

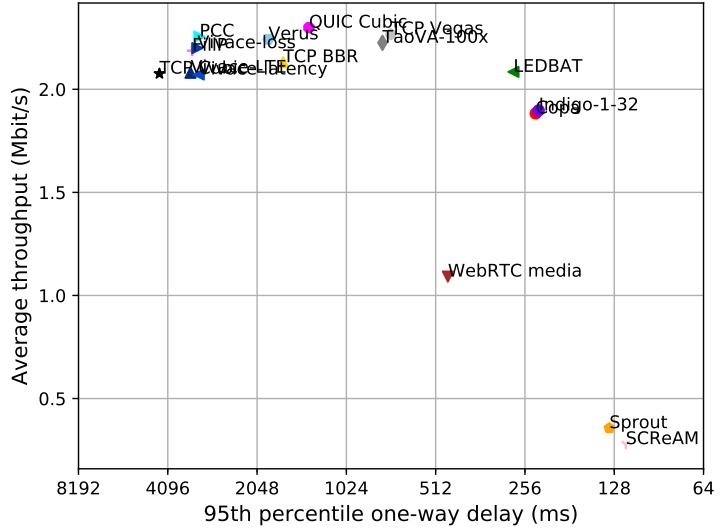
Pantheon Report

Generated at 2018-02-17 05:54:20 (UTC).
Data path: AWS Brazil 2 Ethernet (*local*) → Colombia 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 `gps.ntp.br` and have been applied to correct the timestamps in logs.

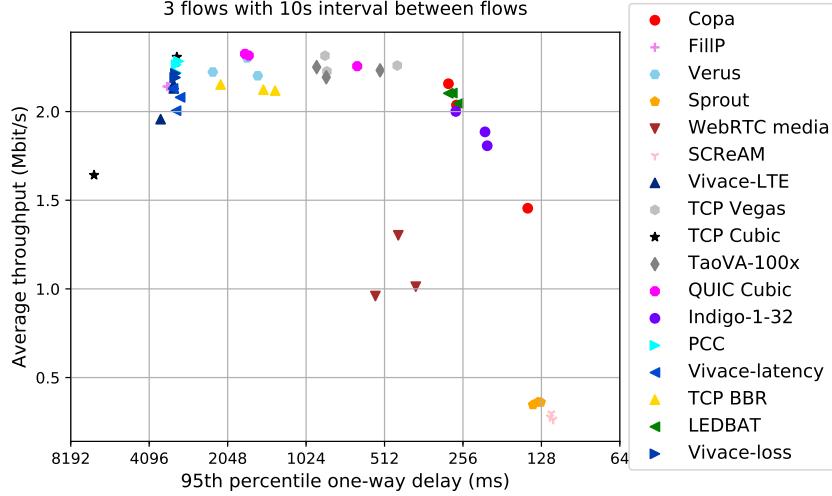
Git summary:

```
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 Brazil 2 Ethernet to Colombia ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Brazil 2 Ethernet to Colombia ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows



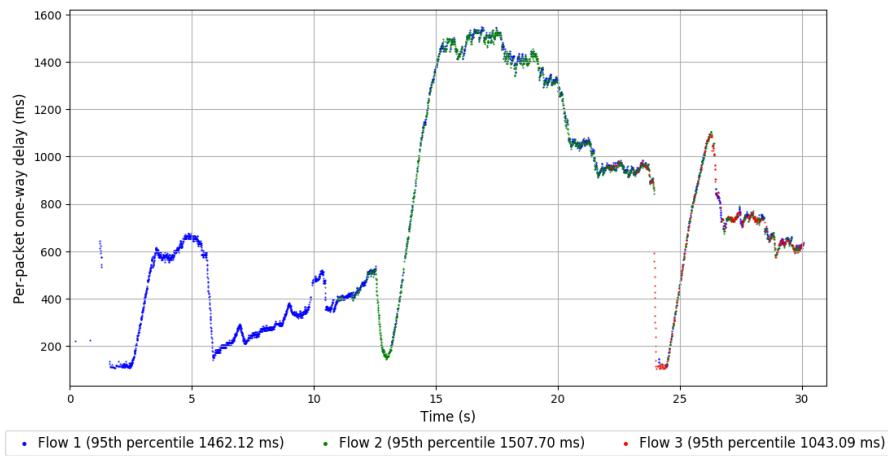
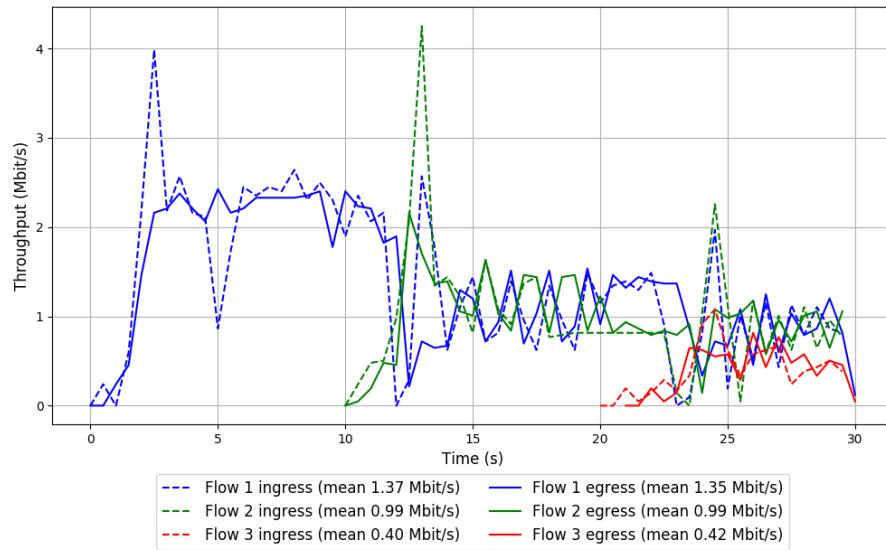
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	1.32	1.01	0.48	1551.37	1698.77	1628.48	2.92	6.33	15.97
TCP Cubic	3	2.01	0.10	0.04	4373.57	4200.34	3880.01	14.55	27.22	54.31
LEDBAT	3	1.55	0.55	0.50	279.33	287.16	289.49	0.45	0.74	2.10
PCC	3	1.80	0.00	1.46	3156.85	3203.68	3260.59	50.27	9.88	78.33
QUIC Cubic	3	1.76	0.64	0.36	1364.85	1379.46	1291.98	4.54	9.41	22.86
SCReAM	3	0.08	0.20	0.19	113.86	117.16	117.12	0.09	0.05	0.23
WebRTC media	3	0.62	0.37	0.11	373.57	517.74	524.40	0.40	1.80	4.23
Sprout	3	0.18	0.18	0.18	133.08	132.68	129.58	0.00	0.32	0.01
TaoVA-100x	3	1.27	1.00	0.90	628.14	1029.78	816.39	0.77	1.56	2.54
TCP Vegas	3	1.69	0.68	0.42	718.49	741.33	747.11	1.46	1.94	4.88
Verus	3	2.15	0.14	0.01	1905.79	1856.48	1608.13	5.22	3.39	8.93
Copa	3	1.34	0.58	0.47	228.44	231.10	238.10	2.49	16.90	17.34
FillP	3	1.85	0.59	0.01	3363.04	3436.65	3370.57	95.18	99.59	100.00
Indigo-1-32	3	1.09	0.81	0.85	207.41	238.07	287.18	0.09	0.02	0.21
Vivace-latency	3	1.27	1.20	0.00	3216.60	3228.13	3213.09	18.49	24.49	3.07
Vivace-loss	3	1.99	0.00	0.72	3237.67	3251.12	3300.07	39.59	36.85	73.42
Vivace-LTE	3	1.30	1.17	0.00	3418.45	3450.20	3339.15	19.20	27.49	1.53

Run 1: Statistics of TCP BBR

```
Start at: 2018-02-17 04:45:22
End at: 2018-02-17 04:45:52
Local clock offset: -2.606 ms
Remote clock offset: -2.772 ms

# Below is generated by plot.py at 2018-02-17 05:53:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 1492.792 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 1462.117 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 1507.701 ms
Loss rate: 2.32%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 1043.090 ms
Loss rate: 5.74%
```

Run 1: Report of TCP BBR — Data Link

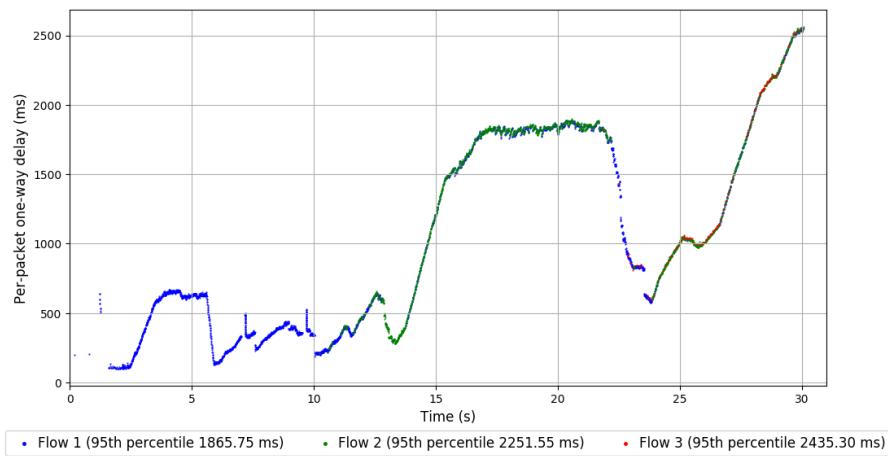
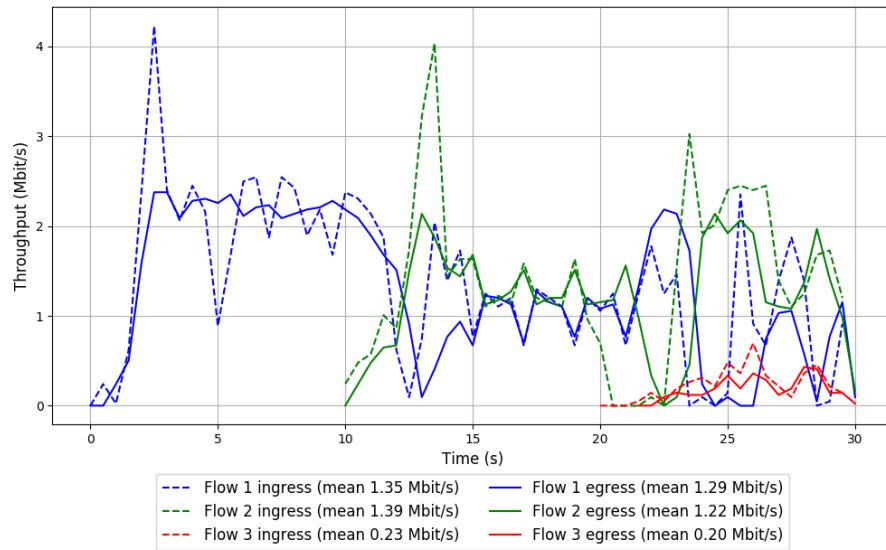


Run 2: Statistics of TCP BBR

```
Start at: 2018-02-17 05:07:55
End at: 2018-02-17 05:08:25
Local clock offset: -3.119 ms
Remote clock offset: -3.489 ms

# Below is generated by plot.py at 2018-02-17 05:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 2179.091 ms
Loss rate: 8.82%
-- Flow 1:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 1865.746 ms
Loss rate: 5.21%
-- Flow 2:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 2251.550 ms
Loss rate: 12.54%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 2435.296 ms
Loss rate: 27.71%
```

Run 2: Report of TCP BBR — Data Link

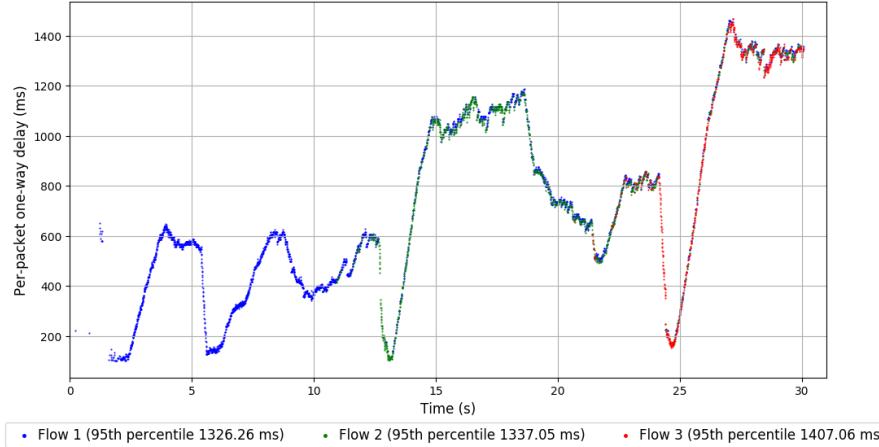
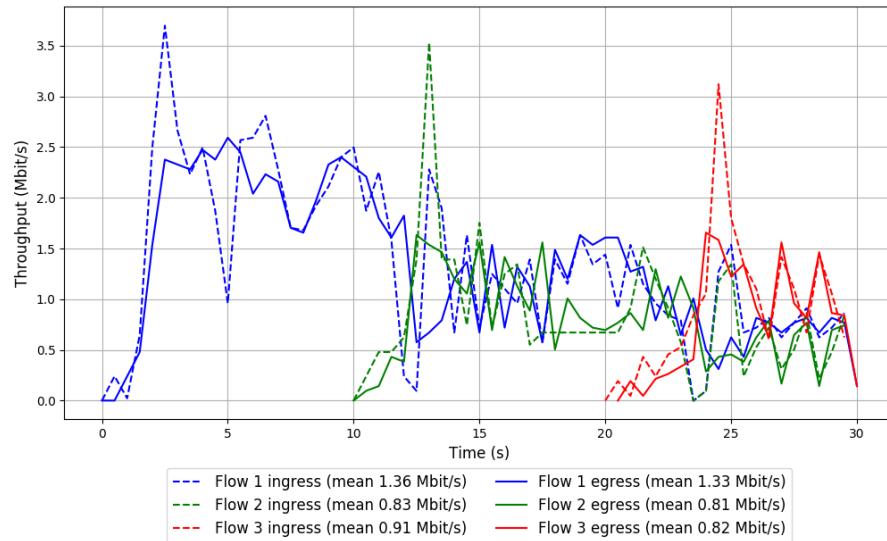


Run 3: Statistics of TCP BBR

```
Start at: 2018-02-17 05:30:28
End at: 2018-02-17 05:30:58
Local clock offset: -6.177 ms
Remote clock offset: -3.456 ms

# Below is generated by plot.py at 2018-02-17 05:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 1346.233 ms
Loss rate: 4.46%
-- Flow 1:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 1326.255 ms
Loss rate: 2.36%
-- Flow 2:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 1337.047 ms
Loss rate: 4.14%
-- Flow 3:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 1407.064 ms
Loss rate: 14.47%
```

Run 3: Report of TCP BBR — Data Link

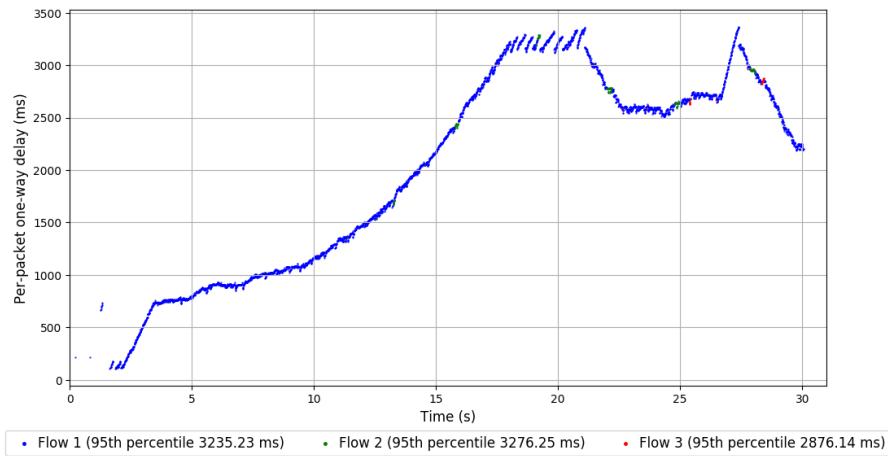
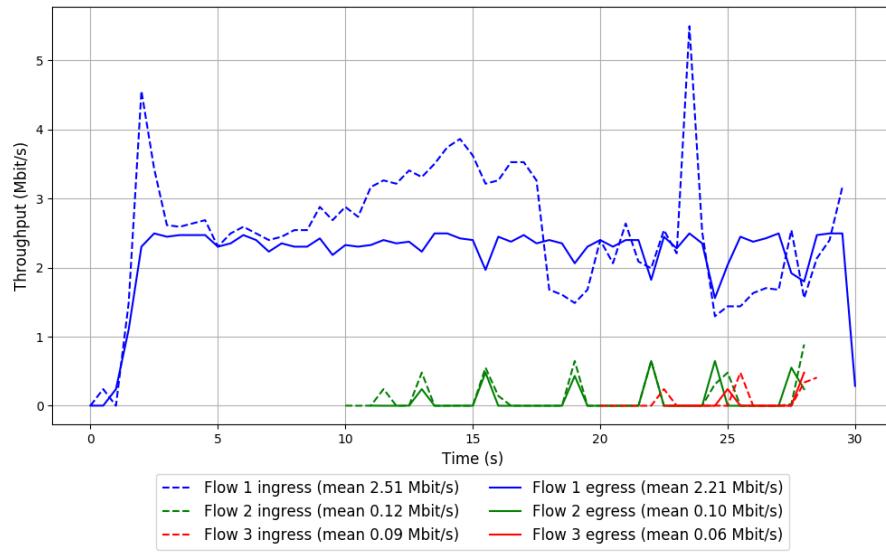


Run 1: Statistics of TCP Cubic

```
Start at: 2018-02-17 05:04:09
End at: 2018-02-17 05:04:39
Local clock offset: -1.765 ms
Remote clock offset: -3.429 ms

# Below is generated by plot.py at 2018-02-17 05:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 3235.252 ms
Loss rate: 13.14%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 3235.228 ms
Loss rate: 12.38%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 3276.247 ms
Loss rate: 26.59%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 2876.144 ms
Loss rate: 50.57%
```

Run 1: Report of TCP Cubic — Data Link

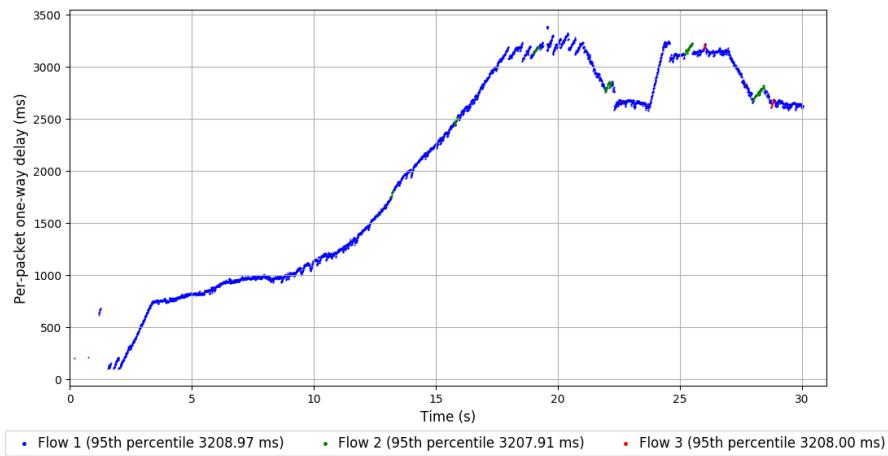
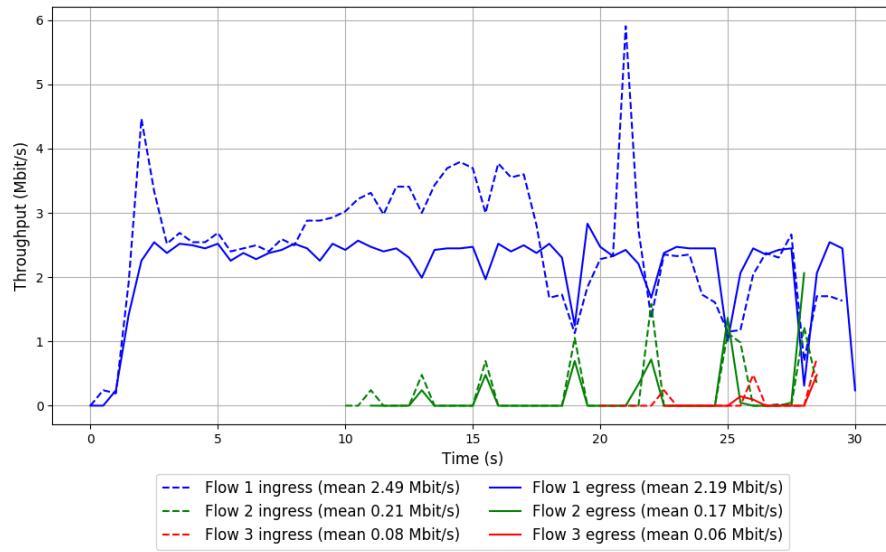


Run 2: Statistics of TCP Cubic

```
Start at: 2018-02-17 05:26:42
End at: 2018-02-17 05:27:12
Local clock offset: -5.947 ms
Remote clock offset: 1.403 ms

# Below is generated by plot.py at 2018-02-17 05:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 3208.398 ms
Loss rate: 13.05%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 3208.967 ms
Loss rate: 12.18%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 3207.910 ms
Loss rate: 22.58%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 3208.004 ms
Loss rate: 50.57%
```

Run 2: Report of TCP Cubic — Data Link

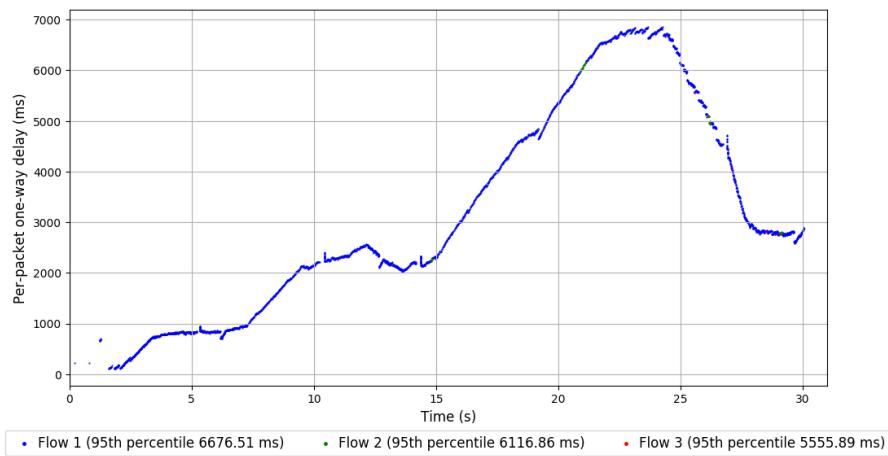
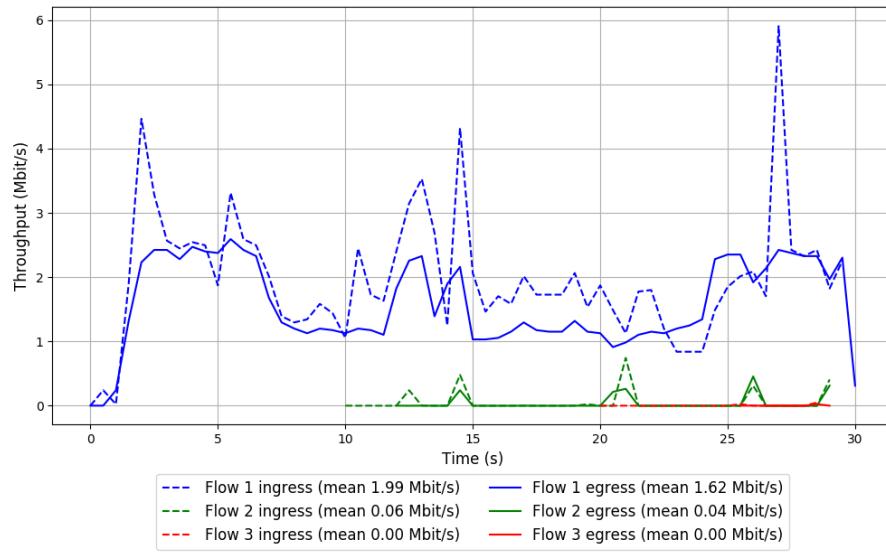


Run 3: Statistics of TCP Cubic

```
Start at: 2018-02-17 05:49:15
End at: 2018-02-17 05:49:45
Local clock offset: -4.293 ms
Remote clock offset: 1.461 ms

# Below is generated by plot.py at 2018-02-17 05:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 6666.465 ms
Loss rate: 19.36%
-- Flow 1:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 6676.509 ms
Loss rate: 19.09%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 6116.862 ms
Loss rate: 32.50%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5555.889 ms
Loss rate: 61.79%
```

Run 3: Report of TCP Cubic — Data Link

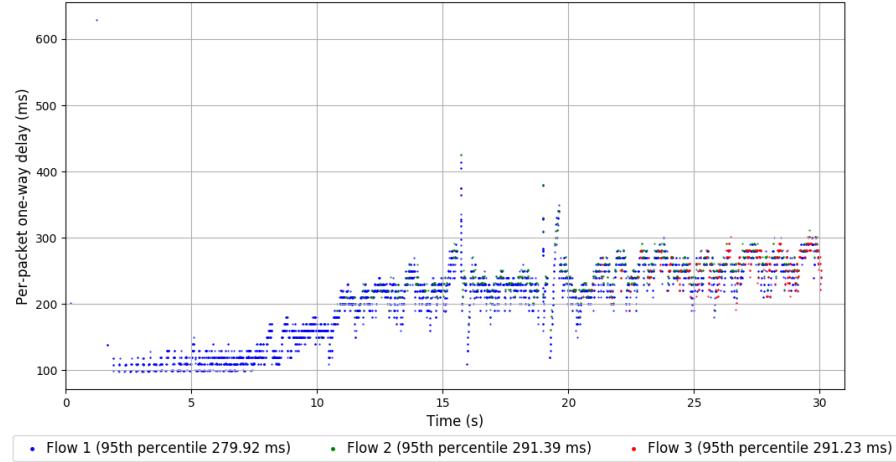
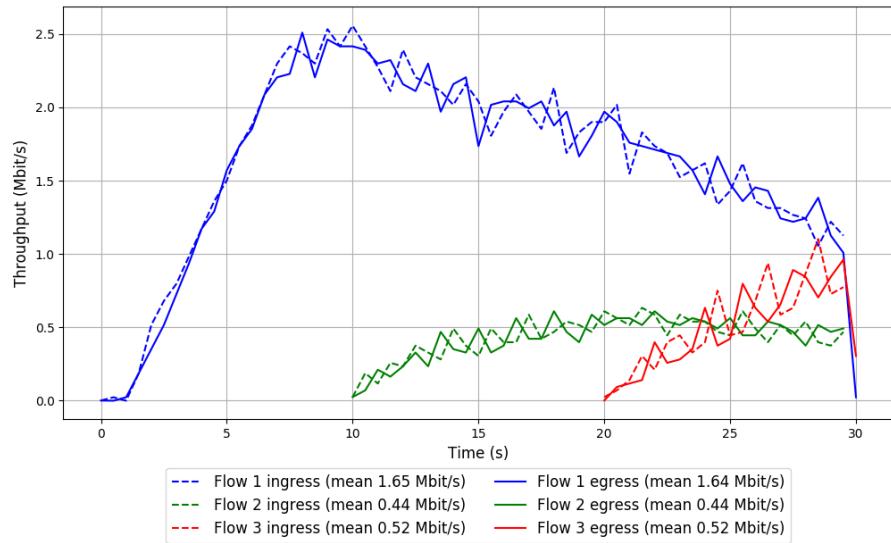


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-02-17 04:54:08
End at: 2018-02-17 04:54:38
Local clock offset: -1.791 ms
Remote clock offset: -3.955 ms

# Below is generated by plot.py at 2018-02-17 05:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 281.331 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 1.64 Mbit/s
95th percentile per-packet one-way delay: 279.916 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 291.389 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 291.234 ms
Loss rate: 0.46%
```

Run 1: Report of LEDBAT — Data Link

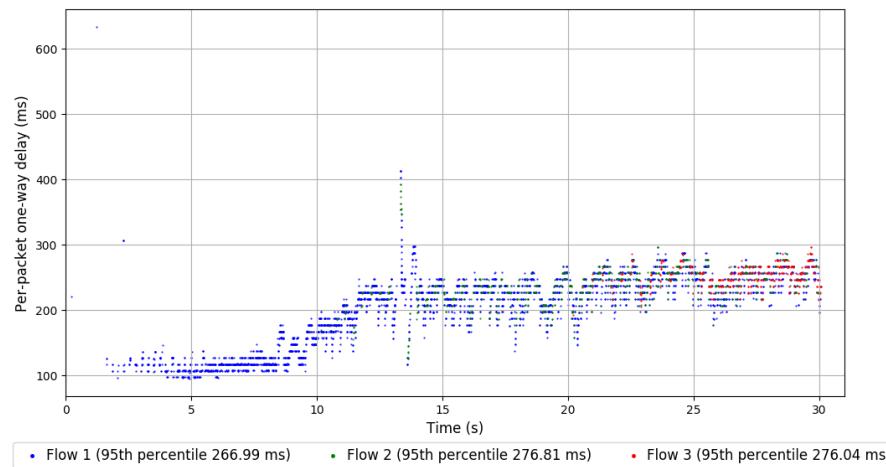
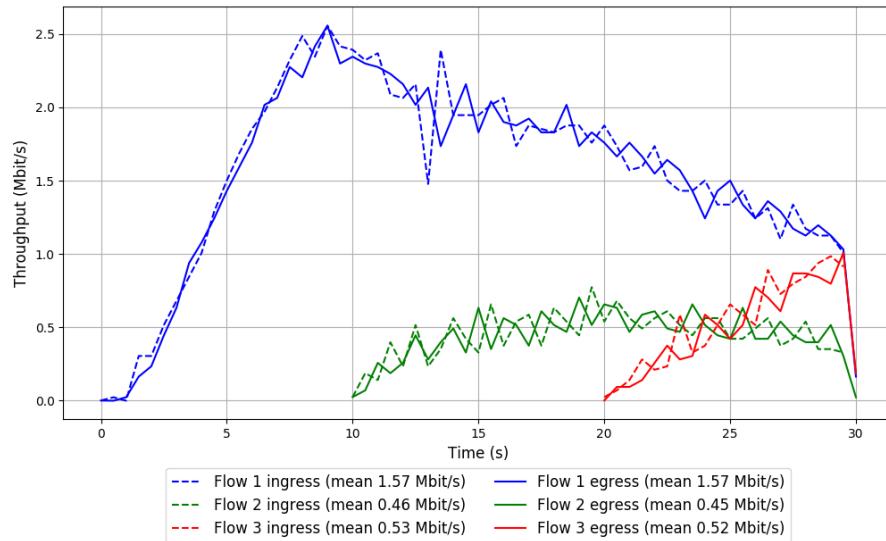


Run 2: Statistics of LEDBAT

```
Start at: 2018-02-17 05:16:40
End at: 2018-02-17 05:17:10
Local clock offset: -4.981 ms
Remote clock offset: -3.513 ms

# Below is generated by plot.py at 2018-02-17 05:53:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 267.146 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 266.988 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 276.814 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 276.040 ms
Loss rate: 3.53%
```

Run 2: Report of LEDBAT — Data Link

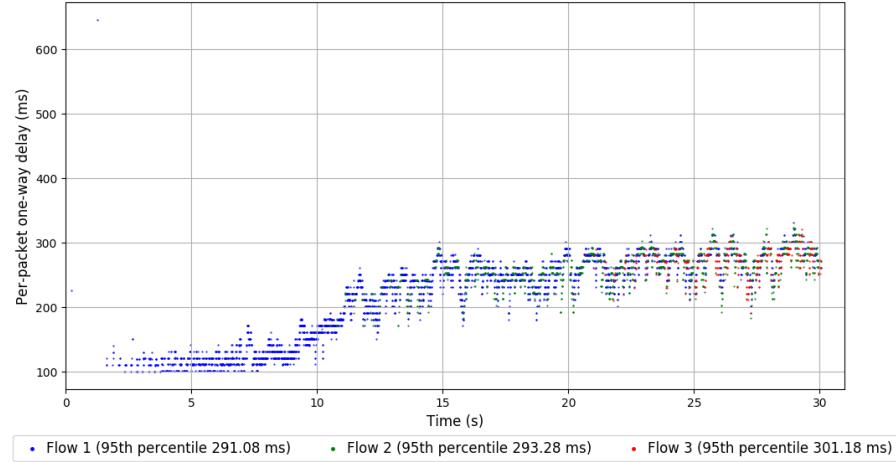
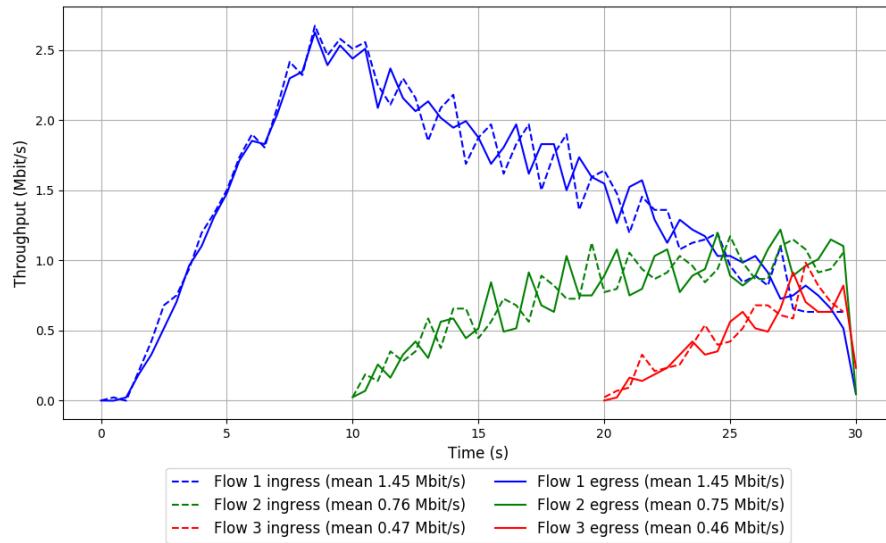


Run 3: Statistics of LEDBAT

```
Start at: 2018-02-17 05:39:13
End at: 2018-02-17 05:39:43
Local clock offset: -5.884 ms
Remote clock offset: 1.408 ms

# Below is generated by plot.py at 2018-02-17 05:53:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 291.482 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 291.078 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 293.279 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 301.183 ms
Loss rate: 2.30%
```

Run 3: Report of LEDBAT — Data Link

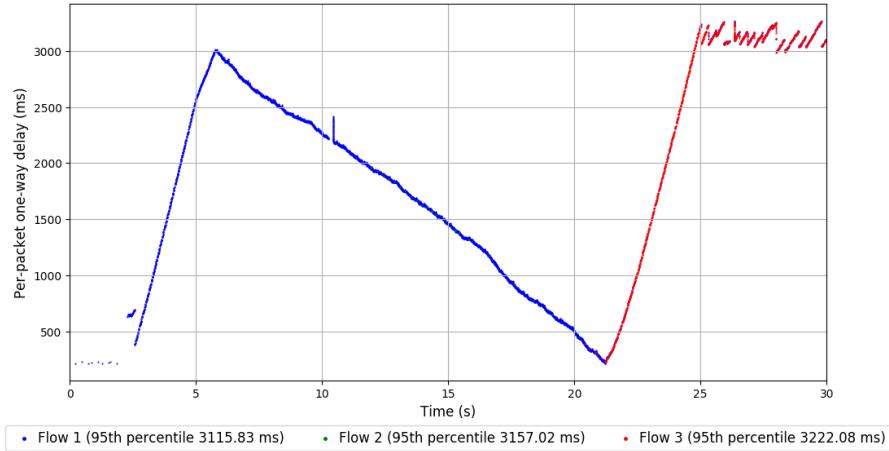
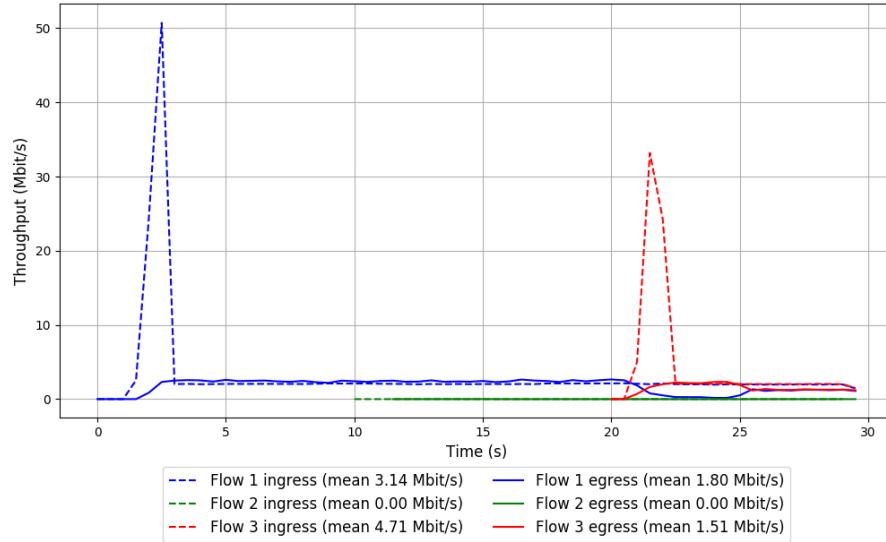


Run 1: Statistics of PCC

```
Start at: 2018-02-17 04:57:52
End at: 2018-02-17 04:58:22
Local clock offset: -1.635 ms
Remote clock offset: 1.494 ms

# Below is generated by plot.py at 2018-02-17 05:53:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 3160.887 ms
Loss rate: 51.50%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 3115.831 ms
Loss rate: 42.94%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3157.018 ms
Loss rate: 7.63%
-- Flow 3:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 3222.077 ms
Loss rate: 68.83%
```

Run 1: Report of PCC — Data Link

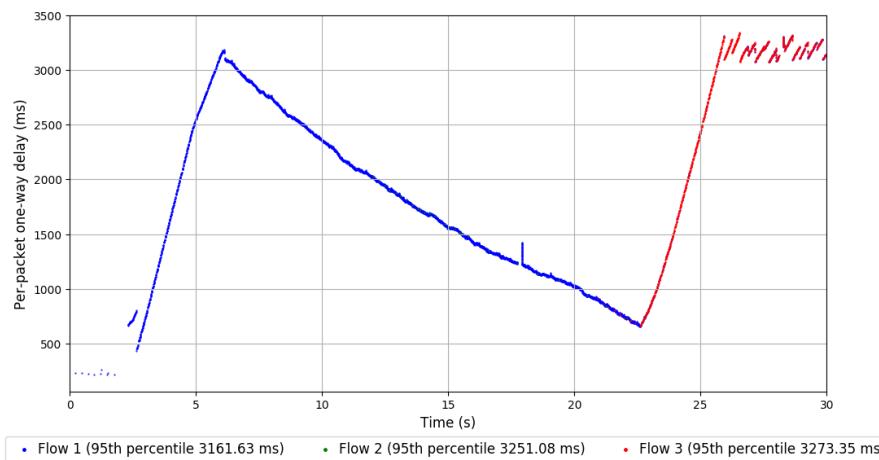
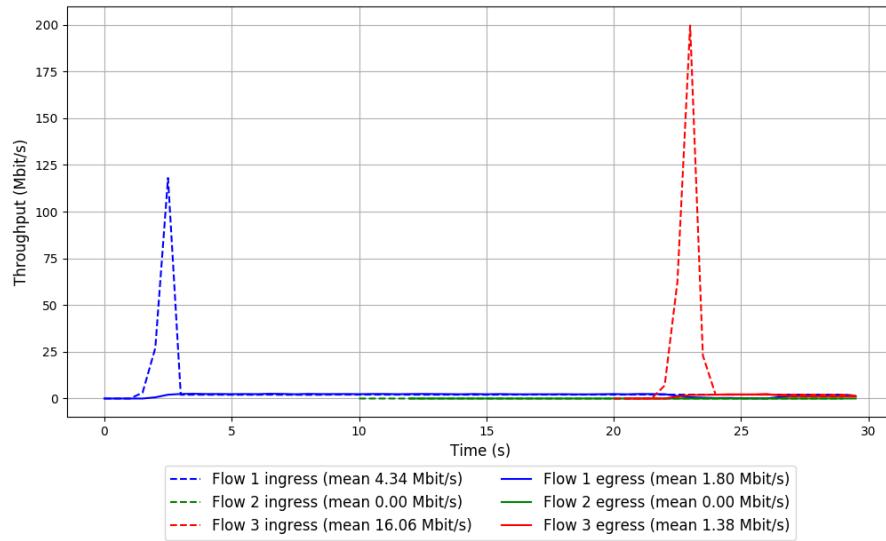


Run 2: Statistics of PCC

```
Start at: 2018-02-17 05:20:25
End at: 2018-02-17 05:20:55
Local clock offset: -5.421 ms
Remote clock offset: -3.61 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 3219.886 ms
Loss rate: 77.10%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 3161.631 ms
Loss rate: 58.78%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3251.078 ms
Loss rate: 11.36%
-- Flow 3:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 3273.353 ms
Loss rate: 92.15%
```

Run 2: Report of PCC — Data Link

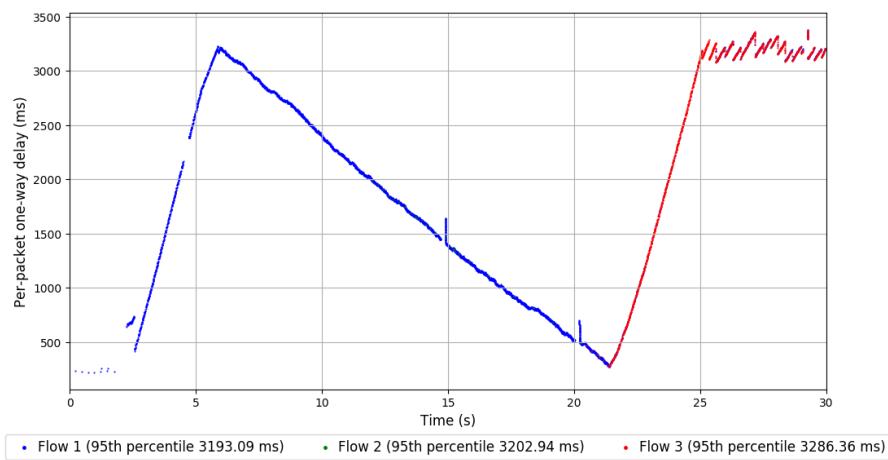
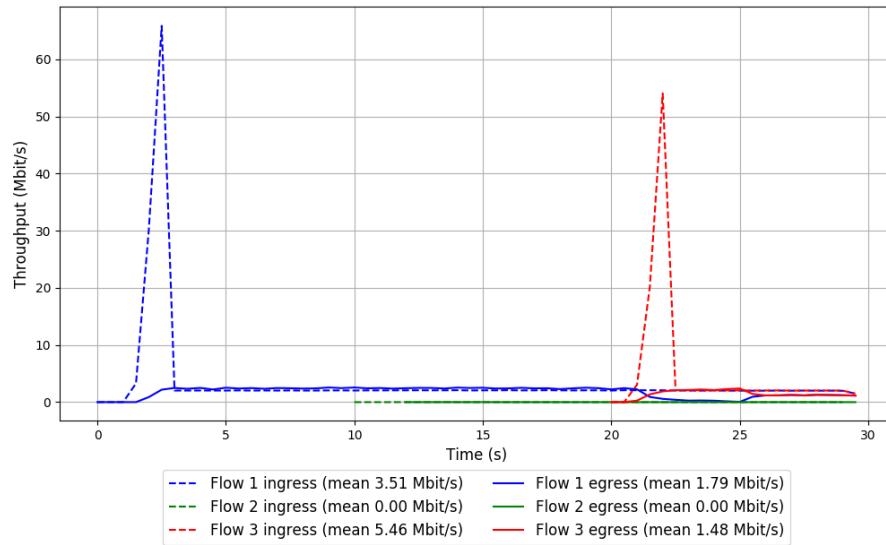


Run 3: Statistics of PCC

```
Start at: 2018-02-17 05:42:58
End at: 2018-02-17 05:43:28
Local clock offset: -5.048 ms
Remote clock offset: 1.441 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 3227.322 ms
Loss rate: 57.53%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 3193.095 ms
Loss rate: 49.10%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3202.939 ms
Loss rate: 10.64%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 3286.355 ms
Loss rate: 74.00%
```

Run 3: Report of PCC — Data Link

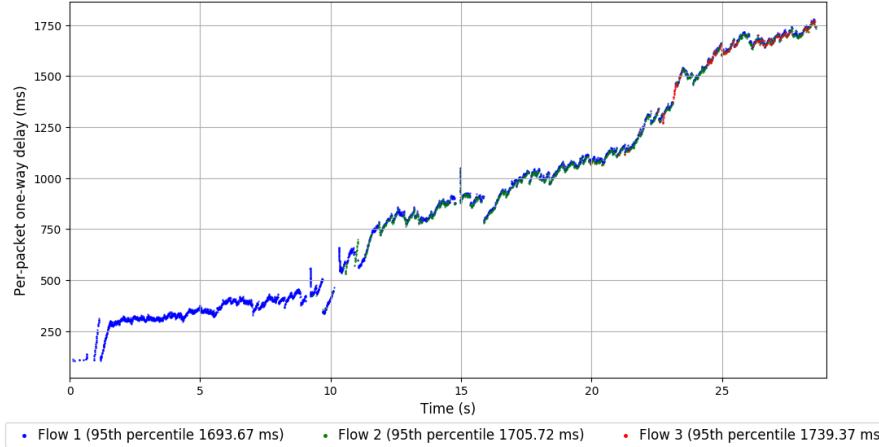
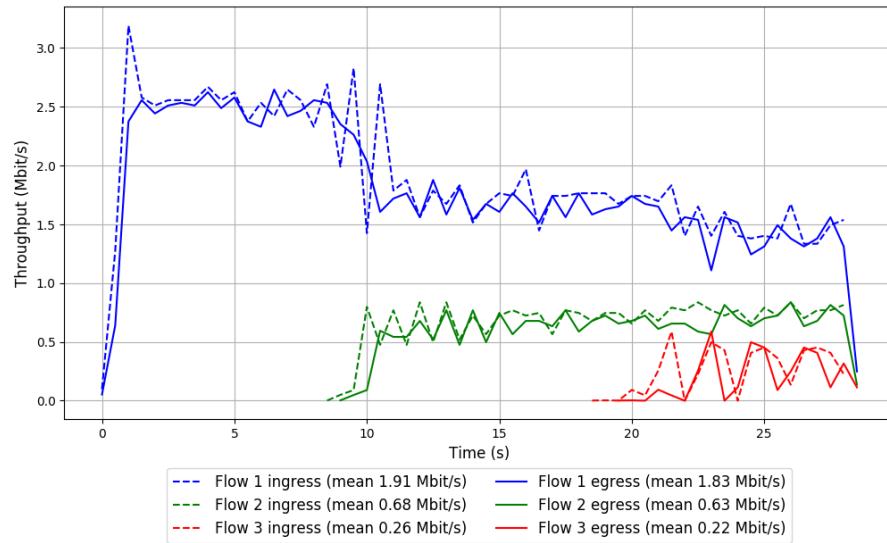


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-02-17 04:59:08
End at: 2018-02-17 04:59:38
Local clock offset: -1.498 ms
Remote clock offset: 1.557 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 1699.434 ms
Loss rate: 6.12%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 1693.672 ms
Loss rate: 4.43%
-- Flow 2:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 1705.724 ms
Loss rate: 9.58%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1739.372 ms
Loss rate: 24.36%
```

Run 1: Report of QUIC Cubic — Data Link

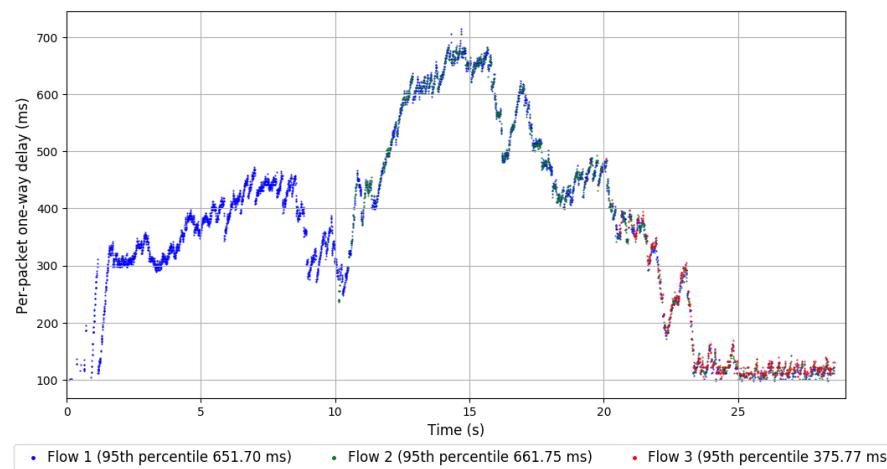
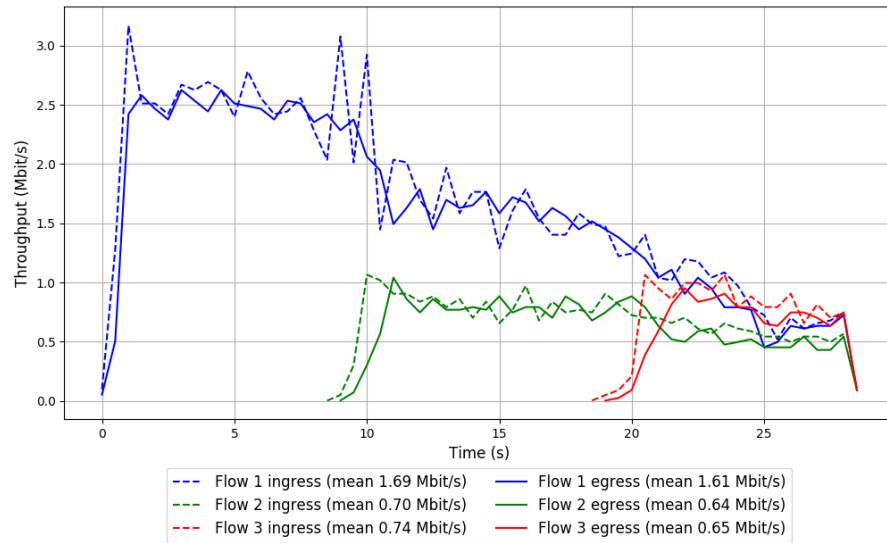


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-02-17 05:21:40
End at: 2018-02-17 05:22:10
Local clock offset: -5.528 ms
Remote clock offset: 2.088 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 651.886 ms
Loss rate: 6.80%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 651.696 ms
Loss rate: 4.79%
-- Flow 2:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 661.755 ms
Loss rate: 9.04%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 375.773 ms
Loss rate: 16.01%
```

Run 2: Report of QUIC Cubic — Data Link

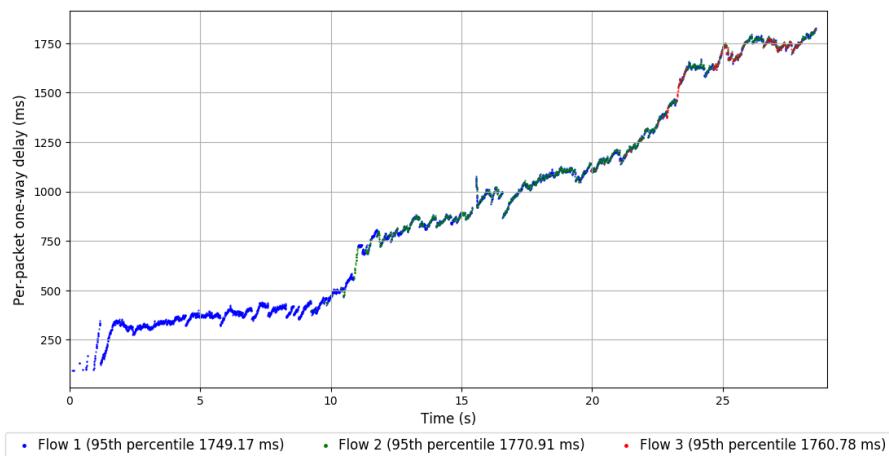
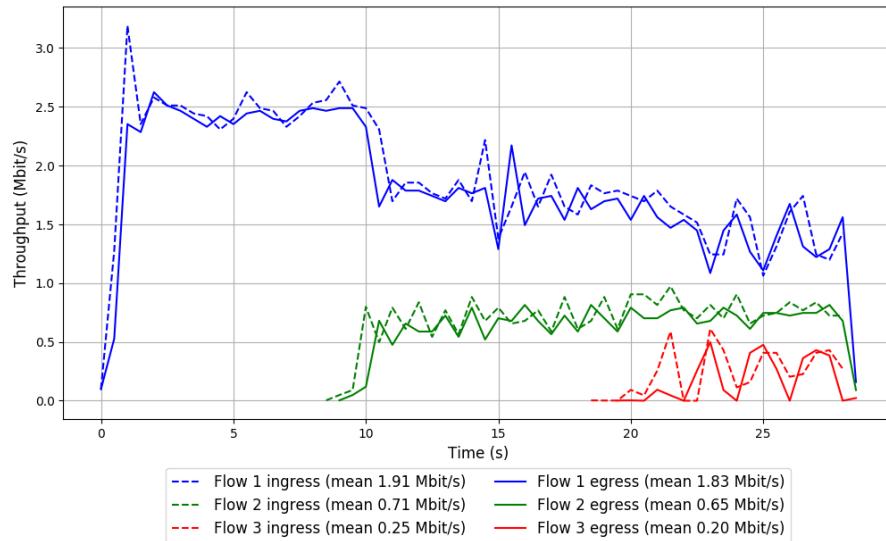


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-02-17 05:44:13
End at: 2018-02-17 05:44:43
Local clock offset: -4.811 ms
Remote clock offset: 1.394 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 1756.604 ms
Loss rate: 6.22%
-- Flow 1:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 1749.171 ms
Loss rate: 4.41%
-- Flow 2:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1770.908 ms
Loss rate: 9.61%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 1760.783 ms
Loss rate: 28.20%
```

Run 3: Report of QUIC Cubic — Data Link

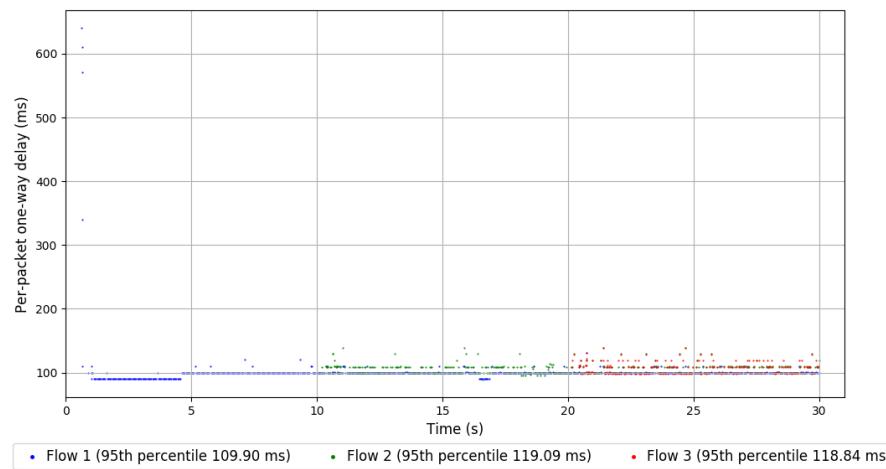
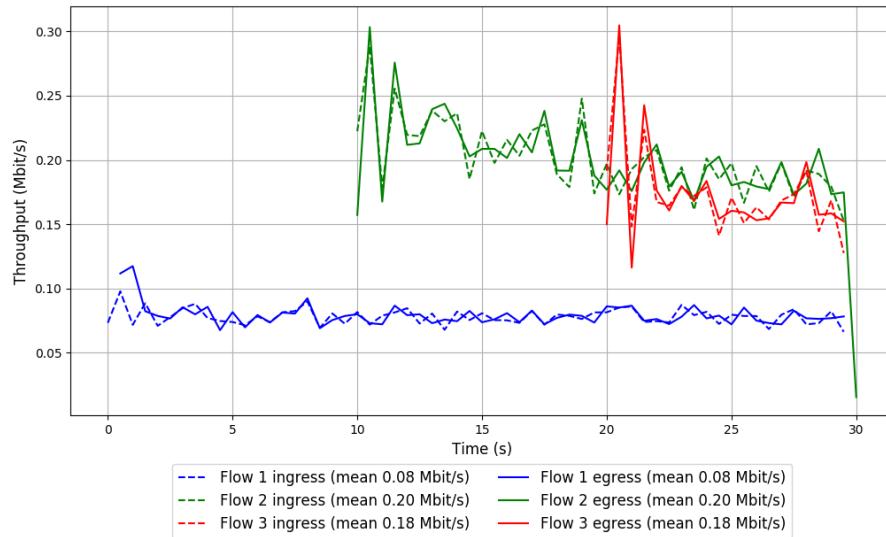


```
Run 1: Statistics of SCReAM
```

```
Start at: 2018-02-17 05:02:55
End at: 2018-02-17 05:03:25
Local clock offset: -1.261 ms
Remote clock offset: -4.212 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 118.635 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 109.901 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 119.095 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 118.836 ms
Loss rate: 0.34%
```

Run 1: Report of SCReAM — Data Link

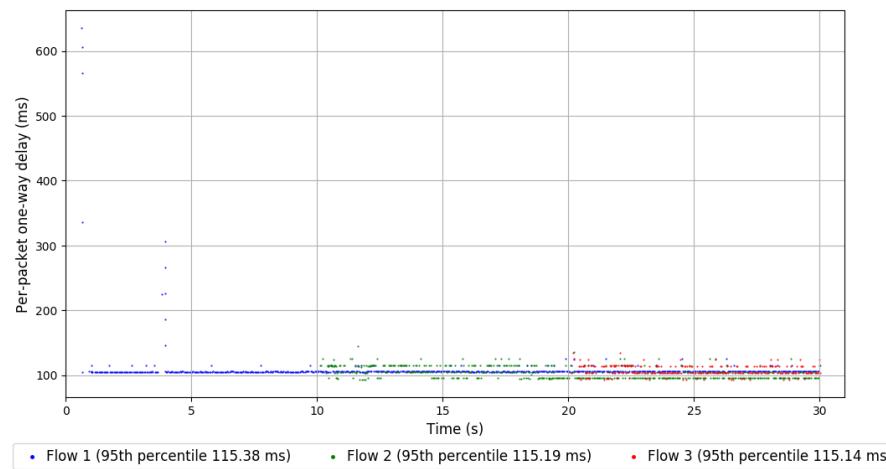
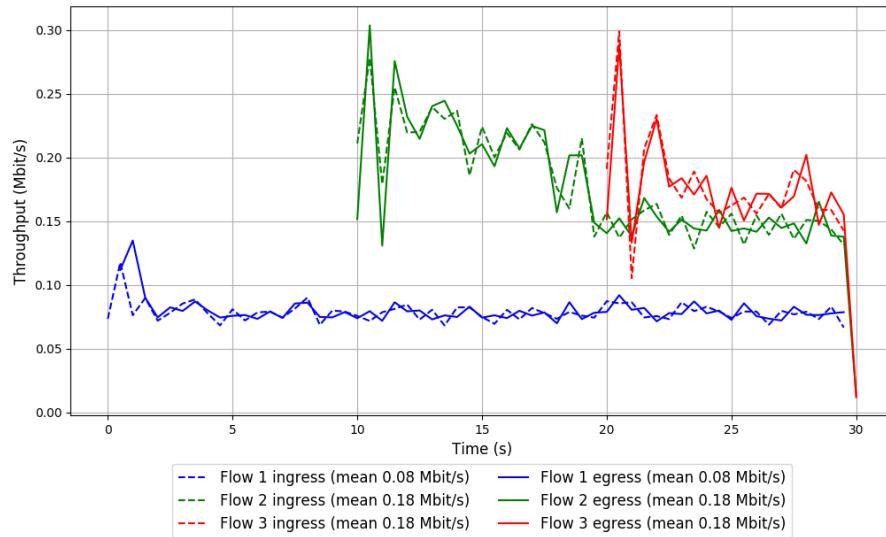


Run 2: Statistics of SCReAM

```
Start at: 2018-02-17 05:25:28
End at: 2018-02-17 05:25:58
Local clock offset: -5.849 ms
Remote clock offset: 0.535 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 115.311 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 115.375 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 115.189 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 115.137 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

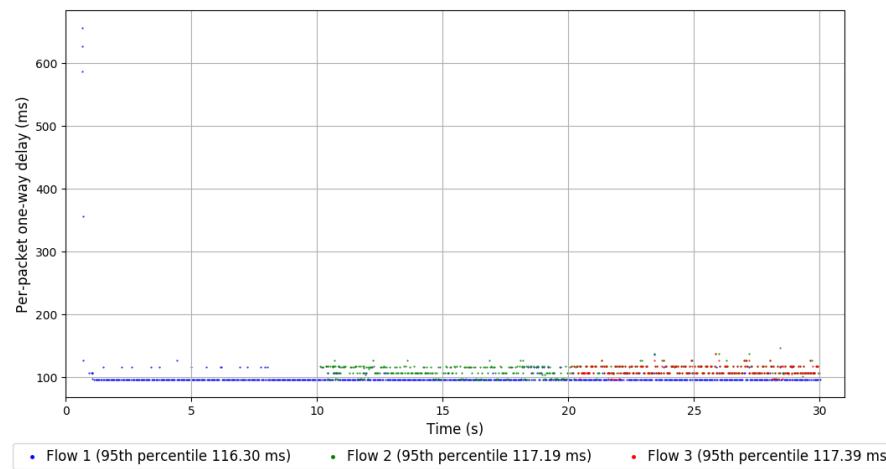
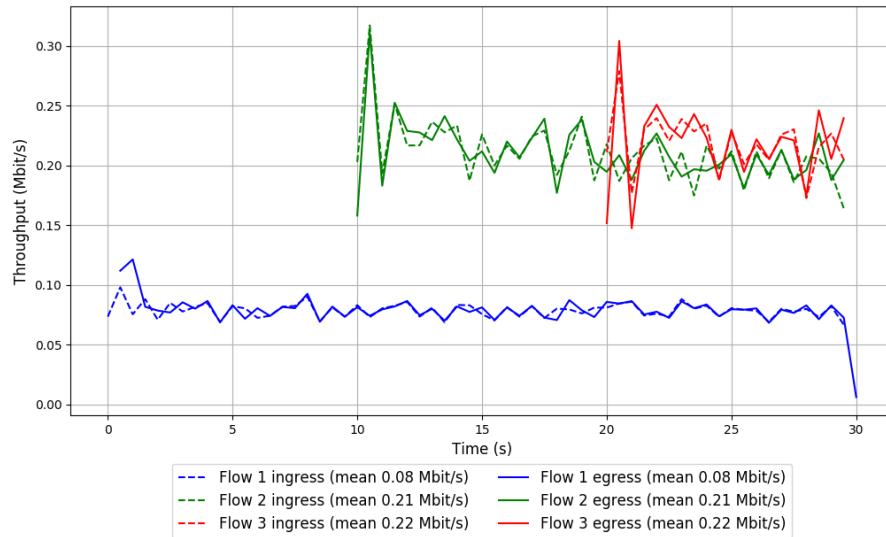


Run 3: Statistics of SCReAM

```
Start at: 2018-02-17 05:48:00
End at: 2018-02-17 05:48:30
Local clock offset: -4.326 ms
Remote clock offset: 2.307 ms

# Below is generated by plot.py at 2018-02-17 05:53:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 117.297 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 116.296 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 117.194 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 117.390 ms
Loss rate: 0.34%
```

Run 3: Report of SCReAM — Data Link

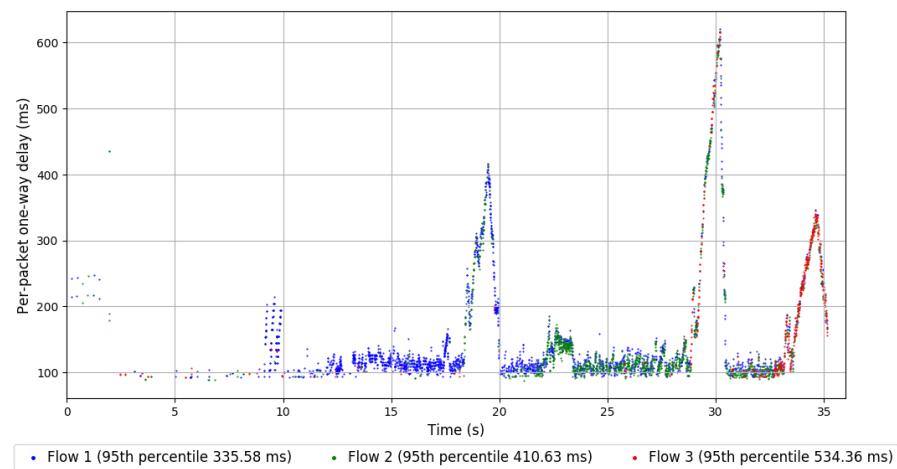
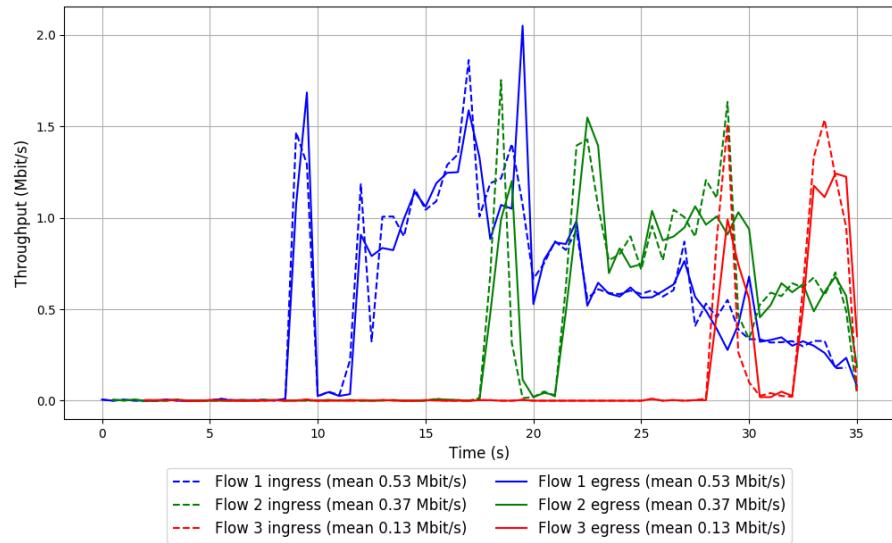


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-17 04:50:23
End at: 2018-02-17 04:50:53
Local clock offset: -2.129 ms
Remote clock offset: -3.908 ms

# Below is generated by plot.py at 2018-02-17 05:53:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 388.458 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 335.582 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 410.628 ms
Loss rate: 0.28%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 534.355 ms
Loss rate: 1.23%
```

Run 1: Report of WebRTC media — Data Link

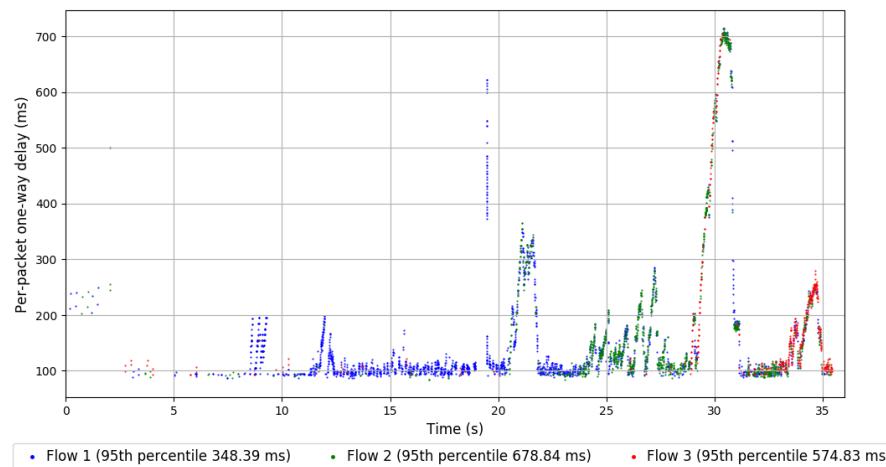
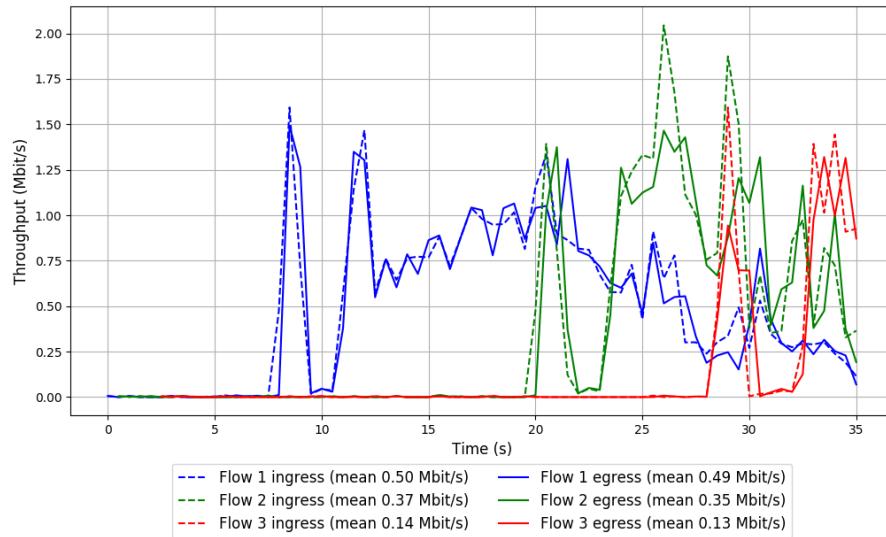


Run 2: Statistics of WebRTC media

```
Start at: 2018-02-17 05:12:56
End at: 2018-02-17 05:13:26
Local clock offset: -4.392 ms
Remote clock offset: -4.331 ms

# Below is generated by plot.py at 2018-02-17 05:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 555.026 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 348.395 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 678.843 ms
Loss rate: 4.45%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 574.825 ms
Loss rate: 4.13%
```

Run 2: Report of WebRTC media — Data Link

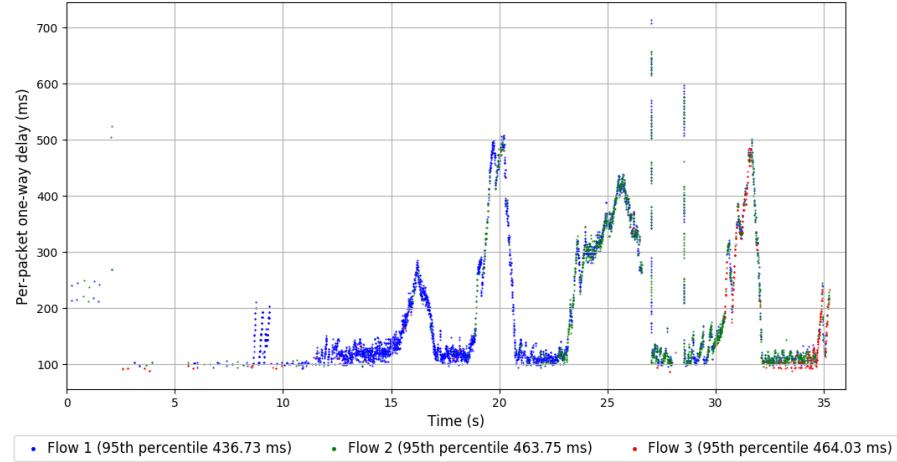
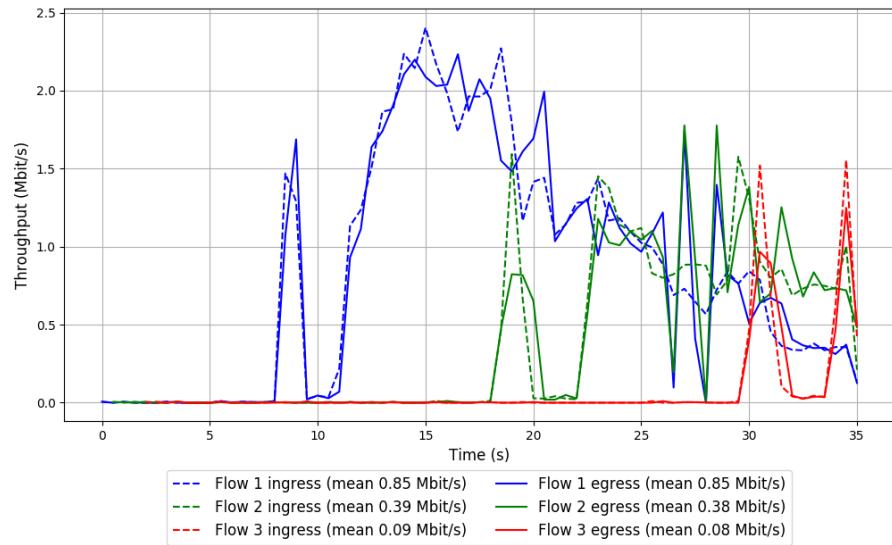


Run 3: Statistics of WebRTC media

```
Start at: 2018-02-17 05:35:29
End at: 2018-02-17 05:35:59
Local clock offset: -6.51 ms
Remote clock offset: -3.415 ms

# Below is generated by plot.py at 2018-02-17 05:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 453.388 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 436.726 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 463.748 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 464.034 ms
Loss rate: 7.32%
```

Run 3: Report of WebRTC media — Data Link

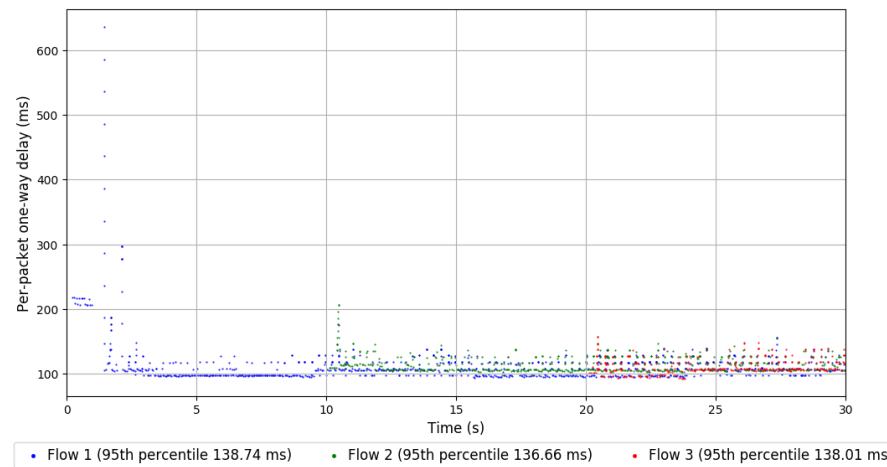
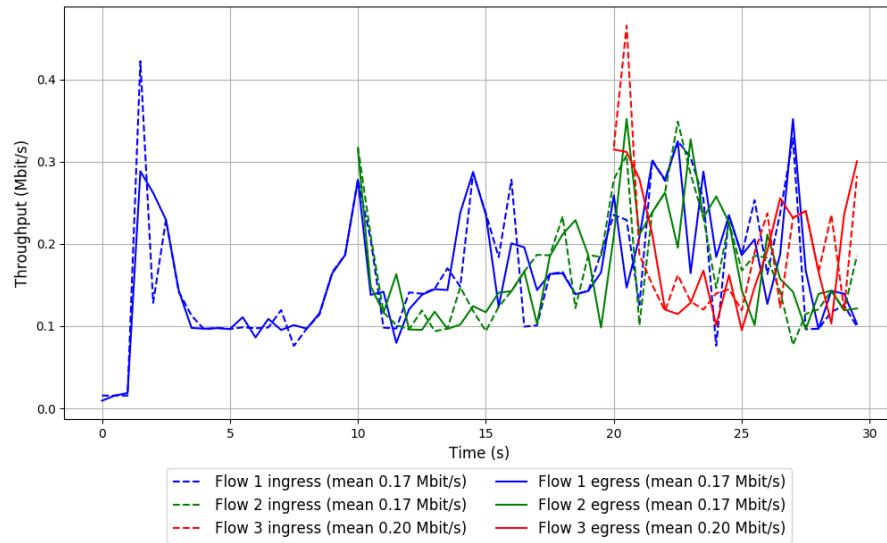


Run 1: Statistics of Sprout

```
Start at: 2018-02-17 04:52:53
End at: 2018-02-17 04:53:23
Local clock offset: -1.906 ms
Remote clock offset: 1.701 ms

# Below is generated by plot.py at 2018-02-17 05:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 137.878 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 138.735 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 136.655 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 138.015 ms
Loss rate: 0.04%
```

Run 1: Report of Sprout — Data Link

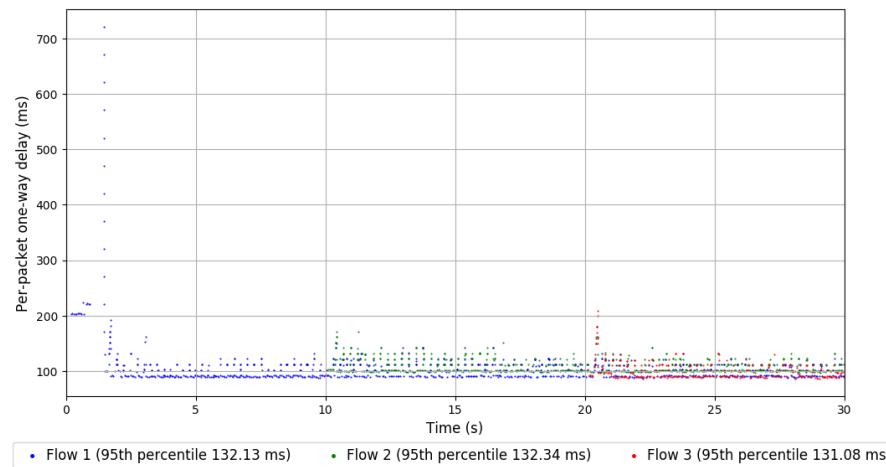
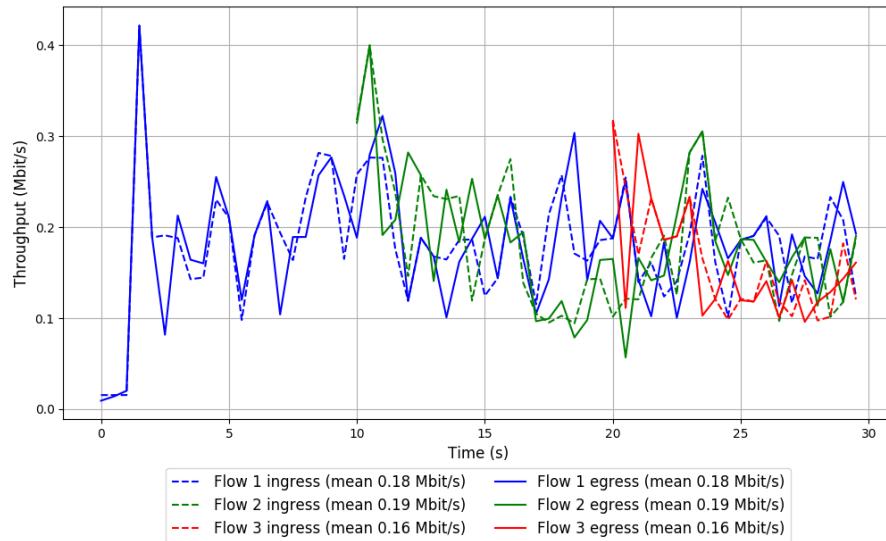


Run 2: Statistics of Sprout

```
Start at: 2018-02-17 05:15:26
End at: 2018-02-17 05:15:56
Local clock offset: -4.846 ms
Remote clock offset: -3.596 ms

# Below is generated by plot.py at 2018-02-17 05:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 132.150 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 132.128 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 132.339 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 131.080 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

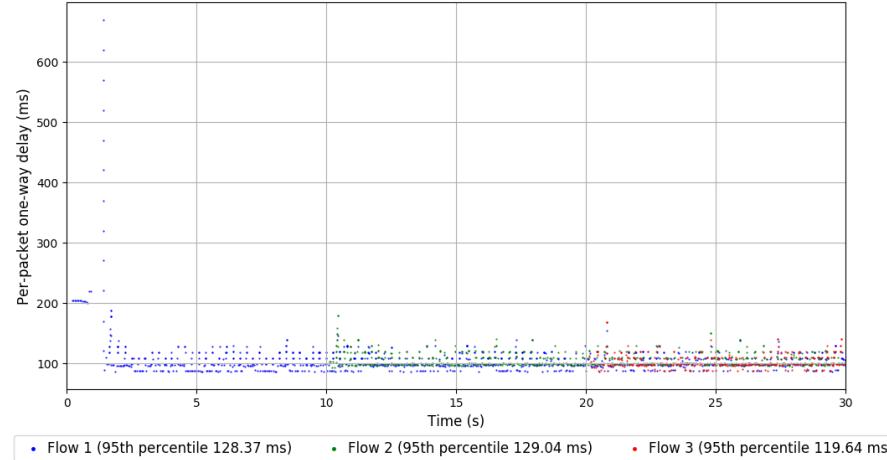
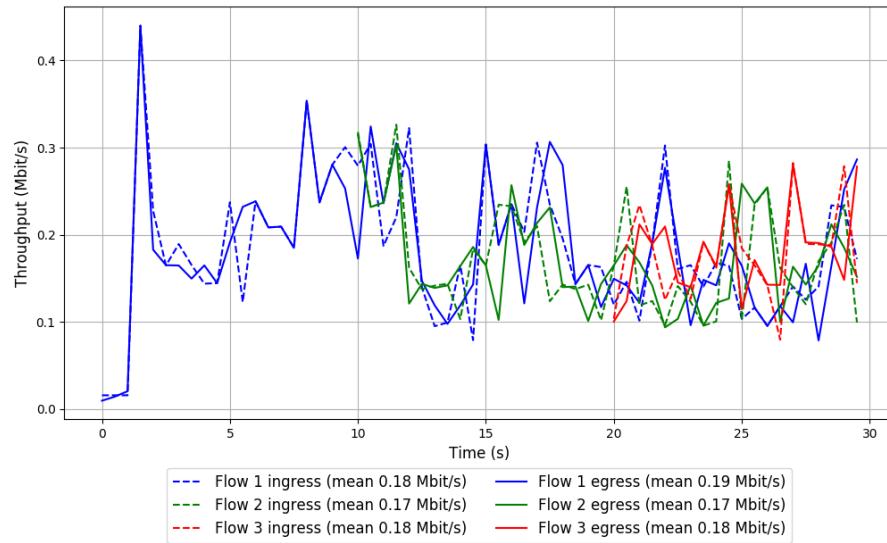


Run 3: Statistics of Sprout

```
Start at: 2018-02-17 05:37:59
End at: 2018-02-17 05:38:29
Local clock offset: -6.254 ms
Remote clock offset: -3.42 ms

# Below is generated by plot.py at 2018-02-17 05:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 128.717 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 128.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 129.044 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 119.635 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

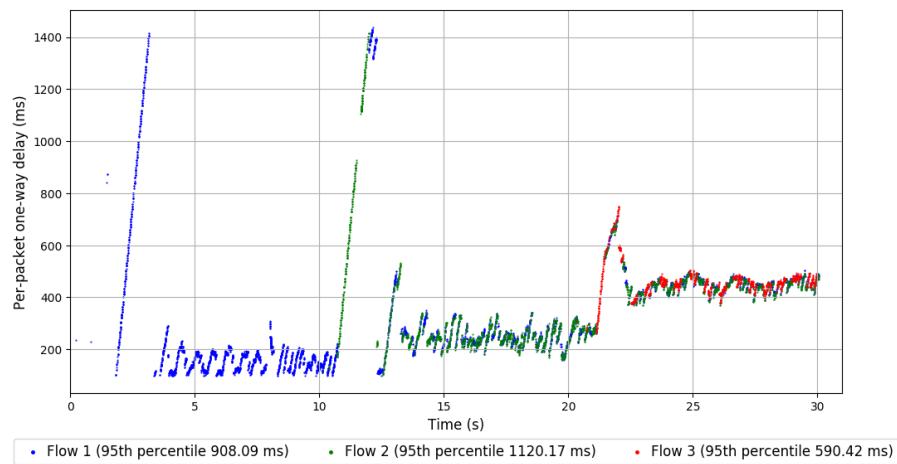
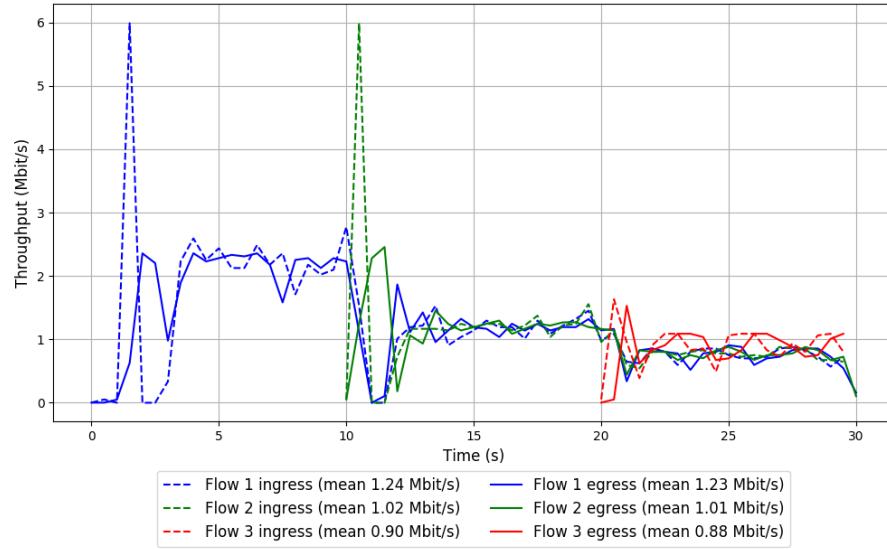


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-02-17 05:05:24
End at: 2018-02-17 05:05:54
Local clock offset: -2.355 ms
Remote clock offset: 1.43 ms

# Below is generated by plot.py at 2018-02-17 05:53:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 856.641 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 908.088 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 1120.168 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 590.416 ms
Loss rate: 4.52%
```

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

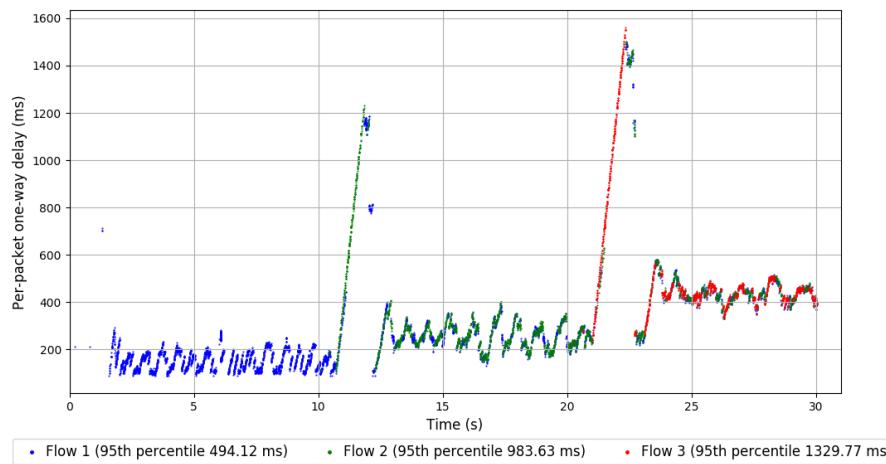
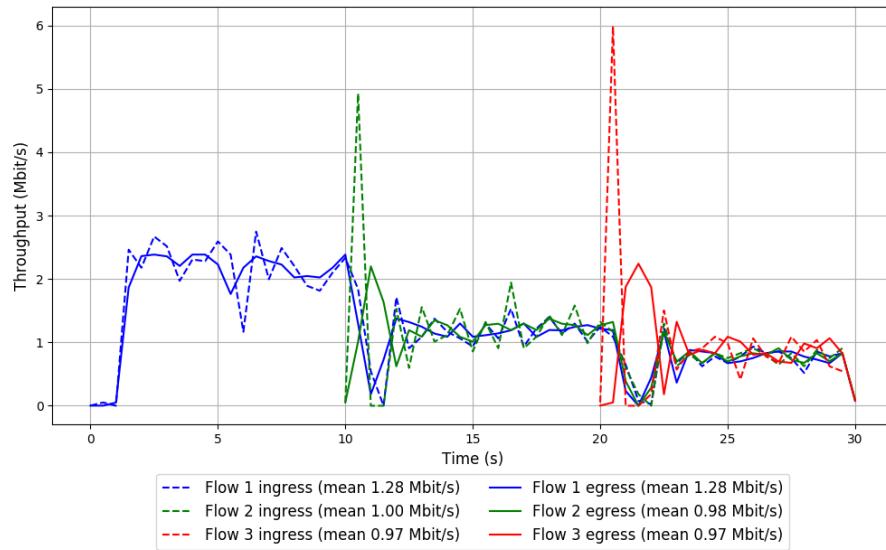


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-02-17 05:27:57
End at: 2018-02-17 05:28:27
Local clock offset: -6.021 ms
Remote clock offset: -3.393 ms

# Below is generated by plot.py at 2018-02-17 05:53:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 932.563 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 494.118 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 983.627 ms
Loss rate: 1.69%
-- Flow 3:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 1329.766 ms
Loss rate: 0.93%
```

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

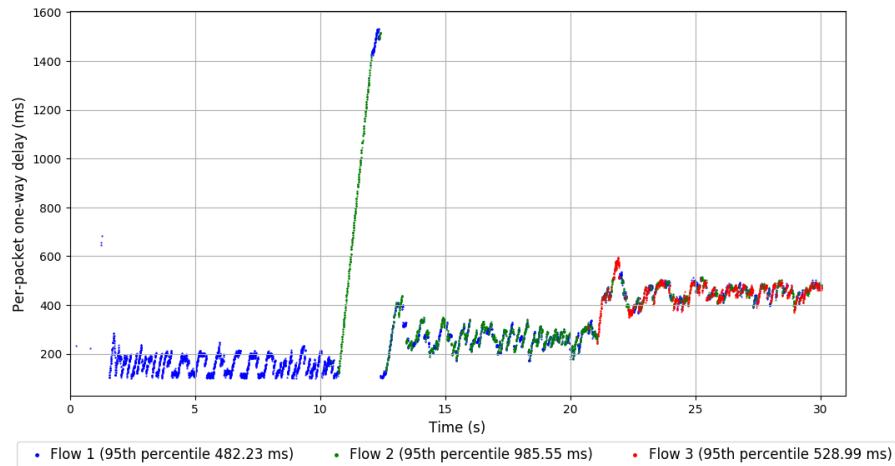
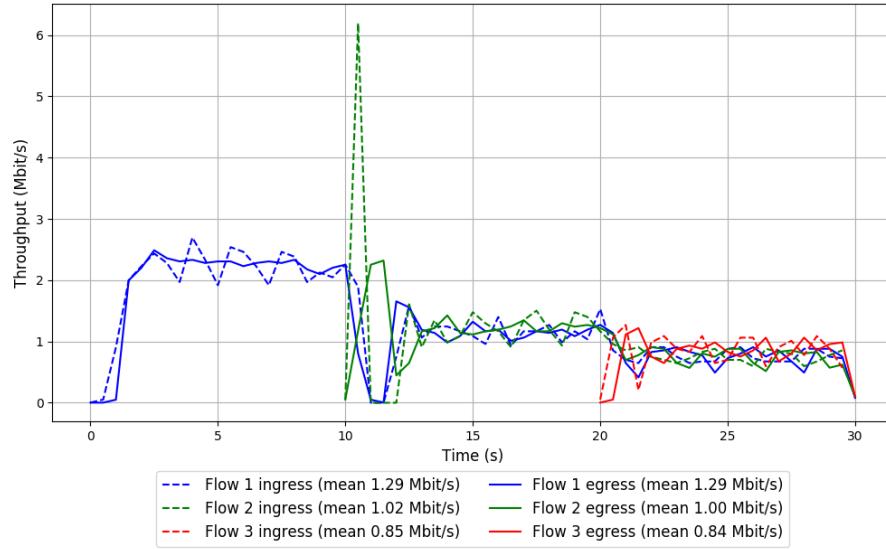


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-02-17 05:50:30
End at: 2018-02-17 05:51:00
Local clock offset: -4.119 ms
Remote clock offset: 1.313 ms

# Below is generated by plot.py at 2018-02-17 05:53:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 532.456 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 482.227 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 985.551 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 528.987 ms
Loss rate: 2.16%
```

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

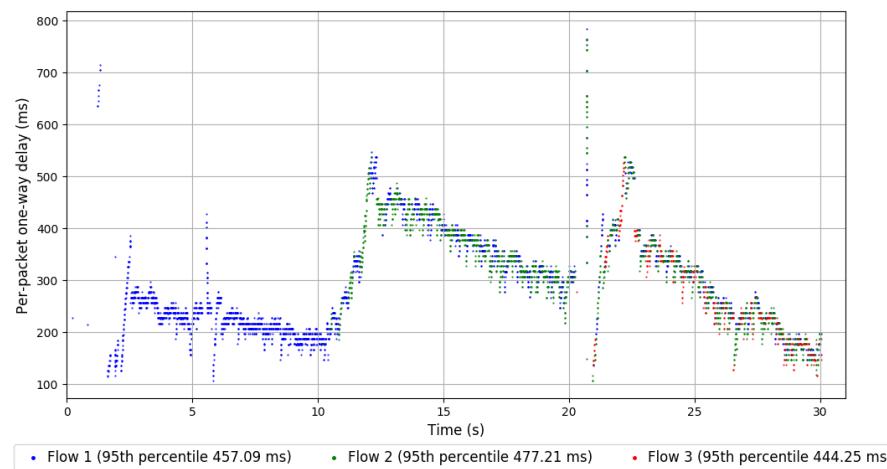
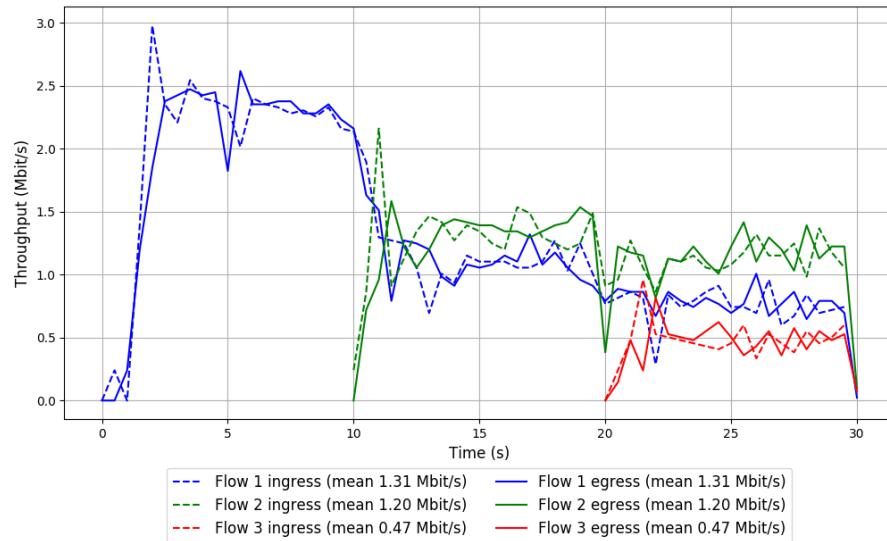


Run 1: Statistics of TCP Vegas

```
Start at: 2018-02-17 04:47:52
End at: 2018-02-17 04:48:22
Local clock offset: -2.344 ms
Remote clock offset: 2.76 ms

# Below is generated by plot.py at 2018-02-17 05:53:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 457.573 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 457.089 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 477.215 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 444.248 ms
Loss rate: 1.79%
```

Run 1: Report of TCP Vegas — Data Link

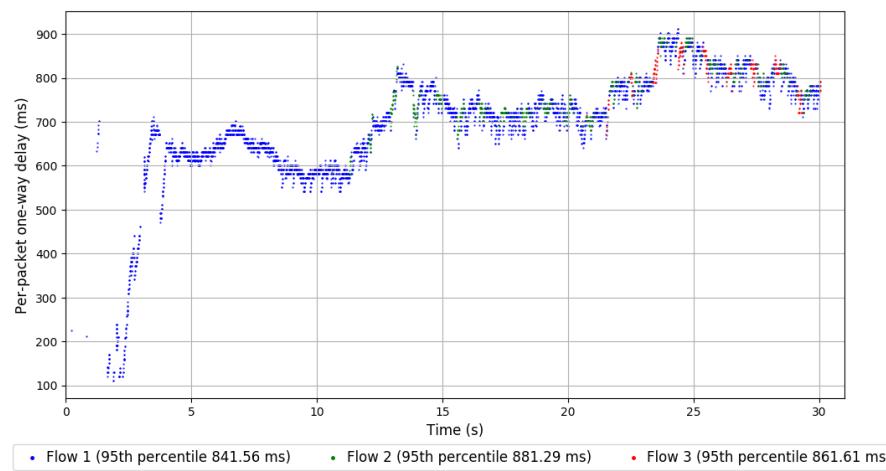
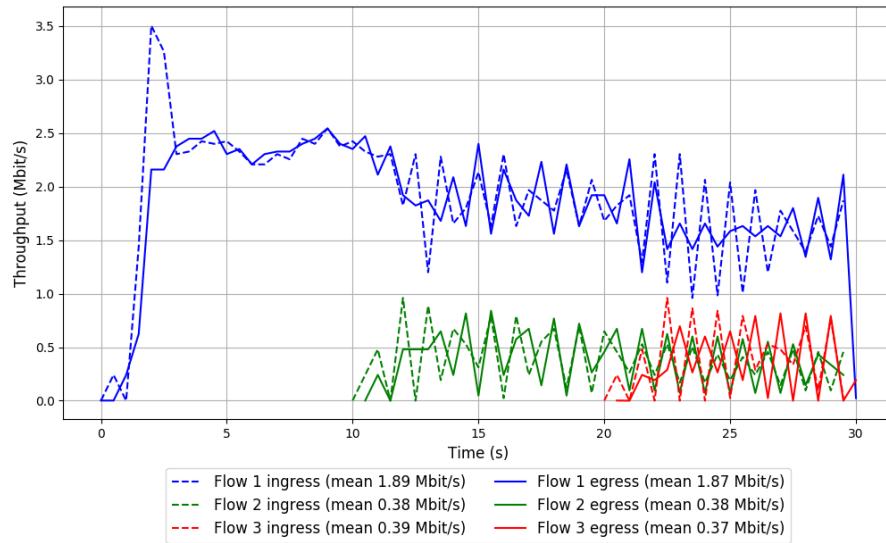


Run 2: Statistics of TCP Vegas

```
Start at: 2018-02-17 05:10:24
End at: 2018-02-17 05:10:54
Local clock offset: -3.851 ms
Remote clock offset: 1.371 ms

# Below is generated by plot.py at 2018-02-17 05:53:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 851.696 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 841.557 ms
Loss rate: 1.90%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 881.288 ms
Loss rate: 3.32%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 861.609 ms
Loss rate: 8.09%
```

Run 2: Report of TCP Vegas — Data Link

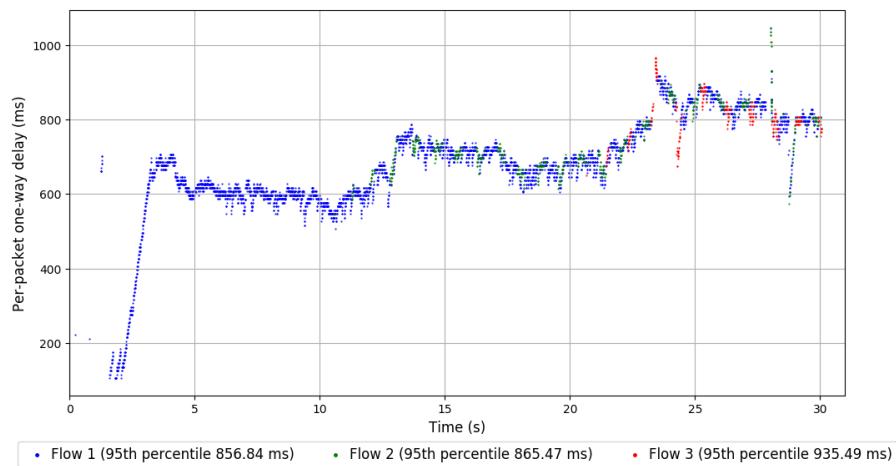
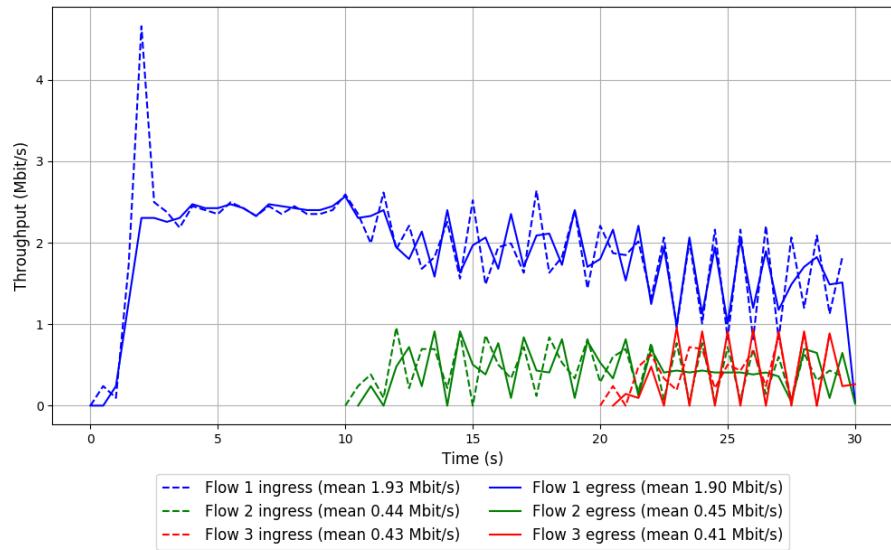


Run 3: Statistics of TCP Vegas

```
Start at: 2018-02-17 05:32:57
End at: 2018-02-17 05:33:27
Local clock offset: -6.298 ms
Remote clock offset: 1.314 ms

# Below is generated by plot.py at 2018-02-17 05:53:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 866.458 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 856.836 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 865.473 ms
Loss rate: 2.16%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 935.487 ms
Loss rate: 4.77%
```

Run 3: Report of TCP Vegas — Data Link

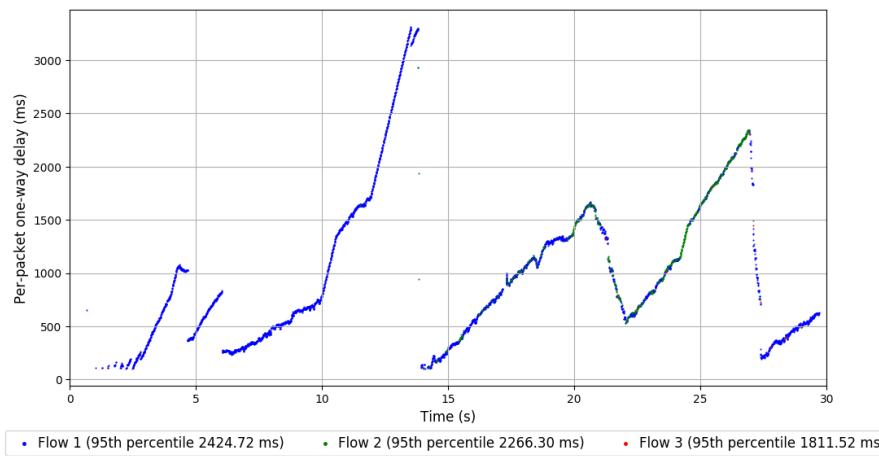
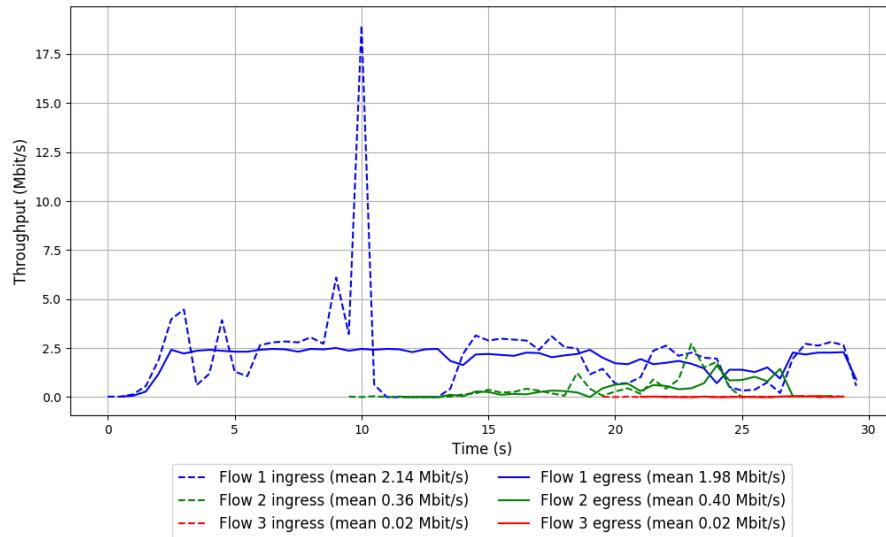


Run 1: Statistics of Verus

```
Start at: 2018-02-17 04:51:38
End at: 2018-02-17 04:52:08
Local clock offset: -2.071 ms
Remote clock offset: 1.714 ms

# Below is generated by plot.py at 2018-02-17 05:53:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 2334.905 ms
Loss rate: 8.47%
-- Flow 1:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 2424.725 ms
Loss rate: 9.38%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 2266.297 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1811.522 ms
Loss rate: 7.69%
```

Run 1: Report of Verus — Data Link

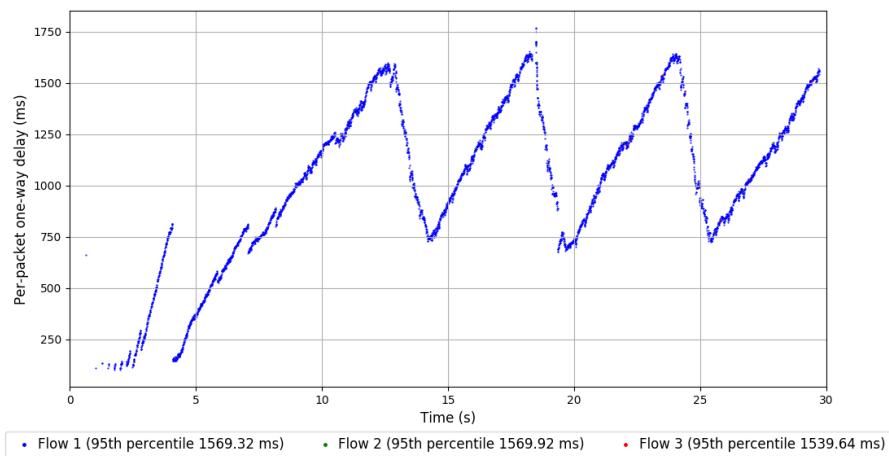
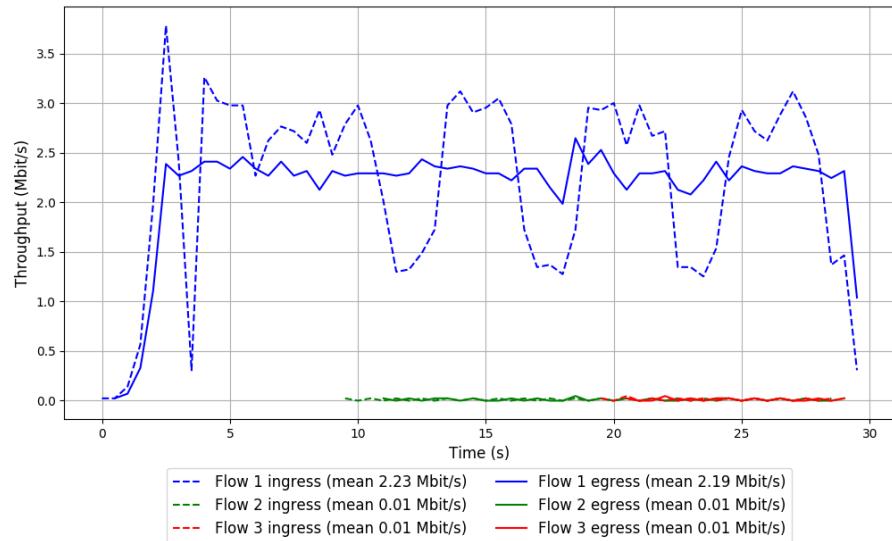


Run 2: Statistics of Verus

```
Start at: 2018-02-17 05:14:11
End at: 2018-02-17 05:14:41
Local clock offset: -4.665 ms
Remote clock offset: 0.51 ms

# Below is generated by plot.py at 2018-02-17 05:53:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 1569.562 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 1569.324 ms
Loss rate: 3.57%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1569.924 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1539.637 ms
Loss rate: 9.09%
```

Run 2: Report of Verus — Data Link

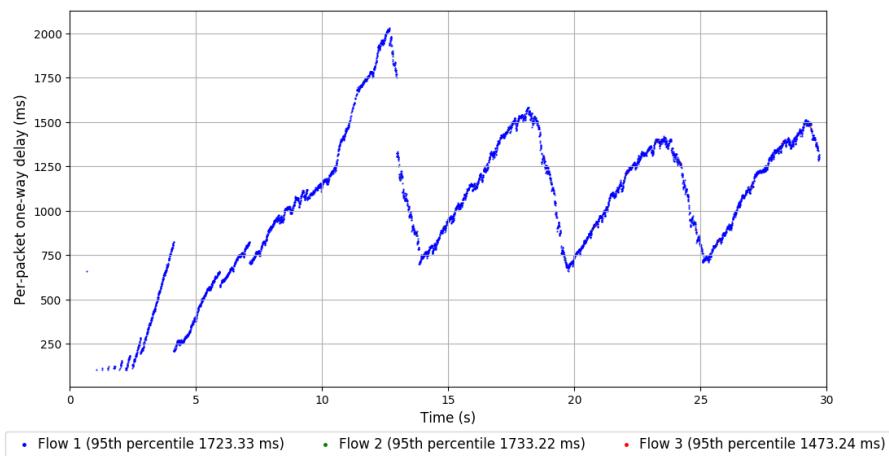
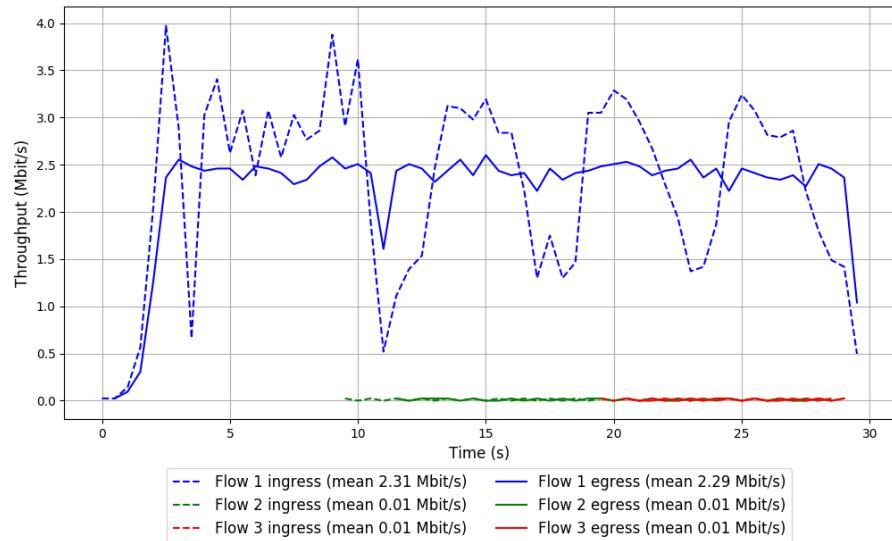


Run 3: Statistics of Verus

```
Start at: 2018-02-17 05:36:44
End at: 2018-02-17 05:37:14
Local clock offset: -6.488 ms
Remote clock offset: -4.302 ms

# Below is generated by plot.py at 2018-02-17 05:53:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 1723.329 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 1723.329 ms
Loss rate: 2.71%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1733.218 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1473.243 ms
Loss rate: 10.00%
```

Run 3: Report of Verus — Data Link

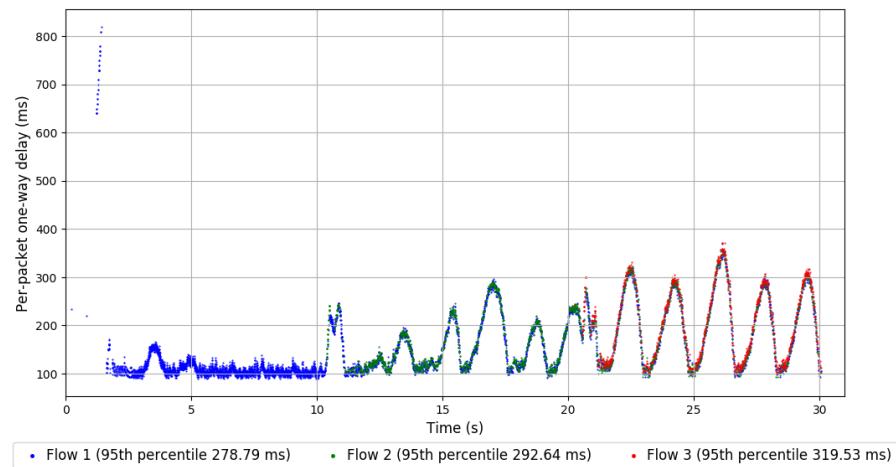
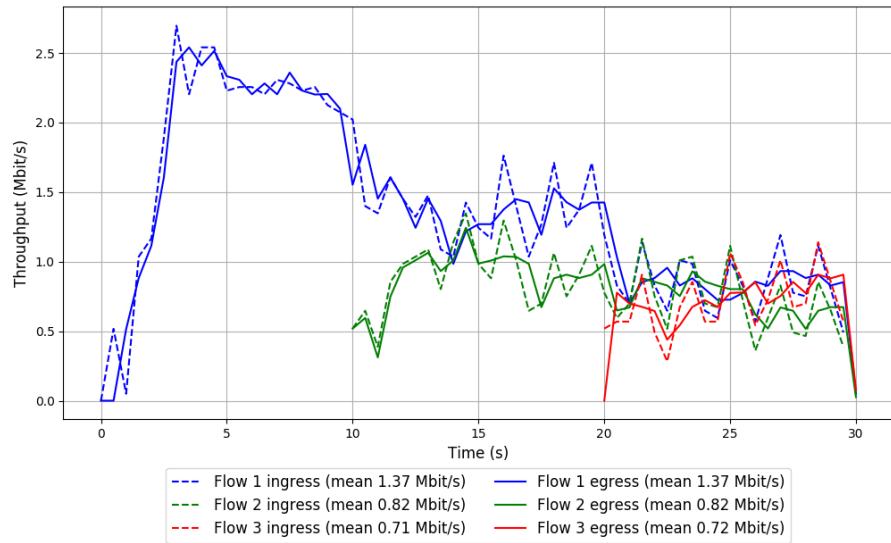


Run 1: Statistics of Copa

```
Start at: 2018-02-17 04:49:07
End at: 2018-02-17 04:49:37
Local clock offset: -2.231 ms
Remote clock offset: 1.009 ms

# Below is generated by plot.py at 2018-02-17 05:53:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 291.069 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 278.788 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 292.643 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 319.526 ms
Loss rate: 0.18%
```

Run 1: Report of Copa — Data Link

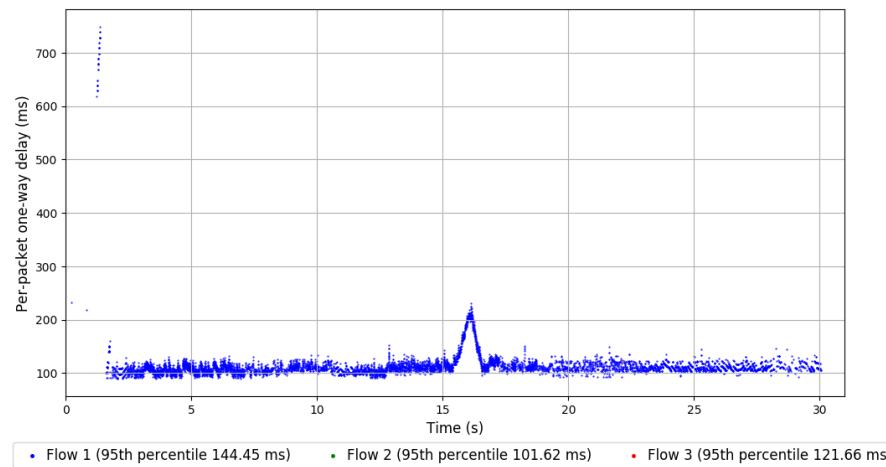
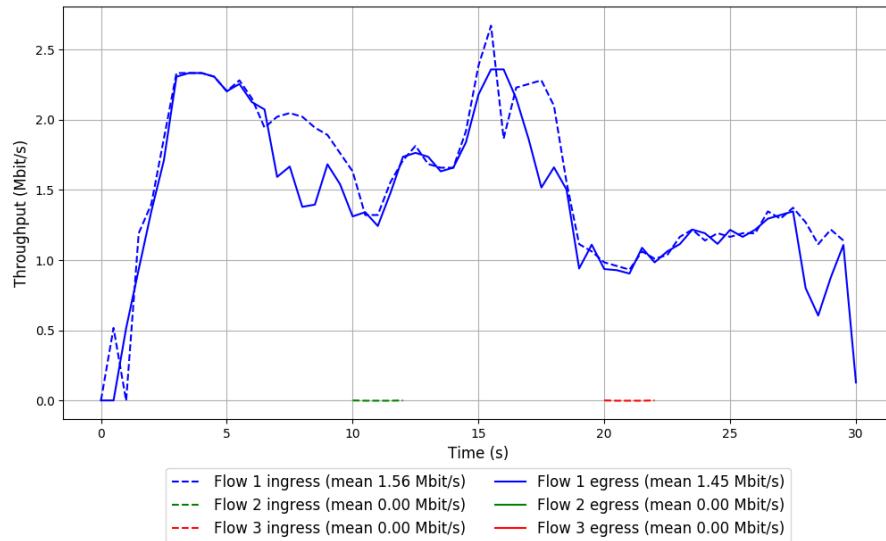


Run 2: Statistics of Copa

```
Start at: 2018-02-17 05:11:39
End at: 2018-02-17 05:12:09
Local clock offset: -4.173 ms
Remote clock offset: 0.453 ms

# Below is generated by plot.py at 2018-02-17 05:53:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 144.447 ms
Loss rate: 7.10%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 144.447 ms
Loss rate: 7.10%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 101.616 ms
Loss rate: 50.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 121.664 ms
Loss rate: 50.00%
```

Run 2: Report of Copa — Data Link

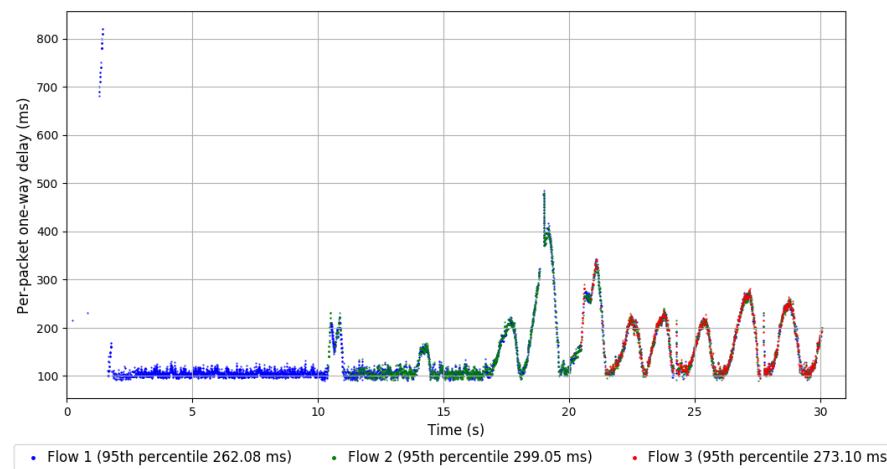
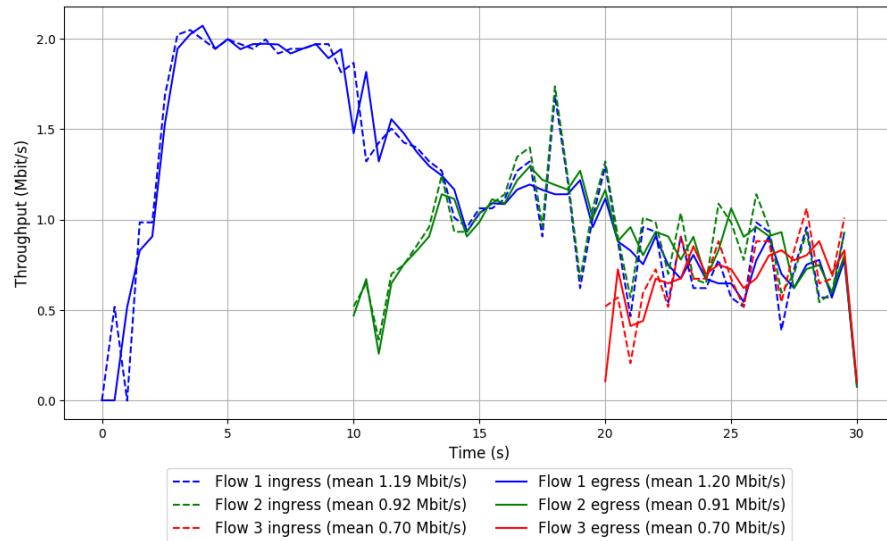


Run 3: Statistics of Copa

```
Start at: 2018-02-17 05:34:12
End at: 2018-02-17 05:34:42
Local clock offset: -6.377 ms
Remote clock offset: 1.345 ms

# Below is generated by plot.py at 2018-02-17 05:54:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 271.117 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 262.080 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 299.049 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 273.098 ms
Loss rate: 1.84%
```

Run 3: Report of Copa — Data Link

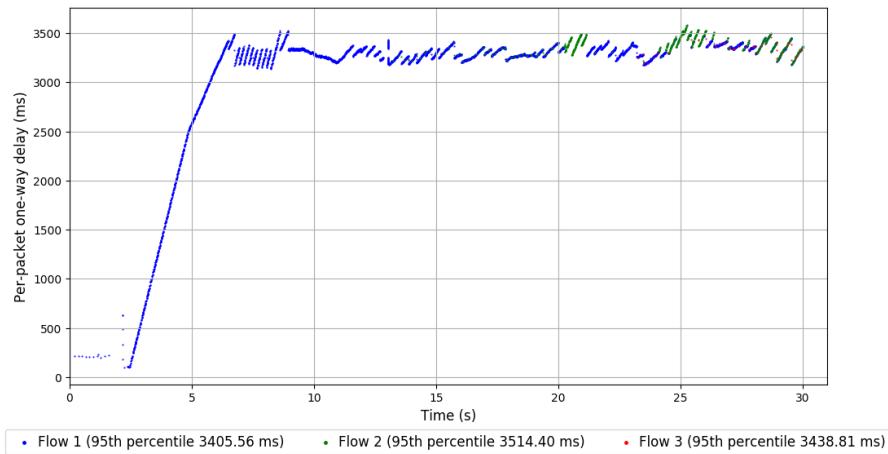
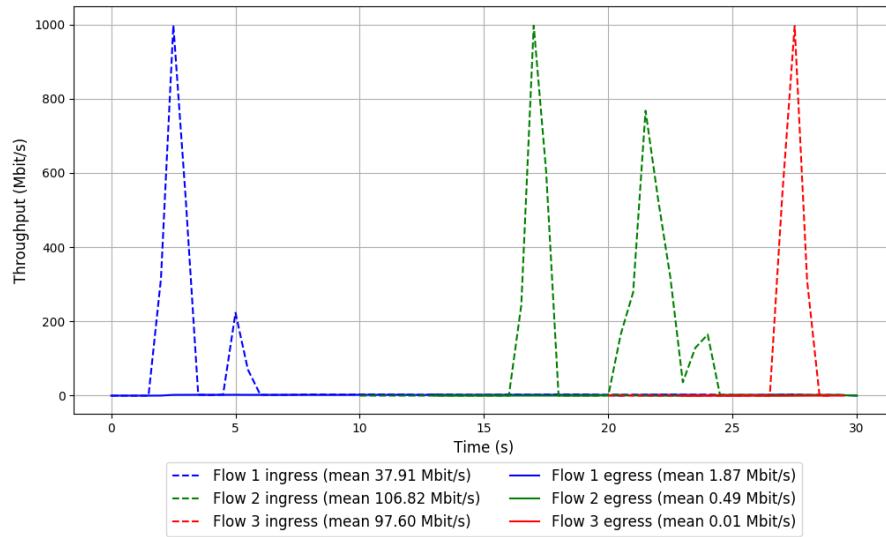


```
Run 1: Statistics of FillP

Start at: 2018-02-17 05:01:38
End at: 2018-02-17 05:02:08
Local clock offset: -1.405 ms
Remote clock offset: -3.453 ms

# Below is generated by plot.py at 2018-02-17 05:54:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 3448.637 ms
Loss rate: 98.48%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 3405.556 ms
Loss rate: 95.10%
-- Flow 2:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 3514.401 ms
Loss rate: 99.62%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3438.807 ms
Loss rate: 100.00%
```

Run 1: Report of FillP — Data Link

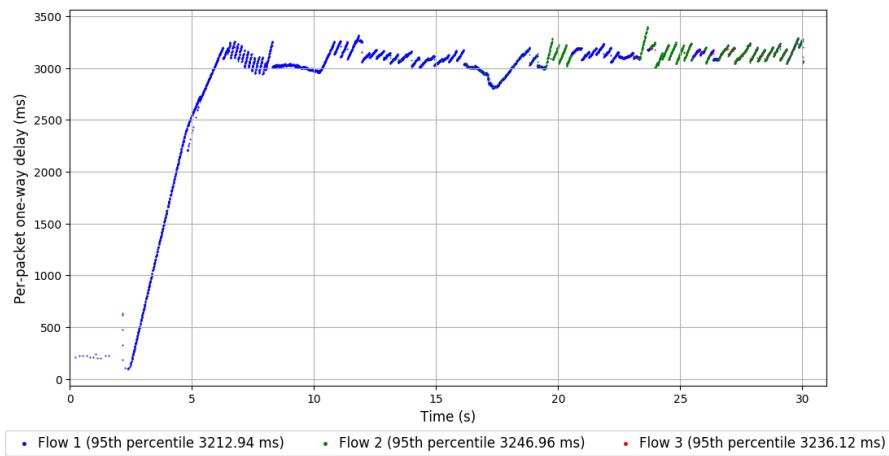
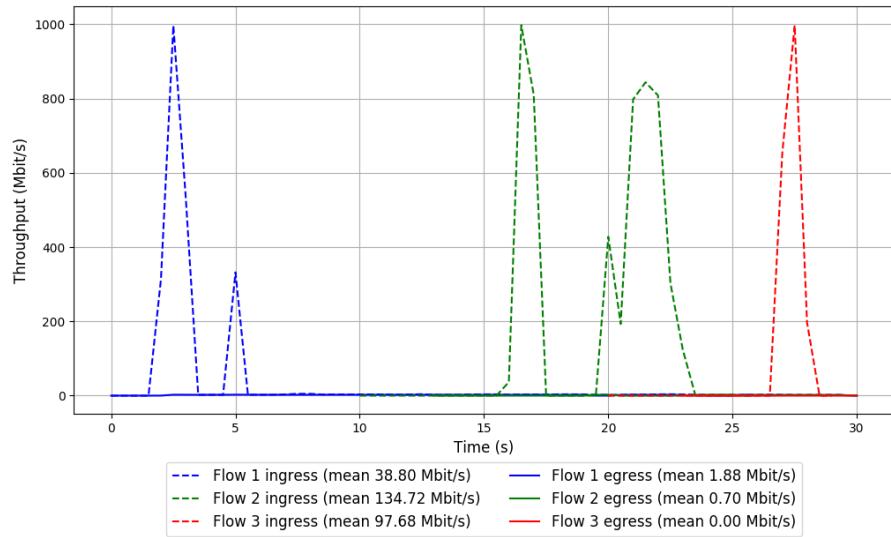


Run 2: Statistics of FillP

```
Start at: 2018-02-17 05:24:10
End at: 2018-02-17 05:24:40
Local clock offset: -5.753 ms
Remote clock offset: 0.51 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 3222.816 ms
Loss rate: 98.57%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 3212.937 ms
Loss rate: 95.17%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 3246.956 ms
Loss rate: 99.56%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3236.123 ms
Loss rate: 100.00%
```

Run 2: Report of FillP — Data Link

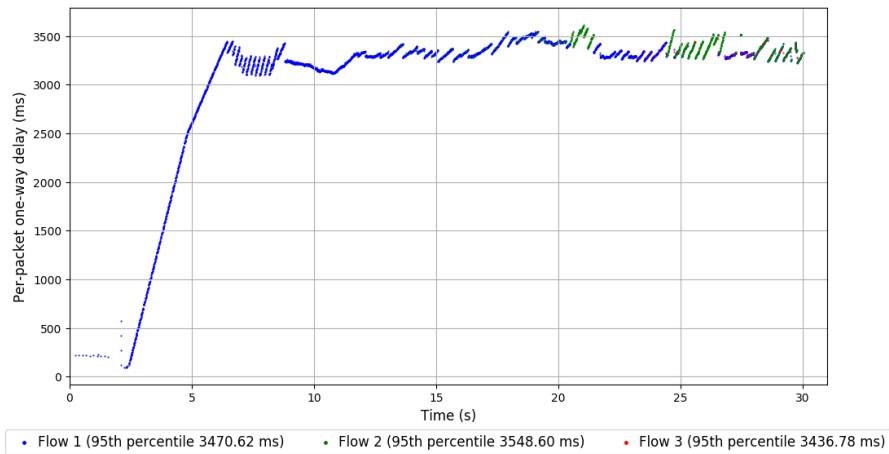
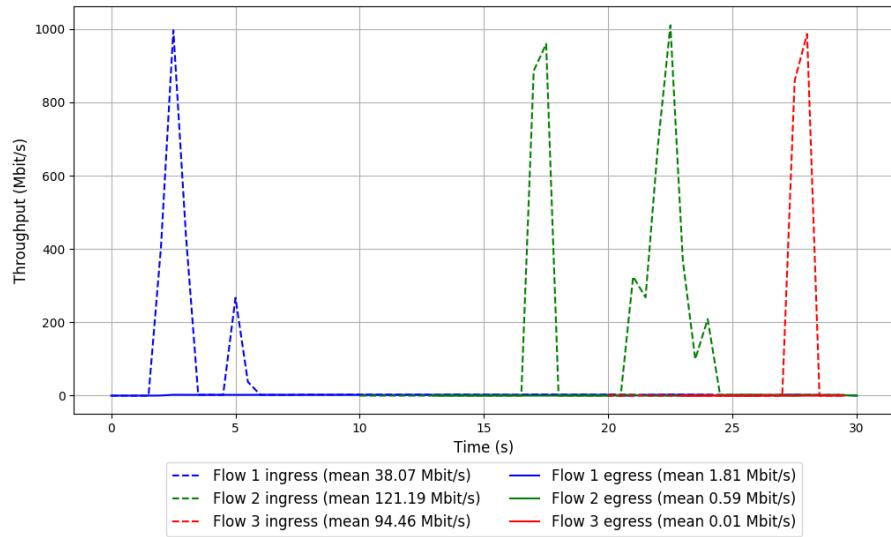


Run 3: Statistics of FillP

```
Start at: 2018-02-17 05:46:43
End at: 2018-02-17 05:47:13
Local clock offset: -4.532 ms
Remote clock offset: 1.469 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 3497.157 ms
Loss rate: 98.57%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 3470.625 ms
Loss rate: 95.26%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 3548.604 ms
Loss rate: 99.59%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3436.784 ms
Loss rate: 100.00%
```

Run 3: Report of FillP — Data Link

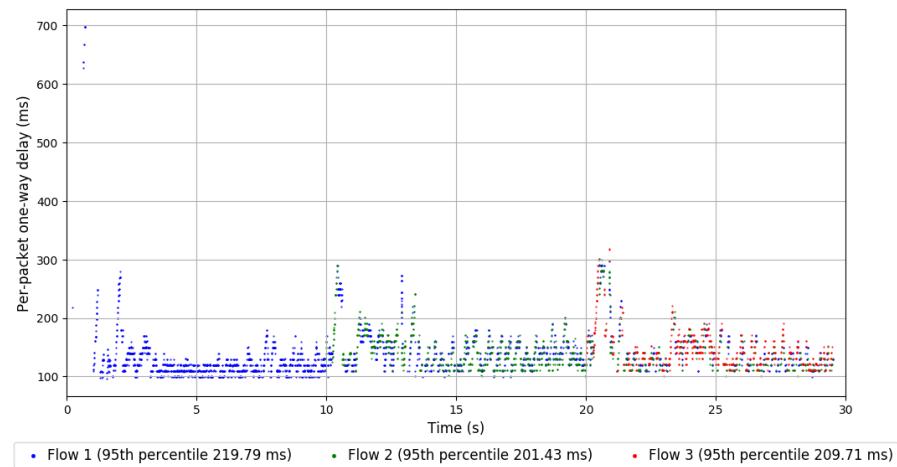
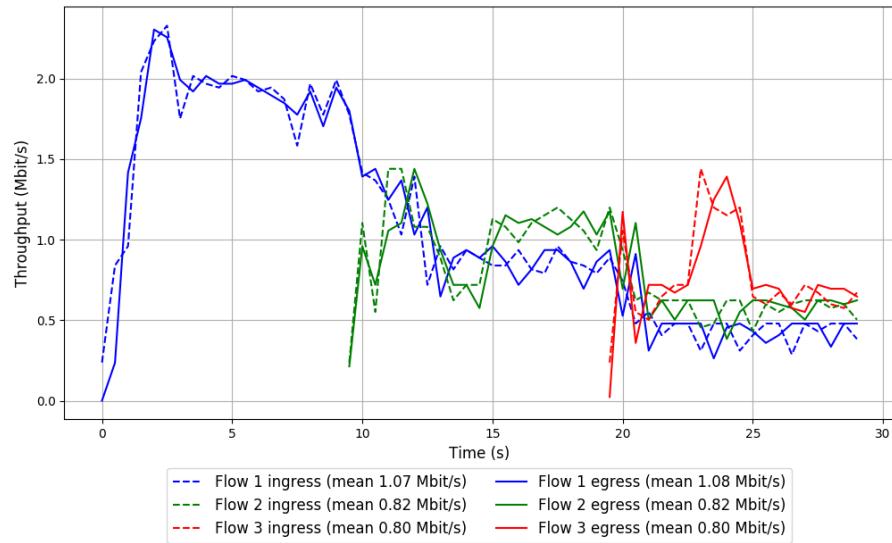


Run 1: Statistics of Indigo-1-32

```
Start at: 2018-02-17 04:46:37
End at: 2018-02-17 04:47:07
Local clock offset: -2.526 ms
Remote clock offset: -2.784 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 210.669 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 219.788 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 201.430 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 209.714 ms
Loss rate: 0.63%
```

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

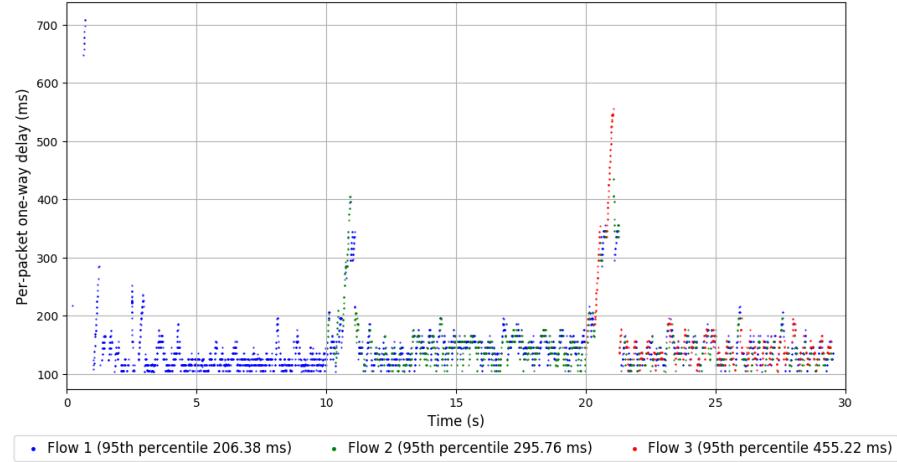
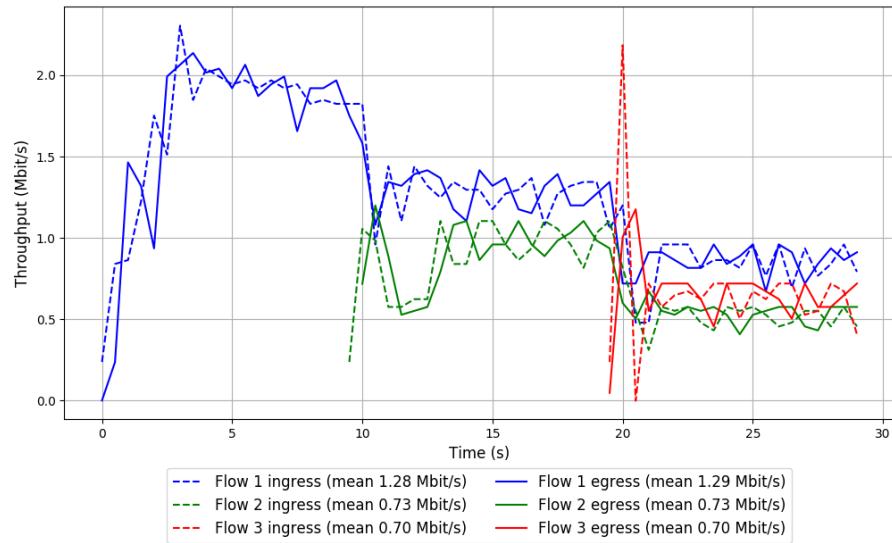


Run 2: Statistics of Indigo-1-32

```
Start at: 2018-02-17 05:09:10
End at: 2018-02-17 05:09:40
Local clock offset: -3.618 ms
Remote clock offset: 1.388 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 272.777 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 206.377 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 295.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 455.222 ms
Loss rate: 0.00%
```

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

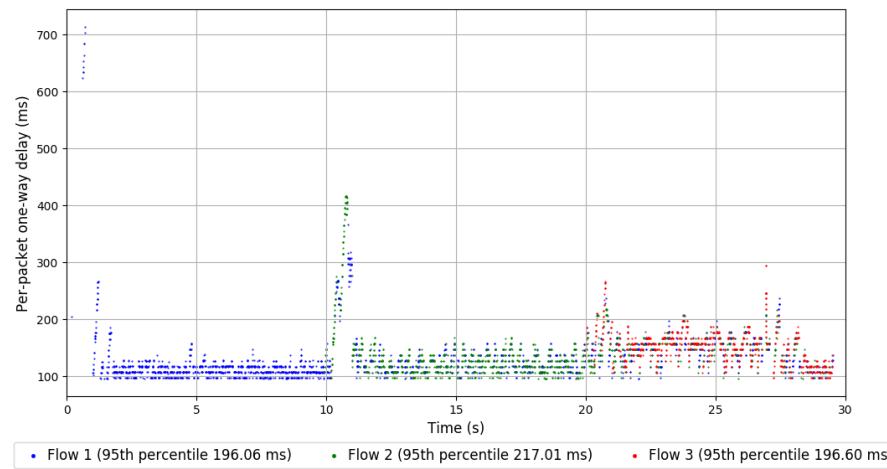
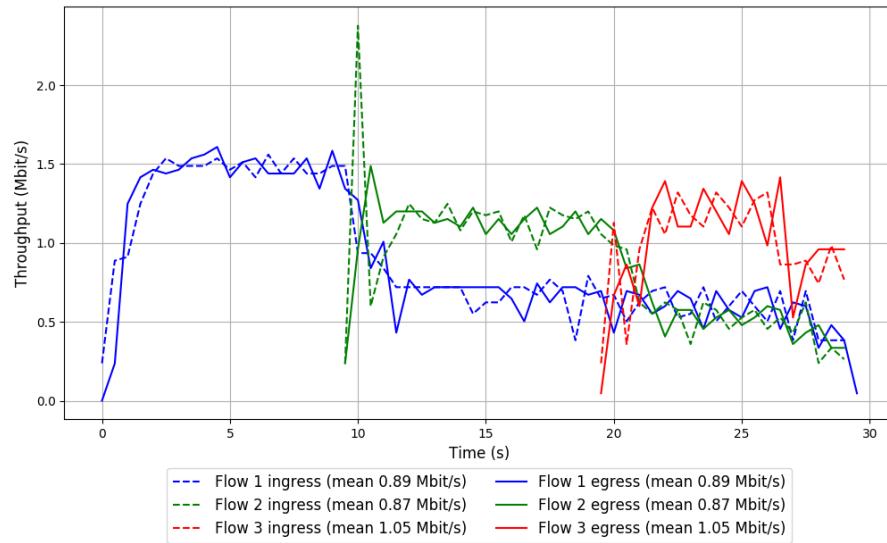


Run 3: Statistics of Indigo-1-32

```
Start at: 2018-02-17 05:31:43
End at: 2018-02-17 05:32:13
Local clock offset: -6.233 ms
Remote clock offset: -3.463 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 206.684 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 196.057 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 217.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 196.603 ms
Loss rate: 0.00%
```

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

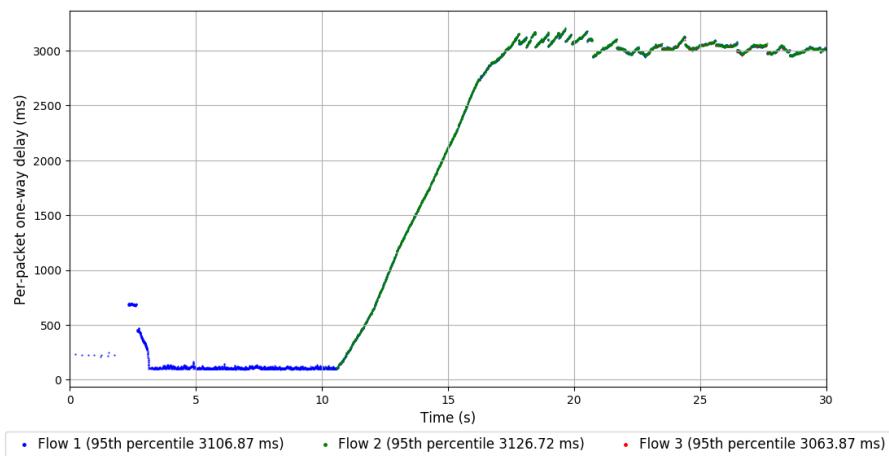
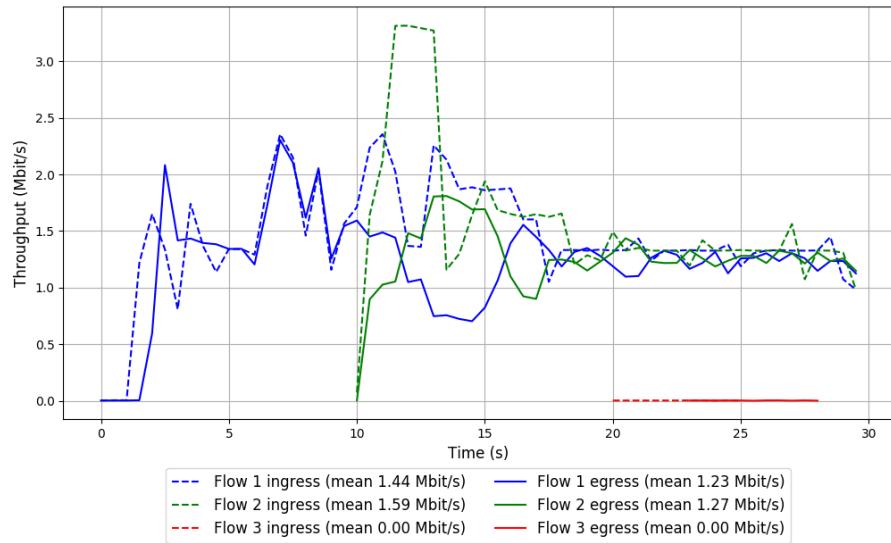


```
Run 1: Statistics of Vivace-latency
```

```
Start at: 2018-02-17 04:55:23
End at: 2018-02-17 04:55:53
Local clock offset: -1.735 ms
Remote clock offset: -3.21 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 3116.866 ms
Loss rate: 17.18%
-- Flow 1:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 3106.871 ms
Loss rate: 15.27%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 3126.716 ms
Loss rate: 19.81%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3063.871 ms
Loss rate: 4.60%
```

Run 1: Report of Vivace-latency — Data Link

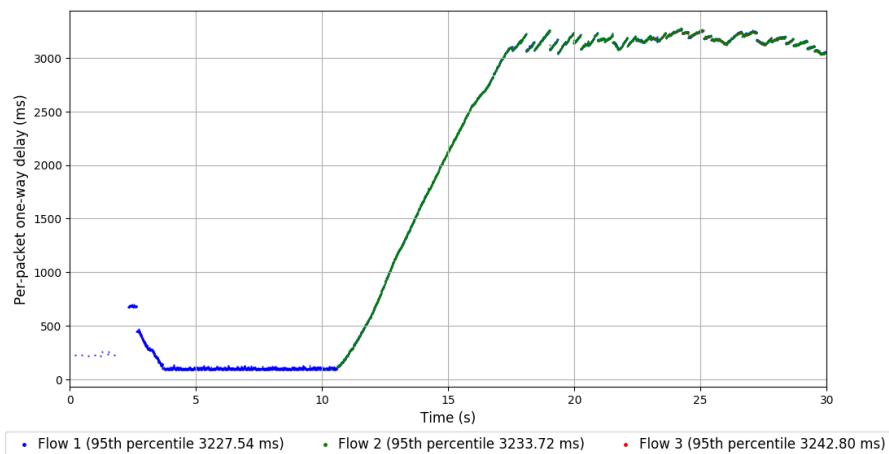
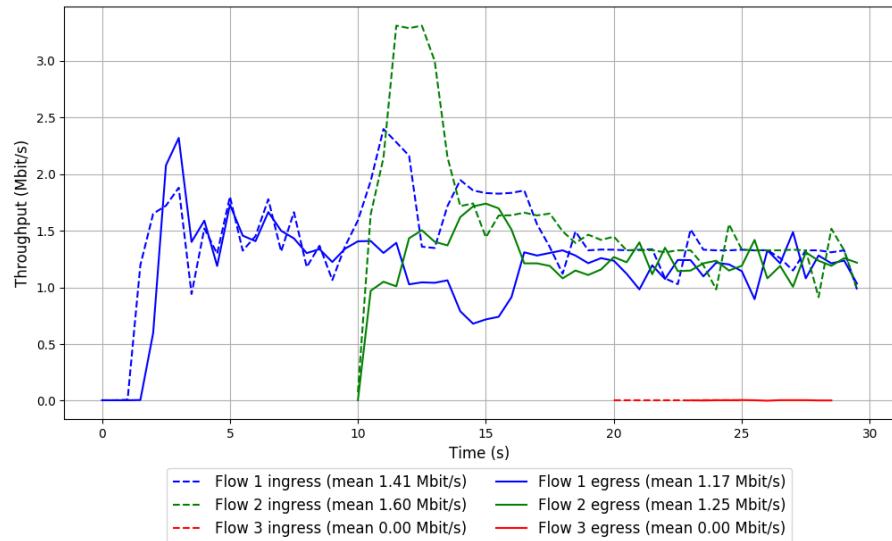


Run 2: Statistics of Vivace-latency

```
Start at: 2018-02-17 05:17:55
End at: 2018-02-17 05:18:25
Local clock offset: -5.172 ms
Remote clock offset: -3.573 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 3230.725 ms
Loss rate: 19.49%
-- Flow 1:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 3227.538 ms
Loss rate: 17.40%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 3233.723 ms
Loss rate: 22.28%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3242.804 ms
Loss rate: 0.00%
```

Run 2: Report of Vivace-latency — Data Link

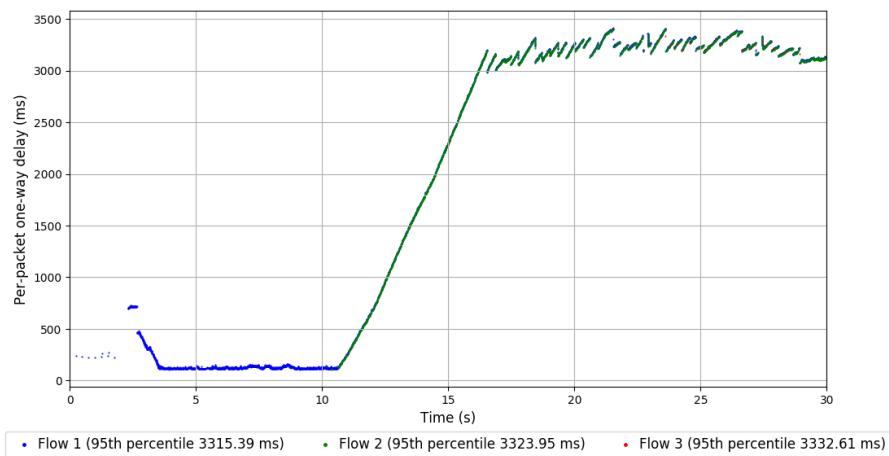
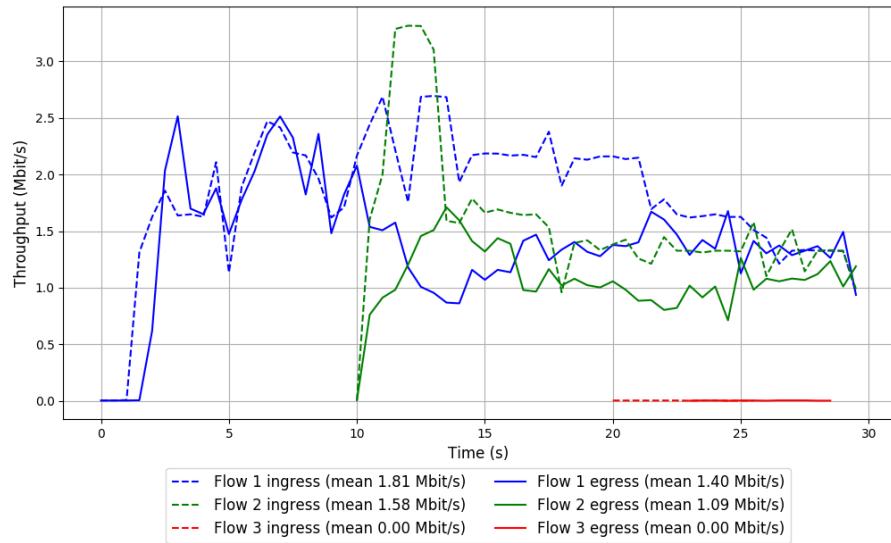


Run 3: Statistics of Vivace-latency

```
Start at: 2018-02-17 05:40:28
End at: 2018-02-17 05:40:58
Local clock offset: -5.58 ms
Remote clock offset: 1.38 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 3318.464 ms
Loss rate: 25.94%
-- Flow 1:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 3315.385 ms
Loss rate: 22.80%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 3323.951 ms
Loss rate: 31.37%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3332.610 ms
Loss rate: 4.60%
```

Run 3: Report of Vivace-latency — Data Link

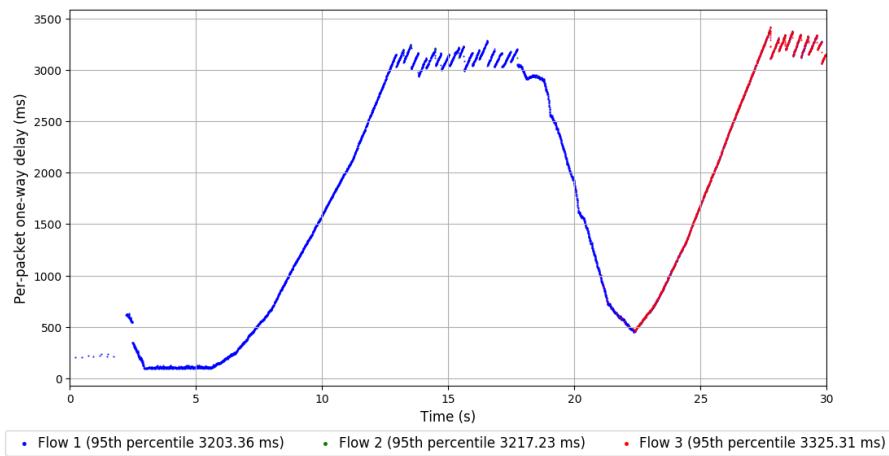
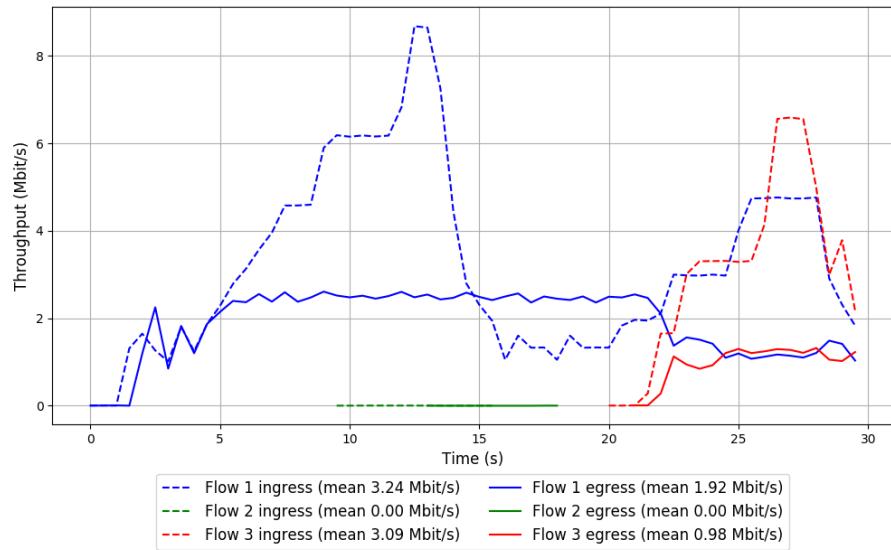


```
Run 1: Statistics of Vivace-loss
```

```
Start at: 2018-02-17 04:56:37
End at: 2018-02-17 04:57:07
Local clock offset: -1.653 ms
Remote clock offset: -4.128 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 3249.278 ms
Loss rate: 48.24%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 3203.360 ms
Loss rate: 40.99%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3217.230 ms
Loss rate: 61.85%
-- Flow 3:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 3325.311 ms
Loss rate: 71.29%
```

Run 1: Report of Vivace-loss — Data Link

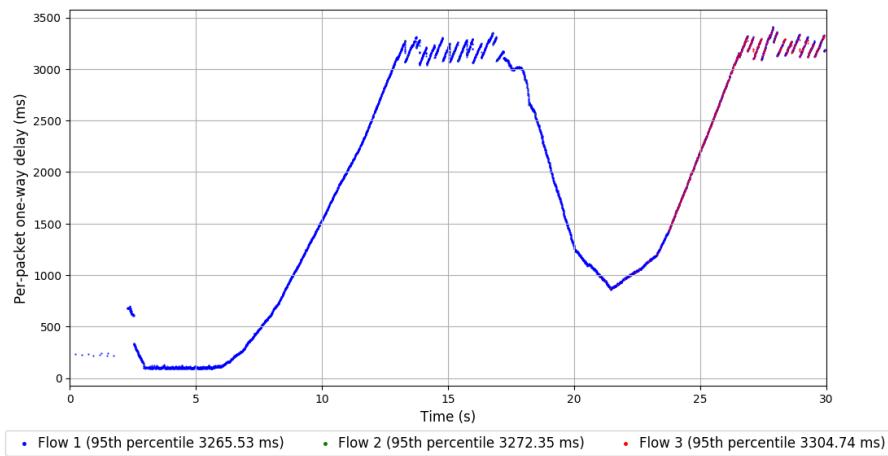
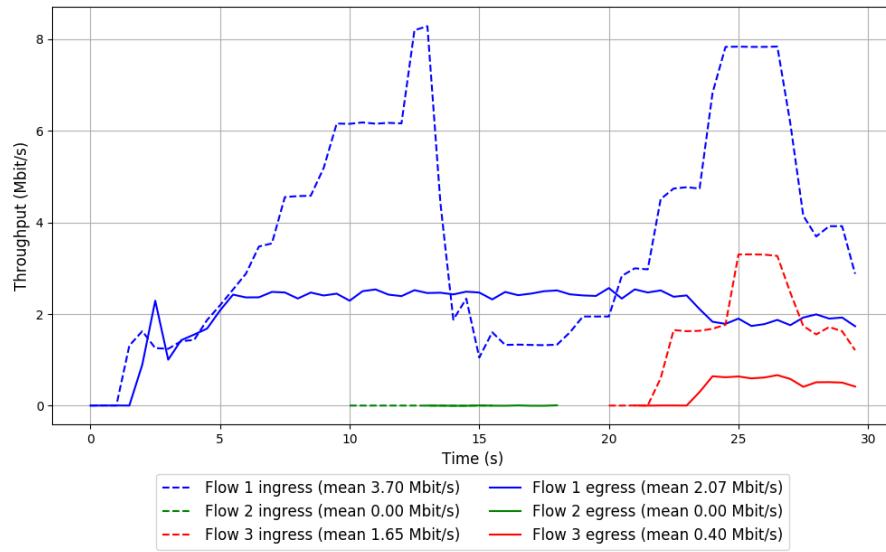


Run 2: Statistics of Vivace-loss

```
Start at: 2018-02-17 05:19:10
End at: 2018-02-17 05:19:40
Local clock offset: -5.29 ms
Remote clock offset: -3.579 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 3269.655 ms
Loss rate: 48.61%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 3265.525 ms
Loss rate: 44.25%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3272.347 ms
Loss rate: 24.35%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 3304.745 ms
Loss rate: 78.26%
```

Run 2: Report of Vivace-loss — Data Link

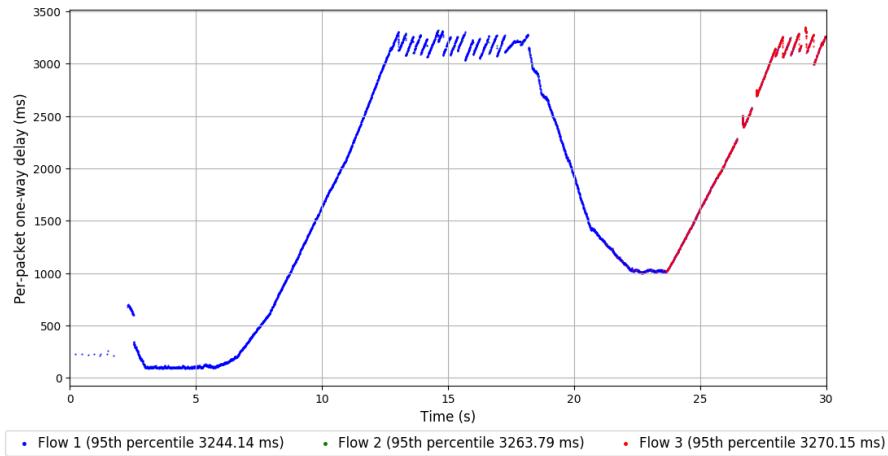
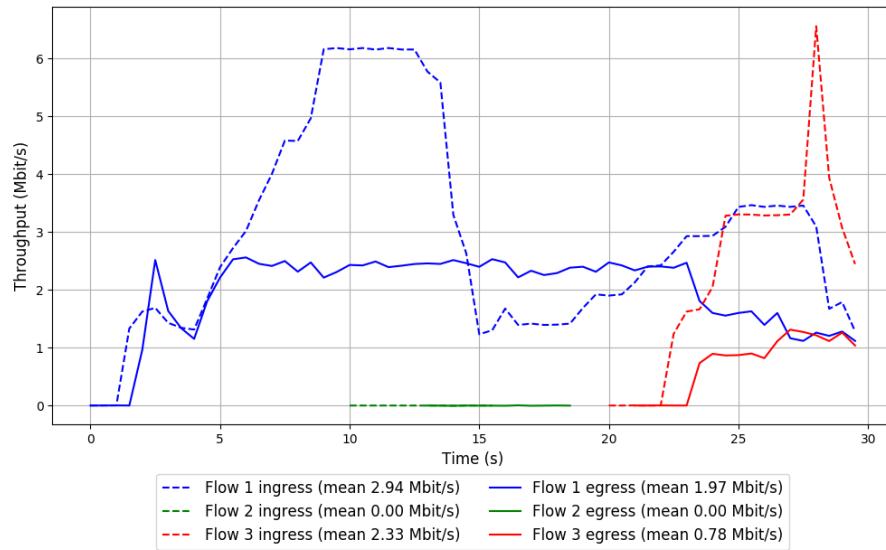


Run 3: Statistics of Vivace-loss

```
Start at: 2018-02-17 05:41:43
End at: 2018-02-17 05:42:13
Local clock offset: -5.3 ms
Remote clock offset: -4.301 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 3248.764 ms
Loss rate: 41.24%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 3244.135 ms
Loss rate: 33.54%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3263.792 ms
Loss rate: 24.35%
-- Flow 3:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 3270.152 ms
Loss rate: 70.70%
```

Run 3: Report of Vivace-loss — Data Link

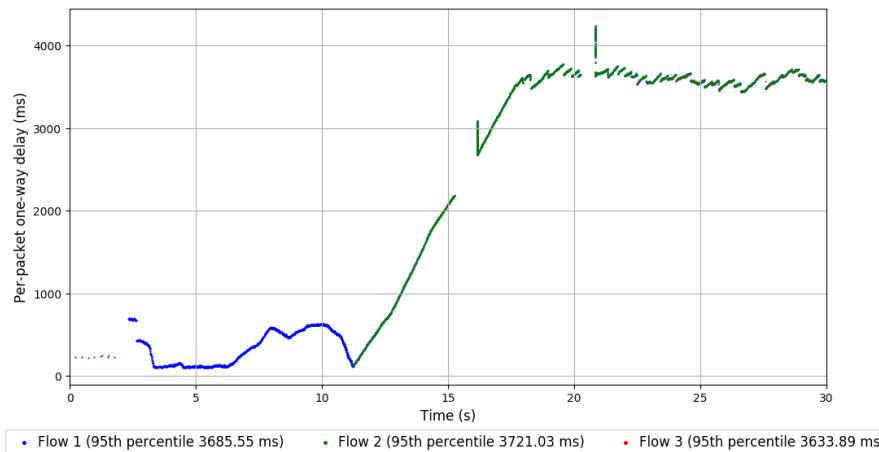
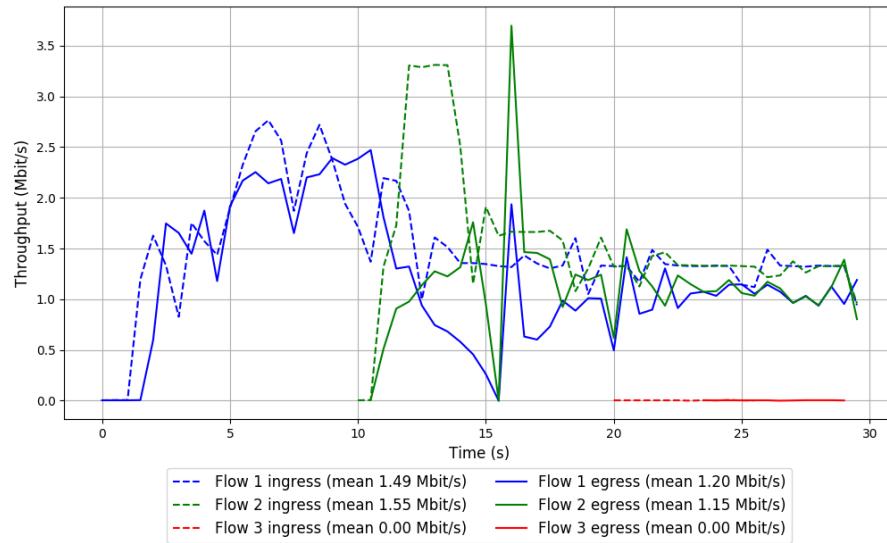


Run 1: Statistics of Vivace-LTE

```
Start at: 2018-02-17 05:00:23
End at: 2018-02-17 05:00:53
Local clock offset: -1.405 ms
Remote clock offset: 2.331 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 3703.422 ms
Loss rate: 22.79%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 3685.551 ms
Loss rate: 19.45%
-- Flow 2:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 3721.030 ms
Loss rate: 27.60%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3633.891 ms
Loss rate: 0.00%
```

Run 1: Report of Vivace-LTE — Data Link

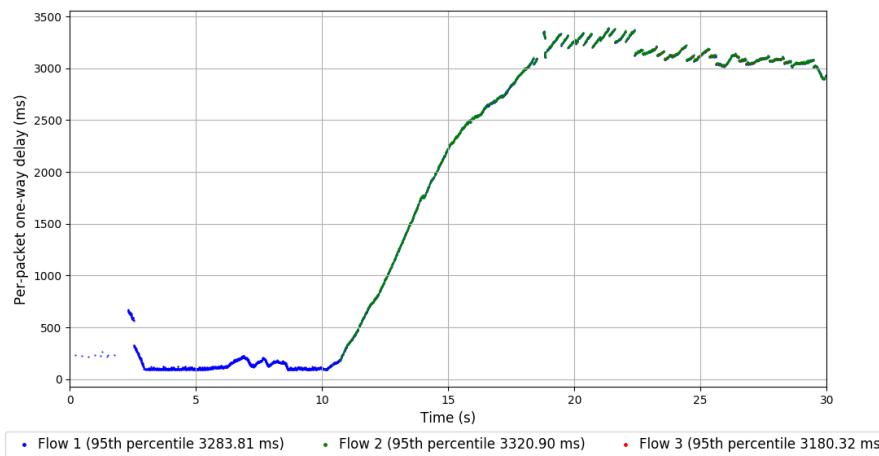
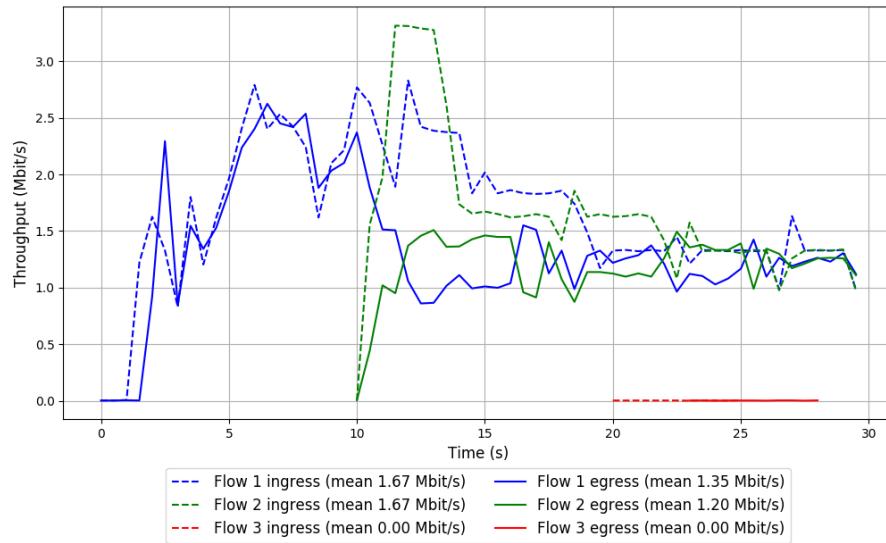


Run 2: Statistics of Vivace-LTE

```
Start at: 2018-02-17 05:22:55
End at: 2018-02-17 05:23:25
Local clock offset: -5.656 ms
Remote clock offset: -3.503 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 3300.881 ms
Loss rate: 22.87%
-- Flow 1:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 3283.812 ms
Loss rate: 19.47%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 3320.896 ms
Loss rate: 28.01%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3180.316 ms
Loss rate: 4.60%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

```
Start at: 2018-02-17 05:45:28
End at: 2018-02-17 05:45:58
Local clock offset: -4.619 ms
Remote clock offset: 1.414 ms

# Below is generated by plot.py at 2018-02-17 05:54:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 3296.928 ms
Loss rate: 21.85%
-- Flow 1:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 3285.989 ms
Loss rate: 18.67%
-- Flow 2:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 3308.682 ms
Loss rate: 26.86%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3203.252 ms
Loss rate: 0.00%
```

Run 3: Report of Vivace-LTE — Data Link

