

## Pantheon Report

Generated at 2018-12-11 14:16:08 (UTC).

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

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:

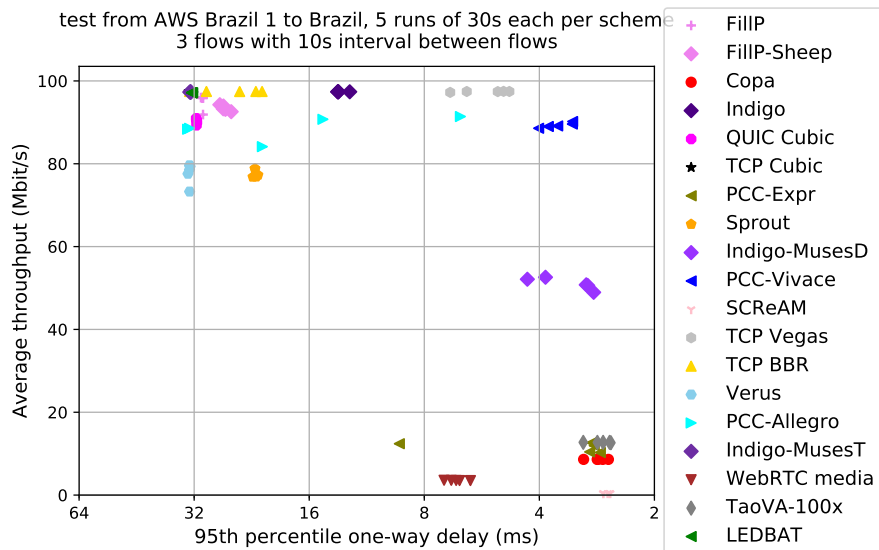
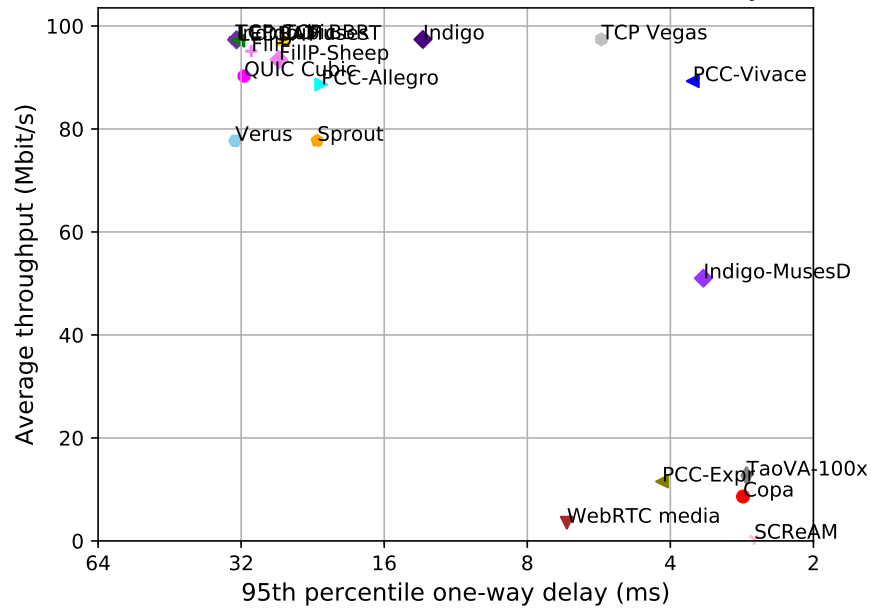
```
Linux 4.15.0-1029-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ c654af0b7d59d4ef4b914cfac404e1fc2e96dc68
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfc58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/muses-refactored @ 31f8f0ba8ef8b1da76c2bc0cd0a7850c33ff64fb
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
```

```
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS Brazil 1 to Brazil, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	70.12	30.13	21.81	25.88	25.43	29.62	0.11	0.07	0.53
Copa	5	0.00	11.80	3.00	2.68	2.85	2.69	98.03	68.13	81.81
TCP Cubic	5	65.07	35.87	25.61	32.81	32.98	33.03	0.04	0.04	0.04
FillP	5	46.88	54.88	35.30	29.98	30.52	30.60	13.45	19.67	42.71
FillP-Sheep	5	54.22	35.01	48.06	24.08	27.07	29.43	0.99	1.36	3.85
Indigo	5	47.27	42.68	66.87	11.75	13.26	13.35	0.00	0.00	0.00
Indigo-MusesD	5	26.39	24.63	24.93	3.14	3.38	3.88	0.00	0.00	0.00
Indigo-MusesT	5	57.97	39.88	42.62	32.74	32.71	32.68	44.12	28.22	17.97
LEDBAT	5	62.51	37.62	28.98	32.41	32.61	32.64	0.03	0.05	0.09
PCC-Allegro	5	72.00	16.94	16.28	19.45	23.31	26.21	0.14	0.28	0.64
PCC-Expr	5	6.75	5.01	4.42	5.80	2.81	2.78	31.62	29.28	25.99
QUIC Cubic	5	58.90	33.57	27.53	31.49	31.60	31.81	0.12	0.16	0.24
SCReAM	5	0.22	0.22	0.22	2.67	2.66	2.67	0.00	0.00	0.00
Sprout	5	42.09	37.39	32.50	20.80	22.67	23.49	0.00	0.00	0.00
TaoVA-100x	5	6.84	7.99	1.67	2.72	2.86	3.82	83.90	80.92	89.55
TCP Vegas	5	46.76	48.16	55.83	7.93	4.81	5.06	0.00	0.00	0.00
Verus	5	45.38	33.95	29.70	31.58	33.00	33.10	17.58	22.18	37.73
PCC-Vivace	5	58.40	33.17	26.75	3.08	4.18	5.13	0.00	0.00	0.00
WebRTC media	5	1.93	1.25	0.37	6.36	6.79	6.99	0.02	0.06	0.00



Run 1: Statistics of TCP BBR

Start at: 2018-12-11 12:36:09

End at: 2018-12-11 12:36:39

Local clock offset: -5.806 ms

Remote clock offset: 0.095 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 29.720 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 76.59 Mbit/s

95th percentile per-packet one-way delay: 29.589 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 25.18 Mbit/s

95th percentile per-packet one-way delay: 28.436 ms

Loss rate: 0.05%

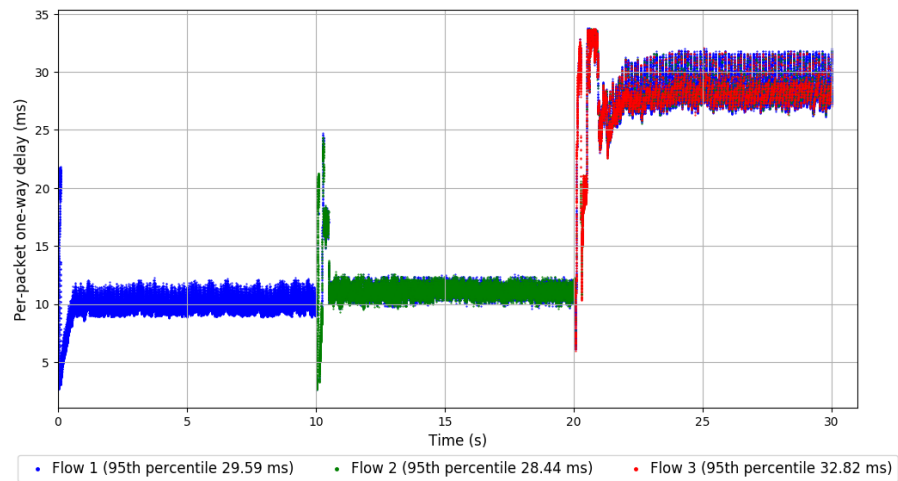
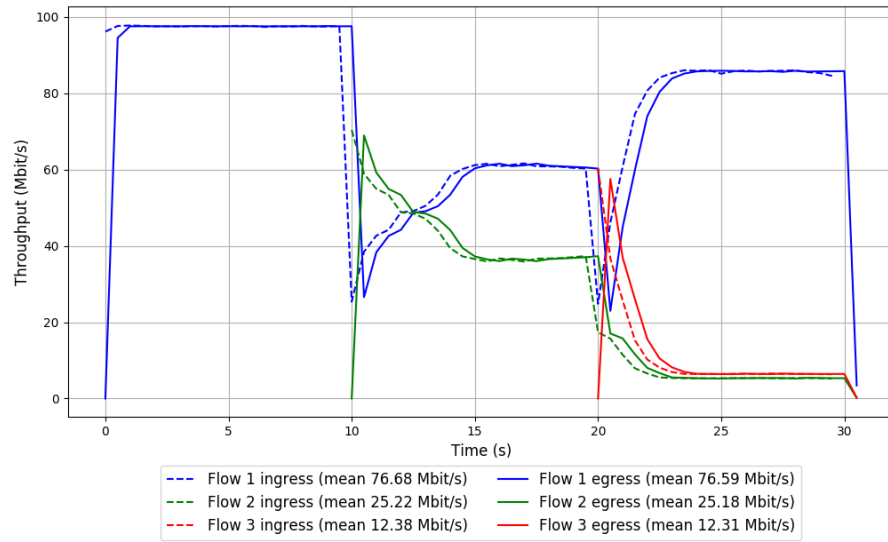
-- Flow 3:

Average throughput: 12.31 Mbit/s

95th percentile per-packet one-way delay: 32.819 ms

Loss rate: 0.47%

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



Run 2: Statistics of TCP BBR

Start at: 2018-12-11 12:57:45

End at: 2018-12-11 12:58:15

Local clock offset: -5.818 ms

Remote clock offset: 0.19 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 22.066 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 71.70 Mbit/s

95th percentile per-packet one-way delay: 22.094 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.38 Mbit/s

95th percentile per-packet one-way delay: 21.217 ms

Loss rate: 0.00%

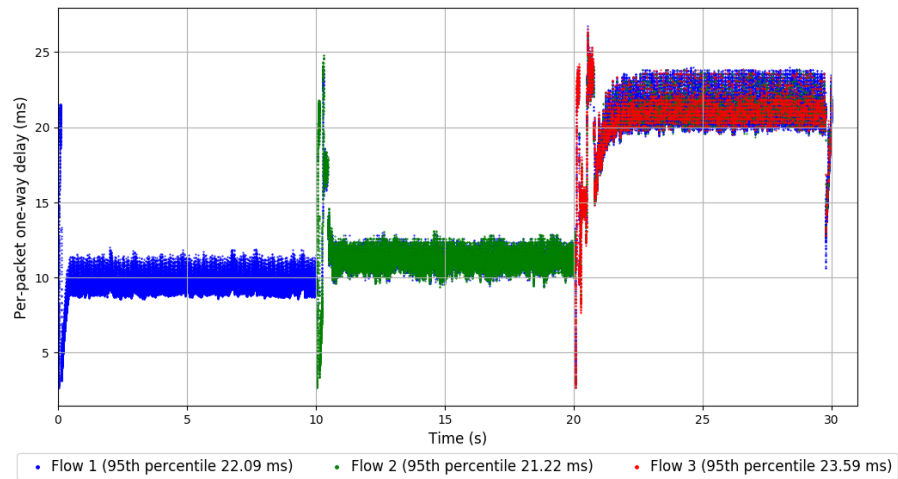
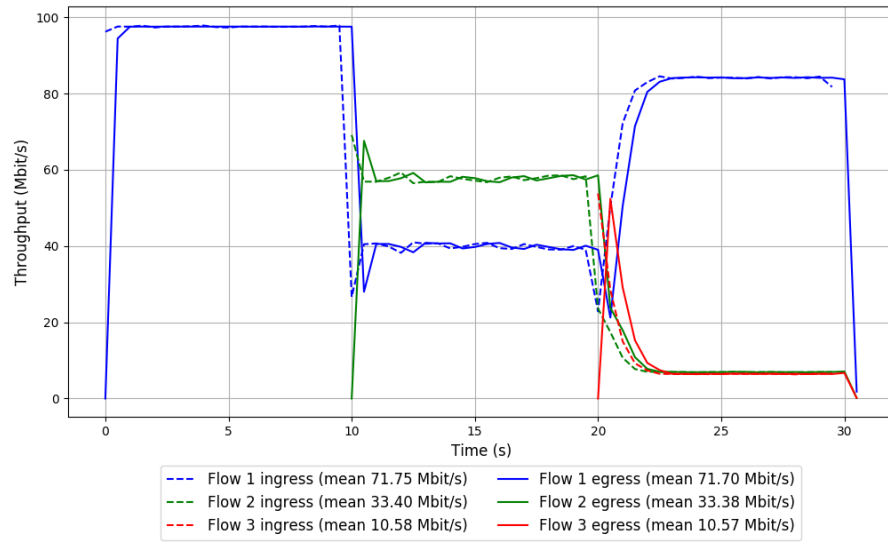
-- Flow 3:

Average throughput: 10.57 Mbit/s

95th percentile per-packet one-way delay: 23.588 ms

Loss rate: 0.00%

## Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-12-11 13:19:23

End at: 2018-12-11 13:19:53

Local clock offset: -2.988 ms

Remote clock offset: 1.506 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 21.255 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 60.53 Mbit/s

95th percentile per-packet one-way delay: 20.790 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 33.49 Mbit/s

95th percentile per-packet one-way delay: 21.267 ms

Loss rate: 0.01%

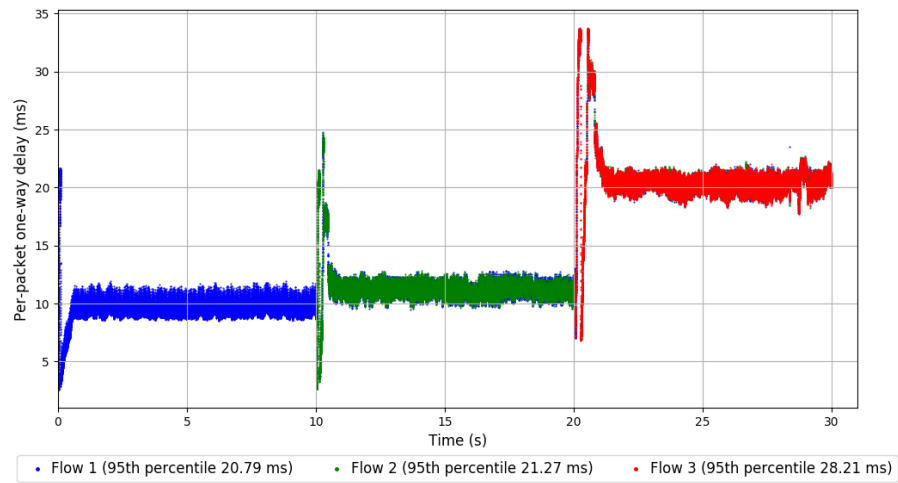
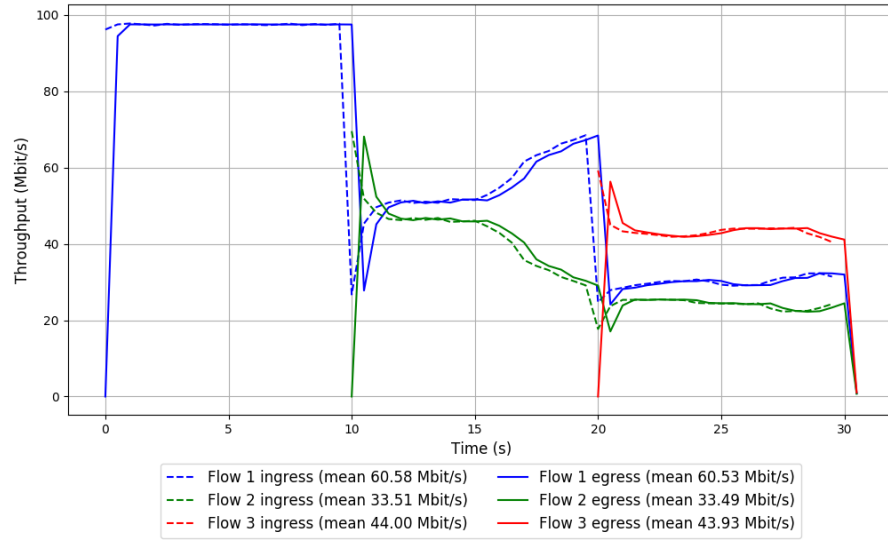
-- Flow 3:

Average throughput: 43.93 Mbit/s

95th percentile per-packet one-way delay: 28.206 ms

Loss rate: 0.05%

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



Run 4: Statistics of TCP BBR

Start at: 2018-12-11 13:41:00

End at: 2018-12-11 13:41:30

Local clock offset: -1.692 ms

Remote clock offset: 2.032 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 32.886 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 70.37 Mbit/s

95th percentile per-packet one-way delay: 32.737 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 28.54 Mbit/s

95th percentile per-packet one-way delay: 32.645 ms

Loss rate: 0.30%

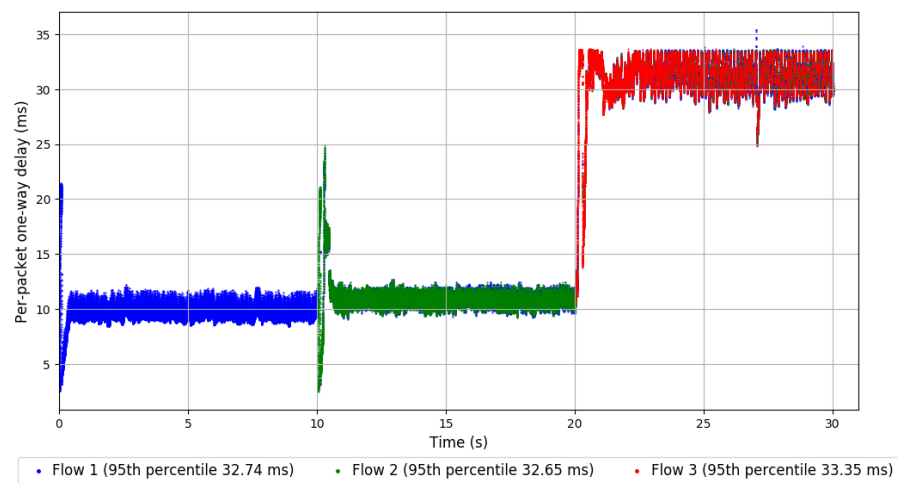
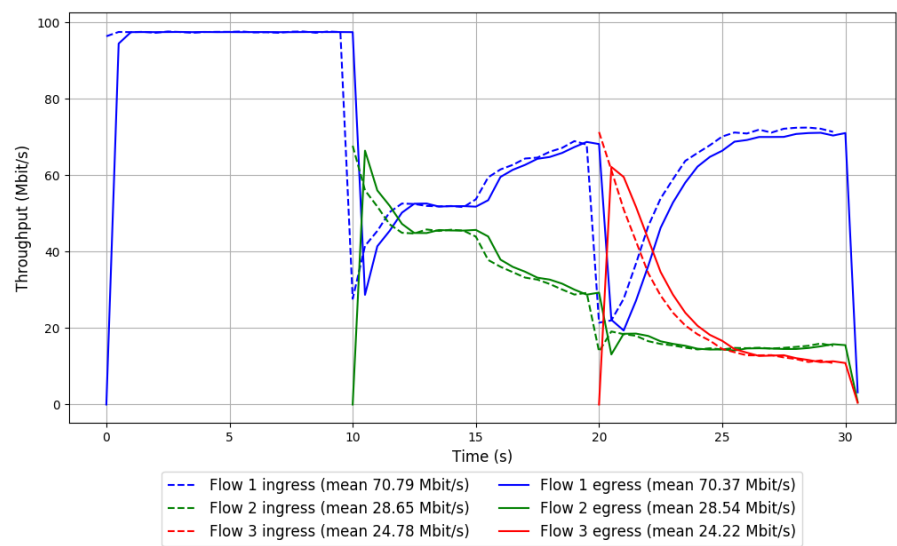
-- Flow 3:

Average throughput: 24.22 Mbit/s

95th percentile per-packet one-way delay: 33.350 ms

Loss rate: 2.05%

Run 4: Report of TCP BBR — Data Link





Run 5: Statistics of TCP BBR

Start at: 2018-12-11 14:02:38

End at: 2018-12-11 14:03:08

Local clock offset: -2.321 ms

Remote clock offset: 2.274 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.44 Mbit/s

95th percentile per-packet one-way delay: 24.330 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 71.42 Mbit/s

95th percentile per-packet one-way delay: 24.206 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 30.07 Mbit/s

95th percentile per-packet one-way delay: 23.602 ms

Loss rate: 0.01%

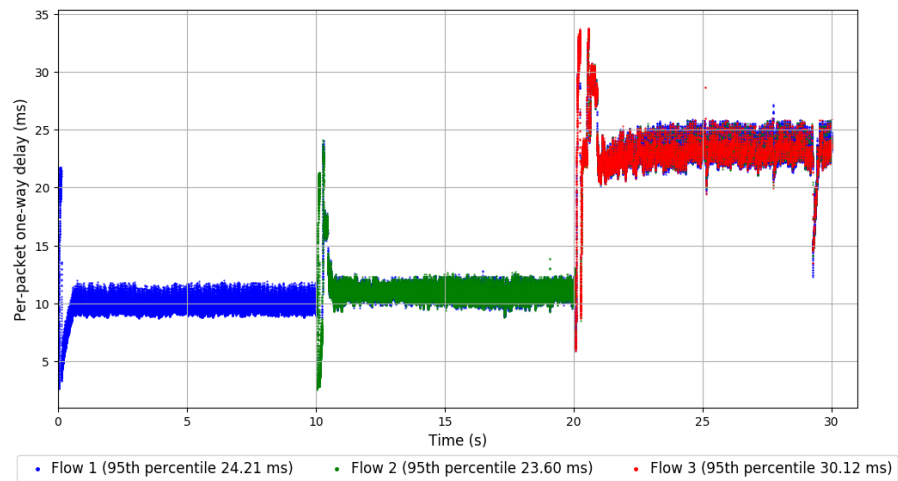
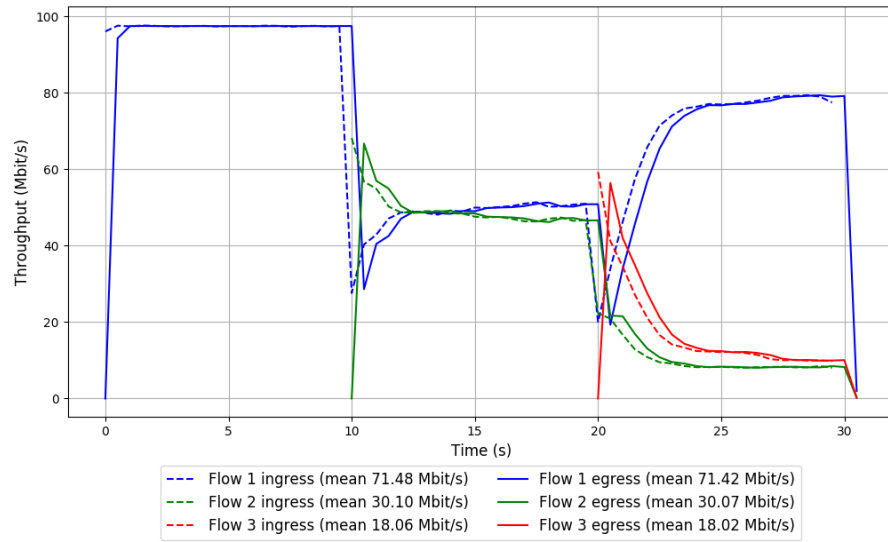
-- Flow 3:

Average throughput: 18.02 Mbit/s

95th percentile per-packet one-way delay: 30.125 ms

Loss rate: 0.09%

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



Run 1: Statistics of Copa

Start at: 2018-12-11 12:26:01

End at: 2018-12-11 12:26:31

Local clock offset: -5.68 ms

Remote clock offset: -0.11 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 2.639 ms

Loss rate: 68.06%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.513 ms

Loss rate: 98.33%

-- Flow 2:

Average throughput: 12.93 Mbit/s

95th percentile per-packet one-way delay: 2.639 ms

Loss rate: 68.04%

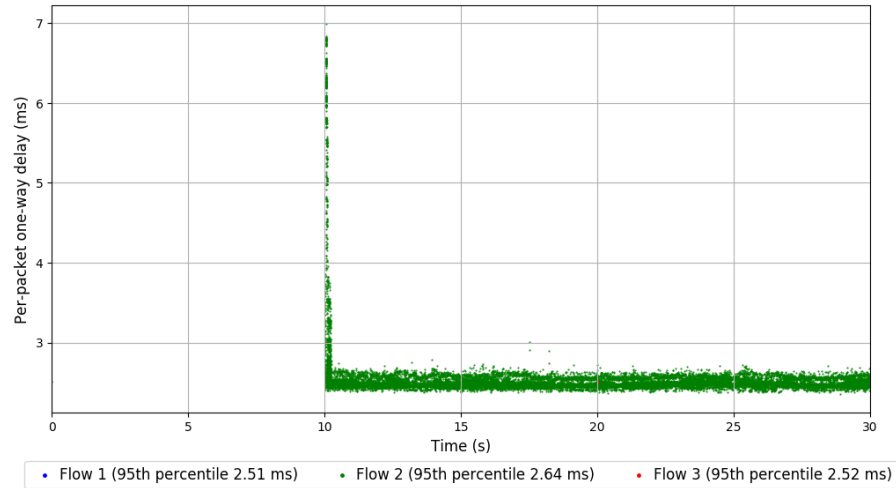
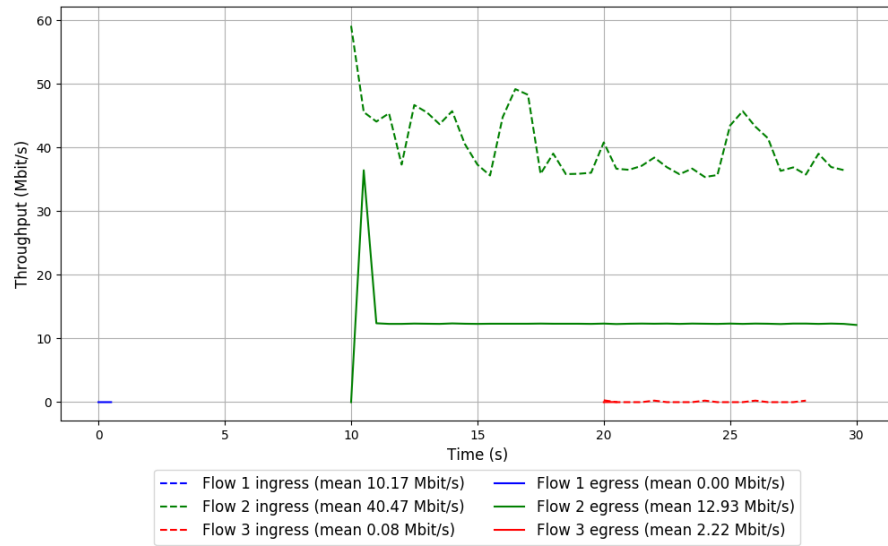
-- Flow 3:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 2.515 ms

Loss rate: 97.92%

## Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-12-11 12:47:37

End at: 2018-12-11 12:48:08

Local clock offset: -5.778 ms

Remote clock offset: 0.031 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 2.823 ms

Loss rate: 71.69%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.692 ms

Loss rate: 97.24%

-- Flow 2:

Average throughput: 10.54 Mbit/s

95th percentile per-packet one-way delay: 2.924 ms

Loss rate: 68.62%

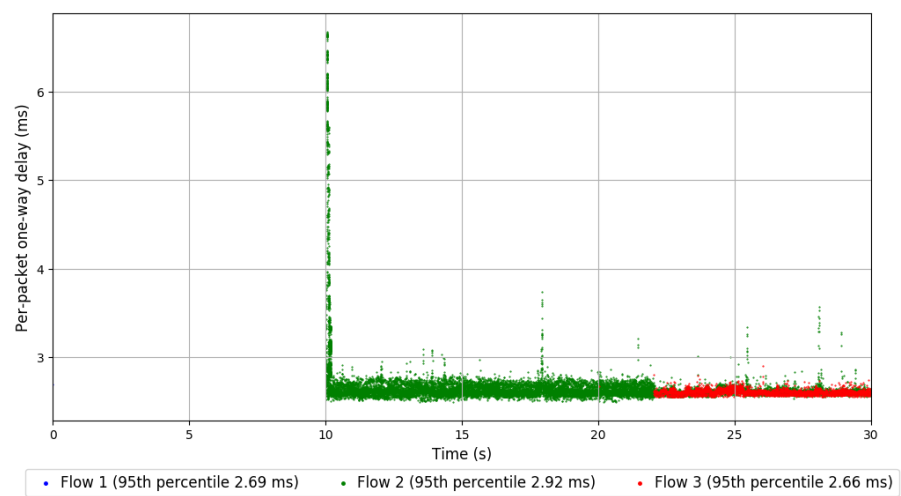
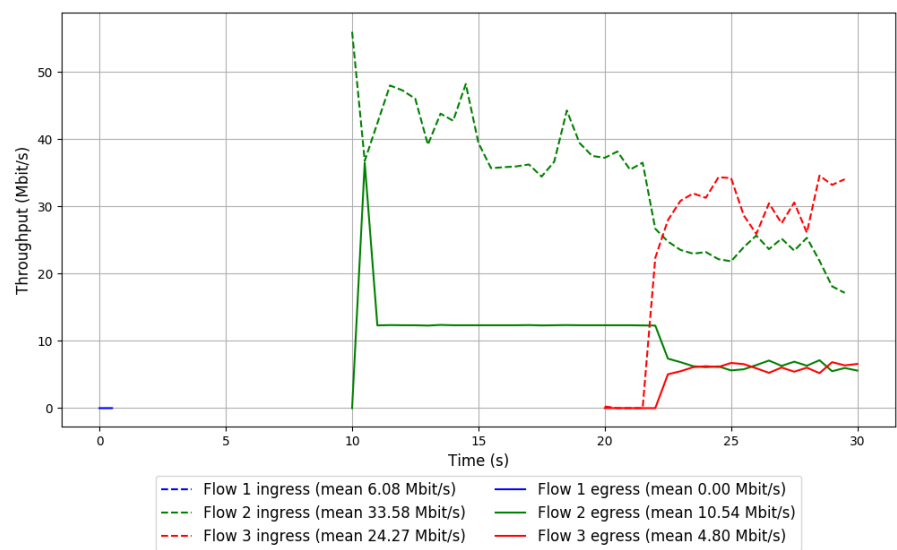
-- Flow 3:

Average throughput: 4.80 Mbit/s

95th percentile per-packet one-way delay: 2.664 ms

Loss rate: 80.20%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-12-11 13:09:14

End at: 2018-12-11 13:09:44

Local clock offset: -5.544 ms

Remote clock offset: 0.565 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 3.064 ms

Loss rate: 68.08%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.817 ms

Loss rate: 97.92%

-- Flow 2:

Average throughput: 12.33 Mbit/s

95th percentile per-packet one-way delay: 3.081 ms

Loss rate: 67.69%

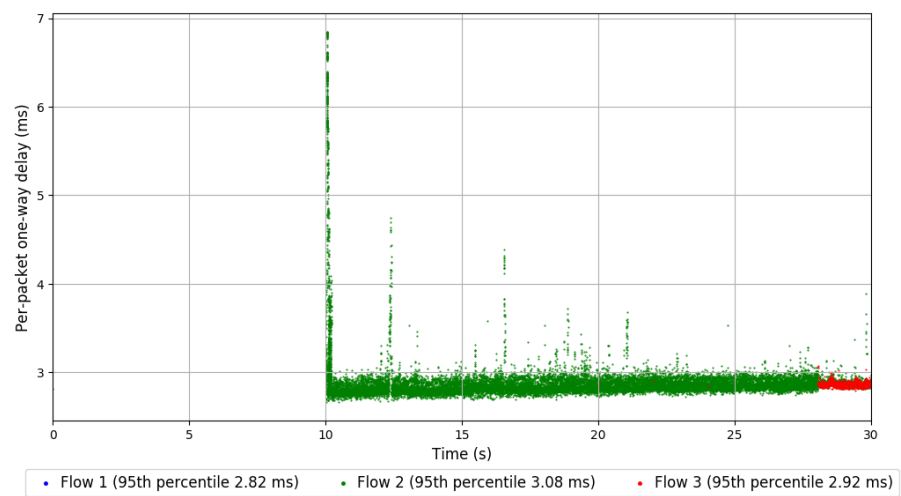
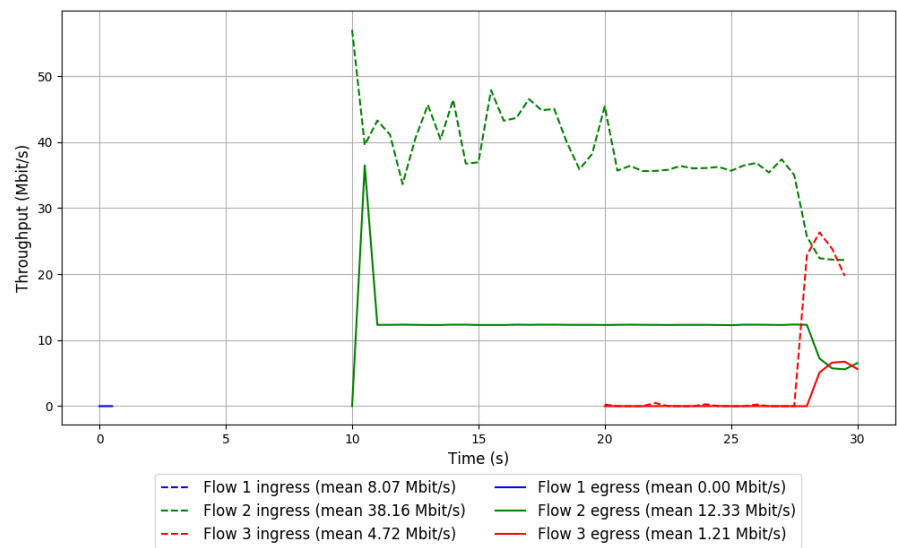
-- Flow 3:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 2.920 ms

Loss rate: 74.35%

Run 3: Report of Copa — Data Link





Run 4: Statistics of Copa

Start at: 2018-12-11 13:30:52

End at: 2018-12-11 13:31:22

Local clock offset: -1.842 ms

Remote clock offset: 1.807 ms

# Below is generated by plot.py at 2018-12-11 14:07:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 2.810 ms

Loss rate: 70.81%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.801 ms

Loss rate: 98.33%

-- Flow 2:

Average throughput: 11.14 Mbit/s

95th percentile per-packet one-way delay: 2.857 ms

Loss rate: 68.41%

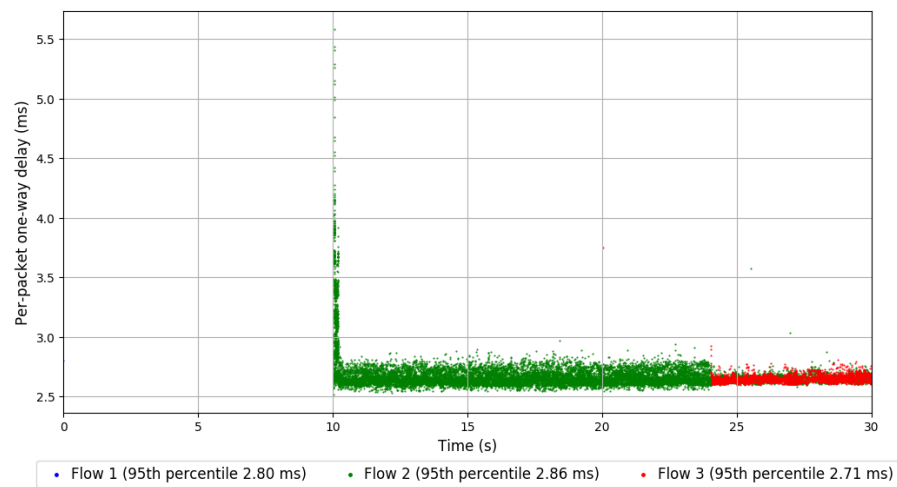
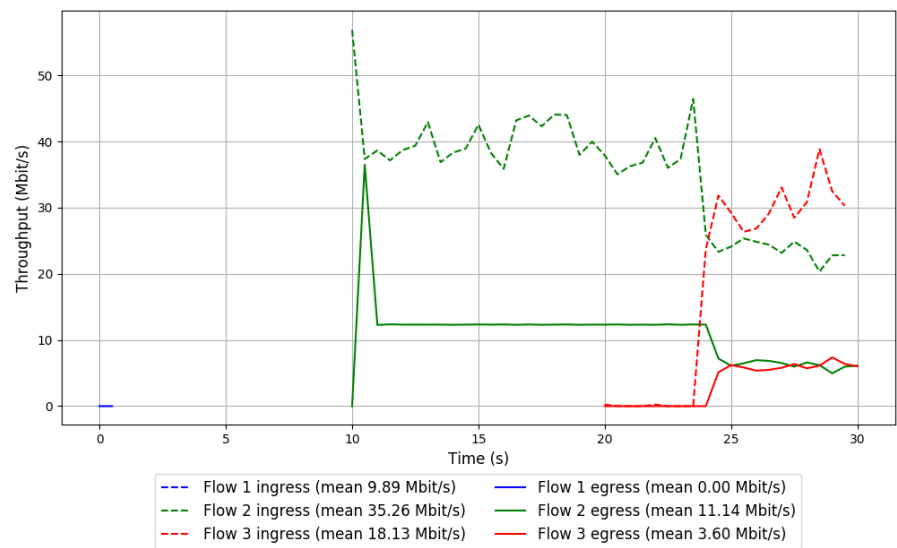
-- Flow 3:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 2.707 ms

Loss rate: 80.14%

Run 4: Report of Copa — Data Link

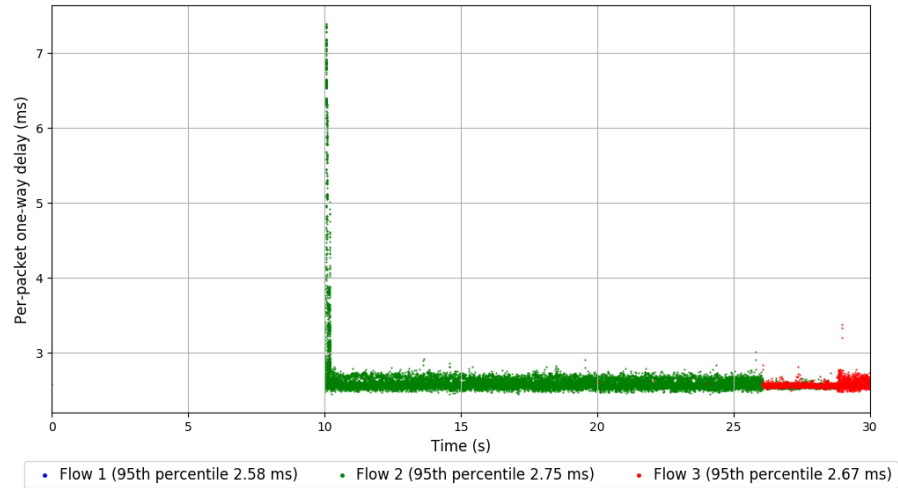
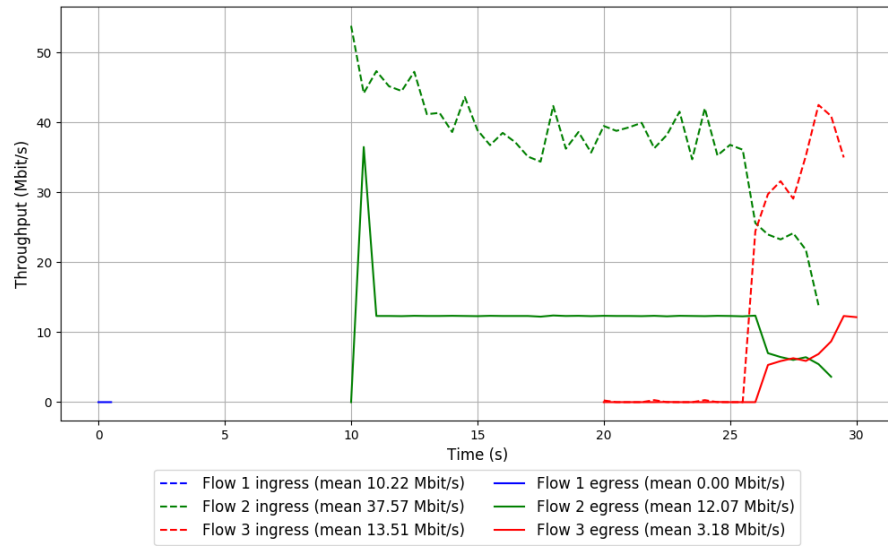


Run 5: Statistics of Copa

Start at: 2018-12-11 13:52:30  
End at: 2018-12-11 13:53:00  
Local clock offset: -2.243 ms  
Remote clock offset: 2.197 ms

# Below is generated by plot.py at 2018-12-11 14:07:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.62 Mbit/s  
95th percentile per-packet one-way delay: 2.730 ms  
Loss rate: 69.26%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 2.575 ms  
Loss rate: 98.33%  
-- Flow 2:  
Average throughput: 12.07 Mbit/s  
95th percentile per-packet one-way delay: 2.753 ms  
Loss rate: 67.89%  
-- Flow 3:  
Average throughput: 3.18 Mbit/s  
95th percentile per-packet one-way delay: 2.665 ms  
Loss rate: 76.44%

## Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-12-11 12:31:39

End at: 2018-12-11 12:32:09

Local clock offset: -5.704 ms

Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-12-11 14:07:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 32.730 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 62.62 Mbit/s

95th percentile per-packet one-way delay: 32.695 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 38.21 Mbit/s

95th percentile per-packet one-way delay: 32.826 ms

Loss rate: 0.04%

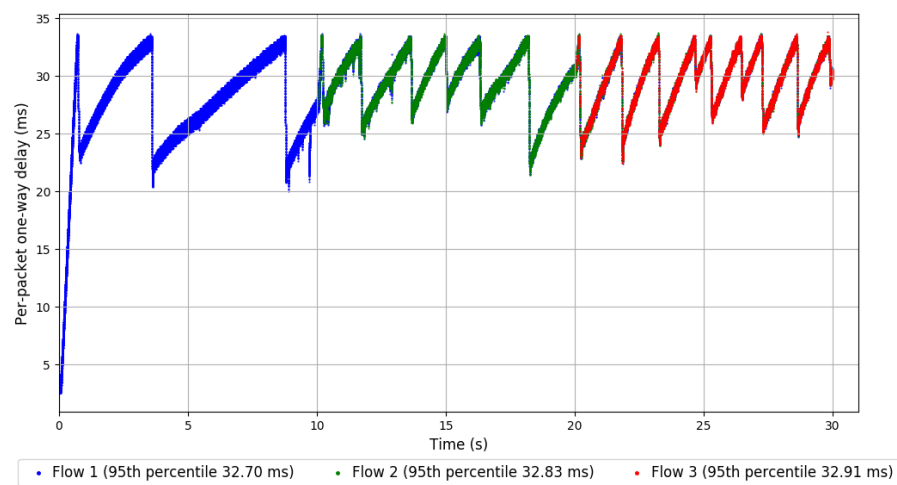
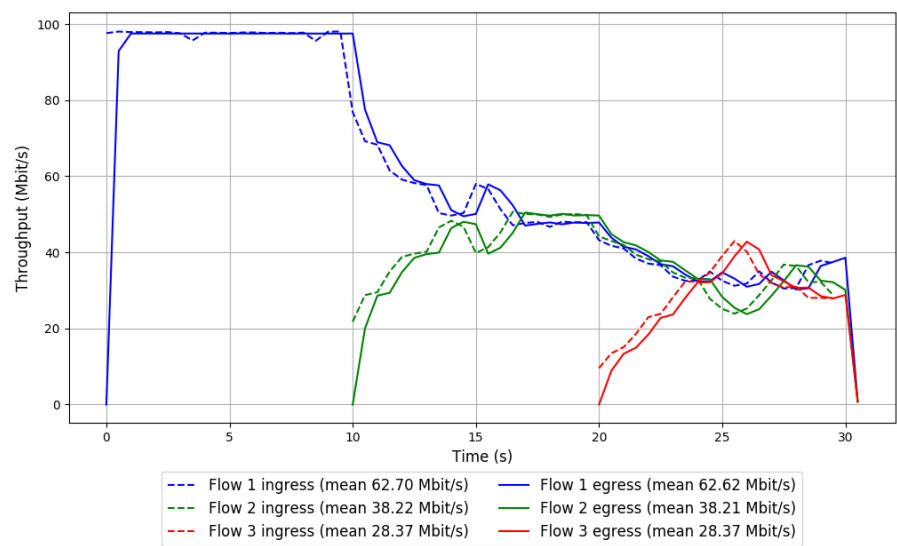
-- Flow 3:

Average throughput: 28.37 Mbit/s

95th percentile per-packet one-way delay: 32.913 ms

Loss rate: 0.02%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-12-11 12:53:16

End at: 2018-12-11 12:53:46

Local clock offset: -5.809 ms

Remote clock offset: 0.149 ms

# Below is generated by plot.py at 2018-12-11 14:07:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 32.901 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 66.36 Mbit/s

95th percentile per-packet one-way delay: 32.850 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 34.66 Mbit/s

95th percentile per-packet one-way delay: 32.975 ms

Loss rate: 0.05%

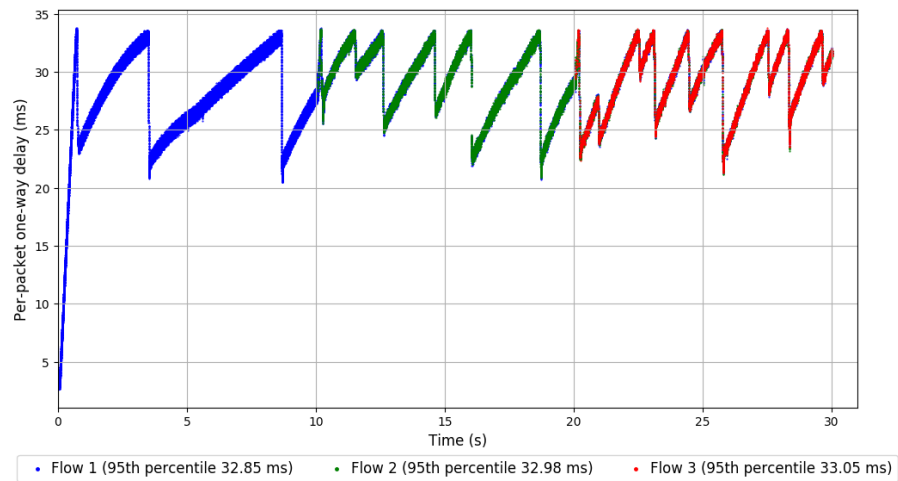
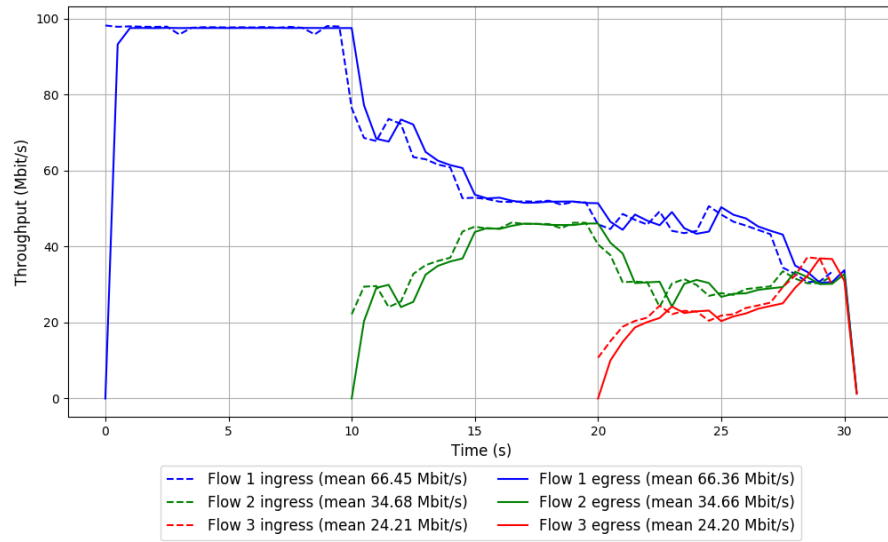
-- Flow 3:

Average throughput: 24.20 Mbit/s

95th percentile per-packet one-way delay: 33.048 ms

Loss rate: 0.03%

## Run 2: Report of TCP Cubic — Data Link





Run 3: Statistics of TCP Cubic

Start at: 2018-12-11 13:14:53

End at: 2018-12-11 13:15:23

Local clock offset: -3.832 ms

Remote clock offset: 1.133 ms

# Below is generated by plot.py at 2018-12-11 14:07:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.44 Mbit/s

95th percentile per-packet one-way delay: 33.005 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 64.97 Mbit/s

95th percentile per-packet one-way delay: 32.866 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 32.88 Mbit/s

95th percentile per-packet one-way delay: 33.065 ms

Loss rate: 0.04%

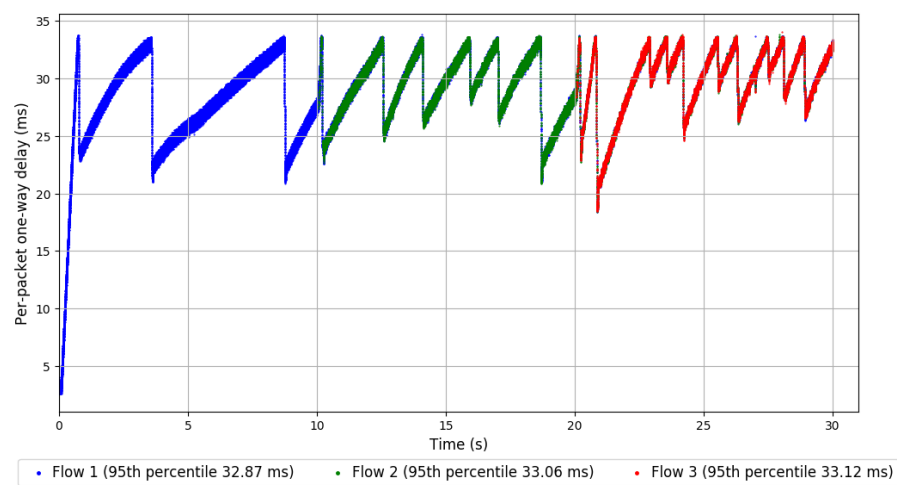
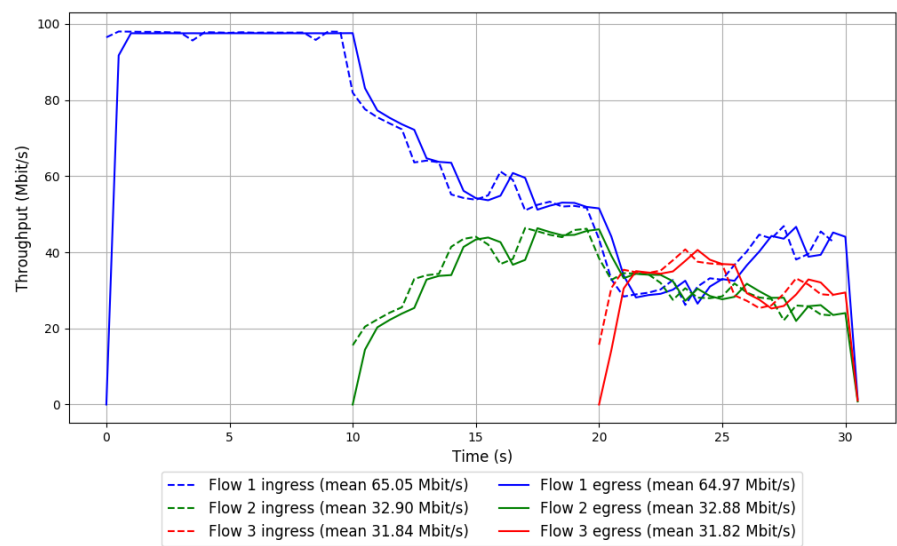
-- Flow 3:

Average throughput: 31.82 Mbit/s

95th percentile per-packet one-way delay: 33.125 ms

Loss rate: 0.02%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-12-11 13:36:30

End at: 2018-12-11 13:37:00

Local clock offset: -1.559 ms

Remote clock offset: 1.877 ms

# Below is generated by plot.py at 2018-12-11 14:08:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 32.963 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 65.62 Mbit/s

95th percentile per-packet one-way delay: 32.834 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 37.10 Mbit/s

95th percentile per-packet one-way delay: 33.021 ms

Loss rate: 0.04%

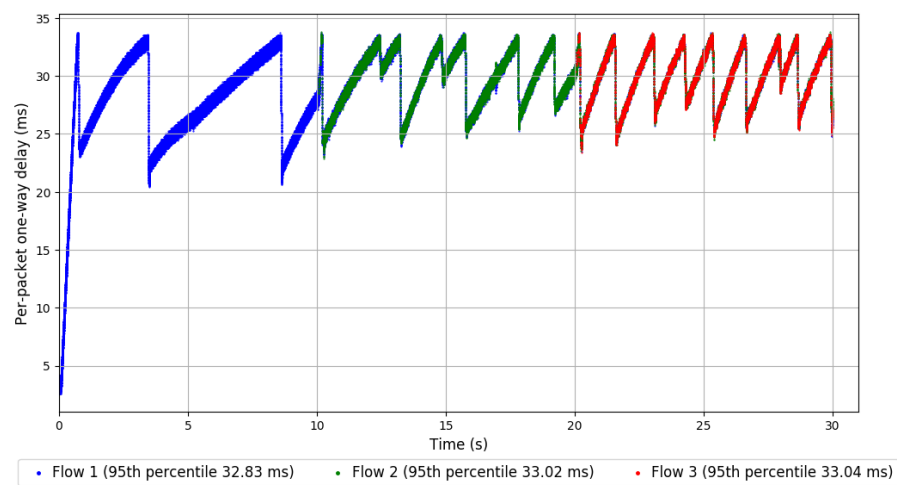
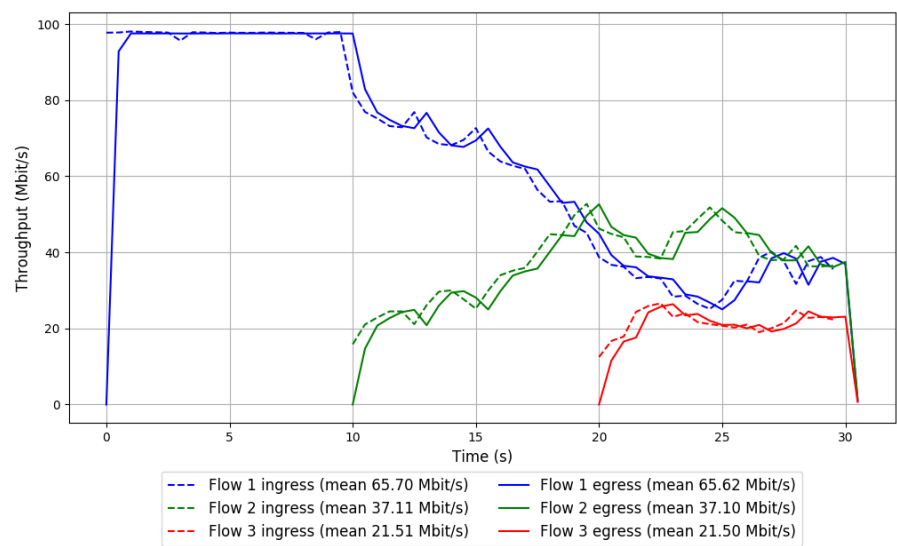
-- Flow 3:

Average throughput: 21.50 Mbit/s

95th percentile per-packet one-way delay: 33.037 ms

Loss rate: 0.07%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-12-11 13:58:08

End at: 2018-12-11 13:58:38

Local clock offset: -2.283 ms

Remote clock offset: 2.322 ms

# Below is generated by plot.py at 2018-12-11 14:08:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 32.951 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 65.78 Mbit/s

95th percentile per-packet one-way delay: 32.801 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.52 Mbit/s

95th percentile per-packet one-way delay: 32.997 ms

Loss rate: 0.03%

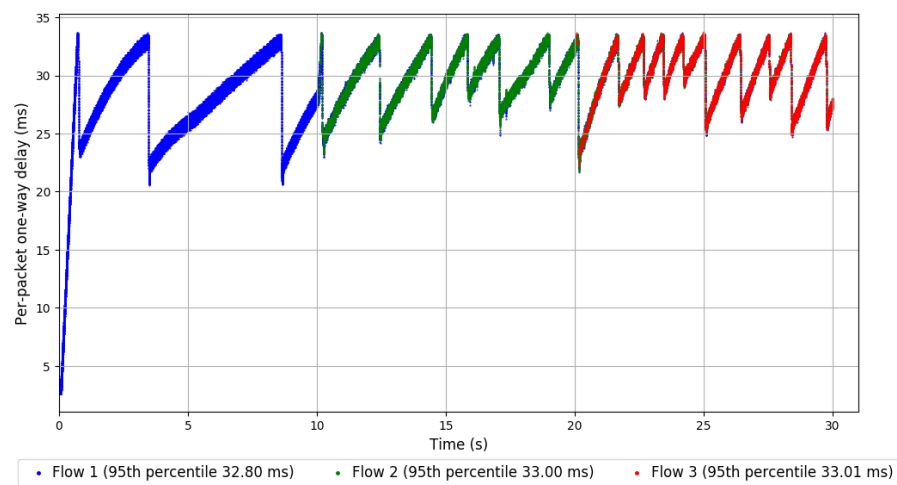
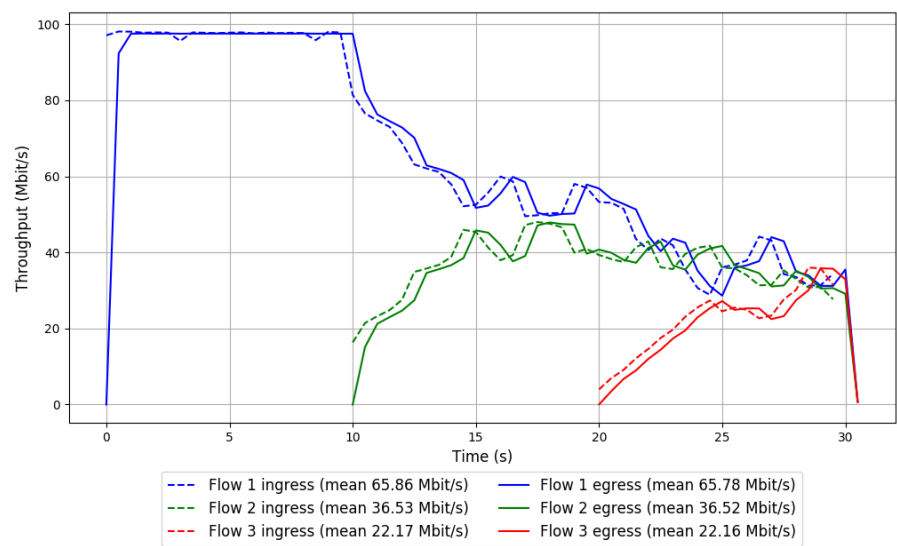
-- Flow 3:

Average throughput: 22.16 Mbit/s

95th percentile per-packet one-way delay: 33.010 ms

Loss rate: 0.07%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-12-11 12:28:13

End at: 2018-12-11 12:28:43

Local clock offset: -5.691 ms

Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2018-12-11 14:08:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.88 Mbit/s

95th percentile per-packet one-way delay: 30.320 ms

Loss rate: 20.87%

-- Flow 1:

Average throughput: 44.17 Mbit/s

95th percentile per-packet one-way delay: 29.799 ms

Loss rate: 13.16%

-- Flow 2:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 30.376 ms

Loss rate: 20.45%

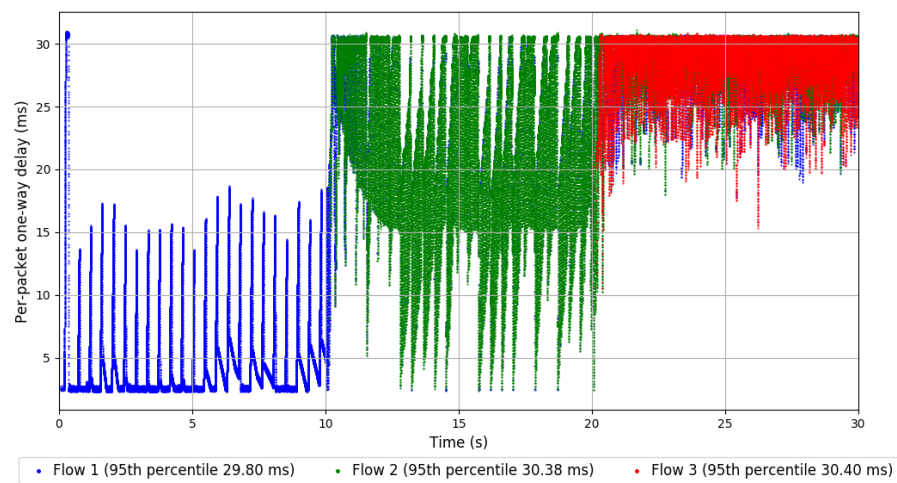
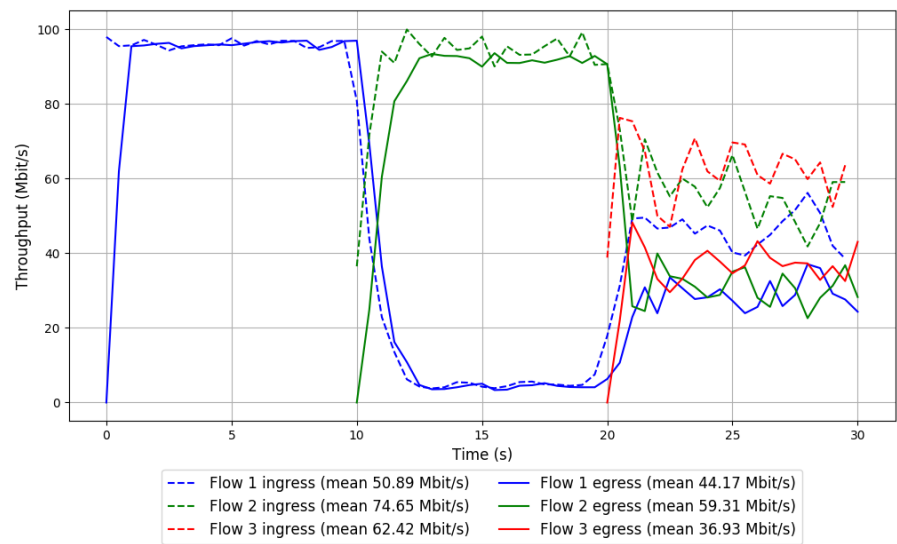
-- Flow 3:

Average throughput: 36.93 Mbit/s

95th percentile per-packet one-way delay: 30.404 ms

Loss rate: 40.81%

Run 1: Report of FillP — Data Link





Run 2: Statistics of FillP

Start at: 2018-12-11 12:49:50

End at: 2018-12-11 12:50:20

Local clock offset: -5.721 ms

Remote clock offset: 0.145 ms

# Below is generated by plot.py at 2018-12-11 14:08:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.96 Mbit/s

95th percentile per-packet one-way delay: 30.453 ms

Loss rate: 20.74%

-- Flow 1:

Average throughput: 45.81 Mbit/s

95th percentile per-packet one-way delay: 30.068 ms

Loss rate: 13.97%

-- Flow 2:

Average throughput: 58.01 Mbit/s

95th percentile per-packet one-way delay: 30.493 ms

Loss rate: 19.27%

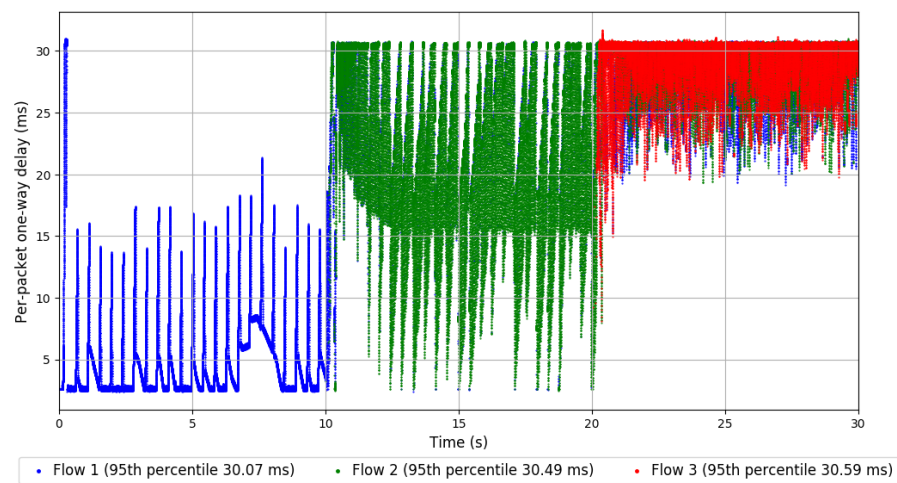
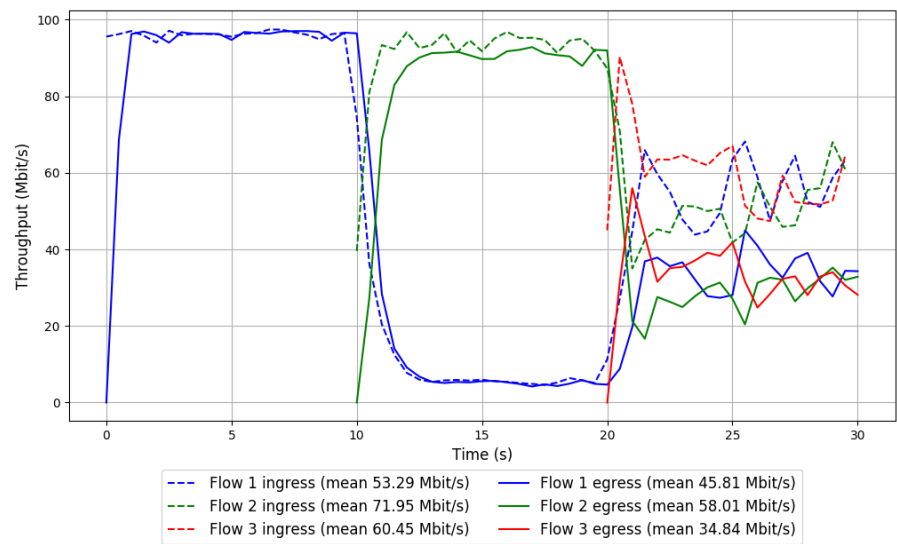
-- Flow 3:

Average throughput: 34.84 Mbit/s

95th percentile per-packet one-way delay: 30.594 ms

Loss rate: 42.25%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-12-11 13:11:27

End at: 2018-12-11 13:11:57

Local clock offset: -4.751 ms

Remote clock offset: 0.905 ms

# Below is generated by plot.py at 2018-12-11 14:08:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.98 Mbit/s

95th percentile per-packet one-way delay: 30.725 ms

Loss rate: 21.09%

-- Flow 1:

Average throughput: 44.11 Mbit/s

95th percentile per-packet one-way delay: 30.160 ms

Loss rate: 13.86%

-- Flow 2:

Average throughput: 61.57 Mbit/s

95th percentile per-packet one-way delay: 30.799 ms

Loss rate: 18.99%

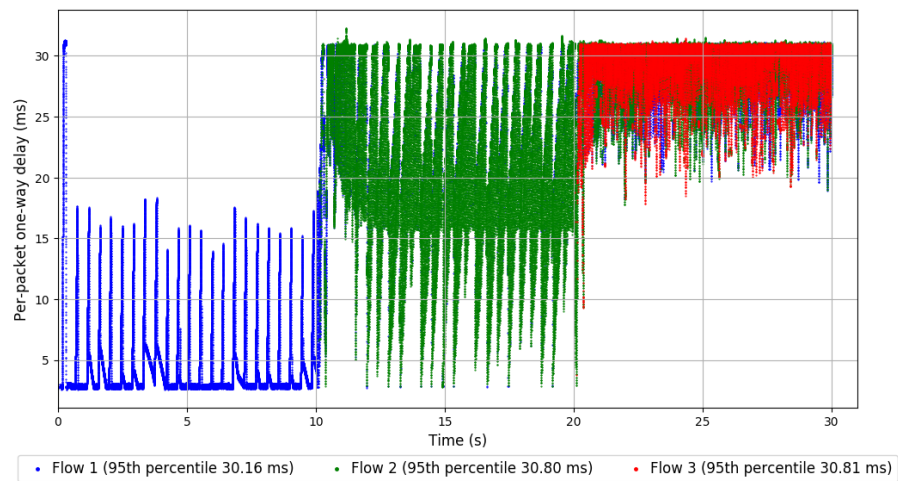
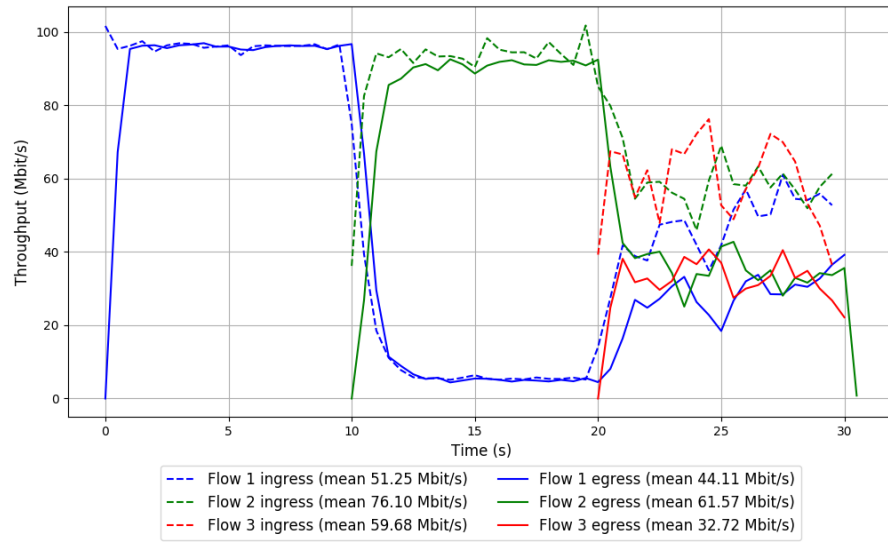
-- Flow 3:

Average throughput: 32.72 Mbit/s

95th percentile per-packet one-way delay: 30.811 ms

Loss rate: 45.14%

### Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-12-11 13:33:05

End at: 2018-12-11 13:33:35

Local clock offset: -1.692 ms

Remote clock offset: 1.814 ms

# Below is generated by plot.py at 2018-12-11 14:08:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.88 Mbit/s

95th percentile per-packet one-way delay: 30.336 ms

Loss rate: 20.18%

-- Flow 1:

Average throughput: 56.35 Mbit/s

95th percentile per-packet one-way delay: 29.885 ms

Loss rate: 12.07%

-- Flow 2:

Average throughput: 35.76 Mbit/s

95th percentile per-packet one-way delay: 30.398 ms

Loss rate: 21.48%

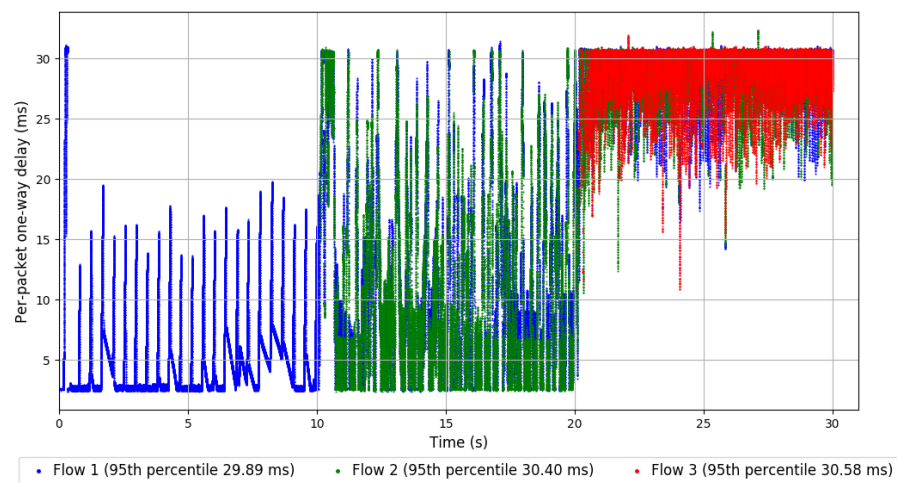
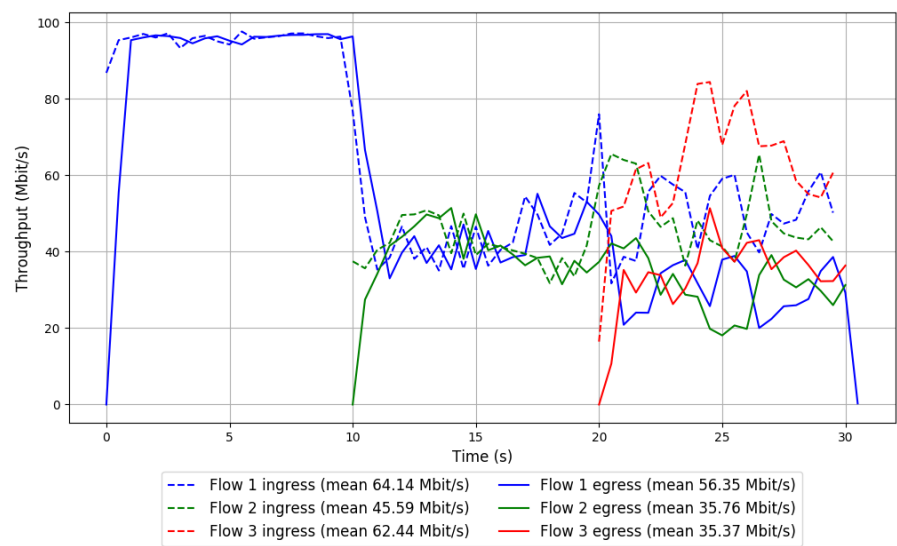
-- Flow 3:

Average throughput: 35.37 Mbit/s

95th percentile per-packet one-way delay: 30.578 ms

Loss rate: 43.35%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-12-11 13:54:42

End at: 2018-12-11 13:55:12

Local clock offset: -2.338 ms

Remote clock offset: 2.289 ms

# Below is generated by plot.py at 2018-12-11 14:08:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.89 Mbit/s

95th percentile per-packet one-way delay: 30.502 ms

Loss rate: 20.61%

-- Flow 1:

Average throughput: 43.98 Mbit/s

95th percentile per-packet one-way delay: 29.967 ms

Loss rate: 14.19%

-- Flow 2:

Average throughput: 59.73 Mbit/s

95th percentile per-packet one-way delay: 30.554 ms

Loss rate: 18.17%

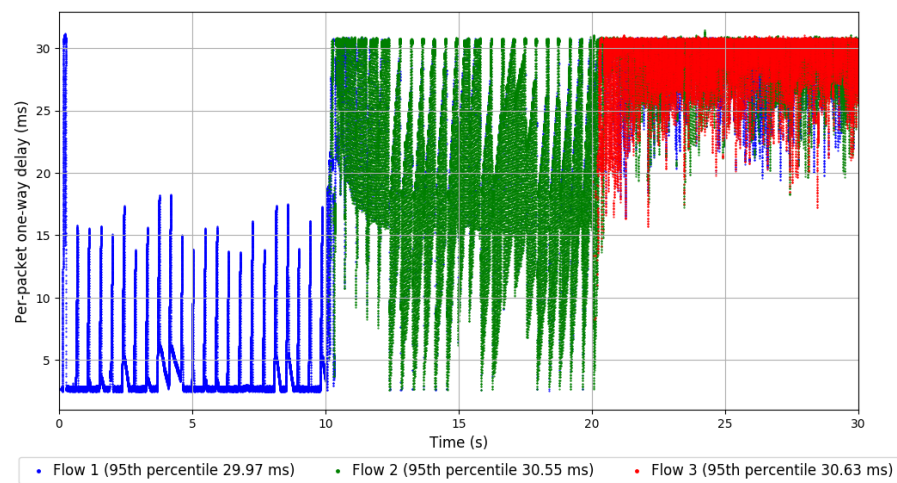
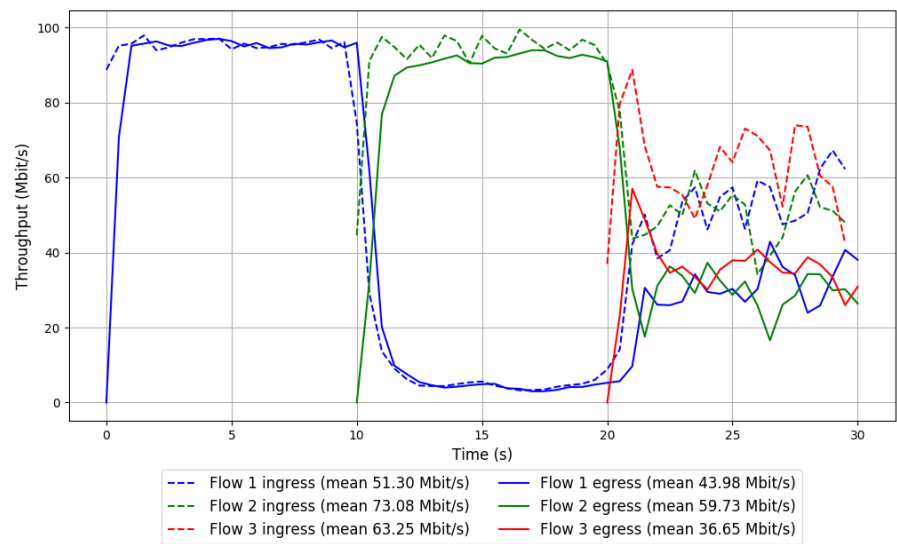
-- Flow 3:

Average throughput: 36.65 Mbit/s

95th percentile per-packet one-way delay: 30.628 ms

Loss rate: 42.02%

Run 5: Report of FillP — Data Link



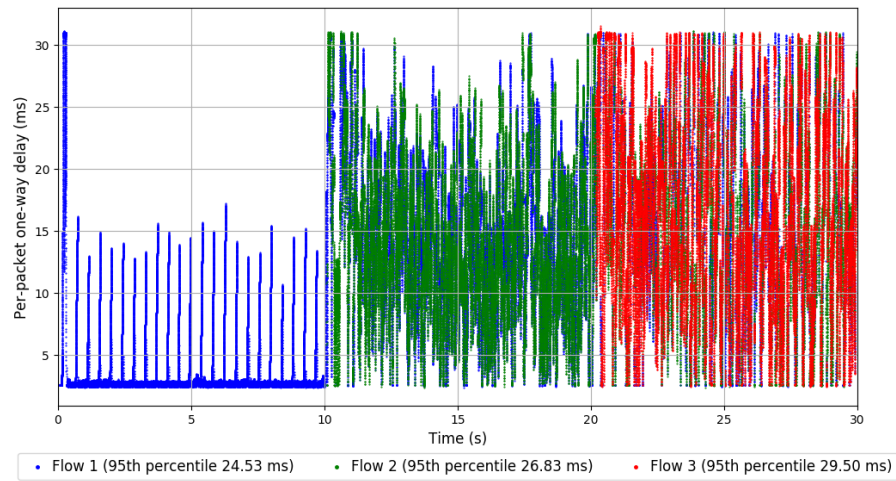
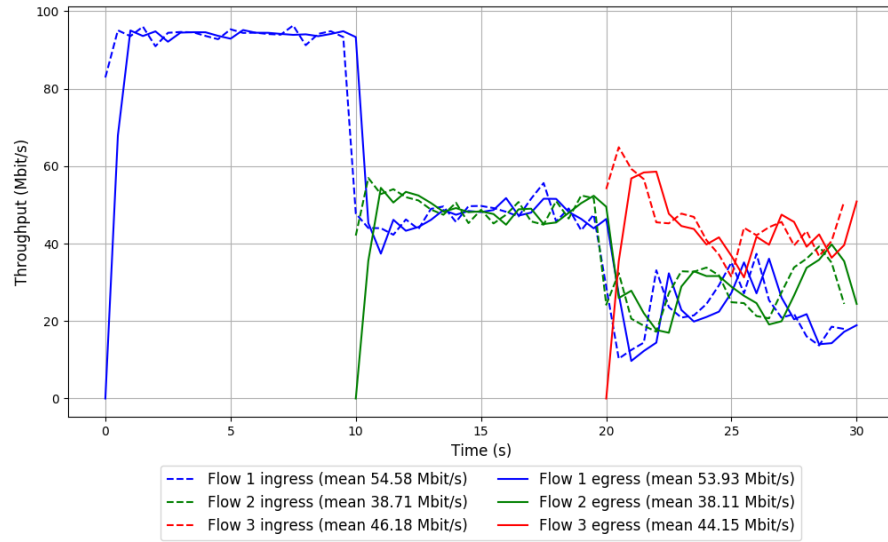


```
Run 1: Statistics of FillP-Sheep

Start at: 2018-12-11 12:24:52
End at: 2018-12-11 12:25:22
Local clock offset: -5.681 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2018-12-11 14:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.94 Mbit/s
95th percentile per-packet one-way delay: 26.823 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 53.93 Mbit/s
95th percentile per-packet one-way delay: 24.533 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 38.11 Mbit/s
95th percentile per-packet one-way delay: 26.834 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 44.15 Mbit/s
95th percentile per-packet one-way delay: 29.498 ms
Loss rate: 4.26%
```

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



Run 2: Statistics of FillP-Sheep

Start at: 2018-12-11 12:46:29

End at: 2018-12-11 12:46:59

Local clock offset: -5.731 ms

Remote clock offset: 0.113 ms

# Below is generated by plot.py at 2018-12-11 14:09:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.14 Mbit/s

95th percentile per-packet one-way delay: 26.505 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 56.19 Mbit/s

95th percentile per-packet one-way delay: 24.442 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 34.09 Mbit/s

95th percentile per-packet one-way delay: 26.818 ms

Loss rate: 1.12%

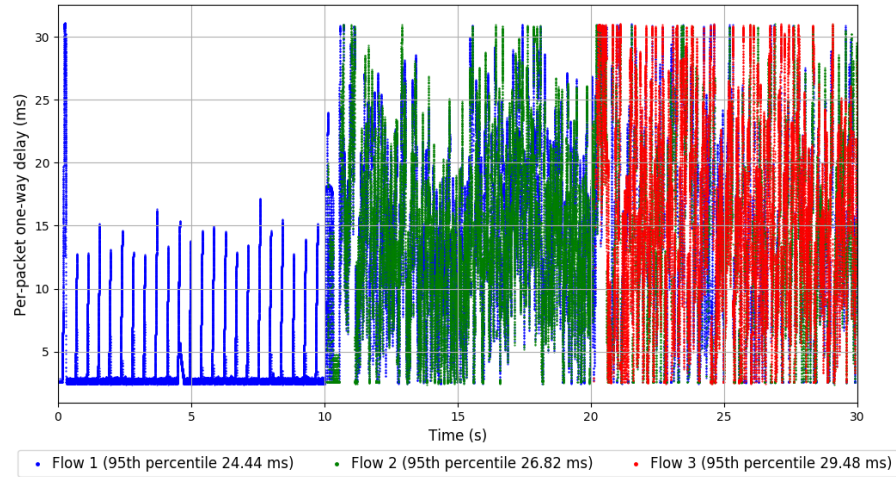
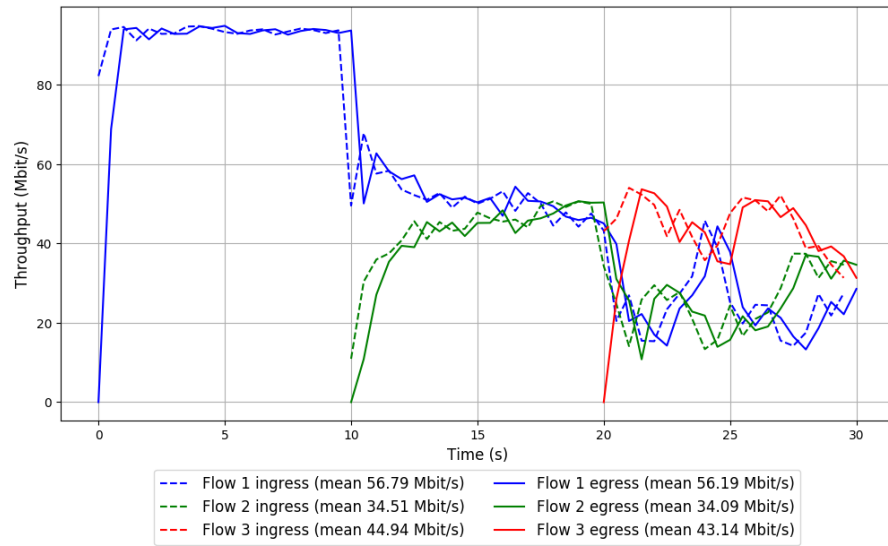
-- Flow 3:

Average throughput: 43.14 Mbit/s

95th percentile per-packet one-way delay: 29.476 ms

Loss rate: 4.04%

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



Run 3: Statistics of FillP-Sheep

Start at: 2018-12-11 13:08:06

End at: 2018-12-11 13:08:36

Local clock offset: -5.784 ms

Remote clock offset: 0.591 ms

# Below is generated by plot.py at 2018-12-11 14:09:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.28 Mbit/s

95th percentile per-packet one-way delay: 26.854 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 55.26 Mbit/s

95th percentile per-packet one-way delay: 24.513 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 32.09 Mbit/s

95th percentile per-packet one-way delay: 26.989 ms

Loss rate: 1.18%

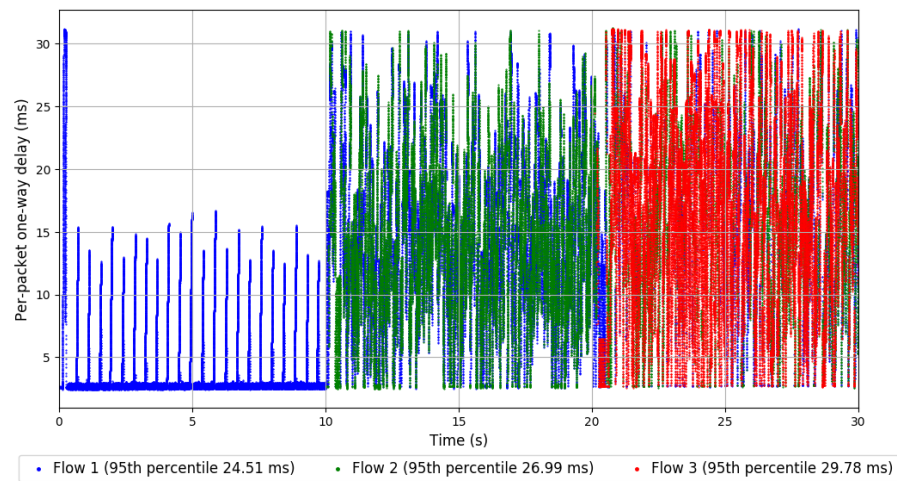
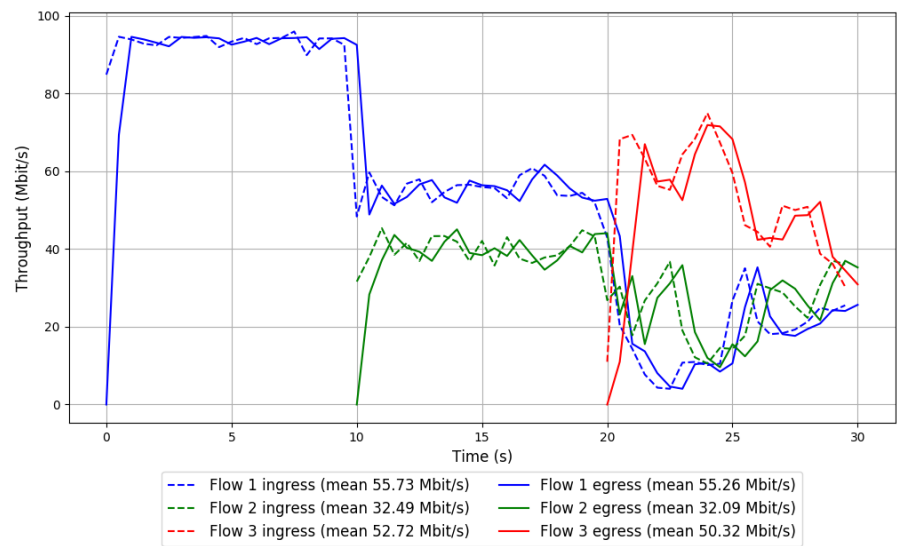
-- Flow 3:

Average throughput: 50.32 Mbit/s

95th percentile per-packet one-way delay: 29.776 ms

Loss rate: 4.56%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-12-11 13:29:44

End at: 2018-12-11 13:30:14

Local clock offset: -1.915 ms

Remote clock offset: 1.731 ms

# Below is generated by plot.py at 2018-12-11 14:09:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.26 Mbit/s

95th percentile per-packet one-way delay: 27.416 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 54.33 Mbit/s

95th percentile per-packet one-way delay: 24.819 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 35.87 Mbit/s

95th percentile per-packet one-way delay: 28.043 ms

Loss rate: 2.13%

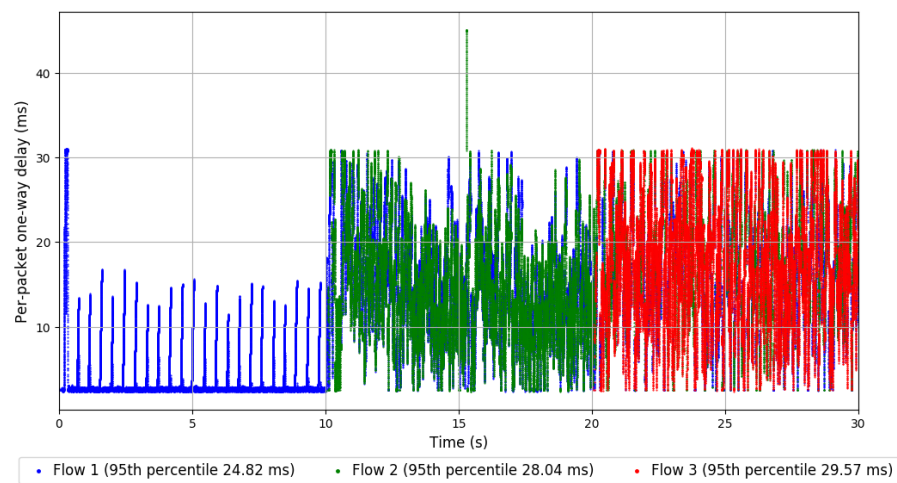
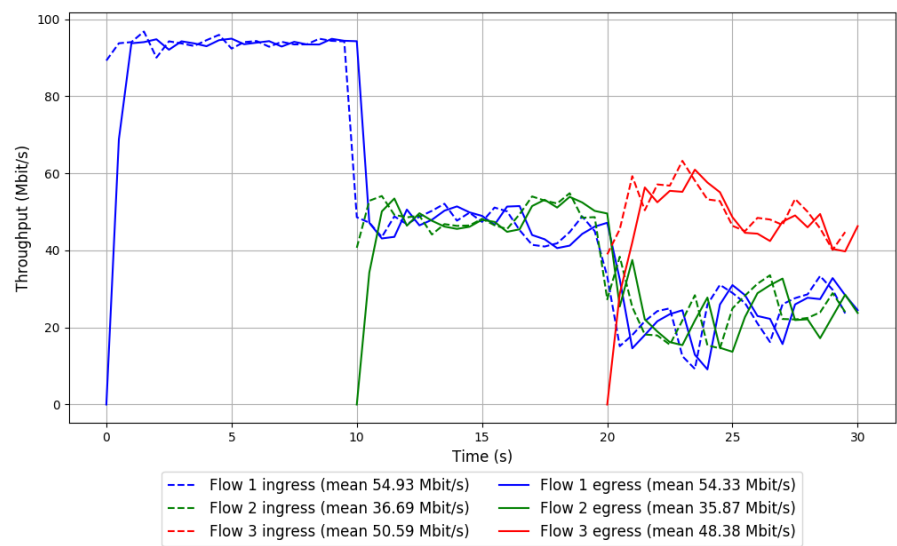
-- Flow 3:

Average throughput: 48.38 Mbit/s

95th percentile per-packet one-way delay: 29.565 ms

Loss rate: 4.13%

Run 4: Report of FillP-Sheep — Data Link



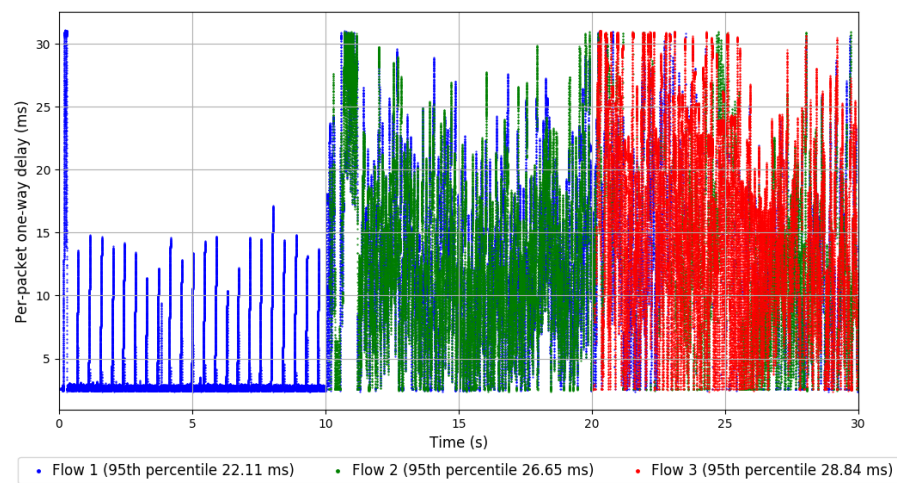
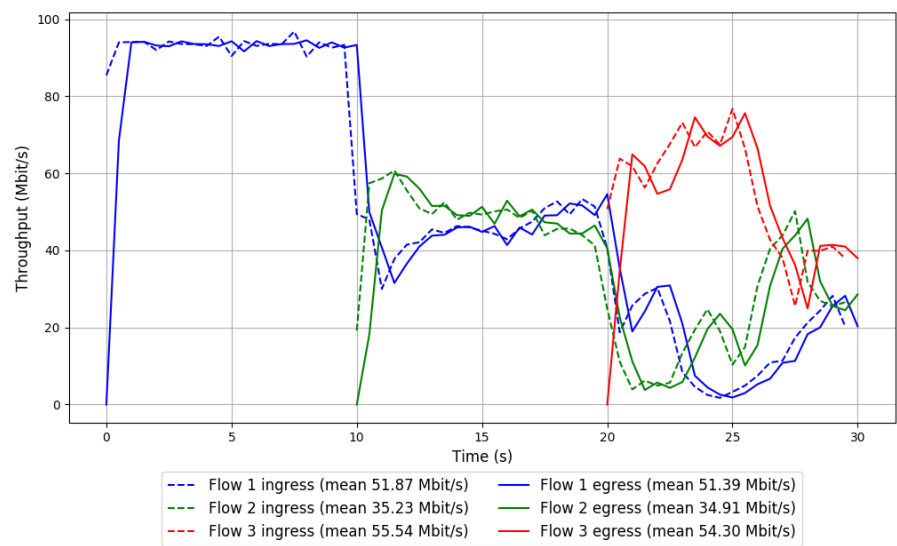


Run 5: Statistics of FillP-Sheep

Start at: 2018-12-11 13:51:21  
End at: 2018-12-11 13:51:51  
Local clock offset: -2.213 ms  
Remote clock offset: 2.242 ms

# Below is generated by plot.py at 2018-12-11 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.58 Mbit/s  
95th percentile per-packet one-way delay: 25.600 ms  
Loss rate: 1.18%  
-- Flow 1:  
Average throughput: 51.39 Mbit/s  
95th percentile per-packet one-way delay: 22.107 ms  
Loss rate: 0.93%  
-- Flow 2:  
Average throughput: 34.91 Mbit/s  
95th percentile per-packet one-way delay: 26.653 ms  
Loss rate: 0.91%  
-- Flow 3:  
Average throughput: 54.30 Mbit/s  
95th percentile per-packet one-way delay: 28.841 ms  
Loss rate: 2.26%

Run 5: Report of FillP-Sheep — Data Link

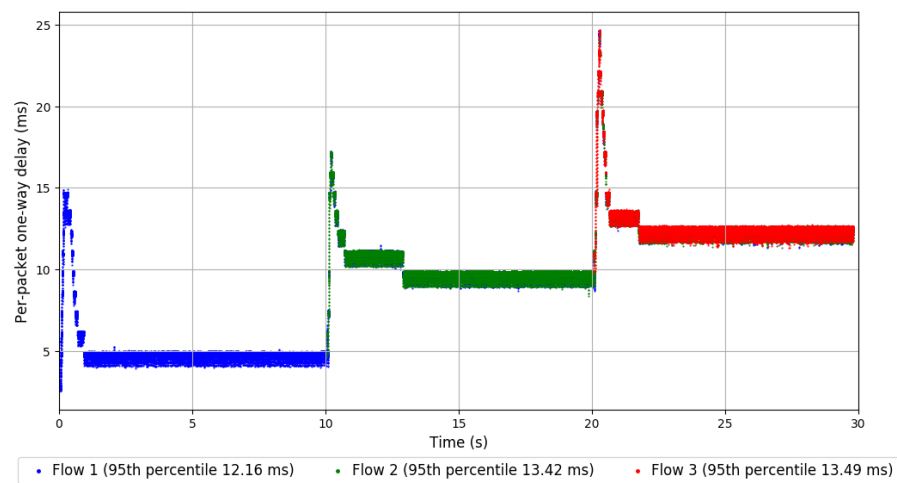
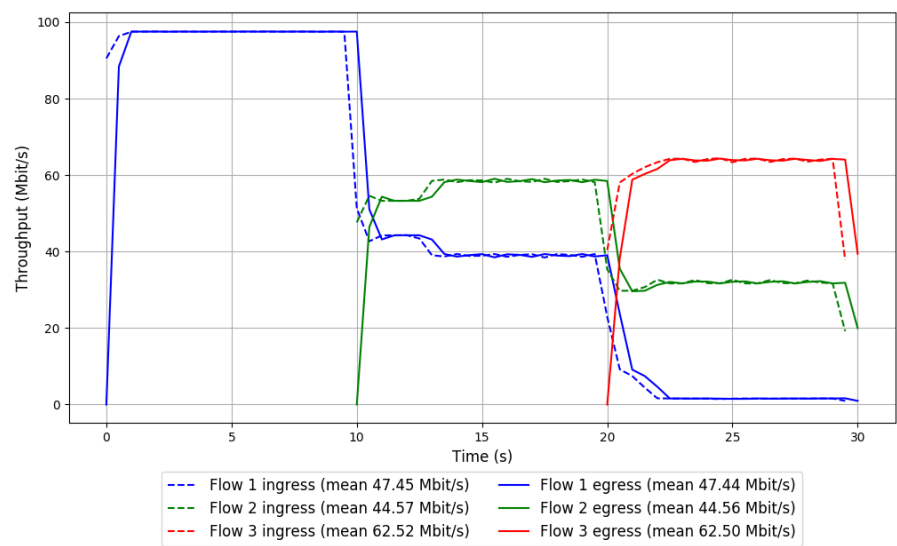


Run 1: Statistics of Indigo

Start at: 2018-12-11 12:29:22  
End at: 2018-12-11 12:29:53  
Local clock offset: -5.776 ms  
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-12-11 14:09:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.39 Mbit/s  
95th percentile per-packet one-way delay: 13.414 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 47.44 Mbit/s  
95th percentile per-packet one-way delay: 12.165 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 44.56 Mbit/s  
95th percentile per-packet one-way delay: 13.418 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 62.50 Mbit/s  
95th percentile per-packet one-way delay: 13.494 ms  
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-12-11 12:50:59

End at: 2018-12-11 12:51:29

Local clock offset: -5.8 ms

Remote clock offset: 0.14 ms

# Below is generated by plot.py at 2018-12-11 14:09:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 13.466 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.51 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.82 Mbit/s

95th percentile per-packet one-way delay: 13.443 ms

Loss rate: 0.00%

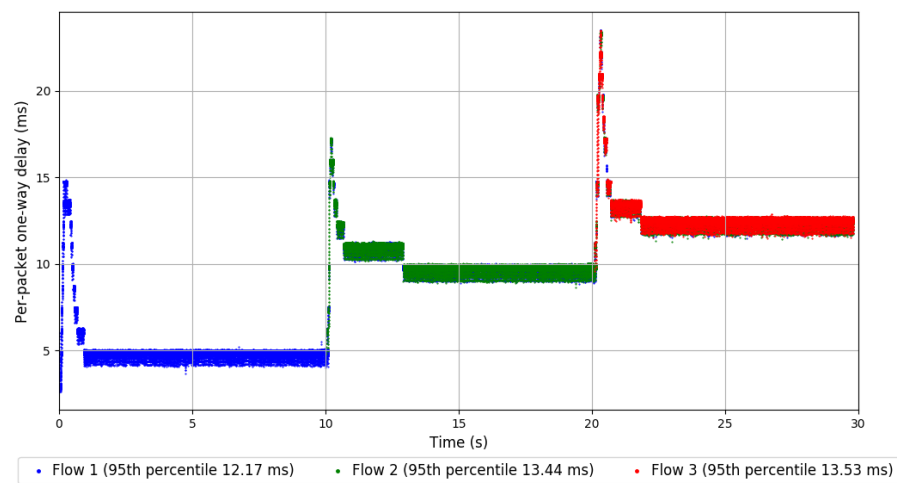
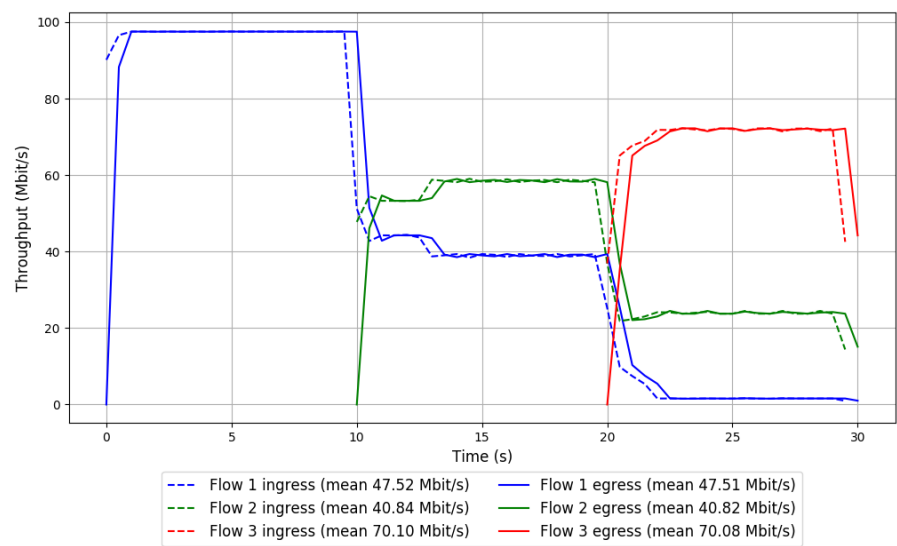
-- Flow 3:

Average throughput: 70.08 Mbit/s

95th percentile per-packet one-way delay: 13.528 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-12-11 13:12:36

End at: 2018-12-11 13:13:06

Local clock offset: -4.388 ms

Remote clock offset: 0.857 ms

# Below is generated by plot.py at 2018-12-11 14:09:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 12.537 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.02 Mbit/s

95th percentile per-packet one-way delay: 11.096 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.00 Mbit/s

95th percentile per-packet one-way delay: 12.524 ms

Loss rate: 0.00%

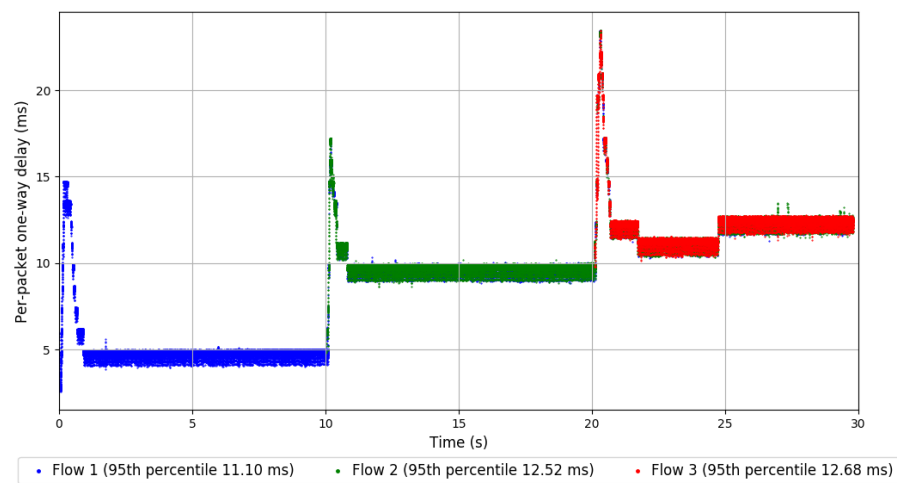
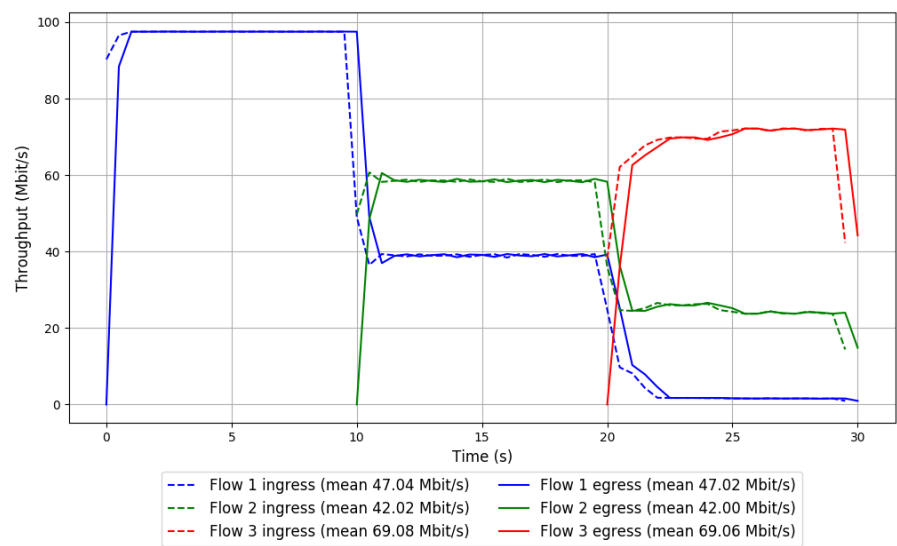
-- Flow 3:

Average throughput: 69.06 Mbit/s

95th percentile per-packet one-way delay: 12.677 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link





Run 4: Statistics of Indigo

Start at: 2018-12-11 13:34:14

End at: 2018-12-11 13:34:44

Local clock offset: -1.675 ms

Remote clock offset: 1.907 ms

# Below is generated by plot.py at 2018-12-11 14:09:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 13.474 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.41 Mbit/s

95th percentile per-packet one-way delay: 12.124 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.53 Mbit/s

95th percentile per-packet one-way delay: 13.476 ms

Loss rate: 0.00%

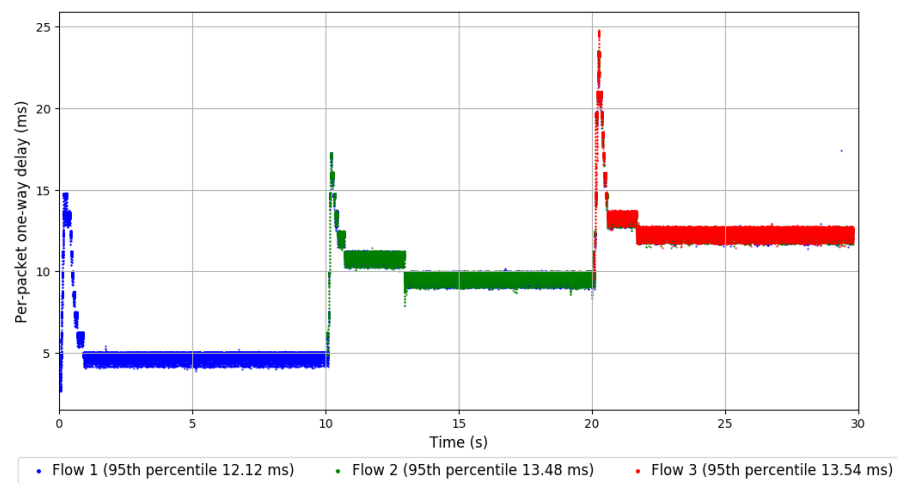
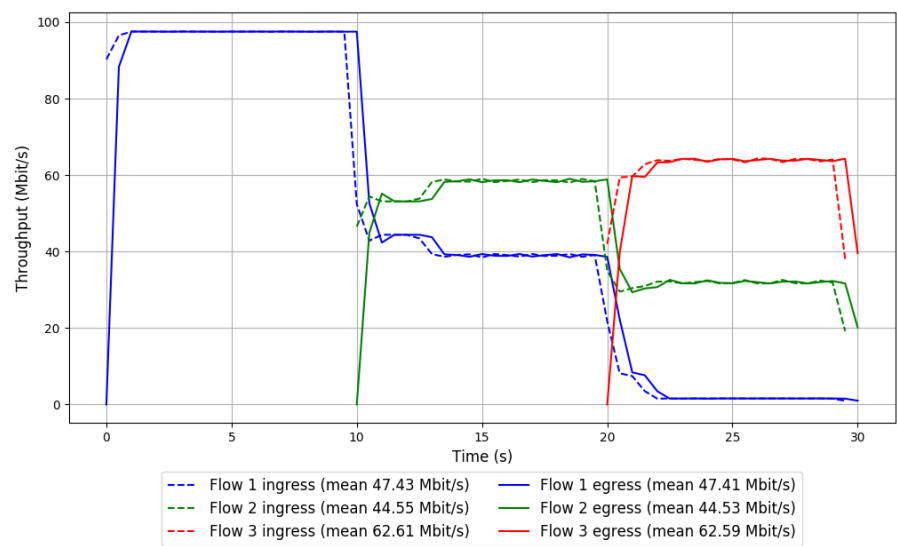
-- Flow 3:

Average throughput: 62.59 Mbit/s

95th percentile per-packet one-way delay: 13.542 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-12-11 13:55:51

End at: 2018-12-11 13:56:21

Local clock offset: -2.344 ms

Remote clock offset: 2.323 ms

# Below is generated by plot.py at 2018-12-11 14:10:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 13.444 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.97 Mbit/s

95th percentile per-packet one-way delay: 11.209 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.47 Mbit/s

95th percentile per-packet one-way delay: 13.443 ms

Loss rate: 0.00%

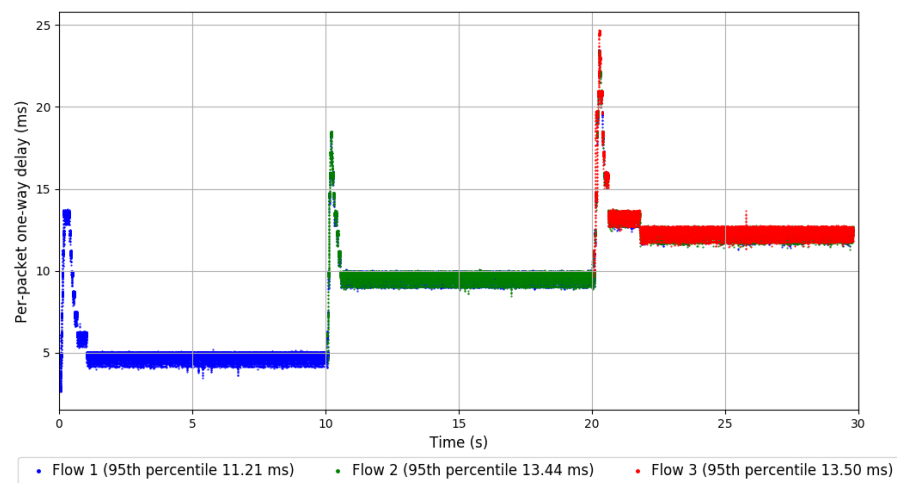
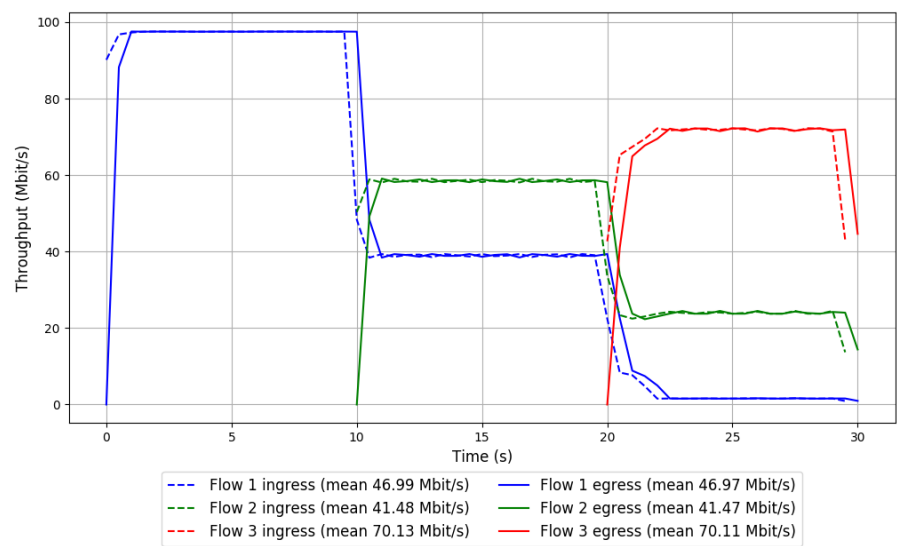
-- Flow 3:

Average throughput: 70.11 Mbit/s

95th percentile per-packet one-way delay: 13.500 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

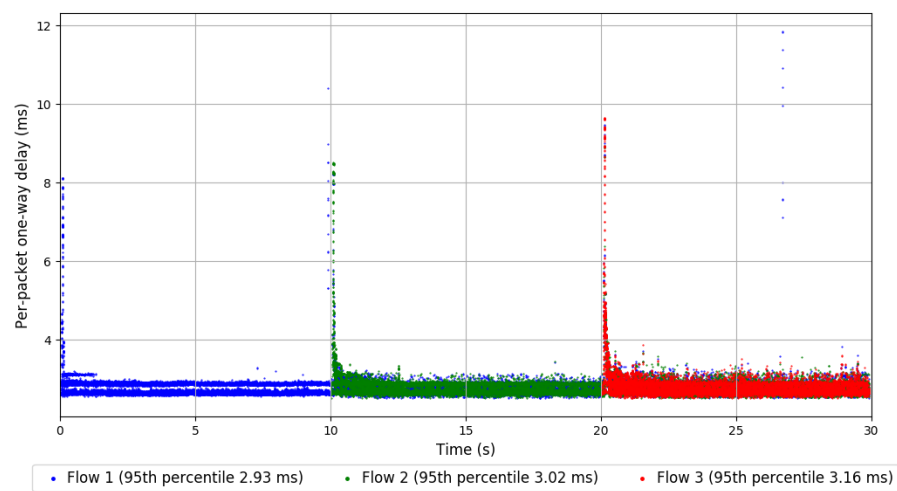
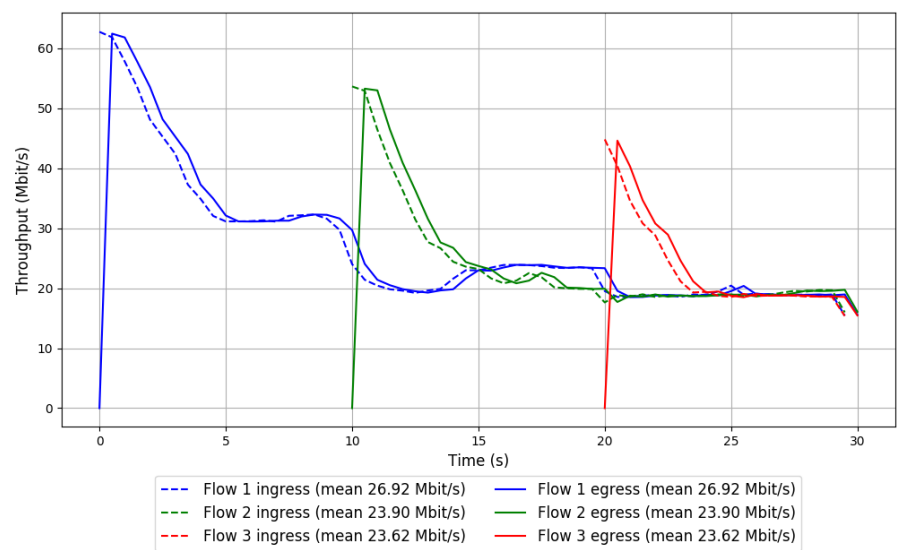


Run 1: Statistics of Indigo-MusesD

Start at: 2018-12-11 12:21:25  
End at: 2018-12-11 12:21:55  
Local clock offset: -5.763 ms  
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2018-12-11 14:10:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 50.61 Mbit/s  
95th percentile per-packet one-way delay: 2.990 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 26.92 Mbit/s  
95th percentile per-packet one-way delay: 2.927 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 23.90 Mbit/s  
95th percentile per-packet one-way delay: 3.015 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 23.62 Mbit/s  
95th percentile per-packet one-way delay: 3.160 ms  
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

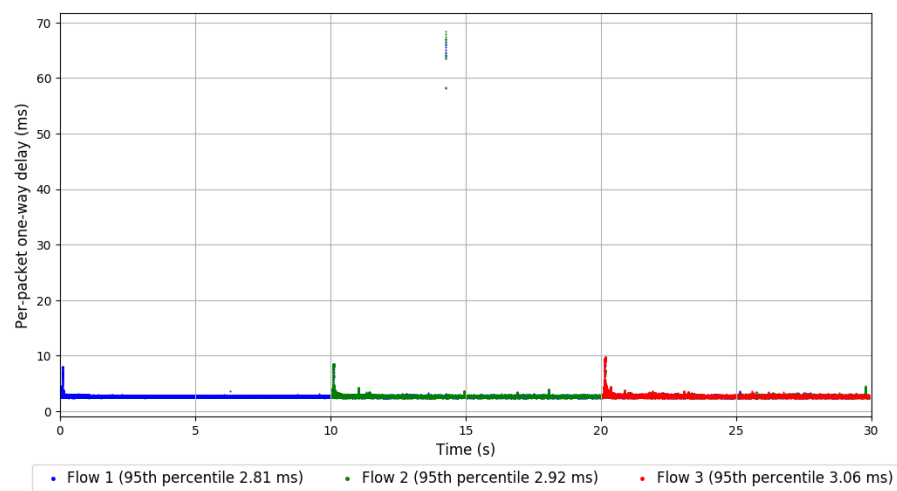
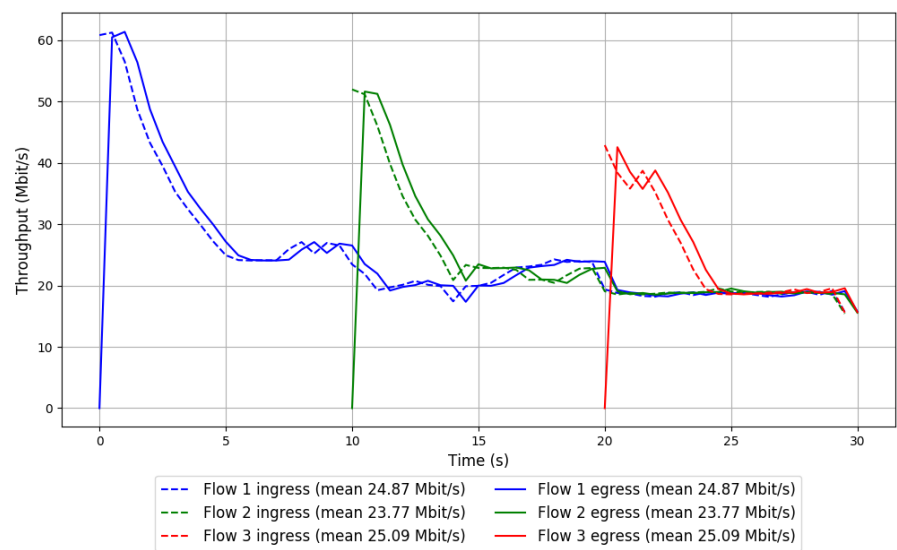


Run 2: Statistics of Indigo-MusesD

Start at: 2018-12-11 12:43:03  
End at: 2018-12-11 12:43:33  
Local clock offset: -5.723 ms  
Remote clock offset: -0.006 ms

# Below is generated by plot.py at 2018-12-11 14:10:29  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 48.96 Mbit/s  
95th percentile per-packet one-way delay: 2.884 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 24.87 Mbit/s  
95th percentile per-packet one-way delay: 2.809 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 23.77 Mbit/s  
95th percentile per-packet one-way delay: 2.917 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 25.09 Mbit/s  
95th percentile per-packet one-way delay: 3.057 ms  
Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link





Run 3: Statistics of Indigo-MusesD

Start at: 2018-12-11 13:04:39

End at: 2018-12-11 13:05:09

Local clock offset: -5.762 ms

Remote clock offset: 0.253 ms

# Below is generated by plot.py at 2018-12-11 14:10:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 50.77 Mbit/s

95th percentile per-packet one-way delay: 3.016 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 26.41 Mbit/s

95th percentile per-packet one-way delay: 2.878 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.87 Mbit/s

95th percentile per-packet one-way delay: 3.073 ms

Loss rate: 0.00%

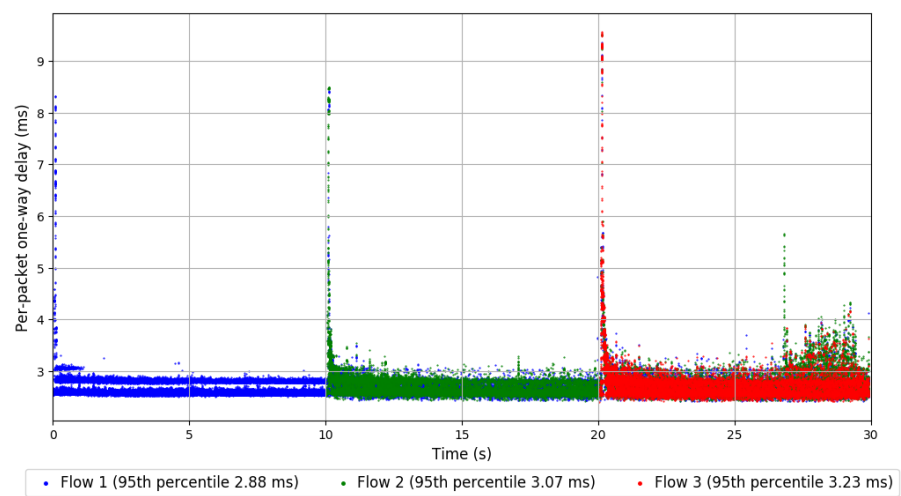
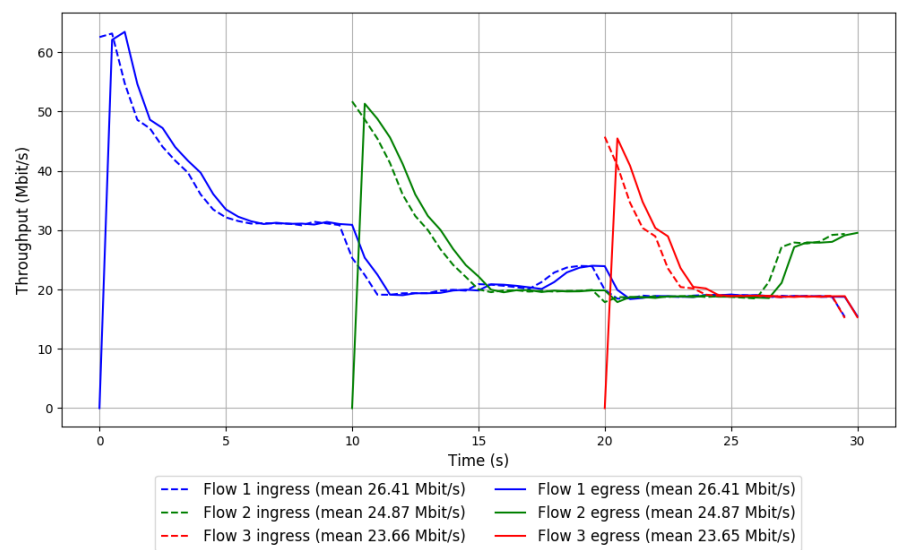
-- Flow 3:

Average throughput: 23.65 Mbit/s

95th percentile per-packet one-way delay: 3.228 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2018-12-11 13:26:16

End at: 2018-12-11 13:26:46

Local clock offset: -2.206 ms

Remote clock offset: 1.742 ms

# Below is generated by plot.py at 2018-12-11 14:10:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 52.60 Mbit/s

95th percentile per-packet one-way delay: 3.855 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 26.77 Mbit/s

95th percentile per-packet one-way delay: 3.189 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.57 Mbit/s

95th percentile per-packet one-way delay: 3.660 ms

Loss rate: 0.00%

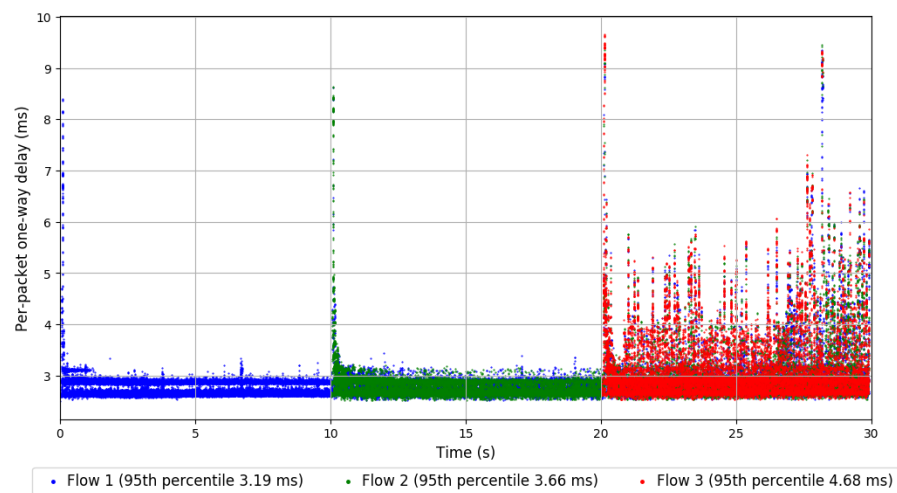
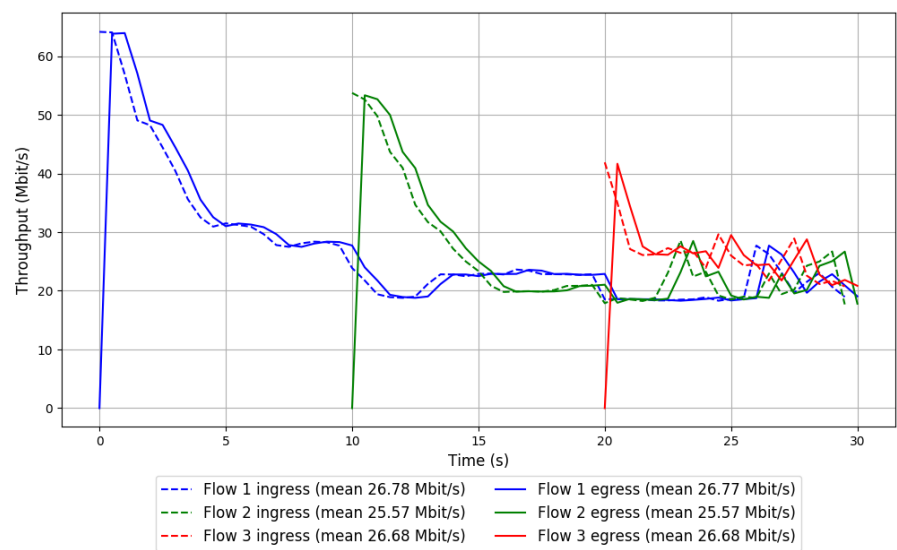
-- Flow 3:

Average throughput: 26.68 Mbit/s

95th percentile per-packet one-way delay: 4.685 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2018-12-11 13:47:54

End at: 2018-12-11 13:48:24

Local clock offset: -2.195 ms

Remote clock offset: 2.028 ms

# Below is generated by plot.py at 2018-12-11 14:10:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 52.12 Mbit/s

95th percentile per-packet one-way delay: 4.300 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 26.98 Mbit/s

95th percentile per-packet one-way delay: 3.914 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.06 Mbit/s

95th percentile per-packet one-way delay: 4.224 ms

Loss rate: 0.00%

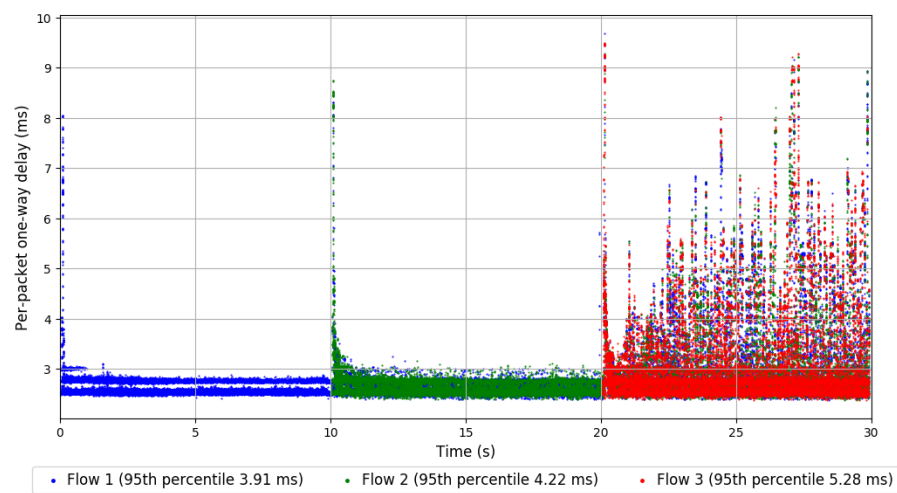
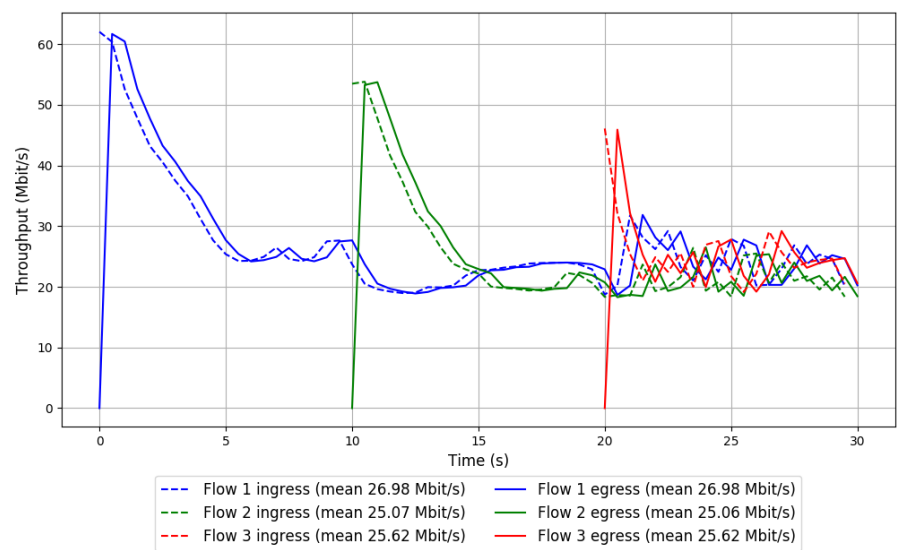
-- Flow 3:

Average throughput: 25.62 Mbit/s

95th percentile per-packet one-way delay: 5.282 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

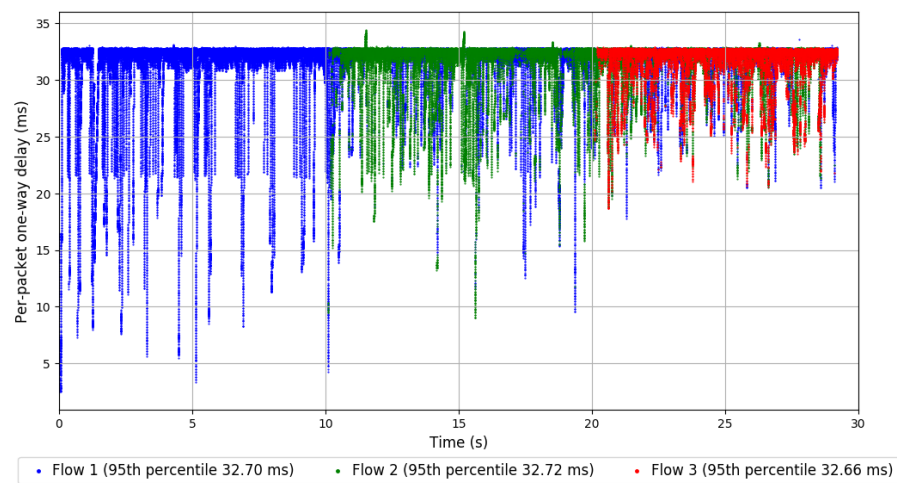
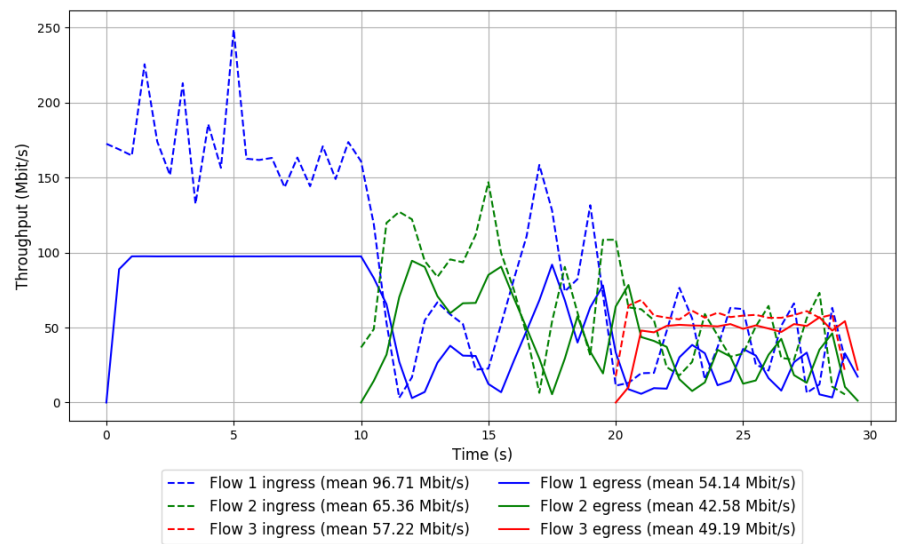


Run 1: Statistics of Indigo-MusesT

Start at: 2018-12-11 12:23:42  
End at: 2018-12-11 12:24:12  
Local clock offset: -5.696 ms  
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-12-11 14:10:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.32 Mbit/s  
95th percentile per-packet one-way delay: 32.703 ms  
Loss rate: 38.06%  
-- Flow 1:  
Average throughput: 54.14 Mbit/s  
95th percentile per-packet one-way delay: 32.704 ms  
Loss rate: 43.96%  
-- Flow 2:  
Average throughput: 42.58 Mbit/s  
95th percentile per-packet one-way delay: 32.717 ms  
Loss rate: 34.77%  
-- Flow 3:  
Average throughput: 49.19 Mbit/s  
95th percentile per-packet one-way delay: 32.660 ms  
Loss rate: 13.96%

Run 1: Report of Indigo-MusesT — Data Link





Run 2: Statistics of Indigo-MusesT

Start at: 2018-12-11 12:45:19

End at: 2018-12-11 12:45:49

Local clock offset: -5.717 ms

Remote clock offset: 0.062 ms

# Below is generated by plot.py at 2018-12-11 14:11:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 32.708 ms

Loss rate: 34.28%

-- Flow 1:

Average throughput: 55.15 Mbit/s

95th percentile per-packet one-way delay: 32.715 ms

Loss rate: 43.37%

-- Flow 2:

Average throughput: 45.73 Mbit/s

95th percentile per-packet one-way delay: 32.693 ms

Loss rate: 16.59%

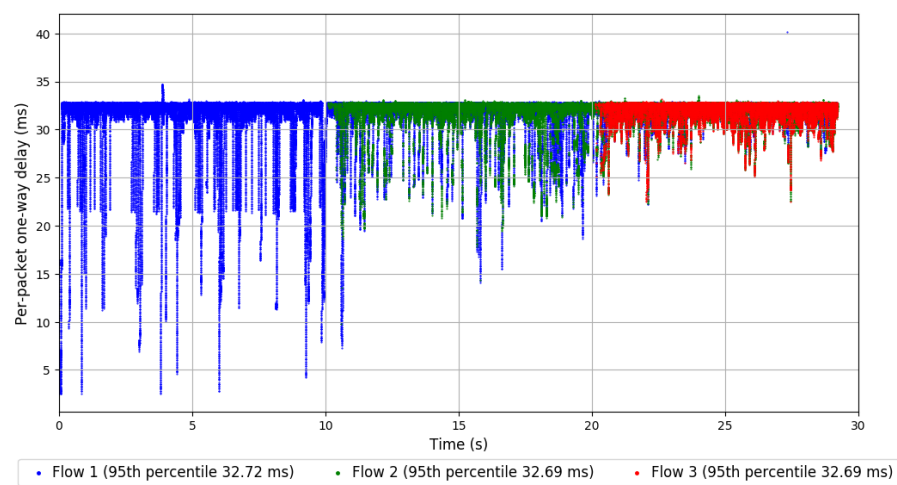
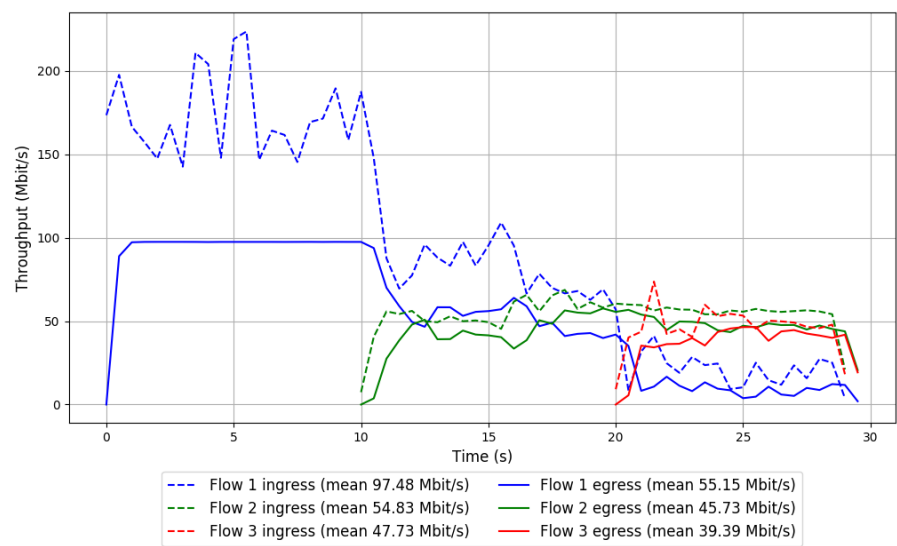
-- Flow 3:

Average throughput: 39.39 Mbit/s

95th percentile per-packet one-way delay: 32.686 ms

Loss rate: 17.47%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2018-12-11 13:06:56

End at: 2018-12-11 13:07:26

Local clock offset: -5.785 ms

Remote clock offset: 0.383 ms

# Below is generated by plot.py at 2018-12-11 14:11:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 32.650 ms

Loss rate: 33.54%

-- Flow 1:

Average throughput: 54.22 Mbit/s

95th percentile per-packet one-way delay: 32.654 ms

Loss rate: 42.73%

-- Flow 2:

Average throughput: 45.62 Mbit/s

95th percentile per-packet one-way delay: 32.635 ms

Loss rate: 16.38%

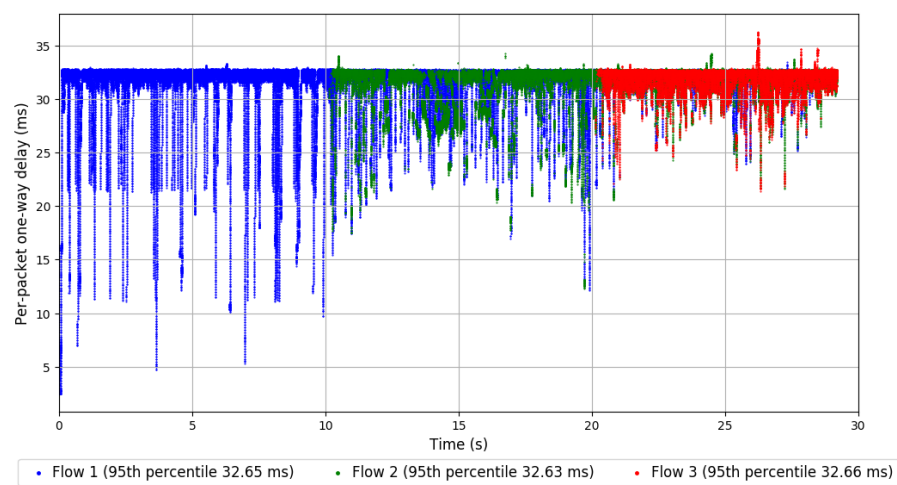
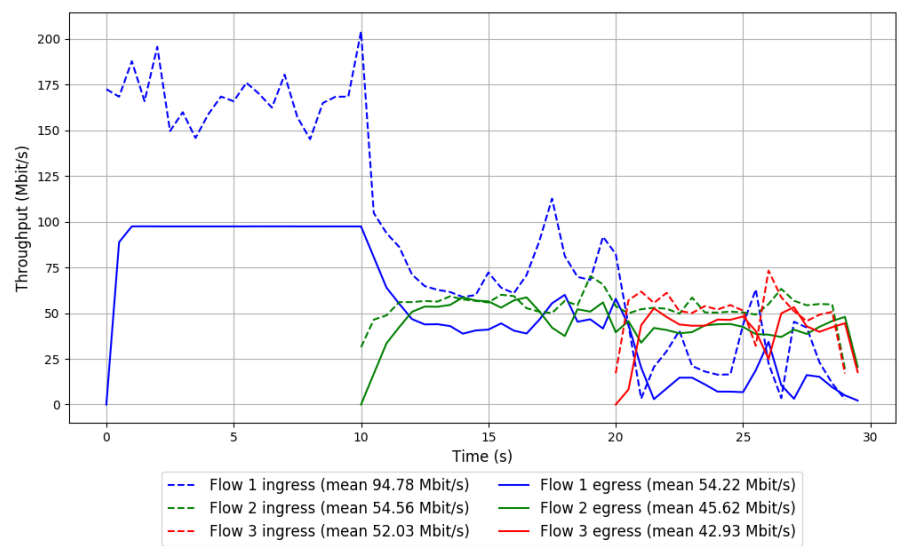
-- Flow 3:

Average throughput: 42.93 Mbit/s

95th percentile per-packet one-way delay: 32.655 ms

Loss rate: 17.47%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2018-12-11 13:28:34

End at: 2018-12-11 13:29:04

Local clock offset: -2.013 ms

Remote clock offset: 1.668 ms

# Below is generated by plot.py at 2018-12-11 14:11:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 32.697 ms

Loss rate: 40.78%

-- Flow 1:

Average throughput: 67.85 Mbit/s

95th percentile per-packet one-way delay: 32.706 ms

Loss rate: 44.91%

-- Flow 2:

Average throughput: 23.79 Mbit/s

95th percentile per-packet one-way delay: 32.688 ms

Loss rate: 36.86%

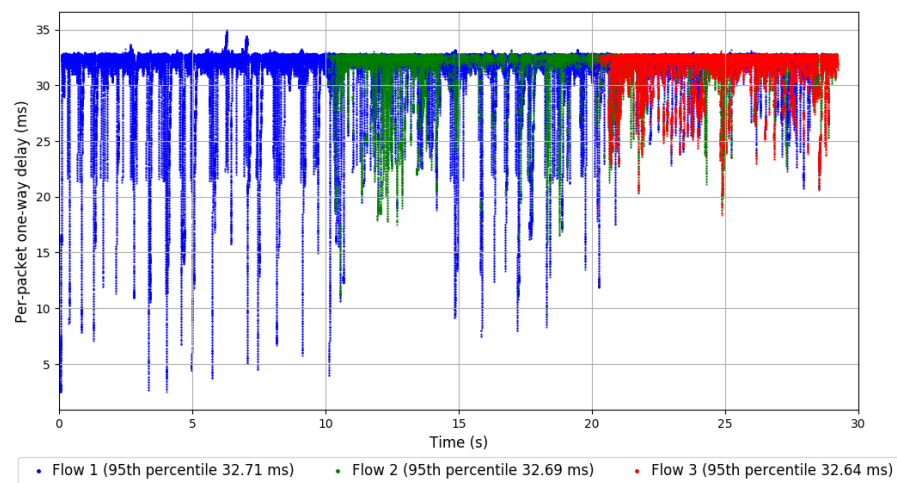
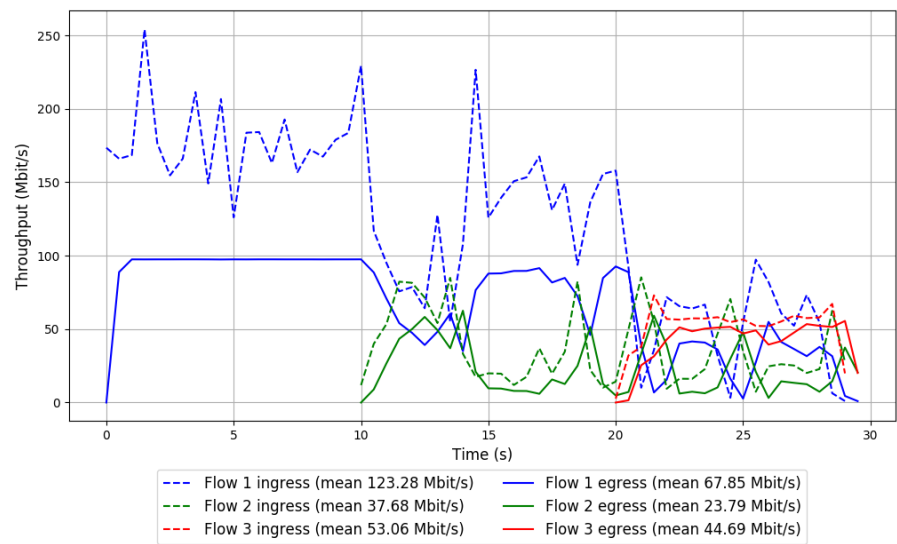
-- Flow 3:

Average throughput: 44.69 Mbit/s

95th percentile per-packet one-way delay: 32.641 ms

Loss rate: 15.79%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2018-12-11 13:50:11

End at: 2018-12-11 13:50:41

Local clock offset: -2.258 ms

Remote clock offset: 2.205 ms

# Below is generated by plot.py at 2018-12-11 14:11:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 32.858 ms

Loss rate: 41.37%

-- Flow 1:

Average throughput: 58.48 Mbit/s

95th percentile per-packet one-way delay: 32.920 ms

Loss rate: 45.63%

-- Flow 2:

Average throughput: 41.68 Mbit/s

95th percentile per-packet one-way delay: 32.809 ms

Loss rate: 36.51%

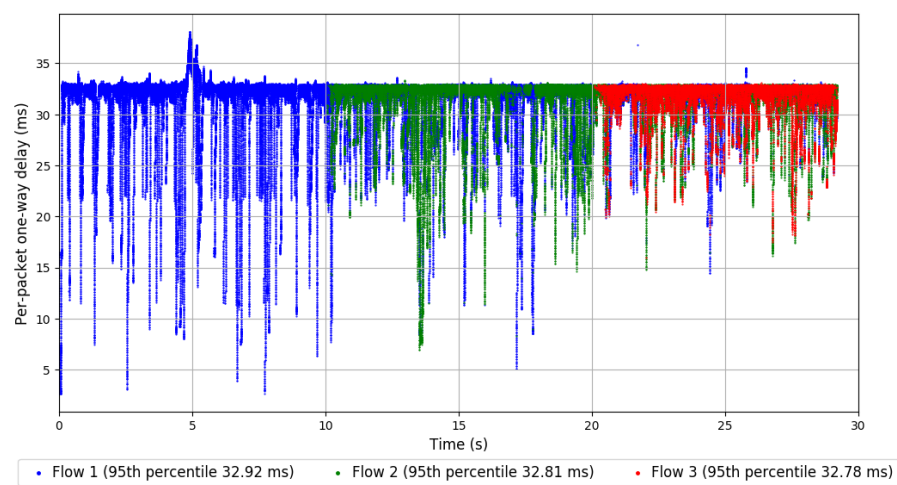
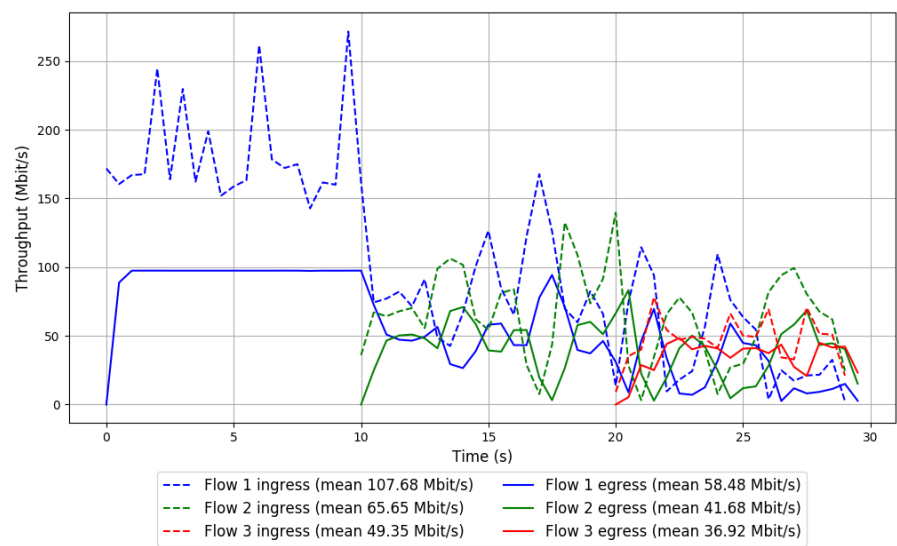
-- Flow 3:

Average throughput: 36.92 Mbit/s

95th percentile per-packet one-way delay: 32.778 ms

Loss rate: 25.18%

Run 5: Report of Indigo-MusesT — Data Link



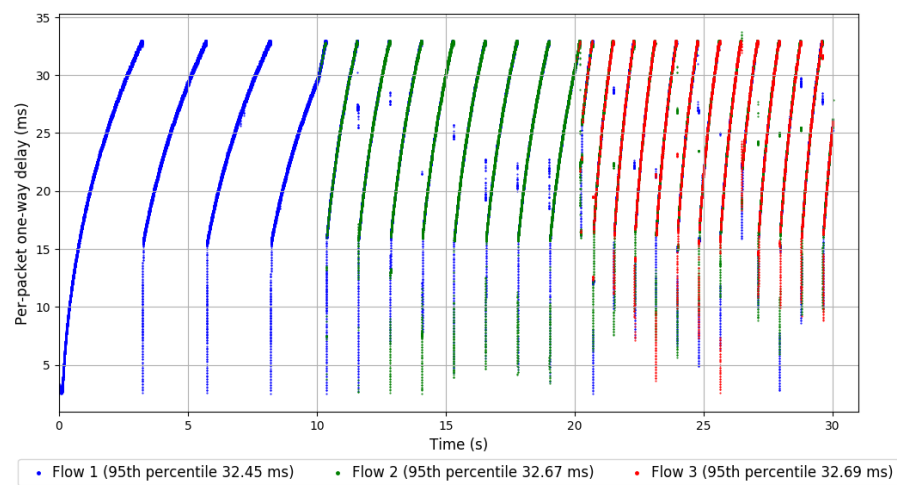
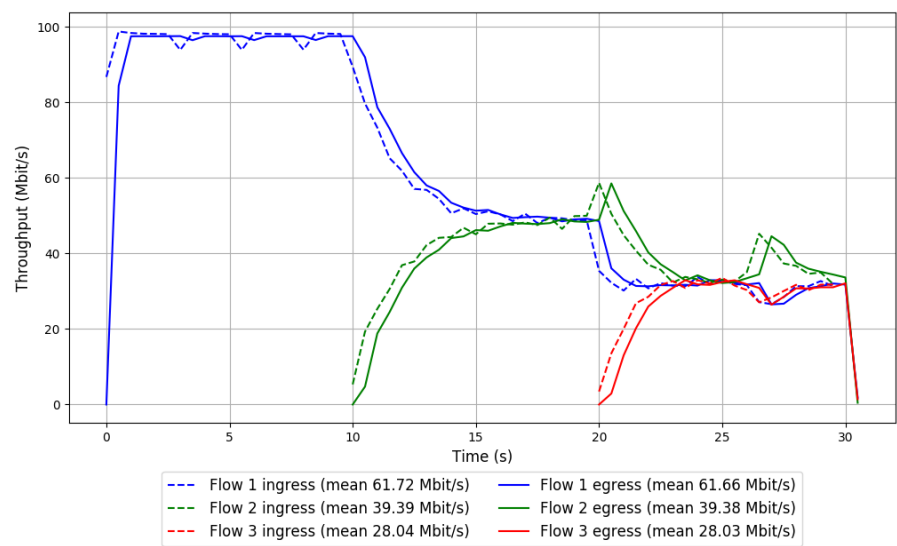


```
Run 1: Statistics of LEDBAT

Start at: 2018-12-11 12:37:18
End at: 2018-12-11 12:37:48
Local clock offset: -5.735 ms
Remote clock offset: 0.093 ms

# Below is generated by plot.py at 2018-12-11 14:11:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.16 Mbit/s
95th percentile per-packet one-way delay: 32.482 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 61.66 Mbit/s
95th percentile per-packet one-way delay: 32.454 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 39.38 Mbit/s
95th percentile per-packet one-way delay: 32.675 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 28.03 Mbit/s
95th percentile per-packet one-way delay: 32.687 ms
Loss rate: 0.10%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-12-11 12:58:55

End at: 2018-12-11 12:59:25

Local clock offset: -5.748 ms

Remote clock offset: 0.189 ms

# Below is generated by plot.py at 2018-12-11 14:11:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.15 Mbit/s

95th percentile per-packet one-way delay: 32.478 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 62.61 Mbit/s

95th percentile per-packet one-way delay: 32.451 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 37.49 Mbit/s

95th percentile per-packet one-way delay: 32.669 ms

Loss rate: 0.06%

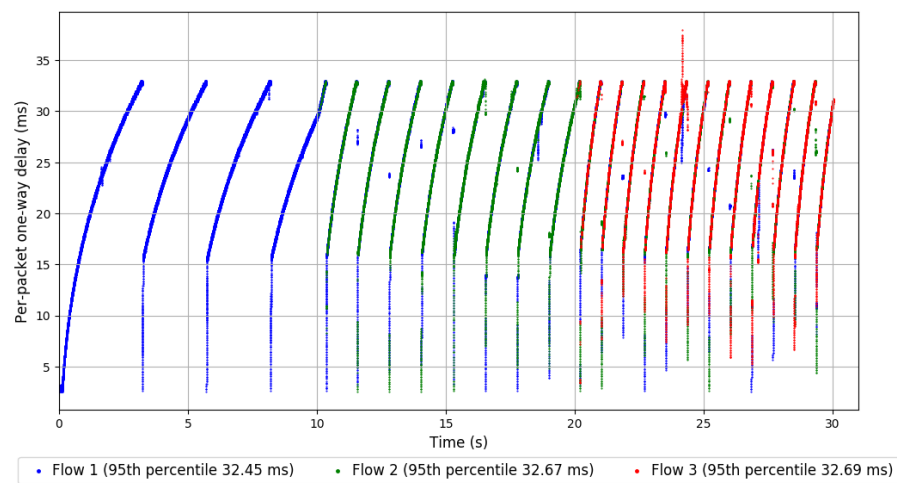
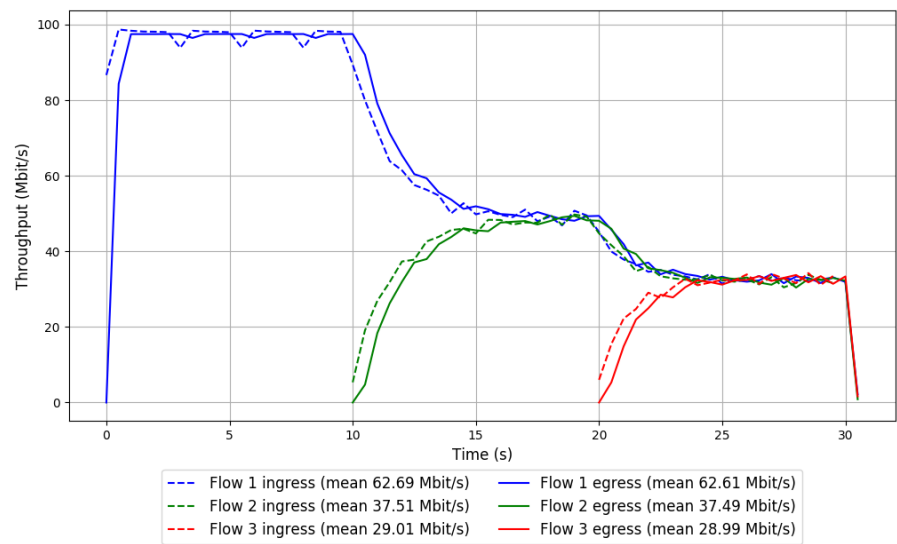
-- Flow 3:

Average throughput: 28.99 Mbit/s

95th percentile per-packet one-way delay: 32.687 ms

Loss rate: 0.08%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-12-11 13:20:32

End at: 2018-12-11 13:21:02

Local clock offset: -2.825 ms

Remote clock offset: 1.616 ms

# Below is generated by plot.py at 2018-12-11 14:11:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.15 Mbit/s

95th percentile per-packet one-way delay: 32.522 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 62.91 Mbit/s

95th percentile per-packet one-way delay: 32.490 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.66 Mbit/s

95th percentile per-packet one-way delay: 32.703 ms

Loss rate: 0.06%

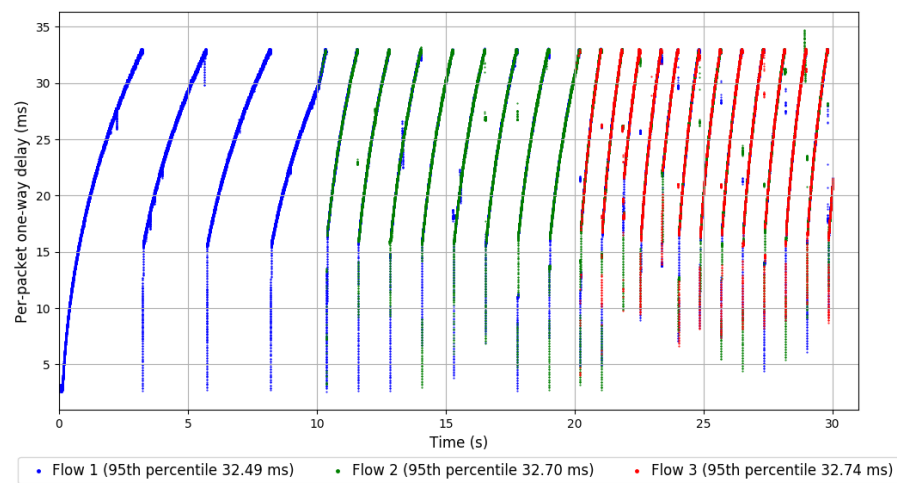
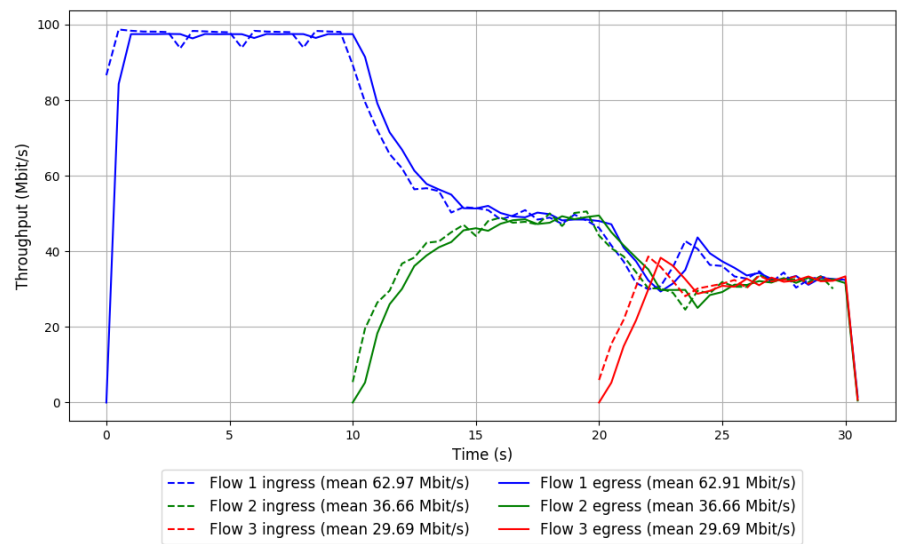
-- Flow 3:

Average throughput: 29.69 Mbit/s

95th percentile per-packet one-way delay: 32.737 ms

Loss rate: 0.08%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-12-11 13:42:09

End at: 2018-12-11 13:42:39

Local clock offset: -1.801 ms

Remote clock offset: 1.901 ms

# Below is generated by plot.py at 2018-12-11 14:12:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.13 Mbit/s

95th percentile per-packet one-way delay: 32.284 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 63.05 Mbit/s

95th percentile per-packet one-way delay: 32.260 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.86 Mbit/s

95th percentile per-packet one-way delay: 32.442 ms

Loss rate: 0.05%

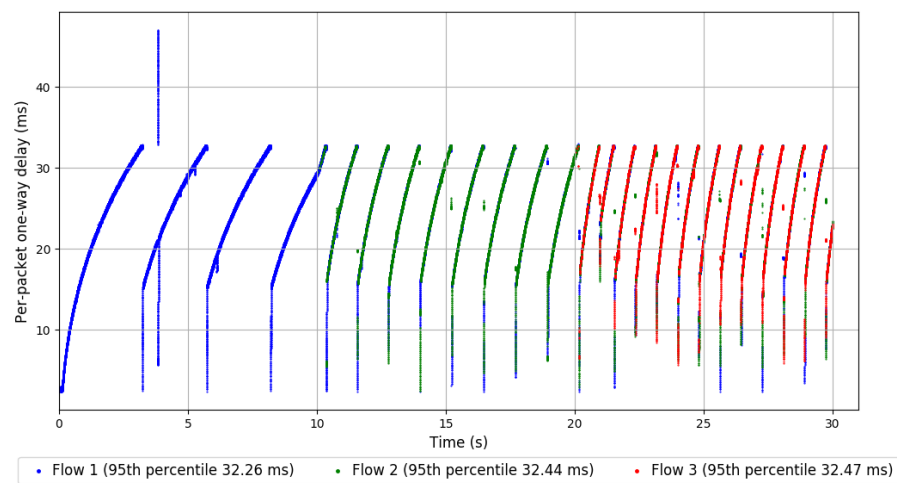
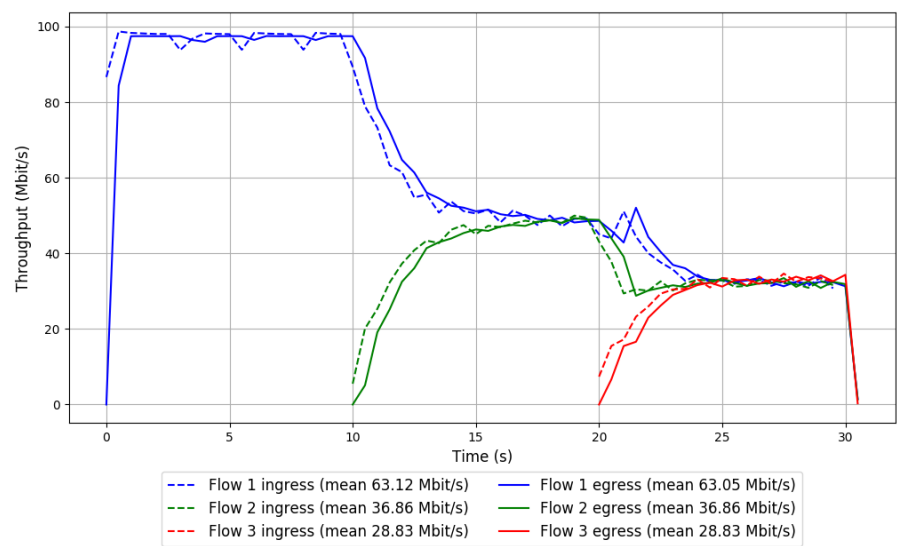
-- Flow 3:

Average throughput: 28.83 Mbit/s

95th percentile per-packet one-way delay: 32.474 ms

Loss rate: 0.09%

Run 4: Report of LEDBAT — Data Link





Run 5: Statistics of LEDBAT

Start at: 2018-12-11 14:03:47

End at: 2018-12-11 14:04:17

Local clock offset: -2.236 ms

Remote clock offset: 2.215 ms

# Below is generated by plot.py at 2018-12-11 14:12:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.15 Mbit/s

95th percentile per-packet one-way delay: 32.422 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 62.33 Mbit/s

95th percentile per-packet one-way delay: 32.392 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 37.70 Mbit/s

95th percentile per-packet one-way delay: 32.561 ms

Loss rate: 0.05%

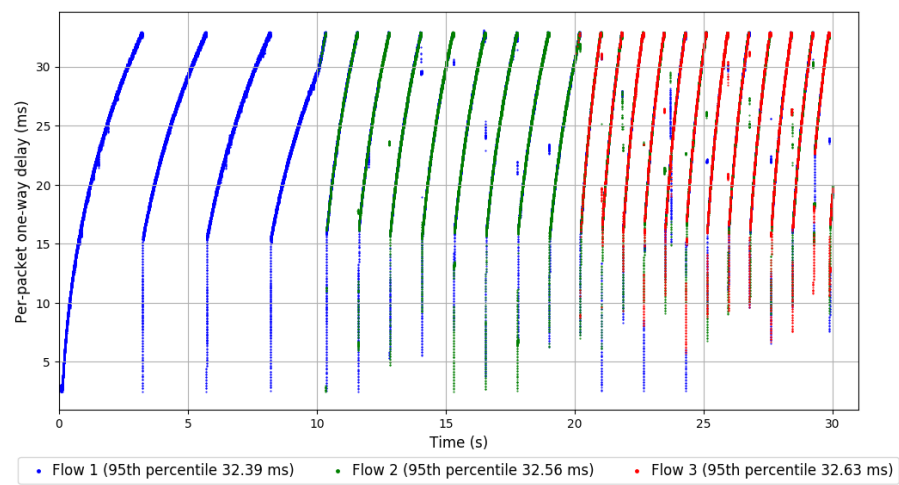
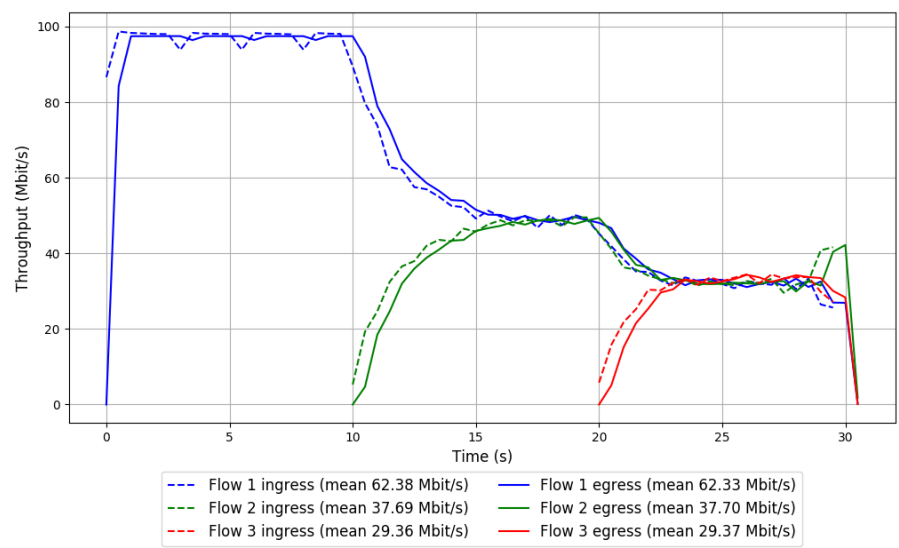
-- Flow 3:

Average throughput: 29.37 Mbit/s

95th percentile per-packet one-way delay: 32.634 ms

Loss rate: 0.08%

Run 5: Report of LEDBAT — Data Link

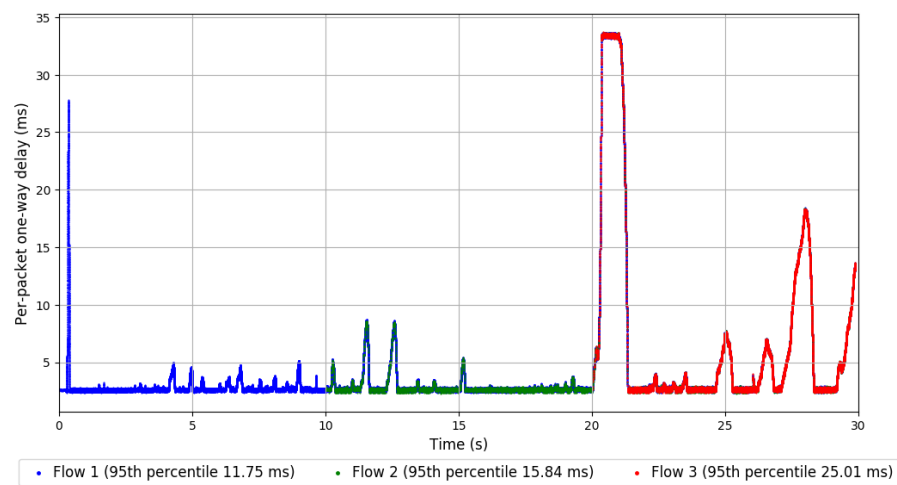
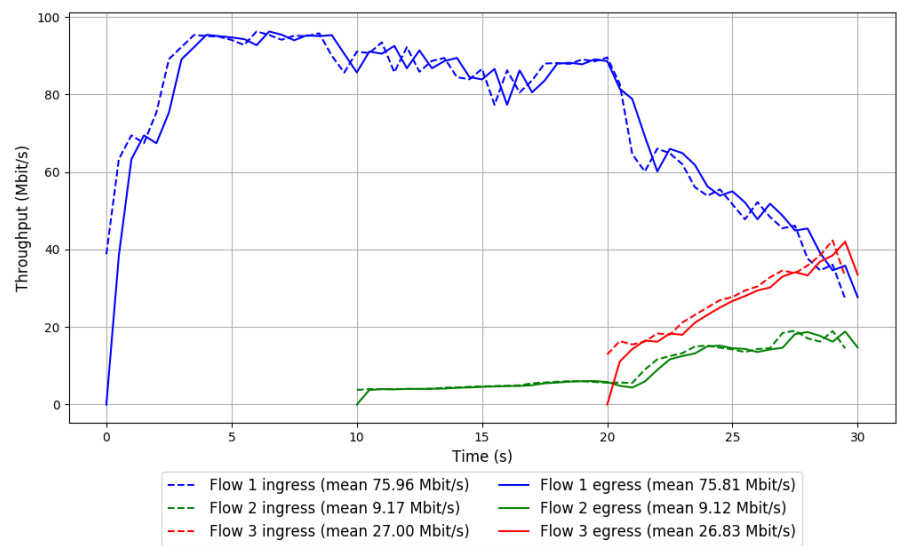


Run 1: Statistics of PCC-Allegro

Start at: 2018-12-11 12:35:01  
End at: 2018-12-11 12:35:31  
Local clock offset: -5.723 ms  
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-12-11 14:12:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.74 Mbit/s  
95th percentile per-packet one-way delay: 14.730 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 75.81 Mbit/s  
95th percentile per-packet one-way delay: 11.746 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 9.12 Mbit/s  
95th percentile per-packet one-way delay: 15.838 ms  
Loss rate: 0.47%  
-- Flow 3:  
Average throughput: 26.83 Mbit/s  
95th percentile per-packet one-way delay: 25.012 ms  
Loss rate: 0.53%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-12-11 12:56:38

End at: 2018-12-11 12:57:08

Local clock offset: -5.813 ms

Remote clock offset: 0.115 ms

# Below is generated by plot.py at 2018-12-11 14:12:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.34 Mbit/s

95th percentile per-packet one-way delay: 33.283 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 72.97 Mbit/s

95th percentile per-packet one-way delay: 27.402 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 17.25 Mbit/s

95th percentile per-packet one-way delay: 33.399 ms

Loss rate: 0.73%

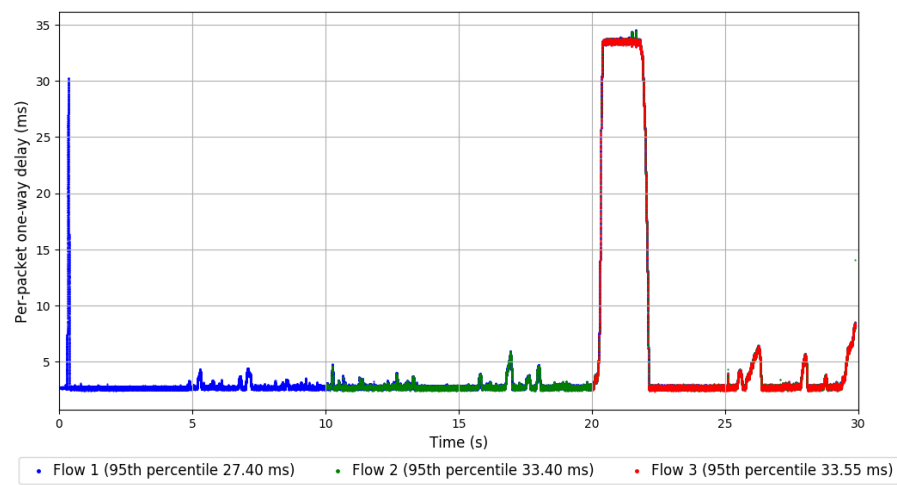
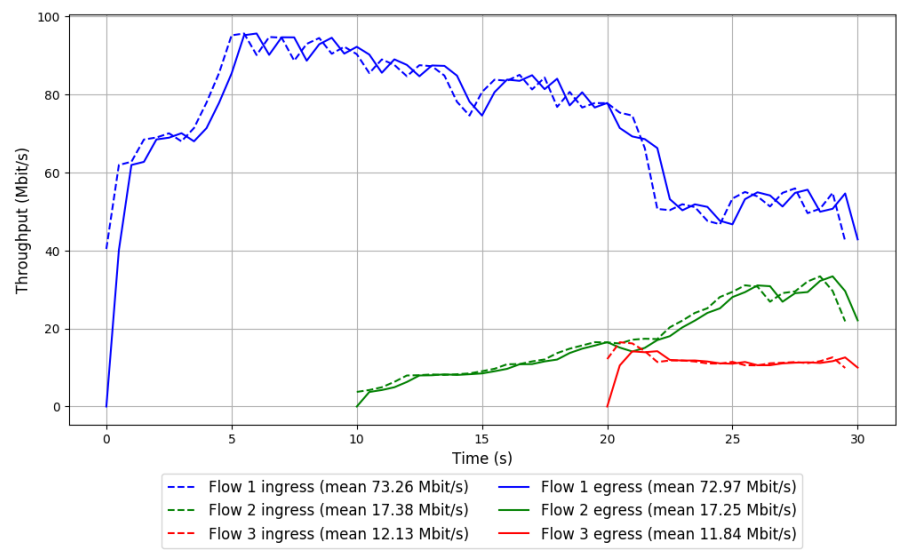
-- Flow 3:

Average throughput: 11.84 Mbit/s

95th percentile per-packet one-way delay: 33.550 ms

Loss rate: 2.36%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-12-11 13:18:15

End at: 2018-12-11 13:18:45

Local clock offset: -3.148 ms

Remote clock offset: 1.413 ms

# Below is generated by plot.py at 2018-12-11 14:12:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.56 Mbit/s

95th percentile per-packet one-way delay: 32.893 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 67.66 Mbit/s

95th percentile per-packet one-way delay: 32.524 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 22.58 Mbit/s

95th percentile per-packet one-way delay: 33.149 ms

Loss rate: 0.12%

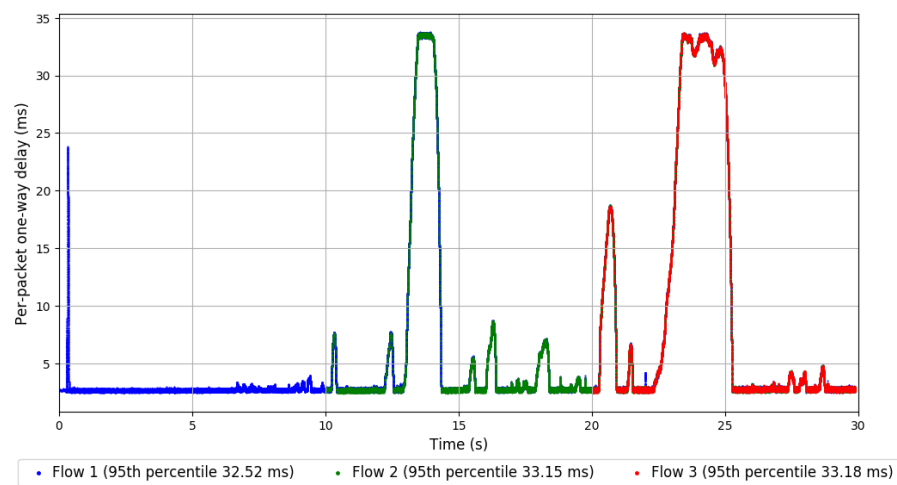
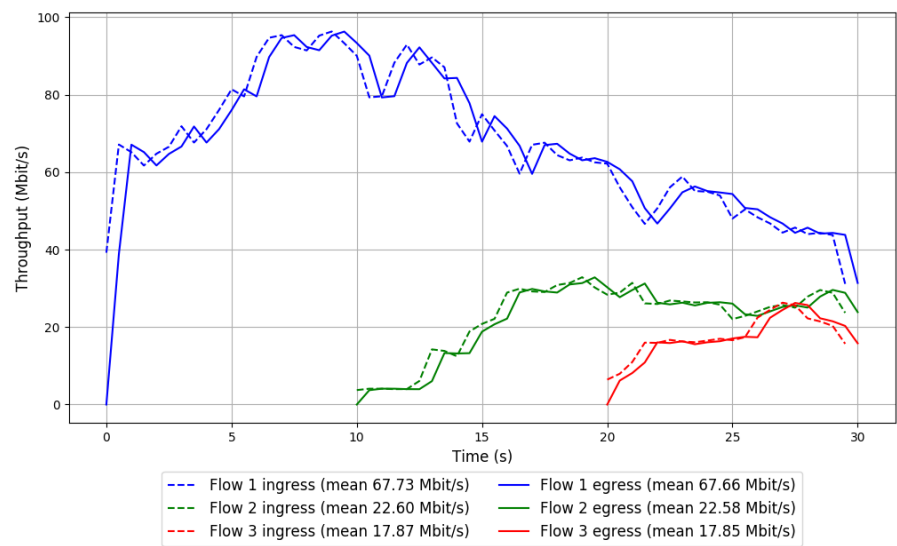
-- Flow 3:

Average throughput: 17.85 Mbit/s

95th percentile per-packet one-way delay: 33.183 ms

Loss rate: 0.10%

Run 3: Report of PCC-Allegro — Data Link





Run 4: Statistics of PCC-Allegro

Start at: 2018-12-11 13:39:52

End at: 2018-12-11 13:40:22

Local clock offset: -1.621 ms

Remote clock offset: 2.007 ms

# Below is generated by plot.py at 2018-12-11 14:12:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.13 Mbit/s

95th percentile per-packet one-way delay: 21.217 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 62.13 Mbit/s

95th percentile per-packet one-way delay: 19.371 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 26.93 Mbit/s

95th percentile per-packet one-way delay: 25.326 ms

Loss rate: 0.10%

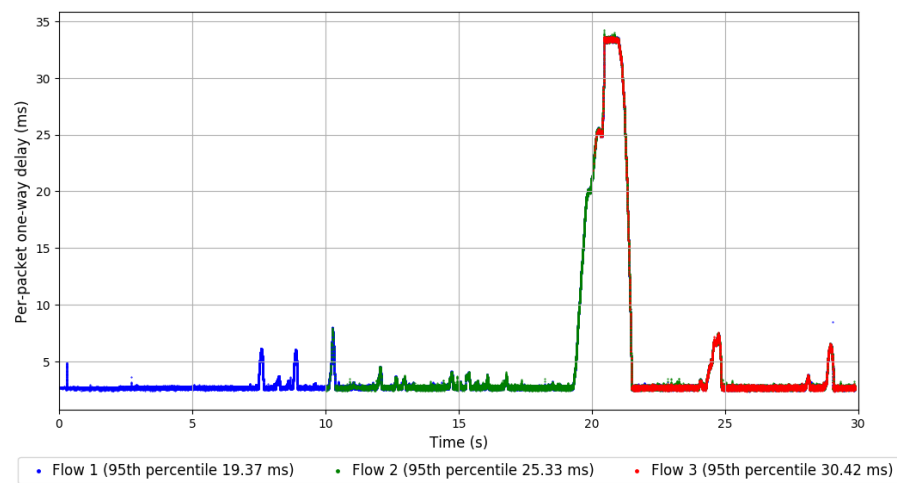
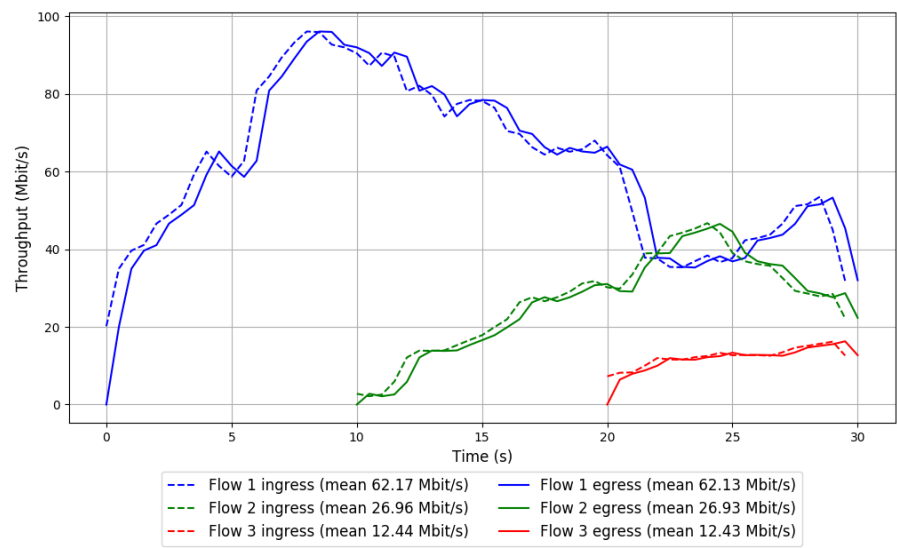
-- Flow 3:

Average throughput: 12.43 Mbit/s

95th percentile per-packet one-way delay: 30.422 ms

Loss rate: 0.23%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-12-11 14:01:30

End at: 2018-12-11 14:02:00

Local clock offset: -2.259 ms

Remote clock offset: 2.233 ms

# Below is generated by plot.py at 2018-12-11 14:12:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.40 Mbit/s

95th percentile per-packet one-way delay: 6.435 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 81.45 Mbit/s

95th percentile per-packet one-way delay: 6.208 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.83 Mbit/s

95th percentile per-packet one-way delay: 8.821 ms

Loss rate: 0.00%

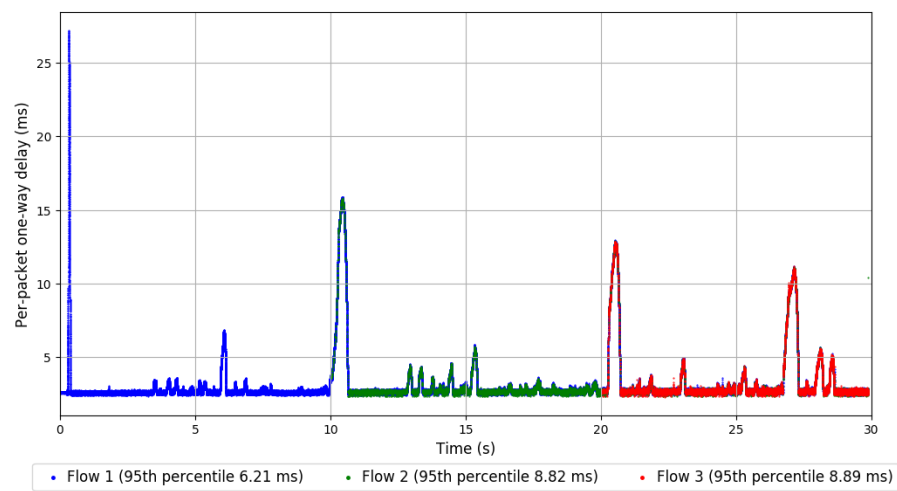
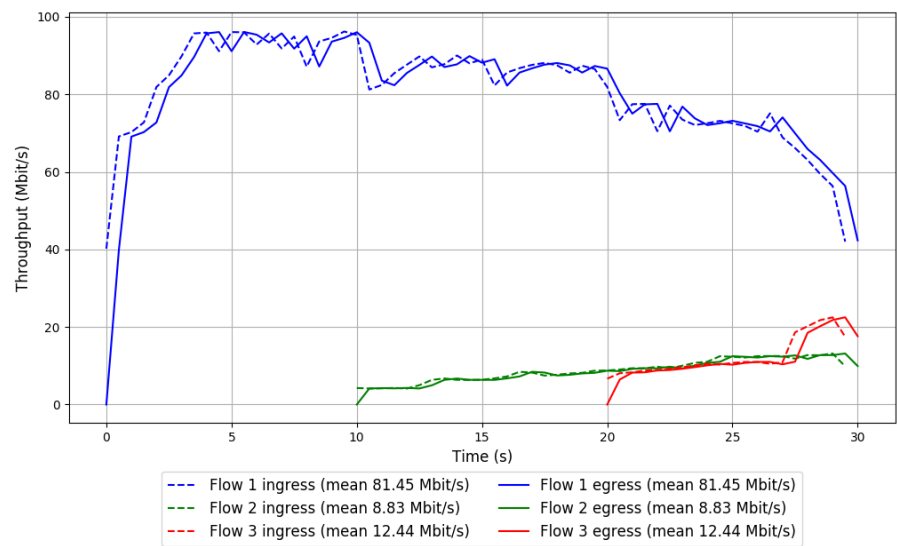
-- Flow 3:

Average throughput: 12.44 Mbit/s

95th percentile per-packet one-way delay: 8.887 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

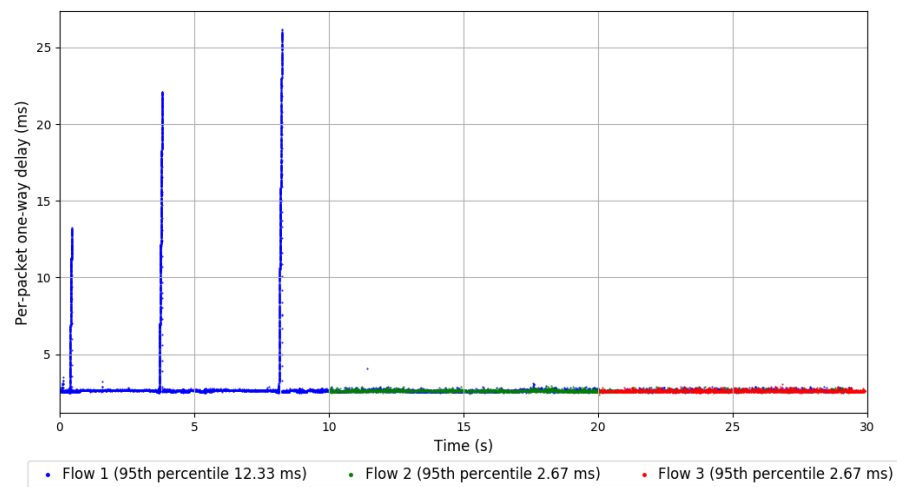
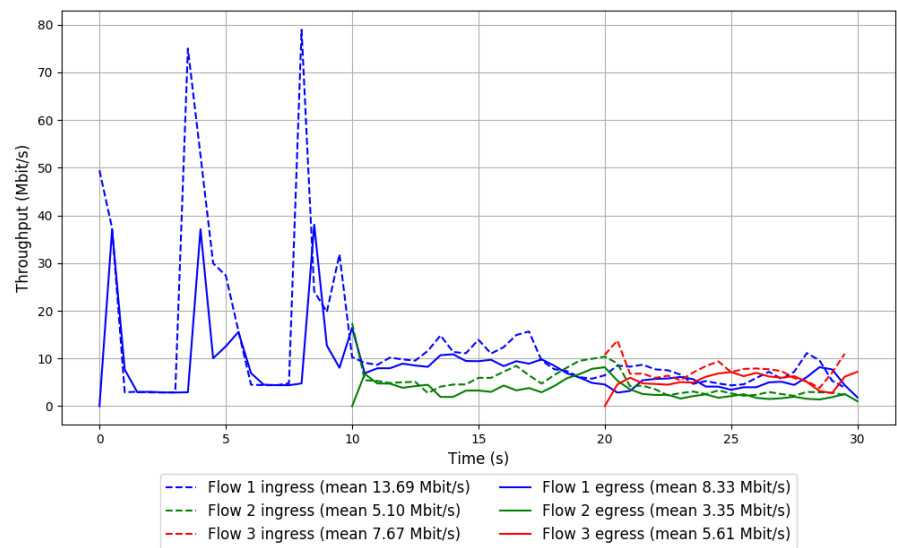


```
Run 1: Statistics of PCC-Expr

Start at: 2018-12-11 12:30:33
End at: 2018-12-11 12:31:03
Local clock offset: -5.697 ms
Remote clock offset: 0.015 ms

# Below is generated by plot.py at 2018-12-11 14:12:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 9.299 ms
Loss rate: 36.79%
-- Flow 1:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 12.330 ms
Loss rate: 39.21%
-- Flow 2:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 2.673 ms
Loss rate: 34.38%
-- Flow 3:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 2.666 ms
Loss rate: 26.96%
```

Run 1: Report of PCC-Expr — Data Link

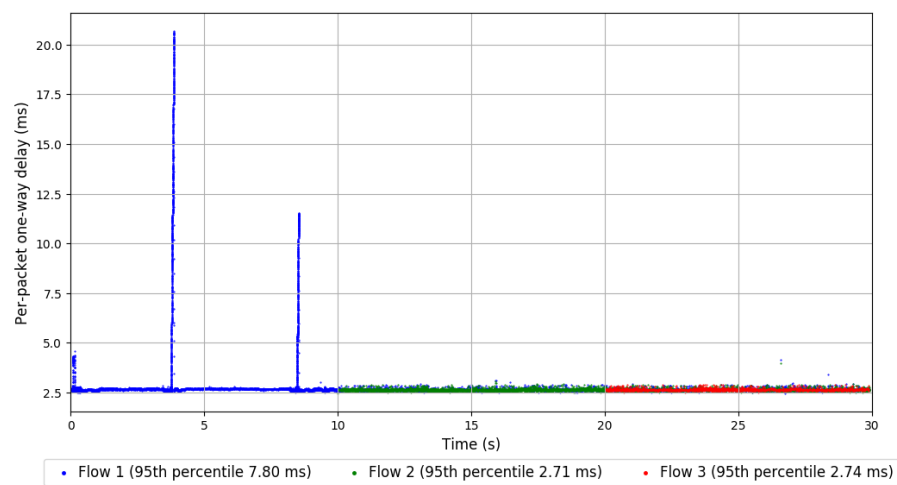
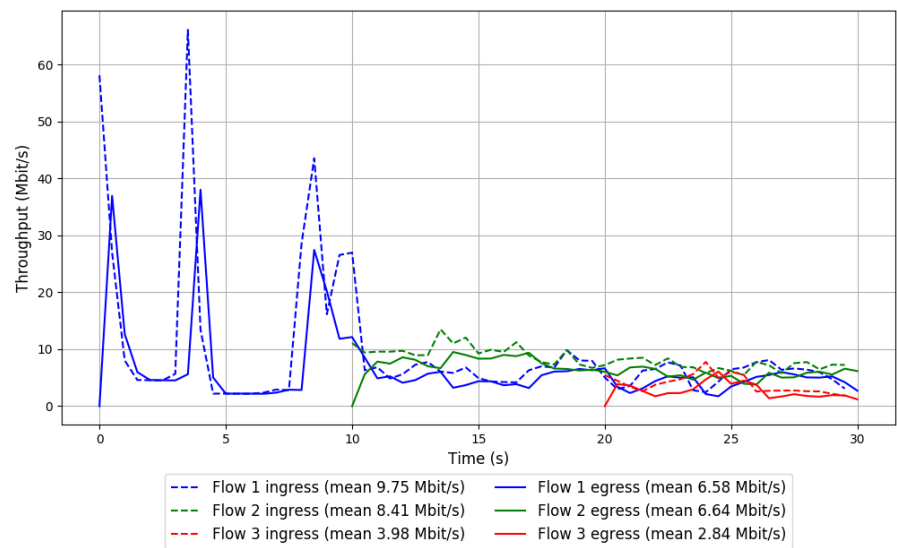


```
Run 2: Statistics of PCC-Expr

Start at: 2018-12-11 12:52:10
End at: 2018-12-11 12:52:40
Local clock offset: -5.718 ms
Remote clock offset: 0.155 ms

# Below is generated by plot.py at 2018-12-11 14:12:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 2.875 ms
Loss rate: 28.32%
-- Flow 1:
Average throughput: 6.58 Mbit/s
95th percentile per-packet one-way delay: 7.799 ms
Loss rate: 32.46%
-- Flow 2:
Average throughput: 6.64 Mbit/s
95th percentile per-packet one-way delay: 2.708 ms
Loss rate: 21.03%
-- Flow 3:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 2.743 ms
Loss rate: 28.69%
```

Run 2: Report of PCC-Expr — Data Link





Run 3: Statistics of PCC-Expr

Start at: 2018-12-11 13:13:47

End at: 2018-12-11 13:14:17

Local clock offset: -4.127 ms

Remote clock offset: 0.999 ms

# Below is generated by plot.py at 2018-12-11 14:12:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.65 Mbit/s

95th percentile per-packet one-way delay: 2.919 ms

Loss rate: 31.96%

-- Flow 1:

Average throughput: 8.00 Mbit/s

95th percentile per-packet one-way delay: 2.992 ms

Loss rate: 35.66%

-- Flow 2:

Average throughput: 4.53 Mbit/s

95th percentile per-packet one-way delay: 2.860 ms

Loss rate: 26.53%

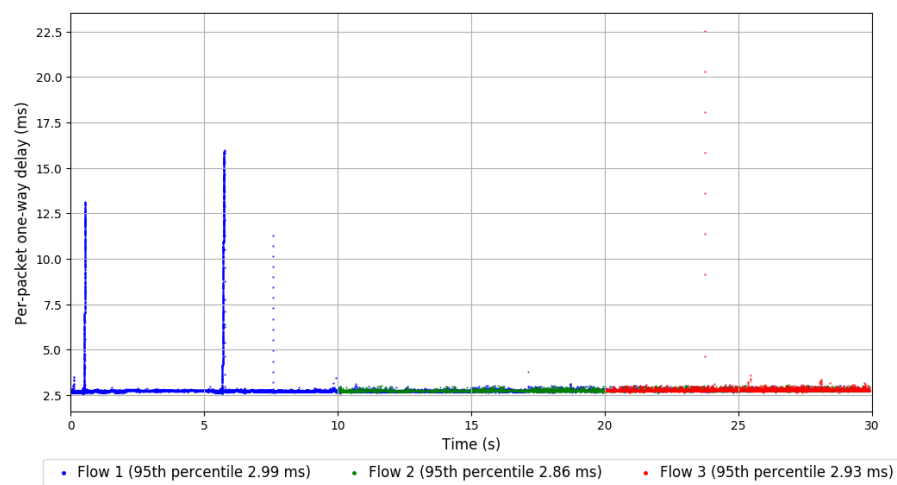
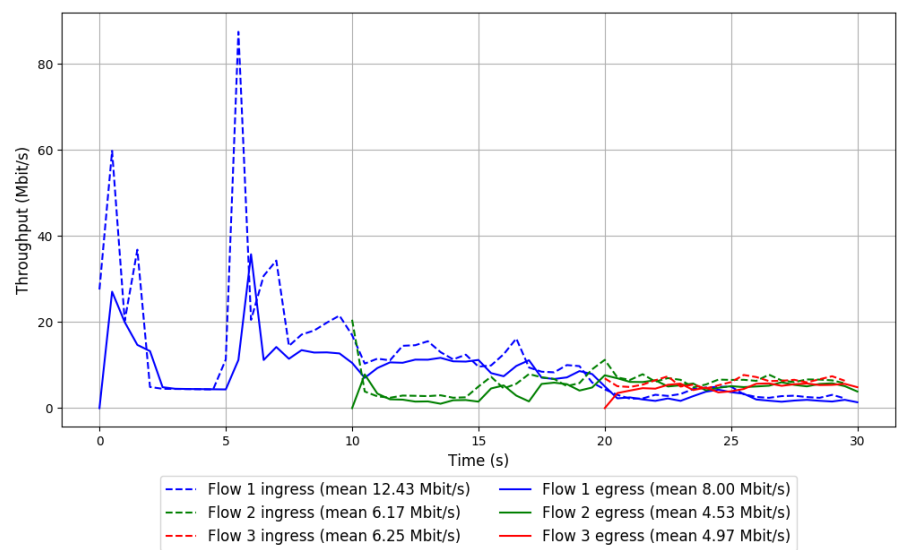
-- Flow 3:

Average throughput: 4.97 Mbit/s

95th percentile per-packet one-way delay: 2.931 ms

Loss rate: 20.50%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-12-11 13:35:24

End at: 2018-12-11 13:35:54

Local clock offset: -1.62 ms

Remote clock offset: 1.944 ms

# Below is generated by plot.py at 2018-12-11 14:12:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.42 Mbit/s

95th percentile per-packet one-way delay: 2.955 ms

Loss rate: 31.67%

-- Flow 1:

Average throughput: 6.64 Mbit/s

95th percentile per-packet one-way delay: 2.972 ms

Loss rate: 26.47%

-- Flow 2:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 3.100 ms

Loss rate: 42.62%

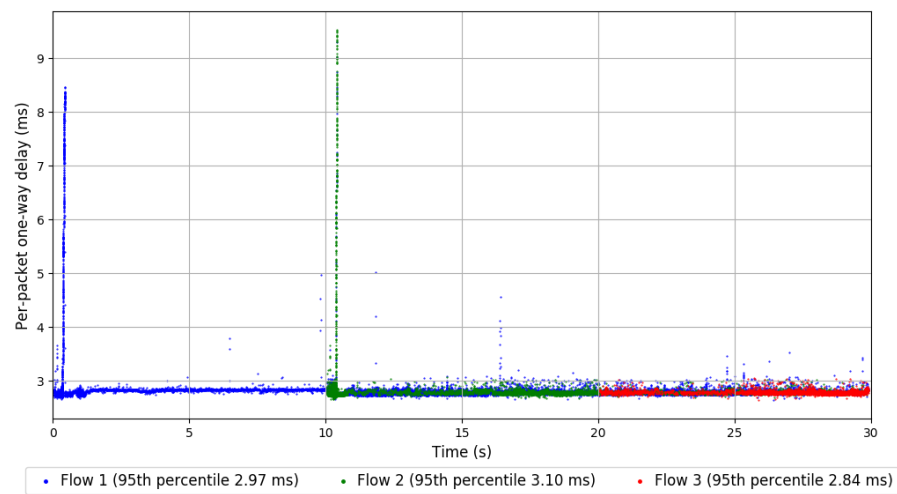
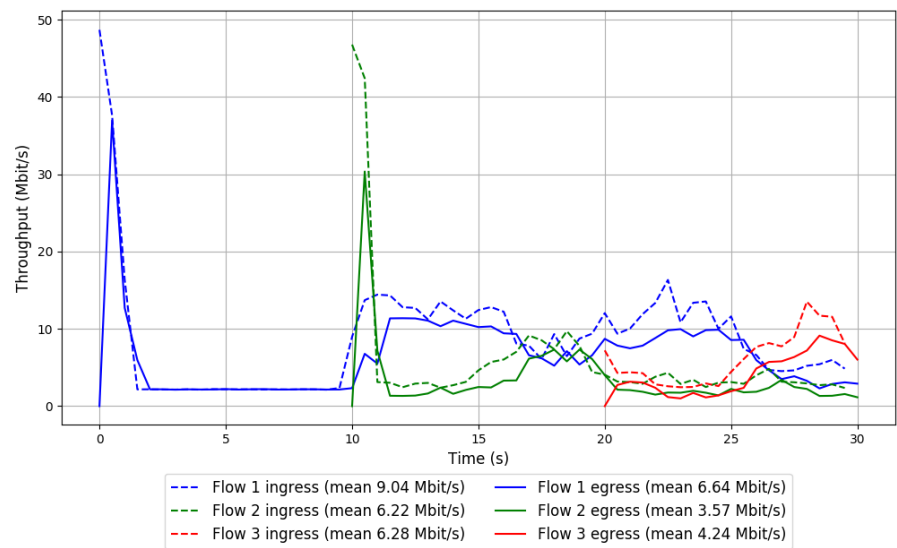
-- Flow 3:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 2.843 ms

Loss rate: 32.47%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-12-11 13:57:02

End at: 2018-12-11 13:57:32

Local clock offset: -2.344 ms

Remote clock offset: 2.247 ms

# Below is generated by plot.py at 2018-12-11 14:12:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.28 Mbit/s

95th percentile per-packet one-way delay: 2.771 ms

Loss rate: 22.79%

-- Flow 1:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 2.890 ms

Loss rate: 24.28%

-- Flow 2:

Average throughput: 6.95 Mbit/s

95th percentile per-packet one-way delay: 2.732 ms

Loss rate: 21.84%

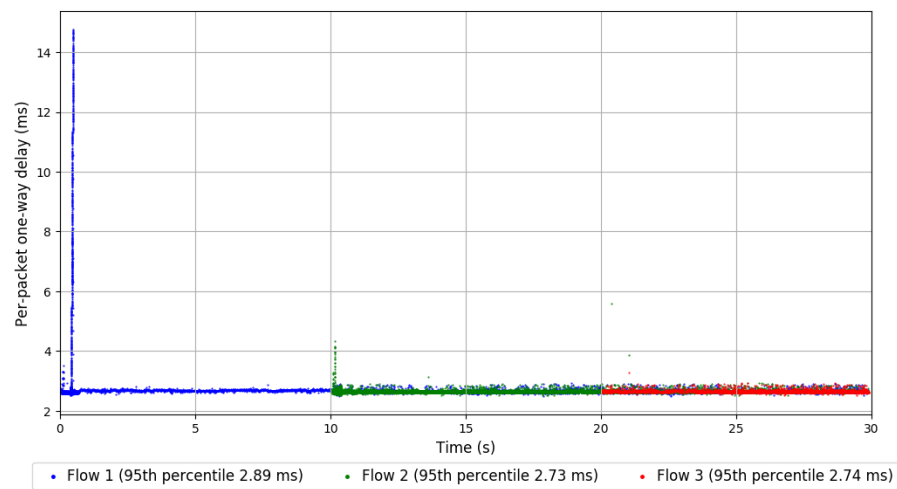
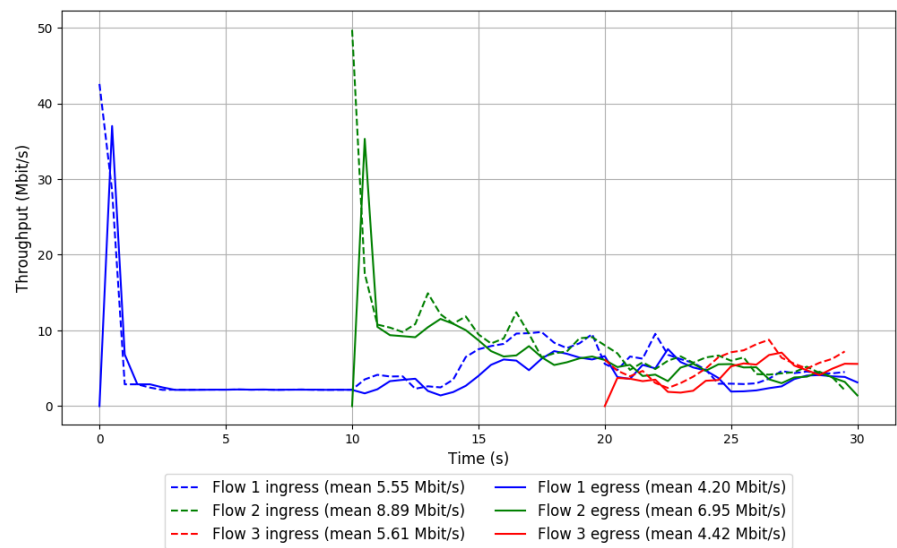
-- Flow 3:

Average throughput: 4.42 Mbit/s

95th percentile per-packet one-way delay: 2.739 ms

Loss rate: 21.34%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-12-11 12:20:16

End at: 2018-12-11 12:20:46

Local clock offset: -5.779 ms

Remote clock offset: 0.037 ms

# Below is generated by plot.py at 2018-12-11 14:13:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.98 Mbit/s

95th percentile per-packet one-way delay: 31.621 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 57.25 Mbit/s

95th percentile per-packet one-way delay: 31.538 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 36.95 Mbit/s

95th percentile per-packet one-way delay: 31.675 ms

Loss rate: 0.14%

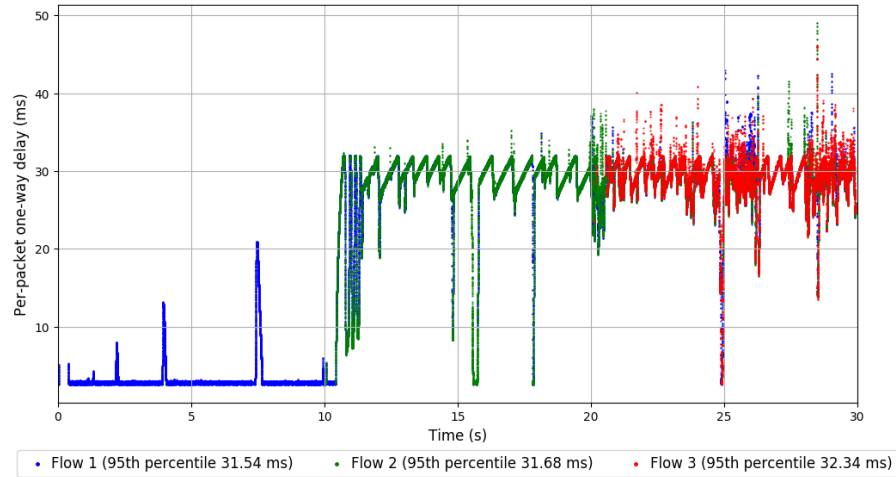
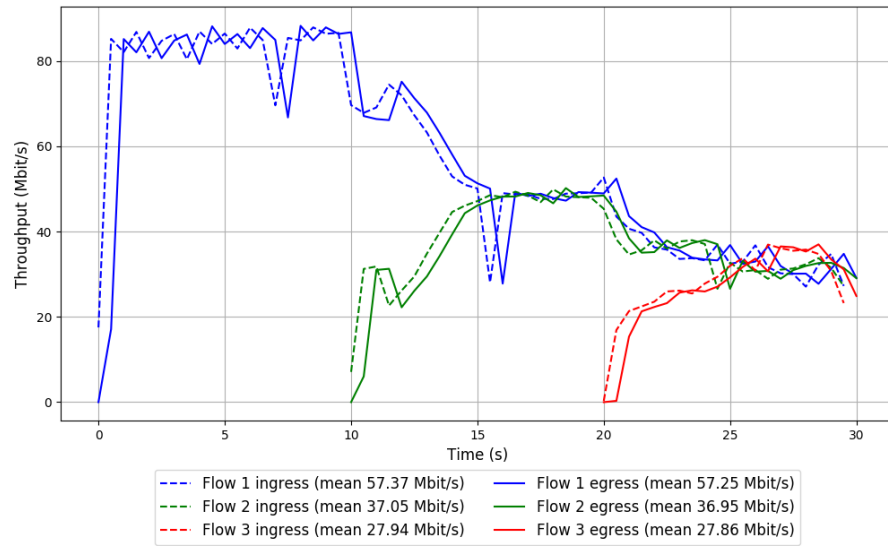
-- Flow 3:

Average throughput: 27.86 Mbit/s

95th percentile per-packet one-way delay: 32.337 ms

Loss rate: 0.31%

# Run 1: Report of QUIC Cubic — Data Link





Run 2: Statistics of QUIC Cubic

Start at: 2018-12-11 12:41:54

End at: 2018-12-11 12:42:24

Local clock offset: -5.745 ms

Remote clock offset: 0.064 ms

# Below is generated by plot.py at 2018-12-11 14:13:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.51 Mbit/s

95th percentile per-packet one-way delay: 31.515 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 57.07 Mbit/s

95th percentile per-packet one-way delay: 31.477 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 33.86 Mbit/s

95th percentile per-packet one-way delay: 31.517 ms

Loss rate: 0.21%

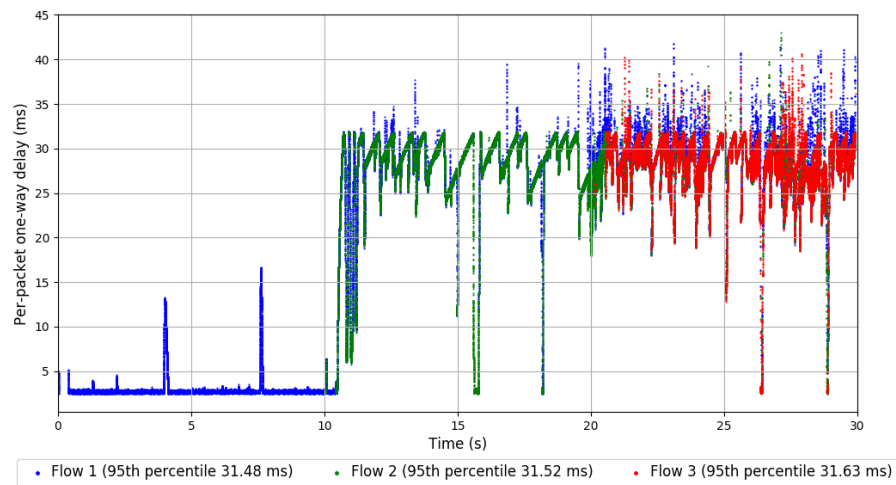
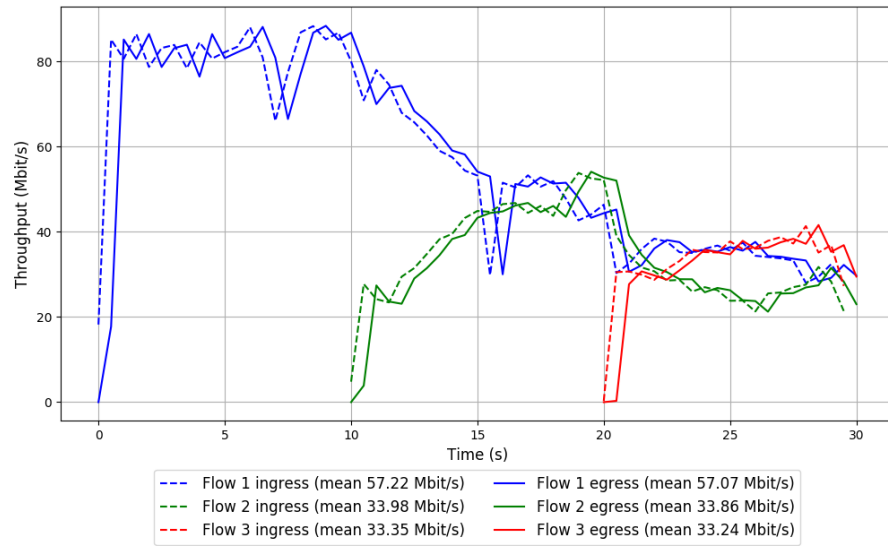
-- Flow 3:

Average throughput: 33.24 Mbit/s

95th percentile per-packet one-way delay: 31.631 ms

Loss rate: 0.23%

## Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-12-11 13:03:30

End at: 2018-12-11 13:04:00

Local clock offset: -5.815 ms

Remote clock offset: 0.08 ms

# Below is generated by plot.py at 2018-12-11 14:13:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.01 Mbit/s

95th percentile per-packet one-way delay: 31.468 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 60.99 Mbit/s

95th percentile per-packet one-way delay: 31.427 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 30.77 Mbit/s

95th percentile per-packet one-way delay: 31.562 ms

Loss rate: 0.19%

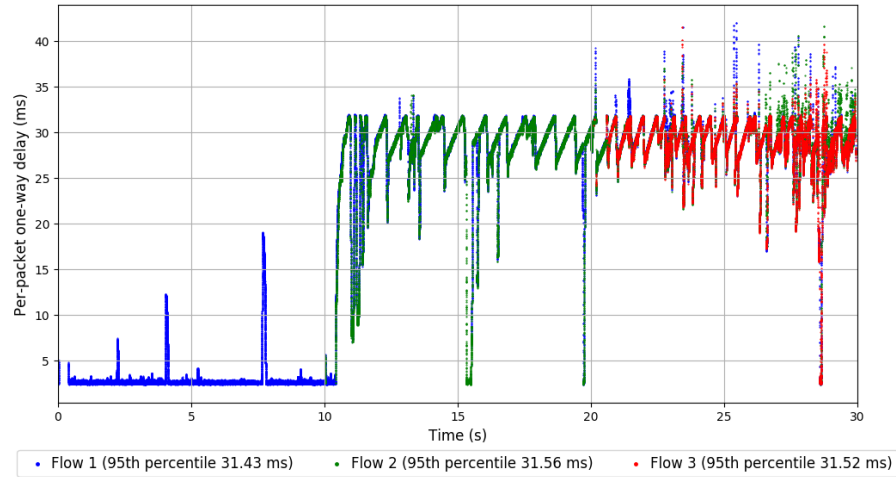
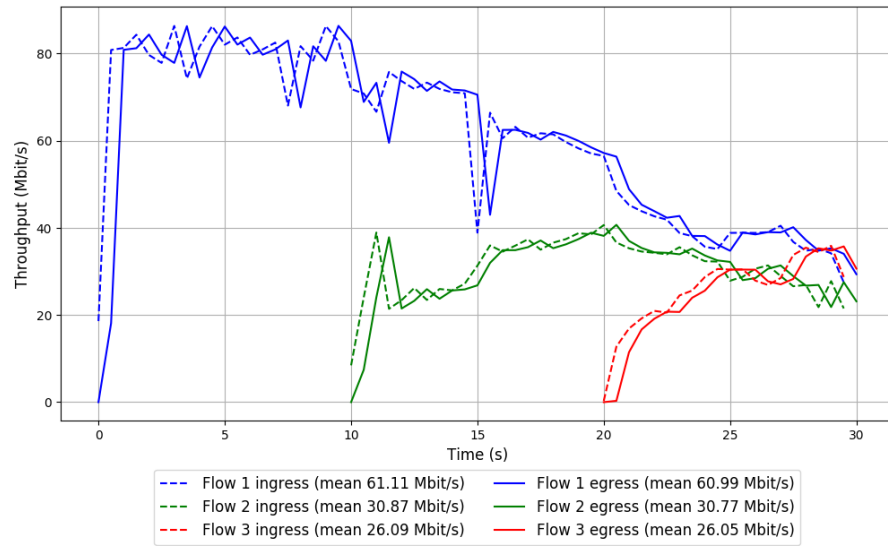
-- Flow 3:

Average throughput: 26.05 Mbit/s

95th percentile per-packet one-way delay: 31.515 ms

Loss rate: 0.20%

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



Run 4: Statistics of QUIC Cubic

Start at: 2018-12-11 13:25:07

End at: 2018-12-11 13:25:37

Local clock offset: -2.353 ms

Remote clock offset: 1.674 ms

# Below is generated by plot.py at 2018-12-11 14:13:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.29 Mbit/s

95th percentile per-packet one-way delay: 31.550 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 59.30 Mbit/s

95th percentile per-packet one-way delay: 31.475 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 34.07 Mbit/s

95th percentile per-packet one-way delay: 31.599 ms

Loss rate: 0.13%

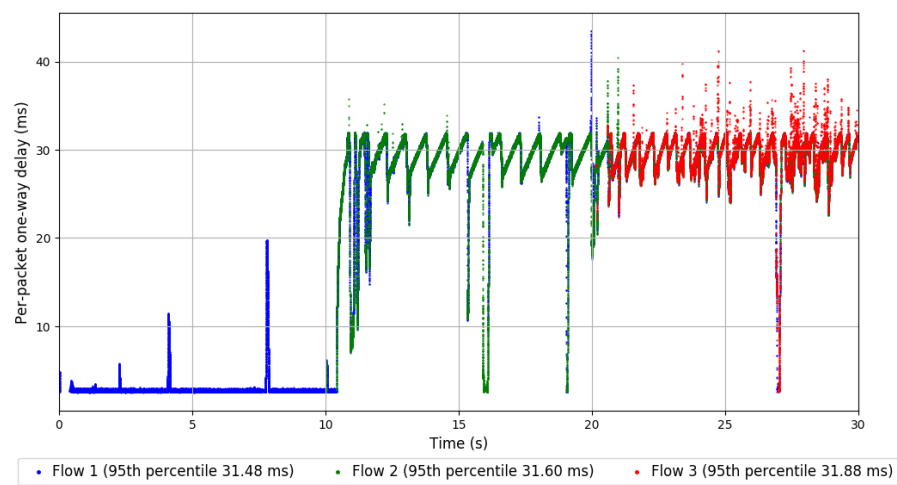
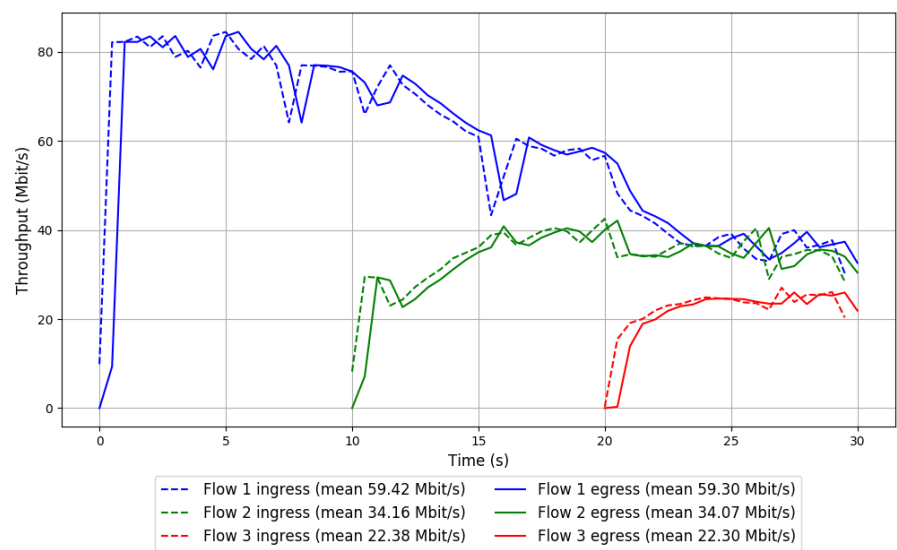
-- Flow 3:

Average throughput: 22.30 Mbit/s

95th percentile per-packet one-way delay: 31.880 ms

Loss rate: 0.27%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-12-11 13:46:45

End at: 2018-12-11 13:47:15

Local clock offset: -2.158 ms

Remote clock offset: 2.167 ms

# Below is generated by plot.py at 2018-12-11 14:13:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.57 Mbit/s

95th percentile per-packet one-way delay: 31.600 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 59.88 Mbit/s

95th percentile per-packet one-way delay: 31.550 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 32.22 Mbit/s

95th percentile per-packet one-way delay: 31.668 ms

Loss rate: 0.14%

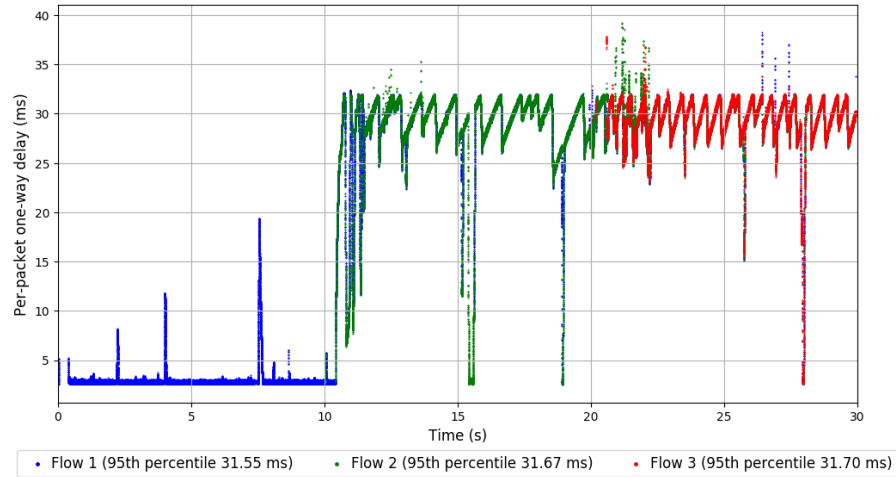
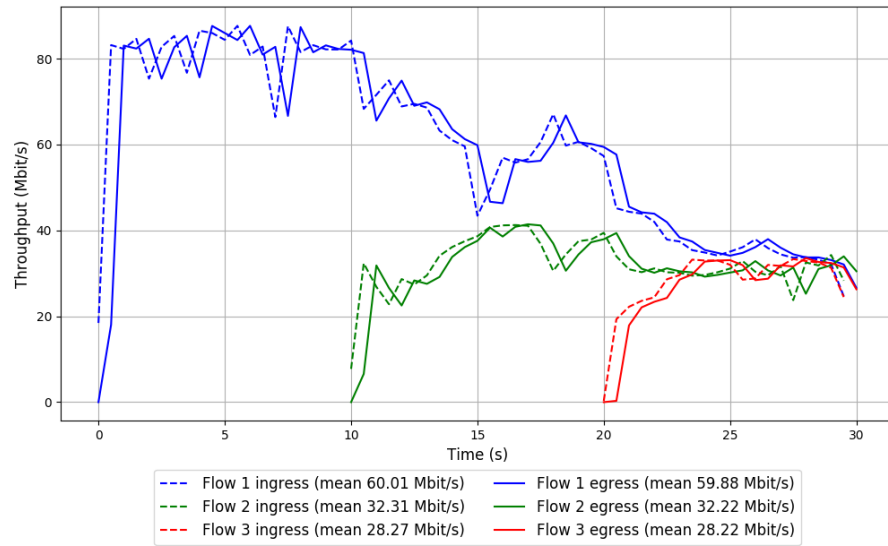
-- Flow 3:

Average throughput: 28.22 Mbit/s

95th percentile per-packet one-way delay: 31.703 ms

Loss rate: 0.17%

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



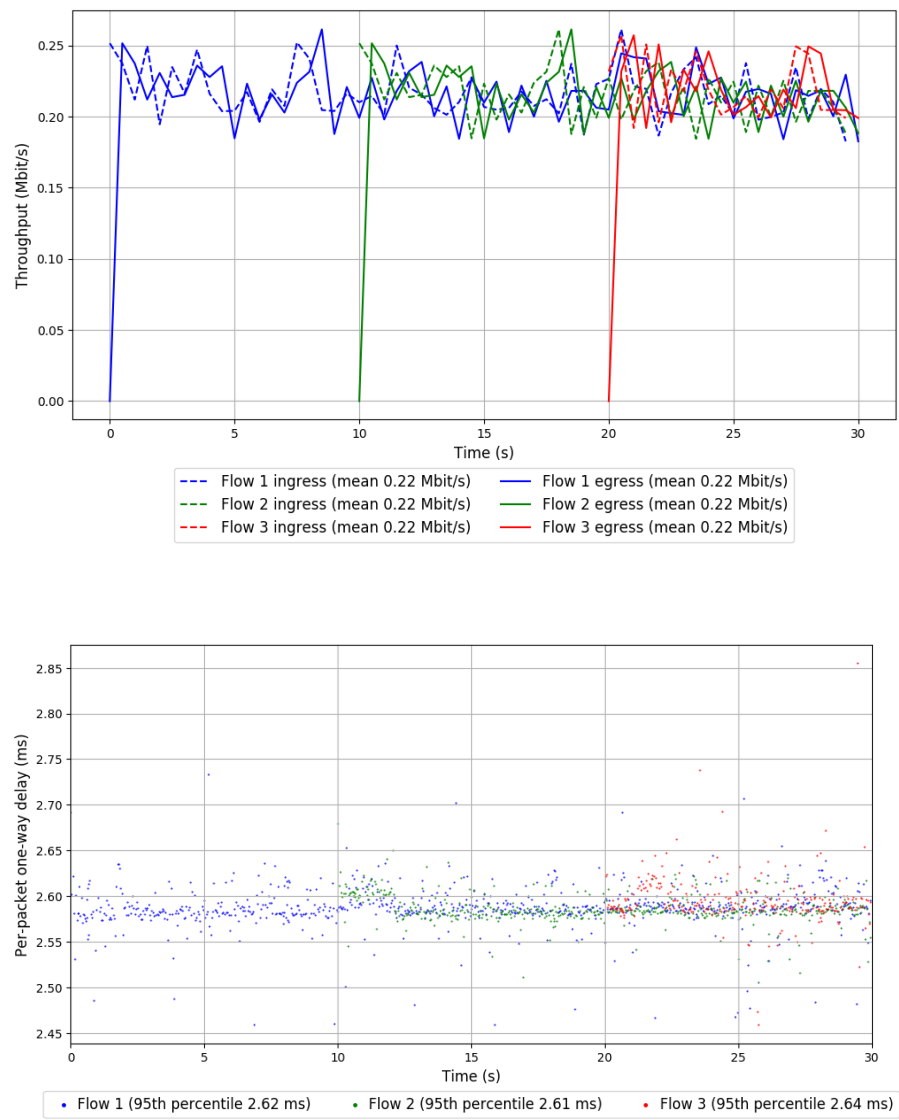


Run 1: Statistics of SReAM

Start at: 2018-12-11 12:19:11  
End at: 2018-12-11 12:19:41  
Local clock offset: -5.724 ms  
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-12-11 14:13:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 2.621 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.621 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.613 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.638 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

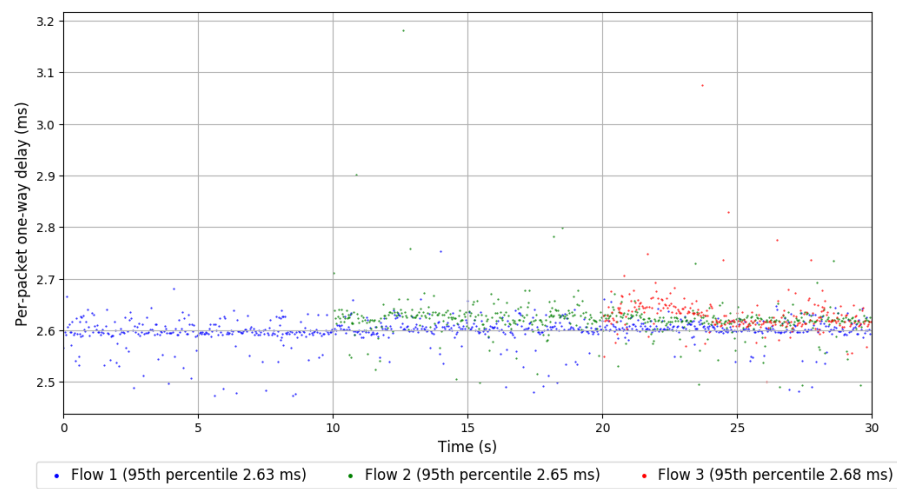
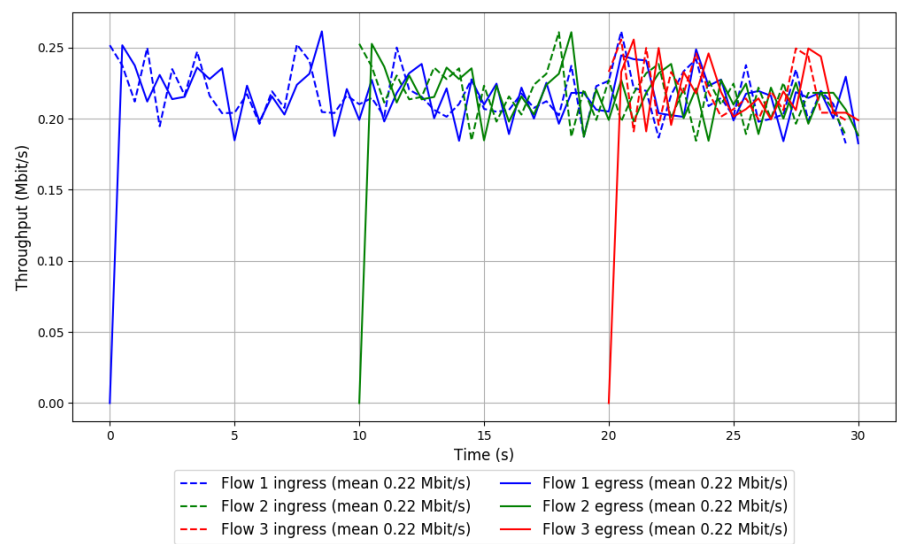


Run 2: Statistics of SReAM

Start at: 2018-12-11 12:40:48  
End at: 2018-12-11 12:41:18  
Local clock offset: -5.799 ms  
Remote clock offset: -0.022 ms

# Below is generated by plot.py at 2018-12-11 14:13:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 2.652 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.632 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.655 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.676 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2018-12-11 13:02:25

End at: 2018-12-11 13:02:55

Local clock offset: -5.83 ms

Remote clock offset: 0.085 ms

# Below is generated by plot.py at 2018-12-11 14:13:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.722 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.719 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.745 ms

Loss rate: 0.00%

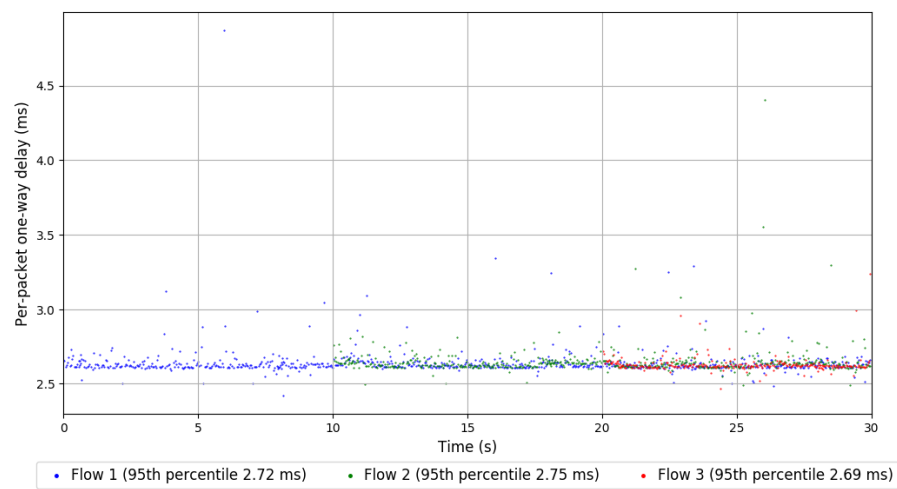
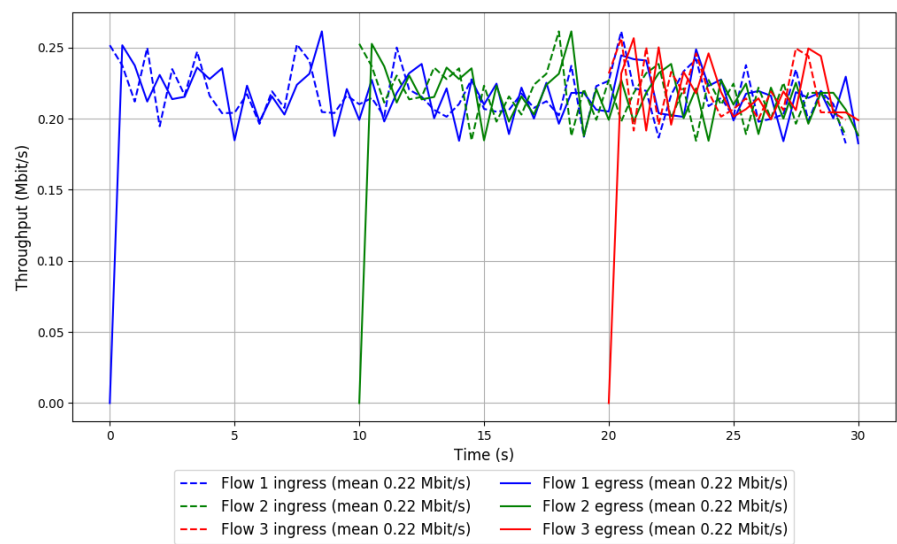
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.690 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2018-12-11 13:24:02

End at: 2018-12-11 13:24:32

Local clock offset: -2.429 ms

Remote clock offset: 1.61 ms

# Below is generated by plot.py at 2018-12-11 14:13:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.723 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.749 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

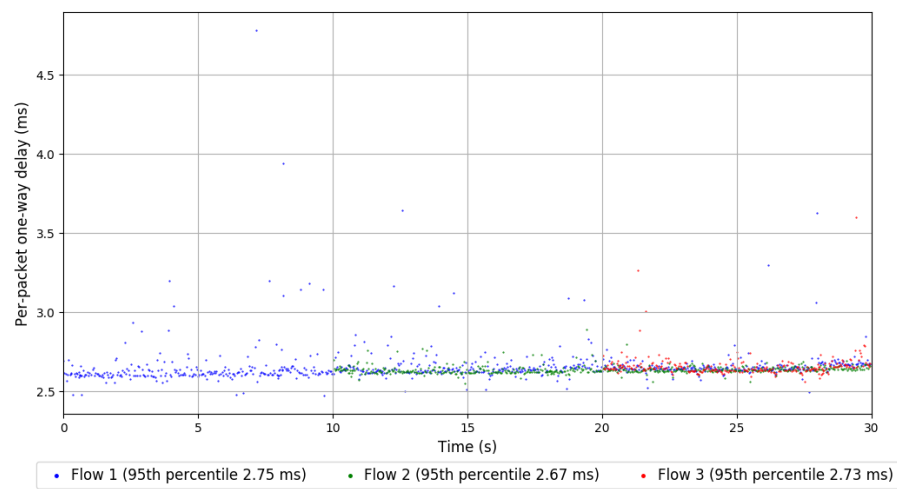
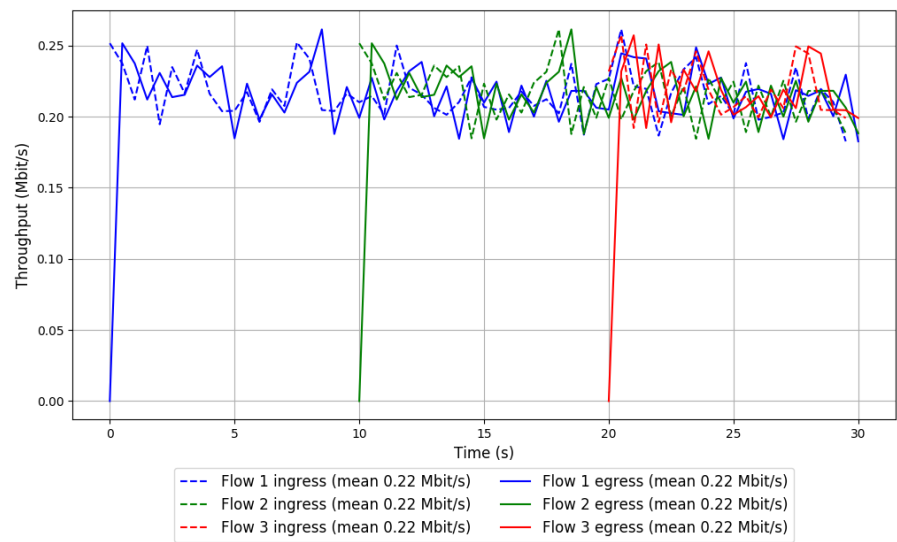
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.733 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link





Run 5: Statistics of SReAM

Start at: 2018-12-11 13:45:40

End at: 2018-12-11 13:46:10

Local clock offset: -2.042 ms

Remote clock offset: 2.035 ms

# Below is generated by plot.py at 2018-12-11 14:13:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.609 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.614 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.604 ms

Loss rate: 0.00%

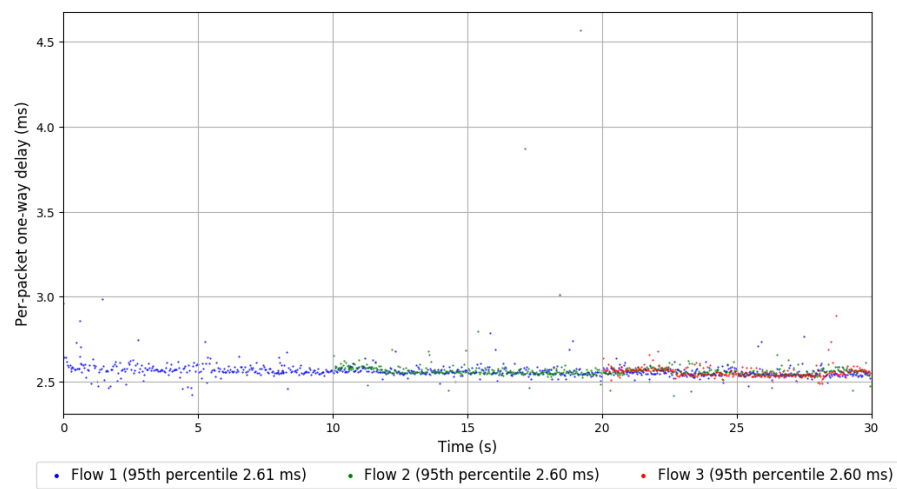
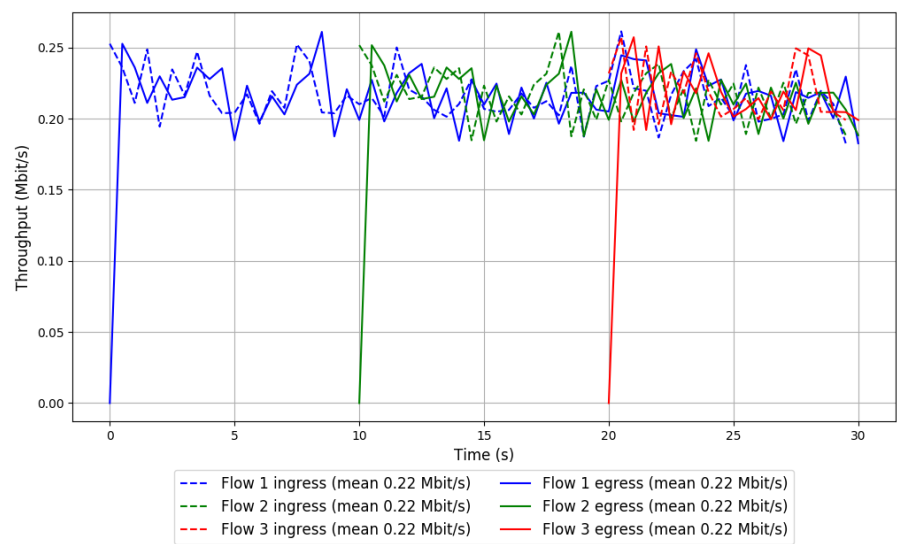
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.599 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-12-11 12:32:48

End at: 2018-12-11 12:33:18

Local clock offset: -5.775 ms

Remote clock offset: 0.057 ms

# Below is generated by plot.py at 2018-12-11 14:13:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.28 Mbit/s

95th percentile per-packet one-way delay: 21.781 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 41.41 Mbit/s

95th percentile per-packet one-way delay: 20.451 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.64 Mbit/s

95th percentile per-packet one-way delay: 20.958 ms

Loss rate: 0.00%

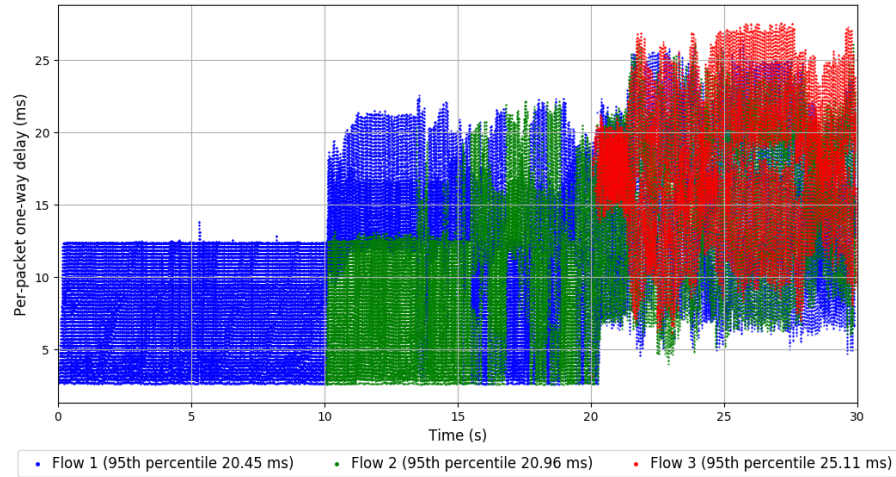
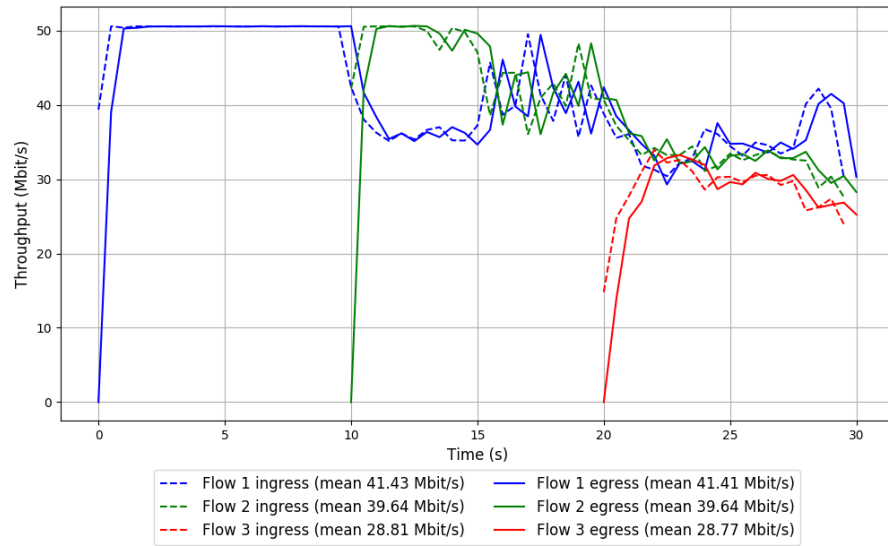
-- Flow 3:

Average throughput: 28.77 Mbit/s

95th percentile per-packet one-way delay: 25.113 ms

Loss rate: 0.00%

## Run 1: Report of Sprout — Data Link

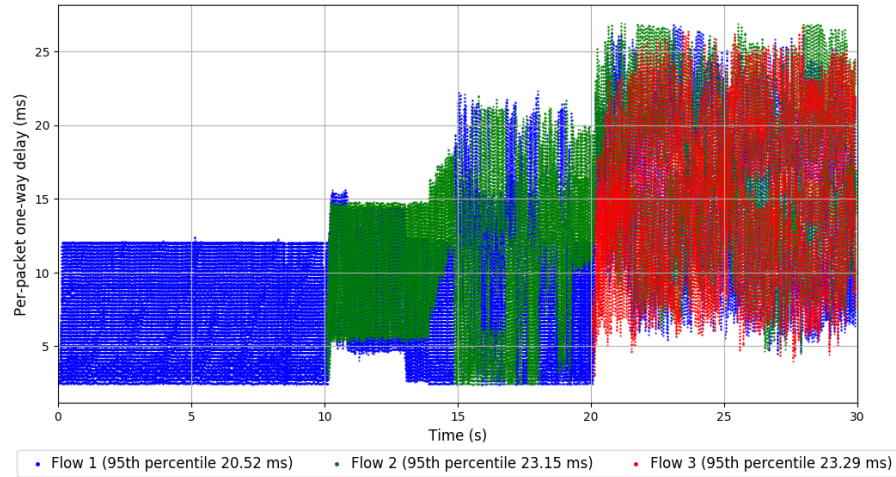
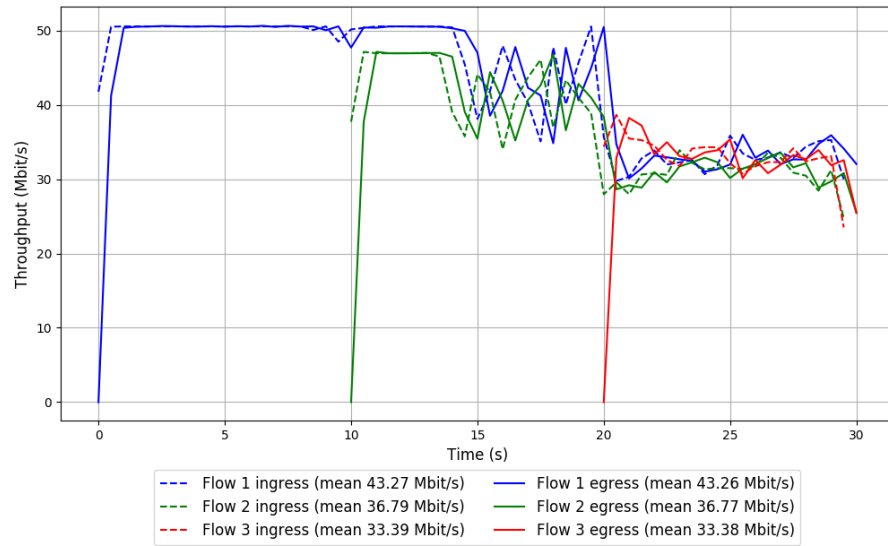


Run 2: Statistics of Sprout

Start at: 2018-12-11 12:54:25  
End at: 2018-12-11 12:54:55  
Local clock offset: -5.728 ms  
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-12-11 14:13:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.74 Mbit/s  
95th percentile per-packet one-way delay: 22.181 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 43.26 Mbit/s  
95th percentile per-packet one-way delay: 20.520 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 36.77 Mbit/s  
95th percentile per-packet one-way delay: 23.146 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 33.38 Mbit/s  
95th percentile per-packet one-way delay: 23.292 ms  
Loss rate: 0.00%

## Run 2: Report of Sprout — Data Link

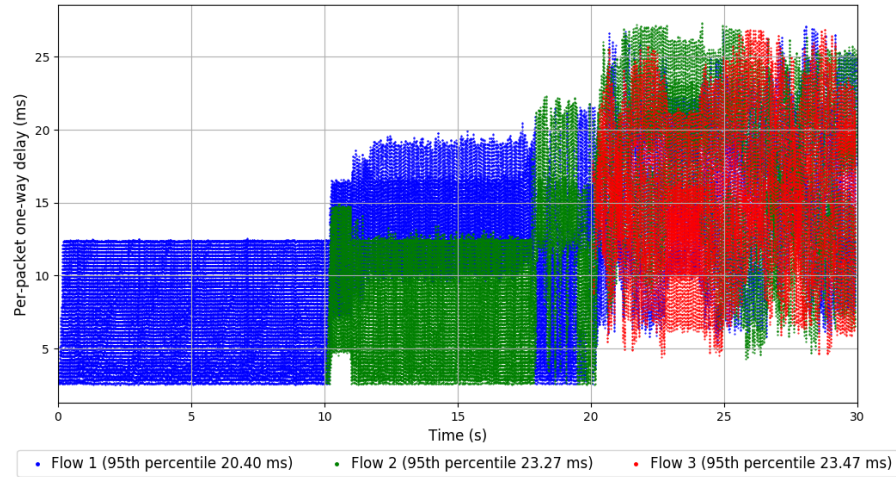
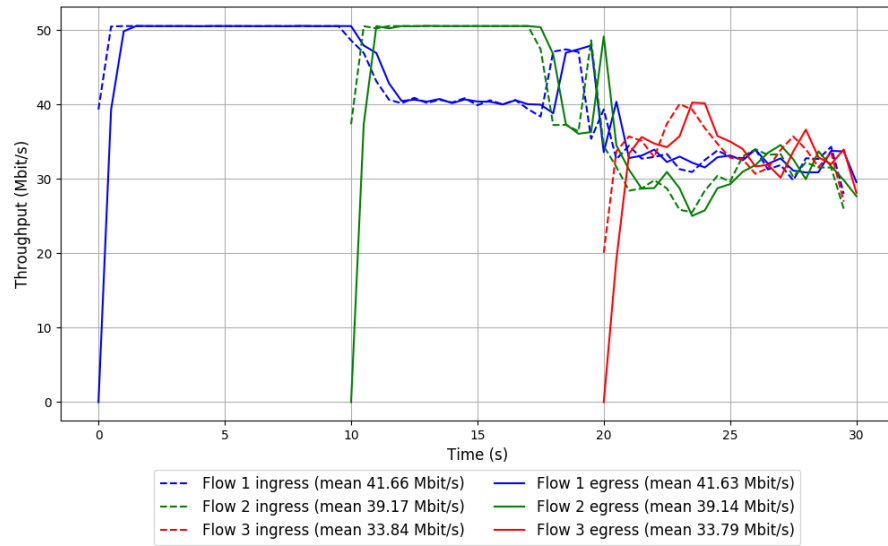


### Run 3: Statistics of Sprout

Start at: 2018-12-11 13:16:02  
End at: 2018-12-11 13:16:32  
Local clock offset: -3.584 ms  
Remote clock offset: 1.135 ms

```
# Below is generated by plot.py at 2018-12-11 14:13:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.84 Mbit/s
95th percentile per-packet one-way delay: 22.188 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.63 Mbit/s
95th percentile per-packet one-way delay: 20.400 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.14 Mbit/s
95th percentile per-packet one-way delay: 23.273 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.79 Mbit/s
95th percentile per-packet one-way delay: 23.471 ms
Loss rate: 0.00%
```

### Run 3: Report of Sprout — Data Link



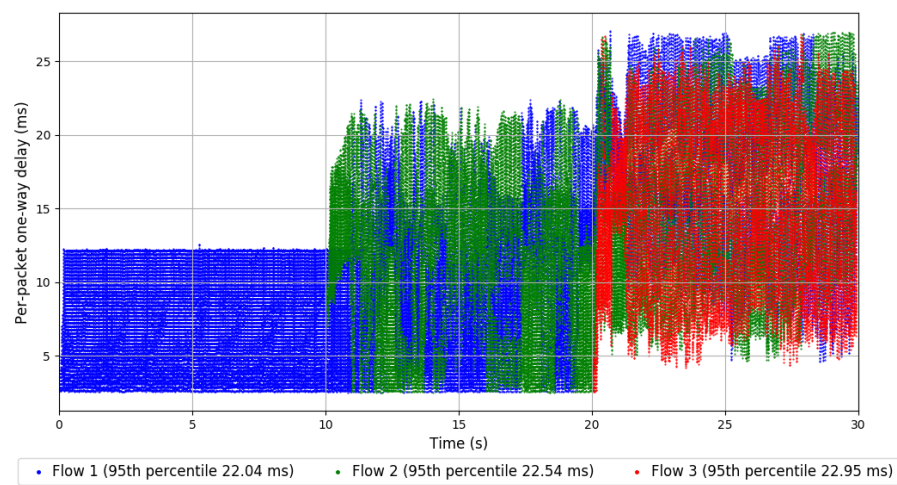
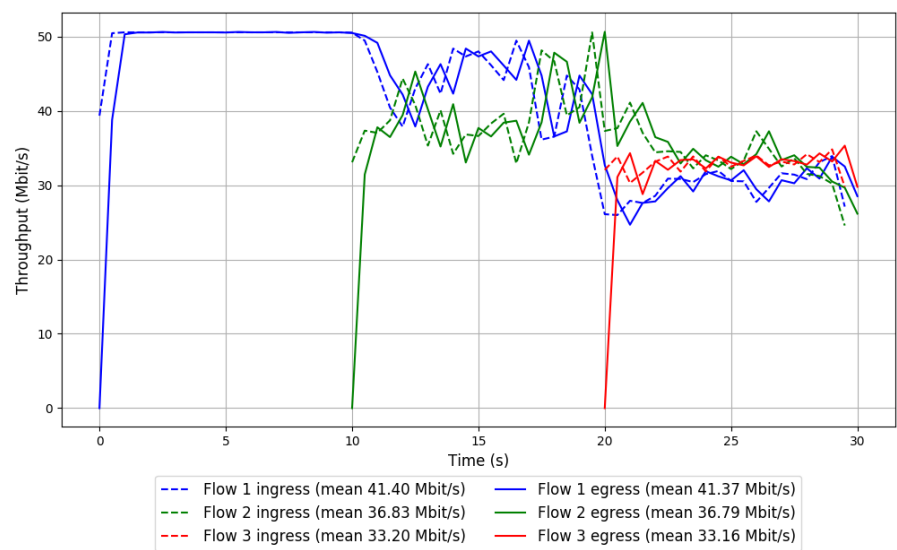


#### Run 4: Statistics of Sprout

Start at: 2018-12-11 13:37:39  
End at: 2018-12-11 13:38:09  
Local clock offset: -1.416 ms  
Remote clock offset: 1.897 ms

```
# Below is generated by plot.py at 2018-12-11 14:14:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.81 Mbit/s
95th percentile per-packet one-way delay: 22.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.37 Mbit/s
95th percentile per-packet one-way delay: 22.039 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.79 Mbit/s
95th percentile per-packet one-way delay: 22.542 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.16 Mbit/s
95th percentile per-packet one-way delay: 22.953 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

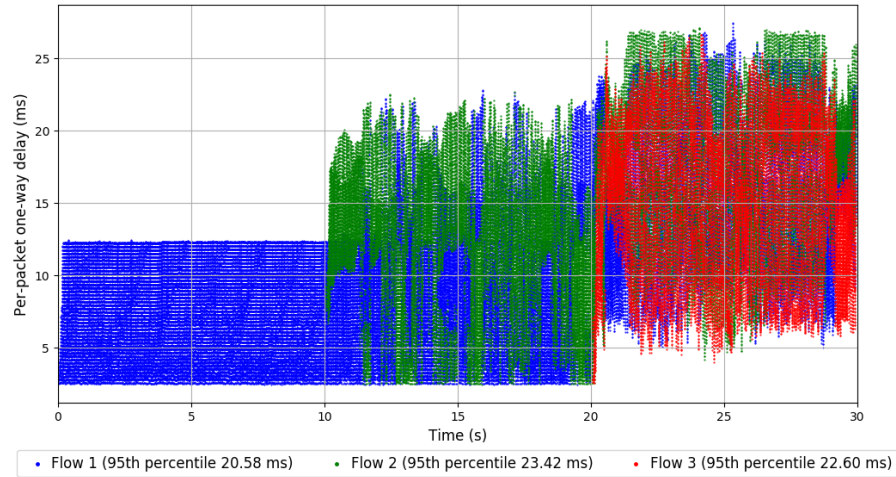
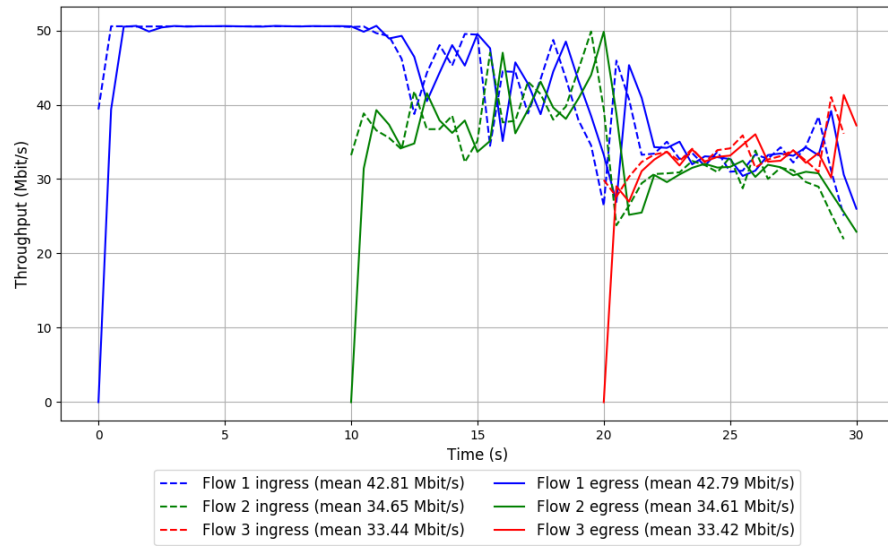


Run 5: Statistics of Sprout

Start at: 2018-12-11 13:59:17  
End at: 2018-12-11 13:59:47  
Local clock offset: -2.273 ms  
Remote clock offset: 2.216 ms

# Below is generated by plot.py at 2018-12-11 14:14:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.86 Mbit/s  
95th percentile per-packet one-way delay: 22.045 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 42.79 Mbit/s  
95th percentile per-packet one-way delay: 20.579 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 34.61 Mbit/s  
95th percentile per-packet one-way delay: 23.420 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 33.42 Mbit/s  
95th percentile per-packet one-way delay: 22.602 ms  
Loss rate: 0.00%

## Run 5: Report of Sprout — Data Link

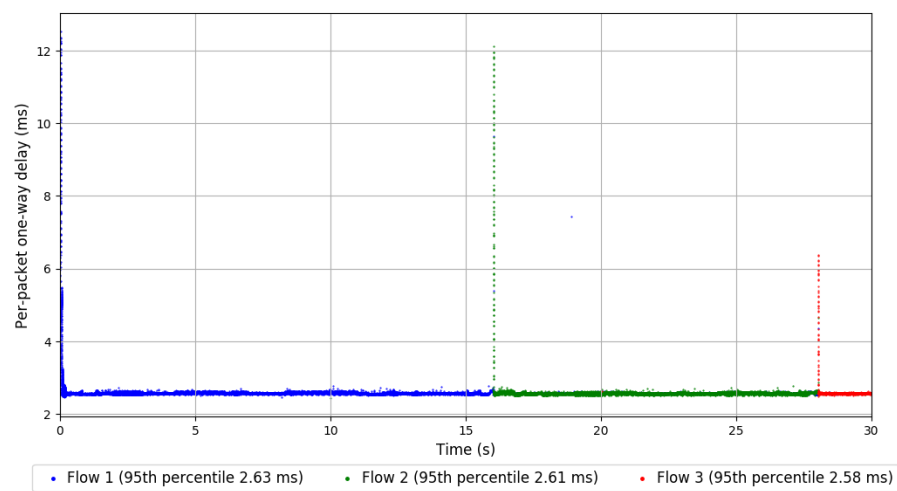
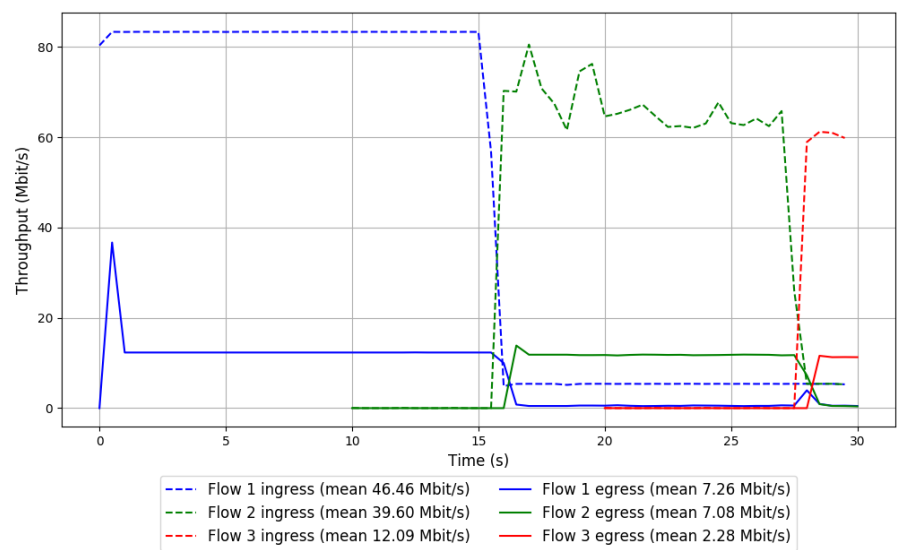


Run 1: Statistics of TaoVA-100x

Start at: 2018-12-11 12:27:07  
End at: 2018-12-11 12:27:37  
Local clock offset: -5.698 ms  
Remote clock offset: -0.034 ms

# Below is generated by plot.py at 2018-12-11 14:14:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.73 Mbit/s  
95th percentile per-packet one-way delay: 2.620 ms  
Loss rate: 83.44%  
-- Flow 1:  
Average throughput: 7.26 Mbit/s  
95th percentile per-packet one-way delay: 2.630 ms  
Loss rate: 84.38%  
-- Flow 2:  
Average throughput: 7.08 Mbit/s  
95th percentile per-packet one-way delay: 2.610 ms  
Loss rate: 82.14%  
-- Flow 3:  
Average throughput: 2.28 Mbit/s  
95th percentile per-packet one-way delay: 2.582 ms  
Loss rate: 81.14%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-12-11 12:48:43

End at: 2018-12-11 12:49:13

Local clock offset: -5.725 ms

Remote clock offset: 0.142 ms

# Below is generated by plot.py at 2018-12-11 14:14:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 2.724 ms

Loss rate: 83.47%

-- Flow 1:

Average throughput: 8.00 Mbit/s

95th percentile per-packet one-way delay: 2.725 ms

Loss rate: 84.51%

-- Flow 2:

Average throughput: 7.10 Mbit/s

95th percentile per-packet one-way delay: 2.724 ms

Loss rate: 81.34%

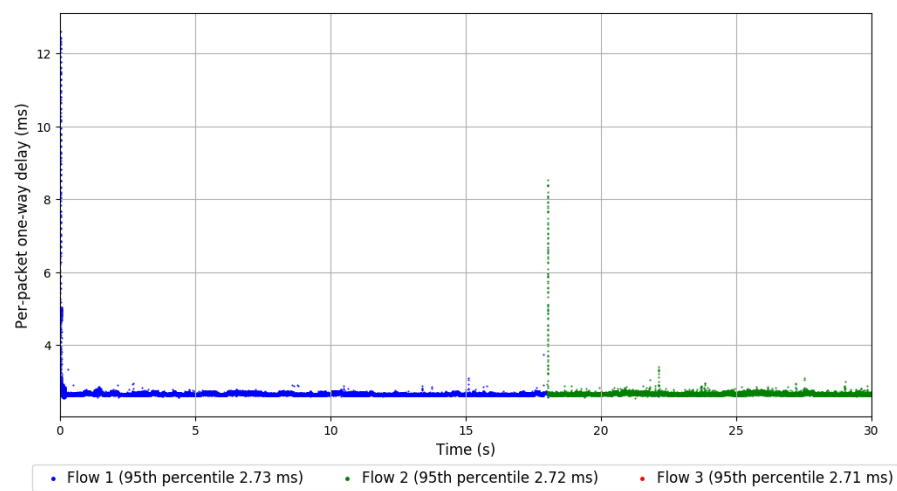
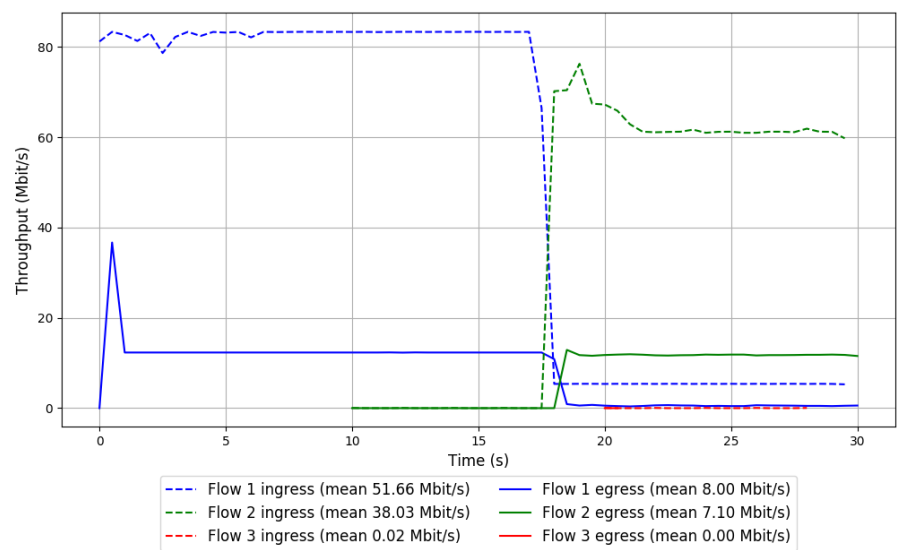
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.705 ms

Loss rate: 99.16%

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





Run 3: Statistics of TaoVA-100x

Start at: 2018-12-11 13:10:20

End at: 2018-12-11 13:10:50

Local clock offset: -5.115 ms

Remote clock offset: 0.631 ms

# Below is generated by plot.py at 2018-12-11 14:14:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 2.820 ms

Loss rate: 84.71%

-- Flow 1:

Average throughput: 5.61 Mbit/s

95th percentile per-packet one-way delay: 2.793 ms

Loss rate: 84.28%

-- Flow 2:

Average throughput: 9.55 Mbit/s

95th percentile per-packet one-way delay: 2.819 ms

Loss rate: 85.38%

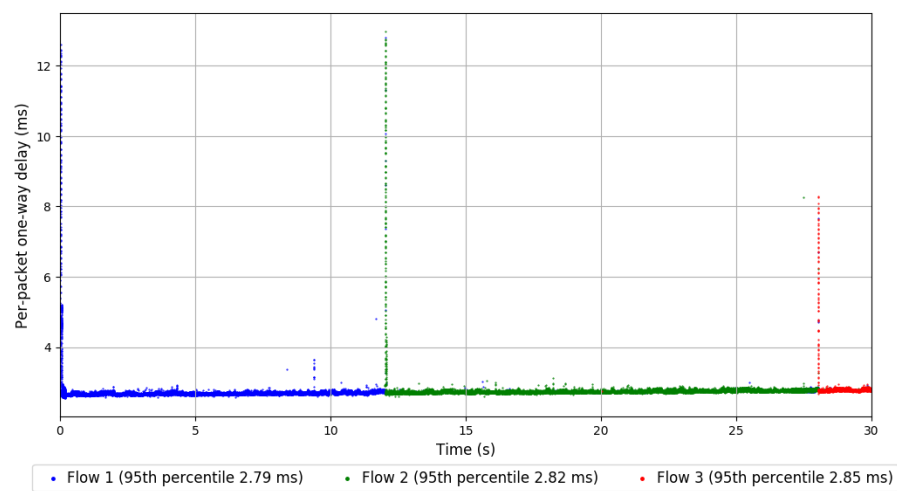
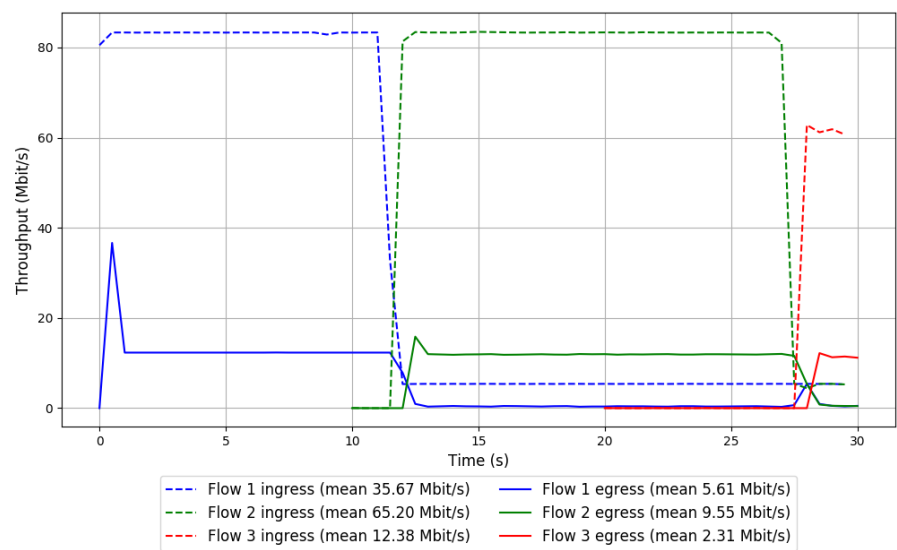
-- Flow 3:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 2.854 ms

Loss rate: 81.31%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-12-11 13:31:58

End at: 2018-12-11 13:32:28

Local clock offset: -1.761 ms

Remote clock offset: 1.789 ms

# Below is generated by plot.py at 2018-12-11 14:14:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 3.070 ms

Loss rate: 82.54%

-- Flow 1:

Average throughput: 8.63 Mbit/s

95th percentile per-packet one-way delay: 2.815 ms

Loss rate: 83.84%

-- Flow 2:

Average throughput: 4.29 Mbit/s

95th percentile per-packet one-way delay: 3.569 ms

Loss rate: 71.29%

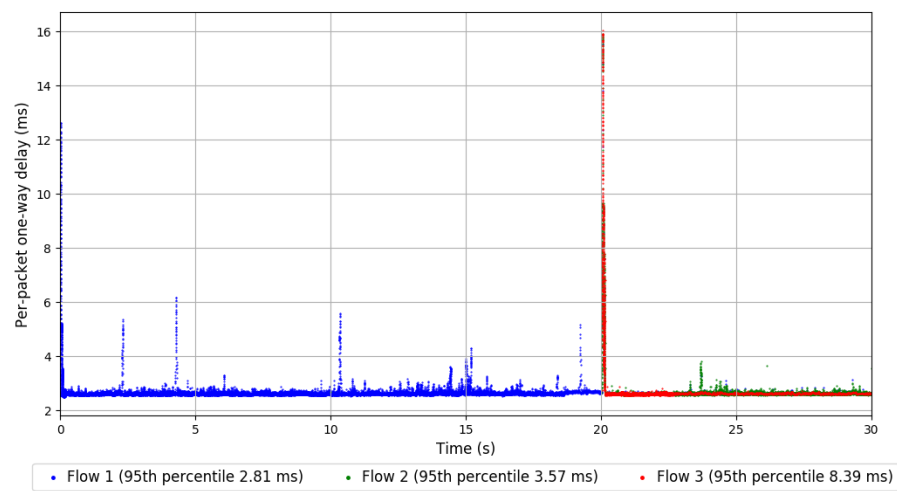
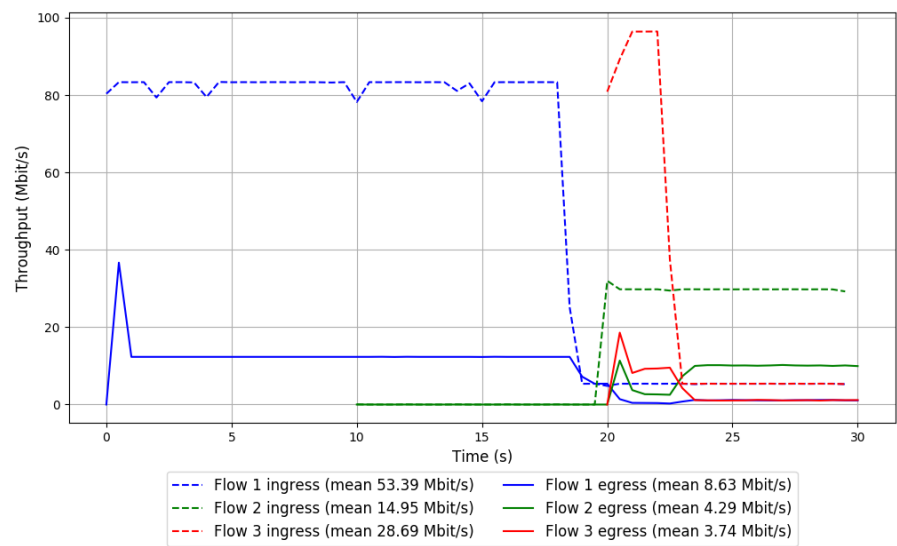
-- Flow 3:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 8.386 ms

Loss rate: 86.97%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-12-11 13:53:36

End at: 2018-12-11 13:54:06

Local clock offset: -2.241 ms

Remote clock offset: 2.178 ms

# Below is generated by plot.py at 2018-12-11 14:14:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.64 Mbit/s

95th percentile per-packet one-way delay: 2.600 ms

Loss rate: 83.79%

-- Flow 1:

Average throughput: 4.68 Mbit/s

95th percentile per-packet one-way delay: 2.626 ms

Loss rate: 82.51%

-- Flow 2:

Average throughput: 11.95 Mbit/s

95th percentile per-packet one-way delay: 2.587 ms

Loss rate: 84.46%

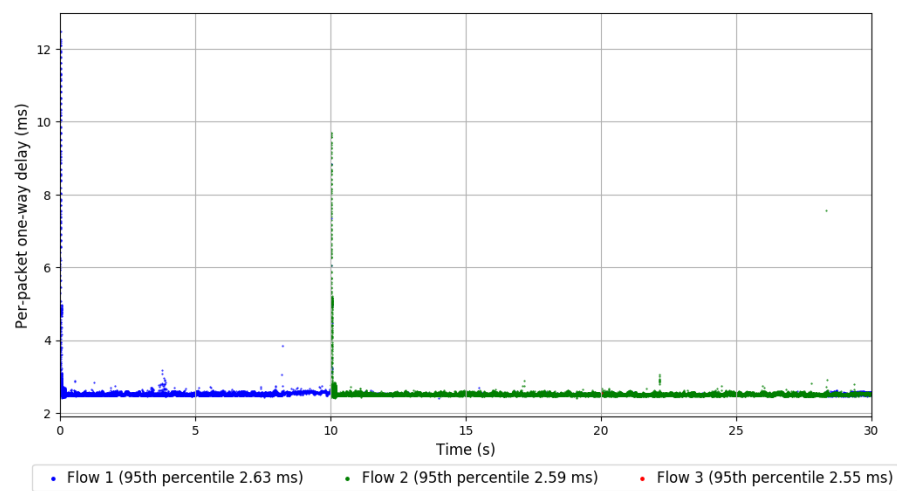
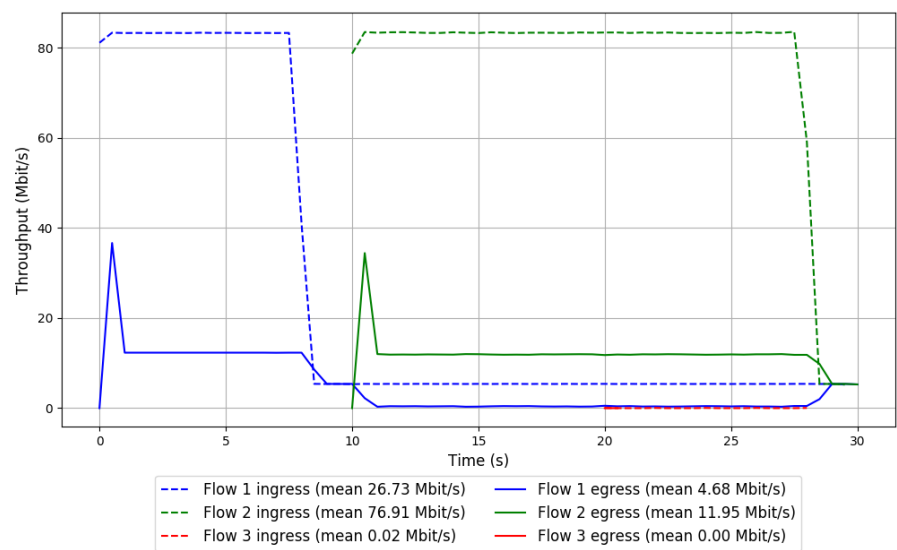
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2.549 ms

Loss rate: 99.16%

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

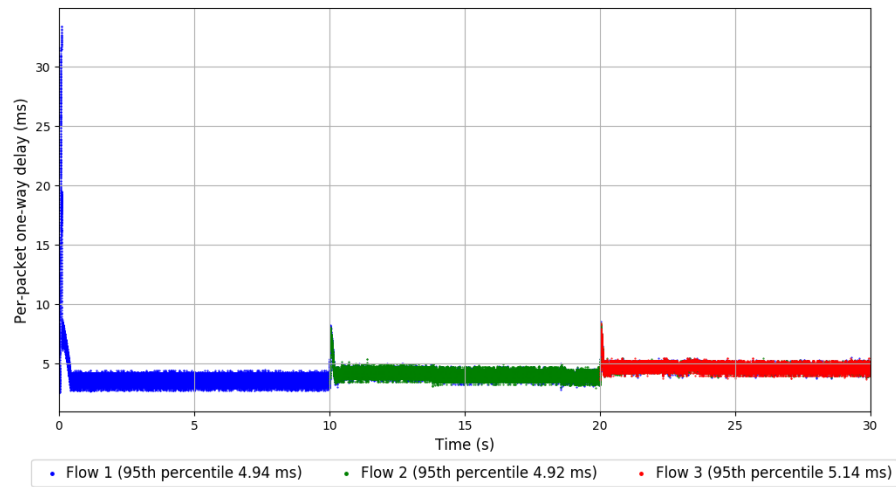
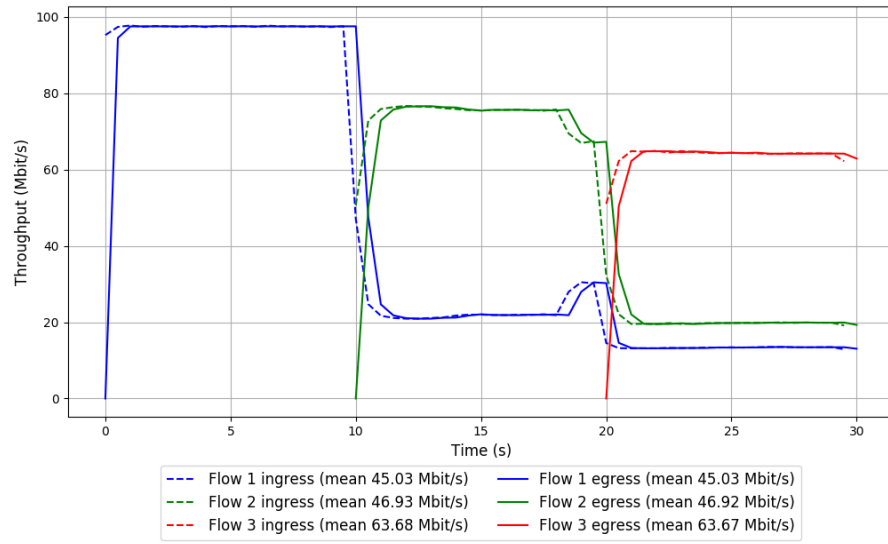


Run 1: Statistics of TCP Vegas

Start at: 2018-12-11 12:16:51  
End at: 2018-12-11 12:17:21  
Local clock offset: -5.764 ms  
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-12-11 14:14:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 4.962 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 45.03 Mbit/s  
95th percentile per-packet one-way delay: 4.939 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 46.92 Mbit/s  
95th percentile per-packet one-way delay: 4.919 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 63.67 Mbit/s  
95th percentile per-packet one-way delay: 5.140 ms  
Loss rate: 0.00%

# Run 1: Report of TCP Vegas — Data Link





Run 2: Statistics of TCP Vegas

Start at: 2018-12-11 12:38:29

End at: 2018-12-11 12:38:59

Local clock offset: -5.811 ms

Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2018-12-11 14:14:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.43 Mbit/s

95th percentile per-packet one-way delay: 5.139 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.23 Mbit/s

95th percentile per-packet one-way delay: 4.916 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.54 Mbit/s

95th percentile per-packet one-way delay: 5.120 ms

Loss rate: 0.00%

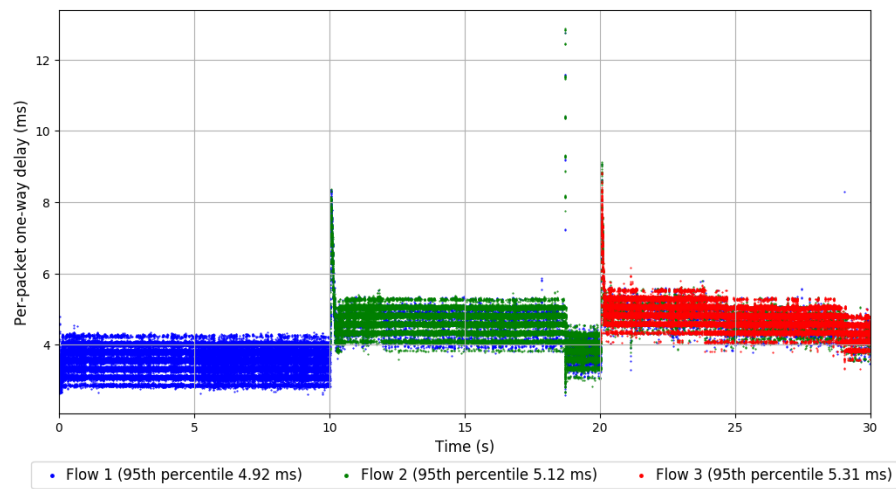
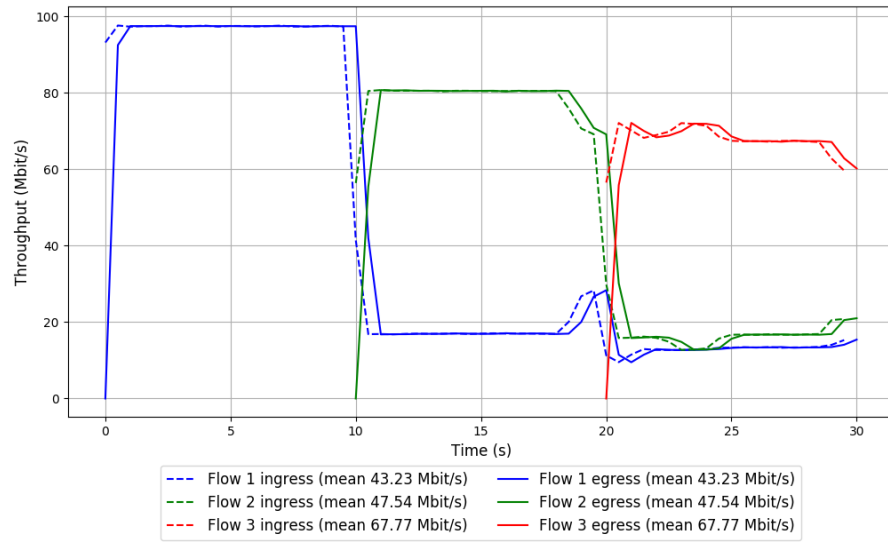
-- Flow 3:

Average throughput: 67.77 Mbit/s

95th percentile per-packet one-way delay: 5.311 ms

Loss rate: 0.00%

## Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-12-11 13:00:05

End at: 2018-12-11 13:00:35

Local clock offset: -5.806 ms

Remote clock offset: 0.135 ms

# Below is generated by plot.py at 2018-12-11 14:14:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 4.792 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.20 Mbit/s

95th percentile per-packet one-way delay: 5.716 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.36 Mbit/s

95th percentile per-packet one-way delay: 4.747 ms

Loss rate: 0.00%

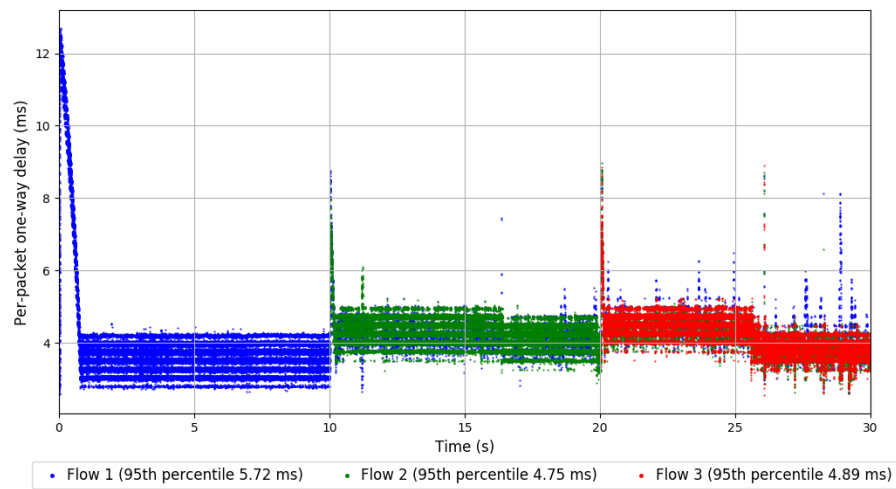
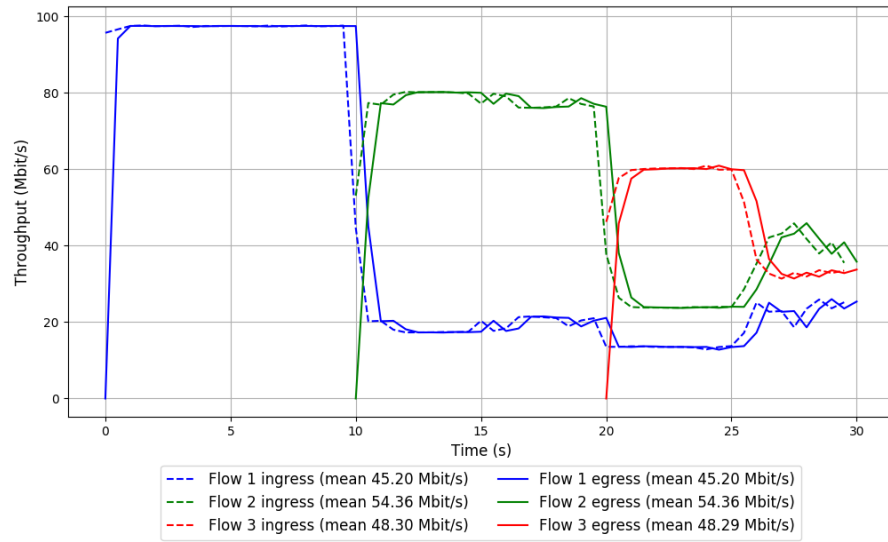
-- Flow 3:

Average throughput: 48.29 Mbit/s

95th percentile per-packet one-way delay: 4.886 ms

Loss rate: 0.00%

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



Run 4: Statistics of TCP Vegas

Start at: 2018-12-11 13:21:42

End at: 2018-12-11 13:22:12

Local clock offset: -2.671 ms

Remote clock offset: 1.568 ms

# Below is generated by plot.py at 2018-12-11 14:14:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.23 Mbit/s

95th percentile per-packet one-way delay: 6.844 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.39 Mbit/s

95th percentile per-packet one-way delay: 10.914 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.54 Mbit/s

95th percentile per-packet one-way delay: 4.424 ms

Loss rate: 0.00%

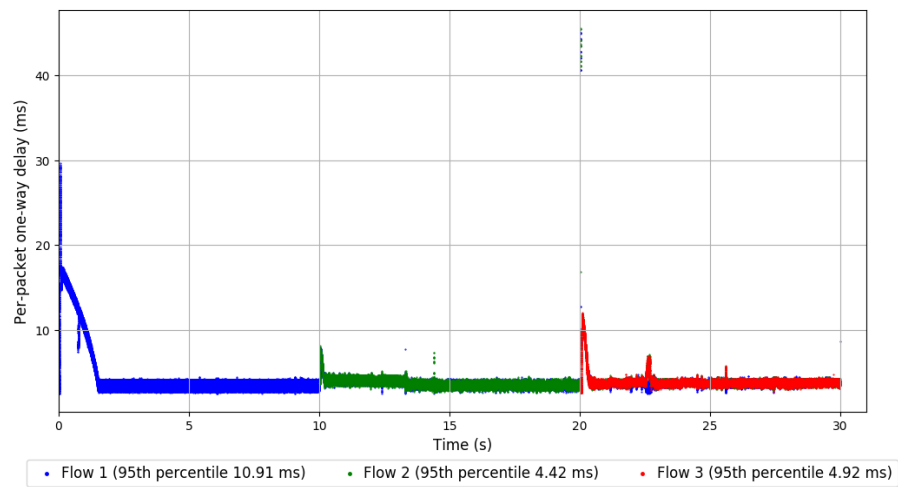
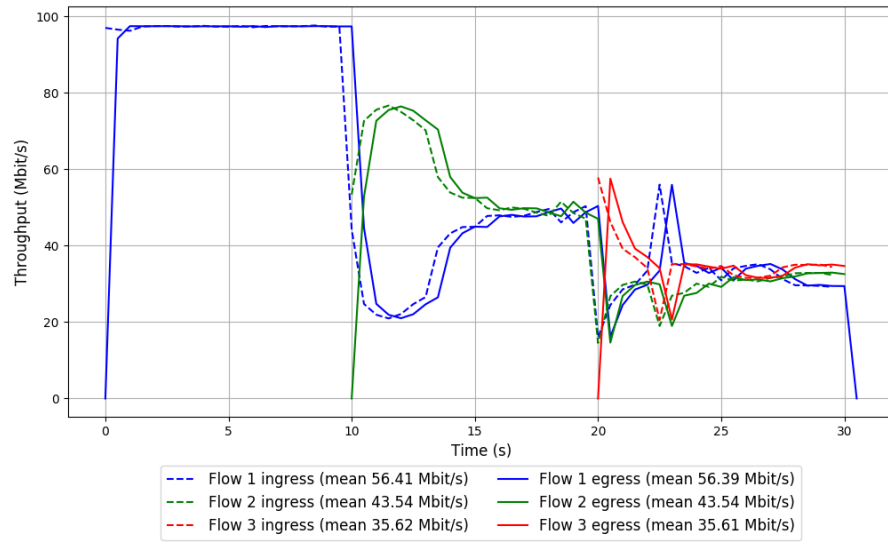
-- Flow 3:

Average throughput: 35.61 Mbit/s

95th percentile per-packet one-way delay: 4.919 ms

Loss rate: 0.00%

# Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-12-11 13:43:20

End at: 2018-12-11 13:43:50

Local clock offset: -1.873 ms

Remote clock offset: 2.037 ms

# Below is generated by plot.py at 2018-12-11 14:15:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 6.194 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.97 Mbit/s

95th percentile per-packet one-way delay: 13.150 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.42 Mbit/s

95th percentile per-packet one-way delay: 4.837 ms

Loss rate: 0.00%

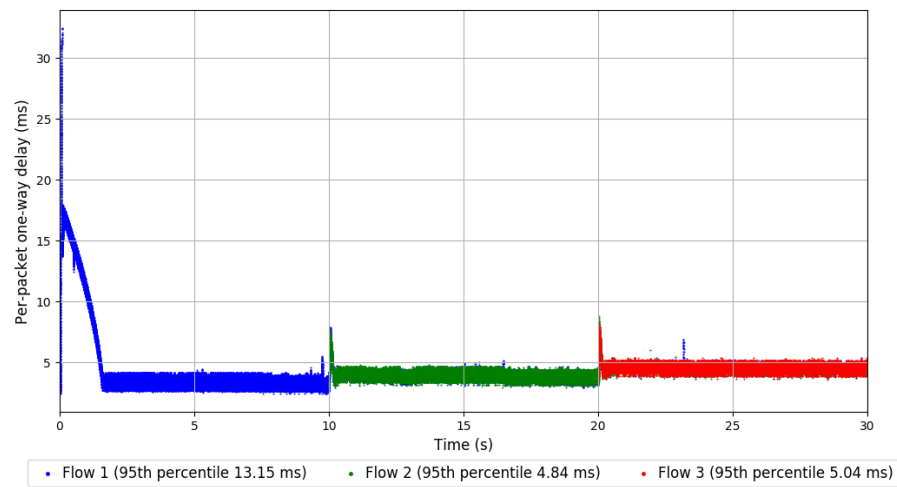
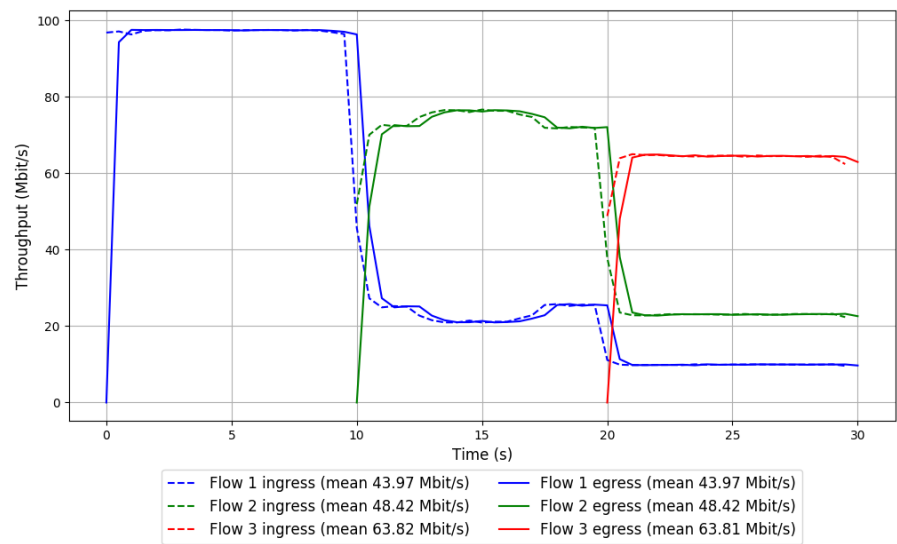
-- Flow 3:

Average throughput: 63.81 Mbit/s

95th percentile per-packet one-way delay: 5.042 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



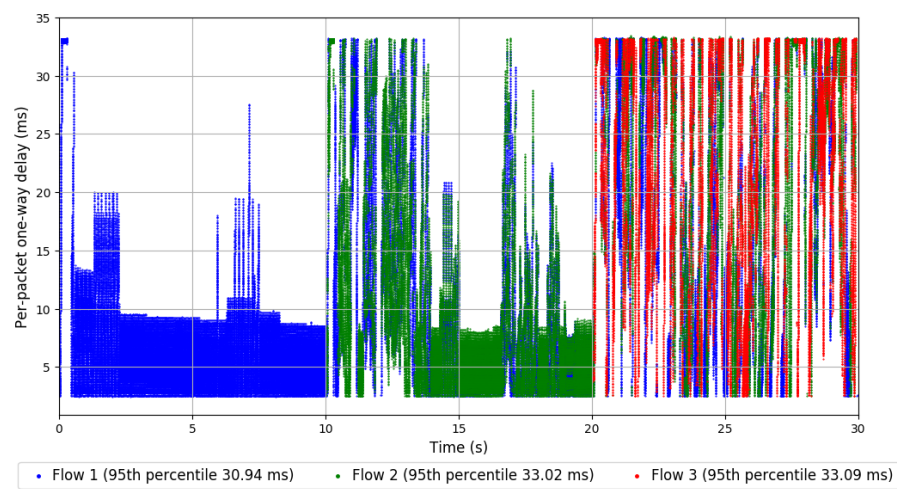
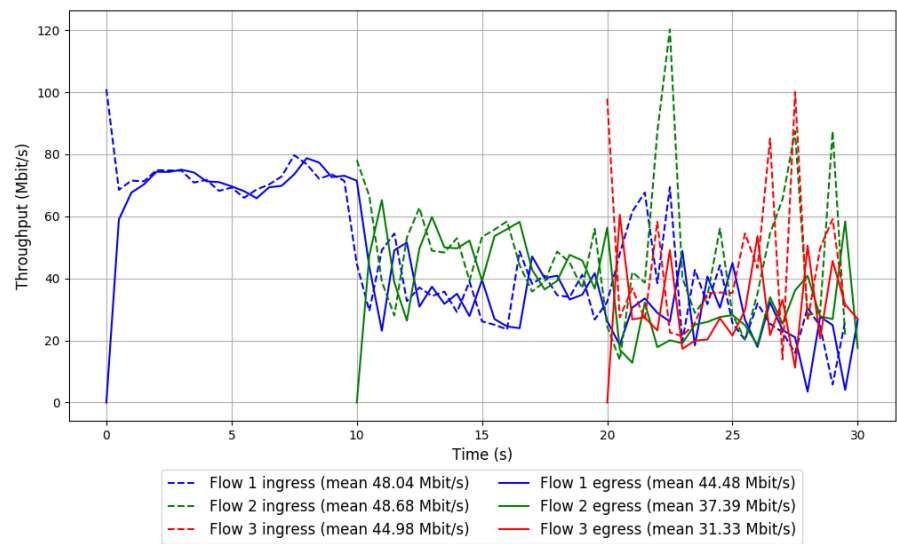


Run 1: Statistics of Verus

Start at: 2018-12-11 12:22:33  
End at: 2018-12-11 12:23:03  
Local clock offset: -5.751 ms  
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2018-12-11 14:15:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.63 Mbit/s  
95th percentile per-packet one-way delay: 32.910 ms  
Loss rate: 16.25%  
-- Flow 1:  
Average throughput: 44.48 Mbit/s  
95th percentile per-packet one-way delay: 30.936 ms  
Loss rate: 7.40%  
-- Flow 2:  
Average throughput: 37.39 Mbit/s  
95th percentile per-packet one-way delay: 33.025 ms  
Loss rate: 23.07%  
-- Flow 3:  
Average throughput: 31.33 Mbit/s  
95th percentile per-packet one-way delay: 33.095 ms  
Loss rate: 30.14%

Run 1: Report of Verus — Data Link

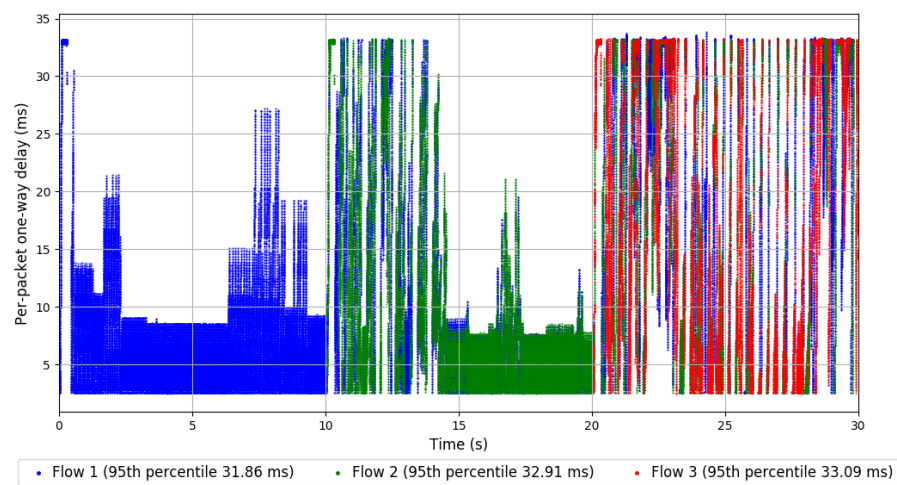
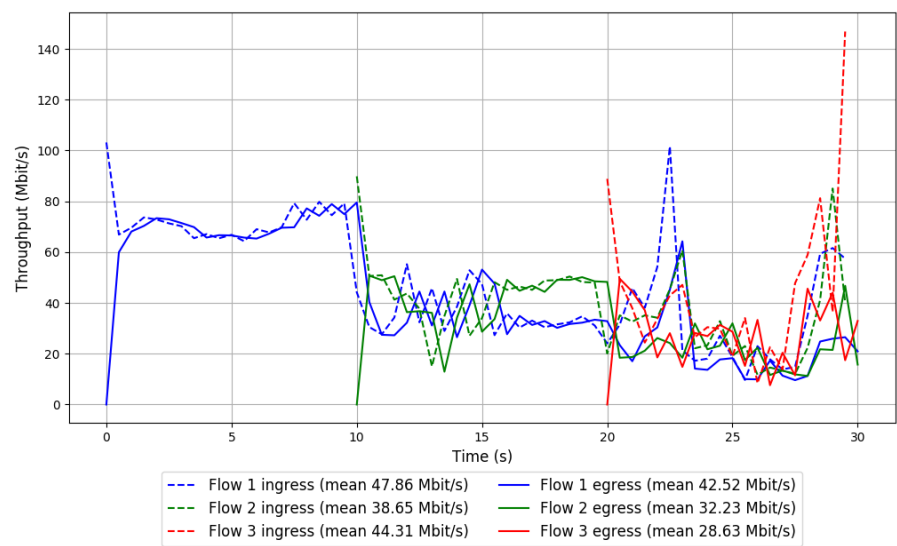


Run 2: Statistics of Verus

Start at: 2018-12-11 12:44:10  
End at: 2018-12-11 12:44:40  
Local clock offset: -5.716 ms  
Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2018-12-11 14:15:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 73.29 Mbit/s  
95th percentile per-packet one-way delay: 32.893 ms  
Loss rate: 16.68%  
-- Flow 1:  
Average throughput: 42.52 Mbit/s  
95th percentile per-packet one-way delay: 31.865 ms  
Loss rate: 11.07%  
-- Flow 2:  
Average throughput: 32.23 Mbit/s  
95th percentile per-packet one-way delay: 32.914 ms  
Loss rate: 16.50%  
-- Flow 3:  
Average throughput: 28.63 Mbit/s  
95th percentile per-packet one-way delay: 33.089 ms  
Loss rate: 35.31%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-12-11 13:05:46

End at: 2018-12-11 13:06:16

Local clock offset: -5.77 ms

Remote clock offset: 0.361 ms

# Below is generated by plot.py at 2018-12-11 14:15:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.59 Mbit/s

95th percentile per-packet one-way delay: 32.907 ms

Loss rate: 17.58%

-- Flow 1:

Average throughput: 44.64 Mbit/s

95th percentile per-packet one-way delay: 30.788 ms

Loss rate: 11.73%

-- Flow 2:

Average throughput: 32.84 Mbit/s

95th percentile per-packet one-way delay: 33.052 ms

Loss rate: 23.34%

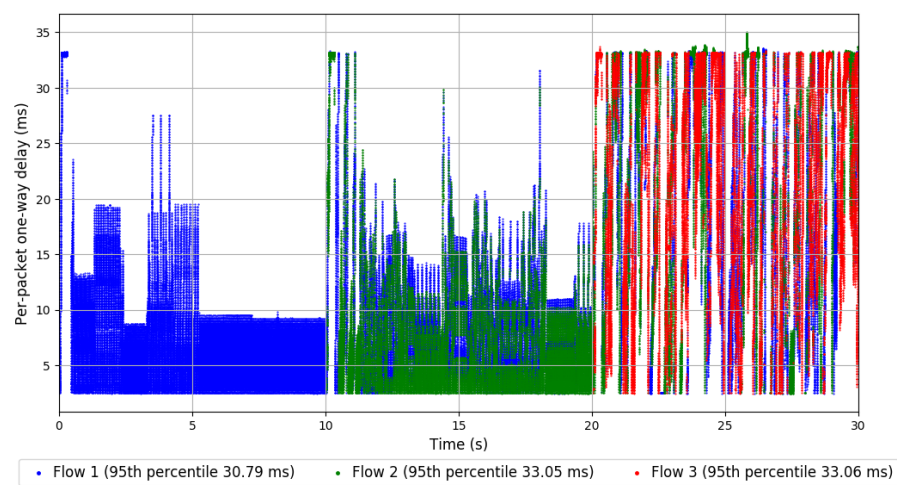
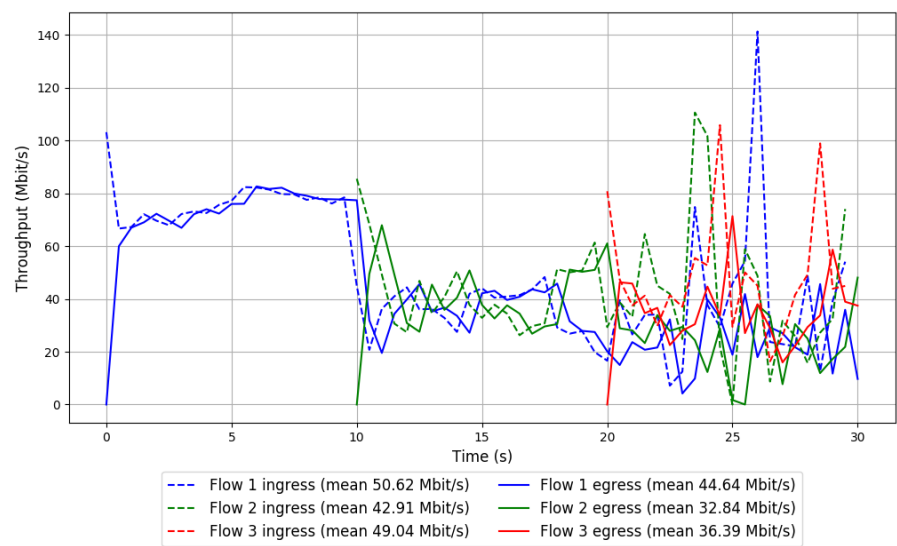
-- Flow 3:

Average throughput: 36.39 Mbit/s

95th percentile per-packet one-way delay: 33.065 ms

Loss rate: 25.65%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-12-11 13:27:24

End at: 2018-12-11 13:27:54

Local clock offset: -2.114 ms

Remote clock offset: 1.81 ms

# Below is generated by plot.py at 2018-12-11 14:15:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.59 Mbit/s

95th percentile per-packet one-way delay: 33.216 ms

Loss rate: 39.15%

-- Flow 1:

Average throughput: 47.02 Mbit/s

95th percentile per-packet one-way delay: 33.213 ms

Loss rate: 42.37%

-- Flow 2:

Average throughput: 33.10 Mbit/s

95th percentile per-packet one-way delay: 33.215 ms

Loss rate: 33.63%

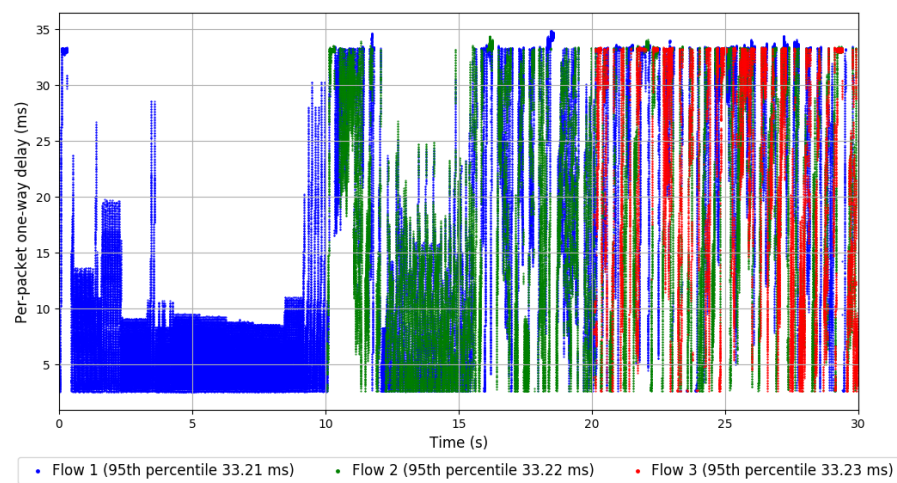
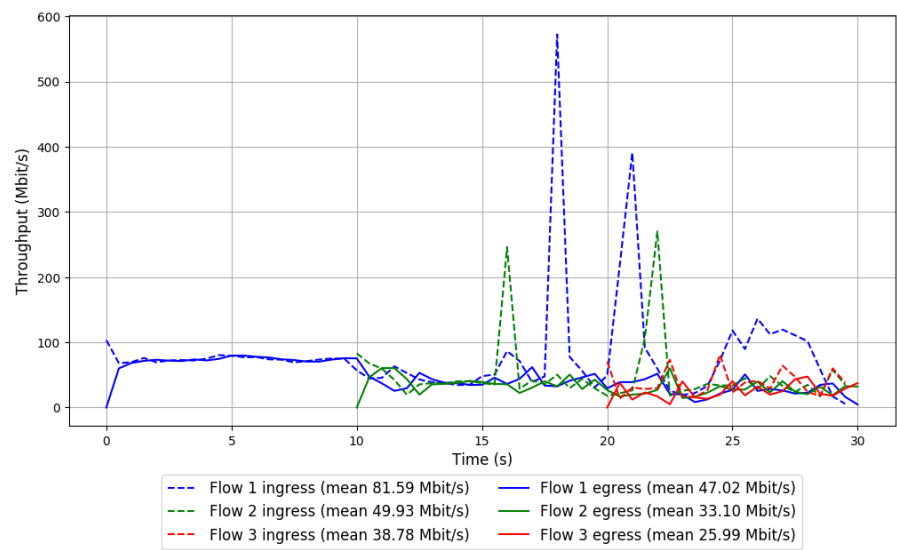
-- Flow 3:

Average throughput: 25.99 Mbit/s

95th percentile per-packet one-way delay: 33.226 ms

Loss rate: 32.97%

Run 4: Report of Verus — Data Link





Run 5: Statistics of Verus

Start at: 2018-12-11 13:49:01

End at: 2018-12-11 13:49:31

Local clock offset: -2.171 ms

Remote clock offset: 2.042 ms

# Below is generated by plot.py at 2018-12-11 14:15:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.36 Mbit/s

95th percentile per-packet one-way delay: 32.791 ms

Loss rate: 26.26%

-- Flow 1:

Average throughput: 48.25 Mbit/s

95th percentile per-packet one-way delay: 31.116 ms

Loss rate: 15.34%

-- Flow 2:

Average throughput: 34.19 Mbit/s

95th percentile per-packet one-way delay: 32.781 ms

Loss rate: 14.37%

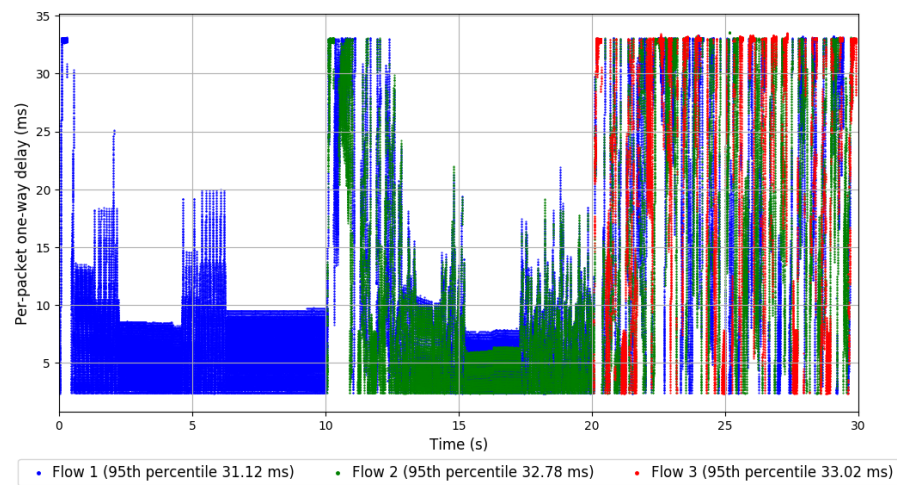
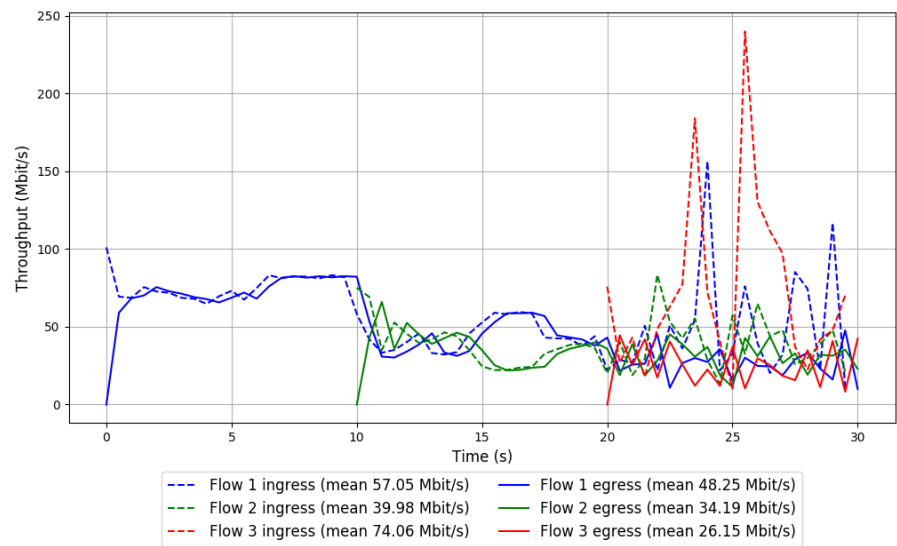
-- Flow 3:

Average throughput: 26.15 Mbit/s

95th percentile per-packet one-way delay: 33.015 ms

Loss rate: 64.59%

Run 5: Report of Verus — Data Link

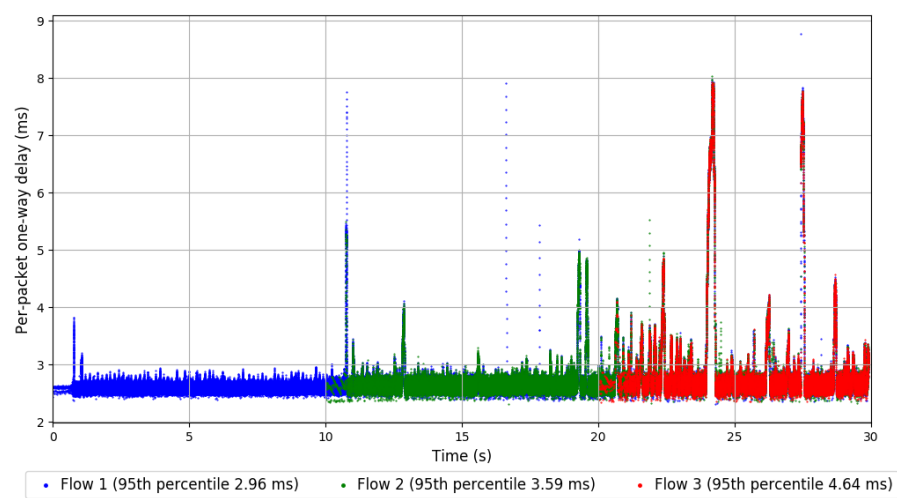
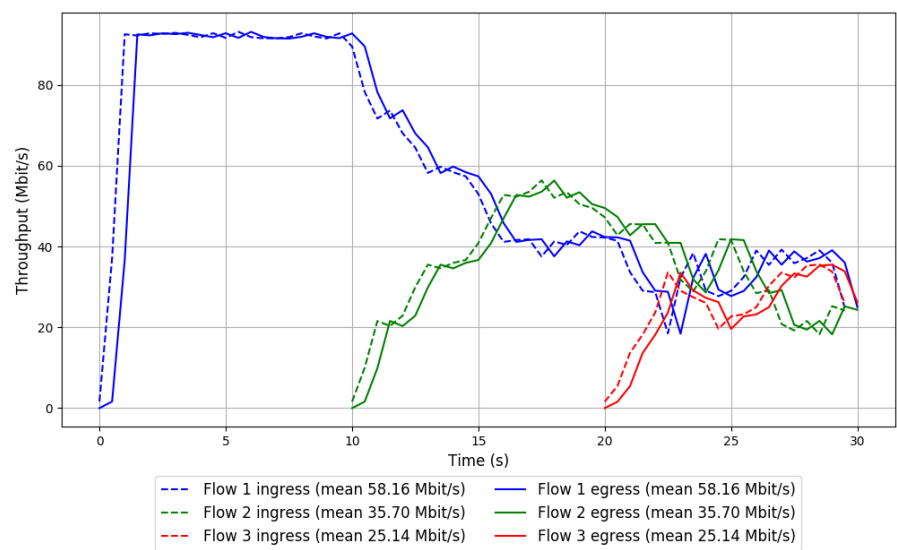


Run 1: Statistics of PCC-Vivace

Start at: 2018-12-11 12:18:01  
End at: 2018-12-11 12:18:31  
Local clock offset: -5.73 ms  
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-12-11 14:16:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.20 Mbit/s  
95th percentile per-packet one-way delay: 3.274 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 58.16 Mbit/s  
95th percentile per-packet one-way delay: 2.958 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 35.70 Mbit/s  
95th percentile per-packet one-way delay: 3.591 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 25.14 Mbit/s  
95th percentile per-packet one-way delay: 4.639 ms  
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-12-11 12:39:38

End at: 2018-12-11 12:40:08

Local clock offset: -5.739 ms

Remote clock offset: 0.059 ms

# Below is generated by plot.py at 2018-12-11 14:16:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.59 Mbit/s

95th percentile per-packet one-way delay: 3.279 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 60.64 Mbit/s

95th percentile per-packet one-way delay: 3.000 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.43 Mbit/s

95th percentile per-packet one-way delay: 3.598 ms

Loss rate: 0.00%

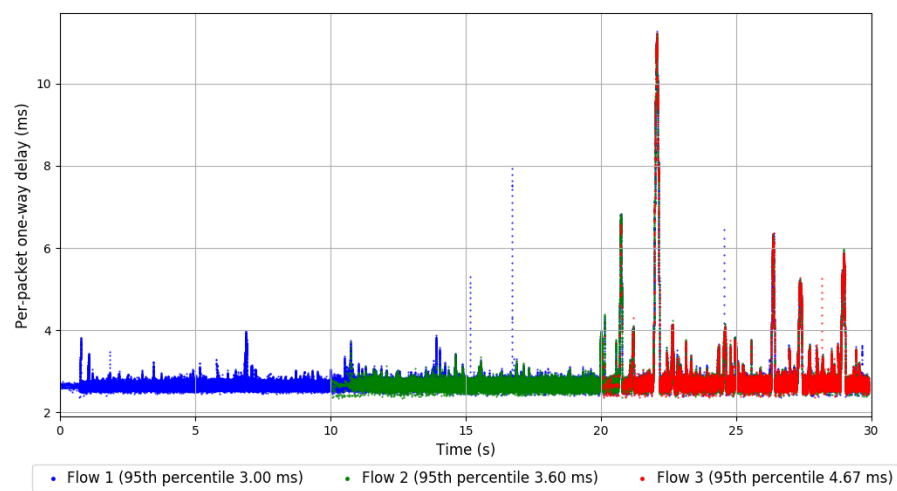
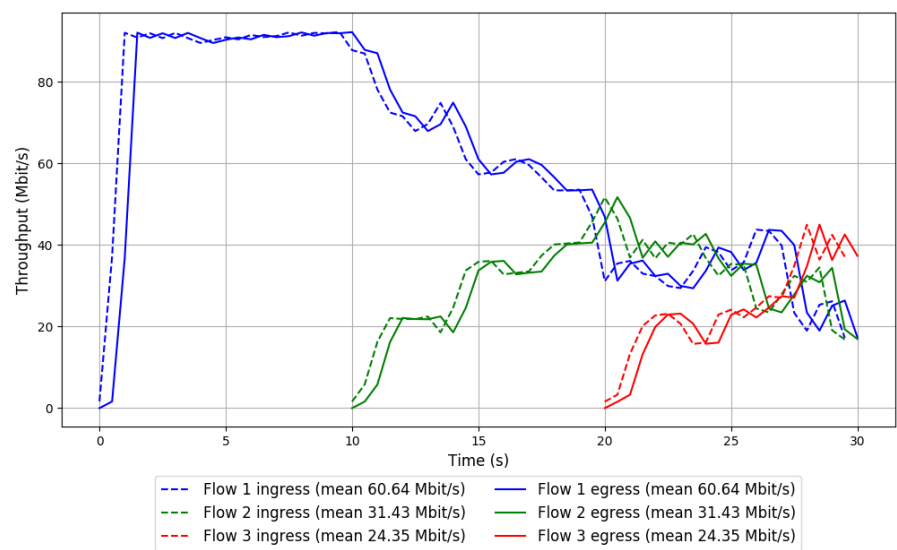
-- Flow 3:

Average throughput: 24.35 Mbit/s

95th percentile per-packet one-way delay: 4.668 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-12-11 13:01:14

End at: 2018-12-11 13:01:44

Local clock offset: -5.83 ms

Remote clock offset: 0.184 ms

# Below is generated by plot.py at 2018-12-11 14:16:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.00 Mbit/s

95th percentile per-packet one-way delay: 3.790 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.01 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 35.82 Mbit/s

95th percentile per-packet one-way delay: 4.105 ms

Loss rate: 0.00%

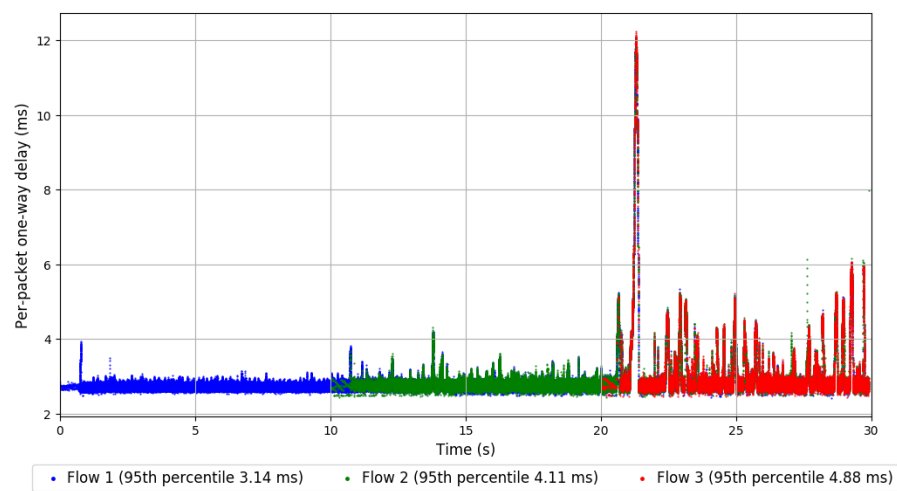
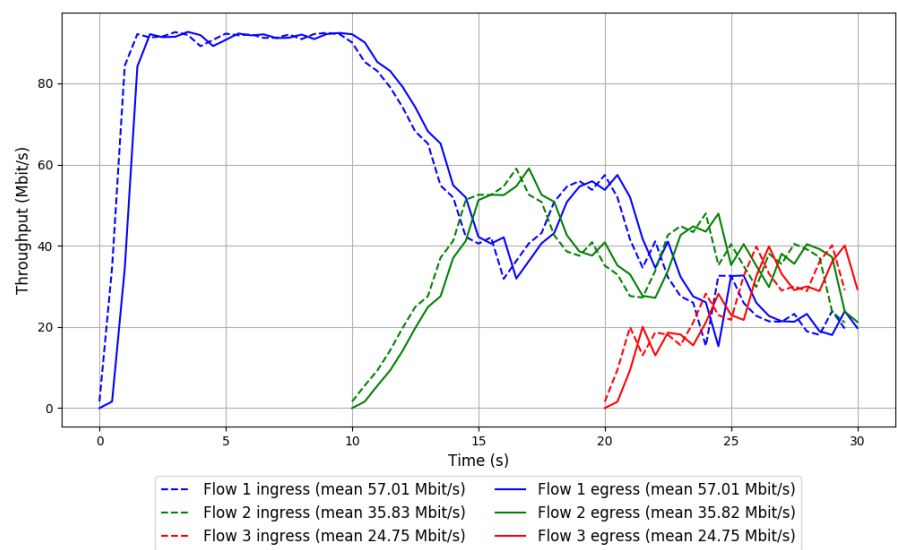
-- Flow 3:

Average throughput: 24.75 Mbit/s

95th percentile per-packet one-way delay: 4.877 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link





Run 4: Statistics of PCC-Vivace

Start at: 2018-12-11 13:22:52

End at: 2018-12-11 13:23:22

Local clock offset: -2.533 ms

Remote clock offset: 1.653 ms

# Below is generated by plot.py at 2018-12-11 14:16:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.13 Mbit/s

95th percentile per-packet one-way delay: 3.582 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.98 Mbit/s

95th percentile per-packet one-way delay: 3.144 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.50 Mbit/s

95th percentile per-packet one-way delay: 4.747 ms

Loss rate: 0.00%

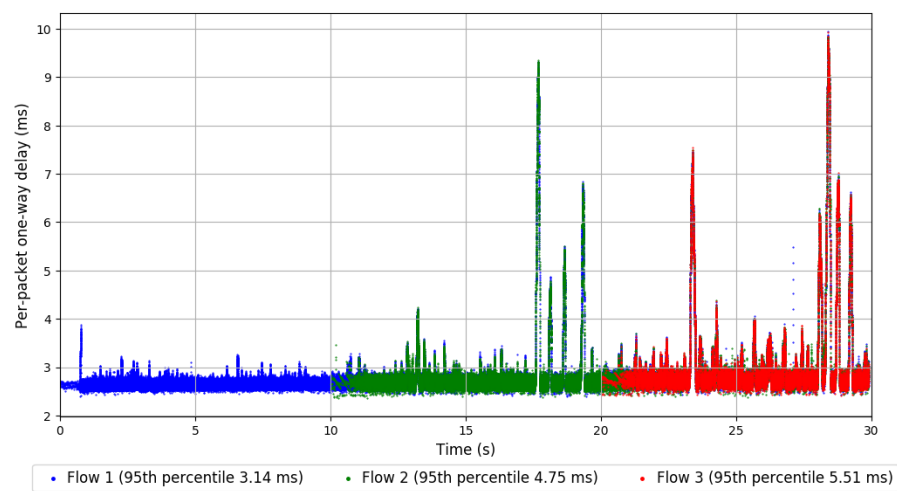
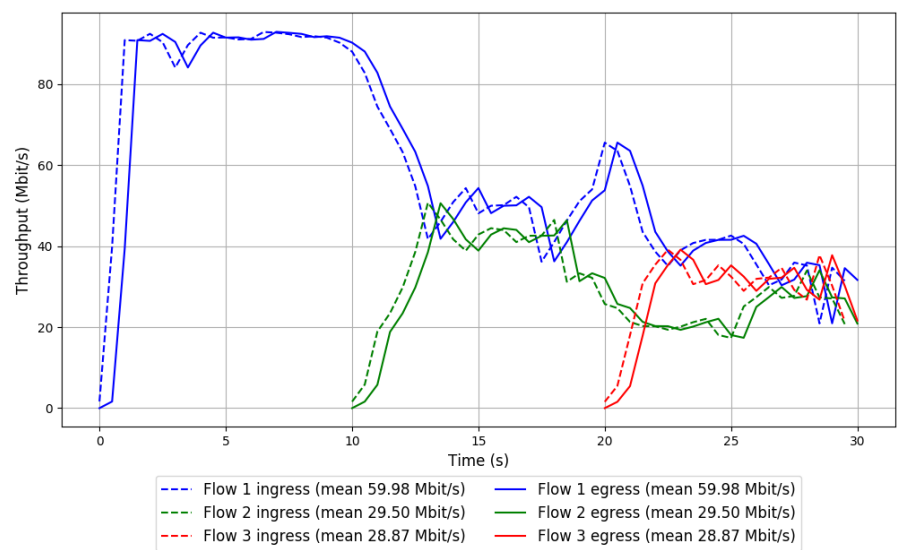
-- Flow 3:

Average throughput: 28.87 Mbit/s

95th percentile per-packet one-way delay: 5.512 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-12-11 13:44:29

End at: 2018-12-11 13:44:59

Local clock offset: -2.027 ms

Remote clock offset: 2.015 ms

# Below is generated by plot.py at 2018-12-11 14:16:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.57 Mbit/s

95th percentile per-packet one-way delay: 4.018 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.22 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.41 Mbit/s

95th percentile per-packet one-way delay: 4.868 ms

Loss rate: 0.00%

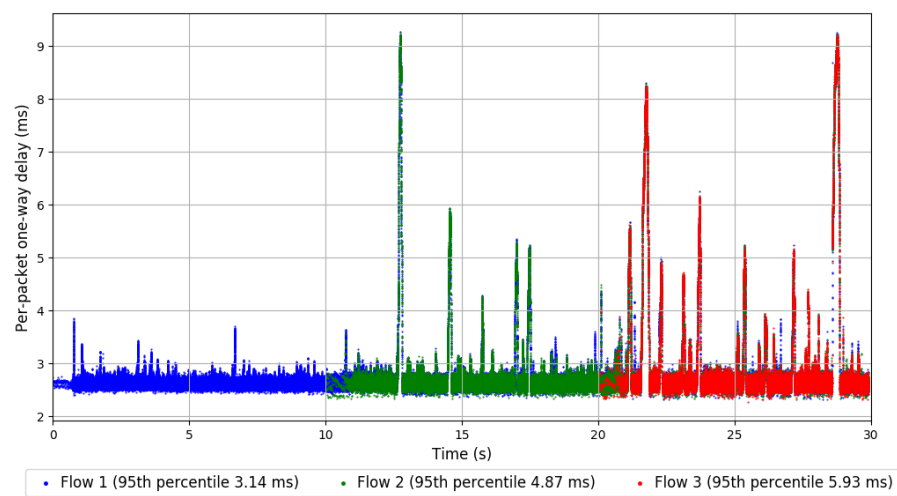
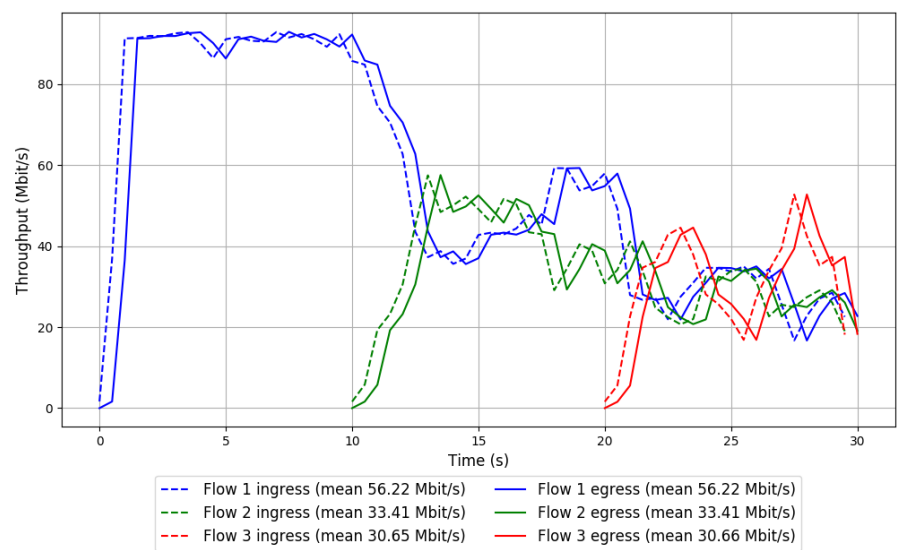
-- Flow 3:

Average throughput: 30.66 Mbit/s

95th percentile per-packet one-way delay: 5.932 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

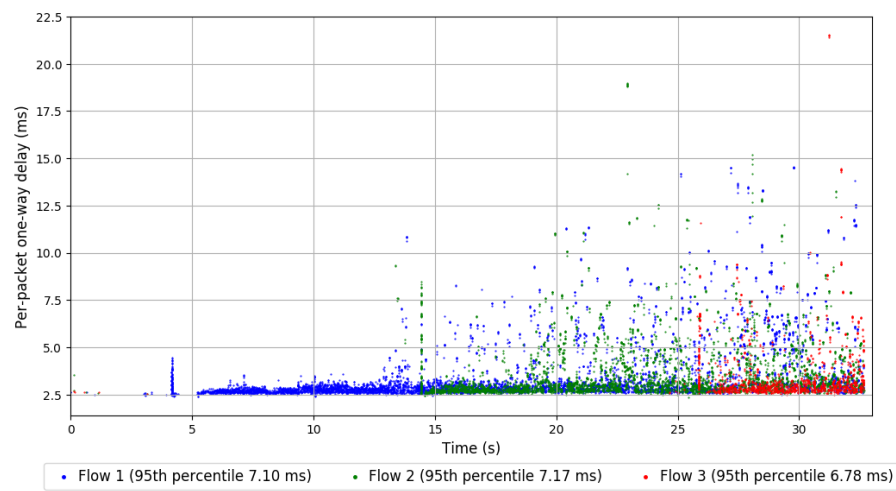
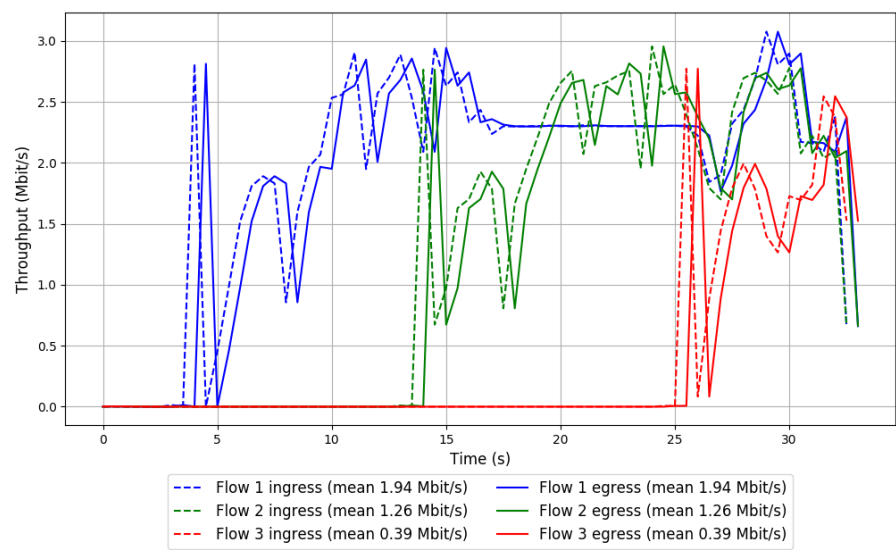


```
Run 1: Statistics of WebRTC media

Start at: 2018-12-11 12:33:56
End at: 2018-12-11 12:34:26
Local clock offset: -5.712 ms
Remote clock offset: -0.011 ms

# Below is generated by plot.py at 2018-12-11 14:16:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 7.101 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 7.103 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 7.171 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 6.775 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-12-11 12:55:32

End at: 2018-12-11 12:56:02

Local clock offset: -5.733 ms

Remote clock offset: 0.096 ms

# Below is generated by plot.py at 2018-12-11 14:16:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.56 Mbit/s

95th percentile per-packet one-way delay: 6.799 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 6.778 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 6.973 ms

Loss rate: 0.00%

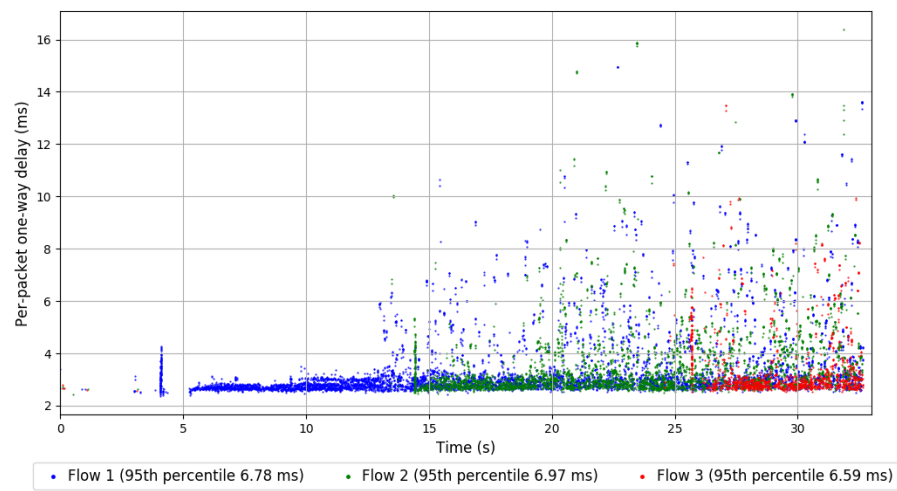
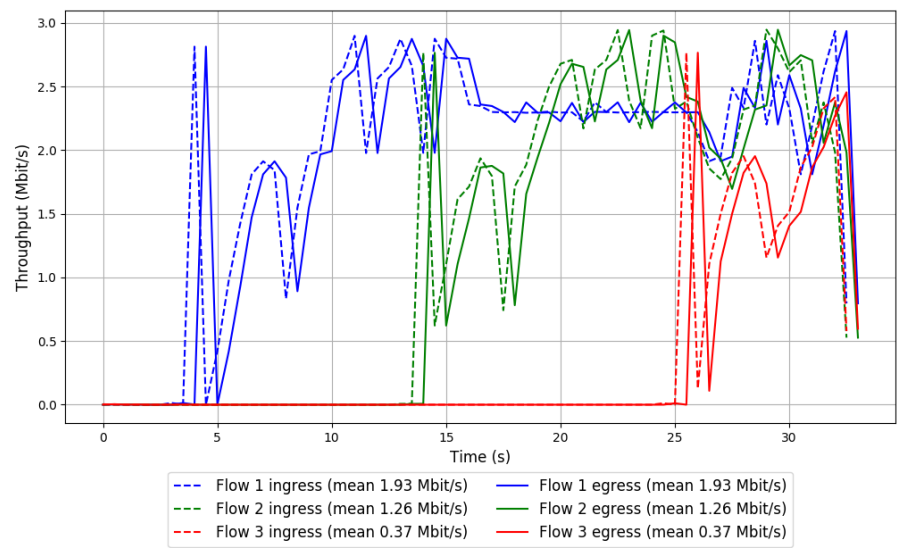
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 6.593 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link





Run 3: Statistics of WebRTC media

Start at: 2018-12-11 13:17:09

End at: 2018-12-11 13:17:39

Local clock offset: -3.423 ms

Remote clock offset: 1.305 ms

# Below is generated by plot.py at 2018-12-11 14:16:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 6.603 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 6.550 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 6.486 ms

Loss rate: 0.14%

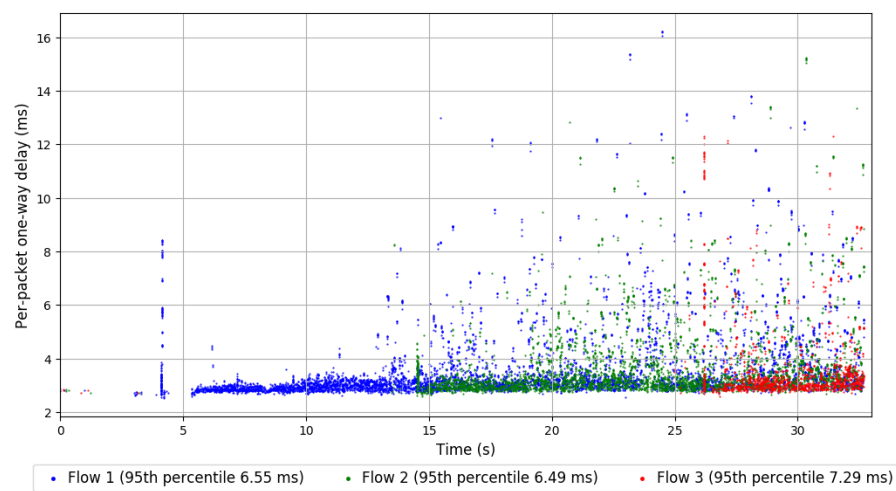
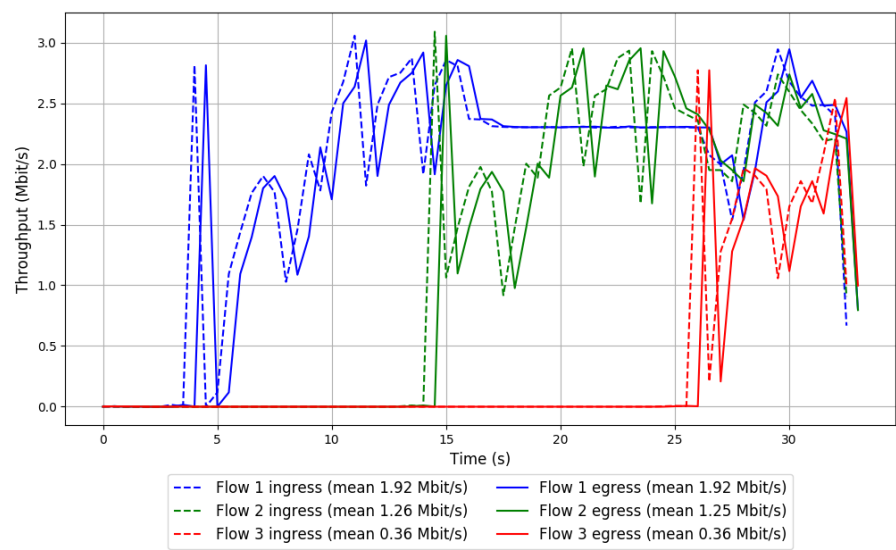
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 7.287 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-12-11 13:38:47

End at: 2018-12-11 13:39:17

Local clock offset: -1.384 ms

Remote clock offset: 1.964 ms

# Below is generated by plot.py at 2018-12-11 14:16:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.51 Mbit/s

95th percentile per-packet one-way delay: 6.469 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 5.999 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 6.948 ms

Loss rate: 0.02%

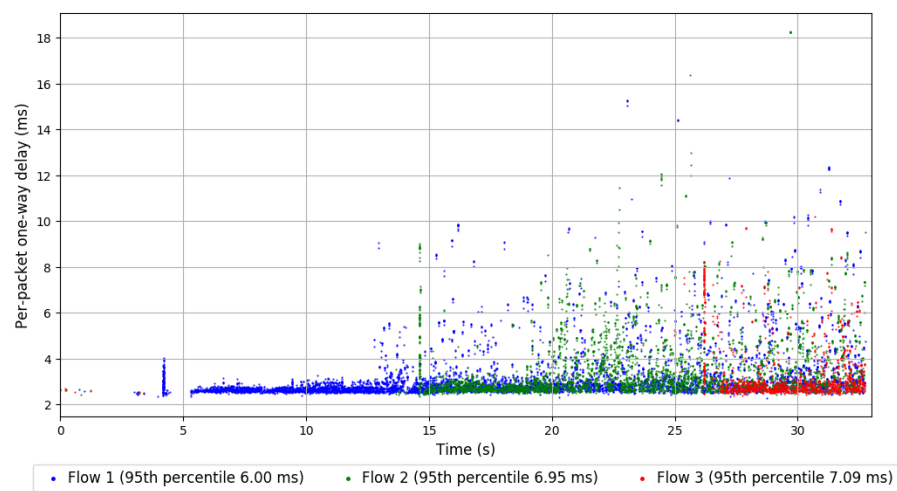
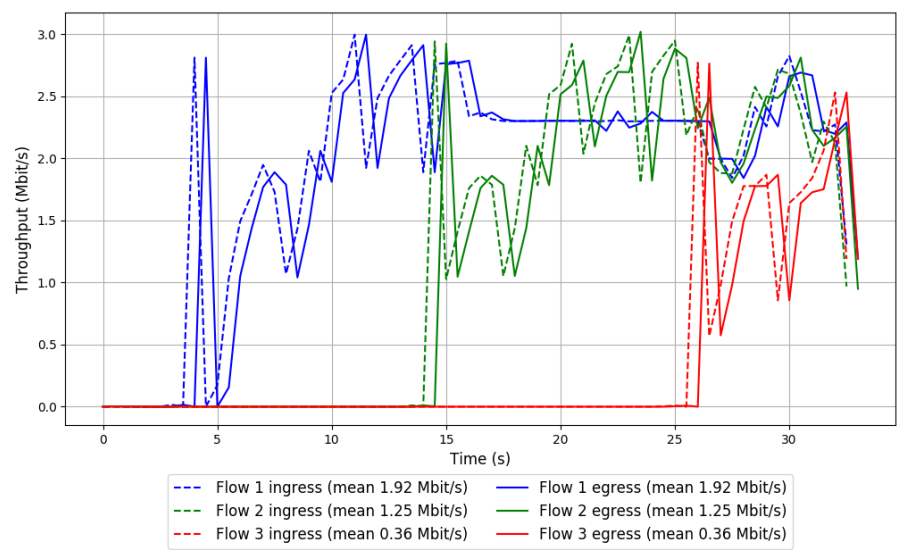
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 7.087 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-12-11 14:00:24

End at: 2018-12-11 14:00:54

Local clock offset: -2.275 ms

Remote clock offset: 2.3 ms

# Below is generated by plot.py at 2018-12-11 14:16:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.50 Mbit/s

95th percentile per-packet one-way delay: 6.059 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 5.365 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 6.383 ms

Loss rate: 0.14%

-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 7.231 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

