

## Pantheon Report

Generated at 2018-11-30 17:29:04 (UTC).

Data path: India on `em1` (*remote*) → AWS India 1 on `ens5` (*local*).

Repeated the test of 19 congestion control schemes 5 times.

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

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

### System info:

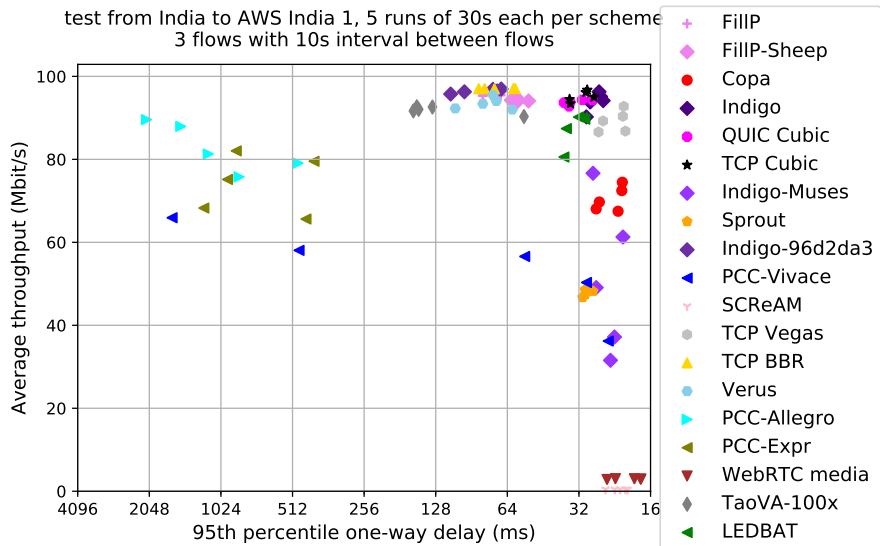
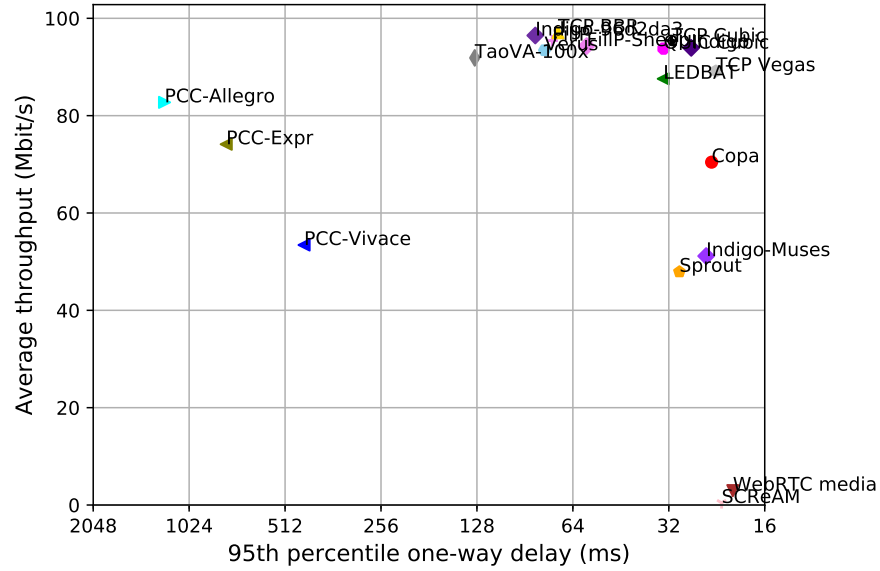
```
Linux 4.15.0-1027-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ 7b6dad87cde3ab65f7c4052140eb54098aa58e9d
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
```

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

test from India to AWS India 1, 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	57.40	38.45	42.33	49.38	104.55	75.66	3.31	3.67	3.68
Copa	5	40.64	31.68	26.21	23.04	23.67	26.48	0.08	0.14	0.27
TCP Cubic	5	57.49	41.34	30.55	31.14	31.38	33.23	0.06	0.14	0.35
FillP	5	58.58	42.59	25.57	57.35	76.64	85.78	0.25	2.35	5.39
FillP-Sheep	5	56.28	40.14	34.04	51.88	61.39	70.44	0.11	0.23	0.48
Indigo	5	55.91	42.12	30.53	26.85	27.26	27.44	0.06	0.13	0.31
Indigo-96d2da3	5	59.44	38.88	33.74	77.36	102.47	93.33	2.03	2.79	3.77
LEDBAT	5	52.81	37.27	29.97	32.27	34.19	34.41	0.09	0.21	0.38
Indigo-Muses	5	28.04	22.14	25.42	22.90	26.44	26.52	0.03	0.10	0.08
PCC-Allegro	5	54.06	33.09	20.41	1107.43	502.39	24.93	6.52	6.67	0.29
PCC-Expr	5	45.38	29.98	26.69	817.02	96.96	104.92	10.92	0.69	1.58
QUIC Cubic	5	54.96	39.13	38.71	32.94	33.00	39.63	0.09	0.19	0.45
SCReAM	5	0.21	0.21	0.22	21.85	21.84	21.86	0.10	0.19	0.29
Sprout	5	24.28	23.94	23.40	28.87	30.08	30.37	0.08	0.19	0.34
TaoVA-100x	5	54.05	39.00	35.69	112.91	153.27	121.10	0.23	0.84	2.01
TCP Vegas	5	50.77	40.18	35.05	22.70	22.73	22.93	0.05	0.10	0.27
Verus	5	58.18	37.38	31.33	77.50	94.78	118.37	0.23	0.36	1.00
PCC-Vivace	5	34.14	20.44	17.25	399.51	38.29	138.78	0.54	0.19	1.03
WebRTC media	5	1.60	0.93	0.42	20.09	20.17	20.13	0.05	0.08	0.17

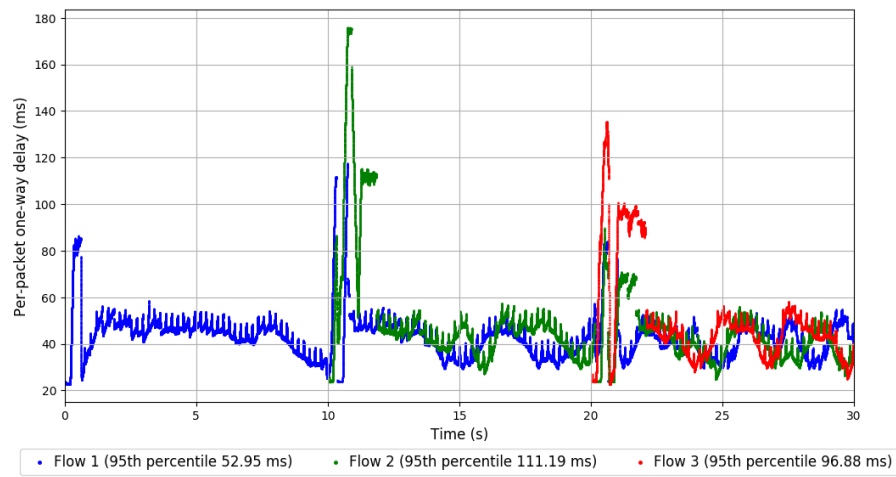
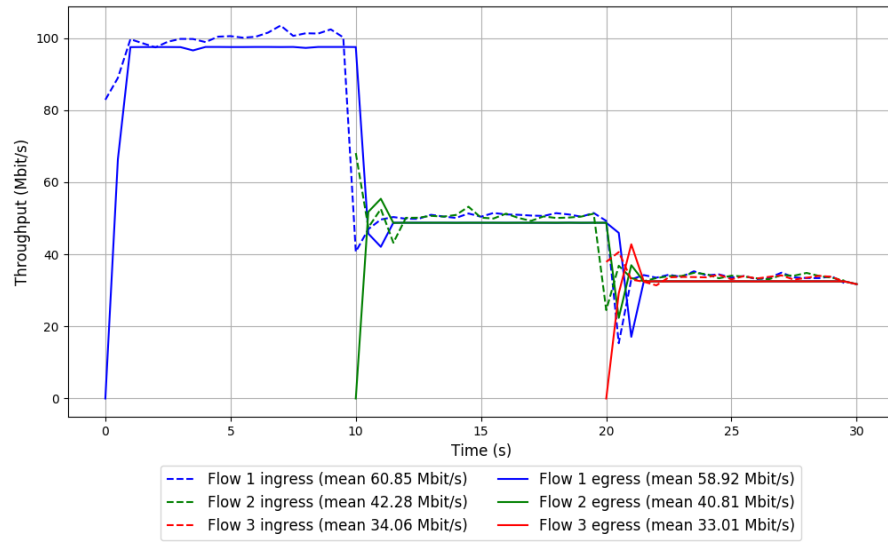


Run 1: Statistics of TCP BBR

Start at: 2018-11-30 15:39:27  
End at: 2018-11-30 15:39:57  
Local clock offset: 2.645 ms  
Remote clock offset: -16.401 ms

# Below is generated by plot.py at 2018-11-30 17:17:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.05 Mbit/s  
95th percentile per-packet one-way delay: 79.758 ms  
Loss rate: 3.37%  
-- Flow 1:  
Average throughput: 58.92 Mbit/s  
95th percentile per-packet one-way delay: 52.950 ms  
Loss rate: 3.26%  
-- Flow 2:  
Average throughput: 40.81 Mbit/s  
95th percentile per-packet one-way delay: 111.188 ms  
Loss rate: 3.60%  
-- Flow 3:  
Average throughput: 33.01 Mbit/s  
95th percentile per-packet one-way delay: 96.881 ms  
Loss rate: 3.36%

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

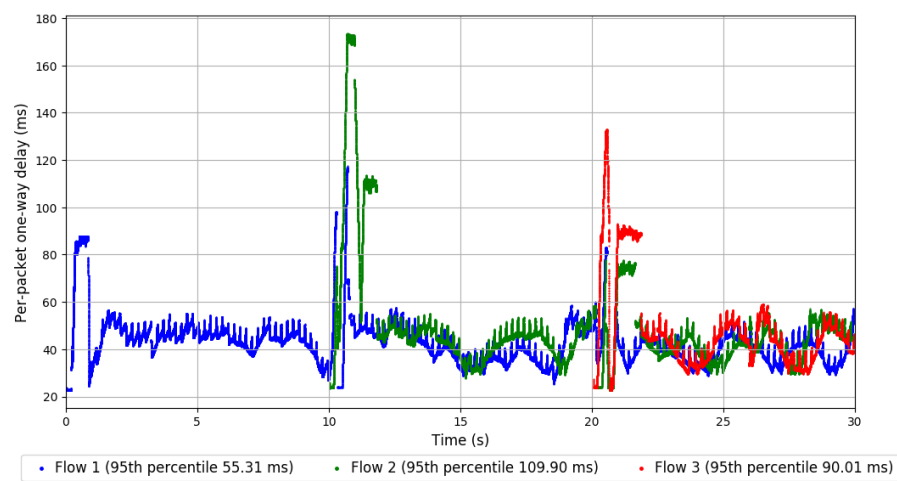
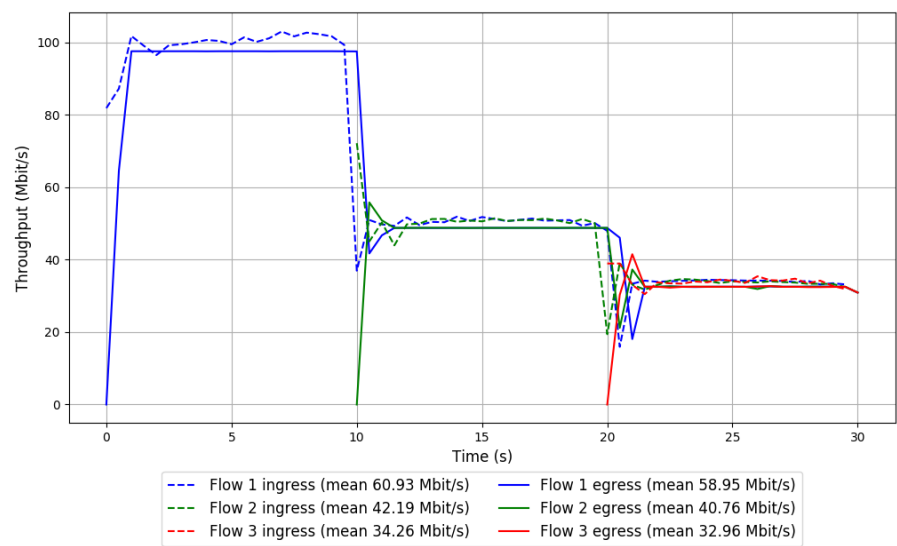


Run 2: Statistics of TCP BBR

Start at: 2018-11-30 16:02:14  
End at: 2018-11-30 16:02:44  
Local clock offset: 1.214 ms  
Remote clock offset: -15.937 ms

# Below is generated by plot.py at 2018-11-30 17:17:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.04 Mbit/s  
95th percentile per-packet one-way delay: 84.439 ms  
Loss rate: 3.46%  
-- Flow 1:  
Average throughput: 58.95 Mbit/s  
95th percentile per-packet one-way delay: 55.307 ms  
Loss rate: 3.33%  
-- Flow 2:  
Average throughput: 40.76 Mbit/s  
95th percentile per-packet one-way delay: 109.900 ms  
Loss rate: 3.51%  
-- Flow 3:  
Average throughput: 32.96 Mbit/s  
95th percentile per-packet one-way delay: 90.007 ms  
Loss rate: 4.05%

Run 2: Report of TCP BBR — Data Link

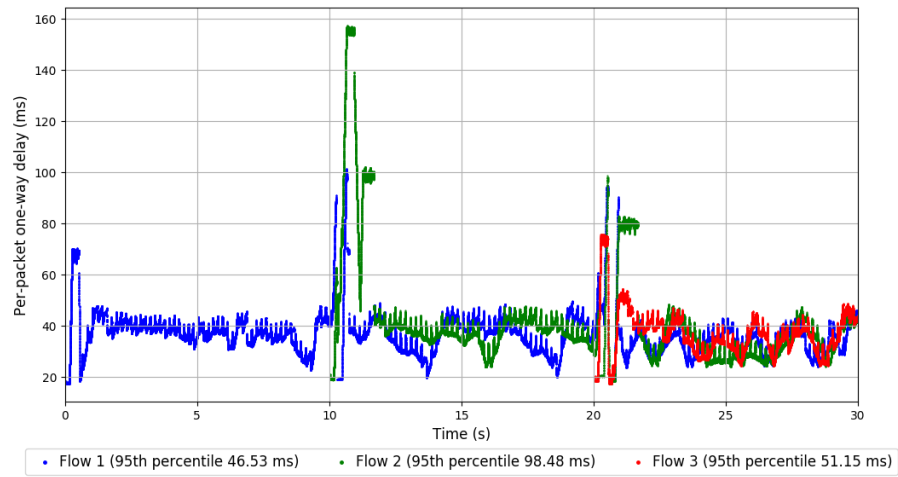
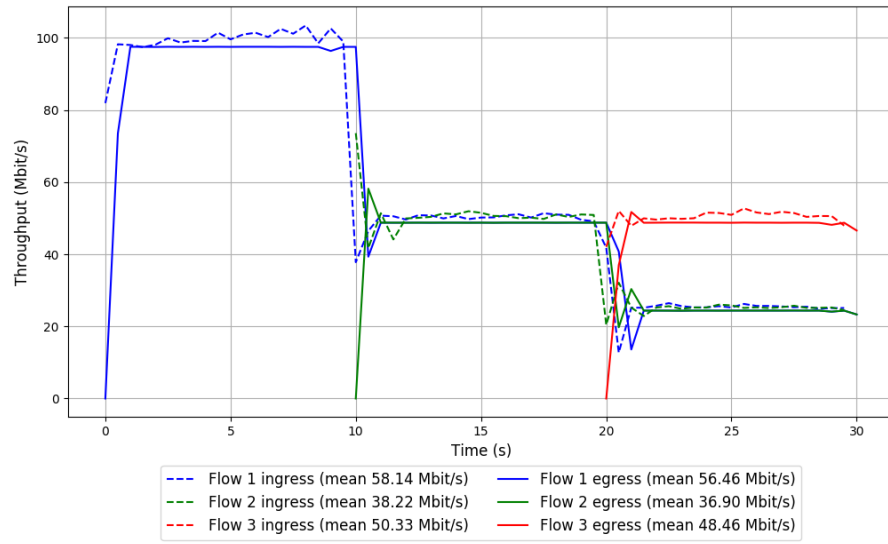


Run 3: Statistics of TCP BBR

Start at: 2018-11-30 16:25:02  
End at: 2018-11-30 16:25:32  
Local clock offset: 0.028 ms  
Remote clock offset: -16.922 ms

# Below is generated by plot.py at 2018-11-30 17:17:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.11 Mbit/s  
95th percentile per-packet one-way delay: 60.221 ms  
Loss rate: 3.29%  
-- Flow 1:  
Average throughput: 56.46 Mbit/s  
95th percentile per-packet one-way delay: 46.528 ms  
Loss rate: 2.96%  
-- Flow 2:  
Average throughput: 36.90 Mbit/s  
95th percentile per-packet one-way delay: 98.480 ms  
Loss rate: 3.58%  
-- Flow 3:  
Average throughput: 48.46 Mbit/s  
95th percentile per-packet one-way delay: 51.152 ms  
Loss rate: 3.97%

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

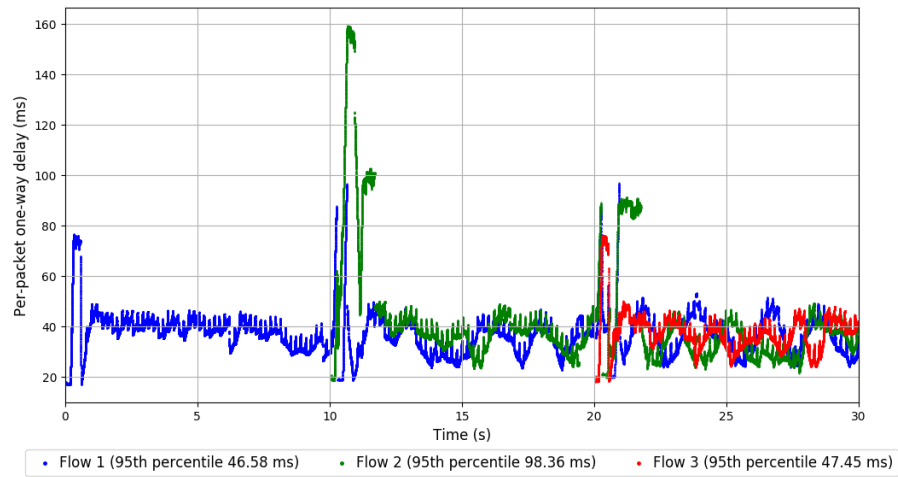
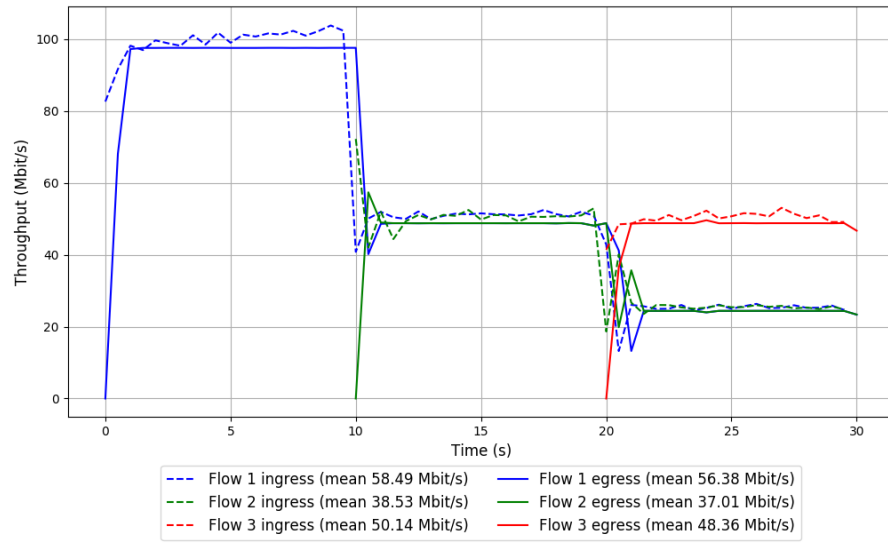


Run 4: Statistics of TCP BBR

Start at: 2018-11-30 16:48:07  
End at: 2018-11-30 16:48:37  
Local clock offset: -1.51 ms  
Remote clock offset: -16.725 ms

# Below is generated by plot.py at 2018-11-30 17:17:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 97.06 Mbit/s  
95th percentile per-packet one-way delay: 59.321 ms  
Loss rate: 3.80%  
-- Flow 1:  
Average throughput: 56.38 Mbit/s  
95th percentile per-packet one-way delay: 46.578 ms  
Loss rate: 3.69%  
-- Flow 2:  
Average throughput: 37.01 Mbit/s  
95th percentile per-packet one-way delay: 98.365 ms  
Loss rate: 4.05%  
-- Flow 3:  
Average throughput: 48.36 Mbit/s  
95th percentile per-packet one-way delay: 47.448 ms  
Loss rate: 3.79%

#### Run 4: Report of TCP BBR — Data Link



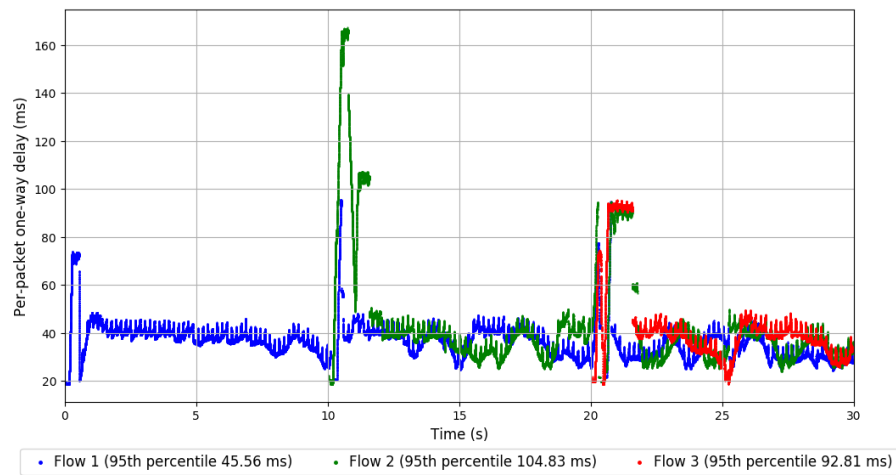
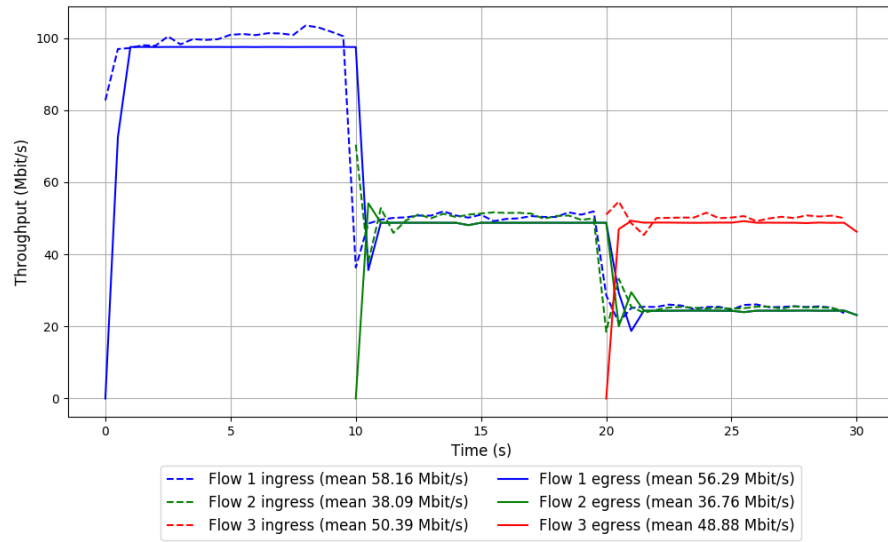


Run 5: Statistics of TCP BBR

Start at: 2018-11-30 17:11:08  
End at: 2018-11-30 17:11:38  
Local clock offset: -6.348 ms  
Remote clock offset: -18.492 ms

# Below is generated by plot.py at 2018-11-30 17:17:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.99 Mbit/s  
95th percentile per-packet one-way delay: 72.539 ms  
Loss rate: 3.35%  
-- Flow 1:  
Average throughput: 56.29 Mbit/s  
95th percentile per-packet one-way delay: 45.557 ms  
Loss rate: 3.29%  
-- Flow 2:  
Average throughput: 36.76 Mbit/s  
95th percentile per-packet one-way delay: 104.832 ms  
Loss rate: 3.59%  
-- Flow 3:  
Average throughput: 48.88 Mbit/s  
95th percentile per-packet one-way delay: 92.814 ms  
Loss rate: 3.21%

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

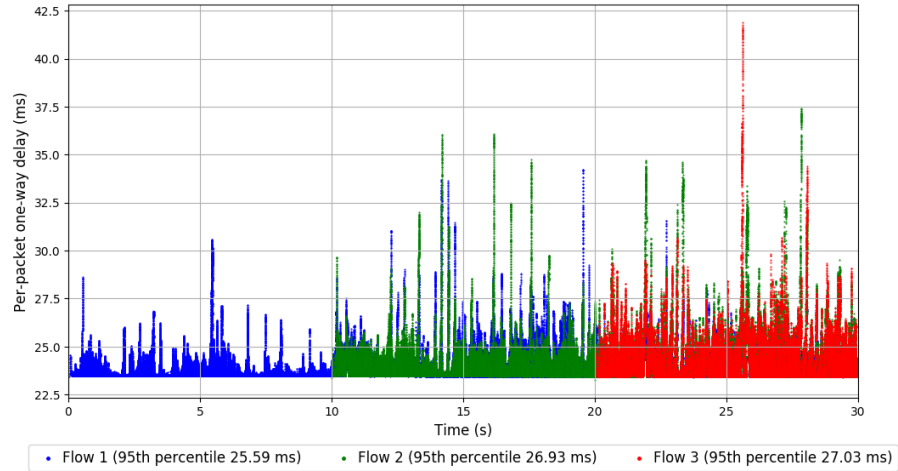
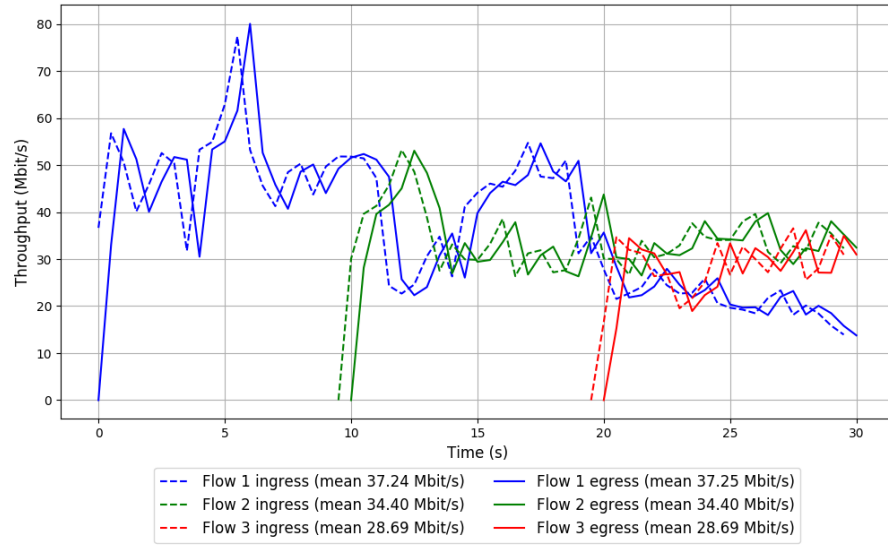


Run 1: Statistics of Copa

Start at: 2018-11-30 15:30:56  
End at: 2018-11-30 15:31:26  
Local clock offset: 3.311 ms  
Remote clock offset: -16.349 ms

# Below is generated by plot.py at 2018-11-30 17:17:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 69.72 Mbit/s  
95th percentile per-packet one-way delay: 26.267 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 37.25 Mbit/s  
95th percentile per-packet one-way delay: 25.585 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 34.40 Mbit/s  
95th percentile per-packet one-way delay: 26.926 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 28.69 Mbit/s  
95th percentile per-packet one-way delay: 27.028 ms  
Loss rate: 0.31%

## Run 1: Report of Copa — Data Link

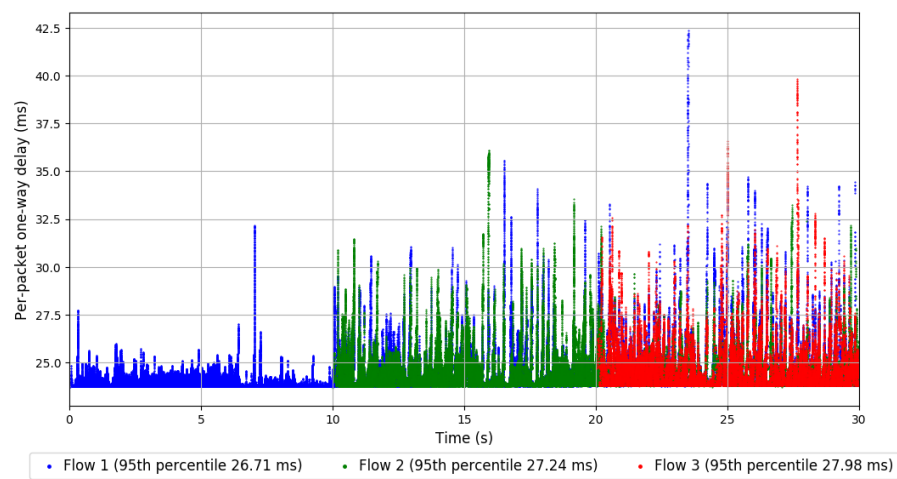
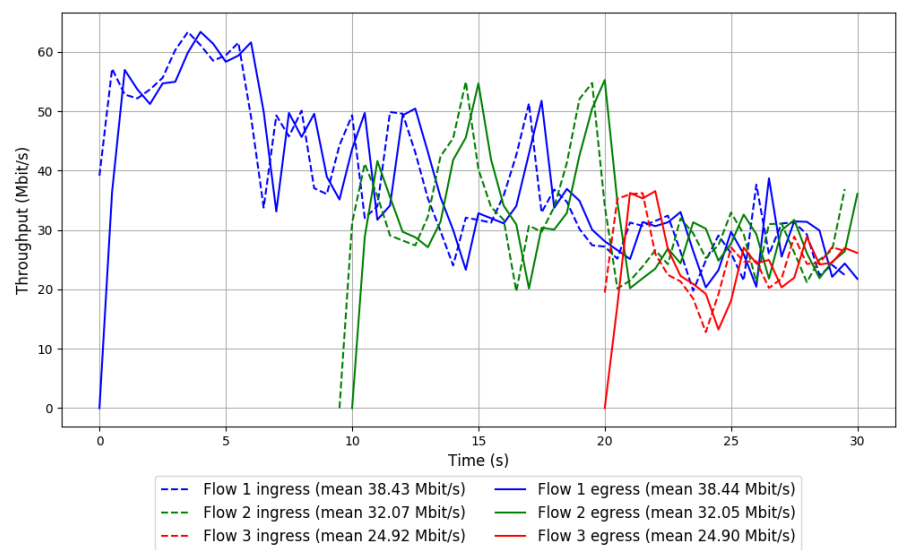


Run 2: Statistics of Copa

Start at: 2018-11-30 15:53:47  
End at: 2018-11-30 15:54:17  
Local clock offset: 2.366 ms  
Remote clock offset: -16.276 ms

# Below is generated by plot.py at 2018-11-30 17:17:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 68.06 Mbit/s  
95th percentile per-packet one-way delay: 27.090 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 38.44 Mbit/s  
95th percentile per-packet one-way delay: 26.710 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 32.05 Mbit/s  
95th percentile per-packet one-way delay: 27.236 ms  
Loss rate: 0.16%  
-- Flow 3:  
Average throughput: 24.90 Mbit/s  
95th percentile per-packet one-way delay: 27.979 ms  
Loss rate: 0.33%

Run 2: Report of Copa — Data Link

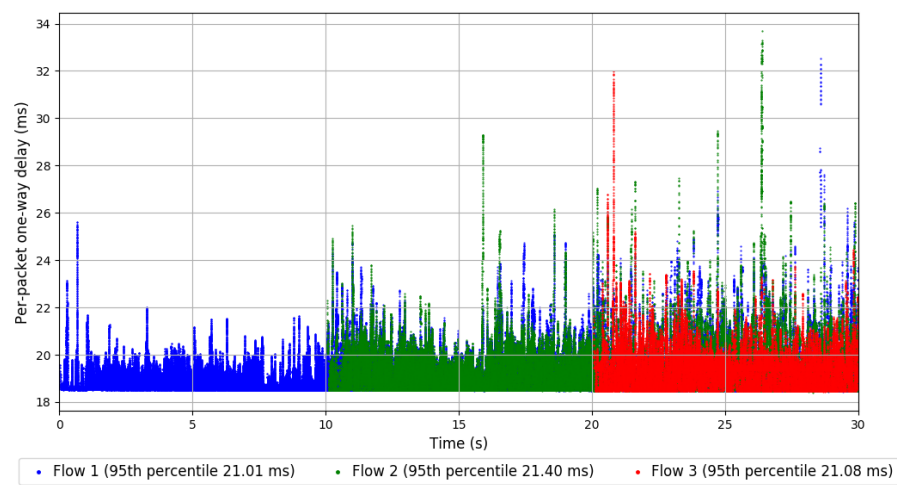
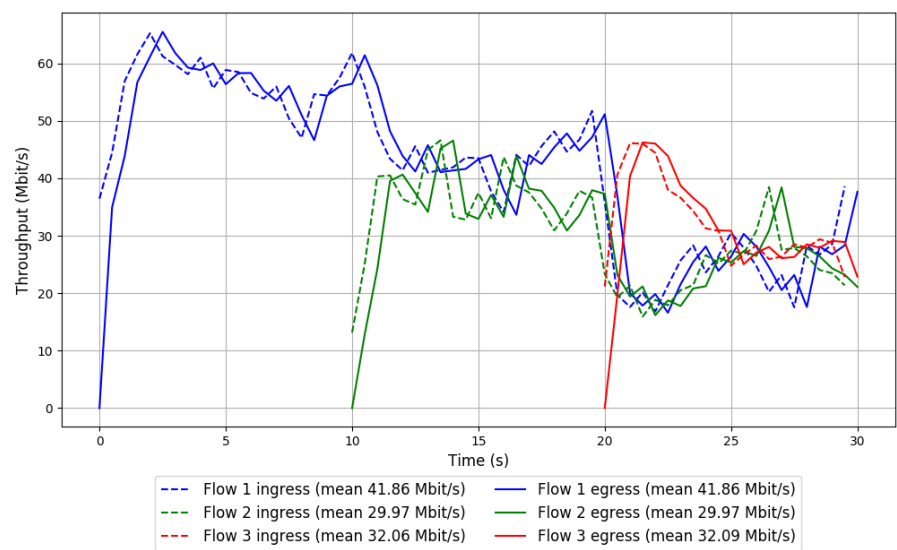


Run 3: Statistics of Copa

Start at: 2018-11-30 16:16:30  
End at: 2018-11-30 16:17:00  
Local clock offset: 1.495 ms  
Remote clock offset: -15.624 ms

# Below is generated by plot.py at 2018-11-30 17:17:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 72.46 Mbit/s  
95th percentile per-packet one-way delay: 21.140 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 41.86 Mbit/s  
95th percentile per-packet one-way delay: 21.010 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 29.97 Mbit/s  
95th percentile per-packet one-way delay: 21.401 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 32.09 Mbit/s  
95th percentile per-packet one-way delay: 21.081 ms  
Loss rate: 0.17%

Run 3: Report of Copa — Data Link



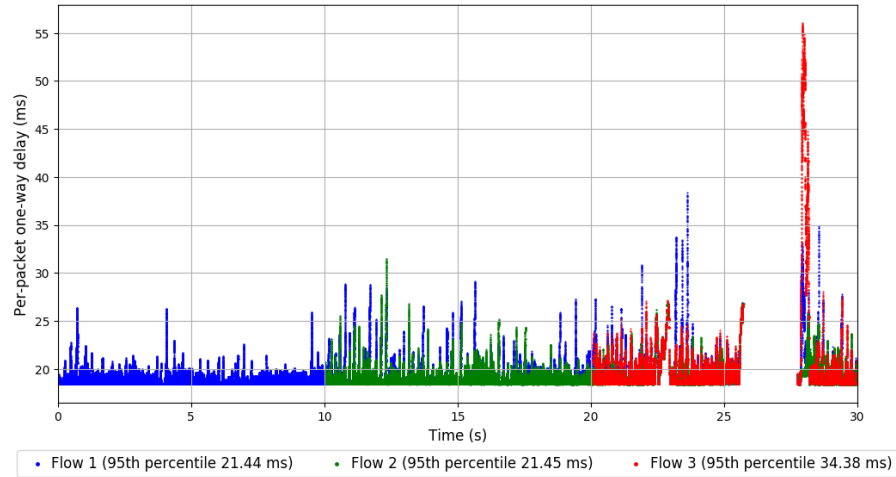
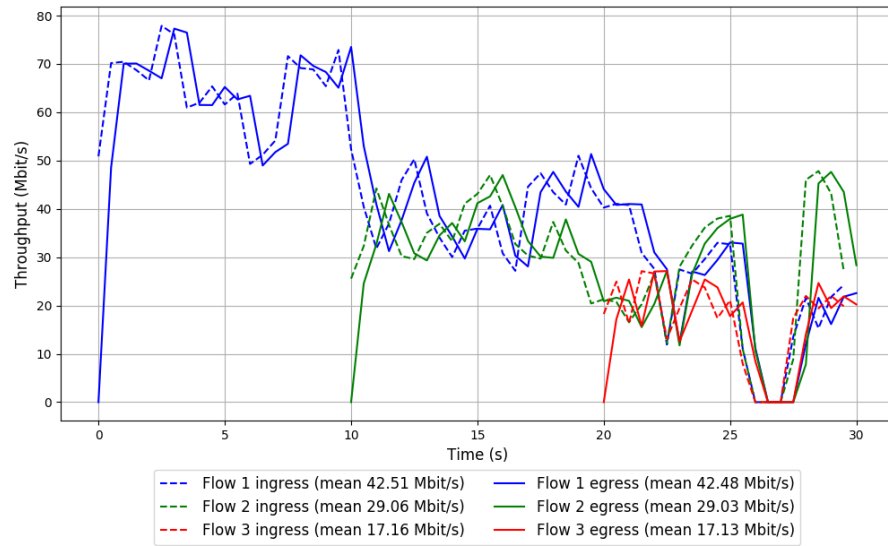


Run 4: Statistics of Copa

Start at: 2018-11-30 16:39:40  
End at: 2018-11-30 16:40:10  
Local clock offset: 1.666 ms  
Remote clock offset: -17.067 ms

# Below is generated by plot.py at 2018-11-30 17:18:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 67.50 Mbit/s  
95th percentile per-packet one-way delay: 21.912 ms  
Loss rate: 0.20%  
-- Flow 1:  
Average throughput: 42.48 Mbit/s  
95th percentile per-packet one-way delay: 21.443 ms  
Loss rate: 0.14%  
-- Flow 2:  
Average throughput: 29.03 Mbit/s  
95th percentile per-packet one-way delay: 21.450 ms  
Loss rate: 0.24%  
-- Flow 3:  
Average throughput: 17.13 Mbit/s  
95th percentile per-packet one-way delay: 34.379 ms  
Loss rate: 0.47%

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

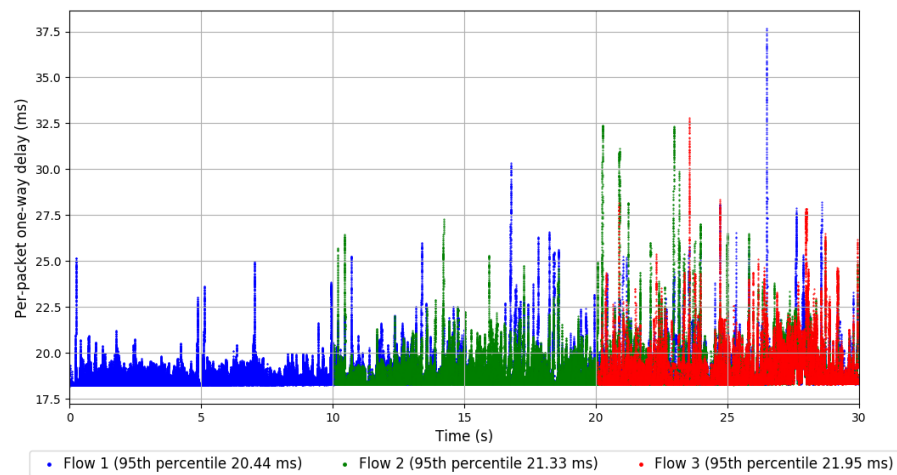
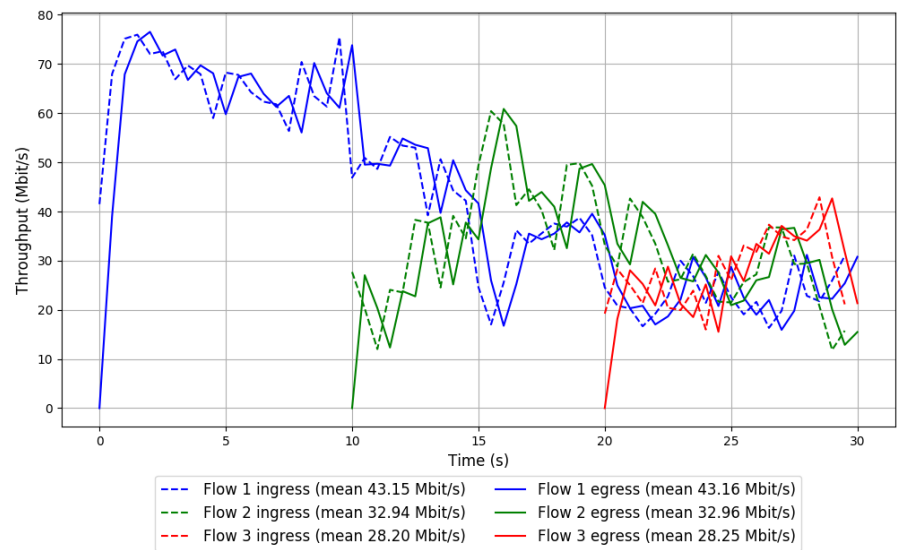


Run 5: Statistics of Copa

Start at: 2018-11-30 17:02:36  
End at: 2018-11-30 17:03:06  
Local clock offset: -5.255 ms  
Remote clock offset: -17.602 ms

# Below is generated by plot.py at 2018-11-30 17:18:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 74.47 Mbit/s  
95th percentile per-packet one-way delay: 21.026 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 43.16 Mbit/s  
95th percentile per-packet one-way delay: 20.438 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 32.96 Mbit/s  
95th percentile per-packet one-way delay: 21.333 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 28.25 Mbit/s  
95th percentile per-packet one-way delay: 21.947 ms  
Loss rate: 0.09%

Run 5: Report of Copa — Data Link

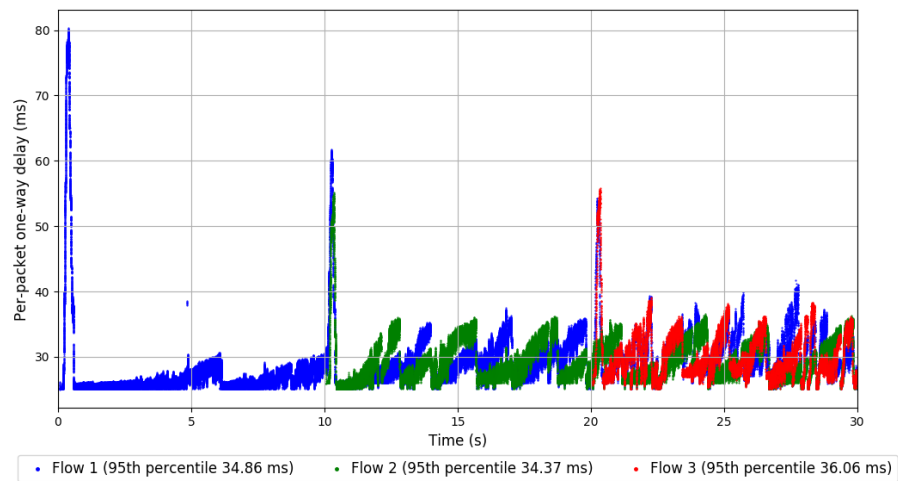
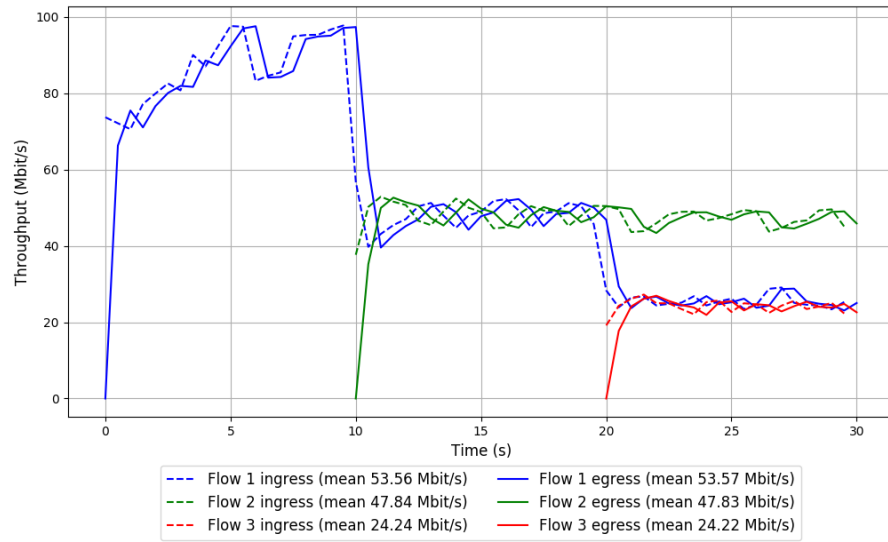


Run 1: Statistics of TCP Cubic

Start at: 2018-11-30 15:23:41  
End at: 2018-11-30 15:24:11  
Local clock offset: 4.473 ms  
Remote clock offset: -15.694 ms

# Below is generated by plot.py at 2018-11-30 17:18:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.45 Mbit/s  
95th percentile per-packet one-way delay: 34.743 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 53.57 Mbit/s  
95th percentile per-packet one-way delay: 34.861 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 47.83 Mbit/s  
95th percentile per-packet one-way delay: 34.366 ms  
Loss rate: 0.14%  
-- Flow 3:  
Average throughput: 24.22 Mbit/s  
95th percentile per-packet one-way delay: 36.061 ms  
Loss rate: 0.31%

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

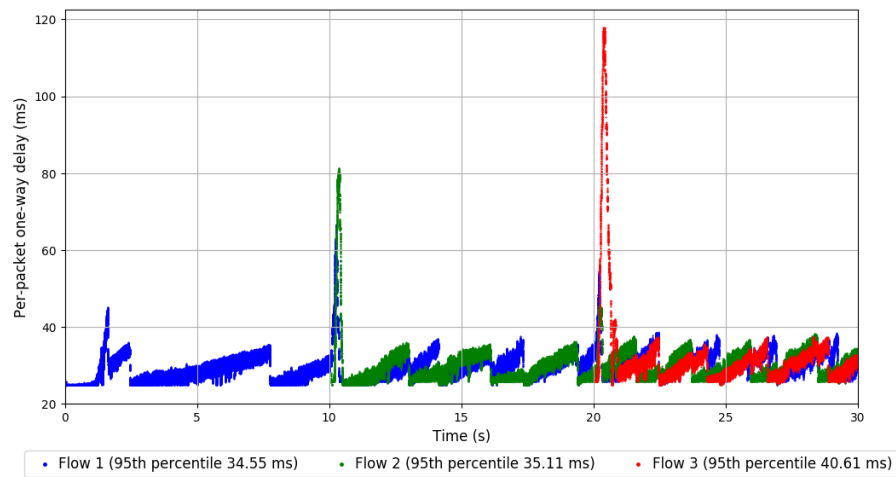
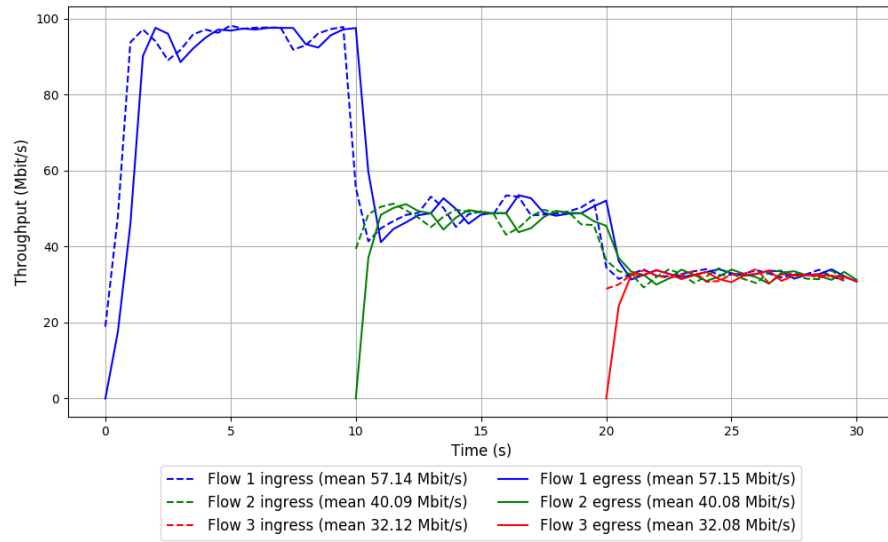


Run 2: Statistics of TCP Cubic

Start at: 2018-11-30 15:46:34  
End at: 2018-11-30 15:47:04  
Local clock offset: 3.52 ms  
Remote clock offset: -17.098 ms

# Below is generated by plot.py at 2018-11-30 17:18:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.48 Mbit/s  
95th percentile per-packet one-way delay: 35.047 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 57.15 Mbit/s  
95th percentile per-packet one-way delay: 34.550 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 40.08 Mbit/s  
95th percentile per-packet one-way delay: 35.111 ms  
Loss rate: 0.16%  
-- Flow 3:  
Average throughput: 32.08 Mbit/s  
95th percentile per-packet one-way delay: 40.609 ms  
Loss rate: 0.40%

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



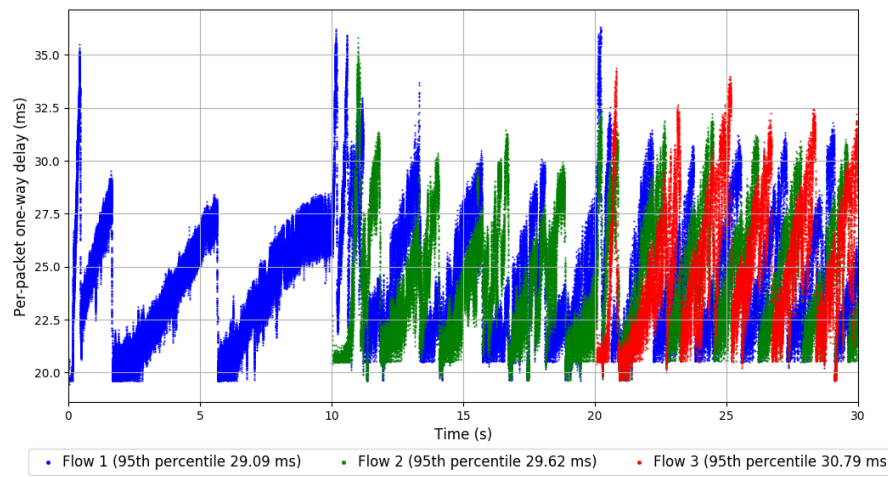
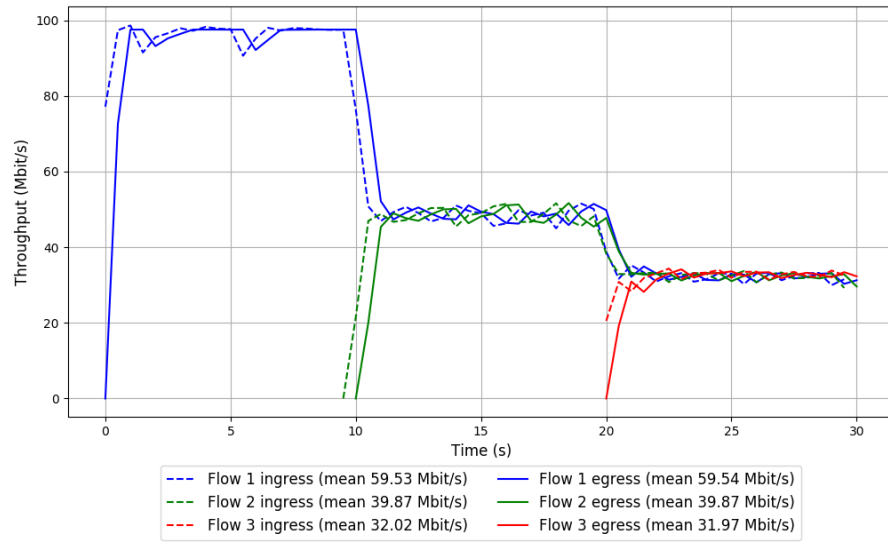


Run 3: Statistics of TCP Cubic

Start at: 2018-11-30 16:09:22  
End at: 2018-11-30 16:09:52  
Local clock offset: 1.597 ms  
Remote clock offset: -16.364 ms

# Below is generated by plot.py at 2018-11-30 17:18:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.73 Mbit/s  
95th percentile per-packet one-way delay: 29.532 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 59.54 Mbit/s  
95th percentile per-packet one-way delay: 29.091 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 39.87 Mbit/s  
95th percentile per-packet one-way delay: 29.619 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 31.97 Mbit/s  
95th percentile per-packet one-way delay: 30.788 ms  
Loss rate: 0.38%

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

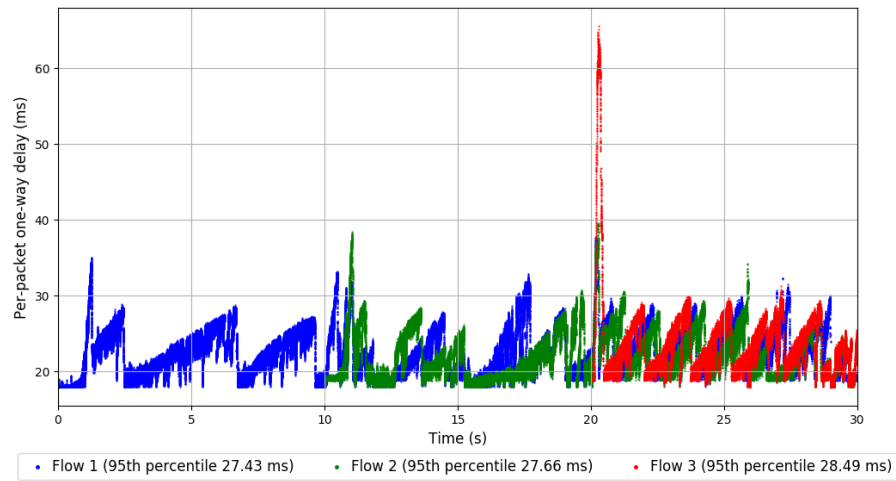
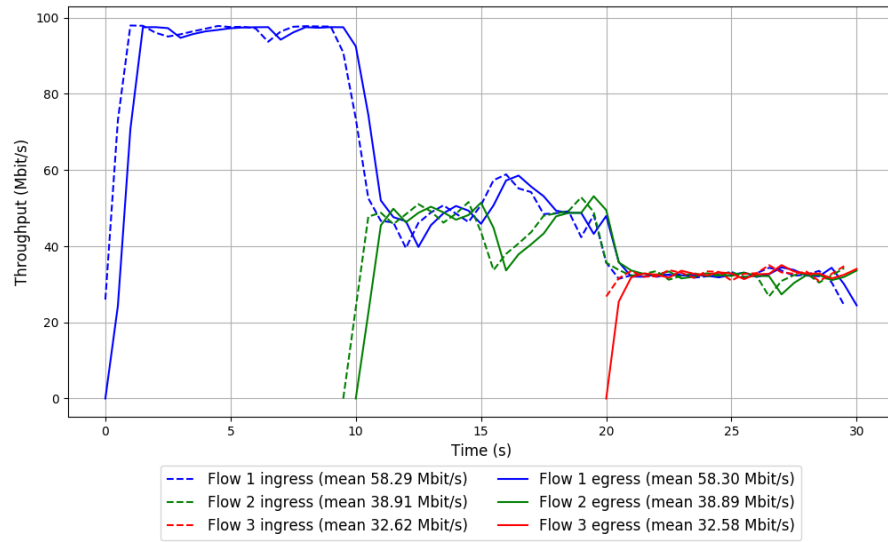


Run 4: Statistics of TCP Cubic

Start at: 2018-11-30 16:32:19  
End at: 2018-11-30 16:32:49  
Local clock offset: 1.438 ms  
Remote clock offset: -16.337 ms

# Below is generated by plot.py at 2018-11-30 17:18:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.03 Mbit/s  
95th percentile per-packet one-way delay: 27.671 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 58.30 Mbit/s  
95th percentile per-packet one-way delay: 27.432 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 38.89 Mbit/s  
95th percentile per-packet one-way delay: 27.655 ms  
Loss rate: 0.16%  
-- Flow 3:  
Average throughput: 32.58 Mbit/s  
95th percentile per-packet one-way delay: 28.486 ms  
Loss rate: 0.35%

#### Run 4: Report of TCP Cubic — Data Link

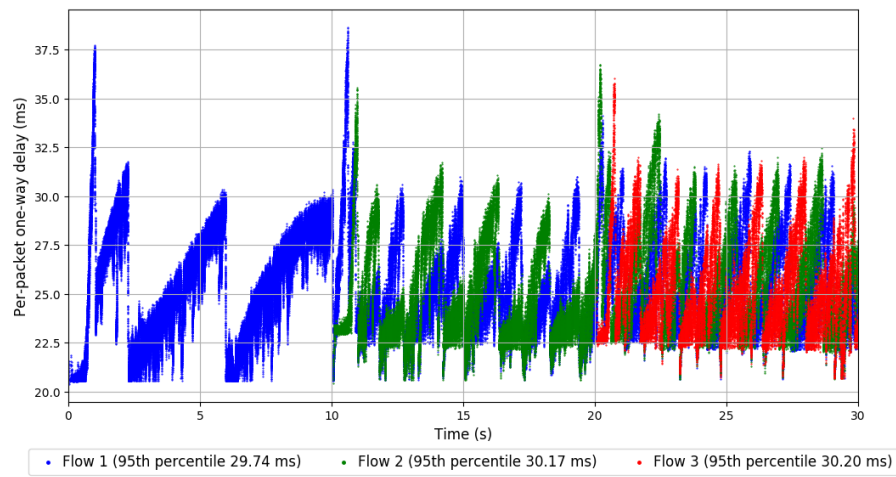
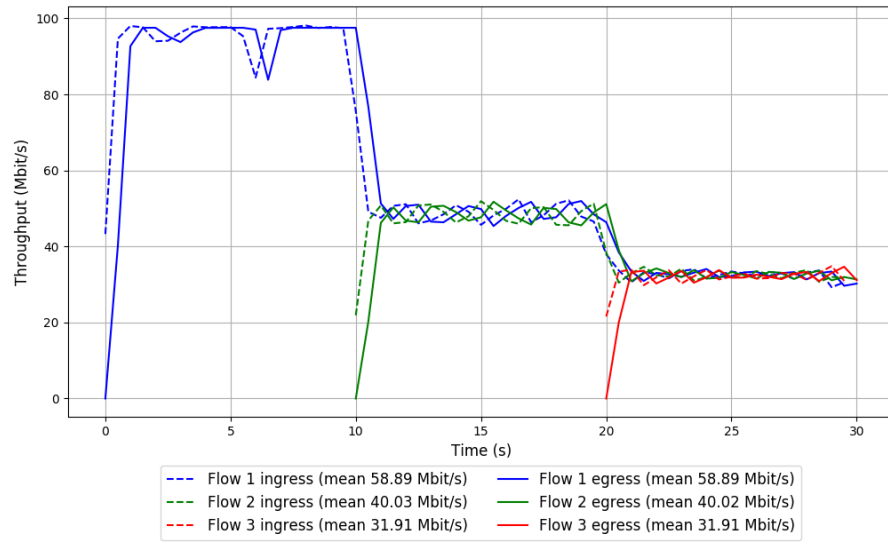


Run 5: Statistics of TCP Cubic

Start at: 2018-11-30 16:55:19  
End at: 2018-11-30 16:55:49  
Local clock offset: -1.642 ms  
Remote clock offset: -17.581 ms

# Below is generated by plot.py at 2018-11-30 17:18:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.12 Mbit/s  
95th percentile per-packet one-way delay: 29.921 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 58.89 Mbit/s  
95th percentile per-packet one-way delay: 29.741 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 40.02 Mbit/s  
95th percentile per-packet one-way delay: 30.166 ms  
Loss rate: 0.15%  
-- Flow 3:  
Average throughput: 31.91 Mbit/s  
95th percentile per-packet one-way delay: 30.200 ms  
Loss rate: 0.29%

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

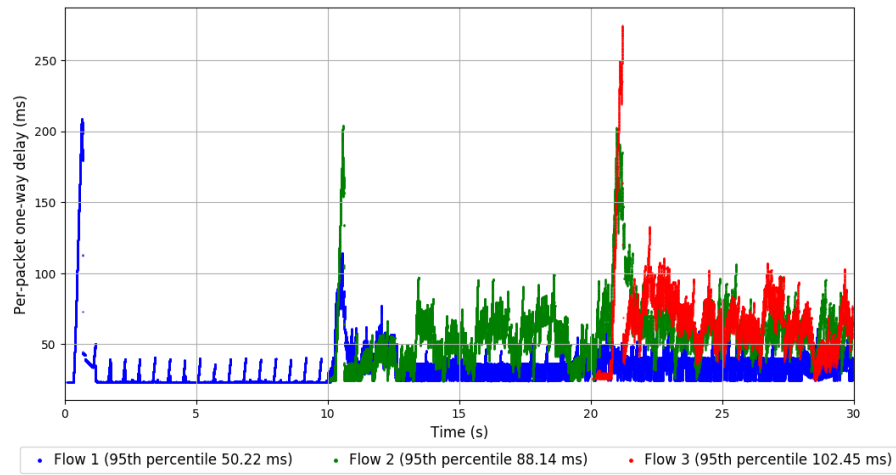
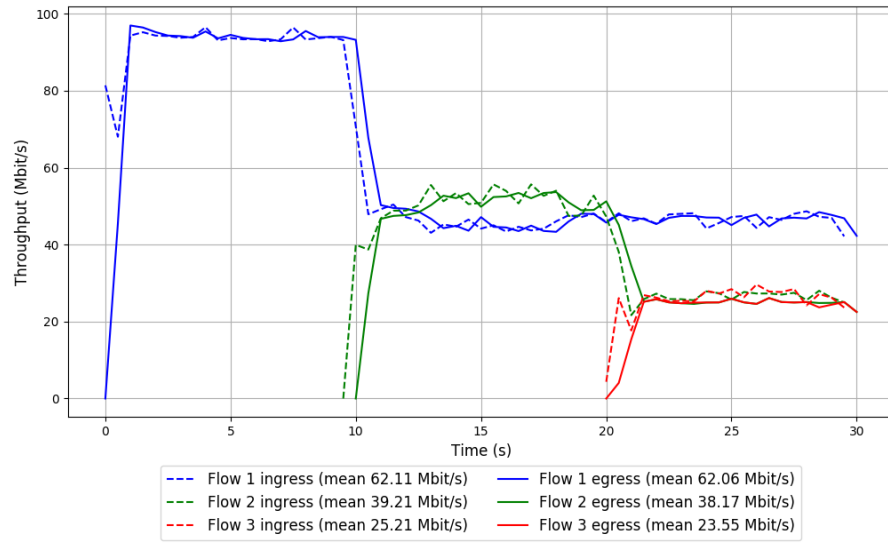


Run 1: Statistics of FillP

Start at: 2018-11-30 15:38:14  
End at: 2018-11-30 15:38:44  
Local clock offset: 3.173 ms  
Remote clock offset: -16.344 ms

# Below is generated by plot.py at 2018-11-30 17:19:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.30 Mbit/s  
95th percentile per-packet one-way delay: 81.221 ms  
Loss rate: 1.41%  
-- Flow 1:  
Average throughput: 62.06 Mbit/s  
95th percentile per-packet one-way delay: 50.219 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 38.17 Mbit/s  
95th percentile per-packet one-way delay: 88.144 ms  
Loss rate: 2.74%  
-- Flow 3:  
Average throughput: 23.55 Mbit/s  
95th percentile per-packet one-way delay: 102.454 ms  
Loss rate: 6.88%

# Run 1: Report of FillP — Data Link



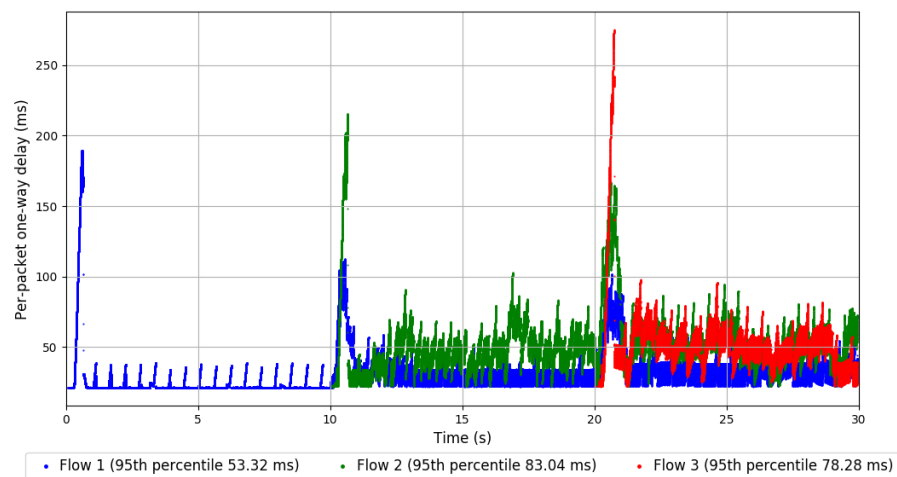
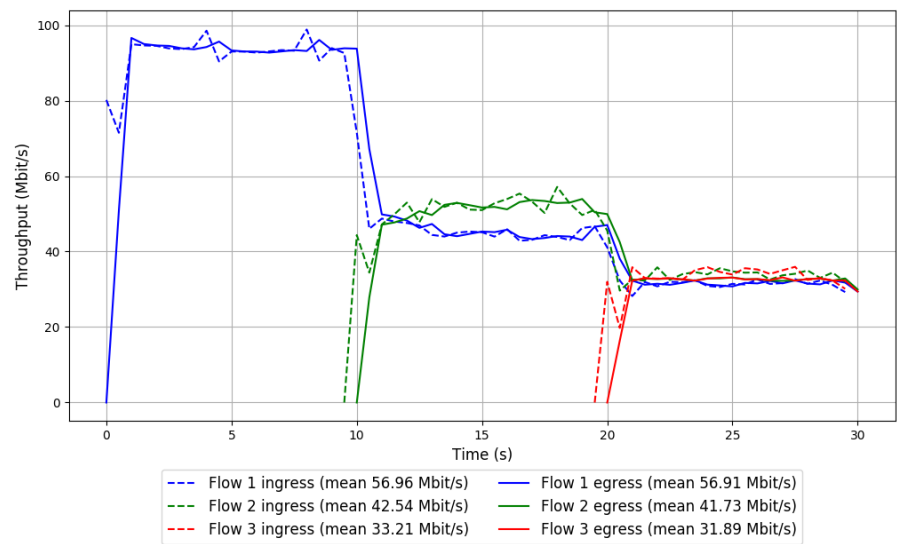


Run 2: Statistics of FillP

Start at: 2018-11-30 16:01:04  
End at: 2018-11-30 16:01:34  
Local clock offset: 0.368 ms  
Remote clock offset: -15.273 ms

# Below is generated by plot.py at 2018-11-30 17:19:41  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.30 Mbit/s  
95th percentile per-packet one-way delay: 72.367 ms  
Loss rate: 1.13%  
-- Flow 1:  
Average throughput: 56.91 Mbit/s  
95th percentile per-packet one-way delay: 53.323 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 41.73 Mbit/s  
95th percentile per-packet one-way delay: 83.036 ms  
Loss rate: 2.01%  
-- Flow 3:  
Average throughput: 31.89 Mbit/s  
95th percentile per-packet one-way delay: 78.284 ms  
Loss rate: 4.26%

Run 2: Report of FillP — Data Link

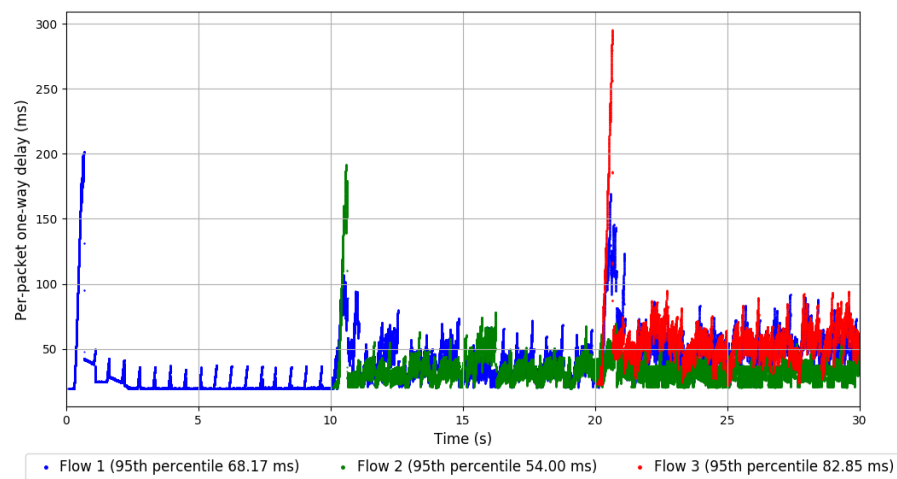
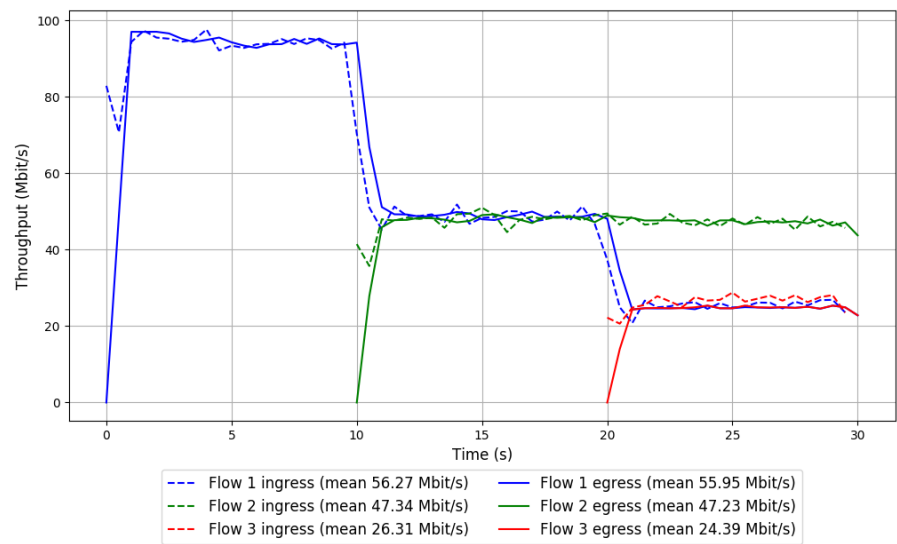


Run 3: Statistics of FillP

Start at: 2018-11-30 16:23:51  
End at: 2018-11-30 16:24:21  
Local clock offset: 2.181 ms  
Remote clock offset: -16.882 ms

# Below is generated by plot.py at 2018-11-30 17:19:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.49 Mbit/s  
95th percentile per-packet one-way delay: 68.170 ms  
Loss rate: 1.15%  
-- Flow 1:  
Average throughput: 55.95 Mbit/s  
95th percentile per-packet one-way delay: 68.169 ms  
Loss rate: 0.60%  
-- Flow 2:  
Average throughput: 47.23 Mbit/s  
95th percentile per-packet one-way delay: 53.999 ms  
Loss rate: 0.36%  
-- Flow 3:  
Average throughput: 24.39 Mbit/s  
95th percentile per-packet one-way delay: 82.850 ms  
Loss rate: 7.60%

Run 3: Report of FillP — Data Link

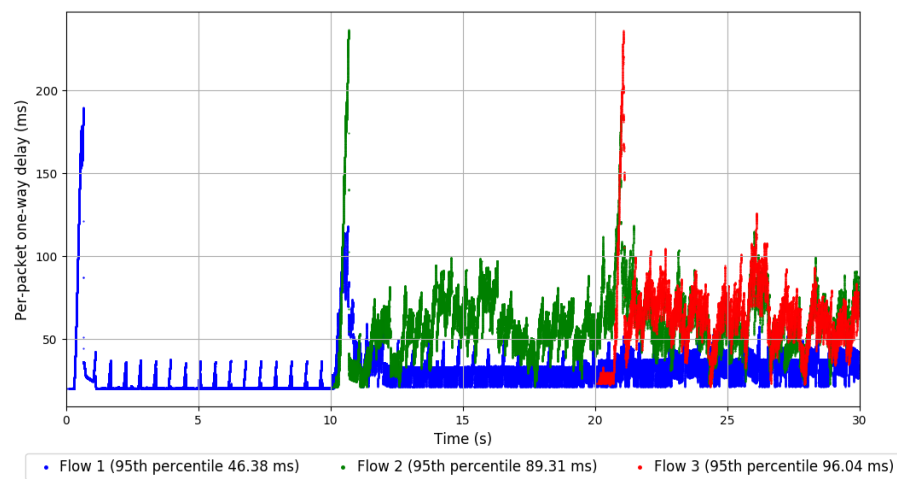
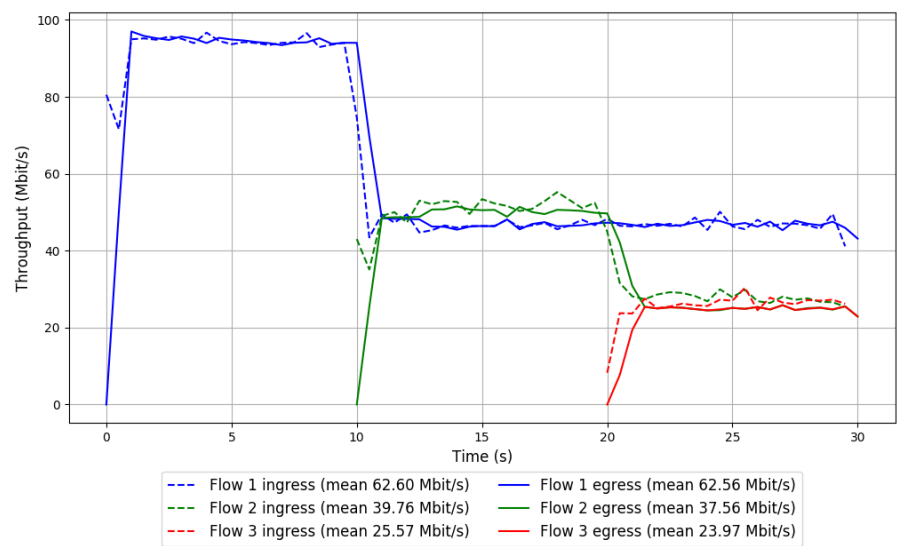


Run 4: Statistics of FillP

Start at: 2018-11-30 16:46:55  
End at: 2018-11-30 16:47:25  
Local clock offset: 2.571 ms  
Remote clock offset: -16.488 ms

# Below is generated by plot.py at 2018-11-30 17:19:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.51 Mbit/s  
95th percentile per-packet one-way delay: 80.998 ms  
Loss rate: 2.13%  
-- Flow 1:  
Average throughput: 62.56 Mbit/s  
95th percentile per-packet one-way delay: 46.381 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 37.56 Mbit/s  
95th percentile per-packet one-way delay: 89.313 ms  
Loss rate: 5.51%  
-- Flow 3:  
Average throughput: 23.97 Mbit/s  
95th percentile per-packet one-way delay: 96.042 ms  
Loss rate: 6.49%

Run 4: Report of FillP — Data Link

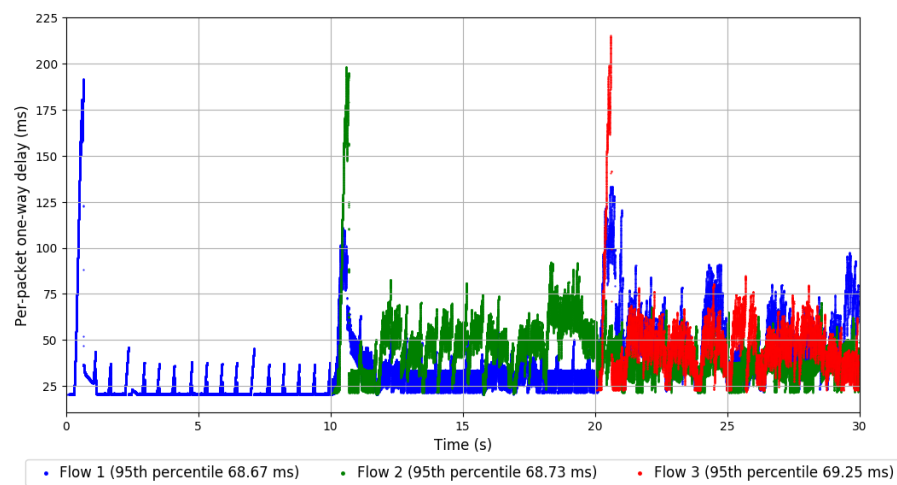
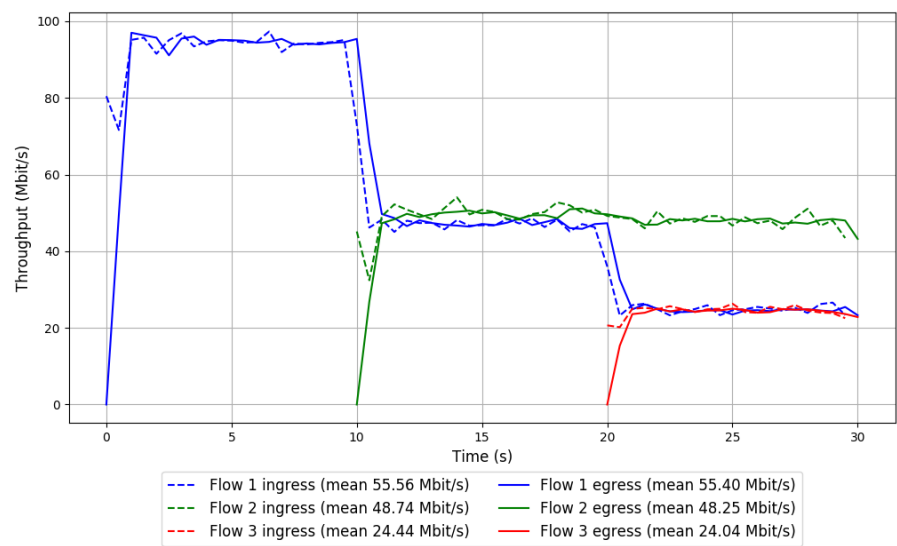


Run 5: Statistics of FillP

Start at: 2018-11-30 17:09:56  
End at: 2018-11-30 17:10:26  
Local clock offset: -3.635 ms  
Remote clock offset: -17.825 ms

# Below is generated by plot.py at 2018-11-30 17:20:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.48 Mbit/s  
95th percentile per-packet one-way delay: 68.746 ms  
Loss rate: 0.72%  
-- Flow 1:  
Average throughput: 55.40 Mbit/s  
95th percentile per-packet one-way delay: 68.669 ms  
Loss rate: 0.34%  
-- Flow 2:  
Average throughput: 48.25 Mbit/s  
95th percentile per-packet one-way delay: 68.732 ms  
Loss rate: 1.12%  
-- Flow 3:  
Average throughput: 24.04 Mbit/s  
95th percentile per-packet one-way delay: 69.253 ms  
Loss rate: 1.73%

Run 5: Report of FillP — Data Link



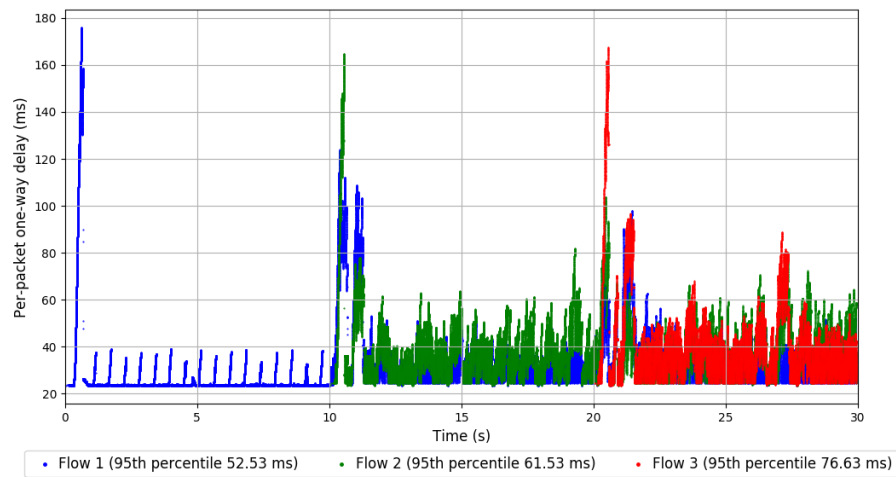
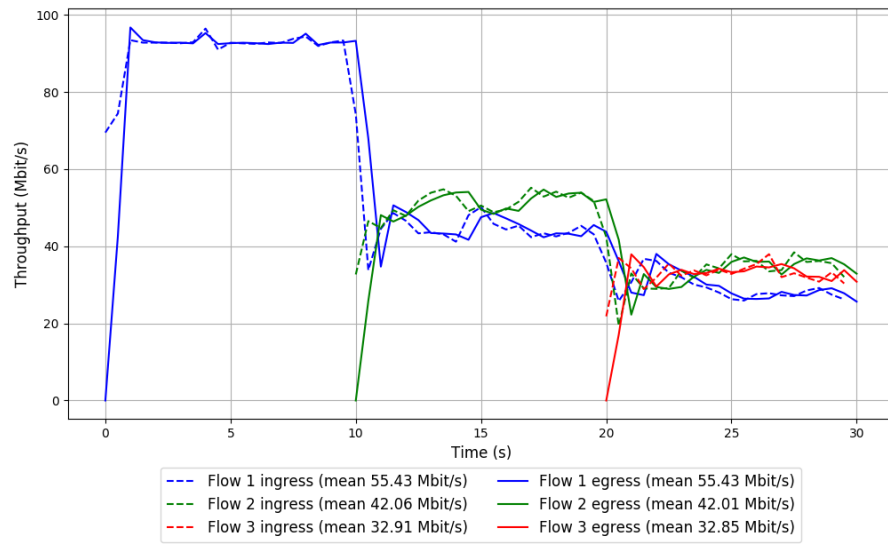


Run 1: Statistics of FillP-Sheep

Start at: 2018-11-30 15:21:20  
End at: 2018-11-30 15:21:50  
Local clock offset: 2.701 ms  
Remote clock offset: -15.553 ms

# Below is generated by plot.py at 2018-11-30 17:20:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.27 Mbit/s  
95th percentile per-packet one-way delay: 61.598 ms  
Loss rate: 0.14%  
-- Flow 1:  
Average throughput: 55.43 Mbit/s  
95th percentile per-packet one-way delay: 52.535 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 42.01 Mbit/s  
95th percentile per-packet one-way delay: 61.526 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 32.85 Mbit/s  
95th percentile per-packet one-way delay: 76.629 ms  
Loss rate: 0.33%

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

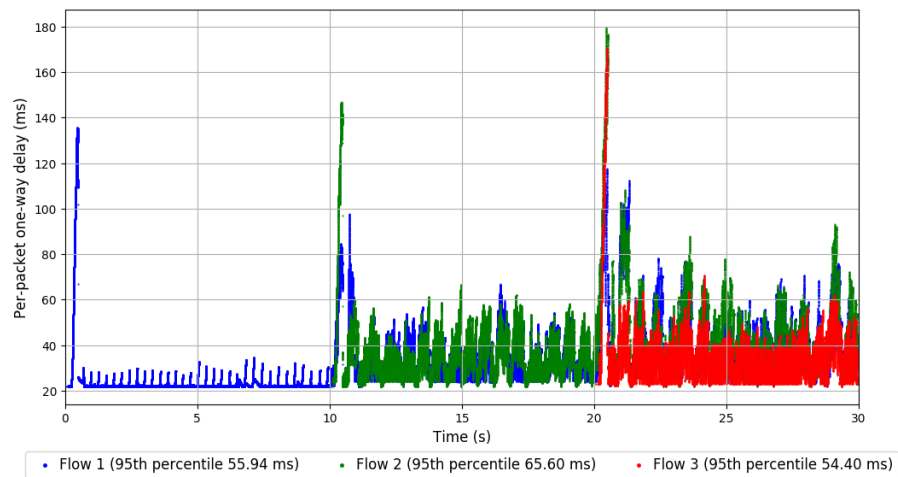
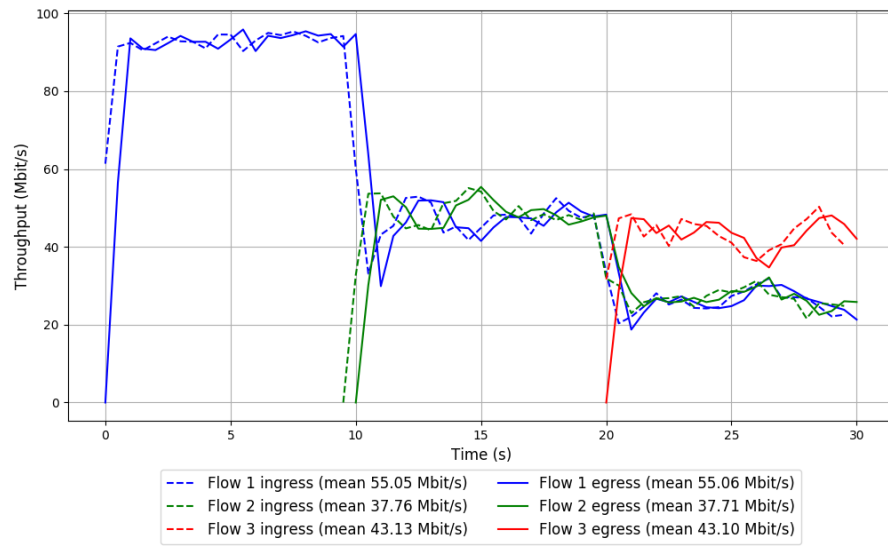


Run 2: Statistics of FillP-Sheep

Start at: 2018-11-30 15:44:12  
End at: 2018-11-30 15:44:42  
Local clock offset: 1.659 ms  
Remote clock offset: -16.583 ms

# Below is generated by plot.py at 2018-11-30 17:20:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.45 Mbit/s  
95th percentile per-packet one-way delay: 58.727 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 55.06 Mbit/s  
95th percentile per-packet one-way delay: 55.937 ms  
Loss rate: 0.10%  
-- Flow 2:  
Average throughput: 37.71 Mbit/s  
95th percentile per-packet one-way delay: 65.603 ms  
Loss rate: 0.23%  
-- Flow 3:  
Average throughput: 43.10 Mbit/s  
95th percentile per-packet one-way delay: 54.401 ms  
Loss rate: 0.22%

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

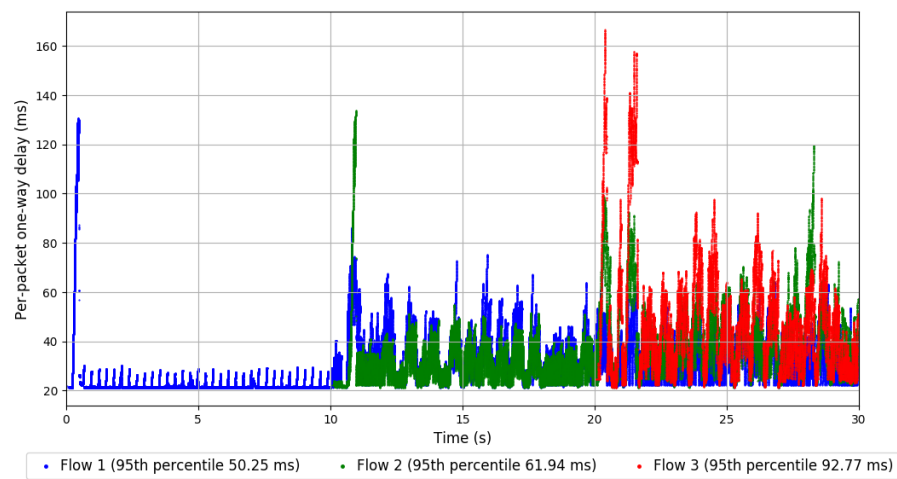
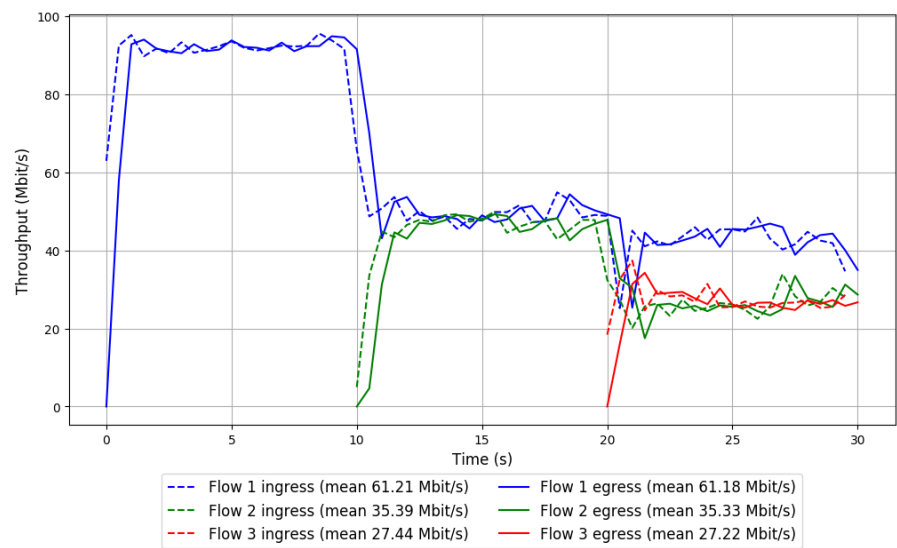


Run 3: Statistics of FillP-Sheep

Start at: 2018-11-30 16:07:00  
End at: 2018-11-30 16:07:30  
Local clock offset: 3.369 ms  
Remote clock offset: -16.336 ms

# Below is generated by plot.py at 2018-11-30 17:20:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.73 Mbit/s  
95th percentile per-packet one-way delay: 58.597 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 61.18 Mbit/s  
95th percentile per-packet one-way delay: 50.249 ms  
Loss rate: 0.12%  
-- Flow 2:  
Average throughput: 35.33 Mbit/s  
95th percentile per-packet one-way delay: 61.939 ms  
Loss rate: 0.20%  
-- Flow 3:  
Average throughput: 27.22 Mbit/s  
95th percentile per-packet one-way delay: 92.774 ms  
Loss rate: 0.97%

Run 3: Report of FillP-Sheep — Data Link

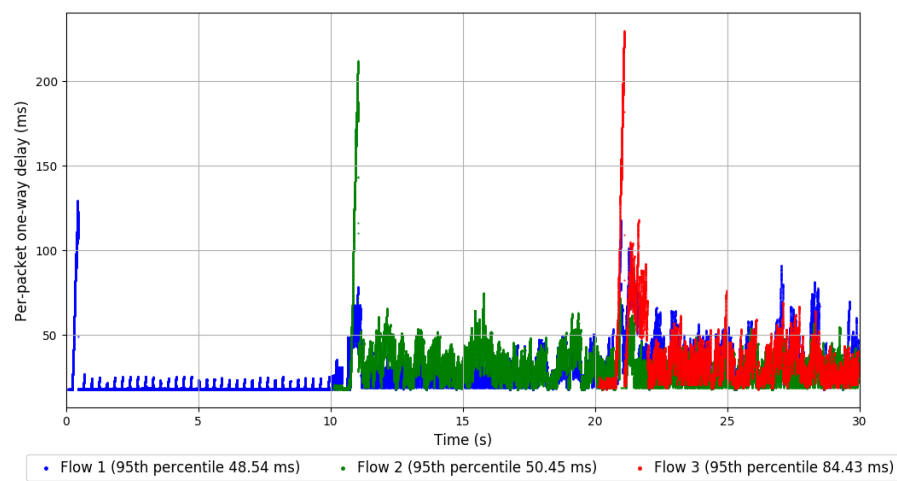
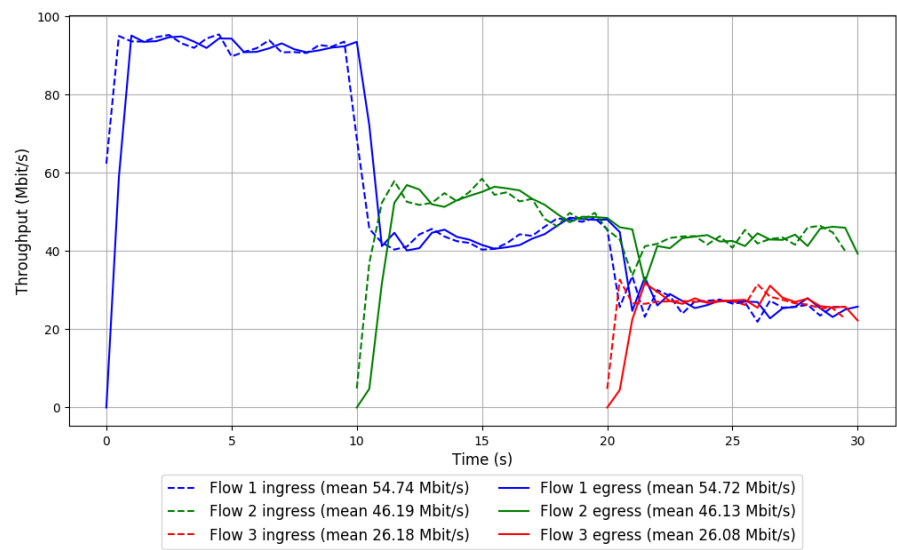


Run 4: Statistics of FillP-Sheep

Start at: 2018-11-30 16:29:49  
End at: 2018-11-30 16:30:19  
Local clock offset: 1.322 ms  
Remote clock offset: -16.153 ms

# Below is generated by plot.py at 2018-11-30 17:20:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.08 Mbit/s  
95th percentile per-packet one-way delay: 52.120 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 54.72 Mbit/s  
95th percentile per-packet one-way delay: 48.541 ms  
Loss rate: 0.11%  
-- Flow 2:  
Average throughput: 46.13 Mbit/s  
95th percentile per-packet one-way delay: 50.450 ms  
Loss rate: 0.19%  
-- Flow 3:  
Average throughput: 26.08 Mbit/s  
95th percentile per-packet one-way delay: 84.434 ms  
Loss rate: 0.56%

Run 4: Report of FillP-Sheep — Data Link



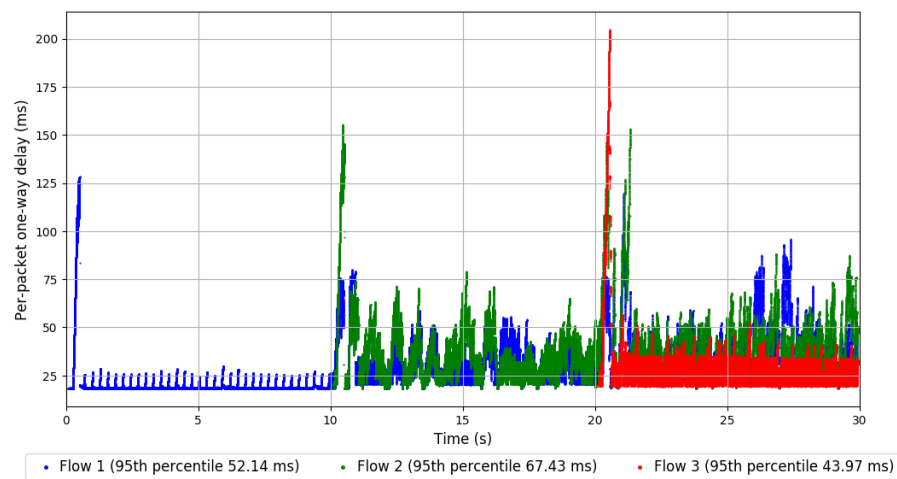
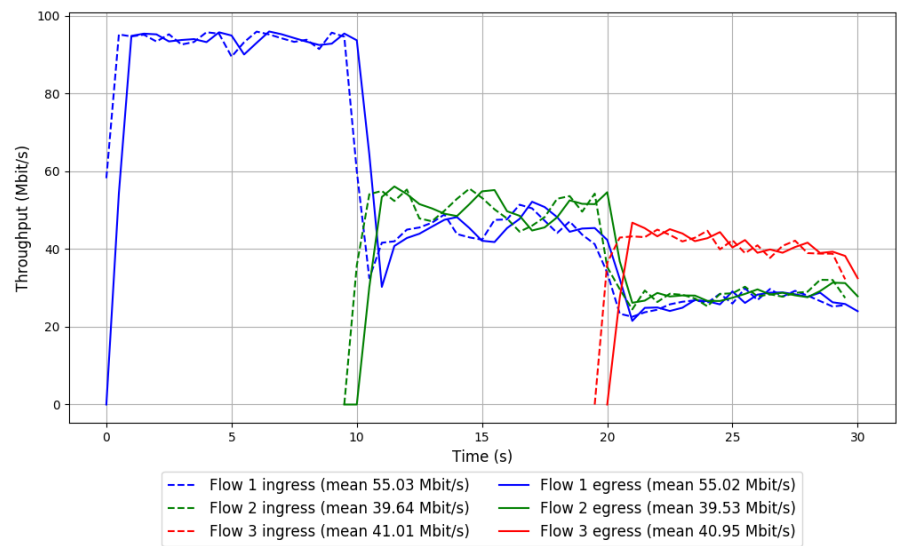


Run 5: Statistics of FillP-Sheep

Start at: 2018-11-30 16:52:56  
End at: 2018-11-30 16:53:26  
Local clock offset: -3.219 ms  
Remote clock offset: -17.676 ms

# Below is generated by plot.py at 2018-11-30 17:21:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.94 Mbit/s  
95th percentile per-packet one-way delay: 58.745 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 55.02 Mbit/s  
95th percentile per-packet one-way delay: 52.142 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 39.53 Mbit/s  
95th percentile per-packet one-way delay: 67.430 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 40.95 Mbit/s  
95th percentile per-packet one-way delay: 43.967 ms  
Loss rate: 0.30%

Run 5: Report of FillP-Sheep — Data Link

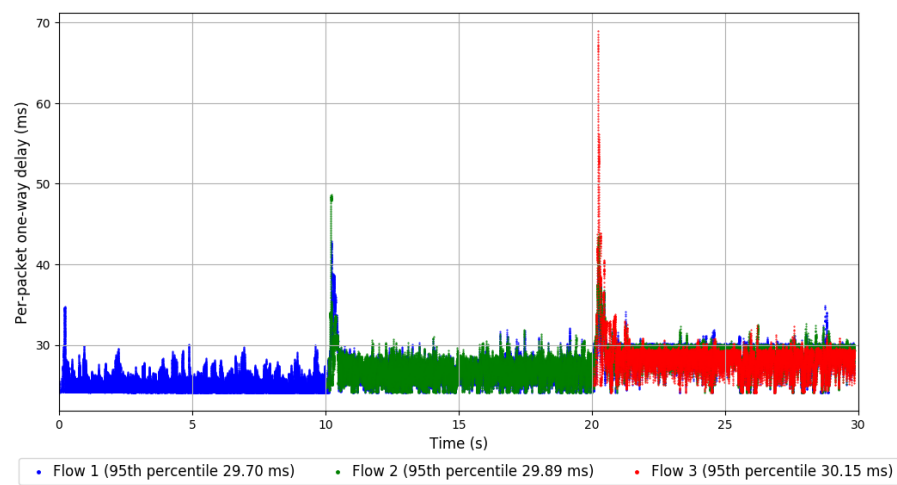
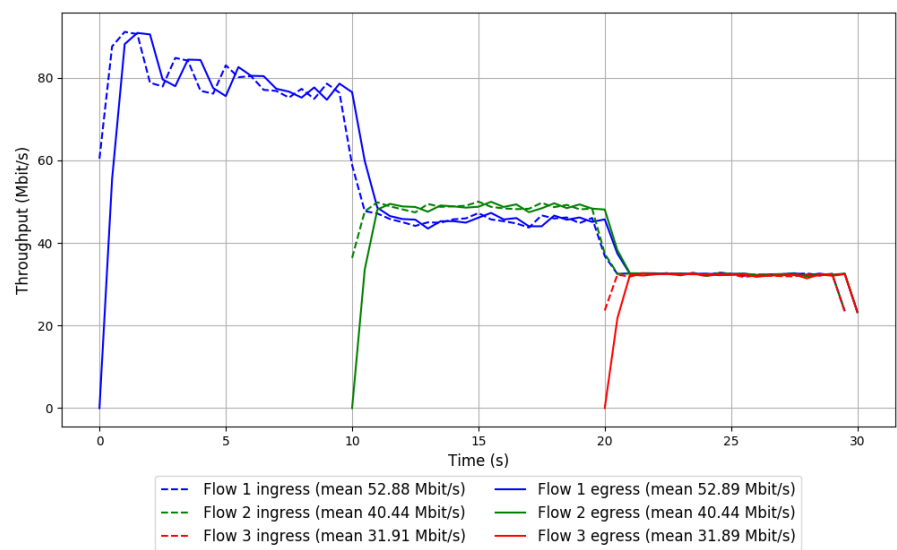


Run 1: Statistics of Indigo

Start at: 2018-11-30 15:26:09  
End at: 2018-11-30 15:26:39  
Local clock offset: 3.585 ms  
Remote clock offset: -16.002 ms

# Below is generated by plot.py at 2018-11-30 17:21:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.23 Mbit/s  
95th percentile per-packet one-way delay: 29.787 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 52.89 Mbit/s  
95th percentile per-packet one-way delay: 29.696 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 40.44 Mbit/s  
95th percentile per-packet one-way delay: 29.890 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 31.89 Mbit/s  
95th percentile per-packet one-way delay: 30.152 ms  
Loss rate: 0.33%

Run 1: Report of Indigo — Data Link

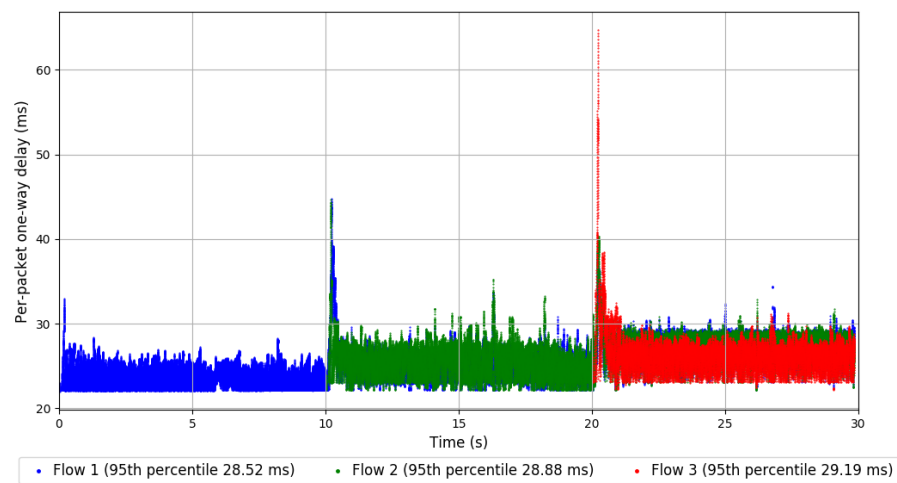
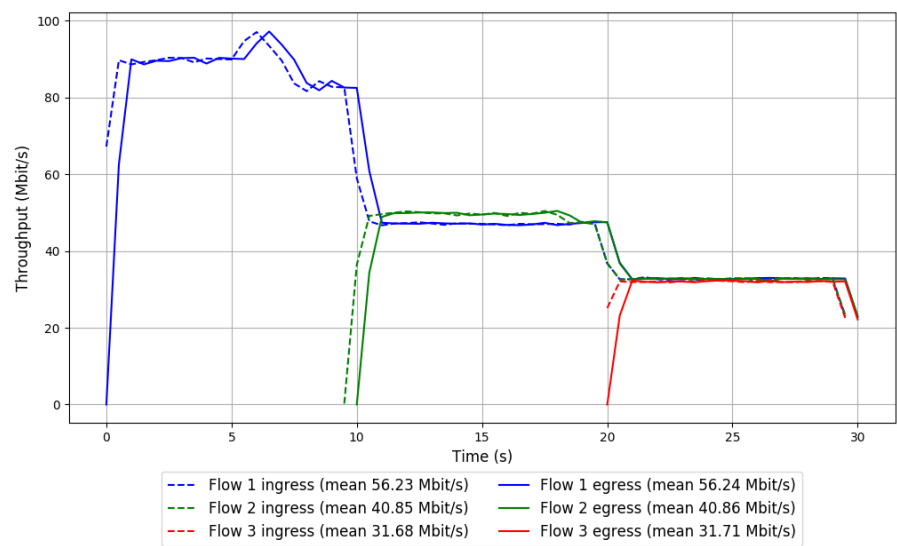


Run 2: Statistics of Indigo

Start at: 2018-11-30 15:49:03  
End at: 2018-11-30 15:49:33  
Local clock offset: 0.934 ms  
Remote clock offset: -16.54 ms

# Below is generated by plot.py at 2018-11-30 17:21:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.83 Mbit/s  
95th percentile per-packet one-way delay: 28.699 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 56.24 Mbit/s  
95th percentile per-packet one-way delay: 28.524 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 40.86 Mbit/s  
95th percentile per-packet one-way delay: 28.878 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 31.71 Mbit/s  
95th percentile per-packet one-way delay: 29.187 ms  
Loss rate: 0.32%

Run 2: Report of Indigo — Data Link

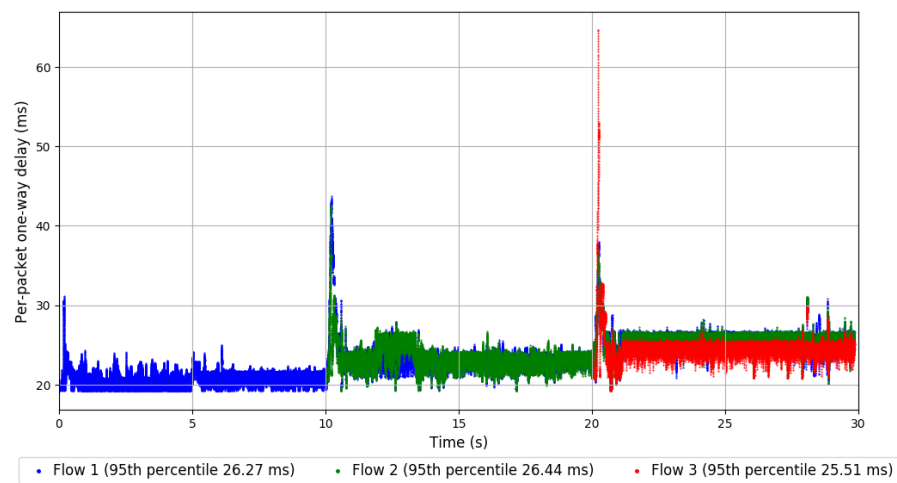
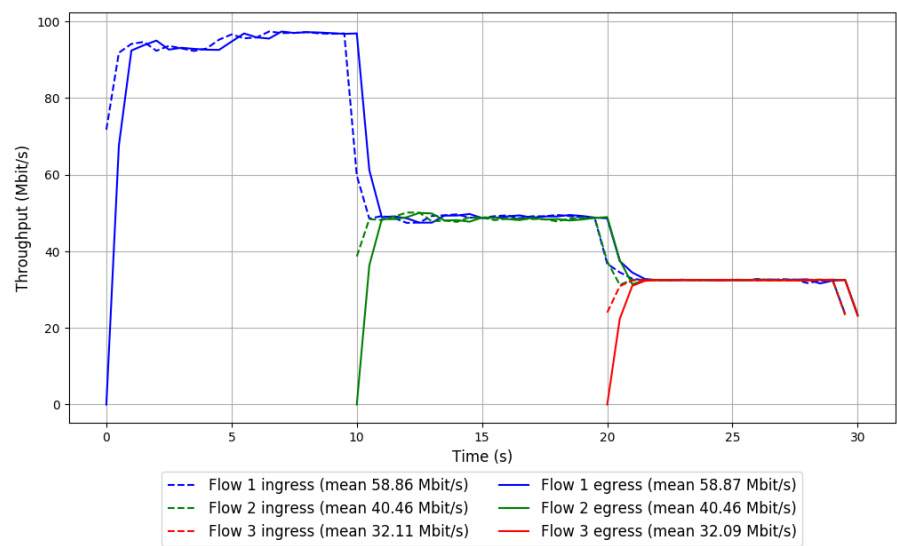


Run 3: Statistics of Indigo

Start at: 2018-11-30 16:11:51  
End at: 2018-11-30 16:12:21  
Local clock offset: 1.642 ms  
Remote clock offset: -15.942 ms

# Below is generated by plot.py at 2018-11-30 17:21:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.29 Mbit/s  
95th percentile per-packet one-way delay: 26.334 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 58.87 Mbit/s  
95th percentile per-packet one-way delay: 26.266 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 40.46 Mbit/s  
95th percentile per-packet one-way delay: 26.441 ms  
Loss rate: 0.12%  
-- Flow 3:  
Average throughput: 32.09 Mbit/s  
95th percentile per-packet one-way delay: 25.514 ms  
Loss rate: 0.30%

Run 3: Report of Indigo — Data Link



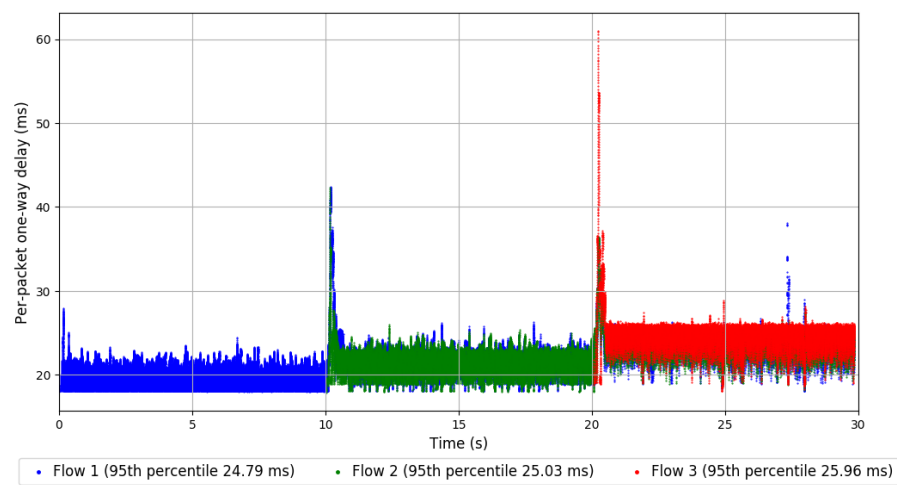
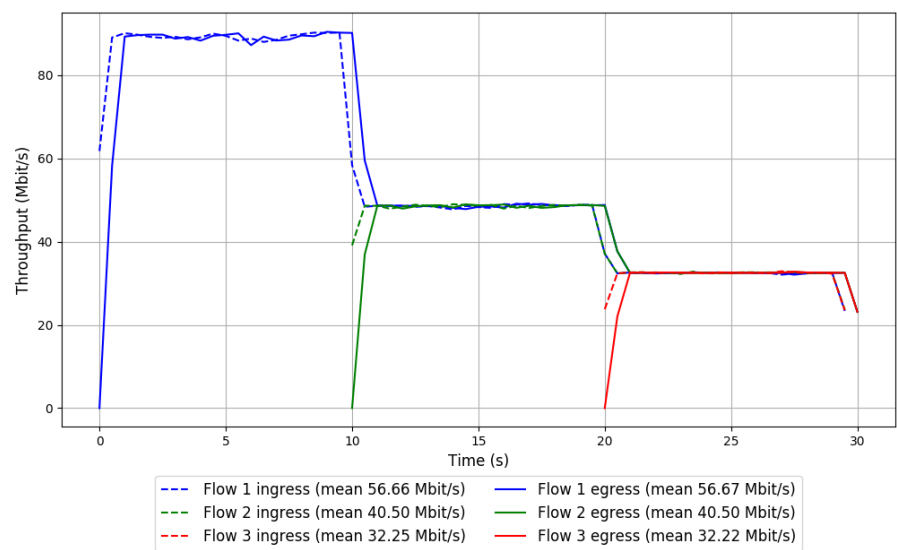


Run 4: Statistics of Indigo

Start at: 2018-11-30 16:34:58  
End at: 2018-11-30 16:35:28  
Local clock offset: 1.523 ms  
Remote clock offset: -16.504 ms

# Below is generated by plot.py at 2018-11-30 17:21:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.16 Mbit/s  
95th percentile per-packet one-way delay: 25.304 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 56.67 Mbit/s  
95th percentile per-packet one-way delay: 24.788 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 40.50 Mbit/s  
95th percentile per-packet one-way delay: 25.033 ms  
Loss rate: 0.12%  
-- Flow 3:  
Average throughput: 32.22 Mbit/s  
95th percentile per-packet one-way delay: 25.956 ms  
Loss rate: 0.30%

Run 4: Report of Indigo — Data Link

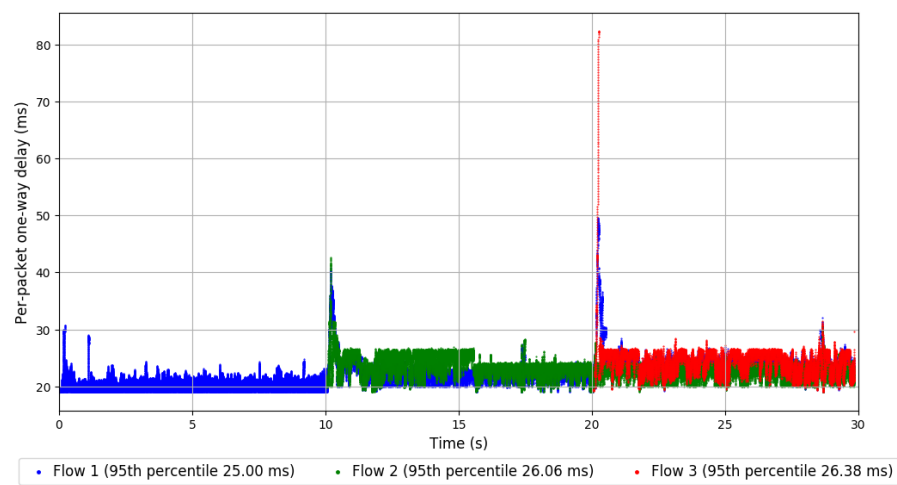
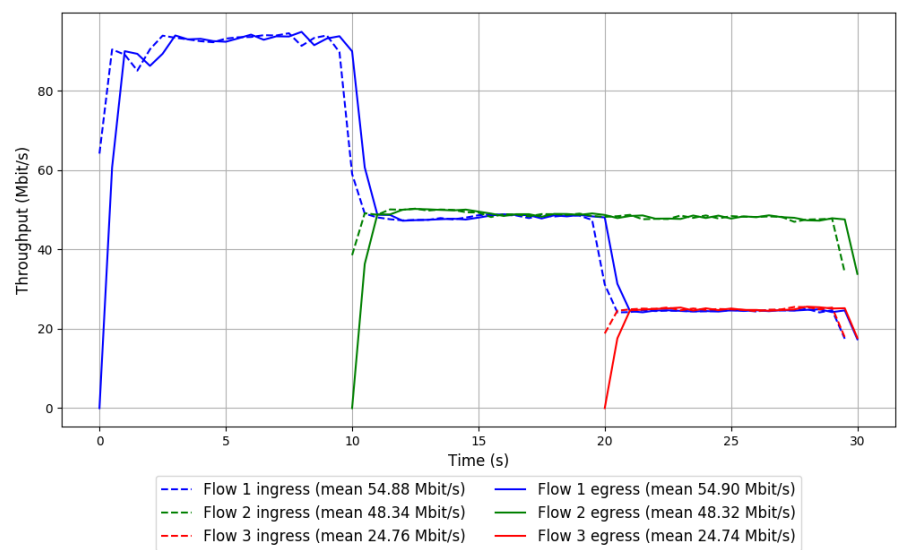


Run 5: Statistics of Indigo

Start at: 2018-11-30 16:57:50  
End at: 2018-11-30 16:58:20  
Local clock offset: -2.975 ms  
Remote clock offset: -16.865 ms

# Below is generated by plot.py at 2018-11-30 17:21:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.13 Mbit/s  
95th percentile per-packet one-way delay: 25.954 ms  
Loss rate: 0.09%  
-- Flow 1:  
Average throughput: 54.90 Mbit/s  
95th percentile per-packet one-way delay: 25.000 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 48.32 Mbit/s  
95th percentile per-packet one-way delay: 26.058 ms  
Loss rate: 0.13%  
-- Flow 3:  
Average throughput: 24.74 Mbit/s  
95th percentile per-packet one-way delay: 26.379 ms  
Loss rate: 0.28%

Run 5: Report of Indigo — Data Link

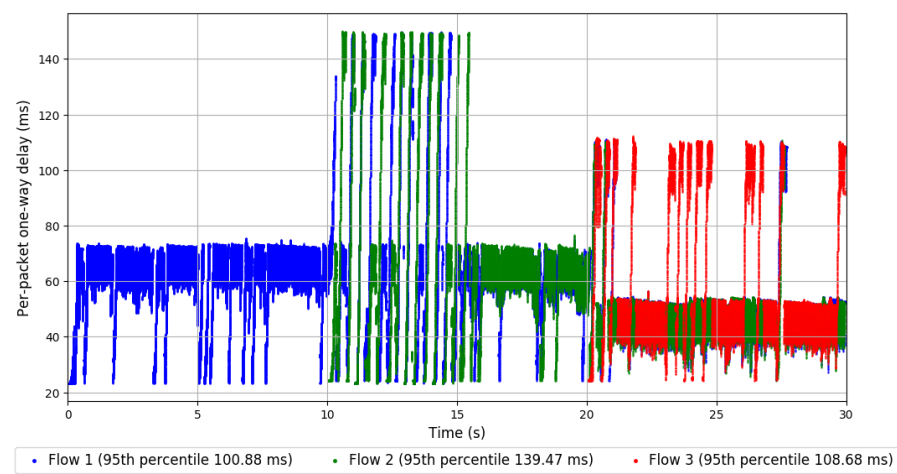
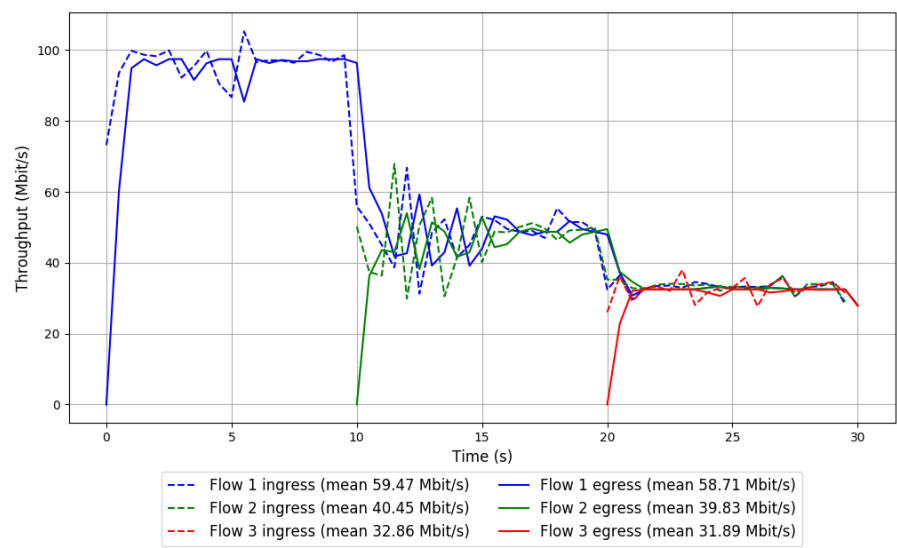


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-30 15:34:37  
End at: 2018-11-30 15:35:07  
Local clock offset: 3.349 ms  
Remote clock offset: -16.234 ms

# Below is generated by plot.py at 2018-11-30 17:21:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.75 Mbit/s  
95th percentile per-packet one-way delay: 110.781 ms  
Loss rate: 1.63%  
-- Flow 1:  
Average throughput: 58.71 Mbit/s  
95th percentile per-packet one-way delay: 100.883 ms  
Loss rate: 1.33%  
-- Flow 2:  
Average throughput: 39.83 Mbit/s  
95th percentile per-packet one-way delay: 139.466 ms  
Loss rate: 1.71%  
-- Flow 3:  
Average throughput: 31.89 Mbit/s  
95th percentile per-packet one-way delay: 108.678 ms  
Loss rate: 3.05%

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

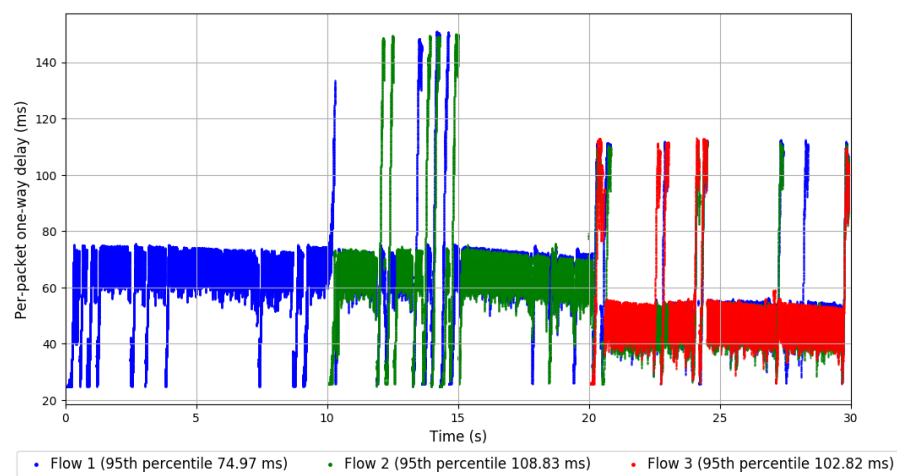
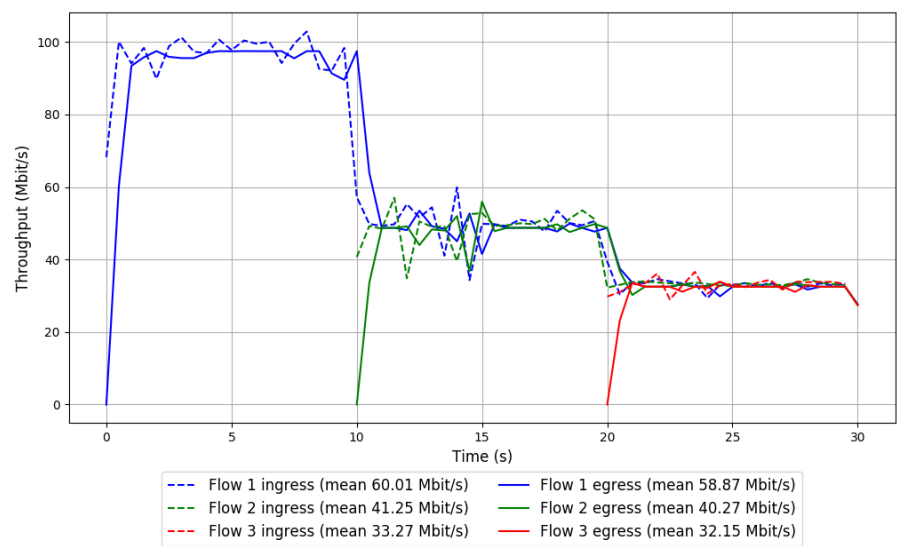


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-30 15:57:27  
End at: 2018-11-30 15:57:57  
Local clock offset: 2.943 ms  
Remote clock offset: -16.592 ms

# Below is generated by plot.py at 2018-11-30 17:21:51  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.29 Mbit/s  
95th percentile per-packet one-way delay: 96.966 ms  
Loss rate: 2.31%  
-- Flow 1:  
Average throughput: 58.87 Mbit/s  
95th percentile per-packet one-way delay: 74.967 ms  
Loss rate: 1.98%  
-- Flow 2:  
Average throughput: 40.27 Mbit/s  
95th percentile per-packet one-way delay: 108.830 ms  
Loss rate: 2.50%  
-- Flow 3:  
Average throughput: 32.15 Mbit/s  
95th percentile per-packet one-way delay: 102.817 ms  
Loss rate: 3.62%

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



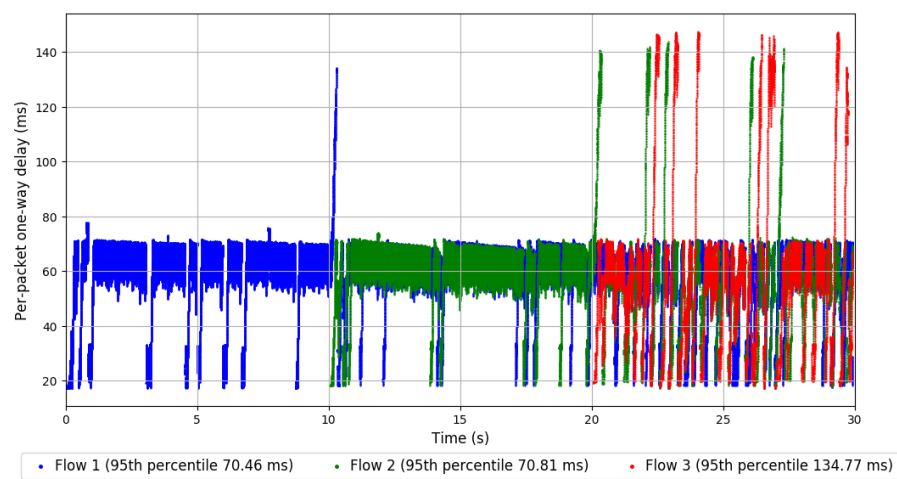
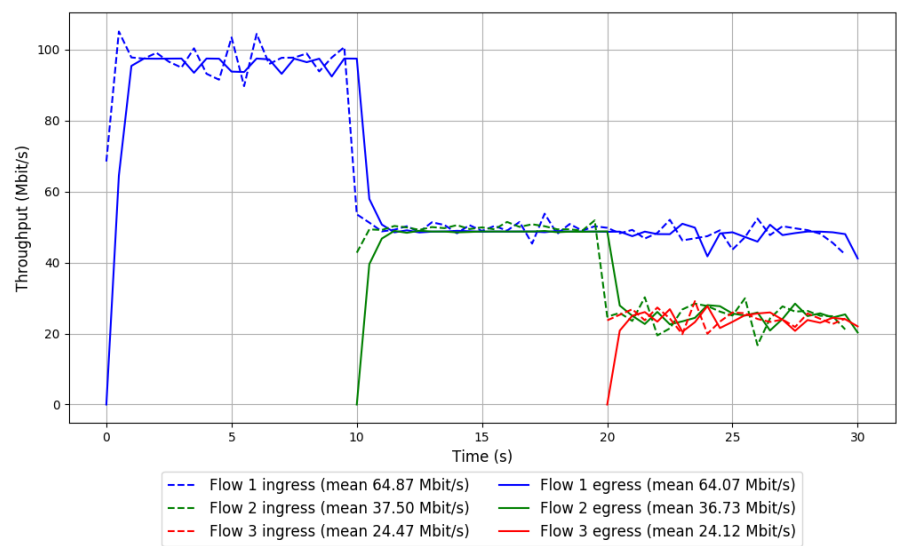


Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:20:15  
End at: 2018-11-30 16:20:45  
Local clock offset: 1.016 ms  
Remote clock offset: -15.435 ms

# Below is generated by plot.py at 2018-11-30 17:22:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.48 Mbit/s  
95th percentile per-packet one-way delay: 70.651 ms  
Loss rate: 1.54%  
-- Flow 1:  
Average throughput: 64.07 Mbit/s  
95th percentile per-packet one-way delay: 70.460 ms  
Loss rate: 1.31%  
-- Flow 2:  
Average throughput: 36.73 Mbit/s  
95th percentile per-packet one-way delay: 70.809 ms  
Loss rate: 2.11%  
-- Flow 3:  
Average throughput: 24.12 Mbit/s  
95th percentile per-packet one-way delay: 134.766 ms  
Loss rate: 1.60%

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

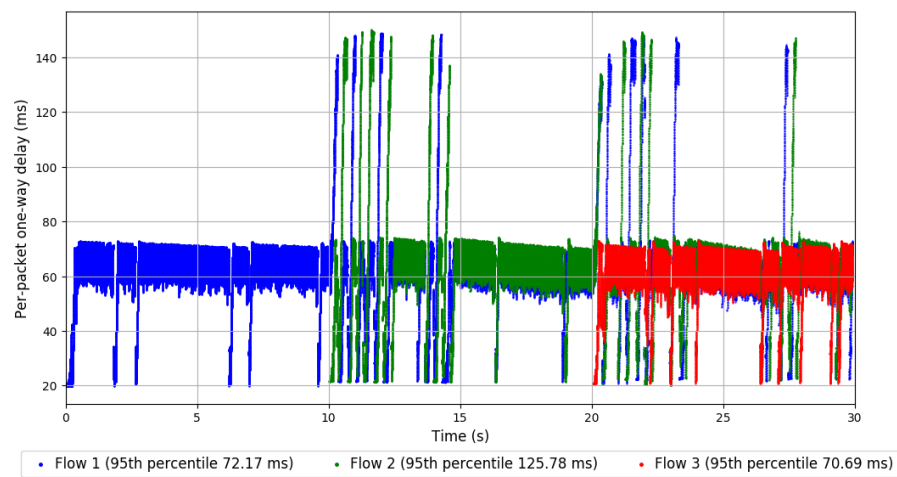
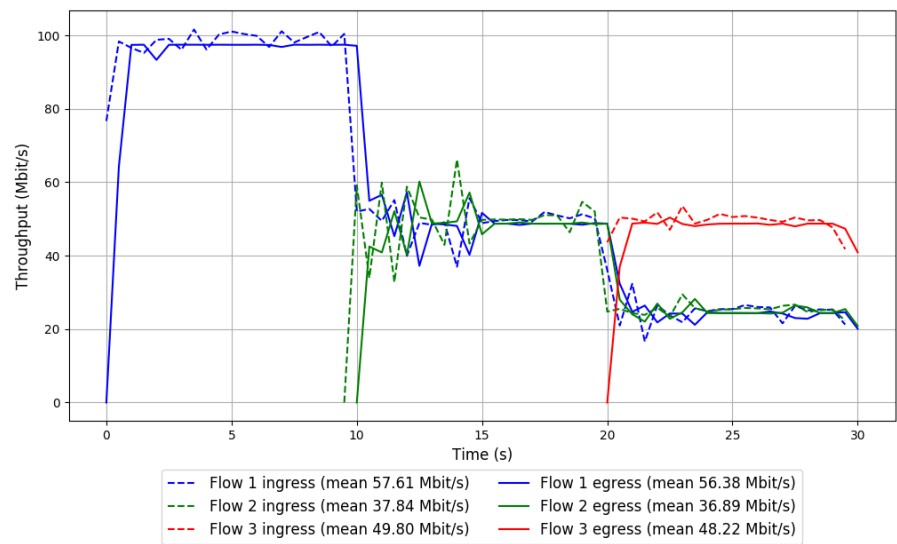


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-30 16:43:16  
End at: 2018-11-30 16:43:46  
Local clock offset: 3.7 ms  
Remote clock offset: -16.639 ms

# Below is generated by plot.py at 2018-11-30 17:22:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.88 Mbit/s  
95th percentile per-packet one-way delay: 73.561 ms  
Loss rate: 2.47%  
-- Flow 1:  
Average throughput: 56.38 Mbit/s  
95th percentile per-packet one-way delay: 72.174 ms  
Loss rate: 2.19%  
-- Flow 2:  
Average throughput: 36.89 Mbit/s  
95th percentile per-packet one-way delay: 125.785 ms  
Loss rate: 2.59%  
-- Flow 3:  
Average throughput: 48.22 Mbit/s  
95th percentile per-packet one-way delay: 70.687 ms  
Loss rate: 3.25%

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

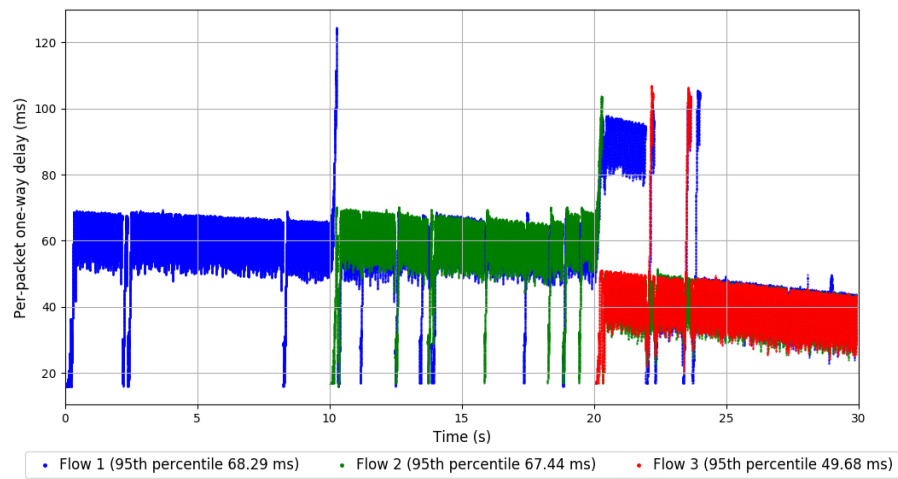
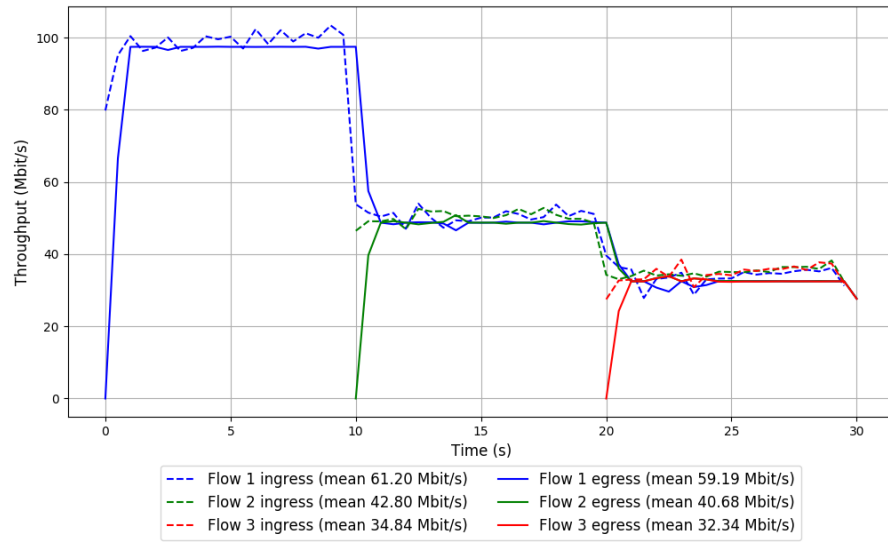


Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-30 17:06:16  
End at: 2018-11-30 17:06:46  
Local clock offset: -6.992 ms  
Remote clock offset: -16.617 ms

# Below is generated by plot.py at 2018-11-30 17:22:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.95 Mbit/s  
95th percentile per-packet one-way delay: 67.907 ms  
Loss rate: 4.27%  
-- Flow 1:  
Average throughput: 59.19 Mbit/s  
95th percentile per-packet one-way delay: 68.293 ms  
Loss rate: 3.34%  
-- Flow 2:  
Average throughput: 40.68 Mbit/s  
95th percentile per-packet one-way delay: 67.443 ms  
Loss rate: 5.04%  
-- Flow 3:  
Average throughput: 32.34 Mbit/s  
95th percentile per-packet one-way delay: 49.678 ms  
Loss rate: 7.33%

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

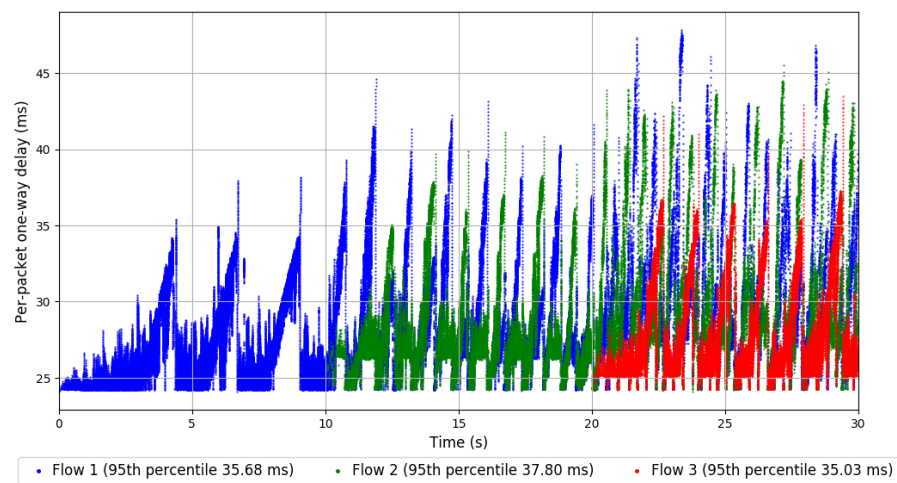
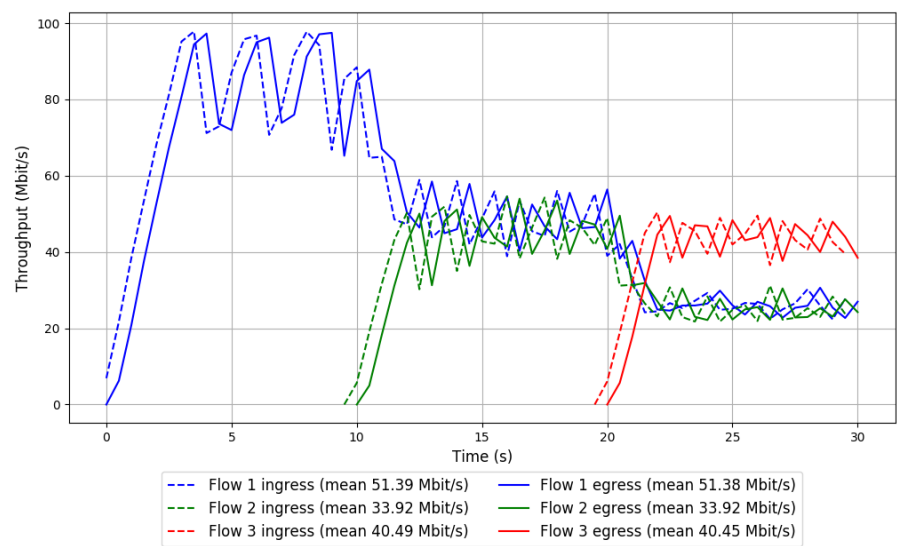


```
Run 1: Statistics of LEDBAT

Start at: 2018-11-30 15:37:01
End at: 2018-11-30 15:37:31
Local clock offset: 4.095 ms
Remote clock offset: -16.383 ms

# Below is generated by plot.py at 2018-11-30 17:22:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.41 Mbit/s
95th percentile per-packet one-way delay: 36.159 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 51.38 Mbit/s
95th percentile per-packet one-way delay: 35.681 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 33.92 Mbit/s
95th percentile per-packet one-way delay: 37.798 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 35.035 ms
Loss rate: 0.37%
```

Run 1: Report of LEDBAT — Data Link



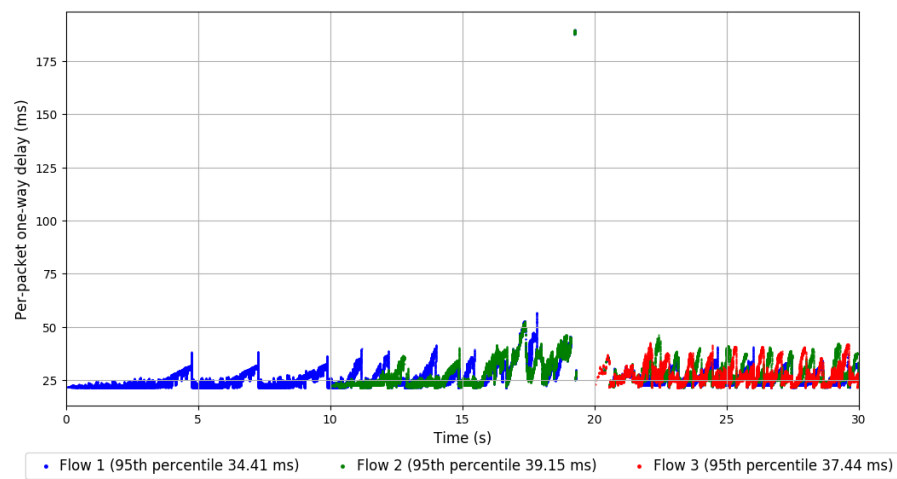
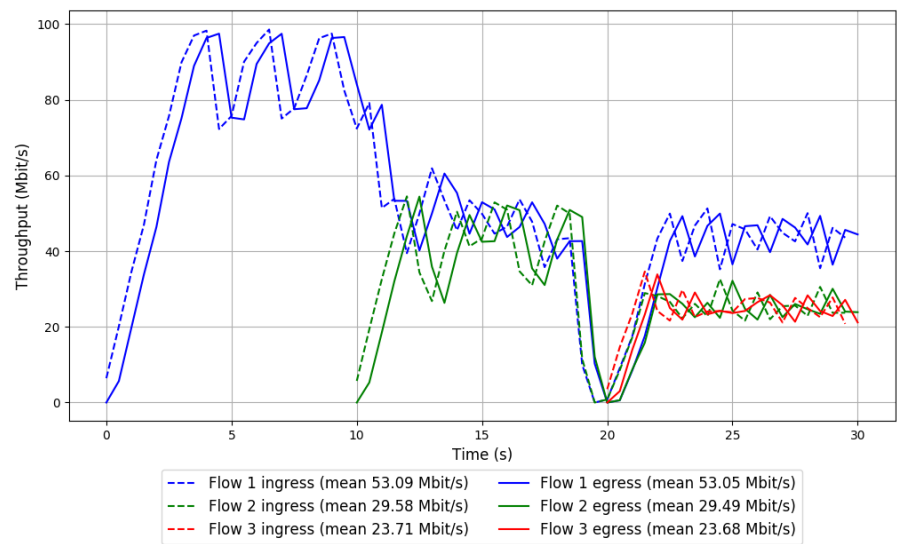


Run 2: Statistics of LEDBAT

Start at: 2018-11-30 15:59:51  
End at: 2018-11-30 16:00:21  
Local clock offset: -0.124 ms  
Remote clock offset: -16.247 ms

# Below is generated by plot.py at 2018-11-30 17:22:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 80.56 Mbit/s  
95th percentile per-packet one-way delay: 37.019 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 53.05 Mbit/s  
95th percentile per-packet one-way delay: 34.411 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 29.49 Mbit/s  
95th percentile per-packet one-way delay: 39.146 ms  
Loss rate: 0.44%  
-- Flow 3:  
Average throughput: 23.68 Mbit/s  
95th percentile per-packet one-way delay: 37.443 ms  
Loss rate: 0.38%

Run 2: Report of LEDBAT — Data Link

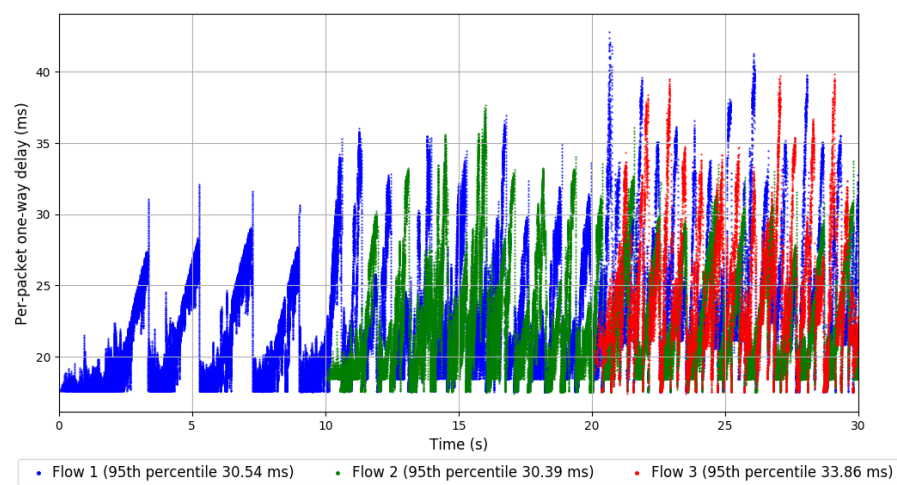
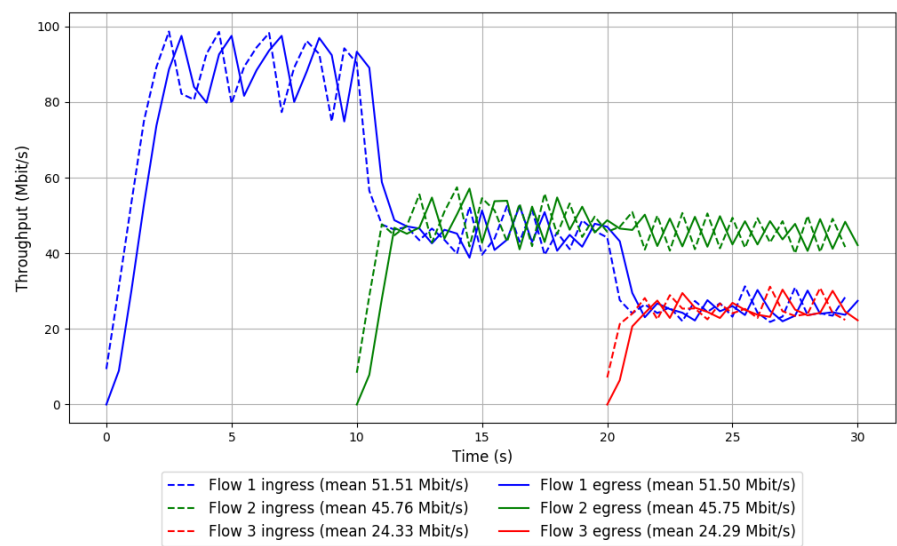


Run 3: Statistics of LEDBAT

Start at: 2018-11-30 16:22:39  
End at: 2018-11-30 16:23:09  
Local clock offset: 0.968 ms  
Remote clock offset: -15.858 ms

# Below is generated by plot.py at 2018-11-30 17:22:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.03 Mbit/s  
95th percentile per-packet one-way delay: 30.966 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 51.50 Mbit/s  
95th percentile per-packet one-way delay: 30.543 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 45.75 Mbit/s  
95th percentile per-packet one-way delay: 30.387 ms  
Loss rate: 0.14%  
-- Flow 3:  
Average throughput: 24.29 Mbit/s  
95th percentile per-packet one-way delay: 33.864 ms  
Loss rate: 0.38%

Run 3: Report of LEDBAT — Data Link

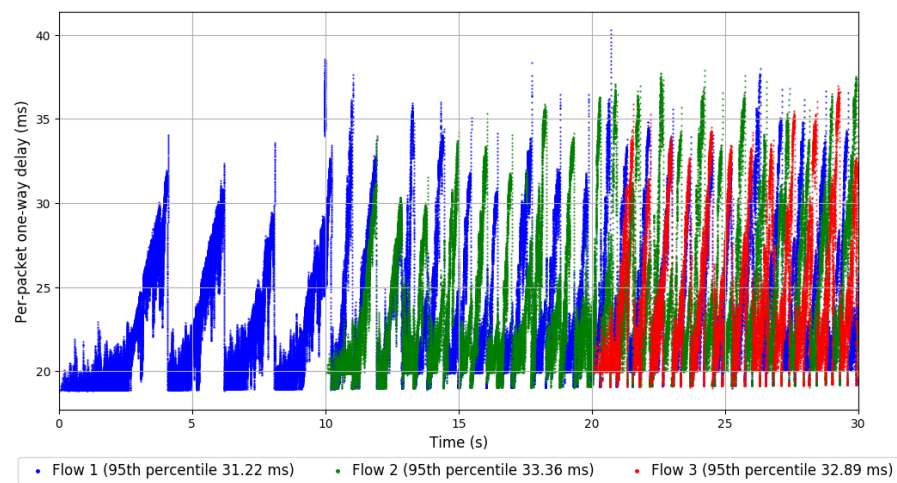
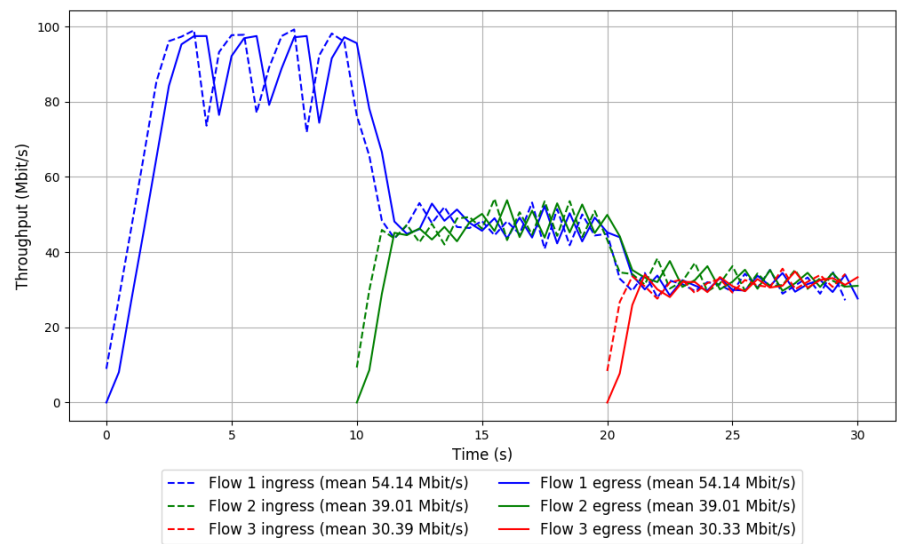


Run 4: Statistics of LEDBAT

Start at: 2018-11-30 16:45:39  
End at: 2018-11-30 16:46:09  
Local clock offset: 0.897 ms  
Remote clock offset: -17.533 ms

# Below is generated by plot.py at 2018-11-30 17:22:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.19 Mbit/s  
95th percentile per-packet one-way delay: 32.162 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 54.14 Mbit/s  
95th percentile per-packet one-way delay: 31.216 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 39.01 Mbit/s  
95th percentile per-packet one-way delay: 33.356 ms  
Loss rate: 0.12%  
-- Flow 3:  
Average throughput: 30.33 Mbit/s  
95th percentile per-packet one-way delay: 32.889 ms  
Loss rate: 0.43%

Run 4: Report of LEDBAT — Data Link

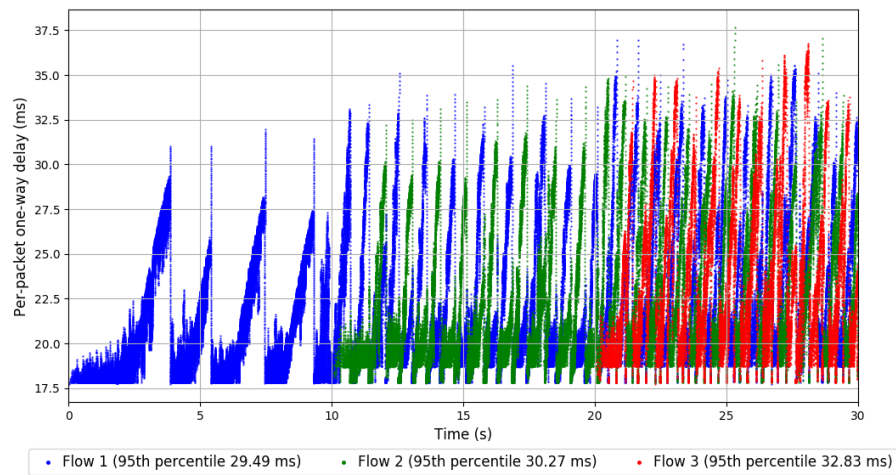
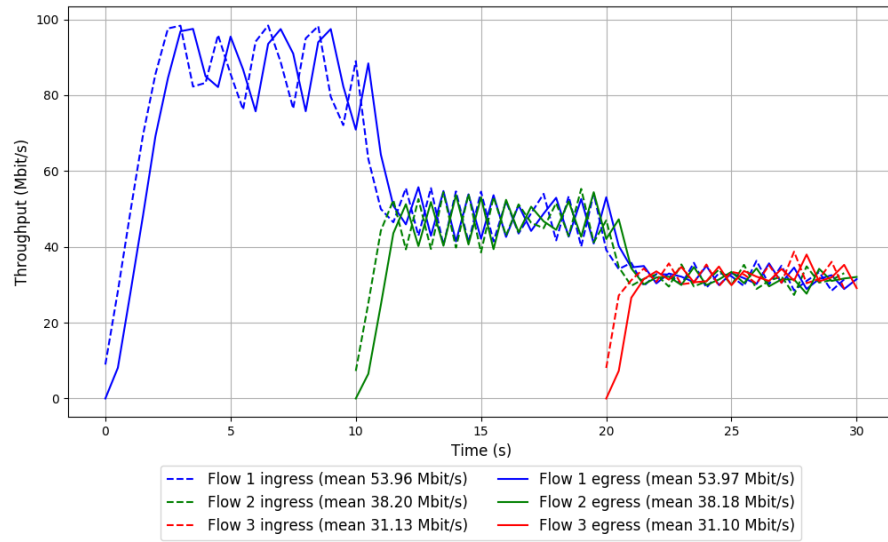


Run 5: Statistics of LEDBAT

Start at: 2018-11-30 17:08:40  
End at: 2018-11-30 17:09:10  
Local clock offset: -5.575 ms  
Remote clock offset: -16.923 ms

# Below is generated by plot.py at 2018-11-30 17:23:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.68 Mbit/s  
95th percentile per-packet one-way delay: 30.241 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 53.97 Mbit/s  
95th percentile per-packet one-way delay: 29.492 ms  
Loss rate: 0.06%  
-- Flow 2:  
Average throughput: 38.18 Mbit/s  
95th percentile per-packet one-way delay: 30.274 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 31.10 Mbit/s  
95th percentile per-packet one-way delay: 32.829 ms  
Loss rate: 0.35%

## Run 5: Report of LEDBAT — Data Link



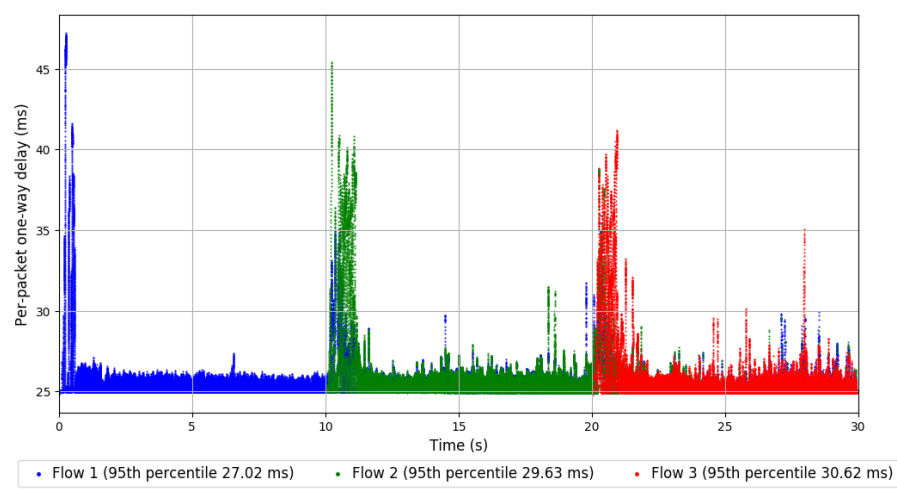
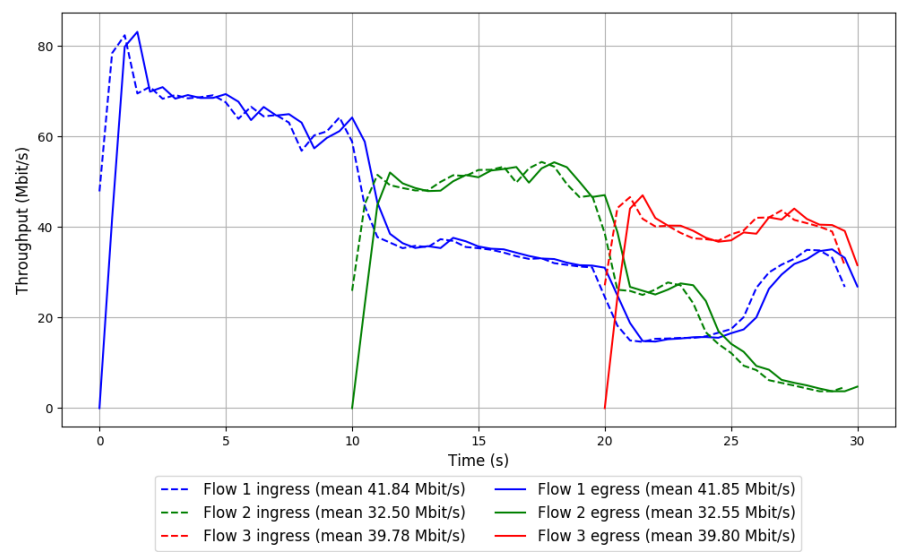


Run 1: Statistics of Indigo-Muses

Start at: 2018-11-30 15:29:45  
End at: 2018-11-30 15:30:15  
Local clock offset: 5.18 ms  
Remote clock offset: -15.789 ms

# Below is generated by plot.py at 2018-11-30 17:23:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 76.65 Mbit/s  
95th percentile per-packet one-way delay: 27.928 ms  
Loss rate: 0.08%  
-- Flow 1:  
Average throughput: 41.85 Mbit/s  
95th percentile per-packet one-way delay: 27.025 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 32.55 Mbit/s  
95th percentile per-packet one-way delay: 29.626 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 39.80 Mbit/s  
95th percentile per-packet one-way delay: 30.621 ms  
Loss rate: 0.22%

Run 1: Report of Indigo-Muses — Data Link

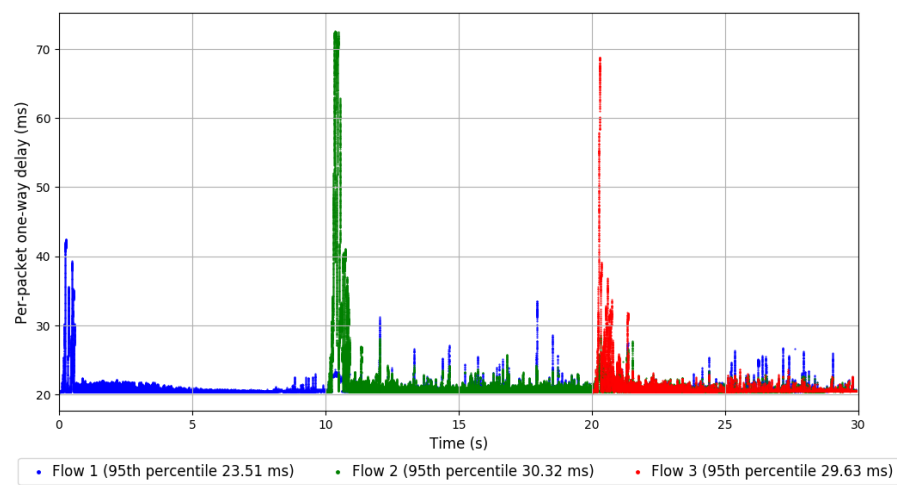
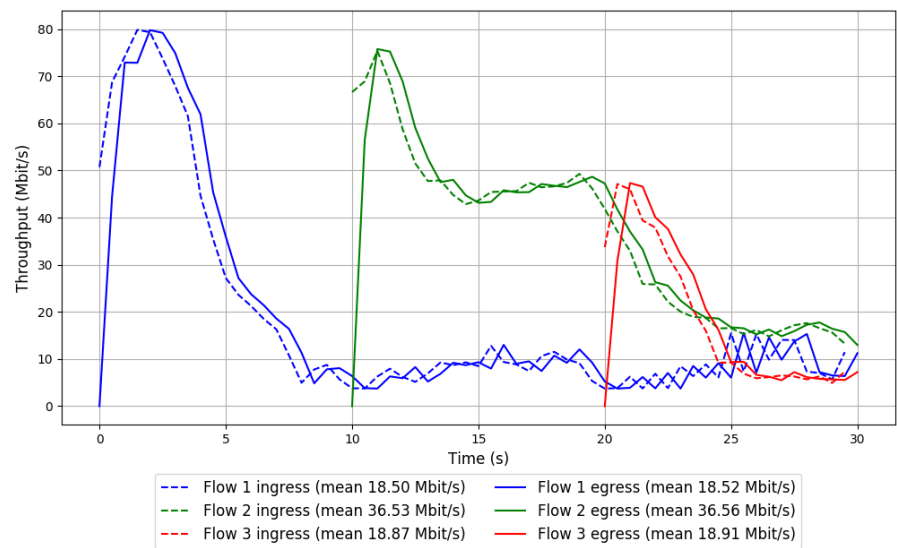


Run 2: Statistics of Indigo-Muses

Start at: 2018-11-30 15:52:37  
End at: 2018-11-30 15:53:07  
Local clock offset: 0.3 ms  
Remote clock offset: -15.079 ms

# Below is generated by plot.py at 2018-11-30 17:23:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 49.09 Mbit/s  
95th percentile per-packet one-way delay: 27.069 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 18.52 Mbit/s  
95th percentile per-packet one-way delay: 23.508 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 36.56 Mbit/s  
95th percentile per-packet one-way delay: 30.325 ms  
Loss rate: 0.06%  
-- Flow 3:  
Average throughput: 18.91 Mbit/s  
95th percentile per-packet one-way delay: 29.627 ms  
Loss rate: 0.06%

Run 2: Report of Indigo-Muses — Data Link

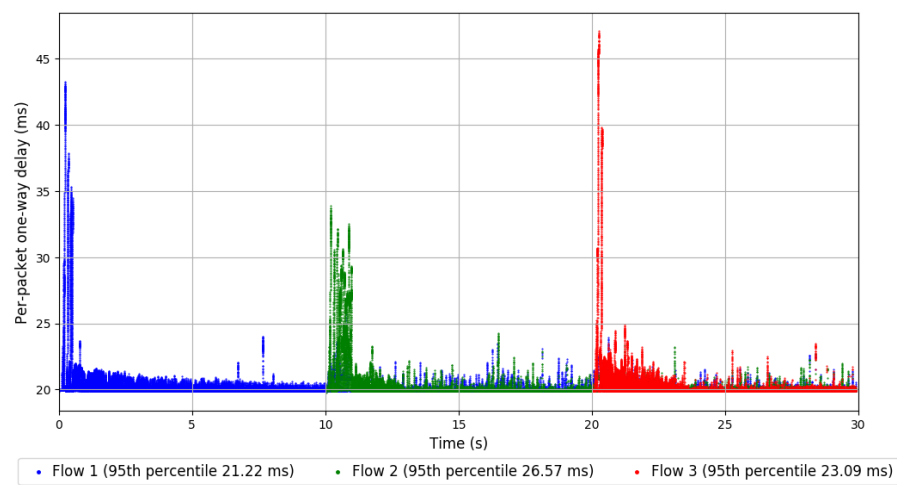
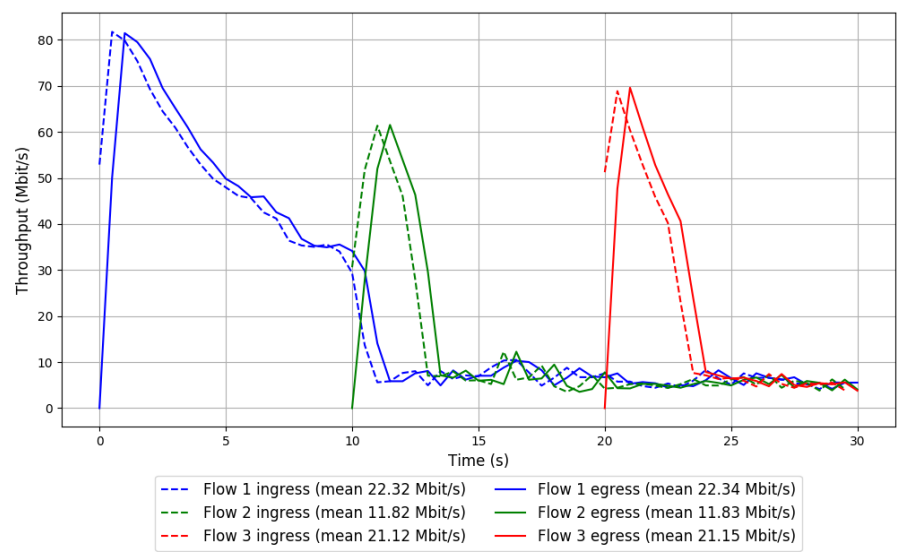


Run 3: Statistics of Indigo-Muses

Start at: 2018-11-30 16:15:22  
End at: 2018-11-30 16:15:52  
Local clock offset: 1.999 ms  
Remote clock offset: -16.405 ms

# Below is generated by plot.py at 2018-11-30 17:23:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 37.18 Mbit/s  
95th percentile per-packet one-way delay: 22.686 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 22.34 Mbit/s  
95th percentile per-packet one-way delay: 21.222 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 11.83 Mbit/s  
95th percentile per-packet one-way delay: 26.575 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 21.15 Mbit/s  
95th percentile per-packet one-way delay: 23.088 ms  
Loss rate: 0.04%

Run 3: Report of Indigo-Muses — Data Link

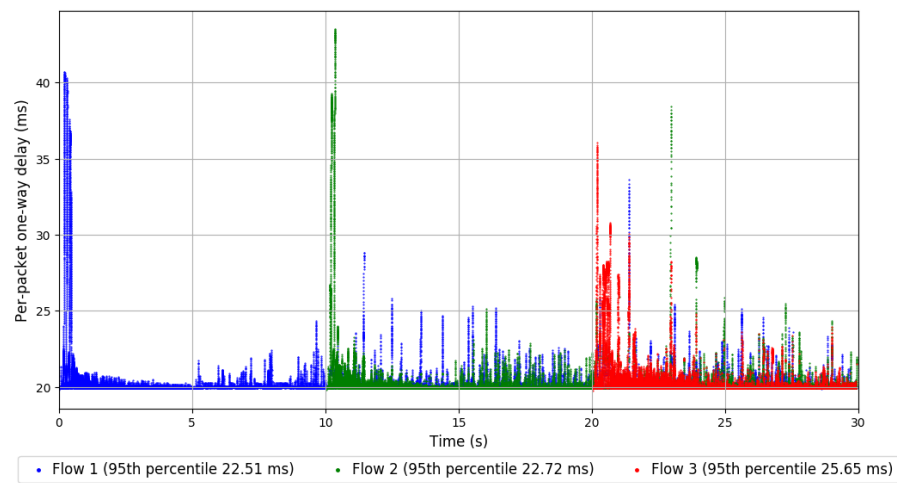
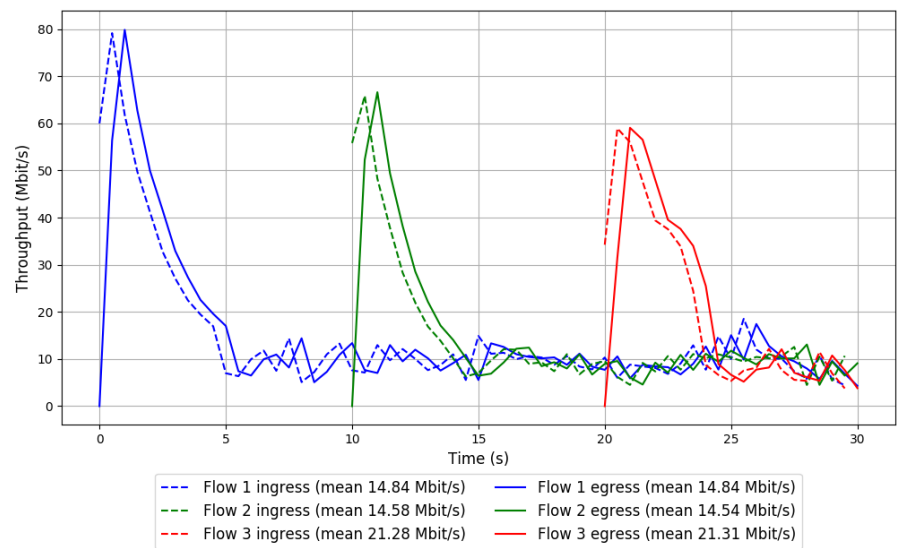


Run 4: Statistics of Indigo-Muses

Start at: 2018-11-30 16:38:31  
End at: 2018-11-30 16:39:01  
Local clock offset: 3.418 ms  
Remote clock offset: -16.761 ms

# Below is generated by plot.py at 2018-11-30 17:23:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 31.56 Mbit/s  
95th percentile per-packet one-way delay: 23.581 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 14.84 Mbit/s  
95th percentile per-packet one-way delay: 22.512 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 14.54 Mbit/s  
95th percentile per-packet one-way delay: 22.724 ms  
Loss rate: 0.30%  
-- Flow 3:  
Average throughput: 21.31 Mbit/s  
95th percentile per-packet one-way delay: 25.650 ms  
Loss rate: 0.04%

Run 4: Report of Indigo-Muses — Data Link



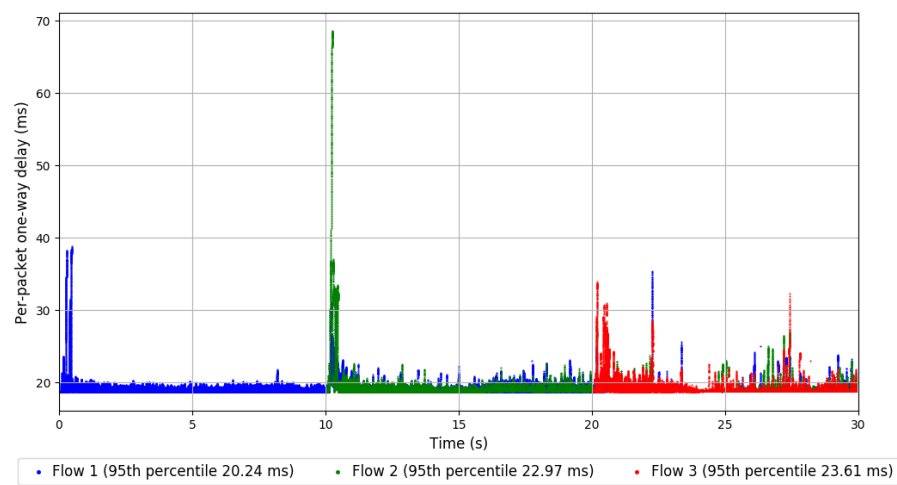
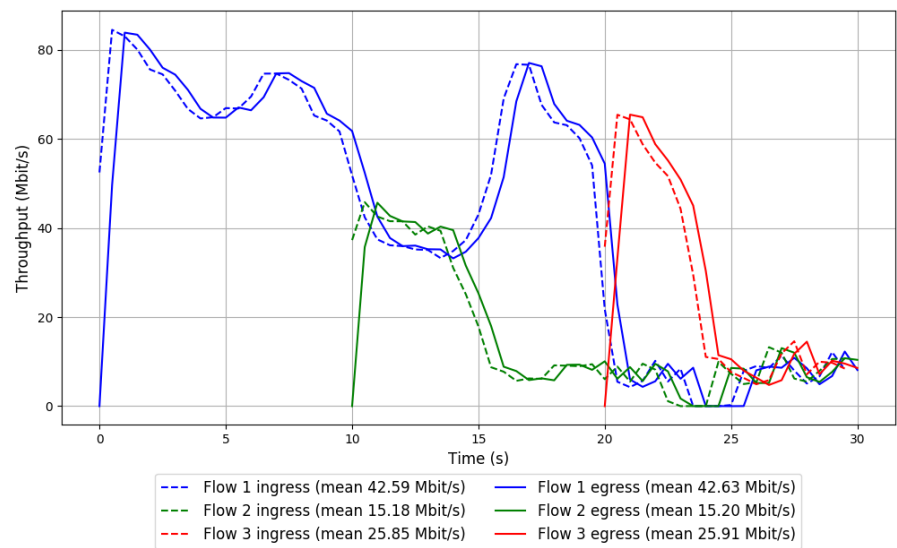


Run 5: Statistics of Indigo-Muses

Start at: 2018-11-30 17:01:26  
End at: 2018-11-30 17:01:56  
Local clock offset: -4.173 ms  
Remote clock offset: -17.189 ms

# Below is generated by plot.py at 2018-11-30 17:23:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 61.29 Mbit/s  
95th percentile per-packet one-way delay: 20.901 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 42.63 Mbit/s  
95th percentile per-packet one-way delay: 20.240 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 15.20 Mbit/s  
95th percentile per-packet one-way delay: 22.967 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 25.91 Mbit/s  
95th percentile per-packet one-way delay: 23.606 ms  
Loss rate: 0.05%

Run 5: Report of Indigo-Muses — Data Link

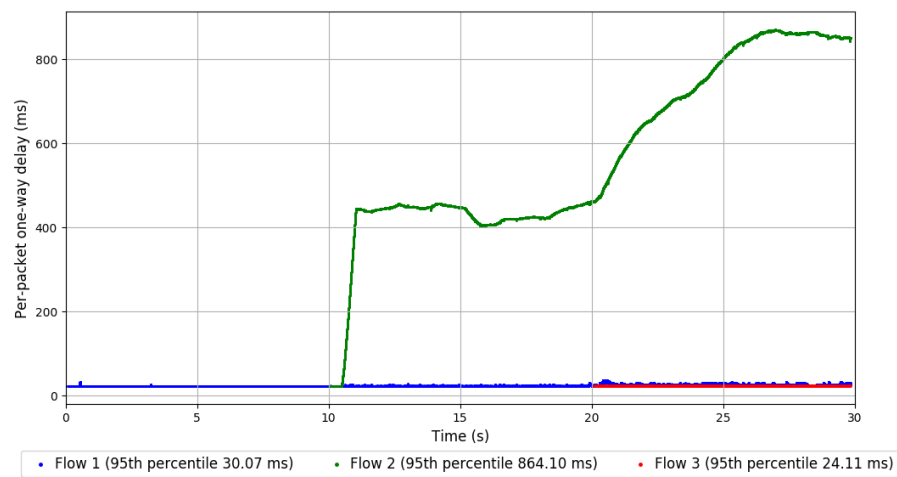
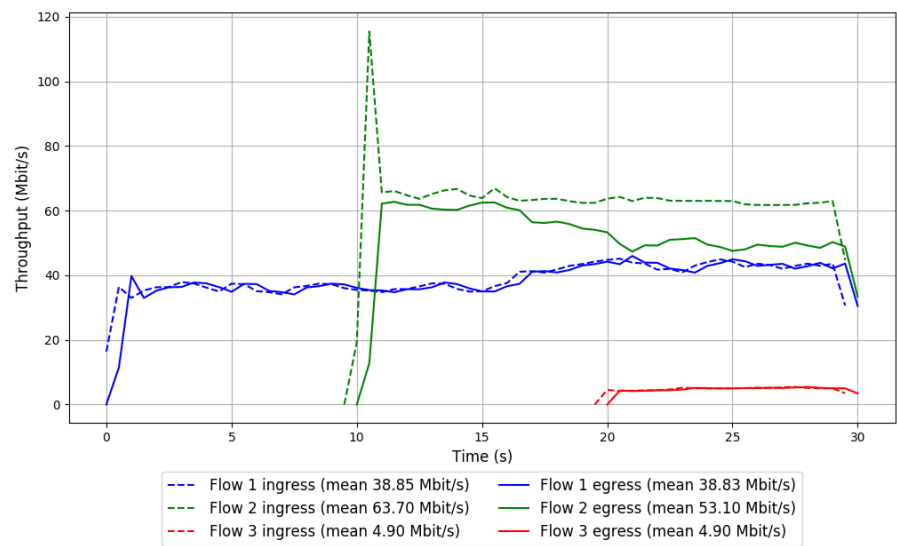


Run 1: Statistics of PCC-Allegro

Start at: 2018-11-30 15:33:24  
End at: 2018-11-30 15:33:54  
Local clock offset: 2.917 ms  
Remote clock offset: -16.388 ms

# Below is generated by plot.py at 2018-11-30 17:23:21  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.78 Mbit/s  
95th percentile per-packet one-way delay: 858.641 ms  
Loss rate: 8.65%  
-- Flow 1:  
Average throughput: 38.83 Mbit/s  
95th percentile per-packet one-way delay: 30.068 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 53.10 Mbit/s  
95th percentile per-packet one-way delay: 864.098 ms  
Loss rate: 16.77%  
-- Flow 3:  
Average throughput: 4.90 Mbit/s  
95th percentile per-packet one-way delay: 24.115 ms  
Loss rate: 0.30%

Run 1: Report of PCC-Allegro — Data Link

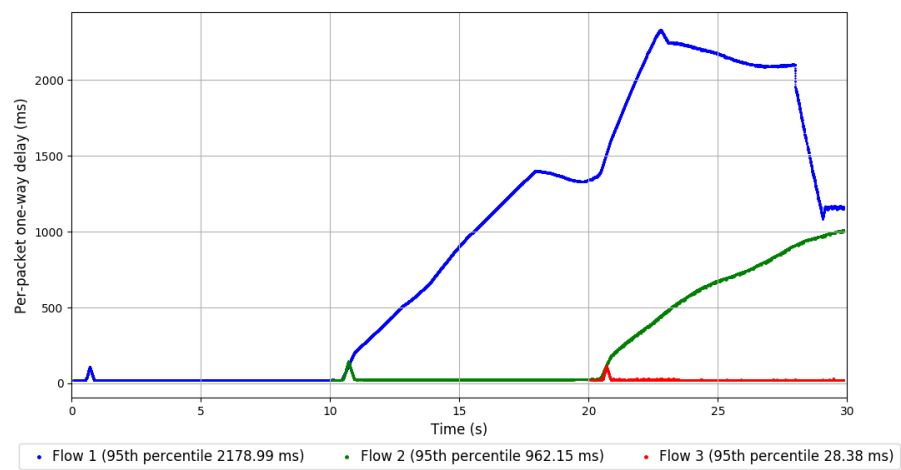
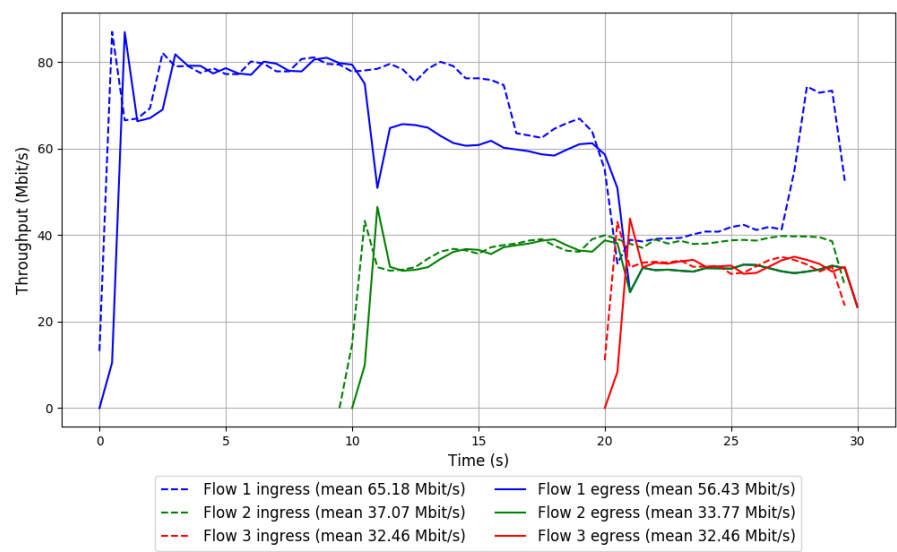


Run 2: Statistics of PCC-Allegro

Start at: 2018-11-30 15:56:15  
End at: 2018-11-30 15:56:45  
Local clock offset: 1.033 ms  
Remote clock offset: -14.538 ms

# Below is generated by plot.py at 2018-11-30 17:23:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.58 Mbit/s  
95th percentile per-packet one-way delay: 2104.273 ms  
Loss rate: 10.98%  
-- Flow 1:  
Average throughput: 56.43 Mbit/s  
95th percentile per-packet one-way delay: 2178.995 ms  
Loss rate: 13.49%  
-- Flow 2:  
Average throughput: 33.77 Mbit/s  
95th percentile per-packet one-way delay: 962.147 ms  
Loss rate: 8.99%  
-- Flow 3:  
Average throughput: 32.46 Mbit/s  
95th percentile per-packet one-way delay: 28.380 ms  
Loss rate: 0.35%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-11-30 16:19:03

End at: 2018-11-30 16:19:33

Local clock offset: 2.56 ms

Remote clock offset: -15.705 ms

# Below is generated by plot.py at 2018-11-30 17:23:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.95 Mbit/s

95th percentile per-packet one-way delay: 1510.353 ms

Loss rate: 8.74%

-- Flow 1:

Average throughput: 61.41 Mbit/s

95th percentile per-packet one-way delay: 1521.840 ms

Loss rate: 9.90%

-- Flow 2:

Average throughput: 31.43 Mbit/s

95th percentile per-packet one-way delay: 640.883 ms

Loss rate: 7.34%

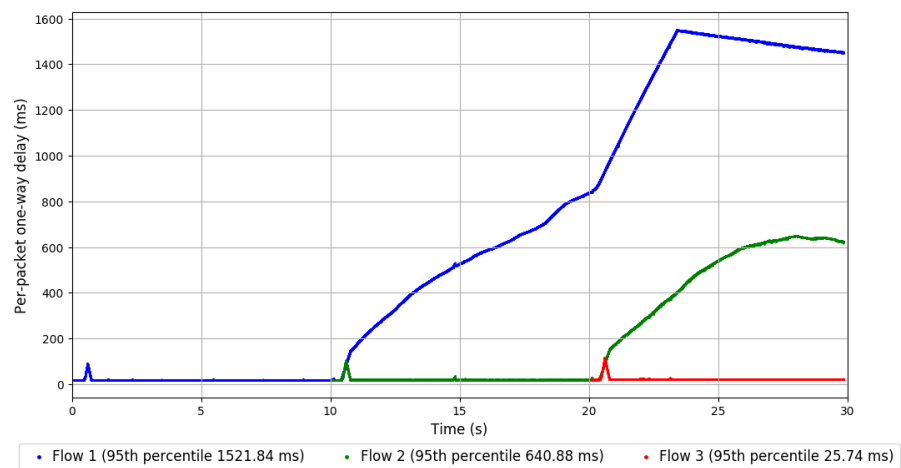
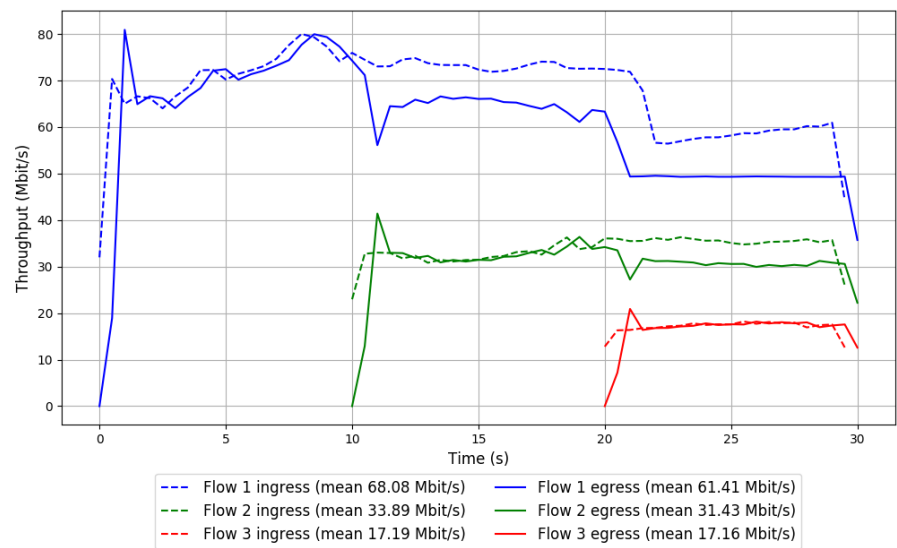
-- Flow 3:

Average throughput: 17.16 Mbit/s

95th percentile per-packet one-way delay: 25.744 ms

Loss rate: 0.32%

Run 3: Report of PCC-Allegro — Data Link





Run 4: Statistics of PCC-Allegro

Start at: 2018-11-30 16:42:06

End at: 2018-11-30 16:42:36

Local clock offset: 1.794 ms

Remote clock offset: -16.175 ms

# Below is generated by plot.py at 2018-11-30 17:23:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 79.08 Mbit/s

95th percentile per-packet one-way delay: 485.387 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 59.14 Mbit/s

95th percentile per-packet one-way delay: 492.601 ms

Loss rate: 2.47%

-- Flow 2:

Average throughput: 15.01 Mbit/s

95th percentile per-packet one-way delay: 20.824 ms

Loss rate: 0.12%

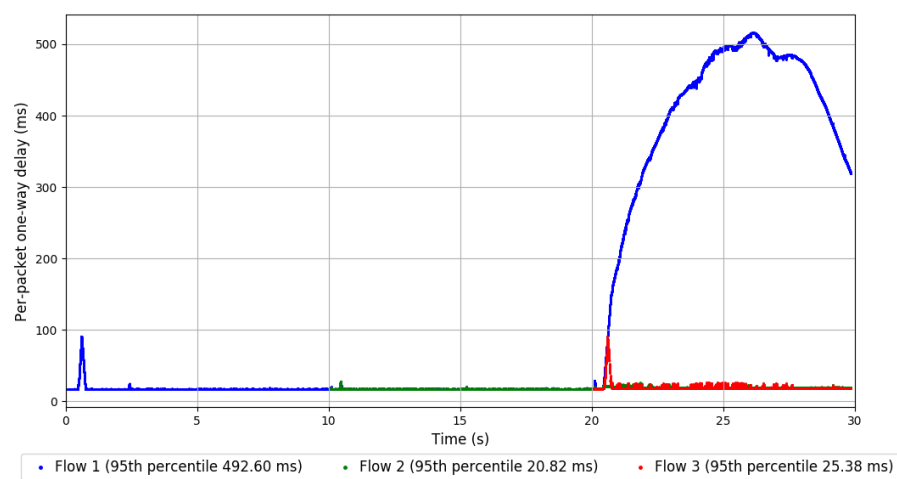
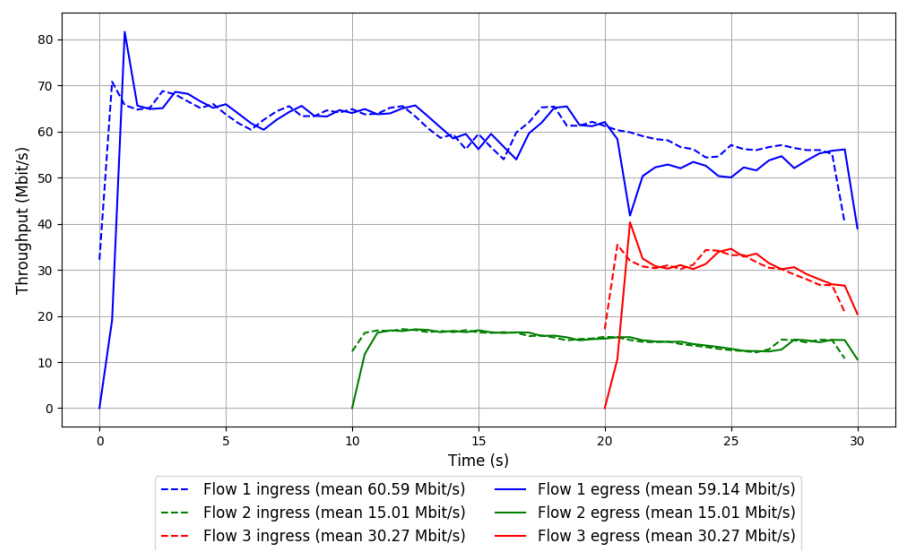
-- Flow 3:

Average throughput: 30.27 Mbit/s

95th percentile per-packet one-way delay: 25.380 ms

Loss rate: 0.25%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-11-30 17:05:05

End at: 2018-11-30 17:05:35

Local clock offset: -5.165 ms

Remote clock offset: -17.833 ms

# Below is generated by plot.py at 2018-11-30 17:23:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 81.30 Mbit/s

95th percentile per-packet one-way delay: 1157.032 ms

Loss rate: 4.60%

-- Flow 1:

Average throughput: 54.48 Mbit/s

95th percentile per-packet one-way delay: 1313.638 ms

Loss rate: 6.63%

-- Flow 2:

Average throughput: 32.13 Mbit/s

95th percentile per-packet one-way delay: 24.001 ms

Loss rate: 0.14%

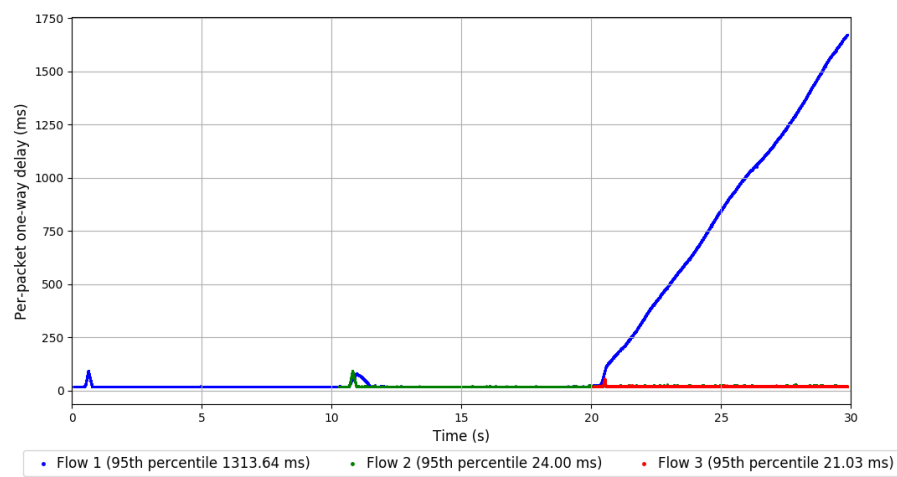
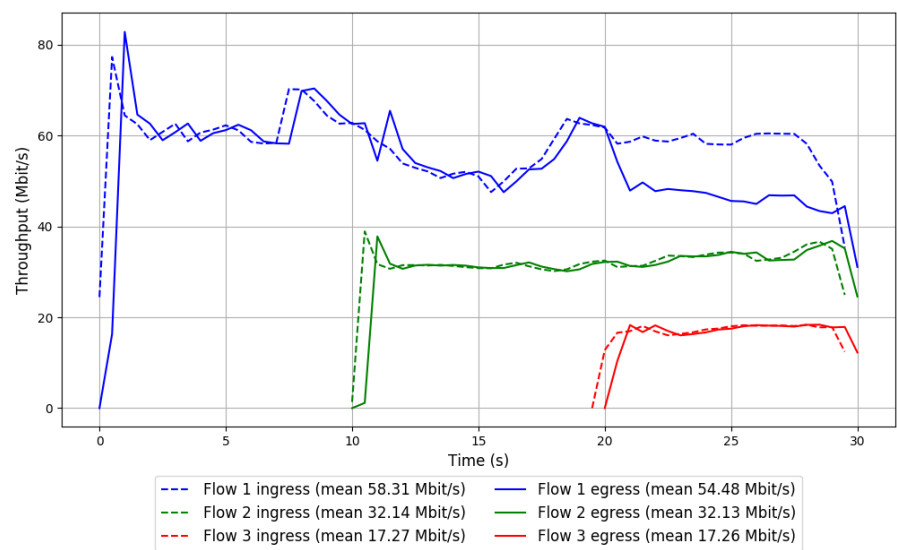
-- Flow 3:

Average throughput: 17.26 Mbit/s

95th percentile per-packet one-way delay: 21.032 ms

Loss rate: 0.25%

Run 5: Report of PCC-Allegro — Data Link

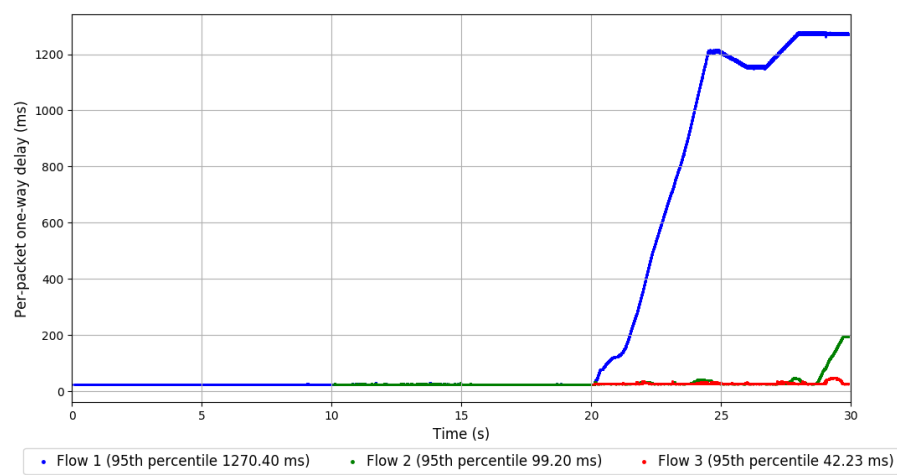
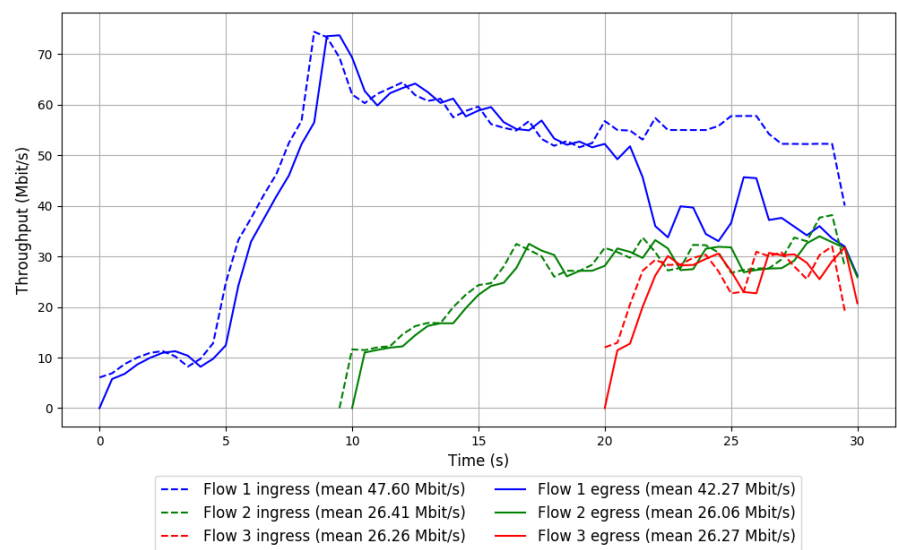


```
Run 1: Statistics of PCC-Expr

Start at: 2018-11-30 15:24:55
End at: 2018-11-30 15:25:25
Local clock offset: 4.248 ms
Remote clock offset: -16.025 ms

# Below is generated by plot.py at 2018-11-30 17:24:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.27 Mbit/s
95th percentile per-packet one-way delay: 1208.321 ms
Loss rate: 7.64%
-- Flow 1:
Average throughput: 42.27 Mbit/s
95th percentile per-packet one-way delay: 1270.402 ms
Loss rate: 11.27%
-- Flow 2:
Average throughput: 26.06 Mbit/s
95th percentile per-packet one-way delay: 99.199 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 26.27 Mbit/s
95th percentile per-packet one-way delay: 42.233 ms
Loss rate: 0.23%
```

Run 1: Report of PCC-Expr — Data Link

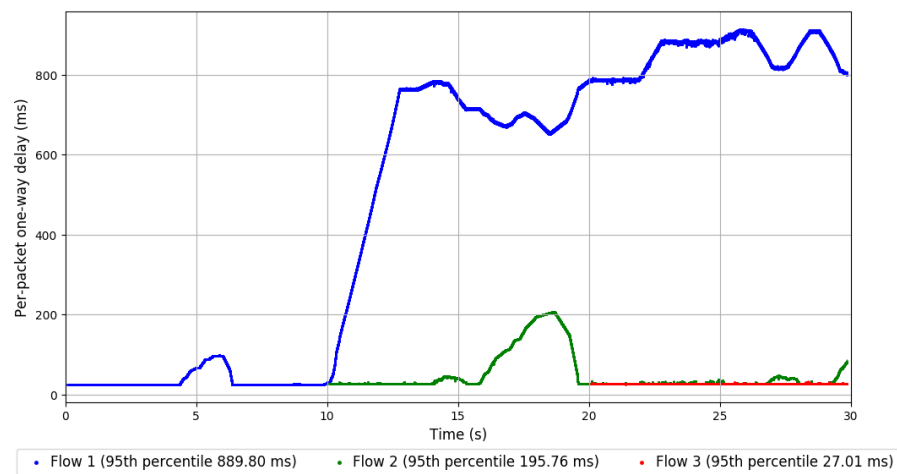
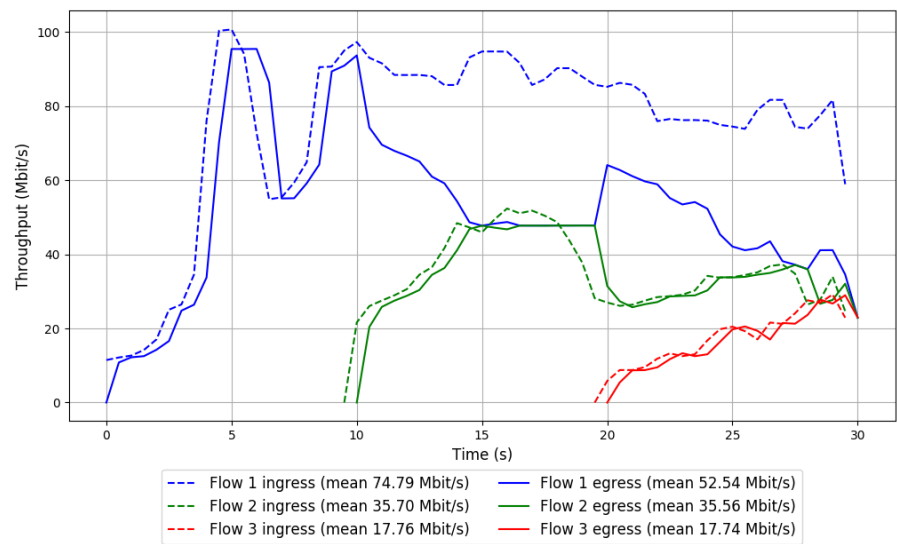


Run 2: Statistics of PCC-Expr

Start at: 2018-11-30 15:47:47  
End at: 2018-11-30 15:48:17  
Local clock offset: 4.351 ms  
Remote clock offset: -16.883 ms

# Below is generated by plot.py at 2018-11-30 17:25:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 82.04 Mbit/s  
95th percentile per-packet one-way delay: 882.992 ms  
Loss rate: 21.49%  
-- Flow 1:  
Average throughput: 52.54 Mbit/s  
95th percentile per-packet one-way delay: 889.801 ms  
Loss rate: 29.80%  
-- Flow 2:  
Average throughput: 35.56 Mbit/s  
95th percentile per-packet one-way delay: 195.760 ms  
Loss rate: 0.52%  
-- Flow 3:  
Average throughput: 17.74 Mbit/s  
95th percentile per-packet one-way delay: 27.009 ms  
Loss rate: 0.48%

Run 2: Report of PCC-Expr — Data Link



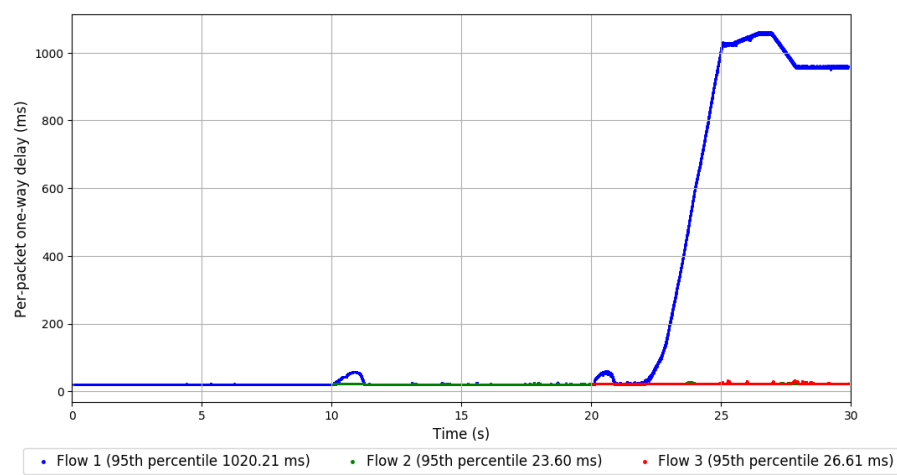
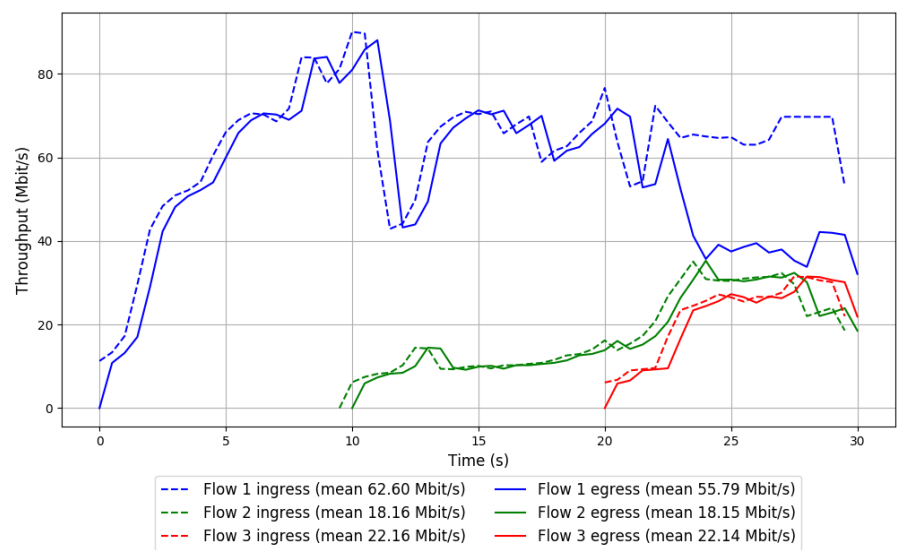


Run 3: Statistics of PCC-Expr

Start at: 2018-11-30 16:10:35  
End at: 2018-11-30 16:11:05  
Local clock offset: 3.419 ms  
Remote clock offset: -15.741 ms

# Below is generated by plot.py at 2018-11-30 17:25:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 75.16 Mbit/s  
95th percentile per-packet one-way delay: 960.646 ms  
Loss rate: 8.43%  
-- Flow 1:  
Average throughput: 55.79 Mbit/s  
95th percentile per-packet one-way delay: 1020.211 ms  
Loss rate: 10.98%  
-- Flow 2:  
Average throughput: 18.15 Mbit/s  
95th percentile per-packet one-way delay: 23.596 ms  
Loss rate: 0.16%  
-- Flow 3:  
Average throughput: 22.14 Mbit/s  
95th percentile per-packet one-way delay: 26.608 ms  
Loss rate: 0.31%

Run 3: Report of PCC-Expr — Data Link

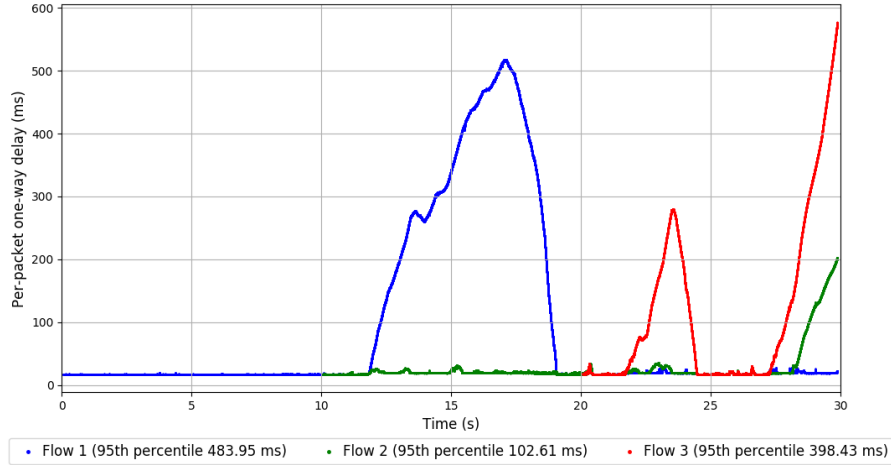
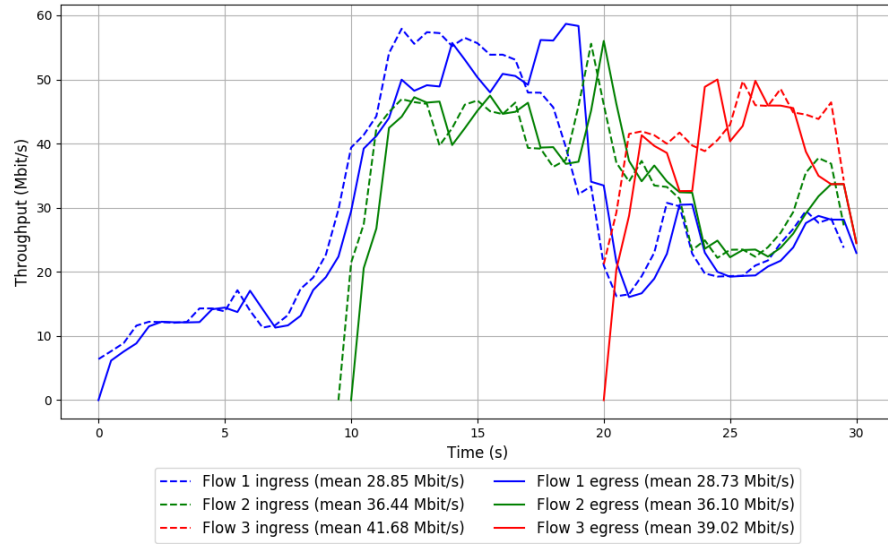


Run 4: Statistics of PCC-Expr

Start at: 2018-11-30 16:33:34  
End at: 2018-11-30 16:34:04  
Local clock offset: 1.069 ms  
Remote clock offset: -15.926 ms

# Below is generated by plot.py at 2018-11-30 17:25:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.61 Mbit/s  
95th percentile per-packet one-way delay: 449.627 ms  
Loss rate: 1.95%  
-- Flow 1:  
Average throughput: 28.73 Mbit/s  
95th percentile per-packet one-way delay: 483.947 ms  
Loss rate: 0.50%  
-- Flow 2:  
Average throughput: 36.10 Mbit/s  
95th percentile per-packet one-way delay: 102.605 ms  
Loss rate: 1.04%  
-- Flow 3:  
Average throughput: 39.02 Mbit/s  
95th percentile per-packet one-way delay: 398.426 ms  
Loss rate: 6.60%

# Run 4: Report of PCC-Expr — Data Link

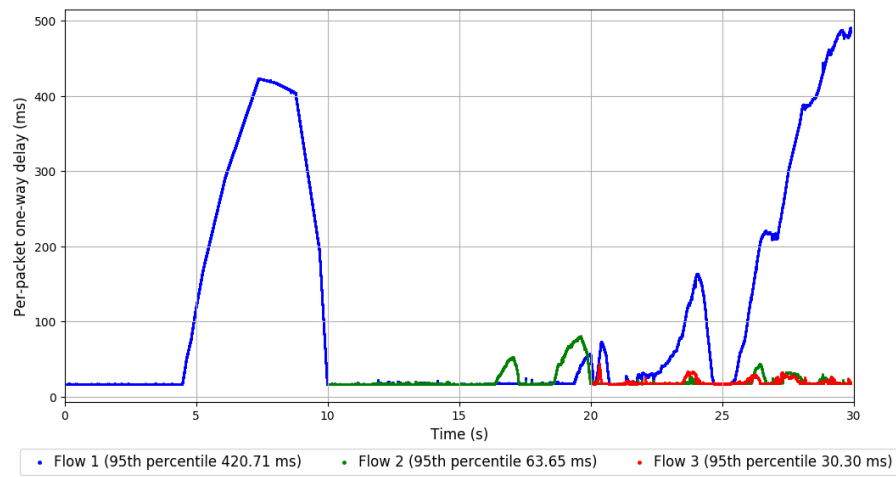
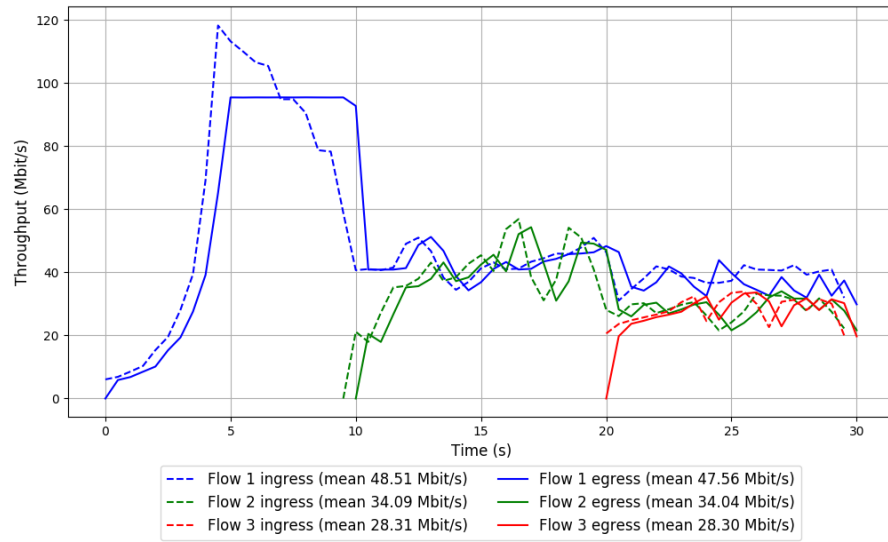


Run 5: Statistics of PCC-Expr

Start at: 2018-11-30 16:56:33  
End at: 2018-11-30 16:57:03  
Local clock offset: -4.077 ms  
Remote clock offset: -16.336 ms

# Below is generated by plot.py at 2018-11-30 17:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.54 Mbit/s  
95th percentile per-packet one-way delay: 415.831 ms  
Loss rate: 1.32%  
-- Flow 1:  
Average throughput: 47.56 Mbit/s  
95th percentile per-packet one-way delay: 420.715 ms  
Loss rate: 2.03%  
-- Flow 2:  
Average throughput: 34.04 Mbit/s  
95th percentile per-packet one-way delay: 63.650 ms  
Loss rate: 0.24%  
-- Flow 3:  
Average throughput: 28.30 Mbit/s  
95th percentile per-packet one-way delay: 30.301 ms  
Loss rate: 0.26%

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

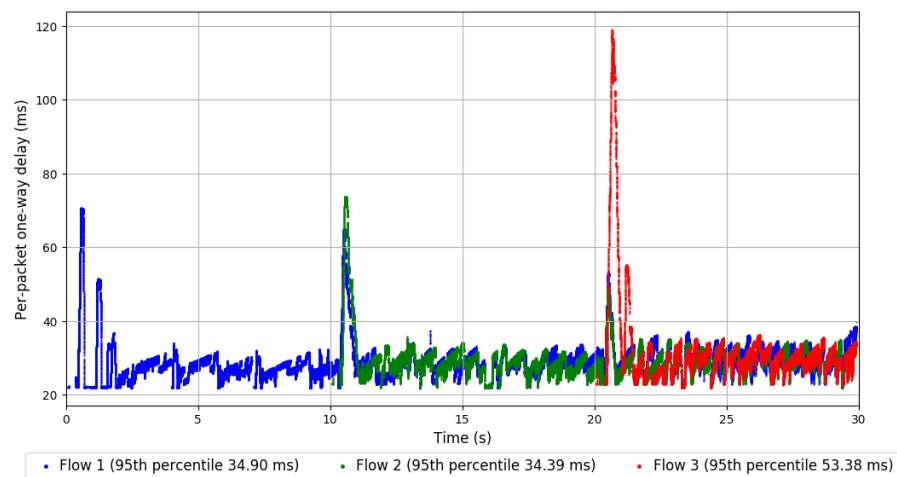
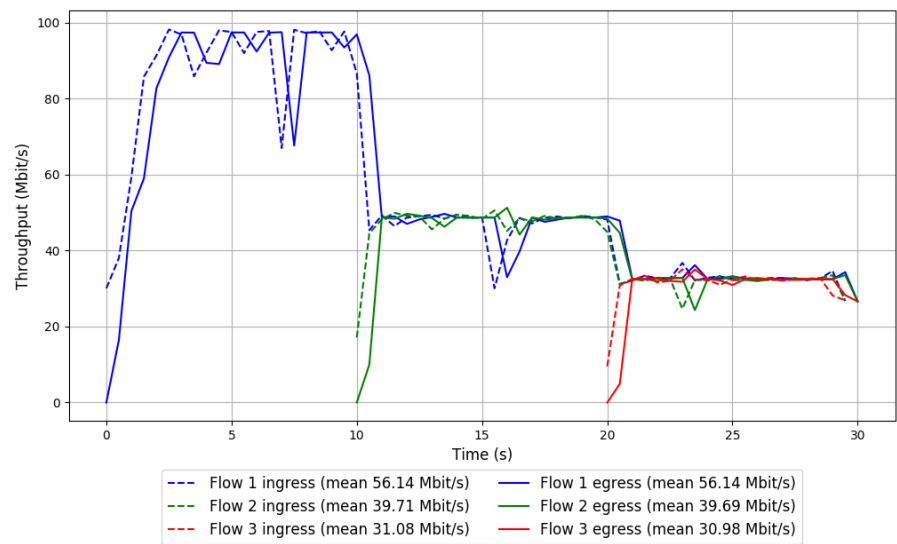


Run 1: Statistics of QUIC Cubic

Start at: 2018-11-30 15:28:32  
End at: 2018-11-30 15:29:02  
Local clock offset: 1.979 ms  
Remote clock offset: -15.895 ms

# Below is generated by plot.py at 2018-11-30 17:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.77 Mbit/s  
95th percentile per-packet one-way delay: 35.200 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 56.14 Mbit/s  
95th percentile per-packet one-way delay: 34.900 ms  
Loss rate: 0.10%  
-- Flow 2:  
Average throughput: 39.69 Mbit/s  
95th percentile per-packet one-way delay: 34.391 ms  
Loss rate: 0.20%  
-- Flow 3:  
Average throughput: 30.98 Mbit/s  
95th percentile per-packet one-way delay: 53.384 ms  
Loss rate: 0.64%

Run 1: Report of QUIC Cubic — Data Link



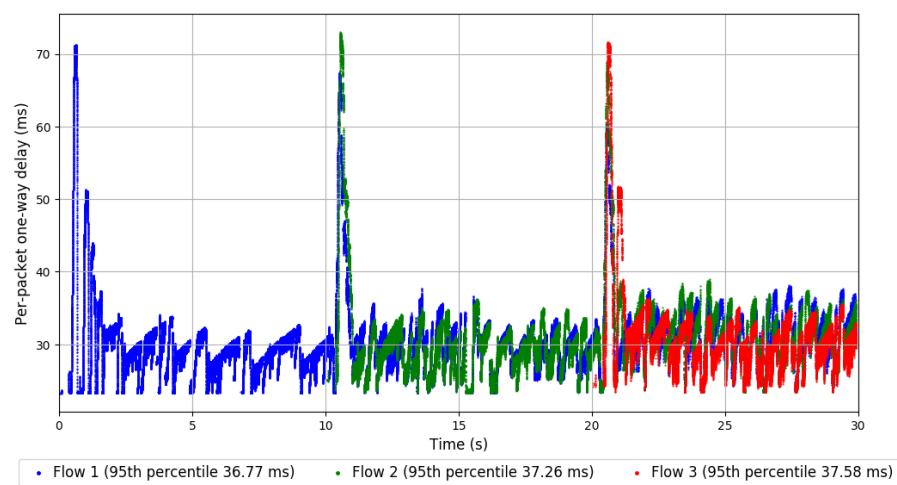
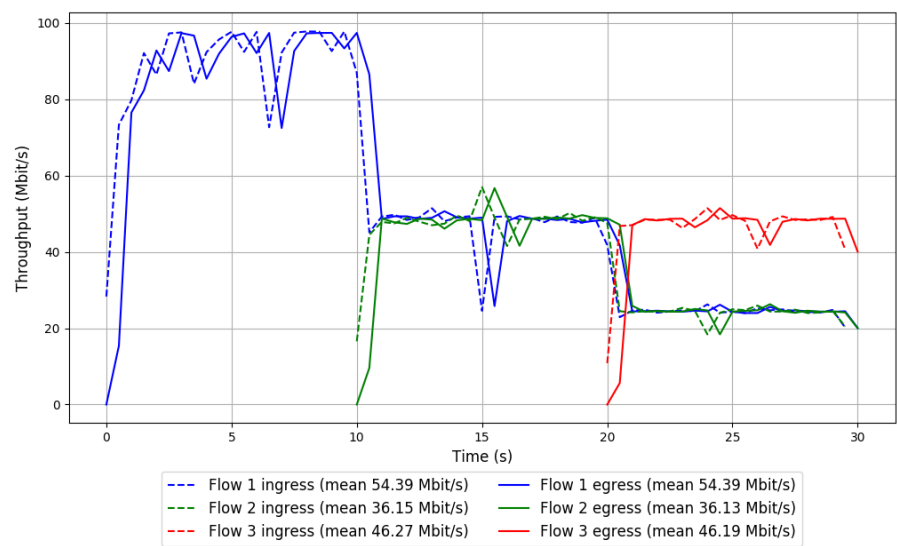


Run 2: Statistics of QUIC Cubic

Start at: 2018-11-30 15:51:23  
End at: 2018-11-30 15:51:53  
Local clock offset: 2.117 ms  
Remote clock offset: -16.373 ms

# Below is generated by plot.py at 2018-11-30 17:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.67 Mbit/s  
95th percentile per-packet one-way delay: 36.989 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 54.39 Mbit/s  
95th percentile per-packet one-way delay: 36.769 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 36.13 Mbit/s  
95th percentile per-packet one-way delay: 37.263 ms  
Loss rate: 0.20%  
-- Flow 3:  
Average throughput: 46.19 Mbit/s  
95th percentile per-packet one-way delay: 37.584 ms  
Loss rate: 0.43%

Run 2: Report of QUIC Cubic — Data Link

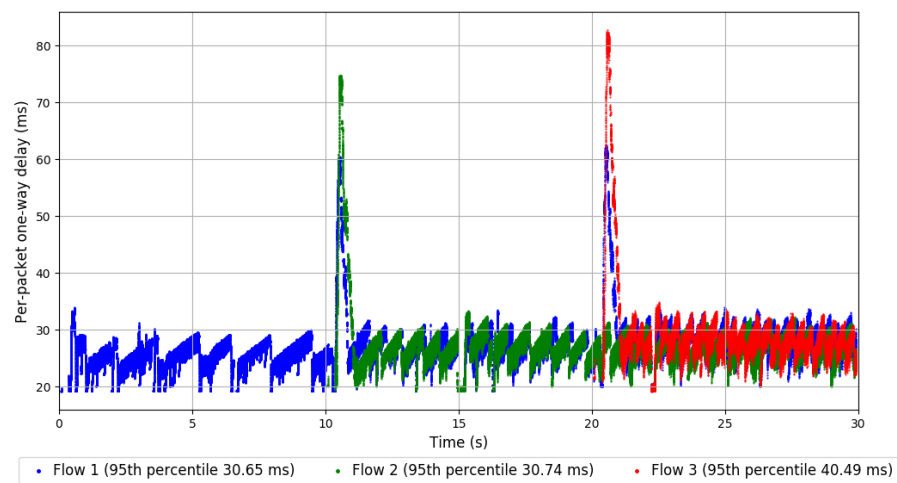
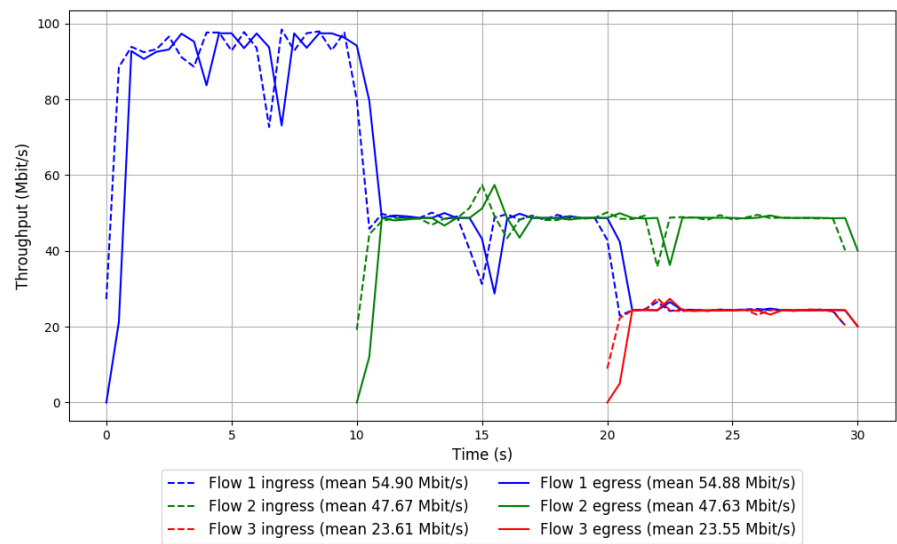


Run 3: Statistics of QUIC Cubic

Start at: 2018-11-30 16:14:11  
End at: 2018-11-30 16:14:41  
Local clock offset: 2.137 ms  
Remote clock offset: -15.385 ms

# Below is generated by plot.py at 2018-11-30 17:25:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.34 Mbit/s  
95th percentile per-packet one-way delay: 31.018 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 54.88 Mbit/s  
95th percentile per-packet one-way delay: 30.653 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 47.63 Mbit/s  
95th percentile per-packet one-way delay: 30.744 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 23.55 Mbit/s  
95th percentile per-packet one-way delay: 40.491 ms  
Loss rate: 0.46%

Run 3: Report of QUIC Cubic — Data Link

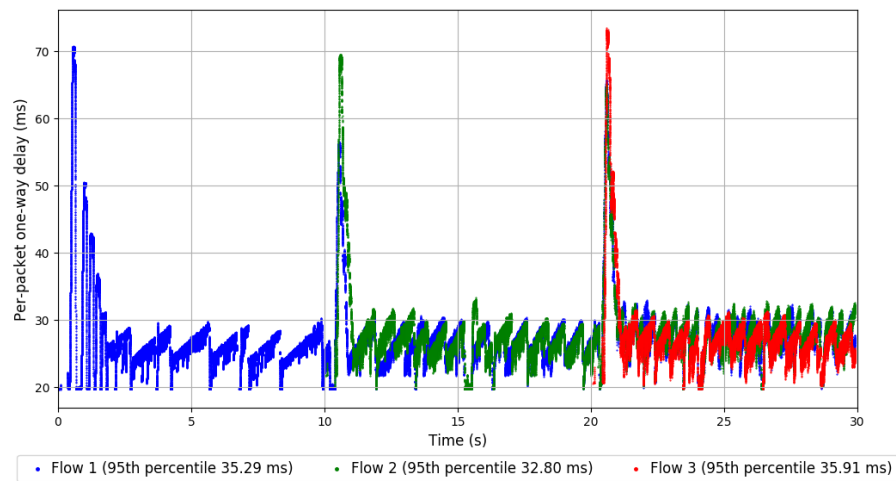
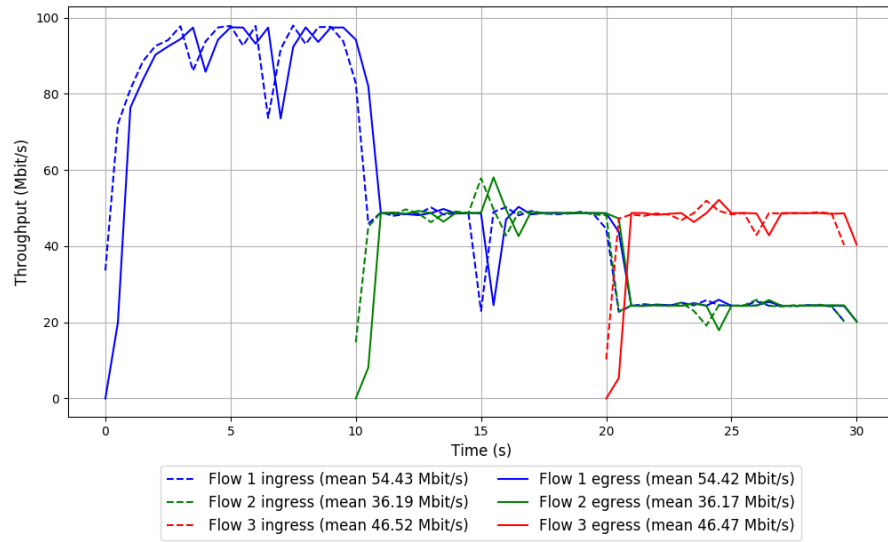


Run 4: Statistics of QUIC Cubic

Start at: 2018-11-30 16:37:19  
End at: 2018-11-30 16:37:49  
Local clock offset: 3.229 ms  
Remote clock offset: -16.733 ms

# Below is generated by plot.py at 2018-11-30 17:25:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.80 Mbit/s  
95th percentile per-packet one-way delay: 34.857 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 54.42 Mbit/s  
95th percentile per-packet one-way delay: 35.293 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 36.17 Mbit/s  
95th percentile per-packet one-way delay: 32.805 ms  
Loss rate: 0.18%  
-- Flow 3:  
Average throughput: 46.47 Mbit/s  
95th percentile per-packet one-way delay: 35.911 ms  
Loss rate: 0.34%

#### Run 4: Report of QUIC Cubic — Data Link

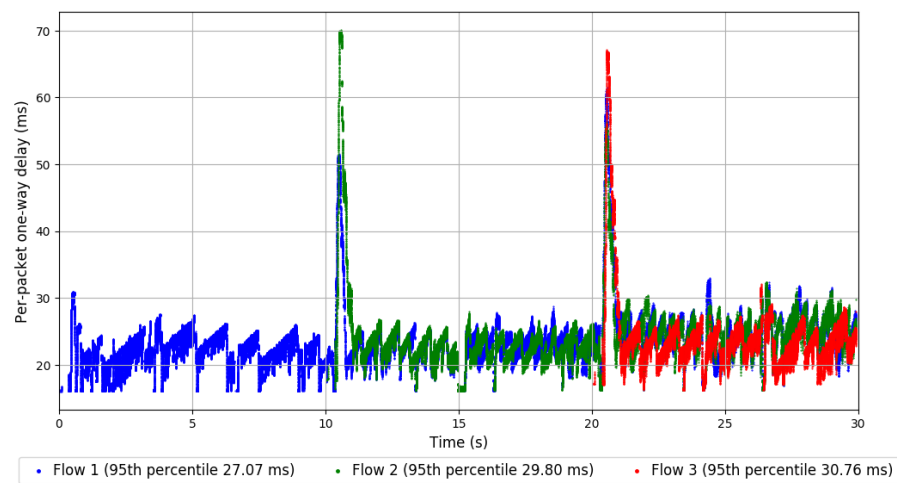
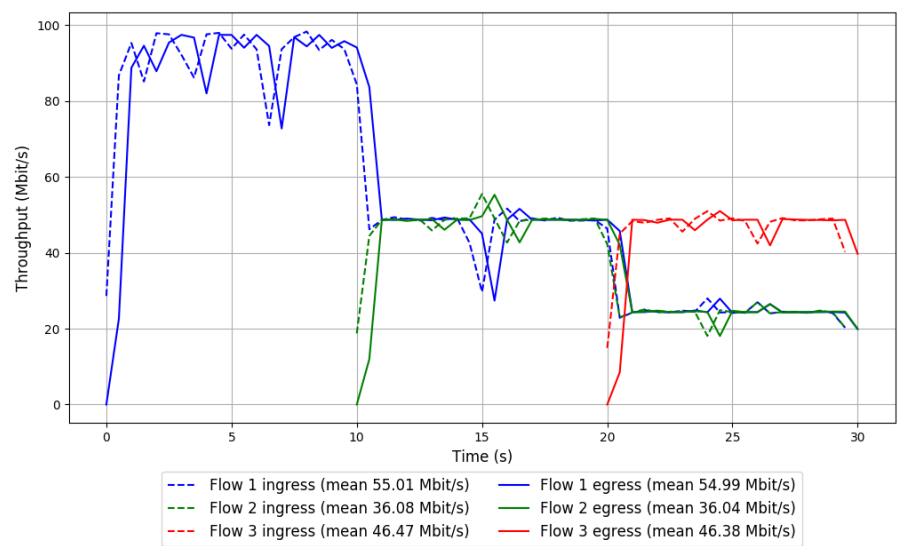


Run 5: Statistics of QUIC Cubic

Start at: 2018-11-30 17:00:11  
End at: 2018-11-30 17:00:41  
Local clock offset: -6.797 ms  
Remote clock offset: -17.401 ms

# Below is generated by plot.py at 2018-11-30 17:26:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.28 Mbit/s  
95th percentile per-packet one-way delay: 28.117 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 54.99 Mbit/s  
95th percentile per-packet one-way delay: 27.070 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 36.04 Mbit/s  
95th percentile per-packet one-way delay: 29.801 ms  
Loss rate: 0.19%  
-- Flow 3:  
Average throughput: 46.38 Mbit/s  
95th percentile per-packet one-way delay: 30.761 ms  
Loss rate: 0.39%

Run 5: Report of QUIC Cubic — Data Link



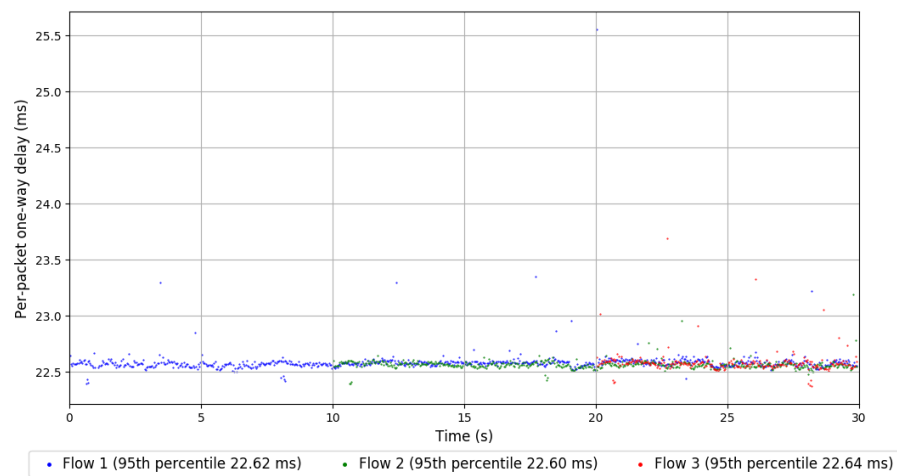
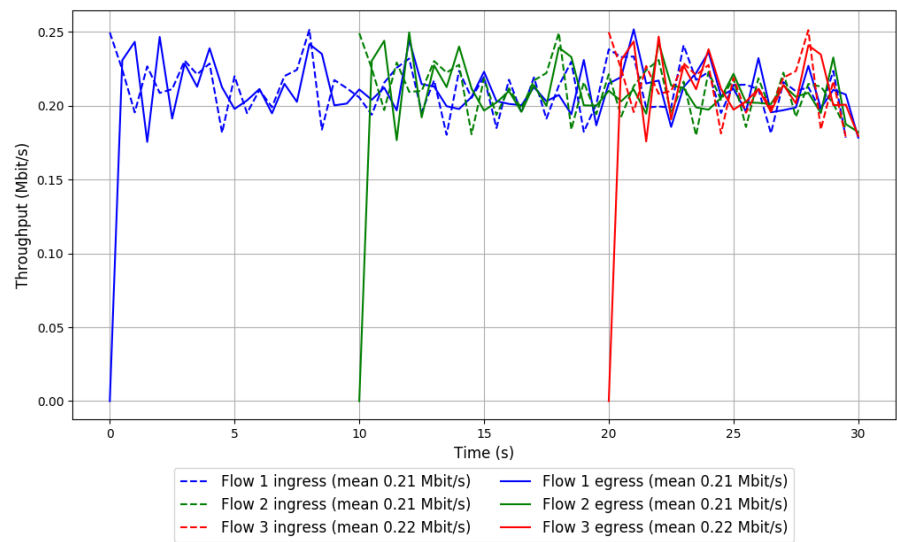


```
Run 1: Statistics of SReAM

Start at: 2018-11-30 15:40:41
End at: 2018-11-30 15:41:11
Local clock offset: 2.284 ms
Remote clock offset: -16.484 ms

# Below is generated by plot.py at 2018-11-30 17:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 22.621 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 22.624 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 22.601 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 22.637 ms
Loss rate: 0.35%
```

Run 1: Report of SCReAM — Data Link

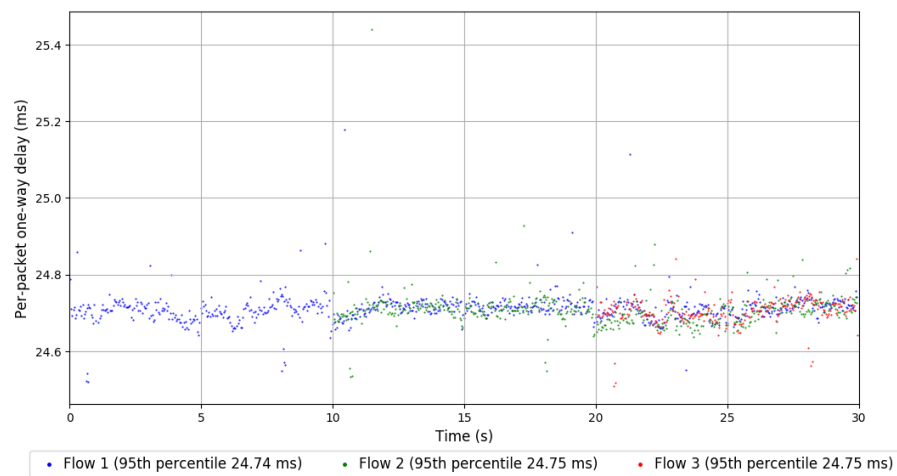
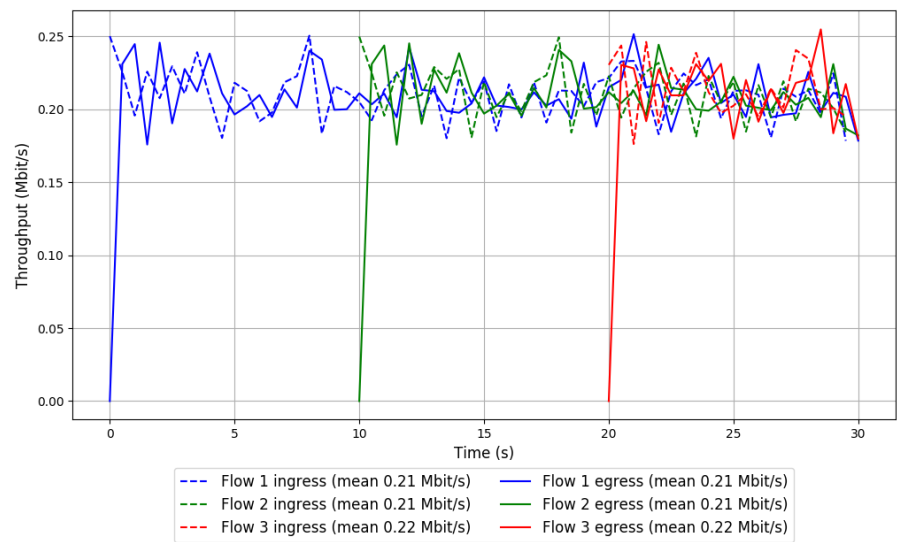


Run 2: Statistics of SReAM

Start at: 2018-11-30 16:03:27  
End at: 2018-11-30 16:03:57  
Local clock offset: 2.699 ms  
Remote clock offset: -16.339 ms

# Below is generated by plot.py at 2018-11-30 17:26:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.42 Mbit/s  
95th percentile per-packet one-way delay: 24.745 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 24.743 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 24.745 ms  
Loss rate: 0.19%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 24.745 ms  
Loss rate: 0.36%

Run 2: Report of SCReAM — Data Link

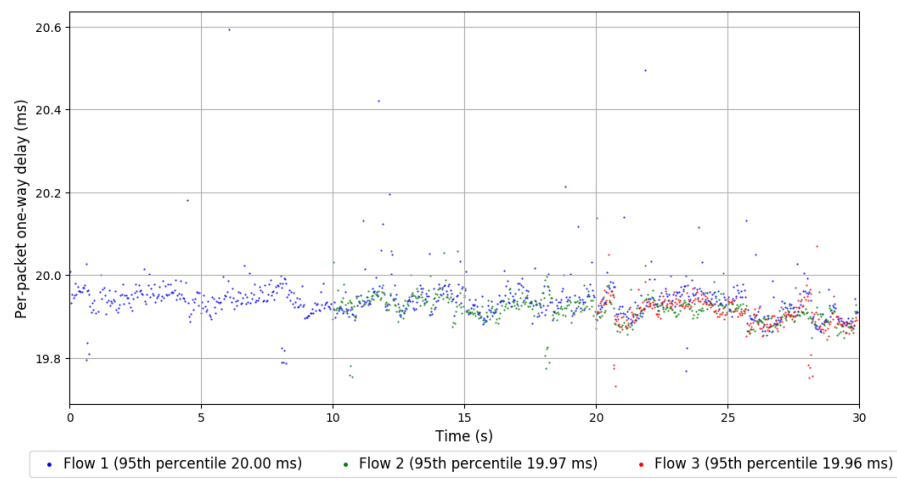
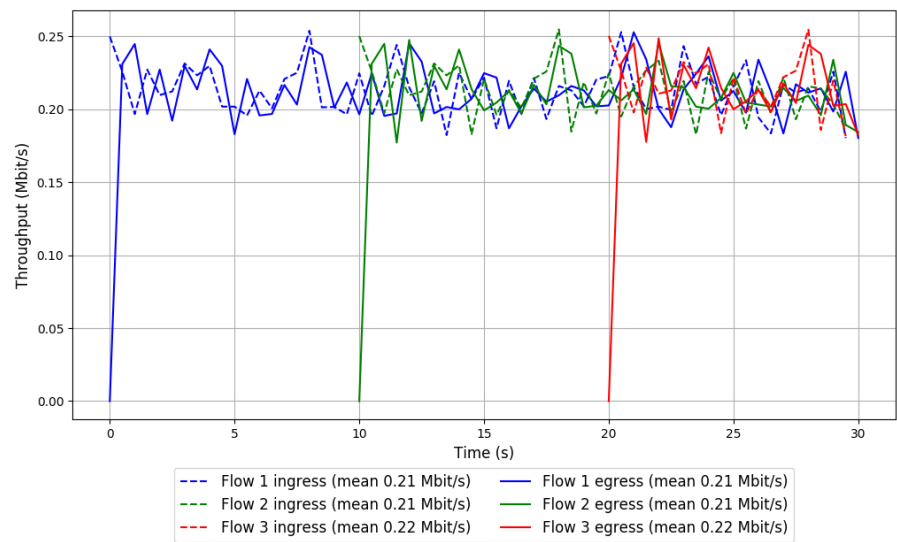


Run 3: Statistics of SReAM

Start at: 2018-11-30 16:26:14  
End at: 2018-11-30 16:26:44  
Local clock offset: 1.972 ms  
Remote clock offset: -17.483 ms

# Below is generated by plot.py at 2018-11-30 17:26:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 19.981 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 19.999 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 19.966 ms  
Loss rate: 0.19%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 19.958 ms  
Loss rate: 0.36%

Run 3: Report of SReAM — Data Link

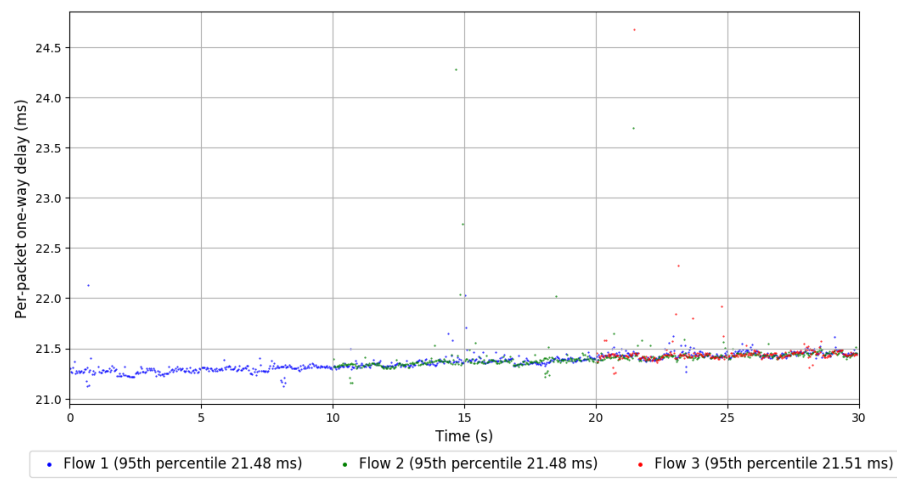
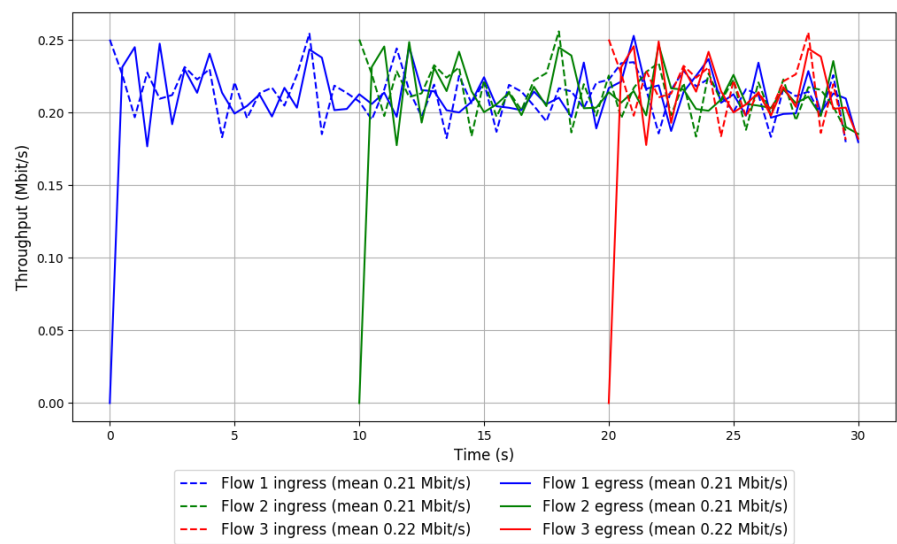


Run 4: Statistics of SReAM

Start at: 2018-11-30 16:49:21  
End at: 2018-11-30 16:49:51  
Local clock offset: 1.343 ms  
Remote clock offset: -17.333 ms

# Below is generated by plot.py at 2018-11-30 17:26:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 21.486 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 21.481 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 21.478 ms  
Loss rate: 0.19%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 21.511 ms  
Loss rate: 0.36%

Run 4: Report of SReAM — Data Link





Run 5: Statistics of SReAM

Start at: 2018-11-30 17:12:23

End at: 2018-11-30 17:12:53

Local clock offset: -4.033 ms

Remote clock offset: -17.7 ms

# Below is generated by plot.py at 2018-11-30 17:26:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 20.412 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 20.402 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 20.409 ms

Loss rate: 0.19%

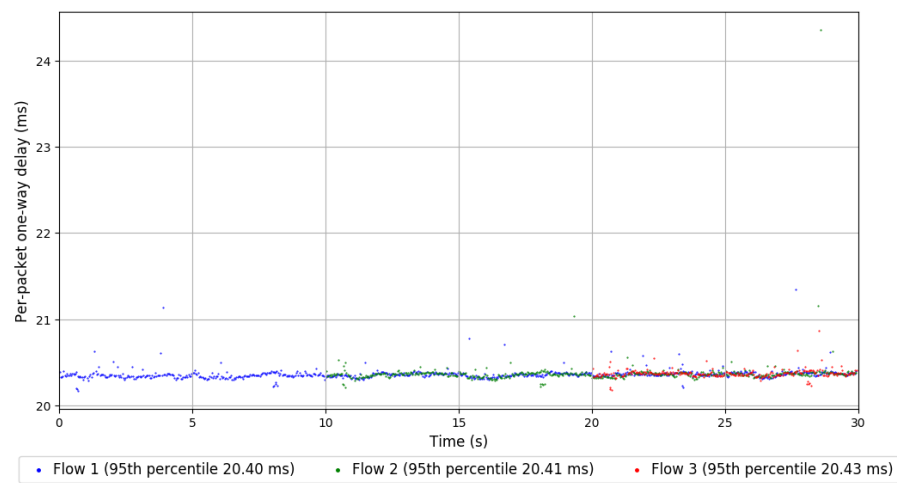
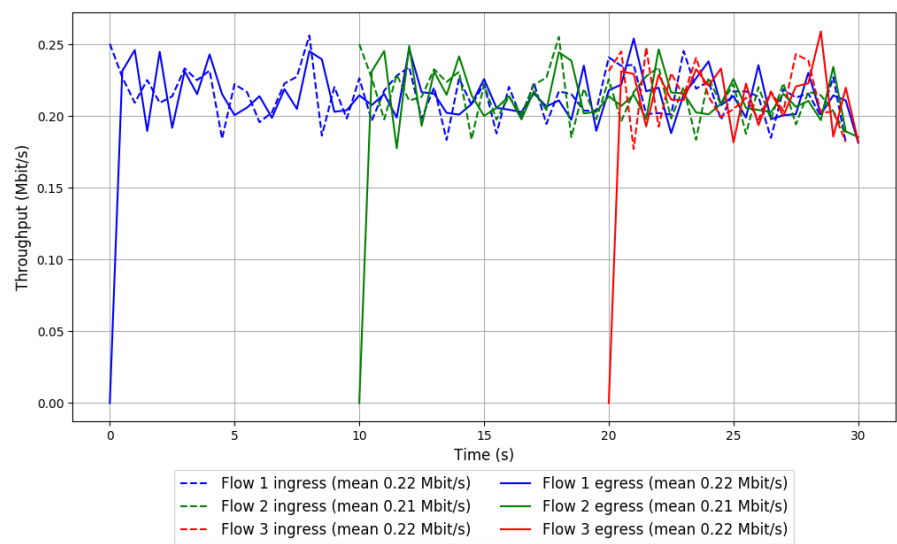
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 20.429 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

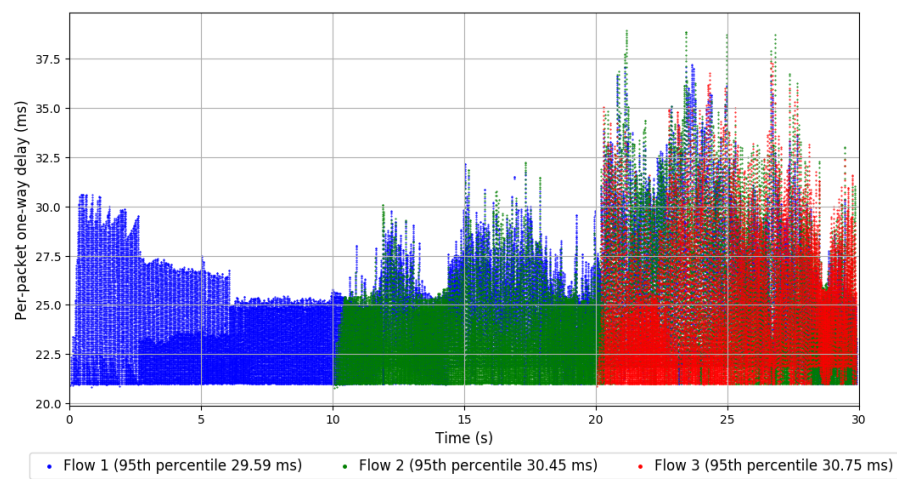
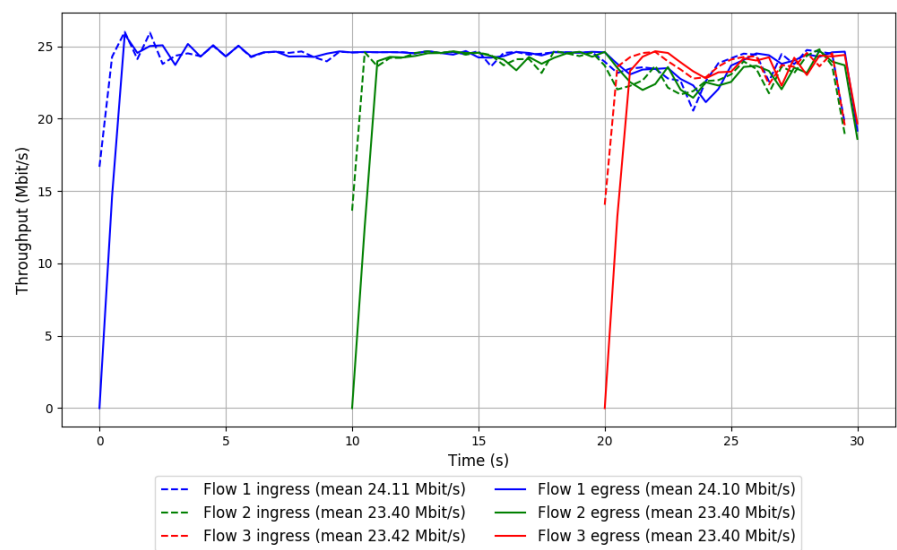


Run 1: Statistics of Sprout

Start at: 2018-11-30 15:41:47  
End at: 2018-11-30 15:42:17  
Local clock offset: 1.63 ms  
Remote clock offset: -15.564 ms

# Below is generated by plot.py at 2018-11-30 17:26:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 47.37 Mbit/s  
95th percentile per-packet one-way delay: 30.094 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 24.10 Mbit/s  
95th percentile per-packet one-way delay: 29.588 ms  
Loss rate: 0.10%  
-- Flow 2:  
Average throughput: 23.40 Mbit/s  
95th percentile per-packet one-way delay: 30.455 ms  
Loss rate: 0.21%  
-- Flow 3:  
Average throughput: 23.40 Mbit/s  
95th percentile per-packet one-way delay: 30.746 ms  
Loss rate: 0.23%

Run 1: Report of Sprout — Data Link

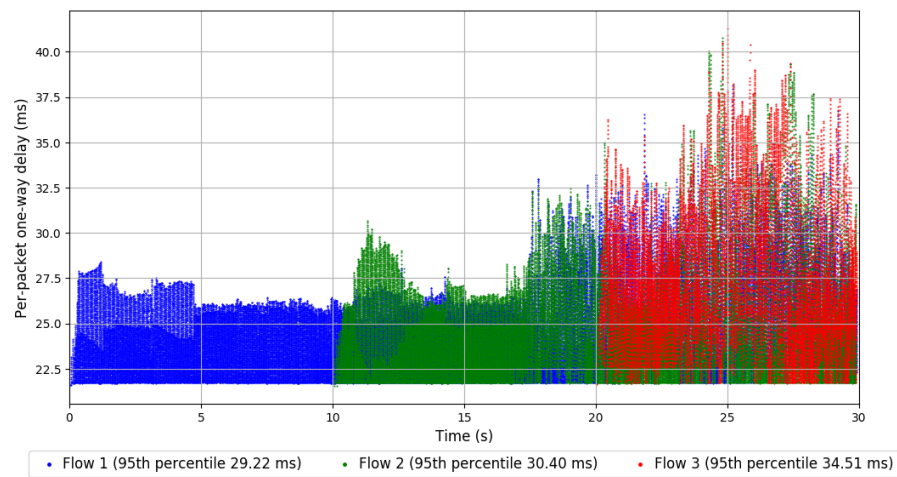
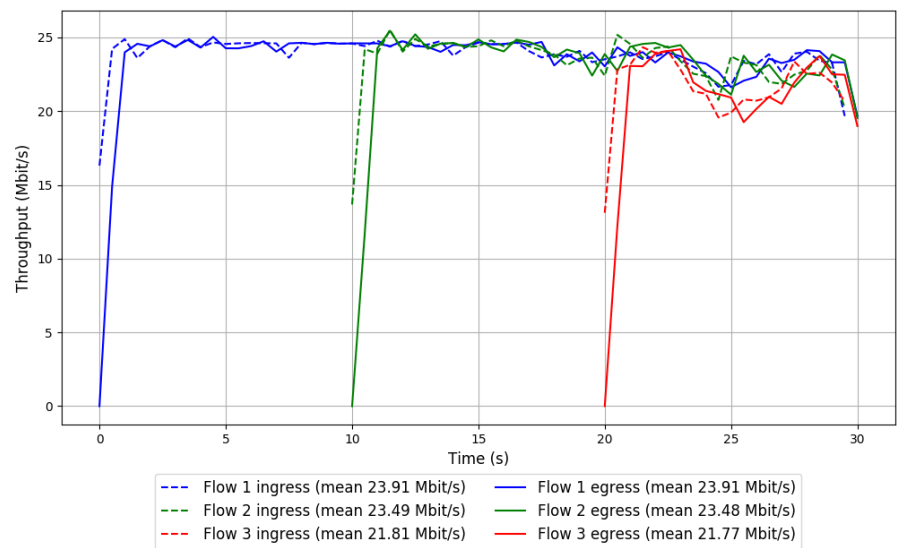


## Run 2: Statistics of Sprout

Start at: 2018-11-30 16:04:33  
End at: 2018-11-30 16:05:03  
Local clock offset: 0.107 ms  
Remote clock offset: -15.918 ms

```
# Below is generated by plot.py at 2018-11-30 17:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.70 Mbit/s
95th percentile per-packet one-way delay: 30.902 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 23.91 Mbit/s
95th percentile per-packet one-way delay: 29.216 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 23.48 Mbit/s
95th percentile per-packet one-way delay: 30.403 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 21.77 Mbit/s
95th percentile per-packet one-way delay: 34.505 ms
Loss rate: 0.46%
```

Run 2: Report of Sprout — Data Link

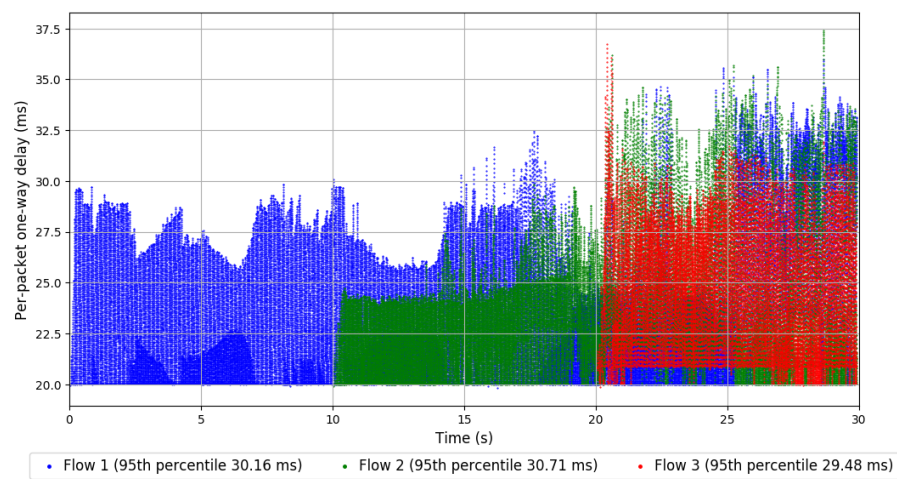
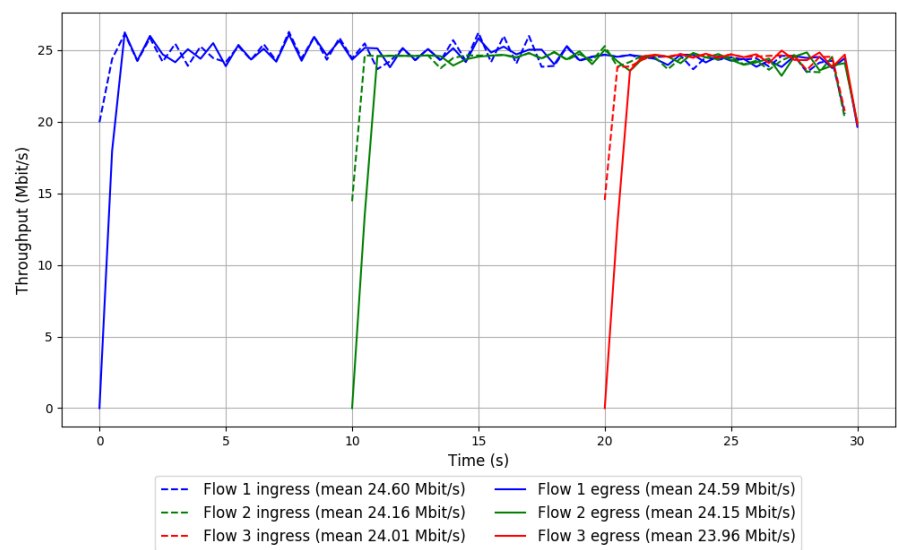


### Run 3: Statistics of Sprout

Start at: 2018-11-30 16:27:21  
End at: 2018-11-30 16:27:51  
Local clock offset: 2.466 ms  
Remote clock offset: -17.106 ms

```
# Below is generated by plot.py at 2018-11-30 17:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.56 Mbit/s
95th percentile per-packet one-way delay: 30.167 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 24.59 Mbit/s
95th percentile per-packet one-way delay: 30.161 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 24.15 Mbit/s
95th percentile per-packet one-way delay: 30.706 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 29.478 ms
Loss rate: 0.39%
```

Run 3: Report of Sprout — Data Link



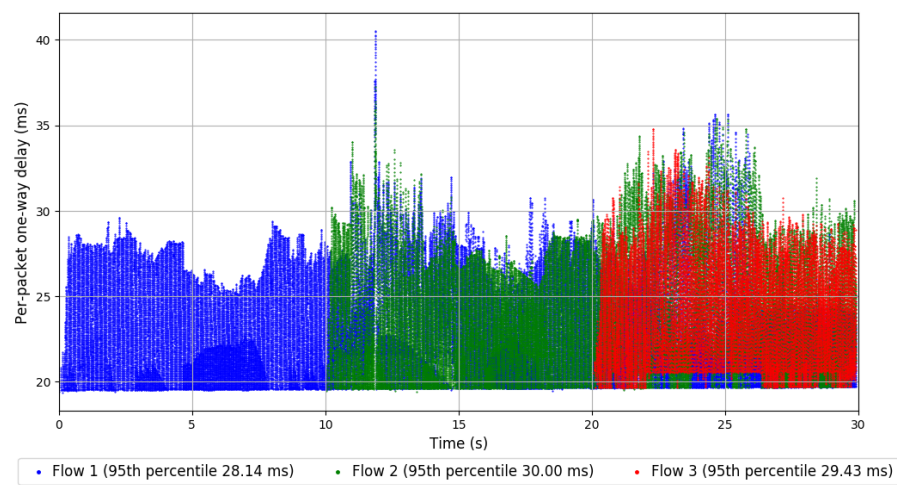
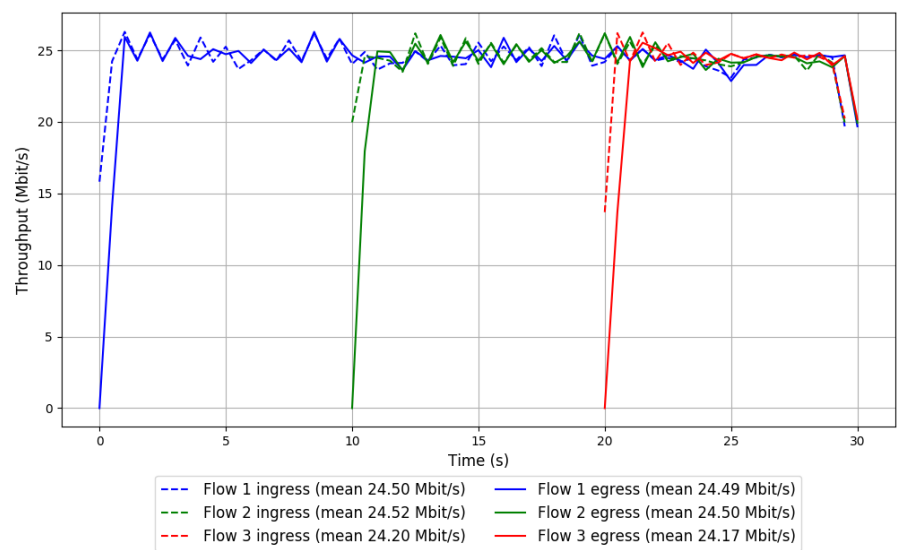


#### Run 4: Statistics of Sprout

Start at: 2018-11-30 16:50:27  
End at: 2018-11-30 16:50:57  
Local clock offset: -0.626 ms  
Remote clock offset: -17.069 ms

```
# Below is generated by plot.py at 2018-11-30 17:26:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.76 Mbit/s
95th percentile per-packet one-way delay: 29.118 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 24.49 Mbit/s
95th percentile per-packet one-way delay: 28.143 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 30.003 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 24.17 Mbit/s
95th percentile per-packet one-way delay: 29.428 ms
Loss rate: 0.25%
```

Run 4: Report of Sprout — Data Link

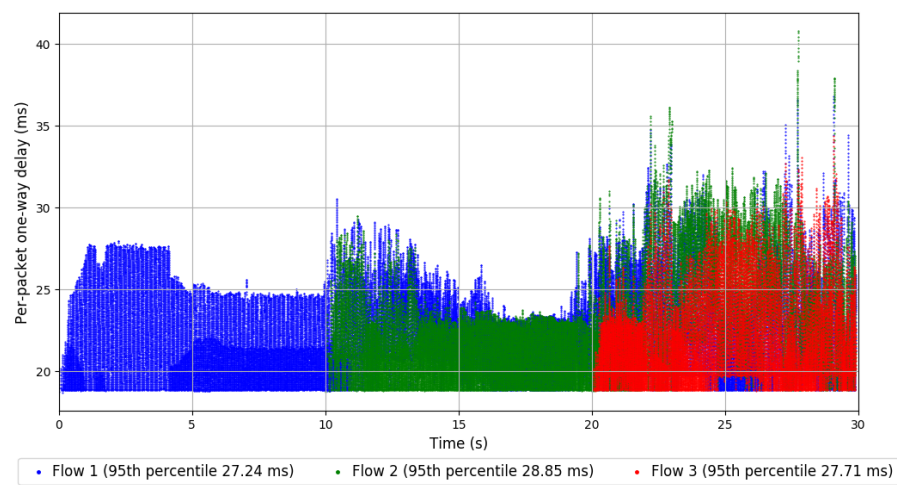
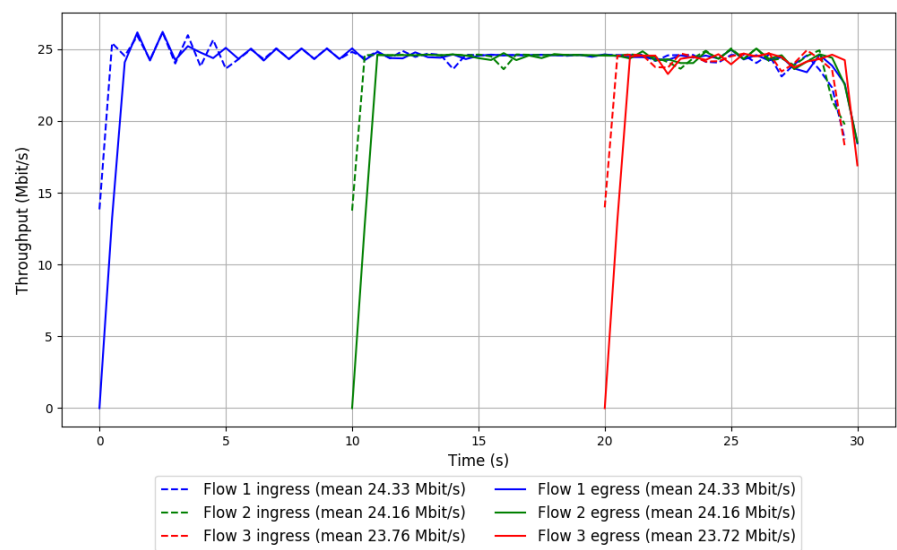


Run 5: Statistics of Sprout

Start at: 2018-11-30 17:13:30  
End at: 2018-11-30 17:14:00  
Local clock offset: -5.602 ms  
Remote clock offset: -17.711 ms

# Below is generated by plot.py at 2018-11-30 17:26:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 48.22 Mbit/s  
95th percentile per-packet one-way delay: 27.927 ms  
Loss rate: 0.15%  
-- Flow 1:  
Average throughput: 24.33 Mbit/s  
95th percentile per-packet one-way delay: 27.241 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 24.16 Mbit/s  
95th percentile per-packet one-way delay: 28.853 ms  
Loss rate: 0.21%  
-- Flow 3:  
Average throughput: 23.72 Mbit/s  
95th percentile per-packet one-way delay: 27.709 ms  
Loss rate: 0.36%

Run 5: Report of Sprout — Data Link

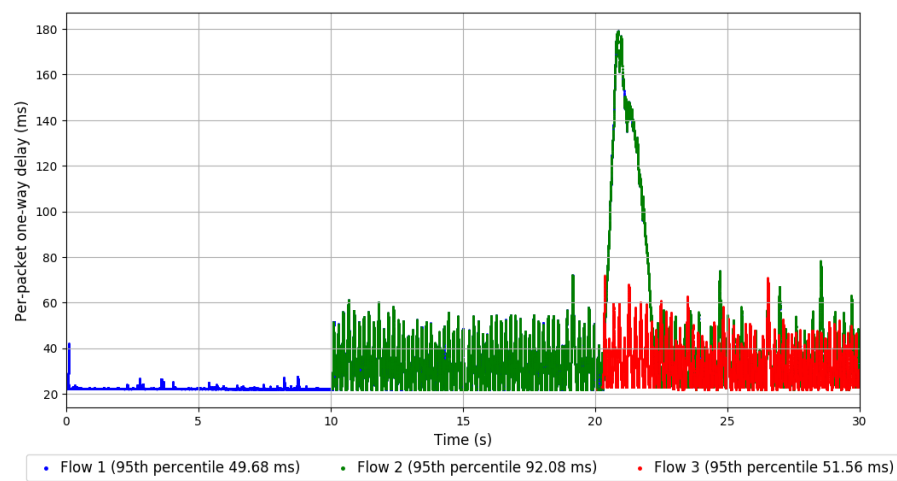
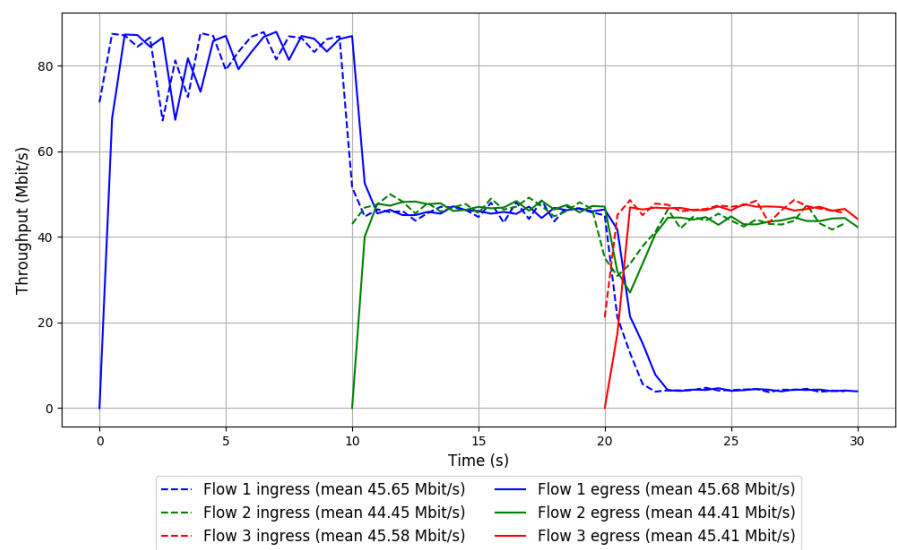


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-11-30 15:20:01
End at: 2018-11-30 15:20:31
Local clock offset: 2.113 ms
Remote clock offset: -14.581 ms

# Below is generated by plot.py at 2018-11-30 17:27:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.32 Mbit/s
95th percentile per-packet one-way delay: 54.472 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 45.68 Mbit/s
95th percentile per-packet one-way delay: 49.676 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 44.41 Mbit/s
95th percentile per-packet one-way delay: 92.080 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 45.41 Mbit/s
95th percentile per-packet one-way delay: 51.561 ms
Loss rate: 0.65%
```

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

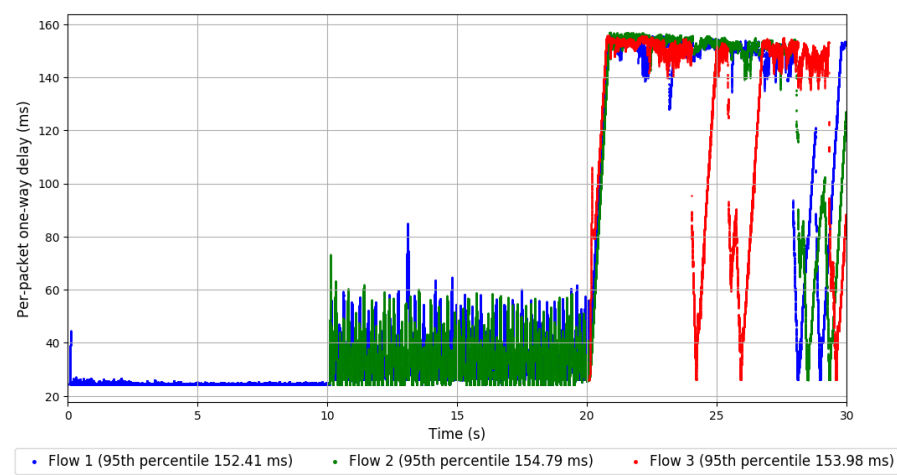
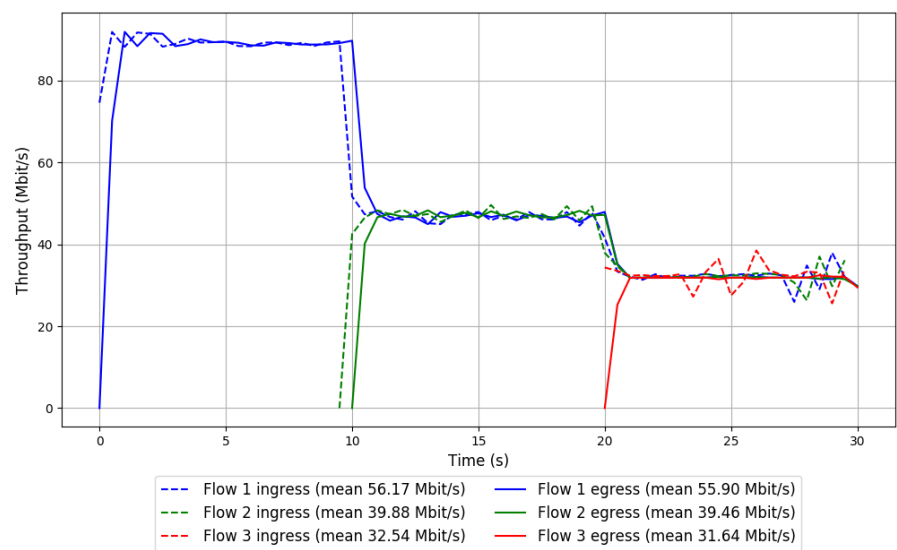


Run 2: Statistics of TaoVA-100x

Start at: 2018-11-30 15:42:56  
End at: 2018-11-30 15:43:26  
Local clock offset: 3.798 ms  
Remote clock offset: -16.871 ms

# Below is generated by plot.py at 2018-11-30 17:27:39  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.67 Mbit/s  
95th percentile per-packet one-way delay: 153.715 ms  
Loss rate: 1.03%  
-- Flow 1:  
Average throughput: 55.90 Mbit/s  
95th percentile per-packet one-way delay: 152.406 ms  
Loss rate: 0.56%  
-- Flow 2:  
Average throughput: 39.46 Mbit/s  
95th percentile per-packet one-way delay: 154.788 ms  
Loss rate: 1.20%  
-- Flow 3:  
Average throughput: 31.64 Mbit/s  
95th percentile per-packet one-way delay: 153.982 ms  
Loss rate: 3.05%

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



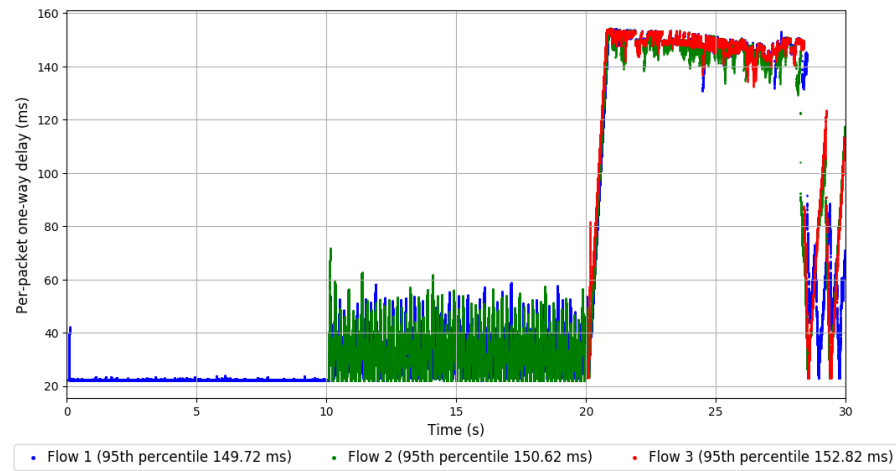
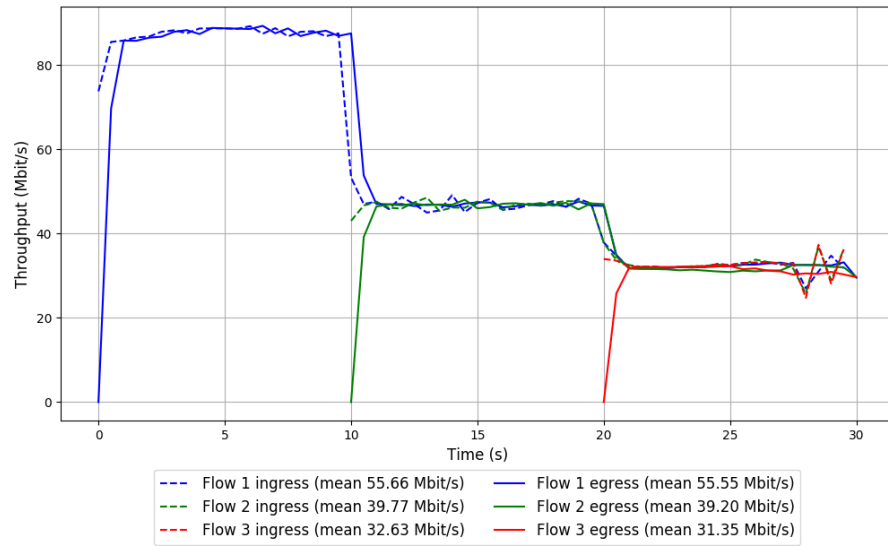


Run 3: Statistics of TaoVA-100x

Start at: 2018-11-30 16:05:41  
End at: 2018-11-30 16:06:11  
Local clock offset: 1.201 ms  
Remote clock offset: -15.32 ms

# Below is generated by plot.py at 2018-11-30 17:27:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.04 Mbit/s  
95th percentile per-packet one-way delay: 150.937 ms  
Loss rate: 1.11%  
-- Flow 1:  
Average throughput: 55.55 Mbit/s  
95th percentile per-packet one-way delay: 149.722 ms  
Loss rate: 0.29%  
-- Flow 2:  
Average throughput: 39.20 Mbit/s  
95th percentile per-packet one-way delay: 150.616 ms  
Loss rate: 1.58%  
-- Flow 3:  
Average throughput: 31.35 Mbit/s  
95th percentile per-packet one-way delay: 152.823 ms  
Loss rate: 4.20%

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

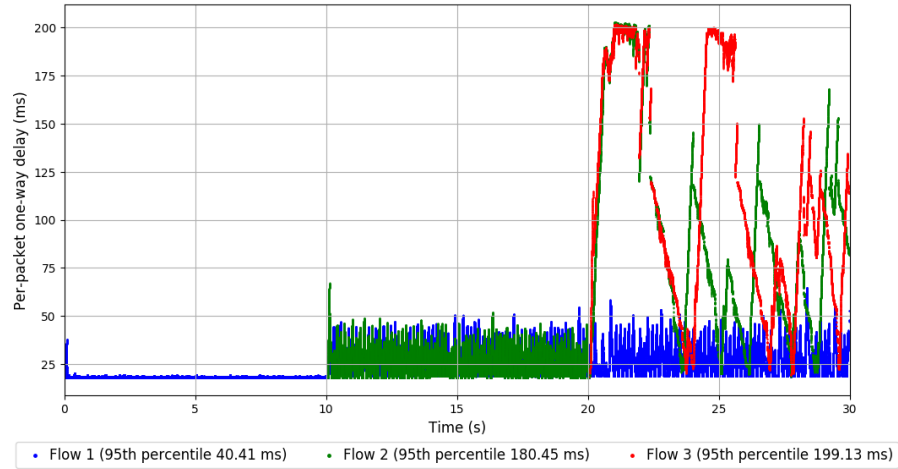
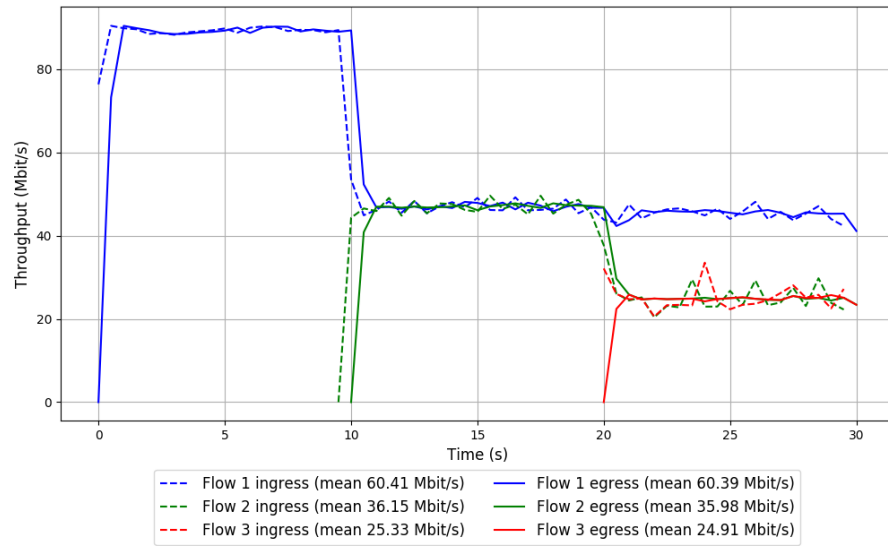


Run 4: Statistics of TaoVA-100x

Start at: 2018-11-30 16:28:31  
End at: 2018-11-30 16:29:01  
Local clock offset: 0.879 ms  
Remote clock offset: -16.792 ms

# Below is generated by plot.py at 2018-11-30 17:27:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.62 Mbit/s  
95th percentile per-packet one-way delay: 132.133 ms  
Loss rate: 0.38%  
-- Flow 1:  
Average throughput: 60.39 Mbit/s  
95th percentile per-packet one-way delay: 40.412 ms  
Loss rate: 0.09%  
-- Flow 2:  
Average throughput: 35.98 Mbit/s  
95th percentile per-packet one-way delay: 180.452 ms  
Loss rate: 0.56%  
-- Flow 3:  
Average throughput: 24.91 Mbit/s  
95th percentile per-packet one-way delay: 199.130 ms  
Loss rate: 1.89%

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

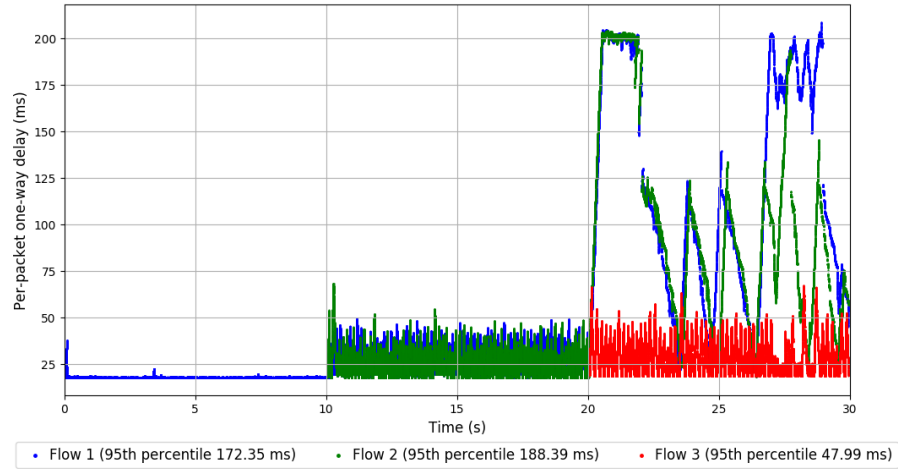
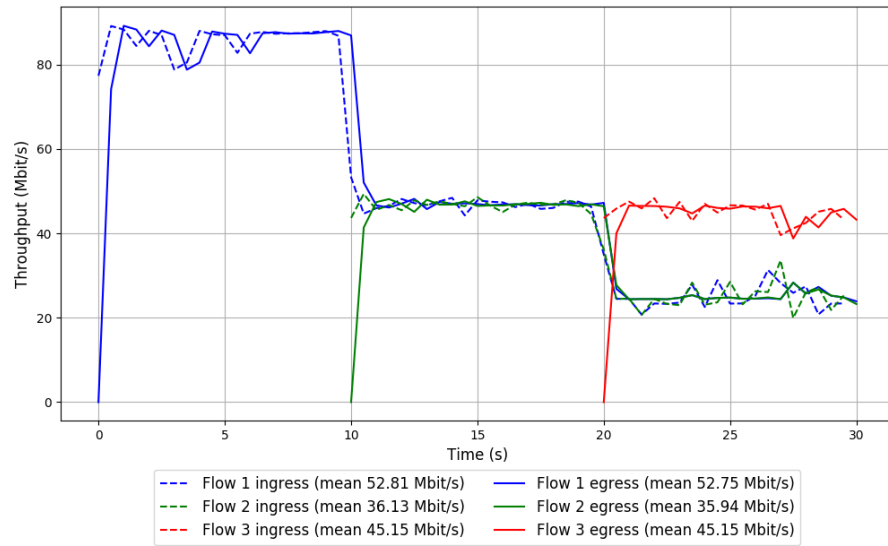


Run 5: Statistics of TaoVA-100x

Start at: 2018-11-30 16:51:36  
End at: 2018-11-30 16:52:06  
Local clock offset: -3.164 ms  
Remote clock offset: -17.648 ms

# Below is generated by plot.py at 2018-11-30 17:27:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.68 Mbit/s  
95th percentile per-packet one-way delay: 158.935 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 52.75 Mbit/s  
95th percentile per-packet one-way delay: 172.348 ms  
Loss rate: 0.21%  
-- Flow 2:  
Average throughput: 35.94 Mbit/s  
95th percentile per-packet one-way delay: 188.389 ms  
Loss rate: 0.65%  
-- Flow 3:  
Average throughput: 45.15 Mbit/s  
95th percentile per-packet one-way delay: 47.995 ms  
Loss rate: 0.26%

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

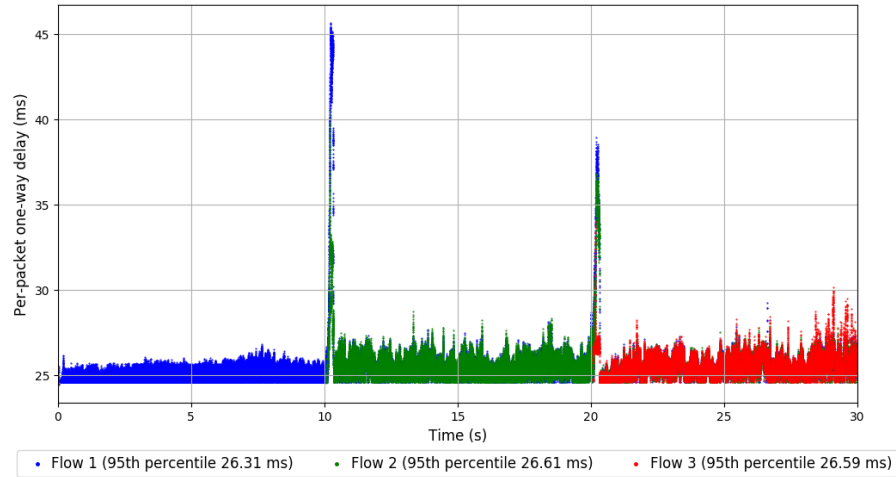
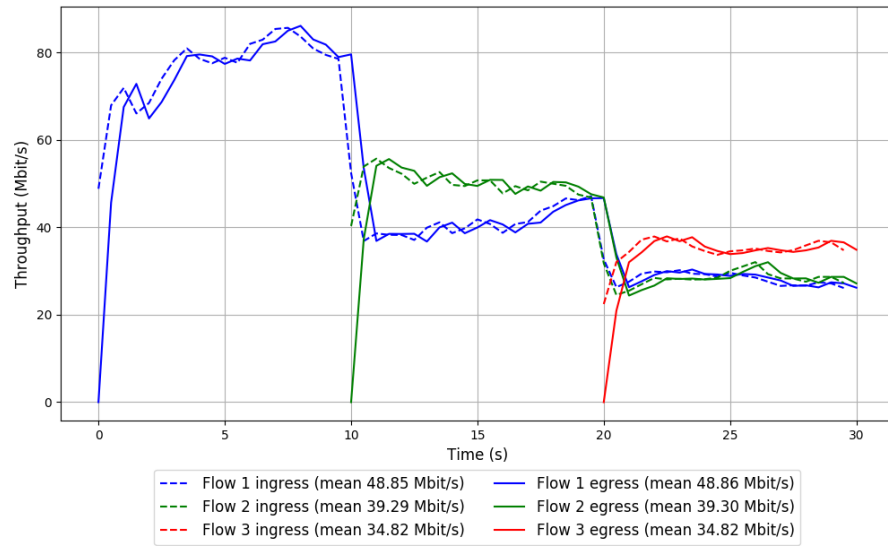


Run 1: Statistics of TCP Vegas

Start at: 2018-11-30 15:35:50  
End at: 2018-11-30 15:36:20  
Local clock offset: 3.768 ms  
Remote clock offset: -17.073 ms

# Below is generated by plot.py at 2018-11-30 17:27:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.59 Mbit/s  
95th percentile per-packet one-way delay: 26.472 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 48.86 Mbit/s  
95th percentile per-packet one-way delay: 26.314 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 39.30 Mbit/s  
95th percentile per-packet one-way delay: 26.612 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 34.82 Mbit/s  
95th percentile per-packet one-way delay: 26.591 ms  
Loss rate: 0.27%

# Run 1: Report of TCP Vegas — Data Link



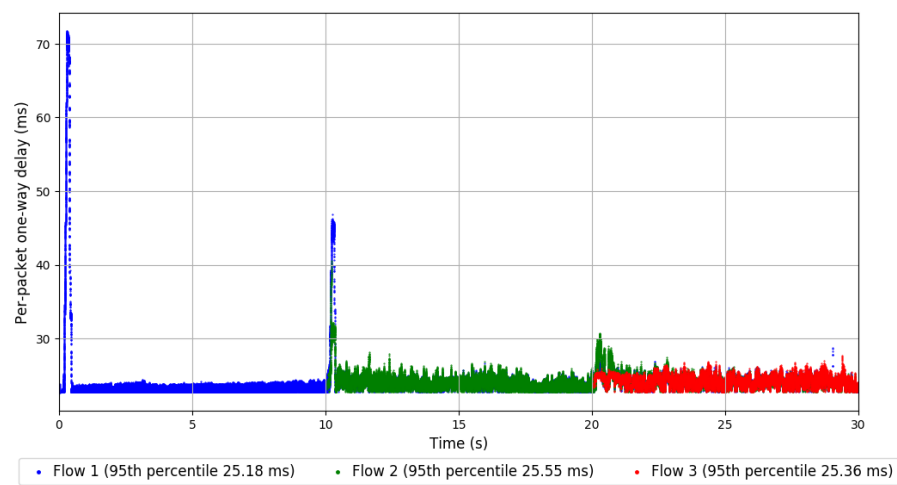
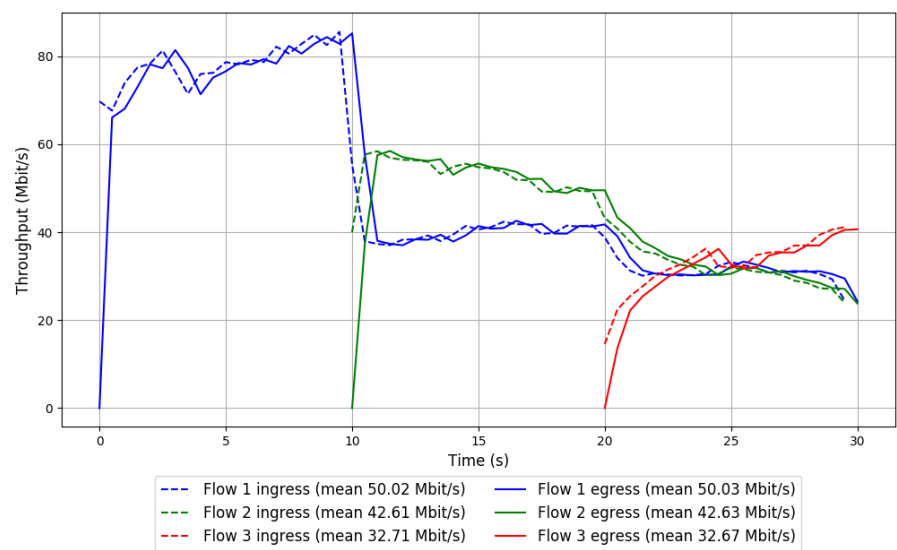


Run 2: Statistics of TCP Vegas

Start at: 2018-11-30 15:58:40  
End at: 2018-11-30 15:59:10  
Local clock offset: 0.731 ms  
Remote clock offset: -16.64 ms

# Below is generated by plot.py at 2018-11-30 17:27:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.26 Mbit/s  
95th percentile per-packet one-way delay: 25.341 ms  
Loss rate: 0.11%  
-- Flow 1:  
Average throughput: 50.03 Mbit/s  
95th percentile per-packet one-way delay: 25.180 ms  
Loss rate: 0.07%  
-- Flow 2:  
Average throughput: 42.63 Mbit/s  
95th percentile per-packet one-way delay: 25.548 ms  
Loss rate: 0.08%  
-- Flow 3:  
Average throughput: 32.67 Mbit/s  
95th percentile per-packet one-way delay: 25.355 ms  
Loss rate: 0.38%

Run 2: Report of TCP Vegas — Data Link

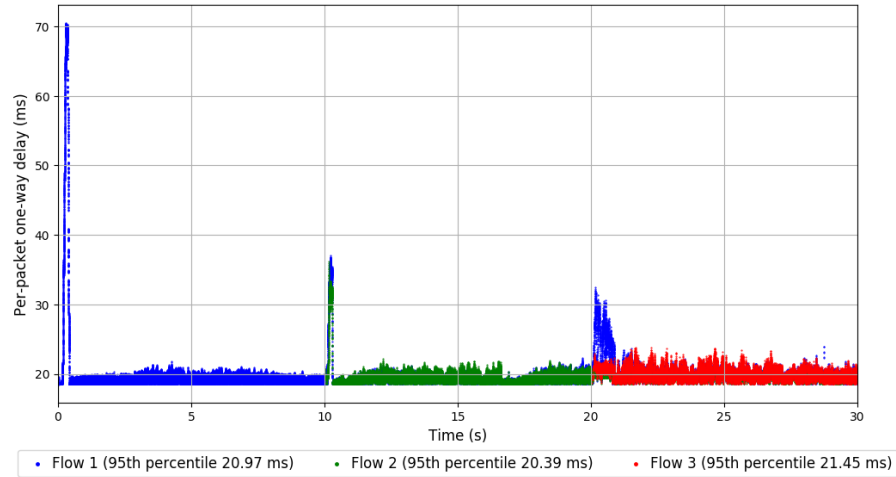
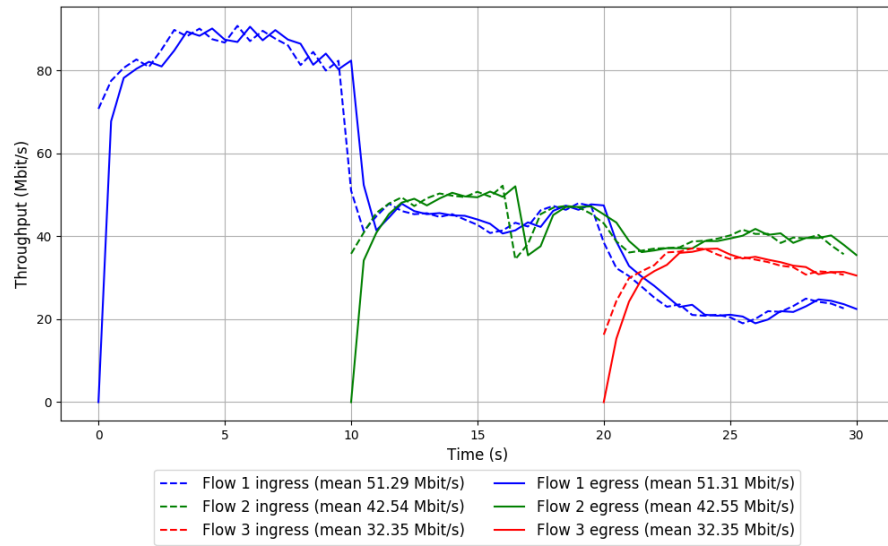


Run 3: Statistics of TCP Vegas

Start at: 2018-11-30 16:21:27  
End at: 2018-11-30 16:21:57  
Local clock offset: 1.679 ms  
Remote clock offset: -16.05 ms

# Below is generated by plot.py at 2018-11-30 17:27:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 90.37 Mbit/s  
95th percentile per-packet one-way delay: 20.917 ms  
Loss rate: 0.08%  
-- Flow 1:  
Average throughput: 51.31 Mbit/s  
95th percentile per-packet one-way delay: 20.968 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 42.55 Mbit/s  
95th percentile per-packet one-way delay: 20.385 ms  
Loss rate: 0.10%  
-- Flow 3:  
Average throughput: 32.35 Mbit/s  
95th percentile per-packet one-way delay: 21.449 ms  
Loss rate: 0.23%

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

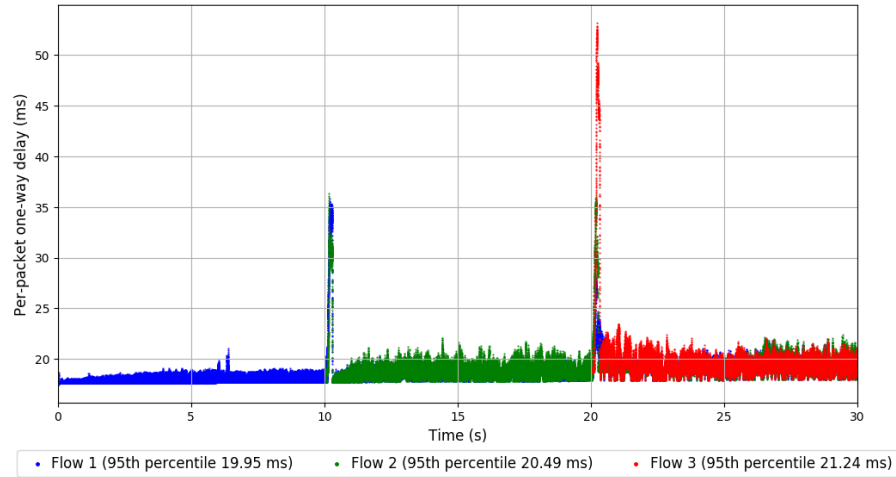
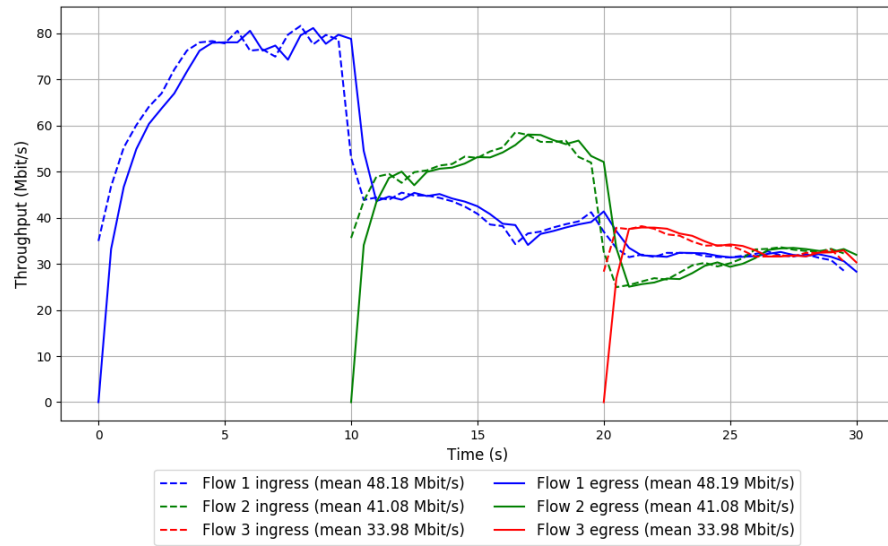


Run 4: Statistics of TCP Vegas

Start at: 2018-11-30 16:44:28  
End at: 2018-11-30 16:44:58  
Local clock offset: 1.179 ms  
Remote clock offset: -16.871 ms

# Below is generated by plot.py at 2018-11-30 17:27:48  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 86.81 Mbit/s  
95th percentile per-packet one-way delay: 20.411 ms  
Loss rate: 0.09%  
-- Flow 1:  
Average throughput: 48.19 Mbit/s  
95th percentile per-packet one-way delay: 19.947 ms  
Loss rate: 0.05%  
-- Flow 2:  
Average throughput: 41.08 Mbit/s  
95th percentile per-packet one-way delay: 20.489 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 33.98 Mbit/s  
95th percentile per-packet one-way delay: 21.244 ms  
Loss rate: 0.23%

#### Run 4: Report of TCP Vegas — Data Link

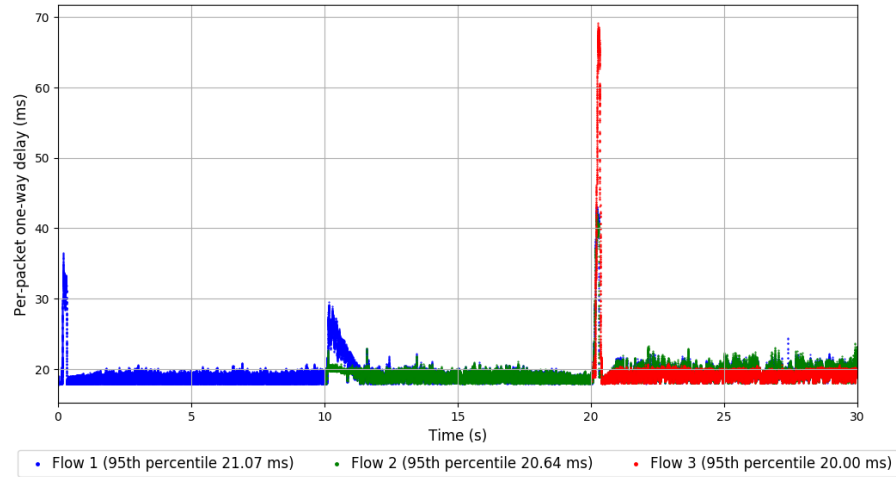
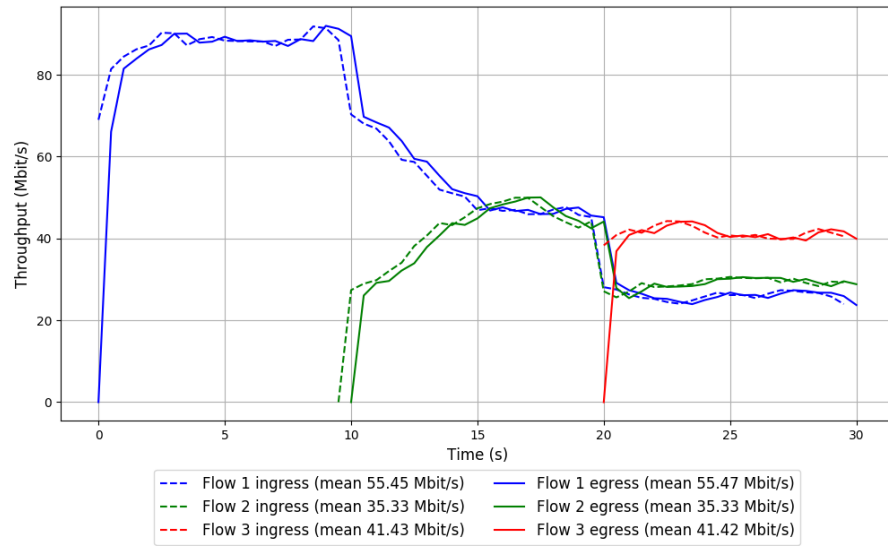


Run 5: Statistics of TCP Vegas

Start at: 2018-11-30 17:07:29  
End at: 2018-11-30 17:07:59  
Local clock offset: -5.312 ms  
Remote clock offset: -16.859 ms

```
# Below is generated by plot.py at 2018-11-30 17:28:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.77 Mbit/s
95th percentile per-packet one-way delay: 20.740 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 55.47 Mbit/s
95th percentile per-packet one-way delay: 21.074 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 20.638 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 41.42 Mbit/s
95th percentile per-packet one-way delay: 20.005 ms
Loss rate: 0.25%
```

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



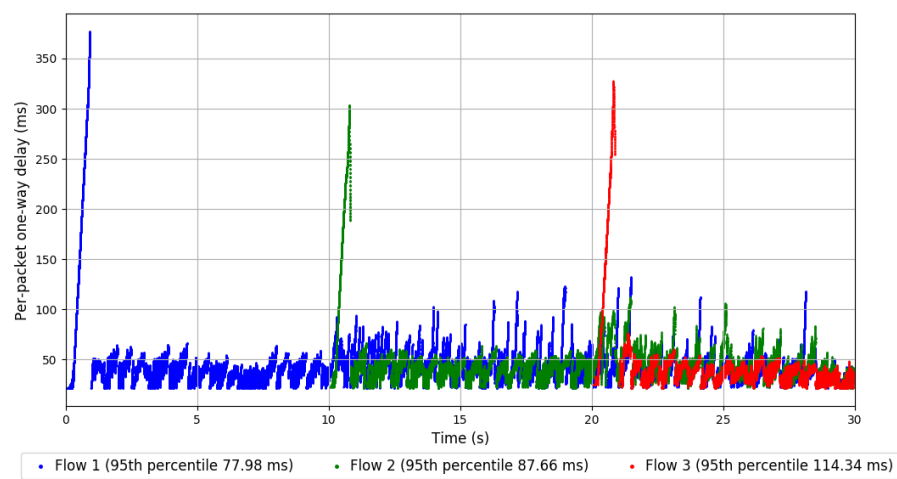
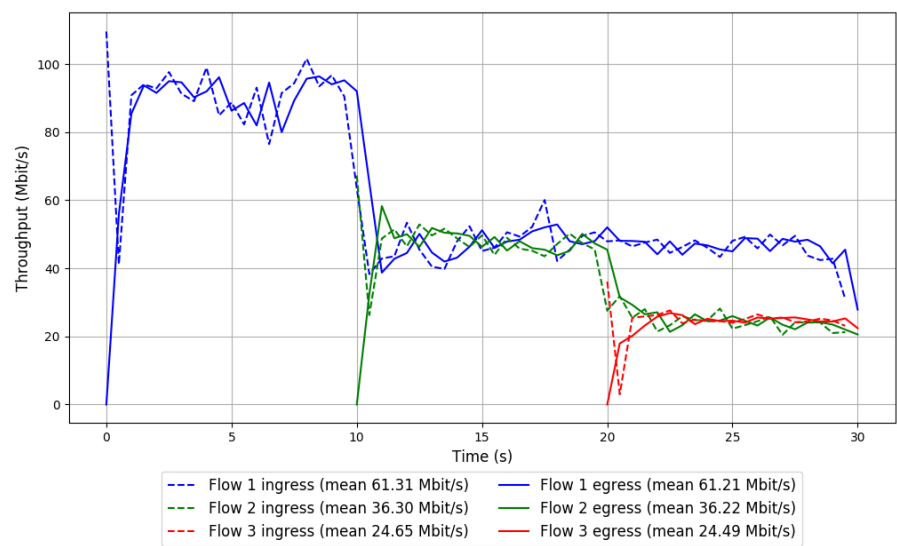


Run 1: Statistics of Verus

Start at: 2018-11-30 15:32:10  
End at: 2018-11-30 15:32:40  
Local clock offset: 1.869 ms  
Remote clock offset: -16.262 ms

# Below is generated by plot.py at 2018-11-30 17:28:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 93.40 Mbit/s  
95th percentile per-packet one-way delay: 81.166 ms  
Loss rate: 0.36%  
-- Flow 1:  
Average throughput: 61.21 Mbit/s  
95th percentile per-packet one-way delay: 77.980 ms  
Loss rate: 0.28%  
-- Flow 2:  
Average throughput: 36.22 Mbit/s  
95th percentile per-packet one-way delay: 87.662 ms  
Loss rate: 0.37%  
-- Flow 3:  
Average throughput: 24.49 Mbit/s  
95th percentile per-packet one-way delay: 114.344 ms  
Loss rate: 0.96%

Run 1: Report of Verus — Data Link

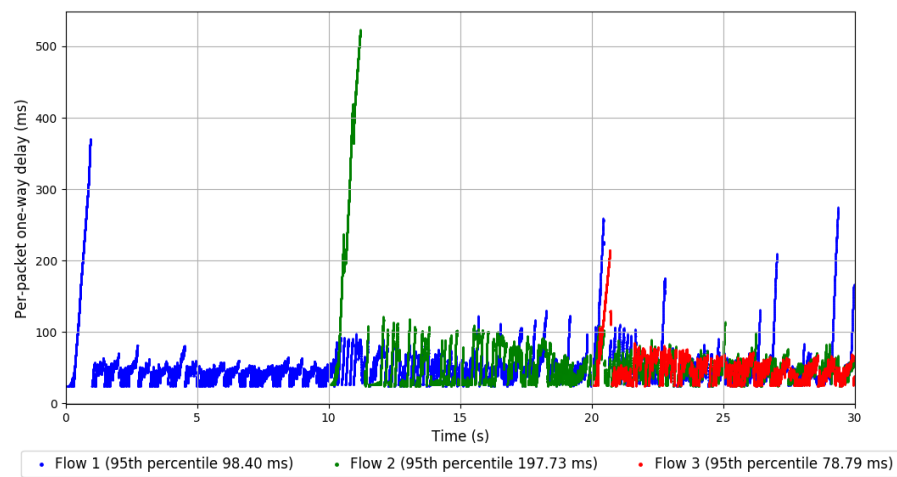
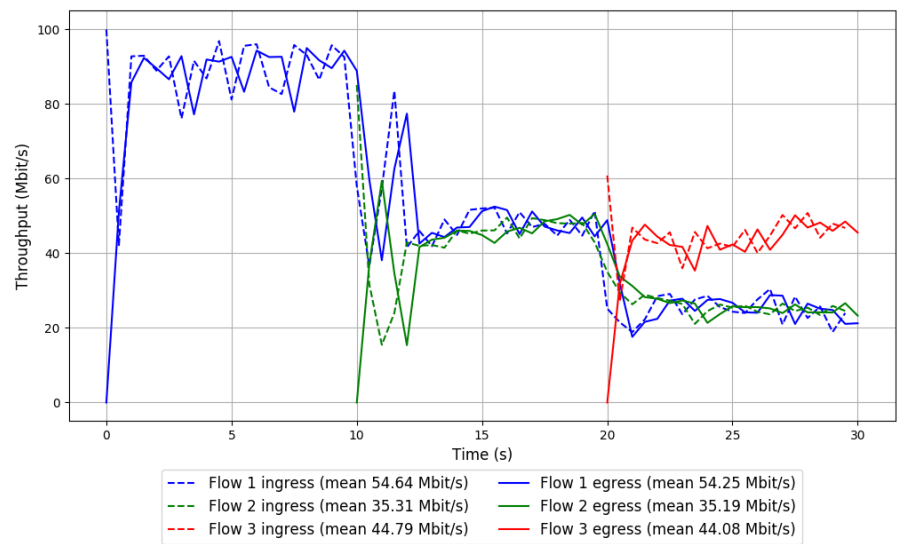


Run 2: Statistics of Verus

Start at: 2018-11-30 15:55:02  
End at: 2018-11-30 15:55:32  
Local clock offset: 2.81 ms  
Remote clock offset: -15.651 ms

# Below is generated by plot.py at 2018-11-30 17:28:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.28 Mbit/s  
95th percentile per-packet one-way delay: 105.950 ms  
Loss rate: 0.57%  
-- Flow 1:  
Average throughput: 54.25 Mbit/s  
95th percentile per-packet one-way delay: 98.399 ms  
Loss rate: 0.25%  
-- Flow 2:  
Average throughput: 35.19 Mbit/s  
95th percentile per-packet one-way delay: 197.734 ms  
Loss rate: 0.47%  
-- Flow 3:  
Average throughput: 44.08 Mbit/s  
95th percentile per-packet one-way delay: 78.791 ms  
Loss rate: 1.86%

Run 2: Report of Verus — Data Link

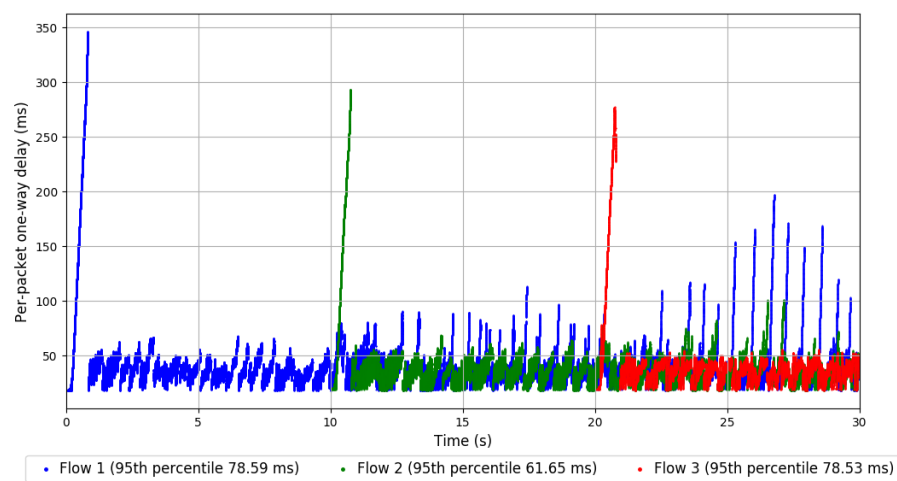
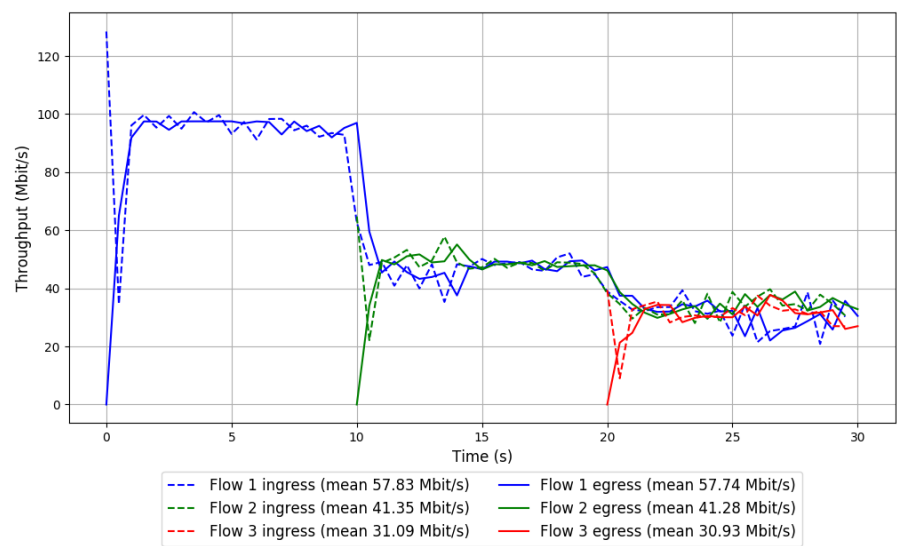


Run 3: Statistics of Verus

Start at: 2018-11-30 16:17:45  
End at: 2018-11-30 16:18:15  
Local clock offset: 0.735 ms  
Remote clock offset: -16.57 ms

# Below is generated by plot.py at 2018-11-30 17:28:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 95.47 Mbit/s  
95th percentile per-packet one-way delay: 73.502 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 57.74 Mbit/s  
95th percentile per-packet one-way delay: 78.588 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 41.28 Mbit/s  
95th percentile per-packet one-way delay: 61.651 ms  
Loss rate: 0.28%  
-- Flow 3:  
Average throughput: 30.93 Mbit/s  
95th percentile per-packet one-way delay: 78.534 ms  
Loss rate: 0.68%

Run 3: Report of Verus — Data Link

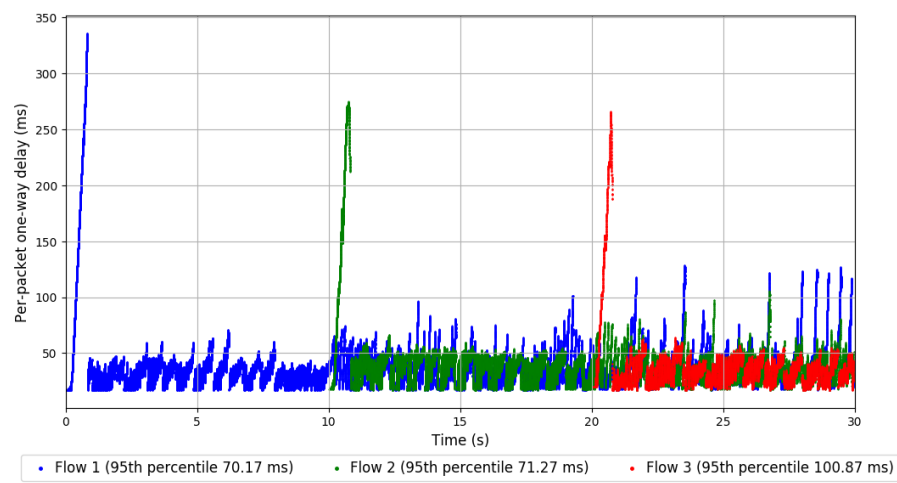
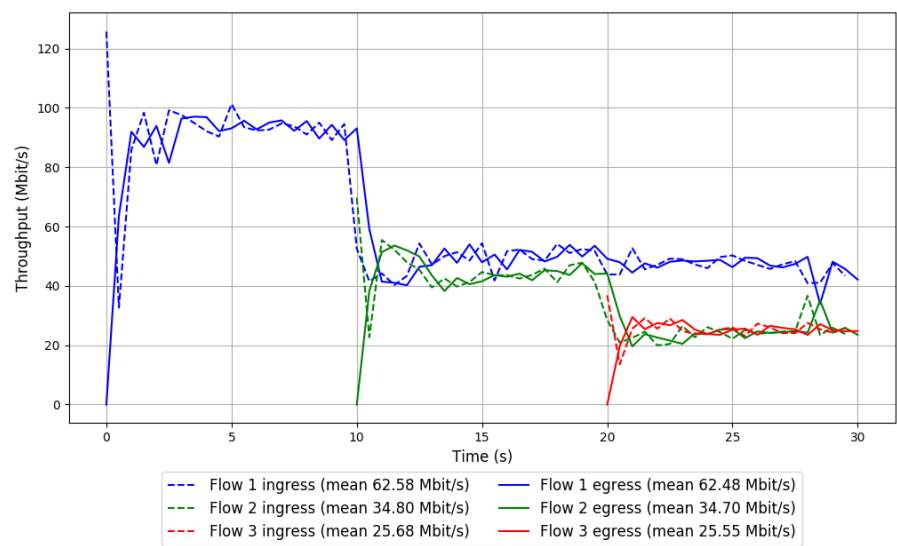


Run 4: Statistics of Verus

Start at: 2018-11-30 16:40:53  
End at: 2018-11-30 16:41:23  
Local clock offset: 0.726 ms  
Remote clock offset: -16.723 ms

# Below is generated by plot.py at 2018-11-30 17:28:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 94.05 Mbit/s  
95th percentile per-packet one-way delay: 71.186 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 62.48 Mbit/s  
95th percentile per-packet one-way delay: 70.174 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 34.70 Mbit/s  
95th percentile per-packet one-way delay: 71.272 ms  
Loss rate: 0.35%  
-- Flow 3:  
Average throughput: 25.55 Mbit/s  
95th percentile per-packet one-way delay: 100.871 ms  
Loss rate: 0.74%

Run 4: Report of Verus — Data Link



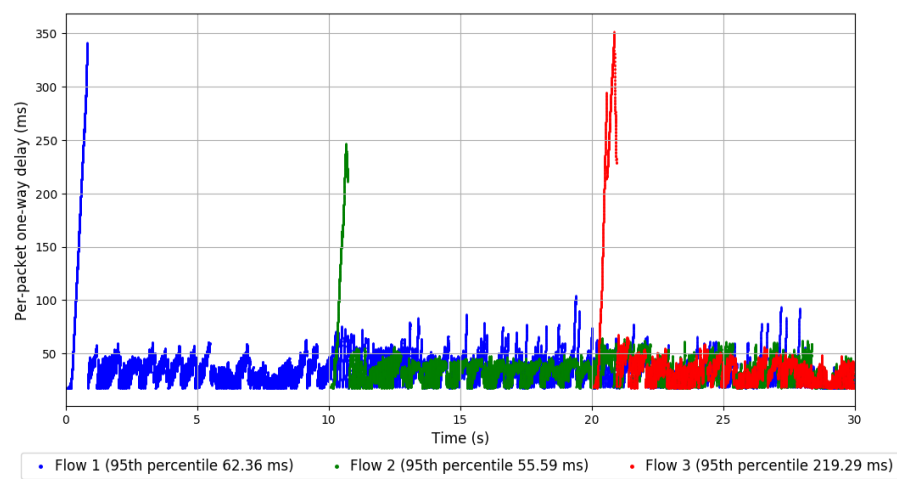
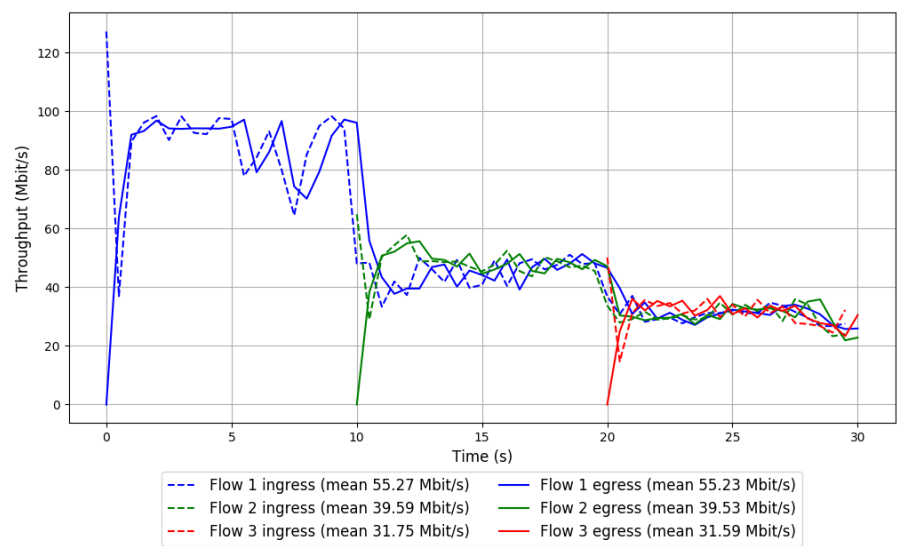


Run 5: Statistics of Verus

Start at: 2018-11-30 17:03:51  
End at: 2018-11-30 17:04:21  
Local clock offset: -5.901 ms  
Remote clock offset: -17.577 ms

# Below is generated by plot.py at 2018-11-30 17:28:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.01 Mbit/s  
95th percentile per-packet one-way delay: 61.009 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 55.23 Mbit/s  
95th percentile per-packet one-way delay: 62.359 ms  
Loss rate: 0.16%  
-- Flow 2:  
Average throughput: 39.53 Mbit/s  
95th percentile per-packet one-way delay: 55.593 ms  
Loss rate: 0.34%  
-- Flow 3:  
Average throughput: 31.59 Mbit/s  
95th percentile per-packet one-way delay: 219.295 ms  
Loss rate: 0.75%

Run 5: Report of Verus — Data Link

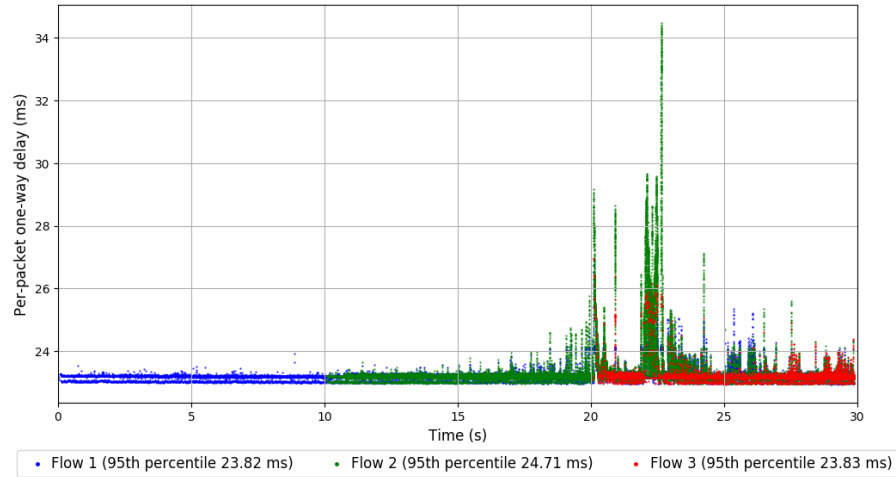
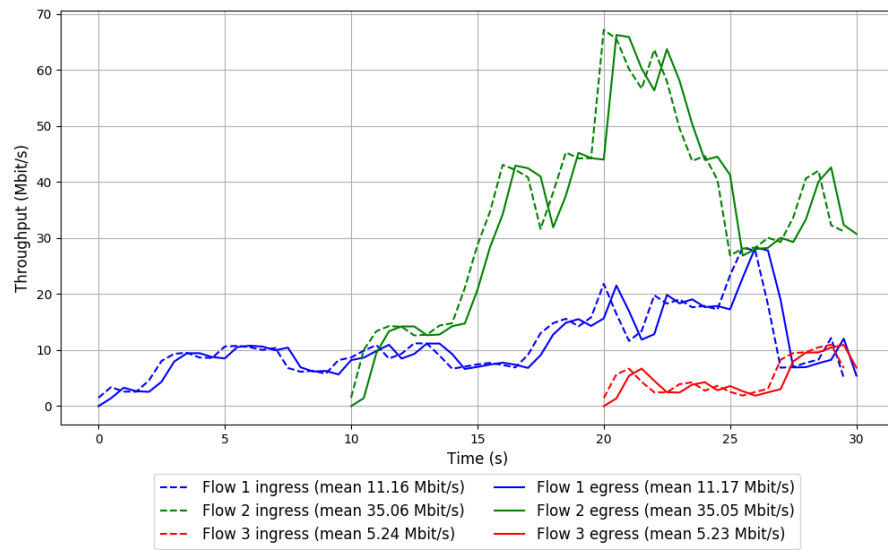


Run 1: Statistics of PCC-Vivace

Start at: 2018-11-30 15:22:31  
End at: 2018-11-30 15:23:01  
Local clock offset: 3.213 ms  
Remote clock offset: -14.946 ms

# Below is generated by plot.py at 2018-11-30 17:28:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 36.20 Mbit/s  
95th percentile per-packet one-way delay: 24.105 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 11.17 Mbit/s  
95th percentile per-packet one-way delay: 23.820 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 35.05 Mbit/s  
95th percentile per-packet one-way delay: 24.707 ms  
Loss rate: 0.15%  
-- Flow 3:  
Average throughput: 5.23 Mbit/s  
95th percentile per-packet one-way delay: 23.833 ms  
Loss rate: 0.40%

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

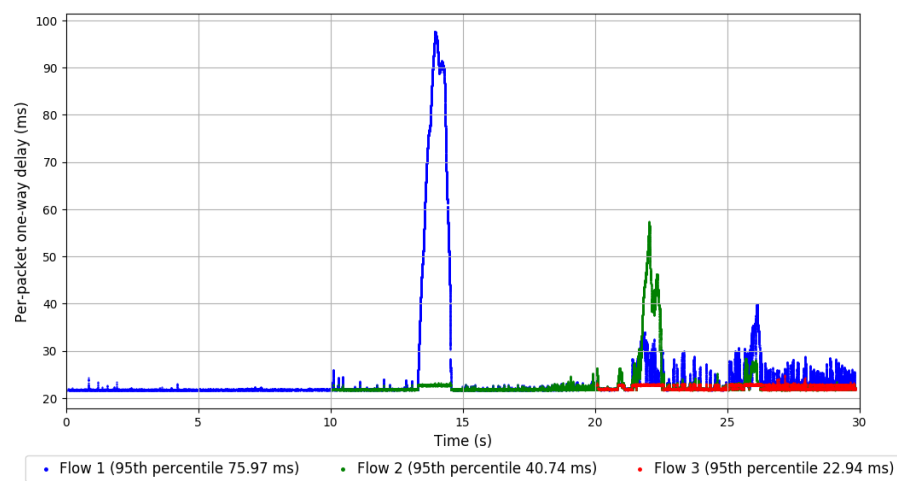
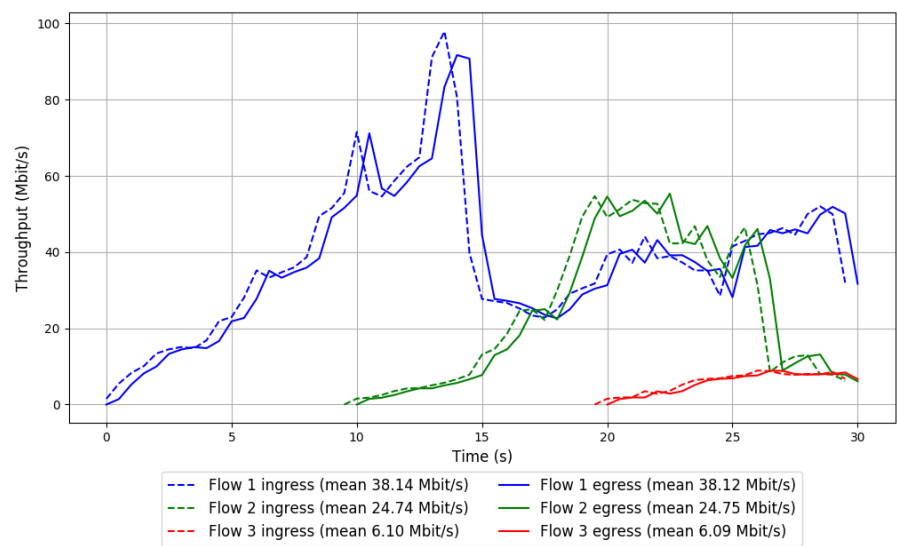


Run 2: Statistics of PCC-Vivace

Start at: 2018-11-30 15:45:23  
End at: 2018-11-30 15:45:53  
Local clock offset: 1.469 ms  
Remote clock offset: -16.361 ms

# Below is generated by plot.py at 2018-11-30 17:28:55  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 56.60 Mbit/s  
95th percentile per-packet one-way delay: 54.121 ms  
Loss rate: 0.14%  
-- Flow 1:  
Average throughput: 38.12 Mbit/s  
95th percentile per-packet one-way delay: 75.969 ms  
Loss rate: 0.15%  
-- Flow 2:  
Average throughput: 24.75 Mbit/s  
95th percentile per-packet one-way delay: 40.745 ms  
Loss rate: 0.09%  
-- Flow 3:  
Average throughput: 6.09 Mbit/s  
95th percentile per-packet one-way delay: 22.940 ms  
Loss rate: 0.42%

Run 2: Report of PCC-Vivace — Data Link

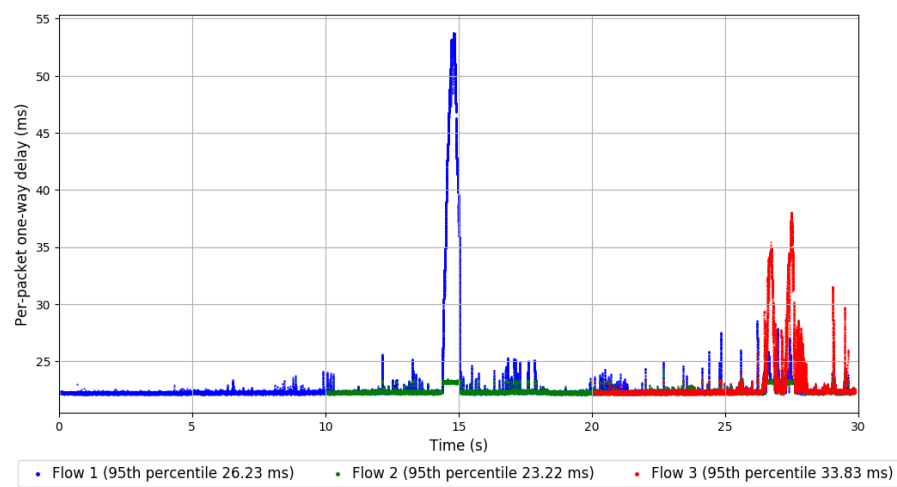
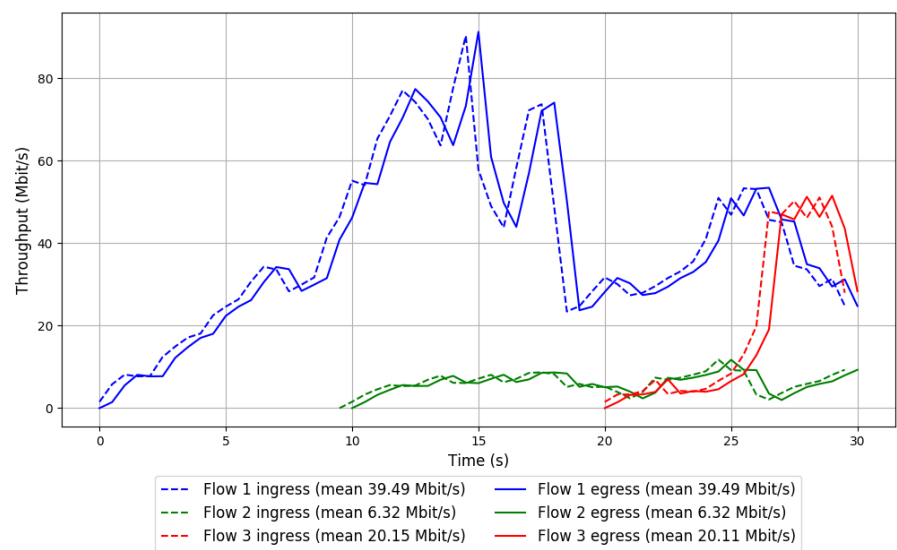


Run 3: Statistics of PCC-Vivace

Start at: 2018-11-30 16:08:11  
End at: 2018-11-30 16:08:41  
Local clock offset: -0.872 ms  
Remote clock offset: -21.522 ms

# Below is generated by plot.py at 2018-11-30 17:28:58  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 50.32 Mbit/s  
95th percentile per-packet one-way delay: 29.762 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 39.49 Mbit/s  
95th percentile per-packet one-way delay: 26.233 ms  
Loss rate: 0.08%  
-- Flow 2:  
Average throughput: 6.32 Mbit/s  
95th percentile per-packet one-way delay: 23.223 ms  
Loss rate: 0.19%  
-- Flow 3:  
Average throughput: 20.11 Mbit/s  
95th percentile per-packet one-way delay: 33.825 ms  
Loss rate: 0.43%

Run 3: Report of PCC-Vivace — Data Link



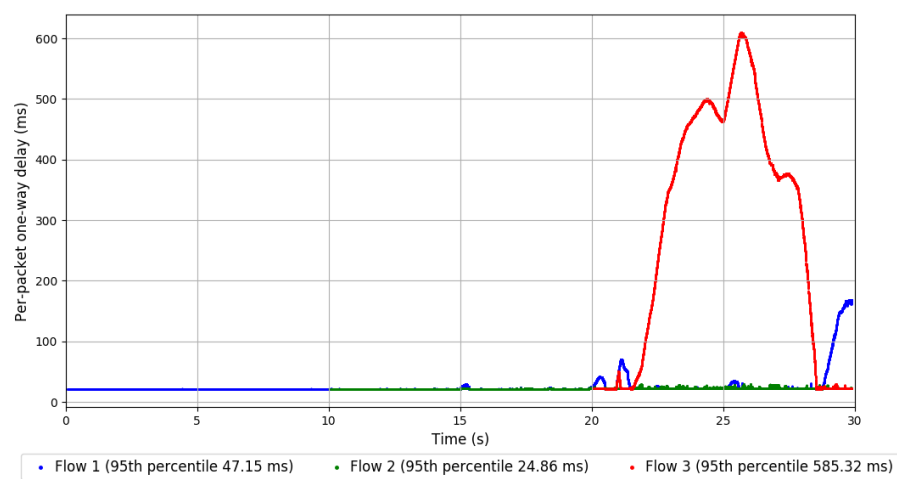
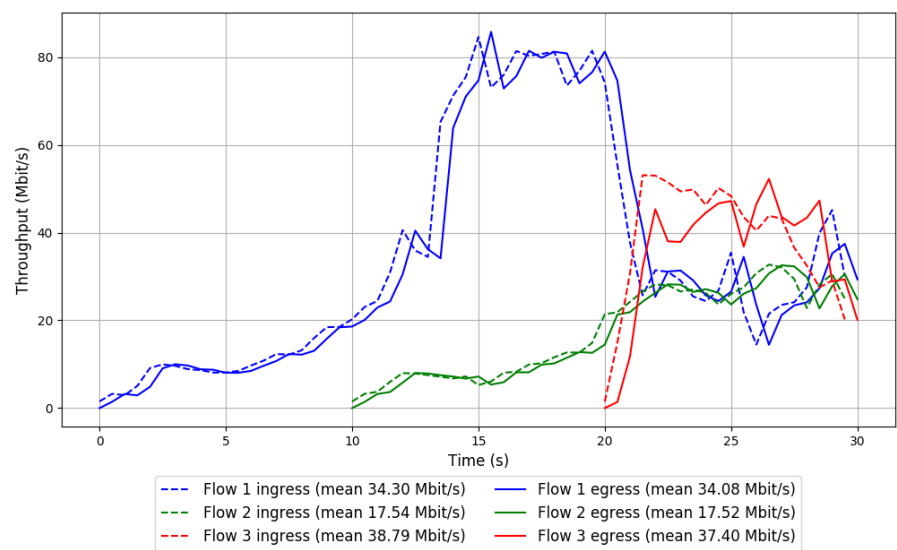


Run 4: Statistics of PCC-Vivace

Start at: 2018-11-30 16:31:06  
End at: 2018-11-30 16:31:36  
Local clock offset: 4.223 ms  
Remote clock offset: -16.576 ms

# Below is generated by plot.py at 2018-11-30 17:29:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 58.06 Mbit/s  
95th percentile per-packet one-way delay: 480.827 ms  
Loss rate: 1.29%  
-- Flow 1:  
Average throughput: 34.08 Mbit/s  
95th percentile per-packet one-way delay: 47.147 ms  
Loss rate: 0.72%  
-- Flow 2:  
Average throughput: 17.52 Mbit/s  
95th percentile per-packet one-way delay: 24.859 ms  
Loss rate: 0.22%  
-- Flow 3:  
Average throughput: 37.40 Mbit/s  
95th percentile per-packet one-way delay: 585.317 ms  
Loss rate: 3.81%

Run 4: Report of PCC-Vivace — Data Link

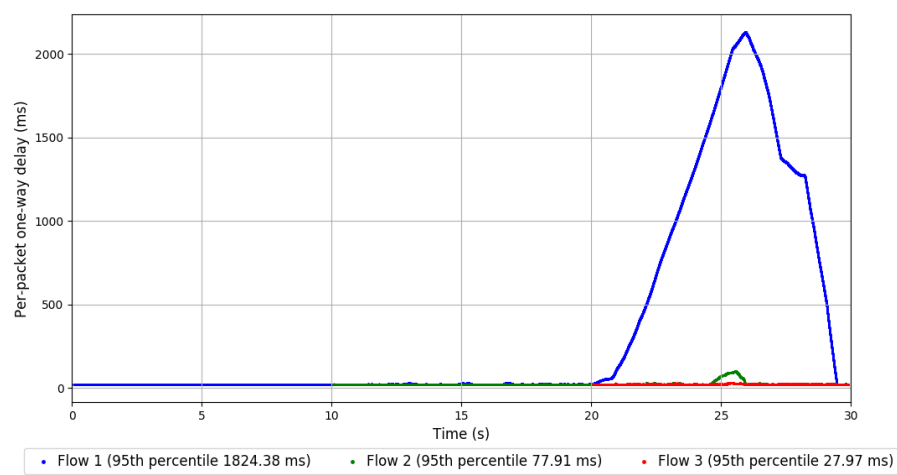
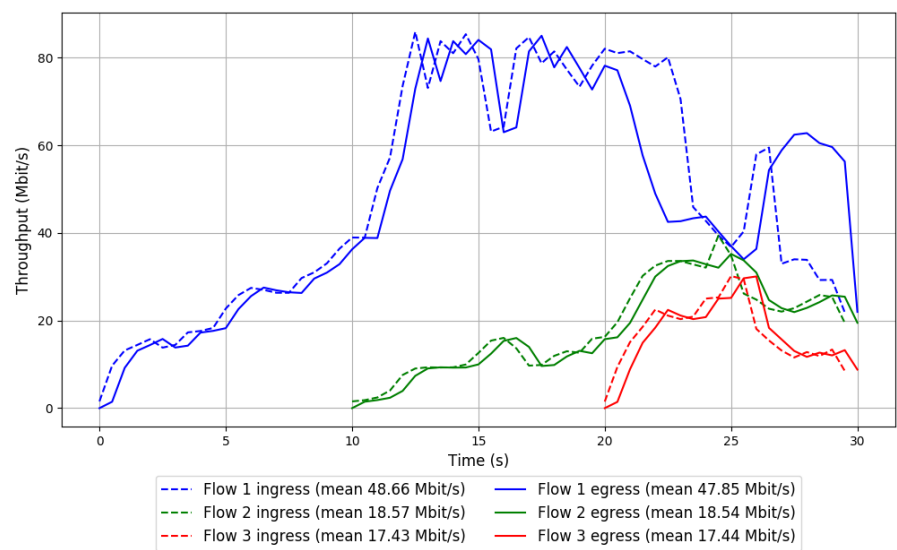


Run 5: Statistics of PCC-Vivace

Start at: 2018-11-30 16:54:08  
End at: 2018-11-30 16:54:38  
Local clock offset: 0.052 ms  
Remote clock offset: -17.448 ms

# Below is generated by plot.py at 2018-11-30 17:29:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 65.93 Mbit/s  
95th percentile per-packet one-way delay: 1643.124 ms  
Loss rate: 1.33%  
-- Flow 1:  
Average throughput: 47.85 Mbit/s  
95th percentile per-packet one-way delay: 1824.382 ms  
Loss rate: 1.74%  
-- Flow 2:  
Average throughput: 18.54 Mbit/s  
95th percentile per-packet one-way delay: 77.910 ms  
Loss rate: 0.29%  
-- Flow 3:  
Average throughput: 17.44 Mbit/s  
95th percentile per-packet one-way delay: 27.967 ms  
Loss rate: 0.11%

Run 5: Report of PCC-Vivace — Data Link

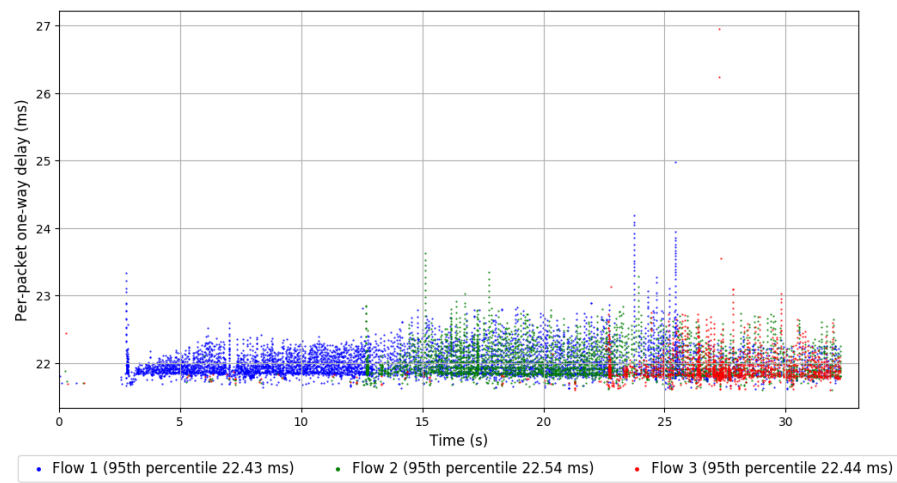
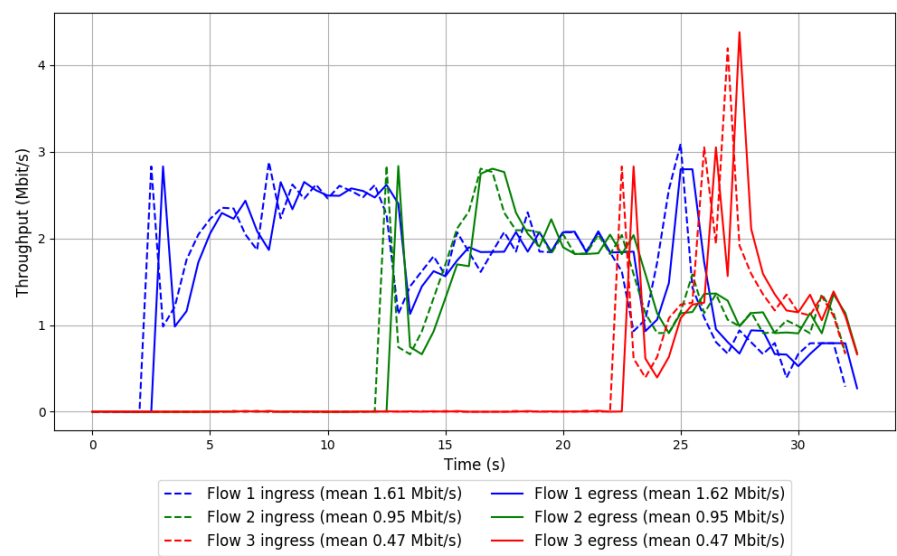


Run 1: Statistics of WebRTC media

Start at: 2018-11-30 15:27:25  
End at: 2018-11-30 15:27:55  
Local clock offset: 1.786 ms  
Remote clock offset: -15.686 ms

# Below is generated by plot.py at 2018-11-30 17:29:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.03 Mbit/s  
95th percentile per-packet one-way delay: 22.482 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 1.62 Mbit/s  
95th percentile per-packet one-way delay: 22.434 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 0.95 Mbit/s  
95th percentile per-packet one-way delay: 22.535 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 0.47 Mbit/s  
95th percentile per-packet one-way delay: 22.440 ms  
Loss rate: 0.01%

Run 1: Report of WebRTC media — Data Link

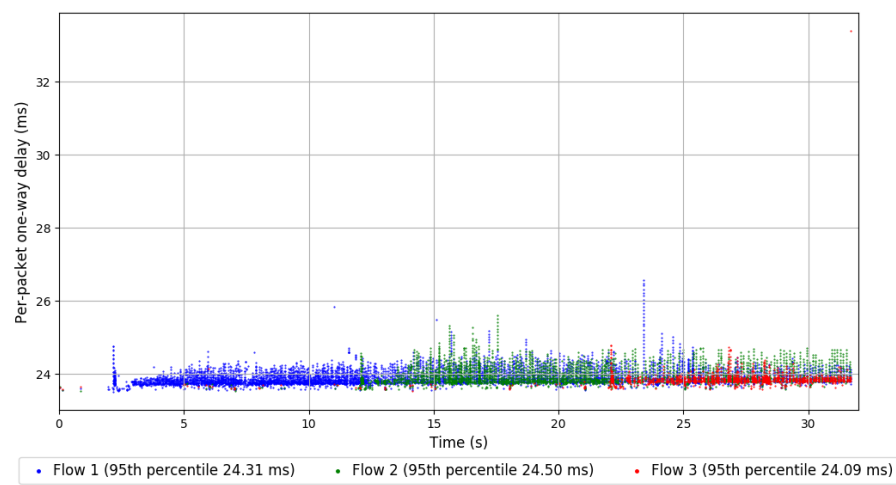
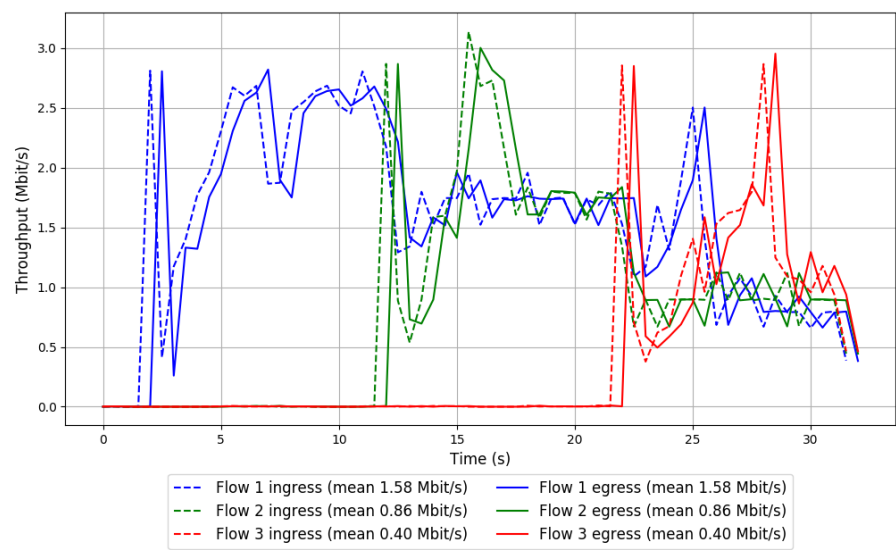


Run 2: Statistics of WebRTC media

Start at: 2018-11-30 15:50:16  
End at: 2018-11-30 15:50:46  
Local clock offset: 3.663 ms  
Remote clock offset: -15.293 ms

# Below is generated by plot.py at 2018-11-30 17:29:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.84 Mbit/s  
95th percentile per-packet one-way delay: 24.379 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.58 Mbit/s  
95th percentile per-packet one-way delay: 24.309 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.86 Mbit/s  
95th percentile per-packet one-way delay: 24.499 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.40 Mbit/s  
95th percentile per-packet one-way delay: 24.088 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



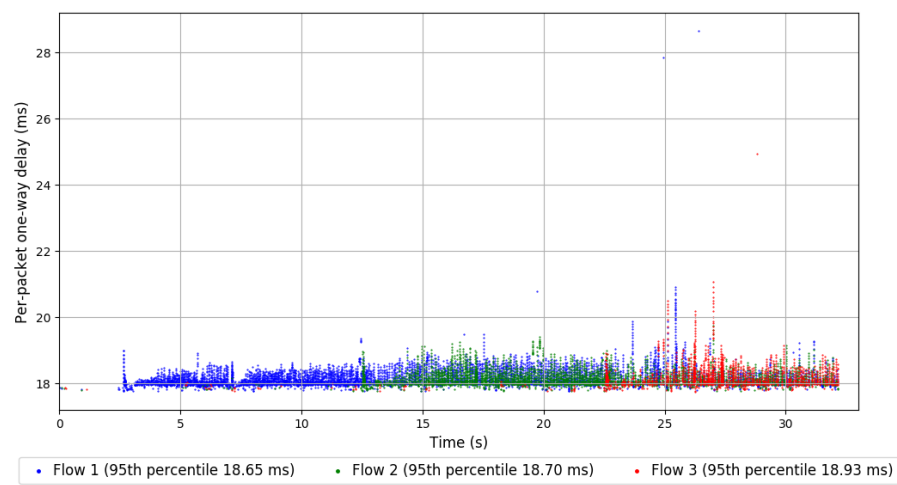
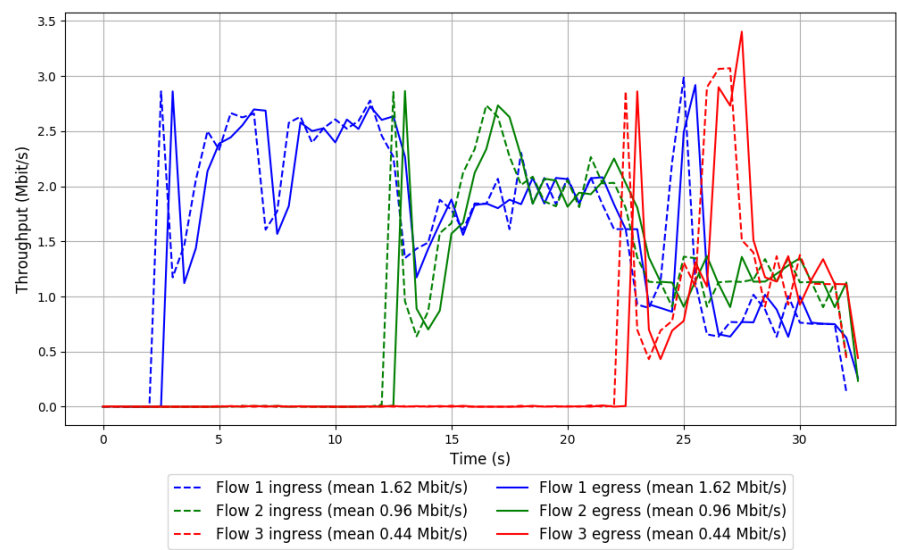


Run 3: Statistics of WebRTC media

Start at: 2018-11-30 16:13:05  
End at: 2018-11-30 16:13:35  
Local clock offset: 0.499 ms  
Remote clock offset: -15.787 ms

# Below is generated by plot.py at 2018-11-30 17:29:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.01 Mbit/s  
95th percentile per-packet one-way delay: 18.709 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 1.62 Mbit/s  
95th percentile per-packet one-way delay: 18.649 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.96 Mbit/s  
95th percentile per-packet one-way delay: 18.704 ms  
Loss rate: 0.37%  
-- Flow 3:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 18.935 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

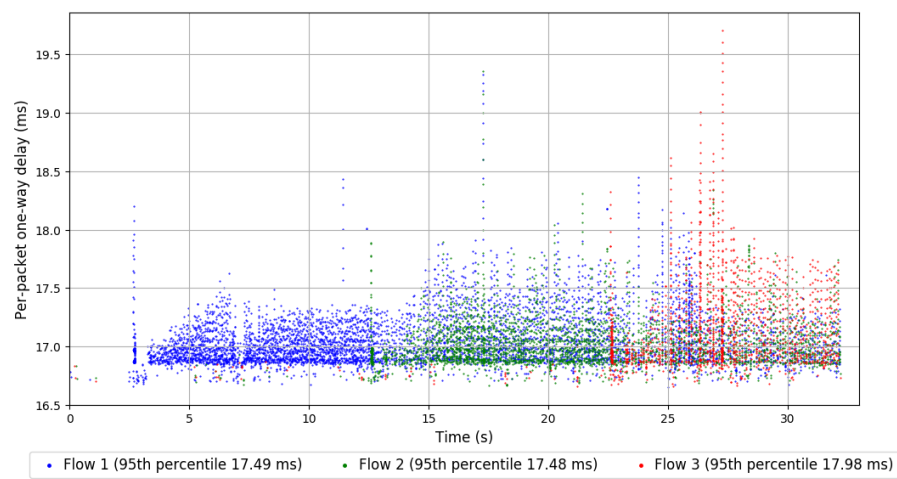
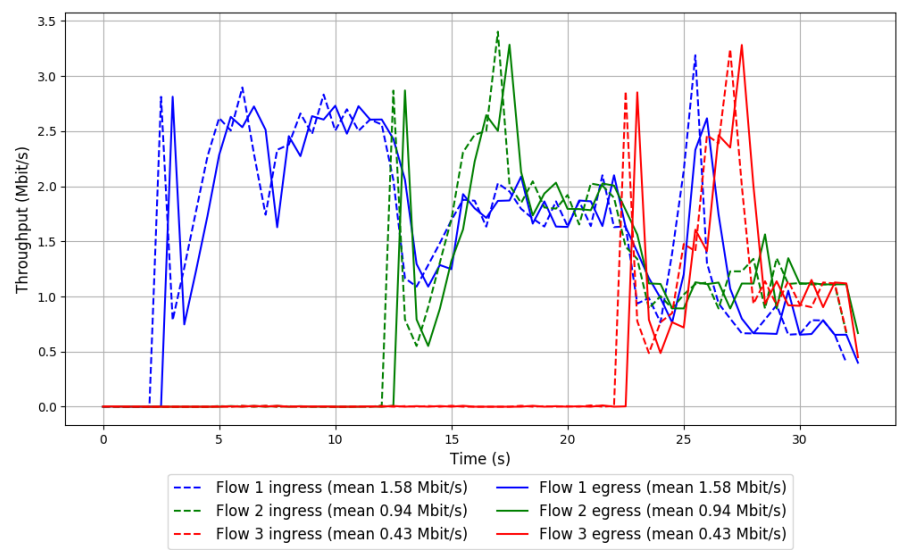


Run 4: Statistics of WebRTC media

Start at: 2018-11-30 16:36:12  
End at: 2018-11-30 16:36:42  
Local clock offset: 1.241 ms  
Remote clock offset: -15.71 ms

# Below is generated by plot.py at 2018-11-30 17:29:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.93 Mbit/s  
95th percentile per-packet one-way delay: 17.594 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 1.58 Mbit/s  
95th percentile per-packet one-way delay: 17.492 ms  
Loss rate: 0.13%  
-- Flow 2:  
Average throughput: 0.94 Mbit/s  
95th percentile per-packet one-way delay: 17.475 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 17.980 ms  
Loss rate: 0.83%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-11-30 16:59:05  
End at: 2018-11-30 16:59:35  
Local clock offset: -4.919 ms  
Remote clock offset: -16.412 ms

# Below is generated by plot.py at 2018-11-30 17:29:02  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 2.92 Mbit/s  
95th percentile per-packet one-way delay: 17.592 ms  
Loss rate: 0.07%  
-- Flow 1:  
Average throughput: 1.61 Mbit/s  
95th percentile per-packet one-way delay: 17.570 ms  
Loss rate: 0.12%  
-- Flow 2:  
Average throughput: 0.96 Mbit/s  
95th percentile per-packet one-way delay: 17.661 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.36 Mbit/s  
95th percentile per-packet one-way delay: 17.192 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

