

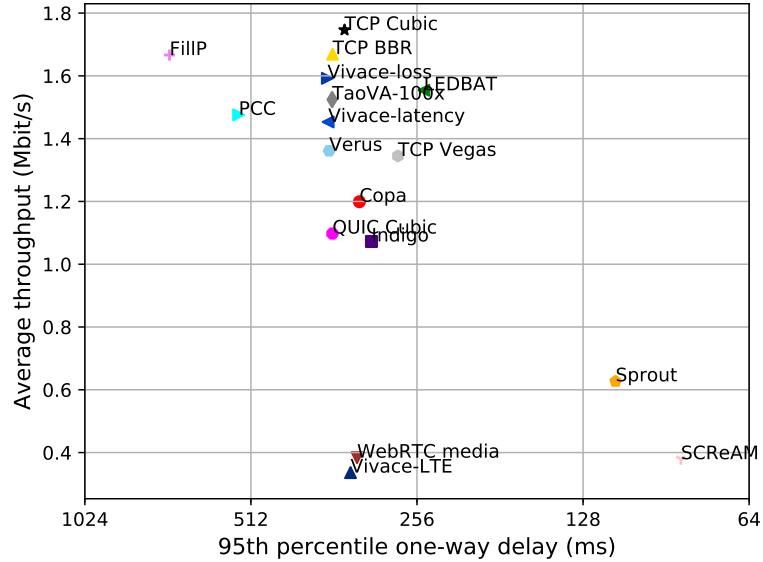
Pantheon Report

Generated at 2018-01-18 13:25:15 (UTC).
Data path: India ppp0 (*remote*) → AWS India 1 Ethernet (*local*).
Repeated the test of 17 congestion control schemes 3 times.
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).
NTP offsets were measured against nets.org.sg and have been applied to correct the timestamps in logs.

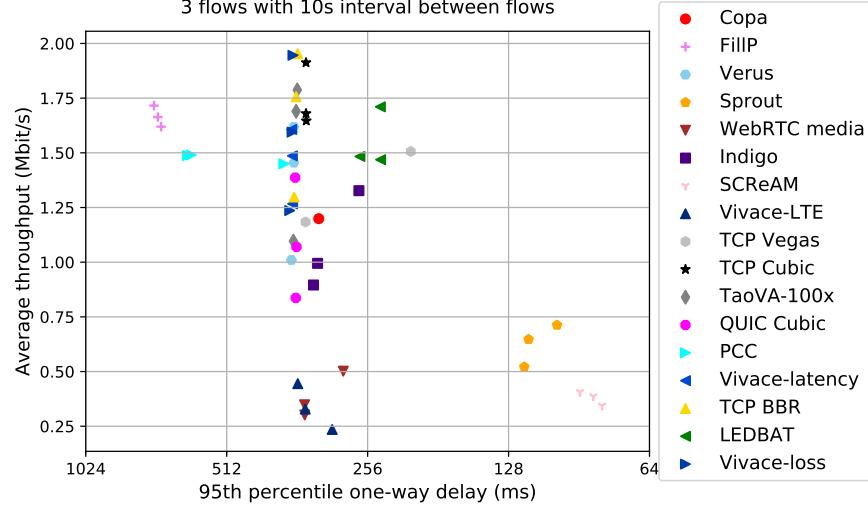
Git summary:

```
branch: master @ 54510ce29f849c716ac5c8199ca1604b6abdfbc3
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 423cbca3e8ea1d599e7b5cf725835e8a2b6bfac6
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



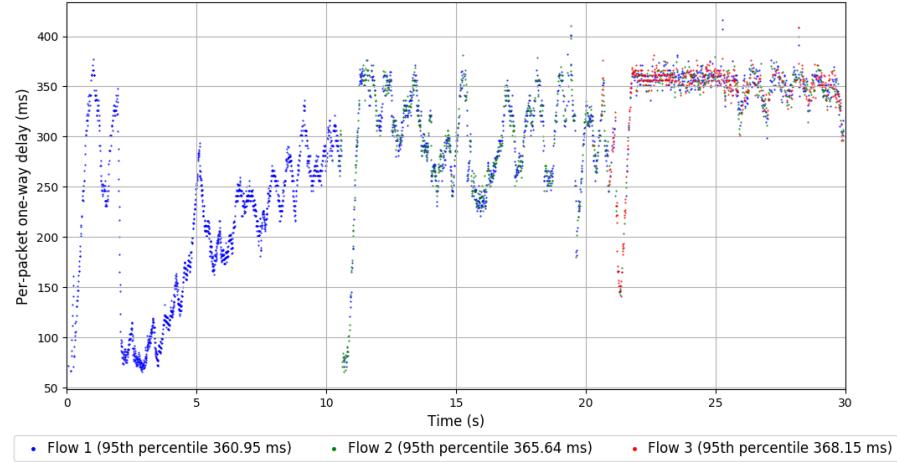
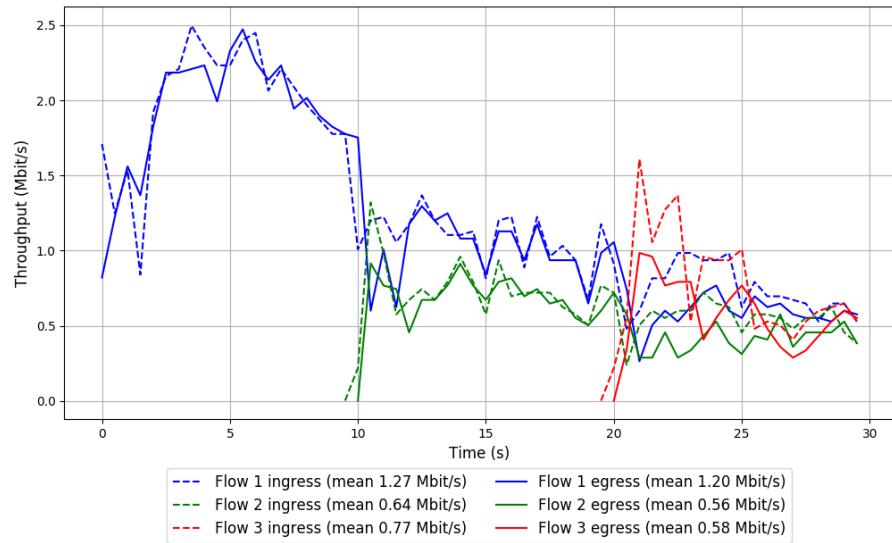
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	1.05	0.73	0.41	362.17	365.95	366.67	7.04	14.10	24.49
TCP Cubic	3	1.20	0.55	0.58	343.39	349.34	352.74	1.91	2.85	4.91
LEDBAT	3	0.89	0.66	0.72	237.18	258.36	255.61	0.28	1.15	2.73
PCC	3	0.91	0.62	0.52	386.54	558.80	772.21	65.86	80.94	92.90
QUIC Cubic	3	0.32	0.84	0.84	175.04	364.22	366.58	2.29	9.11	13.68
SCReAM	3	0.18	0.20	0.21	83.83	85.33	85.09	0.38	0.52	0.72
WebRTC media	3	0.05	0.08	0.56	338.65	348.86	281.87	8.81	6.73	2.78
Sprout	3	0.33	0.31	0.28	108.89	111.75	117.06	0.56	0.99	1.26
TaoVA-100x	3	1.14	0.54	0.27	361.64	376.82	385.45	15.25	46.86	75.06
TCP Vegas	2	0.71	0.62	0.68	257.66	295.69	284.95	1.72	3.33	3.74
Verus	3	1.22	0.19	0.09	369.13	373.46	366.85	28.91	59.98	50.74
Copa	1	0.81	0.42	0.47	316.59	337.89	341.44	1.73	2.71	9.07
FillP	3	1.18	0.50	0.49	391.90	766.72	830.20	96.33	98.96	99.50
Indigo	3	0.42	0.65	0.68	271.92	311.41	295.11	3.38	3.70	5.99
Vivace-latency	3	0.87	0.66	0.47	368.81	373.00	374.22	37.96	53.04	64.65
Vivace-loss	3	0.96	0.71	0.53	370.55	374.34	375.30	35.33	48.79	58.56
Vivace-LTE	3	0.21	0.17	0.75	324.19	294.77	276.40	16.80	11.63	18.43

```
Run 1: Statistics of TCP BBR

Start at: 2018-01-18 11:29:02
End at: 2018-01-18 11:29:32
Local clock offset: -16.415 ms
Remote clock offset: -0.918 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 363.683 ms
Loss rate: 10.46%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 360.955 ms
Loss rate: 6.11%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 365.636 ms
Loss rate: 13.88%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 368.155 ms
Loss rate: 26.37%
```

Run 1: Report of TCP BBR — Data Link

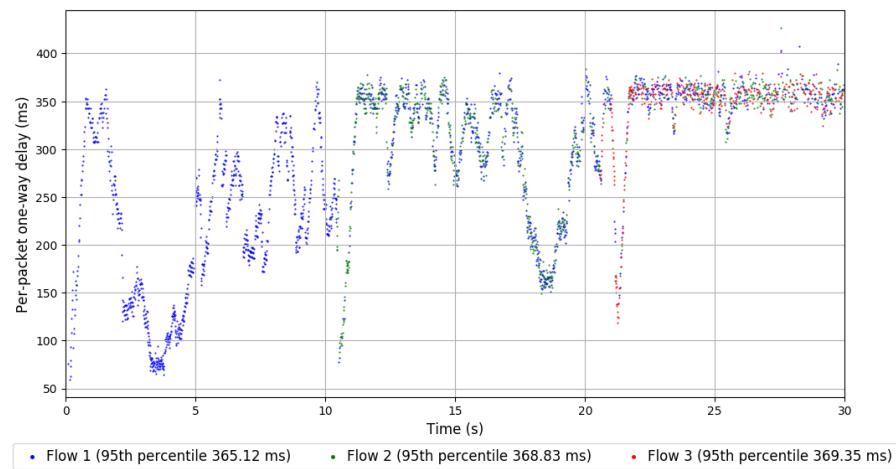
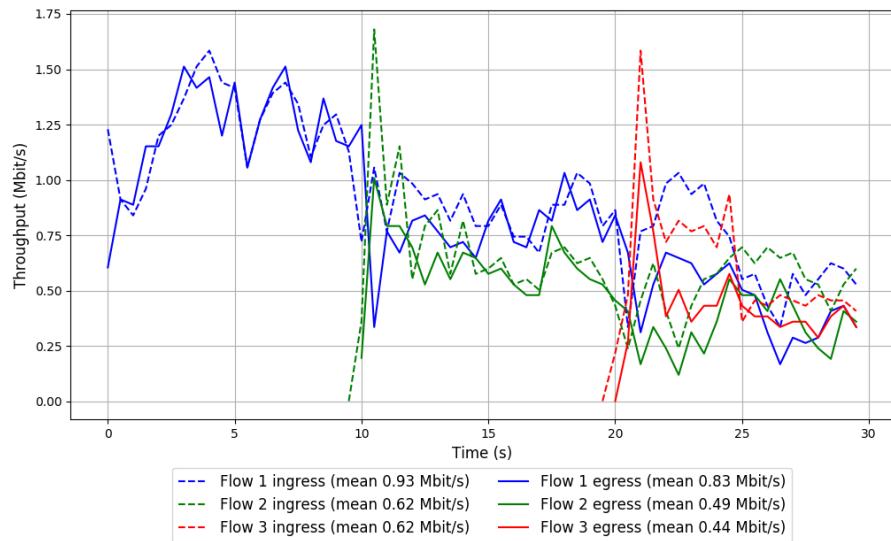


Run 2: Statistics of TCP BBR

```
Start at: 2018-01-18 11:49:49
End at: 2018-01-18 11:50:19
Local clock offset: -19.027 ms
Remote clock offset: -3.75 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 367.474 ms
Loss rate: 16.66%
-- Flow 1:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 365.117 ms
Loss rate: 11.12%
-- Flow 2:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 368.828 ms
Loss rate: 21.93%
-- Flow 3:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 369.354 ms
Loss rate: 31.12%
```

Run 2: Report of TCP BBR — Data Link

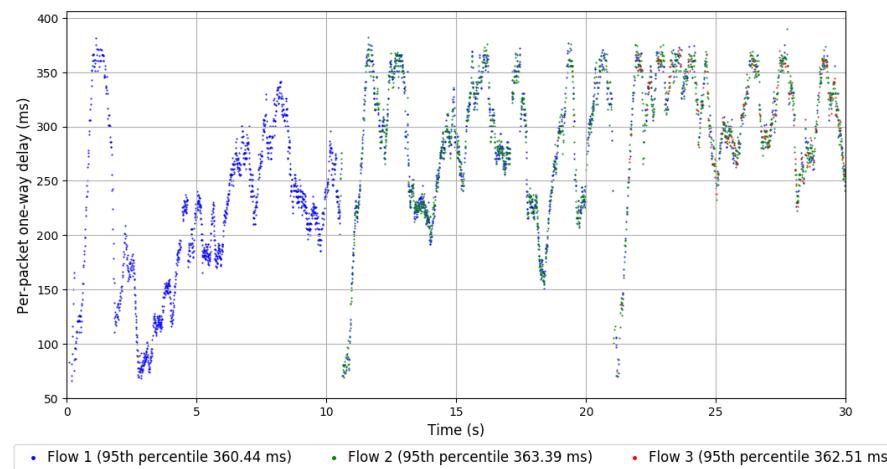
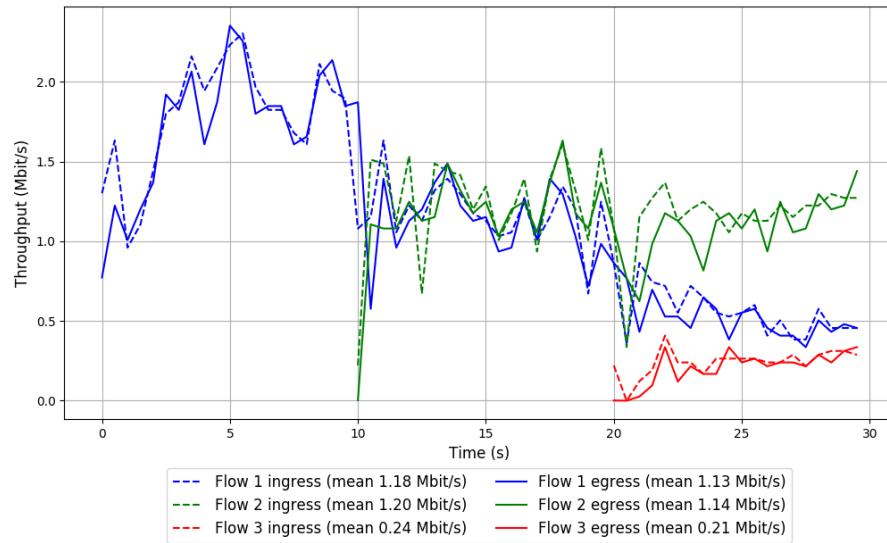


Run 3: Statistics of TCP BBR

```
Start at: 2018-01-18 12:10:37
End at: 2018-01-18 12:11:07
Local clock offset: -16.727 ms
Remote clock offset: -6.605 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 361.198 ms
Loss rate: 5.37%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 360.436 ms
Loss rate: 3.88%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 363.387 ms
Loss rate: 6.50%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 362.510 ms
Loss rate: 15.97%
```

Run 3: Report of TCP BBR — Data Link

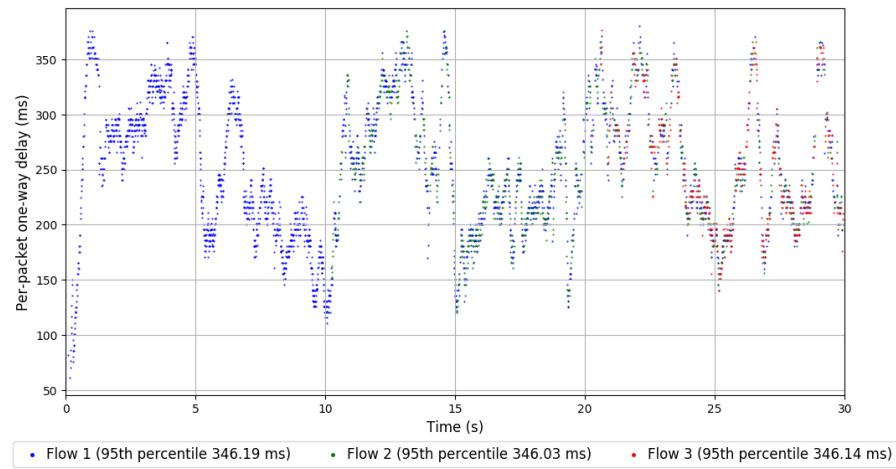
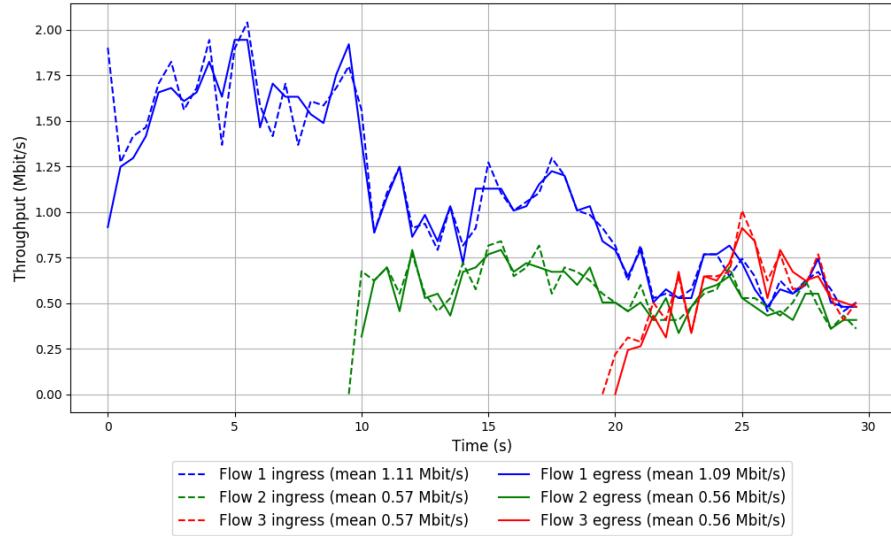


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-01-18 11:34:39
End at: 2018-01-18 11:35:09
Local clock offset: -15.958 ms
Remote clock offset: -2.943 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 346.138 ms
Loss rate: 2.34%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 346.188 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 346.030 ms
Loss rate: 3.04%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 346.138 ms
Loss rate: 4.67%
```

Run 1: Report of TCP Cubic — Data Link

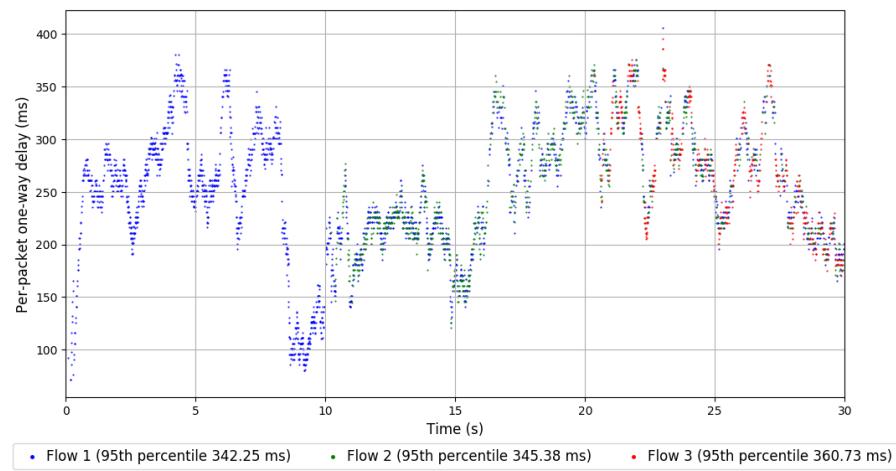
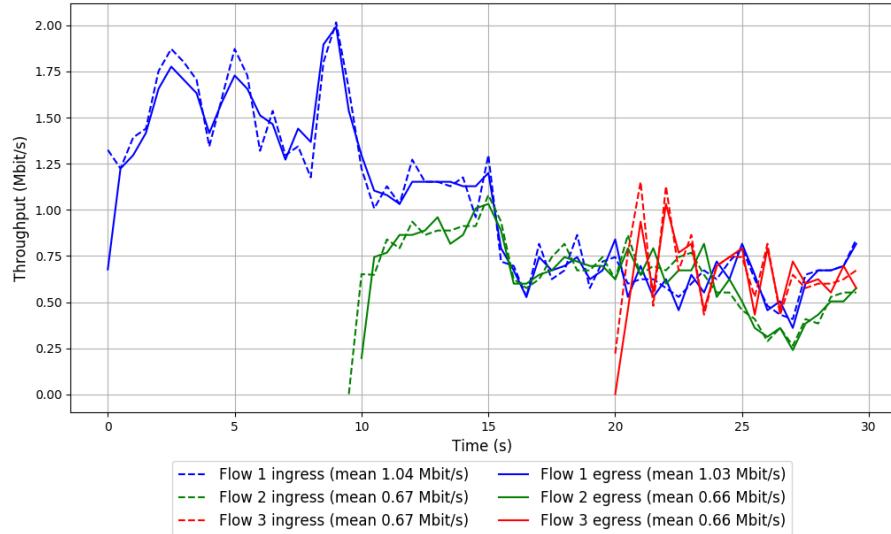


Run 2: Statistics of TCP Cubic

```
Start at: 2018-01-18 11:55:29
End at: 2018-01-18 11:55:59
Local clock offset: -16.55 ms
Remote clock offset: -5.914 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 346.567 ms
Loss rate: 2.31%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 342.249 ms
Loss rate: 1.77%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 345.385 ms
Loss rate: 2.15%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 360.733 ms
Loss rate: 5.20%
```

Run 2: Report of TCP Cubic — Data Link

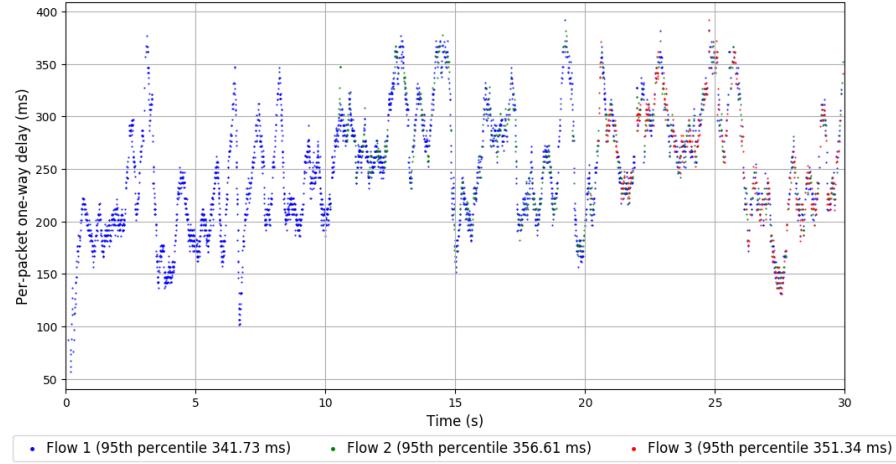
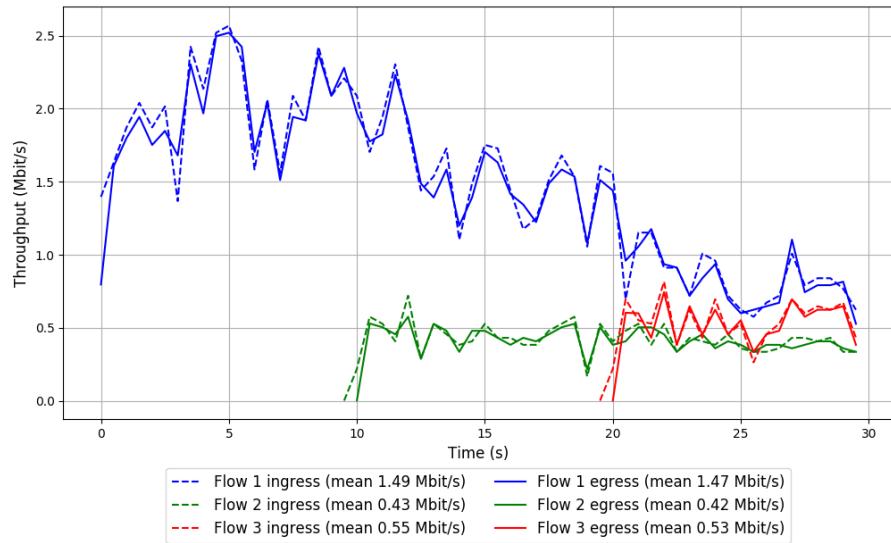


Run 3: Statistics of TCP Cubic

```
Start at: 2018-01-18 12:16:07
End at: 2018-01-18 12:16:37
Local clock offset: -18.166 ms
Remote clock offset: -5.8 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 346.610 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 341.734 ms
Loss rate: 2.26%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 356.608 ms
Loss rate: 3.37%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 351.340 ms
Loss rate: 4.87%
```

Run 3: Report of TCP Cubic — Data Link

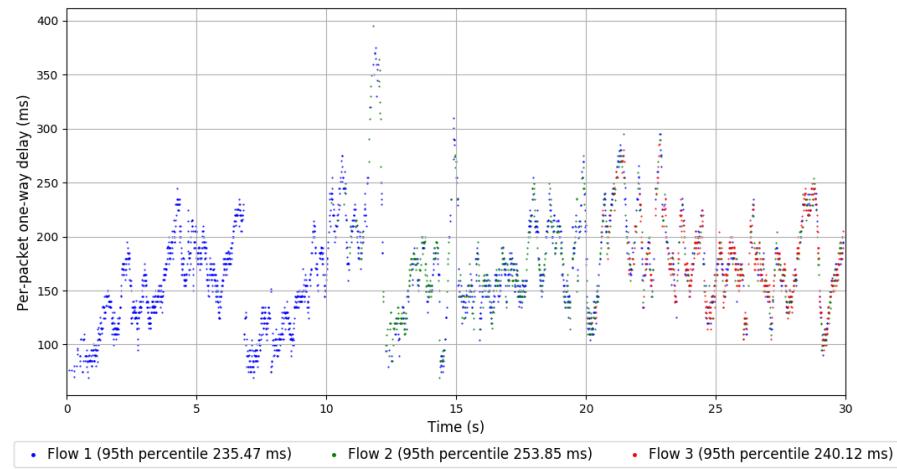
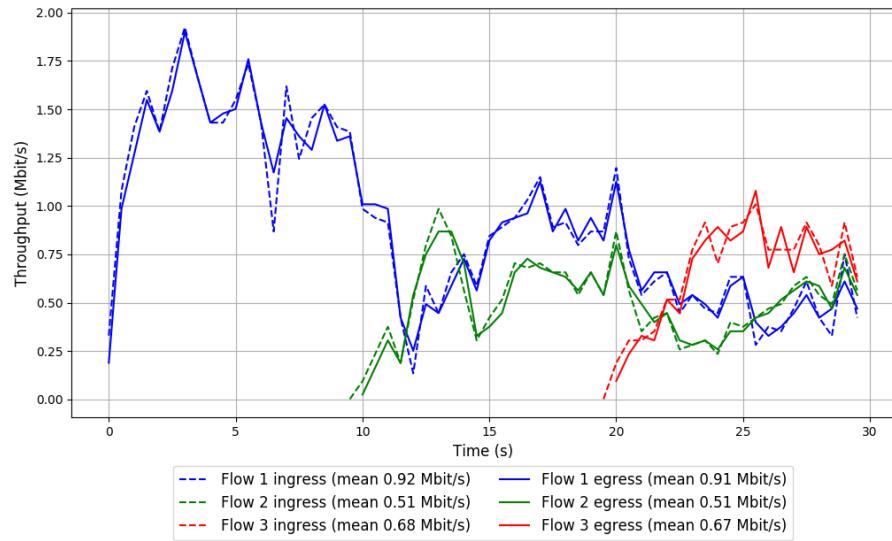


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-01-18 11:38:07
End at: 2018-01-18 11:38:37
Local clock offset: -14.642 ms
Remote clock offset: -2.038 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 240.219 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 235.471 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 253.850 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 240.120 ms
Loss rate: 2.59%
```

Run 1: Report of LEDBAT — Data Link

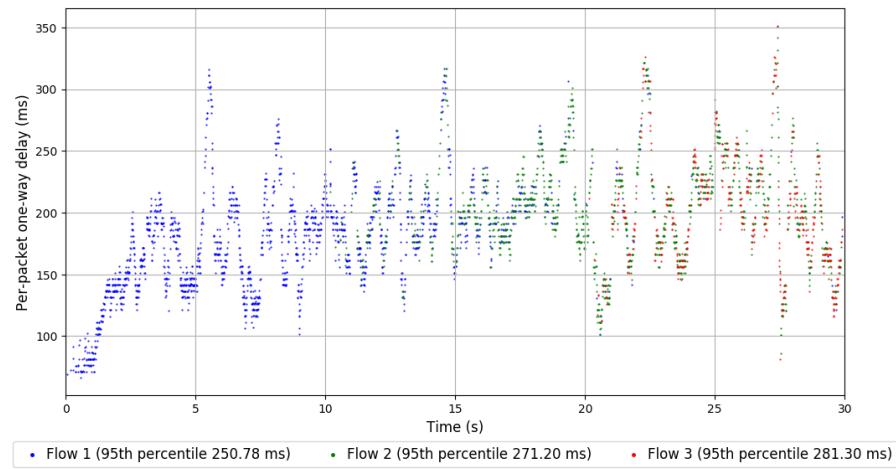
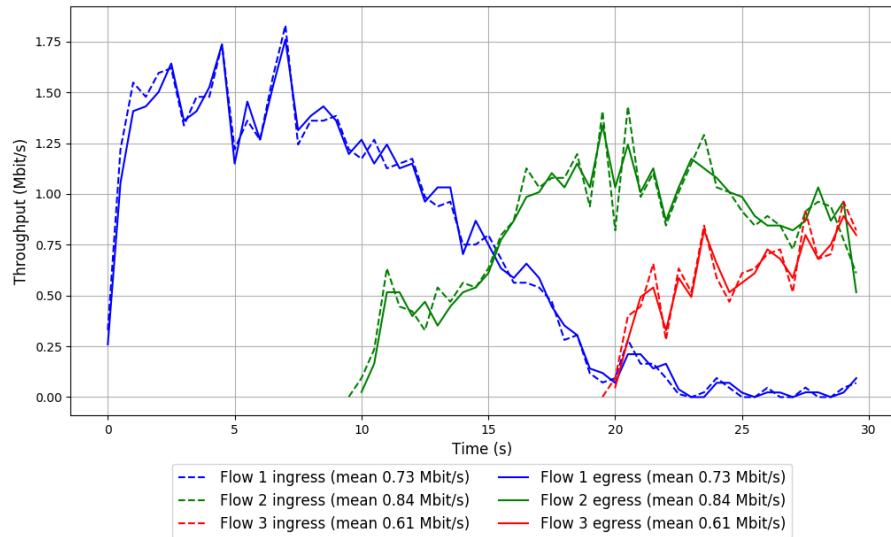


Run 2: Statistics of LEDBAT

```
Start at: 2018-01-18 11:59:00
End at: 2018-01-18 11:59:30
Local clock offset: -20.068 ms
Remote clock offset: -6.126 ms

# Below is generated by plot.py at 2018-01-18 13:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 265.918 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 250.778 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 271.203 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 281.301 ms
Loss rate: 2.88%
```

Run 2: Report of LEDBAT — Data Link

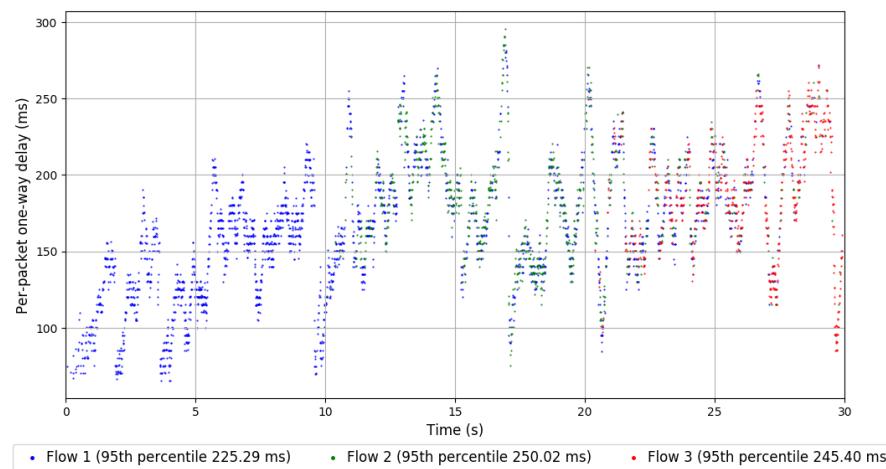
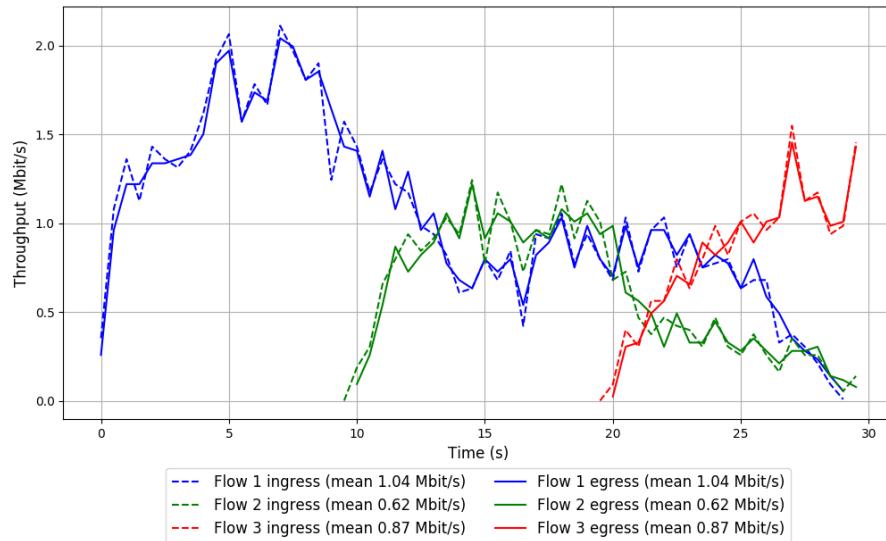


Run 3: Statistics of LEDBAT

```
Start at: 2018-01-18 12:19:35
End at: 2018-01-18 12:20:05
Local clock offset: -18.329 ms
Remote clock offset: -5.342 ms

# Below is generated by plot.py at 2018-01-18 13:24:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 240.512 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 225.287 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 250.024 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 245.400 ms
Loss rate: 2.72%
```

Run 3: Report of LEDBAT — Data Link

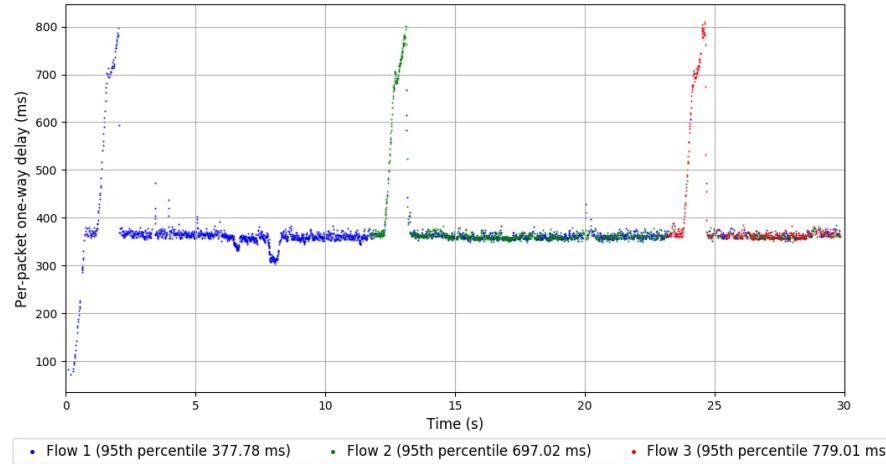
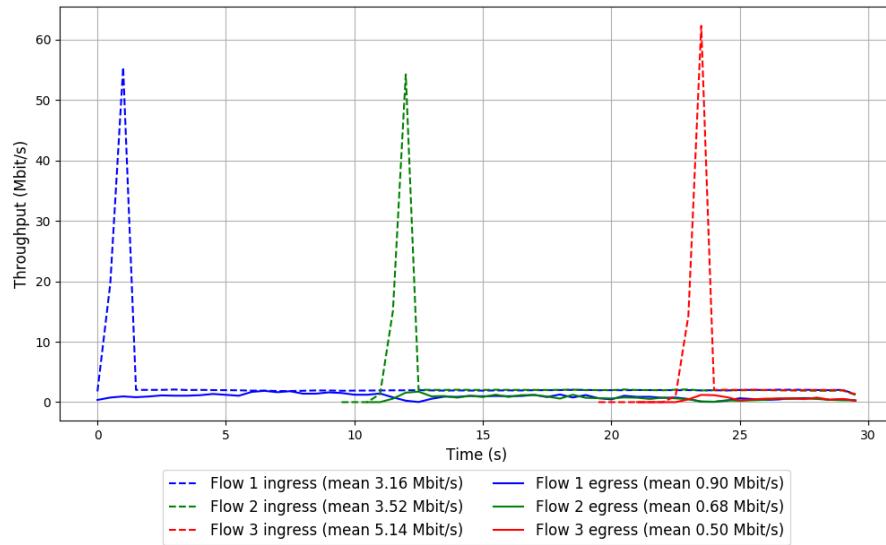


Run 1: Statistics of PCC

```
Start at: 2018-01-18 11:26:48
End at: 2018-01-18 11:27:18
Local clock offset: -17.005 ms
Remote clock offset: -0.422 ms

# Below is generated by plot.py at 2018-01-18 13:24:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 609.404 ms
Loss rate: 79.35%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 377.780 ms
Loss rate: 71.48%
-- Flow 2:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 697.025 ms
Loss rate: 81.21%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 779.008 ms
Loss rate: 91.42%
```

Run 1: Report of PCC — Data Link

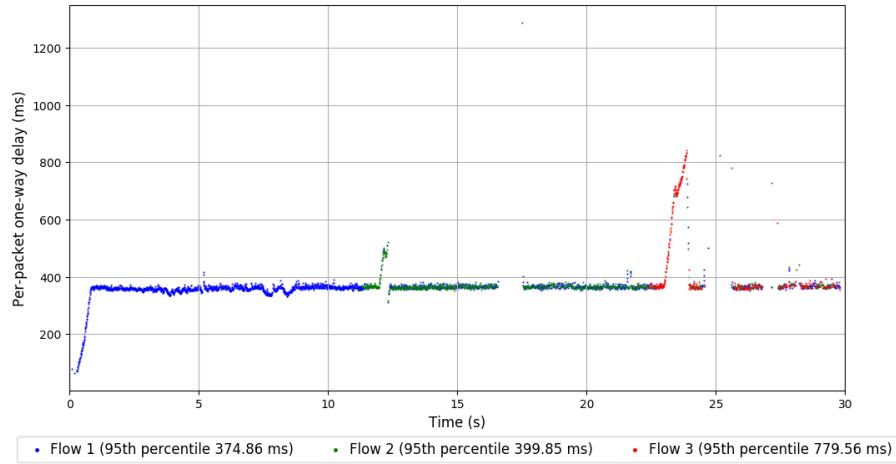
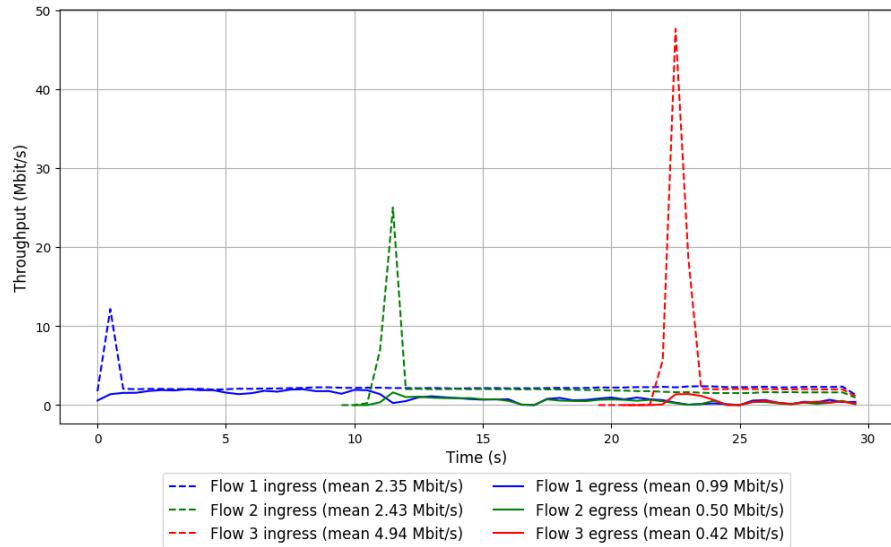


Run 2: Statistics of PCC

```
Start at: 2018-01-18 11:47:37
End at: 2018-01-18 11:48:07
Local clock offset: -16.874 ms
Remote clock offset: -4.817 ms

# Below is generated by plot.py at 2018-01-18 13:24:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 386.549 ms
Loss rate: 74.18%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 374.862 ms
Loss rate: 57.88%
-- Flow 2:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 399.845 ms
Loss rate: 79.81%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 779.558 ms
Loss rate: 92.01%
```

Run 2: Report of PCC — Data Link

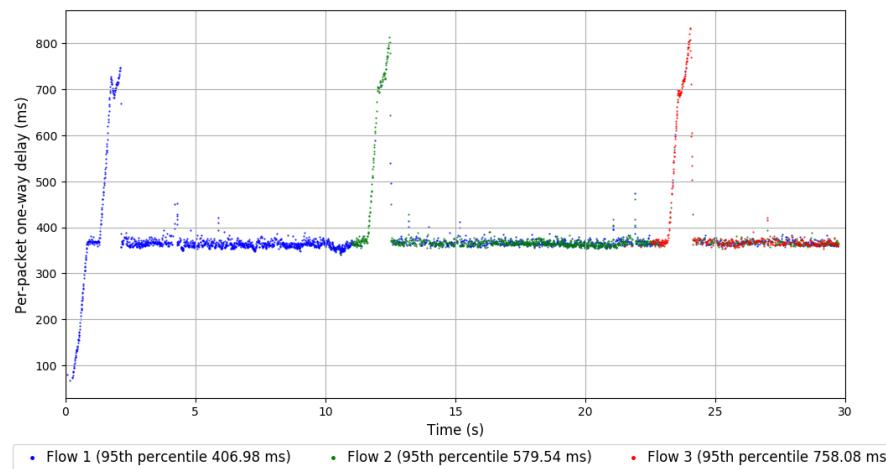
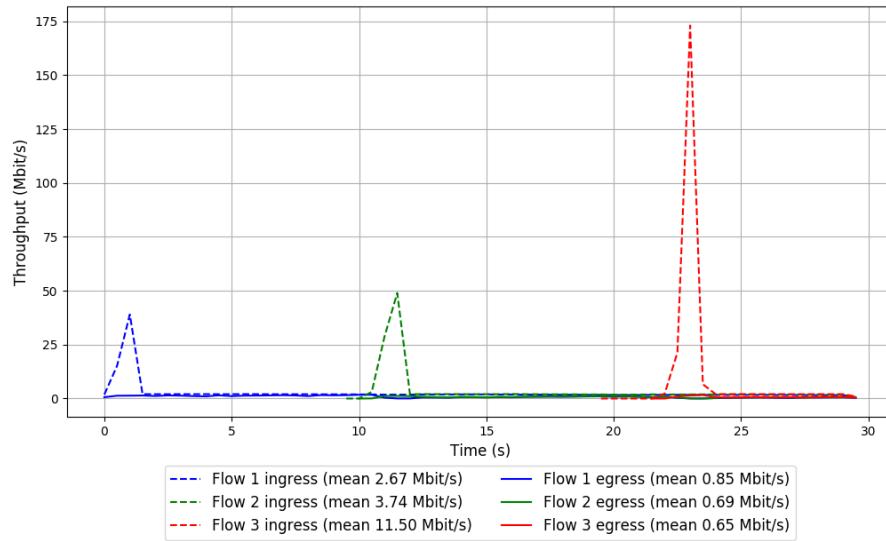


Run 3: Statistics of PCC

```
Start at: 2018-01-18 12:08:26
End at: 2018-01-18 12:08:56
Local clock offset: -17.56 ms
Remote clock offset: -6.595 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 620.622 ms
Loss rate: 83.48%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 406.979 ms
Loss rate: 68.22%
-- Flow 2:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 579.543 ms
Loss rate: 81.79%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 758.077 ms
Loss rate: 95.28%
```

Run 3: Report of PCC — Data Link

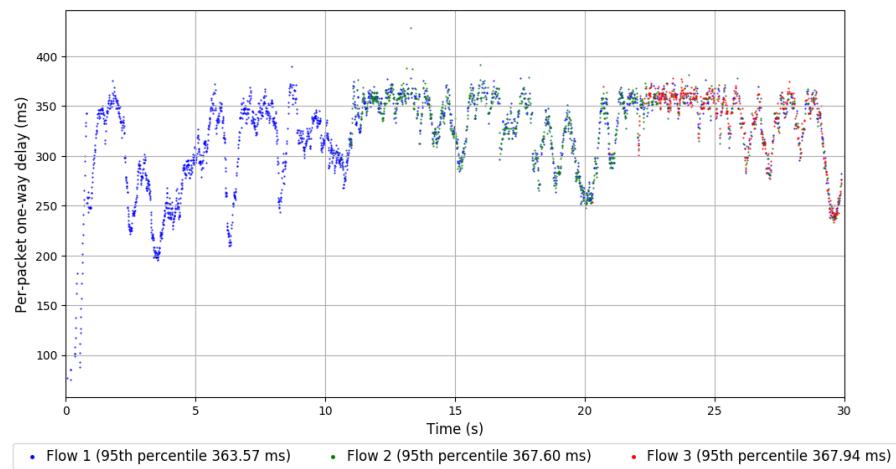
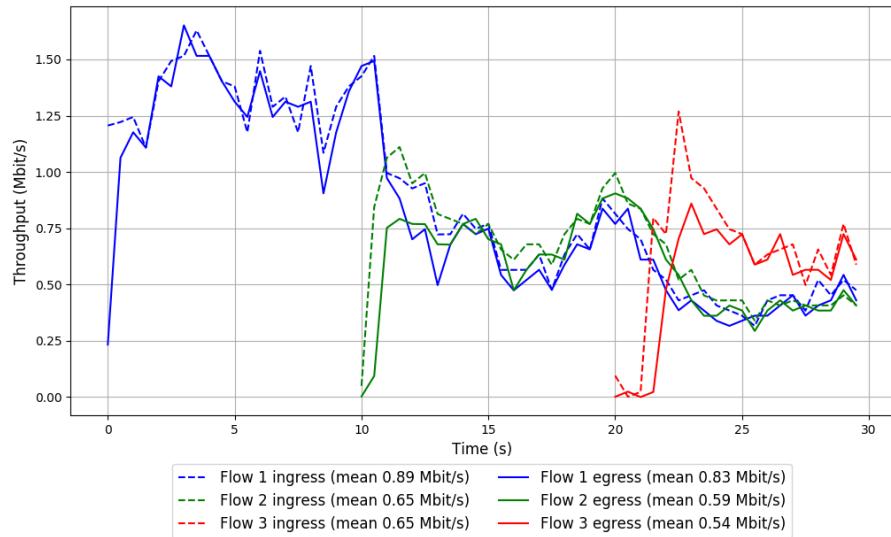


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-01-18 11:25:41
End at: 2018-01-18 11:26:11
Local clock offset: -17.573 ms
Remote clock offset: -2.416 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 365.544 ms
Loss rate: 9.81%
-- Flow 1:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 363.567 ms
Loss rate: 6.87%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 367.599 ms
Loss rate: 11.71%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 367.943 ms
Loss rate: 18.16%
```

Run 1: Report of QUIC Cubic — Data Link

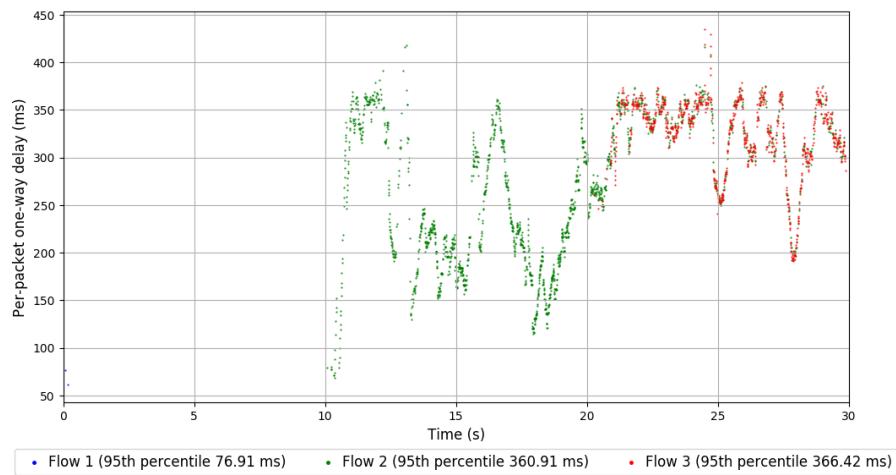
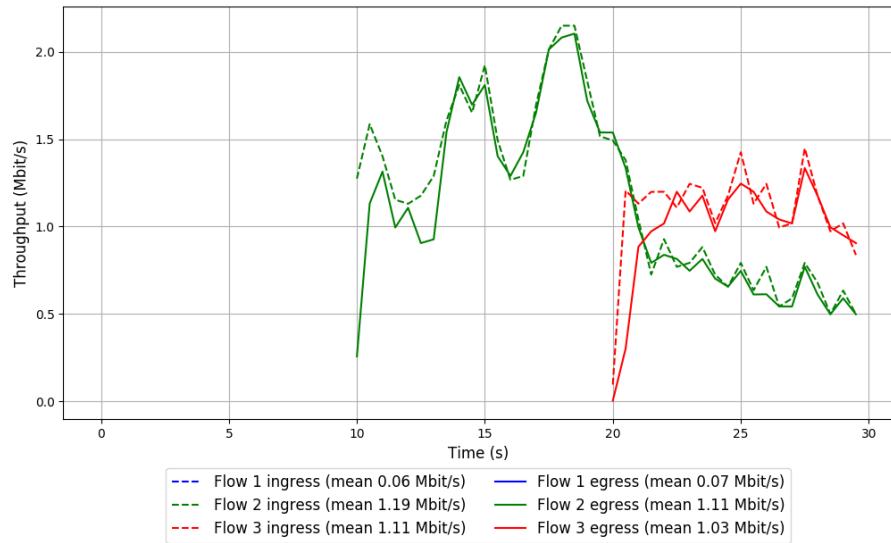


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-01-18 11:46:31
End at: 2018-01-18 11:47:01
Local clock offset: -17.368 ms
Remote clock offset: -4.612 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 363.229 ms
Loss rate: 7.76%
-- Flow 1:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 76.905 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 360.910 ms
Loss rate: 6.80%
-- Flow 3:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 366.416 ms
Loss rate: 9.83%
```

Run 2: Report of QUIC Cubic — Data Link

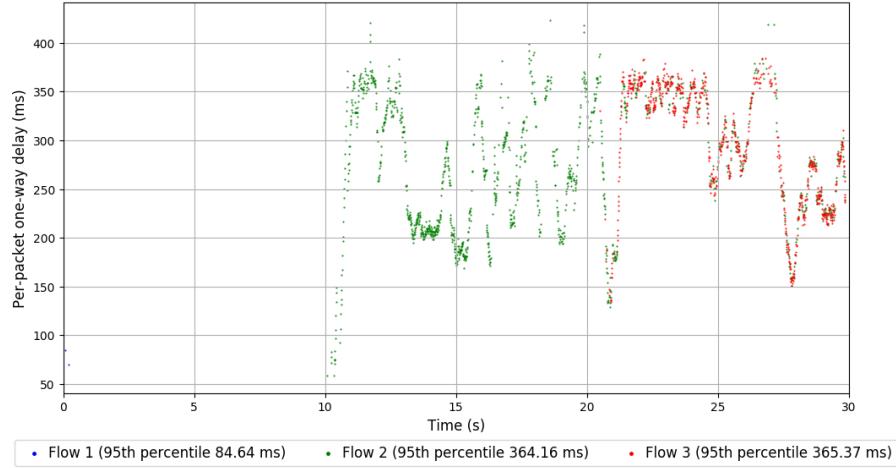
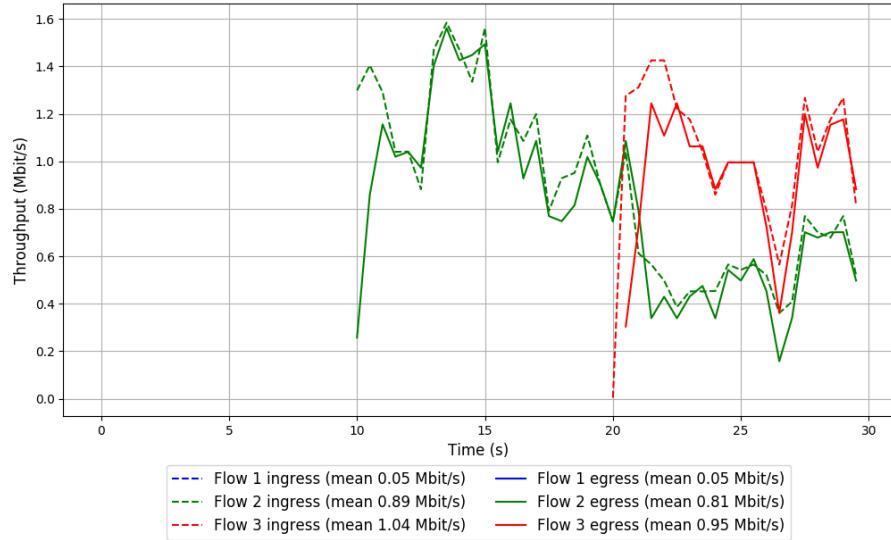


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-01-18 12:07:20
End at: 2018-01-18 12:07:50
Local clock offset: -19.979 ms
Remote clock offset: -7.105 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 364.494 ms
Loss rate: 10.38%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 84.637 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 364.162 ms
Loss rate: 8.83%
-- Flow 3:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 365.370 ms
Loss rate: 13.05%
```

Run 3: Report of QUIC Cubic — Data Link

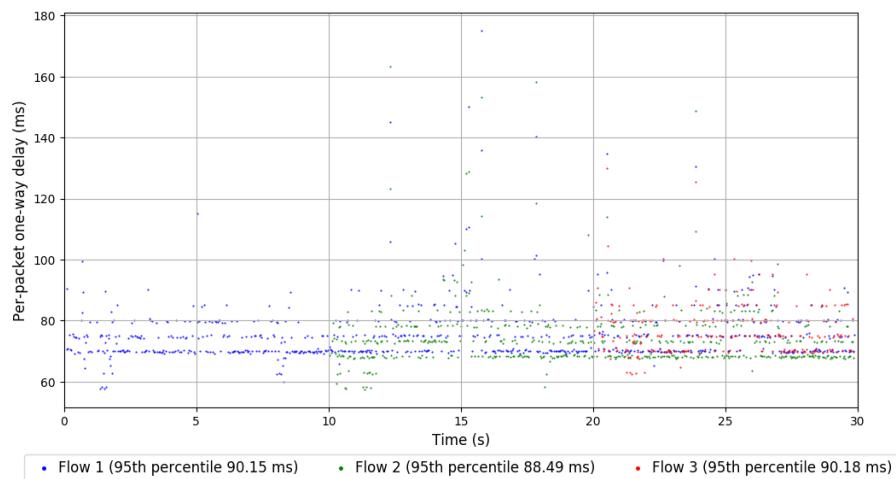
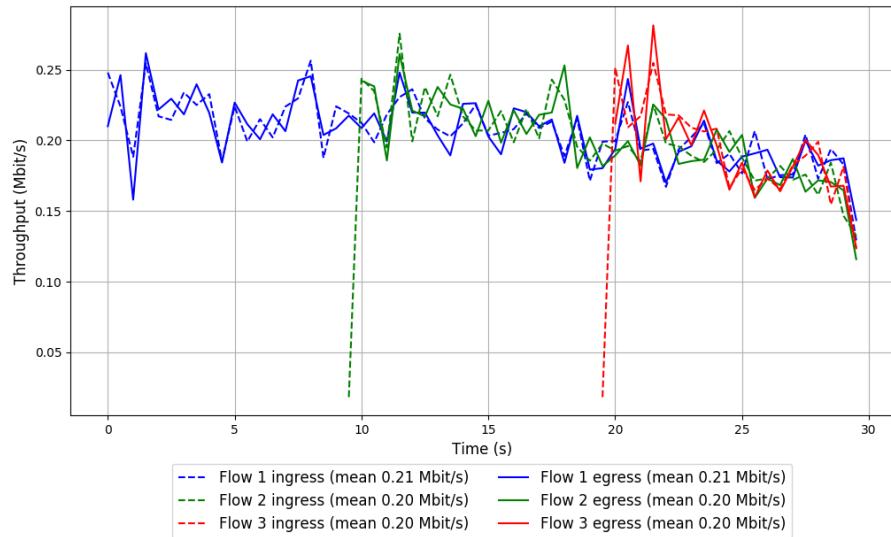


```
Run 1: Statistics of SCReAM
```

```
Start at: 2018-01-18 11:40:21
End at: 2018-01-18 11:40:51
Local clock offset: -15.954 ms
Remote clock offset: -3.08 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 90.102 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 90.148 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 88.491 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 90.180 ms
Loss rate: 1.17%
```

Run 1: Report of SCReAM — Data Link

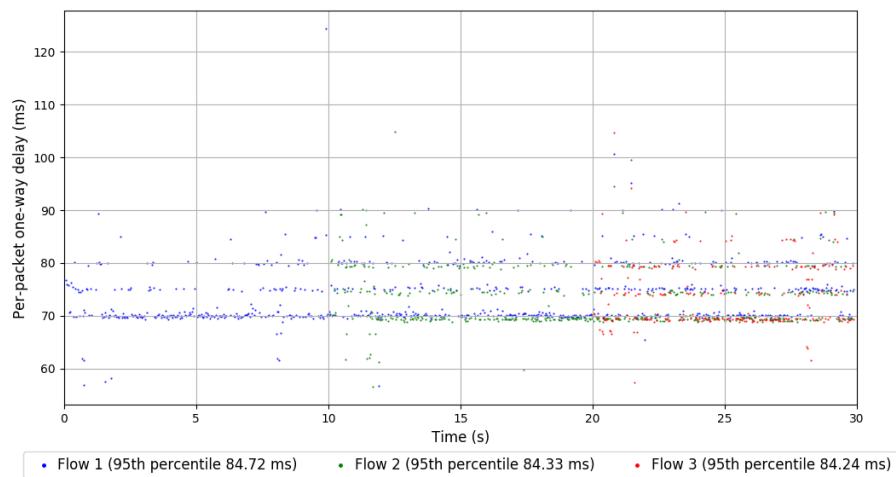
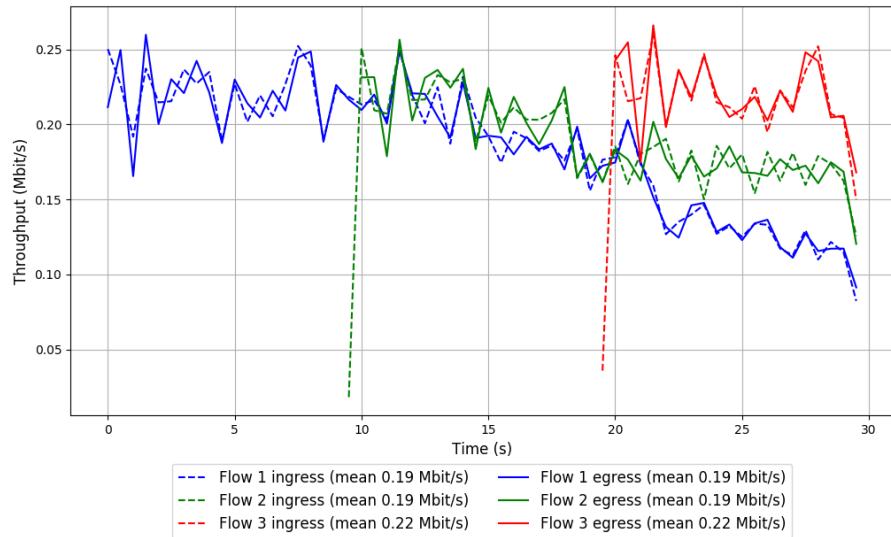


Run 2: Statistics of SCReAM

```
Start at: 2018-01-18 12:01:15
End at: 2018-01-18 12:01:45
Local clock offset: -19.828 ms
Remote clock offset: -7.4 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 84.360 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 84.725 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 84.325 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.244 ms
Loss rate: 0.35%
```

Run 2: Report of SCReAM — Data Link

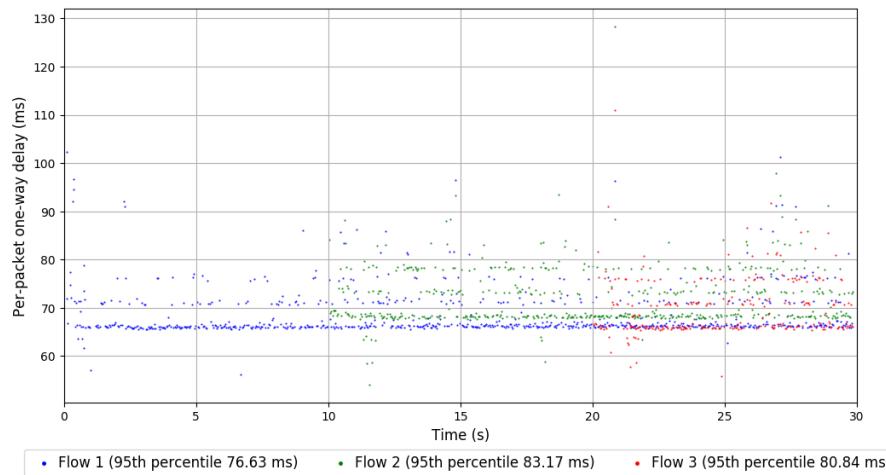
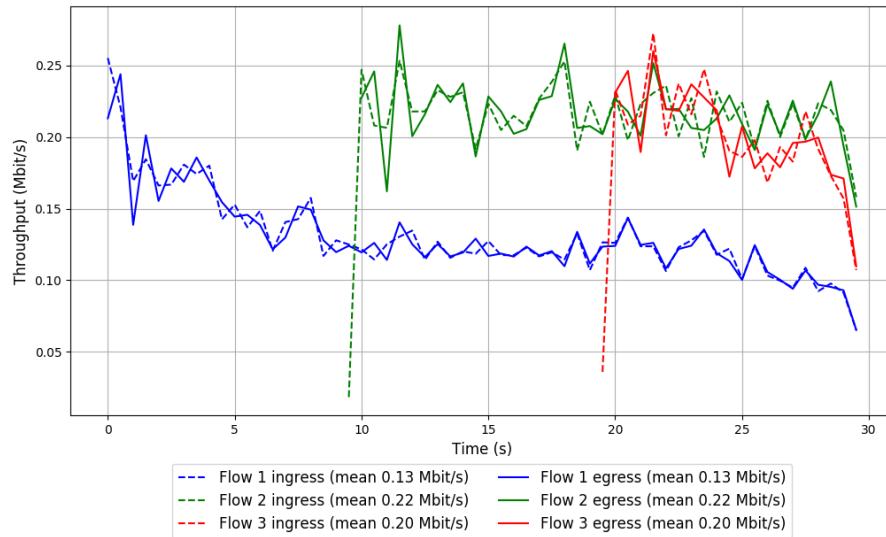


Run 3: Statistics of SCReAM

```
Start at: 2018-01-18 12:21:47
End at: 2018-01-18 12:22:17
Local clock offset: -19.824 ms
Remote clock offset: -6.485 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 80.800 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 76.629 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.173 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 80.845 ms
Loss rate: 0.63%
```

Run 3: Report of SCReAM — Data Link

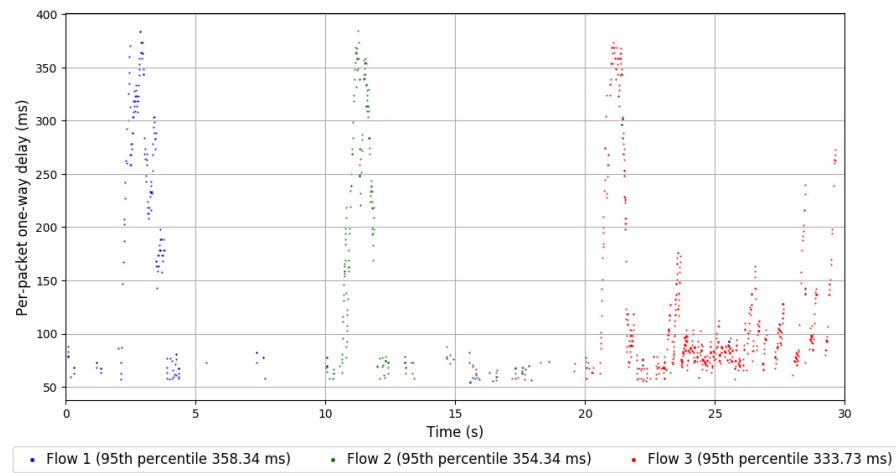
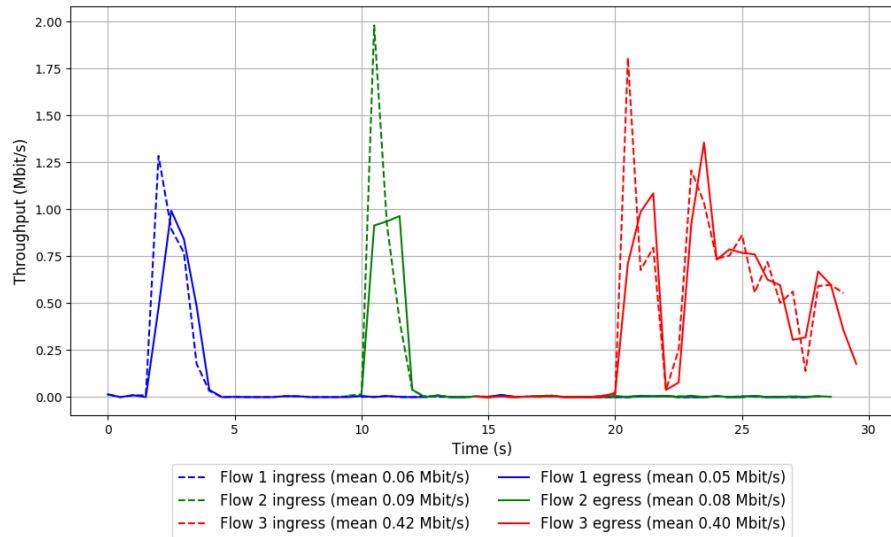


```
Run 1: Statistics of WebRTC media
```

```
Start at: 2018-01-18 11:39:15
End at: 2018-01-18 11:39:45
Local clock offset: -15.411 ms
Remote clock offset: -1.883 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 348.801 ms
Loss rate: 7.09%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 358.341 ms
Loss rate: 10.28%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 354.339 ms
Loss rate: 14.56%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 333.734 ms
Loss rate: 4.17%
```

Run 1: Report of WebRTC media — Data Link

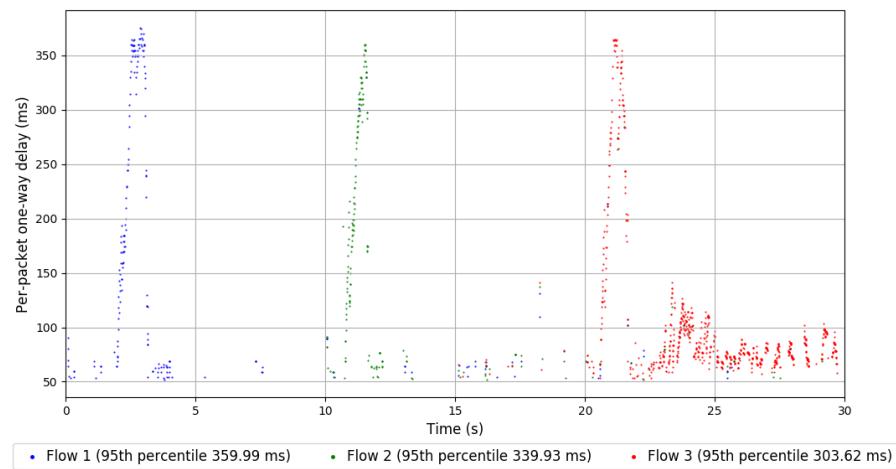
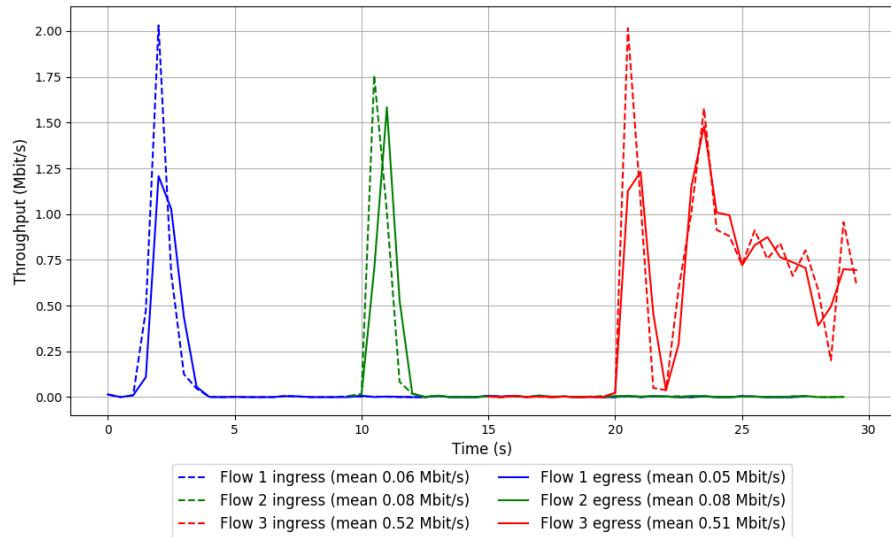


Run 2: Statistics of WebRTC media

```
Start at: 2018-01-18 12:00:07
End at: 2018-01-18 12:00:37
Local clock offset: -20.133 ms
Remote clock offset: -4.27 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 349.107 ms
Loss rate: 4.98%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 359.989 ms
Loss rate: 14.91%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 339.930 ms
Loss rate: 1.66%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 303.625 ms
Loss rate: 3.38%
```

Run 2: Report of WebRTC media — Data Link

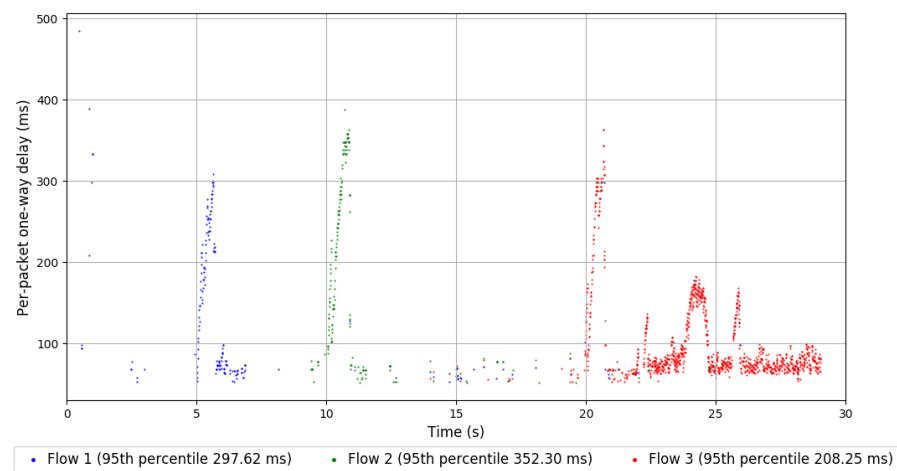
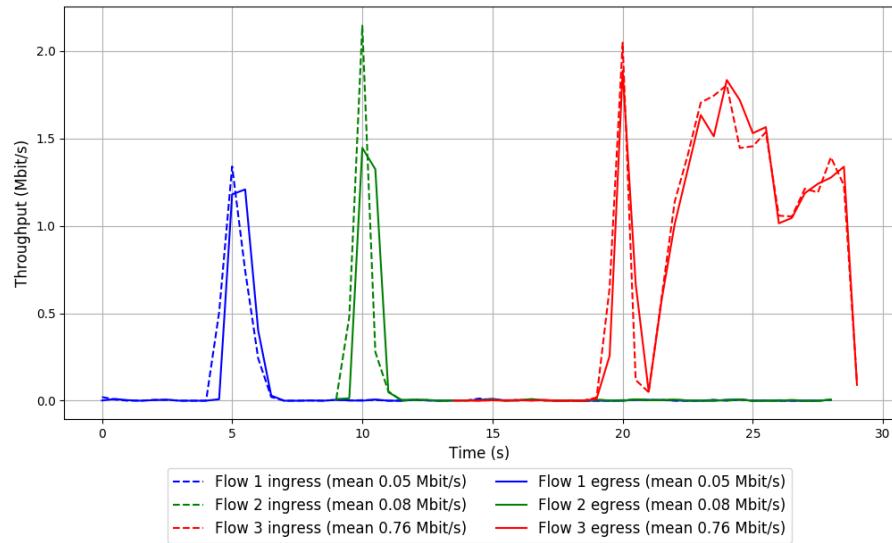


```
Run 3: Statistics of WebRTC media

Start at: 2018-01-18 12:20:42
End at: 2018-01-18 12:21:12
Local clock offset: -21.539 ms
Remote clock offset: -6.322 ms

# Below is generated by plot.py at 2018-01-18 13:24:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 288.543 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 297.619 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 352.298 ms
Loss rate: 3.98%
-- Flow 3:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 208.255 ms
Loss rate: 0.78%
```

Run 3: Report of WebRTC media — Data Link

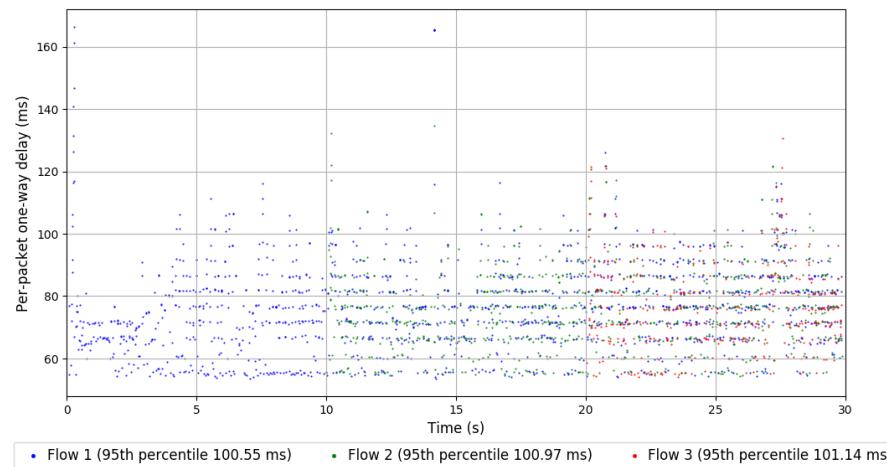
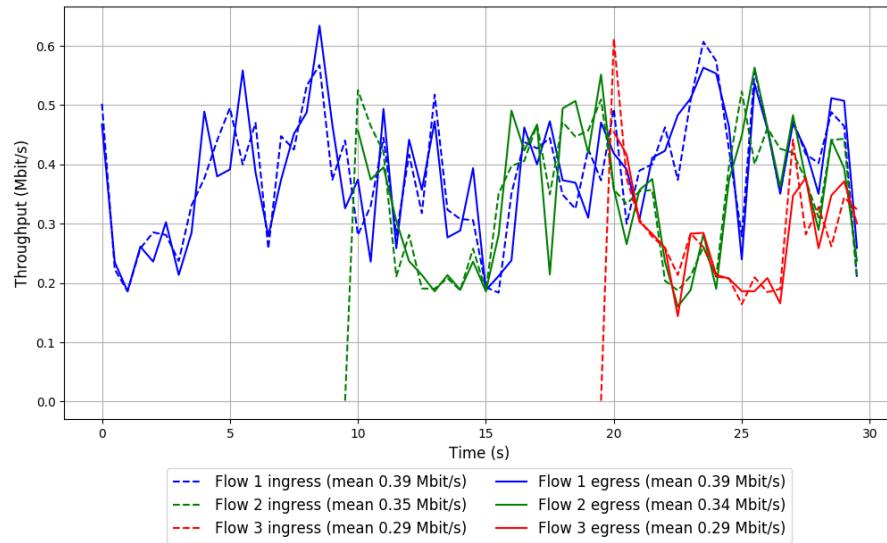


Run 1: Statistics of Sprout

```
Start at: 2018-01-18 11:23:25
End at: 2018-01-18 11:23:55
Local clock offset: -18.467 ms
Remote clock offset: -0.706 ms

# Below is generated by plot.py at 2018-01-18 13:24:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 100.853 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 100.545 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 100.973 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 101.141 ms
Loss rate: 2.49%
```

Run 1: Report of Sprout — Data Link

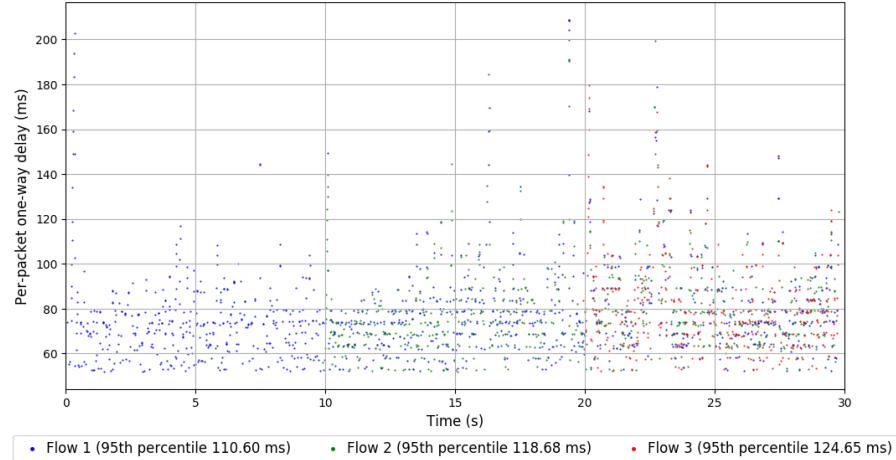
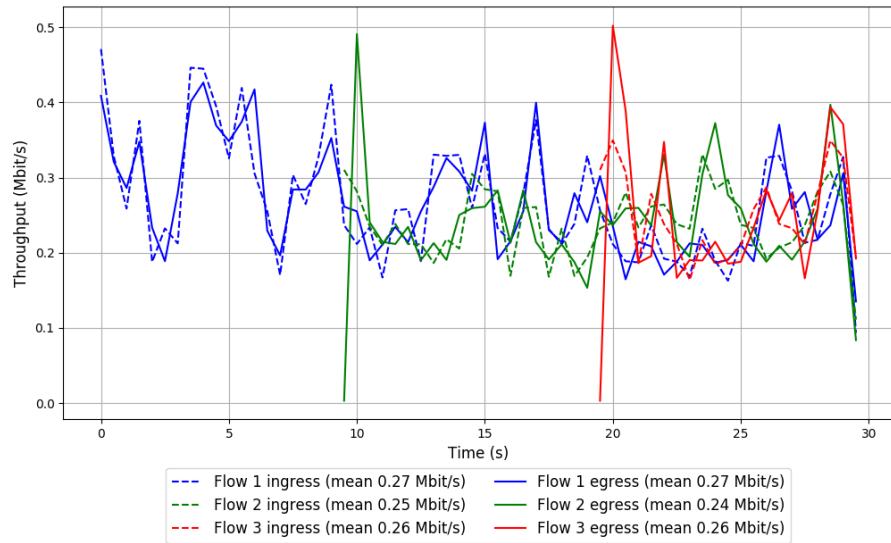


Run 2: Statistics of Sprout

```
Start at: 2018-01-18 11:43:40
End at: 2018-01-18 11:44:10
Local clock offset: -18.504 ms
Remote clock offset: -3.115 ms

# Below is generated by plot.py at 2018-01-18 13:24:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 118.458 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 110.599 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 118.679 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 124.652 ms
Loss rate: 0.91%
```

Run 2: Report of Sprout — Data Link

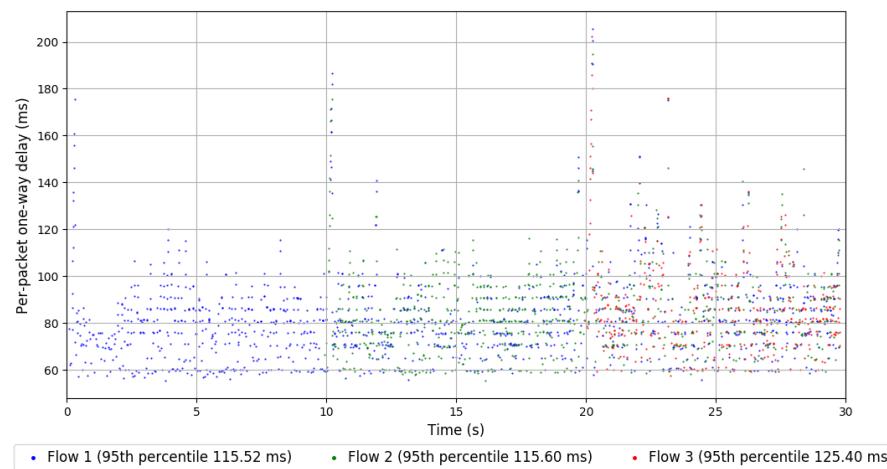
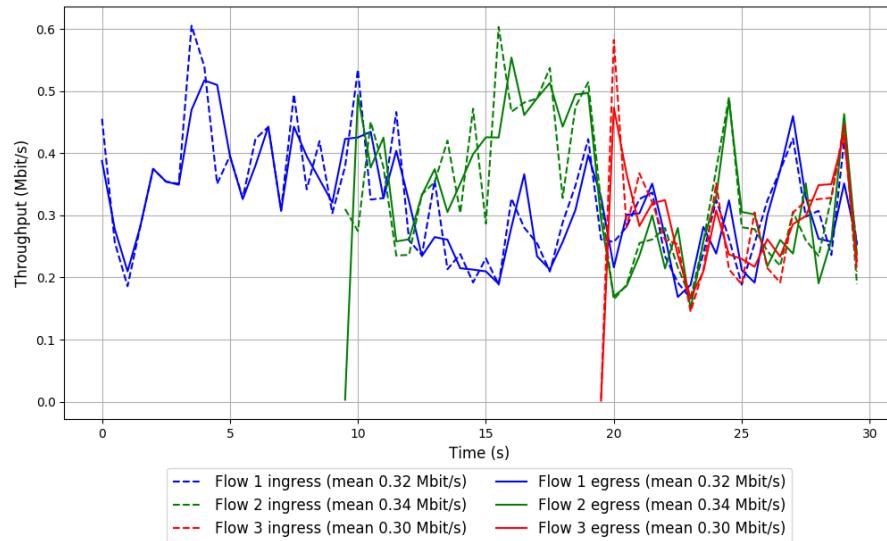


Run 3: Statistics of Sprout

```
Start at: 2018-01-18 12:04:53
End at: 2018-01-18 12:05:23
Local clock offset: -17.217 ms
Remote clock offset: -5.711 ms

# Below is generated by plot.py at 2018-01-18 13:24:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 115.988 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 115.524 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 115.601 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 125.399 ms
Loss rate: 0.38%
```

Run 3: Report of Sprout — Data Link

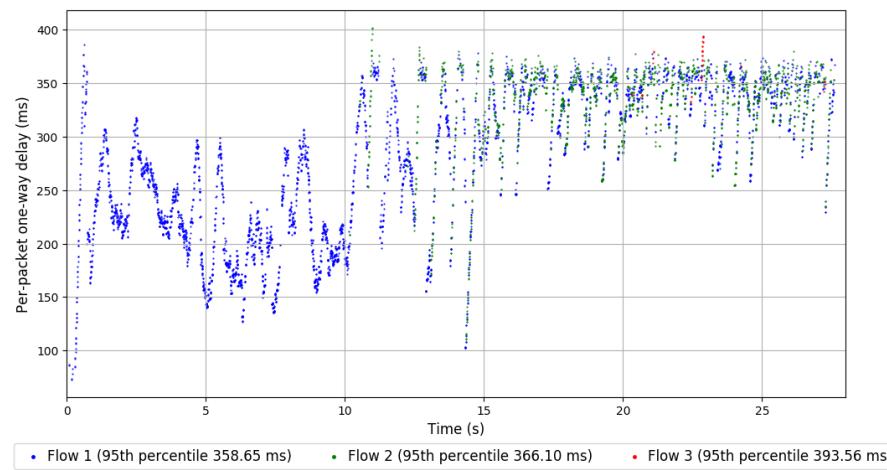
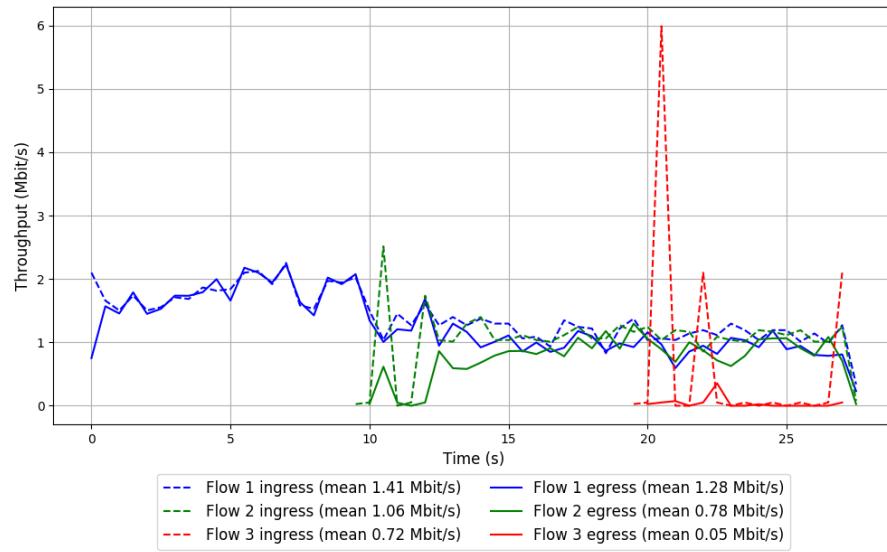


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-01-18 11:22:19
End at: 2018-01-18 11:22:49
Local clock offset: -19.395 ms
Remote clock offset: -1.914 ms

# Below is generated by plot.py at 2018-01-18 13:24:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 361.822 ms
Loss rate: 22.68%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 358.651 ms
Loss rate: 10.41%
-- Flow 2:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 366.095 ms
Loss rate: 28.37%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 393.559 ms
Loss rate: 93.97%
```

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

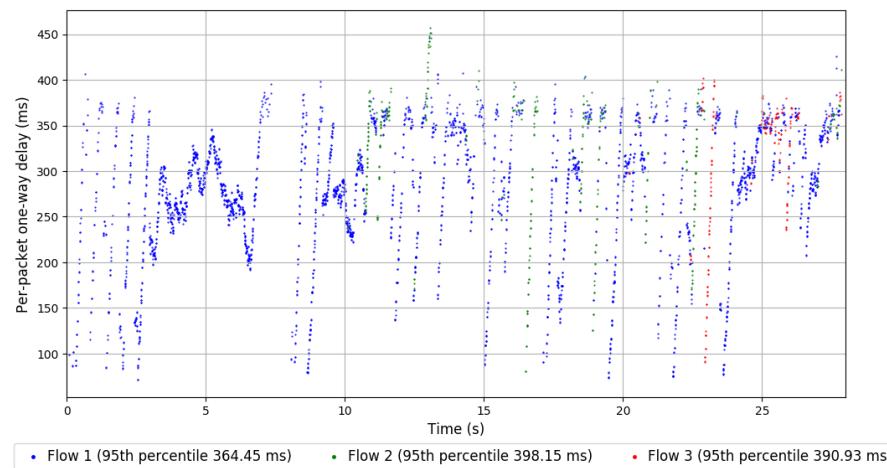
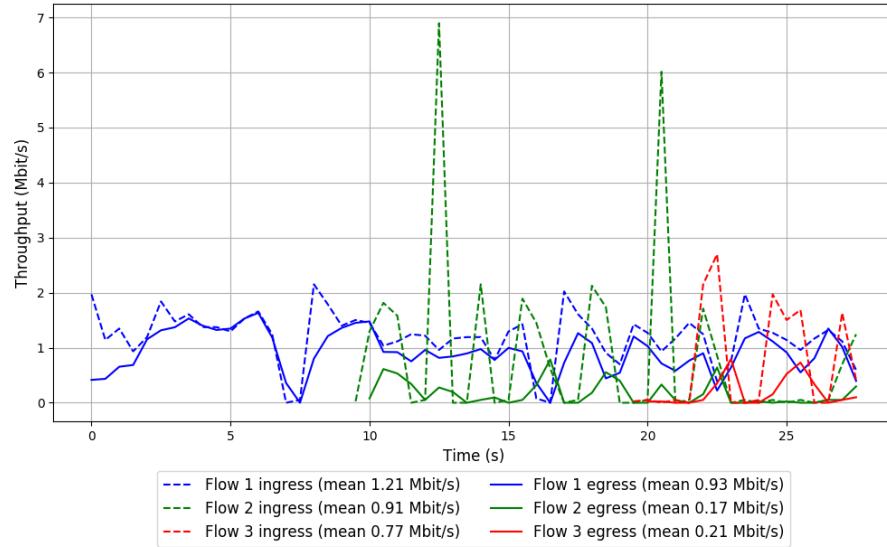


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-01-18 11:42:34
End at: 2018-01-18 11:43:04
Local clock offset: -16.397 ms
Remote clock offset: -2.696 ms

# Below is generated by plot.py at 2018-01-18 13:24:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 368.754 ms
Loss rate: 45.69%
-- Flow 1:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 364.454 ms
Loss rate: 23.27%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 398.154 ms
Loss rate: 81.12%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 390.929 ms
Loss rate: 74.31%
```

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

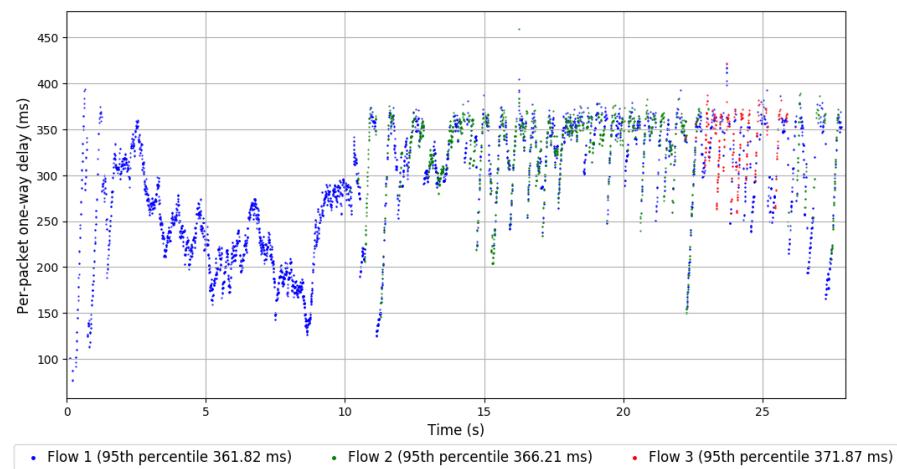
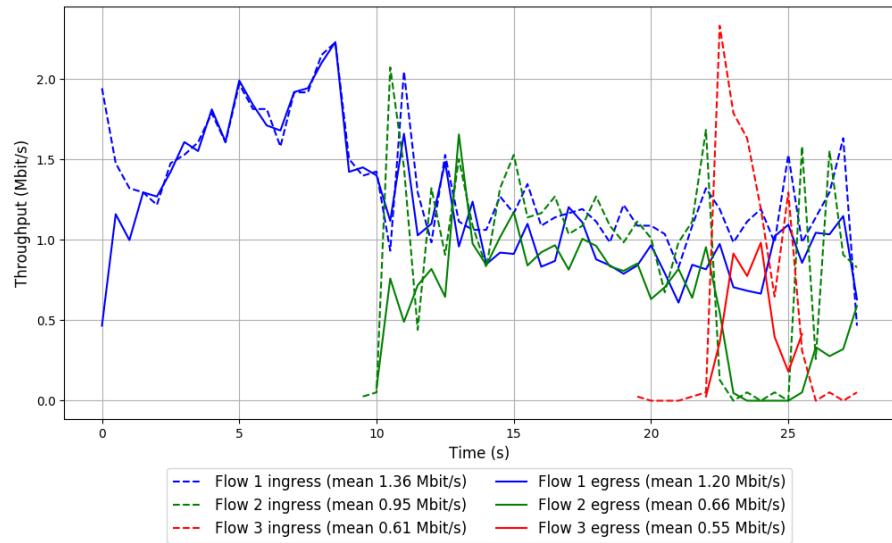


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-01-18 12:03:47
End at: 2018-01-18 12:04:17
Local clock offset: -18.129 ms
Remote clock offset: -5.265 ms

# Below is generated by plot.py at 2018-01-18 13:24:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 363.842 ms
Loss rate: 21.01%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 361.822 ms
Loss rate: 12.08%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 366.210 ms
Loss rate: 31.08%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 371.868 ms
Loss rate: 56.89%
```

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

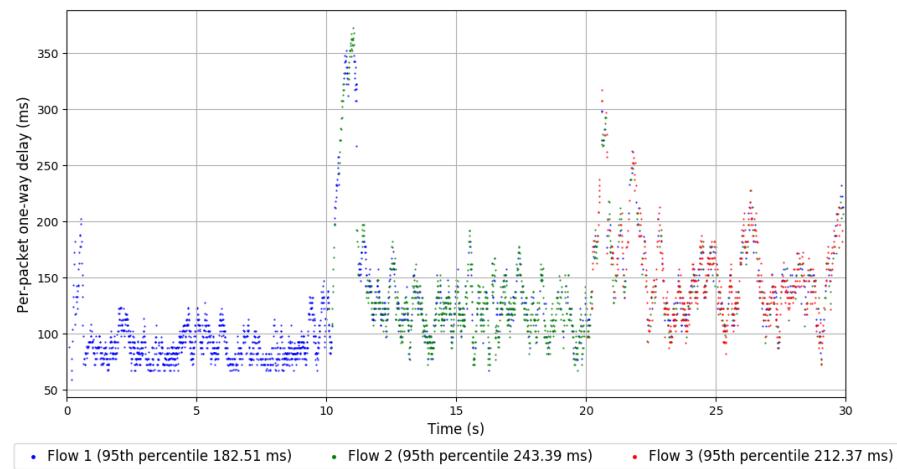
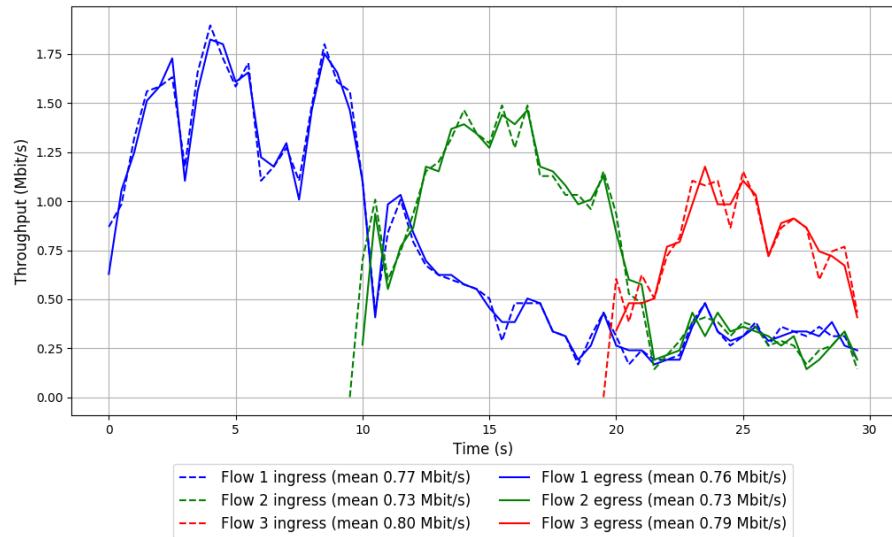


Run 1: Statistics of TCP Vegas

```
Start at: 2018-01-18 11:24:32
End at: 2018-01-18 11:25:02
Local clock offset: -16.802 ms
Remote clock offset: -0.004 ms

# Below is generated by plot.py at 2018-01-18 13:24:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 207.063 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 182.508 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 243.389 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 212.370 ms
Loss rate: 1.97%
```

Run 1: Report of TCP Vegas — Data Link

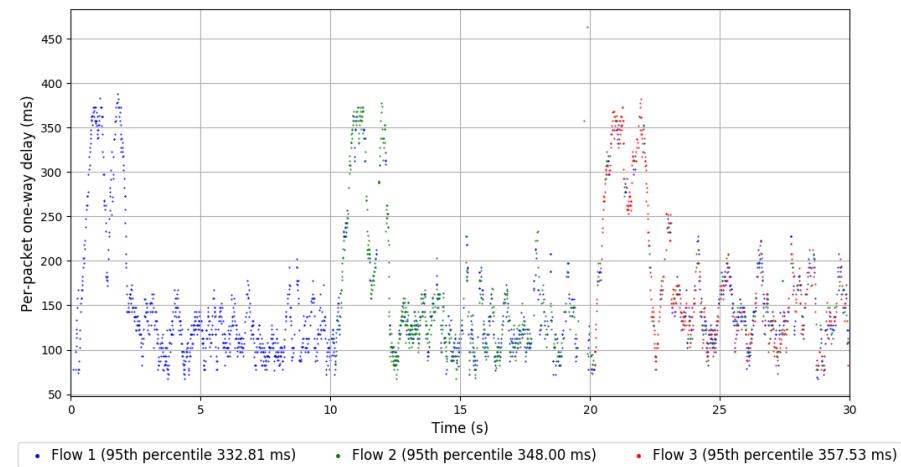
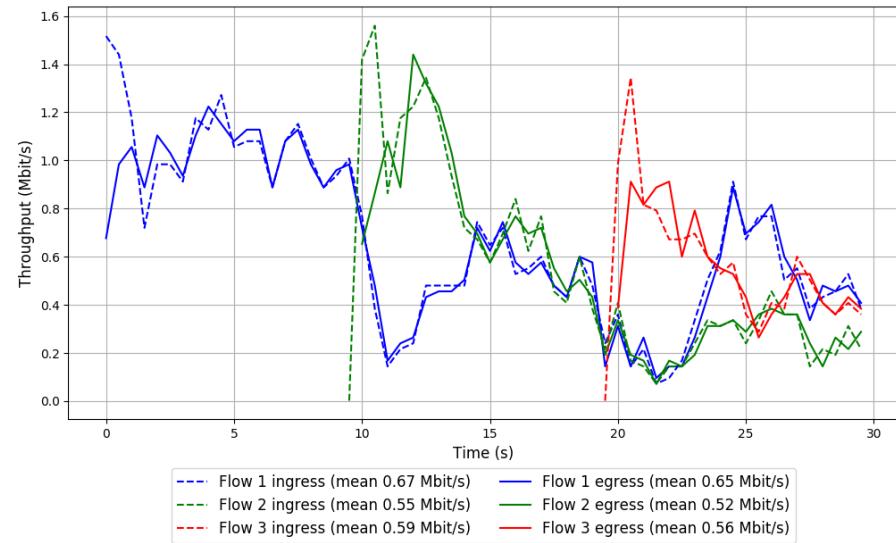


Run 2: Statistics of TCP Vegas

```
Start at: 2018-01-18 11:45:25
End at: 2018-01-18 11:45:55
Local clock offset: -14.724 ms
Remote clock offset: -3.12 ms

# Below is generated by plot.py at 2018-01-18 13:24:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 347.387 ms
Loss rate: 3.94%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 332.805 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 347.996 ms
Loss rate: 5.18%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 357.530 ms
Loss rate: 5.51%
```

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

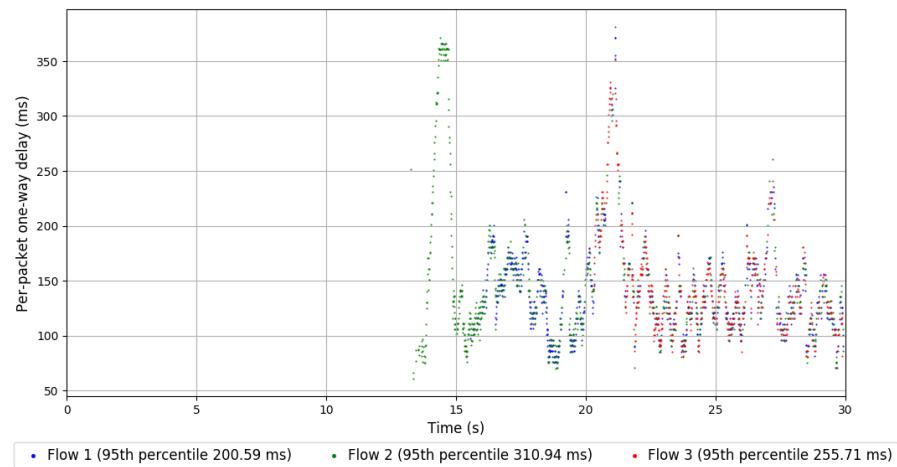
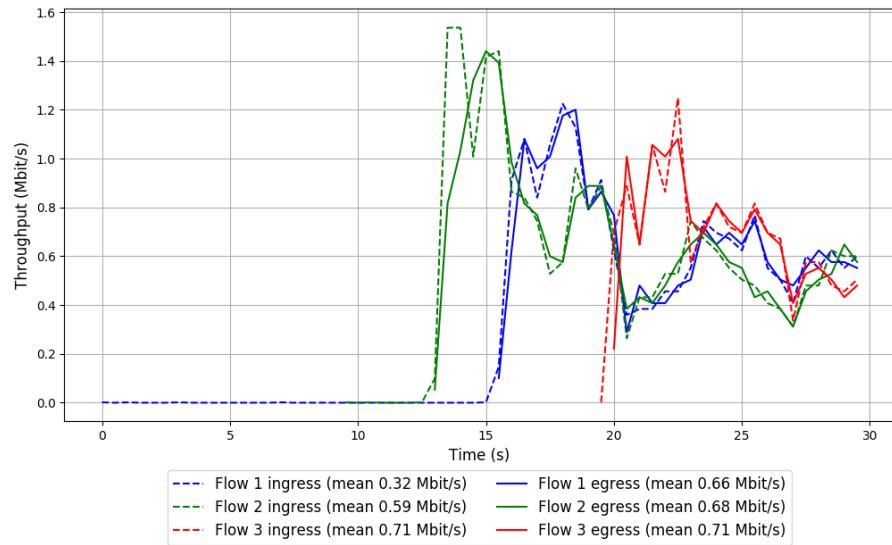
Start at: 2018-01-18 12:06:15

End at: 2018-01-18 12:06:45

Local clock offset: -18.61 ms

Remote clock offset: -6.913 ms

Run 3: Report of TCP Vegas — Data Link

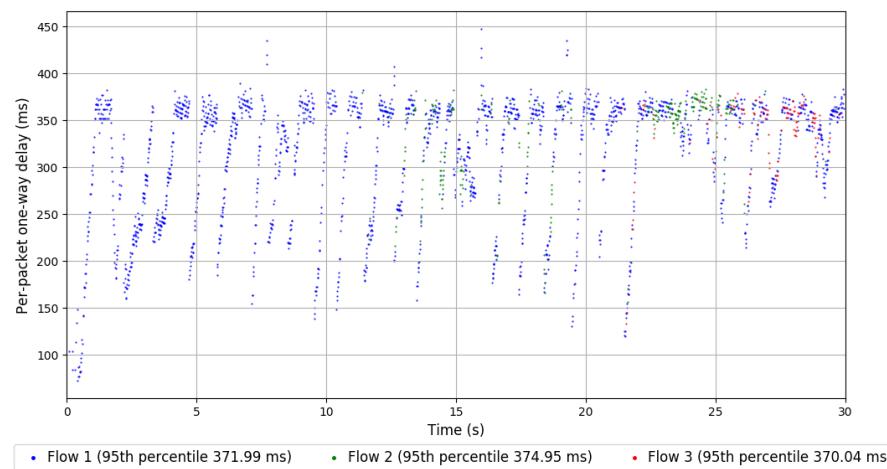
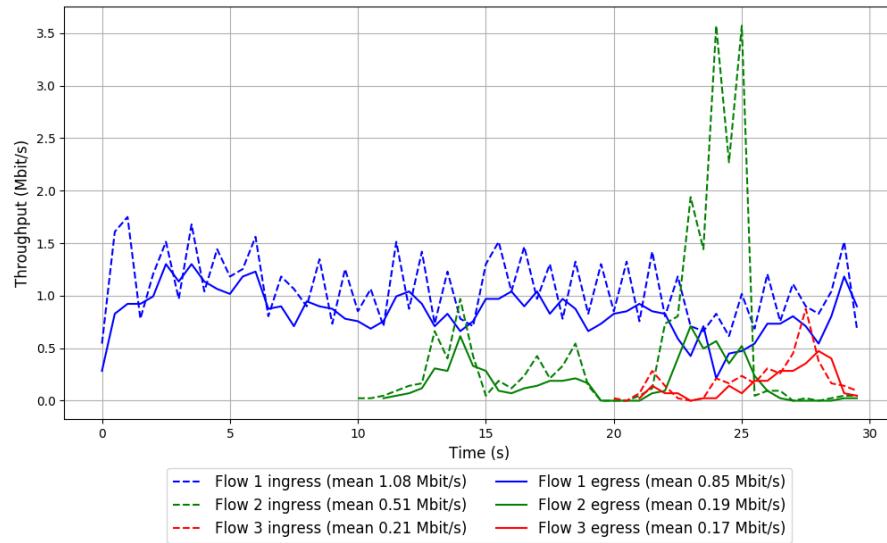


Run 1: Statistics of Verus

```
Start at: 2018-01-18 11:31:22
End at: 2018-01-18 11:31:52
Local clock offset: -17.693 ms
Remote clock offset: -3.509 ms

# Below is generated by plot.py at 2018-01-18 13:24:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 372.374 ms
Loss rate: 31.95%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 371.986 ms
Loss rate: 21.62%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 374.951 ms
Loss rate: 65.72%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 370.037 ms
Loss rate: 28.82%
```

Run 1: Report of Verus — Data Link

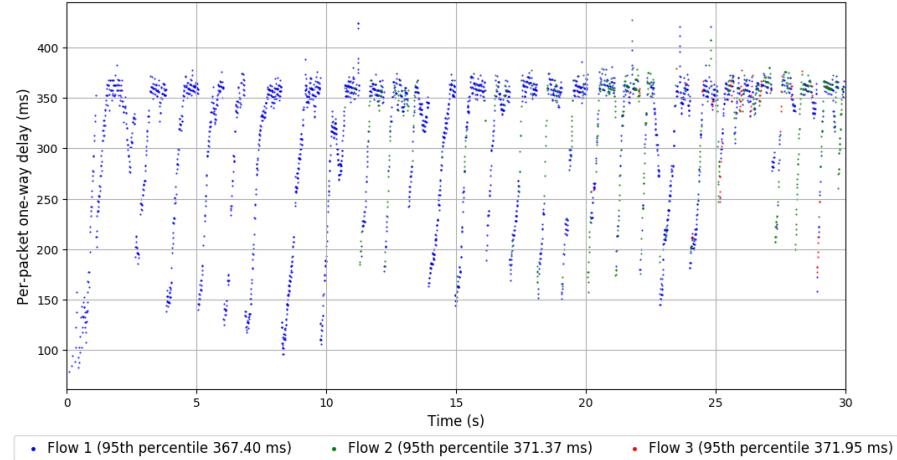
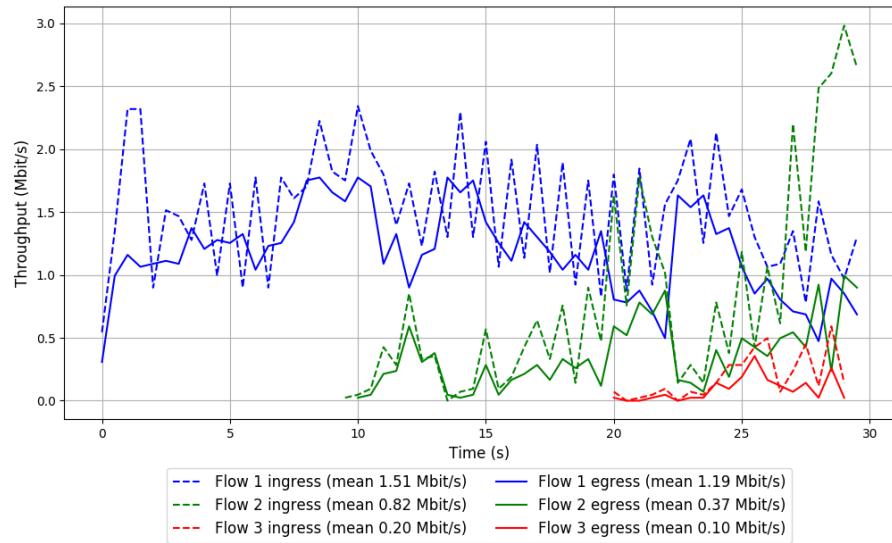


Run 2: Statistics of Verus

```
Start at: 2018-01-18 11:52:12
End at: 2018-01-18 11:52:42
Local clock offset: -17.891 ms
Remote clock offset: -2.942 ms

# Below is generated by plot.py at 2018-01-18 13:24:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 367.836 ms
Loss rate: 31.42%
-- Flow 1:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 367.400 ms
Loss rate: 21.65%
-- Flow 2:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 371.366 ms
Loss rate: 56.15%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 371.955 ms
Loss rate: 51.97%
```

Run 2: Report of Verus — Data Link

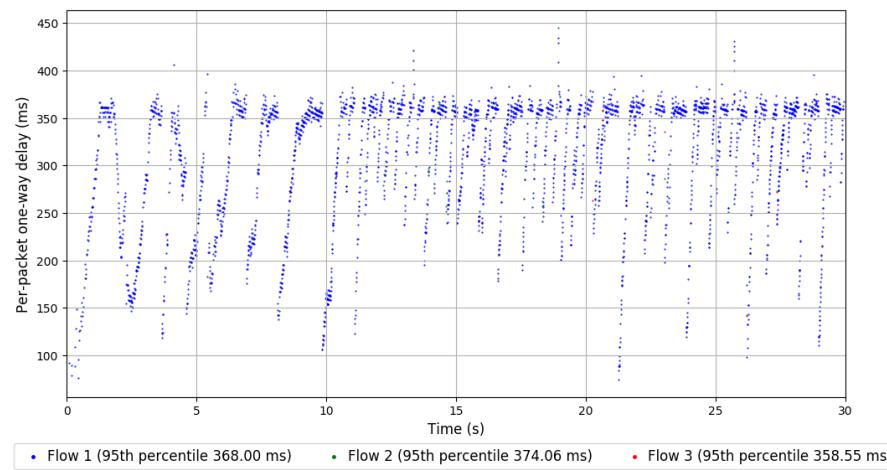
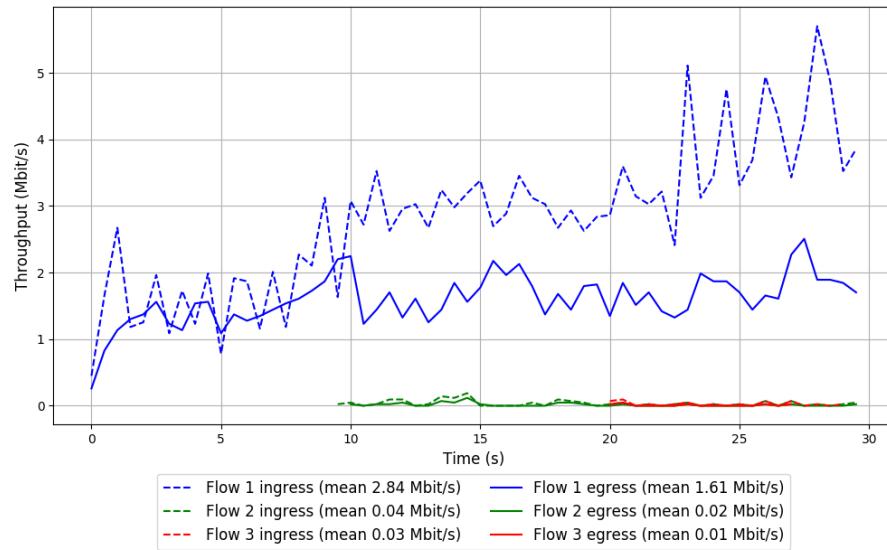


Run 3: Statistics of Verus

```
Start at: 2018-01-18 12:12:49
End at: 2018-01-18 12:13:19
Local clock offset: -19.905 ms
Remote clock offset: -5.689 ms

# Below is generated by plot.py at 2018-01-18 13:24:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 368.064 ms
Loss rate: 43.67%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 368.000 ms
Loss rate: 43.46%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 374.055 ms
Loss rate: 58.06%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 358.551 ms
Loss rate: 71.43%
```

Run 3: Report of Verus — Data Link

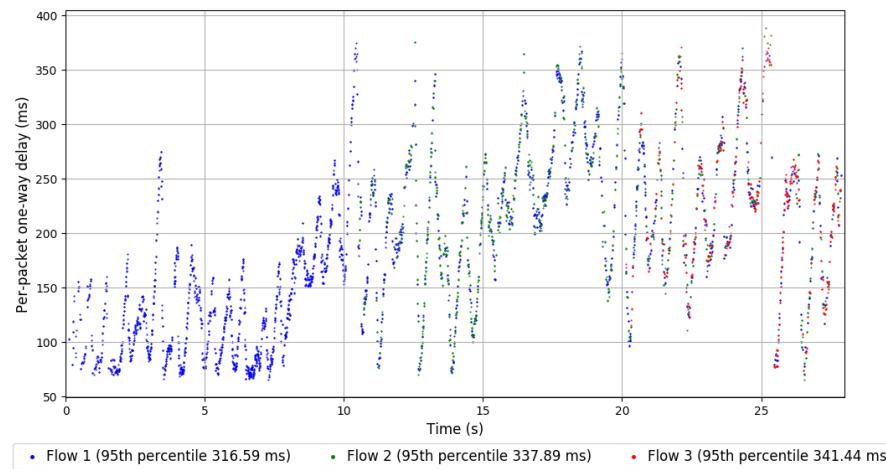
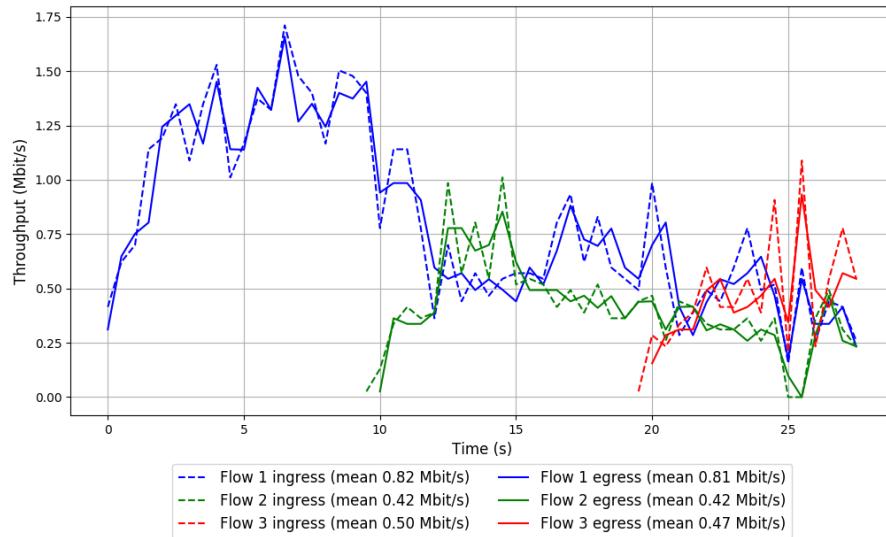


Run 1: Statistics of Copa

```
Start at: 2018-01-18 11:32:28
End at: 2018-01-18 11:32:58
Local clock offset: -16.163 ms
Remote clock offset: -1.894 ms

# Below is generated by plot.py at 2018-01-18 13:24:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 325.575 ms
Loss rate: 2.80%
-- Flow 1:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 316.594 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 337.895 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 341.441 ms
Loss rate: 9.07%
```

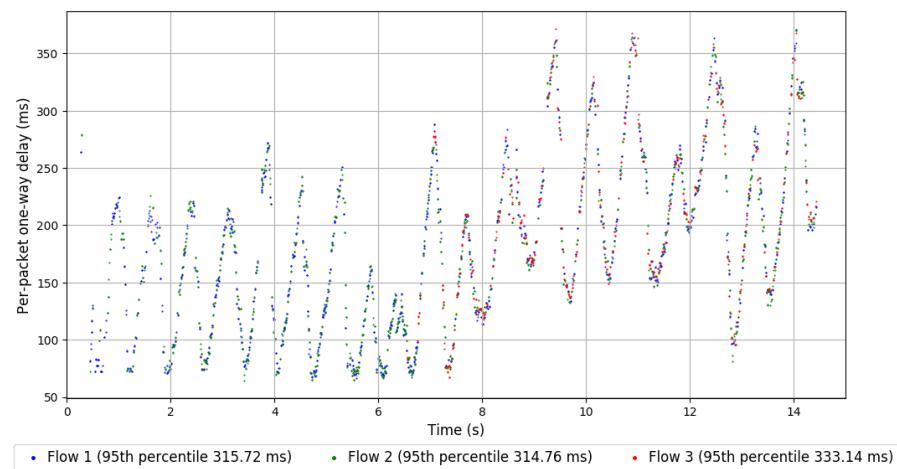
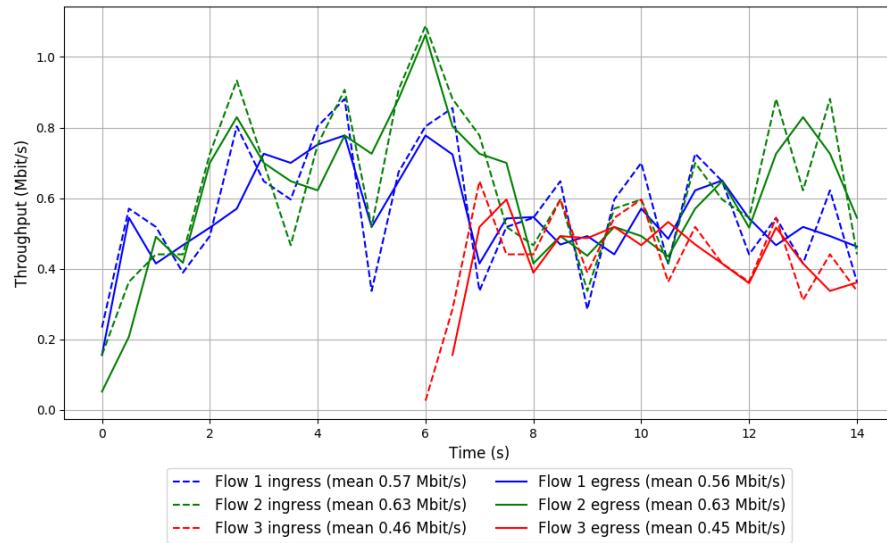
Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-18 11:53:17
End at: 2018-01-18 11:53:47
Local clock offset: -18.706 ms
Remote clock offset: -4.516 ms

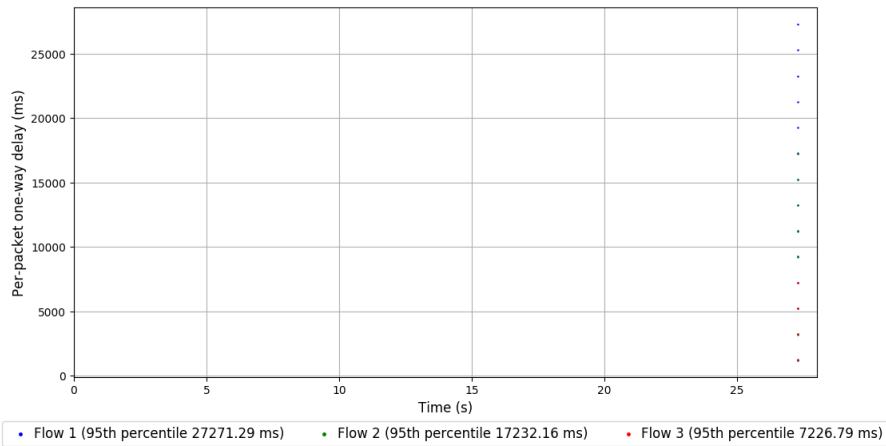
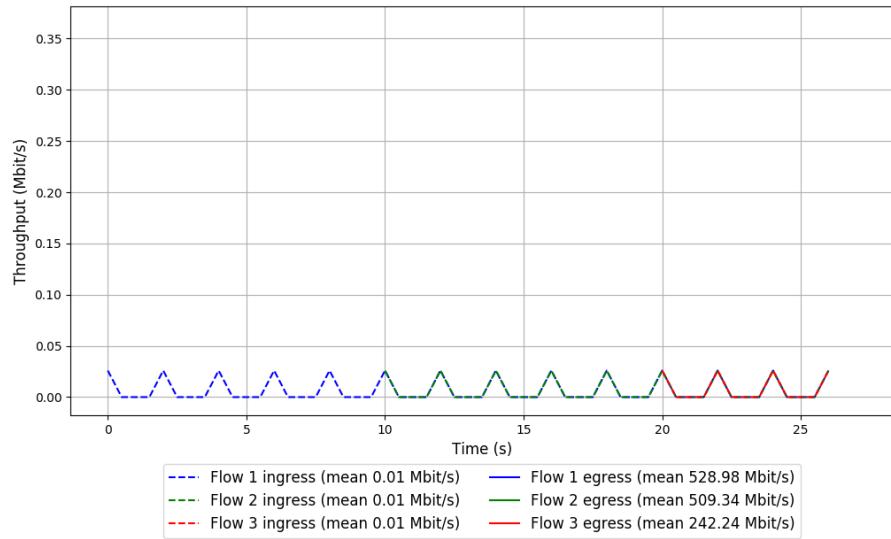
Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-18 12:13:54
End at: 2018-01-18 12:14:24
Local clock offset: -19.933 ms
Remote clock offset: -6.44 ms

Run 3: Report of Copa — Data Link

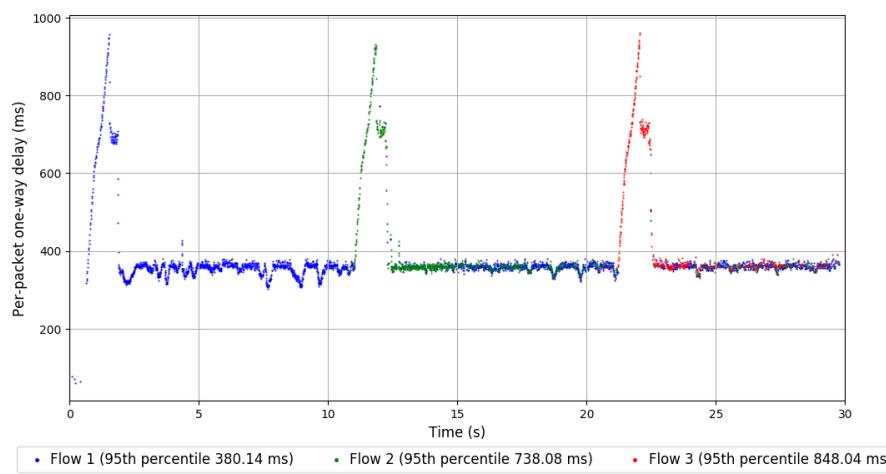
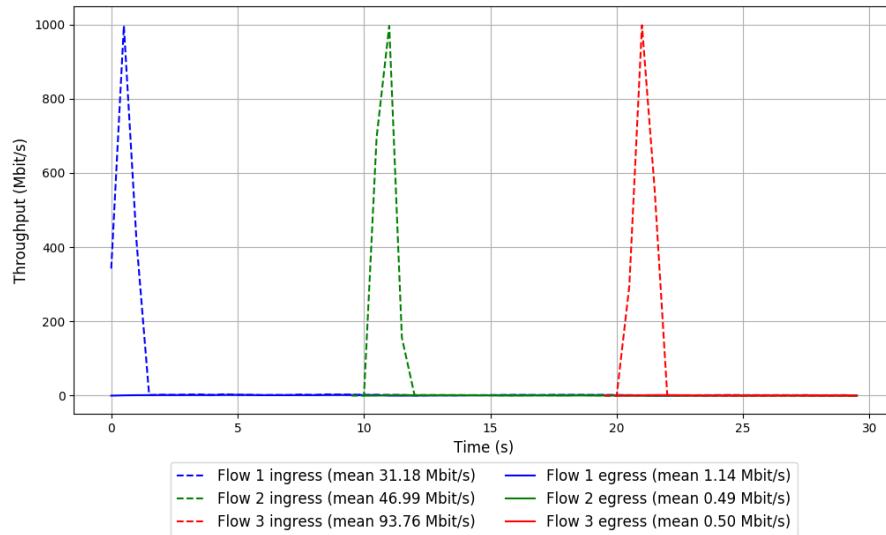


```
Run 1: Statistics of FillP

Start at: 2018-01-18 11:36:57
End at: 2018-01-18 11:37:27
Local clock offset: -14.349 ms
Remote clock offset: -2.135 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 707.035 ms
Loss rate: 98.28%
-- Flow 1:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 380.141 ms
Loss rate: 96.34%
-- Flow 2:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 738.079 ms
Loss rate: 98.98%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 848.042 ms
Loss rate: 99.50%
```

Run 1: Report of FillP — Data Link

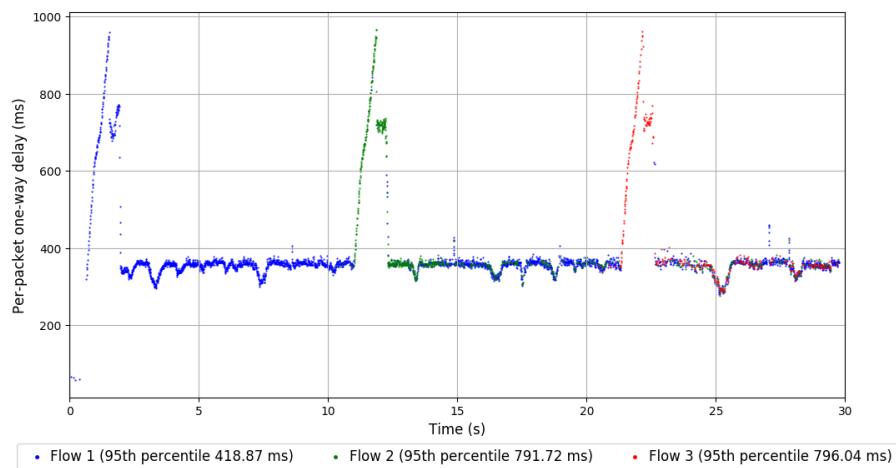
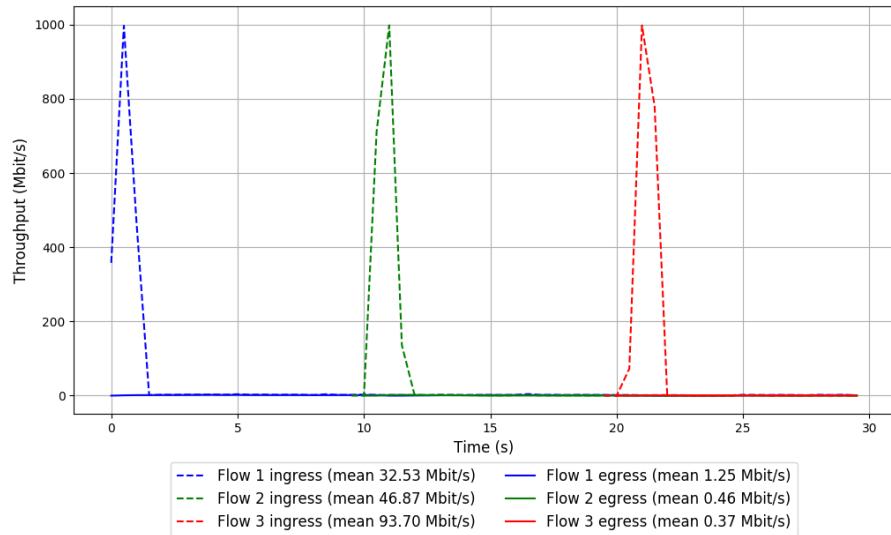


Run 2: Statistics of FillP

```
Start at: 2018-01-18 11:57:44
End at: 2018-01-18 11:58:14
Local clock offset: -19.263 ms
Remote clock offset: -5.95 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 718.413 ms
Loss rate: 98.26%
-- Flow 1:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 418.873 ms
Loss rate: 96.18%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 791.723 ms
Loss rate: 99.04%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 796.037 ms
Loss rate: 99.63%
```

Run 2: Report of FillP — Data Link

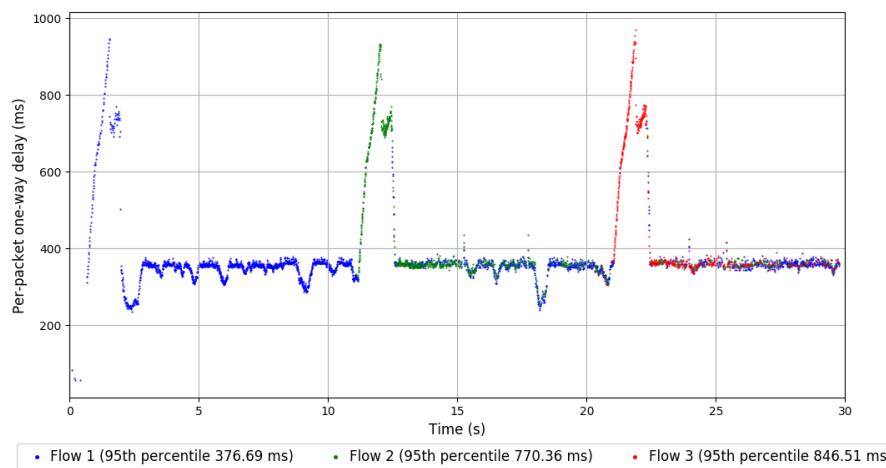
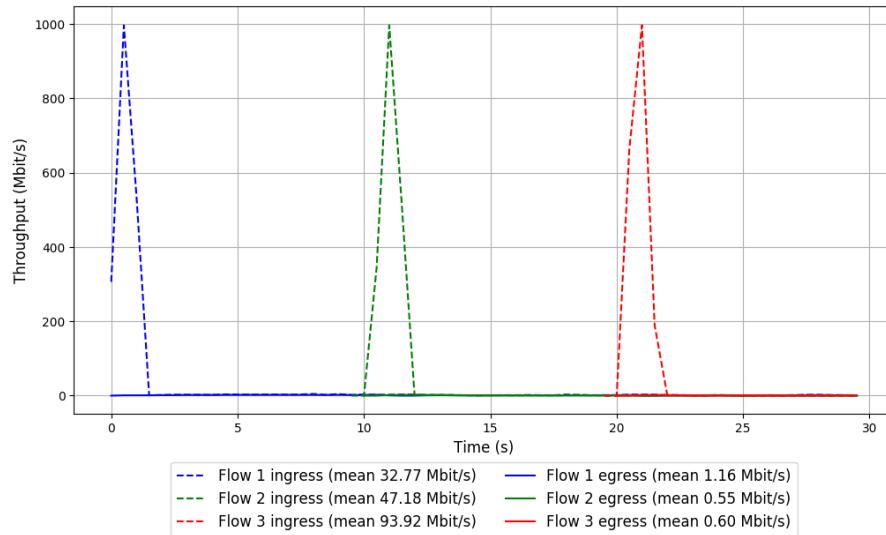


Run 3: Statistics of FillP

```
Start at: 2018-01-18 12:18:23
End at: 2018-01-18 12:18:53
Local clock offset: -19.278 ms
Remote clock offset: -5.574 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 732.101 ms
Loss rate: 98.21%
-- Flow 1:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 376.692 ms
Loss rate: 96.48%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 770.363 ms
Loss rate: 98.85%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 846.515 ms
Loss rate: 99.38%
```

Run 3: Report of FillP — Data Link

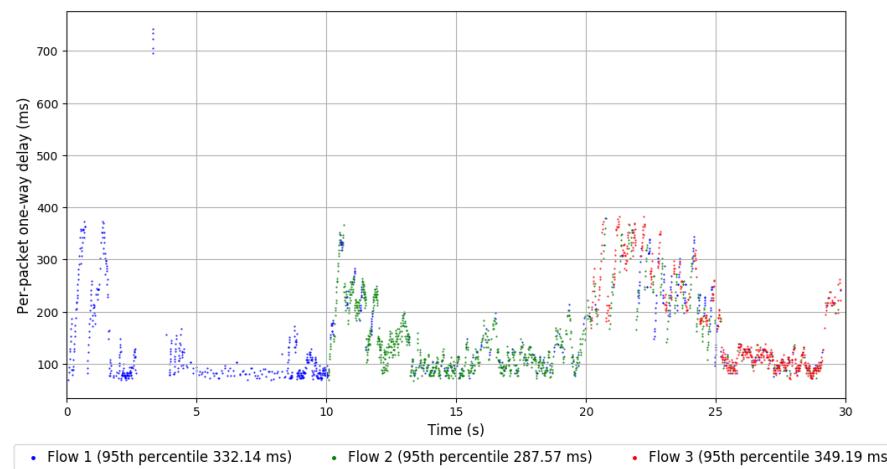
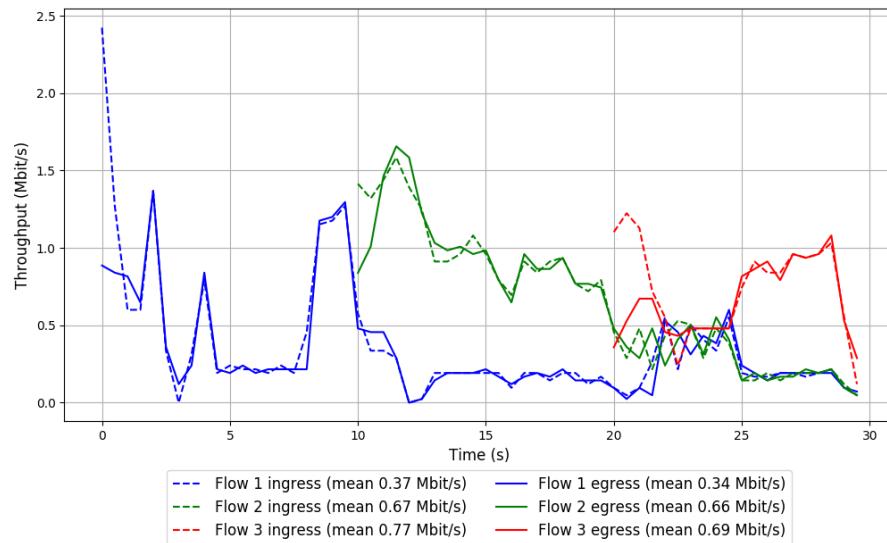


Run 1: Statistics of Indigo

```
Start at: 2018-01-18 11:30:16
End at: 2018-01-18 11:30:46
Local clock offset: -15.245 ms
Remote clock offset: -3.254 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 327.445 ms
Loss rate: 6.06%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 332.145 ms
Loss rate: 7.65%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 287.567 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 349.190 ms
Loss rate: 10.88%
```

Run 1: Report of Indigo — Data Link

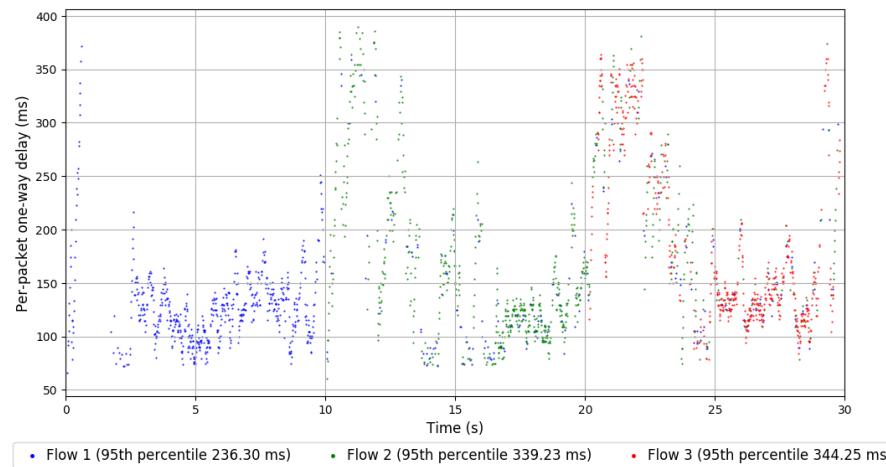
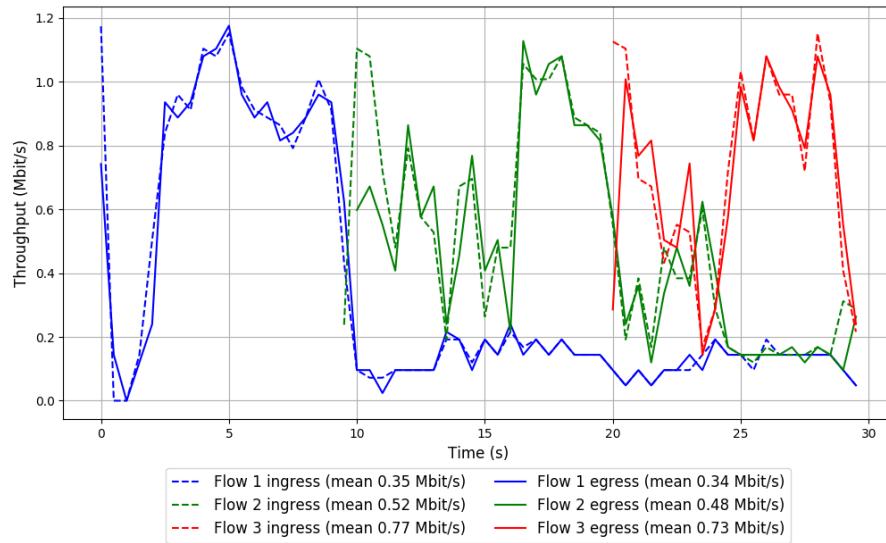


Run 2: Statistics of Indigo

```
Start at: 2018-01-18 11:50:55
End at: 2018-01-18 11:51:25
Local clock offset: -15.297 ms
Remote clock offset: -3.562 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 334.083 ms
Loss rate: 4.35%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 236.301 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 339.225 ms
Loss rate: 7.40%
-- Flow 3:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 344.254 ms
Loss rate: 3.79%
```

Run 2: Report of Indigo — Data Link

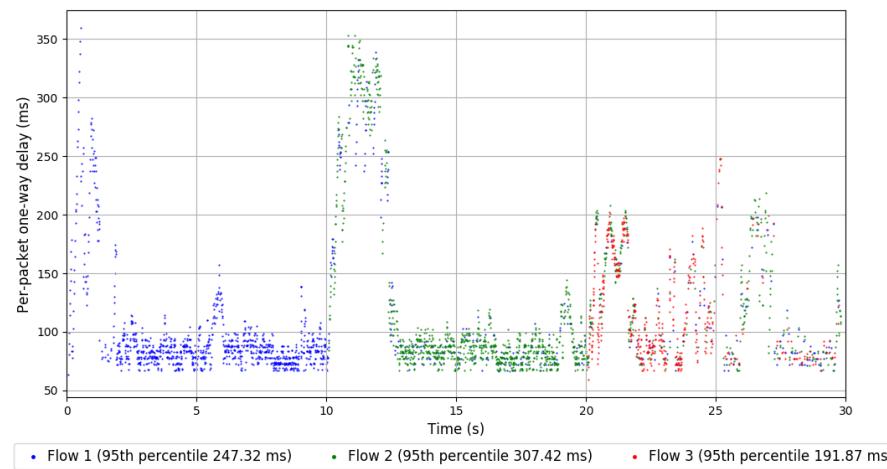
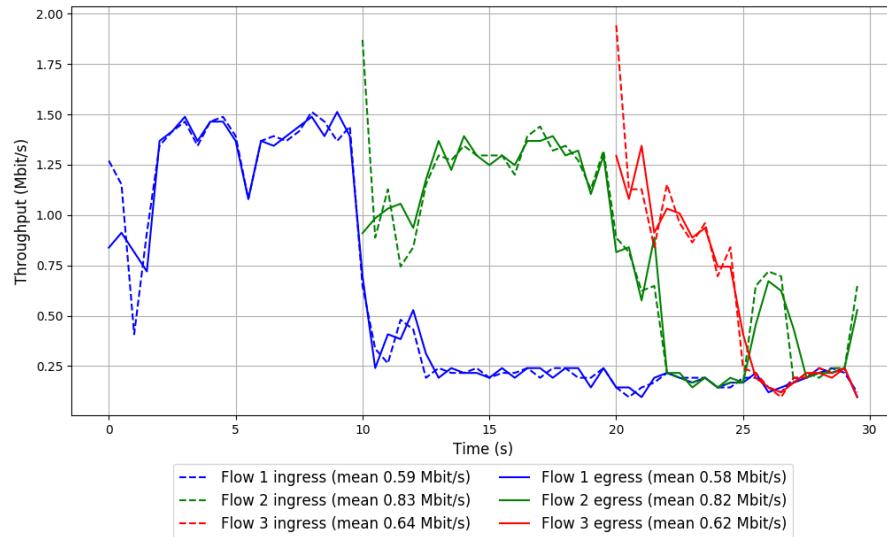


Run 3: Statistics of Indigo

```
Start at: 2018-01-18 12:11:43
End at: 2018-01-18 12:12:13
Local clock offset: -17.253 ms
Remote clock offset: -5.348 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.33 Mbit/s
95th percentile per-packet one-way delay: 267.190 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 247.317 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 307.423 ms
Loss rate: 1.68%
-- Flow 3:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 191.872 ms
Loss rate: 3.30%
```

Run 3: Report of Indigo — Data Link

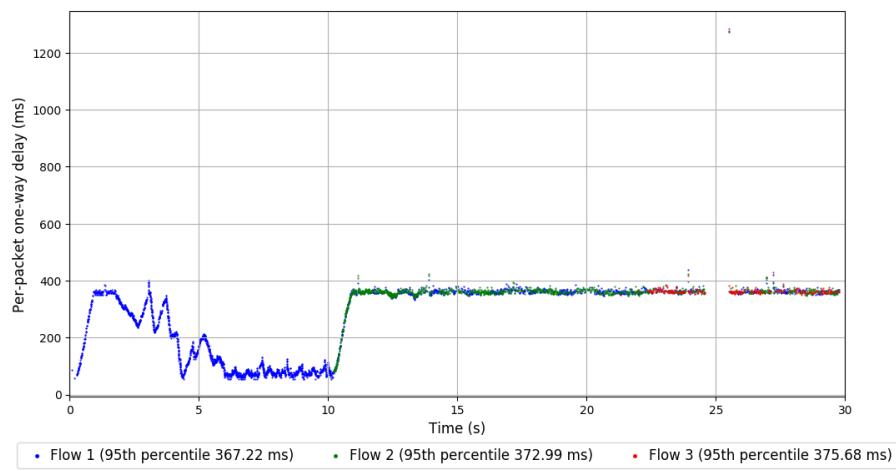
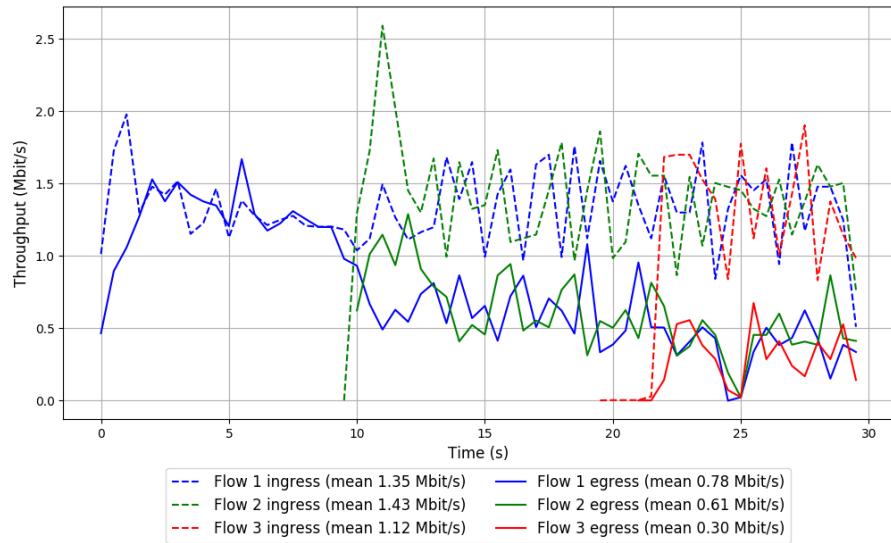


```
Run 1: Statistics of Vivace-latency
```

```
Start at: 2018-01-18 11:41:28
End at: 2018-01-18 11:41:58
Local clock offset: -17.679 ms
Remote clock offset: -1.552 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 370.260 ms
Loss rate: 52.77%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 367.222 ms
Loss rate: 42.67%
-- Flow 2:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 372.990 ms
Loss rate: 57.74%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 375.684 ms
Loss rate: 76.69%
```

Run 1: Report of Vivace-latency — Data Link

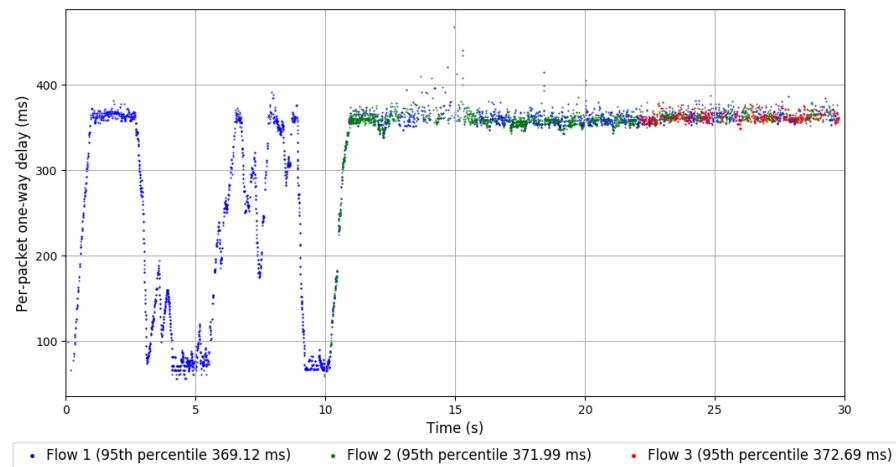
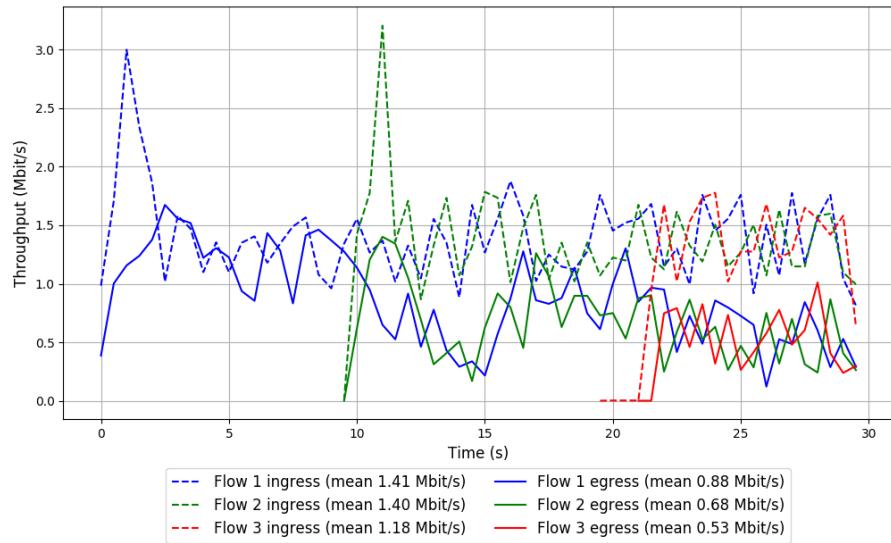


Run 2: Statistics of Vivace-latency

```
Start at: 2018-01-18 12:02:36
End at: 2018-01-18 12:03:06
Local clock offset: -18.104 ms
Remote clock offset: -4.296 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 370.718 ms
Loss rate: 45.85%
-- Flow 1:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 369.123 ms
Loss rate: 37.53%
-- Flow 2:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 371.990 ms
Loss rate: 51.86%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 372.686 ms
Loss rate: 61.51%
```

Run 2: Report of Vivace-latency — Data Link

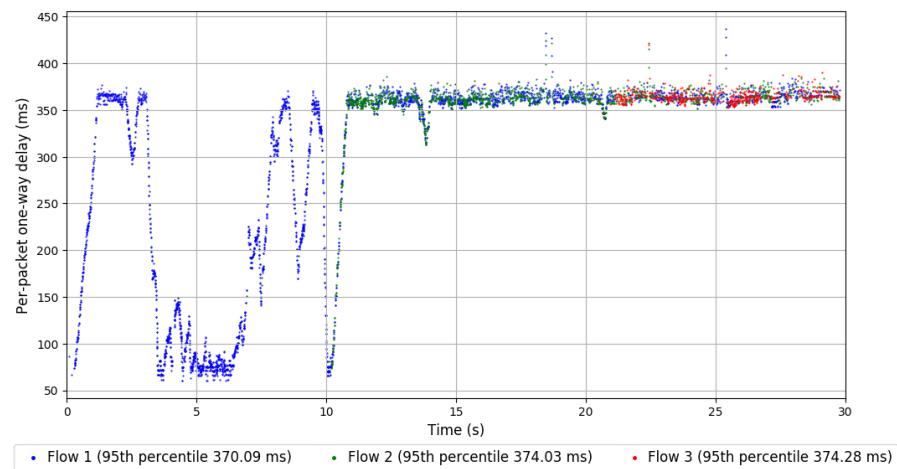
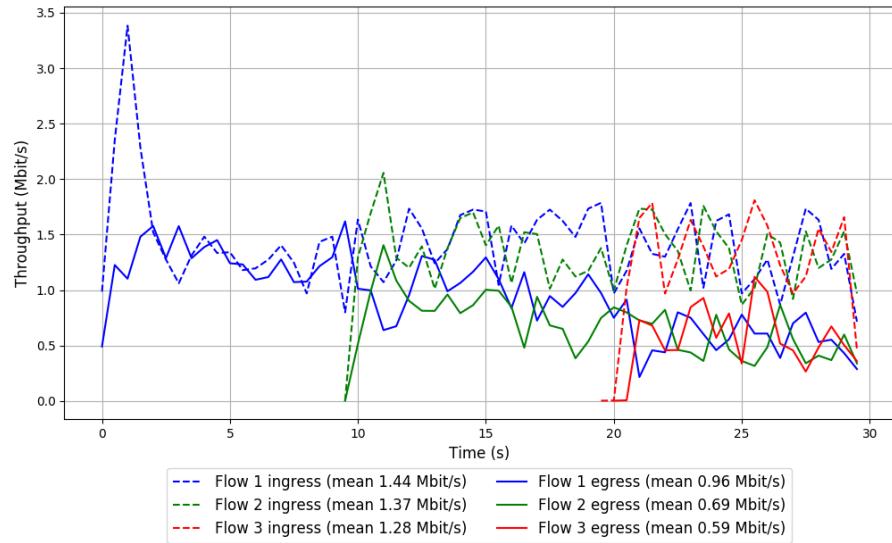


Run 3: Statistics of Vivace-latency

```
Start at: 2018-01-18 12:22:54
End at: 2018-01-18 12:23:24
Local clock offset: -18.44 ms
Remote clock offset: -7.296 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 371.948 ms
Loss rate: 42.26%
-- Flow 1:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 370.092 ms
Loss rate: 33.69%
-- Flow 2:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 374.027 ms
Loss rate: 49.52%
-- Flow 3:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 374.284 ms
Loss rate: 55.75%
```

Run 3: Report of Vivace-latency — Data Link

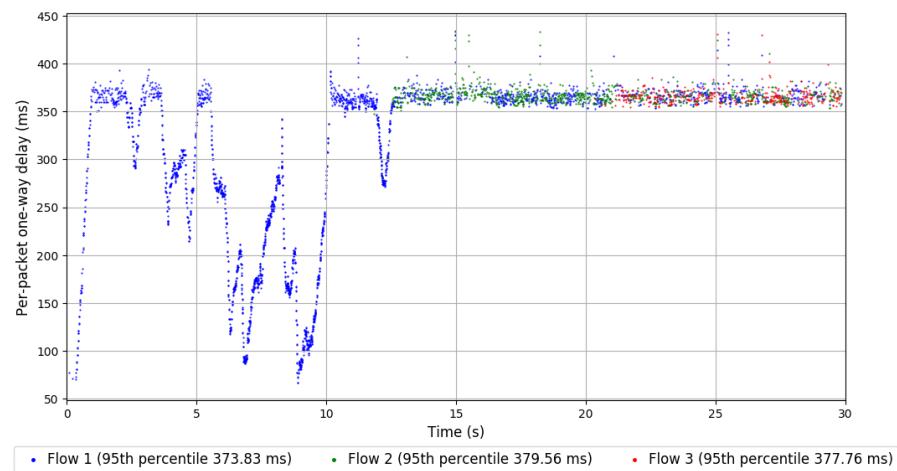
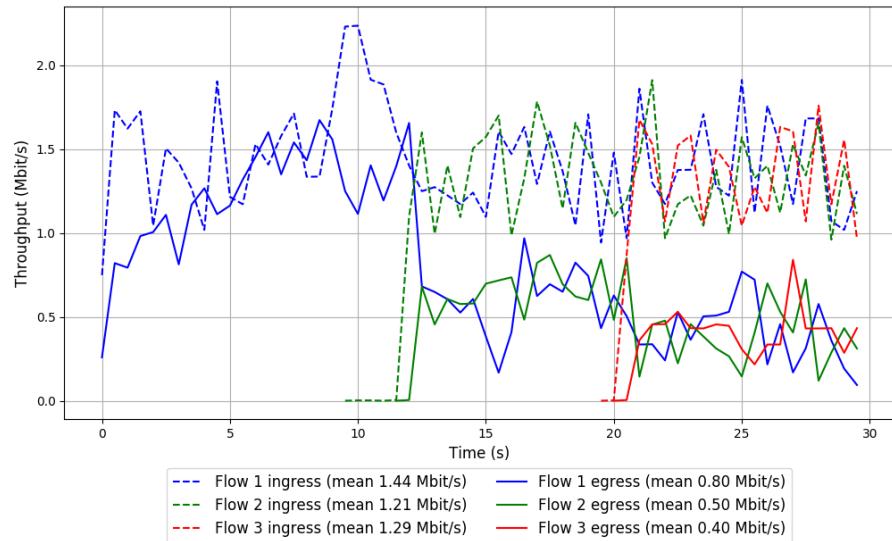


```
Run 1: Statistics of Vivace-loss
```

```
Start at: 2018-01-18 11:33:34
End at: 2018-01-18 11:34:04
Local clock offset: -14.909 ms
Remote clock offset: -1.431 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 375.498 ms
Loss rate: 53.90%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 373.828 ms
Loss rate: 44.51%
-- Flow 2:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 379.555 ms
Loss rate: 62.25%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 377.756 ms
Loss rate: 69.90%
```

Run 1: Report of Vivace-loss — Data Link

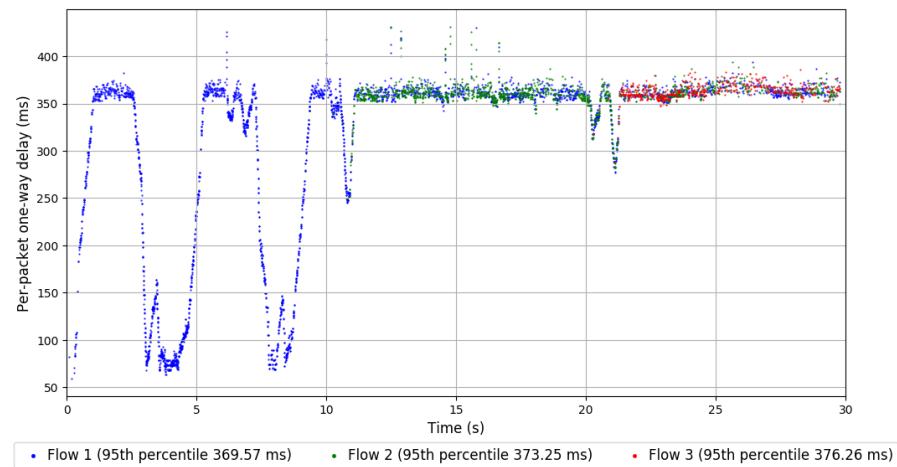
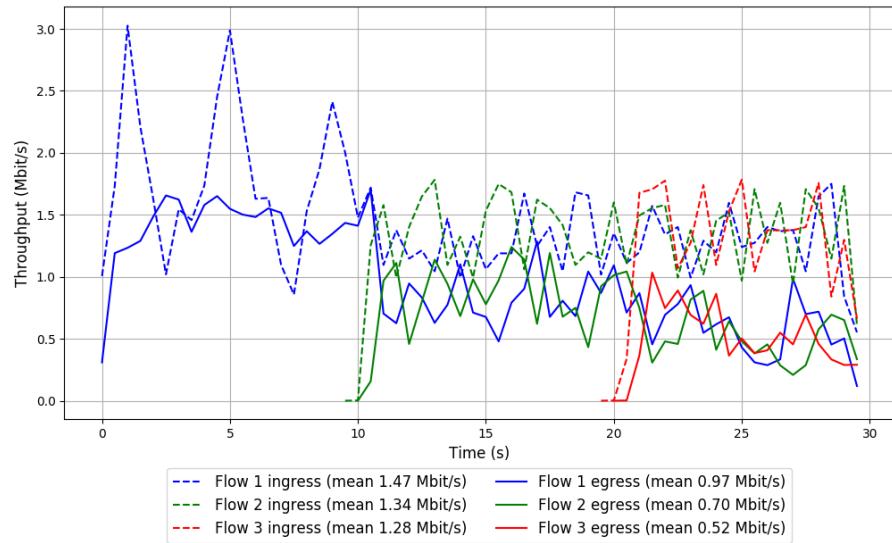


Run 2: Statistics of Vivace-loss

```
Start at: 2018-01-18 11:54:23
End at: 2018-01-18 11:54:53
Local clock offset: -18.948 ms
Remote clock offset: -5.5 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 371.211 ms
Loss rate: 42.94%
-- Flow 1:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 369.568 ms
Loss rate: 34.39%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 373.255 ms
Loss rate: 48.83%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 376.258 ms
Loss rate: 60.33%
```

Run 2: Report of Vivace-loss — Data Link

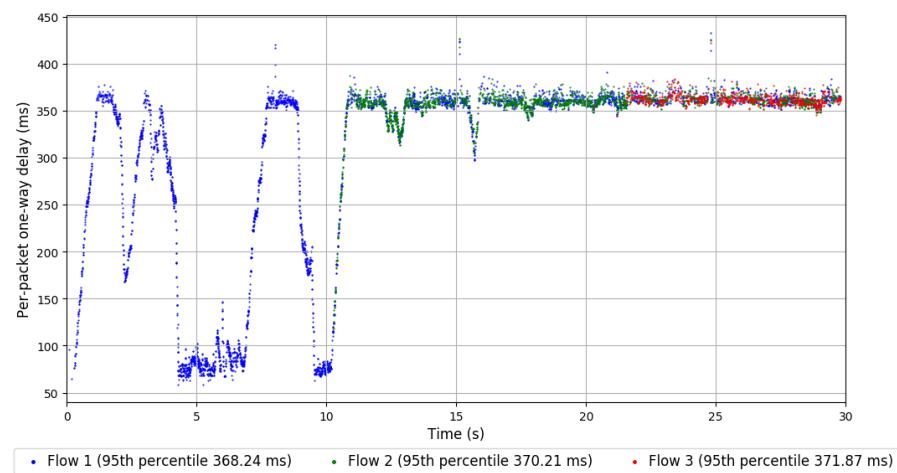
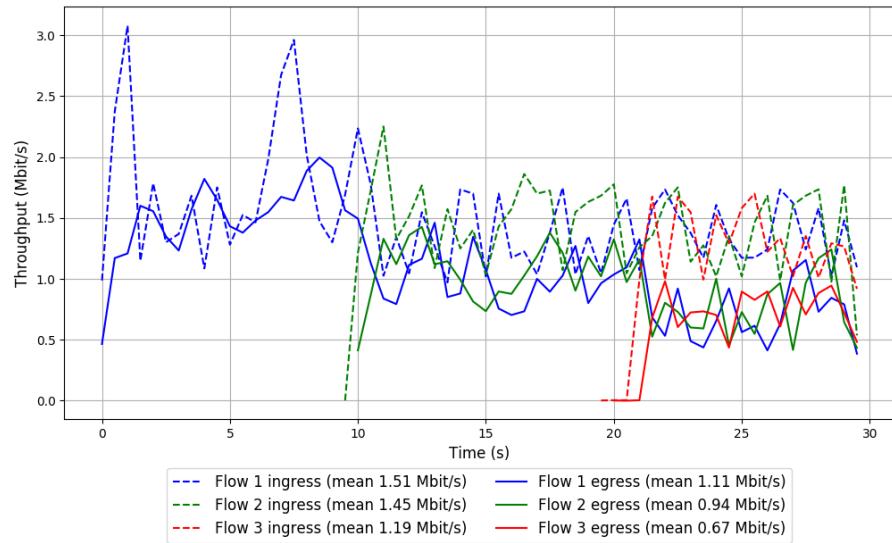


Run 3: Statistics of Vivace-loss

```
Start at: 2018-01-18 12:15:00
End at: 2018-01-18 12:15:30
Local clock offset: -17.947 ms
Remote clock offset: -6.878 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 369.546 ms
Loss rate: 32.36%
-- Flow 1:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 368.243 ms
Loss rate: 27.10%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 370.212 ms
Loss rate: 35.28%
-- Flow 3:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 371.872 ms
Loss rate: 45.45%
```

Run 3: Report of Vivace-loss — Data Link

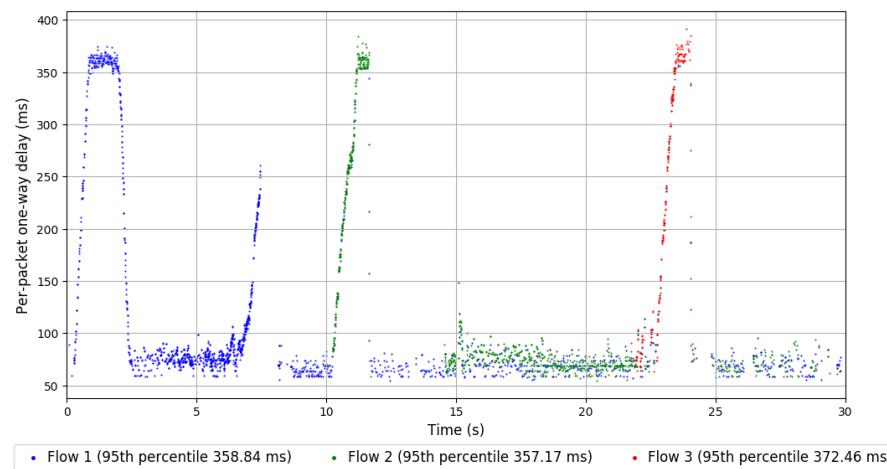
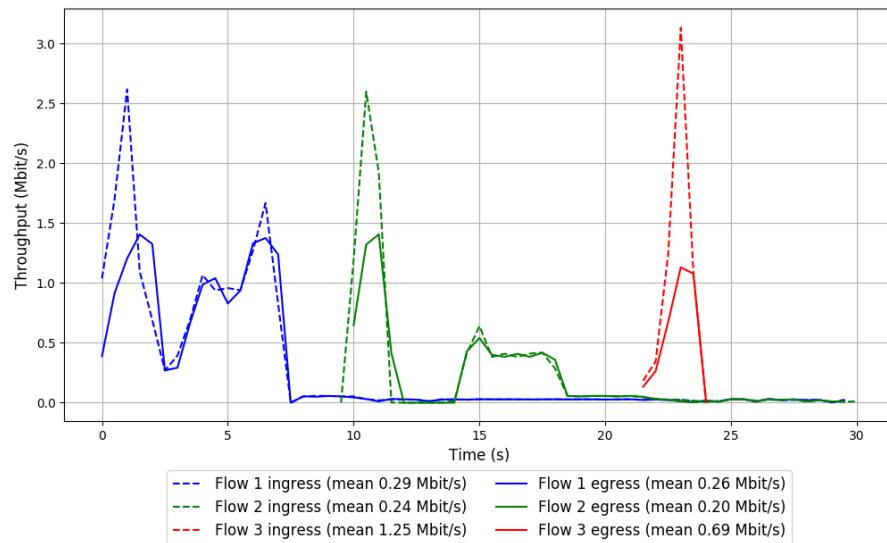


Run 1: Statistics of Vivace-LTE

```
Start at: 2018-01-18 11:35:45
End at: 2018-01-18 11:36:15
Local clock offset: -15.911 ms
Remote clock offset: -1.592 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 360.946 ms
Loss rate: 20.15%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 358.843 ms
Loss rate: 11.47%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 357.165 ms
Loss rate: 20.41%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 372.459 ms
Loss rate: 44.86%
```

Run 1: Report of Vivace-LTE — Data Link

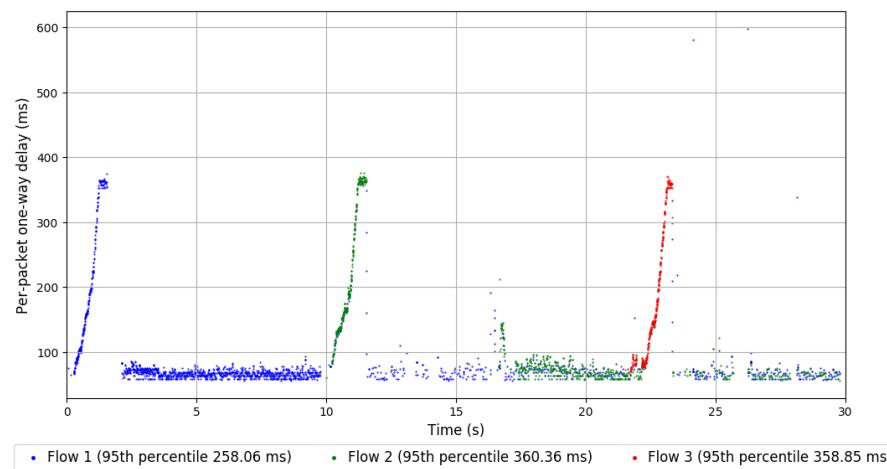
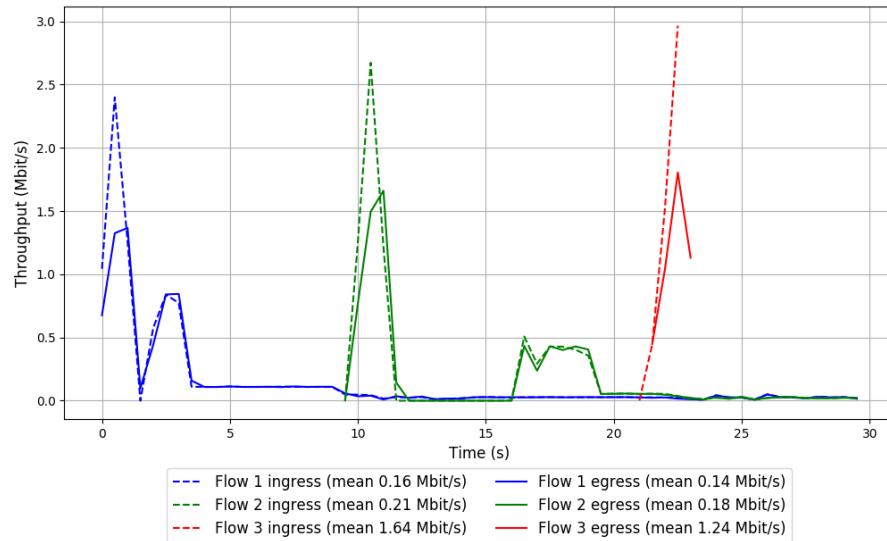


Run 2: Statistics of Vivace-LTE

```
Start at: 2018-01-18 11:56:35
End at: 2018-01-18 11:57:05
Local clock offset: -17.108 ms
Remote clock offset: -4.5 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 347.892 ms
Loss rate: 13.13%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 258.060 ms
Loss rate: 13.62%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 360.364 ms
Loss rate: 14.20%
-- Flow 3:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 358.845 ms
Loss rate: 10.43%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

```
Start at: 2018-01-18 12:17:13
End at: 2018-01-18 12:17:43
Local clock offset: -20.436 ms
Remote clock offset: -6.648 ms

# Below is generated by plot.py at 2018-01-18 13:25:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 304.744 ms
Loss rate: 15.65%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 355.653 ms
Loss rate: 25.31%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 166.770 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 97.887 ms
Loss rate: 0.00%
```

Run 3: Report of Vivace-LTE — Data Link

