

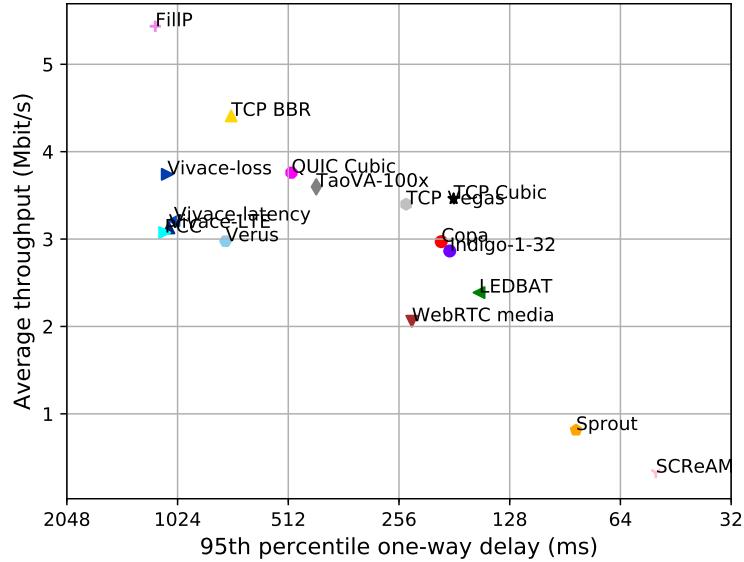
Pantheon Report

Generated at 2018-02-17 05:39:45 (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.

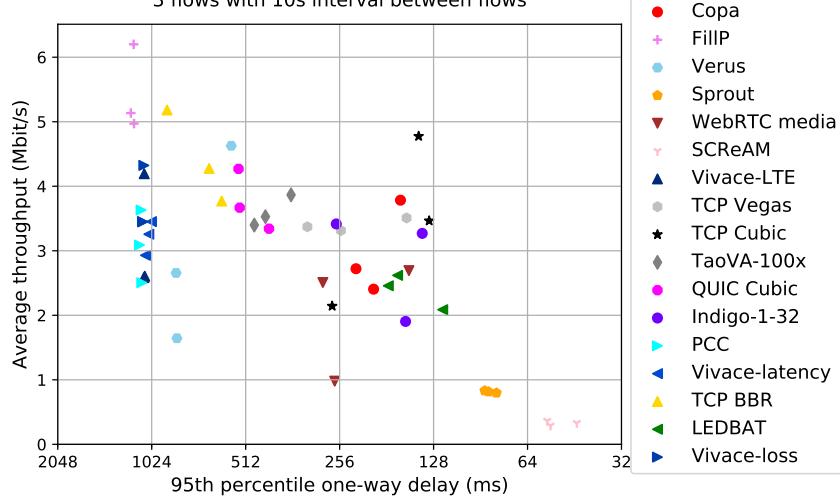
Git summary:

```
branch: master @ cccb2d77344969a7bac1df6edf6c0cfb6c77a6f8
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 8400b8926887fc4cf8c795a1d7ce2c8ac041ec72
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



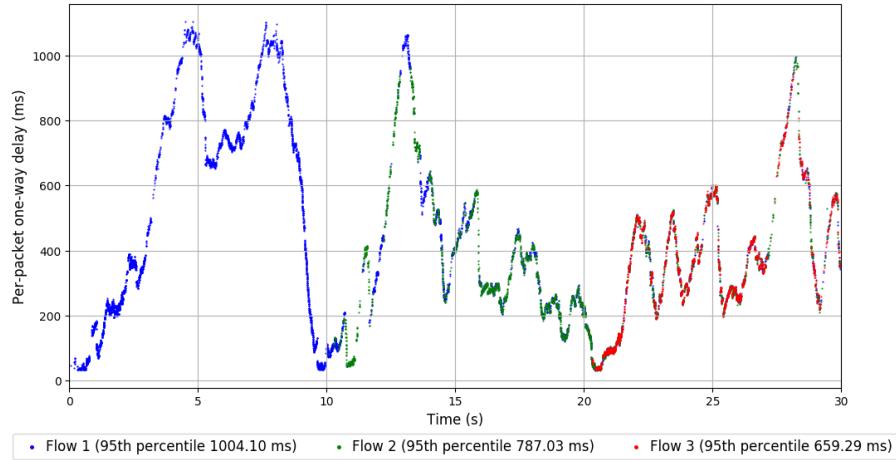
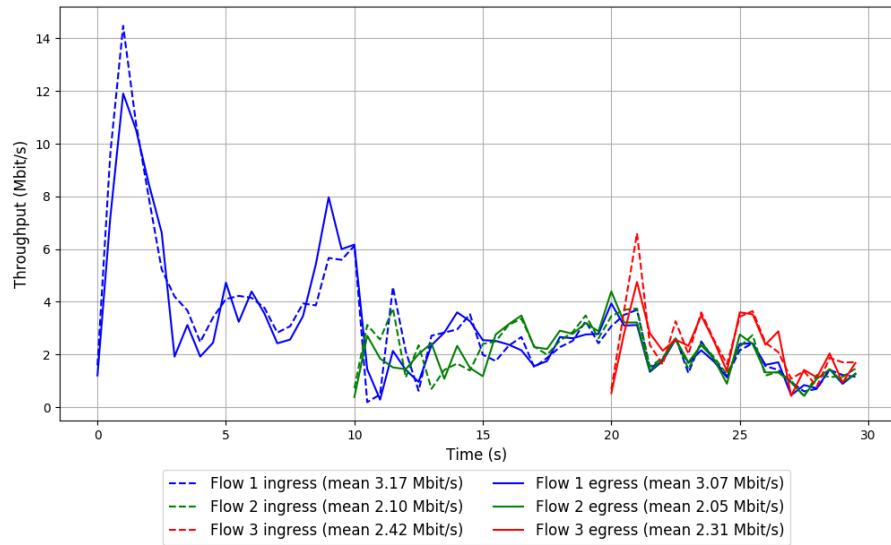
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	2.64	1.91	1.59	726.95	720.46	659.76	2.59	2.61	4.23
TCP Cubic	3	1.91	1.37	1.95	190.36	135.70	220.08	1.91	2.45	2.37
LEDBAT	3	1.12	1.38	1.09	141.76	163.66	160.26	2.27	2.98	3.22
PCC	3	2.11	1.03	1.03	1089.89	1120.30	1195.62	39.04	70.12	97.63
QUIC Cubic	3	1.69	2.61	1.05	406.72	514.97	596.45	1.87	1.85	4.25
SCReAM	3	0.14	0.19	0.19	51.86	48.65	50.84	0.98	0.86	1.68
WebRTC media	3	1.25	0.48	0.33	213.29	240.97	294.06	0.96	1.23	3.24
Sprout	3	0.41	0.41	0.38	96.54	77.38	81.35	1.86	1.55	2.17
TaoVA-100x	3	2.01	1.58	1.65	378.49	449.78	602.92	1.77	4.35	6.89
TCP Vegas	3	1.72	1.84	1.37	261.70	165.00	219.60	0.71	0.95	2.09
Verus	3	2.03	1.23	0.43	750.00	757.25	752.64	11.39	7.65	13.63
Copa	3	1.66	1.33	1.28	170.05	230.80	215.38	0.97	1.19	2.01
FillP	3	3.51	2.20	1.83	1130.99	1194.41	1209.49	88.76	97.31	98.67
Indigo-1-32	3	1.22	1.59	1.83	139.64	155.63	271.49	3.21	2.14	1.70
Vivace-latency	3	1.77	1.47	1.43	984.88	1006.82	1077.04	7.95	10.50	22.85
Vivace-loss	3	2.50	1.44	0.99	1096.12	1082.23	1086.14	45.65	28.55	39.65
Vivace-LTE	3	1.75	1.40	1.55	1073.07	1082.02	1096.07	18.17	26.37	41.96

Run 1: Statistics of TCP BBR

```
Start at: 2018-02-17 04:45:39
End at: 2018-02-17 04:46:09
Local clock offset: -6.831 ms
Remote clock offset: -19.918 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 914.185 ms
Loss rate: 3.65%
-- Flow 1:
Average throughput: 3.07 Mbit/s
95th percentile per-packet one-way delay: 1004.095 ms
Loss rate: 3.34%
-- Flow 2:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 787.027 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 659.294 ms
Loss rate: 5.88%
```

Run 1: Report of TCP BBR — Data Link

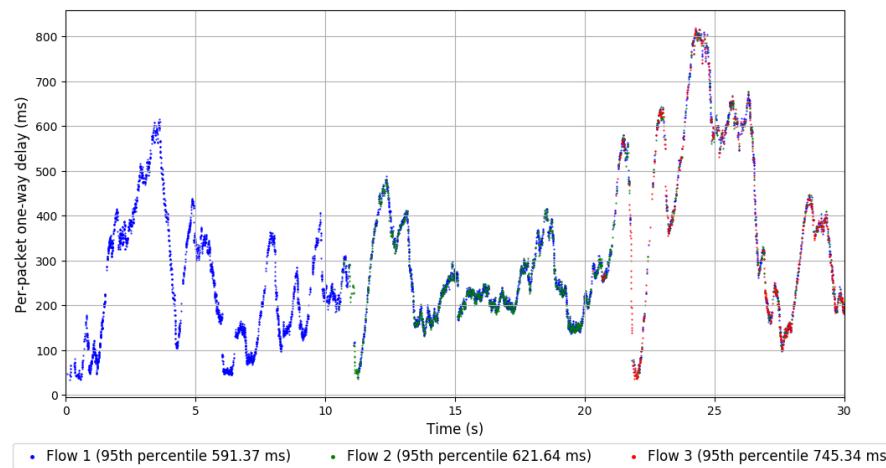
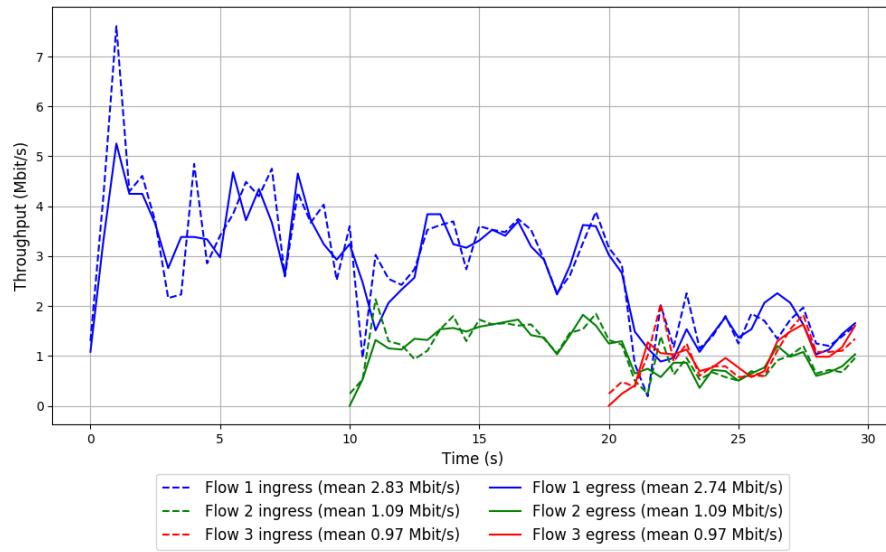


Run 2: Statistics of TCP BBR

```
Start at: 2018-02-17 05:05:43
End at: 2018-02-17 05:06:13
Local clock offset: -5.757 ms
Remote clock offset: -17.963 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 611.118 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 591.371 ms
Loss rate: 3.19%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 621.642 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 745.338 ms
Loss rate: 2.86%
```

Run 2: Report of TCP BBR — Data Link

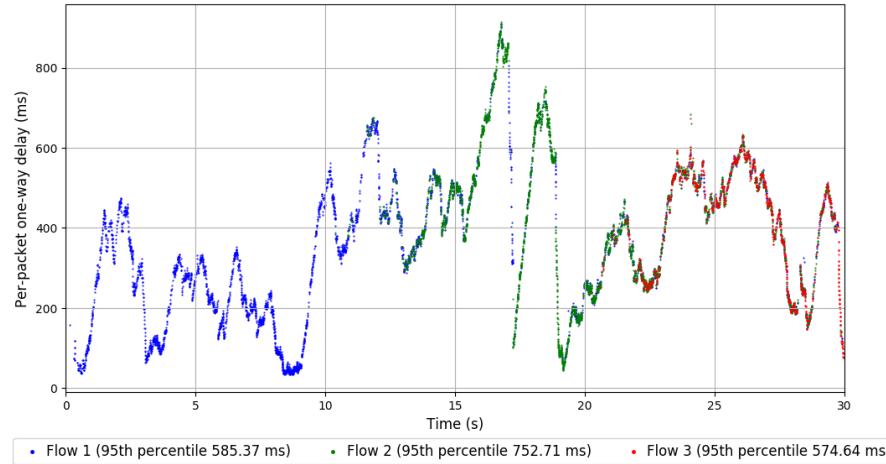
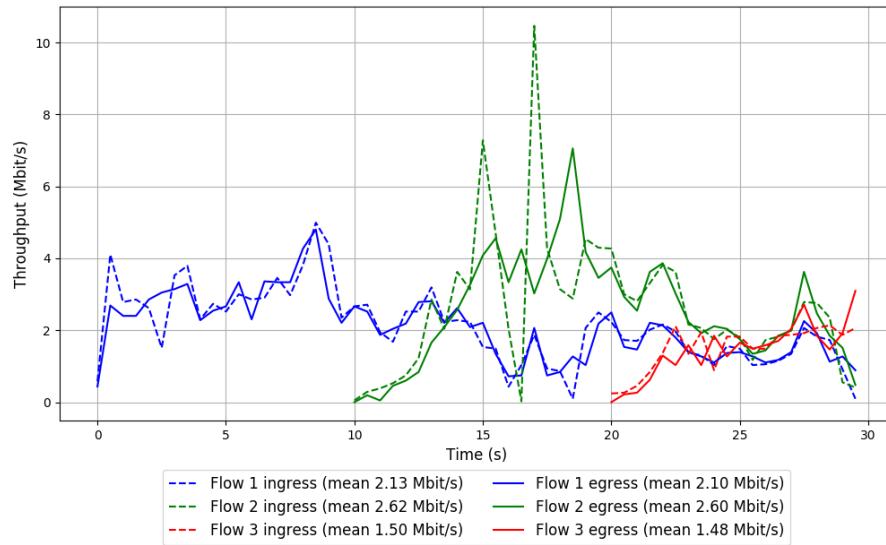


Run 3: Statistics of TCP BBR

```
Start at: 2018-02-17 05:25:46
End at: 2018-02-17 05:26:16
Local clock offset: -2.571 ms
Remote clock offset: -16.294 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 670.432 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 585.373 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 752.706 ms
Loss rate: 3.46%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 574.638 ms
Loss rate: 3.94%
```

Run 3: Report of TCP BBR — Data Link

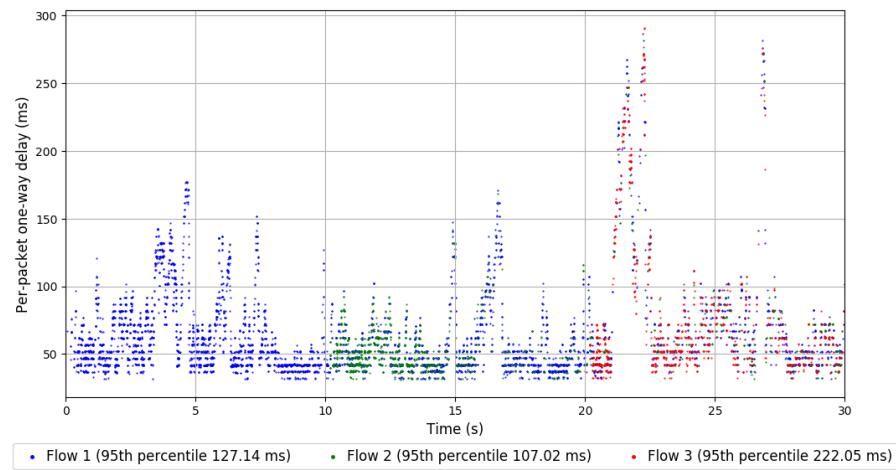
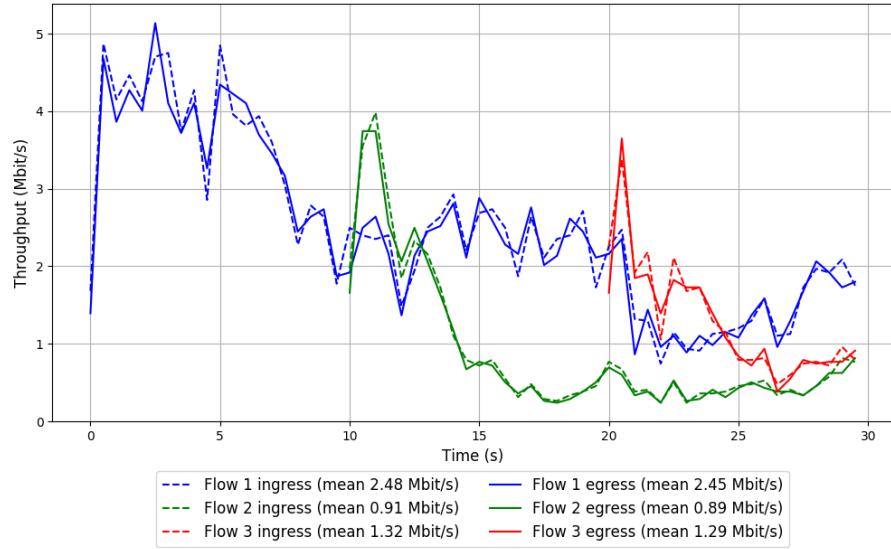


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-02-17 04:54:32
End at: 2018-02-17 04:55:02
Local clock offset: -7.372 ms
Remote clock offset: -19.462 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 132.242 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 127.135 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 107.015 ms
Loss rate: 2.90%
-- Flow 3:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 222.053 ms
Loss rate: 2.38%
```

Run 1: Report of TCP Cubic — Data Link

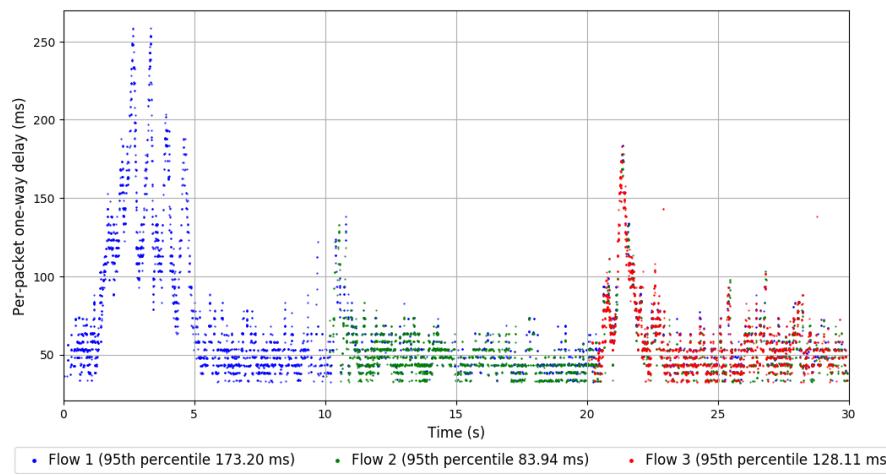
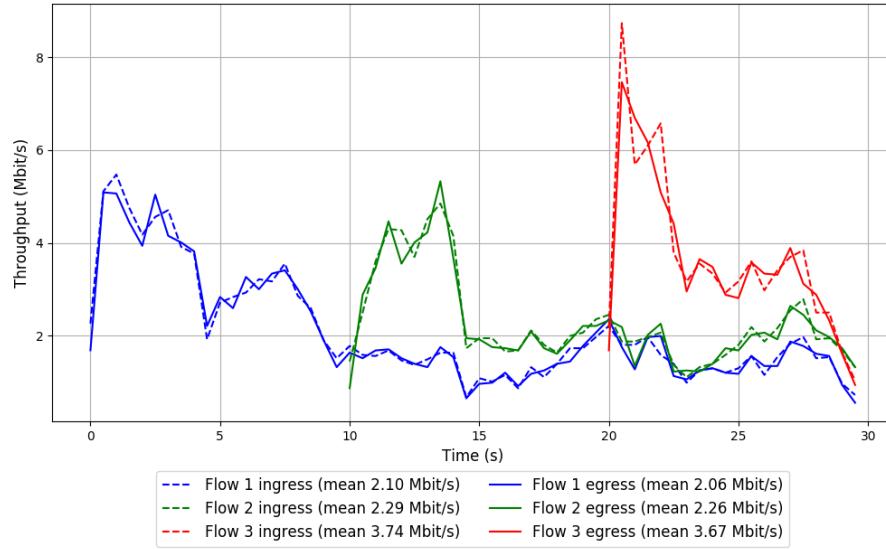


Run 2: Statistics of TCP Cubic

```
Start at: 2018-02-17 05:14:37
End at: 2018-02-17 05:15:07
Local clock offset: -4.055 ms
Remote clock offset: -18.408 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 142.908 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 173.199 ms
Loss rate: 1.76%
-- Flow 2:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 83.942 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 128.114 ms
Loss rate: 2.84%
```

Run 2: Report of TCP Cubic — Data Link

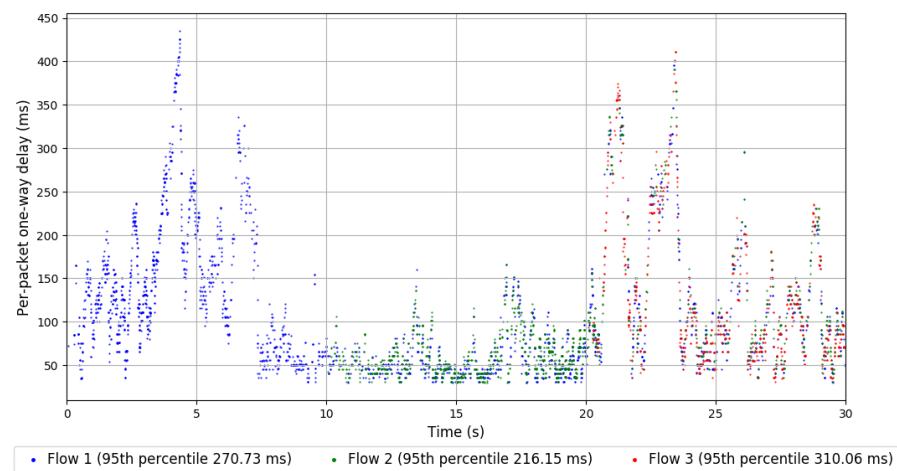
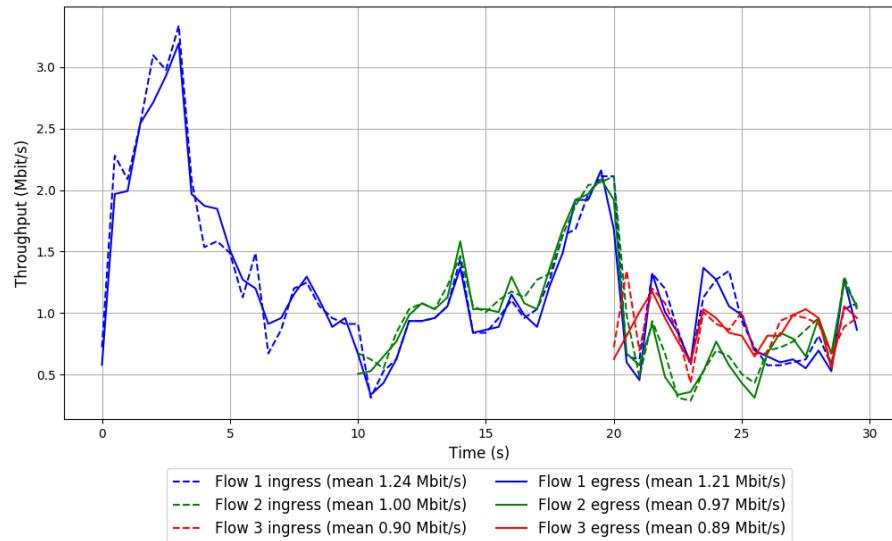


Run 3: Statistics of TCP Cubic

```
Start at: 2018-02-17 05:34:38
End at: 2018-02-17 05:35:08
Local clock offset: 1.157 ms
Remote clock offset: -18.581 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 270.521 ms
Loss rate: 2.54%
-- Flow 1:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 270.732 ms
Loss rate: 2.47%
-- Flow 2:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 216.152 ms
Loss rate: 2.96%
-- Flow 3:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 310.064 ms
Loss rate: 1.89%
```

Run 3: Report of TCP Cubic — Data Link

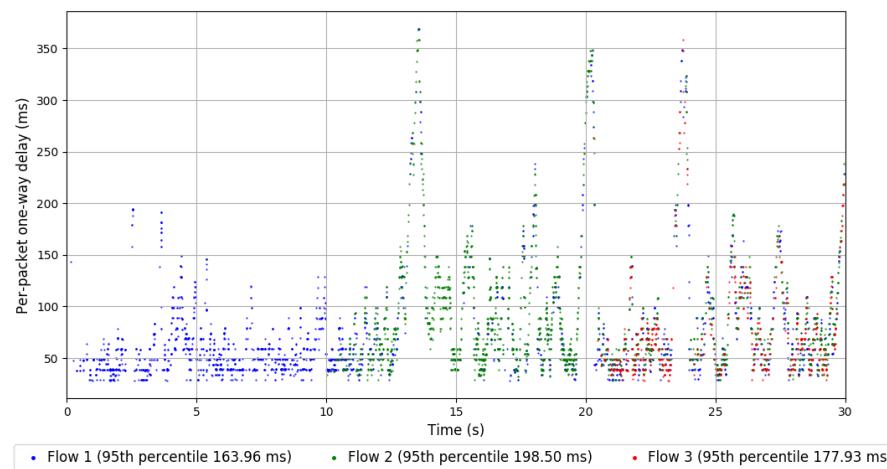
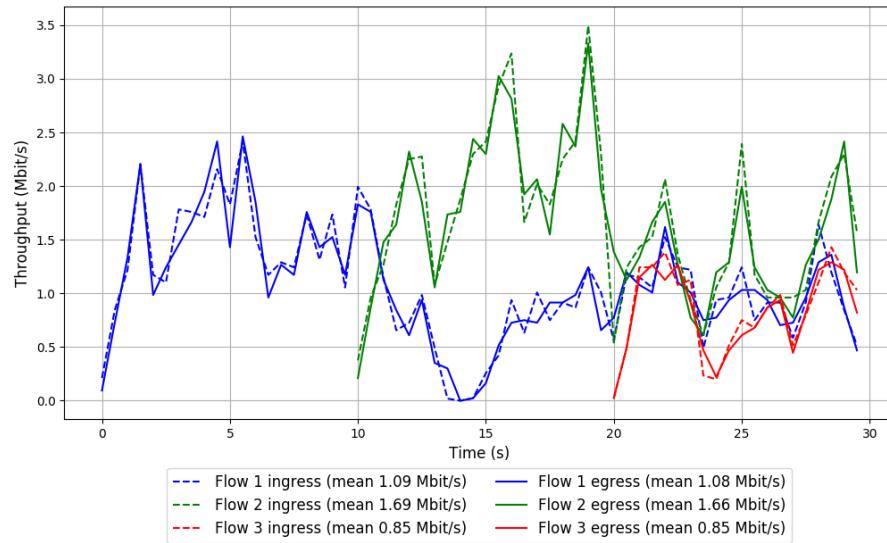


Run 1: Statistics of LEDBAT

```
Start at: 2018-02-17 04:55:39
End at: 2018-02-17 04:56:09
Local clock offset: -4.868 ms
Remote clock offset: -20.645 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.46 Mbit/s
95th percentile per-packet one-way delay: 178.756 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 163.961 ms
Loss rate: 1.65%
-- Flow 2:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 198.497 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 177.933 ms
Loss rate: 3.47%
```

Run 1: Report of LEDBAT — Data Link

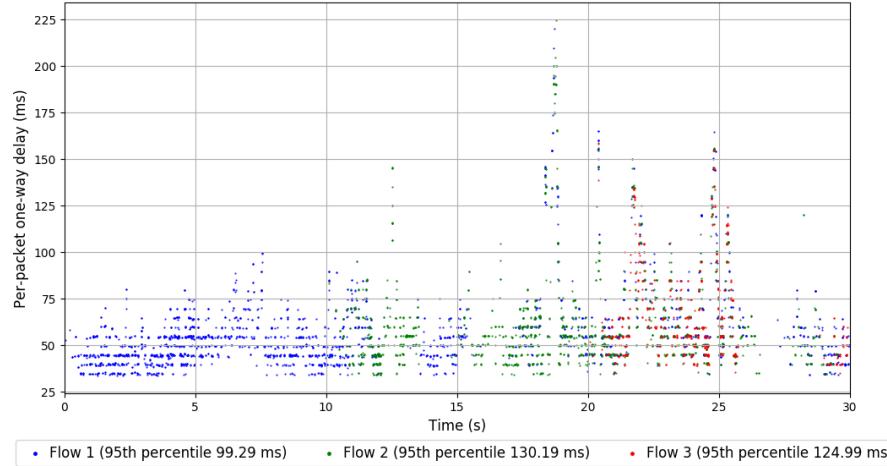
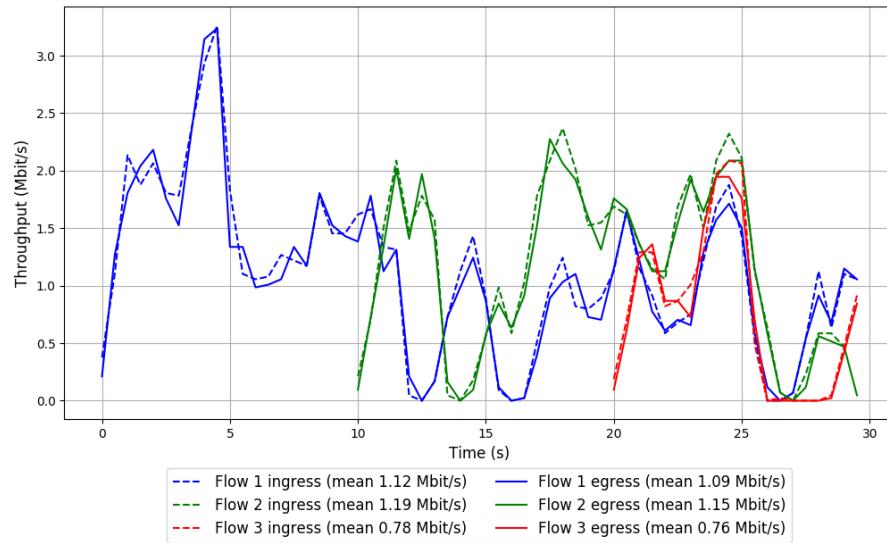


Run 2: Statistics of LEDBAT

```
Start at: 2018-02-17 05:15:45
End at: 2018-02-17 05:16:15
Local clock offset: -4.283 ms
Remote clock offset: -17.41 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 119.669 ms
Loss rate: 3.08%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 99.292 ms
Loss rate: 2.56%
-- Flow 2:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 130.187 ms
Loss rate: 3.55%
-- Flow 3:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 124.994 ms
Loss rate: 3.93%
```

Run 2: Report of LEDBAT — Data Link

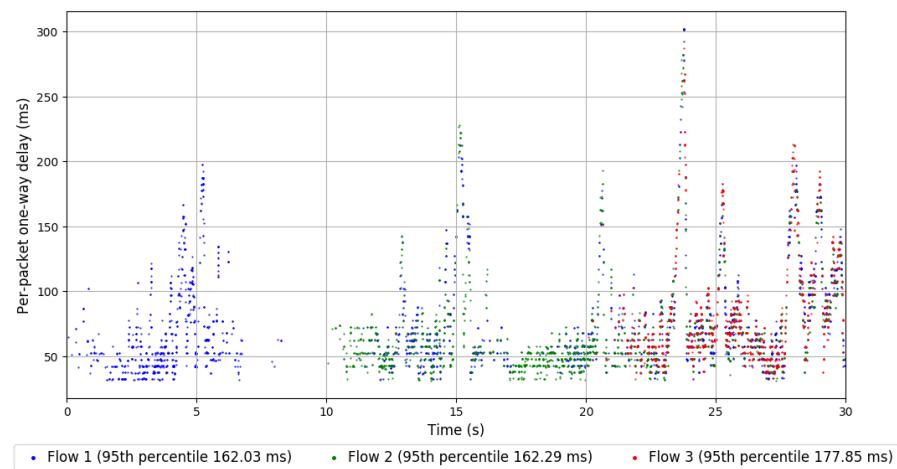
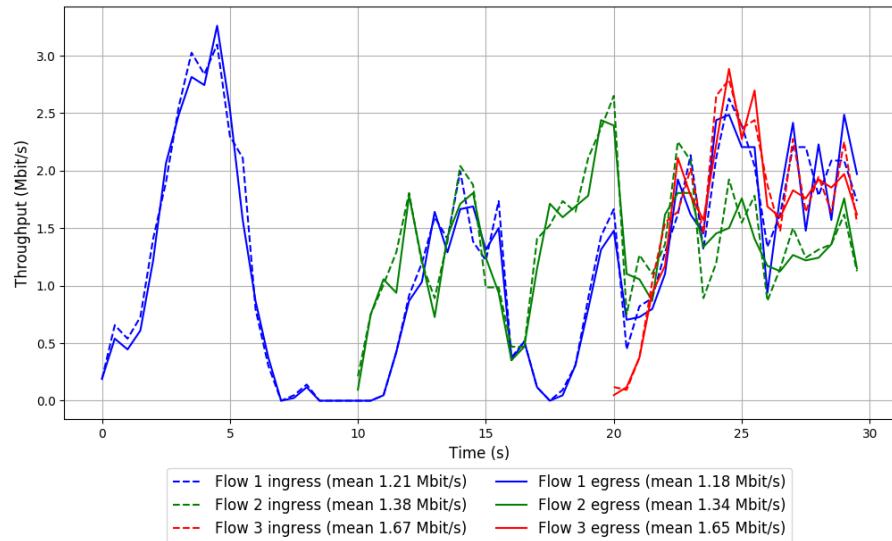


Run 3: Statistics of LEDBAT

```
Start at: 2018-02-17 05:35:44
End at: 2018-02-17 05:36:14
Local clock offset: 1.588 ms
Remote clock offset: -16.614 ms

# Below is generated by plot.py at 2018-02-17 05:38:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 166.920 ms
Loss rate: 2.80%
-- Flow 1:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 162.032 ms
Loss rate: 2.61%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 162.289 ms
Loss rate: 3.36%
-- Flow 3:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 177.854 ms
Loss rate: 2.26%
```

Run 3: Report of LEDBAT — Data Link

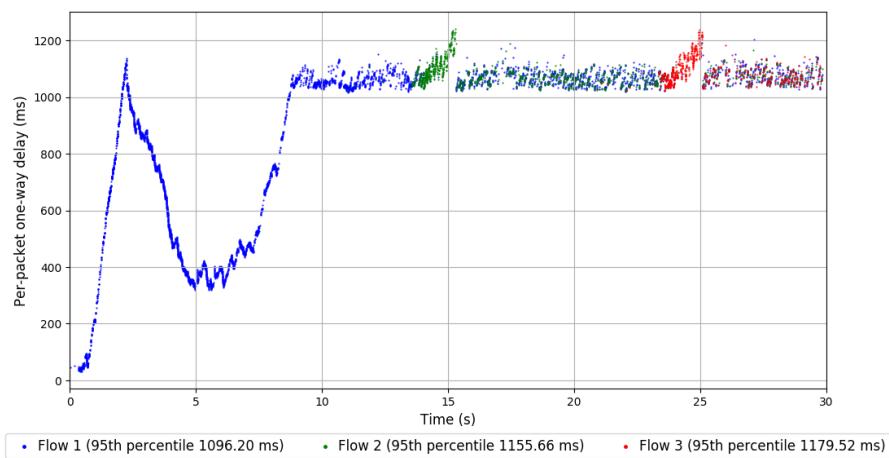
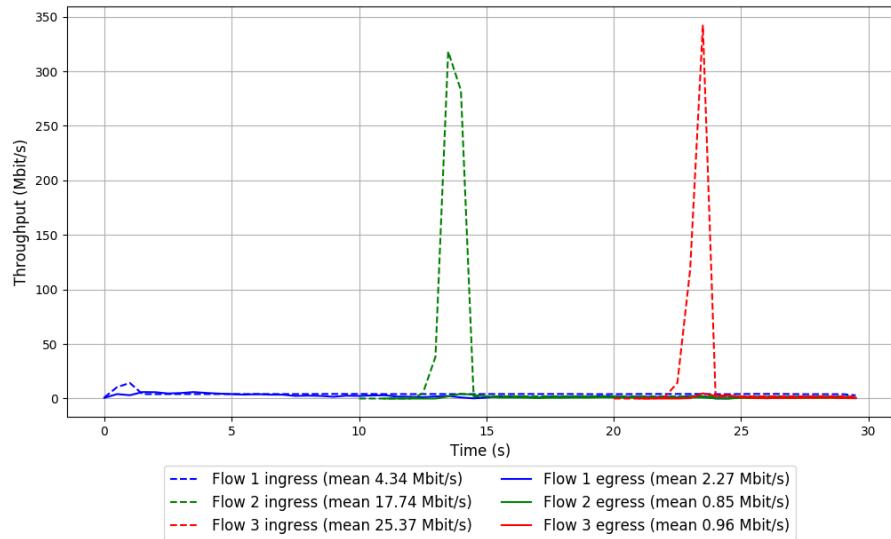


Run 1: Statistics of PCC

```
Start at: 2018-02-17 04:37:48
End at: 2018-02-17 04:38:18
Local clock offset: -5.611 ms
Remote clock offset: -18.137 ms

# Below is generated by plot.py at 2018-02-17 05:39:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 1120.793 ms
Loss rate: 87.42%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 1096.201 ms
Loss rate: 47.74%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 1155.658 ms
Loss rate: 95.48%
-- Flow 3:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 1179.516 ms
Loss rate: 96.62%
```

Run 1: Report of PCC — Data Link

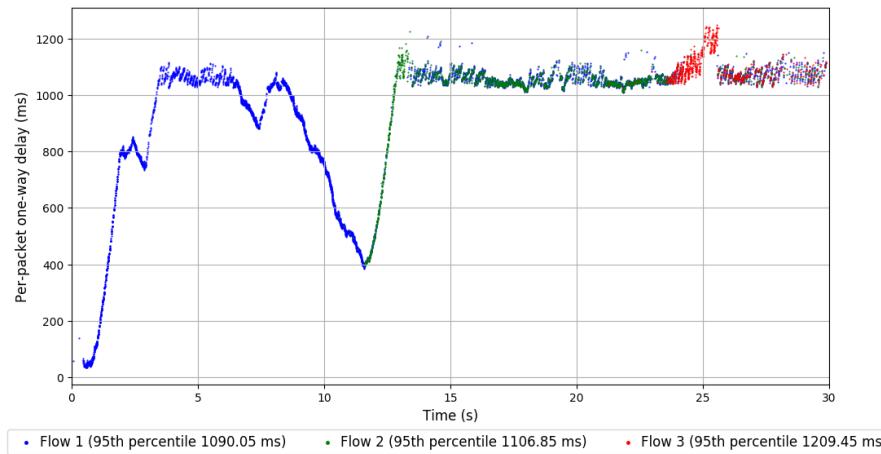
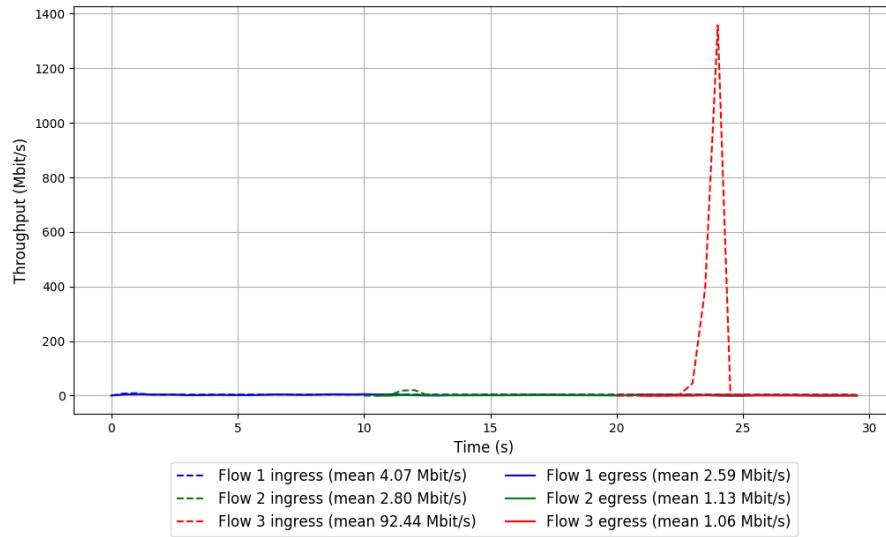


Run 2: Statistics of PCC

```
Start at: 2018-02-17 04:57:53
End at: 2018-02-17 04:58:23
Local clock offset: -7.499 ms
Remote clock offset: -16.749 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 1107.392 ms
Loss rate: 90.06%
-- Flow 1:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 1090.054 ms
Loss rate: 36.44%
-- Flow 2:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 1106.850 ms
Loss rate: 60.78%
-- Flow 3:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 1209.448 ms
Loss rate: 99.00%
```

Run 2: Report of PCC — Data Link

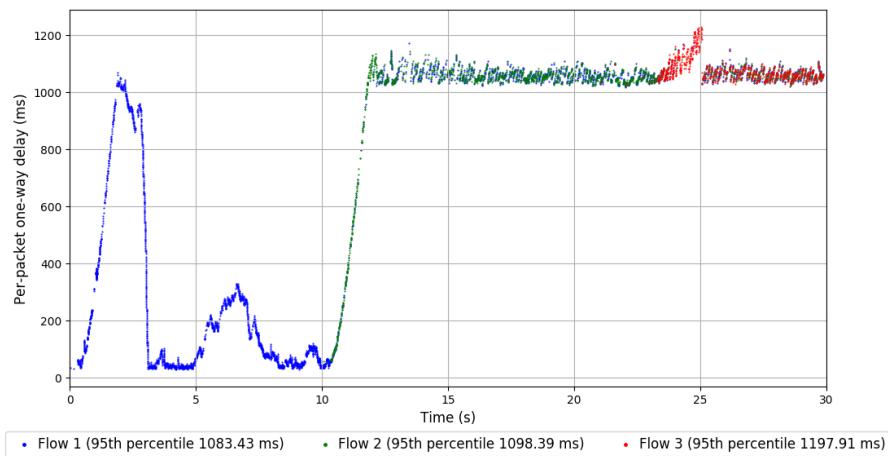
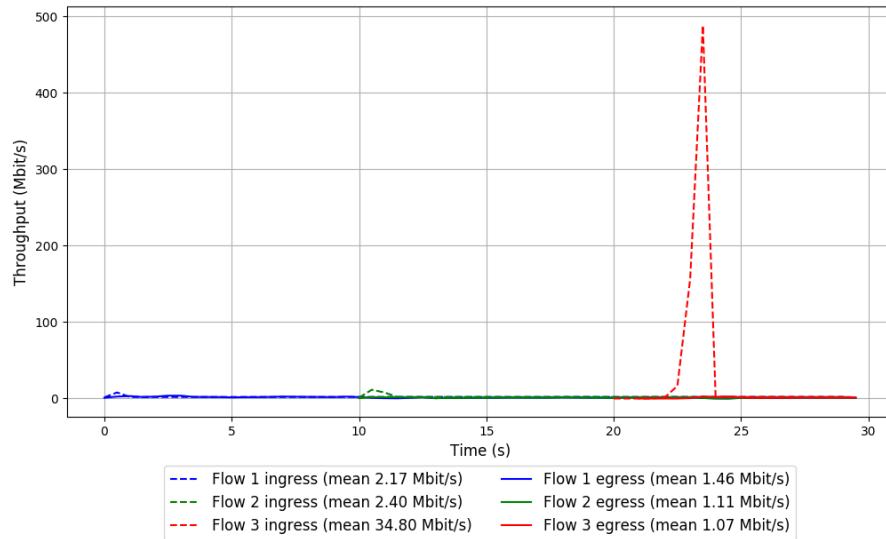


Run 3: Statistics of PCC

```
Start at: 2018-02-17 05:17:58
End at: 2018-02-17 05:18:28
Local clock offset: -2.618 ms
Remote clock offset: -18.212 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 1101.794 ms
Loss rate: 83.60%
-- Flow 1:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 1083.429 ms
Loss rate: 32.94%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 1098.388 ms
Loss rate: 54.11%
-- Flow 3:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 1197.910 ms
Loss rate: 97.26%
```

Run 3: Report of PCC — Data Link

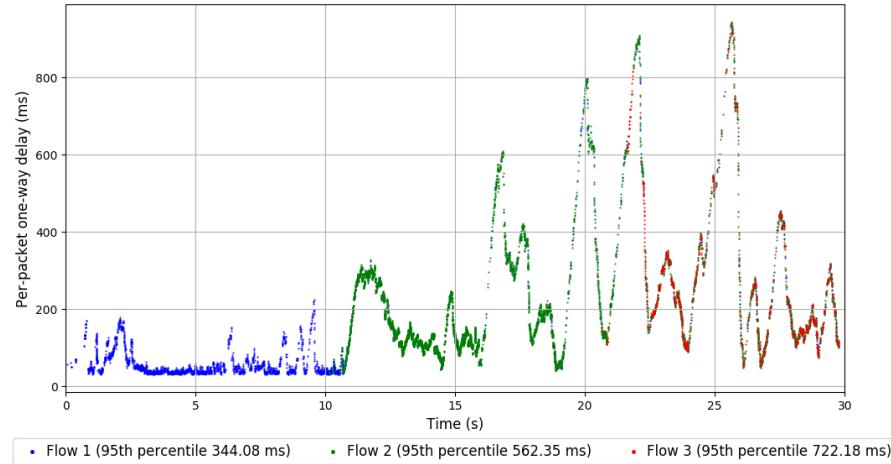
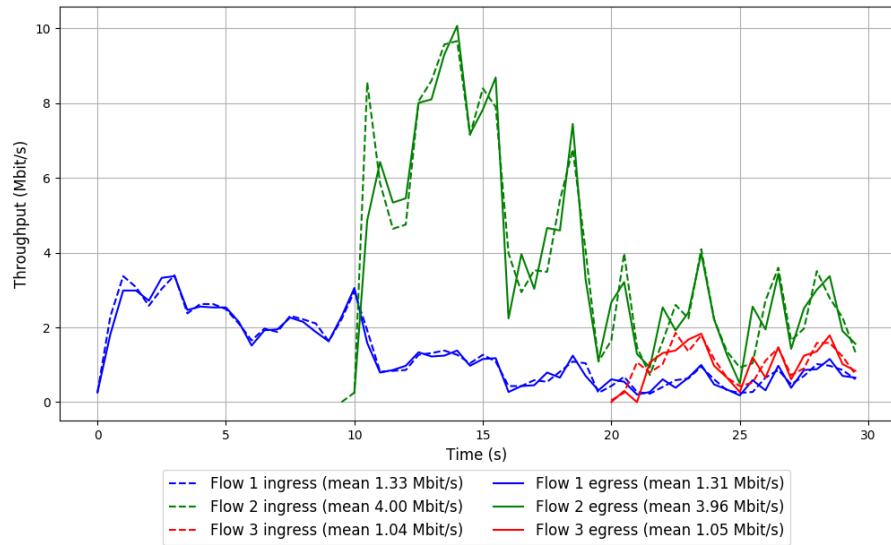


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-02-17 04:53:26
End at: 2018-02-17 04:53:56
Local clock offset: -7.873 ms
Remote clock offset: -18.479 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 539.650 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 344.081 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 562.346 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 722.181 ms
Loss rate: 3.01%
```

Run 1: Report of QUIC Cubic — Data Link

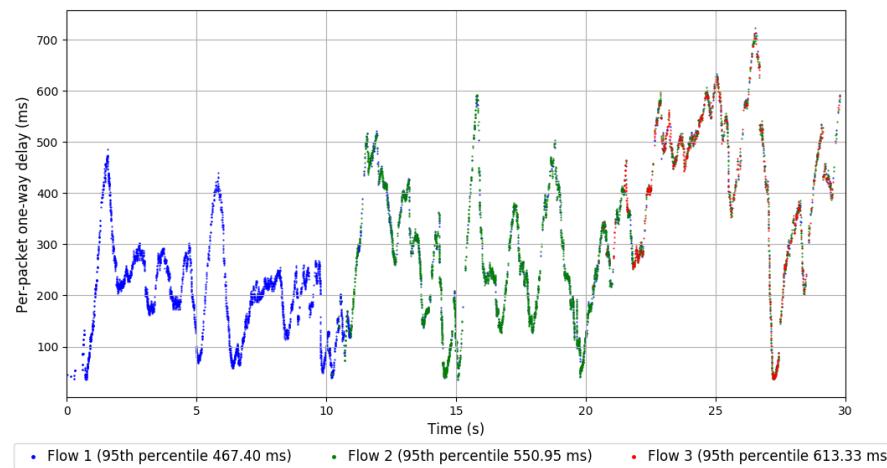
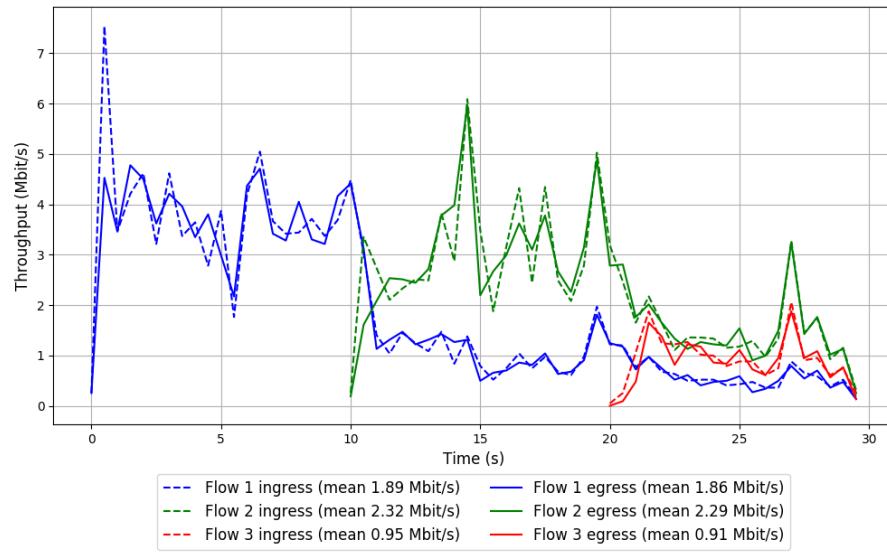


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-02-17 05:13:30
End at: 2018-02-17 05:14:00
Local clock offset: -6.852 ms
Remote clock offset: -15.698 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 535.063 ms
Loss rate: 2.03%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 467.404 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 550.947 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 613.330 ms
Loss rate: 6.14%
```

Run 2: Report of QUIC Cubic — Data Link

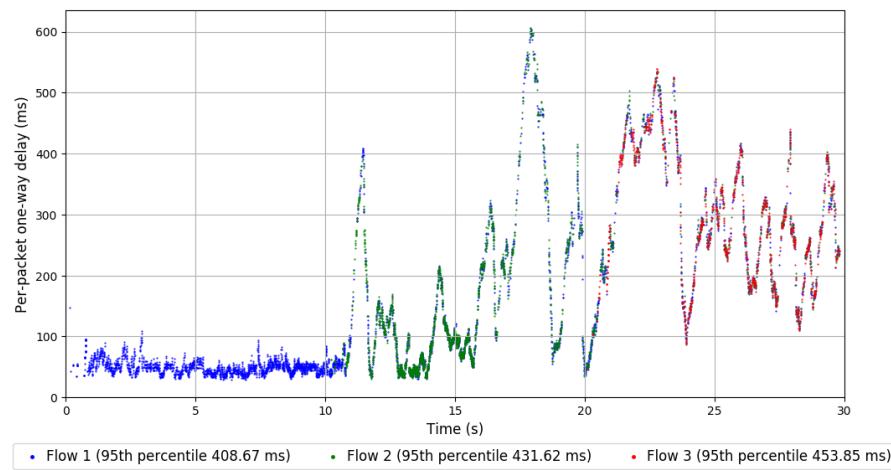
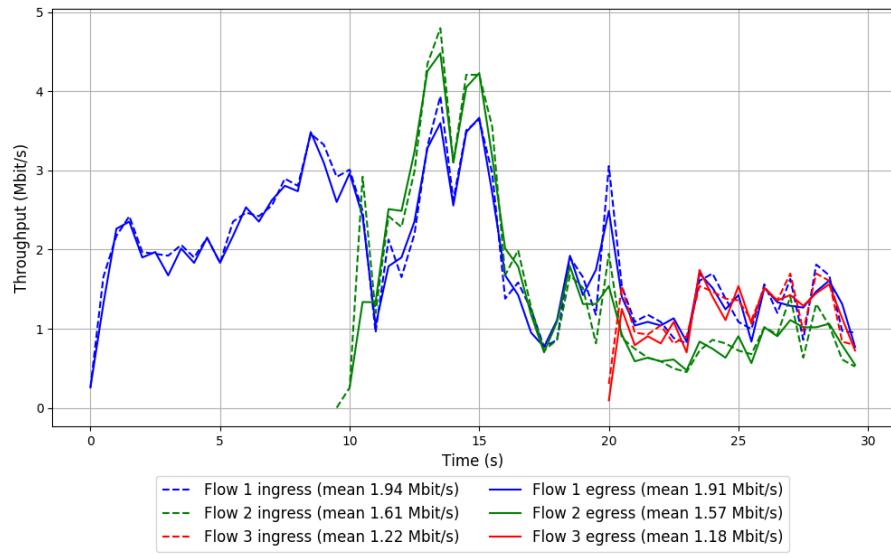


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-02-17 05:33:31
End at: 2018-02-17 05:34:01
Local clock offset: -0.186 ms
Remote clock offset: -16.48 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 431.030 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 408.668 ms
Loss rate: 2.12%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 431.620 ms
Loss rate: 2.62%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 453.853 ms
Loss rate: 3.61%
```

Run 3: Report of QUIC Cubic — Data Link

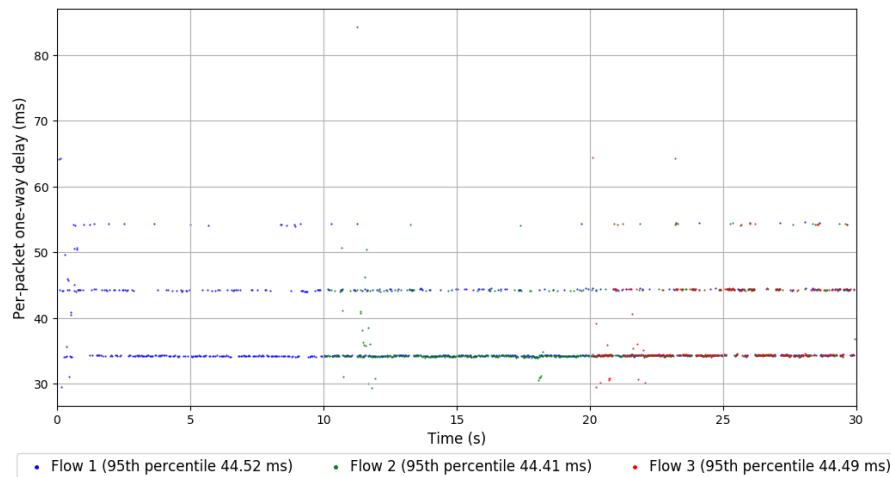
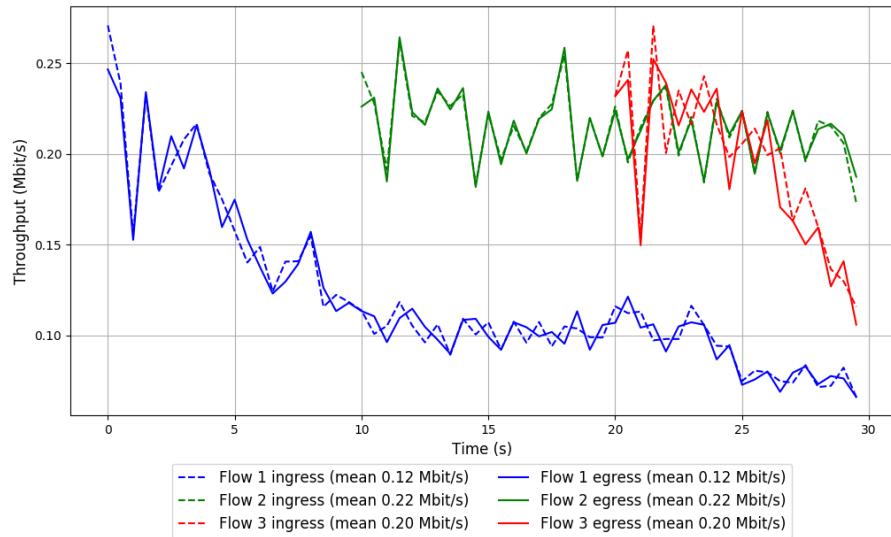


```
Run 1: Statistics of SCReAM
```

```
Start at: 2018-02-17 04:41:08
End at: 2018-02-17 04:41:38
Local clock offset: -7.238 ms
Remote clock offset: -20.569 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 44.487 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 44.525 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 44.413 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 44.491 ms
Loss rate: 1.83%
```

Run 1: Report of SCReAM — Data Link

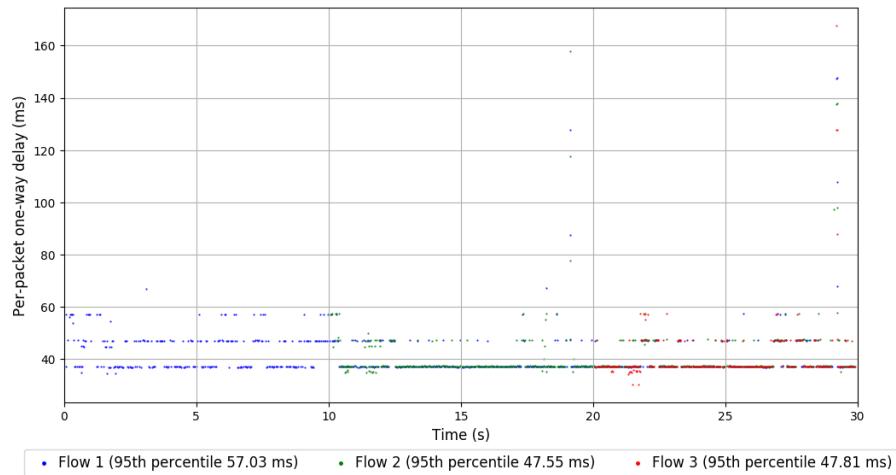
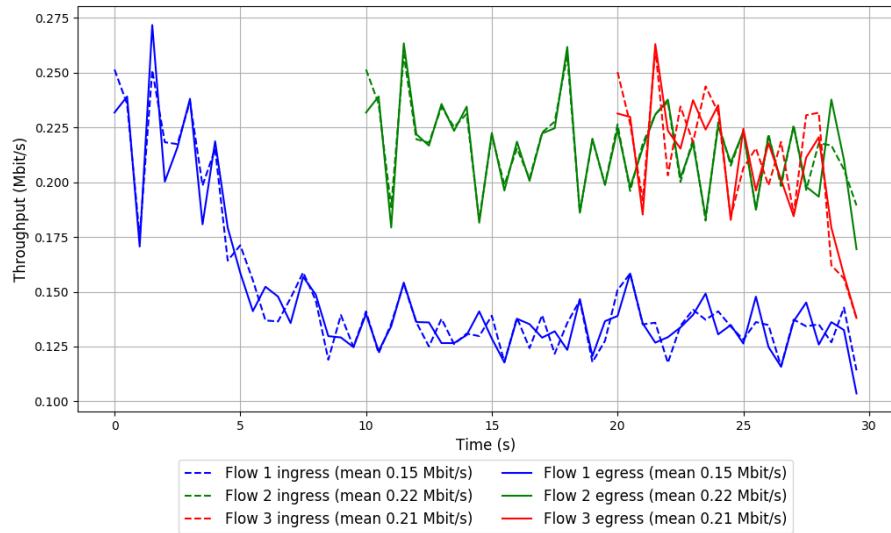


Run 2: Statistics of SCReAM

```
Start at: 2018-02-17 05:01:14
End at: 2018-02-17 05:01:44
Local clock offset: -7.835 ms
Remote clock offset: -17.952 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 55.338 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 57.026 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.555 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 47.808 ms
Loss rate: 0.71%
```

Run 2: Report of SCReAM — Data Link

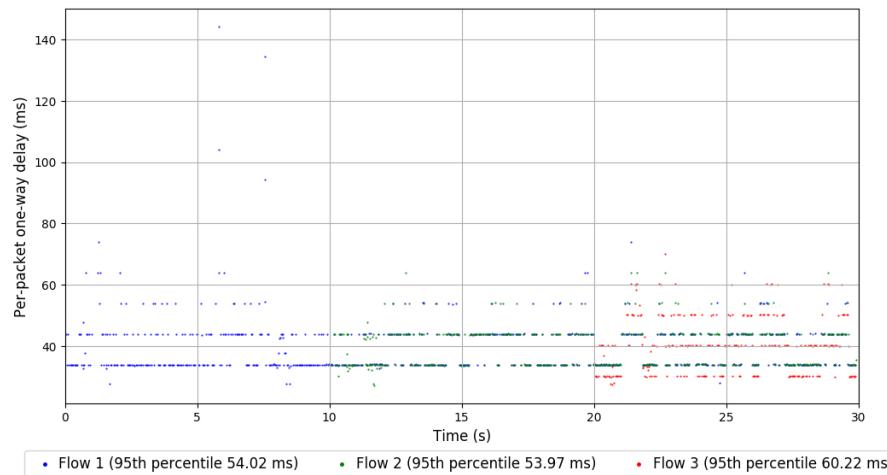
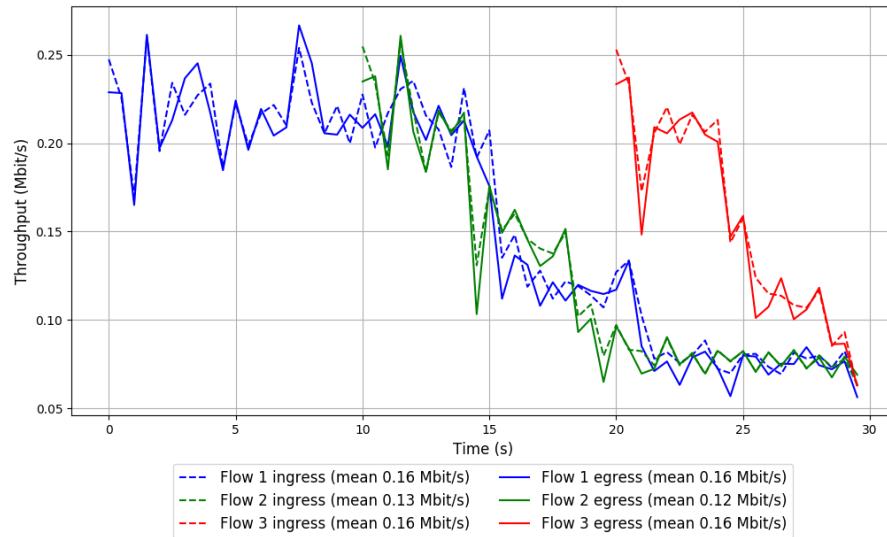


```
Run 3: Statistics of SCReAM
```

```
Start at: 2018-02-17 05:21:18
End at: 2018-02-17 05:21:48
Local clock offset: -0.989 ms
Remote clock offset: -18.074 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 54.023 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 54.020 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 53.970 ms
Loss rate: 2.19%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 60.219 ms
Loss rate: 2.51%
```

Run 3: Report of SCReAM — Data Link

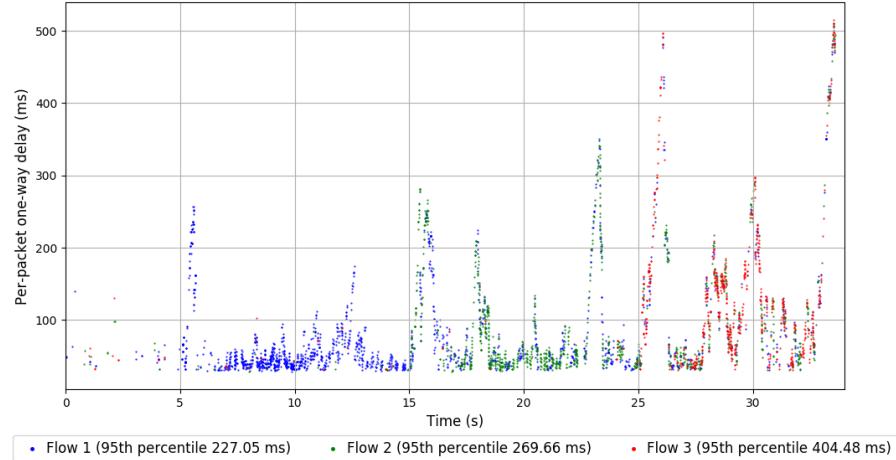
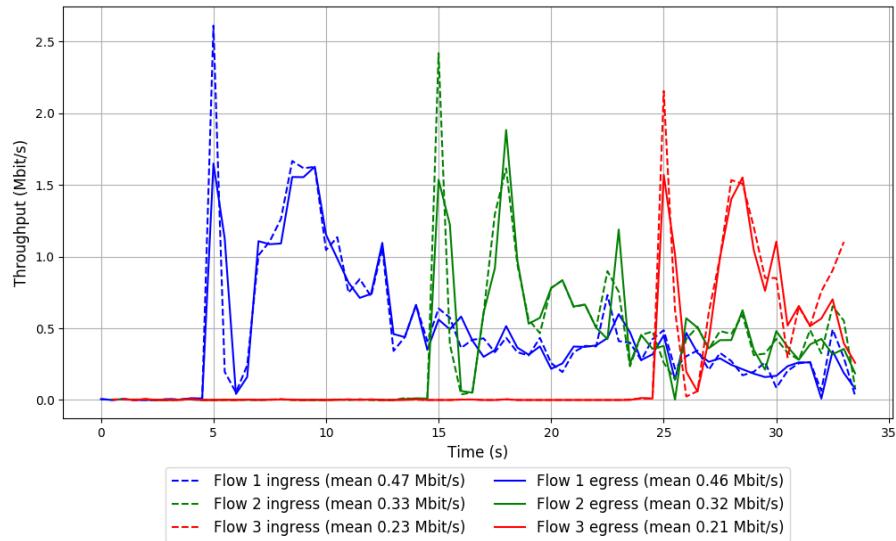


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-17 04:40:01
End at: 2018-02-17 04:40:31
Local clock offset: -5.842 ms
Remote clock offset: -17.813 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 265.501 ms
Loss rate: 3.11%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 227.051 ms
Loss rate: 2.09%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 269.658 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 404.482 ms
Loss rate: 6.25%
```

Run 1: Report of WebRTC media — Data Link

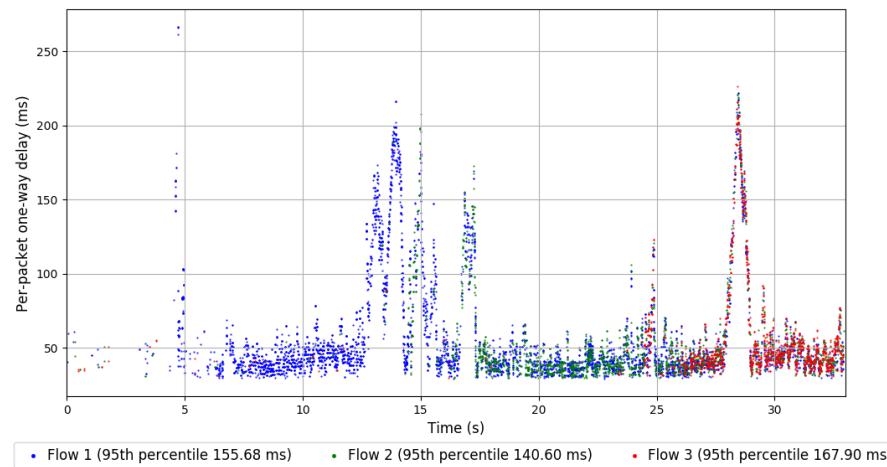
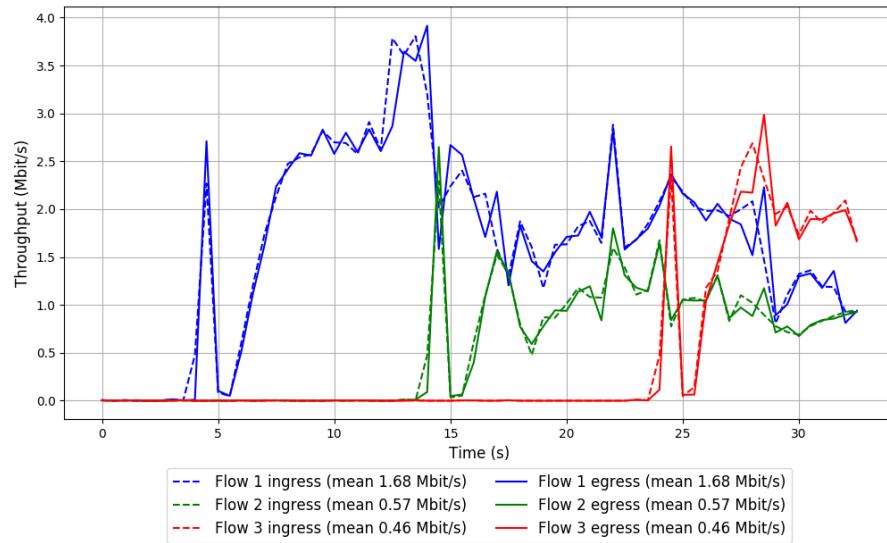


Run 2: Statistics of WebRTC media

```
Start at: 2018-02-17 05:00:06
End at: 2018-02-17 05:00:36
Local clock offset: -5.282 ms
Remote clock offset: -17.332 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 153.524 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 155.682 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 140.599 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 167.896 ms
Loss rate: 1.91%
```

Run 2: Report of WebRTC media — Data Link

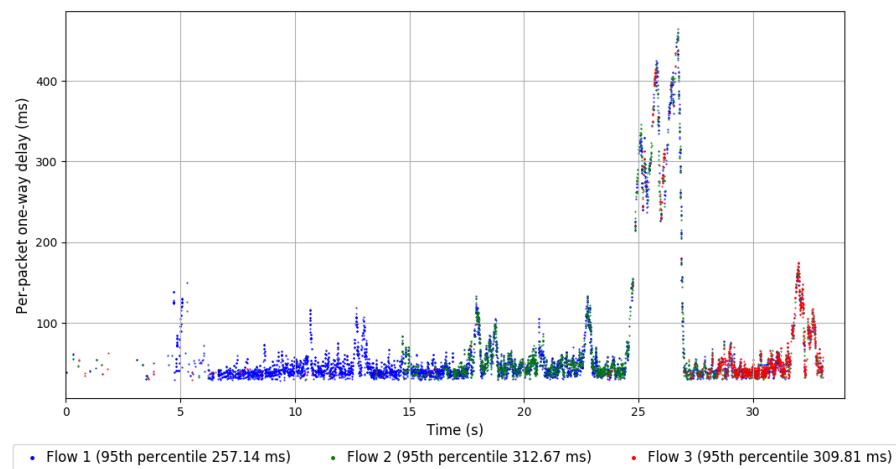
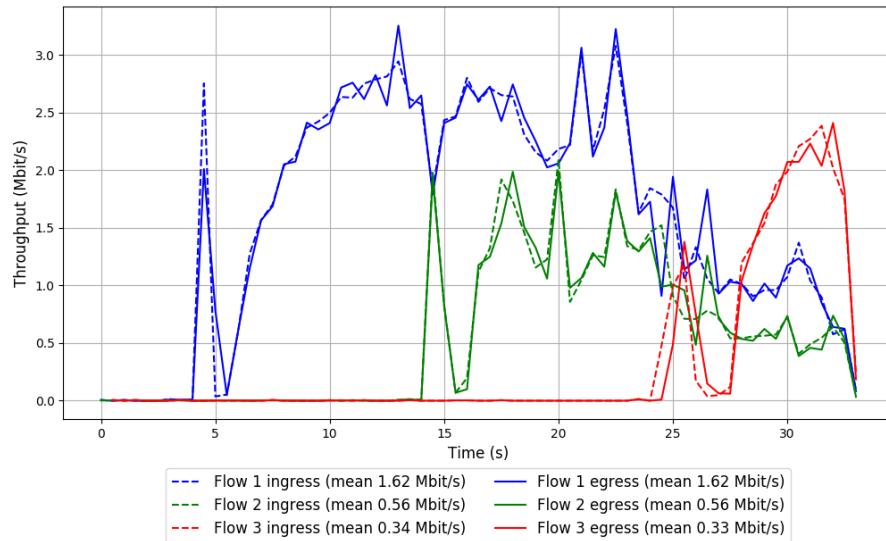


Run 3: Statistics of WebRTC media

```
Start at: 2018-02-17 05:20:11
End at: 2018-02-17 05:20:41
Local clock offset: -0.739 ms
Remote clock offset: -15.468 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 289.715 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 257.140 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 312.666 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 309.815 ms
Loss rate: 1.57%
```

Run 3: Report of WebRTC media — Data Link

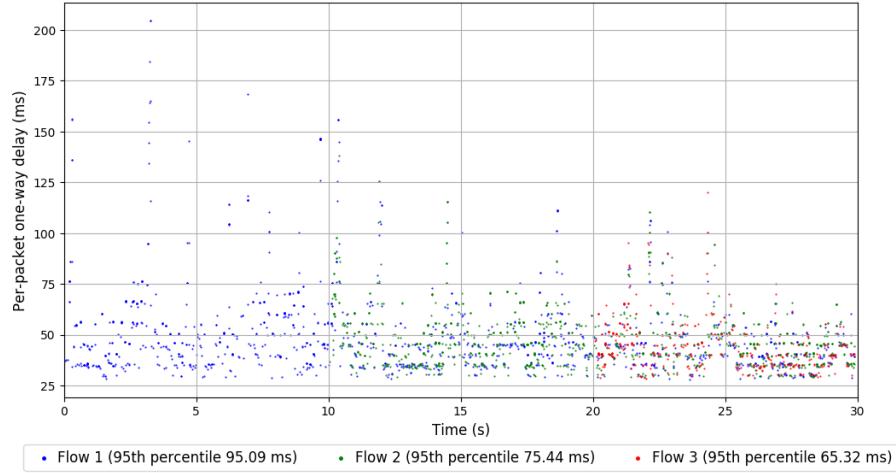
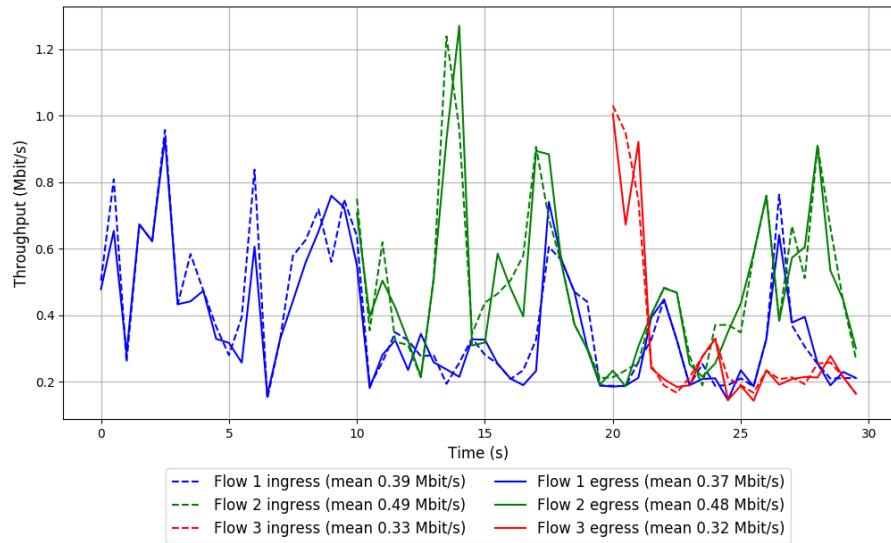


Run 1: Statistics of Sprout

```
Start at: 2018-02-17 04:38:55
End at: 2018-02-17 04:39:25
Local clock offset: -7.363 ms
Remote clock offset: -19.258 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 80.483 ms
Loss rate: 3.05%
-- Flow 1:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 95.092 ms
Loss rate: 4.56%
-- Flow 2:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 75.439 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 65.321 ms
Loss rate: 3.62%
```

Run 1: Report of Sprout — Data Link

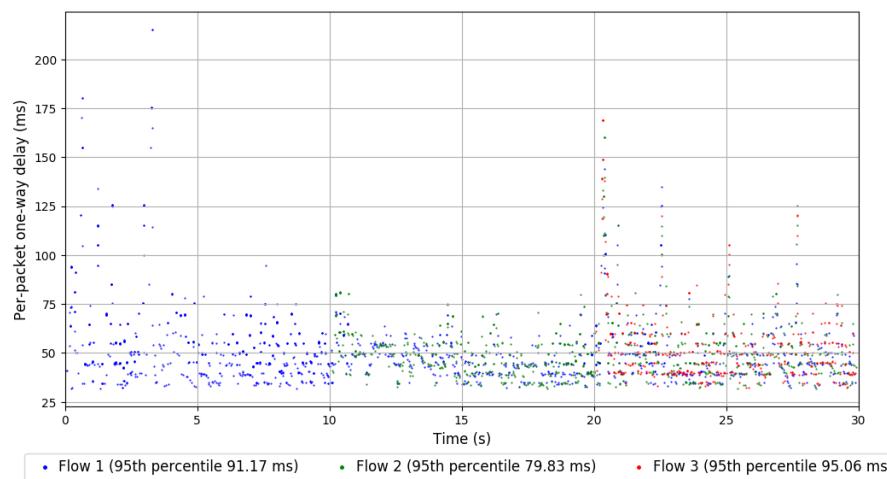
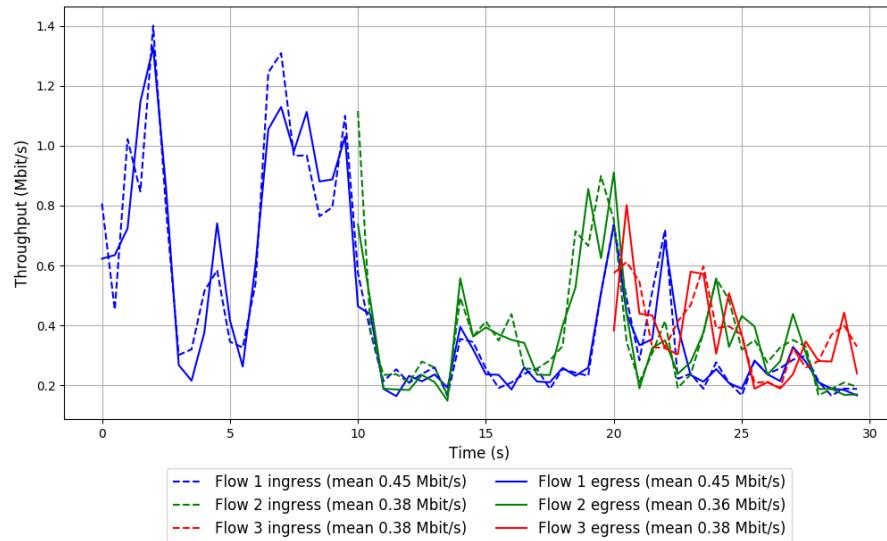


Run 2: Statistics of Sprout

```
Start at: 2018-02-17 04:59:00
End at: 2018-02-17 04:59:30
Local clock offset: -7.398 ms
Remote clock offset: -16.879 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 85.239 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 91.167 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 79.831 ms
Loss rate: 3.47%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 95.063 ms
Loss rate: 2.11%
```

Run 2: Report of Sprout — Data Link

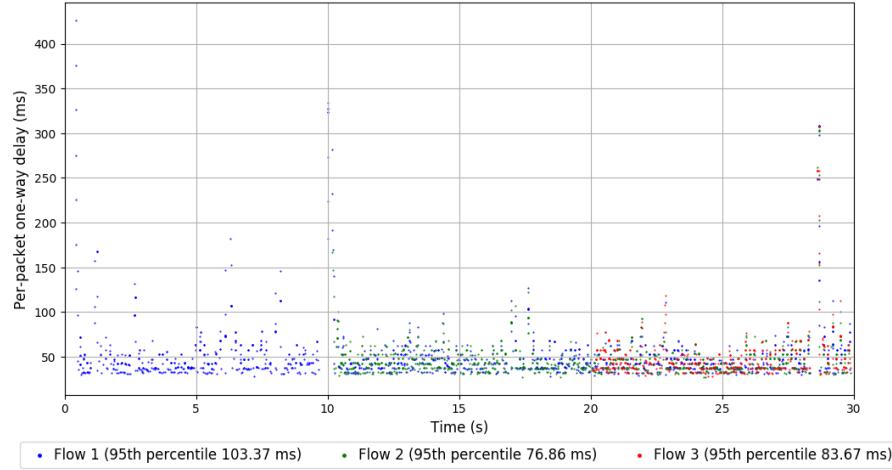
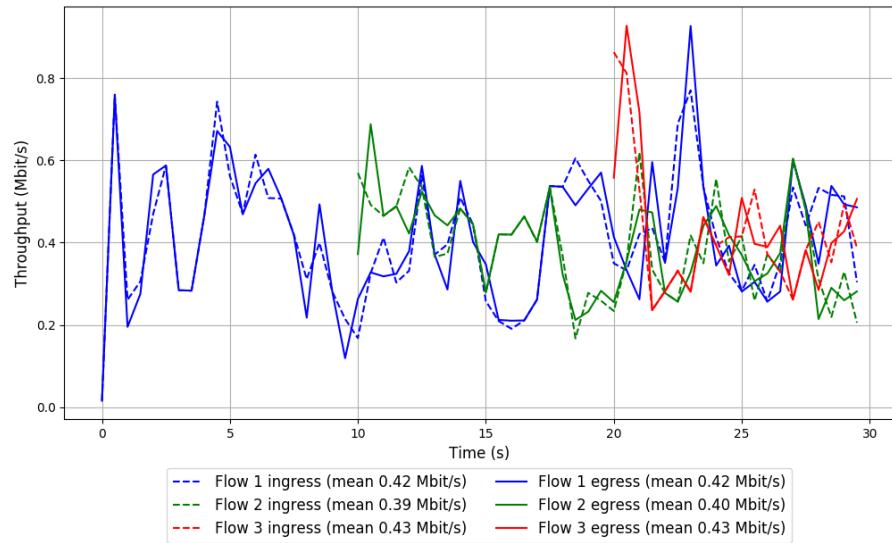


Run 3: Statistics of Sprout

```
Start at: 2018-02-17 05:19:05
End at: 2018-02-17 05:19:35
Local clock offset: -1.128 ms
Remote clock offset: -17.161 ms

# Below is generated by plot.py at 2018-02-17 05:39:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 87.792 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 103.369 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 76.860 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 83.666 ms
Loss rate: 0.78%
```

Run 3: Report of Sprout — Data Link

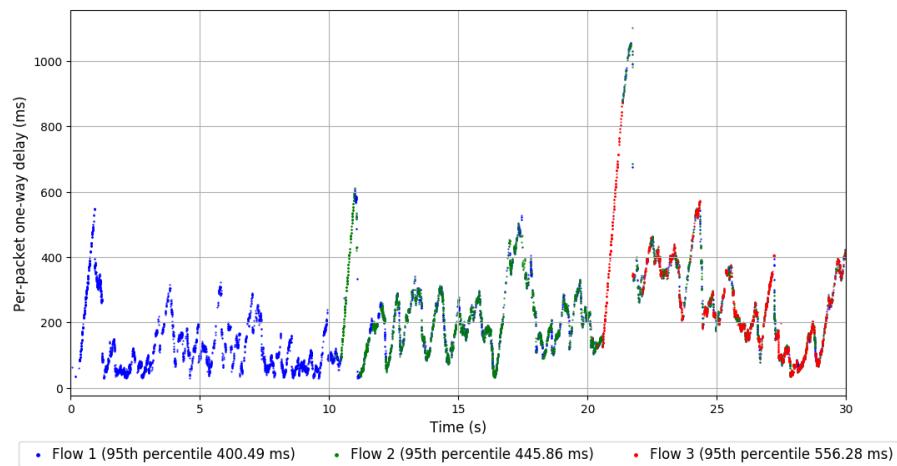
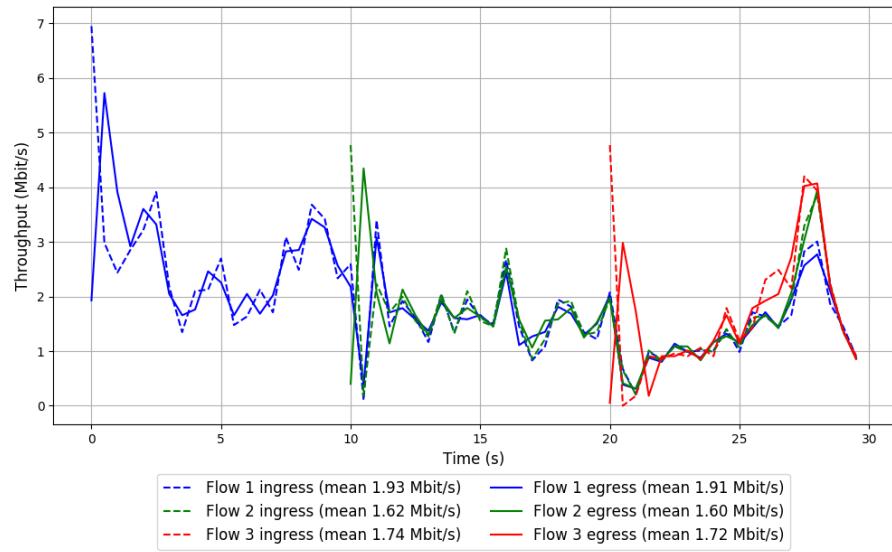


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-02-17 04:43:25
End at: 2018-02-17 04:43:55
Local clock offset: -6.05 ms
Remote clock offset: -18.36 ms

# Below is generated by plot.py at 2018-02-17 05:39:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.53 Mbit/s
95th percentile per-packet one-way delay: 442.511 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 400.489 ms
Loss rate: 1.41%
-- Flow 2:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 445.860 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 556.285 ms
Loss rate: 2.79%
```

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

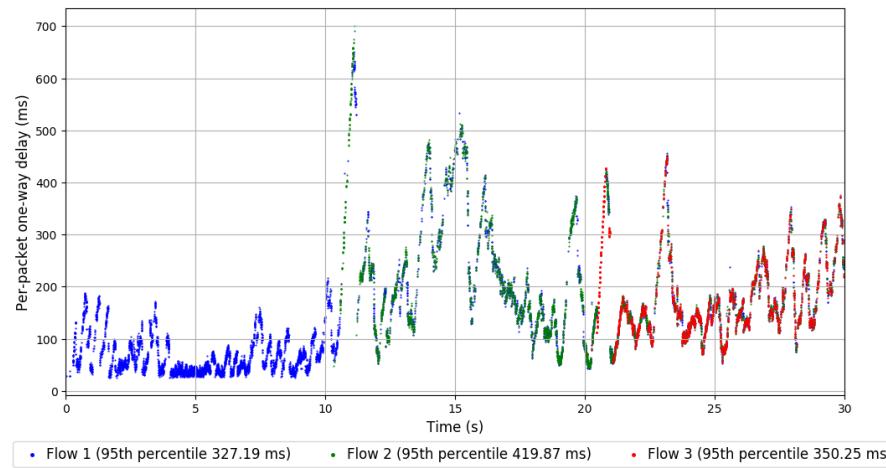
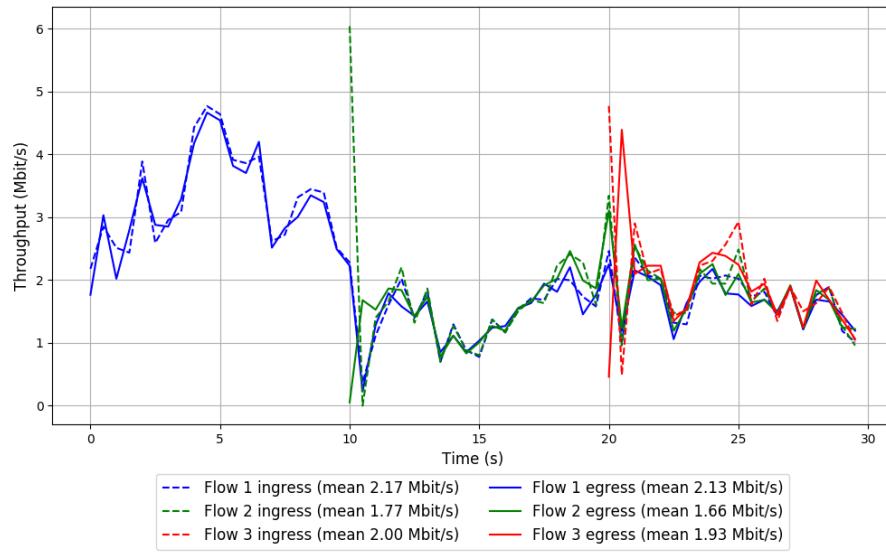


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-02-17 05:03:29
End at: 2018-02-17 05:03:59
Local clock offset: -4.467 ms
Remote clock offset: -20.272 ms

# Below is generated by plot.py at 2018-02-17 05:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 366.301 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 327.195 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 419.874 ms
Loss rate: 6.90%
-- Flow 3:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 350.248 ms
Loss rate: 4.31%
```

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

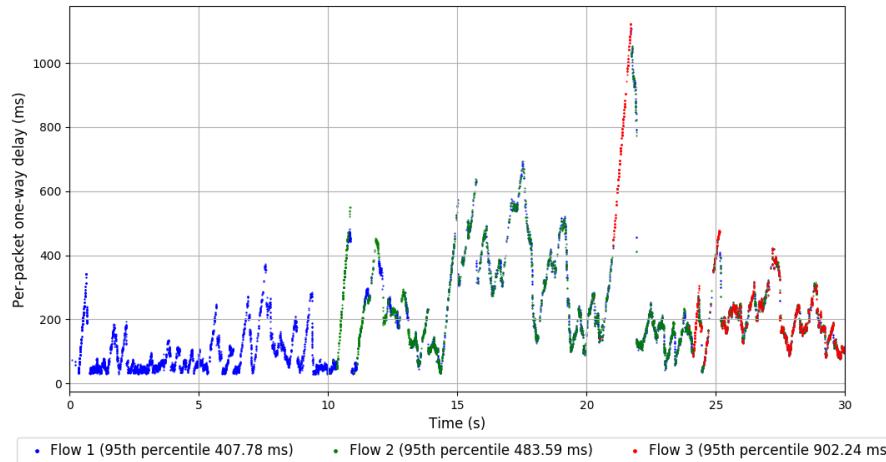
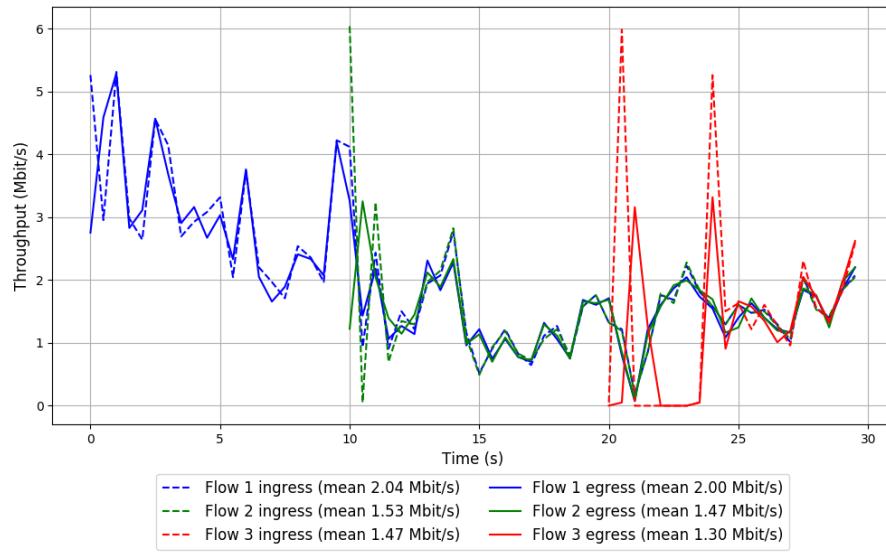


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-02-17 05:23:32
End at: 2018-02-17 05:24:02
Local clock offset: -3.162 ms
Remote clock offset: -17.369 ms

# Below is generated by plot.py at 2018-02-17 05:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 480.359 ms
Loss rate: 4.35%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 407.777 ms
Loss rate: 2.17%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 483.591 ms
Loss rate: 4.31%
-- Flow 3:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 902.239 ms
Loss rate: 13.57%
```

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

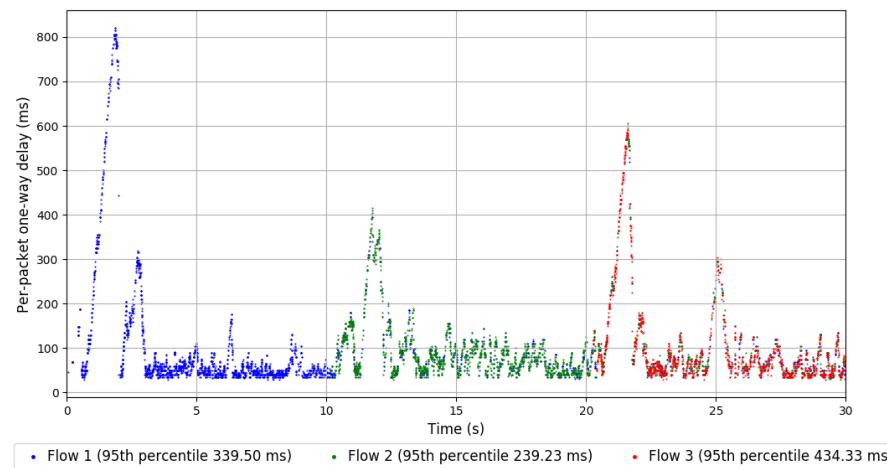
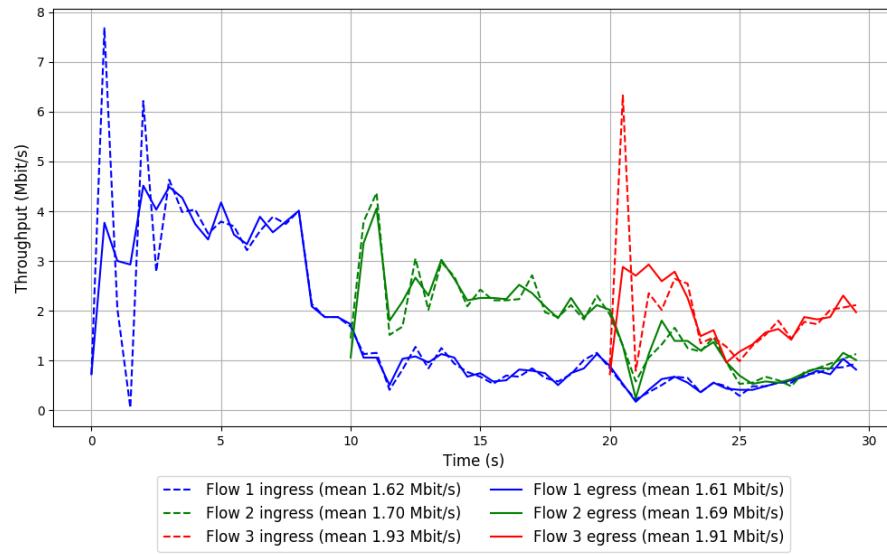


Run 1: Statistics of TCP Vegas

```
Start at: 2018-02-17 04:50:06
End at: 2018-02-17 04:50:36
Local clock offset: -6.245 ms
Remote clock offset: -20.299 ms

# Below is generated by plot.py at 2018-02-17 05:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 324.725 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 339.501 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 239.226 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 434.326 ms
Loss rate: 1.38%
```

Run 1: Report of TCP Vegas — Data Link

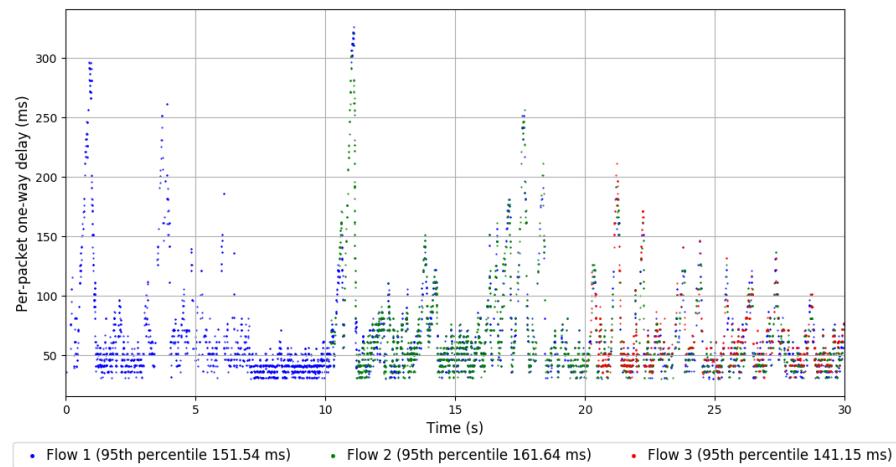
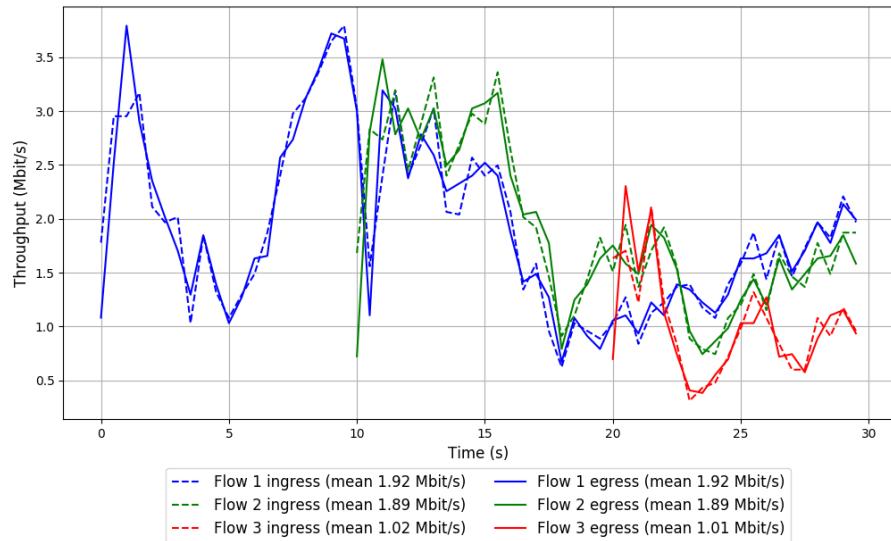


Run 2: Statistics of TCP Vegas

```
Start at: 2018-02-17 05:10:10
End at: 2018-02-17 05:10:40
Local clock offset: -3.21 ms
Remote clock offset: -17.226 ms

# Below is generated by plot.py at 2018-02-17 05:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 156.220 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 151.536 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 161.638 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 141.148 ms
Loss rate: 1.30%
```

Run 2: Report of TCP Vegas — Data Link

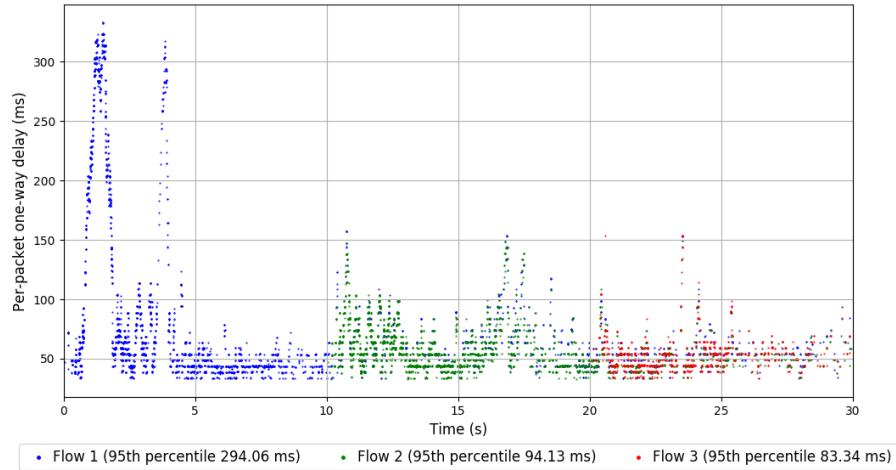
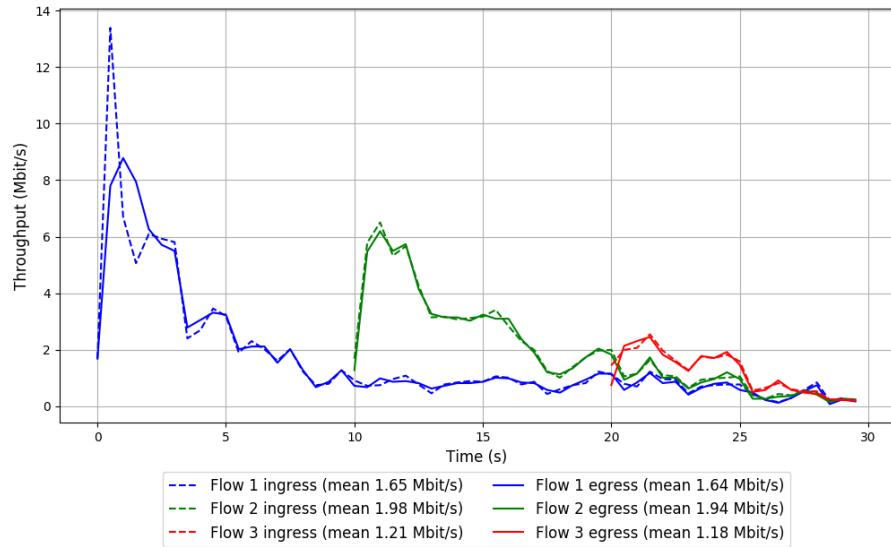


Run 3: Statistics of TCP Vegas

```
Start at: 2018-02-17 05:30:12
End at: 2018-02-17 05:30:42
Local clock offset: -0.641 ms
Remote clock offset: -15.939 ms

# Below is generated by plot.py at 2018-02-17 05:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.31 Mbit/s
95th percentile per-packet one-way delay: 253.507 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 294.060 ms
Loss rate: 1.33%
-- Flow 2:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 94.130 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 83.340 ms
Loss rate: 3.58%
```

Run 3: Report of TCP Vegas — Data Link

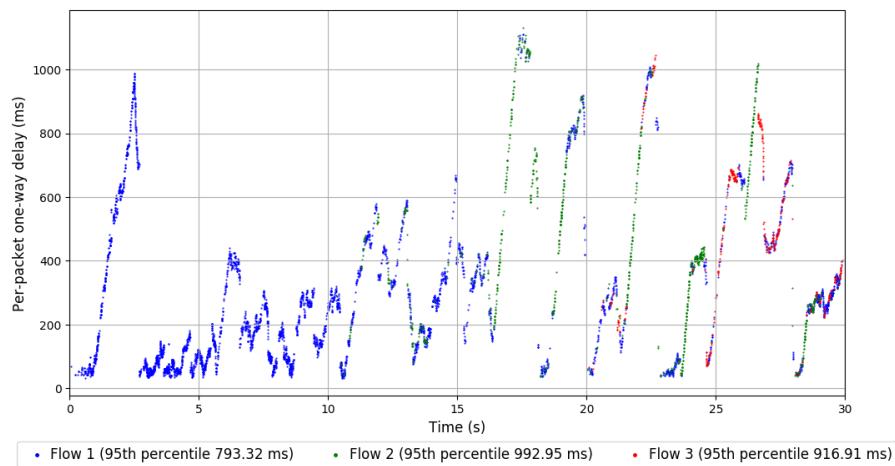
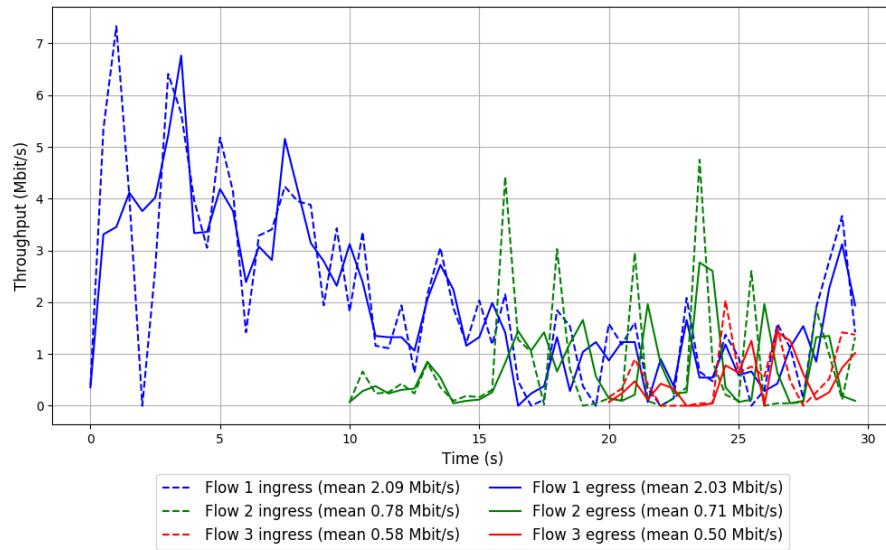


Run 1: Statistics of Verus

```
Start at: 2018-02-17 04:56:45
End at: 2018-02-17 04:57:15
Local clock offset: -6.8 ms
Remote clock offset: -19.014 ms

# Below is generated by plot.py at 2018-02-17 05:39:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.66 Mbit/s
95th percentile per-packet one-way delay: 855.293 ms
Loss rate: 5.56%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 793.318 ms
Loss rate: 3.33%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 992.947 ms
Loss rate: 11.15%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 916.906 ms
Loss rate: 14.64%
```

Run 1: Report of Verus — Data Link

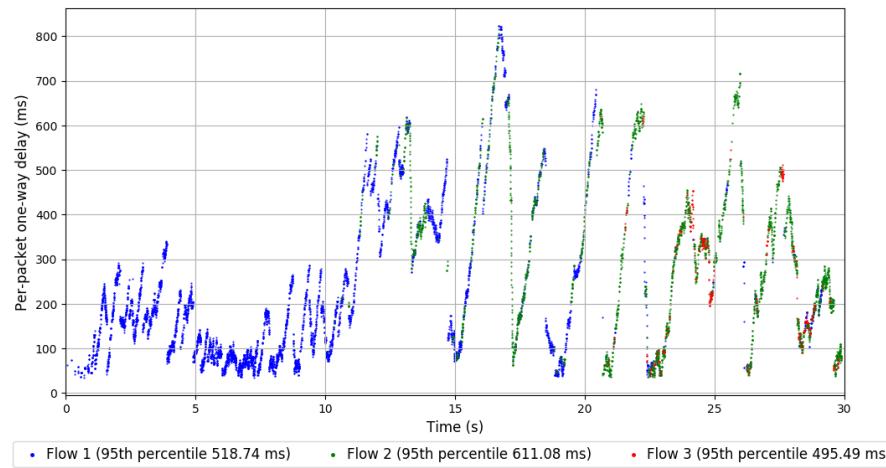
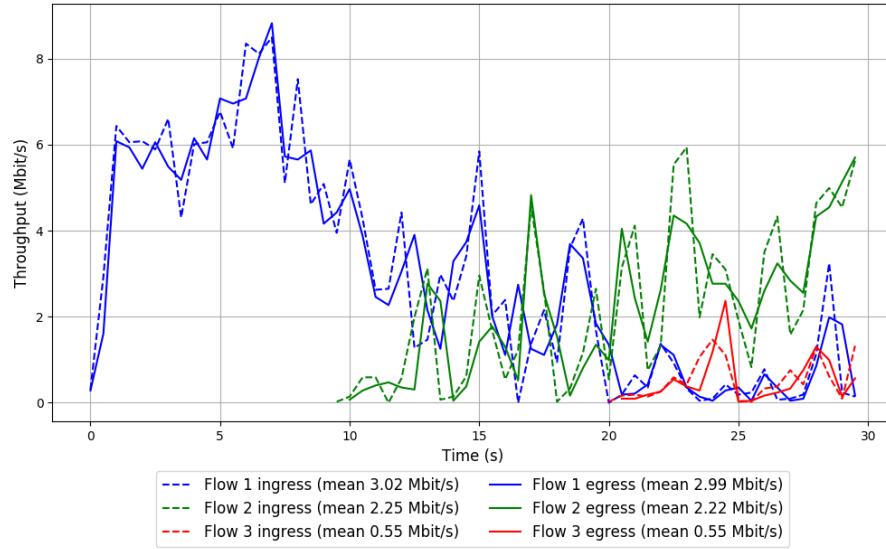


Run 2: Statistics of Verus

```
Start at: 2018-02-17 05:16:51
End at: 2018-02-17 05:17:21
Local clock offset: -3.986 ms
Remote clock offset: -16.947 ms

# Below is generated by plot.py at 2018-02-17 05:39:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 569.514 ms
Loss rate: 1.81%
-- Flow 1:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 518.735 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 611.083 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 495.487 ms
Loss rate: 7.27%
```

Run 2: Report of Verus — Data Link

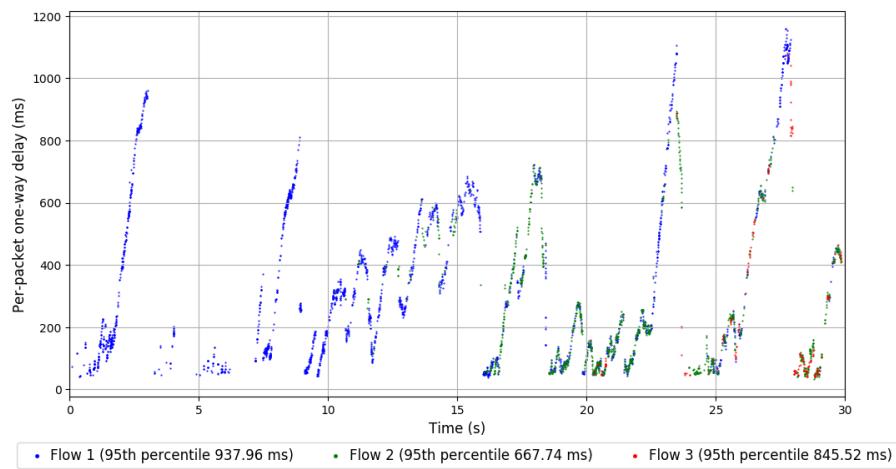
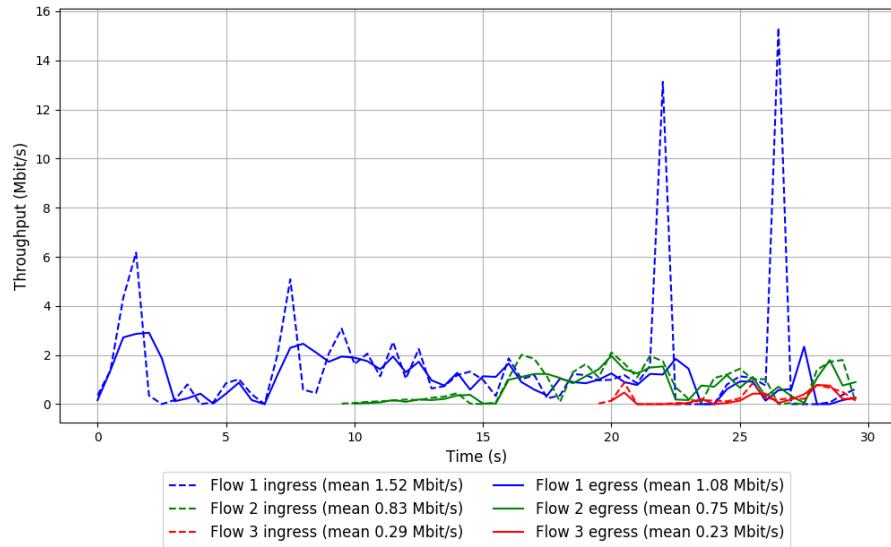


Run 3: Statistics of Verus

```
Start at: 2018-02-17 05:36:50
End at: 2018-02-17 05:37:20
Local clock offset: -2.157 ms
Remote clock offset: -16.468 ms

# Below is generated by plot.py at 2018-02-17 05:39:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 850.172 ms
Loss rate: 24.04%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 937.961 ms
Loss rate: 29.34%
-- Flow 2:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 667.735 ms
Loss rate: 10.01%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 845.520 ms
Loss rate: 18.99%
```

Run 3: Report of Verus — Data Link

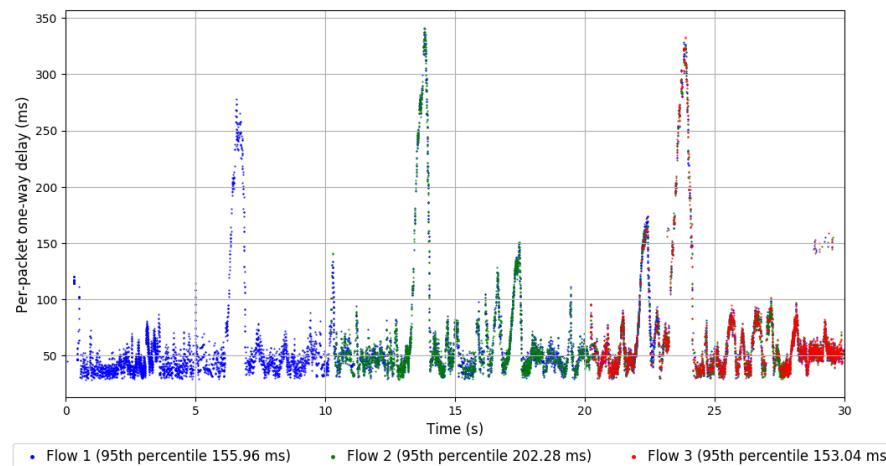
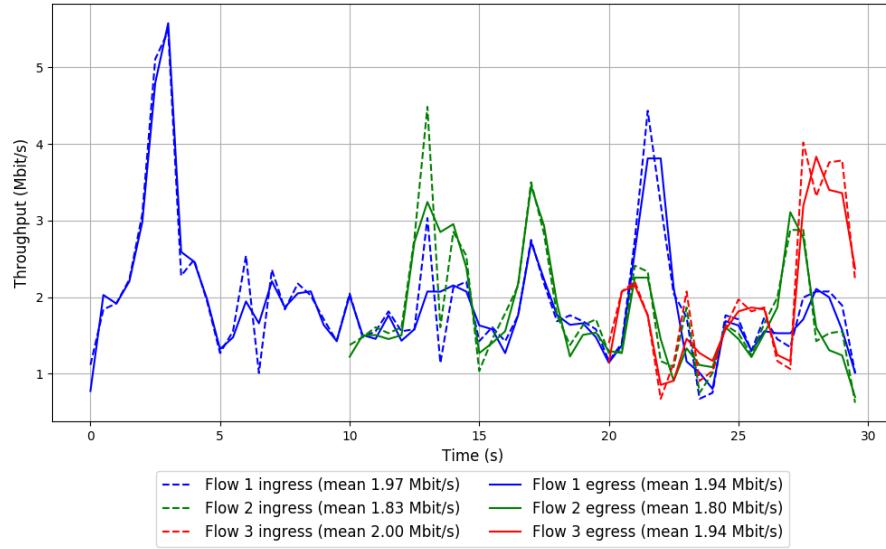


Run 1: Statistics of Copa

```
Start at: 2018-02-17 04:52:19
End at: 2018-02-17 04:52:49
Local clock offset: -7.673 ms
Remote clock offset: -19.767 ms

# Below is generated by plot.py at 2018-02-17 05:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 163.384 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 155.955 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 202.278 ms
Loss rate: 2.11%
-- Flow 3:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 153.045 ms
Loss rate: 3.54%
```

Run 1: Report of Copa — Data Link

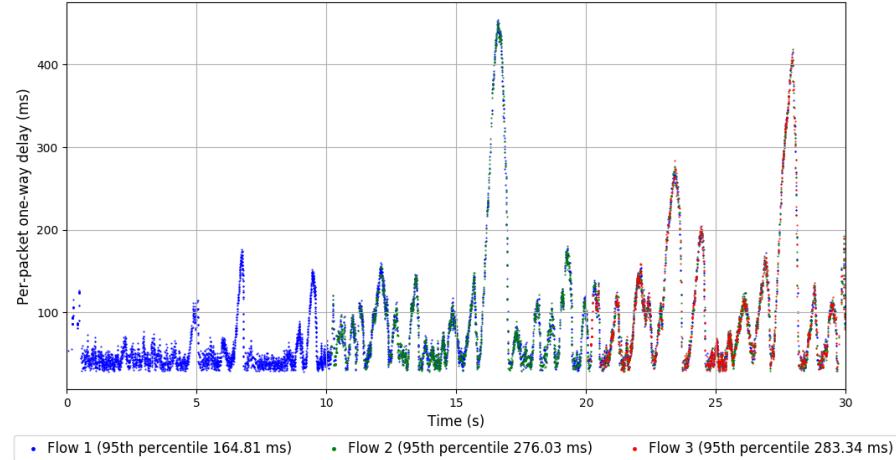
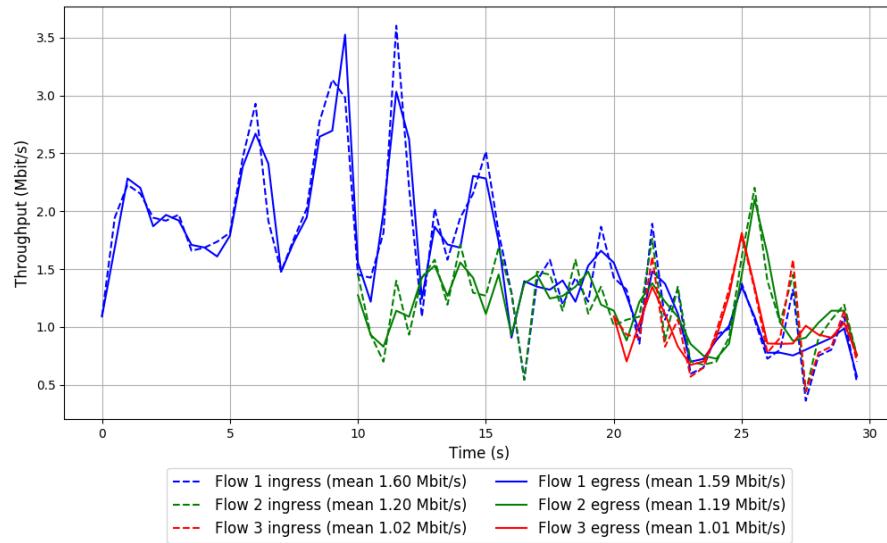


Run 2: Statistics of Copa

```
Start at: 2018-02-17 05:12:24
End at: 2018-02-17 05:12:54
Local clock offset: -2.122 ms
Remote clock offset: -16.49 ms

# Below is generated by plot.py at 2018-02-17 05:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 226.890 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 164.813 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 276.034 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 283.338 ms
Loss rate: 0.77%
```

Run 2: Report of Copa — Data Link

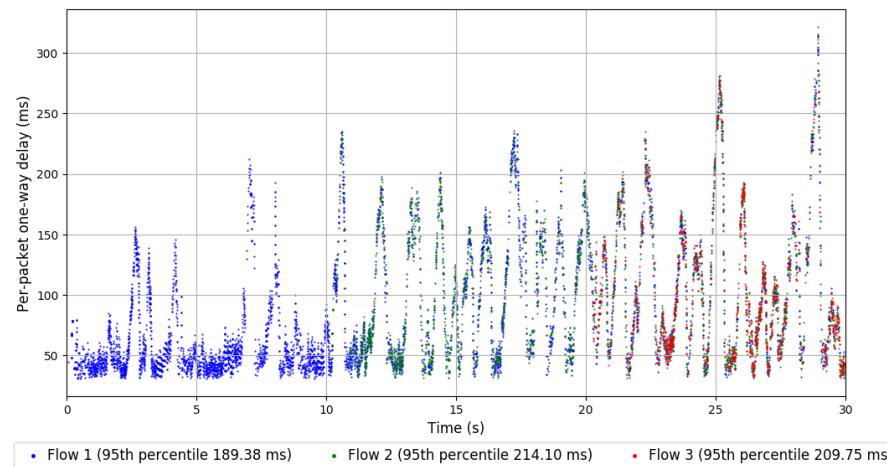
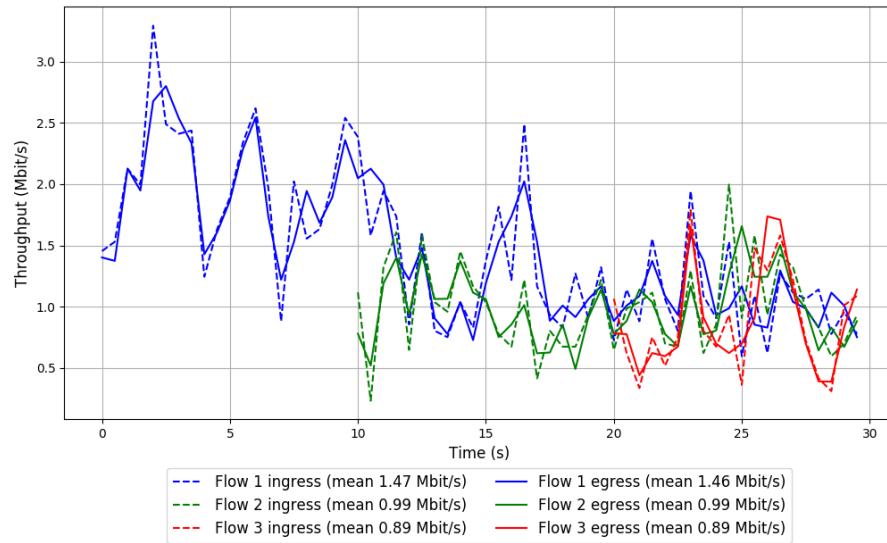


Run 3: Statistics of Copa

```
Start at: 2018-02-17 05:32:25
End at: 2018-02-17 05:32:55
Local clock offset: -1.514 ms
Remote clock offset: -16.886 ms

# Below is generated by plot.py at 2018-02-17 05:39:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 199.267 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 189.376 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 214.100 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 209.752 ms
Loss rate: 1.72%
```

Run 3: Report of Copa — Data Link

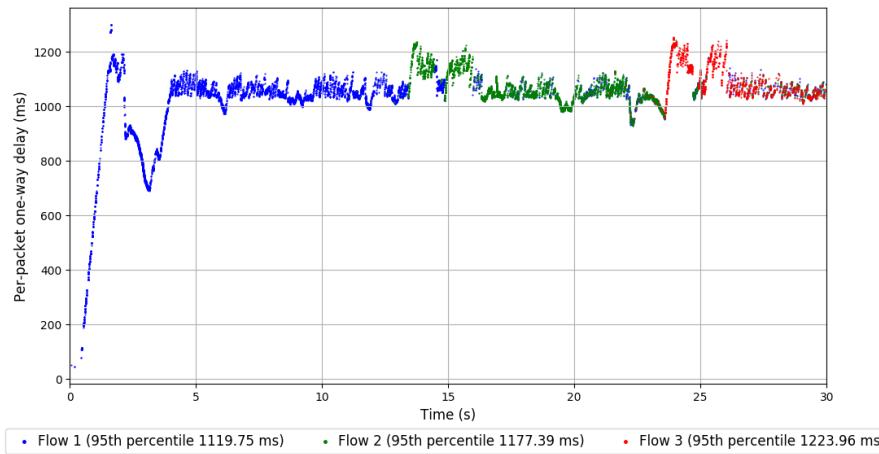
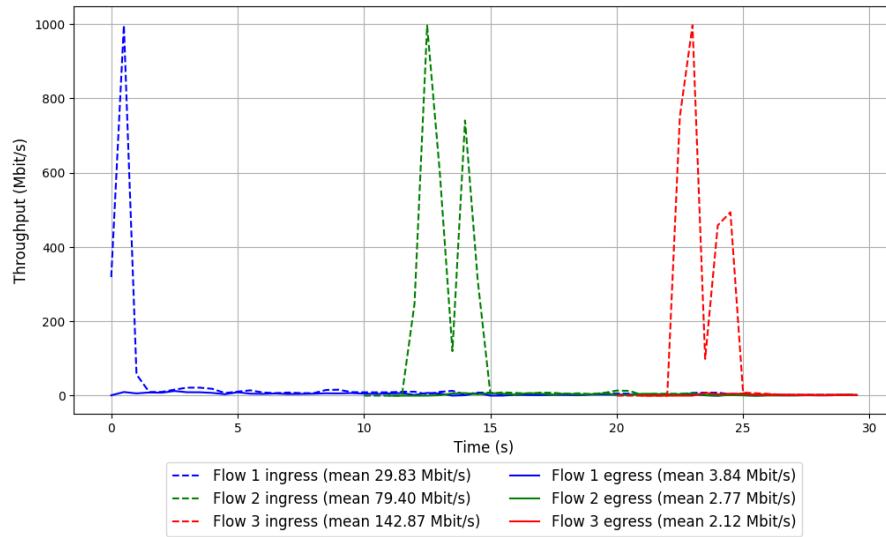


```
Run 1: Statistics of FillP

Start at: 2018-02-17 04:42:14
End at: 2018-02-17 04:42:44
Local clock offset: -6.453 ms
Remote clock offset: -19.268 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.20 Mbit/s
95th percentile per-packet one-way delay: 1170.076 ms
Loss rate: 95.24%
-- Flow 1:
Average throughput: 3.84 Mbit/s
95th percentile per-packet one-way delay: 1119.750 ms
Loss rate: 87.14%
-- Flow 2:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 1177.395 ms
Loss rate: 96.69%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 1223.961 ms
Loss rate: 98.72%
```

Run 1: Report of FillP — Data Link

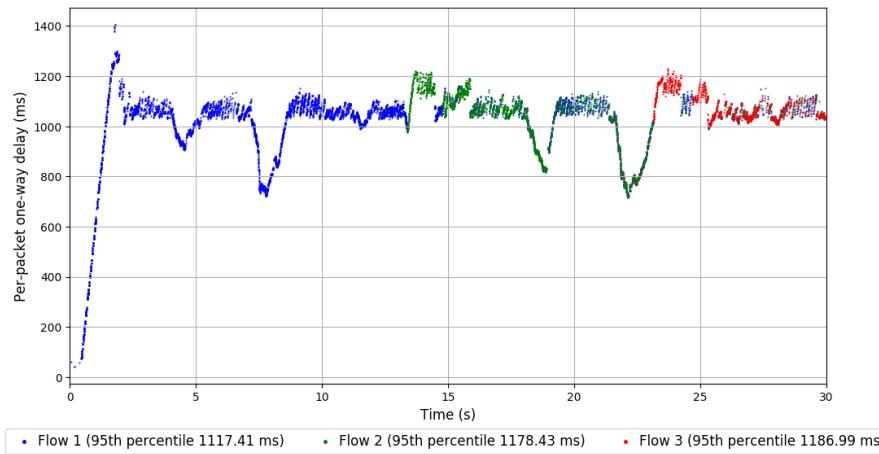
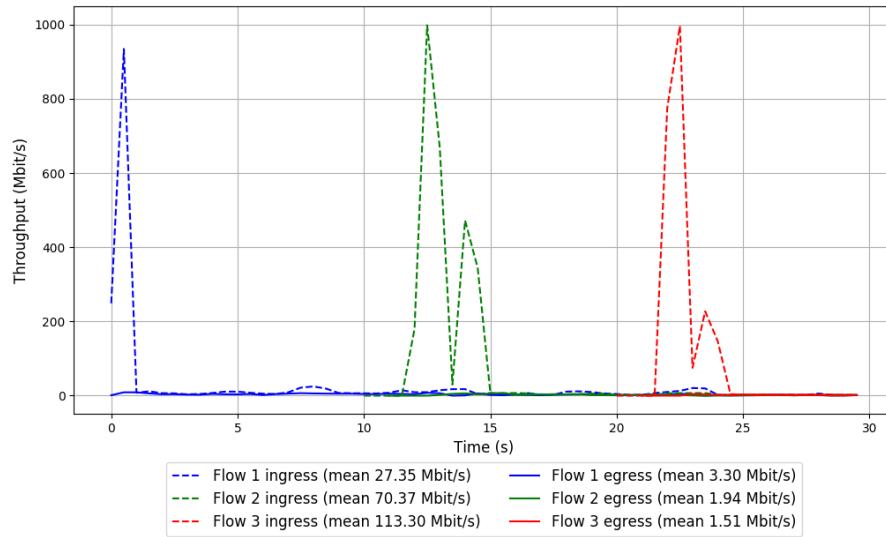


Run 2: Statistics of FillP

```
Start at: 2018-02-17 05:02:21
End at: 2018-02-17 05:02:51
Local clock offset: -4.671 ms
Remote clock offset: -17.318 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.97 Mbit/s
95th percentile per-packet one-way delay: 1166.829 ms
Loss rate: 95.56%
-- Flow 1:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 1117.413 ms
Loss rate: 87.97%
-- Flow 2:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 1178.428 ms
Loss rate: 97.39%
-- Flow 3:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1186.995 ms
Loss rate: 98.81%
```

Run 2: Report of FillP — Data Link

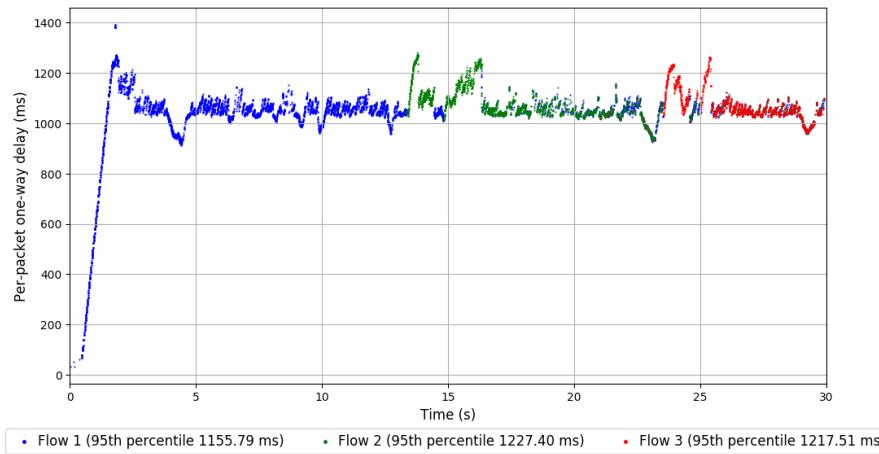
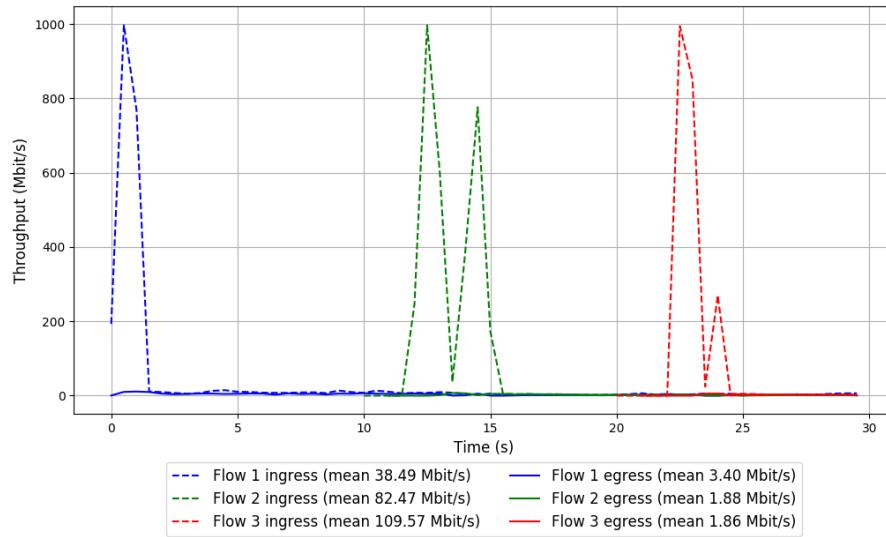


Run 3: Statistics of FillP

```
Start at: 2018-02-17 05:22:24
End at: 2018-02-17 05:22:54
Local clock offset: -1.819 ms
Remote clock offset: -17.183 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.13 Mbit/s
95th percentile per-packet one-way delay: 1194.566 ms
Loss rate: 96.05%
-- Flow 1:
Average throughput: 3.40 Mbit/s
95th percentile per-packet one-way delay: 1155.793 ms
Loss rate: 91.18%
-- Flow 2:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 1227.397 ms
Loss rate: 97.85%
-- Flow 3:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 1217.514 ms
Loss rate: 98.49%
```

Run 3: Report of FillP — Data Link

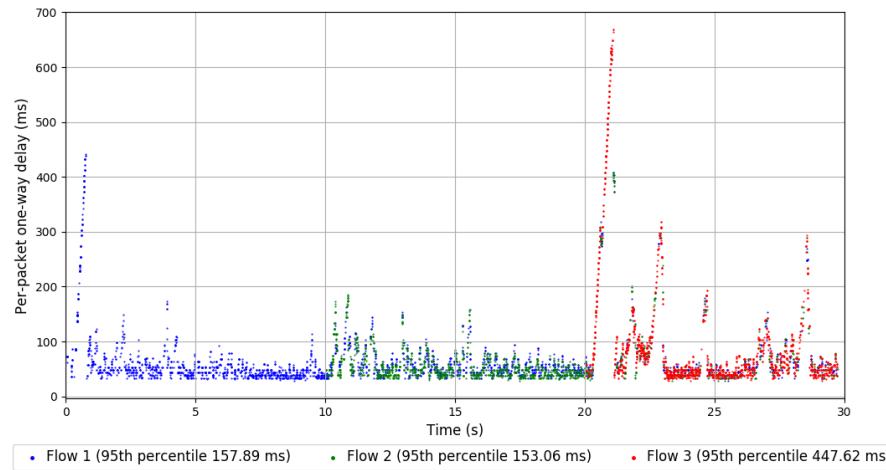
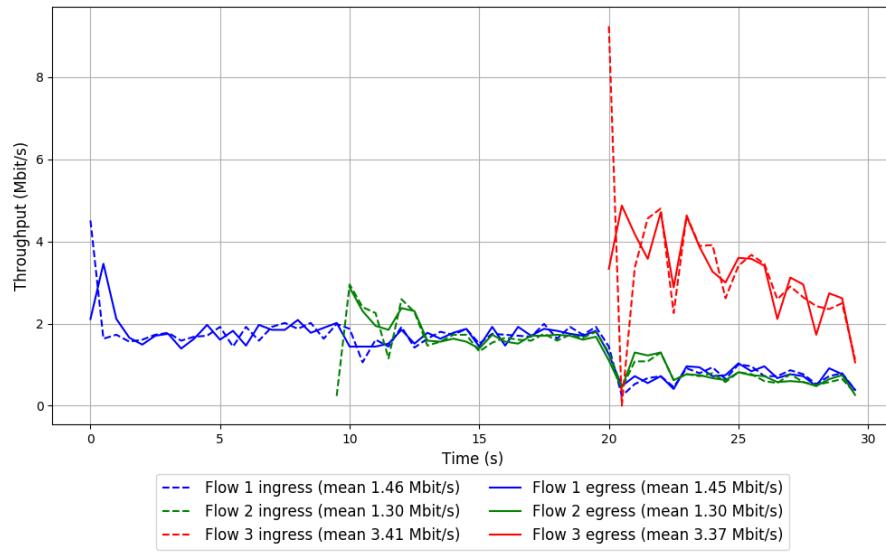


Run 1: Statistics of Indigo-1-32

```
Start at: 2018-02-17 04:49:00
End at: 2018-02-17 04:49:30
Local clock offset: -5.498 ms
Remote clock offset: -19.774 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 262.388 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 157.890 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 153.056 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 447.620 ms
Loss rate: 1.74%
```

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

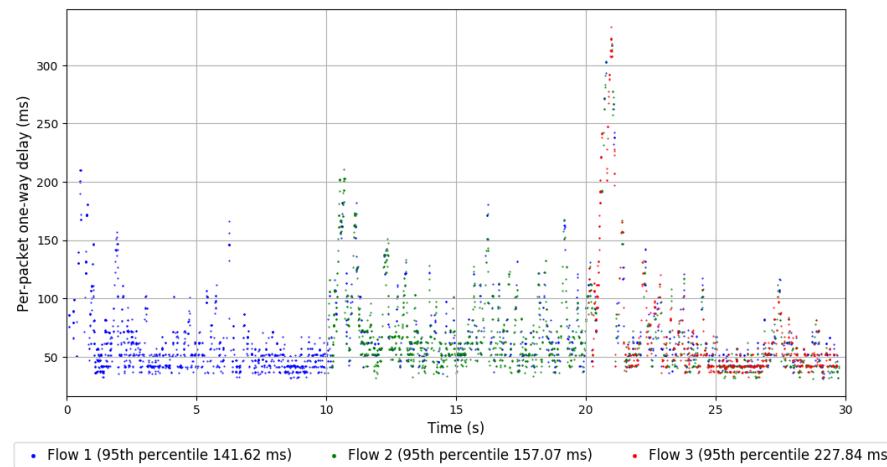
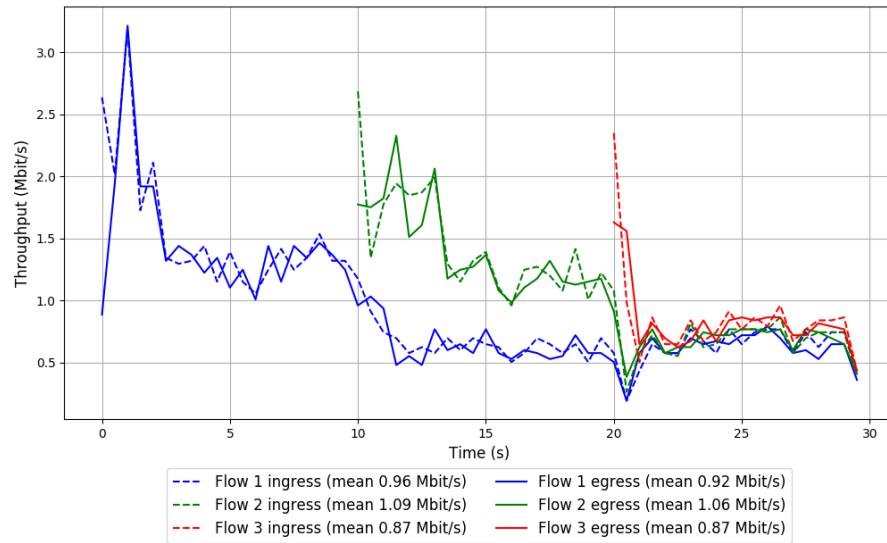


Run 2: Statistics of Indigo-1-32

```
Start at: 2018-02-17 05:09:03
End at: 2018-02-17 05:09:33
Local clock offset: -5.847 ms
Remote clock offset: -17.987 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 157.365 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 141.620 ms
Loss rate: 4.78%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 157.070 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 227.841 ms
Loss rate: 1.70%
```

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

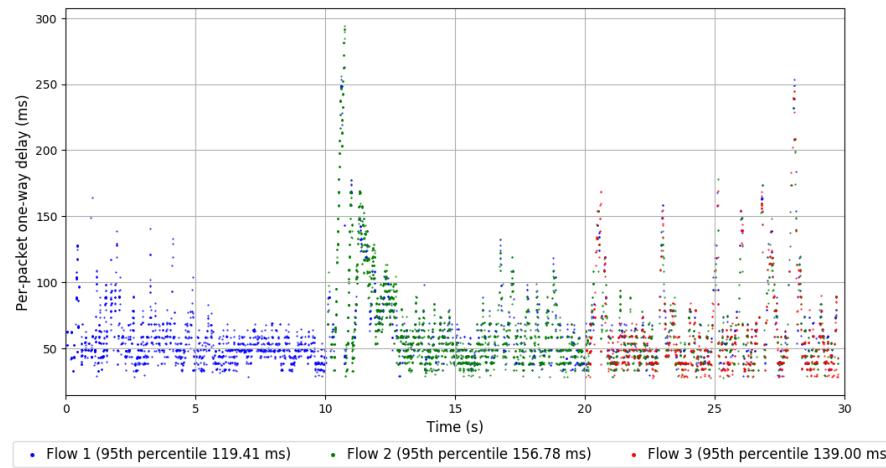
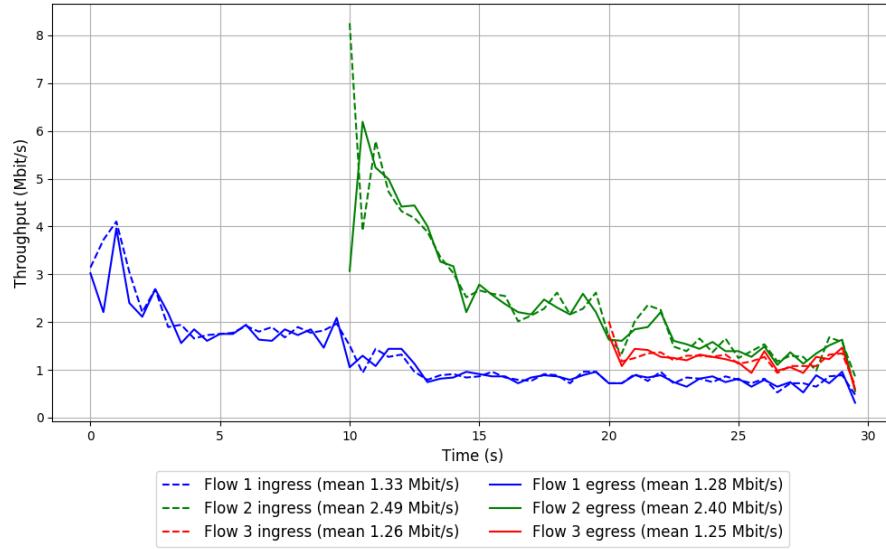


Run 3: Statistics of Indigo-1-32

```
Start at: 2018-02-17 05:29:06
End at: 2018-02-17 05:29:36
Local clock offset: 0.859 ms
Remote clock offset: -18.483 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 139.160 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 119.409 ms
Loss rate: 4.58%
-- Flow 2:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 156.777 ms
Loss rate: 3.82%
-- Flow 3:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 139.002 ms
Loss rate: 1.66%
```

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

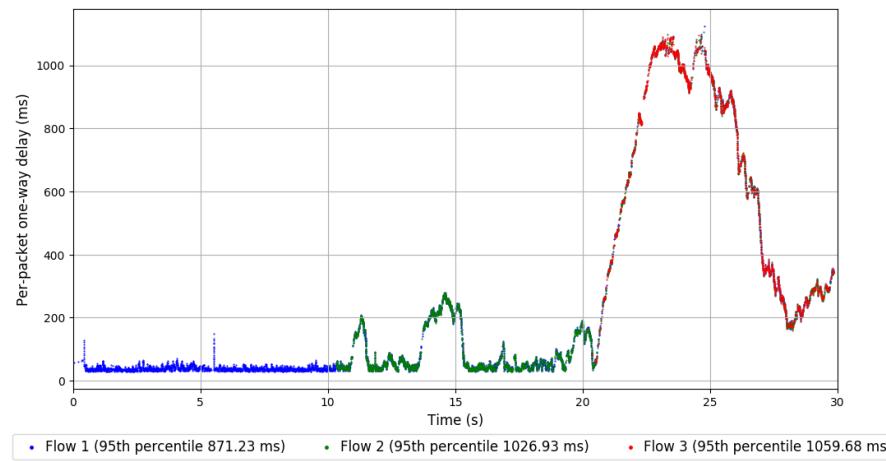
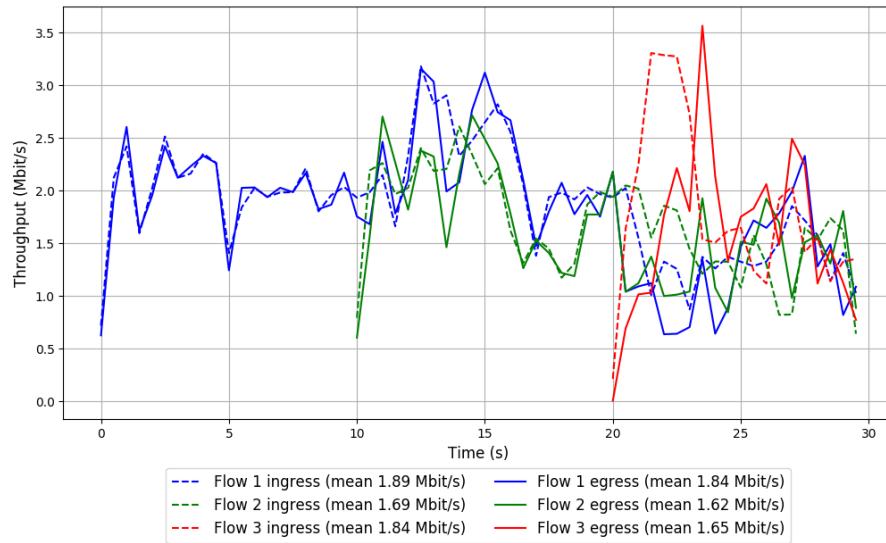


Run 1: Statistics of Vivace-latency

```
Start at: 2018-02-17 04:51:13
End at: 2018-02-17 04:51:43
Local clock offset: -7.292 ms
Remote clock offset: -20.199 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 1025.682 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 871.232 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 1026.926 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 1059.678 ms
Loss rate: 11.68%
```

Run 1: Report of Vivace-latency — Data Link

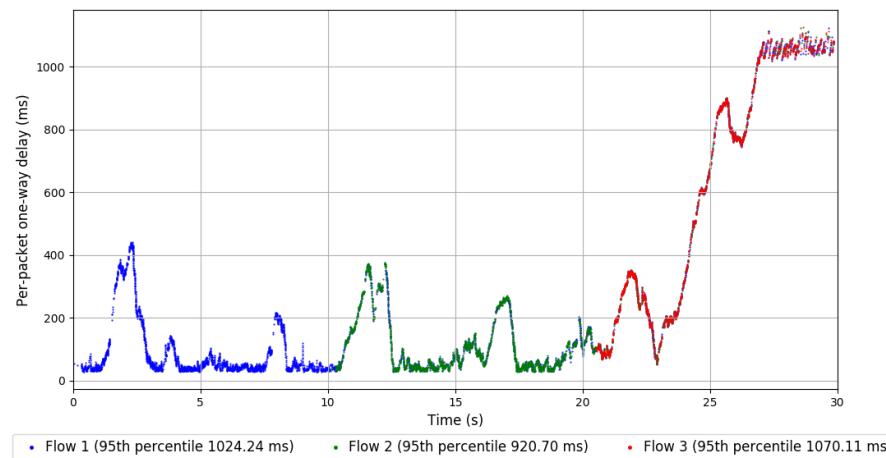
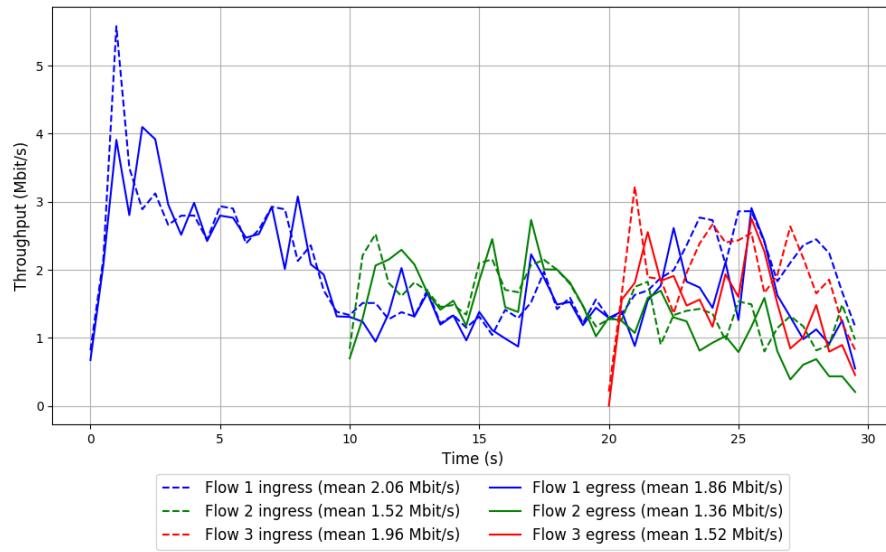


Run 2: Statistics of Vivace-latency

```
Start at: 2018-02-17 05:11:17
End at: 2018-02-17 05:11:47
Local clock offset: -2.754 ms
Remote clock offset: -17.931 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.26 Mbit/s
95th percentile per-packet one-way delay: 1046.219 ms
Loss rate: 12.44%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 1024.243 ms
Loss rate: 9.87%
-- Flow 2:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 920.702 ms
Loss rate: 10.51%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 1070.105 ms
Loss rate: 23.63%
```

Run 2: Report of Vivace-latency — Data Link

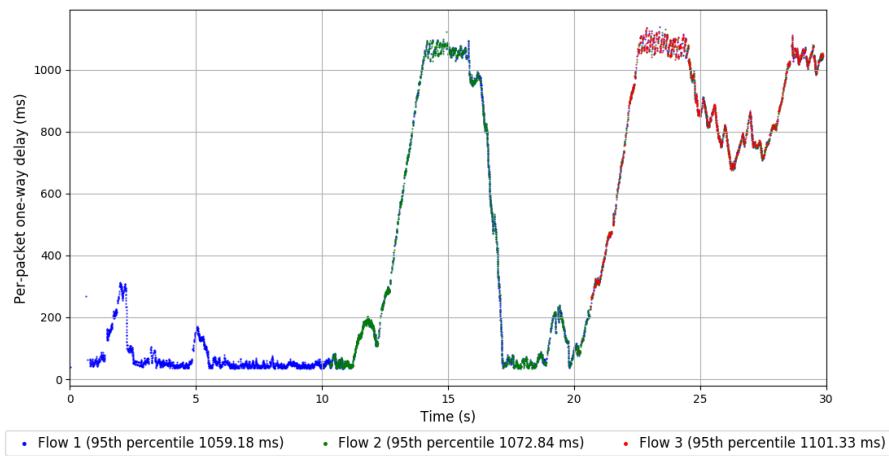
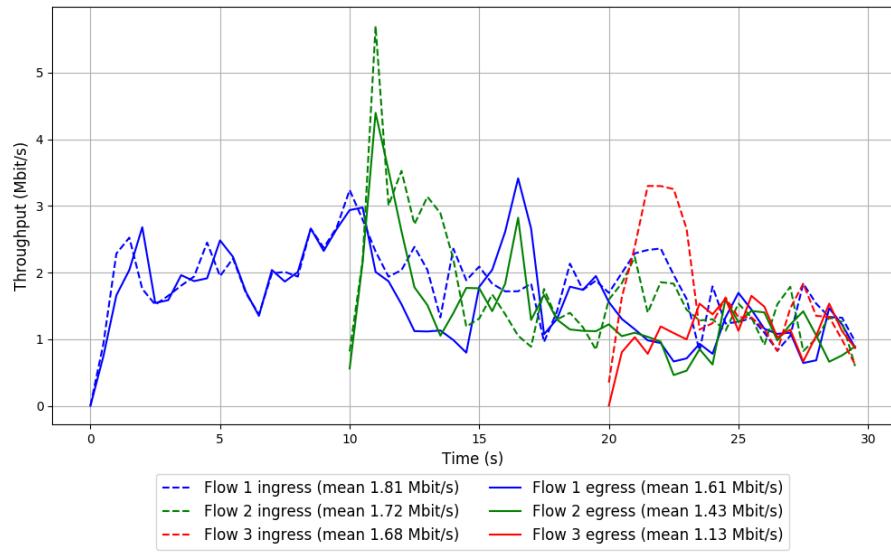


Run 3: Statistics of Vivace-latency

```
Start at: 2018-02-17 05:31:18
End at: 2018-02-17 05:31:48
Local clock offset: -2.915 ms
Remote clock offset: -16.689 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 1072.546 ms
Loss rate: 16.50%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 1059.176 ms
Loss rate: 11.22%
-- Flow 2:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 1072.839 ms
Loss rate: 16.72%
-- Flow 3:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 1101.330 ms
Loss rate: 33.25%
```

Run 3: Report of Vivace-latency — Data Link

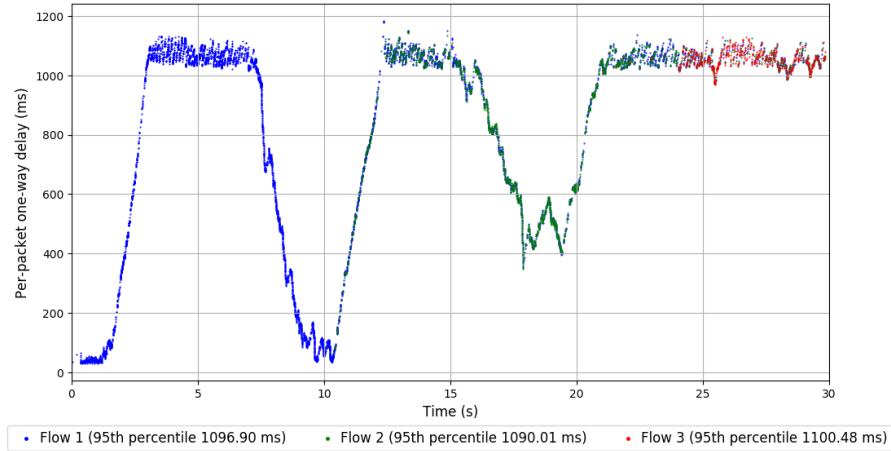
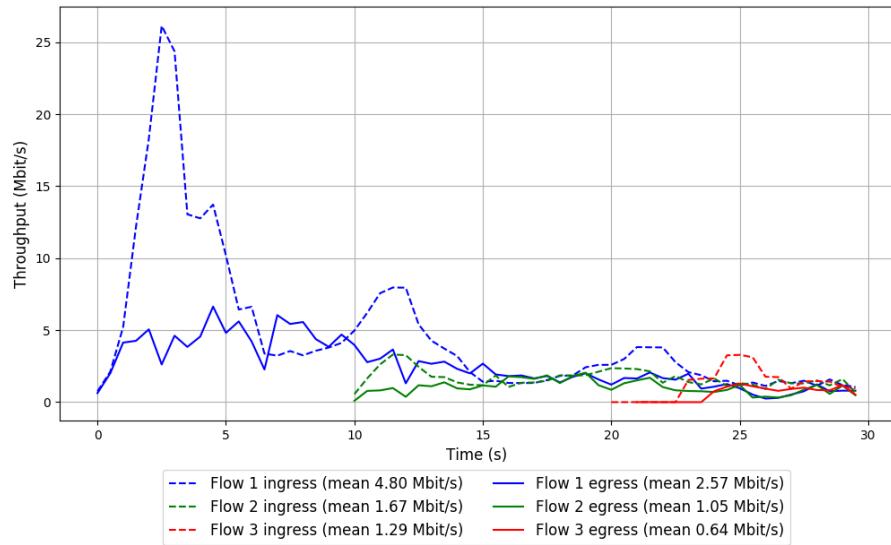


```
Run 1: Statistics of Vivace-loss
```

```
Start at: 2018-02-17 04:44:32
End at: 2018-02-17 04:45:02
Local clock offset: -6.274 ms
Remote clock offset: -20.53 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 1095.984 ms
Loss rate: 45.59%
-- Flow 1:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 1096.900 ms
Loss rate: 46.63%
-- Flow 2:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 1090.013 ms
Loss rate: 37.33%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 1100.484 ms
Loss rate: 55.42%
```

Run 1: Report of Vivace-loss — Data Link

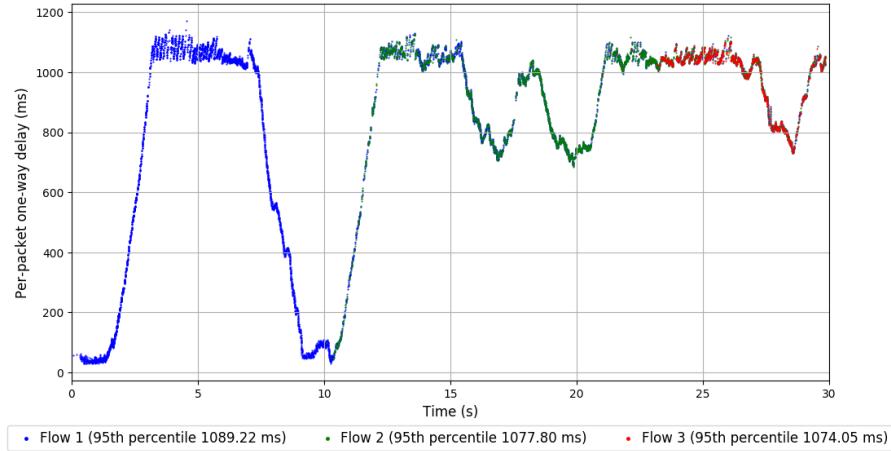
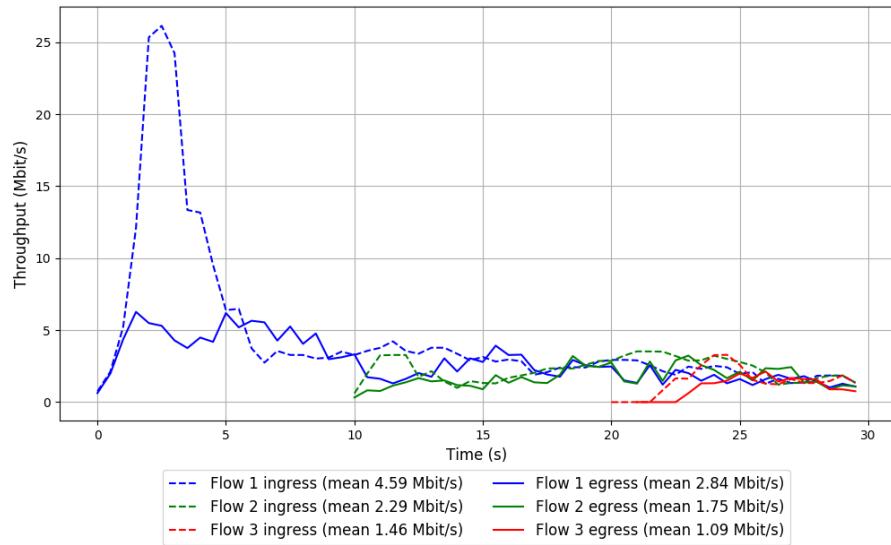


Run 2: Statistics of Vivace-loss

```
Start at: 2018-02-17 05:04:36
End at: 2018-02-17 05:05:06
Local clock offset: -5.26 ms
Remote clock offset: -17.728 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 1085.264 ms
Loss rate: 34.56%
-- Flow 1:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 1089.217 ms
Loss rate: 38.28%
-- Flow 2:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 1077.799 ms
Loss rate: 23.87%
-- Flow 3:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 1074.051 ms
Loss rate: 32.88%
```

Run 2: Report of Vivace-loss — Data Link

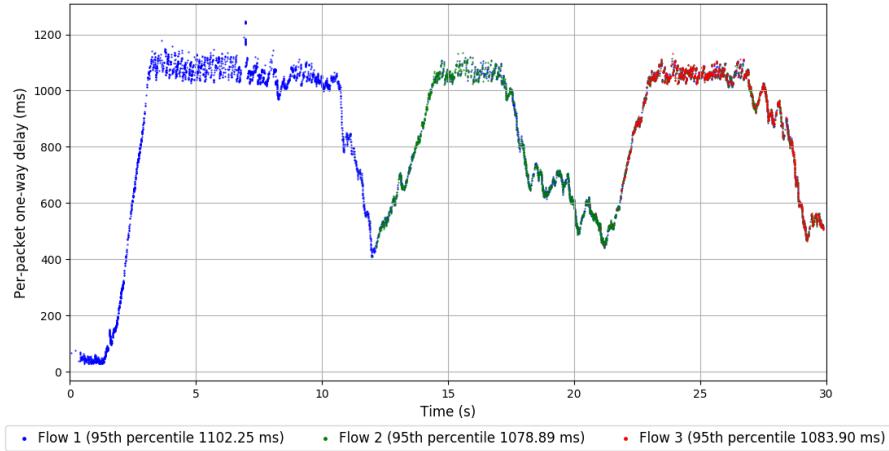
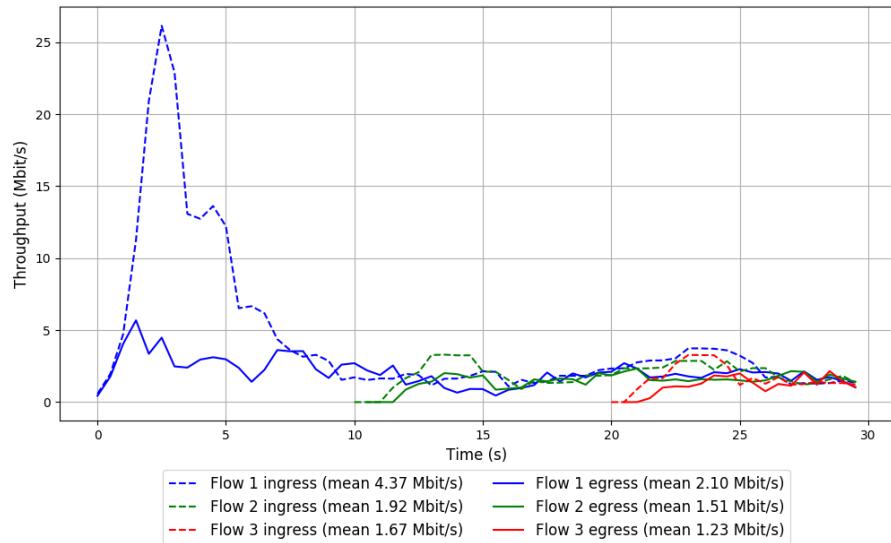


Run 3: Statistics of Vivace-loss

```
Start at: 2018-02-17 05:24:39
End at: 2018-02-17 05:25:09
Local clock offset: -1.091 ms
Remote clock offset: -17.301 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.45 Mbit/s
95th percentile per-packet one-way delay: 1095.038 ms
Loss rate: 44.46%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 1102.250 ms
Loss rate: 52.04%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 1078.891 ms
Loss rate: 24.46%
-- Flow 3:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 1083.896 ms
Loss rate: 30.65%
```

Run 3: Report of Vivace-loss — Data Link

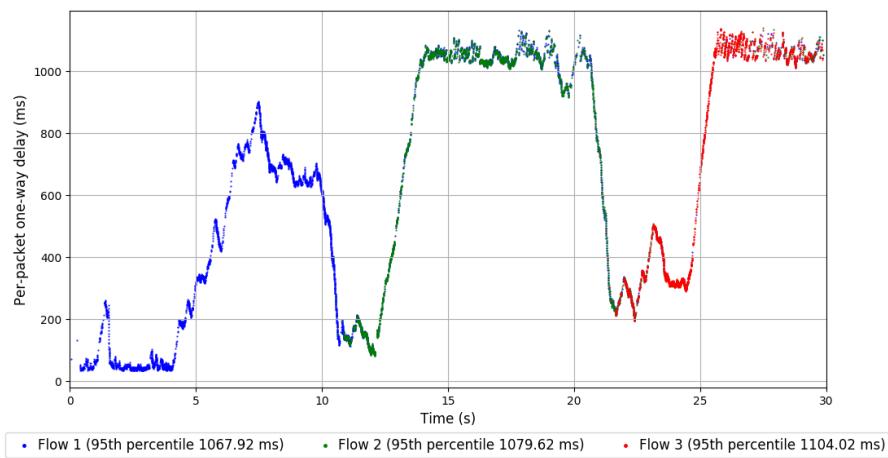
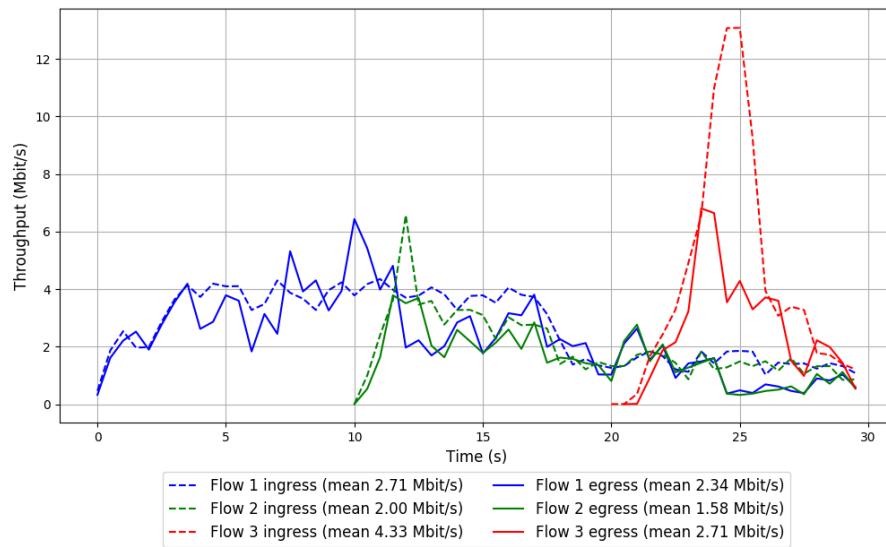


Run 1: Statistics of Vivace-LTE

```
Start at: 2018-02-17 04:47:53
End at: 2018-02-17 04:48:23
Local clock offset: -8.484 ms
Remote clock offset: -17.775 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.19 Mbit/s
95th percentile per-packet one-way delay: 1081.916 ms
Loss rate: 23.53%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 1067.925 ms
Loss rate: 13.86%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 1079.624 ms
Loss rate: 22.43%
-- Flow 3:
Average throughput: 2.71 Mbit/s
95th percentile per-packet one-way delay: 1104.021 ms
Loss rate: 42.90%
```

Run 1: Report of Vivace-LTE — Data Link

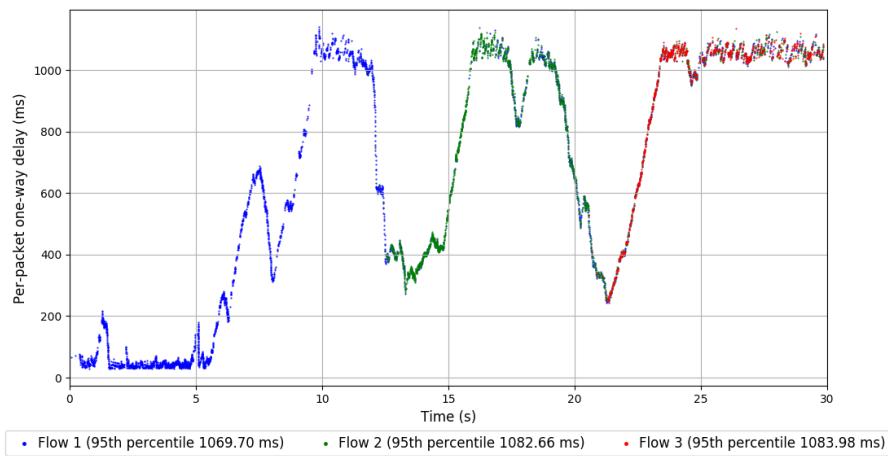
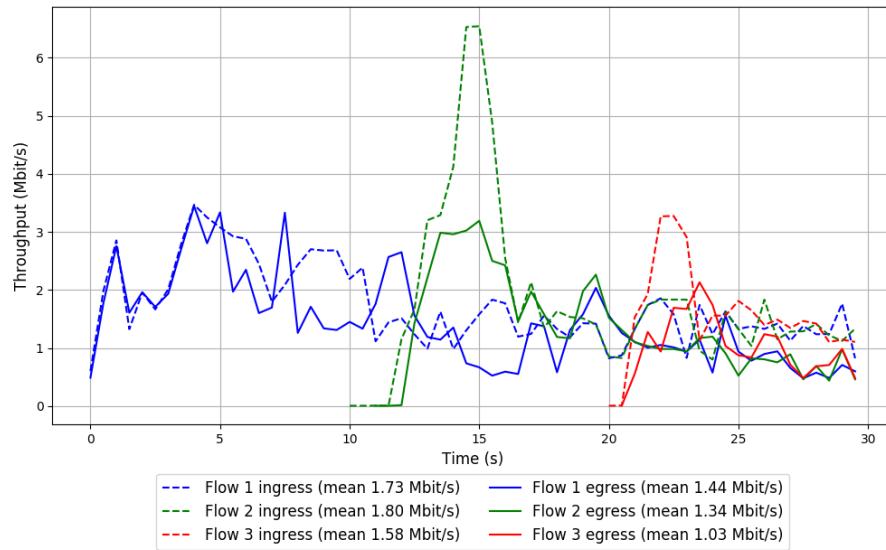


Run 2: Statistics of Vivace-LTE

```
Start at: 2018-02-17 05:07:56
End at: 2018-02-17 05:08:26
Local clock offset: -5.083 ms
Remote clock offset: -18.451 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 1077.931 ms
Loss rate: 24.73%
-- Flow 1:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 1069.698 ms
Loss rate: 17.26%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 1082.661 ms
Loss rate: 29.72%
-- Flow 3:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 1083.977 ms
Loss rate: 38.11%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

```
Start at: 2018-02-17 05:27:59
End at: 2018-02-17 05:28:29
Local clock offset: -2.212 ms
Remote clock offset: -17.858 ms

# Below is generated by plot.py at 2018-02-17 05:39:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 1084.499 ms
Loss rate: 27.56%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 1081.599 ms
Loss rate: 23.39%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 1083.765 ms
Loss rate: 26.97%
-- Flow 3:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 1100.218 ms
Loss rate: 44.86%
```

Run 3: Report of Vivace-LTE — Data Link

