

## Pantheon Report

Generated at 2018-11-30 17:25:16 (UTC).

Data path: Brazil on **p4p1** (*remote*) → AWS Brazil 1 on **ens5** (*local*).

Repeated the test of 19 congestion control schemes 5 times.

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

NTP offsets were measured against **gps.ntp.br** and have been applied to correct the timestamps in logs.

### System info:

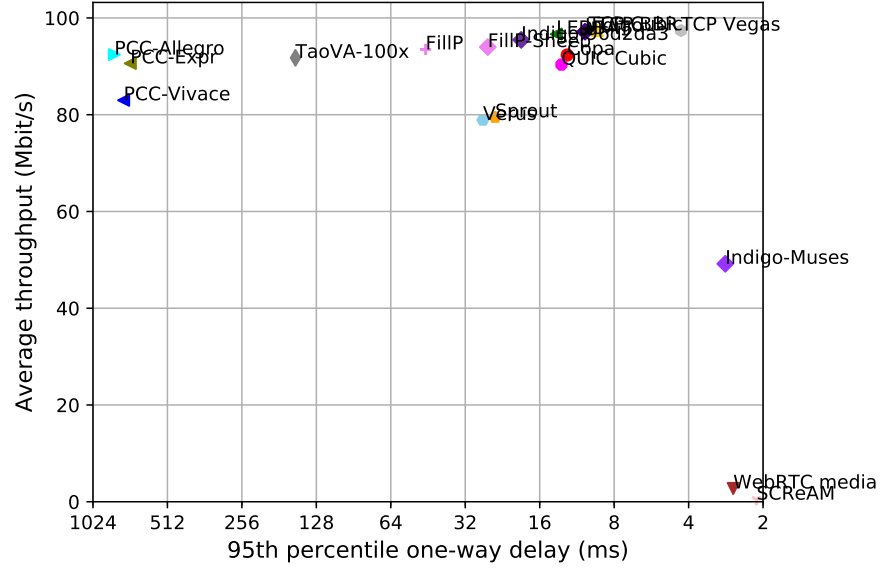
```
Linux 4.15.0-1027-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

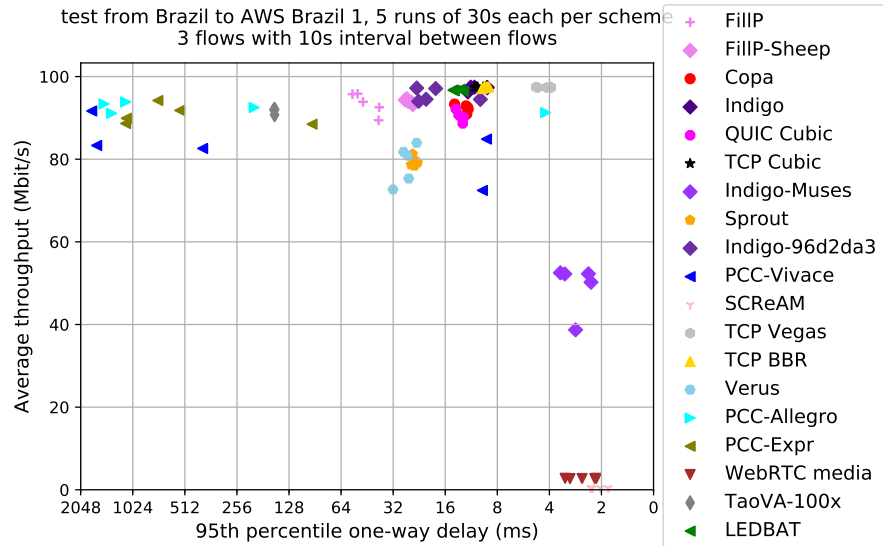
```
branch: muses @ 7b6dad87cde3ab65f7c4052140eb54098aa58e9d
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
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 Brazil to AWS Brazil 1, 5 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



test from Brazil to AWS Brazil 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	59.26	40.88	32.97	8.40	9.57	11.10	0.09	0.37	1.14
Copa	5	56.03	38.80	31.55	11.77	12.46	14.42	0.04	0.07	0.15
TCP Cubic	5	60.69	39.62	31.30	9.99	10.10	10.46	0.08	0.15	0.24
FillP	5	55.51	41.85	30.49	30.17	44.82	50.36	0.12	1.66	2.15
FillP-Sheep	5	60.07	37.66	26.65	25.23	25.01	37.64	0.02	0.07	0.12
Indigo	5	59.56	40.50	32.46	9.42	10.86	8.80	0.07	1.31	0.18
Indigo-96d2da3	5	56.26	40.78	36.45	9.62	12.03	20.77	0.02	0.09	1.06
LEDBAT	5	58.89	40.56	32.42	13.43	14.07	13.52	0.12	0.23	0.38
Indigo-Muses	5	25.40	24.53	22.53	2.74	2.85	3.11	0.01	0.01	0.04
PCC-Allegro	5	69.18	24.94	20.27	897.43	369.11	7.73	5.61	3.93	0.08
PCC-Expr	5	57.27	35.26	29.98	510.58	283.12	330.46	22.09	1.67	6.25
QUIC Cubic	5	53.47	39.99	31.07	12.93	13.10	13.36	0.17	0.33	0.47
SCReAM	5	0.22	0.22	0.22	2.12	2.12	2.13	0.00	0.00	0.21
Sprout	5	42.84	39.08	32.18	22.82	24.36	25.50	0.09	0.14	0.42
TaoVA-100x	5	55.41	38.70	31.81	154.54	155.66	156.01	0.54	1.11	2.76
TCP Vegas	5	53.60	45.50	40.59	3.47	4.02	4.70	0.01	0.02	0.04
Verus	5	44.92	34.76	32.67	26.74	23.52	110.69	0.03	0.10	0.19
PCC-Vivace	5	52.20	34.76	23.22	786.23	118.64	10.93	2.32	0.27	0.08
WebRTC media	5	1.53	0.80	0.41	2.59	2.62	2.83	0.00	0.00	0.02

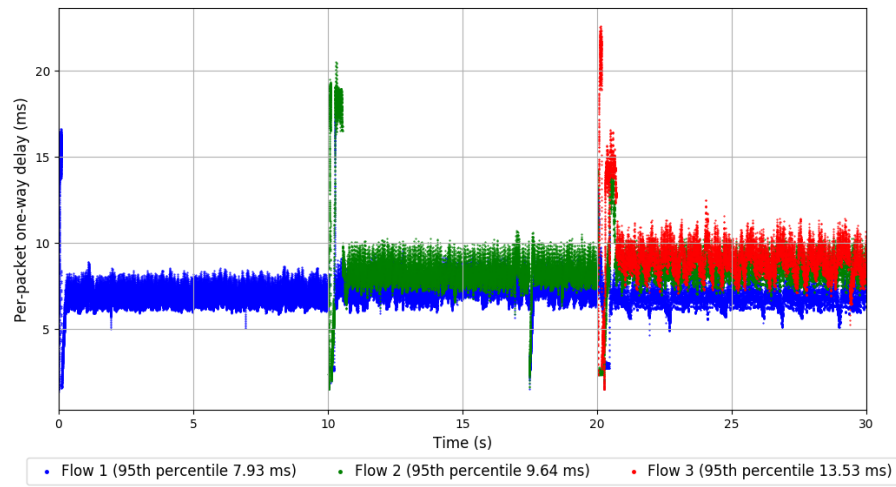
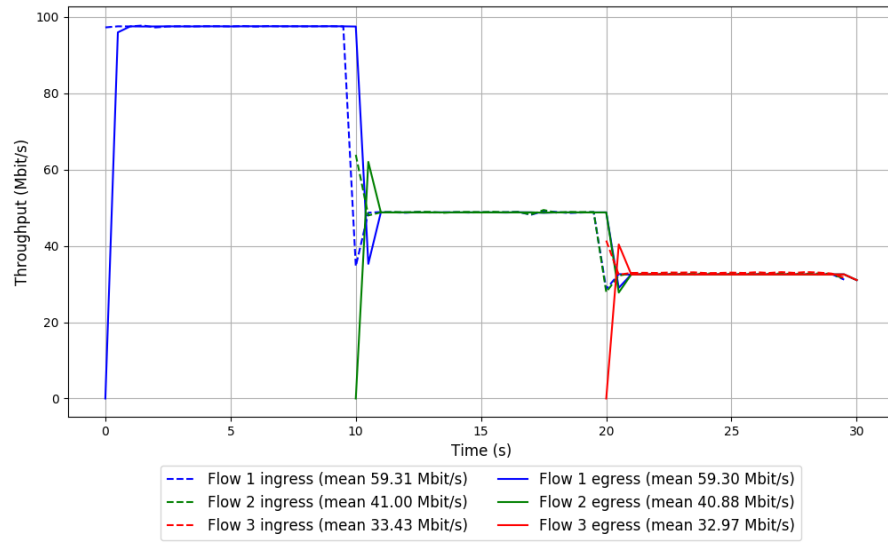


Run 1: Statistics of TCP BBR

Start at: 2018-11-30 15:26:59  
End at: 2018-11-30 15:27:29  
Local clock offset: -7.004 ms  
Remote clock offset: -0.365 ms

# Below is generated by plot.py at 2018-11-30 17:12:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 9.510 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 59.30 Mbit/s  
95th percentile per-packet one-way delay: 7.933 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 40.88 Mbit/s  
95th percentile per-packet one-way delay: 9.645 ms  
Loss rate: 0.32%  
-- Flow 3:  
Average throughput: 32.97 Mbit/s  
95th percentile per-packet one-way delay: 13.532 ms  
Loss rate: 1.41%

## Run 1: Report of TCP BBR — Data Link

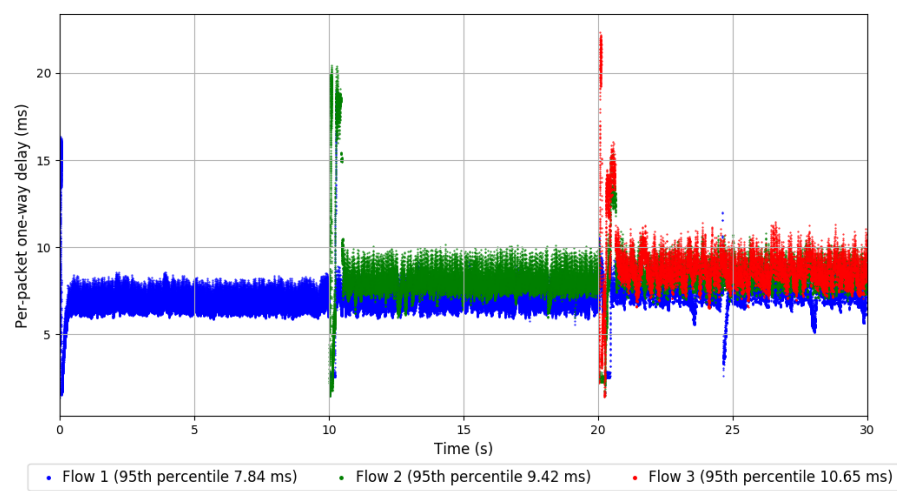
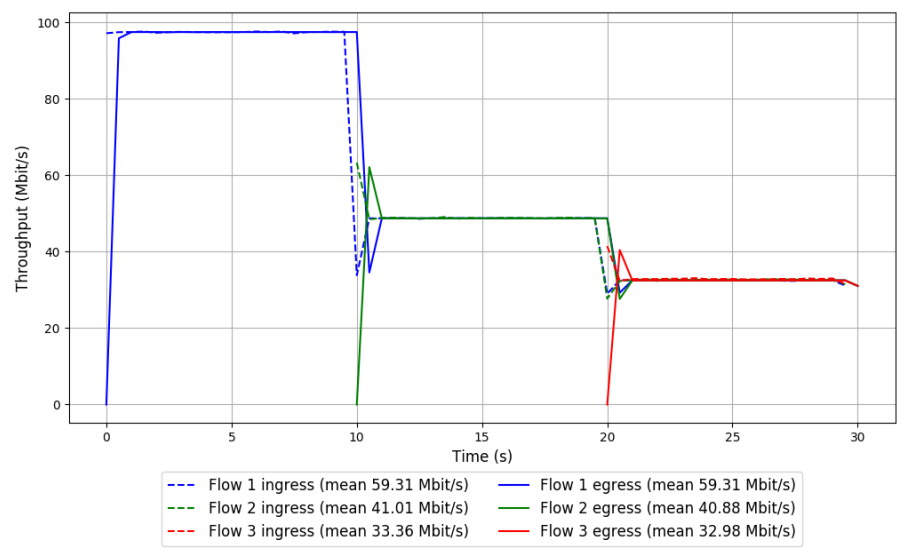


Run 2: Statistics of TCP BBR

Start at: 2018-11-30 15:48:57  
End at: 2018-11-30 15:49:27  
Local clock offset: -5.006 ms  
Remote clock offset: -0.166 ms

# Below is generated by plot.py at 2018-11-30 17:12:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.49 Mbit/s  
95th percentile per-packet one-way delay: 9.150 ms  
Loss rate: 0.24%  
-- Flow 1:  
Average throughput: 59.31 Mbit/s  
95th percentile per-packet one-way delay: 7.837 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 40.88 Mbit/s  
95th percentile per-packet one-way delay: 9.422 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 32.98 Mbit/s  
95th percentile per-packet one-way delay: 10.652 ms  
Loss rate: 1.19%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-11-30 16:10:52

End at: 2018-11-30 16:11:22

Local clock offset: -1.888 ms

Remote clock offset: 0.197 ms

# Below is generated by plot.py at 2018-11-30 17:12:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.49 Mbit/s

95th percentile per-packet one-way delay: 8.964 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 7.802 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 40.86 Mbit/s

95th percentile per-packet one-way delay: 9.498 ms

Loss rate: 0.28%

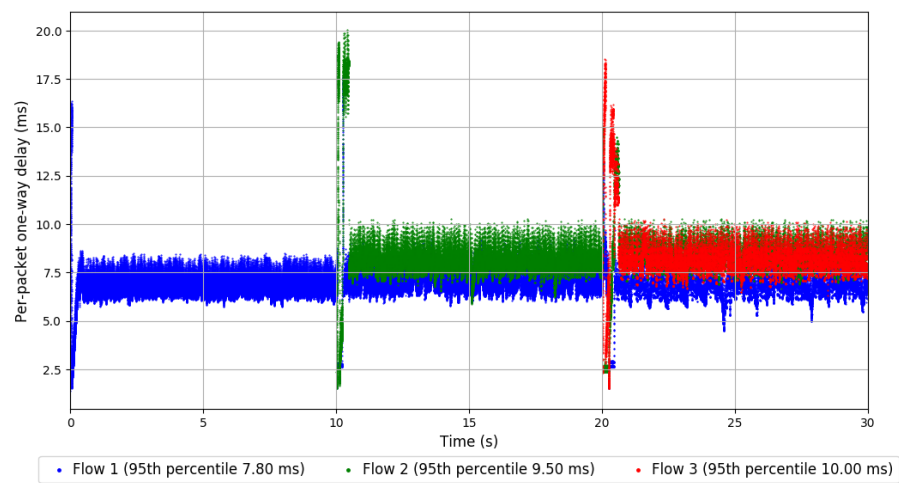
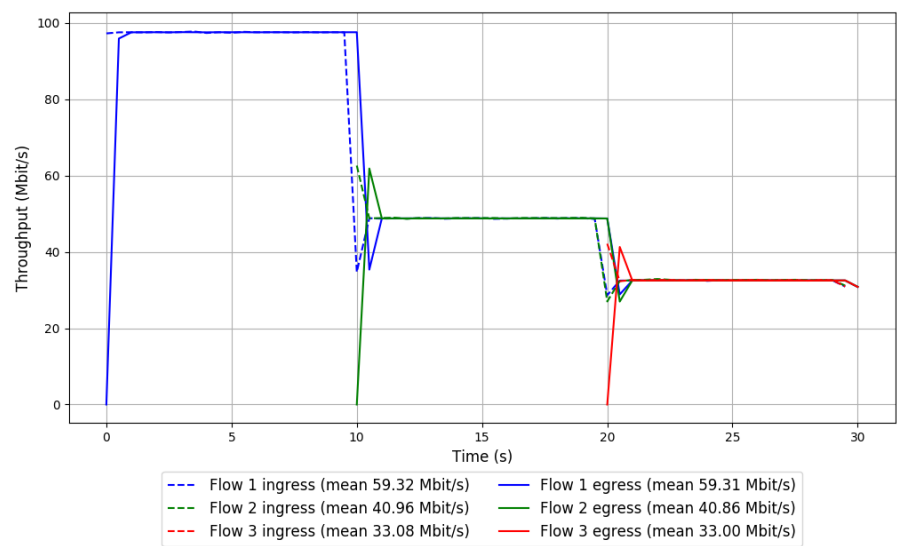
-- Flow 3:

Average throughput: 33.00 Mbit/s

95th percentile per-packet one-way delay: 10.002 ms

Loss rate: 0.29%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-11-30 16:32:52

End at: 2018-11-30 16:33:22

Local clock offset: -6.293 ms

Remote clock offset: 0.443 ms

# Below is generated by plot.py at 2018-11-30 17:12:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.12 Mbit/s

95th percentile per-packet one-way delay: 9.785 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 59.08 Mbit/s

95th percentile per-packet one-way delay: 9.374 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 40.86 Mbit/s

95th percentile per-packet one-way delay: 9.677 ms

Loss rate: 0.18%

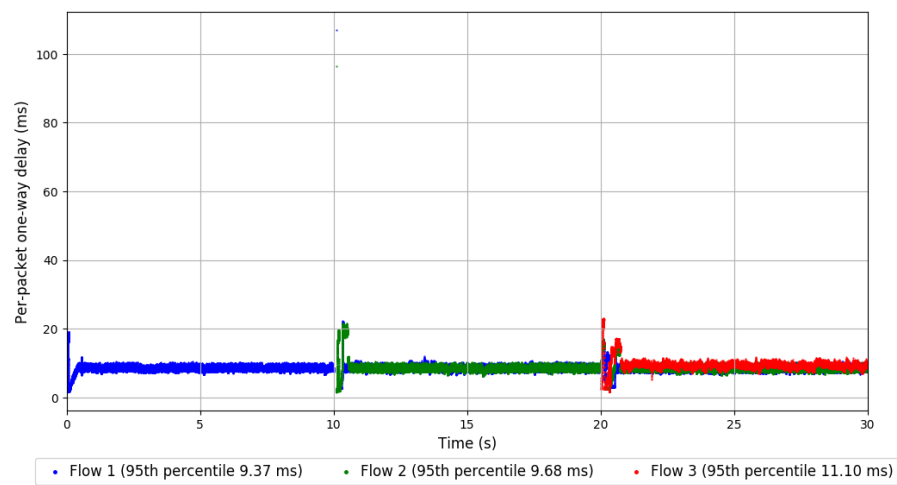
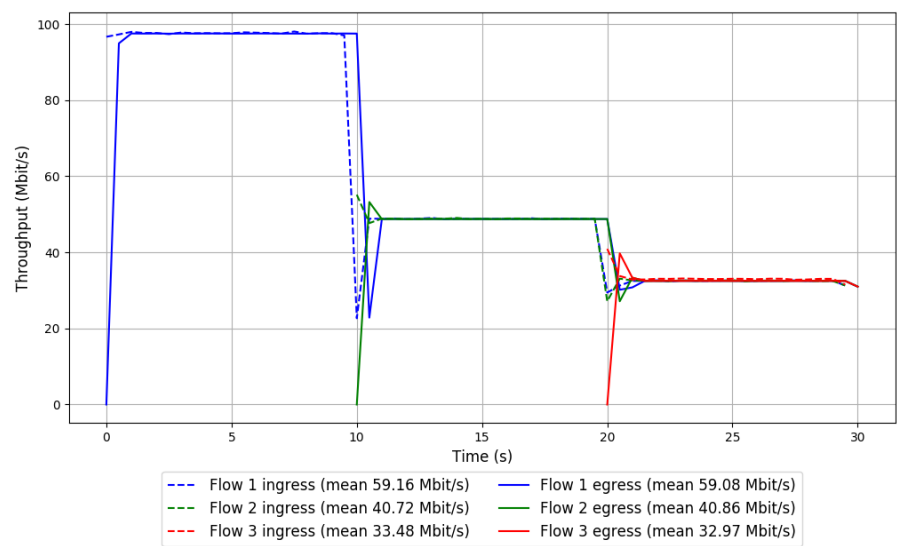
-- Flow 3:

Average throughput: 32.97 Mbit/s

95th percentile per-packet one-way delay: 11.104 ms

Loss rate: 1.60%

Run 4: Report of TCP BBR — Data Link





Run 5: Statistics of TCP BBR

Start at: 2018-11-30 16:54:50

End at: 2018-11-30 16:55:20

Local clock offset: -3.952 ms

Remote clock offset: 0.621 ms

# Below is generated by plot.py at 2018-11-30 17:12:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 9.367 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 9.030 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 40.92 Mbit/s

95th percentile per-packet one-way delay: 9.586 ms

Loss rate: 0.71%

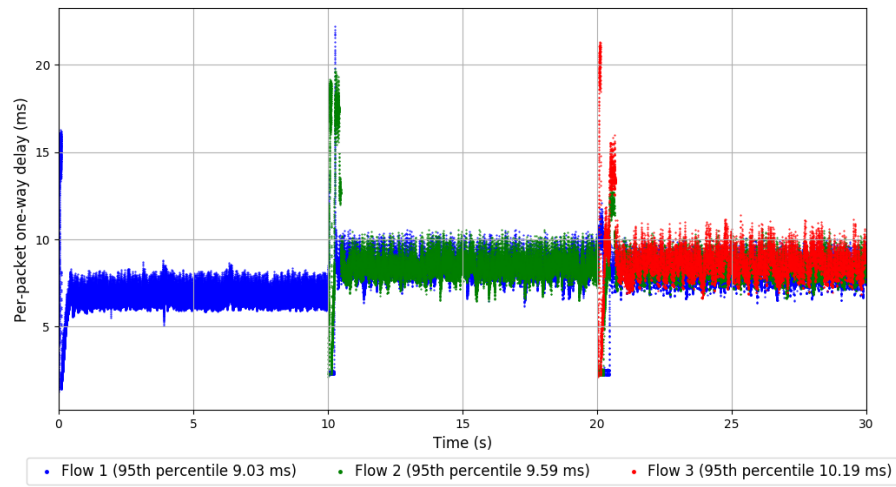
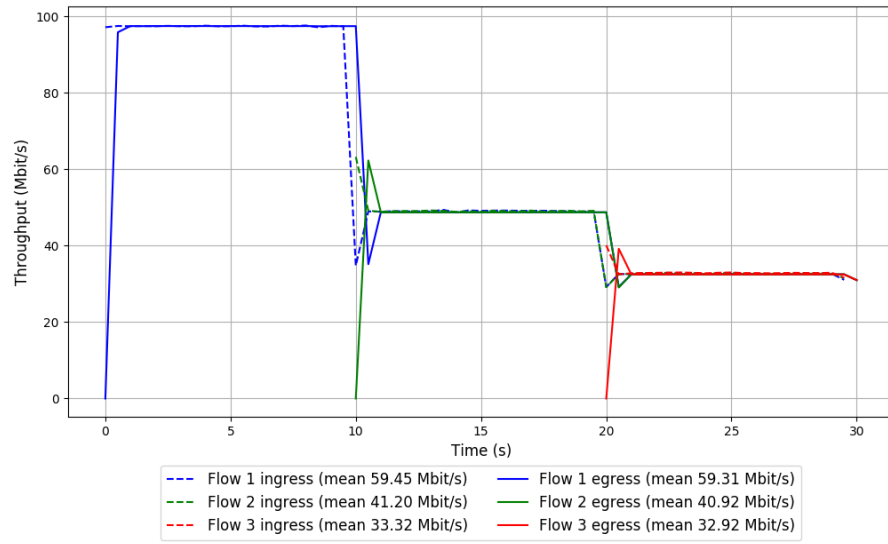
-- Flow 3:

Average throughput: 32.92 Mbit/s

95th percentile per-packet one-way delay: 10.189 ms

Loss rate: 1.23%

## Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-11-30 15:30:28

End at: 2018-11-30 15:30:58

Local clock offset: -6.887 ms

Remote clock offset: -0.38 ms

# Below is generated by plot.py at 2018-11-30 17:13:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.90 Mbit/s

95th percentile per-packet one-way delay: 12.132 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 56.08 Mbit/s

95th percentile per-packet one-way delay: 11.173 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 39.70 Mbit/s

95th percentile per-packet one-way delay: 14.258 ms

Loss rate: 0.08%

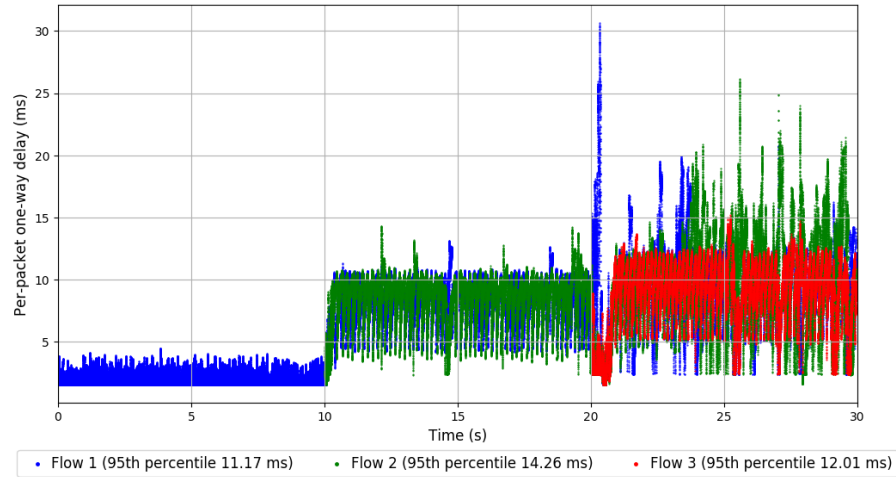
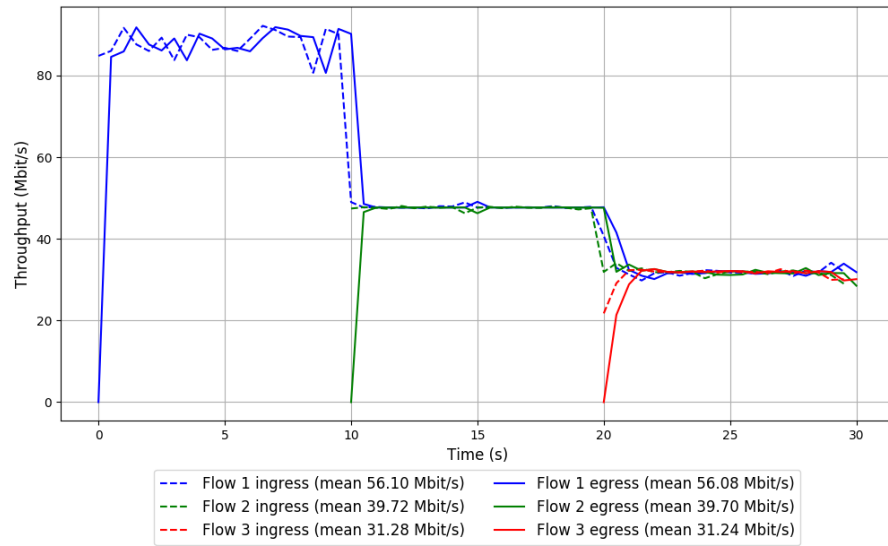
-- Flow 3:

Average throughput: 31.24 Mbit/s

95th percentile per-packet one-way delay: 12.014 ms

Loss rate: 0.16%

## Run 1: Report of Copa — Data Link

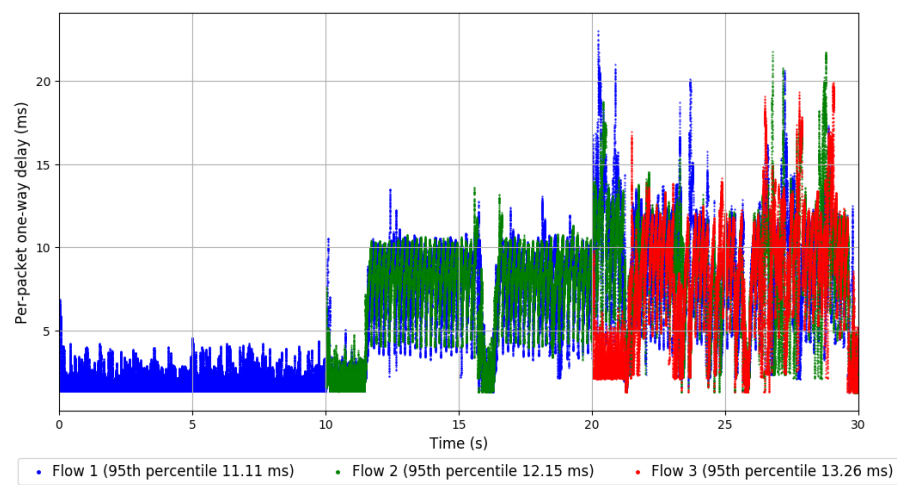
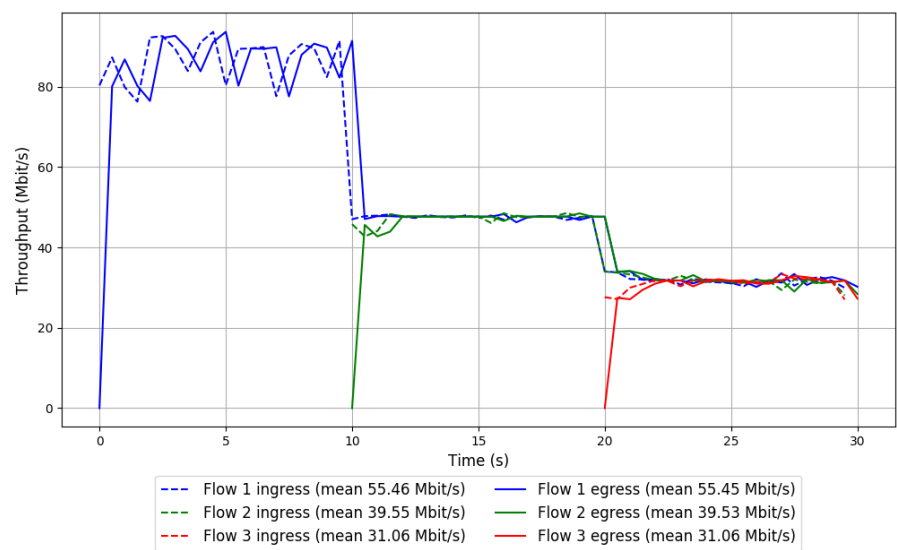


Run 2: Statistics of Copa

Start at: 2018-11-30 15:52:26  
End at: 2018-11-30 15:52:56  
Local clock offset: -4.176 ms  
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-11-30 17:13:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.09 Mbit/s  
95th percentile per-packet one-way delay: 11.795 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 55.45 Mbit/s  
95th percentile per-packet one-way delay: 11.110 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 39.53 Mbit/s  
95th percentile per-packet one-way delay: 12.153 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 31.06 Mbit/s  
95th percentile per-packet one-way delay: 13.261 ms  
Loss rate: 0.08%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-11-30 16:14:21

End at: 2018-11-30 16:14:51

Local clock offset: -1.706 ms

Remote clock offset: 0.169 ms

# Below is generated by plot.py at 2018-11-30 17:13:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.50 Mbit/s

95th percentile per-packet one-way delay: 11.857 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 55.69 Mbit/s

95th percentile per-packet one-way delay: 11.662 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 39.14 Mbit/s

95th percentile per-packet one-way delay: 11.683 ms

Loss rate: 0.10%

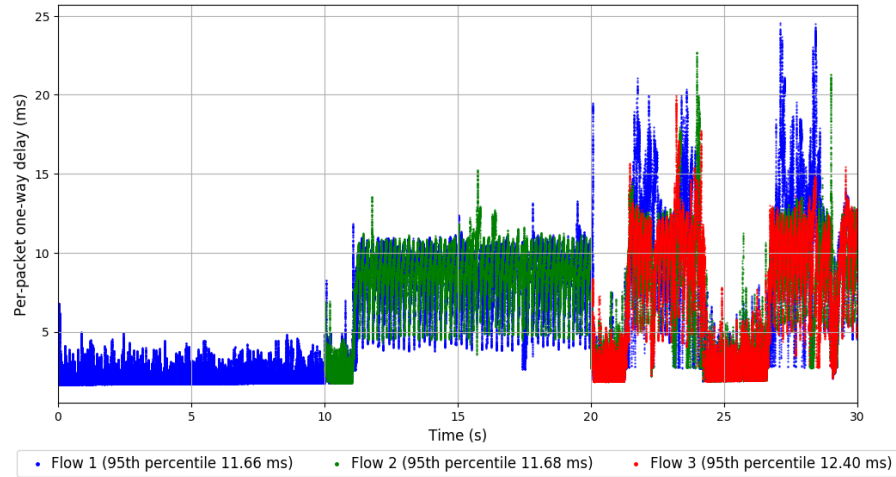
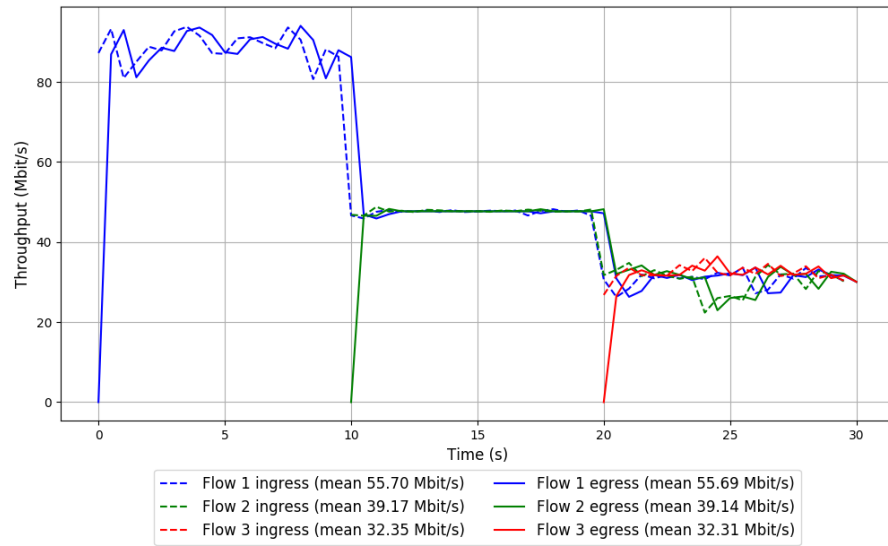
-- Flow 3:

Average throughput: 32.31 Mbit/s

95th percentile per-packet one-way delay: 12.397 ms

Loss rate: 0.15%

### Run 3: Report of Copa — Data Link





Run 4: Statistics of Copa

Start at: 2018-11-30 16:36:21

End at: 2018-11-30 16:36:51

Local clock offset: -6.579 ms

Remote clock offset: 0.493 ms

# Below is generated by plot.py at 2018-11-30 17:14:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.92 Mbit/s

95th percentile per-packet one-way delay: 12.022 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 54.76 Mbit/s

95th percentile per-packet one-way delay: 10.812 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 38.90 Mbit/s

95th percentile per-packet one-way delay: 12.011 ms

Loss rate: 0.10%

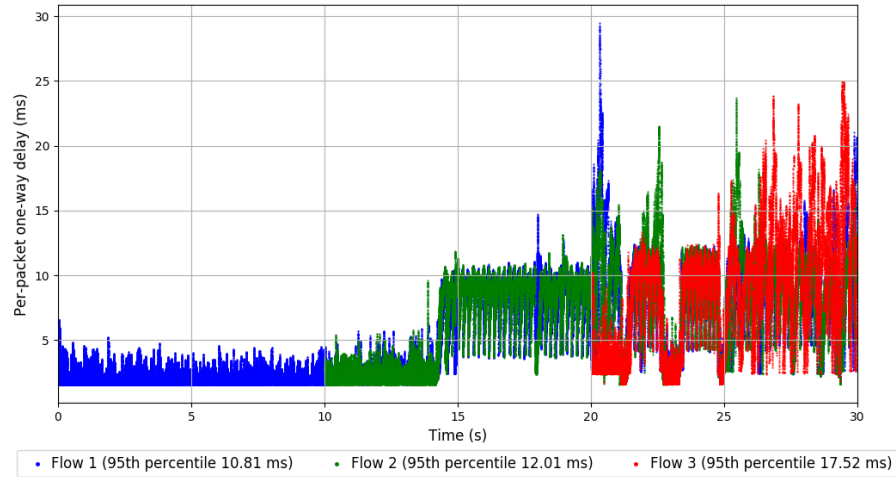
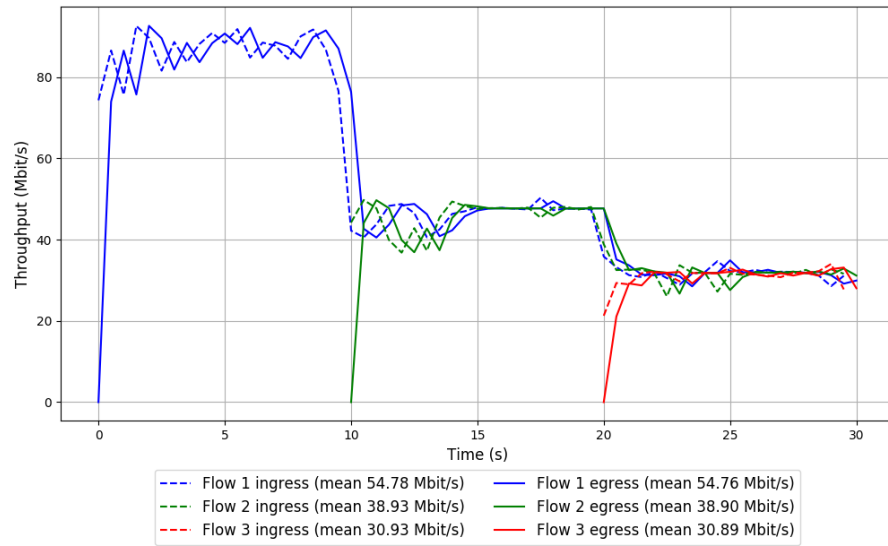
-- Flow 3:

Average throughput: 30.89 Mbit/s

95th percentile per-packet one-way delay: 17.518 ms

Loss rate: 0.17%

#### Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-11-30 16:58:19

End at: 2018-11-30 16:58:49

Local clock offset: -2.677 ms

Remote clock offset: 0.642 ms

# Below is generated by plot.py at 2018-11-30 17:14:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.34 Mbit/s

95th percentile per-packet one-way delay: 14.134 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 58.18 Mbit/s

95th percentile per-packet one-way delay: 14.070 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 36.72 Mbit/s

95th percentile per-packet one-way delay: 12.174 ms

Loss rate: 0.03%

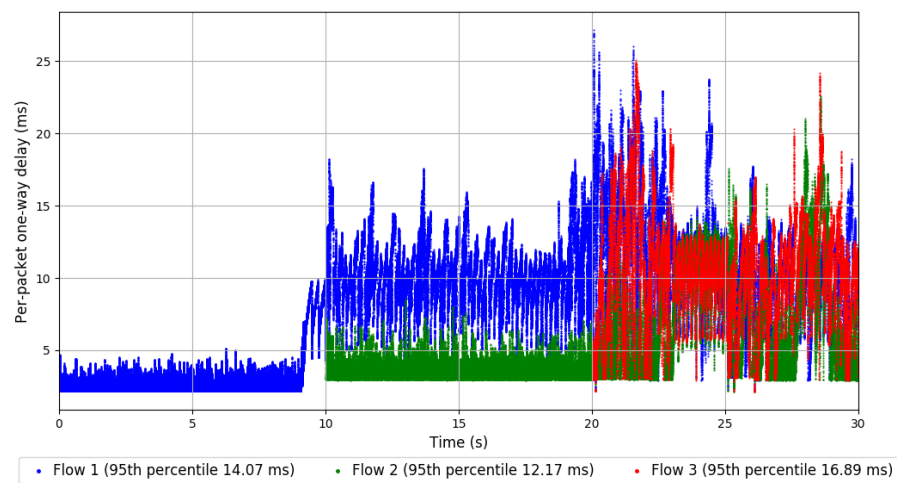
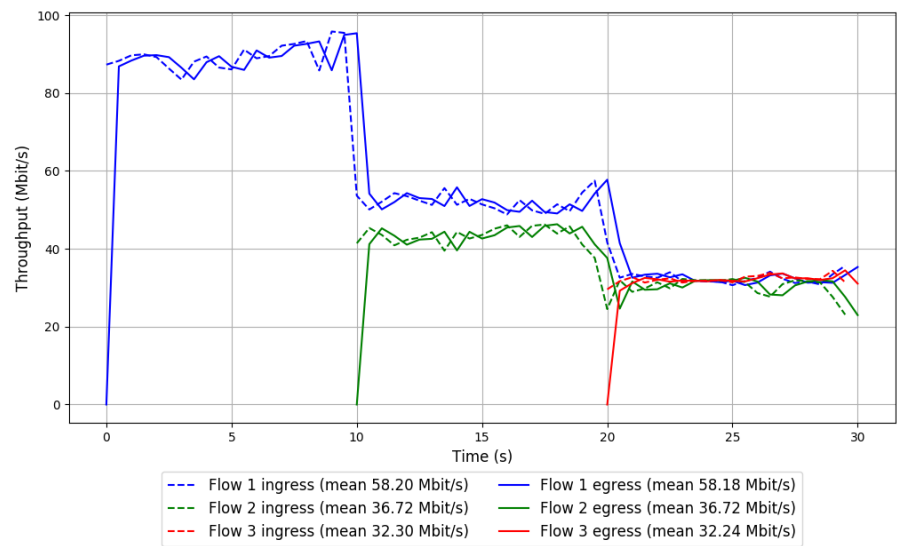
-- Flow 3:

Average throughput: 32.24 Mbit/s

95th percentile per-packet one-way delay: 16.886 ms

Loss rate: 0.20%

Run 5: Report of Copa — Data Link

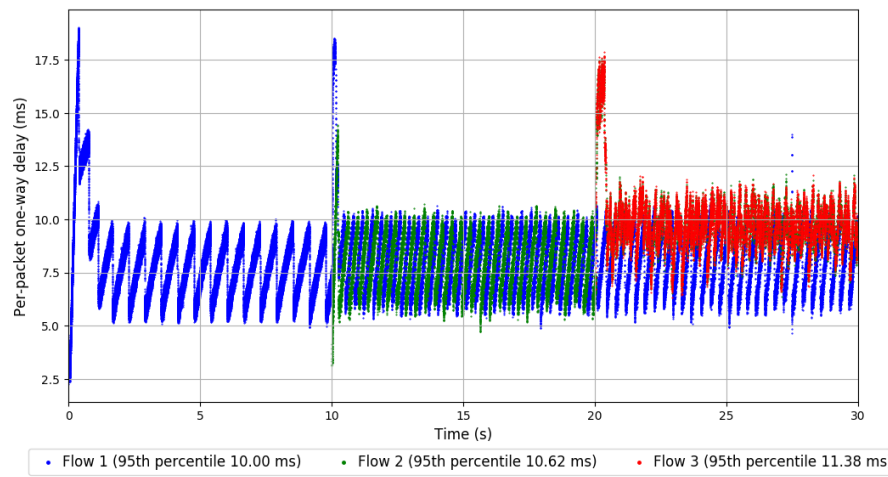
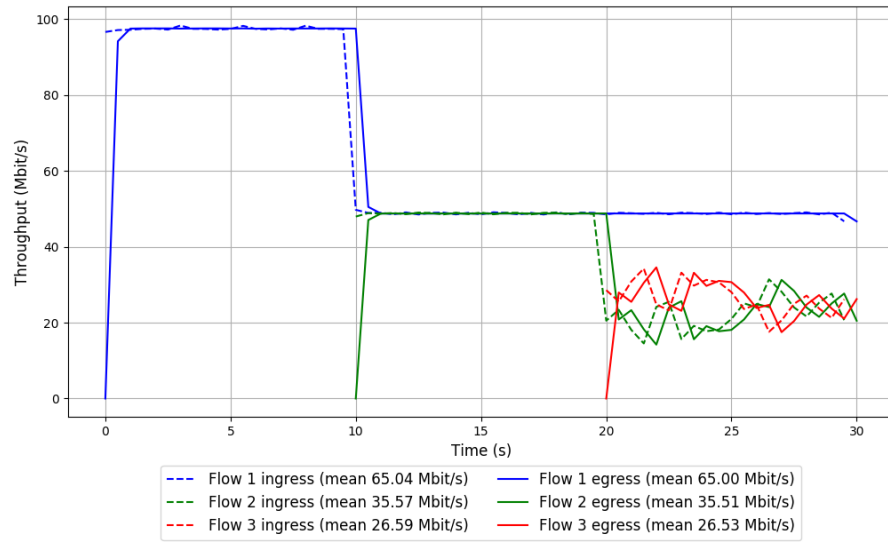


Run 1: Statistics of TCP Cubic

Start at: 2018-11-30 15:40:47  
End at: 2018-11-30 15:41:17  
Local clock offset: -5.878 ms  
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-11-30 17:14:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.47 Mbit/s  
95th percentile per-packet one-way delay: 10.613 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 65.00 Mbit/s  
95th percentile per-packet one-way delay: 10.001 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 35.51 Mbit/s  
95th percentile per-packet one-way delay: 10.620 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 26.53 Mbit/s  
95th percentile per-packet one-way delay: 11.380 ms  
Loss rate: 0.29%

# Run 1: Report of TCP Cubic — Data Link

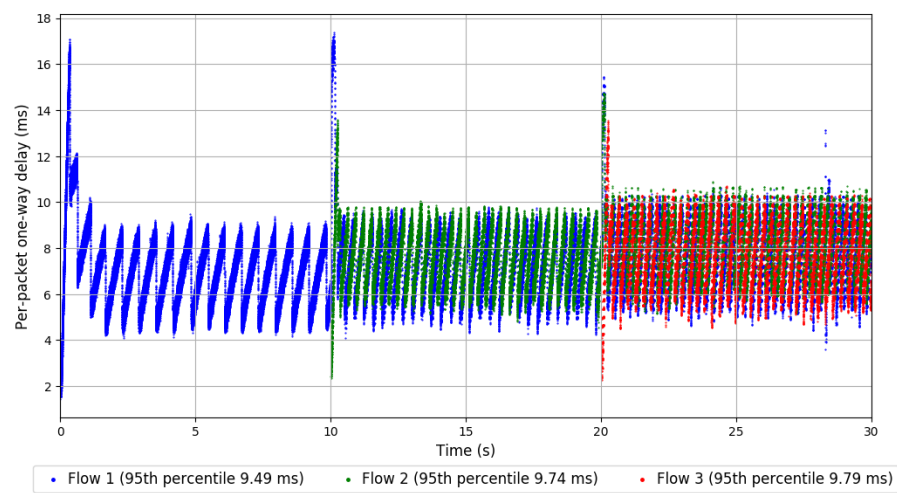
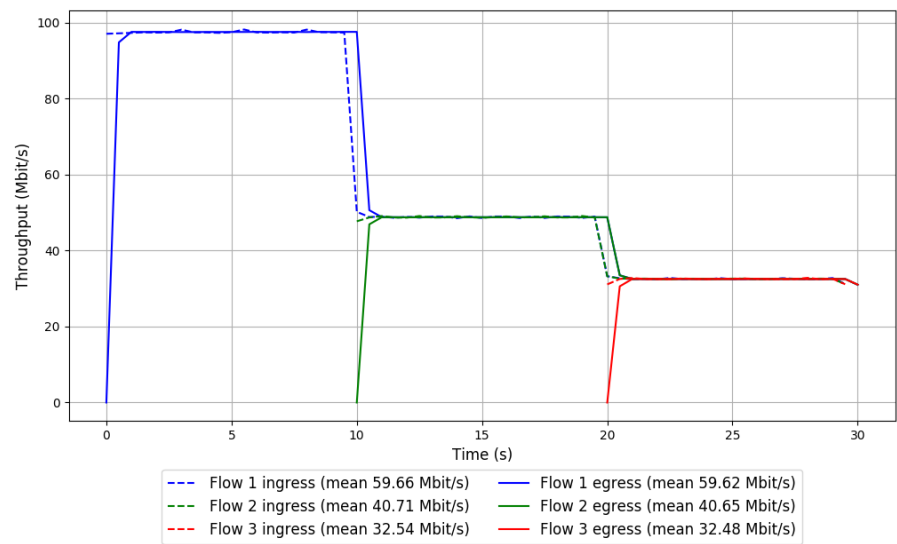


Run 2: Statistics of TCP Cubic

Start at: 2018-11-30 16:02:43  
End at: 2018-11-30 16:03:13  
Local clock offset: -2.658 ms  
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2018-11-30 17:14:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 9.648 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 59.62 Mbit/s  
95th percentile per-packet one-way delay: 9.494 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 40.65 Mbit/s  
95th percentile per-packet one-way delay: 9.741 ms  
Loss rate: 0.16%  
-- Flow 3:  
Average throughput: 32.48 Mbit/s  
95th percentile per-packet one-way delay: 9.786 ms  
Loss rate: 0.23%

Run 2: Report of TCP Cubic — Data Link





Run 3: Statistics of TCP Cubic

Start at: 2018-11-30 16:24:42

End at: 2018-11-30 16:25:12

Local clock offset: -4.458 ms

Remote clock offset: 0.261 ms

# Below is generated by plot.py at 2018-11-30 17:14:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 10.794 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 59.61 Mbit/s

95th percentile per-packet one-way delay: 10.547 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 10.715 ms

Loss rate: 0.16%

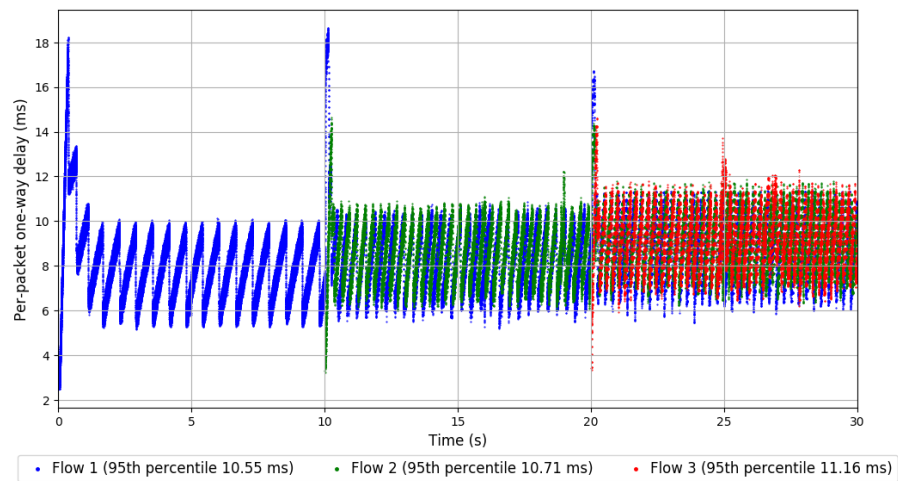
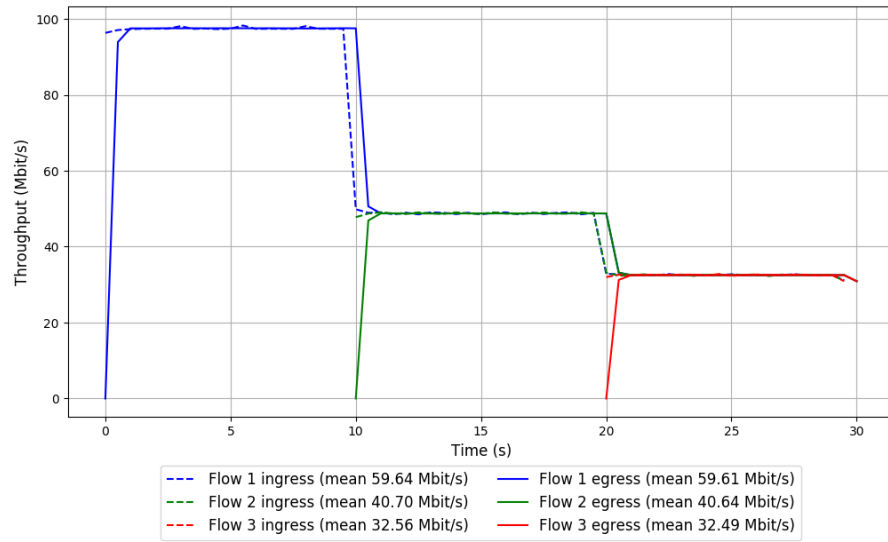
-- Flow 3:

Average throughput: 32.49 Mbit/s

95th percentile per-packet one-way delay: 11.164 ms

Loss rate: 0.24%

### Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-11-30 16:46:40

End at: 2018-11-30 16:47:10

Local clock offset: -6.019 ms

Remote clock offset: 0.519 ms

# Below is generated by plot.py at 2018-11-30 17:14:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 9.310 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 59.62 Mbit/s

95th percentile per-packet one-way delay: 9.354 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 9.248 ms

Loss rate: 0.13%

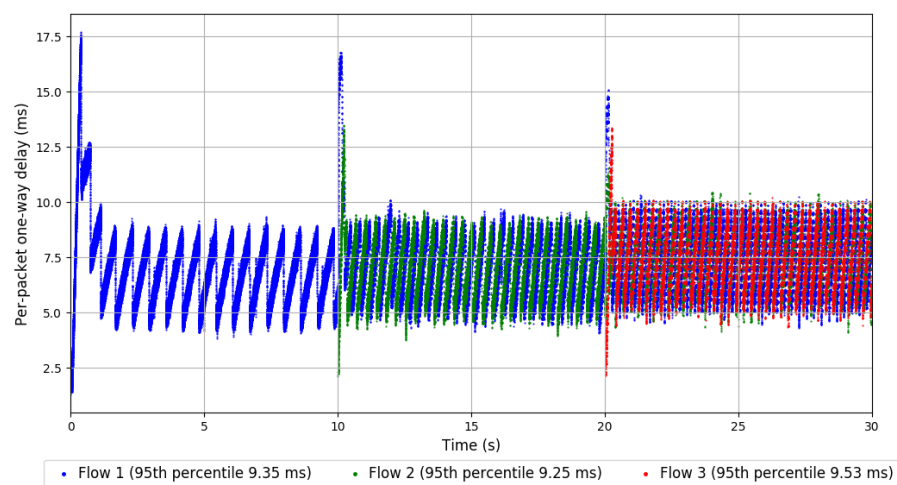
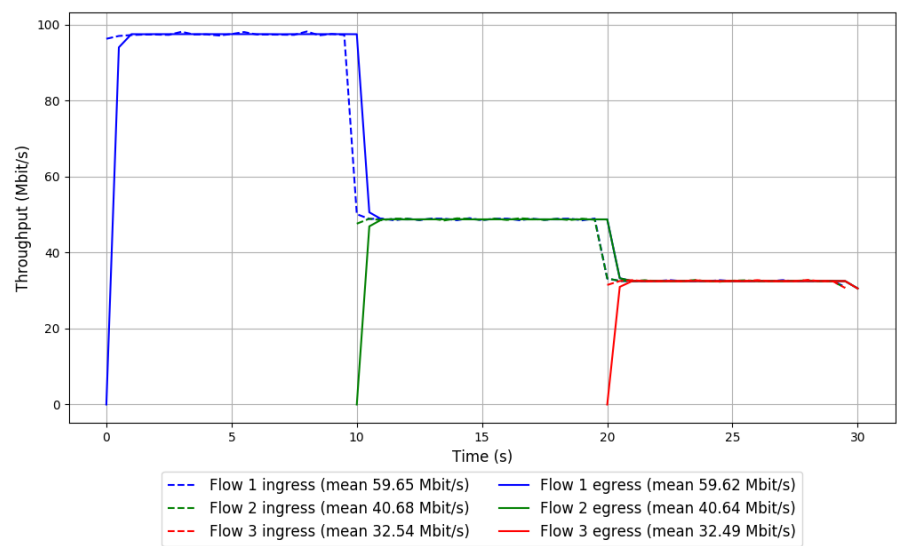
-- Flow 3:

Average throughput: 32.49 Mbit/s

95th percentile per-packet one-way delay: 9.525 ms

Loss rate: 0.23%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-11-30 17:08:38

End at: 2018-11-30 17:09:08

Local clock offset: -1.672 ms

Remote clock offset: 0.7 ms

# Below is generated by plot.py at 2018-11-30 17:14:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 10.410 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 59.61 Mbit/s

95th percentile per-packet one-way delay: 10.547 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 10.184 ms

Loss rate: 0.14%

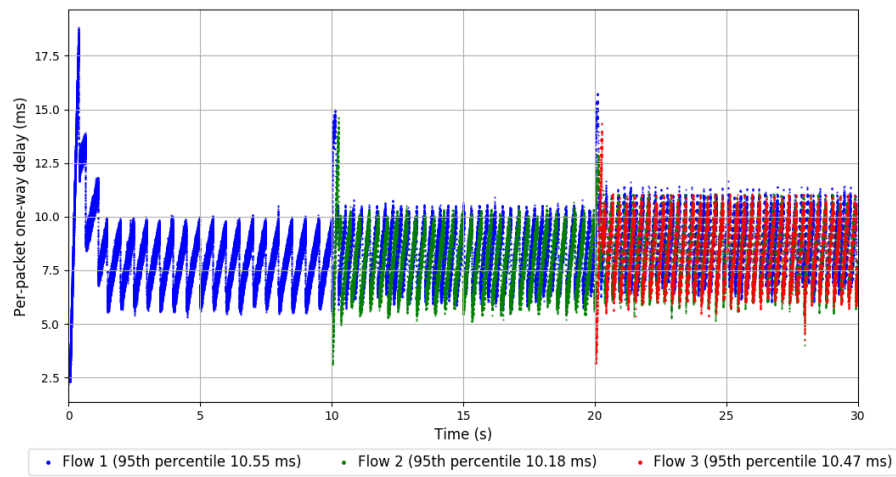
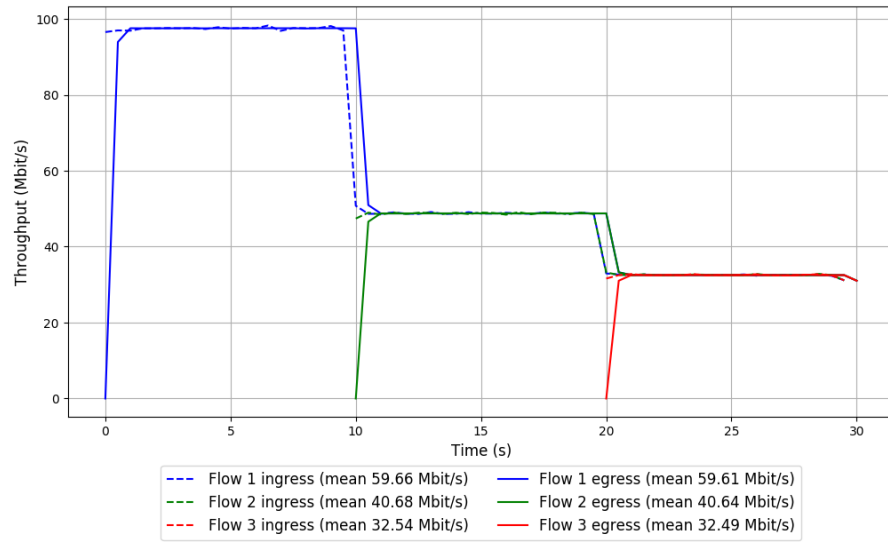
-- Flow 3:

Average throughput: 32.49 Mbit/s

95th percentile per-packet one-way delay: 10.470 ms

Loss rate: 0.23%

## Run 5: Report of TCP Cubic — Data Link

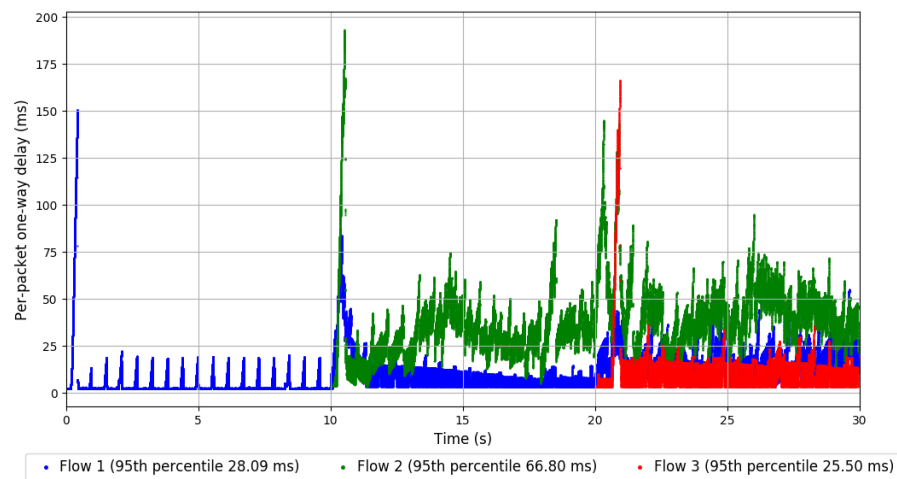
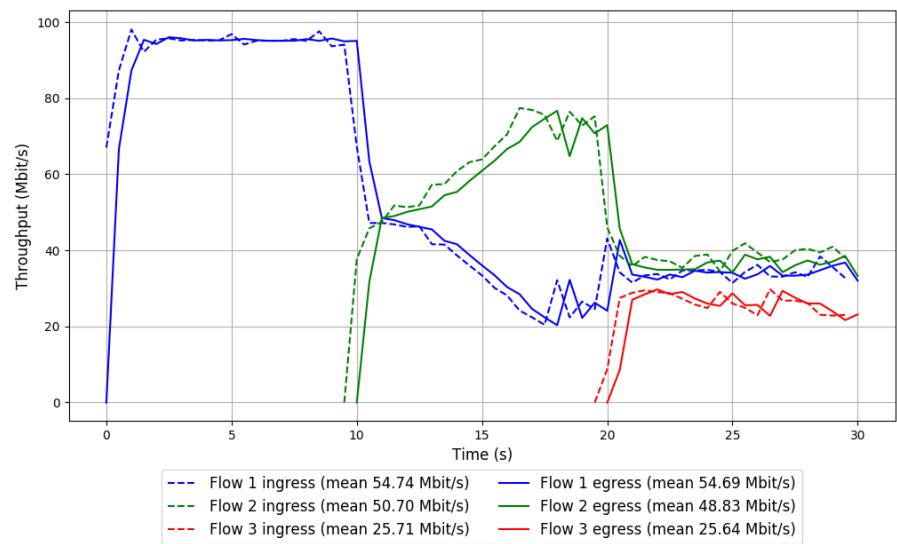


Run 1: Statistics of FillP

Start at: 2018-11-30 15:24:41  
End at: 2018-11-30 15:25:11  
Local clock offset: -6.362 ms  
Remote clock offset: -0.456 ms

# Below is generated by plot.py at 2018-11-30 17:14:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.74 Mbit/s  
95th percentile per-packet one-way delay: 55.036 ms  
Loss rate: 1.36%  
-- Flow 1:  
Average throughput: 54.69 Mbit/s  
95th percentile per-packet one-way delay: 28.091 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 48.83 Mbit/s  
95th percentile per-packet one-way delay: 66.801 ms  
Loss rate: 3.71%  
-- Flow 3:  
Average throughput: 25.64 Mbit/s  
95th percentile per-packet one-way delay: 25.500 ms  
Loss rate: 0.22%

Run 1: Report of FillP — Data Link



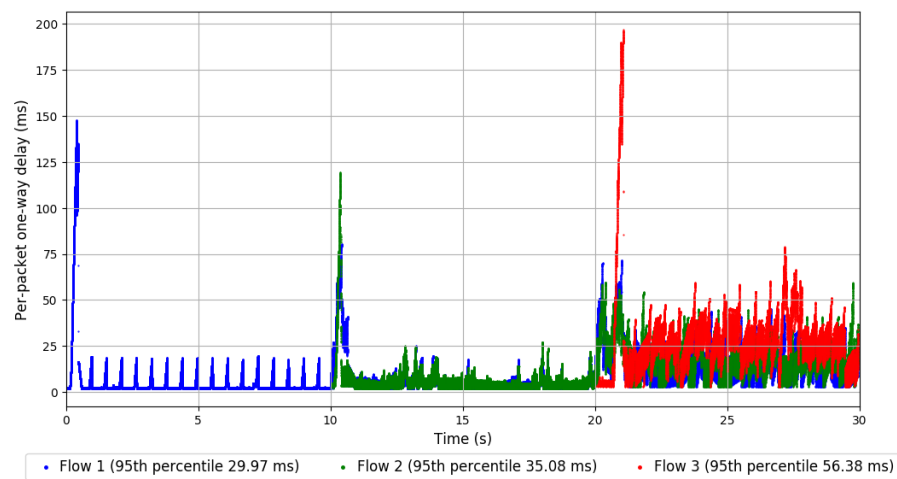
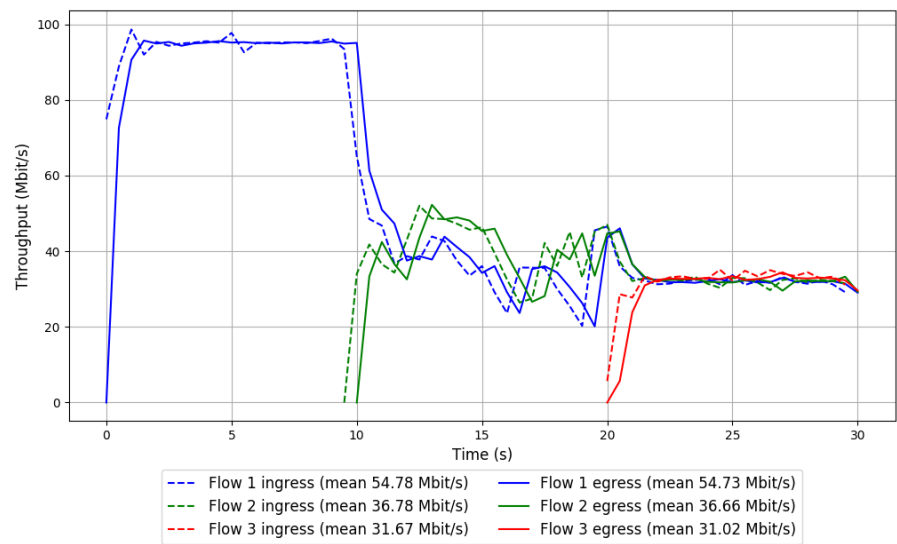


Run 2: Statistics of FillP

Start at: 2018-11-30 15:46:39  
End at: 2018-11-30 15:47:09  
Local clock offset: -4.958 ms  
Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2018-11-30 17:14:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.43 Mbit/s  
95th percentile per-packet one-way delay: 38.835 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 54.73 Mbit/s  
95th percentile per-packet one-way delay: 29.970 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 36.66 Mbit/s  
95th percentile per-packet one-way delay: 35.080 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 31.02 Mbit/s  
95th percentile per-packet one-way delay: 56.379 ms  
Loss rate: 2.05%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-11-30 16:08:34

End at: 2018-11-30 16:09:04

Local clock offset: -2.144 ms

Remote clock offset: 0.117 ms

# Below is generated by plot.py at 2018-11-30 17:14:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.88 Mbit/s

95th percentile per-packet one-way delay: 47.769 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 62.30 Mbit/s

95th percentile per-packet one-way delay: 36.639 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 31.19 Mbit/s

95th percentile per-packet one-way delay: 26.017 ms

Loss rate: 0.18%

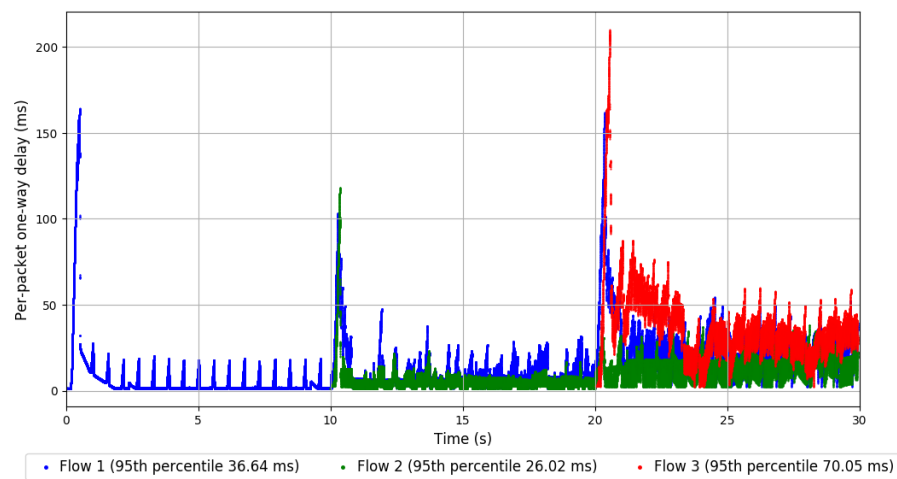
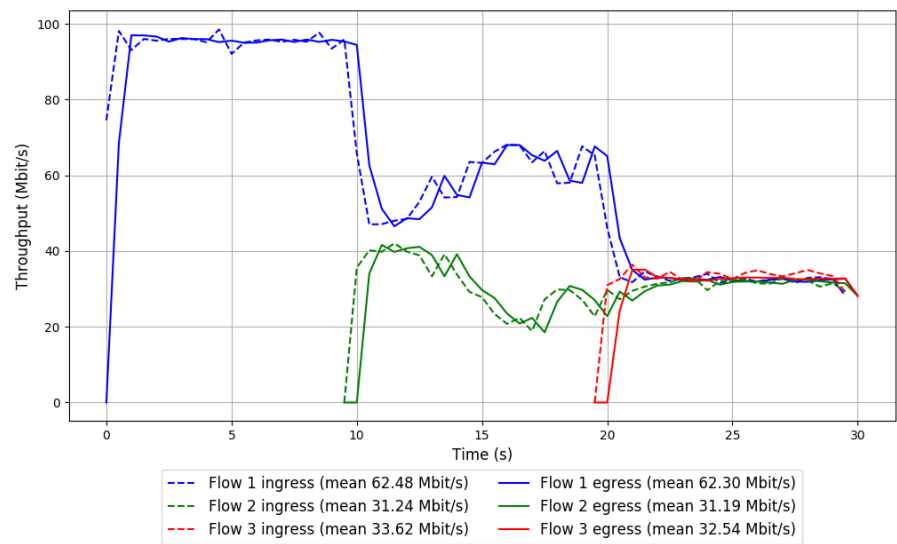
-- Flow 3:

Average throughput: 32.54 Mbit/s

95th percentile per-packet one-way delay: 70.052 ms

Loss rate: 3.22%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-11-30 16:30:33

End at: 2018-11-30 16:31:03

Local clock offset: -5.31 ms

Remote clock offset: 0.419 ms

# Below is generated by plot.py at 2018-11-30 17:14:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.84 Mbit/s

95th percentile per-packet one-way delay: 51.388 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 53.64 Mbit/s

95th percentile per-packet one-way delay: 28.358 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 48.00 Mbit/s

95th percentile per-packet one-way delay: 58.688 ms

Loss rate: 3.81%

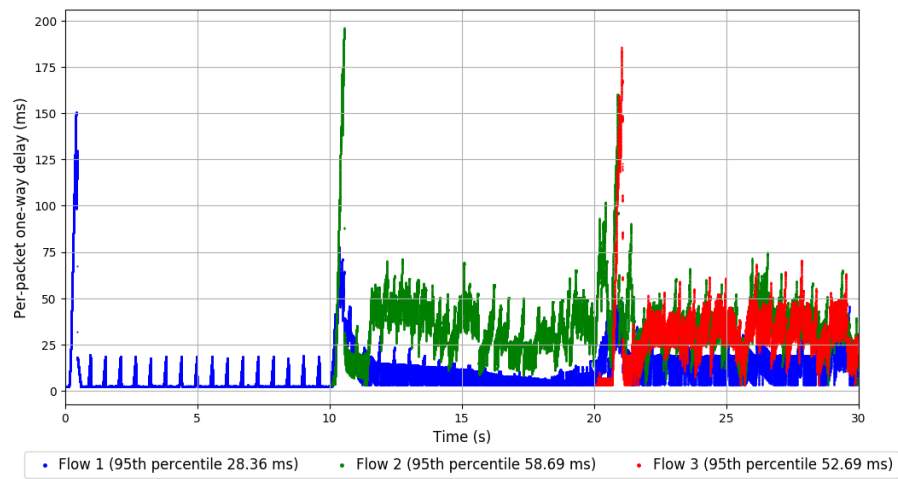
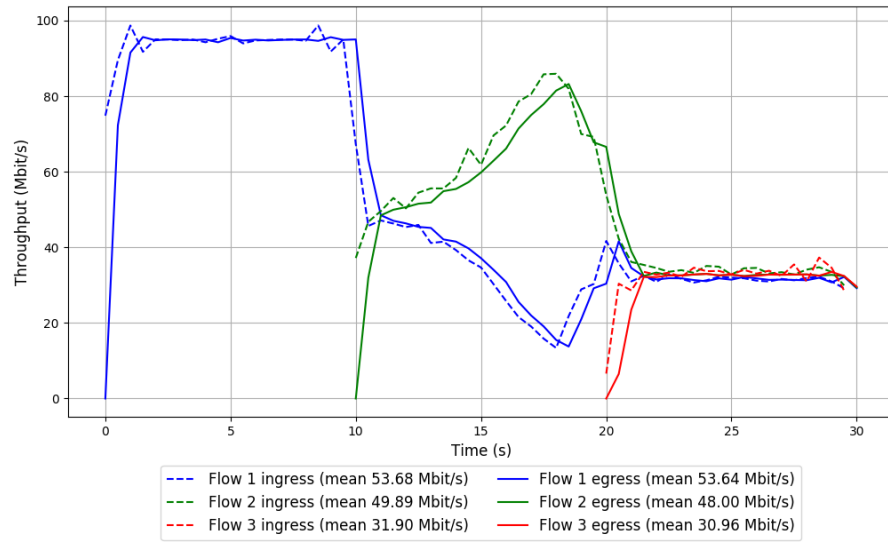
-- Flow 3:

Average throughput: 30.96 Mbit/s

95th percentile per-packet one-way delay: 52.688 ms

Loss rate: 2.83%

# Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-11-30 16:52:32

End at: 2018-11-30 16:53:02

Local clock offset: -4.421 ms

Remote clock offset: 0.548 ms

# Below is generated by plot.py at 2018-11-30 17:15:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.56 Mbit/s

95th percentile per-packet one-way delay: 38.489 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 52.17 Mbit/s

95th percentile per-packet one-way delay: 27.785 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 44.58 Mbit/s

95th percentile per-packet one-way delay: 37.495 ms

Loss rate: 0.26%

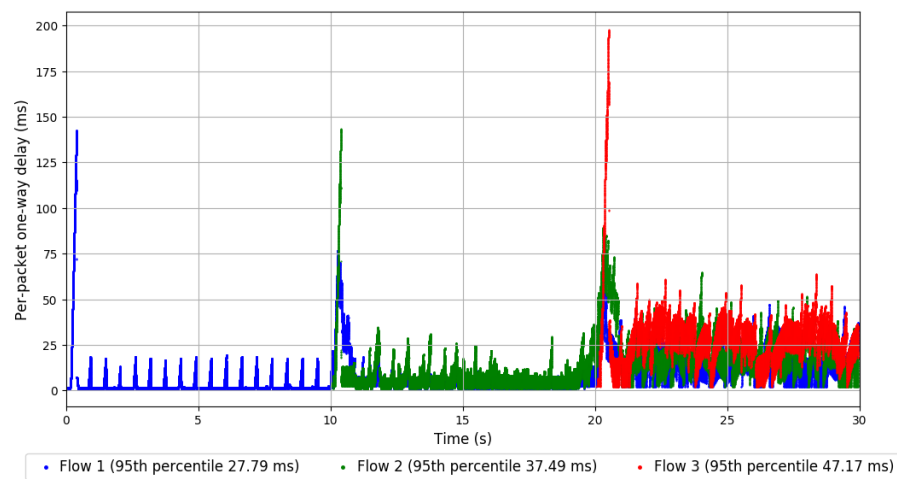
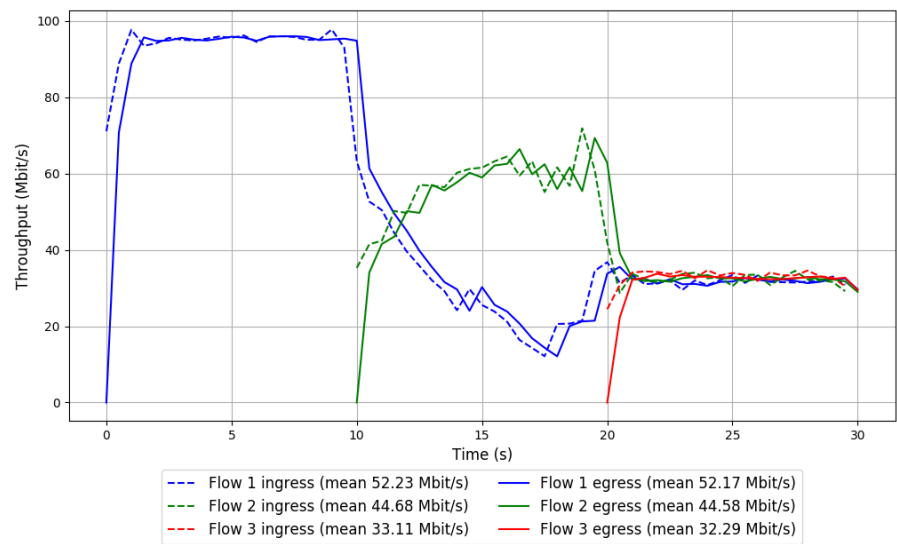
-- Flow 3:

Average throughput: 32.29 Mbit/s

95th percentile per-packet one-way delay: 47.171 ms

Loss rate: 2.42%

Run 5: Report of FillP — Data Link



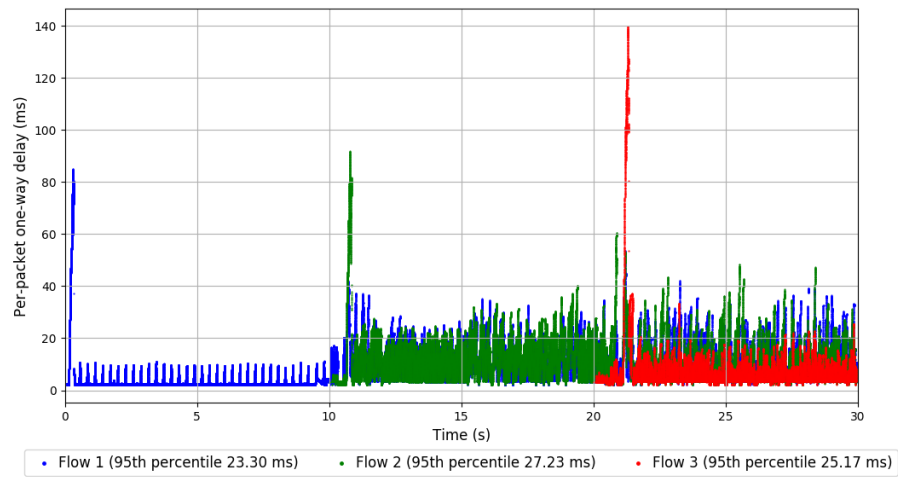
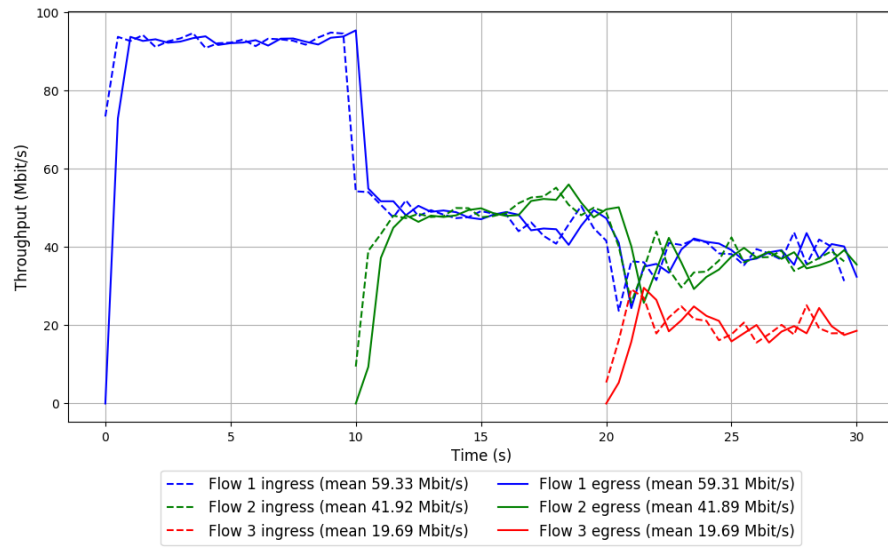


Run 1: Statistics of FillP-Sheep

Start at: 2018-11-30 15:23:32  
End at: 2018-11-30 15:24:02  
Local clock offset: -6.427 ms  
Remote clock offset: -0.434 ms

# Below is generated by plot.py at 2018-11-30 17:15:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.70 Mbit/s  
95th percentile per-packet one-way delay: 24.878 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 59.31 Mbit/s  
95th percentile per-packet one-way delay: 23.305 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 41.89 Mbit/s  
95th percentile per-packet one-way delay: 27.233 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 19.69 Mbit/s  
95th percentile per-packet one-way delay: 25.166 ms  
Loss rate: 0.02%

# Run 1: Report of FillP-Sheep — Data Link

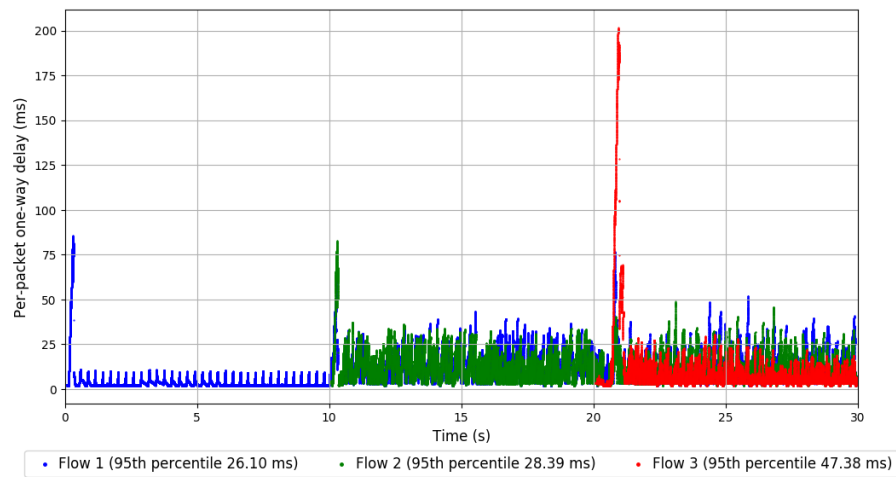
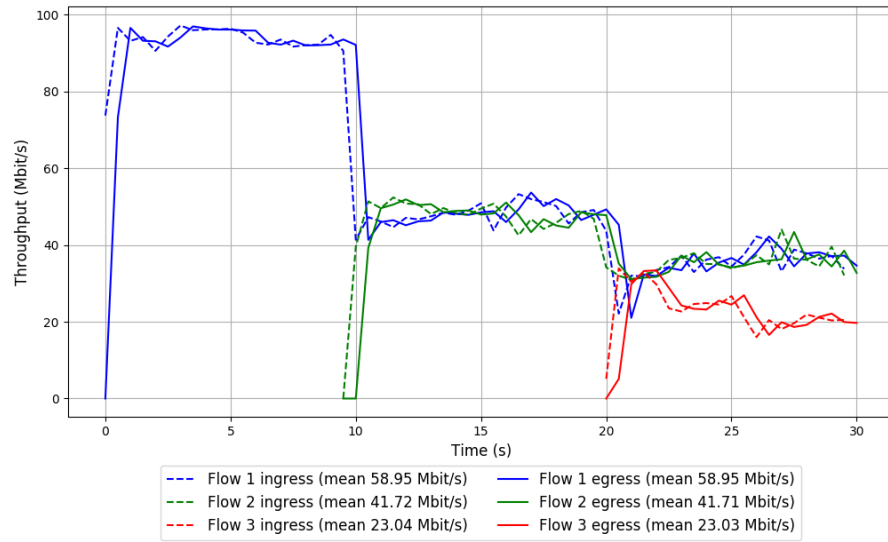


Run 2: Statistics of FillP-Sheep

Start at: 2018-11-30 15:45:31  
End at: 2018-11-30 15:46:01  
Local clock offset: -5.434 ms  
Remote clock offset: -0.143 ms

# Below is generated by plot.py at 2018-11-30 17:15:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.34 Mbit/s  
95th percentile per-packet one-way delay: 27.263 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 58.95 Mbit/s  
95th percentile per-packet one-way delay: 26.101 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 41.71 Mbit/s  
95th percentile per-packet one-way delay: 28.390 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 23.03 Mbit/s  
95th percentile per-packet one-way delay: 47.378 ms  
Loss rate: 0.32%

## Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2018-11-30 16:07:26

End at: 2018-11-30 16:07:56

Local clock offset: -2.159 ms

Remote clock offset: 0.094 ms

# Below is generated by plot.py at 2018-11-30 17:15:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.00 Mbit/s

95th percentile per-packet one-way delay: 26.228 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 60.27 Mbit/s

95th percentile per-packet one-way delay: 25.619 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 32.76 Mbit/s

95th percentile per-packet one-way delay: 20.485 ms

Loss rate: 0.08%

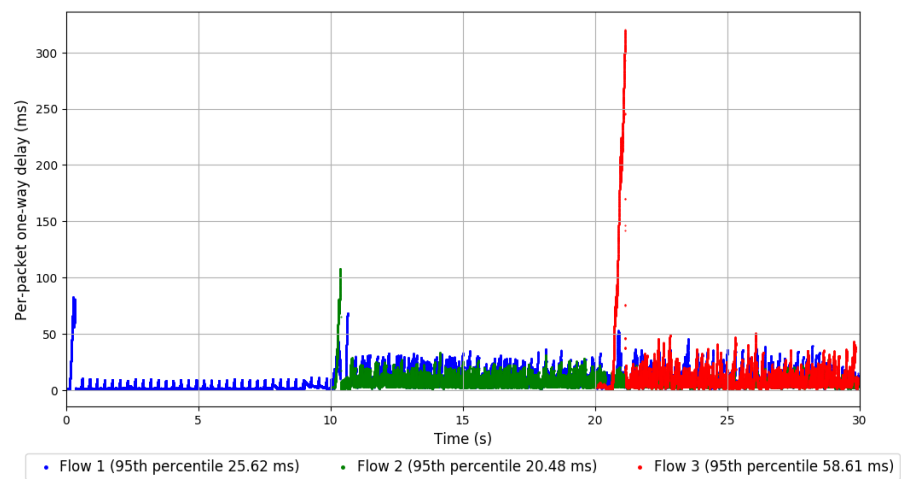
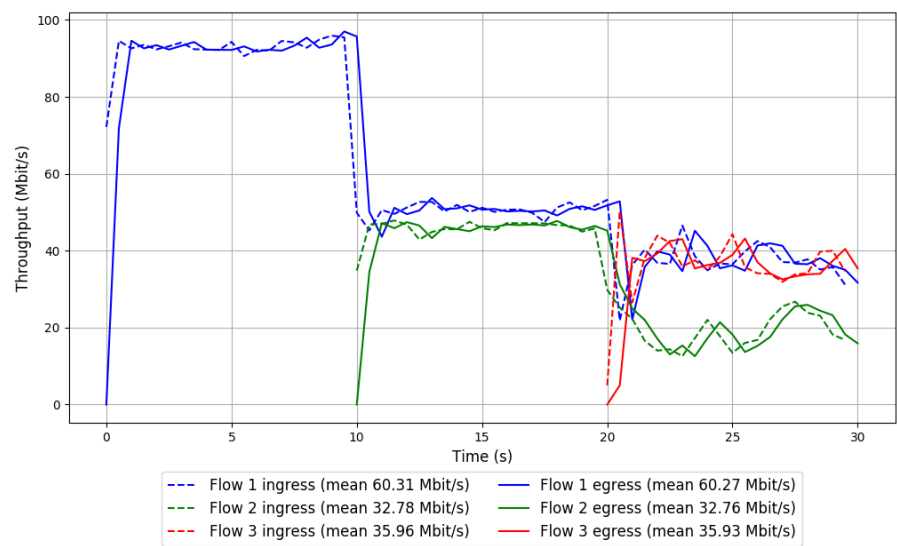
-- Flow 3:

Average throughput: 35.93 Mbit/s

95th percentile per-packet one-way delay: 58.607 ms

Loss rate: 0.21%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-11-30 16:29:25

End at: 2018-11-30 16:29:55

Local clock offset: -5.176 ms

Remote clock offset: 0.409 ms

# Below is generated by plot.py at 2018-11-30 17:16:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.21 Mbit/s

95th percentile per-packet one-way delay: 24.640 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 64.20 Mbit/s

95th percentile per-packet one-way delay: 25.828 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 31.53 Mbit/s

95th percentile per-packet one-way delay: 20.423 ms

Loss rate: 0.09%

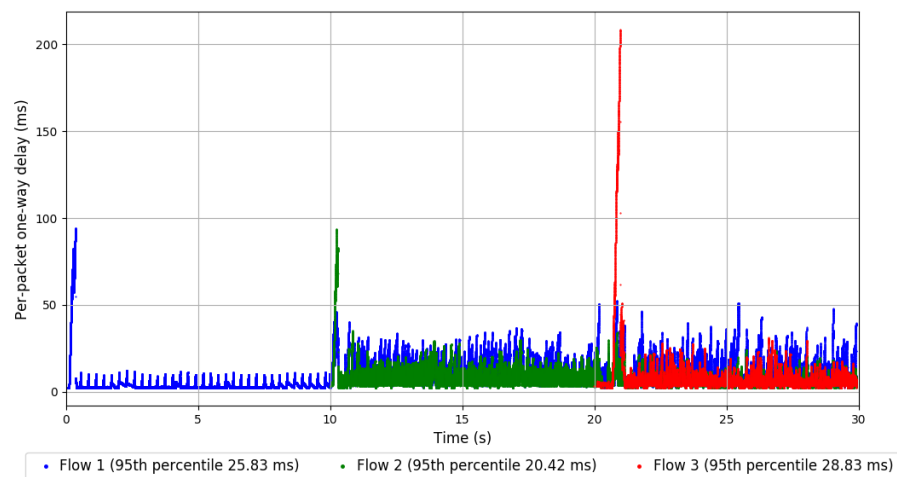
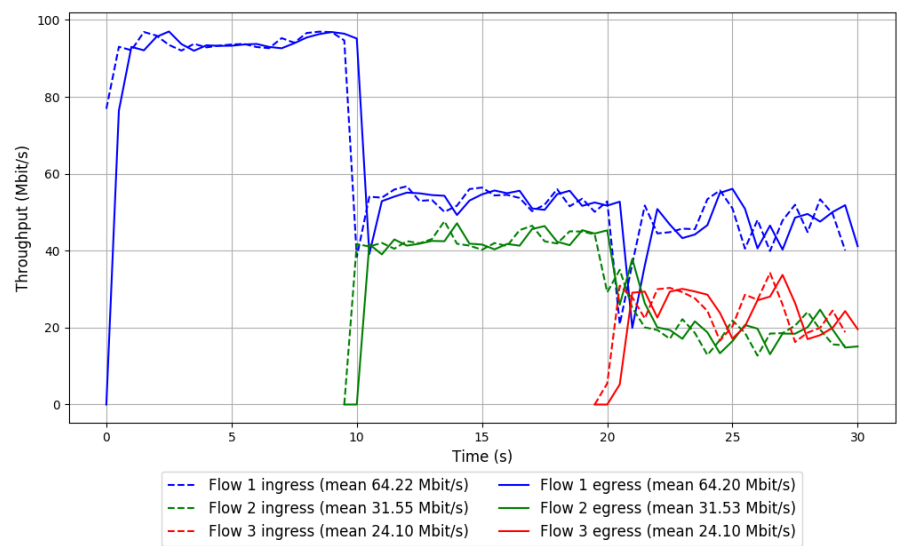
-- Flow 3:

Average throughput: 24.10 Mbit/s

95th percentile per-packet one-way delay: 28.828 ms

Loss rate: 0.02%

Run 4: Report of FillP-Sheep — Data Link





Run 5: Statistics of FillP-Sheep

Start at: 2018-11-30 16:51:23

End at: 2018-11-30 16:51:53

Local clock offset: -3.816 ms

Remote clock offset: 0.592 ms

# Below is generated by plot.py at 2018-11-30 17:16:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.65 Mbit/s

95th percentile per-packet one-way delay: 26.706 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 57.63 Mbit/s

95th percentile per-packet one-way delay: 25.283 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 40.41 Mbit/s

95th percentile per-packet one-way delay: 28.537 ms

Loss rate: 0.04%

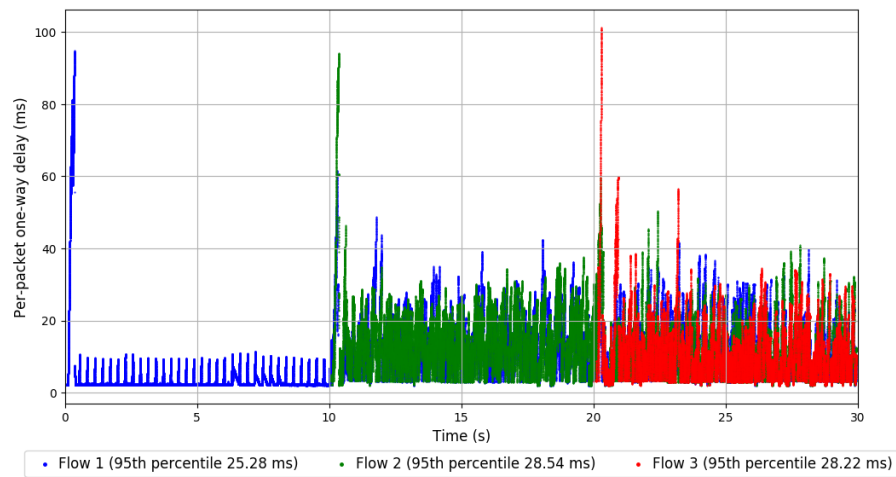
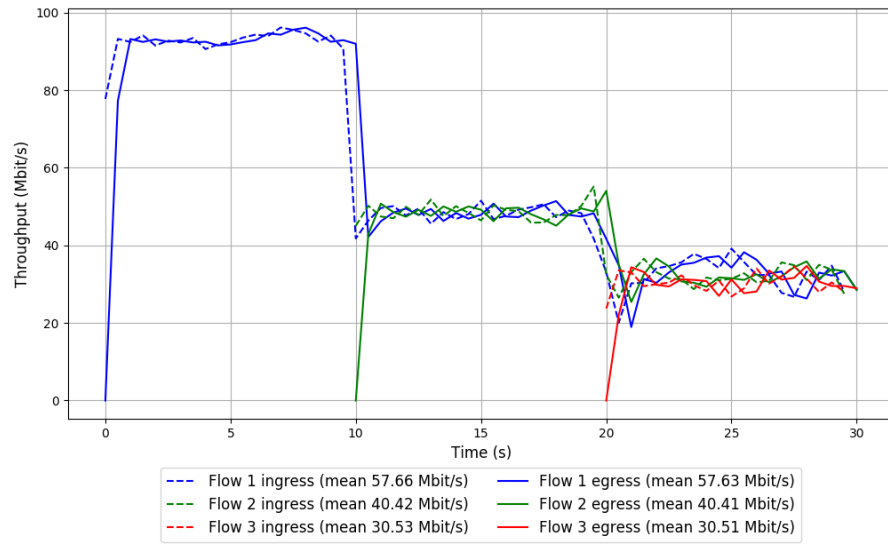
-- Flow 3:

Average throughput: 30.51 Mbit/s

95th percentile per-packet one-way delay: 28.223 ms

Loss rate: 0.01%

## Run 5: Report of FillP-Sheep — Data Link

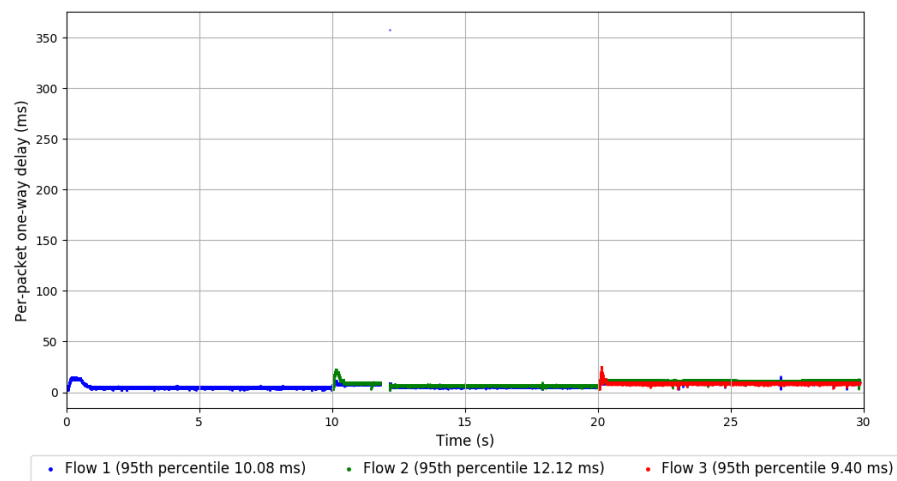
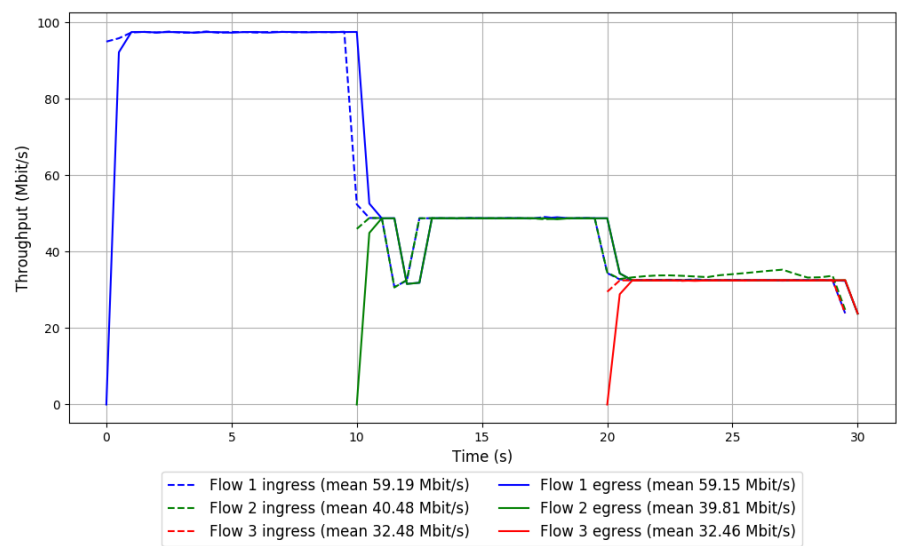


Run 1: Statistics of Indigo

Start at: 2018-11-30 15:22:22  
End at: 2018-11-30 15:22:52  
Local clock offset: -6.587 ms  
Remote clock offset: -0.424 ms

# Below is generated by plot.py at 2018-11-30 17:16:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.29 Mbit/s  
95th percentile per-packet one-way delay: 11.836 ms  
Loss rate: 0.53%  
-- Flow 1:  
Average throughput: 59.15 Mbit/s  
95th percentile per-packet one-way delay: 10.076 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 39.81 Mbit/s  
95th percentile per-packet one-way delay: 12.121 ms  
Loss rate: 1.67%  
-- Flow 3:  
Average throughput: 32.46 Mbit/s  
95th percentile per-packet one-way delay: 9.401 ms  
Loss rate: 0.11%

Run 1: Report of Indigo — Data Link

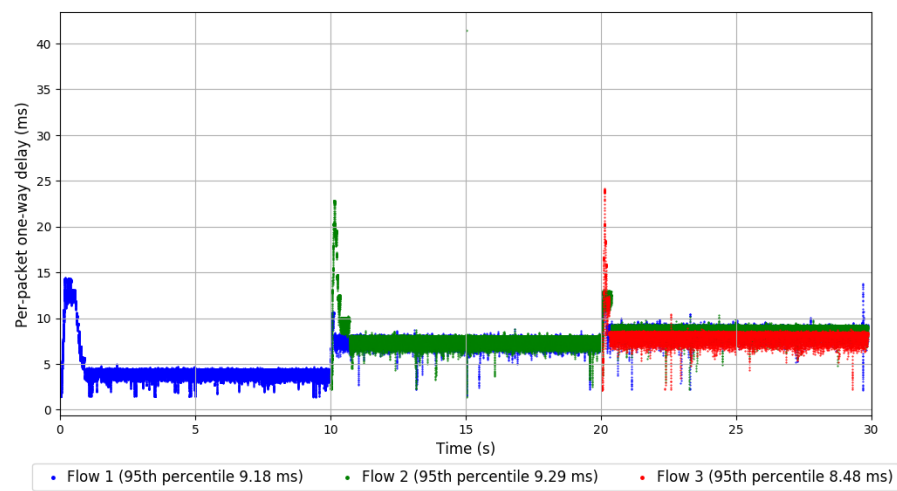
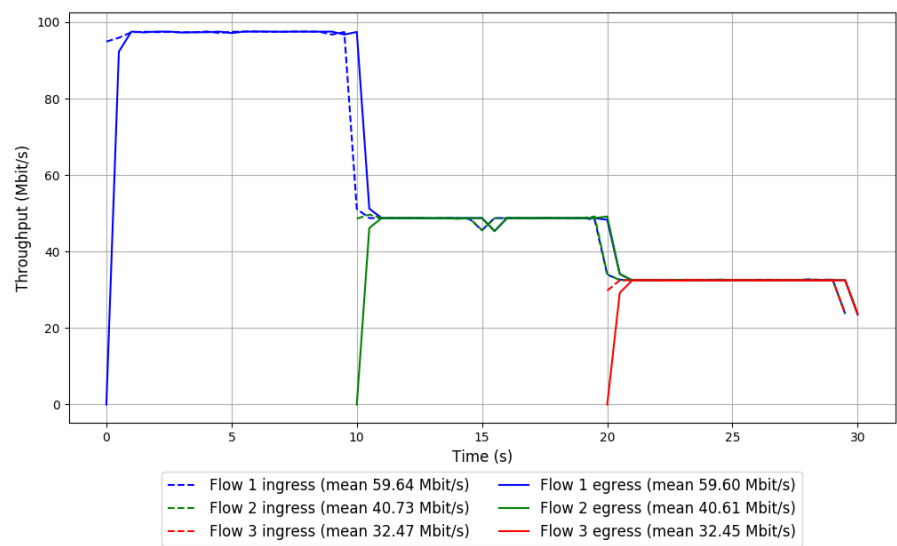


Run 2: Statistics of Indigo

Start at: 2018-11-30 15:44:20  
End at: 2018-11-30 15:44:50  
Local clock offset: -6.593 ms  
Remote clock offset: -0.151 ms

# Below is generated by plot.py at 2018-11-30 17:16:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.28 Mbit/s  
95th percentile per-packet one-way delay: 9.190 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 59.60 Mbit/s  
95th percentile per-packet one-way delay: 9.177 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 40.61 Mbit/s  
95th percentile per-packet one-way delay: 9.289 ms  
Loss rate: 0.32%  
-- Flow 3:  
Average throughput: 32.45 Mbit/s  
95th percentile per-packet one-way delay: 8.477 ms  
Loss rate: 0.11%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-11-30 16:06:15

End at: 2018-11-30 16:06:45

Local clock offset: -2.245 ms

Remote clock offset: 0.14 ms

# Below is generated by plot.py at 2018-11-30 17:17:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.43 Mbit/s

95th percentile per-packet one-way delay: 10.855 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 59.67 Mbit/s

95th percentile per-packet one-way delay: 9.376 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 40.70 Mbit/s

95th percentile per-packet one-way delay: 11.268 ms

Loss rate: 2.66%

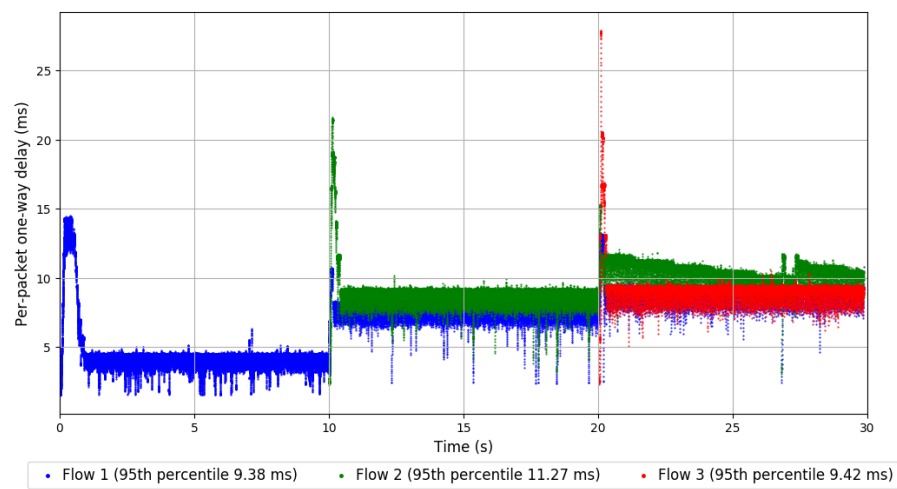
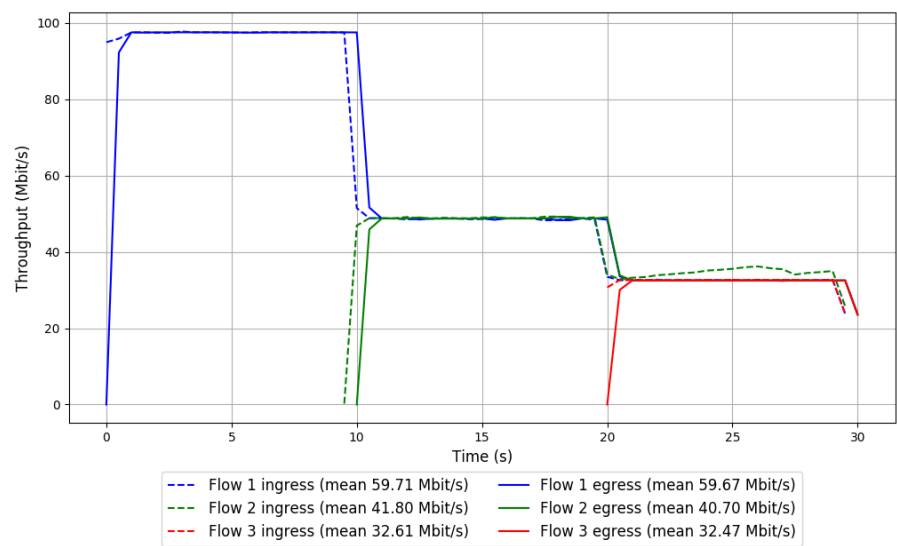
-- Flow 3:

Average throughput: 32.47 Mbit/s

95th percentile per-packet one-way delay: 9.424 ms

Loss rate: 0.47%

Run 3: Report of Indigo — Data Link





Run 4: Statistics of Indigo

Start at: 2018-11-30 16:28:14

End at: 2018-11-30 16:28:44

Local clock offset: -5.869 ms

Remote clock offset: 0.222 ms

# Below is generated by plot.py at 2018-11-30 17:17:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.43 Mbit/s

95th percentile per-packet one-way delay: 11.396 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 59.71 Mbit/s

95th percentile per-packet one-way delay: 9.644 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 40.69 Mbit/s

95th percentile per-packet one-way delay: 11.694 ms

Loss rate: 1.72%

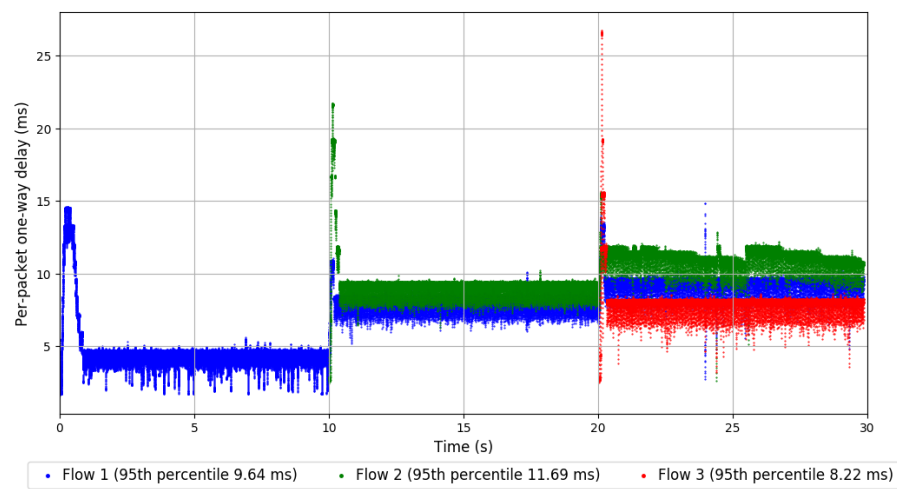
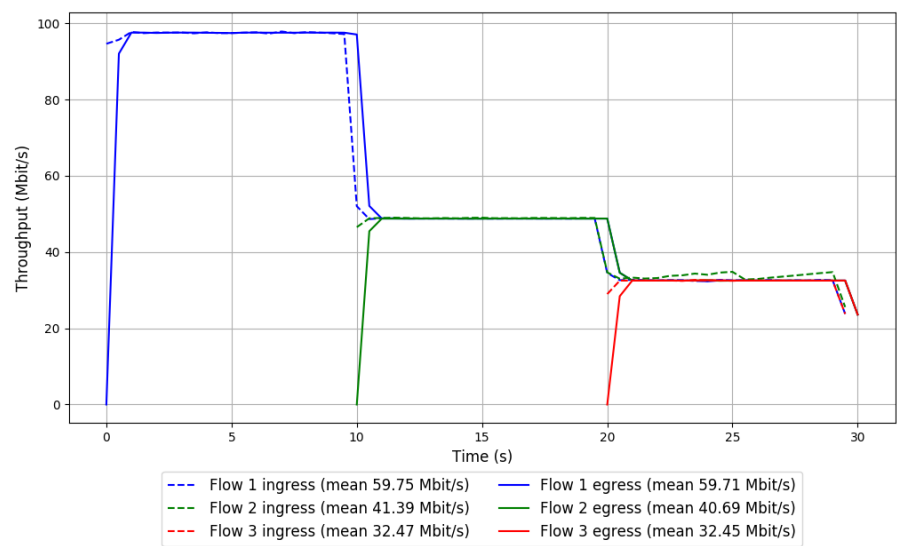
-- Flow 3:

Average throughput: 32.45 Mbit/s

95th percentile per-packet one-way delay: 8.220 ms

Loss rate: 0.11%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-11-30 16:50:13

End at: 2018-11-30 16:50:43

Local clock offset: -4.946 ms

Remote clock offset: 0.544 ms

# Below is generated by plot.py at 2018-11-30 17:17:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 9.160 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 59.65 Mbit/s

95th percentile per-packet one-way delay: 8.817 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 40.67 Mbit/s

95th percentile per-packet one-way delay: 9.947 ms

Loss rate: 0.17%

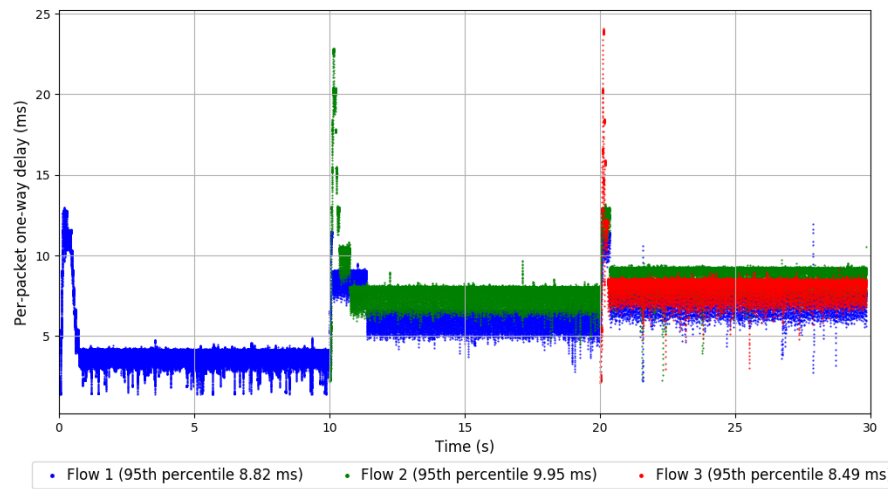
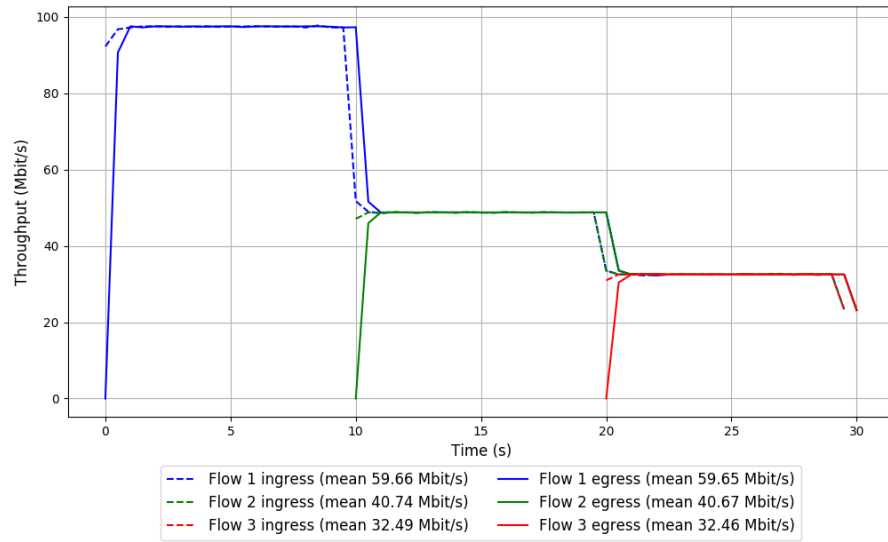
-- Flow 3:

Average throughput: 32.46 Mbit/s

95th percentile per-packet one-way delay: 8.495 ms

Loss rate: 0.11%

## Run 5: Report of Indigo — Data Link

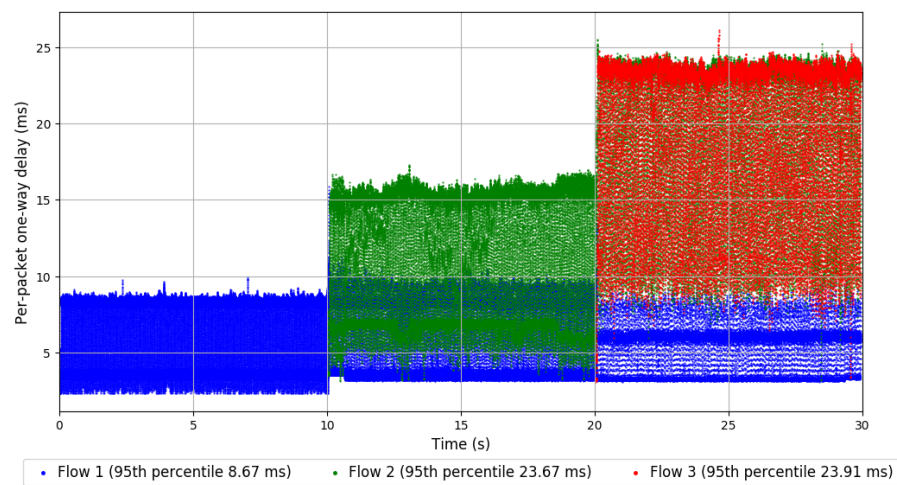
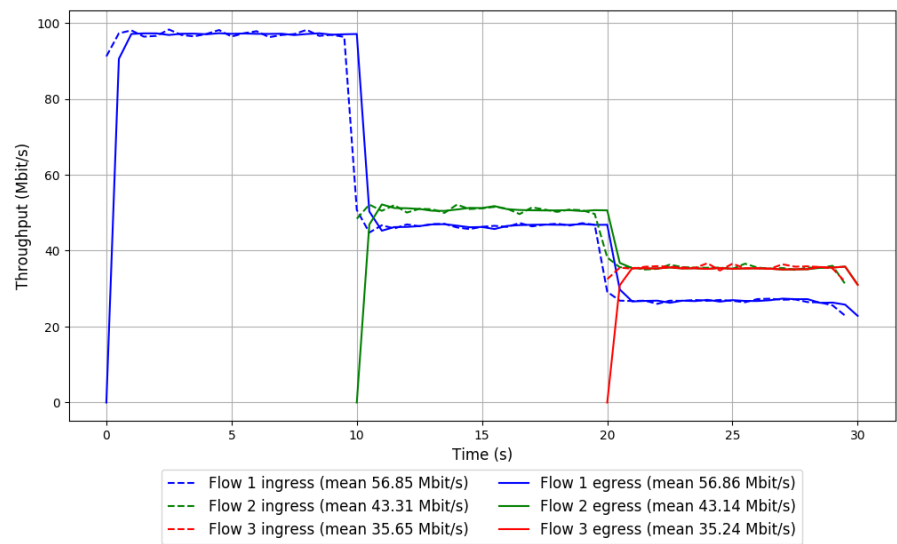


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-30 15:25:49  
End at: 2018-11-30 15:26:19  
Local clock offset: -6.295 ms  
Remote clock offset: -0.428 ms

# Below is generated by plot.py at 2018-11-30 17:17:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.22 Mbit/s  
95th percentile per-packet one-way delay: 23.402 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 56.86 Mbit/s  
95th percentile per-packet one-way delay: 8.667 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 43.14 Mbit/s  
95th percentile per-packet one-way delay: 23.674 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 35.24 Mbit/s  
95th percentile per-packet one-way delay: 23.915 ms  
Loss rate: 1.17%

Run 1: Report of Indigo-96d2da3 — Data Link

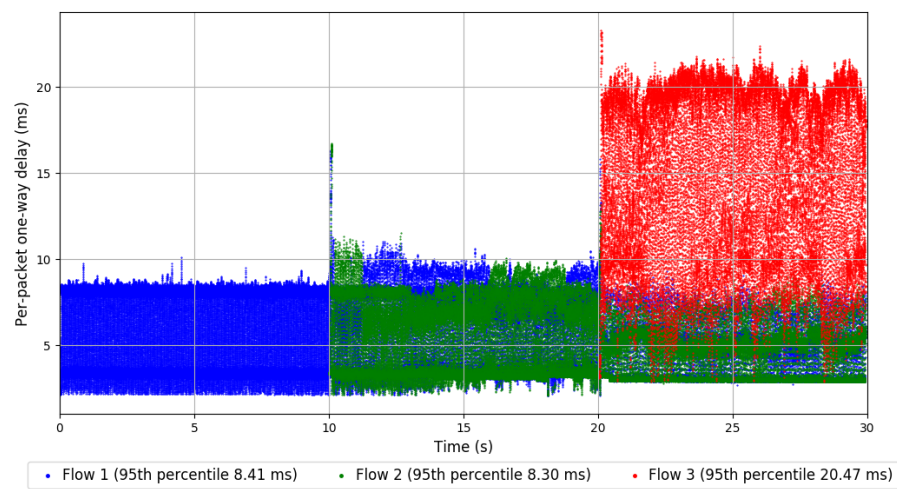
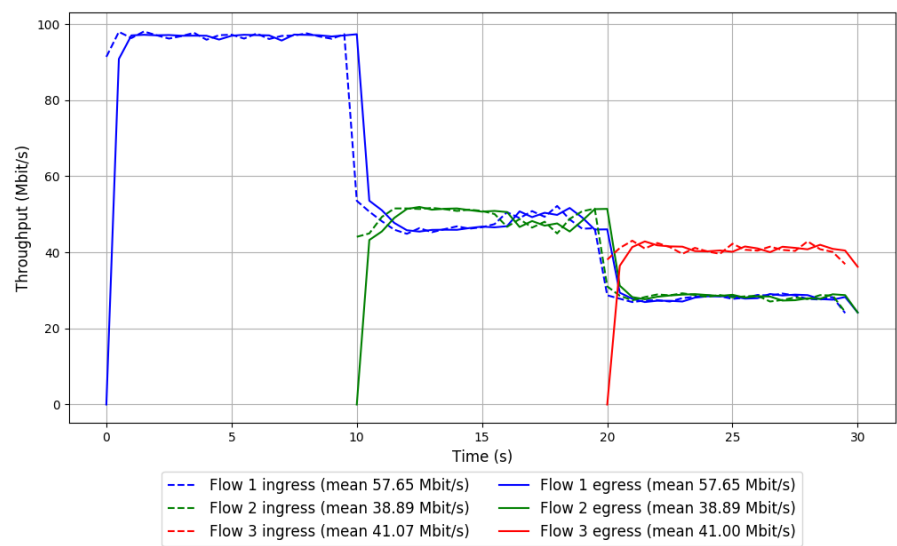


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-30 15:47:47  
End at: 2018-11-30 15:48:17  
Local clock offset: -4.558 ms  
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-11-30 17:17:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.11 Mbit/s  
95th percentile per-packet one-way delay: 18.177 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 57.65 Mbit/s  
95th percentile per-packet one-way delay: 8.414 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 38.89 Mbit/s  
95th percentile per-packet one-way delay: 8.296 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 41.00 Mbit/s  
95th percentile per-packet one-way delay: 20.473 ms  
Loss rate: 0.23%

Run 2: Report of Indigo-96d2da3 — Data Link





Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:09:43

End at: 2018-11-30 16:10:13

Local clock offset: -1.208 ms

Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2018-11-30 17:17:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.02 Mbit/s

95th percentile per-packet one-way delay: 22.796 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 55.74 Mbit/s

95th percentile per-packet one-way delay: 11.495 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 40.98 Mbit/s

95th percentile per-packet one-way delay: 14.781 ms

Loss rate: 0.03%

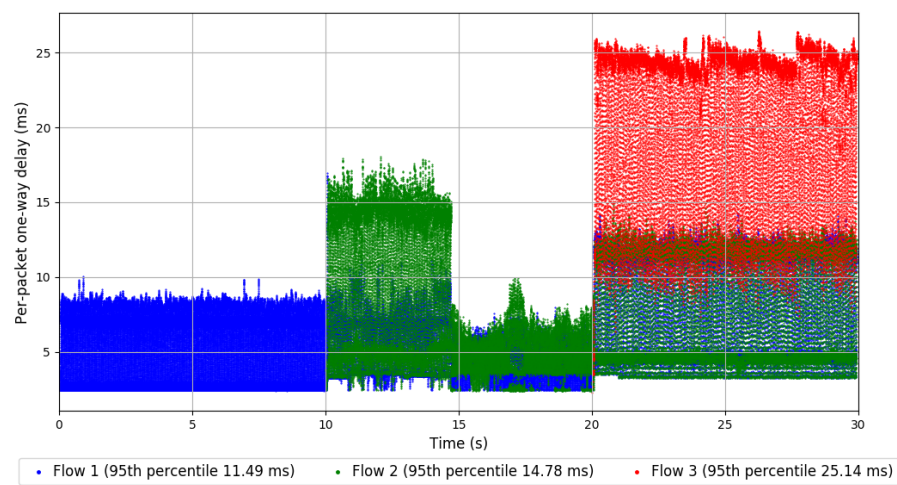
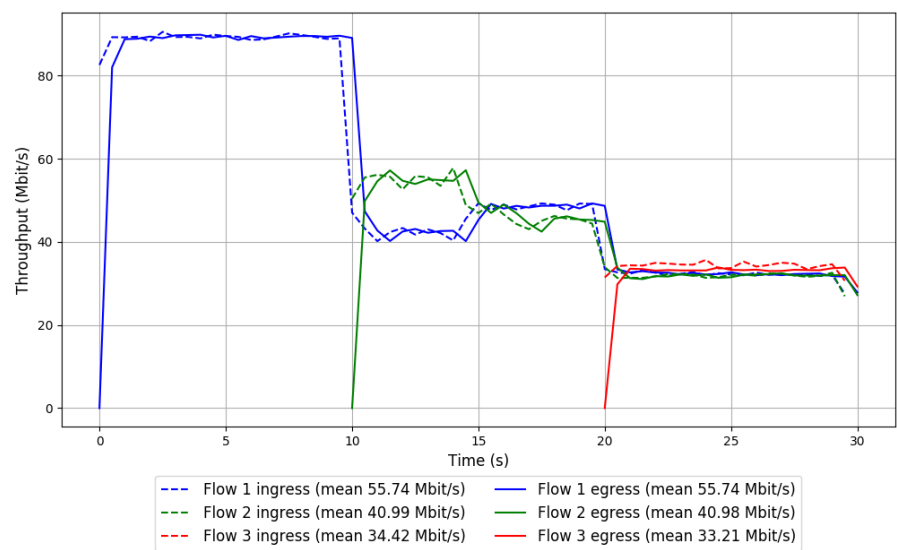
-- Flow 3:

Average throughput: 33.21 Mbit/s

95th percentile per-packet one-way delay: 25.142 ms

Loss rate: 3.50%

Run 3: Report of Indigo-96d2da3 — Data Link



Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:31:42

End at: 2018-11-30 16:32:12

Local clock offset: -6.211 ms

Remote clock offset: 0.382 ms

# Below is generated by plot.py at 2018-11-30 17:17:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.52 Mbit/s

95th percentile per-packet one-way delay: 20.653 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 54.98 Mbit/s

95th percentile per-packet one-way delay: 10.032 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 41.24 Mbit/s

95th percentile per-packet one-way delay: 6.422 ms

Loss rate: 0.03%

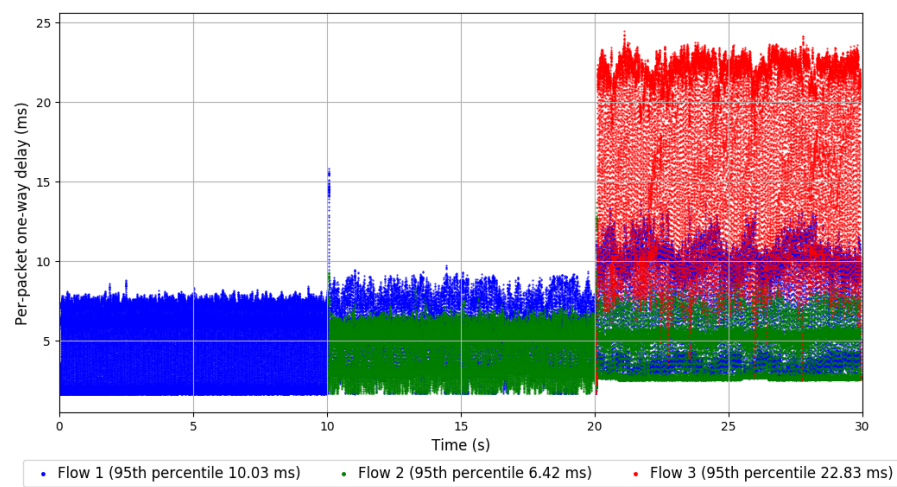
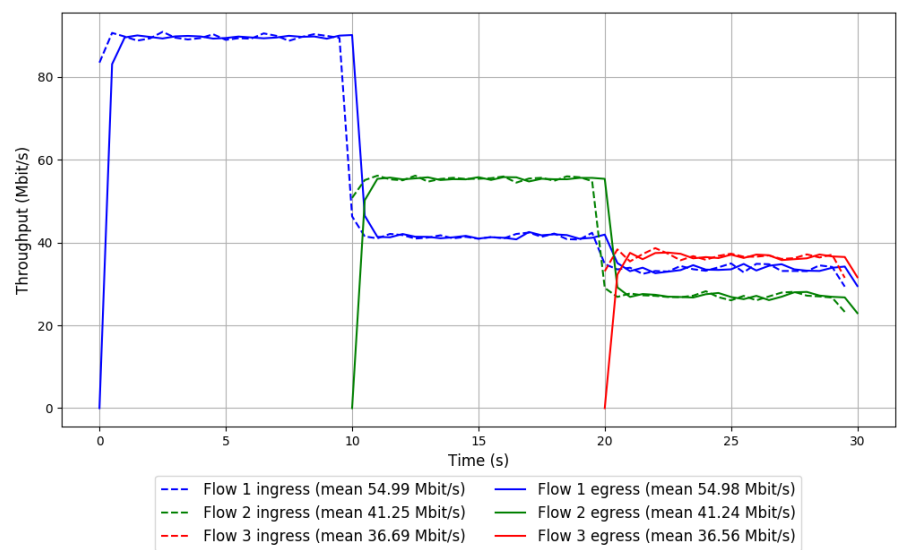
-- Flow 3:

Average throughput: 36.56 Mbit/s

95th percentile per-packet one-way delay: 22.829 ms

Loss rate: 0.36%

Run 4: Report of Indigo-96d2da3 — Data Link



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:53:40

End at: 2018-11-30 16:54:10

Local clock offset: -4.171 ms

Remote clock offset: 0.55 ms

# Below is generated by plot.py at 2018-11-30 17:17:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.47 Mbit/s

95th percentile per-packet one-way delay: 10.030 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 56.07 Mbit/s

95th percentile per-packet one-way delay: 9.498 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 39.67 Mbit/s

95th percentile per-packet one-way delay: 6.997 ms

Loss rate: 0.01%

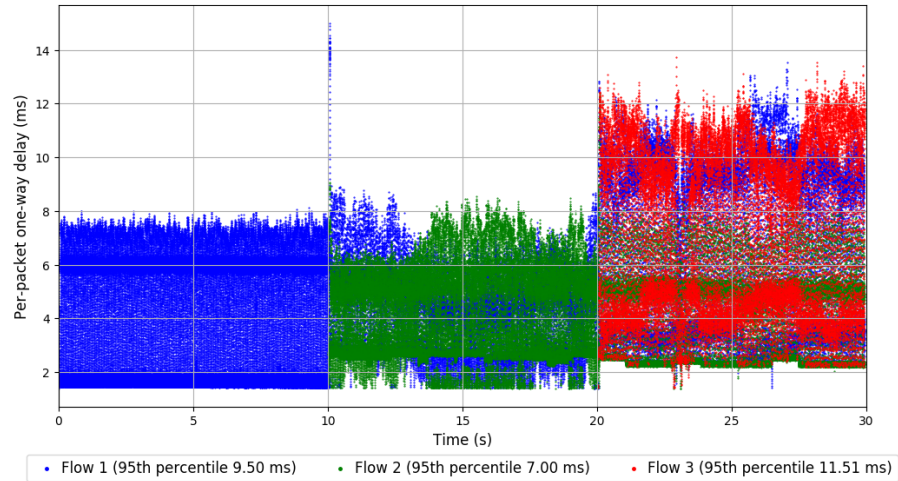
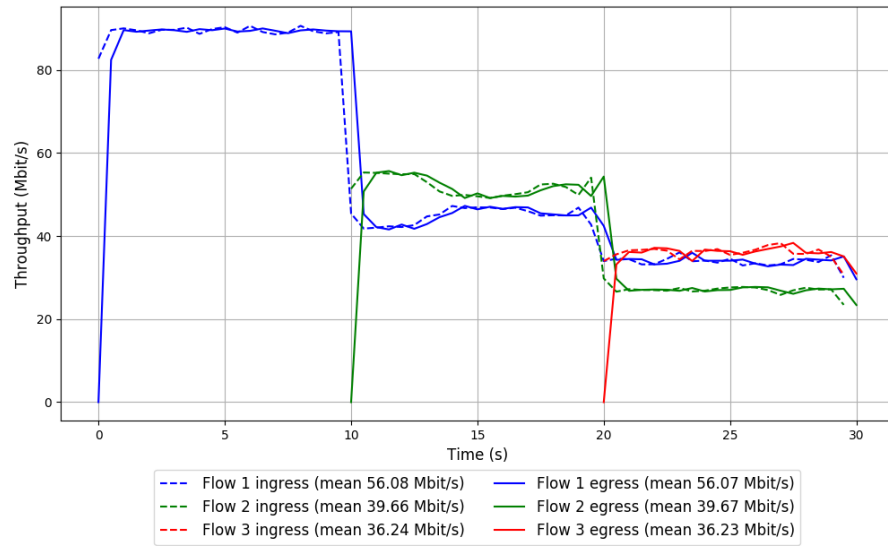
-- Flow 3:

Average throughput: 36.23 Mbit/s

95th percentile per-packet one-way delay: 11.513 ms

Loss rate: 0.06%

# Run 5: Report of Indigo-96d2da3 — Data Link

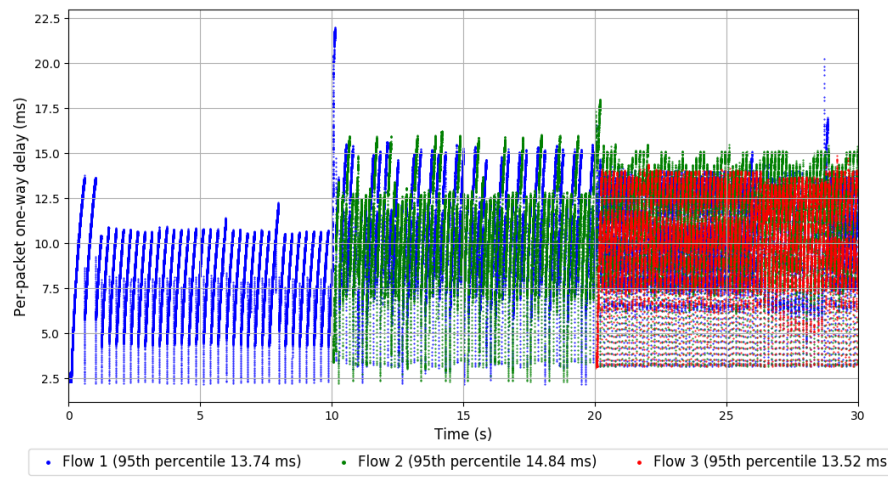
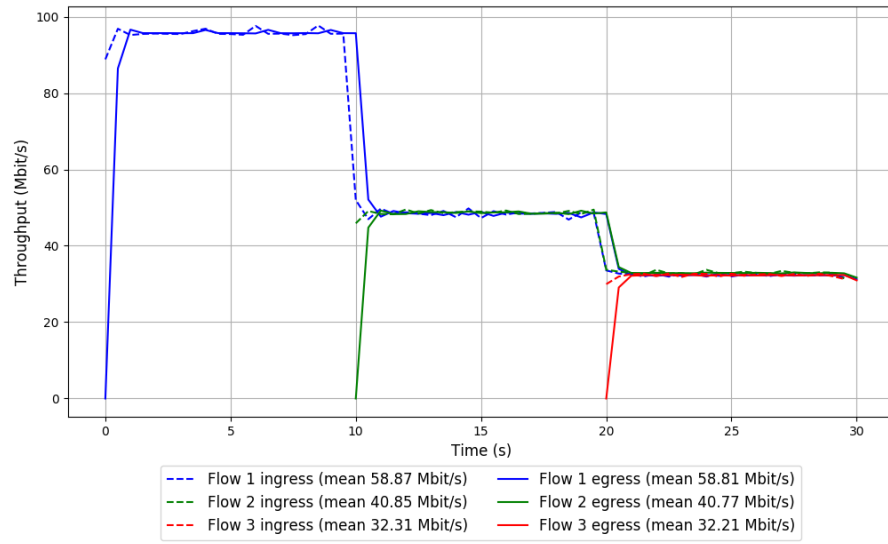


```
Run 1: Statistics of LEDBAT

Start at: 2018-11-30 15:28:08
End at: 2018-11-30 15:28:38
Local clock offset: -6.162 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2018-11-30 17:18:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.66 Mbit/s
95th percentile per-packet one-way delay: 14.187 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 58.81 Mbit/s
95th percentile per-packet one-way delay: 13.743 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 40.77 Mbit/s
95th percentile per-packet one-way delay: 14.843 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 32.21 Mbit/s
95th percentile per-packet one-way delay: 13.518 ms
Loss rate: 0.36%
```

# Run 1: Report of LEDBAT — Data Link



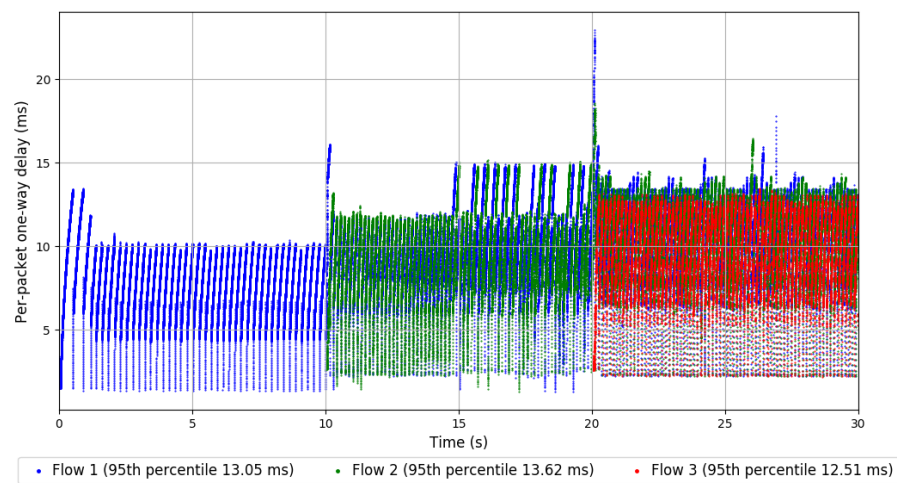
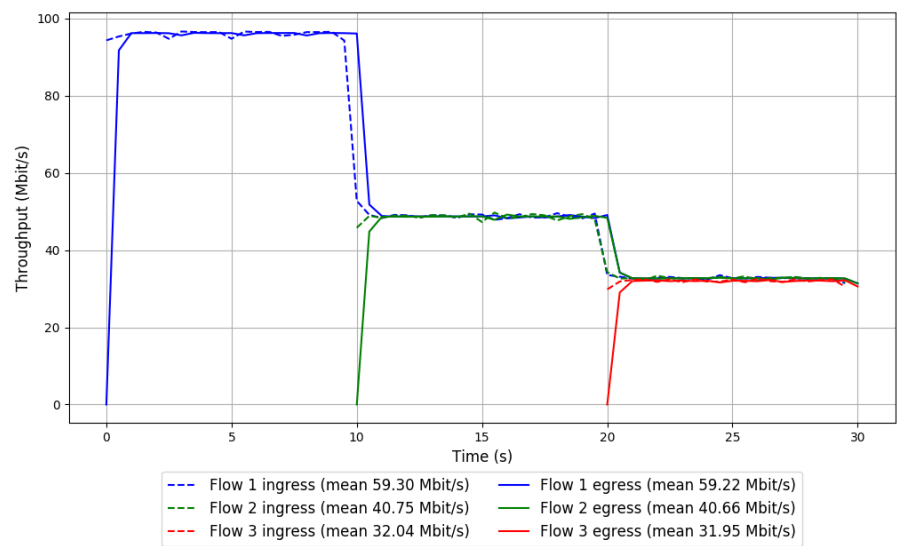


Run 2: Statistics of LEDBAT

Start at: 2018-11-30 15:50:06  
End at: 2018-11-30 15:50:36  
Local clock offset: -4.701 ms  
Remote clock offset: -0.136 ms

# Below is generated by plot.py at 2018-11-30 17:18:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.91 Mbit/s  
95th percentile per-packet one-way delay: 13.164 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 59.22 Mbit/s  
95th percentile per-packet one-way delay: 13.047 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 40.66 Mbit/s  
95th percentile per-packet one-way delay: 13.621 ms  
Loss rate: 0.25%  
-- Flow 3:  
Average throughput: 31.95 Mbit/s  
95th percentile per-packet one-way delay: 12.506 ms  
Loss rate: 0.35%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-11-30 16:12:01

End at: 2018-11-30 16:12:31

Local clock offset: -1.059 ms

Remote clock offset: 0.212 ms

# Below is generated by plot.py at 2018-11-30 17:18:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.58 Mbit/s

95th percentile per-packet one-way delay: 14.217 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 58.69 Mbit/s

95th percentile per-packet one-way delay: 13.864 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 40.60 Mbit/s

95th percentile per-packet one-way delay: 14.657 ms

Loss rate: 0.25%

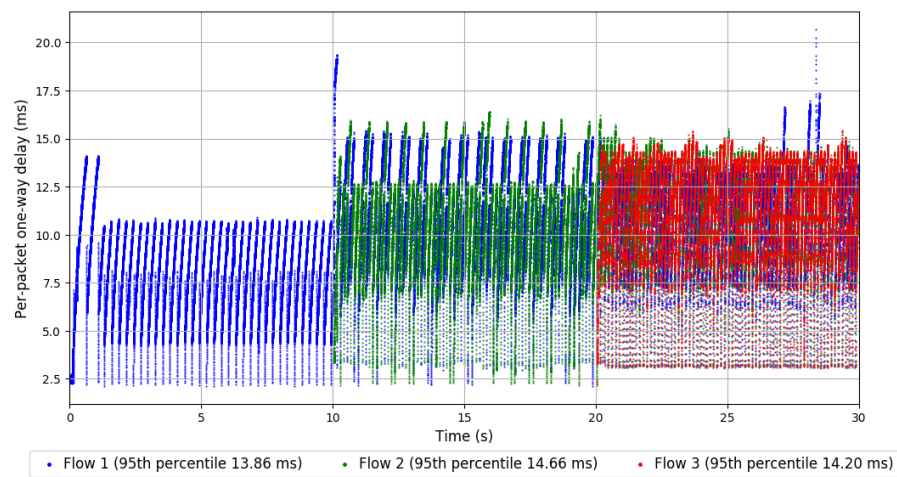
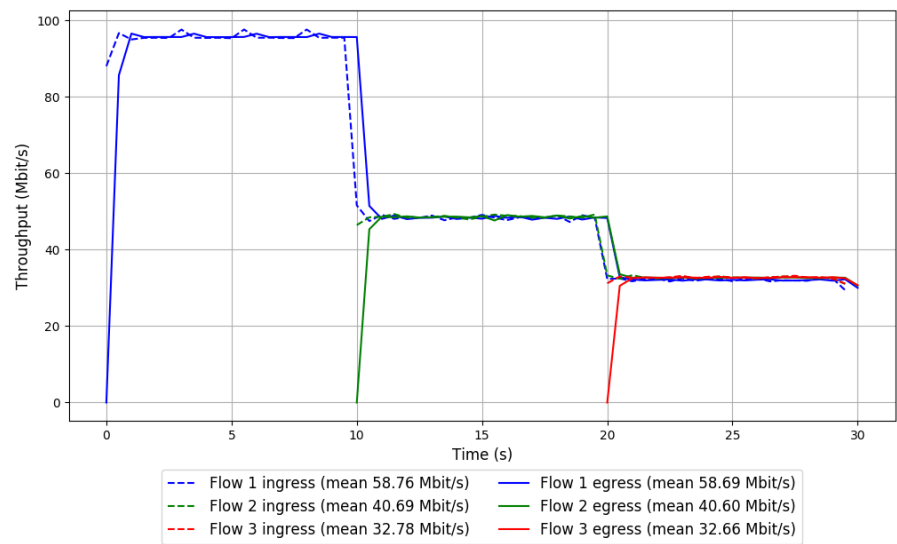
-- Flow 3:

Average throughput: 32.66 Mbit/s

95th percentile per-packet one-way delay: 14.195 ms

Loss rate: 0.41%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-11-30 16:34:01

End at: 2018-11-30 16:34:31

Local clock offset: -6.375 ms

Remote clock offset: 0.355 ms

# Below is generated by plot.py at 2018-11-30 17:18:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.43 Mbit/s

95th percentile per-packet one-way delay: 12.574 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 58.83 Mbit/s

95th percentile per-packet one-way delay: 12.262 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 40.31 Mbit/s

95th percentile per-packet one-way delay: 12.505 ms

Loss rate: 0.23%

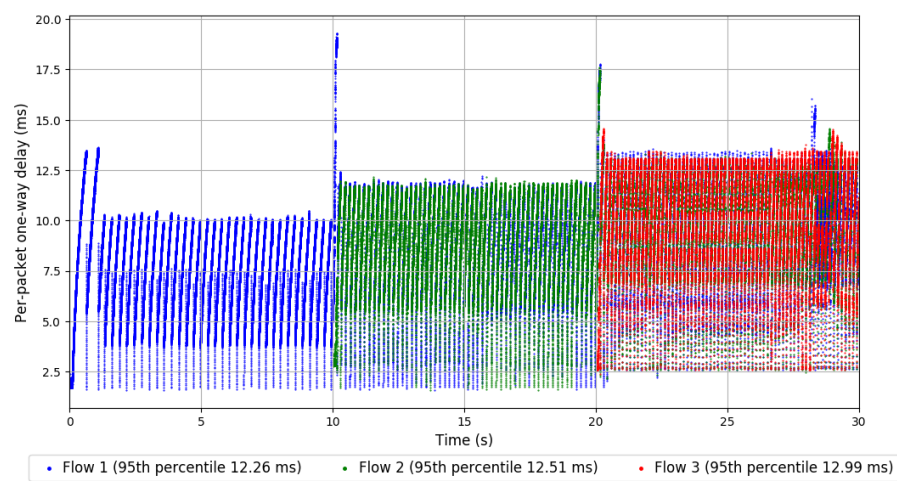
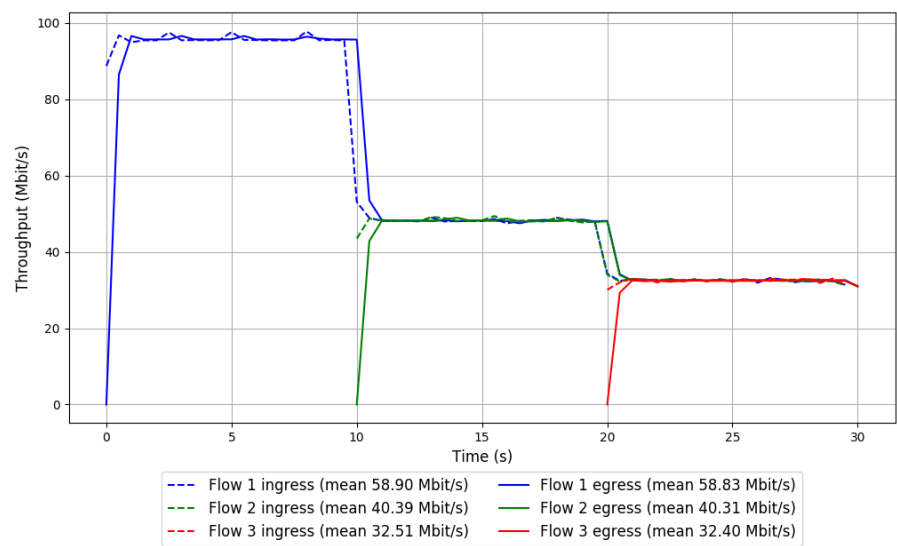
-- Flow 3:

Average throughput: 32.40 Mbit/s

95th percentile per-packet one-way delay: 12.990 ms

Loss rate: 0.38%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-11-30 16:55:59

End at: 2018-11-30 16:56:29

Local clock offset: -3.026 ms

Remote clock offset: 0.621 ms

# Below is generated by plot.py at 2018-11-30 17:18:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.74 Mbit/s

95th percentile per-packet one-way delay: 14.451 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 58.88 Mbit/s

95th percentile per-packet one-way delay: 14.229 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 40.46 Mbit/s

95th percentile per-packet one-way delay: 14.709 ms

Loss rate: 0.22%

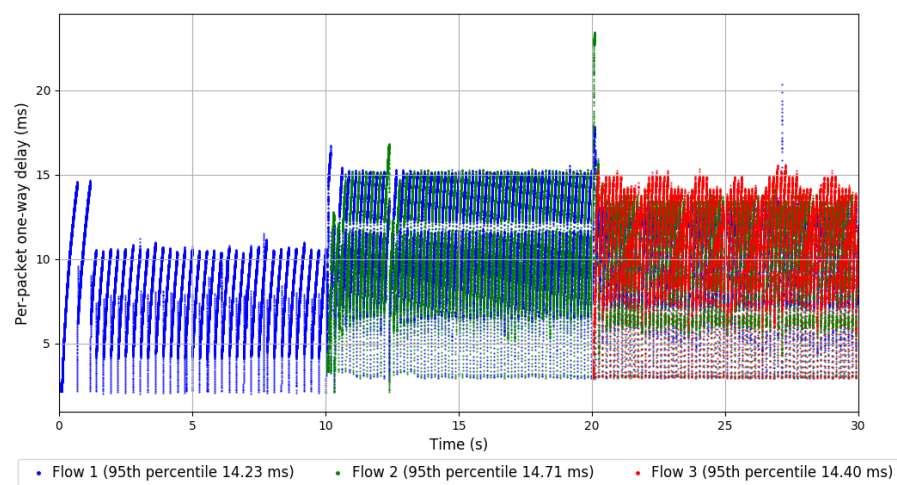
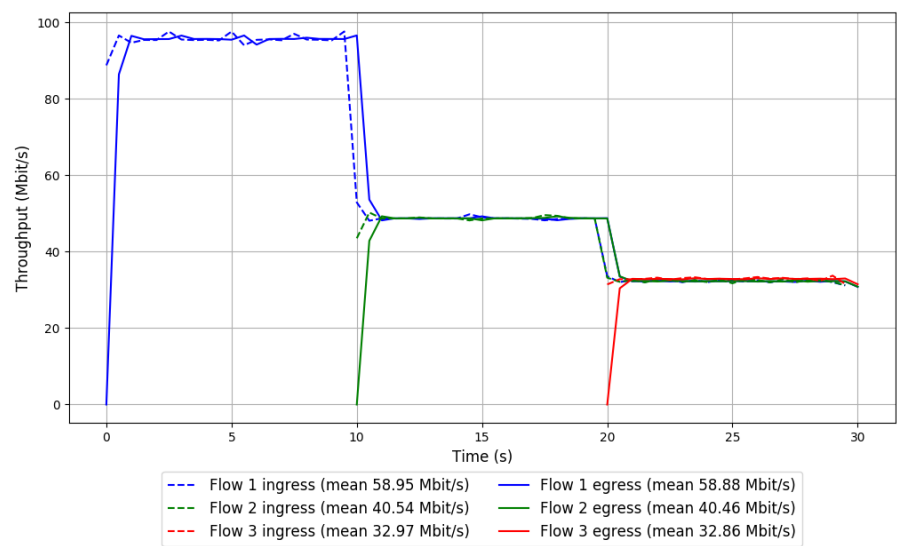
-- Flow 3:

Average throughput: 32.86 Mbit/s

95th percentile per-packet one-way delay: 14.401 ms

Loss rate: 0.40%

Run 5: Report of LEDBAT — Data Link



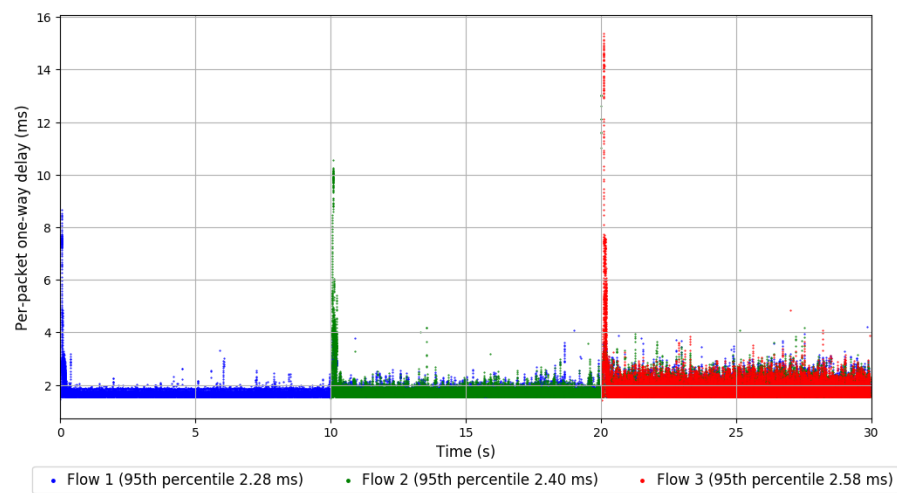
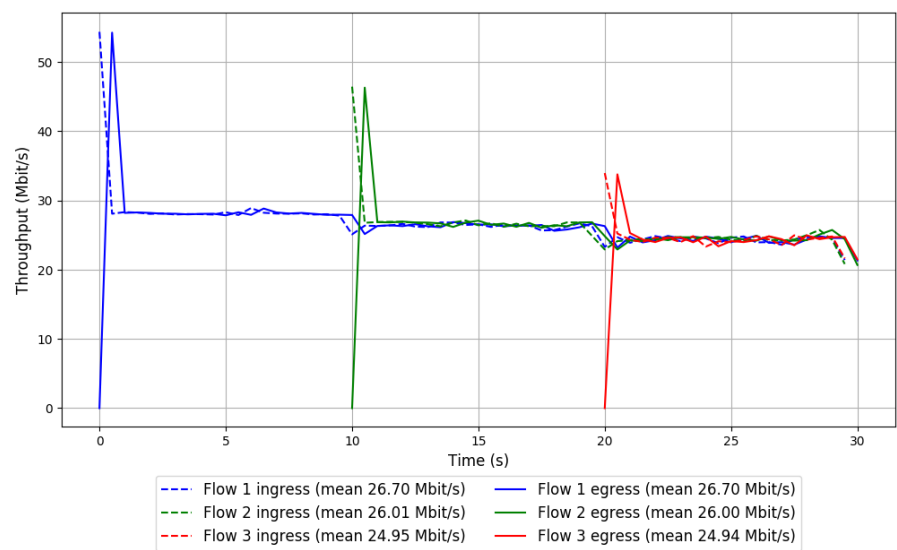


Run 1: Statistics of Indigo-Muses

Start at: 2018-11-30 15:36:10  
End at: 2018-11-30 15:36:40  
Local clock offset: -6.772 ms  
Remote clock offset: -0.327 ms

# Below is generated by plot.py at 2018-11-30 17:18:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 52.27 Mbit/s  
95th percentile per-packet one-way delay: 2.379 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 26.70 Mbit/s  
95th percentile per-packet one-way delay: 2.281 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 26.00 Mbit/s  
95th percentile per-packet one-way delay: 2.398 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 24.94 Mbit/s  
95th percentile per-packet one-way delay: 2.579 ms  
Loss rate: 0.04%

Run 1: Report of Indigo-Muses — Data Link

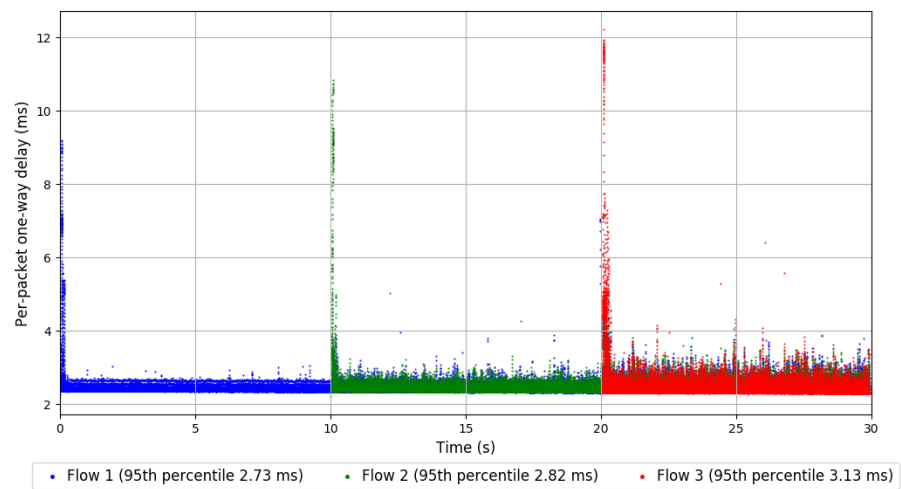
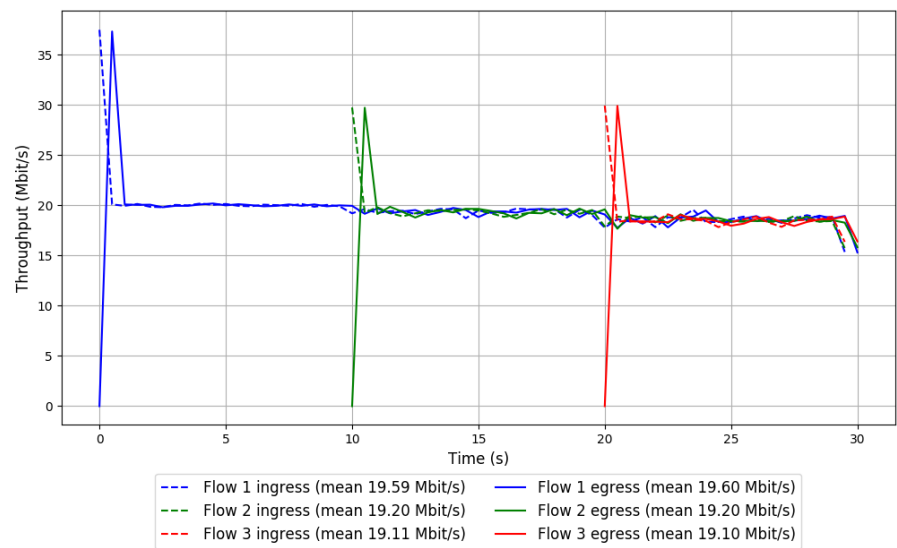


Run 2: Statistics of Indigo-Muses

Start at: 2018-11-30 15:58:07  
End at: 2018-11-30 15:58:37  
Local clock offset: -2.359 ms  
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-11-30 17:18:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 38.70 Mbit/s  
95th percentile per-packet one-way delay: 2.824 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 19.60 Mbit/s  
95th percentile per-packet one-way delay: 2.732 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 19.20 Mbit/s  
95th percentile per-packet one-way delay: 2.824 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 19.10 Mbit/s  
95th percentile per-packet one-way delay: 3.127 ms  
Loss rate: 0.01%

Run 2: Report of Indigo-Muses — Data Link



### Run 3: Statistics of Indigo-Muses

Start at: 2018-11-30 16:20:03

End at: 2018-11-30 16:20:33

Local clock offset: -3.333 ms

Remote clock offset: 0.188 ms

# Below is generated by plot.py at 2018-11-30 17:18:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 52.51 Mbit/s

95th percentile per-packet one-way delay: 3.456 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 27.09 Mbit/s

95th percentile per-packet one-way delay: 3.343 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 25.87 Mbit/s

95th percentile per-packet one-way delay: 3.467 ms

Loss rate: 0.02%

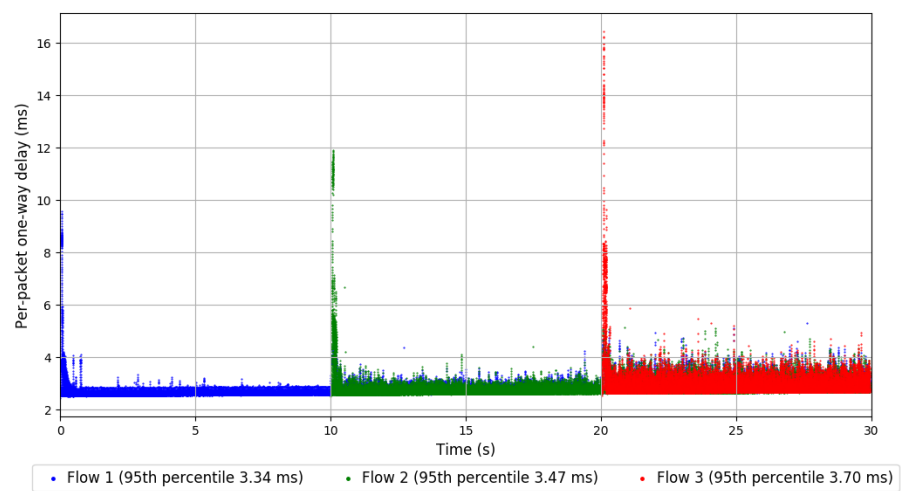
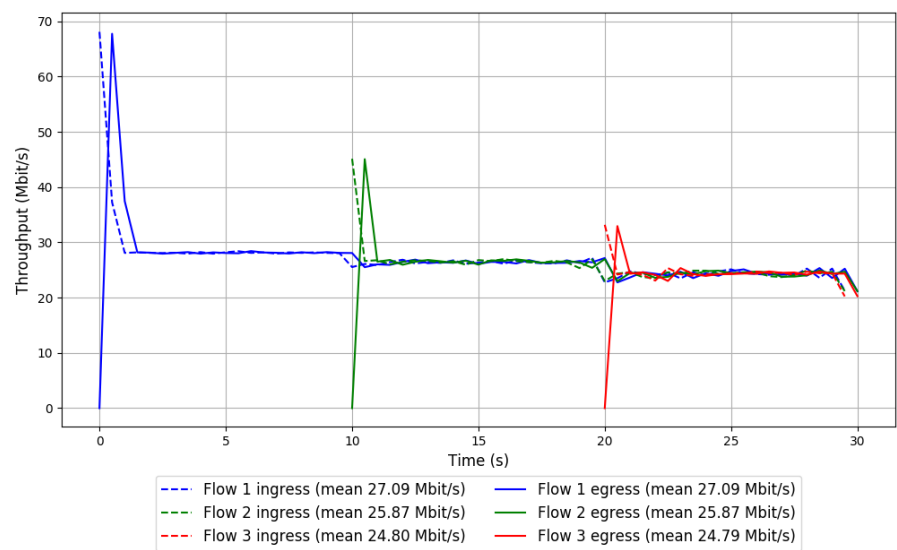
-- Flow 3:

Average throughput: 24.79 Mbit/s

95th percentile per-packet one-way delay: 3.697 ms

Loss rate: 0.04%

Run 3: Report of Indigo-Muses — Data Link



Run 4: Statistics of Indigo-Muses

Start at: 2018-11-30 16:42:02

End at: 2018-11-30 16:42:32

Local clock offset: -6.067 ms

Remote clock offset: 0.476 ms

# Below is generated by plot.py at 2018-11-30 17:18:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 52.23 Mbit/s

95th percentile per-packet one-way delay: 3.258 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 26.82 Mbit/s

95th percentile per-packet one-way delay: 3.152 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 25.78 Mbit/s

95th percentile per-packet one-way delay: 3.268 ms

Loss rate: 0.02%

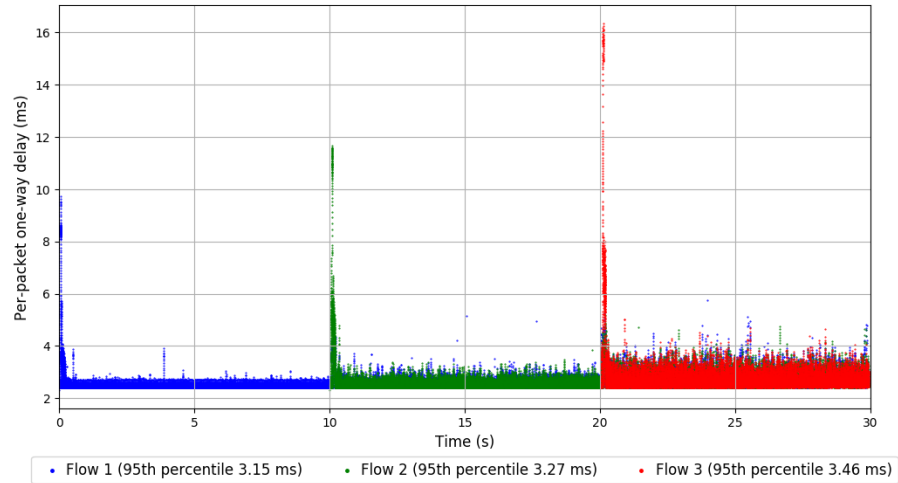
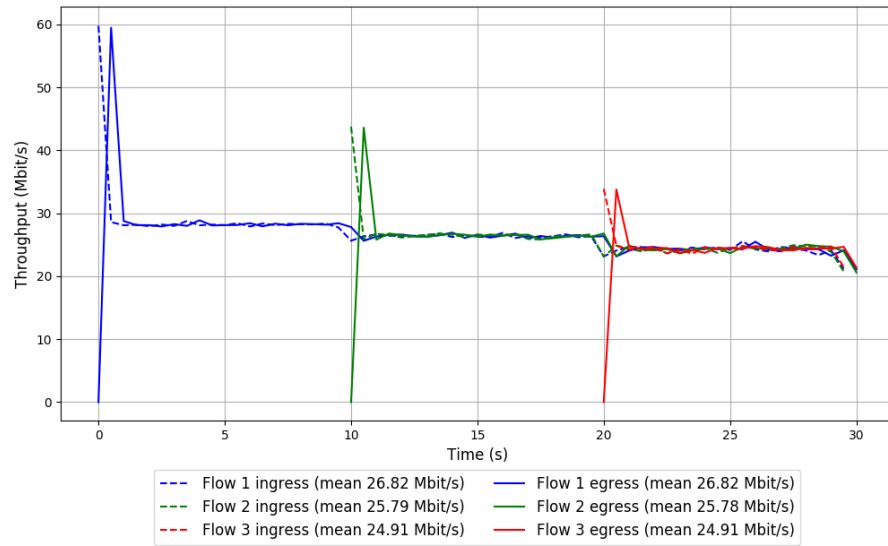
-- Flow 3:

Average throughput: 24.91 Mbit/s

95th percentile per-packet one-way delay: 3.455 ms

Loss rate: 0.04%

#### Run 4: Report of Indigo-Muses — Data Link





Run 5: Statistics of Indigo-Muses

Start at: 2018-11-30 17:04:00

End at: 2018-11-30 17:04:30

Local clock offset: -2.792 ms

Remote clock offset: 0.58 ms

# Below is generated by plot.py at 2018-11-30 17:18:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 50.23 Mbit/s

95th percentile per-packet one-way delay: 2.299 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 26.81 Mbit/s

95th percentile per-packet one-way delay: 2.199 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 25.79 Mbit/s

95th percentile per-packet one-way delay: 2.291 ms

Loss rate: 0.00%

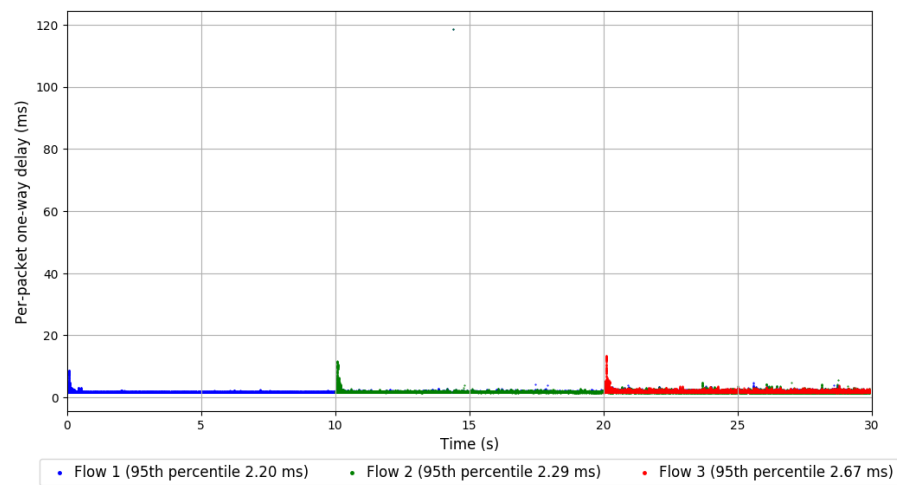
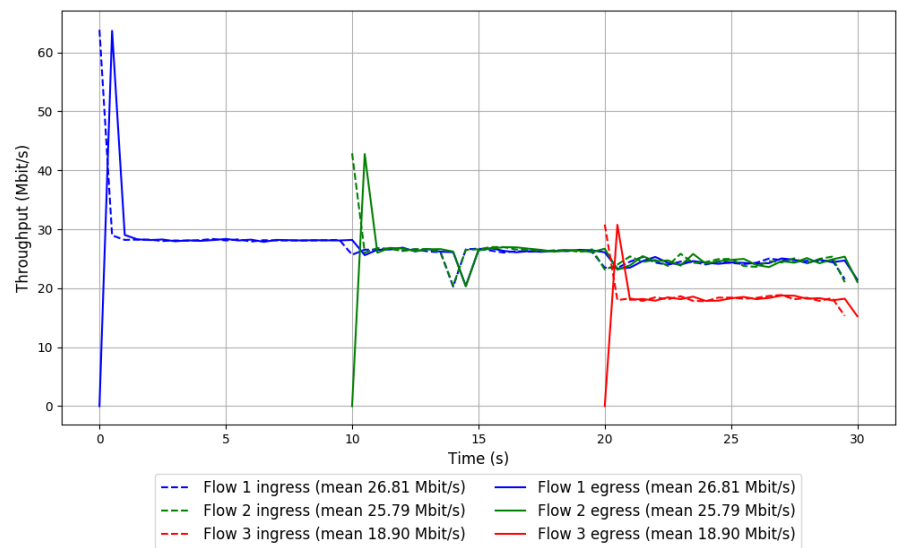
-- Flow 3:

Average throughput: 18.90 Mbit/s

95th percentile per-packet one-way delay: 2.674 ms

Loss rate: 0.05%

Run 5: Report of Indigo-Muses — Data Link

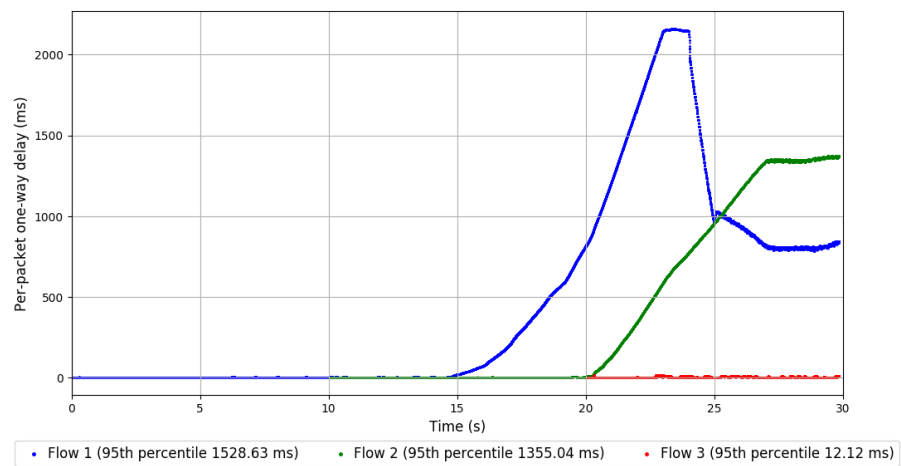
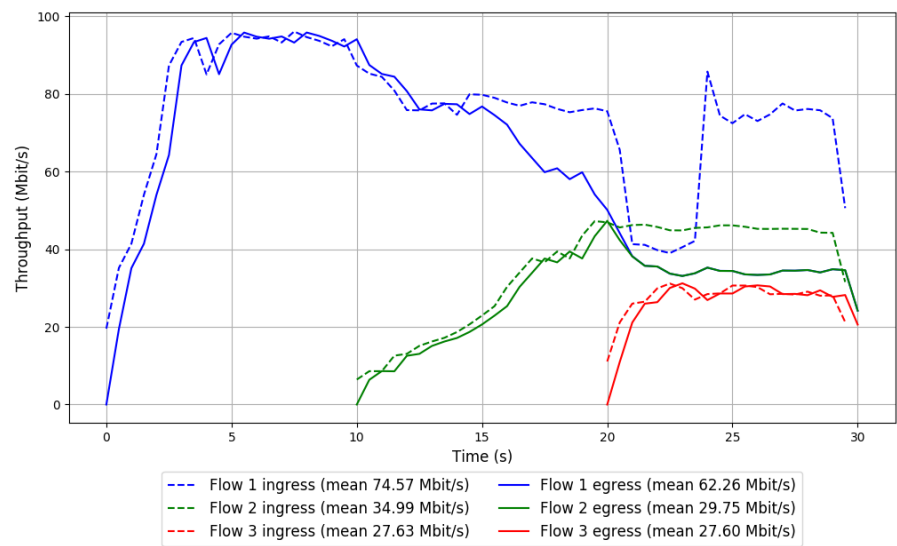


Run 1: Statistics of PCC-Allegro

Start at: 2018-11-30 15:31:41  
End at: 2018-11-30 15:32:11  
Local clock offset: -6.051 ms  
Remote clock offset: -0.363 ms

# Below is generated by plot.py at 2018-11-30 17:19:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.11 Mbit/s  
95th percentile per-packet one-way delay: 1358.200 ms  
Loss rate: 14.80%  
-- Flow 1:  
Average throughput: 62.26 Mbit/s  
95th percentile per-packet one-way delay: 1528.631 ms  
Loss rate: 16.52%  
-- Flow 2:  
Average throughput: 29.75 Mbit/s  
95th percentile per-packet one-way delay: 1355.039 ms  
Loss rate: 15.00%  
-- Flow 3:  
Average throughput: 27.60 Mbit/s  
95th percentile per-packet one-way delay: 12.116 ms  
Loss rate: 0.17%

Run 1: Report of PCC-Allegro — Data Link

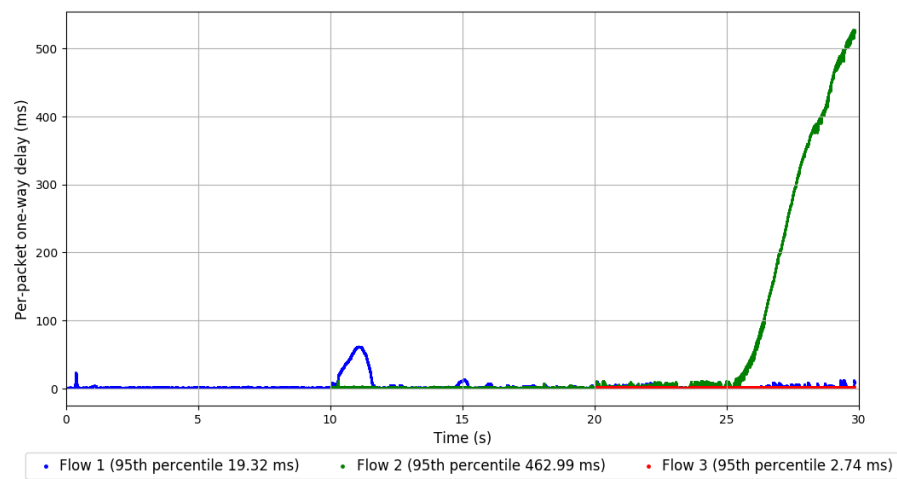
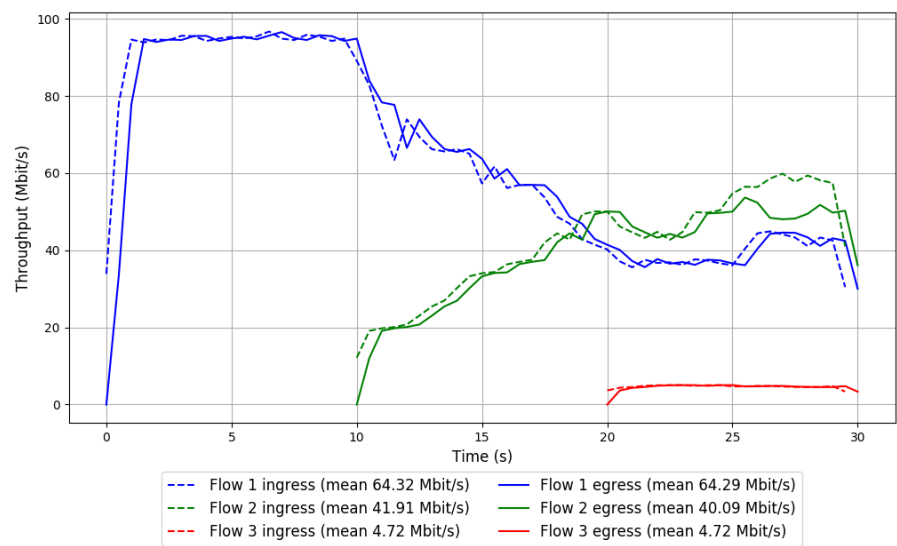


Run 2: Statistics of PCC-Allegro

Start at: 2018-11-30 15:53:39  
End at: 2018-11-30 15:54:09  
Local clock offset: -3.842 ms  
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-11-30 17:19:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.50 Mbit/s  
95th percentile per-packet one-way delay: 203.672 ms  
Loss rate: 1.34%  
-- Flow 1:  
Average throughput: 64.29 Mbit/s  
95th percentile per-packet one-way delay: 19.315 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 40.09 Mbit/s  
95th percentile per-packet one-way delay: 462.992 ms  
Loss rate: 4.36%  
-- Flow 3:  
Average throughput: 4.72 Mbit/s  
95th percentile per-packet one-way delay: 2.739 ms  
Loss rate: 0.05%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-11-30 16:15:34

End at: 2018-11-30 16:16:04

Local clock offset: -2.236 ms

Remote clock offset: 0.179 ms

# Below is generated by plot.py at 2018-11-30 17:19:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.38 Mbit/s

95th percentile per-packet one-way delay: 1502.686 ms

Loss rate: 4.41%

-- Flow 1:

Average throughput: 76.33 Mbit/s

95th percentile per-packet one-way delay: 1533.551 ms

Loss rate: 5.33%

-- Flow 2:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 3.175 ms

Loss rate: 0.05%

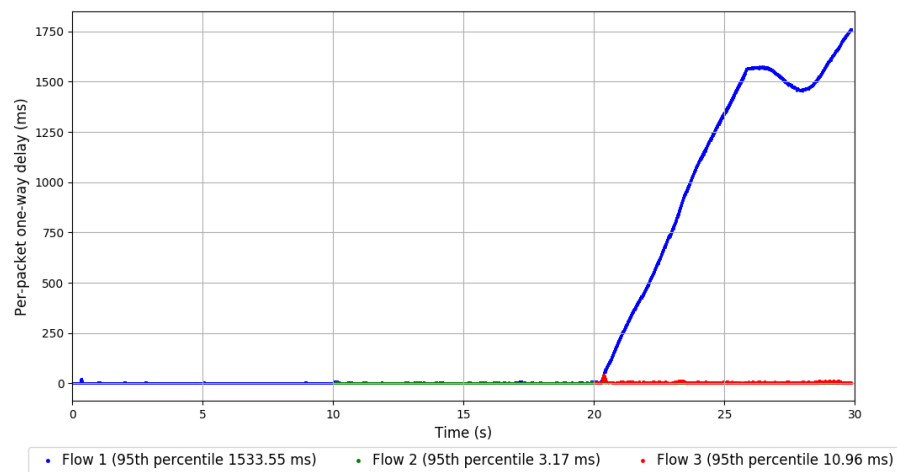
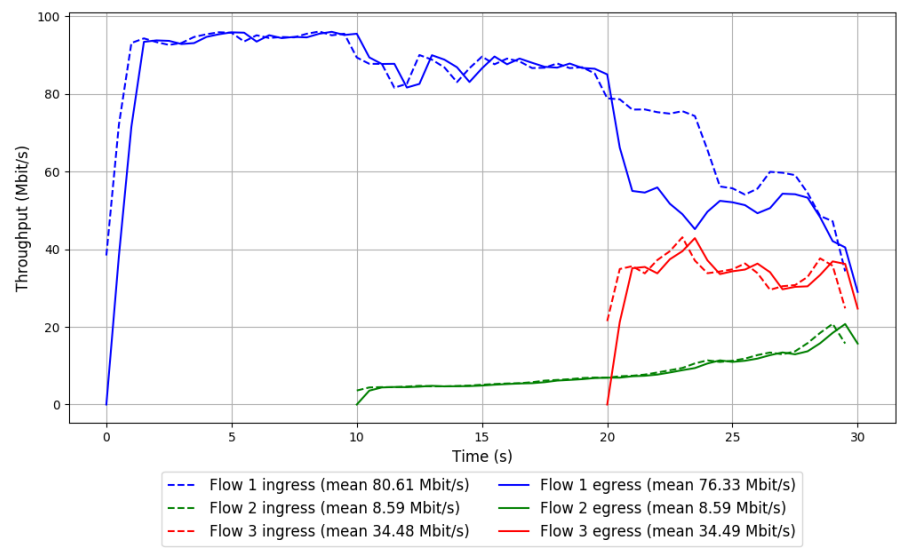
-- Flow 3:

Average throughput: 34.49 Mbit/s

95th percentile per-packet one-way delay: 10.965 ms

Loss rate: 0.06%

Run 3: Report of PCC-Allegro — Data Link





Run 4: Statistics of PCC-Allegro

Start at: 2018-11-30 16:37:33

End at: 2018-11-30 16:38:03

Local clock offset: -5.852 ms

Remote clock offset: 0.424 ms

# Below is generated by plot.py at 2018-11-30 17:19:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.86 Mbit/s

95th percentile per-packet one-way delay: 1126.155 ms

Loss rate: 4.30%

-- Flow 1:

Average throughput: 63.74 Mbit/s

95th percentile per-packet one-way delay: 1401.357 ms

Loss rate: 6.15%

-- Flow 2:

Average throughput: 33.05 Mbit/s

95th percentile per-packet one-way delay: 20.644 ms

Loss rate: 0.17%

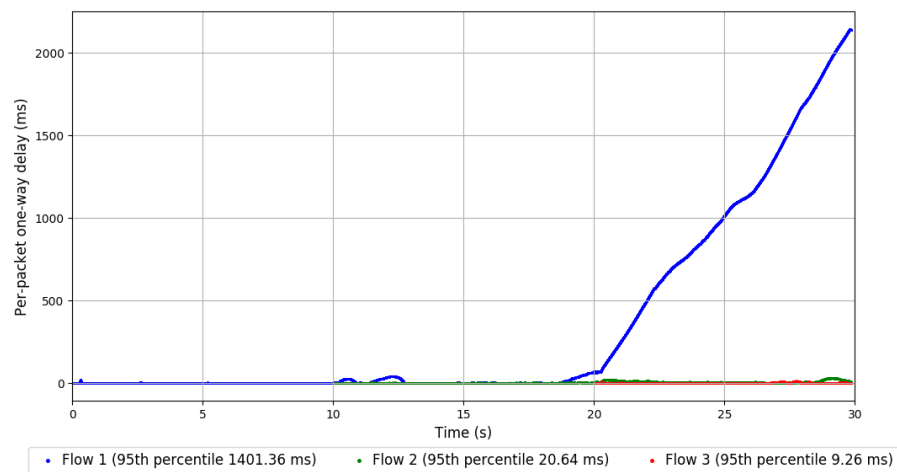
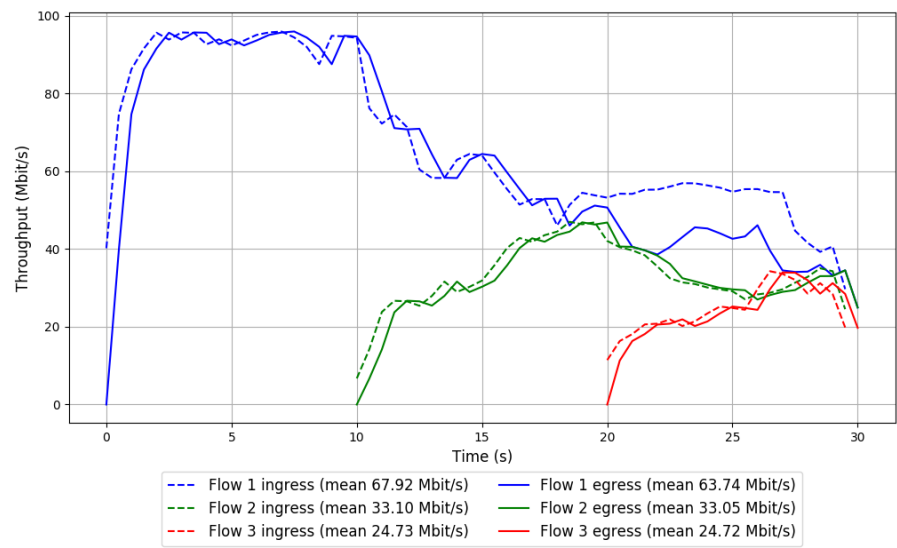
-- Flow 3:

Average throughput: 24.72 Mbit/s

95th percentile per-packet one-way delay: 9.256 ms

Loss rate: 0.08%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-11-30 16:59:32

End at: 2018-11-30 17:00:02

Local clock offset: -2.473 ms

Remote clock offset: 0.555 ms

# Below is generated by plot.py at 2018-11-30 17:19:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.28 Mbit/s

95th percentile per-packet one-way delay: 4.203 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 79.26 Mbit/s

95th percentile per-packet one-way delay: 4.294 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 13.22 Mbit/s

95th percentile per-packet one-way delay: 3.686 ms

Loss rate: 0.05%

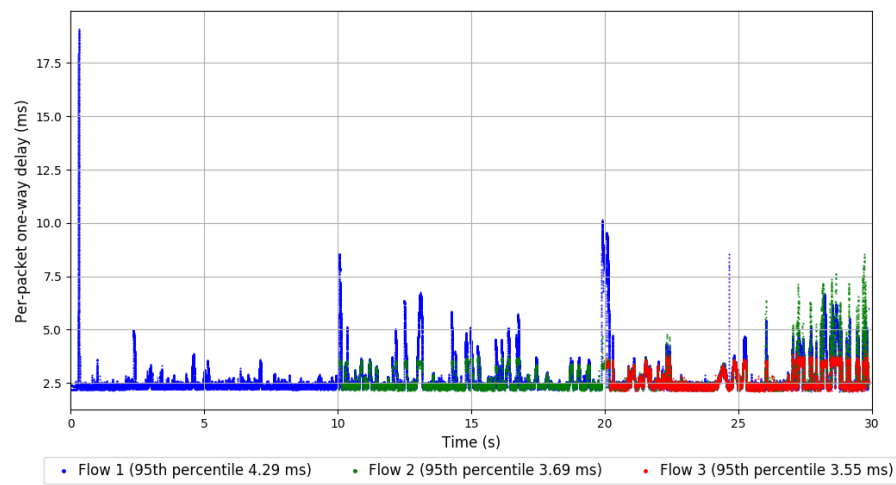
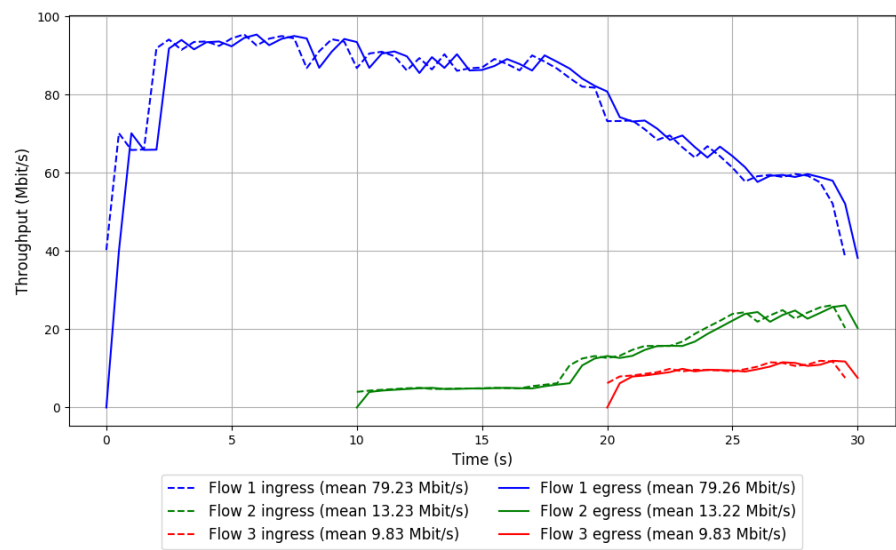
-- Flow 3:

Average throughput: 9.83 Mbit/s

95th percentile per-packet one-way delay: 3.552 ms

Loss rate: 0.04%

Run 5: Report of PCC-Allegro — Data Link

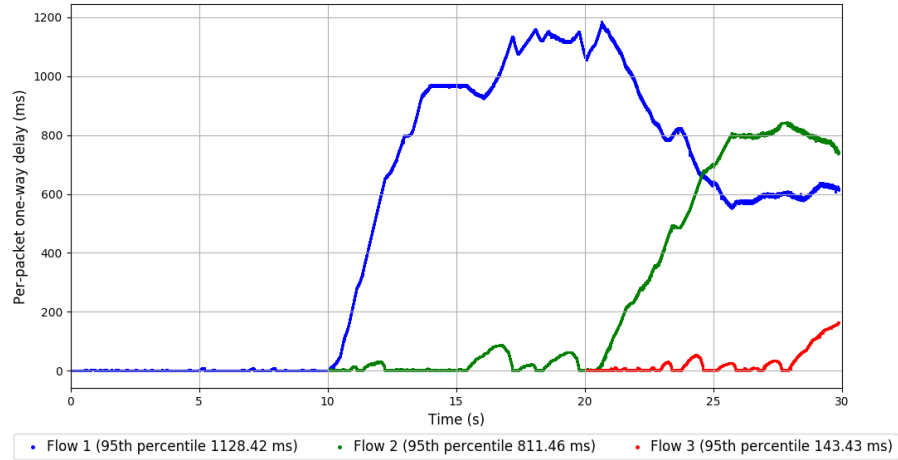
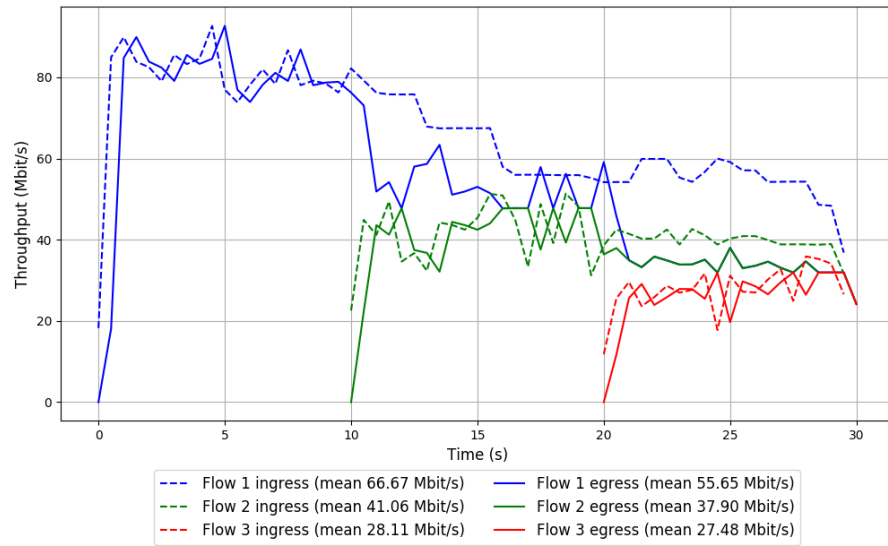


Run 1: Statistics of PCC-Expr

Start at: 2018-11-30 15:39:34  
End at: 2018-11-30 15:40:04  
Local clock offset: -6.647 ms  
Remote clock offset: -0.293 ms

# Below is generated by plot.py at 2018-11-30 17:20:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.91 Mbit/s  
95th percentile per-packet one-way delay: 1116.015 ms  
Loss rate: 12.93%  
-- Flow 1:  
Average throughput: 55.65 Mbit/s  
95th percentile per-packet one-way delay: 1128.424 ms  
Loss rate: 16.54%  
-- Flow 2:  
Average throughput: 37.90 Mbit/s  
95th percentile per-packet one-way delay: 811.459 ms  
Loss rate: 7.71%  
-- Flow 3:  
Average throughput: 27.48 Mbit/s  
95th percentile per-packet one-way delay: 143.429 ms  
Loss rate: 2.30%

# Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-11-30 16:01:31

End at: 2018-11-30 16:02:01

Local clock offset: -1.929 ms

Remote clock offset: 0.028 ms

# Below is generated by plot.py at 2018-11-30 17:20:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.47 Mbit/s

95th percentile per-packet one-way delay: 94.225 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 53.98 Mbit/s

95th percentile per-packet one-way delay: 57.801 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 36.26 Mbit/s

95th percentile per-packet one-way delay: 220.783 ms

Loss rate: 0.09%

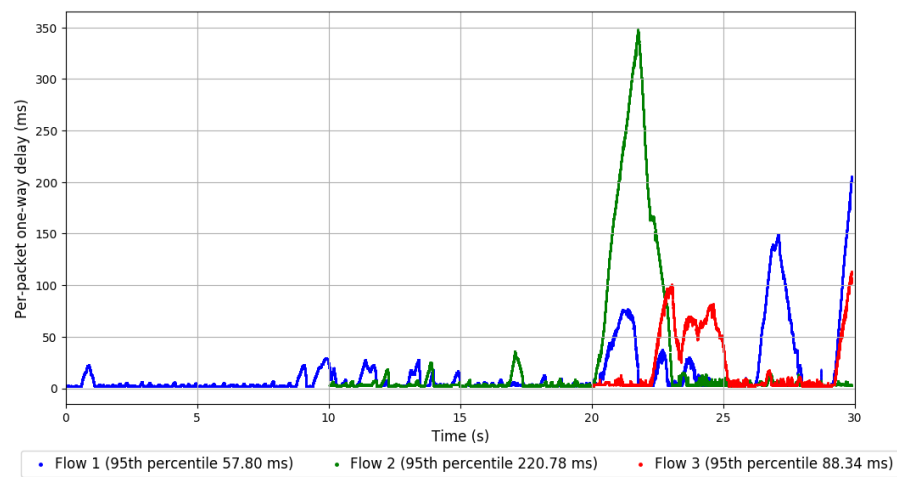
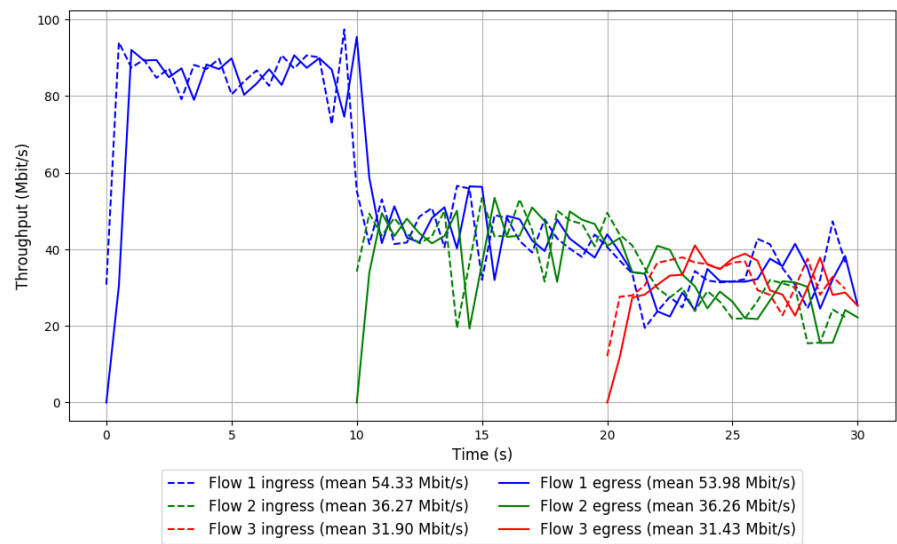
-- Flow 3:

Average throughput: 31.43 Mbit/s

95th percentile per-packet one-way delay: 88.343 ms

Loss rate: 1.50%

Run 2: Report of PCC-Expr — Data Link





Run 3: Statistics of PCC-Expr

Start at: 2018-11-30 16:23:27

End at: 2018-11-30 16:23:57

Local clock offset: -4.197 ms

Remote clock offset: 0.243 ms

# Below is generated by plot.py at 2018-11-30 17:21:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.81 Mbit/s

95th percentile per-packet one-way delay: 548.557 ms

Loss rate: 45.43%

-- Flow 1:

Average throughput: 59.89 Mbit/s

95th percentile per-packet one-way delay: 557.709 ms

Loss rate: 56.04%

-- Flow 2:

Average throughput: 33.40 Mbit/s

95th percentile per-packet one-way delay: 61.494 ms

Loss rate: 0.15%

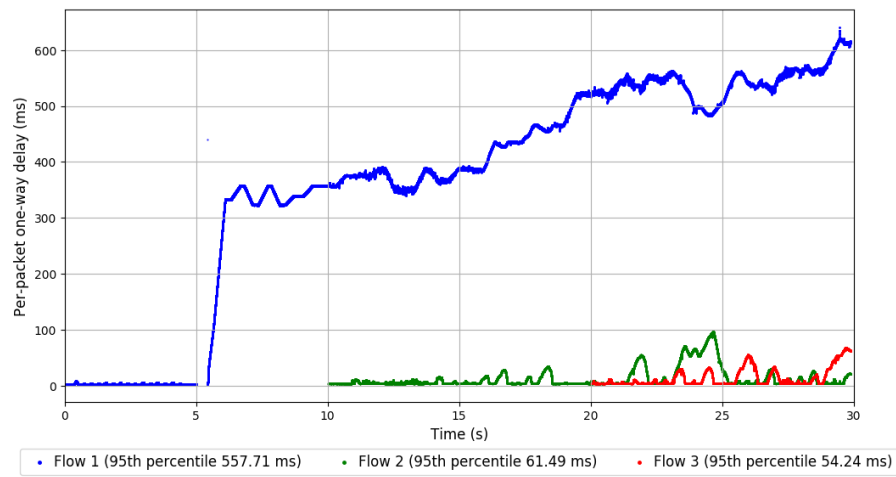
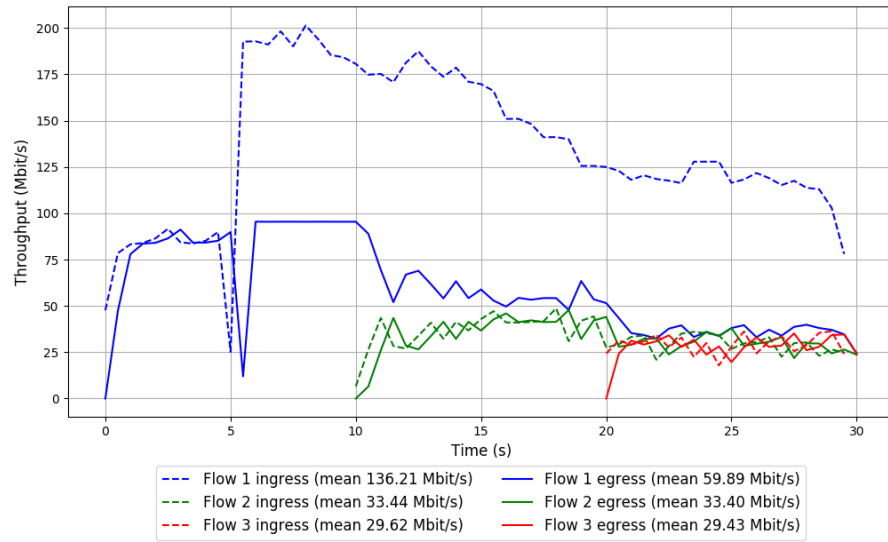
-- Flow 3:

Average throughput: 29.43 Mbit/s

95th percentile per-packet one-way delay: 54.238 ms

Loss rate: 0.70%

### Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-11-30 16:45:26

End at: 2018-11-30 16:45:56

Local clock offset: -6.57 ms

Remote clock offset: 0.553 ms

# Below is generated by plot.py at 2018-11-30 17:21:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.20 Mbit/s

95th percentile per-packet one-way delay: 733.718 ms

Loss rate: 27.66%

-- Flow 1:

Average throughput: 61.54 Mbit/s

95th percentile per-packet one-way delay: 740.614 ms

Loss rate: 36.88%

-- Flow 2:

Average throughput: 34.93 Mbit/s

95th percentile per-packet one-way delay: 306.684 ms

Loss rate: 0.30%

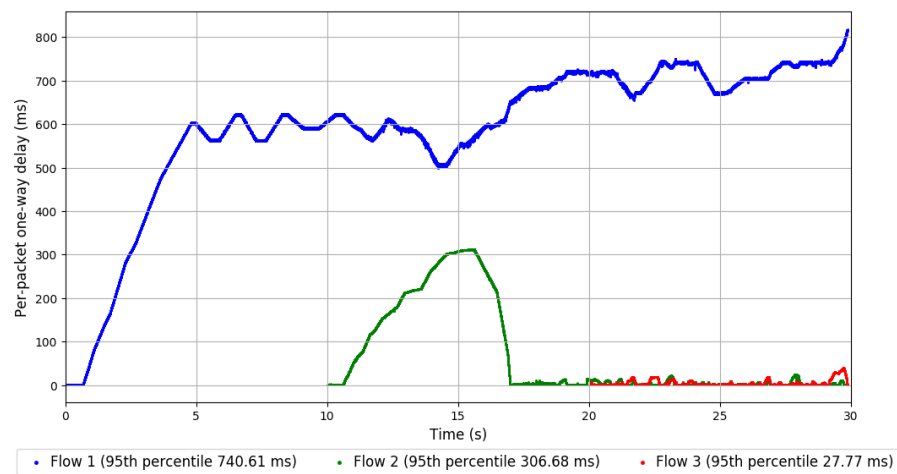
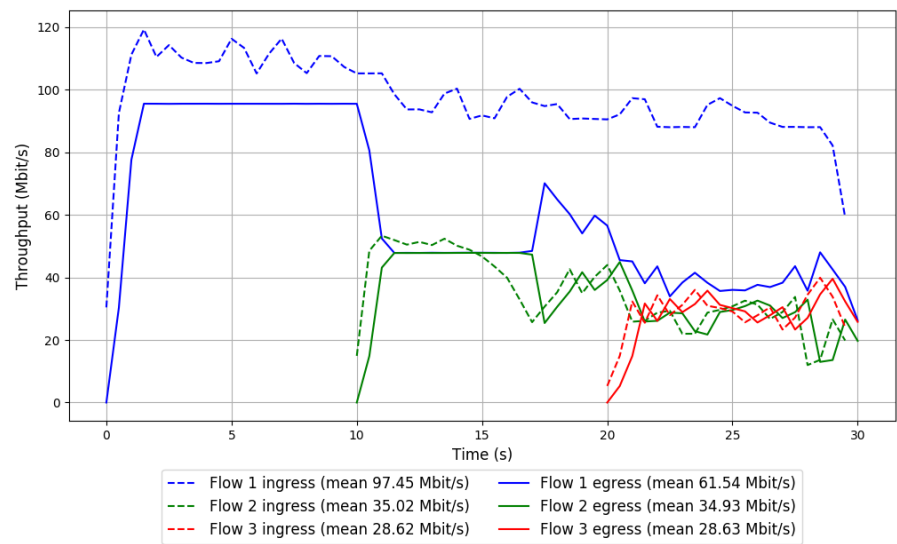
-- Flow 3:

Average throughput: 28.63 Mbit/s

95th percentile per-packet one-way delay: 27.774 ms

Loss rate: 0.04%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-11-30 17:07:25

End at: 2018-11-30 17:07:55

Local clock offset: -2.581 ms

Remote clock offset: 0.569 ms

# Below is generated by plot.py at 2018-11-30 17:21:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.64 Mbit/s

95th percentile per-packet one-way delay: 1126.017 ms

Loss rate: 4.47%

-- Flow 1:

Average throughput: 55.28 Mbit/s

95th percentile per-packet one-way delay: 68.328 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 33.83 Mbit/s

95th percentile per-packet one-way delay: 15.185 ms

Loss rate: 0.12%

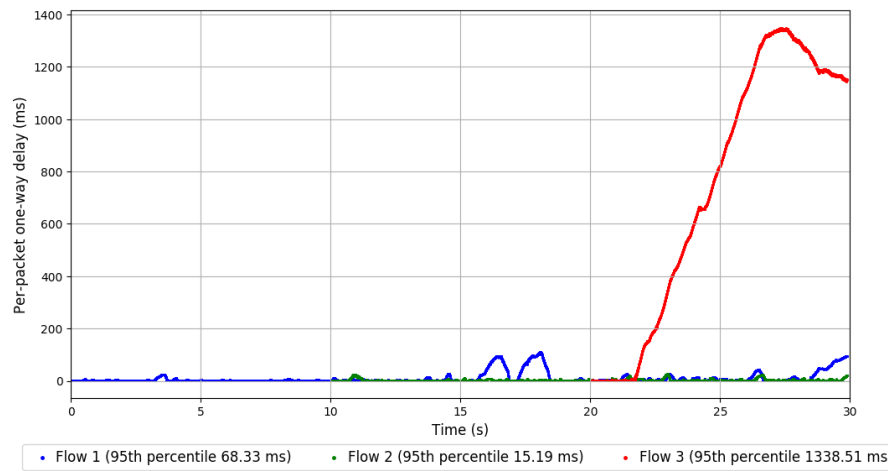
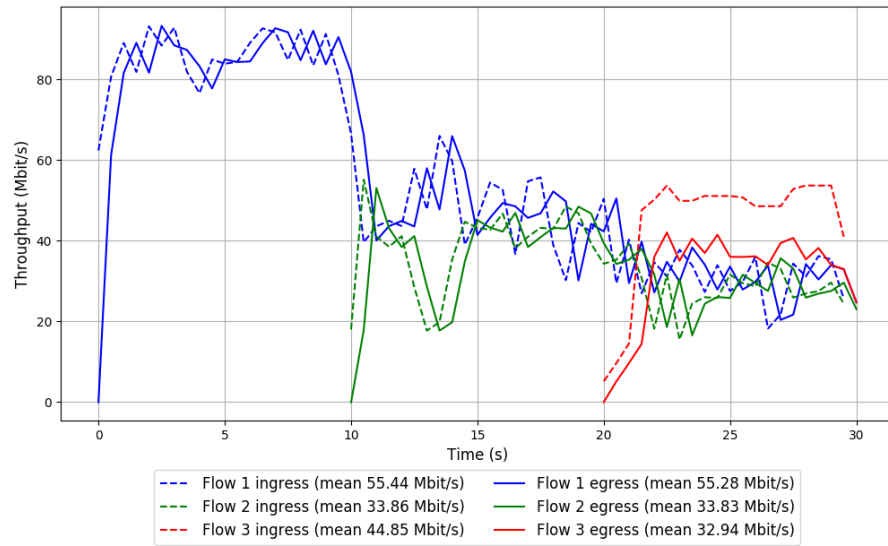
-- Flow 3:

Average throughput: 32.94 Mbit/s

95th percentile per-packet one-way delay: 1338.512 ms

Loss rate: 26.69%

# Run 5: Report of PCC-Expr — Data Link

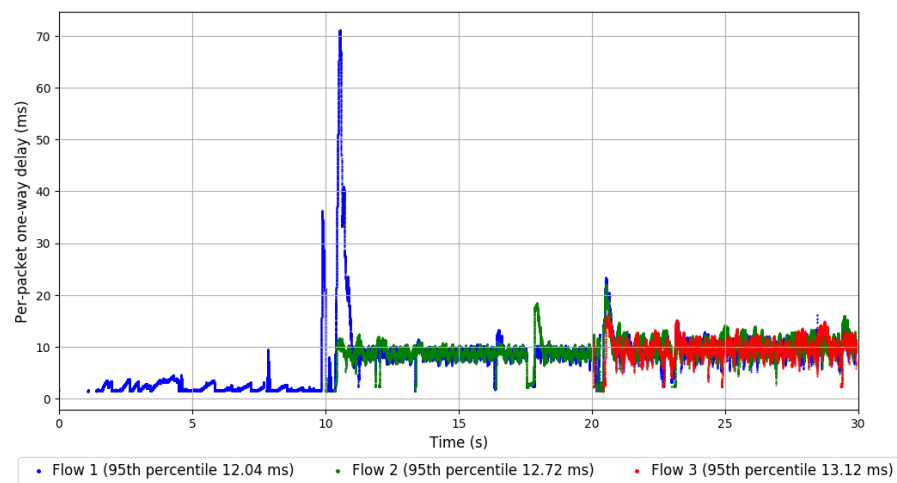
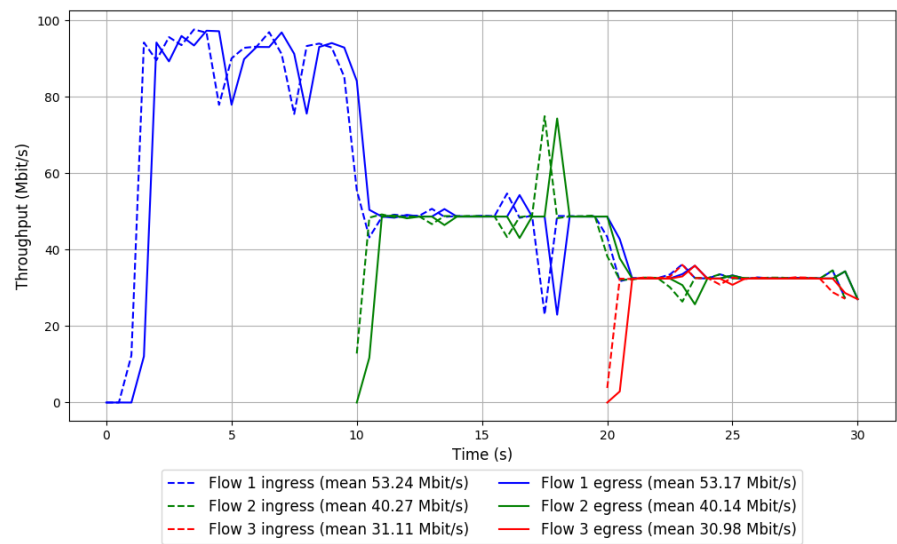


Run 1: Statistics of QUIC Cubic

Start at: 2018-11-30 15:32:50  
End at: 2018-11-30 15:33:20  
Local clock offset: -6.863 ms  
Remote clock offset: -0.381 ms

# Below is generated by plot.py at 2018-11-30 17:21:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.11 Mbit/s  
95th percentile per-packet one-way delay: 12.525 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 53.17 Mbit/s  
95th percentile per-packet one-way delay: 12.038 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 40.14 Mbit/s  
95th percentile per-packet one-way delay: 12.719 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 30.98 Mbit/s  
95th percentile per-packet one-way delay: 13.117 ms  
Loss rate: 0.47%

Run 1: Report of QUIC Cubic — Data Link



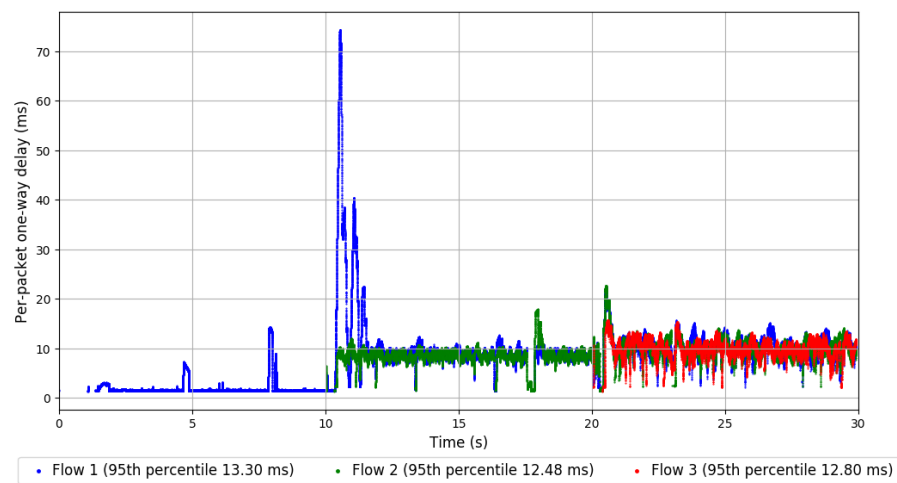
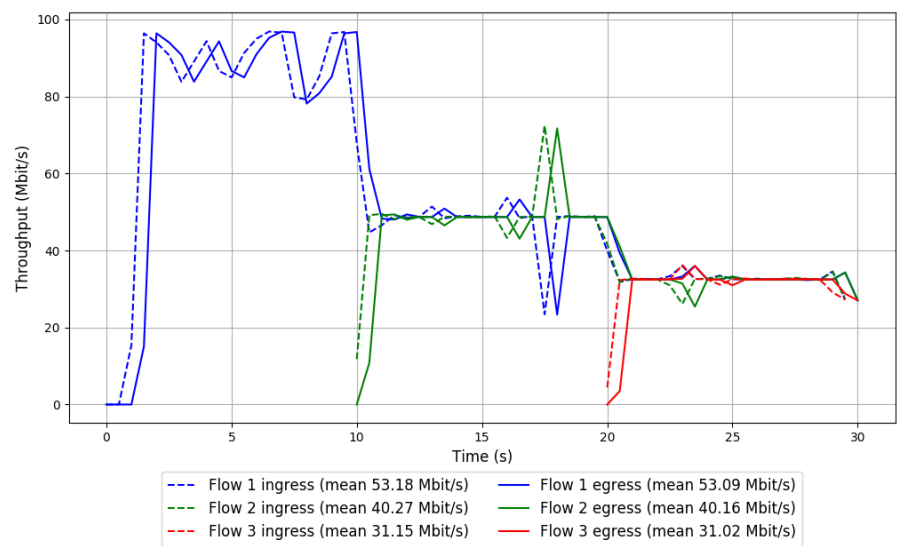


Run 2: Statistics of QUIC Cubic

Start at: 2018-11-30 15:54:47  
End at: 2018-11-30 15:55:17  
Local clock offset: -3.736 ms  
Remote clock offset: -0.067 ms

# Below is generated by plot.py at 2018-11-30 17:21:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.06 Mbit/s  
95th percentile per-packet one-way delay: 12.853 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 53.09 Mbit/s  
95th percentile per-packet one-way delay: 13.302 ms  
Loss rate: 0.18%  
-- Flow 2:  
Average throughput: 40.16 Mbit/s  
95th percentile per-packet one-way delay: 12.484 ms  
Loss rate: 0.29%  
-- Flow 3:  
Average throughput: 31.02 Mbit/s  
95th percentile per-packet one-way delay: 12.799 ms  
Loss rate: 0.47%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-11-30 16:16:43

End at: 2018-11-30 16:17:13

Local clock offset: -2.074 ms

Remote clock offset: 0.213 ms

# Below is generated by plot.py at 2018-11-30 17:21:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.16 Mbit/s

95th percentile per-packet one-way delay: 13.897 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 55.11 Mbit/s

95th percentile per-packet one-way delay: 13.619 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 40.30 Mbit/s

95th percentile per-packet one-way delay: 13.946 ms

Loss rate: 0.35%

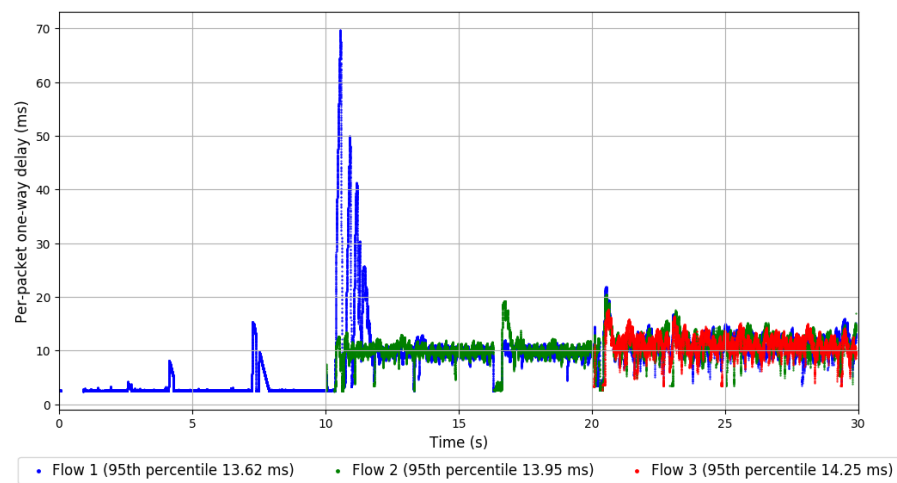
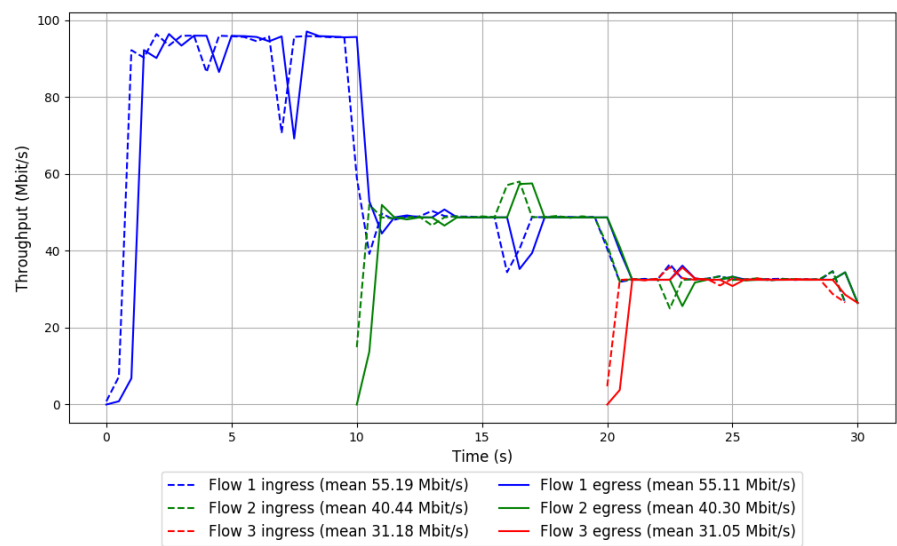
-- Flow 3:

Average throughput: 31.05 Mbit/s

95th percentile per-packet one-way delay: 14.252 ms

Loss rate: 0.46%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-11-30 16:38:42

End at: 2018-11-30 16:39:12

Local clock offset: -5.989 ms

Remote clock offset: 0.467 ms

# Below is generated by plot.py at 2018-11-30 17:21:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.76 Mbit/s

95th percentile per-packet one-way delay: 13.395 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 53.79 Mbit/s

95th percentile per-packet one-way delay: 13.379 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 40.08 Mbit/s

95th percentile per-packet one-way delay: 13.361 ms

Loss rate: 0.34%

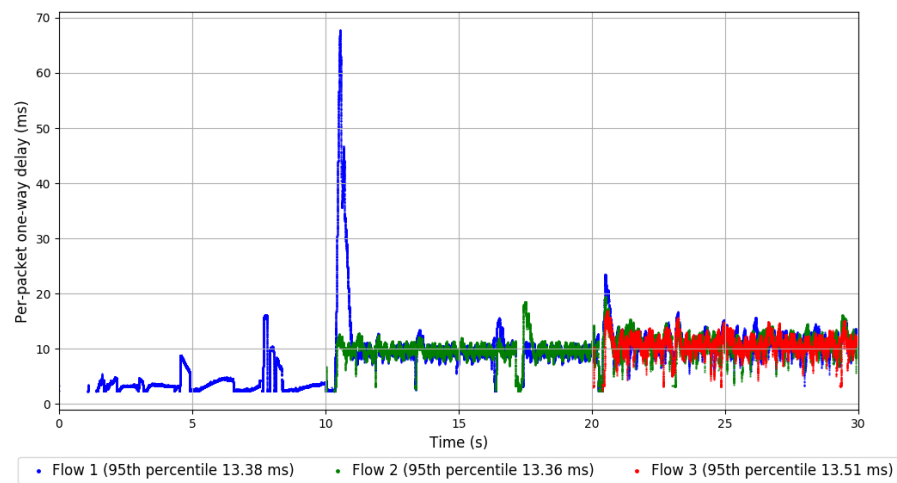
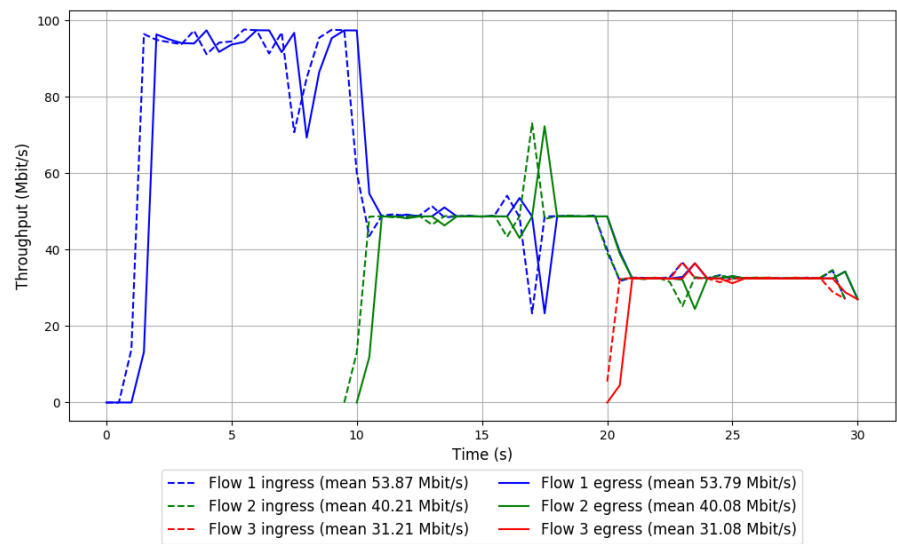
-- Flow 3:

Average throughput: 31.08 Mbit/s

95th percentile per-packet one-way delay: 13.506 ms

Loss rate: 0.48%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-11-30 17:00:40

End at: 2018-11-30 17:01:10

Local clock offset: -3.087 ms

Remote clock offset: 0.54 ms

# Below is generated by plot.py at 2018-11-30 17:21:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.66 Mbit/s

95th percentile per-packet one-way delay: 12.668 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 52.20 Mbit/s

95th percentile per-packet one-way delay: 12.320 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 39.28 Mbit/s

95th percentile per-packet one-way delay: 12.982 ms

Loss rate: 0.34%

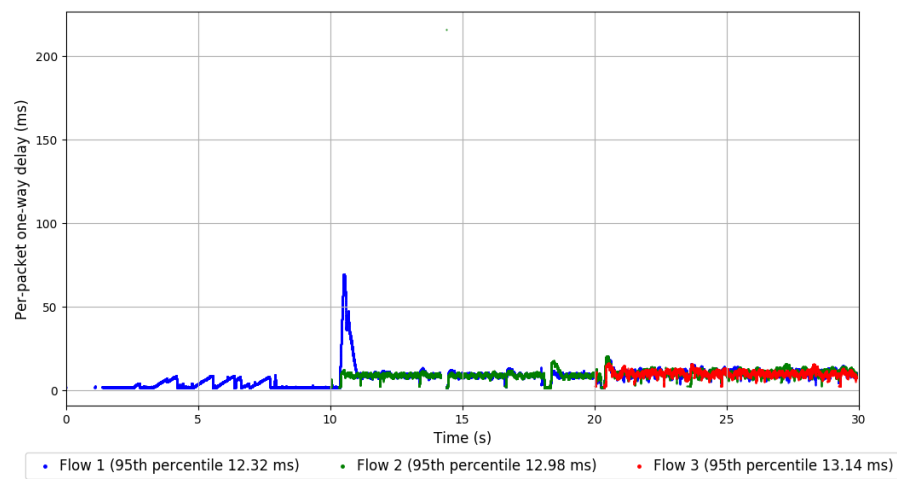
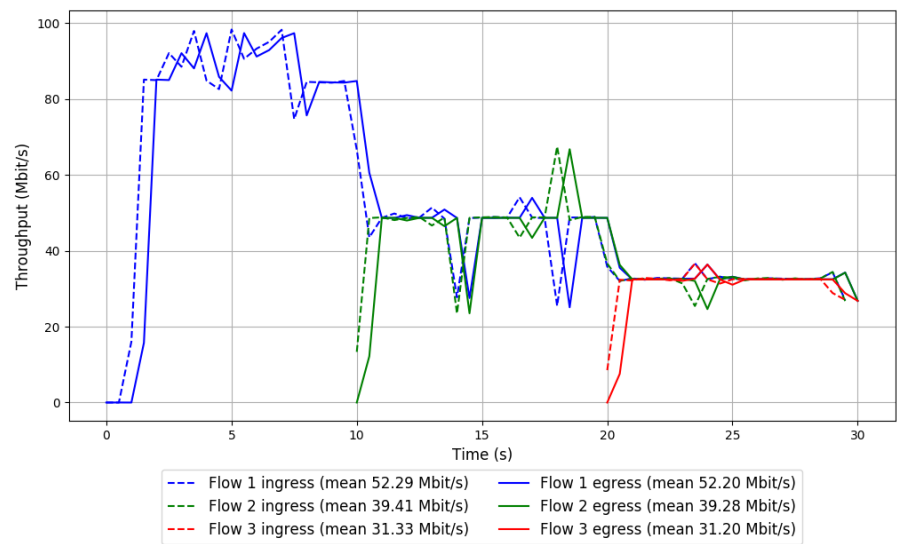
-- Flow 3:

Average throughput: 31.20 Mbit/s

95th percentile per-packet one-way delay: 13.137 ms

Loss rate: 0.46%

Run 5: Report of QUIC Cubic — Data Link



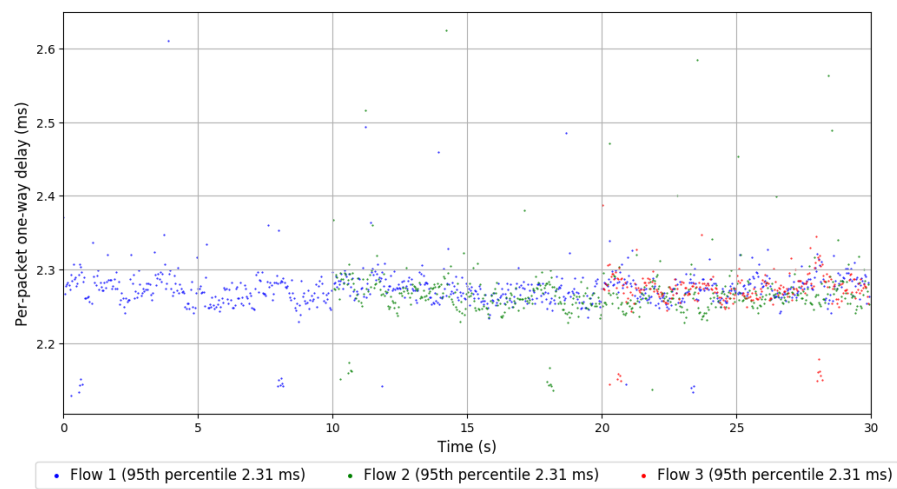
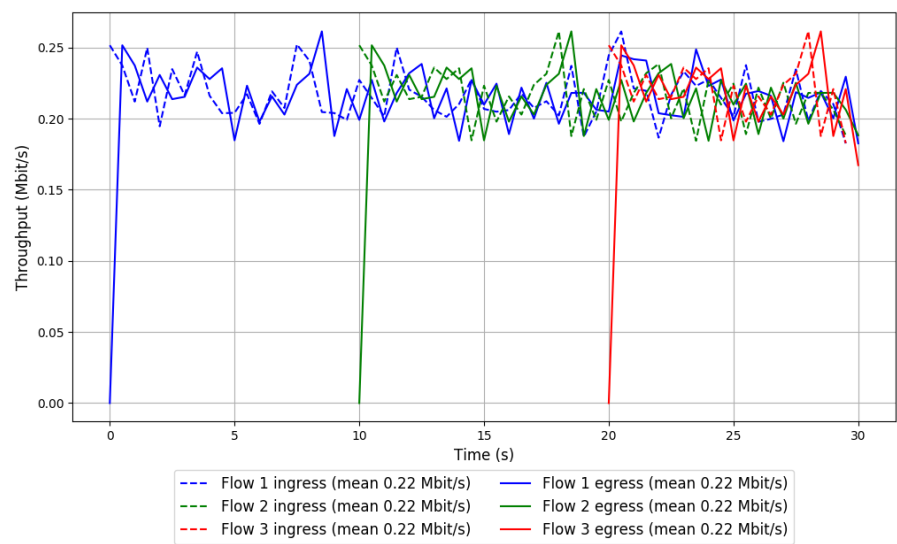


Run 1: Statistics of SReAM

Start at: 2018-11-30 15:35:05  
End at: 2018-11-30 15:35:35  
Local clock offset: -6.038 ms  
Remote clock offset: -0.293 ms

# Below is generated by plot.py at 2018-11-30 17:21:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 2.305 ms  
Loss rate: 0.06%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.305 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.305 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.305 ms  
Loss rate: 0.35%

Run 1: Report of SReAM — Data Link

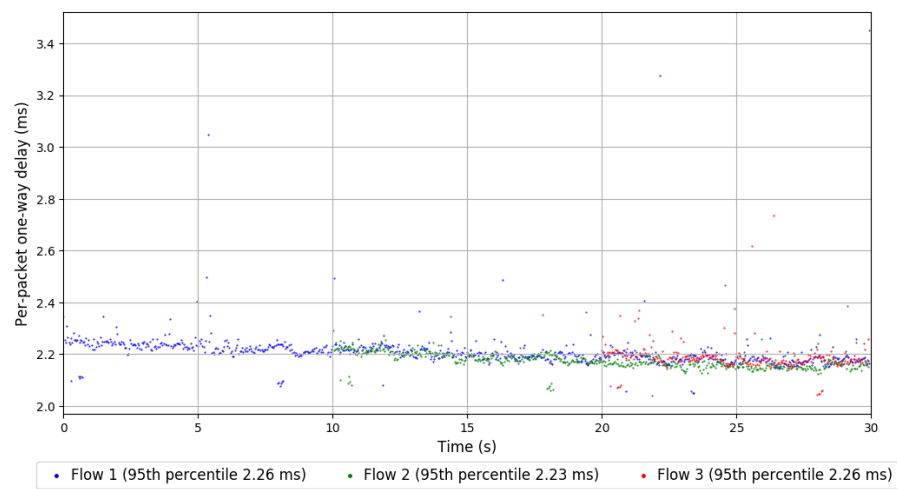
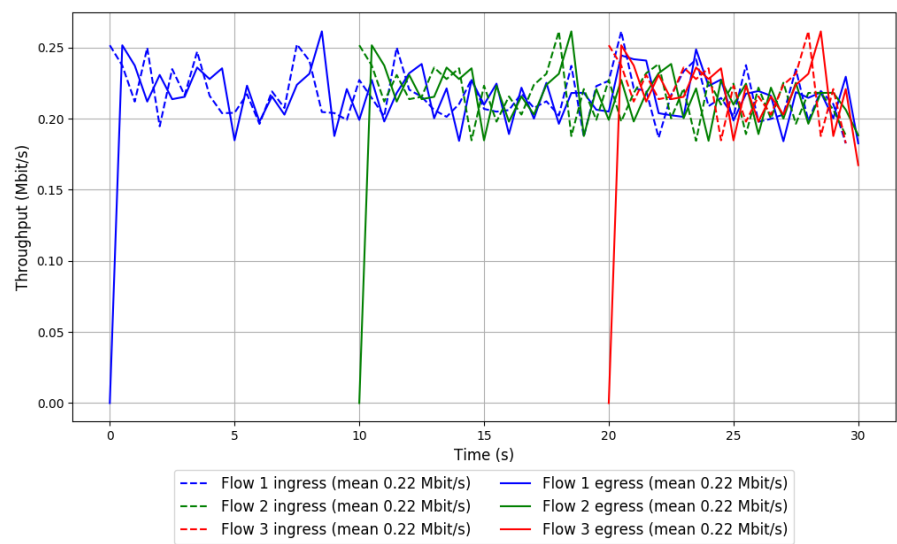


Run 2: Statistics of SReAM

Start at: 2018-11-30 15:57:02  
End at: 2018-11-30 15:57:32  
Local clock offset: -2.594 ms  
Remote clock offset: -0.033 ms

# Below is generated by plot.py at 2018-11-30 17:21:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 2.253 ms  
Loss rate: 0.06%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.258 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.228 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.259 ms  
Loss rate: 0.35%

Run 2: Report of SReAM — Data Link

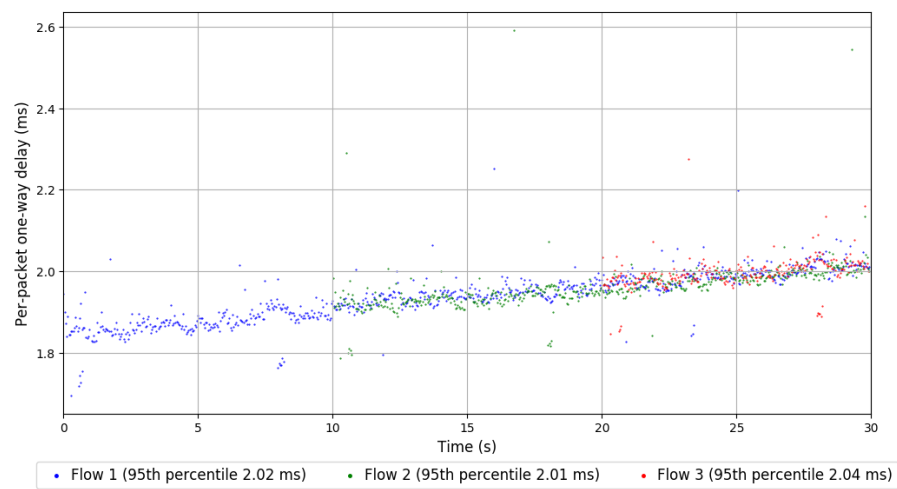
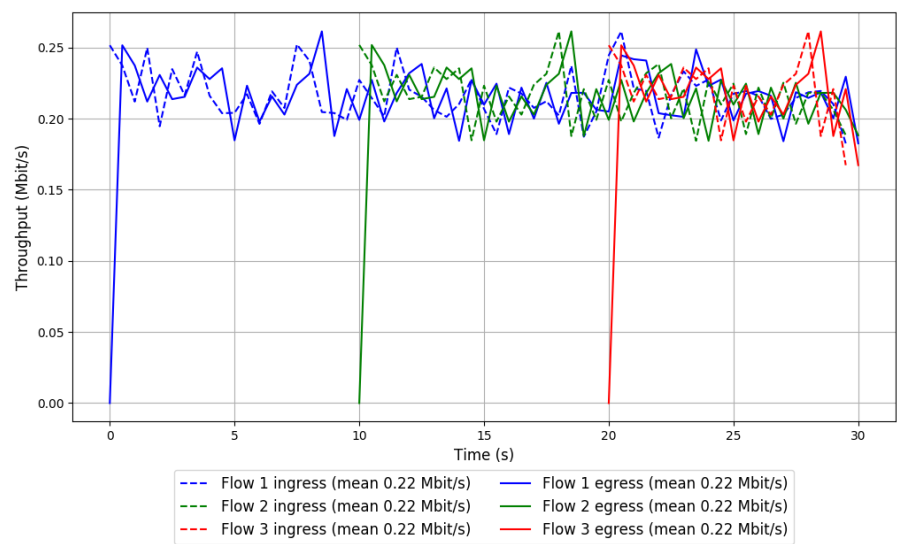


Run 3: Statistics of SReAM

Start at: 2018-11-30 16:18:57  
End at: 2018-11-30 16:19:27  
Local clock offset: -3.678 ms  
Remote clock offset: 0.16 ms

# Below is generated by plot.py at 2018-11-30 17:21:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 2.024 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.019 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.014 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.037 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

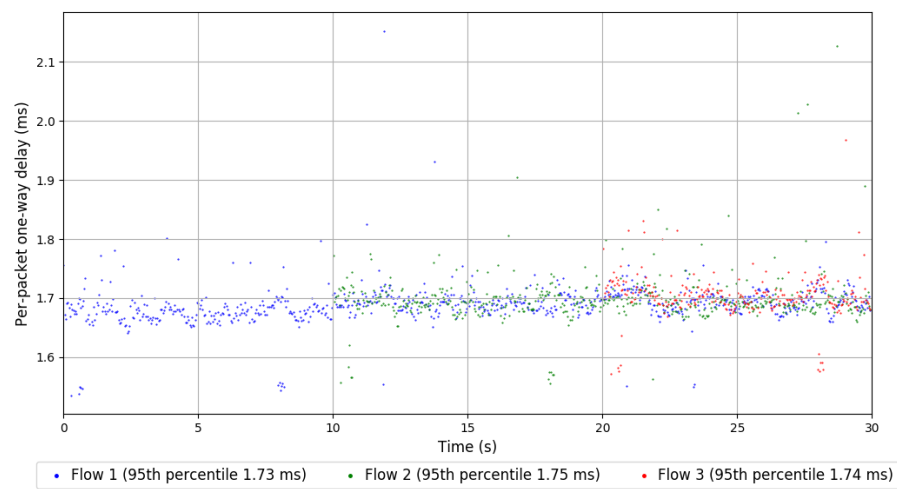
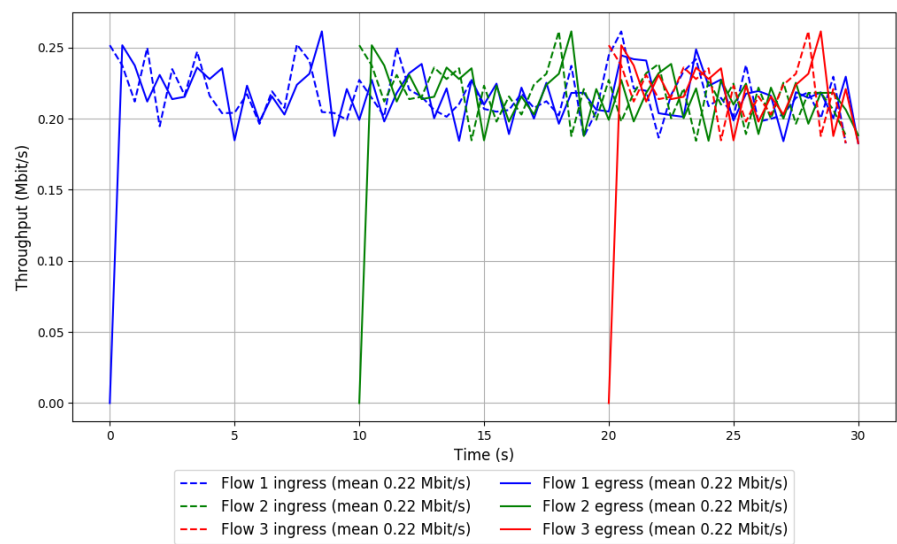


Run 4: Statistics of SReAM

Start at: 2018-11-30 16:40:57  
End at: 2018-11-30 16:41:27  
Local clock offset: -6.768 ms  
Remote clock offset: 0.464 ms

# Below is generated by plot.py at 2018-11-30 17:21:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 1.738 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.725 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.746 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 1.744 ms  
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link





Run 5: Statistics of SReAM

Start at: 2018-11-30 17:02:55

End at: 2018-11-30 17:03:25

Local clock offset: -2.202 ms

Remote clock offset: 0.584 ms

# Below is generated by plot.py at 2018-11-30 17:21:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.309 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.313 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.303 ms

Loss rate: 0.00%

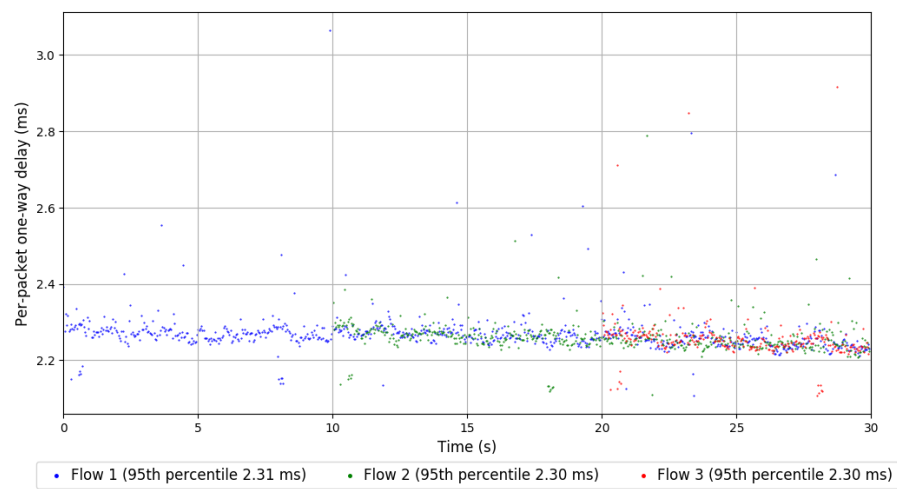
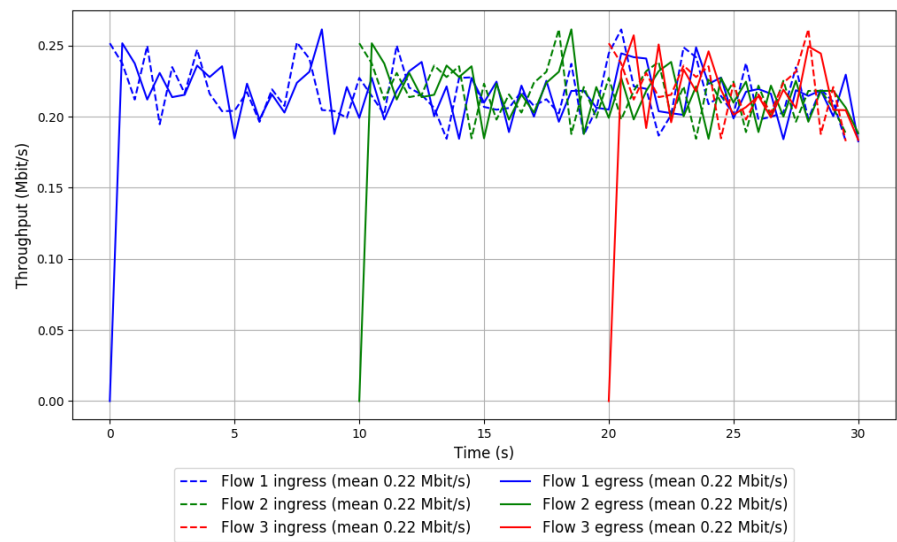
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.303 ms

Loss rate: 0.35%

Run 5: Report of SReAM — Data Link

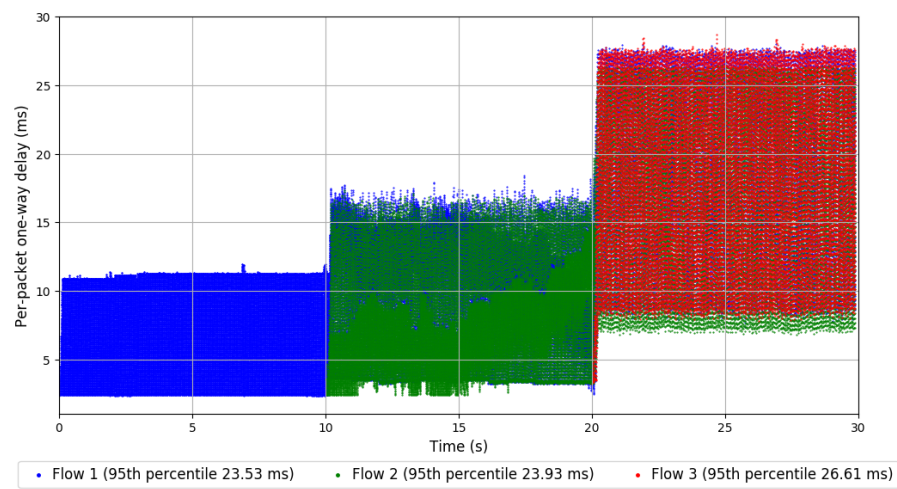
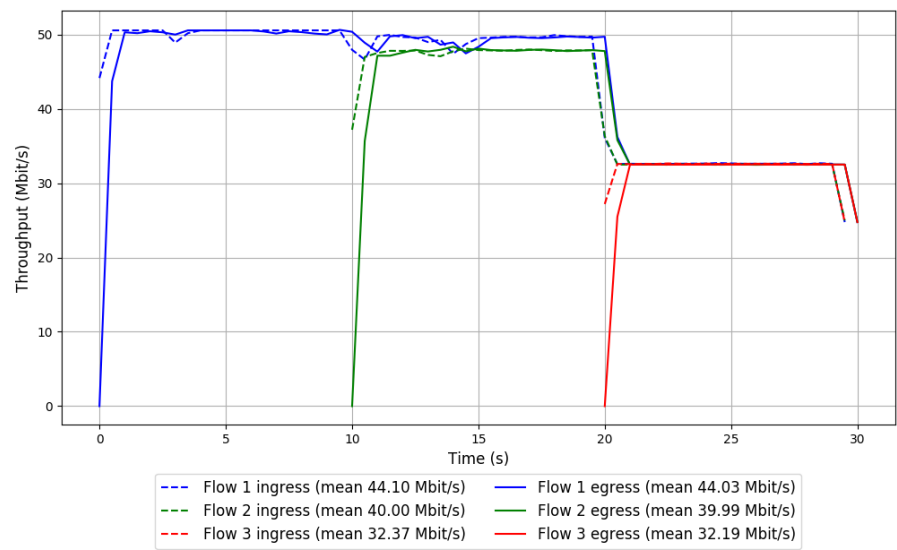


Run 1: Statistics of Sprout

Start at: 2018-11-30 15:37:17  
End at: 2018-11-30 15:37:47  
Local clock offset: -5.938 ms  
Remote clock offset: -0.318 ms

# Below is generated by plot.py at 2018-11-30 17:21:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.25 Mbit/s  
95th percentile per-packet one-way delay: 24.693 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 44.03 Mbit/s  
95th percentile per-packet one-way delay: 23.534 ms  
Loss rate: 0.15%  
-- Flow 2:  
Average throughput: 39.99 Mbit/s  
95th percentile per-packet one-way delay: 23.934 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 32.19 Mbit/s  
95th percentile per-packet one-way delay: 26.611 ms  
Loss rate: 0.57%

Run 1: Report of Sprout — Data Link

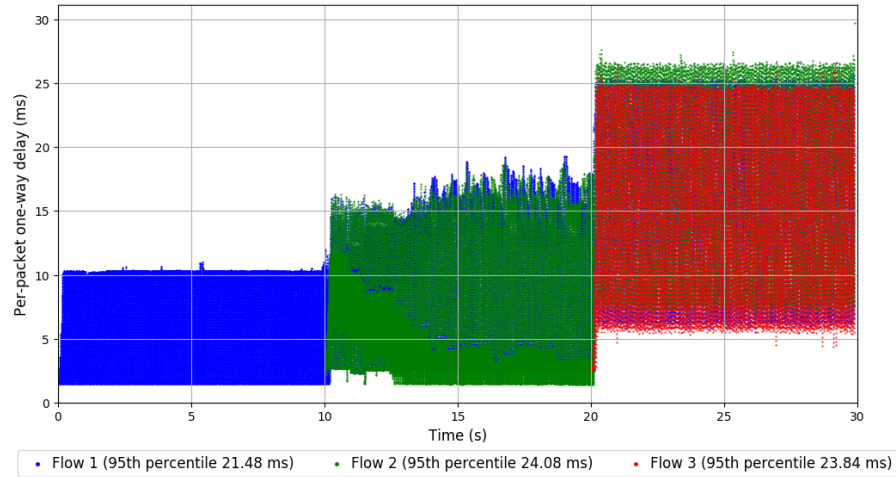
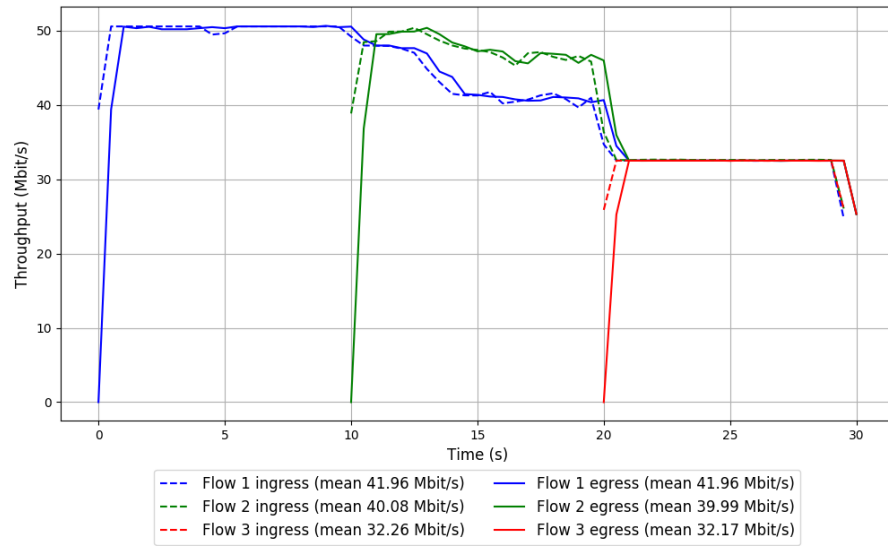


Run 2: Statistics of Sprout

Start at: 2018-11-30 15:59:14  
End at: 2018-11-30 15:59:44  
Local clock offset: -3.058 ms  
Remote clock offset: 0.01 ms

# Below is generated by plot.py at 2018-11-30 17:21:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.17 Mbit/s  
95th percentile per-packet one-way delay: 23.128 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 41.96 Mbit/s  
95th percentile per-packet one-way delay: 21.480 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 39.99 Mbit/s  
95th percentile per-packet one-way delay: 24.084 ms  
Loss rate: 0.24%  
-- Flow 3:  
Average throughput: 32.17 Mbit/s  
95th percentile per-packet one-way delay: 23.835 ms  
Loss rate: 0.20%

## Run 2: Report of Sprout — Data Link

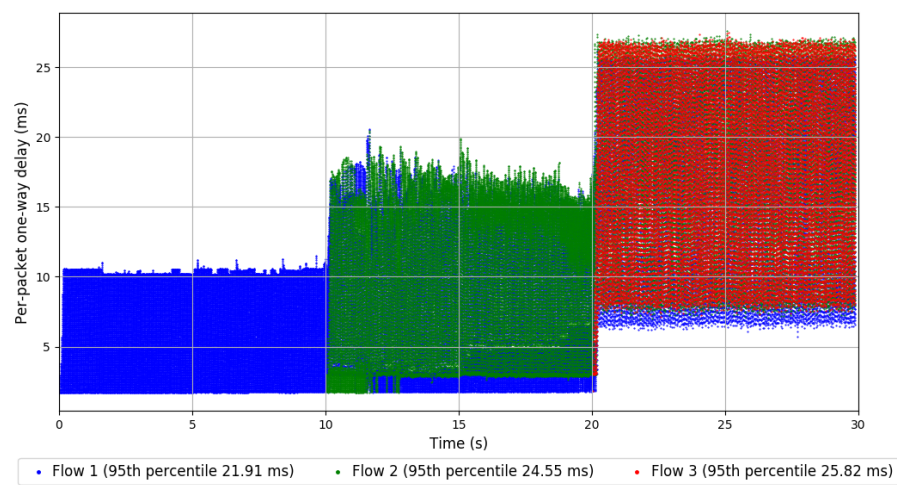
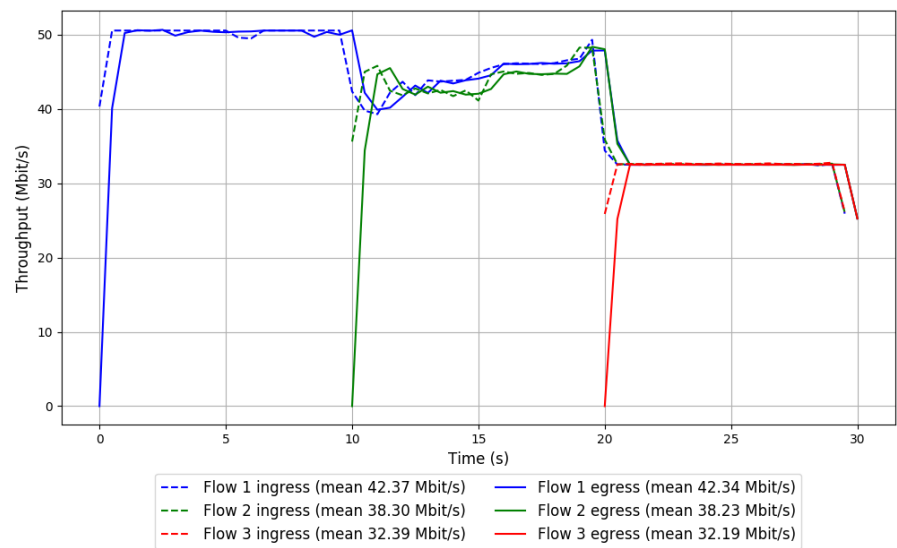


### Run 3: Statistics of Sprout

Start at: 2018-11-30 16:21:10  
End at: 2018-11-30 16:21:40  
Local clock offset: -4.418 ms  
Remote clock offset: 0.301 ms

```
# Below is generated by plot.py at 2018-11-30 17:21:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.39 Mbit/s
95th percentile per-packet one-way delay: 24.097 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 42.34 Mbit/s
95th percentile per-packet one-way delay: 21.909 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 38.23 Mbit/s
95th percentile per-packet one-way delay: 24.552 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 25.817 ms
Loss rate: 0.60%
```

Run 3: Report of Sprout — Data Link



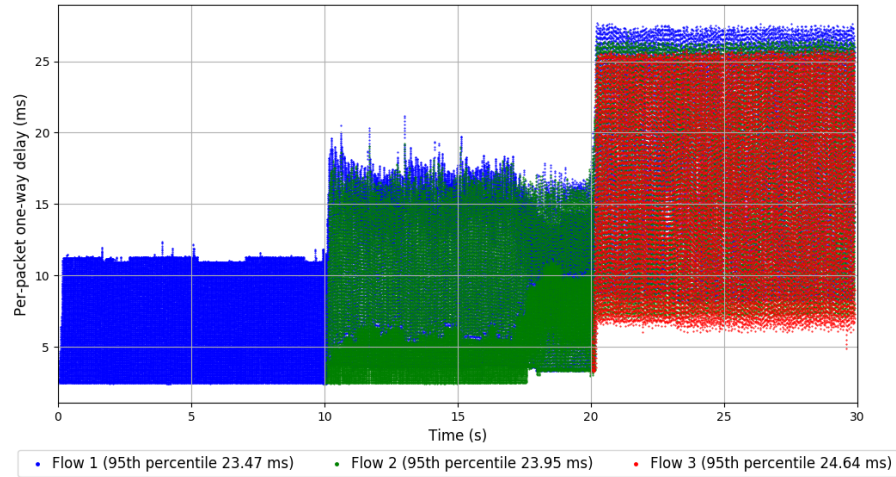
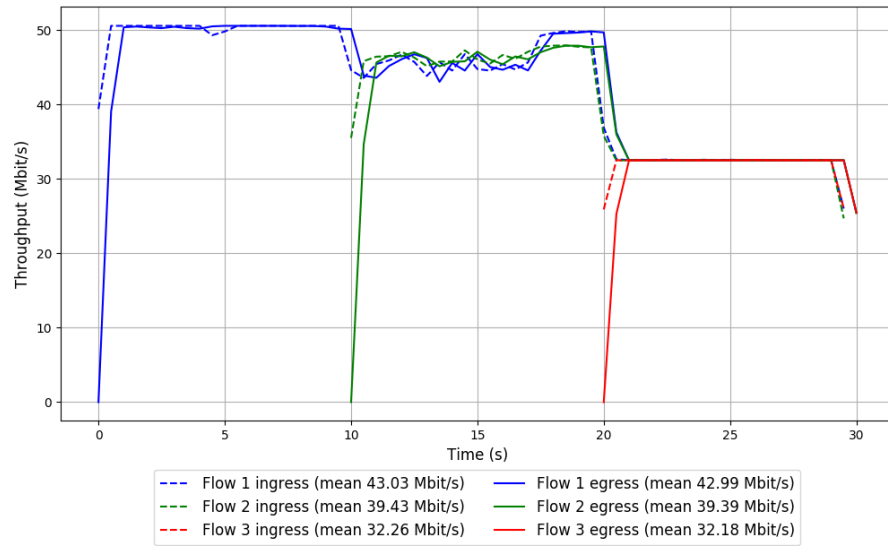


#### Run 4: Statistics of Sprout

Start at: 2018-11-30 16:43:09  
End at: 2018-11-30 16:43:39  
Local clock offset: -6.119 ms  
Remote clock offset: 0.479 ms

```
# Below is generated by plot.py at 2018-11-30 17:22:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.82 Mbit/s
95th percentile per-packet one-way delay: 24.024 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 23.469 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 39.39 Mbit/s
95th percentile per-packet one-way delay: 23.947 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 32.18 Mbit/s
95th percentile per-packet one-way delay: 24.645 ms
Loss rate: 0.18%
```

#### Run 4: Report of Sprout — Data Link

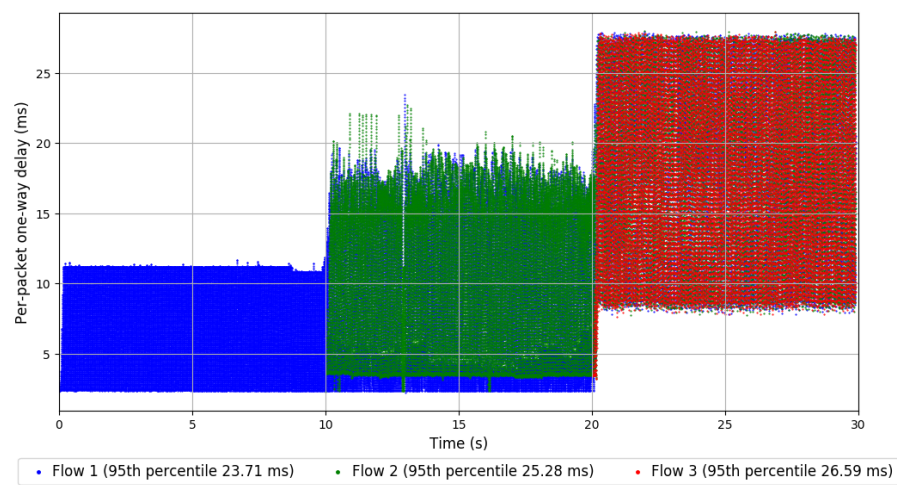
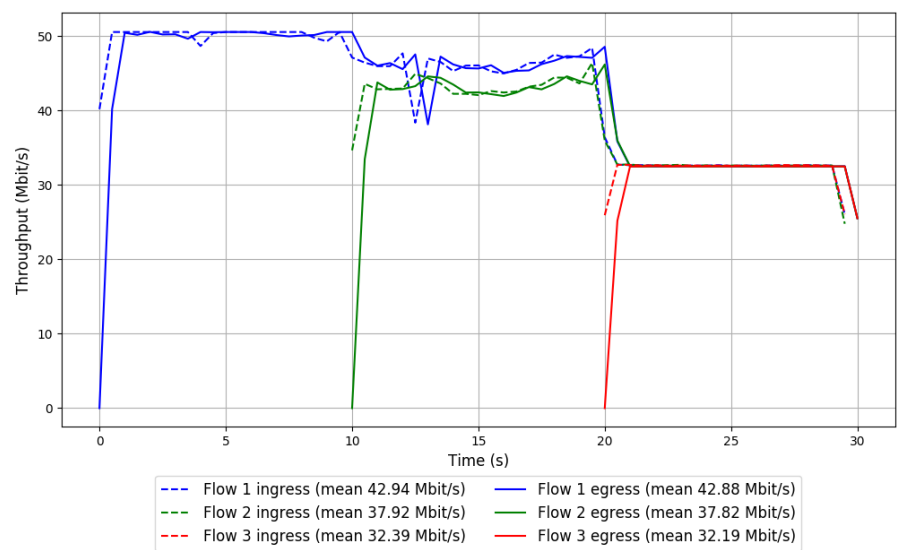


Run 5: Statistics of Sprout

Start at: 2018-11-30 17:05:07  
End at: 2018-11-30 17:05:37  
Local clock offset: -1.927 ms  
Remote clock offset: 0.629 ms

```
# Below is generated by plot.py at 2018-11-30 17:22:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.67 Mbit/s
95th percentile per-packet one-way delay: 25.198 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 42.88 Mbit/s
95th percentile per-packet one-way delay: 23.710 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 37.82 Mbit/s
95th percentile per-packet one-way delay: 25.278 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 32.19 Mbit/s
95th percentile per-packet one-way delay: 26.586 ms
Loss rate: 0.56%
```

Run 5: Report of Sprout — Data Link

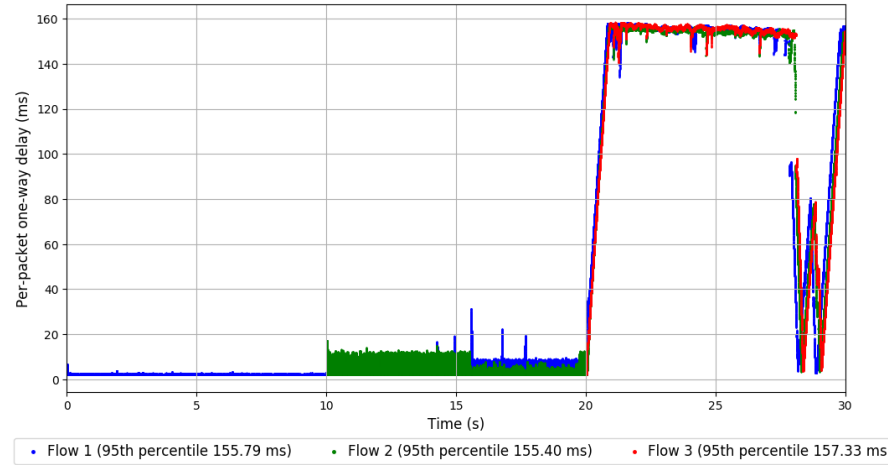
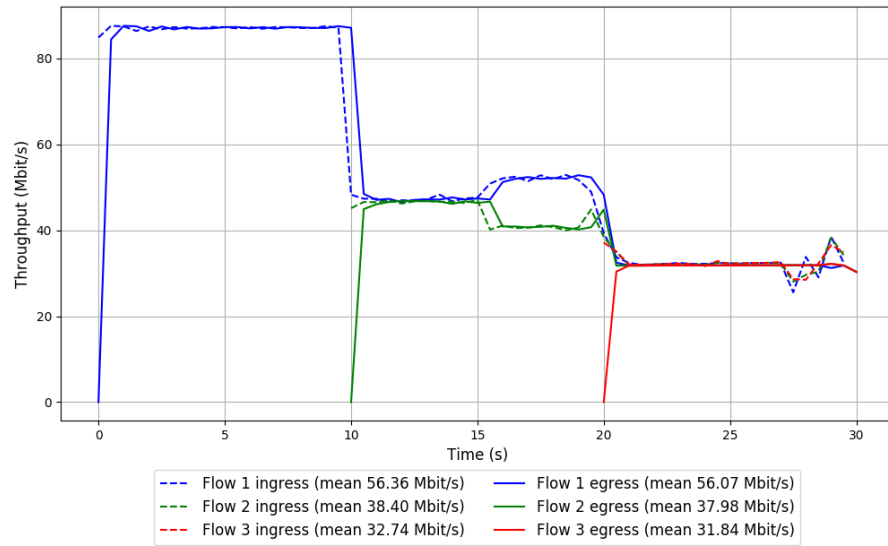


Run 1: Statistics of TaoVA-100x

Start at: 2018-11-30 15:20:00  
End at: 2018-11-30 15:20:30  
Local clock offset: -6.721 ms  
Remote clock offset: -0.446 ms

# Below is generated by plot.py at 2018-11-30 17:23:36  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.94 Mbit/s  
95th percentile per-packet one-way delay: 156.241 ms  
Loss rate: 0.96%  
-- Flow 1:  
Average throughput: 56.07 Mbit/s  
95th percentile per-packet one-way delay: 155.792 ms  
Loss rate: 0.53%  
-- Flow 2:  
Average throughput: 37.98 Mbit/s  
95th percentile per-packet one-way delay: 155.404 ms  
Loss rate: 1.13%  
-- Flow 3:  
Average throughput: 31.84 Mbit/s  
95th percentile per-packet one-way delay: 157.331 ms  
Loss rate: 2.77%

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

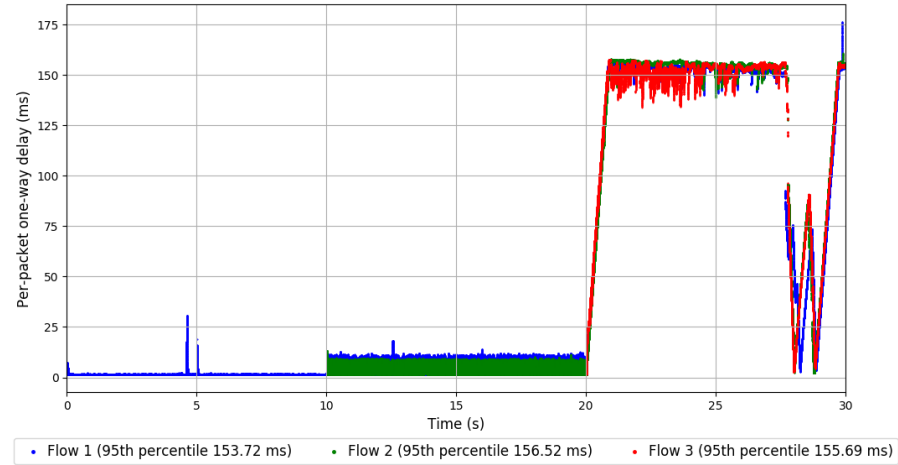
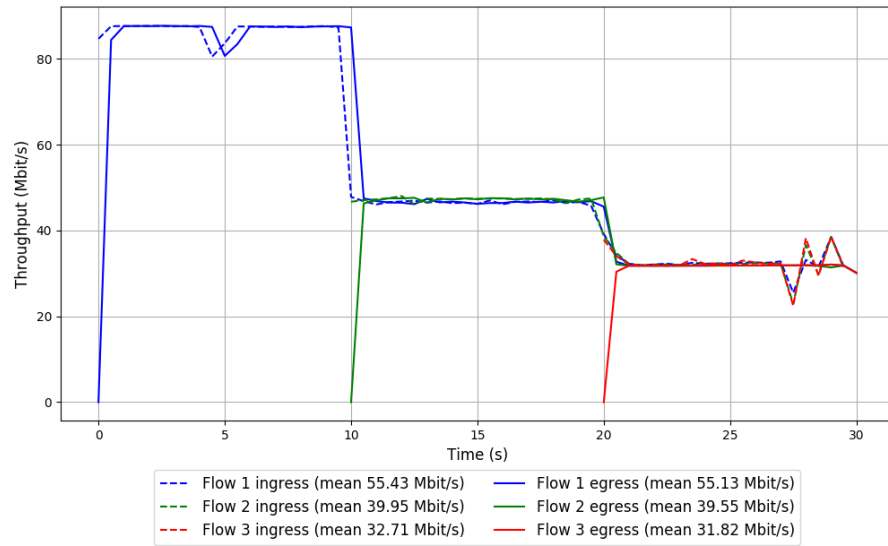


Run 2: Statistics of TaoVA-100x

Start at: 2018-11-30 15:41:57  
End at: 2018-11-30 15:42:27  
Local clock offset: -6.708 ms  
Remote clock offset: -0.297 ms

# Below is generated by plot.py at 2018-11-30 17:23:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.05 Mbit/s  
95th percentile per-packet one-way delay: 155.538 ms  
Loss rate: 0.94%  
-- Flow 1:  
Average throughput: 55.13 Mbit/s  
95th percentile per-packet one-way delay: 153.724 ms  
Loss rate: 0.56%  
-- Flow 2:  
Average throughput: 39.55 Mbit/s  
95th percentile per-packet one-way delay: 156.524 ms  
Loss rate: 1.00%  
-- Flow 3:  
Average throughput: 31.82 Mbit/s  
95th percentile per-packet one-way delay: 155.693 ms  
Loss rate: 2.74%

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





Run 3: Statistics of TaoVA-100x

Start at: 2018-11-30 16:03:53

End at: 2018-11-30 16:04:23

Local clock offset: -2.478 ms

Remote clock offset: 0.013 ms

# Below is generated by plot.py at 2018-11-30 17:23:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.73 Mbit/s

95th percentile per-packet one-way delay: 155.092 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 55.20 Mbit/s

95th percentile per-packet one-way delay: 153.695 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 37.48 Mbit/s

95th percentile per-packet one-way delay: 156.151 ms

Loss rate: 1.16%

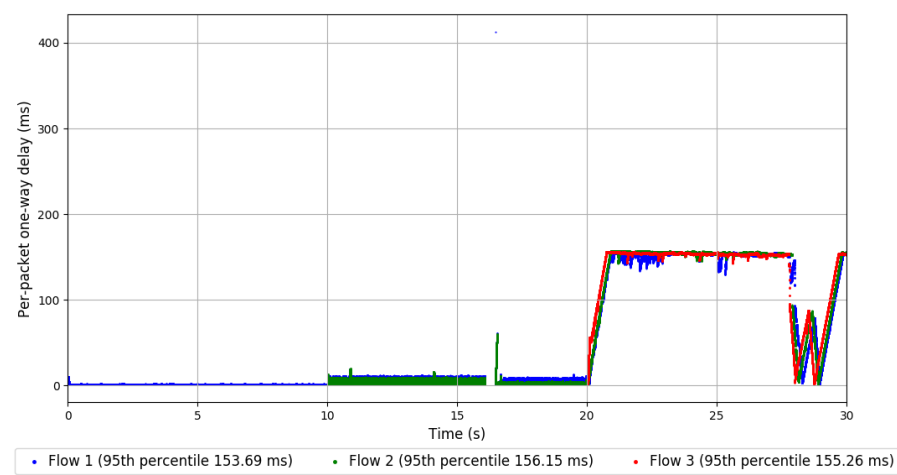
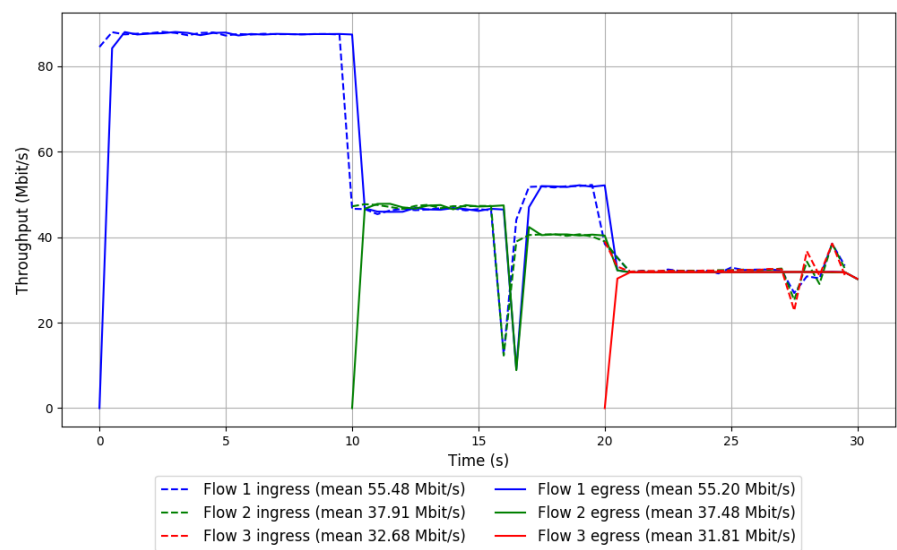
-- Flow 3:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 155.257 ms

Loss rate: 2.71%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-11-30 16:25:52

End at: 2018-11-30 16:26:22

Local clock offset: -5.503 ms

Remote clock offset: 0.258 ms

# Below is generated by plot.py at 2018-11-30 17:23:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.00 Mbit/s

95th percentile per-packet one-way delay: 155.507 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 55.30 Mbit/s

95th percentile per-packet one-way delay: 155.150 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 39.25 Mbit/s

95th percentile per-packet one-way delay: 154.948 ms

Loss rate: 1.15%

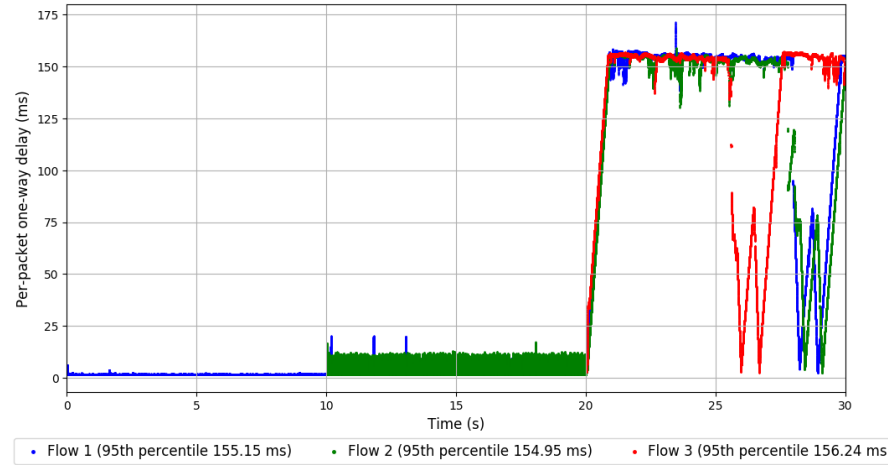
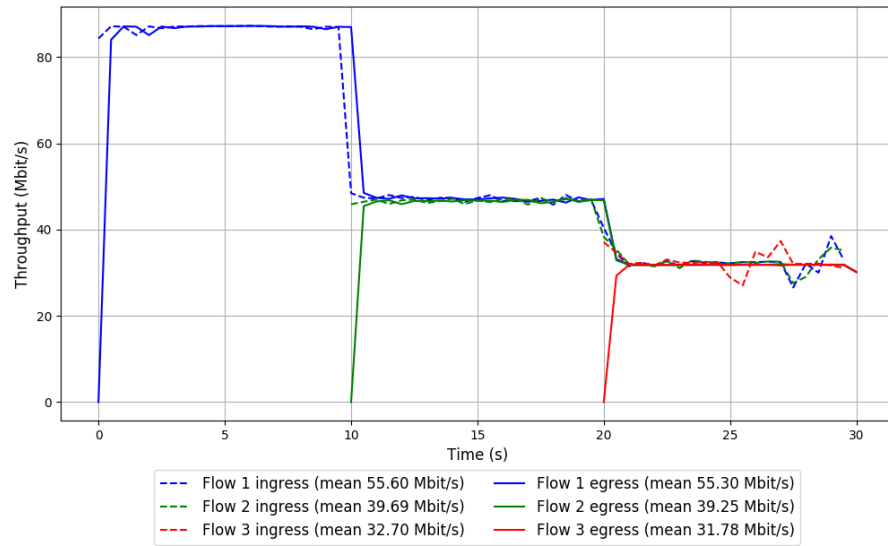
-- Flow 3:

Average throughput: 31.78 Mbit/s

95th percentile per-packet one-way delay: 156.237 ms

Loss rate: 2.86%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-11-30 16:47:50

End at: 2018-11-30 16:48:20

Local clock offset: -4.851 ms

Remote clock offset: 0.489 ms

# Below is generated by plot.py at 2018-11-30 17:23:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.04 Mbit/s

95th percentile per-packet one-way delay: 155.023 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 55.35 Mbit/s

95th percentile per-packet one-way delay: 154.363 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 39.24 Mbit/s

95th percentile per-packet one-way delay: 155.273 ms

Loss rate: 1.11%

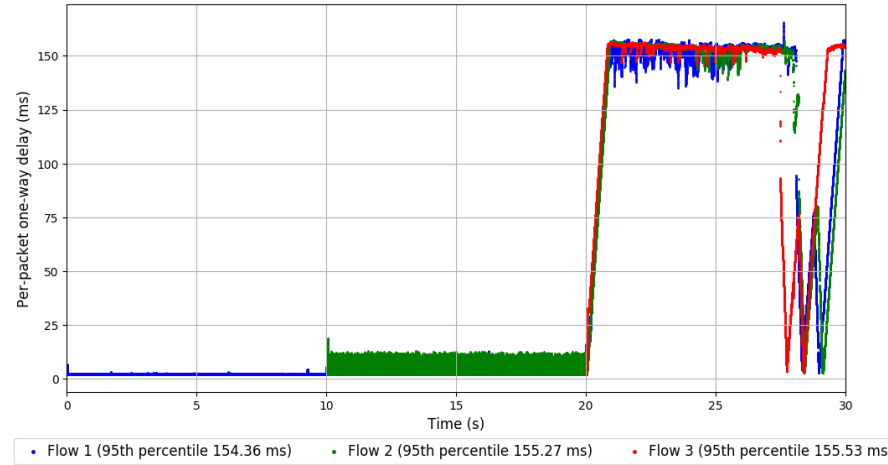
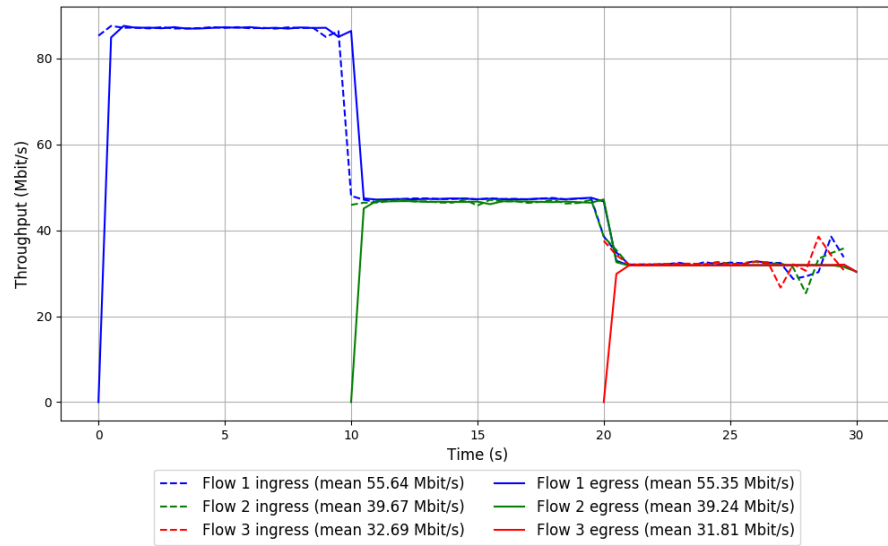
-- Flow 3:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 155.533 ms

Loss rate: 2.74%

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

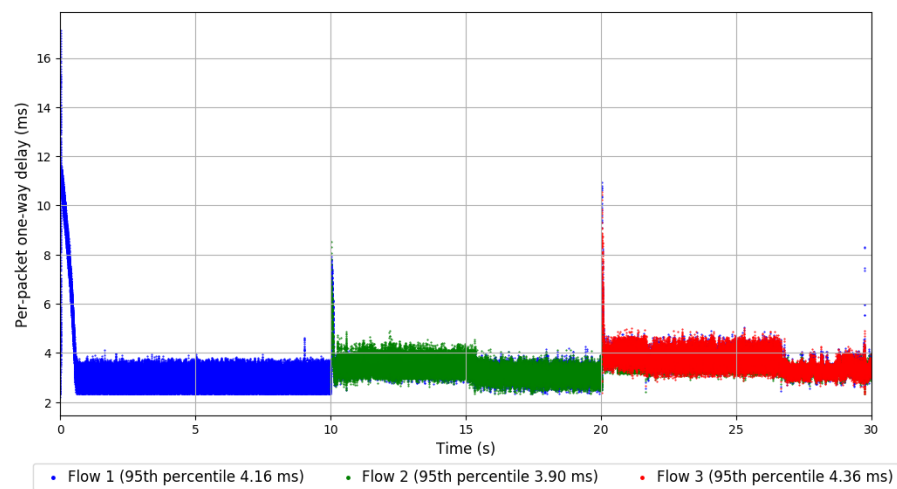
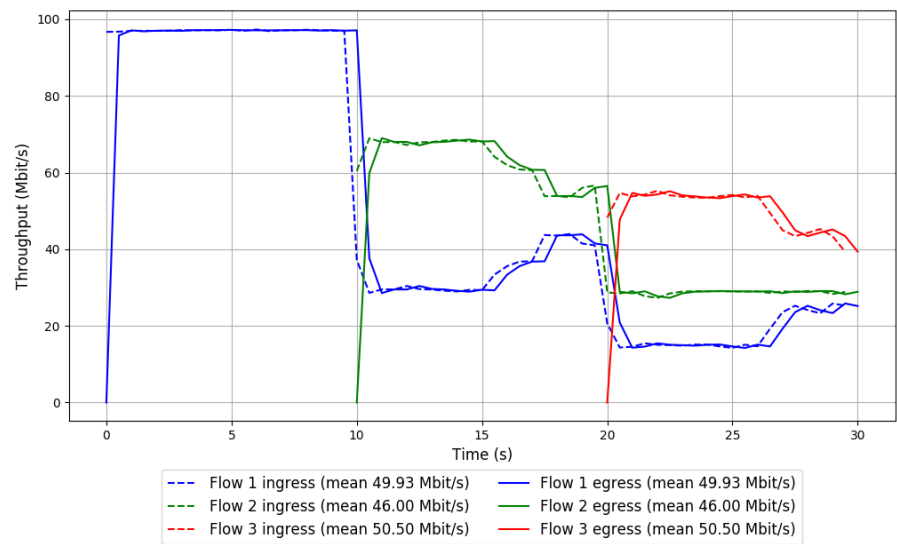


Run 1: Statistics of TCP Vegas

Start at: 2018-11-30 15:29:19  
End at: 2018-11-30 15:29:49  
Local clock offset: -6.146 ms  
Remote clock offset: -0.375 ms

# Below is generated by plot.py at 2018-11-30 17:23:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.35 Mbit/s  
95th percentile per-packet one-way delay: 4.164 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 49.93 Mbit/s  
95th percentile per-packet one-way delay: 4.157 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 46.00 Mbit/s  
95th percentile per-packet one-way delay: 3.904 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 50.50 Mbit/s  
95th percentile per-packet one-way delay: 4.362 ms  
Loss rate: 0.03%

Run 1: Report of TCP Vegas — Data Link



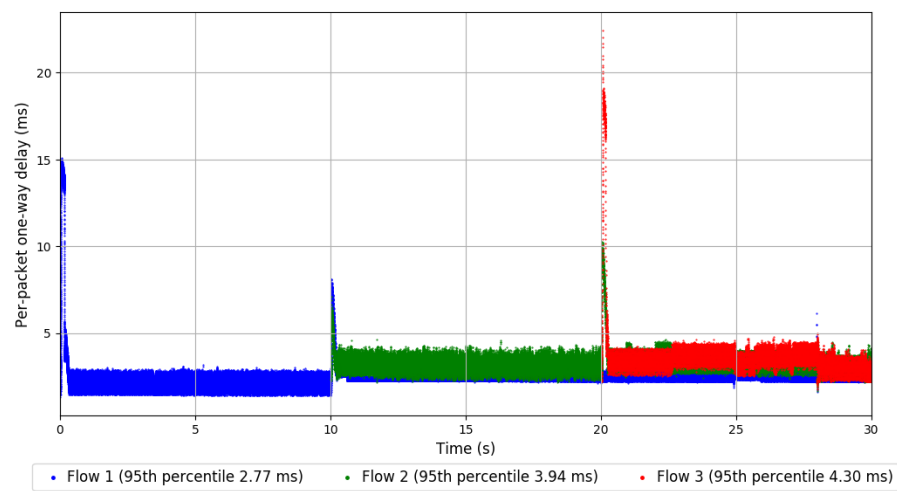
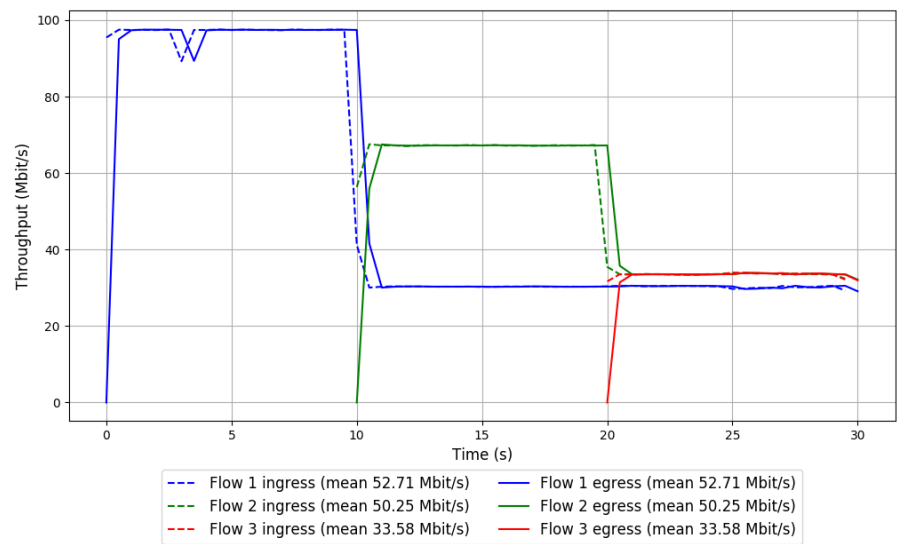


Run 2: Statistics of TCP Vegas

Start at: 2018-11-30 15:51:17  
End at: 2018-11-30 15:51:47  
Local clock offset: -4.418 ms  
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2018-11-30 17:23:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.32 Mbit/s  
95th percentile per-packet one-way delay: 3.911 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 52.71 Mbit/s  
95th percentile per-packet one-way delay: 2.771 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 50.25 Mbit/s  
95th percentile per-packet one-way delay: 3.938 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 33.58 Mbit/s  
95th percentile per-packet one-way delay: 4.298 ms  
Loss rate: 0.06%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-11-30 16:13:12

End at: 2018-11-30 16:13:42

Local clock offset: -0.963 ms

Remote clock offset: 0.152 ms

# Below is generated by plot.py at 2018-11-30 17:23:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.35 Mbit/s

95th percentile per-packet one-way delay: 4.662 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 52.56 Mbit/s

95th percentile per-packet one-way delay: 3.662 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 48.44 Mbit/s

95th percentile per-packet one-way delay: 4.143 ms

Loss rate: 0.02%

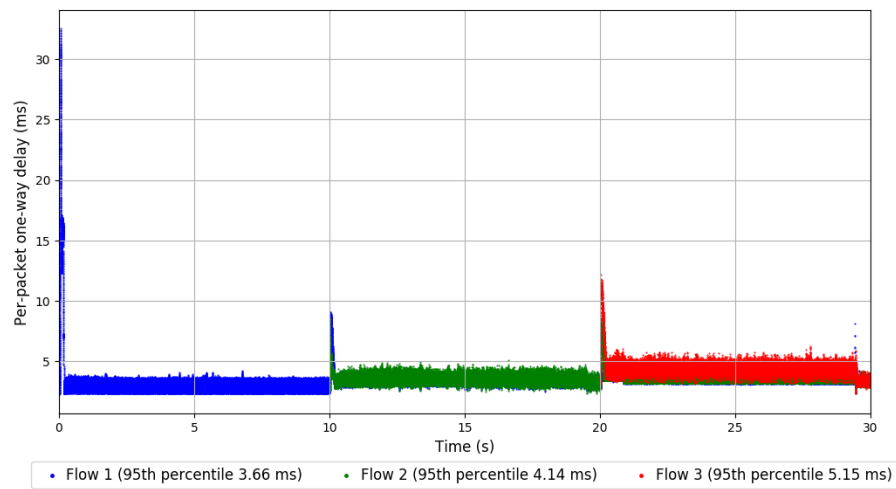
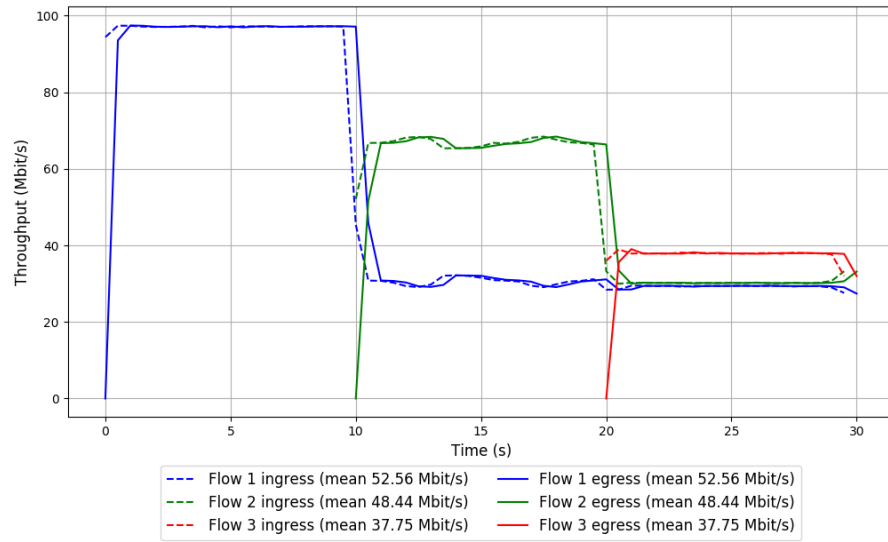
-- Flow 3:

Average throughput: 37.75 Mbit/s

95th percentile per-packet one-way delay: 5.151 ms

Loss rate: 0.04%

### Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-11-30 16:35:12

End at: 2018-11-30 16:35:42

Local clock offset: -5.765 ms

Remote clock offset: 0.472 ms

# Below is generated by plot.py at 2018-11-30 17:24:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.44 Mbit/s

95th percentile per-packet one-way delay: 4.786 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 53.42 Mbit/s

95th percentile per-packet one-way delay: 3.699 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 47.80 Mbit/s

95th percentile per-packet one-way delay: 4.610 ms

Loss rate: 0.02%

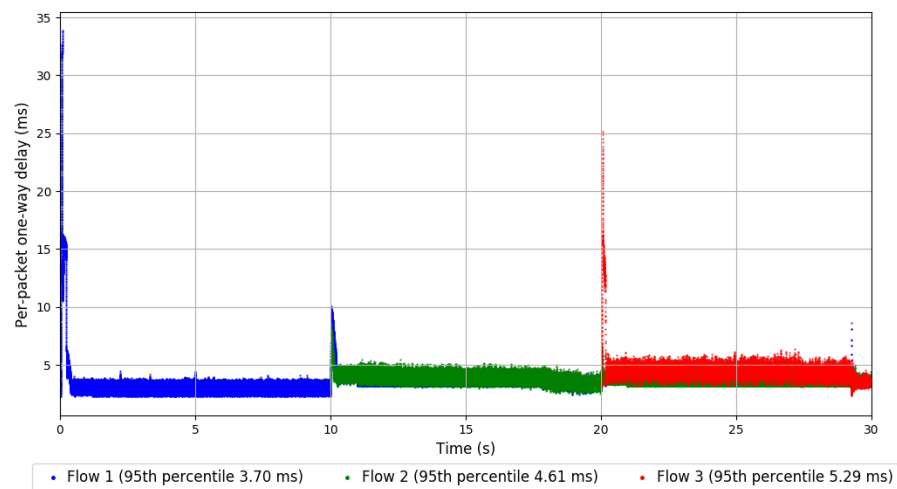
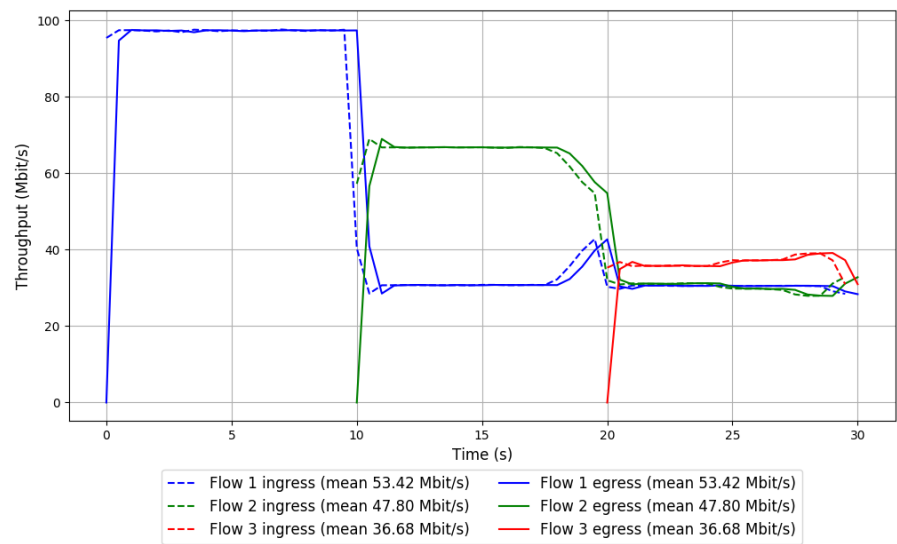
-- Flow 3:

Average throughput: 36.68 Mbit/s

95th percentile per-packet one-way delay: 5.290 ms

Loss rate: 0.03%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-11-30 16:57:10

End at: 2018-11-30 16:57:40

Local clock offset: -3.491 ms

Remote clock offset: 0.501 ms

# Below is generated by plot.py at 2018-11-30 17:24:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.44 Mbit/s

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

Loss rate: 0.02%

-- Flow 1:

Average throughput: 59.36 Mbit/s

95th percentile per-packet one-way delay: 3.039 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 35.00 Mbit/s

95th percentile per-packet one-way delay: 3.526 ms

Loss rate: 0.01%

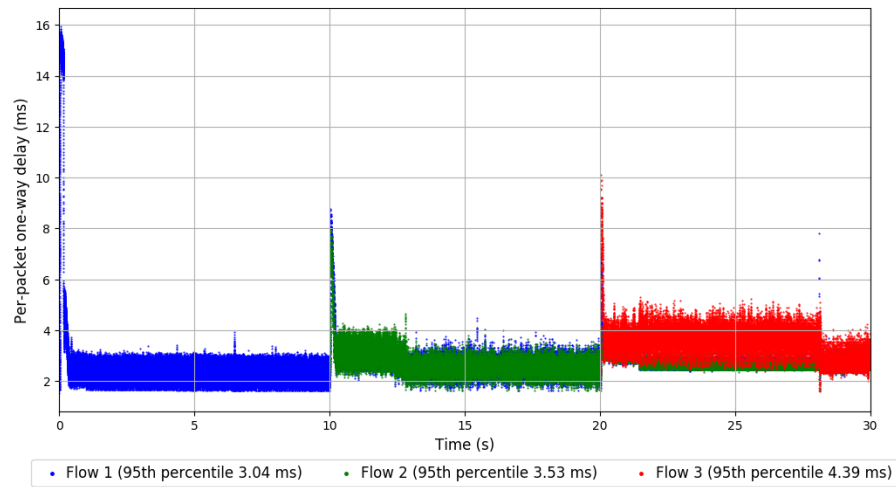
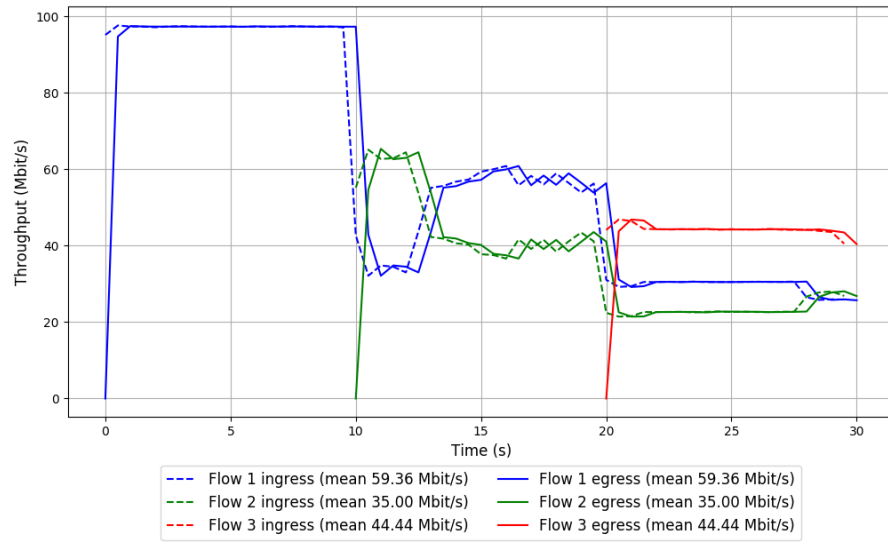
-- Flow 3:

Average throughput: 44.44 Mbit/s

95th percentile per-packet one-way delay: 4.395 ms

Loss rate: 0.05%

# Run 5: Report of TCP Vegas — Data Link



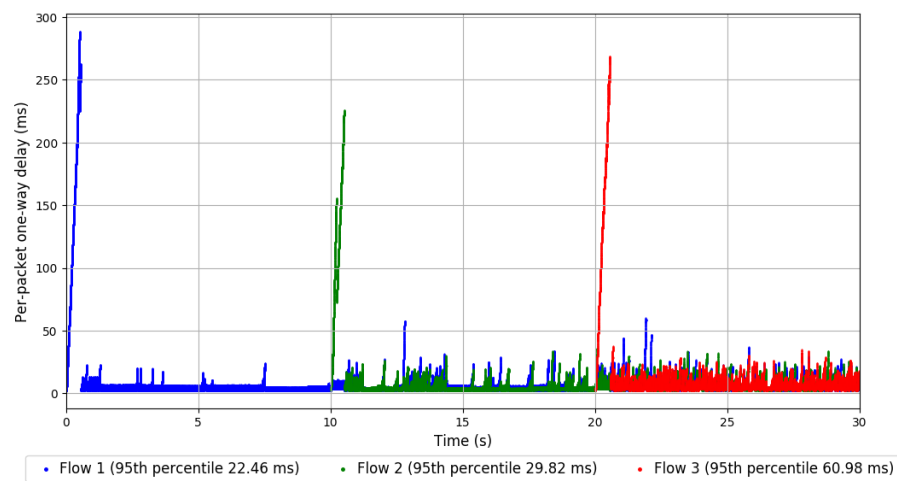
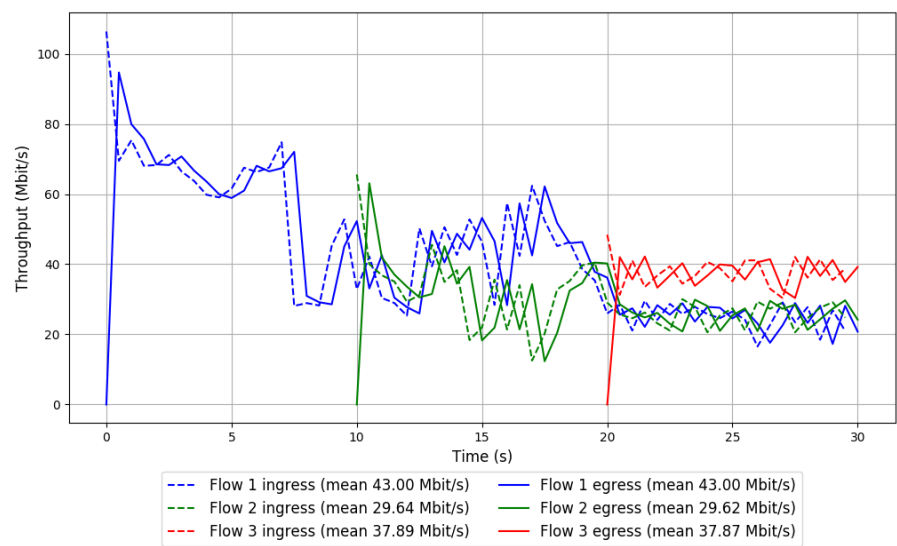


Run 1: Statistics of Verus

Start at: 2018-11-30 15:38:25  
End at: 2018-11-30 15:38:55  
Local clock offset: -5.892 ms  
Remote clock offset: -0.311 ms

# Below is generated by plot.py at 2018-11-30 17:24:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.32 Mbit/s  
95th percentile per-packet one-way delay: 26.019 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 43.00 Mbit/s  
95th percentile per-packet one-way delay: 22.464 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 29.62 Mbit/s  
95th percentile per-packet one-way delay: 29.820 ms  
Loss rate: 0.07%  
-- Flow 3:  
Average throughput: 37.87 Mbit/s  
95th percentile per-packet one-way delay: 60.975 ms  
Loss rate: 0.06%

Run 1: Report of Verus — Data Link

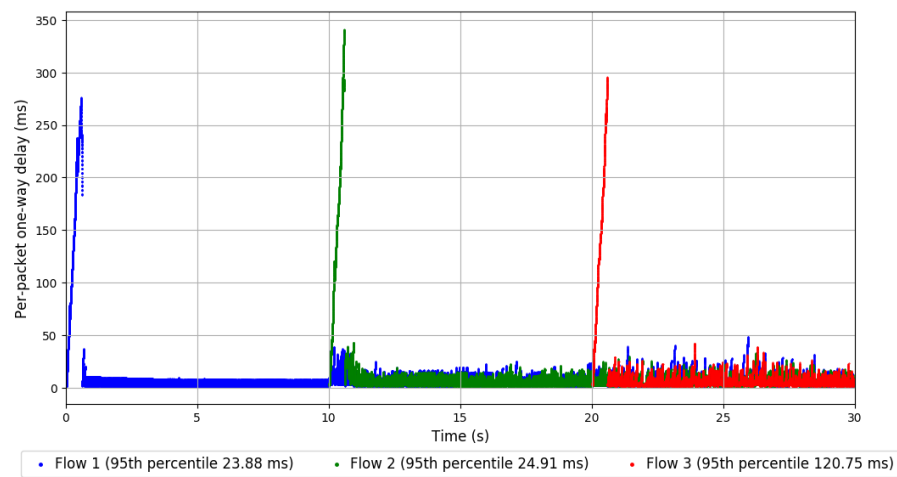
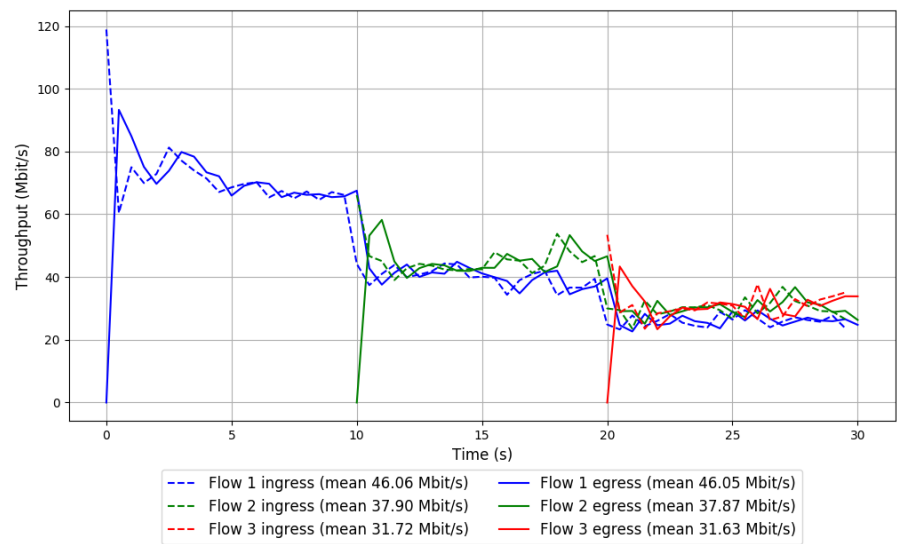


Run 2: Statistics of Verus

Start at: 2018-11-30 16:00:21  
End at: 2018-11-30 16:00:51  
Local clock offset: -2.916 ms  
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2018-11-30 17:24:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 81.78 Mbit/s  
95th percentile per-packet one-way delay: 27.854 ms  
Loss rate: 0.07%  
-- Flow 1:  
Average throughput: 46.05 Mbit/s  
95th percentile per-packet one-way delay: 23.879 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 37.87 Mbit/s  
95th percentile per-packet one-way delay: 24.915 ms  
Loss rate: 0.06%  
-- Flow 3:  
Average throughput: 31.63 Mbit/s  
95th percentile per-packet one-way delay: 120.751 ms  
Loss rate: 0.34%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-11-30 16:22:18

End at: 2018-11-30 16:22:48

Local clock offset: -4.727 ms

Remote clock offset: 0.323 ms

# Below is generated by plot.py at 2018-11-30 17:24:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 80.88 Mbit/s

95th percentile per-packet one-way delay: 26.389 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 50.33 Mbit/s

95th percentile per-packet one-way delay: 24.577 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 31.53 Mbit/s

95th percentile per-packet one-way delay: 19.435 ms

Loss rate: 0.29%

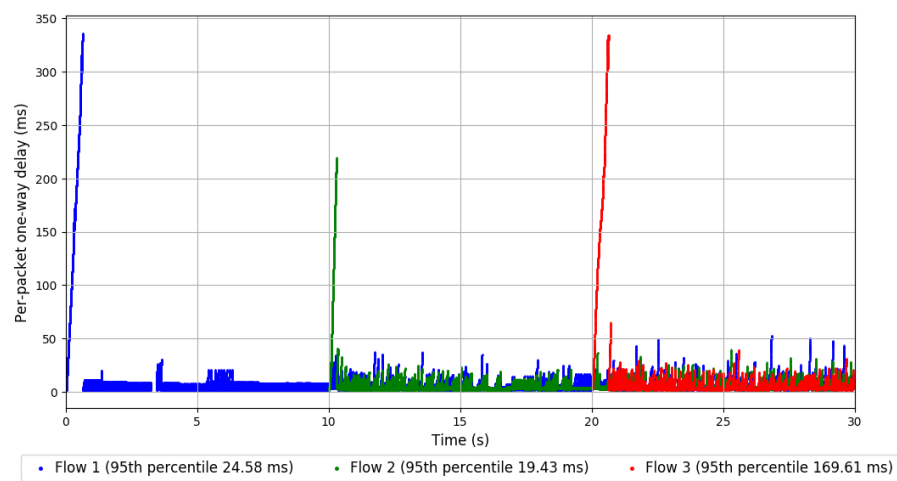
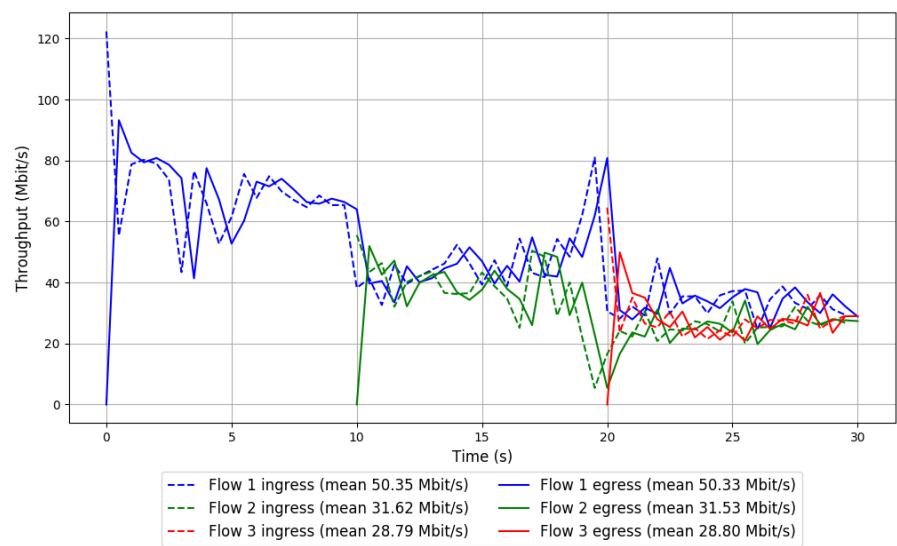
-- Flow 3:

Average throughput: 28.80 Mbit/s

95th percentile per-packet one-way delay: 169.611 ms

Loss rate: 0.05%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-11-30 16:44:17

End at: 2018-11-30 16:44:47

Local clock offset: -6.9 ms

Remote clock offset: 0.577 ms

# Below is generated by plot.py at 2018-11-30 17:24:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 72.66 Mbit/s

95th percentile per-packet one-way delay: 32.062 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 34.88 Mbit/s

95th percentile per-packet one-way delay: 41.033 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 40.47 Mbit/s

95th percentile per-packet one-way delay: 21.220 ms

Loss rate: 0.04%

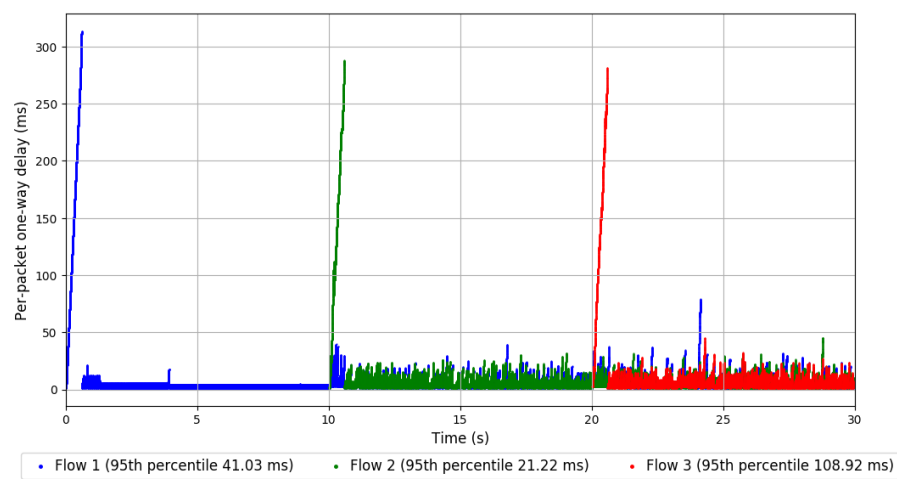
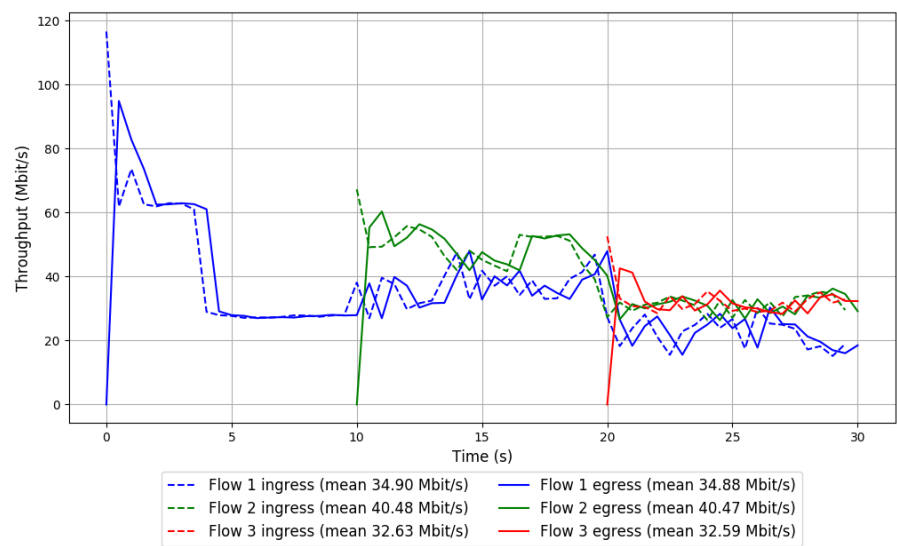
-- Flow 3:

Average throughput: 32.59 Mbit/s

95th percentile per-packet one-way delay: 108.925 ms

Loss rate: 0.17%

Run 4: Report of Verus — Data Link



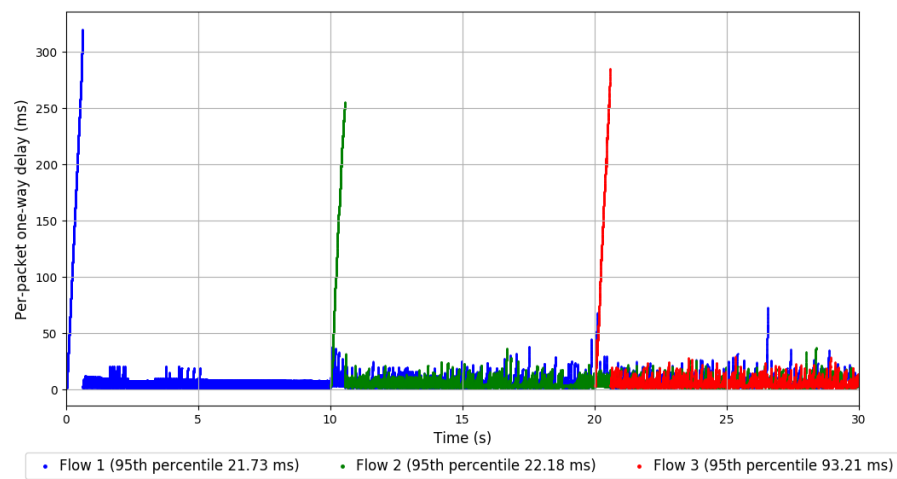
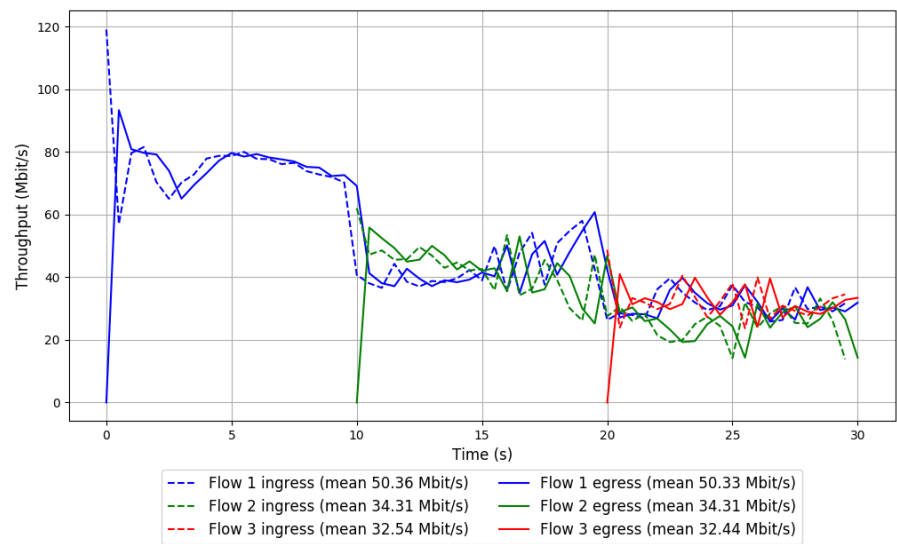


Run 5: Statistics of Verus

Start at: 2018-11-30 17:06:15  
End at: 2018-11-30 17:06:45  
Local clock offset: -2.589 ms  
Remote clock offset: 0.63 ms

# Below is generated by plot.py at 2018-11-30 17:24:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.96 Mbit/s  
95th percentile per-packet one-way delay: 23.411 ms  
Loss rate: 0.07%  
-- Flow 1:  
Average throughput: 50.33 Mbit/s  
95th percentile per-packet one-way delay: 21.730 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 34.31 Mbit/s  
95th percentile per-packet one-way delay: 22.185 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 32.44 Mbit/s  
95th percentile per-packet one-way delay: 93.206 ms  
Loss rate: 0.33%

Run 5: Report of Verus — Data Link

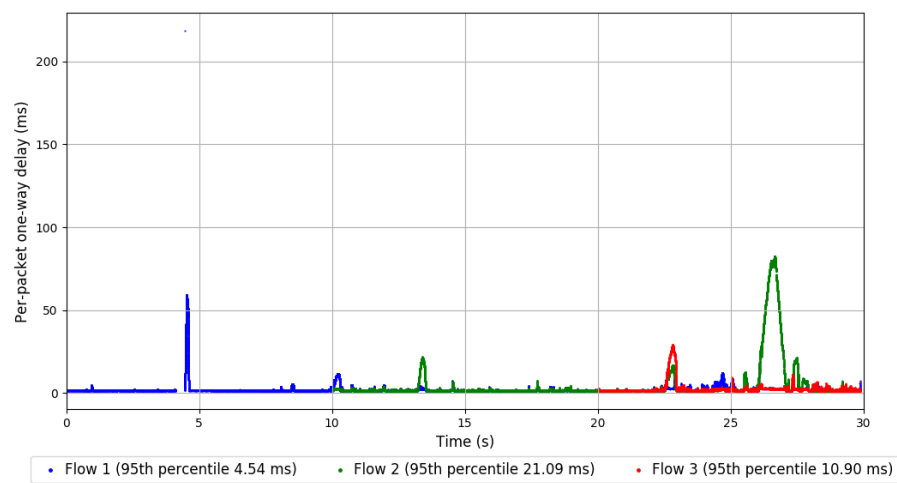
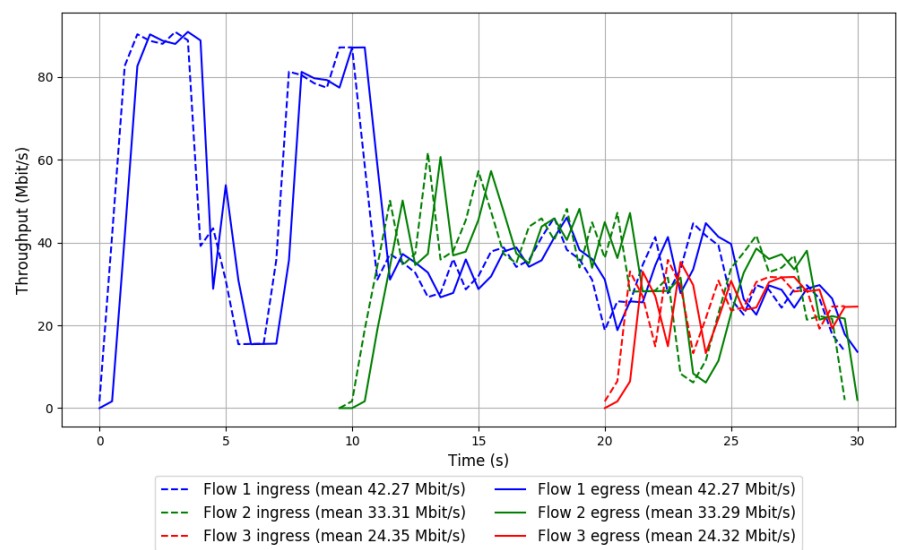


Run 1: Statistics of PCC-Vivace

Start at: 2018-11-30 15:21:12  
End at: 2018-11-30 15:21:42  
Local clock offset: -7.443 ms  
Remote clock offset: -0.451 ms

# Below is generated by plot.py at 2018-11-30 17:24:49  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 72.45 Mbit/s  
95th percentile per-packet one-way delay: 9.760 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 42.27 Mbit/s  
95th percentile per-packet one-way delay: 4.540 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 33.29 Mbit/s  
95th percentile per-packet one-way delay: 21.086 ms  
Loss rate: 0.07%  
-- Flow 3:  
Average throughput: 24.32 Mbit/s  
95th percentile per-packet one-way delay: 10.898 ms  
Loss rate: 0.11%

Run 1: Report of PCC-Vivace — Data Link

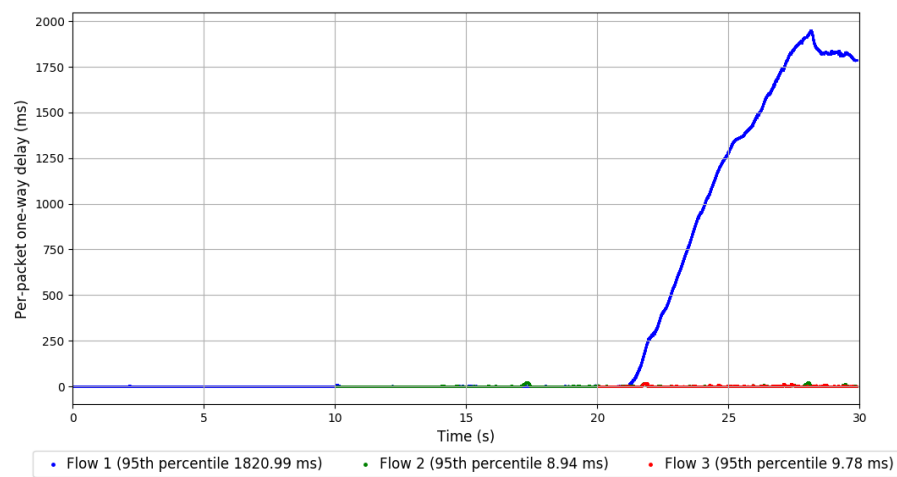
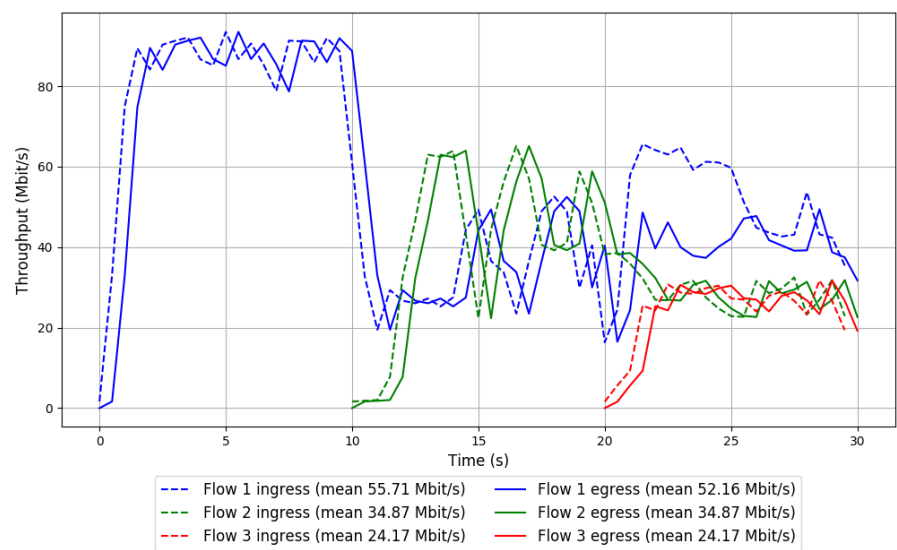


Run 2: Statistics of PCC-Vivace

Start at: 2018-11-30 15:43:09  
End at: 2018-11-30 15:43:39  
Local clock offset: -5.843 ms  
Remote clock offset: -0.216 ms

# Below is generated by plot.py at 2018-11-30 17:25:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 83.33 Mbit/s  
95th percentile per-packet one-way delay: 1656.507 ms  
Loss rate: 4.11%  
-- Flow 1:  
Average throughput: 52.16 Mbit/s  
95th percentile per-packet one-way delay: 1820.989 ms  
Loss rate: 6.38%  
-- Flow 2:  
Average throughput: 34.87 Mbit/s  
95th percentile per-packet one-way delay: 8.941 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 24.17 Mbit/s  
95th percentile per-packet one-way delay: 9.775 ms  
Loss rate: 0.07%

Run 2: Report of PCC-Vivace — Data Link

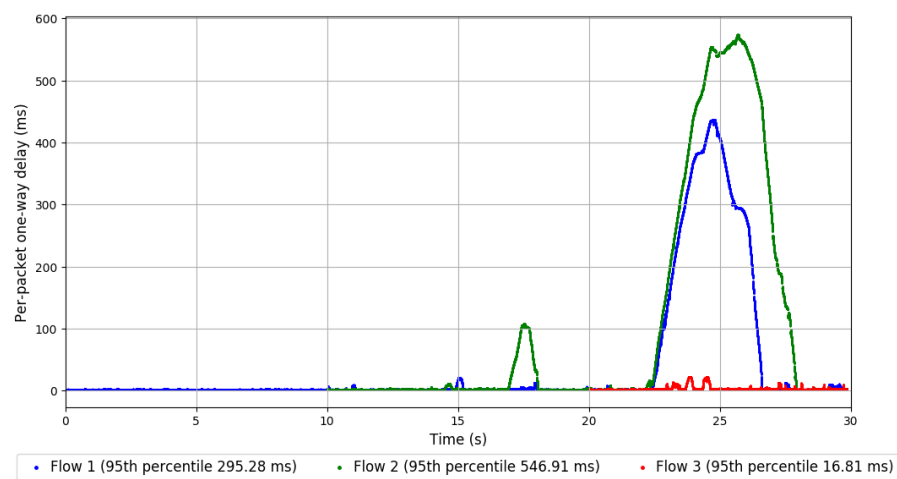
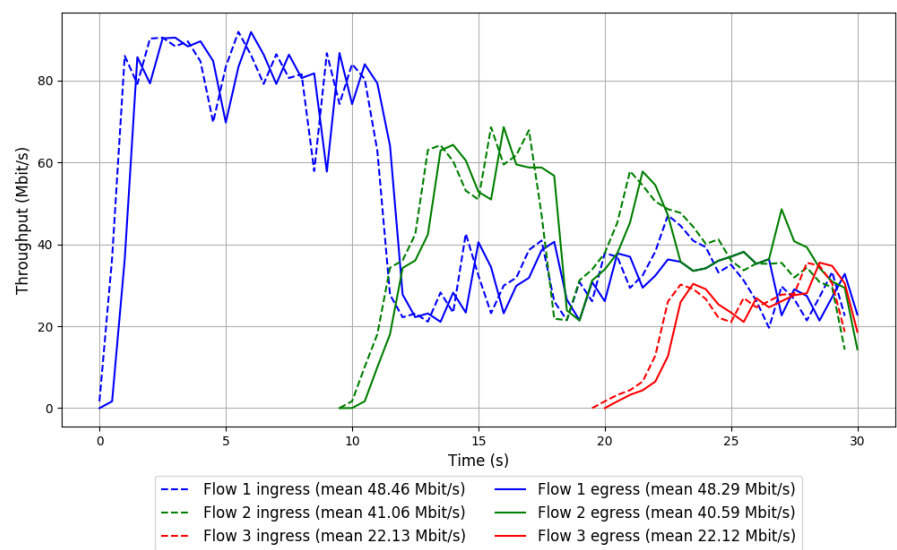


Run 3: Statistics of PCC-Vivace

Start at: 2018-11-30 16:05:05  
End at: 2018-11-30 16:05:35  
Local clock offset: -1.596 ms  
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2018-11-30 17:25:12  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.60 Mbit/s  
95th percentile per-packet one-way delay: 404.220 ms  
Loss rate: 0.60%  
-- Flow 1:  
Average throughput: 48.29 Mbit/s  
95th percentile per-packet one-way delay: 295.278 ms  
Loss rate: 0.36%  
-- Flow 2:  
Average throughput: 40.59 Mbit/s  
95th percentile per-packet one-way delay: 546.913 ms  
Loss rate: 1.17%  
-- Flow 3:  
Average throughput: 22.12 Mbit/s  
95th percentile per-packet one-way delay: 16.808 ms  
Loss rate: 0.07%

Run 3: Report of PCC-Vivace — Data Link





Run 4: Statistics of PCC-Vivace

Start at: 2018-11-30 16:27:04

End at: 2018-11-30 16:27:34

Local clock offset: -4.865 ms

Remote clock offset: 0.374 ms

# Below is generated by plot.py at 2018-11-30 17:25:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.86 Mbit/s

95th percentile per-packet one-way delay: 9.245 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 59.07 Mbit/s

95th percentile per-packet one-way delay: 7.557 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 29.41 Mbit/s

95th percentile per-packet one-way delay: 10.787 ms

Loss rate: 0.04%

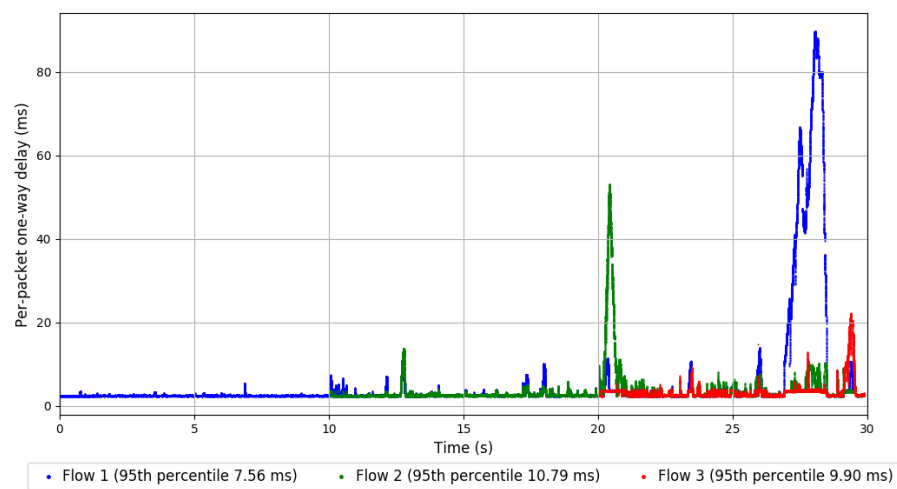
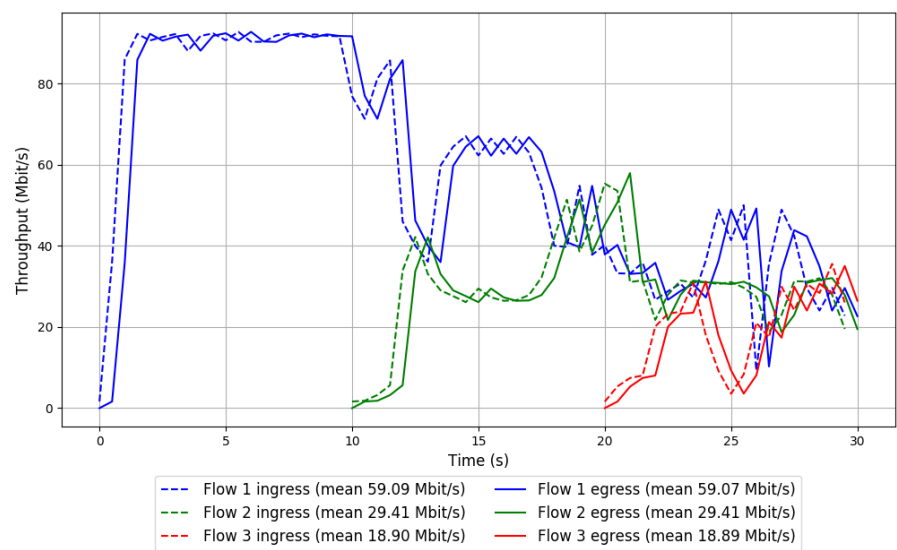
-- Flow 3:

Average throughput: 18.89 Mbit/s

95th percentile per-packet one-way delay: 9.900 ms

Loss rate: 0.09%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-11-30 16:49:02

End at: 2018-11-30 16:49:32

Local clock offset: -5.156 ms

Remote clock offset: 0.502 ms

# Below is generated by plot.py at 2018-11-30 17:25:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.67 Mbit/s

95th percentile per-packet one-way delay: 1769.612 ms

Loss rate: 3.16%

-- Flow 1:

Average throughput: 59.20 Mbit/s

95th percentile per-packet one-way delay: 1802.808 ms

Loss rate: 4.80%

-- Flow 2:

Average throughput: 35.64 Mbit/s

95th percentile per-packet one-way delay: 5.464 ms

Loss rate: 0.02%

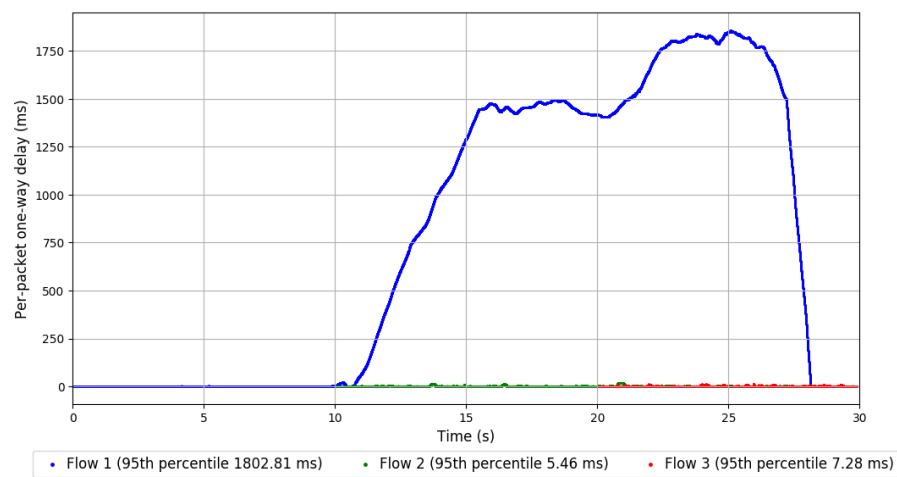
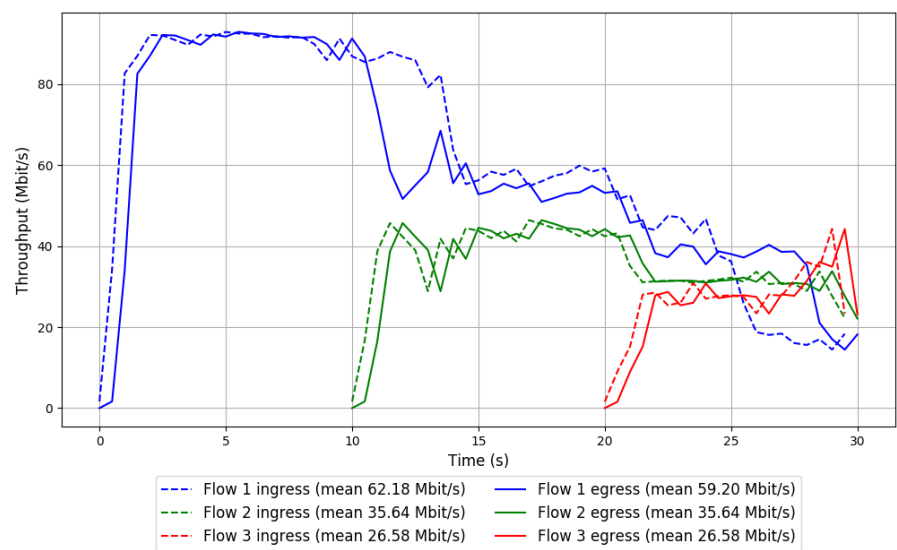
-- Flow 3:

Average throughput: 26.58 Mbit/s

95th percentile per-packet one-way delay: 7.277 ms

Loss rate: 0.04%

Run 5: Report of PCC-Vivace — Data Link

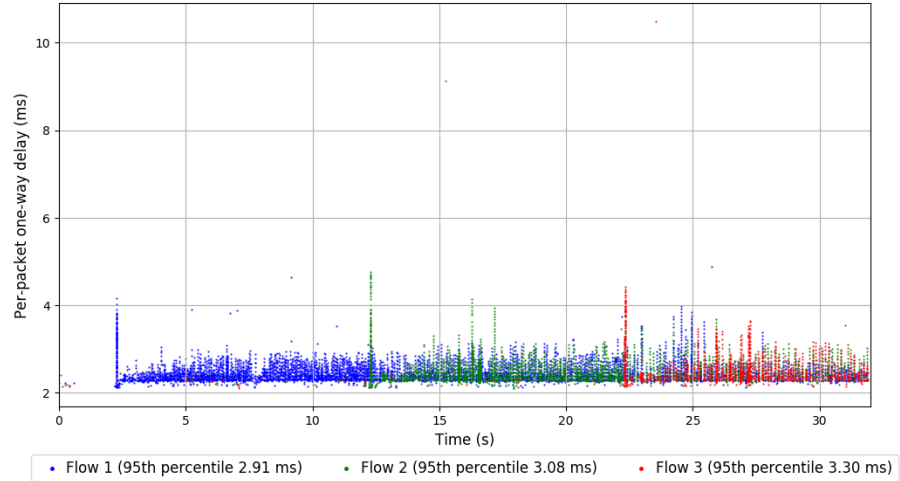
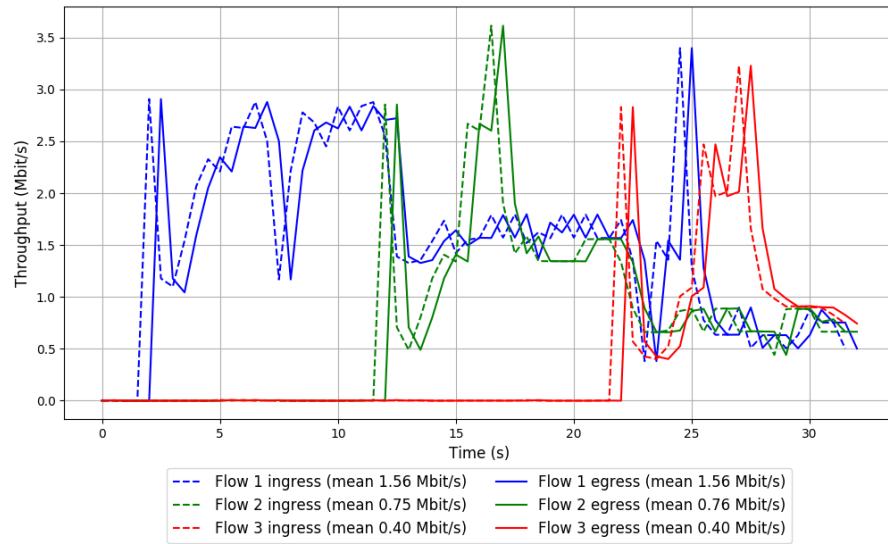


Run 1: Statistics of WebRTC media

Start at: 2018-11-30 15:33:59  
End at: 2018-11-30 15:34:29  
Local clock offset: -6.048 ms  
Remote clock offset: -0.283 ms

# Below is generated by plot.py at 2018-11-30 17:25:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.70 Mbit/s  
95th percentile per-packet one-way delay: 3.041 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.56 Mbit/s  
95th percentile per-packet one-way delay: 2.913 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.76 Mbit/s  
95th percentile per-packet one-way delay: 3.085 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 3.303 ms  
Loss rate: 0.00%

# Run 1: Report of WebRTC media — Data Link

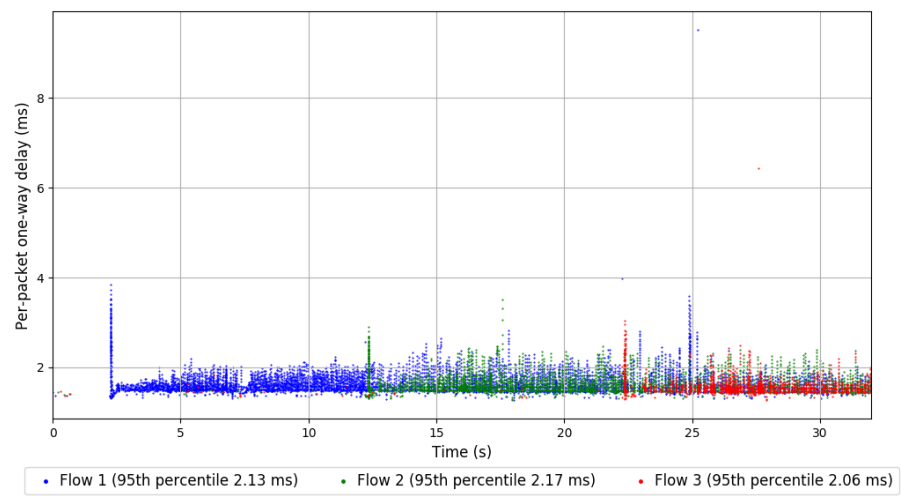
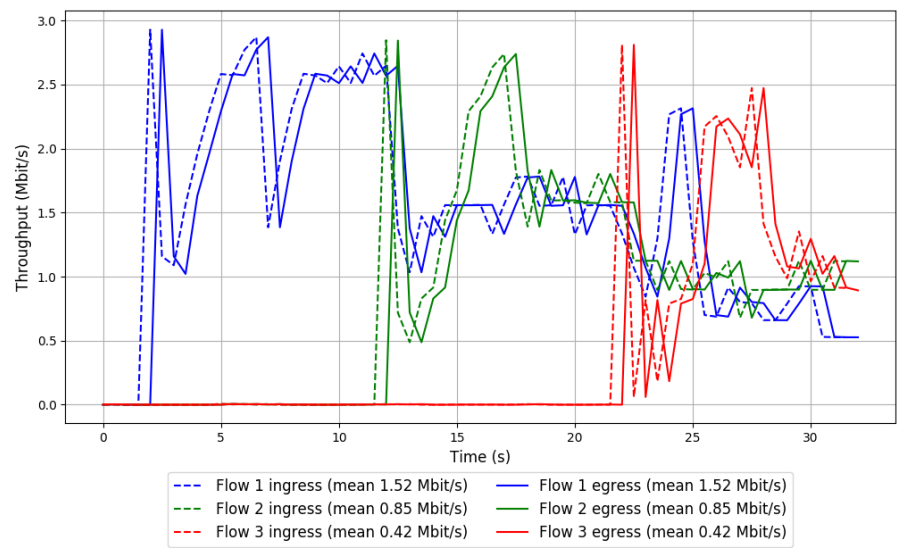


Run 2: Statistics of WebRTC media

Start at: 2018-11-30 15:55:56  
End at: 2018-11-30 15:56:26  
Local clock offset: -3.473 ms  
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-11-30 17:25:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.77 Mbit/s  
95th percentile per-packet one-way delay: 2.143 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 1.52 Mbit/s  
95th percentile per-packet one-way delay: 2.129 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.85 Mbit/s  
95th percentile per-packet one-way delay: 2.167 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.42 Mbit/s  
95th percentile per-packet one-way delay: 2.057 ms  
Loss rate: 0.07%

Run 2: Report of WebRTC media — Data Link





Run 3: Statistics of WebRTC media

Start at: 2018-11-30 16:17:52

End at: 2018-11-30 16:18:22

Local clock offset: -3.291 ms

Remote clock offset: 0.206 ms

# Below is generated by plot.py at 2018-11-30 17:25:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 2.589 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 2.531 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 2.615 ms

Loss rate: 0.00%

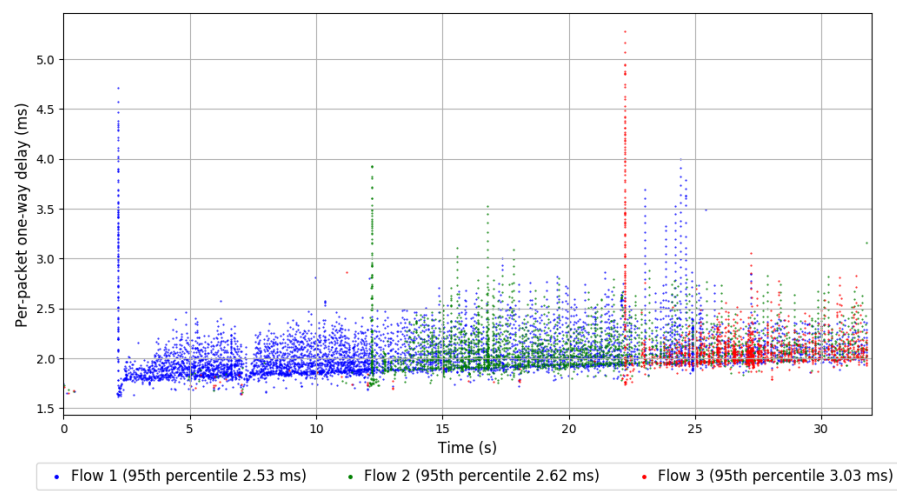
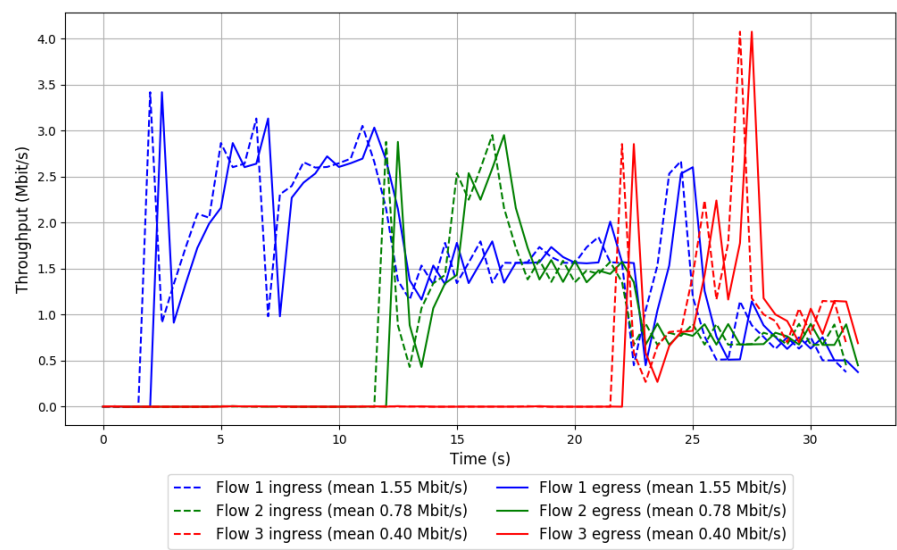
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 3.031 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-11-30 16:39:51

End at: 2018-11-30 16:40:21

Local clock offset: -5.946 ms

Remote clock offset: 0.426 ms

# Below is generated by plot.py at 2018-11-30 17:25:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 3.245 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 3.191 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 3.143 ms

Loss rate: 0.00%

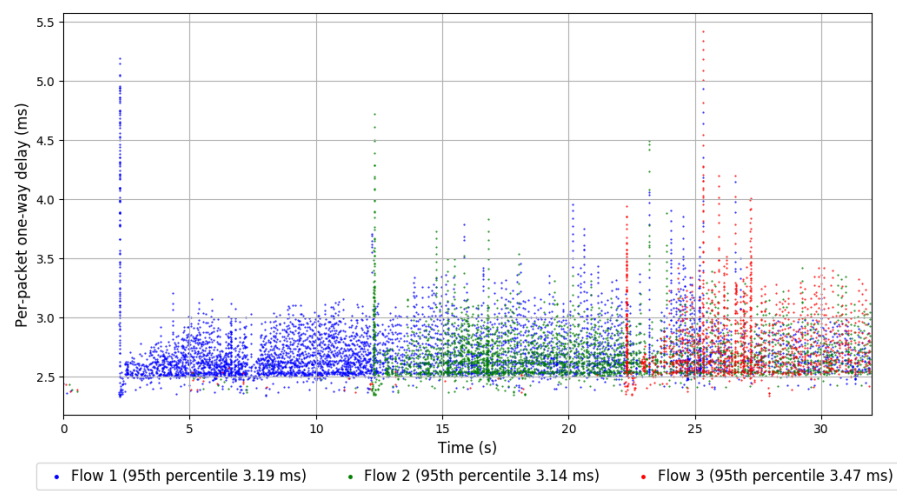
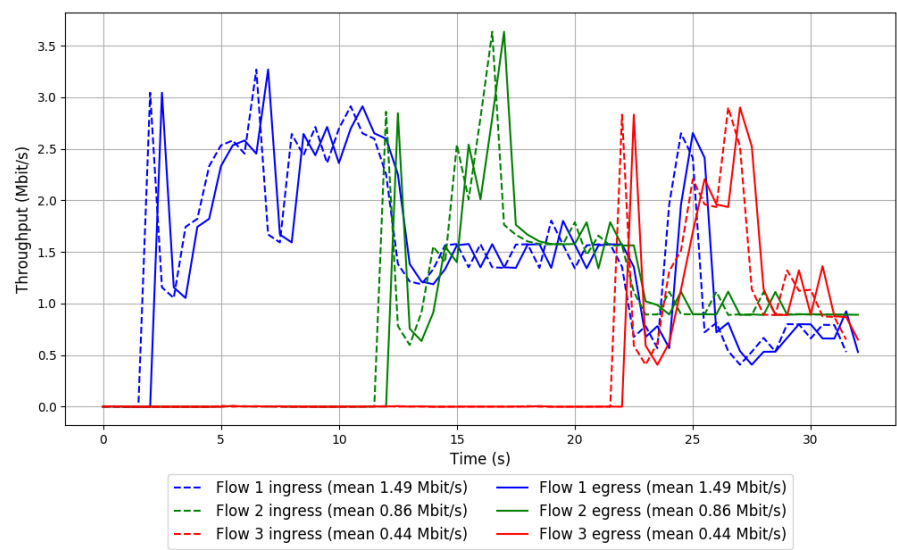
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 3.472 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-11-30 17:01:49

End at: 2018-11-30 17:02:19

Local clock offset: -2.98 ms

Remote clock offset: 0.653 ms

# Below is generated by plot.py at 2018-11-30 17:25:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.72 Mbit/s

95th percentile per-packet one-way delay: 2.186 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 2.200 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.76 Mbit/s

95th percentile per-packet one-way delay: 2.073 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 2.283 ms

Loss rate: 0.01%

## Run 5: Report of WebRTC media — Data Link

