

Pantheon Report

Generated at 2018-02-27 10:55:16 (UTC).

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

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).

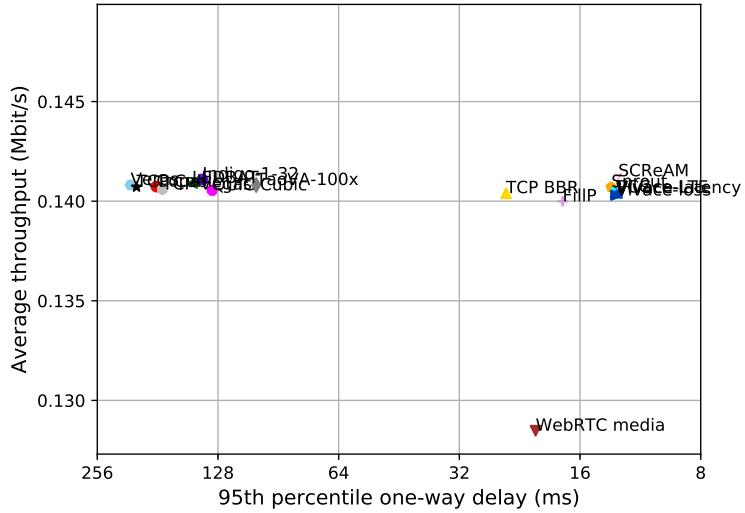
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

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

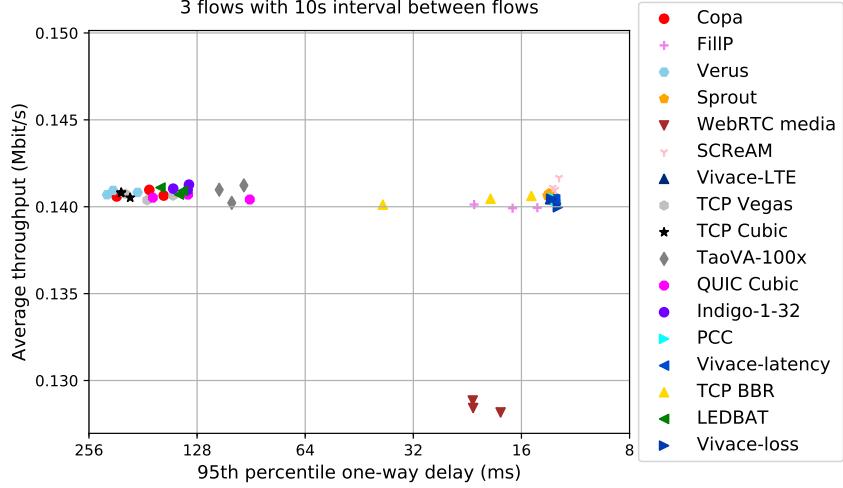
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bfff6c4a2
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 @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
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 @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



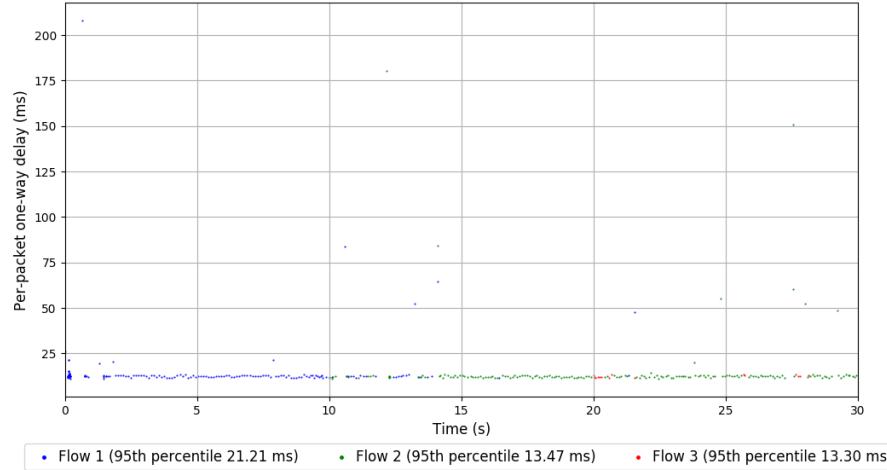
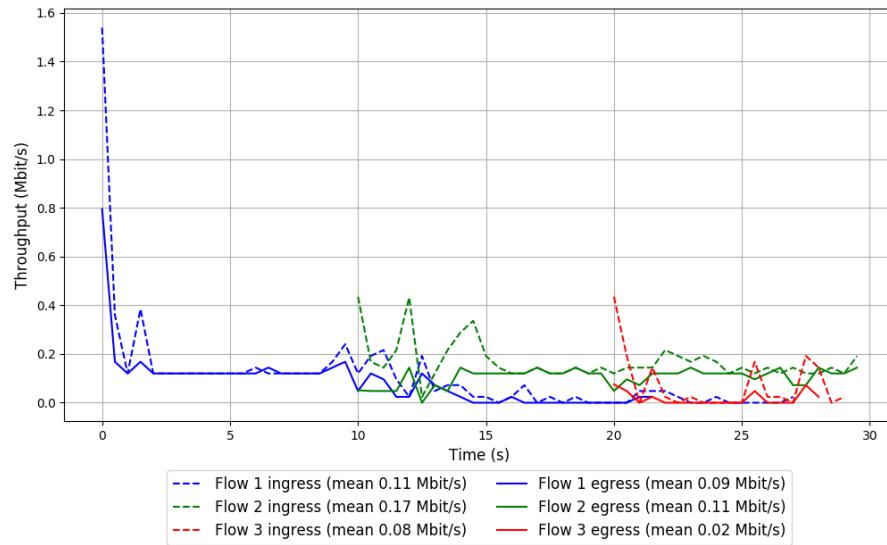
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.10	0.08	0.03	24.52	24.10	13.38	30.83	52.83	85.64
TCP Cubic	3	0.10	0.04	0.05	184.33	240.20	202.89	40.17	49.22	55.12
LEDBAT	3	0.10	0.05	0.05	131.84	122.76	144.62	42.56	49.32	51.56
PCC	3	0.09	0.06	0.05	12.99	12.89	12.82	96.63	99.20	99.67
QUIC Cubic	3	0.11	0.04	0.05	126.54	156.79	134.39	65.46	71.14	78.66
SCReAM	3	0.10	0.05	0.04	12.85	13.05	12.78	4.62	39.61	49.48
WebRTC media	3	0.12	0.00	0.00	20.66	16.38	17.26	68.64	83.06	83.49
Sprout	3	0.09	0.06	0.04	16.32	12.94	12.85	66.58	77.26	82.91
TaoVA-100x	3	0.08	0.08	0.03	100.21	101.76	150.44	95.02	94.40	98.29
TCP Vegas	3	0.10	0.05	0.04	155.87	219.88	203.32	39.61	48.14	57.89
Verus	3	0.09	0.05	0.06	209.13	211.50	231.36	92.08	68.93	57.45
Copa	3	0.09	0.06	0.05	237.04	202.49	193.39	64.13	77.45	77.06
FillP	3	0.09	0.05	0.05	24.56	12.96	13.02	99.20	99.52	99.82
Indigo-1-32	3	0.09	0.06	0.05	94.02	159.64	161.85	82.60	89.77	85.35
Vivace-latency	3	0.09	0.05	0.04	12.98	12.94	12.82	92.41	95.76	96.82
Vivace-loss	3	0.09	0.05	0.04	13.05	12.97	13.15	92.62	95.50	96.83
Vivace-LTE	3	0.09	0.05	0.04	13.11	12.94	13.08	92.41	95.92	96.34

Run 1: Statistics of TCP BBR

```
Start at: 2018-02-27 09:49:58
End at: 2018-02-27 09:50:28
Local clock offset: 1.934 ms
Remote clock offset: -6.696 ms

# Below is generated by plot.py at 2018-02-27 10:54:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 19.507 ms
Loss rate: 40.25%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 21.213 ms
Loss rate: 34.26%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 13.475 ms
Loss rate: 37.48%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 13.298 ms
Loss rate: 79.14%
```

Run 1: Report of TCP BBR — Data Link

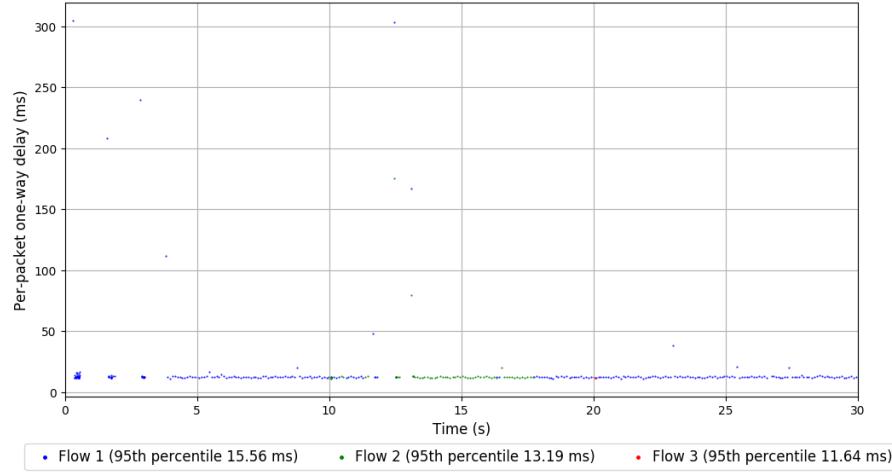
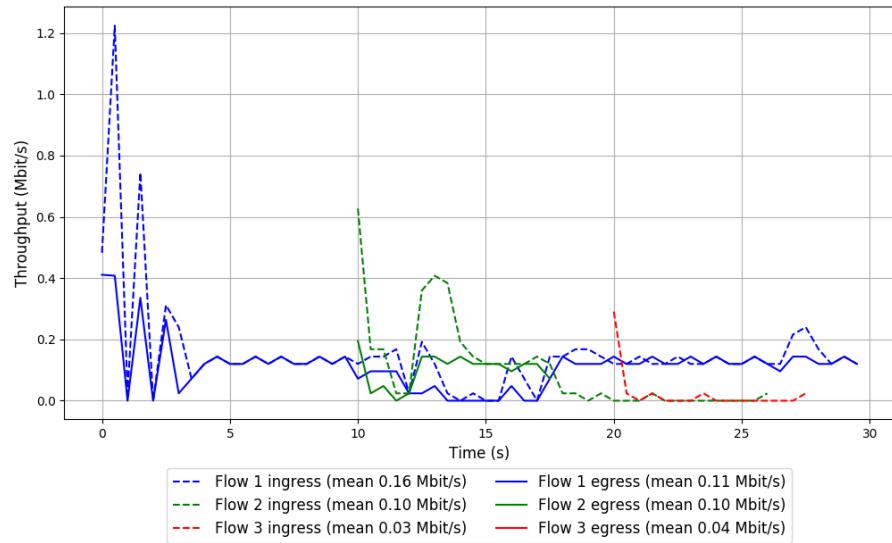


Run 2: Statistics of TCP BBR

```
Start at: 2018-02-27 10:13:39
End at: 2018-02-27 10:14:09
Local clock offset: -0.808 ms
Remote clock offset: -5.834 ms

# Below is generated by plot.py at 2018-02-27 10:54:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 15.017 ms
Loss rate: 36.54%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 15.558 ms
Loss rate: 28.38%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 13.186 ms
Loss rate: 52.10%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 11.639 ms
Loss rate: 99.24%
```

Run 2: Report of TCP BBR — Data Link

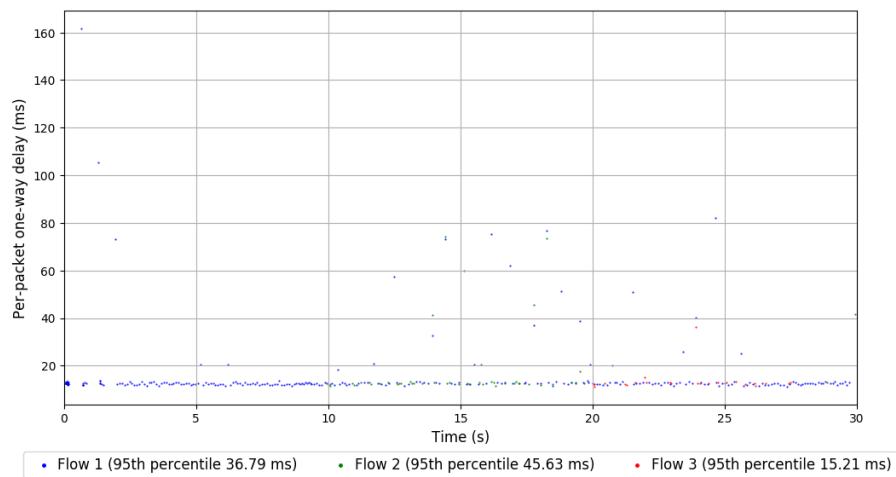
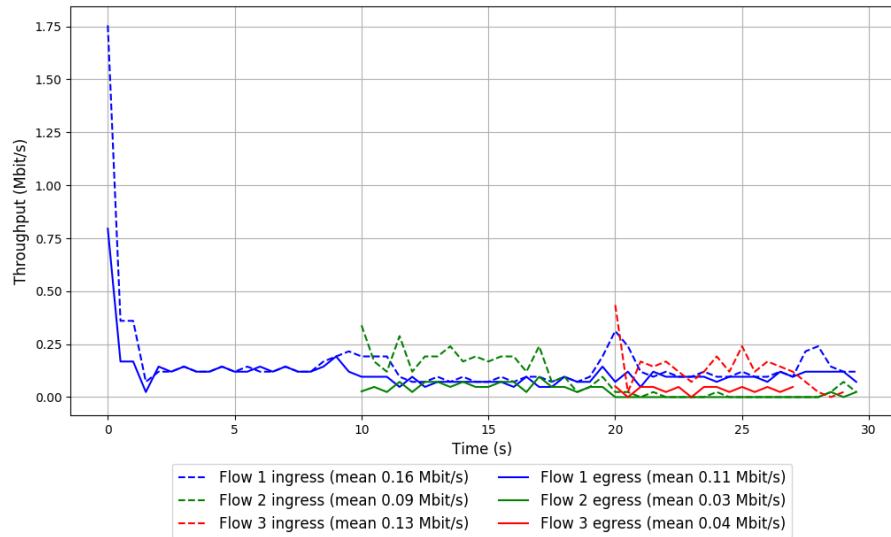


Run 3: Statistics of TCP BBR

```
Start at: 2018-02-27 10:37:21
End at: 2018-02-27 10:37:51
Local clock offset: 0.165 ms
Remote clock offset: -5.491 ms

# Below is generated by plot.py at 2018-02-27 10:54:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 38.905 ms
Loss rate: 46.28%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 36.790 ms
Loss rate: 29.84%
-- Flow 2:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 45.627 ms
Loss rate: 68.91%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 15.213 ms
Loss rate: 78.55%
```

Run 3: Report of TCP BBR — Data Link

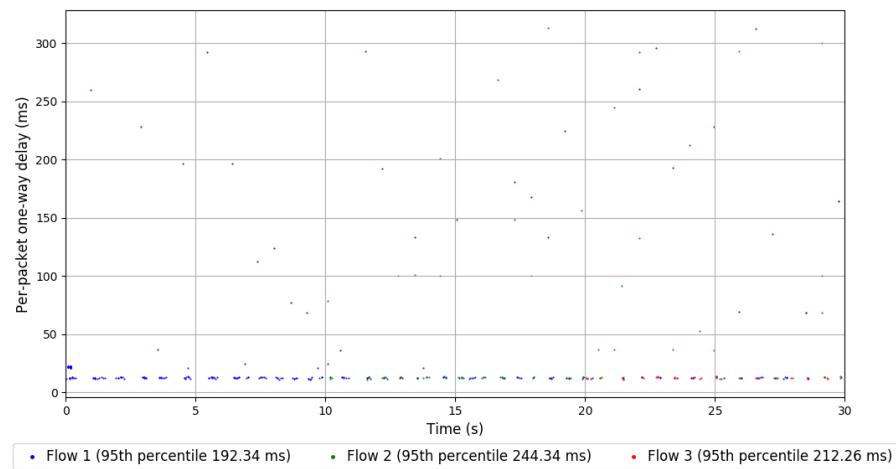
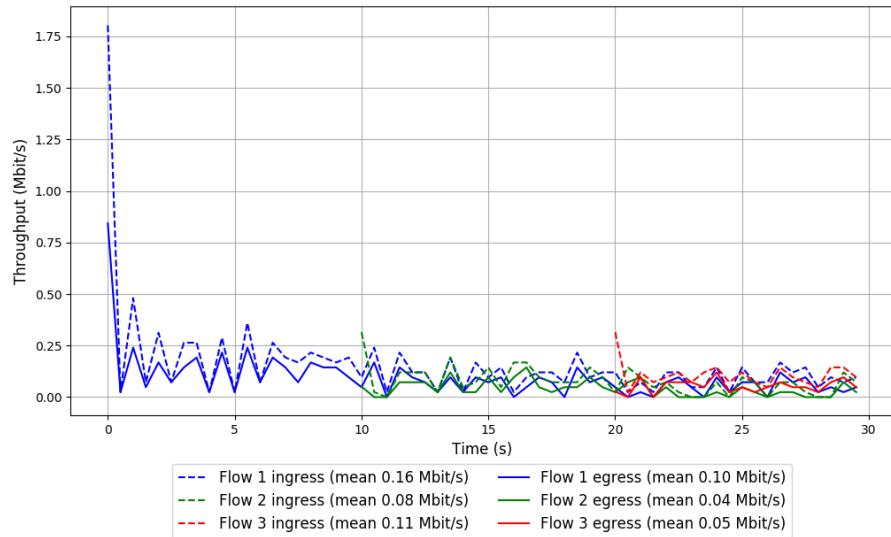


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-02-27 10:00:30
End at: 2018-02-27 10:01:00
Local clock offset: 0.529 ms
Remote clock offset: -6.183 ms

# Below is generated by plot.py at 2018-02-27 10:54:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 196.531 ms
Loss rate: 43.41%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 192.341 ms
Loss rate: 40.19%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 244.340 ms
Loss rate: 48.42%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 212.259 ms
Loss rate: 50.49%
```

Run 1: Report of TCP Cubic — Data Link

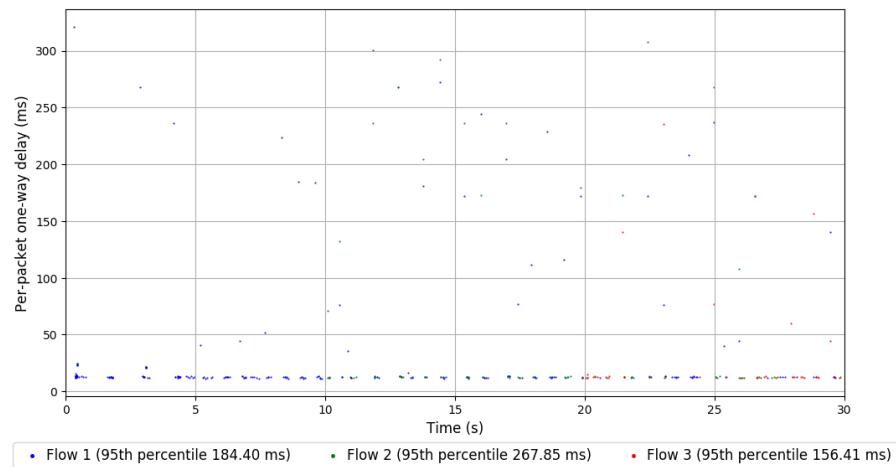
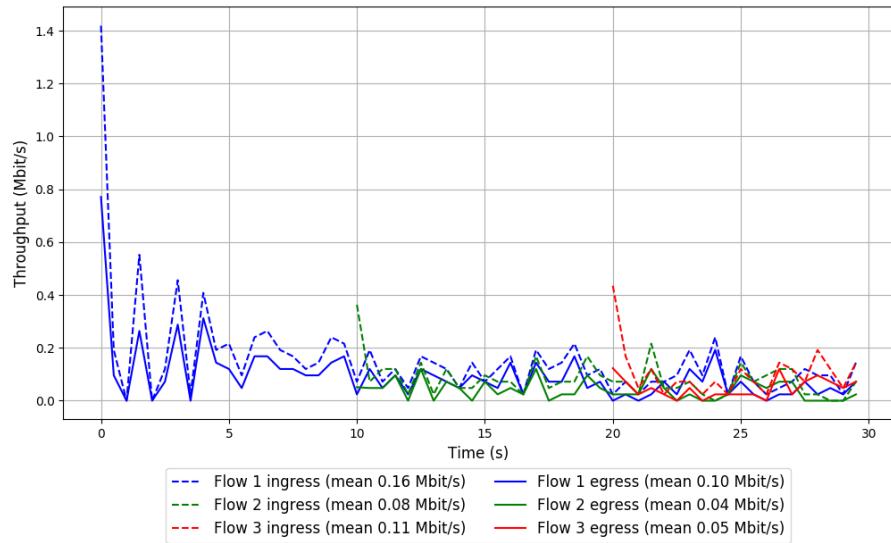


Run 2: Statistics of TCP Cubic

```
Start at: 2018-02-27 10:24:11
End at: 2018-02-27 10:24:41
Local clock offset: -1.245 ms
Remote clock offset: -5.683 ms

# Below is generated by plot.py at 2018-02-27 10:54:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 208.362 ms
Loss rate: 43.80%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 184.397 ms
Loss rate: 39.17%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 267.854 ms
Loss rate: 49.58%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 156.405 ms
Loss rate: 55.60%
```

Run 2: Report of TCP Cubic — Data Link

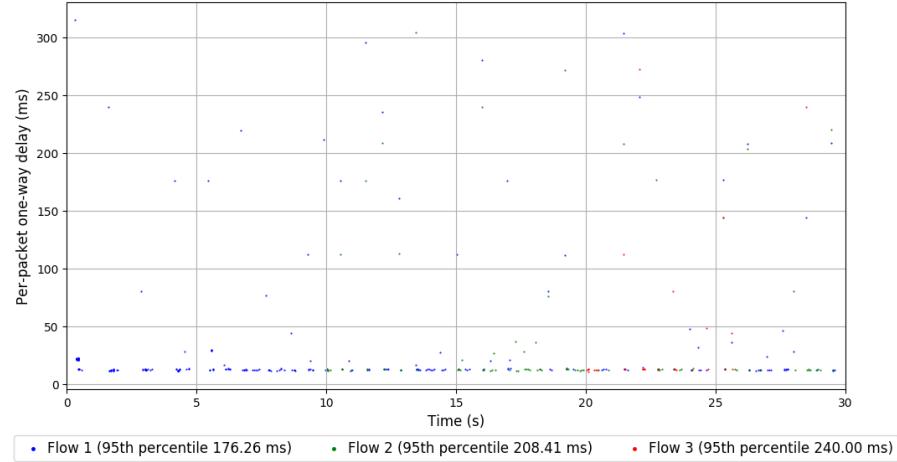
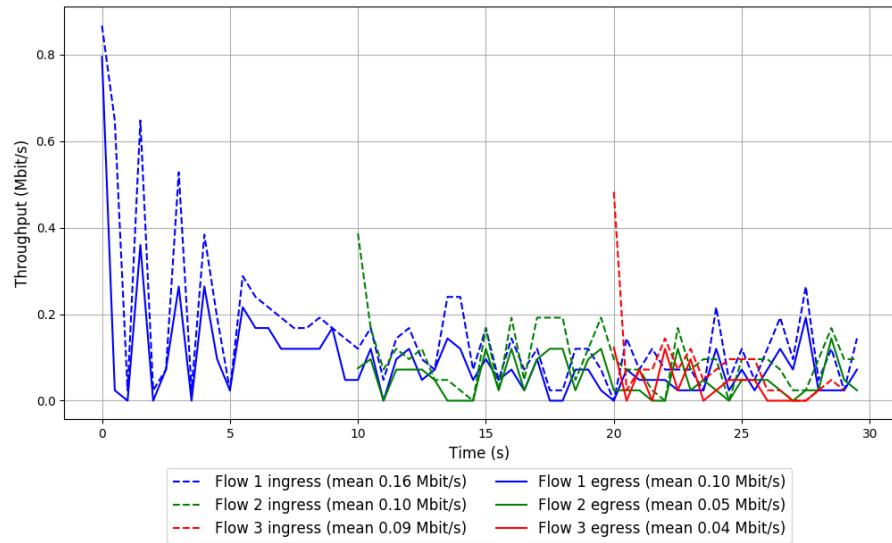


Run 3: Statistics of TCP Cubic

```
Start at: 2018-02-27 10:47:52
End at: 2018-02-27 10:48:22
Local clock offset: 0.632 ms
Remote clock offset: -5.465 ms

# Below is generated by plot.py at 2018-02-27 10:54:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 208.078 ms
Loss rate: 45.27%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 176.262 ms
Loss rate: 41.15%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 208.411 ms
Loss rate: 49.66%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 240.001 ms
Loss rate: 59.26%
```

Run 3: Report of TCP Cubic — Data Link

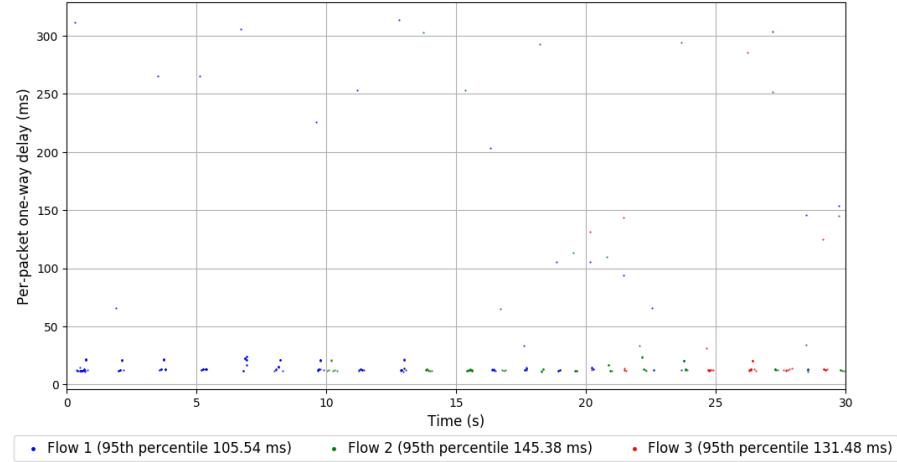
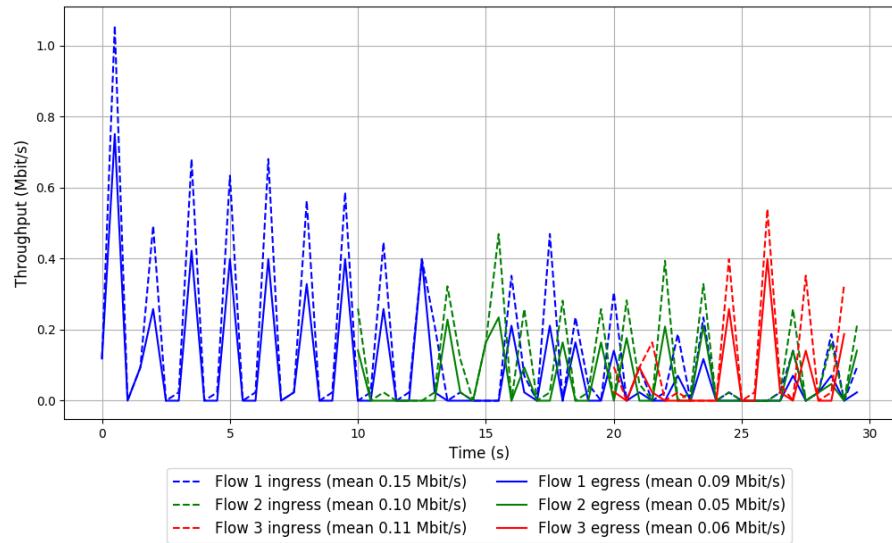


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-02-27 09:44:42
End at: 2018-02-27 09:45:12
Local clock offset: 1.857 ms
Remote clock offset: -6.588 ms

# Below is generated by plot.py at 2018-02-27 10:54:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 143.684 ms
Loss rate: 43.49%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 105.539 ms
Loss rate: 42.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 145.378 ms
Loss rate: 45.96%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 131.478 ms
Loss rate: 44.91%
```

Run 1: Report of LEDBAT — Data Link

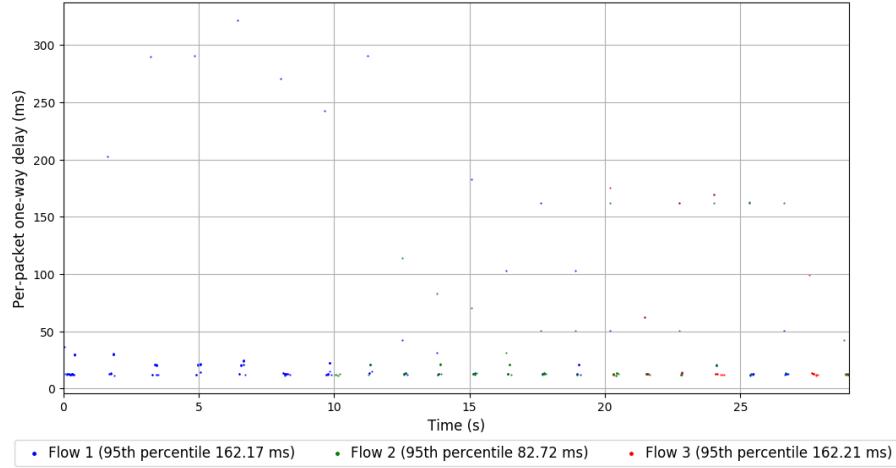
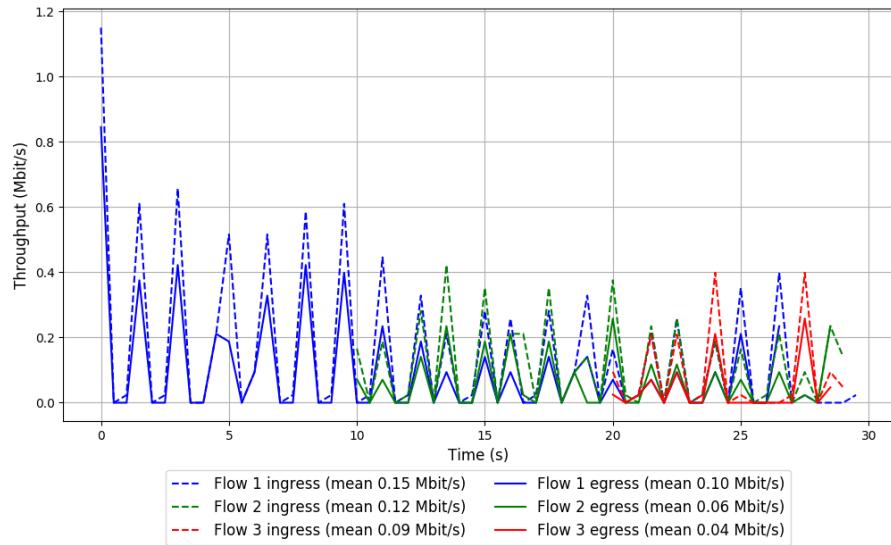


Run 2: Statistics of LEDBAT

```
Start at: 2018-02-27 10:08:24
End at: 2018-02-27 10:08:54
Local clock offset: -0.43 ms
Remote clock offset: -5.949 ms

# Below is generated by plot.py at 2018-02-27 10:54:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 161.870 ms
Loss rate: 45.52%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 162.174 ms
Loss rate: 42.34%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 82.723 ms
Loss rate: 49.45%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 162.205 ms
Loss rate: 52.94%
```

Run 2: Report of LEDBAT — Data Link

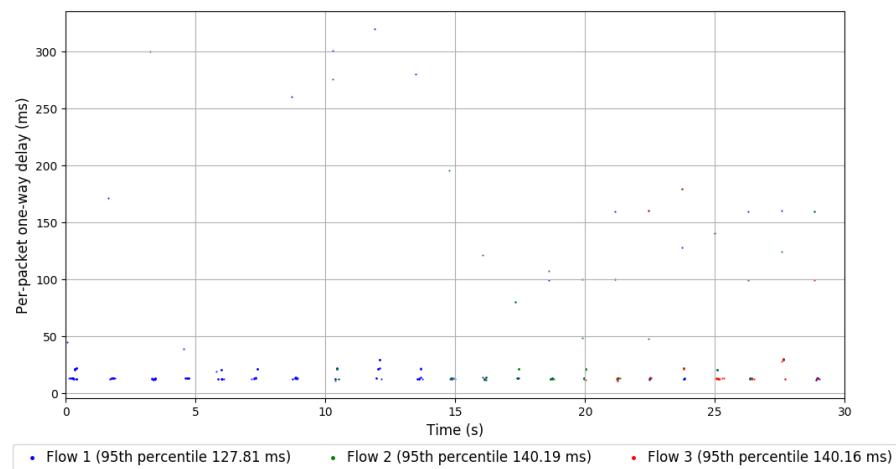
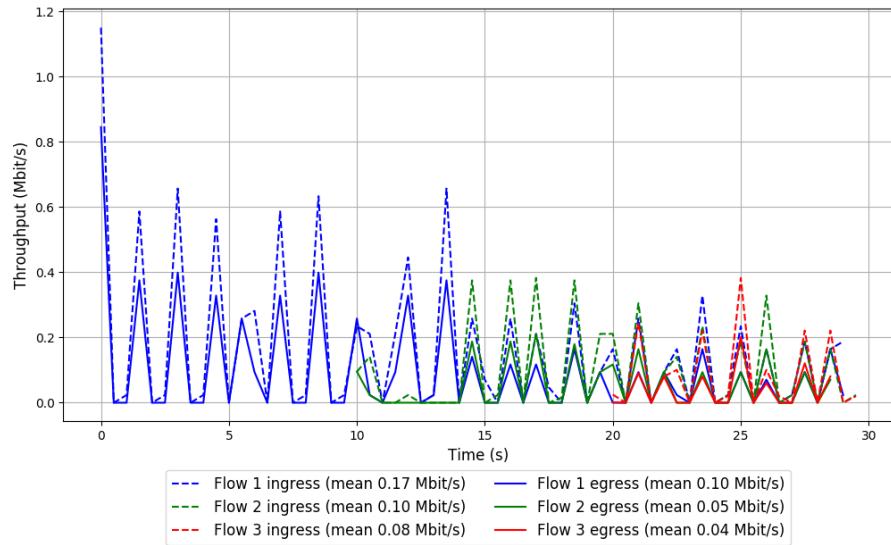


Run 3: Statistics of LEDBAT

```
Start at: 2018-02-27 10:32:05
End at: 2018-02-27 10:32:35
Local clock offset: -0.553 ms
Remote clock offset: -5.512 ms

# Below is generated by plot.py at 2018-02-27 10:54:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 140.162 ms
Loss rate: 47.13%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 127.810 ms
Loss rate: 43.33%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 140.193 ms
Loss rate: 52.56%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 140.162 ms
Loss rate: 56.83%
```

Run 3: Report of LEDBAT — Data Link

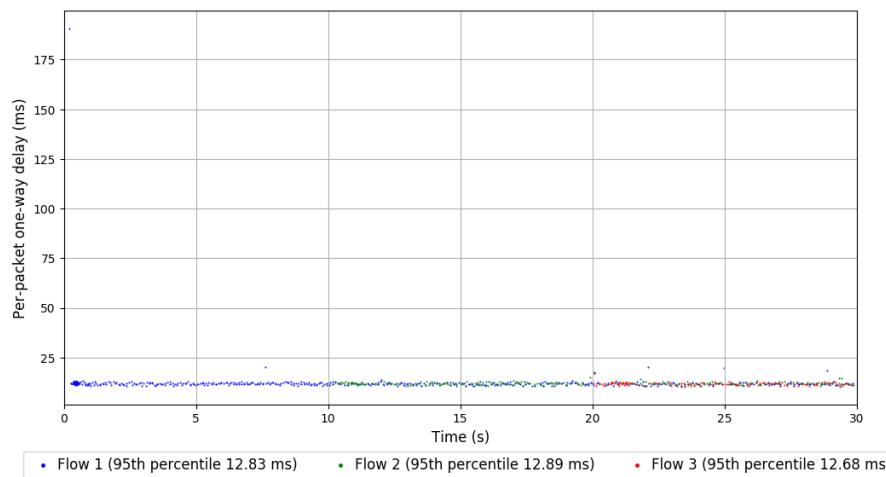
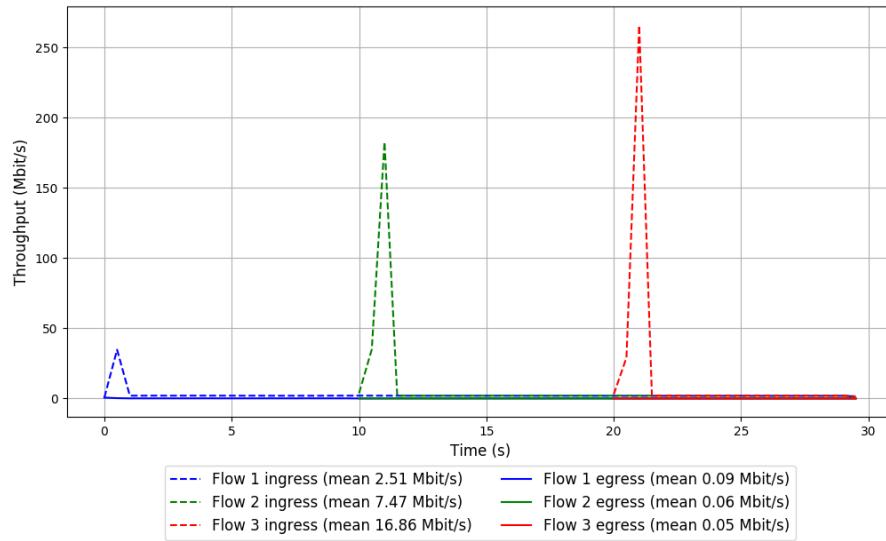


Run 1: Statistics of PCC

```
Start at: 2018-02-27 10:03:08
End at: 2018-02-27 10:03:38
Local clock offset: 0.206 ms
Remote clock offset: -6.147 ms

# Below is generated by plot.py at 2018-02-27 10:54:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.830 ms
Loss rate: 98.93%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 12.827 ms
Loss rate: 96.62%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 12.889 ms
Loss rate: 99.21%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.679 ms
Loss rate: 99.73%
```

Run 1: Report of PCC — Data Link

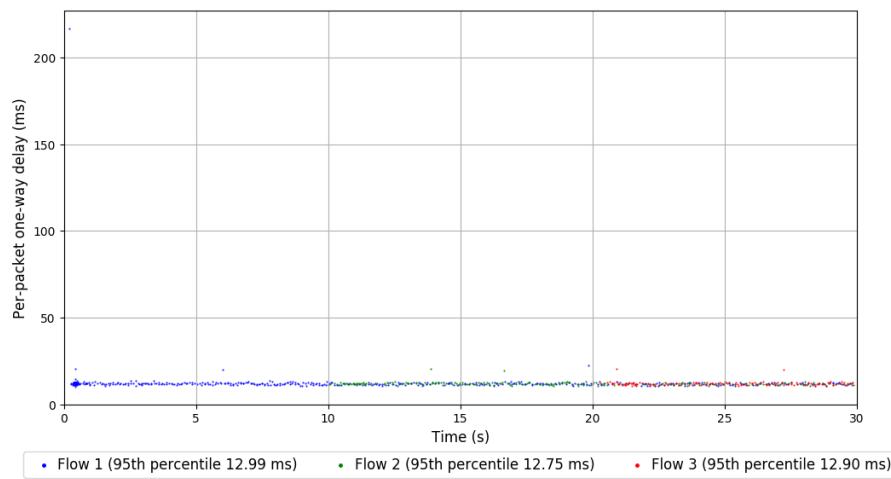
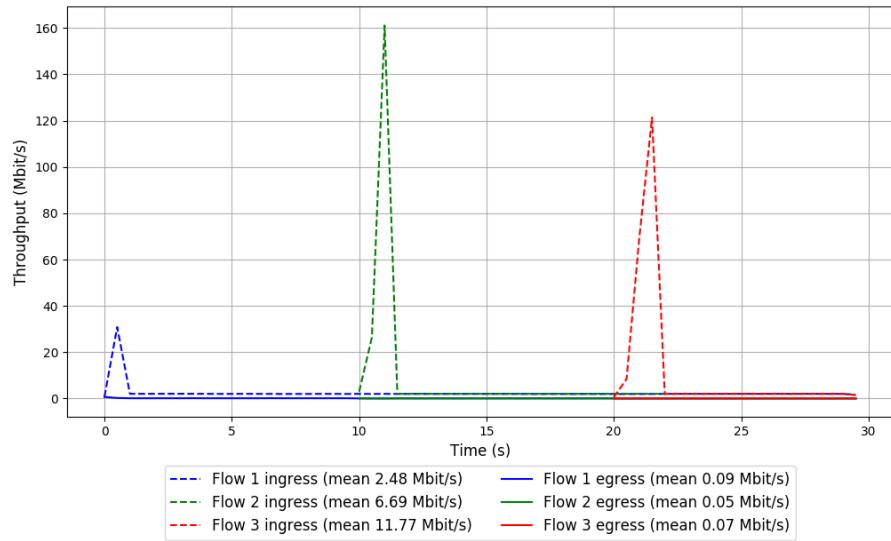


Run 2: Statistics of PCC

```
Start at: 2018-02-27 10:26:49
End at: 2018-02-27 10:27:19
Local clock offset: -1.344 ms
Remote clock offset: -5.723 ms

# Below is generated by plot.py at 2018-02-27 10:54:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.923 ms
Loss rate: 98.71%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 12.993 ms
Loss rate: 96.56%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.748 ms
Loss rate: 99.28%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 12.902 ms
Loss rate: 99.43%
```

Run 2: Report of PCC — Data Link

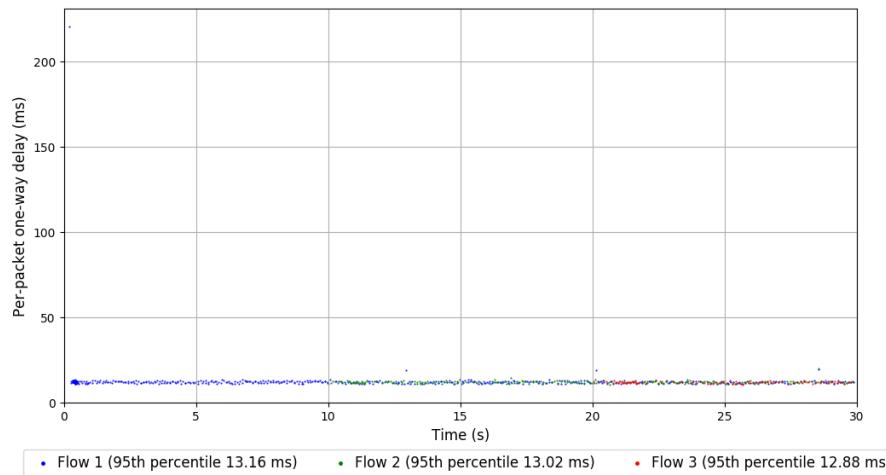
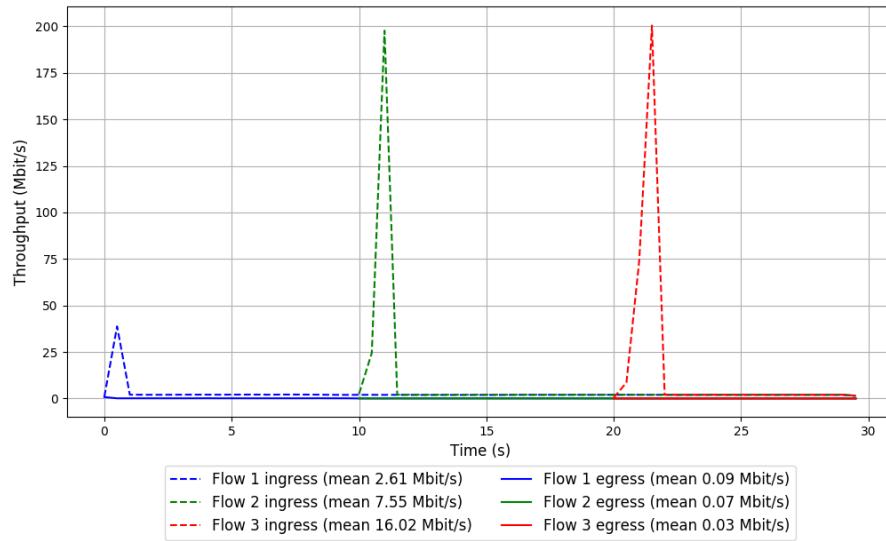


Run 3: Statistics of PCC

```
Start at: 2018-02-27 10:50:30
End at: 2018-02-27 10:51:00
Local clock offset: 0.673 ms
Remote clock offset: -5.418 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.095 ms
Loss rate: 98.92%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 13.163 ms
Loss rate: 96.71%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 13.019 ms
Loss rate: 99.11%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 12.877 ms
Loss rate: 99.84%
```

Run 3: Report of PCC — Data Link

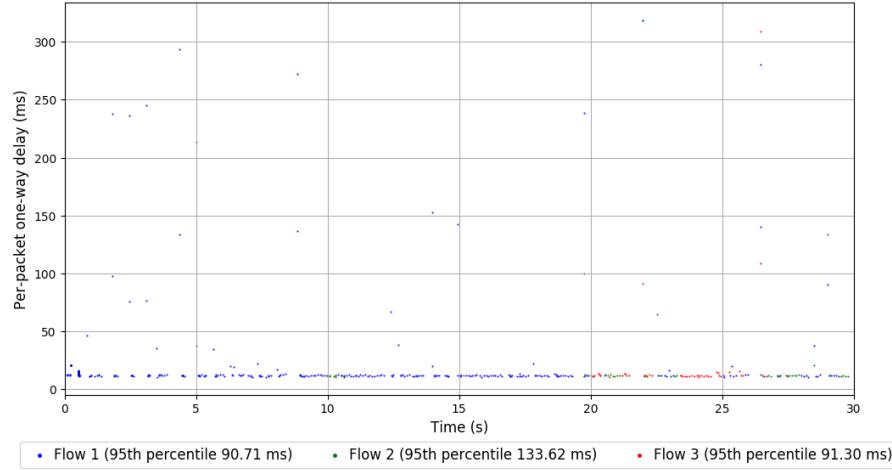
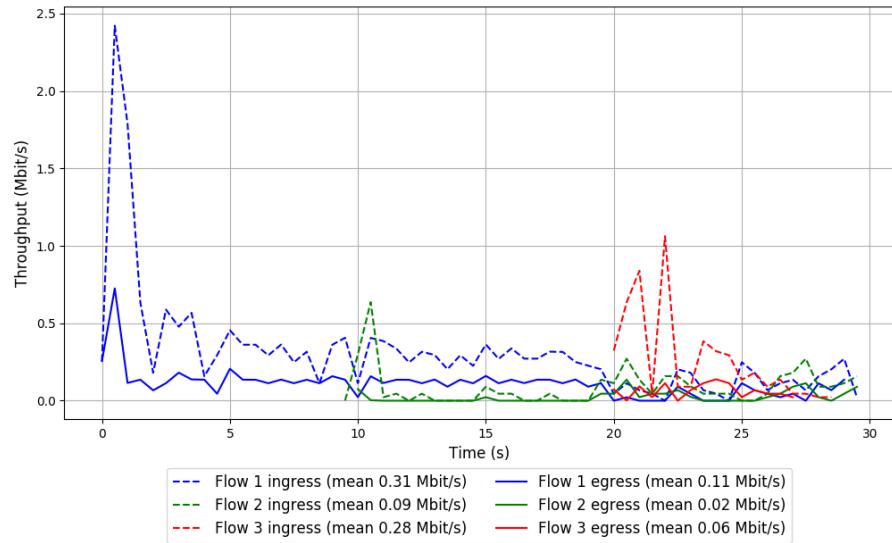


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-02-27 10:04:27
End at: 2018-02-27 10:04:57
Local clock offset: 0.016 ms
Remote clock offset: -6.019 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 91.300 ms
Loss rate: 68.94%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 90.713 ms
Loss rate: 65.12%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 133.617 ms
Loss rate: 73.51%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 91.300 ms
Loss rate: 80.30%
```

Run 1: Report of QUIC Cubic — Data Link

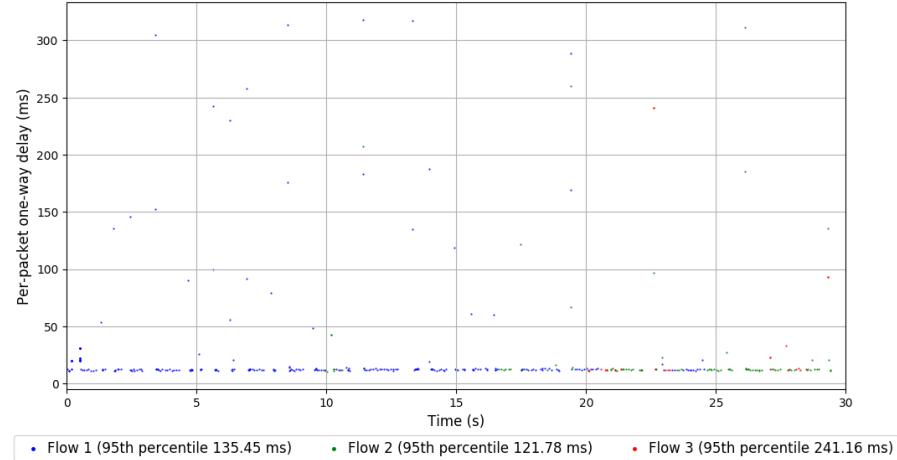
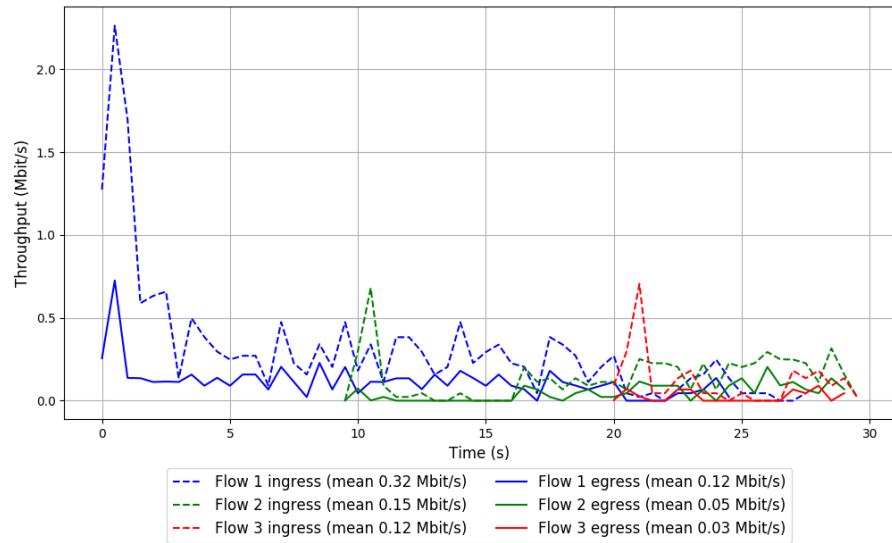


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-02-27 10:28:08
End at: 2018-02-27 10:28:38
Local clock offset: -1.323 ms
Remote clock offset: -5.686 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 135.591 ms
Loss rate: 68.00%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 135.452 ms
Loss rate: 66.87%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 121.780 ms
Loss rate: 66.62%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 241.164 ms
Loss rate: 79.67%
```

Run 2: Report of QUIC Cubic — Data Link

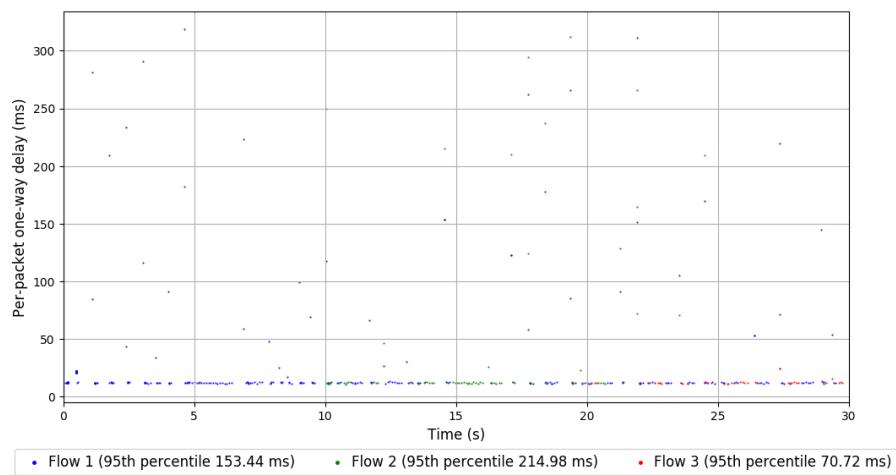
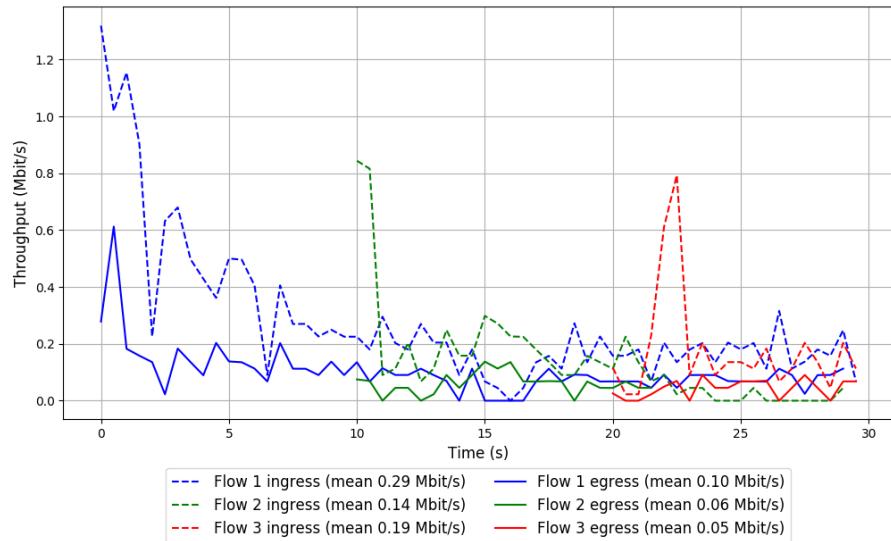


```
Run 3: Statistics of QUIC Cubic
```

```
Start at: 2018-02-27 10:51:49
End at: 2018-02-27 10:52:19
Local clock offset: 0.808 ms
Remote clock offset: -5.437 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 169.956 ms
Loss rate: 67.88%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 153.443 ms
Loss rate: 64.38%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 214.979 ms
Loss rate: 73.29%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 70.719 ms
Loss rate: 76.01%
```

Run 3: Report of QUIC Cubic — Data Link

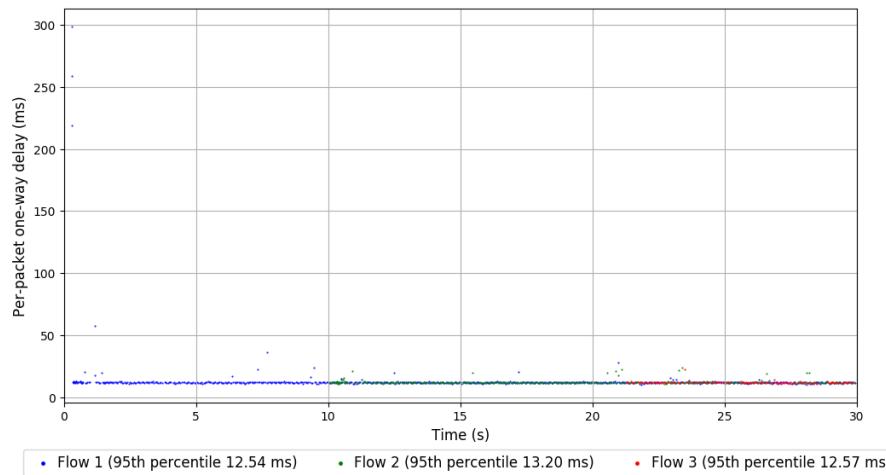
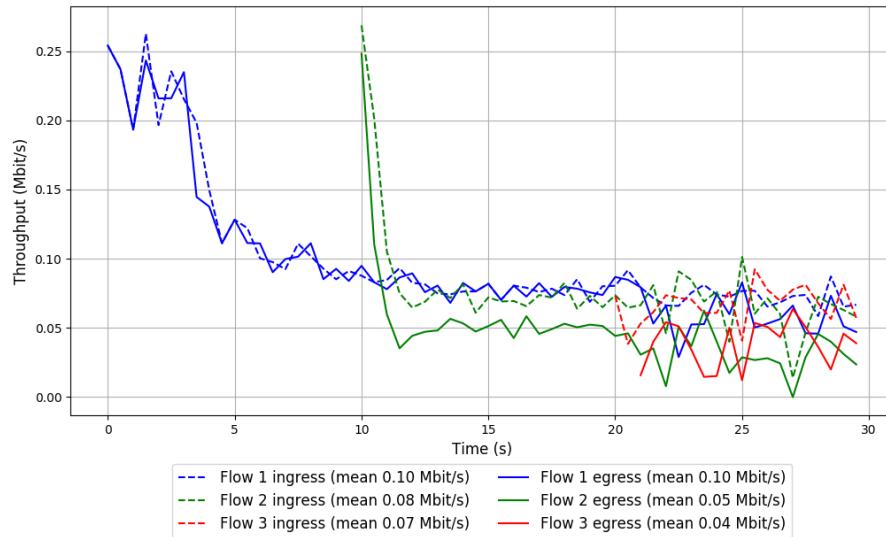


```
Run 1: Statistics of SCReAM
```

```
Start at: 2018-02-27 09:53:55
End at: 2018-02-27 09:54:25
Local clock offset: 1.801 ms
Remote clock offset: -6.676 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.576 ms
Loss rate: 20.53%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 12.542 ms
Loss rate: 5.51%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.203 ms
Loss rate: 38.18%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.568 ms
Loss rate: 48.56%
```

Run 1: Report of SCReAM — Data Link

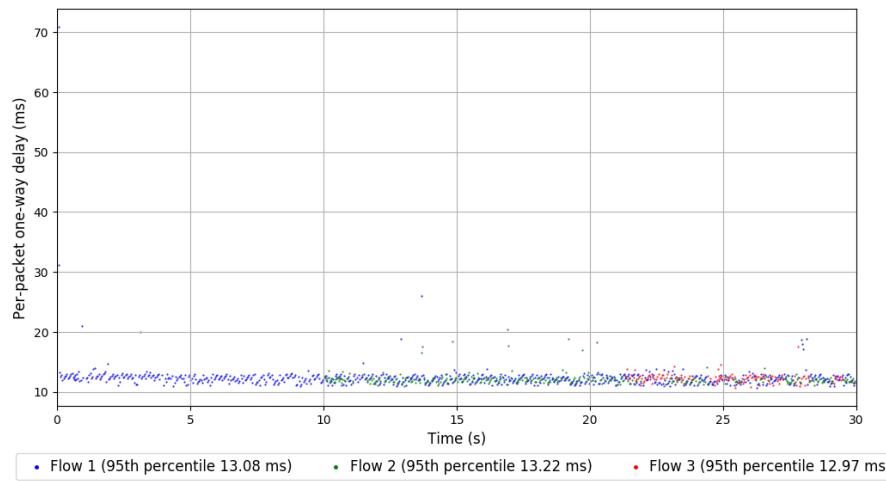
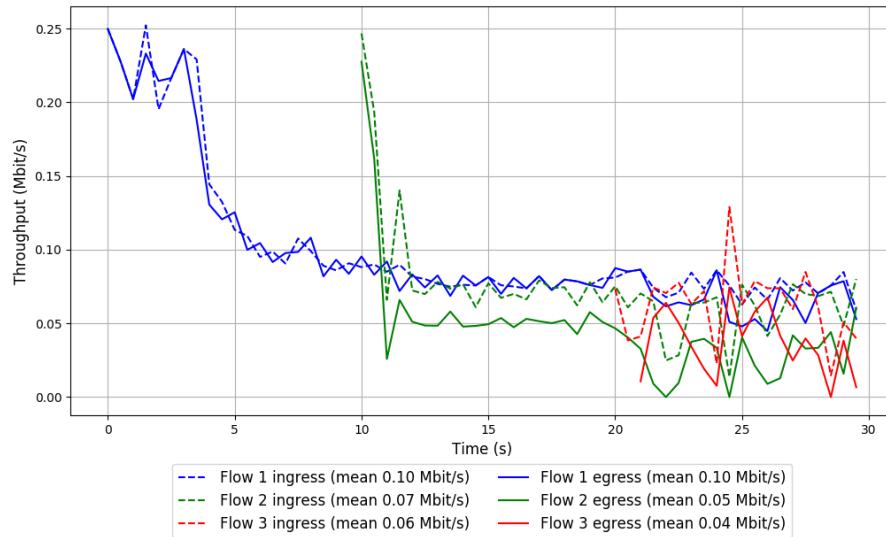


Run 2: Statistics of SCReAM

```
Start at: 2018-02-27 10:17:37
End at: 2018-02-27 10:18:07
Local clock offset: -1.006 ms
Remote clock offset: -5.691 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.090 ms
Loss rate: 19.00%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 13.081 ms
Loss rate: 4.11%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.216 ms
Loss rate: 37.72%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.975 ms
Loss rate: 47.65%
```

Run 2: Report of SCReAM — Data Link

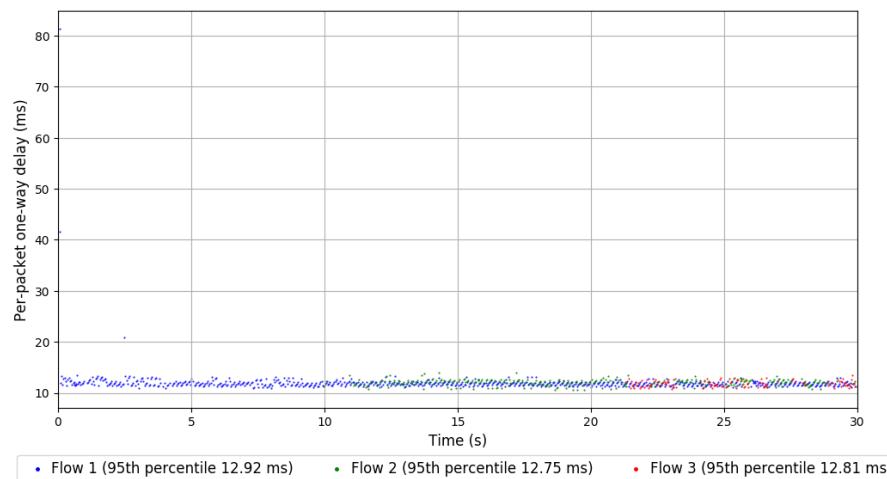
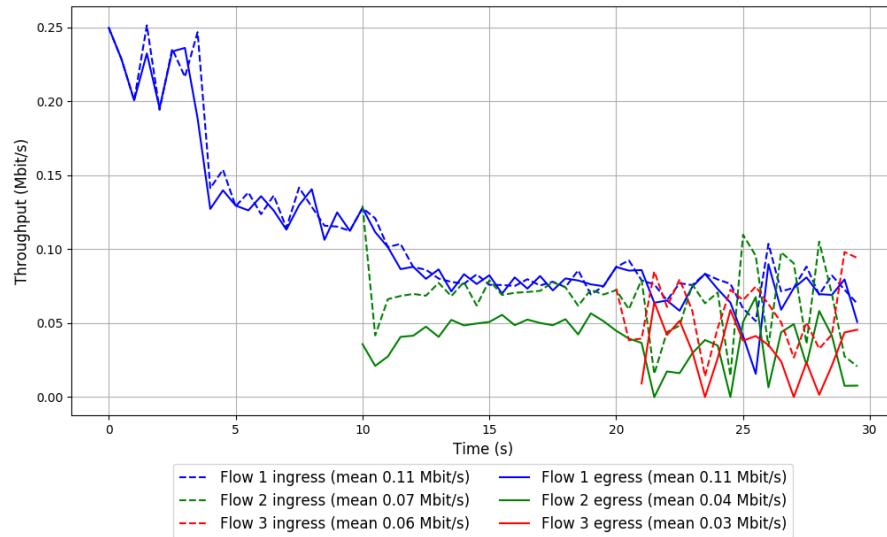


Run 3: Statistics of SCReAM

```
Start at: 2018-02-27 10:41:18
End at: 2018-02-27 10:41:48
Local clock offset: 0.471 ms
Remote clock offset: -5.503 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.873 ms
Loss rate: 19.51%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 12.924 ms
Loss rate: 4.25%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.746 ms
Loss rate: 42.94%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 12.810 ms
Loss rate: 52.22%
```

Run 3: Report of SCReAM — Data Link

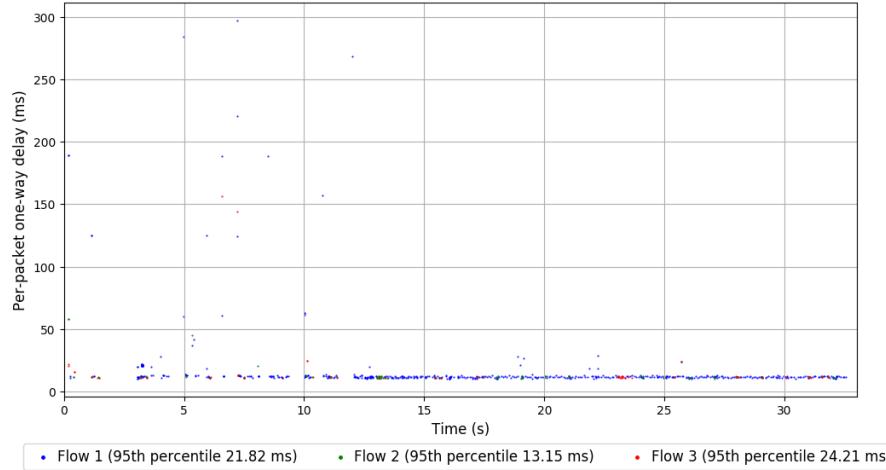
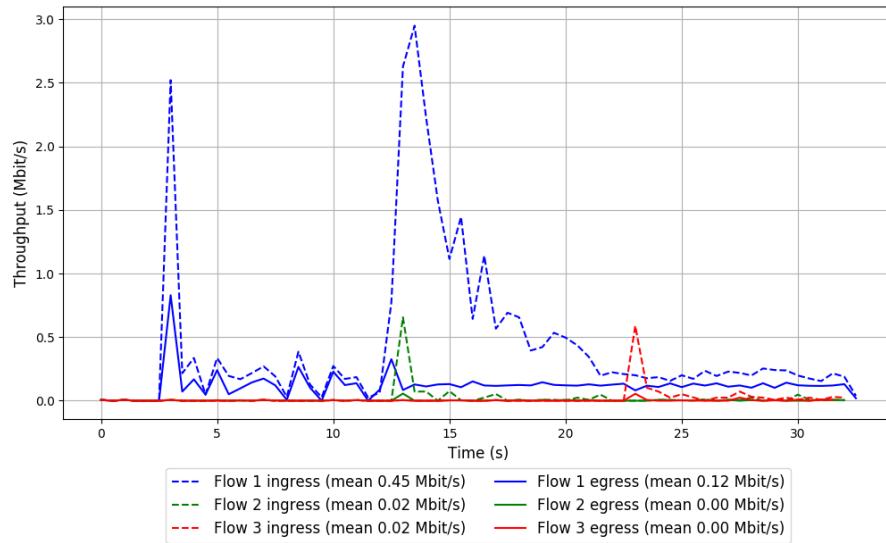


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-27 09:56:34
End at: 2018-02-27 09:57:04
Local clock offset: 1.291 ms
Remote clock offset: -6.567 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 21.863 ms
Loss rate: 73.76%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 21.818 ms
Loss rate: 72.83%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 13.152 ms
Loss rate: 84.18%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 24.213 ms
Loss rate: 85.69%
```

Run 1: Report of WebRTC media — Data Link

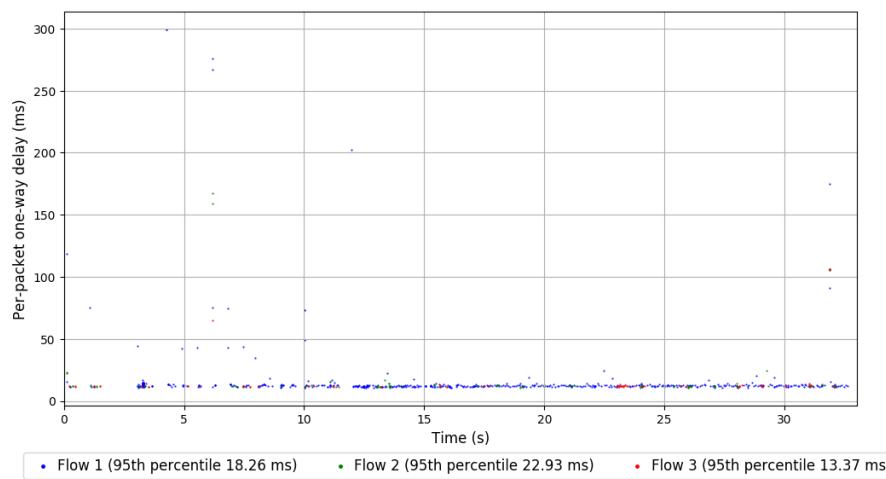
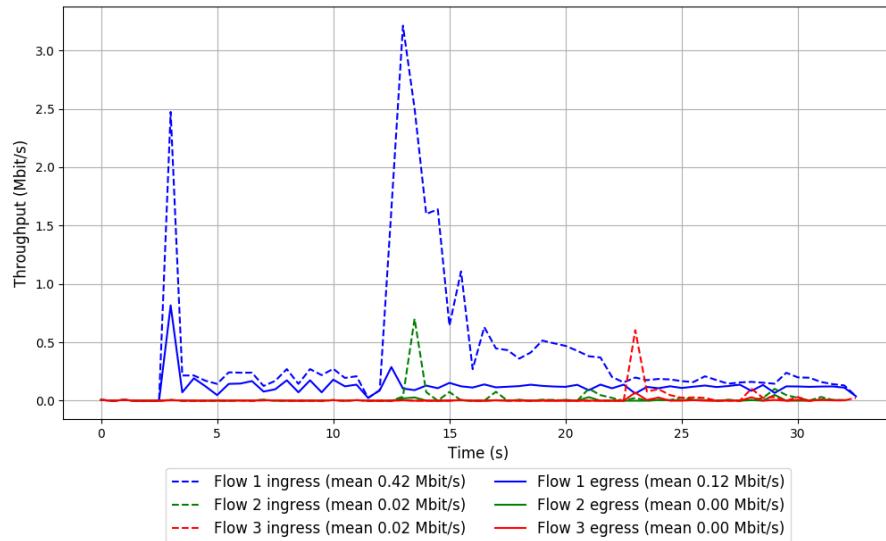


Run 2: Statistics of WebRTC media

```
Start at: 2018-02-27 10:20:14
End at: 2018-02-27 10:20:44
Local clock offset: -1.058 ms
Remote clock offset: -5.693 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 18.288 ms
Loss rate: 72.12%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 18.263 ms
Loss rate: 71.09%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 22.927 ms
Loss rate: 82.90%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 13.366 ms
Loss rate: 81.67%
```

Run 2: Report of WebRTC media — Data Link

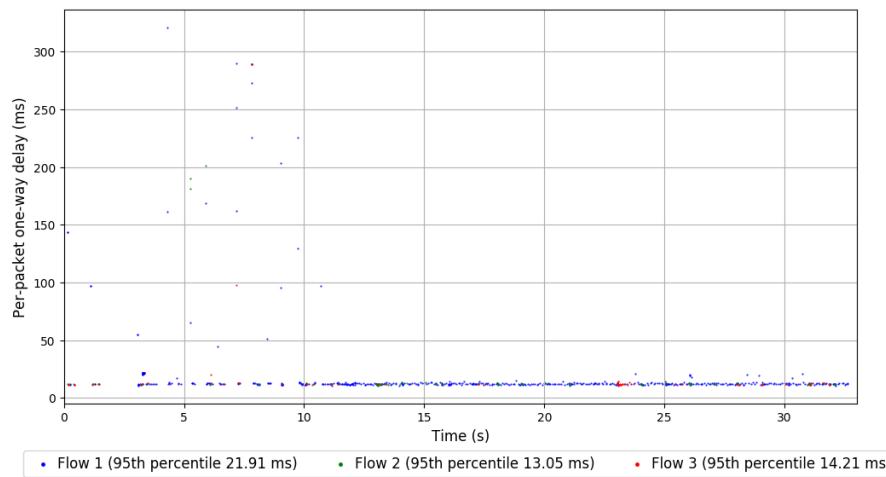
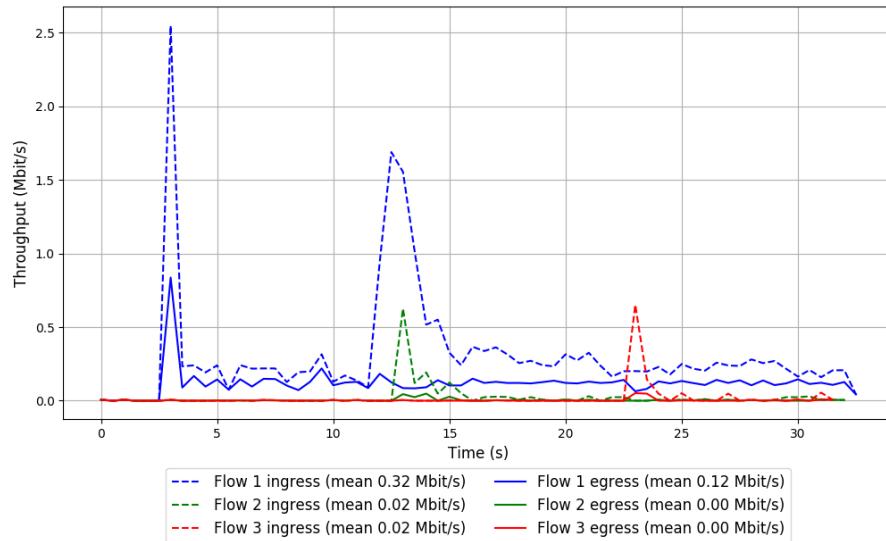


Run 3: Statistics of WebRTC media

```
Start at: 2018-02-27 10:43:56
End at: 2018-02-27 10:44:26
Local clock offset: 0.583 ms
Remote clock offset: -5.386 ms

# Below is generated by plot.py at 2018-02-27 10:54:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 21.808 ms
Loss rate: 64.30%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 21.907 ms
Loss rate: 62.00%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 13.047 ms
Loss rate: 82.09%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 14.213 ms
Loss rate: 83.10%
```

Run 3: Report of WebRTC media — Data Link

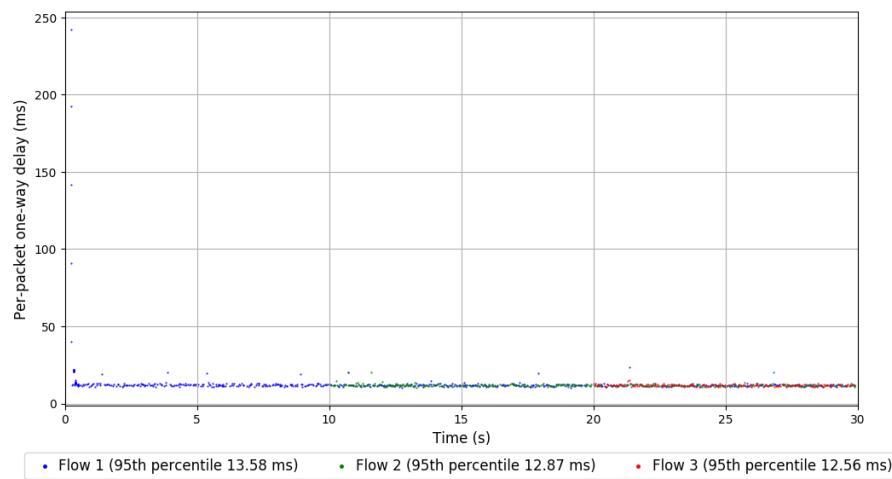
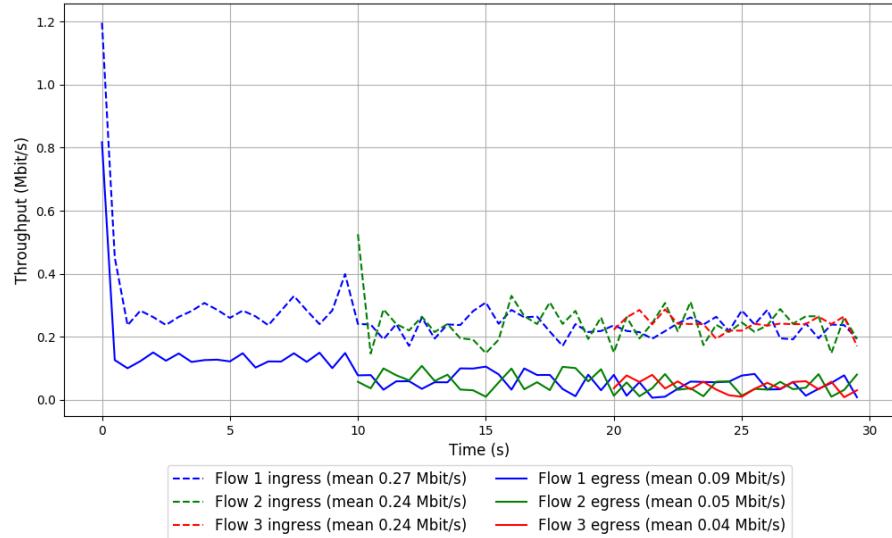


Run 1: Statistics of Sprout

```
Start at: 2018-02-27 09:48:39
End at: 2018-02-27 09:49:09
Local clock offset: 1.908 ms
Remote clock offset: -6.662 ms

# Below is generated by plot.py at 2018-02-27 10:54:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.156 ms
Loss rate: 72.57%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 13.581 ms
Loss rate: 66.17%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.870 ms
Loss rate: 78.42%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.563 ms
Loss rate: 82.14%
```

Run 1: Report of Sprout — Data Link

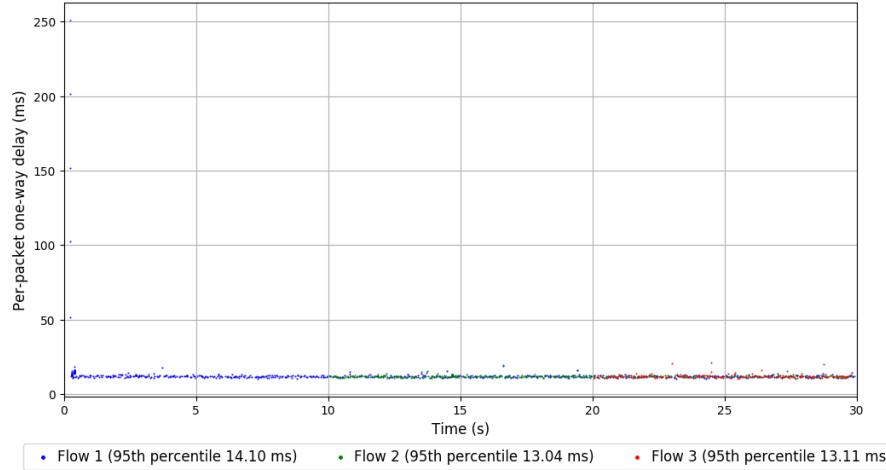
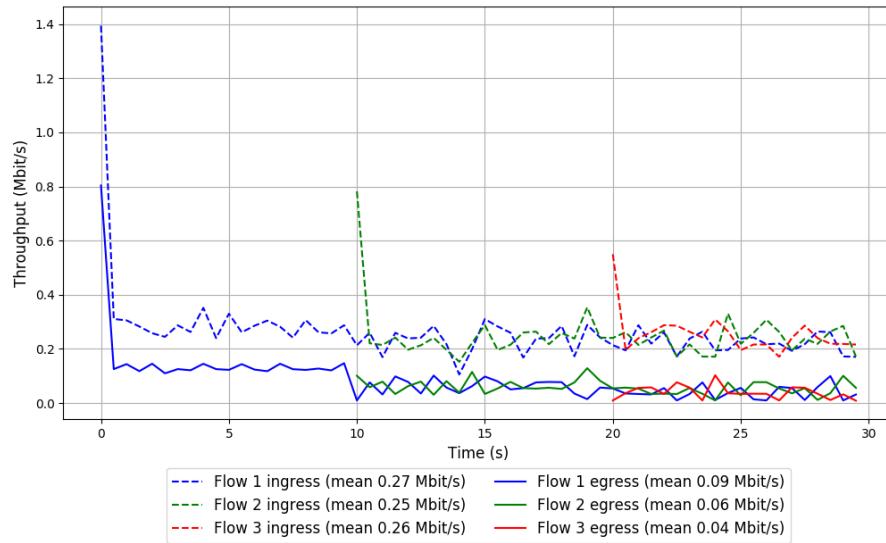


Run 2: Statistics of Sprout

```
Start at: 2018-02-27 10:12:21
End at: 2018-02-27 10:12:51
Local clock offset: -0.592 ms
Remote clock offset: -5.789 ms

# Below is generated by plot.py at 2018-02-27 10:54:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.551 ms
Loss rate: 73.00%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 14.102 ms
Loss rate: 66.96%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 13.045 ms
Loss rate: 76.65%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 13.109 ms
Loss rate: 84.65%
```

Run 2: Report of Sprout — Data Link

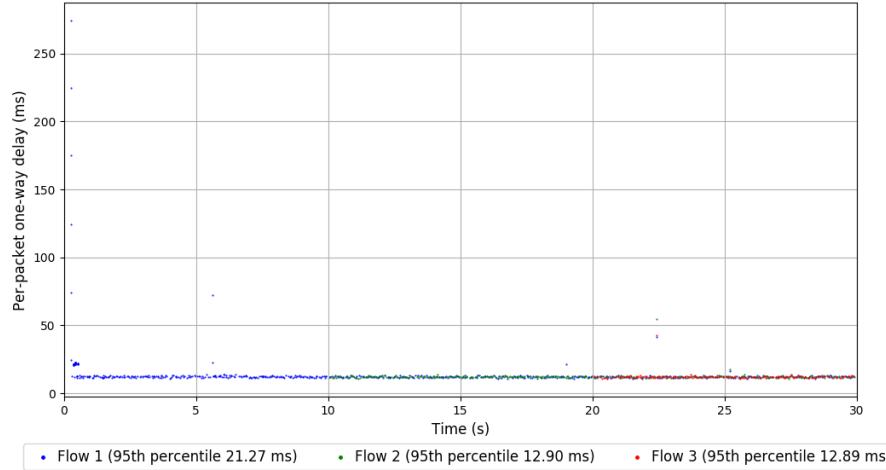
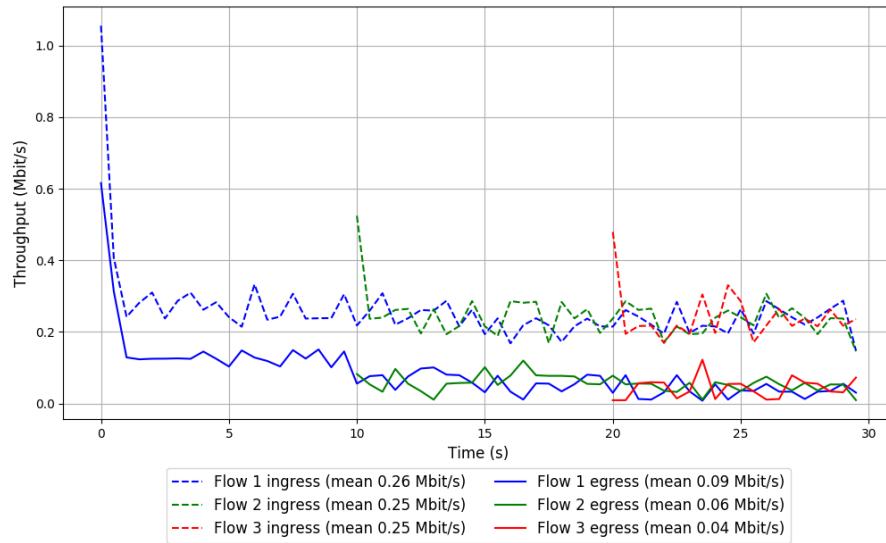


Run 3: Statistics of Sprout

```
Start at: 2018-02-27 10:36:02
End at: 2018-02-27 10:36:32
Local clock offset: -0.049 ms
Remote clock offset: -5.52 ms

# Below is generated by plot.py at 2018-02-27 10:54:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.410 ms
Loss rate: 72.34%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 21.273 ms
Loss rate: 66.62%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 12.905 ms
Loss rate: 76.70%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.888 ms
Loss rate: 81.94%
```

Run 3: Report of Sprout — Data Link

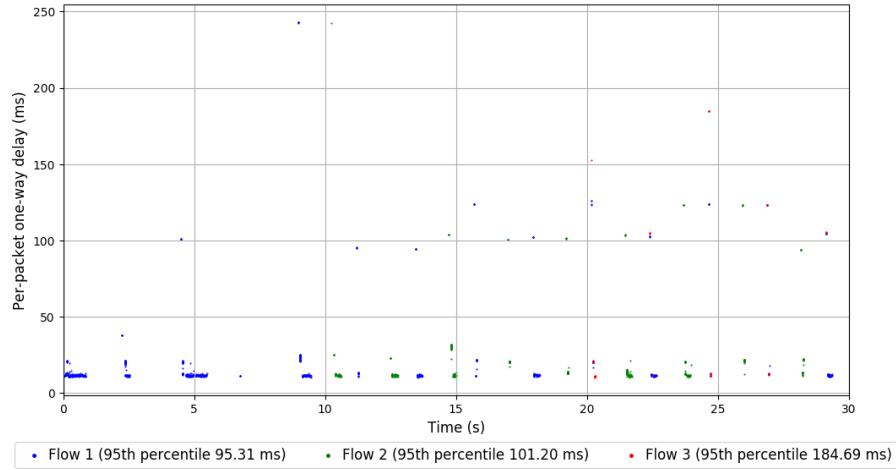
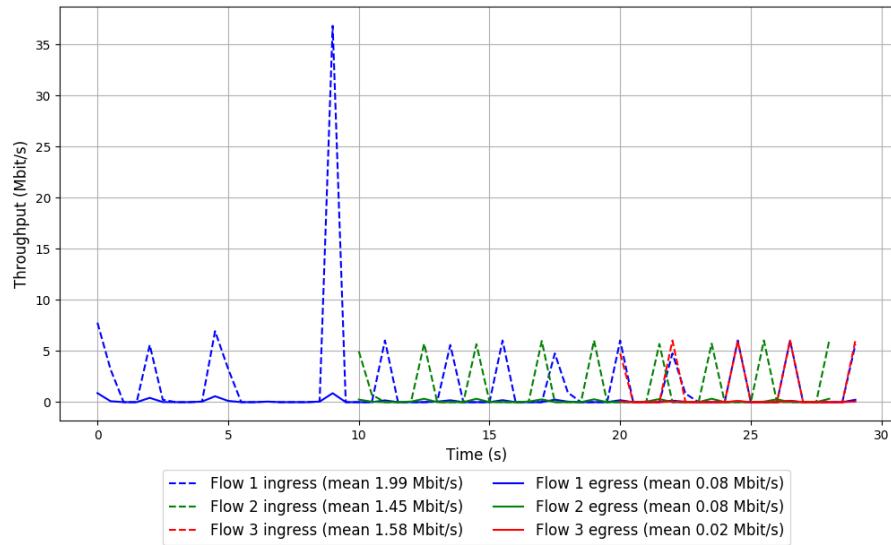


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-02-27 09:55:14
End at: 2018-02-27 09:55:44
Local clock offset: 1.58 ms
Remote clock offset: -6.717 ms

# Below is generated by plot.py at 2018-02-27 10:54:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 102.498 ms
Loss rate: 95.85%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 95.312 ms
Loss rate: 95.84%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 101.197 ms
Loss rate: 94.38%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 184.690 ms
Loss rate: 98.62%
```

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

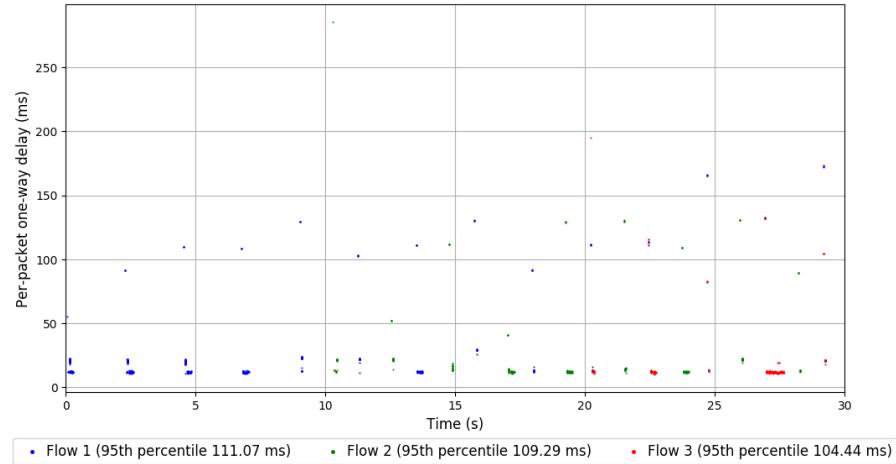
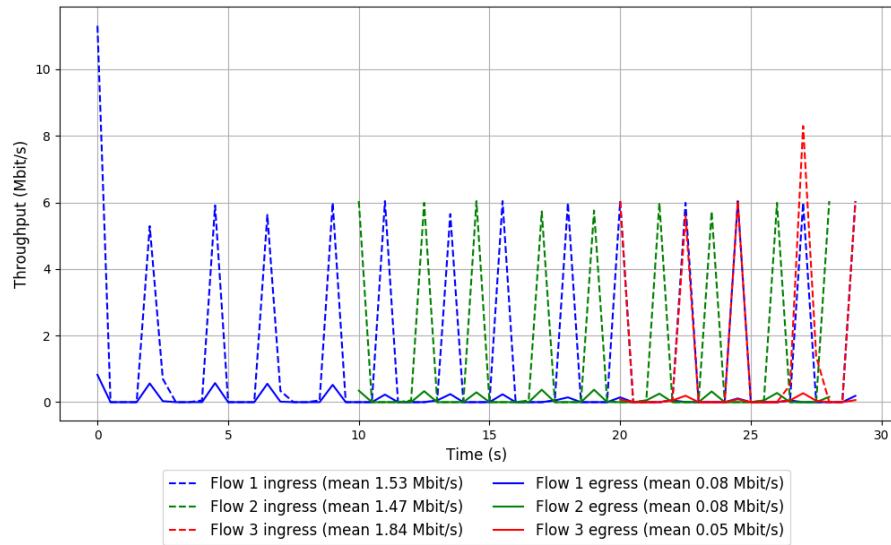


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-02-27 10:18:56
End at: 2018-02-27 10:19:26
Local clock offset: -0.966 ms
Remote clock offset: -5.714 ms

# Below is generated by plot.py at 2018-02-27 10:54:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 111.066 ms
Loss rate: 95.34%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 111.066 ms
Loss rate: 94.88%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 109.288 ms
Loss rate: 94.71%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 104.436 ms
Loss rate: 97.55%
```

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

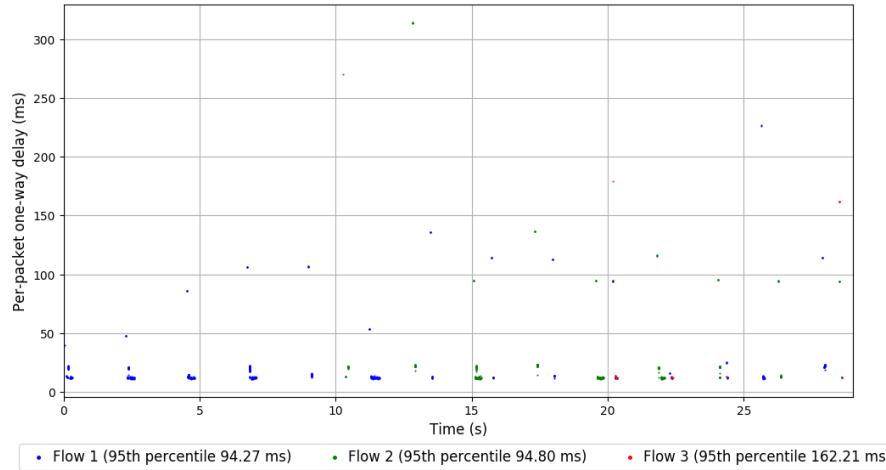
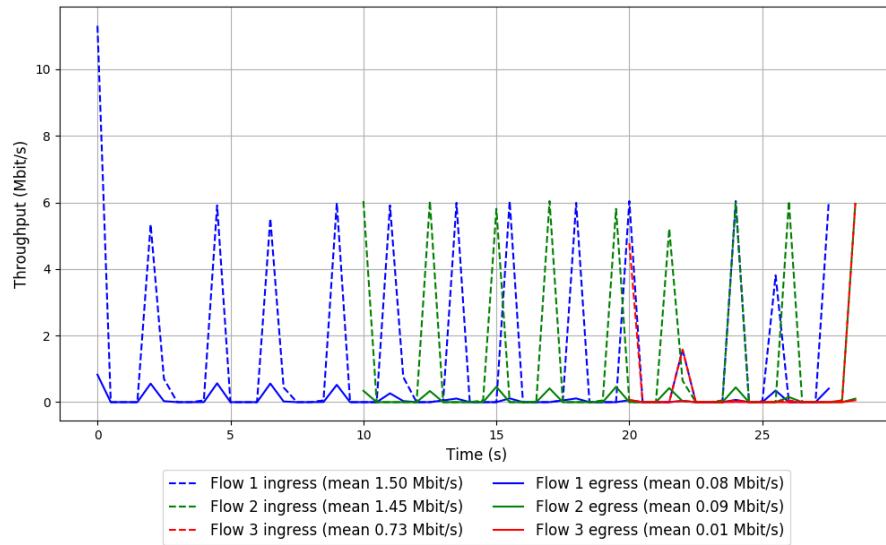


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-02-27 10:42:37
End at: 2018-02-27 10:43:07
Local clock offset: 0.449 ms
Remote clock offset: -5.404 ms

# Below is generated by plot.py at 2018-02-27 10:54:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 94.819 ms
Loss rate: 94.62%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 94.267 ms
Loss rate: 94.33%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 94.801 ms
Loss rate: 94.12%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 162.208 ms
Loss rate: 98.69%
```

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

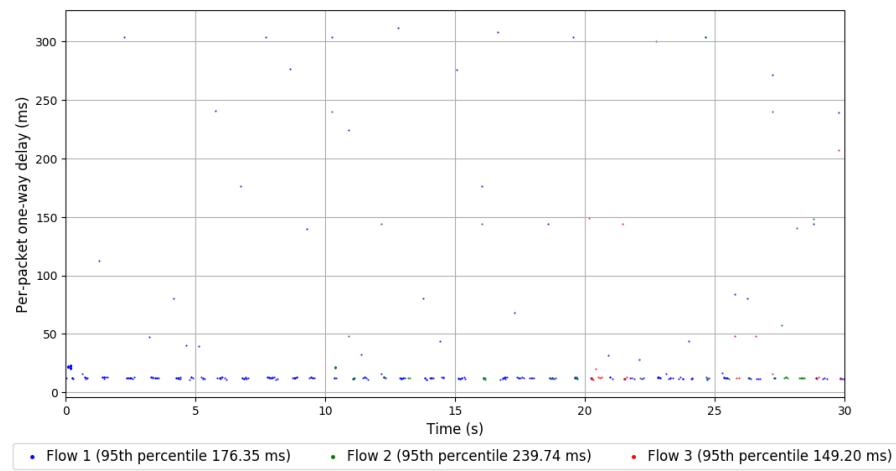
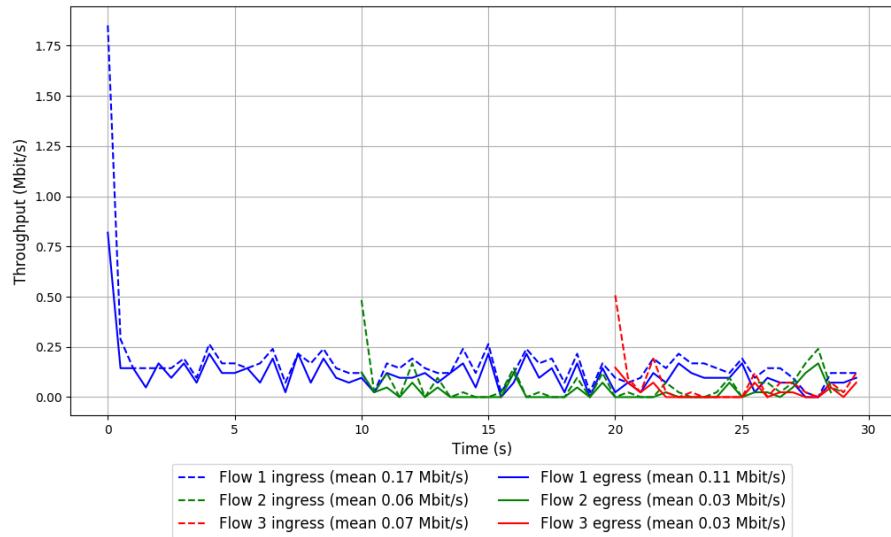


Run 1: Statistics of TCP Vegas

```
Start at: 2018-02-27 09:59:12
End at: 2018-02-27 09:59:42
Local clock offset: 0.766 ms
Remote clock offset: -6.372 ms

# Below is generated by plot.py at 2018-02-27 10:54:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 176.346 ms
Loss rate: 40.45%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 176.346 ms
Loss rate: 35.08%
-- Flow 2:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 239.737 ms
Loss rate: 53.61%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 149.196 ms
Loss rate: 59.52%
```

Run 1: Report of TCP Vegas — Data Link

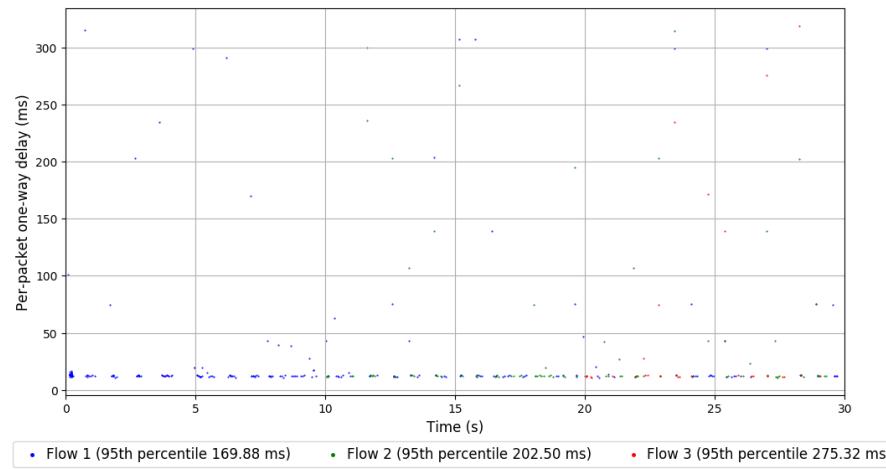
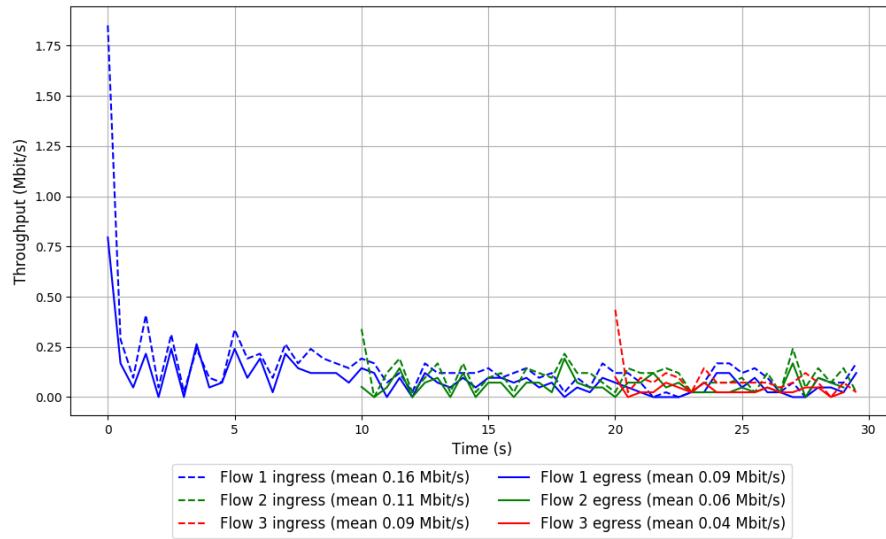


Run 2: Statistics of TCP Vegas

```
Start at: 2018-02-27 10:22:52
End at: 2018-02-27 10:23:22
Local clock offset: -1.179 ms
Remote clock offset: -5.751 ms

# Below is generated by plot.py at 2018-02-27 10:54:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 202.892 ms
Loss rate: 45.41%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 169.875 ms
Loss rate: 41.78%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 202.502 ms
Loss rate: 46.48%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 275.321 ms
Loss rate: 62.06%
```

Run 2: Report of TCP Vegas — Data Link

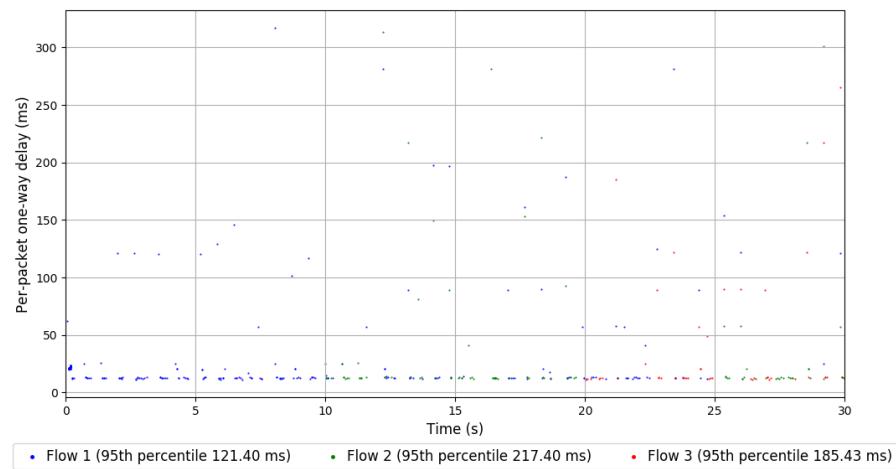
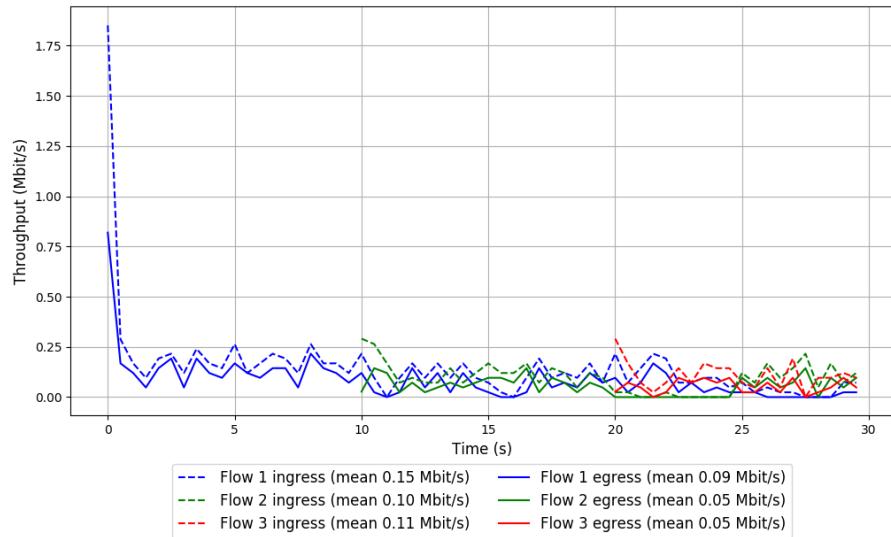


Run 3: Statistics of TCP Vegas

```
Start at: 2018-02-27 10:46:34
End at: 2018-02-27 10:47:04
Local clock offset: 0.689 ms
Remote clock offset: -5.459 ms

# Below is generated by plot.py at 2018-02-27 10:54:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 149.342 ms
Loss rate: 44.06%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 121.403 ms
Loss rate: 41.96%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 217.398 ms
Loss rate: 44.34%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 185.429 ms
Loss rate: 52.10%
```

Run 3: Report of TCP Vegas — Data Link

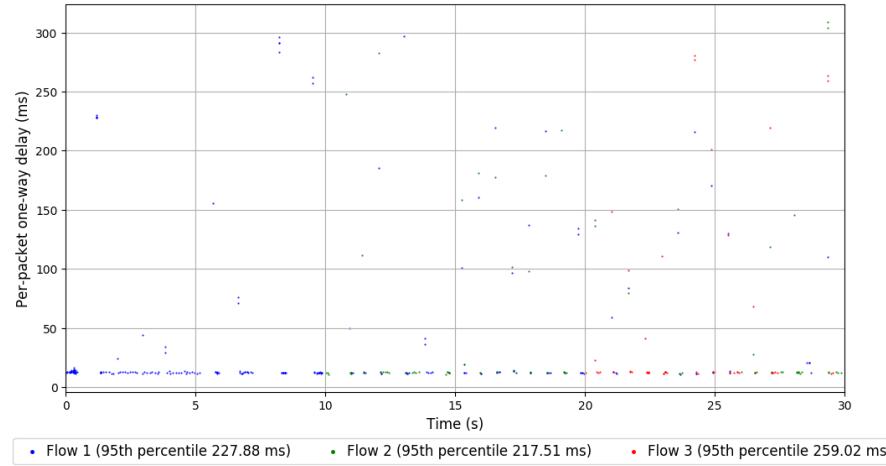
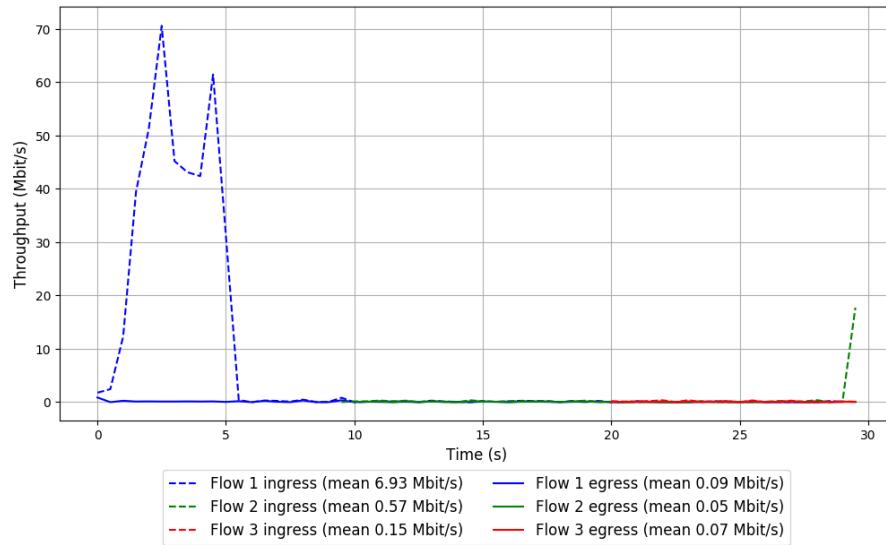


Run 1: Statistics of Verus

```
Start at: 2018-02-27 09:47:21
End at: 2018-02-27 09:47:51
Local clock offset: 1.908 ms
Remote clock offset: -6.525 ms

# Below is generated by plot.py at 2018-02-27 10:55:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 227.991 ms
Loss rate: 98.06%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 227.883 ms
Loss rate: 98.76%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 217.507 ms
Loss rate: 90.77%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 259.024 ms
Loss rate: 55.74%
```

Run 1: Report of Verus — Data Link

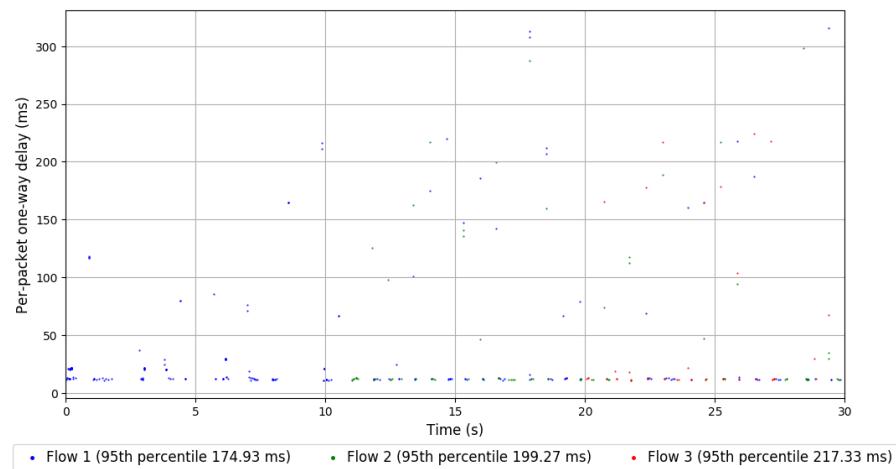
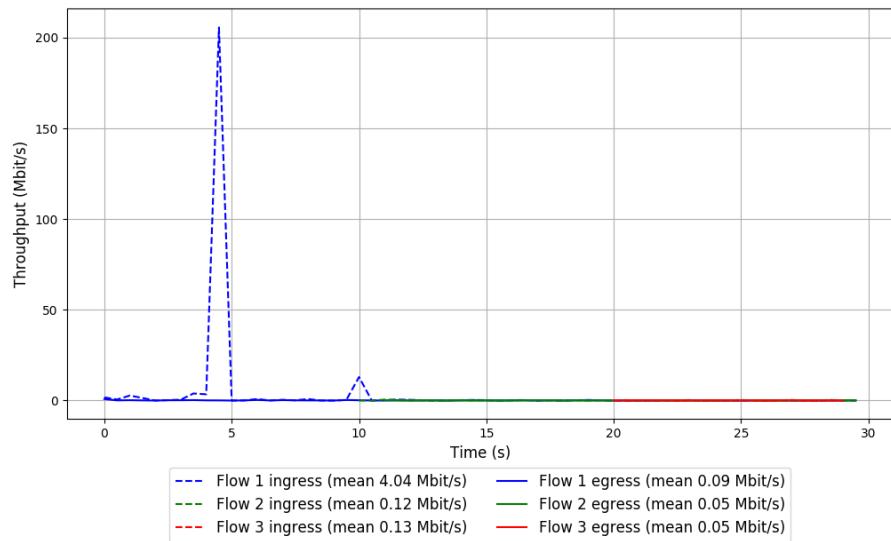


Run 2: Statistics of Verus

```
Start at: 2018-02-27 10:11:02
End at: 2018-02-27 10:11:32
Local clock offset: -0.512 ms
Remote clock offset: -5.885 ms

# Below is generated by plot.py at 2018-02-27 10:55:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 187.411 ms
Loss rate: 96.62%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 174.929 ms
Loss rate: 97.75%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 199.267 ms
Loss rate: 59.62%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 217.331 ms
Loss rate: 59.62%
```

Run 2: Report of Verus — Data Link

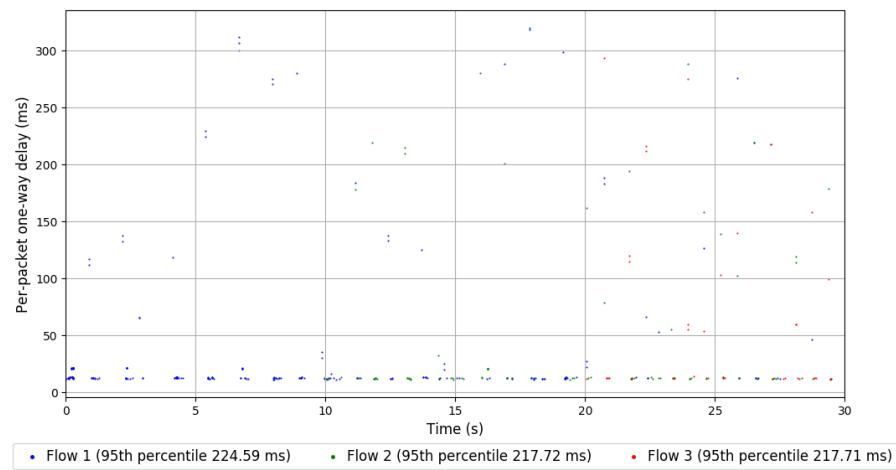
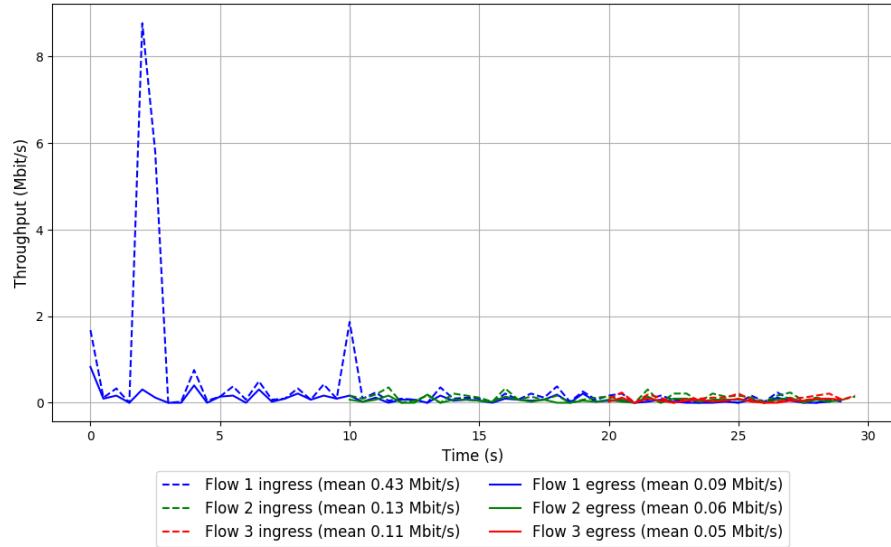


Run 3: Statistics of Verus

```
Start at: 2018-02-27 10:34:43
End at: 2018-02-27 10:35:13
Local clock offset: -0.074 ms
Remote clock offset: -5.5 ms

# Below is generated by plot.py at 2018-02-27 10:55:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 219.253 ms
Loss rate: 74.64%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 224.592 ms
Loss rate: 79.72%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 217.718 ms
Loss rate: 56.40%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 217.714 ms
Loss rate: 56.99%
```

Run 3: Report of Verus — Data Link

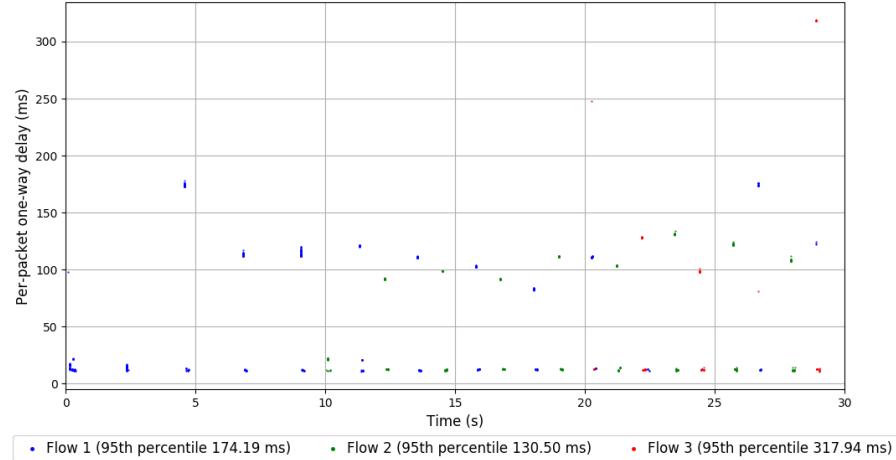
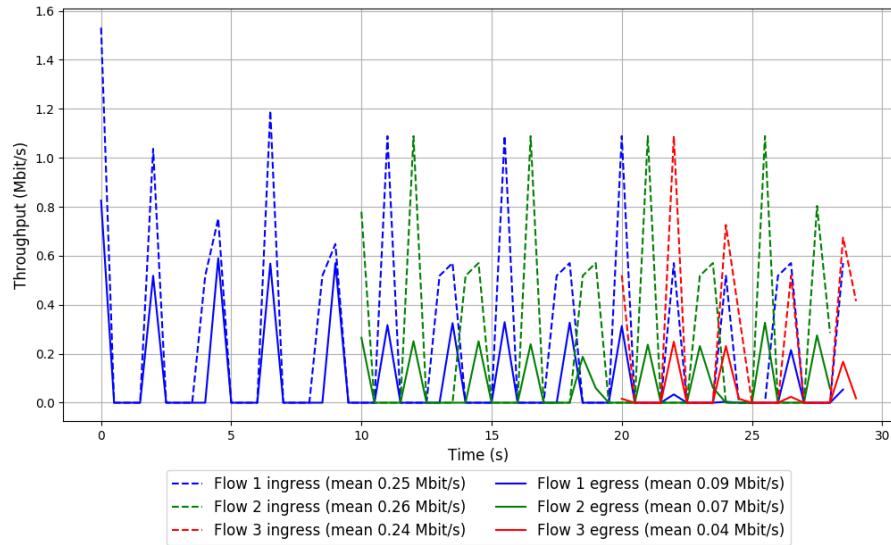


Run 1: Statistics of Copa

```
Start at: 2018-02-27 09:46:02
End at: 2018-02-27 09:46:32
Local clock offset: 1.868 ms
Remote clock offset: -6.624 ms

# Below is generated by plot.py at 2018-02-27 10:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 173.862 ms
Loss rate: 71.07%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 174.191 ms
Loss rate: 65.32%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 130.504 ms
Loss rate: 74.25%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 317.935 ms
Loss rate: 83.25%
```

Run 1: Report of Copa — Data Link

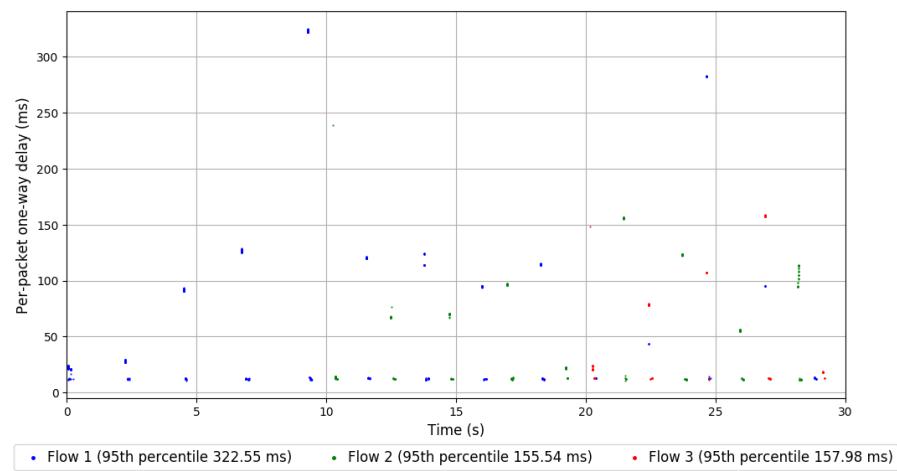
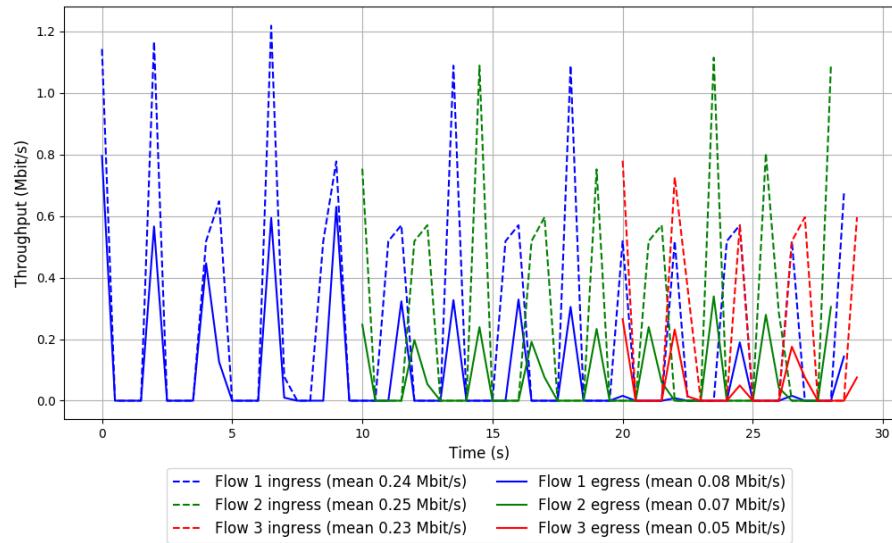


Run 2: Statistics of Copa

```
Start at: 2018-02-27 10:09:43
End at: 2018-02-27 10:10:13
Local clock offset: -0.453 ms
Remote clock offset: -5.912 ms

# Below is generated by plot.py at 2018-02-27 10:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 158.532 ms
Loss rate: 69.66%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 322.549 ms
Loss rate: 64.89%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 155.545 ms
Loss rate: 72.75%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 157.982 ms
Loss rate: 78.63%
```

Run 2: Report of Copa — Data Link

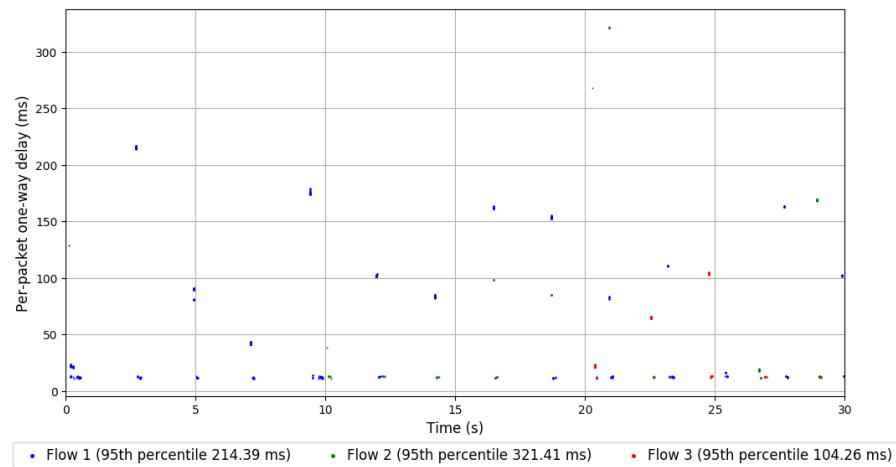
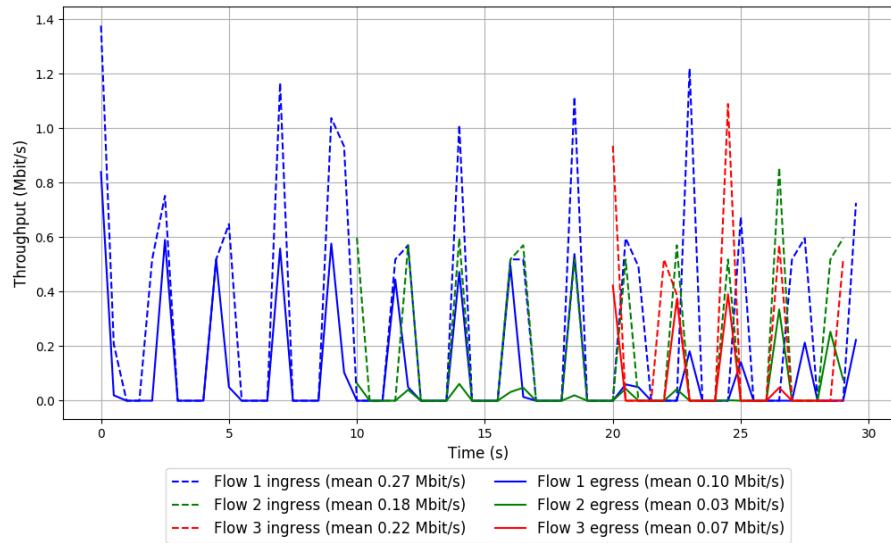


Run 3: Statistics of Copa

```
Start at: 2018-02-27 10:33:24
End at: 2018-02-27 10:33:54
Local clock offset: -0.234 ms
Remote clock offset: -5.532 ms

# Below is generated by plot.py at 2018-02-27 10:55:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 214.363 ms
Loss rate: 69.15%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 214.393 ms
Loss rate: 62.18%
-- Flow 2:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 321.409 ms
Loss rate: 85.35%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 104.264 ms
Loss rate: 69.31%
```

Run 3: Report of Copa — Data Link

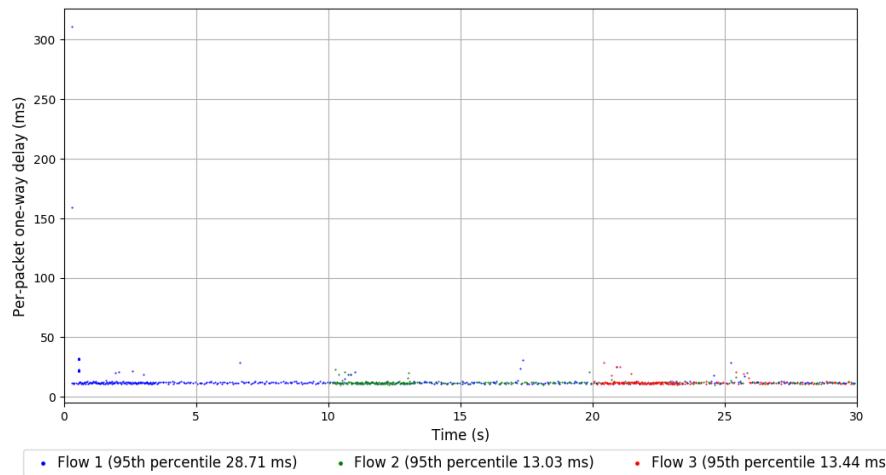
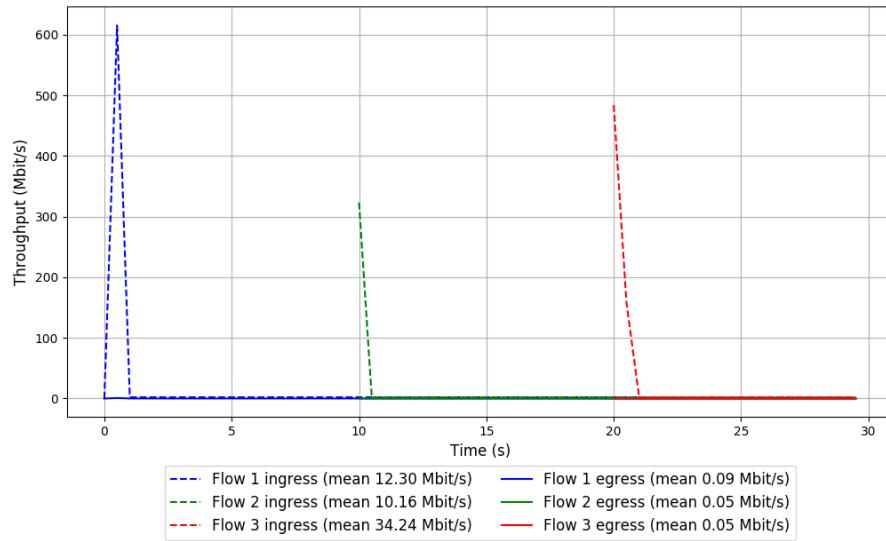


```
Run 1: Statistics of FillP

Start at: 2018-02-27 09:52:36
End at: 2018-02-27 09:53:06
Local clock offset: 1.955 ms
Remote clock offset: -6.743 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 21.670 ms
Loss rate: 99.54%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 28.714 ms
Loss rate: 99.26%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.031 ms
Loss rate: 99.54%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.440 ms
Loss rate: 99.86%
```

Run 1: Report of FillP — Data Link

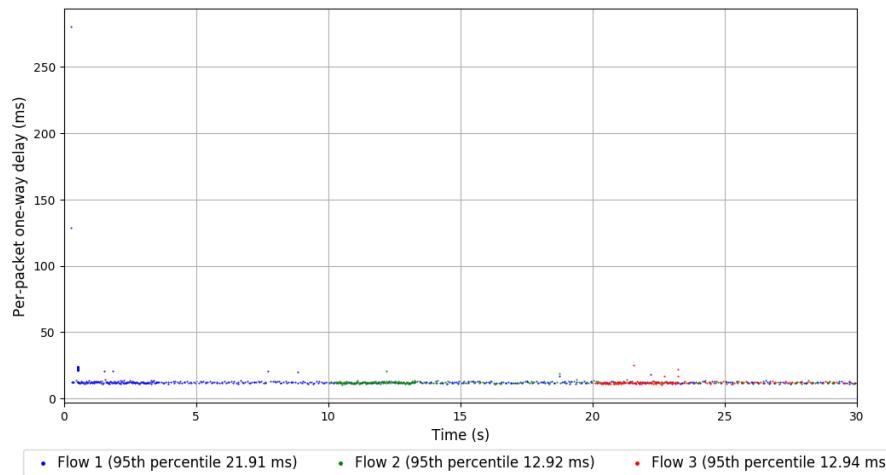
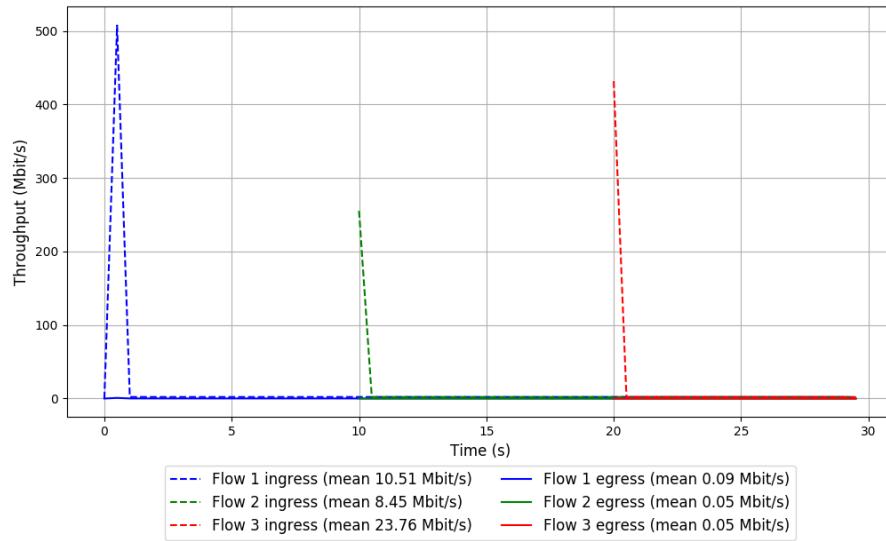


Run 2: Statistics of FillP

```
Start at: 2018-02-27 10:16:17
End at: 2018-02-27 10:16:47
Local clock offset: -0.954 ms
Remote clock offset: -5.746 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 16.935 ms
Loss rate: 99.42%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 21.913 ms
Loss rate: 99.11%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.921 ms
Loss rate: 99.46%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.943 ms
Loss rate: 99.81%
```

Run 2: Report of FillP — Data Link

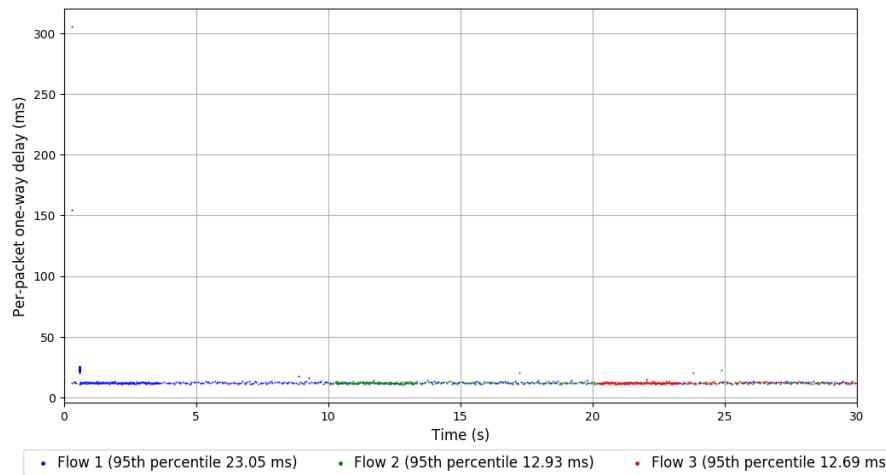
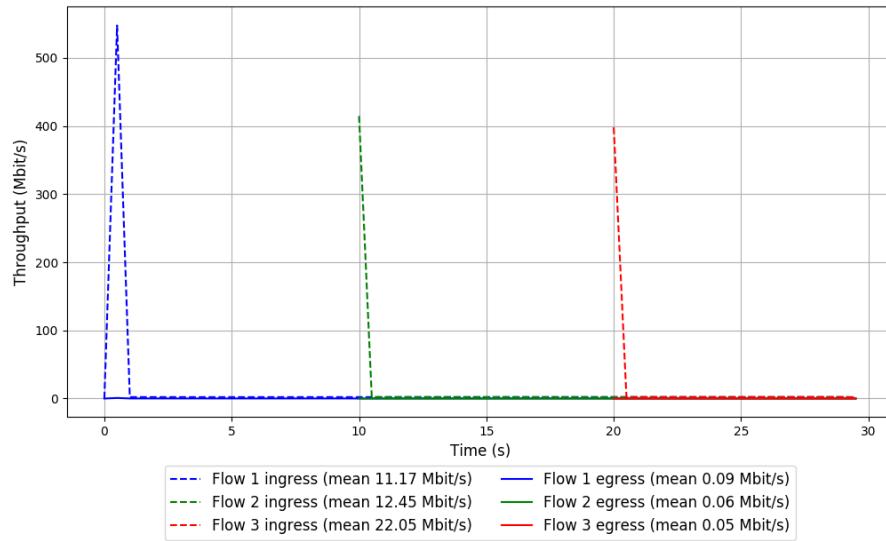


```
Run 3: Statistics of FillP
```

```
Start at: 2018-02-27 10:39:58
End at: 2018-02-27 10:40:28
Local clock offset: 0.301 ms
Remote clock offset: -5.521 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 14.452 ms
Loss rate: 99.48%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 23.055 ms
Loss rate: 99.23%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 12.925 ms
Loss rate: 99.55%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.691 ms
Loss rate: 99.79%
```

Run 3: Report of FillP — Data Link

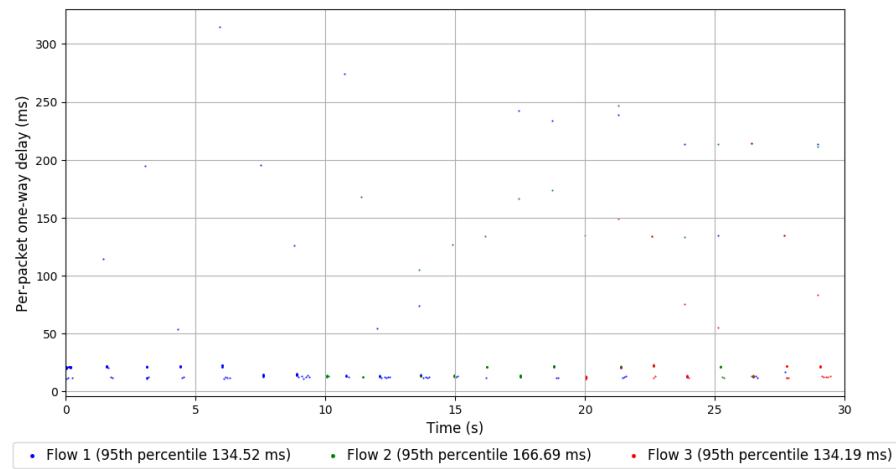
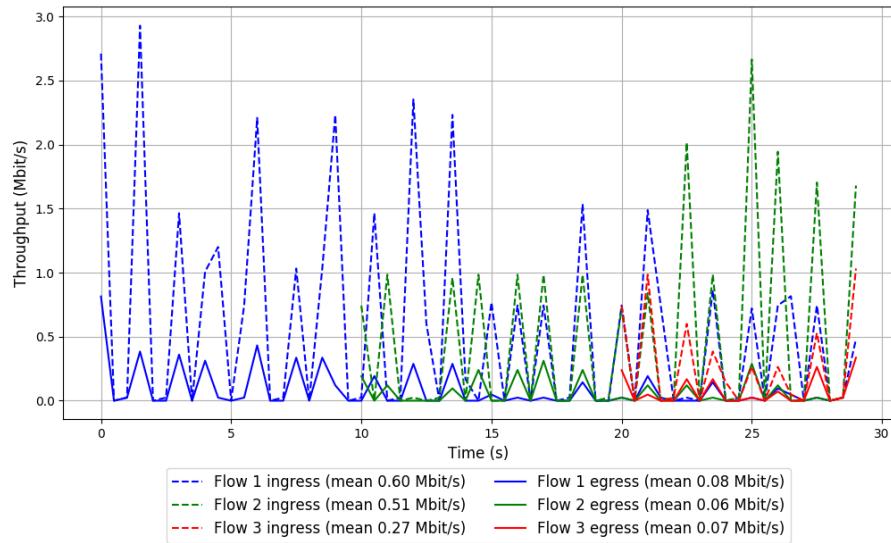


Run 1: Statistics of Indigo-1-32

```
Start at: 2018-02-27 09:51:17
End at: 2018-02-27 09:51:47
Local clock offset: 1.93 ms
Remote clock offset: -6.676 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 149.168 ms
Loss rate: 85.95%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 134.524 ms
Loss rate: 86.25%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 166.692 ms
Loss rate: 88.70%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 134.188 ms
Loss rate: 73.36%
```

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

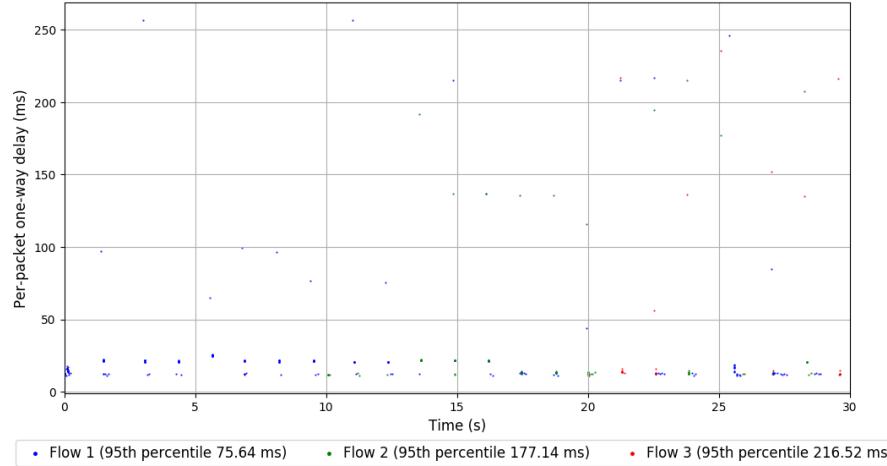
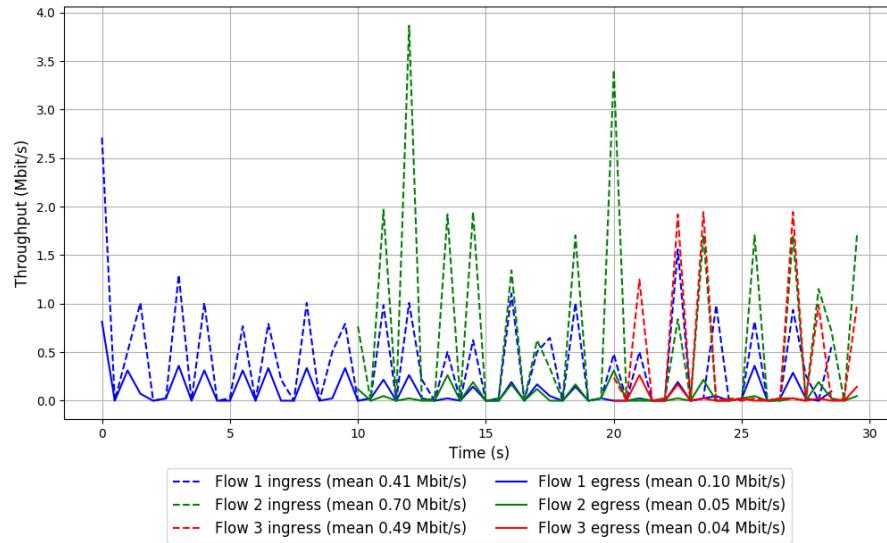


Run 2: Statistics of Indigo-1-32

```
Start at: 2018-02-27 10:14:59
End at: 2018-02-27 10:15:29
Local clock offset: -0.762 ms
Remote clock offset: -5.828 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 135.991 ms
Loss rate: 86.19%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 75.639 ms
Loss rate: 76.13%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 177.137 ms
Loss rate: 92.60%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 216.516 ms
Loss rate: 92.57%
```

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

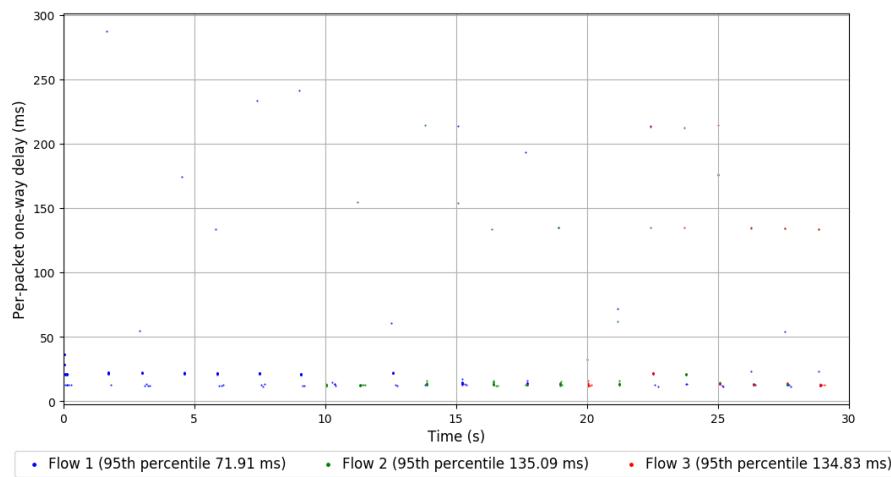
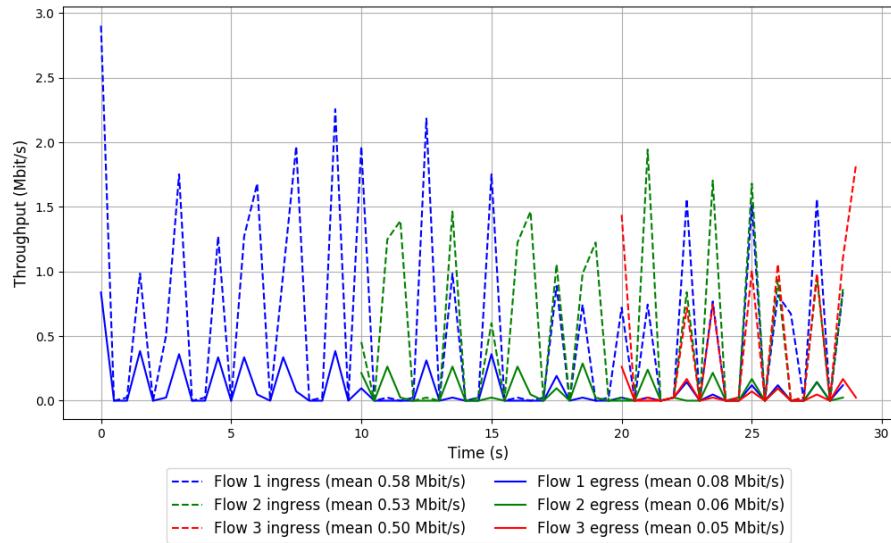


Run 3: Statistics of Indigo-1-32

```
Start at: 2018-02-27 10:38:39
End at: 2018-02-27 10:39:09
Local clock offset: 0.286 ms
Remote clock offset: -5.533 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 134.833 ms
Loss rate: 86.92%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 71.907 ms
Loss rate: 85.41%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 135.087 ms
Loss rate: 88.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 134.833 ms
Loss rate: 90.12%
```

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

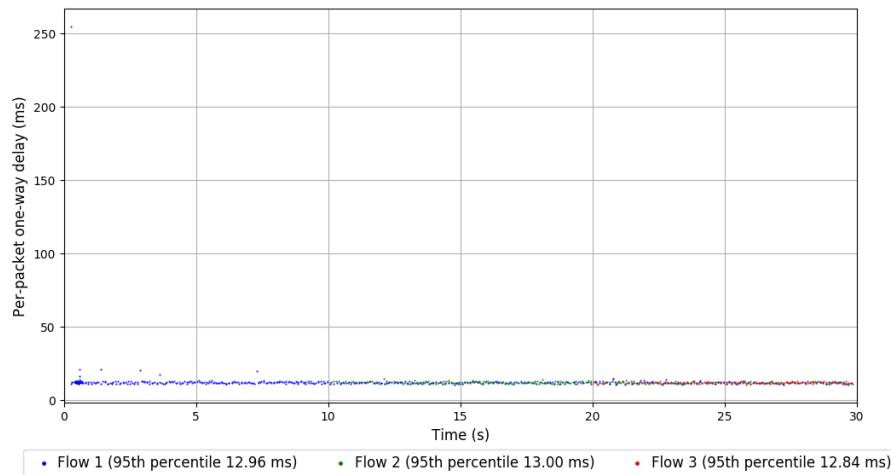
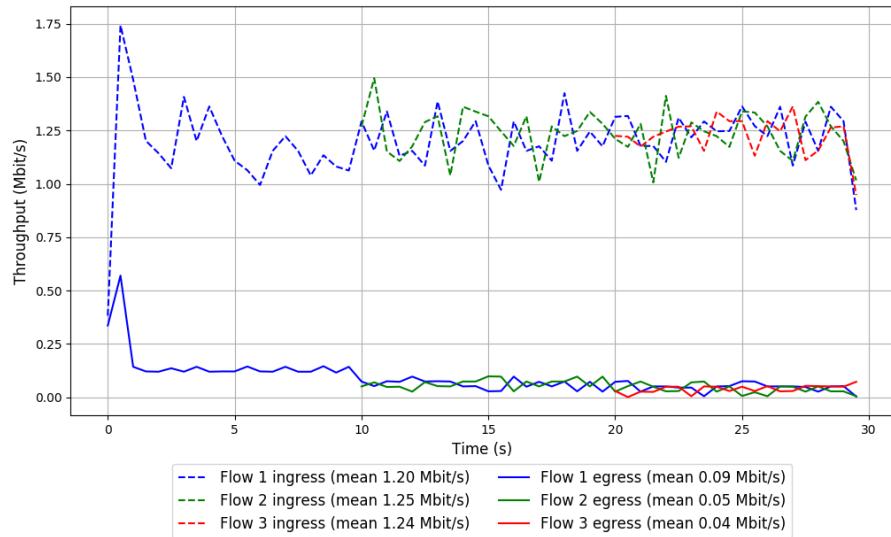


Run 1: Statistics of Vivace-latency

```
Start at: 2018-02-27 10:01:49
End at: 2018-02-27 10:02:19
Local clock offset: 0.281 ms
Remote clock offset: -6.136 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.949 ms
Loss rate: 94.31%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 12.955 ms
Loss rate: 92.44%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.002 ms
Loss rate: 95.80%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.842 ms
Loss rate: 96.77%
```

Run 1: Report of Vivace-latency — Data Link

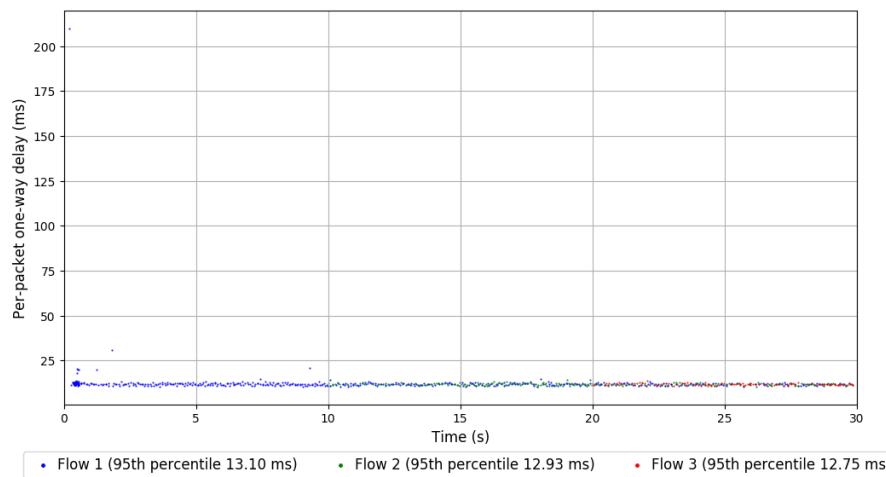
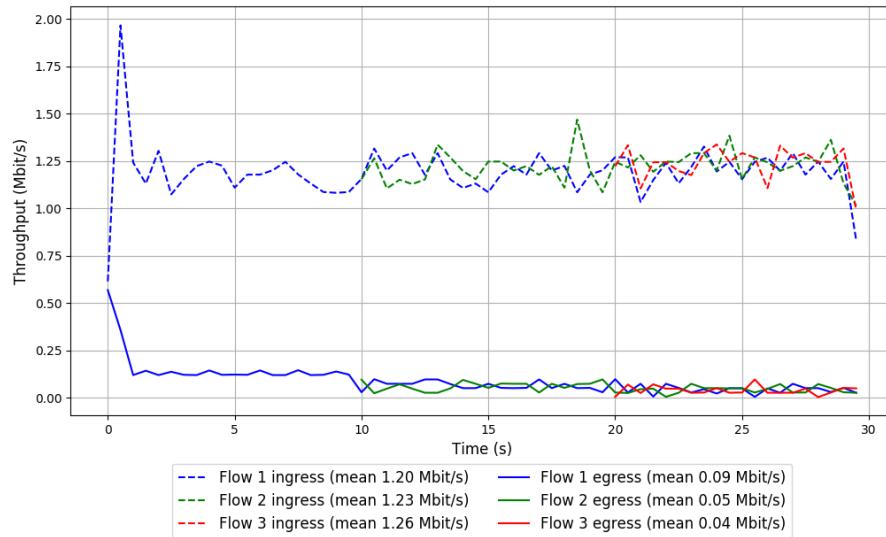


Run 2: Statistics of Vivace-latency

```
Start at: 2018-02-27 10:25:30
End at: 2018-02-27 10:26:00
Local clock offset: -1.301 ms
Remote clock offset: -5.709 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.026 ms
Loss rate: 94.26%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 13.095 ms
Loss rate: 92.38%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.928 ms
Loss rate: 95.73%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.747 ms
Loss rate: 96.79%
```

Run 2: Report of Vivace-latency — Data Link

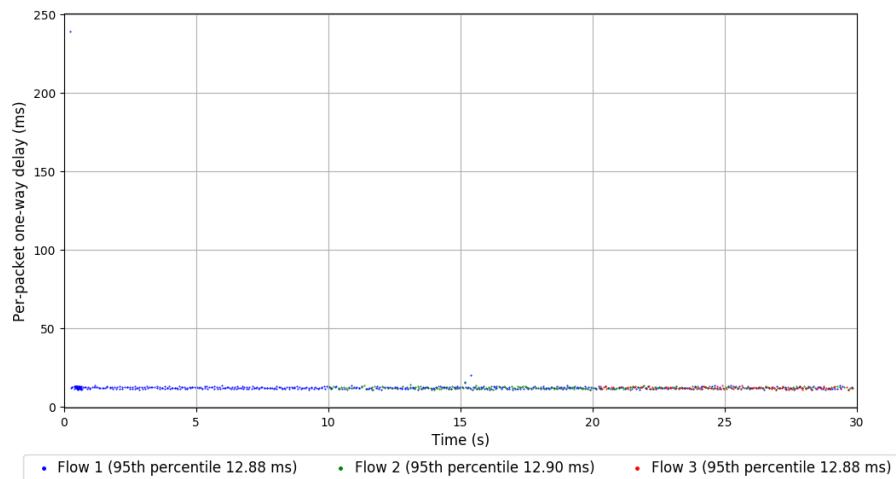
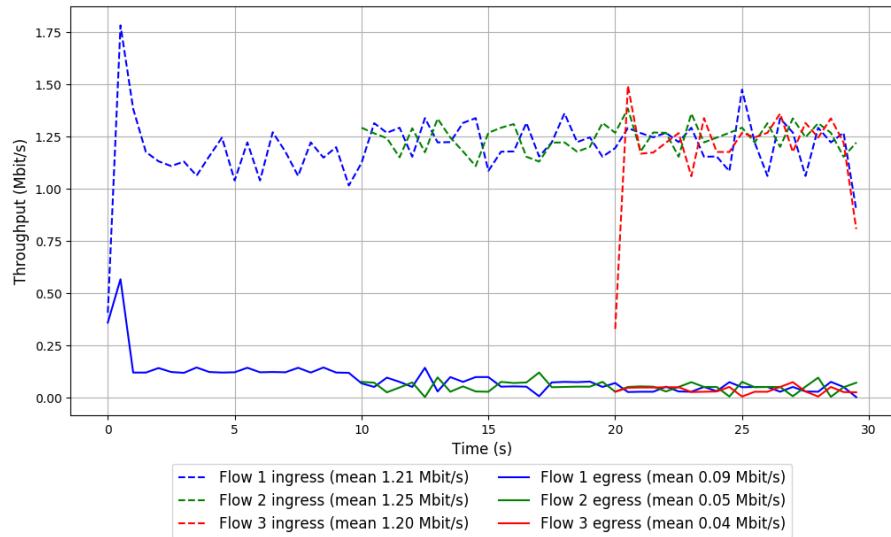


Run 3: Statistics of Vivace-latency

```
Start at: 2018-02-27 10:49:11
End at: 2018-02-27 10:49:41
Local clock offset: 0.761 ms
Remote clock offset: -5.434 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.890 ms
Loss rate: 94.29%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 12.883 ms
Loss rate: 92.41%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.900 ms
Loss rate: 95.75%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.883 ms
Loss rate: 96.89%
```

Run 3: Report of Vivace-latency — Data Link

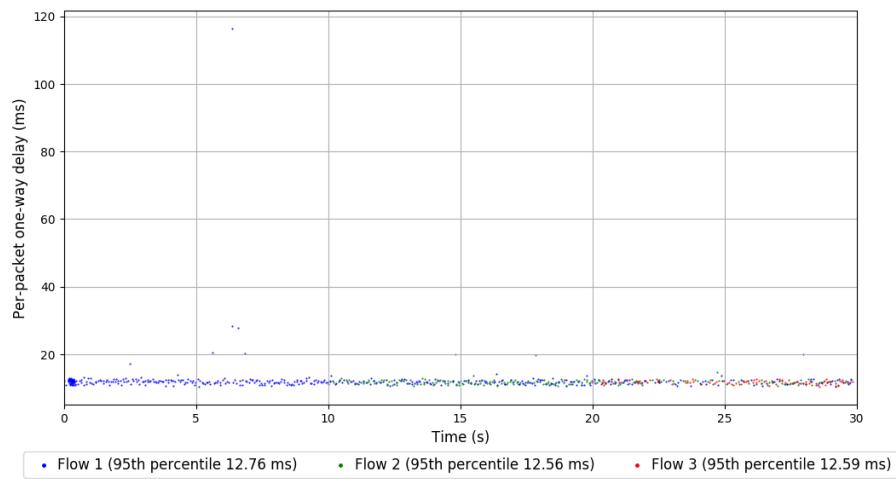
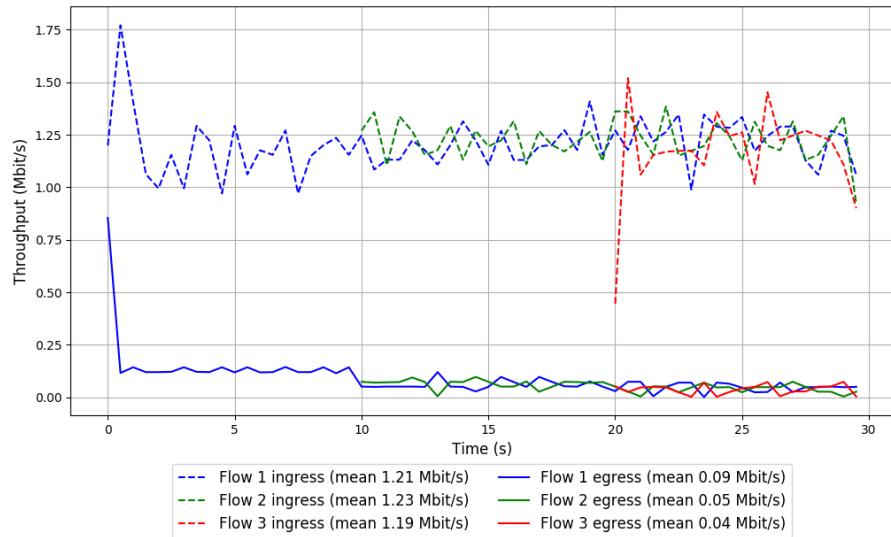


```
Run 1: Statistics of Vivace-loss
```

```
Start at: 2018-02-27 09:57:53
End at: 2018-02-27 09:58:23
Local clock offset: 1.01 ms
Remote clock offset: -6.477 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.666 ms
Loss rate: 94.22%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 12.760 ms
Loss rate: 92.43%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.562 ms
Loss rate: 95.65%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.594 ms
Loss rate: 96.75%
```

Run 1: Report of Vivace-loss — Data Link

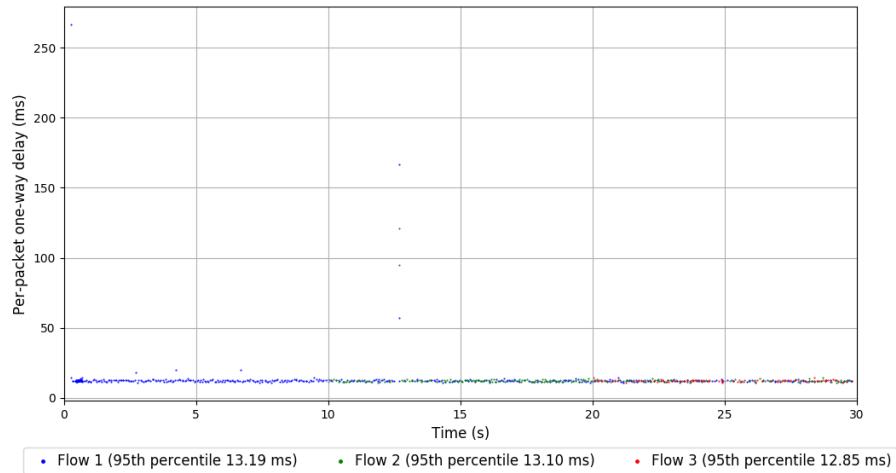
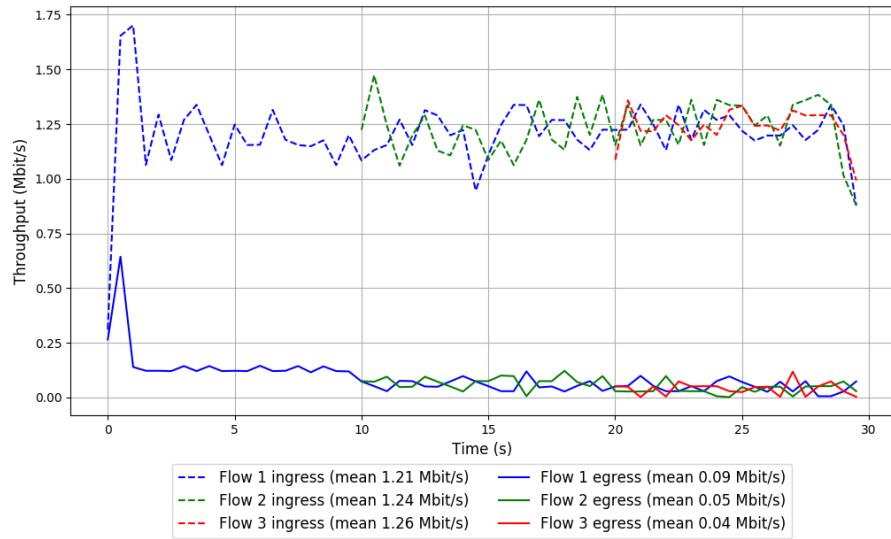


Run 2: Statistics of Vivace-loss

```
Start at: 2018-02-27 10:21:33
End at: 2018-02-27 10:22:03
Local clock offset: -1.187 ms
Remote clock offset: -5.627 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.137 ms
Loss rate: 94.32%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 13.193 ms
Loss rate: 92.61%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.095 ms
Loss rate: 95.63%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.850 ms
Loss rate: 96.74%
```

Run 2: Report of Vivace-loss — Data Link

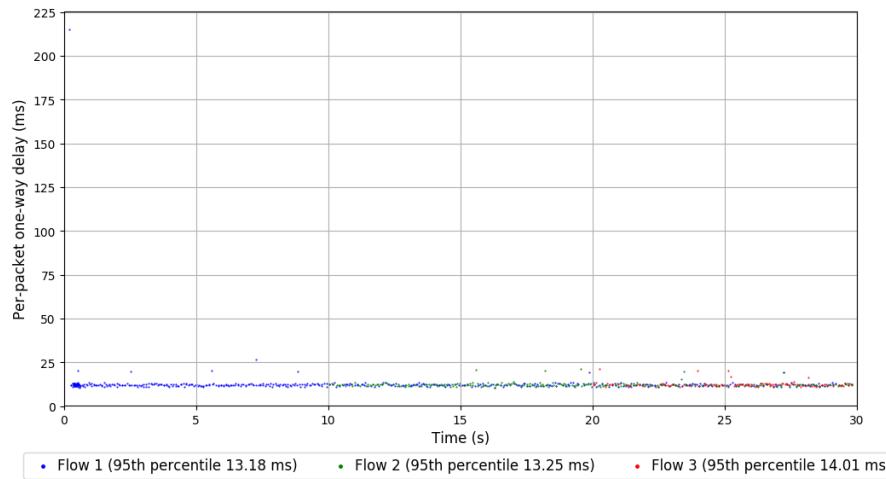
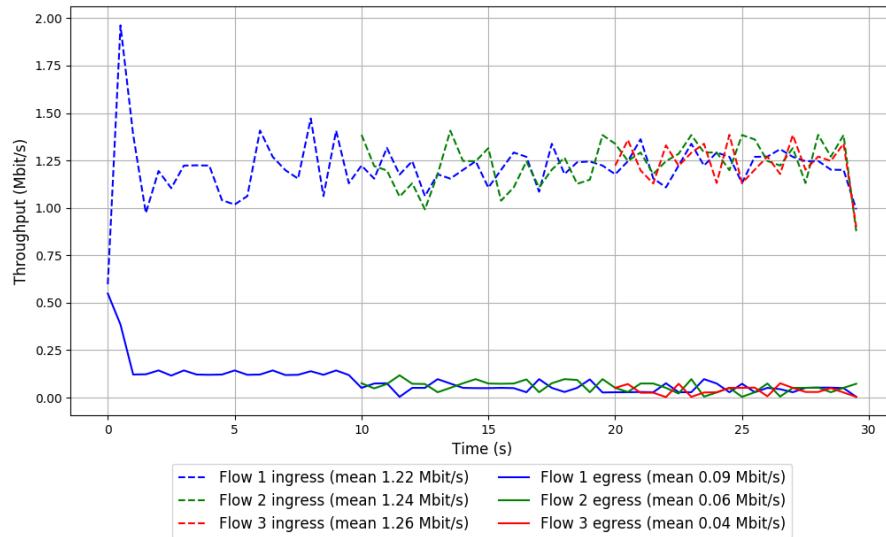


Run 3: Statistics of Vivace-loss

```
Start at: 2018-02-27 10:45:14
End at: 2018-02-27 10:45:44
Local clock offset: 0.563 ms
Remote clock offset: -5.474 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.226 ms
Loss rate: 94.33%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 13.184 ms
Loss rate: 92.81%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 13.249 ms
Loss rate: 95.23%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 14.013 ms
Loss rate: 97.01%
```

Run 3: Report of Vivace-loss — Data Link

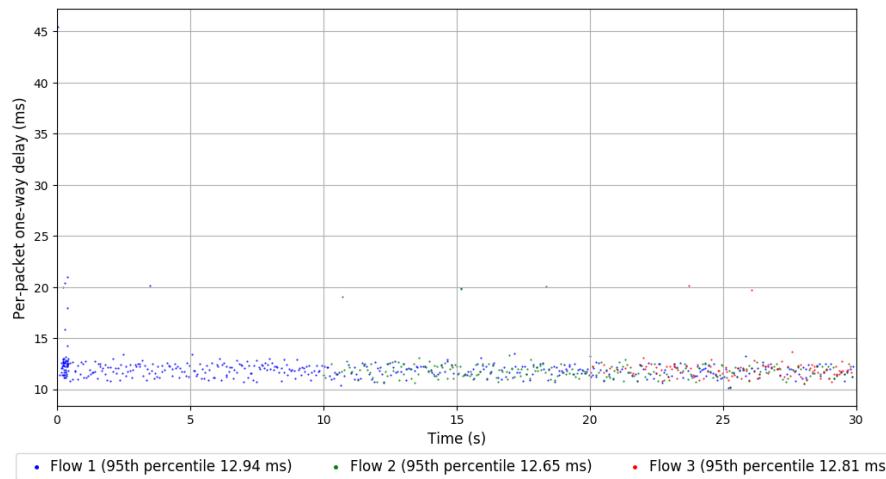
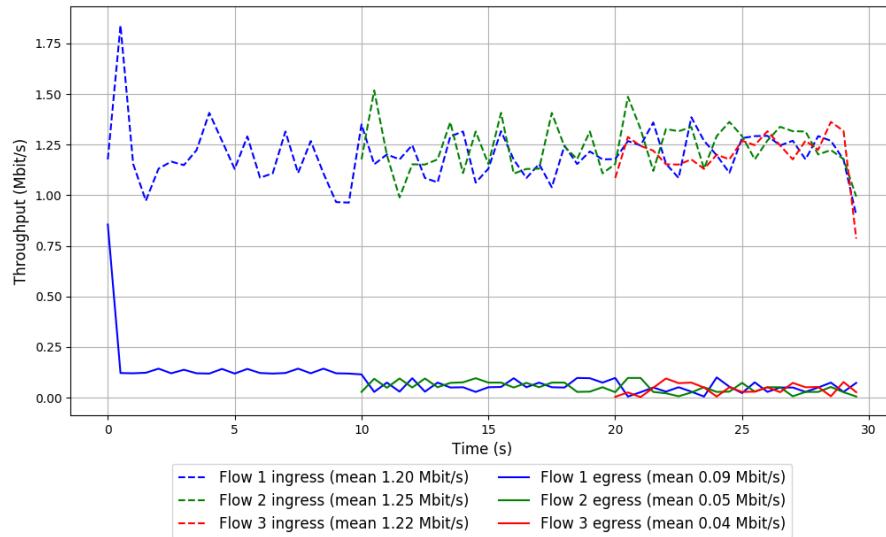


Run 1: Statistics of Vivace-LTE

```
Start at: 2018-02-27 10:05:46
End at: 2018-02-27 10:06:16
Local clock offset: -0.104 ms
Remote clock offset: -6.022 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.820 ms
Loss rate: 94.24%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 12.941 ms
Loss rate: 92.39%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.650 ms
Loss rate: 95.85%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 12.815 ms
Loss rate: 96.45%
```

Run 1: Report of Vivace-LTE — Data Link

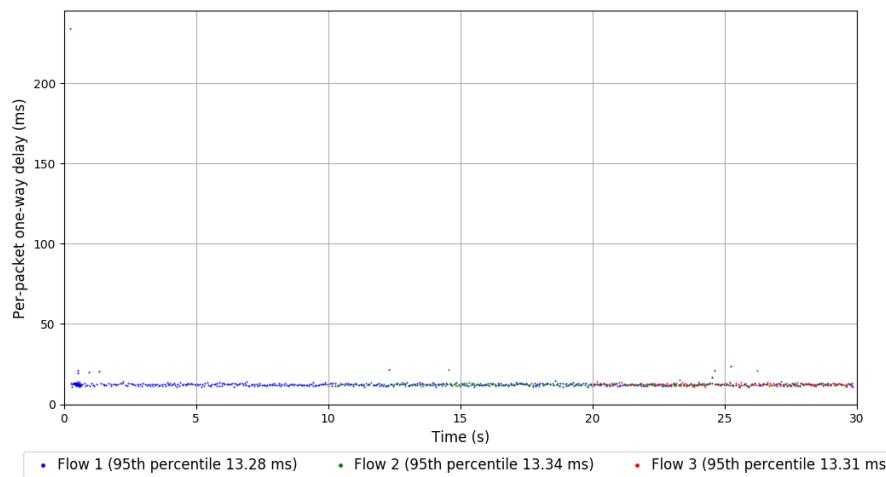
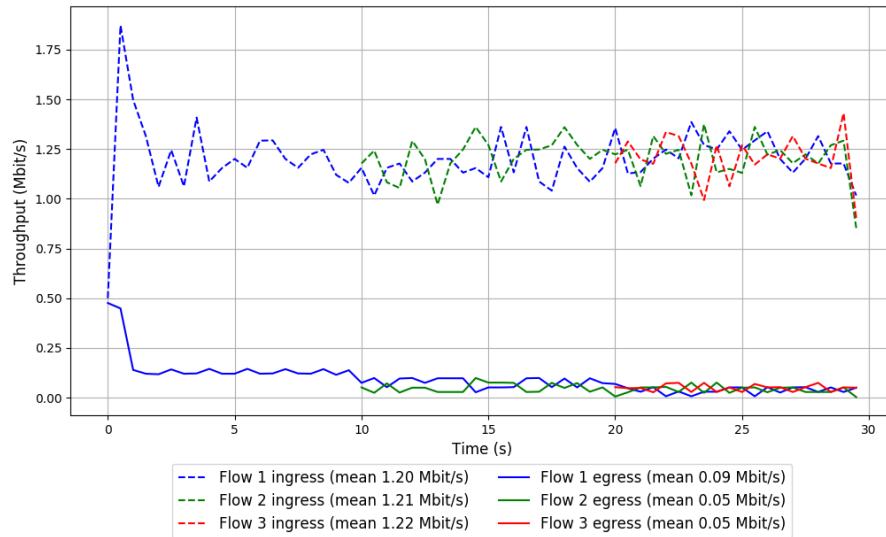


Run 2: Statistics of Vivace-LTE

```
Start at: 2018-02-27 10:29:27
End at: 2018-02-27 10:29:57
Local clock offset: -1.088 ms
Remote clock offset: -5.672 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 13.314 ms
Loss rate: 94.23%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 13.279 ms
Loss rate: 92.32%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.340 ms
Loss rate: 96.25%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 13.314 ms
Loss rate: 95.88%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

```
Start at: 2018-02-27 10:53:08
End at: 2018-02-27 10:53:38
Local clock offset: 0.831 ms
Remote clock offset: -5.319 ms

# Below is generated by plot.py at 2018-02-27 10:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 12.996 ms
Loss rate: 94.28%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 13.111 ms
Loss rate: 92.53%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.819 ms
Loss rate: 95.66%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 13.112 ms
Loss rate: 96.69%
```

Run 3: Report of Vivace-LTE — Data Link

