

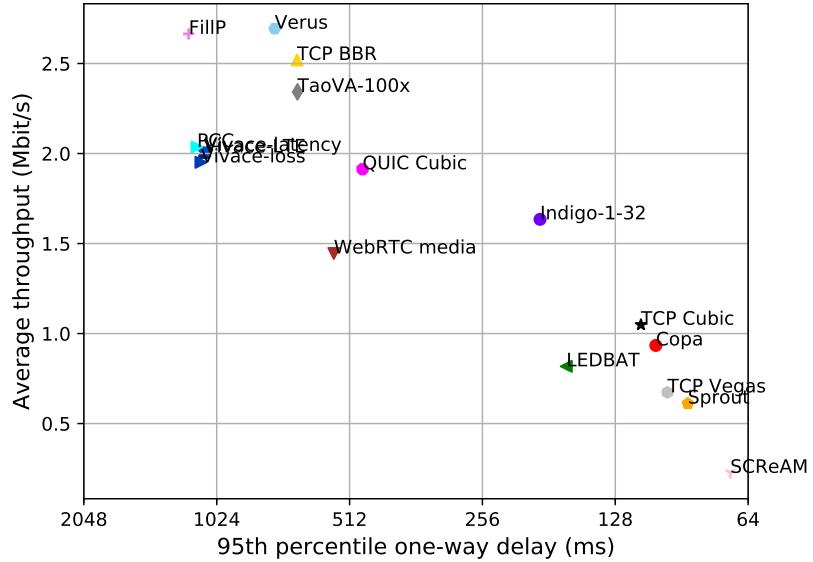
Pantheon Report

Generated at 2018-02-13 13:01:01 (UTC).
Data path: AWS India 1 Ethernet (*local*) → India 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 nets.org.sg and have been applied to correct the timestamps in logs.

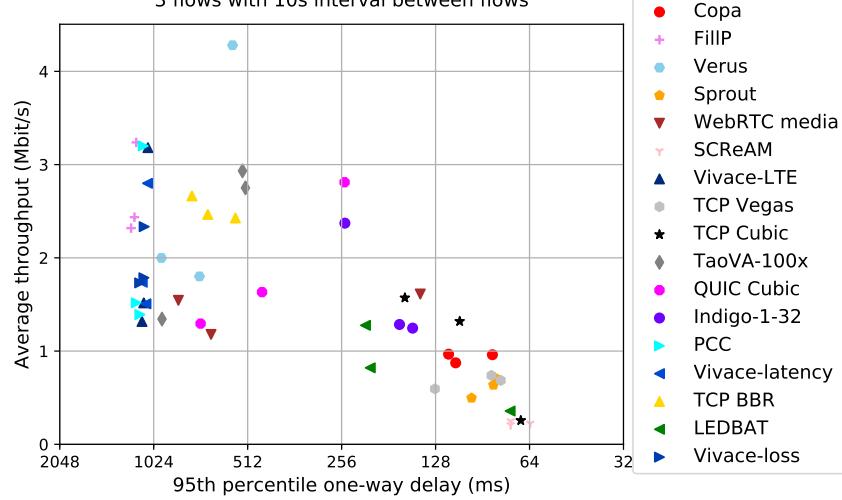
Git summary:

```
branch: master @ 2efdadc57c2c56a9458b0d01ff33345e11732665
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
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 @ f0f2e693303aee82ea808e6928eac4f1083a6681
  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 @ 6f2efef6e088d91066a9f023df375eee2665089ce
  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 India 1 Ethernet to India ppp0, 3 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



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



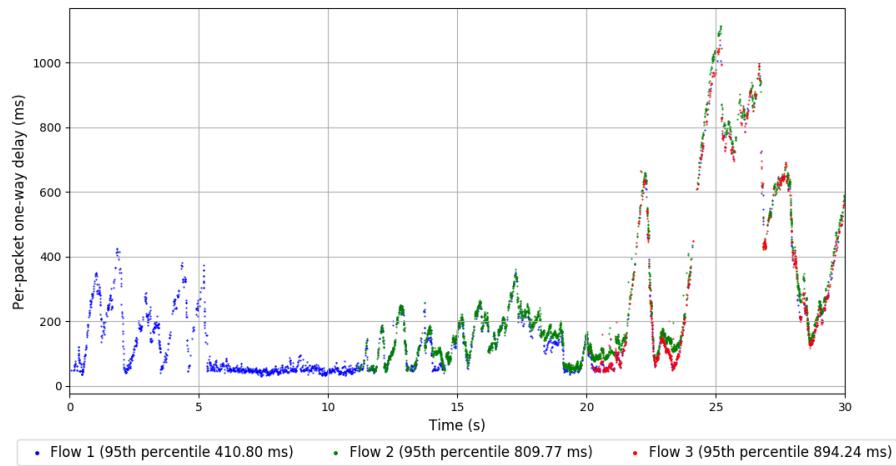
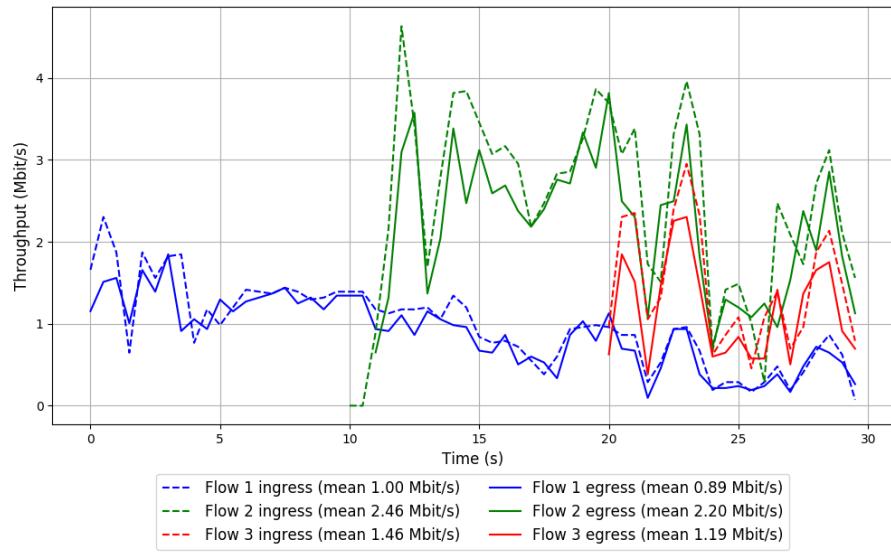
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	1.41	1.20	1.04	555.67	703.75	681.32	7.97	10.22	13.30
TCP Cubic	3	0.49	0.57	0.55	105.30	112.62	126.68	11.41	10.68	12.62
LEDBAT	3	0.43	0.41	0.44	140.87	172.41	188.21	12.07	10.97	6.76
PCC	3	1.07	0.92	1.25	1099.44	1162.67	1139.56	47.76	80.38	87.06
QUIC Cubic	3	0.90	1.05	0.96	397.43	415.07	617.70	4.83	5.84	6.59
SCReAM	3	0.10	0.10	0.18	73.57	53.95	67.08	3.75	3.38	2.13
WebRTC media	3	0.76	0.46	0.23	335.30	623.57	367.69	5.67	7.12	12.57
Sprout	3	0.32	0.31	0.27	85.35	89.20	73.24	8.28	4.98	10.10
TaoVA-100x	3	1.39	1.01	0.89	608.93	706.11	749.47	10.89	10.63	27.12
TCP Vegas	3	0.29	0.34	0.51	85.28	100.24	114.02	10.61	10.19	10.57
Verus	3	1.81	1.14	0.40	687.93	830.26	664.66	10.78	24.50	11.12
Copa	3	0.47	0.48	0.44	94.93	95.44	173.84	6.29	5.63	5.15
FillP	3	1.78	0.96	1.01	1120.93	1220.44	1215.26	92.66	98.77	99.32
Indigo-1-32	3	0.89	0.73	0.75	193.02	182.34	254.83	13.49	9.85	9.22
Vivace-latency	3	1.10	0.94	0.93	1076.44	1085.20	1103.73	26.22	31.72	42.22
Vivace-loss	3	1.36	0.76	0.35	1106.61	1119.58	1126.06	46.23	53.93	71.48
Vivace-LTE	3	1.29	0.87	0.44	1085.45	1102.84	1085.48	28.25	41.87	48.64

Run 1: Statistics of TCP BBR

```
Start at: 2018-02-13 12:07:28
End at: 2018-02-13 12:07:58
Local clock offset: -0.227 ms
Remote clock offset: -18.249 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 772.475 ms
Loss rate: 14.37%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 410.802 ms
Loss rate: 10.23%
-- Flow 2:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 809.768 ms
Loss rate: 15.31%
-- Flow 3:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 894.235 ms
Loss rate: 19.62%
```

Run 1: Report of TCP BBR — Data Link

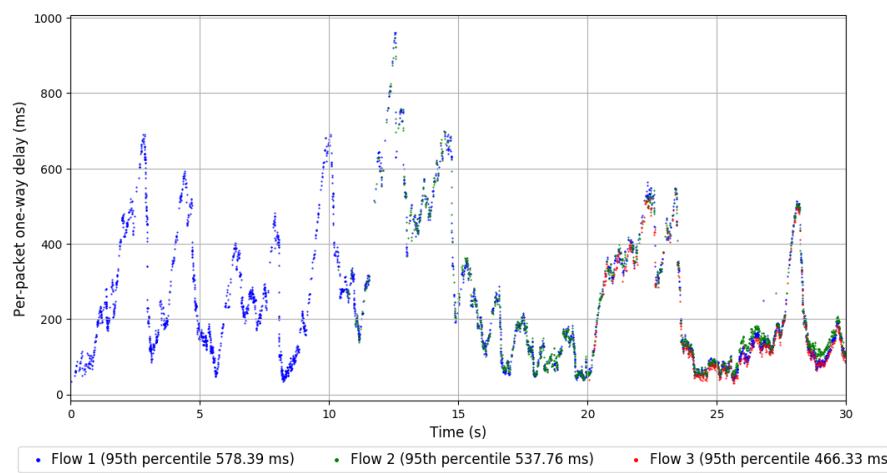
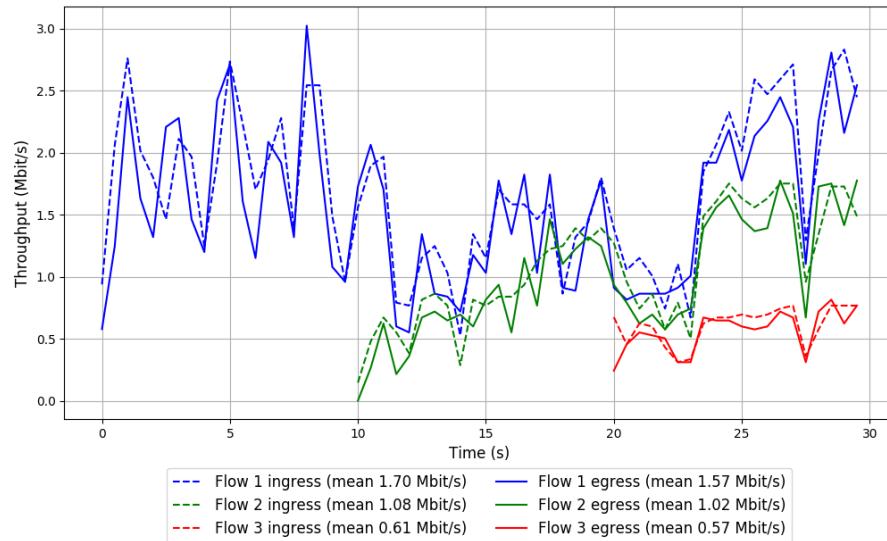


Run 2: Statistics of TCP BBR

```
Start at: 2018-02-13 12:27:27
End at: 2018-02-13 12:27:57
Local clock offset: 1.735 ms
Remote clock offset: -18.912 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 560.425 ms
Loss rate: 7.52%
-- Flow 1:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 578.394 ms
Loss rate: 7.66%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 537.760 ms
Loss rate: 7.15%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 466.335 ms
Loss rate: 7.66%
```

Run 2: Report of TCP BBR — Data Link

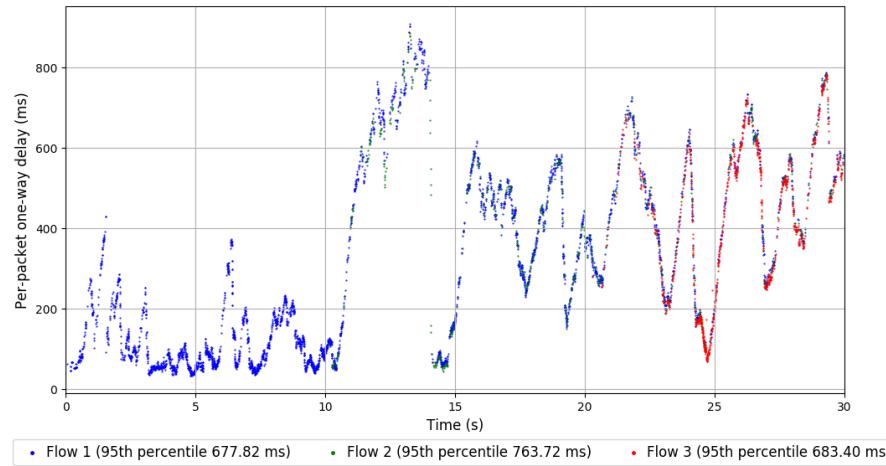
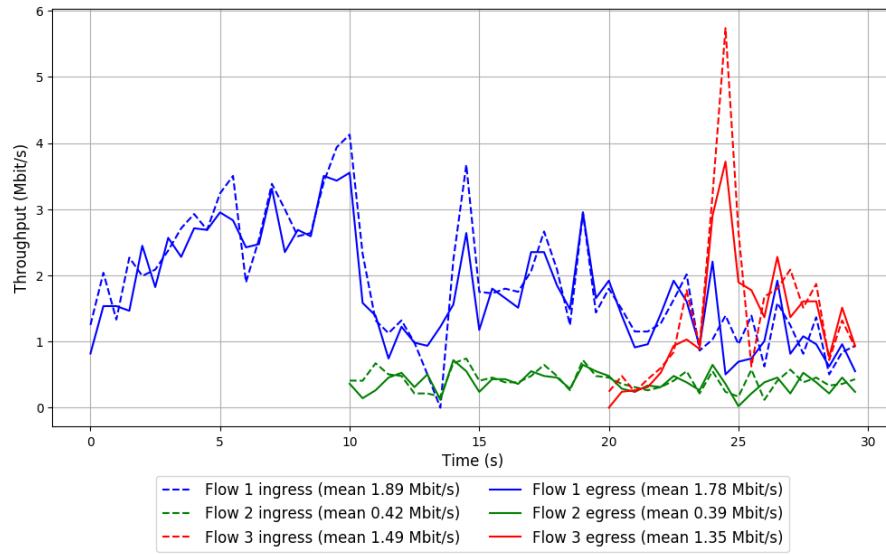


Run 3: Statistics of TCP BBR

```
Start at: 2018-02-13 12:47:26
End at: 2018-02-13 12:47:56
Local clock offset: 4.478 ms
Remote clock offset: -15.329 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 687.125 ms
Loss rate: 7.47%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 677.823 ms
Loss rate: 6.01%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 763.717 ms
Loss rate: 8.20%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 683.396 ms
Loss rate: 12.61%
```

Run 3: Report of TCP BBR — Data Link

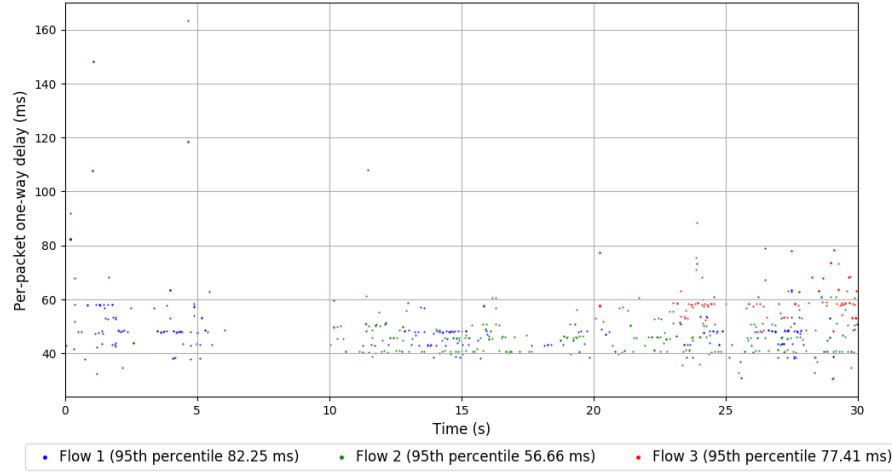
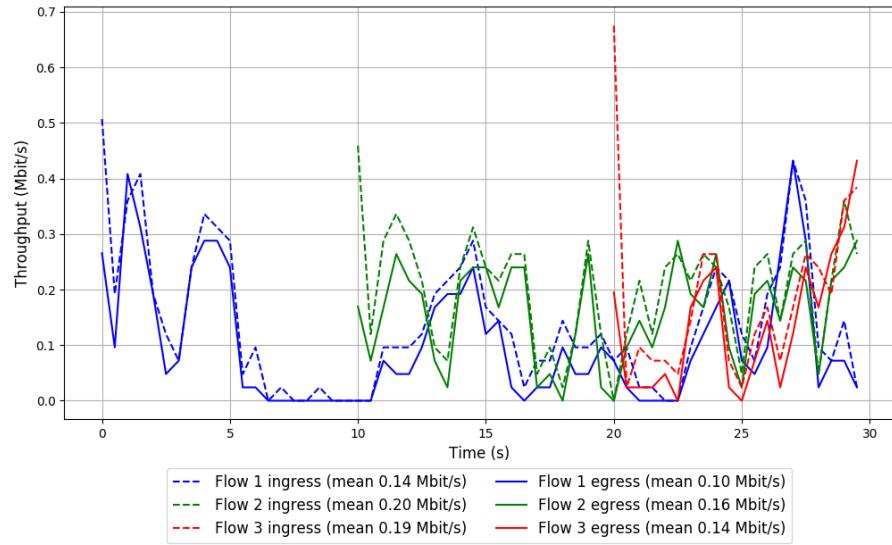


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-02-13 12:13:02
End at: 2018-02-13 12:13:32
Local clock offset: 3.217 ms
Remote clock offset: -17.925 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 68.264 ms
Loss rate: 23.87%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 82.250 ms
Loss rate: 24.86%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 56.662 ms
Loss rate: 21.67%
-- Flow 3:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 77.408 ms
Loss rate: 26.43%
```

Run 1: Report of TCP Cubic — Data Link

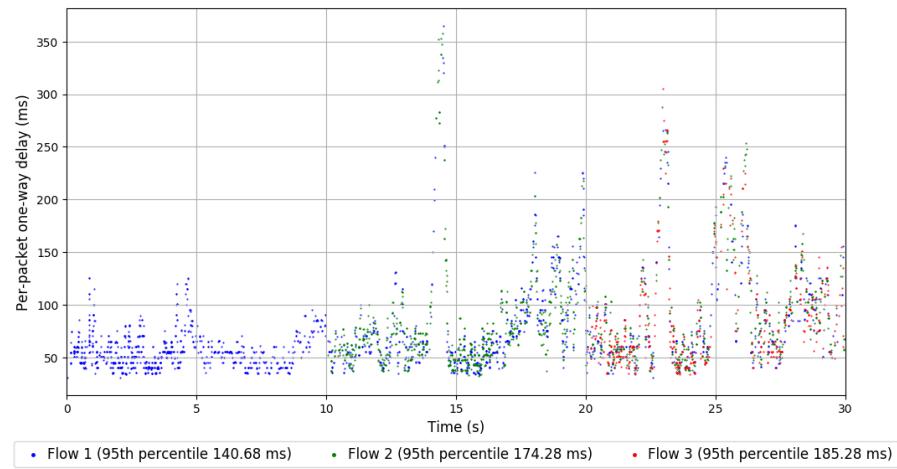
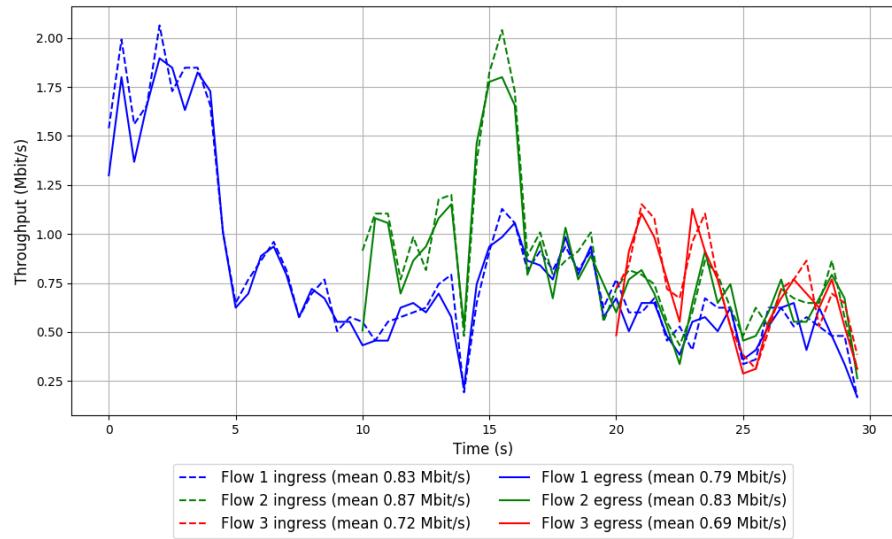


Run 2: Statistics of TCP Cubic

```
Start at: 2018-02-13 12:33:00
End at: 2018-02-13 12:33:30
Local clock offset: 3.411 ms
Remote clock offset: -18.645 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 160.533 ms
Loss rate: 4.32%
-- Flow 1:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 140.678 ms
Loss rate: 3.98%
-- Flow 2:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 174.278 ms
Loss rate: 4.59%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 185.276 ms
Loss rate: 4.85%
```

Run 2: Report of TCP Cubic — Data Link

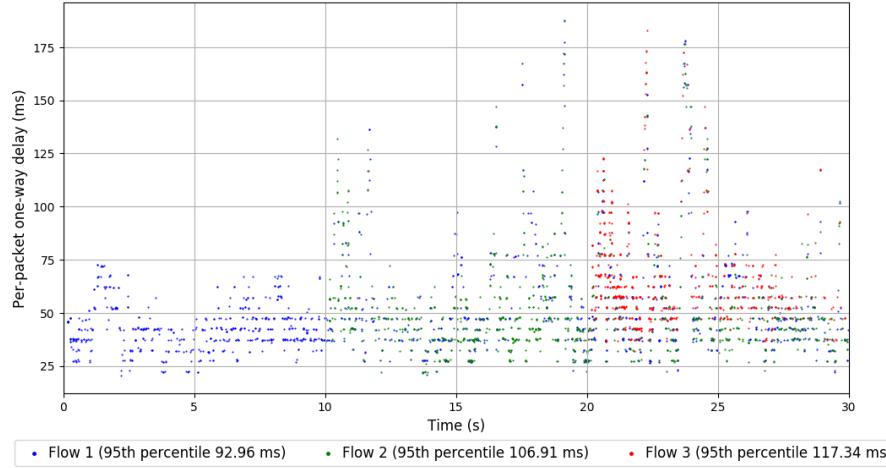
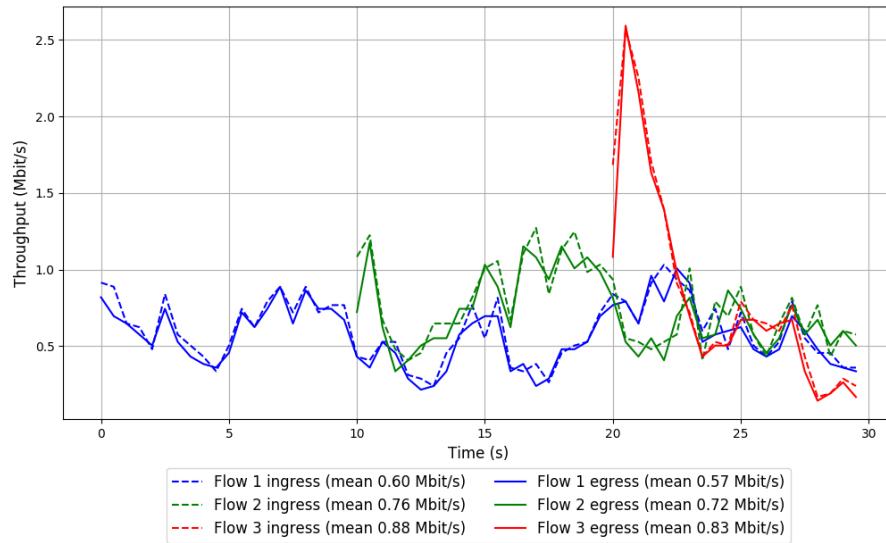


Run 3: Statistics of TCP Cubic

```
Start at: 2018-02-13 12:52:58
End at: 2018-02-13 12:53:28
Local clock offset: 3.846 ms
Remote clock offset: -15.739 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 107.147 ms
Loss rate: 5.78%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 92.961 ms
Loss rate: 5.39%
-- Flow 2:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 106.906 ms
Loss rate: 5.79%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 117.345 ms
Loss rate: 6.58%
```

Run 3: Report of TCP Cubic — Data Link

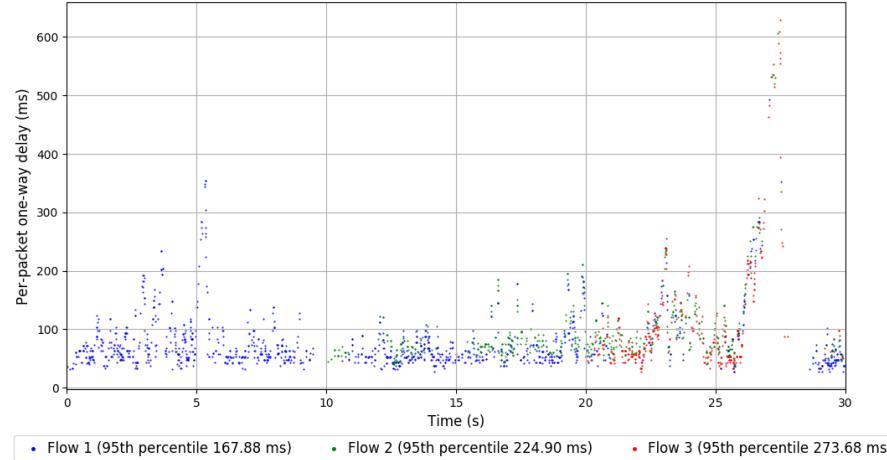
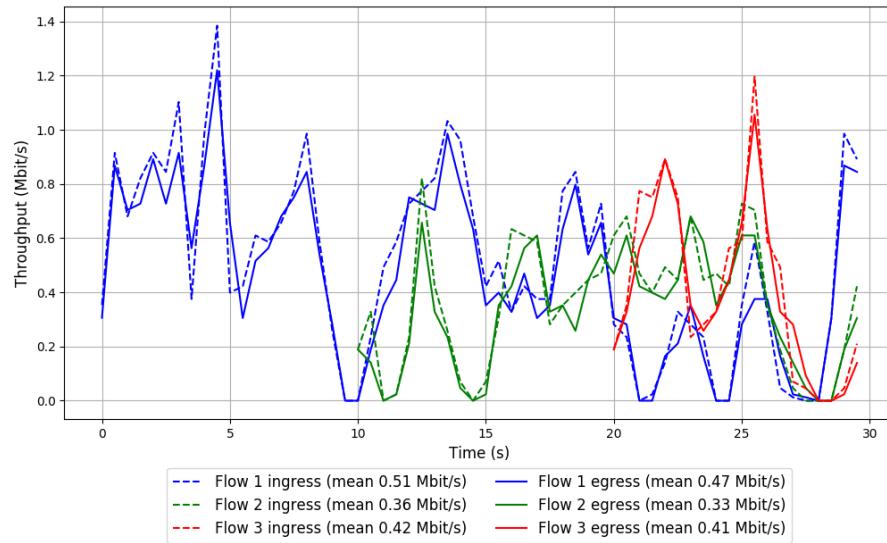


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-02-13 12:15:14
End at: 2018-02-13 12:15:44
Local clock offset: 3.136 ms
Remote clock offset: -16.246 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 207.283 ms
Loss rate: 7.36%
-- Flow 1:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 167.881 ms
Loss rate: 7.50%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 224.904 ms
Loss rate: 8.73%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 273.683 ms
Loss rate: 4.50%
```

Run 1: Report of LEDBAT — Data Link

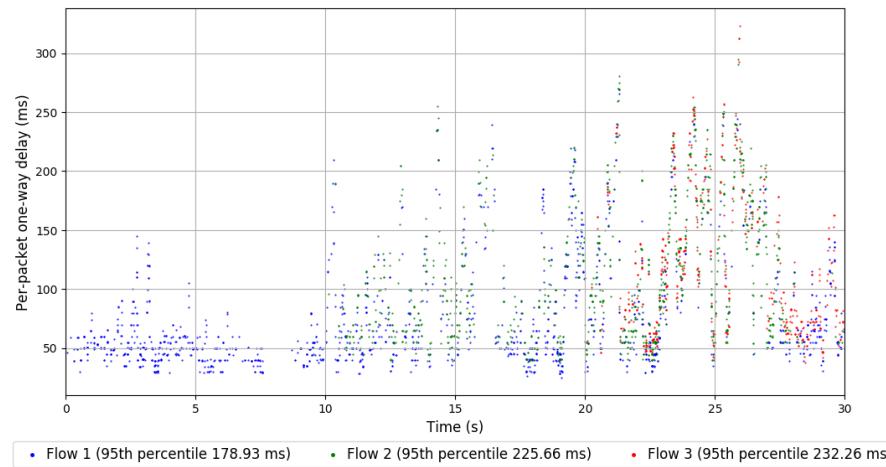
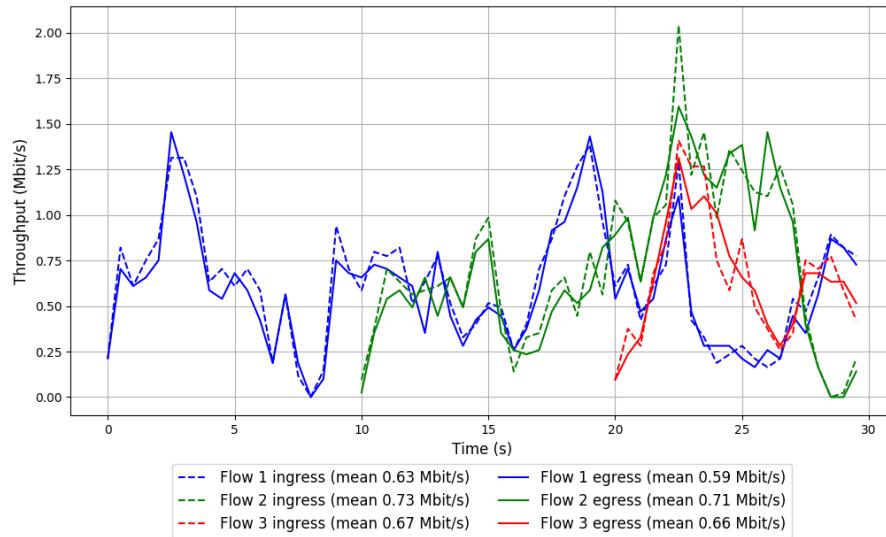


Run 2: Statistics of LEDBAT

```
Start at: 2018-02-13 12:35:13
End at: 2018-02-13 12:35:43
Local clock offset: 2.328 ms
Remote clock offset: -15.954 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 214.732 ms
Loss rate: 4.57%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 178.925 ms
Loss rate: 5.75%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 225.661 ms
Loss rate: 4.48%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 232.259 ms
Loss rate: 1.43%
```

Run 2: Report of LEDBAT — Data Link

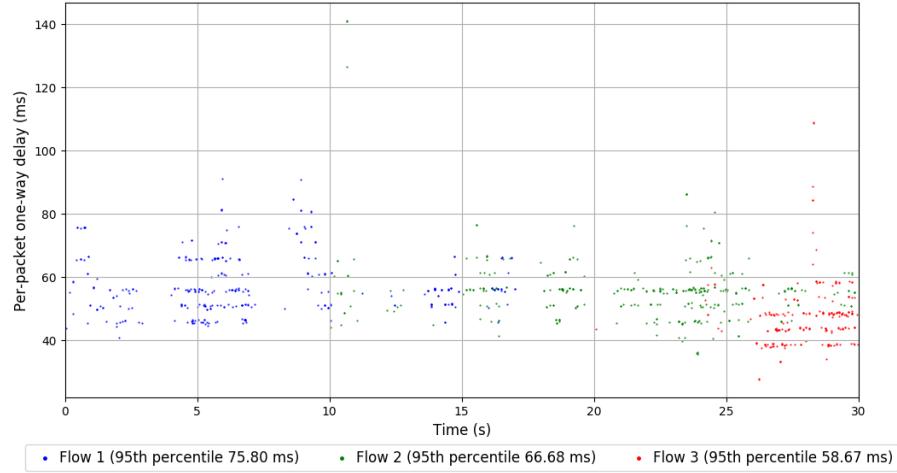
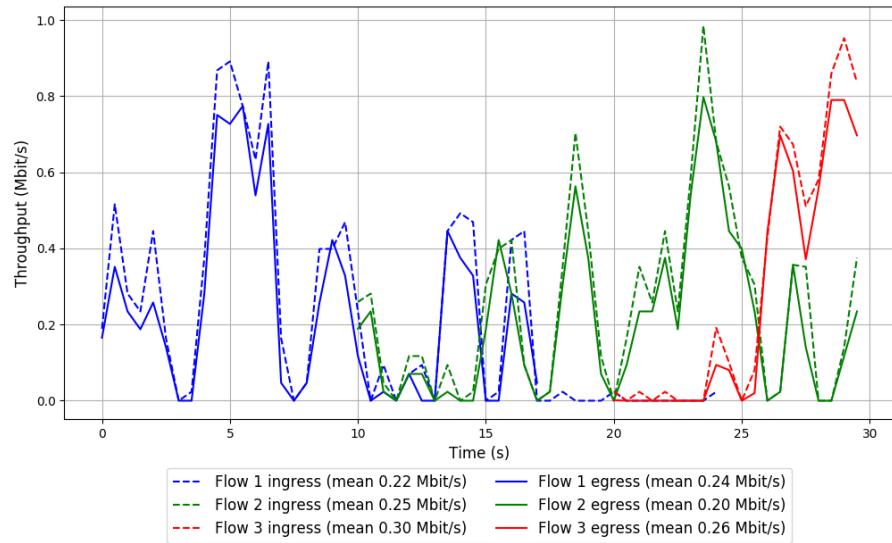


Run 3: Statistics of LEDBAT

```
Start at: 2018-02-13 12:55:11
End at: 2018-02-13 12:55:41
Local clock offset: 4.368 ms
Remote clock offset: -14.317 ms

# Below is generated by plot.py at 2018-02-13 13:00:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 73.867 ms
Loss rate: 19.79%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 75.801 ms
Loss rate: 22.96%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 66.676 ms
Loss rate: 19.71%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 58.675 ms
Loss rate: 14.34%
```

Run 3: Report of LEDBAT — Data Link

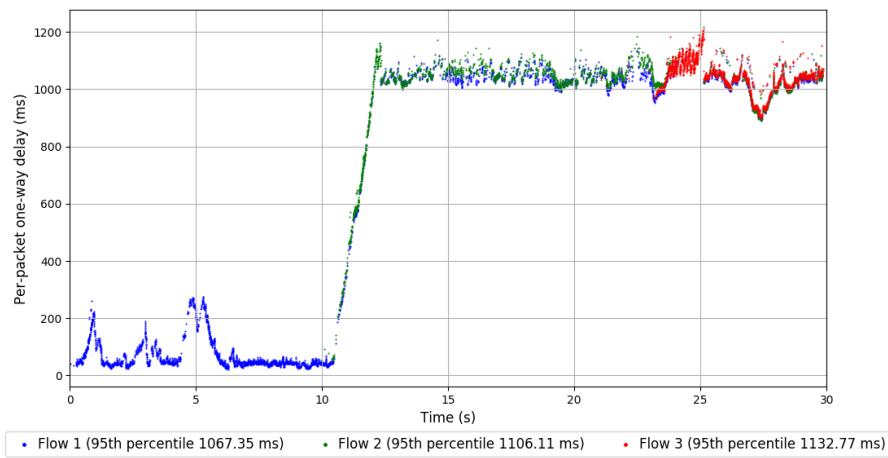
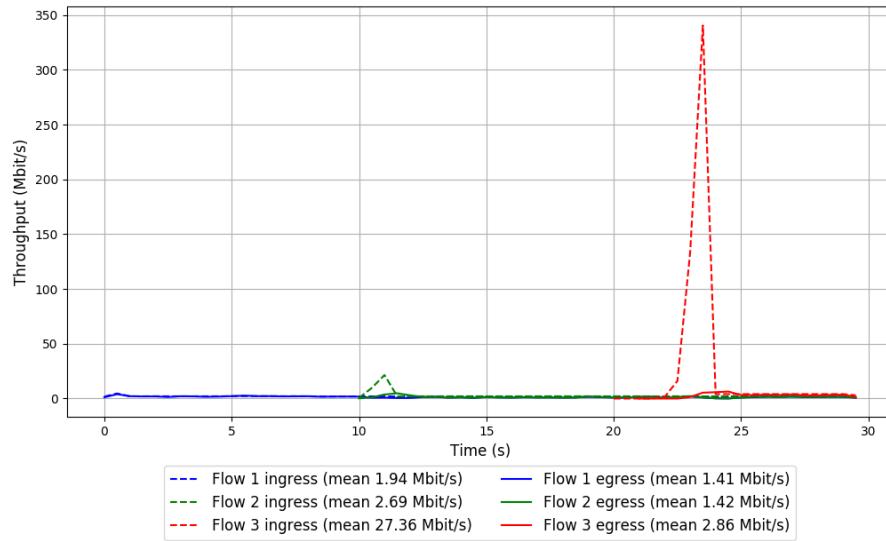


Run 1: Statistics of PCC

```
Start at: 2018-02-13 11:59:38
End at: 2018-02-13 12:00:08
Local clock offset: 4.829 ms
Remote clock offset: -19.306 ms

# Below is generated by plot.py at 2018-02-13 13:00:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.20 Mbit/s
95th percentile per-packet one-way delay: 1106.536 ms
Loss rate: 74.94%
-- Flow 1:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 1067.345 ms
Loss rate: 27.30%
-- Flow 2:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 1106.107 ms
Loss rate: 47.30%
-- Flow 3:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 1132.767 ms
Loss rate: 90.67%
```

Run 1: Report of PCC — Data Link

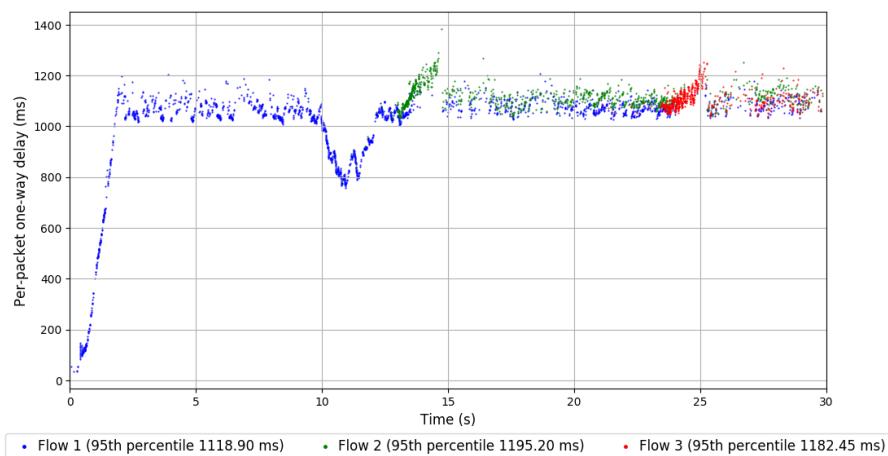
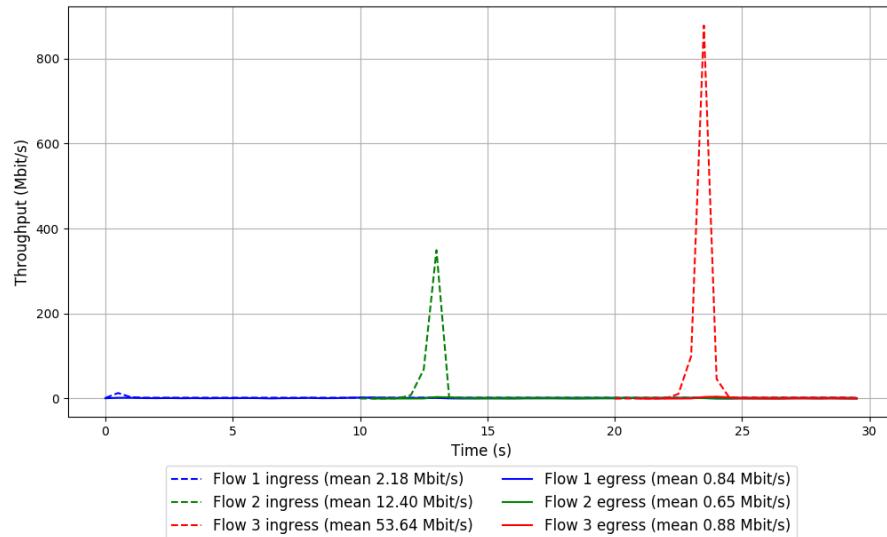


Run 2: Statistics of PCC

```
Start at: 2018-02-13 12:19:41
End at: 2018-02-13 12:20:11
Local clock offset: 2.025 ms
Remote clock offset: -17.134 ms

# Below is generated by plot.py at 2018-02-13 13:00:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 1163.885 ms
Loss rate: 94.61%
-- Flow 1:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 1118.905 ms
Loss rate: 61.57%
-- Flow 2:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1195.197 ms
Loss rate: 94.94%
-- Flow 3:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 1182.447 ms
Loss rate: 98.54%
```

Run 2: Report of PCC — Data Link

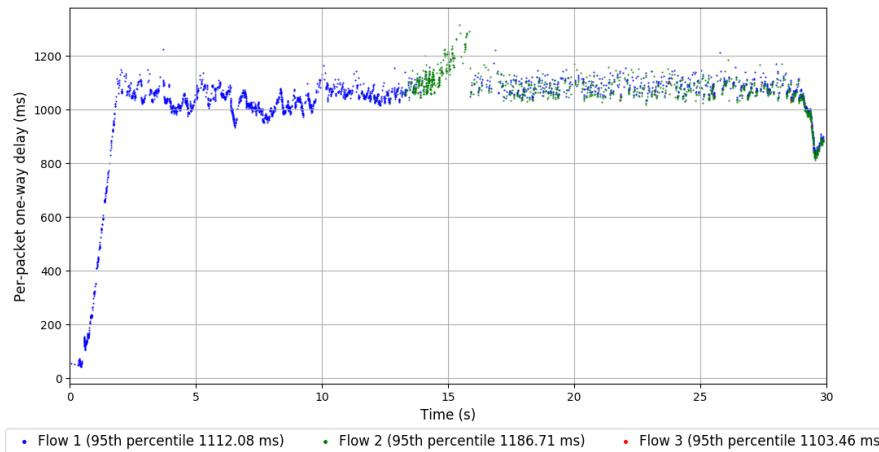
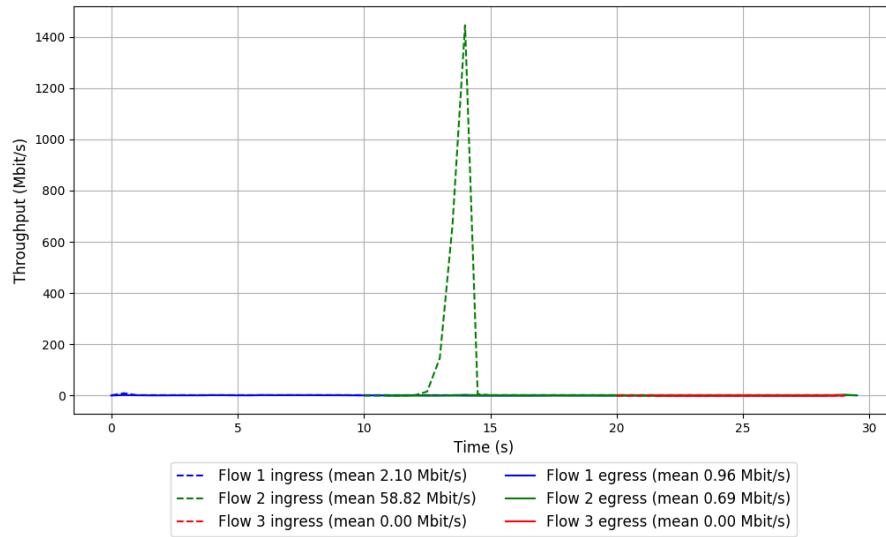


Run 3: Statistics of PCC

```
Start at: 2018-02-13 12:39:37
End at: 2018-02-13 12:40:07
Local clock offset: 2.77 ms
Remote clock offset: -16.951 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 1134.014 ms
Loss rate: 96.63%
-- Flow 1:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 1112.075 ms
Loss rate: 54.40%
-- Flow 2:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 1186.712 ms
Loss rate: 98.89%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1103.460 ms
Loss rate: 71.96%
```

Run 3: Report of PCC — Data Link

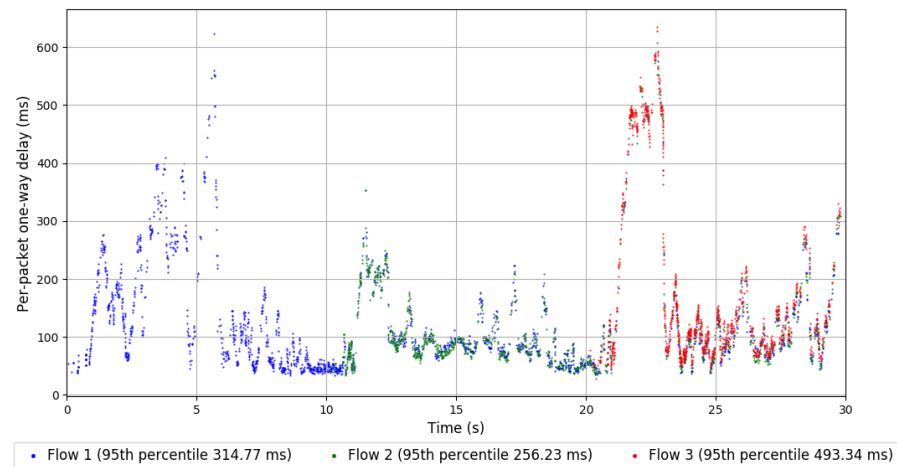
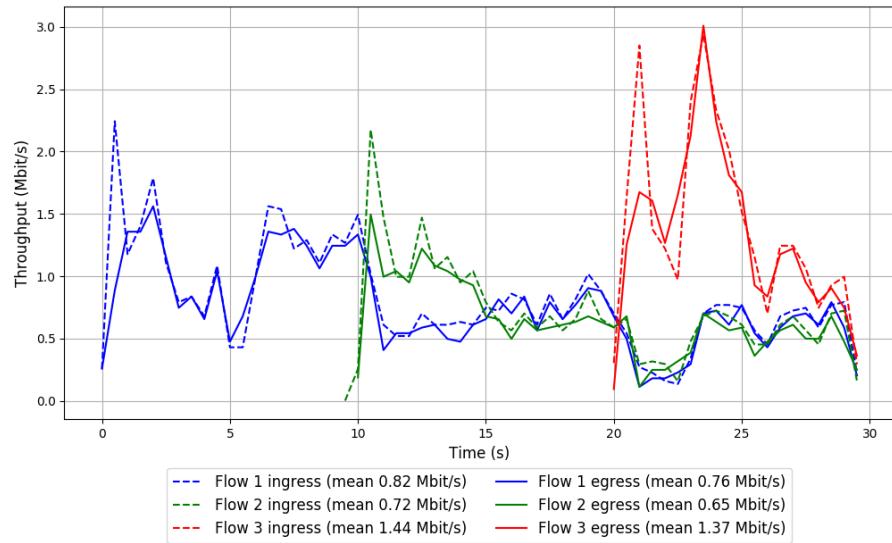


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-02-13 12:02:58
End at: 2018-02-13 12:03:28
Local clock offset: 5.638 ms
Remote clock offset: -17.871 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 460.455 ms
Loss rate: 7.76%
-- Flow 1:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 314.767 ms
Loss rate: 7.38%
-- Flow 2:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 256.225 ms
Loss rate: 10.38%
-- Flow 3:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 493.344 ms
Loss rate: 5.75%
```

Run 1: Report of QUIC Cubic — Data Link

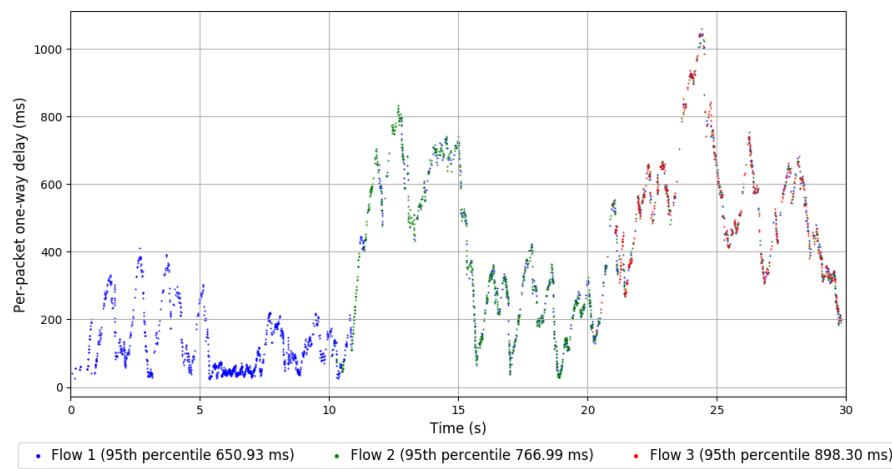
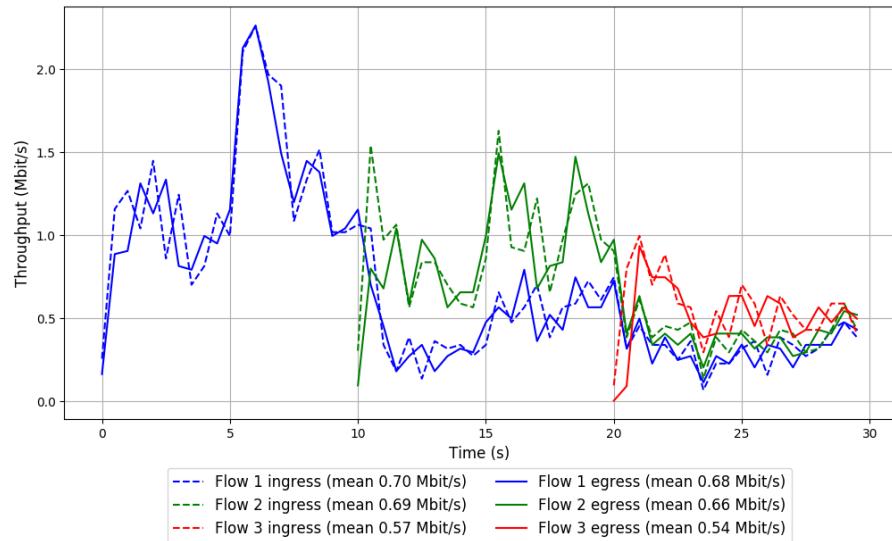


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-02-13 12:23:00
End at: 2018-02-13 12:23:31
Local clock offset: 1.422 ms
Remote clock offset: -17.404 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 724.607 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 650.926 ms
Loss rate: 3.19%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 766.993 ms
Loss rate: 3.67%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 898.304 ms
Loss rate: 6.75%
```

Run 2: Report of QUIC Cubic — Data Link

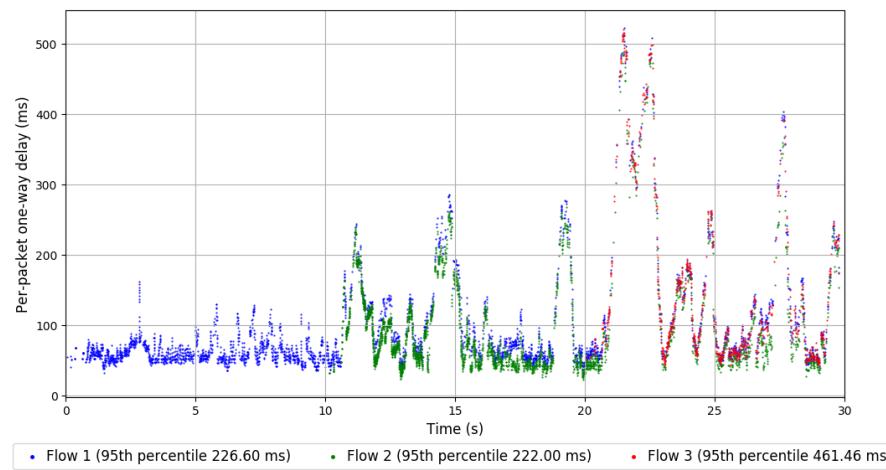
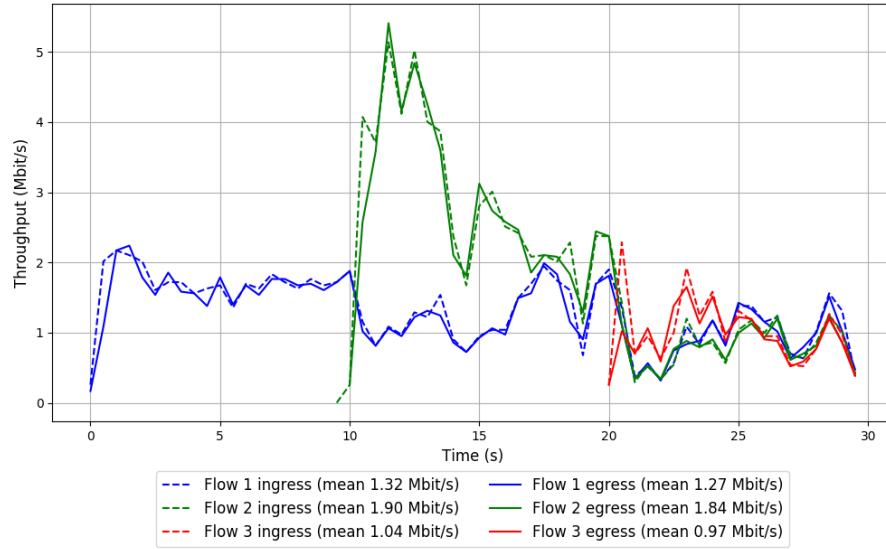


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-02-13 12:42:57
End at: 2018-02-13 12:43:27
Local clock offset: 3.189 ms
Remote clock offset: -15.78 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 250.467 ms
Loss rate: 4.11%
-- Flow 1:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 226.598 ms
Loss rate: 3.91%
-- Flow 2:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 221.996 ms
Loss rate: 3.46%
-- Flow 3:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 461.465 ms
Loss rate: 7.26%
```

Run 3: Report of QUIC Cubic — Data Link

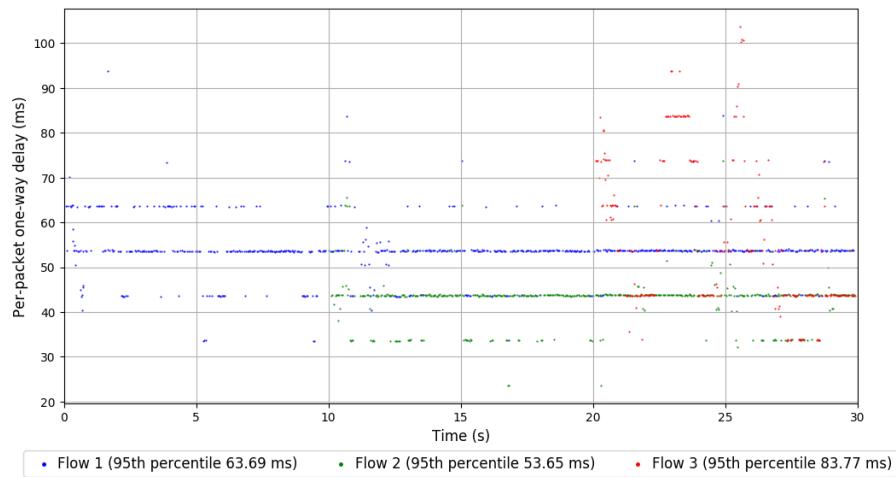
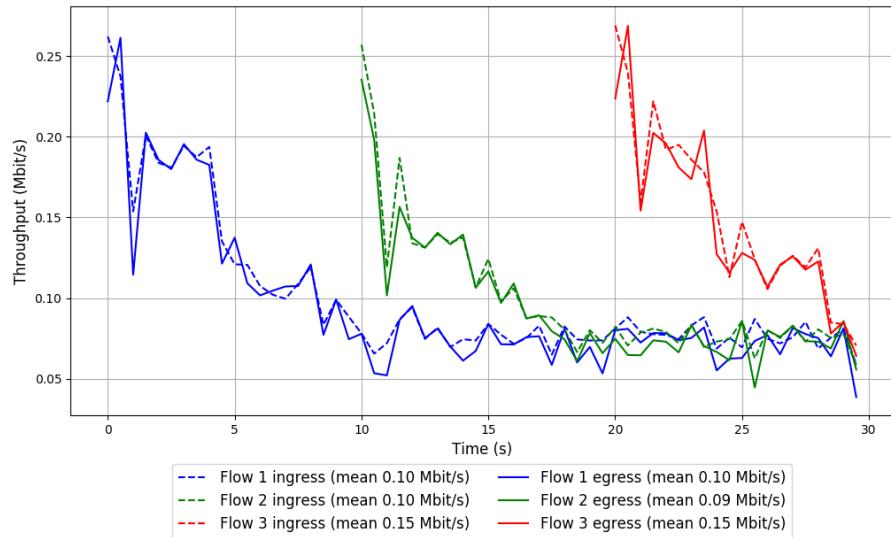


```
Run 1: Statistics of SCReAM

Start at: 2018-02-13 12:18:34
End at: 2018-02-13 12:19:04
Local clock offset: 3.026 ms
Remote clock offset: -16.954 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 73.577 ms
Loss rate: 4.70%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 63.691 ms
Loss rate: 5.04%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 53.649 ms
Loss rate: 5.22%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 83.770 ms
Loss rate: 3.34%
```

Run 1: Report of SCReAM — Data Link

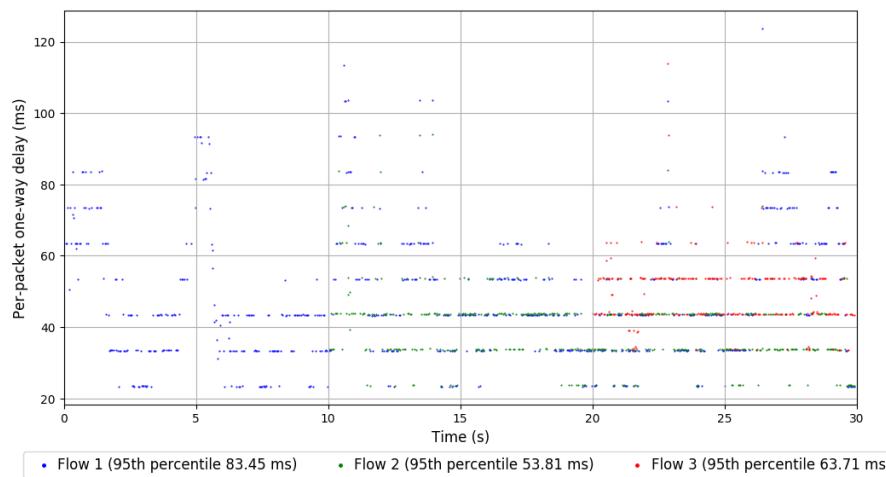
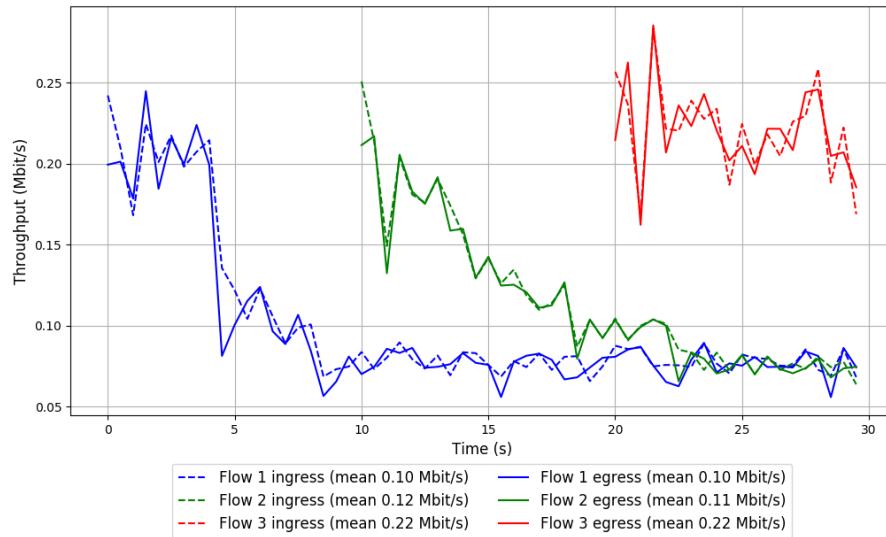


Run 2: Statistics of SCReAM

```
Start at: 2018-02-13 12:38:31
End at: 2018-02-13 12:39:01
Local clock offset: 3.987 ms
Remote clock offset: -15.264 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 73.520 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 83.446 ms
Loss rate: 3.16%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 53.807 ms
Loss rate: 2.31%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.711 ms
Loss rate: 0.35%
```

Run 2: Report of SCReAM — Data Link

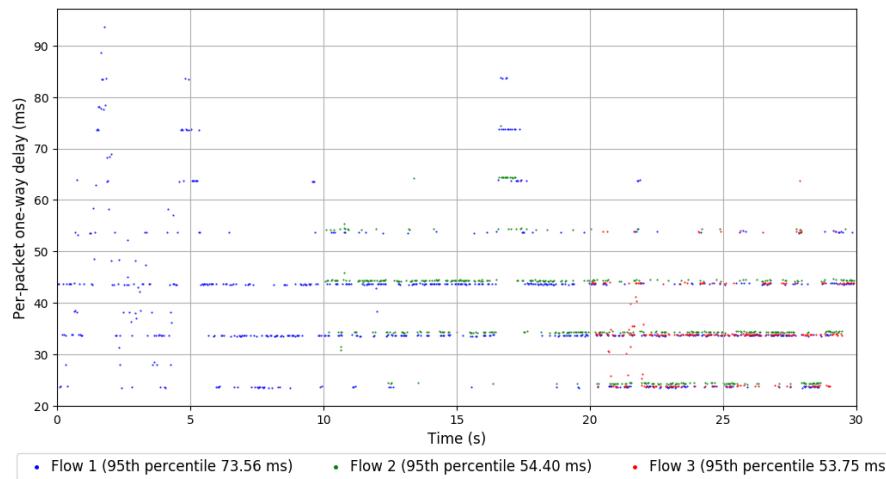
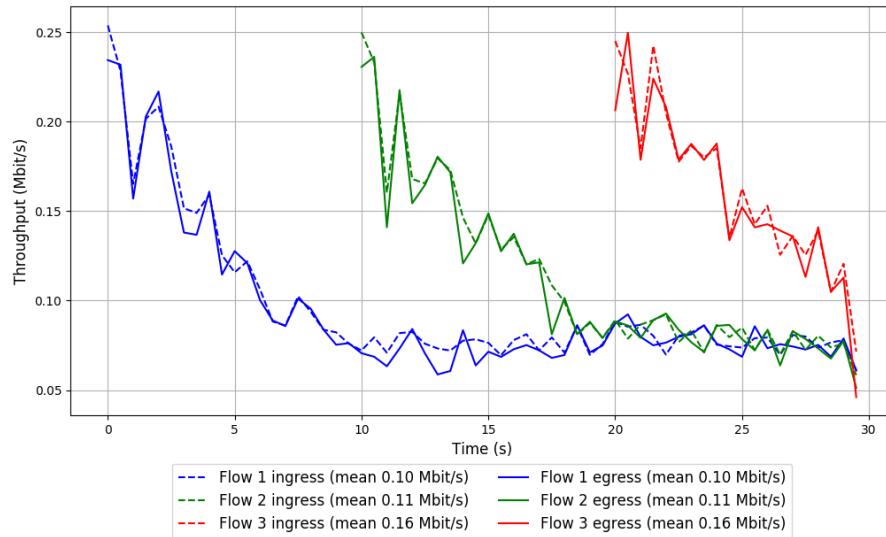


Run 3: Statistics of SCReAM

```
Start at: 2018-02-13 12:58:30
End at: 2018-02-13 12:59:00
Local clock offset: 3.598 ms
Remote clock offset: -13.656 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.694 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 73.563 ms
Loss rate: 3.05%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 54.401 ms
Loss rate: 2.61%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 53.749 ms
Loss rate: 2.71%
```

Run 3: Report of SCReAM — Data Link

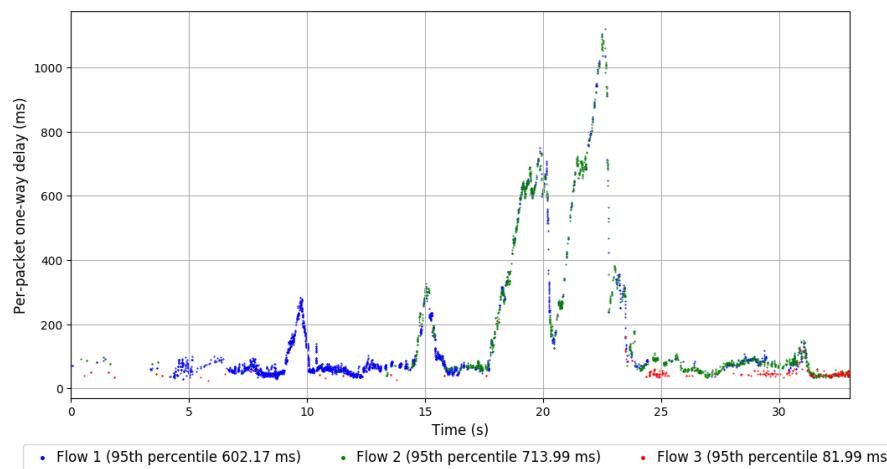
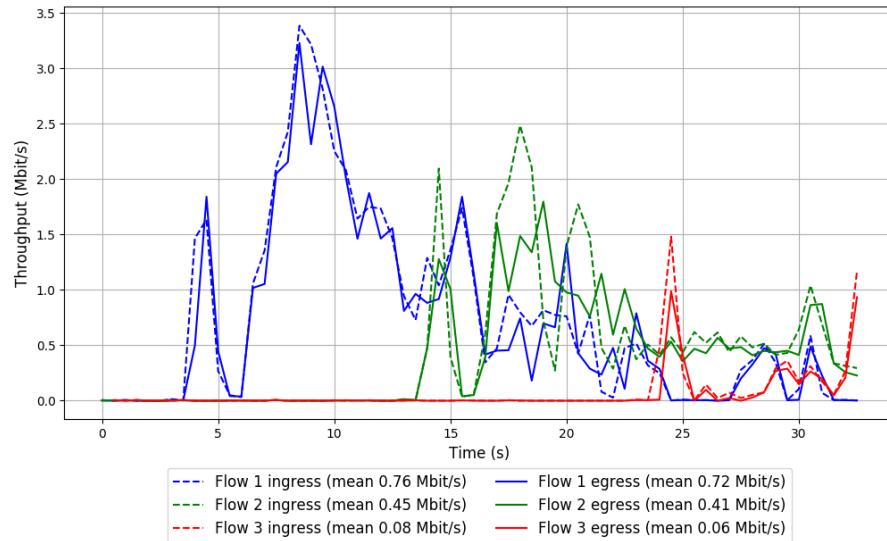


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-13 12:09:42
End at: 2018-02-13 12:10:12
Local clock offset: 4.667 ms
Remote clock offset: -17.078 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 670.811 ms
Loss rate: 8.38%
-- Flow 1:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 602.169 ms
Loss rate: 5.95%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 713.987 ms
Loss rate: 9.26%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 81.988 ms
Loss rate: 25.79%
```

Run 1: Report of WebRTC media — Data Link

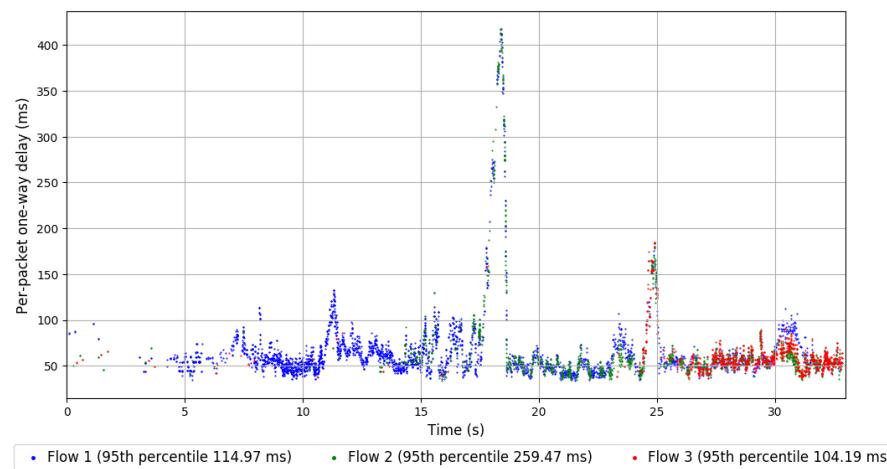
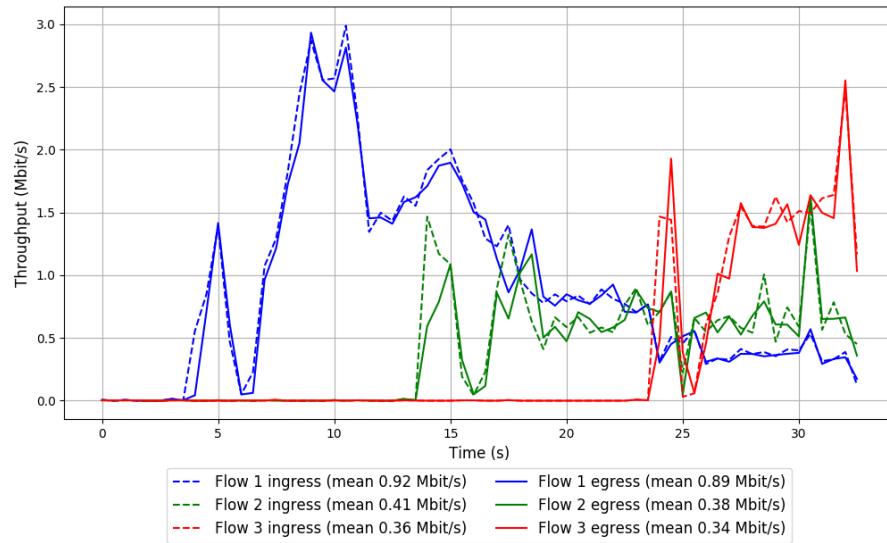


Run 2: Statistics of WebRTC media

```
Start at: 2018-02-13 12:29:40
End at: 2018-02-13 12:30:10
Local clock offset: -0.319 ms
Remote clock offset: -17.287 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 143.297 ms
Loss rate: 4.12%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 114.974 ms
Loss rate: 3.24%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 259.470 ms
Loss rate: 5.80%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 104.189 ms
Loss rate: 4.51%
```

Run 2: Report of WebRTC media — Data Link

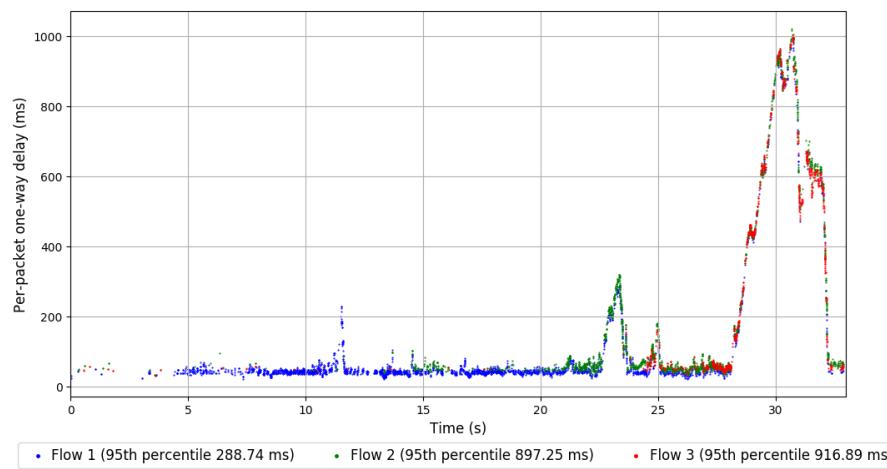
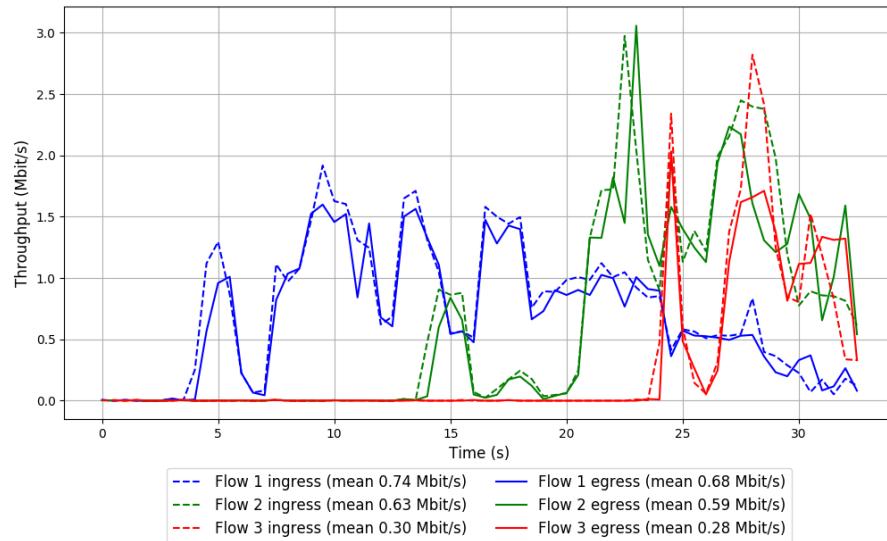


```
Run 3: Statistics of WebRTC media

Start at: 2018-02-13 12:49:38
End at: 2018-02-13 12:50:08
Local clock offset: 3.926 ms
Remote clock offset: -15.268 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 853.551 ms
Loss rate: 7.18%
-- Flow 1:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 288.742 ms
Loss rate: 7.83%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 897.246 ms
Loss rate: 6.31%
-- Flow 3:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 916.887 ms
Loss rate: 7.41%
```

Run 3: Report of WebRTC media — Data Link

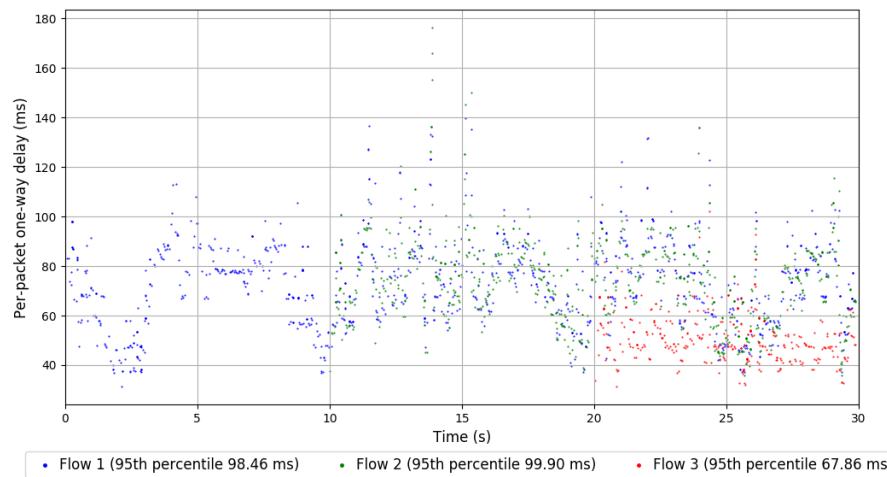
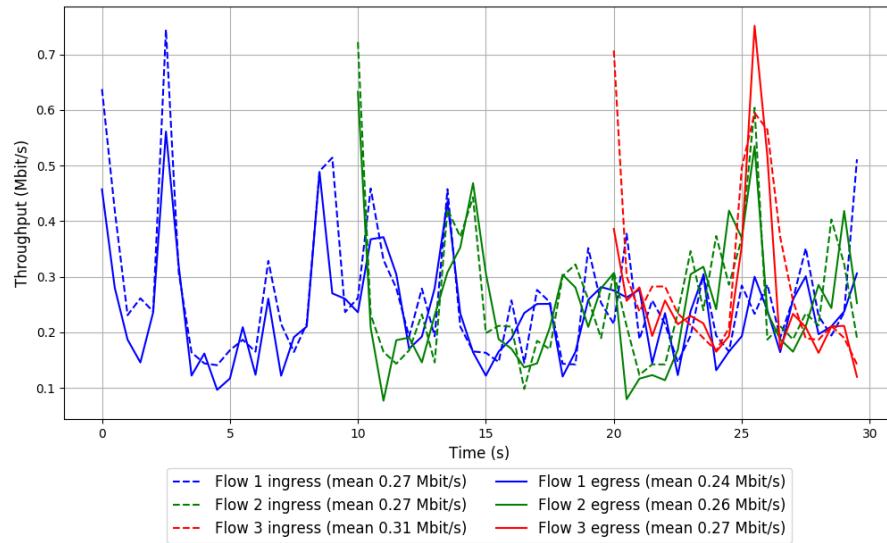


Run 1: Statistics of Sprout

```
Start at: 2018-02-13 12:10:49
End at: 2018-02-13 12:11:19
Local clock offset: 5.431 ms
Remote clock offset: -17.169 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 98.158 ms
Loss rate: 8.84%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 98.464 ms
Loss rate: 11.20%
-- Flow 2:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 99.897 ms
Loss rate: 3.78%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 67.862 ms
Loss rate: 11.45%
```

Run 1: Report of Sprout — Data Link

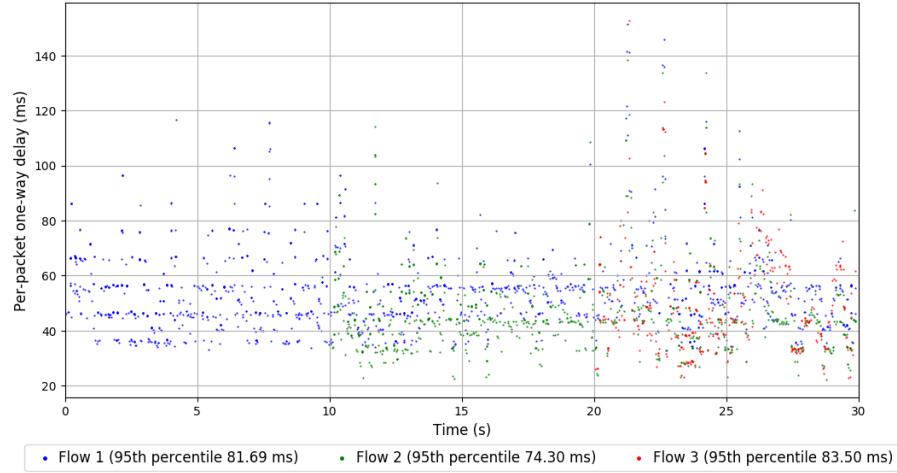
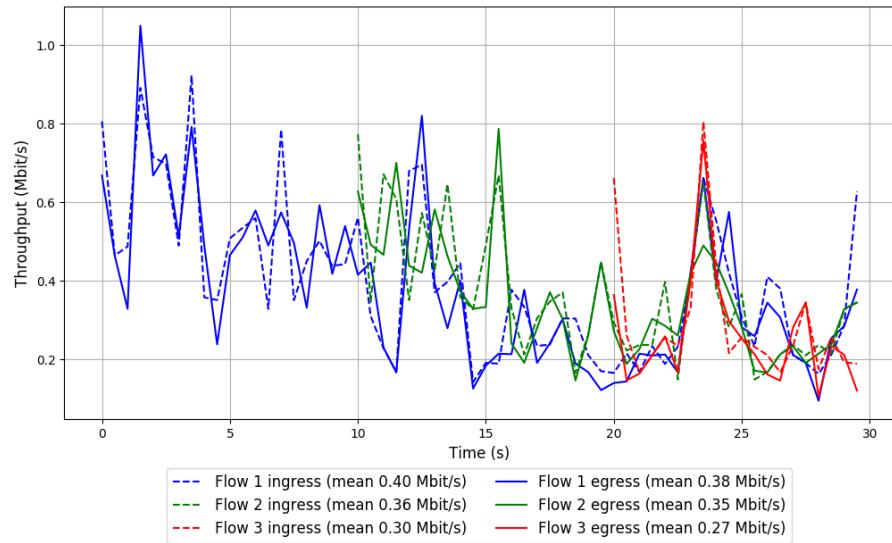


Run 2: Statistics of Sprout

```
Start at: 2018-02-13 12:30:47
End at: 2018-02-13 12:31:17
Local clock offset: 2.641 ms
Remote clock offset: -17.3 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 81.287 ms
Loss rate: 5.29%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 81.692 ms
Loss rate: 5.05%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 74.300 ms
Loss rate: 3.63%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 83.499 ms
Loss rate: 10.34%
```

Run 2: Report of Sprout — Data Link

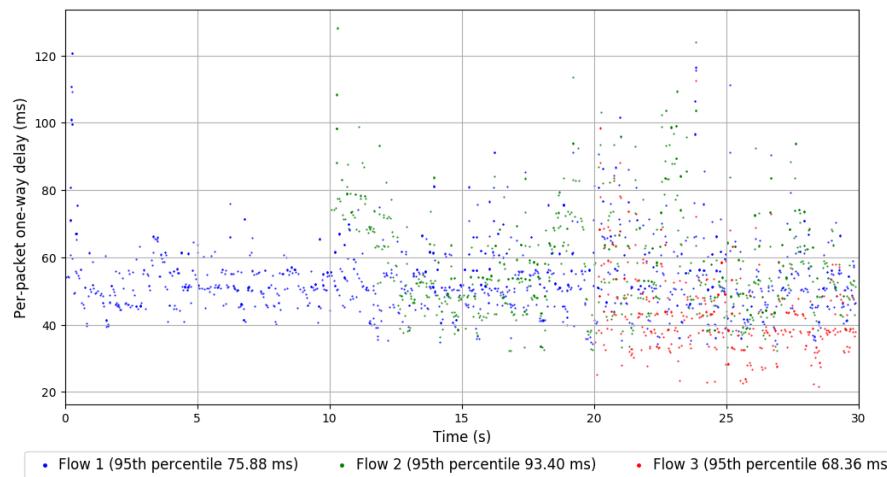
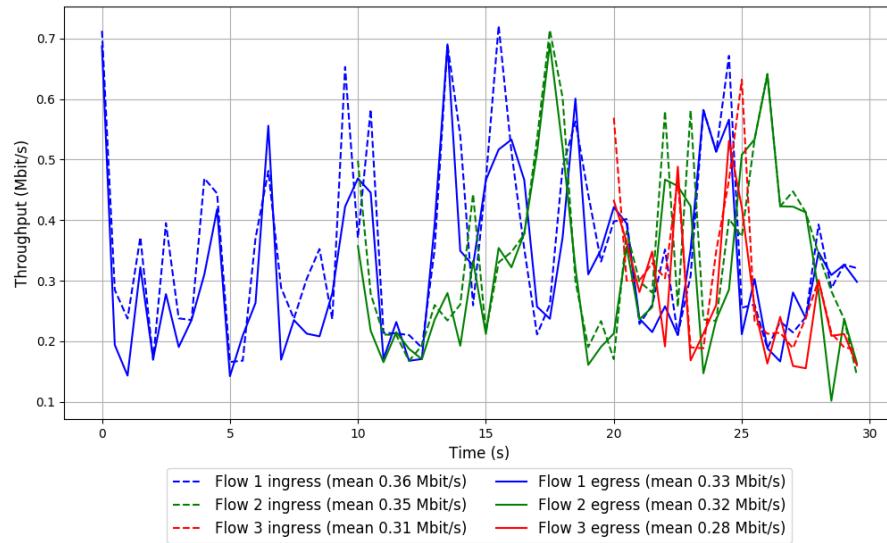


Run 3: Statistics of Sprout

```
Start at: 2018-02-13 12:50:45
End at: 2018-02-13 12:51:15
Local clock offset: 4.71 ms
Remote clock offset: -15.08 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 83.532 ms
Loss rate: 8.22%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 75.883 ms
Loss rate: 8.58%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 93.397 ms
Loss rate: 7.52%
-- Flow 3:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 68.357 ms
Loss rate: 8.52%
```

Run 3: Report of Sprout — Data Link

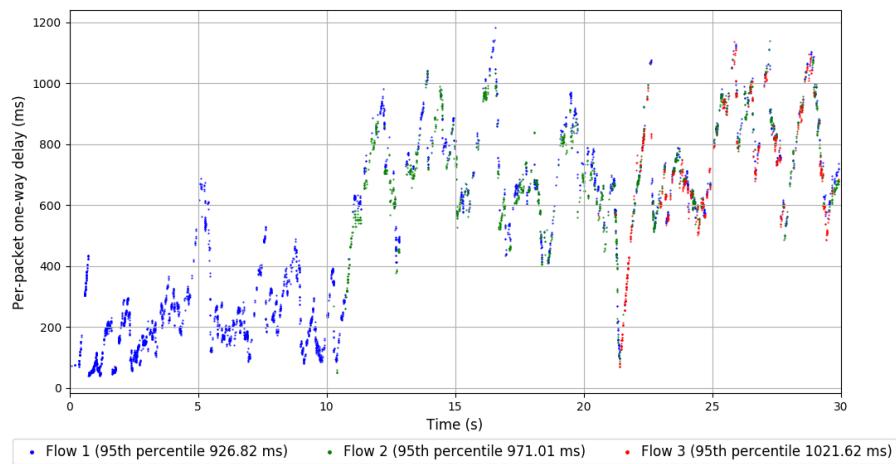
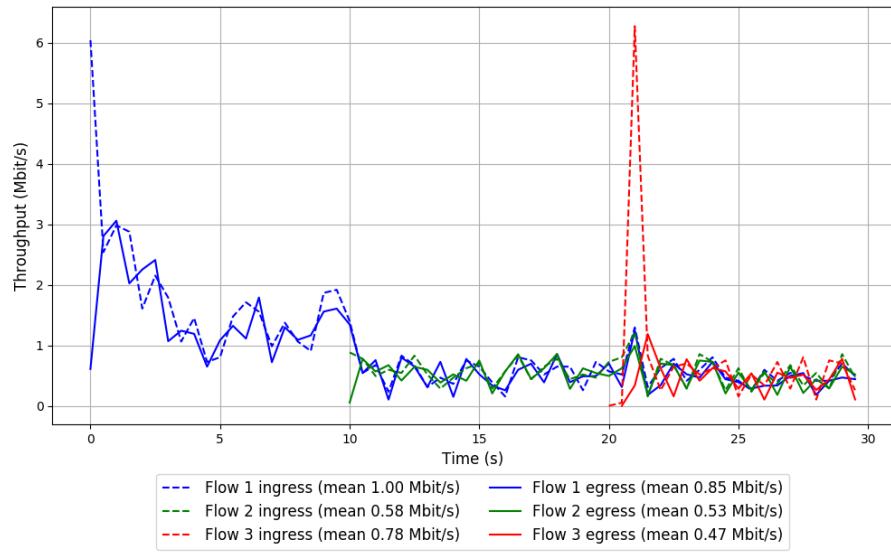


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-02-13 12:04:05
End at: 2018-02-13 12:04:35
Local clock offset: 2.195 ms
Remote clock offset: -18.855 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 963.299 ms
Loss rate: 18.29%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 926.820 ms
Loss rate: 15.10%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 971.006 ms
Loss rate: 10.20%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 1021.615 ms
Loss rate: 42.98%
```

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

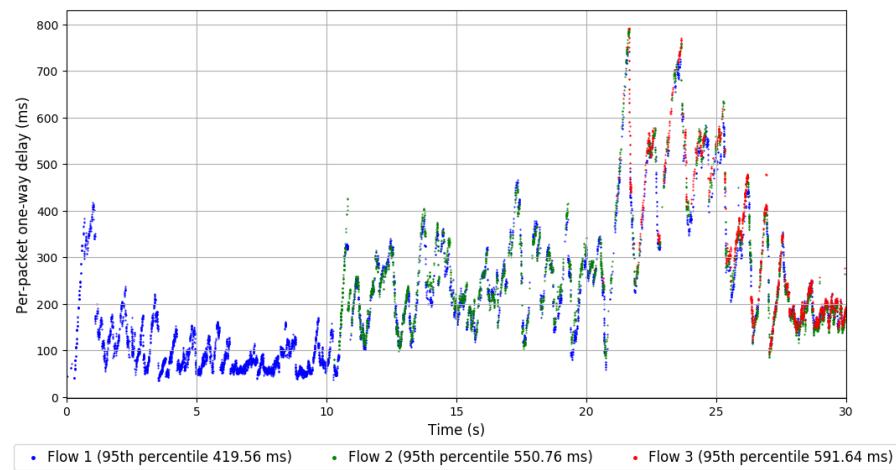
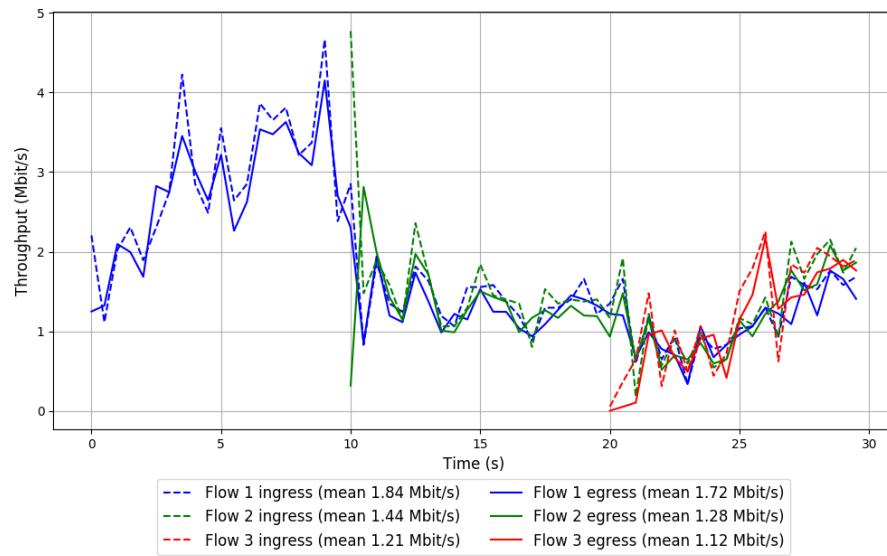


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-02-13 12:24:07
End at: 2018-02-13 12:24:37
Local clock offset: 1.806 ms
Remote clock offset: -15.589 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 531.995 ms
Loss rate: 8.50%
-- Flow 1:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 419.559 ms
Loss rate: 6.66%
-- Flow 2:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 550.757 ms
Loss rate: 11.55%
-- Flow 3:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 591.644 ms
Loss rate: 9.70%
```

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

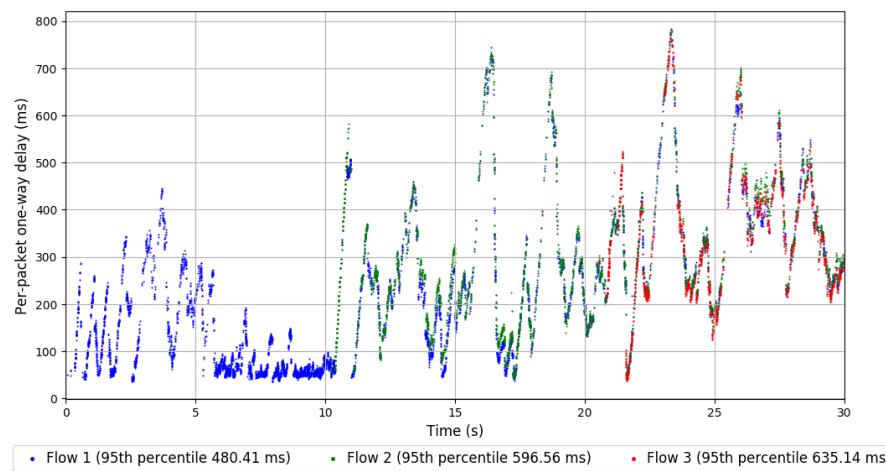
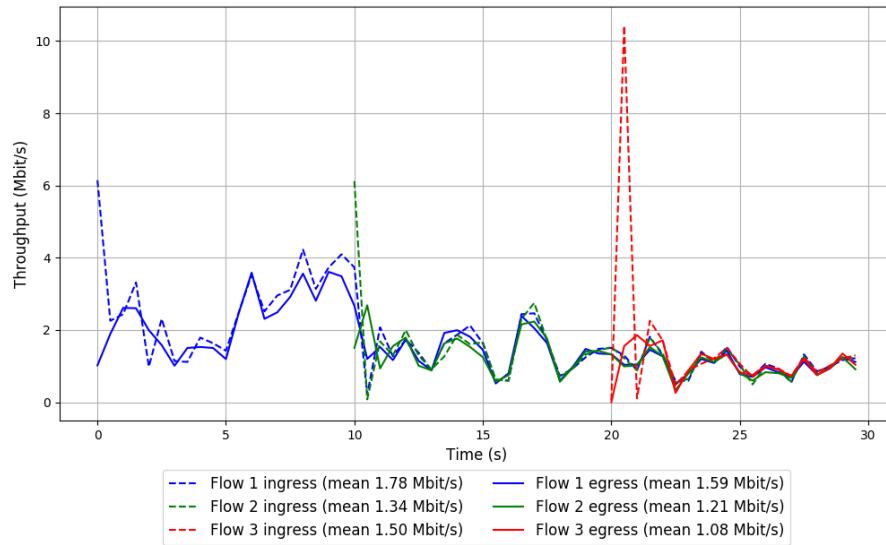


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-02-13 12:44:04
End at: 2018-02-13 12:44:34
Local clock offset: 3.041 ms
Remote clock offset: -16.212 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 520.461 ms
Loss rate: 13.46%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 480.409 ms
Loss rate: 10.90%
-- Flow 2:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 596.564 ms
Loss rate: 10.13%
-- Flow 3:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 635.144 ms
Loss rate: 28.67%
```

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

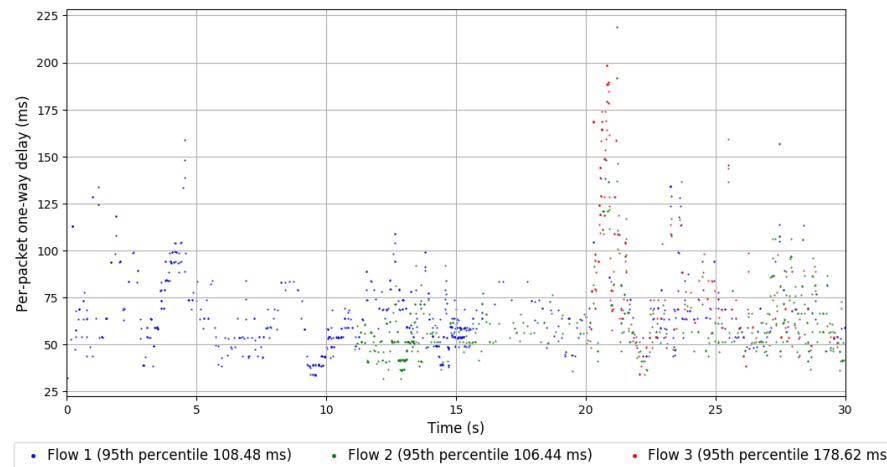
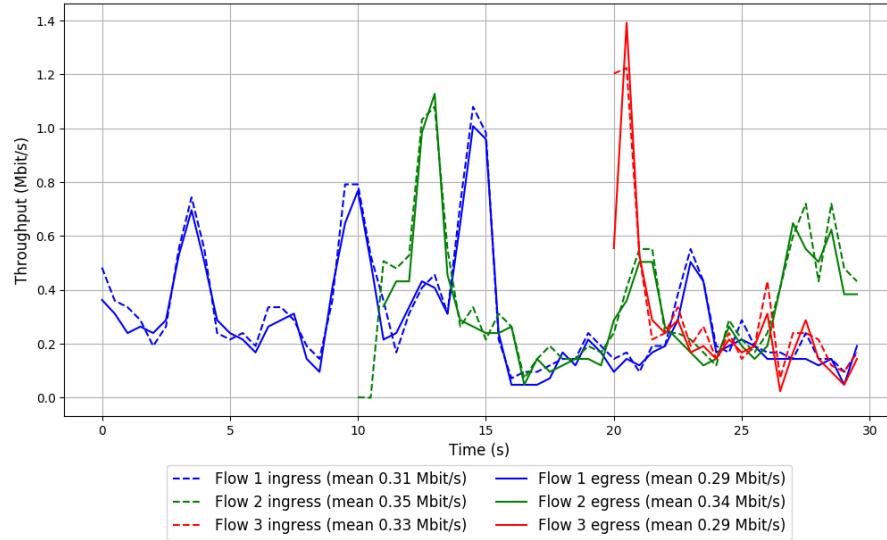


Run 1: Statistics of TCP Vegas

```
Start at: 2018-02-13 12:17:27
End at: 2018-02-13 12:17:57
Local clock offset: 4.381 ms
Remote clock offset: -17.37 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 128.623 ms
Loss rate: 9.63%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 108.484 ms
Loss rate: 8.29%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 106.439 ms
Loss rate: 9.39%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 178.621 ms
Loss rate: 14.02%
```

Run 1: Report of TCP Vegas — Data Link

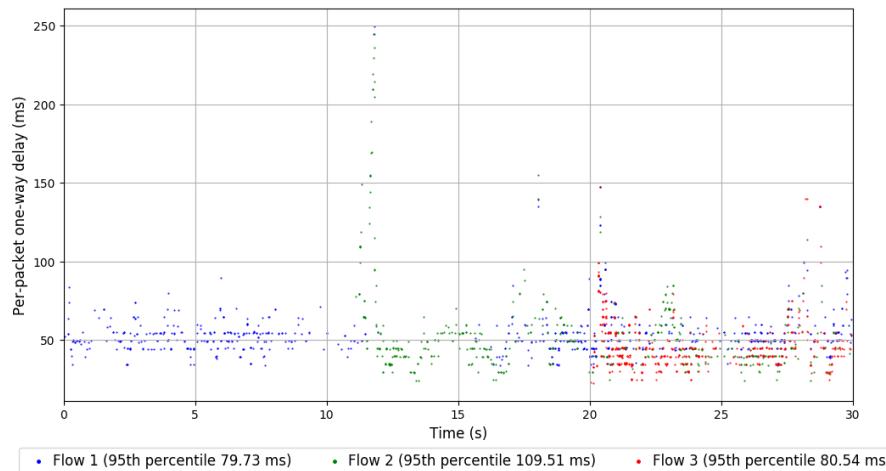
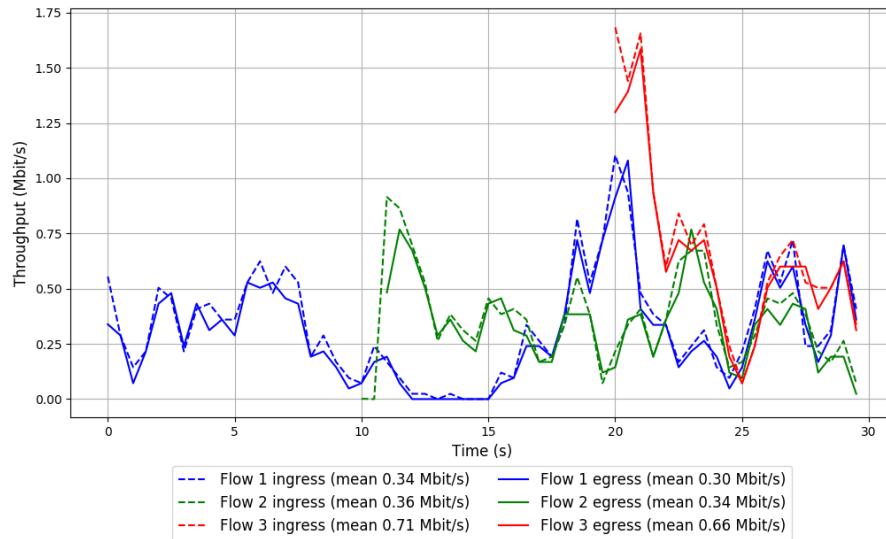


Run 2: Statistics of TCP Vegas

```
Start at: 2018-02-13 12:37:25
End at: 2018-02-13 12:37:55
Local clock offset: 4.658 ms
Remote clock offset: -16.523 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 84.757 ms
Loss rate: 9.23%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 79.729 ms
Loss rate: 9.77%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 109.514 ms
Loss rate: 10.32%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 80.542 ms
Loss rate: 7.32%
```

Run 2: Report of TCP Vegas — Data Link

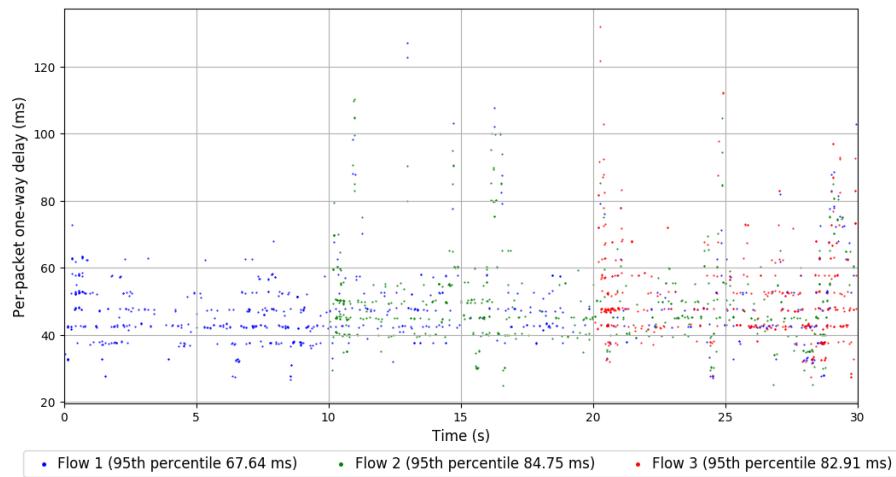
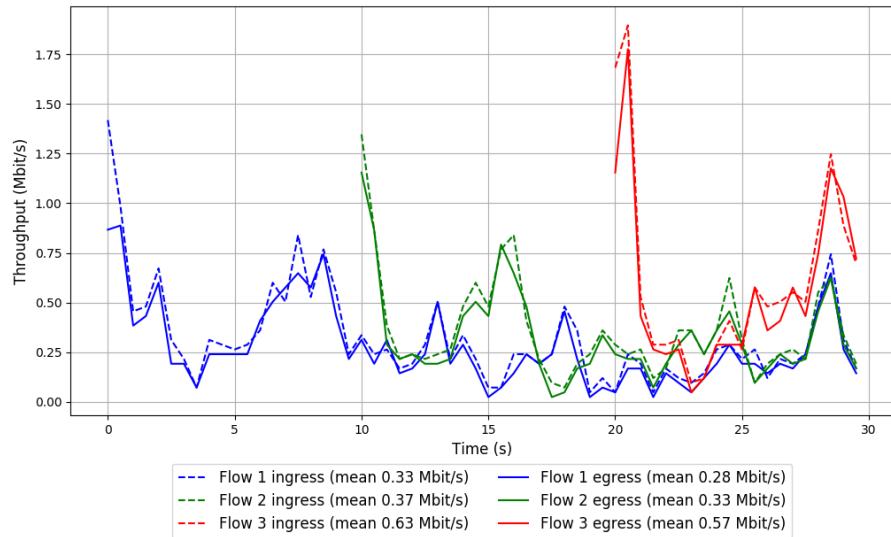


Run 3: Statistics of TCP Vegas

```
Start at: 2018-02-13 12:57:24
End at: 2018-02-13 12:57:54
Local clock offset: 2.675 ms
Remote clock offset: -15.018 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 79.117 ms
Loss rate: 11.95%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 67.640 ms
Loss rate: 13.76%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 84.755 ms
Loss rate: 10.87%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 82.907 ms
Loss rate: 10.38%
```

Run 3: Report of TCP Vegas — Data Link

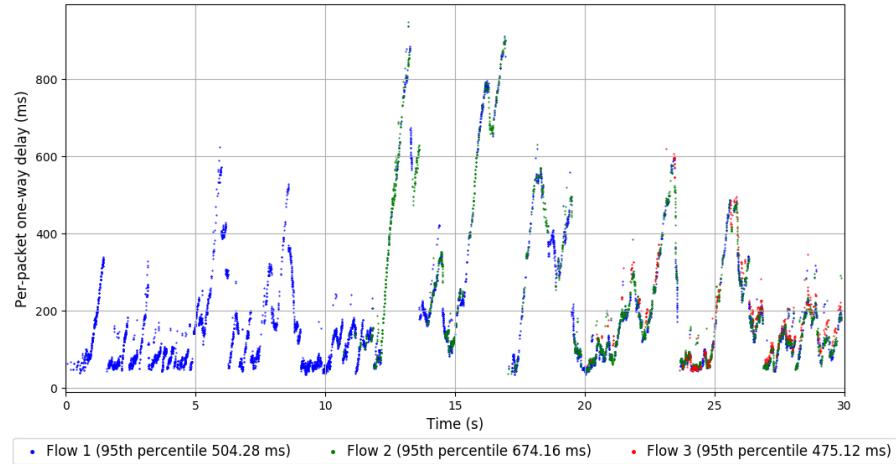
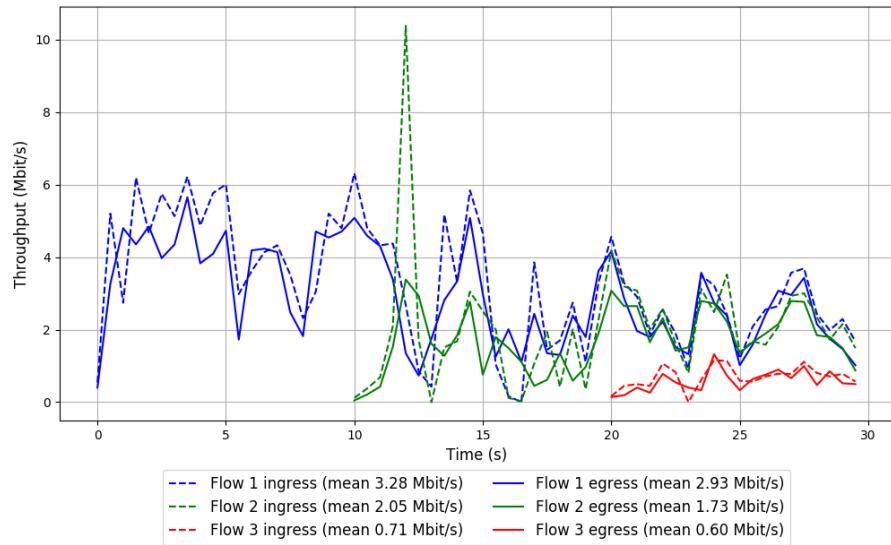


Run 1: Statistics of Verus

```
Start at: 2018-02-13 12:08:35
End at: 2018-02-13 12:09:05
Local clock offset: 0.733 ms
Remote clock offset: -19.053 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 572.348 ms
Loss rate: 12.42%
-- Flow 1:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 504.280 ms
Loss rate: 10.96%
-- Flow 2:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 674.156 ms
Loss rate: 15.56%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 475.115 ms
Loss rate: 14.78%
```

Run 1: Report of Verus — Data Link

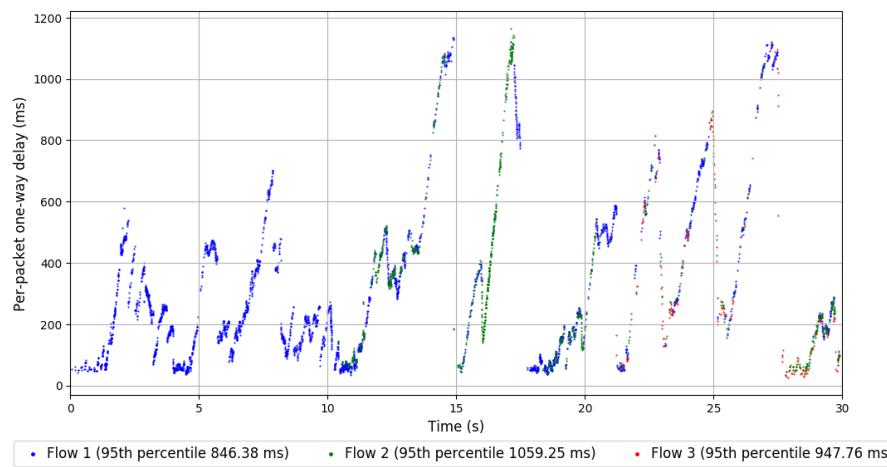
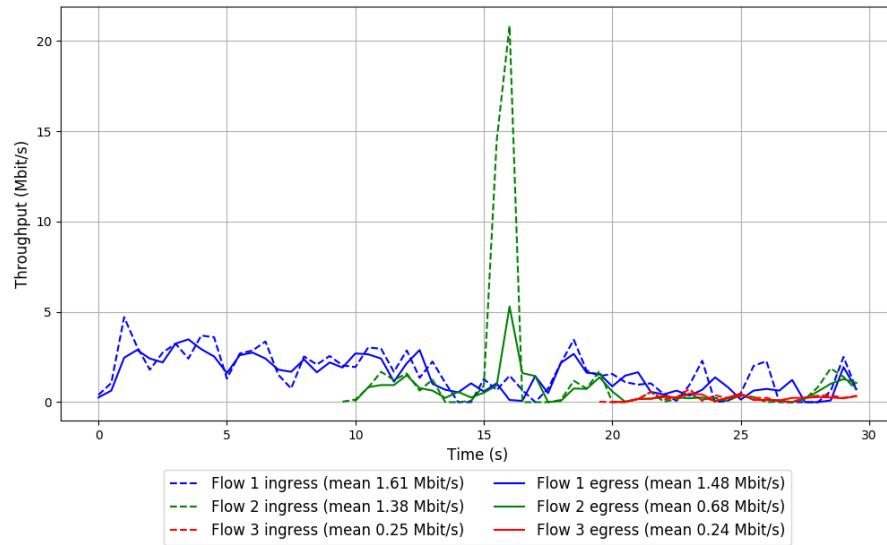


Run 2: Statistics of Verus

```
Start at: 2018-02-13 12:28:34
End at: 2018-02-13 12:29:04
Local clock offset: 2.858 ms
Remote clock offset: -17.93 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 967.164 ms
Loss rate: 23.67%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 846.378 ms
Loss rate: 8.60%
-- Flow 2:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 1059.246 ms
Loss rate: 51.44%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 947.763 ms
Loss rate: 8.96%
```

Run 2: Report of Verus — Data Link

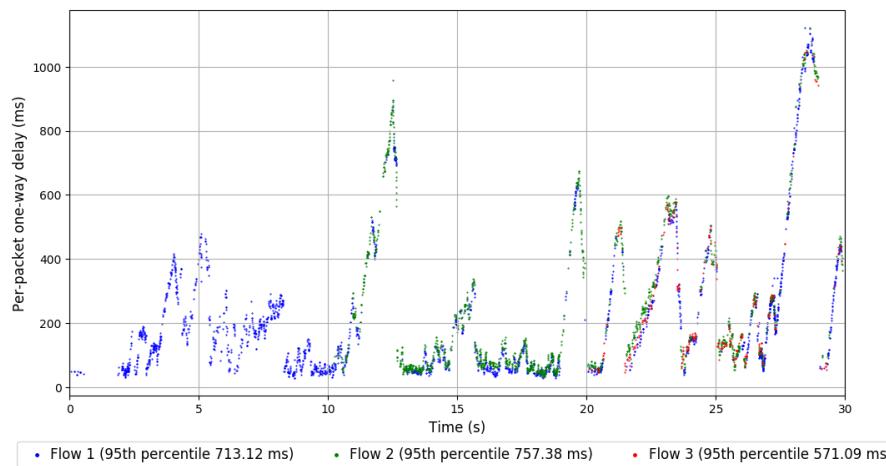
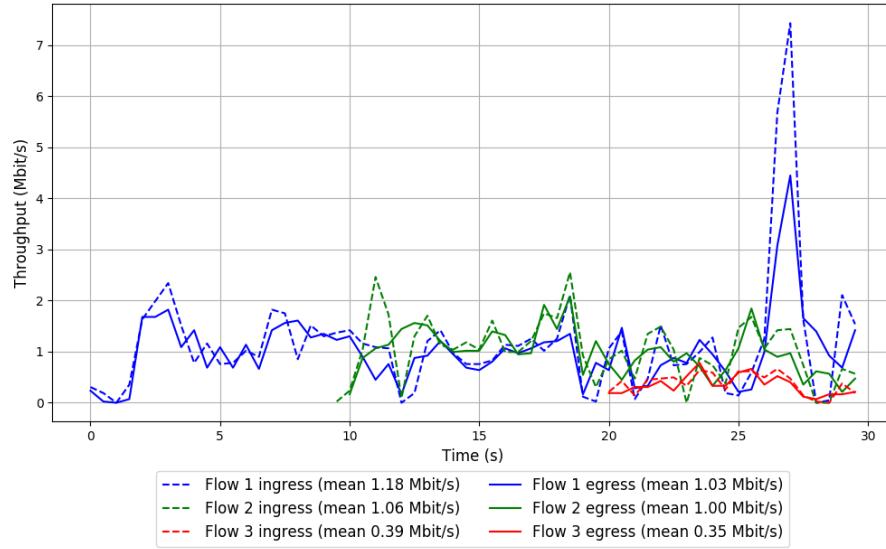


Run 3: Statistics of Verus

```
Start at: 2018-02-13 12:48:32
End at: 2018-02-13 12:49:02
Local clock offset: 4.962 ms
Remote clock offset: -15.377 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 730.714 ms
Loss rate: 10.37%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 713.120 ms
Loss rate: 12.79%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 757.377 ms
Loss rate: 6.50%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 571.087 ms
Loss rate: 9.63%
```

Run 3: Report of Verus — Data Link

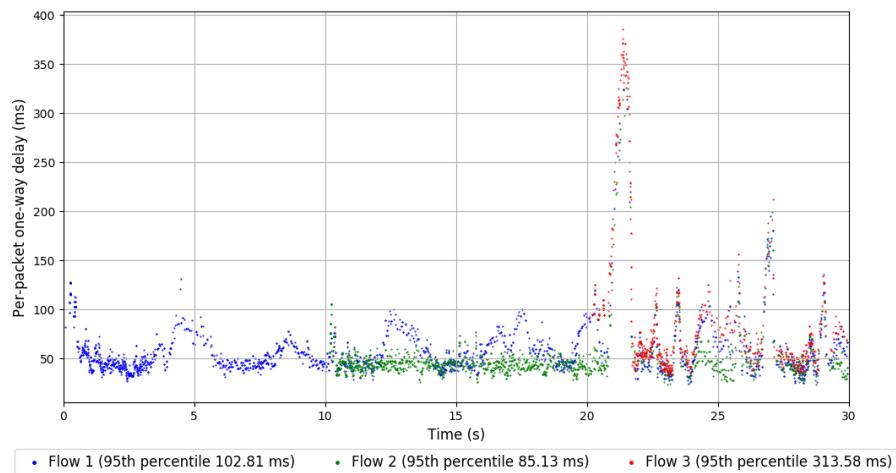
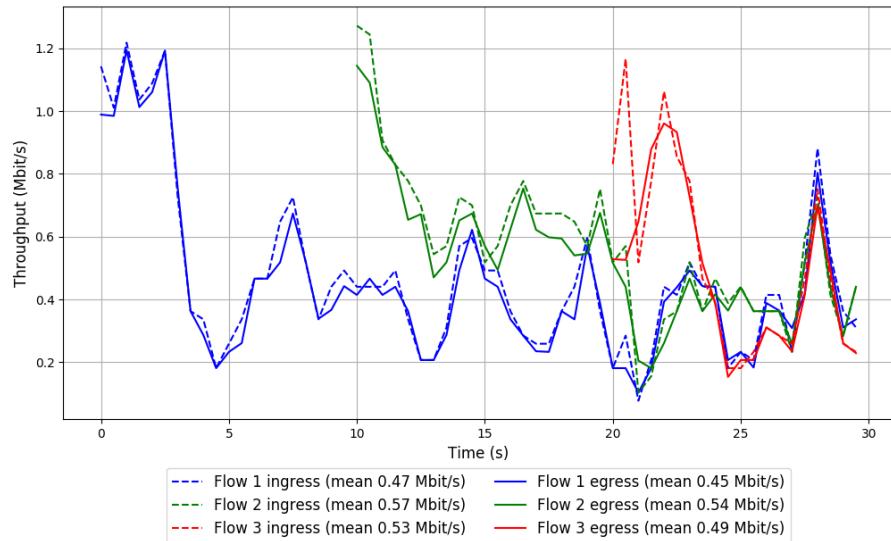


Run 1: Statistics of Copa

```
Start at: 2018-02-13 12:14:08
End at: 2018-02-13 12:14:38
Local clock offset: 3.631 ms
Remote clock offset: -16.288 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 116.283 ms
Loss rate: 6.15%
-- Flow 1:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 102.812 ms
Loss rate: 5.10%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 85.133 ms
Loss rate: 6.48%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 313.583 ms
Loss rate: 8.28%
```

Run 1: Report of Copa — Data Link

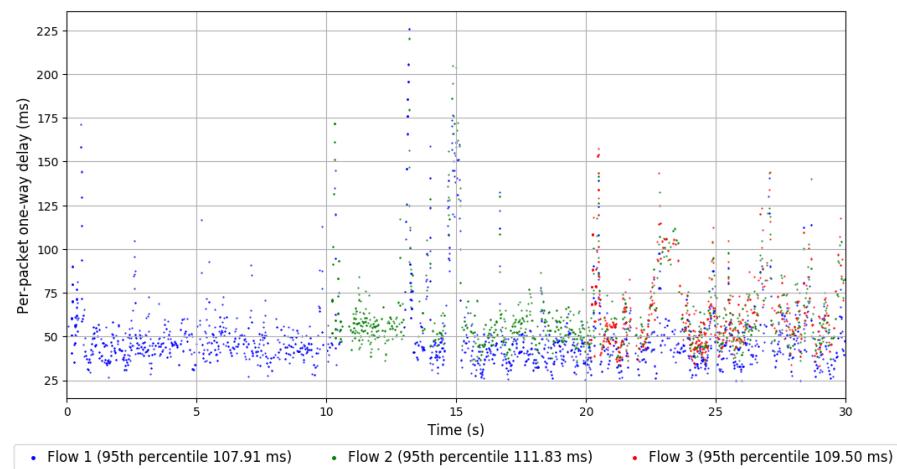
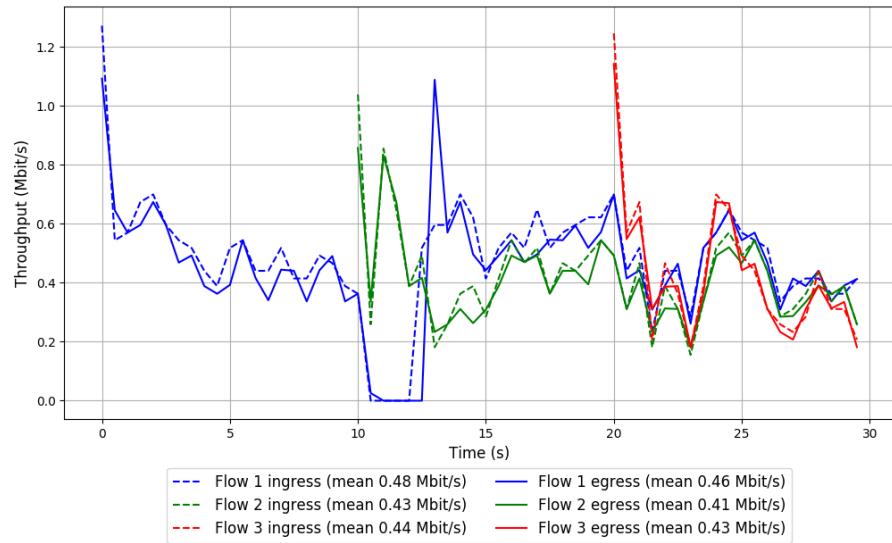


Run 2: Statistics of Copa

```
Start at: 2018-02-13 12:34:07
End at: 2018-02-13 12:34:37
Local clock offset: 2.796 ms
Remote clock offset: -16.262 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 110.363 ms
Loss rate: 4.54%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 107.911 ms
Loss rate: 5.16%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 111.835 ms
Loss rate: 4.30%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 109.501 ms
Loss rate: 2.94%
```

Run 2: Report of Copa — Data Link

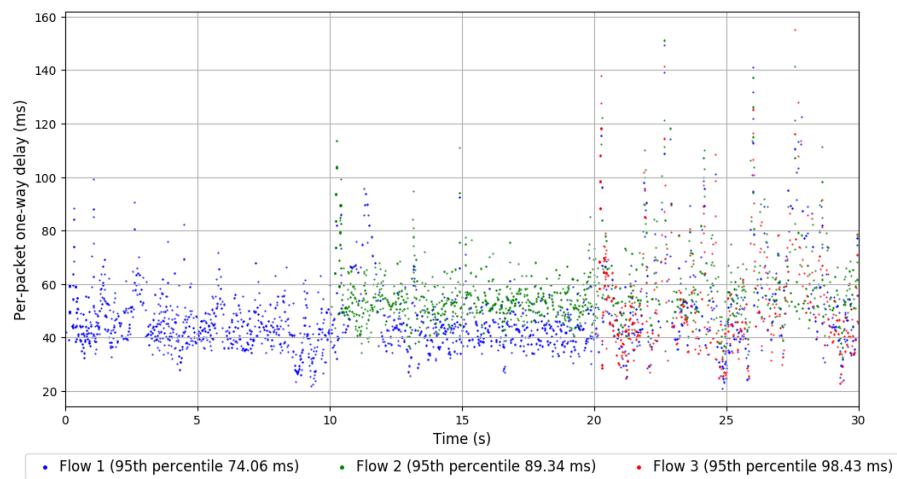
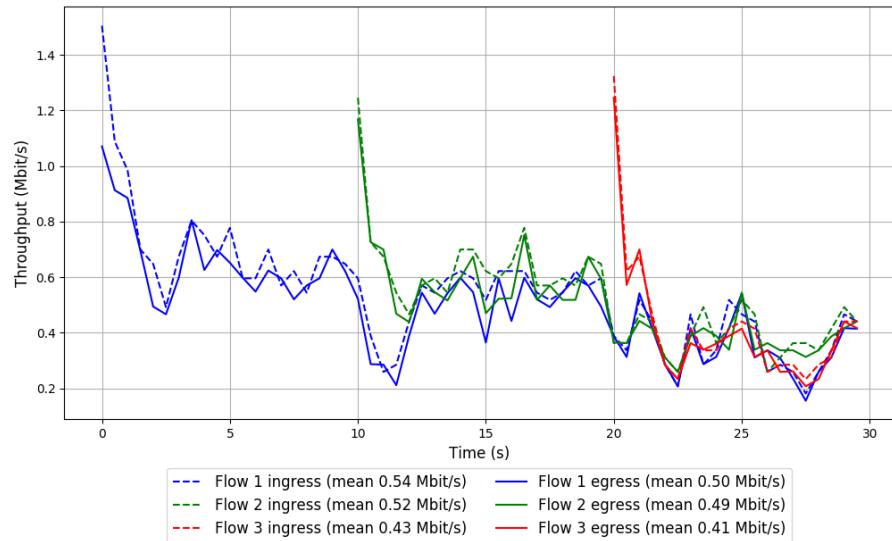


Run 3: Statistics of Copa

```
Start at: 2018-02-13 12:54:05
End at: 2018-02-13 12:54:35
Local clock offset: 2.909 ms
Remote clock offset: -14.916 ms

# Below is generated by plot.py at 2018-02-13 13:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 84.163 ms
Loss rate: 7.17%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 74.055 ms
Loss rate: 8.62%
-- Flow 2:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 89.338 ms
Loss rate: 6.11%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 98.434 ms
Loss rate: 4.22%
```

Run 3: Report of Copa — Data Link

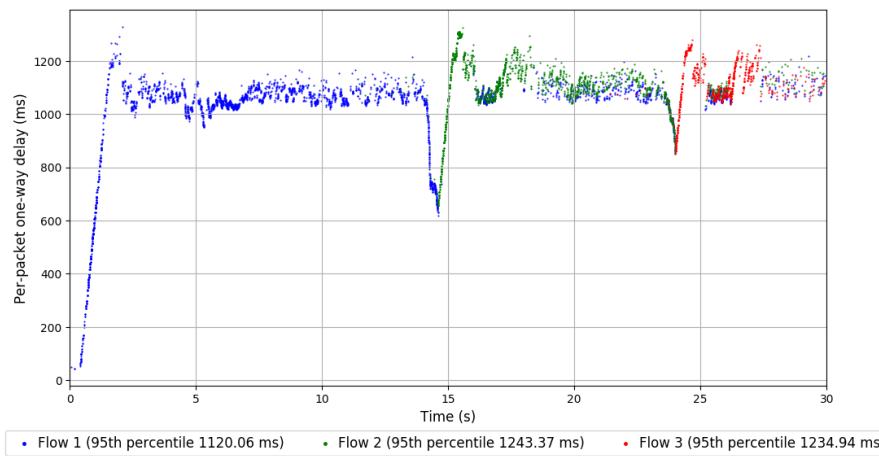
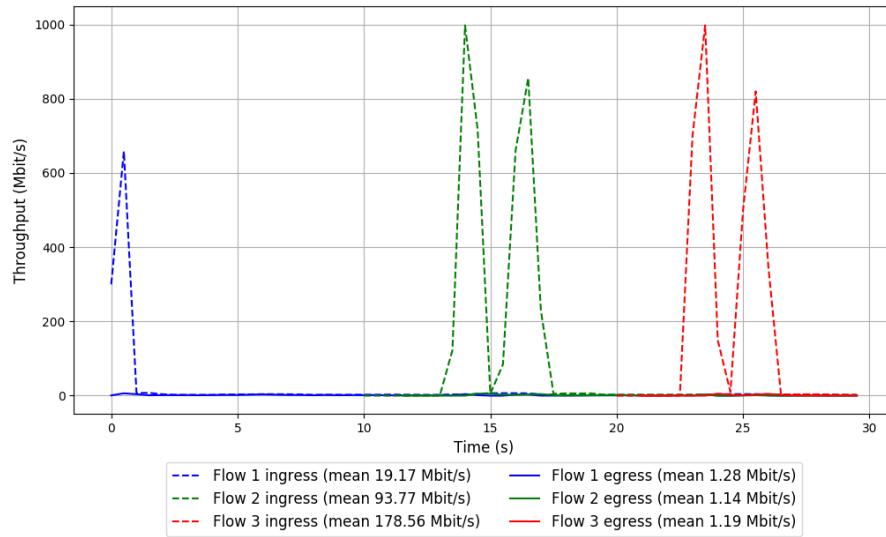


```
Run 1: Statistics of FillP

Start at: 2018-02-13 12:05:12
End at: 2018-02-13 12:05:42
Local clock offset: 2.592 ms
Remote clock offset: -18.193 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 1210.146 ms
Loss rate: 98.36%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 1120.063 ms
Loss rate: 93.34%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 1243.371 ms
Loss rate: 98.88%
-- Flow 3:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 1234.940 ms
Loss rate: 99.43%
```

Run 1: Report of FillP — Data Link

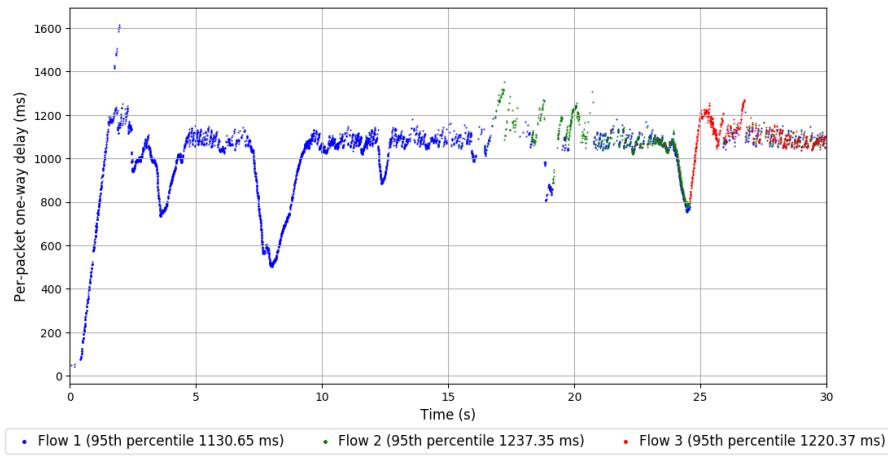
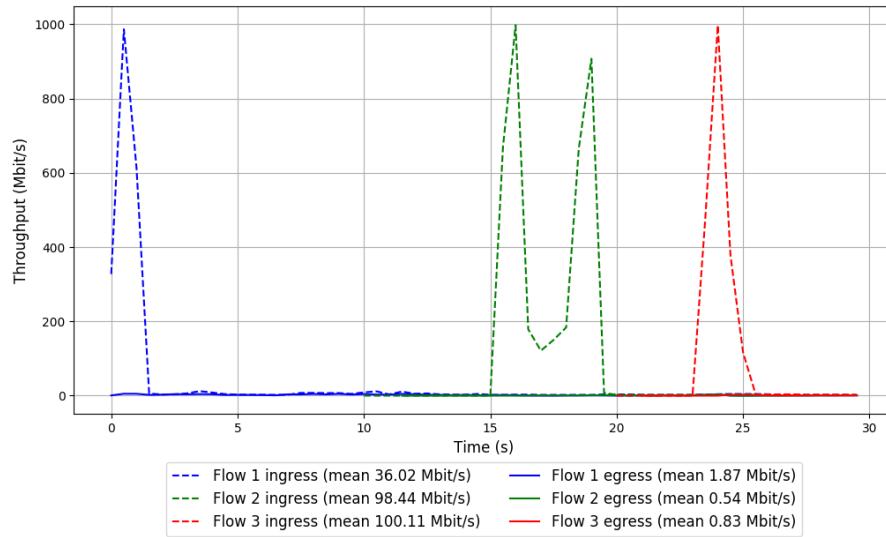


Run 2: Statistics of FillP

```
Start at: 2018-02-13 12:25:13
End at: 2018-02-13 12:25:43
Local clock offset: 1.941 ms
Remote clock offset: -17.22 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 1180.235 ms
Loss rate: 98.20%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 1130.646 ms
Loss rate: 94.82%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 1237.351 ms
Loss rate: 99.49%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 1220.368 ms
Loss rate: 99.29%
```

Run 2: Report of FillP — Data Link

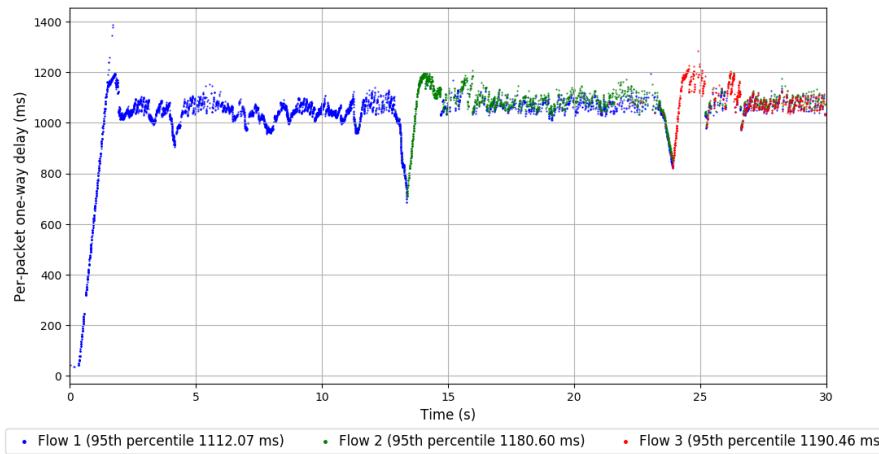
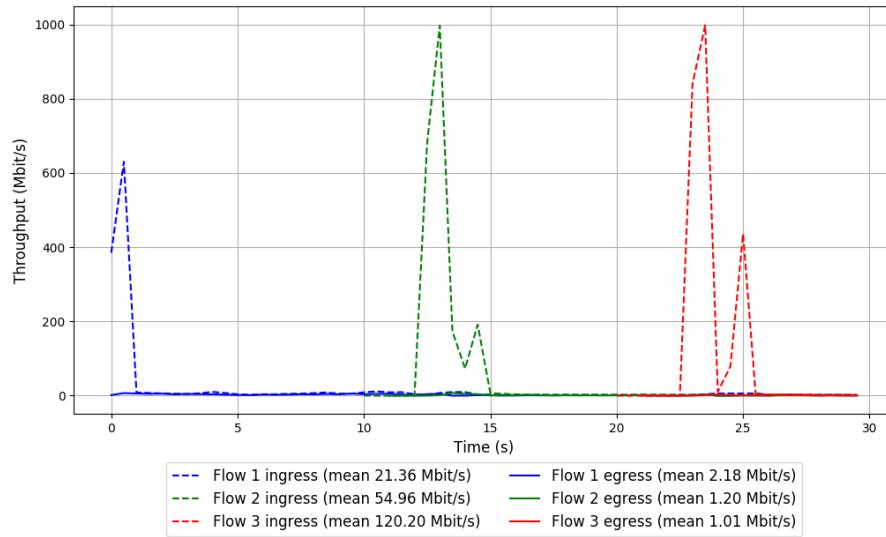


Run 3: Statistics of FillP

```
Start at: 2018-02-13 12:45:11
End at: 2018-02-13 12:45:41
Local clock offset: 3.013 ms
Remote clock offset: -14.558 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 1164.995 ms
Loss rate: 96.69%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 1112.067 ms
Loss rate: 89.81%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 1180.602 ms
Loss rate: 97.93%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 1190.461 ms
Loss rate: 99.25%
```

Run 3: Report of FillP — Data Link

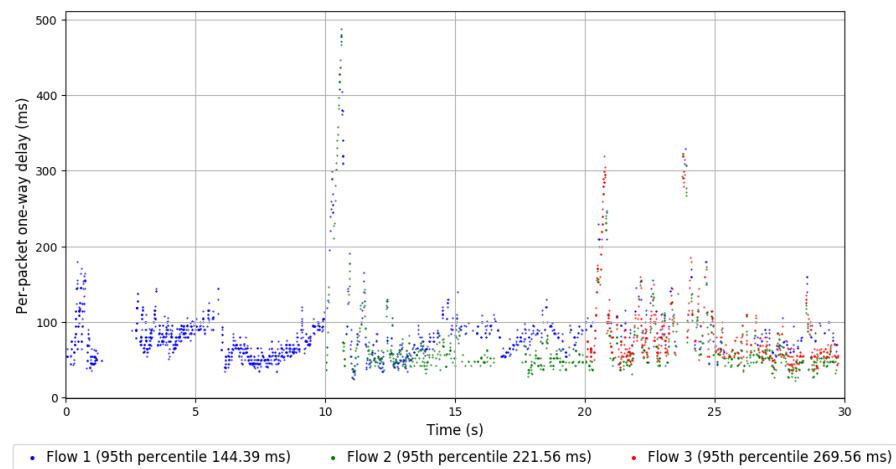
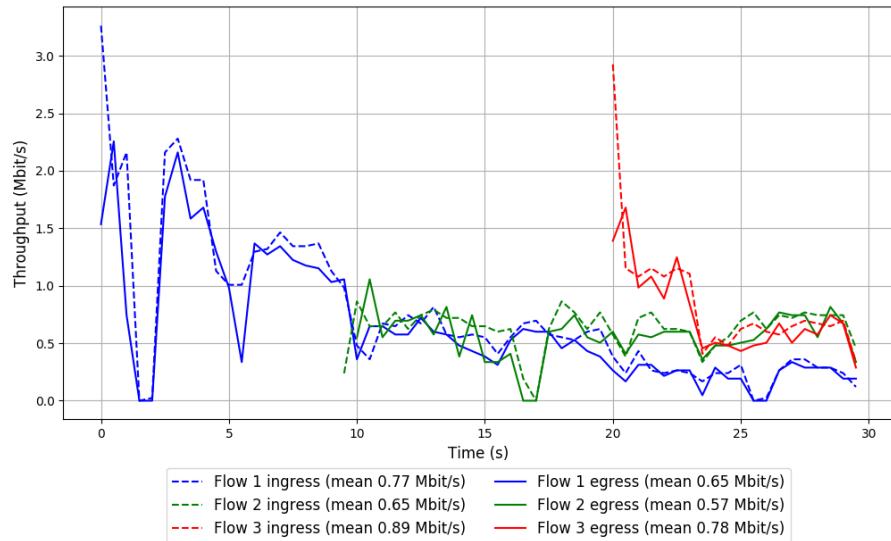


Run 1: Statistics of Indigo-1-32

```
Start at: 2018-02-13 12:01:51
End at: 2018-02-13 12:02:21
Local clock offset: 2.417 ms
Remote clock offset: -18.182 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 167.039 ms
Loss rate: 14.12%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 144.386 ms
Loss rate: 15.29%
-- Flow 2:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 221.563 ms
Loss rate: 12.93%
-- Flow 3:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 269.563 ms
Loss rate: 12.80%
```

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

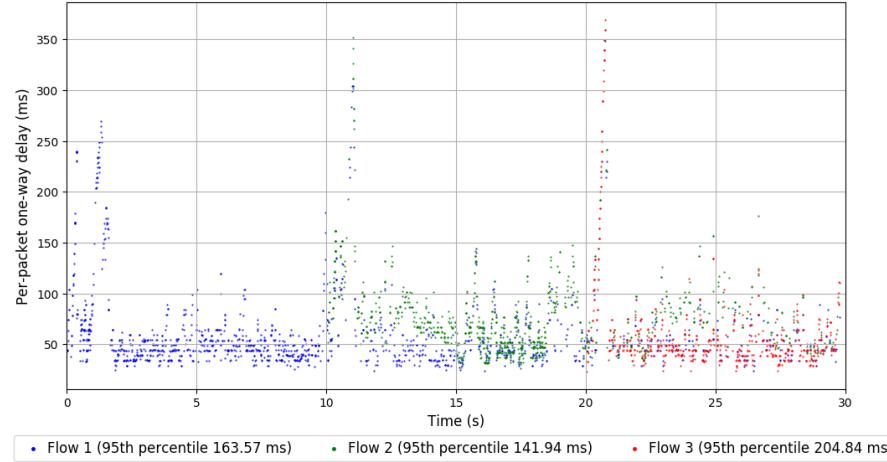
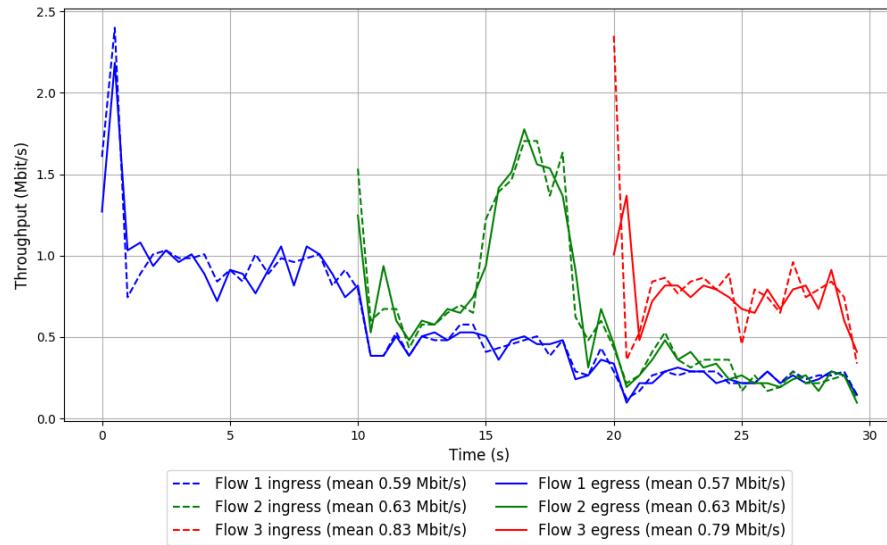


Run 2: Statistics of Indigo-1-32

```
Start at: 2018-02-13 12:21:54
End at: 2018-02-13 12:22:24
Local clock offset: 1.95 ms
Remote clock offset: -17.721 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 151.614 ms
Loss rate: 2.59%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 163.572 ms
Loss rate: 2.20%
-- Flow 2:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 141.942 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 204.842 ms
Loss rate: 5.35%
```

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

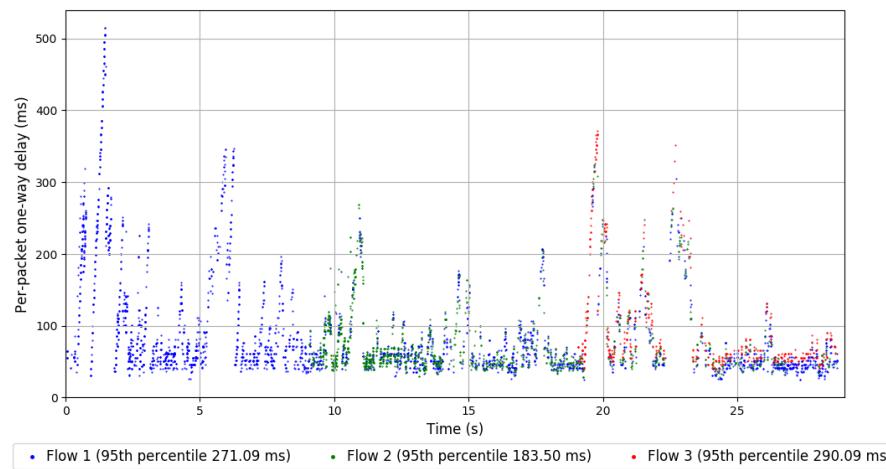
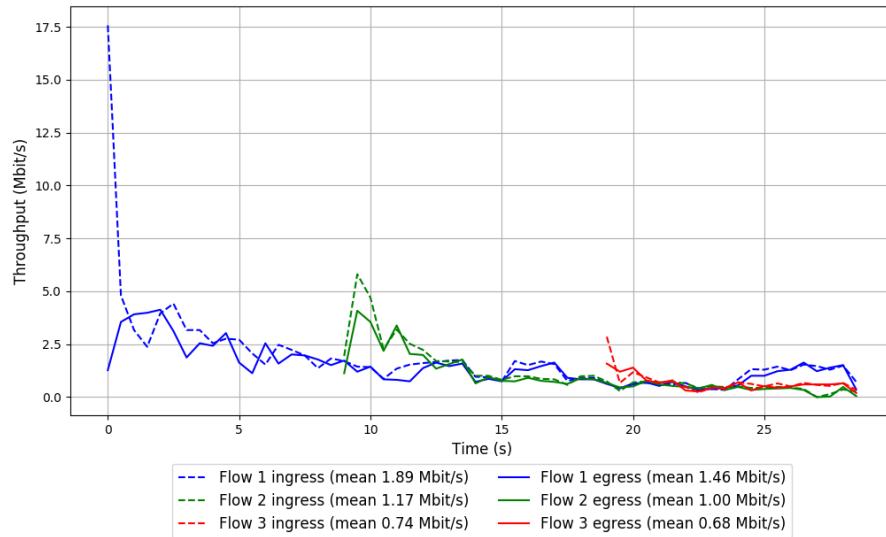


Run 3: Statistics of Indigo-1-32

```
Start at: 2018-02-13 12:41:50
End at: 2018-02-13 12:42:20
Local clock offset: 1.082 ms
Remote clock offset: -16.423 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 249.954 ms
Loss rate: 19.74%
-- Flow 1:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 271.089 ms
Loss rate: 22.98%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 183.502 ms
Loss rate: 15.27%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 290.090 ms
Loss rate: 9.52%
```

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

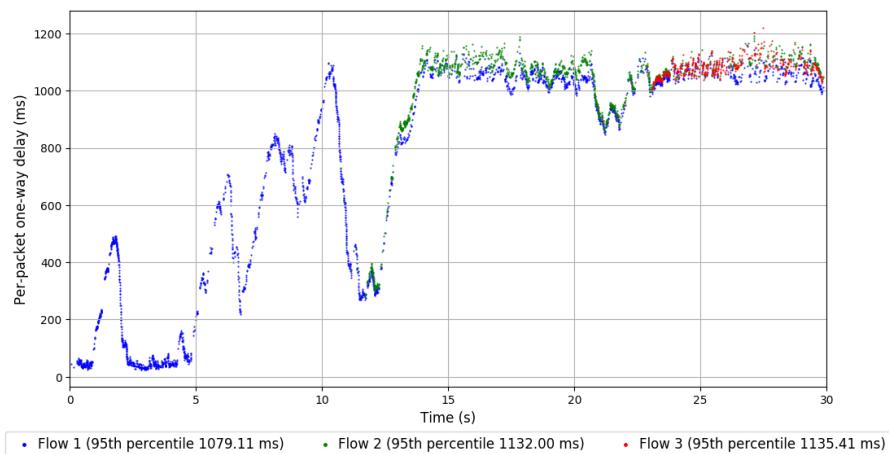
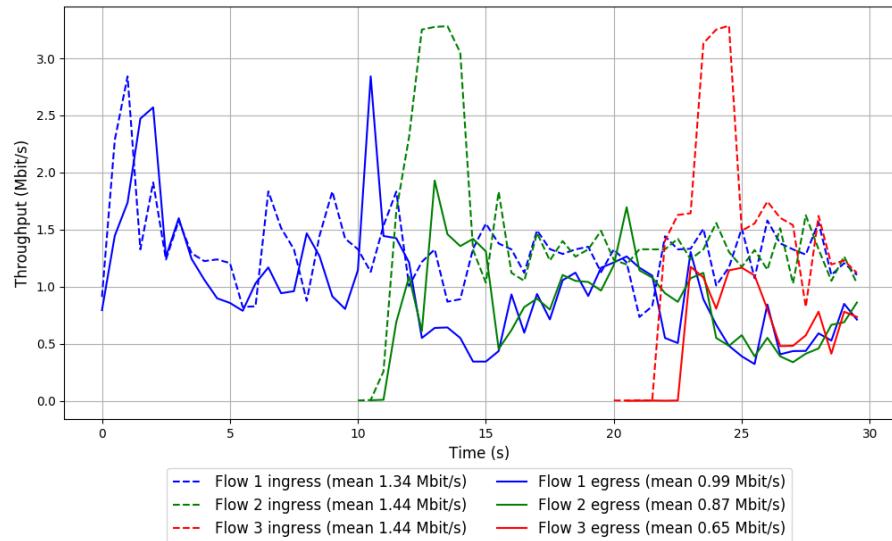


Run 1: Statistics of Vivace-latency

```
Start at: 2018-02-13 12:00:45
End at: 2018-02-13 12:01:15
Local clock offset: 4.858 ms
Remote clock offset: -15.567 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 1114.590 ms
Loss rate: 37.35%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 1079.114 ms
Loss rate: 26.04%
-- Flow 2:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 1131.999 ms
Loss rate: 42.28%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1135.406 ms
Loss rate: 59.21%
```

Run 1: Report of Vivace-latency — Data Link

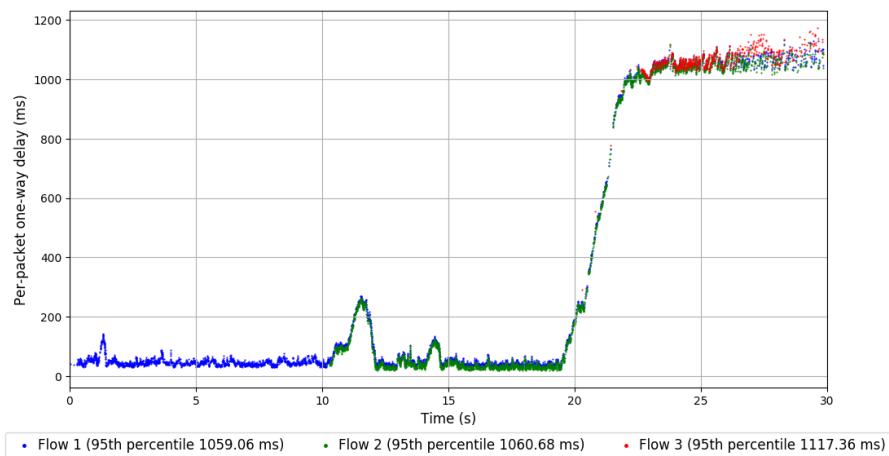
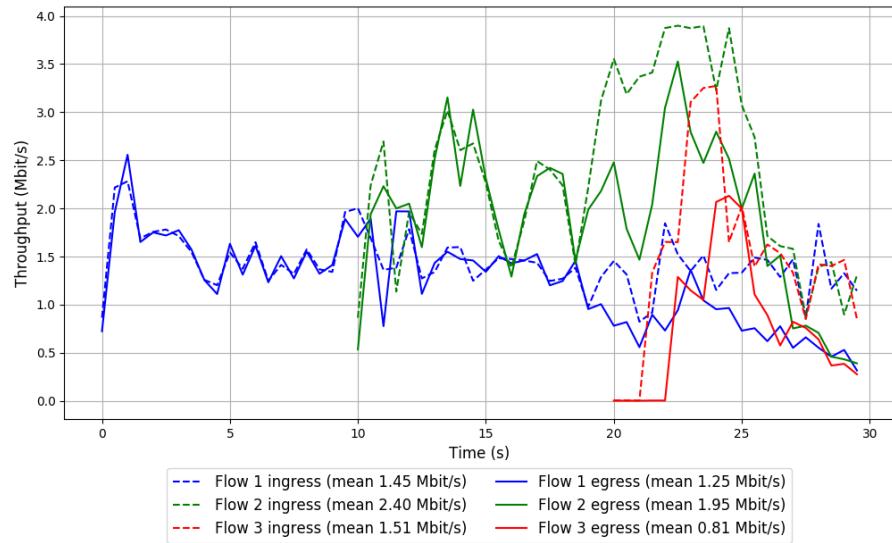


Run 2: Statistics of Vivace-latency

```
Start at: 2018-02-13 12:20:48
End at: 2018-02-13 12:21:18
Local clock offset: 3.606 ms
Remote clock offset: -17.795 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 1072.093 ms
Loss rate: 21.13%
-- Flow 1:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 1059.058 ms
Loss rate: 13.99%
-- Flow 2:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 1060.685 ms
Loss rate: 19.21%
-- Flow 3:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 1117.359 ms
Loss rate: 47.97%
```

Run 2: Report of Vivace-latency — Data Link

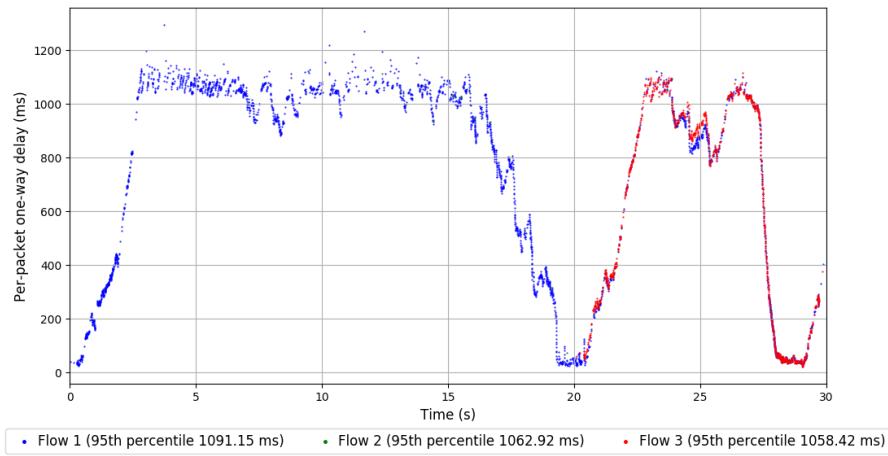
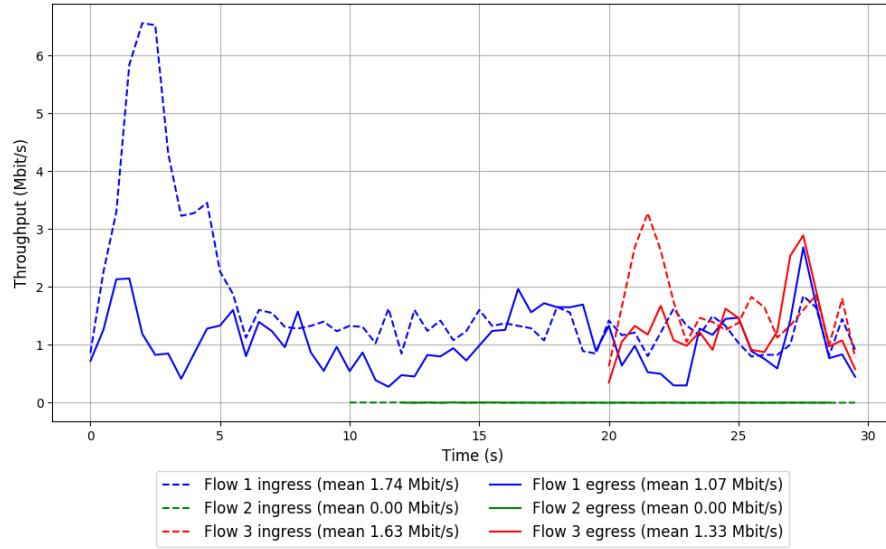


Run 3: Statistics of Vivace-latency

```
Start at: 2018-02-13 12:40:44
End at: 2018-02-13 12:41:14
Local clock offset: 5.184 ms
Remote clock offset: -17.073 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1084.538 ms
Loss rate: 34.10%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 1091.148 ms
Loss rate: 38.62%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1062.917 ms
Loss rate: 33.68%
-- Flow 3:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 1058.418 ms
Loss rate: 19.47%
```

Run 3: Report of Vivace-latency — Data Link

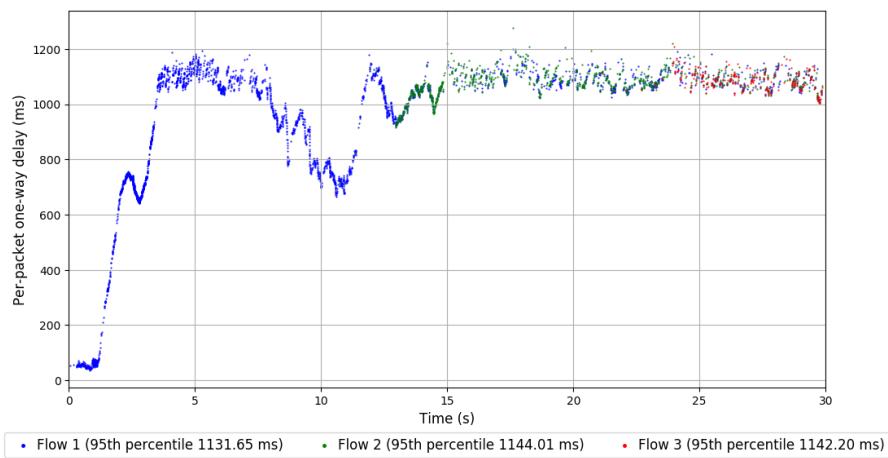
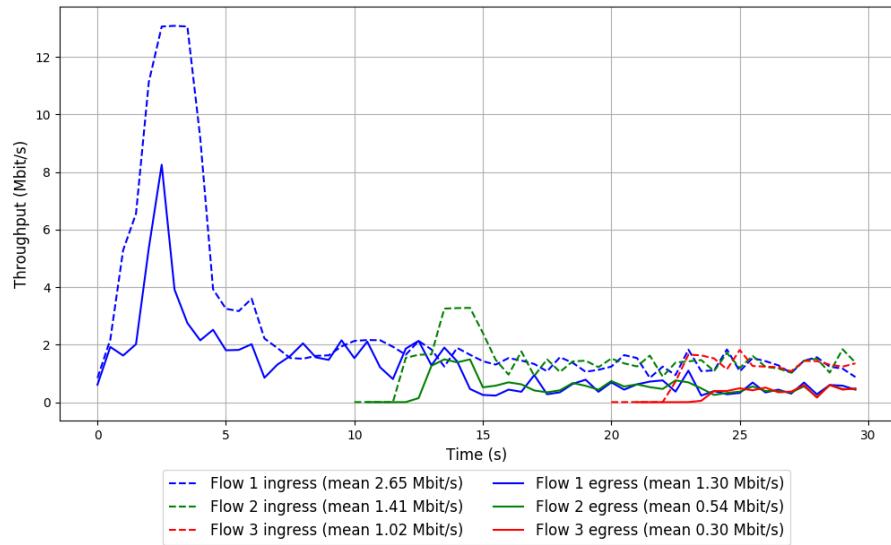


```
Run 1: Statistics of Vivace-loss
```

```
Start at: 2018-02-13 12:16:21
End at: 2018-02-13 12:16:51
Local clock offset: 2.44 ms
Remote clock offset: -17.168 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 1135.721 ms
Loss rate: 55.97%
-- Flow 1:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 1131.649 ms
Loss rate: 51.23%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 1144.010 ms
Loss rate: 62.99%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 1142.200 ms
Loss rate: 73.91%
```

Run 1: Report of Vivace-loss — Data Link

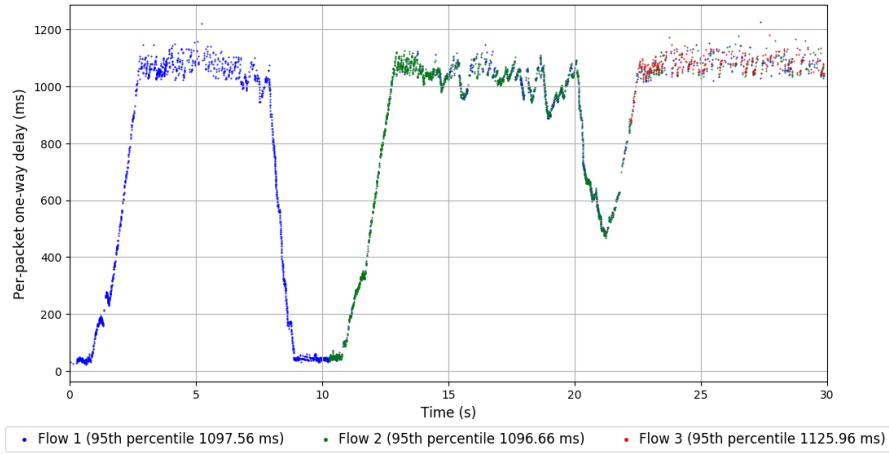
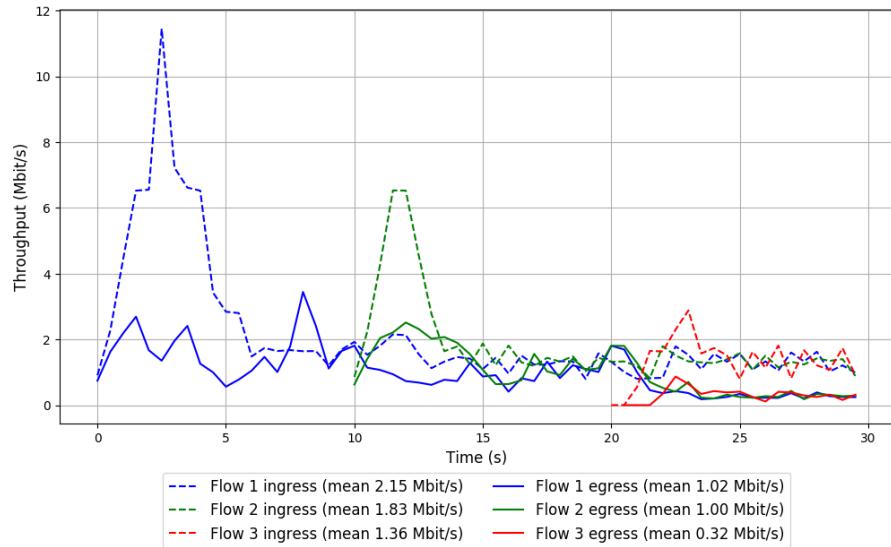


Run 2: Statistics of Vivace-loss

```
Start at: 2018-02-13 12:36:19
End at: 2018-02-13 12:36:49
Local clock offset: 4.594 ms
Remote clock offset: -18.35 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 1100.943 ms
Loss rate: 53.20%
-- Flow 1:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 1097.557 ms
Loss rate: 52.59%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 1096.656 ms
Loss rate: 45.35%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 1125.964 ms
Loss rate: 77.59%
```

Run 2: Report of Vivace-loss — Data Link

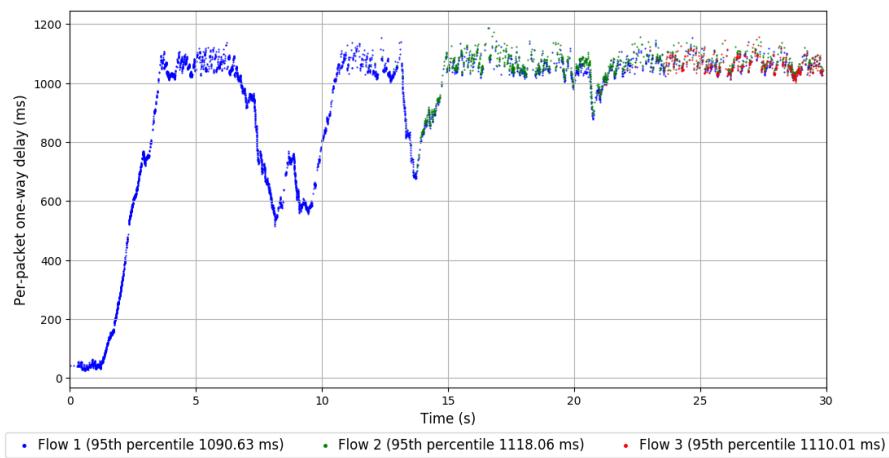
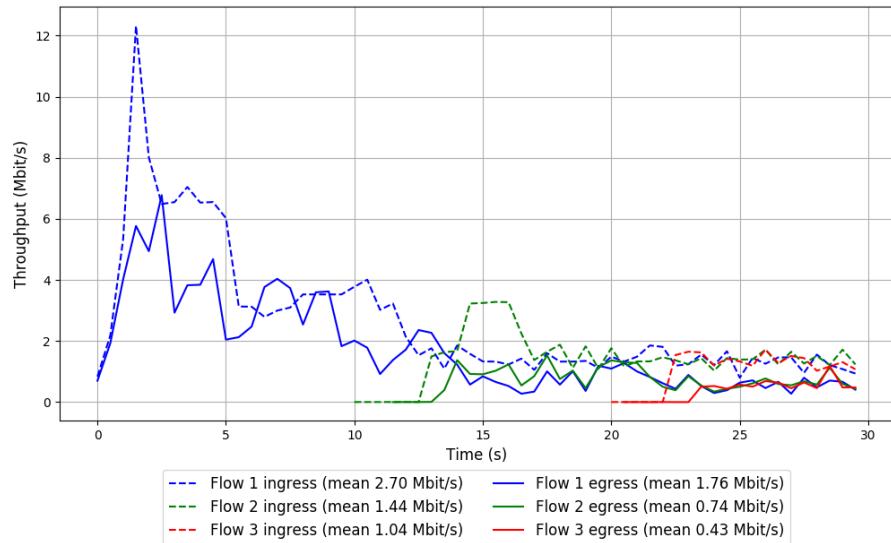


Run 3: Statistics of Vivace-loss

```
Start at: 2018-02-13 12:56:17
End at: 2018-02-13 12:56:47
Local clock offset: 2.978 ms
Remote clock offset: -14.565 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 1098.689 ms
Loss rate: 41.71%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 1090.629 ms
Loss rate: 34.86%
-- Flow 2:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 1118.064 ms
Loss rate: 53.45%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1110.008 ms
Loss rate: 62.94%
```

Run 3: Report of Vivace-loss — Data Link

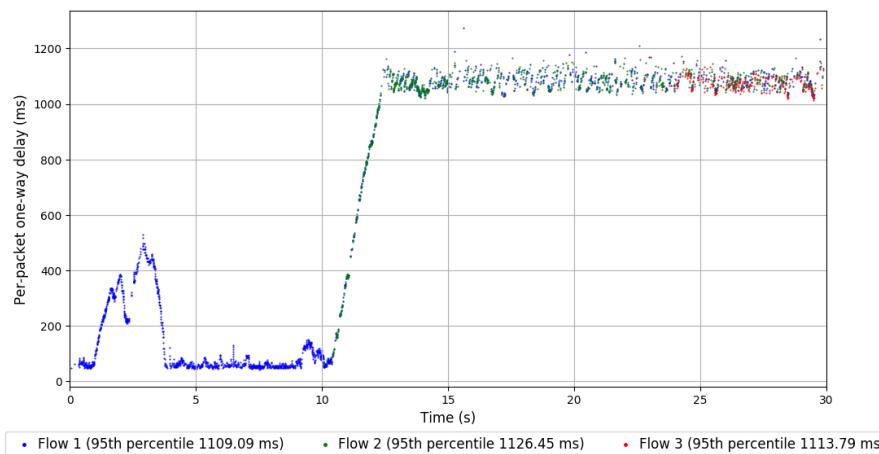
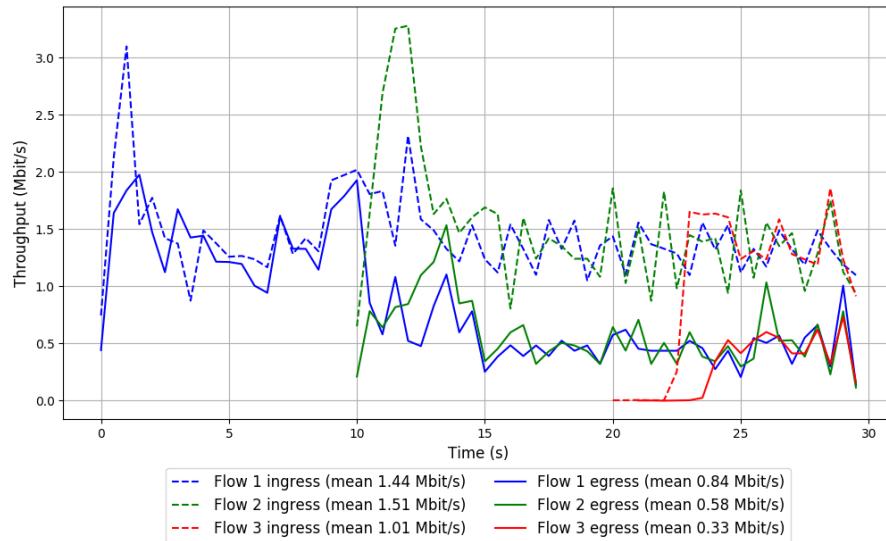


Run 1: Statistics of Vivace-LTE

```
Start at: 2018-02-13 12:11:55
End at: 2018-02-13 12:12:25
Local clock offset: 3.096 ms
Remote clock offset: -17.68 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 1116.411 ms
Loss rate: 52.73%
-- Flow 1:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 1109.089 ms
Loss rate: 42.23%
-- Flow 2:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1126.453 ms
Loss rate: 61.60%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 1113.790 ms
Loss rate: 71.51%
```

Run 1: Report of Vivace-LTE — Data Link

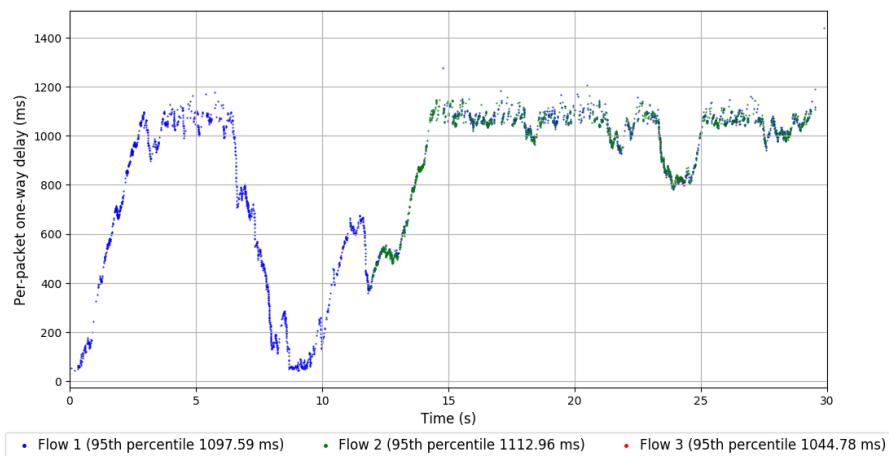
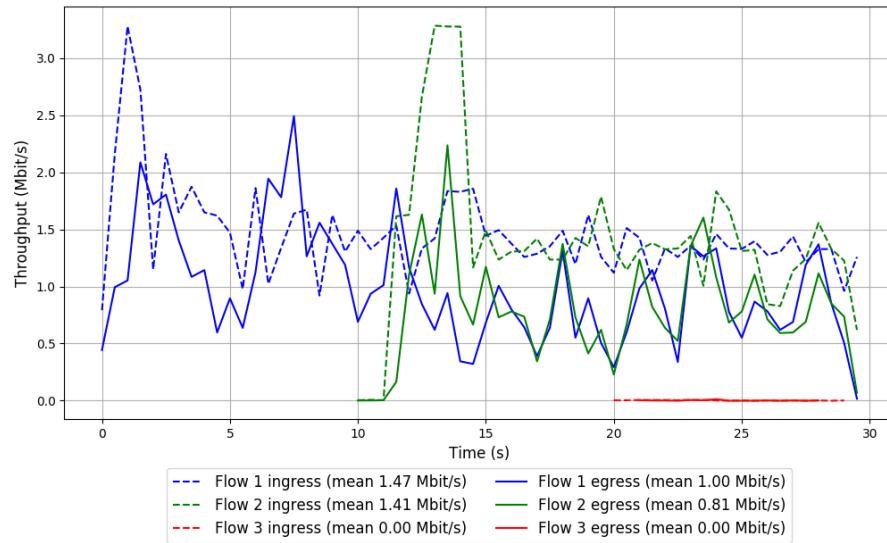


Run 2: Statistics of Vivace-LTE

```
Start at: 2018-02-13 12:31:54
End at: 2018-02-13 12:32:24
Local clock offset: 3.834 ms
Remote clock offset: -16.447 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 1102.115 ms
Loss rate: 36.96%
-- Flow 1:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 1097.589 ms
Loss rate: 32.52%
-- Flow 2:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 1112.963 ms
Loss rate: 43.92%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1044.776 ms
Loss rate: 32.73%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

```
Start at: 2018-02-13 12:51:51
End at: 2018-02-13 12:52:21
Local clock offset: 2.596 ms
Remote clock offset: -14.462 ms

# Below is generated by plot.py at 2018-02-13 13:00:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 1068.712 ms
Loss rate: 17.28%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 1049.681 ms
Loss rate: 10.00%
-- Flow 2:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 1069.110 ms
Loss rate: 20.09%
-- Flow 3:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 1097.871 ms
Loss rate: 41.68%
```

Run 3: Report of Vivace-LTE — Data Link

