

## Pantheon Report

Generated at 2018-03-27 00:31:26 (UTC).

Data path: Stanford ppp0 (*remote*) → AWS California 1 Ethernet (*local*).

Repeated the test of 17 congestion control schemes 3 times.

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

Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

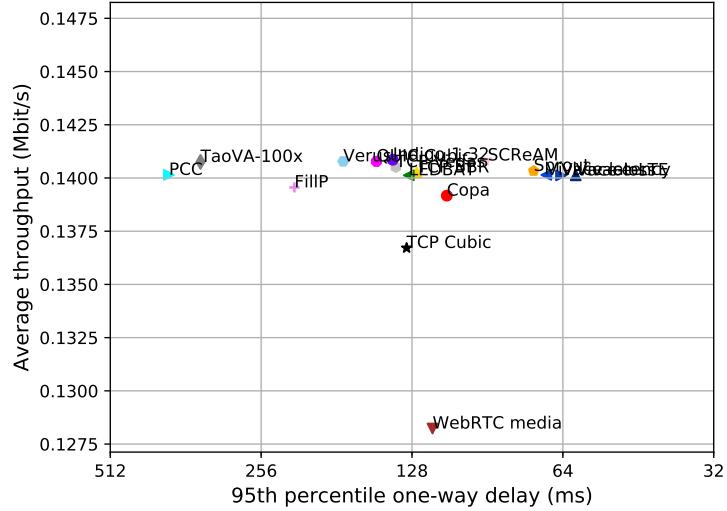
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo\_fast**).

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

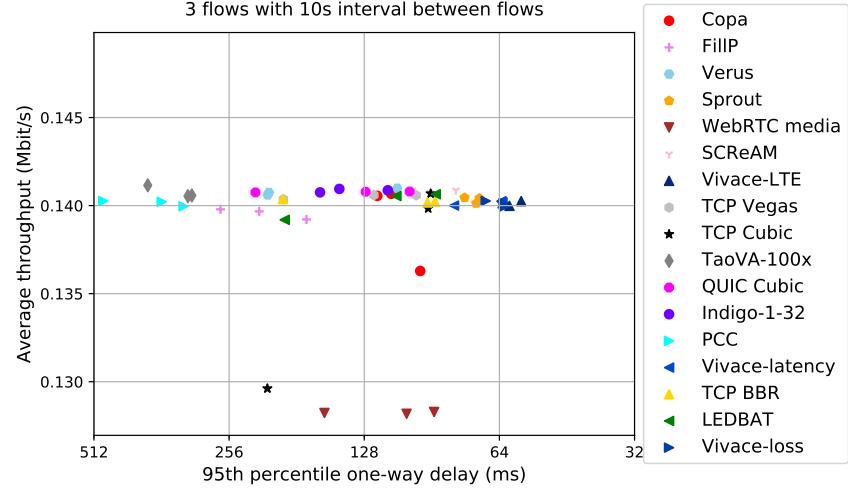
**Git summary:**

```
branch: master @ 503f51fe03f703a4c0a826a0792a4fead3e7d1b0
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aeee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179aab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  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 @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ f271183af822eee5d0031620f4bebf38aedc5581
```

test from Stanford ppp0 to AWS California 1 Ethernet, 3 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from Stanford ppp0 to AWS California 1 Ethernet, 3 runs of 30s each per scheme  
 3 flows with 10s interval between flows



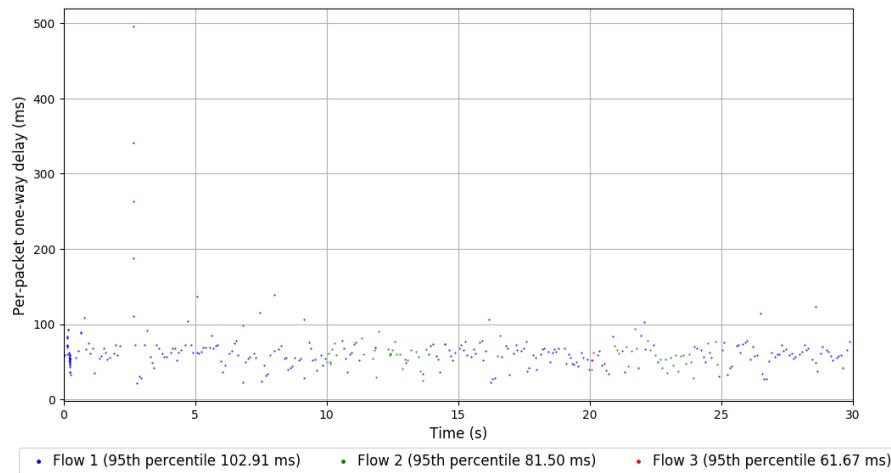
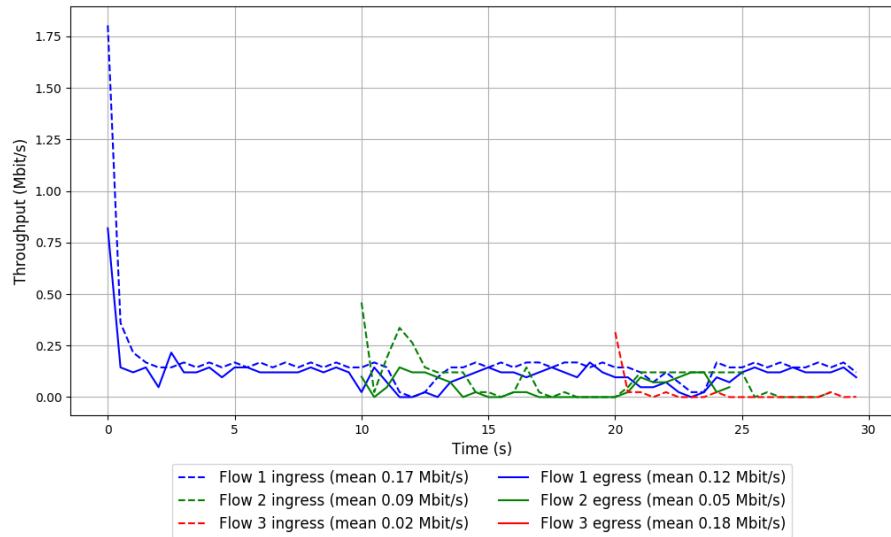
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.10	0.06	0.07	129.10	117.68	89.70	34.10	49.51	77.34
TCP Cubic	3	0.10	0.06	0.06	131.49	111.34	149.26	39.04	45.88	65.16
LEDBAT	3	0.08	0.07	0.05	120.68	147.78	116.01	34.64	42.18	43.75
PCC	3	0.08	0.05	0.06	206.52	407.06	498.24	96.98	99.87	99.93
QUIC Cubic	3	0.11	0.04	0.05	148.81	144.94	148.05	67.36	78.13	76.37
SCReAM	3	0.10	0.05	0.04	95.73	85.49	85.33	8.52	31.43	52.40
WebRTC media	3	0.05	0.05	0.04	115.68	118.83	106.94	45.19	45.58	49.27
Sprout	3	0.09	0.05	0.05	77.22	70.51	67.91	60.05	73.62	77.14
TaoVA-100x	3	0.09	0.08	0.06	326.34	335.43	403.44	94.10	95.28	96.02
TCP Vegas	3	0.10	0.05	0.06	134.32	152.40	152.25	38.01	49.32	51.61
Verus	3	0.10	0.04	0.04	184.45	172.43	88.27	88.33	68.92	64.72
Copa	3	0.10	0.04	0.06	100.88	82.38	111.11	65.42	65.97	78.25
FillP	3	0.09	0.05	0.05	167.87	227.21	286.40	99.04	99.44	99.76
Indigo-1-32	3	0.09	0.05	0.06	130.27	126.93	173.30	83.02	92.50	94.30
Vivace-latency	3	0.09	0.06	0.04	86.68	41.91	36.76	92.61	95.41	97.15
Vivace-loss	3	0.09	0.05	0.04	71.41	45.18	47.75	92.42	95.81	96.93
Vivace-LTE	3	0.09	0.06	0.04	67.67	41.12	38.14	92.73	95.46	96.69

Run 1: Statistics of TCP BBR

```
Start at: 2018-03-26 22:10:32
End at: 2018-03-26 22:11:02
Local clock offset: 3.876 ms
Remote clock offset: -6.326 ms

# Below is generated by plot.py at 2018-03-27 00:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 92.564 ms
Loss rate: 39.67%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 102.911 ms
Loss rate: 32.46%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 81.497 ms
Loss rate: 55.17%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 61.672 ms
Loss rate: 93.83%
```

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

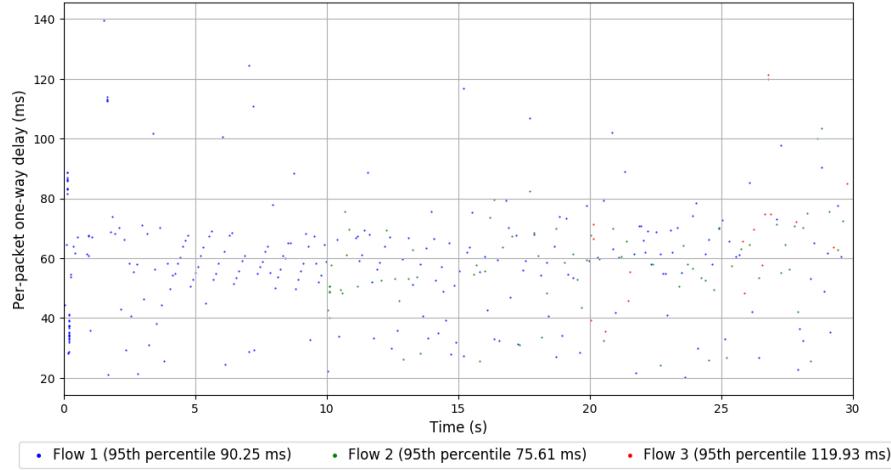
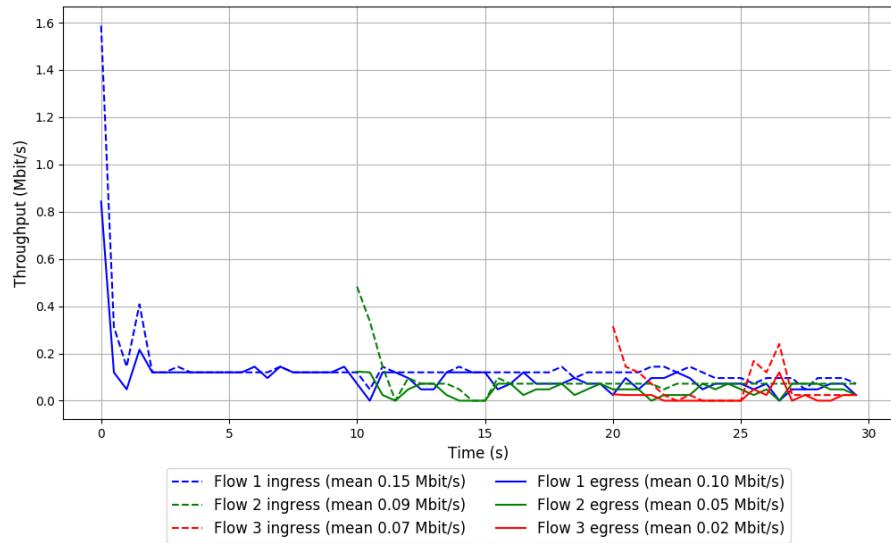


Run 2: Statistics of TCP BBR

```
Start at: 2018-03-26 22:34:15
End at: 2018-03-26 22:34:45
Local clock offset: 3.763 ms
Remote clock offset: -4.56 ms

# Below is generated by plot.py at 2018-03-27 00:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 89.043 ms
Loss rate: 38.99%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 90.252 ms
Loss rate: 30.80%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 75.613 ms
Loss rate: 46.44%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 119.926 ms
Loss rate: 73.53%
```

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

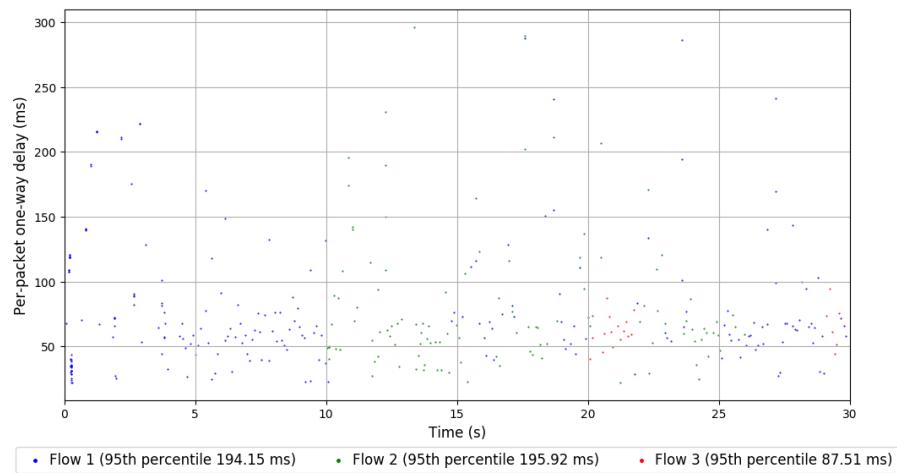
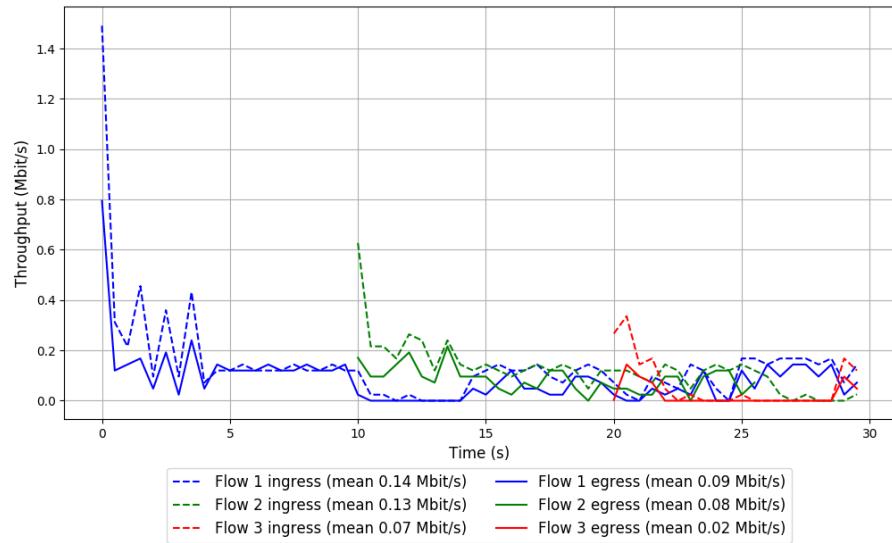


Run 3: Statistics of TCP BBR

```
Start at: 2018-03-26 22:57:56
End at: 2018-03-26 22:58:26
Local clock offset: 3.427 ms
Remote clock offset: -5.597 ms

# Below is generated by plot.py at 2018-03-27 00:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 194.152 ms
Loss rate: 43.94%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 194.152 ms
Loss rate: 39.03%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 195.919 ms
Loss rate: 46.91%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 87.506 ms
Loss rate: 64.67%
```

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

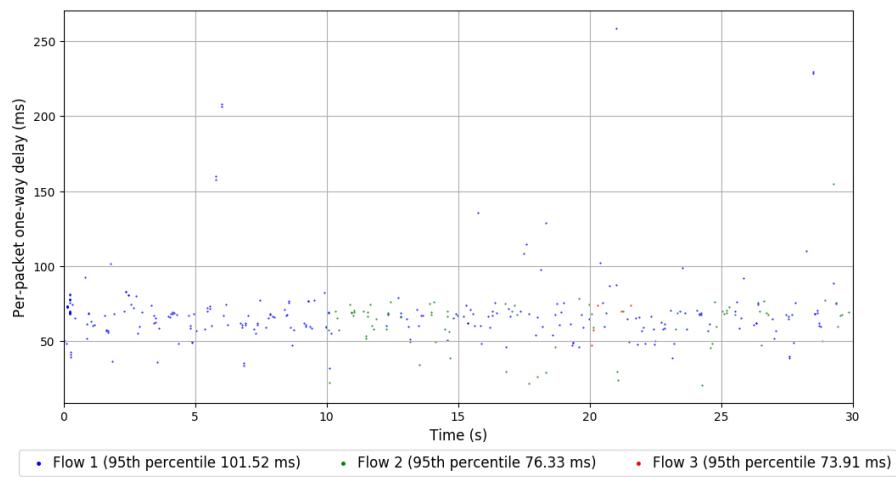
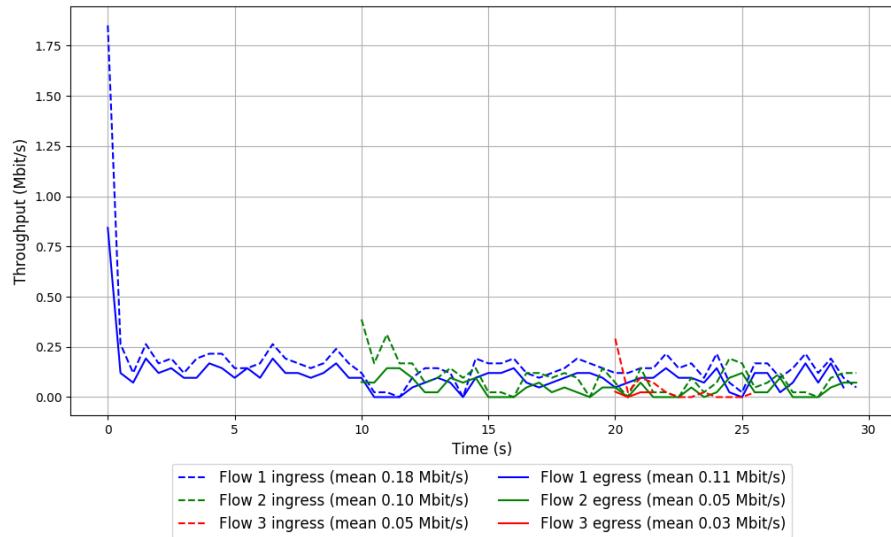


Run 1: Statistics of TCP Cubic

```
Start at: 2018-03-26 22:28:59
End at: 2018-03-26 22:29:29
Local clock offset: 4.054 ms
Remote clock offset: -4.775 ms

# Below is generated by plot.py at 2018-03-27 00:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 92.217 ms
Loss rate: 44.36%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 101.521 ms
Loss rate: 38.89%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 76.327 ms
Loss rate: 53.01%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 73.909 ms
Loss rate: 86.50%
```

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

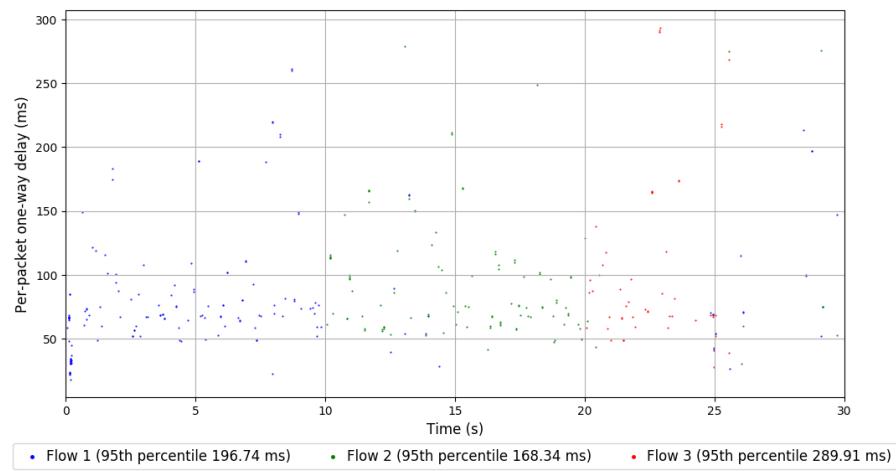
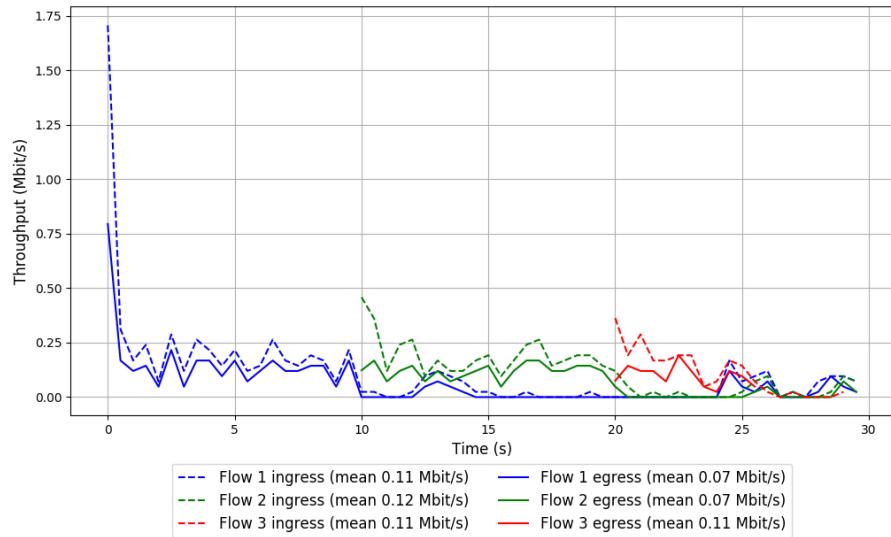


Run 2: Statistics of TCP Cubic

```
Start at: 2018-03-26 22:52:40
End at: 2018-03-26 22:53:10
Local clock offset: 3.452 ms
Remote clock offset: -5.353 ms

# Below is generated by plot.py at 2018-03-27 00:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 210.373 ms
Loss rate: 42.11%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 196.742 ms
Loss rate: 41.07%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 168.337 ms
Loss rate: 42.30%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 289.911 ms
Loss rate: 44.88%
```

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

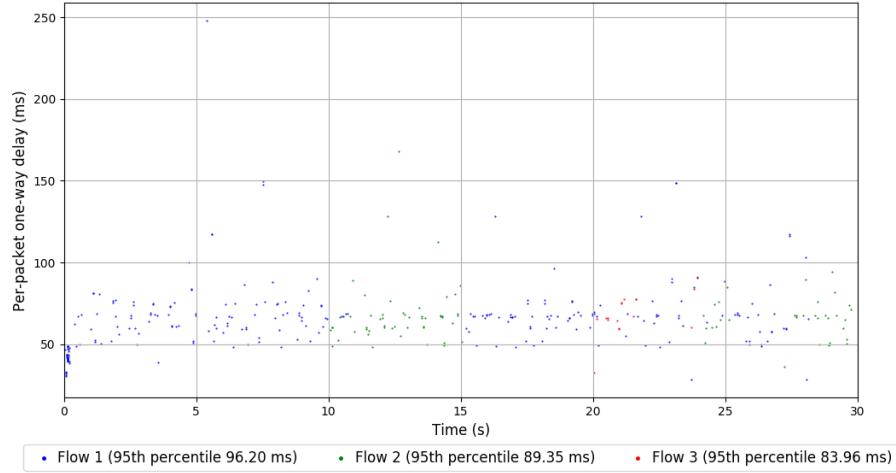
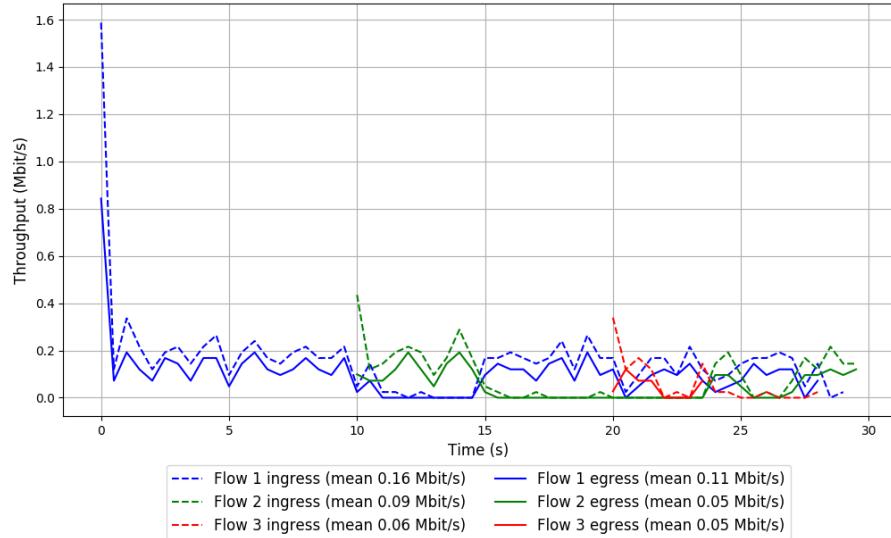


Run 3: Statistics of TCP Cubic

```
Start at: 2018-03-26 23:16:24
End at: 2018-03-26 23:16:54
Local clock offset: 0.232 ms
Remote clock offset: -5.884 ms

# Below is generated by plot.py at 2018-03-27 00:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 91.072 ms
Loss rate: 40.39%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 96.202 ms
Loss rate: 37.17%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 89.351 ms
Loss rate: 42.33%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 83.958 ms
Loss rate: 64.10%
```

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

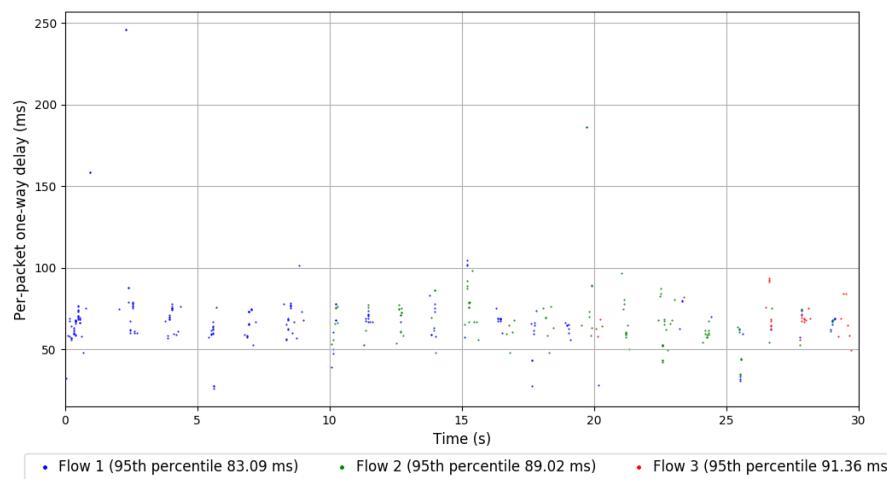
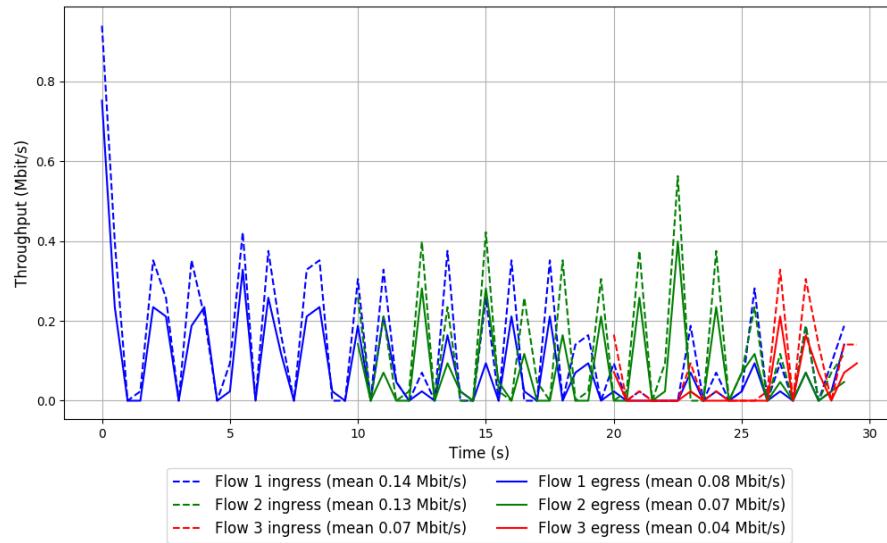


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-03-26 22:22:23
End at: 2018-03-26 22:22:53
Local clock offset: 3.889 ms
Remote clock offset: -5.042 ms

# Below is generated by plot.py at 2018-03-27 00:30:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 88.712 ms
Loss rate: 40.66%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 83.086 ms
Loss rate: 37.98%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 89.022 ms
Loss rate: 42.64%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 91.358 ms
Loss rate: 49.10%
```

Run 1: Report of LEDBAT — Data Link

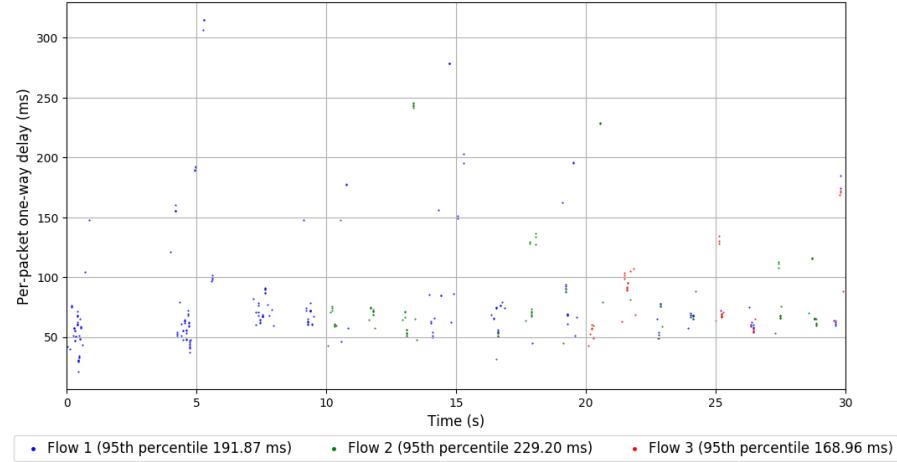
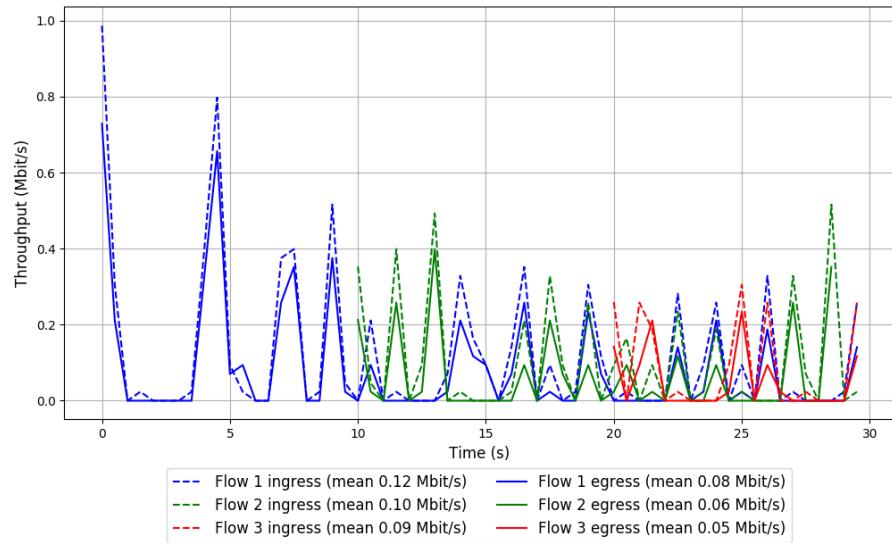


Run 2: Statistics of LEDBAT

```
Start at: 2018-03-26 22:46:06
End at: 2018-03-26 22:46:36
Local clock offset: 3.371 ms
Remote clock offset: -4.566 ms

# Below is generated by plot.py at 2018-03-27 00:30:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 192.507 ms
Loss rate: 36.43%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 191.867 ms
Loss rate: 31.40%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 229.199 ms
Loss rate: 42.51%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 168.959 ms
Loss rate: 43.63%
```

## Run 2: Report of LEDBAT — Data Link

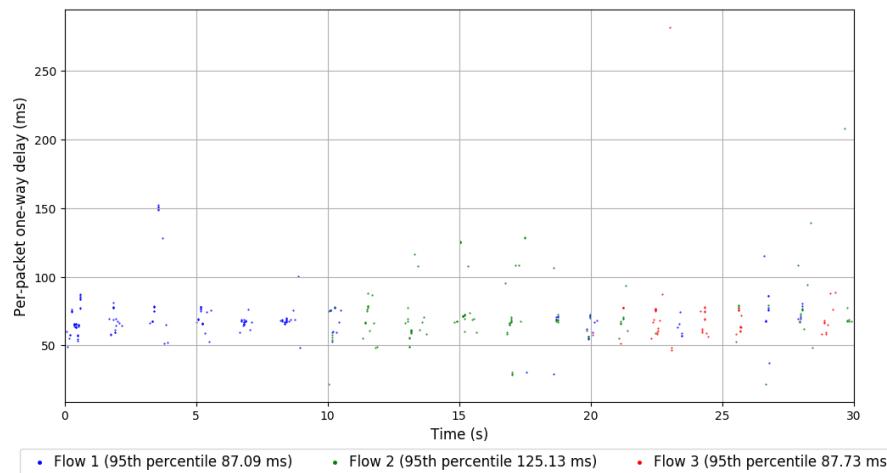
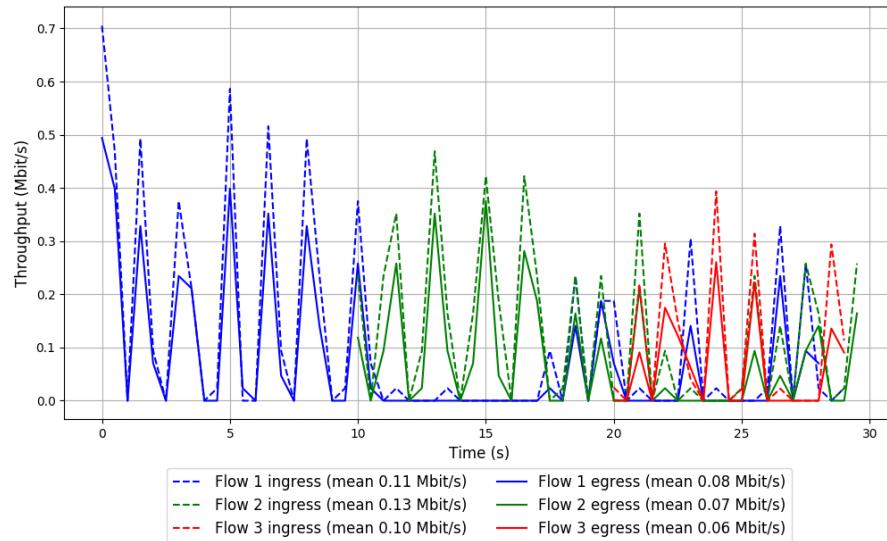


Run 3: Statistics of LEDBAT

```
Start at: 2018-03-26 23:09:48
End at: 2018-03-26 23:10:18
Local clock offset: 1.545 ms
Remote clock offset: -5.852 ms

# Below is generated by plot.py at 2018-03-27 00:30:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 108.550 ms
Loss rate: 37.66%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 87.090 ms
Loss rate: 34.53%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 125.130 ms
Loss rate: 41.38%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 87.727 ms
Loss rate: 38.51%
```

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

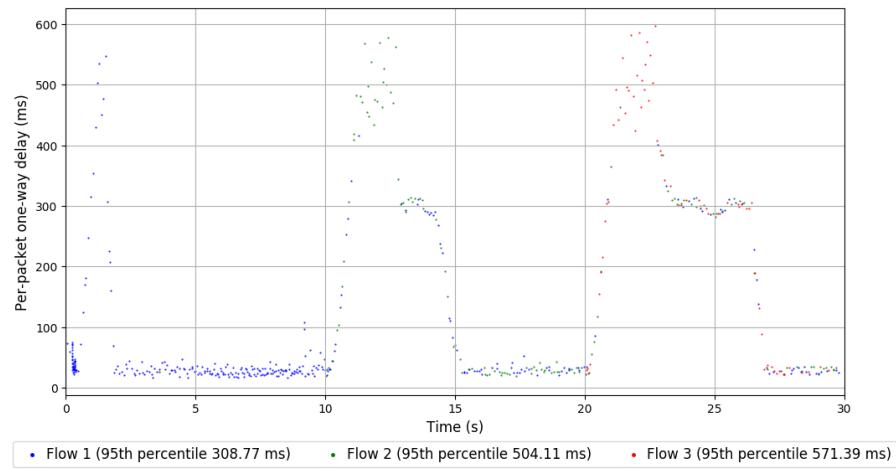
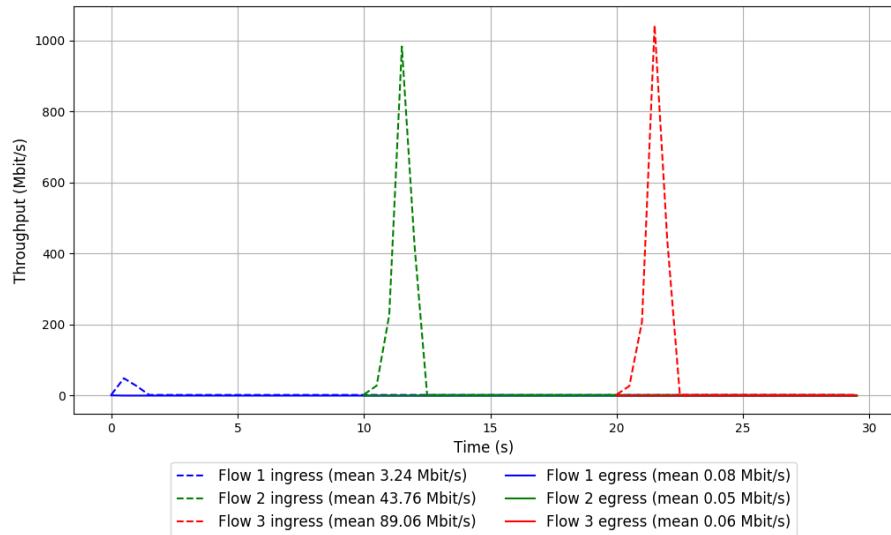


Run 1: Statistics of PCC

```
Start at: 2018-03-26 22:21:03
End at: 2018-03-26 22:21:33
Local clock offset: 3.863 ms
Remote clock offset: -5.194 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 488.023 ms
Loss rate: 99.77%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 308.775 ms
Loss rate: 97.42%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 504.107 ms
Loss rate: 99.88%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 571.389 ms
Loss rate: 99.93%
```

## Run 1: Report of PCC — Data Link

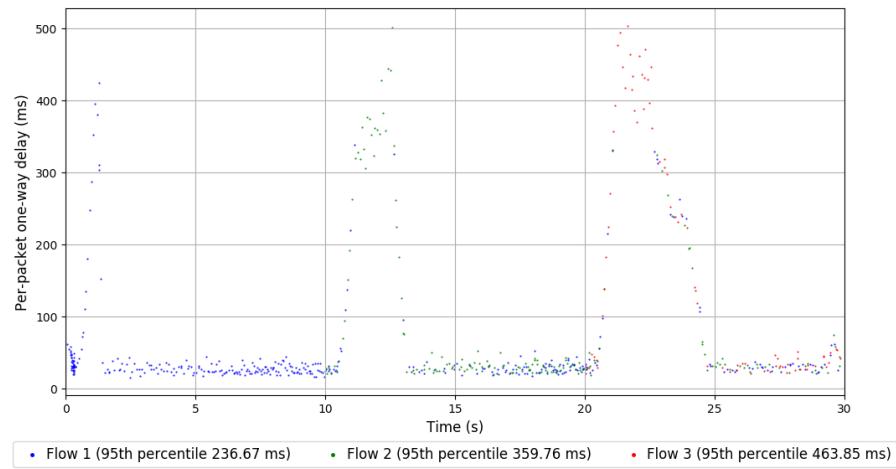
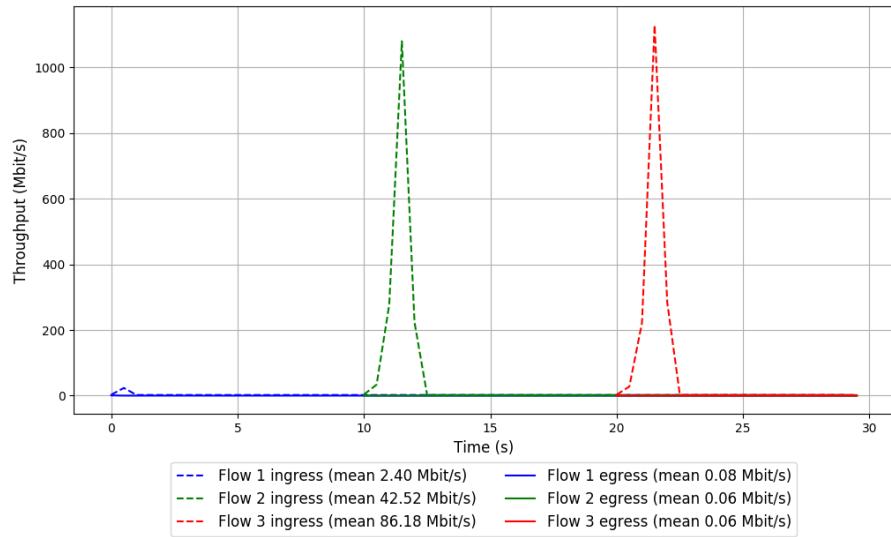


Run 2: Statistics of PCC

```
Start at: 2018-03-26 22:44:46
End at: 2018-03-26 22:45:16
Local clock offset: 3.394 ms
Remote clock offset: -4.344 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 361.660 ms
Loss rate: 99.76%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 236.668 ms
Loss rate: 96.60%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 359.764 ms
Loss rate: 99.87%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 463.851 ms
Loss rate: 99.93%
```

## Run 2: Report of PCC — Data Link

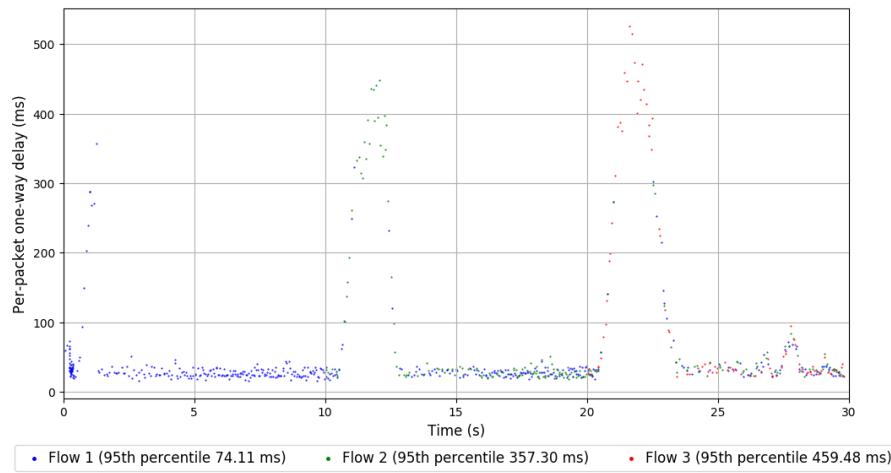
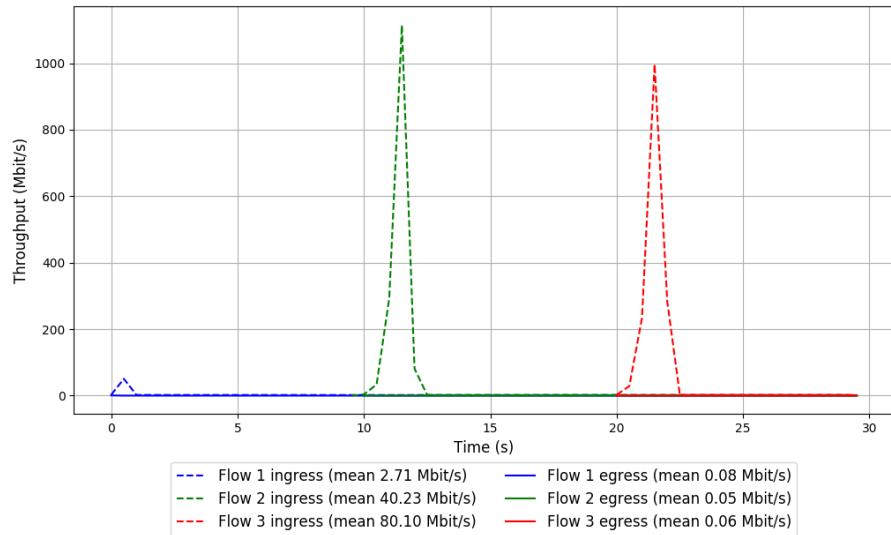


Run 3: Statistics of PCC

```
Start at: 2018-03-26 23:08:28
End at: 2018-03-26 23:08:58
Local clock offset: 1.94 ms
Remote clock offset: -5.811 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 323.310 ms
Loss rate: 99.75%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 74.108 ms
Loss rate: 96.91%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 357.304 ms
Loss rate: 99.87%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 459.480 ms
Loss rate: 99.92%
```

### Run 3: Report of PCC — Data Link

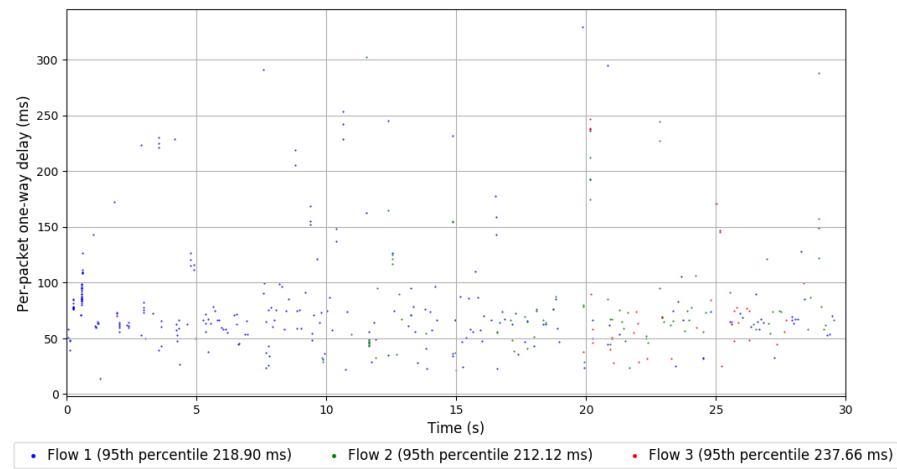
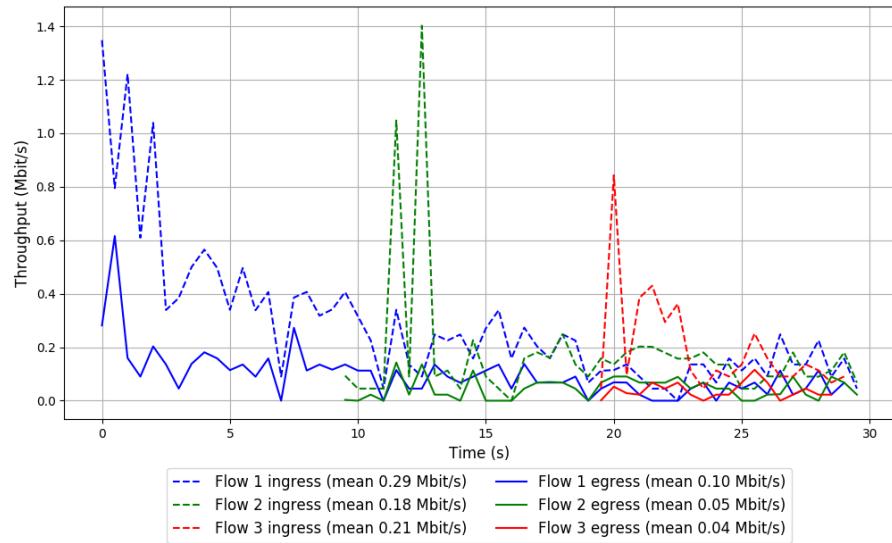


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-03-26 22:13:09
End at: 2018-03-26 22:13:39
Local clock offset: 3.905 ms
Remote clock offset: -5.889 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 223.629 ms
Loss rate: 70.72%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 218.897 ms
Loss rate: 66.82%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 212.122 ms
Loss rate: 73.99%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 237.655 ms
Loss rate: 81.84%
```

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

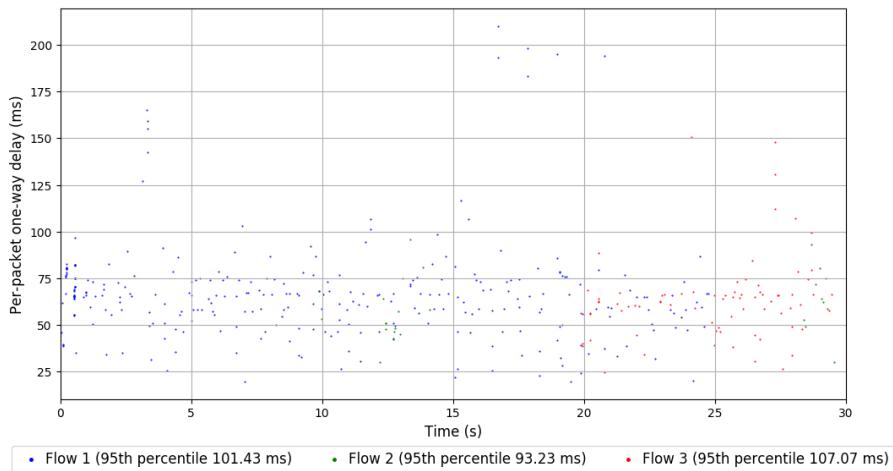
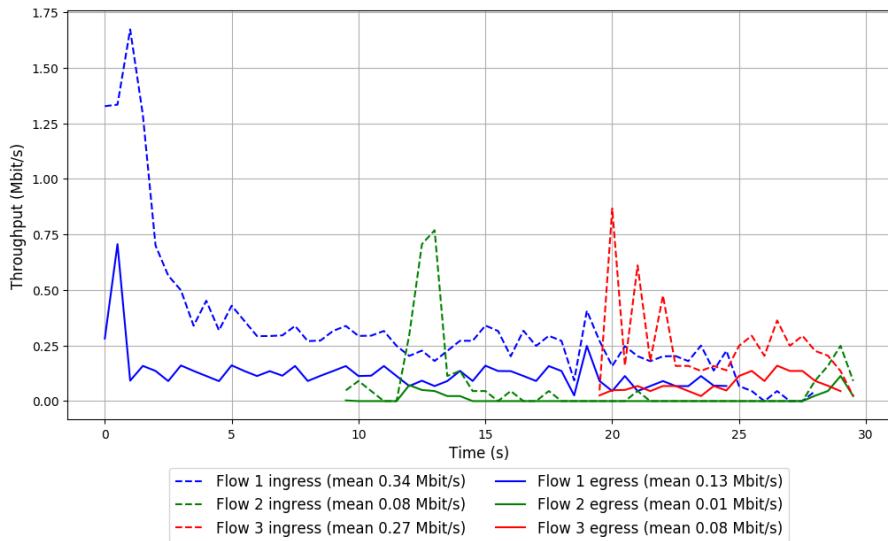


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-03-26 22:36:52
End at: 2018-03-26 22:37:22
Local clock offset: 3.574 ms
Remote clock offset: -4.48 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 101.428 ms
Loss rate: 69.83%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 101.428 ms
Loss rate: 66.86%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 93.232 ms
Loss rate: 86.08%
-- Flow 3:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 107.067 ms
Loss rate: 71.27%
```

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

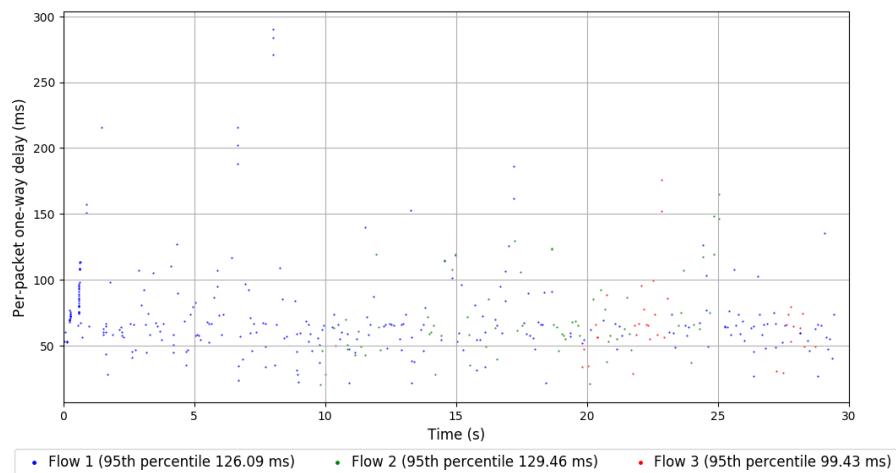
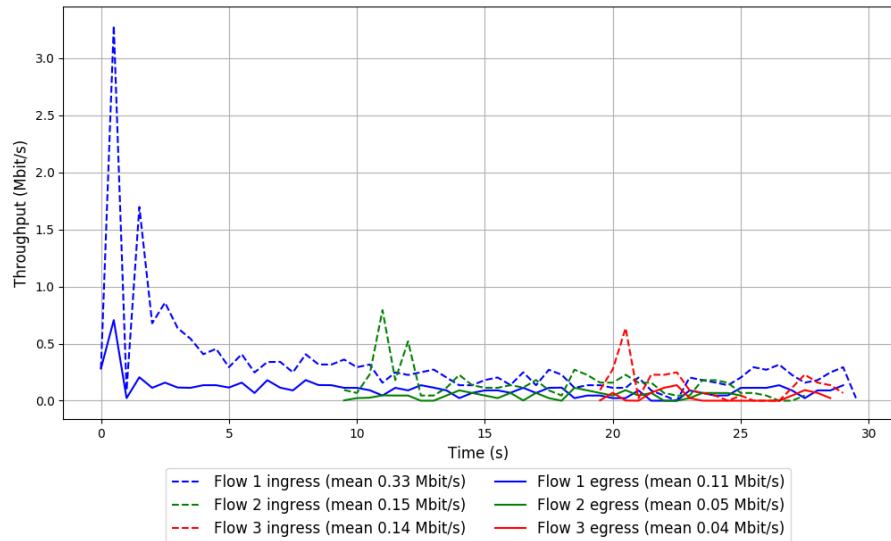


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-03-26 23:00:34
End at: 2018-03-26 23:01:04
Local clock offset: 3.417 ms
Remote clock offset: -5.655 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 127.103 ms
Loss rate: 70.30%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 126.094 ms
Loss rate: 68.40%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 129.460 ms
Loss rate: 74.32%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 99.428 ms
Loss rate: 75.99%
```

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

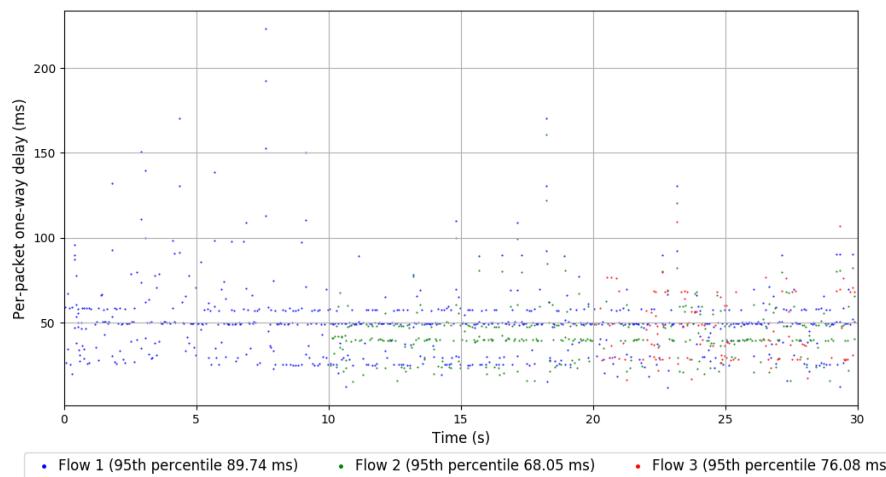
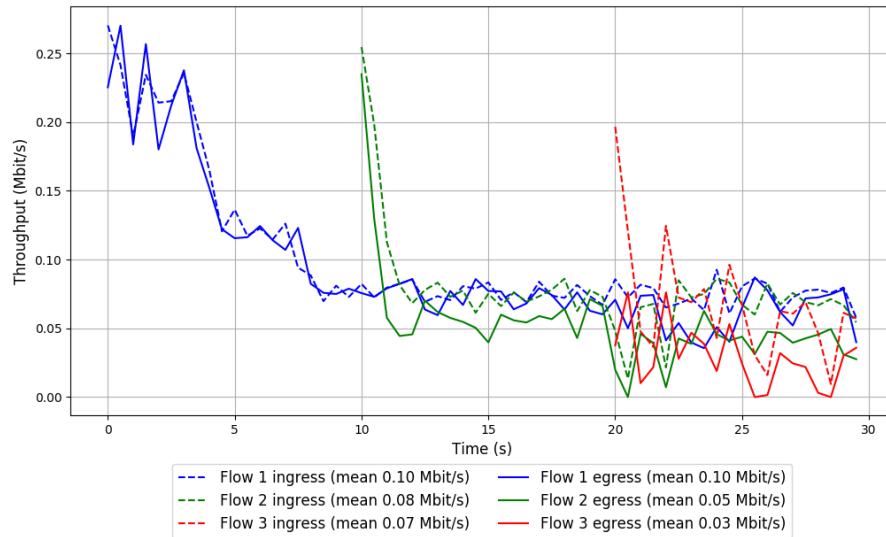


```
Run 1: Statistics of SCReAM

Start at: 2018-03-26 22:17:06
End at: 2018-03-26 22:17:36
Local clock offset: 3.831 ms
Remote clock offset: -5.54 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 79.997 ms
Loss rate: 20.88%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 89.742 ms
Loss rate: 7.07%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 68.050 ms
Loss rate: 31.99%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 76.082 ms
Loss rate: 57.46%
```

Run 1: Report of SCReAM — Data Link

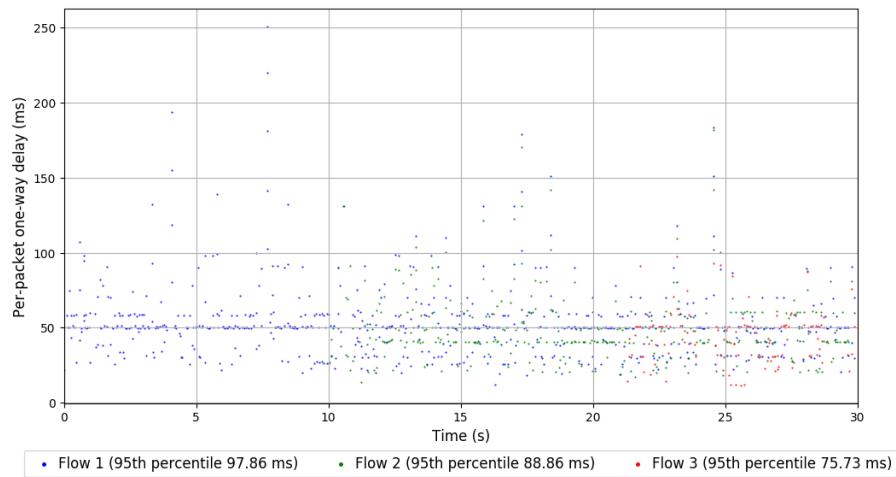
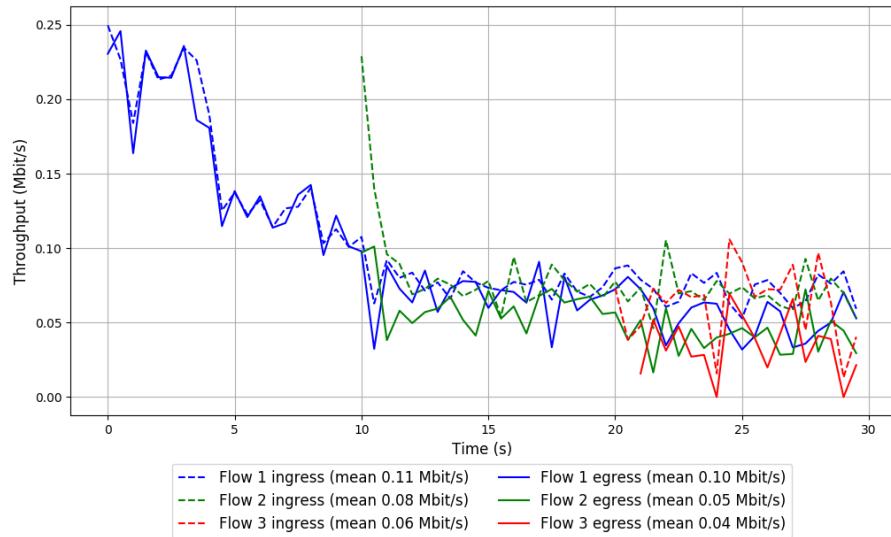


Run 2: Statistics of SCReAM

```
Start at: 2018-03-26 22:40:49
End at: 2018-03-26 22:41:19
Local clock offset: 3.459 ms
Remote clock offset: -4.328 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 91.321 ms
Loss rate: 21.68%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 97.862 ms
Loss rate: 9.56%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 88.858 ms
Loss rate: 33.97%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 75.726 ms
Loss rate: 51.43%
```

## Run 2: Report of SCReAM — Data Link

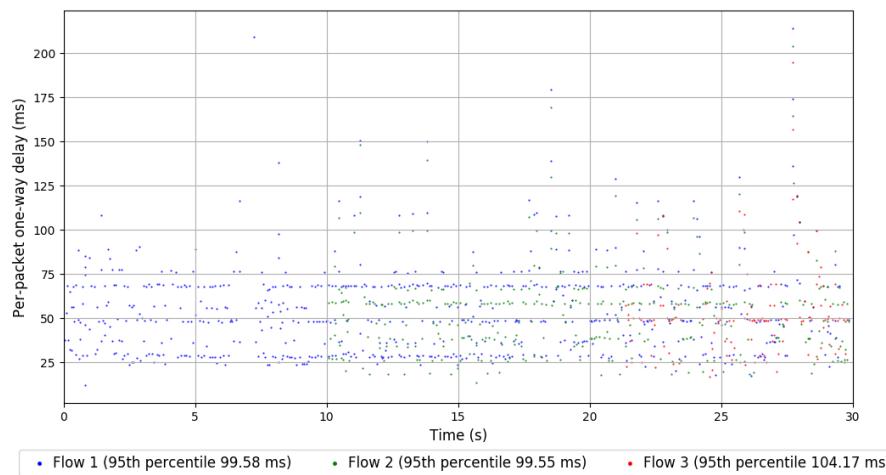
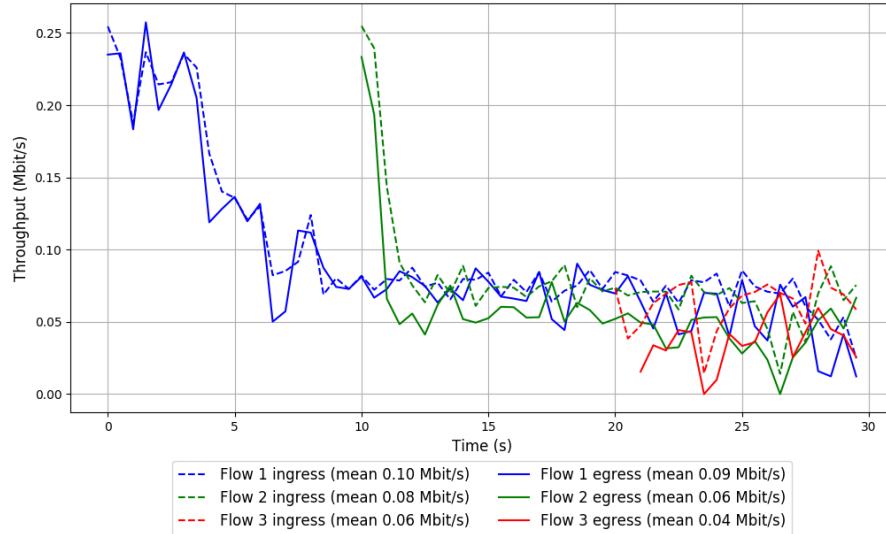


```
Run 3: Statistics of SCReAM
```

```
Start at: 2018-03-26 23:04:31
End at: 2018-03-26 23:05:01
Local clock offset: 3.162 ms
Remote clock offset: -5.766 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 99.944 ms
Loss rate: 19.63%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 99.576 ms
Loss rate: 8.94%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 99.547 ms
Loss rate: 28.33%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 104.170 ms
Loss rate: 48.31%
```

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

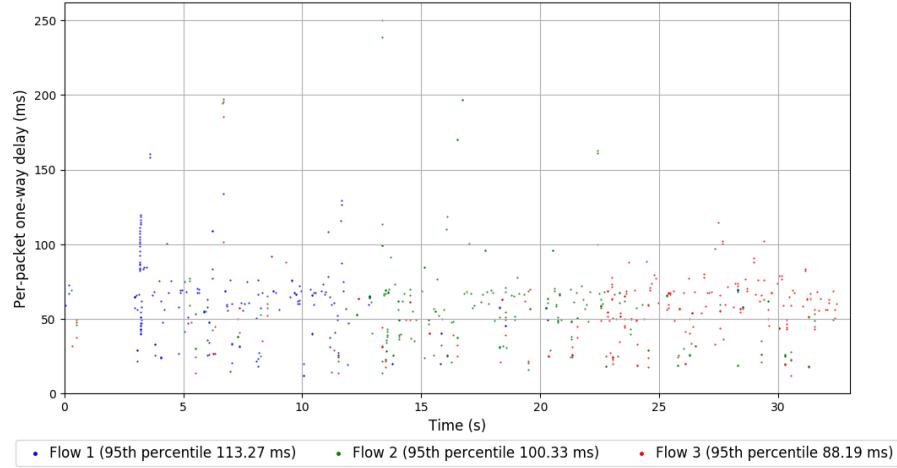
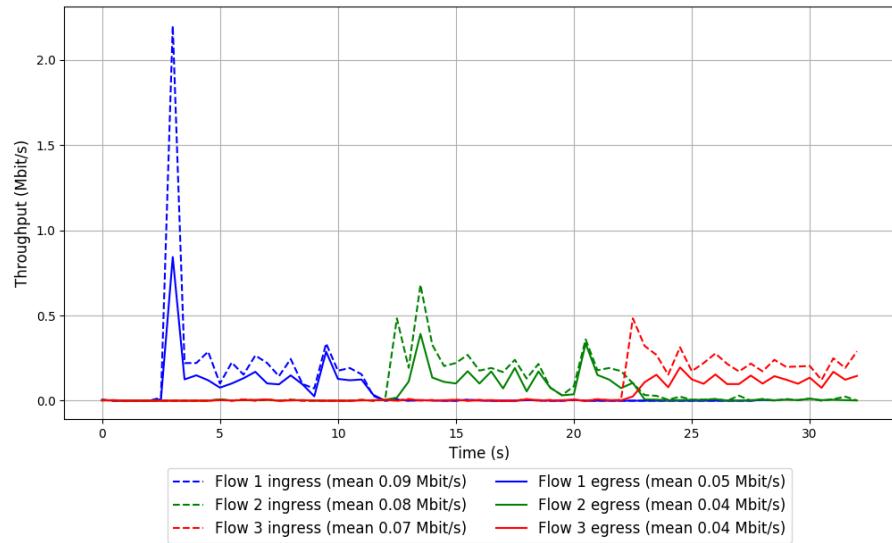


```
Run 1: Statistics of WebRTC media

Start at: 2018-03-26 22:15:47
End at: 2018-03-26 22:16:17
Local clock offset: 3.919 ms
Remote clock offset: -5.683 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 103.018 ms
Loss rate: 45.20%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 113.271 ms
Loss rate: 45.80%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 100.332 ms
Loss rate: 41.99%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 88.191 ms
Loss rate: 47.83%
```

## Run 1: Report of WebRTC media — Data Link

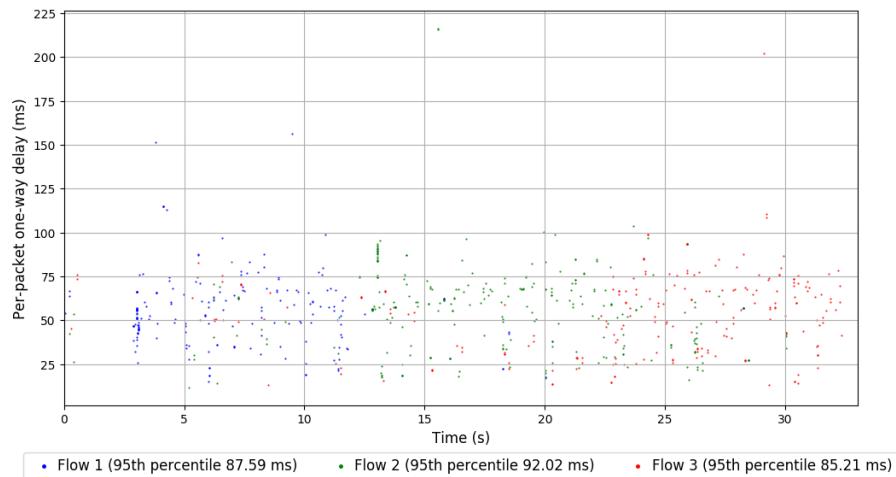
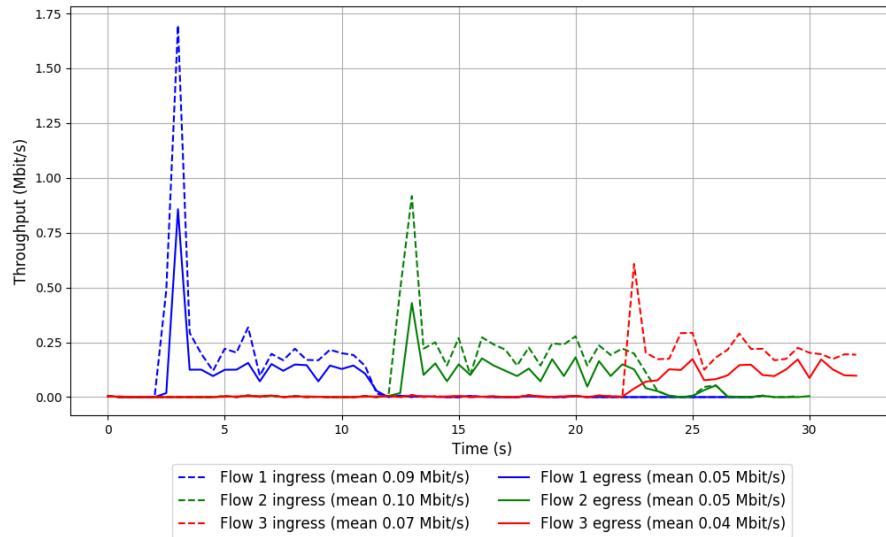


Run 2: Statistics of WebRTC media

```
Start at: 2018-03-26 22:39:30
End at: 2018-03-26 22:40:00
Local clock offset: 3.559 ms
Remote clock offset: -4.327 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 89.465 ms
Loss rate: 47.18%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 87.592 ms
Loss rate: 45.40%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 92.019 ms
Loss rate: 47.02%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 85.207 ms
Loss rate: 49.43%
```

## Run 2: Report of WebRTC media — Data Link

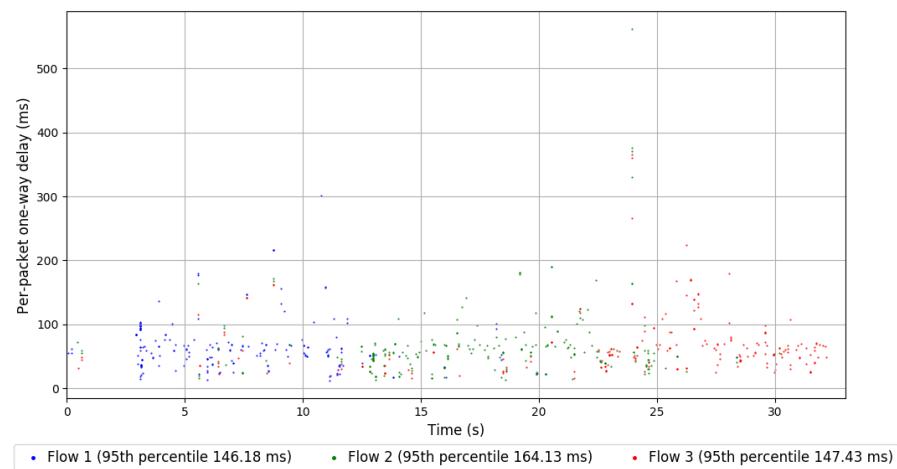
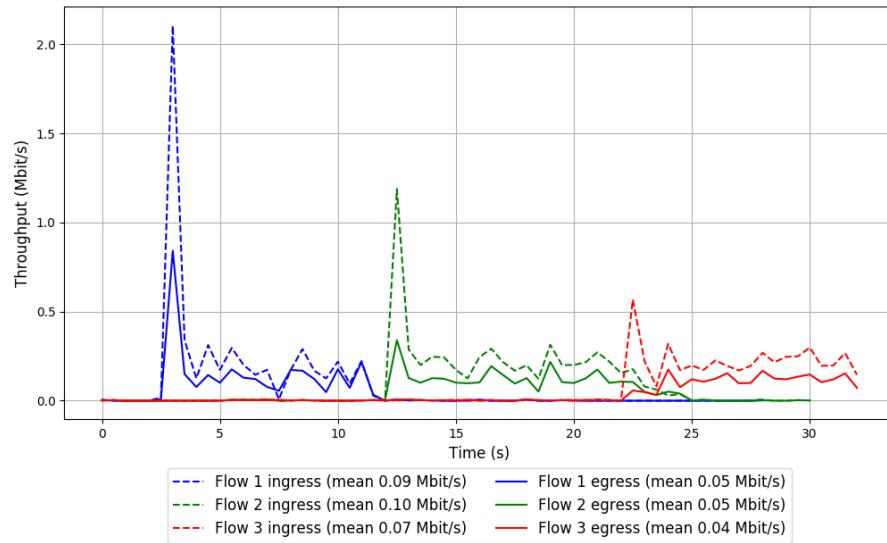


```
Run 3: Statistics of WebRTC media

Start at: 2018-03-26 23:03:12
End at: 2018-03-26 23:03:42
Local clock offset: 3.429 ms
Remote clock offset: -5.763 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 157.002 ms
Loss rate: 47.45%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 146.178 ms
Loss rate: 44.37%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 164.134 ms
Loss rate: 47.74%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 147.433 ms
Loss rate: 50.54%
```

Run 3: Report of WebRTC media — Data Link

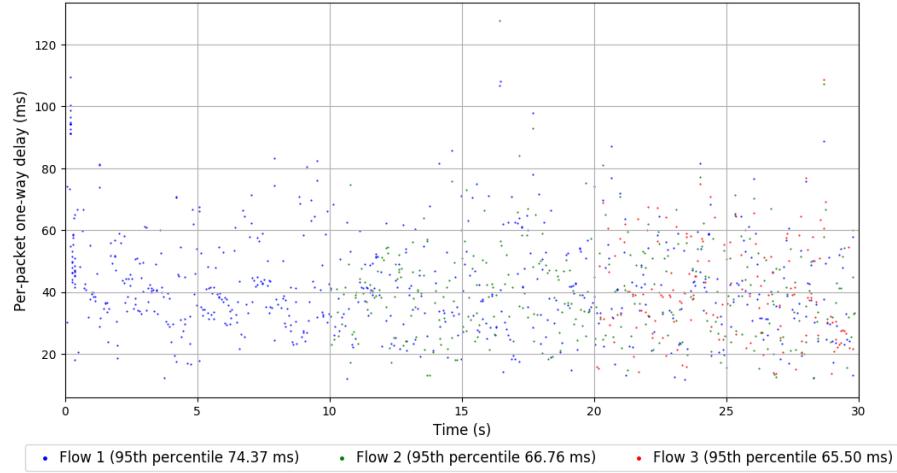
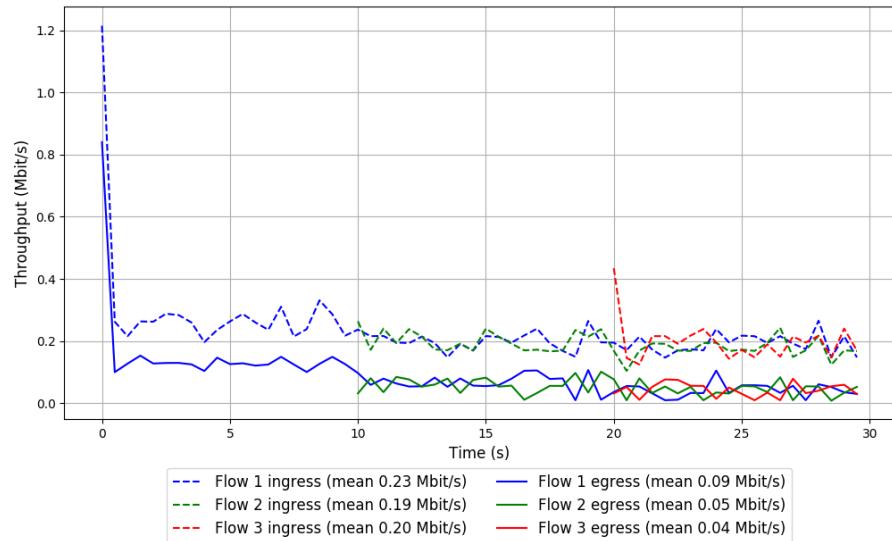


Run 1: Statistics of Sprout

```
Start at: 2018-03-26 22:26:21
End at: 2018-03-26 22:26:51
Local clock offset: 4.008 ms
Remote clock offset: -4.91 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 70.908 ms
Loss rate: 67.17%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 74.366 ms
Loss rate: 60.88%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 66.758 ms
Loss rate: 72.89%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 65.497 ms
Loss rate: 78.51%
```

## Run 1: Report of Sprout — Data Link

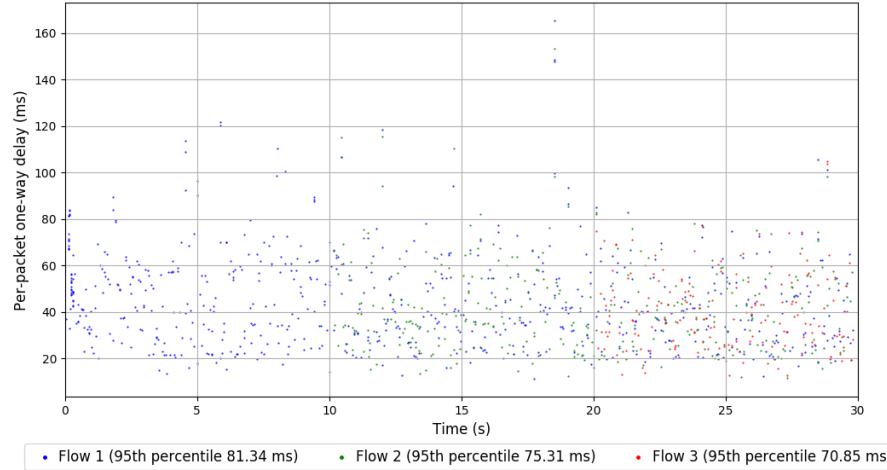
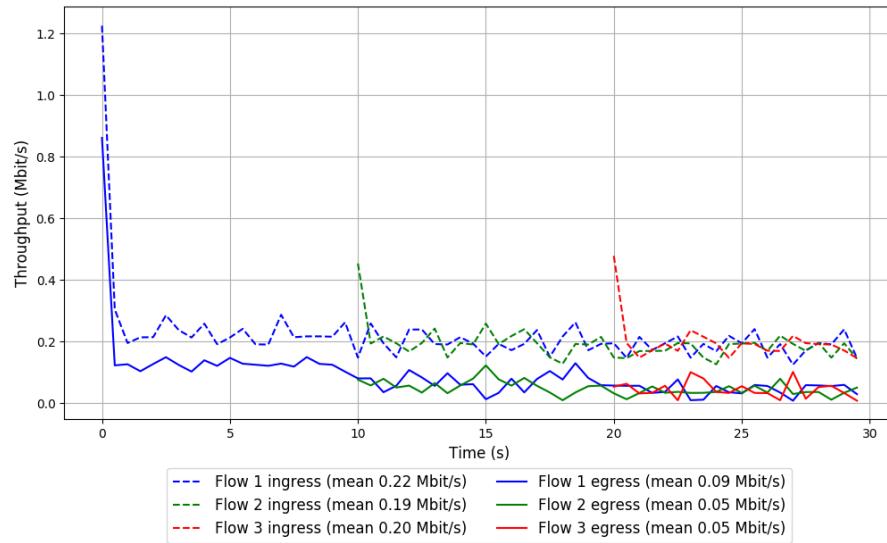


Run 2: Statistics of Sprout

```
Start at: 2018-03-26 22:50:02
End at: 2018-03-26 22:50:32
Local clock offset: 3.374 ms
Remote clock offset: -5.078 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 76.516 ms
Loss rate: 66.41%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 81.339 ms
Loss rate: 58.25%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 75.314 ms
Loss rate: 74.72%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 70.852 ms
Loss rate: 77.61%
```

## Run 2: Report of Sprout — Data Link

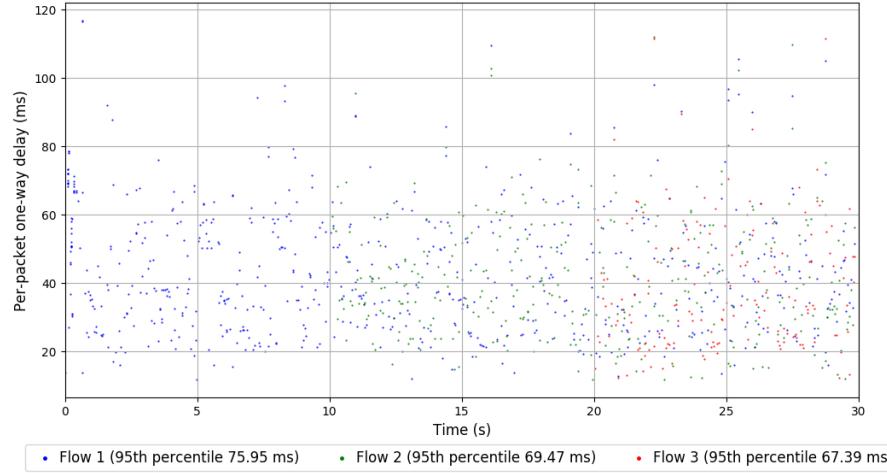
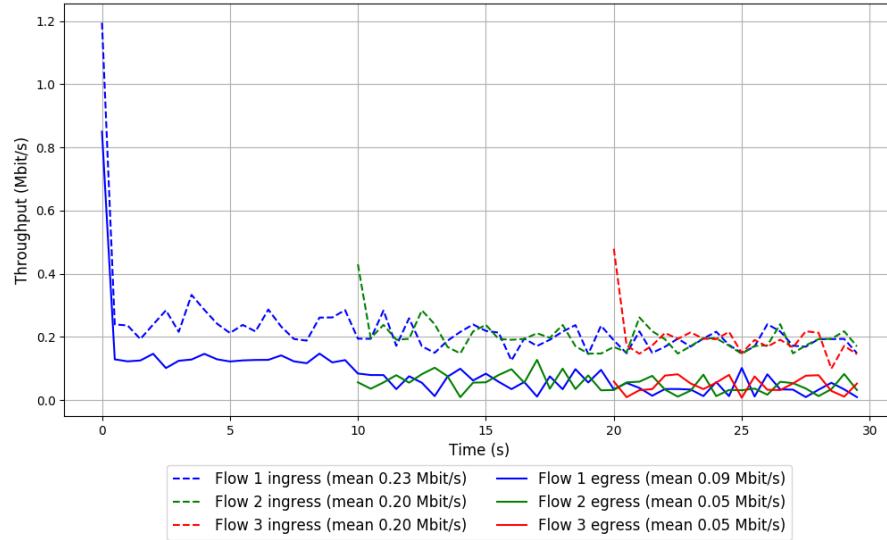


Run 3: Statistics of Sprout

```
Start at: 2018-03-26 23:13:46
End at: 2018-03-26 23:14:16
Local clock offset: 0.735 ms
Remote clock offset: -5.863 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 72.101 ms
Loss rate: 67.05%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 75.948 ms
Loss rate: 61.02%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 69.471 ms
Loss rate: 73.25%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 67.390 ms
Loss rate: 75.30%
```

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

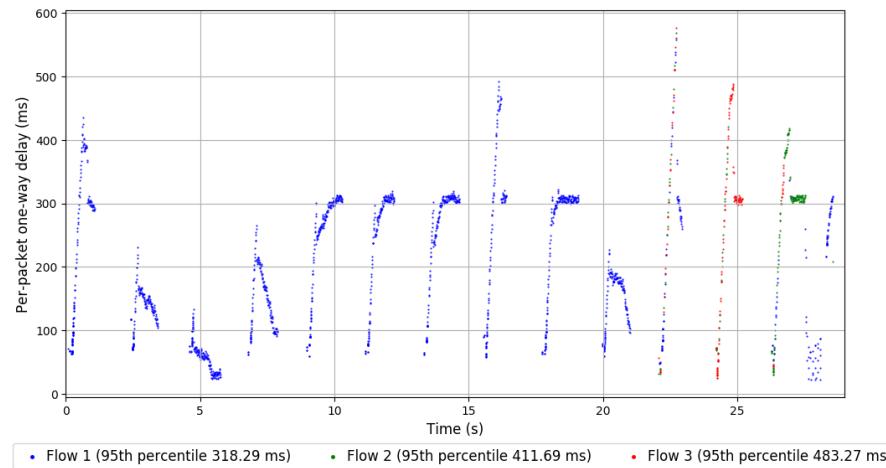
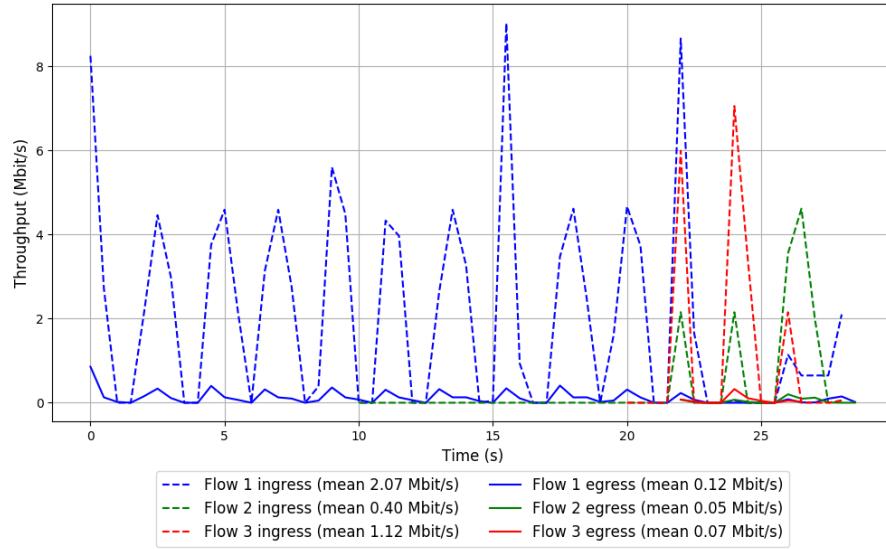


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-03-26 22:23:42
End at: 2018-03-26 22:24:12
Local clock offset: 3.963 ms
Remote clock offset: -5.058 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 388.568 ms
Loss rate: 94.64%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 318.290 ms
Loss rate: 94.21%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 411.691 ms
Loss rate: 95.83%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 483.272 ms
Loss rate: 96.45%
```

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

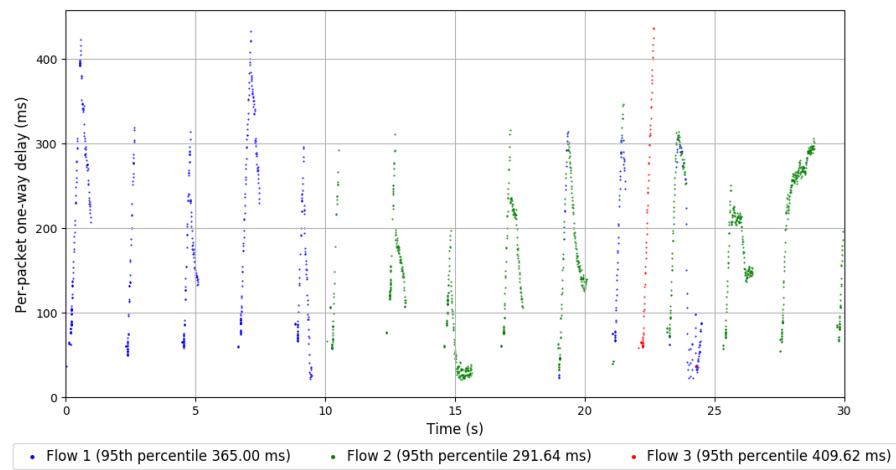
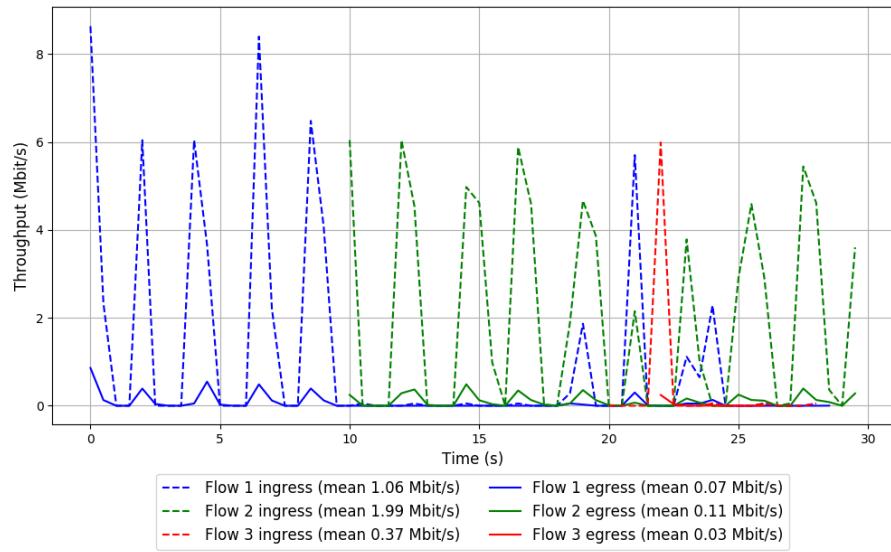


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-03-26 22:47:25
End at: 2018-03-26 22:47:55
Local clock offset: 3.488 ms
Remote clock offset: -4.817 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 316.244 ms
Loss rate: 94.23%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 364.998 ms
Loss rate: 93.68%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 291.642 ms
Loss rate: 94.57%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 409.624 ms
Loss rate: 95.31%
```

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

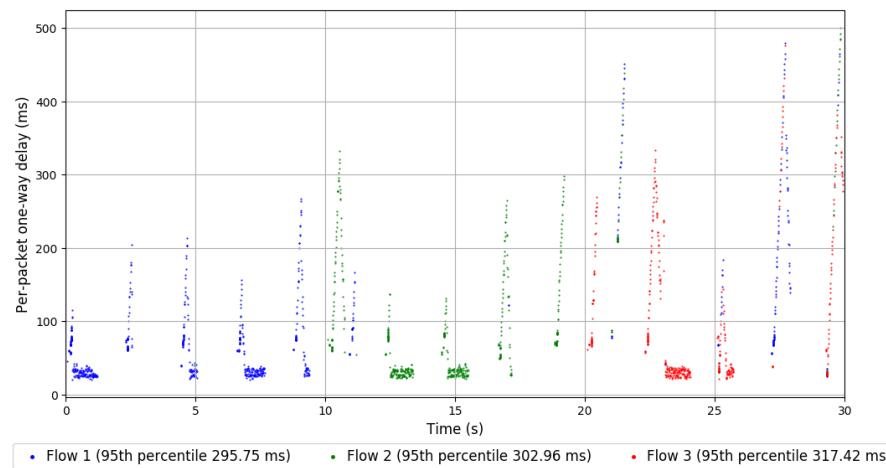
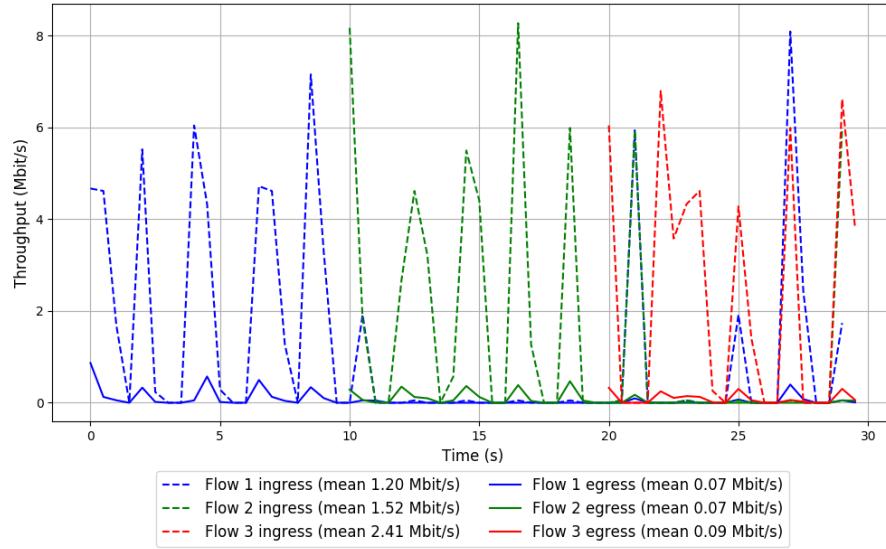


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-03-26 23:11:07
End at: 2018-03-26 23:11:37
Local clock offset: 1.191 ms
Remote clock offset: -5.85 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 309.919 ms
Loss rate: 95.26%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 295.745 ms
Loss rate: 94.41%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 302.962 ms
Loss rate: 95.43%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 317.416 ms
Loss rate: 96.29%
```

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

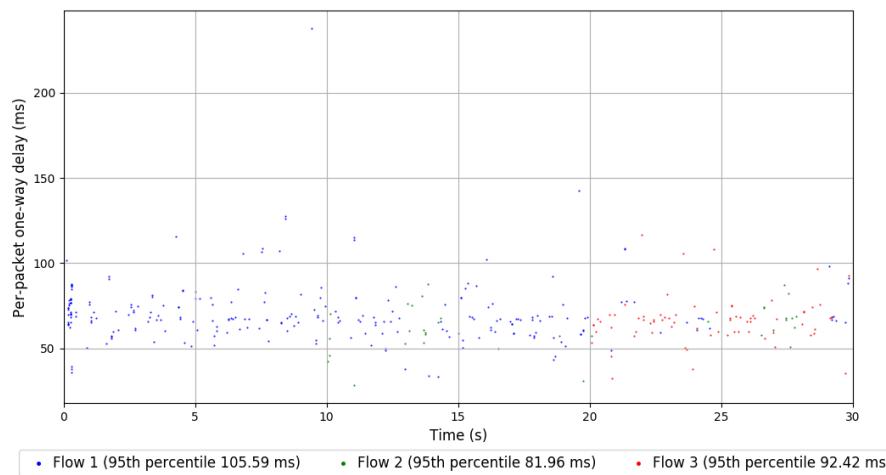
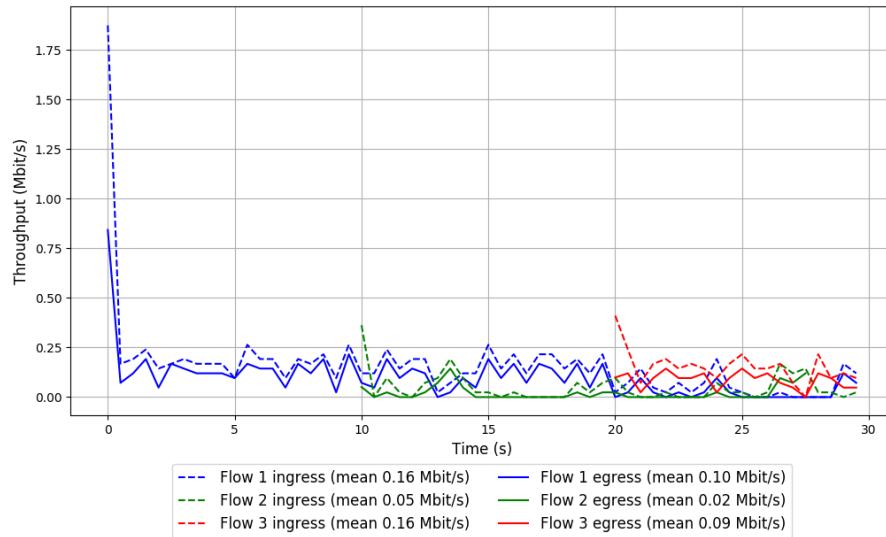


Run 1: Statistics of TCP Vegas

```
Start at: 2018-03-26 22:31:37
End at: 2018-03-26 22:32:07
Local clock offset: 3.918 ms
Remote clock offset: -4.666 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 98.091 ms
Loss rate: 42.55%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 105.588 ms
Loss rate: 37.87%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 81.964 ms
Loss rate: 62.10%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 92.422 ms
Loss rate: 44.49%
```

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

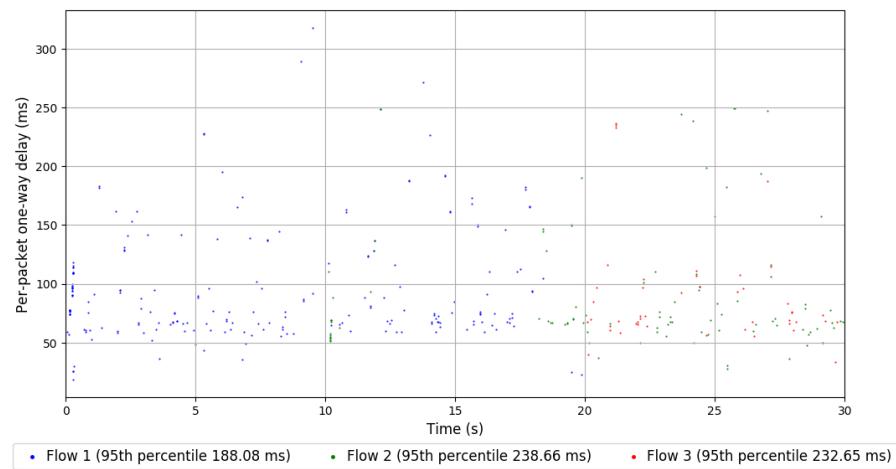
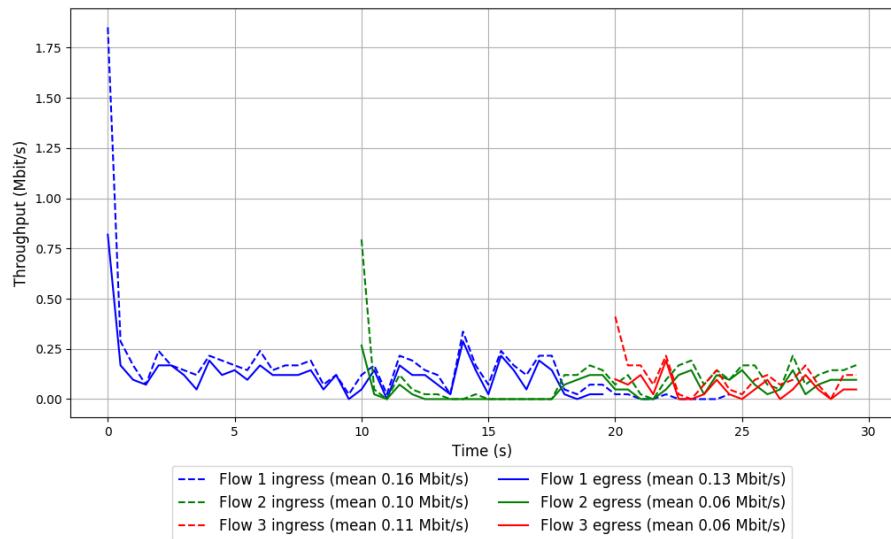


Run 2: Statistics of TCP Vegas

```
Start at: 2018-03-26 22:55:18
End at: 2018-03-26 22:55:48
Local clock offset: 3.437 ms
Remote clock offset: -5.413 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 193.763 ms
Loss rate: 39.70%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 188.077 ms
Loss rate: 35.28%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 238.657 ms
Loss rate: 42.67%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 232.645 ms
Loss rate: 49.93%
```

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

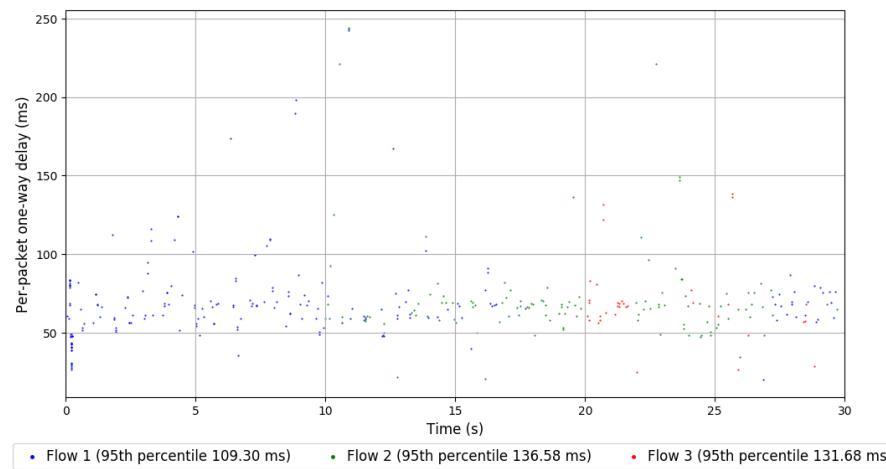
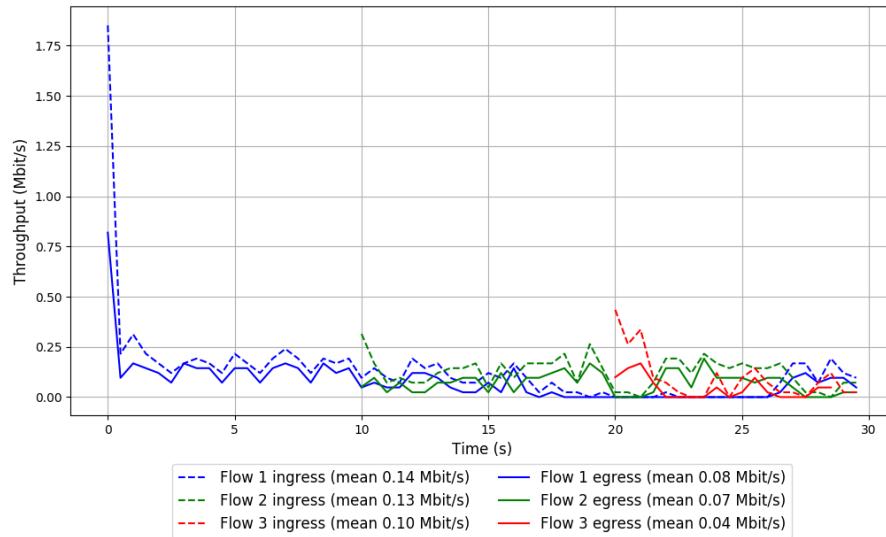


Run 3: Statistics of TCP Vegas

```
Start at: 2018-03-26 23:19:02
End at: 2018-03-26 23:19:32
Local clock offset: -0.111 ms
Remote clock offset: -5.888 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 121.826 ms
Loss rate: 44.19%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 109.296 ms
Loss rate: 40.88%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 136.578 ms
Loss rate: 43.18%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 131.677 ms
Loss rate: 60.40%
```

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

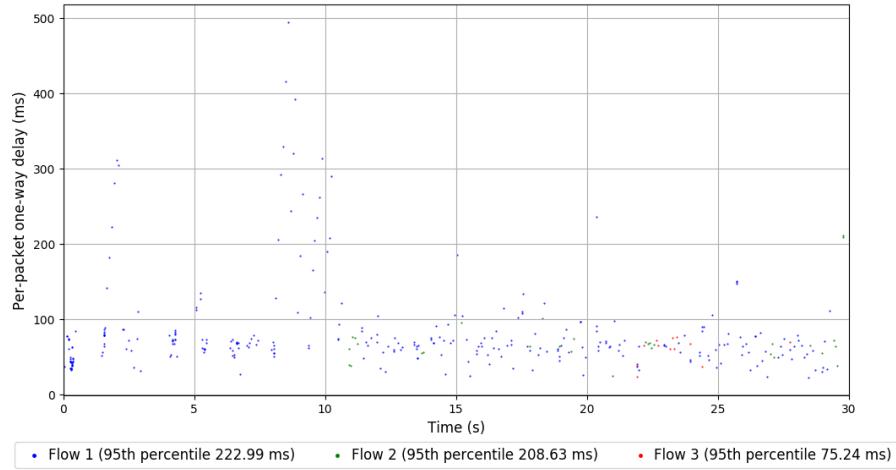
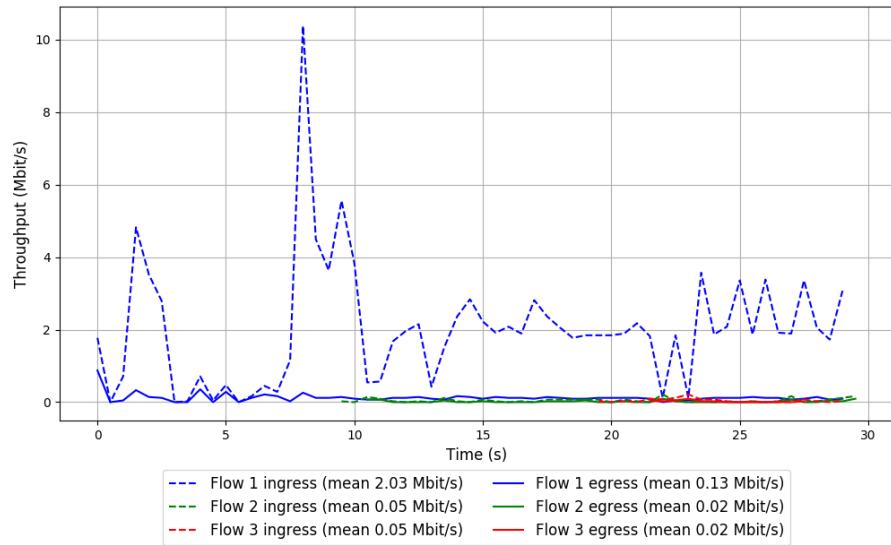


Run 1: Statistics of Verus

```
Start at: 2018-03-26 22:27:40
End at: 2018-03-26 22:28:10
Local clock offset: 3.92 ms
Remote clock offset: -4.808 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 208.627 ms
Loss rate: 93.16%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 222.993 ms
Loss rate: 93.83%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 208.627 ms
Loss rate: 62.50%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 75.236 ms
Loss rate: 67.57%
```

## Run 1: Report of Verus — Data Link

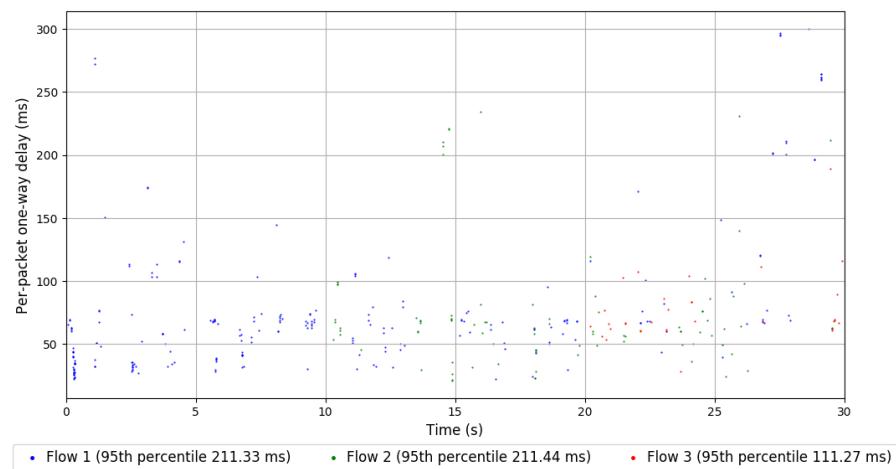
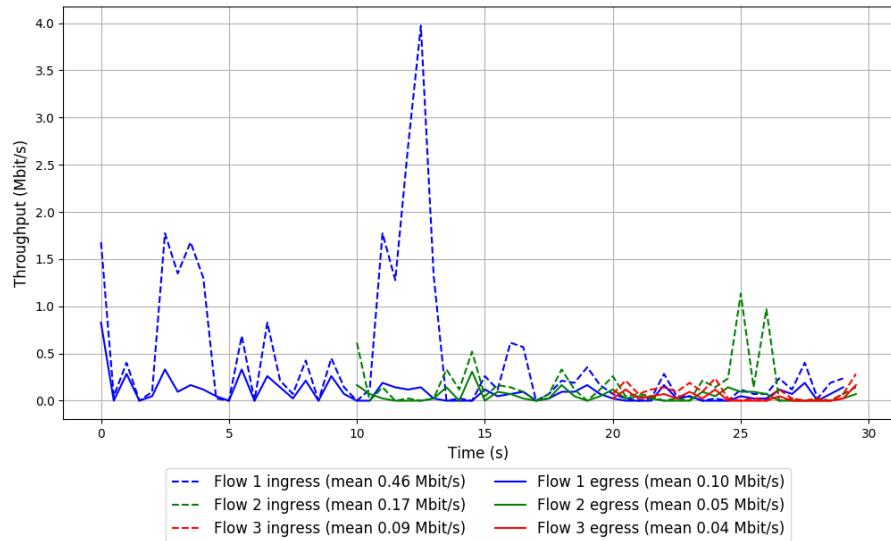


Run 2: Statistics of Verus

```
Start at: 2018-03-26 22:51:21
End at: 2018-03-26 22:51:51
Local clock offset: 3.477 ms
Remote clock offset: -5.242 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 210.069 ms
Loss rate: 76.08%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 211.332 ms
Loss rate: 79.33%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 211.445 ms
Loss rate: 67.90%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 111.272 ms
Loss rate: 56.58%
```

## Run 2: Report of Verus — Data Link

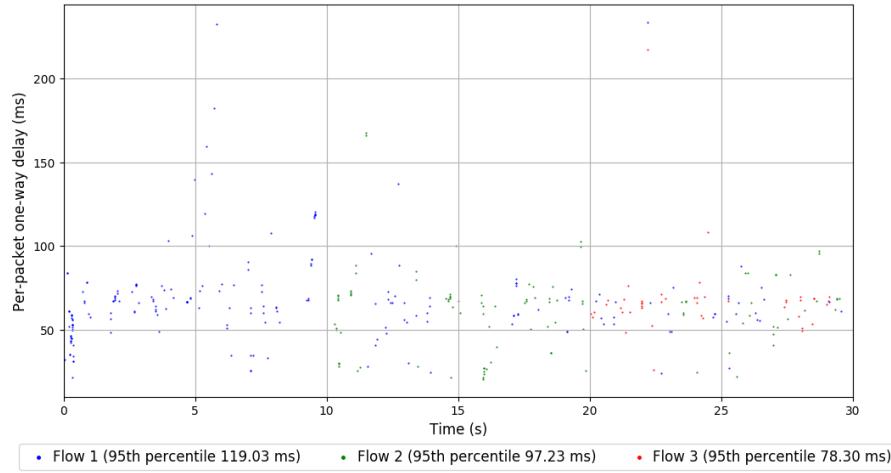
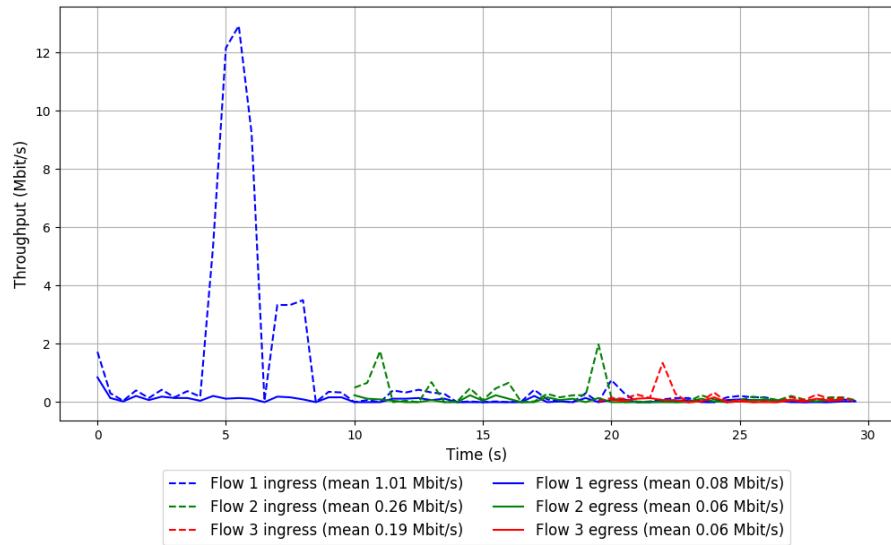


Run 3: Statistics of Verus

```
Start at: 2018-03-26 23:15:05
End at: 2018-03-26 23:15:35
Local clock offset: 0.507 ms
Remote clock offset: -5.849 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 108.093 ms
Loss rate: 88.62%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 119.025 ms
Loss rate: 91.82%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 97.228 ms
Loss rate: 76.35%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 78.298 ms
Loss rate: 70.00%
```

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

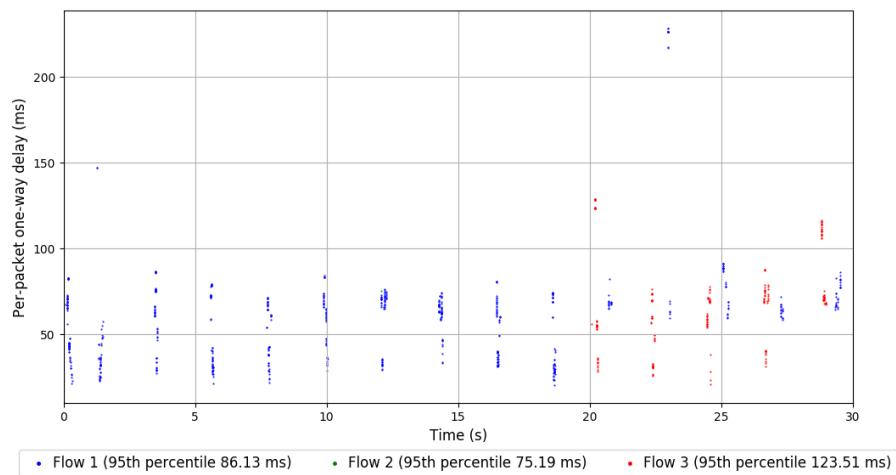
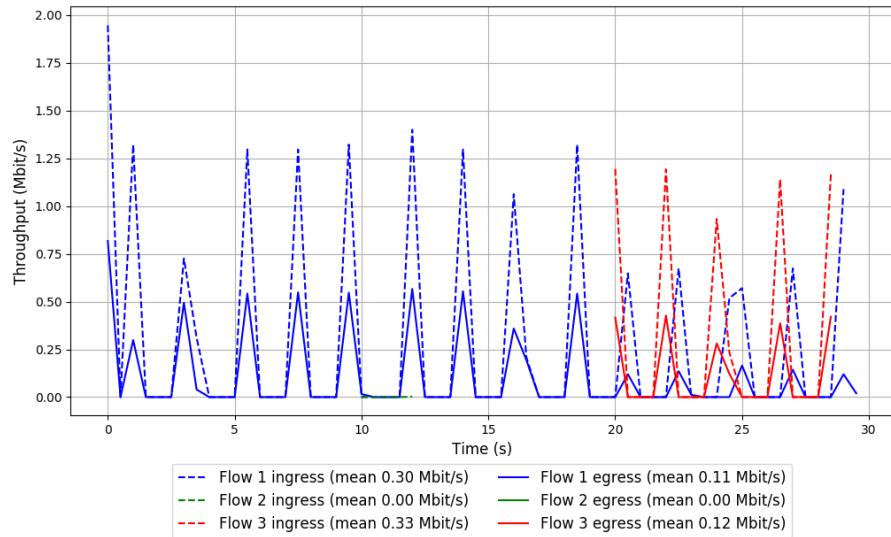


Run 1: Statistics of Copa

```
Start at: 2018-03-26 22:14:28
End at: 2018-03-26 22:14:58
Local clock offset: 3.925 ms
Remote clock offset: -5.731 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 111.481 ms
Loss rate: 64.80%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 86.129 ms
Loss rate: 64.75%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 75.188 ms
Loss rate: 50.00%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 123.512 ms
Loss rate: 64.96%
```

## Run 1: Report of Copa — Data Link

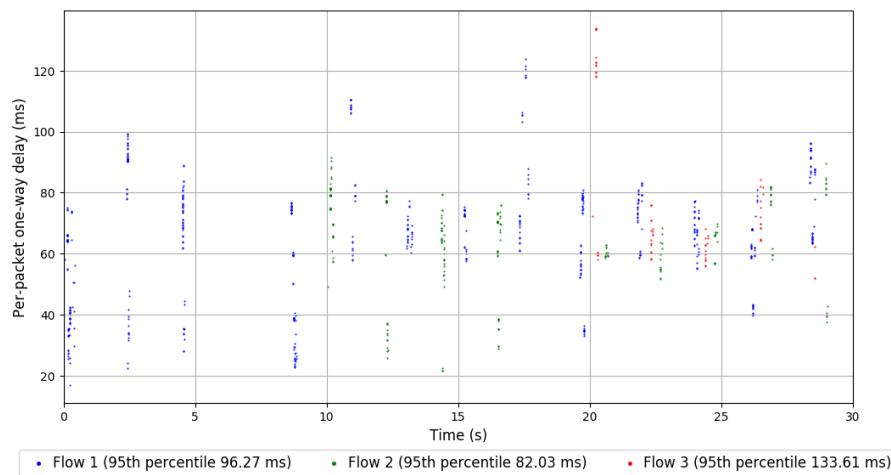
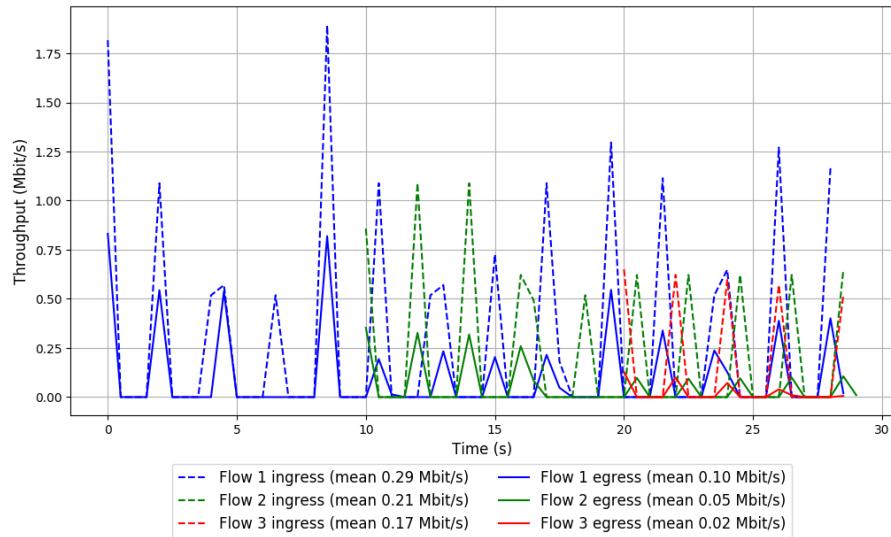


Run 2: Statistics of Copa

```
Start at: 2018-03-26 22:38:11
End at: 2018-03-26 22:38:41
Local clock offset: 3.5 ms
Remote clock offset: -4.383 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 96.062 ms
Loss rate: 71.13%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 96.265 ms
Loss rate: 65.65%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 82.030 ms
Loss rate: 76.38%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 133.613 ms
Loss rate: 88.01%
```

## Run 2: Report of Copa — Data Link

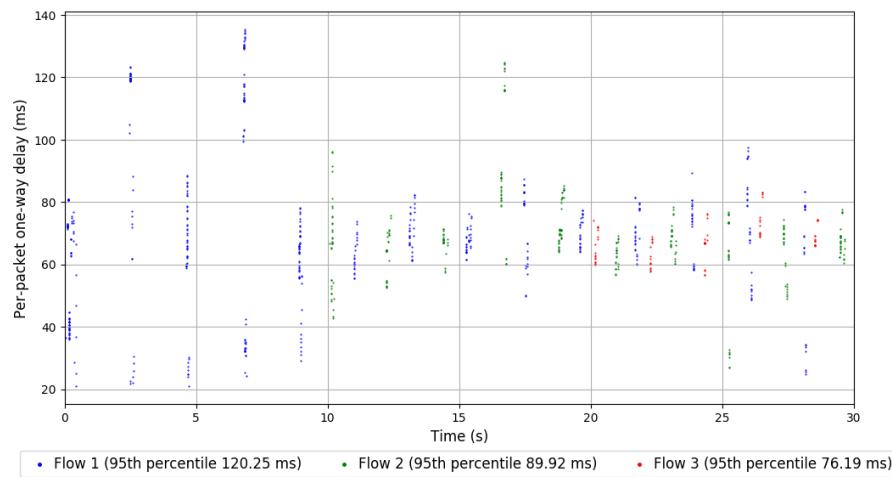
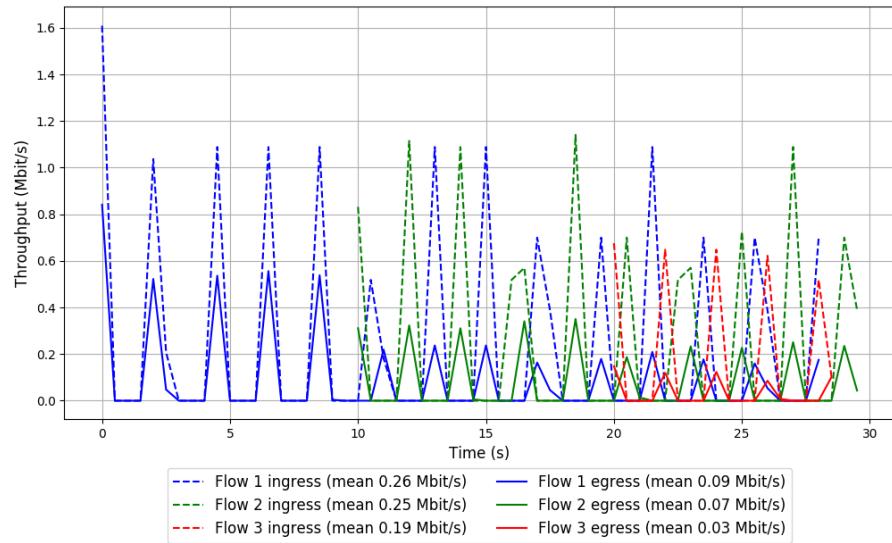


Run 3: Statistics of Copa

```
Start at: 2018-03-26 23:01:53
End at: 2018-03-26 23:02:23
Local clock offset: 3.342 ms
Remote clock offset: -5.64 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 119.720 ms
Loss rate: 69.77%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 120.255 ms
Loss rate: 65.86%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 89.924 ms
Loss rate: 71.53%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 76.191 ms
Loss rate: 81.79%
```

### Run 3: Report of Copa — Data Link

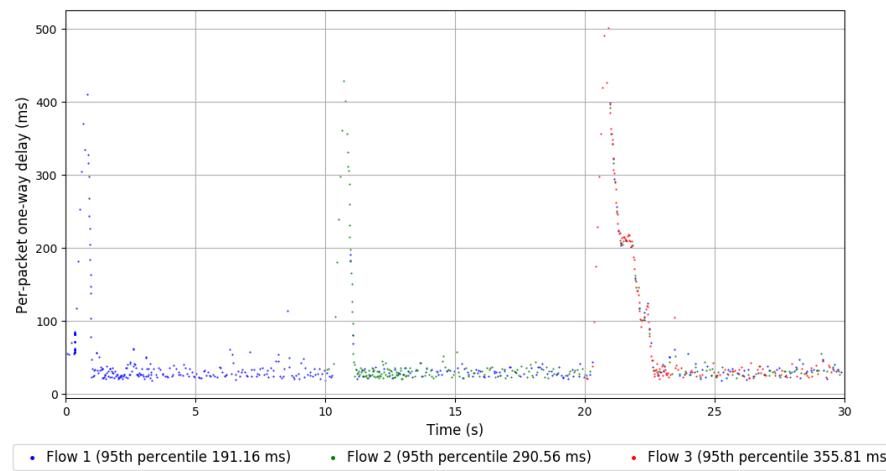
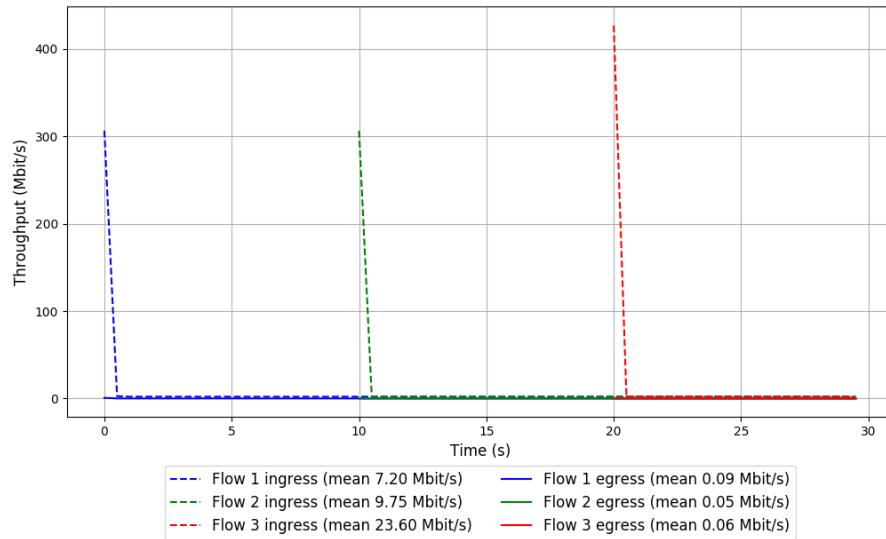


```
Run 1: Statistics of FillP

Start at: 2018-03-26 22:09:12
End at: 2018-03-26 22:09:42
Local clock offset: 3.928 ms
Remote clock offset: -6.482 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 267.580 ms
Loss rate: 99.35%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 191.158 ms
Loss rate: 98.82%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 290.559 ms
Loss rate: 99.45%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 355.808 ms
Loss rate: 99.76%
```

## Run 1: Report of FillP — Data Link

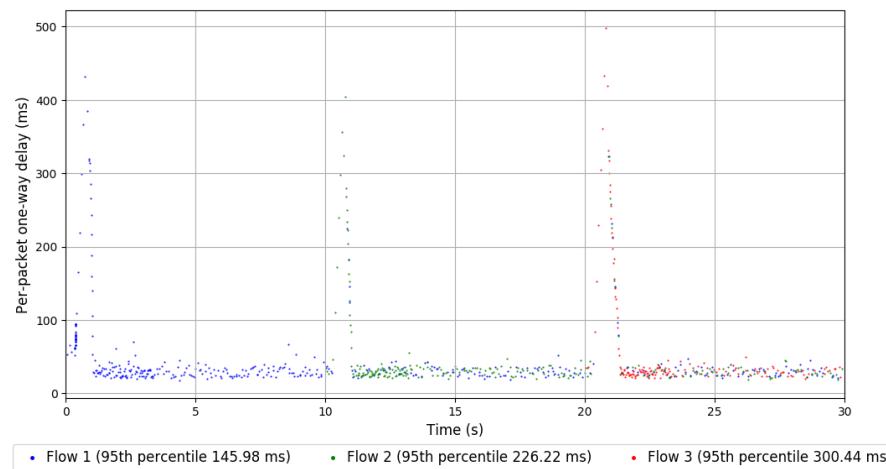
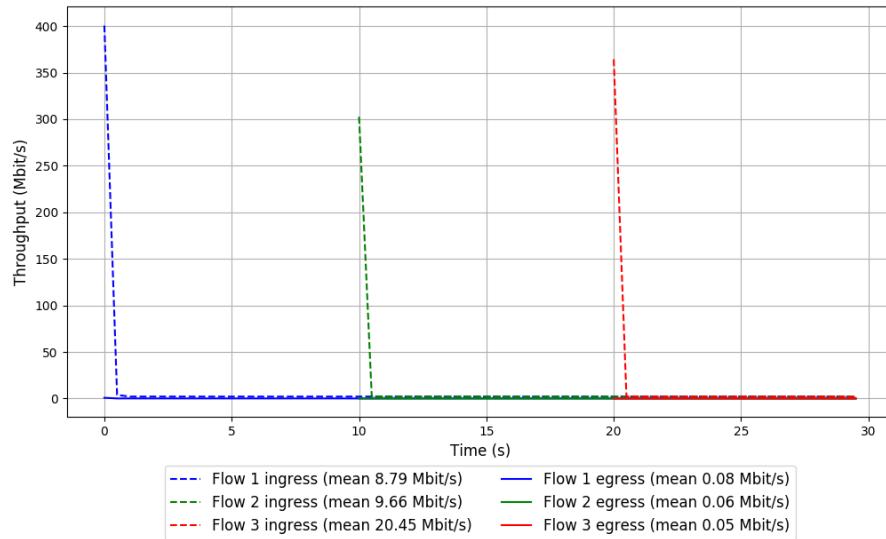


Run 2: Statistics of FillP

```
Start at: 2018-03-26 22:32:55
End at: 2018-03-26 22:33:25
Local clock offset: 3.821 ms
Remote clock offset: -4.502 ms

# Below is generated by plot.py at 2018-03-27 00:31:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 219.378 ms
Loss rate: 99.37%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 145.979 ms
Loss rate: 99.05%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 226.222 ms
Loss rate: 99.40%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 300.438 ms
Loss rate: 99.74%
```

## Run 2: Report of FillP — Data Link

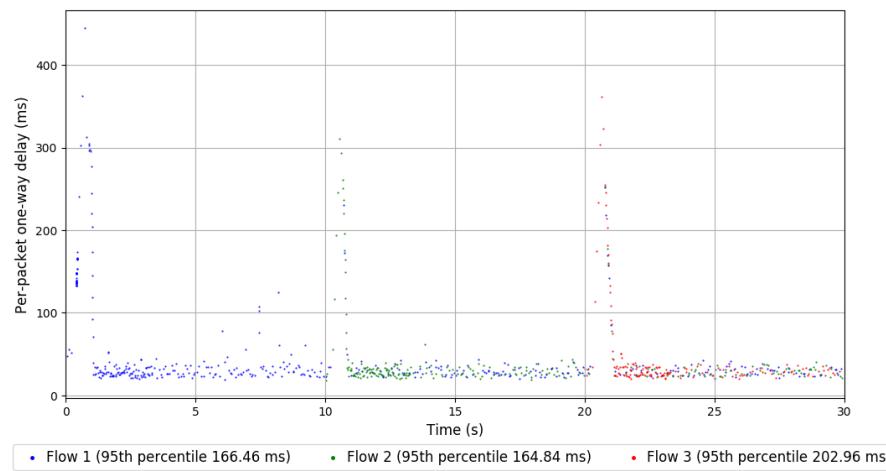
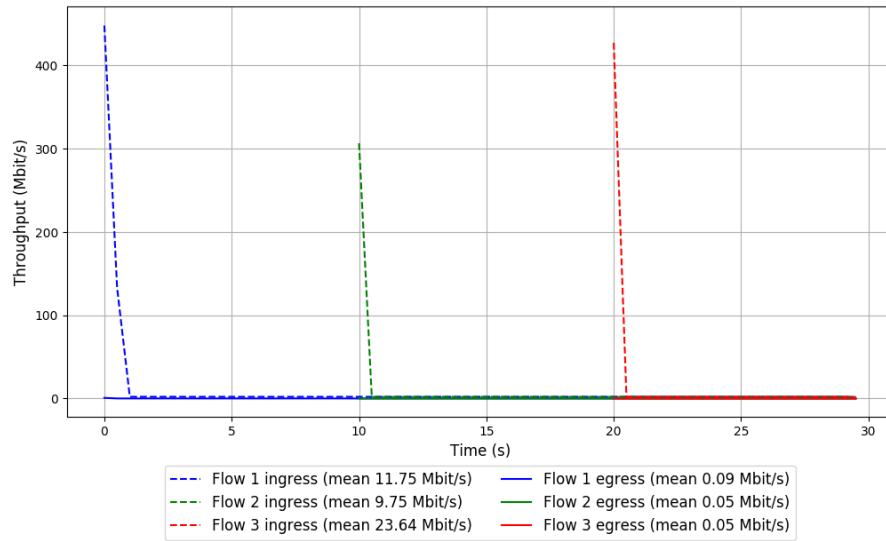


Run 3: Statistics of FillP

```
Start at: 2018-03-26 22:56:37
End at: 2018-03-26 22:57:07
Local clock offset: 3.425 ms
Remote clock offset: -5.564 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 172.186 ms
Loss rate: 99.47%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 166.460 ms
Loss rate: 99.26%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 164.840 ms
Loss rate: 99.47%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 202.963 ms
Loss rate: 99.78%
```

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

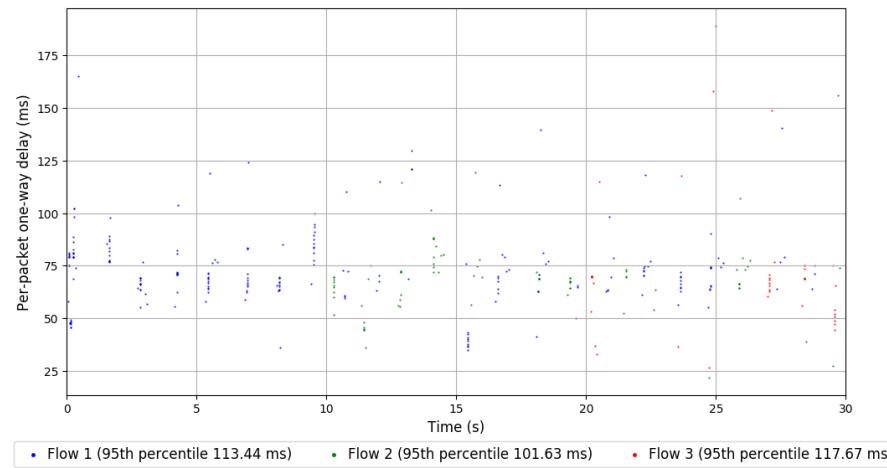
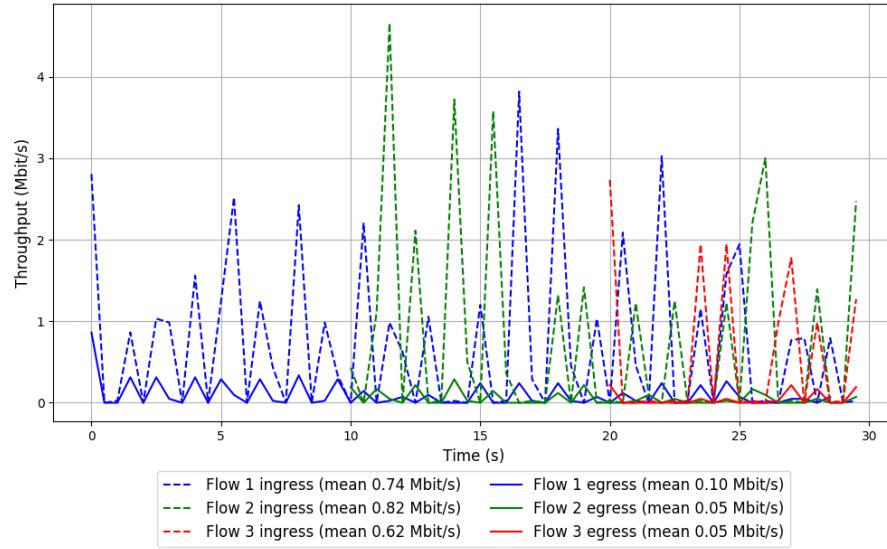


```
Run 1: Statistics of Indigo-1-32
```

```
Start at: 2018-03-26 22:18:25
End at: 2018-03-26 22:18:55
Local clock offset: 3.855 ms
Remote clock offset: -5.42 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 113.435 ms
Loss rate: 90.50%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 113.435 ms
Loss rate: 87.63%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 101.629 ms
Loss rate: 93.82%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 117.675 ms
Loss rate: 92.23%
```

Run 1: Report of Indigo-1-32 — Data Link

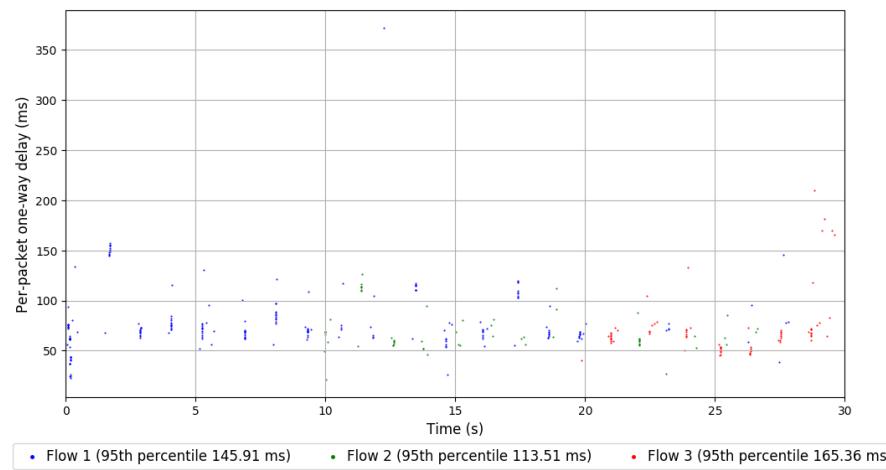
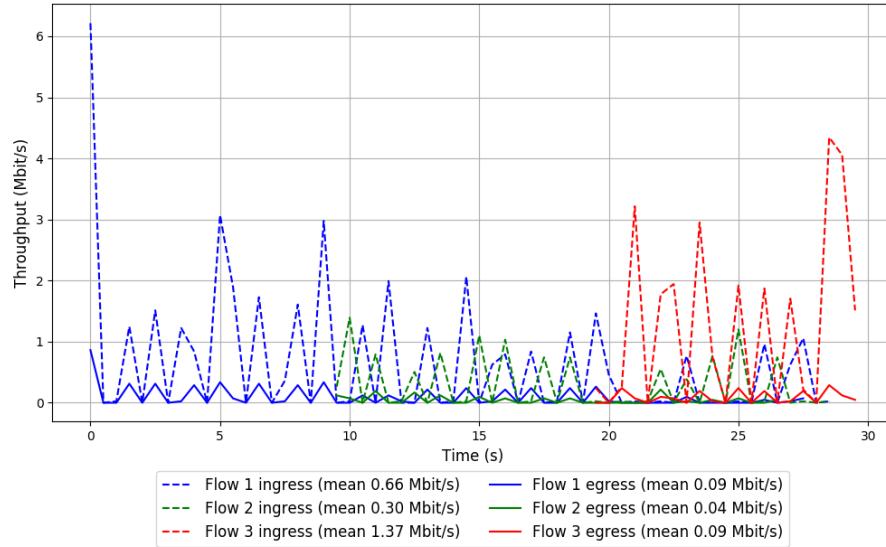


Run 2: Statistics of Indigo-1-32

```
Start at: 2018-03-26 22:42:08
End at: 2018-03-26 22:42:38
Local clock offset: 3.508 ms
Remote clock offset: -4.202 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 145.457 ms
Loss rate: 89.07%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 145.909 ms
Loss rate: 86.55%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 113.513 ms
Loss rate: 87.64%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 165.359 ms
Loss rate: 93.27%
```

## Run 2: Report of Indigo-1-32 — Data Link

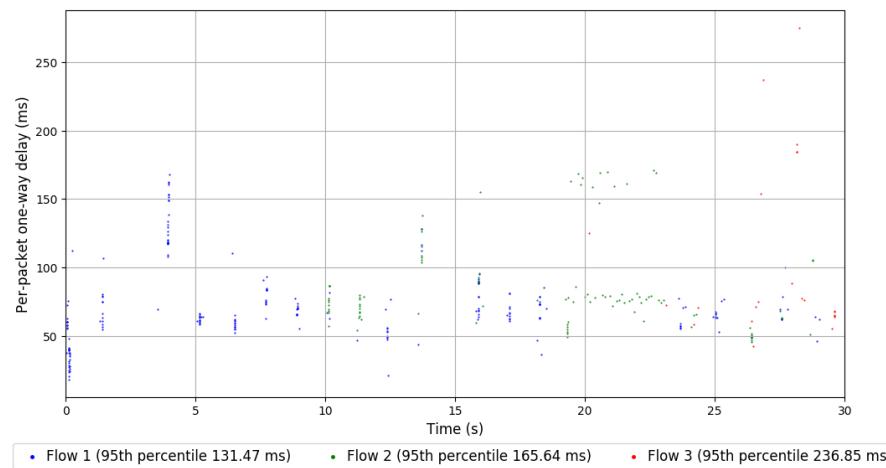
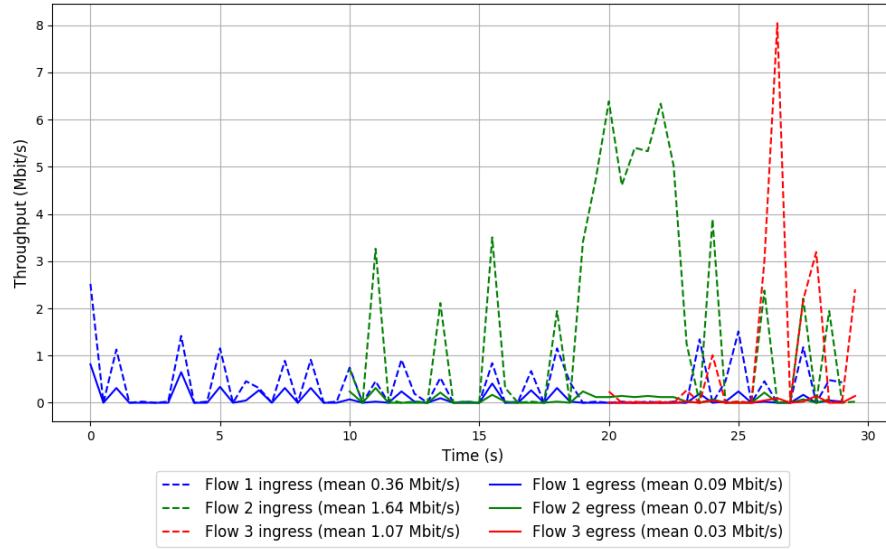


Run 3: Statistics of Indigo-1-32

```
Start at: 2018-03-26 23:05:50
End at: 2018-03-26 23:06:20
Local clock offset: 2.76 ms
Remote clock offset: -5.742 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 160.570 ms
Loss rate: 92.16%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 131.466 ms
Loss rate: 74.89%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 165.637 ms
Loss rate: 96.05%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 236.853 ms
Loss rate: 97.41%
```

### Run 3: Report of Indigo-1-32 — Data Link

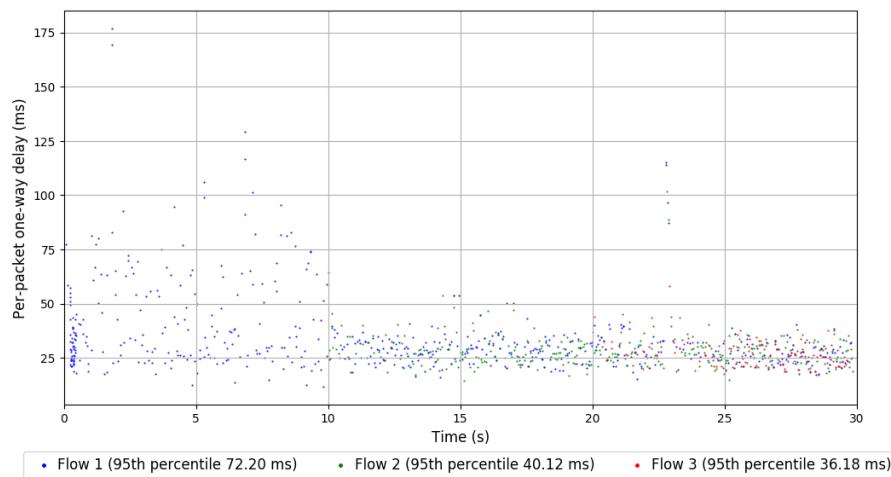
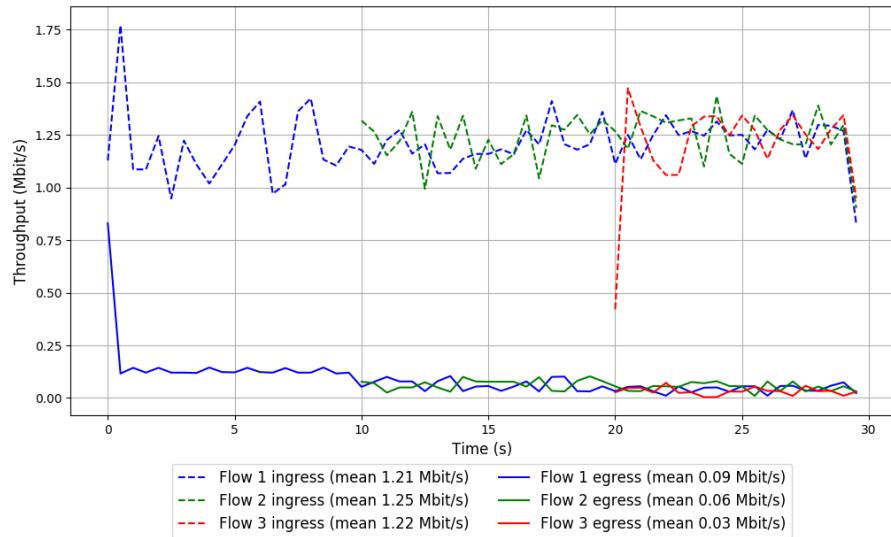


```
Run 1: Statistics of Vivace-latency
```

```
Start at: 2018-03-26 22:25:01
End at: 2018-03-26 22:25:31
Local clock offset: 4.01 ms
Remote clock offset: -4.993 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.015 ms
Loss rate: 94.28%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 72.205 ms
Loss rate: 92.58%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.119 ms
Loss rate: 95.28%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 36.182 ms
Loss rate: 97.36%
```

Run 1: Report of Vivace-latency — Data Link

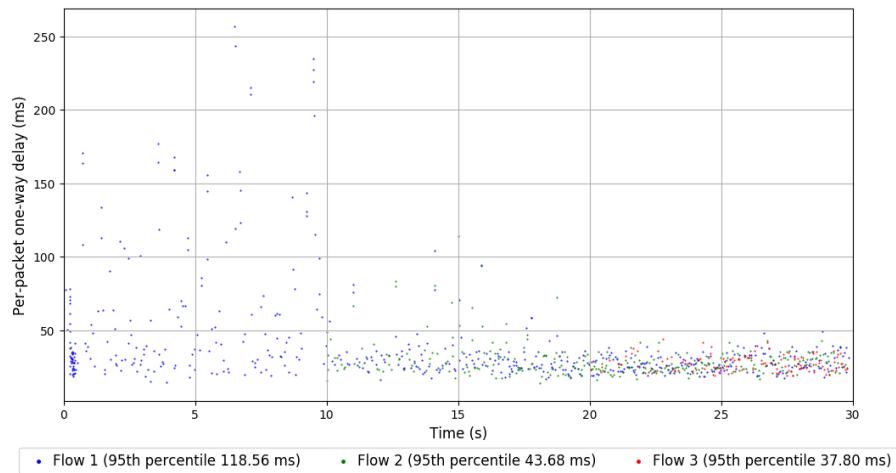
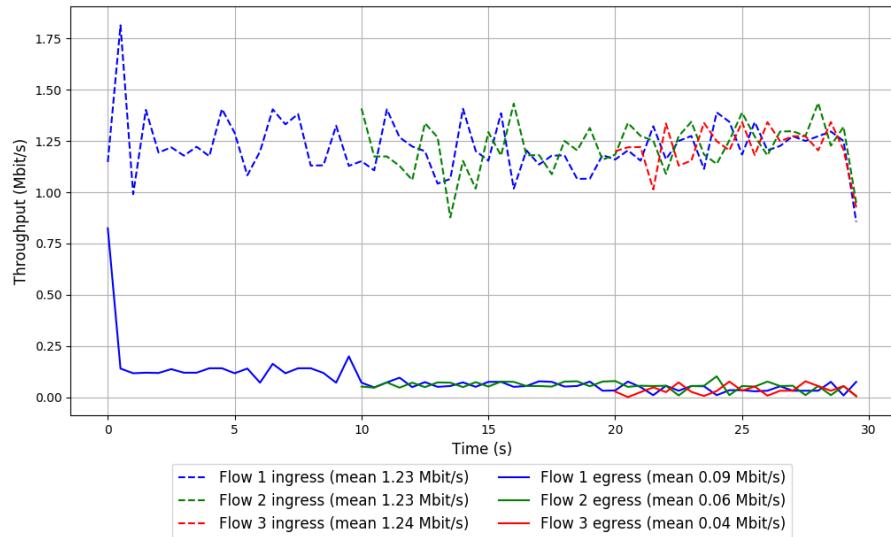


Run 2: Statistics of Vivace-latency

```
Start at: 2018-03-26 22:48:44
End at: 2018-03-26 22:49:14
Local clock offset: 3.364 ms
Remote clock offset: -5.002 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 80.784 ms
Loss rate: 94.31%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 118.561 ms
Loss rate: 92.68%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 43.678 ms
Loss rate: 95.42%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 37.800 ms
Loss rate: 97.01%
```

## Run 2: Report of Vivace-latency — Data Link

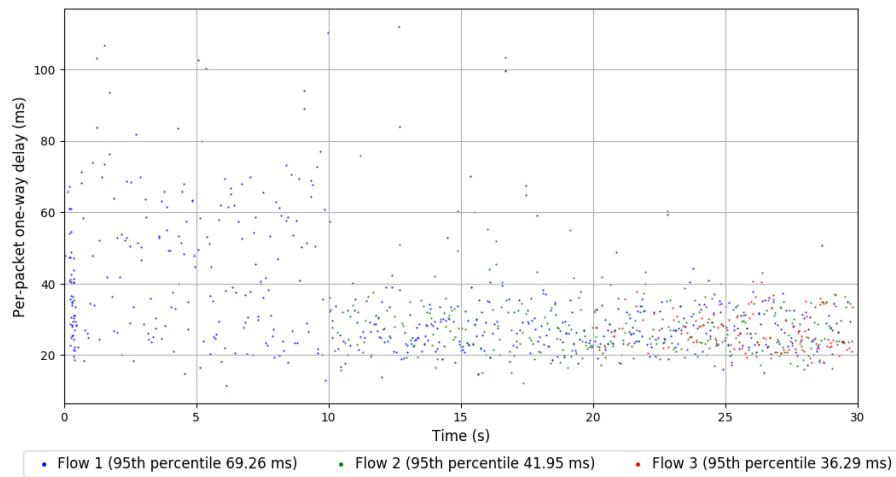
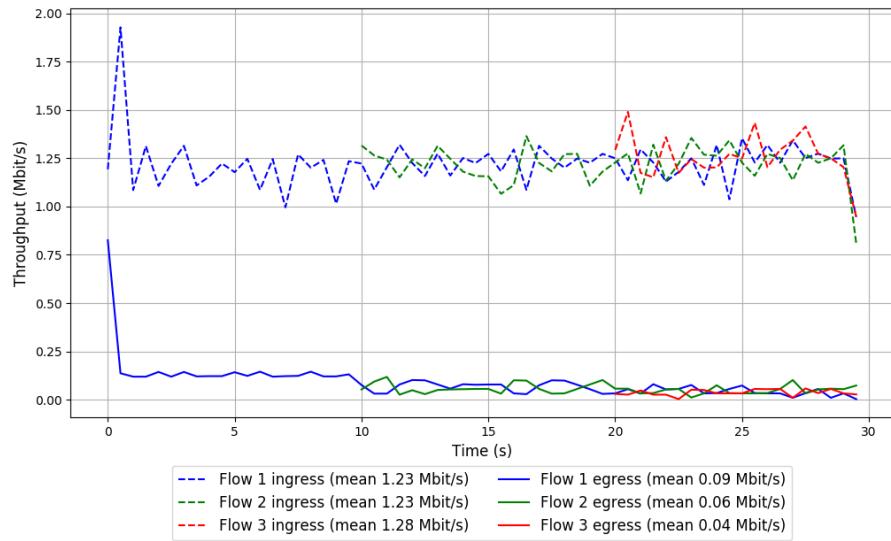


Run 3: Statistics of Vivace-latency

```
Start at: 2018-03-26 23:12:26
End at: 2018-03-26 23:12:56
Local clock offset: 0.875 ms
Remote clock offset: -5.807 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.364 ms
Loss rate: 94.32%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 69.260 ms
Loss rate: 92.58%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 41.946 ms
Loss rate: 95.52%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 36.294 ms
Loss rate: 97.08%
```

### Run 3: Report of Vivace-latency — Data Link

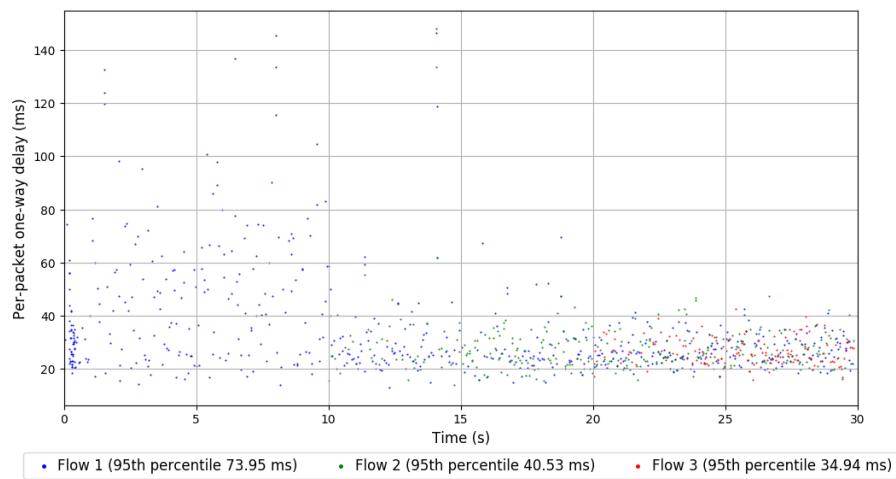
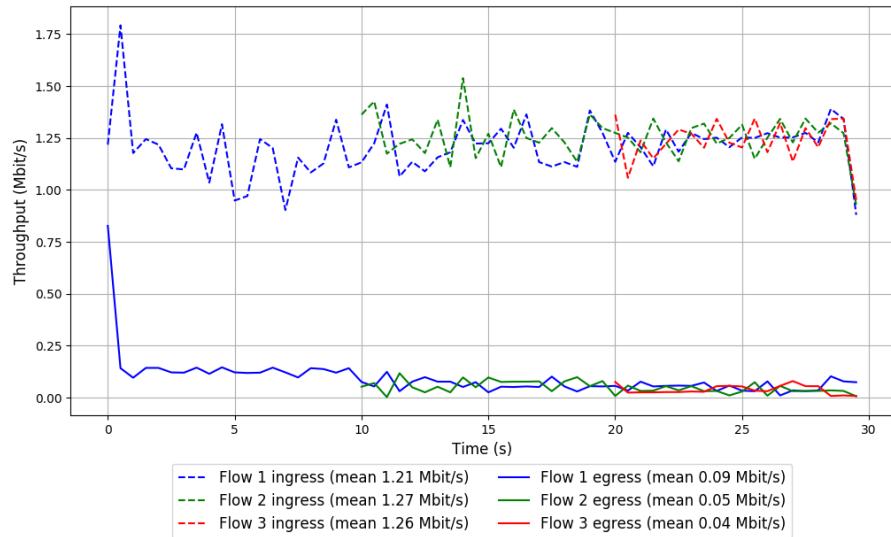


```
Run 1: Statistics of Vivace-loss
```

```
Start at: 2018-03-26 22:19:44
End at: 2018-03-26 22:20:14
Local clock offset: 3.932 ms
Remote clock offset: -5.316 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 62.671 ms
Loss rate: 94.33%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 73.946 ms
Loss rate: 92.26%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 40.528 ms
Loss rate: 96.05%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 34.938 ms
Loss rate: 96.89%
```

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

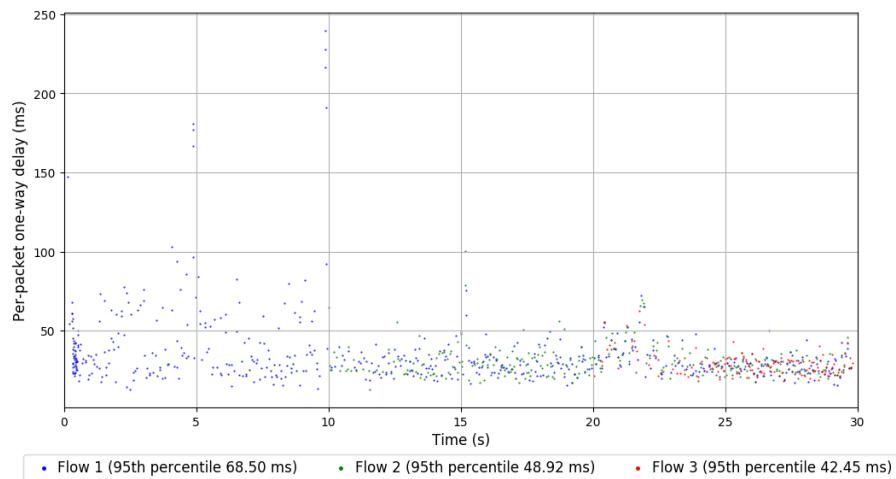
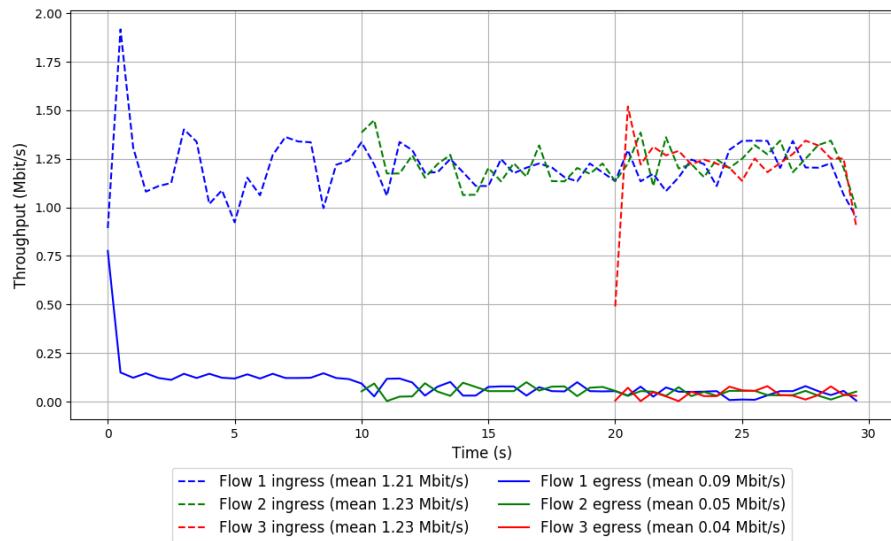


```
Run 2: Statistics of Vivace-loss
```

```
Start at: 2018-03-26 22:43:28
End at: 2018-03-26 22:43:58
Local clock offset: 3.511 ms
Remote clock offset: -4.228 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 62.300 ms
Loss rate: 94.28%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 68.496 ms
Loss rate: 92.43%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 48.925 ms
Loss rate: 95.81%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 42.454 ms
Loss rate: 96.73%
```

## Run 2: Report of Vivace-loss — Data Link

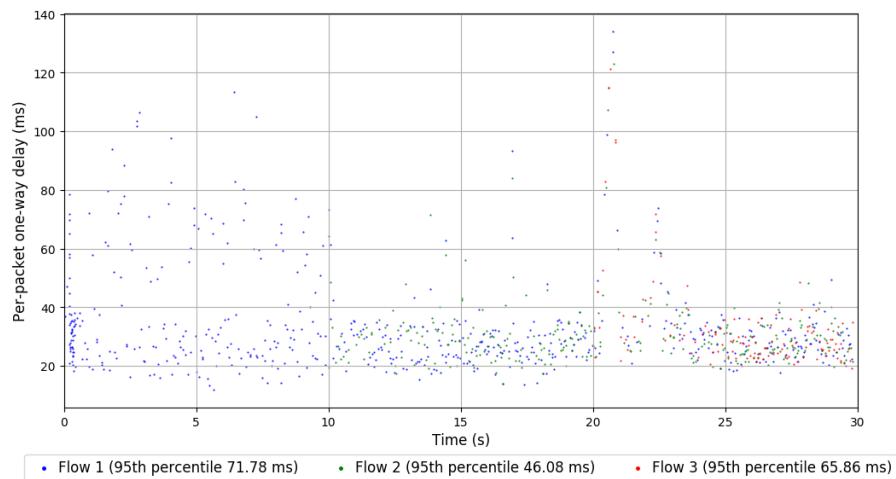
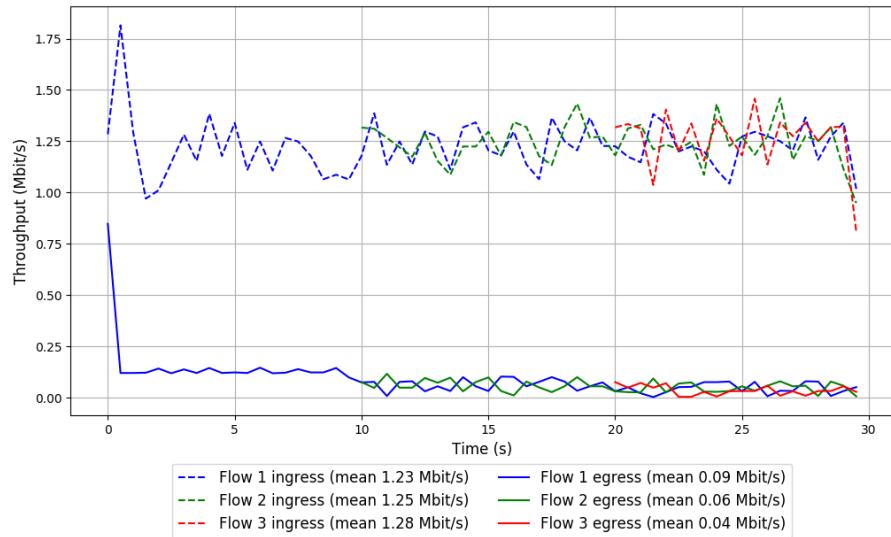


```
Run 3: Statistics of Vivace-loss
```

```
Start at: 2018-03-26 23:07:10
End at: 2018-03-26 23:07:40
Local clock offset: 2.173 ms
Remote clock offset: -5.767 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 68.651 ms
Loss rate: 94.37%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 71.783 ms
Loss rate: 92.58%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 46.075 ms
Loss rate: 95.58%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 65.855 ms
Loss rate: 97.18%
```

### Run 3: Report of Vivace-loss — Data Link

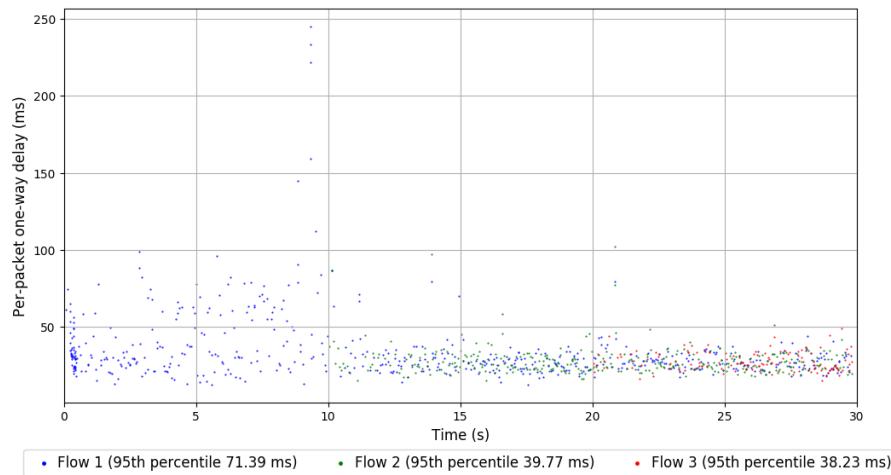
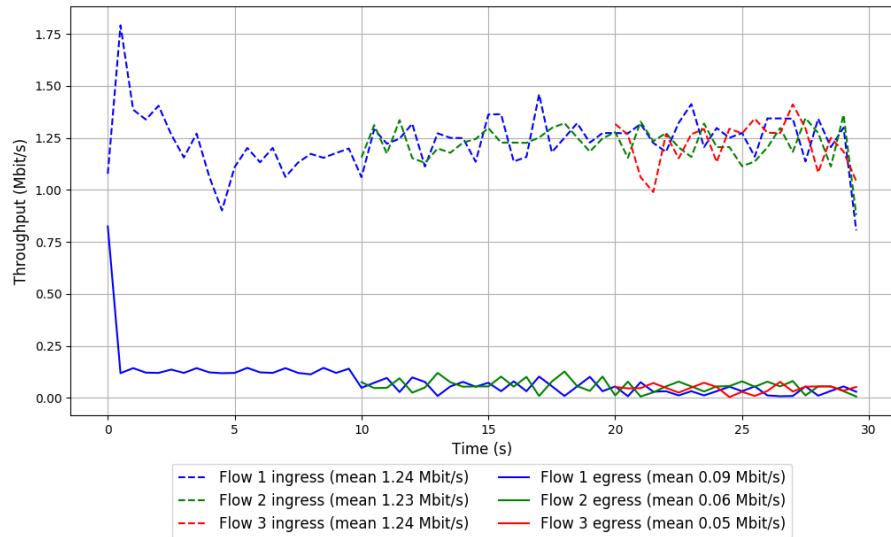


Run 1: Statistics of Vivace-LTE

```
Start at: 2018-03-26 22:11:51
End at: 2018-03-26 22:12:21
Local clock offset: 3.923 ms
Remote clock offset: -6.062 ms

# Below is generated by plot.py at 2018-03-27 00:31:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 62.946 ms
Loss rate: 94.34%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 71.393 ms
Loss rate: 93.12%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 39.770 ms
Loss rate: 95.23%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 38.228 ms
Loss rate: 96.30%
```

Run 1: Report of Vivace-LTE — Data Link

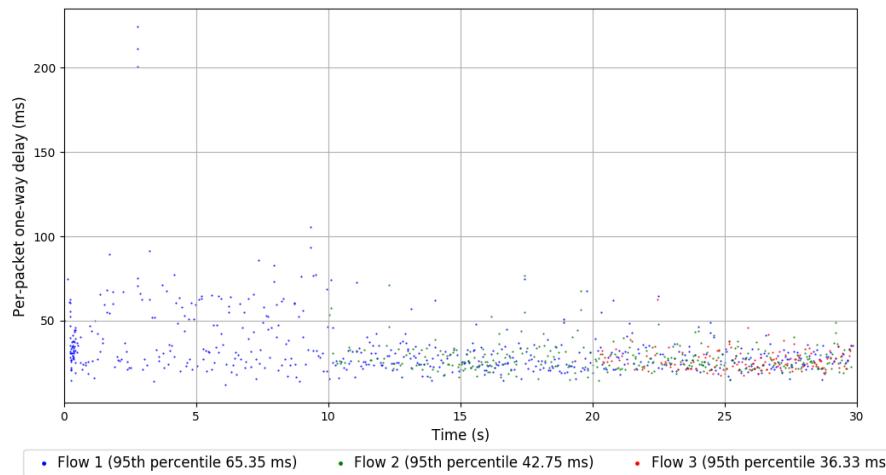
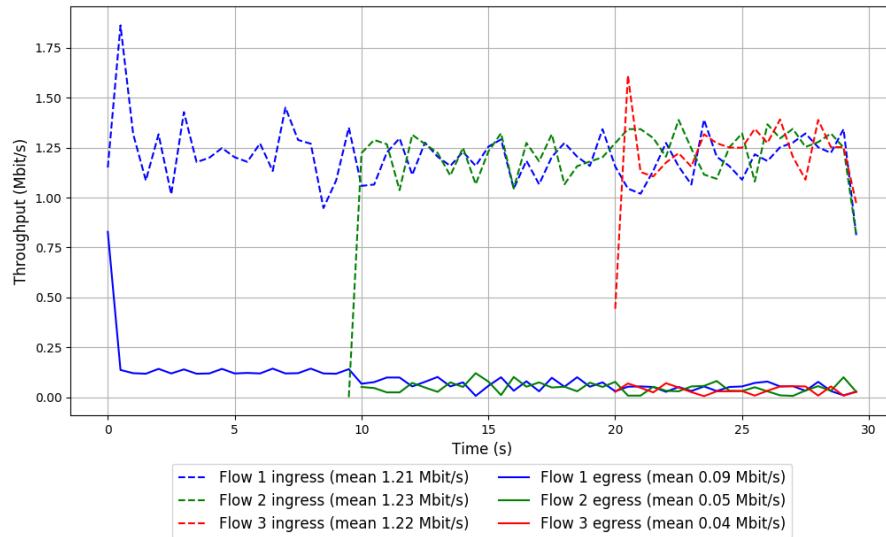


Run 2: Statistics of Vivace-LTE

```
Start at: 2018-03-26 22:35:33
End at: 2018-03-26 22:36:03
Local clock offset: 3.706 ms
Remote clock offset: -4.419 ms

# Below is generated by plot.py at 2018-03-27 00:31:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 60.792 ms
Loss rate: 94.26%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 65.346 ms
Loss rate: 92.22%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 42.751 ms
Loss rate: 95.96%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 36.328 ms
Loss rate: 96.95%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

```
Start at: 2018-03-26 22:59:15
End at: 2018-03-26 22:59:45
Local clock offset: 3.447 ms
Remote clock offset: -5.653 ms

# Below is generated by plot.py at 2018-03-27 00:31:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 57.238 ms
Loss rate: 94.29%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 66.272 ms
Loss rate: 92.84%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 40.838 ms
Loss rate: 95.19%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 39.877 ms
Loss rate: 96.82%
```

### Run 3: Report of Vivace-LTE — Data Link

