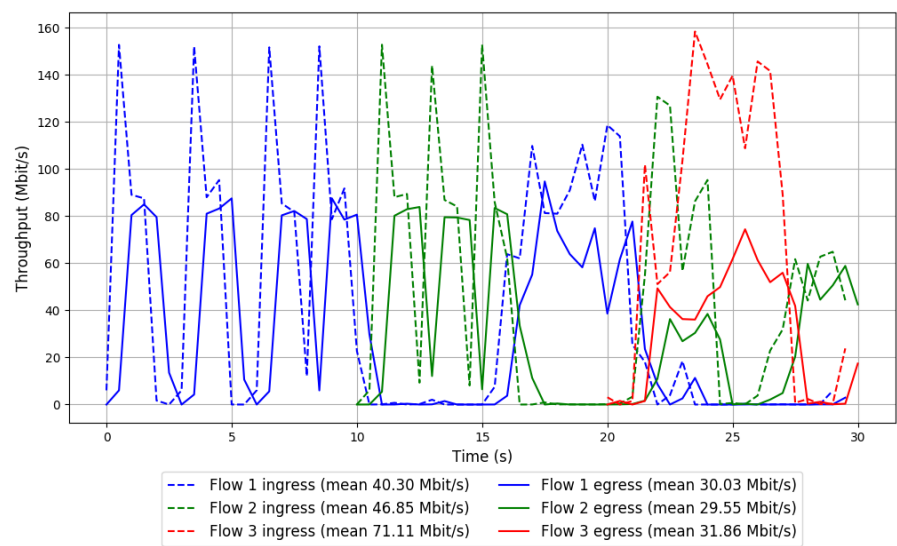
-- Flow 3:

Average throughput: 31.86 Mbit/s

95th percentile per-packet one-way delay: 67.813 ms

Loss rate: 55.17%

Run 2: Report of Verus — Data Link

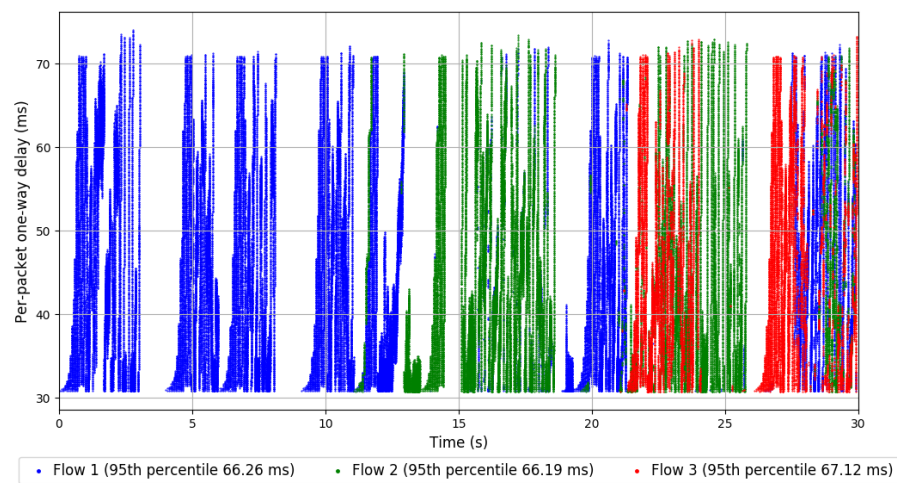
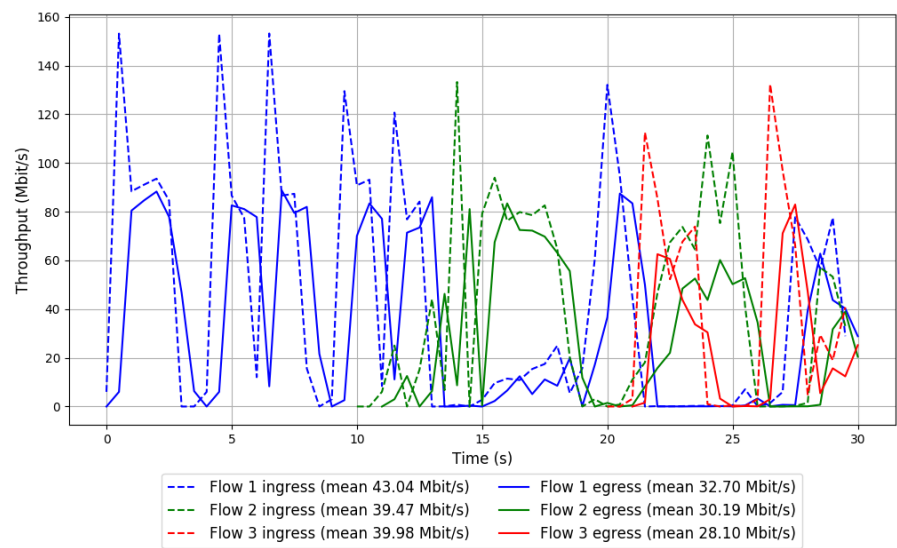


Run 3: Statistics of Verus

Start at: 2019-03-09 03:40:15
End at: 2019-03-09 03:40:45
Local clock offset: 0.206 ms
Remote clock offset: -0.356 ms

Below is generated by plot.py at 2019-03-09 04:46:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 66.396 ms
Loss rate: 27.18%
-- Flow 1:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 66.262 ms
Loss rate: 24.04%
-- Flow 2:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 66.193 ms
Loss rate: 27.53%
-- Flow 3:
Average throughput: 28.10 Mbit/s
95th percentile per-packet one-way delay: 67.120 ms
Loss rate: 36.73%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-03-09 04:06:13

End at: 2019-03-09 04:06:43

Local clock offset: 0.254 ms

Remote clock offset: 0.172 ms

Below is generated by plot.py at 2019-03-09 04:46:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.52 Mbit/s

95th percentile per-packet one-way delay: 66.759 ms

Loss rate: 34.45%

-- Flow 1:

Average throughput: 38.66 Mbit/s

95th percentile per-packet one-way delay: 66.658 ms

Loss rate: 32.47%

-- Flow 2:

Average throughput: 30.22 Mbit/s

95th percentile per-packet one-way delay: 67.141 ms

Loss rate: 37.55%

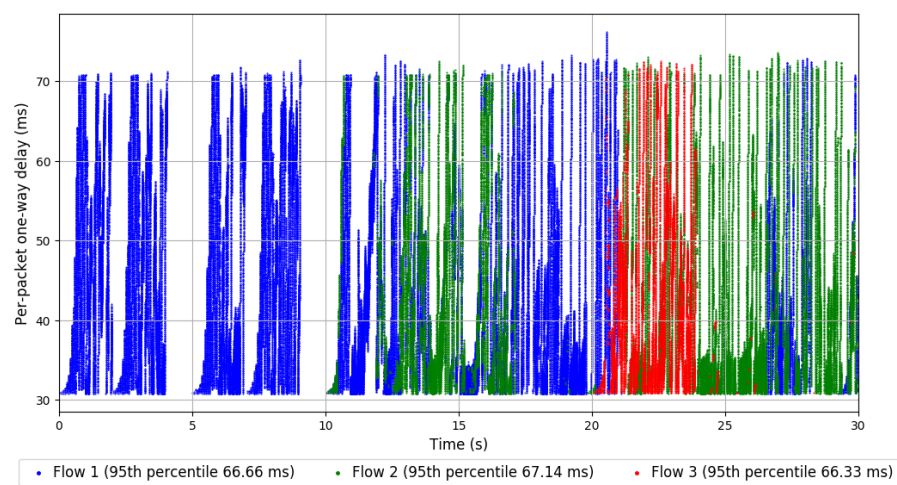
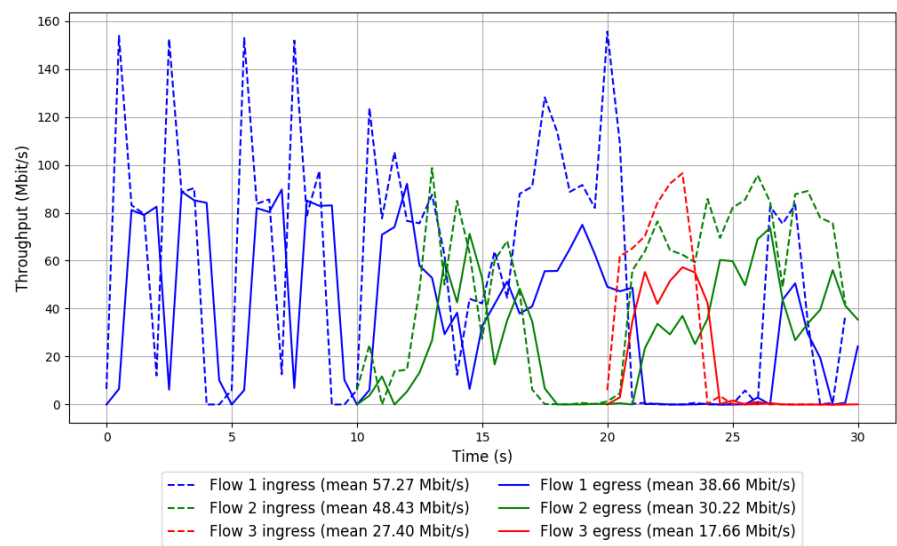
-- Flow 3:

Average throughput: 17.66 Mbit/s

95th percentile per-packet one-way delay: 66.327 ms

Loss rate: 35.99%

Run 4: Report of Verus — Data Link

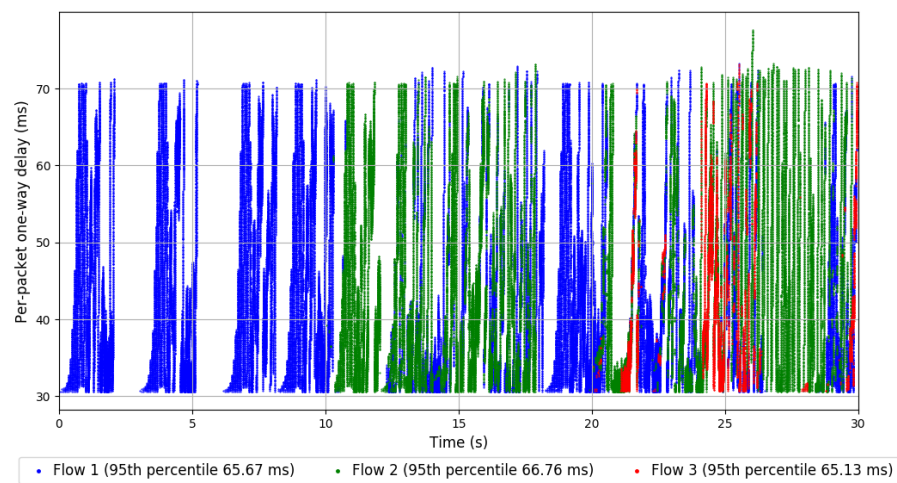
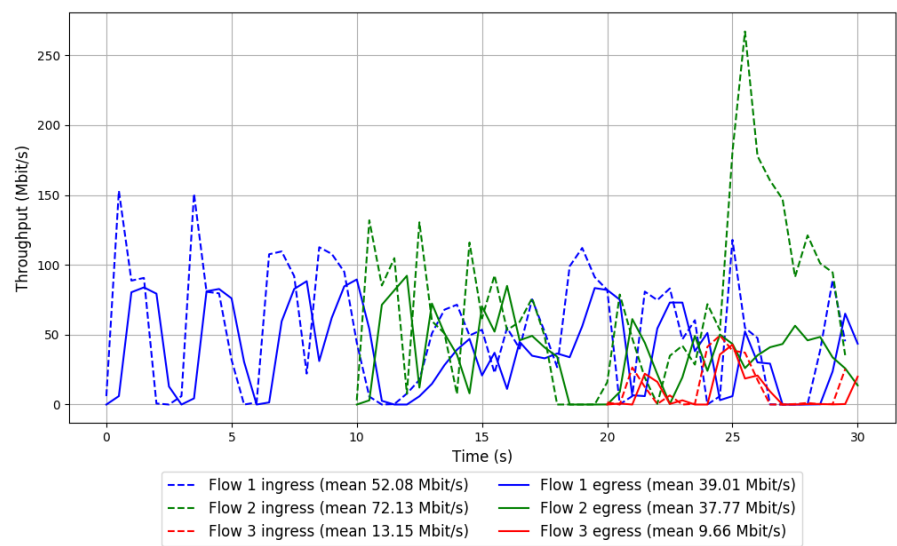


Run 5: Statistics of Verus

Start at: 2019-03-09 04:32:36
End at: 2019-03-09 04:33:06
Local clock offset: 0.135 ms
Remote clock offset: -0.285 ms

Below is generated by plot.py at 2019-03-09 04:46:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 67.23 Mbit/s
95th percentile per-packet one-way delay: 66.053 ms
Loss rate: 35.45%
-- Flow 1:
Average throughput: 39.01 Mbit/s
95th percentile per-packet one-way delay: 65.674 ms
Loss rate: 25.06%
-- Flow 2:
Average throughput: 37.77 Mbit/s
95th percentile per-packet one-way delay: 66.761 ms
Loss rate: 47.60%
-- Flow 3:
Average throughput: 9.66 Mbit/s
95th percentile per-packet one-way delay: 65.130 ms
Loss rate: 26.41%

Run 5: Report of Verus — Data Link

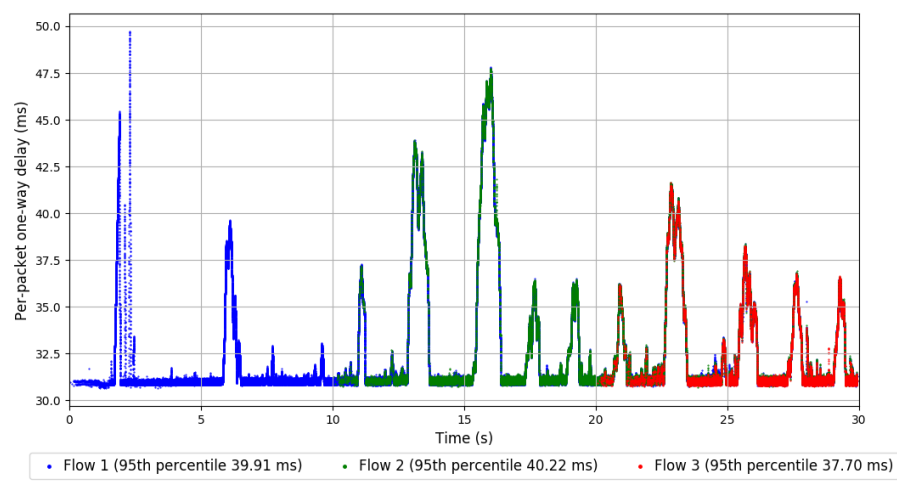
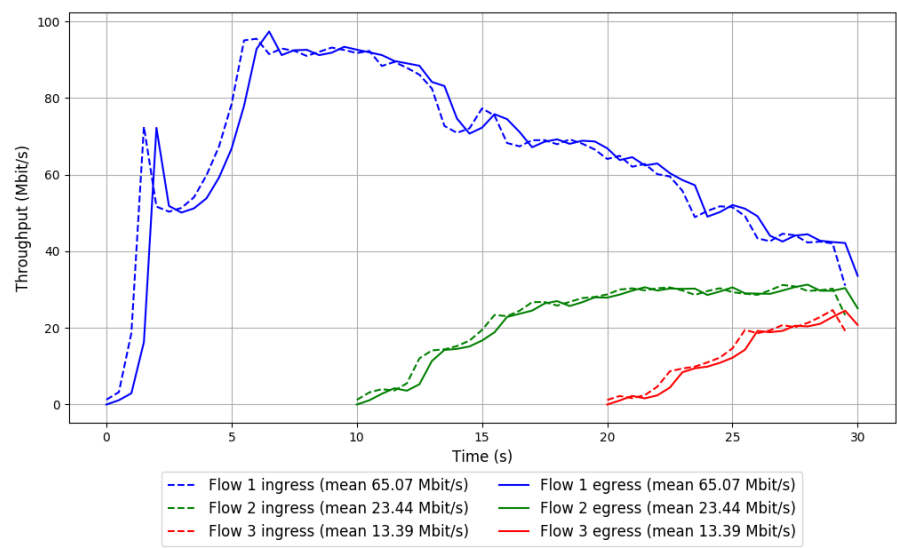


Run 1: Statistics of PCC-Vivace

Start at: 2019-03-09 02:31:07
End at: 2019-03-09 02:31:37
Local clock offset: 0.467 ms
Remote clock offset: -3.577 ms

Below is generated by plot.py at 2019-03-09 04:46:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.08 Mbit/s
95th percentile per-packet one-way delay: 39.821 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.07 Mbit/s
95th percentile per-packet one-way delay: 39.907 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.44 Mbit/s
95th percentile per-packet one-way delay: 40.218 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.39 Mbit/s
95th percentile per-packet one-way delay: 37.698 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

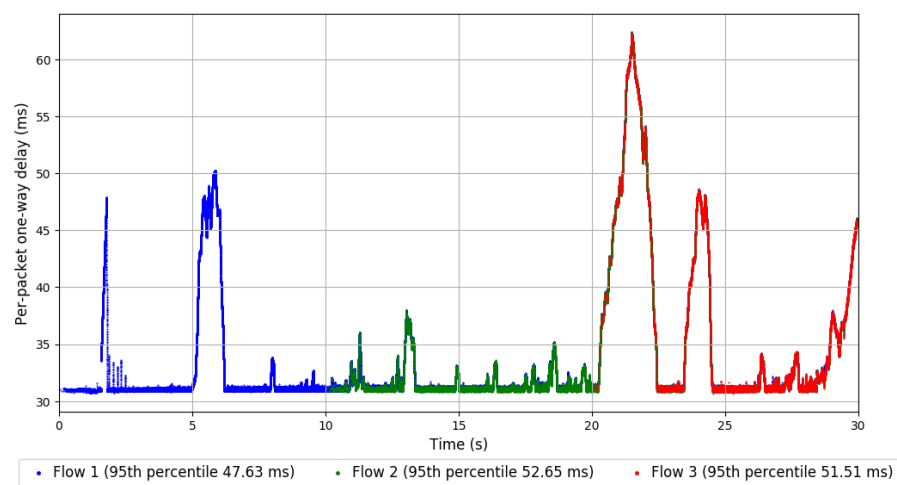
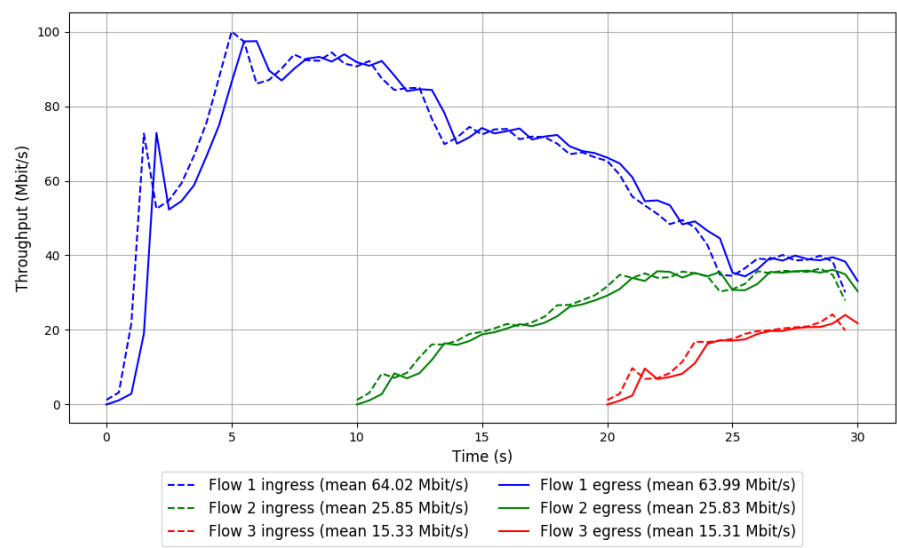


Run 2: Statistics of PCC-Vivace

Start at: 2019-03-09 02:59:27
End at: 2019-03-09 02:59:57
Local clock offset: 0.279 ms
Remote clock offset: -1.935 ms

Below is generated by plot.py at 2019-03-09 04:46:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.24 Mbit/s
95th percentile per-packet one-way delay: 48.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 47.635 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.83 Mbit/s
95th percentile per-packet one-way delay: 52.648 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.31 Mbit/s
95th percentile per-packet one-way delay: 51.509 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

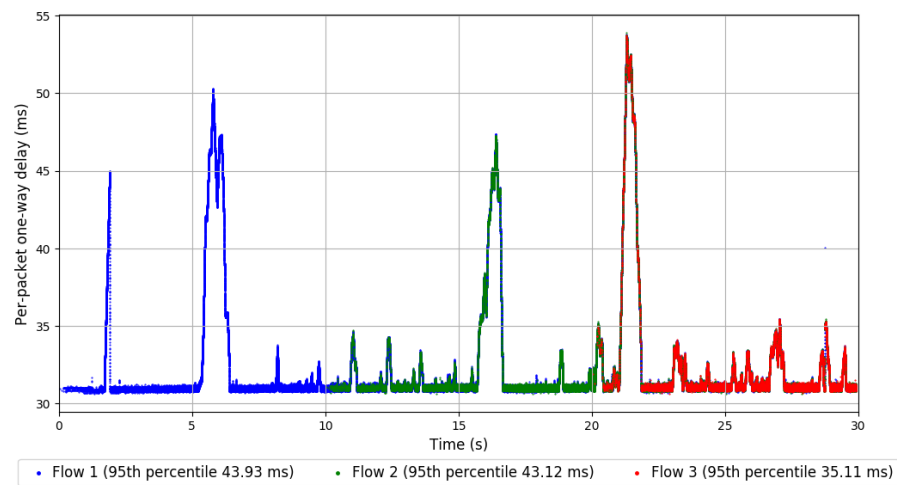
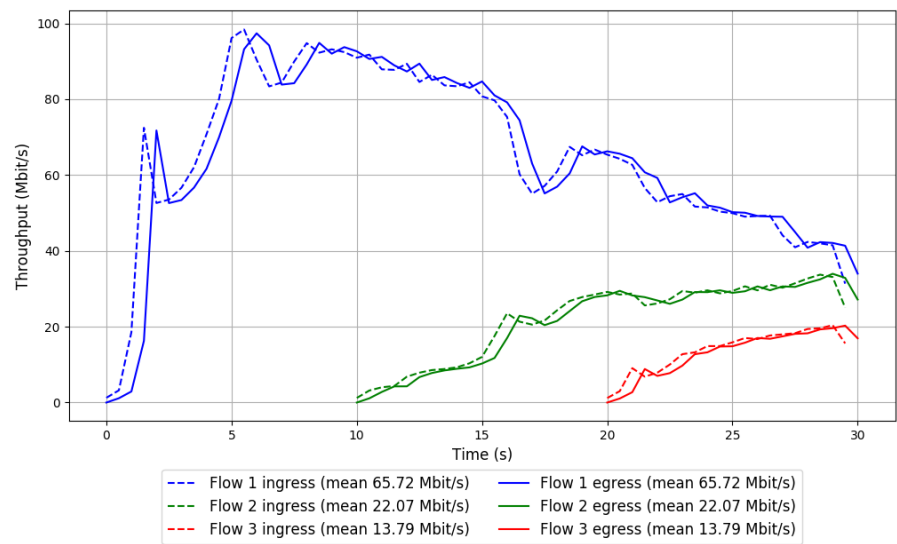


Run 3: Statistics of PCC-Vivace

Start at: 2019-03-09 03:25:52
End at: 2019-03-09 03:26:22
Local clock offset: 0.316 ms
Remote clock offset: -0.707 ms

Below is generated by plot.py at 2019-03-09 04:46:53
Datalink statistics
-- Total of 3 flows:
Average throughput: 84.95 Mbit/s
95th percentile per-packet one-way delay: 43.651 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.72 Mbit/s
95th percentile per-packet one-way delay: 43.931 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.07 Mbit/s
95th percentile per-packet one-way delay: 43.119 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.79 Mbit/s
95th percentile per-packet one-way delay: 35.113 ms
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

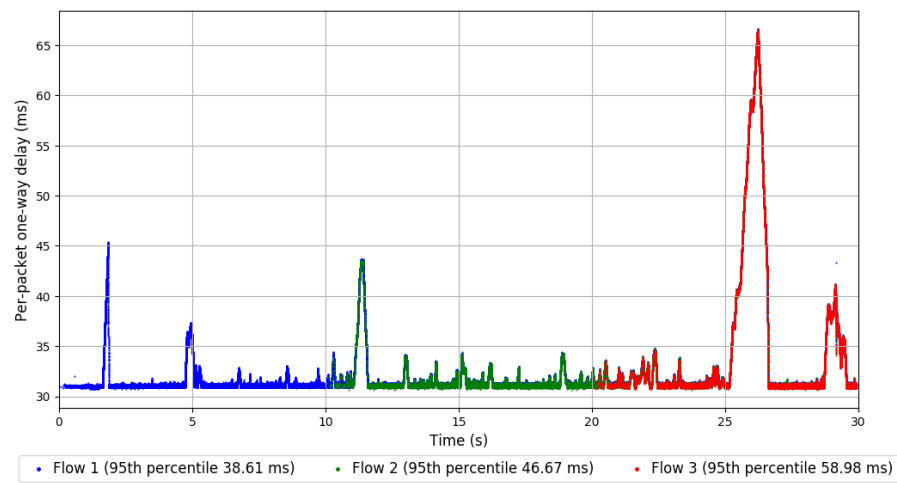
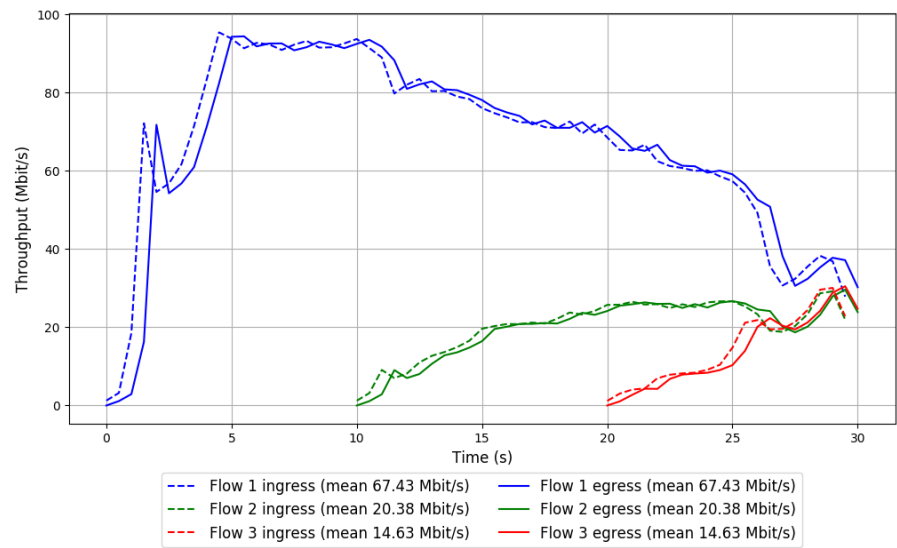


Run 4: Statistics of PCC-Vivace

Start at: 2019-03-09 03:52:19
End at: 2019-03-09 03:52:49
Local clock offset: 0.291 ms
Remote clock offset: -0.057 ms

Below is generated by plot.py at 2019-03-09 04:46:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.82 Mbit/s
95th percentile per-packet one-way delay: 40.821 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 67.43 Mbit/s
95th percentile per-packet one-way delay: 38.614 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.38 Mbit/s
95th percentile per-packet one-way delay: 46.666 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.63 Mbit/s
95th percentile per-packet one-way delay: 58.978 ms
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-03-09 04:18:33

End at: 2019-03-09 04:19:03

Local clock offset: 0.217 ms

Remote clock offset: 0.145 ms

Below is generated by plot.py at 2019-03-09 04:46:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.30 Mbit/s

95th percentile per-packet one-way delay: 42.717 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.61 Mbit/s

95th percentile per-packet one-way delay: 41.487 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 27.91 Mbit/s

95th percentile per-packet one-way delay: 44.880 ms

Loss rate: 0.00%

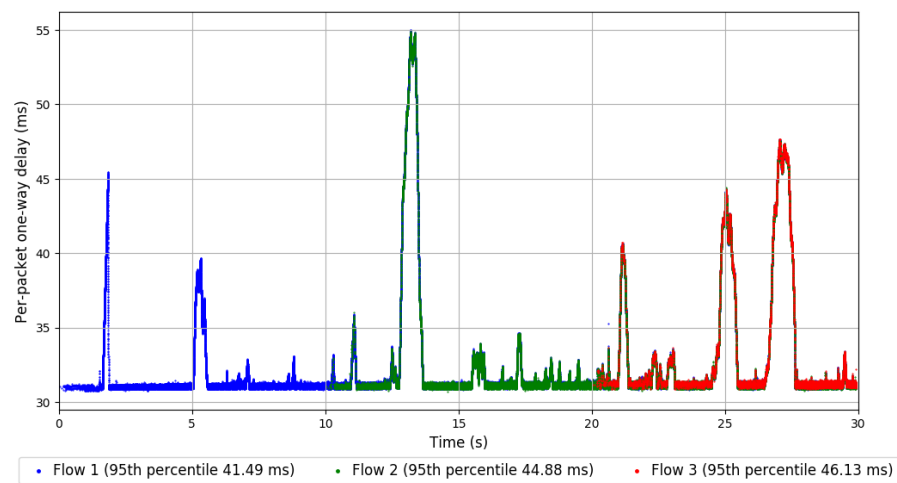
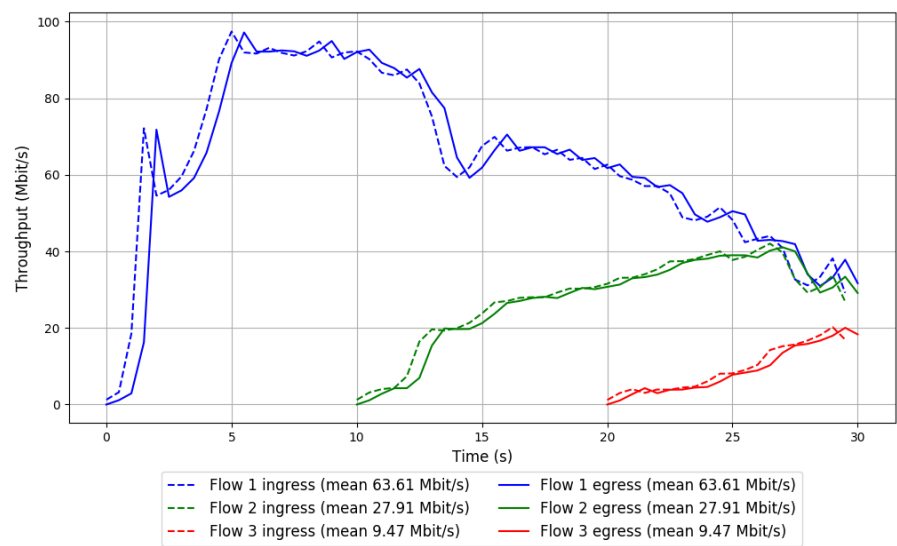
-- Flow 3:

Average throughput: 9.47 Mbit/s

95th percentile per-packet one-way delay: 46.129 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

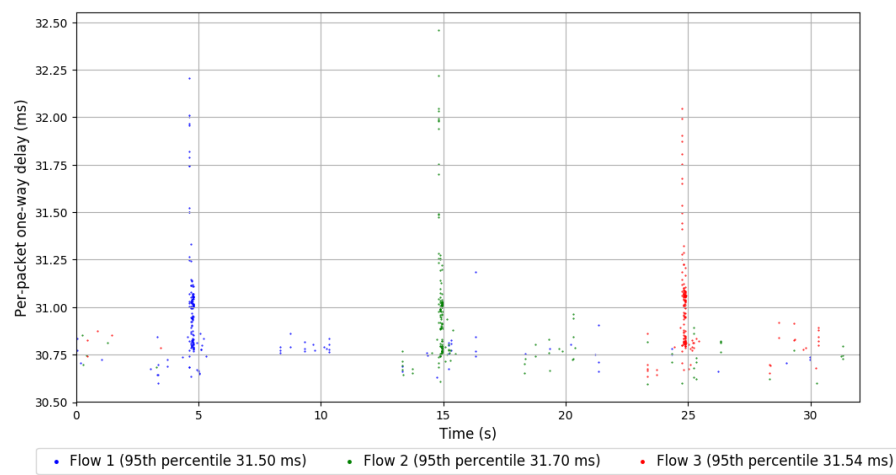
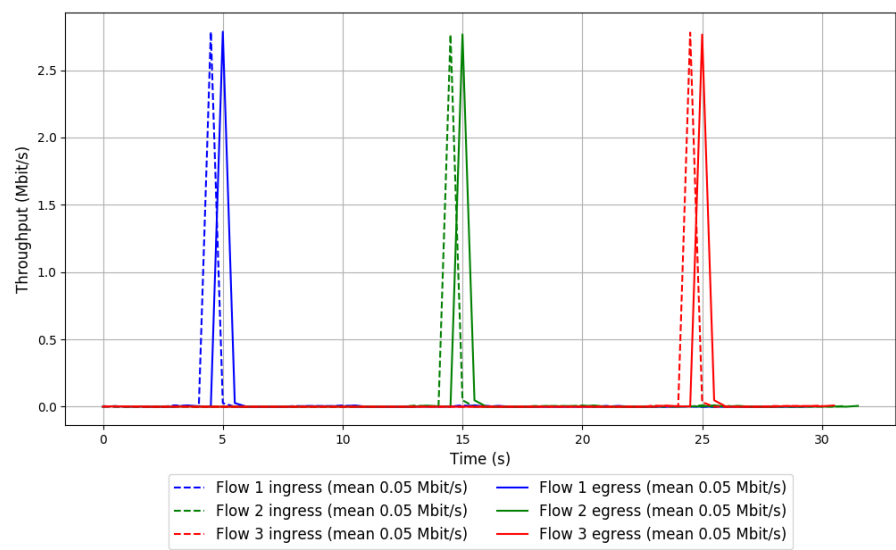


Run 1: Statistics of WebRTC media

Start at: 2019-03-09 02:19:35
End at: 2019-03-09 02:20:05
Local clock offset: 0.6 ms
Remote clock offset: -4.238 ms

Below is generated by plot.py at 2019-03-09 04:46:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 31.536 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.502 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.699 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.536 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-03-09 02:48:24

End at: 2019-03-09 02:48:54

Local clock offset: 0.362 ms

Remote clock offset: -2.49 ms

Below is generated by plot.py at 2019-03-09 04:46:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 31.665 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.575 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.665 ms

Loss rate: 0.00%

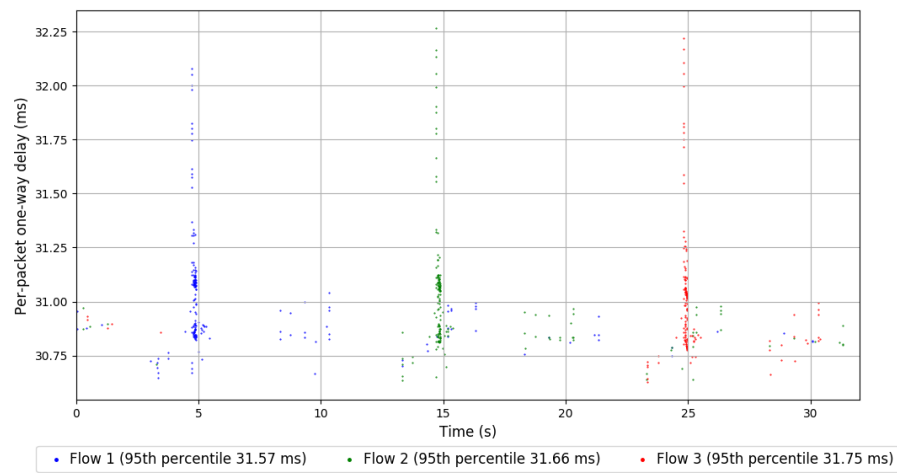
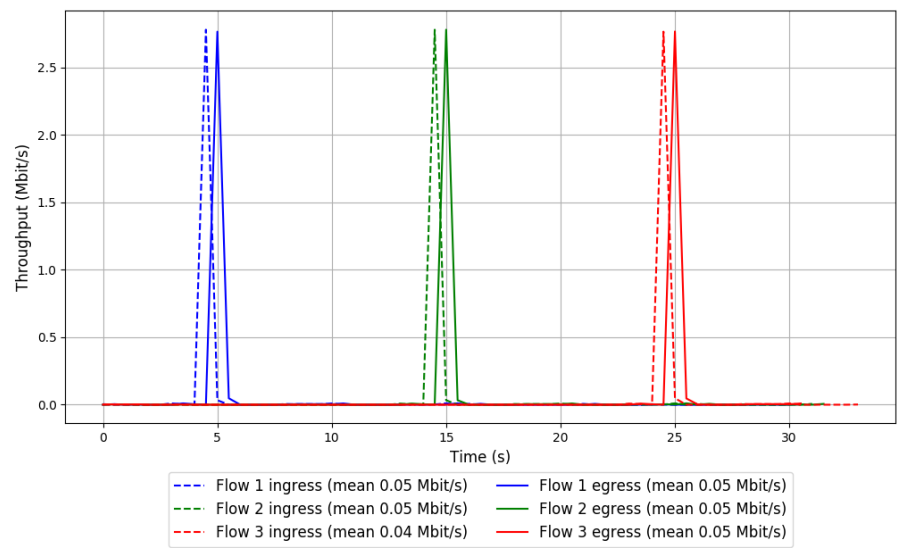
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.753 ms

Loss rate: 0.05%

Run 2: Report of WebRTC media — Data Link

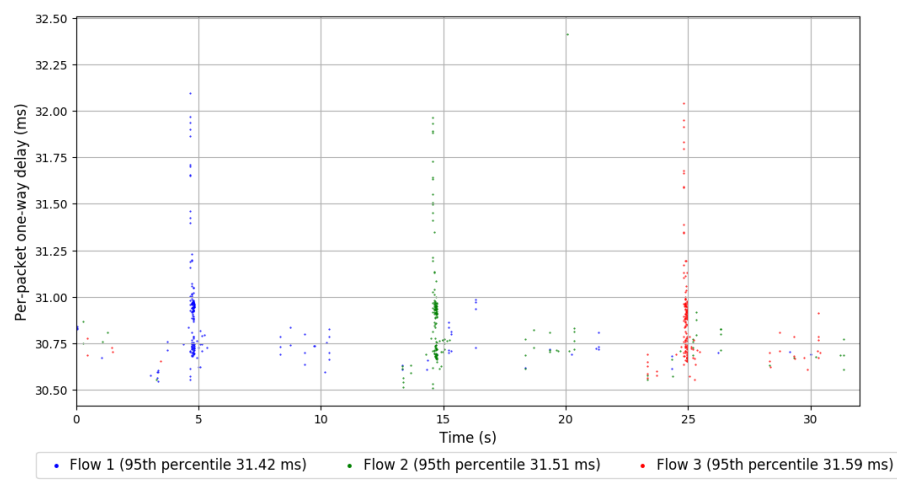
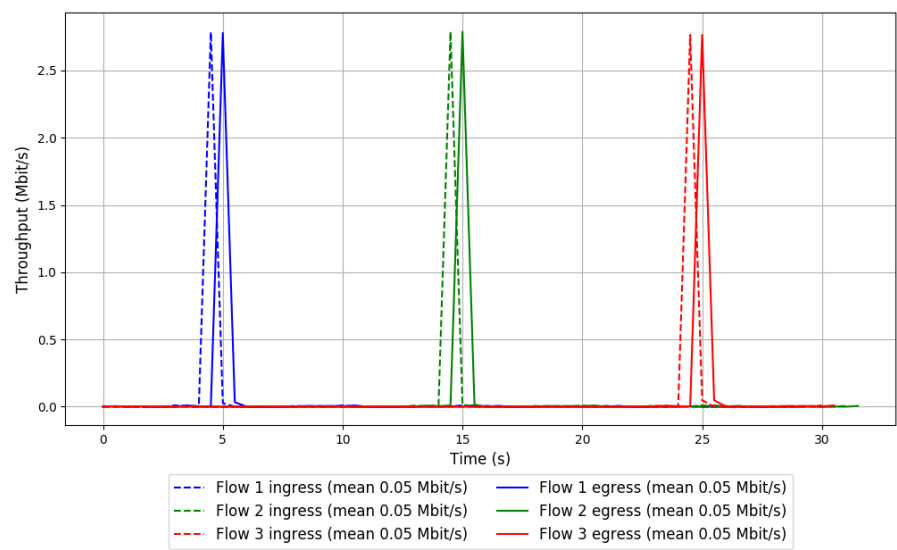


Run 3: Statistics of WebRTC media

Start at: 2019-03-09 03:14:43
End at: 2019-03-09 03:15:13
Local clock offset: 0.204 ms
Remote clock offset: -1.347 ms

Below is generated by plot.py at 2019-03-09 04:46:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 31.507 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.424 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.507 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.586 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

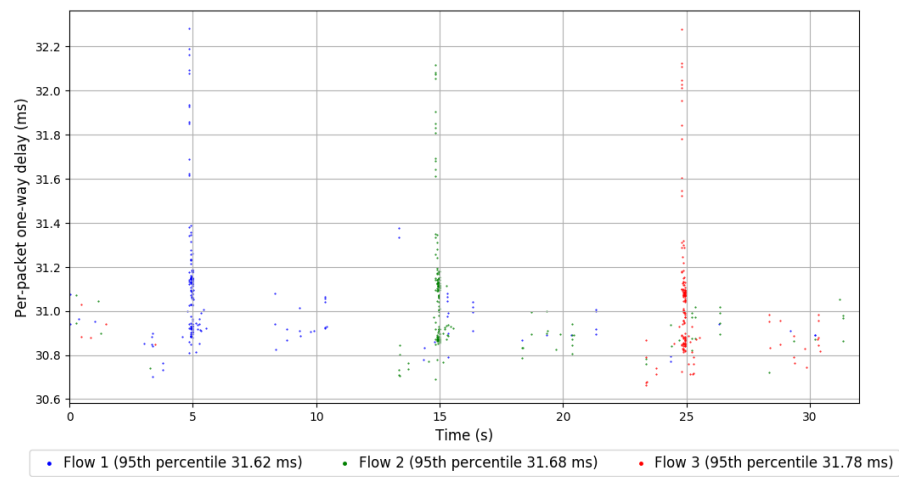
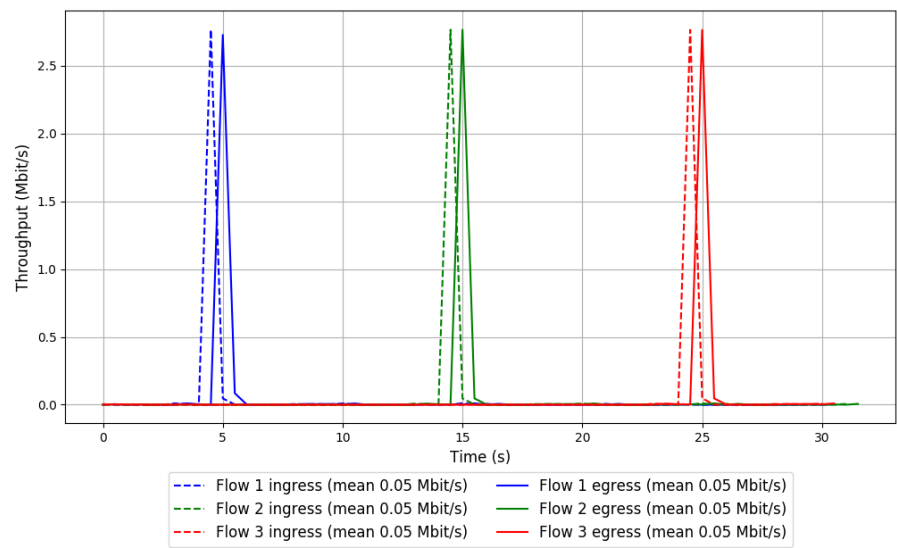


Run 4: Statistics of WebRTC media

Start at: 2019-03-09 03:41:32
End at: 2019-03-09 03:42:02
Local clock offset: 0.2 ms
Remote clock offset: -0.292 ms

Below is generated by plot.py at 2019-03-09 04:46:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 31.687 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.621 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.682 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 31.782 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-03-09 04:07:33

End at: 2019-03-09 04:08:03

Local clock offset: 0.241 ms

Remote clock offset: 0.167 ms

Below is generated by plot.py at 2019-03-09 04:46:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 31.613 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.571 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.567 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 31.693 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

