

Pantheon Report

Generated at 2019-01-19 15:13:57 (UTC).

Data path: Stanford on `eno1` (*remote*) → AWS California 1 on `ens5` (*local*).

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

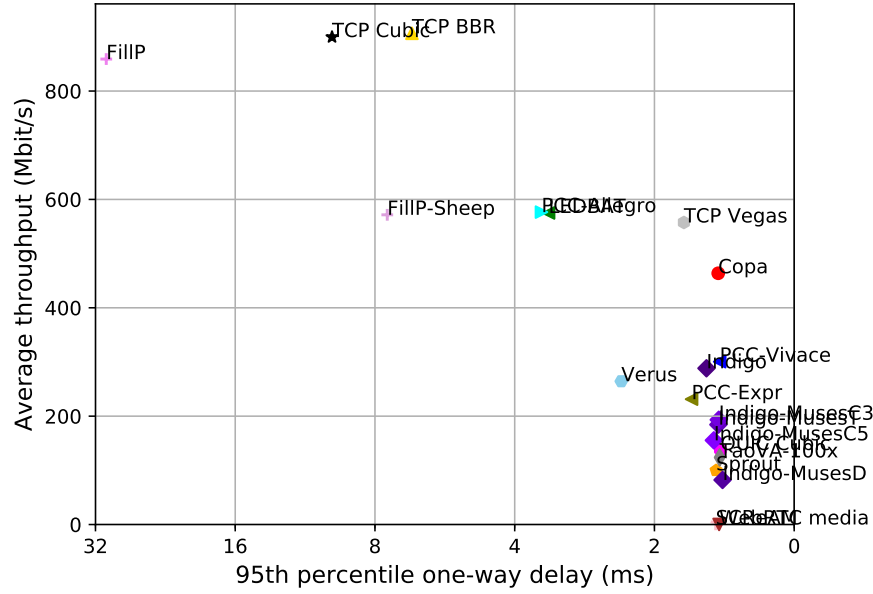
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

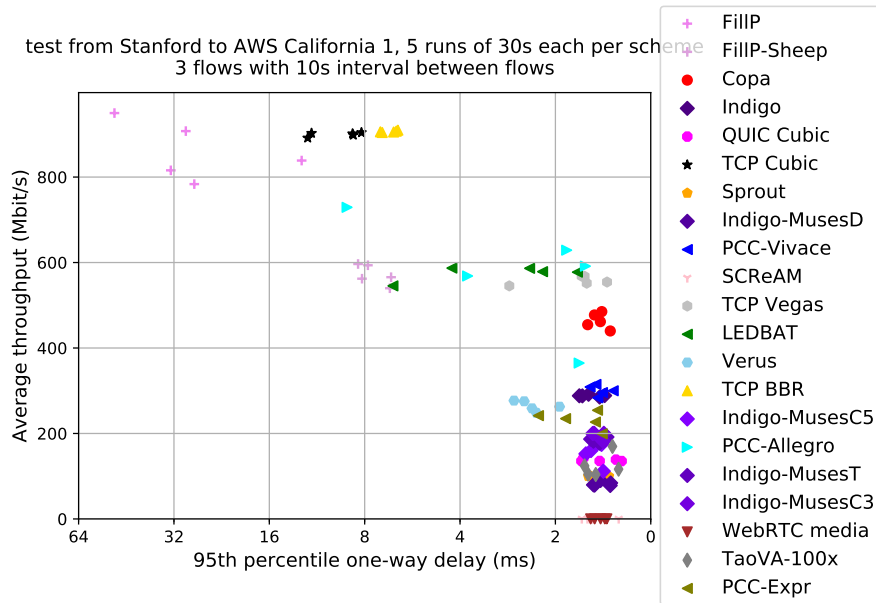
```
branch: muses @ c80a283586bf7b0cc1fe08c69c8f60d56498f81c
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ c3eee875824760ec5b2fd207fefe166e1afe2170
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 Stanford to AWS California 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from Stanford to AWS California 1, 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	527.95	404.42	328.65	6.58	6.11	6.46	0.01	0.03	0.06
Copa	5	278.57	216.55	123.46	1.13	1.02	1.00	0.00	0.00	0.03
TCP Cubic	5	524.75	402.44	321.17	10.33	7.57	7.77	0.03	0.03	0.08
FillP	5	529.13	407.91	177.47	26.78	30.64	21.07	0.08	0.10	0.14
FillP-Sheep	5	426.83	199.13	37.66	7.98	4.99	2.09	0.00	0.00	0.00
Indigo	5	155.03	142.92	116.53	1.20	1.27	1.39	0.01	0.01	0.01
Indigo-MusesC3	5	145.39	62.12	33.41	1.08	1.06	1.00	0.00	0.01	0.01
Indigo-MusesC5	5	103.38	66.95	36.60	1.15	1.15	1.03	0.00	0.00	0.02
Indigo-MusesD	5	59.69	27.00	19.92	1.03	1.00	0.99	0.00	0.00	0.04
Indigo-MusesT	5	134.19	64.91	35.05	1.09	1.07	1.01	0.00	0.00	0.02
LEDBAT	5	352.93	248.69	173.54	3.86	2.11	1.49	0.00	0.01	0.02
PCC-Allegro	5	466.52	92.69	147.34	4.21	1.43	1.63	0.00	0.01	0.01
PCC-Expr	5	185.94	50.32	36.20	2.16	1.13	1.04	0.00	0.00	0.03
QUIC Cubic	5	75.22	66.17	55.01	1.06	1.02	1.00	0.00	0.01	0.02
SCReAM	5	0.22	0.22	0.22	1.12	1.11	1.09	0.00	0.00	0.14
Sprout	5	50.22	50.12	49.90	1.11	1.12	1.10	0.01	0.01	0.00
TaoVA-100x	5	82.31	30.42	64.02	1.06	1.04	1.01	0.01	0.00	0.02
TCP Vegas	5	276.76	287.01	269.15	1.73	1.42	1.26	0.00	0.01	0.01
Verus	5	168.82	105.42	76.69	2.41	4.46	1.47	0.00	0.01	0.01
PCC-Vivace	5	204.82	109.45	69.45	1.04	1.11	1.15	0.00	0.01	0.01
WebRTC media	5	0.05	0.05	0.05	1.09	1.05	1.06	0.00	0.01	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-01-19 11:37:35

End at: 2019-01-19 11:38:05

Local clock offset: -3.16 ms

Remote clock offset: 1.194 ms

Below is generated by plot.py at 2019-01-19 14:25:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 905.88 Mbit/s

95th percentile per-packet one-way delay: 7.136 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 527.10 Mbit/s

95th percentile per-packet one-way delay: 7.267 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 404.34 Mbit/s

95th percentile per-packet one-way delay: 6.048 ms

Loss rate: 0.02%

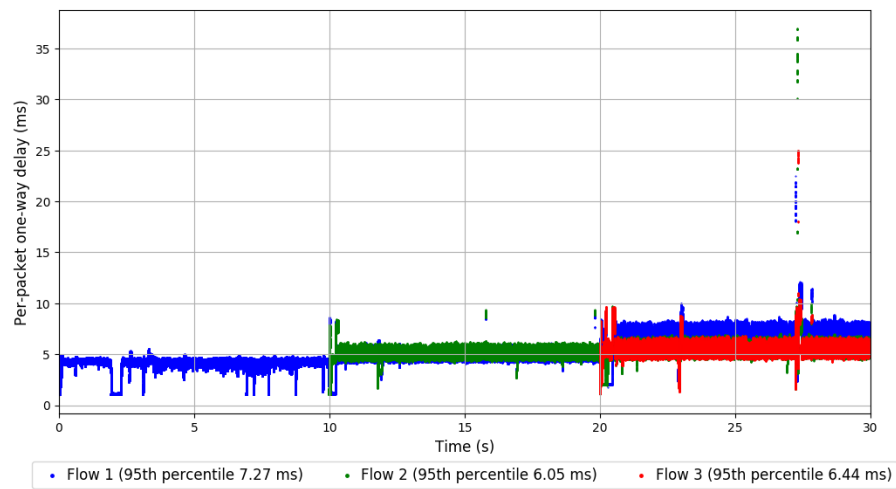
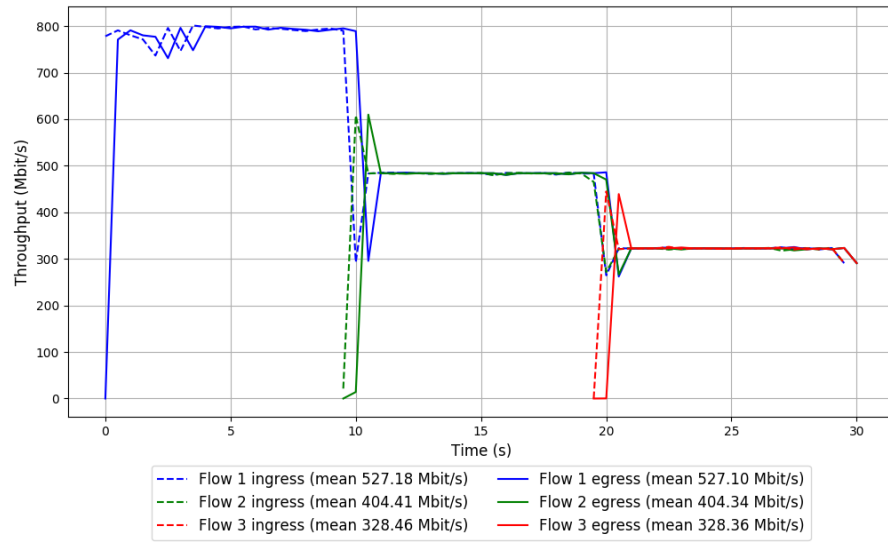
-- Flow 3:

Average throughput: 328.36 Mbit/s

95th percentile per-packet one-way delay: 6.439 ms

Loss rate: 0.06%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-01-19 12:07:47

End at: 2019-01-19 12:08:17

Local clock offset: 3.243 ms

Remote clock offset: 3.791 ms

Below is generated by plot.py at 2019-01-19 14:25:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 907.48 Mbit/s

95th percentile per-packet one-way delay: 6.358 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 529.08 Mbit/s

95th percentile per-packet one-way delay: 6.405 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 404.40 Mbit/s

95th percentile per-packet one-way delay: 6.317 ms

Loss rate: 0.03%

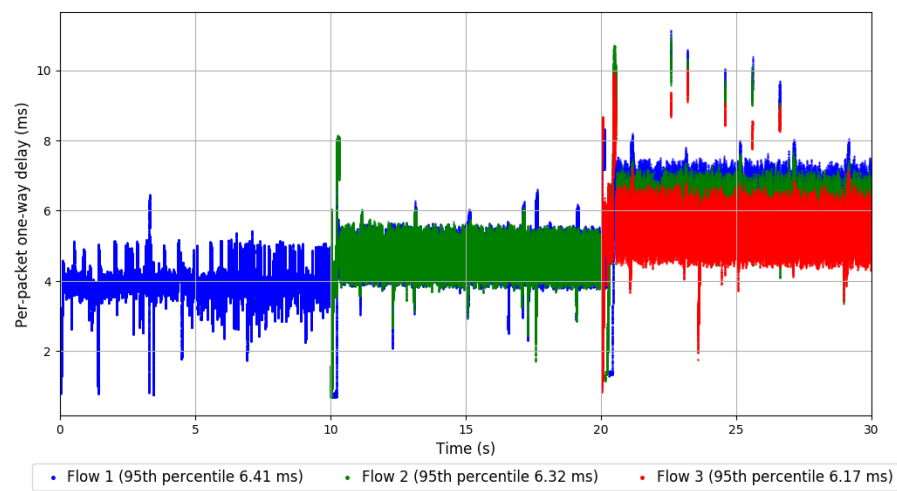
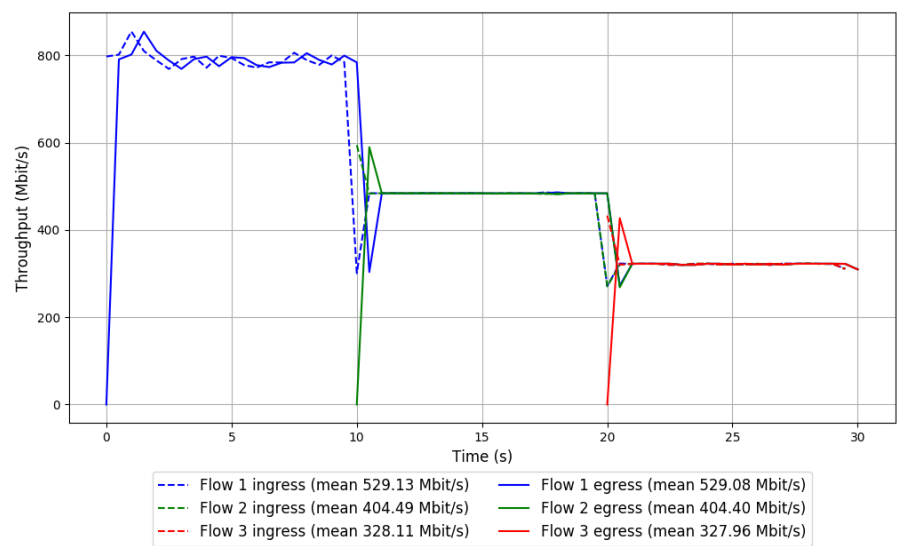
-- Flow 3:

Average throughput: 327.96 Mbit/s

95th percentile per-packet one-way delay: 6.174 ms

Loss rate: 0.06%

Run 2: Report of TCP BBR — Data Link

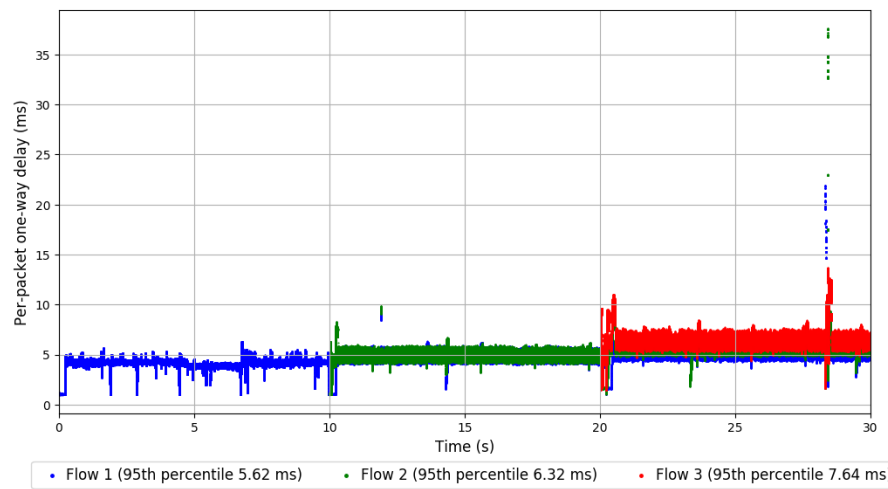
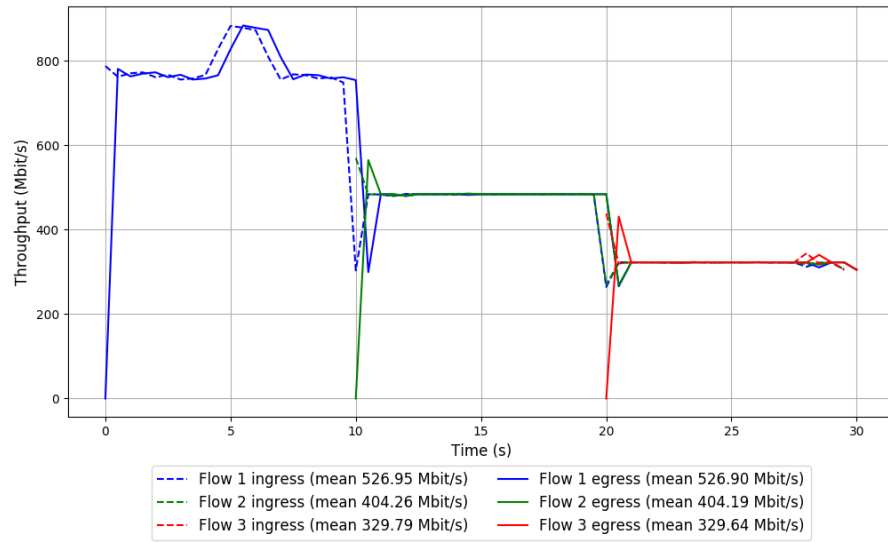


Run 3: Statistics of TCP BBR

Start at: 2019-01-19 12:38:06
End at: 2019-01-19 12:38:36
Local clock offset: 0.568 ms
Remote clock offset: -0.501 ms

Below is generated by plot.py at 2019-01-19 14:25:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 905.48 Mbit/s
95th percentile per-packet one-way delay: 6.481 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 526.90 Mbit/s
95th percentile per-packet one-way delay: 5.618 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 404.19 Mbit/s
95th percentile per-packet one-way delay: 6.322 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 329.64 Mbit/s
95th percentile per-packet one-way delay: 7.642 ms
Loss rate: 0.07%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-01-19 13:08:28

End at: 2019-01-19 13:08:58

Local clock offset: 0.047 ms

Remote clock offset: 3.98 ms

Below is generated by plot.py at 2019-01-19 14:25:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 904.31 Mbit/s

95th percentile per-packet one-way delay: 7.041 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 525.50 Mbit/s

95th percentile per-packet one-way delay: 7.201 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 404.73 Mbit/s

95th percentile per-packet one-way delay: 5.838 ms

Loss rate: 0.02%

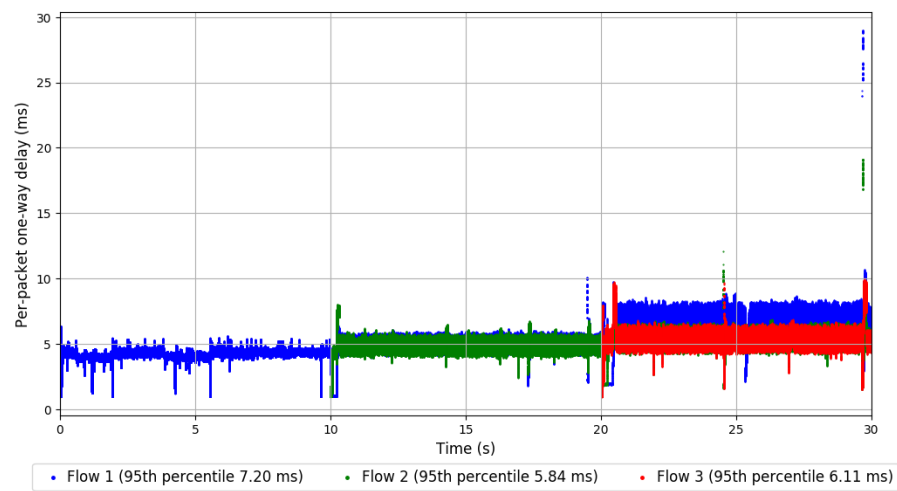
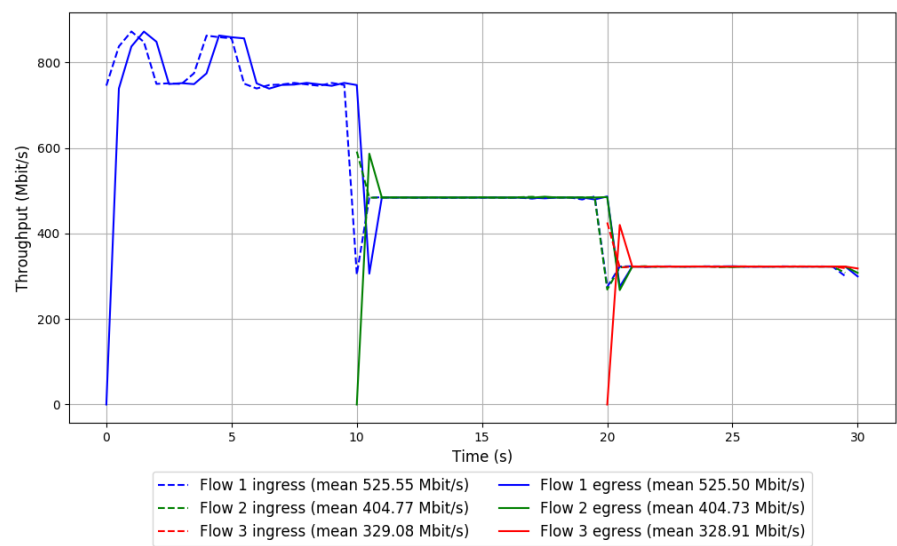
-- Flow 3:

Average throughput: 328.91 Mbit/s

95th percentile per-packet one-way delay: 6.105 ms

Loss rate: 0.06%

Run 4: Report of TCP BBR — Data Link

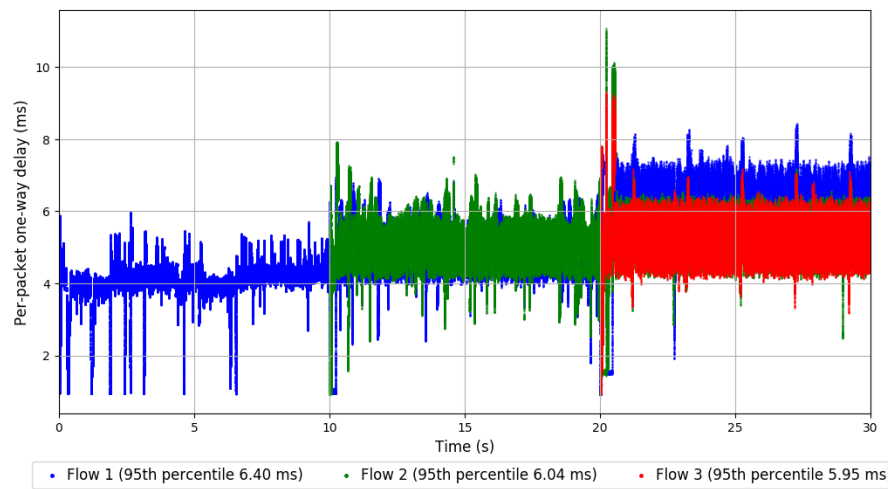
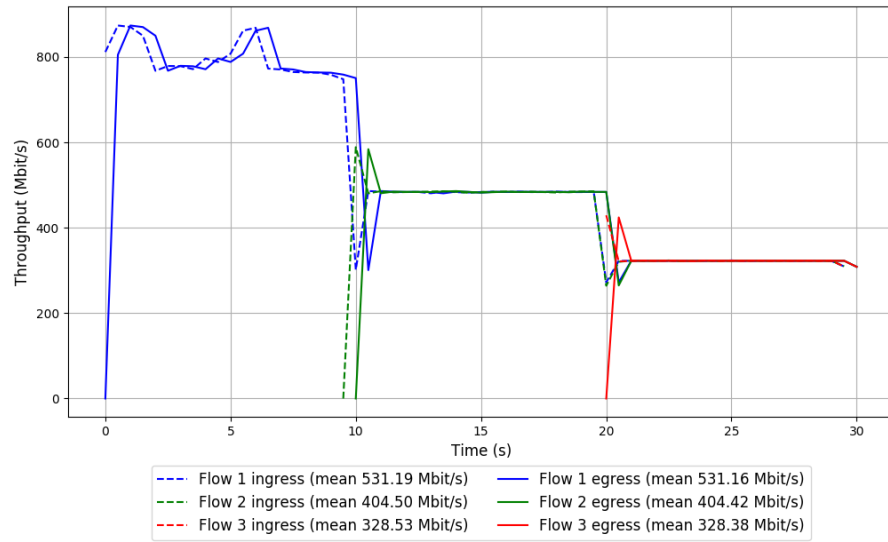


Run 5: Statistics of TCP BBR

Start at: 2019-01-19 13:38:55
End at: 2019-01-19 13:39:25
Local clock offset: 3.442 ms
Remote clock offset: -0.411 ms

Below is generated by plot.py at 2019-01-19 14:25:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 909.75 Mbit/s
95th percentile per-packet one-way delay: 6.285 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 531.16 Mbit/s
95th percentile per-packet one-way delay: 6.397 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 404.42 Mbit/s
95th percentile per-packet one-way delay: 6.041 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 328.38 Mbit/s
95th percentile per-packet one-way delay: 5.954 ms
Loss rate: 0.06%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-01-19 12:00:29

End at: 2019-01-19 12:00:59

Local clock offset: 1.731 ms

Remote clock offset: 4.638 ms

Below is generated by plot.py at 2019-01-19 14:25:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 439.88 Mbit/s

95th percentile per-packet one-way delay: 0.849 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 271.82 Mbit/s

95th percentile per-packet one-way delay: 0.874 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 204.75 Mbit/s

95th percentile per-packet one-way delay: 0.793 ms

Loss rate: 0.00%

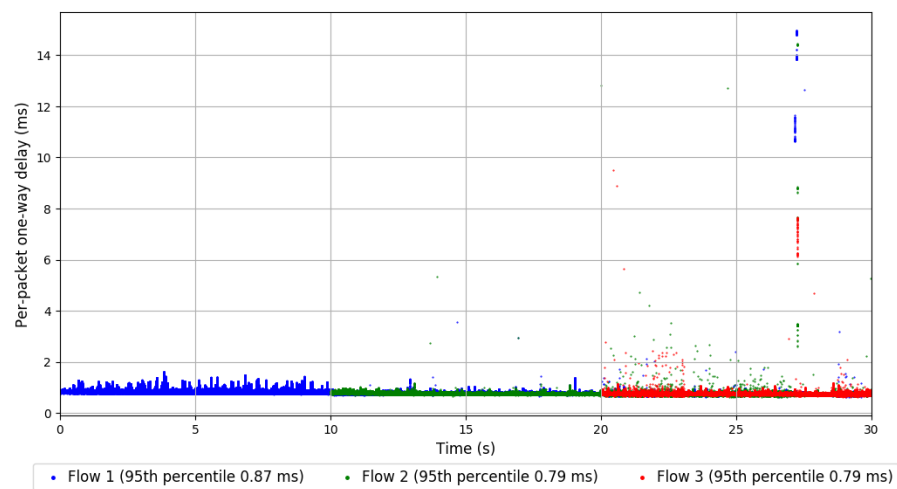
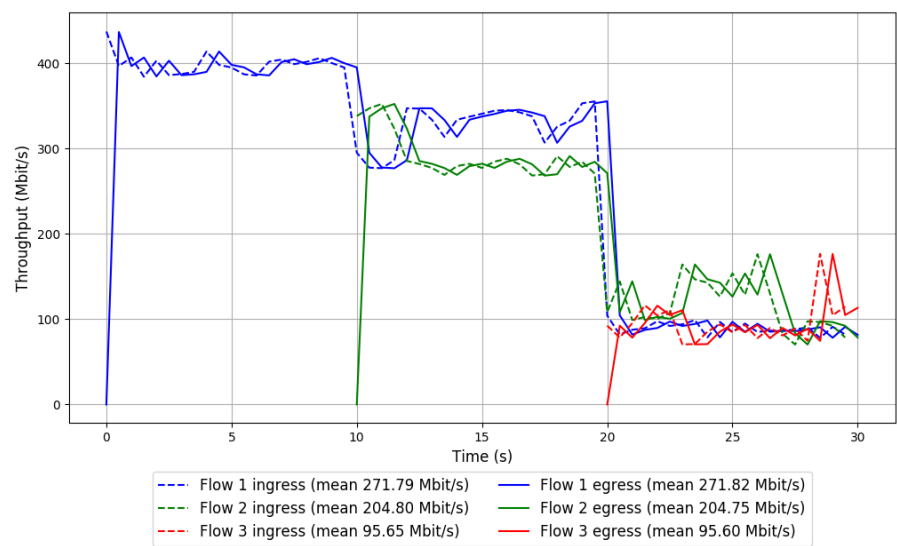
-- Flow 3:

Average throughput: 95.60 Mbit/s

95th percentile per-packet one-way delay: 0.791 ms

Loss rate: 0.08%

Run 1: Report of Copa — Data Link

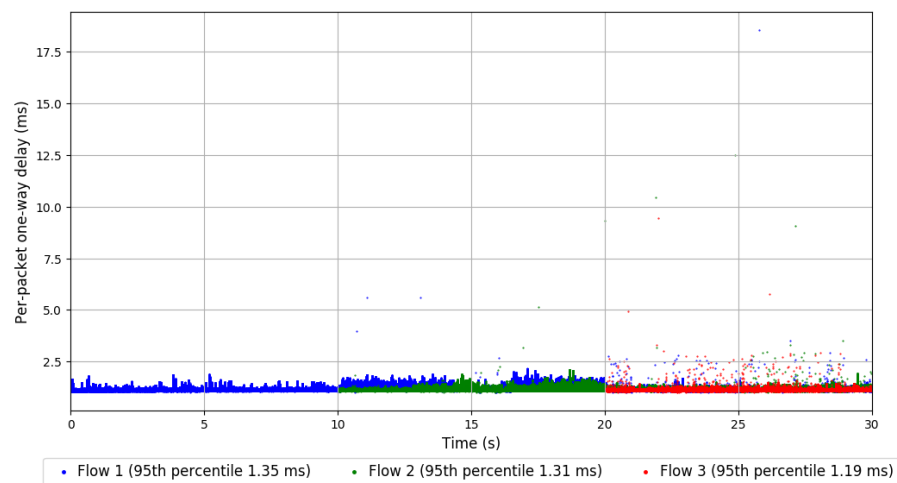
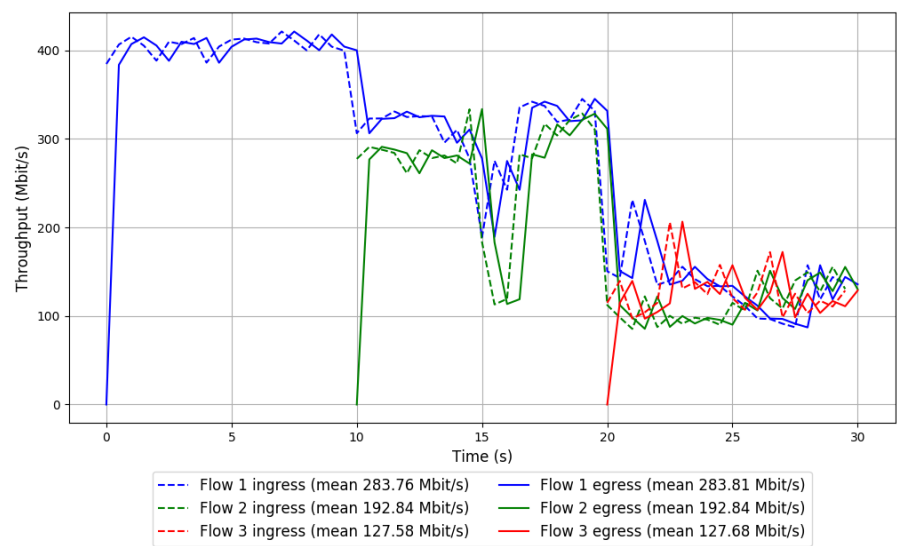


Run 2: Statistics of Copa

Start at: 2019-01-19 12:30:41
End at: 2019-01-19 12:31:11
Local clock offset: 1.277 ms
Remote clock offset: -0.34 ms

Below is generated by plot.py at 2019-01-19 14:25:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 454.54 Mbit/s
95th percentile per-packet one-way delay: 1.323 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 283.81 Mbit/s
95th percentile per-packet one-way delay: 1.352 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.84 Mbit/s
95th percentile per-packet one-way delay: 1.307 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 127.68 Mbit/s
95th percentile per-packet one-way delay: 1.187 ms
Loss rate: 0.00%

Run 2: Report of Copa — Data Link

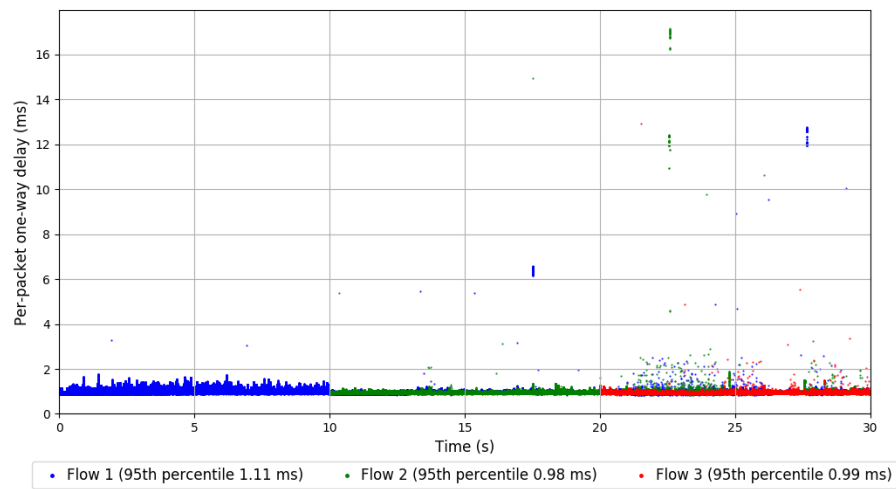
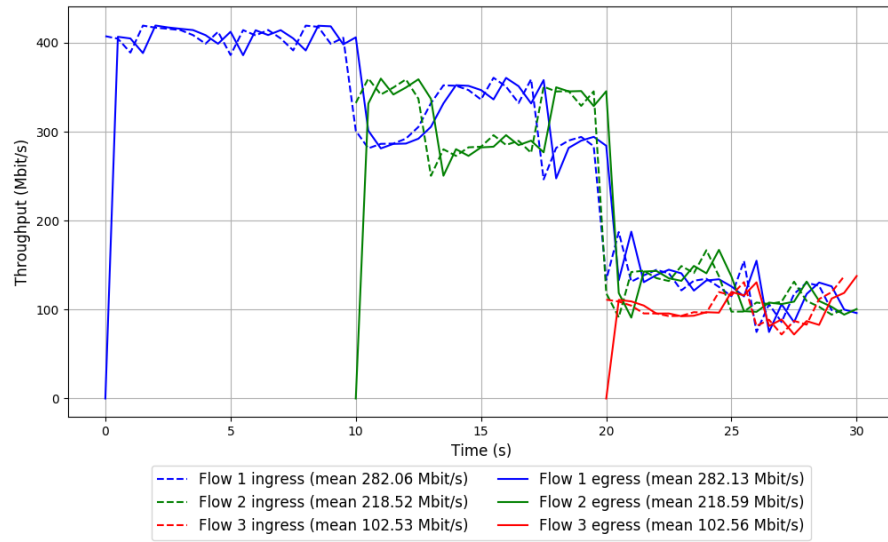


Run 3: Statistics of Copa

Start at: 2019-01-19 13:01:00
End at: 2019-01-19 13:01:30
Local clock offset: 0.086 ms
Remote clock offset: 3.551 ms

Below is generated by plot.py at 2019-01-19 14:25:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 461.68 Mbit/s
95th percentile per-packet one-way delay: 1.057 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 282.13 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 218.59 Mbit/s
95th percentile per-packet one-way delay: 0.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 102.56 Mbit/s
95th percentile per-packet one-way delay: 0.994 ms
Loss rate: 0.03%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-01-19 13:31:26

End at: 2019-01-19 13:31:56

Local clock offset: 2.718 ms

Remote clock offset: 0.037 ms

Below is generated by plot.py at 2019-01-19 14:34:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 485.16 Mbit/s

95th percentile per-packet one-way delay: 1.027 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 284.48 Mbit/s

95th percentile per-packet one-way delay: 1.082 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 235.45 Mbit/s

95th percentile per-packet one-way delay: 0.915 ms

Loss rate: 0.00%

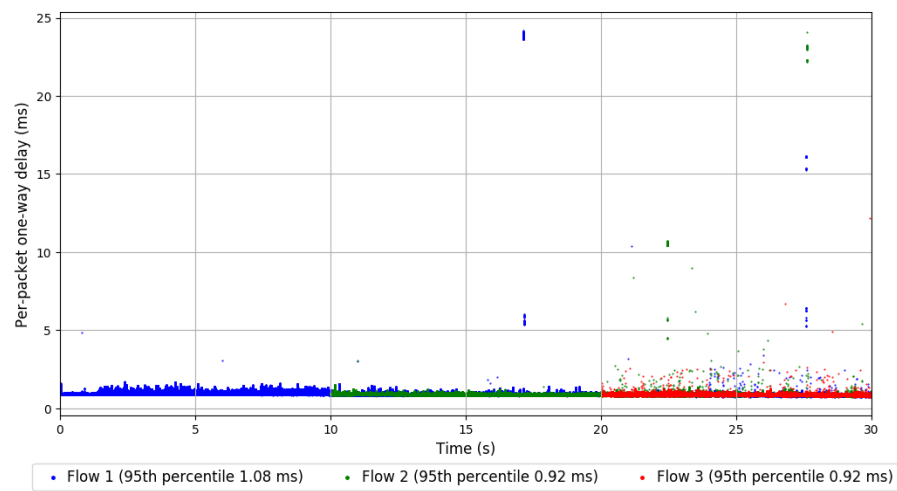
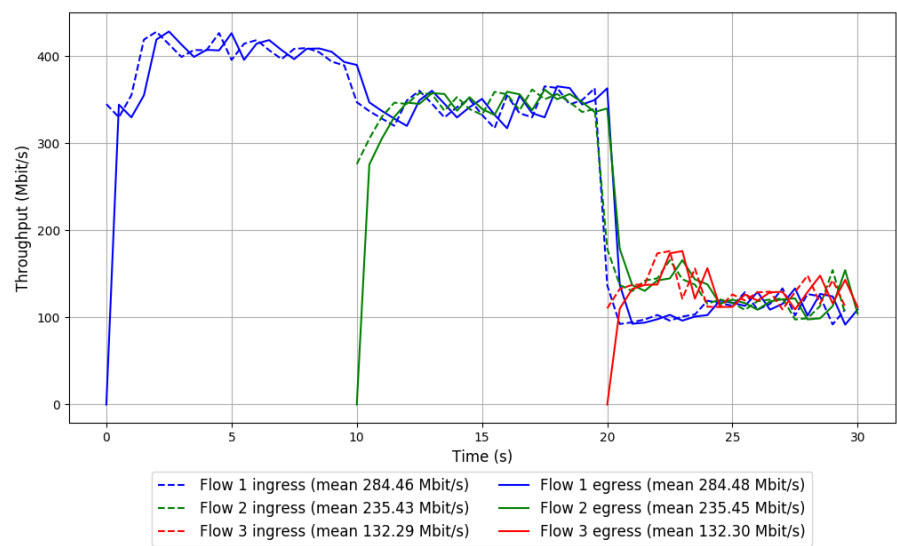
-- Flow 3:

Average throughput: 132.30 Mbit/s

95th percentile per-packet one-way delay: 0.920 ms

Loss rate: 0.02%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-01-19 14:01:54

End at: 2019-01-19 14:02:24

Local clock offset: 0.868 ms

Remote clock offset: -0.34 ms

Below is generated by plot.py at 2019-01-19 14:34:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 477.32 Mbit/s

95th percentile per-packet one-way delay: 1.181 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 270.59 Mbit/s

95th percentile per-packet one-way delay: 1.255 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 231.12 Mbit/s

95th percentile per-packet one-way delay: 1.089 ms

Loss rate: 0.00%

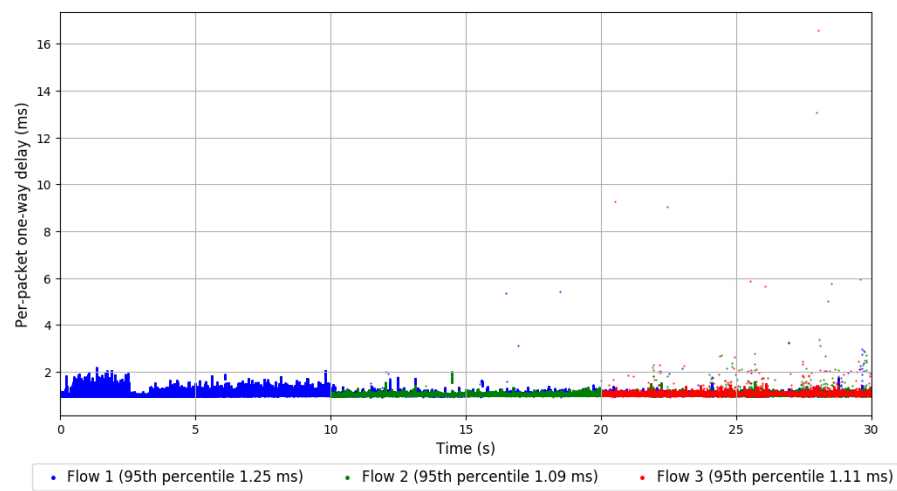
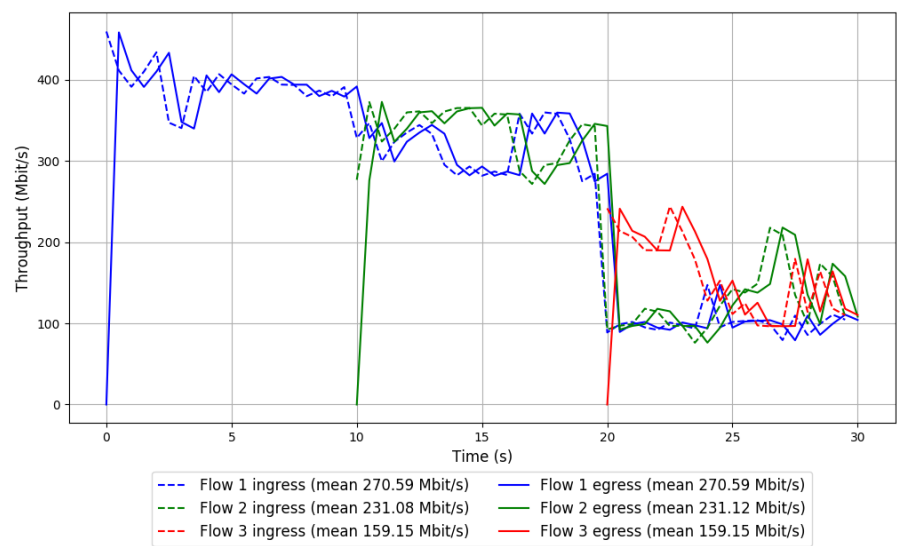
-- Flow 3:

Average throughput: 159.15 Mbit/s

95th percentile per-packet one-way delay: 1.110 ms

Loss rate: 0.02%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-01-19 11:54:37

End at: 2019-01-19 11:55:07

Local clock offset: -0.446 ms

Remote clock offset: 4.065 ms

Below is generated by plot.py at 2019-01-19 14:34:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 901.36 Mbit/s

95th percentile per-packet one-way delay: 8.736 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 526.77 Mbit/s

95th percentile per-packet one-way delay: 9.098 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 401.71 Mbit/s

95th percentile per-packet one-way delay: 7.366 ms

Loss rate: 0.03%

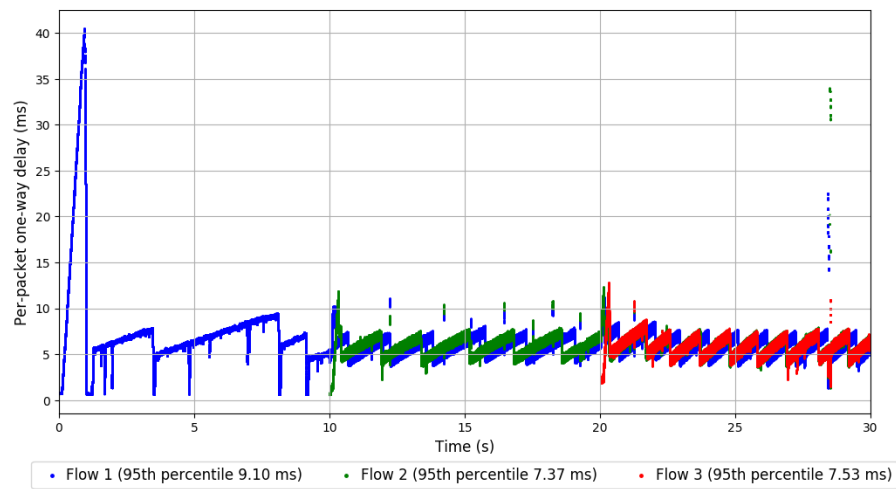
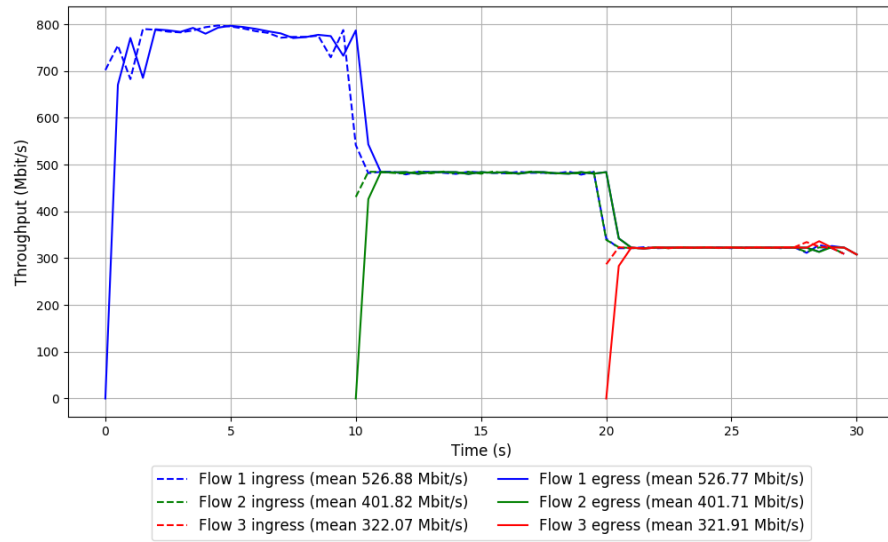
-- Flow 3:

Average throughput: 321.91 Mbit/s

95th percentile per-packet one-way delay: 7.526 ms

Loss rate: 0.08%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-01-19 12:24:49

End at: 2019-01-19 12:25:19

Local clock offset: 2.419 ms

Remote clock offset: 0.004 ms

Below is generated by plot.py at 2019-01-19 14:34:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 898.38 Mbit/s

95th percentile per-packet one-way delay: 8.693 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 523.60 Mbit/s

95th percentile per-packet one-way delay: 9.321 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 402.61 Mbit/s

95th percentile per-packet one-way delay: 7.722 ms

Loss rate: 0.04%

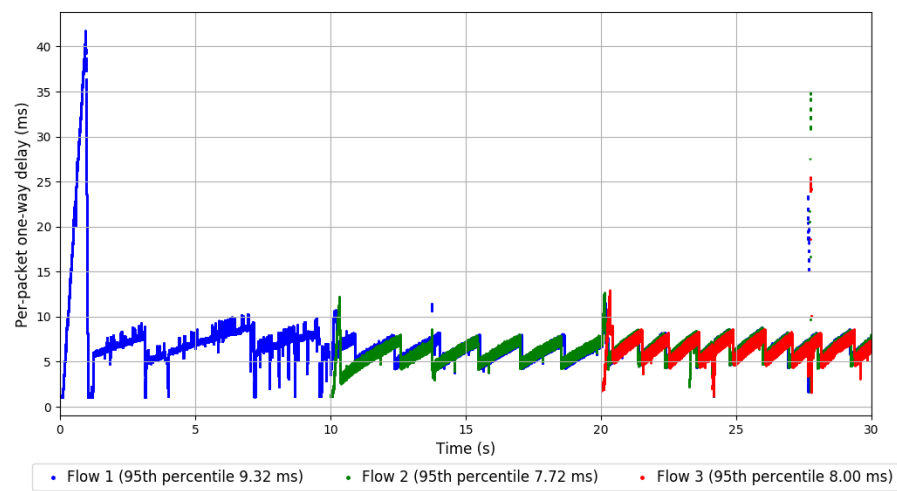
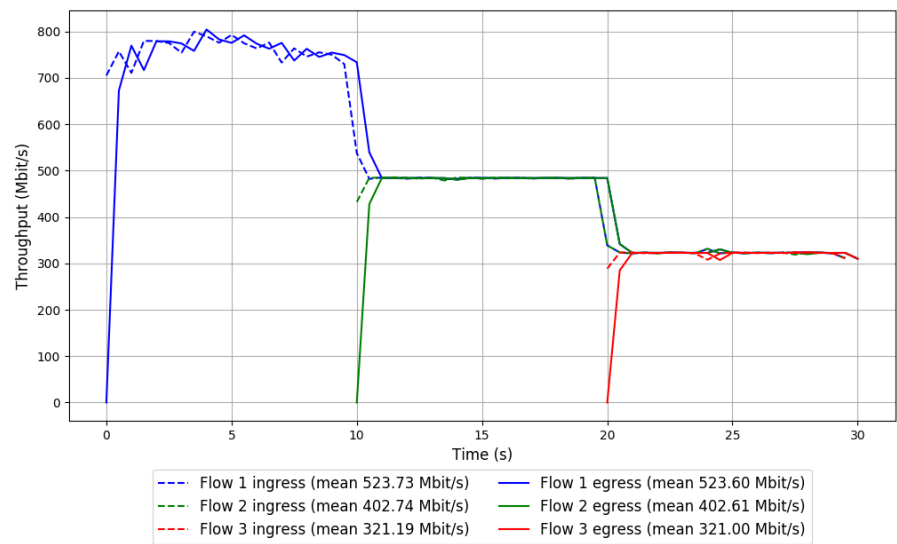
-- Flow 3:

Average throughput: 321.00 Mbit/s

95th percentile per-packet one-way delay: 8.002 ms

Loss rate: 0.08%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-01-19 12:55:09

End at: 2019-01-19 12:55:39

Local clock offset: 0.116 ms

Remote clock offset: 2.9 ms

Below is generated by plot.py at 2019-01-19 14:34:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 902.59 Mbit/s

95th percentile per-packet one-way delay: 11.773 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 527.85 Mbit/s

95th percentile per-packet one-way delay: 12.365 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 402.70 Mbit/s

95th percentile per-packet one-way delay: 7.657 ms

Loss rate: 0.03%

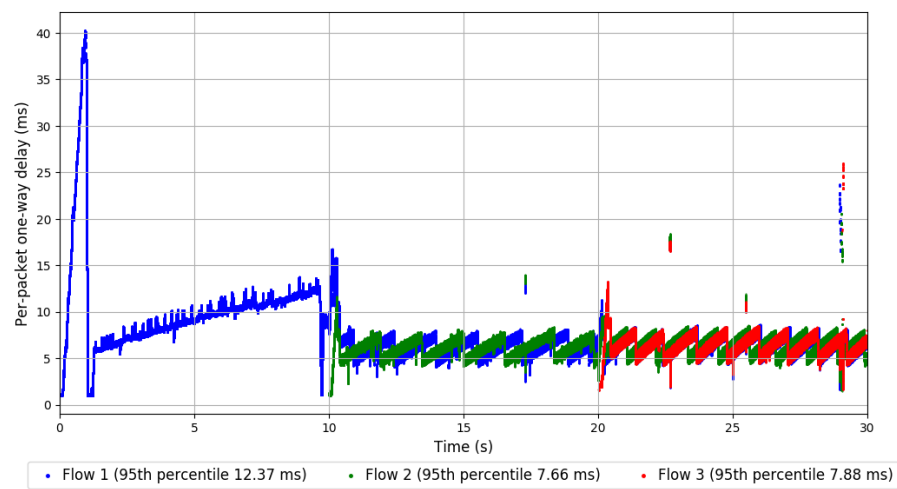
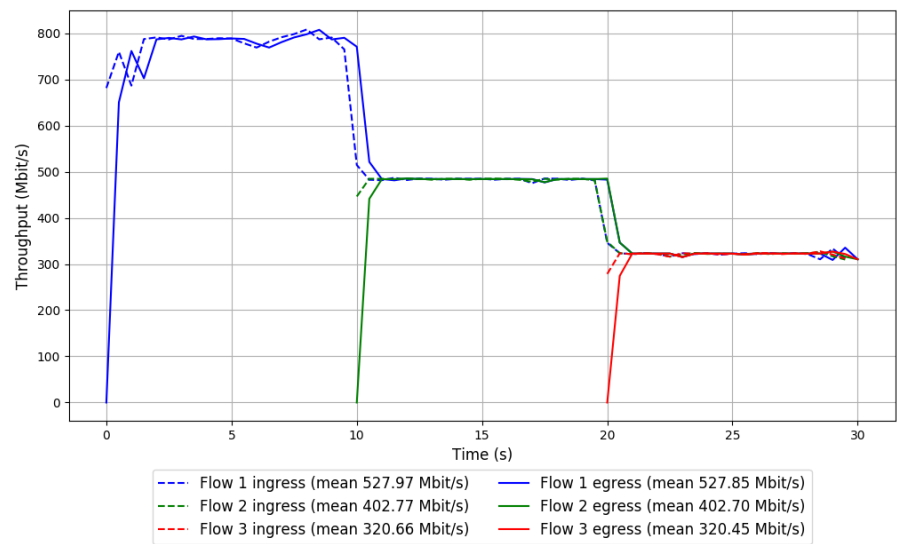
-- Flow 3:

Average throughput: 320.45 Mbit/s

95th percentile per-packet one-way delay: 7.885 ms

Loss rate: 0.08%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-01-19 13:25:35

End at: 2019-01-19 13:26:05

Local clock offset: 1.763 ms

Remote clock offset: 0.824 ms

Below is generated by plot.py at 2019-01-19 14:34:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 904.21 Mbit/s

95th percentile per-packet one-way delay: 8.189 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 529.40 Mbit/s

95th percentile per-packet one-way delay: 8.391 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 402.33 Mbit/s

95th percentile per-packet one-way delay: 7.221 ms

Loss rate: 0.03%

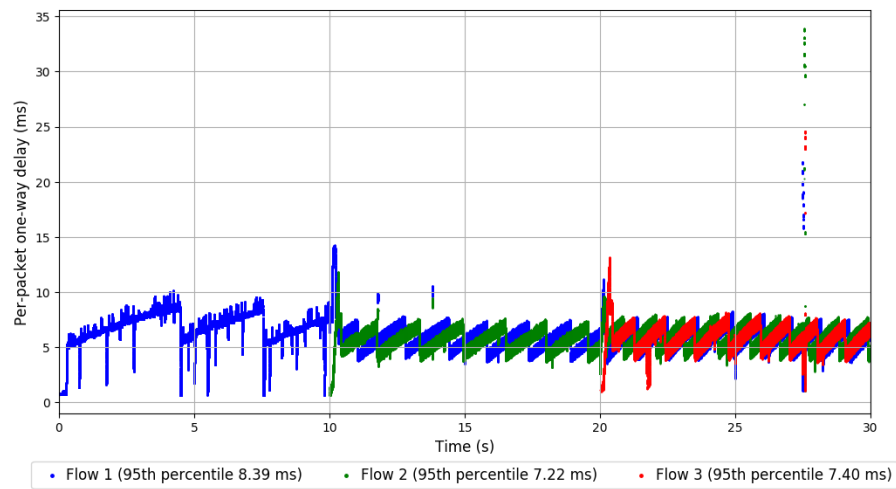
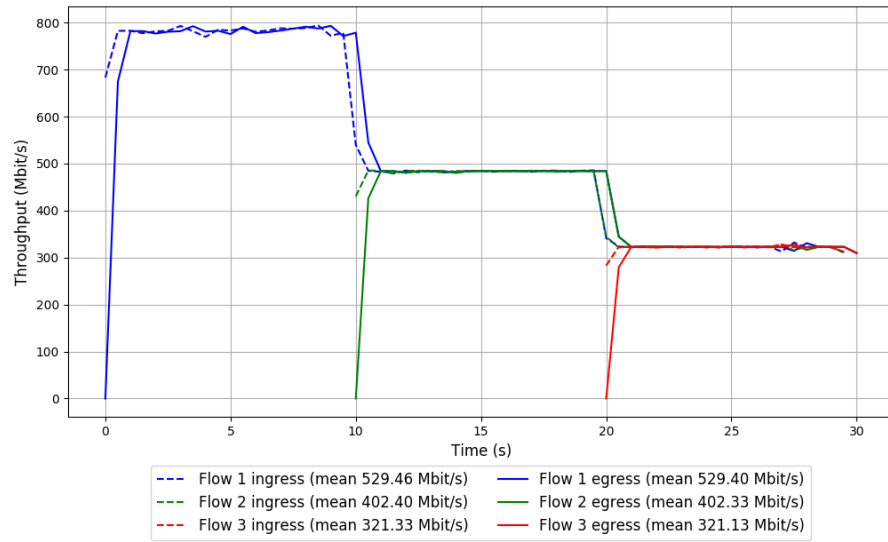
-- Flow 3:

Average throughput: 321.13 Mbit/s

95th percentile per-packet one-way delay: 7.401 ms

Loss rate: 0.09%

Run 4: Report of TCP Cubic — Data Link

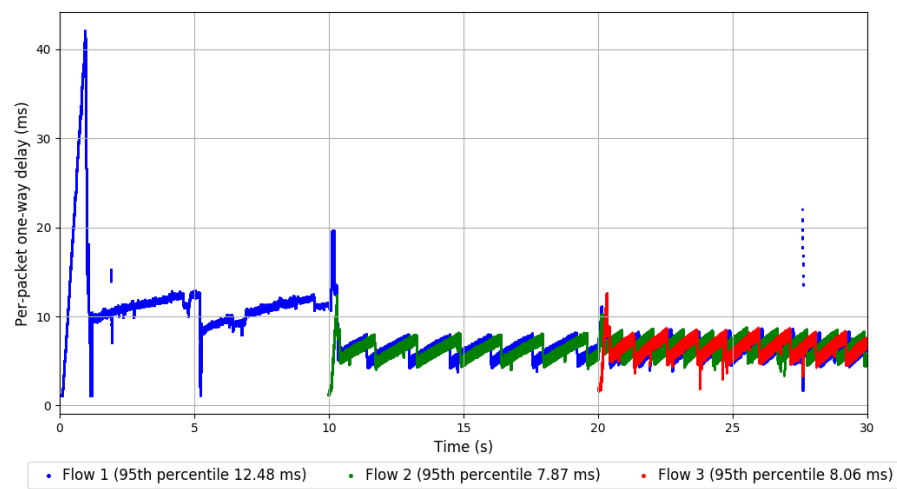
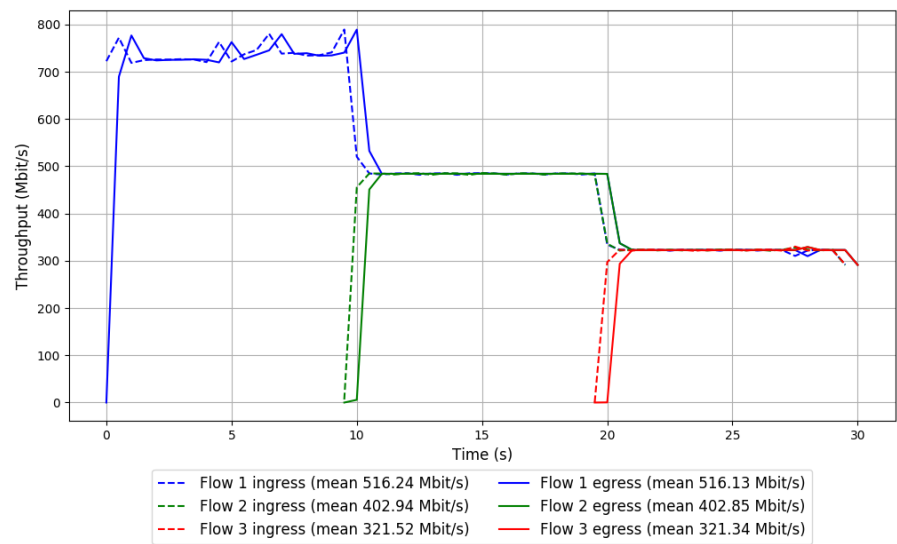


Run 5: Statistics of TCP Cubic

Start at: 2019-01-19 13:56:02
End at: 2019-01-19 13:56:32
Local clock offset: 1.878 ms
Remote clock offset: -0.462 ms

Below is generated by plot.py at 2019-01-19 14:34:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 891.63 Mbit/s
95th percentile per-packet one-way delay: 12.104 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 516.13 Mbit/s
95th percentile per-packet one-way delay: 12.481 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 402.85 Mbit/s
95th percentile per-packet one-way delay: 7.869 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 321.34 Mbit/s
95th percentile per-packet one-way delay: 8.059 ms
Loss rate: 0.08%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-01-19 11:47:40

End at: 2019-01-19 11:48:10

Local clock offset: -3.802 ms

Remote clock offset: 3.185 ms

Below is generated by plot.py at 2019-01-19 14:36:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 815.74 Mbit/s

95th percentile per-packet one-way delay: 32.741 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 428.02 Mbit/s

95th percentile per-packet one-way delay: 23.045 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 426.94 Mbit/s

95th percentile per-packet one-way delay: 37.565 ms

Loss rate: 0.15%

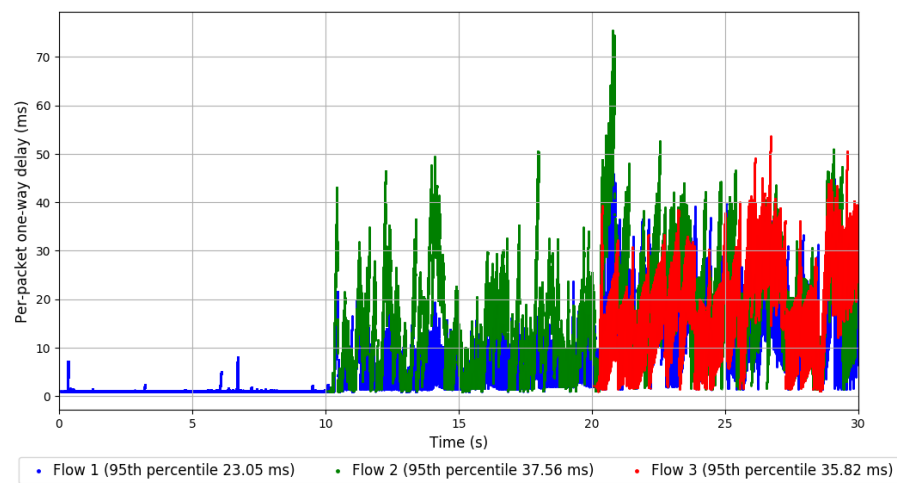
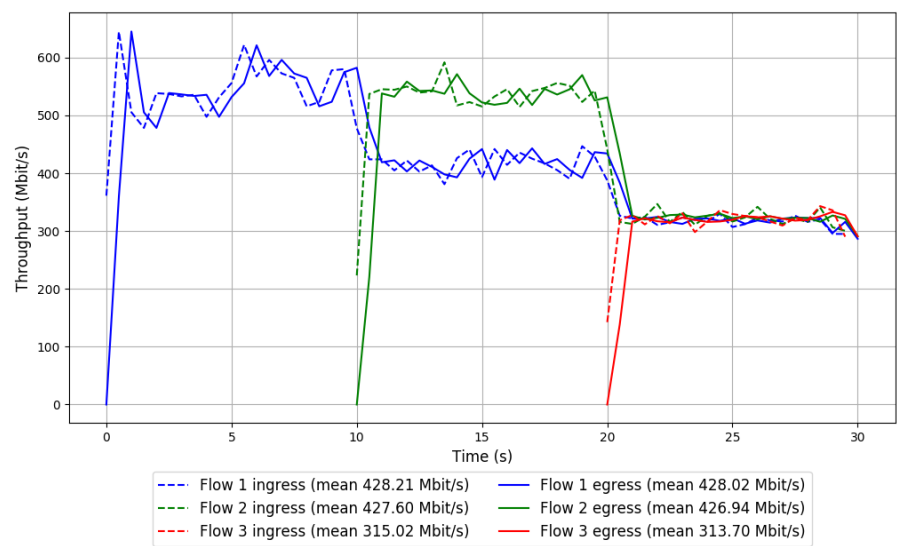
-- Flow 3:

Average throughput: 313.70 Mbit/s

95th percentile per-packet one-way delay: 35.822 ms

Loss rate: 0.38%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-01-19 12:17:51

End at: 2019-01-19 12:18:21

Local clock offset: 4.434 ms

Remote clock offset: 0.737 ms

Below is generated by plot.py at 2019-01-19 14:44:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 783.52 Mbit/s

95th percentile per-packet one-way delay: 27.603 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 447.25 Mbit/s

95th percentile per-packet one-way delay: 13.321 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 454.10 Mbit/s

95th percentile per-packet one-way delay: 35.011 ms

Loss rate: 0.03%

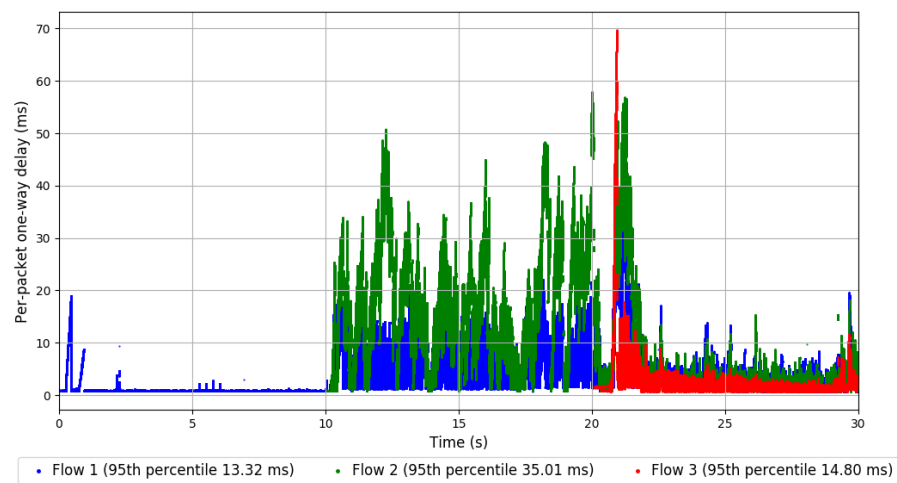
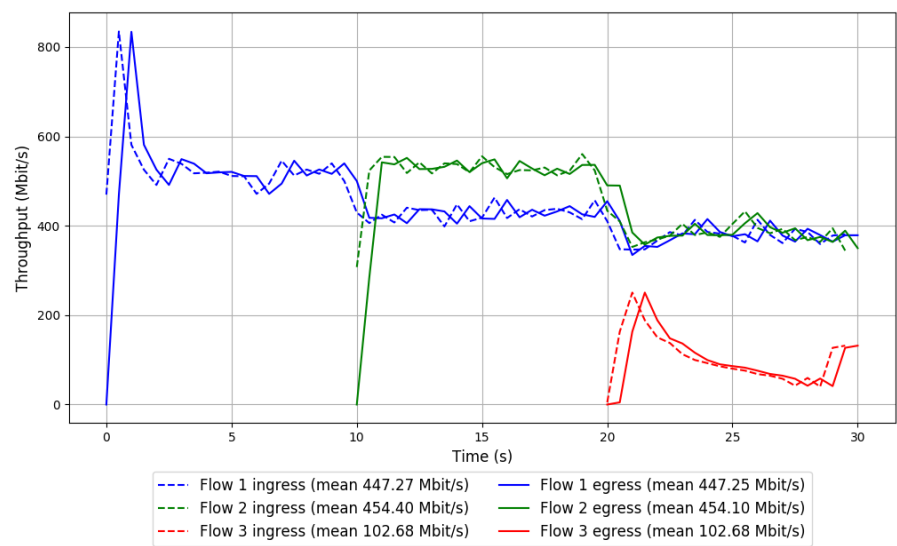
-- Flow 3:

Average throughput: 102.68 Mbit/s

95th percentile per-packet one-way delay: 14.799 ms

Loss rate: 0.00%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-01-19 12:48:11

End at: 2019-01-19 12:48:41

Local clock offset: 0.213 ms

Remote clock offset: 1.935 ms

Below is generated by plot.py at 2019-01-19 14:45:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 838.64 Mbit/s

95th percentile per-packet one-way delay: 12.648 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 591.72 Mbit/s

95th percentile per-packet one-way delay: 14.168 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 335.89 Mbit/s

95th percentile per-packet one-way delay: 9.443 ms

Loss rate: 0.03%

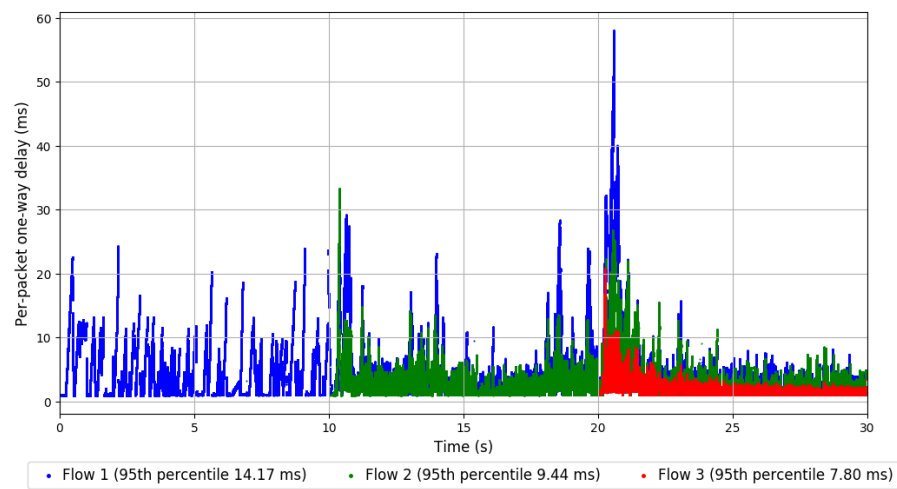
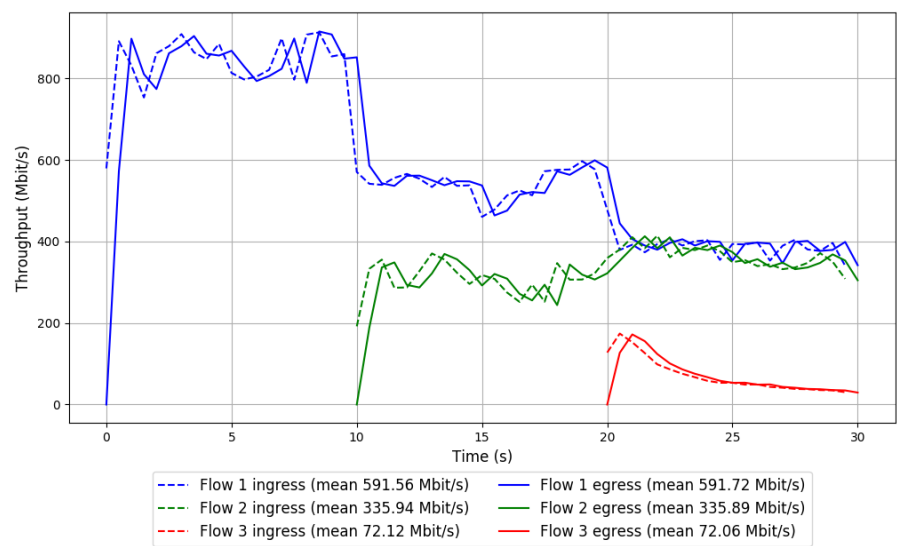
-- Flow 3:

Average throughput: 72.06 Mbit/s

95th percentile per-packet one-way delay: 7.800 ms

Loss rate: 0.07%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-01-19 13:18:31

End at: 2019-01-19 13:19:01

Local clock offset: 0.059 ms

Remote clock offset: 2.311 ms

Below is generated by plot.py at 2019-01-19 14:46:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 907.53 Mbit/s

95th percentile per-packet one-way delay: 29.357 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 594.16 Mbit/s

95th percentile per-packet one-way delay: 30.476 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 426.06 Mbit/s

95th percentile per-packet one-way delay: 27.845 ms

Loss rate: 0.02%

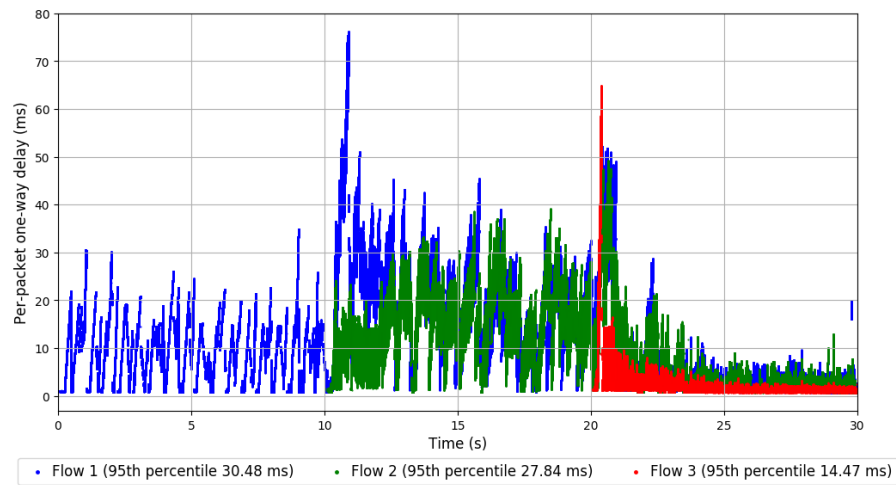
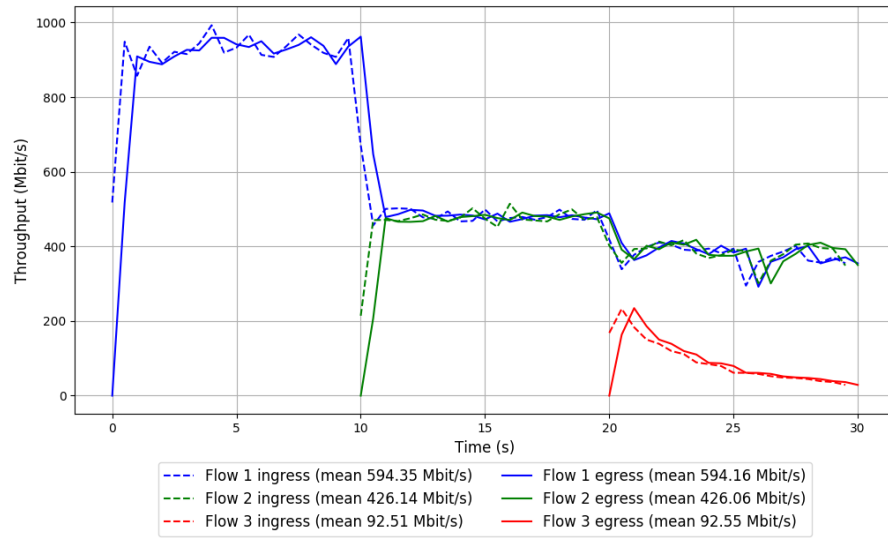
-- Flow 3:

Average throughput: 92.55 Mbit/s

95th percentile per-packet one-way delay: 14.469 ms

Loss rate: 0.01%

Run 4: Report of FillP — Data Link

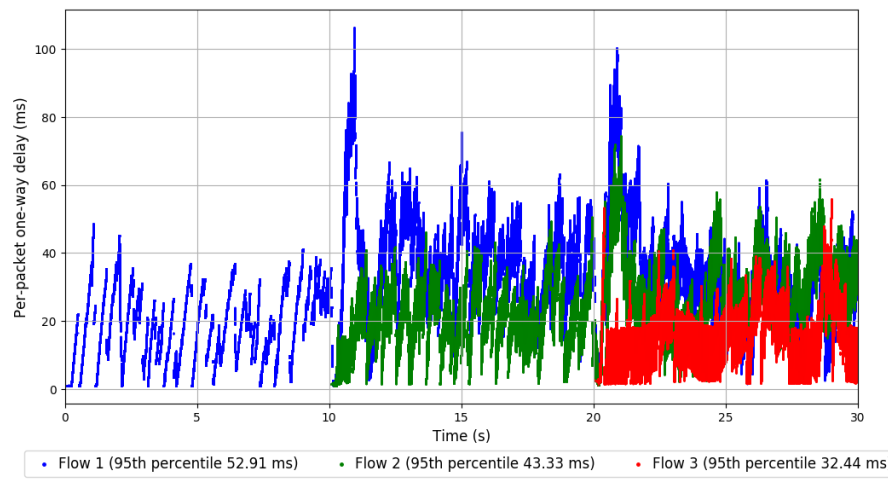
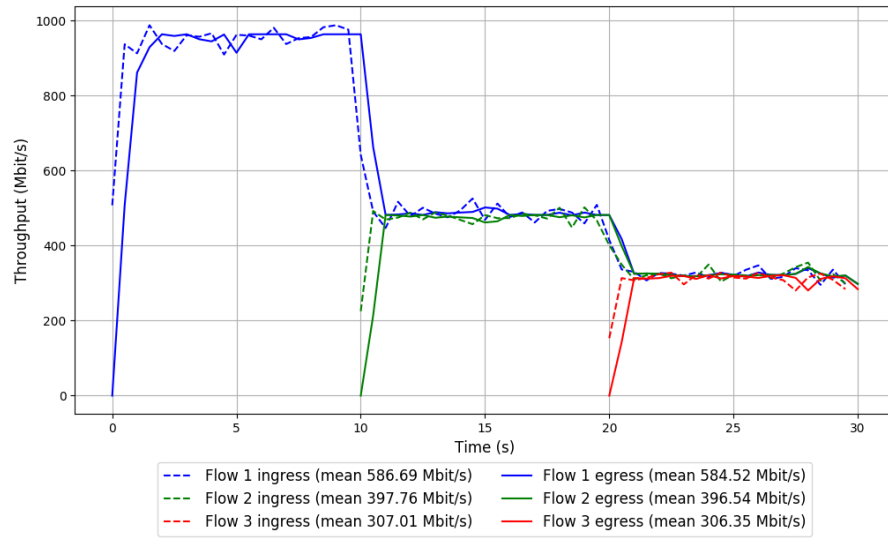


Run 5: Statistics of FillP

Start at: 2019-01-19 13:48:58
End at: 2019-01-19 13:49:28
Local clock offset: 4.031 ms
Remote clock offset: -0.693 ms

Below is generated by plot.py at 2019-01-19 14:47:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 949.75 Mbit/s
95th percentile per-packet one-way delay: 49.317 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 584.52 Mbit/s
95th percentile per-packet one-way delay: 52.907 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 396.54 Mbit/s
95th percentile per-packet one-way delay: 43.333 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 306.35 Mbit/s
95th percentile per-packet one-way delay: 32.442 ms
Loss rate: 0.23%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-01-19 11:51:55

End at: 2019-01-19 11:52:25

Local clock offset: -1.95 ms

Remote clock offset: 3.693 ms

Below is generated by plot.py at 2019-01-19 14:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 565.68 Mbit/s

95th percentile per-packet one-way delay: 6.602 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 429.13 Mbit/s

95th percentile per-packet one-way delay: 6.946 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 194.45 Mbit/s

95th percentile per-packet one-way delay: 4.964 ms

Loss rate: 0.00%

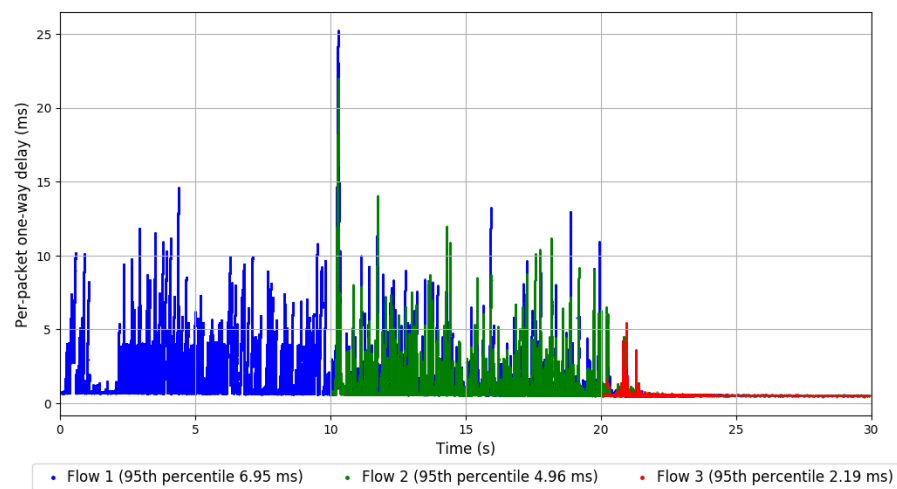
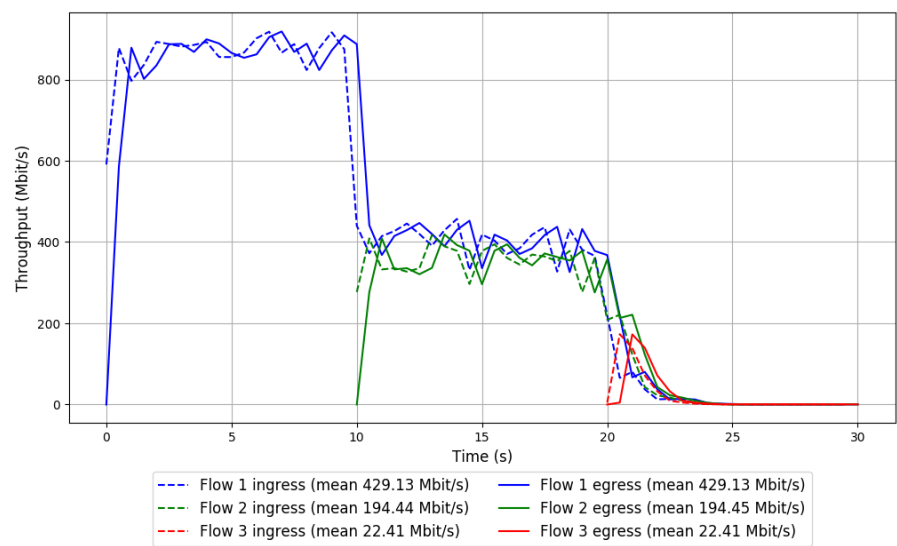
-- Flow 3:

Average throughput: 22.41 Mbit/s

95th percentile per-packet one-way delay: 2.194 ms

Loss rate: 0.00%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-01-19 12:22:06

End at: 2019-01-19 12:22:36

Local clock offset: 3.348 ms

Remote clock offset: 0.19 ms

Below is generated by plot.py at 2019-01-19 14:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 593.60 Mbit/s

95th percentile per-packet one-way delay: 7.814 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 435.91 Mbit/s

95th percentile per-packet one-way delay: 8.108 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 205.36 Mbit/s

95th percentile per-packet one-way delay: 5.973 ms

Loss rate: 0.00%

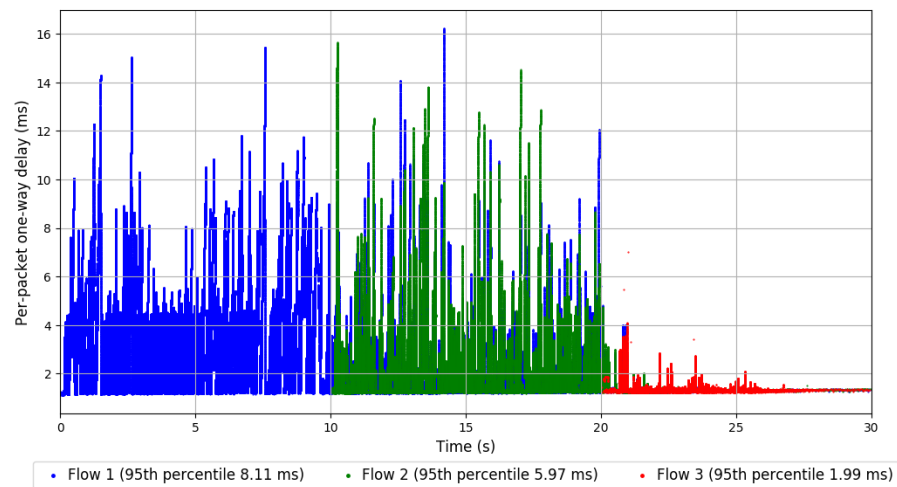
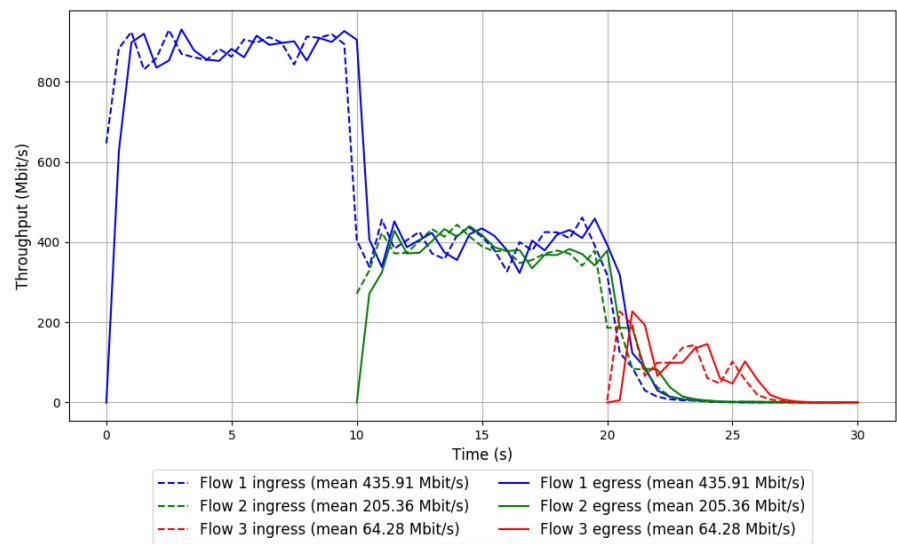
-- Flow 3:

Average throughput: 64.28 Mbit/s

95th percentile per-packet one-way delay: 1.987 ms

Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-01-19 12:52:26

End at: 2019-01-19 12:52:56

Local clock offset: 0.161 ms

Remote clock offset: 2.619 ms

Below is generated by plot.py at 2019-01-19 14:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 562.20 Mbit/s

95th percentile per-packet one-way delay: 8.157 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 406.25 Mbit/s

95th percentile per-packet one-way delay: 8.775 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 215.38 Mbit/s

95th percentile per-packet one-way delay: 3.935 ms

Loss rate: 0.00%

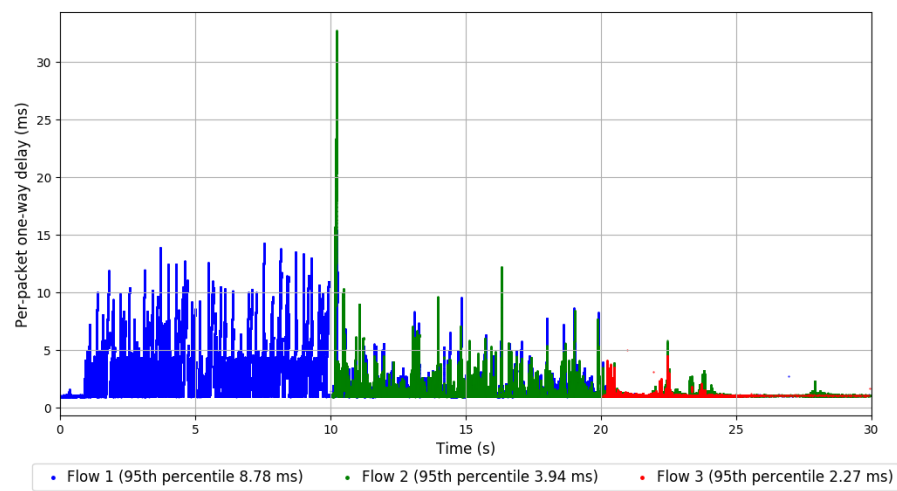
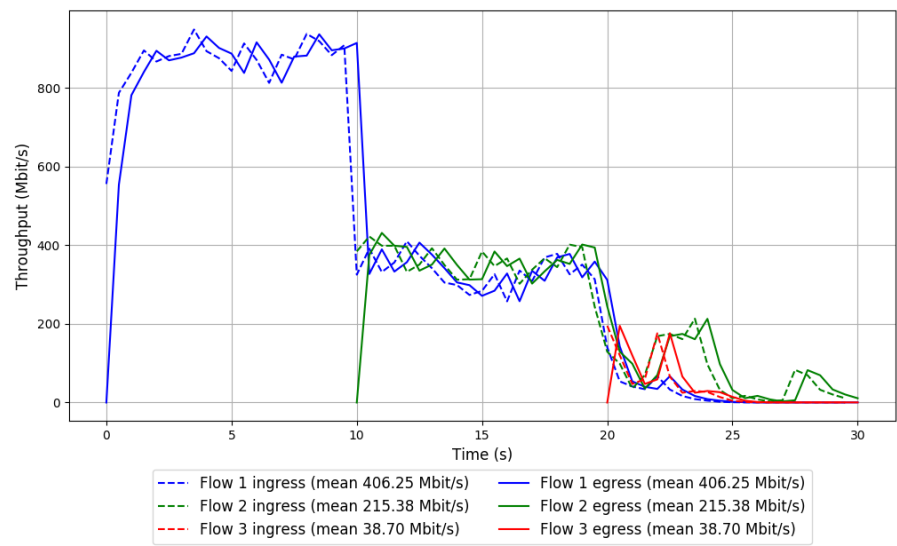
-- Flow 3:

Average throughput: 38.70 Mbit/s

95th percentile per-packet one-way delay: 2.267 ms

Loss rate: 0.00%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-01-19 13:22:53

End at: 2019-01-19 13:23:23

Local clock offset: 1.177 ms

Remote clock offset: 1.229 ms

Below is generated by plot.py at 2019-01-19 14:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 539.87 Mbit/s

95th percentile per-packet one-way delay: 6.663 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 417.02 Mbit/s

95th percentile per-packet one-way delay: 7.168 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.83 Mbit/s

95th percentile per-packet one-way delay: 4.228 ms

Loss rate: 0.00%

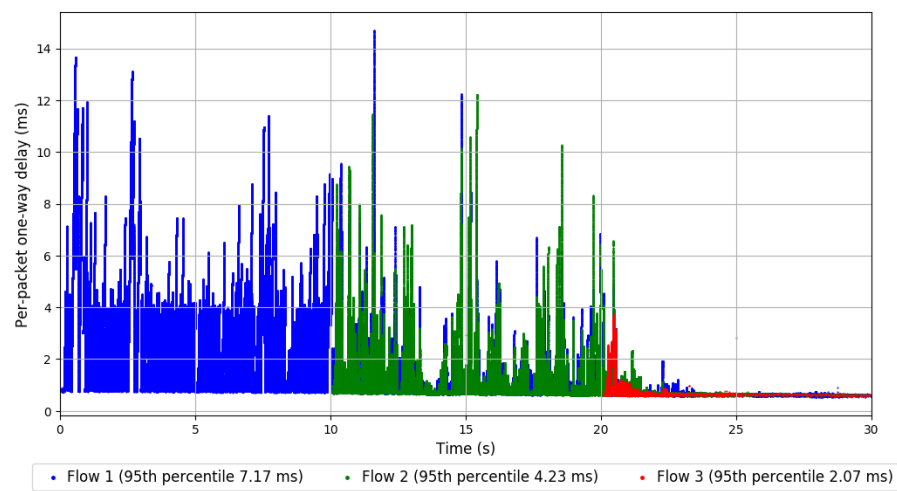
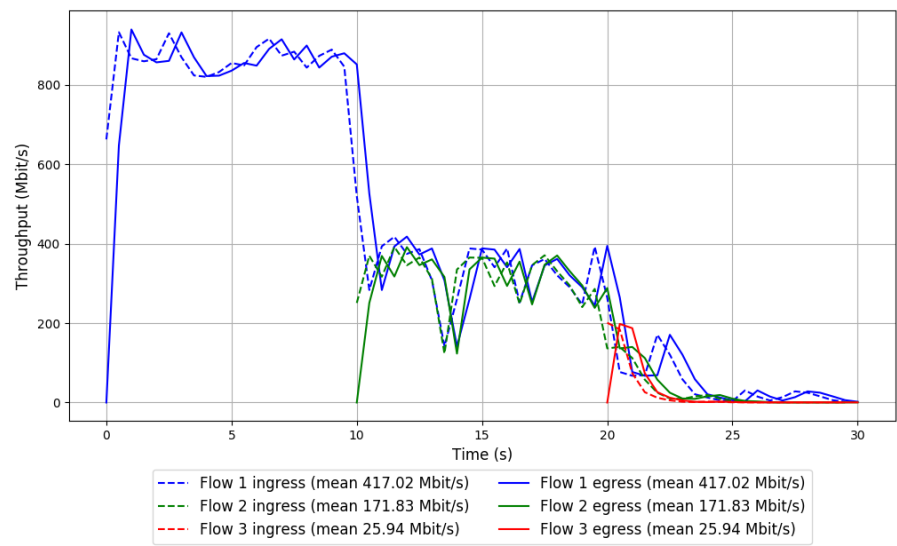
-- Flow 3:

Average throughput: 25.94 Mbit/s

95th percentile per-packet one-way delay: 2.069 ms

Loss rate: 0.00%

Run 4: Report of FillP-Sheep — Data Link

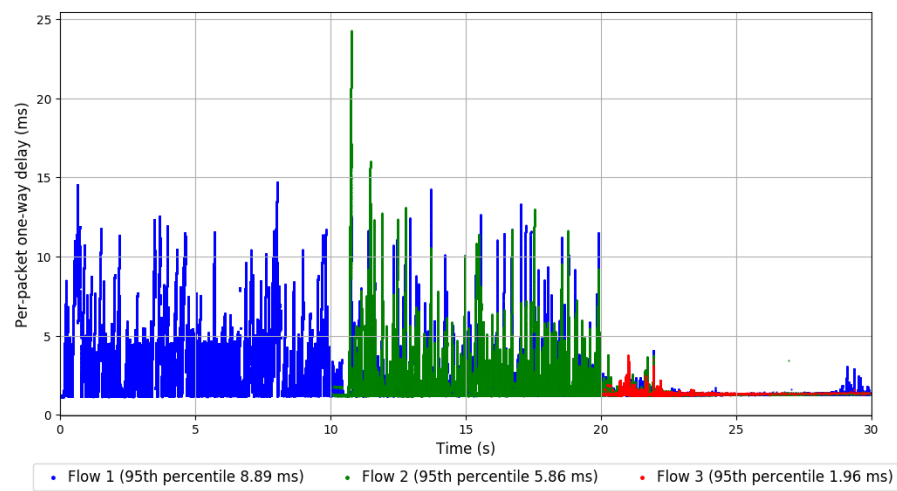
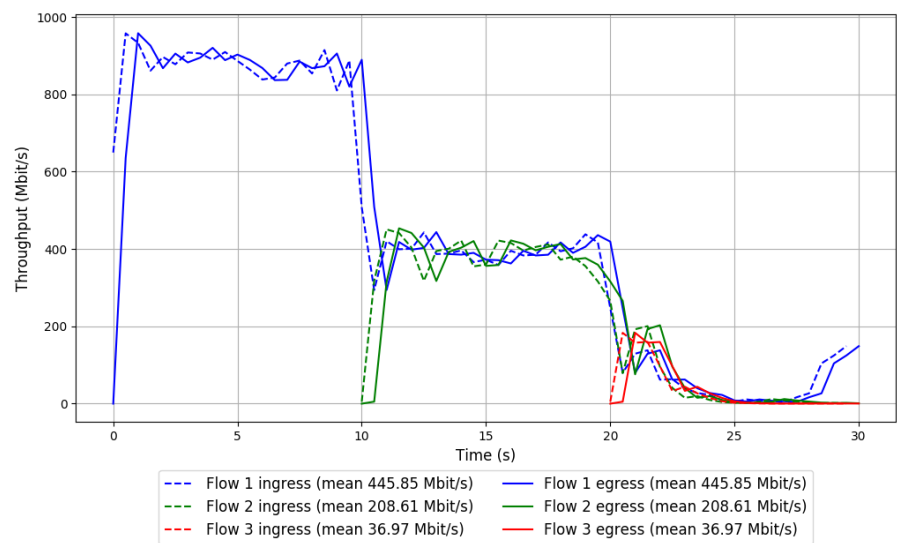


Run 5: Statistics of FillP-Sheep

Start at: 2019-01-19 13:53:19
End at: 2019-01-19 13:53:49
Local clock offset: 2.571 ms
Remote clock offset: -0.529 ms

Below is generated by plot.py at 2019-01-19 14:50:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 596.55 Mbit/s
95th percentile per-packet one-way delay: 8.394 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 445.85 Mbit/s
95th percentile per-packet one-way delay: 8.890 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 208.61 Mbit/s
95th percentile per-packet one-way delay: 5.857 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.97 Mbit/s
95th percentile per-packet one-way delay: 1.956 ms
Loss rate: 0.00%

Run 5: Report of FillP-Sheep — Data Link

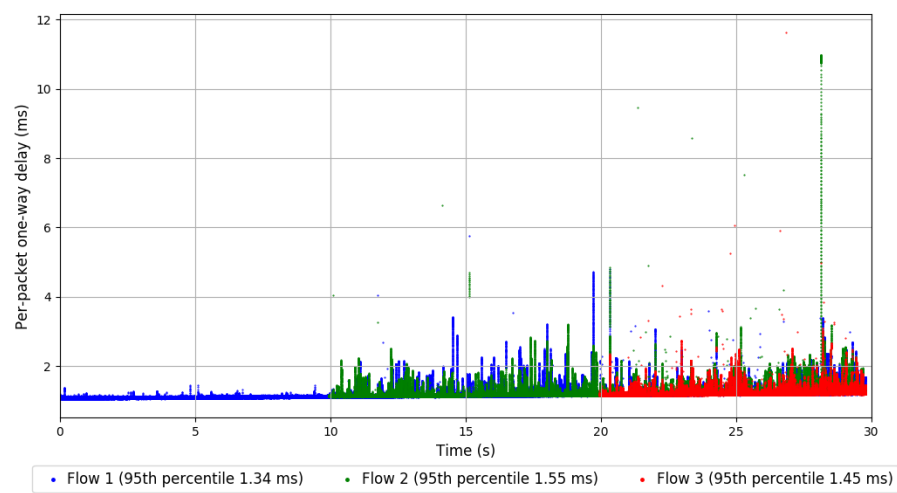
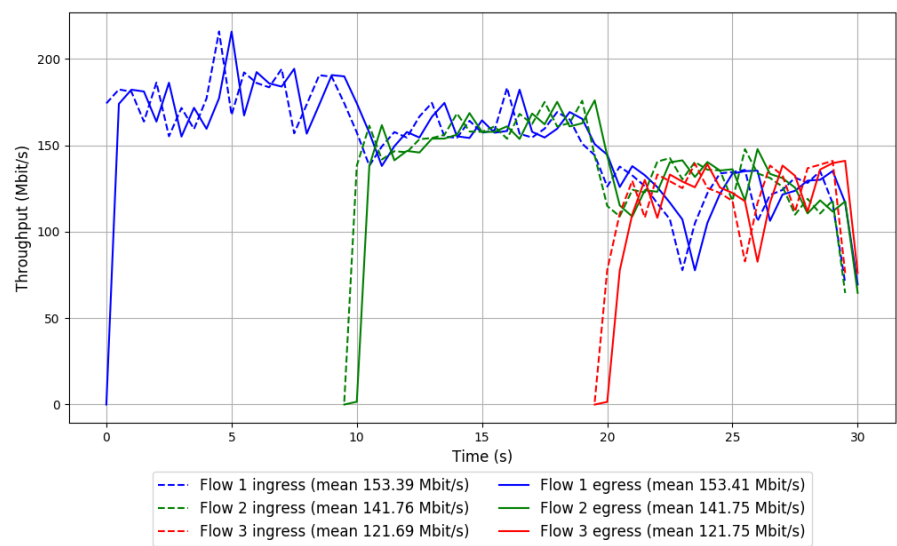


```
Run 1: Statistics of Indigo

Start at: 2019-01-19 11:40:45
End at: 2019-01-19 11:41:15
Local clock offset: -3.402 ms
Remote clock offset: 1.928 ms

# Below is generated by plot.py at 2019-01-19 14:50:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 287.98 Mbit/s
95th percentile per-packet one-way delay: 1.434 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 153.41 Mbit/s
95th percentile per-packet one-way delay: 1.337 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 141.75 Mbit/s
95th percentile per-packet one-way delay: 1.547 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 121.75 Mbit/s
95th percentile per-packet one-way delay: 1.447 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-01-19 12:10:56

End at: 2019-01-19 12:11:26

Local clock offset: 3.715 ms

Remote clock offset: 2.404 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.71 Mbit/s

95th percentile per-packet one-way delay: 0.967 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 159.81 Mbit/s

95th percentile per-packet one-way delay: 0.952 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 143.29 Mbit/s

95th percentile per-packet one-way delay: 0.991 ms

Loss rate: 0.02%

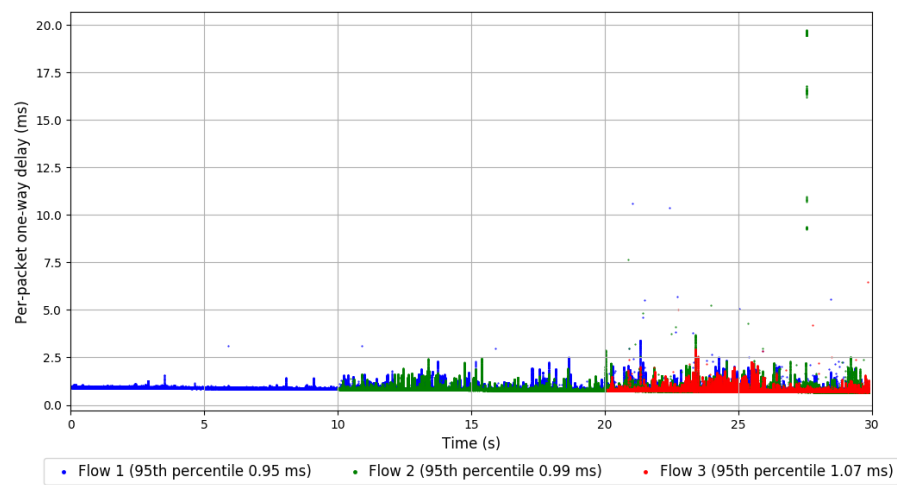
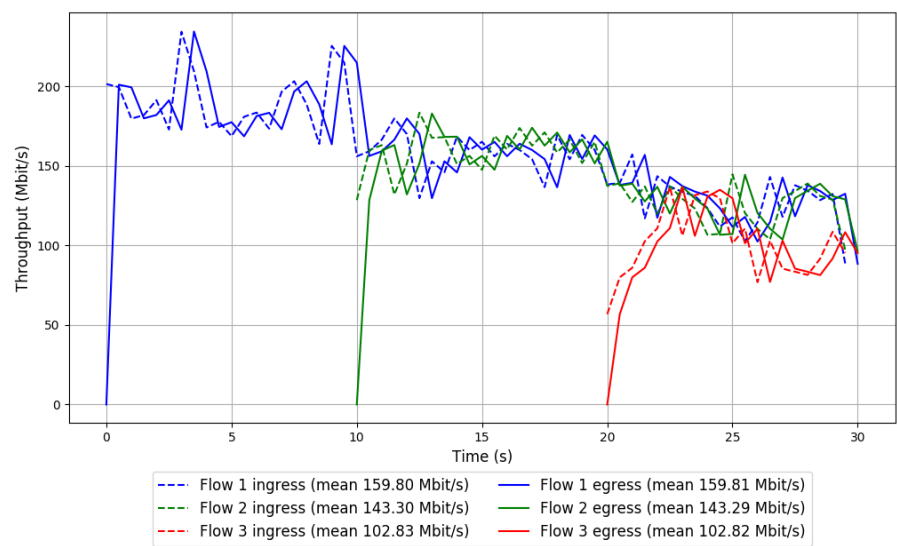
-- Flow 3:

Average throughput: 102.82 Mbit/s

95th percentile per-packet one-way delay: 1.075 ms

Loss rate: 0.03%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-01-19 12:41:15

End at: 2019-01-19 12:41:45

Local clock offset: 0.427 ms

Remote clock offset: 0.051 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.18 Mbit/s

95th percentile per-packet one-way delay: 1.498 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 153.00 Mbit/s

95th percentile per-packet one-way delay: 1.433 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 144.06 Mbit/s

95th percentile per-packet one-way delay: 1.463 ms

Loss rate: 0.02%

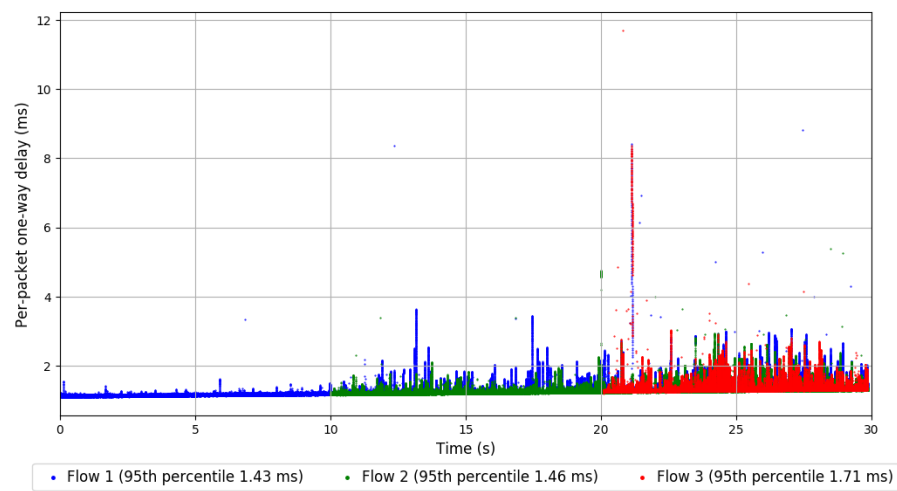
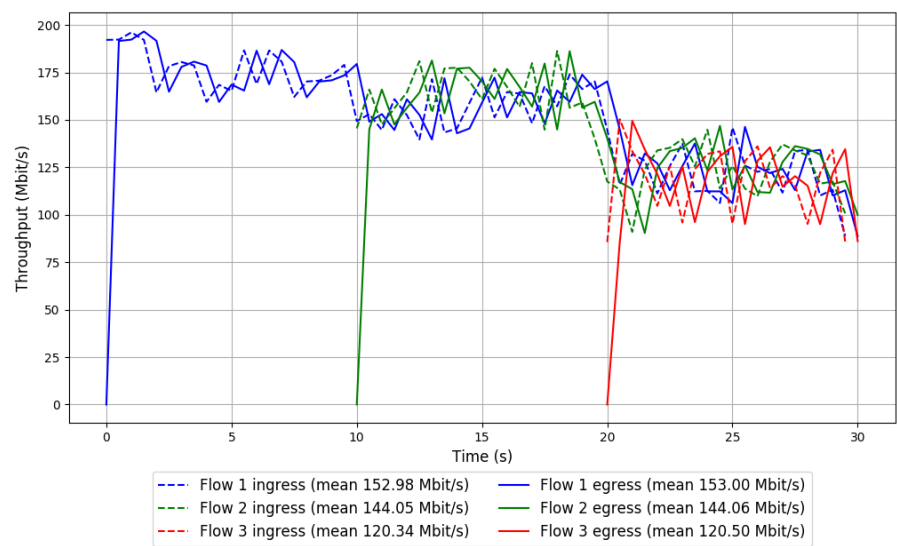
-- Flow 3:

Average throughput: 120.50 Mbit/s

95th percentile per-packet one-way delay: 1.705 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-01-19 13:11:37

End at: 2019-01-19 13:12:07

Local clock offset: 0.059 ms

Remote clock offset: 4.213 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 291.65 Mbit/s

95th percentile per-packet one-way delay: 1.305 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 155.01 Mbit/s

95th percentile per-packet one-way delay: 1.221 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 144.92 Mbit/s

95th percentile per-packet one-way delay: 1.269 ms

Loss rate: 0.01%

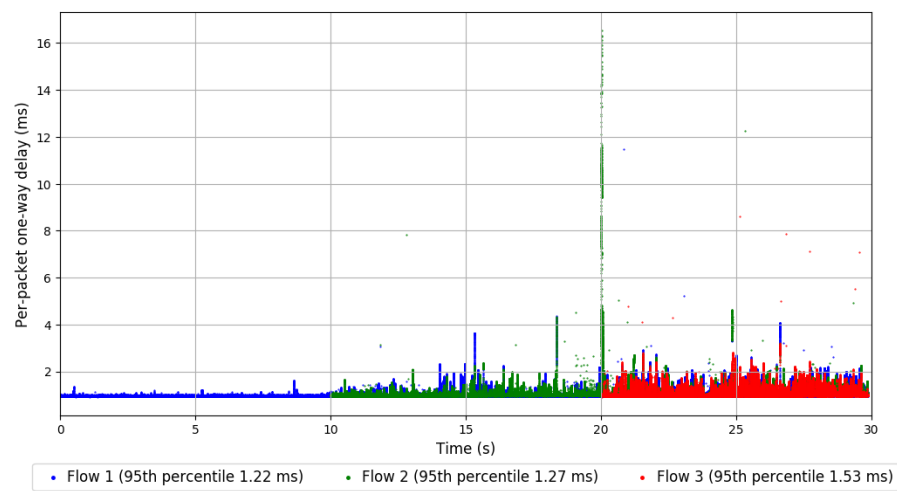
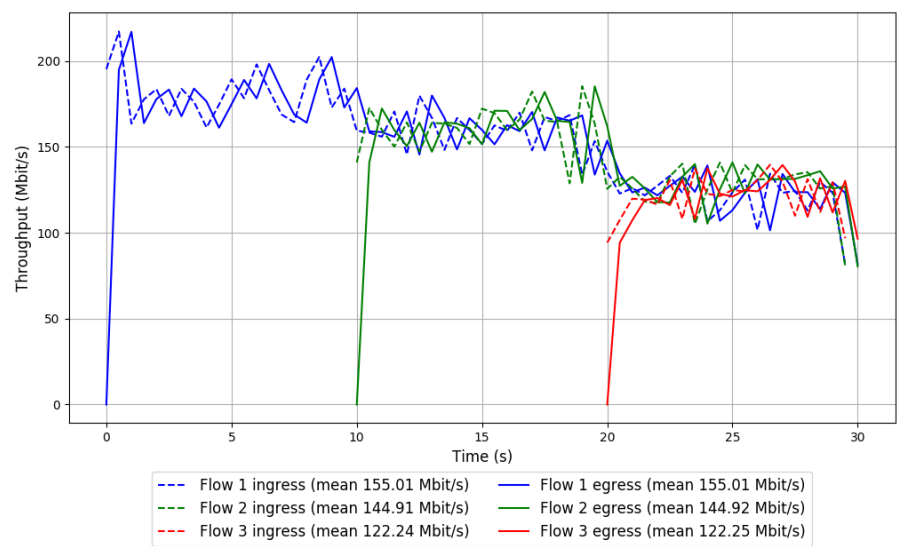
-- Flow 3:

Average throughput: 122.25 Mbit/s

95th percentile per-packet one-way delay: 1.534 ms

Loss rate: 0.01%

Run 4: Report of Indigo — Data Link

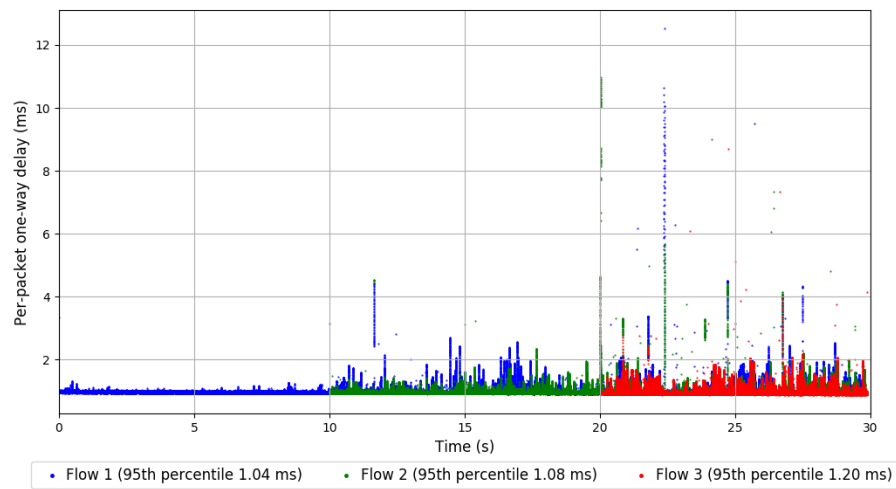
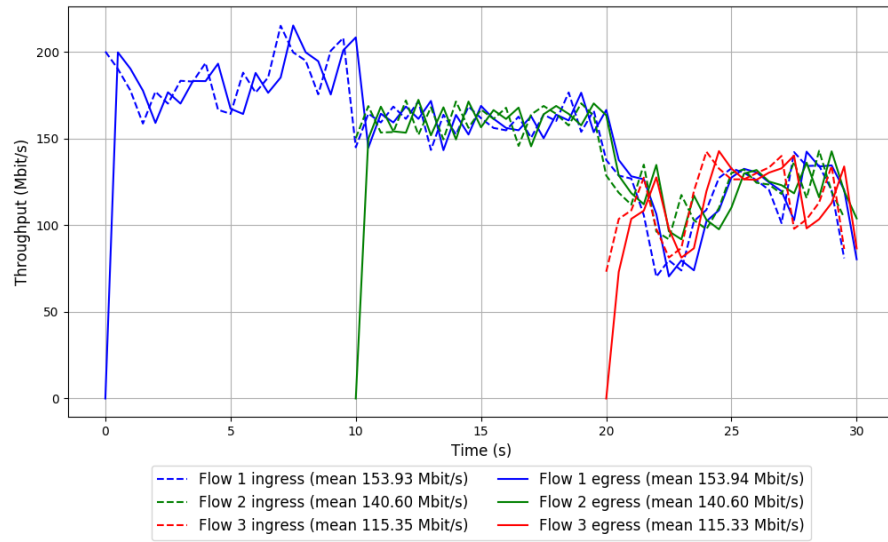


Run 5: Statistics of Indigo

Start at: 2019-01-19 13:42:04
End at: 2019-01-19 13:42:34
Local clock offset: 3.628 ms
Remote clock offset: -0.535 ms

Below is generated by plot.py at 2019-01-19 14:50:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 285.26 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 153.94 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 140.60 Mbit/s
95th percentile per-packet one-way delay: 1.080 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 115.33 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.01%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-19 11:46:19

End at: 2019-01-19 11:46:49

Local clock offset: -3.715 ms

Remote clock offset: 2.934 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 200.61 Mbit/s

95th percentile per-packet one-way delay: 1.188 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 148.29 Mbit/s

95th percentile per-packet one-way delay: 1.185 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.58 Mbit/s

95th percentile per-packet one-way delay: 1.205 ms

Loss rate: 0.01%

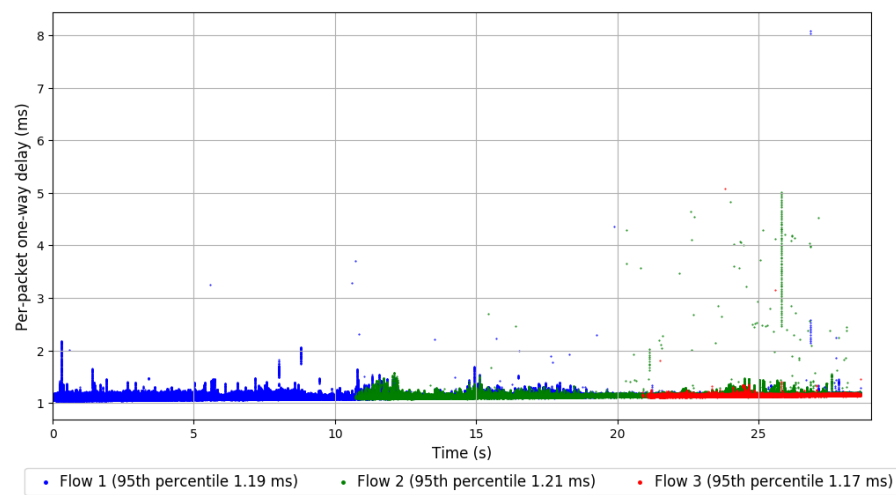
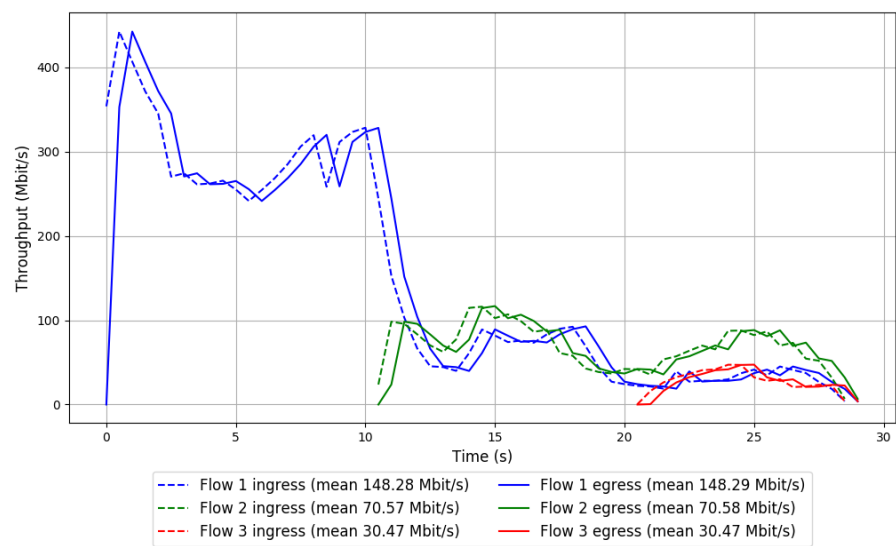
-- Flow 3:

Average throughput: 30.47 Mbit/s

95th percentile per-packet one-way delay: 1.174 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-19 12:16:31

End at: 2019-01-19 12:17:01

Local clock offset: 4.306 ms

Remote clock offset: 0.963 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 200.48 Mbit/s

95th percentile per-packet one-way delay: 0.984 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 166.27 Mbit/s

95th percentile per-packet one-way delay: 0.989 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.84 Mbit/s

95th percentile per-packet one-way delay: 0.921 ms

Loss rate: 0.00%

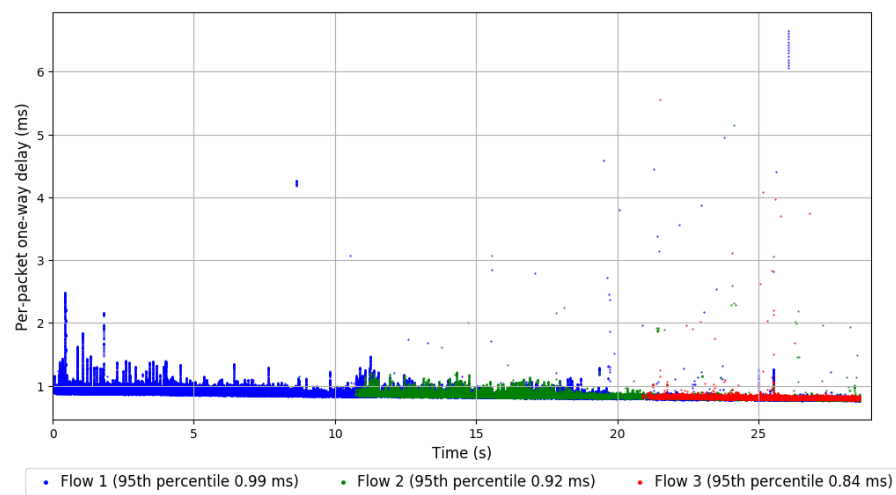
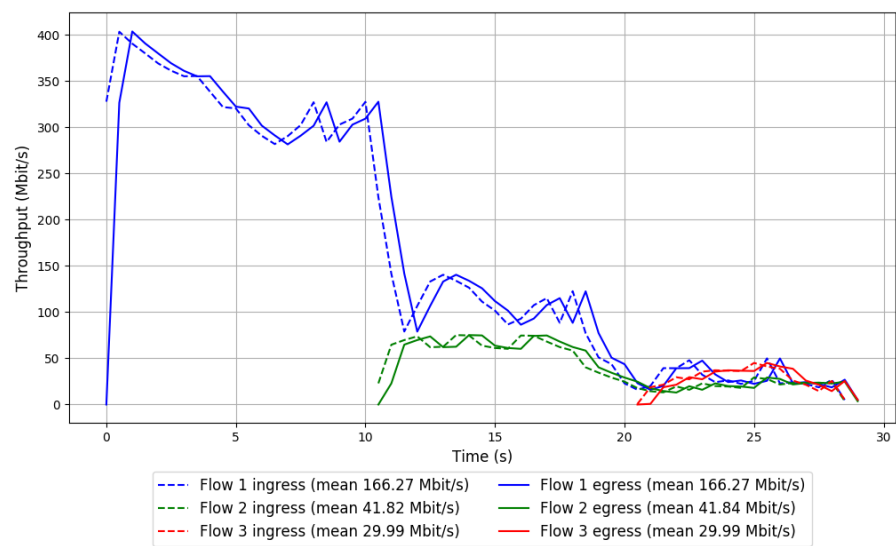
-- Flow 3:

Average throughput: 29.99 Mbit/s

95th percentile per-packet one-way delay: 0.843 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-19 12:46:51

End at: 2019-01-19 12:47:21

Local clock offset: 0.254 ms

Remote clock offset: 1.629 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 199.96 Mbit/s

95th percentile per-packet one-way delay: 1.217 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 133.79 Mbit/s

95th percentile per-packet one-way delay: 1.196 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 84.11 Mbit/s

95th percentile per-packet one-way delay: 1.298 ms

Loss rate: 0.00%

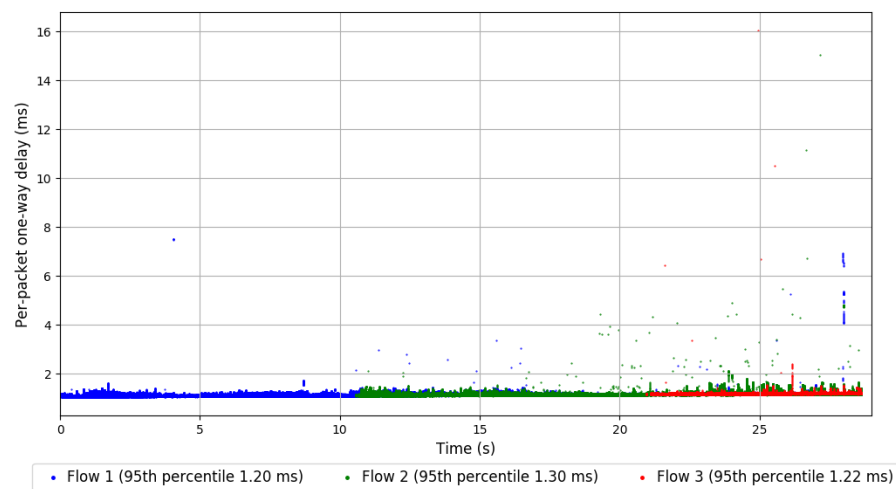
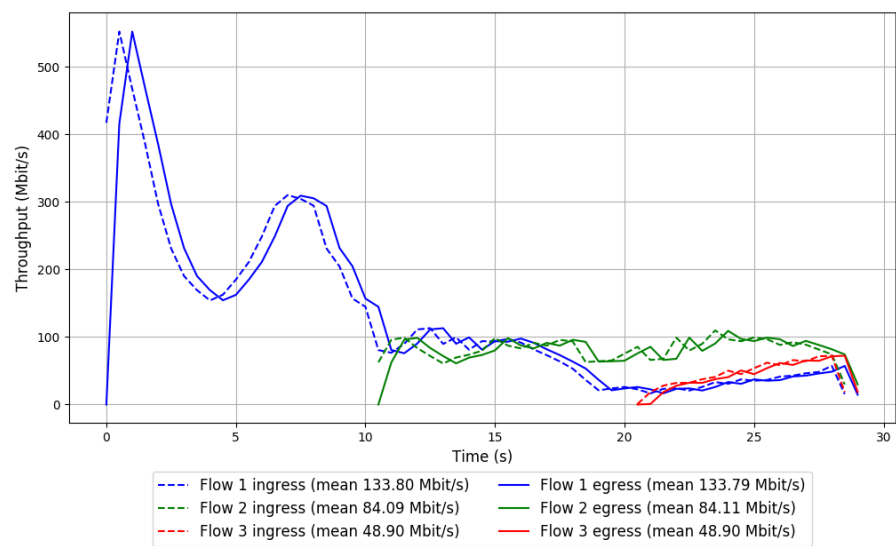
-- Flow 3:

Average throughput: 48.90 Mbit/s

95th percentile per-packet one-way delay: 1.221 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link

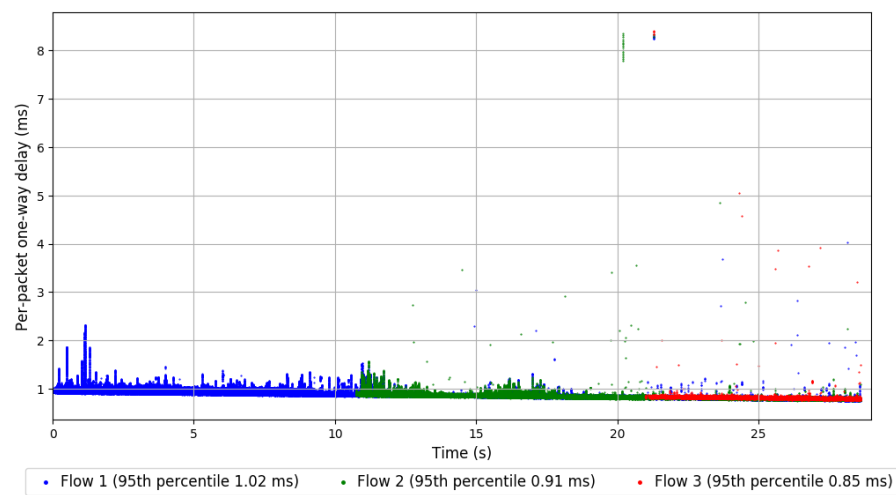
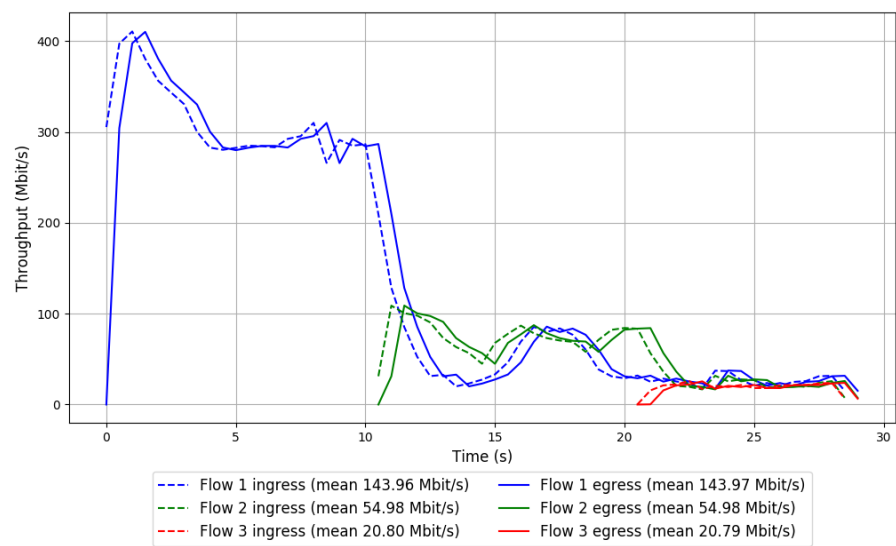


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-19 13:17:11
End at: 2019-01-19 13:17:41
Local clock offset: 0.058 ms
Remote clock offset: 2.757 ms

Below is generated by plot.py at 2019-01-19 14:50:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 183.85 Mbit/s
95th percentile per-packet one-way delay: 1.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 143.97 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.98 Mbit/s
95th percentile per-packet one-way delay: 0.909 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.79 Mbit/s
95th percentile per-packet one-way delay: 0.847 ms
Loss rate: 0.07%

Run 4: Report of Indigo-MusesC3 — Data Link

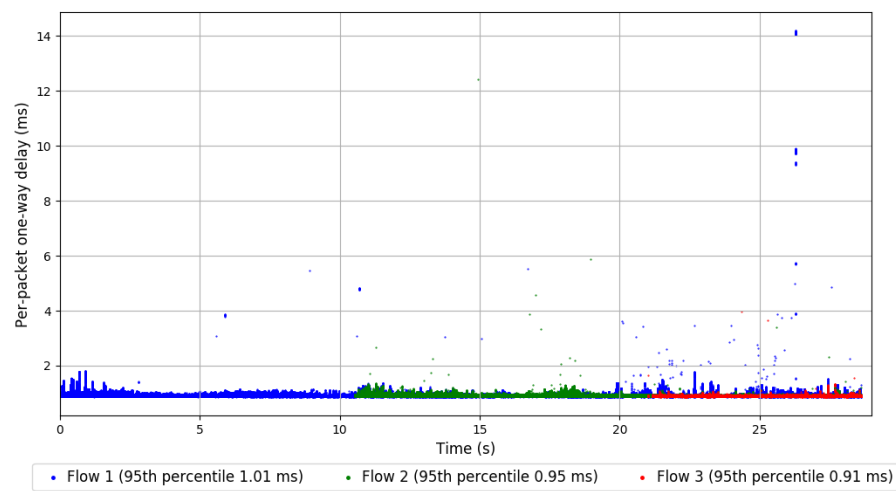
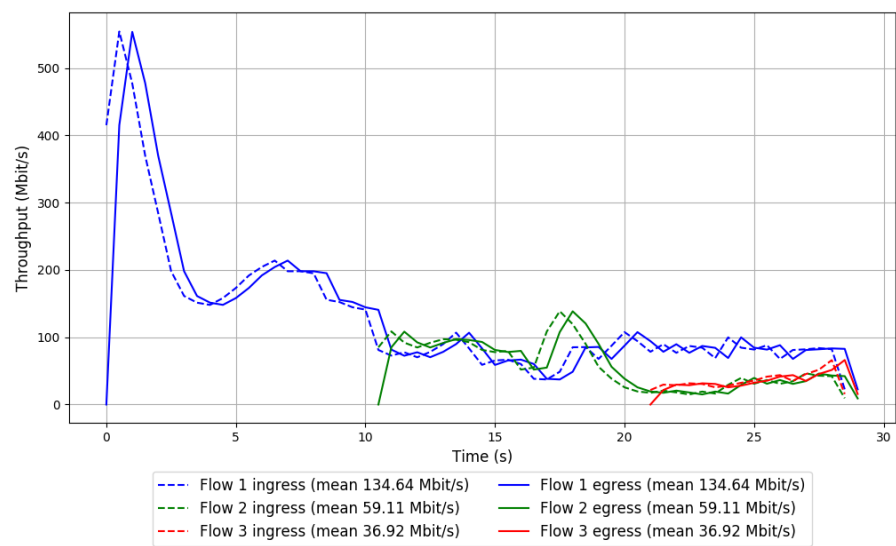


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-19 13:47:39
End at: 2019-01-19 13:48:09
Local clock offset: 3.943 ms
Remote clock offset: -0.671 ms

Below is generated by plot.py at 2019-01-19 14:50:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 181.81 Mbit/s
95th percentile per-packet one-way delay: 0.994 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 134.64 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.11 Mbit/s
95th percentile per-packet one-way delay: 0.953 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 36.92 Mbit/s
95th percentile per-packet one-way delay: 0.914 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-19 12:02:11

End at: 2019-01-19 12:02:41

Local clock offset: 2.199 ms

Remote clock offset: 4.758 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.73 Mbit/s

95th percentile per-packet one-way delay: 0.995 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 74.87 Mbit/s

95th percentile per-packet one-way delay: 1.001 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.65 Mbit/s

95th percentile per-packet one-way delay: 0.989 ms

Loss rate: 0.01%

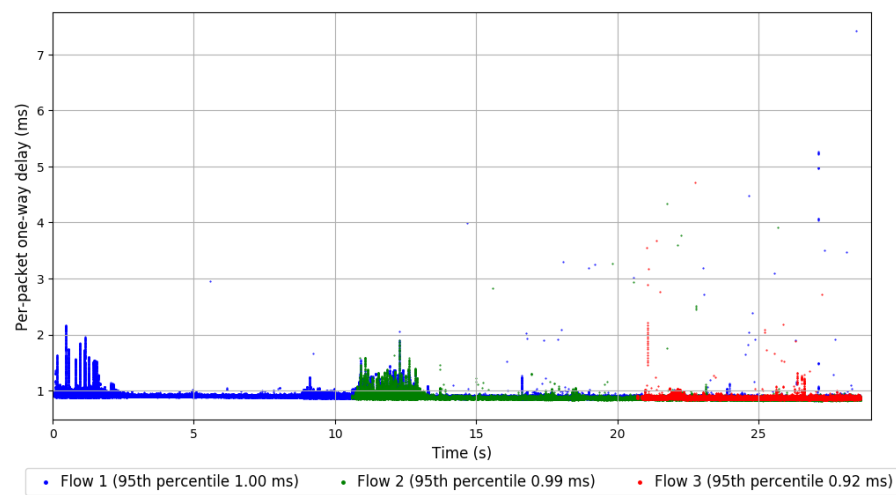
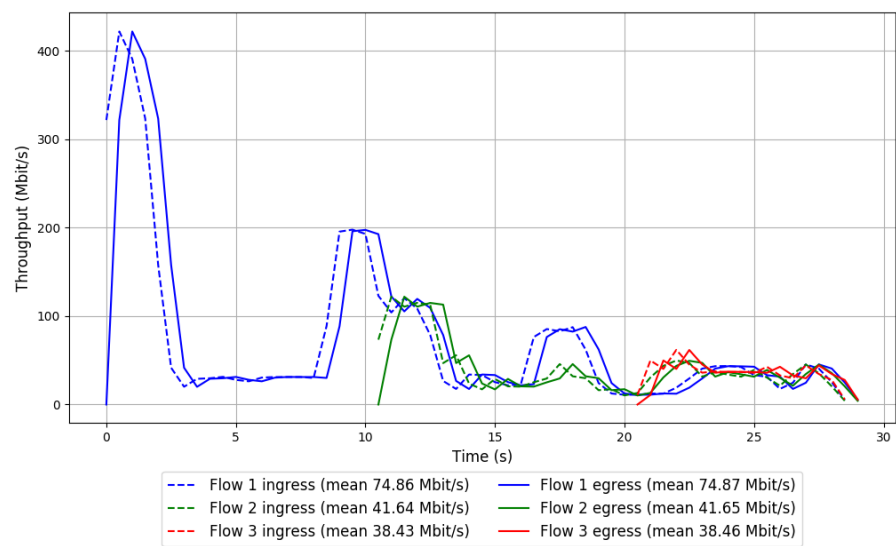
-- Flow 3:

Average throughput: 38.46 Mbit/s

95th percentile per-packet one-way delay: 0.919 ms

Loss rate: 0.02%

Run 1: Report of Indigo-MusesC5 — Data Link

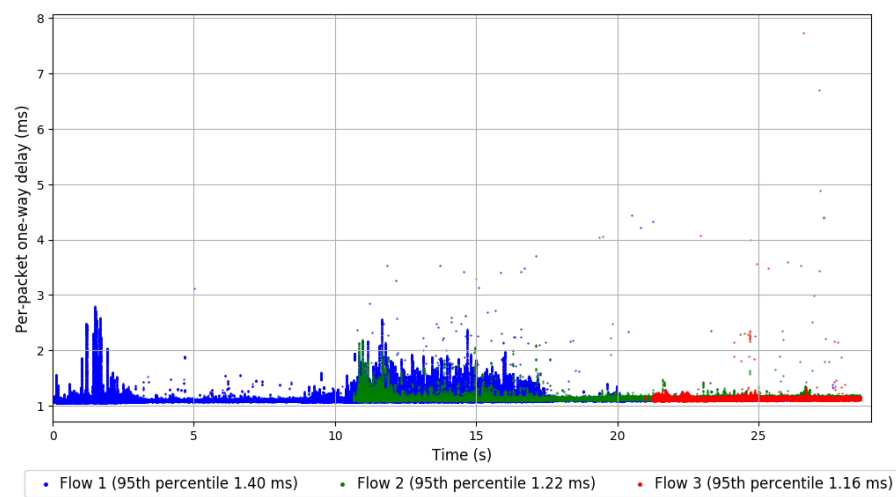
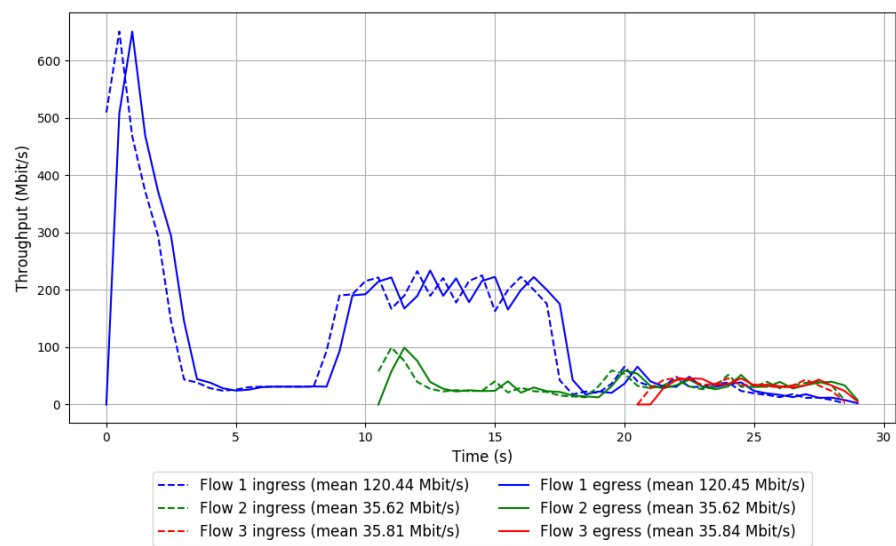


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-19 12:32:24
End at: 2019-01-19 12:32:54
Local clock offset: 1.046 ms
Remote clock offset: -0.415 ms

Below is generated by plot.py at 2019-01-19 14:50:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 152.36 Mbit/s
95th percentile per-packet one-way delay: 1.361 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 120.45 Mbit/s
95th percentile per-packet one-way delay: 1.399 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.62 Mbit/s
95th percentile per-packet one-way delay: 1.221 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.84 Mbit/s
95th percentile per-packet one-way delay: 1.160 ms
Loss rate: 0.02%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-19 13:02:43

End at: 2019-01-19 13:03:13

Local clock offset: 0.073 ms

Remote clock offset: 3.664 ms

Below is generated by plot.py at 2019-01-19 14:50:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.43 Mbit/s

95th percentile per-packet one-way delay: 1.106 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 135.29 Mbit/s

95th percentile per-packet one-way delay: 1.104 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.19 Mbit/s

95th percentile per-packet one-way delay: 1.158 ms

Loss rate: 0.00%

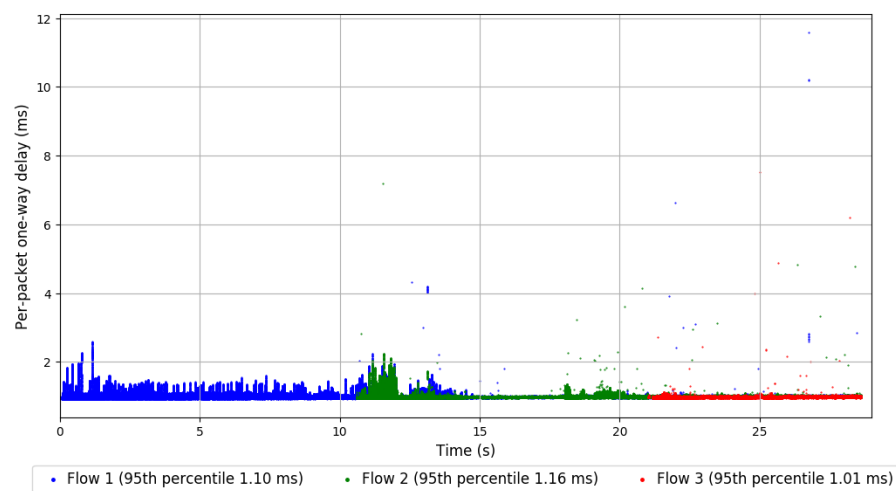
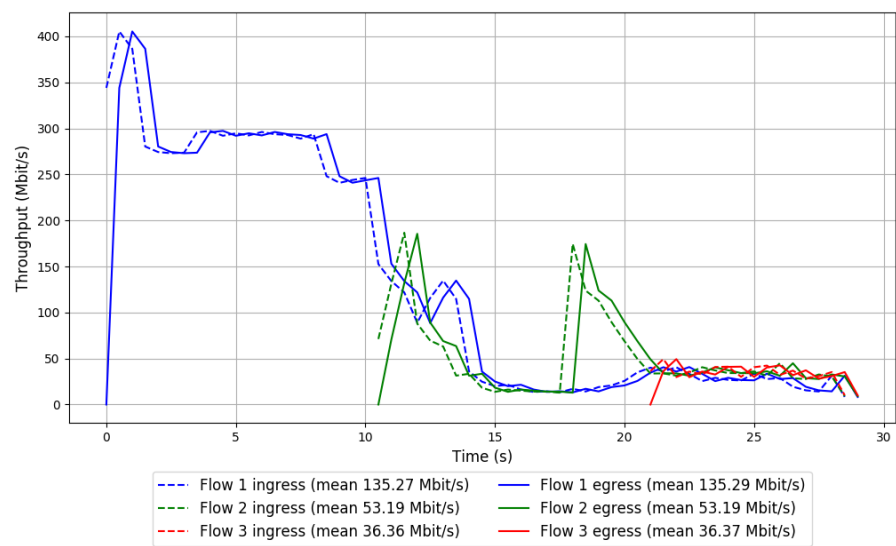
-- Flow 3:

Average throughput: 36.37 Mbit/s

95th percentile per-packet one-way delay: 1.008 ms

Loss rate: 0.02%

Run 3: Report of Indigo-MusesC5 — Data Link

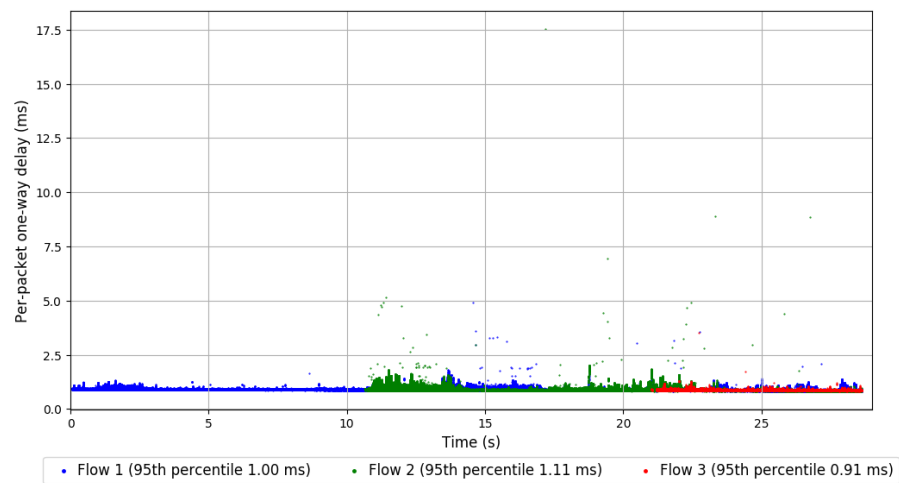
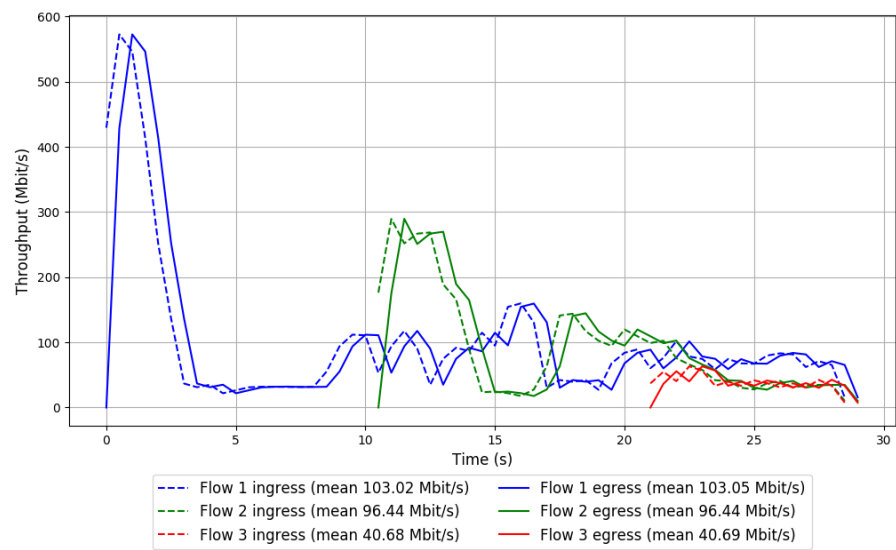


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-19 13:33:11
End at: 2019-01-19 13:33:41
Local clock offset: 2.929 ms
Remote clock offset: -0.081 ms

Below is generated by plot.py at 2019-01-19 14:50:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 174.41 Mbit/s
95th percentile per-packet one-way delay: 1.033 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 103.05 Mbit/s
95th percentile per-packet one-way delay: 1.004 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 96.44 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.69 Mbit/s
95th percentile per-packet one-way delay: 0.913 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link

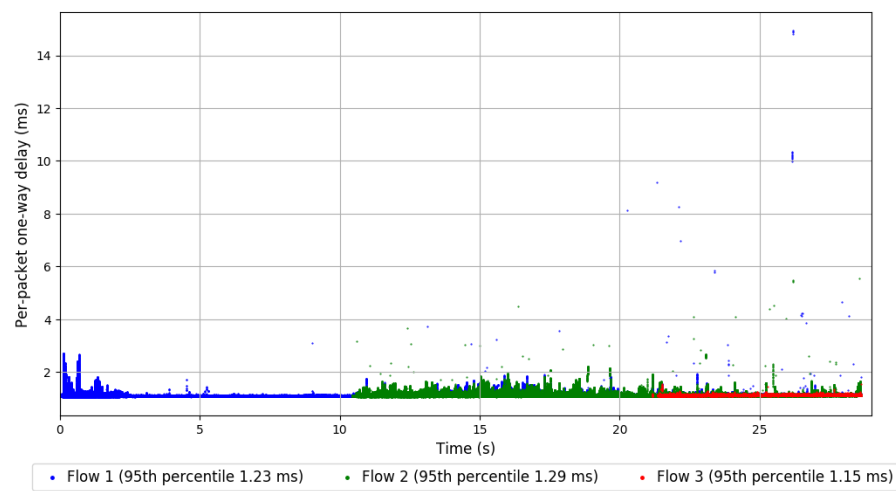
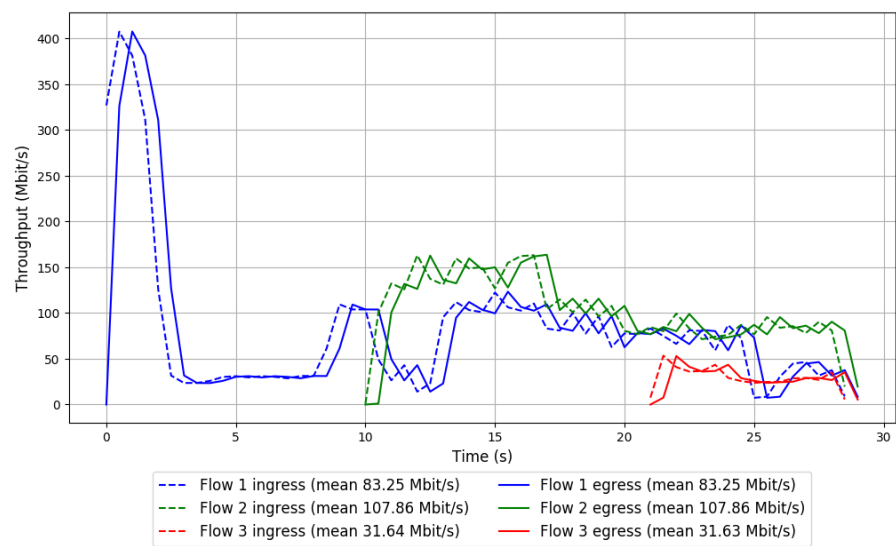


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-19 14:03:37
End at: 2019-01-19 14:04:07
Local clock offset: 0.687 ms
Remote clock offset: -0.398 ms

Below is generated by plot.py at 2019-01-19 14:50:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 159.98 Mbit/s
95th percentile per-packet one-way delay: 1.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.25 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 107.86 Mbit/s
95th percentile per-packet one-way delay: 1.294 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 1.151 ms
Loss rate: 0.02%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-19 11:56:21

End at: 2019-01-19 11:56:51

Local clock offset: 0.327 ms

Remote clock offset: 4.151 ms

Below is generated by plot.py at 2019-01-19 14:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.17 Mbit/s

95th percentile per-packet one-way delay: 0.841 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.56 Mbit/s

95th percentile per-packet one-way delay: 0.848 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.53 Mbit/s

95th percentile per-packet one-way delay: 0.813 ms

Loss rate: 0.01%

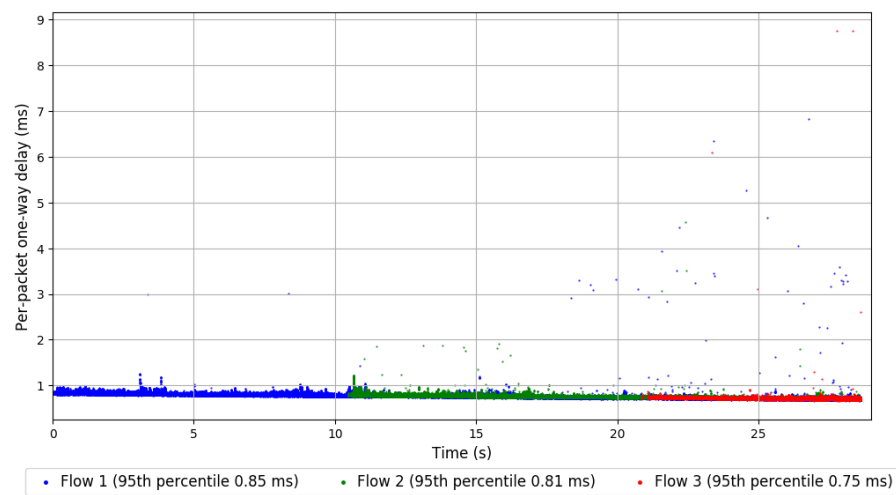
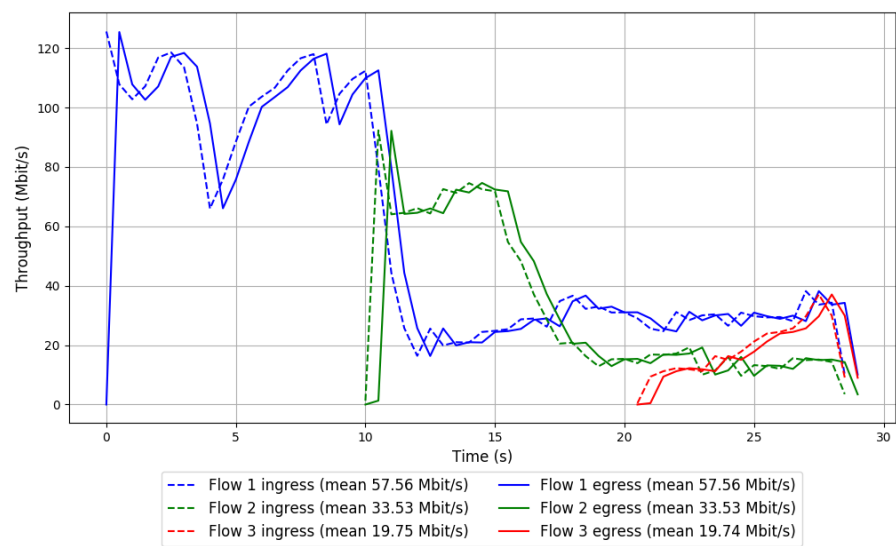
-- Flow 3:

Average throughput: 19.74 Mbit/s

95th percentile per-packet one-way delay: 0.750 ms

Loss rate: 0.02%

Run 1: Report of Indigo-MusesD — Data Link

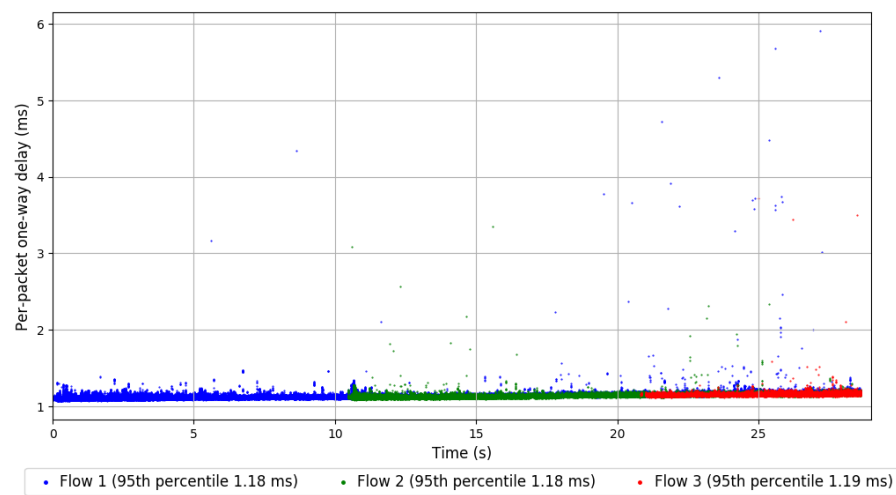
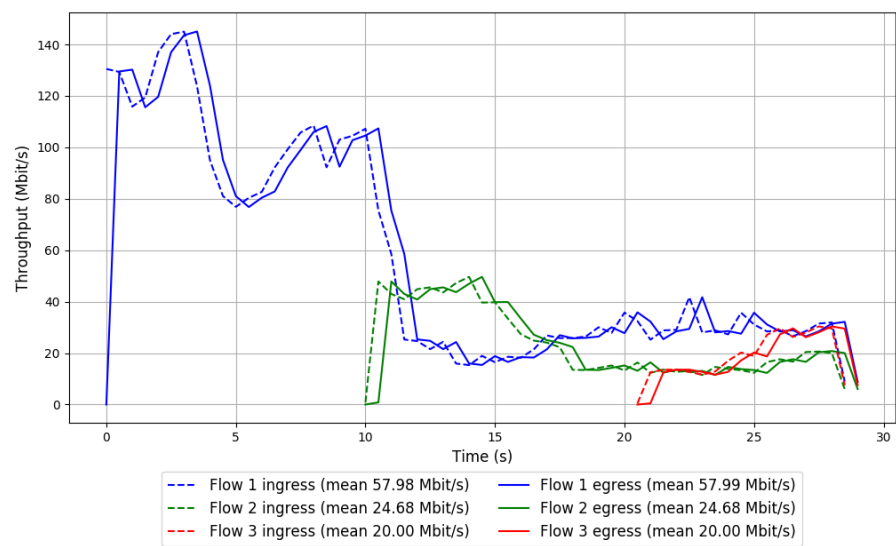


Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-19 12:26:33
End at: 2019-01-19 12:27:03
Local clock offset: 2.046 ms
Remote clock offset: -0.082 ms

Below is generated by plot.py at 2019-01-19 14:50:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 79.08 Mbit/s
95th percentile per-packet one-way delay: 1.179 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.99 Mbit/s
95th percentile per-packet one-way delay: 1.177 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 1.175 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 1.191 ms
Loss rate: 0.01%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-19 12:56:52

End at: 2019-01-19 12:57:22

Local clock offset: 0.107 ms

Remote clock offset: 3.144 ms

Below is generated by plot.py at 2019-01-19 14:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.01 Mbit/s

95th percentile per-packet one-way delay: 1.054 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 66.19 Mbit/s

95th percentile per-packet one-way delay: 1.054 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.88 Mbit/s

95th percentile per-packet one-way delay: 1.051 ms

Loss rate: 0.01%

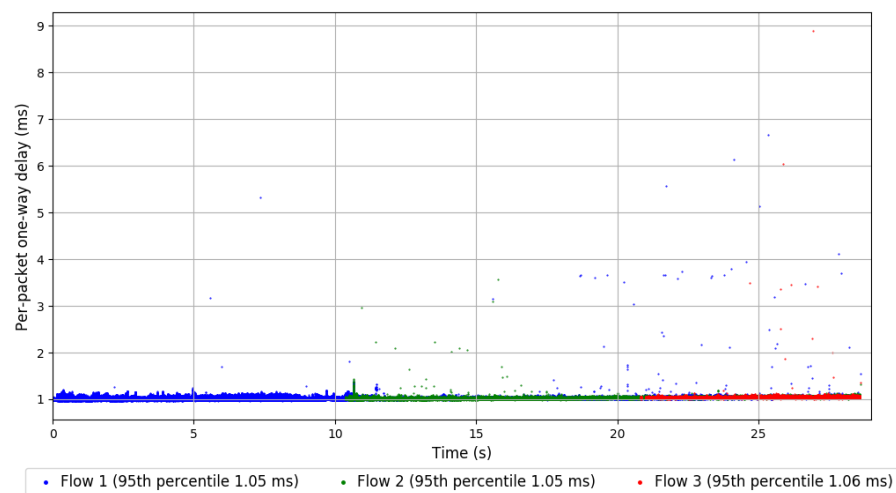
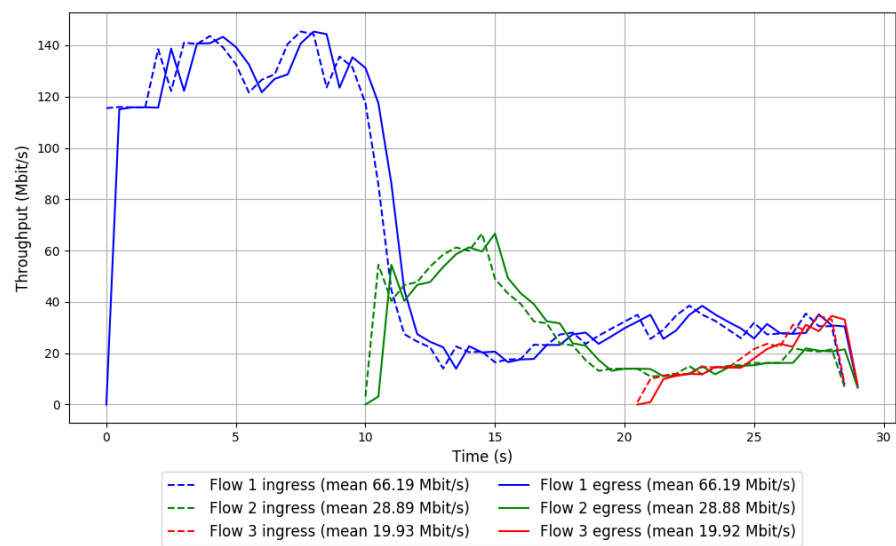
-- Flow 3:

Average throughput: 19.92 Mbit/s

95th percentile per-packet one-way delay: 1.062 ms

Loss rate: 0.05%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-19 13:27:18

End at: 2019-01-19 13:27:48

Local clock offset: 2.132 ms

Remote clock offset: 0.54 ms

Below is generated by plot.py at 2019-01-19 14:50:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.25 Mbit/s

95th percentile per-packet one-way delay: 0.850 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 57.37 Mbit/s

95th percentile per-packet one-way delay: 0.857 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.28 Mbit/s

95th percentile per-packet one-way delay: 0.782 ms

Loss rate: 0.00%

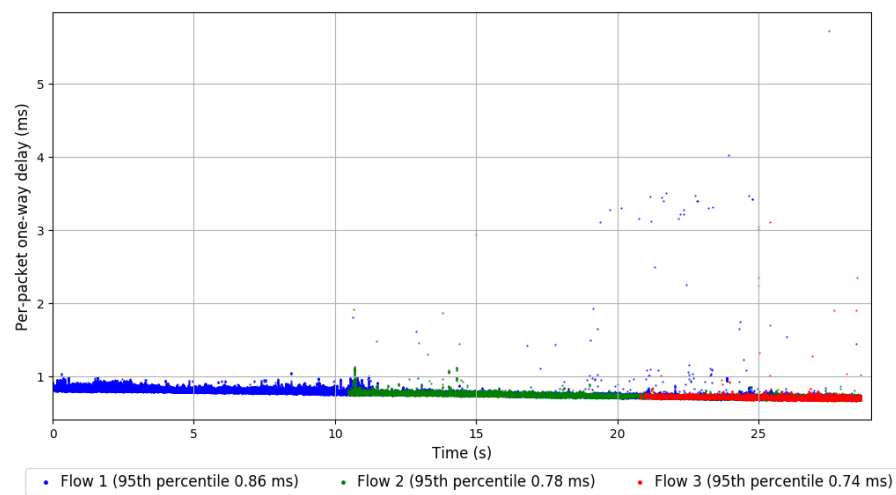
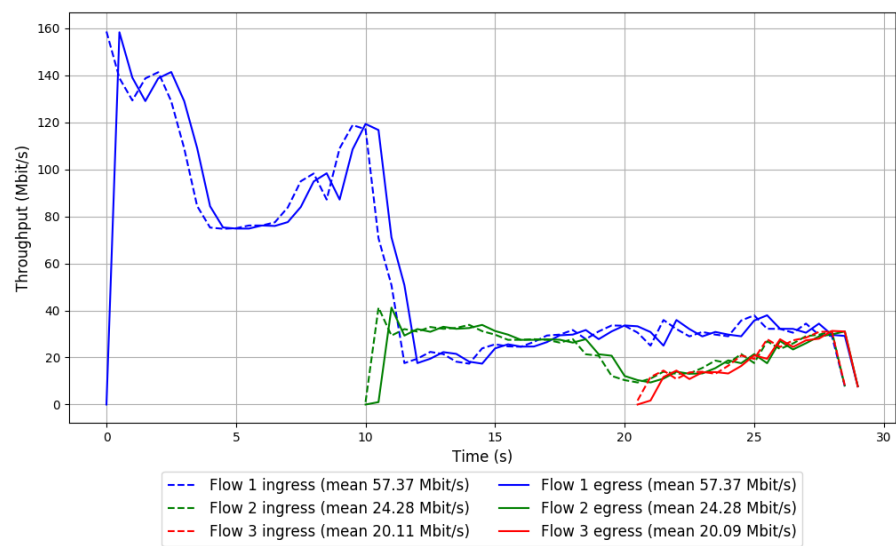
-- Flow 3:

Average throughput: 20.09 Mbit/s

95th percentile per-packet one-way delay: 0.738 ms

Loss rate: 0.11%

Run 4: Report of Indigo-MusesD — Data Link

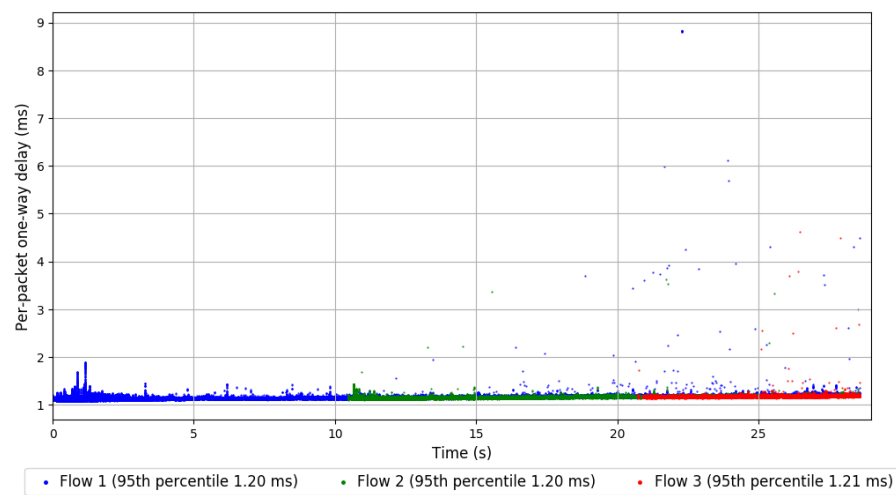
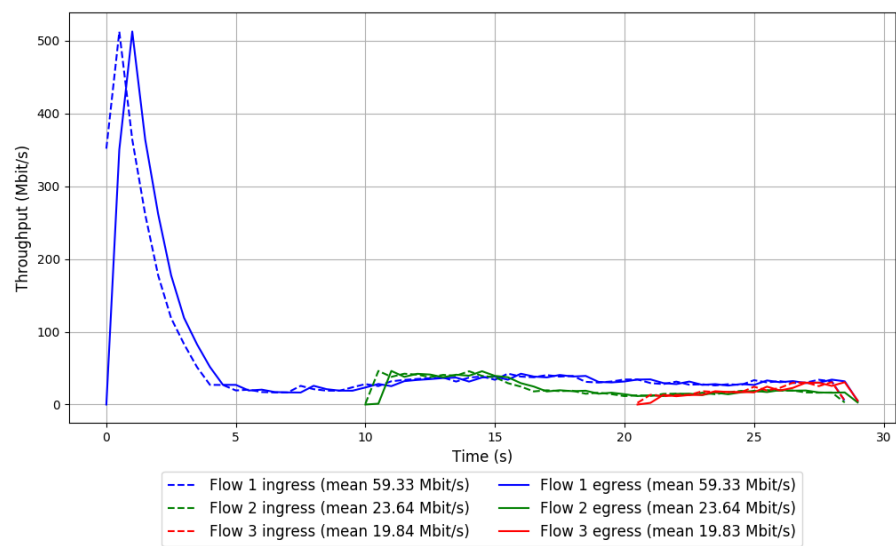


Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-19 13:57:45
End at: 2019-01-19 13:58:15
Local clock offset: 1.49 ms
Remote clock offset: -0.427 ms

Below is generated by plot.py at 2019-01-19 14:50:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 79.76 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 59.33 Mbit/s
95th percentile per-packet one-way delay: 1.203 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.64 Mbit/s
95th percentile per-packet one-way delay: 1.200 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.83 Mbit/s
95th percentile per-packet one-way delay: 1.206 ms
Loss rate: 0.02%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-19 11:59:09

End at: 2019-01-19 11:59:39

Local clock offset: 1.318 ms

Remote clock offset: 4.46 ms

Below is generated by plot.py at 2019-01-19 14:52:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 191.66 Mbit/s

95th percentile per-packet one-way delay: 0.918 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 141.27 Mbit/s

95th percentile per-packet one-way delay: 0.929 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 64.64 Mbit/s

95th percentile per-packet one-way delay: 0.846 ms

Loss rate: 0.01%

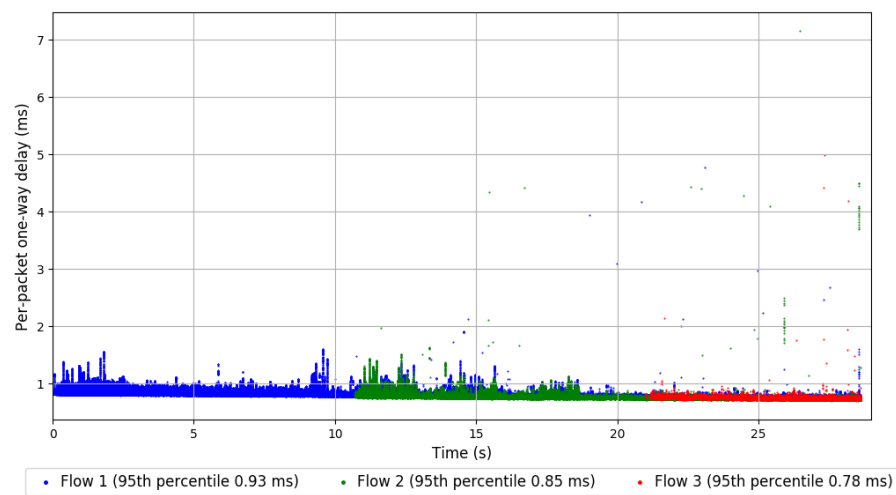
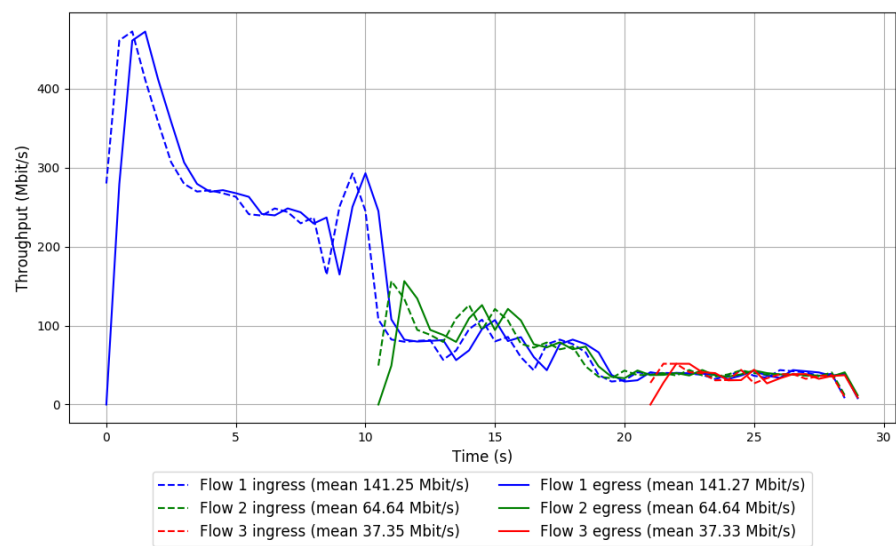
-- Flow 3:

Average throughput: 37.33 Mbit/s

95th percentile per-packet one-way delay: 0.778 ms

Loss rate: 0.06%

Run 1: Report of Indigo-MusesT — Data Link

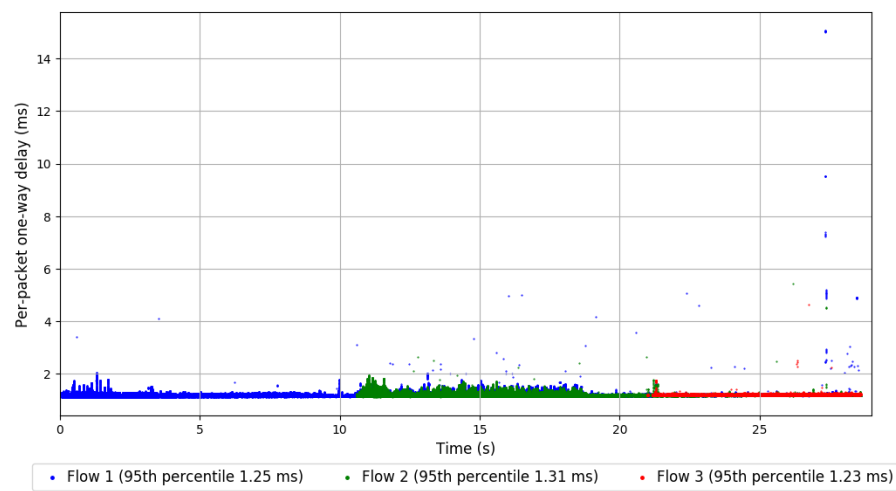
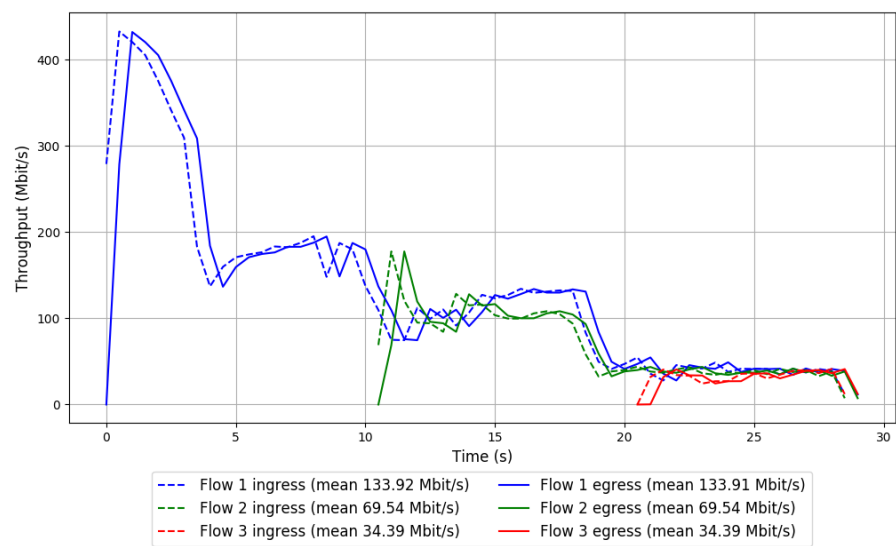


Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-19 12:29:21
End at: 2019-01-19 12:29:51
Local clock offset: 1.503 ms
Remote clock offset: -0.3 ms

Below is generated by plot.py at 2019-01-19 14:52:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 186.83 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 133.91 Mbit/s
95th percentile per-packet one-way delay: 1.252 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 69.54 Mbit/s
95th percentile per-packet one-way delay: 1.311 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.39 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-19 12:59:40

End at: 2019-01-19 13:00:10

Local clock offset: 0.104 ms

Remote clock offset: 3.411 ms

Below is generated by plot.py at 2019-01-19 14:52:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.11 Mbit/s

95th percentile per-packet one-way delay: 1.071 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 140.05 Mbit/s

95th percentile per-packet one-way delay: 1.082 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.97 Mbit/s

95th percentile per-packet one-way delay: 1.039 ms

Loss rate: 0.00%

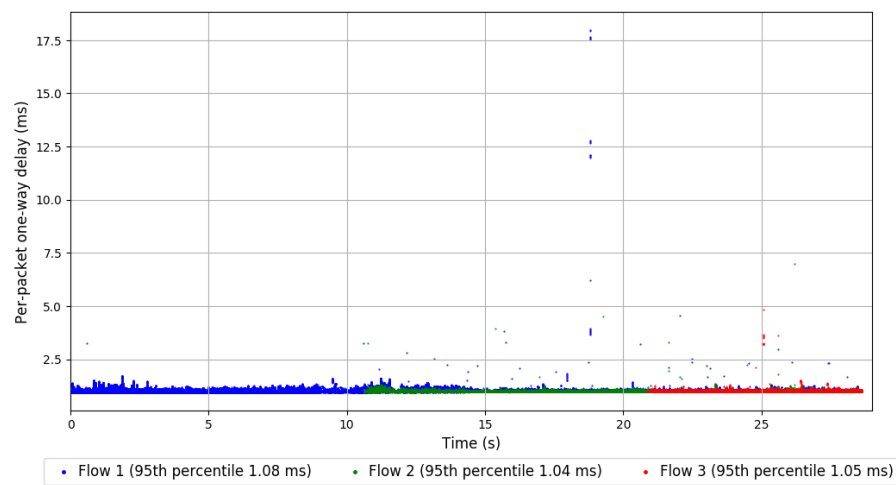
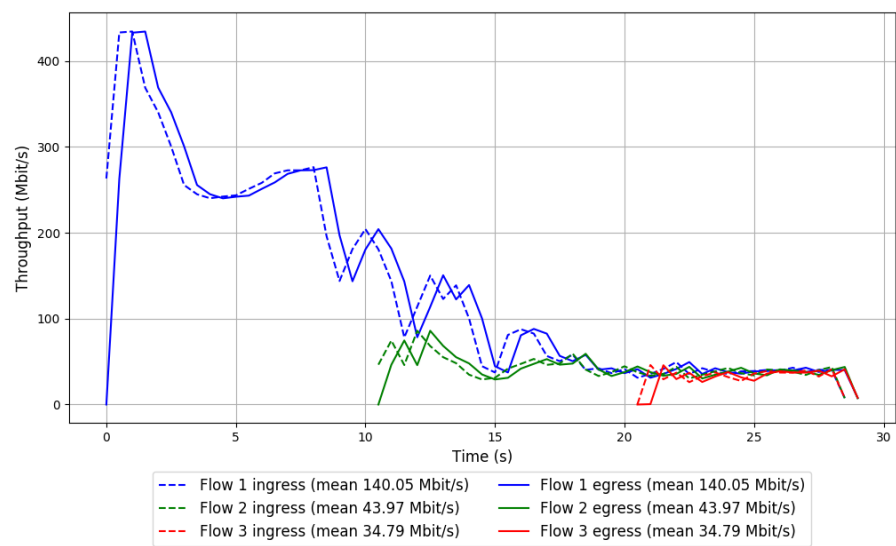
-- Flow 3:

Average throughput: 34.79 Mbit/s

95th percentile per-packet one-way delay: 1.047 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-19 13:30:06

End at: 2019-01-19 13:30:36

Local clock offset: 2.558 ms

Remote clock offset: 0.178 ms

Below is generated by plot.py at 2019-01-19 14:52:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 184.39 Mbit/s

95th percentile per-packet one-way delay: 0.973 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 129.75 Mbit/s

95th percentile per-packet one-way delay: 0.998 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.48 Mbit/s

95th percentile per-packet one-way delay: 0.905 ms

Loss rate: 0.00%

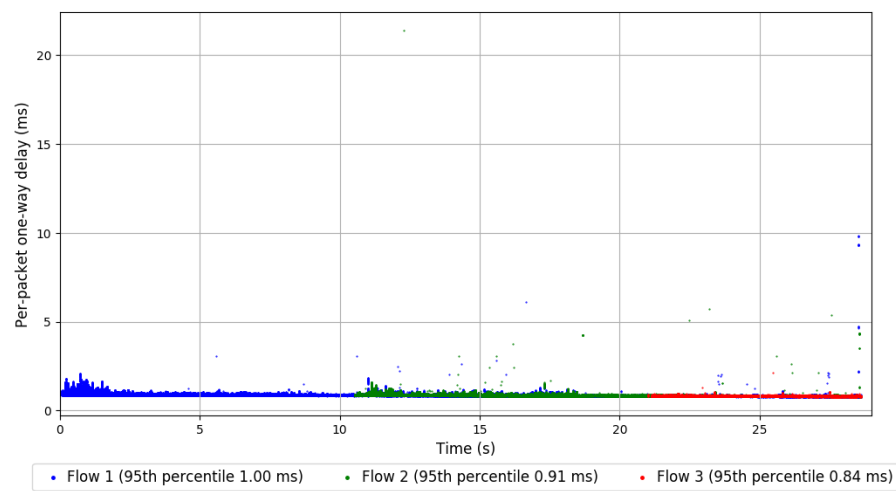
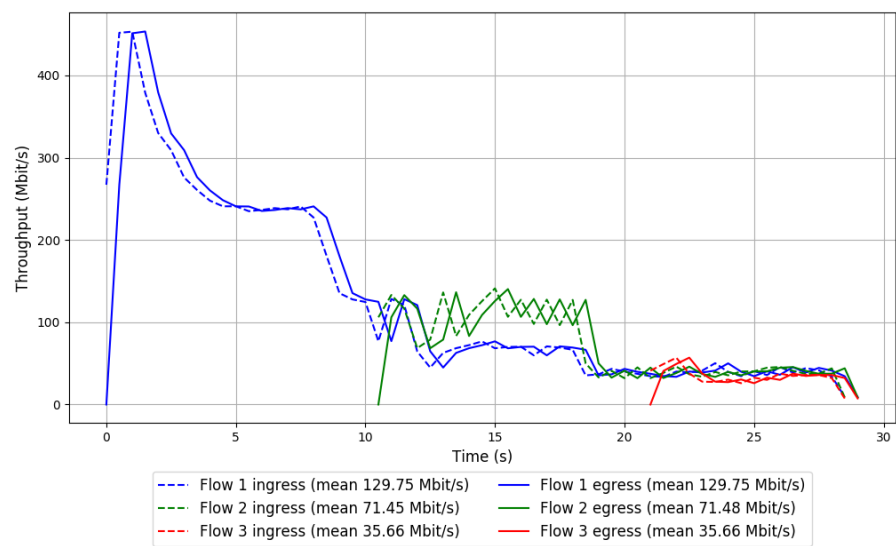
-- Flow 3:

Average throughput: 35.66 Mbit/s

95th percentile per-packet one-way delay: 0.844 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesT — Data Link

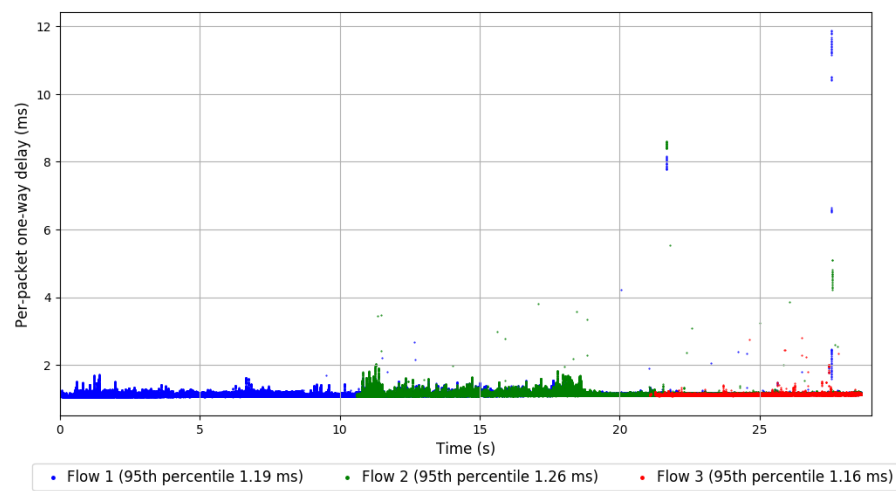
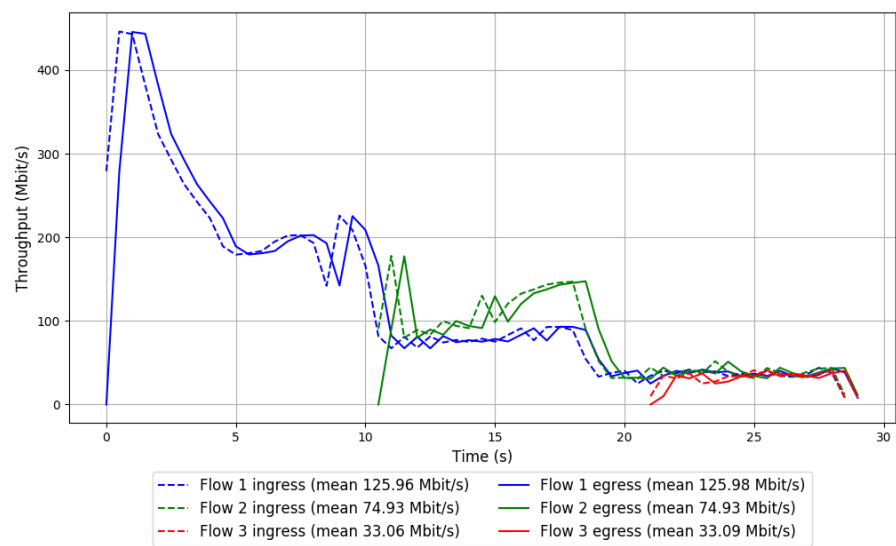


Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-19 14:00:34
End at: 2019-01-19 14:01:04
Local clock offset: 1.039 ms
Remote clock offset: -0.401 ms

Below is generated by plot.py at 2019-01-19 14:52:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 181.87 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 125.98 Mbit/s
95th percentile per-packet one-way delay: 1.188 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.93 Mbit/s
95th percentile per-packet one-way delay: 1.256 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 0.02%

Run 5: Report of Indigo-MusesT — Data Link

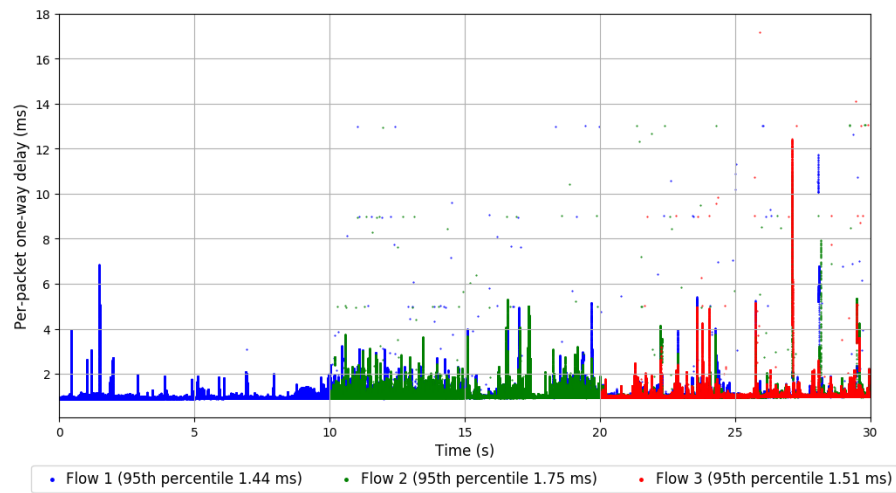
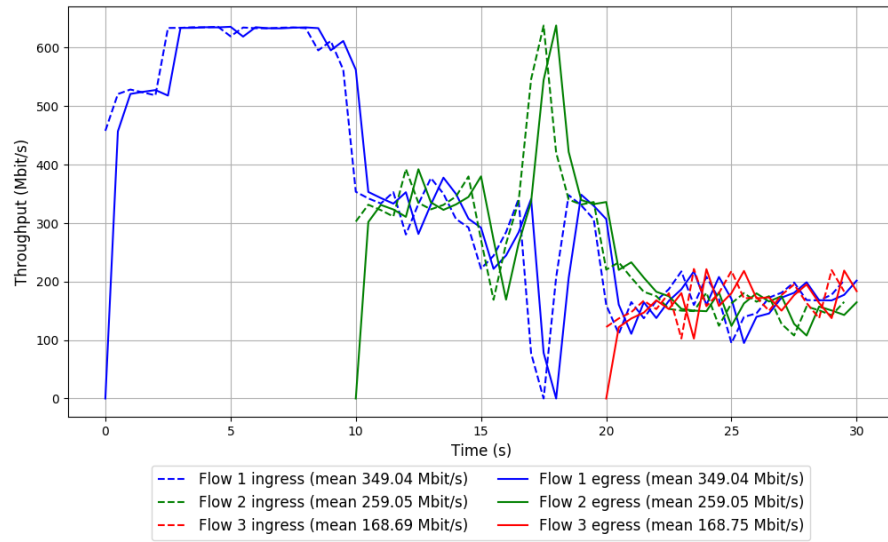


```
Run 1: Statistics of LEDBAT

Start at: 2019-01-19 11:44:41
End at: 2019-01-19 11:45:11
Local clock offset: -3.635 ms
Remote clock offset: 2.815 ms

# Below is generated by plot.py at 2019-01-19 14:56:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 577.49 Mbit/s
95th percentile per-packet one-way delay: 1.539 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 349.04 Mbit/s
95th percentile per-packet one-way delay: 1.438 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 259.05 Mbit/s
95th percentile per-packet one-way delay: 1.754 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 168.75 Mbit/s
95th percentile per-packet one-way delay: 1.508 ms
Loss rate: 0.01%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-01-19 12:14:52

End at: 2019-01-19 12:15:22

Local clock offset: 4.137 ms

Remote clock offset: 1.311 ms

Below is generated by plot.py at 2019-01-19 14:57:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 586.42 Mbit/s

95th percentile per-packet one-way delay: 2.413 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 363.37 Mbit/s

95th percentile per-packet one-way delay: 2.721 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 234.76 Mbit/s

95th percentile per-packet one-way delay: 2.318 ms

Loss rate: 0.03%

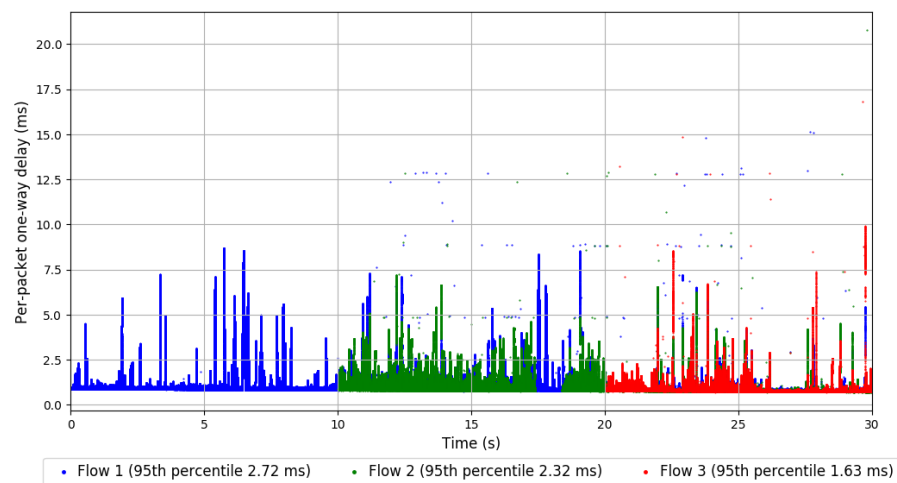
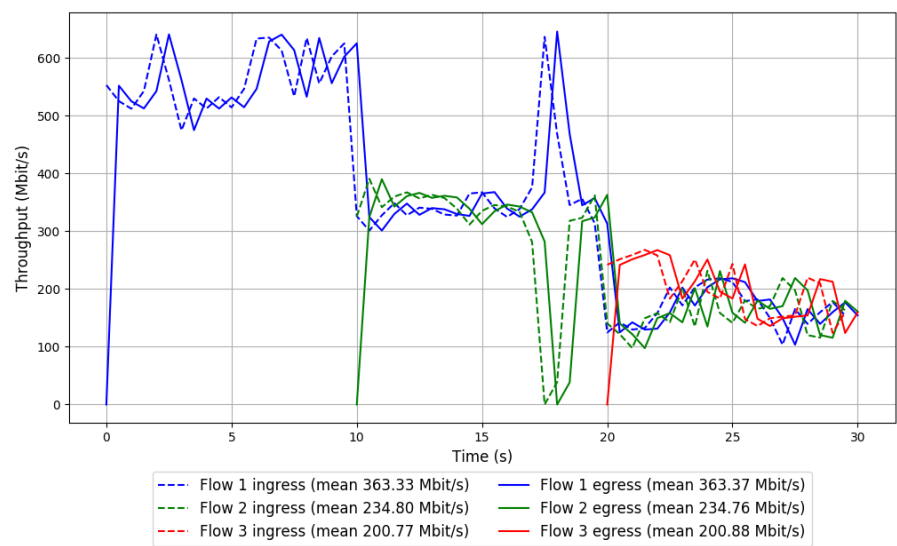
-- Flow 3:

Average throughput: 200.88 Mbit/s

95th percentile per-packet one-way delay: 1.629 ms

Loss rate: 0.01%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-01-19 12:45:11

End at: 2019-01-19 12:45:41

Local clock offset: 0.282 ms

Remote clock offset: 1.272 ms

Below is generated by plot.py at 2019-01-19 14:57:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 586.95 Mbit/s

95th percentile per-packet one-way delay: 4.245 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 372.18 Mbit/s

95th percentile per-packet one-way delay: 4.881 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 244.05 Mbit/s

95th percentile per-packet one-way delay: 2.601 ms

Loss rate: 0.01%

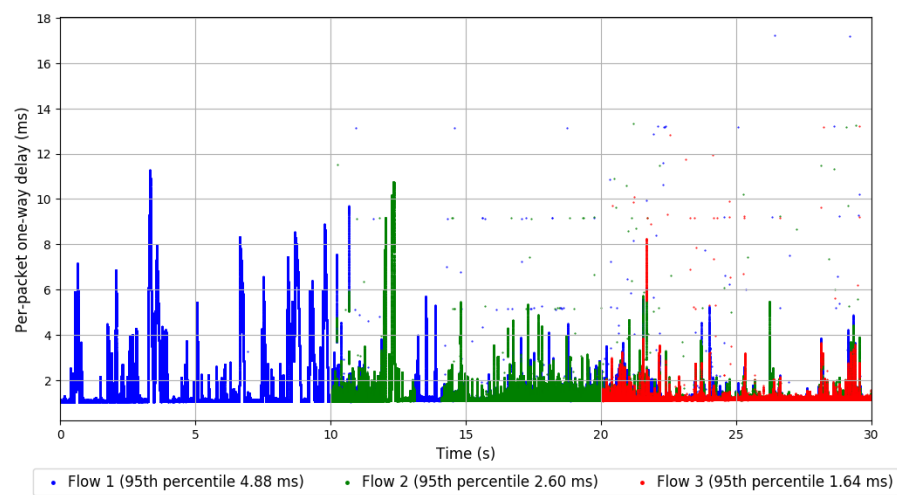
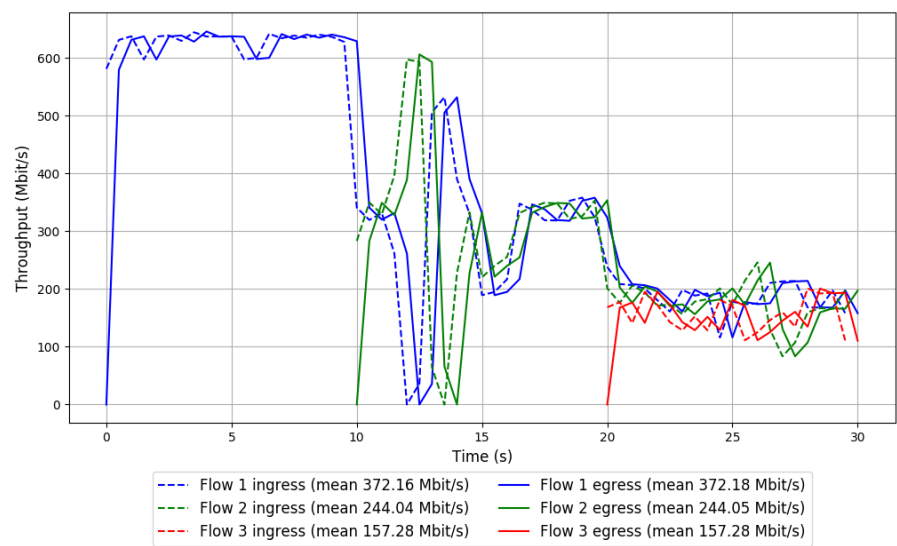
-- Flow 3:

Average throughput: 157.28 Mbit/s

95th percentile per-packet one-way delay: 1.643 ms

Loss rate: 0.02%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-01-19 13:15:33

End at: 2019-01-19 13:16:03

Local clock offset: 0.055 ms

Remote clock offset: 3.452 ms

Below is generated by plot.py at 2019-01-19 14:58:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 545.37 Mbit/s

95th percentile per-packet one-way delay: 6.516 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 320.99 Mbit/s

95th percentile per-packet one-way delay: 7.868 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 252.96 Mbit/s

95th percentile per-packet one-way delay: 1.819 ms

Loss rate: 0.00%

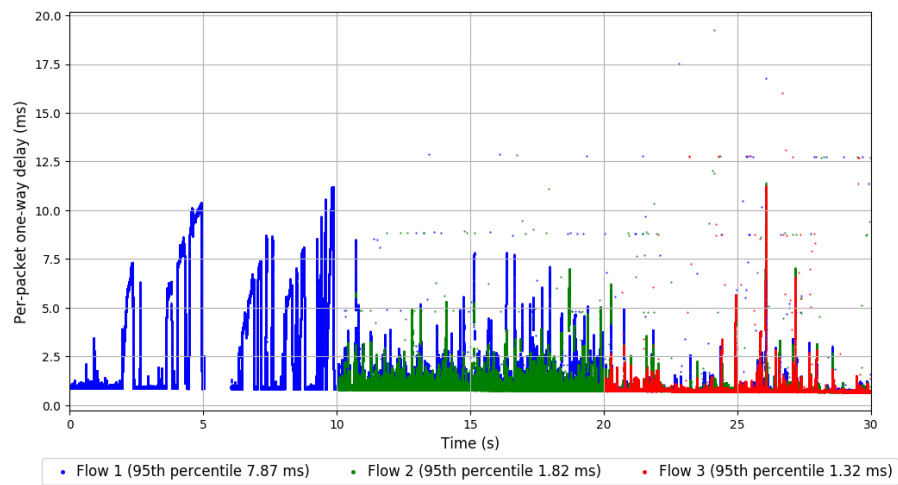
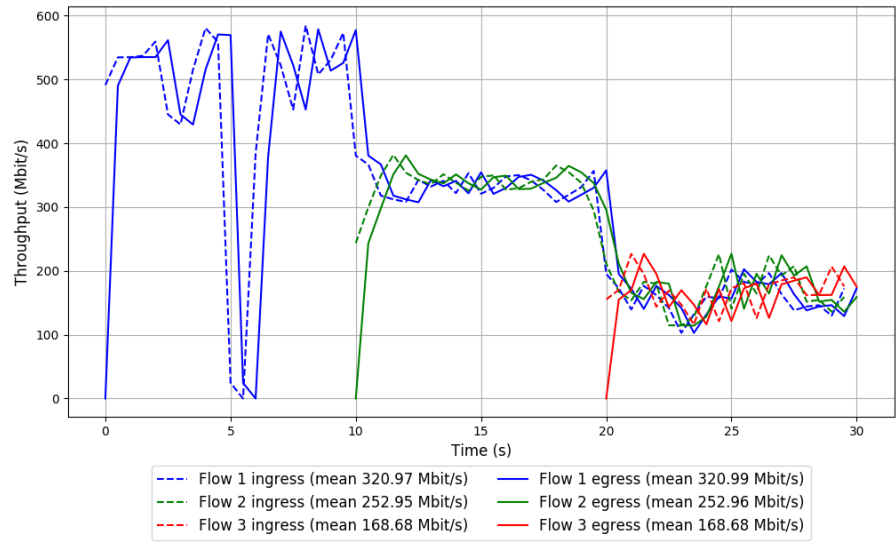
-- Flow 3:

Average throughput: 168.68 Mbit/s

95th percentile per-packet one-way delay: 1.319 ms

Loss rate: 0.02%

Run 4: Report of LEDBAT — Data Link

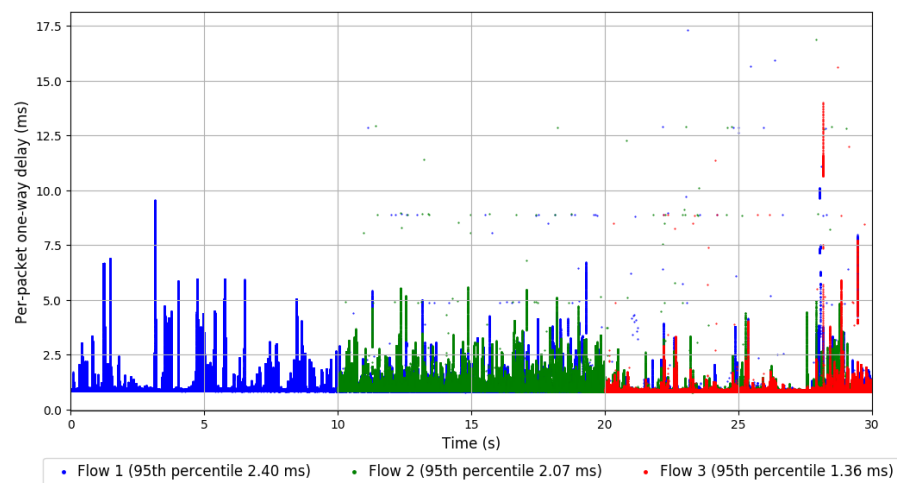
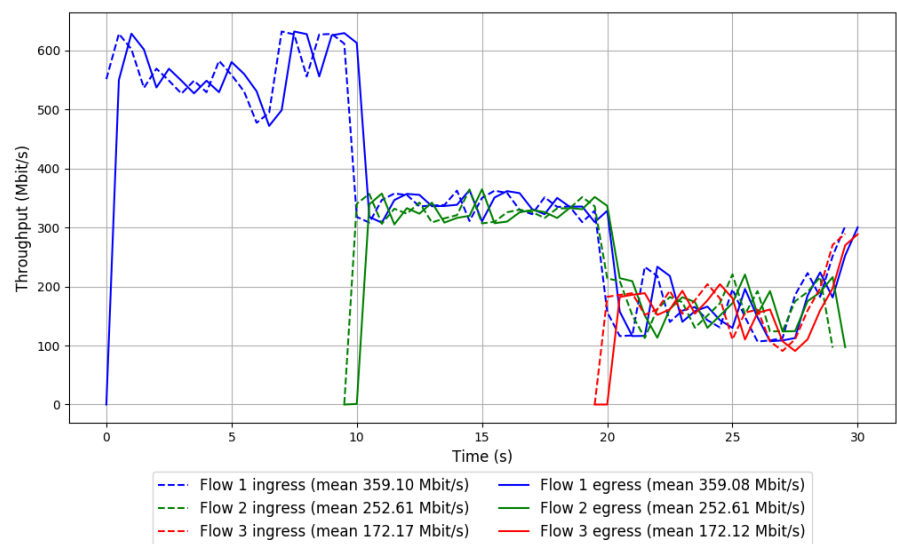


Run 5: Statistics of LEDBAT

Start at: 2019-01-19 13:46:00
End at: 2019-01-19 13:46:30
Local clock offset: 3.856 ms
Remote clock offset: -0.599 ms

Below is generated by plot.py at 2019-01-19 14:58:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 578.66 Mbit/s
95th percentile per-packet one-way delay: 2.196 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 359.08 Mbit/s
95th percentile per-packet one-way delay: 2.400 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 252.61 Mbit/s
95th percentile per-packet one-way delay: 2.071 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 172.12 Mbit/s
95th percentile per-packet one-way delay: 1.359 ms
Loss rate: 0.05%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-01-19 12:04:57

End at: 2019-01-19 12:05:27

Local clock offset: 2.787 ms

Remote clock offset: 5.029 ms

Below is generated by plot.py at 2019-01-19 14:58:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 364.77 Mbit/s

95th percentile per-packet one-way delay: 1.502 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 228.23 Mbit/s

95th percentile per-packet one-way delay: 1.443 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 115.00 Mbit/s

95th percentile per-packet one-way delay: 1.326 ms

Loss rate: 0.01%

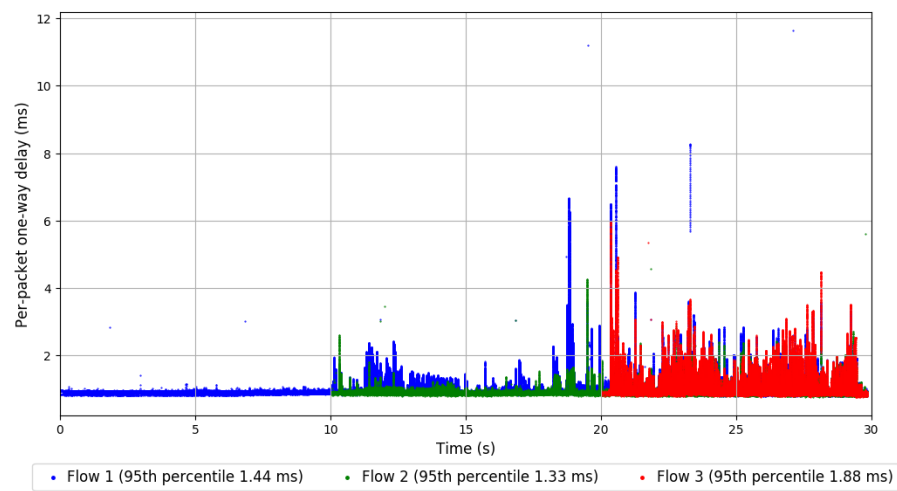
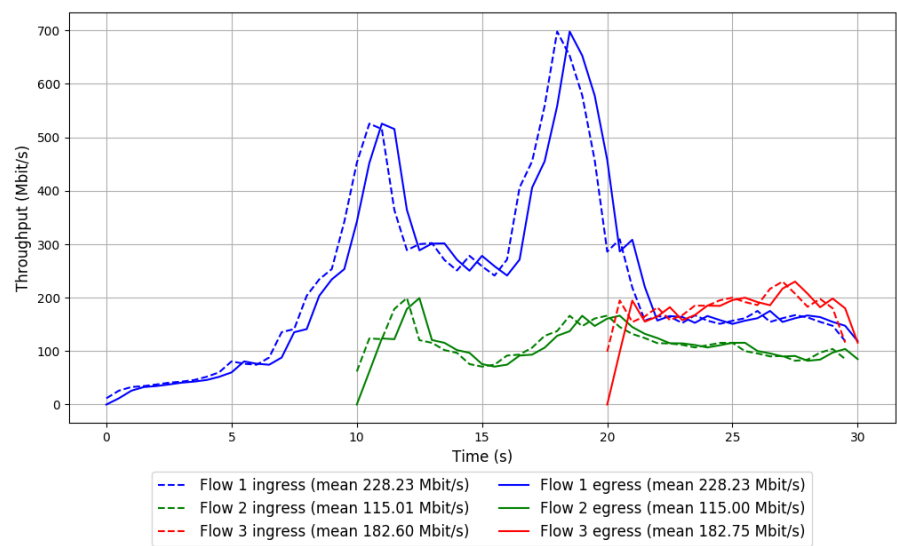
-- Flow 3:

Average throughput: 182.75 Mbit/s

95th percentile per-packet one-way delay: 1.882 ms

Loss rate: 0.01%

Run 1: Report of PCC-Allegro — Data Link

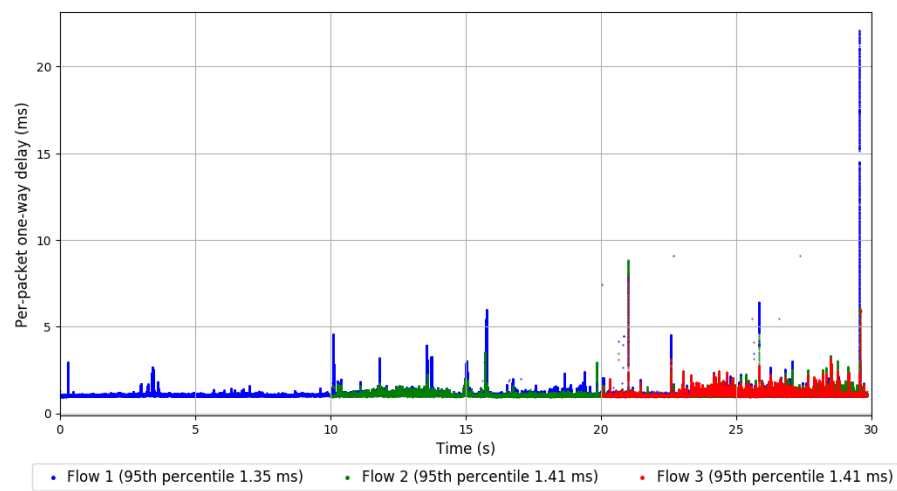
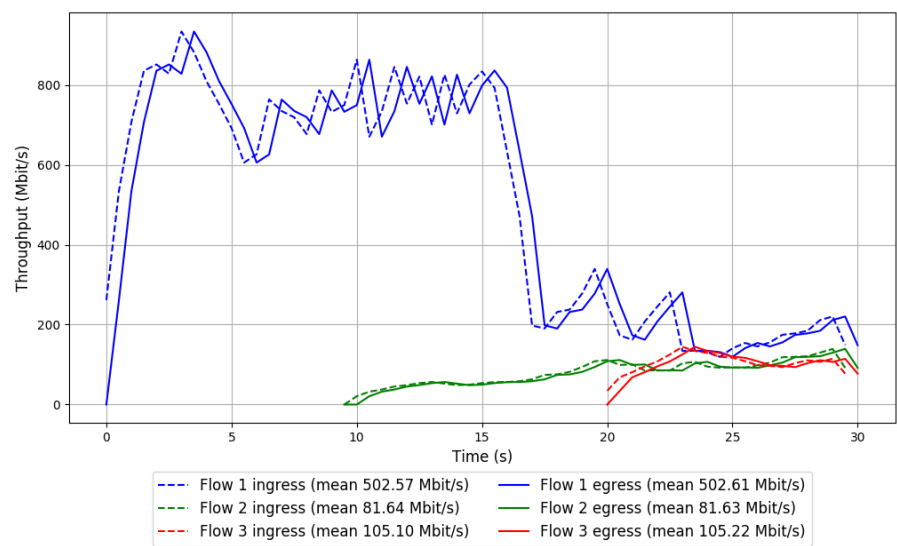


Run 2: Statistics of PCC-Allegro

Start at: 2019-01-19 12:35:10
End at: 2019-01-19 12:35:40
Local clock offset: 0.78 ms
Remote clock offset: -0.424 ms

Below is generated by plot.py at 2019-01-19 14:58:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 591.55 Mbit/s
95th percentile per-packet one-way delay: 1.370 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 502.61 Mbit/s
95th percentile per-packet one-way delay: 1.355 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 81.63 Mbit/s
95th percentile per-packet one-way delay: 1.414 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 105.22 Mbit/s
95th percentile per-packet one-way delay: 1.412 ms
Loss rate: 0.02%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-01-19 13:05:32

End at: 2019-01-19 13:06:02

Local clock offset: 0.059 ms

Remote clock offset: 3.763 ms

Below is generated by plot.py at 2019-01-19 14:59:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 628.88 Mbit/s

95th percentile per-packet one-way delay: 1.763 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 504.47 Mbit/s

95th percentile per-packet one-way delay: 1.796 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 120.23 Mbit/s

95th percentile per-packet one-way delay: 1.569 ms

Loss rate: 0.01%

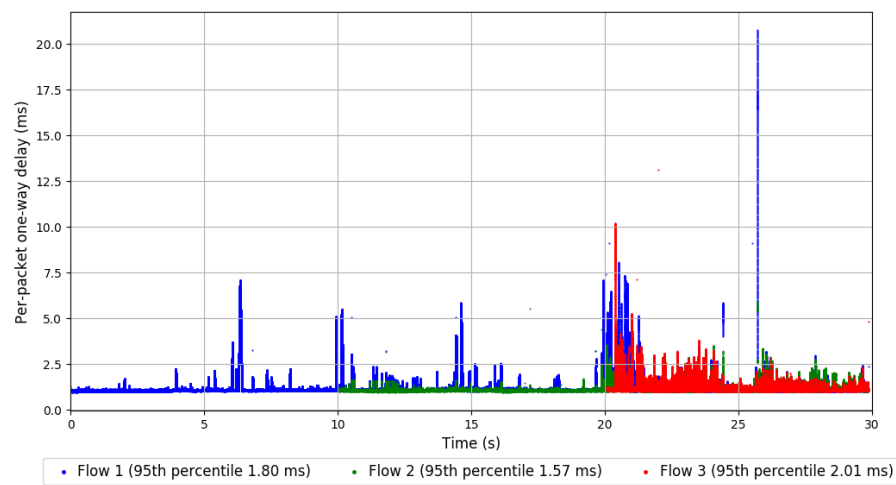
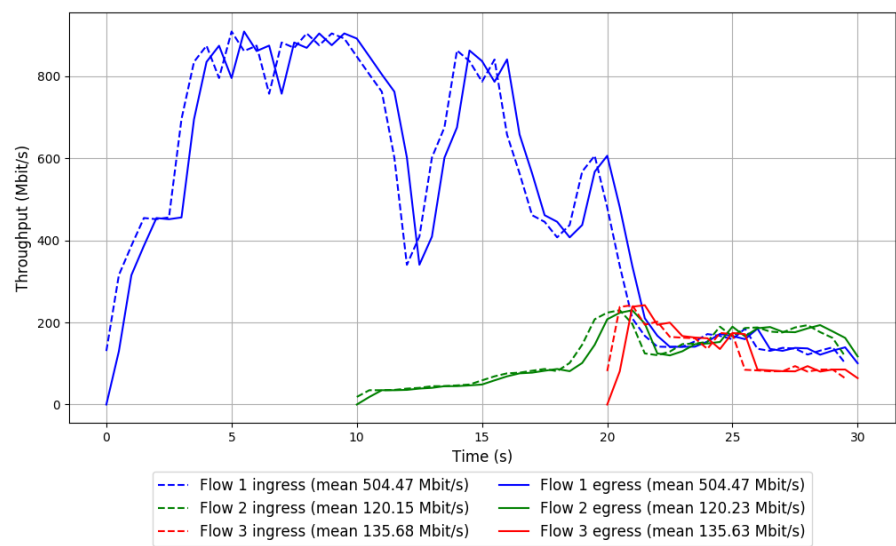
-- Flow 3:

Average throughput: 135.63 Mbit/s

95th percentile per-packet one-way delay: 2.013 ms

Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link

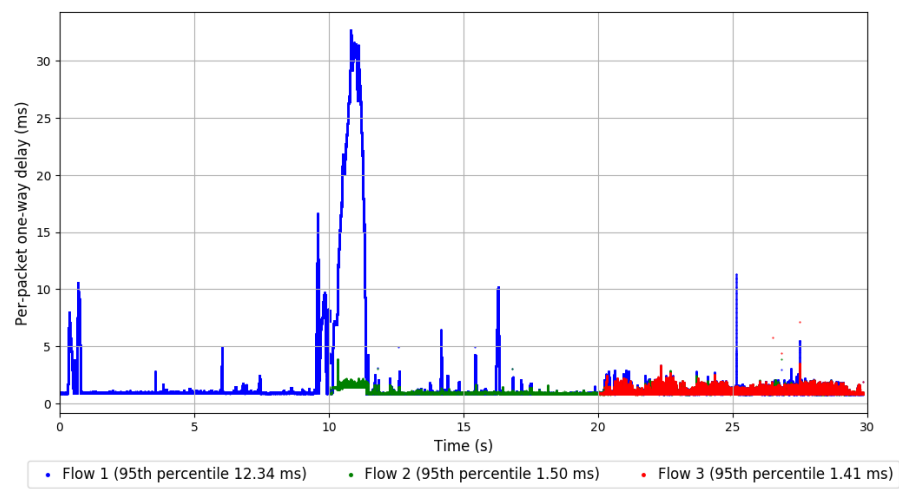
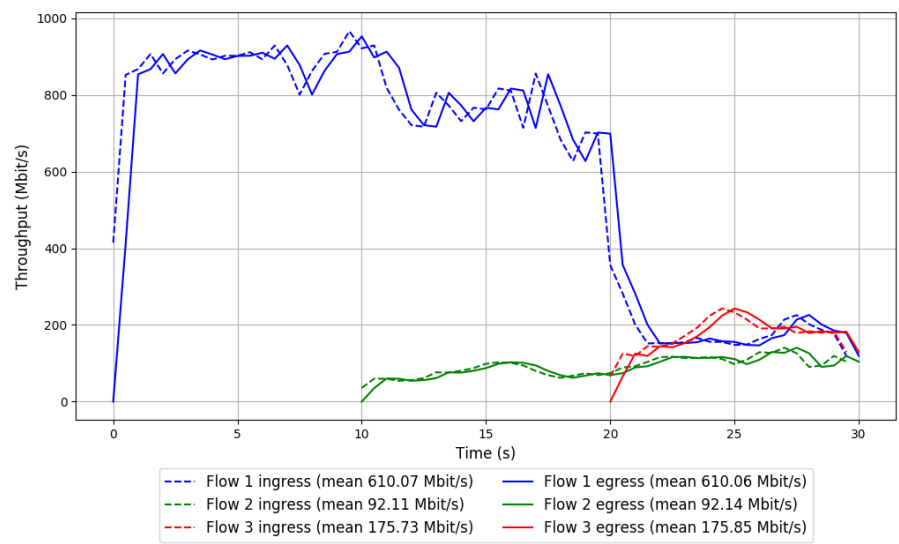


Run 4: Statistics of PCC-Allegro

Start at: 2019-01-19 13:35:56
End at: 2019-01-19 13:36:26
Local clock offset: 3.183 ms
Remote clock offset: -0.261 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 729.17 Mbit/s
95th percentile per-packet one-way delay: 9.091 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 610.06 Mbit/s
95th percentile per-packet one-way delay: 12.341 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 92.14 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 175.85 Mbit/s
95th percentile per-packet one-way delay: 1.414 ms
Loss rate: 0.02%

Run 4: Report of PCC-Allegro — Data Link

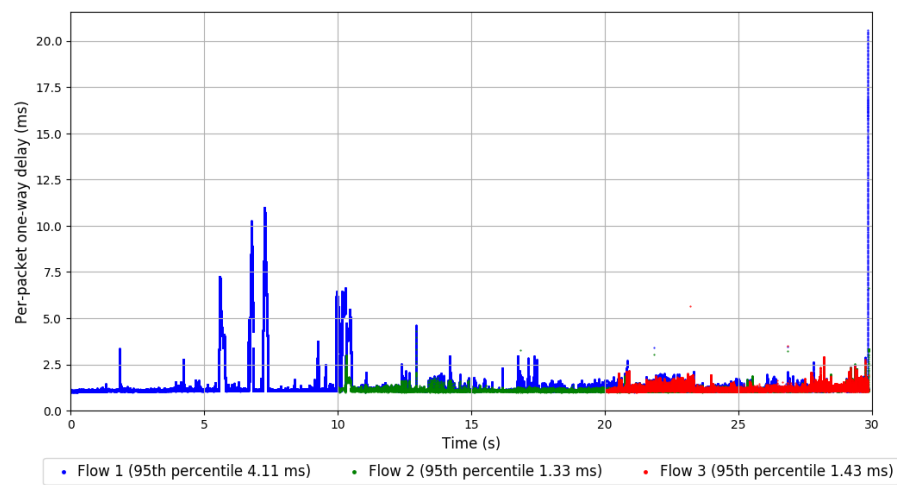
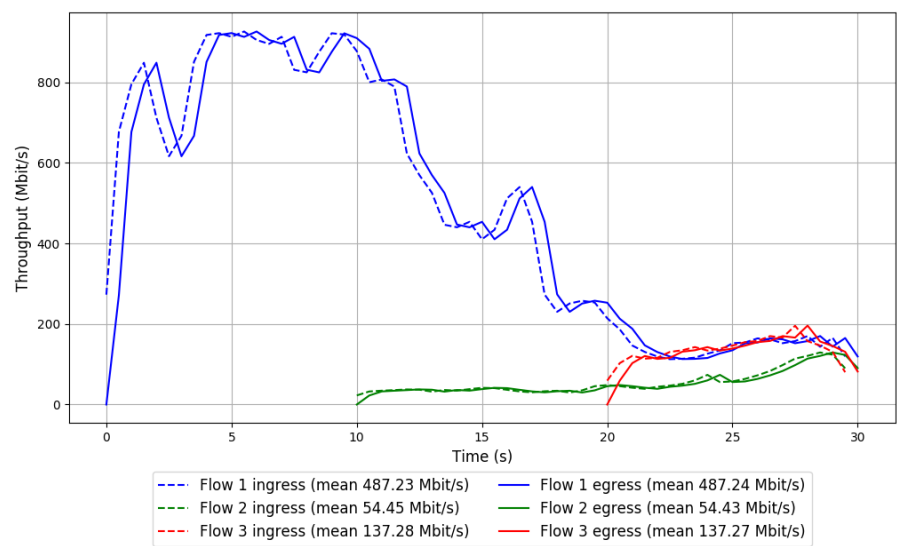


Run 5: Statistics of PCC-Allegro

Start at: 2019-01-19 14:06:25
End at: 2019-01-19 14:06:55
Local clock offset: 0.45 ms
Remote clock offset: -0.389 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 568.51 Mbit/s
95th percentile per-packet one-way delay: 3.786 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 487.24 Mbit/s
95th percentile per-packet one-way delay: 4.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.43 Mbit/s
95th percentile per-packet one-way delay: 1.332 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 137.27 Mbit/s
95th percentile per-packet one-way delay: 1.429 ms
Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

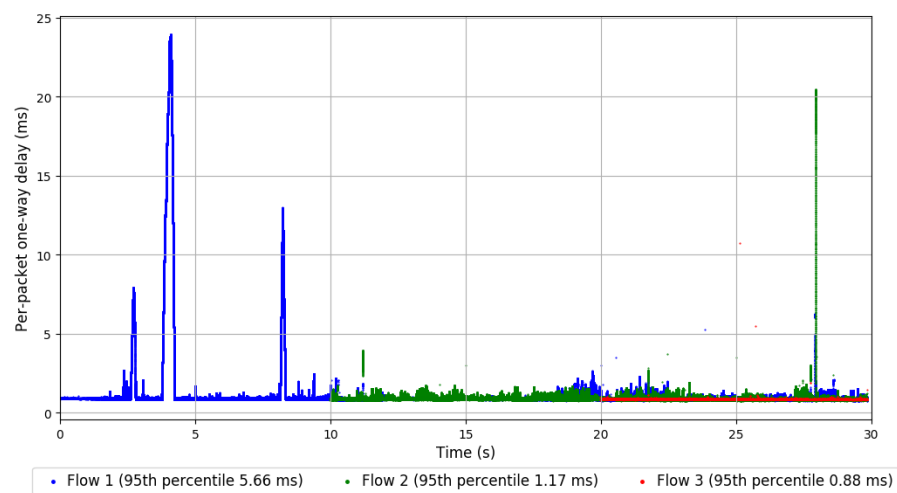
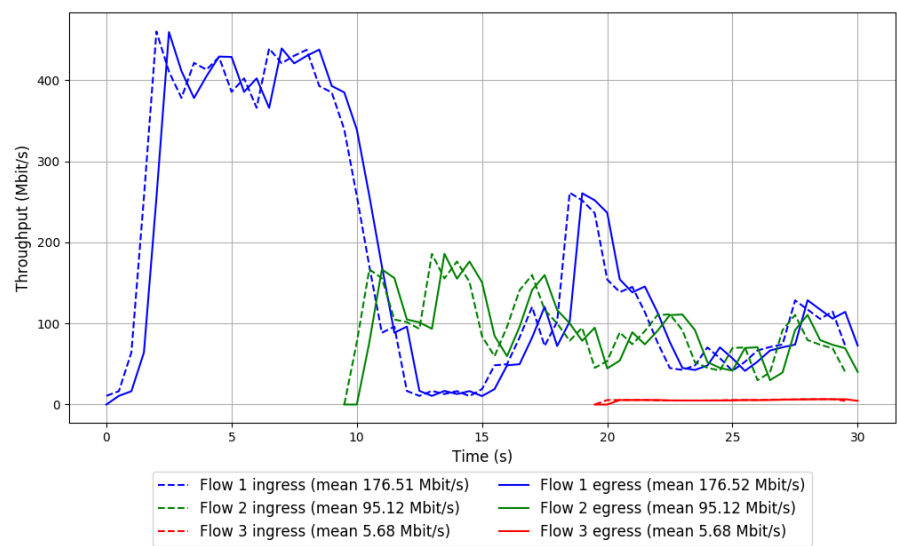


```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-19 12:03:28
End at: 2019-01-19 12:03:58
Local clock offset: 2.472 ms
Remote clock offset: 4.893 ms

# Below is generated by plot.py at 2019-01-19 15:04:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.71 Mbit/s
95th percentile per-packet one-way delay: 2.262 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 176.52 Mbit/s
95th percentile per-packet one-way delay: 5.660 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 1.167 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 0.883 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link

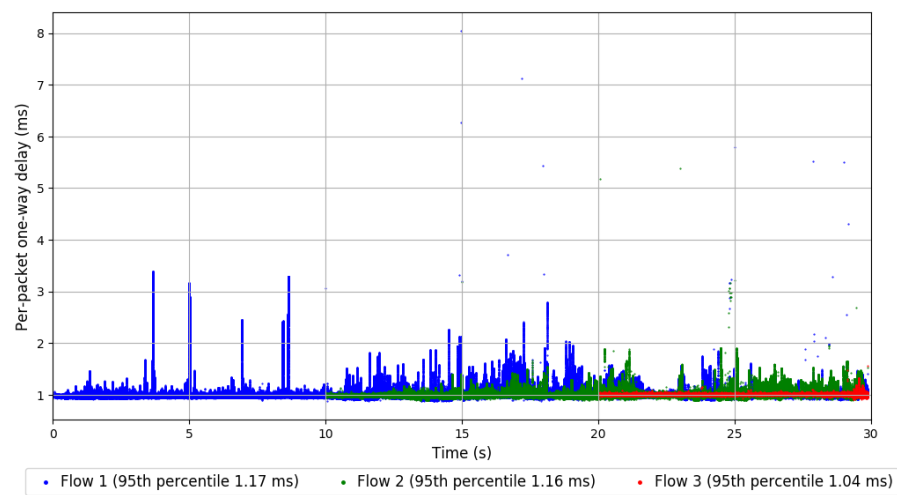
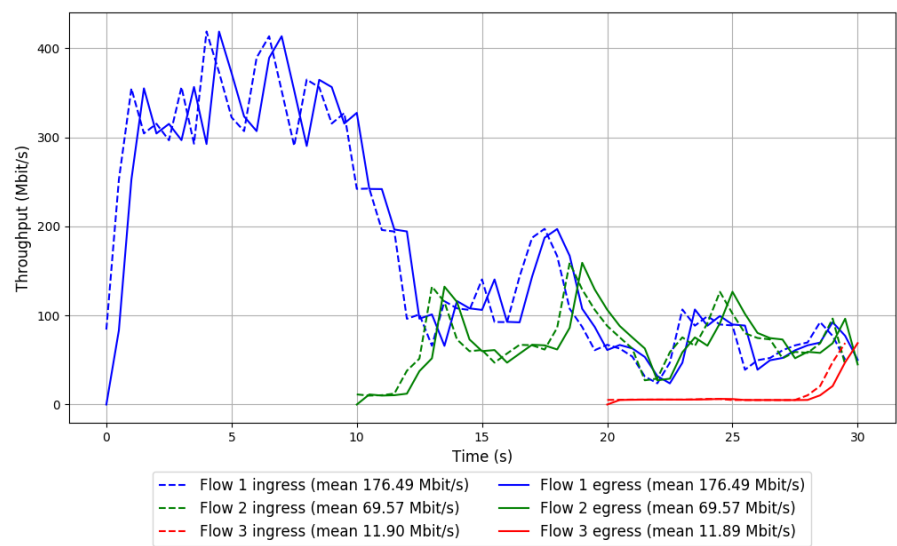


Run 2: Statistics of PCC-Expr

Start at: 2019-01-19 12:33:42
End at: 2019-01-19 12:34:12
Local clock offset: 0.921 ms
Remote clock offset: -0.332 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 226.69 Mbit/s
95th percentile per-packet one-way delay: 1.161 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 176.49 Mbit/s
95th percentile per-packet one-way delay: 1.167 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.57 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 1.040 ms
Loss rate: 0.12%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-01-19 13:04:02

End at: 2019-01-19 13:04:32

Local clock offset: 0.06 ms

Remote clock offset: 3.66 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 254.34 Mbit/s

95th percentile per-packet one-way delay: 1.117 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 228.57 Mbit/s

95th percentile per-packet one-way delay: 1.113 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 5.24 Mbit/s

95th percentile per-packet one-way delay: 1.093 ms

Loss rate: 0.00%

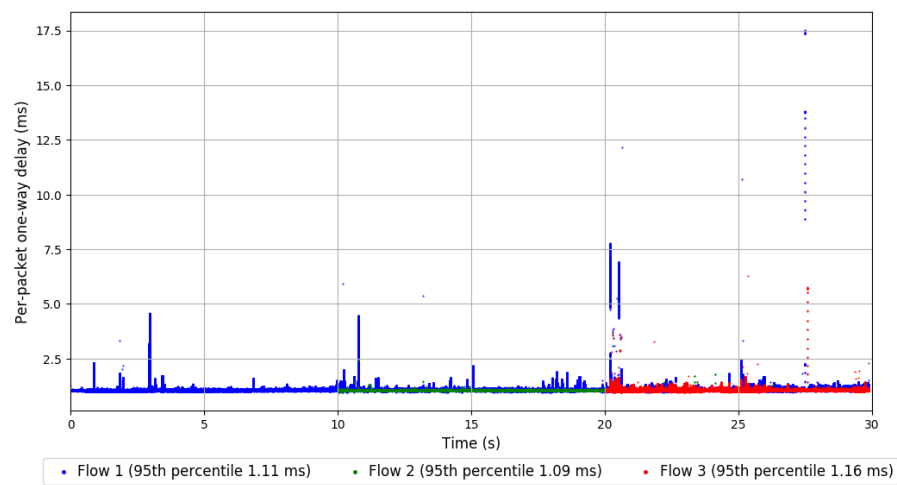
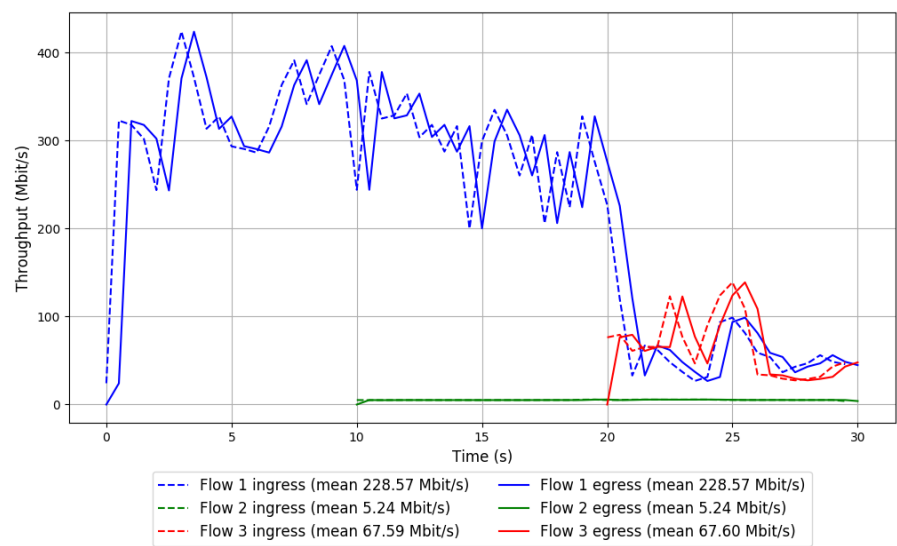
-- Flow 3:

Average throughput: 67.60 Mbit/s

95th percentile per-packet one-way delay: 1.162 ms

Loss rate: 0.01%

Run 3: Report of PCC-Expr — Data Link

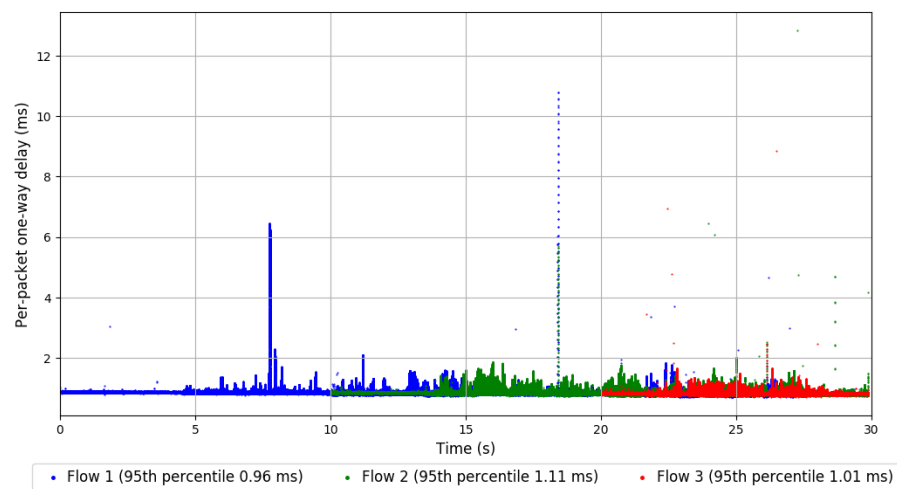
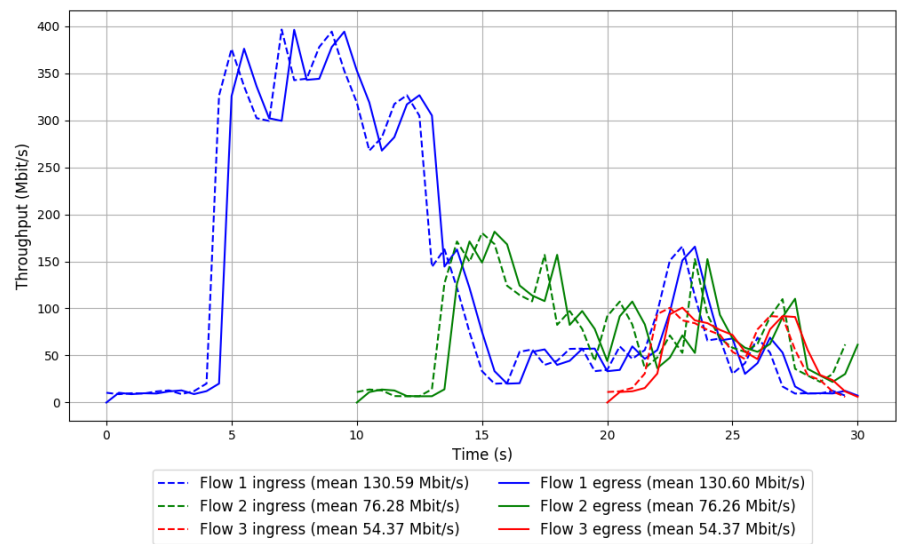


Run 4: Statistics of PCC-Expr

Start at: 2019-01-19 13:34:30
End at: 2019-01-19 13:35:00
Local clock offset: 3.06 ms
Remote clock offset: -0.099 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 199.22 Mbit/s
95th percentile per-packet one-way delay: 1.018 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 130.60 Mbit/s
95th percentile per-packet one-way delay: 0.957 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 76.26 Mbit/s
95th percentile per-packet one-way delay: 1.107 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 54.37 Mbit/s
95th percentile per-packet one-way delay: 1.015 ms
Loss rate: 0.00%

Run 4: Report of PCC-Expr — Data Link

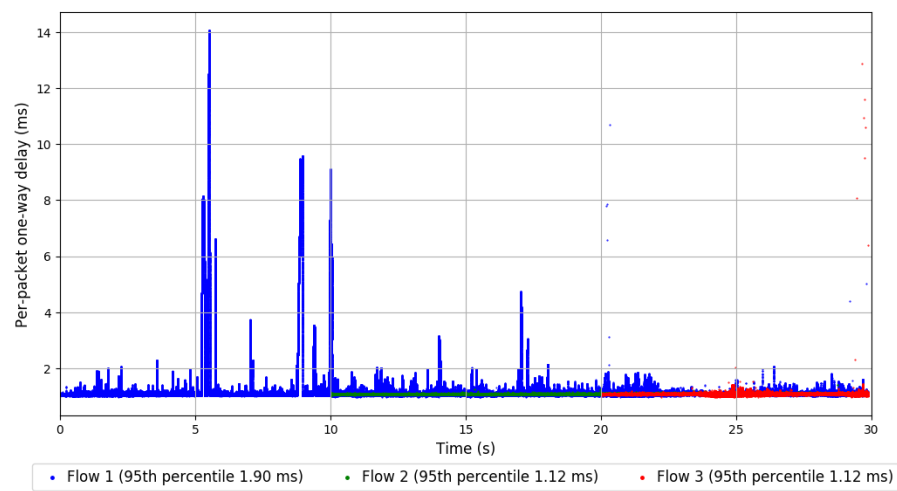
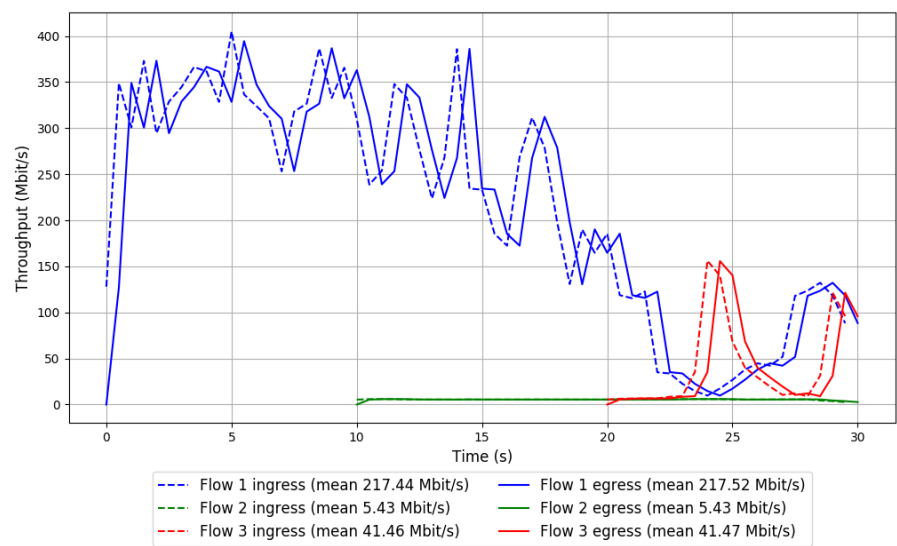


Run 5: Statistics of PCC-Expr

Start at: 2019-01-19 14:04:56
End at: 2019-01-19 14:05:26
Local clock offset: 0.572 ms
Remote clock offset: -0.361 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 234.79 Mbit/s
95th percentile per-packet one-way delay: 1.787 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 217.52 Mbit/s
95th percentile per-packet one-way delay: 1.900 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.43 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.47 Mbit/s
95th percentile per-packet one-way delay: 1.123 ms
Loss rate: 0.03%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-01-19 11:49:16

End at: 2019-01-19 11:49:46

Local clock offset: -3.856 ms

Remote clock offset: 3.329 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.83 Mbit/s

95th percentile per-packet one-way delay: 0.730 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 75.85 Mbit/s

95th percentile per-packet one-way delay: 0.741 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.09 Mbit/s

95th percentile per-packet one-way delay: 0.646 ms

Loss rate: 0.01%

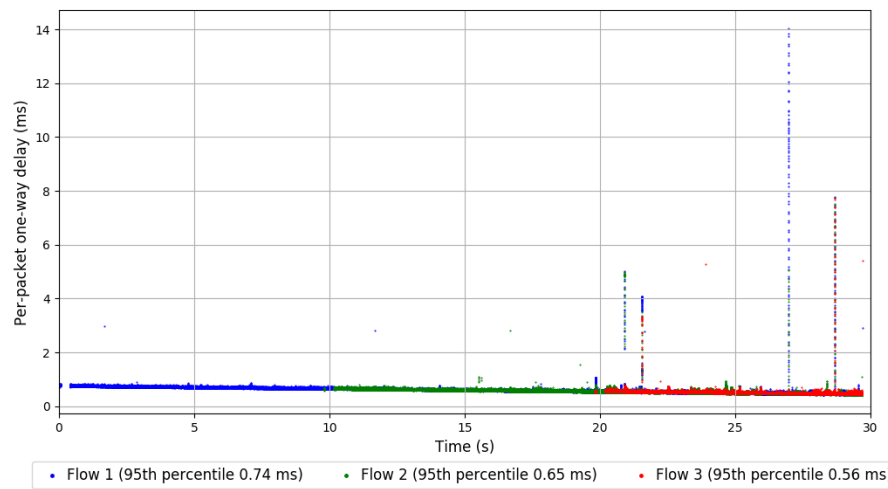
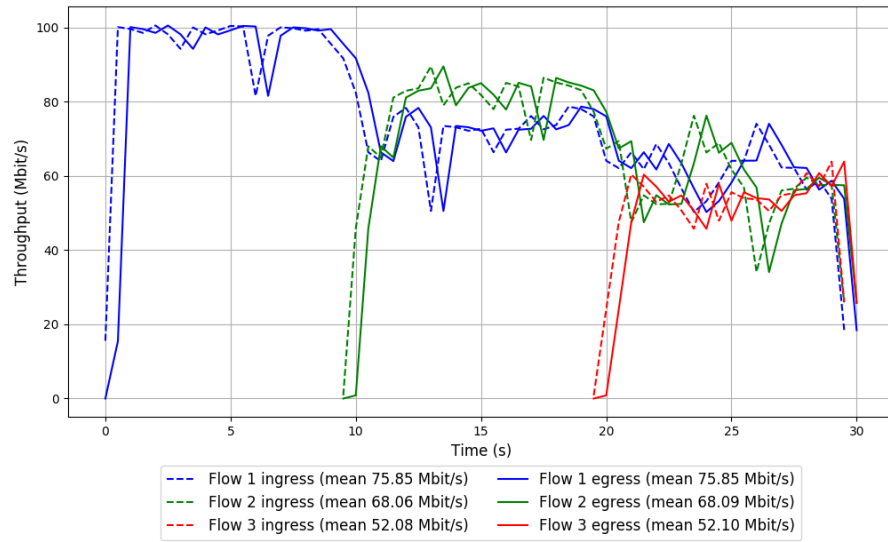
-- Flow 3:

Average throughput: 52.10 Mbit/s

95th percentile per-packet one-way delay: 0.560 ms

Loss rate: 0.02%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-01-19 12:19:27

End at: 2019-01-19 12:19:57

Local clock offset: 4.509 ms

Remote clock offset: 0.496 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.91 Mbit/s

95th percentile per-packet one-way delay: 1.414 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 78.18 Mbit/s

95th percentile per-packet one-way delay: 1.405 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.45 Mbit/s

95th percentile per-packet one-way delay: 1.409 ms

Loss rate: 0.00%

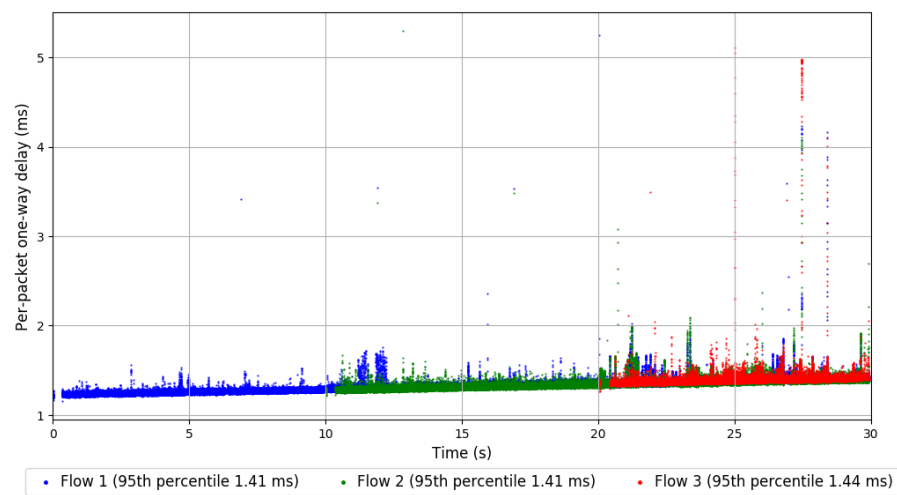
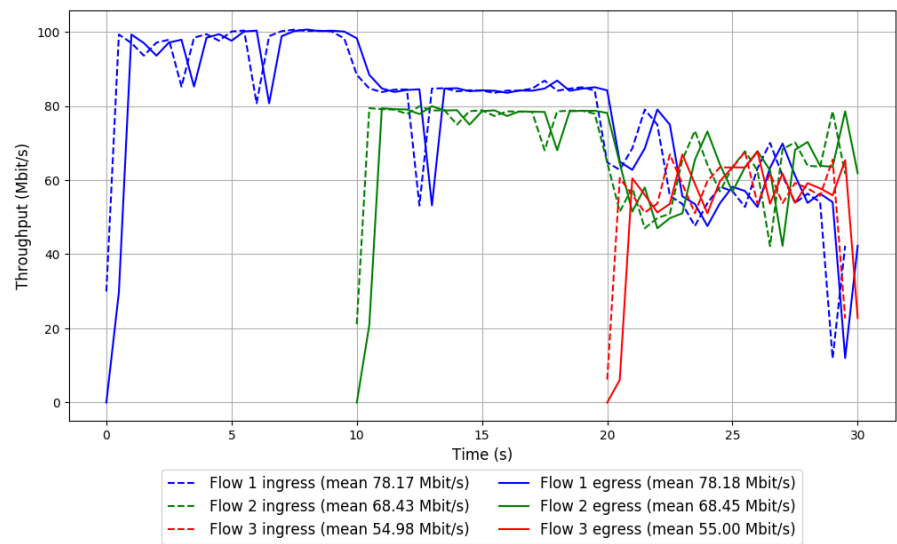
-- Flow 3:

Average throughput: 55.00 Mbit/s

95th percentile per-packet one-way delay: 1.439 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-01-19 12:49:48

End at: 2019-01-19 12:50:18

Local clock offset: 0.175 ms

Remote clock offset: 2.269 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.65 Mbit/s

95th percentile per-packet one-way delay: 1.072 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 72.40 Mbit/s

95th percentile per-packet one-way delay: 1.072 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 67.75 Mbit/s

95th percentile per-packet one-way delay: 1.070 ms

Loss rate: 0.01%

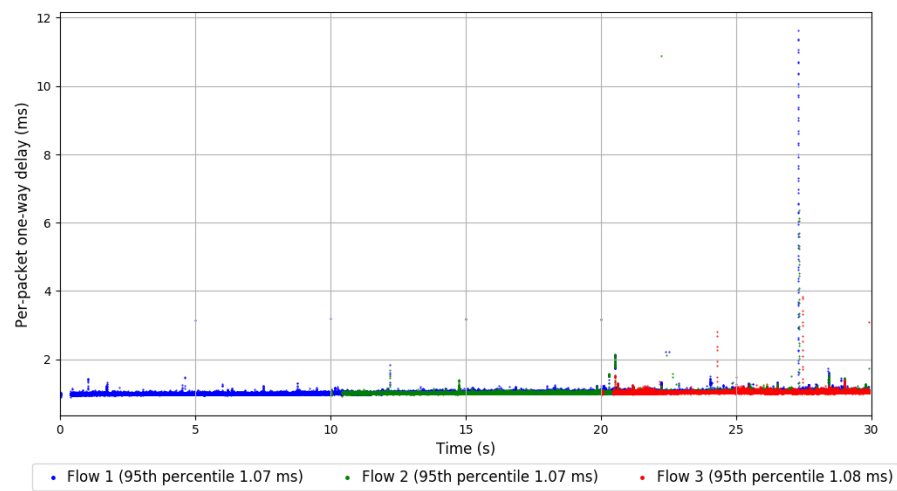
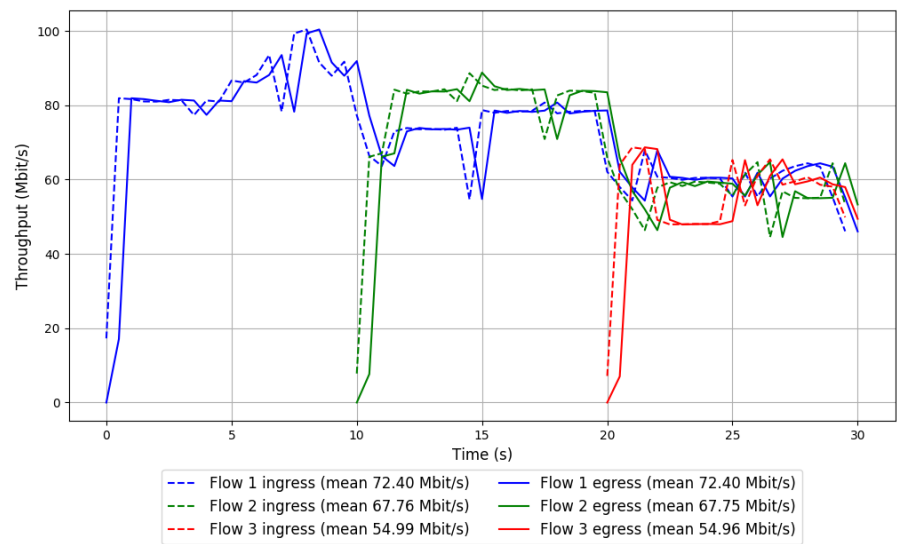
-- Flow 3:

Average throughput: 54.96 Mbit/s

95th percentile per-packet one-way delay: 1.076 ms

Loss rate: 0.05%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-01-19 13:20:09

End at: 2019-01-19 13:20:39

Local clock offset: 0.287 ms

Remote clock offset: 1.931 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.44 Mbit/s

95th percentile per-packet one-way delay: 0.611 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 73.65 Mbit/s

95th percentile per-packet one-way delay: 0.623 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 64.91 Mbit/s

95th percentile per-packet one-way delay: 0.538 ms

Loss rate: 0.00%

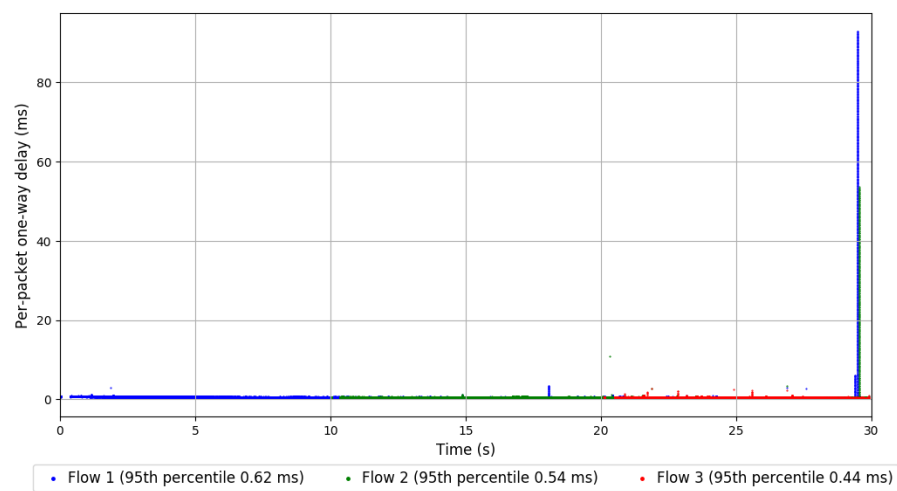
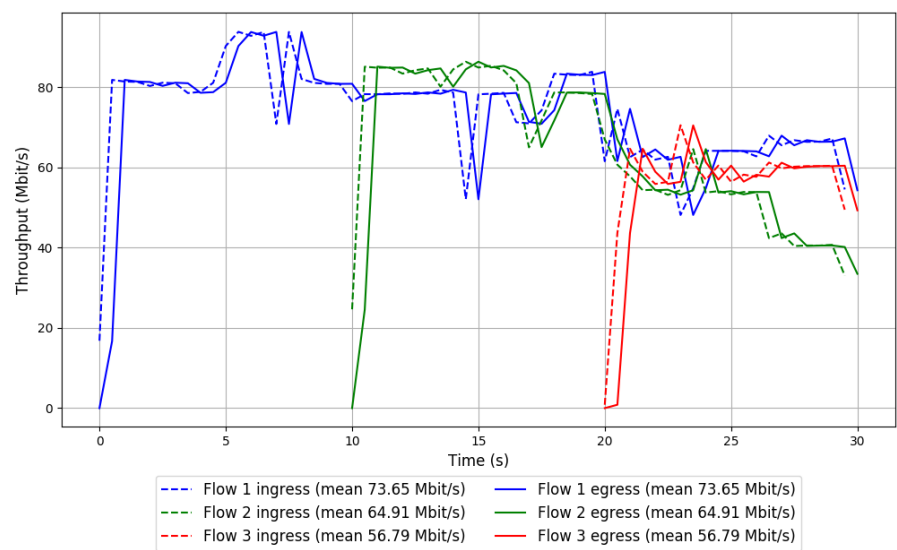
-- Flow 3:

Average throughput: 56.79 Mbit/s

95th percentile per-packet one-way delay: 0.442 ms

Loss rate: 0.02%

Run 4: Report of QUIC Cubic — Data Link

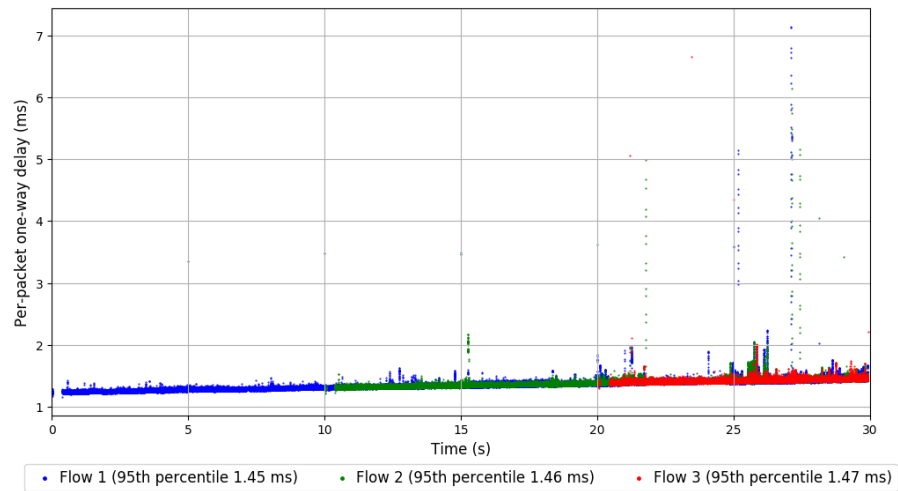
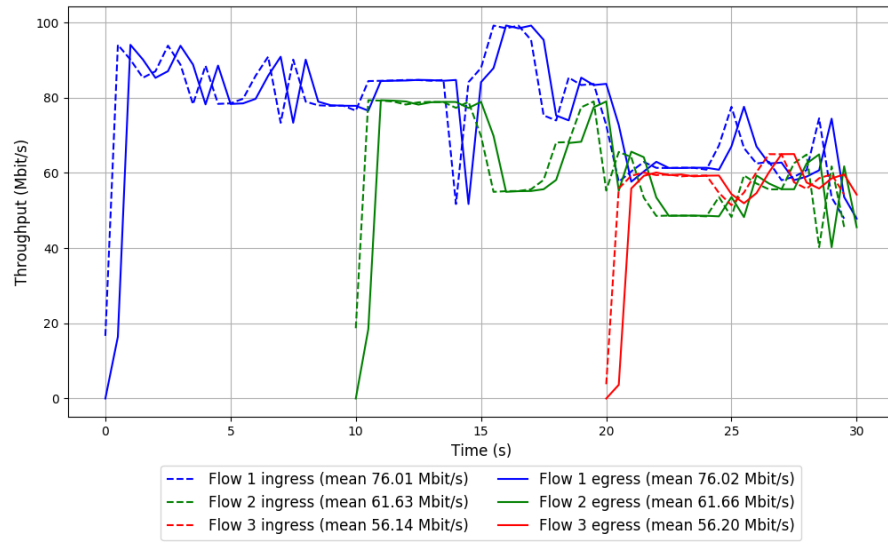


Run 5: Statistics of QUIC Cubic

Start at: 2019-01-19 13:50:39
End at: 2019-01-19 13:51:09
Local clock offset: 3.49 ms
Remote clock offset: -0.632 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 135.62 Mbit/s
95th percentile per-packet one-way delay: 1.455 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 76.02 Mbit/s
95th percentile per-packet one-way delay: 1.445 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.66 Mbit/s
95th percentile per-packet one-way delay: 1.457 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 56.20 Mbit/s
95th percentile per-packet one-way delay: 1.468 ms
Loss rate: 0.02%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SReAM

Start at: 2019-01-19 11:53:24

End at: 2019-01-19 11:53:54

Local clock offset: -1.2 ms

Remote clock offset: 3.922 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 0.672 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.688 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.637 ms

Loss rate: 0.00%

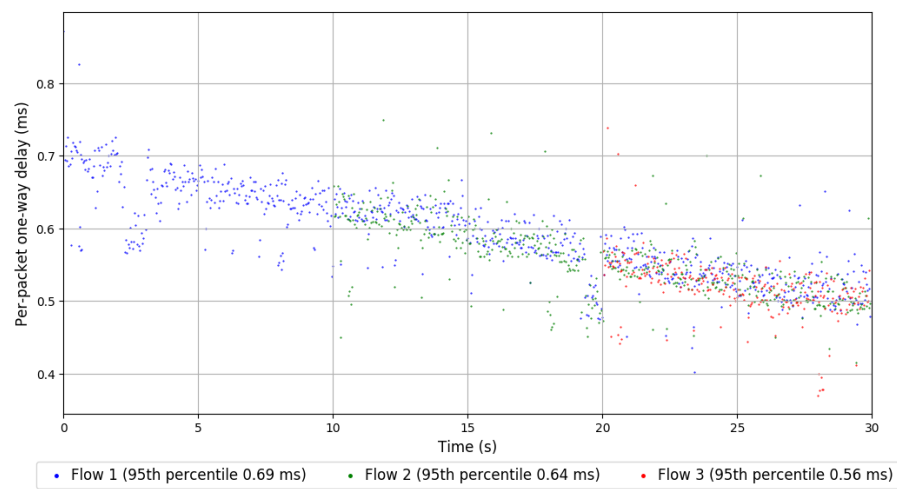
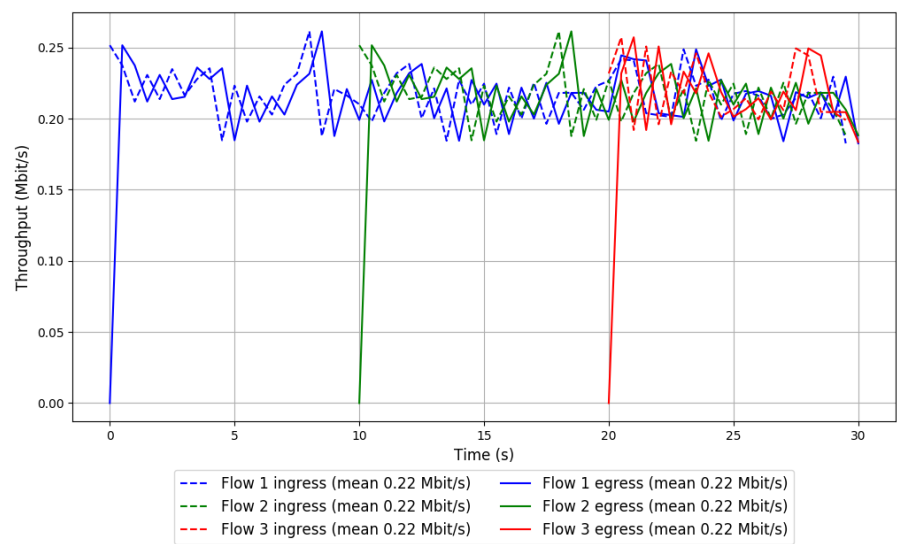
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.565 ms

Loss rate: 0.35%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SReAM

Start at: 2019-01-19 12:23:36

End at: 2019-01-19 12:24:06

Local clock offset: 2.861 ms

Remote clock offset: 0.065 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.446 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.445 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.452 ms

Loss rate: 0.00%

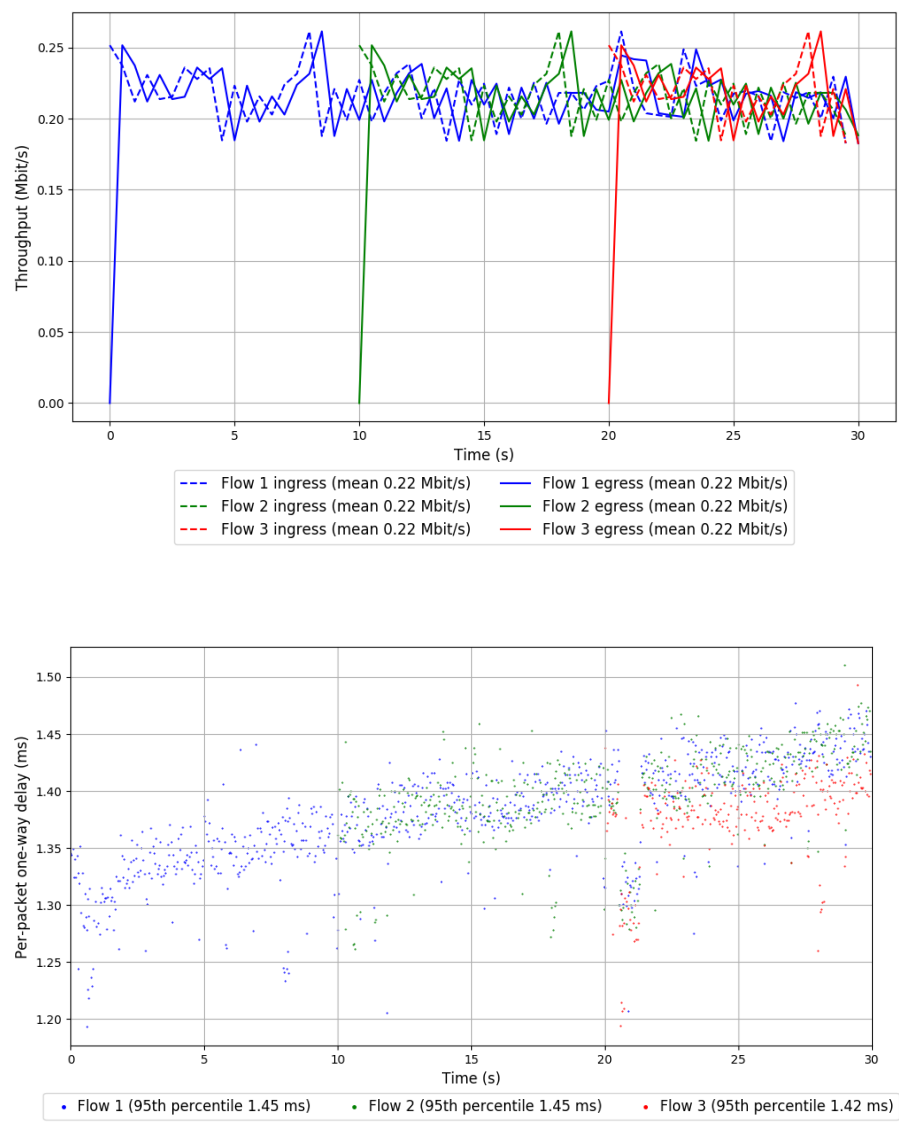
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.422 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2019-01-19 12:53:55

End at: 2019-01-19 12:54:25

Local clock offset: 0.136 ms

Remote clock offset: 2.808 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 1.210 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.165 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.227 ms

Loss rate: 0.00%

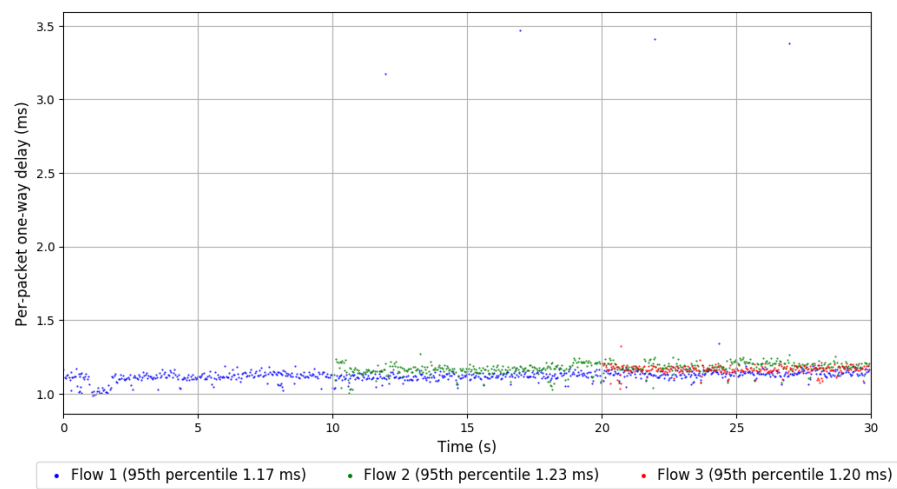
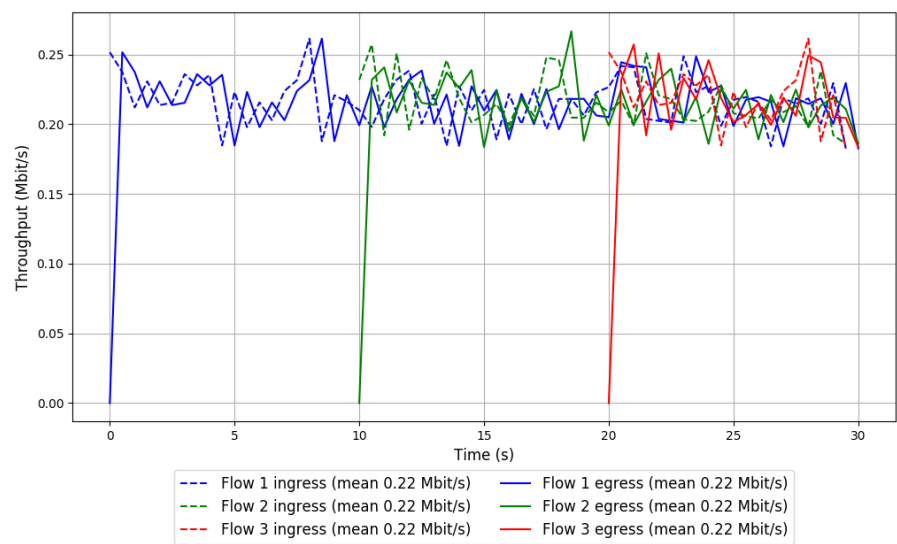
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.199 ms

Loss rate: 0.35%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2019-01-19 13:24:21

End at: 2019-01-19 13:24:51

Local clock offset: 1.533 ms

Remote clock offset: 0.909 ms

Below is generated by plot.py at 2019-01-19 15:04:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 0.963 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.981 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.924 ms

Loss rate: 0.00%

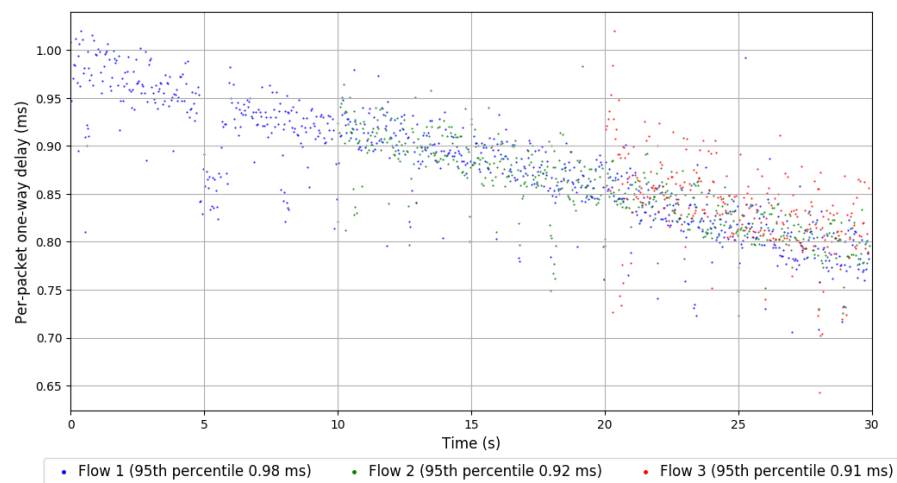
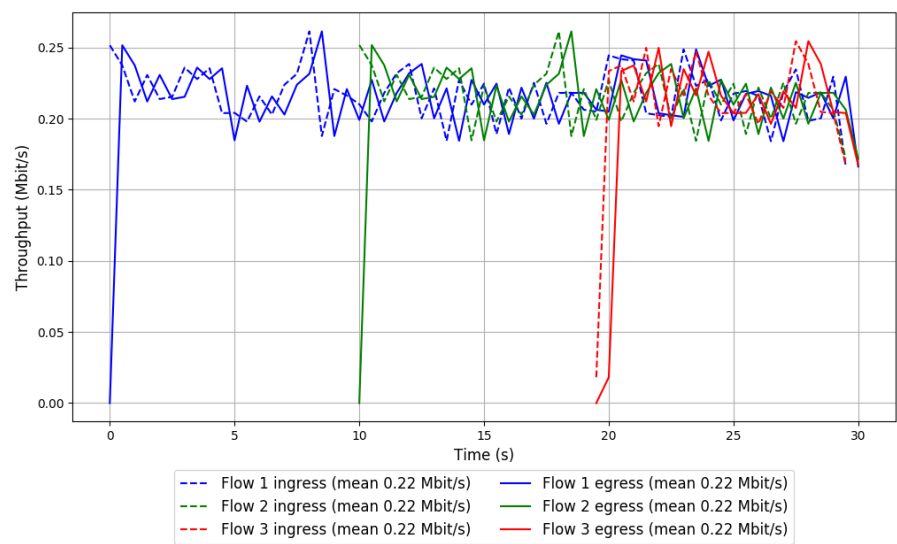
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.911 ms

Loss rate: 0.00%

Run 4: Report of SCReAM — Data Link

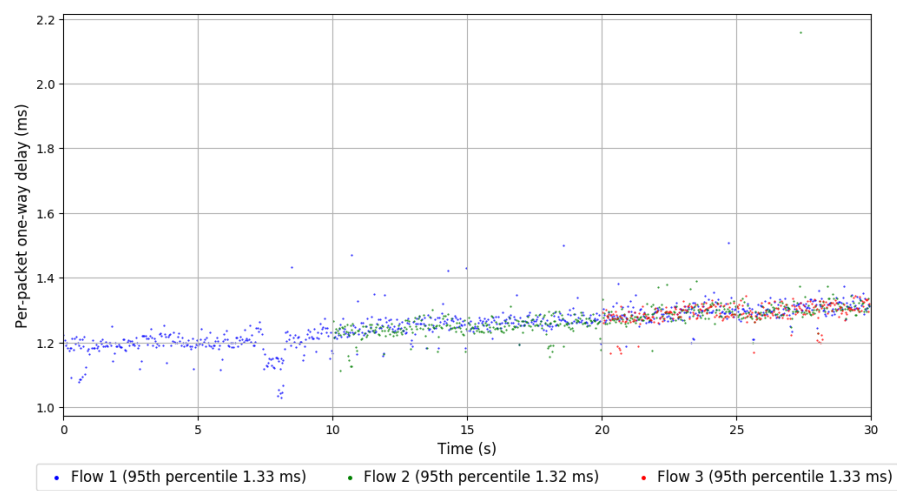
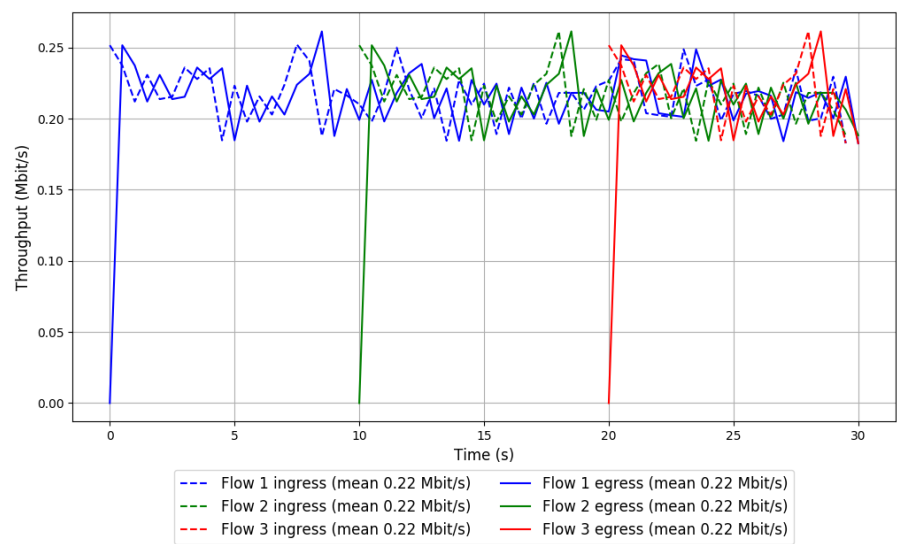


Run 5: Statistics of SReAM

Start at: 2019-01-19 13:54:49
End at: 2019-01-19 13:55:19
Local clock offset: 2.154 ms
Remote clock offset: -0.391 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.327 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.327 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.324 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.329 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

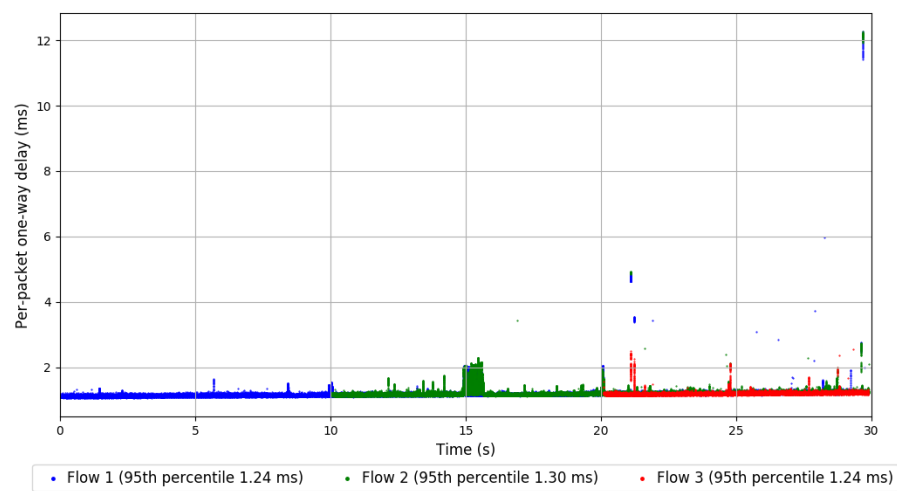
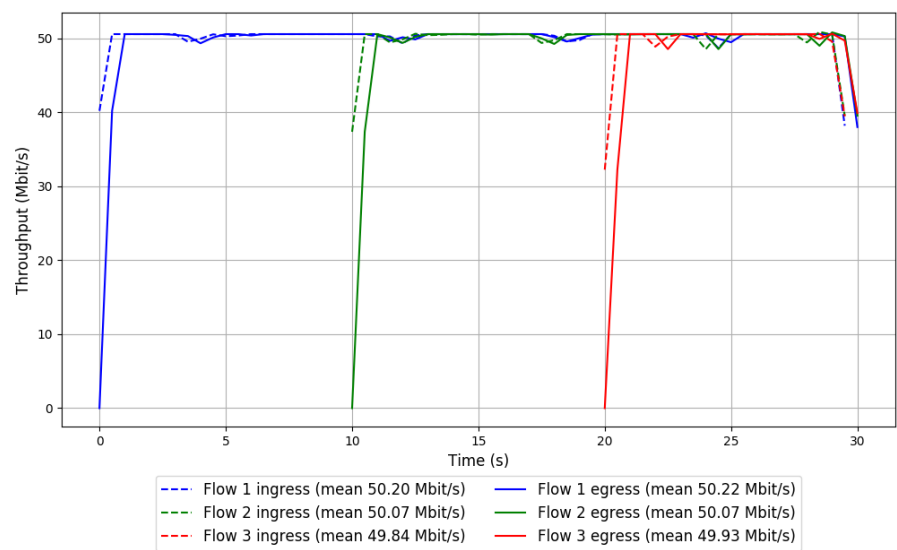


Run 1: Statistics of Sprout

Start at: 2019-01-19 11:42:11
End at: 2019-01-19 11:42:41
Local clock offset: -3.476 ms
Remote clock offset: 2.238 ms

Below is generated by plot.py at 2019-01-19 15:04:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 99.83 Mbit/s
95th percentile per-packet one-way delay: 1.253 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 1.244 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 50.07 Mbit/s
95th percentile per-packet one-way delay: 1.299 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 49.93 Mbit/s
95th percentile per-packet one-way delay: 1.236 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

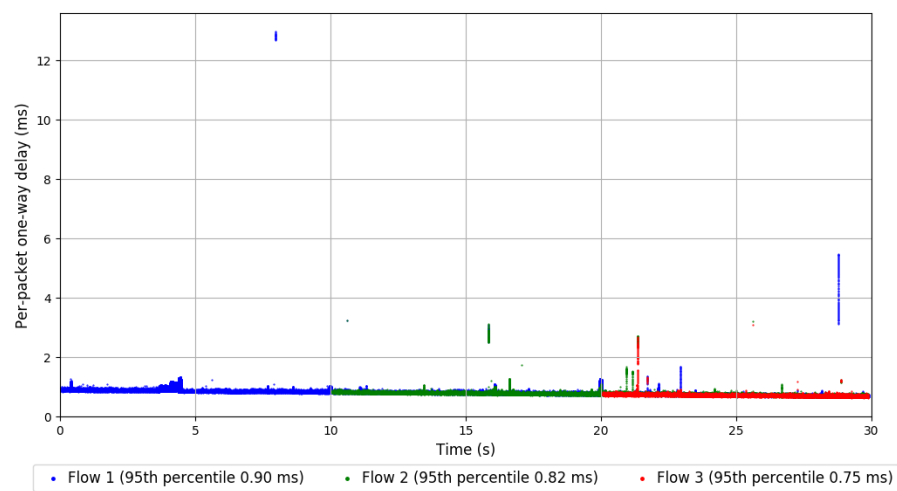
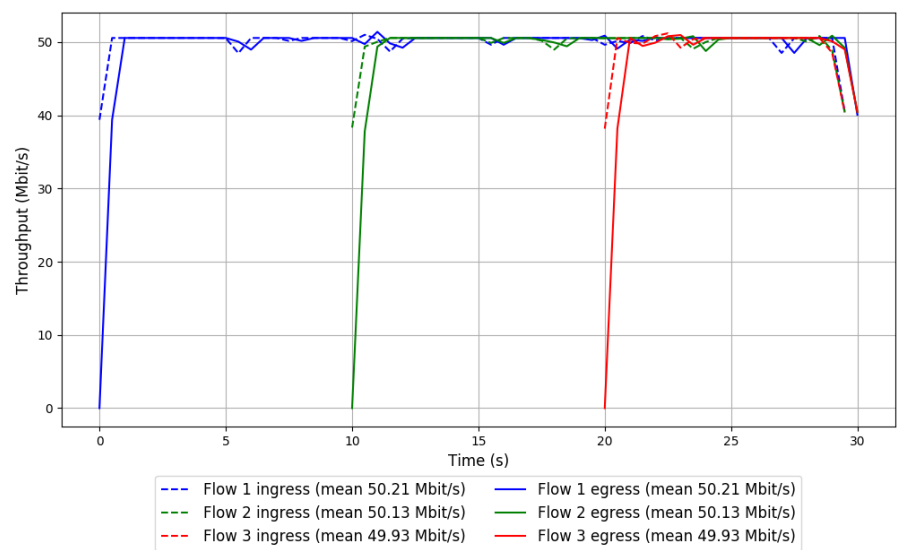


Run 2: Statistics of Sprout

Start at: 2019-01-19 12:12:22
End at: 2019-01-19 12:12:52
Local clock offset: 3.897 ms
Remote clock offset: 2.023 ms

Below is generated by plot.py at 2019-01-19 15:04:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 99.98 Mbit/s
95th percentile per-packet one-way delay: 0.879 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.21 Mbit/s
95th percentile per-packet one-way delay: 0.901 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 50.13 Mbit/s
95th percentile per-packet one-way delay: 0.816 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.93 Mbit/s
95th percentile per-packet one-way delay: 0.749 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2019-01-19 12:42:41

End at: 2019-01-19 12:43:11

Local clock offset: 0.369 ms

Remote clock offset: 0.539 ms

Below is generated by plot.py at 2019-01-19 15:04:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.94 Mbit/s

95th percentile per-packet one-way delay: 1.309 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 50.23 Mbit/s

95th percentile per-packet one-way delay: 1.297 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 50.11 Mbit/s

95th percentile per-packet one-way delay: 1.321 ms

Loss rate: 0.00%

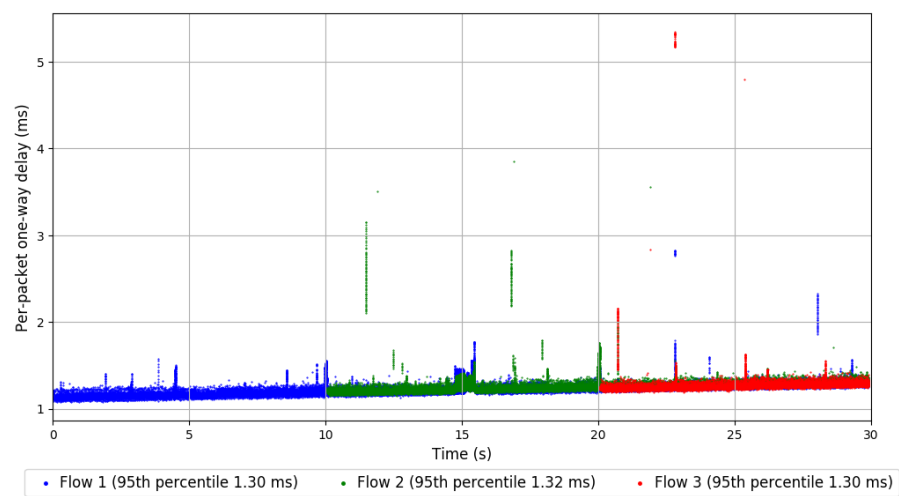
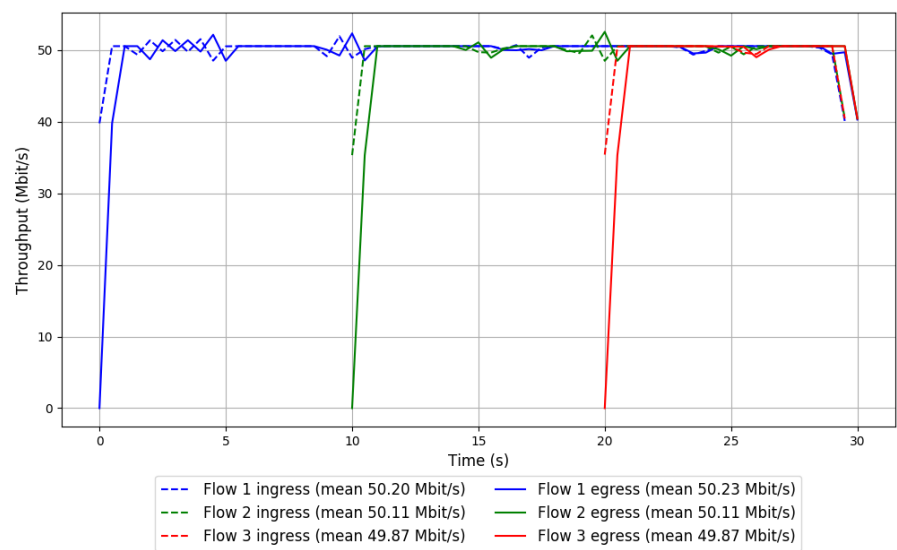
-- Flow 3:

Average throughput: 49.87 Mbit/s

95th percentile per-packet one-way delay: 1.305 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

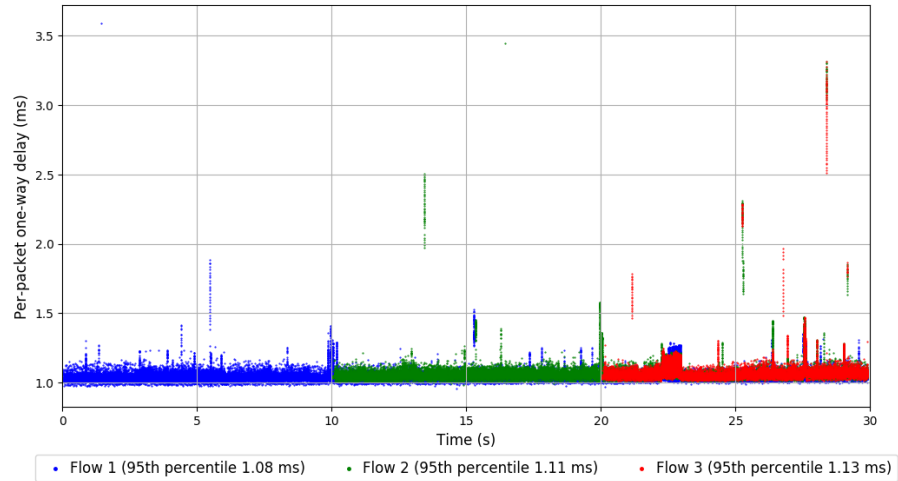
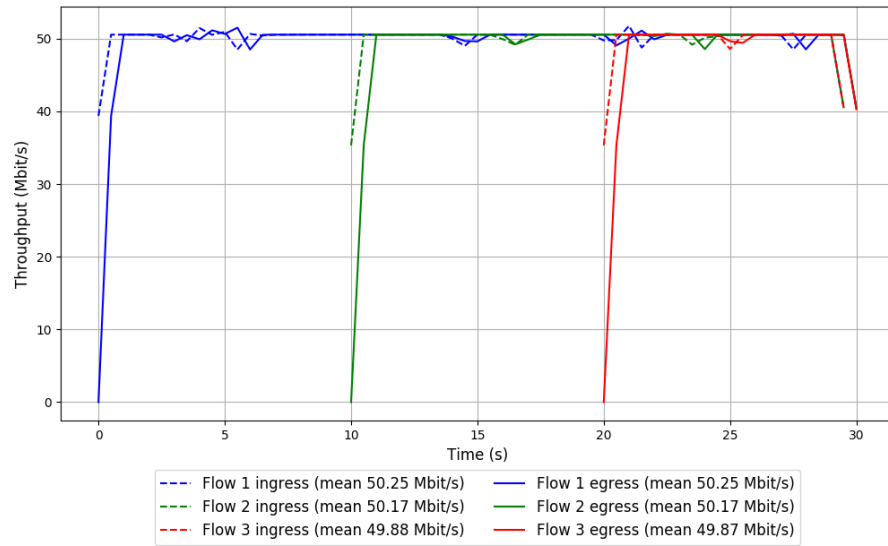


Run 4: Statistics of Sprout

Start at: 2019-01-19 13:13:04
End at: 2019-01-19 13:13:34
Local clock offset: 0.063 ms
Remote clock offset: 4.243 ms

```
# Below is generated by plot.py at 2019-01-19 15:04:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.99 Mbit/s
95th percentile per-packet one-way delay: 1.100 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.25 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.17 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.87 Mbit/s
95th percentile per-packet one-way delay: 1.129 ms
Loss rate: 0.02%
```

Run 4: Report of Sprout — Data Link

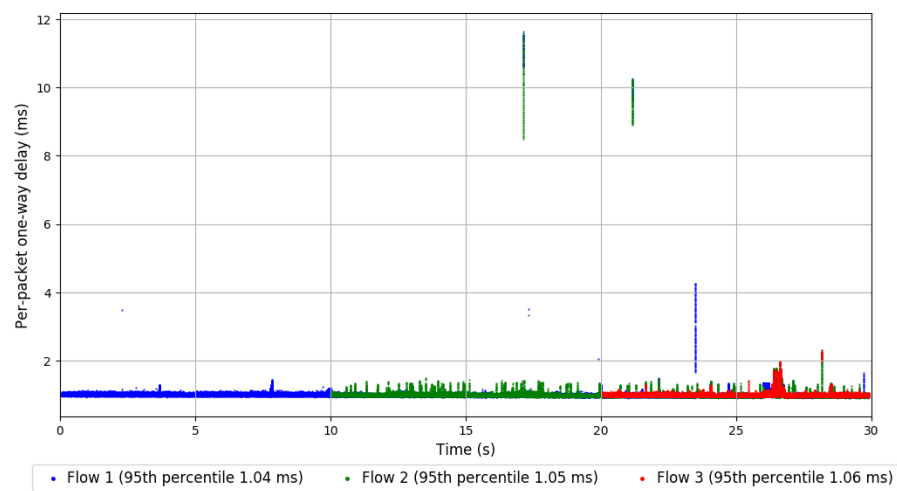
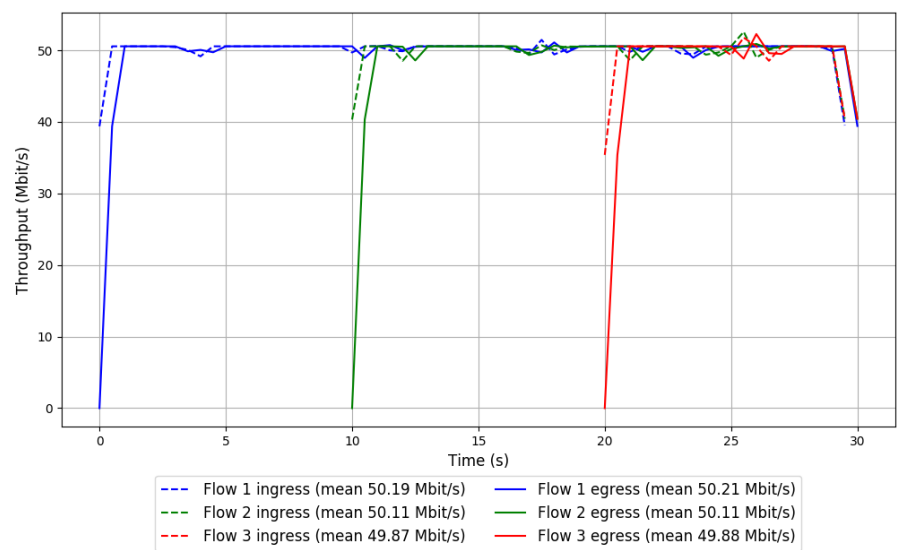


Run 5: Statistics of Sprout

Start at: 2019-01-19 13:43:30
End at: 2019-01-19 13:44:00
Local clock offset: 3.724 ms
Remote clock offset: -0.611 ms

Below is generated by plot.py at 2019-01-19 15:04:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.21 Mbit/s
95th percentile per-packet one-way delay: 1.040 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 50.11 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.88 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-01-19 11:50:34

End at: 2019-01-19 11:51:04

Local clock offset: -2.905 ms

Remote clock offset: 3.536 ms

Below is generated by plot.py at 2019-01-19 15:06:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.42 Mbit/s

95th percentile per-packet one-way delay: 0.675 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 83.70 Mbit/s

95th percentile per-packet one-way delay: 0.681 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 11.41 Mbit/s

95th percentile per-packet one-way delay: 0.594 ms

Loss rate: 0.01%

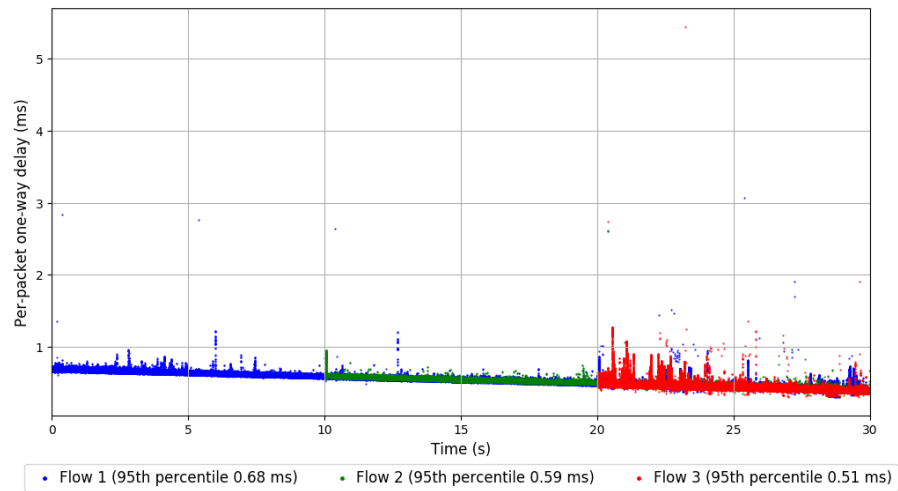
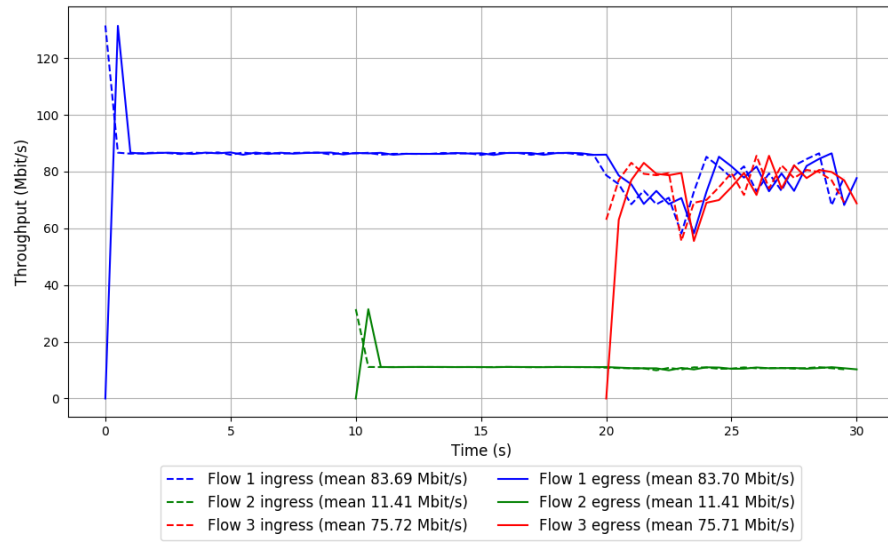
-- Flow 3:

Average throughput: 75.71 Mbit/s

95th percentile per-packet one-way delay: 0.506 ms

Loss rate: 0.02%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-01-19 12:20:45

End at: 2019-01-19 12:21:15

Local clock offset: 3.88 ms

Remote clock offset: 0.383 ms

Below is generated by plot.py at 2019-01-19 15:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.87 Mbit/s

95th percentile per-packet one-way delay: 1.314 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 92.07 Mbit/s

95th percentile per-packet one-way delay: 1.313 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 13.63 Mbit/s

95th percentile per-packet one-way delay: 1.316 ms

Loss rate: 0.01%

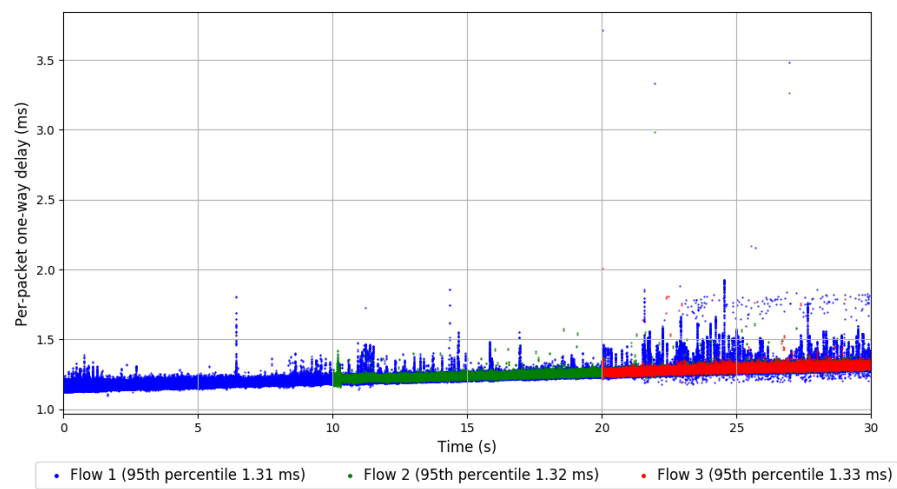
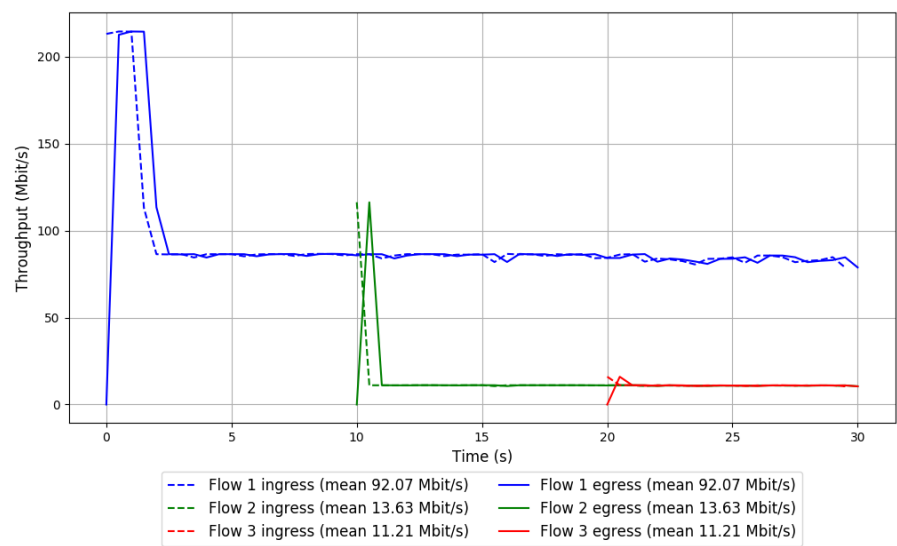
-- Flow 3:

Average throughput: 11.21 Mbit/s

95th percentile per-packet one-way delay: 1.326 ms

Loss rate: 0.02%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-01-19 12:51:06

End at: 2019-01-19 12:51:36

Local clock offset: 0.179 ms

Remote clock offset: 2.393 ms

Below is generated by plot.py at 2019-01-19 15:06:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.00 Mbit/s

95th percentile per-packet one-way delay: 1.154 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 68.44 Mbit/s

95th percentile per-packet one-way delay: 1.126 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.65 Mbit/s

95th percentile per-packet one-way delay: 1.158 ms

Loss rate: 0.00%

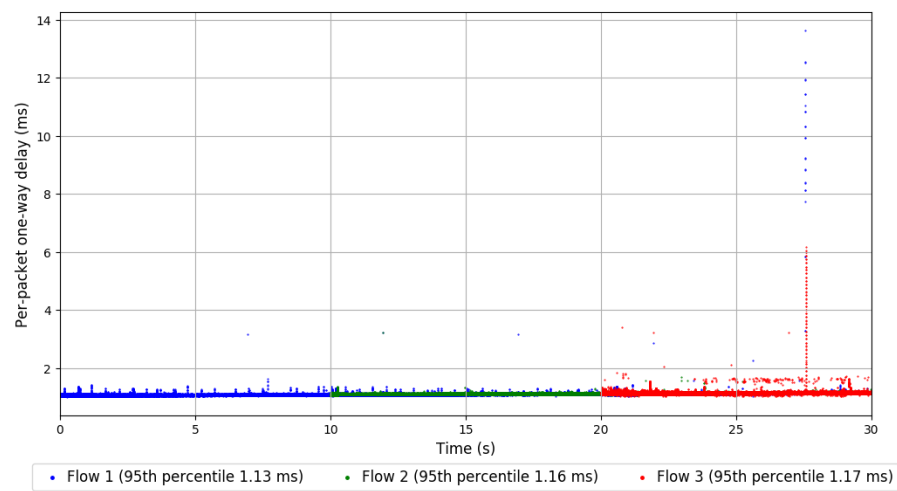
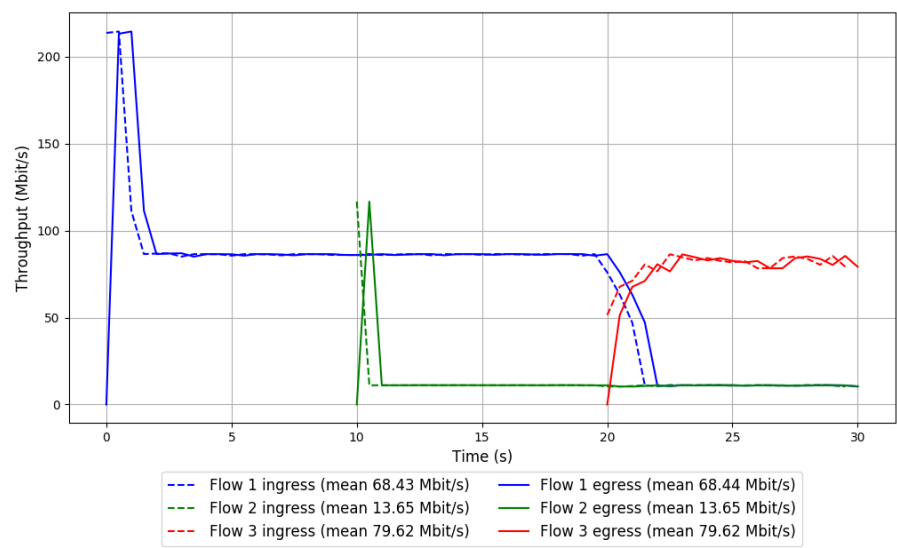
-- Flow 3:

Average throughput: 79.62 Mbit/s

95th percentile per-packet one-way delay: 1.168 ms

Loss rate: 0.02%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-01-19 13:21:28

End at: 2019-01-19 13:21:58

Local clock offset: 0.792 ms

Remote clock offset: 1.515 ms

Below is generated by plot.py at 2019-01-19 15:07:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 169.66 Mbit/s

95th percentile per-packet one-way delay: 0.803 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 83.40 Mbit/s

95th percentile per-packet one-way delay: 0.817 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 89.02 Mbit/s

95th percentile per-packet one-way delay: 0.732 ms

Loss rate: 0.00%

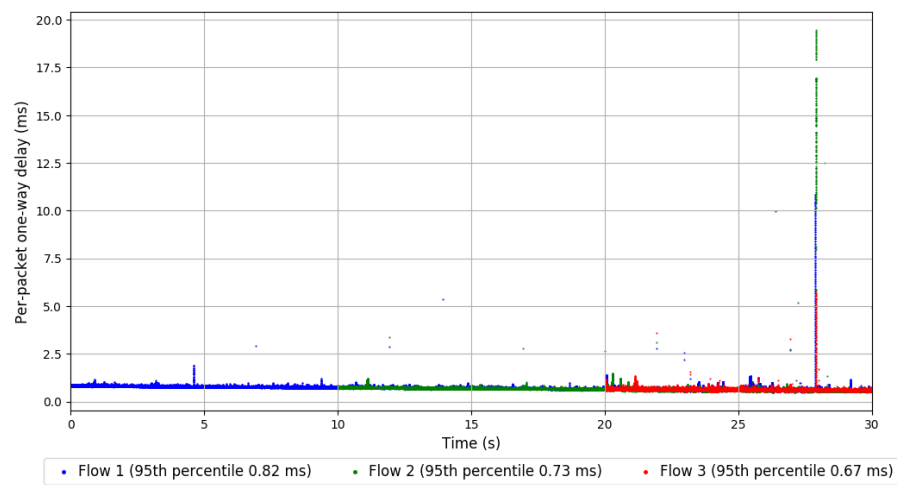
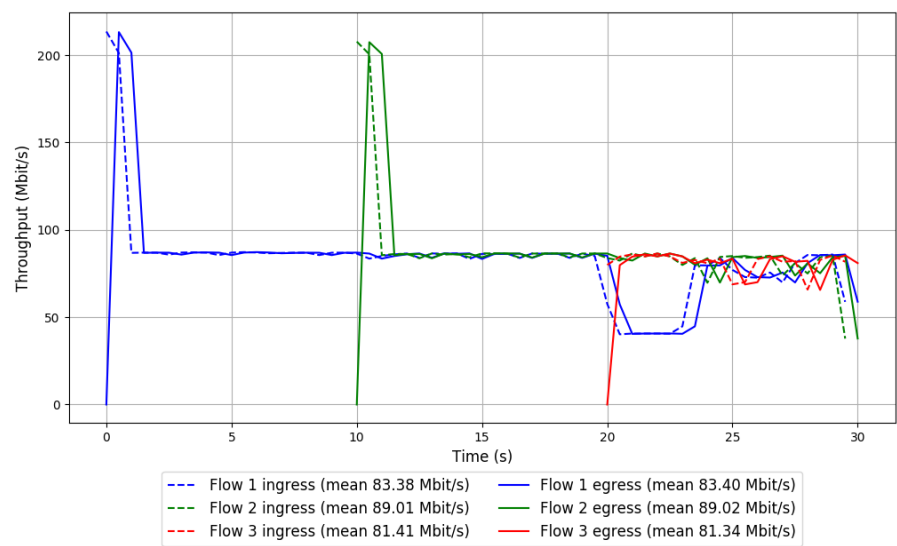
-- Flow 3:

Average throughput: 81.34 Mbit/s

95th percentile per-packet one-way delay: 0.673 ms

Loss rate: 0.05%

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

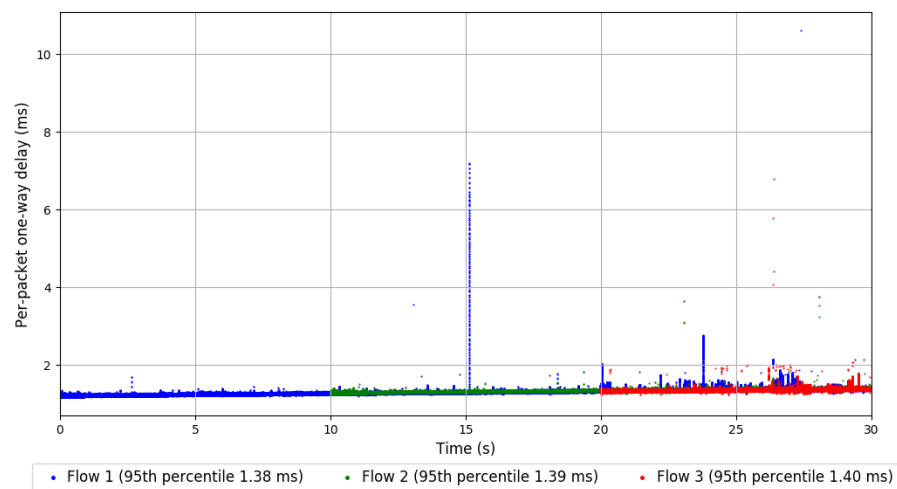
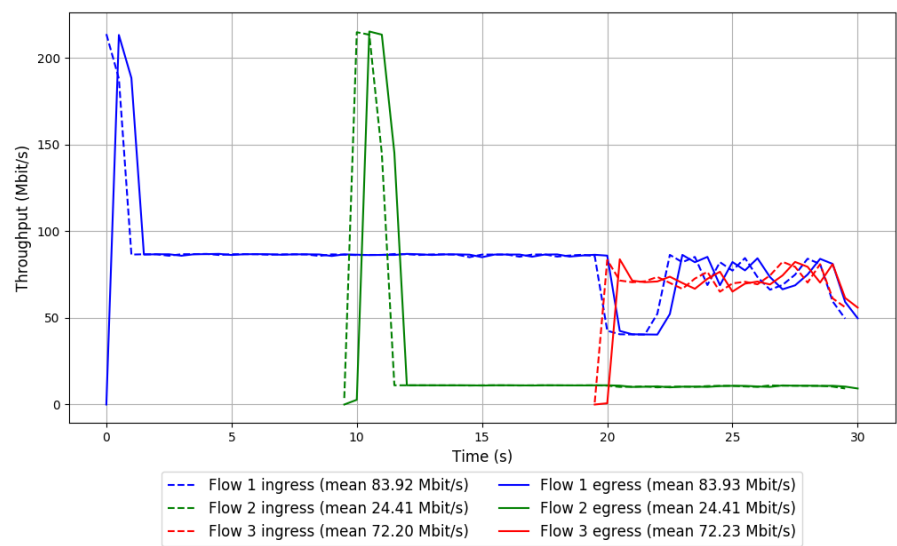


Run 5: Statistics of TaoVA-100x

Start at: 2019-01-19 13:51:57
End at: 2019-01-19 13:52:27
Local clock offset: 3.004 ms
Remote clock offset: -0.568 ms

Below is generated by plot.py at 2019-01-19 15:07:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 124.20 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 83.93 Mbit/s
95th percentile per-packet one-way delay: 1.382 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 24.41 Mbit/s
95th percentile per-packet one-way delay: 1.391 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 72.23 Mbit/s
95th percentile per-packet one-way delay: 1.395 ms
Loss rate: 0.01%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-01-19 11:57:37

End at: 2019-01-19 11:58:07

Local clock offset: 0.761 ms

Remote clock offset: 4.358 ms

Below is generated by plot.py at 2019-01-19 15:10:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 554.36 Mbit/s

95th percentile per-packet one-way delay: 0.917 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 275.97 Mbit/s

95th percentile per-packet one-way delay: 0.924 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 283.25 Mbit/s

95th percentile per-packet one-way delay: 0.910 ms

Loss rate: 0.01%

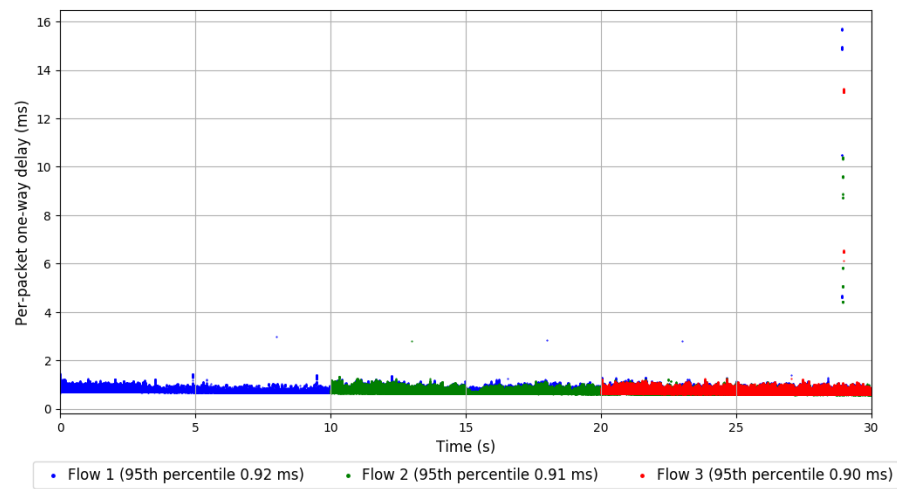
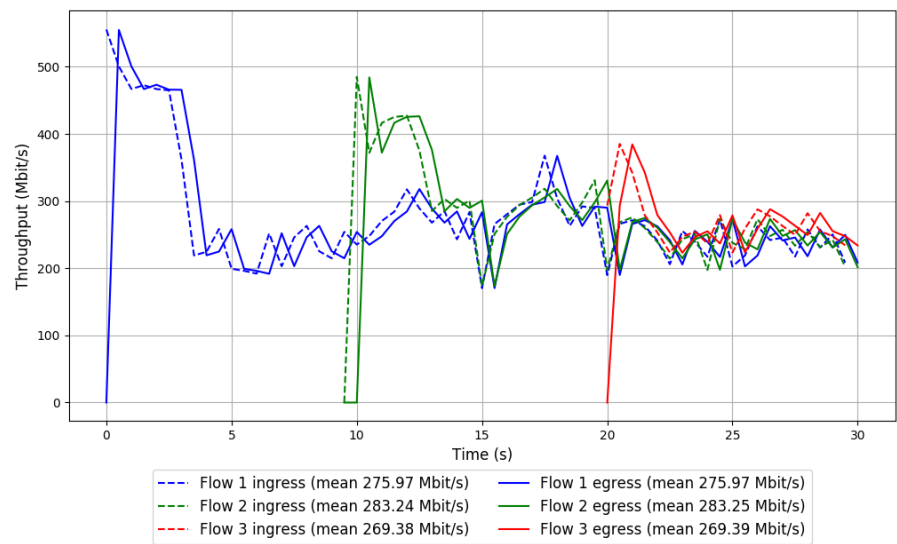
-- Flow 3:

Average throughput: 269.39 Mbit/s

95th percentile per-packet one-way delay: 0.901 ms

Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link

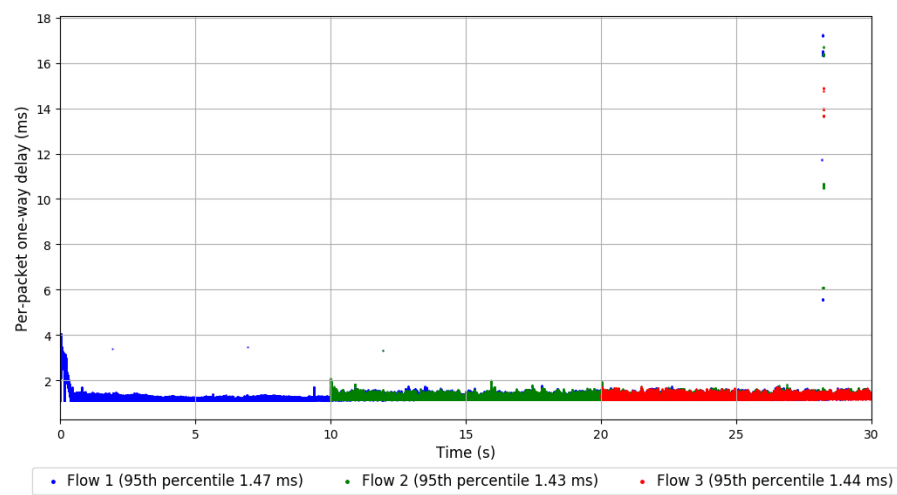
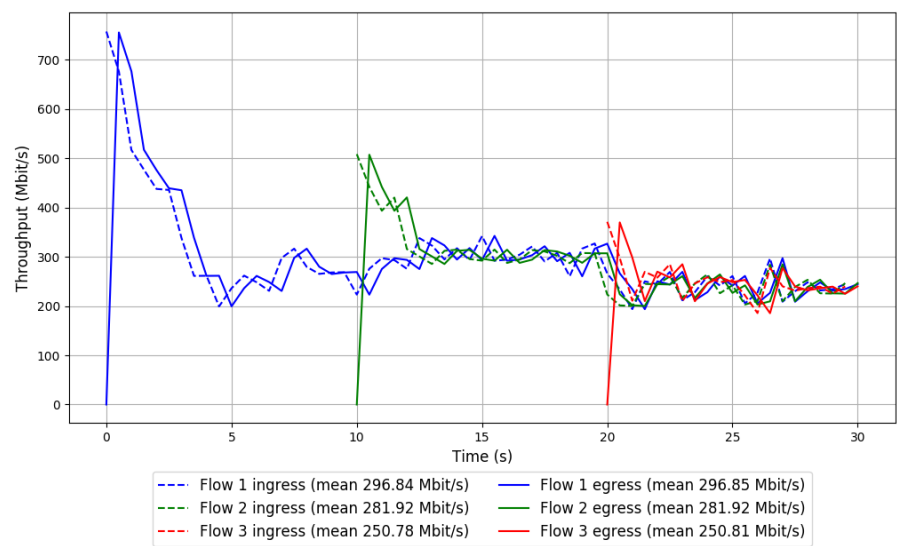


Run 2: Statistics of TCP Vegas

Start at: 2019-01-19 12:27:49
End at: 2019-01-19 12:28:19
Local clock offset: 1.768 ms
Remote clock offset: -0.244 ms

Below is generated by plot.py at 2019-01-19 15:10:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 568.12 Mbit/s
95th percentile per-packet one-way delay: 1.449 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 296.85 Mbit/s
95th percentile per-packet one-way delay: 1.469 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 281.92 Mbit/s
95th percentile per-packet one-way delay: 1.433 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 250.81 Mbit/s
95th percentile per-packet one-way delay: 1.443 ms
Loss rate: 0.01%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-01-19 12:58:09

End at: 2019-01-19 12:58:39

Local clock offset: 0.084 ms

Remote clock offset: 3.189 ms

Below is generated by plot.py at 2019-01-19 15:10:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 551.64 Mbit/s

95th percentile per-packet one-way delay: 1.343 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 271.60 Mbit/s

95th percentile per-packet one-way delay: 1.299 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 283.50 Mbit/s

95th percentile per-packet one-way delay: 1.561 ms

Loss rate: 0.01%

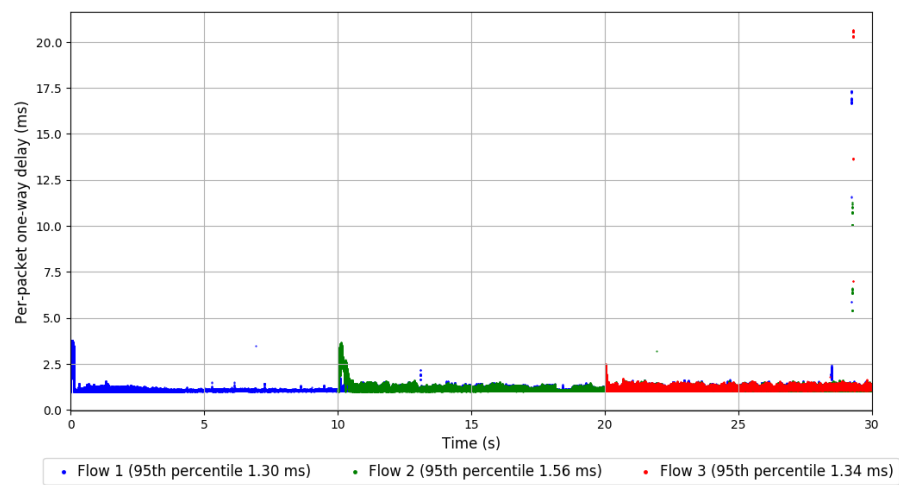
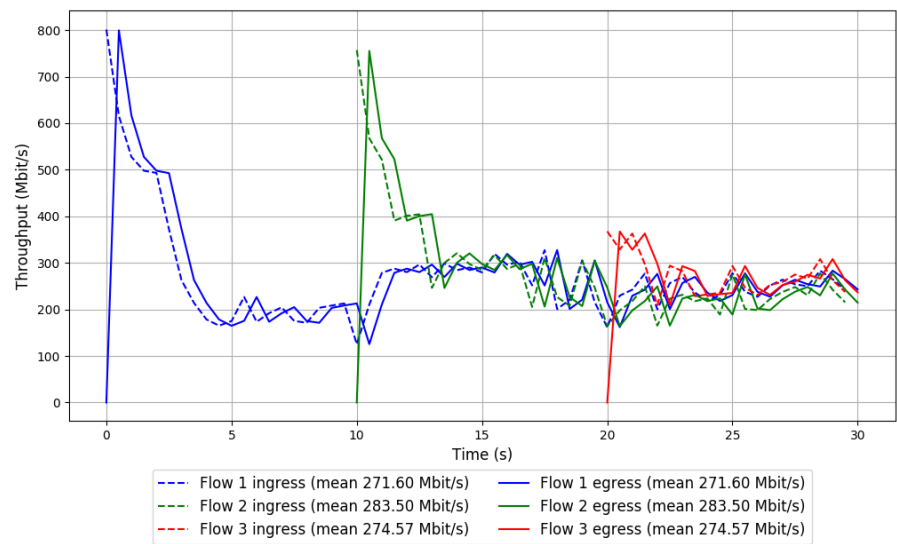
-- Flow 3:

Average throughput: 274.57 Mbit/s

95th percentile per-packet one-way delay: 1.342 ms

Loss rate: 0.02%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-01-19 13:28:35

End at: 2019-01-19 13:29:05

Local clock offset: 2.33 ms

Remote clock offset: 0.423 ms

Below is generated by plot.py at 2019-01-19 15:12:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 545.35 Mbit/s

95th percentile per-packet one-way delay: 2.796 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 275.70 Mbit/s

95th percentile per-packet one-way delay: 3.626 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 262.94 Mbit/s

95th percentile per-packet one-way delay: 1.766 ms

Loss rate: 0.01%

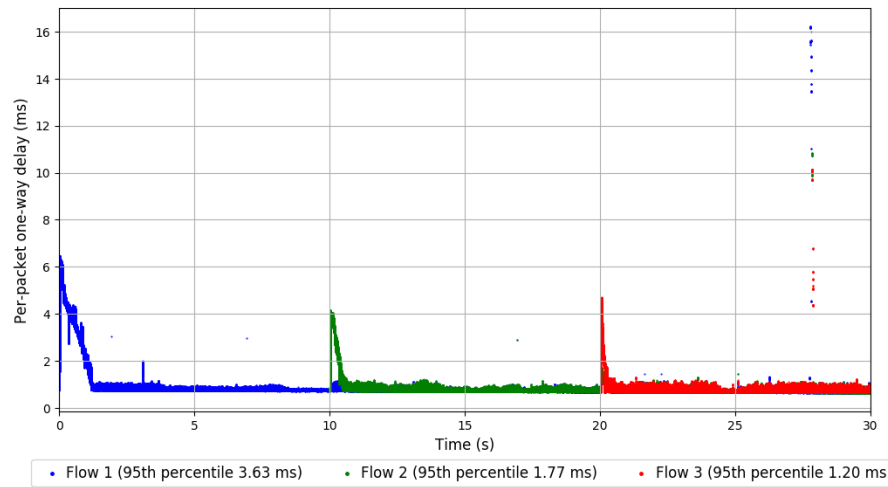
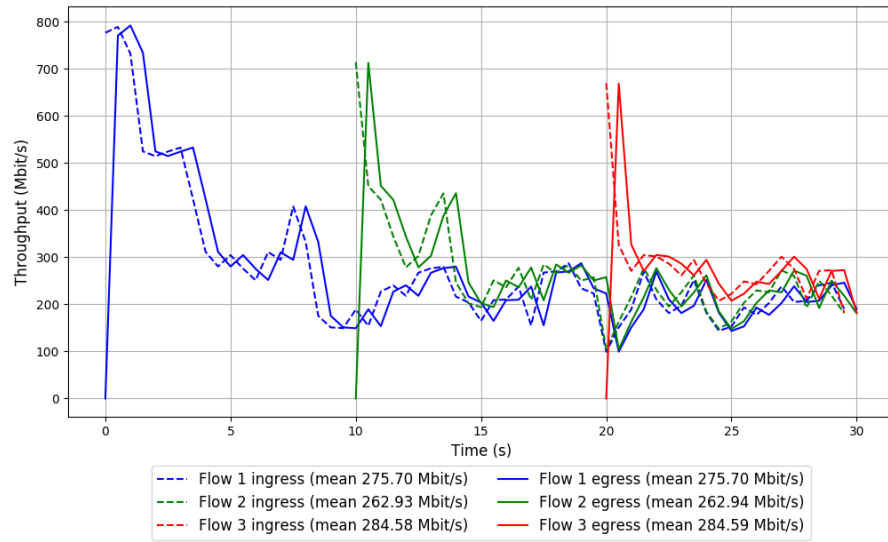
-- Flow 3:

Average throughput: 284.59 Mbit/s

95th percentile per-packet one-way delay: 1.195 ms

Loss rate: 0.01%

Run 4: Report of TCP Vegas — Data Link

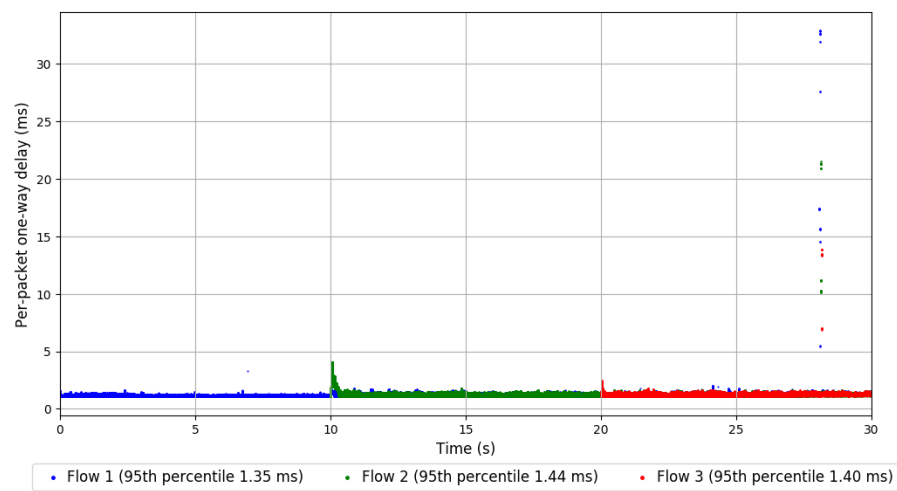
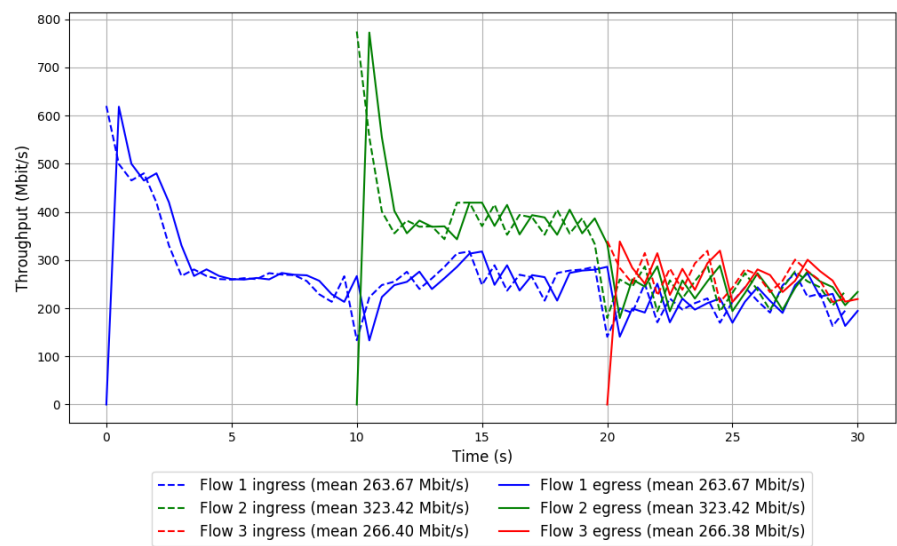


Run 5: Statistics of TCP Vegas

Start at: 2019-01-19 13:59:02
End at: 2019-01-19 13:59:32
Local clock offset: 1.309 ms
Remote clock offset: -0.373 ms

Below is generated by plot.py at 2019-01-19 15:12:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 567.74 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 263.67 Mbit/s
95th percentile per-packet one-way delay: 1.352 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 323.42 Mbit/s
95th percentile per-packet one-way delay: 1.444 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 266.38 Mbit/s
95th percentile per-packet one-way delay: 1.402 ms
Loss rate: 0.02%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-01-19 11:39:19

End at: 2019-01-19 11:39:49

Local clock offset: -3.295 ms

Remote clock offset: 1.576 ms

Below is generated by plot.py at 2019-01-19 15:12:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 276.92 Mbit/s

95th percentile per-packet one-way delay: 2.702 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 171.79 Mbit/s

95th percentile per-packet one-way delay: 2.638 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 121.37 Mbit/s

95th percentile per-packet one-way delay: 14.536 ms

Loss rate: 0.04%

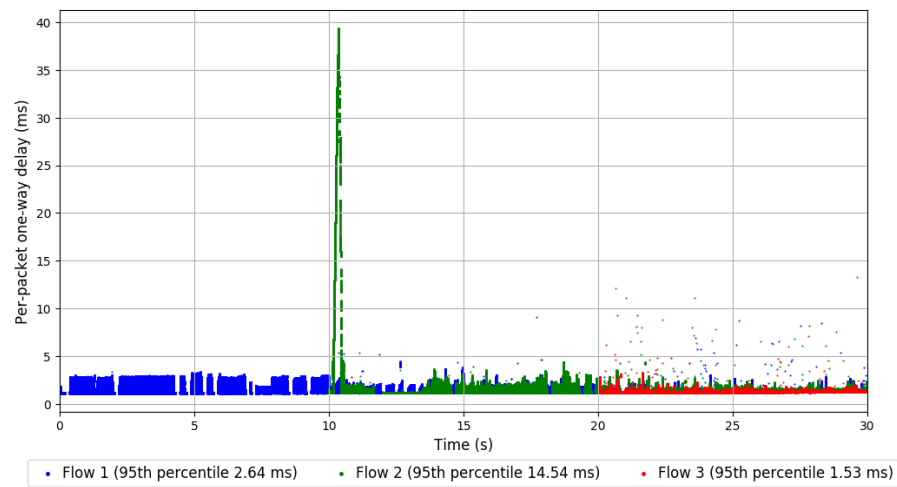
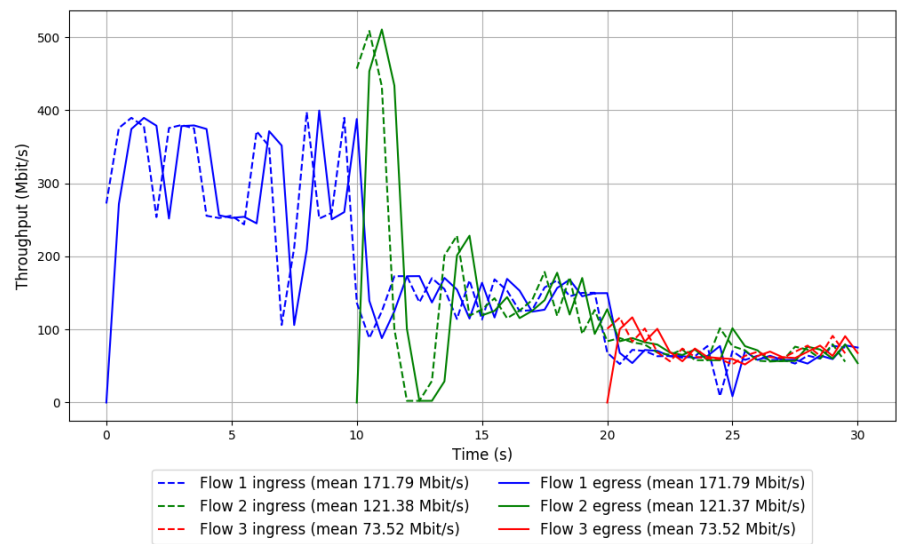
-- Flow 3:

Average throughput: 73.52 Mbit/s

95th percentile per-packet one-way delay: 1.533 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link

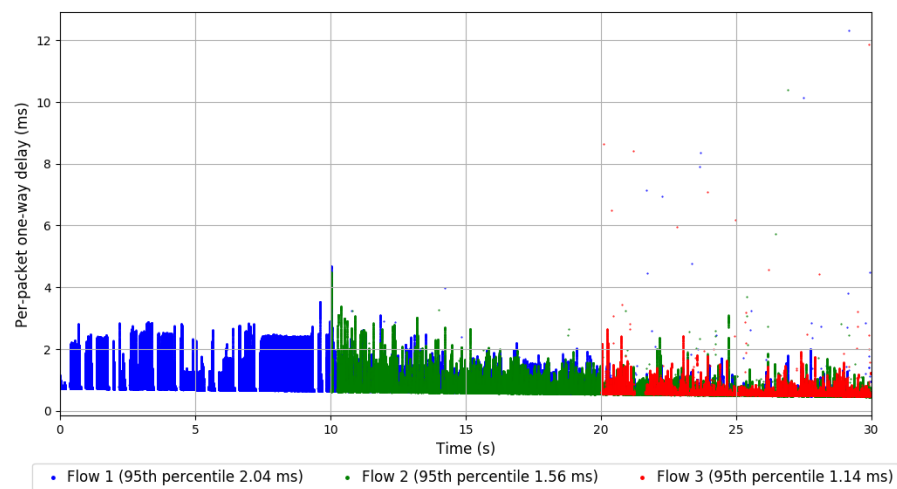
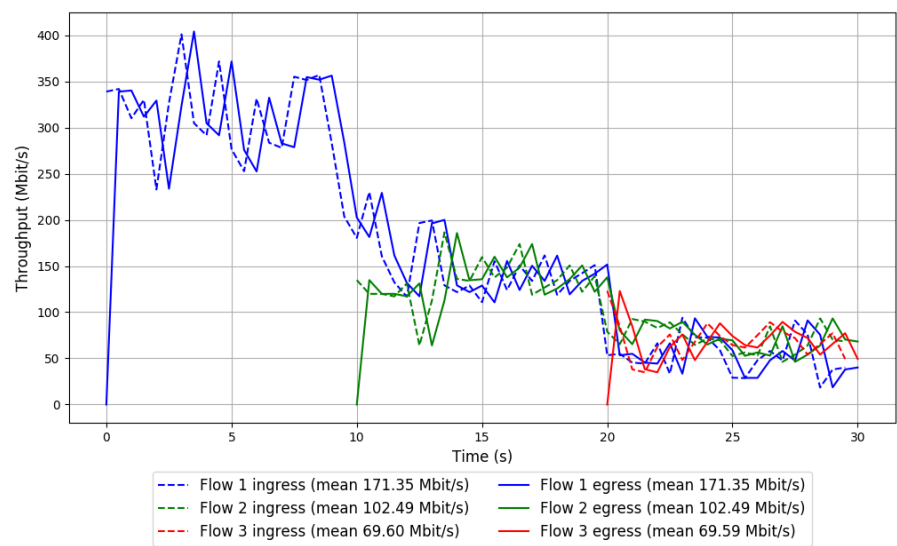


Run 2: Statistics of Verus

Start at: 2019-01-19 12:09:31
End at: 2019-01-19 12:10:01
Local clock offset: 3.518 ms
Remote clock offset: 3.109 ms

Below is generated by plot.py at 2019-01-19 15:12:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 262.72 Mbit/s
95th percentile per-packet one-way delay: 1.913 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 171.35 Mbit/s
95th percentile per-packet one-way delay: 2.045 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 102.49 Mbit/s
95th percentile per-packet one-way delay: 1.558 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 69.59 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.00%

Run 2: Report of Verus — Data Link

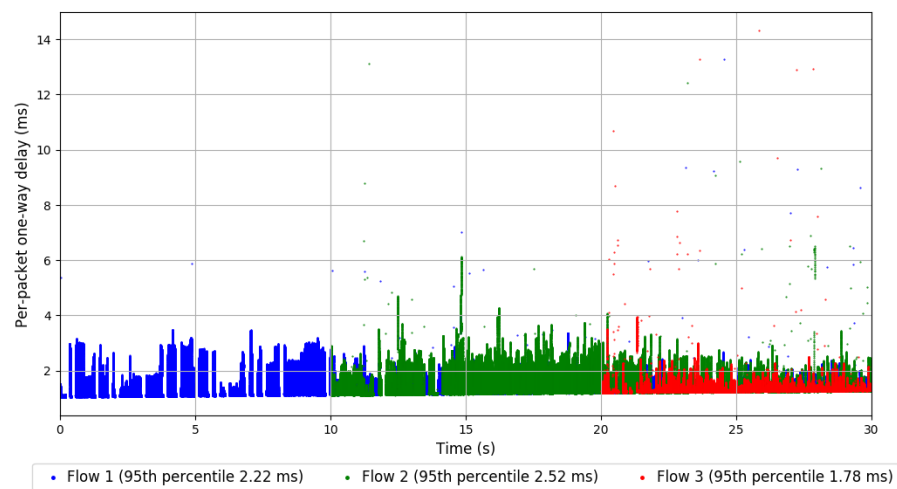
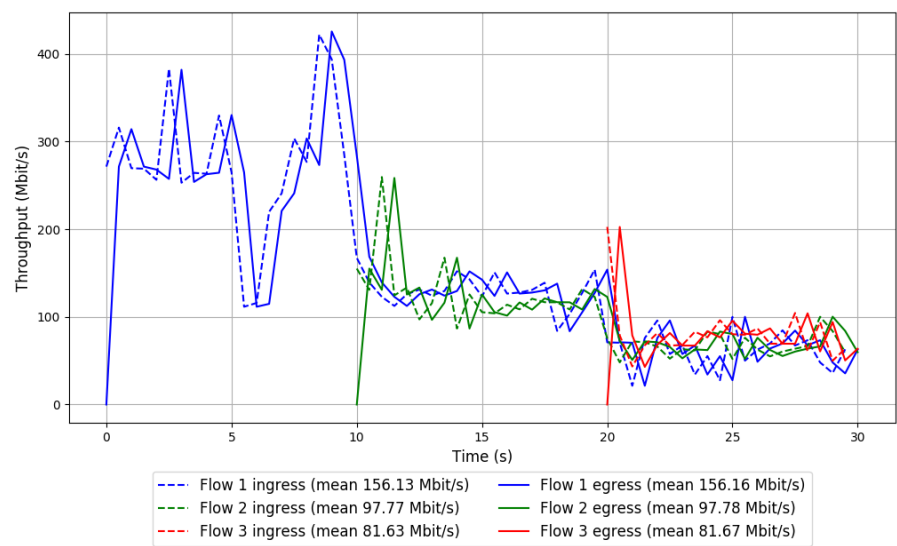


Run 3: Statistics of Verus

Start at: 2019-01-19 12:39:50
End at: 2019-01-19 12:40:20
Local clock offset: 0.481 ms
Remote clock offset: -0.446 ms

Below is generated by plot.py at 2019-01-19 15:12:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 248.34 Mbit/s
95th percentile per-packet one-way delay: 2.296 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 156.16 Mbit/s
95th percentile per-packet one-way delay: 2.217 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 97.78 Mbit/s
95th percentile per-packet one-way delay: 2.522 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 81.67 Mbit/s
95th percentile per-packet one-way delay: 1.777 ms
Loss rate: 0.01%

Run 3: Report of Verus — Data Link

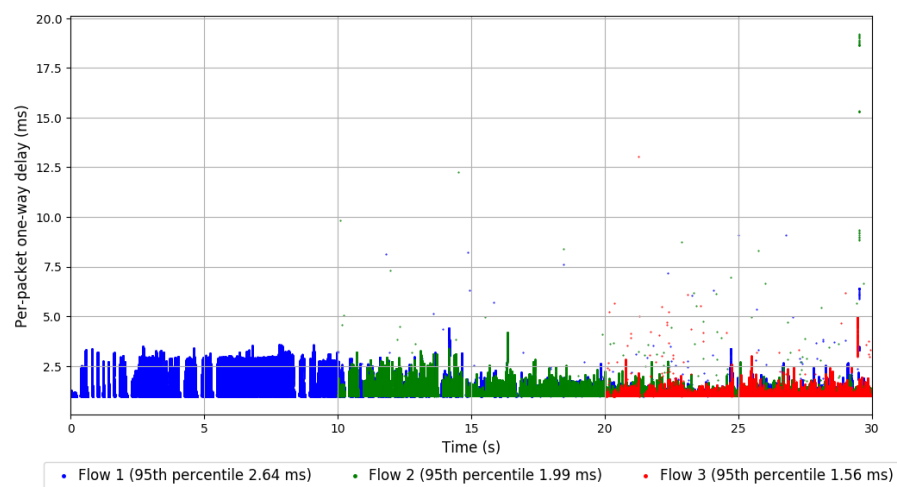
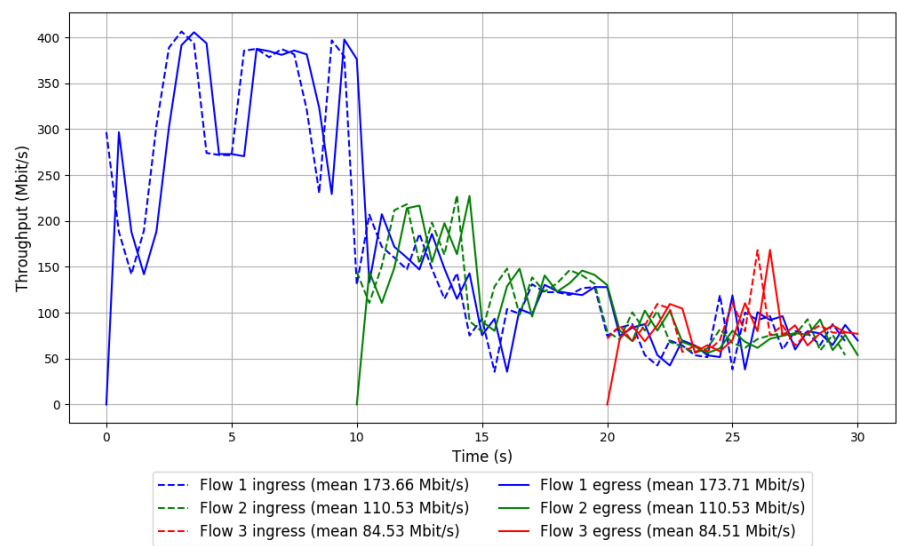


Run 4: Statistics of Verus

Start at: 2019-01-19 13:10:11
End at: 2019-01-19 13:10:41
Local clock offset: 0.038 ms
Remote clock offset: 4.07 ms

Below is generated by plot.py at 2019-01-19 15:12:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 275.34 Mbit/s
95th percentile per-packet one-way delay: 2.509 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 173.71 Mbit/s
95th percentile per-packet one-way delay: 2.643 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 110.53 Mbit/s
95th percentile per-packet one-way delay: 1.985 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 84.51 Mbit/s
95th percentile per-packet one-way delay: 1.562 ms
Loss rate: 0.03%

Run 4: Report of Verus — Data Link

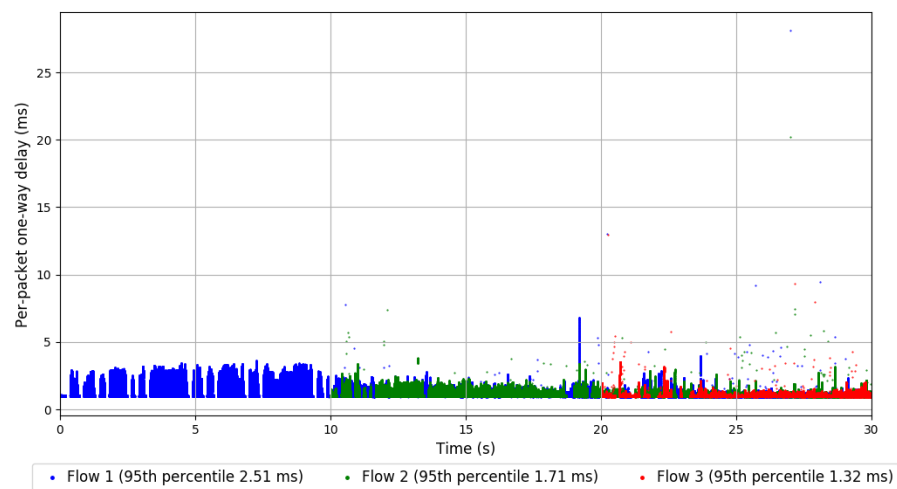
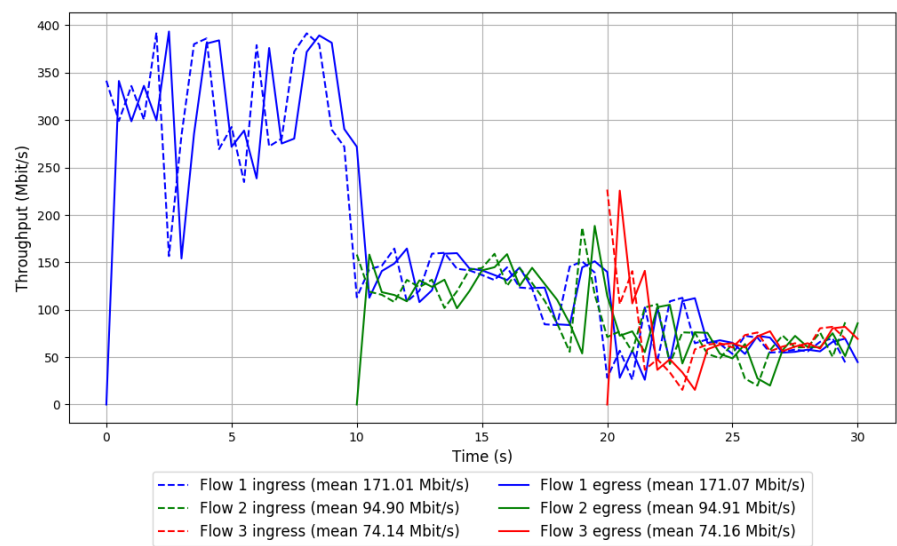


Run 5: Statistics of Verus

Start at: 2019-01-19 13:40:38
End at: 2019-01-19 13:41:08
Local clock offset: 3.543 ms
Remote clock offset: -0.496 ms

Below is generated by plot.py at 2019-01-19 15:12:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 258.86 Mbit/s
95th percentile per-packet one-way delay: 2.370 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 171.07 Mbit/s
95th percentile per-packet one-way delay: 2.514 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 94.91 Mbit/s
95th percentile per-packet one-way delay: 1.709 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 74.16 Mbit/s
95th percentile per-packet one-way delay: 1.323 ms
Loss rate: 0.03%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-01-19 11:36:07

End at: 2019-01-19 11:36:37

Local clock offset: -3.031 ms

Remote clock offset: 0.767 ms

Below is generated by plot.py at 2019-01-19 15:13:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 308.76 Mbit/s

95th percentile per-packet one-way delay: 1.273 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 201.83 Mbit/s

95th percentile per-packet one-way delay: 1.252 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 133.18 Mbit/s

95th percentile per-packet one-way delay: 1.322 ms

Loss rate: 0.01%

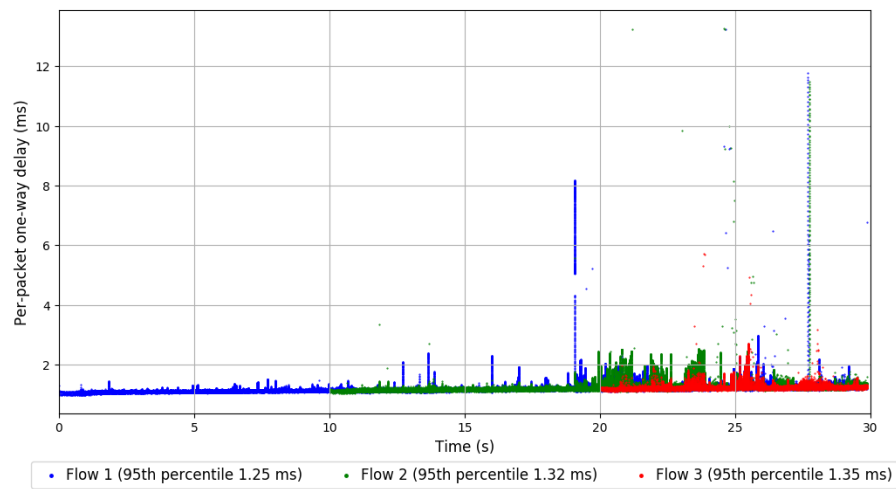
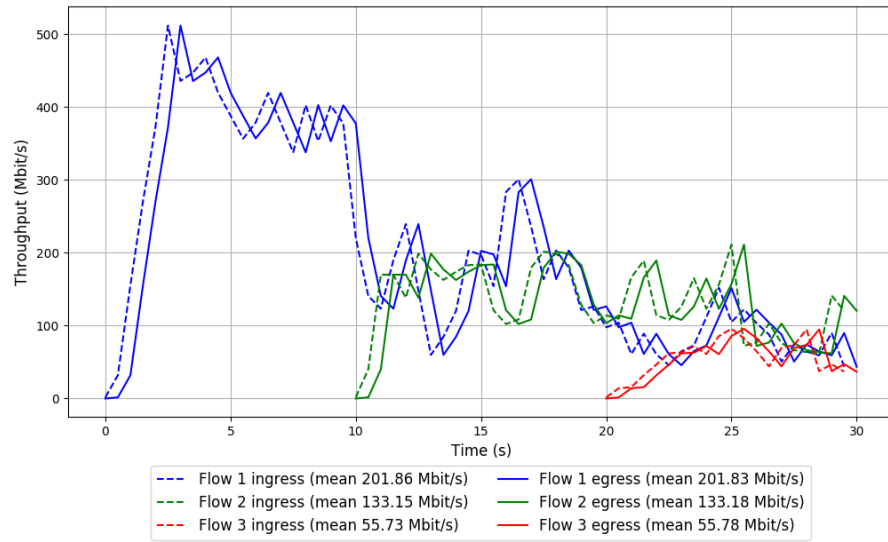
-- Flow 3:

Average throughput: 55.78 Mbit/s

95th percentile per-packet one-way delay: 1.352 ms

Loss rate: 0.02%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-01-19 12:06:19

End at: 2019-01-19 12:06:49

Local clock offset: 3.019 ms

Remote clock offset: 4.622 ms

Below is generated by plot.py at 2019-01-19 15:13:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.92 Mbit/s

95th percentile per-packet one-way delay: 0.788 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 213.87 Mbit/s

95th percentile per-packet one-way delay: 0.789 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 93.92 Mbit/s

95th percentile per-packet one-way delay: 0.807 ms

Loss rate: 0.00%

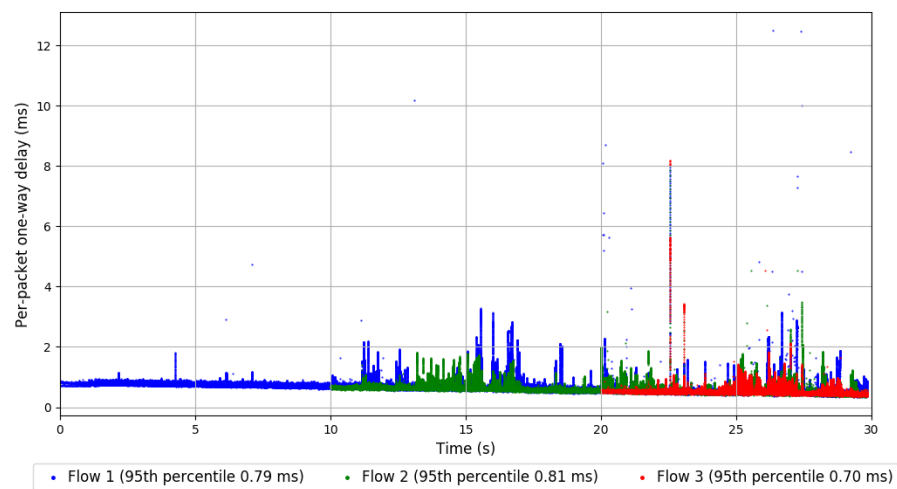
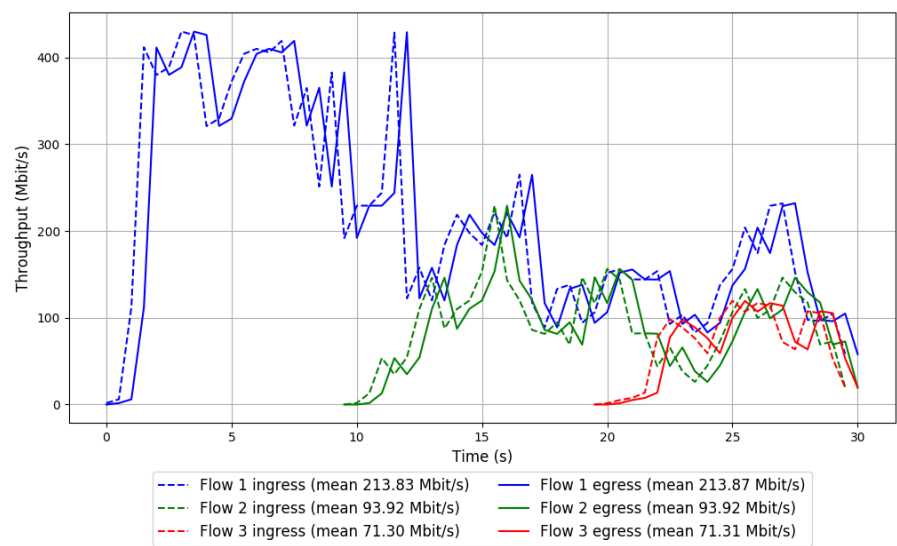
-- Flow 3:

Average throughput: 71.31 Mbit/s

95th percentile per-packet one-way delay: 0.704 ms

Loss rate: 0.01%

Run 2: Report of PCC-Vivace — Data Link

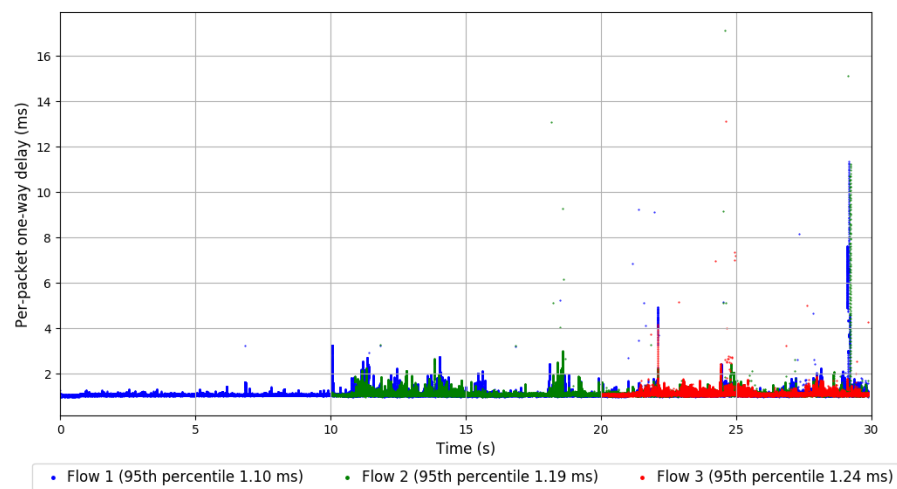
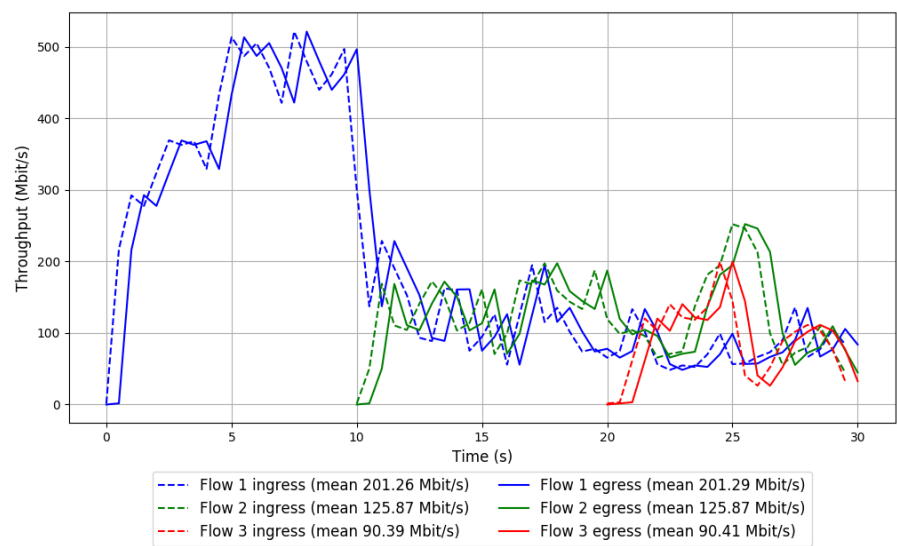


Run 3: Statistics of PCC-Vivace

Start at: 2019-01-19 12:36:38
End at: 2019-01-19 12:37:08
Local clock offset: 0.661 ms
Remote clock offset: -0.496 ms

Below is generated by plot.py at 2019-01-19 15:13:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 314.79 Mbit/s
95th percentile per-packet one-way delay: 1.150 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.29 Mbit/s
95th percentile per-packet one-way delay: 1.098 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 125.87 Mbit/s
95th percentile per-packet one-way delay: 1.193 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 90.41 Mbit/s
95th percentile per-packet one-way delay: 1.242 ms
Loss rate: 0.01%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-01-19 13:07:01

End at: 2019-01-19 13:07:31

Local clock offset: 0.056 ms

Remote clock offset: 3.867 ms

Below is generated by plot.py at 2019-01-19 15:13:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 283.48 Mbit/s

95th percentile per-packet one-way delay: 1.110 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 184.29 Mbit/s

95th percentile per-packet one-way delay: 1.073 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 107.52 Mbit/s

95th percentile per-packet one-way delay: 1.189 ms

Loss rate: 0.02%

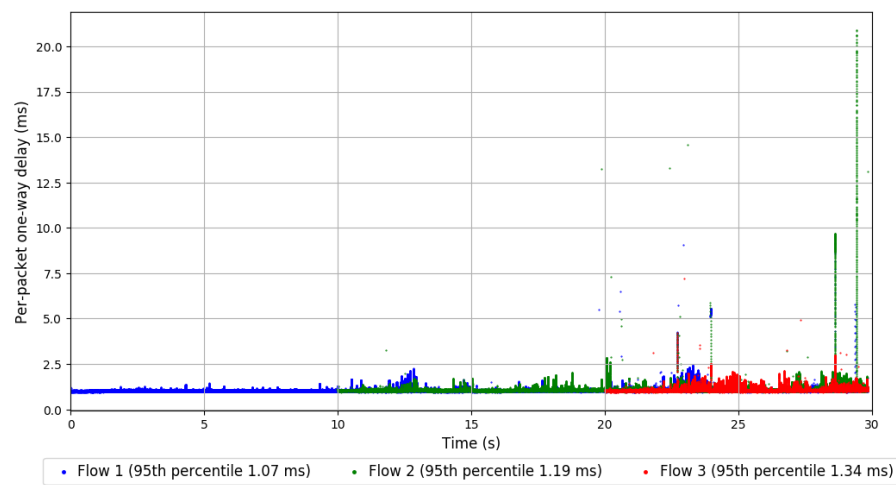
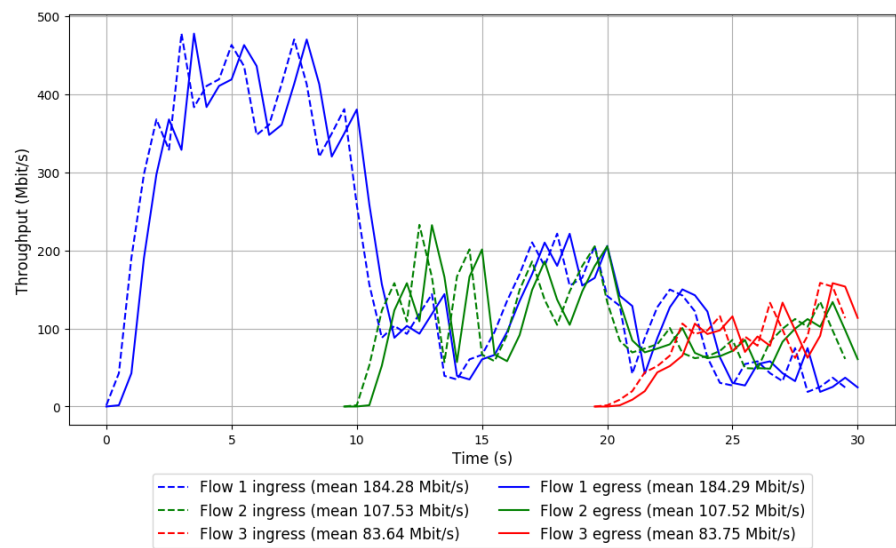
-- Flow 3:

Average throughput: 83.75 Mbit/s

95th percentile per-packet one-way delay: 1.341 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

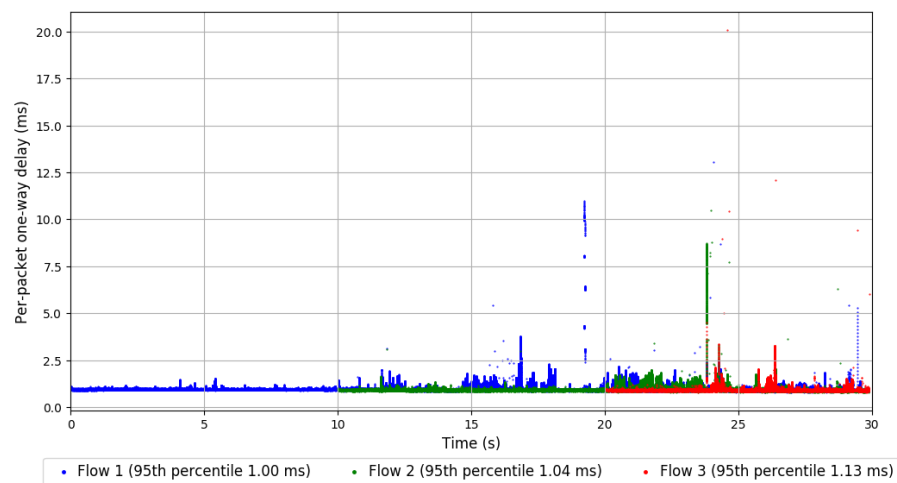
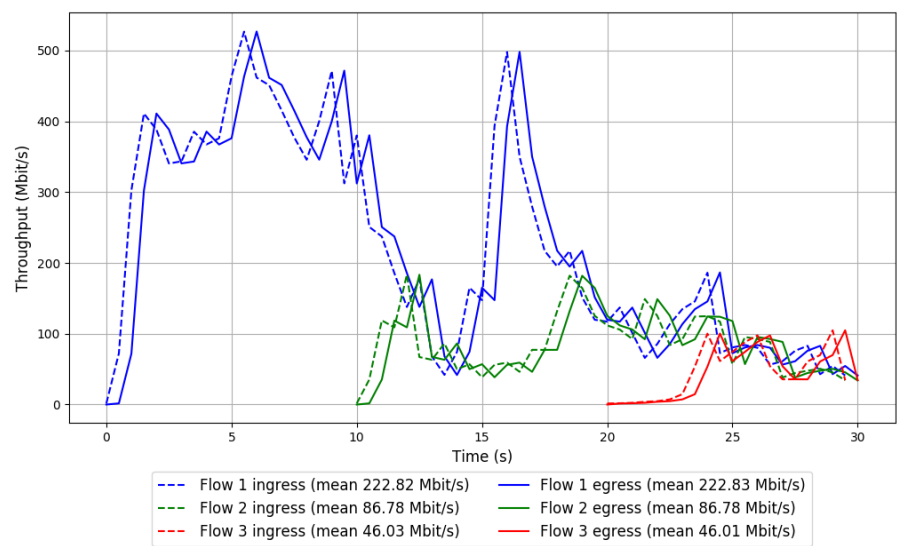


Run 5: Statistics of PCC-Vivace

Start at: 2019-01-19 13:37:27
End at: 2019-01-19 13:37:57
Local clock offset: 3.322 ms
Remote clock offset: -0.337 ms

Below is generated by plot.py at 2019-01-19 15:13:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 295.68 Mbit/s
95th percentile per-packet one-way delay: 1.013 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.83 Mbit/s
95th percentile per-packet one-way delay: 1.001 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 86.78 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.01 Mbit/s
95th percentile per-packet one-way delay: 1.134 ms
Loss rate: 0.01%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-01-19 11:43:27

End at: 2019-01-19 11:43:57

Local clock offset: -3.556 ms

Remote clock offset: 2.523 ms

Below is generated by plot.py at 2019-01-19 15:13:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1.177 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.167 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.179 ms

Loss rate: 0.00%

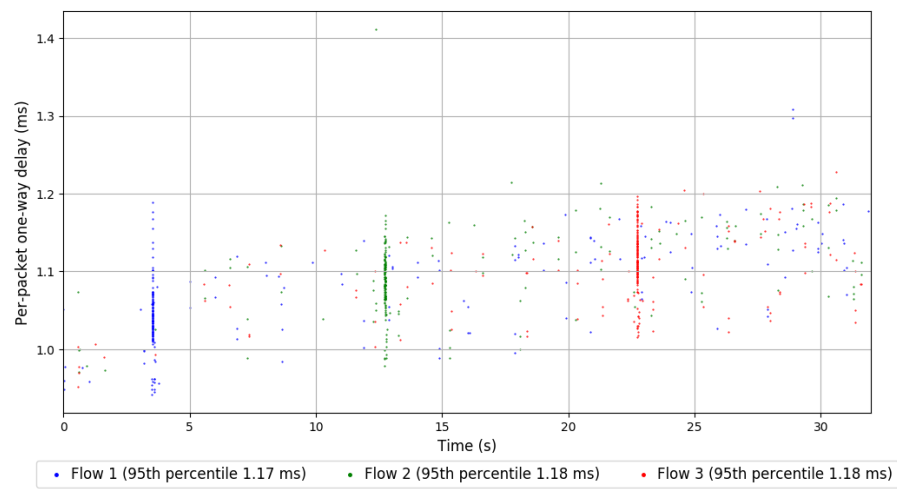
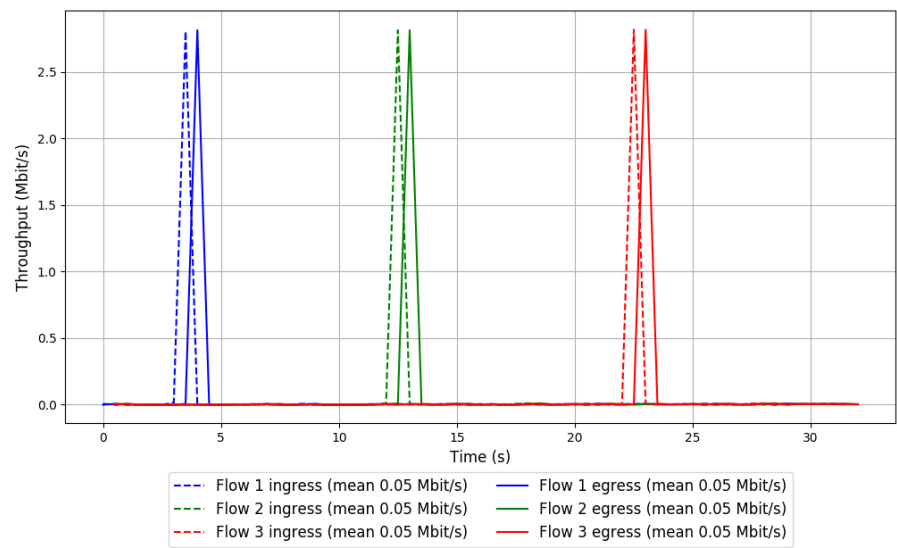
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.183 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-01-19 12:13:38

End at: 2019-01-19 12:14:08

Local clock offset: 4.014 ms

Remote clock offset: 1.596 ms

Below is generated by plot.py at 2019-01-19 15:13:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 0.962 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.977 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.930 ms

Loss rate: 0.00%

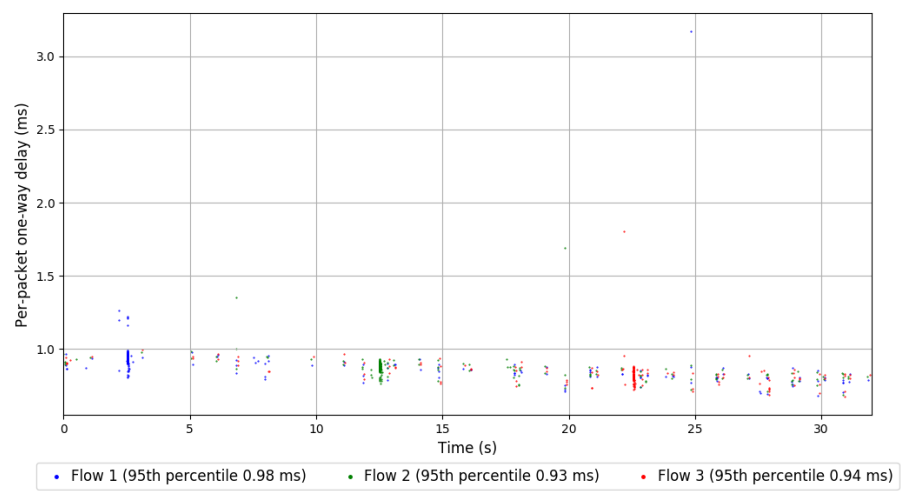
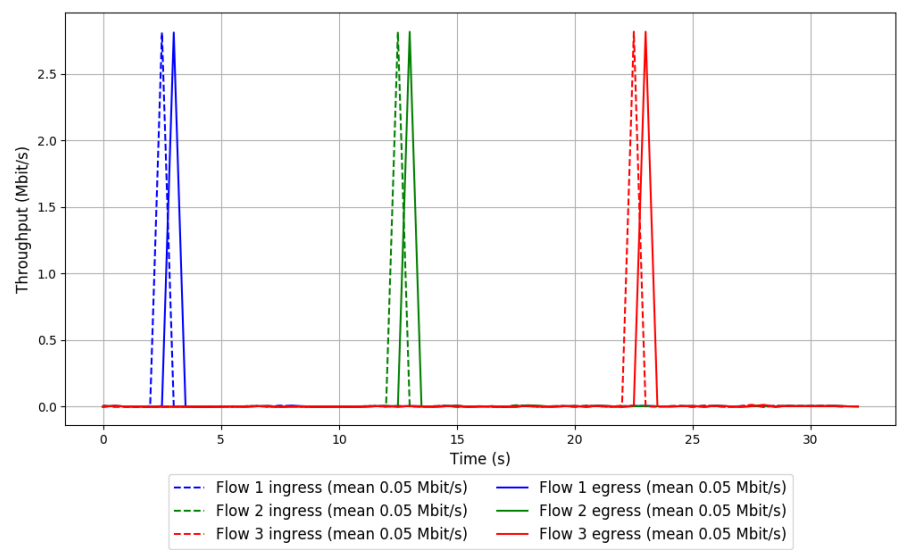
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.935 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-01-19 12:43:57

End at: 2019-01-19 12:44:27

Local clock offset: 0.338 ms

Remote clock offset: 0.975 ms

Below is generated by plot.py at 2019-01-19 15:13:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1.261 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.308 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.239 ms

Loss rate: 0.00%

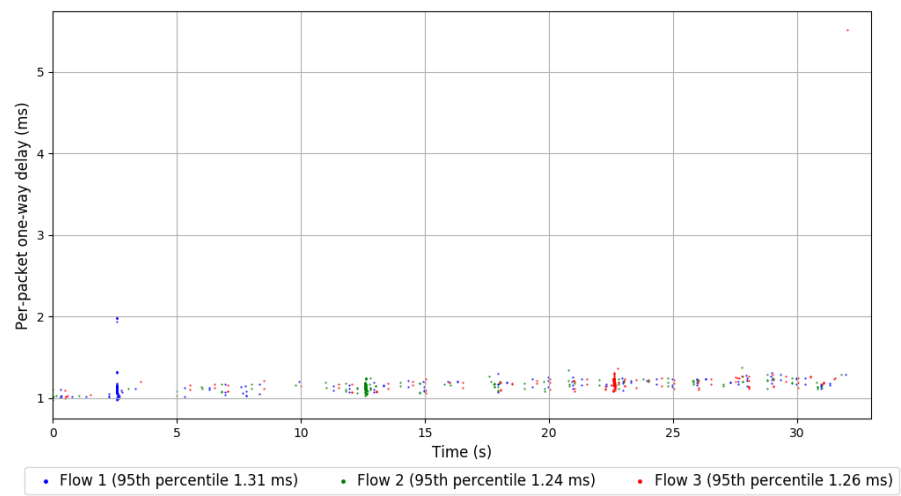
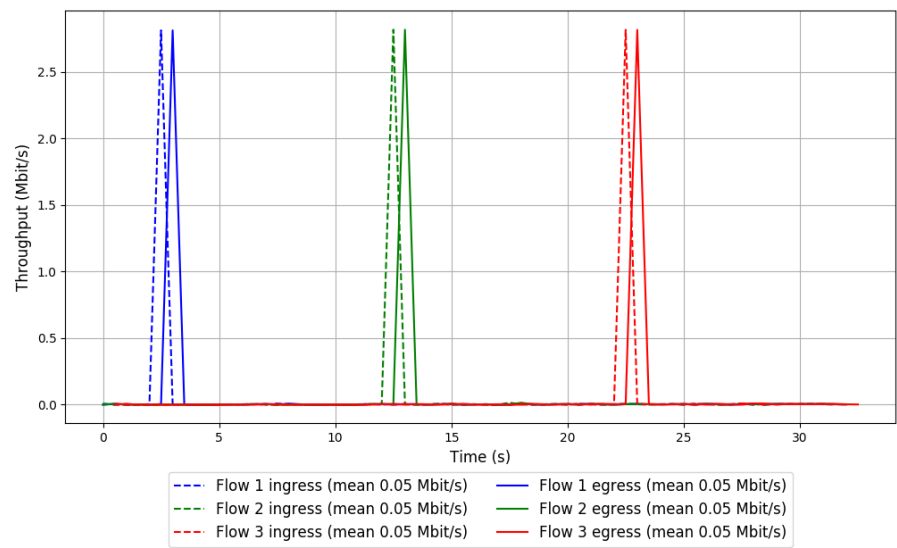
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.262 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-01-19 13:14:20

End at: 2019-01-19 13:14:50

Local clock offset: 0.058 ms

Remote clock offset: 4.064 ms

Below is generated by plot.py at 2019-01-19 15:13:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 0.921 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.931 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.885 ms

Loss rate: 0.00%

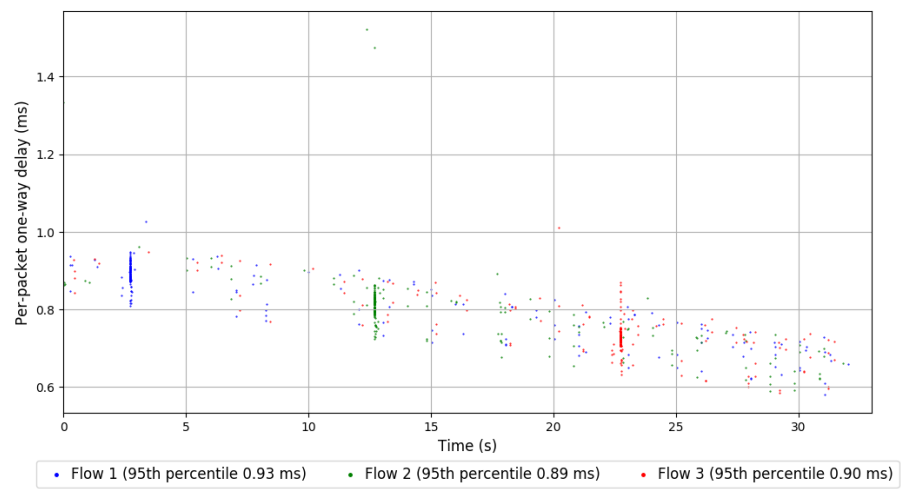
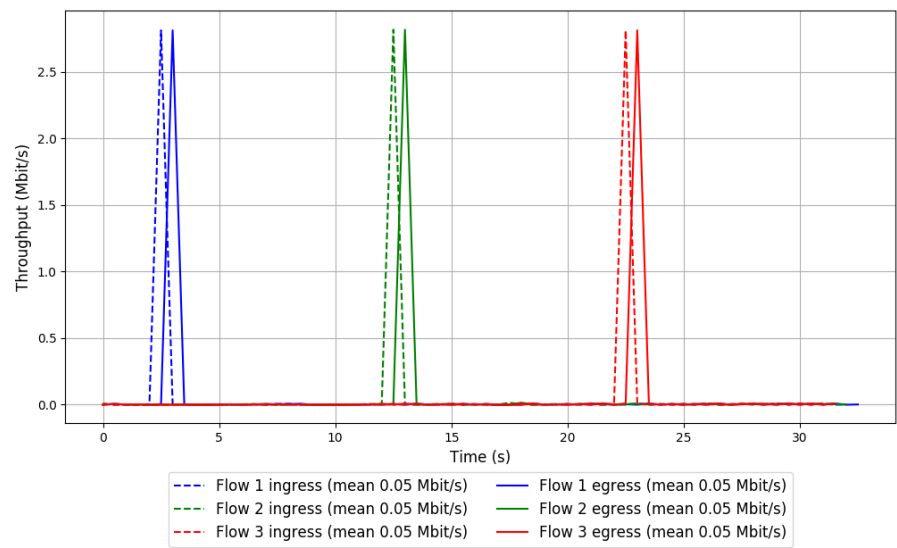
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.899 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-01-19 13:44:46
End at: 2019-01-19 13:45:16
Local clock offset: 3.786 ms
Remote clock offset: -0.646 ms

Below is generated by plot.py at 2019-01-19 15:13:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 1.053 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.069 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.034 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.044 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

